GARRETT AND ADJACENT LEASES

DESCRIPTION AND LOCATION

These lead and zinc leases consist of 240 acres of the Garrett land, 220 acres of the Chobb-Stoskopf land, 160 acres of the Burns land, and 80 acres of the Thomas land, and are located in secs. 25, 26, 35, and 36, T. 34 S., R. 23 E., Cherokee Co., Kansas, a total of 700 acres.

They are located 11 miles north of Miami, Okla., and 6 miles west of Baxter Springs, Kansas, on the head waters of Tar Creek.

They are 1½ mi. north of the Lucky Jew Mine and Southern Mine, 1½ mi. west of the McArthur Mine, 3 mi. west of the Paxson mine, and 3 mi. east of the Roper land where good ore has been found.

Highway 69 is on the east side of the tract and a gravel road runs through the center of the tract. A railroad also runs through the center of the tract.

HISTORY

These leases were drilled by the Commerce Mining and Royalty Co. in the early twenties during the period of good ore prices. I myself drilled out the Roper land for the Quapaw Mining Corp. and found 20% ore at a depth of 420 ft.

When the Eagle Picher Co. purchased the Commerce Mining and Royalty Co., they took over these leases at a royalty of 17½% and a reported bonus of $100,000.

The Eagle Picher Co. drilled 5 holes, sunk the shaft in 1937, and gave up the lease in 1939, for what reasons we do not know.

GEOLOGY

The ore mined in all the surrounding mines at the deeper levels is found in the sheet ground horizon. However, on these leases, the ore is found in the Reeds Spring formation just below the sheet ground.

This Reeds Spring formation has been found and mined in the Blue Goose and Blue Mound mines in the Picher field, in the old Acme mine at Waco, and in the Ornogo Circle properties in the Oronogo field.

It is found in a blue-black flint of medium hardness with quite high faces and large ore content. The ore bodies occur in runs of widths varying from a few feet to two or three hundred feet and extending

from a few hundred feet to a mile or two in length. These runs have a general north-south trend but have been mined in very crooked runs.

The runs follow the fractures which sometimes can be located by the heavy silicified beds of flint above.

I went over all the maps of areas mined in the Reeds with Mr. Joe Leyden, of Mr. Fowler's staff, and obtained his ideas of the geology.

DEVELOPMENT

About 150 holes have been drilled on these leases at an expenditure of approximately $75,000.

Good ore was found on the Garrett and Chubb-Stoskopf leases in the NW¼ of sec. 36.

About 25 holes have outlined an ore body about 100 ft. wide and 1,800 ft. long and with a thickness of the ore horizon of about 36 ft. The ore horizon is from 385 to 440 ft. and the drilling shows rich faces of lead and zinc. The drilling and ore from the ground indicate water course formation as many crevices were encountered and cuttings lost and the ore shows in large crystals.

The shaft was sunk to about 385 feet without much water being encountered, and then the heavy water came in and large pumps were required to get the shaft down to a depth of 435 feet. Seven weeks were required in which to sink the shaft. This was done when there was no deep pumping in any of the nearby mines and the full head of the water had to be beaten. A drift was driven on the 430 ft. level southeast about 80 ft. to the ore body and is reported to have broken into rich ore at the face.

On account of low ore prices, prospecting and mining was generally discontinued in this field in 1927, and work was done only by the major companies in a few instances.

WATER

This district has been considered a heavy water proposition, but the shaft was sunk when little or no pumping was being done anywhere nearby. A 10", 12", and 14" were required at that time, though, after the water was out the 14" pump alone handled it. When the pumps were down for a few days the ground could be drained in a day or two when pumping was resumed.

The Company cased at least 6 drill holes and measured the water all over the leases, and it is reported the water stood practically level in all of them and about 100 ft. above the level of the bottom of the shaft. At the present time water is being pumped at 385 ft. at the

Lucky Jew mine, 380 ft. at the Southern, 390 ft. at the McArthur, and 320 ft. at the Paxson.

Mr. Knox, of the Bureau of Mines, has told me that he measured the water at the Garrett when he started pumping at the Park-Walton, 8 miles to the southwest, but could see no effect on the Garrett.

He also told me he talked with the Picher pumpman who did the work on the Garrett, and he said that it was not so bad except that the pumps, all in the shaft, made work difficult.

Hydrogen sulphide gas was encountered, brought in with the water, and caused "pink eye". This was the case when the Commerce mines were opened up about 1910, but when the water was kept out of the ground the trouble was eliminated.

15" drill holes should be put down for the 12" pumps and the pumps and water kept out of the ground.

The main head of the water should now be beaten to about 50 ft. above the bottom of the Garrett shaft. At the present time the water stands at 192 ft. in the shaft.

POWER

A power line is located three quarters of a mile east, but on account of the scarcity of material no doubt gasoline power would be required for the pumping.

DEVELOPED ORE

An ore body over 100 ft. wide and 1,800 ft. longhas been developed with a face of 21 ft. averaging 1.70% ZnS and 2.73% PbS or a total ore content of 4.43%. 62% of the ore content is lead, and if this were expressed in terms of zinc the total recovery would be 5.50%.

311,000 Rock Tons are estimated containing 5,300 tons of zinc concentrates and 8,500 tons of lead concentrates with a total value of $1,453,000 at the present prices. The values of the ore rock show that with a $3.00 cost a profit of $1.29 per rock ton can be made on an "A" quota.

LEASES

These leases are at 8% royalty for a term of 10 years with privilege of renewal.

RECOMMENDATIONS

I would recommend checking a few of the drill holes, and if they prove good I would install pumps and a temporary derrick and go in the

ground. If the ground looks good, power and a derrick and hopper can be built and mining started. The milling can be done at one of the present mills in the district.

On account of the nature of the ground I think the ore will prove much richer than indicated by the drilling.

The large proportion of lead found is a very favorable factor as lead has always had a market and at a higher price.

I believe this property can be mined profitably on an "A" quota.

Respectfully,

S E A L

(Signed) C. H. Plumb
Mining Engineer

Joplin, Mo., Nov. 17, 1943