



# Historical Mine Research

AML Meeting Presentation  
Ben Sears



# Acknowledgements

- Virginia McLemore
- Navid Mojtabai
- Amy Trivvitt
- Bob Eveleth
- NM Bureau of Geology



# Personal Introduction

Ben Sears

- Mechanical Engineering Senior
- Jeweler
- Rockhound
- Amateur Historian





# Objective

- Safety and remediation
- Potential future use
- History and archeology



# Historical Research : How To Why We Want Names

## The Reliability Puzzle

- Primary sources
- 19<sup>th</sup> century records compared to modern records

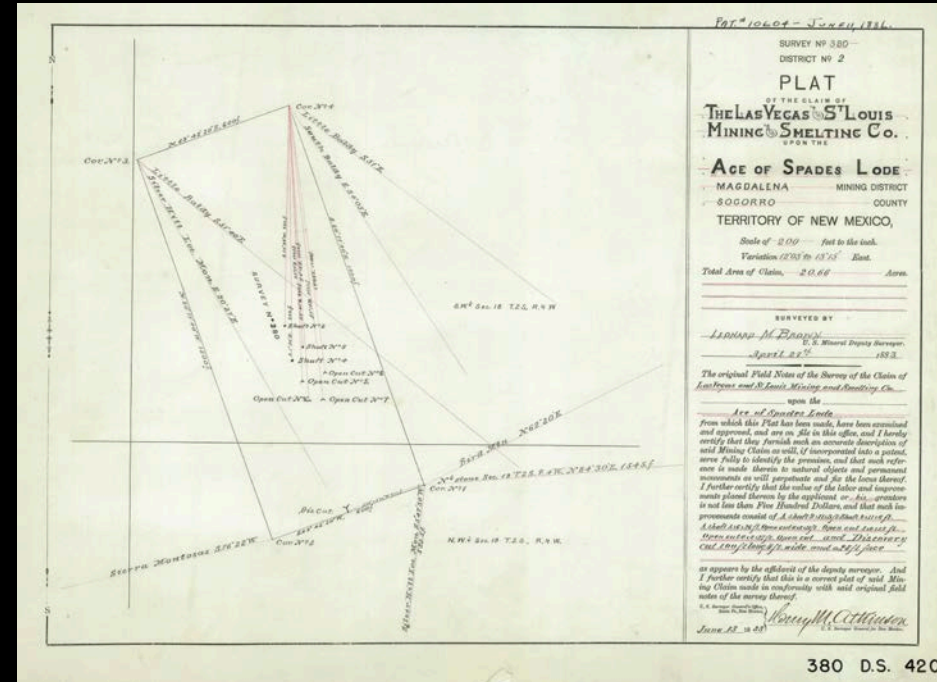
## Reasons to Research

- Names give us records of underground workings, production, and even identify other mines

Field work crosschecks records and records  
crosscheck fieldwork

# Legacy Mining Records

- Bob Eveleth
  - Curated our records room
- Leonard M Brown
  - Late 19<sup>th</sup> century surveyor
- Harrison Schmidt files





# Socorro County Courthouse

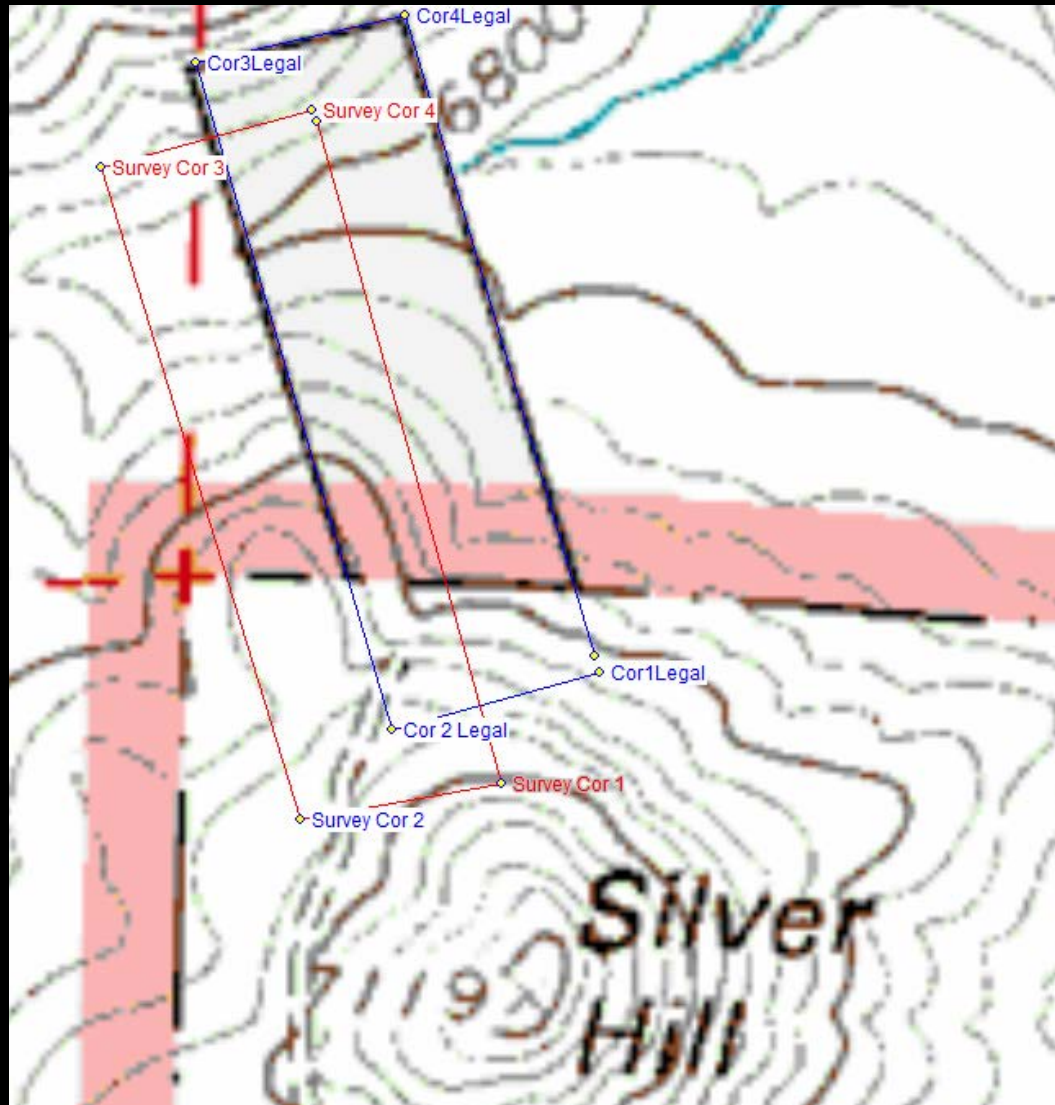


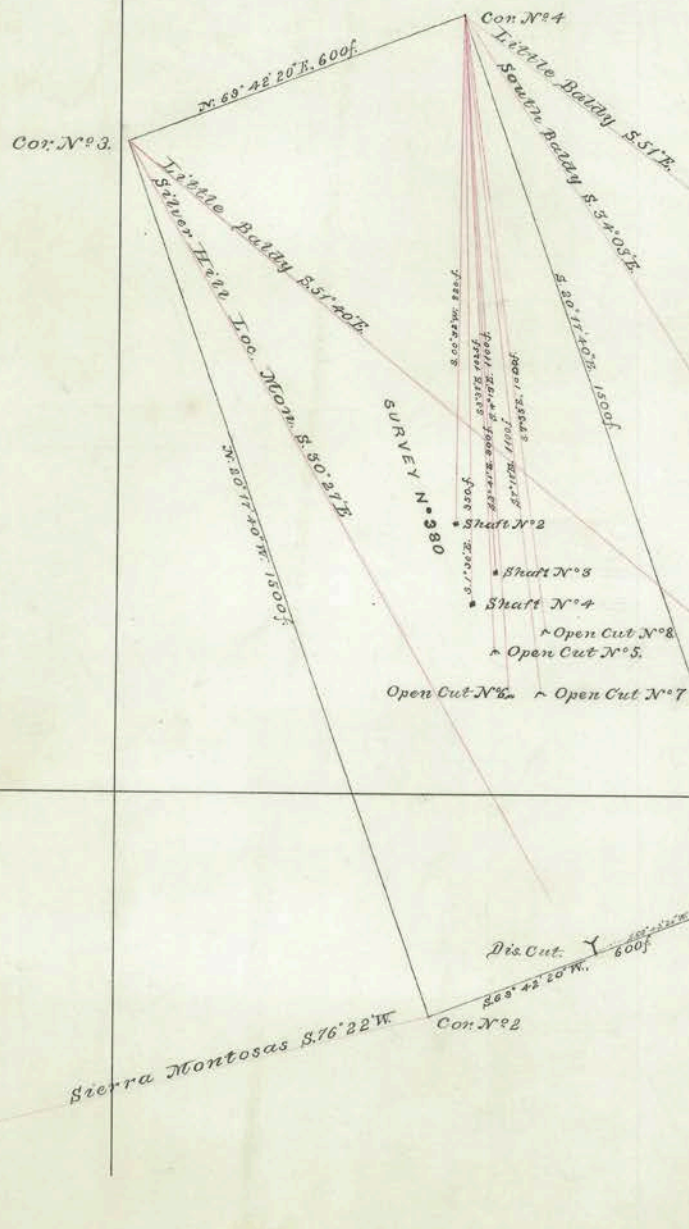
# An Example

- Ace of Spades Lode
  - Large 100 foot cut in survey notes
- Records discrepancy - Silver Hill Monument
  - 19<sup>th</sup> century survey notes
  - Modern land ownership
- Sophia Lode discovery
  - Second larger cut, not in notes, likely from a later period



# Ace of Spades Lode





SURVEY N° 380  
DISTRICT N° 2  
PLAT  
OF THE CLAIM OF  
**THE LAS VEGAS & ST. LOUIS**  
**MINING & SMELTING CO.**  
UPON THE

**ACE OF SPADES LODE**  
MAGDALENA MINING DISTRICT  
SOCORRO COUNTY  
TERRITORY OF NEW MEXICO,

Scale of 200 feet to the inch.

Variation 12° 03' to 13° 15' East.

Total Area of Claim, 20.66 Acres.

SURVEYED BY

LEONARD M. BROWN  
U. S. Mineral Deputy Surveyor.  
April 27<sup>th</sup> 1883

The original Field Notes of the Survey of the Claim of  
Las Vegas and St. Louis Mining and Smelting Co.

upon the

Ace of Spades Lode

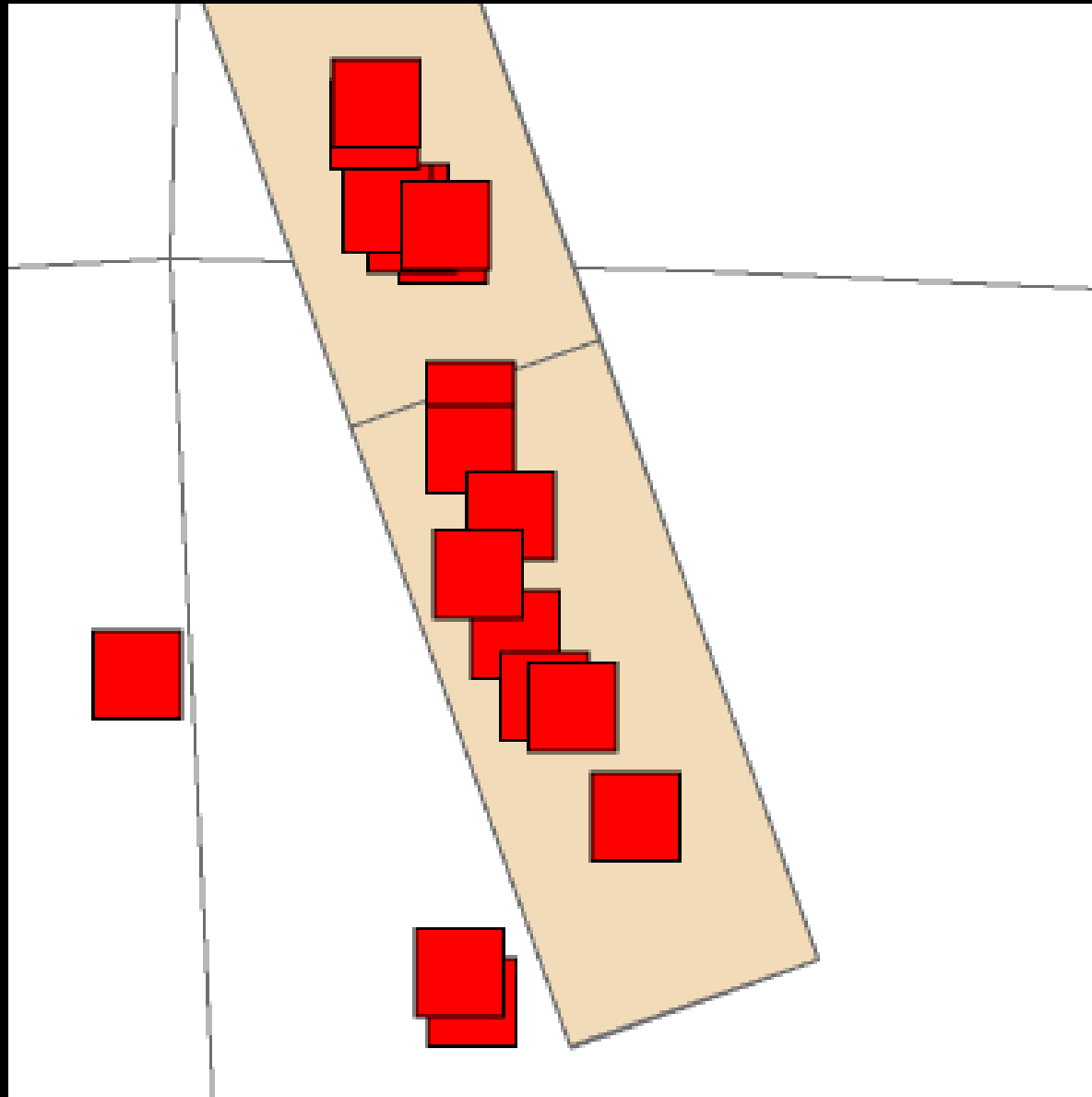
from which this Plat has been made, have been examined and approved, and are on file in this office, and I hereby certify that they furnish such an accurate description of said Mining Claim as will, if incorporated into a patent, serve fully to identify the premises, and that such reference is made therein to natural objects and permanent monuments as will perpetuate and fix the locus thereof. I further certify that the value of the labor and improvements placed thereon by the applicant, or his grantors is not less than Five Hundred Dollars, and that such improvements consist of A shaft 9 1/2 ft. Shaft 2 1/2 ft. 10 ft. Shaft 5 1/2 ft. 26 ft. Open cut 12 1/2 ft. Open cut 2 1/2 ft. 12 ft. Open cut 10 1/2 ft. Open cut and Discovery cut 100 ft long 4 ft. wide and a 28 ft. face

as appears by the affidavit of the deputy surveyor. And I further certify that this is a correct plat of said Mining Claim made in conformity with said original field notes of the survey thereof.

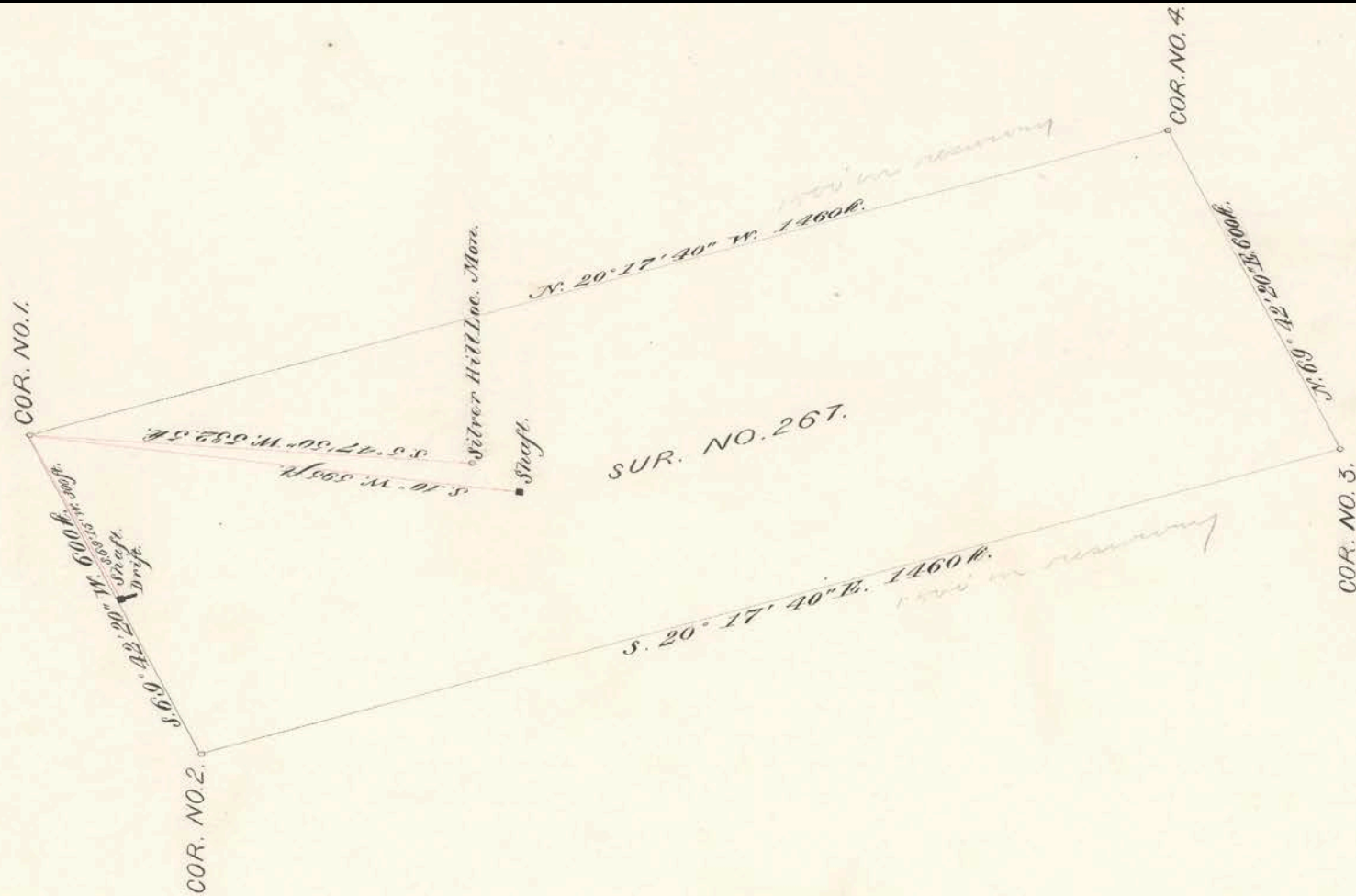
U. S. Surveyor General's Office,  
Santa Fe, New Mexico.  
Henry M. Atkinson  
June 13 1883 U. S. Surveyor General for New Mexico.



# Field Locations



# Sophia Lode





# The Wrinkle : Mines Without Records

- East of Sophia
- Double shaft complex
- 40 ft and 80 ft deep
- Explosives shed
- Artifacts and tailings
- Absolutely no records



# Questions?