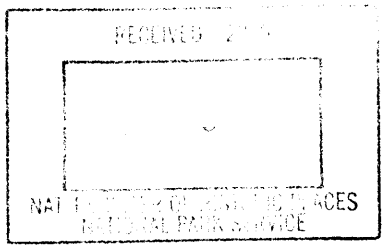
NPS Form 10-900
(Oct. 1990)

OMB No. 10024-0018

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form



This form is for use in nominating or requesting determination for individual properties and districts. See instruction in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Silverton Historic District (boundary increase)

other names/site number 5SA59

2. Location

street & number extends the district two miles northeast of the town limits [N/A] not for publication

city or town Silverton [X] vicinity

state Colorado code CO county San Juan code 111 zip code 81433

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this [X] nomination [ ] request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property [X] meets [ ] does not meet the National Register criteria. I recommend that this property be considered significant [ ] nationally [X] statewide [ ] locally.
(See continuation sheet for additional comments [ ].)

James Eduard Hartmann State Historic Preservation Officer February 10, 1997
Signature of certifying official/Title Date

State Historic Preservation Office, Colorado Historical Society
State or Federal agency and bureau

In my opinion, the property [ ] meets [ ] does not meet the National Register criteria.
(See continuation sheet for additional comments [ ].)

Signature of certifying official/Title Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:

[✓] entered in the National Register
See continuation sheet [ ].
[ ] determined eligible for the National Register
See continuation sheet [ ].
[ ] determined not eligible for the National Register.
[ ] removed from the National Register
[ ] other, explain
See continuation sheet [ ].

Signature of the Keeper Date

Beth Boland 4/3/97

5. Classification

Ownership of Property
(Check as many boxes as apply)

[X] private
[X] public-local
[ ] public-State
[X] public-Federal

Category of Property
(Check only one box)

[ ] building(s)
[X] district
[ ] site
[ ] structure
[ ] object

Number of Resources within Property
(Do not count previously listed resources.)

Contributing	Noncontributing	
4	6	buildings
1	1	sites
5	1	structures
0	0	objects
10	8	Total

Name of related multiple property listing.
(Enter "N/A" if property is not part of a multiple property listing.)

N/A

Number of contributing resources previously listed in the National Register.

never tallied

6. Function or Use

Historic Function
(Enter categories from instructions)

INDUSTRY/PROCESSING/
manufacturing facility; energy facility
FUNERARY/cemetery

Current Functions
(Enter categories from instructions)

VACANT/NOT IN USE
FUNERARY/cemetery

7. Description

Architectural Classification
(Enter categories from instructions)

Other: Industrial

Materials
(Enter categories from instructions)

foundation Concrete
walls Wood; Aluminum
roof Wood; Tin; Steel
other

Narrative Description
(Describe the historic and current condition of the property on one or more continuation sheets.)

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

[X] **A** Property is associated with events that have made a significant contribution to the broad patterns of our history.

[ ] **B** Property is associated with the lives of persons significant in our past.

[X] **C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

[ ] **D** Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark "x" in all the boxes that apply.)

Property is:

[ ] **A** owned by a religious institution or used for religious purposes.

[ ] **B** removed from its original location.

[ ] **C** a birthplace or grave.

[ ] **D** a cemetery.

[ ] **E** a reconstructed building, object, or structure.

[ ] **F** a commemorative property.

[ ] **G** less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance
(Enter categories from instructions)
ENGINEERING
INDUSTRY
EXPLORATION/SETTLEMENT

Periods of Significance
1874-1945

Significant Dates
1874
1906
1929
1938

Significant Person(s)
(Complete if Criterion B is marked above).
N/A

Cultural Affiliation
N/A

Architect/Builder
Metallurgy of Mill: Weinig, Arthur J.
Mill Design: Stearns-Roger Engineering
Aerial Tramway: Carstarphen, Fred C.

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographic References

Bibliography
(Cite the books, articles and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

[ ] preliminary determination of individual listing (36 CFR 67) has been requested
[ ] previously listed in the National Register
[ ] previously determined eligible by the National Register
[ ] designated a National Historic Landmark
[ ] recorded by Historic American Buildings Survey
#_____
[ ] recorded by Historic American Engineering Record
#_____

Primary location of additional data:

[X] State Historic Preservation Office
[ ] Other State Agency
[X] Federal Agency
[ ] Local Government
[ ] University
[X] Other:

Name of repository:
Bureau of Land Management
San Juan County Historical Archives, Silverton

Silverton Historic District (boundary increase) | San Juan County, CO
Name of Property | **County/State**

10. Geographical Data

Acreage of Property The original boundary encompassed 530 acres; the amendment adds approximately 165 acres, for a total of 695 acres.

UTM References
(Place additional UTM references on a continuation sheet.)

1. Zone Easting Northing
2. Zone Easting Northing
3. Zone Easting Northing
4. Zone Easting Northing

[X] See continuation sheet

Verbal Boundary Description
(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification
(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Dawn Bunyak, Historian (NPS-Rocky Mountain System Support Office Volunteer)
organization San Juan County Historical Society date September 1996
street & number 1557 Greene Street telephone 970-387-5488
city or town Silverton state CO zip code 81433

Additional Documentation
Submit the following items with the completed form:

Continuation Sheets

Maps
A **USGS map** (7.5 or 15 minute series) indicating the property's location.
A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs
Representative **black and white photographs** of the property.

Additional Items
(Check with the SHPO or FPO for any additional items)

Property Owner
(Complete this item at the request of SHPO or FPO.)

name SEE CONTINUATION SHEET
street & number telephone
city or town state zip code

The amended portion of the Silverton Historic District is owned by:

name San Juan County Historical Society
street & number 1557 Greene Street telephone (970) 387-5488
city or town Silverton state CO zip code 81433

name City of Silverton
street & number P.O.Box 368 telephone (907) 387-5488
city or town Silverton state CO zip code 81433

name Bureau of Land Management-District Office
street & number 2850 Youngfield St. telephone (303) 239-3735
city or town Lakewood state CO zip code 80215

name Sunnyside Gold, Inc. ATT: Larry Perino
street & number P.O. Box 177 telephone (970) 387-5533
city or town Silverton state CO zip code 81433

SECTION 7
DESCRIPTION

The Silverton Historic District is located within the famous "San Juan Triangle" mining center of southwestern Colorado, which also includes the historic mining towns of Telluride and Ouray, and encompasses one of the most richly mineralized areas of North America. Designated as a National Historic Landmark in 1961 and listed on the National Register of Historic Places in 1966 (under criterion A), Silverton has retained an exceptional degree of historic integrity, largely due to its isolation, its distance from major population centers, and its altitude and severe winter climate. In 1995, Silverton had a population of approximately 720 people.

This amendment to the Silverton Historic District National Register nomination expands the previous district boundary. The historic district boundary was established in 1975 as part of a National Historic Landmark boundary study, and encompassed the town limits of Silverton, approximately 530 acres. This amendment expands the National Register district boundaries by an additional 165 acres, for a total of 695 acres. (At a later time, following the development of a national context for 20th century milling operations, the National Historic Landmark boundaries may also be expanded.) In 1996, in an effort to help preserve Silverton's mining heritage, the Sunnyside Gold Company donated the Mayflower Mill complex, the Animas Power and Water Company buildings and structures, and Crooke's Polar Star Mill Office to the San Juan County Historical Society. The historical society is planning to preserve the Shenandoah-Dives (Mayflower) Mill, and will offer tours of the facility. Other properties within the amended boundaries are owned and/or managed by the Bureau of Land Management, Sunnyside Gold, and the Town of Silverton.

The original NHL/NR nomination did not include a complete listing of contributing and noncontributing buildings. The expanded portion of the boundary is on the northeast edge of Silverton and includes four buildings, five structures, and one site that contribute to the historic district:

Shenandoah-Dives (Mayflower) Mill Complex
The Shenandoah-Dives Mill complex is an exceptionally intact example of a selective flotation mill reflecting the distinctive characteristics of hard-rock milling processes in the early 20th-century Rocky Mountain West. The amended boundary includes two buildings and four structures historically associated with the Shenandoah-Dives operation. The two contributing buildings are the Shenandoah-Dives (Mayflower) Mill, and the office/assay building. The four contributing structures are the aerial tramway, the avalanche deflector, the water storage tank, and the coal storage tank.

Crooke's Polar Star Mill
The amended boundary includes the office/assay building of Crooke's Polar Star Mill, which was established in Silverton in 1890-91. This one-story, red brick building reflects Silverton's early mining history, and is a good representation of 19th-century office/assay facilities at hard-rock mills in the Rocky Mountain West.

Animas Power and Water Company
The amended boundary includes two historic resources associated with the Animas Power and Water Company, which was constructed in Silverton in 1906 to divert electrical power to the area's mining and milling operations. The contributing resources are the Animas Power and Water transformer substation (structure) and the Animas Power and Water Company mule barn (building). The transformer substation illustrates the changing architectural designs (from frame to brick) at the turn of the century that enabled commercial operations to better withstand the climatic extremes of high-altitude locales. Although in a state of moderate deterioration, the mule barn illustrates the historic usage of animals in high-altitude operations.

Hillside Cemetery
As part of the amended boundary, Hillside Cemetery is being added to the district as a contributing site. Hillside Cemetery, while not unique from other cemeteries of the 19th century, reflects the social and cultural history of the Silverton area and similar mining communities. Providing a symbolic closure for the community's residents, the cemetery also demonstrates the industrial impacts of the mining profession on Silverton's working-class community.

The amended National Register district also includes six noncontributing buildings, one noncontributing structure, and one noncontributing site. The Shenandoah-Dives Mill complex has a non-historic guard shack (building), valve house (building), lime storage building (building), trailer (building), electrical transformer (structure), and decantation/tailings ponds (site). The Animas Power and Water Company includes a nonhistoric Quonset hut (building) and aluminum shed (building). All the noncontributing buildings were constructed beyond the 1874-1945 period of significance. The electrical transformer dates to 1929 but has been altered with the construction of a new support system and the enclosure of some of its equipment. The tailings ponds site has been reclaimed and no longer reflects its historic appearance and integrity.

SHENANDOAH-DIVES (MAYFLOWER) MILL COMPLEX

Constructed in 1929, the Shenandoah-Dives Mill was designed for milling metal ores from low-grade gold ore using alkaline reagents in separation processes. The primary metals processed at the mill were gold, silver, copper, lead, and zinc. In operation until 1992, the Shenandoah-Dives Mill contains virtually all of its working components enclosed within a 1,000-ton mill complex. The mill complex includes a mill building that encompasses the main mill, a conveyor, crushing plant, tram terminal, steel rod mill, and workshop. The mill complex also includes a water storage tank, coal storage tank, office/assay building, guard shack, electrical transformer, lime storage building, and decantation and tailings ponds. An aerial tramway connects the mill to the Shenandoah-Dives Mine. Although the mine has been capped and is not included, due to its lack of historical integrity, within the boundaries of the National Register district, an avalanche deflector at the uppermost end of the tramway is extant. The Shenandoah-Dives Mill complex is an excellent representation of 1920s-era mining technology in its original processing format. Since its construction, only minor changes have been made to the mill facility in an effort to increase production capacity.

The Shenandoah-Dives Mine and Mill are in the Animas Mining District of the San Juan Triangle. The mine is on the south slope of Little Giant Mountain in the section of the range referred to as King Solomon Mountain; the mine's portal is 11,200 feet above sea level (asl). The mill (9,700 asl) is two miles northwest of the mine, at the base of Arrastra Gulch near the Animas River. A 9,526-foot aerial tramway connects the mill complex with the Mayflower portal of the mine.[1] The Shenandoah-Dives Mill, which is locally referred to as the "Mayflower Mill" after the Mayflower portal of the mine, is two miles northeast of Silverton off of Highway 110.

The ore from the Shenandoah-Dives claim was originally crushed at the mine in an underground crushing plant that housed a Telesmith 16-A gyro primary crusher and a 4-foot Symons standard cone crusher. The ore was crushed to approximately ½-inch-size gravel. The crushed ore was then loaded into ore buckets at the upper terminus of the aerial tramway, and sent down the mountain to the Shenandoah-Dives Mill where it was unloaded into ore pockets at the tram building. In 1961, a new crushing plant was constructed at the mill, and the shorthead cone crusher was moved from the mine to the new plant. Up to this point, the mill had processed ore from the Shenandoah Dives Mine, as well as custom ores from other mining companies in the area. Following the construction of the new crushing plant, the mill also processed ore from its other mining operations in the area, including the Silver Lake lease. In addition, the company began purchasing and processing ores from other independently-owned mines in the area.

Aerial Tramway

The aerial tramway between the Shenandoah-Dives Mine and Mill was designed by Fred C. Carstarphen. At the time of its construction in 1929, it was the only tramway of its design in Colorado.[2] Most tram towers of that period were pyramidal, and made of timber or timber-and-steel components. By contrast, the Shenandoah-Dives tramway had rectangular, riveted-steel structures that could better withstand the snowfall and avalanches in the San Juan Mountains. Carstarphen's design also called for fewer and larger towers. When it was built, the Shenandoah-Dives aerial tramway was the longest tram line in operation in the San Juans, and could travel at a speed of 500 feet per minute.[3] The tramway carried men as well as ore. With only a steep, mountainous trail to the mine, miners used the bucket to travel to and from their jobs. (In emergencies, passengers in the ore buckets could pull a rope to activate a signal switch in the lower terminus, which, in turn, initiated an emergency response.)

As originally constructed, the 9,526-foot aerial tramway had 11 steel towers (Towers 1-11) and three steel, double-cable anchor stations (Stations A, B, and C). The anchor stations stabilized the tension of the cable that held the ore buckets. All of the anchor station towers are of rectangular shape with steel crossbars and corner lengths, with a ladder attached for maintenance. The towers have concrete foundations, and are of varying height, reflecting the contour of the mountain and the approximate 1,400-foot difference in elevation between the upper and lower terminal points. At one time, the towers also supported telephone lines between the mine and the mill.

In addition to the steel towers, the Shenandoah-Dives Company constructed wooden towers at the upper terminus (Loading Terminal) and lower terminus (Discharge Terminal). These two towers created a level plane for the arrival and discharge of ore buckets, as well as providing tension for the cables. The loading and discharge towers were referred to as terminals in day-to-day management of the aerial tramway. The Loading Terminal is no longer extant.

The Discharge Terminal, located at the tramway's lower terminus, is a wooden, rectangular tower on a concrete base, and is similar in design to the steel towers. The aerial tramway system also included a lift tower near Anchor Station A. The lift tower raised the Shenandoah-Dives aerial tramway over the Iowa-Tiger aerial tramway, which ran counter to it. The lift tower no longer stands; Shenandoah-Dives Company tore it down c. 1942, following the abandonment of the Iowa-Tiger tramway.[4] In all, the Shenandoah-Dives aerial tramway contained 17 towers. Of these, 12 are extant: 8 steel towers, 3 double-cable anchor station towers, and one wooden tower (the Loading Terminal Tower).

The tramway's ore buckets traveled across a 1 3/8-inch stationary cable and a 7/8-inch traction cable. The traction cable was basically a wire rope with a fiber core with a greater degree of flexibility than cables.[5] Three double-cable anchorages are located at Anchor Stations A, B, and C. Cable anchorages are large concrete blocks with steel I-beams imbedded in them. Even after an avalanche took out an upper section of the aerial tramway in the mid-1960s, the cable anchorages held up the tension cable of the aerial tram and its buckets. By anchoring the segments, the tension cable was secured to accommodate the curvature of the slope and offset the possibility of losing the entire cable system in an avalanche.

The aerial tramway normally carried 52 numerically-assigned tram ore buckets, two timber carriers, and one automatic track oiler. Two sizes of buckets, 17 cu. ft., and 21 cu. ft., were spaced at intervals of 400 feet. The 21-cu.-ft. bucket had a round bottom and carried one ton of ore. The 17-cu.-ft. bucket had an angled bottom and carried 1,600 pounds of ore. The average payload was 3/4 ton. All of the carriers were equipped with four wheels (referred to as 4-wheel trucks), instead of the usual two, which guided the ore buckets over the cables. When the tram was running at full speed, an ore bucket took 45 minutes to make a complete cycle from the mine to mill and back again.[6] Numerous ore buckets remain on the line.

The buckets on the cables were driven by two 50-horse-power General Electric motors that were originally located at the upper terminus of the tramway. One of the motors was a variable-speed type, which could reverse the tramway operation. The control of the bucket was maintained by two grip sheaves connected to the motors. At the mine's loading terminal, the bucket was chain secured under a loading chute. The operator pushed the loaded bucket out to the "gripper" to engage the bucket on the traction rope for its travel down the mountain. As the descending ore bucket activated the system, power flowed back into the line, and the motors controlled the downward speed, as well as supplying the power to draw the load up the mountain. As each ore bucket neared the mill's discharge terminal, the grip sheaves controlled the bucket's approach into the terminal building. The bucket was met by a waiting tram operator overseeing the bucket's arrival and diversion from the cable to a monorail for loading and unloading into the ore pocket. Each bucket attached or detached automatically from the traction cables at the terminals, and then was manually diverted by the operator to dump its load. The operator pushed the empty bucket to the exit side where the grip action was reversed and the car "gripped out" as it clamped onto the moving traction rope.[7] As the arriving bucket was diverted, a bucket on the exiting side was activated and began its slow ascent up the mountain.[8] At the upper terminus of the aerial tramway, a 300-foot auxiliary line (referred to as a stub tram) delivered supplies to the mine and boarding house from the main line. The auxiliary line no longer remains, nor do the main buildings at the mine area.[9] However, although the integrity of Shenandoah-Dives Aerial Tramway has been impacted by the downing

of several towers, including the auxiliary line, the Aerial Tramway is an exceptional example of only a few remaining aerial tramways that have survived the harshness of high-altitude mountain climes.

Avalanche Deflector

The deflector is a massive, three-sided structure with walls of native rock and mortar; the cavity is filled with stone, dirt and sand. In 1938, an avalanche destroyed Towers 1-5, which the company rebuilt. In an effort to prevent future accidents of that type, the company also constructed an avalanche deflector above Towers 1 and 2. The avalanche deflector was designed by Charles Chase. According to Joe Todeschi, who helped construct the deflector, Chase designed a structure he believed would withstand the snowfall depths at 14,000 feet asl. In the region, "snow breakers," as they were referred to, were typically constructed of wood. Eventually, the wood would rot and then the weight of the snow would finish off the structure. As a result, Chase decided to build a stone structure, and hired Carlo Poloine, an Italian immigrant and skilled stone mason employed in the Shenandoah-Dives Mine, to build the "snow breaker."[10]

Poloine and four assistants constructed the deflector in the summer of 1938. Rocks gathered from the mountain side were used to build the deflector. The walls of the triangular structure consist of native rock mortared together. The lower wall of the triangular-shaped structure is the largest. The side walls were built to accommodate the steep terrain of the mountain; thus, those walls are shorter in height. Poloine began by smoothing the sides of the rocks the other men gathered. The rocks were smoothed on both sides so that the inner wall of the cavity of the triangular shape is as smooth as the outer. After the initial shape of the breaker was laid out, Poloine mortared each rock together to fashion the walls. The men used a single or double jack, long-handled hammers of various weights, to break up larger rocks into the size Poloine needed. As the lower wall was built, fill of rock, dirt and sand was thrown behind it; and Poloine worked smoothing rock for the wall on the growing pile of fill. The rock used in the inner and outer walls were smoothed, even though the inner wall is not seen because of the fill of stone, dirt, and sand. According to Todeschi, "The snow breaker was built to last a lifetime."[11] The structure has a high degree of integrity, and appears to be unchanged.[12]

Shenandoah-Dives Mill

The Shenandoah-Dives Mill, a four-level frame and metal building with an irregular floor plan, is a truss-timbered framed building with both gabled and shed corrugated-metal roofs on its various levels. It is located approximately 100 feet north of Colorado Highway 110, the main route between Silverton and Eureka. The massive, sprawling mill building encompassed several milling and processing operations, and the building basically can be divided into the main mill, tram terminal, conveyor, crushing plant, steel rod mill, and workshop. All of these operations were interconnected and under one roof.

In 1929, the Denver-based company of Stearns-Roger Engineering designed and oversaw the erection of the gravity-flow mill and its equipment. The mill was built in 18 weeks from a prefabricated kit.[13] Arthur J. Weinig designed the metallurgical portion of the mill. The four-level building is terraced into the mountainside, which enhances the

gravitational flow within the mill. The truss-timber frame of the building is constructed of Oregon fir. Native timber is used for sheeting. The gable and shed roof covering the four levels is corrugated, galvanized metal. The exterior was initially painted an aluminum color in 1932, but now has sections painted in aluminum, green, and rust-red. The foundations are concrete.[14] Over time, the mill was enlarged to a capacity of 1,000 tons. Its current dimensions are approximately 90 feet across the back and 106 feet across the front; the sides are approximately 252 feet. Metal-and frame-sided additions reflect functional modifications made at various times, but the overall lines and shape of the plant have remained virtually unchanged since its construction in 1929.[15]

The mill is partially covered with corrugated-metal siding. The top or upper level has a gabled, corrugated metal roof. The second level has a corrugated-metal shed roof. The third level has a gabled corrugated-metal roof. The lower level has an aluminum-colored, corrugated-metal, shed roof. Initially, the mill had banks of windows at each of the four levels.[16] In 1981, metal siding was placed over the windows, at which time electrical lighting systems were enhanced to supply the needed light. On the north side, there are three 9/9 side-by-side stationary windows, located on the third level. The east side contains two sets of triple side-by-side windows (9/9/9), as well as one 9/9 side-by-side set of stationary windows. On the south side of the building, 15 single-hung, 9-pane windows remain on the third level. On the west side, there are six 9/9 double-hung windows on the third level. Over 80 windows were in the mill when it was built in 1929. Six stationary 9-pane windows are in the conveyor house that runs from the crushing plant to the mill proper.

The tram terminal is a rectangular single-story, frame and metal building with a gabled corrugated-metal roof. It was originally built as a single-story, frame building in the side of the mountain. When the crushing plant was added to the mill, the rear of the tram terminal, left intact, was enclosed inside the plant. A truss-timber frame supports the front (northeast side), which includes the lower terminus opening for arriving ore buckets. Fred Carstarphen, who designed the tramway, designed the tram terminuses. Carstarphen also directed the 12-man crew that constructed the tram terminal. The rectangular building is approximately 28 feet x 60 feet and houses the tension equipment for the aerial tramway, the shop for tram repairs, and the loading end of the 200-foot ore conveyor to the mill. The building has corrugated metal siding. The north side retains its original set of four 6/6 double-hung windows. The roof is gabled and covered with corrugated metal.[17]

When the aerial tramway was functioning, stationary and traction cables ran approximately 9,526 feet from the lower terminus at the Shenandoah-Dives Mill to the mine's upper terminus building. A series of snow avalanches in the 1960s ripped down approximately 1,500 feet of the upper terminus' cable and Towers 3-5. At the time of the avalanches, the mill was no longer processing ore from the Mayflower Mine, and the line was not rebuilt.[18]

An attached frame-and-corrugated metal workshop is on the north side of the mill building. The workshop has overall dimensions of 24 feet x 44 feet with a corrugated metal shed roof and exposed rafters. The workshop was built in 1929 at the same time as the mill. It has eight 9/9 double-hung windows on the north side. The machine and welding workshop was used for maintenance on machinery within the plant, as well as fabricating engines and small locomotives for use in the mine. Flat cars on railroad lines hauled large pieces of equipment into the workshop for

maintenance. The rail lines within the shop were 30 inches apart, matching the lines at the mine. The fabricated machinery was transported to the mine via the aerial tramway.

Inside the mill plant, the original milling machinery remains virtually intact, despite periodic upgrades which include the addition of a rod mill and crushing plant within the mill complex. Most of the original machinery was used throughout the entire productive life of the plant and remains functional. The 1929 flow chart shown on page 9 reflects the basic processes that were used in the mill throughout its operational history. Basically, the milling processes were as follows:

From the ore pocket, a 24-inch-wide apron feeder moved the ore to a 250-foot gradient belt conveyor which transported the ore to a round, steel ore bin located within the mill. The 250-foot belt conveyor is housed in a gabled frame-and-corrugated-metal structure. From the 1200-ton ore bin, the rock traveled via a 24-inch-wide pan conveyor to the No. 86 Marcy grate ball mill where the ore was ground further with steel balls in the revolving center cavity. After this stage, the rock was reduced to a coarse sand material.

The undersize of the sandy material then traveled through a distributor to three Wilfley tables. The tables, activated by electricity, vibrated the coarse material across the table tops. Heavier, higher-grade particles of gold and lead rode off the table edge into a settling or "de-watering device," such as a Dorr thickener, with the concentrate ending up in a bin to await transport. The water was then filtered and returned to the mill. The oversize of the gravel material then traveled by elevator to a 12-foot x 26-foot Dorr Classifier, where it was separated. The oversize was returned to the ball mill for further grinding and reprocessing; the rest continued the circuit by traveling to a set of 20-cell minerals separation flotation machine.

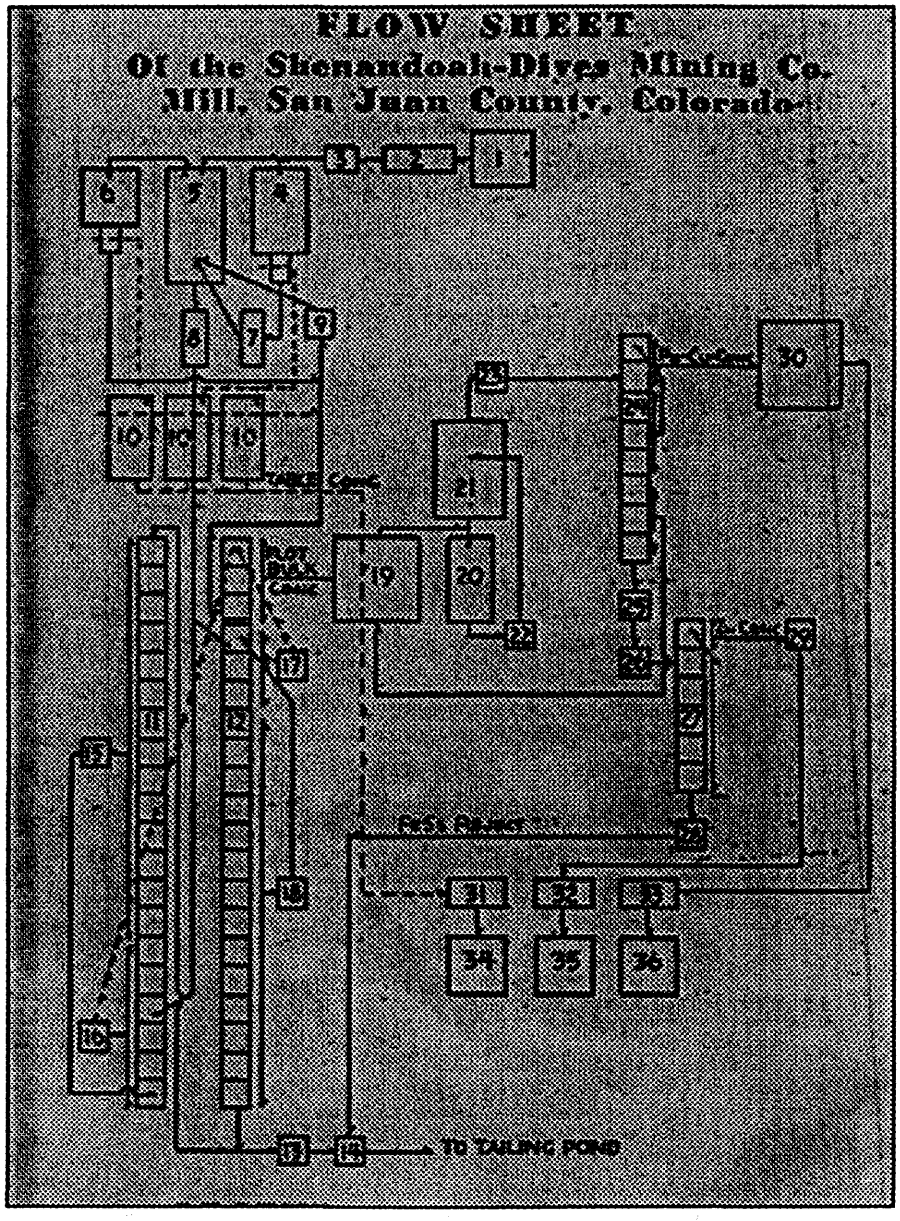
In the flotation process, an alkaline reagent was introduced into the water of the minerals separation circuit to attract and separate the mineral components for processing. Individual reagents attracted particular minerals to the foam atop the water in the cells. The foam was then drawn off the top of the water and processed further for collection. Depending on the metals that were to be the end result of the process, different reagents were introduced to the process.

The copper-lead concentrate from the first minerals separation flotation machine traveled to a Dorr thickener tank 35 feet in diameter. In the Dorr thickener, the concentrate was "de-watered" and the water returned to the mill. In this process, a thickener was added to the tailing to cause overflow of water for recycling. The concentrate traveled into a 5-foot x 10-foot Dorr filter. The filter was a drum that revolved, forcing the water out and the mineral to attach to its sides. The minerals were then scraped from the sides of the drum and moved to an 18-foot x 18-foot x 12-foot concrete concentration bin to await transport. (The Dorr filter was later replaced with a disc filter or "canvas wheel" that took up less space and processed a dryer concentrate.) The concentrate was then transported to a concrete bin to await shipment to a smelter.

The tailings from the first minerals separation cells traveled on to a second 20-cell unit where the iron concentrate was extracted. The iron concentrate traveled to a Dorr thickener for de-watering, and then on to be reground in a 4-foot x

1929 FLOW SHEET LEGEND:

1. 1,200-ton fine ore bin
2. Pan conveyor, 24"
3. Symons short head cone crusher
4. No. 86 Marcy grate ball mill
5. Dorr quadruplex classifier 2'x26'
6. No. 64 Stearns-Roger ball mill
7. Bucket elevator 35'x 22'
8. Trash trommel, 9-mesh, 2-1/2'x 6'
9. Belt elevator 24"
10. Three No. 6 Wilfley tables
11. 20-cell No. 21 M.S. flotation
12. 20-cell No. 21 M.S. flotation
13. Liberty Bell type sampler
14. Hydroseal pump, "B" frame size
15. Wilfley pump, 2"
16. Wilfley pump, 2"
17. Wilfley pump, 2"
18. Wilfley pump, 2"
19. Dorr thickener, 35'x 10'
20. Stearns-Roger ball mill, 4'x 10'
21. Esperanza-type classifier, 6'x16'
22. Wilfley pump, 3"
23. Wilfley pump, 3"
24. 8-cell No. 18 Denver flotation
25. Denver conditioner, 3-1/2'x 5'
26. Liberty Bell type sampler
29. Denver 11" concentrate pump
30. Dorr thickener, 35'x 10'
31. Settling box, 3'x 6'x 2'
32. Dorr filter 2-1/2'x 6'
33. Dorr filter 5'x 10'
34. Table concentrate bin
35. Zn concentrate bin
36. Pb-Cu concentrate bin



10-foot ball mill. From the ball mill, the concentrate traveled across a Wilfley table where the concentrate was separated, sent to a filter, and on to a concentration bin.[19]

An inventory of the buildings in 1929 listed the mill, tram terminal with aerial tramway, sampling plant, office and assay building, electrical transformer, and two stave water storage tanks.[20] In 1937, a 6-foot x 5-foot ball mill was added, making a total of two ball mills. The plant processing capacity was now 700 tons.[21] In the 1960s, as the mill began to purchase more ore, the owners enlarged the main mill and added a zinc circuit for processing three concentrates, lead, zinc, and copper.[22]

In 1961, Standard Metals Corporation, which now owned the mill complex, removed the mill's original sampling plant and replaced it with a new crushing plant. The crushing plant is attached to the mill building, and ties into the 250-foot conveyor system. The plant has a rectangular floor plan, approximately 40 feet x 60 feet, and a gabled corrugated-metal roof. Also at this time, the Standard cone crusher that had been at the mine was moved to the crushing plant. The Shorthead cone crusher that had been in the ball mill portion of the mill was also moved to the new crushing plant.

Despite these changes, the flow chart of the ore was only altered in the fact that the ore was now removed from the pocket ore bins, crushed in the plant, and then transported up the 250-foot conveyor to the mill. The rest of the process remained the same.

As technology advanced, Standard Metals Corporation continued to upgrade the operation. In 1975, a non-contributing structure, a steel rod mill, which could grind a finer product, was added to the southwest corner of the mill. The steel rod mill, which was approximately 92-1/2 feet x 50 feet with a corrugated-metal shed roof, was added to the uppermost level of the mill in the southwest corner (where the two ball mills processed the ore). With the addition of the steel rod mill, the ore that had been previously crushed to 3/4 inch was processed further, resulting in a fine grind about 1/8 to 1/10 inch in size.[23] It was also during this time that one of the mill's stave water tanks was torn down.

At the end of the milling process, the final tailings were pumped to tailings piles or slurried into the Animas River. In 1934, after researching methods that were believed to be environmentally sound, mill superintendent Charles A. Chase decided to use an innovative tailings pond method perfected and utilized by J.T. Shimmin in Butte, Montana. Altering this method to fit the Shenandoah-Dives Mill's specific needs and terrain, the Shenandoah-Dives Company began depositing its surplus into tailings ponds south of the mill. A chute or tailings flume delivered the pumped tailings to the pond area. At the time, the utilization of tailings ponds was atypical for the mining industry as a whole. Generally, environmental concerns were not at the forefront of the industry's interests; profitable veins of ore were of greater concern. As a result, the Shenandoah-Dives Mill was one of a limited number of mining enterprises that employed environmental, as well as cost-efficient, methods in their day-to-day activities.[24]

A V-shaped box delivered the tailings to the pond area. The box was made of two 2-inch planks; one was 12 inches wide, the other was 10 inches wide. The box was supported by a 20-foot-high trestle that was set on gradient to

initiate flow of the tailings. Upon arrival at the pond, the tailings were distributed by a grooved 20-foot-long board to form a "wall of sand" in the shape of pond. The technician would move the board periodically to retain a level top to the pond. In order to draw off water without stirring up the sediment, a wooden box was laid in a trench up the hillside prior to depositing the tailings. The top of the box had a series of holes 1-1/2 inch in diameter. As the water level rose, the lower hole was corked off to elevate the water level. As each subsequent hole was reached, a cork was placed in the hole. Once an established level of water was attained, the water was drained off through pipes into a decantation pond located on a lower plane than the tailings ponds. In practice, only a small amount of water was actually decanted or lost through evaporation. The hillside absorbed the greater volume.[25] As one pond filled to capacity, the flume was lengthened and another pond was begun. At the Shenandoah-Dives Mill, the ponds filled a triangular shape, following the mill's property lines. Four ponds are located within the triangle. The two oldest ponds, #1 and #2, are from the 1930s-50s; while #3 and #4 ponds were created in the 1970s-90s.

Water Storage Tank

The 24 feet x 20 feet circular water storage tank is built of wooden staves and steel rings with a conical roof fashioned from timber supports and sheeting covered by asphalt shingles. The water storage tank built in 1929 is constructed of wooden staves; numerous steel rings hold the staves in a cylindrical shape. The conical roof is fashioned with timber supports and sheeting, which is covered with asphalt shingles applied in a circular fashion. The tank is 24 feet x 20 feet and is located on the west side of the mill near the steel rod mill. A wooden, timbered ramp runs from ground level to the roof of the tank. An opening, approximately two feet square, is at the end of the ramp. Several steel pipes run from the tank into the steel rod mill. Although only one water tank remains, a 1929 mining report notes that there were two stave water storage tanks. Based on historic photographs, the second tank, which was approximately 20 feet in diameter, was located where the steel rod mill was added in 1975.[26]

Coal Storage Tank

The circular coal storage tank is built of wooden staves and steel rings with a conical roof fashioned from timber supports and sheeting covered by asphalt shingles. It is located on the north side of the mill. The tank, built in 1929, is on the lower (or fourth) level and is placed under the truck ramp. It is built of wooden staves; numerous steel rings hold the staves in place. The tank has a conical roof with timber supports, covered with tar paper. A chute is located near the pinnacle of the conical roof. Coal was unloaded into the chute by trucks on the loading ramp leading to the top of the storage tank.

Office/Assay Building

The Shenandoah-Dives Mill office/assay building is a rectangular, two-story frame building with a slightly gabled roof covered in tar-paper shingles. It was completed in the summer of 1929. It has three floors and is 24 feet x 30 feet; the lower floor is terraced into the side of the hill. According to inspector reports, the building has insulex walls and ceilings. The exterior wall are made of Oregon fir timber, native timber sheeting, and tar-paper shingles. The lower floor has an office, three rooms, and a concrete vault. The upper floor contains six rooms and a drafting area.

A 1950 inspector report notes that the lower floor was the assay office, and the upper floor held the superintendent's office and sleeping quarters.

On the north side of the building, two upper floors and a partially exposed lower level are visible. The lower level has a covered porch. The next level has three 4-pane, double-hung windows. The top floor has three sets of windows: one set of side-by-side windows, one double-hung window, and a set of double-hung windows. All double-hung windows are 4-paned and covered with screens.

The east side of the office/assay building has a door and one double-hung window on the lower level. The second level has a set and one double-hung window. The top level has a timber-framed porch with a set of double-hung windows, a wooden door with transom, and a picture window with a view of King Solomon Mountain and the Shenandoah-Dives Mine.[27]

Because of the terraced design of the building, only the two upper levels of the office/assay building are visible on the south side. The ground level has two wooden doors, one solid and one glazed. A set of boarded-up windows are between the glazed door and the stairs to the upper level of the building. There are exterior, wooden steps leading to the glazed door. On this level, there are four 2/2 double-hung windows. A chimney pipe runs up the side of the building.

A road to the workshop and lower levels of the mill runs along side the western side of the office/assay building. Only two levels are apparent on this side of the building. There are three windows visible with two 2/2 double-hung on the upper level. The window on the lower level has a vent protruding from the top half and the bottom is a 2/2.

Shenandoah-Dives Mill: noncontributing buildings, structures, and sites

The Shenandoah-Dives Mill complex includes four noncontributing buildings and one noncontributing site. The buildings (guard shack, trailer, valve house, and lime storage building) were built in the 1960s and 1970s and fall outside the period of significance. The tailings ponds, which are counted as one site, are noncontributing due to a lack of historic integrity through reclamation.

The guard shack, a rectangular frame structure with a gabled corrugated-metal roof, is located at the entrance to the fenced-in mill facilities. The entrance is on the east side, which has two glazed doors with a 1/1 window. Wooden steps lead to each door. The north side has a picture window and glazed door. The west side contains a side-by-side window and glazed door. The southern side has two windows.

The trailer is a rectangular, wooden, modular unit with a gabled corrugated-metal that is located on the mill's lower level on its eastern corner. It was built in 1986 as a shower room for mill workers. A porch was added to the center entryway. One solid door is located to the rear, and one in the center front.

The valve house, a rectangular, corrugated metal structure with a center gabled roof with exposed rafters, is located inside the fenced property of the mill, about 30 feet from the guard shack. The valve house shelters the valve to the mill's water system from the harsh winter weather. It is situated on the slope above the decantation pond. The door on the eastern side has a bracketed hood.

The rectangular lime storage building is approximately 50 feet x 40 feet and is principally made of corrugated metal over a wooden frame with a gabled metal roof. The building has a garage door on the northern end. A solid door with a warning sign is next to the garage door.

Electrical power to the mill and mine was supplied by the electrical transformer, a non-contributing structure. The transformer, installed circa 1929, consists of three 250-kva General Electric transformers on an elevated steel structural support which is fenced and locked.[28] The transformer was initially constructed upon a wooden trestle similar to the coal ramp trestle. After deterioration threatened its soundness, the trestle was replaced with an elevated steel structure in 1978. A small white metal building was added to house some of the electrical components. In the 1970s, federal safety standards required warning signs and yellow hand rails around the transformer.

The Shenandoah-Dives' four man-made tailing ponds cover approximately 85 acres, and encompass nearly ten million tons (or approximately five million cubic yards) of tailings residue.[29] The ponds, which are gently sloped and in a truncated conical shape, were designed to enclose water and residue from the processing of ore in the milling process.[30] The four tailings ponds are southwest of the mill site. Although the tailings ponds were an important component of the Shenandoah-Dives Mill, they have been reclaimed and, as a result, have lost their historic integrity. The flat top and gently-sloped sides of the tailings ponds have been reseeded with grass to better contain loose material. The decantation pond is located between the tailings ponds and Highway 110.

CROOKE'S POLAR STAR MILL OFFICE/ASSAY BUILDING

The assay office, a one-story square-shaped building, is built of Silverton red brick and covered with an aluminum-covered hip roof. On the eastern side, there are two double-hung windows with wooden frames. The northern side only contains a solid wooden door. The building overlooks tailings pond 3 of the Shenandoah-Dives Mill.[31] This building is associated with Crooke's Polar Star Mill. According to local historian Allen Nossaman, the building is located on the Polar Star Mill property (Mineral Survey No. 7608) and is the office of the mill. The mill and its associated buildings were built in 1890-91; only the office/assay building is extant. The office/assay building is visible in an 1899 photograph of Crooke's Polar Star Mill, which shows the building located north of the mill plant. In 1899, the plant processed 30 tons per day of silver-bearing ore from the North Star (Solomon Mountain) Mine.[32]

ANIMAS POWER AND WATER COMPANY SUBSTATION

The historic Animas Power and Water Company brick transformer substation, a one-story, T-shaped structure with a flat, asphalt roof, is on the east side of Highway 110, approximately one mile northeast of Silverton. The Animas River flows past the east side of the transformer substation. The substation was built in 1906 by the Animas Power

and Water Company under the direction of J. A. Clay, general superintendent.[33] The substation did not create electricity, but diverted 17,600 volts of electricity from the main plant in Rockwood, also known as the Tacoma Plant, upon three main lines that supplied electricity to the mines and mills in the Silverton vicinity.[34]

The pilastered, brick transformer structure is approximately 40 feet x 50 feet. The red, regular Ashlar brick construction of the structure has protected it from fire damage. The substation has a concrete foundation and beveled water table. The flat roof of the building has a parapet. The north side is the principal entrance to the structure. The main entryway is an over-size doorway with a semi-circular arch over a fan-light of four panes. There are two wooden, diagonal-planed, multi-paneled doors that are large enough for the entrance of animals or a small truck. A paneled entrance door for people to enter has been fashioned in the right side of the larger multi-paneled doors.

There are four windows on the north side of the substation. Two 6/6 mullioned windows under a semi-circular arch with fanlight are to the right of the entrance doors. The windows are on the lower level of the building. High above the door and lower windows are two small circular windows with four panes surrounded by brick ornamentation.

The eastern side of the substation has a shed roof addition. The exposed original structure exhibits six circular windows just below the roof parapet, which have been filled in with bricks. Two partially exposed window openings are boarded up and hidden behind a second shed roof addition. There are no doorways visible due to non-historic additions. The additions were added to the structure between 1962-65. The frame and aluminum additions are a conglomerate of materials, including tin, tar paper, and boards. Corrugated aluminum covers the roof and some of the sides of the additions. The addition located at the southeast corner of the substation has a large frame door and one small window partially covered with aluminum.

The addition at the northeast corner of the substation is a two-story, frame structure with tar paper, corrugated aluminum, and wood sides and roof. On the north elevation of the addition, there are two sets of two 6/6 mullioned windows on the lower level. No entrance is visible. On the upper level, there are two 9-paned windows and a 4/4 double-hung window. The east side of the addition contains a ten-foot double doorway with hood. A single four-paned window is to the left of the door. This addition was used as a timber cutting shed on the lower level, with an apartment upstairs for the woodcutter.

The south side of the substation has two 6/6 mullioned windows under a semi-circular arch with fanlight on the lower level. The lower level had three square openings, now bricked in. They do not appear to have ever been windows. A casement window is situated under these three openings. The upper level has two small circular windows with four panes surrounded by brick ornamentation similar to the north elevation. A ladder is located at the southwest corner about six feet above ground and runs up the side and past the parapet roof. In a historic photograph, there is a set of six-paned windows under a semi-circular arch with fanlight. The windows are extant within the interior of the addition. A wooden door is located just beneath this set of windows. These were not visible upon field survey due to an addition.

A non-historic addition has been constructed at the southwest corner of the structure. It is a wooden frame and corrugated-aluminum addition with a shed roof displaying exposed rafters. There are no windows in the addition. It appears to have been built for storage purposes due to its lack of windows. A three-hinged, double-sized wooden door faces east.

Four pilasters are on the west side of the original substation. Located between each of the pilasters in the northwest corner are two circular windows with four panes surrounded by brick ornamentation. The windows are just below the parapet. At the same level, 15 pipe openings are exposed. In a historic photograph of the original substation, there are three 6/6 mullioned windows under a semi-circular arch with fanlight located on the lower level and at the northwest end of the structure. A non-historic addition has been added to the west side. The wooden frame addition has been covered with corrugated aluminum. The shed roof has exposed rafters. At the south end of the addition, there are two frame doors large enough for a truck to enter.

Although the Animas Power and Water Company transformer substation has been added to at various times, the overall integrity of the original structure remains and reflects its original design and use. The structure additions could be removed to reveal the exterior of the substation, and provide information about electrical transmission between power stations and their customers, the mines and mills, from 1906 until its obsolescence in the late 1950s. The equipment within the original structure is now gone. Only the cement foundations and a large open room remain in the interior of the substation.

ANIMAS POWER AND WATER COMPANY MULE BARN

The Animas Power and Water Company mule barn is a two-story, frame, irregular-shaped building with a wood shingled roof. The frame mule barn is approximately 30 feet south of the substation. The barn, built between 1906 and 1910, housed man and mules. The exterior is framed in a flush-board fashion. The principal entrance is on the east side. The upper floor was used for living quarters of the caretaker and is reached by a set of exterior, banistered stairs. Entry to the second level is through a double-paneled door, set below a truncated, cross gable roof. A shuttered opening, approximately 2 feet x 2 feet, is on the lower level to the right of the wooden steps. Entry to the lower level is through a sliding barn door for animals; the vertical-planked door slides into the inside of the building.

The south side of the mule barn exhibits an unusual blending of two buildings. A cross beam is visible on the outside dividing the front portion from the rear portion of the building. The roof of the rear portion of the building is gabled. In the front portion, there is a 6/6 double-hung window on the lower level and a 4/4 double-hung window on the upper level. The rear portion of the building has two 4/4 double-hung windows. The west side has a set of vertical-planked doors opening from the center. Entry is for man or animal. The upper level has one 4/4 double-hung window. There is evidence of patching with corrugated metal sheets to cover deterioration.

The north side of the mule barn again exhibits the blending of two buildings. The rear portion has a set of vertical-planked, double doors. Entry is for man or animal. A 4/4 double-hung window is to the right of the doors. On the front portion of the building, the upper level has a 4/4 double-hung window; while the lower has an approximately 2-

feet x 2-feet window with wooden shutter. There is evidence of deterioration, and temporary patching was achieved with corrugated-metal sheets.

The mule barn is in a state of moderate deterioration with evidence of settling of the earth foundation. The stalls and walls within the building are extant. Efforts have been made to patch outer wall deterioration with corrugated metal sheets. The roof is relatively sound, as the building is being used for storage at this time.

Animas Power And Water Company Substation: noncontributing buildings.

Included on the property of the Animas Power and Water Company are two non-contributing buildings, an aluminum Quonset hut and aluminum shed that were added to the property in the 1970s outside the period of significance. They were primarily used for the storage of heavy equipment and related supplies.

The aluminum Quonset hut is a one-story building with a rectangular floor plan; it is located west of the substation. It is primarily used for the storage of vehicles and heavy equipment.

The approximately 16 feet x 20 feet aluminum shed has a gabled aluminum roof. The shed is located next to the Quonset hut on the Animas Power and Water Company property.

HILLSIDE CEMETERY

Hillside Cemetery is located just outside the northeast boundary of the Silverton town limits, west of Highway 110, and south of tailings pond 4. The cemetery does not have a religious affiliation. It was established on the side of a hill, which led to its name: Hillside Cemetery. It is at the base of Boulder Mountain. Local historian Freda Peterson believes that the site was chosen for its availability and proximity to town. In addition, this particular parcel of land was not suitable for mining. The cemetery has an impressive view of Baker's Park and the surrounding mountains. Prominent views were a common feature of cemeteries in the late 1800s. The difficulty of burial site upkeep on shifting soils does not appear to have been considered in the original site selection.

The cemetery, which remains active, was established in 1875 with the burial of a young child, although the location of that grave site is unknown. The informal placement of grave sites displays evidence of haphazard development over time. Natural features of the site include indigenous trees, evergreen, and native vegetation in the rocky soil. Pruning and thinning of trees has prohibited the encroachment of forestation onto the site. A circular, one-lane drive connects the upper and lower levels of the cemetery.

There is no known plat of family burial plots. Records have been lost over time with transient morticians and lack of permanent funeral parlors. The organization of plots appears to have conformed to the natural contours of the slope and upon visual survey. Inadvertently, previous burial sites have been encroached upon. A division is apparent among the sites along ethnic and class lines. The lower section tends to be ethnic and Catholic, while the upper section appears to be native-born Americans, English immigrants, and Protestants.[35]

Evidence of family and fraternal burial plots exists in the form of cast iron fencing and concrete curbing. Several tombstones are fashioned upon fraternal guidelines, e.g. the Woodmen of the World's felled tree. Remains of entrance and wooden boundary posts of the Foresters of America, Savoia Lodge No. 28 burial section exist. Grave markers include vertical headstones, horizontal grave markers, obelisks, a few ledger sites, a mass grave site of 1917 flu epidemic victims, cenotaph, and a few atypical altar tombs including one with a burial cache.

The earliest marked burial in Hillside Cemetery was for James Latham Briggs and consists of an engraved, small boulder of native rock. The engraved *Briggs* is still legible. The Hillside Cemetery Association has installed a headstone nearby with the inscription, *James Latham Briggs Died in 1878 in a snowslide Earliest marked burial in Hillside Cemetery.*[36]

Of particular interest for marker design is the burial plot of Emma Harris (local folklore refers to her as the "Russian Princess"), which is fashioned from Silverton red brick used in several prominent Silverton buildings, such as the Avon Hotel, that were designed and built under the direction of F. O. Sherwood.[37] The gravesite of Mrs. Harris is covered by an approximately 2 ½ feet x 6 feet x 3 feet red brick base similar in shape to the engine of a steam locomotive. The top of the base is covered with a marble slab inscribed with a love poem dedicated to Emma. There is no reference to her surname. The "cab" of the piece has a red brick wall on the northeasterly side which provides shelter for the cavity or memorial chamber visible through wood and brick framed windows on three sides. Only two of the windows are intact. Inside the cavity of the "cab," there is debris including: glass candle votives, artificial flowers, and soil.

There are several gravestones reflecting the Woodmen of the World fraternal association. The association used the granite carved marker depicting the felled tree stump inscribed with the deceased's vital information. Other fraternal organizations marked their deceased members graves with metal placards in the shape of their coat-of-arms or symbolic emblem. The inscriptions on the metal emblems were restricted to the words of their directive, e. g. Liberty, Unity, Benevolence, Concord from the Foresters of America Association. In the Italian community gravestones from the 1910s and 1920s include dedos, or oval porcelain photos, of the deceased adhered to the gravestone markers.

In recognition of their service in the military campaigns in the Civil War, an eight-foot wooden cross carved with the words *Grand Army Sleeping Group* has been erected in an area near the deceased soldiers. While still standing, the remains of the cross has become quite weathered by the elements, beginning to split, and the lettering shows deterioration. A supportive brace has been wired to the base of the cross where deterioration has begun. A replica of the cross has been erected nearby the Hillside Cemetery Association, ensuring future generations the ability to read the inscription on the original.

Other markers include the use of six-foot x three-foot ledger, or a solid marble, rectangular, set parallel with the ground to cover the ground opening, headstones, artistic embellishments or designs on grave markers, and a cenotaph for a prominent citizen, William Cole, who is now buried elsewhere. Embellished grave markers include the marker for a two-month old infant that includes a granite base; a second tiered granite base with the engraving of the name,

age, and death date of the infant; and a third or upper level that is a marble embellishment of one-half of a clam shell cradling a life-size infant swaddled in a blanket.

Restoration of severely deteriorated grave sites is in process. Fences are being rewired or cables strung where existing ones are missing. An active cemetery association is supplying stones for irreplaceable markers or unmarked graves that have been identified by family members.

Contributing Resources

Shenandoah-Dives Mill (building)
Shenandoah-Dives Office/Assay Building (building)
Shenandoah-Dives Water Storage Tank (structure)
Shenandoah-Dives Coal Storage Tank (structure)
Shenandoah-Dives Aerial Tramway (structure)
Shenandoah-Dives Avalanche Deflector (structure)
Crooke's Polar Star Mill Office/Assay Building (building)
Animas Power and Water Company Substation (structure)
Animas Power and Water Mule Barn (building)
Hillside Cemetery (site)

Noncontributing Resources

Shenandoah-Dives Guard Shack (building)
Shenandoah-Dives Valve House (building)
Shenandoah-Dives Lime Storage (building)
Shenandoah-Dives Trailer (building)
Shenandoah-Dives Electrical Transformer (structure)
Shenandoah-Dives Tailings Ponds (site)
Animas Power and Water Company Quonset Hut (building)
Animas Power and Water Company Aluminum Shed (building)

SECTION 8
SIGNIFICANCE

This amendment to the Silverton Historic District National Register nomination expands the previous district boundary, the period of significance for this district, and the expansion of the significance to include National Register Criteria A and C. The original National Historic Landmark/National Register nomination for Silverton, which was prepared in 1975, identified Silverton's period of national significance as 1874-1920 and of national significance. The nomination ended the period of significance in 1920 largely as a result of National Register criteria pertaining to resources less than 50 years old. However, Silverton's significant mining history continued well into the 20th century, several years past 1920. The 1975 nomination also focused on the town's architecture, and did not include any mining-related resources, which were the economic basis of the community. The most significant property added under this amendment to the National Register district is the Shenandoah-Dives Mill, which was constructed in 1929 and, at the time of the 1975 nomination, was not yet 50 years old. This amended nomination also extends the period of significance from 1874, the date of Silverton's founding, to 1945. The year 1945 marks the end of World War II, an era that reflects the historic significance of the Shenandoah-Dives operation. In 1942, when the War Department suspended all non-essential mining activities for mines that drew more than 30% of their dollar value from gold and silver, the Shenandoah-Dive operation was allowed to continue production because its non-precious metals were deemed vital to the war effort. The Silverton Historic District (Boundary Increase) has state-level significance in this National Register nomination amendment. The national-level significance will be developed later, following the completion of a national context for 20th century milling operations.

The Shenandoah-Dives Mill complex is an exceptionally intact example of a selective flotation mill reflecting the distinctive characteristics of hard-rock milling processes in the early 20th-century Rocky Mountain West. It is also the only intact and functional late 1920s-era, wooden, gravitational, selective flotation mill in Colorado.[38] The West was once dotted with hundreds of mining and milling operations similar to the Shenandoah-Dives, which are now visible only as ruins, abandoned sites, open shafts, tailings heaps, and scarred land. The exact number of abandoned mills in Colorado is unknown, since there is no complete inventory. Of the five major mining regions in Colorado, remaining mill properties include: Argo Gold Mill (1859) in Idaho Springs, which consists of the exterior structure and pieces of equipment included in a museum; Idarado Mill (late 1920s) in Telluride, which is structurally sound but the flow pattern and equipment are not original; Valmont Mill (1935) in Boulder County, in which operations has been reconfigured several times for gold, silver, and fluospar milling and finally, closed in 1984[39]; and Carlton Mill (1949-51) in Victor, which includes a structure but no equipment.[40] A study of Boulder County that was prepared by Harrison Cobb is illustrative of the scarcity of Colorado's mills. According to Cobb, Boulder County once had more than 100 mills. Of those, all that remain are ruins, foundations, two deteriorating structures, and five operable mills, only one of which is historic. The status of Boulder County's mines and mills are typical of those throughout Colorado. Thus, the Shenandoah-Dives Mill complex survives as a rare example of an operable 1929 selective flotation mill, including all of its original equipment.[41]

The Silverton Historic District is significant under several Colorado historic contexts. As one of the West's premier mining towns, Silverton reflects the theme of "Precious Metal Mining as an Industry (1860-1920)," as identified in the *Colorado Mountain Historic Context.* In addition, the amended district nomination falls under the theme of "Lead, Zinc, and Other Mining, 1860-1945." Although Silverton's initial wealth stemmed from the discoveries of gold and silver, non-precious metals played a major role in the local and regional economy. Base metal mining began during the same period as the silver and gold rushes (ca. 1860-1880). As in the case of Silverton, non-precious metals such as lead, zinc, and copper were found in proximity to the gold and silver veins. In the 20th century, base metals development gained greater significance in the economy of Silverton and Colorado, as new products were invented that required these natural resources. Shenandoah-Dives reflects this 20th century emphasis on base metal development. Built in 1929, Shenandoah-Dives was one of Colorado's largest employers, and Silverton's primary mining and milling operation until its permanent closure in 1992. Its inclusion within the Silverton Historic District reflects the more modern mining and milling operations, technological advances, and financial investments that allowed Silverton to sustain its mining history, character, and mineral-based economy well into the 20th century.

The Shenandoah-Dives Mill is also significant under the *Colorado Mountain Historic Context* theme of "The Technology of Mining in Colorado's Mountain (1859-1945)." At the time of its construction, Shenandoah-Dives was a state-of-the-art mill that embodied all the technological advances of the period. Its design was so advanced that, at the time of its closure in 1992, the Shenandoah-Dives Mill operated in basically the same way that it had in 1929. In addition, the Shenandoah-Dives Mill complex survives as an exceptionally intact example of a selective flotation mill and its supportive facilities, reflecting the distinctive characteristics of hard-rock milling processes in early 20th-century Colorado and the Rocky Mountain West.

In addition to the Shenandoah-Dives complex, this National Register nomination expands the district boundaries to include a significant example of the town's 19th-century mining history: Crooke's Polar Star Mill assay office. Crooke's Polar Star Mill was constructed in 1890-91, and was an important early milling operation in the Silverton area. The Crooke's Polar Star Mill office falls within the *Colorado Mountain Historic Context*: "Precious Metal Mining as an Industry (1860-1920)."

The amended nomination also includes resources associated with the Animas Water and Power Company, which reflect the "Electric Power" theme, as identified in the *Colorado Engineering Context.* As noted in this engineering context, the requirements of mining and milling often acted as the catalyst for the introduction of electrical power into remote areas of Colorado. The Animas Water and Power Substation, which was constructed in 1906, reflects the history and importance of electrical power in Colorado's high-altitude mining regions.

The Silverton Historic District also falls within the *Colorado Urbanization and Planning Context*: "Stage/Wagon Era: Mining Towns and Camps," and reflects the common characteristics of southwest Colorado mining towns. Included in the amended boundary is the Silverton town cemetery, which represents Silverton's social and cultural development and early town planning efforts.

The amended Silverton National Historic District is eligible under National Register Criteria A and C. Under Criterion A, the Silverton Historic District is associated with the broad national themes of westward expansion, exploration and settlement, and the mining frontier of the Colorado Rockies. Under Criterion C, the Silverton Historic District represents the distinguishing architectural, settlement, and industrial characteristics of a mining community in Colorado and the Rocky Mountain West.

It should be noted that the original nomination for Silverton did not include a complete description of the individual buildings within the district. It is recommended that additional survey work be conducted within the historic district to strengthen the original nomination, including an assessment and count of contributing and noncontributing buildings, structures, and sites. This effort could also include an assessment of the broader mining landscape in the Silverton area. Also, as noted earlier, the development of a national context for 20th century milling operations may also result in the expansion of the National Historic Landmark (NHL) boundaries for the Silverton Historic District.

A re-evaluation of the period of significance should also be considered at a later date, as even this amendment does not fully reflect the economic impact of mining on the town of Silverton. During the period of 1953-1992, the Shenandoah-Dives Mine and Mill experienced several changes in ownership and direction through a series of mergers and buy-outs, until its eventual ownership by Sunnyside Gold Corporation. At a later date, it is possible that the period of significance could be expanded to 1992, which marked the final closure of the mill. It is at this point that the socio-economic character of Silverton was dramatically altered when, for the first time in the town's 118-year history, its economy was no longer based on mining.

Shenandoah-Dives Mining Company

Between 1882-1918, the San Juan Triangle district produced more than $65 million in precious ores. After World War I, mining in the Rocky Mountain West suffered a severe decline. However, for investors with money and foresight, it was the perfect time to invest in mining ventures. In the summer of 1925, a group of capitalists from Kansas City, Missouri -- later known as the Shenandoah-Dives Syndicate -- contracted mining engineer Charles A. Chase of Denver to travel to the San Juan mountains of southwestern Colorado to locate and purchase a gold mine for their investors.[42] Chase had first gone to the San Juan Mountains in 1899 at the invitation of Arthur Winslow, owner and manager of the Liberty Bell Mine in Telluride, Colorado. Working himself up from company surveyor and assayer, Chase eventually became general manager of the Liberty Bell Gold Mine. Chase spent 25 years with the Liberty Bell Mine until it was mined out in the 1920s.[43]

In August 1925, Chase traveled to Silverton to initiate preliminary exploration and development work in the area, beginning with an assessment of samples from the Old Hundred Gold Mine, which was located in a well-defined vein that ran through King Solomon Mountain. While collecting samples, Chase also assessed the rich veins of the Shenandoah-Dives and North Star mines. Chase's subsequent proposal to the Kansas City investors was to purchase and consolidate the Shenandoah-Dives, North Star, Terrible, and Mayflower mines into one large mine twice the size of the old Liberty Bell.[44]

Upon Chase's recommendation, the Kansas City group raised capital to purchase 31 patented claims and 12 unpatented claims covering 316 acres. In June 1929, under the laws of the State of Colorado, the syndicate incorporated as the Shenandoah-Dives Mining Company; James W. Oldham was the company president. The company's general offices were located in Kansas City, with mine operations near Silverton. The company was authorized to issue 3,500,000 shares of common stock at $1 par value.[45] In 1925-1927, the company began developing their Colorado holdings. Chase served as general manager of the Shenandoah-Dives mining operation. Prior to incorporation and in the development of the mine holdings, 27 men were employed as machine runners, trammers, cagers, and topmen; an engineer oversaw their work. They were assisted in non-mining enterprises by blacksmiths, carpenters, cooks, firemen and related helpers. Early production garnered $400,000. By July 1928, the nascent company also profited from the use of the Iowa Tiger Mill, a rented mill located in Arrastra Gulch.[46]

In 1928, Chase presented the syndicate with a prospectus outlining proposals for a tunnel, tram, and mill. The prospectus was accepted and funds transferred to Shenandoah-Dives Company and Charles Chase for construction to begin in June 1929. Arthur J. Weinig was hired as the designer of the metallurgical portion of the mining process. The Denver-based company of Stearns-Roger Engineering designed the structure that was to become the Shenandoah-Dives (Mayflower) Mill. Chase was in charge of the site and general layout.[47]

In addition to the mill complex, the Shenandoah-Dives Company developed the mine site, which was located on King Solomon Mountain. Here, the company built a boardinghouse for single miners, as well as those workers who did not live in Silverton. (Company policy required single men to live in the boardinghouse.) The four-story boardinghouse contained storage rooms, heating plant, dining room, first-aid room, bakery and kitchen, offices, recreation room, commissary, staff quarters, and sleeping quarters. In addition to the boardinghouse, the above- ground buildings at the Mayflower Mine included a tramway terminal building, and a secondary tramway terminal to the boardinghouse. All the other facilities were built underground, due to the substantial snowfall and avalanches in the San Juan Mountains. These underground facilities included a crushing plant, compressed air plant, blacksmith shop, and foremen's office. The mine and the boarding house were connected via a short underground passage that allowed the men to work despite weather conditions.[48] The Shenandoah-Dives mine is not included in the National Register nomination amendment due to loss of historic integrity. Surface buildings and structures, except for the upper terminal, avalanche deflector, and Towers 1 and 2, no longer exist. The mine is boarded up and on a list for eventual capping.

Transportation between the mine and the mill was by aerial tramway. Since 1870, mining operations in the Silverton area had relied on mules and aerial tramways for transportation, due to the high-altitude location of the mines and the treacherous mountain trails. The Shenandoah-Dives Company hired Fred C. Carstarphen, a well-known engineer in the region, to design the aerial tramway between the company's mine and the mill. Recognizing that snowfalls and avalanches often wiped out wooden tramways in the area, Carstarphen designed the Shenandoah-Dives tramway with riveted steel towers. In addition, the Shenandoah-Dives' tramway's towers were larger than average. The Shenandoah-Dives aerial tramway was 9,526 feet long between the loading terminal and the discharge terminal, with a drop in elevation of approximately 1,400 feet. In 1930, this was believed to be the longest continuous aerial tramway

in operation.[49] The tramway towers were built by the Pittsburgh Engineering Company, under the direction of Algot F. Andrean. Following construction, Andrean continued to work for the company as superintendent of the 12-man crew that maintained and operated the tramway. (In 1957, the Shenandoah-Dives discharge terminal tram building and aerial tramway were used as a movie set for Universal Studio's motion picture, "Night Passage," with Jimmy Stewart. This is the only color-and-sound film of the tramway operating.)[50]

Due to the unique design of the system's three double-cable anchorages, the aerial tramway could withstand most avalanches. However, in 1938, an avalanche destroyed Towers 1 through 5. In an effort to prevent further avalanche damage, the company built an avalanche deflection structure above Towers 1and 2 in the summer of 1938. The deflector was designed by Charles Chase, and built by Italian immigrant Carlo Poloine. Poloine had come to Silverton from the Chicago area, where he had worked as a master stone mason on sewer and subway projects. Poloine was working as a timberman in the mine when Chase learned of his stone masonry skills and hired him to build the deflector.[51]

The avalanche deflector was built between May and September 1938. Algot F. Andrean, tramway supervisor, employed Tony Bazz, Eddie Valentine, Sam Mannick, and Joe Todeschi to assist Poloine in the construction of the avalanche deflector.[52] Poloine was paid $6.00 a day for an eight-hour day; while the others were paid $4.00 a day. Each morning, the men rode the tram up to the mine area where they met Poloine, who lived at the boarding house. Each man carried a bag of sand or cement up the hill about 150-200 feet to the site of the breaker. The men fashioned a wooden trail to the site to make hauling easier on the steep terrain. Water was carried up to the site to mix mortar, and for the men to drink. A mortar box was built at the site, and the deflector was constructed of rocks gathered from the mountainside.[53] When the deflector was completed, Chase declared it "a work of art." Afterwards, Poloine returned to being a timberman in the mine.[54] The deflector worked well to protect the upper terminal towers but did not save three lower towers from a devastating snowslide in 1963. Despite the loss of 1,500 feet of cable and towers, the double-cable anchorage system saved the rest of the aerial tramway from destruction.[55]

During the depression of the 1930s, many mining communities of the Rocky Mountains were not able to keep their operations afloat. However, the foresight of Charles A. Chase -- and the cooperative efforts of the town of Silverton and the Shenandoah-Dives Company -- enabled the mining and milling operations to survive the depression years.[56] During the 1930s, the Shenandoah-Dives Company's base metals helped meet the needs of U.S. manufacturing companies, during a period when other regions suffered serious decline due to mine and mill foreclosures. By 1930, Shenandoah-Dives had invested $1,250,000 in the Silverton operations.[57] From 1930-32, the mill processed 461,826 tons of ore. At the time, Shenandoah-Dives was the largest, single, industrial payroll in the "Four Corners" area comprised of portions of Colorado, Utah, New Mexico, and Arizona.[58] By 1932 Chase also gained the company's workers cooperation in a temporary pay reduction, in an effort to keep the mine open. Chase also was able to encourage businesses in the town to lower prices and accept credit from the miners to meet their basic needs; in turn, the miners' business kept the shops open. With the abandonment of the gold standard in 1934 and the Silver Purchase Act of 1934, the mining regions of the West experienced a moderate boom period that supported them through the rest of the depression, until miners' wages were returned to normal within two years and debts could be paid.[59]

In 1938, 262 men worked for the Shenandoah-Dives Company in Silverton. By 1939, the wages of the employees of the Shenandoah-Dives operation were within the average of the industry. Miners, timbermen, trammers and loaders, trackmen, and motormen were paid $4.95 daily. Unionization also had improved the miners' working conditions, including hours and wages. Congressional passage of the Hours-Wages Law in 1938 added strength to the union's battle for better working conditions. However, in August 1939, members of the Silverton Miner's Union #26 became outraged when the Shenandoah-Dives Company lowered the wage base rate to counter the effects of the Hours-Wages Law enacted by Congress and required an eight-hour work day, overturning earlier agreements between union and company officials for a "portal to portal" workday of six hours.[60] The miners reacted by going on strike mid-July 1939.

After several months of negotiations between Chase, the Shenandoah-Dives Company, union negotiator A.S. Embree, and local union officers, union members decided to take matters into their own hands. The depression had closed many mining operations and the miners were anxious to resume operations before the Company closed Shenandoah-Dives. Members of the Local #26 disbanded their local to create a new local, representing their current concerns, under the San Juan Federation of Mines, Mills, & Smelter Workers. Assets of the disbanded Local #26 were turned over to the new union, and a new negotiations committee was formed to address workers' concerns with Charles Chase in order to resume work 7 September 1939.[61] As a result of the strike and following negotiations, Chase implemented the contract mining system whereby workers who were more productive earned more. This, in turn, lowered company costs. Hoistmen and freighthandlers earned a daily wage of $4.40 and bucketmen earned $4.70, seven days a week; waiters received $80 per month, while cooks earned $165 per month.[62] Although Chase attempted to meet most of the needs of his employees, pressures from the Shenandoah-Dives Company's board of directors for a return on investment often forced him into an awkward and uncomfortable position of balancing the needs of the absent owners and the local workers.

Charles Chase's cost-efficient management also helped the Shenandoah-Dives operations remain viable. Chase gambled that the company's production of base metals, such as lead and zinc, would carry the cost of the operations, with additional profit from gold and silver. To insure the success of the Shenandoah-Dives operation, Chase built and ran the Silverton complex with the newest, most efficient mining and milling processes available. The Mayflower Mill was designed for the fullest recovery of metals, using alcohol reagents to separate three products from the ore. Upgrades in the mill in later years enabled the mill to separate five products.[63]

The Shenandoah-Dives Mill operation also reflected the increased environmental concerns of the mining and milling industry in the early 20th century. Since its territorial days, Colorado had laws outlawing stream pollution. Subsequent environmental laws were enacted, but were often ignored by mining companies. At the turn of the century, mining activities focused on recovering minerals from the soil and rock within which they were embedded in the quickest and most cost-efficient manner possible. Since it was generally accepted by society that mining contributed to the industrialization, modernization, and progress of the United States, the deleterious effects of mining on the surrounding environment or community often were not considered. However, this situation changed somewhat in 1884, when California's Yuba and Feather Valley farmers successfully sought retribution from hydraulic miners for

environmental damage. This case set a precedent for further lawsuits by the agricultural community against the mining community. The California case also prompted the mining community to devise innovative mining processes conducive with the environment. While prior mining practices denuded timber growth, polluted water sources with tailings, and poured noxious gases into the air, Chase and a small number of other mine operators sought to install cleaner, more environmentally safe methods to help protect the locales in which they worked and lived.[64]

The Shenandoah-Dives operation was the first in the region to utilize tailings ponds. At the time, common practice was to slurry the tailings into available waterways, despite the dangers to the water supply and fish populations. Chase contacted J.T. Shimmin, who had devised a method of creating "ponds" of tailings at mills in Butte, Montana. After altering Shimmin's design to fit the triangular shape available at the Shenandoah-Dives Mill, and considering the soil content of the substructure, Chase had the mill's tailings deposited on the south side of the mill. As the pond was created, water was decanted off the surface, filtered and returned to the mill. A major part of the water evaporated or percolated through the tailings and into the substructure. The location of the ponds did not allow run off or percolation into the Animas River, which was east of the mill. After a trial period, with a few mishaps due to freeze and thaw, the tailing ponds of the Shenandoah-Dives Mill took shape in 1935. As one pond was filled to prescribed capacity, another pond was begun, ultimately resulting in four tailings ponds at the site.[65]

World War II ushered in a period of artificially inflated prices for natural resources, reviving the mining industry and the Shenandoah-Dives operations. As economic activity focused upon military preparedness, mining and milling operations were classified as either essential or non-essential. In 1942, when the federal government suspended all non-essential mining activities for mines that counted more than 30% of their dollar value in gold and silver, the War Department granted the Shenandoah-Dives Mill permission to continue operations because its base metal production was deemed essential to national security.[66] The Shenandoah-Dives 700-ton selective-flotation plant was one of the first plants to resume activity in the mining and milling community within the United States.[67]

By the early 1950s, however, the United States' metals prices were declining, due to the availability of cheaper foreign metals. During President Harry S Truman's administration, the Shenandoah-Dives Company received a government grant for the exploration of new veins, but lower grade ores and rising labor costs made any venture unprofitable for the company. Foreign metals flooded the United States market when the Paley Commission, appointed by President Dwight D. Eisenhower, encouraged the United States to purchase foreign metals to abate communist activity in smaller countries. As a result, metal prices collapsed, as well as the future of the Shenandoah-Dives operations in Silverton. As company officials debated the closure of the Shenandoah-Dives Mill, Charles A. Chase continued to fight for its survival. Chase organized a letter campaign to the Shenandoah-Dives Company's board of directors, Colorado congressmen, and banks. In letters touting the productivity of the plant and relating the artificial market of late, Chase sought money for exploration to keep the operation alive. But new investors and stockholders did not have the same emotional ties to the operation as Chase, and wanted quick profits.

In 1953, after 25 years of mining and milling in Silverton, the Shenandoah-Dives Company shut down its operations. During the previous 24 years, the mill had processed four million tons of Shenandoah-Dives ore, and 186,000 tons of

custom ore from surrounding smaller enterprises, shipping the milled products to various smelters. In total, the Shenandoah-Dives Mill had processed 11% of all the gold, silver, copper, lead, and zinc in Colorado. At the time, the assayed value of the Shenandoah-Dives Mill production was $32 million.[68] With the company's demise, hundreds of smaller enterprises were forced out of business.[69] A caretaker was retained for the mill property. Chase was fired as general manager and moved to Denver, Colorado, where he died on August 31, 1955.

Between 1953-1957, the mill operated only intermittently, as the Shenandoah-Dives Company underwent a series of ownership changes. Although the mill closed in 1953, the Shenandoah-Dives Company continued limited ore exploration in Silver Lake lease under the Defense Minerals Exploration Act (DMEA) grant. When no new ore was found under the DMEA grant, the Shenandoah-Dives Company sought to sell the mine and mill. In 1957, the Shenandoah-Dives Company merged with Marcy Exportation Corporation, a uranium mining company in Durango, Colorado. The merger created the Marcy-Shenandoah Corporation.[70] In 1959, Marcy-Shenandoah Corporation sold its interests to Standard Uranium Corporation of Moab, Utah. In 1960, Standard Uranium Corporation changed its name to Standard Metals Corporation. Also in 1960, the Shenandoah-Dives Mine closed. In 1985, Standard Metals sold its Shenandoah-Dives holdings to the Sunnyside Gold Corporation, a subsidiary of the Echo Bay Mining Company of Edmonton, Canada. Sunnyside and associated companies participated in two joint ventures utilizing the mine and mill. By 1990, however, Sunnyside Gold was the sole owner again. In 1992, Sunnyside Gold announced permanent closure of the mine and mill, due to declining zinc prices and lack of gold reserves. By 1996, surface reclamation of the tailing ponds and mine site was substantially completed.[71] Following the closure, the resident population of Silverton declined by nearly one half, as miners and their families migrated to other mining regions. As a result, San Juan County's tax base was reduced by one-third. Today, similar to other former mining towns in the Rocky Mountain West, the economy of Silverton has switched almost entirely to one based on government activities and tourism.[72]

ANIMAS POWER AND WATER COMPANY

The Animas Power and Water Substation, which is approximately one mile northeast of Silverton, reflects the history and importance of electrical power in high-altitude mining regions. As mining practices in high-altitude mines moved from manpower to mechanization, the production of energy was of major concern. The isolation of the San Juan Mountain region prohibited great quantities of coal being hauled up the slopes and mountain peaks to fire up machinery. Thus, the necessity of mechanizing the mining industry gave birth to the electric power industry in Western Colorado. With the advancement of electricity, a new era began in the mining industry.

Power was an early concern for the mining and milling operations in Southwest Colorado. As mining and milling properties increased, so did the need for inexpensive power to run these facilities. Enterprising individuals, such as Lucien Lucius Nunn, an attorney and businessman from Telluride, Colorado sought ways to meet the need. Nunn became interested in current developments in electrical power utilizing alternating current sought to bring hydro-electrical power to the Rockies. George Westinghouse and Nikola Tesla, a Yugoslavian immigrant with several important patents in alternating current (AC) technology, joined with L. L. Nunn to bring electrical power to the

Colorado Rockies. In 1890-91, harnessing the power of a nearby spring, the men created a hydro-electric plant--the Ames plant--that supplied electricity to the Gold King mill near Telluride. By successfully transmitting high voltage alternating current through the remote regions of the Colorado Rockies to mining and milling operations, Nunn's success with the Ames plant opened the door to a boom of hydro-electrical generating plants.[73]

The Animas Power and Water Company, headquartered in Indianapolis, Indiana, was one of several power companies that supplied electricity to the San Juan region. The Animas Power and Water Company built a generating plant near the Rockwood Station along the Animas River and Silverton-Durango branch of the Denver-Rio Grande Railroad, approximately 24 miles from Silverton. In order to meet the needs of high altitude mines, the Animas Power and Water Company built a red-brick transformer substation approximately one mile northeast of Silverton. Under the direction of J. A. Clay, the substation was completed April 15, 1906. The substation ran transmission lines to numerous mining and milling in southwestern Rockies including the Gold Prince Mill at Animas Forks, the Ross Smelter, the Mogul Mine and Mill, the Gold King Mine and Mill, the Galty Boy and the Camp Bird Mine and Mill in Ouray County.[74]

The power company built the substation of brick to insure the integrity of the station from fire and climatic high-altitude weather conditions.[75] J.A. Clay, who oversaw the construction of the substation, remained as general superintendent of the Silverton substation. A frame, two-story house was built on the substation property for Clay and his family. The lower floor was used as the offices of the company and the upstairs became their living quarters.

The power lines to the mines, mills, and smelters traveled over treacherous terrain that supported few roads but many trails. Workers for the electrical company used mules to haul supplies up the mountains. A mule barn was built on the substation property to house the mules and their driver. When all the necessary lines were developed, the mules were phased out and the barn used for storage. The electrical generators at Rockwood sent 50,000 volts to the Silverton substation, where it was stepped down to 17,500 volts and distributed along three principal transmission lines to various mines that had been adapted to receive electricity. The power was manually "switched" to the requested line, as calls came in for more power from the mines, mills, and smelters in the area.

In 1909, the Animas Power and Water Company was absorbed by the San Juan Water and Power Company. Eventually, Western Colorado Power electrified the San Juan region, including the area of Silverton in March 1913. The expense of bringing power to the mines of the high altitude was justified by the significant amount of mining operation in the San Juans and the expectations for the longevity of mining enterprises.[76]

The substation at Silverton was active from 1906 until the late 1950s, when it became obsolete due to the tremendous volume of voltage sent up the lines from the generating plant. In the 1950s, the railroad line and a runway for small aircraft to the east of the station became outdated and were eventually dismantled by the late 1960s.[77] The property was bought by Standard Uranium, owner of the Shenandoah-Dives mining operation, in March 1960.[78] Additions were built and the substation was used as a timber shed and warehouse. The assay office of the mine was moved to

the substation when the crushing plant at the mine interfered with the readings of ore samples. Eventually, the substation property was left unattended when the Shenandoah-Dives operation closed in 1992.

POLAR STAR MILL OFFICE AND ASSAY BUILDING

In 1890-91, the Polar Star Mill was built by the Crooke Brothers and a Mr. Wood. The Crooke Brothers, a New York-based firm, had several other operations in southwestern Colorado, including mines and an ore reduction operation near Lake City.[79] A surveyor by profession, John J. Crooke surveyed the millsite in 1892 and applied for a mineral patent (Mineral Survey Number 7608). The Polar Star Mill was located northeast of Silverton and processed 30 tons a day from the North Star Mine located in the bowels of King Solomon Mountain. In the late 1880s the mill processed ore from one of the strongest veins of silver-bearing ore in the region located in Poughkeepsie Gulch in San Juan County. By the late 1910s, the mine and mill had played out and the properties were abandoned. All that remains of the site is the office and assay building, the only brick buildings on the millsite.[80] The historic integrity of the building is intact and is a fine example of a late 19th-century mining influences within the historic area of Silverton.

HILLSIDE CEMETERY

An important part of any community is the local cemetery. In the treacherous mountains of the San Juans and the mines that marked their steep terrain, accidents and deaths were common occurrences. Located on a hillside northeast of Silverton, Hillside Cemetery was established August 27, 1875, with the burial of a female child of three or four years. In subsequent years, the cemetery filled with victims of mine accidents, snowslides, and epidemics. The creation and continuity of this cemetery reflect the community's settlement, religious and social history, and ethnic heritage. Inscriptions on gravestones record accidents in the mines that employed the inhabitants of Silverton. A mass grave site for the victims of the 1917 influenza epidemic marks the devastation in the community when one-third of its population was stricken and the residents' lack of ability to bury so many dead in individual graves.

Numerous markers from fraternal voluntary associations reflect the diversity of associations in such a small community. In 1910, the population of Silverton was 2,153 and supported 12 fraternal voluntary associations. Six of these associations were male organizations. Many males were members of fraternal associations and one of three miners' unions in Silverton. Not to be outdone, the female community created five associations. The period from 1880 through the 1930s depicts the main burial activity within Hillside Cemetery, reflecting the boom and bust periods of the mines and the popularity of voluntary or fraternal associations.

Funerals and funeral processions were often attended by mourning parades of voluntary association members. The funeral offered the community an occasion to gather, support and comfort one another, reinforce kinship and community ties, and offer photographic opportunities. Local archives contain evidence of fraternal group photographs, association pins with burial ribbons, and burial sashes worn by officers. Hillside Cemetery is not historically tied to any church, and there is no indication that it was created with the assistance of a fraternal

association. The Independent Order of Odd Fellows has a history of creating and supporting cemeteries. While the Odd Fellows had a chapter in Silverton with a section in the cemetery, no connection with Hillside has been verified.

Hillside Cemetery also reflects the ethnic diversity of the community of Silverton. Many of the gravestones list the country of birth of the deceased or are written in dialect. A majority of the inhabitants of Silverton were recent immigrants at the turn of the century. Silverton immigrants traveled from Great Britain, Scandinavia, Eastern Europe, Italy, and Mexico. Periods of immigration influx parallel mining technology as it developed in the San Juan region. Irish and Welsh experienced in hard rock mining appear in Silverton records when jobs in their homelands were non-existent.

Informal placement of graves indicates a division within the cemetery between ethnicity, religion, economic class, and fraternal voluntary associations. The lower section of the cemetery tends to be ethnic and Catholic; while the upper section appears to be immigrants from Great Britain, prostitutes, first-generation Americans and Protestants. The economic level of the community appears to follow the ethnic division of the community with laborers often recent immigrants, while foremen in larger mines and community leaders were American-born. The foremen in smaller mines tended to be of foreign birth. Whereas prostitutes were often relegated to the lower or poorer sections of mining towns' cemeteries, they were not in Silverton. Prostitutes are buried within both levels of Hillside cemetery.

Although cemetery historian Freda Peterson has uncovered historical information representing the Chinese in the town of Silverton in the late 1880s, there are no Chinese burials within Hillside Cemetery. In forced isolation due to national prevailing prejudices, the Chinese were said to have buried their dead along the river until their remains could be returned to their homeland as custom required. The deceased's soul could not be at peace anywhere but in their homeland of China.[81] If any burials remain, there is no apparent evidence.

Voluntary associations created their own divisions within the cemetery. Separated from other patrons of the cemetery by a fence, the Foresters of America, Savoia Lodge No. 28 interred their members in the lower section of the cemetery, although not all membership is restricted to this small plot. This section also contained a predominant Italian population. Woodmen of the World, an organization whose geographic origins and headquarters are in Colorado, did not separate Woodmen membership from the other interred, but acknowledged their dead with the symbolic gravestone of a felled tree.

After years of research, cemetery historian Freda Peterson has compiled a comprehensive history of all the inhabitants in the Hillside Cemetery. This text is over 1,000 pages in length. After continued research, Peterson has compiled a revised edition of the history which will be published in 1997. The funds from these publications support the active cemetery association in their on-going restoration and care of Hillside Cemetery.
(Note: Hillside Cemetery was not considered under Criteria Consideration D: Cemeteries, since it is part of the Silverton Historic District and not the focal point of the district.)

ENDNOTES

1. Report to the Bureau of Mines, State of Colorado for the year 1930: Metals, Mines, and Mills, submitted by Shenandoah-Dives Syndicate for the Mayflower Mine, (County: San Juan; Dist.: Animas), 15 August 1930, (Photocopy).

2. Report to the Bureau of Mines, State of Colorado for the years of 1929 and 1949: Metals, Mines, and Mills, submitted by Shenandoah-Dives Syndicate for the Mayflower Mine, (County: San Juan; Dist.: Animas), 6 December 1929 and 8 February 1950; T. R. Hunt and Leon M. Banks, "Operation of the Shenandoah-Dives Mining Company," The Mines Magazine, February 1934, p. 49 ; William Jones, interview by Dawn Bunyak, Silverton, Colorado, 15 June 1995; and Photographs of the Aerial Tramway taken in the early 1930s. Western Historical Collection of the Denver Public Library, Denver, CO (notations on the back of the photographs by the photographer).

3. Report to the Bureau of Mines, State of Colorado for the year 1929 and 1949: Metals, Mines, and Mills, submitted by Shenandoah-Dives Syndicate for the Mayflower Mine, (County: San Juan; Dist.: Animas), 6 December 1929 and 8 February 1950; Fred Carstarphen, "The Mayflower Aerial Tramway of the Shenandoah-Dives Mining Company," The Colorado School of Mines Magazine, XX no. 9 (Sept. 1930): 24-26; Margaret Barge, "History of Shenandoah-Dives Mining Company, 1959(?)" TMs [photocopy], p 6, San Juan County Historical Society, Silverton, CO; and William Jones, Montrose, Colorado, to [Dawn Bunyak, National Park Service, Denver, CO],TLS, 8 August 1995.

4. William Jones, correspondence to Dawn Bunyak, 8 August 1995.

5. Darnall Zanoni, correspondence to Dawn Bunyak, 1 April 1996.

6. Ibid.

7. William Jones, correspondence to Dawn Bunyak, 1 April 1996 and Darnall Zanoni, correspondence to Dawn Bunyak, 1 April 1996.

11. Report to the Bureau of Mines, State of Colorado for the year 1929 and 1949: Metals, Mines, and Mills, submitted by Shenandoah-Dives Syndicate for the Mayflower Mine, (County: San Juan; Dist.: Animas), 6 December 1929 and 8 February 1950; Barge, "History of Shenandoah-Dives," 6; Hunt, "Operations of Shenandoah-Dives," 49; "Shenandoah-Dives," Mining World, 3-7; Jones, Interview, 15 June 1995; Photographs, Western Historical Collection; Chase Collection of Correspondence [photostat] in Private Collection of William Jones divulges "Charles A. Chase wrote to Fred Carstarphen on 14 September 1930 concerning the proper name for the tramway for publication purposes was to be referred to as the Shenandoah-Dives Aerial Tramway." William Jones, Correspondence to Dawn Bunyak, 3 August 1995.

9. "Shenandoah-Dives," Mining World, 3-7; William Jones, correspondence to Dawn Bunyak, 1 April 1996; Darnall Zanoni, correspondence to Dawn Bunyak, 1 April 1996; and Jones, Interview.

10. Carlo Poloine was the Italian spelling of his surname; but it would eventually become the Americanized "Palone," according to Joe Todeschi in a phone interview with Dawn Bunyak on December 16, 1996.

11. Joe Todeschi, phone interview with Dawn Bunyak, 16 December 1996.

12. William Jones, phone interview with Dawn Bunyak, 27 July 1995; Frederic J. Athearn, Historian, phone interview with Dawn Bunyak on 6 September 1995; Frederic Athearn, photograph of Mayflower Mine--Avalanche Diverter and Tram Tower No. 1 taken in 1991. "It is important to note the upper terminal is still intact (along with towers 1 and 2) and is complete with all mechanical equipment, chutes, grip sheaves, gears etc. This site is located on the Mayflower #2 lode mining claim U.S. Mineral Survey Number 16551," William Jones notes in his correspondence of 1 April 1996 and 21 April 1996 to Dawn Bunyak.

13. William Jones, phone interview by Dawn Bunyak, 18 August 1995 and Jones, interview, 15 June 1995. Due to the evidence of archival photographs and speed in erection of the mill, it is surmised that the mill was designed and pre-cut in Denver, bundled up, and shipped to Silverton for erection by the construction crew.

14. Jones, interview; Allen Nossaman, personal interview by Dawn Bunyak, 13-15 June 1995; Report to the Bureau of Mines, State of Colorado for the years of 1927, 1929, 1930: Metals, Mines, and Mills, submitted by Shenandoah-Dives Syndicate for the Mayflower Mine, (County: San Juan; Dist.: Animas), 8 February 1928, 28 May 1929, 6 December 1929, and 15 August 1930.

15. Nossaman, interview; Report to the Bureau of Mines, State of Colorado for the years 1929-1930: Metals, Mines, and Mills, submitted by Shenandoah-Dives Syndicate for the Mayflower Mine, (County: San Juan; Dist.: Animas), 28 May 1929, 6 December 1929, and 15 August 1930; and Colorado Historical Society Historic Building Inventory Record filed by Allen Nossaman on the Mayflower Mill, 1995.

16. Mayflower Mill of the Shenandoah-Dives Mining Company in Silverton, San Juan County, Colorado, Photographs, 1930 and 1932, Mining Collection, Western History Department, Denver Public Library, Denver, Colorado.

17. Report to the Bureau of Mines, State of Colorado for the years of 1929 and 1949: Metals, Mines, and Mills, submitted by Shenandoah-Dives Syndicate for the Mayflower Mine, (County: San Juan; Dist.: Animas), 6 December 1929 and 8 February 1950; Barge, "History of Shenandoah," 6; Hunt, "Operations of Shenandoah-Dives," 49 and "Shenandoah-Dives," Mining World, 6.

18. Report to the Bureau of Mines, State of Colorado for the years of 1929 and 1949: Metals, Mines, and Mills, submitted by Shenandoah-Dives Syndicate for the Mayflower Mine, (County: San Juan; Dist.: Animas), 6 December 1929 and 8 February 1950; Barge, "History of Shenandoah," 6; Hunt, "Operations of Shenandoah-Dives;" "Shenandoah-Dives," Mining World, 7; Jones, interview; and Jones, correspondence, 3 August 1995. There has been a discrepancy in the reporting of the length of the aerial tramway cable in a variety of publications. The figure referred to in this report is drawn from the survey notes compiled by Fred Carstarphen for designing and erection of the aerial tramway. These survey notes were supplied by William Jones of Montrose, Colorado who owns photostat of correspondence collection of Charles A. Chase, manager and Vice-President of the Shenandoah-Dives Mining Company.

19. Barge, "History of Shenandoah," 7; Report to the Bureau of Mines, State of Colorado for the year 1929: Metals, Mines, Mills, submitted by Shenandoah-Dives Syndicate for the Mayflower Mine, (County: San Juan; Dist.: Animas), 28 May 1929; Hunt, "Operations;" Charles A. Chase, "Flotation Widely Employed in San Juan Milling," Engineering and Mining Journal, 136, no.8 (August 1935): 395-397; "Shenandoah-Dives" Part 2, Mining World, June 1942, 10-13.

20. Report to the Bureau of Mines, State of Colorado for the year 1929: Metals, Mines, Mills, submitted by Shenandoah-Dives Syndicate for the Mayflower Mine, (County: San Juan; Dist.: Animas), 28 May 1929.

21. Report to the Bureau of Mines, State of Colorado for the year 1937: Metals, Mines, Mills, submitted by Shenandoah-Dives Syndicate for the Mayflower Mine, (County: San Juan; Dist.: Animas), 5 January 1938.

22. William Jones, correspondence to Dawn Bunyak, 1 and 21 April 1996.

23. Report to the Bureau of Mines, State of Colorado for the year 1962 and 1975: Metals, Mines, Mills, submitted by Shenandoah-Dives Syndicate for the Mayflower Mine, (County: San Juan; Dist.: Animas), 21 January 1963 and 15 December 1975; Jones, interview; Darnall Zanoni, personal interview by Dawn Bunyak, 13-15 June 1995; Nossaman, interview; and archival photographs, Western History Collection of the Denver Public Library, Denver, Colorado.

24. Duane A. Smith, Mining America: The Industry and the Environment 1800-1980, (Kansas City: University of Kansas Press, 1987) 34-41.

25. Charles A. Chase and Dan M. Kentro, "Tailings Disposal Practice of Shenandoah-Dives Mining Company," in Mining Year Book, Mining Congress Journal, (Denver, CO: Colorado Mining Association, 1937), 31-32 and 74-76 and Charles A. Chase and Dan M. Kentro, "Tailings Disposal Practice of Shenandoah-Dives Mining Company," in Mining Congress Journal, (Washington, D.C.: American Mining Congress, 1938), 24 (March 1938): 19-22. In these articles, both men argue the cost-efficiency, as well as environmental benefits, of using tailing ponds instead of other methods of disposal.

26. Report to the Bureau of Mines, State of Colorado for the year 1929: Metals, Mines, Mills, submitted by Shenandoah-Dives Syndicate for the Mayflower Mine, (County: San Juan; Dist.: Animas), 28 May 1929 and 6 December 1929.

27. Picture windows are unusual in historic structures in mountainous regions of Colorado due in fact to the difficulty of transporting such a large single sheet. When the mill office was built in 1930, Charles Chase's office was fitted with two sets of double-hung windows. In an historical photo of the mill taken in 1948, there was no picture window in evidence. In the editorial column of the 21 February 1953 Denver Post, the columnist wrote, "Guiding spirit of Shenandoah-Dives is Charles A. Chase . . . whose office adjoining the company's mill has a large picture window which gives a view of the whole giddy course of the aerial tramway line." William Jones, Chase Historian, states, "James W. Cole, a past assayer at Shenandoah-Dives Mill, told me the picture window was installed in the late 1940s as a gift from a supplier to Charles A. Chase, mill superintendent." William Jones, correspondence to Dawn Bunyak, 1 April 1996.

28. Report to the Bureau of Mines, State of Colorado for the year 1929: Metals, Mines, Mills, submitted by Shenandoah-Dives Syndicate for the Mayflower Mine, (County: San Juan; Dist.: Animas), 28 May 1929 and 6 December 1929; and Field survey, 14 June 1995.

29. William Jones, phone interview with Dawn Bunyak, 13 January 1997. Based upon maps prepared by the Standard Metals Corp. the estimates for the tailing pond acreage and amount were figured.

30. William Jones, phone interview by Dawn Bunyak, 7 January 1997. Jones reviewed maps of the mill site and estimated that the approximate acreage of the tailings ponds as: Pond 1: 33 acres; Pond 2: 23 acres; Pond 3: 4 acres; and Pond 4: 25 acres.

31. Nossaman, interview; San Juan County, promotional book published by the Silverton Standard on 1 December 1899; and Field survey notes from Mineral Survey No. 7608.

32. San Juan's Mining Journal, Silverton Standard, 1 Dec. 1899; and Mineral Survey 7608, includes field notes and plat of the Polar Star Mill Site, San Juan County, Colorado, 1 August 1892, Bureau of Land Management Lakewood, CO.

33. The Silverton (Colorado) Miner, Golden San Juan Edition, 1907, Commemorative edition is in the collection of William Jones of Montrose, Colorado, 9-11.

34. "While the hydroelectric generating plant in the Animas Canyon was originally and technically known as the Rockwood Plant, it has more predominantly been known as the Tacoma Plant. It is identified as such on more recent power company and railroad materials," states Alan Nossaman, Honorable Judge of San Juan County. Alan Nossaman, correspondence to Dawn Bunyak, 1 April 1996.

35. Freda Peterson, personal interview by Dawn Bunyak, 14 June 1995; and Nossaman, interview.

36. Inscriptions were noted when Freda Peterson took Dawn Bunyak on a field visit of the cemetery on 14-15 June 1995. Freda Peterson has written an extensive history of all the inhabitants of the cemetery. Her second edition will be out in 1997. Years of research in newspapers, oral histories, county records, and family accounts has been made this a comprehensive history of the individuals who populated Silverton from its early years. Copies of this publication are found worldwide in private and public libraries. All information is available on microfilm at the Genealogy Library in Salt Lake City, Utah.

37. Peterson, interview.

38. William Jones, interview by Dawn Bunyak, Silverton, Colorado, 15 June 1995; Darnall Zanoni, interview by Dawn Bunyak, Silverton, Colorado, 15 June 1995; and Paul Krabaucher, Western Slope agent of the Colorado State Office of Mining, Denver, Colorado, phone interview by Dawn Bunyak, 11 September 1996.

39. Carol Affleck, phone interview with Dawn Bunyak, 24 January 1997. Carol Affleck has researched the history of the mill with the assistance of Tom Hendricks, miner and businessman. Mr. Hendricks said the mill was built in 1935 by the St. Joe Mining and Milling Company to mill gold from the Grand Republic Gold Mine at Christmas, Colorado. In

1940-1942, the mill was reconfigured by the General Chemical Company to mill fluorspar from the Invincible Mine in Jamestown. The mill was reconfigured again in 1976 to mill gold, whereupon it was closed in 1984.

40. William Jones, phone interview with Dawn Bunyak, 7 January 1997; Duane Smith, phone interview with Dawn Bunyak, 7 January 1997; Robert Spude, phone interview with Dawn Bunyak, 6 January 1997. Interviews dealt with the mills in the state of Colorado, region, and nationally. These five examples were a consensus on the mills built approximately in the time frame as the Shenandoah-Dives Mill in Silverton, CO. Duane Smith referred to the 1920s as a real slow period in mining and milling history. There were virtually little construction due to the national economic slump, which included the beginnings of the Depression.

41. Harrison Cobb, Prospecting Our Past: Gold, Silver and Tungsten Mills of Boulder County, (Boulder, CO: The Book Lode, 1988) 5, 46-49, 137-141.

42. William R. Jones, "Charles A. Chase & The Shenandoah-Dives Mine," Unpublished essay, 1994; Jones, correspondence to Dawn Bunyak, 1 April 1996; Barge, "History of Shenandoah, 3-6; Charles A. Chase, "Shenandoah-Dives Mine: Past, Present, and Future," San Juan County Historical Society Silverton, CO, 8 December 1954.

43. Ibid.

44. Ibid.

45. Jones, interview; and Barge, "History of Shenandoah," 3-6.

46. Barge, "History of Shenandoah," 8; Chase, "Past, Present;" Jones, interview; Report to the Bureau of Mines, State of Colorado for the year 1927: Metals, Mines, Mills, submitted by Shenandoah-Dives Syndicate for the Mayflower Mine, (County: San Juan; Dist.: Animas), 8 February 1928.

47. Jones, interview; Chase, "Past, Present;" and Report to the Bureau of Mines, State of Colorado for the years 1927 and 1929: Metals, Mines, and Mills, submitted by Shenandoah-Dives Syndicate for the Mayflower Mine, (County: San Juan; Dist.: Animas), 8 February 1928 and 28 May 1929.

48. Barge, "History of Shenandoah," 8 and Jones, correspondence to Dawn Bunyak 1 and 21 April 1996. The company paid $375,000 for the mill's construction and $85,000 for the aerial tramline.

49. "The Mayflower Aerial Tramway of the Shenandoah-Dives Mining Company," The Colorado School of Mines Magazine, 26 and "Shenandoah-Dives" Part 2, Mining World, 11 and 13.

50. William Jones, correspondence to Dawn Bunyak, 3 August 1995.

51. In a phone interview on December 16, 1996 between Joe Todeschi and Dawn Bunyak, Joe said Carlo Poloine was a middle-aged man, approximately 45 to 47 years old when they worked together on the building of the "snow breaker" above the number 1 and 2 towers of the Shenandoah-Dives Aerial Tramway.

52. During the 1996 interview with Dawn Bunyak, Joe Todeschi said that Tony Bazz was his step-father, who worked at the Shenandoah-Dives mine. He was never sure if he got the job because of his step-father or his persistence when approaching Al Andrean for a job after he had been laid-off. "One day I collared Al on the street and asked him for a job, as I had gotten laid off at Sunnyside where I had been working on the installation of their tram," Joe related. "Mr. Andrean, I need me a job real bad," I said. "I had to eat you know." Continuing his conversation with Mr. Andrean, Joe said, "Do you have anything for me?" Mr. Andrean was obliged to tell Joe that he had no work then but would keep the boy in mind. "The next day, Mr. Andrean came to our door and told me he had some work for me," Joe continued.

53. Todeschi, interview.

54. Ibid.

55. "Shenandoah-Dives," Mining World, 7; Jones, interview; and Jones, correspondence, 3 August and 8 August 1995.

56. Report to the Bureau of Mines, State of Colorado for the years 1929-1938: Metals, Mines, and Mills, submitted by Shenandoah-Dives Syndicate for the Mayflower Mine, (County: San Juan; Dist.: Animas), 28 May 1929, 6 December 1929, 15 August 1930, and 5 January 1938.

57. Barge, "History of Shenandoah-Dives," 4.

58. William Jones, interview by Dawn Bunyak, Silverton, CO, 15 June 1995.

49. Beverly Rich, Chair of San Juan County Historical Society, correspondence to Dawn Bunyak on 6 November 1995. Ms. Rich's research on the Silverton Miners Union, Local #26, found that the union representatives and company officials had agreed on a six hour workday for miners citing hazardous and hard working conditions. This "portal to portal" exception came after many years of negotiations.

50. "San Juan Federation of Mine, Mill and Smelter Workers Formed," The Silverton Standard, 1 Sept. 1939.

51. Ibid.

62. Barge, "Shenandoah;" Jones, "Chase;" and Report to the Bureau of Mines, State of Colorado for the years 1929-1938: Metals, Mines, and Mills, submitted by Shenandoah-Dives Syndicate for the Mayflower Mine, (County: San Juan; Dist.: Animas), 28 May 1929, 6 December 1929, 15 August 1930, and 5 January 1938.

53. Chase and Kentro, "Tailings Disposal," 1937; and Chase and Kentro, "Tailings Disposal," 1938.

54. Carl Ubbelohde, Maxine Benson, Duane A. Smith, A Colorado History, 6 ed., (Boulder, CO: Pruett Publishing Co., 1988), 333-36, 346.

55. Chase and Kentro, "Tailings Disposal, 1937," 20-22; and Chase and Kentro, "Tailings Disposal, 1938," 31-32, 74.

56. "Shenandoah-Dives" Part 2, Mining World, 10.

57. Carl Ubbelohde, Maxine Benson, Duane A. Smith, A Colorado History, 6 ed., (Boulder, CO: Pruett Publishing Co., 1988), 333-36, 346 and "Shenandoah-Dives, Part II," Mining World, 10.

58. "Mine, Mill Shutdown Held a 'Catastrophe'," Denver Post, 19 February 1953, p. 60; Barge, "History of Shenandoah," 11; and Jones, "Chase."

69. Barge, "History of Shenandoah," 11; Jones, "Chase;" "Mine, Mill Shutdown Held a 'Catastrophe'," Denver Post, 19 February 1953, 60; "End of a Chapter," editorial, Denver Post, 21 February 1953; and Obituary of Charles A. Chase, Rocky Mountain News, 1 Sept. 1955, 14.

70. William Jones, correspondence to Dawn Bunyak, 1 April 1996.

71. William Jones, correspondence to Dawn Bunyak, 1 April 1996 and Darnall Zanoni, correspondence to Dawn Bunyak, 1 April 1996.

72. Beverly Rich, San Juan County Treasurer and Chairperson of the San Juan County Historical Society, correspondence to Dawn Bunyak on 6 November 1995. Ms. Rich's interest in the historical preservation of her community has motivated her to research numerous topics in local records concerning the Miner's Union #26, San Juan Federation of Mine, Mill, & Smelter, Miner's Union Hospital, and mine labor issues. She has received grant funding from the Colorado Historical Society for her research in labor issues.

73. Christine Whitacre, Historian, Front Range Research Associates, Inc., "Telluride National Historic Landmark District," National Register of Historic Places Registration Form, September 30, 1988, 4-5.

74. The Silverton (Colorado) Miner, Golden San Juan Ed., 1907, 9-11 and "Western Colorado Power Company History," unpublished manuscript, 1979(?), 74-78.

75. "Animas Power and Water Company," The Silverton (Colorado) Miner, Golden San Juan Edition, 1907, 9-11. This is a commemorative edition in the collection of William Jones of Montrose, Colorado.

76. Ibid.

77. Alan Nossaman states the landing strip was laid out on the old railroad grade of the Silverton Northern Railroad and used extensively by the personnel of Standard Uranium Corporation. This is the only airstrip that Silverton ever had. The landing strip was terminated due to the encroachment of new tailings ponds. Alan Nossaman, correspondence to Dawn Bunyak, 1 April 1996.

78. Beverly Rich, Chair of San Juan County Historical Society, phone interview by Dawn Bunyak, 20 August 1995.

79. Lee Scamehorn, Albert Eugene Reynolds: Colorado's Mining King (Norman: University of Oklahoma Press, 1995), 87.

80. Nossaman, interview; San Juan County, promotional book published by the Silverton Standard on 1 December 1899; and Field Survey notes from Mineral Survey No. 7608; and "Polar Star Mill," Denver Republican, 12 January 1882, 6.

81. Peterson, interview; and Freda Peterson, History of Hillside Cemetery San Juan County, Colorado 1883-1988, (Oklahoma City, OK: 1989).

BIBLIOGRAPHY

Affleck, Carol. Phone interview with Dawn Bunyak. 23 & 24 January 1997.

Athearn, Frederic J., Historian. Bureau of Land Management, Lakewood, Colorado. Phone interview by Dawn Bunyak. 6 September 1995.

Barge, Margaret. "History of the Shenandoah-Dives Mining Company." Manuscript, 1959(?). San Juan County Historical Society, Silverton, Colorado.

Carstarphen, Fred C. "The Mayflower Aerial Tramway of the Shenandoah-Dives Mining Company." The Colorado School of Mines Magazine XX, no. 9 (September 1930): 24-26.

Chase, Charles A. Chase Collection [photostat] in private collection of William Jones, Montrose, Colorado.

--------. "Flotation Widely Employed in San Juan Milling." Engineering and Mining Journal 136, no. 8 (August 1935): 395-397.

--------. "Shenandoah-Dives Mine: Past, Present, and Future." Unpublished essay. 8 December 1954. Included in Ms. by Margaret Barge. San Juan County Historical Society Archives, Silverton, Colorado.

--------. "Widely Known Colorado Mining Engineer Dies." The Rocky Mountain News [Denver], 1 September 1955, 14.

Chase, Charles A. and Dan Kentro. "Tailings Disposal Practice of Shenandoah-Dives Mining Company." Mining Year Book of Intermountain Region, Colorado Chapter of the American Mining Congress, 31-32, 74-75. Denver, CO: Colorado Mining Association, 1937.

--------. "Tailings Disposal Practice of Shenandoah-Dives Mining Company." Mining Congress Journal, 19-22. Washington, D.C.: American Mining Congress, 1938.

Cobb, Harrison. Propspecting Our Past: Gold, Silver, and Tungsten Mills of Boulder County. Boulder, CO: The Book Lode, 1988.

"End of a Chapter." Editorial. Denver Post, 21 February 1953.

Hunt, T. R., and Leon M. Banks. "Operations of the Shenandoah-Dives Mining Company." The Mines Magazine, February 1934, 46-52.

Jones, William, Vice-President of Shenandoah Mining Company, Inc. Montrose, Colorado. Interview by Dawn Bunyak. 15 June 1995.

--------. "Charles A. Chase & The Shenandoah-Dives Mine." Unpublished essay, 1994. Photostat of original National Park Service-RMSSO, Lakewood, Colorado.

--------. Correspondence to Dawn Bunyak. 3 August 1995.

--------. Correspondence to Dawn Bunyak. 8 August 1995.

--------. Phone interview with Dawn Bunyak. 7 January 1997.

--------. Phone interview with Dawn Bunyak. 13 January 1997.

Krabaucher, Paul, Project Manager of the Western Slope, Colorado State Office of Mining, Denver, Colorado. Phone interview by Dawn Bunyak. 11 September 1996.

"Mine, Mill Shutdown Held a 'Catastrophe'." Denver Post, 19 February 1953, 60.

Mineral Survey 7608. Field notes and Plat of Polar Star Mill Site. San Juan County, Colorado. 1 August 1892. Bureau of Land Management, Lakewood, Colorado.

Nossaman, Allen. Interview by Dawn Bunyak. 13-15 June 1995.

--------. Colorado Historical Society Historic Building Inventory. Mayflower Mill. 1995.

Peterson, Freda. Interview by Dawn Bunyak. 14 June 1995.

--------. The Story of Hillside Cemetery San Juan County, Colorado 1873-1988. Oklahoma City, OK: By the Author, 1989.

"Polar Star Mill." Denver Republican, 12 January 1882, 6.

Report to the Bureau of Mines, State of Colorado for the years of 1927, 1929, 1930, 1937, 1949, 1955, 1958, 1962, 1964, 1973, and 1975: Metals, Mines, and Mills. Submitted by Shenandoah-Dives Syndicate for the Mayflower Mine, (County: San Juan, Dist.: Animas), 1928, 28 May 1929, 6 December 1929, 15 August 1930, 5 January 1938, 8 February 1950, 4 November 1955, 2 October 1958; 21 January 1963, 9 November 1964, 25 October 1973, and 15 December 1975. (Photocopy)

Report to the Bureau of Mines, State of Colorado for the year 1960: Operators Annual Report. Submitted by Shenandoah-Dives Syndicate for the Mayflower Mine, (County: San Juan, Dist.: Animas), 8 February 1961. (Photocopy)

Rich, Beverly, Chair of San Juan County Historical Society, Silverton, CO. Phone interview by Dawn Bunyak. 20 August 1995.

--------. Correspondence to Dawn Bunyak. 6 November 1995.

San Juan County, Commemorative Issue. Silverton Standard, Colorado. 1 December 1899.

"San Juan Federation of Mine, Mill and Smelter Workers Formed." Silverton Colorado Standard. September 1, 1939.

Scamehorn, Lee. Albert Eugene Reynolds: Colorado's Mining King. Norman: University of Oklahoma Press, 1995.

"Shenandoah-Dives." Mining World, 4 (April 1942): 3-7.

"Shenandoah-Dives. Part Two." Mining World. (June 1942): 10-13.

Smith, Duane A. Mining America: The Industry and the Environment 1800-1980. Kansas City: University of Kansas Press, 1987.

Spude, Robert, Historian, National Park Service, Denver, CO. Interview by Dawn Bunyak. 6 July 1995.

--------. Phone interview with Dawn Bunyak. 6 January 1997.

The Silverton (Colorado) Miner. Golden San Juan Ed. 1907: 9-ll. Collection of William Jones of Montrose, Colorado.

Todeschi, Joseph, Sr.. Phone interview with Dawn Bunyak. 16 December 1996.

Ubbelohde, Carl, Maxine Benson, Duane A. Smith. A Colorado History. 6th ed. Boulder, CO: Pruett Pub. Co., 1988.

Unknown. "Western Colorado Power Company History." Unpublished manuscript, 1979(?). San Juan County Historical Society Archives, Silverton, Colorado. Chapters 4, 8, and 13.

Whitacre, Christine, Front Range Research, Inc. "Telluride National Historic Landmark District." National Register of Historic Places Registration Form, 30 September 1988.

Wolle, Muriel S. Stampede to Timberline: The Ghost Towns & Mining Camps of Colorado. Boulder, CO: By the author, 1949.

Zanoni, Darnall. Interview by Dawn Bunyak. 13-15 June 1995.

UTM REFERENCES

Reference Pt.	Zone	Easting	Northing
A	13	266410	4188800
B	13	266480	4188950
C	13	266780	4189030
D	13	268200	4189960
E	13	268380	4190000
F	13	268930	4190040
G	13	268945	4189860
H	13	270280	4187300
I	13	268880	4189820
J	13	268245	4189280
K	13	267420	4188860
L	13	266720	4188520

VERBAL BOUNDARY DESCRIPTION

The original boundary of the Silverton Historic District basically encompassed the Silverton town limits. This amendment extends those boundaries to the northeast to include the Shenandoah-Dives (Mayflower) Mill and aerial tramway, as well as the other historic resources described in this nomination. The amended portion of the boundary conforms to the Mineral Survey Patent Claims listed below. The Mineral Survey Patent Claims are approximately drawn within the UTM points and boundary on the attached USGS Map. For actual boundary location, refer to the Mineral Survey Patent Claims Map that accompanies this nomination. In general, the boundary description of the amended area is as follows:

Beginning at the most northeastern point of the Silverton town limits (UTM A), the boundary extends in a straight line in a northeasterly direction to a point that marks the northwestern corner of Hillside Cemetery (UTM B). The boundary then follows the cemetery boundaries to the northernmost corner of the cemetery (UTM C). The boundary then extends in a straight line in a southerly direction along the cemetery boundary, then extending past the cemetery boundary to a point on the southern side of Highway 110. The boundary then extends in a northeasterly direction following the northern boundaries of the mineral survey patents listed below. UTM F, which is the northeastern corner of Mineral Patent ECW Millsite, also marks the northeastern corner of the amended boundary. The boundary extends in a southerly direction to UTM G, which marks the southeastern corner of ECW Millsite mineral patent. From the Shenandoah-Dives (Mayflower) Mill tramway terminal building (UTM I), which is approximately 400 feet west of UTM G, the boundary extends in a straight line in a southeasterly direction along the aerial tramway (9,526 feet) to the avalance deflector at the Mayflower Mine (UTM H). The boundary then returns in a straight line to the tramway terminal building (UTM I). From this point, the boundary extends in a southwesterly direction along the

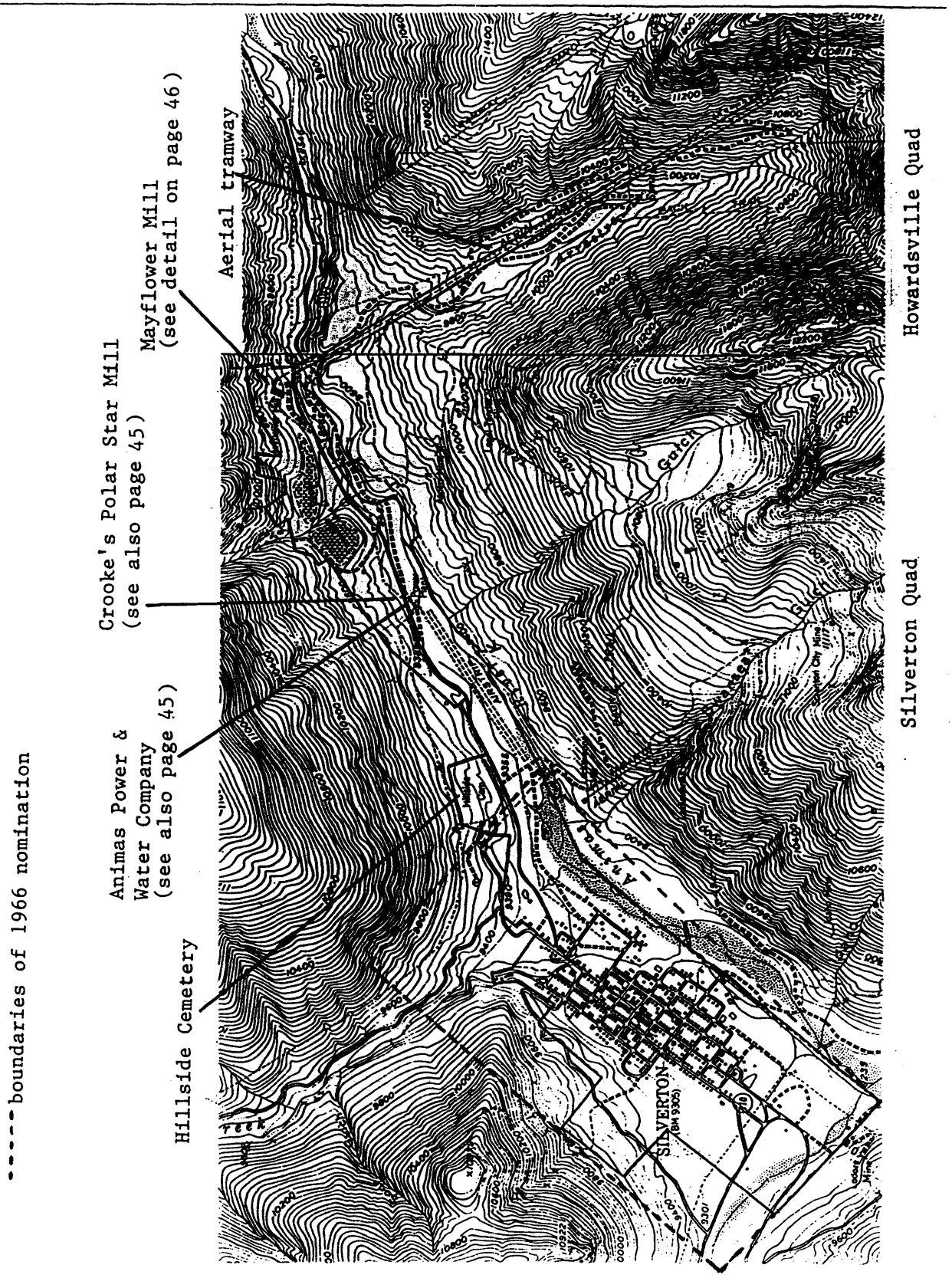
southern boundaries of the mineral survey patents listed below. UTM L marks the easternmost corner of the Silverton town limits. The boundary line then follows the town boundary back to UTM A. (Note: The Town of Silverton and Hillside Cemetery are contiguous on the survey line between Corner No. 1 and Corner No. 6 of the Hillside Cemetery plat for the distance between Corner No. 1 of the Hillside Cemetery plat and Corner No. 4 of the Blair Placer plat, which is also Corner No. 4 of the Blague's Addition to the Town of Silverton.)

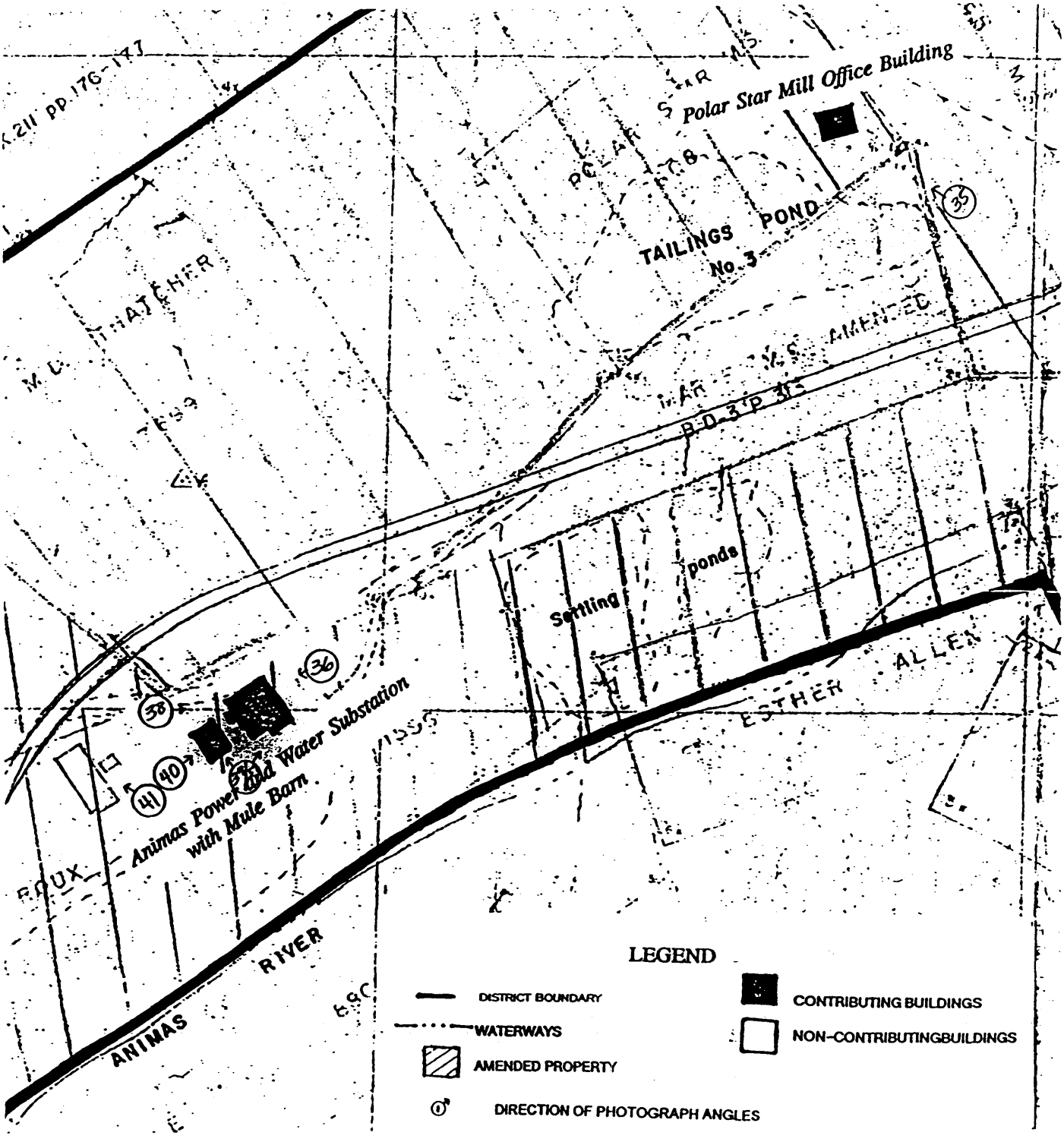
Mineral Survey Number	Patented Claim
17952	Silverton Cemetery Lode
841	Blair Placer
11596	Jeanette Roux Placer
11596	Ann Harris Placer
17699	MD Thatcher Placer
7608	Polar Star Millsite
11596	Peter Placer Millsite
14012	Gold Lode
11596	Bend Placer Millsite
14012	Buena Vista Lode
20595	CH Millsite
20595	HVB Millsite
20595	THWB Millsite
20595	THWA Millsite
20595	MB Millsite
20595	NN Millsite
20595	HM Millsite
20407	Millsite
20595	ECW Millsite

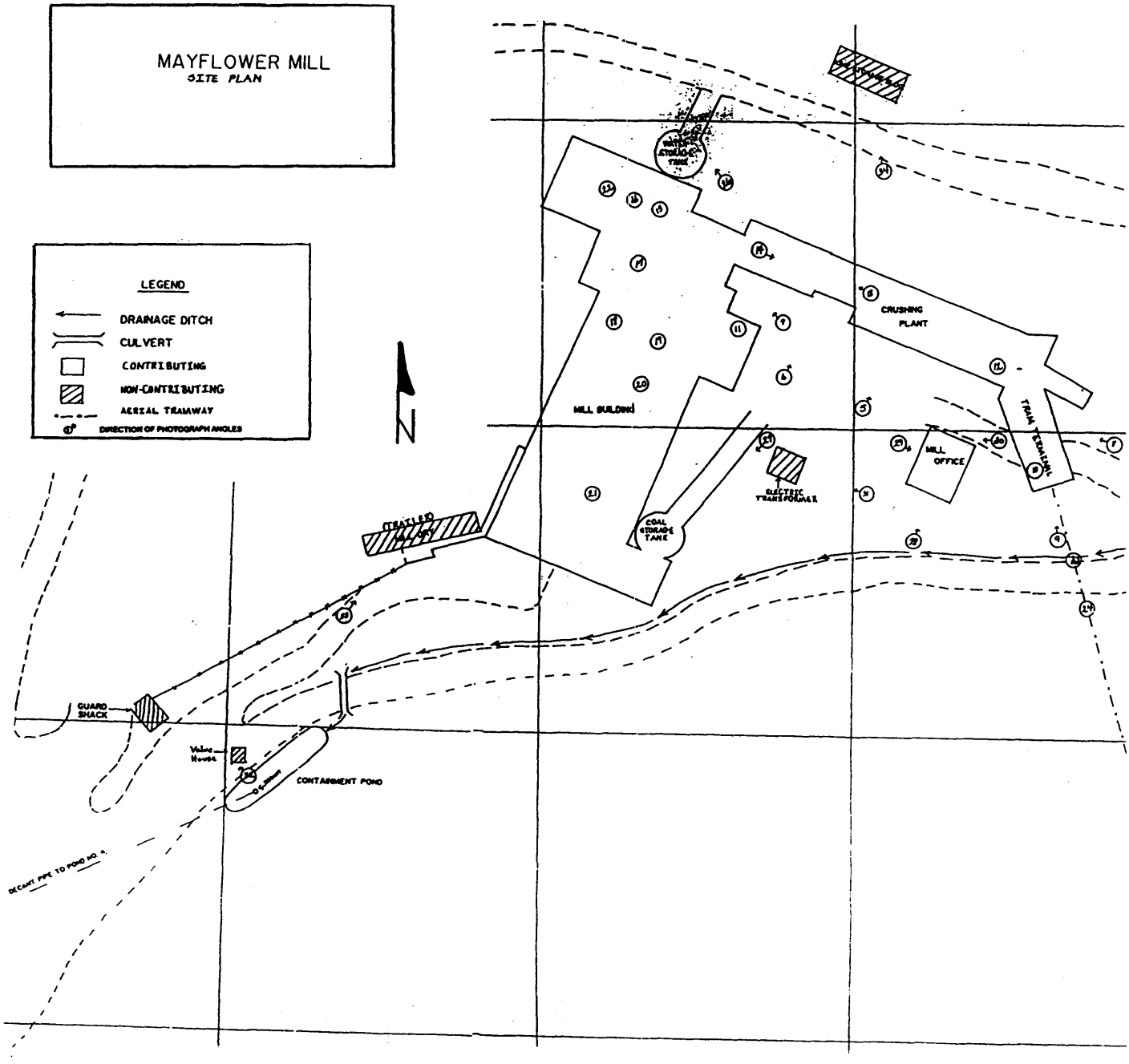
BLM CMC Number	
5457	Marge

BOUNDARY JUSTIFICATION

The amended Silverton Historic District boundary includes the town boundaries as described in the original nomination, the mineral survey patent historically known as the Hillside Cemetery, and the mineral survey patents that were historically associated with the Shenandoah-Dives Mine, Mill, and aerial tramway operation. These patents, which also encompass the Polar Star Mill Assay Office and the Animas Water and Power Company resources, also match the boundaries of the land that the Sunnyside Gold Corporation donated to the San Juan Country Historical Society. The southeastern edge of the National Register boundary has been drawn to include the historic avalanche deflector at the Shenandoah-Dives (Mayflower) Mine, and the upper terminus of the aerial tramway.


Aerial tramway
Mayflower Mill
(see detail on page 46)
Crooke's Polar Star Mill
(see also page 45)
Animas Power &
Water Company
(see also page 45)
Hillside Cemetery
Howardsville Quad
Silverton Quad
SILVERTON
----- boundaries of 1966 nomination


Polar Star Mill Office Building
TAILINGS POND No. 3
Settling ponds
Animas Power and Water Substation with Mule Barn
ESTHER
ALLEN
ANIMAS RIVER
LEGEND
DISTRICT BOUNDARY
WATERWAYS
AMENDED PROPERTY
DIRECTION OF PHOTOGRAPH ANGLES
CONTRIBUTING BUILDINGS
NON-CONTRIBUTINGBUILDINGS


MAYFLOWER MILL
SITE PLAN
LEGEND
DRAINAGE DITCH
CULVERT
CONTRIBUTING
NON-CONTRIBUTING
AERIAL TRAMWAY
DIRECTION OF PHOTOGRAPH ANGLES
N
CRUSHING PLANT
MILL BUILDING
MILL OFFICE
TRAM TERMINAL
ELECTRIC TRANSFORMER
COAL STORAGE TANK
GUARD SHACK
CONTAINMENT POND

NOTE: The captions for photographs nos. 12, 15, 16, 18, 19, and 20 are also keyed to the Shenandoah-Dives Mill flow chart that appears in Section 7.

1. 1. Shenandoah-Dives (Mayflower) Mill, Silverton Historic District
   2. San Juan County, Colorado
   3. Unknown
   4. 1932
   5. San Juan County Historical Society
   6. Mill, North Side
   7. #1

2. 1. Shenandoah-Dives (Mayflower) Mill, Silverton Historic Distirct
   2. San Juan County, Colorado
   3. Unknown
   4. 1960
   5. San Juan County Historical Society
   6. Mill and Tailings Ponds, Aerial View, Northwest Side
   7. #2

3. 1. Shenandoah-Dives (Mayflower) Mill, Silverton Historic District
   2. San Juan County, Colorado
   3. Fredrick Athearn, Historian, Bureau of Land Management
   4. September 1995
   5. San Juan County Historical Society
   6. Mill, East Side
   7. #3

4. 1. Shenandoah-Dives (Mayflower) Mill, Silverton Historic District
   2. San Juan County, Colorado
   3. Fredrick Athearn, Historian, Bureau of Land Management
   4. September 1995
   5. San Juan County Historical Society
   6. Mill, South Side from Tailings Pond #1
   7. #4

5. 1. Shenandoah-Dives (Mayflower) Mill, Silverton Historic District
   2. San Juan County, Colorado
   3. Fredrick Athearn, Historian, Bureau of Land Management

4. September 1995
5. San Juan County Historical Society
6. Mill, Exterior of Crushing Plant, Northeast Side
7. #5

6. 1. Shenandoah-Dives (Mayflower) Mill, Silverton Historic District
2. San Juan County, Colorado
3. Fredrick Athearn, Historian, Bureau of Land Management
4. September 1995
5. San Juan County Historical Society
6. Mill, Exterior of Conveyor, Northeast Side
7. #6

7. 1. Shenandoah-Dives (Mayflower) Mill, Silverton Historic District
2. San Juan County, Colorado
3. Fredrick Athearn, Historian, Bureau of Land Management
4. September 1995
5. San Juan County Historical Society
6. Mill, Exterior of Conveyor and Machine Shop, North Side
7. #7

8. 1. Shenandoah-Dives (Mayflower) Mill, Silverton Historic District
2. San Juan County, Colorado
3. Dawn Bunyak, Historian
4. June 1995
5. National Park Service, RMSSO
6. Tram Terminal, North Side
7. #8

9. 1. Shenandoah-Dives (Mayflower) Mill, Silverton Historic District
2. San Juan County, Colorado
3. Dawn Bunyak, Historian
4. June 1995
5. National Park Service, RMSSO
6. Tram Terminal, East Side
7. #9

10. 1. Shenandoah-Dives (Mayflower) Mill, Silverton Historic District
2. San Juan County, Colorado

3. Fredrick Athearn, Historian, Bureau of Land Management
4. September 1995
5. San Juan County Historical Society
6. One-Ton Tram Bucket inside Tram Terminal
7. #10

11. 1. Shenandoah-Dives (Mayflower) Mill, Silverton Historic District
2. San Juan County, Colorado
3. Fredrick Athearn, Historian, Bureau of Land Management
4. September 1995
5. San Juan County Historical Society
6. Interior of Mill Workshop
7. #11

12. 1. Interior of Shenandoah-Dives (Mayflower) Mill, Silverton Historic District
2. San Juan County, Colorado
3. Frederic Athearn, Historian, Bureau of Land Management
4. September 1995
5. San Juan County Historical Society
6. Symons short head cone crusher (No. 3 on Flow Chart)
7. #12

13. 1. Interior of Shenandoah-Dives (Mayflower) Mill, Silverton Historic District
2. San Juan County, Colorado
3. Frederic Athearn, Historian, Bureau of Land Management
4. September 1995
5. San Juan County Historical Society
6. Interior of Crushing Plant conveyor belt
7. #13

14. 1. Interior of Shenandoah-Dives (Mayflower) Mill, Silverton Historic District
2. San Juan County, Colorado
3. Frederic Athearn, Historian, Bureau of Land Management
4. September 1995
5. San Juan County Historical Society
6. Interior of 200-foot Conveyor with Belt
7. #14

15. 1. Interior of Shenandoah-Dives (Mayflower) Mill, Silverton Historic District

2. San Juan County, Colorado
3. Frederic Athearn, Historian, Bureau of Land Management
4. September 1995
5. San Juan County Historical Society
6. No. 86 Marcy grate ball mill (No. 4 on Flow Chart)
7. #15

16. 1. Interior of Shenandoah-Dives (Mayflower) Mill, Silverton Historic District
2. San Juan County, Colorado
3. Frederic Athearn, Historian, Bureau of Land Management
4. September 1995
5. San Juan County Historical Society
6. Dorr quadruplex classifier (No. 5 on Flow Chart)
7. #16

17. 1. Interior of Shenandoah-Dives (Mayflower) Mill, Silverton Historic District
2. San Juan County, Colorado
3. Frederic Athearn, Historian, Bureau of Land Management
4. September 1995
5. San Juan County Historical Society
6. Reagent Feeder
7. #17

18. 1. Interior of Shenandoah-Dives (Mayflower) Mill, Silverton Historic District
2. San Juan County, Colorado
3. Frederic Athearn, Historian, Bureau of Land Management
4. September 1995
5. San Juan County Historical Society
6. 20-cell No. 21 Minerals Separation flotation (No. 11 on Flow Chart)
7. #18

19. 1. Interior of Shenandoah-Dives (Mayflower) Mill, Silverton Historic District
2. San Juan County, Colorado
3. Frederic Athearn, Historian, Bureau of Land Management
4. September 1995
5. San Juan County Historical Society
6. Dorr thickener (No. 19 on Flow Chart)
7. #19

20. 1. Interior of Shenandoah-Dives (Mayflower) Mill, Silverton Historic District
2. San Juan County, Colorado
3. Frederic Athearn, Historian, Bureau of Land Management
4. September 1995
5. San Juan County Historical Society
6. No. 18 Denver flotation (No. 24 and 27 on Flow Chart)
7. #20

21. 1. Interior of Shenandoah-Dives (Mayflower) Mill, Silverton Historic District
2. San Juan County, Colorado
3. Frederic Athearn, Historian, Bureau of Land Management
4. September 1995
5. San Juan County Historical Society
6. Canvas-Wheel Filter deck
7. #21

22. 1. Interior of Shenandoah-Dives (Mayflower) Mill, Silverton Historic District
2. San Juan County, Colorado
3. Frederic Athearn, Historian, Bureau of Land Management
4. September 1995
5. San Juan County Historical Society
6. Rod Mill
7. #22

23. 1. Shenandoah-Dives (Mayflower) Aerial Tramway, Silverton Historic District
2. San Juan County, Colorado
3. Dawn Bunyak, Historian
4. June 1995
5. National Park Service, RMSSO
6. 1600-lb. Tram Buckets on Aerial Tramway Line
7. #23

24. 1. Shenandoah-Dives (Mayflower) Aerial Tramway, Silverton Historic Landmark District
2. San Juan County, Colorado
3. Fredrick Athearn, Historian, Bureau of Land Management
4. September 1995
5. San Juan County Historical Society
6. 115-foot Aerial Tramway Tower (No. 11), Largest on Tramway Line
7. #24

25. 1. Shenandoah-Dives (Mayflower) Avalanche Deflector, Silverton Historic District
2. San Juan County, Colorado
3. Fredrick Athearn, Historian, Bureau of Land Management
4. September 1991
5. San Juan County Historical Society
6. Avalanche Deflector and Aerial Tramway Tower (No. 1), King Solomon Mountain
7. #25

26. 1. Shenandoah-Dives (Mayflower) Mill Water Storage Tank, Silverton Historic District
2. San Juan County, Colorado
3. Dawn Bunyak, Historian
4. June 1995
5. National Park Service, RMSSO
6. Water Storage Tank
7. #26

27. 1. Shenandoah-Dives (Mayflower) Mill Coal Storage Tank, Silverton Historic District
2. San Juan County, Colorado
3. Dawn Bunyak, Historian
4. June 1995
5. National Park Service, RMSSO
6. Coal Storage Tank
7. #27

28. 1. Shenandoah-Dives (Mayflower) Mill Office/Assay Building, Silverton Historic District
2. San Juan County, Colorado
3. Dawn Bunyak, Historian
4. June 1995
5. National Park Service, RMSSO
6. East Side
7. #28

29. 1. Shenandoah-Dives (Mayflower) Mill Office/Assay Building, Silverton Historic District
2. San Juan County, Colorado
3. Dawn Bunyak, Historian
4. June 1995
5. National Park Service, RMSSO
6. North Side
7. #29

30. 1. Shenandoah-Dives (Mayflower) Mill Office/Assay Building, Silverton Historic District
2. San Juan County, Colorado
3. Dawn Bunyak, Historian
4. June 1995
5. National Park Service, RMSSO
6. West Side
7. #30

31. 1. Shenandoah-Dives (Mayflower) Mill Electric Transformer, Silverton Historic District
2. San Juan County, Colorado
3. Dawn Bunyak, Historian
4. June 1995
5. National Park Service, RMSSO
6. North Side
7. #31

32. 1. Shenandoah-Dives Mill Guard Shack and Valve House (noncontributing), Silverton Historic District
2. San Juan County, Colorado
3. Dawn Bunyak, Historian
4. June 1995
5. National Park Service, RMSSO
6. Noncontributing Guard Shack and Valve House
7. #32

33. 1. Shenandoah-Dives (Mayflower) Mill, noncontributing trailer, Silverton Historic District
2. San Juan County, Colorado
3. Dawn Bunyak, Historian
4. June 1995
5. National Park Service, RMS
6. Noncontributing trailer
7. #33

34. 1. Shenandoah-Dives (Mayflower) Mill, lime storage building (noncontributing), Silverton Historic District
2. San Juan County, Colorado
3. Dawn Bunyak, Historian
4. June 1995
5. National Park Service, RMS

6. Noncontributing lime storage
7. #34

35. 1. Crooke's Polar Star Mill Office/Assay Building, Silverton Historic District
2. San Juan County, Colorado
3. Dawn Bunyak, Historian
4. June 1995
5. National Park Service, RMS
6. Northeast Side
7. #35

36. 1. Animas Power and Water Company Substation, Silverton Historic District
2. San Juan County, Colorado
3. Dawn Bunyak, Historian
4. June 1995
5. National Park Service, RMS
6. North Side
7. #36

37. 1. Animas Power and Water Company Substation, Silverton Historic District
2. San Juan County, Colorado
3. Dawn Bunyak, Historian
4. June 1995
5. National Park Service, RMS
6. East Side
7. #37

38. 1. Animas Power and Water Company Substation, Silverton Historic District
2. San Juan County, Colorado
3. Dawn Bunyak, Historian
4. June 1995
5. National Park Service, RMS
6. Southwest Side
7. #38

39. 1. Animas Power and Water Company Mule Barn, Silverton Historic District
2. San Juan County, Colorado

3. Fredrick Athearn, Historian, Bureau of Land Management
4. September 1995
5. San Juan County Historical Society
6. East Side
7. #39

40. 1. Animas Power and Water Company Mule Barn, Silverton Historic District
2. San Juan County, Colorado
3. Fredrick Athearn, Historian, Bureau of Land Management
4. September 1995
5. San Juan County Historical Society
6. South Side
7. #40

41. 1. Animas Power and Water Company Quonset Hut and Aluminum Shed (noncontributing), Silverton National Historic Landmark district
2. Silverton, San Juan County, Colorado
3. Dawn Bunyak, Historian
4. June 1995
5. National Park Service, RMSSO
6. Noncontributing buildings
7. #41

42. 1. Hillside Cemetery, Silverton Historic District
2. San Juan County, Colorado
3. Dawn Bunyak, Historian
4. June 1995
5. National Park Service, RMSSO
6. Cemetery from Highway 110
7. #42

43. 1. Hillside Cemetery, Silverton Historic District
2. San Juan County, Colorado
3. Dawn Bunyak, Historian
4. June 1995
5. National Park Service, RMSSO
6. Cemetery markers
7. #43

Silverton Historic District (Boundary Increase)
San Juan County, CO