

REPORT OF INACTIVE MINE HAZARDS

MILLS CREEK MINE

3 June, 1991

A. GENERAL INFORMATION

1. Other names;

- a. Polly Mining Co.
- b. Metz and Schmesar
- c. Miller
- d. Tolson and Plowman
- e. Fred Metz

2. Location;

- a. Southwest 1/4 of Northeast 1/4 of Section 27, Township 7 North, Range 1 West, Seward Meridian
- b. Latitude- North 60 degrees, 40 minutes, 10 seconds
Longitude- West 149 degrees, 25 minutes, 33 seconds
- c. Elevation above sea level; 1,500 feet
- d. Narrative;

It is located on Mills Creek approximately one half mile southeast of the confluence of Mills Creek and Juneau Creek on the Kenai Peninsula. See figure 1.

3. Claim owner;

- a. Name; J. Michael Schael
- b. Address; 720 M Street, Suite 200
Anchorage, Ak 99501
- c. Telephone number; (907) 276-8330

4. Claim lessee;

- a. Name; Thomas A. Johnson and Howard Fisher
- b. Address; 407 McCullum Dr., Kenai, AK 99611
- c. Telephone number; (907) 283-3240

5. Mine history;

Mills Creek was the first stream staked in the Sixmile Region on the Kenai Peninsula in the 1890's (Moffit, 1904). U. S. Geological Survey personnel first described

the placer mining operations in this area in 1897 (Becker, 1897). By 1907, Mills Creek had yielded more gold than any other stream of the Turnagain Arm field except Canyon Creek and was probably better known than any other stream (Moffit, 1907).

Mining continued along Mills Creek for the next 25 years. In 1933, Tuck stated that this creek had been the most productive stream in the district and most of the gold had been obtained from the lower mile of the stream near Juneau Creek. At that time, H. L. Miller, C. P. Tolson, and O. G. Plowman had prospected and mined about a mile above the mouth of the creek on the bench gravel. Fred Metz had prospected the gravel on Mills Creek, 3 miles above its mouth (Tuck, 1933).

In 1937, Moose Pass Placers, Incorporated, under the management of W. H. Williams purchased 27 claims from Fred Metz. The next year, Williams had a thriving operation going 1 and 1/2 miles upstream from the mouth of Mills Creek. He built 2 and 1/2 miles of road from the Moose Pass Highway (Seward Highway) to the Mills Creek camp. For his operation, he used several different types of machinery. He had a 125-horsepower, International-Harvester, diesel engine connected directly to a 4,000-gallon-per-minute Worthington pump for water supply. He used a number-4 giant, or water cannon, with a 5-inch nozzle to wash the gold-bearing gravel into sluice boxes. These boxes were 60 feet long and had riffles on the bottom to catch the gold as the gravel was washed away. He also used a number-1 giant to clean up the gold from the exposed bedrock. Additional equipment included a 40-horsepower, International-Harvester, diesel tractor; an Issacson bulldozer; a Jaeger pump; and an International-Harvester truck (Roehm, 1938).

No further information about the mining operation is available. During the Second World War, President Roosevelt issued a directive that all gold mines in the country should cease operations. This was done to direct all of the available resources toward the mining of materials critical to the war effort. This and many other gold mining operations never reopened after the war.

Personnel from the Bureau of Mines visited and sampled the area in the early 1980's as part of a mineral evaluation of the Chugach National Forest (Jansons, 1984).

6. Access to mine;

Access to the mine is by an improved gravel road that leads 2 and 1/2 miles from the Seward Highway. The mine road fords Canyon Creek within a 1/4 mile of the highway. This crossing is not passable except when the water level is very low during the late summer. Thus, the mine is isolated for most of the year. A nearby foot bridge allows hikers to cross the creek easily, though. See figure 2.

B. PHYSICAL HAZARDS

1. Shafts, pits, trenches;

None.

2. Adits and underground workings;

None.

3. Highwalls;

The only highwalls in the area are naturally occurring steep embankments that were eroded by the creek. These are up to 60 to 80 feet high and almost vertical in places.

4. Impoundments;

There are several impoundments along the creek left from previous mining operations. The largest is about 70 feet long by 30 feet wide. All the impoundments are separated from the creek by a dike of river gravel and cobbles which has a roadway constructed on top of it. The dike is 3 to 5 feet high, 6 to 8 feet wide, and approximately a 1/4 mile long.

5. Unexpended explosives;

The evaluation team found wires for electric blasting caps but no abandoned explosives.

6. Buildings, equipment;

A cabin, a shower house, and a tool shed are located at the mine site. They appeared to be less than 20 years old and still very stable. Most of the windows in the cabin were broken and trash littered the inside. The tool shed had several tools, repair parts for heavy equipment, and containers of oil and lubricants.

Equipment at the site includes a wrecked, late-model, pickup truck; a bulldozer with track missing; and a large skid mounted trommel. In addition, several old refrigerators, large diesel engines, and various pieces of scrap steel litter the site. Most of the metal pieces are big, heavy, and have many sharp edges. See figures 3 and 4.

7. Unstable tailings piles or ditches;

The tailings from previous mining operations were piled up in many places. The tailings piles are high mounds of river gravel and cobbles with gently sloping sides.

A diversion ditch was blasted through the bedrock parallel to the original stream channel. The ditch is 8 to 10 feet wide, 3 to 4 feet deep, and approximately 60 feet long. The banks of the ditch are vertical and the water rushes through the ditch at high speed.

8. Timber, ladders;

A few pieces of scrap lumber are in the area.

9. Mine gases;

No underground workings are associated with this mine.

10. Miscellaneous physical hazards;

An expedient bridge spans the diversion ditch. It is made of a 10-foot length of 16 inch culvert which had been partially crushed. It was placed with the rounded side up and has no hand hold of any type.

C. ENVIRONMENTAL HAZARDS

1. Mercury, arsenic, cyanide;

No evidence of mercury, arsenic, or cyanide were found.

2. Acid forming materials;

No evidence of acid forming materials was found.

3. Heavy metals;

No evidence of heavy metals was found.

4. Asbestos;

No evidence of asbestos was found.

5. Radioactive materials;

No evidence of radioactive materials was found.

6. Sedimentation;

The impoundments by the creek contain some sediments, but they are isolated from the creek by the dike.

7. Miscellaneous environmental hazards;

Petroleum products from 2 barrels have saturated the ground in and around the tool shed. One barrel contains engine oil and the other hydraulic fluid. The ground around the barrels and the shed are wet and discolored to a very dark grey-brown color. Puddles of water next to the shed had an oil sheen on them. The shed and barrels are approximately 10 feet from the diversion ditch. See figure 5.

D. RECOMMENDATIONS

As a result of the investigation at the Mills Creek Mine, the following hazard mitigation measures are recommended;

1. Warning signs could be displayed around the property to advise the public of the dangerous conditions which are present.

2. The scrap lumber could be collected and disposed of by burning or burying. The smaller pieces of scrap metal could be buried or recycled. The larger pieces of equipment which will have no future use, such as the abandoned pickup truck, could also be salvaged or recycled.

3. The cabin could be boarded shut to keep intruders out. The other buildings which are in poor condition could be renovated or removed from the site.

4. The petroleum products in the barrels by the tool shed could be transferred to leak proof barrels if they are expected to be used in the near future. If not, the petroleum products could be recycled and the barrels properly disposed of in a land fill. The contaminated soil in and around the tool shed could be cleaned up by incineration or it could be removed and transported to an approved hazardous waste disposal site.

5. The expedient bridge could be dismantled and replaced with a solidly constructed bridge which has hand rails.

6. According to John Mattson, the Chugach National Forest Archaeologist, any reclamation work done at this mine could be considered a Federal undertaking as stated in section 106 of the National Historic Preservation Act of 1966 and 36 CFR 800. As such, he must be consulted during the planning phase of the reclamation process to assure that Federal interests are considered.

7. The claim owner for this site should be actively involved in the planning and implementation of all mitigation measures which are undertaken.

E. REFERENCES

1. Bureau of Land Management. Mining Claim Report. Available from the BLM Alaska State Office, Anchorage, June, 1990.

2. Becker, G. F. Reconnaissance of the Gold Fields of Southern Alaska With Some Notes on General Geology. Ch. in U. S. Geol. Surv. Annu. Rep. 18, 1897, p. 82.

3. Jansons, U., R. B. Hoekzema, J. M. Kurtak, and S. A. Fechner. Mineral Occurrences in the Chugach National Forest, Southcentral Alaska. BuMines MLA 5- 84, 1984, 218 pp., (locality P- 79).

4. Moffit, F. H. Gold Placers of Turnagain Arm, Cook Inlet. Ch. in U. S. Geol. Surv. Bull. 259, 1905, pp. 96- 97.

5. _____. Gold Fields of the Turnagain Arm Region. Ch. in U. S. Geol. Surv. Bull. 277, 1906, pp. 37- 39.

6. Roehm, J. C. Investigations in the Cache Creek, Innoko, Iditirod, Aniak- Tuluksak, and Goodnews Bay Districts, and Itinerary of J. C. Roehm, September 1- 30, 1938. Alaska Territorial Department of Mines Itinerary Rep., 1938, 8 pp.

7. Tuck, R. The Moose Pass- Hope District, Kenai Peninsula, Alaska. U. S. Geol. Surv. Bull. 849- I, 1933, pp.521- 522, 527.

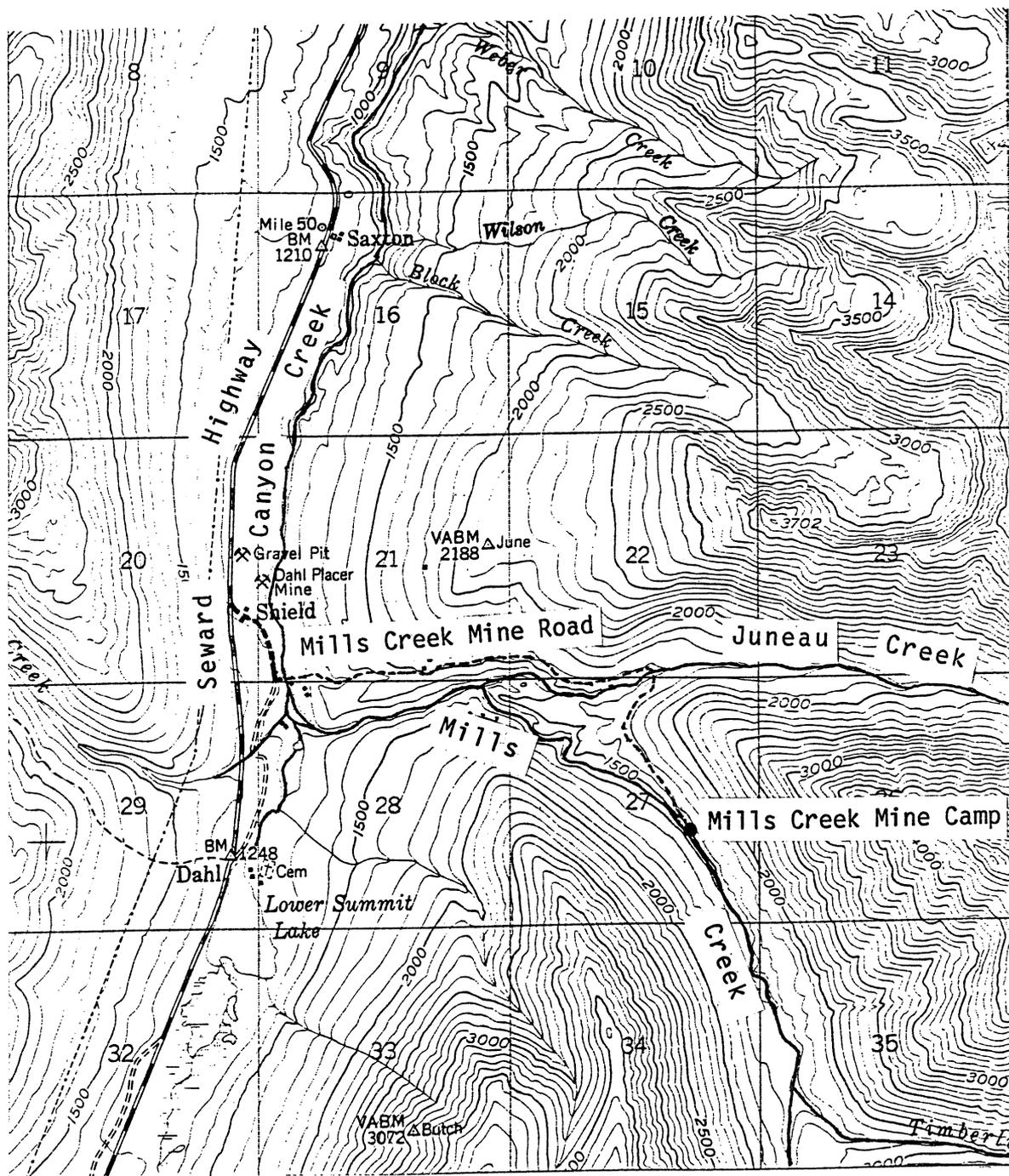


Figure 1.- Map showing the general location of the Mills Creek Mine.

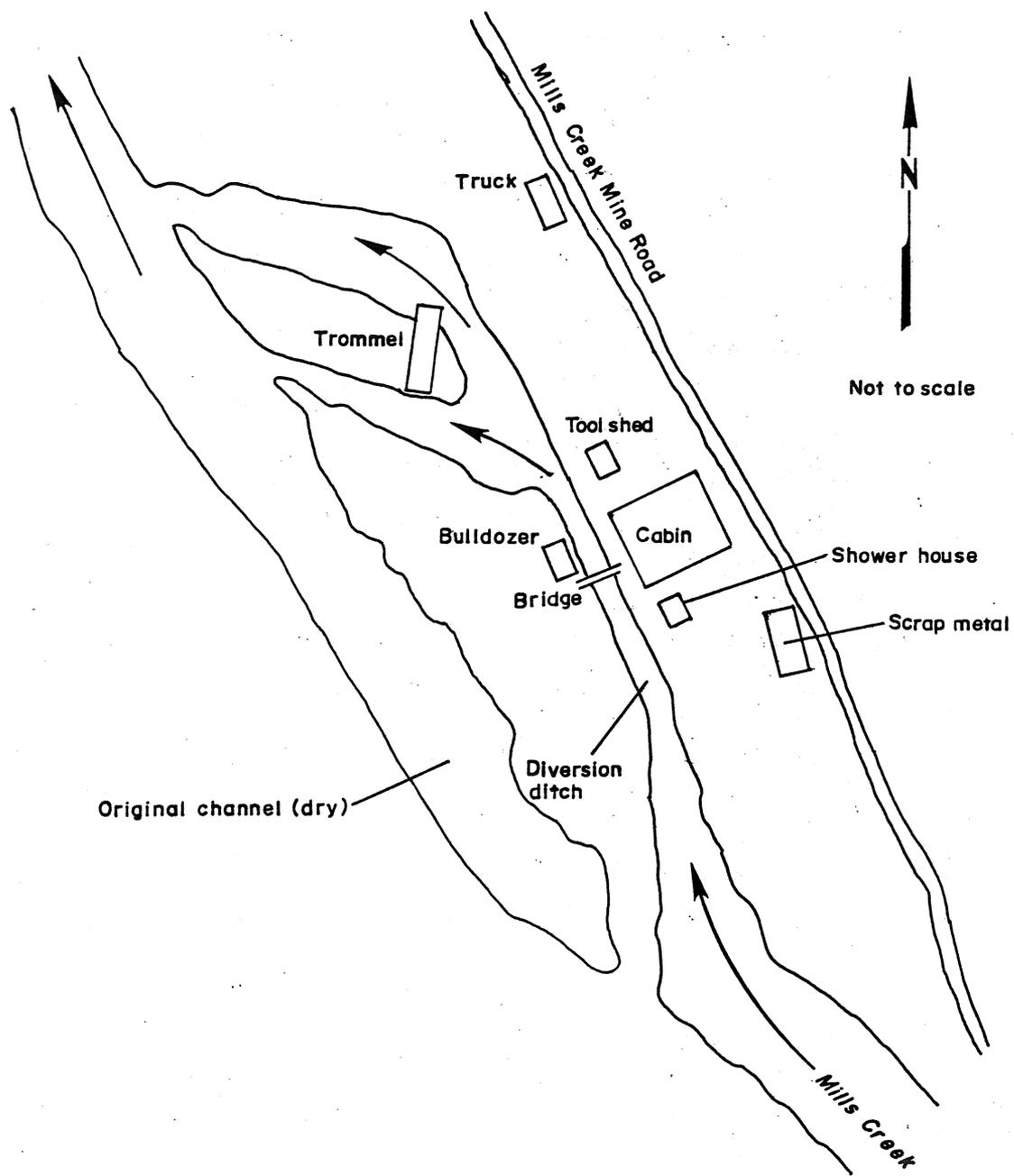


Figure 2.- Sketch map showing the main features of the Mills Creek Mine.



Figure 3.- Derelict bulldozer at the Mills Creek Mine.

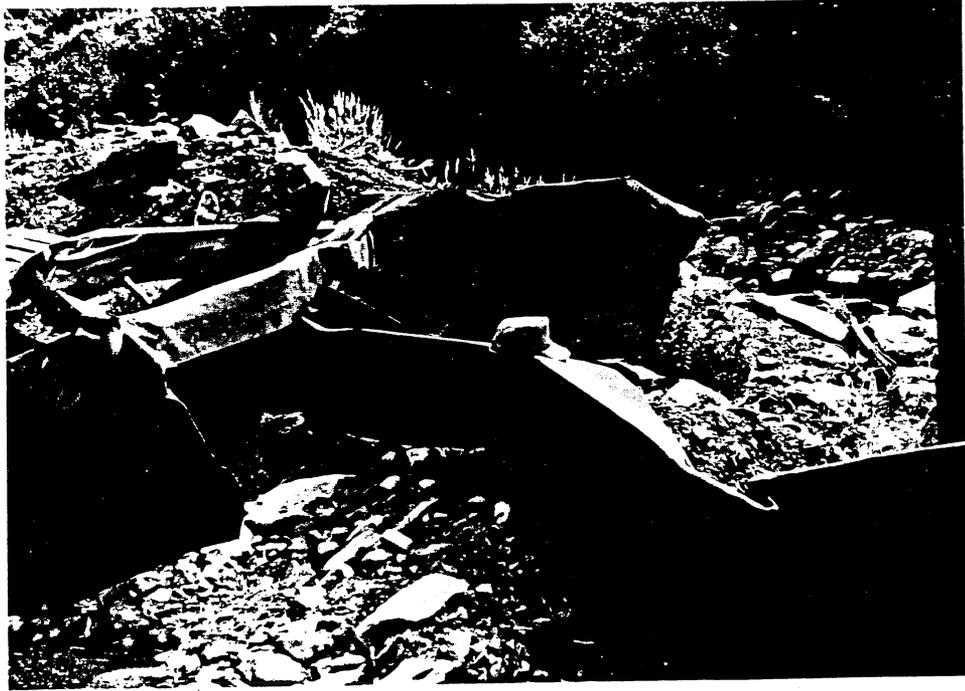


Figure 4.- Some of the scrap metal found at the Mills Creek Mine.



Figure 5.- Barrels of petroleum products which have leaked onto the ground near the diversion ditch.