

**MINOR AMENDMENT TO KZLS APPLICATION
BPH-20090626AAZ**

A. KZLS application

This technical report has been developed in support of an amendment to the KZLS one-step upgrade application changing site, ERP and HAAT.

KZLS Allocation analysis

All terrain data utilized in this report were obtained from the V-Soft USGS three (3) second terrain data base¹.

A channel study is provided as E1 for the proposed facility at:

(NAD 27) N 35-35-31 W 97-51-59.

The proposed facility meets Section 73.315 coverage requirements as demonstrated in Exhibit E2. A tabulation of average terrain on the eight (8) equally spaced radials is included as Exhibit E3 and terrain on all 360 radials is included as E3A.

A fully spaced 259C2 reference point is provided at:

(NAD27) N 35-26-48 W 97-48-00 (see exhibits E4, E5 and E6).

The proposed 259C2 application is mutually exclusive with the authorized and licensed facilities.

The ERP has been reduced for the 155 meters HAAT facility to 47 kW producing a maximum C2 class 60 dBu of 52.29 km.

B. Antenna System and RF Calculations

KZLS will utilize an ERI SHPX-10AC one half wavelength spaced and circularly polarized antenna mounted on a new tower at 144 meters AGL. The maximum RF

¹ It is noted that the USGS three second database provides a more accurate terrain calculation, and has been accepted by the Commission on a number of occasions in the past. It was specifically cited as "more accurate" by the Commission in MB Docket No. 04-319:

The 3 second terrain database provides a more detailed terrain depiction than the 30 second terrain database referenced in Section 73.312 (d) of the rules. Section 73.312 (d) permits the use of the 30 second terrain database, or better, in a disputed case. (at footnote 4).

contribution for the KZLS 47 kW application was calculated to be .61 microwatts/cm² utilizing the Commission's FMMODEL program - .31% of the general public maximum exposure level of 200 microwatts/cm².

C. Conclusion

It is concluded that the proposed KZLS modifications are in full compliance with Commission rules and policies.

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**Charles M. Anderson
1519 Euclid Avenue
Bowling Green, KY 42103
270-782-0246
General Radiotelephone license #PG-6-7352.**

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E1 KZLS CHANNEL STUDY

REFERENCE		DISPLAY DATES
35 35 31.0 N.	CLASS = C2	DATA 05-04-10
97 51 59.0 W.	Current Spacings to 3rd Adj.	SEARCH 05-05-10
----- Channel 259 - 99.7 MHz -----		

Call	Channel	Location		Azi	Dist	FCC	Margin
KZLS	APP-N 259C2	Mustang	OK	153.5	20.2	189.5	-169.3
KZLS	RSV 259C2	Mustang	OK	159.6	17.2	189.5	-172.3
KZLS	LIC 259C3	Mustang	OK	152.8	35.8	176.5	-140.7
KXBL	LIC 258C1	Henryetta	OK	79.8	159.9	157.5	2.4
AU7963066	VAC 259C2	Erick	OK	252.9	192.2	189.5	2.7
KYLV	LIC-D 205C1	Oklahoma City	OK	93.3	34.6	26.5	8.1
KBZQ	CP 258C3	Lawton	OK	209.6	127.0	116.5	10.5
KBZQ	LIC 258C3	Lawton	OK	209.4	127.2	116.5	10.7
AL2762	VAC 259C3	Tishomingo	OK	141.9	194.2	176.5	17.7
KLUR	LIC 260C1	Wichita Falls	TX	198.3	197.4	157.5	39.9
KCDL	LIC 257C3	Cordell	OK	261.2	103.1	55.5	47.6
KYKC	LIC 261C2	Byng	OK	129.1	129.6	57.5	72.1
KYCU	LIC 206C1	Clinton	OK	261.2	103.2	26.5	76.7
KADA-FM	LIC 257A	Ada	OK	133.5	141.9	54.5	87.4
KWFX	LIC 261C1	Woodward	OK	301.5	169.1	78.5	90.6
KLOR-FM	LIC 257A	Ponca City	OK	28.1	150.3	54.5	95.8
KXTH	LIC 206A	Seminole	OK	112.0	110.5	14.5	96.0
KXTH	CP 206A	Seminole	OK	112.0	110.5	14.5	96.0
KJCM	LIC 262C3	Snyder	OK	226.8	152.8	55.5	97.3
KTCS-FM	LIC 260C	Fort Smith	AR	100.4	295.3	187.5	107.8
KARU	LIC 205A	Cache	OK	215.5	130.0	14.5	115.6
KYFM	LIC 261C2	Bartlesville	OK	52.1	189.7	57.5	132.2

E2 KZLS.APP

Latitude: 35-35-31 N
Longitude: 097-51-59 W
ERP: 47.00 kW
HAAT: 154.6 m
Channel: 259
Frequency: 99.7 MHz
RCAMSL Height: 552.0 m
Site Elevation: 408.0 m
Horiz. Pattern: Omni

PROPOSED 70 DBU
ENCOMPASSES MUSTANG

KZLS.APP

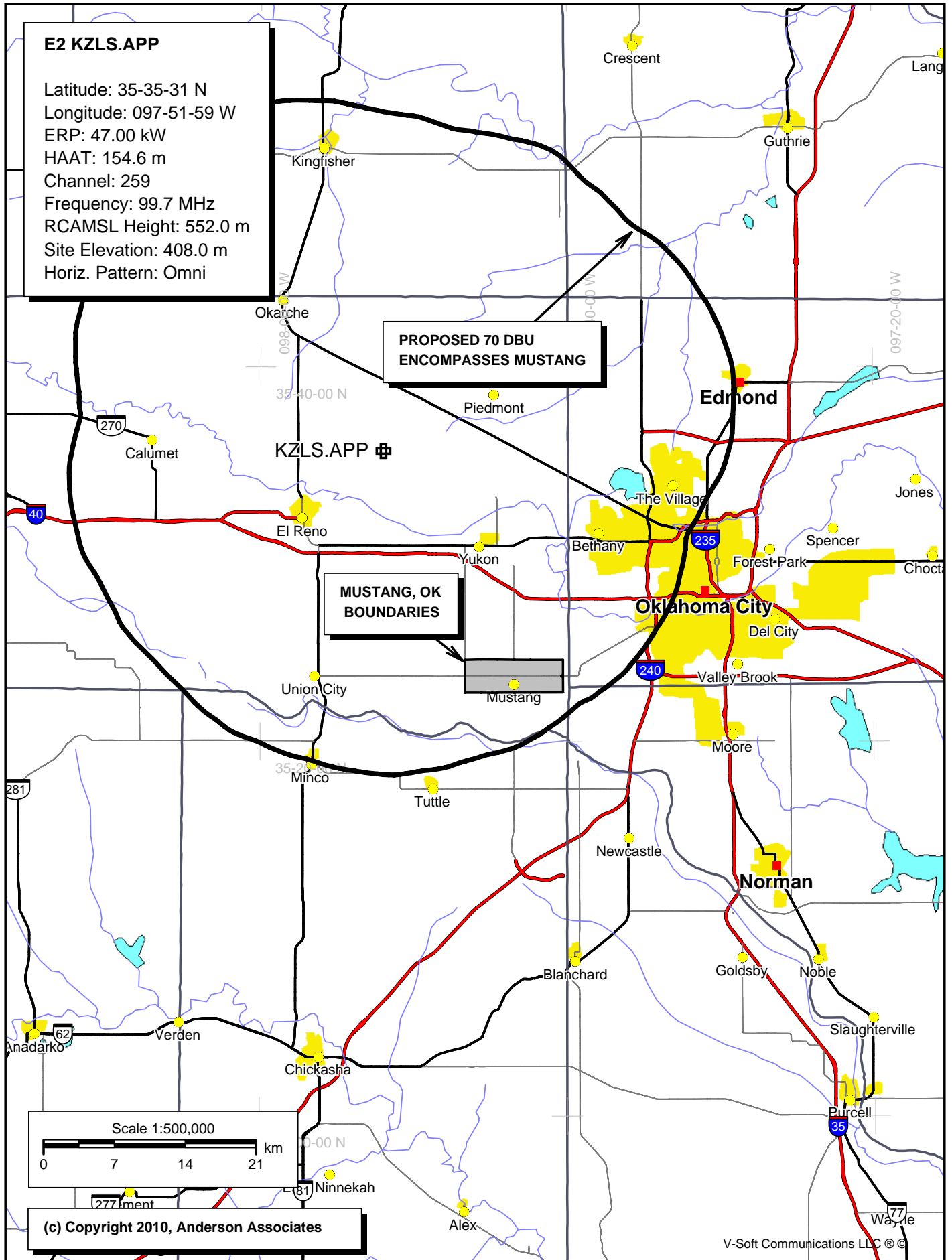
MUSTANG, OK
BOUNDARIES

Scale 1:500,000

0 7 14 21 km

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E3 HAAT AND CONTOUR TABULATION

N. Lat. = 353531.0 W. Lng. = 975159.0
HAAT and Distance to Contour,
FCC, FM 2-10 Mi, 51 pts Method - USGS 03 SEC

Azi.	AV EL	HAAT	dBk	70-F5	60-F5
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000	389.0	163.0	16.72	33.52	53.27
045	392.4	159.6	16.72	33.17	52.87
090	383.7	168.3	16.72	34.08	53.88
135	401.6	150.4	16.72	32.16	51.70
180	403.5	148.5	16.72	31.95	51.45
225	415.3	136.7	16.72	30.70	49.81
270	415.0	137.0	16.72	30.73	49.85
315	378.8	173.2	16.72	34.56	54.39

Ave El= 397.40 M HAAT= 154.60 M AMSL= 552

E4 FULLY SPACED REFERENCE POINT

REFERENCE		DISPLAY DATES
35 26 48.0 N.	CLASS = C2	DATA 05-04-10
97 48 00.0 W.	Current Spacings to 3rd Adj.	SEARCH 05-05-10
----- Channel 259 - 99.7 MHz -----		

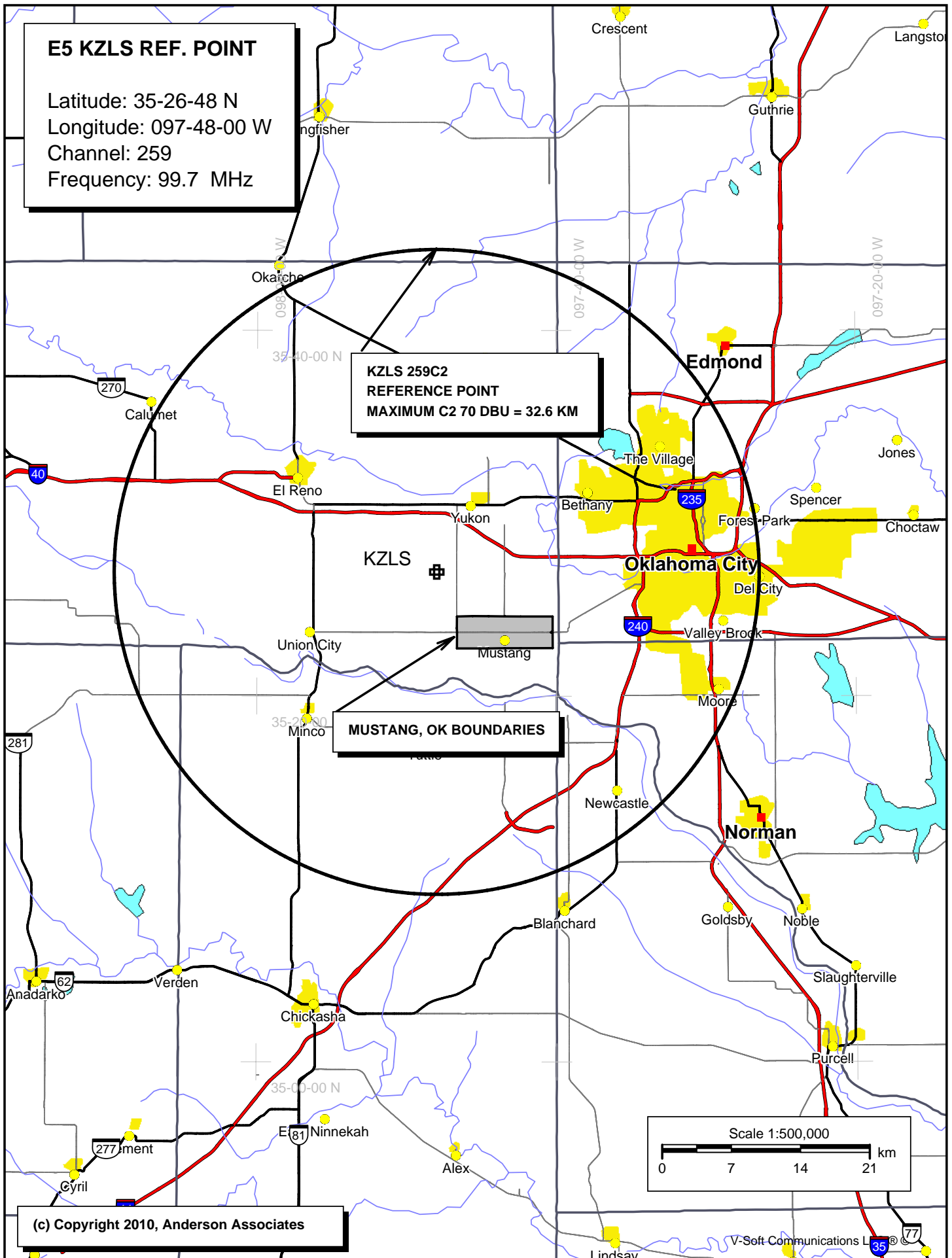
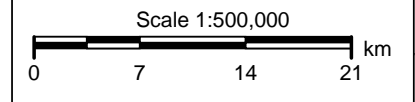
Call	Channel	Location		Azi	Dist	FCC	Margin
KZLS	APP-N 259C2	Mustang	OK	123.2	3.6	189.5	-185.9
KZLS	LIC 259C3	Mustang	OK	146.7	18.9	176.5	-157.6
KZLS	RSV 259C2	Mustang	OK	0.0	0.0	189.5	-189.5
KXBL	LIC 258C1	Henryetta	OK	73.6	157.7	157.5	0.23
KBZQ	CP 258C3	Lawton	OK	216.1	116.7	116.5	0.23
KBZQ	LIC 258C3	Lawton	OK	215.9	116.9	116.5	0.37
AL2762	VAC 259C3	Tishomingo	OK	140.3	177.9	176.5	1.4
AU7963066	VAC 259C2	Erick	OK	258.0	194.0	189.5	4.5
KYLV	LIC-D 205C1	Oklahoma City	OK	63.6	31.8	26.5	5.3
KLUR	LIC 260C1	Wichita Falls	TX	201.7	184.3	157.5	26.9
KCDL	LIC 257C3	Cordell	OK	270.3	107.9	55.5	52.4
KYKC	LIC 261C2	Byng	OK	124.7	115.1	57.5	57.6
KADA-FM	LIC 257A	Ada	OK	130.1	126.7	54.5	72.2

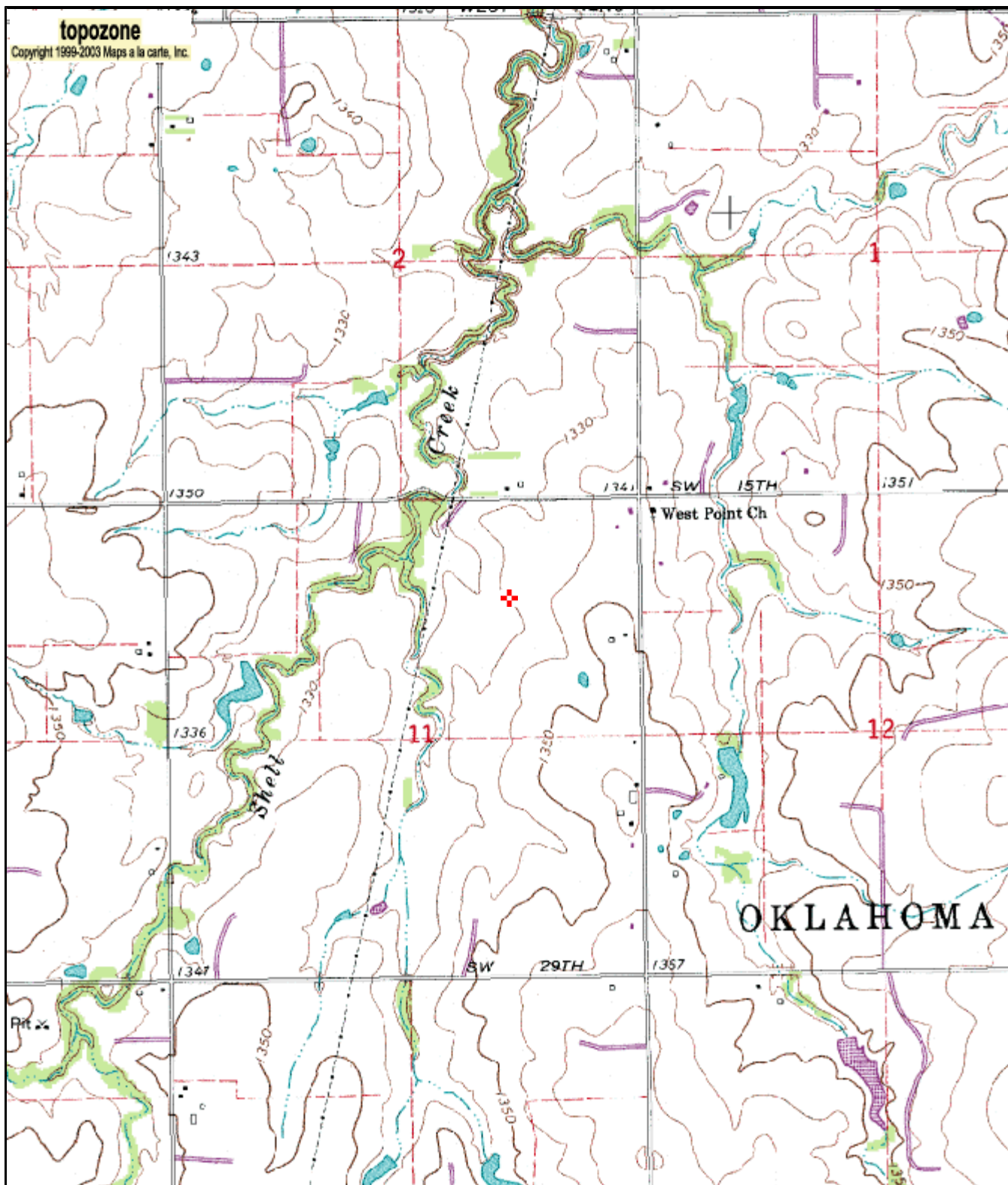
E5 KZLS REF. POINT

Latitude: 35-26-48 N
Longitude: 097-48-00 W
Channel: 259
Frequency: 99.7 MHz

KZLS 259C2
REFERENCE POINT
MAXIMUM C2 70 DBU = 32.6 KM

MUSTANG, OK BOUNDARIES





35° 26' 48"N, 97° 48' 00"W (NAD27)
Elevation 1,330.5 ft / 405.5 m (USGS NED)
USGS Minco NE (OK) Quadrangle
Projection is UTM Zone 14 NAD83 Datum

