

# State of Arizona Bureau of Geology and Mineral Technology

Geological Survey Branch  
Geothermal Group  
845 N. Park Ave., Tucson, Arizona 85719  
(602) 626-4391



## AGENDA

Welcome to Tucson and the  
Geothermal Group's  
First Annual  
Exploration Conference  
October 3, 1978

Session 1 - 5 PM Library/Conference Room  
2045 N. Forbes Blvd., Suite 106

Time: Maximum 15 minutes/speaker with 5 minutes for questions and answers.

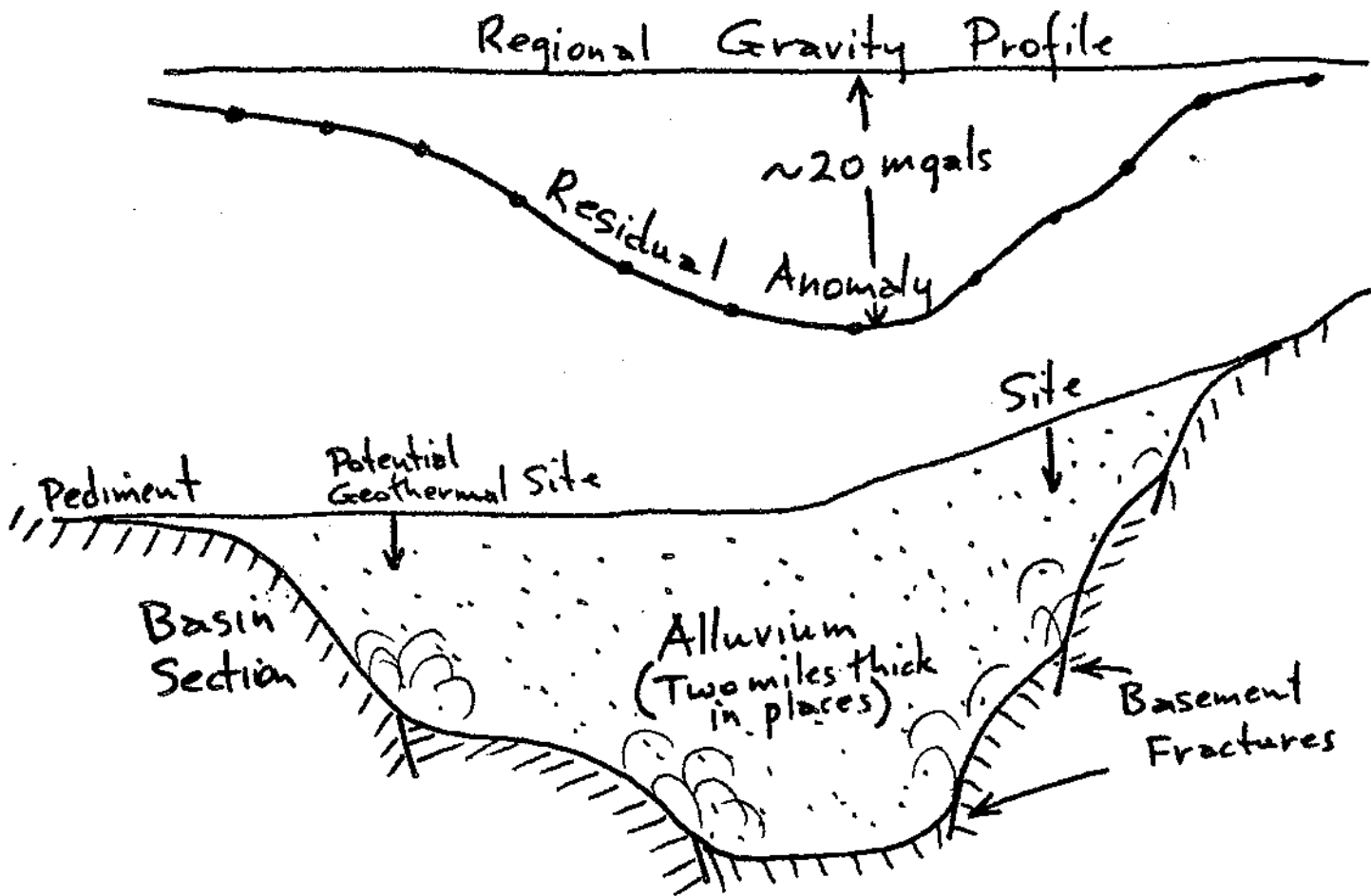
1. John Sumner - Revised Gravity Map of Arizona
2. Marc Sbar - Passive Seismic Programs, Summer 1978
3. Mike Sheridan - Castle Hot Springs, Arizona
4. Larry Lepley - Skylab Lineament Map Arizona
5. Chan Swanberg - Topic to be announced  
Sandra Rybarczyk
6. Don White - Operations Research, Arizona
7. Jim Witcher - Tucson Area, Clifton Area
8. Claudia Stone - Update 726, Springerville, Papago
9. Nile Jones - DOI, Bureau of Reclamation Arizona Program
10. Dick Hahman - Future Plans

The remaining time may be used for general discussion.

Don't forget the Arizona Geological Society dinner meeting tonight at 6 PM.

Subject: Mineralization in the Yavapai Series; Syngenetic?, Epigenetic? or Both?

# GRAVITY EXPLORATION FOR DEEP ALLUVIAL BASINS IN ARIZONA



$$q = -K \frac{\partial T}{\partial z}$$

$$q_{AV} = 1.4 \text{ HFU}$$

$K$  = Thermal Conductivity

$$\left. \frac{\Delta T}{\Delta z} \right]_{AV} = 30^\circ\text{C}/\text{km} = 87^\circ\text{F}/\text{mi}$$

But where  $q_{AN} = 2.8 \text{ HFU}$ ,  $\frac{\Delta T}{\Delta z} \approx 60^\circ/\text{km}$

$\therefore$  At 5280' Depth  $T_{1\text{mi}} = 120^\circ\text{C} = 240^\circ\text{F}$