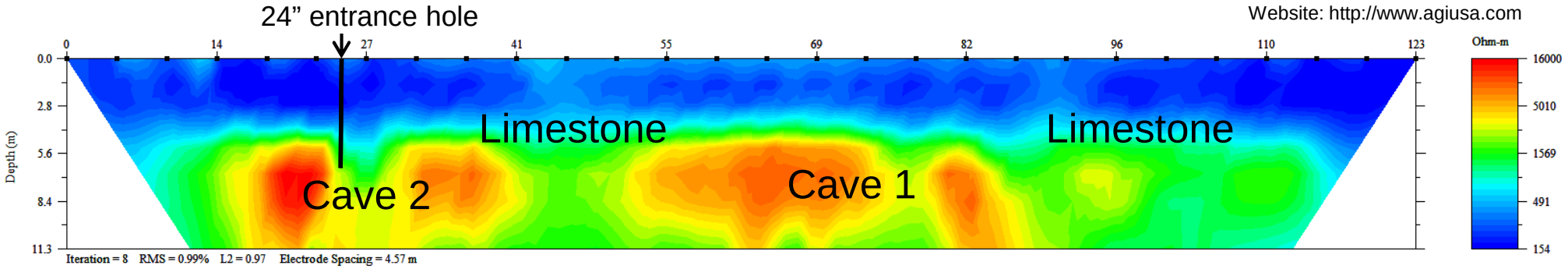
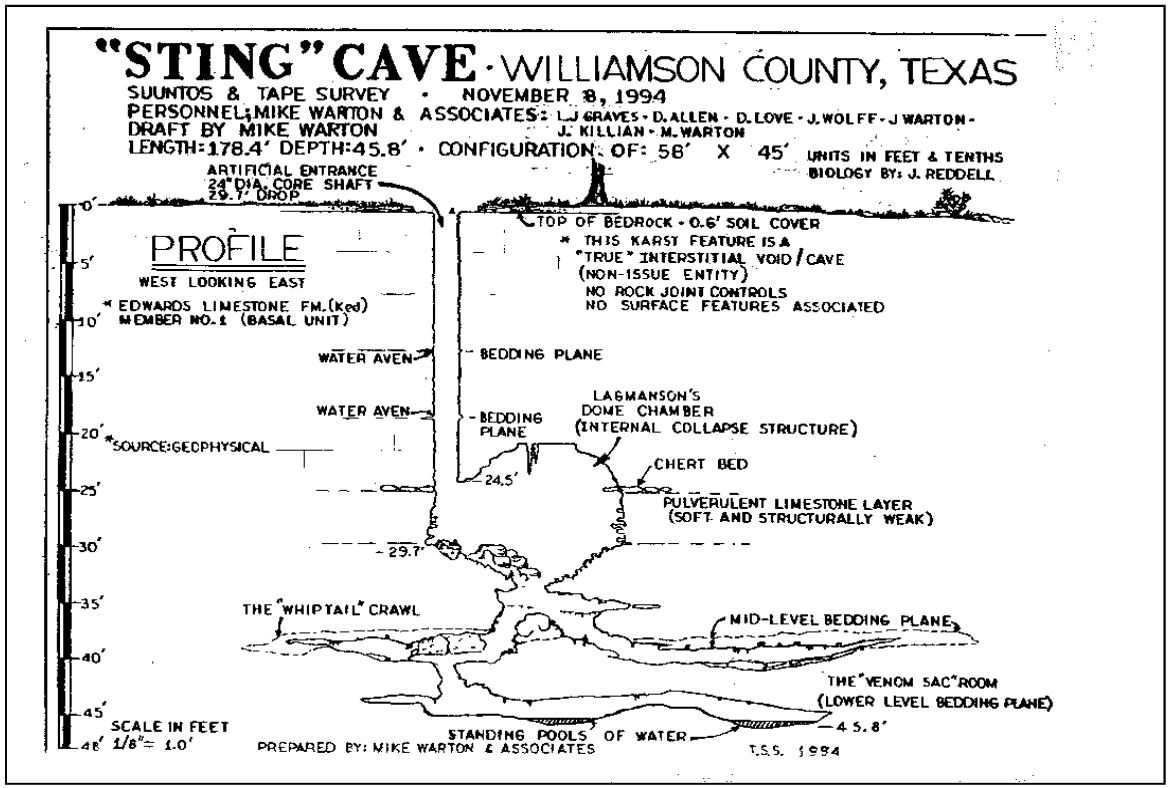
Cave, Tunnel and Void Detection – The Sting Cave

2121 Geoscience Drive, Austin, TX 78726
Tel: +1 (512) 335-3338
Fax: +1 (512) 258-9958
Email: sales@agiusa.com
Website: http://www.agiusa.com



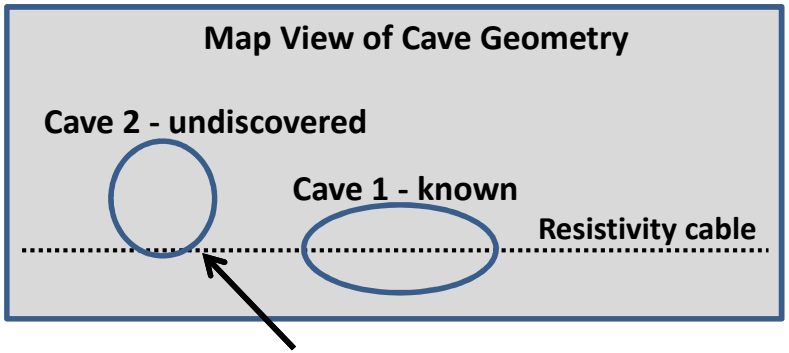
Date: October 29, 1994
Site: Sun City construction site, Round Rock, TX, USA
Instrument: StingR1, 28 Dual-Mode Swift electrodes
Software: EarthImager2D

Results: Cave 2(Sting Cave) was detected near a previously known cave, Cave 1. Cave 1 is air filled, but has lower resistivity than the Sting cave due to carbonate columns that electrically connect the floor and ceiling. The Sting cave is air filled and does not have any columns. Both caves were drilled with large diameter 24 inch entrance holes for exploration. Depth to the ceiling is 1.8m for cave 1 and 7.3m for Sting Cave.



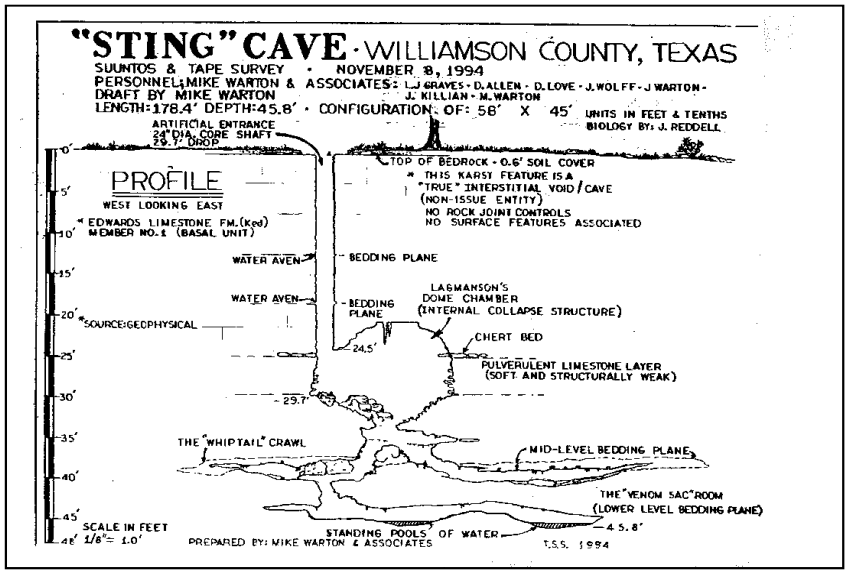
Cave, Tunnel and Void Detection – The Sting Cave

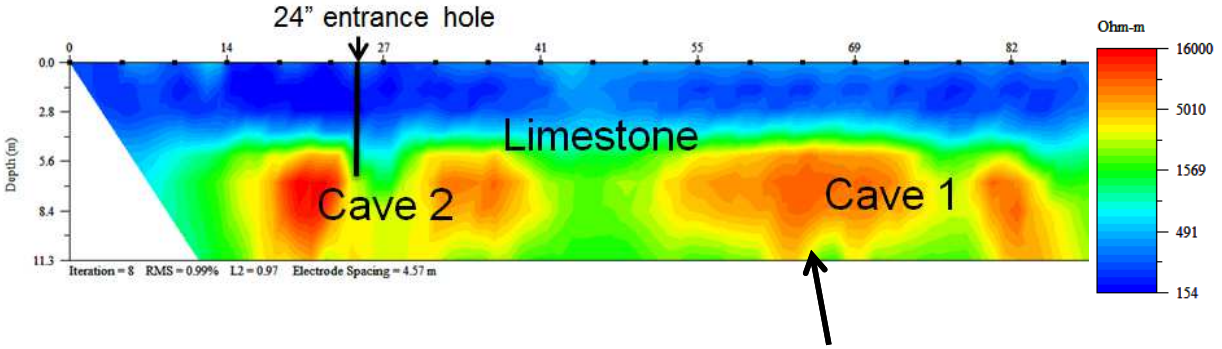
AGI Advanced Geosciences, Inc.
2121 Geoscience Drive, Austin, TX 78726
Tel: +1 (512) 335-3338
Fax: +1 (512) 258-9958
Email: sales@agiusa.com
Website: http://www.agiusa.com



Caves and 2D Lines

- 3D objects can be offset and project into the 2D space (Cave 2 – Sting Cave)
- Drilling almost missed the Sting Cave because the drill location was based on one 2D line without comparing additional 2D lines or measuring a 3D survey.





Cave 1 has wet stalactites and stalagmites connecting the floor and the ceiling that conduct electrical current and lower the resistivity as imaged from the surface when compared to the open air filled Sting cave.