

## Exhibit E-9

### TV Channel 6 Study

The proposed site is 45.268 km from KMOHTV, a TV channel 6 station in Kingman, AZ. This is well within the guidelines of 196 km shown in Table A, §73.525 of the Commission's rules. This exhibit demonstrates that the proposed station will not cause interference in an area containing more than the 3,000 persons as specified in §73.525(c). This is possible because the proposed site is in a remote isolated mountaintop location with essentially no resident population.

The affected population in the area of interference was determined as follows:

1) A chart was prepared tabulating the data from §73.599 Figure 1 for channel 210. It shows each protected contour of the TV station, the associated undesired/desired ratio, and the resultant interfering contour (= TV6 protected contour + U/D ratio) for the proposed FM station to create "just perceptible" interference. For clarity, only values in 2 dB increments were tabulated. Should the Commission desire greater resolution, this demonstration can be performed with that higher resolution. The graphics are very hard to read with so many intersecting lines.

2) Since the proposed FM antenna is vertically polarized, a power correction is made for the ratio of vertical polarization. The equivalent power is  $H + V/40 = 0 + 40/40 = 1$  kW, since the predicted area of interference lies entirely outside the limits of a city of 50,000 persons (§73.525(e)(4)(ii)). Kingman had only 12,722 residents at the time of the 1990 census.

3) A map was prepared showing the predicted TV6 protected contours in the area of interest and the associated predicted FM interfering contours over the same area. Lines were drawn in 2 dB increments for the TV6 signal. The first contours plotted are the 64 dBu protected TV contour and the corresponding 68.3 dBu interfering FM contour. The last contour plotted for the TV6 station was the 86 dBu protected contour, and the last contour plotted for the FM station was the 84.7 dBu interfering contour. Contours are calculated according to the procedures specified in §73.684 for the TV protected contours and §73.313 for the FM station interference contours. Due to limitations in the commercially available plotting program, some labels are off the top of the page.

4) A point was plotted at each point where the TV6 protected contour intersects the associated FM interfering contour. These points were joined by smooth line segments. The closed curve created designates the "area of just perceptible interference". This manually drawn curve largely encompasses a vast area of barren mountainside, and could therefore be expected to be sparsely inhabited.

5) C.F.R. §73.525(e)(2)(iv) provides for higher precision than the assumption of uniform population density underlying §73.525(e)(2)(ii) and (iii), allowing "more detailed population data" to be used. Increasing the spatial resolution to the census block level, the census block centroids were plotted by latitude and longitude. The "area of interference" curve generated above was transferred to that map using a transparency (with the numeric labels removed for clarity). Only six of the centroids were found to be inside the area of interference. This is illustrated in the TV6 Population Scattergram and is tabulated on the appended chart. These eight centroids total 2,310 persons, well within the 3,000 maximum count required by §73.525(c).

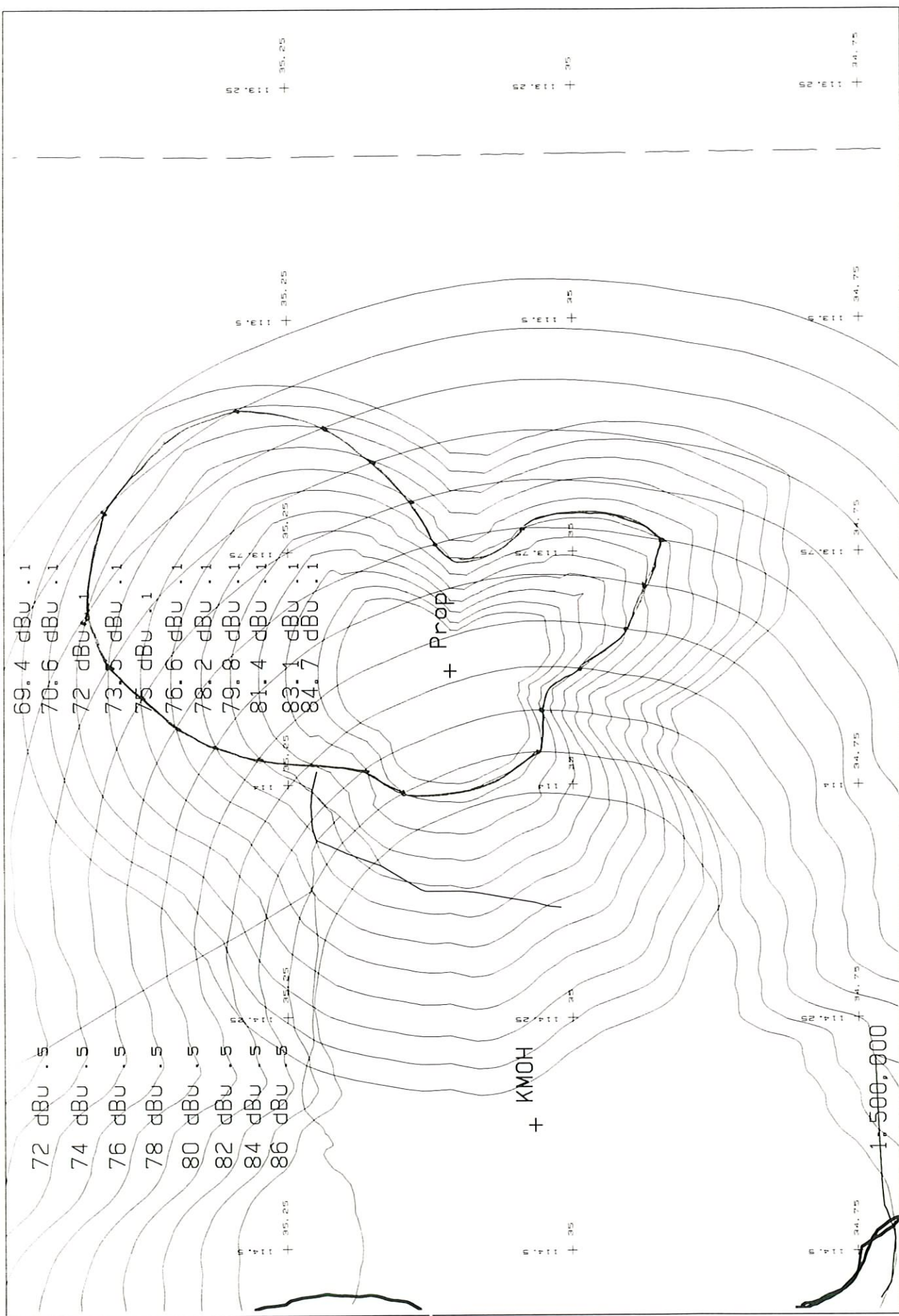
Since it has been demonstrated that the population in the "area of interference" is less than the statutory limit of 3,000, the Commission may properly grant the proposed construction permit.

Chan	06
Offset	-
Call	KMOHTV
City	KINGMAN
State	AZ
Country	A
Svc Class	TV
Zone	2
Border	M
Comment	
Lat	350157.0
Lon	1142156.0
ERP	100
HAAT m	585
RCAMSL m	1370
NotCityofAlloc	
EduOrCom	C
Owner	GRAND CANYON TELEVISION CO., INC.
AppRefNumb	BLCT880315KH
Status	LIC
Cutoff	
Docket	
Sequence	101136
Polarization	H
Directional	N
BeamTilt	N
Dir Azimuth	
Antenna Make	
Antenna Type	
Distance	45.268 km at 259.4 degr from N350628, W1135240.
Report Radius	196.000 km

## Exhibit E-9

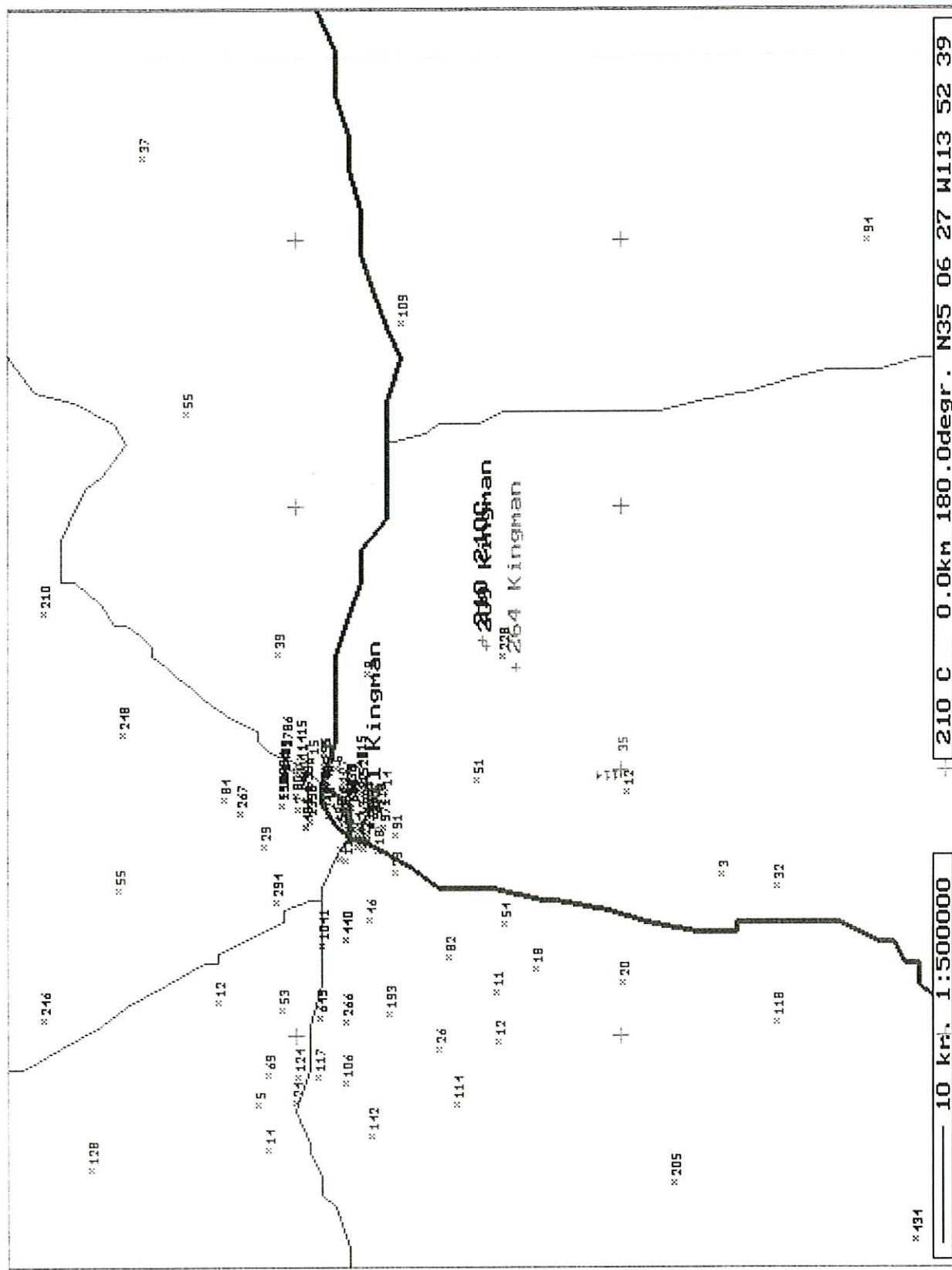
### TV6 Interpolation Channel 210 - 89.9 MHz Report Radius 196 km.

TV Contour	Undesired/Desired Ratio	Total
64	4.3	68.3
66	3.4	69.4
68	2.6	70.6
70	2.0	72.0
72	1.5	73.5
74	1.0	75.0
76	0.6	76.6
78	0.2	78.2
80	-0.2	79.8
82	-0.6	81.4
84	-0.9	83.1
86	-1.3	84.7

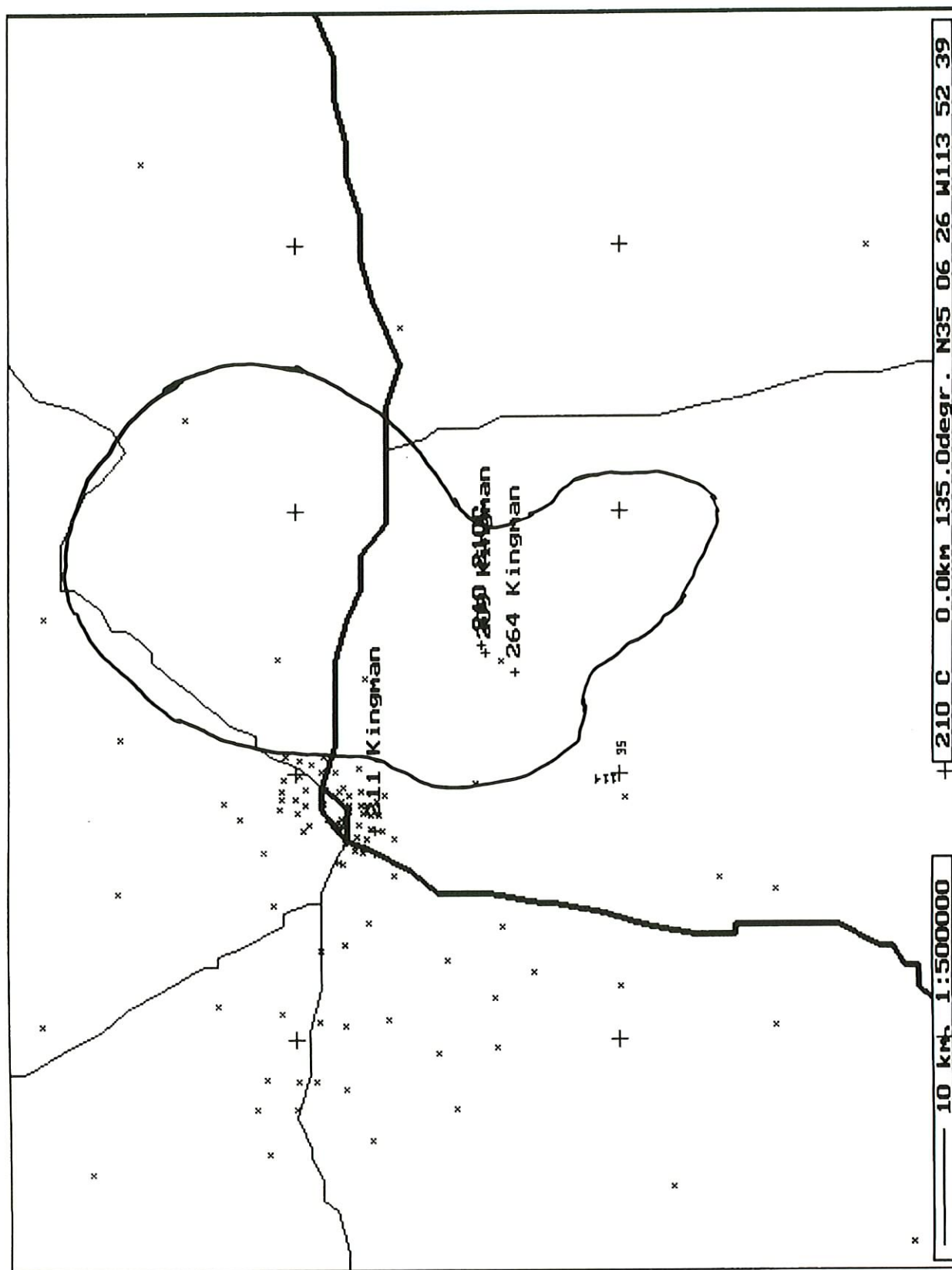


<p>Scale in km</p> <p>0 10 20 30 40</p>	<p>Prop 210C 1kW 2382M AMSL</p>	<p>Exhibit E-9</p> <p>Bob Moore - 10/98</p>
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Population at: N. Lat. 35 06 28 W. Lng. 113 52 40 Contour= 6 dBu/ .5

Centroid#	No. of Persons	Lat.	Lng.	Centroid#	No. of Persons	Lat.	Lng.
1) AZ 3438	55	352003	1133948	2) AZ 3441	228	350528	1135328
3) AZ 3442	135	351347	1135948	4) AZ 3456	51	350643	1140029
5) AZ 3467	39	351551	1135321	6) AZ 3469	8	351146	1135429
7) AZ 3470	8	351342	1135857	8) AZ 3473	1786	351527	1135855
Total Population =		2,310					