History of the Dewey Mine, Idaho County, Idaho

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Morrill Hall, Third Floor
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Moscow, Idaho 83844-3014

Staff Report 07-5
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INTRODUCTORY NOTE

This report was prepared under a cooperative agreement with the U.S. Bureau of Land Management as part of an ongoing project to identify and describe inactive and abandoned mines in Idaho. The information in this report is from a number of published and unpublished sources in the Idaho Geological Survey's mineral property files. Where not otherwise noted, information on underground workings and mine equipment is generally from the annual Idaho Mine Inspector's reports (IMIR) published from 1899 to 1979. After 1974, the Mine Inspector's office was known as the Mine Safety Bureau, a section of the Idaho Department of Labor and Industrial Services. Detailed accounts of mine operations are, for the most part, drawn from the annual reports prepared by the companies for the State Inspector of Mines; these reports were required by law, and the information contained in them formed the basis of the Mine Inspector's annual reports. Annual reports on recent developments in mining in Idaho by the Idaho Geological Survey's (IGS; from 1984 to present) or from similar reports produced by the Survey's predecessor, the Idaho Bureau of Mines and Geology (IBMG) from 1975 to 1984 were consulted, as were the U.S. Geological Survey's (USGS) annual volumes on *Mineral Resources of the United States* (1882-1923) and the equivalent volumes produced by the U.S. Bureau of Mines (USBM), *Mineral Resources of the United States*, 1924-1931, and *Minerals Yearbook*, 1932 to 1984; since 1995, the *Minerals Yearbook* has been published by the U.S. Geological Survey. These sources contained no information on the property. Other published and unpublished sources that were consulted are referenced in the text. A complete bibliography is included at the end of the report. Where direct quotations are taken from source materials, the original spelling and grammar are preserved even in cases where they do not conform to currently accepted usage.

History of the Dewey Mine, Idaho County, Idaho

Victoria E. Mitchell[1]

The Dewey Mine (Figures 1 and 2) is in the southwest corner of sec. 18, T. 30 N., R. 4 E., on the Grangeville 7.5-minute topographic map. The adits are along Mill Creek, a tributary of the South Fork of the Clearwater River, at elevations between 1,800 and 2,000 feet. The mine camp and millsite were at the mouth of Mill Creek, where it flowed into the South Fork of the Clearwater. The mine is 6 miles east of Grangeville, the county seat of Idaho County, and about 5 miles upriver from Harpster.

The mine (Figure 3) is in the footwall of the Mt. Idaho fault, an east-northeast-trending, southeast-dipping fault (Reed Lewis, oral communication). The country rocks are Permian to Triassic Seven Devils Group rocks (as defined by Vallier, 1977). The first geologic report on the mine is that of Lindgren (1904, p. 105-106), which contained the following on the geology of the Dewey:

> Many small quartz veins have been located and partly developed along the South Fork of the Clearwater near Harpster. . . . Some miles above Harpster, along the same river and only a few miles east of Mount Idaho, a few veins have been discovered and were prospected in 1899. These veins form a silicified and mineralized streak in greenstone-schists almost at river level and on the west side of the stream. The strike is northeasterly and the dip 60º SE. The main tunnel shows principally an altered greenstone containing much pyrite. There are occasional bunches of quartz containing pyrite and chalcopyrite and inclosed in greenstone-schists. Good assays and free gold are reported to have been obtained from the Dewey, which was the main prospect worked at the time of visit. The developments chiefly consisted of a 50-foot tunnel.

Anderson (1930, p. 36) described the geology at the mine as follows:

> In general the values in gold are low, about $2 to the ton, but there are some rich high grade seams. Mineralization has been extensive and the deposits, although of low grade, are large.
>
> The property has three or four parallel veins or mineralized zones, trending about N. 10º E. and dipping 75º S.E., the principal being the Evergreen, the Dewey, and the St. Patrick. The individual lodes might be considered as from 20 to 40 feet wide, but much of the rock between shows extensive hydrothermal alteration which may be noticed even as much as 300 feet from the lower wall. These lodes have well defined footwalls, determined by

[1]Idaho Geological Survey, Main Office at Moscow, University of Idaho, Moscow

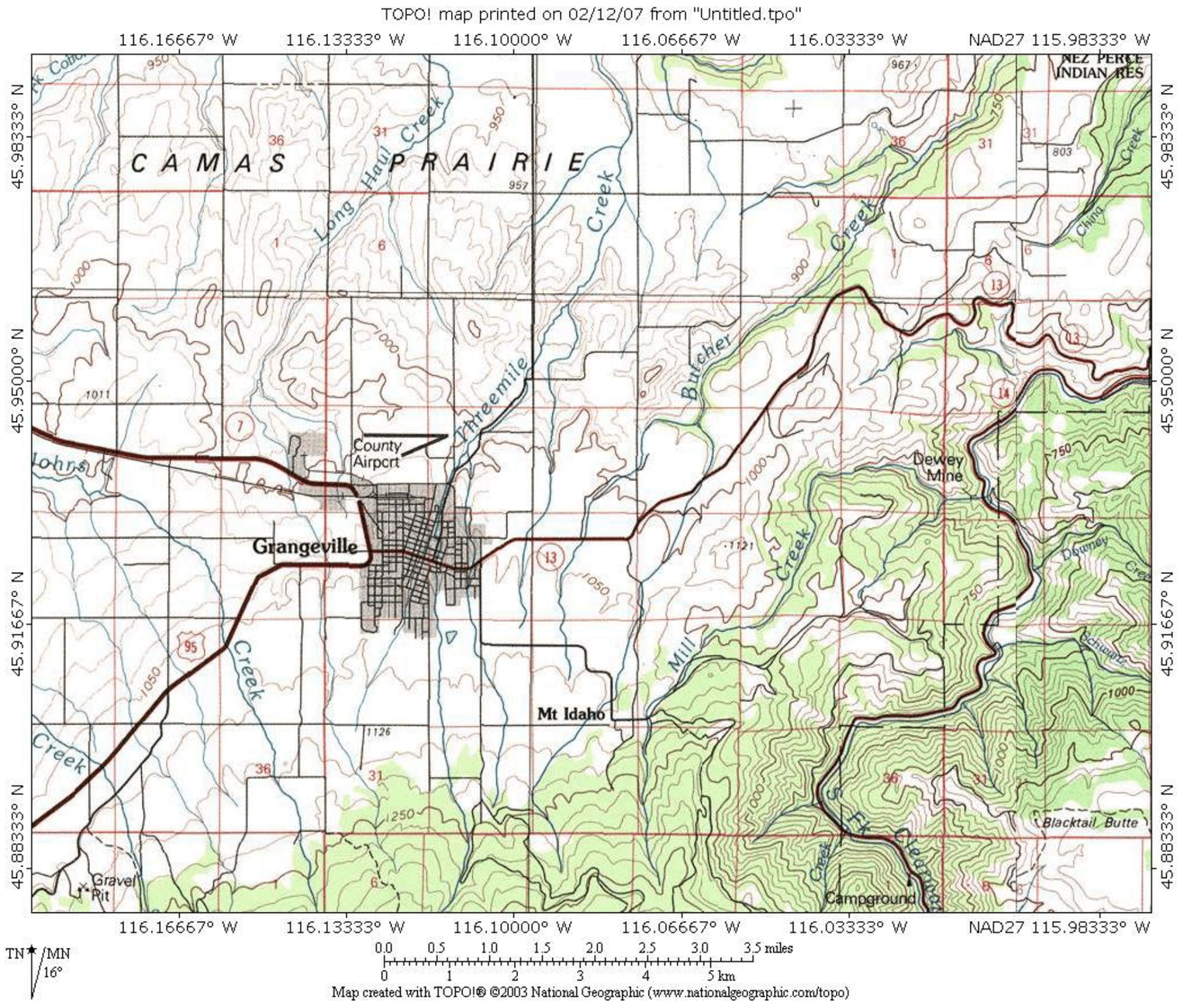

Figure 1. General location of the Dewey Mine, showing Grangeville and surrounding area (National Geographic TOPO! map, scale 1:100,000).

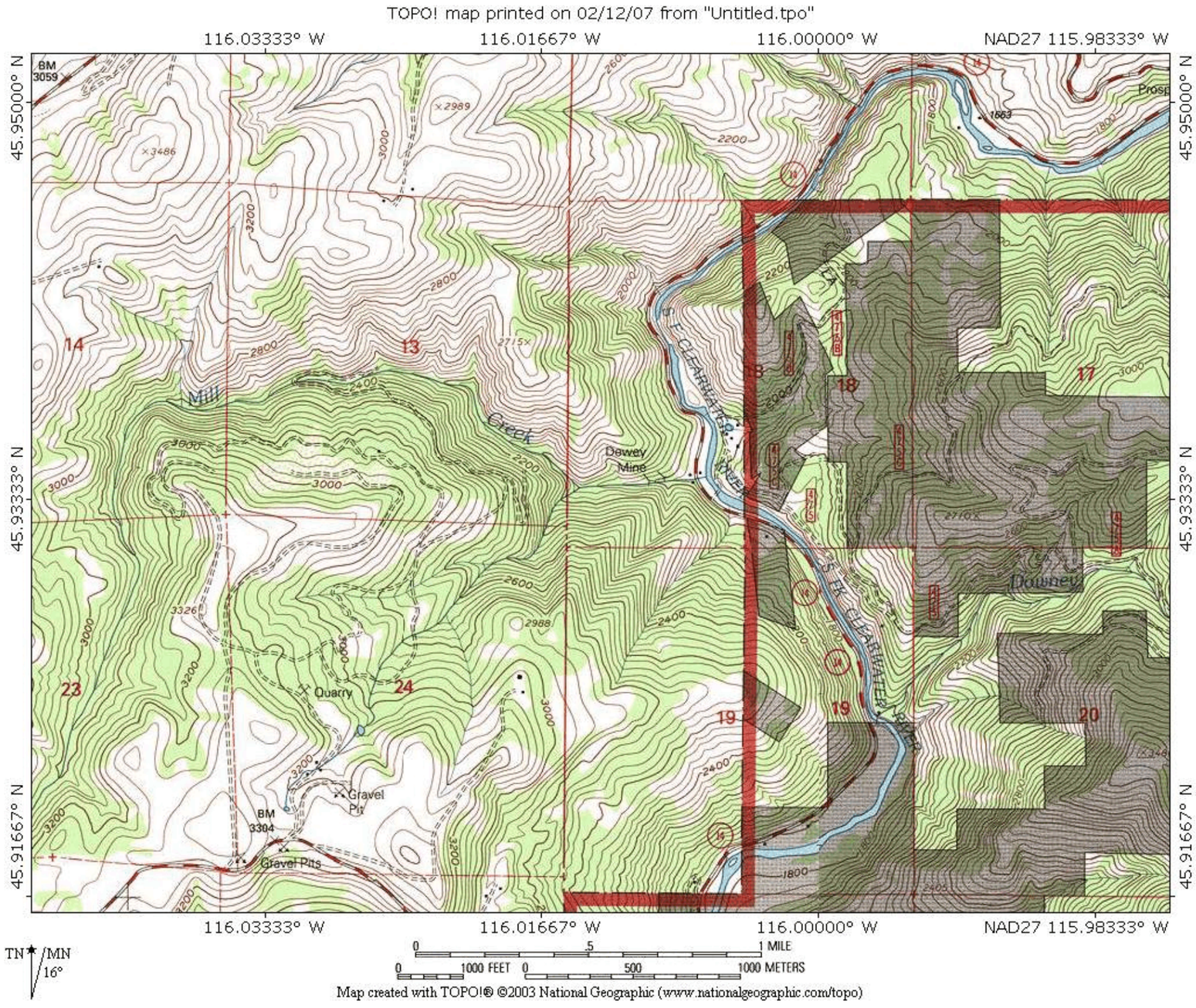

Figure 2. Location map of the Dewey Mine on Mill Creek, tributary to the South Fork of the Clearwater River (National Geographic TOPO! map, scale 1:24,000).

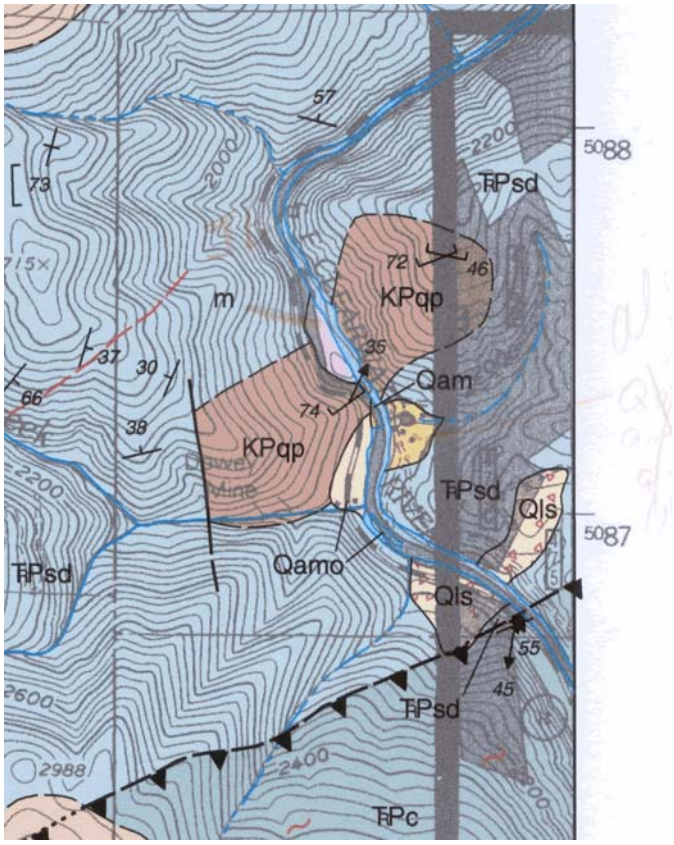

Figure 3. Geologic map of the area around the Dewey mine (Schmidt and others, 2007). m (unlabeled pink area) = artificial fill; Qam, Qamo = Quaternary alluvium; unlabeled yellow area patterned with orange circles = Quaternary alluvial fan deposits; Qls = Quaternary landslide deposits; unlabeled salmon color in upper and lower west corners of map = Miocene Grande Ronde Basalt; Kpqp = Permian to Cretaceous quartz porphyry; TRPsd = Permian to Triassic Seven Devils Group, undivided; TRPc = Permian to Triassic chlorite-epidote-actinolite schist and gneiss. Heavy line = fault; dashed heavy line with sawteeth = Mt. Idaho thrust fault, approximately located and with teeth on upper plate; red line = axis of syncline. Enlarged from 1:24,000-scale map.

fissuring and a pronounced band of gouge, but the hanging wall is indefinite as would be expected where replacement or silicification is the dominant mode of mineral deposition. The volcanic rocks include both andesitic flows and intrusive dikes, whose relations are very complex. Their general trend is N. 40º E. with dip steeply southeast. Much shattering or brecciation has occurred along some zones, especially in the hanging walls of the fissures. The mineralizing solutions have been mainly directed along these broken or shattered zones. The volcanics show extensive silicification and sericitization, in the lodes proper so intense that outlines of the original structures or minerals scarcely remain. In some the secondary quartz has produced large rounded grains, much like phenocrysts in a grayish-white groundmass, and in appearance suggests an intrusive porphyry. Where the alteration has been less extensive, as in the footwalls of the fissures, the rocks are greenish, sheared, and when examined microscopically are composed largely of secondary chlorite, epidote, quartz, and sericite, through which some of the feldspars and the original andesitic groundmass may be recognized.

The ore consists of the silicified greenstone with disseminated pyrite, usually in very tiny crystals and with small amounts of chalcopyrite whose oxidation at the surface has given some malachite. In addition are streaks and veinlets of quartz also containing pyrite and some chalcopyrite. The deposition has probably been in two stages; first quartz, subsequently shattered by renewed movement along the fissure zones, and second, the pyrite, chalcopyrite, and gold. The richer portions probably represent those parts of the silicified zones that were most shattered in the inter-mineral stages. The silicified zone invariably carries low gold values, with here and there irregular shoots or seams assaying high. The ore as disclosed in the underground workings, is mainly oxidized. The oxidation has been unusually deep, extending a hundred feet or more below the surface. Much of the oxidation, and probably enrichment, is not related to the present surface topography, but to the pre-basalt surface, for the canyons are in youth. The delineation of ore shoots can be determined only by careful sampling and assaying.

The Evergreen vein has been most extensively developed and is apparently the largest in size. Much gouge occurs along the footwall and the hydrothermal alteration extends into the hanging [wall] for several hundred feet. The Dewey vein lies lower on the hill and to the east. It apparently is smaller, but contains irregular chimney-like shoots along smaller shear zones. The vein is somewhat more than 20 feet wide throughout. Tunnels have encountered a number of streaks of shipping ore reported very rich in gold, and also greater bodies of lower grade material. The St. Patrick vein is similar, except that it contains less chalcopyrite than the Dewey.

The Dewey was discovered in 1897 (Watson, 1913). The Dewey Tunnel was 50 feet long in 1899 and was the principal opening on the property. Good assays and free gold were reported from the tunnel (Lindgren, 1904). Several companies operated on adjacent claims in the next few years, but the properties were subsequently united under one company (Anderson, 1930). In 1901, considerable work had been done on the Dewey and adjoining Evergreen claims, and plans were being made to build a large mill. In 1902, the Idaho Inspector of Mines observed that the careful management of Superintendent A. A. Kincaid was producing excellent results on the Evergreen.

In 1903, the Dewey Consolidated Mining and Smelting Company was organized (Table 1). The 1904 IMIR (p. 85-86) noted the following on the property:

Idaho County has two Dewey mines, No. 2 in this description the Dewey Consolidated is situated on the South Fork of the Clearwater River, six miles from Grangeville, the County Seat, and in some respects parallels its namesake at Thunder Mountain in the fact that it occurs in igneous wallrocks (dia-base) covers a wide, mineralized zone of 180 feet between extreme limits, containing well defined ore courses ten to forty feet wide. It produces some specimen gold and has sent out small shipments of very high grade material.

The character of the ore at this mine, however, is entirely different from that of the Thunder Mountain Dewey, and while it is believed that the great bodies of oxidized surface ore it has in sight can be made to yield their gold values by cyaniding, copper is

Table 1. Companies and individuals operating at the Dewey Mine. Corporate information is from the office of the Idaho Secretary of State. Dashes indicate information that is not applicable to individuals.

Company Name	Officer	Date Incorporated	Charter Forfeited	Year(s) at Mine
original locators	—	—	—	1897-[1]
Dewey Consolidated Mining and Smelting Company (Dewey claims)	[1]	24 March 1903	1 December 1912	1903-1912
Evergreen Consolidated Mining Company, Limited (initially, Evergreen claims; all after 1912)	J. Frank Watson, president; A. A. Kincaid, vice president[2]	12 May 1906	1 December 1917	1906-1917
Clearwater Copper Company	[1]	4 February 1919	1 December 1921	1917-1921
Delemar Mining and Recovery Company	[1]	15 April 1949	30 November 1953	1949-1953
Joe and Sonja Kirkendall[3]	—	—	—	1970s
Canadian company[3]	[1]	[1]	[1]	late 1970s

[1]Information not available in Idaho Geological Survey's files.
[2]Information from for submitted to the Idaho Mines Inspector.
[3]Written communication, Paul Myers, 2006.

> likely to be the predominating metal in this instance, as very fine chalcopyrite ore has been found wherever this deposit has been opened to any extent.
>
> This property has been undergoing improvement lately. It has considerable development, but mostly of a shallow nature, and at no place has the upper surface of the ground water level been reached, as yet. The property is of good promise, and if developed at depth, there is a very strong probability that extensive shoots of high-grade copper-gold ore will be encountered.

Also that year, an article in the Grangeville Free Press, quoted in the June 23, 1904, edition of the *Lewiston Morning Tribune* (p. 7), noted:

> After several years of idleness it is now certain that the Dewey mine on the Clearwater river will resume work and that on a large scale. Last summer a deal was consummated whereby Maine capitalists secured the entire control of this property and Otto Abeling, the well known mining man, was at once sent here to pass upon the values and the best way of extracting them from the ore. Just what his report was is not known, but it is known that abundant funds reached here this week to install machinery and that work will begin at once.
>
> When seen, Mr. Abeling admitted that arrangements were all completed for the immediate resumption of operations and that the ore would be treated by the electric cyanide process. A 100 ton plant will be put in and a dam across the Clearwater will be built to supply water for a complete electric plant. Some road will have to be built before the heavy freight can be taken down but this can be done by the time the dam is completed and excavating done for the mill.

On Tuesday the company purchased the Cumberland claim of Joe Wade and Ben Harmon which ground will be used as their mill site.

The Dewey property is only seven miles from this city, being nearer than any other camp in the county, and extensive work there would be of corresponding benefit to our people as practically all the business would be transacted here.–Grangeville Free Press.

During the next year, considerable development work was carried out on both the Dewey and Evergreen groups of claims, greatly enlarging the ore reserves on the properties. However, not everything went in favor of the company, as reported in the September 14, 1905, edition of *The Spokesman-Review* (p. 4):

To Blow Out $12,000 Dam
Dewey Company's Structure To Be Destroyed By Game Warden.
It Lacked A Fishway
Company Hadn't Money to Make Improvements at This Time.

Lewiston, Idaho, Sept. 13.–Deputy State Game Warden M. H. Harbaugh left yesterday for the south fork of the Clearwater river, near Grangeville, to destroy a $12,000 dam that is obstructing the passage of fish to the upper streams.

The dam is the property of the Dewey Mining company and has existed for two years. During that time numerous complaints have been filed by the residents in the large territory above the dam and official notice has been served on the mining company to provide a fishway for the passage of fish to the spawning grounds above.

Mr. Harbaugh visited the south fork country in June and furnished the mining company with the plans for the construction of the fish ladder and received the assurance that the ladder would be installed at once. This, however, was not done and more complaints were filed.

Residents finally informed the game and fish commission that unless the obstruction is removed the matter will be presented to Governor Gooding.

Mr. Harbaugh recently received a letter from the manager of the mine stating that the company is now without funds with which to instal the fishway, and as his only alternative he will remove the dam with dynamite. Mr. Harbaugh will confer with the county attorney of Idaho county today, and expects to go to the south fork country tomorrow to remove the dam.

The Evergreen Consolidated Mining Company, Limited, was organized in 1906. The IMIR (p. 80-81) in that year carried a long account of activities at the Evergreen and a much shorter description of the Dewey Mine:

Evergreen Mine.–This property, at the Dewey precinct on the South Fork of the Clearwater, six miles east of Grangeville, and several associated groups embracing a total of twenty-eight claims, are recently reported to have formed the basis of a new incorporation.

The combined development of these claims aggregate seven thousand feet in length, principally in tunnels, crosscuts and raises.

There is also a steep incline shaft two hundred ninety feet deep on the Evergreen proper.

The extensive development exposes a series of six veins of important size ranging from fifteen to fifty feet wide and carries an immense amount of copper-gold bearing ore. Some of this ore carries high values in both copper and gold. In fact, two carload lots of selected mineral have been shipped from the Evergreen that netted one hundred seventy-five dollars per ton and it is believed that the large bodies of low grade ore exposed in the shallow development of the mines will show a marked increase in value if developed at depth.

A large proportion of the extensive development now on this claim has been done under the management of a Mr. A. A. Kincaid, who has handled the work in a very economical manner.

Mr. Kincaid is the leader in the present consolidation of interests and it is manifest from the extensive mineral showing on this great group of claims that with proper equipment and further development at depth, a profitable and extensive mining enterprise may be established.

The local conditions as regards the situation of the property, its accessibility and natural advantages in the way of timber, and water for power, could hardly be excelled, and it is not unlikely that a profitable outcome will result from the present condition.

The Dewey Mine.–The Dewey mine, an adjacent property to the above, carrying the same class of ore, and with an important shipping record, is also quite extensively developed, and has large reserves of mineral now in sight.

Very little seems to have happened at the properties during the next few years. Dewey Consolidated forfeited its corporate charter in 1912, and Evergreen Consolidated's annual report to the Idaho Mines Inspector the following year included one-half interest in the Dewey claims as part of its holdings. A report to the company (Watson. 1913, p. 1-5) described the property in detail:

The following is a condensed digest of the known facts and conclusions resulting from the examination of the mining property of the Evergreen Mines Company made by the writer and others during the past 5 years. The reports of Mr. Ed. C. Morse, Mr. O. A. Tibbetts and Mr. Walter H. Hill were made after competent and conservative examination of the property by the gentlemen named and are heartily endorsed. Reference is made to them for more detailed data than falls within the scope of a summary report.

Mr. Morse took 543 samples, ranging from hand samples to mine samples of over 100 lbs. weight, made 1000 assays and 25 milling and cyanide tests on the various ores. His examination extended over a period of eight months continuous work on the property.

Mr. Tibbetts examined the property twice and took 25 general samples, 15 of which were shot down from the solid and ranged in weight from 400 to 1500 lbs. each before being broken and quartered.

Mr. Hill, while U. S. deputy mineral surveyor, visited and examined the property many times.

The writer spent a week at the mine and took many samples, which agreed closely with those taken by Mr. Morse, who was then making his examination and treatment tests.

LOCATION AND HISTORY:

The property is located on the west bank of the South Fork of the Clearwater River, at a distance of six miles southeast of Grangeville, Idaho County, Idaho, the nearest railroad point. About 20 miles north, or down the river, is Stites, the terminus of another branch road. Two wagon roads run from Grangeville, also a horse trail, the distance by road being about ten miles, the ruling grades being in favor of the load to the property. The elevation is approximately 2500 ft. above sea level, 1500 ft. lower than Grangeville. The Winters are open and Summers cool and pleasant.

The property consists of 26 mineral claims, several being fractional. Six are patented, the others being held by location and assessment work.

Ore was discovered in 1897 on the Dewey. During subsequent development shipments were made from the Dewey, St. Patrick and Evergreen. The total production from the group to date is about $80,000. the value of shipments averaging $315.76 per ton. These shipments were sulphide ore. During this time about 700 ft. of development was done at various points, and this constitutes practically the entire development to-day.

TOPOGRAPHY AND GEOLOGY:

The topography is rugged and steep. Six of the claims abut on the river. Extending back from it, the surface of others attains an altitude of 1300 ft. from the

water's edge. The group is practically bisected by Mill Creek, a small stream of steep gradient, which cuts through the formation across the strike of the ore bodies. The diversion of this stream for a small power installation at 200 ft. head would be simple, and it would supply a strong gravity system for mills and camp. One of the original companies constructed a dam across the Clearwater, capable of supplying a minimum of 450 horse power. This is intact and the output could easily be doubled by raising the crest of the dam.

The principal development has proceeded on both sides of Mill Creek, where the ore bodies have been crosscut by erosion. At the mouth of the creek and along the river a considerable flat makes an ideal site for mills and camp buildings. There is an abundance of fine timber both on the claims and on the hills surrounding them.

The country rock is greenstone schist and diorite, with numerous dikes of quartz porphyry, much altered and silicified.

ORE DEPOSITS:

Present development discloses three main ore zones west of the river. The first two, the Dewey and St. Patrick are parallel and similar, occuring as quartz veins interspersed at intervals of 50 to 60 ft. with lenses and chimneys of sulphide ores, and containing silicified and otherwise mineralized greenstone in the country rock of greenstone schist. These veins are about 100 ft. apart, from 23 to 40 ft. wide and strike from 30 to 40 degrees east of north, being approximately parallel to the cleavage of the schist. The dip is from 50 to 70 degrees east. These veins show considerable faulting within the vein and very rich ore has been obtained from the fault planes. A specimen from one of these assayed $7377.60. The valuable ores of these veins contain quartz, pyrite and chalcopyrite, and as has been stated, the greater part of the shipments were made from them. The largest ore chute is 18 ft. wide by 20 ft. long and was raised on 50 ft.

About 150 ft. west of the St. Patrick zone the Evergreen ore body has been developed. This ore body differs from the others in that it has greenstone hanging and diorite foot wall, and shows, where crosscut, a width of 305 ft. It strikes N 28° E., and dips 55 degrees east. It is almost entirely composed of altered quartz porphyry, with occasional quartz veins and stringers. Much of the material is heavily stained with iron oxides, and shows a schistose cleavage in the direction of the strike, the fine cleavage planes being filled with iron oxide. Greenstone horses frequently occur.

The entire width of the zone averages $2.71, the 100 ft. next to the footwall averages $3.88 in gold. There are, however, five bands, ranging from 10 to 40 ft. in width, which are of higher average value than the remainder. These are designated as follows, commencing at the diorite footwall:

#1 or Baker Paystreak,	average width	25 ft.,	average value	$4.78
#2 Shaft Pay streak,	average width	40 ft.,	average value	4.44
#3 " " "	" "	10 "	" "	4.00
#4 " " "	" "	40 "	" "	3.75
#5 " " "	" "	40 "	" "	3.00
5 pay streaks		155 "	" "	3.91

In making up average values of these pay streaks no assay greater than $10.00 was considered, though many occurred.

The Evergreen shaft was sunk on a band of porous schistose quartz high in iron oxide down to water level, where it changed to a heavy sulphide ore, similar to Dewey ore. It was persistent throughout.

DEVELOPMENT:

The Dewey vein is developed by a tunnel driven southwest from Mill Creek, with crosscuts and three shallow winzes. The tunnel and drifts aggregate 650 ft.

The St. Patrick vein is opened by two tunnels and a shaft. The upper St. Patrick tunnel has in the aggregate 450 ft. of drift work, with about 120 ft. of raises. There are also several stopes and surface pits. The lower tunnel, known as the Evergreen St. Patrick No. 2, is a crosscut, commencing lower down the creek below the mouth of the Dewey tunnel, cutting both the Dewey and St. Patrick veins, and enters the Evergreen zone 92 ft.

below the present working level. From a crosscut in this tunnel a shaft and upraise of 60 ft. was made in the St. Patrick. The crosscut tunnel is 900 ft. long.

Development in the Evergreen is shown in the accompanying assay map [not included in Idaho Geological Survey's copy of Watson's 1913 report], with the exception of the shaft, which was sunk 200 ft. on the dip and raised to the surface about 60 ft. The work done has developed the Evergreen oxidized ore body distance of 400 ft. on the strike and its full width 305 ft. Good values are known to persist to a depth of 200 ft. below the tunnel level, at which depth the ore is base. The face of the tunnel is approximately 350 ft. below the surface.

Between 1000 and 1500 ft. of drifts and open cuts on other claims, principal among which are the Atlanta, Creole Girl and Ida May tunnels, are indicated upon the claim map [not included in Idaho Geological Survey's copy of Watson's 1913 report]. These show the continuation of the ore zones along the strike.

Little timber was used to support the workings, the oxidized ore of the Evergreen standing particularly well in the openings without support.

SAMPLING:

The unaltered sulphide is not difficult to sample accurately and the samples shown [omitted from the current report] are typical of the ores they represent. It was found in the Evergreen oxidized zone, however, that it was difficult to obtain samples from the same ore bands that would check. This is due to the decomposed character of the ore, its banded structure and the large amount of dust between the bands. The sampling by Morse proved conclusively that the coarser, harder streaks did not contain as high values as the finer material, and that the greater part of the value was in the iron oxide and was very fine.

Colors are seldom seen in the pan and amalgamation tests were unsuccessful. For example, ten samples, cut with a moil across the same five ft., assayed - highest, $9.40, lowest $1.50, average $5.43. Accuracy can only be obtained, therefore, either by averaging a great number of samples in the same section, or by taking very large samples and carefully quartering down. The latter method is probably more accurate. It has been repeatedly shown that coarse grab samples will not show the values, due to the loss of the fines, whereas samples picked down on canvas show proportionately greater values, due to the excessive fines jarred down in the operation. The appended sample sheets [omitted from the current report] show comparisons of various methods.

TREATMENT:

Little effort has been made to determine the treatment for the sulfide ores. Close hand sorting was successful in preparing ore for shipment. The value of the product was doubled, though doubtless with proportionately large loss. Concentrates in the pan from $40.00 ore, approximately 4% copper, 28 dollars in gold, gave 20.5% copper product, carrying $108.60 in gold. Ratio of concentration 1 to 5.

Cyanide treatment tests by Morse, after amalgamating, using air agitation, on medium grade oxide ore from the Evergreen, were uniformly successful.

Charges of 5 pounds pulp at 40 mesh, 10 pounds water, 2 pounds cyanide per ton of water, 5 pounds of lime per ton of ore; with 8 hours agitation, decanted once after settling over night and washed on the filter, resulted in -

Amalgam.	0.90	-	13.4%
Solution	5.40	-	80.6%
Recovery	6.30	-	94.0%
Residue	.40	-	6.0%
Original Value	6.70	-	100.0%

Similar results were obtained on low grade ore assaying before treatment $2.06[1], recovery 94%, and on high grade ore averaging $92.80, recovery 90%. Sizing tests failed to show that fine grinding increased the extraction, the results at 30 and 40 mesh giving the highest extraction.

[1] The numbers used to calculate the assay values were: gold, $20.00 per ounce; silver, $0.50 per ounce; and copper, $0.15 per pound.

Accurate screen tests and analysis should be made on this oxidized ore, as its characteristics, as shown in sampling and cyanide testing, suggest that a large proportion of the coarser material practically barren of value, could be eliminated by screening prior to cyanide treatment. Such a reduction of bulk would not only decrease the size of plant and the time necessary to treat a given tonnage, but would materially increase the values per ton in the material treated by a given amount of solution.

CONCLUSIONS AND RECOMMENDATIONS:

The Dewey and St. Patrick ore bodies, at their present stage of development, do not show sufficient tonnage blocked out to warrant a plant for their economic treatment. With careful further development they will undoubtedly prove of great value to the property as a whole. The lack of continuity and the uncertain proportions of their ore chutes preclude a recommendation other than for their further development. This work could be done with distinct advantage by competent leasers.

The Evergreen ore zone has a tonnage blocked out above the working level of approximately 1,500,000 tons of oxidized ore, of an average recoverable value in excess of $2.50 per ton. It has probably ore reserves of fully double this amount, as indicated in the shaft and by the fact that the zone appears to be widening as depth is gained in the tunnel. It should be borne in mind that the entire development of this tonnage is within the distance of 400 ft. along the course of the ore zone. The work below water level indicates that the oxidized zone of this ore body will not exceed a vertical depth of more than 250 ft., but there is enormous width between the walls, and its values in the zones below of secondary enrichment and primary sulfides are unexplored and await further development. Fully one-third of this tonnage will average higher than $4.00 per ton, and as it lies in wide bands, can be mined by glory-hole method and trammed to mill at an estimated cost not to exceed 50 cents per ton. The cost of treatment on a relatively large scale would not exceed $1.00 per ton.

There is, therefore, in the Evergreen, 500,000 tons at $4.00 - $2,000,000.00, ready to mine and mill at a cost of $750,000.00, and many times this amount can reasonably be expected to develop as work proceeds. A suitable plant for the extraction of the values of this oxidized ore will undoubtedly furnish many times over the necessary means to develop the underlying sulfides.

Signed “F. W. Watson,”
Engineer of Mines

Portland, Oregon,
June 26th, 1913.

In 1916, the Idaho Mines Inspector reported a shipment of gold ore was made from the Evergreen Eureka property. Although in this same area, it is not known if the Evergreen Eureka is another name for the property under discussion. However, the Evergreen Consolidated Mining Company forfeited its corporate charter in 1917. The 1917 IMIR (p. 73-75) contained another favorable report on the property:

Northwest of this district [Blackbird district] about 60 miles, and 6 miles east of the railway terminal at Grangeville in the canyon of the South Fork of the Clearwater, there exists an interesting series of deposits well worthy of drill prospecting with a view to the probable existence of a wide zone of disseminated copper ore relatively rich in gold values. At this point the Clearwater Copper Company erected a small test mill of 25 tons daily capacity during the past season for the purpose of determining the savable gold values in the deposit. In addition to the Clearwater Company’s Dewey Group, the adjoining Evergreen and Atlanta Groups, the Wallace and Marian Groups, whose combined claims cover a zone of very closely schisted green stone with thin vertical cleavage lines, shows several wide bands of copper carbonate and oxide mineral in shallow development, which is very interesting. The only opening at the drainage level of the country is on the Dewey Claim, which is driven near the bottom of a tributary creek

that enters the river at this point. In the portal of this tunnel a vein 10 feet wide is richly mineralized with kidneys and bands of massive chalcopyrite and bornite ore, and is said to give an average value of 10 per cent copper across 10 feet.

The adjoining Evergreen claim is the most extensively developed in the group, through the medium of adit tunnels and cross cuts in the thin, highly oxidized schist formation, which is locally traversed by vertical diabase dikes on each border of these dikes for widths varying from 5 to 20 feet. The gold and copper values are most richly manifested [on each border of these dikes for widths varying from 5 to 20 feet][2]. A dump of 3,000 tons of schisty gangue at the portal of the main tunnel on this property is said to average $4.00 per ton in gold, and underground it shows several zones of copper carbonate and black oxide segregation from 1 to 6 per cent copper. No attempt at deep development has been made at these properties so far. The principal outcrops are only 200 feet above the channel of the Clearwater River, and present a very attractive chance for churn drilling prospecting.

Total shipments from the Evergreen and Dewey properties in crude ore are reputed to have aggregated $150,000, including several carloads that averaged $100 per ton in gold. The district is very favorably situated from a climatic standpoint, with very little snow in the winter time, as the elevation is only 1,500 feet above sea level. This property could be readily made accessible to railway transportation by the extension of the Clearwater Branch of the Northern Pacific from Stites, a distance of about 14 miles. The edge of the Idaho granite batholith is exposed about a mile east of this property and in the intervening space a broad zone of marbelized limestone occurs, the contact margins of which are said to carry some rich manifestations of silver-lead ore. The general geology of these properties is decidedly favorable and closely comparable to the copper sulphide occurrence in the Snake River Canyon, particularly at Homestead, 60 miles southwest, and the strike of the zone is in that direction, with several intervening occurrences of similar ore.

In 1919, the Clearwater Copper Company, a Washington corporation, filed its official paperwork with the Idaho Secretary of State to become legally authorized to do business in Idaho. The company made one shipment of gold ore, containing silver and copper, from the Dewey claim. In 1921, the company forfeited its corporate charter.

The IMIRs from 1921 to 1937 list the owners for some of the claims in the state. These listings show that the Evergreen Group was claimed by Albert Kincaid from 1922 until 1927 and by Carolyn Wagner from 1928 until 1937. Albert Kincaid controlled the Dewey Group in 1929, and F. W. Watson was listed as the owner from 1930 until 1937.

In the summer of 1929, the Dewey Mine was reopened and an extensive sampling program conducted (Anderson, 1930). In 1930, a substantial amount of development work was done on the property, and a small tonnage of ore was shipped, apparently for testing milling methods. In 1933, the Dewey Mine shipped one carload of gold ore to a smelter, and in 1934 a little gold ore was treated by cyanidation.

The Delemar Mining and Recovery Company was incorporated in 1949. In 1950, the company cleaned out the tunnels, repaired the laboratory and other buildings, and ran some tests on the ore. The property had six tunnels, which measured as follows: No. 1, 600 feet; No. 2, 650 feet; No. 3, 500 feet; No. 4, 1000 feet; No. 5, 150 feet; No. 6, 74 feet. In 1951, the company built a “counter current chemical plant,” again cleaned out adits, and replaced rails and pipe. Equipment added during the year included a 160-cubic-foot Chicago Pneumatic compressor, a stoper, and a jackhammer. In 1952, the company

[2]In the original report, this phrase appeared at the end of the preceding sentence. However, when moved to this location, both sentences make more sense. An alternate reading would leave the words in their original order, but alter the punctuation so that the phrase in question became the first clause in the following sentence.

completed work on its mill. It also cleaned out more tunnels and laid new rails. Delemar Mining forfeited its corporate charter in 1953.

In the late 1970s, the property was controlled by Joe and Sonja Kirkendall. A Canadian mining company had a contract with the Kirkendalls. After conducting extensive surface sampling and some drilling, the company dropped the property (Paul Myers, written communication, May 11, 2006). This appears to be the last activity on the property.

Although production has been reported from the property by the Idaho Mines Inspector, no records of this production have been located. Possibly, the production was recorded by the U.S. Bureau of Mines under some name that has not been associated with this mine.

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