

Comprehensive Technical Exhibit
Application for Construction Permit
KVNV-DT – Ely, Nevada
Valley Broadcasting Company
June, 2008

General

The following engineering statement and attached exhibits have been prepared for **Valley Broadcasting Company**, ("Valley"), licensee of television station KVVV(TV) at Ely, Nevada, and are in support of their application for construction permit for KVVV-DT post transition facilities.¹

KVVV(TV) currently operates on channel 3 as an NTSC facility without pre-transition DTV operations. In the post-transition environment, KVVV-DT will operate on channel 3 pursuant to the Commission's DTV Table of Allotments. This application is being filed to request a construction permit for the post-transition DTV facilities, which will vary slightly from those listed in Appendix B to the Commission's order adopting the DTV table of allotments.

Discussion of KVVV-DT Allotment and Proposed Facilities

In the Appendix B table of allotments, KVVV-DT is specified as operating in the post-transition environment on channel 3. The table in Appendix B specifies a maximum effective radiated power of 1.0 kW at an antenna center of 279 meters above average terrain. An Antenna ID of 74709 is associated with this allotment, which is similar in shape, but not identical to the current NTSC antenna, which will be used in the post-transition environment.

The proposed facility would operate with a maximum effective radiated power of 1.0 kW, but at a center of radiation at 276.8 meters above average terrain. The slight reduction in the center of radiation above average terrain is the result of a re-calculation of the average terrain in the vicinity of the site. The proposed number is based on a 360 radial sample of a 3-second linearly interpolated terrain database. Although the center of radiation above average terrain would be at a slight variance from the Appendix B entry, there is no change proposed to the center of radiation

¹ The Facility ID for KVVV is 86537.

above mean sea level, which is consistent with the existing KVVN(TV) NTSC antenna. This antenna will be utilized in the post-transition environment as the facility will flash-cut to DTV operations.

Even though the center of radiation above mean sea level would remain unchanged, the calculated noise limited contour for the proposed facility will vary slightly from that allocated under Appendix B. The deviation from the allocated contour is the result of variations in the radiation pattern of the antenna to be utilized. Exhibit E-1 graphically compares the Appendix B noise limited contour to the proposed noise limited contour, while Exhibit E-2 tabulates the distance to each of these contours. As these two exhibits demonstrate, the proposed contour would not exceed the allocated contour at any azimuth by a distance in excess of five miles.

Although the noise limited contour would be larger along certain azimuths than the allocation contour, impermissible interference would not result from the proposed facility to any other relevant facility. Exhibits E-3 and E-4 provide the outgoing interference study for the proposed facility. These studies demonstrate that interference would be caused to the analog operations translator station K03DS at Ruth, NV.² K03DS is not, however, protected from interference by the proposed facility. No other facilities are predicted to receive interference from KVVN-DT. It should be noted that full power NTSC facilities were included in this study. This inclusion was made in order to accommodate the potential early flash-cut by KVVN to DTV operations. If an early flash-cut is pursued, it will be performed only after approval from the Commission.

² The Facility ID for K03DS is 72238.

The change in the noise limited service contour will also modify the DTV service area of KVVN-DT. As indicated in Exhibits E-3 and E-4, the proposed facility would cause interference to the NTSC operations of K03DS at Ruth, NV. The converse situation is true as K03DS, and its proposed digital facility, would cause a significant level of interference to the proposed KVVN-DT facility. Exhibits E-5 and E-6 illustrate the predicted DTV service area of KVVN-DT with the inclusion of K03DS in the calculations. As these exhibits demonstrate, if K03DS is included, then the DTV service area population of KVVN-DT would be reduced to 7,976 residents whereas if K03DS is ignored and its proposed digital operation considered, the service area population would be 7,332 persons.

Since both of the K03DS facilities are predicted to cause considerable interference to the off-air received signal of KVVN-DT, it will likely be necessary for these secondary services to change channels. If both the authorized NTSC K03DS facility and the proposed digital facility for K03DS are eliminated from the interference study, then the resulting service area population is substantially larger. As Exhibits E-7 and E-8 demonstrate with the removal of K03DS from consideration, the service area population is 8,378 matching the Appendix B population of 8 thousand.

The proposed facility will comply with the community coverage requirements of Section 73.625 of the Commission's Rules. Exhibit E-9 illustrates the predicted 35 and 28 dBu F(50,90) service contours along with the received signal based on Longley-Rice bounded by the 28 dBu contour. As this map demonstrates, the community of license, Ely, Nevada, would receive a signal well in excess of 35 dBu.

The antenna that would be utilized by the proposed facility is the existing Scala 2CL-24/HV currently in use by the analog facility. This antenna is considered a directional antenna, and data required under Section 73.625 of the Commission's Rules is attached as Exhibit E-10. The antenna that would be utilized by the proposed facility is not part of an AM radiation system, and is not located in proximity to an AM transmission facility.

The proposed facility would not constitute a significant environmental impact. The absence of a significant environmental impact is predicted on two considerations. First, KVVN-DT would utilize the existing KVVN(TV) antenna system for DTV operations. Since no new tower or excavation would be necessary in order to complete construction, the proposed facility would not result in an increase in the present environmental impact from the existing facility.

Secondly, the proposed facility would not result in human exposure to non-ionizing radiation levels exceeding the applicable safety standards. Under a worst case scenario, it is assumed that all energy radiating from the antenna would be directed at the ground. Utilizing the power density equations in OET Bulletin 65, the worst case power density at ground level would be 197.6 $\mu\text{W}/\text{cm}^2$.³ Since this predicted power density is less than the upper limit of 200 mW/cm² under the uncontrolled environment condition, it is apparent that the proposed facility will not result in potentially hazardous non-ionizing radiation exposure to humans at ground level.⁴ In addition, the applicant certifies that it will coordinate with other present and future users of the site to ensure that workers are not exposed to levels of non-ionizing radiation which may exceed applicable

³ Worst case power density calculated by:

$$S = \frac{33.4(E)^2(P)}{h^2} = \frac{33.4(1)(1000)}{(13)^2} = 197.6$$

⁴ Power density calculations based on height above ground minus two meters to accommodate human height.

safety standards. Such coordination will include, but is not necessarily limited to, a reduction in transmitter power or cessation of operation.

The provisions of Section 73.1030 of the Commission's Rules are not applicable in this particular case. The proposed facility is not located in one of the radio quiet zones described in that section. In addition, the proposed facility is not located in proximity to any of the protected FCC field offices described in Section 0.121 of the Commission's Rules.

The structure utilized by the proposed facility is not registered with the Commission. Due to the height of this tower, registration is not required.

Affidavit

The preceding statement and attached exhibits have been prepared by me, or under my direction, and are true and accurate to the best of my belief and knowledge.



Above signature is digitized copy of actual signature
License Expires November 30, 2009

Jeremy D. Ruck, PE
June 17, 2008

KVNV-DT.PRO**PROPOSED**

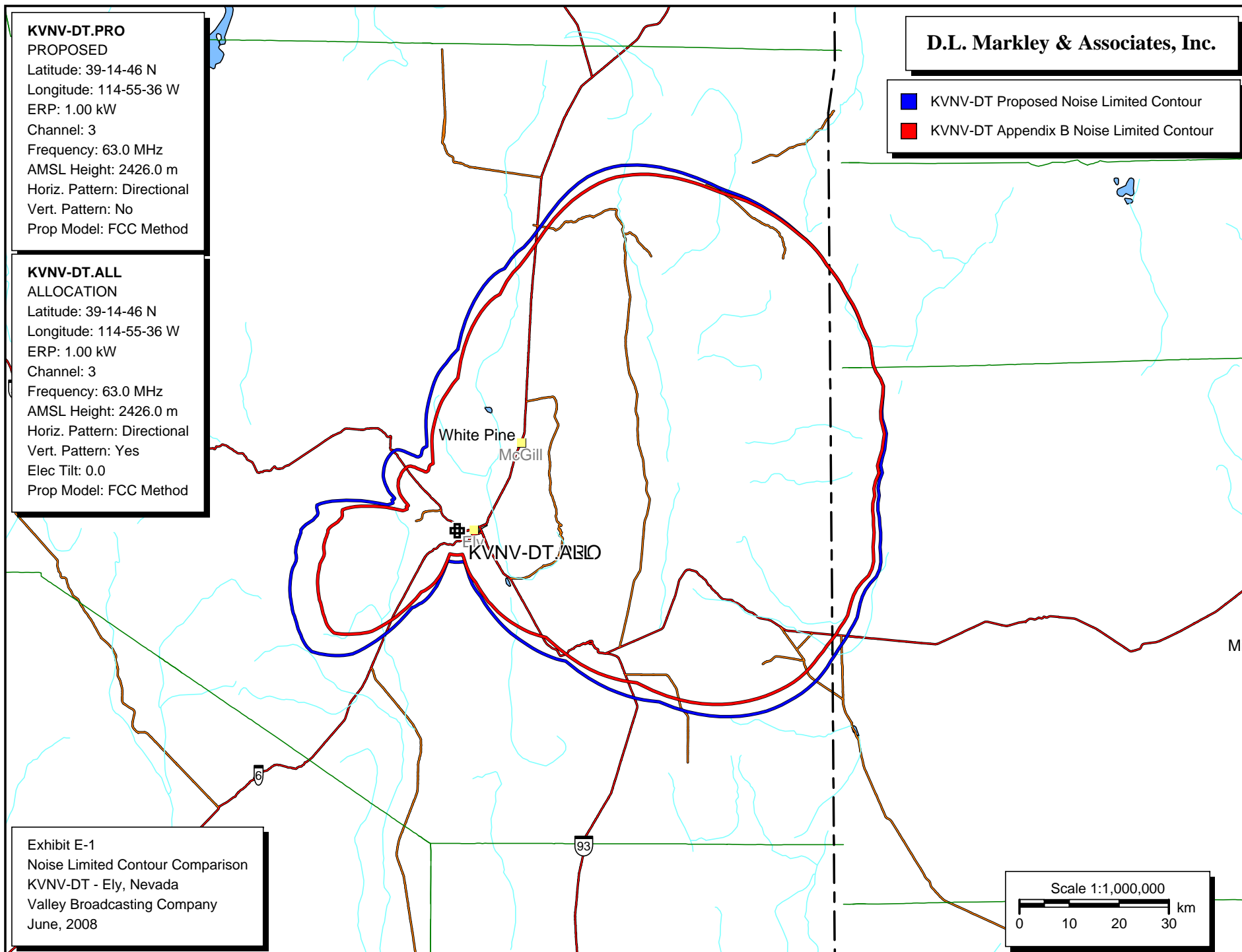
Latitude: 39-14-46 N
Longitude: 114-55-36 W
ERP: 1.00 kW
Channel: 3
Frequency: 63.0 MHz
AMSL Height: 2426.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: FCC Method

KVNV-DT.ALL**ALLOCATION**

Latitude: 39-14-46 N
Longitude: 114-55-36 W
ERP: 1.00 kW
Channel: 3
Frequency: 63.0 MHz
AMSL Height: 2426.0 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 0.0
Prop Model: FCC Method

D.L. Markley & Associates, Inc.

- KVNV-DT Proposed Noise Limited Contour
- KVNV-DT Appendix B Noise Limited Contour

**Exhibit E-1**

Noise Limited Contour Comparison
KVNV-DT - Ely, Nevada
Valley Broadcasting Company
June, 2008

Scale 1:1,000,000

0 10 20 30 km

Exhibit E-2 - Comparison of Proposed and Allocated Noise Limited Service Contours

Azimuth	HAAT	Allocation NL Contour	Proposed NL Contour	Contour Distance Difference	
	in meters*	Distance in kilometers	Distance in kilometers	kilometers	miles
0	418.0	30.6	36.3	5.70	3.54
10	397.2	48.1	53.4	5.30	3.29
20	459.8	71.9	75.5	3.60	2.24
30	464.8	82.2	83.8	1.60	0.99
40	445.1	87.3	87.9	0.60	0.37
50	435.7	91.0	91.0	0.00	0.00
60	404.3	91.4	91.3	-0.10	-0.06
70	364.4	90.1	90.1	0.00	0.00
80	310.9	85.9	86.4	0.50	0.31
90	319.4	83.5	84.9	1.40	0.87
100	340.7	80.2	82.1	1.90	1.18
110	387.8	76.3	79.0	2.70	1.68
120	402.0	67.7	71.8	4.10	2.55
130	390.4	47.2	53.1	5.90	3.67
140	347.3	27.8	34.0	6.20	3.85
150	267.6	20.7	25.1	4.40	2.73
160	150.6	11.0	14.1	3.10	1.93
170	-64.7	4.9	6.3	1.40	0.87
180	-314.4	4.9	6.3	1.40	0.87
190	-174.6	4.9	6.3	1.40	0.87
200	105.9	9.2	11.8	2.60	1.62
210	254.1	14.2	17.9	3.70	2.30
220	313.8	26.4	32.4	6.00	3.73
230	347.9	32.1	37.9	5.80	3.60
240	329.9	31.2	37.1	5.90	3.67
250	299.3	29.7	35.6	5.90	3.67
260	245.1	27.0	32.7	5.70	3.54
270	224.8	25.9	31.3	5.40	3.36
280	241.4	23.4	28.6	5.20	3.23
290	165.9	11.6	14.9	3.30	2.05
300	193.6	12.5	16.0	3.50	2.17
310	294.0	15.4	19.2	3.80	2.36
320	332.3	16.2	20.3	4.10	2.55
330	238.8	13.8	17.3	3.50	2.17
340	255.5	14.3	17.9	3.60	2.24
350	362.9	23.8	29.1	5.30	3.29

*HAAT values based on re-computed average terrain as described in technical exhibit.

D.L. Markley & Associates, Inc.

Consulting Engineers

2104 West Moss Avenue

Peoria, Illinois 61604

KVNV-DT.PRO**PROPOSED**

Latitude: 39-14-46 N

Longitude: 114-55-36 W

ERP: 1.00 kW

Channel: 3

Frequency: 63.0 MHz

AMSL Height: 2426.0 m

Horiz. Pattern: Directional

Vert. Pattern: Yes

Elec Tilt: 0.0

Prop Model: Longley/Rice

Climate: Cont temperate

Conductivity: 0.0050

Dielec Const: 15.0

Refractivity: 301.0

Receiver Ht AG: 10.0 m

















Receiver Gain: 0 dB

Time Variability: 10.0%

Sit. Variability: 50.0%

ITM Mode: Broadcast

D.L. Markley & Associates, Inc.

-  KVNV-DT.PRO
-  K03AL
-  K03AS
-  K03AU
-  K03BF
-  K03CM
-  K03CX
-  K03DE
-  K03DS
-  K03DS-D.A
-  K03FF
-  KCBU
-  KCBU.A
-  KCBU-D
-  KNNC-L
-  KVBC

KNNC-L

K03DS-DT.PRO

K03FF

K03AS
K03DE
K03AU

K03CM

K03BF

K03CX

K03AL

KVBC

Exhibit E-3a

Outgoing Interference Study

KVNV-DT - Ely, Nevada

Valley Broadcasting Company

June, 2008

Scale 1:4,000,000

0 50 100 150 km

KVNV-DT.PRO**PROPOSED**

Latitude: 39-14-46 N

Longitude: 114-55-36 W

ERP: 1.00 kW

Channel: 3

Frequency: 63.0 MHz

AMSL Height: 2426.0 m

Horiz. Pattern: Directional

Vert. Pattern: Yes

Elec Tilt: 0.0

Prop Model: Longley/Rice

Climate: Cont temperate

Conductivity: 0.0050

Dielec Const: 15.0

Refractivity: 301.0

Receiver Ht AG: 10.0 m

















Receiver Gain: 0 dB

Time Variability: 10.0%

Sit. Variability: 50.0%

ITM Mode: Broadcast

D.L. Markley & Associates, Inc.

-  KVNV-DT.PRO
-  K03AL
-  K03AS
-  K03AU
-  K03BF
-  K03CM
-  K03CX
-  K03DE
-  K03DS
-  K03DS-D.A
-  K03FF
-  KCBU
-  KCBU.A
-  KCBU-D
-  KNNC-L
-  KVBC

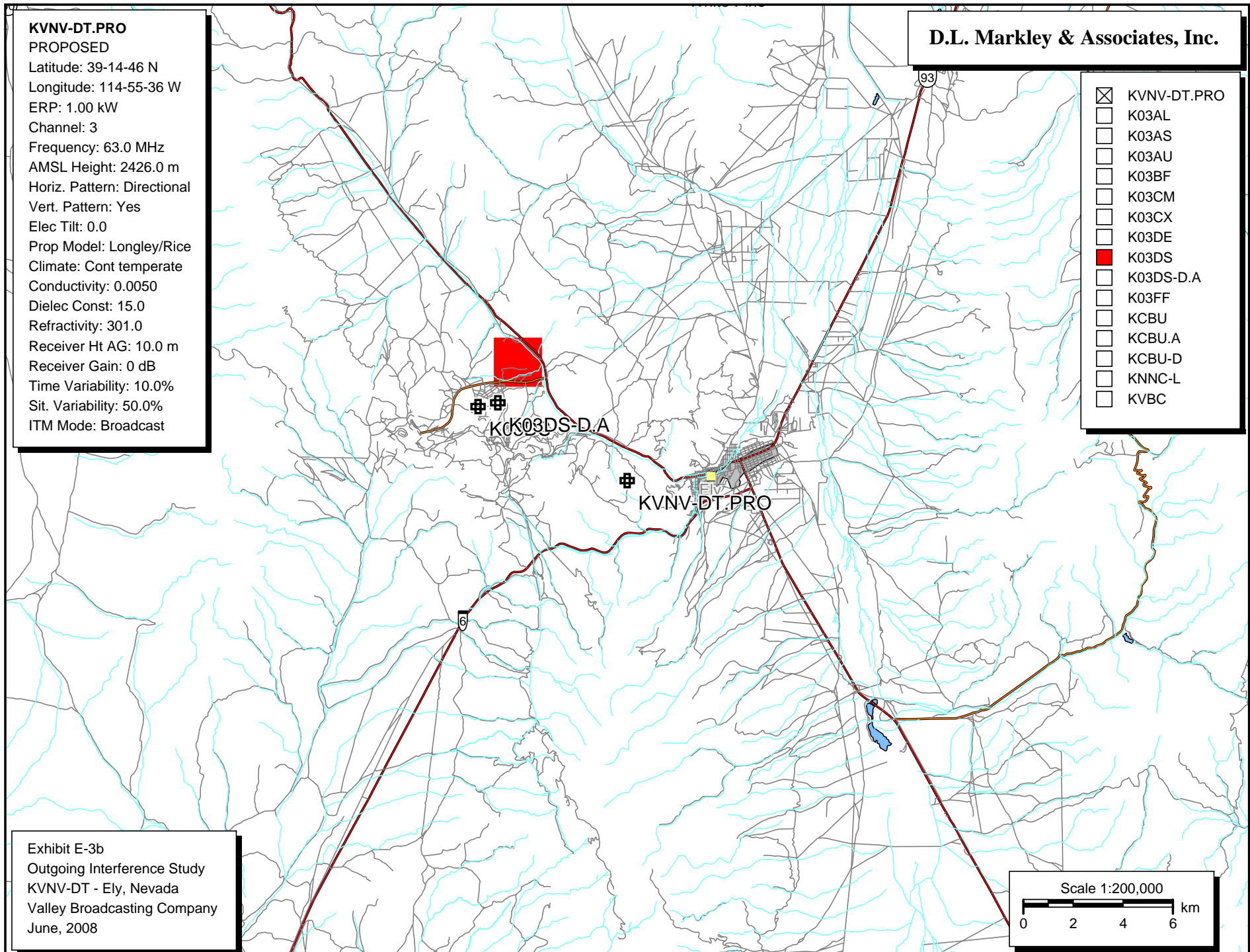


Exhibit E-3b

Outgoing Interference Study

KVNV-DT - Ely, Nevada

Valley Broadcasting Company

June, 2008

Scale 1:200,000

0 2 4 6 km

Exhibit E-4
 Outgoing Interference Population Report
 Based on Proposed KVVV-DT Facilities.

KVVV-DT.PRO (3) Ely, NV - PROPOSED
 Broadcast Type: Digital Service: V
 Lat: 39-14-46 N Lng: 114-55-36 W ERP: 1.0 kW AMSL: 2426.0 m
 TV Outgoing Interference Study
 Signal Resolution: 2.0 km
 Consider NTSC Taboo: Yes
 KWX error points are considered to
 be interference free coverage.
 Default # of radials computed for contours: 72
 Contours calculated using 8 radial HAAT.
 LR Profile Spacing Increment: 1.0 km
 Masked interference points are being
 counted as interference.
 Pop Centroid DB: 2000 US Census (SF1)

Study Date: 6/17/2008
 TV Database Date: 6/17/2008

Primary Terrain: V-Soft 3 Second US Terrain
 Secondary Terrain: V-Soft 30 Second US Database

Population Database: 2000 US Census (SF1)

 Stations Considered:

Call Letters	City	State	Dist	Bear
K03AL (03N)	Toquerville	UT	262.4	146.1
K03AS (03N)	Richfield, Etc.	UT	257.7	104.4
K03AU (03N)	Loa, Etc.	UT	294.8	107.7
K03BF (03N)	Enterprise	UT	210.3	149.9
K03CM (03N)	Pioche	NV	152.7	164.1
K03CX (03N)	Long Valley Junction	UT	286.1	131.7
K03DE (03N)	Fish Lake Resort	UT	289.6	105.0
K03DS (03N)	Ruth	NV	6.7	296.4
K03DS-D.A (03)	Ruth	NV	6.0	301.0
K03FF (03N)	Koosharem	UT	283.2	106.6
KCBU (03+)	Price	UT	343.3	79.3
KCBU.A (03+)	Price	UT	343.3	79.3
KCBU-D (03)	Price	UT	343.3	79.3
KNNC-L (03Z)	Battle Mountain	NV	229.9	315.6
KVBC (03Z)	Las Vegas	NV	359.3	181.1

Call	Area	HUnits	Contour	Masked Ix	Unmasked Ix	%
K03AL (03N)	0.0	0	1,555	0	0	0.0

K03AS (03N)	0.0	0	11,902	0	0	0.0
K03AU (03N)	0.0	0	1,072	0	0	0.0
K03BF (03N)	0.0	0	67	0	0	0.0
K03CM (03N)	0.0	0	729	0	0	0.0
K03CX (03N)	0.0	0	43	0	0	0.0
K03DE (03N)	0.0	0	3	0	0	0.0
K03DS (03N)	3.8	36	397	0	76	19.1
K03DS-D.A (03)	0.0	0	402	0	0	0.0
K03FF (03N)	0.0	0	0	0	0	0.0
KCBU (03+)	0.0	0	519,343	0	0	0.0
KCBU.A (03+)	0.0	0	705,451	0	0	0.0
KCBU-D (03)	0.0	0	722,945	0	0	0.0
KNNC-L (03Z)	0.0	0	4,777	0	0	0.0
KVBC (03Z)	0.0	0	1,420,076	0	0	0.0

	Housing Units	Population
Nevada		
White Pine County		
Total	4,439	9,181
K03DS (03N)	36	76

KVNV-DT.PRO**PROPOSED**

Latitude: 39-14-46 N

Longitude: 114-55-36 W

ERP: 1.00 kW

Channel: 3

Frequency: 63.0 MHz

AMSL Height: 2426.0 m

Horiz. Pattern: Directional

Vert. Pattern: Yes

Elec Tilt: 0.0

Prop Model: Longley/Rice

Climate: Cont temperate

Conductivity: 0.0050

Dielec Const: 15.0

Refractivity: 301.0

Receiver Ht AG: 10.0 m

Receiver Gain: 0 dB

Time Variability: 90.0%

Sit. Variability: 50.0%

ITM Mode: Broadcast

D.L. Markley & Associates, Inc.

- ☒ KVNV-DT.PRO
- ☐ KNNC-L
- ☐ KCVB-C
- ☐ KCBU-D
- ☐ KCBU.A
- ☐ KCBU
- ☐ K03HQ
- ☐ K03FF
- ☐ K03DS-D.A
- ☐ K03DS
- ☐ K03DE
- ☐ K03CX
- ☐ K03CM
- ☐ K03BF
- ☐ K03AU
- ☐ K03AS
- ☐ K03AL


 > 28.0 dBu

Exhibit E-5

DTV Service Area

KVNV-DT - Ely, Nevada

Valley Broadcasting Company

June, 2008

Note: Illustrated DTV service area
based on inclusion of all facilities
in the region including translators.

Scale 1:1,000,000

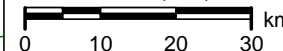


Exhibit E-6
 DTV Service Area Interference and Population Tabulation and Summary
 Based on Proposed KVVN-DT Facilities with all other Facilities Included.

KVVN-DT.PRO (3) Ely, NV - PROPOSED
 Broadcast Type: Digital Service: V
 Lat: 39-14-46 N Lng: 114-55-36 W ERP: 1.0 kW AMSL: 2426.0 m
 TV Incoming Interference Study
 Interference Considered Within: FCC Contour: 28 dBu
 Signal Resolution: 2.0 km
 LR Profile Spacing Increment: 1.0 km
 Consider NTSC Taboo: Yes
 KWX error points are considered to
 be interference free coverage.
 # of radials computed for protected contour: 360
 Threshold for reception: 28.0
 Pop Centroid DB: 2000 US Census (SF1)

Study Date: 6/17/2008
 TV Database Date: 6/17/2008

Primary Terrain: V-Soft 3 Second US Terrain
 Secondary Terrain: V-Soft 30 Second US Database

Population Database: 2000 US Census (SF1)

Percentages calculated using a baseline population of 8,379.

Stations which cause interference:

Call Letters	H Units	Population	%	Area (sq. km)
KCBU-D (03)	1	1	0.012	105.86
KCBU.A (03+)	1	1	0.012	109.60
KCBU (03+)	1	1	0.012	98.26
K03DS-D.A (03)	268	1449	17.293	215.14
K03DS (03N)	248	402	4.798	124.75
K03CM (03N)	0	0	0.000	15.20
K03AS (03N)	0	0	0.000	3.77

Masking Summary:

Call Letters	Total Interference		Unique Interference	
	Population	%	Population	%
KCBU-D (03)	1	0.012	0	0.000
KCBU.A (03+)	1	0.012	0	0.000
KCBU (03+)	1	0.012	0	0.000
K03DS-D.A (03)	1449	17.293	1047	12.496
K03DS (03N)	402	4.798	0	0.000
K03CM (03N)	0	0.000	0	0.000
K03AS (03N)	0	0.000	0	0.000

Stations considered which do not cause interference:

KNNC-L (03Z)
 KCVB-C (03+)
 K03HQ (03N)
 K03FF (03N)
 K03DE (03N)
 K03CX (03N)
 K03CM (03N)
 K03BF (03N)
 K03AU (03N)
 K03AS (03N)
 K03AL (03N)

Call Letters	City	State	Dist	Bear
KNNC-L (03Z)	Battle Mountain	NV	229.9	315.6
KCVB-C (03+)	Logan	UT	382.4	42.0
KCBU-D (03)	Price	UT	343.3	79.3
KCBU.A (03+)	Price	UT	343.3	79.3
KCBU (03+)	Price	UT	343.3	79.3
K03HQ (03N)	Samak	UT	349.2	62.7
K03FF (03N)	Koosharem	UT	283.2	106.6
K03DS-D.A (03)	Ruth	NV	6.0	301.0
K03DS (03N)	Ruth	NV	6.7	296.4
K03DE (03N)	Fish Lake Resort	UT	289.6	105.0
K03CX (03N)	Long Valley Junction	UT	286.1	131.7
K03CM (03N)	Pioche	NV	152.7	164.1
K03BF (03N)	Enterprise	UT	210.3	149.9
K03AU (03N)	Loa, Etc.	UT	294.8	107.7
K03AS (03N)	Richfield, Etc.	UT	257.7	104.4
K03AL (03N)	Toquerville	UT	262.4	146.1

Totals for KVVN-DT.PRO (3)

Calculation Area Population:	8,631	(	8631.6 sq. km)
Not Affected by Terrain Loss:	8,379	(	6928.0 sq. km)
Total NTSC Interference:	403	(	249.6 sq. km)
DTV Only Interference:	1,047	(	150.9 sq. km)
Total DTV Interference:	1,450	(	321.0 sq. km)
Interfered Population:	1,450	(	400.4 sq. km)
Interference Free:	6,929	(	6527.6 sq. km)

Percent Interference: 17.31

Terrain Blocked Population:	252	(	1703.6 sq. km)
Contour Area Population:	8,631		

Interference Free Breakdown:

White:	5,719	(82.5%)
Black:	63	(0.9%)
Hispanic:	729	(10.5%)
Native American:	217	(3.1%)
Asian:	59	(0.9%)
Pacific Islander:	19	(0.3%)
Mixed Race:	116	(1.7%)
Other:	7	(0.1%)
Total:	6,929	

	Housing Units	Population	% of County
Nevada			
White Pine County			
County Pop	4,439	9,181	
KVNV-DT.PRO (3)	3,911	8,374	
KCBU-D (03)	1	1	0.01
KCBU.A (03+)	1	1	0.01
KCBU (03+)	1	1	0.01
K03DS-D.A (03)	268	1,449	17.30
K03DS (03N)	248	402	4.80
K03CM (03N)	0	0	0.00
Ix Free	3,642	6,924	82.68

	Housing Units	Population	% of County
Utah			
Millard County			
County Pop	4,522	12,405	
KVNV-DT.PRO (3)	6	5	
Ix Free	6	5	100.00

KVNV-DT.PRO**PROPOSED**

Latitude: 39-14-46 N

Longitude: 114-55-36 W

ERP: 1.00 kW

Channel: 3

Frequency: 63.0 MHz

AMSL Height: 2426.0 m

Horiz. Pattern: Directional

Vert. Pattern: Yes

Elec Tilt: 0.0

Prop Model: Longley/Rice

Climate: Cont temperate

Conductivity: 0.0050

Dielec Const: 15.0

Refractivity: 301.0


Receiver Ht AG: 10.0 m
















Receiver Gain: 0 dB

Time Variability: 90.0%

Sit. Variability: 50.0%

ITM Mode: Broadcast

 > 28.0 dBu**D.L. Markley & Associates, Inc.**

-  KVNV-DT.PRO
-  KNNC-L
-  KCVB-C
-  KCBU-D
-  KCBU.A
-  KCBU
-  K03HQ
-  K03FF
-  K03DE
-  K03CX
-  K03CM
-  K03BF
-  K03AU
-  K03AS
-  K03AL

White Pine

McGill

KVNV-DT.PRO

Exhibit E-7

DTV Service Area

KVNV-DT - Ely, Nevada

Valley Broadcasting Company

June, 2008

Note: Illustrated DTV service area
based on inclusion of all facilities
in region except K03DS.

Scale 1:1,000,000

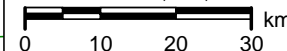


Exhibit E-8
 DTV Service Area Interference and Population Tabulation and Summary
 Based on Proposed KVVN-DT Facilities with all other Facilities
 Except K03DS Included.

KVVN-DT.PRO (3) Ely, NV - PROPOSED
 Broadcast Type: Digital Service: V
 Lat: 39-14-46 N Lng: 114-55-36 W ERP: 1.0 kW AMSL: 2426.0 m
 TV Incoming Interference Study
 Interference Considered Within: FCC Contour: 28 dBu
 Signal Resolution: 2.0 km
 LR Profile Spacing Increment: 1.0 km
 Consider NTSC Taboo: Yes
 KWX error points are considered to
 be interference free coverage.
 # of radials computed for protected contour: 360
 Threshold for reception: 28.0
 Pop Centroid DB: 2000 US Census (SF1)

Study Date: 6/17/2008
 TV Database Date: 6/17/2008

Primary Terrain: V-Soft 3 Second US Terrain
 Secondary Terrain: V-Soft 30 Second US Database

Population Database: 2000 US Census (SF1)

Percentages calculated using a baseline population of 8,379.

Stations which cause interference:

Call Letters	H Units	Population	%	Area (sq. km)
KCBU-D (03)	1	1	0.012	105.86
KCBU.A (03+)	1	1	0.012	109.60
KCBU (03+)	1	1	0.012	98.26
K03CM (03N)	0	0	0.000	15.20
K03AS (03N)	0	0	0.000	3.77

Masking Summary:

Call Letters	Total Interference		Unique Interference	
	Population	%	Population	%
KCBU-D (03)	1	0.012	0	0.000
KCBU.A (03+)	1	0.012	0	0.000
KCBU (03+)	1	0.012	0	0.000
K03CM (03N)	0	0.000	0	0.000
K03AS (03N)	0	0.000	0	0.000

Stations considered which do not cause interference:

KNNC-L (03Z)
 KCVB-C (03+)
 K03HQ (03N)

K03FF (03N)
 K03DE (03N)
 K03CX (03N)
 K03CM (03N)
 K03BF (03N)
 K03AU (03N)
 K03AS (03N)
 K03AL (03N)

Call Letters	City	State	Dist	Bear
KNNC-L (03Z)	Battle Mountain	NV	229.9	315.6
KCVB-C (03+)	Logan	UT	382.4	42.0
KCBU-D (03)	Price	UT	343.3	79.3
KCBU.A (03+)	Price	UT	343.3	79.3
KCBU (03+)	Price	UT	343.3	79.3
K03HQ (03N)	Samak	UT	349.2	62.7
K03FF (03N)	Koosharem	UT	283.2	106.6
K03DE (03N)	Fish Lake Resort	UT	289.6	105.0
K03CX (03N)	Long Valley Junction	UT	286.1	131.7
K03CM (03N)	Pioche	NV	152.7	164.1
K03BF (03N)	Enterprise	UT	210.3	149.9
K03AU (03N)	Loa, Etc.	UT	294.8	107.7
K03AS (03N)	Richfield, Etc.	UT	257.7	104.4
K03AL (03N)	Toquerville	UT	262.4	146.1

Totals for KVVN-DT.PRO (3)

Calculation Area Population:	8,631	(	8631.6 sq. km)
Not Affected by Terrain Loss:	8,379	(	6928.0 sq. km)
Total NTSC Interference:	1	(	124.8 sq. km)
DTV Only Interference:	0	(	11.3 sq. km)
Total DTV Interference:	1	(	105.9 sq. km)
Interfered Population:	1	(	136.1 sq. km)
Interference Free:	8,378	(	6791.9 sq. km)

Percent Interference: 0.01

Terrain Blocked Population:	252	(	1703.6 sq. km)
Contour Area Population:	8,631		

Interference Free Breakdown:

White:	6,567	(78.4%)
Black:	368	(4.4%)
Hispanic:	973	(11.6%)
Native American:	249	(3.0%)

Asian:	67	(0.8%)
Pacific Islander:	21	(0.3%)
Mixed Race:	123	(1.5%)
Other:	10	(0.1%)
Total:	8,378	

	Housing Units	Population	% of County
Nevada			
White Pine County			
County Pop	4,439	9,181	
KVVV-DT.PRO (3)	3,911	8,374	
KCBU-D (03)	1	1	0.01
KCBU.A (03+)	1	1	0.01
KCBU (03+)	1	1	0.01
K03CM (03N)	0	0	0.00
Ix Free	3,910	8,373	99.99
Utah			
Millard County			
County Pop	4,522	12,405	
KVVV-DT.PRO (3)	6	5	
Ix Free	6	5	100.00

KVNV-DT.PRO**PROPOSED**

Latitude: 39-14-46 N

Longitude: 114-55-36 W

ERP: 1.00 kW

Channel: 3

Frequency: 63.0 MHz

AMSL Height: 2426.0 m

Horiz. Pattern: Directional

Vert. Pattern: Yes

Elec Tilt: 0.0

Prop Model: Longley/Rice

Climate: Cont temperate

Conductivity: 0.0050

Dielec Const: 15.0

Refractivity: 311.0

Receiver Ht AG: 10.0 m

Receiver Gain: 0 dB

Time Variability: 90.0%

Sit. Variability: 50.0%

ITM Mode: Broadcast

D.L. Markley & Associates, Inc.City of License
Ely, Nevada

White Pine

McGill

KVNV-DT.PRO

Ely



 > 35.0 dBu
 28.0 - 35.0

Exhibit E-9

City of License Coverage

KVNV-DT - Ely, Nevada

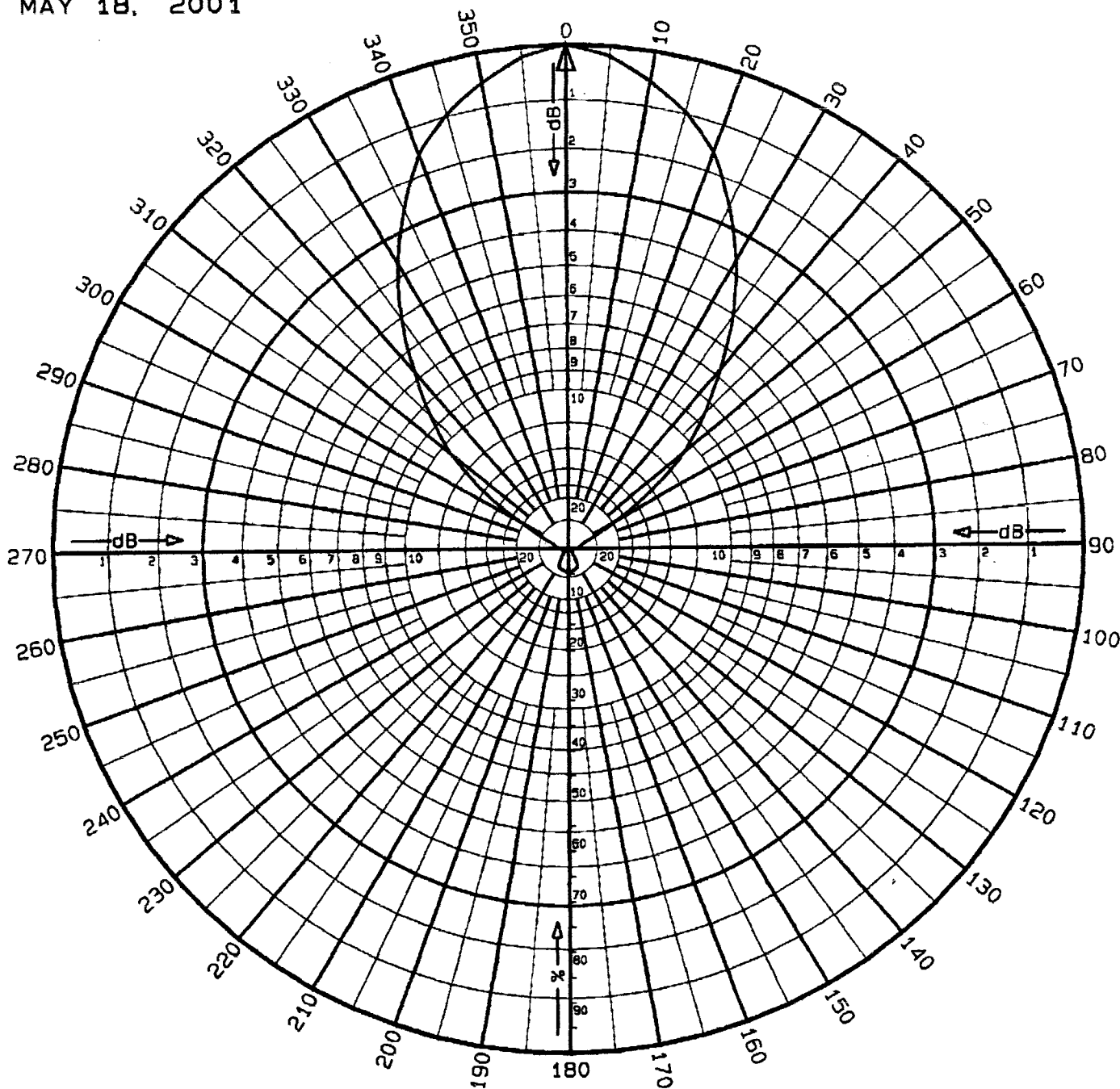
Valley Broadcasting Company

June, 2008

Scale 1:750,000


0 10 20 30 km

MAY 18, 2001



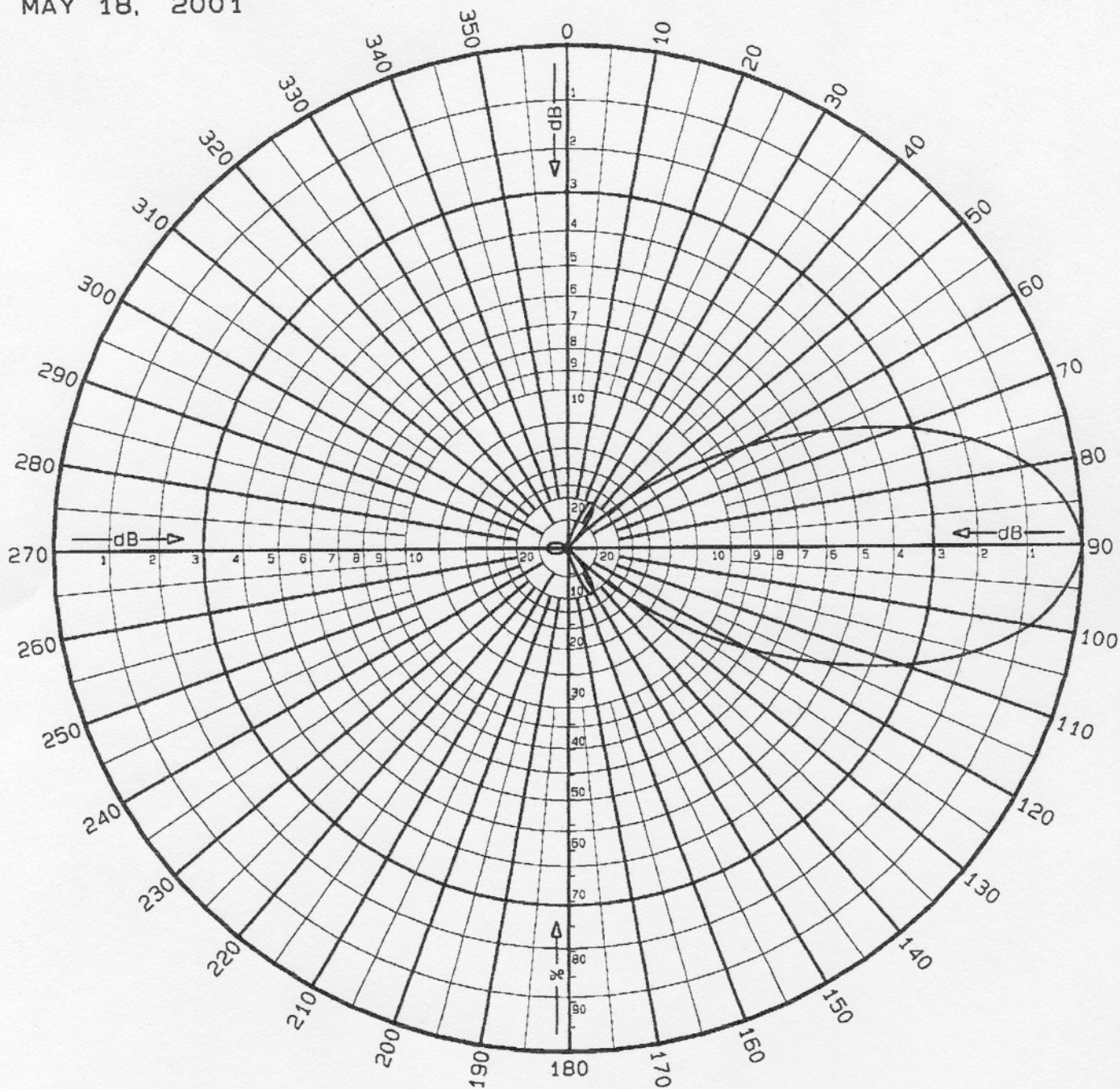
2CL-24/HV LOG PERIODIC ANTENNA ARRAY
BOTH ORIENTED AT THE SAME AZIMUTH
CHANNELS 2 THROUGH 4 (BROADBAND)
MAXIMUM ARRAY GAIN: 10.7 dBd
POWER GAIN: 11.7
HORIZONTAL POLARIZATION
VERTICALLY STACKED ON ONE SINGLE MAST
HORIZONTAL PLANE PATTERN

ONE INPUT

KATHREIN
SCALA DIVISION

Post Office Box 4580 Phone: (541) 779-6500
Medford, OR 97501 (USA) Fax: (541) 779-3993
<http://www.kathrein.com>

MAY 18, 2001



2CL-24/HV LOG PERIODIC ANTENNA ARRAY
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Exhibit E-10 - Vertical Plane Radiation Pattern

Angle	Relative Field	ERP dBk.
-5.00	0.971	-0.26
-4.00	0.979	-0.18
-3.00	0.986	-0.12
-2.00	0.992	-0.07
-1.00	0.997	-0.03
0.00	1.000	0.00
1.00	0.997	-0.03
2.00	0.992	-0.07
3.00	0.986	-0.12
4.00	0.979	-0.18
5.00	0.971	-0.26
6.00	0.961	-0.35
7.00	0.950	-0.45
8.00	0.938	-0.56
9.00	0.925	-0.68
10.00	0.911	-0.81
11.00	0.893	-0.98
12.00	0.874	-1.17
13.00	0.854	-1.37
14.00	0.834	-1.58
15.00	0.812	-1.81
16.00	0.789	-2.06
17.00	0.765	-2.33
18.00	0.741	-2.60
19.00	0.715	-2.91
20.00	0.690	-3.22
21.00	0.661	-3.60
22.00	0.632	-3.99
23.00	0.603	-4.39
24.00	0.574	-4.82
25.00	0.545	-5.27
26.00	0.516	-5.75
27.00	0.487	-6.25
28.00	0.458	-6.78
29.00	0.429	-7.35
30.00	0.401	-7.94
31.00	0.373	-8.57
32.00	0.346	-9.22
33.00	0.319	-9.92
34.00	0.293	-10.66
35.00	0.268	-11.44
36.00	0.242	-12.32
37.00	0.218	-13.23
38.00	0.194	-14.24
39.00	0.171	-15.34
40.00	0.149	-16.54
41.00	0.127	-17.92
42.00	0.107	-19.41
43.00	0.088	-21.11
44.00	0.069	-23.22
45.00	0.051	-25.85
46.00	0.035	-29.12
47.00	0.019	-34.42
48.00	0.010	-40.00
49.00	0.010	-40.00
50.00	0.023	-32.77
51.00	0.035	-29.12
52.00	0.046	-26.74
53.00	0.056	-25.04
54.00	0.065	-23.74
55.00	0.073	-22.73

Note: Relative Field Same for all values of azimuth.
ERP in dBk based on azimuths of maximum ERP.

