

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of BLUE BONNET COMMUNICAITONS, INC., permittee of digital Low Power Television Station KVHP-LD, Channel 44 in Jasper, Texas, in support of its application for modification of Construction Permit BMPDTL-20090908AAB to specify a slight increase in effective radiated power and a corresponding decrease in effective antenna height. No change in site location is proposed herein.

It is now proposed to mount the authorized ERI omnidirectional antenna at the 132-meter level of the existing 152-meter communications tower. Exhibit B is a map upon which the new service contours are plotted. Operating parameters for the proposed facility are tabulated in Exhibit C. An interference study is provided in Exhibit D, and a power density calculation follows as Exhibit E.

Because no change in the overall height or location of the existing tower is proposed, the FAA has not been notified of this application. The FCC issued Antenna Structure Registration Number 1053390 to this tower.

I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.

  
KYLE T. FISHER

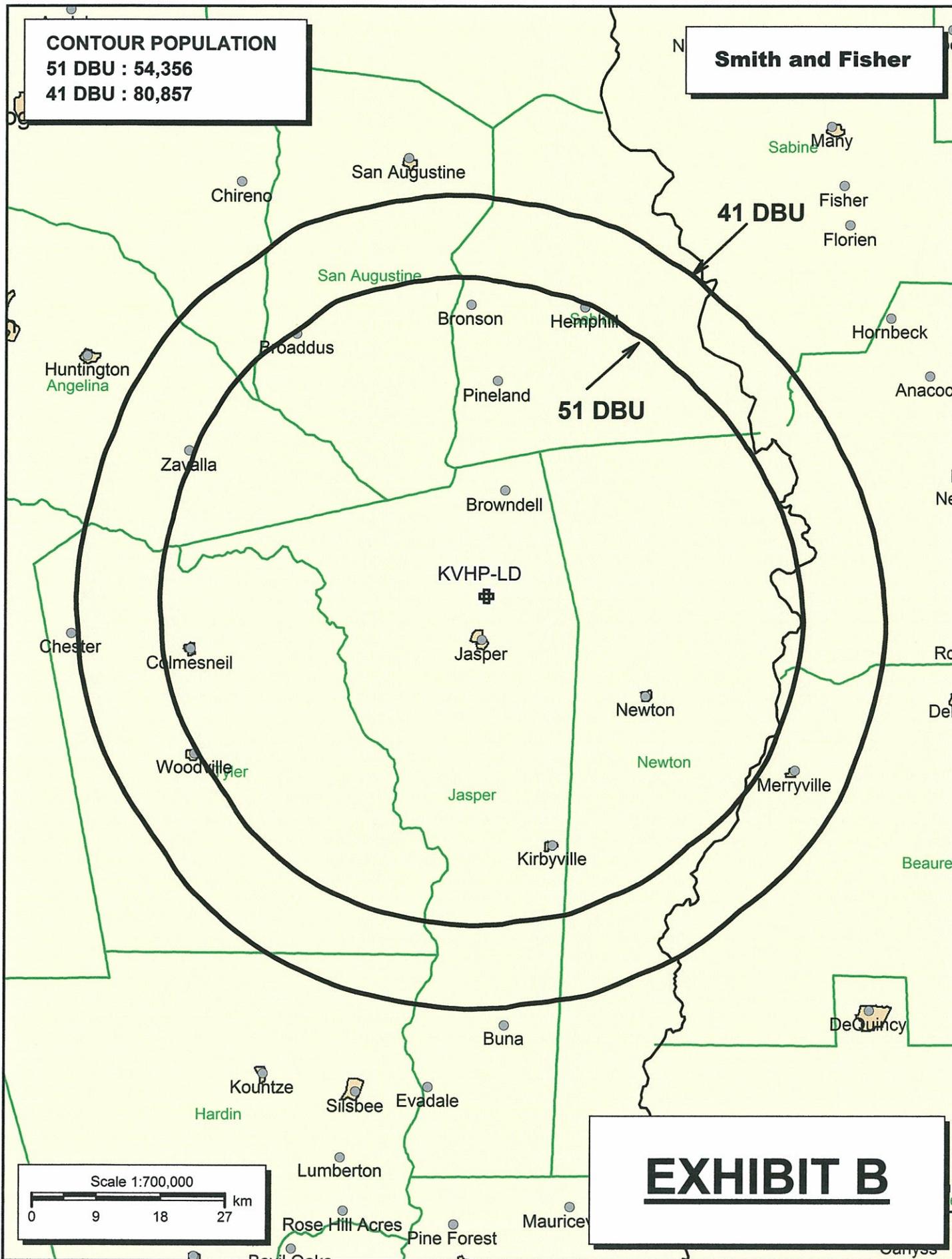
October 20, 2009

**CONTOUR POPULATION**

**51 DBU : 54,356**

**41 DBU : 80,857**

**Smith and Fisher**



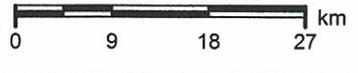
**51 DBU**

**41 DBU**

**KVHP-LD**

**EXHIBIT B**

Scale 1:700,000



PROPOSED OPERATING PARAMETERS

PROPOSED KVHP-LD  
CHANNEL 44 – JASPER, TEXAS

[MODIFICATION OF BMPDTL-20090908AAB]

Transmitter Power Output:	1.0 kw
Transmission Line Efficiency:	55.7%
Antenna Power Gain – Toward Horizon:	14.06
Antenna Power Gain – Main Lobe:	14.06
Effective Radiated Power – Toward Horizon:	7.8 kw
Effective Radiated Power – Main Lobe:	7.8 kw
Transmitter Make and Model:	Type-accepted
Transmission Line Make and Model:	Type accepted
Size and Type:	1-5/8" air heliax
Length:	460 feet*
Antenna Make and Model:	ERI AL8
Orientation	Omnidirectional
Beam Tilt	1.75 degrees
Radiation Center Above Ground:	132 meters
Radiation Center Above Mean Sea Level:	260 meters

\*Estimated

LONGLEY-RICE INTERFERENCE STUDY  
PROPOSED KVHP-LD  
CHANNEL 44 – JASPER, TEXAS  
[MODIFICATION OF BMPDTL-20090908AAB]

We conducted a detailed interference study using the Longley-Rice methodology contained in the Commission's *OET Bulletin No. 69*, with respect to all facilities of concern. The software utilizes a 1-square kilometer cell size, calculates signal strength at 1.0 kilometer increments along each radial studied, and employs the 2000 U.S. Census to count population within cells. In addition, the program does not attribute interference to the proposed facility in cells within the protected contour of the station under study where interference from another source (other than the proposed station) already is predicted to exist (also known as "masking"). The results of this study are provided in Exhibit D-2. It concludes that the facility proposed herein causes no significant new interference to any of the potentially affected stations.

As a result, it is believed that the proposed digital LPTV facility complies with the requirements of Sections 74.709, 74.793(e), 74.793(f), 74.793(g), 74.793(h), 74.794(b) and 73.1030 of the Commission's Rules.

INTERFERENCE SUMMARY

PROPOSED KVHP-LD  
CHANNEL 44 – JASPER, TEXAS  
[MODIFICATION OF BMPDTL-20090908AAB]

<u>Call Sign</u>	<u>Status</u>	<u>City, State</u>	<u>Ch.</u>	<u>Longley-Rice Service Population</u>	<u>Unmasked Interference From Proposed Facility</u>	<u>%</u>
KSHV-DT BLCDT-20060215ACP	Lic.	Shreveport, LA	44	888,059	112	<0.1

POWER DENSITY CALCULATION

PROPOSED KVHP-LD  
CHANNEL 44 – JASPER, TEXAS  
[MODIFICATION OF BMPDTL-20090908AAB]

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Jasper facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 7.8 kw, an antenna radiation center 132 meters above ground, and the vertical pattern of the ERI antenna, maximum power density two meters above ground of  $0.00014 \text{ mw/cm}^2$  is calculated to occur 117 meters from the base of the tower. Since this is less than 0.1 percent of the  $0.43 \text{ mw/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 44 (650-656 MHz), this proposal may be excluded from consideration with respect to public exposure to nonionizing electromagnetic radiation.

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive nonionizing radiation.