



**STATEMENT OF JOHN E. HIDLE, P.E.  
IN SUPPORT OF AN APPLICATION FOR  
A MINOR MODIFICATION OF A  
POST REPACK CONSTRUCTION PERMIT  
FILE # 0000034383  
KRXI-TV - RENO, NEVADA  
DTV - CH. 23 - 400 kW - 854 m HAAT**

Prepared for: KRXI LICENSEE, LLC

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 Licensed Professional Engineer in the Commonwealth of Virginia, No. 7418, and in New York State, No. 63418.

**GENERAL**

This office has been authorized by KRXI LICENSEE, LLC, licensee of KRXI-TV channel 44, facility ID number 48360, licensed to Reno, Nevada, to prepare this statement, FCC Form 2100, Schedule A, its technical sections, and the associated exhibits in support of an application for a minor modification of its post-reassignment construction permit, File # 0000034621, that authorizes KRXI-TV to use channel 23 for its post-reassignment broadcasting. The instant application proposes only to change from its authorized directional antenna, a Dielectric TFU-10GTH C170, to a different directional antenna, a Dielectric TFU-20DSC/VP-R C170. No other changes are proposed.

**DETERMINATION OF THE "LARGEST STATION IN THE MARKET"**

It appears from an analysis of the stations that are licensed to communities located in the Reno, Nevada Designated Market area (DMA) that the largest station in geographic

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area is KRNV-DT, channel 7, Reno, Nevada with a predicted coverage area of 48,278 square kilometers. The instant application to modify KRXI-TV's construction permit with its authorized ERP of 400 kW results in a predicted coverage area of 42,692 square kilometers. Clearly KRXI-TV is entitled, according to Section 73.622(f)(5), to 400 kW ERP.

**DIRECTIONAL ANTENNA**

The applicant has substituted a different Dielectric antenna for its authorized TFU-10GTH C170 horizontally polarized directional antenna. The installed antenna is a TFU-20DSC/VP-R C170. Elliptically polarized directional antenna. Both horizontal azimuth patterns are the Dielectric standard C170 patterns. The directional antenna's center of radiation is located at a height above ground of 51.5 meters, and a height above average terrain of 854 meters. The manufacturer's horizontal azimuth radiation pattern for its horizontally polarized component is shown and tabulated in Exhibit 2, its horizontal azimuth radiation pattern for its vertically polarized component is shown and tabulated in Exhibit 3 and its vertical plane elevation radiation pattern, illustrating the antenna's radiation characteristics above and below the horizontal plane is shown and tabulated in Exhibit 4.

**PREDICTED COVERAGE CONTOURS**

The predicted coverage contours were calculated in accordance with the method described in Section 73.625(b) of the Rules, utilizing the appropriate F(50,90) propagation curves (47 CFR Section 73.699, Figure 9), proposed Effective Radiated Power, and antenna height above average terrain 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 NED Three Second US Terrain Database as permitted in the FCC

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Rules. The antenna site elevation and coordinates were determined from FCC antenna registration data. Exhibit 1 shows the predicted Noise Limited (39.66 dBu) contour, and the principal community (48 dBu) contour. The 48 dBu contour completely encompasses the principal community of license, Reno, Nevada.

**ALLOCATION CONSIDERATIONS**

***Post-Transition DTV Considerations***

A study was performed, using the FCC's application processing software, *tvstudy*, v. 2.2.5, to determine if the instant application for construction permit is predicted to cause new prohibited interference to post reassignment DTV stations, construction permits, DTV allotments or Class A DTV stations. The study results, shown in Appendix B, indicate that the instant application for construction permit is predicted to cause no new interference exceeding 0.5% to the populations served by any post reassignment DTV station, construction permit, allotment or Class A DTV stations. (See Appendix B)

***International DTV Considerations***

The KRXI-TV site is located 1,002 kilometers from the nearest point on the US-Canadian border, and is 808.8 kilometers from the nearest point on the US-Mexican border. The site is located beyond either coordination distance.

**BLANKETING AND INTERMODULATION INTERFERENCE**

Other broadcast and non-broadcast facilities are either co-located with, or located within 10 kilometers of the KRXI-TV site. The applicant recognizes its responsibility to remedy interference complaints that might result, in accordance with applicable Rules.

## **RADIO FREQUENCY IMPACT**

The FCC's guidelines and procedures for evaluating environmental effects of radio frequency (RF) emissions are 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 define a maximum permissible exposure (MPE) level for occupational or "controlled" situations, and for "uncontrolled" environments that apply in all other cases that might 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 to determine whether FCC-regulated transmitting facilities, operations or devices comply with guidelines for human exposure to radio frequency electromagnetic fields as adopted by the Commission in 1996. OET Bulletin No. 65 contains the technical information necessary to evaluate compliance with the FCC's policies and guidelines.

The Maximum Permitted Exposure (MPE) level for broadcast facilities that operate on a frequency between 30 MHz and 300 MHz is 200 microwatts per centimeter squared ( $\mu\text{W}/\text{cm}^2$ ) for an "uncontrolled" environment, and is 1,000 microwatts per centimeter squared ( $\mu\text{W}/\text{cm}^2$ ) for a "controlled" environment. The MPE level for broadcast facilities that operate on a frequency between 300 MHz and 1500 MHz is determined for an "uncontrolled" environment by dividing the operating frequency in MHz by 1.5, and for a "controlled" environment by dividing the operating frequency in MHz by 0.3.

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The predicted emissions of KRXI-TV, which operates on television Channel 23 (524-530 MHz), the MPE is 351.33 microwatts per centimeter squared ( $\mu\text{W}/\text{cm}^2$ ) in an "uncontrolled" environment and 1,756.7  $\mu\text{W}/\text{cm}^2$  in a "controlled" environment. The proposed KRXI-TV facility will operate with a maximum ERP of 400 kW from an elliptically polarized directional transmitting antenna with a centerline height of 51.5 meters above ground level (AGL). Considering a conservative vertical plane relative field factor of 0.200 the KRXI-TV facility is predicted to produce a power density at two meters above ground level of 236.923  $\mu\text{W}/\text{cm}^2$ , which is 67.44% of the FCC guideline value for an "uncontrolled" environment, and 13.49% of the FCC's guideline value for "controlled" environments. However, in light of the above, once the proposed facility is authorized and installed, an RFR measurement survey will be undertaken to determine the effect of the proposed facility on the RFR environment at the site. If any changes are deemed necessary to the existing RFR safety plan they will be made accordingly. (See Appendix A)

**OCCUPATIONAL SAFETY**

The licensee of KRXI-TV is committed to the protection of station personnel and/or tower contractors working in the vicinity of its antenna, and is committed to reducing power or ceasing operation during times of maintenance of the transmission systems, when necessary, to ensure protection to personnel.

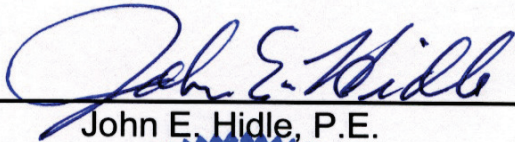
**SUMMARY**

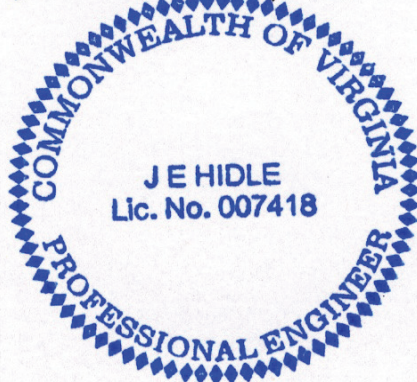
It is submitted that the instant application for a minor modification of KRXI-TV's post-reassignment channel 23 construction permit, file # 0000034621, to substitute a different model directional antenna, as described herein, complies with the Rules, Regulations and

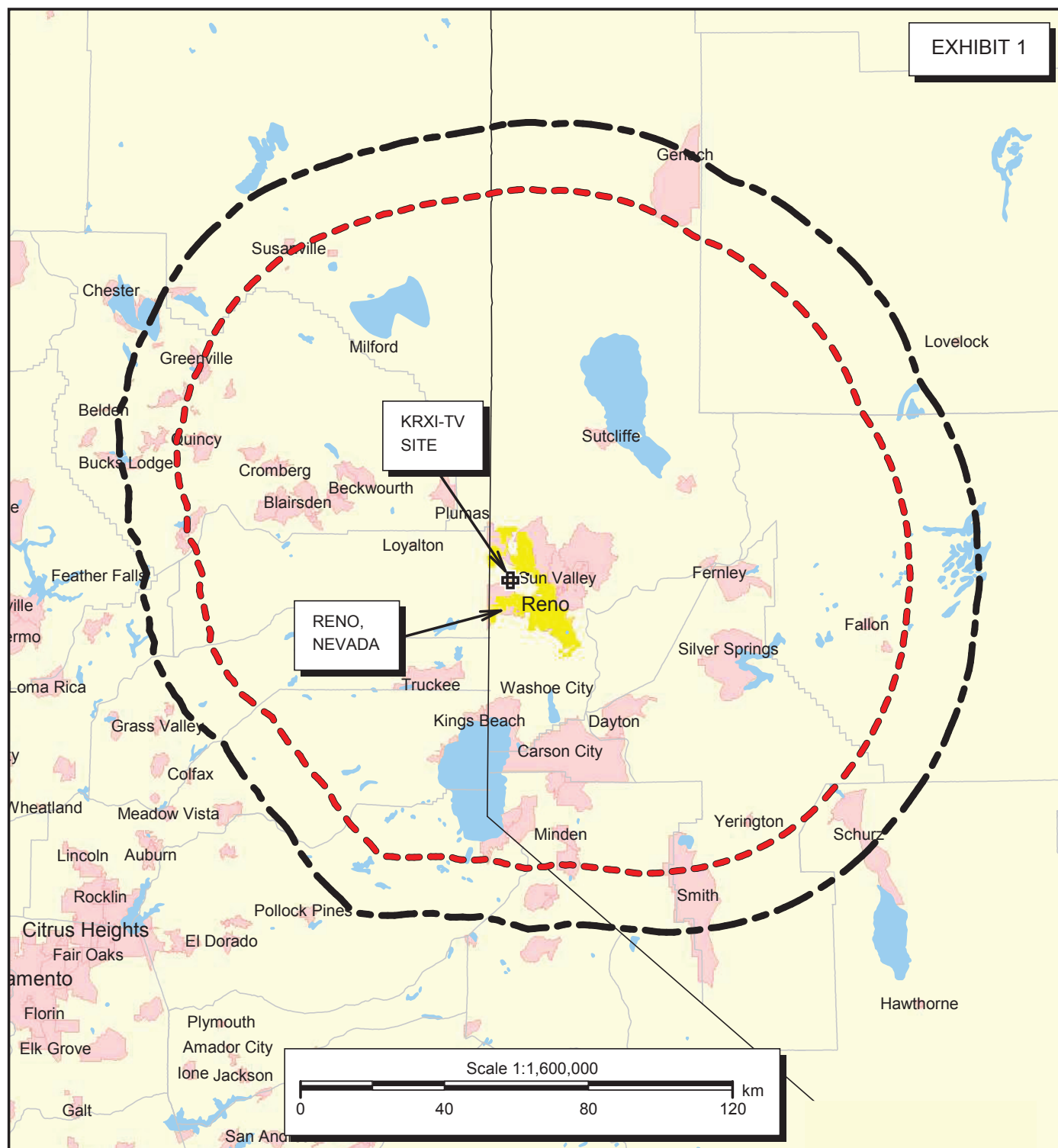
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relevant Policies of the Federal Communications Commission. This statement, FCC Form 2100, its technical sections, and the attached exhibits were prepared by me or under my direct supervision and are believed to be true and correct to the best of my knowledge and belief.

DATED: January 25, 2019

  
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John E. Hidle, P.E.





## PREDICTED COVERAGE CONTOURS

KRXI-TV - RENO, NEVADA  
DTV Channel 23 - 400 kW ERP - 854 M HAAT  
JANUARY, 2019

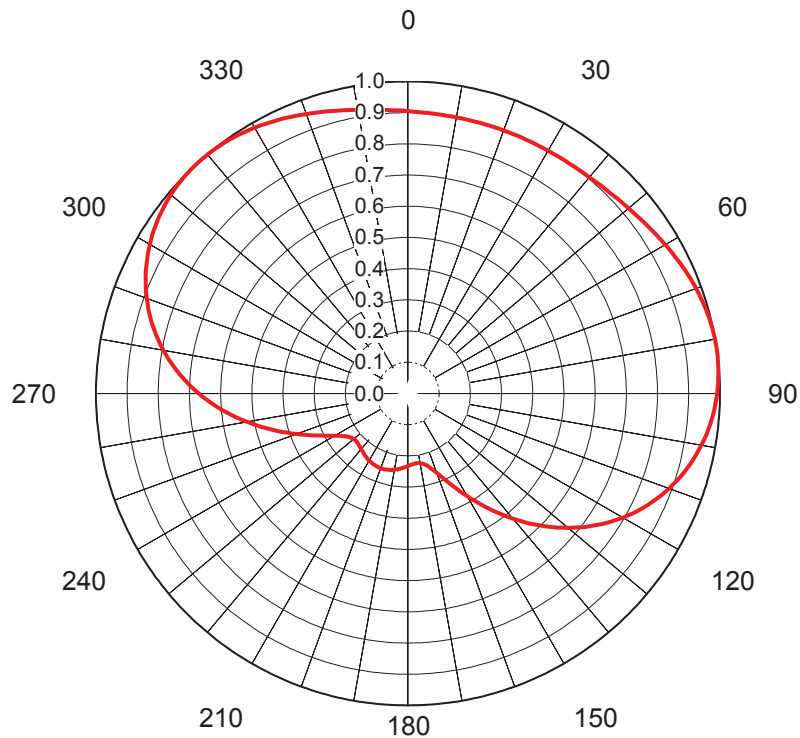
Predicted Noise Limited 39.66 dBu  
F(50,90) Coverage Contour



Predicted Principal Community 48 dBu  
F(50,90) Coverage Contour



## AZIMUTH PATTERN Horizontal Polarization



Proposal No. **C-70042-5**  
 Date **13-Dec-17**  
 Call Letters **KRXI**  
 Channel **23**  
 Frequency **527 MHz**  
 Antenna Type **TFU-20DSC/VP-R C170**  
 Gain **1.76 (2.46dB)**  
**Calculated**

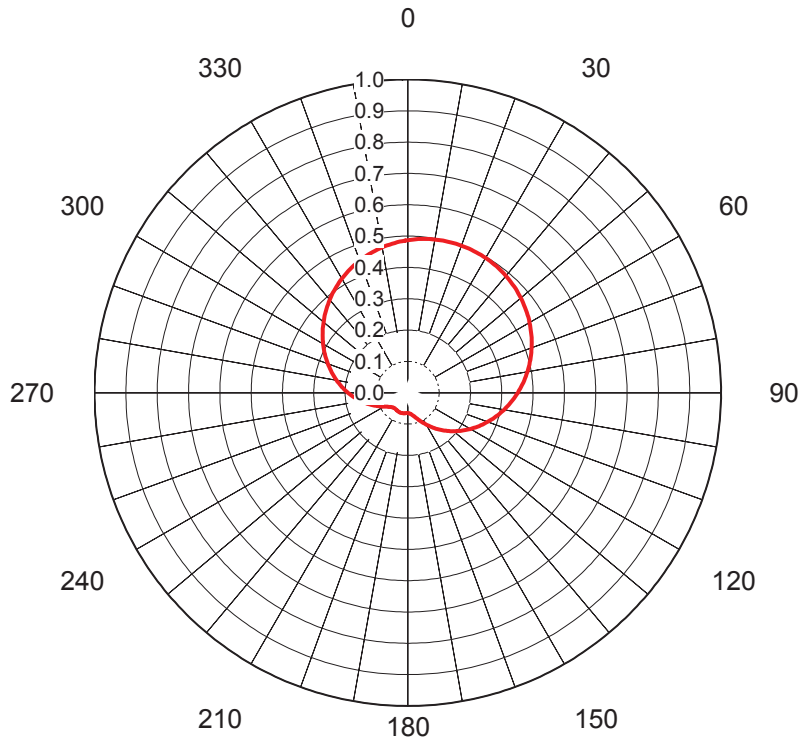
Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.905	36	0.901	72	0.988	108	0.906	144	0.465	180	0.233	216	0.239	252	0.407	288	0.874	324	0.996
1	0.904	37	0.902	73	0.990	109	0.899	145	0.450	181	0.234	217	0.238	253	0.421	289	0.883	325	0.994
2	0.903	38	0.903	74	0.992	110	0.891	146	0.436	182	0.236	218	0.236	254	0.436	290	0.891	326	0.992
3	0.902	39	0.904	75	0.994	111	0.883	147	0.421	183	0.238	219	0.234	255	0.450	291	0.898	327	0.990
4	0.901	40	0.905	76	0.996	112	0.874	148	0.407	184	0.239	220	0.233	256	0.465	292	0.906	328	0.988
5	0.900	41	0.906	77	0.997	113	0.865	149	0.394	185	0.241	221	0.231	257	0.480	293	0.913	329	0.986
6	0.900	42	0.907	78	0.998	114	0.857	150	0.380	186	0.243	222	0.230	258	0.494	294	0.920	330	0.983
7	0.899	43	0.909	79	0.999	115	0.847	151	0.367	187	0.244	223	0.228	259	0.509	295	0.927	331	0.981
8	0.899	44	0.911	80	1.000	116	0.838	152	0.354	188	0.246	224	0.227	260	0.524	296	0.933	332	0.978
9	0.899	45	0.912	81	1.000	117	0.827	153	0.342	189	0.247	225	0.226	261	0.539	297	0.939	333	0.975
10	0.898	46	0.914	82	1.000	118	0.817	154	0.330	190	0.248	226	0.226	262	0.554	298	0.945	334	0.972
11	0.898	47	0.916	83	1.000	119	0.807	155	0.319	191	0.249	227	0.226	263	0.569	299	0.950	335	0.969
12	0.898	48	0.918	84	0.999	120	0.796	156	0.308	192	0.251	228	0.225	264	0.584	300	0.955	336	0.966
13	0.898	49	0.921	85	0.999	121	0.784	157	0.298	193	0.252	229	0.226	265	0.599	301	0.960	337	0.963
14	0.898	50	0.923	86	0.998	122	0.773	158	0.288	194	0.252	230	0.227	266	0.614	302	0.965	338	0.960
15	0.897	51	0.926	87	0.996	123	0.761	159	0.280	195	0.253	231	0.229	267	0.628	303	0.969	339	0.956
16	0.897	52	0.928	88	0.995	124	0.749	160	0.271	196	0.254	232	0.231	268	0.642	304	0.973	340	0.953
17	0.897	53	0.931	89	0.993	125	0.736	161	0.264	197	0.254	233	0.234	269	0.656	305	0.977	341	0.950
18	0.897	54	0.934	90	0.991	126	0.724	162	0.257	198	0.255	234	0.237	270	0.670	306	0.980	342	0.947
19	0.897	55	0.937	91	0.989	127	0.711	163	0.251	199	0.255	235	0.241	271	0.684	307	0.983	343	0.943
20	0.897	56	0.940	92	0.986	128	0.698	164	0.245	200	0.255	236	0.245	272	0.698	308	0.986	344	0.940
21	0.897	57	0.943	93	0.983	129	0.684	165	0.241	201	0.255	237	0.251	273	0.711	309	0.989	345	0.937
22	0.897	58	0.947	94	0.980	130	0.670	166	0.237	202	0.255	238	0.257	274	0.724	310	0.991	346	0.934
23	0.897	59	0.950	95	0.977	131	0.656	167	0.234	203	0.254	239	0.264	275	0.736	311	0.993	347	0.931
24	0.897	60	0.953	96	0.973	132	0.642	168	0.231	204	0.254	240	0.271	276	0.749	312	0.995	348	0.928
25	0.897	61	0.956	97	0.969	133	0.628	169	0.229	205	0.253	241	0.280	277	0.761	313	0.996	349	0.926
26	0.898	62	0.960	98	0.965	134	0.614	170	0.227	206	0.252	242	0.288	278	0.773	314	0.998	350	0.923
27	0.898	63	0.963	99	0.960	135	0.599	171	0.226	207	0.252	243	0.298	279	0.784	315	0.999	351	0.921
28	0.898	64	0.966	100	0.955	136	0.584	172	0.225	208	0.251	244	0.308	280	0.796	316	0.999	352	0.918
29	0.898	65	0.969	101	0.950	137	0.569	173	0.226	209	0.250	245	0.319	281	0.807	317	1.000	353	0.916
30	0.898	66	0.972	102	0.945	138	0.554	174	0.226	210	0.248	246	0.330	282	0.817	318	1.000	354	0.914
31	0.899	67	0.975	103	0.939	139	0.539	175	0.226	211	0.247	247	0.342	283	0.827	319	1.000	355	0.912
32	0.899	68	0.978	104	0.933	140	0.524	176	0.227	212	0.246	248	0.354	284	0.838	320	1.000	356	0.911
33	0.899	69	0.981	105	0.927	141	0.509	177	0.228	213	0.244	249	0.367	285	0.847	321	0.999	357	0.909
34	0.900	70	0.983	106	0.920	142	0.494	178	0.230	214	0.243	250	0.380	286	0.857	322	0.998	358	0.907
35	0.900	71	0.986	107	0.913	143	0.480	179	0.231	215	0.241	251	0.394	287	0.865	323	0.997	359	0.906

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## AZIMUTH PATTERN Vertical Polarization

Proposal No. **C-70042-5**  
 Date **13-Dec-17**  
 Call Letters **KRXI**  
 Channel **23**  
 Frequency **527 MHz**  
 Antenna Type **TFU-20DSC/VP-R C170**  
 Gain **2.49 (3.97dB)**  
**Calculated**



Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.487	36	0.492	72	0.415	108	0.280	144	0.138	180	0.065	216	0.065	252	0.124	288	0.264
1	0.488	37	0.491	73	0.411	109	0.276	145	0.134	181	0.065	217	0.065	253	0.127	289	0.268
2	0.490	38	0.490	74	0.408	110	0.272	146	0.131	182	0.065	218	0.065	254	0.131	290	0.272
3	0.491	39	0.488	75	0.405	111	0.268	147	0.127	183	0.065	219	0.065	255	0.134	291	0.276
4	0.492	40	0.487	76	0.402	112	0.264	148	0.124	184	0.065	220	0.065	256	0.138	292	0.280
5	0.493	41	0.486	77	0.398	113	0.260	149	0.121	185	0.065	221	0.065	257	0.142	293	0.284
6	0.494	42	0.484	78	0.395	114	0.255	150	0.117	186	0.066	222	0.065	258	0.145	294	0.288
7	0.495	43	0.483	79	0.391	115	0.251	151	0.114	187	0.066	223	0.066	259	0.149	295	0.292
8	0.495	44	0.481	80	0.388	116	0.247	152	0.111	188	0.066	224	0.066	260	0.153	296	0.296
9	0.496	45	0.480	81	0.384	117	0.243	153	0.108	189	0.066	225	0.067	261	0.156	297	0.300
10	0.497	46	0.478	82	0.381	118	0.239	154	0.105	190	0.067	226	0.067	262	0.160	298	0.304
11	0.497	47	0.477	83	0.377	119	0.235	155	0.102	191	0.067	227	0.068	263	0.165	299	0.308
12	0.498	48	0.475	84	0.374	120	0.231	156	0.099	192	0.067	228	0.069	264	0.168	300	0.312
13	0.498	49	0.473	85	0.370	121	0.227	157	0.096	193	0.067	229	0.070	265	0.172	301	0.316
14	0.499	50	0.471	86	0.366	122	0.223	158	0.094	194	0.067	230	0.071	266	0.175	302	0.320
15	0.499	51	0.469	87	0.362	123	0.219	159	0.091	195	0.068	231	0.072	267	0.179	303	0.324
16	0.499	52	0.467	88	0.359	124	0.215	160	0.089	196	0.068	232	0.073	268	0.183	304	0.328
17	0.500	53	0.465	89	0.355	125	0.211	161	0.086	197	0.068	233	0.075	269	0.187	305	0.332
18	0.500	54	0.463	90	0.351	126	0.207	162	0.084	198	0.068	234	0.076	270	0.191	306	0.336
19	0.500	55	0.461	91	0.347	127	0.203	163	0.082	199	0.068	235	0.078	271	0.195	307	0.340
20	0.500	56	0.458	92	0.343	128	0.199	164	0.080	200	0.068	236	0.080	272	0.199	308	0.343
21	0.500	57	0.456	93	0.340	129	0.195	165	0.078	201	0.068	237	0.082	273	0.203	309	0.347
22	0.500	58	0.454	94	0.336	130	0.191	166	0.076	202	0.068	238	0.084	274	0.207	310	0.351
23	0.500	59	0.451	95	0.332	131	0.187	167	0.075	203	0.068	239	0.086	275	0.211	311	0.355
24	0.499	60	0.449	96	0.328	132	0.183	168	0.073	204	0.068	240	0.089	276	0.215	312	0.359
25	0.499	61	0.446	97	0.324	133	0.179	169	0.072	205	0.068	241	0.091	277	0.219	313	0.362
26	0.499	62	0.444	98	0.320	134	0.175	170	0.071	206	0.067	242	0.094	278	0.223	314	0.366
27	0.498	63	0.441	99	0.316	135	0.172	171	0.070	207	0.067	243	0.096	279	0.227	315	0.370
28	0.498	64	0.438	100	0.312	136	0.168	172	0.069	208	0.067	244	0.099	280	0.231	316	0.374
29	0.497	65	0.435	101	0.308	137	0.164	173	0.068	209	0.067	245	0.102	281	0.235	317	0.377
30	0.497	66	0.433	102	0.304	138	0.160	174	0.067	210	0.067	246	0.105	282	0.239	318	0.381
31	0.496	67	0.430	103	0.300	139	0.156	175	0.067	211	0.066	247	0.108	283	0.243	319	0.384
32	0.495	68	0.427	104	0.296	140	0.153	176	0.066	212	0.066	248	0.111	284	0.247	320	0.388
33	0.495	69	0.424	105	0.292	141	0.149	177	0.066	213	0.066	249	0.114	285	0.251	321	0.391
34	0.494	70	0.421	106	0.288	142	0.145	178	0.065	214	0.066	250	0.117	286	0.255	322	0.395
35	0.493	71	0.418	107	0.284	143	0.142	179	0.065	215	0.065	251	0.121	287	0.260	323	0.398

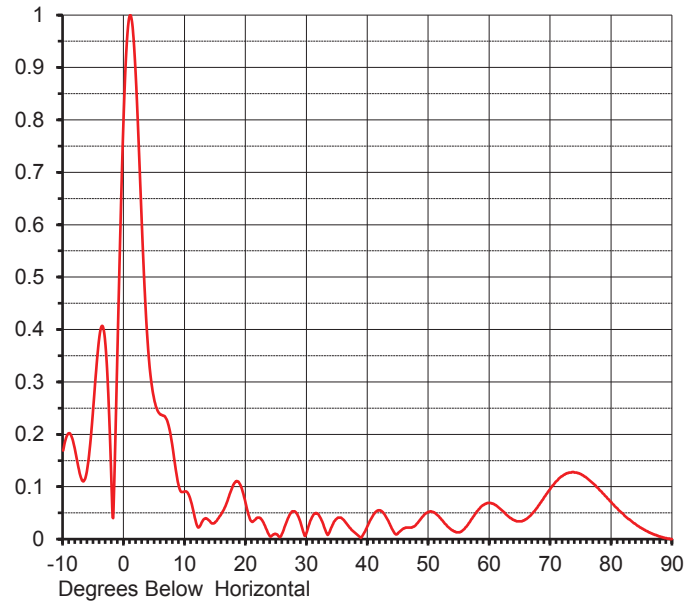
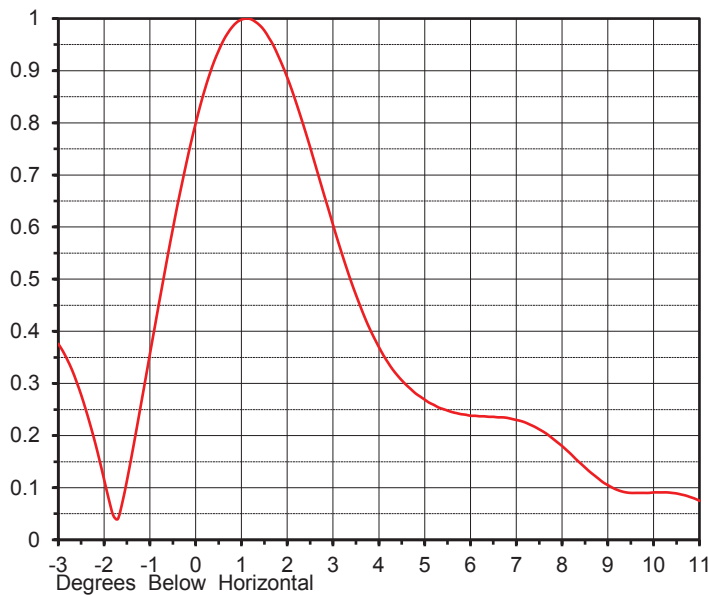
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## ELEVATION PATTERN

Proposal No. **C-70042-5**  
 Date **13-Dec-17**  
 Call Letters **KRXI**  
 Channel **23**  
 Frequency **527 MHz**  
 Antenna Type **TFU-20DSC/VP-R C170**

RMS Directivity at Main Lobe **15.7 ( 11.96 dB )**  
 RMS Directivity at Horizontal **10.0 ( 10.00 dB )**  
**Calculated**

Beam Tilt **1.00 deg**  
 Drawing Number **20Q157100**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.169	10.0	0.091	30.0	0.014	50.0	0.052	70.0	0.097
-9.0	0.202	11.0	0.071	31.0	0.045	51.0	0.050	71.0	0.111
-8.0	0.167	12.0	0.025	32.0	0.045	52.0	0.039	72.0	0.121
-7.0	0.115	13.0	0.037	33.0	0.018	53.0	0.025	73.0	0.127
-6.0	0.138	14.0	0.035	34.0	0.022	54.0	0.016	74.0	0.127
-5.0	0.260	15.0	0.033	35.0	0.040	55.0	0.013	75.0	0.124
-4.0	0.391	16.0	0.049	36.0	0.037	56.0	0.022	76.0	0.116
-3.0	0.362	17.0	0.074	37.0	0.022	57.0	0.038	77.0	0.106
-2.0	0.079	18.0	0.105	38.0	0.011	58.0	0.054	78.0	0.094
-1.0	0.405	19.0	0.105	39.0	0.004	59.0	0.065	79.0	0.082
0.0	0.833	20.0	0.066	40.0	0.026	60.0	0.069	80.0	0.070
1.0	1.000	21.0	0.033	41.0	0.048	61.0	0.065	81.0	0.058
2.0	0.863	22.0	0.041	42.0	0.055	62.0	0.055	82.0	0.047
3.0	0.575	23.0	0.028	43.0	0.042	63.0	0.044	83.0	0.037
4.0	0.354	24.0	0.005	44.0	0.019	64.0	0.036	84.0	0.028
5.0	0.263	25.0	0.009	45.0	0.012	65.0	0.034	85.0	0.020
6.0	0.238	26.0	0.012	46.0	0.021	66.0	0.038	86.0	0.014
7.0	0.228	27.0	0.042	47.0	0.022	67.0	0.049	87.0	0.009
8.0	0.172	28.0	0.053	48.0	0.029	68.0	0.064	88.0	0.005
9.0	0.100	29.0	0.030	49.0	0.043	69.0	0.081	89.0	0.002
								90.0	0.000

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## APPENDIX A

### SUMMARY OF RADIOFREQUENCY RADIATION STUDY

KRXI-TV, Reno, NV  
Channel 23, 400 kW, 854 HAAT  
January, 2019

<u>CALL</u>	<u>SERVICE</u>	<u>CHANNEL</u>	<u>FREQUENCY</u>	<u>POLAR- IZATION</u>	<u>ANTENNA HEIGHT</u>	<u>ERP (kW)</u>	<u>VERT. RELATIVE FIELD FACTOR</u>	<u>WORST-CASE PREDICTED POWER DENSITY (<math>\mu\text{W}/\text{cm}^2</math>)</u>	<u>FCC UNCONTROLLED LIMIT (<math>\mu\text{W}/\text{cm}^2</math>)</u>	<u>PERCENT OF UNCONTROLLED LIMIT</u>
KRXI-TV	DT	23	527	H & V	49.5	400.000	0.200	236.923	351.33	67.44%
<b><i>TOTAL PERCENTAGE OF FCC GUIDELINE VALUE =</i></b>										<b>67.44%</b>



## KRXI-TV - RENO, NEVADA

### Longley-Rice Interference Analysis

### Appendix B

### January 2019

tvstudy v2.2.5 (4uoc83)

Database: localhost, Study: KRXI-TV 23 AP TFU20DSC 190124, Model: Longley-Rice  
Start: 2019.01.24 16:41:09

Study created: 2019.01.24 16:41:09

Study build station data: LMS TV 2019-01-23 #277

Proposal: KRXI-TV D23 DT CP RENO, NV  
File number: KRXI-TV 23 KRXI-TV 23 AP TFU20DSC 190124  
Facility ID: 48360  
Station data: User record  
Record ID: 914  
Country: U.S.  
Zone: II

Search options:

Non-U.S. records included

Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	KTXL	D22	DT	CP	SACRAMENTO, CA	BLANK0000030659	200.2 km
No	KSPX-TV	D22	DT	BL	SACRAMENTO, CA	DTVBL52953	199.9
No	KTFF-DT	D23	DT	LIC	PORTERVILLE, CA	BLANK0000064190	379.3
No	KRDT-CD	D23	DC	CP	REDDING, CA	BLANK0000036140	257.4
No	KRDT-CD	D23	DC	LIC	REDDING, CA	BLDTA20110620AEA	250.1
Yes	KQCA	D23	DT	CP	STOCKTON, CA	BLANK0000034562	199.9
No	KMAX-TV	D24	DT	CP	SACRAMENTO, CA	BLANK0000029627	202.6
No	KMAX-TV	D24	DT	APP	SACRAMENTO, CA	BLANK0000066967	202.6

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D23  
Latitude: 39 35 23.00 N (NAD83)  
Longitude: 119 55 41.00 W  
Height AMSL: 2559.0 m  
HAAT: 854.0 m  
Peak ERP: 400 kW  
Antenna: Dielectric-TFU-20DSC VP-R C170 0.0 deg  
Elev Pattn: Generic  
Elec Tilt: 1.00

39.7 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	328 kW	945.8 m	126.7 km
45.0	334	1021.8	129.5
90.0	393	987.9	130.0
135.0	143	1044.8	121.3
180.0	21.7	760.9	95.2
225.0	21.2	674.2	92.2

# **Appendix B - Interference Analysis** **KRXI-TV - Reno, Nevada** **Channel 23 - 400 kW - Page 2**

270.0            180            503.5           101.4  
315.0            396            891.5           126.9

ERP exceeds maximum

ERP: 400 kW    ERP maximum: 178 kW

Distance to Canadian border: 1002.0 km

Distance to Mexican border: 808.8 km

Conditions at FCC monitoring station: Livermore CA

Bearing: 218.0 degrees    Distance: 260.9 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 82.4 degrees    Distance: 1252.0 km

Study cell size: 2.00 km

Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%

Maximum new IX to LPTV: 2.00%

## ----- Interference to BLANK0000034562 CP scenario 1

Desired:	Call KQCA	Chan D23	Svc DT	Status CP	City, State STOCKTON, CA	File Number BLANK0000034562	Distance		
Undesireds:	KRXI-TV	D23	DT	BL	RENO, NV	DTVBL48360	199.9 km		
	KRXI-TV	D23	DT	CP	RENO, NV	KRXI-TV 23 AP TFU20DSC	199.9		
	KTXL	D22	DT	CP	SACRAMENTO, CA	BLANK0000030659	1.5		
	KAXT-CD	D22	DC	CP	SAN FRANCISCO, SAN JO, CA	BLANK0000034505	91.5		
	KTFF-DT	D23	DT	LIC	PORTERVILLE, CA	BLANK0000064190	321.5		
	KRDT-CD	D23	DC	CP	REDDING, CA	BLANK0000036140	278.3		
	KMAX-TV	D24	DT	CP	SACRAMENTO, CA	BLANK0000029627	2.9		
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX		
47058.2	10,729,433	40429.1	6,973,384	37343.5	6,695,330	37343.5	6,695,330	0.00	0.00
Undesired				Total IX	Unique IX, before		Unique IX, after		
KRXI-TV	D23	DT	BL	15.9	5,038	7.9	5,038		
KRXI-TV	D23	DT	CP	43.8	5,067			7.9	5,038
KTXL	D22	DT	CP	251.6	9,522	155.7	4,710	155.7	4,710
KAXT-CD	D22	DC	CP	298.6	162,021	294.6	161,401	294.6	161,401
KTFF-DT	D23	DT	LIC	1060.0	47,895	1044.1	47,172	1036.1	47,172
KRDT-CD	D23	DC	CP	1319.7	33,783	1287.7	33,576	1267.8	33,547
KMAX-TV	D24	DT	CP	263.7	25,268	183.8	20,725	183.8	20,725

## ----- Interference to BLANK0000034562 CP scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KQCA	D23	DT	CP	STOCKTON, CA	BLANK0000034562	
Undesireds:	KRXI-TV	D23	DT	BL	RENO, NV	DTVBL48360	199.9 km
	KRXI-TV	D23	DT	CP	RENO, NV	KRXI-TV 23 AP TFU20DSC	199.9
	KTXL	D22	DT	CP	SACRAMENTO, CA	BLANK0000030659	1.5
	KAXT-CD	D22	DC	CP	SAN FRANCISCO, SAN JO, CA	BLANK0000034505	91.5
	KTFF-DT	D23	DT	LIC	PORTERVILLE, CA	BLANK0000064190	321.5
	KRDT-CD	D23	DC	LIC	REDDING, CA	BLDTA20110620AEA	279.8
	KMAX-TV	D24	DT	CP	SACRAMENTO, CA	BLANK0000029627	2.9
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
47058.2    10,729,433		40429.1    6,973,384		38491.6    6,728,097		38491.6    6,728,097	0.00    0.00

**Appendix B - Interference Analysis**  
**KRXI-TV - Reno, Nevada**  
**Channel 23 - 400 kW - Page 3**

Undesired		Total IX	Unique IX, before	Unique IX, after
KRXI-TV D23 DT BL	15.9	5,038	11.9	5,038
KRXI-TV D23 DT CP	43.8	5,067		
KTXL D22 DT CP	251.6	9,522	163.7	4,876
KAXT-CD D22 DC CP	298.6	162,021	294.6	161,401
KTFF-DT D23 DT LIC	1060.0	47,895	1044.1	47,172
KRDT-CD D23 DC LIC	147.6	809	139.6	809
KMAX-TV D24 DT CP	263.7	25,268	183.8	20,725

-----  
Interference to BLANK0000034562 CP scenario 3

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KQCA	D23	DT	CP	STOCKTON, CA	BLANK0000034562	
Undesireds:	KRXI-TV	D23	DT	BL	RENO, NV	DTVBL48360	199.9 km
	KRXI-TV	D23	DT	CP	RENO, NV	KRXI-TV 23 AP TFU20DSC	199.9
	KTXL	D22	DT	CP	SACRAMENTO, CA	BLANK0000030659	1.5
	KAXT-CD	D22	DC	CP	SAN FRANCISCO, SAN JO, CA	BLANK0000034505	91.5
	KTFF-DT	D23	DT	LIC	PORTERVILLE, CA	BLANK0000064190	321.5
	KRDT-CD	D23	DC	CP	REDDING, CA	BLANK0000036140	278.3
	KMAX-TV	D24	DT	APP	SACRAMENTO, CA	BLANK0000066967	2.9
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
47058.2 10,729,433		40429.1 6,973,384		37363.3 6,698,946		37363.3 6,698,946	0.00 0.00

Undesired		Total IX	Unique IX, before	Unique IX, after
KRXI-TV D23 DT BL	15.9	5,038	7.9	5,038
KRXI-TV D23 DT CP	43.8	5,067		
KTXL D22 DT CP	251.6	9,522	155.7	4,710
KAXT-CD D22 DC CP	298.6	162,021	294.6	161,401
KTFF-DT D23 DT LIC	1060.0	47,895	1044.1	47,172
KRDT-CD D23 DC CP	1319.7	33,783	1287.7	33,576
KMAX-TV D24 DT APP	243.9	21,652	163.9	17,109

-----  
Interference to BLANK0000034562 CP scenario 4

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KQCA	D23	DT	CP	STOCKTON, CA	BLANK0000034562	
Undesireds:	KRXI-TV	D23	DT	BL	RENO, NV	DTVBL48360	199.9 km
	KRXI-TV	D23	DT	CP	RENO, NV	KRXI-TV 23 AP TFU20DSC	199.9
	KTXL	D22	DT	CP	SACRAMENTO, CA	BLANK0000030659	1.5
	KAXT-CD	D22	DC	CP	SAN FRANCISCO, SAN JO, CA	BLANK0000034505	91.5
	KTFF-DT	D23	DT	LIC	PORTERVILLE, CA	BLANK0000064190	321.5
	KRDT-CD	D23	DC	LIC	REDDING, CA	BLDTA20110620AEA	279.8
	KMAX-TV	D24	DT	APP	SACRAMENTO, CA	BLANK0000066967	2.9
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
47058.2 10,729,433		40429.1 6,973,384		38511.5 6,731,713		38511.5 6,731,713	0.00 0.00

Undesired		Total IX	Unique IX, before	Unique IX, after
KRXI-TV D23 DT BL	15.9	5,038	11.9	5,038
KRXI-TV D23 DT CP	43.8	5,067		
KTXL D22 DT CP	251.6	9,522	163.7	4,876
KAXT-CD D22 DC CP	298.6	162,021	294.6	161,401
KTFF-DT D23 DT LIC	1060.0	47,895	1044.1	47,172
KRDT-CD D23 DC LIC	147.6	809	139.6	809
KMAX-TV D24 DT APP	243.9	21,652	163.9	17,109

-----  
Interference to proposal scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KRXI-TV	D23	DT	CP	RENO, NV	KRXI-TV 23 AP TFU20DSC	



## Appendix B - Interference Analysis

### KRXI-TV - Reno, Nevada

#### Channel 23 - 400 kW - Page 4

Undesireds:	KRDT-CD	D23	DC	CP	REDDING, CA	BLANK0000036140	257.4 km
	KQCA	D23	DT	CP	STOCKTON, CA	BLANK0000034562	199.9

Service area	Terrain-limited	IX-free	Percent IX
42692.2 725,391	27915.3 548,865	27615.2 548,850	1.07 0.00

Undesired	Total IX	Unique IX	Prcnt Unique IX
KRDT-CD D23 DC CP	27.8 0 11.9	0	0.04 0.00
KQCA D23 DT CP	288.1 15 272.2	15	0.98 0.00

#### ----- Interference to proposal scenario 2

Call	Chan	Svc	Status	City, State	File Number	Distance
Desired: KRXI-TV	D23	DT	CP	RENO, NV	KRXI-TV 23 AP TFU20DSC	

Undesireds: KQCA	D23	DT	CP	STOCKTON, CA	BLANK0000034562	199.9 km
------------------	-----	----	----	--------------	-----------------	----------

Service area	Terrain-limited	IX-free	Percent IX
42692.2 725,391	27915.3 548,865	27627.2 548,850	1.03 0.00

Undesired	Total IX	Unique IX	Prcnt Unique IX
KQCA D23 DT CP	288.1 15 288.1	15	1.03 0.00