

ELECTRIFYING THE FUTURE

Emma Expansion Project

08/2022

Tom Shelley Overview

FCX
LISTED
NYSE

A member of
ICMM
International Council
on Mining & Metals

THE
COPPER
MARK

Tyrone Mine

fcx.com

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Emma Meets International Best Practices

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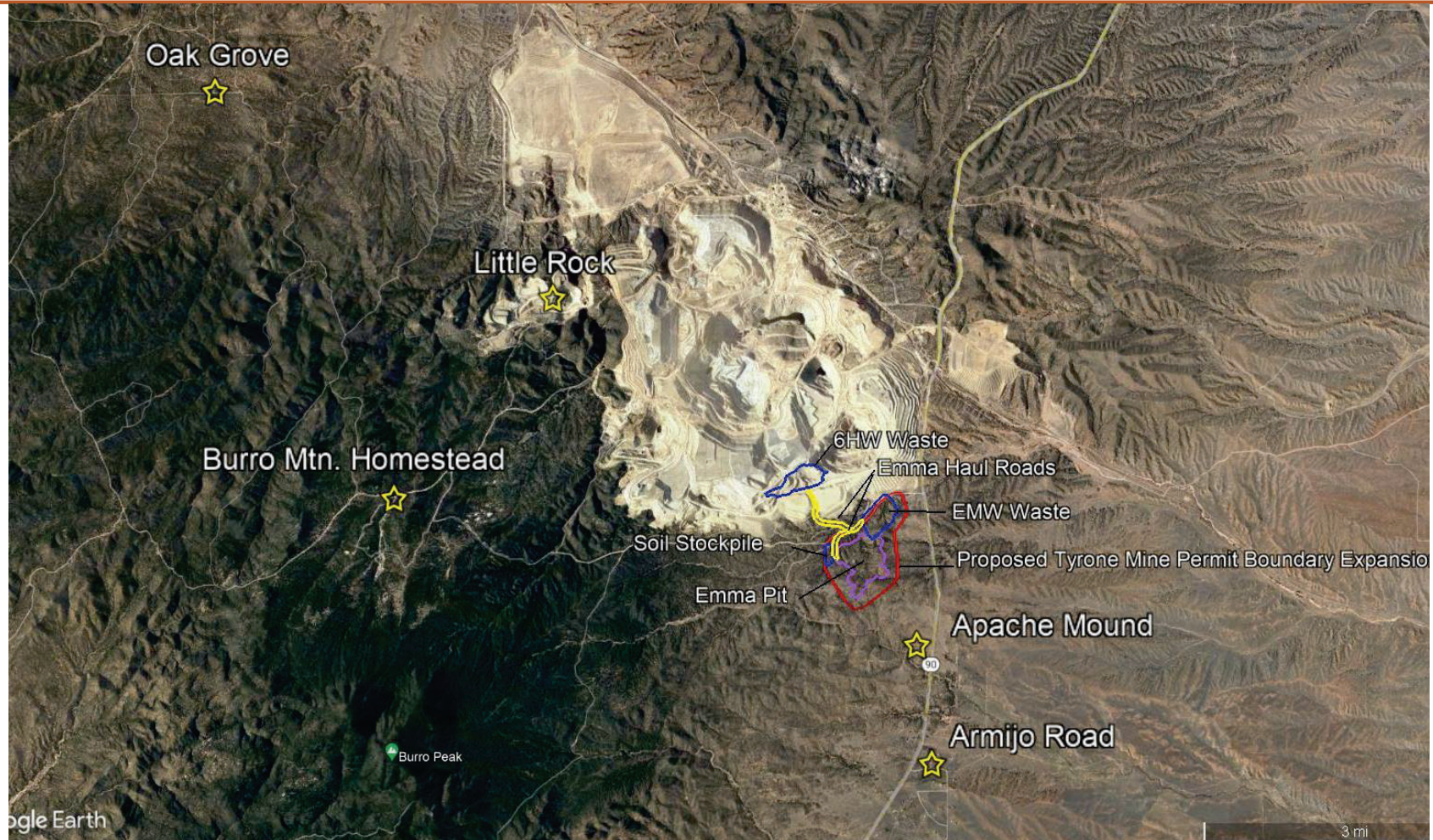
UNITED NATIONS
GUIDING PRINCIPLES
ON **BUSINESS**
& HUMAN RIGHTS

Emma Project Proposal Meets Environmental Standards

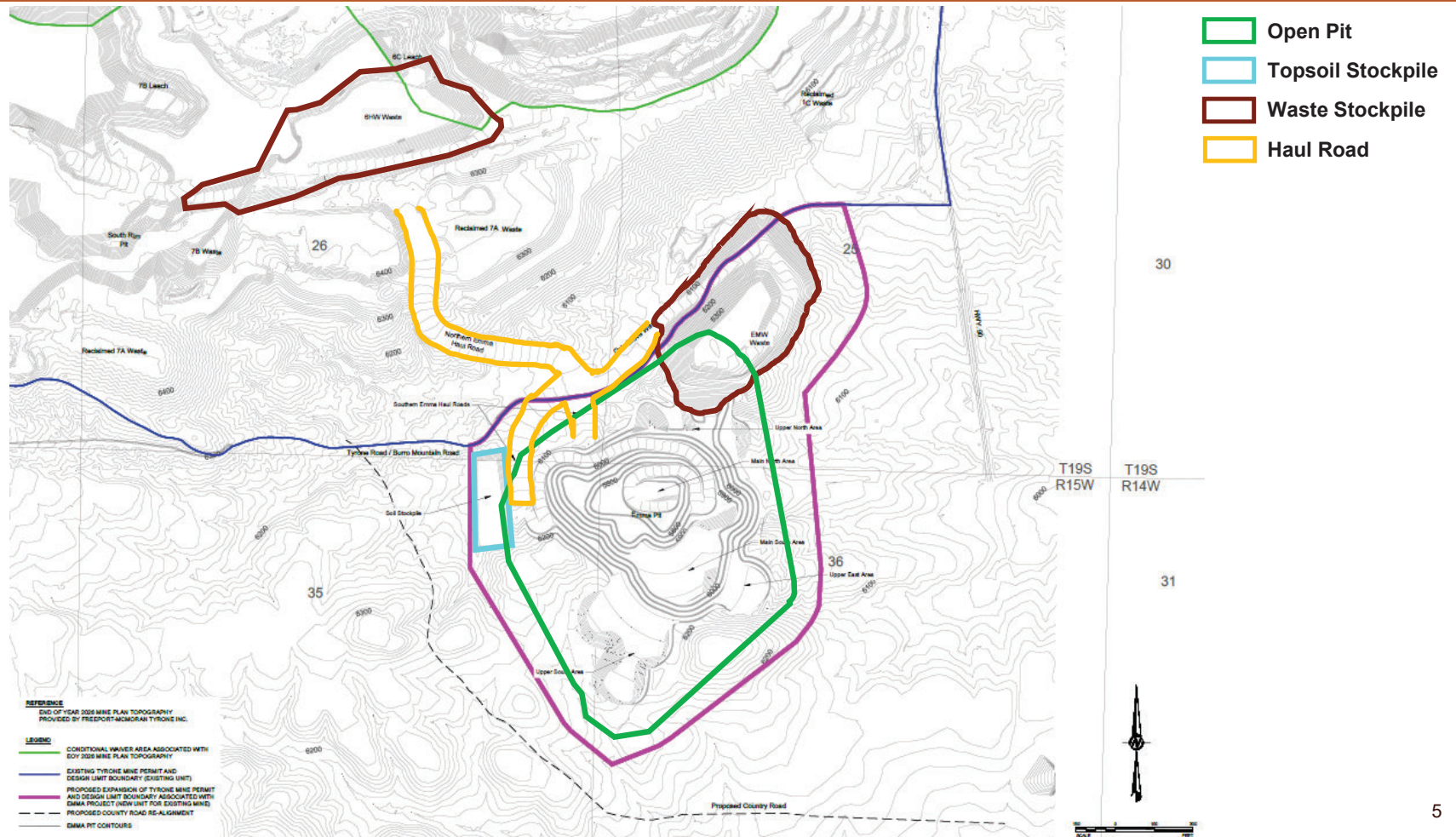
- New Mexico Mining Act
 - Section 19.10.5.502 NMAC
 - Section 19.10.5.508 NMAC for applicable New Unit Portions
- New Mexico Water Quality Act
 - Title 20, Chapter 6, Part 7-Supplemental Permitting Requirements For Copper Mine Facilities – Copper Rule
- Clean Air Act



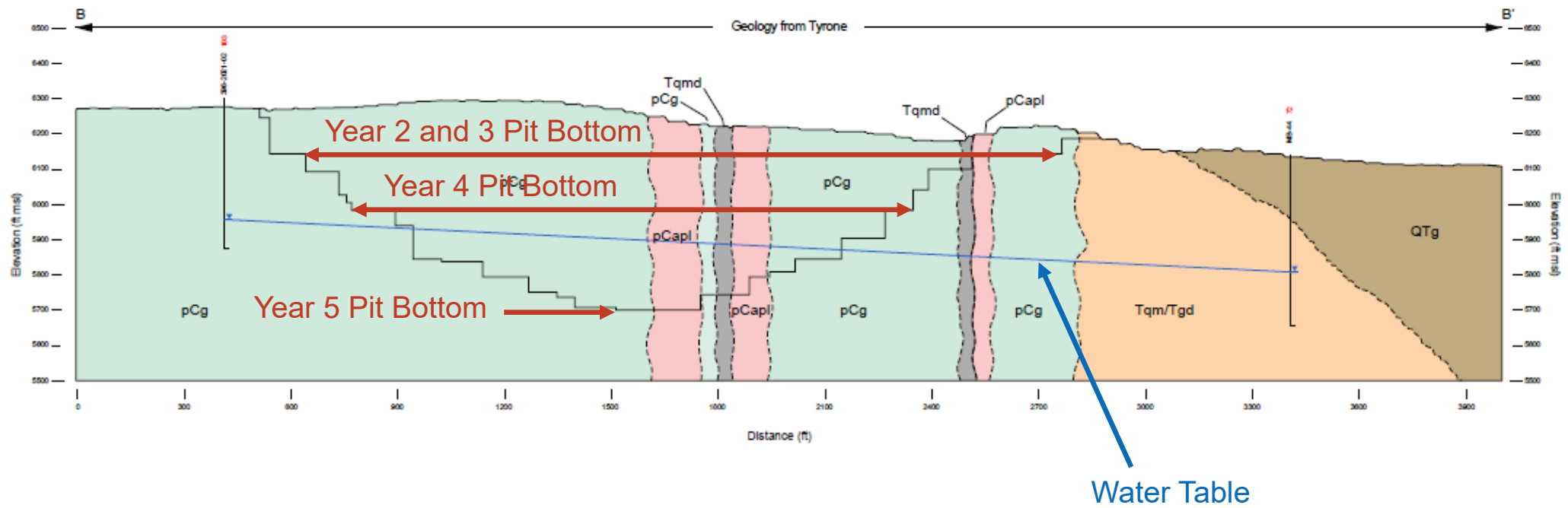
Project Overview



Operations Plan – Emma Project Overview



Current Mine Development Sequence



All Environmental Issues Addressed through Permits

Water Quality
DP 396

- Application submitted

Air Quality

- Permit issued

Water Right

- Application submitted
- Alternate point of diversion

Mine Permit and
Closeout Plan

- Application submitted
- Includes update to site assessment, blasting plan and other components

Emma Water Right Application to State Engineer

- Emma project – alternate point of diversion – not additional water
- New Mexico Water Law
 - Use of water requires permit from **State Engineer** who determines:
 - Availability of water
 - Impairment of existing rights
 - Application published in newspaper
- Studies indicate potential drawdown in closest neighboring wells – 2 to 7 feet

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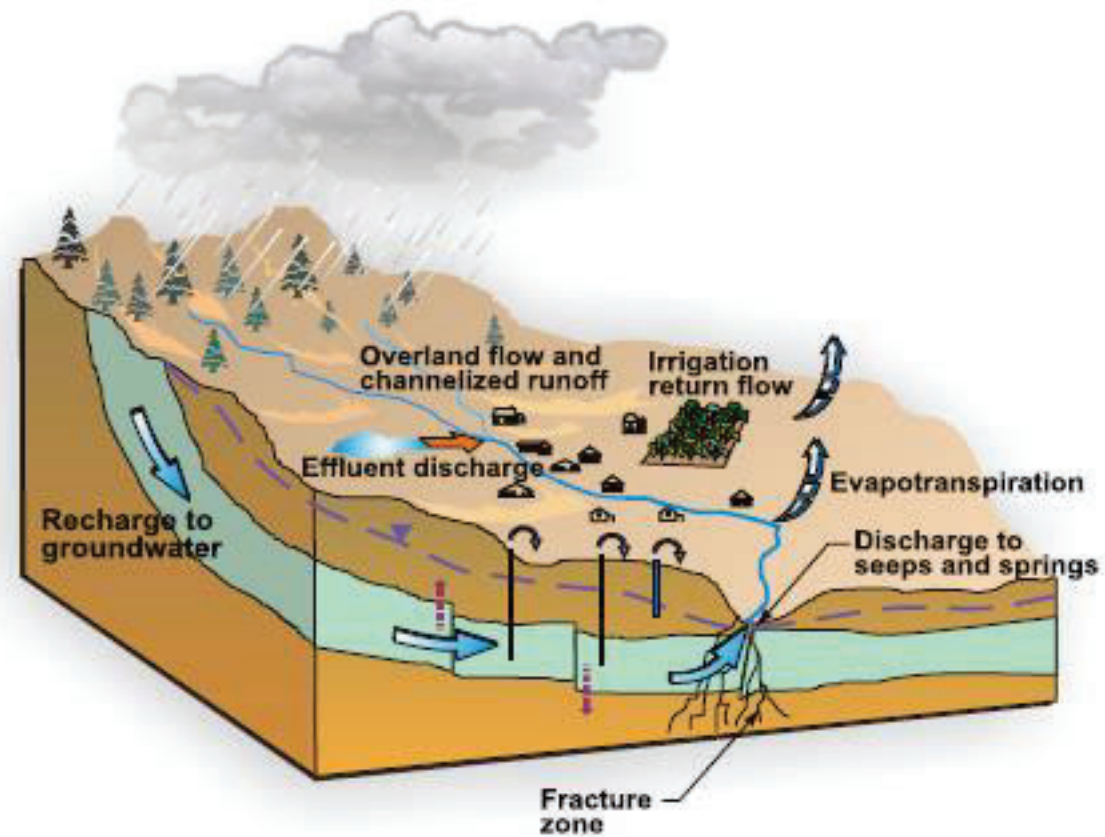
Groundwater Characterization

Lee Nix

John Ayarbe

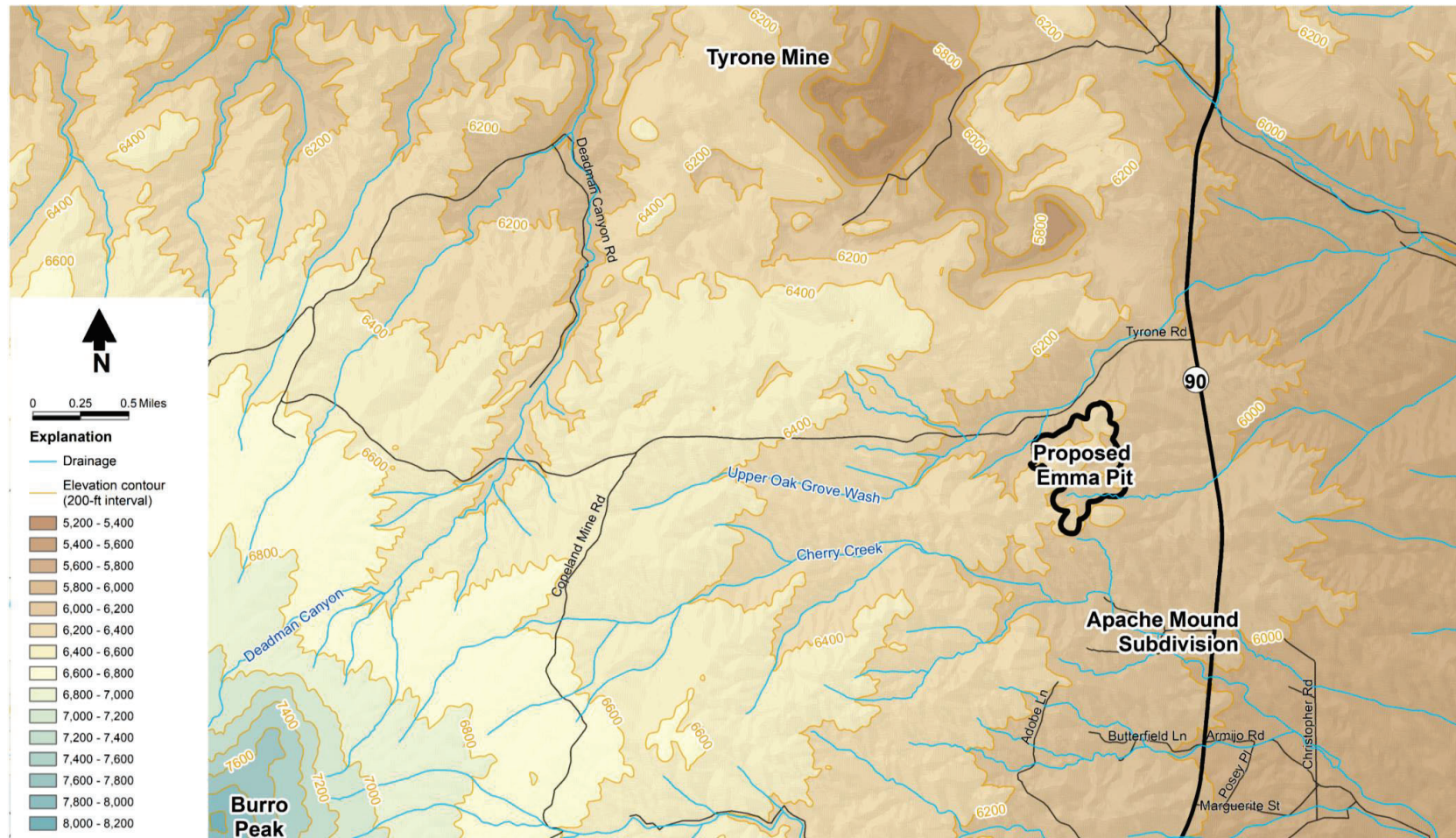
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Hydrologic Cycle

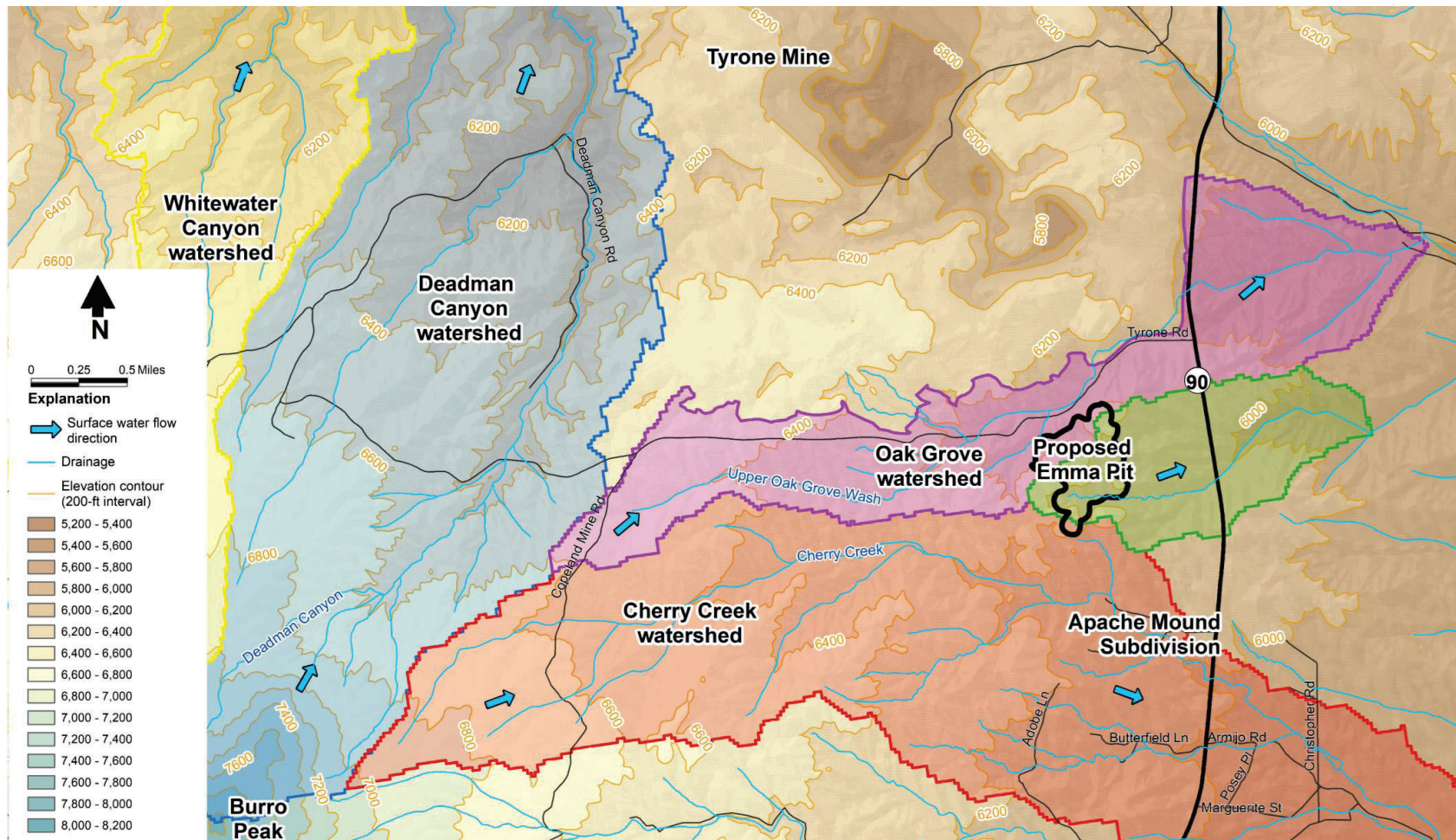


Regional Topography

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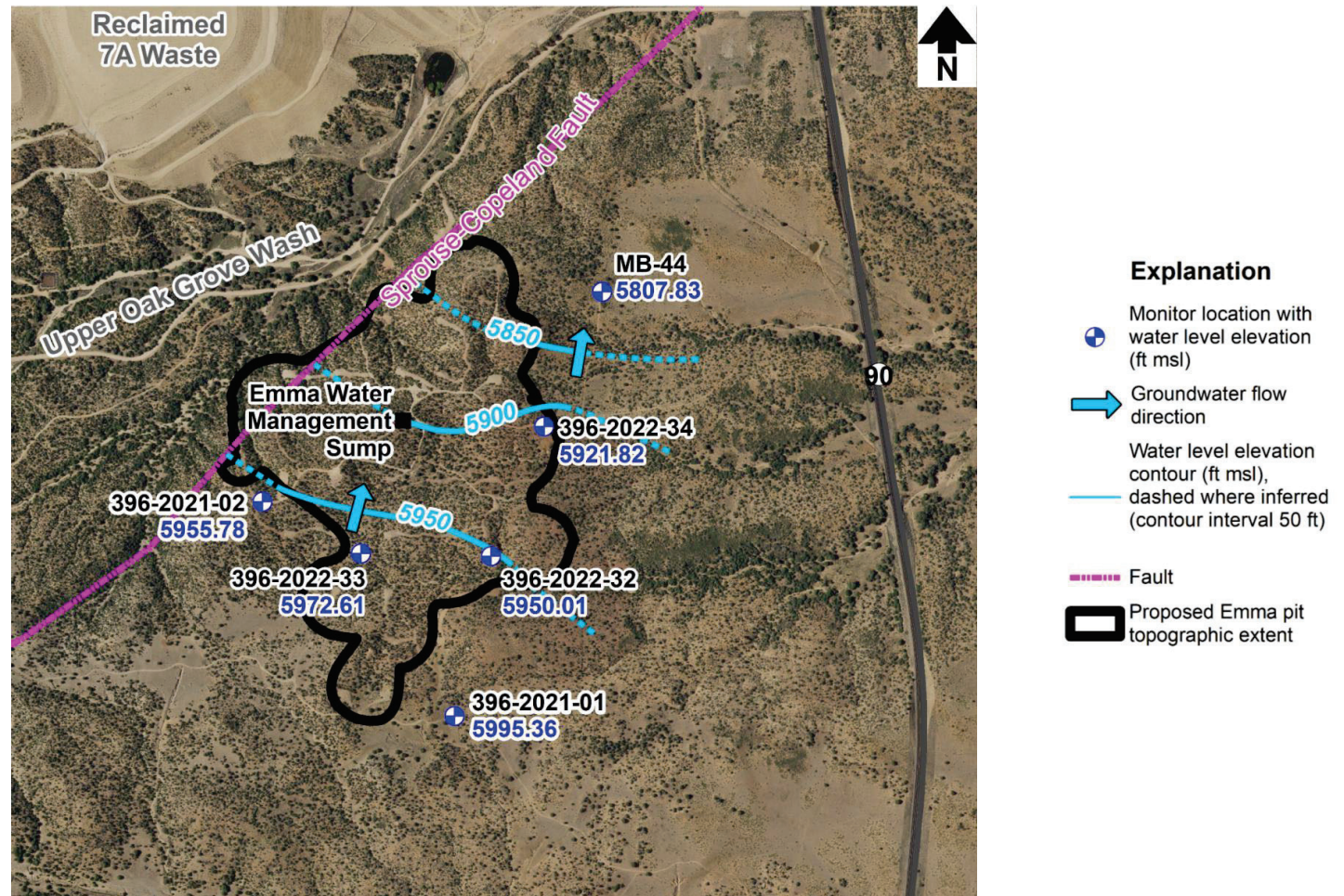


Regional Topography and Watersheds



Emma Area Groundwater Levels and Flow Direction

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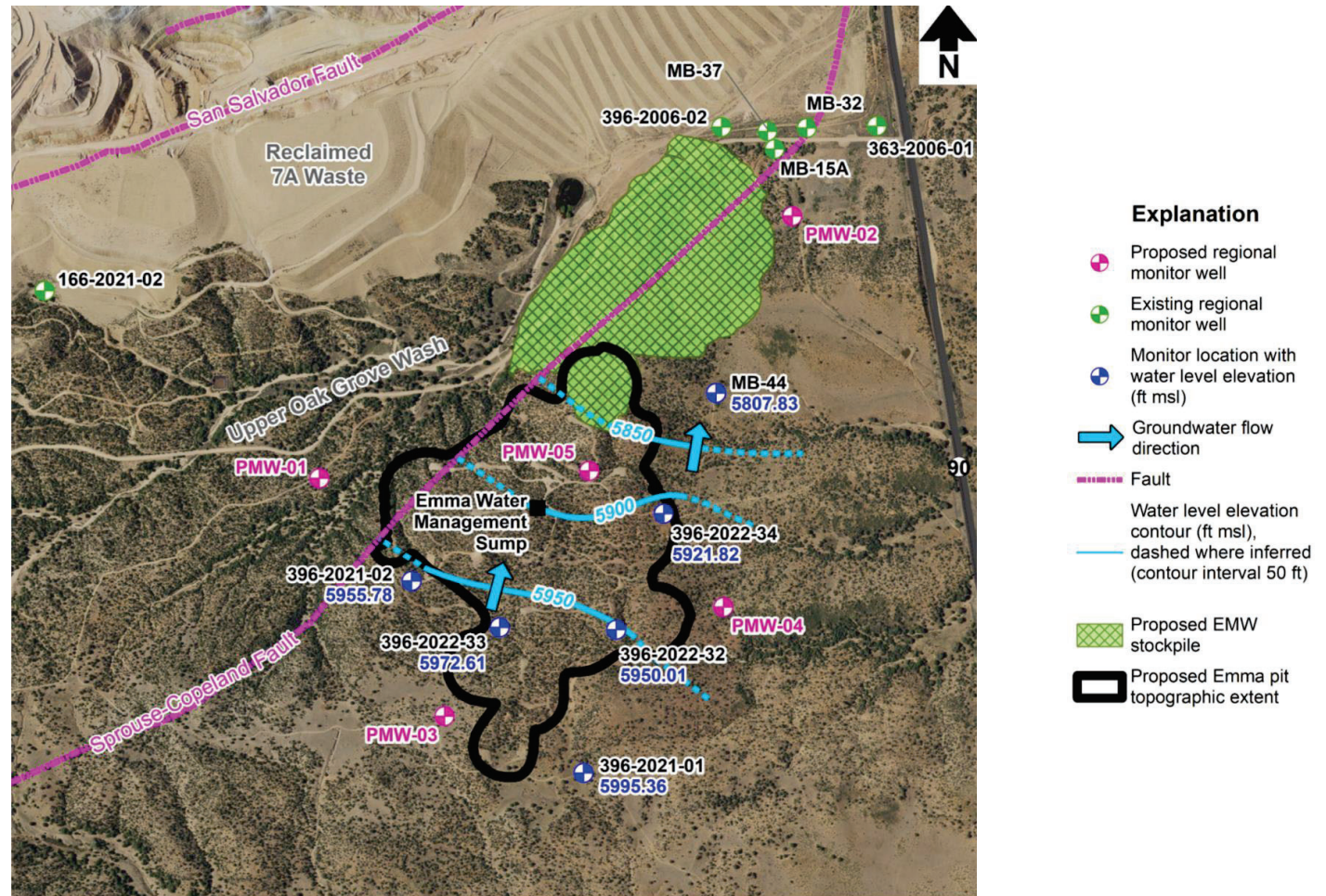
Emma Area Groundwater Quality



Explanation

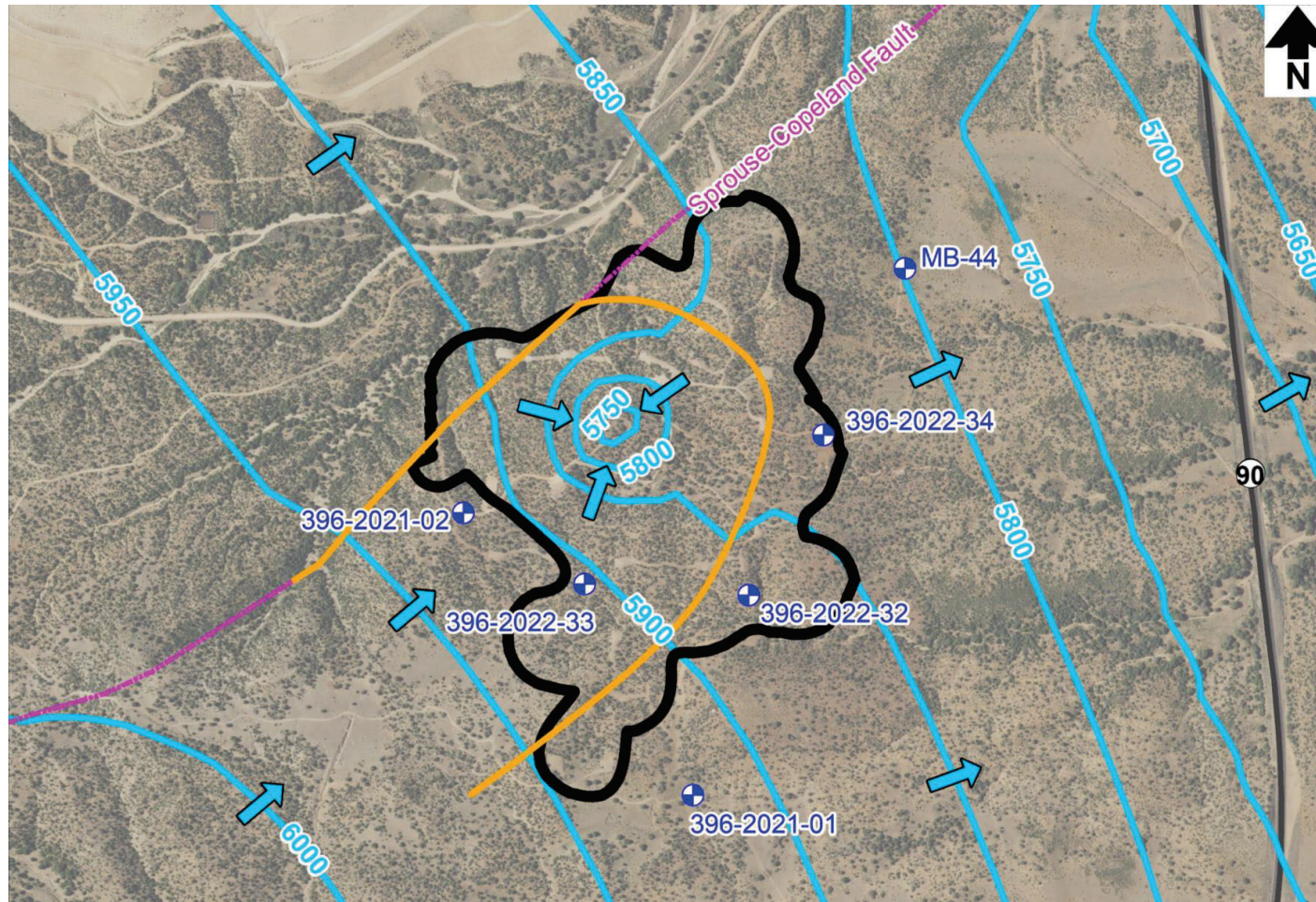
-  Exceeds water quality standards
-  Meets water quality standards
-  Fault
-  Proposed Emma pit topographic extent

Proposed New Well Locations



Simulated Groundwater Capture Zone

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- Explanation**
- Monitoring location
 - Groundwater flow direction
 - Fault
 - Simulated groundwater elevation contour (8 years of dewatering, 50-ft contour interval, ft msl)
 - Predicted groundwater capture zone (8 years of dewatering)
 - Proposed Emma pit topographic extent

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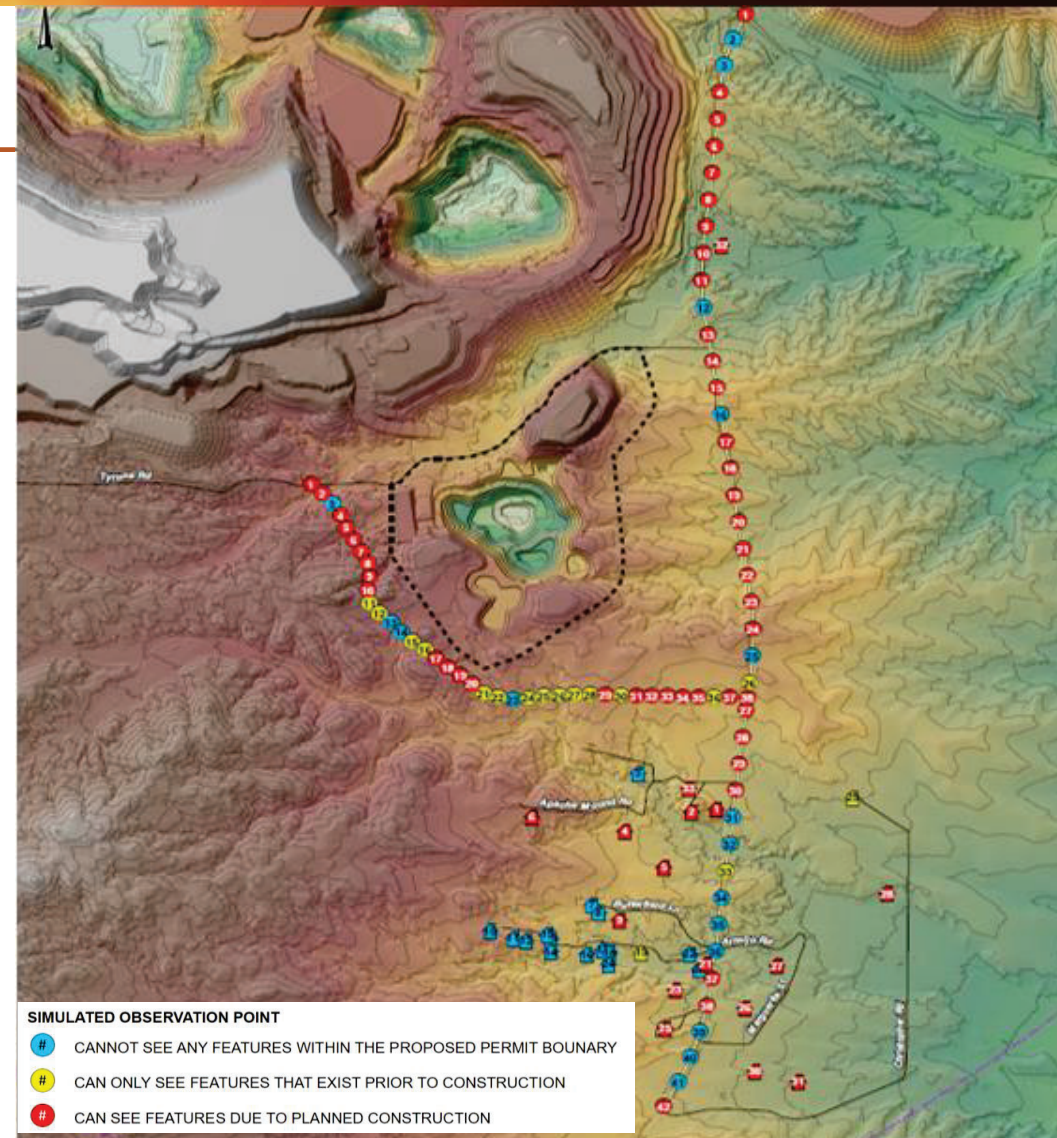
Other Community Concerns

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Other Studies / Actions

- Noise
- Lighting
- Viewshed
- Traffic

Impacts are within typically acceptable levels



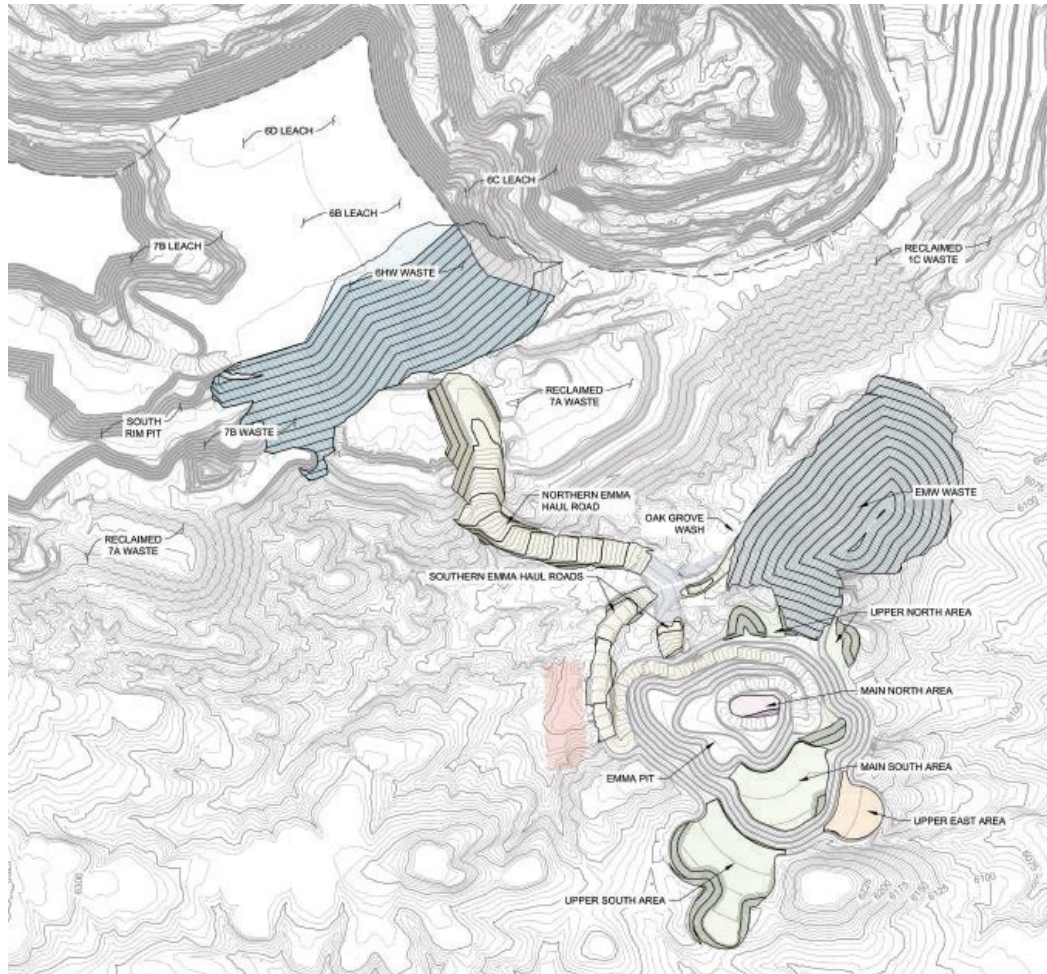
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Closure / Closeout Plan

(Reclamation Plan)

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Reclamation Overview



GENERAL LEGEND

	EXISTING GROUND CONTOUR
	DESIGN CONTOURS
	PIT WAIVER BOUNDARY
	AREA OF PIT TO BE BACKFILLED AND RECEIVE 1 FT OF SALVAGED SOIL DURING OPERATIONS
	AREA OF PIT TO BE BACKFILLED DURING OPERATIONS AND RECEIVE 1 FT OF SALVAGED SOIL DURING CLOSURE
	AREA OF PIT TO BE BACKFILLED DURING CLOSURE
	AREA OF STOCKPILES TO BE REGRADED AND RECEIVE 1 FT OF SALVAGED SOIL DURING CLOSURE
	AREA TO BE REVEGETATED
	AREA OF HAUL ROAD TO BE RIPPED AND REVEGETATED DURING CLOSURE
	AREA TO BE REVEGETATED DURING CLOSURE

Financial Assurance: \$12 MM

Wildlife Habitat and Water Management

Salvaged
topsoil /
topdressing

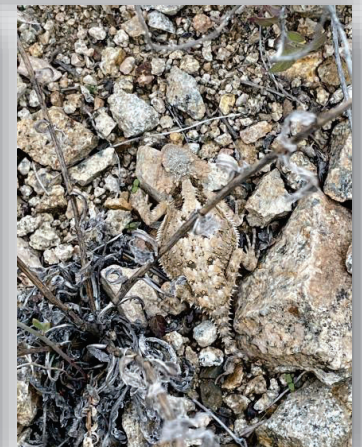
Weathered
granite
(bedrock)



Award Winning Reclamation

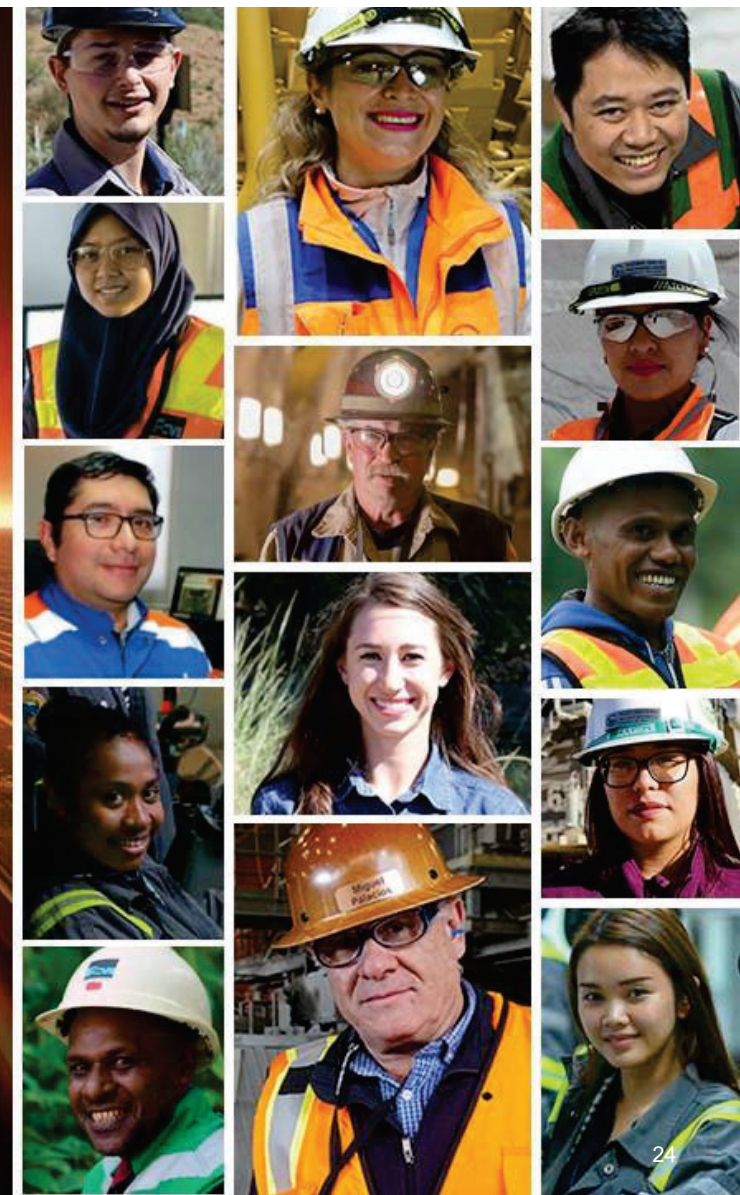
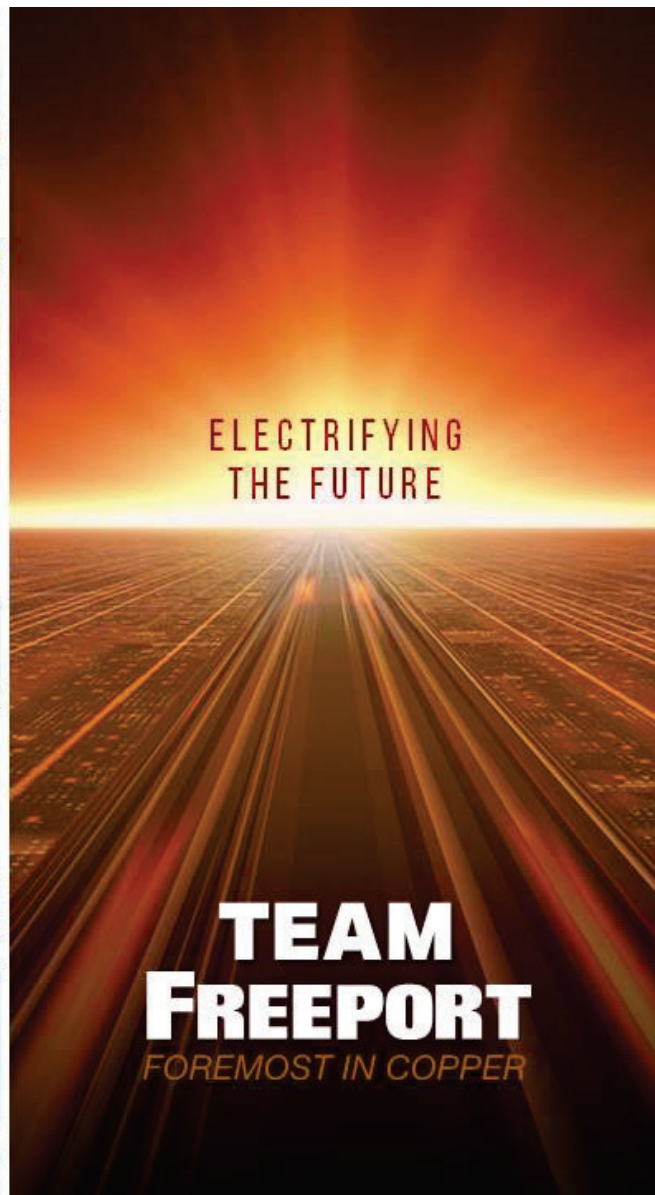
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- Third party evaluation – Wildlife Habitat Council (WHC)
- Tyrone: 2016 and 2019 Gold Certified
- Recognizes meaningful wildlife habitat management



Grievance Management

Talk	Contact your local Freeport-McMoRan or Community Development representative (lphelps@fmi.com)
Call	Community Information and Grievance Line at 877-629-2609 , 24 hours a day, seven days a week (in English or Spanish)
Email	communitydevelopment@fmi.com or via FreeportInMyCommunity.com/contact
Mail	Freeport-McMoRan Community Development 333 N. Central Ave. Phoenix, AZ 85004



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Reference Slides

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Viewshed

Voluntary Study

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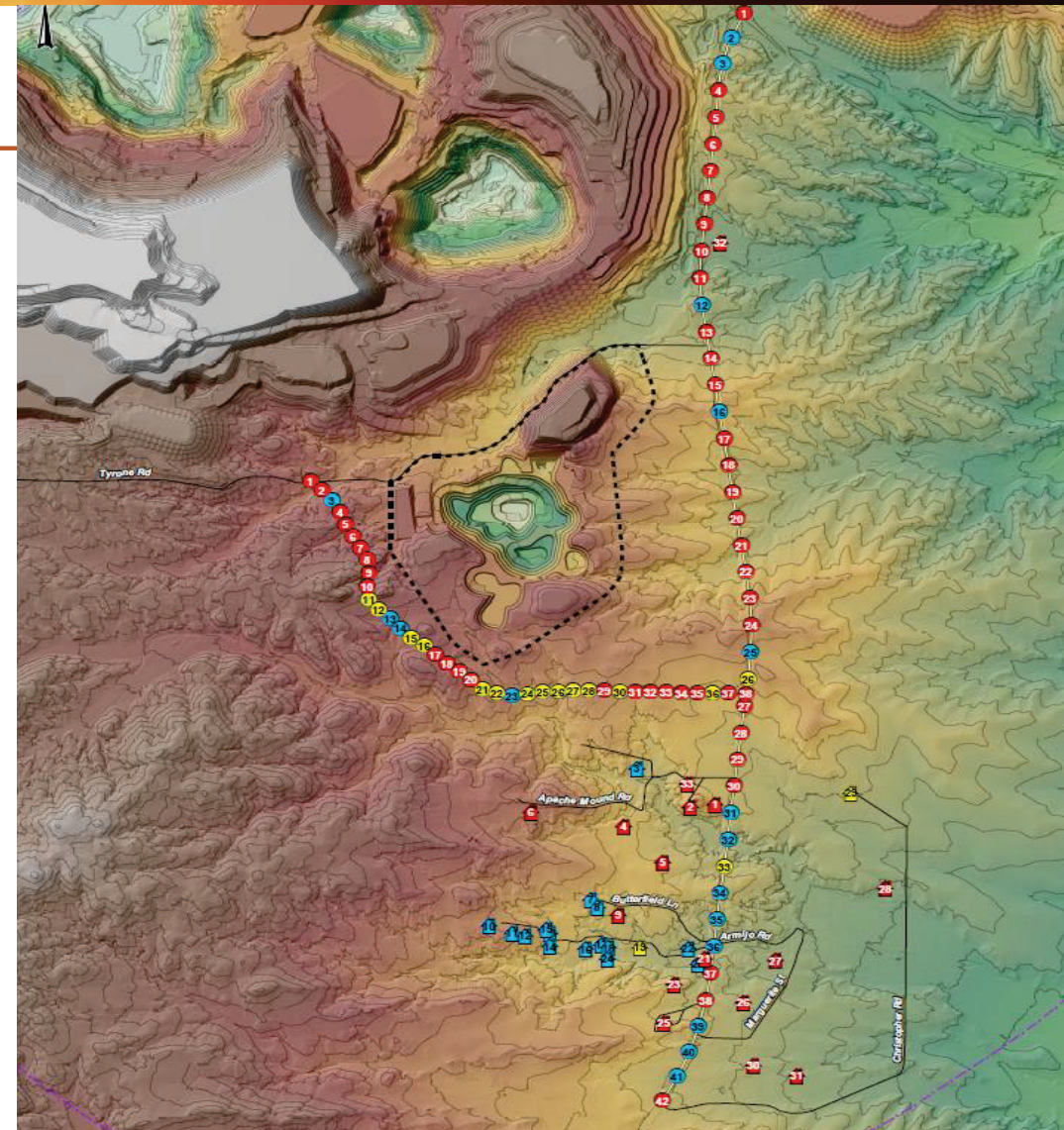
Viewshed Overview

LEGEND

- EMMA PROPOSED PERMIT BOUNDARY
- 2-MILE PERMIT BOUNDARY BUFFER

SIMULATED OBSERVATION POINT

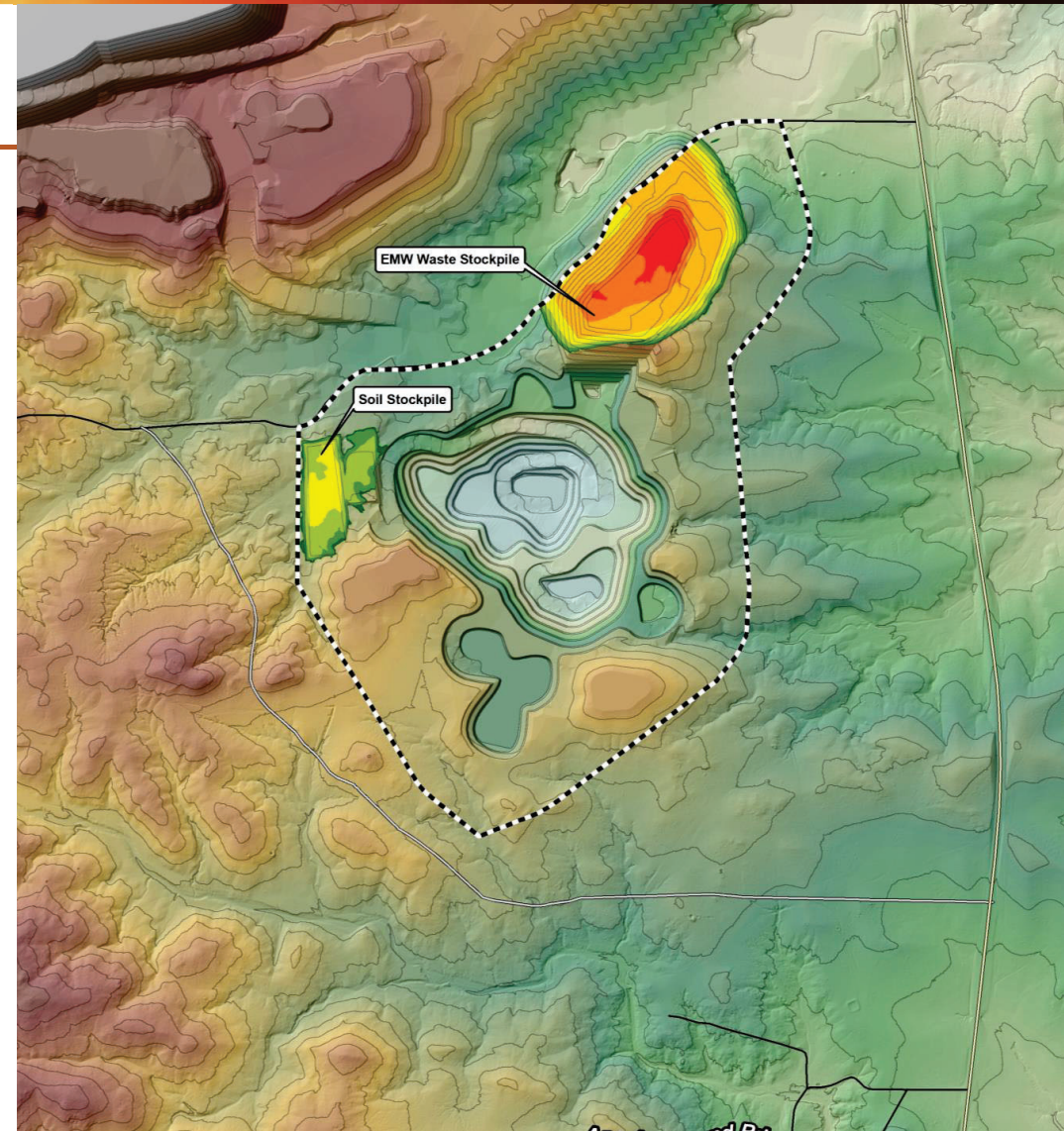
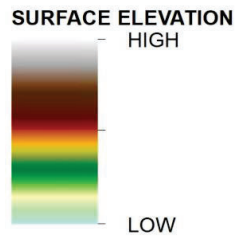
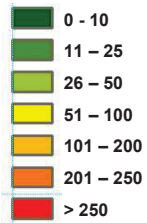
- CANNOT SEE ANY FEATURES WITHIN THE PROPOSED PERMIT BOUNDARY
- CAN ONLY SEE FEATURES THAT EXIST PRIOR TO CONSTRUCTION
- CAN SEE FEATURES DUE TO PLANNED CONSTRUCTION



Elevation Increases

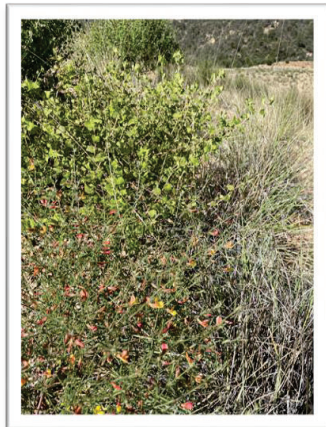
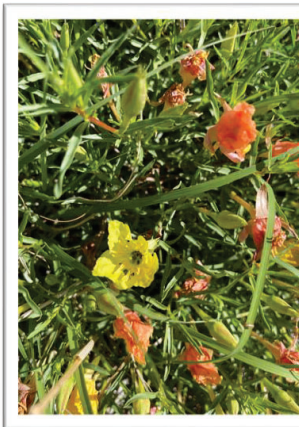
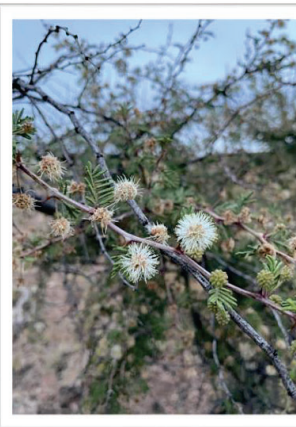
- EMMA PROPOSED PERMIT BOUNDARY
- EXISTING ROAD
- PROPOSED ROAD
- SURFACE ELEVATION CONTOURS (100 FOOT INTERVAL)
- SURFACE ELEVATION CONTOURS (25 FOOT INTERVAL)

AREAS PROJECTED TO SEE SIGNIFICANT ELEVATION GAINS IN FINAL DESIGN
FEET ABOVE EXISTING GRADE



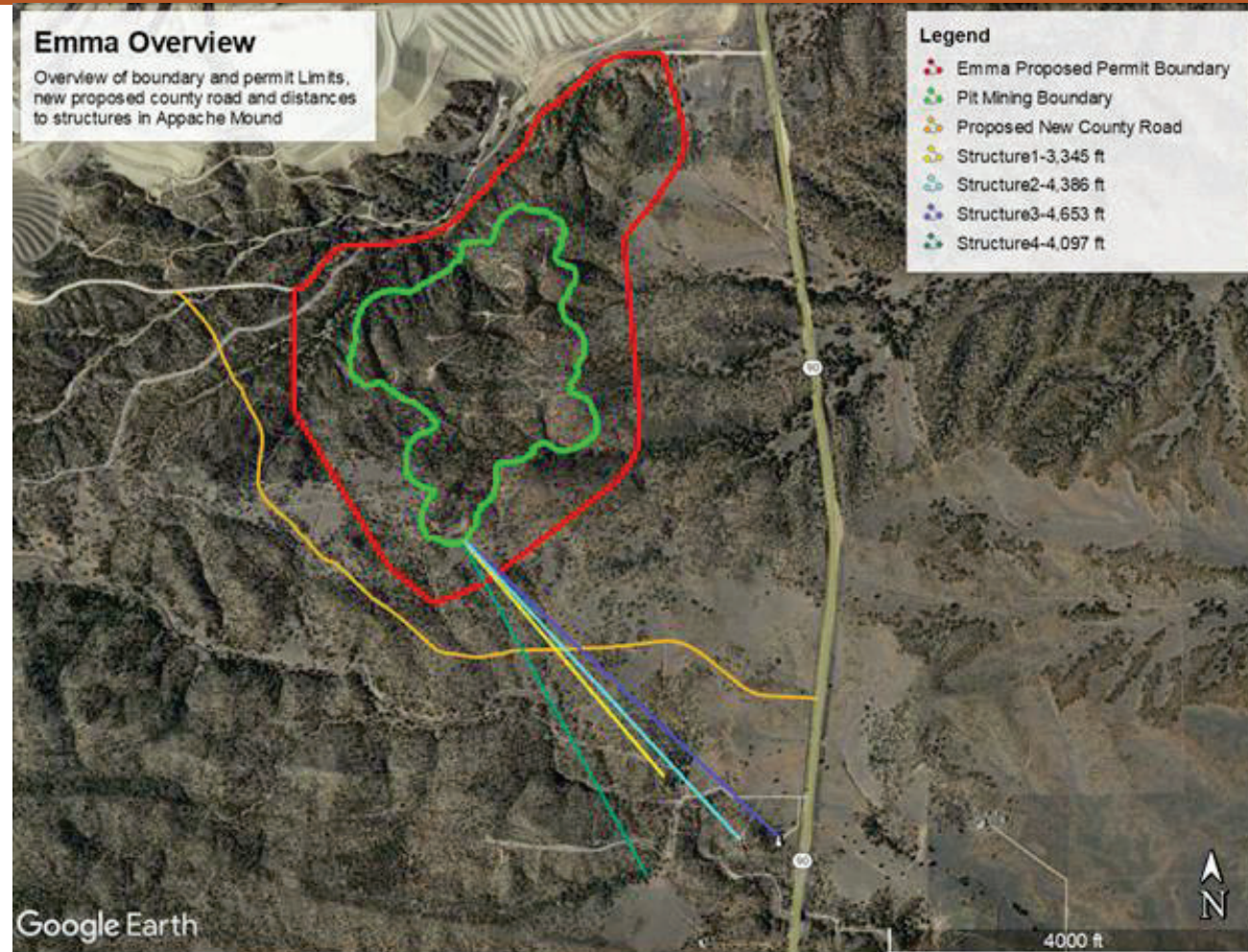
Tyrone Reclamation Seed Mix

- Living document
- Species selection
- Agency approved
- Community input



Blasting Plan

- Closest residential structure is over 3,000 ft. away – no public or private facilities within zone of concern
- Vibrations monitored
- Blasts only occur during daylight hours
- Typical blast schedule is once per day Mon-Fri.
- Pre-blast surveys will be available for Apache Mound residents
- Plan reviewed and certified by 3rd Party Distinguished blasting consultant



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Noise

Voluntary Study

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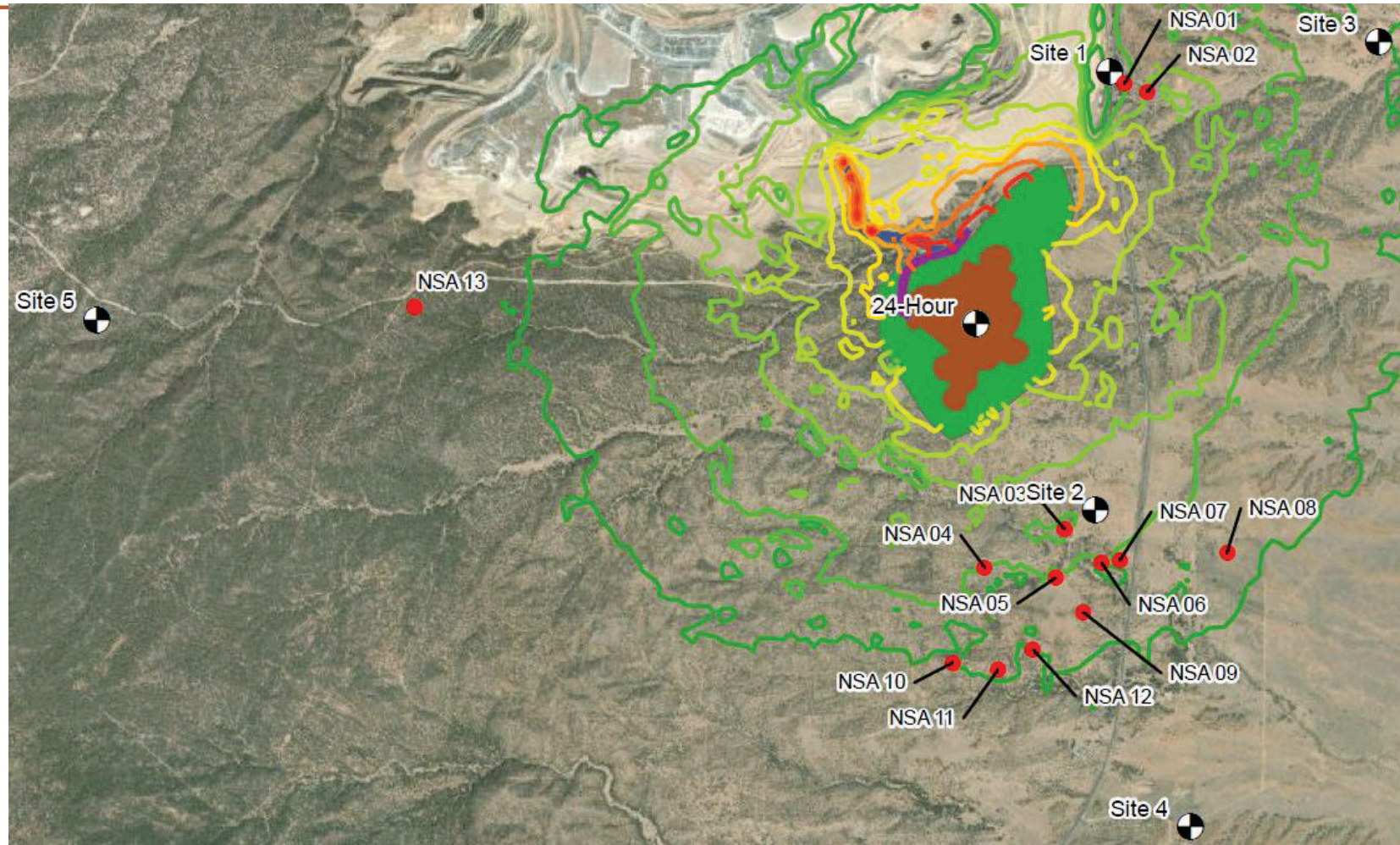
Noise Modeling Results

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- Noise Sensitive Area
- ⊗ Noise Monitoring Locations

Noise Contours

- 30 dBA
- 35 dBA
- 40 dBA
- 45 dBA
- 50 dBA
- 55 dBA
- 60 dBA
- 65 dBA
- 70 dBA
- 75 dBA
- EMMA Expansion Area
- EMMA Pit Area Yr 4
- Haul Road Area 1 Final
- Haul Road Area 2 Final



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Light

Voluntary Study

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Light Modeling Results

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