NPS Form 10-900
(Revised Feb. 1993)

OMB No. 10024-0018

RECEIVED 2280
JUN 2
NAT REGISTER OF HISTORIC PLACES
NATIONAL PARK SERVICE

United States Department of the Interior
National Park Service

192

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *How to Complete the National Register of Historic Places 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 **Gold Point Mill**

other names/site number 10-IH-919 / 49-17915

2. Location

street & number Forest Service Road 222 N/A not for publication

city or town Elk City X vicinity

state Idaho code ID county Idaho code 049 zip code 83525

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1986, 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 __ statewide X locally. (__ See continuation sheet for additional comments.)

Kenneth C. Reid 26 May 2000

Kenneth C. Reid, Deputy State Historic Preservation Officer — Date

State Historic Preservation Office - Idaho State Historical Society

State or Federal agency or bureau

In my opinion, the property __ meets __ does not meet the National Register criteria.

6-5-00

Signature of commenting or other official — Date

Michael R. Beckes USDA R1 Northern Region

State or Federal agency and bureau

4. National Park Service Certification

I, hereby certify that this property is:

for

Signature of the Keeper — Date of Action

Edson H. Beall 7.14.00

✓ entered in the National Register
__ see continuation sheet
__ determined eligible for the National Register
__ see continuation sheet
__ determined not eligible for the National Register
__ see continuation sheet
__ removed from the National Register
__ see continuation sheet
__ other (explain): _____

Gold Point Mill
Name of Property

Idaho County, Idaho
County, and State

5. Classification

Ownership of Property
(Check as many boxes as apply)
X private
_ public-local
_ public-State
X public-Federal

Category of Property
(Check only one box)
X building(s)
_ district
_ site
_ structure
_ object

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

Contributing	Noncontributing	
1		buildings
		sites
		structures
		objects
1	0	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
N/A

6. Function or Use

Historic Functions
(Enter categories from instructions)
PROCESSING/processing site

Current Functions
(Enter categories from instructions)
RECREATION AND CULTURE/
Museum

7. Description

Architectural Classification
(Enter categories from instructions)
OTHER / No style

Materials
(Enter categories from instructions)
foundation WOOD/log
walls WOOD
roof METAL
other

Narrative Description

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

X See continuation sheet(s) for Section No. 7

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" on one or more lines 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" on all 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)

INDUSTRY
ARCHITECTURE
ENGINEERING

Period of Significance

1935-1937

Significant Dates

Significant Person
(Complete if Criterion B is marked above)

N/A

Cultural Affiliation

N/A

Architect/Builder

Unknown

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

X See continuation sheet(s) for Section No. 8

9. Major Bibliographical 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:
_ State Historic Preservation Office
_ Other State agency
X Federal agency
_ Local government
_ University
X Other

Name of repository:
Idaho Gold Fields Historical Society

X See continuation sheet(s) for Section No. 9

Gold Point Mill
Name of Property

Idaho County, Idaho
County, and State

10. Geographical Data

Acreage of property less than one
UTM References
(Place additional UTM references on a continuation sheet.)

	Zone	Easting	Northing		Zone	Easting	Northing
A	1/1	6/2/4/9/6/0	5/0/7/0/8/8/0	B	/	//////	//////
C	/	//////	//////	D	/	//////	//////

Verbal Boundary Description
(Describe the boundaries of the property.)

The boundary is a circle with its center point the center of the mill. The radius of the circle is 80 feet.

_ See continuation sheet(s) for Section No. 10

Boundary Justification
(Explain why the boundaries were selected.)

The boundary includes the mill building itself and the associated equipment (steam boilers) located just outside the building on its south side.

_ See continuation sheet(s) for Section No. 10

11. Form Prepared By

name/title Kathy McKay, Historian
organization Tracks of the Past date Sept. 25, 1998
street & number 491 Eckelberry Dr. telephone (406) 892-1586
city or town Columbia Falls state MT zip code 59912

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/or 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

name Idaho Gold Fields Historical Society (building)	Nez Perce National Forest (land)
street & number P.O. Box 402 telephone (208) 842-2383	Rt. 2, Box 475 (208) 983-1950
city or town Elk City state ID zip code 83525	Grangeville, ID 83530

Description

The Gold Point mill is a shed-roofed, rectangular building housing machinery for the amalgamation and concentration of gold-bearing ore. It is located on a wooded hillside outside of Elk City, Idaho, close to Red River. The 1936 mill is eligible under Criterion A because it reflects the 1930s boom in lode mining in Idaho County caused by higher prices of gold and improved transportation. It is also eligible under Criterion C because of its architectural design and its extraordinarily well-preserved interior. Still intact inside the mill are the jaw crusher, ball mill, rake classifier, bucket elevator, and shaker tables, plus drive shafts, water pipes, launders, and miscellaneous other machinery. The flow of ore inside the mill can be followed from the coarse ore bin at the top to the troughs for concentrates at the bottom. The mill only processed ore for a very short period before the company ran out of cash and of gold-bearing ore, but this is typical of many Idaho County lode mines of this period. Gold Point Mines owned the mill and associated claims and other improvements from 1934 until 1957; they sold to the property to Floyd Patrin, who owned it until 1996. The mill itself has excellent integrity of location, design, setting, materials, workmanship, feeling, and association. The only major changes to the exterior of the mill are the loss of the metal shed housing the steam plant and the loss of the log trestle that supported a ramp leading to the hopper of the coarse ore bin.

The mill's location was chosen to provide relatively easy access to Gold Point Mines' adits and shafts, yielding gold-bearing ore for the mill to process. Its hillside location allowed most of the processes within the mill to be gravity-fed. A water supply was nearby (Red River), and tailings could be dumped downslope from the mill. The mill was designed to have several levels, with the ore passing by gravity through the various levels and processes. Interior wooden stairs provided access to each level. An elevator delivered material from the lowest level to the classifier and ball mill level for retreatment.

The Gold Point mill is located about eight miles southeast of Elk City, a small community in Idaho County, Idaho. The mill is close to Red River, a 25-mile-long tributary of the South Fork of the Clearwater River. Red River flows year-round and is about 30'-50' wide and 4'-6' deep in summer in the vicinity of the mill. The Red River valley floor narrows from about 0.5 mile wide south of the mill to a few hundred feet wide in the area of the mill, and there are dredge cuts and tailings piles along Red River. The mill is located at an elevation of 4240'. Neighboring ridges rise 1500'-2000' above the river valley. The predominant vegetation is lodgepole pine, grand fir, and Douglas-fir, with an understory of beargrass. The hillsides adjacent to the mill have a fairly consistent slope of 20 degrees. During winter, the snowpack is often over 3' deep, and it generally remains on the ground from mid-November to early May.[1]

The Elk City mining district is in a roof pendant in the north-central part of the Idaho batholith. The bedrock in the vicinity of the Gold Point mill is primarily white- and black-banded augen gneiss of metamorphic origin, probably of late Precambrian age. The gold-bearing quartz veins in the area strike mostly northerly, and they dip steeply, mostly to the west. The veins generally do not have conspicuous outcrops. The alluvial deposits along Red River are flood-plain gravels of modern streams that consist of reworked terrace and postglacial gravels.[2]

The rectangular, shed-roofed mill building is of balloon frame construction with vertical-board rough-cut siding (the planks are 1" x 6"). The mill's overall dimensions are approximately 25' north-south and 75' east-west. It is constructed of local lumber, probably western larch, Douglas-fir, lodgepole pine, and/or Ponderosa pine. The rafters are log and are spaced 2' apart. The purlins, however, are squared timbers. Some of the beams in the building measure 8" or 10" square. Some of the window openings have boards or plywood nailed over them; none have glass panes. The top (west) section of roof over the coarse ore bin is perhaps 6' higher than the rest of the roof, and this section is not framed in. The section below the slanting ore bin is also not framed in, but it is supported by heavy timbers. The foundation is constructed of log posts resting on rock or concrete. The post-and-beam foundation on the east (bottom) end is subsiding, and the floor slopes toward the east at that end.

The east (bottom) elevation has two 5'-wide window openings. The south side has five window openings and two door openings. The door opening in front of the ball mill is about 10' high and 18' wide. The north side also has several square and horizontal window openings, plus a door opening on the west end.

The first (top) level of the mill is the coarse ore bin. The ore bin is sided with boards that run parallel to the slanting bottom of the bin. The second level of the mill contains the grizzly and jaw crusher. A drive shaft runs north-south and lines up above the jaw crusher. Below this level is a landing. At the top of the stairs, near the landing, is a metal stand with bolt holes. It is not known what piece of equipment was once bolted to this stand.

The third level rests directly on bedrock. The floor joists measure 9". On the interior, the floor extends out over the level below. This level of the mill contains the ball mill and rake classifier, plus piles of lumber, corrugated metal, and several small engines. Rubber and canvas 1' 10"-wide belting is stored rolled up underneath the stairs. The fine ore bin below the jaw crusher is located on the west end of this level. It is constructed of massive 16" X 16" horizontal timbers that are partly sided with horizontal boards.

The fourth (lowest) level of the mill contains the two shaker tables and the elevator. It is currently being used as storage for miscellaneous items such as tires, sinks, a wood stove (a second one was recently stolen), corrugated metal roofing, doors, piping, and lumber. The floor is constructed of two layers of planks laid perpendicular to each other, with dirt underneath.

The main water pipe runs from the top level (where it enters the west side of the building from the exterior) to a drive shaft above the second level, where it splits and then runs above the machinery to the bottom level. It is difficult to trace the flow of water within the mill because some of the water pipes end abruptly in mid-air. Gordon Van Scotter, whose father helped build the mill, recalls that a single-cylinder stationary engine located at the bottom of the mill pumped water from Red River to the various machines.[3]

The physical appearance of the mill strengthens the theory that the Gold Point mill never actually processed much ore. The hopper and the chute delivering ore to the jaw crusher appear very little worn, even though they are constructed of softwood. The launders throughout the mill do not appear worn. The liners of the ball mill appear to have been used very little. The Babbitt bearings on the ball mill are not worn at all. Although there is today no apparent way to deliver ore to the coarse ore bin, Gold Point dump trucks reportedly drove up a ramp supported by a trestle to deliver the ore. Today there is no evidence at all of the trestle.

The concentration of ore is the mechanical separation of gangue (worthless minerals) from the valuable minerals of an ore. Gold is recovered from ore by one or a combination of the following methods: amalgamation, cyanidation, concentration, smelting. The Gold Point mill used amalgamation and concentration. The ore was repeatedly subjected to crushing, sizing (classifying), amalgamation (combination with mercury), and gravity concentration until it left the mill partly as concentrate (containing the values) and partly as tailing (the waste product) from which as much of the values had been removed as possible.

Two processes that were used at other gold mills in Idaho County in the 1930s, cyanidation and flotation, were not used at the Gold Point mill. It is probable that the Gold Point ore was oxidized, or free-milling, which is more amenable to treatment by amalgamation and concentration than are sulphide ores. In the 1930s, amalgamation seldom yielded more than 70% recovery of gold in Idaho, so many tailing piles from amalgamating and concentrating mills were later retreated by cyanidation or flotation to capture much of the remaining gold.[4]

Power Source

The Gold Point mill is unusual in that its machinery was powered by steam. Even in the early 1900s, most quartz mills were using electricity instead of steam, often generated by diesel engines or a hydroelectric plant. Most of the remote ball mills in Idaho County ran on diesel power in the 1930s. Some of the small mills in Idaho County even used old automobile engines to power their machinery. The steam plant at Gold Point consists of two wood-fired steam boilers, one upright and one horizontal, providing a total of 75 hp. A corrugated-metal shed once protected the boilers from the elements; this has been dismantled and the sheets of metal are now stacked inside the mill.[5]

The power was transmitted by belts on pulleys, and the shafting was mounted in adjustable hangers. Most, perhaps even all, of the mill's pulleys, drive shafts, and counter-shafts still exist. None of the belting is in place, however. The supply of wood in the area was plentiful in the 1930s, and Gold Point Mines could have contracted for fuelwood for $2.25-$4.00 per cord.[6]

The upright boiler is about 6' 6" in diameter and 12' high. The firebox is on the south end, and it has a metal grate. The flywheel (4' 4" in diameter) is in two pieces. The pipe leaving the boiler measures 2 1/4" in diameter. There is also a large riveted pipe made of sheet metal that is 14" in diameter. The wooden frame supporting the boiler has rotted, but there is still a metal frame. The horizontal boiler is tube-fired and it is located 9' 6" from the closest door on the mill. The firebox is 3' 1" in width. The boiler is 13' 11" high, and it measures over 20' in length.

Launders (inclined wooden troughs) of various dimensions conveyed the pulp from one machine to another within the mill. Water and gravity helped move the material. The mill was heated by steam, and its lighting system originally ran off an electric generator powered by steam. The existing lighting system was wired by Floyd Patrin some time after 1957.[7]

Ore Delivery System

Before the ore was brought to the mill, employees of Gold Point Mines may have broken the ore with hand sledges or spalling hammers into a size suitable for entering the jaws of the rock breaker. The size of feed probably did not exceed 8". Workers may also have done some hand picking of the ore, either underground, in an ore house, or at the mill itself. This would save the expense of crushing ore that contained no value. There is no evidence of a picking belt at the Gold Point mill, however.

Today it is difficult to ascertain how ore was brought from the mine adits to the mill and dumped into the coarse ore bin. Some of the mine adits were planked, so the ore was hauled out in wheelbarrows; others had mine rail for ore cars. Gold Point Mines owned three one-ton International dump trucks that hauled the ore from bins at the adit portals to the mill. A log trestle that no longer exists created a ramp that the trucks backed up. A large log at the top marked the spot where they dumped their load of ore into the hopper of the coarse ore bin.[8]

The coarse ore bin has a sloping bottom, so it was designed to be self-emptying. It is constructed of heavy timbers to withstand heavy wear and shocks due to the dumping of ore into the bin from above.

Grizzly, Jaw Crusher, and Fine Ore Bin

The chute leading from the coarse ore bin to the jaw crusher has three wooden sliding gates, each 1' 5" wide. Sliding gates such as these that controlled ore feed were economical, but they often jammed with fines or froze tight in winter. A stationary grizzly

separated the fine ore from the ore that needed to be mechanically crushed (the jaw breaker feed). The grizzly is installed in the bottom of the chute leading to the jaw crusher. The metal bars of the grizzly are 1" apart, so all material below that size passed directly into the fine ore bin. This kept the jaw breaker from handling material that was already fine enough to go into the ball mill.

The Blake-type jaw crusher is 3' wide and sits within a lumber cage that is 4' square. The jaw crusher is the primary crushing machine in this mill (gyrators were used for this purpose in some mills; they deliver a more uniform product). The moving jaw is hinged at the top, giving it a receiving opening of fixed size. The machine crushed rock between the fixed plate and the swinging jaw by direct pressure. The jaw plates are made of chilled iron or steel and were replaceable when worn. The shaft controlling the jaw crusher was revolved by means of a pulley belted to a shaft in the mill. The discharged material - presumably 1" in diameter or less, judging by the space between the bars of the grizzly - fell by gravity into the fine ore bin. A crude wooden ladder fastened to the east wall of the fine ore bin leads down into the bin.

Ball Mill

Ore from the fine ore bin was fed to a belt conveyor by gravity and was carried on the belt to the ball mill feed box.. The belt is gone, but the conveyor mechanism is still in place. A metal scoop picked up ore and pulp in the feed box and fed it into the ball mill. The feed box, which is 2' 4" long, is covered on top by widely spaced wooden pole half-rounds (presumably for safety). When the mill was operating, the feed box would have contained the original feed coming from the fine ore bin and the returned oversize coming from the top end of the classifier.

The ball mill in the Gold Point mill was manufactured by Union Iron Works of Spokane. Its daily capacity was 50 tons of ore. It performed the fine grinding of the ore by mixing pieces of ore with a "charge" of iron balls, resulting in a granular product mixed with water (pulp). The ball mill is cylindrical, supported by concrete trunnions, and it measures 5' lengthwise and 5' 6" in width. It rotated on its axis and was driven by a belt that turned a gear-driven shaft. The charge consisted of steel balls of various sizes (there are no balls in the mill today). Five-inch balls were commonly used for coarse grinding. The feed entered the west end and the finished product exited the east end. The mill had a replaceable shell of cast iron or steel plates; these 10" X 22" liner plates are currently stacked under an overhang just southwest of the ball mill itself. They are one piece, bolted, and about 2" thick. The door of the ball mill has been removed. Water was used in the process; about two tons of water were required for each ton of ore milled. This ball mill probably resulted in a grind coarser than 48 mesh.[9]

The large ring gear on the Gold Point ball mill is broken. A replacement ring gear is lying on the ground in the woods a short distance northwest of the mill. After the mill ran for a short time in the fall of 1936, the ring gear broke (it may have been installed improperly), and it appears that the mill was never run again.[10]

In a mill such as the Gold Point, coarse gold would have remained in the ball mill and classifier circuit; it would have been removed by periodic cleanups. At some mills, mercury was added to the ball mill to produce an amalgam. This may have been done at Gold Point, but it was generally not very successful because the action of the ball mill floured the mercury.[11]

The ball mill in the Gold Point mill is used in closed circuit with a classifier. The trommel (revolving screen) on the discharge trunnion of the ball mill screened the discharged pulp as it traveled in a helical path to the lower end of the trommel. The trommel is 1' 2" in diameter, and the holes measure 3/8". A small water pipe ends above the trommel (this may have delivered water to help the pulp flow into the classifier). Oversize pulp that could not pass through the trommel screen flowed into a launder that fed the classifier. The undersize pulp went to a distributor, where it was separated by gravity. The coarser material went down to the elevator boot and back up to the classifier, while the finer material was delivered by a small, narrow launder to a larger launder

carrying pulp to the shaker tables.

Rake Classifier

A Dorr rake classifier follows the ball mill. The classifier sorted the pulp's solid particles of different sizes and specific gravities so each could be given different treatment, and it also dewatered the pulp and ensured a uniform feed size to the shaker tables. By operating in closed circuit with the ball mill, this type of mechanical classifier increased the efficiency of the ball mill. The classifier separated the fine from the coarse material and returned the oversize to the ball mill for regrinding; particles that were already sufficiently fine were not run through the ball mill again.

The 16'-long classifier is 2' 3" wide and is mounted on a wooden frame. The inclined settling box slopes toward the east, and there is a grate at the lower end and a geared wheel at the west end. A bracket over the top end of the classifier held a pipe that is no longer there (probably water was fed into the classifier here). The classifier has two reciprocating rakes that slowly pulled the sands up a 1'-wide track. The rakes are angle irons fastened to stringers and suspended by hangers. The light material (the slime) would float out the back, and the heavy would sink and be pulled up to the top above water level for regrinding. The agitation of the reciprocating rakes kept the fine particles in suspension until they overflowed the weir at the lower end of the classifier.

Wooden feed launders brought pulp to the bottom end of the classifier, where the water was deep, both from the discharge end of the ball mill and from the top of the elevator (the latter would include middlings from the shaker tables). The launder from the elevator is 8" deep and 8 1/2" wide.

The oversize pulp (sand), which settled faster than the undersize (slime), was fed from the top of the classifier back to the ball mill for regrinding. The undersize material was fed from the bottom of the classifier by a wooden covered launder to a metal hopper that fed a 5' 6"-long distributor. The distributor is metal and glass and has partitions separating it into 4" x 2 1/2" compartments, each with a hole in the bottom. Mercury may have been introduced to the distributor, which would have formed an amalgam with gold carried in the pulp. From the distributor, the pulp was split and conveyed to separate launders leading to each of the two shaker tables.

Several small engines and pumps are stored on the floor in the vicinity of the rake classifier. Some of these may date from the 1930s.

Elevator

The bucket elevator transported material from the ball mill and from the shaker tables back to the rake classifier for additional processing. The elevator housing is sheet metal, and it measures 3' 6" north-south by 1' 6" east-west. The bottom of the elevator is on the same level as the shaker tables, and the top is level with a beam that forms the floor of the landing above the ball mill feed box. Material was fed into the buckets by two loading chutes, carried upward, and discharged into the receiver. The shaft of the head pulley (at the top) drove the mechanism.

Shaker Tables

The two shaker tables on the lowest level of the mill performed the gravity concentration of the pulp. They are very similar in design and function to standard Wilfley tables, and they may have been manufactured by Union Iron Works of Spokane like other machinery in the mill. The process uses water and gravity to separate particles with higher specific gravity (the gold) from the

lighter particles (gangue); gold weighs 11.3 times more than quartz in water. The pulp and water were fed to the higher end of the table. A head-motion mechanism imparted a rapid reciprocating motion with a decided jerk on the back stroke to the slightly inclined, riffled table. This stratified the pulp (the heaviest grains went to the bottom) and advanced the particles across the table. The minerals were separated by gravity, the reciprocating motion, and the flow of the wash water in a thin film over the table. On a Wilfley table, the linoleum deck is partly riffled and partly unriffled. The riffled area catches and holds the denser, valuable minerals and some of the gangue minerals. Other mechanisms for gravity concentration, none of which were used at the Gold Point, include jigs, Vanners, and spiral concentrators.

Pulped ore and water were fed into a feed box at the top of the table (this appears to be missing on the western table) and flowed from there down over the deck. Clear water was fed from the wash water box along the west side of the table. The heavier particles would move to the south end of the table and be collected as concentrates. The lighter material washed over the tapered riffles to the lower side of the table (the east end), where it spilled over into a trough and flowed to the tailings. In between these was the band of "middlings," which was caught by a separate launder and sent back to the elevator to be returned to the rake classifier. This re-milling of middlings was common at gravity concentration mills of this period. Middlings are midway between clean concentrate and clean tailing, and they would have come off these tables on the east edge, towards the south end (between the concentrates on the south and the tailings farther to the east). Middlings in the coarser sizes contain coarse values and generally need re-crushing to free included grains of gold. The rake classifier dewatered the middlings and sent them to the ball mill for regrinding or back to the shaker tables for reconcentration.

The two tables are 14' long and 5' 6" wide. They are arranged in parallel, not in series (half the pulp went to one, half to the other). Wooden troughs on the east and south sides are arranged to catch the tailings, middlings, and concentrates. The tailings exited through a trough that went down through the floor in the southeast corner of the east table to the space underneath the building.

The slope of the table could be adjusted by a hand wheel on the southwest corner of each table that controlled two tilting rods. The man operating the tables would monitor the materials flowing off it and adjust the table's slope accordingly. The length of stroke of the "head motion" controlling the movement of the table, located on the northeast corner of the table, could also be controlled by a hand wheel.

Concentrates and Tailings

The Gold Point mill used amalgamation of concentrates to extract gold. Amalgamation is based on mercury's ability to dissolve gold; gold saturated in mercury forms a paste called "amalgam." It is not known for sure where amalgamation took place in the processing of ore in the Gold Point mill. There are several possibilities. Mercury might have been added to the ball mill, to the distributors (they are of an unusual design and have traps that may have caught amalgam), or to the shaker tables. In addition, the concentrates from the shaker tables might have been placed in a barrel along with mercury.

Any of these possibilities would have resulted in an amalgam containing gold and mercury. Retorting the amalgam in a furnace would have removed the mercury, resulting in bullion. The bullion would then be poured into molds and shipped by first-class mail to the mint. After being settled and dried, the mill's concentrates would have been shipped to a smelter in barrels or sacks.

Floyd Patrin obtained two Gibson impact amalgamators (shallow boxes holding a gridwork of upright rubber triangles) from an abandoned dredge that had worked Crooked River. He installed these on the shaker tables in the Gold Point mill. The pulp and mercury would have been fed into the box, and the gold would have formed an amalgam with the mercury and been caught in the box or on the riffles.[12] Patrin may have concentrated some of his placer sands on the tables during the 1960s and 1970s when he

was actively placer mining.

There were no restrictions on the disposal of tailings in the 1930s. Tailings were often carried by wooden launders and dumped into a creek near the site of a mill. A 1980 report mentioned two output chutes exiting the east end of the mill building some 15' above the ground, but these are no long evident.[13]

It is not known whether there was a sampling facility and lab at the Gold Point mill to help fine-tune the processing. No evidence of fire assays, such as fragments of crucibles, has been found on the property.[14] The assay value of the ore, and the percentage of gold recovered by the mill, are not known.

ENDNOTES

1. Burnside, "Mining Claim Report," p. 3.

2. Burnside, "Mining Claim Report," pp. 4, 8; Reid, "Elk City Region," p. 18; Shenon & Reed, "Ore Deposits," p. 20; Armstrong & Weis, "Uranium-Bearing Minerals," p. 26.

3. Van Scotter, personal communication.

4. Lorain, "Idaho County," p. 87; Fahrenwald, "Recovery of Gold," p. 9. At the Lone Pine mill in a neighboring mining district, the problem of treating sulphide ores was partly solved by inside ball mill amalgamation and recirculation of table concentrates until the sulphides were ground fine enough to pass off with the table tailings.

5. IGS, 1937, p. 2; Woods, personal communication.

6. Lorain, "Idaho County," p. 18.

7. Patrin, personal communication.

8. Patrin, personal communication.

9. Dorr, *Cyanidation*, pp. 75, 81; Fahrenwald, "Recovery of Gold," p. 12.

10. *Idaho County Free Press*, 3 Sept. 1936.

11. Woods, personal communication.

12. Patrin, personal communication. Patrin claims that he ran large amounts of ore through the Gold Point mill, but this seems unlikely because the ball mill's ring gear has been broken since 1936.

13. Nez Perce National Forest, site form.

14. Woods, personal communication.

Statement of Significance

The Gold Point mill, built in 1936, is an excellent example of the architecture and engineering of a small mill designed to concentrate gold ore during the Depression. The mill is being nominated under Criteria A and C at the local level. It is significant under Criterion A, under Industry, because the mill reflects the increased activity at lode mines in Idaho during this period. The mill also illustrates a typical development pattern of stock-company-financed lode mining, which was to build a well-equipped mill using money raised by the sale of stock before determining whether there was a large enough body of profitable ore to support such a mill. The period of significance is 1935-37, the years in which the mill was constructed and operated. The mill is also eligible under Criterion C, under Engineering and Architecture, because almost all of the mill's original machinery is still intact and in place and because the building's architectural design clearly reflects its function as an ore-processing mill. The only changes to the mill's appearance since 1936 have been the results of natural deterioration due to severe winter weather and some vandalism. The mill provides a rare opportunity to understand the flow of ore in such a mill. In short, the Gold Point mill is one of the best extant examples in Idaho of a small amalgamation and concentration mill dating from the inter-war period.

History of Elk City Mining District

Gold in today's Elk City was first discovered in 1861 by men spreading out from the Orofino area looking for new strikes along the South Fork of the Clearwater. The early discoveries in the Elk City area were in the basin proper, along the tributaries of Red River, and along the numerous streams that have their headwaters in the area. The town of Elk City was founded in the fall of 1861, at which time there were perhaps one or two thousand people in the area. Most of Elk City's miners soon left the area, however, when they heard about the new camp of Florence not far to the west. Only fifty to seventy-five miners remained at Elk City just one month after the founding of the town.[1]

By May of 1862, miners who had joined the rush to Florence were drifting back to Elk City, where the diggings were less profitable but more certain. Miners began building long ditches and flumes to bring water to their claims, using techniques familiar from California. The ground sluice, the rocker, the long tom, bedrock flumes, and soon hydraulic methods were put to work. Once the costly ditches had been dug, hydraulic giants replaced the much slower sluicing. This allowed production to remain good in 1865 and 1866.[2]

Between 1861 and 1866, the Elk City placers produced about $3.4 million. The white miners worked for several years until they had nearly exhausted most of the smaller deposits, and then they abandoned their claims or sold them to Chinese miners. Chinese miners came to Elk City possibly as early as 1867, and for a number of years as many as fifteen hundred worked over the camp's placer grounds and old tailings. The Chinese dominated the district until about 1884, when a revival of interest in the area brought back some white miners.[3]

One of the early 1860s miners in the Elk City area was a German man named "Dutch Siegel," who located a placer claim and built a cabin near the creek that became known as Siegel Creek, just upstream from the Gold Point mill. He reportedly discovered a nearby hill rich in gold, but he left the country broke. The ruins of a saloon built near his claim were visible in the 1930s on Tom Pritchard's Red River farm; these were the remains of the community known as Raymond.[4]

In 1897 the Bitterroot Forest Reserve was created. The Elk City area was excluded by petition from the forest reserve because of its mineral value. The first headquarters of the southern division of the forest reserve, however, was located at Elk City.[5] The forest reserve surrounding Elk City later became known as the Nez Perce National Forest.

The first quartz-vein location in Elk City, the Buster, was made in 1870, and its owners crushed ore from the mine in an arrastra. An 1888 newspaper article mentioned lode mining taking place on an outcrop on Red River 8 miles from Elk City. In 1898, during

the Buffalo Hump rush, lode mining received much attention in Elk City, and it revived a few years later during the rush to Thunder Mountain. Little gold was actually taken from lode mines in the district, however, until after the American Eagle's 10-stamp mill was built in 1902. A custom mill was built in the early 1910s to treat small lots of high-grade ore, but it was not very successful. The veins in the Elk City district were low grade; the values of the ore averaged $7.65 per ton, and the deepest workings reached four to five hundred feet. By 1913, the district had five mills: four stamp mills and one Huntington mill. Even so, the efforts to develop lode mining in the district failed, primarily because of the distance from the railroad, the short operating season, and the lack of capital to operate the mills.[6]

The most productive lode mine in Elk City as of 1937 was the Buster. Between 1907 and 1909 the Buster mine produced about $300,000 in gold from ore averaging about $15 per ton. The American Eagle mine on Siegel Creek was probably the second highest producer.[7]

The first attempt to placer mine in the Elk City district with a dredge was made in the early 1890s. This dredge operated on lower Red River near the mouth of French Gulch (near the Gold Point mill), but the equipment was reportedly not heavy enough.[8]

Another dredge (or the same one but remodeled), erected in 1900, also failed to make a profit from the Red River gravels; this dredge worked downstream to the lower end of French Gulch. In the early 1900s, Forest Service investigators determined that gold-bearing gravel profitable to work did not exist on the lower Red River meadows. A few years later, the meadows were settled under the 1906 Forest Homestead Act. One of the settlers was Gardner I. Porter; he had been manager of the dredging company, and he later became a Forest Service ranger. Porter obtained the patent to Homestead Entry Survey 44, located just south of the junction of Red River and French Gulch, in 1913. Thomas Pritchard, a Welsh miner, obtained title in 1914, and he lived on the place and managed a stock ranch with his wife Carrie until his death in 1937.[9]

The first wagon road to Elk City was completed in 1896 and brought in new settlers. In the early 1900s, the community supported two large hotels. In 1904, over twenty men were making a living on placer grounds in Elk City. In 1913, however, one observer commented that the Elk City district was hampered by the memory of earlier unsuccessful booms, poor management, the lack of a railroad, and the limited capital of the miners. About 1930 interest in the district revived because of the soon-to-be-completed highway from Grangeville to Elk City along the South Fork of the Clearwater. Dredging operations began again in earnest. Dredges were operated during this period on the American, Red, and Crooked rivers, and draglines worked the smaller streams. By 1960 more than twenty-four million cubic yards of ground had been dredged in the Elk City area. Over the winter of 1937-38, the road between Elk City and Red River Ranger Station was kept open for the first time.[10]

It is difficult to estimate the gold production of the Elk City mining district, but published estimates of the placer production range from $10 to $18.5 million. The first mining season of 1862 reportedly resulted in the shipment of over $900,000 worth of the precious metal. The gold dust of Elk City was relatively high grade, assaying from $15.75 to $16.45 per ounce. Between 1902 and 1932, about six quartz mines yielded between $750,000 and $1,000,000.[11]

Gold Point Lode Mining

The Gold Point mill was built in 1936, just a few years after the water-grade road between Grangeville and Elk City was constructed. Gold Point Mines was one of many companies that entered into mining in the Elk City area during this period because of higher gold prices accompanied by greatly improved transportation. Development of lode mines dominated, but placer mines were also being worked, both by individual operators trying to earn cash during the Depression and by large-scale outfits.[12]

The first known mention of Gold Point Mines occurred in late 1934, when the December 20, 1934 *Idaho County Free Press* reported:

> The Mineral Point mine on Relief creek and the Wild Rose on French gulch, owned and under option to the Gold Point Mines, Inc., of Seattle, have opened up the most sensational showing of specimen ore found this season and will, when their Seattle management squabbles are concluded, make properties that may surprise the whole district. It is unfortunate good prospects sometimes fall into the hands of people who spend more time on the allocation of stock and position than to the development and production of their properties.

The Gold Point mill is located on the Wild Rose group of claims mentioned in the above quote. John J. "Jack" Beck, a lode prospector who roamed the Elk City hills in the 1930s, located the Wild Rose #1-3 claims on May 15, 1933, and in 1934 he located the Wild Rose #4-8 claims (Wild Rose #7 was known as the Copper King mine). Dick Boyd of Elk City remembers the Wild Rose discovery claim well. In 1933, Boyd and his brother were placering on Seigel Creek and had befriended Beck. One day Beck came into their camp and told the Boyds that he wanted them to be the first to see his new strike. The three of them walked across Red River and up the side of Wheeler Mountain a short distance to a 10' hole Beck had dug. Boyd remembers that the ore revealed in the pit was "loaded with gold." Beck told his two friends that day that he planned to sell the claim; he did not think it was any good.[13]

Beck kept to his stated intention of selling the Wild Rose claims. First, he located the Turk #1 and #2 claims in May and August of 1934. Then, on August 20, 1934, Beck sold to Gold Point Mines the Wild Rose #1-6 and Turk #1-3 lode claims for $1,000 plus 10,000 shares of Gold Point stock. The managing director of Gold Point at that time was O.C. Lapp. The company paid $1 in cash and agreed to pay $100 per month for the next 10 months and to perform at least 30 shifts of development or mining work per month. There was apparently old development on some of the claims, as the agreement mentioned repairing all old timber where necessary. Gold Point Mines could mine, ship, and sell ore, but it had to pay 15% royalty on the net smelter returns on all ore shipped, as credit on the purchase price. On June 1, 1935, John Beck turned over the Wild Rose #1-6 and the Turk #1-3 claims to Gold Point Mines of Seattle in a quitclaim deed. In July of 1935 Gold Point Mines located the Mickey claim, about 500' north of the mouth of French Gulch. Robert H. White, president and manager of Gold Point Mines, located the White Star lode claim in October of 1935. White also had other lode claims: Little Phoebe #1-2, Hope #1-2, Little Joe #1-2, Hootowl #1-2, and Faith #1-2. The claims that were actually filed by Gold Point Mines, however, were the Wild Rose and Turk groups and the Mickey lode.[14]

The discovery pit that Beck dug in 1933 and showed to the Boyd brothers was located less than 0.25 mile from the top of the Gold Point mill. It was uphill from the road leading to the adit and raise that were driven to develop it. The discovery claim on Wild Rose # 2 did contain rich ore, but it turned out to be only a pocket. To avoid sinking a shaft, the Gold Point Mines crew drove a tunnel and then raised to the surface, but they did not reach gold-bearing ore until the raise had almost reached the ground surface.[15]

From the mid-1930s until his death in 1959, the person responsible for the development and management of Gold Point Mines was Robert H. White. White was a Seattle-based logger who sincerely believed that gold was located on Gold Point Mines' claims and could be extracted profitably. He was a successful promoter who was able to sell shares of stock in the company to many people, mostly residents of his home state of Washington. For example, White convinced Clarence Van Scotter to sell his gasoline station in Seattle, drive to Idaho in an old truck with his wife Mary Elizabeth and their six children, and help build the Gold Point mill for wages. White talked up the company's activities to local newspapers, and he displayed a 50-60 lb. piece of ore from the discovery claim in Cottingham's hotel in Elk City.[16]

Gold Point Mines, Inc., was incorporated August 30, 1935, with a capital of 500,000 shares with a par value of 10 cents. Within the first year or so, 336,000 shares had been issued. The company had an office at 1810 Smith Tower in Seattle.[17]

The purchase, on option or outright, of Idaho County mines by out-of-state companies was fairly common during the 1930s. In June of 1936, a local mining engineer reported seeing at least 200 Washington-licensed cars in the Elk City, Dixie, Orogrande, Big Creek, and Ten Mile mining districts.[18] Gold Point Mines sold $33,000 worth of stock by the spring of 1936, and they also

transferred stock for property or other considerations. The company paid $3,000 and 195,000 shares of stock for their property. At that time they owned 21 unpatented claims on 420 acres, with an approximate total development of 1460'. These claims were the Wild Rose #1-8, Turk #1-2, Gold Point, Gold Point #1-2, Protection, Reliance, Easter, Sunday, Bigelow #1-2, Easter Sunday, and Mickey. Their equipment included two portable 1-80 and 1-125 compressors, three trucks, a tractor, a donkey engine hoist, a delco light system, tools, tool shop, mill (under construction), 50' X 14' log cookhouse/bunkhouse, 24' X 30' machine shop, 14' X 38' office, 16' X 16' dwelling, and two small cabins. They estimated that the replacement value of the mill was worth $25,000 and the remainder of the improvements $15,000.[19]

Gold Point Mines workers spent 1935 driving tunnels and constructing buildings on the claims. It is reported that the Gold Point mine shipped some ore in 1935; this may have been hand-picked ore, as the existing mill was not yet operating, or it may have been ore crushed in a 15-ton ball mill that the company owned. The Van Scotter family spent their first winter at Gold Point, 1935-36, living in a walled tent across the road from the mill. Bob White and his wife Elizabeth S., a schoolteacher, lived in a cookhouse that winter. The next winter, the Whites remained in Seattle trying to raise more money for the endeavor, and the Van Scotters lived in the cookhouse while the single men lived in temporary housing.[20]

White was a logger, Van Scotter was a farmer and oil distributor, and the other crew members were Yakima apple farmers except for Ollie Davis, who was a miner. Gordon Van Scotter recalls that the Gold Point crew members were from Yakima and the coast of Washington; he referred to them as "drive-by miners."[21]

Workers employed by Gold Point Mines earned the going wages, which in Idaho County in 1937 were $4-$5 per day for common laborers, $4.50-$5 per day for miners, and $5-$5.75 per day for millmen. In 1936, Gold Point Mines paid its five employees working as miners, timbermen, muckers, mechanics, and cook $4 per day, and the next year the miners earned $4 to $6 per day. In 1940, when Elk City's population was about 300, the average wage was $1,000 per year. Teenager Gordon Van Scotter and perhaps others worked for Gold Point Mines in exchange for shares of stock rather than wages.[22]

Gold Point Mines benefitted indirectly from the establishment of a CCC camp near the mill, at the mouth of French Gulch. The camp was established in 1935, and enrollees improved the road between French Gulch and Elk City.[23]

The Gold Point Mines crew constructed the Gold Point mill in 1935 and 1936. In late spring of 1936, Bob White and other stockholders in the mine came in from Seattle, and the crew was large enough then to hire a cook (although it was not the 25-30 men that the company had confidently predicted a few months earlier). By June, the company had two ball mills at the mill - a 15-ton and a 50-ton (they probably sold or traded the smaller ball mill). The 50-ton mill was essentially complete in September of 1936, and the *Idaho County Free Press* reported "bins full of ore ready to run within a few days." Within two weeks, however, the mill broke a ring gear after only a few days of operation and had to shut down for repairs. This may have been the only time the mill operated.[24]

Gold Point Mines never developed a large body of ore; the company did not have stockpiled ore waiting to be milled. White brought some logging equipment with him from Seattle, including a donkey engine, an old Holt crawler tractor, and an old horse. The donkey engine hauled in heavy equipment to the mill, such as the ball mill. The crew worked by hand using this logging equipment, and they built 1.25 miles of roads to the various adits they were driving.[25]

In 1936, the Gold Point crew averaged five men and accomplished 300' of development at a cost of $7 per foot. By spring of 1937, the company reported they had nine tunnels that were 250', 190', 155', 150', 147', 120', 200', 80', and 85' in length. They also reported two shafts (the main one was 60' deep), two raises, thirteen cross-cuts, and four drifts.[26] This amount of development, totaling about 1475', has not so far been verified on the ground, as none of the adits so far identified as belonging to Gold Point Mines have waste rock dumps of any significant size.

During the 1936-37 season, Gold Point Mines finished their mill, built roads, cleaned tunnels, sank 14', and cross-cut 30' with their crew of ten men. The company was inactive in 1938. In 1939, Gold Point reported having 28 claims in the Elk City and Orogrande districts. Their claims were developed by nine tunnels, the main one being 290' long. Only one man was employed by the company, and the property was under option. The next year they reported 26 claims and a main tunnel that was 300' long. The mine by then was idle.[27]

Not long after the mill was constructed, Gold Point Mines ran out of money to pay workers. In May of 1937, White told newspaper reporters that he expected to have the mine and mill in operation soon, and he apparently did employ some men through that fall. By November, however, the crew members had moved to their homes in Washington state or, in the case of the Van Scotters, to Stites. In 1938 the company employed a watchman to protect the property, and the mill was idle. In spring of 1939, reflecting a shift in priorities to placer mining, the company reported that, "Our development work consists of extensive tests by caissons of placer ground by a company who had the ground under option, improvement of the water system, and some road work on the quartz properties. Approximately 30 test holes have been sunk by May 31st."[28]

Most of the larger lode mines in the Elk City mining district in 1936 were milling their own ore and shipping the concentrates to smelters, as Gold Point Mines planned to do. In 1939, however, the Clearwater Concentrating Company built a 60-ton custom mill 7 miles west of Elk City that used amalgamation, gravity concentration, flotation, and cyanidation (some nine flow sheets were available) to accommodate various ores.[29]

The reasons for the failure of the Gold Point 50-ton mill and lode mining operations certainly include the failure of the company to identify and develop an adequate ore reserve (it is very possible that such a reserve did not exist on their claims). As Lorain commented, inexperienced lode miners in Idaho County in the 1930s shared a "universal tendency" to build mills before blocking out adequate ore reserves, and this was aggravated in Elk City by the impossibility of shipping crude ore profitably.[30] The ore itself may not have contained gold in amounts profitable to mine in the 1930s, using the technology of that period. In addition, the mill may not have been designed well to concentrate and extract the values that did exist in the ore.

Only one other example of a mill using similar processes has been identified in Idaho County. This is the mill at the Diamond Hitch mine on Quartz Creek in the neighboring Orogrande mining district. In 1938, this 25-ton mill, operated by owner Daniel "Gene" Mulcahy, was described as follows:

> the ore traveled over a 1" grizzly to a 4" X 7" Blake-type jaw crusher. Then it went to the fine ore bin, from which It was fed by a home-made rake feeder to a 4' X 4' overflow-type ball mill operating in closed circuit with a Dorr simplex classifier. The classifier overflow passed over a Wilfley table, producing concentrate, middling, and tailing. The middling was returned by hand to the ball mill for regrinding. The tailings passed over a corduroy table to the tailings pond. Quicksilver was fed to the ball mill for amalgamation. The entire plant was driven by a 48-hp automobile engine.

This mill succeeded where Gold Point failed, perhaps partly because it was built on a smaller scale and required much less capital outlay, not being promoted by a company that necessitated much overhead expense.[31] As Lorain commented in 1938, speaking of Idaho County lode mines, "even the most profitable small veins have not been found to warrant operation on a scale larger than 25 to 40 tons a day." He recommended that miners keep capital investment to a minimum, partly because many of the strong lode veins were in short lenses. This certainly held true for the Gold Point claims; their vein or veins did not persist.[32]

A 1981 Forest Service search for claim corners in a one-square-mile area around the Gold Point Mines cookhouse found over thirty trees with old blazes marked in the traditional claim corner fashion throughout the area, but no location notices. They also found numerous prospect pits and trenches, old collapsed adits, several water ditches, an area that appeared to have been worked by

hydraulics, and a deteriorated log ore bin near one of the adits just off Wheeler Mountain road. They reported that trees up to 8" in diameter were growing in the entrances to the adits, so the work was not recent. Floyd Patrin reported closing with a bulldozer an adit that he said contained 75 tons of high-grade ore, and a logging contractor building a road in the area mistakenly closed another adit.[33] It is likely that all of Gold Point Mines' adits, shafts, and other development work are now collapsed.

Gold Point Placer Mining

Gold Point Mines was quiet - even inactive - during 1938. But then the company seems to have decided to cut its losses on its lode mining and milling activity and work instead on placer mining. As Nez Perce National Forest supervisor Roy Phillips commented in 1939, the Gold Point company "seems to have taken on new vigor and the aspect of a promotion scheme to dredge a considerable portion of the Red River Valley...this operation does not seem to have all the earmarks of good faith backed by a proper degree of sound business judgement, and I truly hate to see a fair valley such as Red River made a barren waste for generations to come." [34]

Many other companies had been testing and dredging Red River in the 1930s, including the meadows quite just below the Gold Point mill, and Gold Point Mines decided to do the same in lower Red River and along French Gulch, where it had some placer claims. In 1934, when Gold Point Mines first appeared on the Elk City scene, placer mining production from the Elk City mining district was actually eight times as high as that from lode mining. By 1940, six dredges were operating in the Elk City area: one bucket-line, three dry-land, and two draglines.[35]

French Gulch had been worked by hand in the early days with reportedly very good results. The deposits, especially those in a tributary that came in from the north, were then re-worked by ground sluicing and hydraulic methods in the early 1900s. By the late 1930s, much of the deposits in the main creek were covered with tailings 8'-10' deep.[36]

Gold Point Mines recorded placer claims in May of 1936 at the site of the French Gulch CCC camp (F-192, established 1935), in association with other claims that formed a contiguous stretch of placer mining ground. In 1937, their placer claims were named Gold Point, Sunrise, Sunset, Daylight, and Twilight. The company did not realize that the CCC camp had been located on land that the Forest Service had withdrawn from the public domain for use as a Forest Service administrative site for a ranger station in 1918. The company planned to dredge the 40 acres of land that were on the CCC camp in the fall and early spring when they were not occupied by enrollees. Bob White requested a permit to dredge this ground in 1939, saying that he had raised the capital and was prepared to begin operations that fall. This request initiated an internal Forest Service debate over granting the permit that continued for many years.[37]

Northern Idaho Representative Compton I. White was a strong supporter of developing the infrastructure of the region in order to promote the mining industry. In 1939 he wrote a letter to Chief Forester Silcox on behalf of Gold Point Mines' desire to dredge their claims.[38]

In late 1939 and early 1940 the Forest Service did take steps to issue a special-use permit to Gold Point Mines to authorize a placer operation on the French Gulch administrative site. Gold Point Mines would have had to pay $80 for mining use, obtain a bond, and guarantee that they would level all the disturbed ground. This permit was never actually issued, however, because of the development of World War II or labor conditions or other problems that kept work from beginning in 1940 (possibly Gold Point Mines did not actually have the capital to begin operations immediately).[39] During World War II, like other gold operations around the country, Gold Point Mines was essentially idle. The question of a permit to dredge the French Gulch site was put on hold until after the war.

In 1944, the Solicitor of the USDA rendered an opinion stating that the Forest Service no longer had the authority to issue special-use permits under these kids of circumstances. Two years later, Bob White again requested a permit to operate on the land in

question. By this time, the land was under a pasture permit to Mark Lyons, and the only improvements left from the CCC days were an old log building and a tent-frame latrine that were used in the spring by a maintenance crew. Gold Point Mines at this point had ground below and five claims above the CCC camp up French Gulch that it wanted to work. White wrote, "We have spent lots of money in that country and would like to realise something out of it now that the war is over."[40]

The Forest Service solution to the dilemma was to ask White to agree not to dredge on a certain portion of the CCC camp and to file placer locations under the general mining laws with a guarantee that the Forest Service would not protest these locations. White did so, locating the 3 C's #1-3 placer claims at the foot of French Gulch and agreeing to level all tailing piles and relinquish the claims when the company had finishing dredging.[41]

Gold Point Mines, however, apparently did not begin dredging once this agreement was reached. Perhaps their delay was due to the inability to raise funds for a dredge; in 1947, the company had issued a total of 374,441 shares, not many more than had been issued back in the mid-1930s when it was pursuing lode mining. Meanwhile, in 1949, Bob White located four placer claims in French Gulch: Quail, Grouse, Pheasant, and Partridge.[42]

In 1952, after an unexplained delay of five years, Bob White requested that Gold Point Mines be allowed to dredge under the agreement arranged with the Forest Service. Some time in 1952 or 1953, however, Bob White apparently had a stroke; he was unable to attend to business and had lost his speech. In late 1953, finally, Gold Point Mines leased their claims on French Gulch to the Behrens brothers, who began dredging operations. In 1954, Don Behrens worked over approximately 34,000 cubic yards of gravel. The Behrens held the lease until 1958. In the summer of 1958, Don Behrens completed leveling the tailing piles his dredge had created and replaced the topsoil, including the ground within the French Gulch administrative site.[43]

Gold Point Mines' two decades of operations in the Elk City area began to come to an end on August 15, 1957, when a quitclaim deed transferred ownership of the Wild Rose #1-8 and Turk #1-3 lode claims and mill and equipment to Floyd Patrin for $1,000. At the time of the sale, White was confined to a wheelchair and was unable to speak. Bob White died in 1959 at the age of 75. The company continued to hold some placer claims, as a 1959 report mentioned that Gold Point Mining Company held about 45,000 cubic yards of undredged gravel in the Myke, Peace J., and Quail placer claims. The last proof of labor filed by the Gold Point Mines on a lode claim was for the Mickey lode, filed in 1958.[44]

Patrin Placer Operations

Floyd Patrin and his wife Elsie, both long-haul truck drivers from Minnesota, began investigating the possibilities of placer mining Red River in the early 1950s. Patrin located the Patrin placer group on Red River in 1956 and 1957. He purchased the Gold Point Mines lode claims with improvements in the summer of 1957. He had just sold property in Wisconsin and so was able to make a cash offer on the property. Patrin and his family moved to the property in the fall of 1958. They first lived in the small log cabin near the sawmill, but eventually they fixed up the old cookhouse as their residence.[45] Over the years, they had a difficult, often hostile relationship with Forest Service representatives.

Patrin was primarily interested in the possibility of obtaining uranium from the placer gravels along Red River. Uranium-bearing minerals were identified in the jig-bed concentrate of the Tyee Mining Company's gold dredge on Red River in 1951, which led to much interest in the heavy sands in the placer deposits of the region. Despite extensive staking of placer claims in Elk City, no uranium minerals were ever processed and sold from Red River gravels. A 1959 report determined that the stream placer gravel, including the uranium and niobium-bearing minerals, in Elk City was non-commercial at that time.[46]

Beginning in the late 1950s, the Forest Service and the Patrins had numerous conflicts over construction of logging roads through the Patrin claims, construction of a bridge, and whether the claims had mineral value. A 1974 court decision ruled in favor of the

Patrins, which damaged local miner/Forest Service relations. In 1981, the Nez Perce National Forest initiated a validity determination process for the Wild Rose #1-8 claims held by the Patrins. Ore samples from the former Gold Point Mines claims yielded 0.03 oz. per ton of gold and 0.19 oz. per ton of silver. The total value, with prices then at $600 per oz. gold and $15 per oz. silver, came to $20.85 per ton of ore. The Forest Service reported that since average milling cost alone was $19 per ton (not counting direct operating costs, capital costs to purchase equipment, taxes, transportation, and smelting charges), and that break-even value of ore was generally around $60 per ton, the ore on the Wild Rose and Turk claims could not be economically mined. The structures on the property were all located on the Patrin quartz #20 and #23 claims. In 1987 the Forest Service recommended declaring these lode claims null and void because no discovery of a valuable mineral deposit had been made in the area examined. The mineral value of other lode claims that the Patrins had acquired from parties other than Gold Point Mines, such as the RFK and Nevada groups, were not evaluated.[47]

The Forest Service did admit that Patrin performed some legitimate mining prior to the 1980s on Dawson Creek, a few miles south of the Gold Point mill. Patrin had relocated claims abandoned by the Tyee Mining Company in 1956. He used a dragline and home-made washing plant to collect four 55-gallon barrels of placer concentrates from this work.[48] The washing plant he used still stands on the Gold Point property.

In the early 1950s, the Tyee Mining Company dredge was operating on Red River. This dredge may have worked the gravels near the Gold Point mill. In 1958, Clair Johnson dredged to bedrock in this area, leasing from Floyd Patrin.[49]

In 1996, the improvements on the Patrin claims were auctioned off and the Patrins moved back to Minnesota. The Elk City Area Alliance, with financial assistance from Idaho Consolidated Metals Corporation, purchased the Gold Point mill for the Idaho Gold Fields Historical Society. Because the Gold Point Mines and Patrin lode claims were never patented, the land on which the mill sits is still public land that is part of the Nez Perce National Forest.

Summary Statement of Significance

The Gold Point mill was constructed in 1936 by a company supported by the sale of stock to out-of-staters, mostly people living in Washington. Like many other lode mining operations of the 1930s, the company's officers decided to build a well-equipped 50-ton ball mill before they had blocked out sufficient ore reserves to justify this decision. The mill only operated for a few days before a crucial piece of machinery broke down and was never repaired. Unlike other such mills, however, the company retained ownership of the property for another twenty years while trying to develop its placer claims. The mill building and its contents were thus protected from scrap metal drives during World War II and from general vandalism. The subsequent owner, who sold the property in 1996, also protected the building. As a result, the mill today is an excellent representative example of a speculative ore concentration mill built during the 1930s. The design of the mill building and the flow sheet of the ore and other materials is very clear; it has been changed little since 1936. The Gold Point mill is thus eligible for listing in the National Register under Criteria A and C, for its associations with lode mining in north-central Idaho during the 1930s and for the architectural and engineering design revealed by the mill and its machinery. The period of significance is 1935-37, the years that Gold Point Mines constructed the mill and was active in lode mining development on their property.

ENDNOTES

1. McKay, *Florence*, p. 88.

2. McKay, *Florence*, p. 89.

3. McKay, *Florence*, p. 89.

4. Bruneau, *Idaho*, p. 40; Maxwell, "My Yesterdays," p. 46.

5. McKay, *Florence*, p. 90.

6. McKay, *Florence*, p. 90; Flagg, "Elk City," pp. 120-21.

7. Lorain, "Idaho County," pp. 28-29.

8. *Lewiston Tribune*, 12 June 1934; *Idaho County Free Press*, 2 Dec. 1892, 2 Feb. 1893.

9. *Idaho County Free Press*, 25 March 1937; Idaho County Courthouse, plat room; USDA Forest Service, "Early Days," pp. 25-26; NPNF, letter from Roy Phillips to Regional Forester, 19 July 1939.

10. Bruneau, *Idaho*, pp. 20-21; McKay, *Florence*, pp. 90-91; Lorain, "Idaho County," p. 14.

11. McKay, *Florence*, p. 91.

12. *Idaho County Free Press*, 20 Sept. 1934; Lorain, "Idaho County," p. 7.

13. Boyd, personal communication; Nichols, "Minerals Report," pp. 51-59.

14. Nichols, "Minerals Report," pp. 6, 33-35, 47-50, 73. Gold Point Mine's claims and development work on Relief Creek in the Orogrande mining district have not been investigated for this nomination. The Relief Creek property is mentioned very little in the records. In the 1937 annual report filed by Bob White, he commented that "Ball mill on Relief Creek contemplated," but this was wishful thinking, as the company soon became inactive. In the spring of 1937, Gold Point Mines had twenty claims on Red River and nine on Relief Creek (IGS, 1937, pp. 1, 3).

15. Boyd, personal communication.

16. Van Scotter, personal communication; Boyd, personal communication.

17. Van Scotter, personal communication; *Annual Report* 1936, p. 188.

18. *Idaho County Free Press*, 25 June 1936, 30 July 1936.

19. IGS, 1936, pp. 1-2; IGS, 1937, p. 2.

20. *Idaho County Free Press*, 23 May 1935; *Annual Report* 1935:, p. 188; Van Scotter, personal communication; R.L. Polk).

21. Van Scotter, personal communication.

22. IGS, 1936, p. 2; IGS, 1937, p. 2; Lorain, "Idaho County," p. 19; *Idaho County Free Press*, 16 May 1940; Van Scotter, personal communication.

23. *Idaho County Free Press*, 23 May 1935, 17 Oct. 1935.

24. *Idaho County Free Press*, 27 Feb. 1936, 7 May 1936, 28 May 1936, 18 June 1936, 3 Sept. 1936, 17 Sept. 1936. Gordon Van Scotter remembers that the mill was started up when almost completed just to make sure all the machinery was working; this probably represents the same few days that the *Idaho County Free Press* reported that it operated (Van Scotter, personal communication).

25. Van Scotter, personal communication; Patrin, personal communication; IGS, 1937, p. 2.

26. IGS, 1936, p. 2; IGS, 1937, p. 2.

27. IGS, 1937, p. 2; *Annual Report* 1936, p. 188; *Annual Report* 1937, pp. 170, 288; *Annual Report* 1939, p. 216; *Annual Report* 1940, p. 152.

28. Van Scotter, personal communication; *Idaho County Free Press*, 13 May 1937, 11 Nov. 1937; IGS, 1939, p. 3.

29. *Idaho County Free Press*, 30 July 1936, 9 Feb. 1939.

30. Lorain, "Idaho County," p. 7.

31. Lorain, "Idaho County," pp. 48-49; Van Scotter, personal communication.

32. Lorain, "Idaho County," p. 19.

33. Nichols, "Minerals Report," pp. 9-10, 23; NPNF, letter from Michael Merkely to District Ranger, Elk City Ranger District, 25 July 1980; Burnside, "Mining Claim Report," pp. 10, 14.

34. NPNF, letter from Phillips to Regional Forester, 19 July 1939.

35. *Minerals Yearbook* 1935, p. 89; *Annual Report* 1941, p. 256; *Idaho County Free Press*, 23 March 1939.

36. Reed, "Gold-bearing Gravel," p. 18; Lorain and Metzger, "Placer Mining Districts," p. 27.

37. NPNF, letter from R.H. White to Secretary of Interior, 13 June 1939; NPNF, letter from Roy Phillips to Regional Forester, 19 July 1939; NPNF, letter from R.H. White to Evan Kelley, 22 Aug. 1939.

38. NPNF, letter from Evan W. Kelley to Compton I. White, 30 Sept. 1939; IGS, 1937, p. 1.

39. NPNF, letter from P.D. Hanson to Forest Service Chief, 16 July 1946; NARA, letter from Roy Phillips to R.H. White, 21 May 1940.

40. NPNF, letter from P.D. Hanson to Forest Service Chief, 16 July 1946; NARA, letter from A.N. Cochrell to Regional Forester, 30 July 1946; NARA, letter from R.H. White to Forest Supervisor, 21 Dec. 1946; NARA, letter from R.H. White to A.N. Cochrell, 13 Jan. 1947.

41. NARA, undated memo; NARA, letter from W.M. Nagel to Forest Supervisor, 3 July 1947.

42. *Annual Report* 1947, p. 161; Nichols, "Minerals Report," pp. 74-77.

43. NARA, letter from R.H. White to A.N. Cochrell, 21 Aug. 1952; NARA, letter from Milton Latourell to A.N. Cochrell, 30 Jan. 1953; *Annual Report* 1954, p. 105; *Annual Report* 1955, p. 104; NARA, letter from A.W. Blackerby to Mrs. R.H. White, 19 Aug. 1958; Cooley, *Trimotor and Trail*, p. 160.

44. Washington Death Index; Patrin, personal communication; Reid, "Elk City," p. 11; Nichols, "Minerals Report," pp. 3, 36.

45. Nichols, "Minerals Report," pp. 83-97; Patrin, personal communication.

46. Patrin, personal communication; Reid, "Elk City Region," pp. 1-2; Armstrong & Weis, "Uranium-Bearing Minerals," pp. 25-26; Burnside, "Mining Claim Report," pp. 6-7.

47. Nichols, "Minerals Report," pp. 3, 11, 112; Burnside, "Mining Claim Report," pp. 1, 23.

48. Nichols, "Minerals Report," pp. 9, 112.

49. Burnside, "Mining Claim Report," pp. 7, 9; Reid, "Elk City Region," p. 10.

Bibliography

Annual Report of the Mining Industry of Idaho, 1899-1974. Published by the Inspector of Mines of Idaho.

Armstrong, F.C. and P.L. Weis. "Uranium-Bearing Minerals in Placer Deposits of the Red River Valley, Idaho County, Idaho." U.S. Geological Survey bulletin 1046-C. Washington, D.C.: Government Printing Office, 1957.

Boyd, Dick (long-time Elk City resident). Personal communication to Kathy McKay, Sept. 10, 1998.

Bruneau, Lyda Hoffman. *Stories of Idaho.* Lewistown, Id.: R.G. Bailey Printing Co., 1940.

Burnside, Michael. "Mining Claim Report, 10-7-87." USDA Forest Service: Nez Perce National Forest, 1987.

Cooley, Earl E. *Trimotor and Trail.* Missoula: Mountain Press Publishing Co., 1984.

Dorr, John V.N. *Cyanidation and Concentration of Gold and Silver Ores.* New York: McGraw-Hill Book Co., 1936.

Fahrenwald, A. W. "The Recovery of Gold from Its Ores." Idaho Bureau of Mines and Geology, Pamphlet 37, 1932.

Flagg, Arthur L. "Elk City Mining District." *Am. Inst. Mining Engrs. Trans.* 45(1913):113-22.

Idaho County Courthouse. Plat room records. Grangeville, Id.

Idaho County Free Press [Grangeville, Id.]. Selected issues.

Idaho Geological Survey [IGS]. Annual reports of Gold Point Mines for years ending May 31, 1936, 1937, and 1939. Moscow, Id.

Lorain, S.H. and O.H. Metzger, "Reconnaissance of Placer Mining Districts in Idaho County, Idaho." US Bureau of Mines, Information Circ. 7023, 1938.

Lorain, S.H. "Gold Mining and Milling in Idaho County." US Bureau of Mines Information Circ. 7039, 1938.

Maxwell, Gertrude. "My Yesterdays in Elk City." Grangeville: Idaho County Free Press, 1986.

McKay, Kathryn L. *Gold for the Taking: Historical Overview of the Florence Mining District, Idaho County, Idaho.* Grangeville, Id.: Nez Perce National Forest, 1998.

Minerals Yearbook. USDI, Bureau of Mines. Washington: Government Printing Office. Several volumes, 1930s.

National Archives and Records Administration [NARA]. USDA Forest Service. Special Use Permit, Gold Point Mines, Inc. Record Group 95, Box 2/2 (95-63A 0037). Seattle, Wash.

Nez Perce National Forest [NPNF]. Files on Gold Point Mines and on Patrin claims. Grangeville, Id.: Supervisor's Office.

" ". 10-IH-919 site form, 1980.

Nichols, John C. "Minerals Report For Area Claimed by Floyd and Elsie Patrin on Red River, Red River Ranger District." Grangeville, Id.: Nez Perce National Forest, 1981.

Patrin, Floyd (owner of Gold Point mill, 1957-196). Personal communication to Kathy McKay, Sept. 10, 1998.

R.L. Polk & Co. Seattle City Directories. Selected years.

Reed, John C. "Gold-bearing Gravel of the Nezperce National Forest, Idaho County, Idaho." Idaho Bureau of Mines and Geology, Pamphlet 40, 1934.

Reid, R. R. "Reconnaissance Geology of the Elk City Region." Idaho Bureau of Mines and Geology, Pamphlet 120, 1959.

Shenon, P. J. and J. C. Reed. "Geology and Ore Deposits of the Elk City, Orogrande, Buffalo Hump, and Tenmile Districts, Idaho County, Idaho." Washington, D. C.: United States Geological Survey Circular 9, 1934.

" ". "Geology of the Elk City Mining District," Tech. Publication #562, Am. Inst. Mines and Met. Engrs., 1934.

USDA Forest Service. "Early Days in the Forest Service." vol. 2. Missoula, Mont.: Regional Office, Forest Service, ca. 1955.

Van Scotter, Gordon (his father worked for Gold Point Mines in 1930s) and Kathleen (daughter of Daniel Eugene Mulcahy). Personal communication, 21 May 1998.

Washington State Department of Health. Death certificate of Robert H. White, state file #20209. Date of death Oct. 10, 1959.

Woods, Trent (mining engineer and Elk City resident). Personal communication to Kathy McKay, Sept. 10, 1998.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section Number Photos Page 1 Name of Property Gold Point Mill

County and State Idaho County, Idaho

Common Photographic Information:

Gold Point Mill
Idaho County, Idaho
Photographer: Kathy McKay
Date: May 22, 1998
Location of original negatives: Idaho SHPO

1. Gold Point Mill, looking north.
2. Top of mill (hopper for coarse ore bin), looking southeast.
3. Coarse ore bin on left and jaw breaker level on right, looking north.
4. Shaker table level of mill (bottom level), looking northwest.
5. Chute leading from coarse ore bin (on left) to jaw breaker (in center of photo), looking northwest. Grizzly is visible at bottom of chute.
6. Lower end of rake classifier, looking southeast. The launder coming in from upper left brought pulp from the top of the elevator. The smaller launder in the center of photo brought oversize material from the ball mill trommel.

Attachments

Figure 1: Side view of Gold Point Mill - showing flow of ore (not to scale).

Figure 2: Rough schematic floor plan of Gold Point Mill (not to scale).

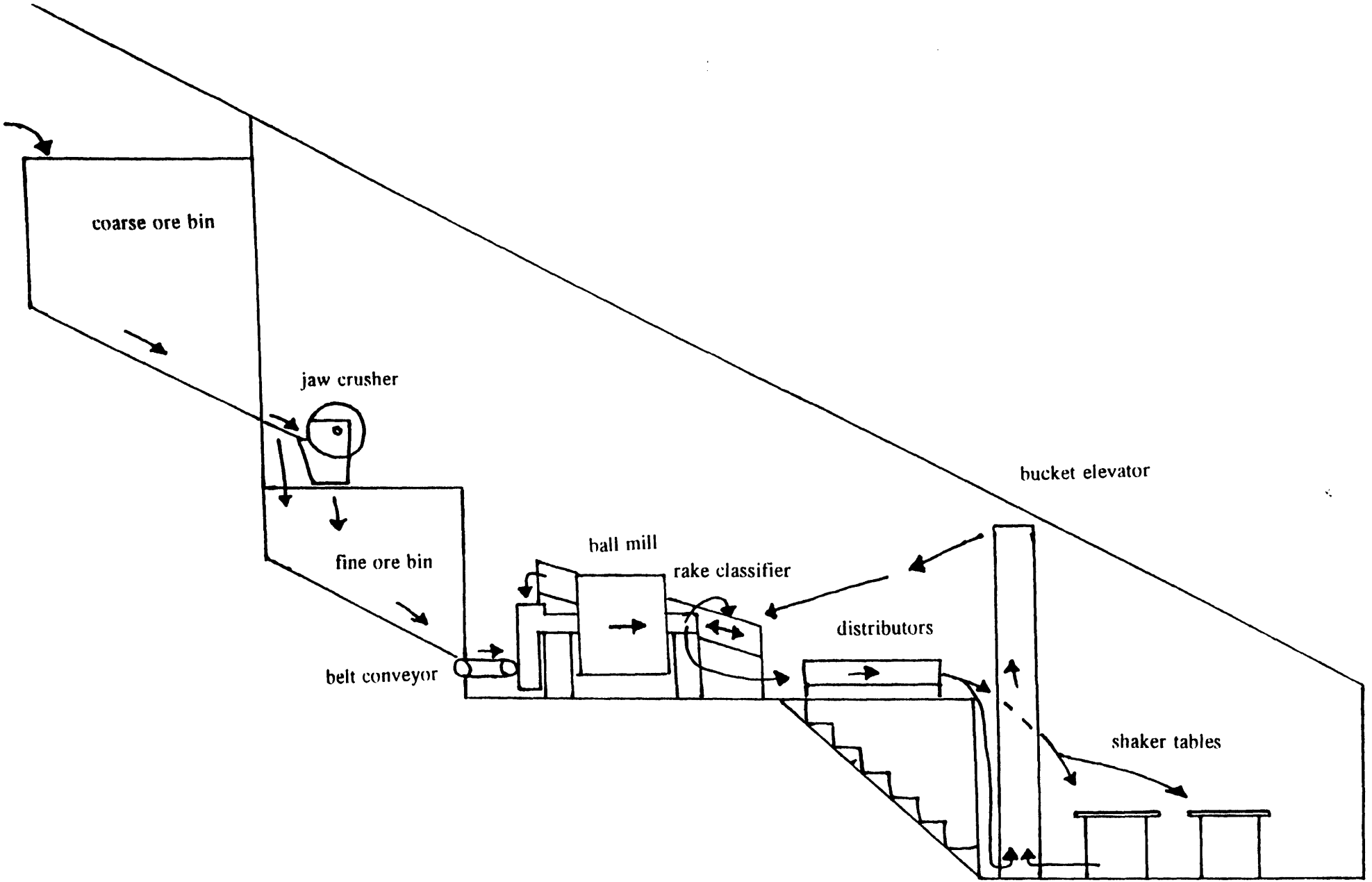

Figure 1. Side view of Gold Point Mill - showing flow of ore
(not to scale)

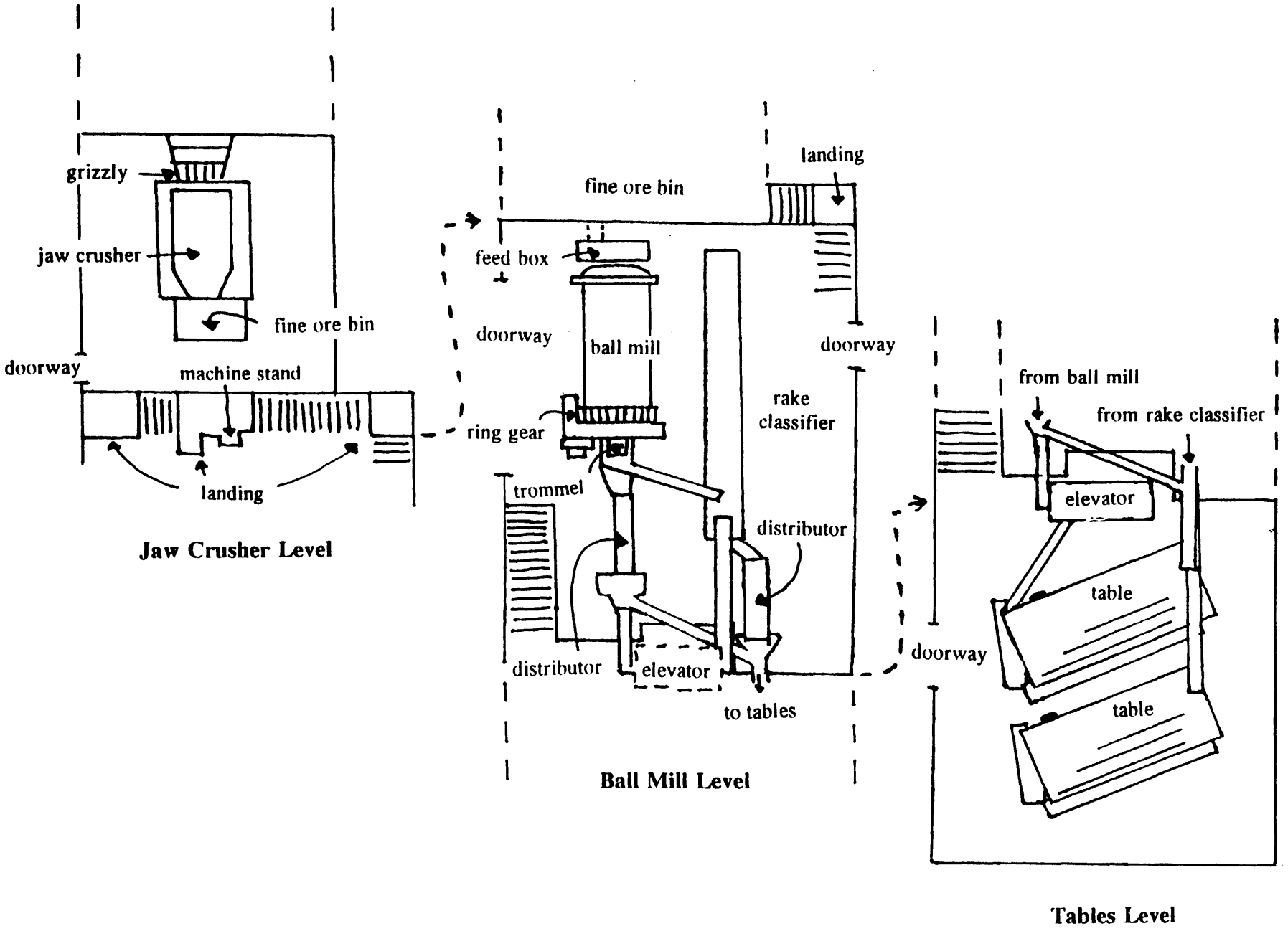

Figure 2. Rough schematic floor plan of Gold Point Mill
(Not to scale)