Memorandum

To: A. E. Weissenborn, Executive Officer D. M.A., Region II

From: S. Warren Hobbs

Subject: Supplementary report on the Idaho Goldfields, Inc. Property No. 3.

This memorandum is supplementary to one submitted on the property by J. S. Whay and R. Christian. The accompanying map is based on one by Whay and Christian but revised and expanded to include new exploration work done during the summer by the company. An evaluation of the property is somewhat more favorable than was possible on the basis of previously available data.

New bulldozing has been done at points III, V, and VI (see accompanying map) in an attempt to find the continuation of the vein known to exist at points I and II. This work was largely unsuccessful in finding the vein, although a zone of rouge and crushed rock was uncovered at point III that contains some cerrusite and pyromorphite. A sample from this zone, however, assayed only 0.1% Pb and a trace of zinc.

The vein as exposed at points I and II and in an adit now being driven along the structure south from point I has merit as a possible source of lead and zinc ore. The values are predominently in a zone of oxide ore that lies immediately beneath a strong quartz vein. The quartz vein locally contains minor amounts of sphalerite and galena, but nowhere in economic amounts. The zone of soft brown oxidized material below the quartz vein, on the other hand, contains significant values in lead and silver over a width of from one to two feet. Samples from this zone give the following results:

Location	Description	% Pb.	% Zn.	oz. Ag.
Point I	Across 1 foot of oxide zone	10.70	0.20	2.40
Point II	" 1 1/2 feet " "	5.75	0.05	0.60
Point II	Grab sample " "	2.75	tr.	tr.

An adit, about 25 feet long on Oct. 1, 1951, is being driven along the oxide vein from point I and has proven the continuity of the oxide ore for that distance. Government assistance on this project appears to be justified to determine the continuity of the ore zone at least to the point of its intersection with the veins that crop out in the vicinity of point III. If the showings continue to be good at this juncture, the drift should be carried at least beyond these cross veins. Furthermore an inclined shaft or diamond drilling or some other suitable means should be employed to test the extension of the oxidized zone at depth and to determine the grade of the sulfide zone which should lie below.

Oct. 9, 1951

S. Warren Hobbs

UNITED STATES
DEPARTMENT OF INTERIOR
OSCAR L. CHAPMAN - SECRETARY

DEFENSE MINERALS ADMINISTRATION

Report by Examination Team
Region II

Dennhee Leases of the Idaho Goldfields, Inc.

John S. Vlay and Don Christman
U. S. Geological Survey

July 13, 1951

DMA Examining Team Report on Donahoe Lease of the Idaho Goldfields, Inc.

by John S. Vhay and Don Christman, U. S. Geological Survey

RECOMMENDATIONS

It is recommended that no further consideration be given this application inasmuch as the general geologic setting and lack of significant mineralization makes the property a poor risk for exploration work.

APPLICANT

The applicant is the Idaho Goldfields, Inc. W. M. Fredericks is president, and James Milne, Secretary-Treasurer. The company address is given as W. 1114 Indiana Ave. Spokane, Washington.

LOCATION AND OWNERSHIP

The Donahoe Lease of Idaho Goldfields, Inc. is located on Reserve gulch, in sec. 12, T. 49 N., R. 2 W. Boise Meridian, in Kootenai County, Idaho. Claim names were not learned nor was ownership checked at the county courthouse.

HISTORY

All the workings on the property are believed to have been started a long time ago. It is reported that the early prospectors removed some gold ore, but the amount was probably small as no stopes were seen. The present operators have extended the main adit about 60 feet and have done a little bulldozing on the property.

DESCRIPTION OF PROPOSAL

The operators provisionally proposed to drift on the vein recently exposed about 110 feet N. 65 W., from the portal of the main adit, and sink an inclined shaft on the vein. It was pointed out to them that the vein could be crosscut at depth from the main adit at less expense and they apparently are in agreement with this. About 100 feet of drifting on the vein should prove whether it contains commercial ore, and then, if it does, an inclined shaft should be sunk on the footwall of the vein. Although assays so far obtained are low in values, the amount of lead carbonate and phosphate on the dump of the old adit suggests that there is probably galena in the vein at depth, at least in the footwall half of the vein.

GEOLOGICAL [illegible]

The country rock at this property is all a part of the Bolt Series. In some places it is a fairly thick bedded quartzite, elsewhere it is thin bedded phyllite and quartzite. In the main adit one dike about 6 feet wide is exposed; it is completely altered to a soft, fine-grained brownish yellow rock. There are a number of faults exposed in this adit (see Fig. 2). Some are minor slips dipping 20° - 30° north almost parallel to the bedding. Most of the rest of the faults dip more steeply either northeast or southwest and strike west, northwest or northwest. The largest fault zone, near the end of the adit strikes nearly north dips about 50° east, and has several feet of gouge. It is almost parallel to the altered dike.

Three different veins are exposed on the property. On the north side of the creek there is a small adit on a quartz vein striking N. 40-50° E., and dipping 4[illegible] to 50° northwest. It has considerable pyrite in it in places and is reported to carry good values in gold. Several masses of quartz in the strongly disturbed zone in the bulldozer cut on the south side of the creek may be an extension of this vein. In a bulldozer pit about 300 feet southwest of the creek there is a quartz vein striking about N. 40 E. and dipping 55° northeast; it is from one to three feet wide and probably carries pyrite at depth. It is reported that in the early days some gold was shipped from an inclined shaft, now covered by fill from the bulldozer cut. Two spots of gossan or altered rock farther northwest may lie on this vein. It apparently does not extend much farther southeast and so may lie only above the large vein zone to be next described.

The best looking vein on the property was prospected in the early days by an adit about 130 feet S. 75 W., from the portal of the main adit. The adit has caved in except for the last 10 feet which can be entered. On the dump there are two piles of vein material. One shows massive milky quartz with scattered spots of pyrite, chalcopyrite, galena, and sphalerite. The other is gossan containing considerable cerussite and some pyromorphite; this is reported to have come from the footwall half of the vein. Samples from the vein in place gave the following results however:

	Gold Oz.	Lead %	Copper %
S 17%-13 12" of gossan and quartz in footwall	0.33	0.20	0.27
-19 5' of country rock cut by many veinlets of quartz and limonite (this makes heavy gossan 10' northeast)	.005	0.20	0.25
-20 S.0' of hanging wall of quartz vein with spots of limonite and sulfides	.007	0.10	0.05

At the edge of the main flat where the mine buildings are located this same vein has been exposed by bulldozing/ Sampling this gave the following results:

	Gold Oz	Lead %
51-VS-16 - Chips across 4' of quartz vein containing fragments of country rock and a few spots of sulfide.	Trace	None
51-VS-17 12" of yellow gossan in footwall of vein (so-called "leadstreak")	Trace	0.66

These assay results make it somewhat doubtful if this deposit contains much lead, and it is recommended that someone re-examine the property, perhaps after requesting the operators to clean out the old adit and to expose the place where material reported to carry cerussite occurs.

MINE WORKINGS

The accessible mine workings are shown on Fig. 2. A caved adit is west of the compressor house. An old inclined shaft on the northwest striking vein was covered up during bulldozing operations. A pit about 100 feet east, northeast of the small adit on the north side of the creek probably is at the portal of a small caved adit.

Reserves, Mining and Milling Methods

No attempt is made to calculate ore reserves in view of the low assay results.

Mining methods will be relatively expensive because of the low (40° to 50°) dip of the vein. No consideration is given yet to milling methods or costs, nor rate of production.

Equipment, labor, and power

There is on the property a new small bunkhouse and compressor house. The operators have a small compressor and a jackhammer, one mine car and rails in the main adit. This equipment would be sufficient to extend the main adit to the northwest, but much more would be needed if shaft sinking or mining is attempted.

Labor would probably be available from the Coeur d'Alene district which is about 20 miles east of the property.

The only power on the property is the gasoline compressor. Electric power could probably be brought in if ore bodies are developed.

TRANSPORTATION AVAILABLE

A new gravel road 0.3 miles long connects the property with U. S. 10 2.8 miles east of the highway tunnel between Cedar and Fourth of July Creeks.

Concentrates could be hauled by truck to the plants at Wallace about 20 miles east.

ADEQUACY OF REQUESTED FUNDS

It is not known how much the applicant proposes to spend. $30,000 would probably be necessary to carry out the full program described under the "Description of Proposal" above.

COMPETENCE OF APPLICANT

It is believed that the men in charge of the company are quite inexperienced at developing a mine. A competent engineer would have to be put in charge of the operation.

DISCUSSION OF PROPOSAL

In view of the low assays so far obtained at this property it is believed that this proposed work should be rated as a very long-chance shot. If the proposed crosscut from the main adit should happen to cut good lead values then the rest of the program might be justified.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

xxxxxxxxxxxxxxxxxxx
So. 157 Howard Street
Spokane 4, Washington

December 18, 1953

Memorandum

To: DMEA Field Team, Region II

From: Thor H. Kiilsgaard, Geologist, U. S. Geological Survey

Subject: Field examination of Idaho Goldfields property, Kootenai County, Idaho, Docket No. DMEA-1485 (lead-zinc).

Recommendations

It is recommended that the application submitted by Idaho Goldfields, Inc., for a DMEA contract be denied.

Introduction

The Idaho Goldfields, Inc., DMEA application was transmitted to Washington, D. C., from this office on June 1, 1951. On the basis of this application, John S. Vhay and Don Christman, U. S. Geological Survey, examined the property on June 4, 1951. These examiners mapped the accessible workings and also took several samples. They reported that mineralized structures on the property had some merit and that they probably warranted further exploration; however, upon receipt of the assay returns from samples they had taken, which were low in values, they concluded that the property should be re-examined before a contract was recommended.

Upon the recommendation of Vhay and Christman, the property was re-examined by S. W. Hobbs and A. B. Campbell, U. S. Geological Survey, in late June 1951. Their report noted a lack of significant mineralization at the property and that it was a poor risk for exploration work. This report was forwarded to Washington, D. C., under cover of a Field Team letter dated June 28, 1953, in which it was noted that Vhay and Christman's report would also be forwarded upon completion. At that time, it was the assumption of the Field Team that the application would be denied because of Hobbs and Campbell's discouraging report, although no formal recommendation for denial had been made.

Vhay and Christman's report was completed in July 1951, but there is no record in the regional files that this report was ever forwarded to Washington. The finding of several copies of the report in Survey files indicates the report was mistakenly filed instead.

Mr. W. M. Fredericks, acting for the Idaho Goldfields, Inc., visited the Survey office several times during the summer of 1951, each time asking for technical advice on his exploration program. He stated that exploration was in progress and that it would continue even though DMEA did not grant a contract. On several occasions he requested that reports or recommendations concerning the applicant's proposals be withheld until more substantiating evidence could be unearthed by work then in progress.

As the applicant's property was in the area being mapped by Survey field parties, it was visited several times by Survey geologists. In line with these visits, Hobbs submitted a supplemental report on October 9, 1951, on work being done at the property at that time. He noted that findings were becoming more favorable and that DMEA participation in the program appeared to be more justified than had originally been evident. However, as Mr. Fredericks seemed to be unsure of the type of exploration he wished to undertake, no attempt was made to proceed with recommendations for a contract and eventually the entire problem was dropped from consideration. Idaho Goldfields, Inc., was reported to have changed managers and as no more was heard from them, it was assumed they were no longer interested in a contract.

The application was next drawn to the Field Team's attention by a letter from the Operating Committee dated June 29, 1953, to which were attached letters from the applicant expressing a desire to obtain a contract. As a result of this letter, Mr. Hobbs again visited the property on July 15, 1953, at which time he noted the applicant was doing some diamond drilling on their own account. He was informed that, pending on the results of this drilling, the applicant would submit a specific plan for DMEA exploration. At that time the applicant indicated that this plan would be forthcoming within the near future.

No further information was received from the applicant until early December when Messrs. James Milne and L. A. Thompson, acting for the applicant, visited this office and requested a re-examination of their property. Accordingly, the writer, accompanied by Mr. John Hosterman, U. S. Geological Survey, visited the mine on December 11, 1953, where Messrs. Milne and Thompson were met. A 1-foot blanket of snow confined the examination to mapping the Main adit and the winze therefrom, and to discussing with the applicants their proposals for additional exploration.

Applicant and Property

In the Idaho Goldfields, Inc., application it is noted that W. M. Fredericks is president of the corporation and that James Milne is secretary-treasurer. We have been informed more recently, however, that Mr. Fredericks has been succeeded by Mr. L. H. Thompson as president. The company address is W. 1114 Indiana Avenue, Spokane, Washington.

The prospect, with which the applicant is concerned, is known as the Donahue Lease. This property is comprised of Lots one (1) and two (2), otherwise described as East one-half (1/2) of N. E. quarter (NE¼) in Section 12, T. 49 E., R. 2 W., Boise Meridian, Kootenai County, Idaho. It is reported that the Surveyor General's map of February 15, 1903, describes this property as being comprised of 79.10 acres.

The Donahue Lease is on the West Fork of Reserve Creek, about 52 miles east of Spokane, Washington. It is accessible by following U. S. Highway No. 10 east from Spokane. After passing through the highway tunnel at the summit of 4th of July Canyon, proceed east for half a mile, then take the gravelled road to the right, up the West Fork of Reserve Creek for one-third mile to the mine.

Mine Workings

At the time of the original field examination by Vhay and Christman, mine workings consisted of a short adit on the south side of the creek and another on the north side. These workings are shown on the attached map. The adit on the south side is marked at altitude 2969 feet whereas the one on the north side is marked at altitude 2987 feet.

By December 1953, the workings had been extended to include another adit that drifted on the vein, on the south side of the creek and starting at altitude 2970 feet, a short winze off this adit, a 40-foot vertical shaft, a considerable amount of bull-dozer trenching and an aggregate of 768 feet of diamond drilling put down in five different holes. These workings are also shown on the attached surface map.

Geology

The country rock at the Idaho Goldfields property is Pritchard formation, the lowermost formation of the pre-Cambrian Belt series. The rocks are chiefly thin-bedded, banded argillites with some more quartzitic members. There are also at least two different dikes present, which seem to be of different types. The dike in the southernmost adit is an even-granular, highly altered rock that is probably a lamprophyre, whereas the dike cutting the vein in the Main adit has distinct plagioclase phenocryst remnants in a highly altered matrix and is probably more of an andesitic nature. As will be noted on the attached geologic map of the Main adit, the argillites are locally highly folded and faulted. This contorted condition is reported to prevail over much of the surface of the property, particularly near the creek.

Three veins are reported to occur on the property. On the north side of the creek an iron-stained quartz vein, striking N. 40-50° E., and dipping 40° to 50° NW, is explored by the short adit whose portal is at an altitude of 2987 feet. In a bulldozer cut about 360 feet southwest of the creek, a second quartz vein strikes N. 40° W. and dips 55° NE. This vein is reported to range up to 3 feet in thickness and is believed to contain some pyrite. Some gold is reported to have been shipped by early day miners from an inclined shaft on this vein. A third vein is explored by the Main adit. The attached map of this adit shows the vein to be striking to the southwest near the portal but to roll to a northwest strike as the northwest face is approached. At the northwest adit face the vein is cut by an andesitic dike. The vein dips from 20 to 40 degrees to the northeast and northwest. It is composed of about 2 feet of sheared argillite and gossan near the footwall which is overlain by iron-stained and pyrite-bearing quartz bodies ranging up to 7 feet in thickness. Locally, the quartz, as veinlets and masses, has penetrated the hanging wall argillite for some distance away from the vein. No ore was seen in the vein, but a considerable quantity of specimen-like galena in the mine cabin is reported to come from the vein. This ore is reported to come chiefly from the sheared and oxidized footwall portion of the vein, although some ore is reported in the quartz. Assays of this zone, by Hobbs, tends to confirm this observation, although other assays by Vhay and Kiilsgaard suggest that ore in this as well as other parts of the vein is discontinuous and that it varies radically in values.

Recent diamond drilling, together with information compiled in mapping the main adit, suggests that the three previously described veins may be the same vein noted in three different places. Diamond drill holes Nos. 1 and 2, shown on the attached map, intersected an altered argillite, dike, quartz, and sheared vein section that is comparable in all respects to the vein section of core obtained in holes 3 and 4, except that the vein intersections in holes 1 and 2 are about 200 feet higher in elevation than the vein should be if projected down dip from the points intersected in holes 3 and 4. The similar characteristics of the vein exposed in the Main adit and in DD Holes 3 and 4 with those of the vein in the northern adit and in DD Holes 1 and 2 suggest that all development has explored the same vein. It is believed this vein has been offset by a fault trending approximately parallel to the course of the creek. The inferred location of this fault is shown on the attached map.

The northwest-striking vein exposed in the bulldozer cut southwest of the creek is probably the outcrop of that section of the vein that turned in strike to the northwest, as seen in the Main

adit. The fact that the vein, in this locality, has a 20-40 degree dip to the northeast, approaching the slope of the hillside, probably accounts for the separated outcrop of gossan in the different pits and bulldozer trenches. It is reasonable to assume that there may be parts of the hillside where the vein, in its dip-slope position, is little more than a near surface skim.

Discussion of Proposal

The applicant originally proposed to explore the property by crosscutting 120 feet from the southern adit to intersect the lead vein, sink an inclined shaft 200 feet on the lead vein, and then drift 50 feet in each direction on the vein from the bottom of the shaft.

Following submittal of their application, the applicants explored the so-called lead vein by the Main adit and the short winze therefrom, and also by the vertical shaft and diamond drill holes 3 and 4.

The most recent proposal to further explore the lead vein involves 1300 feet of diamond drilling to be put down in 6 holes located immediately west of the portal of the Main adit.

The short winze near the portal of the Main adit has explored the vein to a vertical depth of 12 feet. The shaft is reported to have intersected the vein a few feet lower in elevation. Diamond drill holes 3 and 4 intersected the vein at vertical depths of 40 and 30 feet respectively.

A total of 1000 pounds of ore is reported to have been extracted from the Main adit and short winze, although none was seen in the vein during the examination. Certainly, assays taken from the winze do not indicate ore and the fact that no samples were taken of the core in holes 3 and 4 indicates there was little if any ore at those intersections. These negative findings suggest that the vein does not warrant further exploration. However, even if the vein warranted exploration, it could not be tested by surface diamond drilling to depths much beyond 80 feet, if the holes were collared near or along the creek. To extend beyond this depth, all holes would have to be inclined to the northeast where they would be intersecting the vein at acute angles, and, if flattened enough, going down the dip of the vein. Such acute angle intersections would not be practical. Furthermore, if the vein is offset by the Creek fault, as supposed, the drilling would be in such a broken area that drilling results might be difficult if not impossible to correlate.

Applicant

Messrs. Milne and Thompson are both elderly gentlemen who have retired from their regular vocations. Neither of these gentlemen have ever worked in the mining profession, and neither seem to be acquainted with geologic and mining problems that are confronting them.

Work at the mine is financed by the sale of non-accessible stock. The writer was informed that as stock is currently difficult to sell, attempts were being made to convert the stock to an accessible stock. By such a conversion it is hoped that exploration funds could be more readily obtained. Idaho State Mining Law and regulations of the Security Exchange Commission make the converting of non-accessible stock to accessible stock so difficult and time consuming as to be almost impracticable. It is therefore believed that the applicant's ability to raise money by such negotiations will not be improved in the near future.

It would seem that Idaho Goldfields, Inc., is in a precarious financial condition. There is question in the writer's mind as to the advisability of negotiating a contract with an applicant in such a condition.

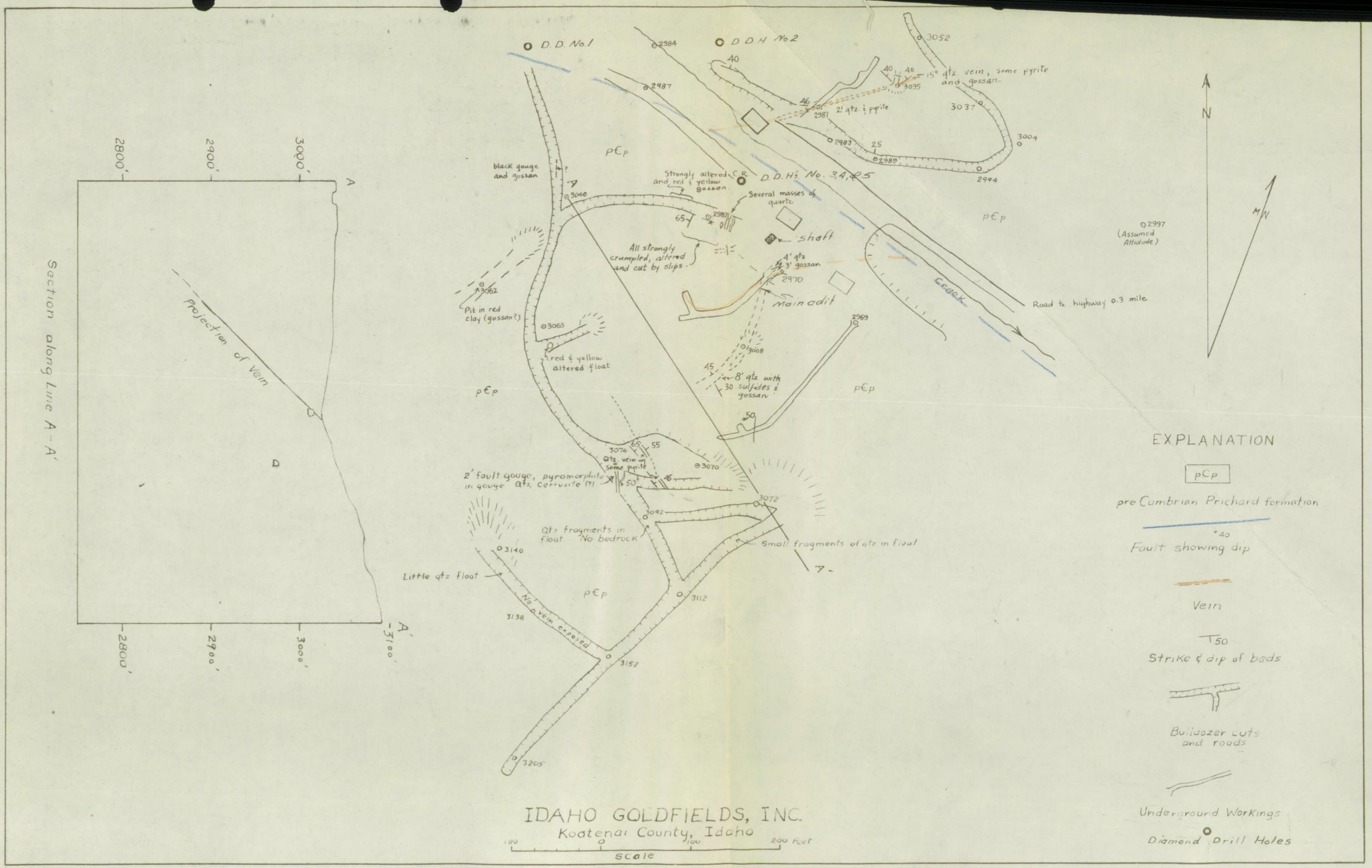
Conclusions

Idaho Goldfields' workings explore a strong iron-stained and pyrite-bearing quartz vein that is underlain by a sheared zone in which are minor amounts of lead-zinc-silver mineralization. The ore is not continuous but is confined to small pod-like masses that pinch out both in strike and in dip. The vein is badly faulted and there are indications that worse fault conditions will be encountered on the southern exposure of the vein if it is followed down dip beneath the creek bottom.

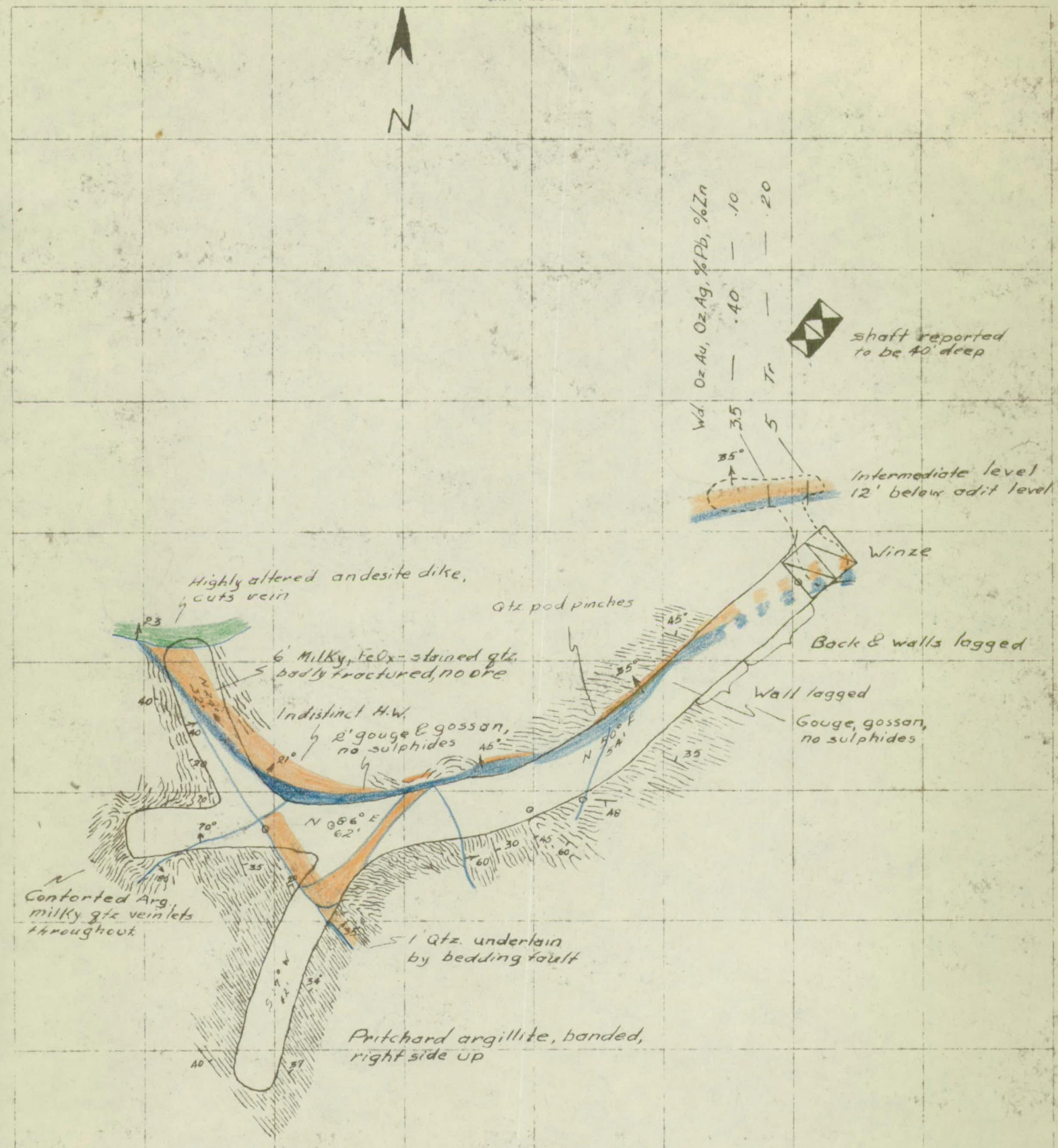
Scanty ore mineralization, the faulted condition of the vein, and the lack of mining experience and financial condition of the applicants all indicate that DMEA should not participate in further exploration of this property. It is therefore recommended that the application be denied.

Attachments - 2

Distribution:
- DMEA (Orig. & 3)
- USBM (2)
- Docket
- USGS (SRO)
- Kiilsgaard


D.D. No 1
D.D.H No 2
D.D.H's No. 3,4,&5
2984
2987
3052
40
40 40
15" qtz. vein, some pyrite and gossan
3035
46
2' qtz. & pyrite
2987
3037
3004
2983
25
2989
2994
pЄp
black gouge and gossan
3040
Strongly altered and red & yellow gossan
C.R.
Several masses of quartz
65
2987
shaft
All strongly crumpled, altered and cut by slips
4' qtz
3' gossan
2970
main adit
Creek
Road to highway 0.3 mile
2997 (Assumed Altitude)
N
MN
3062
Pit in red clay (gossan?)
3065
red & yellow altered float
2969
3008
45
8' qtz with 30 sulfides & gossan
50
3074
65
55
Qtz. vein w/ some pyrite
3070
2' fault gouge, pyromorphite in gouge Qtz, Cerrusite (?)
50
45
3072
3092
Qtz fragments in float No bedrock
Small fragments of qtz in float
A
3140
Little qtz float
No vein exposed
3138
3112
3152
3205
2800'
2900'
3000'
3100'
A'
Section along Line A-A'
Projection of Vein
EXPLANATION
pЄp
pre Cambrian Prichard formation
40
Fault showing dip
Vein
50
Strike & dip of beds
Bulldozer cuts and roads
Underground Workings
Diamond Drill Holes
IDAHO GOLDFIELDS, INC.
Kootenai County, Idaho
100 0 100 200 Feet
Scale

DMEA Docket 1485



Geologic Map of Main Adit
Idaho Goldfields, Inc.
Kootenai Co., Idaho
1" = 20'

Geology by T. Kiilsgaard & J. Hosterman, 12/11/53

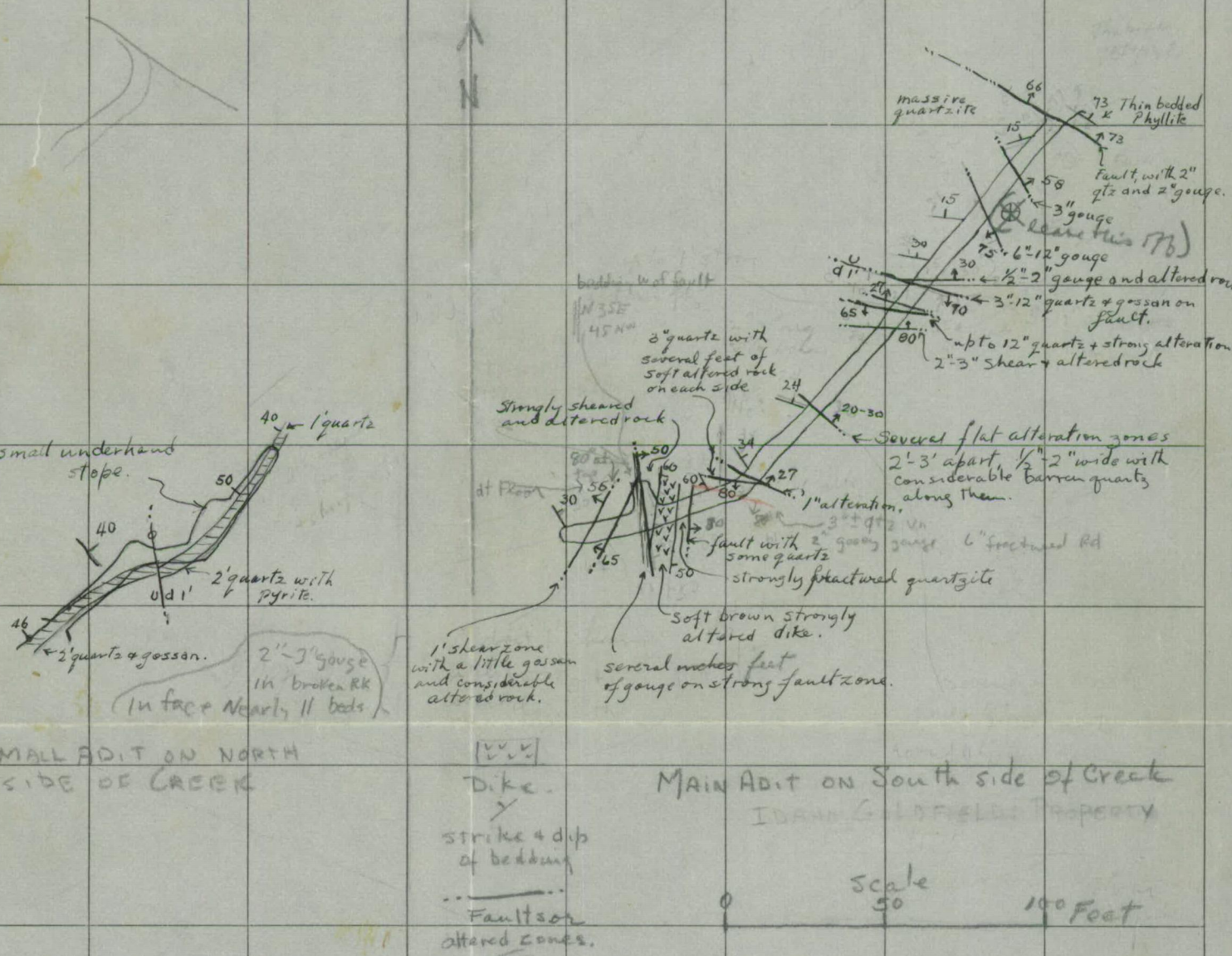
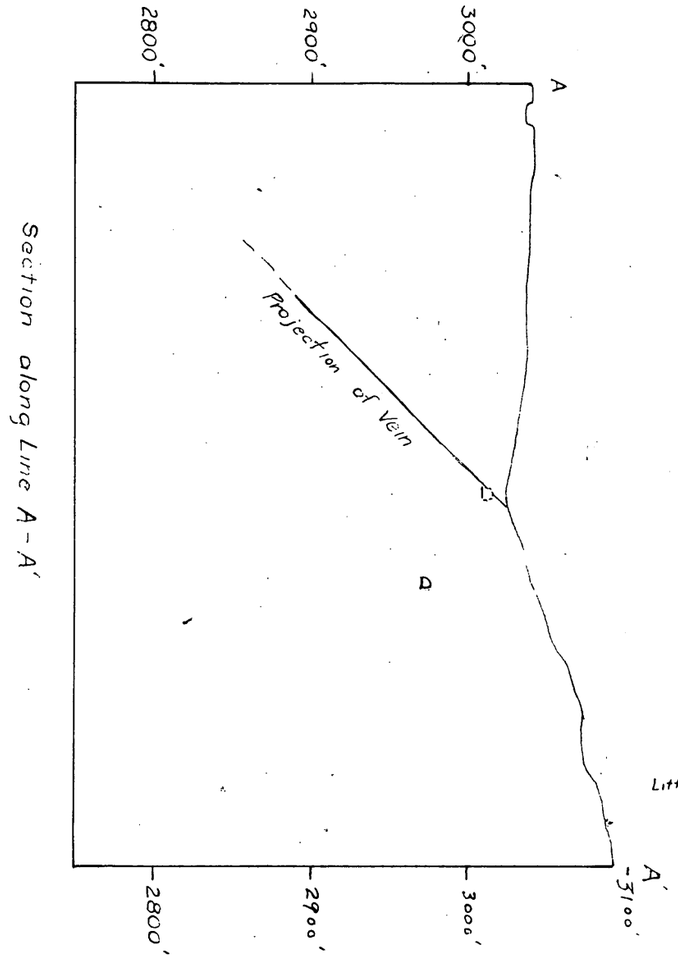


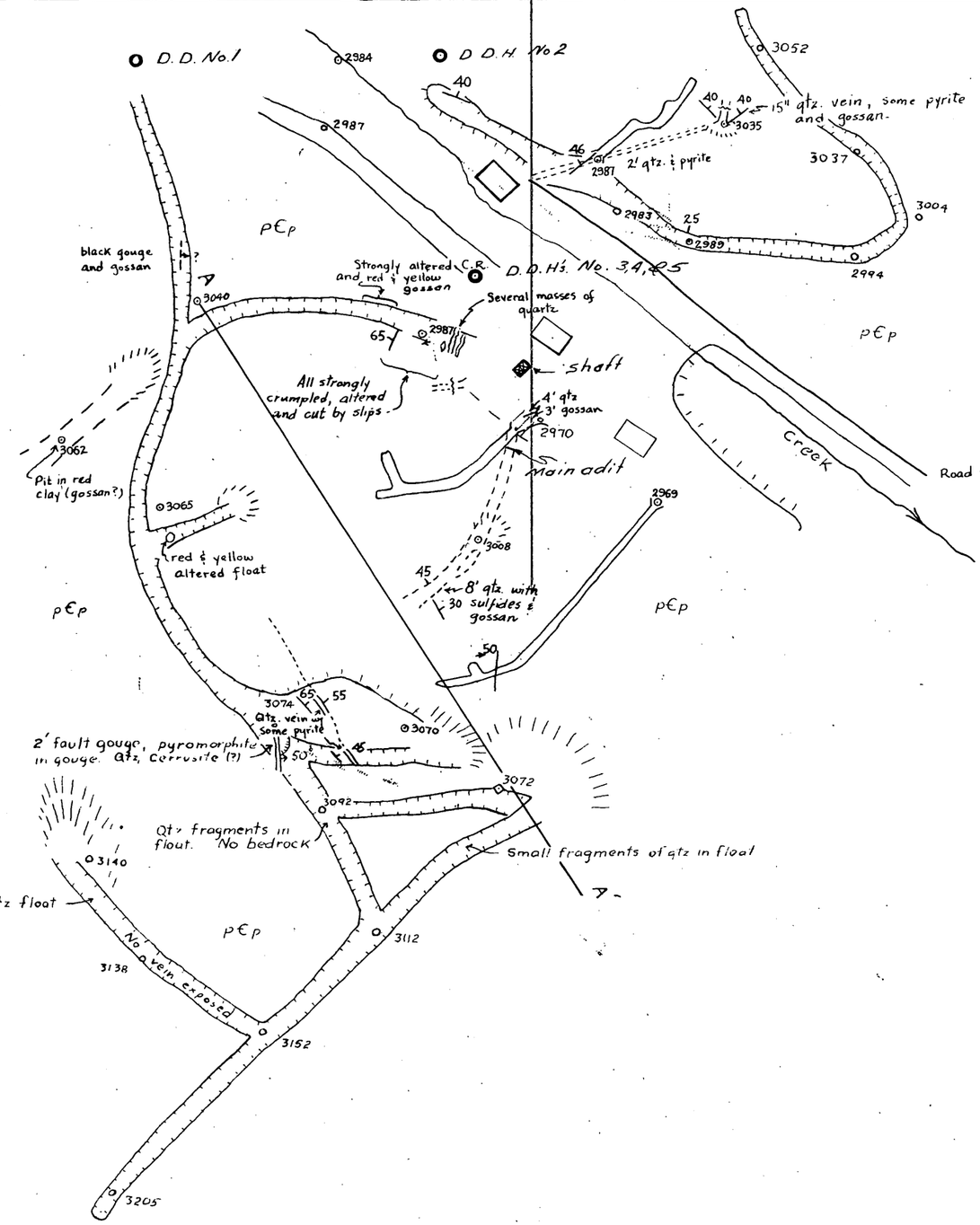
Fig. 2. WORKINGS ON DONAHOE LEASE OF IDAHO GOLDFIELDS, Inc.

Mapped by J. S. Uhay + R. A. Christman.

DMEA Docket 1485



Section along Line A - A'



EXPLANATION

pЄp — pre Cumbrian Prichard formation

40 — Fault showing dip

Vein

50 — Strike & dip of beds

Bulldozer cuts and roads

Underground Workings

Diamond Drill Holes

IDAHO GOLDFIELDS, INC.

Kootenai County, Idaho

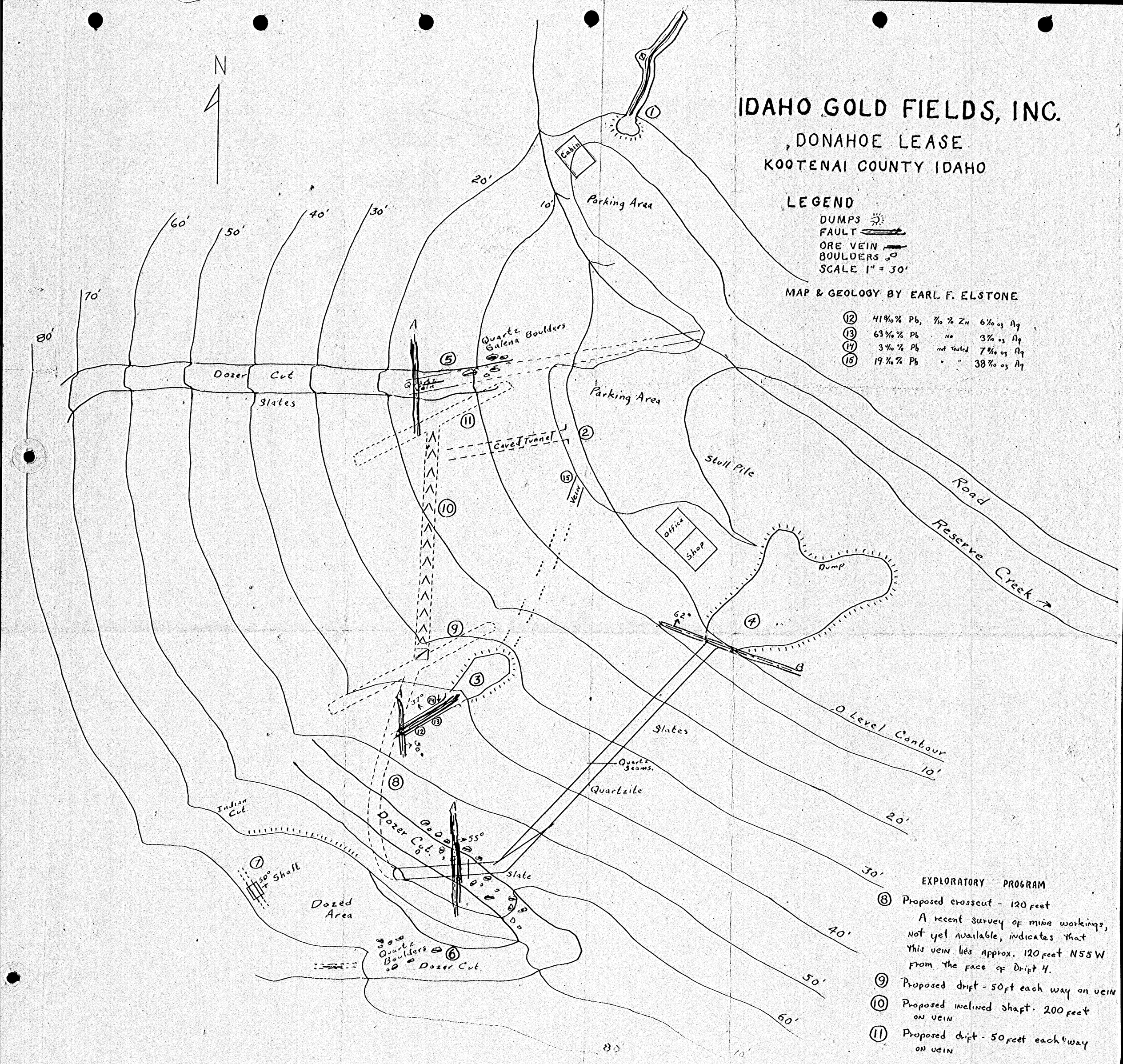
100 0 100 200 Feet

Scale

IDAHO GOLD FIELDS, INC.

DONAHOE LEASE

KOOTENAI COUNTY IDAHO



EXPLORATORY PROGRAM

(8) Proposed crosscut - 120 feet

A recent survey of mine workings, not yet available, indicates that this vein lies approx. 120 feet N55W from the face of Drift 4.

(9) Proposed drift - 50 ft each way on vein

(10) Proposed inclined shaft. 200 feet on vein

(11) Proposed drift - 50 feet each way on vein