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

No. 157 Howard Street
Spokane 4, Washington

June 24, 1952

Memorandum

To: Chairman, Operating Committee, DMA

From: D M Field Team, Region II

Subject: [illegible] Lead and Zinc, Apache Mines, Shoshone County, Idaho, application for production loan and purchase contract.

Enclosed is a memorandum by Thor A. Hillsgard and Thomas G. Shortal recommending denial of the Apache application because of insufficient ore reserves and because the new owner does not intend to negotiate further with DMA on the production loan application. The Field Team concurs with this recommendation.

[illegible] Field Team, Region II, DMA

[illegible] Dassenburg, Exec. Officer
(U. S. Geological Survey)

[illegible] Joslin, Member
(U. S. Bureau of Mines)

Enclosure

cc: [illegible]
[illegible] (Info) ✓

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

So. 157 Howard Street
Spokane 4, Washington

June 13, 1952

Memorandum

To: DMPA Field Team, Region II

From: Thomas E. Howard, USBM, and Thor H. Kiliegaard, USGS

Subject: DMA Docket 498, application of Apache Mines, Blaine County, Idaho, for a production loan and a purchase contract on lead and zinc.

RECOMMENDATIONS

It is recommended that the subject application be denied because of insufficient ore reserves and because the new owner of Apache Mines property does not intend to negotiate further with DMPA on the production loan application made by the Apache Mines Company.

INTRODUCTION

Apache Mines made application for a production loan of $500,000.00 in January 1951. As a result of this application, a field examination was made of the Apache property by personnel and Field Team, Region II. The Examining Team's report, forwarded to Washington, D. C. on May 2, 1951, recommended denial of the production loan, but suggested that an application for exploration aid be considered, provided the Apache Company submitted a reasonable proposal.

On March 13, 1952, Field Team, Region II, received a letter signed by Mr. Tom Lyon, Chairman, DMPA Operating Committee, advising that a second application had been made by Apache Mines for a production loan and suggesting that a second examination be made of the Apache property. Accompanying Mr. Lyon's letter was a memorandum signed by Mr. E. T. McKnight, U. S. Geological Survey, suggesting that a check be made of the Apache ore reserves, as well as checks on the general mining economics and mining problems confronting the company.

Winter weather delayed examination of Apache property; however, during the interval May 25 to June 2, 1952, the writers met with Apache officials on various occasions and discussed the Apache application. Two short visits were made to the Apache mining property.

ORE RESERVES

No measurable ore reserves have been developed on Apache property since the Examining Team examined the property in April 1951. Some mining was done during the fall months of 1951 but no development work. The Red Elephant Consolidated tunnel was cleaned out by the company and company officials claimed they measured an ore reserve of 5,600 tons in mine workings leading from the face of the tunnel. Company officials have claimed that this ore reserve could maintain lead, zinc, and silver mill heads of $40 per ton. On June 2, 1952, the writers visited the Red Elephant Consolidated tunnel and attempted to examine the ore reserves. Bad air was encountered near the face of the 2,700-foot (plus) tunnel and the examiners were forced to turn back before reaching the ore reserve area.

In September 1949, the Red Elephant Consolidated tunnel was examined by Thor N. Kiilsgaard for the Idaho Bureau of Mines and Geology. At that time he was able to get to the drift driven from the tunnel. He did not map the vein, but was of the opinion that mine workings did not delineate any measurable ore reserves. Since no exploration work has been done in the tunnel since 1949, it seems logical to assume that any ore reserves therein should be defined as indicated and/or inferred. The vein exposed in the drift is strong and might warrant further exploration, but should not be considered as having a measurable ore reserve at the present time. A partial map of the Red Elephant Consolidated tunnel and mine workings leading therefrom is in U. S. Geol. Survey Bull. 814, under the section on the Red Elephant mine. Aside from a raise driven above the level in the late 1930's, little has been done in the tunnel since the map was published. Some ore is reported to have been shipped from the raise, but the margin of profit could not have been too great as no attempt was made to mine ore from these workings during or since World War II.

PRESENT STATUS OF THE APACHE PROPERTY

During the recent trip to Blaine County, Idaho, the examining team met with various officials of the Apache Mines Company, including Mrs. Louise Lindsey, formerly a director in Apache Mines; and Mr. E. G. (Jack) Taylor, who advised that he had recently taken over all Apache properties and assets and assumed all obligations. He said he was organizing the Idaho Mining and Reduction Company, which would take over management of the Apache property. Funds for the operation of this new company were to be raised through the sale of stock. Mr. Taylor stated that a $10,000 payment had been made to the Court on the Apache debt and that further payments would be made as they accrued. In the course of conversation, Mr. Taylor admitted that present ore reserves on Apache property did not justify a production loan, and that he did not intend to negotiate further with DMPA on the Apache production loan application; however, he stated that he intended to do custom milling with the Apache mill and he wondered if he could use ore reserves of potential producers as collateral in

obtaining a production loan, the funds of which would be used to modernize the mill. Mr. Taylor was advised that arrangements for the procurement of ore from potential producers would have to be negotiated between himself and the potential producers, and would be subject to an entirely new application for a DMEA production loan. Moreover, he was informed that a loan with such scattered ore reserves as collateral might be difficult to obtain from DMEA. This is particularly true, as there are few mines in the Bailey, Idaho, area that are currently able to ship ore to an operating mill and most of those will be able to do so only during the summer months.

Mr. Taylor told the Examining Team that he intended to apply for an exploration loan to further explore the Apache property. He was instructed as to the correct manner of preparing such an application and told to submit the application to the DMEA Region II office if and when his application was completed.

Thomas H. Howard and Thor H. Kiilsgaard

ec: USBM, Albany
USBM, Spokane
USGS (SRO)

DRAFT INTO THE REPORT

APACHE MINING COMPANY
(DMA Docket No. 4[illegible])

By L. A. Cagill & Thomas M. Howard, M.E.M.
Thor H. Hillsgaard and James Quinlan, M.C.C.

RECOMMENDATIONS

It is the recommendation of the DMA Examining Team that the application of the Apache Mining Co. for a DMA production loan be denied. The reserve tonnage is not sufficient in grade or volume to warrant expansion of the mill capacity to 300 tons per day. The present ore reserves, mainly gob, jig tailings, and old dumps, are sufficient to operate the present 100-ton mill for less than 1 year.

The applicant has expressed a desire to enter into a $1,000,000 exploration program with the Defense Minerals Administration. The Examining Team is of the opinion that an exploration program of that size is unwarranted.

In the event the applicant is able to propose a logical exploration program, with competent supervision, it is recommended that the DMA enter into an exploration program, the total sum of which is not to exceed $200,000. However, before an exploration contract is considered, it is further recommended that the legal status of the applicant be thoroughly investigated.

APPLICANT

The applicant is the Apache Mining Co., 116 Locust St., Jerome, Idaho. Capital consists of 2,000,000 shares with a par value $1; 333,319 shares have been issued. Officers are T. C. Butler, Jr., President, Boise, and H. P. Jayne, Secretary, Jerome, Idaho.

LOCATION OF DEPOSIT

The Apache Mining Co. controls 75 mining claims situated in sections 14, 15, 16, 22, and 23, T. 2 N., R. 17 E., B.M., in the Mineral Hill mining district, Blaine County, Idaho. The properties lie in the Bullion-Red Elephant Gulch areas, which is 4 miles from Bailey by way of the Croy Creek road.

The Apache Mining Co. controls the following groups of claims:

1. Mayflower group of 4 patented claims.
2. Red Elephant group of 26 patented and unpatented claims (includes the Chalcedonia)
3. Eureka Lode group of 15 patented claims, and November group of 8 unpatented claims.
4. Arizona group of 12 claims.
5. Min group of 6 patented claims.
6. Bullion group of 2 patented claims.
7. Rough and Ready group of 2 patented claims.
8. Chicago group of 4 patented claims.
9. Jay Gould patented claim.
10. Millsite ranch property of 320 acres.

For the names of the individual claims and the arrangements under which they are held, see the answer to question 13 in the accompanying application Form NSPB-146.

OWNERSHIP

With the exception of the Mayflower group of four patented claims owned by the company (mortgaged in the sum of $5,500), it is understood that the claims all are under lease and option from a number of different owners. It is doubtful that all these leases are in good standing at the present time although the records were not checked.

HISTORY AND PAST PRODUCTION

The history of the various groups of claims controlled by the Apache Mining Co. dates back to 1880 when the first production was recorded from the Mayflower mine. The recorded production from claims controlled by the Apache Mining Co. from 1886 to 1936 (using the applicant's figures) amounts to 47,132 tons of ore containing 76,767 ounces gold, 3,465,409 ounces silver, 38,325,066 pounds of lead, 835,399 pounds copper, and 170,615 pounds of zinc. The zinc production is low because early day operators made no attempt to mine or recover zinc.

During the period 1945-47 Mr. Plughoff, who held the leases later taken over by the Apache Mining Co., shipped $327,085 worth of tailings and dump material. In 1949 the Apache Mining Co. shipped 250 tons of concentrates from their mill which yielded net smelter returns of $26,446.

DESCRIPTION OF PROPOSAL

Applicant originally requested a loan of $500,000 to be expended in the following manner:

1. Payment to creditors and discharge from court protection.... $132,000

2. Enlarge present mill to 300 tons per day 137,500

3. Exploration and development of various mines in the group with 90-day operating costs..... 230,500

Having been advised of changes in DMA policy toward granting loans, the applicant is now considering asking for a $500,000 exploratory loan on a matching-funds basis. The applicant's present plans do not call for an expansion of mill capacity. Instead, they call for equipping and exploring for additional ore reserves in the Whale, Eureka, Red Elephant, Bullion, and Chicago mines. The applicant plans on submitting a definite proposal outlining their exploration program.

TECHNICAL FEASIBILITY

Geologic Setting

The geology of the Bullion-Red Elephant Gulch area is described in U. S. Geological Survey Bull. 814, by J. B. Umpleby, 1930; and in Idaho Bureau of Mines and Geology Pamphlet 90, by V. C. Fryklund, Jr., 1950. The following brief description is largely a resume of data derived from the aforementioned publications.

The Apache Mining Co. controls what was formerly a large number of separate mines in the Bullion-Red Elephant Gulch areas. Many of these mines were formerly substantial producers of silver, lead, and zinc. Among them are the Jay Gould, Whale, Bullion, Mayflower, War Eagle, Idahoan, Eureka, Arizona, Bay State, Point Lookout, and Red Elephant. These properties are on a series of more or less parallel northwest-trending shear zones that show little evidence of mineralization in places, but elsewhere contain rich ore shoots. The veins in the northeastern part of the area dip steeply to the northeast, whereas those in the southwestern areas dip to the southwest. This reversal of dip may or may not be related to a northwest-trending anticline that separates the two areas.

The country rock of the area consists of argillites, quartzites, limestones, and various gradational facies of these rocks, all of the Wood River formation of Pennsylvanian age. The general strike of the rocks is northwest; they dip both to the northeast and to the southwest. It is difficult to trace any of the different formations in the area owing to the absence of recognizable horizon markers and faulting. Mappable lithologic units in the area are cut off by faults.

A noticeable feature of the ore shoots in the area is the apparent shallow depths to which they extend. The deepest ore thus far exposed is at the bottom of the Eureka shaft, 435 feet below the surface. The deposits do not appear to be controlled by depositional or zoning features but rather by structural control. In all instances noted, the lower as well as the lateral extremities of the ore shoots either abut faults or gradually pinch out in zones of shearing. Many of the stronger shear zones, such as the Mayflower, have been explored beneath the downward extremities of the ore shoots but have been barren. It seems entirely possible that continued exploration in these shear zones might develop noteworthy ore bodies.

Recent production has been from the old jig-tailings in Red Elephant Gulch and in Bullion Gulch; the Point Lookout workings; and the Bullion claim. The Lipman tunnel on the Red Elephant property produced some ore in the late 1930's. Of the aforementioned producers, the Apache Mining Co. has directed most of their underground attentions to the Bullion claim. Gob has been slushed from the old Bullion stopes and a limited amount of mining conducted in the Brown-level stope. The vein mined in the Brown-level stope is a footwall member of the Mayflower lode system, which, in the Ophir, Bullion, and Mayflower claims, is comprised of a series of overlapping or imbricate shear zones. Former operators mined the Brown-level stope down the dip for about 150 feet and along the strike for about 100 feet. Throughout the stoped area the vein averaged about 6 feet in thickness. In 1950 the Apache operators commenced mining a 4- to 6-foot slice along the footwall of this stope. At the present time their stope face is developed for about 20 feet along the strike. It shows a good grade of galena-tetrahedrite ore throughout. The ore shoot appears to be lenticular in the footwall portion of the Mayflower shear zone. The lateral and downward extent of the lens remains to be proved: it does not show in workings driven from the lower Boggs level, and in the overlying Brown level it pinches to an unminable thinness. This rather limited lens is the only ore available to the presently rehabilitated Apache workings.

Mine Workings

Time did not allow an examination of the many thousand feet of mine workings on the Apache holdings. The great bulk of these workings was driven in the 1880's and 90's and have since that time been stripped of track and other installations. Moreover, many of the workings are now caved, flooded, or in dire need of repair.

The Apache Mining Co. has rehabilitated some workings. The Durango tunnel has been retracked from the portal inward about 1,700 feet to the base of the western transfer raise leading to the Boggs level. The transfer raise leading from the Durango to the Boggs level has been retimbered. The Boggs level has been retracked for a distance of about 700 feet from the top of the western Durango transfer raise to the foot of the raise leading to the Brown-level stope and is now accessible for hand tramming. The Brown adit has been opened and retracked with air lines laid from the compressor at the portal of the Brown adit to the Brown-level stope and to the gobbed Bullion stopes.

Ore Reserves

There are no underground blocked-out ore reserves in the present Apache holdings. The only ore exposed in the rehabilitated working occurs in the footwall lens of the Brown-level stope. The ore in that area is not developed enough to measure and may be estimated only as a few hundred tons. Additional development work may expose more ore in the Brown-level area.

There is an unknown amount of gob in the Mayflower, Jay Gould, and Bullion mines, but no attempt was made to measure the gob in these extensive workings. Plate 16 of U. S. Geological Survey Bull. 814 shows the extent of stope workings of the aforementioned properties, but there is no information as to how much of these stopes was back-filled. The Field Team was informed by the Apache operators that of the 1,000 to 1,500 tons of gob mined in 1950 from the old Bullion stopes the average assay was 2 percent lead, 4 percent zinc, and 4 to 12 ounces silver.

The applicant states that there is 86,267 tons of jig tailings and mine dumps available for milling. Of this tonnage, about 10,000 tons of tailings from the Eureka and Jay Gould mines in Bullion Gulch has been milled. These tails are reported by Mr. Jayne, Secretary of the Apache Mining Co., to have yielded a net profit of about $2.00 per ton. There are some tailings left along the sides of Bullion Gulch, but these assay less than 1 percent lead and zinc and cannot be profitably milled. Mr. Howard Murphy, formerly mill superintendent for the Apache Mining Co., reports that there is an estimated 10,000 to 15,000 tons of jig tailings in Red Elephant Gulch that assays 2 percent lead, 2-3 percent zinc, and 5-6 ounces silver. No other tailings of mill grade are known to exist on the property.

Mr. L. E. Shaffer, U. S. Bureau of Mines, describes 11,000 tons of dump on the Red Elephant property, presumably the No. 1 level dump. This tonnage assays 3.5 percent zinc, 1.3 percent lead, and 5 ounces silver. Other dumps in the area show some ore, but by and large it is believed that few can be considered as profitable mill feed.

Ore is exposed in other Apache holdings, but there is not enough development work in these areas to infer a tonnage. Such occurrences include a limited exposure of partially oxidized lead ore at the Point Lookout property; some low-grade ore on the Bullion No. 5 level; ore above the lower level of the Jay Gould mine and some fairly strong zinc outcrops on the Chicago claim.

Mining Methods

Mining in the past has been directed toward the extraction of the high-grade portions of the veins. Stulls were used to hold the ground with some stopes backfilled with low-grade vein material and waste. In some instances open stopes were left where relative small pockets of high grade occurred. Mining methods will vary greatly in the future. Inasmuch as it is proposed to work a number of different mines, each mine will have its own mining problem. The ore bodies are generally small and lenticular in which overbreakage has to be controlled rather carefully.

The applicant (page 5, report of July 1, 1950, by T. C. Butler, Jr.) gives an estimated mining and haulage cost of $6.50 per ton for the ore in the Brown ore shoot. There are tonnages of low-grade gob in some of the old stopes which may be pulled at less than half this cost. There is also dump material and mill tailings which can be transported to the mill for around $1 per ton loading and haulage.

Mining costs in the future will necessarily be high due to the generally small irregular ore bodies. A mining cost of $6.50 per ton appears to be optimistic. To this figure must be added an exploration and development cost of at least $3 to $5 per ton, judging from the amount of work done to develop ore bodies discovered in the past.

Milling Method

The property is equipped with a 100-ton per day selective flotation concentrator which was built in 1949. This plant appears to be well designed and should be able to obtain a good recovery. The applicant reports that their milling cost was approximately $2.50 per ton.

Rate of Production

The property is inactive at the present time.

The applicant hopes to be able to mine and mill 100-150 tons per day when operations are resumed. This tonnage will contain an unknown amount of silver, lead, and zinc.

Time Schedule

By starting on dumps and tailings the mill could be in operation within 30 days. A continuous operation over a number of years would depend upon the findings of new ore bodies by the proposed underground exploration program.

Marketing Facilities

Lead-silver ore and concentrates have been shipped to U. S. Smelting, Mining, and Refining Co. at Salt Lake City, Utah. Zinc-silver concentrates have been shipped to the Anaconda Copper Mining Co. zinc plant at Great Falls, Mont.

EQUIPMENT AND FACILITIES

Installed

The property is equipped with a 100-ton per day selective flotation concentrator. None of their mines (Bullion) is equipped for mining. For a detailed list of their equipment see answer to question 18 in their original application.

Required

The applicant proposes to completely equip several mines for mining operations. This would call for individual mining equipment for each mine. No attempt is made to list the equipment required or the cost inasmuch as no concrete proposal of intentions has been submitted by the applicant.

LABOR SUPPLY

A limited supply of labor is available in the Bailey area.

Current wage scales are based on a minimum of approximately $10 per shift.

POWER

Electric power is furnished to the mill by the Idaho Power Co. (see applicant's answer to question 9 in their original application for the rate). Diesel power is used at present at the Bullion mine. If more mines were reopened, it would undoubtedly pay to run several miles of lines to furnish them with electrical power.

TRANSPORTATION

Ore is trucked in company-owned trucks from their various mines to the mill. These hauls vary from 1 to 6 miles.

Rail facilities (Union Pacific Railroad) are available at Bailey, 4 miles from the mill.

The rail rate to Great Falls, Mont., is $12.47 per ton plus federal tax.

The truck rate to Salt Lake is $10 per ton plus federal tax of 3 percent.

No access road construction is required.

ADEQUACY OF REQUESTED FUNDS

The properties do not warrant a $1,000,000 exploration program. Undoubtedly an exploration program is warranted; however, to determine the exact extent of such a program would take a detailed examination.

COMPETENCE OF APPLICANT

The Apache Mining Co. has no one at the present time who is capable of directing an intelligent exploration program. The applicant understands this and proposes to employ competent supervisors in the event an exploration program is entered into.

DISCUSSION OF PROPOSAL

The applicant's ore reserve consists of stope gob, jig tailings, and some old dumps. The total tonnage, as well as the grade of the reserves, is questionable but certainly does not warrant a production loan of $500,000.

In a discussion with the field team, the applicant expressed a desire to enter into a $1,000,000 matching-fund exploration program with the Defense Minerals Administration. The Field Team believes that the Apache properties do not warrant an exploration program of that scale. Moreover, the applicant is financially bankrupt at the present time, and it is greatly doubted whether they can raise the money necessary for a matching-fund program of this size. The Examining Team does believe that if the applicant can propose a logical exploration program and can secure competent personnel to initiate and supervise such a program an exploration program not to exceed $200,000 is warranted.

One of the most important considerations governing any dealings with the Apache Mining Co. is their present legal entanglements. At present they are in debt $160,000. They have been involved in a number of lawsuits and from local reports may become involved in more. In 1950 the company went into voluntary bankruptcy and secured a court order allowing them to continue operations under a 5-year debt moratorium. Before the government enters into any contracts with the company, a complete investigation should be made of their financial status, the standing of their mining leases, and their legal entanglements.

The prosecuting attorney of Blaine County, Idaho, Mr. Joseph Scalder, believes that if the company was put back into operation under competent leadership the creditors and lessors would not take the company into court again but would be glad to see the operation go ahead.