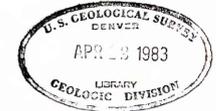
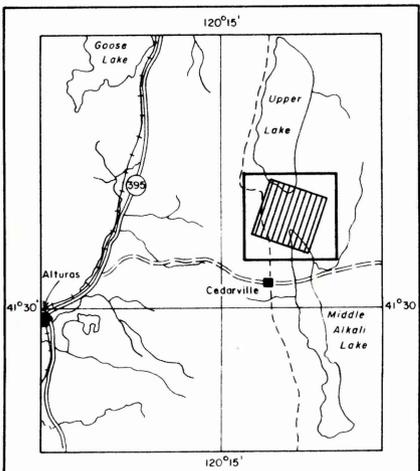


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This report was prepared under contract to the U.S. Geological Survey and has not been reviewed for conformity with USGS editorial standards and stratigraphic nomenclature.

LOCATION MAP



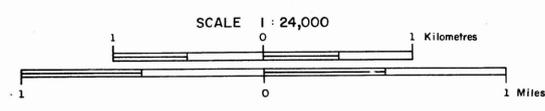
DIGHEM^{II} SURVEY

SURPRISE VALLEY, CALIFORNIA

ELECTROMAGNETICS

FOR

UNITED STATES GEOLOGICAL SURVEY



Flight line



Fiducial numbers

ANOMALY GRADE	EM GRADE SYMBOL	MHO RANGE
6	●	≥ 100
5	●	50 - 99
4	●	20 - 49
3	●	10 - 19
2	○	5 - 9
1	○	≤ 4
	×	Possible conductor

Identifier	EM grade	mho value
S	Conductor axis	
SP	Probable surface response	
P	Possible surface response	
L	Probable line (power, telephone, pipe, or fence)	
L?	Possible line	
Q	Questionable anomaly	
○	Apparent thickness > 10m	
∇	Dip	
1000	Direct magnetic correction of 100 gamma	

DIGHEM anomalies are divided into six grades of conductivity - thickness product. This product is mhos is the reciprocal of resistance in ohms. The mho is a measure of conductance, and is a geologic parameter. Most swamps yield Grade 1 anomalies but highly conducting clays can give Grade 2 anomalies. The multi-coil anomaly shapes often allow surface conductors to be recognized, and these are indicated by the letter S on this map. The remaining Grade 1 and 2 anomalies could be weak bedrock conductors. The higher grades indicate increasingly higher conductances. Examples: The ore bodies of the Mogaji River camp yield Grade 4 anomalies, while Metals and Waste give Grade 5. Graphite and sulphides can span all grades but, in this survey area, field work may show that the different grades indicate different types of conductors.

The actual mho value is plotted beside the EM grade symbol. The letter is the anomaly identifier. The horizontal rows of dots indicate anomaly amplitude on the flight record, and the vertical column gives the estimated depth. This depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or conductive overburden effects.

DIGHEM maps are designed to provide a correct impression of conductor quality by means of the conductance grade symbols. The symbols can stand alone with geology when planning a follow-up program. The actual mho values are plotted for those who wish quantitative data. The anomaly ppm and depth are indicated by inconspicuous dots which should not distract from the conductor patterns, while being helpful to those who wish this information. The map provides an interpretation of all conductors in terms of length, strike direction, conductance and depth. The accuracy is comparable to an interpretation from a ground EM survey having the same line spacing.