CARL T. JONES
CORPORATION

STATEMENT OF JOHN E. HIDLE, P.E.
IN SUPPORT OF AN APPLICATION TO MODIFY
CONSTRUCTION PERMIT BPCDT-19991018AAS
KDEN-DT- LONGMONT, COLORADO
DTV - CH. 29 - 760 kW - 515.8 M HAAT

Prepared for: Longmont Channel 25, Inc.

I am a Consulting Engineer, an employee in the firm of Carl T. Jones Corporation, with offices located in Springfield, Virginia. My education and experience are a matter of record with the Federal Communications Commission. I am a registered Professional Engineer in the Commonwealth of Virginia, Registration No. 7418, and in the State of New York, Registration No. 63418.

GENERAL

This office has been authorized by Longmont Channel 25, Inc., permittee of KDEN-DT, channel 29, Longmont, Colorado, to prepare this statement, FCC Form 301, Sections III and III-D, and the associated exhibits in support of this application to modify its current authorization, construction permit BPCDT-19991018AAS, to relocate the transmitter site, change the directional antenna azimuth pattern, increase the Effective Radiated Power (ERP) and increase the antenna centerline Height Above Average Terrain (HAAT).

The permittee is herein proposing to relocate the KDEN-DT transmission facility to a new tower support structure to be constructed on a site located at a distance of approximately 490 meters in a direction approximately 51 degrees True. The geographic coordinates of the proposed tower are: 40$_{E}$ 05' 57" North latitude, 104$_{E}$ 53' 48" West

longitude, North American Datum 1927. The FAA has been properly notified and the permittee will dutifully register the proposed structure with the Commission upon receipt of a determination of no hazard to air navigation. The permittee also proposes herein to alter the authorized antenna azimuth radiation pattern, increase the ERP from 200 kW to 760 kW and increase the antenna centerline HAAT from 291.0 meters to 515.8 meters. No other changes are herein proposed.

PROPOSED DIRECTIONAL ANTENNA

It is proposed to install a new Dielectric model TFU-28GTH-R CT220SP directional antenna at a centerline height of 487.7 meters Above Ground Level (AGL) and 2033.0 meters Above Mean Sea Level (AMSL). The antenna centerline Height Above Average Terrain (HAAT) is proposed to be 515.8 meters. The proposed antenna shall employ an electrical beam tilt of 1.00 degrees below the horizontal plane. The manufacturer's horizontal plane azimuth radiation pattern is shown in exhibit 2 and tabulated in exhibit 3. The manufacturer's vertical plane elevation radiation pattern, illustrating the proposed antenna's radiation characteristics above and below the horizontal plane, is shown in exhibits 4A and 4B, and tabulated in exhibit 5. A vertical plan antenna sketch is shown in exhibit 1.

PREDICTED COVERAGE CONTOURS

The predicted coverage contours were calculated in accordance with Section 73.625 using the method described in Section 73.684 of the Rules. The appropriate F(50,90)

propagation curves (47 CFR Section 73.699, Figure 9), power, and antenna height above average terrain were used, as determined for each profile radial. The average terrain on the eight cardinal radials from 3 kilometers to 16 kilometers from the site, was determined using the National Geophysical Data Center Thirty Second Point Database (TPG-0050) as prescribed in the FCC Rules. The predicted principal community (48 dBu) service contour completely encompasses Longmont, Colorado, the principal community of license, shown in exhibit 6, in compliance with Section 73.625(a) of the Commission's rules. The predicted 41 dBu noise limited service contour is also shown in exhibit 6.

ALLOCATION CONSIDERATIONS

NTSC Allocation Considerations

An interference study was performed, using the Commission's application analysis program, tv_process, to ensure that the proposed DTV facility, as modified herein, remains in compliance with the Commission's *de minimis* interference requirement contained in Section 73.623(c)(2) of the Commission's rules. The study showed that the DTV facility proposed herein is predicted to cause no increase in the interference population in excess of the Commission's *de minimis* criteria to any authorized NTSC television facility, or relevant pending application.

DTV Allocation Considerations

The same study was evaluated to determine if the 490 meter site relocation proposed herein would be predicted to cause any level of new prohibited interference to other authorized DTV facilities, including other authorized DTV stations, DTV expansion

construction permits, DTV allotments (including checklist CPs), or pending DTV applications. The study results indicate that the instant proposal is predicted to cause no unacceptable level of new interference to the populations served by any other relevant DTV facility, and thereby is in compliance with the *de minimis* interference criteria contained in Section 73.623(c)(2) of the Commission's Rules.

Class A Television Allocation Considerations

As required in Section 73.623(c)(5) of the FCC's Rules, a study of interference contour overlap was performed to establish compliance with the protection requirements specified therein. The study shows that there are no class A LPTV stations potentially affected by the instant proposal to modify the subject construction permit.

Table Mountain Radio Receiving Zone

Section 73.1030(b) of the Commission's Rules requires all applicants to protect the area therein designated from potentially harmful interference. The modifications proposed herein were evaluated to determine compliance with those requirements. The predicted signal strength from any proposed facility operating in the 470 MHz to 890 MHz band should not exceed a field value of 30 millivolts per meter within its authorized bandwidth. As shown in exhibit 7 the Table Mountain Radio Receiving Zone is located entirely outside the predicted KDEN-DT 30 mV/m (89.5 dBu) signal strength contour.

Largest Station in the Market

Section 73.622(f)(5) permits a DTV station's maximum facility (power and antenna height) to be maximized such that its predicted coverage area is as large, but no larger,

than the largest predicted geographic coverage area of the largest station in the common Nielsen Designated Market Area (DMA). KDEN-DT's maximum predicted service area, based on the 760 kW ERP and 515.8 meters HAAT proposed herein, is 30,582.7 square kilometers, as shown in attached Appendix A, page 4, scenario 7.

The largest station in the market appears to be KCNC-DT, channel 35, Denver, Colorado, 1000kW ERP at 451 meters HAAT. As shown on page B-7 of Appendix B of the *Second Order on Reconsideration*[1] that specific combination of ERP and HAAT for KCNC-DT is predicted to serve a geographic area encompassing 32,693 square kilometers. The combination of ERP and HAAT herein proposed for KDEN-DT is, therefore, in compliance with Section 73.622(f)(5) of the Commission's rules.

BLANKETING AND INTERMODULATION INTERFERENCE

A number of both broadcast and non-broadcast facilities are located within 10 km of KDEN-DT's proposed site. The permittee recognizes its responsibility to investigate and remedy complaints of interference which might be created by this proposal in accordance with applicable Rules.

ENVIRONMENTAL CONSIDERATIONS

RADIO FREQUENCY IMPACT

Effective October 15, 1997, the FCC adopted new guidelines and procedures for evaluating environmental effects of radio frequency (RF) emissions. The guidelines are

[1] *Second Memorandum Opinion and Order on Reconsideration of the Fifth and Sixth Report and Orders.* 14 FCC Rcd 1348 (1998)

generally based on recommendations by the National Council on Radiation Protection and Measurements (NCRP) in NCRP Report No. 86 (1986), and by the American National Standards Institute and the Institute of Electrical and Electronic Engineers, LLC (IEEE) in ANSI/IEEE C95.1-1992 (IEEE C95.1-1991). The guidelines provide a maximum permissible exposure (MPE) level for occupational or “controlled” situations that apply in cases that affect the general public. The FCC Office of Engineering and Technology’s technical bulletin No. 65 entitled, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields" (Edition 97-01, August 1997), provides assistance in the determination of whether FCC-regulated transmitting facilities, operations or devices comply with guideline limits for human exposure to radio frequency electromagnetic fields as adopted by the Commission in 1996. Bulletin No. 65 contains the technical information necessary to evaluate compliance with the FCC’s policies and guidelines.

The Commission’s Maximum Permitted Exposure (MPE) level for “uncontrolled” environments is 0.2 milliwatts per centimeter squared (mW/cm^2) when applied to broadcast facilities operating between 30 MHz and 300 MHz, and for broadcast facilities operating between 300 MHZ and 1500 MHz, primarily UHF TV stations, is derived from the formula, (frequency/1500). The MPE level for “controlled” environments is 1.0 milliwatts per centimeter squared (mW/cm^2) for operations between 30 MHz and 300 MHz, and for broadcast stations operating between 300 MHz and 1500 MHz is derived from the formula, (frequency/300). The predicted emissions of KDEN-DT, channel 29, must be considered,

along with the predicted emissions from other proposed and existing stations at the current site. For KDEN-DT, which will operate on television Channel 29 (560-566 MHz), the MPE is 0.375 milliwatts per centimeter squared (mW/cm^2) in an "uncontrolled" environment and 1.875 mW/cm^2 in a "controlled" environment. The proposed KDEN-DT facility will operate with a maximum ERP of 760 kW from a horizontally polarized directional transmitting antenna with a centerline height of 487.7 meters above ground level (AGL). Considering the relevant conservative vertical plane relative field factor of 0.3, the KDEN-DT facility is predicted to produce a power density at two meters above ground level of 0.00971 mW/cm^2, which is 2.59% of the FCC guideline value for "uncontrolled" environments, and 0.52% of the FCC guideline value for "controlled" environments (see Appendix B). The total percentage of the ANSI value at the proposed site, considering the cumulative radiation of all stations to be located at, or within a relevant distance of, the subject site is only 62.81% of the guideline's limit for "uncontrolled" environments, and 12.56% of the limit for "controlled" environments.

OCCUPATIONAL SAFETY

The permittee of KDEN-DT is committed to the protection of station personnel and/or tower contractors working in the vicinity of the antenna. The permittee is committed to reducing power and/or ceasing operation during times of service or maintenance of the transmission systems, when necessary, to ensure protection to personnel. In light of the above, the proposed facility should be categorically excluded from RF environmental processing under Section 1.1307(b) of the Commission's Rules.

SUMMARY

It is submitted that the instant proposal to modify KDEN-DT's construction permit, BPCDT-19991018AAS, as described herein, complies with the Rules, Regulations and Policies of the Federal Communications Commission. This statement, FCC Form 301, and the attached exhibits were prepared by me or under my direct supervision and are believed to be true and correct to the best of my knowledge and belief.

DATED: May 18, 2004

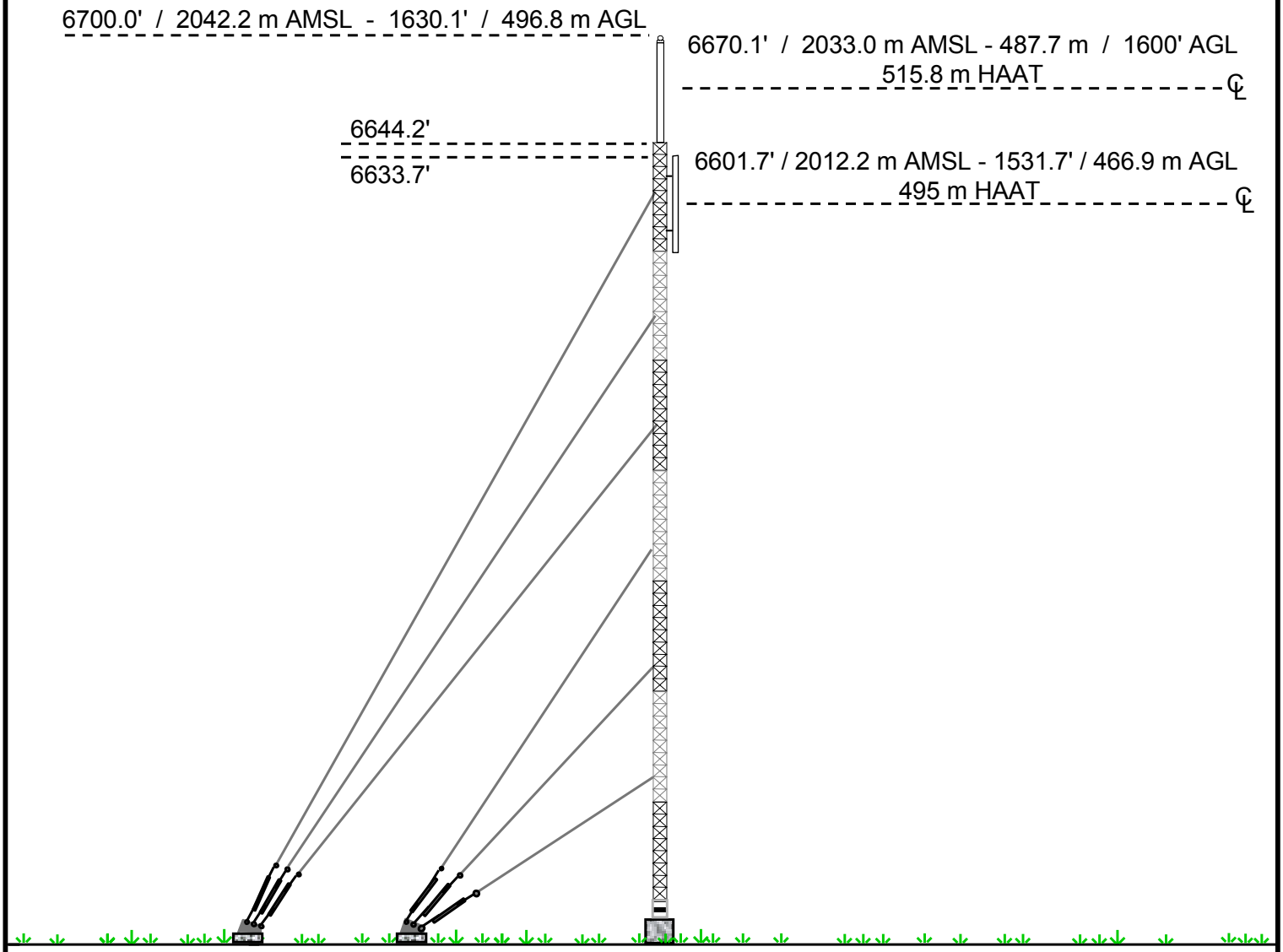
John E. Hidle, P.E.

COMMONWEALTH OF VIRGINIA
John E. Hidle
Certificate No.
7418
CERTIFIED PROFESSIONAL ENGINEER

COORDINATES NAD-27
NORTH LATITUDE: 40° 05' 57"
WEST LONGITUDE: 104° 53' 48"

COORDINATES NAD-83
NORTH LATITUDE: 40° 05' 57"
WEST LONGITUDE: 104° 53' 50"

EXHIBIT 1



GROUND ELEVATION = 5070.0' / 1545.4 m AMSL / AVERAGE TERRAIN = 1517.2 m AMSL

VERTICAL PLAN ANTENNA SKETCH

KDEN-DT - LONGMONT, COLORADO
Ch. 29 - 760 kW - 515.8 m HAAT
MAY, 2004

CARL T. JONES
CORPORATION

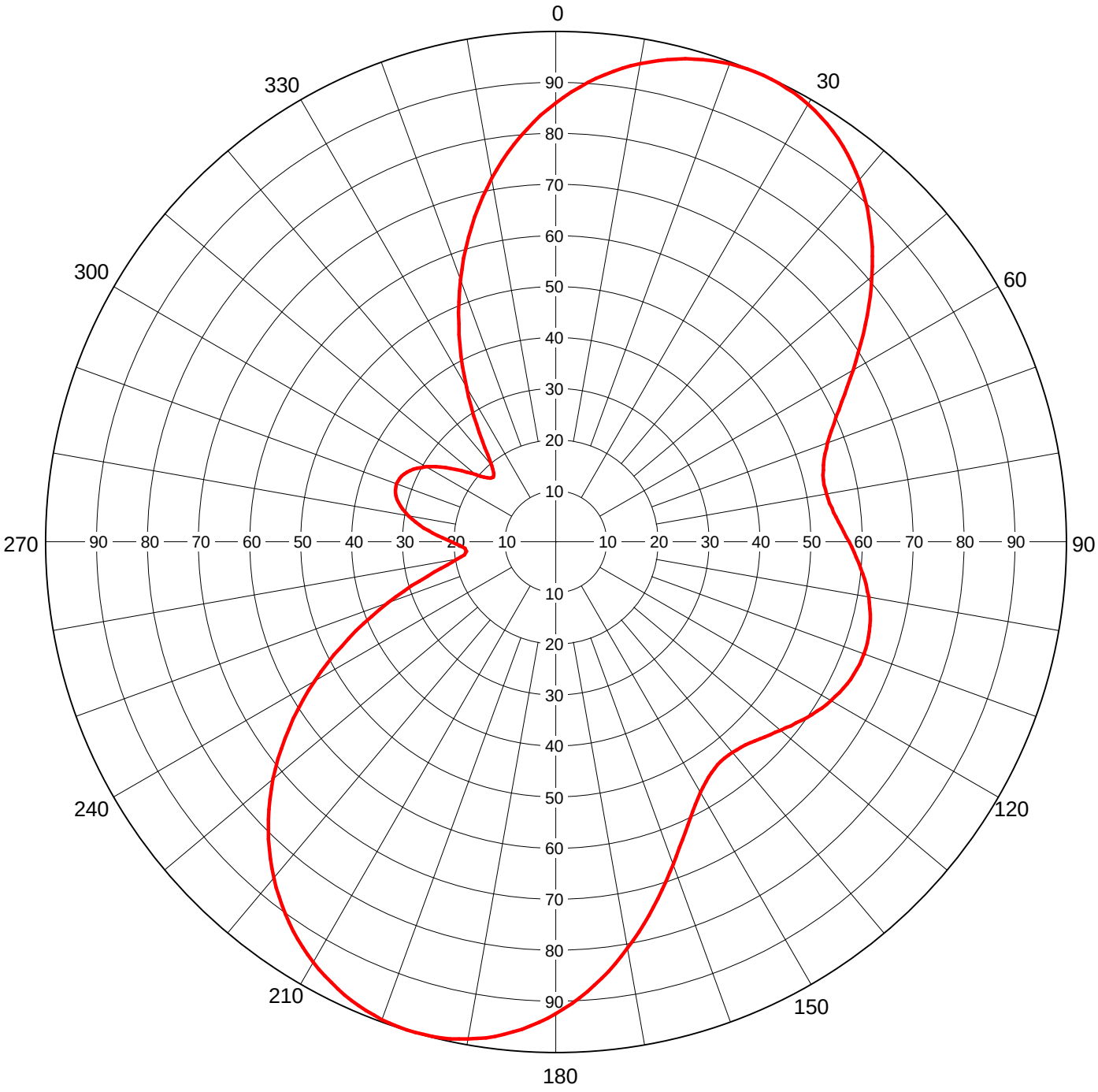
NOTE : NOT DRAWN TO SCALE

Dielectric

Proposal Number		Revision	
Date	**17 May 2004**		**Exhibit 2**
Call Letters	**KDEN-DT**	Channel	**29**
Location	**Longmont, CO**		
Customer			
Antenna Type	**TFU-28GTH-R CT220SP**		

AZIMUTH PATTERN

Gain	**2.20 (3.42 dB)**	Frequency	**563 MHz**
Calculated / Measured	**Calculated**	Drawing #	**TFU-CT220SP-5630**



Remarks:

Dielectric

Proposal Number		Revision	
Date	**17 May 2004**		**Exhibit 3**
Call Letters	**KDEN-DT**	Channel	**29**
Location	**Longmont, CO**		
Customer			
Antenna Type	**TFU-28GTH-R CT220SP**		

TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing # **TFU-CT220SP-5630**

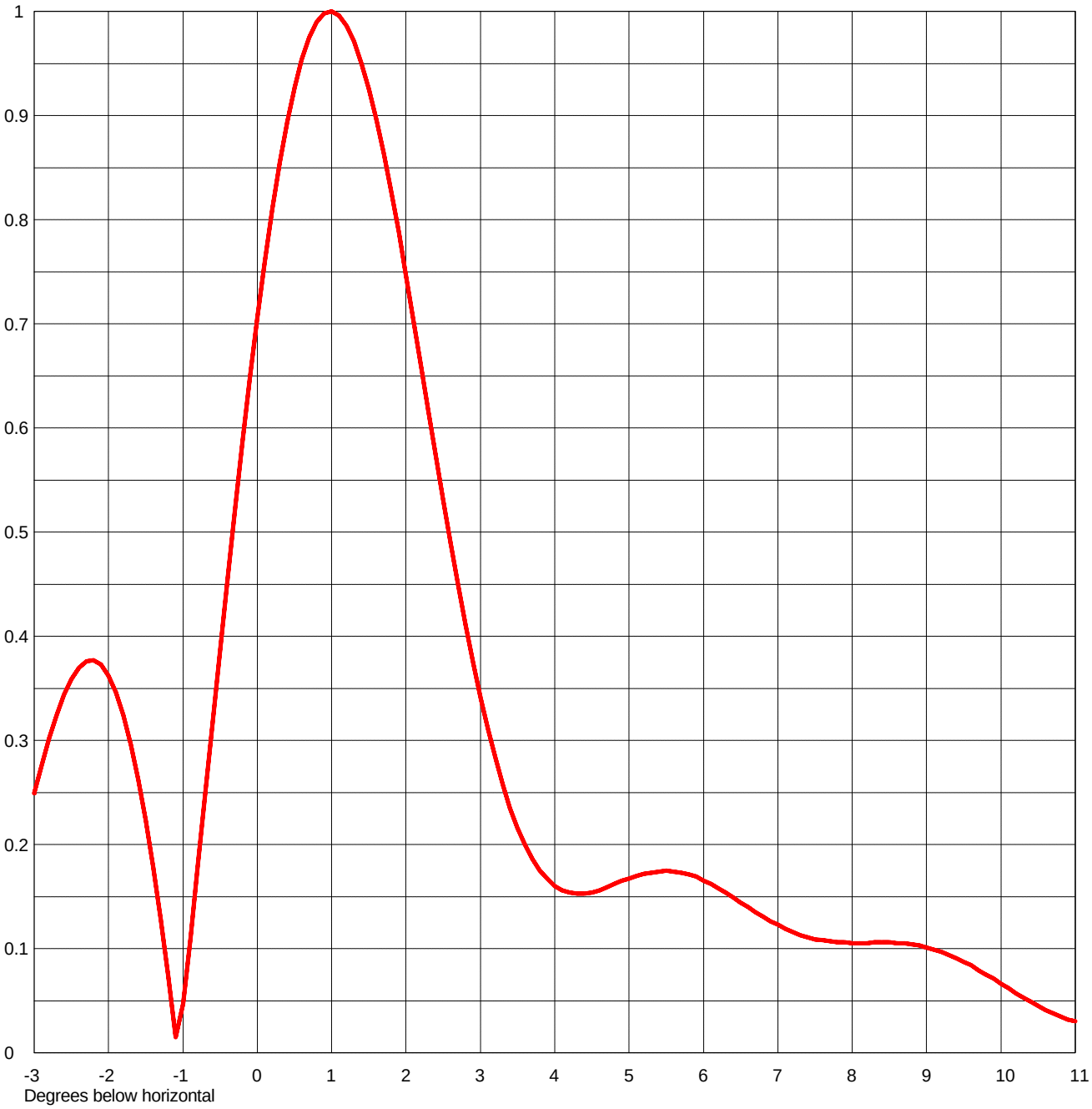
Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.860	45	0.872	90	0.574	135	0.552	180	0.925	225	0.797	270	0.204	315	0.177
1	0.871	46	0.860	91	0.580	136	0.548	181	0.933	226	0.783	271	0.213	316	0.176
2	0.881	47	0.847	92	0.585	137	0.545	182	0.942	227	0.768	272	0.222	317	0.178
3	0.892	48	0.835	93	0.590	138	0.542	183	0.950	228	0.754	273	0.232	318	0.181
4	0.902	49	0.822	94	0.595	139	0.540	184	0.957	229	0.738	274	0.241	319	0.188
5	0.911	50	0.809	95	0.600	140	0.538	185	0.964	230	0.723	275	0.250	320	0.195
6	0.920	51	0.795	96	0.605	141	0.538	186	0.970	231	0.706	276	0.260	321	0.206
7	0.928	52	0.782	97	0.610	142	0.537	187	0.976	232	0.690	277	0.269	322	0.217
8	0.936	53	0.768	98	0.614	143	0.539	188	0.981	233	0.673	278	0.277	323	0.231
9	0.944	54	0.754	99	0.618	144	0.540	189	0.985	234	0.656	279	0.285	324	0.245
10	0.951	55	0.740	100	0.622	145	0.542	190	0.989	235	0.638	280	0.293	325	0.261
11	0.957	56	0.726	101	0.626	146	0.545	191	0.992	236	0.620	281	0.300	326	0.277
12	0.964	57	0.713	102	0.629	147	0.550	192	0.995	237	0.602	282	0.307	327	0.295
13	0.969	58	0.699	103	0.632	148	0.554	193	0.997	238	0.584	283	0.312	328	0.313
14	0.975	59	0.686	104	0.635	149	0.561	194	0.999	239	0.565	284	0.318	329	0.331
15	0.979	60	0.672	105	0.637	150	0.567	195	0.999	240	0.546	285	0.322	330	0.350
16	0.984	61	0.660	106	0.639	151	0.575	196	1.000	241	0.526	286	0.326	331	0.369
17	0.987	62	0.647	107	0.640	152	0.583	197	1.000	242	0.507	287	0.328	332	0.389
18	0.991	63	0.635	108	0.642	153	0.592	198	0.999	243	0.487	288	0.330	333	0.408
19	0.993	64	0.623	109	0.642	154	0.602	199	0.998	244	0.468	289	0.331	334	0.428
20	0.996	65	0.612	110	0.643	155	0.612	200	0.996	245	0.448	290	0.332	335	0.448
21	0.998	66	0.602	111	0.642	156	0.623	201	0.993	246	0.428	291	0.331	336	0.468
22	0.999	67	0.592	112	0.642	157	0.635	202	0.991	247	0.408	292	0.330	337	0.487
23	1.000	68	0.583	113	0.640	158	0.647	203	0.987	248	0.389	293	0.328	338	0.507
24	1.000	69	0.575	114	0.639	159	0.660	204	0.984	249	0.369	294	0.326	339	0.526
25	0.999	70	0.567	115	0.637	160	0.672	205	0.979	250	0.350	295	0.322	340	0.546
26	0.999	71	0.561	116	0.635	161	0.686	206	0.975	251	0.331	296	0.318	341	0.565
27	0.997	72	0.554	117	0.632	162	0.699	207	0.969	252	0.313	297	0.312	342	0.584
28	0.995	73	0.550	118	0.629	163	0.713	208	0.964	253	0.295	298	0.307	343	0.602
29	0.992	74	0.545	119	0.626	164	0.726	209	0.957	254	0.277	299	0.300	344	0.620
30	0.989	75	0.542	120	0.622	165	0.740	210	0.951	255	0.261	300	0.293	345	0.638
31	0.985	76	0.540	121	0.618	166	0.754	211	0.944	256	0.245	301	0.285	346	0.656
32	0.981	77	0.539	122	0.614	167	0.768	212	0.936	257	0.231	302	0.277	347	0.673
33	0.976	78	0.537	123	0.610	168	0.782	213	0.928	258	0.217	303	0.269	348	0.690
34	0.970	79	0.538	124	0.605	169	0.795	214	0.920	259	0.206	304	0.260	349	0.706
35	0.964	80	0.538	125	0.600	170	0.809	215	0.911	260	0.195	305	0.250	350	0.723
36	0.957	81	0.540	126	0.595	171	0.822	216	0.902	261	0.188	306	0.241	351	0.738
37	0.950	82	0.542	127	0.590	172	0.835	217	0.892	262	0.181	307	0.232	352	0.754
38	0.942	83	0.545	128	0.585	173	0.847	218	0.881	263	0.178	308	0.222	353	0.768
39	0.933	84	0.548	129	0.580	174	0.860	219	0.871	264	0.176	309	0.213	354	0.783
40	0.925	85	0.552	130	0.574	175	0.872	220	0.860	265	0.177	310	0.204	355	0.797
41	0.915	86	0.555	131	0.570	176	0.883	221	0.848	266	0.179	311	0.196	356	0.810
42	0.905	87	0.560	132	0.565	177	0.894	222	0.836	267	0.184	312	0.189	357	0.823
43	0.894	88	0.565	133	0.560	178	0.905	223	0.823	268	0.189	313	0.184	358	0.836
44	0.883	89	0.570	134	0.555	179	0.915	224	0.810	269	0.197	314	0.179	359	0.848

Remarks:

Proposal Number		Revision	
Date	**12 May 2004**		**Exhibit 4A**
Call Letters	**KDEN-DT**	Channel	**29**
Location	**Longmont, CO**		
Customer			
Antenna Type	**TFU-28GTH-R CT220SP**		

ELEVATION PATTERN

RMS Gain at Main Lobe	**23.0 (13.62 dB)**	Beam Tilt	**1.00 Degrees**
RMS Gain at Horizontal	**11.5 (10.61 dB)**	Frequency	**563.00 MHz**
Calculated / Measured	**Calculated**	Drawing #	**28G23010**

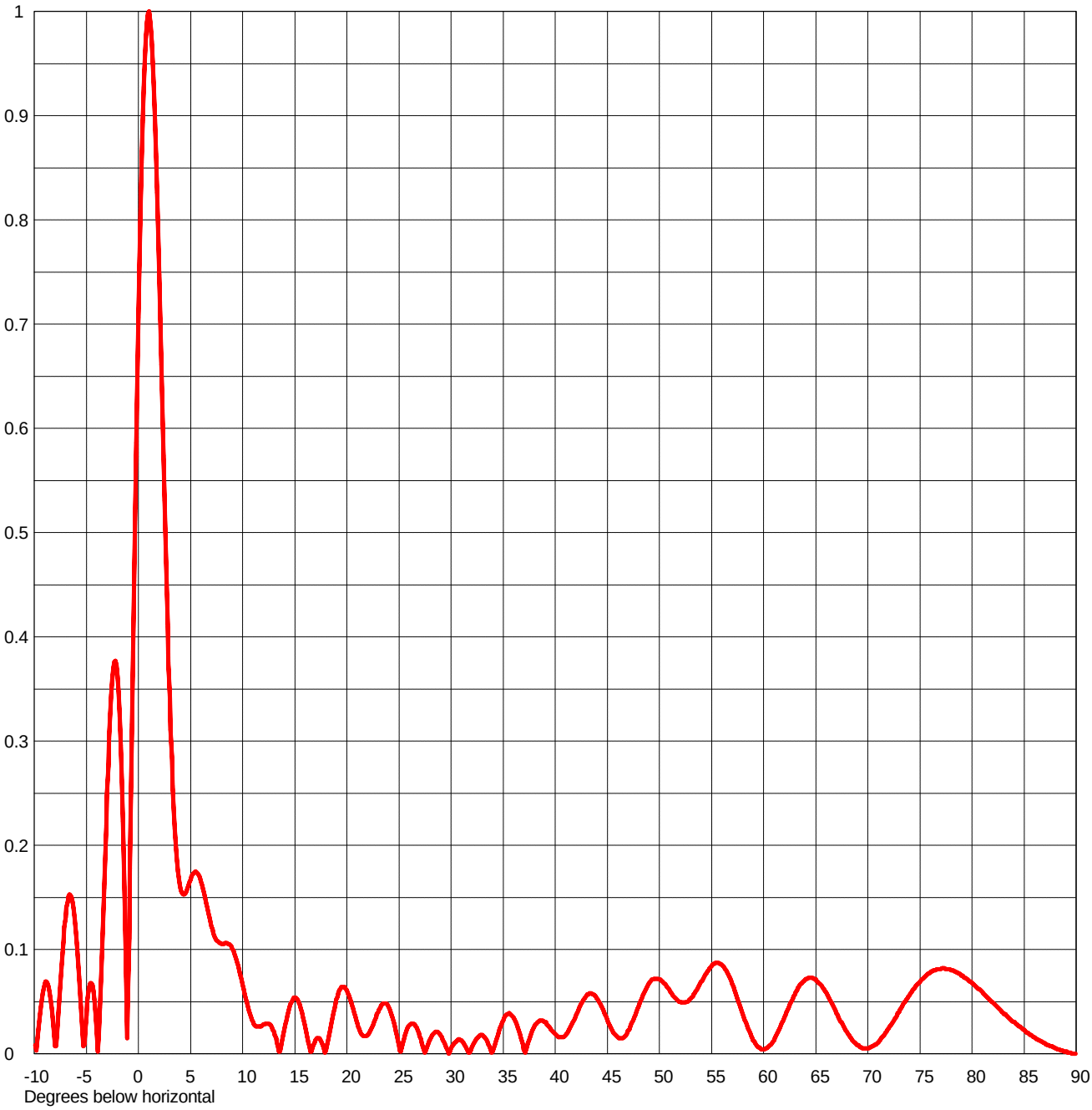


Remarks:

Proposal Number		Revision	
Date	**12 May 2004**		**Exhibit 4B**
Call Letters	**KDEN-DT**	Channel	**29**
Location	**Longmont, CO**		
Customer			
Antenna Type	**TFU-28GTH-R CT220SP**		

ELEVATION PATTERN

RMS Gain at Main Lobe	**23.0 (13.62 dB)**	Beam Tilt	**1.00 Degrees**
RMS Gain at Horizontal	**11.5 (10.61 dB)**	Frequency	**563.00 MHz**
Calculated / Measured	**Calculated**	Drawing #	**28G23010-90**



Remarks:

Dielectric

Proposal Number		Revision	
Date	**12 May 2004**		**Exhibit 5**
Call Letters	**KDEN-DT**	Channel	**29**
Location	**Longmont, CO**		
Customer			
Antenna Type	**TFU-28GTH-R CT220SP**		

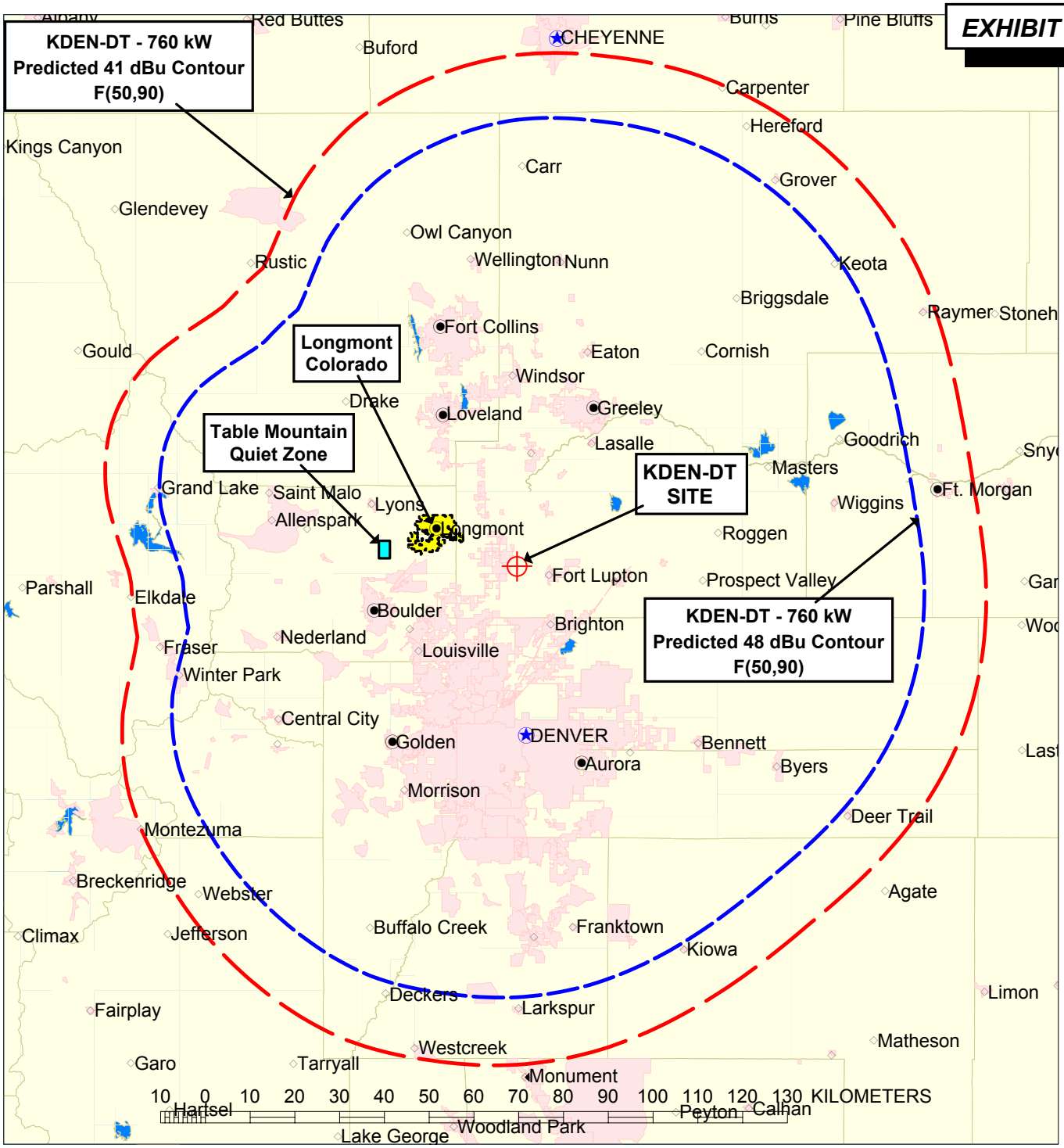
TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing # **28G23010-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.019	2.4	0.574	10.6	0.041	30.5	0.012	51.0	0.060	71.5	0.017
-9.5	0.034	2.6	0.489	10.8	0.035	31.0	0.013	51.5	0.054	72.0	0.024
-9.0	0.067	2.8	0.411	11.0	0.030	31.5	0.005	52.0	0.050	72.5	0.032
-8.5	0.058	3.0	0.341	11.5	0.026	32.0	0.006	52.5	0.049	73.0	0.040
-8.0	0.007	3.2	0.283	12.0	0.028	32.5	0.015	53.0	0.053	73.5	0.049
-7.5	0.067	3.4	0.235	12.5	0.029	33.0	0.018	53.5	0.060	74.0	0.056
-7.0	0.131	3.6	0.200	13.0	0.021	33.5	0.012	54.0	0.069	74.5	0.063
-6.5	0.152	3.8	0.175	13.5	0.002	34.0	0.002	54.5	0.077	75.0	0.069
-6.0	0.117	4.0	0.160	14.0	0.023	34.5	0.018	55.0	0.084	75.5	0.074
-5.5	0.040	4.2	0.154	14.5	0.045	35.0	0.032	55.5	0.087	76.0	0.078
-5.0	0.037	4.4	0.153	15.0	0.054	35.5	0.038	56.0	0.085	76.5	0.080
-4.5	0.068	4.6	0.156	15.5	0.047	36.0	0.035	56.5	0.078	77.0	0.081
-4.0	0.021	4.8	0.162	16.0	0.026	36.5	0.022	57.0	0.067	77.5	0.081
-3.5	0.099	5.0	0.167	16.5	0.002	37.0	0.004	57.5	0.053	78.0	0.080
-3.0	0.249	5.2	0.172	17.0	0.013	37.5	0.013	58.0	0.038	78.5	0.078
-2.8	0.302	5.4	0.174	17.5	0.013	38.0	0.026	58.5	0.024	79.0	0.075
-2.6	0.344	5.6	0.174	18.0	0.003	38.5	0.032	59.0	0.013	79.5	0.072
-2.4	0.370	5.8	0.171	18.5	0.029	39.0	0.030	59.5	0.006	80.0	0.068
-2.2	0.377	6.0	0.165	19.0	0.052	39.5	0.025	60.0	0.004	80.5	0.063
-2.0	0.362	6.2	0.158	19.5	0.064	40.0	0.019	60.5	0.007	81.0	0.059
-1.8	0.324	6.4	0.149	20.0	0.061	40.5	0.016	61.0	0.013	81.5	0.054
-1.6	0.262	6.6	0.140	20.5	0.046	41.0	0.018	61.5	0.023	82.0	0.049
-1.4	0.178	6.8	0.131	21.0	0.029	41.5	0.026	62.0	0.035	82.5	0.044
-1.2	0.074	7.0	0.123	21.5	0.018	42.0	0.037	62.5	0.047	83.0	0.039
-1.0	0.047	7.2	0.116	22.0	0.018	42.5	0.048	63.0	0.057	83.5	0.035
-0.8	0.178	7.4	0.111	22.5	0.027	43.0	0.056	63.5	0.066	84.0	0.031
-0.6	0.316	7.6	0.108	23.0	0.040	43.5	0.058	64.0	0.071	84.5	0.026
-0.4	0.454	7.8	0.106	23.5	0.048	44.0	0.053	64.5	0.073	85.0	0.023
-0.2	0.586	8.0	0.105	24.0	0.045	44.5	0.044	65.0	0.071	85.5	0.019
0.0	0.706	8.2	0.105	24.5	0.030	45.0	0.032	65.5	0.066	86.0	0.016
0.2	0.810	8.4	0.106	25.0	0.007	45.5	0.022	66.0	0.059	86.5	0.013
0.4	0.894	8.6	0.105	25.5	0.014	46.0	0.016	66.5	0.049	87.0	0.010
0.6	0.954	8.8	0.104	26.0	0.027	46.5	0.015	67.0	0.039	87.5	0.007
0.8	0.990	9.0	0.101	26.5	0.028	47.0	0.022	67.5	0.030	88.0	0.005
1.0	1.000	9.2	0.097	27.0	0.017	47.5	0.032	68.0	0.021	88.5	0.003
1.2	0.986	9.4	0.091	27.5	0.001	48.0	0.045	68.5	0.013	89.0	0.002
1.4	0.950	9.6	0.084	28.0	0.014	48.5	0.058	69.0	0.008	89.5	0.001
1.6	0.896	9.8	0.075	28.5	0.021	49.0	0.067	69.5	0.005	90.0	0.000
1.8	0.826	10.0	0.066	29.0	0.018	49.5	0.072	70.0	0.005		
2.0	0.747	10.2	0.057	29.5	0.007	50.0	0.071	70.5	0.007		
2.2	0.661	10.4	0.049	30.0	0.005	50.5	0.067	71.0	0.011		

Remarks:

EXHIBIT 6



PREDICTED COVERAGE CONTOURS

KDEN-DT - LONGMONT, COLORADO

PROPOSED MODIFICATION OF CONSTRUCTION PERMIT

CHANNEL 29 - 760.0 kW - 515.8 m HAAT

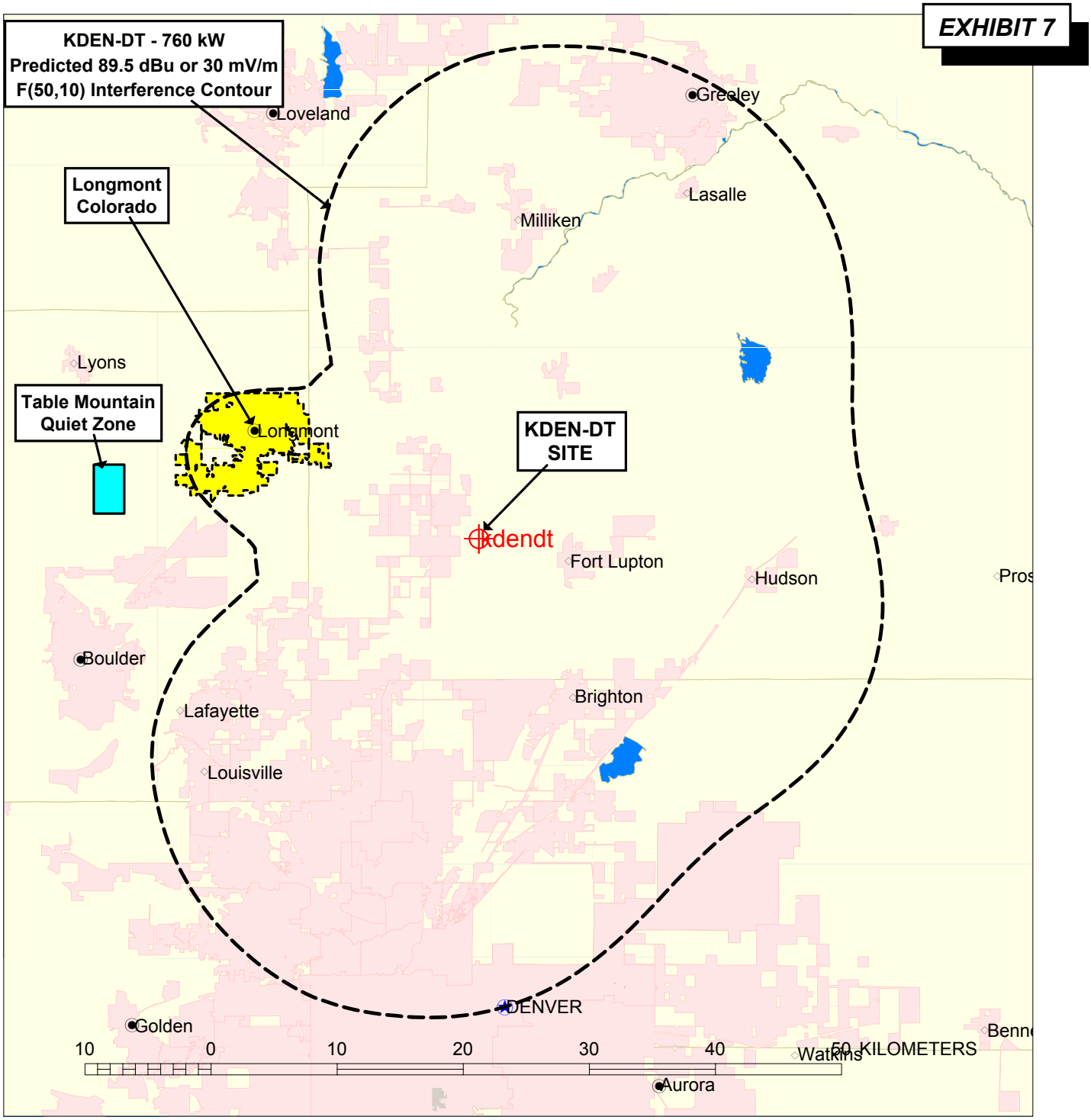
48 dBu - Principal Community Contour

41 dBu - Noise Limited Contour

MAY 2004

CARL T. JONES CORPORATION

EXHIBIT 7



PREDICTED INTERFERENCE CONTOUR

KDEN-DT - LONGMONT, COLORADO
PROPOSED MODIFICATION OF CONSTRUCTION PERMIT
CHANNEL 29 - 760.0 kW - 515.8 m HAAT

PROTECTION OF TABLE MOUNTAIN QUIET ZONE
89.5 dBu - or 30.0 mV/m Interference Contour

MAY 2004

CARL T. JONES
CORPORATION

KDEN-DT - APPENDIX A - Largest Station in Market
Page 1

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    ##########################################################################

                    Analysis of Interference to Affected Station  14

DTV  Baseline Analysis
Channel     Call           City/State        Application Ref. No.
   29      KDEN-DT    LONGMONT CO              DTVPLN    -DTVP0695

     Stations Potentially Affecting This Station

Chan   Call      City/State           Dist(km) Status  Application Ref. No.
 28   KLWY-DT  CHEYENNE WY              105.8  PLN    DTVPLN    -DTVP0692
 30   KGWN-DT  CHEYENNE WY              111.9  PLN    DTVPLN    -DTVP0763
 29   KSTF-DT  SCOTTSBLUFF NE           235.5  PLN    DTVPLN    -DTVP0708


Results for: 29A CO LONGMONT             DTVPLN    DTVP0695     PLN
   HAAT  325.0 m, ATV ERP  234.0 kW
                                  POPULATION   AREA (sq km)
   within Noise Limited Contour     2169796      18953.8
   not affected by terrain losses   2149714      18084.1
   lost to NTSC IX                        0          0.0
   lost to additional IX by ATV        1734        269.8
   lost to ATV IX only                 1734        269.8
   lost to all IX                      1734        269.8


NTSC Baseline Analysis
Channel     Call           City/State        Application Ref. No.
   25      KDEN       LONGMONT CO              DTVPLN    -NPLN0250

     Stations Potentially Affecting This Station

Chan   Call      City/State           Dist(km) Status  Application Ref. No.
 28   KLWY-DT  CHEYENNE WY              105.8  PLN    DTVPLN    -DTVP0692
 17   KMGH-DT  DENVER CO                 49.8  PLN    DTVPLN    -DTVP0241
 18   KRMA-DT  DENVER CO                 50.4  PLN    DTVPLN    -DTVP0283
 21   KFCT-DT  FORT COLLINS CO           61.1  PLN    DTVPLN    -DTVP0408
 24   KRDO-DT  COLORADO SPRINGS CO      150.2  PLN    DTVPLN    -DTVP0526
 26   KTSC-DT  PUEBLO CO                150.2  PLN    DTVPLN    -DTVP0593
 29   KDEN-DT  LONGMONT CO                0.0  PLN    DTVPLN    -DTVP0695
 32   KDVR-DT  DENVER CO                 49.8  PLN    DTVPLN    -DTVP0806
 40   KRMT-DT  DENVER CO                 61.2  PLN    DTVPLN    -DTVP1057
 22   KFCT     FORT COLLINS CO           61.1  PLN    DTVPLN    -NPLN0245
 24   KSBSTV   STEAMBOAT SPRINGS CO     170.2  PLN    DTVPLN    -NPLN0247
 27   KLWY     CHEYENNE WY               105.8  PLN    DTVPLN    -NPLN1737
 33   KKTU     CHEYENNE WY               117.0  PLN    DTVPLN    -NPLN1741


Results for: 25N CO LONGMONT             DTVPLN    NPLN0250     PLN
                                  POPULATION   AREA (sq km)
   within Noise Limited Contour     2169834      18953.8
   not affected by terrain losses   2144773      17874.7
   lost to NTSC IX                      367        104.7
   lost to additional IX by ATV        1274         32.2
   lost to all IX                      1641        136.9
```

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
29	KDEN	LONGMONT CO	BPCDT	-19991018AAS

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
28	KLWY	CHEYENNE WY	105.5	CP	BPCDT	-20000110AAD
28	KLWY-DT	CHEYENNE WY	105.5	PLN	DTVPLN	-DTVP0692
30	KGWN-DT	CHEYENNE WY	111.7	PLN	DTVPLN	-DTVP0763
29	KSTF	SCOTTSBLUFF NE	235.1	CP	BPCDT	-19991028ACU
30	KGWN-TV	CHEYENNE WY	111.7	CP	BPCDT	-19991029ACA
29	KSTF-DT	SCOTTSBLUFF NE	235.1	PLN	DTVPLN	-DTVP0708

Total scenarios = 8

Result key: 39
Scenario 1 Affected station 14
Before Analysis

Results for: 29A CO LONGMONT BPCDT 19991018AAS APP
HAAT 515.8 m, ATV ERP 760.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	2245042	34082.8
not affected by terrain losses	2219335	31194.9
lost to NTSC IX	0	0.0
lost to additional IX by ATV	23137	692.8
lost to ATV IX only	23137	692.8
lost to all IX	23137	692.8

Potential Interferring Stations Included in above Scenario 1

28A WY CHEYENNE	BPCDT	20000110AAD	CP
30A WY CHEYENNE	DTVPLN	DTVP0763	PLN
29A NE SCOTTSBLUFF	BPCDT	19991028ACU	CP

Result key: 40
Scenario 2 Affected station 14
Before Analysis

Results for: 29A CO LONGMONT BPCDT 19991018AAS APP
HAAT 515.8 m, ATV ERP 760.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	2245042	34082.8
not affected by terrain losses	2219335	31194.9
lost to NTSC IX	0	0.0
lost to additional IX by ATV	23262	1043.2
lost to ATV IX only	23262	1043.2
lost to all IX	23262	1043.2

Potential Interferring Stations Included in above Scenario 2

28A WY CHEYENNE	BPCDT	20000110AAD	CP
30A WY CHEYENNE	DTVPLN	DTVP0763	PLN
29A NE SCOTTSBLUFF	DTVPLN	DTVP0708	PLN

```
Result key:       41
Scenario        3  Affected station       14
Before Analysis

Results for: 29A CO LONGMONT             BPCDT     19991018AAS  APP
   HAAT  515.8 m, ATV ERP  760.0 kW
                                  POPULATION   AREA (sq km)
   within Noise Limited Contour     2245042      34082.8
   not affected by terrain losses   2219335      31194.9
   lost to NTSC IX                        0          0.0
   lost to additional IX by ATV       23129        680.7
   lost to ATV IX only                23129        680.7
   lost to all IX                     23129        680.7

 Potential Interferring Stations Included in above Scenario     3

28A WY CHEYENNE             BPCDT     20000110AAD  CP
30A WY CHEYENNE             BPCDT     19991029ACA  CP
29A NE SCOTTSBLUFF          BPCDT     19991028ACU  CP

Result key:       42
Scenario        4  Affected station       14
Before Analysis

Results for: 29A CO LONGMONT             BPCDT     19991018AAS  APP
   HAAT  515.8 m, ATV ERP  760.0 kW
                                  POPULATION   AREA (sq km)
   within Noise Limited Contour     2245042      34082.8
   not affected by terrain losses   2219335      31194.9
   lost to NTSC IX                        0          0.0
   lost to additional IX by ATV       23254       1031.1
   lost to ATV IX only                23254       1031.1
   lost to all IX                     23254       1031.1

 Potential Interferring Stations Included in above Scenario     4

28A WY CHEYENNE             BPCDT     20000110AAD  CP
30A WY CHEYENNE             BPCDT     19991029ACA  CP
29A NE SCOTTSBLUFF          DTVPLN    DTVP0708     PLN

Result key:       43
Scenario        5  Affected station       14
Before Analysis

Results for: 29A CO LONGMONT             BPCDT     19991018AAS  APP
   HAAT  515.8 m, ATV ERP  760.0 kW
                                  POPULATION   AREA (sq km)
   within Noise Limited Contour     2245042      34082.8
   not affected by terrain losses   2219335      31194.9
   lost to NTSC IX                        0          0.0
   lost to additional IX by ATV       23085        628.3
   lost to ATV IX only                23085        628.3
   lost to all IX                     23085        628.3

 Potential Interferring Stations Included in above Scenario     5

28A WY CHEYENNE             DTVPLN    DTVP0692     PLN
30A WY CHEYENNE             DTVPLN    DTVP0763     PLN
29A NE SCOTTSBLUFF          BPCDT     19991028ACU  CP
```

```
Result key:       44
Scenario        6  Affected station       14
Before Analysis

Results for: 29A CO LONGMONT             BPCDT     19991018AAS  APP
   HAAT  515.8 m, ATV ERP  760.0 kW
                                  POPULATION   AREA (sq km)
   within Noise Limited Contour     2245042      34082.8
   not affected by terrain losses   2219335      31194.9
   lost to NTSC IX                        0          0.0
   lost to additional IX by ATV       23257        994.9
   lost to ATV IX only                23257        994.9
   lost to all IX                     23257        994.9

 Potential Interferring Stations Included in above Scenario     6
28A WY CHEYENNE             DTVPLN    DTVP0692     PLN
30A WY CHEYENNE             DTVPLN    DTVP0763     PLN
29A NE SCOTTSBLUFF          DTVPLN    DTVP0708     PLN

Result key:       45
Scenario        7  Affected station       14
Before Analysis

Results for: 29A CO LONGMONT             BPCDT     19991018AAS  APP
   HAAT  515.8 m, ATV ERP  760.0 kW
                                  POPULATION   AREA (sq km)
   within Noise Limited Contour     2245042      34082.8
   not affected by terrain losses   2219335      31194.9
   lost to NTSC IX                        0          0.0
   lost to additional IX by ATV       23077        612.2
   lost to ATV IX only                23077        612.2
   lost to all IX                     23077  minus 612.2 = 30582.7

 Potential Interferring Stations Included in above Scenario     7
28A WY CHEYENNE             DTVPLN    DTVP0692     PLN
30A WY CHEYENNE             BPCDT     19991029ACA  CP
29A NE SCOTTSBLUFF          BPCDT     19991028ACU  CP

Result key:       46
Scenario        8  Affected station       14
Before Analysis

Results for: 29A CO LONGMONT             BPCDT     19991018AAS  APP
   HAAT  515.8 m, ATV ERP  760.0 kW
                                  POPULATION   AREA (sq km)
   within Noise Limited Contour     2245042      34082.8
   not affected by terrain losses   2219335      31194.9
   lost to NTSC IX                        0          0.0
   lost to additional IX by ATV       23249        982.8
   lost to ATV IX only                23249        982.8
   lost to all IX                     23249        982.8

 Potential Interferring Stations Included in above Scenario     8
28A WY CHEYENNE             DTVPLN    DTVP0692     PLN
30A WY CHEYENNE             BPCDT     19991029ACA  CP
29A NE SCOTTSBLUFF          DTVPLN    DTVP0708     PLN

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FINISHED FINISHED FINISHED FINISHED FINISHED FINISHED
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APPENDIX B

SUMMARY OF RADIOFREQUENCY
RADIATION STUDY
KDEN-DT, LONGMONT, COLORADO
CHANNEL 29, 760 kW ERP, 515.8 meters HAAT
MAY, 2004

CALL	SERVICE	CHANNEL	FREQUENCY	POLARIZATION	ANTENNA HEIGHT ** mAGL	ERP (kW)	VERT. RELATIVE FIELD FACTOR	PREDICTED POWER DENSITY (mW/cm²)	FCC UNCONTROLLED LIMIT (mW/cm²)	PERCENT OF UNCONTROLLED LIMIT
KDEN-DT	DT	29	563	H	485	760.000	0.300	0.00971	0.375	2.59%
KDEN(TV)	TV	25	539	H	464	5000.000	0.300	0.03492	0.359	9.72%
*KDJM(FM)	FM	223	92.5	H & V	343	57.000	1.000	0.03237	0.200	16.19%
*KTCL(FM)	FM	227	93.3	H & V	312	100.000	1.000	0.06864	0.200	34.32%

TOTAL PERCENTAGE OF ANSI VALUE= 62.81%

* The broadcast facilities indicated are not located on the subject structure,
but are included herein because they are located on other structures within a relevant distance.
*** The antenna heights indicated above are 2 meters less than the actual antenna heights*
so that the predicted power densities consider the 2 meter human height allowance.