Pioche Sepiolite Project

April 2025

Project Presentation

What is Sepiolite?

Sepiolite is rare.

- It has unique characteristics, is scarce, and there are very few commercial deposits in the world.
- It is a non-swelling, lightweight, porous hydrous magnesium silicate clay.
- It possesses a high surface area due to channels in the crystal lattice that gives it a structural nano-porosity. Its unusual crystal shape also adds to the internal porosity and gives it a light weight.
- Sepiolite's high surface area and porosity account for sepiolite's outstanding sorption capacity.
- Just 20g of sepiolite can have an internal surface area equivalent to that of a football field and sepiolite can absorb more than its weight in water.
- The largest market globally for sepiolite is for use in light-weight non-clumping pet litters where it has superior properties compared to other clays used in this application.
- Sepiolite is also used extensively in agriculture as a slow-release absorbent and adsorbent carrier for chemicals and pesticides and in animal feeds as a binder and carrier for nutrients and growth promoter. It is also used to decolour vegetable and mineral oils.
- The unusual crystal shape means that sepiolite is not easily flocculated and so it's colloidal properties make it useful as a suspending agent and viscosity modifier in paints, medicines, pharmaceuticals and cosmetics.
- Sepiolite, unlike other clays, is not affected by salt water and so sepiolite drilling muds are used in oil field wells where brine formations are a problem.
- It is also the only clay that is stable at high temperatures and so is used in drilling muds for geothermal wells.

Project Ownership

- Mining claims held by SR Minerals Inc. a 100% owned US subsidiary of Sunrise Resources plc
- SR Minerals holds an 80% economic interest in the project.
- 20% economic interest in the project held by Key Adviser, Mr Thomas Powell
  - Mr Powell is a graduate of the University of Louisville graduate with BA in Mathematics and Chemistry. 40 years specialty minerals experience focusing on specialty clays.
  - Mr Powell managed the IMV Nevada specialty clay mining operation in Amargosa Valley from 2006 to 2011 (now owned and operated by Lhoist North America).
  - Mr Powell was also the Manager of Clay Operations for Western Lithium/Lithium Americas from 2011 to 2019.

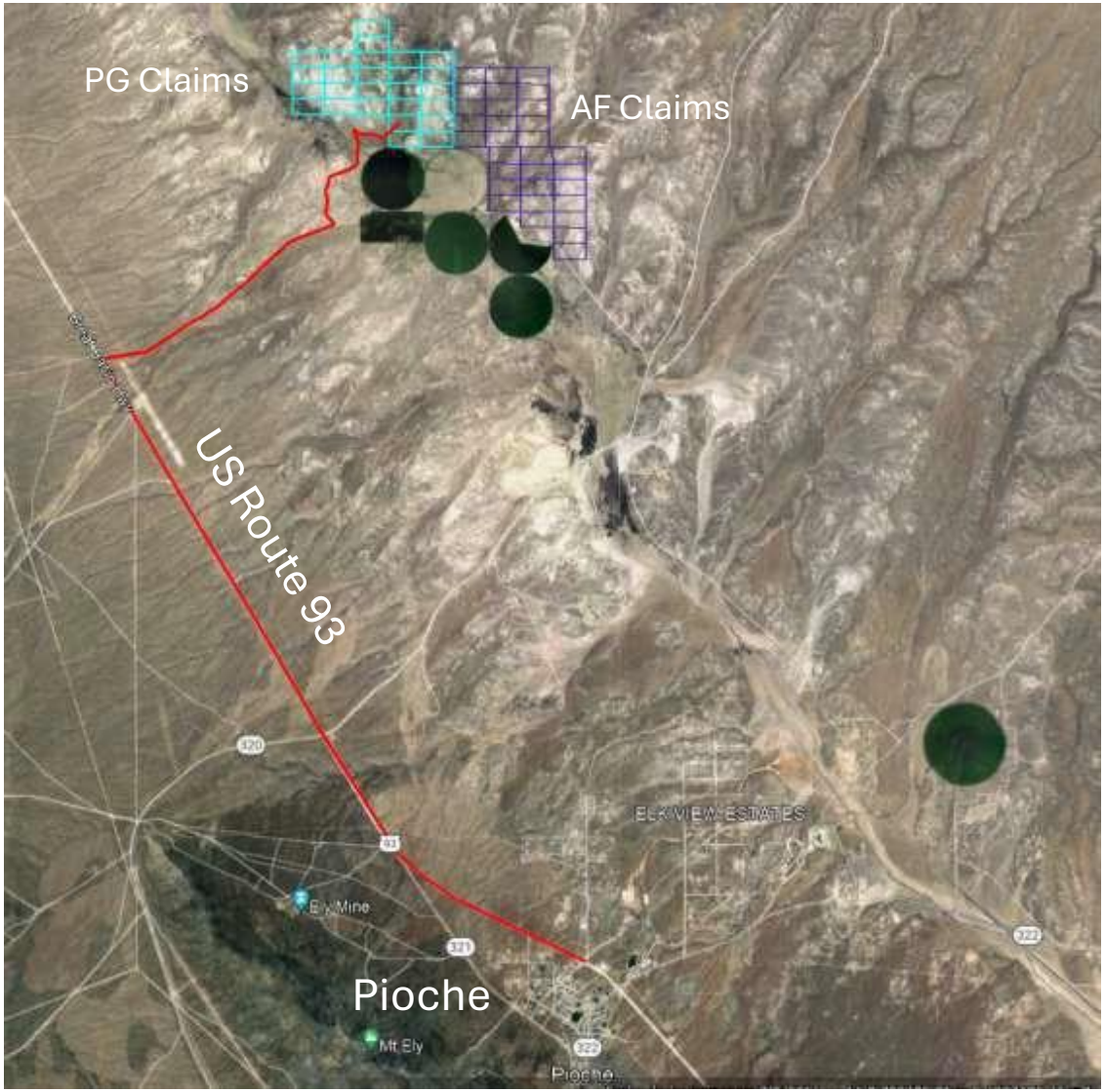
Project Location

Project Location:

- 7 miles north of the historic mining town of Pioche, Lincoln County, Nevada
- 35 miles from railhead at Caliente, Nevada

Claims and Local Access

- Project secured by 57 Placer Claims (in two groups PG & AF prefix) on Federal land administered by the Bureau of Land Management.
- 3 miles from U.S. Route 93 along established Eightmile Well road.
- Good network of 4WD tracks criss-cross the mining claims



Exploration History

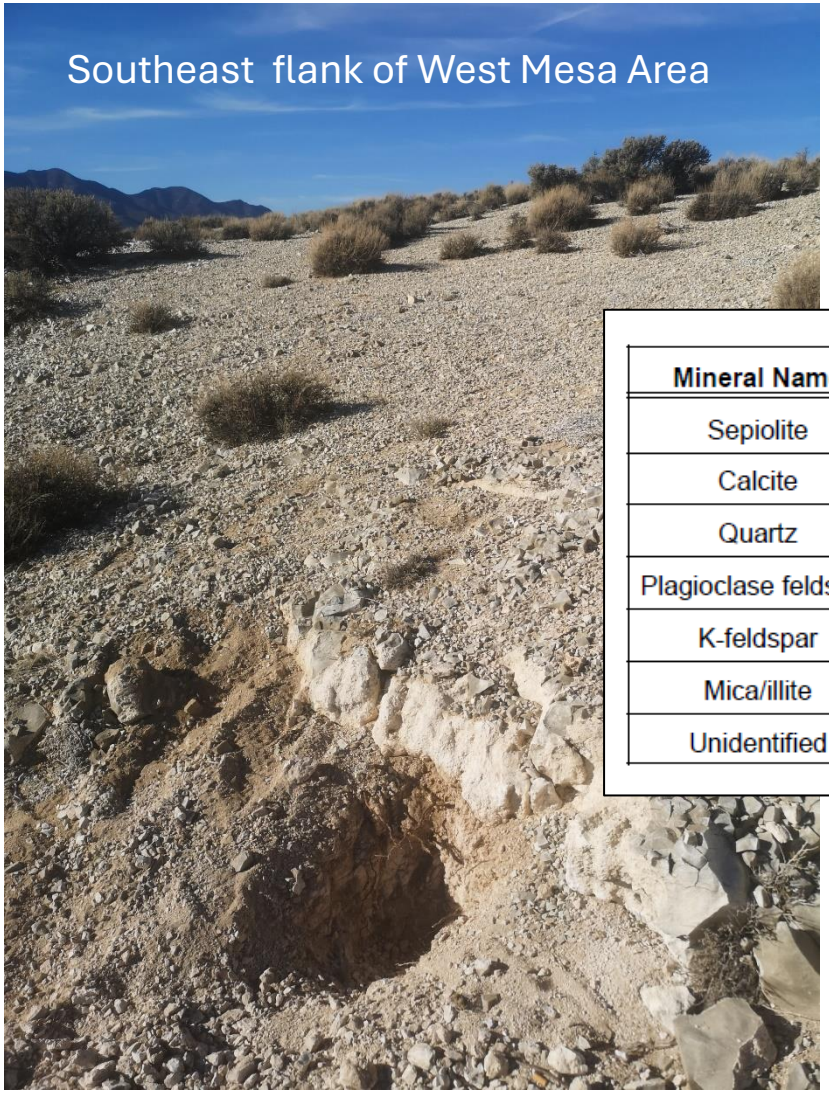
Exploration History:

- Sepiolite first discovered in 1976 at the West Mesa area by Paul Gemmill, General Manager of the Combined Metals Reduction Company of Pioche.
- Occurrence relocated and sampled by SR Minerals Inc. in April 2021. Sepiolite confirmed by XRD analysis.
- First claims staked in September 2021.
- Optioned to Tolsa USA in June 2022.
- Tolsa completed programmes of mapping and trenching in 2022 & drill programmes in 2023 and 2024
- Tolsa's option to purchase the project expired 28 December 2024.

Geology

- Project Area lies within a broad sedimentary basin on the west side of a sequence of Palaeozoic sediments and intrusive rocks that form the Bristol Mountain Range.
- Basin sediments comprise a series of sub-horizontal, semi-lithified, interbedded and lenticular, Pliocene-Quaternary tuffaceous lakebed silts, conglomeratic mudstones, and silty clays
- Conglomerate clasts are mostly rounded fragments of dacite, rhyolite, and andesite, further testifying to volcanic activity before and during lacustrine sedimentation
- Brine alteration of this sequence has produced a series of clay deposits with various degrees of sepiolite alteration.
- An erosion-resistant silica rich caprock tops the sepiolite at the discovery location forming a low mesas and flattened ridgetops.
- Two main layers with medium-high sepiolite contents were defined by Tolsa's 2022 mapping drill programme - a first level of green-cream sepiolite and a second of pinkish sepiolite. Boundaries can be transitional. A possible third layer was also recognised.
- Outcrop is generally poor throughout the claims due to a covering of quaternary soils, sands and gravels.

2021 Rediscovery - XRD Results

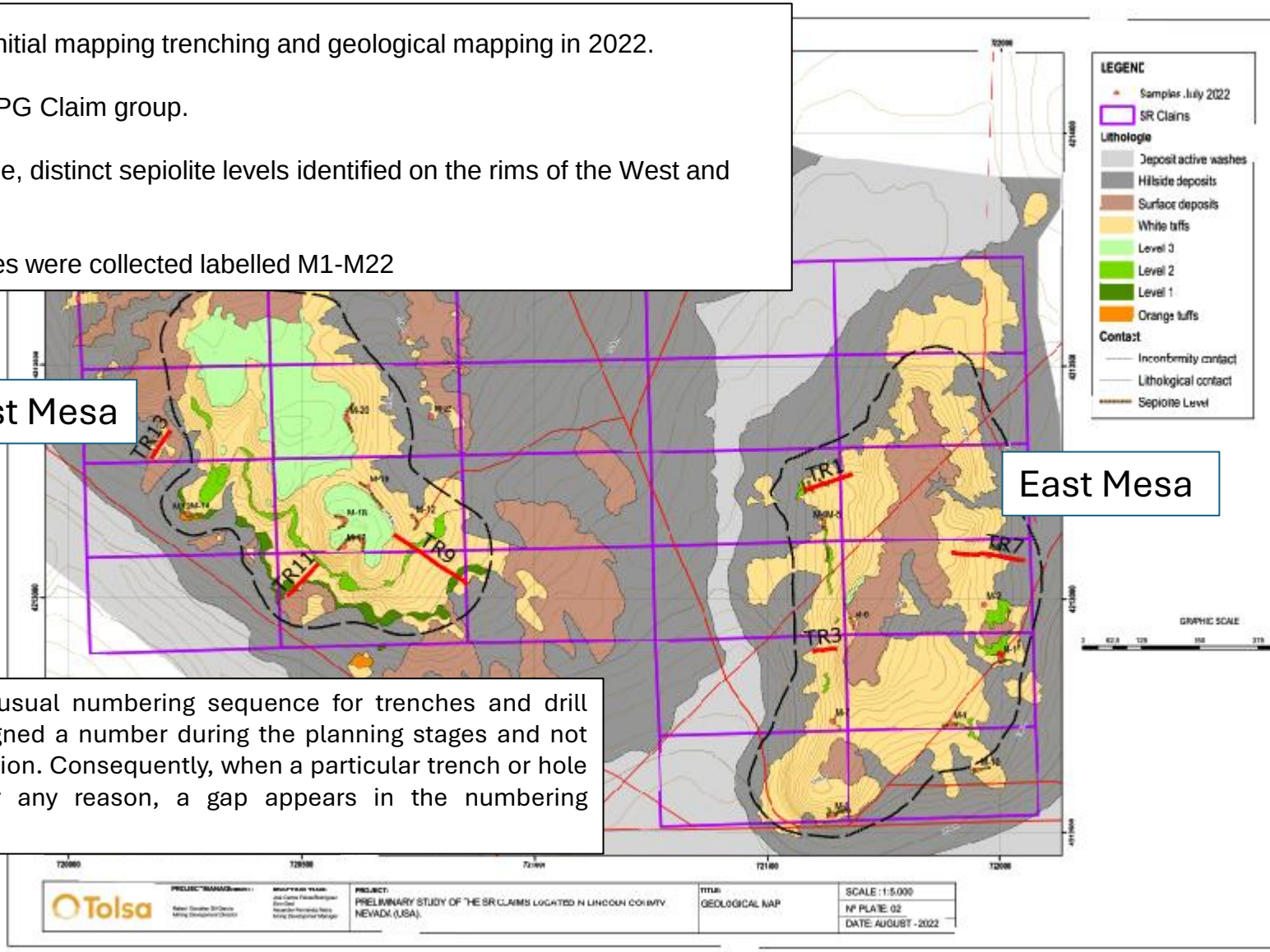


XRD Analysis

Mineral Name	Chemical Formula	Approx. Wt % 210418.01	210418.02	210418.03
Sepiolite	$Mg_4Si_6O_{15}(OH)_2 \cdot 6H_2O$	50	88	80
Calcite	$CaCO_3$	33	3	10
Quartz	SiO_2	4	5	<3
Plagioclase feldspar	$(Na,Ca)Al(Si,Al)_3O_8$	8	<3	4
K-feldspar	$KAlSi_3O_8$	<3	<2?	<2?
Mica/illite	$(K,Na,Ca)(Al,Mg,Fe)_2(Si,Al)_4O_{10}(OH,F)_2$	<2?	<2?	<2?
Unidentified	?	<5	<5	<5

Tolsa Trenching and Mapping 2022

- Tolsa completed initial mapping trenching and geological mapping in 2022.
- Work focused on PG Claim group.
- Two, possibly three, distinct sepiolite levels identified on the rims of the West and East Mesas.
- 22 surface samples were collected labelled M1-M22



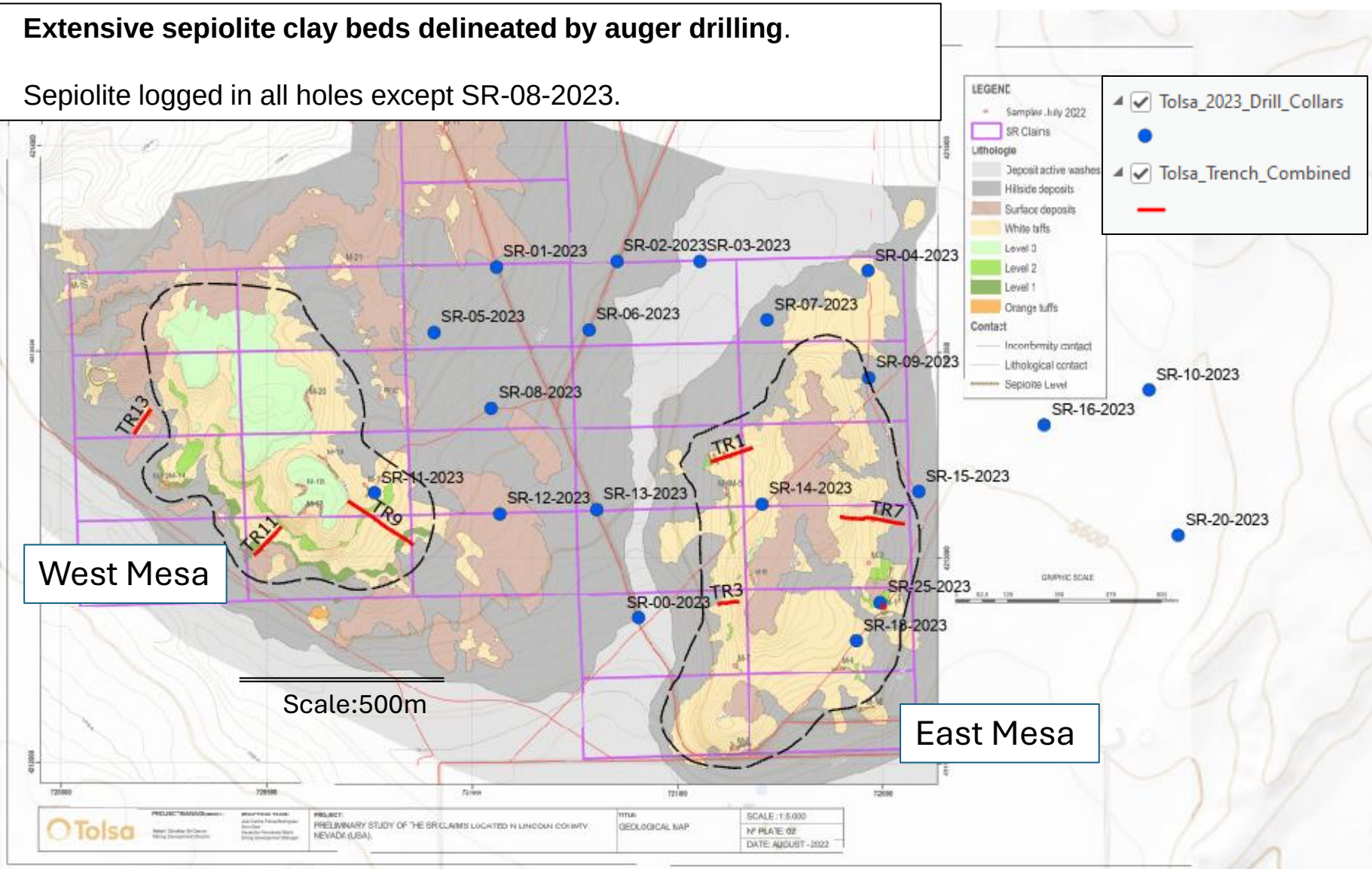
N.B. Tolsa has an unusual numbering sequence for trenches and drill holes. These are assigned a number during the planning stages and not changed during execution. Consequently, when a particular trench or hole is not completed for any reason, a gap appears in the numbering sequence.

Tolsa - Auger Drilling 2023

- Twenty auger drill holes completed (SR-Prefix).
- Auger drilling is a low-cost, first pass drilling technique but susceptible to sample loss, down hole contamination, poor depth control and depth imitations.

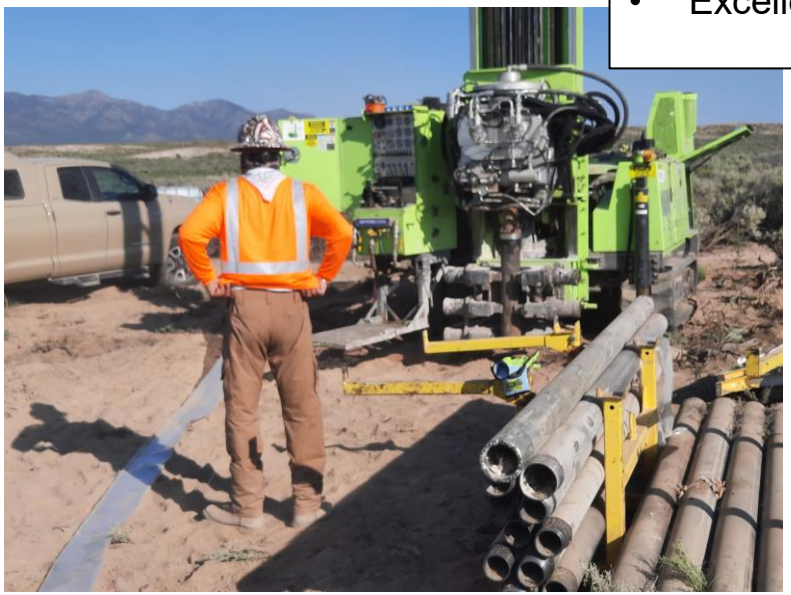
Tolsa - Auger Drilling 2023

- **Extensive sepiolite clay beds delineated by auger drilling**.
- Sepiolite logged in all holes except SR-08-2023.

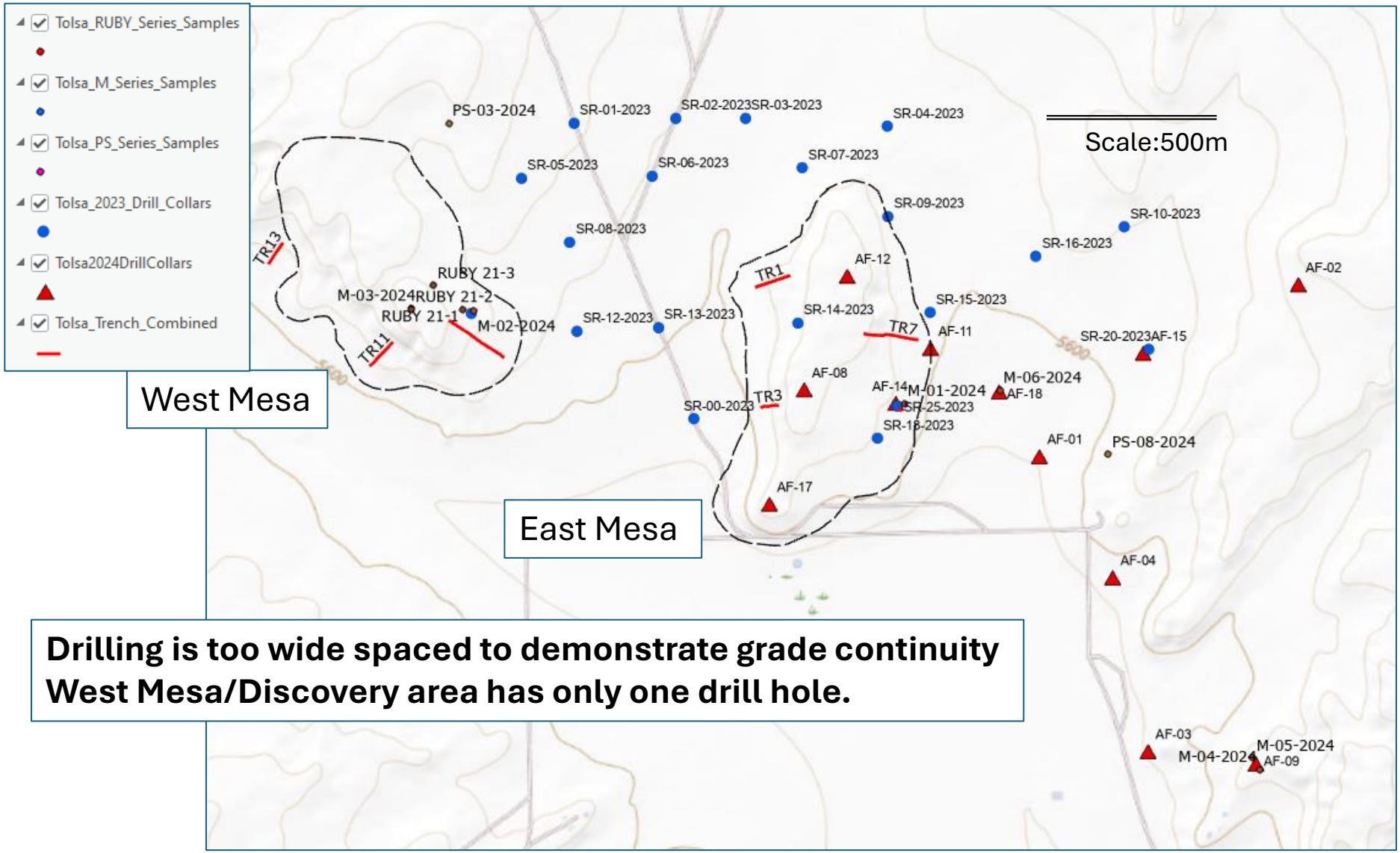


Tolsa - Sonic Drilling 2024

- Ten sonic drill holes completed. (Hole Prefix AF-)
- Excellent recovery of 6” solid “cores”



Tolsa - Sonic Drilling 2024



Drilling is too wide spaced to demonstrate grade continuity
West Mesa/Discovery area has only one drill hole.

Tolsa Sepiolite Testing

Tolsa has provided a data base showing testing results for a range of surface, trench and drill samples

Testing data includes:

- XRD Mineralogy
- SEM imaging
- Chemical analysis
- BET Surface Area
- Viscosity

Pioche Sepiolite Project, Nevada

- Currently awaiting return of all remaining exploration and drill samples from Tolsa.
- Tom Powell is currently running various tests on preliminary samples received from Tolsa.

Limited US Production

- IMV is only US producer of sepiolite. IMV is subsidiary of multi-national (HQ Belgium) lime producer Lhoist.
  - Mine is hemmed in by Areas of Critical Environmental Concern.
  - US senators calling for minerals land withdrawal in Amargosa Valley.
- Presents increased opportunity for Pioche Sepiolite Project.

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Conclusions to date

- Extensive sepiolite beds have been discovered by drilling over an area 1.6 miles (NW-SE) x 0.8 miles (NE-SW).
- Drill spacing is far too wide for effective correlation of sepiolite beds.
- Drilling has not adequately tested the West Mesa (Discovery) area.
- East Mesa is priority and large target area.
- Sepiolite morphology is similar to Amargosa Valley sepiolite.
- Pioche sepiolite will require mineral processing techniques similar to Amargosa Valley deposits – e.g. milling, sizing, extrusion etc.
- Protocols for sample preparation and viscosity testing used by Tolsa based on Spanish sepiolite may not be appropriate for Pioche Sepiolite.
- No testwork reported by Tolsa to evaluate salt-water viscosity – a key property for the US oil drilling market for which Amargosa Valley type-sepiolite is better suited than Spanish sepiolite .
- Timing for new market entrant is favourable with increased oil/gas well drilling expected under Trump administration and decline of Amargosa Valley sepiolite reserves.