

PH0500496

DATA SHEET

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

FOR NPS USE ONLY
RECEIVED JUL 6 1977
DATE ENTERED JAN 31 1978

NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM

SEE INSTRUCTIONS IN HOW TO COMPLETE NATIONAL REGISTER FORMS
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC

Argo Tunnel and Mill

AND/OR COMMON

Newhouse Tunnel and Argo Mill

2 LOCATION

STREET & NUMBER

2517 Riverside Drive

NOT FOR PUBLICATION

CITY, TOWN

Idaho Springs

CONGRESSIONAL DISTRICT

4

VICINITY OF

STATE

Colorado 80452

CODE

08

COUNTY

Clear Creek

CODE

019

3 CLASSIFICATION

CATEGORY

OWNERSHIP

STATUS

PRESENT USE

DISTRICT

BUILDING(S)

STRUCTURE

SITE

OBJECT

PUBLIC

PRIVATE

BOTH

PUBLIC ACQUISITION

IN PROCESS

BEING CONSIDERED

OCCUPIED

UNOCCUPIED

WORK IN PROGRESS

ACCESSIBLE

YES: RESTRICTED

YES: UNRESTRICTED

NO

AGRICULTURE

COMMERCIAL

EDUCATIONAL

ENTERTAINMENT

GOVERNMENT

INDUSTRIAL

MILITARY

MUSEUM

PARK

PRIVATE RESIDENCE

RELIGIOUS

SCIENTIFIC

TRANSPORTATION

OTHER:

4 OWNER OF PROPERTY

NAME

James Maxwell

STREET & NUMBER

Indian Springs Resort 300 Soda Creek

CITY, TOWN

Idaho Springs

VICINITY OF

STATE

Colorado 80452

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE,

REGISTRY OF DEEDS, ETC.

Clear Creek County Courthouse - Recorder

STREET & NUMBER

CITY, TOWN

Georgetown

STATE

Colorado

6 REPRESENTATION IN EXISTING SURVEYS

TITLE

Colorado Inventory of Historic Sites

DATE

ongoing

FEDERAL STATE COUNTY LOCAL

DEPOSITORY FOR

SURVEY RECORDS

State Historical Society of Colorado 200 Fourteenth Avenue

CITY, TOWN

Denver

STATE

Colorado 80203

7 DESCRIPTION

CONDITION

EXCELLENT
 GOOD
 FAIR
 DETERIORATED
 RUINS
 UNEXPOSED

CHECK ONE

UNALTERED
 ALTERED

CHECK ONE

ORIGINAL SITE
 MOVED DATE _____

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The Argo Tunnel is located in Clear Creek and Gilpin Counties, Colorado. It extends from its portal in Idaho Springs a total of 21,968 feet to a point in Eureka Gulch, about three thousand five hundred feet west of Central City. The tunnel is 8 by 8 feet for a distance of 13,100 feet from the portal and 5 by 8 feet for the remaining distance with the exception of sidings that have been excavated into the walls at several locations to allow passage of trains.

The tunnel is cut through solid rock and did not require shoring. It was driven on a grade of one-half of one percent to allow for drainage and to equalize the pull of the loaded cars against the empty cars being taken in. Drainage water was carried in a ditch in the floor of the tunnel that averaged 12 by 18 inches in cross section.

The tunnel was equiped with a double 18-inch guage track laid with 30 pound rail for the first 13,100 feet and a single track for the remainder of the distance. Two 7-ton Westinghouse locomotives powered by electricity hauled the ore and miners back and forth through the tunnel in 3-ton solid box cars.

The present condition of the tunnel is uncertain because methane gas prevents exploration. There may be minor cave-ins along the tunnel, but the portal remains open. Wire doors block the entrance.

The wooden cribbing and ore chutes about 150 feet from the front of the tunnel rise more than 50 feet from the base. These served as a loading system for the ore that was brought through the tunnel and was of sufficiently high quality to be taken directly to the smelter without milling.

The Argo mill site contains the mill building complex, an extensive mill waste dump, a cribbed ore loading structure and three accessory buildings. The mill was extremely large by the standards of the day but its large size was necessitated by the volume of ore available for processing.

The Argo mill is a seven-story steel frame structure with the exterior surfaced with corrugated iron panels. The mill is built on the North side of Clear Creek within the city limits of Idaho Springs.

Construction of the mill began in June 1912 and milling operations were begun in April, 1913, by the Argo Reduction and Ore Purchasing Company, managed and owned by R. E. Schirmer.

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

**NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM**

FOR NPS USE ONLY
RECEIVED JUL 6 1977
DATE ENTERED JAN 31 1978

CONTINUATION SHEET

ITEM NUMBER 7 PAGE 2

Each story of the structure contains a variety of different levels as required by the gravity system process. The internal levels are constructed of steel and wood with some of the wooden members greater than 24" x 24" in cross section. Wooden walkways and stairways connect the various levels within the mill.

The roof is surfaced with the same type of corrugated iron panels used on the exterior walls. The roof shapes vary as necessitated by the layout of the massive building. Windows in various configurations are present on the southern walls of all stories except the seventh. The windows consist of square, steel-framed units containing 16 light single-panes each.

There are numerous entrances on the first six stories as the mill is terraced against the mountain side allowing ground entry on most elevations. Doors, where they exist, are large swinging doors made of corrugated iron panels, variously sized as necessitated by the equipment that was moved through them.

The mill contains no office space and was devoted entirely to the ore concentrating system. Adjacent to the mill to the west is a one-story brick and concrete structure which served as the electric transformer plant for the mill and the tunnel. The building has a gabled roof surfaced with asphalt shingles and on the south wall has two windows both four x four double hung and set in wooden frames. Immediately to the west of this building is a single story wood frame building which was used for offices, shops, and a bunkhouse. This building contains the compressor plant for the tunnel. It has a gabled roof covered with asphalt shingles and is surfaced with white clapboard. There are four x four double hung windows set in wooden frames in this building.

Another building, which served as the offices of the Sun and Moon Mine Company, is immediately south of the above structures and about 100 feet west of the mill itself. This is a single story wood frame building with a gabled roof covered with tar paper and siding of tar paper and asbestos shingles. The windows are four x four, double hung and set in wooden frames.

The wood cribbing which rises more than 100 feet above the creek level immediately west and slightly south of the mill structure served as a loading chute for ore of sufficiently high quality that it could be sent directly to the smelter without concentration at the mill.

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

**NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM**

FOR NPS USE ONLY	
RECEIVED	JUL 6 1977
DATE ENTERED	JAN 31 1978

CONTINUATION SHEET

ITEM NUMBER 7

PAGE 3

The mill is presently in excellent condition and the accessory building are in fair condition although they have been vandalized. The cribbed loading structure is near collapse. Some of the milling process has been dismantled and removed from the mill but the present owner is in the process of replacing it and hopes to refit the mill with original processing equipment.

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW			
<input type="checkbox"/> PREHISTORIC	<input type="checkbox"/> ARCHEOLOGY-PREHISTORIC	<input type="checkbox"/> COMMUNITY PLANNING	<input type="checkbox"/> LANDSCAPE ARCHITECTURE	<input type="checkbox"/> RELIGION
<input type="checkbox"/> 1400-1499	<input type="checkbox"/> ARCHEOLOGY-HISTORIC	<input type="checkbox"/> CONSERVATION	<input type="checkbox"/> LAW	<input type="checkbox"/> SCIENCE
<input type="checkbox"/> 1500-1599	<input type="checkbox"/> AGRICULTURE	<input type="checkbox"/> ECONOMICS	<input type="checkbox"/> LITERATURE	<input type="checkbox"/> SCULPTURE
<input type="checkbox"/> 1600-1699	<input type="checkbox"/> ARCHITECTURE	<input type="checkbox"/> EDUCATION	<input type="checkbox"/> MILITARY	<input type="checkbox"/> SOCIAL/HUMANITARIAN
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> ART	<input type="checkbox"/> ENGINEERING	<input type="checkbox"/> MUSIC	<input type="checkbox"/> THEATER
<input checked="" type="checkbox"/> 1800-1899	<input checked="" type="checkbox"/> COMMERCE	<input type="checkbox"/> EXPLORATION/SETTLEMENT	<input type="checkbox"/> PHILOSOPHY	<input type="checkbox"/> TRANSPORTATION
<input type="checkbox"/> 1900-	<input type="checkbox"/> COMMUNICATIONS	<input checked="" type="checkbox"/> INDUSTRY	<input type="checkbox"/> POLITICS/GOVERNMENT	<input type="checkbox"/> OTHER (SPECIFY)
		<input type="checkbox"/> INVENTION		

SPECIFIC DATES 1893-1943 BUILDER/ARCHITECT various

STATEMENT OF SIGNIFICANCE

The Argo Tunnel and the Argo Gold Mill played a significant role in the history of mining in Clear Creek and Gilpin Counties and contributed to the prosperity of Idaho Springs and Central City. By providing mine drainage, ventilation, an economic means of removing ore from the mines and a technology for milling low grade ores, the tunnel and the mill were instrumental in keeping many mines in the area open and producing years beyond the point when they would have otherwise been uneconomic.

The "Mighty Argo," as it was known in the newspapers of the time, was conceived by Samuel Newhouse, a successful businessman and promoter with a background in law. His various promotions, ranging from Bingham Canyon (Utah) copper properties, real estate in New York City, to railroad ventures in Colorado, made him wealthy and famous.

Newhouse was born in New York City in 1853, was educated in Philadelphia and earned his law degree in 1879. He then came to Colorado, lured by the silver boom in Leadville.

Finding that no railroad extended to Leadville, Newhouse organized a freight and transfer company to transport supplies and mining equipment into the various mining camps. The venture was immediately successful. At the same time, Newhouse also engaged in mining and acquired several mines. In 1886 he moved to Ouray in San Juan County and developed several mining properties there.

Newhouse made several trips to London promoting his various interests and ventures and was able to obtain financial backing from a number of wealthy Englishmen. One of his backers was the Prince of Wales, next in line to succeed King Edward VII. The English backers invested in many of Newhouse's ventures, including the Argo.

From 1888 to 1896 Newhouse lived in Denver and in Salt Lake City. He finally moved permanently to Salt Lake. Newhouse died in the Chateau De Marnes, near Paris, France, in 1930.

In 1888 when Newhouse moved to Denver nearly every newspaper was reporting news of the great mines of Gilpin County centered around Russell Gulch, Quartz Hill, and Central City. Along with tales of

(continued)

9 MAJOR BIBLIOGRAPHICAL REFERENCES

Collins, George E., Mining Engineer. Personal letter to J. Price Briscoe, Idaho Springs, Colorado, no date Ms.
 Hall, Frank. History of Colorado. Blakely Printing, Chicago, 1895, page 533.
 Henathan, T.R. 13th Biennial Report of the Bureau of Mines for the State of Colorado 1913 - 1914. pages 87-90, 111, 112.

(continued)

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY approximately 20 acres

UTM REFERENCES

A	113	457000	4399160	B	113	457000	4399080
	ZONE	EASTING	NORTHING		ZONE	EASTING	NORTHING
C	113	456550	4399100	D	113	456520	4399220

VERBAL BOUNDARY DESCRIPTION

Starting at the northwest corner, the Argo mill site extends generally east to a point 1,600 feet from the northwest corner, hence south 280 feet, hence westerly 1,500 feet, hence northerly approximately 420 feet to the point of origin.

There are no physical points set on the ground but the above description generally follows the original patent for the mill site.

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE

Alexander M. Oliszewski

ORGANIZATION

DATE

STREET & NUMBER

2817 Riverside Drive

TELEPHONE

303-567-2035

CITY OR TOWN

Idaho Springs

STATE

Colorado 80452

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL

STATE

LOCAL

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

Stephen U. Hart

TITLE

Colo S HPO

DATE

6/8/77

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

W. M. ...

DATE

13/78

DIRECTOR OF NATIONAL HISTORIC PRESERVATION

KEEPER OF THE NATIONAL REGISTER

ATTEST:

Charles ...

DATE

1-25-78

KEEPER OF THE NATIONAL REGISTER

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

**NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM**

FOR NPS USE ONLY	
RECEIVED	JUL 6 1977
DATE ENTERED	JAN 31 1978

CONTINUATION SHEET

ITEM NUMBER 8 PAGE 2

great wealth were stories of the problems that were being encountered-- problems of water seeping into the mines at such a rate that pumps were working 24 hours a day, problems with ventilation, and problems lifting the ore from vertical shafts that often exceeded a depth of 1,000 feet by 1890.

Newhouse came up with the idea of draining the entire mining district from Idaho Springs to Central City with a great tunnel that could provide ventilation, economic transportation, and might even hit blind veins of value and open ore in producing mines at a level well below current operations.

The plans for the Argo were solidified in 1891 with \$2 million in backing coming from an English friend, Frank Hargeaves. In 1893, the Argo Mining, Drainage, Transportation and Tunnel Company was incorporated and work began with a great fanfare of publicity. Despite the publicity, the project was not taken too seriously by miners in Central City or Idaho Springs.

The Argo, Newhouse's first attempt at promotion, was a total failure from the standpoint of its investors other than Newhouse. Two other properties that he promoted, the Highland Boy and Boston Consolidated in Bingham Canyon, Utah, were very successful and made fortunes both for Newhouse and his English backers. Newhouse sold his interests in the Bingham Canyon properties in 1896 for \$6 million.

By 1898 the Argo tunnel had reached a length of 7,000 feet and was serving 200 mines and had intersected a total of 1,140 veins that were covered by patents as soon as they were found. At the end of that year the tunnel was temporarily shut down because British capital that was backing the Argo was tied up in a war between England and Spain.

The following year, 1899, Louis Lafayette Hanchett, manager of the famous Lamartine Mine, took over as manager of the Argo Tunnel at the request of the stockholders who wanted someone with his experience involved. Hanchett managed the Argo while continuing his position at the Lamartine until 1904. After that a succession of managers was employed to supervise the Argo.

By 1904 the tunnel had been driven about 12 thousand feet and was serving many mines, including a number of mines that Newhouse had acquired. The mines were producing gold, silver, lead, copper and iron sulphides (in demand as a flux by the smelters for a period of time).

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

**NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM**

FOR NPS USE ONLY	
RECEIVED	JUL 6 1977
DATE ENTERED	JAN 31 1978

CONTINUATION SHEET

ITEM NUMBER 8 PAGE 3

The high cost of extending the tunnel had required Newhouse to make several trips to England to sell stock in the Argo and promote the project. Before the tunnel was completed in 1910, almost \$5 million had been invested in the project.

In 1906 a mining engineer from Denver, George E. Collins, was elected a director of the company and became general manager, succeeding Newhouse. Collins did not stay in this position long but he did continue as a consultant and eventually gained complete control of the property and the assets of the tunnel and mill.

From 1904 to 1910, when the tunnel was completed, Frank Schirmer, an associate of Newhouse's in the Utah ventures, worked his way through the Argo management and gained control. It was Schirmer who forced Collins into the consulting job. During these years, practically all of the mines in the western portion of Gilpin County would have been closed were it not for the drainage provided by the Argo tunnel. Unfortunately, however, the Argo never successfully negotiated payment for this service from many of the major mines. This was the major reason that investors who backed the project and who did not own mines that were on the Argo system lost their money.

The Gem, Sun and Moon, Saratoga, Poco, Ophir, Old Town, California, Gunnell, Prize, Gregory-Buell, King Bee, Kansas-Burroughs, Waluga and Bi-Metallic were some of the major mines of Clear Creek and Gilpin Counties directly serviced by the Argo from 1905 to 1943. It is not possible, at this time, to evaluate the significance of the individual mines that benefited from the Argo beyond the production figures which were used to establish the overall economic contribution of the tunnel and mill. Production of precious metals from these mines is estimated to total more than \$100 million at old values. Much of this production would never have been possible without the Argo.

The mill became a part of the venture and began operations in 1913. Advertised as being the property of the Argo Reduction and Ore Purchasing Company of Idaho Springs, the mill was actually owned and controlled by the Schirmer family backed by eastern money. Again, the English investors got nothing.

The mill processed ore from the Gunnell, Prize, Ophir, and Poco mines originally. Later, ores that were taken from the Gem, Sun and Moon and other smaller mines were added to the mill production. The mill handled largely low-grade sulphide ores that would not have been economic to process without the combination of a tunnel to provide transportation to the surface at very low cost and a mill, literally at the end of the

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

**NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM**

FOR NPS USE ONLY	
RECEIVED	JUL 6 1977
DATE ENTERED	JAN 31 1979

CONTINUATION SHEET

ITEM NUMBER 8 PAGE 4

tunnel tracks, which could concentrate the ore to the point that it could be economically shipped to a smelter.

The Argo Mill operated at 300 tons/day capacity and employed a variety of innovative technological improvements that were considered to be the most advanced state-of-the-art for the period. The Engineering and Mining Journal, July 4, 1914, reported that a totally successful system had been established and "that any further changes will be small details governed by convenience and not by distinctive metallurgical change." The technical innovations included a special stamping system which worked in ore in water, use of an electric cell, addition of ammonium salts and a special cyanide process coupled with amalgamation and riffle tables.

The tunnel and mill functioned sporadically until January 19, 1943, when a serious mine accident on the lateral to the Kansas shaft -- an accident that flooded the Argo and killed four men-- permanently closed down operations.

Today, the site is being renovated and developed as a tourist attraction and mining museum. The aim of the current owner is to recreate as much as possible of the mill and preserve it as an example of the mining technology of the time in which it was built and to give visitors an opportunity to learn about the mining history of this Rocky Mountain area.

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

**NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM**

FOR NPS USE ONLY

RECEIVED JUL 6 1977

DATE ENTERED JAN 31 1978

CONTINUATION SHEET

ITEM NUMBER

9

PAGE 2

Smiley, Jerome C. History of Denver, The Sun Times Publishing Co.,
Denver, 1901, page 574.