

**ABANDONED MINE CLOSURE PROGRAM  
BROWN AND VICTOR MINES  
MIDLAND, CALIFORNIA  
SPRING 2004**

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# Midland, CA – Boardplant and Town Site



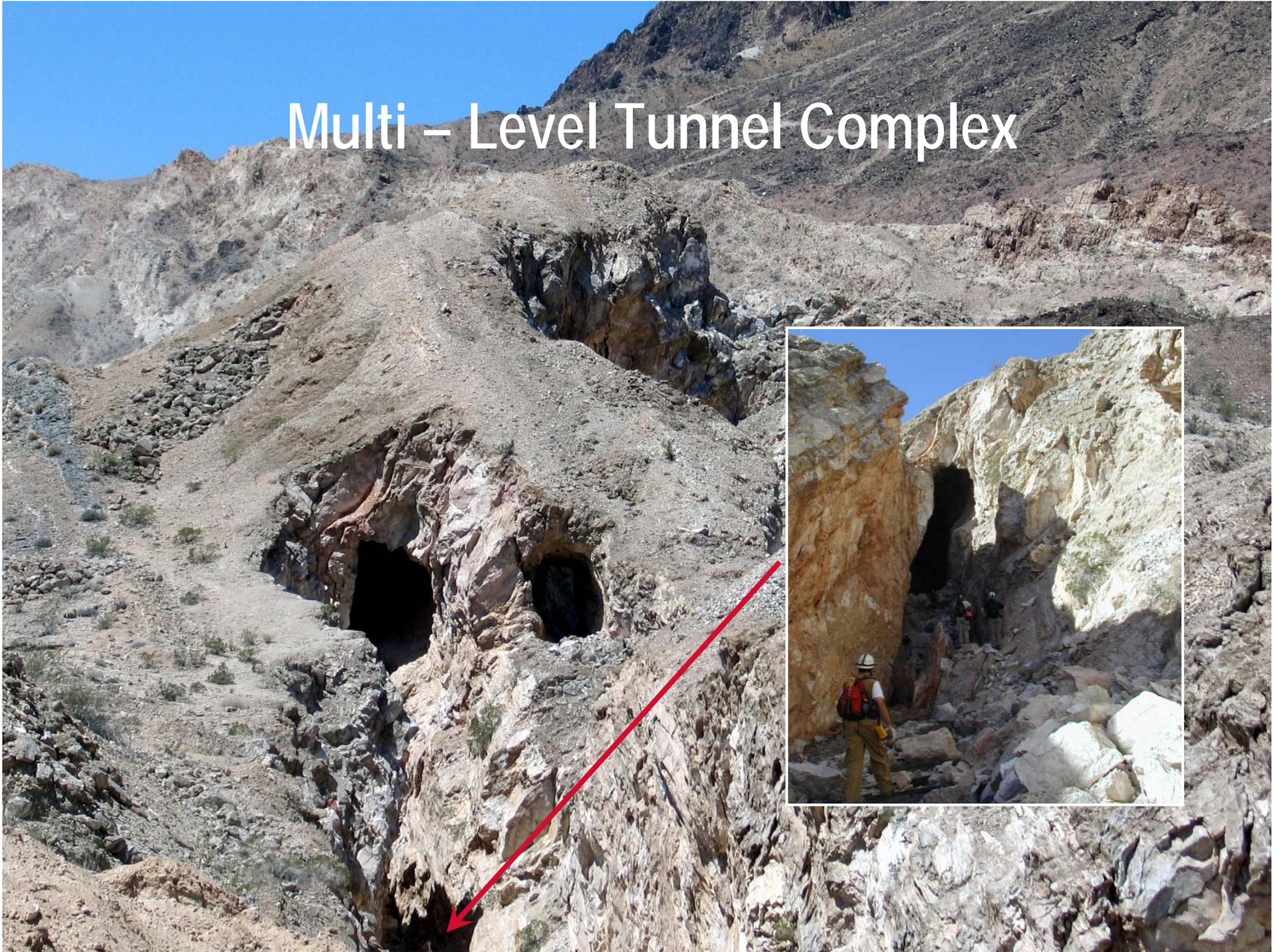
# Mine History

- ◆ Quarrying began in the 1920s and continued until 1966.
- ◆ Underground mining began about 1930 and continued until 1948.
- ◆ Manufactured Pyrobar gypsum blocks, plaster and wallboard.
- ◆ Plant was closed in 1966 when Santa Fe Springs Plant was started.
- ◆ Victor Mine was used as a Civil Defense shelter during the 1960s.

# Small and Obscure Ventilation Raises



# Multi – Level Tunnel Complex



# Many Openings and Ribs Have Been Exposed to the Elements Since 1946



# Multiple Openings and Pillars

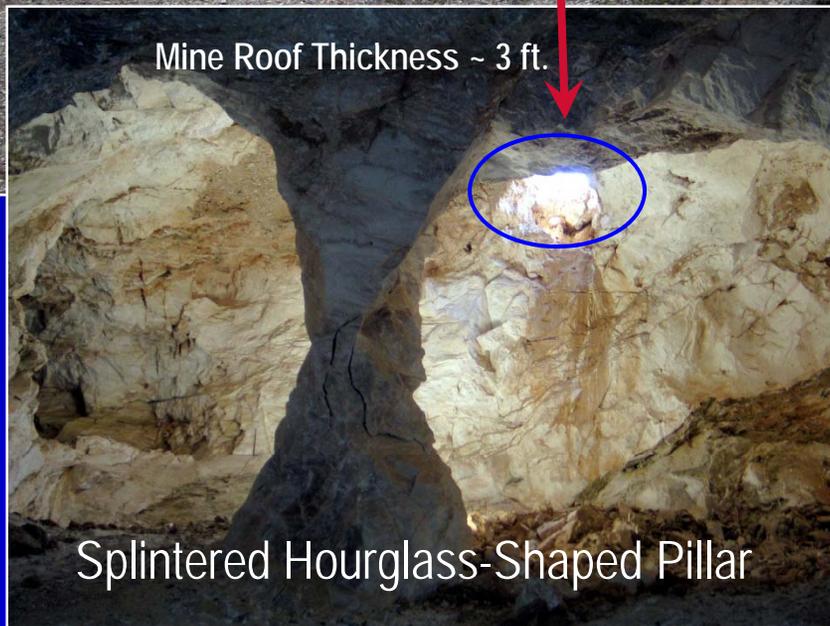
**Note Pickup  
Truck For Scale**



# Brown Mine – Near Surface Stope

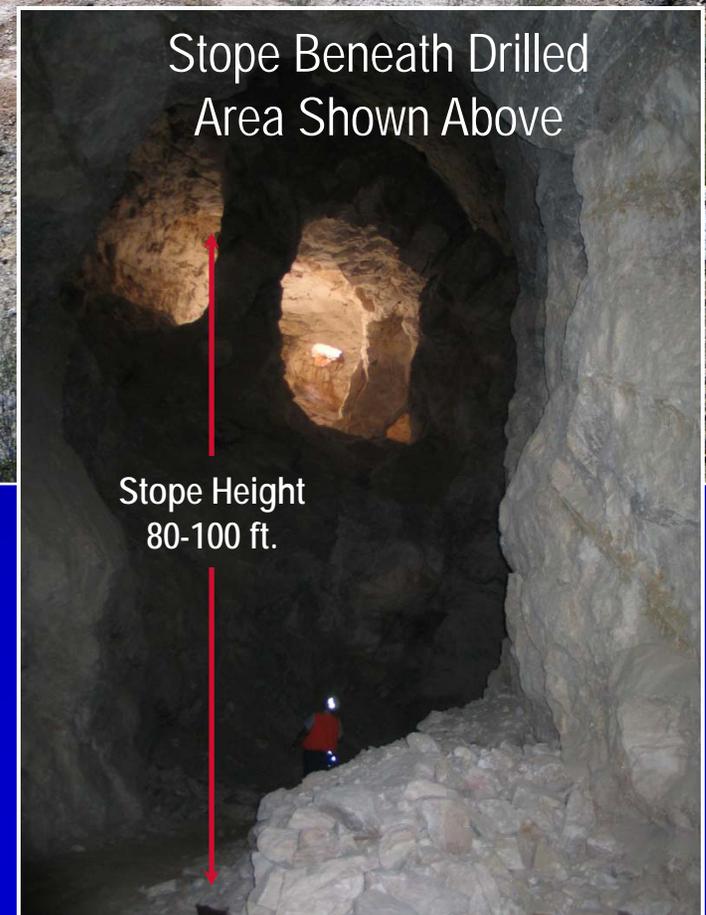


Mine Roof Thickness ~ 3 ft.



Splintered Hourglass-Shaped Pillar

Stope Beneath Drilled Area Shown Above



Stope Height  
80-100 ft.



**Narrow Drifts With  
With Unstable Rib and Roof**



**Narrow Quarry Cuts  
With Unstable Highwalls**

# Reasons why USG Spend \$1.25 Million Dollars

- ◆ Legal liabilities.
- ◆ Noted as recreation destination on the Internet ([www.soucalfunplaces.com](http://www.soucalfunplaces.com)).
- Desert Dogs
- California Association of Mine and Cave Explorers
- Off-road vehicle enthusiasts

# Information Discovered on the Internet

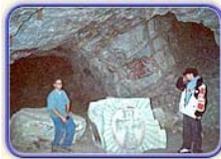
## "www.SouCalFunPlaces.com"

"The Underground City" - Victor Mine, Midland, CA

The Victor Mine in Midland definitely has been one of the most unbelievable experiences I've ever had while exploring underground places. This place is just huge. So huge in fact that the United States Government (Department of Defense) used the place as a Civil Defense Facility during the 1960's, turning it into a massive stockpile of drums of water & tins of biscuit mix to be used in case the pinkos nuked us! I don't think the Cuban Missile Crisis helped the situation out much either! All of the supplies were marked as being stocked in 1962....intriguingly close to that period of US history. Midland is the town that sprang up next to the canyon where the mine is and that is where all the miners lived & all the offices that belonged to the mine were there. There is also a runway with the foundations of a control tower next to this ghost town. It was once a very large operation; mining Gypsum by the way. Nowadays, Midland is nothing more than a bunch of concrete slabs where the houses & offices & control towers used to be. In the winter months it gets "inhabited" by hordes of retirees sporting massive RV's & taking advantage of the beautiful scenery & mild winter climates. Some of them you can tell set up camp there for months. To get to the actual site of the Victor Mine though, you pass through Midland & make your way back into the canyon behind the town site. Here you will find good camping with zero souls in site.



This is actually the insanely treacherous entrance to the tunnels. To gain access to the mine, one must scramble down a massive incline shaft that was sunk at about 45+ degrees into the mountain. You could fit a family home inside the opening & the entire complex of tunnels pretty much keeps this scale.



A resting point in the maze of tunnels. They go up & over & down & out all over the place. There are 2 options in this photo alone! I'm sitting on the rock wearing a collared button-down dress shirt & under T-shirt with jeans on! What the hell was I thinking?! It's like I was going to a job interview down there or something! There was quite



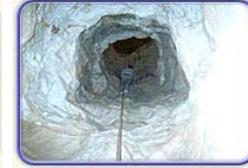
You can't really tell but at this point in the mine, we were climbing up a raise that was built at about a 30 degree angle. From where the picture was taken, the raise goes down about 600 feet to a lower tunnel. About 8 times along this shaft there were side-shutes which all had wooden over-hoppers built into them. The rails in the pic carried a large machine, which is still halfway down the shaft, which moved up



All along this tunnel there lay a large train track. The tunnel was large enough for a locomotive to roll through. All along the tracks there were incline shafts that sunk to the lower tunnels. If you feel as adventurous as we did that night, you'll scamper down these shafts & explore for hours & hours more.



Here is a great shot! This part of the mine had hundreds of yards of tunnels that were filled with 2 items of survival....tons of barrels of water & tons of tin boxes of "Survival Biscuit Mix". All the barrels of water were empty & rusted but there are still boxes upon boxes filled with biscuit mix tins. The string in the foreground is a power line which used to run the entire length of the mine. I don't condone taking anything



Now right about here, a buddy of mine decided he needed to climb up a rusted piece of 50 year old metal pipe leading up a shute. The dark spot you see beyond is the night sky outside. There are countless places along the way in these tunnels where you come across a shaft which leads straight up & out into the open. This is very comforting news for anybody who is worried about poisonous gasses getting

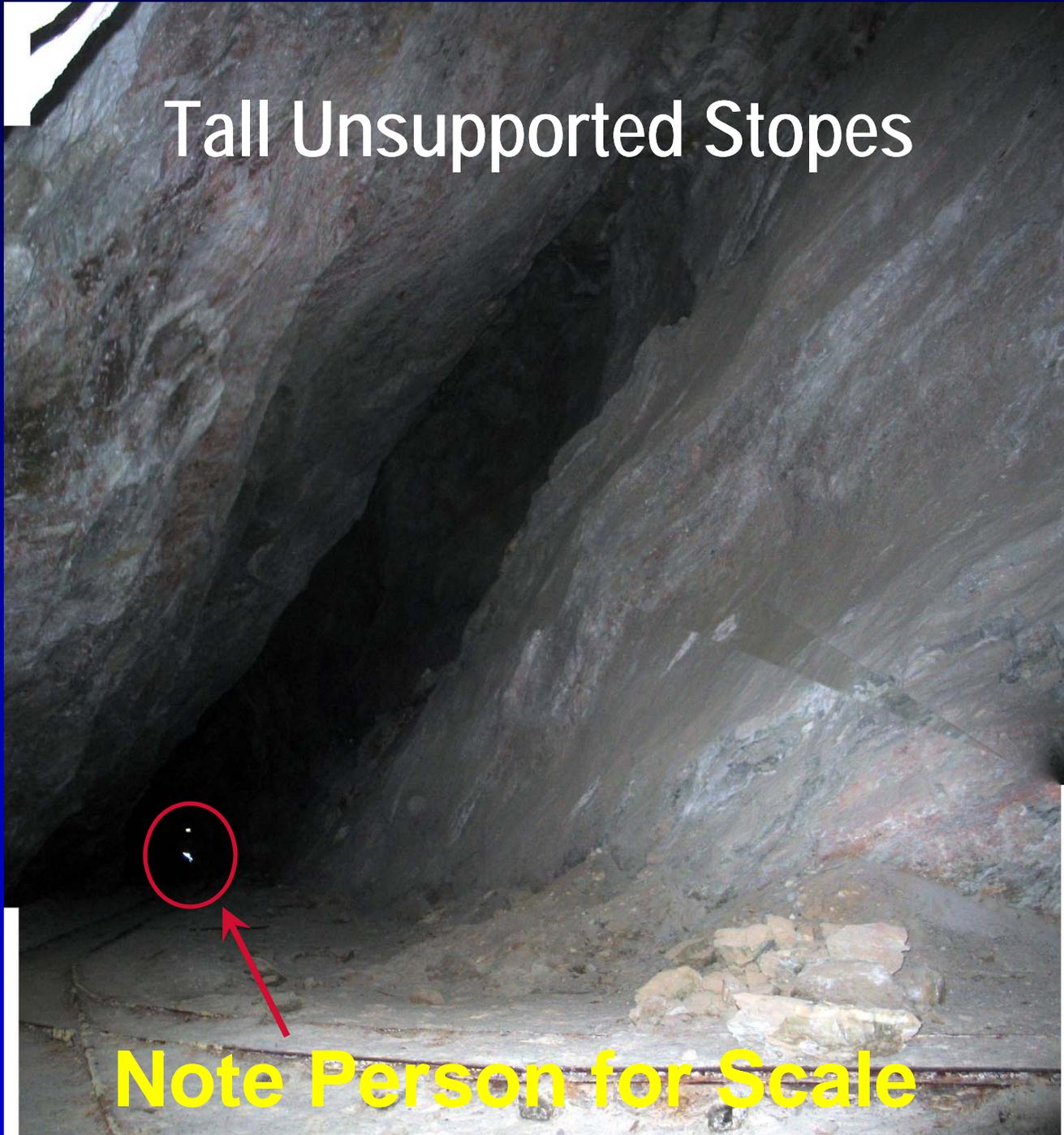
"a buddy of mine decided he needed to climb up a rusted piece of 50 year old pipe leading up a shute"



This ore chute went up in where the winch was held.

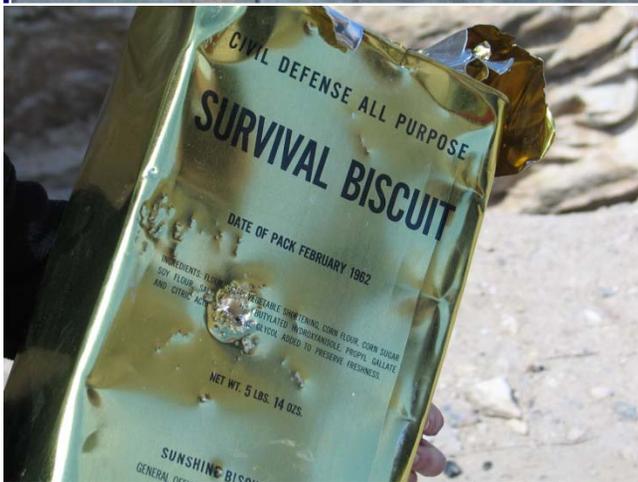
"This is actually the insanely treacherous entrance to the tunnels."

# Tall Unsupported Stopes



**Note Person for Scale**

# Cold War Civil Defense Supply Cache For Town of Blythe, CA



# Who Was Venturing Underground!!





# A Candidate for the Darwin Awards?



# Closure Participants

- ◆ USG – Geological Services, Legal, Regulatory/Environmental Affairs
- ◆ Camp Dresser & McKee – Helena, MT
  - Lilburn Corporation – environmental permitting
  - California Drilling and Blasting – blasting
  - Dan Adams – polyurethane foam filling
  - Steve Gardner – California desert tortoise training
- ◆ Riverside County Planning Department
- ◆ Bureau of Land Management

# Pre-closure Evaluation of Mine Openings

- ◆ About 80 openings and mine hazard areas were identified.
  - ◆ Inspection of each opening to determine the potential hazards.
    - Type of opening
    - Size
    - Attitude
  - ◆ Proposed method of closure.\*
  - ◆ Photographic record of pre- and post- closure conditions.
- \*Methods were field – modified to effectively seal the openings.

# Closure Methods

- ◆ Posting Signs
- ◆ Backfilling with existing waste rock.
- ◆ Drilling and blasting and contouring.
- ◆ Filling with polyurethane foam (PUF).
- ◆ Installation of bat gates.
- ◆ Trenching, building berms, ripping roads

# Signs Posted in English and Spanish

## WARNING! NO TRESPASSING

ENTRY INTO THIS AREA IS DANGEROUS AND MAY RESULT IN SERIOUS INJURY OR DEATH. THE AREA BEYOND THIS SIGN CONTAINS INACTIVE SURFACE AND UNDERGROUND MINE WORKINGS, INCLUDING OPEN SHAFTS TUNNELS AND QUARRIES.

FALLING INTO MINE SHAFTS IS THE NUMBER ONE CAUSE OF DEATH IN INACTIVE MINES. MINE SHAFTS MORE THAN 100 FEET DEEP ARE CONCEALED BY DEBRIS OR LOOSE ROCK.

LOOSE ROCK IN TUNNELS WILL FALL WITH THE SLIGHTEST VIBRATION CAUSED BY VOICES OR FOOTSTEPS. CAVING TUNNELS CAN TRAP YOU WITHOUT LIGHT, WATER OR MEANS OF ESCAPE. RATTLESNAKES, SCORPIONS AND OTHER WILDLIFE INHABIT THE TUNNELS.

MINE WORKINGS ARE POORLY VENTILATED AND MAY CONTAIN POISONOUS GASES OR LITTLE TO NO OXYGEN.

QUARRY HIGHWALLS HAVE STEEP UNSTABLE SLOPES OF LOOSE ROCK. WALKING ON THESE SLOPES CAN CAUSE A LANDSLIDE OR RESULT IN A FALL.

FRACTURED ROCK ON QUARRY BENCHES CAN COLLAPSE UNDER A PERSON'S WEIGHT. LOOSE ROCK ON HIGHWALLS CAN FALL ONTO BENCHES DUE TO VIBRATION, WIND OR RAIN.

## PLEASE STAY OUT!

## AVISO NO TRANSPASAR

LA ENTRADA A ESTA AREA ES MUY PELIGROSA Y PUEDE RESULTAR EN LESIONES GRAVES O MUERTE. EL AREA ATRAS DE ESTE PUNTO CONTIENE SUPERFICIES INACTIVAS Y TRABAJOS BAJO TIERRA, INCLUYENDO POSOS ABIERTOS, TUNELES Y PIEDRERAS

EL PELIGRO DE CAER EN POZOS NO MARCADOS O PARCIALMENTE HONDOS SON EL RIESGO PRINCIPAL DE MUERTE EN MINAS ABANDONADAS. POZOS DE MAS DE 100 PIES DE PROFUNDIDAD SON OCULTADOS POR ESCOMBROS O PIEDRAS SUELTAS

PIEDRA SUELTA EN TUNELES PUEDEN DERRUMBARSE POR SOLO LA VIBRACION DEL SONIDO DE VOCES O PISADAS. HONDIMIENTOS DE TUNELES PUEDEN TRAPAR A UNA PERSONA SIN LUZ, AGUA Y SIN TENER FORMA DE ESCAPE. SERPIENTES, ESCORPIONES O OTROS ANIMALES VENENOSOS PUEDEN SER ENFRENTADOS.

TRABAJOS EN MINAS SON MAL VENTILADOS Y PUEDEN CONTENER GASES VENENOSOS O POCO OXYGENO.

PIEZAS DE MUROS ALTOS TIENEN UNA INCLINACIONES NO ESTABLES DE PIEDRAS SUELTAS, CAMINAR EN LAS RAMPAS INCLINADAS PUEDEN RESULTAR EN UNA CAIDA.

PIEDRAS SUELTAS PUEDEN CAER SOBR UNA PERSONA. PIEDRAS SUELTAS EN LOS MUROS DE UNA PLATAFORMA PUEDEN CAER POR CAUSA DE VIBRACION, VIENTO O LLUVIA.

## FAVOR DE NO ENTRAR!

3/7/2000

# Stopes Backfilled



# Opening Preparation



# Installation of Culver Into Specific Vertical Raises to Maintain Air Flow and Habitat



# Culvert and Foam Installation



**Backfilled around culvert to protect foam  
from elements, prevent erosion, and to  
provide camouflage**



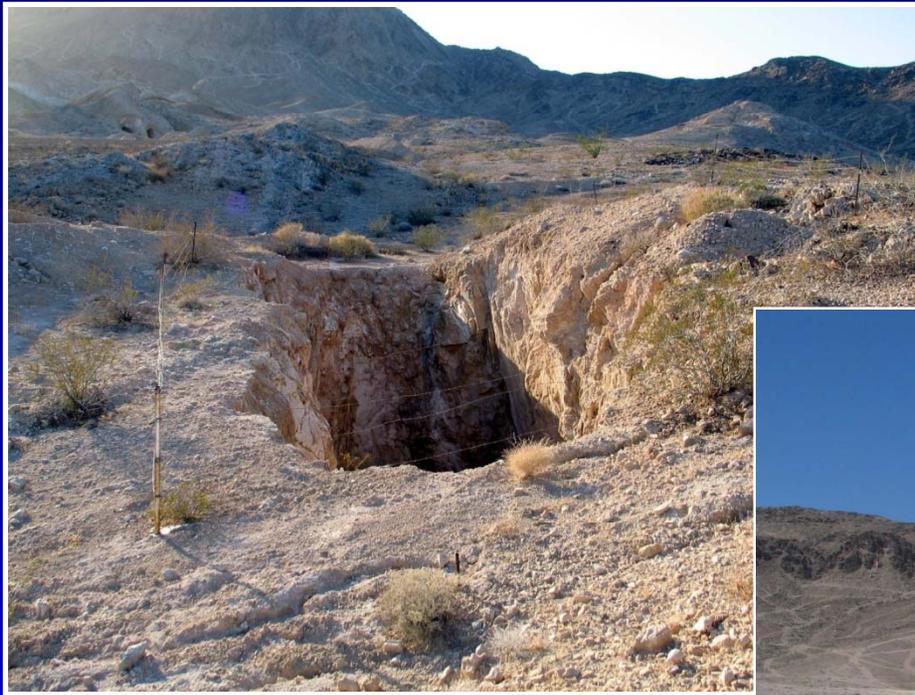
# Brown Mine – No. 61 Complex before and after



# Brown Mine – No. 62 Complex



# Brown Mine – No. 51 Open Cut (30 ft. deep)



# Victor Mine - Open Vertical Shaft



before

after

Polyurethane Foam Fill  
and Backfilled With  
Natural Material





# Multiple Room and Pillar Openings before and after



# Brown Mine – Cast Blasting to Fill Adit



# Brown Mine – No. 62 After Blasting



# Condition After Blasting and Grading



# Trenches and Berms Built to Prevent Trespass

