

# Mariscal Mine

The Mariscal Mine was the center of the Big Bend mercury mining economy. Operating from 1900-1943, Mariscal Mine produced over 1,400 seven-pound flasks of mercury (commonly known as quicksilver) and was responsible for  $\frac{1}{4}$  of the total mercury produced in the United States. The deserted remains of the mine still stand today. It is a great reminder of man's impact on the land and environment as well as nature's ability to reclaim the land as its own.



Source: Library of Congress Prints and Photographs On-Line Catalogue <http://www.loc.gov/pictures/>

The mine is located on the northern end of Mariscal Mountain deep in the interior of Big Bend National Park, 5 miles west of the Rio Grande Village. Below is a timeline of some of the events in the mine's history that students may come across in their research.

### **Timeline of Events at Mariscal Mine:**

#### **1900 Mine Discovered**

Farmer Martin Solis discovered the bright red mercury-bearing ore near his farm in 1900 by Mariscal Mountain.

- This bright red mercury bearing ore is called cinnabar.



Source: [http://www.dartmouth.edu/~rpsmith/Heavy\\_Metals.html](http://www.dartmouth.edu/~rpsmith/Heavy_Metals.html)

#### **1900-1905 Lindsay Mine**

#### **1905-1909 Sanger's Texas Almaden Mining Company**

## **1917 Ellis Mine**

- W.K. Ellis purchased mine
- Structures from Early Phase of cinnabar ore processing visible at lowest level of the Mariscal Mine Complex

## **1919 Mariscal Mining Company**

- After the war the mine was sold to William “Billy” Bucham
- The large Scott Furnace and elaborate concrete condenser system that stands above it are remains of Mariscal Mining Company.
- Scott Furnace built by bricks made by local pen clay (20 sq. ft. wide and 40 ft. tall)
- The mercury-soaked bricks from Scott Furnace were processed after mine closed yielding a considerable quantity of mercury.



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## **1923 Mine Closed**

### **Beginning of World War II- Mine Reopened-Vivianna Mining Company**

- 30 ton Gould rotary furnace installed.

## **1943 Mine Closed for Good**

- Closed one year before Big Bend National Park opened.

### **Possible Research Topics:**

- Where did the phrase “Mad As A Hatter” come from?
- What were the effects of mercury mining on the workers?
- What were some other mines in the Big Bend Area?

- What were the effects of ranching and farming on the Big Bend Area?
- What were some other impacts humans had on the Big Bend Area?
- What is the amount of air pollution in the area, what effects does it have on the Big Bend area, and what sources did it come from?

**Possible Student Products:**

- Comic Strip Showing History of Area
- Timeline of mining industry

**A sample comic strip of some of the history of Mariscal Mine and Mercury Production is available for you to show to students who are having difficulty getting started.**

**Possible Resources:**

**Big Bend: Mariscal Mine**

National Park Service Department of the Interior

<http://www.nps.gov/bibe/historyculture/upload/Mariscal%20Mine%20SB%202004%202.pdf>

## **Big Bend: The Impact of Human Use Upon the Chisos Basin and Adjacent Lands**

National Park Service Scientific Monograph #4

[http://www.nps.gov/history/history/online\\_books/science/4/chap2.htm](http://www.nps.gov/history/history/online_books/science/4/chap2.htm)

## **Cinnebar An Example of the Element Mercury**

PeriodicTable.Com

<http://periodictable.com/Items/HgS/index.html>

## **Mariscal Quicksilver Mine & Reduction Works, Mariscal Mountain, Brewster, TX**

Library of Congress

<http://www.loc.gov/pictures/item/TX0860/>

## **Maps of Big Bend Area**

Road Map

[http://www.lib.utexas.edu/maps/national\\_parks/big\\_bend\\_map.jpg](http://www.lib.utexas.edu/maps/national_parks/big_bend_map.jpg)

Topical Map

[http://www.lib.utexas.edu/maps/texas/big\\_bend.jpg](http://www.lib.utexas.edu/maps/texas/big_bend.jpg)

### **Photographs of Big Bend Area**

Library of Congress Prints and Photographs On-Line Catalogue

<http://www.loc.gov/pictures/>

**“Soldiers, Ranchers, and Miners in the Big Bend: September 1969”** by Clifford B. Casey

<http://www.nps.gov/bibe/historyculture/upload/SRM-BIBE-2007.pdf>

### **Available Samples:**

There is a sample of cinnabar available for students to examine. Cinnabar does contain mercury and in order for it to be handled safely, this sample has been incased in epoxy.