

| <div> <div>REFERENCE</div> <div>41 18 36.0 N. 105 27 17.0 W.</div> </div> <div> <div>Uni versi ty Of Wyomi ng</div> <div>KUWL - Drop to 11 meters AGL</div> <div>Average Protected F(50-50)= 18.26 km</div> </div> <div> <div>CH# 211A - 90.1 MHz, Pwr= 0.11 kW, HAAT= 294.0 M, COR= 2699 M</div> <div>DISPLAY DATES</div> <div>DATA 01-08-08</div> <div>SEARCH 01-08-08</div> </div> | | | | | | | | | | | |
|---|---------|---------------|--------------|----------------|----------------------------|---------------------------|--------------------|-------------------|--------------------------------------|-------------------------|------------------|
| CH CITY | CALL | TYPE STATE | ANT STATE | AZI <-- | DI ST FILE # | LAT LNG | PWR(kW) HAAT(M) | INT(km) COR(M) | PRO(km) LICENSEE | *IN* (Overlap in km) | *OUT* (in km) |
| 211A Laramie | KUWL | CP WY | _CX | 0.0 0.0 | 0.00 BPED19980826MK | 41 18 36.0 105 27 17.0 | 0.090 314 | 47.7 2718 | 14.5 University Of Wyoming | -62.24*< | -62.11*< |
| 209C0 Lovel and | KXWA | CP CO | _EX | 172.1 352.2 | 77.64 BPED20050816ABA | 40 37 03.0 105 19 40.0 | 80.000 372 | 11.3 2561 | 80.4 Way-fm Media Group, Inc. | 56.21 | -3.49**< |
| 212C2 Orchard Valley | KWYC | CP WY | _CX | 96.7 277.3 | 84.99 BPED20070502ADU | 41 13 01.0 104 26 53.0 | 34.000 130 | 63.3 1848 | 40.7 Calvary Chapel Of Twin Fal | 3.84 | 17.71 |
| 212C2 Cheyenne | KWYC | APP WY | _CX | 96.7 277.3 | 84.99 BMPED20070808ACK | 41 13 01.0 104 26 53.0 | 34.000 130 | 63.3 1848 | 40.7 Csn International | 3.84 | 17.71 |
| 209C1 Lovel and | KXWA | LIC CO | _EX | 172.1 352.2 | 77.64 BLED20050510ADD | 40 37 03.0 105 19 40.0 | 36.000 372 | 8.9 2561 | 71.8 Way-fm Media Group, Inc. | 58.65 | 5.13 |
| 211C1 Denver | KVOD | CP CO | DCX | 173.6 353.8 | 182.82 BPED20030728AFL | 39 40 25.0 105 13 01.0 | 44.000 342 | 162.9 2363 | 71.9 Public Broadcasting Of Col | 10.03 | 77.74 |
| 212C2 Orchard Valley | KWYC | LIC WY | _CX | 96.7 277.3 | 84.99 BLED20050825AFD | 41 13 01.0 104 26 53.0 | 20.000 130 | 56.6 1848 | 36.5 Calvary Chapel Of Twin Fal | 10.51 | 21.94 |
| 211C1 Denver | KVOD | LIC CO | _CY | 174.3 354.4 | 176.28 BLED19851115KB | 39 43 49.0 105 14 59.0 | 50.000 277 | 155.8 2333 | 66.0 Public Broadcasting Of Col | 10.54 | 76.79 |
| 264C1 Cheyenne | KOLZ | LIC WY | _CY | 121.7 302.0 | 44.23 BLH19790806A0 | 41 06 01.0 105 00 23.0 | 100.000 149 | 2.0 2155 | 12.5 Citicasters Li censes, L. p. | 21.5R | 22.7M |
| 264C1 Cheyenne | KOLZ | APP WY | NCX | 121.5 301.8 | 55.49 BPH20071030ACB | 41 02 55.0 104 53 28.0 | 100.000 202 | 2.0 2103 | 12.5 Citicasters Li censes, L. p. | 21.5R | 34.0M |
| 211C2 Hayden | KHCO | LIC CO | _VX | 229.2 48.4 | 145.08 BLED20050819AEB | 40 27 04.0 106 45 06.0 | 1.900 518 | 84.5 3136 | 29.9 Educational Media Foundati | 38.81 | 46.23 |
| 211C2 Hayden | KHCO | CP CO | _VX | 229.2 48.4 | 145.08 BPED20060926ALE | 40 27 04.0 106 45 06.0 | 1.800 522 | 84.3 3140 | 29.8 Educational Media Foundati | 39.06 | 46.32 |
| 211C2 Lingle | AP5621 | APP WY | DCX | 62.4 243.4 | 148.84 BNPED20071022BPT | 41 55 06.0 103 51 49.0 | 94.000 98 | 76.6 1359 | 24.2 Calvary Iowa Ci ty | 53.89 | 66.50 |
| 212C Casper | KCSP-FM | LIC WY | _CN | 336.4 155.8 | 173.79 BLED19921013KA | 42 44 24.0 106 18 23.0 | 100.000 587 | 97.2 2554 | 65.8 Western Inspi rational Broa | 57.01 | 78.87 |
| 06-2E Denver | KRMATV | LI CO | _HY | 174.3 354.4 | 176.27 BLET19950504KE | 39 43 49.0 105 15 00.0 | 100.000 292 | | 105.2 Rocky Mountain Publi c Broa | 111.8R | 64.5M |
| 06-2E Denver | KRMATV | CP CO | DCY | 173.6 353.8 | 182.82 BPET19990107KE | 39 40 25.0 105 13 01.0 | 100.000 342 | | 111.0 Rocky Mountain Publi c Broa | 117.4R | 65.4M |
| 06+2E Casper | KPTW | CP WY | DHN | 335.1 154.5 | 175.68 BPET19960624KT | 42 44 26.0 106 21 34.0 | 0.331 536 | | 20.2 Central Wyoming College | 33.0R | 142.6M |

Terrain database is USGS 03 SEC Distance + R = 73.215 or FCC Spacings in KM, Distance + M = Margin in KM
 Contour distances are on direct line to and from reference station. Reference zone = 2
 Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
 "*"affixed to 'IN' or 'OUT' values = site inside protected contour.
 "<" = Contour Overlap

** Special operating condition #6 of construction permit BPED-20050816ABA allows KUWL to make modifications to its facility without regard to outgoing overlap with KXWA. See page 3-6 of this exhibit.

HOW TO READ THE FM COMPUTER PRINT-OUT

The computer printout should be self-explanatory for the most part. The parameters of the station being checked, (reference station) are printed in the heading. The 60 dBu protected contour is predicted from the Commission's F(50-50) table, while the 40, 54, 80 and 100 dBu contours are interference contours derived from the Commission's F(50-10) table. Contour distances are in kilometers and are predicted using the Commission's TVFMINT FORTRAN subroutine. When interference contour distances are less than 16 kilometers the F(50-50) tables are used. If signal contour distances are less than 1.6 km the free-space equation is used.

The column listed "*** IN ***" is the sum of the reference station's 60 dBu protected contour and the data file station's interference contour subtracted from the distance between the stations. (All distances are derived by the method detailed in Sec. 73.208 of the Rules and Regulations as amended in Docket 80-90.) Therefore, the column is a measure of incoming interference. Negative distances in this column indicate the presence of contour overlap. Listed antenna heights and power are the specific antenna heights and the DA power, if applicable, along the straight line azimuths between the reference station and the database station are used and visa versa. The column labeled "*** OUT ***" shows the distance in kilometers of overlap or clearance between the reference station's interference contour and the database station's protected contour. Negative distance figures in this column indicate outgoing contour overlap.

Under the "AZIMUTH" column, the first row of numbers indicate the True North bearings from the reference station toward the database stations, while the numbers in the second row indicate the reverse bearings from the database stations to the reference station.

The columns labeled "INT" and "PRO" contain the distance in kilometers of the appropriate interference contour and the protected contour of a data base station.

For I.F. relationships and relationships with commercial channel stations the minimum spacings the "IN" and "OUT" columns change their significance. The letter "R" stands for the minimum **required** distance in kilometers, while the letter "M" in the next column follows the **available clear space** separation in kilometers. Minimum separation distances when displayed are taken from Sec 73.207 of the rules as amended. Canadian and Mexican separation distances, U/D ratios and protected contour values are from the US/Mexican Working Agreement and the US/Canada Working Agreement".

The call letters of stations meeting the minimum separation distances will be flagged by the characters "<<" appended to the end of the call letters. The "^" character appended to the call letters means the station has been "max-classed" according to the provisions of section 73.525 of the Rules.

The first three letters of the "TYPE" column identify the current FCC status of the stations. The fourth letter will be a "D" if the facility is directional. "Z" indicates a 73.215 directional. An "N" indicates it is a 73.215 station that operates with an omni-directional antenna. The fifth letter will be an E, H or V depending on the type of antenna polarization. The sixth letter will be a "Y" if the antenna uses beam tilt or an "X" if the commission is not sure, otherwise it will be an "N" or left blank.

United States of America
FEDERAL COMMUNICATIONS COMMISSION
FM BROADCAST STATION CONSTRUCTION PERMIT

Authorizing Official:

Official Mailing Address:

WAY-FM MEDIA GROUP, INC.
P.O. BOX 64500
COLORADO SPRINGS CO 80962

Rodolfo F. Bonacci
Assistant Chief
Audio Division
Media Bureau

Facility ID: 89401

Grant Date: December 20, 2005

Call Sign: KXWA

The authority granted herein has no effect on the expiration date of the underlying construction permit.

Permit File Number: BPED-20050816ABA

Subject to the provisions of the Communications Act of 1934, as amended, subsequent acts and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions set forth in this permit, the permittee is hereby authorized to construct the radio transmitting apparatus herein described. Installation and adjustment of equipment not specifically set forth herein shall be in accordance with representations contained in the permittee's application for construction permit except for such modifications as are presently permitted, without application, by the Commission's Rules.

Commission rules which became effective on February 16, 1999, have a bearing on this construction permit. See Report & Order, Streamlining of Mass Media Applications, MM Docket No. 98-43, 13 FCC RCD 23056, Para. 77-90 (November 25, 1998); 63 Fed. Reg. 70039 (December 18, 1998). Pursuant to these rules, this construction permit will be subject to automatic forfeiture unless construction is complete and an application for license to cover is filed prior to expiration. See Section 73.3598.

Equipment and program tests shall be conducted only pursuant to Sections 73.1610 and 73.1620 of the Commission's Rules.

Name of Permittee: WAY-FM MEDIA GROUP, INC.

Station Location: CO-LOVELAND

Frequency (MHz): 89.7

Channel: 209

Class: C0

Hours of Operation: Unlimited

Transmitter: Type Accepted. See Sections 73.1660, 73.1665 and 73.1670 of the Commission's Rules.

Transmitter output power: As required to achieve authorized ERP.

Antenna type: Non-Directional

Antenna Coordinates: North Latitude: 40 deg 37 min 03 sec

West Longitude: 105 deg 19 min 40 sec

| | Horizontally Polarized Antenna | Vertically Polarized Antenna |
|--|--------------------------------------|------------------------------------|
| Effective radiated power in the Horizontal Plane (kW): | .100 | 80 |
| Height of radiation center above ground (Meters): | 37 | 37 |
| Height of radiation center above mean sea level (Meters): | 2561 | 2561 |
| Height of radiation center above average terrain (Meters): | 372 | 372 |

Antenna structure registration number: Not Required

Overall height of antenna structure above ground: 43 Meters

Obstruction marking and lighting specifications for antenna structure:

It is to be expressly understood that the issuance of these specifications is in no way to be considered as precluding additional or modified marking or lighting as may hereafter be required under the provisions of Section 303(q) of the Communications Act of 1934, as amended.

None Required

Special operating conditions or restrictions:

- 1 Grant of, or future modification of, the facility applied for in application BPED-19980625MB to operate on Channel 207A serving Laramie, Wyoming (Facility ID# 91038) will not be construed as a per se modification of KXWA's construction permit (BPED-20050816ABA). (See Educational Information Corporation, 6 FCC Rcd. 2207 (1991)).
- 2 Grant of, or future modification of, the facility applied for in application BPED-19990601MG to operate on Channel 207A serving Laramie, Wyoming (Facility ID# 93647) will not be construed as a per se modification of KXWA's construction permit (BPED-20050816ABA). (See Educational Information Corporation, 6 FCC Rcd. 2207 (1991)).
- 3 Grant of, or future modification of, the facility applied for in application BPED-19980407MD to operate on Channel 211A serving Laramie, Wyoming (Facility ID# 90454) will not be construed as a per se modification of KXWA's construction permit (BPED-20050816ABA). (See Educational Information Corporation, 6 FCC Rcd. 2207 (1991)).

Special operating conditions or restrictions:

- 4 Grant of, or future modification of, the facility applied for in application BPED-19980825MD to operate on Channel 211A serving Laramie, Wyoming (Facility ID# 91512) will not be construed as a per se modification of KXWA's construction permit (BPED-20050816ABA). (See Educational Information Corporation, 6 FCC Rcd. 2207 (1991)).
- 5 Grant of, or future modification of, the facility applied for in application BPED-19980825ME to operate on Channel 211C3 serving Laramie, Wyoming (Facility ID# 91511) will not be construed as a per se modification of KXWA's construction permit (BPED-20050816ABA). (See Educational Information Corporation, 6 FCC Rcd. 2207 (1991)).
- 6 Grant of, or future modification of, the facility applied for in application BPED-19980826MK to operate on Channel 211A serving Laramie, Wyoming (Facility ID# 91563) will not be construed as a per se modification of KXWA's construction permit (BPED-20050816ABA). (See Educational Information Corporation, 6 FCC Rcd. 2207 (1991)).
- 7 Before equipment tests with the facilities authorized herein are begun permittee/licensee shall contact the Radio Frequency Management Office of the National Oceanographic and Atmospheric Administration's Environmental Research Laboratories in Boulder, Colorado, at the address specified in Section 73.1030(b)(2) of the Commission's Rules. Permittee/licensee will agree with the staff of the Radio Frequency Management Office upon a suitable measurement procedure for determining the field strength of the signal radiated by the permittee's/licensee's authorized facilities at the coordinates of the Table Mountain Radio Receiving Zone specified in Section 73.1030(b) of the Commission's Rules. After reaching an agreement on a suitable procedure, permittee will begin equipment tests with the facilities authorized herein, will implement the agreed-upon procedure, and will make sufficient measurements to establish that the field strength of the signal radiated by the permittee's/licensee's authorized facilities at the specified Table Mountain Radio Receiving Zone coordinates does not exceed 10 mV/m or 80 dBu. In the event that the measured field strength at the specified Table Mountain Radio Receiving Zone coordinates resulting from the operation of the permittee's/licensee's authorized facilities exceeds 10 mV/m or 80 dBu, program tests will not be undertaken by the permittee/licensee. The permittee/licensee will instead submit an application for modification of this construction permit specifying a means acceptable to the Radio Frequency Management Office of the National Oceanographic and Atmospheric Administration's Environmental Research Laboratories to reduce the field strength at the specified Table Mountain Radio Receiving Zone coordinates resulting from the operation of the permittee's/licensee's authorized facilities to a level not exceeding 10 mV/m or 80 dBu. The permittee/licensee will serve a copy of the application for license (FCC Form 302-FM and associated exhibits on the Radio Frequency Management Office at the address specified in Section 73.1030(b)(2) of the Commission's Rules on or before the date the application is tendered at the Commission's Office in Washington, D.C.. Grant of the license will occur only with the concurrence of the National Oceanographic and Atmospheric Administration's Environmental Research Laboratories as to the adequacy of the protection afforded to the Table Mountain Radio Receiving Zone by the permittee's/licensee's authorized facilities.

Special operating conditions or restrictions:

- 8 The permittee/licensee shall, upon completion of construction and during the equipment test period, make proper radiofrequency electromagnetic (RF) field strength measurements throughout the transmitter site area to determine if there are any areas that exceed the FCC guidelines for human exposure to RF fields. If necessary, a fence must be erected at such distances and in such a manner as to prevent the exposure of humans to RF fields in excess of the FCC Guidelines (OET Bulletin No. 65, Edition 97-01, August 1997). The fence must be a type which will preclude casual or inadvertent access, and must include warning signs at appropriate intervals which describe the nature of the hazard. Any areas within the fence found to exceed the recommended guidelines must be clearly marked with appropriate visual warning signs.

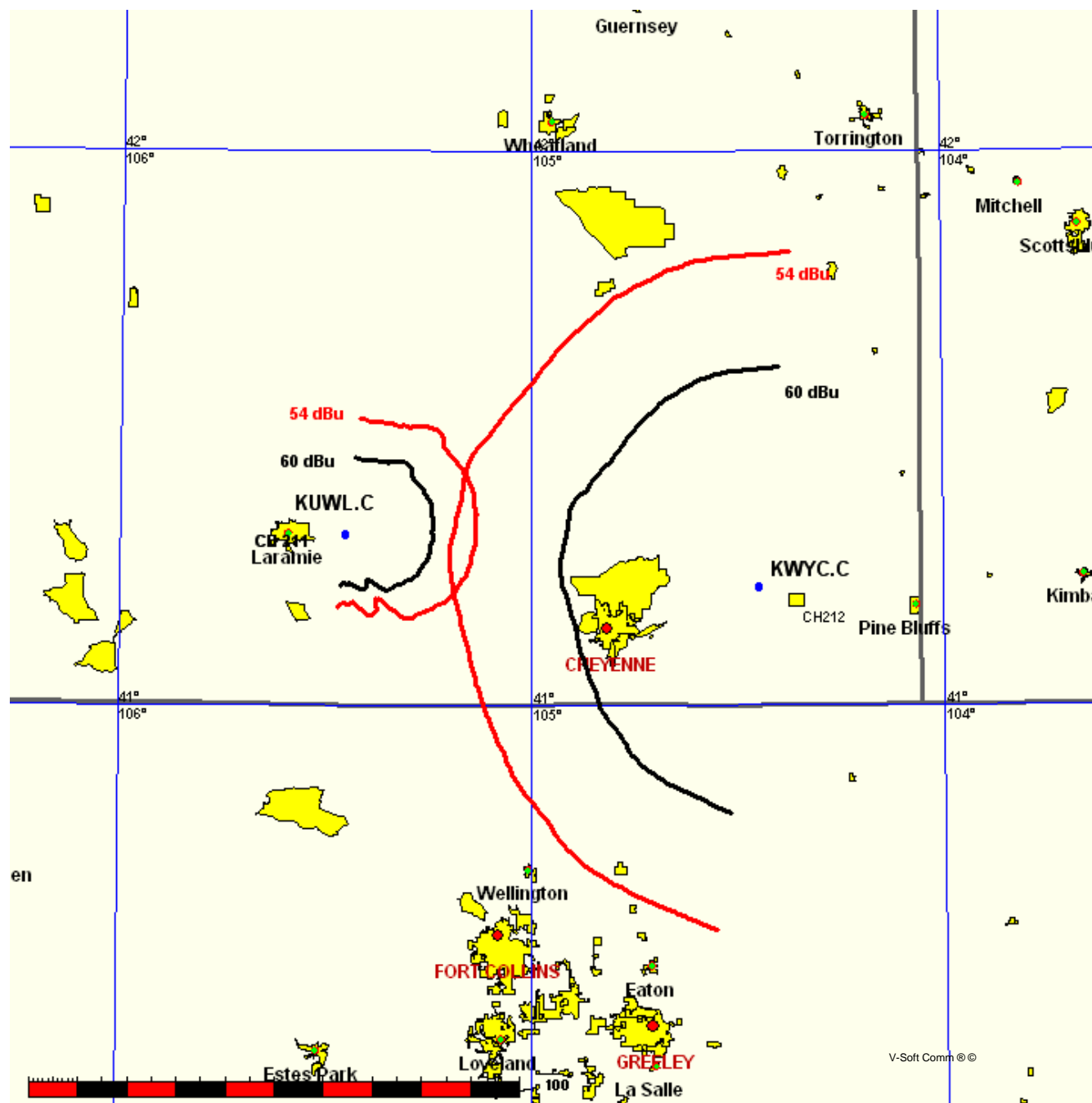
Shively (EPA Type 6), six sections, 0.5 wavelength spacing

- 9 The permittee/licensee in coordination with other users of the site must reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic fields in excess of FCC guidelines.

*** END OF AUTHORIZATION ***

KUWL.C CH 211 A
0.11 kW 2699 M COR
Prot. = 60 dBu
Intef. = 54 dBu

KWYC-C CH 212 C2 BPED20070502ADU
34.0 kW, 1848 M COR
Prot. = 60 dBu
Intef. = 54 dBu



01-08-2008

USGS 03 SEC Terrain Data

FMOver Analysis

KUWL.C

Channel = 211A

Max ERP = 0.11 kW

RCAMSL = 2699 M

N. Lat. 41 18 36.0

W. Lng. 105 27 17.0

Protected

60 dBu

KWYC-C

BPED20070502ADU

Channel = 212C2

Max ERP = 34 kW

RCAMSL = 1848 M

N. Lat. 41 13 01.0

W. Lng. 104 26 53.0

Interfering

54 dBu

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 037.0 | 000.1100 | 0292.5 | 018.2 | 289.1 | 034.0000 | 0096.8 | 077.4 | 49.95 |
| 038.0 | 000.1100 | 0299.1 | 018.4 | 289.2 | 034.0000 | 0096.9 | 077.0 | 50.06 |
| 039.0 | 000.1100 | 0304.2 | 018.6 | 289.2 | 034.0000 | 0096.9 | 076.7 | 50.16 |
| 040.0 | 000.1100 | 0308.5 | 018.7 | 289.2 | 034.0000 | 0096.9 | 076.3 | 50.26 |
| 041.0 | 000.1100 | 0313.0 | 018.9 | 289.2 | 034.0000 | 0096.9 | 076.0 | 50.36 |
| 042.0 | 000.1100 | 0315.9 | 018.9 | 289.2 | 034.0000 | 0096.9 | 075.6 | 50.45 |
| 043.0 | 000.1100 | 0316.7 | 019.0 | 289.1 | 034.0000 | 0096.8 | 075.3 | 50.54 |
| 044.0 | 000.1100 | 0317.4 | 019.0 | 289.0 | 034.0000 | 0096.7 | 075.0 | 50.62 |
| 045.0 | 000.1100 | 0316.7 | 019.0 | 288.9 | 034.0000 | 0096.6 | 074.7 | 50.70 |
| 046.0 | 000.1100 | 0313.5 | 018.9 | 288.7 | 034.0000 | 0096.4 | 074.5 | 50.76 |
| 047.0 | 000.1100 | 0305.5 | 018.6 | 288.4 | 034.0000 | 0096.2 | 074.3 | 50.79 |
| 048.0 | 000.1100 | 0298.0 | 018.4 | 288.1 | 034.0000 | 0096.0 | 074.2 | 50.83 |
| 049.0 | 000.1100 | 0290.6 | 018.2 | 287.8 | 034.0000 | 0095.7 | 074.0 | 50.86 |
| 050.0 | 000.1100 | 0287.6 | 018.1 | 287.6 | 034.0000 | 0095.5 | 073.8 | 50.91 |
| 051.0 | 000.1100 | 0287.8 | 018.1 | 287.5 | 034.0000 | 0095.4 | 073.5 | 50.98 |
| 052.0 | 000.1100 | 0284.4 | 017.9 | 287.3 | 034.0000 | 0095.3 | 073.3 | 51.02 |
| 053.0 | 000.1100 | 0282.4 | 017.9 | 287.1 | 034.0000 | 0095.1 | 073.1 | 51.08 |
| 054.0 | 000.1100 | 0284.9 | 018.0 | 287.0 | 034.0000 | 0095.0 | 072.8 | 51.16 |
| 055.0 | 000.1100 | 0286.7 | 018.0 | 286.9 | 034.0000 | 0094.9 | 072.5 | 51.23 |
| 056.0 | 000.1100 | 0287.1 | 018.0 | 286.7 | 034.0000 | 0094.8 | 072.3 | 51.30 |
| 057.0 | 000.1100 | 0289.8 | 018.1 | 286.6 | 034.0000 | 0094.7 | 072.0 | 51.38 |
| 058.0 | 000.1100 | 0292.4 | 018.2 | 286.5 | 034.0000 | 0094.6 | 071.7 | 51.45 |
| 059.0 | 000.1100 | 0295.0 | 018.3 | 286.4 | 034.0000 | 0094.5 | 071.4 | 51.53 |
| 060.0 | 000.1100 | 0297.3 | 018.4 | 286.3 | 034.0000 | 0094.4 | 071.1 | 51.61 |
| 061.0 | 000.1100 | 0298.9 | 018.4 | 286.1 | 034.0000 | 0094.3 | 070.9 | 51.68 |
| 062.0 | 000.1100 | 0297.8 | 018.4 | 285.9 | 034.0000 | 0094.2 | 070.7 | 51.73 |
| 063.0 | 000.1100 | 0295.1 | 018.3 | 285.7 | 034.0000 | 0094.0 | 070.5 | 51.77 |
| 064.0 | 000.1100 | 0296.9 | 018.4 | 285.5 | 034.0000 | 0094.0 | 070.3 | 51.83 |
| 065.0 | 000.1100 | 0301.5 | 018.5 | 285.4 | 034.0000 | 0093.9 | 069.9 | 51.92 |
| 066.0 | 000.1100 | 0301.5 | 018.5 | 285.2 | 034.0000 | 0093.9 | 069.7 | 51.98 |
| 067.0 | 000.1100 | 0300.4 | 018.5 | 284.9 | 034.0000 | 0093.8 | 069.6 | 52.03 |
| 068.0 | 000.1100 | 0303.0 | 018.6 | 284.8 | 034.0000 | 0093.8 | 069.3 | 52.10 |
| 069.0 | 000.1100 | 0303.9 | 018.6 | 284.6 | 034.0000 | 0093.8 | 069.1 | 52.16 |
| 070.0 | 000.1100 | 0303.8 | 018.6 | 284.3 | 034.0000 | 0093.8 | 068.9 | 52.22 |
| 071.0 | 000.1100 | 0303.6 | 018.6 | 284.1 | 034.0000 | 0093.8 | 068.7 | 52.27 |
| 072.0 | 000.1100 | 0302.6 | 018.5 | 283.9 | 034.0000 | 0093.8 | 068.6 | 52.31 |
| 073.0 | 000.1100 | 0301.7 | 018.5 | 283.6 | 034.0000 | 0093.8 | 068.5 | 52.35 |

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 074.0 | 000.1100 | 0300.5 | 018.5 | 283.4 | 034.0000 | 0093.8 | 068.3 | 52.39 |
| 075.0 | 000.1100 | 0299.0 | 018.4 | 283.1 | 034.0000 | 0093.9 | 068.2 | 52.42 |
| 076.0 | 000.1100 | 0296.8 | 018.4 | 282.8 | 034.0000 | 0093.9 | 068.1 | 52.45 |
| 077.0 | 000.1100 | 0293.7 | 018.3 | 282.6 | 034.0000 | 0093.9 | 068.1 | 52.46 |
| 078.0 | 000.1100 | 0292.1 | 018.2 | 282.3 | 034.0000 | 0094.0 | 068.0 | 52.49 |
| 079.0 | 000.1100 | 0292.6 | 018.2 | 282.0 | 034.0000 | 0094.0 | 067.9 | 52.53 |
| 080.0 | 000.1100 | 0294.0 | 018.3 | 281.8 | 034.0000 | 0094.1 | 067.7 | 52.58 |
| 081.0 | 000.1100 | 0294.5 | 018.3 | 281.6 | 034.0000 | 0094.1 | 067.6 | 52.62 |
| 082.0 | 000.1100 | 0293.9 | 018.3 | 281.3 | 034.0000 | 0094.1 | 067.5 | 52.65 |
| 083.0 | 000.1100 | 0288.9 | 018.1 | 281.0 | 034.0000 | 0094.2 | 067.6 | 52.64 |
| 084.0 | 000.1100 | 0287.3 | 018.0 | 280.7 | 034.0000 | 0094.2 | 067.5 | 52.65 |
| 085.0 | 000.1100 | 0286.4 | 018.0 | 280.5 | 034.0000 | 0094.3 | 067.5 | 52.67 |
| 086.0 | 000.1100 | 0285.4 | 018.0 | 280.2 | 034.0000 | 0094.3 | 067.4 | 52.69 |
| 087.0 | 000.1100 | 0283.4 | 017.9 | 279.9 | 034.0000 | 0094.4 | 067.4 | 52.69 |
| 088.0 | 000.1100 | 0281.8 | 017.9 | 279.7 | 034.0000 | 0094.5 | 067.4 | 52.70 |
| 089.0 | 000.1100 | 0281.2 | 017.8 | 279.4 | 034.0000 | 0094.6 | 067.4 | 52.72 |
| 090.0 | 000.1100 | 0282.7 | 017.9 | 279.1 | 034.0000 | 0094.7 | 067.3 | 52.75 |
| 091.0 | 000.1100 | 0285.0 | 018.0 | 278.9 | 034.0000 | 0094.8 | 067.1 | 52.79 |
| 092.0 | 000.1100 | 0286.2 | 018.0 | 278.6 | 034.0000 | 0094.9 | 067.1 | 52.82 |
| 093.0 | 000.1100 | 0287.4 | 018.0 | 278.3 | 034.0000 | 0095.0 | 067.0 | 52.85 |
| 094.0 | 000.1100 | 0288.3 | 018.1 | 278.1 | 034.0000 | 0095.1 | 067.0 | 52.87 |
| 095.0 | 000.1100 | 0286.0 | 018.0 | 277.8 | 034.0000 | 0095.2 | 067.0 | 52.86 |
| 096.0 | 000.1100 | 0283.8 | 017.9 | 277.5 | 034.0000 | 0095.2 | 067.1 | 52.84 |
| 097.0 | 000.1100 | 0281.3 | 017.8 | 277.3 | 034.0000 | 0095.3 | 067.2 | 52.82 |
| 098.0 | 000.1100 | 0277.0 | 017.7 | 277.0 | 034.0000 | 0095.4 | 067.3 | 52.78 |
| 099.0 | 000.1100 | 0275.0 | 017.6 | 276.7 | 034.0000 | 0095.4 | 067.4 | 52.76 |
| 100.0 | 000.1100 | 0275.0 | 017.6 | 276.5 | 034.0000 | 0095.5 | 067.4 | 52.76 |
| 101.0 | 000.1100 | 0275.7 | 017.7 | 276.2 | 034.0000 | 0095.5 | 067.4 | 52.76 |
| 102.0 | 000.1100 | 0276.3 | 017.7 | 276.0 | 034.0000 | 0095.4 | 067.4 | 52.75 |
| 103.0 | 000.1100 | 0276.7 | 017.7 | 275.7 | 034.0000 | 0095.3 | 067.4 | 52.74 |
| 104.0 | 000.1100 | 0277.0 | 017.7 | 275.4 | 034.0000 | 0095.2 | 067.5 | 52.72 |
| 105.0 | 000.1100 | 0276.8 | 017.7 | 275.2 | 034.0000 | 0095.0 | 067.5 | 52.69 |
| 106.0 | 000.1100 | 0276.1 | 017.7 | 274.9 | 034.0000 | 0094.9 | 067.6 | 52.66 |
| 107.0 | 000.1100 | 0274.7 | 017.6 | 274.7 | 034.0000 | 0094.8 | 067.7 | 52.62 |
| 108.0 | 000.1100 | 0273.4 | 017.6 | 274.4 | 034.0000 | 0094.7 | 067.9 | 52.58 |
| 109.0 | 000.1100 | 0271.6 | 017.5 | 274.2 | 034.0000 | 0094.5 | 068.0 | 52.53 |
| 110.0 | 000.1100 | 0266.6 | 017.3 | 274.0 | 034.0000 | 0094.4 | 068.2 | 52.45 |
| 111.0 | 000.1100 | 0263.3 | 017.2 | 273.8 | 034.0000 | 0094.3 | 068.4 | 52.38 |
| 112.0 | 000.1100 | 0261.8 | 017.2 | 273.5 | 034.0000 | 0094.2 | 068.6 | 52.33 |
| 113.0 | 000.1100 | 0260.2 | 017.1 | 273.3 | 034.0000 | 0094.0 | 068.7 | 52.28 |
| 114.0 | 000.1100 | 0258.2 | 017.0 | 273.1 | 034.0000 | 0093.9 | 068.9 | 52.22 |
| 115.0 | 000.1100 | 0257.3 | 017.0 | 272.9 | 034.0000 | 0093.8 | 069.1 | 52.17 |
| 116.0 | 000.1100 | 0256.7 | 017.0 | 272.7 | 034.0000 | 0093.6 | 069.2 | 52.12 |
| 117.0 | 000.1100 | 0256.0 | 017.0 | 272.5 | 034.0000 | 0093.5 | 069.3 | 52.07 |
| 118.0 | 000.1100 | 0254.7 | 016.9 | 272.3 | 034.0000 | 0093.3 | 069.5 | 52.02 |
| 119.0 | 000.1100 | 0254.4 | 016.9 | 272.0 | 034.0000 | 0093.1 | 069.7 | 51.96 |
| 120.0 | 000.1100 | 0252.6 | 016.8 | 271.9 | 034.0000 | 0093.0 | 069.8 | 51.90 |
| 121.0 | 000.1100 | 0248.6 | 016.7 | 271.7 | 034.0000 | 0092.9 | 070.1 | 51.81 |
| 122.0 | 000.1100 | 0245.6 | 016.6 | 271.5 | 034.0000 | 0092.7 | 070.4 | 51.73 |
| 123.0 | 000.1100 | 0243.6 | 016.5 | 271.4 | 034.0000 | 0092.6 | 070.6 | 51.66 |
| 124.0 | 000.1100 | 0239.0 | 016.3 | 271.2 | 034.0000 | 0092.5 | 070.9 | 51.57 |

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 125.0 | 000.1100 | 0233.0 | 016.1 | 271.2 | 034.0000 | 0092.4 | 071.2 | 51.47 |
| 126.0 | 000.1100 | 0227.5 | 015.9 | 271.1 | 034.0000 | 0092.3 | 071.5 | 51.37 |
| 127.0 | 000.1100 | 0223.2 | 015.8 | 271.0 | 034.0000 | 0092.2 | 071.8 | 51.28 |
| 128.0 | 000.1100 | 0219.7 | 015.6 | 270.9 | 034.0000 | 0092.1 | 072.1 | 51.20 |
| 129.0 | 000.1100 | 0217.4 | 015.5 | 270.7 | 034.0000 | 0092.0 | 072.3 | 51.12 |
| 130.0 | 000.1100 | 0214.7 | 015.4 | 270.6 | 034.0000 | 0091.9 | 072.6 | 51.05 |
| 131.0 | 000.1100 | 0211.4 | 015.3 | 270.5 | 034.0000 | 0091.8 | 072.9 | 50.97 |
| 132.0 | 000.1100 | 0207.9 | 015.2 | 270.4 | 034.0000 | 0091.7 | 073.1 | 50.88 |
| 133.0 | 000.1100 | 0203.8 | 015.0 | 270.4 | 034.0000 | 0091.6 | 073.4 | 50.79 |
| 134.0 | 000.1100 | 0198.6 | 014.8 | 270.3 | 034.0000 | 0091.6 | 073.7 | 50.70 |
| 135.0 | 000.1100 | 0195.9 | 014.7 | 270.2 | 034.0000 | 0091.5 | 074.0 | 50.63 |
| 136.0 | 000.1100 | 0193.6 | 014.7 | 270.1 | 034.0000 | 0091.4 | 074.2 | 50.55 |
| 137.0 | 000.1100 | 0191.6 | 014.6 | 270.0 | 034.0000 | 0091.3 | 074.5 | 50.48 |
| 138.0 | 000.1100 | 0190.4 | 014.5 | 269.9 | 034.0000 | 0091.2 | 074.7 | 50.42 |
| 139.0 | 000.1100 | 0189.7 | 014.5 | 269.8 | 034.0000 | 0091.1 | 074.9 | 50.35 |
| 140.0 | 000.1100 | 0189.4 | 014.5 | 269.7 | 034.0000 | 0091.0 | 075.1 | 50.29 |
| 141.0 | 000.1100 | 0188.0 | 014.5 | 269.6 | 034.0000 | 0090.9 | 075.3 | 50.22 |
| 142.0 | 000.1100 | 0184.3 | 014.3 | 269.6 | 034.0000 | 0090.8 | 075.6 | 50.14 |
| 143.0 | 000.1100 | 0179.6 | 014.2 | 269.6 | 034.0000 | 0090.8 | 075.9 | 50.05 |
| 144.0 | 000.1100 | 0172.0 | 013.9 | 269.6 | 034.0000 | 0090.9 | 076.3 | 49.95 |
| 145.0 | 000.1100 | 0163.5 | 013.5 | 269.8 | 034.0000 | 0091.1 | 076.7 | 49.85 |
| 146.0 | 000.1100 | 0153.2 | 013.0 | 270.0 | 034.0000 | 0091.3 | 077.1 | 49.73 |
| 147.0 | 000.1100 | 0140.7 | 012.4 | 270.2 | 034.0000 | 0091.5 | 077.7 | 49.61 |
| 148.0 | 000.1100 | 0130.9 | 012.0 | 270.4 | 034.0000 | 0091.7 | 078.1 | 49.50 |
| 149.0 | 000.1100 | 0121.1 | 011.5 | 270.6 | 034.0000 | 0091.9 | 078.5 | 49.40 |
| 150.0 | 000.1100 | 0108.4 | 011.0 | 270.9 | 034.0000 | 0092.2 | 078.9 | 49.29 |
| 151.0 | 000.1100 | 0101.6 | 010.6 | 271.1 | 034.0000 | 0092.3 | 079.3 | 49.20 |
| 152.0 | 000.1100 | 0099.1 | 010.5 | 271.1 | 034.0000 | 0092.3 | 079.5 | 49.14 |
| 153.0 | 000.1100 | 0098.8 | 010.5 | 271.0 | 034.0000 | 0092.3 | 079.7 | 49.10 |
| 154.0 | 000.1100 | 0093.6 | 010.2 | 271.1 | 034.0000 | 0092.4 | 079.9 | 49.02 |
| 155.0 | 000.1100 | 0097.4 | 010.4 | 271.0 | 034.0000 | 0092.2 | 080.0 | 48.99 |
| 156.0 | 000.1100 | 0106.1 | 010.9 | 270.6 | 034.0000 | 0091.9 | 080.0 | 48.98 |
| 157.0 | 000.1100 | 0118.3 | 011.4 | 270.2 | 034.0000 | 0091.5 | 080.0 | 48.97 |

01-08-2008 USGS 03 SEC Terrain Data

KWYC-C BPED20070502ADU
 Channel = 212C2
 Max ERP = 34 kW
 RCAMSL = 1848 M
 N. Lat. 41 13 01.0
 W. Lng. 104 26 53.0
 Protected
 60 dBu

KUWL.C
 Channel = 211A
 Max ERP = 0.11 kW
 RCAMSL = 2699 M
 N. Lat. 41 18 36.0
 W. Lng. 105 27 17.0
 Interfering
 54 dBu

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 217.0 | 034.0000 | 0107.7 | 042.8 | 127.0 | 000.1100 | 0223.0 | 073.7 | 31.90 |
| 218.0 | 034.0000 | 0106.6 | 042.6 | 126.9 | 000.1100 | 0223.7 | 073.0 | 32.16 |
| 219.0 | 034.0000 | 0104.7 | 042.3 | 126.6 | 000.1100 | 0224.6 | 072.3 | 32.43 |
| 220.0 | 034.0000 | 0102.5 | 042.0 | 126.3 | 000.1100 | 0226.0 | 071.5 | 32.72 |
| 221.0 | 034.0000 | 0100.5 | 041.6 | 126.0 | 000.1100 | 0227.5 | 070.8 | 33.02 |
| 222.0 | 034.0000 | 0099.2 | 041.4 | 125.8 | 000.1100 | 0228.7 | 070.1 | 33.30 |
| 223.0 | 034.0000 | 0098.3 | 041.3 | 125.6 | 000.1100 | 0229.8 | 069.4 | 33.57 |
| 224.0 | 034.0000 | 0097.9 | 041.2 | 125.4 | 000.1100 | 0230.6 | 068.7 | 33.84 |
| 225.0 | 034.0000 | 0097.4 | 041.1 | 125.3 | 000.1100 | 0231.5 | 068.0 | 34.11 |
| 226.0 | 034.0000 | 0097.0 | 041.1 | 125.1 | 000.1100 | 0232.4 | 067.3 | 34.38 |
| 227.0 | 034.0000 | 0096.7 | 041.0 | 125.0 | 000.1100 | 0233.3 | 066.6 | 34.65 |
| 228.0 | 034.0000 | 0096.4 | 040.9 | 124.8 | 000.1100 | 0234.2 | 066.0 | 34.92 |
| 229.0 | 034.0000 | 0096.0 | 040.9 | 124.6 | 000.1100 | 0235.4 | 065.3 | 35.20 |
| 230.0 | 034.0000 | 0095.7 | 040.8 | 124.4 | 000.1100 | 0236.6 | 064.6 | 35.48 |
| 231.0 | 034.0000 | 0095.4 | 040.8 | 124.2 | 000.1100 | 0238.0 | 063.9 | 35.76 |
| 232.0 | 034.0000 | 0094.9 | 040.7 | 123.9 | 000.1100 | 0239.6 | 063.3 | 36.05 |
| 233.0 | 034.0000 | 0094.0 | 040.5 | 123.6 | 000.1100 | 0241.4 | 062.6 | 36.34 |
| 234.0 | 034.0000 | 0092.8 | 040.3 | 123.2 | 000.1100 | 0243.2 | 062.1 | 36.62 |
| 235.0 | 034.0000 | 0091.4 | 040.0 | 122.7 | 000.1100 | 0244.5 | 061.5 | 36.88 |
| 236.0 | 034.0000 | 0090.0 | 039.8 | 122.2 | 000.1100 | 0245.2 | 060.9 | 37.11 |
| 237.0 | 034.0000 | 0089.2 | 039.6 | 121.8 | 000.1100 | 0245.9 | 060.4 | 37.35 |
| 238.0 | 034.0000 | 0088.7 | 039.5 | 121.5 | 000.1100 | 0246.8 | 059.8 | 37.60 |
| 239.0 | 034.0000 | 0088.2 | 039.5 | 121.1 | 000.1100 | 0248.3 | 059.2 | 37.88 |
| 240.0 | 034.0000 | 0087.7 | 039.4 | 120.7 | 000.1100 | 0249.8 | 058.7 | 38.15 |
| 241.0 | 034.0000 | 0087.2 | 039.3 | 120.3 | 000.1100 | 0251.5 | 058.1 | 38.43 |
| 242.0 | 034.0000 | 0086.7 | 039.2 | 119.8 | 000.1100 | 0253.2 | 057.6 | 38.70 |
| 243.0 | 034.0000 | 0086.2 | 039.1 | 119.4 | 000.1100 | 0254.2 | 057.0 | 38.94 |
| 244.0 | 034.0000 | 0085.7 | 039.0 | 118.9 | 000.1100 | 0254.4 | 056.5 | 39.15 |
| 245.0 | 034.0000 | 0085.3 | 038.9 | 118.4 | 000.1100 | 0254.5 | 056.0 | 39.36 |
| 246.0 | 034.0000 | 0084.9 | 038.8 | 118.0 | 000.1100 | 0254.8 | 055.5 | 39.57 |
| 247.0 | 034.0000 | 0084.7 | 038.8 | 117.5 | 000.1100 | 0255.3 | 055.0 | 39.79 |
| 248.0 | 034.0000 | 0084.4 | 038.7 | 117.0 | 000.1100 | 0256.0 | 054.5 | 40.01 |
| 249.0 | 034.0000 | 0084.2 | 038.7 | 116.5 | 000.1100 | 0256.4 | 054.0 | 40.22 |
| 250.0 | 034.0000 | 0084.1 | 038.7 | 116.0 | 000.1100 | 0256.7 | 053.6 | 40.43 |

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 251.0 | 034.0000 | 0084.0 | 038.6 | 115.5 | 000.1100 | 0257.1 | 053.1 | 40.63 |
| 252.0 | 034.0000 | 0083.8 | 038.6 | 114.9 | 000.1100 | 0257.3 | 052.7 | 40.82 |
| 253.0 | 034.0000 | 0083.6 | 038.6 | 114.3 | 000.1100 | 0257.8 | 052.2 | 41.00 |
| 254.0 | 034.0000 | 0083.3 | 038.5 | 113.7 | 000.1100 | 0258.7 | 051.8 | 41.20 |
| 255.0 | 034.0000 | 0083.0 | 038.4 | 113.1 | 000.1100 | 0260.0 | 051.5 | 41.40 |
| 256.0 | 034.0000 | 0082.7 | 038.4 | 112.5 | 000.1100 | 0261.1 | 051.1 | 41.58 |
| 257.0 | 034.0000 | 0082.5 | 038.3 | 111.8 | 000.1100 | 0262.0 | 050.7 | 41.76 |
| 258.0 | 034.0000 | 0082.6 | 038.4 | 111.2 | 000.1100 | 0262.9 | 050.3 | 41.95 |
| 259.0 | 034.0000 | 0082.9 | 038.4 | 110.6 | 000.1100 | 0264.0 | 049.9 | 42.15 |
| 260.0 | 034.0000 | 0083.4 | 038.5 | 110.0 | 000.1100 | 0266.6 | 049.5 | 42.41 |
| 261.0 | 034.0000 | 0084.1 | 038.7 | 109.4 | 000.1100 | 0270.0 | 049.0 | 42.71 |
| 262.0 | 034.0000 | 0084.8 | 038.8 | 108.8 | 000.1100 | 0272.2 | 048.6 | 42.96 |
| 263.0 | 034.0000 | 0085.3 | 038.9 | 108.1 | 000.1100 | 0273.3 | 048.2 | 43.15 |
| 264.0 | 034.0000 | 0085.7 | 039.0 | 107.4 | 000.1100 | 0274.2 | 047.8 | 43.32 |
| 265.0 | 034.0000 | 0086.1 | 039.0 | 106.7 | 000.1100 | 0275.1 | 047.5 | 43.49 |
| 266.0 | 034.0000 | 0086.6 | 039.1 | 106.0 | 000.1100 | 0276.1 | 047.2 | 43.66 |
| 267.0 | 034.0000 | 0087.7 | 039.4 | 105.3 | 000.1100 | 0276.7 | 046.7 | 43.85 |
| 268.0 | 034.0000 | 0089.0 | 039.6 | 104.5 | 000.1100 | 0276.9 | 046.3 | 44.04 |
| 269.0 | 034.0000 | 0090.1 | 039.8 | 103.8 | 000.1100 | 0276.9 | 045.9 | 44.20 |
| 270.0 | 034.0000 | 0091.3 | 040.0 | 103.0 | 000.1100 | 0276.7 | 045.5 | 44.35 |
| 271.0 | 034.0000 | 0092.3 | 040.2 | 102.2 | 000.1100 | 0276.4 | 045.2 | 44.48 |
| 272.0 | 034.0000 | 0093.1 | 040.4 | 101.3 | 000.1100 | 0275.9 | 044.9 | 44.58 |
| 273.0 | 034.0000 | 0093.8 | 040.5 | 100.5 | 000.1100 | 0275.3 | 044.7 | 44.66 |
| 274.0 | 034.0000 | 0094.4 | 040.6 | 099.6 | 000.1100 | 0274.7 | 044.5 | 44.72 |
| 275.0 | 034.0000 | 0095.0 | 040.7 | 098.7 | 000.1100 | 0275.4 | 044.3 | 44.81 |
| 276.0 | 034.0000 | 0095.4 | 040.8 | 097.8 | 000.1100 | 0277.9 | 044.2 | 44.94 |
| 277.0 | 034.0000 | 0095.4 | 040.8 | 096.8 | 000.1100 | 0281.9 | 044.2 | 45.07 |
| 278.0 | 034.0000 | 0095.1 | 040.7 | 095.9 | 000.1100 | 0283.9 | 044.3 | 45.11 |
| 279.0 | 034.0000 | 0094.7 | 040.6 | 095.0 | 000.1100 | 0286.0 | 044.4 | 45.13 |
| 280.0 | 034.0000 | 0094.4 | 040.6 | 094.1 | 000.1100 | 0288.2 | 044.5 | 45.15 |
| 281.0 | 034.0000 | 0094.2 | 040.6 | 093.2 | 000.1100 | 0287.6 | 044.6 | 45.09 |
| 282.0 | 034.0000 | 0094.0 | 040.5 | 092.3 | 000.1100 | 0286.4 | 044.7 | 45.00 |
| 283.0 | 034.0000 | 0093.9 | 040.5 | 091.4 | 000.1100 | 0285.6 | 044.9 | 44.90 |
| 284.0 | 034.0000 | 0093.8 | 040.5 | 090.5 | 000.1100 | 0284.0 | 045.0 | 44.79 |
| 285.0 | 034.0000 | 0093.8 | 040.5 | 089.6 | 000.1100 | 0282.1 | 045.2 | 44.66 |
| 286.0 | 034.0000 | 0094.2 | 040.6 | 088.7 | 000.1100 | 0281.1 | 045.3 | 44.58 |
| 287.0 | 034.0000 | 0095.0 | 040.7 | 087.8 | 000.1100 | 0281.9 | 045.4 | 44.57 |
| 288.0 | 034.0000 | 0095.9 | 040.8 | 086.9 | 000.1100 | 0283.6 | 045.5 | 44.58 |
| 289.0 | 034.0000 | 0096.7 | 041.0 | 086.0 | 000.1100 | 0285.4 | 045.6 | 44.58 |
| 290.0 | 034.0000 | 0097.5 | 041.1 | 085.1 | 000.1100 | 0286.3 | 045.8 | 44.55 |
| 291.0 | 034.0000 | 0098.2 | 041.2 | 084.2 | 000.1100 | 0287.1 | 046.0 | 44.49 |
| 292.0 | 034.0000 | 0098.6 | 041.3 | 083.4 | 000.1100 | 0288.0 | 046.2 | 44.41 |
| 293.0 | 034.0000 | 0098.5 | 041.3 | 082.6 | 000.1100 | 0290.5 | 046.6 | 44.34 |
| 294.0 | 034.0000 | 0097.7 | 041.2 | 082.0 | 000.1100 | 0294.0 | 047.1 | 44.25 |
| 295.0 | 034.0000 | 0096.8 | 041.0 | 081.3 | 000.1100 | 0294.6 | 047.6 | 44.06 |
| 296.0 | 034.0000 | 0095.7 | 040.8 | 080.8 | 000.1100 | 0294.3 | 048.2 | 43.83 |
| 297.0 | 034.0000 | 0093.7 | 040.5 | 080.3 | 000.1100 | 0294.2 | 048.9 | 43.55 |
| 298.0 | 034.0000 | 0091.7 | 040.1 | 079.9 | 000.1100 | 0293.9 | 049.6 | 43.26 |
| 299.0 | 034.0000 | 0091.1 | 040.0 | 079.4 | 000.1100 | 0293.1 | 050.1 | 43.03 |
| 300.0 | 034.0000 | 0090.8 | 039.9 | 078.8 | 000.1100 | 0292.4 | 050.6 | 42.81 |
| 301.0 | 034.0000 | 0090.4 | 039.9 | 078.2 | 000.1100 | 0292.1 | 051.1 | 42.60 |

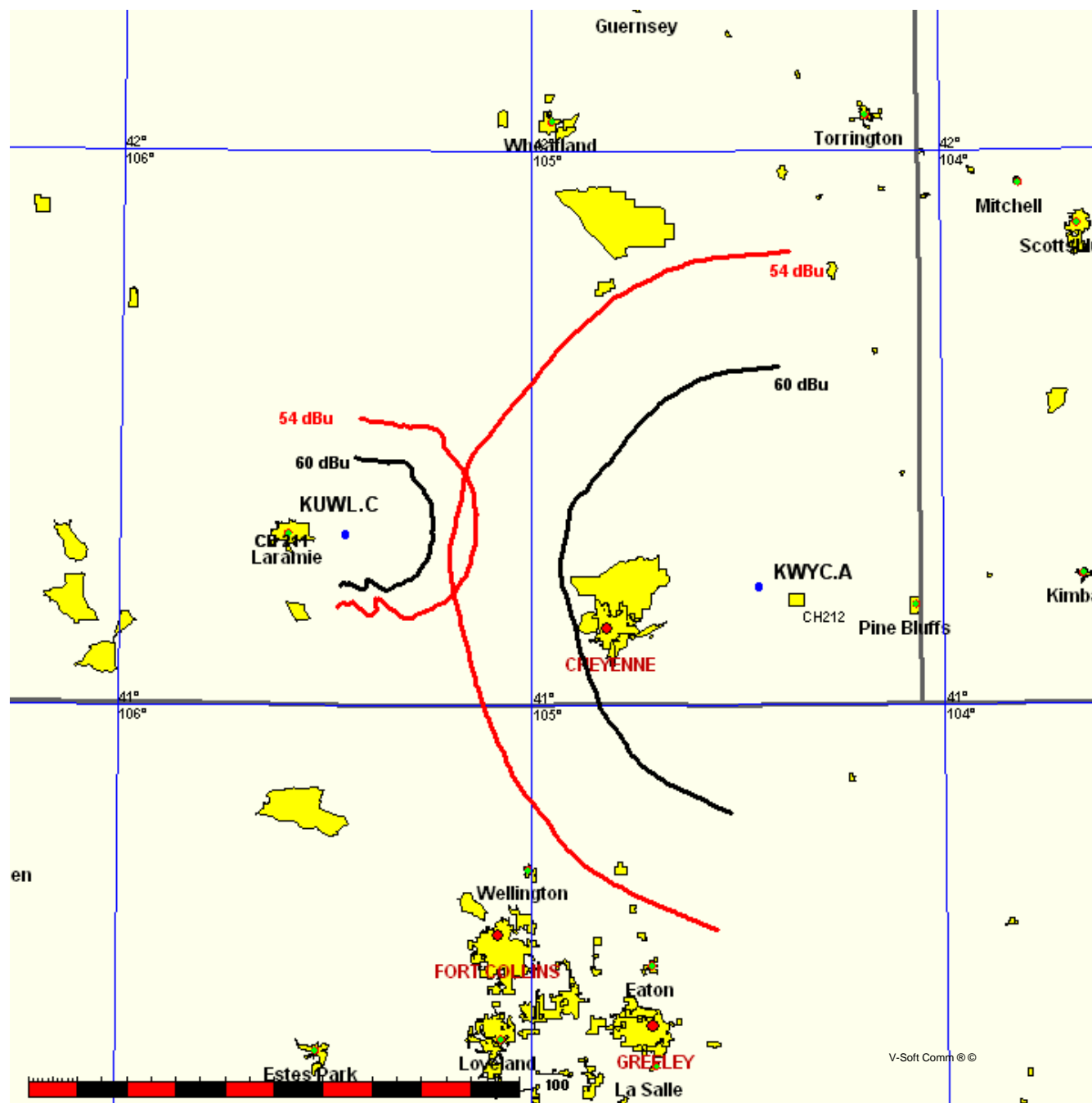
| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 302.0 | 034.0000 | 0090.0 | 039.8 | 077.7 | 000.1100 | 0292.2 | 051.6 | 42.39 |
| 303.0 | 034.0000 | 0089.6 | 039.7 | 077.3 | 000.1100 | 0293.0 | 052.2 | 42.20 |
| 304.0 | 034.0000 | 0089.2 | 039.6 | 076.8 | 000.1100 | 0294.3 | 052.7 | 42.03 |
| 305.0 | 034.0000 | 0088.7 | 039.5 | 076.4 | 000.1100 | 0295.8 | 053.3 | 41.85 |
| 306.0 | 034.0000 | 0088.1 | 039.4 | 076.0 | 000.1100 | 0296.9 | 053.9 | 41.65 |
| 307.0 | 034.0000 | 0087.6 | 039.3 | 075.6 | 000.1100 | 0297.8 | 054.5 | 41.45 |
| 308.0 | 034.0000 | 0087.2 | 039.3 | 075.2 | 000.1100 | 0298.6 | 055.1 | 41.24 |
| 309.0 | 034.0000 | 0086.9 | 039.2 | 074.8 | 000.1100 | 0299.3 | 055.6 | 41.04 |
| 310.0 | 034.0000 | 0086.8 | 039.2 | 074.4 | 000.1100 | 0299.9 | 056.2 | 40.84 |
| 311.0 | 034.0000 | 0086.8 | 039.2 | 074.0 | 000.1100 | 0300.4 | 056.8 | 40.64 |
| 312.0 | 034.0000 | 0087.1 | 039.2 | 073.6 | 000.1100 | 0300.9 | 057.3 | 40.44 |
| 313.0 | 034.0000 | 0087.5 | 039.3 | 073.2 | 000.1100 | 0301.4 | 057.9 | 40.25 |
| 314.0 | 034.0000 | 0088.0 | 039.4 | 072.8 | 000.1100 | 0301.9 | 058.4 | 40.05 |
| 315.0 | 034.0000 | 0088.6 | 039.5 | 072.3 | 000.1100 | 0302.3 | 058.9 | 39.85 |
| 316.0 | 034.0000 | 0089.2 | 039.6 | 071.9 | 000.1100 | 0302.7 | 059.5 | 39.65 |
| 317.0 | 034.0000 | 0089.9 | 039.8 | 071.5 | 000.1100 | 0303.1 | 060.1 | 39.45 |
| 318.0 | 034.0000 | 0090.6 | 039.9 | 071.1 | 000.1100 | 0303.5 | 060.7 | 39.24 |
| 319.0 | 034.0000 | 0091.3 | 040.0 | 070.8 | 000.1100 | 0303.7 | 061.2 | 39.03 |
| 320.0 | 034.0000 | 0092.2 | 040.2 | 070.4 | 000.1100 | 0303.8 | 061.8 | 38.81 |
| 321.0 | 034.0000 | 0093.1 | 040.4 | 070.0 | 000.1100 | 0303.8 | 062.4 | 38.59 |
| 322.0 | 034.0000 | 0093.7 | 040.5 | 069.7 | 000.1100 | 0303.8 | 063.1 | 38.36 |
| 323.0 | 034.0000 | 0094.1 | 040.5 | 069.5 | 000.1100 | 0303.8 | 063.7 | 38.12 |
| 324.0 | 034.0000 | 0094.5 | 040.6 | 069.2 | 000.1100 | 0303.9 | 064.4 | 37.89 |
| 325.0 | 034.0000 | 0095.0 | 040.7 | 069.0 | 000.1100 | 0303.9 | 065.0 | 37.65 |
| 326.0 | 034.0000 | 0095.5 | 040.8 | 068.8 | 000.1100 | 0303.9 | 065.7 | 37.41 |
| 327.0 | 034.0000 | 0095.9 | 040.9 | 068.5 | 000.1100 | 0303.8 | 066.4 | 37.16 |
| 328.0 | 034.0000 | 0096.6 | 041.0 | 068.3 | 000.1100 | 0303.6 | 067.0 | 36.91 |
| 329.0 | 034.0000 | 0097.6 | 041.2 | 068.1 | 000.1100 | 0303.2 | 067.7 | 36.66 |
| 330.0 | 034.0000 | 0098.9 | 041.4 | 067.8 | 000.1100 | 0302.5 | 068.4 | 36.39 |
| 331.0 | 034.0000 | 0100.3 | 041.6 | 067.5 | 000.1100 | 0301.6 | 069.1 | 36.12 |
| 332.0 | 034.0000 | 0101.7 | 041.8 | 067.2 | 000.1100 | 0300.9 | 069.8 | 35.85 |
| 333.0 | 034.0000 | 0102.5 | 042.0 | 067.1 | 000.1100 | 0300.6 | 070.5 | 35.59 |
| 334.0 | 034.0000 | 0102.8 | 042.0 | 067.0 | 000.1100 | 0300.5 | 071.2 | 35.33 |
| 335.0 | 034.0000 | 0103.0 | 042.1 | 066.9 | 000.1100 | 0300.4 | 071.9 | 35.07 |
| 336.0 | 034.0000 | 0103.4 | 042.1 | 066.9 | 000.1100 | 0300.3 | 072.7 | 34.81 |
| 337.0 | 034.0000 | 0103.8 | 042.2 | 066.8 | 000.1100 | 0300.3 | 073.4 | 34.55 |

University Of Wyoming
KUWL (New) v. KWYC.A

FMCommander Single Allocation Study
01-08-2008

KUWL.C CH 211 A
0.11 kW 2699 M COR
Prot. = 60 dBu
Intef. = 54 dBu

KWYC-A CH 212 C2 BMPED20070808ACK
34.0 kW, 1848 M COR
Prot. = 60 dBu
Intef. = 54 dBu



01-08-2008

USGS 03 SEC Terrain Data

FMOver Analysis

KUWL.C

Channel = 211A

Max ERP = 0.11 kW

RCAMSL = 2699 M

N. Lat. 41 18 36.0

W. Lng. 105 27 17.0

Protected

60 dBu

KWYC-A

BMPED20070808ACK

Channel = 212C2

Max ERP = 34 kW

RCAMSL = 1848 M

N. Lat. 41 13 01.0

W. Lng. 104 26 53.0

Interfering

54 dBu

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 037.0 | 000.1100 | 0292.5 | 018.2 | 289.1 | 034.0000 | 0096.8 | 077.4 | 49.95 |
| 038.0 | 000.1100 | 0299.1 | 018.4 | 289.2 | 034.0000 | 0096.9 | 077.0 | 50.06 |
| 039.0 | 000.1100 | 0304.2 | 018.6 | 289.2 | 034.0000 | 0096.9 | 076.7 | 50.16 |
| 040.0 | 000.1100 | 0308.5 | 018.7 | 289.2 | 034.0000 | 0096.9 | 076.3 | 50.26 |
| 041.0 | 000.1100 | 0313.0 | 018.9 | 289.2 | 034.0000 | 0096.9 | 076.0 | 50.36 |
| 042.0 | 000.1100 | 0315.9 | 018.9 | 289.2 | 034.0000 | 0096.9 | 075.6 | 50.45 |
| 043.0 | 000.1100 | 0316.7 | 019.0 | 289.1 | 034.0000 | 0096.8 | 075.3 | 50.54 |
| 044.0 | 000.1100 | 0317.4 | 019.0 | 289.0 | 034.0000 | 0096.7 | 075.0 | 50.62 |
| 045.0 | 000.1100 | 0316.7 | 019.0 | 288.9 | 034.0000 | 0096.6 | 074.7 | 50.70 |
| 046.0 | 000.1100 | 0313.5 | 018.9 | 288.7 | 034.0000 | 0096.4 | 074.5 | 50.76 |
| 047.0 | 000.1100 | 0305.5 | 018.6 | 288.4 | 034.0000 | 0096.2 | 074.3 | 50.79 |
| 048.0 | 000.1100 | 0298.0 | 018.4 | 288.1 | 034.0000 | 0096.0 | 074.2 | 50.83 |
| 049.0 | 000.1100 | 0290.6 | 018.2 | 287.8 | 034.0000 | 0095.7 | 074.0 | 50.86 |
| 050.0 | 000.1100 | 0287.6 | 018.1 | 287.6 | 034.0000 | 0095.5 | 073.8 | 50.91 |
| 051.0 | 000.1100 | 0287.8 | 018.1 | 287.5 | 034.0000 | 0095.4 | 073.5 | 50.98 |
| 052.0 | 000.1100 | 0284.4 | 017.9 | 287.3 | 034.0000 | 0095.3 | 073.3 | 51.02 |
| 053.0 | 000.1100 | 0282.4 | 017.9 | 287.1 | 034.0000 | 0095.1 | 073.1 | 51.08 |
| 054.0 | 000.1100 | 0284.9 | 018.0 | 287.0 | 034.0000 | 0095.0 | 072.8 | 51.16 |
| 055.0 | 000.1100 | 0286.7 | 018.0 | 286.9 | 034.0000 | 0094.9 | 072.5 | 51.23 |
| 056.0 | 000.1100 | 0287.1 | 018.0 | 286.7 | 034.0000 | 0094.8 | 072.3 | 51.30 |
| 057.0 | 000.1100 | 0289.8 | 018.1 | 286.6 | 034.0000 | 0094.7 | 072.0 | 51.38 |
| 058.0 | 000.1100 | 0292.4 | 018.2 | 286.5 | 034.0000 | 0094.6 | 071.7 | 51.45 |
| 059.0 | 000.1100 | 0295.0 | 018.3 | 286.4 | 034.0000 | 0094.5 | 071.4 | 51.53 |
| 060.0 | 000.1100 | 0297.3 | 018.4 | 286.3 | 034.0000 | 0094.4 | 071.1 | 51.61 |
| 061.0 | 000.1100 | 0298.9 | 018.4 | 286.1 | 034.0000 | 0094.3 | 070.9 | 51.68 |
| 062.0 | 000.1100 | 0297.8 | 018.4 | 285.9 | 034.0000 | 0094.2 | 070.7 | 51.73 |
| 063.0 | 000.1100 | 0295.1 | 018.3 | 285.7 | 034.0000 | 0094.0 | 070.5 | 51.77 |
| 064.0 | 000.1100 | 0296.9 | 018.4 | 285.5 | 034.0000 | 0094.0 | 070.3 | 51.83 |
| 065.0 | 000.1100 | 0301.5 | 018.5 | 285.4 | 034.0000 | 0093.9 | 069.9 | 51.92 |
| 066.0 | 000.1100 | 0301.5 | 018.5 | 285.2 | 034.0000 | 0093.9 | 069.7 | 51.98 |
| 067.0 | 000.1100 | 0300.4 | 018.5 | 284.9 | 034.0000 | 0093.8 | 069.6 | 52.03 |
| 068.0 | 000.1100 | 0303.0 | 018.6 | 284.8 | 034.0000 | 0093.8 | 069.3 | 52.10 |
| 069.0 | 000.1100 | 0303.9 | 018.6 | 284.6 | 034.0000 | 0093.8 | 069.1 | 52.16 |
| 070.0 | 000.1100 | 0303.8 | 018.6 | 284.3 | 034.0000 | 0093.8 | 068.9 | 52.22 |
| 071.0 | 000.1100 | 0303.6 | 018.6 | 284.1 | 034.0000 | 0093.8 | 068.7 | 52.27 |
| 072.0 | 000.1100 | 0302.6 | 018.5 | 283.9 | 034.0000 | 0093.8 | 068.6 | 52.31 |
| 073.0 | 000.1100 | 0301.7 | 018.5 | 283.6 | 034.0000 | 0093.8 | 068.5 | 52.35 |

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 074.0 | 000.1100 | 0300.5 | 018.5 | 283.4 | 034.0000 | 0093.8 | 068.3 | 52.39 |
| 075.0 | 000.1100 | 0299.0 | 018.4 | 283.1 | 034.0000 | 0093.9 | 068.2 | 52.42 |
| 076.0 | 000.1100 | 0296.8 | 018.4 | 282.8 | 034.0000 | 0093.9 | 068.1 | 52.45 |
| 077.0 | 000.1100 | 0293.7 | 018.3 | 282.6 | 034.0000 | 0093.9 | 068.1 | 52.46 |
| 078.0 | 000.1100 | 0292.1 | 018.2 | 282.3 | 034.0000 | 0094.0 | 068.0 | 52.49 |
| 079.0 | 000.1100 | 0292.6 | 018.2 | 282.0 | 034.0000 | 0094.0 | 067.9 | 52.53 |
| 080.0 | 000.1100 | 0294.0 | 018.3 | 281.8 | 034.0000 | 0094.1 | 067.7 | 52.58 |
| 081.0 | 000.1100 | 0294.5 | 018.3 | 281.6 | 034.0000 | 0094.1 | 067.6 | 52.62 |
| 082.0 | 000.1100 | 0293.9 | 018.3 | 281.3 | 034.0000 | 0094.1 | 067.5 | 52.65 |
| 083.0 | 000.1100 | 0288.9 | 018.1 | 281.0 | 034.0000 | 0094.2 | 067.6 | 52.64 |
| 084.0 | 000.1100 | 0287.3 | 018.0 | 280.7 | 034.0000 | 0094.2 | 067.5 | 52.65 |
| 085.0 | 000.1100 | 0286.4 | 018.0 | 280.5 | 034.0000 | 0094.3 | 067.5 | 52.67 |
| 086.0 | 000.1100 | 0285.4 | 018.0 | 280.2 | 034.0000 | 0094.3 | 067.4 | 52.69 |
| 087.0 | 000.1100 | 0283.4 | 017.9 | 279.9 | 034.0000 | 0094.4 | 067.4 | 52.69 |
| 088.0 | 000.1100 | 0281.8 | 017.9 | 279.7 | 034.0000 | 0094.5 | 067.4 | 52.70 |
| 089.0 | 000.1100 | 0281.2 | 017.8 | 279.4 | 034.0000 | 0094.6 | 067.4 | 52.72 |
| 090.0 | 000.1100 | 0282.7 | 017.9 | 279.1 | 034.0000 | 0094.7 | 067.3 | 52.75 |
| 091.0 | 000.1100 | 0285.0 | 018.0 | 278.9 | 034.0000 | 0094.8 | 067.1 | 52.79 |
| 092.0 | 000.1100 | 0286.2 | 018.0 | 278.6 | 034.0000 | 0094.9 | 067.1 | 52.82 |
| 093.0 | 000.1100 | 0287.4 | 018.0 | 278.3 | 034.0000 | 0095.0 | 067.0 | 52.85 |
| 094.0 | 000.1100 | 0288.3 | 018.1 | 278.1 | 034.0000 | 0095.1 | 067.0 | 52.87 |
| 095.0 | 000.1100 | 0286.0 | 018.0 | 277.8 | 034.0000 | 0095.2 | 067.0 | 52.86 |
| 096.0 | 000.1100 | 0283.8 | 017.9 | 277.5 | 034.0000 | 0095.2 | 067.1 | 52.84 |
| 097.0 | 000.1100 | 0281.3 | 017.8 | 277.3 | 034.0000 | 0095.3 | 067.2 | 52.82 |
| 098.0 | 000.1100 | 0277.0 | 017.7 | 277.0 | 034.0000 | 0095.4 | 067.3 | 52.78 |
| 099.0 | 000.1100 | 0275.0 | 017.6 | 276.7 | 034.0000 | 0095.4 | 067.4 | 52.76 |
| 100.0 | 000.1100 | 0275.0 | 017.6 | 276.5 | 034.0000 | 0095.5 | 067.4 | 52.76 |
| 101.0 | 000.1100 | 0275.7 | 017.7 | 276.2 | 034.0000 | 0095.5 | 067.4 | 52.76 |
| 102.0 | 000.1100 | 0276.3 | 017.7 | 276.0 | 034.0000 | 0095.4 | 067.4 | 52.75 |
| 103.0 | 000.1100 | 0276.7 | 017.7 | 275.7 | 034.0000 | 0095.3 | 067.4 | 52.74 |
| 104.0 | 000.1100 | 0277.0 | 017.7 | 275.4 | 034.0000 | 0095.2 | 067.5 | 52.72 |
| 105.0 | 000.1100 | 0276.8 | 017.7 | 275.2 | 034.0000 | 0095.0 | 067.5 | 52.69 |
| 106.0 | 000.1100 | 0276.1 | 017.7 | 274.9 | 034.0000 | 0094.9 | 067.6 | 52.66 |
| 107.0 | 000.1100 | 0274.7 | 017.6 | 274.7 | 034.0000 | 0094.8 | 067.7 | 52.62 |
| 108.0 | 000.1100 | 0273.4 | 017.6 | 274.4 | 034.0000 | 0094.7 | 067.9 | 52.58 |
| 109.0 | 000.1100 | 0271.6 | 017.5 | 274.2 | 034.0000 | 0094.5 | 068.0 | 52.53 |
| 110.0 | 000.1100 | 0266.6 | 017.3 | 274.0 | 034.0000 | 0094.4 | 068.2 | 52.45 |
| 111.0 | 000.1100 | 0263.3 | 017.2 | 273.8 | 034.0000 | 0094.3 | 068.4 | 52.38 |
| 112.0 | 000.1100 | 0261.8 | 017.2 | 273.5 | 034.0000 | 0094.2 | 068.6 | 52.33 |
| 113.0 | 000.1100 | 0260.2 | 017.1 | 273.3 | 034.0000 | 0094.0 | 068.7 | 52.28 |
| 114.0 | 000.1100 | 0258.2 | 017.0 | 273.1 | 034.0000 | 0093.9 | 068.9 | 52.22 |
| 115.0 | 000.1100 | 0257.3 | 017.0 | 272.9 | 034.0000 | 0093.8 | 069.1 | 52.17 |
| 116.0 | 000.1100 | 0256.7 | 017.0 | 272.7 | 034.0000 | 0093.6 | 069.2 | 52.12 |
| 117.0 | 000.1100 | 0256.0 | 017.0 | 272.5 | 034.0000 | 0093.5 | 069.3 | 52.07 |
| 118.0 | 000.1100 | 0254.7 | 016.9 | 272.3 | 034.0000 | 0093.3 | 069.5 | 52.02 |
| 119.0 | 000.1100 | 0254.4 | 016.9 | 272.0 | 034.0000 | 0093.1 | 069.7 | 51.96 |
| 120.0 | 000.1100 | 0252.6 | 016.8 | 271.9 | 034.0000 | 0093.0 | 069.8 | 51.90 |
| 121.0 | 000.1100 | 0248.6 | 016.7 | 271.7 | 034.0000 | 0092.9 | 070.1 | 51.81 |
| 122.0 | 000.1100 | 0245.6 | 016.6 | 271.5 | 034.0000 | 0092.7 | 070.4 | 51.73 |
| 123.0 | 000.1100 | 0243.6 | 016.5 | 271.4 | 034.0000 | 0092.6 | 070.6 | 51.66 |
| 124.0 | 000.1100 | 0239.0 | 016.3 | 271.2 | 034.0000 | 0092.5 | 070.9 | 51.57 |

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 125.0 | 000.1100 | 0233.0 | 016.1 | 271.2 | 034.0000 | 0092.4 | 071.2 | 51.47 |
| 126.0 | 000.1100 | 0227.5 | 015.9 | 271.1 | 034.0000 | 0092.3 | 071.5 | 51.37 |
| 127.0 | 000.1100 | 0223.2 | 015.8 | 271.0 | 034.0000 | 0092.2 | 071.8 | 51.28 |
| 128.0 | 000.1100 | 0219.7 | 015.6 | 270.9 | 034.0000 | 0092.1 | 072.1 | 51.20 |
| 129.0 | 000.1100 | 0217.4 | 015.5 | 270.7 | 034.0000 | 0092.0 | 072.3 | 51.12 |
| 130.0 | 000.1100 | 0214.7 | 015.4 | 270.6 | 034.0000 | 0091.9 | 072.6 | 51.05 |
| 131.0 | 000.1100 | 0211.4 | 015.3 | 270.5 | 034.0000 | 0091.8 | 072.9 | 50.97 |
| 132.0 | 000.1100 | 0207.9 | 015.2 | 270.4 | 034.0000 | 0091.7 | 073.1 | 50.88 |
| 133.0 | 000.1100 | 0203.8 | 015.0 | 270.4 | 034.0000 | 0091.6 | 073.4 | 50.79 |
| 134.0 | 000.1100 | 0198.6 | 014.8 | 270.3 | 034.0000 | 0091.6 | 073.7 | 50.70 |
| 135.0 | 000.1100 | 0195.9 | 014.7 | 270.2 | 034.0000 | 0091.5 | 074.0 | 50.63 |
| 136.0 | 000.1100 | 0193.6 | 014.7 | 270.1 | 034.0000 | 0091.4 | 074.2 | 50.55 |
| 137.0 | 000.1100 | 0191.6 | 014.6 | 270.0 | 034.0000 | 0091.3 | 074.5 | 50.48 |
| 138.0 | 000.1100 | 0190.4 | 014.5 | 269.9 | 034.0000 | 0091.2 | 074.7 | 50.42 |
| 139.0 | 000.1100 | 0189.7 | 014.5 | 269.8 | 034.0000 | 0091.1 | 074.9 | 50.35 |
| 140.0 | 000.1100 | 0189.4 | 014.5 | 269.7 | 034.0000 | 0091.0 | 075.1 | 50.29 |
| 141.0 | 000.1100 | 0188.0 | 014.5 | 269.6 | 034.0000 | 0090.9 | 075.3 | 50.22 |
| 142.0 | 000.1100 | 0184.3 | 014.3 | 269.6 | 034.0000 | 0090.8 | 075.6 | 50.14 |
| 143.0 | 000.1100 | 0179.6 | 014.2 | 269.6 | 034.0000 | 0090.8 | 075.9 | 50.05 |
| 144.0 | 000.1100 | 0172.0 | 013.9 | 269.6 | 034.0000 | 0090.9 | 076.3 | 49.95 |
| 145.0 | 000.1100 | 0163.5 | 013.5 | 269.8 | 034.0000 | 0091.1 | 076.7 | 49.85 |
| 146.0 | 000.1100 | 0153.2 | 013.0 | 270.0 | 034.0000 | 0091.3 | 077.1 | 49.73 |
| 147.0 | 000.1100 | 0140.7 | 012.4 | 270.2 | 034.0000 | 0091.5 | 077.7 | 49.61 |
| 148.0 | 000.1100 | 0130.9 | 012.0 | 270.4 | 034.0000 | 0091.7 | 078.1 | 49.50 |
| 149.0 | 000.1100 | 0121.1 | 011.5 | 270.6 | 034.0000 | 0091.9 | 078.5 | 49.40 |
| 150.0 | 000.1100 | 0108.4 | 011.0 | 270.9 | 034.0000 | 0092.2 | 078.9 | 49.29 |
| 151.0 | 000.1100 | 0101.6 | 010.6 | 271.1 | 034.0000 | 0092.3 | 079.3 | 49.20 |
| 152.0 | 000.1100 | 0099.1 | 010.5 | 271.1 | 034.0000 | 0092.3 | 079.5 | 49.14 |
| 153.0 | 000.1100 | 0098.8 | 010.5 | 271.0 | 034.0000 | 0092.3 | 079.7 | 49.10 |
| 154.0 | 000.1100 | 0093.6 | 010.2 | 271.1 | 034.0000 | 0092.4 | 079.9 | 49.02 |
| 155.0 | 000.1100 | 0097.4 | 010.4 | 271.0 | 034.0000 | 0092.2 | 080.0 | 48.99 |
| 156.0 | 000.1100 | 0106.1 | 010.9 | 270.6 | 034.0000 | 0091.9 | 080.0 | 48.98 |
| 157.0 | 000.1100 | 0118.3 | 011.4 | 270.2 | 034.0000 | 0091.5 | 080.0 | 48.97 |

01-08-2008 USGS 03 SEC Terrain Data

KWYC-A BMPED20070808ACK
 Channel = 212C2
 Max ERP = 34 kW
 RCAMSL = 1848 M
 N. Lat. 41 13 01.0
 W. Lng. 104 26 53.0
 Protected
 60 dBu

KUWL.C
 Channel = 211A
 Max ERP = 0.11 kW
 RCAMSL = 2699 M
 N. Lat. 41 18 36.0
 W. Lng. 105 27 17.0
 Interfering
 54 dBu

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 217.0 | 034.0000 | 0107.7 | 042.8 | 127.0 | 000.1100 | 0223.0 | 073.7 | 31.90 |
| 218.0 | 034.0000 | 0106.6 | 042.6 | 126.9 | 000.1100 | 0223.7 | 073.0 | 32.16 |
| 219.0 | 034.0000 | 0104.7 | 042.3 | 126.6 | 000.1100 | 0224.6 | 072.3 | 32.43 |
| 220.0 | 034.0000 | 0102.5 | 042.0 | 126.3 | 000.1100 | 0226.0 | 071.5 | 32.72 |
| 221.0 | 034.0000 | 0100.5 | 041.6 | 126.0 | 000.1100 | 0227.5 | 070.8 | 33.02 |
| 222.0 | 034.0000 | 0099.2 | 041.4 | 125.8 | 000.1100 | 0228.7 | 070.1 | 33.30 |
| 223.0 | 034.0000 | 0098.3 | 041.3 | 125.6 | 000.1100 | 0229.8 | 069.4 | 33.57 |
| 224.0 | 034.0000 | 0097.9 | 041.2 | 125.4 | 000.1100 | 0230.6 | 068.7 | 33.84 |
| 225.0 | 034.0000 | 0097.4 | 041.1 | 125.3 | 000.1100 | 0231.5 | 068.0 | 34.11 |
| 226.0 | 034.0000 | 0097.0 | 041.1 | 125.1 | 000.1100 | 0232.4 | 067.3 | 34.38 |
| 227.0 | 034.0000 | 0096.7 | 041.0 | 125.0 | 000.1100 | 0233.3 | 066.6 | 34.65 |
| 228.0 | 034.0000 | 0096.4 | 040.9 | 124.8 | 000.1100 | 0234.2 | 066.0 | 34.92 |
| 229.0 | 034.0000 | 0096.0 | 040.9 | 124.6 | 000.1100 | 0235.4 | 065.3 | 35.20 |
| 230.0 | 034.0000 | 0095.7 | 040.8 | 124.4 | 000.1100 | 0236.6 | 064.6 | 35.48 |
| 231.0 | 034.0000 | 0095.4 | 040.8 | 124.2 | 000.1100 | 0238.0 | 063.9 | 35.76 |
| 232.0 | 034.0000 | 0094.9 | 040.7 | 123.9 | 000.1100 | 0239.6 | 063.3 | 36.05 |
| 233.0 | 034.0000 | 0094.0 | 040.5 | 123.6 | 000.1100 | 0241.4 | 062.6 | 36.34 |
| 234.0 | 034.0000 | 0092.8 | 040.3 | 123.2 | 000.1100 | 0243.2 | 062.1 | 36.62 |
| 235.0 | 034.0000 | 0091.4 | 040.0 | 122.7 | 000.1100 | 0244.5 | 061.5 | 36.88 |
| 236.0 | 034.0000 | 0090.0 | 039.8 | 122.2 | 000.1100 | 0245.2 | 060.9 | 37.11 |
| 237.0 | 034.0000 | 0089.2 | 039.6 | 121.8 | 000.1100 | 0245.9 | 060.4 | 37.35 |
| 238.0 | 034.0000 | 0088.7 | 039.5 | 121.5 | 000.1100 | 0246.8 | 059.8 | 37.60 |
| 239.0 | 034.0000 | 0088.2 | 039.5 | 121.1 | 000.1100 | 0248.3 | 059.2 | 37.88 |
| 240.0 | 034.0000 | 0087.7 | 039.4 | 120.7 | 000.1100 | 0249.8 | 058.7 | 38.15 |
| 241.0 | 034.0000 | 0087.2 | 039.3 | 120.3 | 000.1100 | 0251.5 | 058.1 | 38.43 |
| 242.0 | 034.0000 | 0086.7 | 039.2 | 119.8 | 000.1100 | 0253.2 | 057.6 | 38.70 |
| 243.0 | 034.0000 | 0086.2 | 039.1 | 119.4 | 000.1100 | 0254.2 | 057.0 | 38.94 |
| 244.0 | 034.0000 | 0085.7 | 039.0 | 118.9 | 000.1100 | 0254.4 | 056.5 | 39.15 |
| 245.0 | 034.0000 | 0085.3 | 038.9 | 118.4 | 000.1100 | 0254.5 | 056.0 | 39.36 |
| 246.0 | 034.0000 | 0084.9 | 038.8 | 118.0 | 000.1100 | 0254.8 | 055.5 | 39.57 |
| 247.0 | 034.0000 | 0084.7 | 038.8 | 117.5 | 000.1100 | 0255.3 | 055.0 | 39.79 |
| 248.0 | 034.0000 | 0084.4 | 038.7 | 117.0 | 000.1100 | 0256.0 | 054.5 | 40.01 |
| 249.0 | 034.0000 | 0084.2 | 038.7 | 116.5 | 000.1100 | 0256.4 | 054.0 | 40.22 |
| 250.0 | 034.0000 | 0084.1 | 038.7 | 116.0 | 000.1100 | 0256.7 | 053.6 | 40.43 |

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 251.0 | 034.0000 | 0084.0 | 038.6 | 115.5 | 000.1100 | 0257.1 | 053.1 | 40.63 |
| 252.0 | 034.0000 | 0083.8 | 038.6 | 114.9 | 000.1100 | 0257.3 | 052.7 | 40.82 |
| 253.0 | 034.0000 | 0083.6 | 038.6 | 114.3 | 000.1100 | 0257.8 | 052.2 | 41.00 |
| 254.0 | 034.0000 | 0083.3 | 038.5 | 113.7 | 000.1100 | 0258.7 | 051.8 | 41.20 |
| 255.0 | 034.0000 | 0083.0 | 038.4 | 113.1 | 000.1100 | 0260.0 | 051.5 | 41.40 |
| 256.0 | 034.0000 | 0082.7 | 038.4 | 112.5 | 000.1100 | 0261.1 | 051.1 | 41.58 |
| 257.0 | 034.0000 | 0082.5 | 038.3 | 111.8 | 000.1100 | 0262.0 | 050.7 | 41.76 |
| 258.0 | 034.0000 | 0082.6 | 038.4 | 111.2 | 000.1100 | 0262.9 | 050.3 | 41.95 |
| 259.0 | 034.0000 | 0082.9 | 038.4 | 110.6 | 000.1100 | 0264.0 | 049.9 | 42.15 |
| 260.0 | 034.0000 | 0083.4 | 038.5 | 110.0 | 000.1100 | 0266.6 | 049.5 | 42.41 |
| 261.0 | 034.0000 | 0084.1 | 038.7 | 109.4 | 000.1100 | 0270.0 | 049.0 | 42.71 |
| 262.0 | 034.0000 | 0084.8 | 038.8 | 108.8 | 000.1100 | 0272.2 | 048.6 | 42.96 |
| 263.0 | 034.0000 | 0085.3 | 038.9 | 108.1 | 000.1100 | 0273.3 | 048.2 | 43.15 |
| 264.0 | 034.0000 | 0085.7 | 039.0 | 107.4 | 000.1100 | 0274.2 | 047.8 | 43.32 |
| 265.0 | 034.0000 | 0086.1 | 039.0 | 106.7 | 000.1100 | 0275.1 | 047.5 | 43.49 |
| 266.0 | 034.0000 | 0086.6 | 039.1 | 106.0 | 000.1100 | 0276.1 | 047.2 | 43.66 |
| 267.0 | 034.0000 | 0087.7 | 039.4 | 105.3 | 000.1100 | 0276.7 | 046.7 | 43.85 |
| 268.0 | 034.0000 | 0089.0 | 039.6 | 104.5 | 000.1100 | 0276.9 | 046.3 | 44.04 |
| 269.0 | 034.0000 | 0090.1 | 039.8 | 103.8 | 000.1100 | 0276.9 | 045.9 | 44.20 |
| 270.0 | 034.0000 | 0091.3 | 040.0 | 103.0 | 000.1100 | 0276.7 | 045.5 | 44.35 |
| 271.0 | 034.0000 | 0092.3 | 040.2 | 102.2 | 000.1100 | 0276.4 | 045.2 | 44.48 |
| 272.0 | 034.0000 | 0093.1 | 040.4 | 101.3 | 000.1100 | 0275.9 | 044.9 | 44.58 |
| 273.0 | 034.0000 | 0093.8 | 040.5 | 100.5 | 000.1100 | 0275.3 | 044.7 | 44.66 |
| 274.0 | 034.0000 | 0094.4 | 040.6 | 099.6 | 000.1100 | 0274.7 | 044.5 | 44.72 |
| 275.0 | 034.0000 | 0095.0 | 040.7 | 098.7 | 000.1100 | 0275.4 | 044.3 | 44.81 |
| 276.0 | 034.0000 | 0095.4 | 040.8 | 097.8 | 000.1100 | 0277.9 | 044.2 | 44.94 |
| 277.0 | 034.0000 | 0095.4 | 040.8 | 096.8 | 000.1100 | 0281.9 | 044.2 | 45.07 |
| 278.0 | 034.0000 | 0095.1 | 040.7 | 095.9 | 000.1100 | 0283.9 | 044.3 | 45.11 |
| 279.0 | 034.0000 | 0094.7 | 040.6 | 095.0 | 000.1100 | 0286.0 | 044.4 | 45.13 |
| 280.0 | 034.0000 | 0094.4 | 040.6 | 094.1 | 000.1100 | 0288.2 | 044.5 | 45.15 |
| 281.0 | 034.0000 | 0094.2 | 040.6 | 093.2 | 000.1100 | 0287.6 | 044.6 | 45.09 |
| 282.0 | 034.0000 | 0094.0 | 040.5 | 092.3 | 000.1100 | 0286.4 | 044.7 | 45.00 |
| 283.0 | 034.0000 | 0093.9 | 040.5 | 091.4 | 000.1100 | 0285.6 | 044.9 | 44.90 |
| 284.0 | 034.0000 | 0093.8 | 040.5 | 090.5 | 000.1100 | 0284.0 | 045.0 | 44.79 |
| 285.0 | 034.0000 | 0093.8 | 040.5 | 089.6 | 000.1100 | 0282.1 | 045.2 | 44.66 |
| 286.0 | 034.0000 | 0094.2 | 040.6 | 088.7 | 000.1100 | 0281.1 | 045.3 | 44.58 |
| 287.0 | 034.0000 | 0095.0 | 040.7 | 087.8 | 000.1100 | 0281.9 | 045.4 | 44.57 |
| 288.0 | 034.0000 | 0095.9 | 040.8 | 086.9 | 000.1100 | 0283.6 | 045.5 | 44.58 |
| 289.0 | 034.0000 | 0096.7 | 041.0 | 086.0 | 000.1100 | 0285.4 | 045.6 | 44.58 |
| 290.0 | 034.0000 | 0097.5 | 041.1 | 085.1 | 000.1100 | 0286.3 | 045.8 | 44.55 |
| 291.0 | 034.0000 | 0098.2 | 041.2 | 084.2 | 000.1100 | 0287.1 | 046.0 | 44.49 |
| 292.0 | 034.0000 | 0098.6 | 041.3 | 083.4 | 000.1100 | 0288.0 | 046.2 | 44.41 |
| 293.0 | 034.0000 | 0098.5 | 041.3 | 082.6 | 000.1100 | 0290.5 | 046.6 | 44.34 |
| 294.0 | 034.0000 | 0097.7 | 041.2 | 082.0 | 000.1100 | 0294.0 | 047.1 | 44.25 |
| 295.0 | 034.0000 | 0096.8 | 041.0 | 081.3 | 000.1100 | 0294.6 | 047.6 | 44.06 |
| 296.0 | 034.0000 | 0095.7 | 040.8 | 080.8 | 000.1100 | 0294.3 | 048.2 | 43.83 |
| 297.0 | 034.0000 | 0093.7 | 040.5 | 080.3 | 000.1100 | 0294.2 | 048.9 | 43.55 |
| 298.0 | 034.0000 | 0091.7 | 040.1 | 079.9 | 000.1100 | 0293.9 | 049.6 | 43.26 |
| 299.0 | 034.0000 | 0091.1 | 040.0 | 079.4 | 000.1100 | 0293.1 | 050.1 | 43.03 |
| 300.0 | 034.0000 | 0090.8 | 039.9 | 078.8 | 000.1100 | 0292.4 | 050.6 | 42.81 |
| 301.0 | 034.0000 | 0090.4 | 039.9 | 078.2 | 000.1100 | 0292.1 | 051.1 | 42.60 |

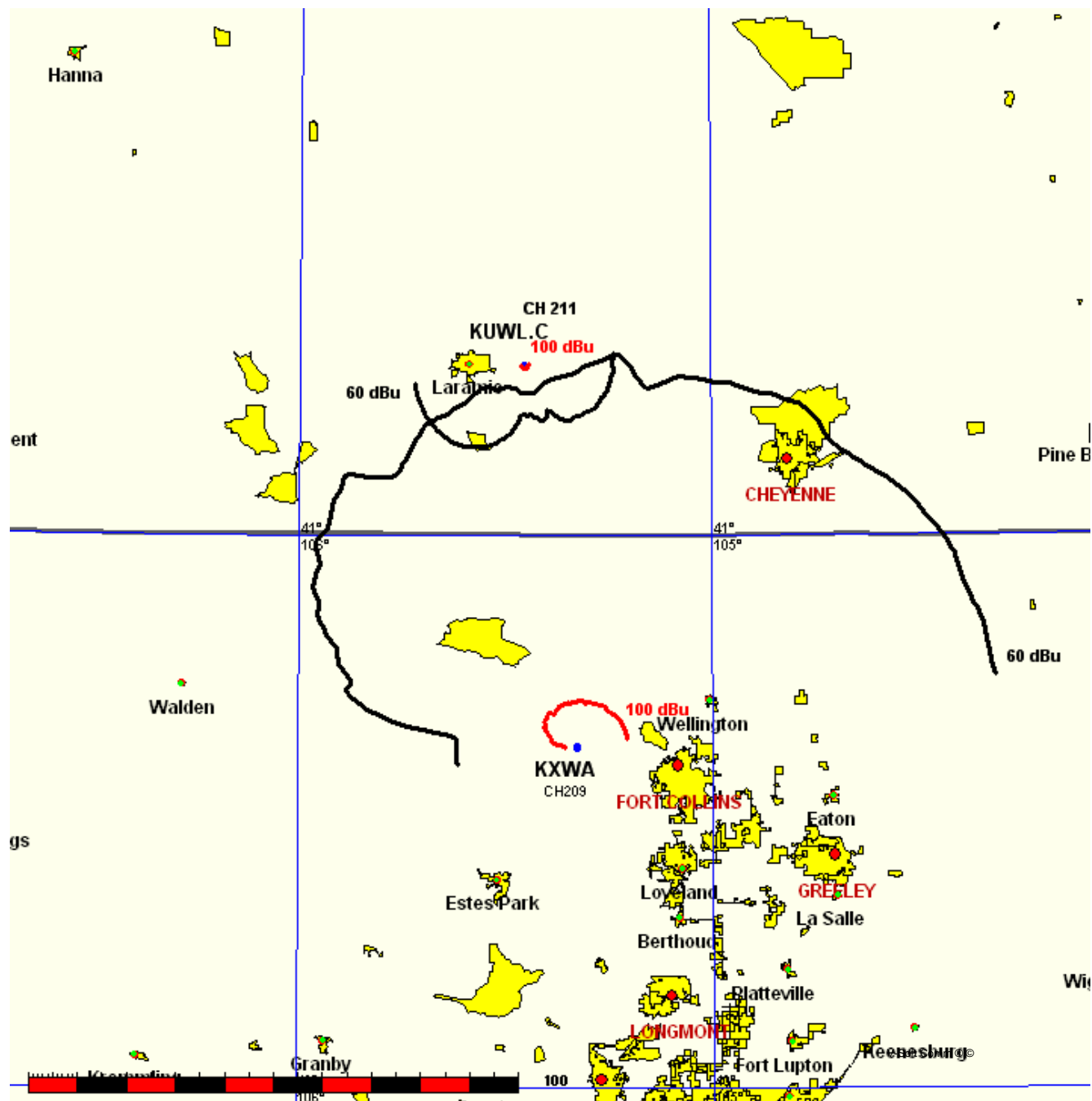
| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 302.0 | 034.0000 | 0090.0 | 039.8 | 077.7 | 000.1100 | 0292.2 | 051.6 | 42.39 |
| 303.0 | 034.0000 | 0089.6 | 039.7 | 077.3 | 000.1100 | 0293.0 | 052.2 | 42.20 |
| 304.0 | 034.0000 | 0089.2 | 039.6 | 076.8 | 000.1100 | 0294.3 | 052.7 | 42.03 |
| 305.0 | 034.0000 | 0088.7 | 039.5 | 076.4 | 000.1100 | 0295.8 | 053.3 | 41.85 |
| 306.0 | 034.0000 | 0088.1 | 039.4 | 076.0 | 000.1100 | 0296.9 | 053.9 | 41.65 |
| 307.0 | 034.0000 | 0087.6 | 039.3 | 075.6 | 000.1100 | 0297.8 | 054.5 | 41.45 |
| 308.0 | 034.0000 | 0087.2 | 039.3 | 075.2 | 000.1100 | 0298.6 | 055.1 | 41.24 |
| 309.0 | 034.0000 | 0086.9 | 039.2 | 074.8 | 000.1100 | 0299.3 | 055.6 | 41.04 |
| 310.0 | 034.0000 | 0086.8 | 039.2 | 074.4 | 000.1100 | 0299.9 | 056.2 | 40.84 |
| 311.0 | 034.0000 | 0086.8 | 039.2 | 074.0 | 000.1100 | 0300.4 | 056.8 | 40.64 |
| 312.0 | 034.0000 | 0087.1 | 039.2 | 073.6 | 000.1100 | 0300.9 | 057.3 | 40.44 |
| 313.0 | 034.0000 | 0087.5 | 039.3 | 073.2 | 000.1100 | 0301.4 | 057.9 | 40.25 |
| 314.0 | 034.0000 | 0088.0 | 039.4 | 072.8 | 000.1100 | 0301.9 | 058.4 | 40.05 |
| 315.0 | 034.0000 | 0088.6 | 039.5 | 072.3 | 000.1100 | 0302.3 | 058.9 | 39.85 |
| 316.0 | 034.0000 | 0089.2 | 039.6 | 071.9 | 000.1100 | 0302.7 | 059.5 | 39.65 |
| 317.0 | 034.0000 | 0089.9 | 039.8 | 071.5 | 000.1100 | 0303.1 | 060.1 | 39.45 |
| 318.0 | 034.0000 | 0090.6 | 039.9 | 071.1 | 000.1100 | 0303.5 | 060.7 | 39.24 |
| 319.0 | 034.0000 | 0091.3 | 040.0 | 070.8 | 000.1100 | 0303.7 | 061.2 | 39.03 |
| 320.0 | 034.0000 | 0092.2 | 040.2 | 070.4 | 000.1100 | 0303.8 | 061.8 | 38.81 |
| 321.0 | 034.0000 | 0093.1 | 040.4 | 070.0 | 000.1100 | 0303.8 | 062.4 | 38.59 |
| 322.0 | 034.0000 | 0093.7 | 040.5 | 069.7 | 000.1100 | 0303.8 | 063.1 | 38.36 |
| 323.0 | 034.0000 | 0094.1 | 040.5 | 069.5 | 000.1100 | 0303.8 | 063.7 | 38.12 |
| 324.0 | 034.0000 | 0094.5 | 040.6 | 069.2 | 000.1100 | 0303.9 | 064.4 | 37.89 |
| 325.0 | 034.0000 | 0095.0 | 040.7 | 069.0 | 000.1100 | 0303.9 | 065.0 | 37.65 |
| 326.0 | 034.0000 | 0095.5 | 040.8 | 068.8 | 000.1100 | 0303.9 | 065.7 | 37.41 |
| 327.0 | 034.0000 | 0095.9 | 040.9 | 068.5 | 000.1100 | 0303.8 | 066.4 | 37.16 |
| 328.0 | 034.0000 | 0096.6 | 041.0 | 068.3 | 000.1100 | 0303.6 | 067.0 | 36.91 |
| 329.0 | 034.0000 | 0097.6 | 041.2 | 068.1 | 000.1100 | 0303.2 | 067.7 | 36.66 |
| 330.0 | 034.0000 | 0098.9 | 041.4 | 067.8 | 000.1100 | 0302.5 | 068.4 | 36.39 |
| 331.0 | 034.0000 | 0100.3 | 041.6 | 067.5 | 000.1100 | 0301.6 | 069.1 | 36.12 |
| 332.0 | 034.0000 | 0101.7 | 041.8 | 067.2 | 000.1100 | 0300.9 | 069.8 | 35.85 |
| 333.0 | 034.0000 | 0102.5 | 042.0 | 067.1 | 000.1100 | 0300.6 | 070.5 | 35.59 |
| 334.0 | 034.0000 | 0102.8 | 042.0 | 067.0 | 000.1100 | 0300.5 | 071.2 | 35.33 |
| 335.0 | 034.0000 | 0103.0 | 042.1 | 066.9 | 000.1100 | 0300.4 | 071.9 | 35.07 |
| 336.0 | 034.0000 | 0103.4 | 042.1 | 066.9 | 000.1100 | 0300.3 | 072.7 | 34.81 |
| 337.0 | 034.0000 | 0103.8 | 042.2 | 066.8 | 000.1100 | 0300.3 | 073.4 | 34.55 |

University Of Wyoming
KUWL (New) v. KXWA

FMCommander Single Allocation Study
01-08-2008

KUWL.C CH 211 A
0.11 kW 2699 M COR
Prot. = 60 dBu
Intef. = 100 dBu

KXWA CH 209 C1 BLED20050510ADD
36.0 kW, 2561.2 M COR
Prot. = 60 dBu
Intef. = 100 dBu



01-08-2008

USGS 03 SEC Terrain Data

FMOver Analysis

KUWL.C

Channel = 211A

Max ERP = 0.11 kW

RCAMSL = 2699 M

N. Lat. 41 18 36.0

W. Lng. 105 27 17.0

Protected

60 dBu

KXWA

BLED20050510ADD

Channel = 209C1

Max ERP = 36 kW

RCAMSL = 2561.2 M

N. Lat. 40 37 03.0

W. Lng. 105 19 40.0

Interfering

100 dBu

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 112.0 | 000.1100 | 0261.8 | 017.2 | 004.2 | 036.0000 | 0535.9 | 070.7 | 67.46 |
| 113.0 | 000.1100 | 0260.2 | 017.1 | 004.1 | 036.0000 | 0534.3 | 070.4 | 67.52 |
| 114.0 | 000.1100 | 0258.2 | 017.0 | 004.0 | 036.0000 | 0532.6 | 070.1 | 67.56 |
| 115.0 | 000.1100 | 0257.3 | 017.0 | 003.8 | 036.0000 | 0531.1 | 069.9 | 67.62 |
| 116.0 | 000.1100 | 0256.7 | 017.0 | 003.7 | 036.0000 | 0529.8 | 069.6 | 67.67 |
| 117.0 | 000.1100 | 0256.0 | 017.0 | 003.6 | 036.0000 | 0528.6 | 069.3 | 67.74 |
| 118.0 | 000.1100 | 0254.7 | 016.9 | 003.5 | 036.0000 | 0527.3 | 069.1 | 67.79 |
| 119.0 | 000.1100 | 0254.4 | 016.9 | 003.4 | 036.0000 | 0526.3 | 068.8 | 67.85 |
| 120.0 | 000.1100 | 0252.6 | 016.8 | 003.2 | 036.0000 | 0525.0 | 068.6 | 67.90 |
| 121.0 | 000.1100 | 0248.6 | 016.7 | 003.0 | 036.0000 | 0523.7 | 068.4 | 67.93 |
| 122.0 | 000.1100 | 0245.6 | 016.6 | 002.8 | 036.0000 | 0522.8 | 068.2 | 67.98 |
| 123.0 | 000.1100 | 0243.6 | 016.5 | 002.6 | 036.0000 | 0522.3 | 068.0 | 68.04 |
| 124.0 | 000.1100 | 0239.0 | 016.3 | 002.4 | 036.0000 | 0521.4 | 067.8 | 68.07 |
| 125.0 | 000.1100 | 0233.0 | 016.1 | 002.1 | 036.0000 | 0519.4 | 067.7 | 68.06 |
| 126.0 | 000.1100 | 0227.5 | 015.9 | 001.8 | 036.0000 | 0516.8 | 067.6 | 68.03 |
| 127.0 | 000.1100 | 0223.2 | 015.8 | 001.6 | 036.0000 | 0514.1 | 067.4 | 68.01 |
| 128.0 | 000.1100 | 0219.7 | 015.6 | 001.4 | 036.0000 | 0511.4 | 067.3 | 67.99 |
| 129.0 | 000.1100 | 0217.4 | 015.5 | 001.2 | 036.0000 | 0508.9 | 067.1 | 67.98 |
| 130.0 | 000.1100 | 0214.7 | 015.4 | 001.0 | 036.0000 | 0505.6 | 067.0 | 67.95 |
| 131.0 | 000.1100 | 0211.4 | 015.3 | 000.7 | 036.0000 | 0501.7 | 066.9 | 67.89 |
| 132.0 | 000.1100 | 0207.9 | 015.2 | 000.5 | 036.0000 | 0498.2 | 066.7 | 67.84 |
| 133.0 | 000.1100 | 0203.8 | 015.0 | 000.2 | 036.0000 | 0494.2 | 066.7 | 67.76 |
| 134.0 | 000.1100 | 0198.6 | 014.8 | 360.0 | 036.0000 | 0490.8 | 066.6 | 67.70 |
| 135.0 | 000.1100 | 0195.9 | 014.7 | 359.8 | 036.0000 | 0488.2 | 066.5 | 67.67 |
| 136.0 | 000.1100 | 0193.6 | 014.7 | 359.6 | 036.0000 | 0486.5 | 066.4 | 67.66 |
| 137.0 | 000.1100 | 0191.6 | 014.6 | 359.4 | 036.0000 | 0485.4 | 066.2 | 67.68 |
| 138.0 | 000.1100 | 0190.4 | 014.5 | 359.2 | 036.0000 | 0484.9 | 066.1 | 67.71 |
| 139.0 | 000.1100 | 0189.7 | 014.5 | 359.0 | 036.0000 | 0484.0 | 066.0 | 67.73 |
| 140.0 | 000.1100 | 0189.4 | 014.5 | 358.8 | 036.0000 | 0483.3 | 065.8 | 67.77 |
| 141.0 | 000.1100 | 0188.0 | 014.5 | 358.6 | 036.0000 | 0482.4 | 065.7 | 67.78 |
| 142.0 | 000.1100 | 0184.3 | 014.3 | 358.4 | 036.0000 | 0481.4 | 065.6 | 67.77 |
| 143.0 | 000.1100 | 0179.6 | 014.2 | 358.1 | 036.0000 | 0480.2 | 065.6 | 67.75 |
| 144.0 | 000.1100 | 0172.0 | 013.9 | 357.8 | 036.0000 | 0478.6 | 065.7 | 67.67 |
| 145.0 | 000.1100 | 0163.5 | 013.5 | 357.4 | 036.0000 | 0476.8 | 065.9 | 67.56 |
| 146.0 | 000.1100 | 0153.2 | 013.0 | 357.1 | 036.0000 | 0475.3 | 066.2 | 67.43 |
| 147.0 | 000.1100 | 0140.7 | 012.4 | 356.6 | 036.0000 | 0473.5 | 066.6 | 67.25 |
| 148.0 | 000.1100 | 0130.9 | 012.0 | 356.3 | 036.0000 | 0472.7 | 066.9 | 67.13 |

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 149.0 | 000.1100 | 0121.1 | 011.5 | 356.0 | 036.0000 | 0472.2 | 067.2 | 67.02 |
| 150.0 | 000.1100 | 0108.4 | 011.0 | 355.6 | 036.0000 | 0470.4 | 067.6 | 66.83 |
| 151.0 | 000.1100 | 0101.6 | 010.6 | 355.4 | 036.0000 | 0468.0 | 067.8 | 66.69 |
| 152.0 | 000.1100 | 0099.1 | 010.5 | 355.2 | 036.0000 | 0466.2 | 067.9 | 66.63 |
| 153.0 | 000.1100 | 0098.8 | 010.5 | 355.0 | 036.0000 | 0464.7 | 067.8 | 66.61 |
| 154.0 | 000.1100 | 0093.6 | 010.2 | 354.8 | 036.0000 | 0462.0 | 068.0 | 66.48 |
| 155.0 | 000.1100 | 0097.4 | 010.4 | 354.7 | 036.0000 | 0460.9 | 067.7 | 66.53 |
| 156.0 | 000.1100 | 0106.1 | 010.9 | 354.7 | 036.0000 | 0460.4 | 067.3 | 66.68 |
| 157.0 | 000.1100 | 0118.3 | 011.4 | 354.7 | 036.0000 | 0460.3 | 066.7 | 66.87 |
| 158.0 | 000.1100 | 0123.2 | 011.6 | 354.6 | 036.0000 | 0458.8 | 066.4 | 66.92 |
| 159.0 | 000.1100 | 0123.9 | 011.7 | 354.4 | 036.0000 | 0456.4 | 066.3 | 66.89 |
| 160.0 | 000.1100 | 0124.5 | 011.7 | 354.2 | 036.0000 | 0453.9 | 066.3 | 66.84 |
| 161.0 | 000.1100 | 0125.4 | 011.7 | 354.1 | 036.0000 | 0451.1 | 066.2 | 66.80 |
| 162.0 | 000.1100 | 0125.7 | 011.7 | 353.9 | 036.0000 | 0448.4 | 066.1 | 66.75 |
| 163.0 | 000.1100 | 0124.4 | 011.7 | 353.7 | 036.0000 | 0445.5 | 066.1 | 66.67 |
| 164.0 | 000.1100 | 0120.7 | 011.5 | 353.5 | 036.0000 | 0443.1 | 066.3 | 66.56 |
| 165.0 | 000.1100 | 0115.1 | 011.3 | 353.3 | 036.0000 | 0441.3 | 066.5 | 66.44 |
| 166.0 | 000.1100 | 0109.7 | 011.0 | 353.1 | 036.0000 | 0440.1 | 066.7 | 66.33 |
| 167.0 | 000.1100 | 0106.3 | 010.9 | 353.0 | 036.0000 | 0439.9 | 066.8 | 66.28 |
| 168.0 | 000.1100 | 0104.5 | 010.8 | 352.8 | 036.0000 | 0439.7 | 066.9 | 66.25 |
| 169.0 | 000.1100 | 0102.2 | 010.7 | 352.6 | 036.0000 | 0439.6 | 067.0 | 66.22 |
| 170.0 | 000.1100 | 0099.1 | 010.5 | 352.5 | 036.0000 | 0439.5 | 067.1 | 66.16 |
| 171.0 | 000.1100 | 0095.8 | 010.3 | 352.3 | 036.0000 | 0439.4 | 067.3 | 66.11 |
| 172.0 | 000.1100 | 0091.7 | 010.1 | 352.2 | 036.0000 | 0439.4 | 067.5 | 66.04 |
| 173.0 | 000.1100 | 0087.4 | 009.9 | 352.0 | 036.0000 | 0439.5 | 067.7 | 65.96 |
| 174.0 | 000.1100 | 0088.0 | 009.9 | 351.9 | 036.0000 | 0439.9 | 067.7 | 65.98 |
| 175.0 | 000.1100 | 0090.1 | 010.0 | 351.7 | 036.0000 | 0440.4 | 067.6 | 66.03 |
| 176.0 | 000.1100 | 0092.7 | 010.2 | 351.6 | 036.0000 | 0441.1 | 067.5 | 66.09 |
| 177.0 | 000.1100 | 0093.6 | 010.2 | 351.4 | 036.0000 | 0441.8 | 067.5 | 66.12 |
| 178.0 | 000.1100 | 0093.2 | 010.2 | 351.3 | 036.0000 | 0442.6 | 067.5 | 66.13 |
| 179.0 | 000.1100 | 0091.0 | 010.1 | 351.1 | 036.0000 | 0443.4 | 067.6 | 66.10 |
| 180.0 | 000.1100 | 0086.8 | 009.9 | 351.0 | 036.0000 | 0444.2 | 067.9 | 66.04 |
| 181.0 | 000.1100 | 0087.3 | 009.9 | 350.9 | 036.0000 | 0445.3 | 067.9 | 66.07 |
| 182.0 | 000.1100 | 0088.3 | 009.9 | 350.7 | 036.0000 | 0447.1 | 067.9 | 66.12 |
| 183.0 | 000.1100 | 0091.0 | 010.1 | 350.5 | 036.0000 | 0449.7 | 067.8 | 66.23 |
| 184.0 | 000.1100 | 0095.0 | 010.3 | 350.4 | 036.0000 | 0452.6 | 067.6 | 66.36 |
| 185.0 | 000.1100 | 0100.2 | 010.6 | 350.2 | 036.0000 | 0456.2 | 067.4 | 66.53 |
| 186.0 | 000.1100 | 0108.7 | 011.0 | 349.9 | 036.0000 | 0460.0 | 067.0 | 66.75 |
| 187.0 | 000.1100 | 0120.3 | 011.5 | 349.6 | 036.0000 | 0463.3 | 066.6 | 66.98 |
| 188.0 | 000.1100 | 0134.4 | 012.1 | 349.3 | 036.0000 | 0466.1 | 066.1 | 67.23 |
| 189.0 | 000.1100 | 0146.4 | 012.7 | 348.9 | 036.0000 | 0466.7 | 065.6 | 67.40 |
| 190.0 | 000.1100 | 0157.3 | 013.2 | 348.6 | 036.0000 | 0466.1 | 065.2 | 67.52 |
| 191.0 | 000.1100 | 0169.4 | 013.7 | 348.2 | 036.0000 | 0465.4 | 064.8 | 67.64 |
| 192.0 | 000.1100 | 0180.8 | 014.2 | 347.9 | 036.0000 | 0465.6 | 064.5 | 67.75 |
| 193.0 | 000.1100 | 0186.9 | 014.4 | 347.6 | 036.0000 | 0466.1 | 064.4 | 67.79 |
| 194.0 | 000.1100 | 0194.6 | 014.7 | 347.3 | 036.0000 | 0467.0 | 064.2 | 67.86 |
| 195.0 | 000.1100 | 0203.9 | 015.0 | 346.9 | 036.0000 | 0468.2 | 064.1 | 67.96 |
| 196.0 | 000.1100 | 0213.4 | 015.4 | 346.6 | 036.0000 | 0471.5 | 063.9 | 68.10 |
| 197.0 | 000.1100 | 0220.8 | 015.7 | 346.3 | 036.0000 | 0474.9 | 063.8 | 68.23 |
| 198.0 | 000.1100 | 0229.9 | 016.0 | 345.9 | 036.0000 | 0477.6 | 063.6 | 68.35 |
| 199.0 | 000.1100 | 0242.5 | 016.5 | 345.4 | 036.0000 | 0479.0 | 063.4 | 68.47 |

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 200.0 | 000.1100 | 0252.5 | 016.8 | 345.0 | 036.0000 | 0478.6 | 063.3 | 68.50 |
| 201.0 | 000.1100 | 0258.7 | 017.1 | 344.7 | 036.0000 | 0477.0 | 063.2 | 68.46 |
| 202.0 | 000.1100 | 0263.8 | 017.2 | 344.4 | 036.0000 | 0475.1 | 063.3 | 68.40 |
| 203.0 | 000.1100 | 0270.3 | 017.5 | 344.1 | 036.0000 | 0473.0 | 063.3 | 68.34 |
| 204.0 | 000.1100 | 0277.5 | 017.7 | 343.7 | 036.0000 | 0469.9 | 063.3 | 68.26 |
| 205.0 | 000.1100 | 0285.9 | 018.0 | 343.3 | 036.0000 | 0466.4 | 063.3 | 68.17 |
| 206.0 | 000.1100 | 0292.2 | 018.2 | 343.0 | 036.0000 | 0462.9 | 063.4 | 68.06 |
| 207.0 | 000.1100 | 0296.9 | 018.4 | 342.7 | 036.0000 | 0459.8 | 063.5 | 67.94 |
| 208.0 | 000.1100 | 0303.7 | 018.6 | 342.3 | 036.0000 | 0456.4 | 063.5 | 67.82 |
| 209.0 | 000.1100 | 0312.4 | 018.8 | 342.0 | 036.0000 | 0453.4 | 063.6 | 67.73 |
| 210.0 | 000.1100 | 0320.5 | 019.1 | 341.6 | 036.0000 | 0452.0 | 063.7 | 67.66 |
| 211.0 | 000.1100 | 0327.7 | 019.3 | 341.3 | 036.0000 | 0451.3 | 063.8 | 67.60 |
| 212.0 | 000.1100 | 0336.2 | 019.5 | 340.9 | 036.0000 | 0450.8 | 063.9 | 67.55 |
| 213.0 | 000.1100 | 0345.6 | 019.8 | 340.6 | 036.0000 | 0449.5 | 064.0 | 67.48 |
| 214.0 | 000.1100 | 0354.3 | 020.0 | 340.2 | 036.0000 | 0448.5 | 064.2 | 67.40 |
| 215.0 | 000.1100 | 0362.1 | 020.2 | 339.9 | 036.0000 | 0447.1 | 064.3 | 67.31 |
| 216.0 | 000.1100 | 0368.9 | 020.4 | 339.6 | 036.0000 | 0446.1 | 064.5 | 67.22 |
| 217.0 | 000.1100 | 0374.2 | 020.5 | 339.3 | 036.0000 | 0445.4 | 064.8 | 67.12 |
| 218.0 | 000.1100 | 0379.6 | 020.7 | 339.0 | 036.0000 | 0444.7 | 065.0 | 67.03 |
| 219.0 | 000.1100 | 0384.9 | 020.8 | 338.8 | 036.0000 | 0444.0 | 065.2 | 66.93 |
| 220.0 | 000.1100 | 0390.2 | 020.9 | 338.5 | 036.0000 | 0443.5 | 065.5 | 66.83 |
| 221.0 | 000.1100 | 0395.6 | 021.1 | 338.3 | 036.0000 | 0442.8 | 065.7 | 66.72 |
| 222.0 | 000.1100 | 0400.9 | 021.2 | 338.0 | 036.0000 | 0442.4 | 066.0 | 66.62 |
| 223.0 | 000.1100 | 0405.6 | 021.3 | 337.8 | 036.0000 | 0442.4 | 066.3 | 66.52 |
| 224.0 | 000.1100 | 0409.4 | 021.4 | 337.6 | 036.0000 | 0442.6 | 066.6 | 66.43 |
| 225.0 | 000.1100 | 0412.7 | 021.5 | 337.4 | 036.0000 | 0442.8 | 066.9 | 66.33 |
| 226.0 | 000.1100 | 0415.5 | 021.6 | 337.3 | 036.0000 | 0442.8 | 067.2 | 66.22 |
| 227.0 | 000.1100 | 0418.2 | 021.6 | 337.1 | 036.0000 | 0442.7 | 067.6 | 66.10 |
| 228.0 | 000.1100 | 0420.8 | 021.7 | 336.9 | 036.0000 | 0442.7 | 067.9 | 65.99 |
| 229.0 | 000.1100 | 0423.4 | 021.7 | 336.8 | 036.0000 | 0442.8 | 068.3 | 65.88 |
| 230.0 | 000.1100 | 0426.2 | 021.8 | 336.6 | 036.0000 | 0442.8 | 068.6 | 65.77 |
| 231.0 | 000.1100 | 0429.1 | 021.9 | 336.5 | 036.0000 | 0442.7 | 068.9 | 65.65 |
| 232.0 | 000.1100 | 0432.0 | 022.0 | 336.4 | 036.0000 | 0442.5 | 069.3 | 65.53 |

01-08-2008 USGS 03 SEC Terrain Data

KXWA BLED20050510ADD
 Channel = 209C1
 Max ERP = 36 kW
 RCAMSL = 2561.2 M
 N. Lat. 40 37 03.0
 W. Lng. 105 19 40.0
 Protected
 60 dBu

KUWL.C
 Channel = 211A
 Max ERP = 0.11 kW
 RCAMSL = 2699 M
 N. Lat. 41 18 36.0
 W. Lng. 105 27 17.0
 Interfering
 100 dBu

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 292.0 | 036.0000 | 0182.6 | 052.9 | 213.9 | 000.1100 | 0353.7 | 068.8 | 38.02 |
| 293.0 | 036.0000 | 0199.7 | 054.4 | 215.3 | 000.1100 | 0364.3 | 068.2 | 38.58 |
| 294.0 | 036.0000 | 0217.3 | 055.8 | 216.7 | 000.1100 | 0372.7 | 067.6 | 39.05 |
| 295.0 | 036.0000 | 0233.9 | 057.2 | 218.0 | 000.1100 | 0379.7 | 066.9 | 39.49 |
| 296.0 | 036.0000 | 0251.4 | 058.5 | 219.3 | 000.1100 | 0386.8 | 066.2 | 39.92 |
| 297.0 | 036.0000 | 0260.7 | 059.2 | 220.1 | 000.1100 | 0391.0 | 065.4 | 40.32 |
| 298.0 | 036.0000 | 0265.1 | 059.5 | 220.6 | 000.1100 | 0393.5 | 064.4 | 40.72 |
| 299.0 | 036.0000 | 0275.1 | 060.3 | 221.5 | 000.1100 | 0398.1 | 063.6 | 41.14 |
| 300.0 | 036.0000 | 0289.2 | 061.3 | 222.6 | 000.1100 | 0403.8 | 062.8 | 41.58 |
| 301.0 | 036.0000 | 0308.2 | 062.7 | 224.1 | 000.1100 | 0409.6 | 062.0 | 42.00 |
| 302.0 | 036.0000 | 0315.7 | 063.2 | 224.8 | 000.1100 | 0412.0 | 061.1 | 42.40 |
| 303.0 | 036.0000 | 0317.3 | 063.4 | 225.1 | 000.1100 | 0413.0 | 060.0 | 42.81 |
| 304.0 | 036.0000 | 0322.2 | 063.7 | 225.7 | 000.1100 | 0414.6 | 059.0 | 43.23 |
| 305.0 | 036.0000 | 0325.2 | 063.9 | 226.1 | 000.1100 | 0415.7 | 058.0 | 43.65 |
| 306.0 | 036.0000 | 0340.0 | 065.0 | 227.3 | 000.1100 | 0419.1 | 057.1 | 44.07 |
| 307.0 | 036.0000 | 0365.7 | 066.8 | 229.3 | 000.1100 | 0424.3 | 056.3 | 44.49 |
| 308.0 | 036.0000 | 0374.8 | 067.4 | 230.2 | 000.1100 | 0426.8 | 055.3 | 44.93 |
| 309.0 | 036.0000 | 0373.7 | 067.3 | 230.4 | 000.1100 | 0427.4 | 054.1 | 45.38 |
| 310.0 | 036.0000 | 0370.9 | 067.1 | 230.4 | 000.1100 | 0427.5 | 052.9 | 45.84 |
| 311.0 | 036.0000 | 0374.5 | 067.4 | 230.9 | 000.1100 | 0428.9 | 051.8 | 46.30 |
| 312.0 | 036.0000 | 0383.1 | 068.0 | 231.8 | 000.1100 | 0431.3 | 050.8 | 46.76 |
| 313.0 | 036.0000 | 0391.8 | 068.5 | 232.7 | 000.1100 | 0433.9 | 049.7 | 47.23 |
| 314.0 | 036.0000 | 0403.7 | 069.3 | 233.8 | 000.1100 | 0437.0 | 048.6 | 47.71 |
| 315.0 | 036.0000 | 0415.8 | 070.1 | 235.0 | 000.1100 | 0439.5 | 047.6 | 48.17 |
| 316.0 | 036.0000 | 0421.5 | 070.5 | 235.7 | 000.1100 | 0441.0 | 046.4 | 48.64 |
| 317.0 | 036.0000 | 0423.3 | 070.7 | 236.1 | 000.1100 | 0441.8 | 045.2 | 49.13 |
| 318.0 | 036.0000 | 0433.3 | 071.3 | 237.3 | 000.1100 | 0444.1 | 044.1 | 49.64 |
| 319.0 | 036.0000 | 0445.0 | 072.2 | 238.6 | 000.1100 | 0446.8 | 043.0 | 50.15 |
| 320.0 | 036.0000 | 0437.2 | 071.6 | 238.1 | 000.1100 | 0445.8 | 041.7 | 50.68 |
| 321.0 | 036.0000 | 0417.1 | 070.2 | 236.4 | 000.1100 | 0442.3 | 040.3 | 51.20 |
| 322.0 | 036.0000 | 0399.9 | 069.1 | 234.8 | 000.1100 | 0439.1 | 039.0 | 51.69 |
| 323.0 | 036.0000 | 0385.1 | 068.1 | 233.4 | 000.1100 | 0436.0 | 037.8 | 52.17 |
| 324.0 | 036.0000 | 0370.0 | 067.1 | 231.8 | 000.1100 | 0431.4 | 036.6 | 52.59 |
| 325.0 | 036.0000 | 0358.7 | 066.3 | 230.5 | 000.1100 | 0427.6 | 035.5 | 53.02 |

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 326.0 | 036.0000 | 0350.3 | 065.7 | 229.3 | 000.1100 | 0424.3 | 034.4 | 53.45 |
| 327.0 | 036.0000 | 0358.0 | 066.3 | 230.0 | 000.1100 | 0426.2 | 033.2 | 54.07 |
| 328.0 | 036.0000 | 0369.3 | 067.0 | 231.1 | 000.1100 | 0429.4 | 032.0 | 54.74 |
| 329.0 | 036.0000 | 0379.2 | 067.7 | 232.0 | 000.1100 | 0432.1 | 030.7 | 55.44 |
| 330.0 | 036.0000 | 0389.9 | 068.4 | 233.1 | 000.1100 | 0435.3 | 029.4 | 56.21 |
| 331.0 | 036.0000 | 0400.6 | 069.1 | 234.2 | 000.1100 | 0438.0 | 028.2 | 57.03 |
| 332.0 | 036.0000 | 0410.4 | 069.8 | 235.3 | 000.1100 | 0440.0 | 026.9 | 57.88 |
| 333.0 | 036.0000 | 0420.6 | 070.5 | 236.5 | 000.1100 | 0442.5 | 025.6 | 58.79 |
| 334.0 | 036.0000 | 0431.8 | 071.2 | 238.0 | 000.1100 | 0445.4 | 024.3 | 59.75 |
| 335.0 | 036.0000 | 0439.8 | 071.8 | 239.0 | 000.1100 | 0447.6 | 023.0 | 60.73 |
| 336.0 | 036.0000 | 0442.4 | 072.0 | 239.1 | 000.1100 | 0447.8 | 021.7 | 61.68 |
| 337.0 | 036.0000 | 0442.7 | 072.0 | 238.7 | 000.1100 | 0447.0 | 020.5 | 62.62 |
| 338.0 | 036.0000 | 0442.4 | 072.0 | 238.1 | 000.1100 | 0445.7 | 019.2 | 63.57 |
| 339.0 | 036.0000 | 0444.5 | 072.2 | 237.9 | 000.1100 | 0445.2 | 018.0 | 64.57 |
| 340.0 | 036.0000 | 0447.7 | 072.4 | 237.8 | 000.1100 | 0445.1 | 016.7 | 65.61 |
| 341.0 | 036.0000 | 0451.0 | 072.6 | 237.6 | 000.1100 | 0444.8 | 015.4 | 66.66 |
| 342.0 | 036.0000 | 0453.6 | 072.8 | 237.1 | 000.1100 | 0443.8 | 014.1 | 67.79 |
| 343.0 | 036.0000 | 0463.0 | 073.5 | 238.7 | 000.1100 | 0446.9 | 012.7 | 69.63 |
| 344.0 | 036.0000 | 0472.5 | 074.2 | 240.5 | 000.1100 | 0450.8 | 011.3 | 71.60 |
| 345.0 | 036.0000 | 0478.5 | 074.7 | 241.1 | 000.1100 | 0452.2 | 009.9 | 73.52 |
| 346.0 | 036.0000 | 0477.0 | 074.6 | 238.3 | 000.1100 | 0446.1 | 008.7 | 75.20 |
| 347.0 | 036.0000 | 0467.9 | 073.9 | 230.6 | 000.1100 | 0427.9 | 007.7 | 76.40 |
| 348.0 | 036.0000 | 0465.5 | 073.7 | 224.2 | 000.1100 | 0410.2 | 006.7 | 77.85 |
| 349.0 | 036.0000 | 0466.8 | 073.8 | 217.7 | 000.1100 | 0377.7 | 005.6 | 79.74 |
| 350.0 | 036.0000 | 0458.8 | 073.2 | 203.3 | 000.1100 | 0272.5 | 005.2 | 79.32 |
| 351.0 | 036.0000 | 0444.3 | 072.1 | 186.5 | 000.1100 | 0114.2 | 005.7 | 72.03 |
| 352.0 | 036.0000 | 0439.6 | 071.8 | 173.7 | 000.1100 | 0087.5 | 005.8 | 69.16 |
| 353.0 | 036.0000 | 0439.9 | 071.8 | 161.6 | 000.1100 | 0125.7 | 005.9 | 72.07 |
| 354.0 | 036.0000 | 0449.7 | 072.5 | 147.5 | 000.1100 | 0135.6 | 005.7 | 73.46 |
| 355.0 | 036.0000 | 0464.4 | 073.6 | 130.2 | 000.1100 | 0214.1 | 005.5 | 77.24 |
| 356.0 | 036.0000 | 0472.2 | 074.2 | 117.8 | 000.1100 | 0254.9 | 006.2 | 76.73 |
| 357.0 | 036.0000 | 0475.0 | 074.4 | 111.1 | 000.1100 | 0263.1 | 007.2 | 74.65 |
| 358.0 | 036.0000 | 0479.7 | 074.8 | 105.3 | 000.1100 | 0276.6 | 008.3 | 72.92 |
| 359.0 | 036.0000 | 0484.1 | 075.1 | 101.3 | 000.1100 | 0275.9 | 009.5 | 70.78 |
| 000.0 | 036.0000 | 0491.0 | 075.5 | 097.3 | 000.1100 | 0279.9 | 010.7 | 68.85 |
| 001.0 | 036.0000 | 0506.3 | 076.5 | 091.8 | 000.1100 | 0285.9 | 012.0 | 67.07 |
| 002.0 | 036.0000 | 0518.4 | 077.3 | 088.5 | 000.1100 | 0281.3 | 013.3 | 64.96 |
| 003.0 | 036.0000 | 0523.6 | 077.6 | 087.7 | 000.1100 | 0282.2 | 014.7 | 63.24 |
| 004.0 | 036.0000 | 0533.2 | 078.2 | 086.1 | 000.1100 | 0285.2 | 016.1 | 62.16 |
| 005.0 | 036.0000 | 0546.9 | 078.9 | 084.3 | 000.1100 | 0287.0 | 017.6 | 60.98 |
| 006.0 | 036.0000 | 0554.6 | 079.3 | 083.9 | 000.1100 | 0287.5 | 019.0 | 59.81 |
| 007.0 | 036.0000 | 0542.8 | 078.7 | 086.5 | 000.1100 | 0284.6 | 020.3 | 58.73 |
| 008.0 | 036.0000 | 0522.0 | 077.5 | 090.3 | 000.1100 | 0283.5 | 021.4 | 57.78 |
| 009.0 | 036.0000 | 0497.6 | 076.0 | 094.7 | 000.1100 | 0287.1 | 022.6 | 56.98 |
| 010.0 | 036.0000 | 0477.0 | 074.6 | 098.3 | 000.1100 | 0276.0 | 023.8 | 55.72 |
| 011.0 | 036.0000 | 0464.8 | 073.7 | 100.5 | 000.1100 | 0275.3 | 025.1 | 54.77 |
| 012.0 | 036.0000 | 0471.1 | 074.1 | 099.5 | 000.1100 | 0274.7 | 026.4 | 53.85 |
| 013.0 | 036.0000 | 0483.2 | 075.0 | 097.8 | 000.1100 | 0277.6 | 027.8 | 53.04 |
| 014.0 | 036.0000 | 0496.9 | 075.9 | 096.3 | 000.1100 | 0283.4 | 029.2 | 52.34 |
| 015.0 | 036.0000 | 0512.1 | 076.9 | 094.8 | 000.1100 | 0286.6 | 030.6 | 51.59 |
| 016.0 | 036.0000 | 0524.6 | 077.7 | 093.9 | 000.1100 | 0288.4 | 032.1 | 50.87 |

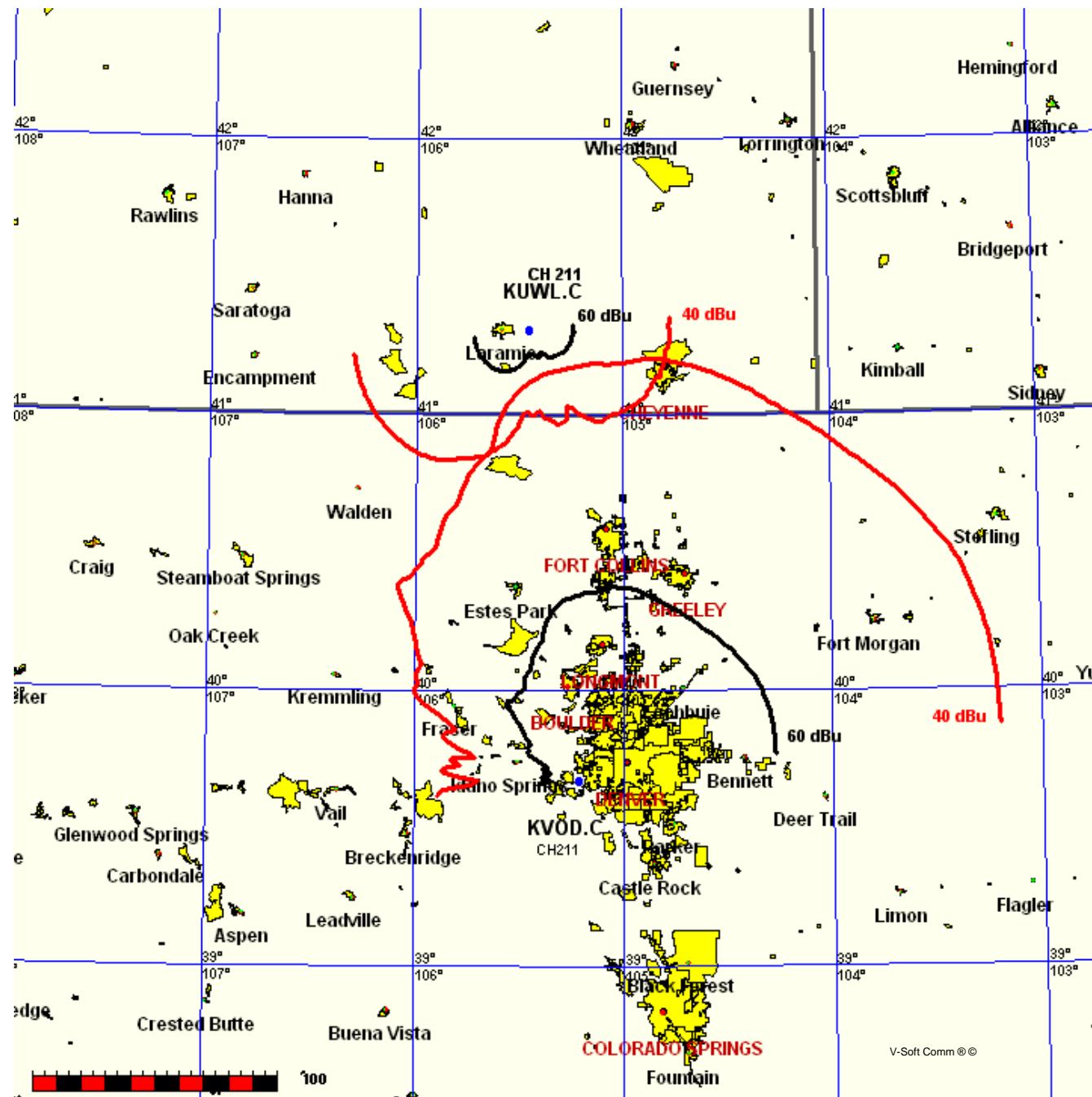
| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 017.0 | 036.0000 | 0525.9 | 077.7 | 094.3 | 000.1100 | 0288.0 | 033.5 | 50.19 |
| 018.0 | 036.0000 | 0530.6 | 078.0 | 094.4 | 000.1100 | 0287.9 | 034.8 | 49.51 |
| 019.0 | 036.0000 | 0534.8 | 078.3 | 094.5 | 000.1100 | 0287.5 | 036.2 | 48.84 |
| 020.0 | 036.0000 | 0536.0 | 078.3 | 094.9 | 000.1100 | 0286.2 | 037.6 | 48.16 |
| 021.0 | 036.0000 | 0542.3 | 078.7 | 095.0 | 000.1100 | 0286.1 | 039.0 | 47.51 |
| 022.0 | 036.0000 | 0550.3 | 079.1 | 094.9 | 000.1100 | 0286.3 | 040.4 | 46.86 |
| 023.0 | 036.0000 | 0560.0 | 079.6 | 094.8 | 000.1100 | 0286.6 | 041.9 | 46.21 |
| 024.0 | 036.0000 | 0558.2 | 079.5 | 095.5 | 000.1100 | 0284.6 | 043.2 | 45.59 |
| 025.0 | 036.0000 | 0565.1 | 079.9 | 095.7 | 000.1100 | 0284.3 | 044.6 | 44.97 |
| 026.0 | 036.0000 | 0568.9 | 080.1 | 096.0 | 000.1100 | 0283.8 | 046.0 | 44.38 |
| 027.0 | 036.0000 | 0574.8 | 080.3 | 096.3 | 000.1100 | 0283.4 | 047.4 | 43.79 |
| 028.0 | 036.0000 | 0585.4 | 080.8 | 096.3 | 000.1100 | 0283.2 | 048.9 | 43.19 |
| 029.0 | 036.0000 | 0599.0 | 081.4 | 096.3 | 000.1100 | 0283.3 | 050.4 | 42.58 |
| 030.0 | 036.0000 | 0606.5 | 081.7 | 096.6 | 000.1100 | 0282.6 | 051.9 | 41.99 |
| 031.0 | 036.0000 | 0609.0 | 081.8 | 097.1 | 000.1100 | 0280.6 | 053.2 | 41.39 |
| 032.0 | 036.0000 | 0620.7 | 082.2 | 097.3 | 000.1100 | 0279.8 | 054.7 | 40.76 |
| 033.0 | 036.0000 | 0630.3 | 082.6 | 097.6 | 000.1100 | 0278.5 | 056.1 | 40.14 |
| 034.0 | 036.0000 | 0627.0 | 082.5 | 098.4 | 000.1100 | 0276.0 | 057.4 | 39.56 |
| 035.0 | 036.0000 | 0628.6 | 082.5 | 098.9 | 000.1100 | 0275.1 | 058.7 | 39.01 |
| 036.0 | 036.0000 | 0628.2 | 082.5 | 099.5 | 000.1100 | 0274.7 | 060.0 | 38.50 |
| 037.0 | 036.0000 | 0614.5 | 082.0 | 100.6 | 000.1100 | 0275.3 | 061.1 | 38.12 |
| 038.0 | 036.0000 | 0596.0 | 081.3 | 101.8 | 000.1100 | 0276.2 | 062.0 | 37.79 |
| 039.0 | 036.0000 | 0580.3 | 080.6 | 102.9 | 000.1100 | 0276.7 | 063.0 | 37.45 |
| 040.0 | 036.0000 | 0575.7 | 080.4 | 103.6 | 000.1100 | 0276.9 | 064.2 | 37.03 |
| 041.0 | 036.0000 | 0578.5 | 080.5 | 104.1 | 000.1100 | 0277.0 | 065.5 | 36.57 |
| 042.0 | 036.0000 | 0579.9 | 080.6 | 104.6 | 000.1100 | 0276.9 | 066.8 | 36.11 |
| 043.0 | 036.0000 | 0587.2 | 080.9 | 104.9 | 000.1100 | 0276.8 | 068.2 | 35.62 |
| 044.0 | 036.0000 | 0594.2 | 081.2 | 105.2 | 000.1100 | 0276.7 | 069.6 | 35.13 |
| 045.0 | 036.0000 | 0602.4 | 081.5 | 105.5 | 000.1100 | 0276.5 | 071.0 | 34.63 |
| 046.0 | 036.0000 | 0612.0 | 081.9 | 105.8 | 000.1100 | 0276.3 | 072.4 | 34.13 |
| 047.0 | 036.0000 | 0624.0 | 082.4 | 106.1 | 000.1100 | 0276.0 | 073.9 | 33.62 |
| 048.0 | 036.0000 | 0634.3 | 082.8 | 106.4 | 000.1100 | 0275.5 | 075.3 | 33.12 |
| 049.0 | 036.0000 | 0643.6 | 083.1 | 106.7 | 000.1100 | 0275.0 | 076.7 | 32.63 |
| 050.0 | 036.0000 | 0656.6 | 083.6 | 107.0 | 000.1100 | 0274.7 | 078.2 | 32.13 |
| 051.0 | 036.0000 | 0667.6 | 084.0 | 107.4 | 000.1100 | 0274.3 | 079.6 | 31.64 |
| 052.0 | 036.0000 | 0678.0 | 084.3 | 107.7 | 000.1100 | 0273.8 | 081.1 | 31.16 |

University Of Wyoming
KUWL (New) v. KVOD.C

FMCommander Single Allocation Study
01-08-2008

KUWL.C CH 211 A
0.11 kW 2699 M COR
Prot. = 60 dBu
Intef. = 40 dBu

KVOD-C CH 211 C1 BPED20030728AFL
44.0 kW, 2363 M COR DA
Prot. = 60 dBu
Intef. = 40 dBu



01-08-2008

USGS 03 SEC Terrain Data

FMOver Analysis

KUWL.C

Channel = 211A

Max ERP = 0.11 kW

RCAMSL = 2699 M

N. Lat. 41 18 36.0

W. Lng. 105 27 17.0

Protected

60 dBu

KVOD-C

BPED20030728AFL

Channel = 211C1

Max ERP = 44 kW

RCAMSL = 2363 M

N. Lat. 39 40 25.0

W. Lng. 105 13 01.0

Interfering

40 dBu

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 114.0 | 000.1100 | 0258.2 | 017.0 | 358.5 | 031.6518 | 0491.3 | 174.8 | 38.02 |
| 115.0 | 000.1100 | 0257.3 | 017.0 | 358.5 | 031.6192 | 0491.1 | 174.6 | 38.07 |
| 116.0 | 000.1100 | 0256.7 | 017.0 | 358.4 | 031.5897 | 0491.1 | 174.3 | 38.12 |
| 117.0 | 000.1100 | 0256.0 | 017.0 | 358.4 | 031.5581 | 0491.0 | 174.1 | 38.17 |
| 118.0 | 000.1100 | 0254.7 | 016.9 | 358.3 | 031.5226 | 0490.9 | 173.8 | 38.22 |
| 119.0 | 000.1100 | 0254.4 | 016.9 | 358.3 | 031.4915 | 0490.8 | 173.6 | 38.27 |
| 120.0 | 000.1100 | 0252.6 | 016.8 | 358.2 | 031.4513 | 0490.8 | 173.4 | 38.31 |
| 121.0 | 000.1100 | 0248.6 | 016.7 | 358.1 | 031.3969 | 0490.8 | 173.2 | 38.34 |
| 122.0 | 000.1100 | 0245.6 | 016.6 | 358.0 | 031.3482 | 0490.7 | 173.0 | 38.37 |
| 123.0 | 000.1100 | 0243.6 | 016.5 | 357.9 | 031.3052 | 0490.7 | 172.8 | 38.41 |
| 124.0 | 000.1100 | 0239.0 | 016.3 | 357.8 | 031.2460 | 0490.6 | 172.7 | 38.43 |
| 125.0 | 000.1100 | 0233.0 | 016.1 | 357.7 | 031.1785 | 0490.5 | 172.6 | 38.44 |
| 126.0 | 000.1100 | 0227.5 | 015.9 | 357.6 | 031.1131 | 0490.3 | 172.5 | 38.45 |
| 127.0 | 000.1100 | 0223.2 | 015.8 | 357.5 | 031.0552 | 0490.0 | 172.4 | 38.46 |
| 128.0 | 000.1100 | 0219.7 | 015.6 | 357.4 | 031.0013 | 0489.7 | 172.3 | 38.48 |
| 129.0 | 000.1100 | 0217.4 | 015.5 | 357.3 | 030.9541 | 0489.5 | 172.1 | 38.50 |
| 130.0 | 000.1100 | 0214.7 | 015.4 | 357.3 | 030.9042 | 0489.3 | 172.0 | 38.52 |
| 131.0 | 000.1100 | 0211.4 | 015.3 | 357.2 | 030.8517 | 0489.1 | 171.9 | 38.53 |
| 132.0 | 000.1100 | 0207.9 | 015.2 | 357.1 | 030.7977 | 0488.8 | 171.8 | 38.54 |
| 133.0 | 000.1100 | 0203.8 | 015.0 | 357.0 | 030.7399 | 0488.7 | 171.7 | 38.55 |
| 134.0 | 000.1100 | 0198.6 | 014.8 | 356.9 | 030.6789 | 0488.7 | 171.7 | 38.55 |
| 135.0 | 000.1100 | 0195.9 | 014.7 | 356.8 | 030.6289 | 0488.7 | 171.6 | 38.57 |
| 136.0 | 000.1100 | 0193.6 | 014.7 | 356.7 | 030.5809 | 0488.7 | 171.5 | 38.58 |
| 137.0 | 000.1100 | 0191.6 | 014.6 | 356.6 | 030.5345 | 0488.8 | 171.3 | 38.60 |
| 138.0 | 000.1100 | 0190.4 | 014.5 | 356.6 | 030.4907 | 0488.8 | 171.2 | 38.63 |
| 139.0 | 000.1100 | 0189.7 | 014.5 | 356.5 | 030.4490 | 0488.9 | 171.1 | 38.65 |
| 140.0 | 000.1100 | 0189.4 | 014.5 | 356.4 | 030.4085 | 0489.0 | 170.9 | 38.68 |
| 141.0 | 000.1100 | 0188.0 | 014.5 | 356.3 | 030.3635 | 0489.0 | 170.8 | 38.70 |
| 142.0 | 000.1100 | 0184.3 | 014.3 | 356.2 | 030.3094 | 0489.1 | 170.8 | 38.70 |
| 143.0 | 000.1100 | 0179.6 | 014.2 | 356.1 | 030.2515 | 0489.1 | 170.8 | 38.69 |
| 144.0 | 000.1100 | 0172.0 | 013.9 | 356.0 | 030.1808 | 0488.9 | 170.9 | 38.65 |
| 145.0 | 000.1100 | 0163.5 | 013.5 | 355.9 | 030.1046 | 0488.8 | 171.1 | 38.60 |
| 146.0 | 000.1100 | 0153.2 | 013.0 | 355.8 | 030.0207 | 0488.8 | 171.4 | 38.52 |
| 147.0 | 000.1100 | 0140.7 | 012.4 | 355.6 | 029.9293 | 0488.8 | 171.8 | 38.41 |
| 148.0 | 000.1100 | 0130.9 | 012.0 | 355.5 | 029.8535 | 0488.8 | 172.1 | 38.34 |
| 149.0 | 000.1100 | 0121.1 | 011.5 | 355.3 | 029.7817 | 0488.7 | 172.4 | 38.26 |
| 150.0 | 000.1100 | 0108.4 | 011.0 | 355.2 | 029.7009 | 0488.2 | 172.8 | 38.14 |

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 151.0 | 000.1100 | 0101.6 | 010.6 | 355.1 | 029.6430 | 0487.7 | 173.1 | 38.08 |
| 152.0 | 000.1100 | 0099.1 | 010.5 | 355.0 | 029.6017 | 0487.3 | 173.1 | 38.05 |
| 153.0 | 000.1100 | 0098.8 | 010.5 | 355.0 | 029.5687 | 0486.9 | 173.0 | 38.06 |
| 154.0 | 000.1100 | 0093.6 | 010.2 | 354.9 | 029.5186 | 0486.2 | 173.2 | 38.00 |
| 155.0 | 000.1100 | 0097.4 | 010.4 | 354.9 | 029.4997 | 0485.9 | 173.0 | 38.04 |
| 156.0 | 000.1100 | 0106.1 | 010.9 | 354.8 | 029.4933 | 0485.8 | 172.5 | 38.15 |
| 157.0 | 000.1100 | 0118.3 | 011.4 | 354.8 | 029.4916 | 0485.8 | 171.9 | 38.28 |
| 158.0 | 000.1100 | 0123.2 | 011.6 | 354.8 | 029.4670 | 0485.3 | 171.6 | 38.33 |
| 159.0 | 000.1100 | 0123.9 | 011.7 | 354.7 | 029.4317 | 0484.7 | 171.6 | 38.33 |
| 160.0 | 000.1100 | 0124.5 | 011.7 | 354.7 | 029.3956 | 0484.0 | 171.5 | 38.33 |
| 161.0 | 000.1100 | 0125.4 | 011.7 | 354.6 | 029.3600 | 0483.3 | 171.4 | 38.33 |
| 162.0 | 000.1100 | 0125.7 | 011.7 | 354.5 | 029.3226 | 0482.5 | 171.3 | 38.33 |
| 163.0 | 000.1100 | 0124.4 | 011.7 | 354.5 | 029.2827 | 0481.8 | 171.4 | 38.31 |
| 164.0 | 000.1100 | 0120.7 | 011.5 | 354.4 | 029.2392 | 0480.9 | 171.5 | 38.26 |
| 165.0 | 000.1100 | 0115.1 | 011.3 | 354.3 | 029.1944 | 0480.0 | 171.7 | 38.19 |
| 166.0 | 000.1100 | 0109.7 | 011.0 | 354.2 | 029.1512 | 0479.0 | 171.9 | 38.12 |
| 167.0 | 000.1100 | 0106.3 | 010.9 | 354.2 | 029.1117 | 0478.2 | 172.0 | 38.07 |
| 168.0 | 000.1100 | 0104.5 | 010.8 | 354.1 | 029.0745 | 0477.4 | 172.1 | 38.04 |
| 169.0 | 000.1100 | 0102.2 | 010.7 | 354.0 | 029.0376 | 0476.7 | 172.2 | 38.00 |
| 170.0 | 000.1100 | 0099.1 | 010.5 | 354.0 | 029.0009 | 0476.1 | 172.3 | 37.96 |
| 171.0 | 000.1100 | 0095.8 | 010.3 | 353.9 | 028.9653 | 0475.6 | 172.5 | 37.91 |
| 172.0 | 000.1100 | 0091.7 | 010.1 | 353.9 | 028.9304 | 0475.0 | 172.7 | 37.85 |
| 173.0 | 000.1100 | 0087.4 | 009.9 | 353.8 | 028.8970 | 0474.5 | 172.9 | 37.78 |
| 174.0 | 000.1100 | 0088.0 | 009.9 | 353.7 | 028.8648 | 0474.0 | 172.9 | 37.78 |
| 175.0 | 000.1100 | 0090.1 | 010.0 | 353.7 | 028.8321 | 0473.5 | 172.8 | 37.79 |
| 176.0 | 000.1100 | 0092.7 | 010.2 | 353.6 | 028.7982 | 0473.0 | 172.7 | 37.81 |
| 177.0 | 000.1100 | 0093.6 | 010.2 | 353.6 | 028.7646 | 0472.5 | 172.6 | 37.80 |
| 178.0 | 000.1100 | 0093.2 | 010.2 | 353.5 | 028.7318 | 0472.0 | 172.6 | 37.78 |
| 179.0 | 000.1100 | 0091.0 | 010.1 | 353.5 | 028.7011 | 0471.6 | 172.8 | 37.74 |
| 180.0 | 000.1100 | 0086.8 | 009.9 | 353.4 | 028.6737 | 0471.2 | 173.0 | 37.67 |
| 181.0 | 000.1100 | 0087.3 | 009.9 | 353.4 | 028.6414 | 0470.7 | 173.0 | 37.66 |
| 182.0 | 000.1100 | 0088.3 | 009.9 | 353.3 | 028.6082 | 0470.2 | 173.0 | 37.66 |
| 183.0 | 000.1100 | 0091.0 | 010.1 | 353.2 | 028.5718 | 0469.7 | 172.9 | 37.67 |
| 184.0 | 000.1100 | 0095.0 | 010.3 | 353.2 | 028.5322 | 0469.0 | 172.7 | 37.69 |
| 185.0 | 000.1100 | 0100.2 | 010.6 | 353.1 | 028.4891 | 0468.2 | 172.5 | 37.72 |
| 186.0 | 000.1100 | 0108.7 | 011.0 | 353.0 | 028.4383 | 0467.3 | 172.1 | 37.78 |
| 187.0 | 000.1100 | 0120.3 | 011.5 | 352.9 | 028.3796 | 0466.3 | 171.6 | 37.85 |
| 188.0 | 000.1100 | 0134.4 | 012.1 | 352.8 | 028.3122 | 0464.9 | 171.1 | 37.94 |
| 189.0 | 000.1100 | 0146.4 | 012.7 | 352.6 | 028.2445 | 0463.3 | 170.6 | 38.01 |
| 190.0 | 000.1100 | 0157.3 | 013.2 | 352.5 | 028.1761 | 0461.5 | 170.2 | 38.06 |
| 191.0 | 000.1100 | 0169.4 | 013.7 | 352.4 | 028.1025 | 0459.5 | 169.8 | 38.11 |
| 192.0 | 000.1100 | 0180.8 | 014.2 | 352.3 | 028.0311 | 0457.5 | 169.4 | 38.14 |
| 193.0 | 000.1100 | 0186.9 | 014.4 | 352.2 | 027.9733 | 0455.9 | 169.3 | 38.13 |
| 194.0 | 000.1100 | 0194.6 | 014.7 | 352.1 | 027.9098 | 0454.1 | 169.1 | 38.12 |
| 195.0 | 000.1100 | 0203.9 | 015.0 | 351.9 | 027.8408 | 0452.0 | 168.9 | 38.12 |
| 196.0 | 000.1100 | 0213.4 | 015.4 | 351.8 | 027.7685 | 0449.8 | 168.7 | 38.12 |
| 197.0 | 000.1100 | 0220.8 | 015.7 | 351.7 | 027.7005 | 0447.7 | 168.6 | 38.10 |
| 198.0 | 000.1100 | 0229.9 | 016.0 | 351.5 | 027.6261 | 0445.5 | 168.4 | 38.09 |
| 199.0 | 000.1100 | 0242.5 | 016.5 | 351.4 | 027.5383 | 0443.0 | 168.1 | 38.09 |
| 200.0 | 000.1100 | 0252.5 | 016.8 | 351.2 | 027.4583 | 0440.6 | 167.9 | 38.07 |
| 201.0 | 000.1100 | 0258.7 | 017.1 | 351.1 | 027.3894 | 0438.8 | 167.9 | 38.04 |

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 202.0 | 000.1100 | 0263.8 | 017.2 | 351.0 | 027.3240 | 0437.2 | 167.8 | 38.00 |
| 203.0 | 000.1100 | 0270.3 | 017.5 | 350.9 | 027.2538 | 0435.4 | 167.8 | 37.96 |
| 204.0 | 000.1100 | 0277.5 | 017.7 | 350.7 | 027.1806 | 0433.7 | 167.8 | 37.93 |
| 205.0 | 000.1100 | 0285.9 | 018.0 | 350.6 | 027.1032 | 0431.7 | 167.7 | 37.89 |
| 206.0 | 000.1100 | 0292.2 | 018.2 | 350.5 | 027.0330 | 0429.9 | 167.7 | 37.84 |
| 207.0 | 000.1100 | 0296.9 | 018.4 | 350.4 | 026.9686 | 0428.3 | 167.8 | 37.79 |
| 208.0 | 000.1100 | 0303.7 | 018.6 | 350.2 | 026.8971 | 0426.3 | 167.8 | 37.74 |
| 209.0 | 000.1100 | 0312.4 | 018.8 | 350.1 | 026.8188 | 0424.2 | 167.8 | 37.68 |
| 210.0 | 000.1100 | 0320.5 | 019.1 | 350.0 | 026.7366 | 0422.1 | 167.8 | 37.63 |
| 211.0 | 000.1100 | 0327.7 | 019.3 | 349.8 | 026.6471 | 0420.0 | 167.9 | 37.56 |
| 212.0 | 000.1100 | 0336.2 | 019.5 | 349.7 | 026.5531 | 0417.7 | 167.9 | 37.49 |
| 213.0 | 000.1100 | 0345.6 | 019.8 | 349.5 | 026.4555 | 0415.0 | 168.0 | 37.41 |
| 214.0 | 000.1100 | 0354.3 | 020.0 | 349.4 | 026.3622 | 0412.2 | 168.1 | 37.33 |
| 215.0 | 000.1100 | 0362.1 | 020.2 | 349.3 | 026.2730 | 0409.5 | 168.2 | 37.24 |
| 216.0 | 000.1100 | 0368.9 | 020.4 | 349.1 | 026.1887 | 0406.9 | 168.3 | 37.15 |
| 217.0 | 000.1100 | 0374.2 | 020.5 | 349.0 | 026.1115 | 0404.4 | 168.5 | 37.06 |
| 218.0 | 000.1100 | 0379.6 | 020.7 | 348.9 | 026.0339 | 0402.0 | 168.7 | 36.96 |
| 219.0 | 000.1100 | 0384.9 | 020.8 | 348.8 | 025.9574 | 0399.7 | 168.9 | 36.87 |
| 220.0 | 000.1100 | 0390.2 | 020.9 | 348.7 | 025.8823 | 0397.4 | 169.1 | 36.77 |
| 221.0 | 000.1100 | 0395.6 | 021.1 | 348.6 | 025.8079 | 0395.2 | 169.3 | 36.68 |
| 222.0 | 000.1100 | 0400.9 | 021.2 | 348.5 | 025.7345 | 0392.9 | 169.5 | 36.58 |
| 223.0 | 000.1100 | 0405.6 | 021.3 | 348.4 | 025.6652 | 0390.8 | 169.7 | 36.49 |
| 224.0 | 000.1100 | 0409.4 | 021.4 | 348.3 | 025.6009 | 0388.8 | 170.0 | 36.39 |
| 225.0 | 000.1100 | 0412.7 | 021.5 | 348.2 | 025.5406 | 0386.8 | 170.2 | 36.29 |
| 226.0 | 000.1100 | 0415.5 | 021.6 | 348.1 | 025.4832 | 0385.0 | 170.5 | 36.19 |
| 227.0 | 000.1100 | 0418.2 | 021.6 | 348.0 | 025.4276 | 0383.4 | 170.8 | 36.10 |
| 228.0 | 000.1100 | 0420.8 | 021.7 | 347.9 | 025.3733 | 0381.8 | 171.1 | 36.00 |
| 229.0 | 000.1100 | 0423.4 | 021.7 | 347.9 | 025.3211 | 0380.1 | 171.4 | 35.90 |
| 230.0 | 000.1100 | 0426.2 | 021.8 | 347.8 | 025.2689 | 0378.5 | 171.7 | 35.81 |
| 231.0 | 000.1100 | 0429.1 | 021.9 | 347.7 | 025.2174 | 0376.8 | 172.0 | 35.71 |
| 232.0 | 000.1100 | 0432.0 | 022.0 | 347.6 | 025.1675 | 0375.1 | 172.3 | 35.61 |
| 233.0 | 000.1100 | 0434.9 | 022.0 | 347.6 | 025.1184 | 0373.6 | 172.6 | 35.51 |
| 234.0 | 000.1100 | 0437.5 | 022.1 | 347.5 | 025.0726 | 0372.1 | 173.0 | 35.41 |

01-08-2008 USGS 03 SEC Terrain Data

KVOD-C BPED20030728AFL
 Channel = 211C1
 Max ERP = 44 kW
 RCAMSL = 2363 M
 N. Lat. 39 40 25.0
 W. Lng. 105 13 01.0
 Protected
 60 dBu

KUWL.C
 Channel = 211A
 Max ERP = 0.11 kW
 RCAMSL = 2699 M
 N. Lat. 41 18 36.0
 W. Lng. 105 27 17.0
 Interfering
 40 dBu

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 294.0 | 002.9062 | 0042.4 | 015.5 | 178.0 | 000.1100 | 0093.2 | 175.5 | 05.06 |
| 295.0 | 003.0319 | 0050.1 | 017.3 | 178.5 | 000.1100 | 0092.3 | 174.5 | 05.22 |
| 296.0 | 003.1603 | 0065.7 | 020.0 | 179.3 | 000.1100 | 0089.4 | 172.9 | 05.39 |
| 297.0 | 003.2913 | 0080.7 | 022.3 | 179.9 | 000.1100 | 0086.9 | 171.6 | 05.55 |
| 298.0 | 003.4250 | 0087.8 | 023.4 | 180.2 | 000.1100 | 0086.5 | 170.7 | 05.69 |
| 299.0 | 003.5614 | 0089.3 | 023.8 | 180.2 | 000.1100 | 0086.5 | 170.2 | 05.79 |
| 300.0 | 003.7004 | 0085.7 | 023.6 | 180.1 | 000.1100 | 0086.6 | 169.9 | 05.84 |
| 301.0 | 003.8812 | 0085.1 | 023.8 | 180.1 | 000.1100 | 0086.7 | 169.5 | 05.92 |
| 302.0 | 004.0663 | 0088.7 | 024.5 | 180.2 | 000.1100 | 0086.5 | 168.7 | 06.05 |
| 303.0 | 004.2557 | 0090.2 | 024.9 | 180.3 | 000.1100 | 0086.5 | 168.1 | 06.16 |
| 304.0 | 004.4495 | 0084.4 | 024.4 | 180.0 | 000.1100 | 0086.7 | 168.1 | 06.18 |
| 305.0 | 004.6475 | 0081.7 | 024.3 | 179.9 | 000.1100 | 0086.9 | 167.8 | 06.24 |
| 306.0 | 004.8499 | 0078.5 | 024.1 | 179.8 | 000.1100 | 0087.3 | 167.6 | 06.29 |
| 307.0 | 005.0565 | 0086.7 | 025.5 | 180.1 | 000.1100 | 0086.7 | 166.4 | 06.49 |
| 308.0 | 005.2675 | 0095.0 | 026.8 | 180.3 | 000.1100 | 0086.5 | 165.2 | 06.70 |
| 309.0 | 005.4828 | 0103.5 | 028.2 | 180.6 | 000.1100 | 0086.7 | 164.0 | 06.93 |
| 310.0 | 005.7024 | 0107.2 | 028.9 | 180.7 | 000.1100 | 0086.7 | 163.2 | 07.08 |
| 311.0 | 005.9911 | 0112.6 | 029.9 | 180.9 | 000.1100 | 0087.0 | 162.1 | 07.28 |
| 312.0 | 006.2869 | 0121.5 | 031.2 | 181.1 | 000.1100 | 0087.4 | 160.8 | 07.53 |
| 313.0 | 006.5898 | 0135.2 | 033.1 | 181.5 | 000.1100 | 0087.9 | 159.2 | 07.85 |
| 314.0 | 006.8999 | 0154.8 | 035.8 | 182.1 | 000.1100 | 0088.3 | 157.0 | 08.25 |
| 315.0 | 007.2171 | 0178.6 | 038.6 | 182.7 | 000.1100 | 0089.7 | 154.6 | 08.70 |
| 316.0 | 007.5414 | 0210.6 | 041.5 | 183.3 | 000.1100 | 0092.3 | 152.1 | 09.20 |
| 317.0 | 007.8729 | 0227.0 | 043.0 | 183.5 | 000.1100 | 0093.3 | 150.5 | 09.50 |
| 318.0 | 008.2115 | 0222.8 | 043.1 | 183.4 | 000.1100 | 0092.5 | 149.9 | 09.57 |
| 319.0 | 008.5572 | 0211.4 | 042.6 | 183.0 | 000.1100 | 0091.1 | 149.8 | 09.56 |
| 320.0 | 008.9100 | 0199.7 | 042.1 | 182.7 | 000.1100 | 0089.6 | 149.7 | 09.53 |
| 321.0 | 009.3509 | 0195.2 | 042.1 | 182.5 | 000.1100 | 0089.1 | 149.1 | 09.60 |
| 322.0 | 009.8025 | 0191.0 | 042.2 | 182.3 | 000.1100 | 0088.6 | 148.6 | 09.68 |
| 323.0 | 010.2647 | 0188.2 | 042.3 | 182.1 | 000.1100 | 0088.3 | 148.0 | 09.77 |
| 324.0 | 010.7376 | 0187.9 | 042.7 | 182.0 | 000.1100 | 0088.2 | 147.3 | 09.90 |
| 325.0 | 011.2211 | 0187.5 | 043.0 | 181.8 | 000.1100 | 0088.1 | 146.5 | 10.02 |
| 326.0 | 011.7153 | 0181.0 | 042.9 | 181.5 | 000.1100 | 0087.9 | 146.2 | 10.07 |
| 327.0 | 012.2201 | 0174.7 | 042.7 | 181.2 | 000.1100 | 0087.6 | 146.0 | 10.10 |

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 328.0 | 012.7355 | 0171.4 | 042.7 | 181.0 | 000.1100 | 0087.3 | 145.5 | 10.17 |
| 329.0 | 013.2616 | 0175.3 | 043.4 | 180.9 | 000.1100 | 0087.1 | 144.5 | 10.35 |
| 330.0 | 013.7984 | 0184.7 | 044.6 | 180.9 | 000.1100 | 0087.0 | 143.1 | 10.60 |
| 331.0 | 014.3961 | 0193.8 | 045.7 | 180.8 | 000.1100 | 0087.0 | 141.8 | 10.85 |
| 332.0 | 015.0065 | 0203.1 | 046.8 | 180.8 | 000.1100 | 0086.8 | 140.4 | 11.11 |
| 333.0 | 015.6295 | 0209.4 | 047.6 | 180.6 | 000.1100 | 0086.7 | 139.3 | 11.32 |
| 334.0 | 016.2652 | 0212.5 | 048.2 | 180.4 | 000.1100 | 0086.6 | 138.4 | 11.49 |
| 335.0 | 016.9136 | 0208.1 | 048.2 | 180.1 | 000.1100 | 0086.6 | 138.0 | 11.57 |
| 336.0 | 017.5747 | 0207.3 | 048.5 | 179.8 | 000.1100 | 0087.1 | 137.4 | 11.70 |
| 337.0 | 018.2484 | 0220.5 | 049.9 | 179.7 | 000.1100 | 0087.4 | 135.8 | 12.02 |
| 338.0 | 018.9348 | 0236.4 | 051.5 | 179.7 | 000.1100 | 0087.7 | 134.0 | 12.37 |
| 339.0 | 019.6339 | 0245.7 | 052.5 | 179.4 | 000.1100 | 0088.6 | 132.7 | 12.65 |
| 340.0 | 020.3456 | 0258.0 | 053.7 | 179.2 | 000.1100 | 0089.7 | 131.3 | 12.96 |
| 341.0 | 020.9484 | 0269.3 | 054.8 | 179.0 | 000.1100 | 0091.0 | 129.9 | 13.26 |
| 342.0 | 021.5600 | 0278.3 | 055.7 | 178.7 | 000.1100 | 0091.8 | 128.8 | 13.50 |
| 343.0 | 022.1804 | 0286.0 | 056.5 | 178.4 | 000.1100 | 0092.6 | 127.7 | 13.72 |
| 344.0 | 022.8096 | 0287.9 | 056.9 | 178.0 | 000.1100 | 0093.2 | 127.1 | 13.86 |
| 345.0 | 023.4476 | 0297.3 | 057.8 | 177.7 | 000.1100 | 0093.6 | 126.0 | 14.07 |
| 346.0 | 024.0944 | 0331.8 | 060.4 | 177.4 | 000.1100 | 0093.7 | 123.2 | 14.56 |
| 347.0 | 024.7500 | 0361.3 | 062.7 | 177.2 | 000.1100 | 0093.6 | 120.8 | 14.98 |
| 348.0 | 025.4144 | 0383.0 | 064.4 | 176.8 | 000.1100 | 0093.7 | 118.9 | 15.30 |
| 349.0 | 026.0876 | 0403.6 | 066.0 | 176.3 | 000.1100 | 0093.3 | 117.2 | 15.58 |
| 350.0 | 026.7696 | 0422.9 | 067.5 | 175.8 | 000.1100 | 0092.3 | 115.6 | 15.84 |
| 351.0 | 027.3215 | 0437.1 | 068.6 | 175.3 | 000.1100 | 0090.9 | 114.3 | 16.01 |
| 352.0 | 027.8791 | 0453.1 | 069.9 | 174.7 | 000.1100 | 0089.5 | 112.9 | 16.22 |
| 353.0 | 028.4423 | 0467.4 | 071.2 | 174.1 | 000.1100 | 0088.2 | 111.6 | 16.42 |
| 354.0 | 029.0111 | 0476.3 | 072.1 | 173.5 | 000.1100 | 0087.3 | 110.7 | 16.55 |
| 355.0 | 029.5856 | 0487.1 | 073.1 | 172.8 | 000.1100 | 0087.8 | 109.8 | 16.75 |
| 356.0 | 030.1657 | 0488.9 | 073.4 | 172.1 | 000.1100 | 0090.9 | 109.5 | 16.90 |
| 357.0 | 030.7514 | 0488.7 | 073.6 | 171.5 | 000.1100 | 0094.2 | 109.4 | 17.03 |
| 358.0 | 031.3428 | 0490.7 | 074.0 | 170.8 | 000.1100 | 0096.7 | 109.2 | 17.16 |
| 359.0 | 031.9398 | 0492.9 | 074.3 | 170.1 | 000.1100 | 0098.9 | 109.0 | 17.26 |
| 000.0 | 032.5424 | 0496.2 | 074.8 | 169.3 | 000.1100 | 0101.1 | 108.8 | 17.38 |
| 001.0 | 032.8838 | 0503.0 | 075.3 | 168.6 | 000.1100 | 0103.2 | 108.5 | 17.51 |
| 002.0 | 033.2271 | 0506.6 | 075.7 | 167.9 | 000.1100 | 0104.7 | 108.5 | 17.56 |
| 003.0 | 033.5721 | 0504.7 | 075.7 | 167.2 | 000.1100 | 0105.9 | 108.8 | 17.53 |
| 004.0 | 033.9189 | 0502.8 | 075.7 | 166.5 | 000.1100 | 0107.6 | 109.2 | 17.51 |
| 005.0 | 034.2675 | 0506.2 | 076.0 | 165.8 | 000.1100 | 0110.4 | 109.3 | 17.59 |
| 006.0 | 034.6178 | 0512.9 | 076.5 | 165.1 | 000.1100 | 0114.6 | 109.3 | 17.74 |
| 007.0 | 034.9700 | 0524.5 | 077.3 | 164.3 | 000.1100 | 0119.3 | 109.0 | 17.94 |
| 008.0 | 035.3239 | 0535.5 | 078.1 | 163.4 | 000.1100 | 0123.1 | 108.9 | 18.10 |
| 009.0 | 035.6796 | 0545.7 | 078.8 | 162.6 | 000.1100 | 0125.2 | 108.8 | 18.17 |
| 010.0 | 036.0371 | 0552.0 | 079.2 | 161.9 | 000.1100 | 0125.7 | 109.1 | 18.14 |
| 011.0 | 035.8383 | 0557.2 | 079.4 | 161.2 | 000.1100 | 0125.5 | 109.6 | 18.03 |
| 012.0 | 035.6400 | 0560.4 | 079.5 | 160.5 | 000.1100 | 0125.0 | 110.2 | 17.89 |
| 013.0 | 035.4423 | 0566.2 | 079.8 | 159.9 | 000.1100 | 0124.3 | 110.7 | 17.76 |
| 014.0 | 035.2451 | 0570.5 | 079.9 | 159.2 | 000.1100 | 0124.0 | 111.4 | 17.62 |
| 015.0 | 035.0485 | 0575.0 | 080.1 | 158.6 | 000.1100 | 0123.9 | 112.1 | 17.49 |
| 016.0 | 034.8524 | 0578.9 | 080.2 | 158.0 | 000.1100 | 0123.1 | 112.8 | 17.32 |
| 017.0 | 034.6569 | 0580.7 | 080.2 | 157.4 | 000.1100 | 0121.3 | 113.7 | 17.11 |
| 018.0 | 034.4619 | 0582.0 | 080.2 | 156.9 | 000.1100 | 0116.9 | 114.6 | 16.80 |

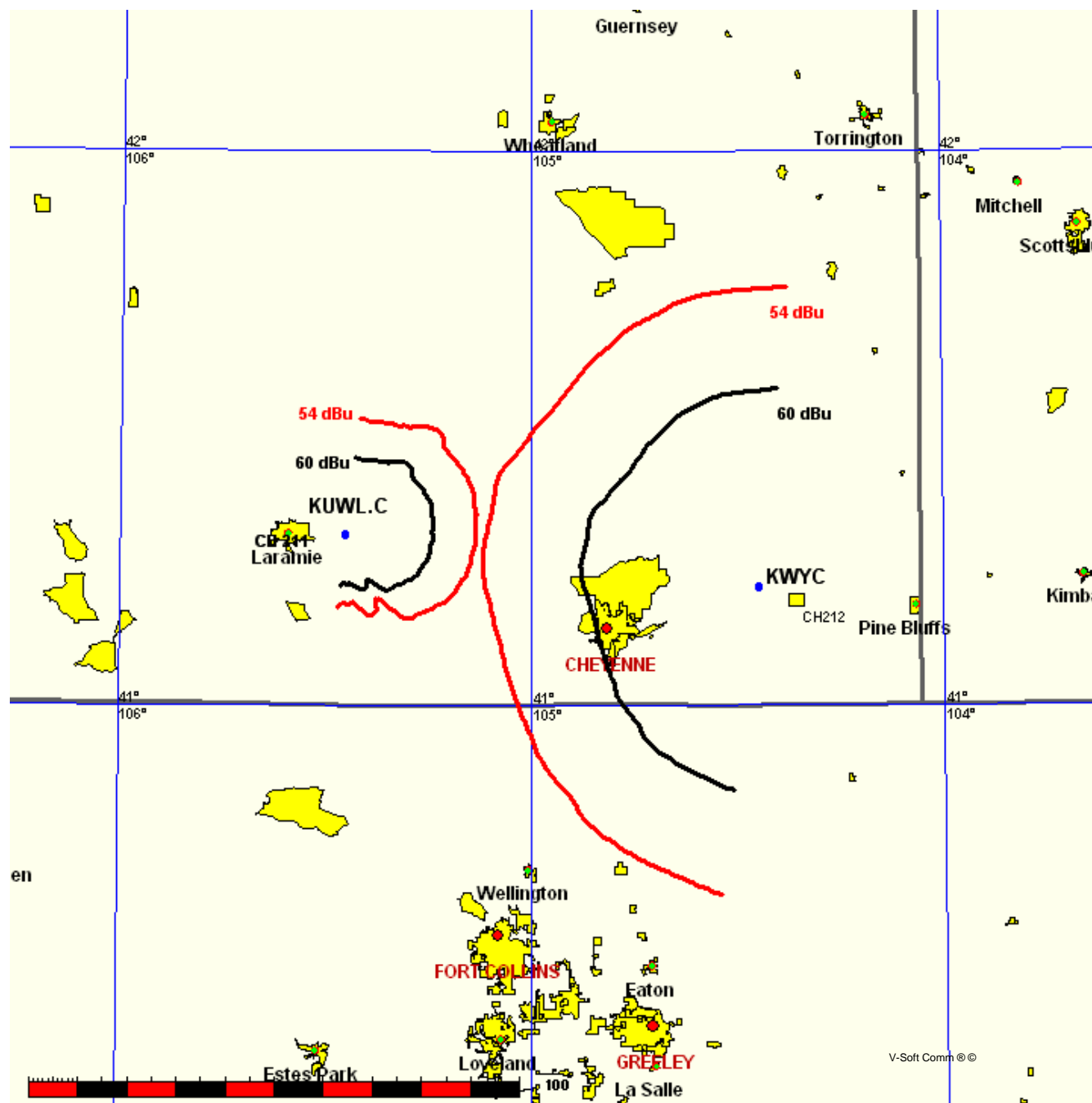
| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 019.0 | 034.2675 | 0583.4 | 080.2 | 156.3 | 000.1100 | 0110.3 | 115.5 | 16.43 |
| 020.0 | 034.0736 | 0584.7 | 080.2 | 155.8 | 000.1100 | 0104.3 | 116.5 | 16.07 |
| 021.0 | 033.5721 | 0585.7 | 080.1 | 155.4 | 000.1100 | 0100.7 | 117.5 | 15.77 |
| 022.0 | 033.0743 | 0586.7 | 080.0 | 154.9 | 000.1100 | 0096.9 | 118.6 | 15.46 |
| 023.0 | 032.5802 | 0587.5 | 079.9 | 154.5 | 000.1100 | 0094.4 | 119.7 | 15.18 |
| 024.0 | 032.0899 | 0588.6 | 079.8 | 154.1 | 000.1100 | 0093.6 | 120.9 | 14.96 |
| 025.0 | 031.6033 | 0589.6 | 079.6 | 153.8 | 000.1100 | 0094.1 | 122.0 | 14.78 |
| 026.0 | 031.1204 | 0591.4 | 079.6 | 153.4 | 000.1100 | 0096.5 | 123.2 | 14.66 |
| 027.0 | 030.6412 | 0593.3 | 079.5 | 153.0 | 000.1100 | 0098.7 | 124.3 | 14.53 |
| 028.0 | 030.1657 | 0595.2 | 079.4 | 152.7 | 000.1100 | 0099.2 | 125.5 | 14.34 |
| 029.0 | 029.6939 | 0598.8 | 079.4 | 152.3 | 000.1100 | 0099.0 | 126.6 | 14.12 |
| 030.0 | 029.2259 | 0602.9 | 079.4 | 152.0 | 000.1100 | 0099.1 | 127.8 | 13.91 |
| 031.0 | 029.4055 | 0605.2 | 079.5 | 151.6 | 000.1100 | 0099.7 | 128.9 | 13.73 |
| 032.0 | 029.5856 | 0606.2 | 079.6 | 151.3 | 000.1100 | 0100.7 | 130.1 | 13.55 |
| 033.0 | 029.7663 | 0606.1 | 079.7 | 150.9 | 000.1100 | 0101.8 | 131.3 | 13.35 |
| 034.0 | 029.9475 | 0605.0 | 079.7 | 150.6 | 000.1100 | 0102.8 | 132.5 | 13.15 |
| 035.0 | 030.1293 | 0604.1 | 079.7 | 150.4 | 000.1100 | 0104.7 | 133.7 | 12.96 |
| 036.0 | 030.3116 | 0603.3 | 079.8 | 150.1 | 000.1100 | 0107.3 | 135.0 | 12.80 |
| 037.0 | 030.4945 | 0602.4 | 079.8 | 149.8 | 000.1100 | 0110.3 | 136.2 | 12.64 |
| 038.0 | 030.6779 | 0601.5 | 079.8 | 149.6 | 000.1100 | 0113.5 | 137.5 | 12.48 |
| 039.0 | 030.8619 | 0600.5 | 079.8 | 149.4 | 000.1100 | 0116.4 | 138.8 | 12.31 |
| 040.0 | 031.0464 | 0599.4 | 079.9 | 149.2 | 000.1100 | 0119.1 | 140.1 | 12.12 |
| 041.0 | 031.8648 | 0598.0 | 080.1 | 148.9 | 000.1100 | 0122.1 | 141.4 | 11.97 |
| 042.0 | 032.6939 | 0596.4 | 080.3 | 148.7 | 000.1100 | 0124.7 | 142.6 | 11.79 |
| 043.0 | 033.5337 | 0594.5 | 080.5 | 148.4 | 000.1100 | 0126.8 | 143.9 | 11.61 |
| 044.0 | 034.3841 | 0592.1 | 080.6 | 148.2 | 000.1100 | 0128.9 | 145.2 | 11.43 |
| 045.0 | 035.2451 | 0589.8 | 080.8 | 148.0 | 000.1100 | 0130.9 | 146.6 | 11.25 |
| 046.0 | 036.1168 | 0588.4 | 081.0 | 147.8 | 000.1100 | 0132.6 | 147.9 | 11.07 |
| 047.0 | 036.9991 | 0587.6 | 081.2 | 147.6 | 000.1100 | 0134.3 | 149.3 | 10.89 |
| 048.0 | 037.8921 | 0587.4 | 081.5 | 147.4 | 000.1100 | 0136.0 | 150.6 | 10.72 |
| 049.0 | 038.7957 | 0588.0 | 081.7 | 147.2 | 000.1100 | 0137.9 | 152.0 | 10.55 |
| 050.0 | 039.7100 | 0587.9 | 082.0 | 147.1 | 000.1100 | 0139.9 | 153.4 | 10.38 |
| 051.0 | 040.1291 | 0587.9 | 082.1 | 147.0 | 000.1100 | 0141.2 | 154.8 | 10.19 |
| 052.0 | 040.5504 | 0588.2 | 082.2 | 146.9 | 000.1100 | 0142.4 | 156.2 | 10.00 |
| 053.0 | 040.9739 | 0589.5 | 082.4 | 146.8 | 000.1100 | 0143.7 | 157.6 | 09.80 |
| 054.0 | 041.3996 | 0591.5 | 082.5 | 146.6 | 000.1100 | 0145.1 | 159.0 | 09.60 |

University Of Wyoming
KUWL (New) v. KWYC (Lic)

FMCommander Single Allocation Study
01-08-2008

KUWL.C CH 211 A
0.11 kW 2699 M COR
Prot. = 60 dBu
Intef. = 54 dBu

KWYC CH 212 C2 BLED20050825AFD
20.0 kW, 1848 M COR
Prot. = 60 dBu
Intef. = 54 dBu



01-08-2008

USGS 03 SEC Terrain Data

FMOver Analysis

KUWL.C

Channel = 211A

Max ERP = 0.11 kW

RCAMSL = 2699 M

N. Lat. 41 18 36.0

W. Lng. 105 27 17.0

Protected

60 dBu

KWYC

BLED20050825AFD

Channel = 212C2

Max ERP = 20 kW

RCAMSL = 1848 M

N. Lat. 41 13 01.0

W. Lng. 104 26 53.0

Interfering

54 dBu

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 037.0 | 000.1100 | 0292.5 | 018.2 | 289.1 | 020.0000 | 0096.8 | 077.4 | 47.64 |
| 038.0 | 000.1100 | 0299.1 | 018.4 | 289.2 | 020.0000 | 0096.9 | 077.0 | 47.75 |
| 039.0 | 000.1100 | 0304.2 | 018.6 | 289.2 | 020.0000 | 0096.9 | 076.7 | 47.86 |
| 040.0 | 000.1100 | 0308.5 | 018.7 | 289.2 | 020.0000 | 0096.9 | 076.3 | 47.95 |
| 041.0 | 000.1100 | 0313.0 | 018.9 | 289.2 | 020.0000 | 0096.9 | 076.0 | 48.06 |
| 042.0 | 000.1100 | 0315.9 | 018.9 | 289.2 | 020.0000 | 0096.9 | 075.6 | 48.15 |
| 043.0 | 000.1100 | 0316.7 | 019.0 | 289.1 | 020.0000 | 0096.8 | 075.3 | 48.23 |
| 044.0 | 000.1100 | 0317.4 | 019.0 | 289.0 | 020.0000 | 0096.7 | 075.0 | 48.32 |
| 045.0 | 000.1100 | 0316.7 | 019.0 | 288.9 | 020.0000 | 0096.6 | 074.7 | 48.39 |
| 046.0 | 000.1100 | 0313.5 | 018.9 | 288.7 | 020.0000 | 0096.4 | 074.5 | 48.45 |
| 047.0 | 000.1100 | 0305.5 | 018.6 | 288.4 | 020.0000 | 0096.2 | 074.3 | 48.49 |
| 048.0 | 000.1100 | 0298.0 | 018.4 | 288.1 | 020.0000 | 0096.0 | 074.2 | 48.52 |
| 049.0 | 000.1100 | 0290.6 | 018.2 | 287.8 | 020.0000 | 0095.7 | 074.0 | 48.55 |
| 050.0 | 000.1100 | 0287.6 | 018.1 | 287.6 | 020.0000 | 0095.5 | 073.8 | 48.60 |
| 051.0 | 000.1100 | 0287.8 | 018.1 | 287.5 | 020.0000 | 0095.4 | 073.5 | 48.67 |
| 052.0 | 000.1100 | 0284.4 | 017.9 | 287.3 | 020.0000 | 0095.3 | 073.3 | 48.72 |
| 053.0 | 000.1100 | 0282.4 | 017.9 | 287.1 | 020.0000 | 0095.1 | 073.1 | 48.77 |
| 054.0 | 000.1100 | 0284.9 | 018.0 | 287.0 | 020.0000 | 0095.0 | 072.8 | 48.85 |
| 055.0 | 000.1100 | 0286.7 | 018.0 | 286.9 | 020.0000 | 0094.9 | 072.5 | 48.93 |
| 056.0 | 000.1100 | 0287.1 | 018.0 | 286.7 | 020.0000 | 0094.8 | 072.3 | 48.99 |
| 057.0 | 000.1100 | 0289.8 | 018.1 | 286.6 | 020.0000 | 0094.7 | 072.0 | 49.07 |
| 058.0 | 000.1100 | 0292.4 | 018.2 | 286.5 | 020.0000 | 0094.6 | 071.7 | 49.15 |
| 059.0 | 000.1100 | 0295.0 | 018.3 | 286.4 | 020.0000 | 0094.5 | 071.4 | 49.23 |
| 060.0 | 000.1100 | 0297.3 | 018.4 | 286.3 | 020.0000 | 0094.4 | 071.1 | 49.30 |
| 061.0 | 000.1100 | 0298.9 | 018.4 | 286.1 | 020.0000 | 0094.3 | 070.9 | 49.38 |
| 062.0 | 000.1100 | 0297.8 | 018.4 | 285.9 | 020.0000 | 0094.2 | 070.7 | 49.42 |
| 063.0 | 000.1100 | 0295.1 | 018.3 | 285.7 | 020.0000 | 0094.0 | 070.5 | 49.46 |
| 064.0 | 000.1100 | 0296.9 | 018.4 | 285.5 | 020.0000 | 0094.0 | 070.3 | 49.53 |
| 065.0 | 000.1100 | 0301.5 | 018.5 | 285.4 | 020.0000 | 0093.9 | 069.9 | 49.62 |
| 066.0 | 000.1100 | 0301.5 | 018.5 | 285.2 | 020.0000 | 0093.9 | 069.7 | 49.68 |
| 067.0 | 000.1100 | 0300.4 | 018.5 | 284.9 | 020.0000 | 0093.8 | 069.6 | 49.72 |
| 068.0 | 000.1100 | 0303.0 | 018.6 | 284.8 | 020.0000 | 0093.8 | 069.3 | 49.80 |
| 069.0 | 000.1100 | 0303.9 | 018.6 | 284.6 | 020.0000 | 0093.8 | 069.1 | 49.86 |
| 070.0 | 000.1100 | 0303.8 | 018.6 | 284.3 | 020.0000 | 0093.8 | 068.9 | 49.91 |
| 071.0 | 000.1100 | 0303.6 | 018.6 | 284.1 | 020.0000 | 0093.8 | 068.7 | 49.96 |
| 072.0 | 000.1100 | 0302.6 | 018.5 | 283.9 | 020.0000 | 0093.8 | 068.6 | 50.00 |
| 073.0 | 000.1100 | 0301.7 | 018.5 | 283.6 | 020.0000 | 0093.8 | 068.5 | 50.05 |

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 074.0 | 000.1100 | 0300.5 | 018.5 | 283.4 | 020.0000 | 0093.8 | 068.3 | 50.08 |
| 075.0 | 000.1100 | 0299.0 | 018.4 | 283.1 | 020.0000 | 0093.9 | 068.2 | 50.12 |
| 076.0 | 000.1100 | 0296.8 | 018.4 | 282.8 | 020.0000 | 0093.9 | 068.1 | 50.14 |
| 077.0 | 000.1100 | 0293.7 | 018.3 | 282.6 | 020.0000 | 0093.9 | 068.1 | 50.16 |
| 078.0 | 000.1100 | 0292.1 | 018.2 | 282.3 | 020.0000 | 0094.0 | 068.0 | 50.19 |
| 079.0 | 000.1100 | 0292.6 | 018.2 | 282.0 | 020.0000 | 0094.0 | 067.9 | 50.23 |
| 080.0 | 000.1100 | 0294.0 | 018.3 | 281.8 | 020.0000 | 0094.1 | 067.7 | 50.28 |
| 081.0 | 000.1100 | 0294.5 | 018.3 | 281.6 | 020.0000 | 0094.1 | 067.6 | 50.32 |
| 082.0 | 000.1100 | 0293.9 | 018.3 | 281.3 | 020.0000 | 0094.1 | 067.5 | 50.35 |
| 083.0 | 000.1100 | 0288.9 | 018.1 | 281.0 | 020.0000 | 0094.2 | 067.6 | 50.33 |
| 084.0 | 000.1100 | 0287.3 | 018.0 | 280.7 | 020.0000 | 0094.2 | 067.5 | 50.35 |
| 085.0 | 000.1100 | 0286.4 | 018.0 | 280.5 | 020.0000 | 0094.3 | 067.5 | 50.37 |
| 086.0 | 000.1100 | 0285.4 | 018.0 | 280.2 | 020.0000 | 0094.3 | 067.4 | 50.38 |
| 087.0 | 000.1100 | 0283.4 | 017.9 | 279.9 | 020.0000 | 0094.4 | 067.4 | 50.39 |
| 088.0 | 000.1100 | 0281.8 | 017.9 | 279.7 | 020.0000 | 0094.5 | 067.4 | 50.40 |
| 089.0 | 000.1100 | 0281.2 | 017.8 | 279.4 | 020.0000 | 0094.6 | 067.4 | 50.41 |
| 090.0 | 000.1100 | 0282.7 | 017.9 | 279.1 | 020.0000 | 0094.7 | 067.3 | 50.45 |
| 091.0 | 000.1100 | 0285.0 | 018.0 | 278.9 | 020.0000 | 0094.8 | 067.1 | 50.49 |
| 092.0 | 000.1100 | 0286.2 | 018.0 | 278.6 | 020.0000 | 0094.9 | 067.1 | 50.52 |
| 093.0 | 000.1100 | 0287.4 | 018.0 | 278.3 | 020.0000 | 0095.0 | 067.0 | 50.55 |
| 094.0 | 000.1100 | 0288.3 | 018.1 | 278.1 | 020.0000 | 0095.1 | 067.0 | 50.57 |
| 095.0 | 000.1100 | 0286.0 | 018.0 | 277.8 | 020.0000 | 0095.2 | 067.0 | 50.55 |
| 096.0 | 000.1100 | 0283.8 | 017.9 | 277.5 | 020.0000 | 0095.2 | 067.1 | 50.54 |
| 097.0 | 000.1100 | 0281.3 | 017.8 | 277.3 | 020.0000 | 0095.3 | 067.2 | 50.52 |
| 098.0 | 000.1100 | 0277.0 | 017.7 | 277.0 | 020.0000 | 0095.4 | 067.3 | 50.48 |
| 099.0 | 000.1100 | 0275.0 | 017.6 | 276.7 | 020.0000 | 0095.4 | 067.4 | 50.46 |
| 100.0 | 000.1100 | 0275.0 | 017.6 | 276.5 | 020.0000 | 0095.5 | 067.4 | 50.45 |
| 101.0 | 000.1100 | 0275.7 | 017.7 | 276.2 | 020.0000 | 0095.5 | 067.4 | 50.45 |
| 102.0 | 000.1100 | 0276.3 | 017.7 | 276.0 | 020.0000 | 0095.4 | 067.4 | 50.45 |
| 103.0 | 000.1100 | 0276.7 | 017.7 | 275.7 | 020.0000 | 0095.3 | 067.4 | 50.44 |
| 104.0 | 000.1100 | 0277.0 | 017.7 | 275.4 | 020.0000 | 0095.2 | 067.5 | 50.42 |
| 105.0 | 000.1100 | 0276.8 | 017.7 | 275.2 | 020.0000 | 0095.0 | 067.5 | 50.39 |
| 106.0 | 000.1100 | 0276.1 | 017.7 | 274.9 | 020.0000 | 0094.9 | 067.6 | 50.36 |
| 107.0 | 000.1100 | 0274.7 | 017.6 | 274.7 | 020.0000 | 0094.8 | 067.7 | 50.32 |
| 108.0 | 000.1100 | 0273.4 | 017.6 | 274.4 | 020.0000 | 0094.7 | 067.9 | 50.28 |
| 109.0 | 000.1100 | 0271.6 | 017.5 | 274.2 | 020.0000 | 0094.5 | 068.0 | 50.23 |
| 110.0 | 000.1100 | 0266.6 | 017.3 | 274.0 | 020.0000 | 0094.4 | 068.2 | 50.15 |
| 111.0 | 000.1100 | 0263.3 | 017.2 | 273.8 | 020.0000 | 0094.3 | 068.4 | 50.08 |
| 112.0 | 000.1100 | 0261.8 | 017.2 | 273.5 | 020.0000 | 0094.2 | 068.6 | 50.03 |
| 113.0 | 000.1100 | 0260.2 | 017.1 | 273.3 | 020.0000 | 0094.0 | 068.7 | 49.98 |
| 114.0 | 000.1100 | 0258.2 | 017.0 | 273.1 | 020.0000 | 0093.9 | 068.9 | 49.92 |
| 115.0 | 000.1100 | 0257.3 | 017.0 | 272.9 | 020.0000 | 0093.8 | 069.1 | 49.87 |
| 116.0 | 000.1100 | 0256.7 | 017.0 | 272.7 | 020.0000 | 0093.6 | 069.2 | 49.82 |
| 117.0 | 000.1100 | 0256.0 | 017.0 | 272.5 | 020.0000 | 0093.5 | 069.3 | 49.77 |
| 118.0 | 000.1100 | 0254.7 | 016.9 | 272.3 | 020.0000 | 0093.3 | 069.5 | 49.71 |
| 119.0 | 000.1100 | 0254.4 | 016.9 | 272.0 | 020.0000 | 0093.1 | 069.7 | 49.66 |
| 120.0 | 000.1100 | 0252.6 | 016.8 | 271.9 | 020.0000 | 0093.0 | 069.8 | 49.59 |
| 121.0 | 000.1100 | 0248.6 | 016.7 | 271.7 | 020.0000 | 0092.9 | 070.1 | 49.51 |
| 122.0 | 000.1100 | 0245.6 | 016.6 | 271.5 | 020.0000 | 0092.7 | 070.4 | 49.43 |
| 123.0 | 000.1100 | 0243.6 | 016.5 | 271.4 | 020.0000 | 0092.6 | 070.6 | 49.36 |
| 124.0 | 000.1100 | 0239.0 | 016.3 | 271.2 | 020.0000 | 0092.5 | 070.9 | 49.27 |

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 125.0 | 000.1100 | 0233.0 | 016.1 | 271.2 | 020.0000 | 0092.4 | 071.2 | 49.17 |
| 126.0 | 000.1100 | 0227.5 | 015.9 | 271.1 | 020.0000 | 0092.3 | 071.5 | 49.07 |
| 127.0 | 000.1100 | 0223.2 | 015.8 | 271.0 | 020.0000 | 0092.2 | 071.8 | 48.98 |
| 128.0 | 000.1100 | 0219.7 | 015.6 | 270.9 | 020.0000 | 0092.1 | 072.1 | 48.89 |
| 129.0 | 000.1100 | 0217.4 | 015.5 | 270.7 | 020.0000 | 0092.0 | 072.3 | 48.82 |
| 130.0 | 000.1100 | 0214.7 | 015.4 | 270.6 | 020.0000 | 0091.9 | 072.6 | 48.74 |
| 131.0 | 000.1100 | 0211.4 | 015.3 | 270.5 | 020.0000 | 0091.8 | 072.9 | 48.66 |
| 132.0 | 000.1100 | 0207.9 | 015.2 | 270.4 | 020.0000 | 0091.7 | 073.1 | 48.58 |
| 133.0 | 000.1100 | 0203.8 | 015.0 | 270.4 | 020.0000 | 0091.6 | 073.4 | 48.49 |
| 134.0 | 000.1100 | 0198.6 | 014.8 | 270.3 | 020.0000 | 0091.6 | 073.7 | 48.40 |
| 135.0 | 000.1100 | 0195.9 | 014.7 | 270.2 | 020.0000 | 0091.5 | 074.0 | 48.32 |
| 136.0 | 000.1100 | 0193.6 | 014.7 | 270.1 | 020.0000 | 0091.4 | 074.2 | 48.25 |
| 137.0 | 000.1100 | 0191.6 | 014.6 | 270.0 | 020.0000 | 0091.3 | 074.5 | 48.18 |
| 138.0 | 000.1100 | 0190.4 | 014.5 | 269.9 | 020.0000 | 0091.2 | 074.7 | 48.11 |
| 139.0 | 000.1100 | 0189.7 | 014.5 | 269.8 | 020.0000 | 0091.1 | 074.9 | 48.05 |
| 140.0 | 000.1100 | 0189.4 | 014.5 | 269.7 | 020.0000 | 0091.0 | 075.1 | 47.98 |
| 141.0 | 000.1100 | 0188.0 | 014.5 | 269.6 | 020.0000 | 0090.9 | 075.3 | 47.91 |
| 142.0 | 000.1100 | 0184.3 | 014.3 | 269.6 | 020.0000 | 0090.8 | 075.6 | 47.83 |
| 143.0 | 000.1100 | 0179.6 | 014.2 | 269.6 | 020.0000 | 0090.8 | 075.9 | 47.75 |
| 144.0 | 000.1100 | 0172.0 | 013.9 | 269.6 | 020.0000 | 0090.9 | 076.3 | 47.65 |
| 145.0 | 000.1100 | 0163.5 | 013.5 | 269.8 | 020.0000 | 0091.1 | 076.7 | 47.55 |
| 146.0 | 000.1100 | 0153.2 | 013.0 | 270.0 | 020.0000 | 0091.3 | 077.1 | 47.43 |
| 147.0 | 000.1100 | 0140.7 | 012.4 | 270.2 | 020.0000 | 0091.5 | 077.7 | 47.30 |
| 148.0 | 000.1100 | 0130.9 | 012.0 | 270.4 | 020.0000 | 0091.7 | 078.1 | 47.20 |
| 149.0 | 000.1100 | 0121.1 | 011.5 | 270.6 | 020.0000 | 0091.9 | 078.5 | 47.10 |
| 150.0 | 000.1100 | 0108.4 | 011.0 | 270.9 | 020.0000 | 0092.2 | 078.9 | 46.98 |
| 151.0 | 000.1100 | 0101.6 | 010.6 | 271.1 | 020.0000 | 0092.3 | 079.3 | 46.90 |
| 152.0 | 000.1100 | 0099.1 | 010.5 | 271.1 | 020.0000 | 0092.3 | 079.5 | 46.84 |
| 153.0 | 000.1100 | 0098.8 | 010.5 | 271.0 | 020.0000 | 0092.3 | 079.7 | 46.79 |
| 154.0 | 000.1100 | 0093.6 | 010.2 | 271.1 | 020.0000 | 0092.4 | 079.9 | 46.72 |
| 155.0 | 000.1100 | 0097.4 | 010.4 | 271.0 | 020.0000 | 0092.2 | 080.0 | 46.69 |
| 156.0 | 000.1100 | 0106.1 | 010.9 | 270.6 | 020.0000 | 0091.9 | 080.0 | 46.67 |
| 157.0 | 000.1100 | 0118.3 | 011.4 | 270.2 | 020.0000 | 0091.5 | 080.0 | 46.66 |

01-08-2008 USGS 03 SEC Terrain Data

KWYC BLED20050825AFD
 Channel = 212C2
 Max ERP = 20 kW
 RCAMSL = 1848 M
 N. Lat. 41 13 01.0
 W. Lng. 104 26 53.0
 Protected
 60 dBu

KUWL.C
 Channel = 211A
 Max ERP = 0.11 kW
 RCAMSL = 2699 M
 N. Lat. 41 18 36.0
 W. Lng. 105 27 17.0
 Interfering
 54 dBu

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 217.0 | 020.0000 | 0107.7 | 038.5 | 123.7 | 000.1100 | 0240.7 | 073.8 | 32.50 |
| 218.0 | 020.0000 | 0106.6 | 038.4 | 123.5 | 000.1100 | 0241.6 | 073.2 | 32.73 |
| 219.0 | 020.0000 | 0104.7 | 038.1 | 123.2 | 000.1100 | 0242.8 | 072.5 | 32.99 |
| 220.0 | 020.0000 | 0102.5 | 037.7 | 122.9 | 000.1100 | 0243.9 | 071.9 | 33.23 |
| 221.0 | 020.0000 | 0100.5 | 037.4 | 122.6 | 000.1100 | 0244.7 | 071.3 | 33.47 |
| 222.0 | 020.0000 | 0099.2 | 037.2 | 122.3 | 000.1100 | 0245.1 | 070.7 | 33.69 |
| 223.0 | 020.0000 | 0098.3 | 037.0 | 122.1 | 000.1100 | 0245.3 | 070.1 | 33.90 |
| 224.0 | 020.0000 | 0097.9 | 037.0 | 122.0 | 000.1100 | 0245.6 | 069.5 | 34.12 |
| 225.0 | 020.0000 | 0097.4 | 036.9 | 121.8 | 000.1100 | 0246.0 | 068.8 | 34.34 |
| 226.0 | 020.0000 | 0097.0 | 036.8 | 121.6 | 000.1100 | 0246.4 | 068.2 | 34.57 |
| 227.0 | 020.0000 | 0096.7 | 036.8 | 121.4 | 000.1100 | 0246.9 | 067.6 | 34.79 |
| 228.0 | 020.0000 | 0096.4 | 036.7 | 121.2 | 000.1100 | 0247.6 | 067.0 | 35.03 |
| 229.0 | 020.0000 | 0096.0 | 036.6 | 121.0 | 000.1100 | 0248.4 | 066.4 | 35.26 |
| 230.0 | 020.0000 | 0095.7 | 036.6 | 120.8 | 000.1100 | 0249.2 | 065.8 | 35.49 |
| 231.0 | 020.0000 | 0095.4 | 036.5 | 120.6 | 000.1100 | 0250.1 | 065.3 | 35.73 |
| 232.0 | 020.0000 | 0094.9 | 036.4 | 120.3 | 000.1100 | 0251.3 | 064.7 | 35.97 |
| 233.0 | 020.0000 | 0094.0 | 036.3 | 120.0 | 000.1100 | 0252.7 | 064.2 | 36.20 |
| 234.0 | 020.0000 | 0092.8 | 036.1 | 119.6 | 000.1100 | 0253.9 | 063.7 | 36.42 |
| 235.0 | 020.0000 | 0091.4 | 035.8 | 119.1 | 000.1100 | 0254.3 | 063.2 | 36.60 |
| 236.0 | 020.0000 | 0090.0 | 035.6 | 118.7 | 000.1100 | 0254.4 | 062.7 | 36.77 |
| 237.0 | 020.0000 | 0089.2 | 035.4 | 118.3 | 000.1100 | 0254.6 | 062.3 | 36.95 |
| 238.0 | 020.0000 | 0088.7 | 035.3 | 117.9 | 000.1100 | 0254.8 | 061.8 | 37.14 |
| 239.0 | 020.0000 | 0088.2 | 035.2 | 117.6 | 000.1100 | 0255.2 | 061.3 | 37.33 |
| 240.0 | 020.0000 | 0087.7 | 035.1 | 117.2 | 000.1100 | 0255.7 | 060.8 | 37.53 |
| 241.0 | 020.0000 | 0087.2 | 035.0 | 116.8 | 000.1100 | 0256.2 | 060.3 | 37.72 |
| 242.0 | 020.0000 | 0086.7 | 034.9 | 116.4 | 000.1100 | 0256.5 | 059.9 | 37.90 |
| 243.0 | 020.0000 | 0086.2 | 034.9 | 116.0 | 000.1100 | 0256.7 | 059.5 | 38.08 |
| 244.0 | 020.0000 | 0085.7 | 034.8 | 115.5 | 000.1100 | 0257.0 | 059.0 | 38.26 |
| 245.0 | 020.0000 | 0085.3 | 034.7 | 115.1 | 000.1100 | 0257.2 | 058.6 | 38.43 |
| 246.0 | 020.0000 | 0084.9 | 034.6 | 114.7 | 000.1100 | 0257.5 | 058.2 | 38.60 |
| 247.0 | 020.0000 | 0084.7 | 034.6 | 114.2 | 000.1100 | 0257.9 | 057.8 | 38.78 |
| 248.0 | 020.0000 | 0084.4 | 034.5 | 113.8 | 000.1100 | 0258.6 | 057.4 | 38.97 |
| 249.0 | 020.0000 | 0084.2 | 034.5 | 113.3 | 000.1100 | 0259.5 | 057.0 | 39.16 |
| 250.0 | 020.0000 | 0084.1 | 034.5 | 112.9 | 000.1100 | 0260.4 | 056.6 | 39.35 |

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 251.0 | 020.0000 | 0084.0 | 034.4 | 112.4 | 000.1100 | 0261.2 | 056.2 | 39.53 |
| 252.0 | 020.0000 | 0083.8 | 034.4 | 111.9 | 000.1100 | 0261.9 | 055.8 | 39.70 |
| 253.0 | 020.0000 | 0083.6 | 034.3 | 111.4 | 000.1100 | 0262.6 | 055.5 | 39.87 |
| 254.0 | 020.0000 | 0083.3 | 034.3 | 110.9 | 000.1100 | 0263.5 | 055.1 | 40.03 |
| 255.0 | 020.0000 | 0083.0 | 034.2 | 110.4 | 000.1100 | 0264.8 | 054.8 | 40.20 |
| 256.0 | 020.0000 | 0082.7 | 034.2 | 109.8 | 000.1100 | 0267.7 | 054.5 | 40.42 |
| 257.0 | 020.0000 | 0082.5 | 034.1 | 109.3 | 000.1100 | 0270.6 | 054.2 | 40.64 |
| 258.0 | 020.0000 | 0082.6 | 034.2 | 108.7 | 000.1100 | 0272.2 | 053.9 | 40.83 |
| 259.0 | 020.0000 | 0082.9 | 034.2 | 108.2 | 000.1100 | 0273.1 | 053.5 | 41.00 |
| 260.0 | 020.0000 | 0083.4 | 034.3 | 107.7 | 000.1100 | 0273.8 | 053.2 | 41.17 |
| 261.0 | 020.0000 | 0084.1 | 034.4 | 107.2 | 000.1100 | 0274.5 | 052.8 | 41.35 |
| 262.0 | 020.0000 | 0084.8 | 034.6 | 106.7 | 000.1100 | 0275.1 | 052.4 | 41.53 |
| 263.0 | 020.0000 | 0085.3 | 034.7 | 106.1 | 000.1100 | 0275.9 | 052.0 | 41.69 |
| 264.0 | 020.0000 | 0085.7 | 034.8 | 105.5 | 000.1100 | 0276.5 | 051.7 | 41.84 |
| 265.0 | 020.0000 | 0086.1 | 034.8 | 104.9 | 000.1100 | 0276.8 | 051.4 | 41.96 |
| 266.0 | 020.0000 | 0086.6 | 034.9 | 104.3 | 000.1100 | 0277.0 | 051.2 | 42.09 |
| 267.0 | 020.0000 | 0087.7 | 035.1 | 103.7 | 000.1100 | 0276.9 | 050.8 | 42.24 |
| 268.0 | 020.0000 | 0089.0 | 035.4 | 103.1 | 000.1100 | 0276.8 | 050.4 | 42.40 |
| 269.0 | 020.0000 | 0090.1 | 035.6 | 102.5 | 000.1100 | 0276.6 | 050.0 | 42.54 |
| 270.0 | 020.0000 | 0091.3 | 035.8 | 101.9 | 000.1100 | 0276.3 | 049.6 | 42.67 |
| 271.0 | 020.0000 | 0092.3 | 036.0 | 101.2 | 000.1100 | 0275.8 | 049.3 | 42.78 |
| 272.0 | 020.0000 | 0093.1 | 036.1 | 100.5 | 000.1100 | 0275.3 | 049.1 | 42.86 |
| 273.0 | 020.0000 | 0093.8 | 036.3 | 099.8 | 000.1100 | 0274.9 | 048.9 | 42.93 |
| 274.0 | 020.0000 | 0094.4 | 036.4 | 099.1 | 000.1100 | 0274.9 | 048.7 | 43.00 |
| 275.0 | 020.0000 | 0095.0 | 036.5 | 098.3 | 000.1100 | 0276.1 | 048.6 | 43.10 |
| 276.0 | 020.0000 | 0095.4 | 036.5 | 097.6 | 000.1100 | 0278.7 | 048.4 | 43.23 |
| 277.0 | 020.0000 | 0095.4 | 036.5 | 096.8 | 000.1100 | 0282.0 | 048.4 | 43.34 |
| 278.0 | 020.0000 | 0095.1 | 036.5 | 096.1 | 000.1100 | 0283.7 | 048.5 | 43.37 |
| 279.0 | 020.0000 | 0094.7 | 036.4 | 095.3 | 000.1100 | 0285.1 | 048.6 | 43.38 |
| 280.0 | 020.0000 | 0094.4 | 036.3 | 094.6 | 000.1100 | 0287.3 | 048.7 | 43.40 |
| 281.0 | 020.0000 | 0094.2 | 036.3 | 093.8 | 000.1100 | 0288.4 | 048.8 | 43.40 |
| 282.0 | 020.0000 | 0094.0 | 036.3 | 093.1 | 000.1100 | 0287.5 | 048.9 | 43.33 |
| 283.0 | 020.0000 | 0093.9 | 036.3 | 092.4 | 000.1100 | 0286.5 | 049.0 | 43.25 |
| 284.0 | 020.0000 | 0093.8 | 036.3 | 091.6 | 000.1100 | 0285.8 | 049.2 | 43.17 |
| 285.0 | 020.0000 | 0093.8 | 036.3 | 090.9 | 000.1100 | 0284.8 | 049.3 | 43.09 |
| 286.0 | 020.0000 | 0094.2 | 036.3 | 090.2 | 000.1100 | 0283.1 | 049.4 | 43.00 |
| 287.0 | 020.0000 | 0095.0 | 036.5 | 089.4 | 000.1100 | 0281.8 | 049.4 | 42.93 |
| 288.0 | 020.0000 | 0095.9 | 036.6 | 088.7 | 000.1100 | 0281.2 | 049.5 | 42.89 |
| 289.0 | 020.0000 | 0096.7 | 036.8 | 087.9 | 000.1100 | 0281.9 | 049.6 | 42.89 |
| 290.0 | 020.0000 | 0097.5 | 036.9 | 087.2 | 000.1100 | 0283.1 | 049.7 | 42.88 |
| 291.0 | 020.0000 | 0098.2 | 037.0 | 086.4 | 000.1100 | 0284.7 | 049.8 | 42.87 |
| 292.0 | 020.0000 | 0098.6 | 037.1 | 085.7 | 000.1100 | 0285.8 | 050.0 | 42.82 |
| 293.0 | 020.0000 | 0098.5 | 037.1 | 085.1 | 000.1100 | 0286.3 | 050.3 | 42.72 |
| 294.0 | 020.0000 | 0097.7 | 036.9 | 084.5 | 000.1100 | 0286.8 | 050.8 | 42.57 |
| 295.0 | 020.0000 | 0096.8 | 036.8 | 083.9 | 000.1100 | 0287.4 | 051.2 | 42.40 |
| 296.0 | 020.0000 | 0095.7 | 036.6 | 083.4 | 000.1100 | 0288.0 | 051.7 | 42.23 |
| 297.0 | 020.0000 | 0093.7 | 036.2 | 083.1 | 000.1100 | 0288.7 | 052.3 | 41.99 |
| 298.0 | 020.0000 | 0091.7 | 035.9 | 082.7 | 000.1100 | 0290.1 | 053.0 | 41.78 |
| 299.0 | 020.0000 | 0091.1 | 035.8 | 082.2 | 000.1100 | 0293.1 | 053.4 | 41.70 |
| 300.0 | 020.0000 | 0090.8 | 035.7 | 081.7 | 000.1100 | 0294.4 | 053.9 | 41.58 |
| 301.0 | 020.0000 | 0090.4 | 035.6 | 081.3 | 000.1100 | 0294.6 | 054.3 | 41.41 |

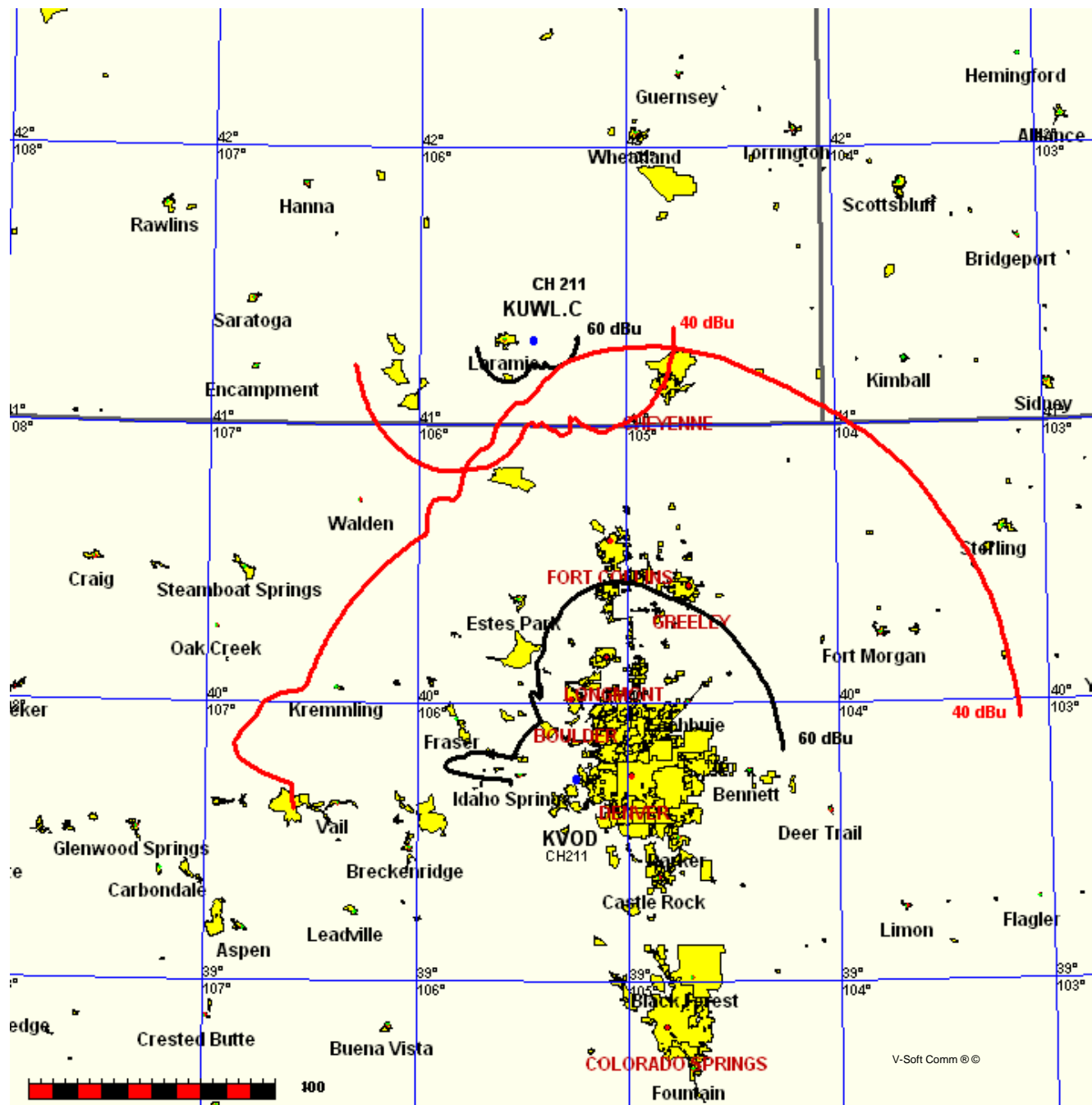
| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 302.0 | 020.0000 | 0090.0 | 035.6 | 080.8 | 000.1100 | 0294.4 | 054.8 | 41.22 |
| 303.0 | 020.0000 | 0089.6 | 035.5 | 080.4 | 000.1100 | 0294.2 | 055.2 | 41.03 |
| 304.0 | 020.0000 | 0089.2 | 035.4 | 080.0 | 000.1100 | 0294.0 | 055.7 | 40.84 |
| 305.0 | 020.0000 | 0088.7 | 035.3 | 079.6 | 000.1100 | 0293.5 | 056.2 | 40.63 |
| 306.0 | 020.0000 | 0088.1 | 035.2 | 079.2 | 000.1100 | 0292.9 | 056.7 | 40.41 |
| 307.0 | 020.0000 | 0087.6 | 035.1 | 078.9 | 000.1100 | 0292.5 | 057.2 | 40.19 |
| 308.0 | 020.0000 | 0087.2 | 035.0 | 078.5 | 000.1100 | 0292.2 | 057.7 | 39.98 |
| 309.0 | 020.0000 | 0086.9 | 035.0 | 078.2 | 000.1100 | 0292.1 | 058.2 | 39.78 |
| 310.0 | 020.0000 | 0086.8 | 035.0 | 077.8 | 000.1100 | 0292.2 | 058.7 | 39.60 |
| 311.0 | 020.0000 | 0086.8 | 035.0 | 077.4 | 000.1100 | 0292.6 | 059.2 | 39.43 |
| 312.0 | 020.0000 | 0087.1 | 035.0 | 077.0 | 000.1100 | 0293.5 | 059.7 | 39.29 |
| 313.0 | 020.0000 | 0087.5 | 035.1 | 076.6 | 000.1100 | 0294.8 | 060.1 | 39.15 |
| 314.0 | 020.0000 | 0088.0 | 035.2 | 076.2 | 000.1100 | 0296.1 | 060.6 | 39.02 |
| 315.0 | 020.0000 | 0088.6 | 035.3 | 075.8 | 000.1100 | 0297.2 | 061.0 | 38.89 |
| 316.0 | 020.0000 | 0089.2 | 035.4 | 075.5 | 000.1100 | 0298.1 | 061.5 | 38.74 |
| 317.0 | 020.0000 | 0089.9 | 035.6 | 075.1 | 000.1100 | 0298.9 | 062.0 | 38.59 |
| 318.0 | 020.0000 | 0090.6 | 035.7 | 074.7 | 000.1100 | 0299.5 | 062.5 | 38.43 |
| 319.0 | 020.0000 | 0091.3 | 035.8 | 074.3 | 000.1100 | 0300.0 | 063.0 | 38.26 |
| 320.0 | 020.0000 | 0092.2 | 036.0 | 074.0 | 000.1100 | 0300.5 | 063.5 | 38.10 |
| 321.0 | 020.0000 | 0093.1 | 036.1 | 073.6 | 000.1100 | 0300.9 | 064.0 | 37.93 |
| 322.0 | 020.0000 | 0093.7 | 036.2 | 073.3 | 000.1100 | 0301.3 | 064.5 | 37.75 |
| 323.0 | 020.0000 | 0094.1 | 036.3 | 073.0 | 000.1100 | 0301.6 | 065.1 | 37.55 |
| 324.0 | 020.0000 | 0094.5 | 036.4 | 072.8 | 000.1100 | 0301.9 | 065.6 | 37.36 |
| 325.0 | 020.0000 | 0095.0 | 036.5 | 072.5 | 000.1100 | 0302.1 | 066.2 | 37.16 |
| 326.0 | 020.0000 | 0095.5 | 036.5 | 072.3 | 000.1100 | 0302.3 | 066.8 | 36.96 |
| 327.0 | 020.0000 | 0095.9 | 036.6 | 072.1 | 000.1100 | 0302.5 | 067.4 | 36.75 |
| 328.0 | 020.0000 | 0096.6 | 036.7 | 071.8 | 000.1100 | 0302.7 | 068.0 | 36.55 |
| 329.0 | 020.0000 | 0097.6 | 036.9 | 071.6 | 000.1100 | 0303.1 | 068.6 | 36.35 |
| 330.0 | 020.0000 | 0098.9 | 037.1 | 071.3 | 000.1100 | 0303.3 | 069.1 | 36.16 |
| 331.0 | 020.0000 | 0100.3 | 037.4 | 071.0 | 000.1100 | 0303.6 | 069.7 | 35.95 |
| 332.0 | 020.0000 | 0101.7 | 037.6 | 070.7 | 000.1100 | 0303.8 | 070.3 | 35.75 |
| 333.0 | 020.0000 | 0102.5 | 037.7 | 070.5 | 000.1100 | 0303.8 | 071.0 | 35.53 |
| 334.0 | 020.0000 | 0102.8 | 037.8 | 070.4 | 000.1100 | 0303.8 | 071.6 | 35.30 |
| 335.0 | 020.0000 | 0103.0 | 037.8 | 070.3 | 000.1100 | 0303.8 | 072.3 | 35.07 |
| 336.0 | 020.0000 | 0103.4 | 037.9 | 070.2 | 000.1100 | 0303.8 | 072.9 | 34.84 |
| 337.0 | 020.0000 | 0103.8 | 037.9 | 070.1 | 000.1100 | 0303.8 | 073.6 | 34.62 |

University Of Wyoming
KUWL (New) v. KVOD (Lic)

FMCommander Single Allocation Study
01-08-2008

KUWL.C CH 211 A
0.11 kW 2699 M COR
Prot. = 60 dBu
Intef. = 40 dBu

KVOD CH 211 C1 BLED19851115KB
50.0 kW, 2333 M COR
Prot. = 60 dBu
Intef. = 40 dBu



01-08-2008

USGS 03 SEC Terrain Data

FMOver Analysis

KUWL.C

Channel = 211A

Max ERP = 0.11 kW

RCAMSL = 2699 M

N. Lat. 41 18 36.0

W. Lng. 105 27 17.0

Protected

60 dBu

KVOD

BLED19851115KB

Channel = 211C1

Max ERP = 50 kW

RCAMSL = 2333 M

N. Lat. 39 43 49.0

W. Lng. 105 14 59.0

Interfering

40 dBu

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 114.0 | 000.1100 | 0258.2 | 017.0 | 359.4 | 050.0000 | 0397.2 | 168.5 | 39.74 |
| 115.0 | 000.1100 | 0257.3 | 017.0 | 359.3 | 050.0000 | 0396.6 | 168.2 | 39.78 |
| 116.0 | 000.1100 | 0256.7 | 017.0 | 359.3 | 050.0000 | 0395.9 | 168.0 | 39.82 |
| 117.0 | 000.1100 | 0256.0 | 017.0 | 359.2 | 050.0000 | 0395.3 | 167.7 | 39.86 |
| 118.0 | 000.1100 | 0254.7 | 016.9 | 359.2 | 050.0000 | 0394.6 | 167.5 | 39.89 |
| 119.0 | 000.1100 | 0254.4 | 016.9 | 359.1 | 050.0000 | 0393.9 | 167.2 | 39.93 |
| 120.0 | 000.1100 | 0252.6 | 016.8 | 359.1 | 050.0000 | 0393.0 | 167.0 | 39.95 |
| 121.0 | 000.1100 | 0248.6 | 016.7 | 359.0 | 050.0000 | 0391.7 | 166.8 | 39.96 |
| 122.0 | 000.1100 | 0245.6 | 016.6 | 358.9 | 050.0000 | 0390.4 | 166.7 | 39.97 |
| 123.0 | 000.1100 | 0243.6 | 016.5 | 358.8 | 050.0000 | 0389.3 | 166.5 | 39.99 |
| 124.0 | 000.1100 | 0239.0 | 016.3 | 358.7 | 050.0000 | 0387.8 | 166.3 | 39.99 |
| 125.0 | 000.1100 | 0233.0 | 016.1 | 358.6 | 050.0000 | 0386.0 | 166.2 | 39.97 |
| 126.0 | 000.1100 | 0227.5 | 015.9 | 358.5 | 050.0000 | 0384.1 | 166.1 | 39.95 |
| 127.0 | 000.1100 | 0223.2 | 015.8 | 358.4 | 050.0000 | 0382.5 | 166.0 | 39.94 |
| 128.0 | 000.1100 | 0219.7 | 015.6 | 358.3 | 050.0000 | 0381.1 | 165.9 | 39.94 |
| 129.0 | 000.1100 | 0217.4 | 015.5 | 358.2 | 050.0000 | 0379.9 | 165.7 | 39.94 |
| 130.0 | 000.1100 | 0214.7 | 015.4 | 358.1 | 050.0000 | 0378.5 | 165.6 | 39.94 |
| 131.0 | 000.1100 | 0211.4 | 015.3 | 358.0 | 050.0000 | 0377.2 | 165.5 | 39.94 |
| 132.0 | 000.1100 | 0207.9 | 015.2 | 357.9 | 050.0000 | 0375.8 | 165.4 | 39.93 |
| 133.0 | 000.1100 | 0203.8 | 015.0 | 357.8 | 050.0000 | 0374.4 | 165.3 | 39.91 |
| 134.0 | 000.1100 | 0198.6 | 014.8 | 357.7 | 050.0000 | 0372.6 | 165.2 | 39.88 |
| 135.0 | 000.1100 | 0195.9 | 014.7 | 357.6 | 050.0000 | 0371.1 | 165.1 | 39.86 |
| 136.0 | 000.1100 | 0193.6 | 014.7 | 357.5 | 050.0000 | 0369.5 | 165.0 | 39.85 |
| 137.0 | 000.1100 | 0191.6 | 014.6 | 357.5 | 050.0000 | 0367.7 | 164.9 | 39.83 |
| 138.0 | 000.1100 | 0190.4 | 014.5 | 357.4 | 050.0000 | 0366.1 | 164.8 | 39.81 |
| 139.0 | 000.1100 | 0189.7 | 014.5 | 357.3 | 050.0000 | 0364.6 | 164.7 | 39.80 |
| 140.0 | 000.1100 | 0189.4 | 014.5 | 357.2 | 050.0000 | 0363.1 | 164.5 | 39.79 |
| 141.0 | 000.1100 | 0188.0 | 014.5 | 357.2 | 050.0000 | 0361.4 | 164.4 | 39.77 |
| 142.0 | 000.1100 | 0184.3 | 014.3 | 357.1 | 050.0000 | 0359.2 | 164.4 | 39.72 |
| 143.0 | 000.1100 | 0179.6 | 014.2 | 357.0 | 050.0000 | 0356.9 | 164.3 | 39.67 |
| 144.0 | 000.1100 | 0172.0 | 013.9 | 356.8 | 050.0000 | 0354.3 | 164.5 | 39.58 |
| 145.0 | 000.1100 | 0163.5 | 013.5 | 356.7 | 050.0000 | 0351.6 | 164.7 | 39.48 |
| 146.0 | 000.1100 | 0153.2 | 013.0 | 356.5 | 050.0000 | 0349.0 | 164.9 | 39.36 |
| 147.0 | 000.1100 | 0140.7 | 012.4 | 356.4 | 050.0000 | 0346.2 | 165.3 | 39.21 |
| 148.0 | 000.1100 | 0130.9 | 012.0 | 356.2 | 050.0000 | 0344.1 | 165.6 | 39.10 |
| 149.0 | 000.1100 | 0121.1 | 011.5 | 356.1 | 050.0000 | 0342.5 | 165.9 | 39.01 |
| 150.0 | 000.1100 | 0108.4 | 011.0 | 356.0 | 050.0000 | 0341.1 | 166.3 | 38.90 |

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 151.0 | 000.1100 | 0101.6 | 010.6 | 355.9 | 050.0000 | 0340.0 | 166.6 | 38.83 |
| 152.0 | 000.1100 | 0099.1 | 010.5 | 355.8 | 050.0000 | 0339.2 | 166.6 | 38.80 |
| 153.0 | 000.1100 | 0098.8 | 010.5 | 355.7 | 050.0000 | 0338.6 | 166.5 | 38.80 |
| 154.0 | 000.1100 | 0093.6 | 010.2 | 355.6 | 050.0000 | 0337.6 | 166.7 | 38.74 |
| 155.0 | 000.1100 | 0097.4 | 010.4 | 355.6 | 050.0000 | 0337.3 | 166.5 | 38.78 |
| 156.0 | 000.1100 | 0106.1 | 010.9 | 355.6 | 050.0000 | 0337.2 | 166.0 | 38.86 |
| 157.0 | 000.1100 | 0118.3 | 011.4 | 355.6 | 050.0000 | 0337.2 | 165.4 | 38.96 |
| 158.0 | 000.1100 | 0123.2 | 011.6 | 355.5 | 050.0000 | 0336.7 | 165.1 | 39.00 |
| 159.0 | 000.1100 | 0123.9 | 011.7 | 355.5 | 050.0000 | 0335.9 | 165.1 | 38.99 |
| 160.0 | 000.1100 | 0124.5 | 011.7 | 355.4 | 050.0000 | 0335.1 | 165.0 | 38.99 |
| 161.0 | 000.1100 | 0125.4 | 011.7 | 355.4 | 050.0000 | 0334.3 | 164.9 | 38.98 |
| 162.0 | 000.1100 | 0125.7 | 011.7 | 355.3 | 050.0000 | 0333.3 | 164.8 | 38.97 |
| 163.0 | 000.1100 | 0124.4 | 011.7 | 355.2 | 050.0000 | 0332.2 | 164.8 | 38.94 |
| 164.0 | 000.1100 | 0120.7 | 011.5 | 355.1 | 050.0000 | 0330.5 | 165.0 | 38.88 |
| 165.0 | 000.1100 | 0115.1 | 011.3 | 355.0 | 050.0000 | 0328.3 | 165.2 | 38.78 |
| 166.0 | 000.1100 | 0109.7 | 011.0 | 355.0 | 050.0000 | 0326.1 | 165.4 | 38.69 |
| 167.0 | 000.1100 | 0106.3 | 010.9 | 354.9 | 050.0000 | 0323.7 | 165.5 | 38.61 |
| 168.0 | 000.1100 | 0104.5 | 010.8 | 354.8 | 050.0000 | 0321.4 | 165.6 | 38.54 |
| 169.0 | 000.1100 | 0102.2 | 010.7 | 354.8 | 050.0000 | 0319.0 | 165.7 | 38.47 |
| 170.0 | 000.1100 | 0099.1 | 010.5 | 354.7 | 050.0000 | 0316.5 | 165.8 | 38.39 |
| 171.0 | 000.1100 | 0095.8 | 010.3 | 354.6 | 050.0000 | 0314.3 | 166.0 | 38.31 |
| 172.0 | 000.1100 | 0091.7 | 010.1 | 354.6 | 050.0000 | 0312.2 | 166.2 | 38.23 |
| 173.0 | 000.1100 | 0087.4 | 009.9 | 354.5 | 050.0000 | 0310.4 | 166.4 | 38.15 |
| 174.0 | 000.1100 | 0088.0 | 009.9 | 354.4 | 050.0000 | 0308.8 | 166.3 | 38.13 |
| 175.0 | 000.1100 | 0090.1 | 010.0 | 354.4 | 050.0000 | 0307.3 | 166.2 | 38.11 |
| 176.0 | 000.1100 | 0092.7 | 010.2 | 354.3 | 050.0000 | 0305.7 | 166.1 | 38.11 |
| 177.0 | 000.1100 | 0093.6 | 010.2 | 354.3 | 050.0000 | 0304.1 | 166.1 | 38.08 |
| 178.0 | 000.1100 | 0093.2 | 010.2 | 354.2 | 050.0000 | 0302.6 | 166.1 | 38.05 |
| 179.0 | 000.1100 | 0091.0 | 010.1 | 354.1 | 050.0000 | 0301.2 | 166.2 | 38.00 |
| 180.0 | 000.1100 | 0086.8 | 009.9 | 354.1 | 050.0000 | 0300.0 | 166.5 | 37.93 |
| 181.0 | 000.1100 | 0087.3 | 009.9 | 354.0 | 050.0000 | 0298.6 | 166.5 | 37.91 |
| 182.0 | 000.1100 | 0088.3 | 009.9 | 354.0 | 050.0000 | 0297.1 | 166.4 | 37.89 |
| 183.0 | 000.1100 | 0091.0 | 010.1 | 353.9 | 050.0000 | 0295.6 | 166.3 | 37.88 |
| 184.0 | 000.1100 | 0095.0 | 010.3 | 353.8 | 050.0000 | 0294.0 | 166.1 | 37.89 |
| 185.0 | 000.1100 | 0100.2 | 010.6 | 353.8 | 050.0000 | 0292.4 | 165.9 | 37.90 |
| 186.0 | 000.1100 | 0108.7 | 011.0 | 353.7 | 050.0000 | 0290.5 | 165.5 | 37.93 |
| 187.0 | 000.1100 | 0120.3 | 011.5 | 353.6 | 050.0000 | 0288.5 | 165.1 | 37.97 |
| 188.0 | 000.1100 | 0134.4 | 012.1 | 353.4 | 050.0000 | 0286.1 | 164.5 | 38.03 |
| 189.0 | 000.1100 | 0146.4 | 012.7 | 353.3 | 050.0000 | 0283.7 | 164.0 | 38.08 |
| 190.0 | 000.1100 | 0157.3 | 013.2 | 353.2 | 050.0000 | 0281.2 | 163.6 | 38.11 |
| 191.0 | 000.1100 | 0169.4 | 013.7 | 353.1 | 050.0000 | 0278.4 | 163.2 | 38.15 |
| 192.0 | 000.1100 | 0180.8 | 014.2 | 352.9 | 050.0000 | 0275.6 | 162.8 | 38.17 |
| 193.0 | 000.1100 | 0186.9 | 014.4 | 352.8 | 050.0000 | 0273.6 | 162.7 | 38.16 |
| 194.0 | 000.1100 | 0194.6 | 014.7 | 352.7 | 050.0000 | 0272.0 | 162.5 | 38.16 |
| 195.0 | 000.1100 | 0203.9 | 015.0 | 352.6 | 050.0000 | 0270.2 | 162.3 | 38.17 |
| 196.0 | 000.1100 | 0213.4 | 015.4 | 352.4 | 050.0000 | 0268.6 | 162.1 | 38.19 |
| 197.0 | 000.1100 | 0220.8 | 015.7 | 352.3 | 050.0000 | 0268.4 | 161.9 | 38.21 |
| 198.0 | 000.1100 | 0229.9 | 016.0 | 352.2 | 050.0000 | 0268.7 | 161.7 | 38.25 |
| 199.0 | 000.1100 | 0242.5 | 016.5 | 352.0 | 050.0000 | 0268.7 | 161.4 | 38.30 |
| 200.0 | 000.1100 | 0252.5 | 016.8 | 351.9 | 050.0000 | 0269.8 | 161.3 | 38.35 |
| 201.0 | 000.1100 | 0258.7 | 017.1 | 351.7 | 050.0000 | 0271.2 | 161.2 | 38.38 |

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 202.0 | 000.1100 | 0263.8 | 017.2 | 351.6 | 050.0000 | 0272.5 | 161.2 | 38.40 |
| 203.0 | 000.1100 | 0270.3 | 017.5 | 351.5 | 050.0000 | 0273.2 | 161.2 | 38.42 |
| 204.0 | 000.1100 | 0277.5 | 017.7 | 351.3 | 050.0000 | 0273.3 | 161.1 | 38.43 |
| 205.0 | 000.1100 | 0285.9 | 018.0 | 351.2 | 050.0000 | 0272.6 | 161.1 | 38.43 |
| 206.0 | 000.1100 | 0292.2 | 018.2 | 351.1 | 050.0000 | 0271.5 | 161.1 | 38.41 |
| 207.0 | 000.1100 | 0296.9 | 018.4 | 350.9 | 050.0000 | 0270.3 | 161.1 | 38.38 |
| 208.0 | 000.1100 | 0303.7 | 018.6 | 350.8 | 050.0000 | 0268.7 | 161.1 | 38.35 |
| 209.0 | 000.1100 | 0312.4 | 018.8 | 350.7 | 050.0000 | 0266.7 | 161.1 | 38.33 |
| 210.0 | 000.1100 | 0320.5 | 019.1 | 350.5 | 050.0000 | 0264.7 | 161.2 | 38.29 |
| 211.0 | 000.1100 | 0327.7 | 019.3 | 350.4 | 050.0000 | 0262.6 | 161.2 | 38.25 |
| 212.0 | 000.1100 | 0336.2 | 019.5 | 350.2 | 050.0000 | 0260.4 | 161.3 | 38.21 |
| 213.0 | 000.1100 | 0345.6 | 019.8 | 350.1 | 050.0000 | 0257.9 | 161.3 | 38.16 |
| 214.0 | 000.1100 | 0354.3 | 020.0 | 349.9 | 050.0000 | 0255.1 | 161.4 | 38.10 |
| 215.0 | 000.1100 | 0362.1 | 020.2 | 349.8 | 050.0000 | 0252.3 | 161.5 | 38.04 |
| 216.0 | 000.1100 | 0368.9 | 020.4 | 349.7 | 050.0000 | 0249.6 | 161.6 | 37.97 |
| 217.0 | 000.1100 | 0374.2 | 020.5 | 349.6 | 050.0000 | 0247.1 | 161.8 | 37.90 |
| 218.0 | 000.1100 | 0379.6 | 020.7 | 349.4 | 050.0000 | 0244.5 | 162.0 | 37.82 |
| 219.0 | 000.1100 | 0384.9 | 020.8 | 349.3 | 050.0000 | 0242.1 | 162.1 | 37.74 |
| 220.0 | 000.1100 | 0390.2 | 020.9 | 349.2 | 050.0000 | 0239.5 | 162.3 | 37.66 |
| 221.0 | 000.1100 | 0395.6 | 021.1 | 349.1 | 050.0000 | 0236.7 | 162.5 | 37.58 |
| 222.0 | 000.1100 | 0400.9 | 021.2 | 349.0 | 050.0000 | 0233.9 | 162.8 | 37.49 |
| 223.0 | 000.1100 | 0405.6 | 021.3 | 348.9 | 050.0000 | 0231.1 | 163.0 | 37.39 |
| 224.0 | 000.1100 | 0409.4 | 021.4 | 348.8 | 050.0000 | 0228.3 | 163.2 | 37.30 |
| 225.0 | 000.1100 | 0412.7 | 021.5 | 348.7 | 050.0000 | 0225.5 | 163.5 | 37.20 |
| 226.0 | 000.1100 | 0415.5 | 021.6 | 348.6 | 050.0000 | 0222.6 | 163.8 | 37.09 |
| 227.0 | 000.1100 | 0418.2 | 021.6 | 348.5 | 050.0000 | 0220.0 | 164.1 | 36.99 |
| 228.0 | 000.1100 | 0420.8 | 021.7 | 348.4 | 050.0000 | 0217.8 | 164.4 | 36.90 |
| 229.0 | 000.1100 | 0423.4 | 021.7 | 348.3 | 050.0000 | 0215.9 | 164.7 | 36.81 |
| 230.0 | 000.1100 | 0426.2 | 021.8 | 348.2 | 050.0000 | 0214.4 | 165.0 | 36.73 |
| 231.0 | 000.1100 | 0429.1 | 021.9 | 348.2 | 050.0000 | 0213.1 | 165.3 | 36.65 |
| 232.0 | 000.1100 | 0432.0 | 022.0 | 348.1 | 050.0000 | 0212.2 | 165.6 | 36.58 |
| 233.0 | 000.1100 | 0434.9 | 022.0 | 348.0 | 050.0000 | 0211.3 | 165.9 | 36.50 |
| 234.0 | 000.1100 | 0437.5 | 022.1 | 347.9 | 050.0000 | 0210.6 | 166.2 | 36.43 |

01-08-2008 USGS 03 SEC Terrain Data

KVOD BLED19851115KB
 Channel = 211C1
 Max ERP = 50 kW
 RCAMSL = 2333 M
 N. Lat. 39 43 49.0
 W. Lng. 105 14 59.0
 Protected
 60 dBu

KUWL.C
 Channel = 211A
 Max ERP = 0.11 kW
 RCAMSL = 2699 M
 N. Lat. 41 18 36.0
 W. Lng. 105 27 17.0
 Interfering
 40 dBu

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 294.0 | 050.0000 | 0006.8 | 026.5 | 182.4 | 000.1100 | 0088.9 | 164.8 | 06.86 |
| 295.0 | 050.0000 | 0007.3 | 026.5 | 182.3 | 000.1100 | 0088.8 | 164.3 | 06.93 |
| 296.0 | 050.0000 | 0004.5 | 026.5 | 182.3 | 000.1100 | 0088.6 | 163.9 | 07.01 |
| 297.0 | 050.0000 | -0007.1 | 026.5 | 182.2 | 000.1100 | 0088.5 | 163.5 | 07.08 |
| 298.0 | 050.0000 | -0026.4 | 026.5 | 182.1 | 000.1100 | 0088.4 | 163.1 | 07.15 |
| 299.0 | 050.0000 | -0049.6 | 026.5 | 182.1 | 000.1100 | 0088.3 | 162.7 | 07.23 |
| 300.0 | 050.0000 | -0087.9 | 026.5 | 182.0 | 000.1100 | 0088.3 | 162.3 | 07.30 |
| 301.0 | 050.0000 | -0109.1 | 026.5 | 181.9 | 000.1100 | 0088.2 | 161.9 | 07.37 |
| 302.0 | 050.0000 | -0110.6 | 026.5 | 181.8 | 000.1100 | 0088.2 | 161.5 | 07.44 |
| 303.0 | 050.0000 | -0103.1 | 026.5 | 181.7 | 000.1100 | 0088.1 | 161.1 | 07.51 |
| 304.0 | 050.0000 | -0090.5 | 026.5 | 181.7 | 000.1100 | 0088.0 | 160.7 | 07.58 |
| 305.0 | 050.0000 | -0083.5 | 026.5 | 181.6 | 000.1100 | 0088.0 | 160.3 | 07.65 |
| 306.0 | 050.0000 | -0067.3 | 026.5 | 181.5 | 000.1100 | 0087.9 | 159.9 | 07.72 |
| 307.0 | 050.0000 | -0049.6 | 026.5 | 181.4 | 000.1100 | 0087.7 | 159.5 | 07.78 |
| 308.0 | 050.0000 | -0038.6 | 026.5 | 181.3 | 000.1100 | 0087.6 | 159.1 | 07.84 |
| 309.0 | 050.0000 | -0040.9 | 026.5 | 181.2 | 000.1100 | 0087.5 | 158.8 | 07.91 |
| 310.0 | 050.0000 | -0057.6 | 026.5 | 181.1 | 000.1100 | 0087.4 | 158.4 | 07.97 |
| 311.0 | 050.0000 | -0081.7 | 026.5 | 181.0 | 000.1100 | 0087.2 | 158.0 | 08.02 |
| 312.0 | 050.0000 | -0099.0 | 026.5 | 180.9 | 000.1100 | 0087.0 | 157.7 | 08.08 |
| 313.0 | 050.0000 | -0113.3 | 026.5 | 180.7 | 000.1100 | 0086.8 | 157.4 | 08.13 |
| 314.0 | 050.0000 | -0128.6 | 026.5 | 180.6 | 000.1100 | 0086.7 | 157.0 | 08.18 |
| 315.0 | 050.0000 | -0137.0 | 026.5 | 180.5 | 000.1100 | 0086.6 | 156.7 | 08.24 |
| 316.0 | 050.0000 | -0153.7 | 026.5 | 180.4 | 000.1100 | 0086.6 | 156.4 | 08.29 |
| 317.0 | 050.0000 | -0159.2 | 026.5 | 180.3 | 000.1100 | 0086.5 | 156.0 | 08.34 |
| 318.0 | 050.0000 | -0144.0 | 026.5 | 180.1 | 000.1100 | 0086.6 | 155.7 | 08.40 |
| 319.0 | 050.0000 | -0123.2 | 026.5 | 180.0 | 000.1100 | 0086.7 | 155.4 | 08.46 |
| 320.0 | 050.0000 | -0105.8 | 026.5 | 179.9 | 000.1100 | 0087.0 | 155.1 | 08.52 |
| 321.0 | 050.0000 | -0091.5 | 026.5 | 179.8 | 000.1100 | 0087.4 | 154.8 | 08.58 |
| 322.0 | 050.0000 | -0077.8 | 026.5 | 179.6 | 000.1100 | 0087.8 | 154.5 | 08.64 |
| 323.0 | 050.0000 | -0069.3 | 026.5 | 179.5 | 000.1100 | 0088.4 | 154.3 | 08.71 |
| 324.0 | 050.0000 | -0057.6 | 026.5 | 179.3 | 000.1100 | 0089.1 | 154.0 | 08.78 |
| 325.0 | 050.0000 | -0044.2 | 026.5 | 179.2 | 000.1100 | 0090.0 | 153.7 | 08.86 |
| 326.0 | 050.0000 | -0029.9 | 026.5 | 179.1 | 000.1100 | 0090.8 | 153.5 | 08.92 |
| 327.0 | 050.0000 | -0010.4 | 026.5 | 178.9 | 000.1100 | 0091.3 | 153.2 | 08.98 |

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 328.0 | 050.0000 | 0011.9 | 026.5 | 178.8 | 000.1100 | 0091.7 | 153.0 | 09.04 |
| 329.0 | 050.0000 | 0034.5 | 028.0 | 178.9 | 000.1100 | 0091.4 | 151.4 | 09.29 |
| 330.0 | 050.0000 | 0047.5 | 032.7 | 179.6 | 000.1100 | 0087.8 | 147.1 | 09.90 |
| 331.0 | 050.0000 | 0061.0 | 036.7 | 180.2 | 000.1100 | 0086.5 | 143.3 | 10.56 |
| 332.0 | 050.0000 | 0068.0 | 038.3 | 180.3 | 000.1100 | 0086.5 | 141.6 | 10.88 |
| 333.0 | 050.0000 | 0070.6 | 038.9 | 180.1 | 000.1100 | 0086.6 | 140.7 | 11.04 |
| 334.0 | 050.0000 | 0067.6 | 038.3 | 179.8 | 000.1100 | 0087.3 | 141.0 | 11.00 |
| 335.0 | 050.0000 | 0062.1 | 037.0 | 179.3 | 000.1100 | 0089.3 | 141.9 | 10.90 |
| 336.0 | 050.0000 | 0055.2 | 035.2 | 178.8 | 000.1100 | 0091.7 | 143.3 | 10.72 |
| 337.0 | 050.0000 | 0057.7 | 035.9 | 178.7 | 000.1100 | 0091.9 | 142.4 | 10.89 |
| 338.0 | 050.0000 | 0069.5 | 038.7 | 178.8 | 000.1100 | 0091.6 | 139.6 | 11.42 |
| 339.0 | 050.0000 | 0083.9 | 041.7 | 179.0 | 000.1100 | 0091.0 | 136.5 | 12.00 |
| 340.0 | 050.0000 | 0101.0 | 044.9 | 179.2 | 000.1100 | 0090.2 | 133.2 | 12.61 |
| 341.0 | 050.0000 | 0118.9 | 047.8 | 179.2 | 000.1100 | 0089.8 | 130.2 | 13.17 |
| 342.0 | 050.0000 | 0131.5 | 049.6 | 179.1 | 000.1100 | 0090.5 | 128.2 | 13.56 |
| 343.0 | 050.0000 | 0136.2 | 050.3 | 178.8 | 000.1100 | 0091.6 | 127.4 | 13.76 |
| 344.0 | 050.0000 | 0142.9 | 051.2 | 178.5 | 000.1100 | 0092.2 | 126.2 | 13.98 |
| 345.0 | 050.0000 | 0147.1 | 051.8 | 178.2 | 000.1100 | 0092.9 | 125.4 | 14.14 |
| 346.0 | 050.0000 | 0161.2 | 053.6 | 178.0 | 000.1100 | 0093.3 | 123.5 | 14.50 |
| 347.0 | 050.0000 | 0192.0 | 056.7 | 177.8 | 000.1100 | 0093.5 | 120.3 | 15.05 |
| 348.0 | 050.0000 | 0211.3 | 058.3 | 177.5 | 000.1100 | 0093.7 | 118.5 | 15.38 |
| 349.0 | 050.0000 | 0234.4 | 060.3 | 177.1 | 000.1100 | 0093.6 | 116.4 | 15.74 |
| 350.0 | 050.0000 | 0256.1 | 062.0 | 176.7 | 000.1100 | 0093.7 | 114.6 | 16.06 |
| 351.0 | 050.0000 | 0270.9 | 063.1 | 176.2 | 000.1100 | 0093.2 | 113.3 | 16.27 |
| 352.0 | 050.0000 | 0268.8 | 063.0 | 175.7 | 000.1100 | 0092.0 | 113.4 | 16.22 |
| 353.0 | 050.0000 | 0277.1 | 063.6 | 175.1 | 000.1100 | 0090.4 | 112.7 | 16.29 |
| 354.0 | 050.0000 | 0297.7 | 065.2 | 174.6 | 000.1100 | 0089.2 | 111.1 | 16.55 |
| 355.0 | 050.0000 | 0326.9 | 067.4 | 174.0 | 000.1100 | 0087.9 | 108.9 | 16.92 |
| 356.0 | 050.0000 | 0341.5 | 068.4 | 173.3 | 000.1100 | 0087.3 | 107.9 | 17.09 |
| 357.0 | 050.0000 | 0358.0 | 069.6 | 172.6 | 000.1100 | 0088.3 | 106.8 | 17.34 |
| 358.0 | 050.0000 | 0377.0 | 070.9 | 171.9 | 000.1100 | 0092.2 | 105.6 | 17.72 |
| 359.0 | 050.0000 | 0392.2 | 072.0 | 171.2 | 000.1100 | 0095.2 | 104.7 | 18.01 |
| 000.0 | 050.0000 | 0404.8 | 072.9 | 170.4 | 000.1100 | 0097.8 | 104.0 | 18.25 |
| 001.0 | 050.0000 | 0416.1 | 073.7 | 169.6 | 000.1100 | 0100.3 | 103.4 | 18.46 |
| 002.0 | 050.0000 | 0427.8 | 074.5 | 168.8 | 000.1100 | 0102.7 | 102.9 | 18.66 |
| 003.0 | 050.0000 | 0436.8 | 075.2 | 168.0 | 000.1100 | 0104.4 | 102.6 | 18.80 |
| 004.0 | 050.0000 | 0444.4 | 075.8 | 167.2 | 000.1100 | 0105.8 | 102.4 | 18.89 |
| 005.0 | 050.0000 | 0457.0 | 076.7 | 166.3 | 000.1100 | 0108.3 | 101.9 | 19.10 |
| 006.0 | 050.0000 | 0465.6 | 077.4 | 165.5 | 000.1100 | 0112.0 | 101.7 | 19.28 |
| 007.0 | 050.0000 | 0472.1 | 077.9 | 164.7 | 000.1100 | 0116.8 | 101.7 | 19.44 |
| 008.0 | 050.0000 | 0480.1 | 078.4 | 163.9 | 000.1100 | 0121.4 | 101.8 | 19.61 |
| 009.0 | 050.0000 | 0490.0 | 079.1 | 163.0 | 000.1100 | 0124.4 | 101.7 | 19.72 |
| 010.0 | 050.0000 | 0498.5 | 079.6 | 162.2 | 000.1100 | 0125.6 | 101.9 | 19.73 |
| 011.0 | 050.0000 | 0506.3 | 080.1 | 161.4 | 000.1100 | 0125.6 | 102.1 | 19.67 |
| 012.0 | 050.0000 | 0511.9 | 080.4 | 160.6 | 000.1100 | 0125.0 | 102.6 | 19.55 |
| 013.0 | 050.0000 | 0515.9 | 080.6 | 159.8 | 000.1100 | 0124.3 | 103.1 | 19.39 |
| 014.0 | 050.0000 | 0518.7 | 080.8 | 159.1 | 000.1100 | 0124.0 | 103.8 | 19.23 |
| 015.0 | 050.0000 | 0522.3 | 081.0 | 158.4 | 000.1100 | 0123.8 | 104.4 | 19.08 |
| 016.0 | 050.0000 | 0527.2 | 081.3 | 157.7 | 000.1100 | 0122.6 | 105.1 | 18.89 |
| 017.0 | 050.0000 | 0531.7 | 081.6 | 157.0 | 000.1100 | 0118.6 | 105.8 | 18.60 |
| 018.0 | 050.0000 | 0534.8 | 081.7 | 156.4 | 000.1100 | 0110.9 | 106.6 | 18.17 |

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 019.0 | 050.0000 | 0536.5 | 081.8 | 155.8 | 000.1100 | 0103.9 | 107.4 | 17.74 |
| 020.0 | 050.0000 | 0536.3 | 081.8 | 155.2 | 000.1100 | 0099.5 | 108.4 | 17.40 |
| 021.0 | 050.0000 | 0535.2 | 081.7 | 154.7 | 000.1100 | 0095.4 | 109.5 | 17.05 |
| 022.0 | 050.0000 | 0533.5 | 081.7 | 154.3 | 000.1100 | 0093.7 | 110.6 | 16.79 |
| 023.0 | 050.0000 | 0532.1 | 081.6 | 153.8 | 000.1100 | 0094.0 | 111.7 | 16.59 |
| 024.0 | 050.0000 | 0531.5 | 081.5 | 153.3 | 000.1100 | 0096.9 | 112.8 | 16.48 |
| 025.0 | 050.0000 | 0532.1 | 081.6 | 152.9 | 000.1100 | 0099.0 | 113.9 | 16.35 |
| 026.0 | 050.0000 | 0533.5 | 081.7 | 152.4 | 000.1100 | 0099.0 | 115.0 | 16.15 |
| 027.0 | 050.0000 | 0534.4 | 081.7 | 152.0 | 000.1100 | 0099.1 | 116.1 | 15.96 |
| 028.0 | 050.0000 | 0537.5 | 081.9 | 151.5 | 000.1100 | 0100.0 | 117.2 | 15.80 |
| 029.0 | 050.0000 | 0541.8 | 082.1 | 151.0 | 000.1100 | 0101.5 | 118.3 | 15.66 |
| 030.0 | 050.0000 | 0544.7 | 082.3 | 150.6 | 000.1100 | 0103.1 | 119.4 | 15.51 |
| 031.0 | 050.0000 | 0546.7 | 082.4 | 150.2 | 000.1100 | 0106.2 | 120.6 | 15.40 |
| 032.0 | 050.0000 | 0548.7 | 082.5 | 149.8 | 000.1100 | 0110.6 | 121.8 | 15.33 |
| 033.0 | 050.0000 | 0552.2 | 082.7 | 149.4 | 000.1100 | 0115.9 | 123.0 | 15.28 |
| 034.0 | 050.0000 | 0557.3 | 082.9 | 149.0 | 000.1100 | 0120.9 | 124.2 | 15.21 |
| 035.0 | 050.0000 | 0563.8 | 083.2 | 148.6 | 000.1100 | 0125.1 | 125.4 | 15.11 |
| 036.0 | 050.0000 | 0570.2 | 083.6 | 148.2 | 000.1100 | 0128.8 | 126.6 | 14.99 |
| 037.0 | 050.0000 | 0575.6 | 083.8 | 147.9 | 000.1100 | 0132.1 | 127.9 | 14.85 |
| 038.0 | 050.0000 | 0581.3 | 084.1 | 147.5 | 000.1100 | 0135.1 | 129.2 | 14.69 |
| 039.0 | 050.0000 | 0586.4 | 084.3 | 147.2 | 000.1100 | 0138.1 | 130.5 | 14.52 |
| 040.0 | 050.0000 | 0591.5 | 084.5 | 146.9 | 000.1100 | 0141.5 | 131.8 | 14.35 |
| 041.0 | 050.0000 | 0596.1 | 084.7 | 146.7 | 000.1100 | 0144.9 | 133.2 | 14.17 |
| 042.0 | 050.0000 | 0601.2 | 084.9 | 146.4 | 000.1100 | 0148.2 | 134.6 | 13.99 |
| 043.0 | 050.0000 | 0605.9 | 085.0 | 146.2 | 000.1100 | 0151.1 | 136.0 | 13.79 |
| 044.0 | 050.0000 | 0610.5 | 085.2 | 146.0 | 000.1100 | 0153.5 | 137.4 | 13.58 |
| 045.0 | 050.0000 | 0615.1 | 085.4 | 145.8 | 000.1100 | 0155.6 | 138.8 | 13.36 |
| 046.0 | 050.0000 | 0618.5 | 085.5 | 145.6 | 000.1100 | 0157.2 | 140.3 | 13.12 |
| 047.0 | 050.0000 | 0620.2 | 085.6 | 145.5 | 000.1100 | 0158.6 | 141.7 | 12.88 |
| 048.0 | 050.0000 | 0620.2 | 085.6 | 145.4 | 000.1100 | 0159.6 | 143.2 | 12.62 |
| 049.0 | 050.0000 | 0619.3 | 085.5 | 145.3 | 000.1100 | 0160.3 | 144.7 | 12.37 |
| 050.0 | 050.0000 | 0617.9 | 085.5 | 145.3 | 000.1100 | 0160.8 | 146.2 | 12.11 |
| 051.0 | 050.0000 | 0616.4 | 085.4 | 145.2 | 000.1100 | 0161.1 | 147.7 | 11.86 |
| 052.0 | 050.0000 | 0615.0 | 085.4 | 145.2 | 000.1100 | 0161.4 | 149.2 | 11.62 |
| 053.0 | 050.0000 | 0613.6 | 085.3 | 145.2 | 000.1100 | 0161.5 | 150.7 | 11.38 |
| 054.0 | 050.0000 | 0612.1 | 085.3 | 145.2 | 000.1100 | 0161.5 | 152.1 | 11.15 |