Garrett Operations

Eagle-Picher Mining & Smelting Co.

Month	H.P.	KwH	Fuel Charge	Amount
1938				
April	88¼	18,400		$ 248.45
May	"	19,600		255.74
June	44	11,100		154.07
July	175	62,900		642.44
August	200	150,300		1,186.01
September	340	165,300		1,437.49
October	540	313,400		2,482.00
November	530	312,000		2,466.23
December	565½	330,000		2,602.72
1939				
January	730	468,400		3,579.88
February	623	369,400		2,887.09
March	472	135,800		1,285.73
Total 12 months		2,356,500		$ 19,227.53

Details of Pumping Load :

Connected Load	10" Pomona	200 HP	
	14" Peerless	300 HP	
	12" Pomona	200 HP	
		730 HP	

6-8

Garrett Mining Company
Baxter Springs, Kansas.
September 23, 1950

Estimate of expenditures for dewatering.

1.	Drilling 2 12" pump holes	$ 7,000
2	2 1000 gpm pumps installed	25,000
3	Reconditioning 3 B-J pumps & pipe installed	28,000.
4.	Electric power bill to point of production	50,000
5	Pump & Misc. labor	5,000
6	Supervision	2,000
7	Misc	13[illegible]
		125,000
	For Production	
1	sinking shaft for south block	25,000
2	Hopper & derrick & RR spur	17,500
3	Electric hoist installed	5,000
4	Ground equipment	25,000
5	Meter deposit & other deposits	15,000
6	Working capital	25,000
7	Purchase present equipment, payrolls, reserve for sinking & equippin shaft in N. block	62,500
		175,000

Total amount required as estimated : $ 300,000

No Value

1. Experience :

The Garrett Mining Company had been incorporated for the purpose of developing and mining the Garrett, Chubb and Stoskopf leases. J. A. Hoffman, President and General Manager has been engaged in the mining business in the Tri-State area since 1914, opening up and operating the Blue Mound Mining Co, the Blue Diamond Mining Co in 1916 two of the outstanding mining operations in the Tri-State district.

Since that time he has been engaged in different mining operations in the district and for references as to his integrity, honest and ability, we refer you to the Baxter State Bank, and American National Bank, both of Baxter Springs, Kansas.

2. Applicant's interest

a. Attached find copy of lease.
c. Lease will show its own recording.
d. No

3. Legal Description

Applicant presently holds 600 acres all adjoining, located at the north extremity of the Picher field. The tracts are all located in Cherokee Co., Kansas and are described as follows :

The Garrett Tract : The north half (N½) of the Northeast quarter (NE¼) and the N half (N½) of the northwest quarter (NW¼), all in section thirty six (36), and the north half (N½) of the southeast quarter (SE¼) of section twenty six (26) all in Twp thirty four (34), south Range twenty three (23) east.

The Chubb-Stoskopf Tract: The south half (S½) of the northwest quarter (NW¼) Sec. 36 Twp 34 N. Range 23 E.

The Thomas Tract: The south half (S½) of the southeast quarter (SE¼) Sec 26, T 34 N. Range 23 E.

The Garrett tract on which the shaft is located is the North half (N½) of the northwest quarter, Sec. 36. This location is 6 miles west of Baxter Springs, Kansas and 3 miles north of Picher, Okla.

The N E O Rr.runs north and south along the center line of the 80 acre tract. There is a paved road on the south US 166 and on the east side of the section paved US 69, A good all weather gravel road runs on the north and west side of the section and a good gravel road leads into the property from the north section line road.

4. Type & Workings:

A shaft 5 x9 ft x 442 ft in depth, a drift at 335 ft level, running in a southeasterly direction towards drill hole #7, 65 ft in length representing work done by Eagle-Picher in 1938-9 and some widening of the drift, by Lavrion Mining Co, some 8 ft on the right side, about 8 ft back of drill hole CR 31, on the shaft side. They also "pulled" about 12 ft of roof at this same spot to tap overlaying or impounded water.

5. History

According to Warren Garrett, one of the Lessors,his father signed the first lease given on the property in 1915. This early drilling was then too shallow to penetrate the now known ore horizon. Later when tests to a greater depth showed ore there was considerable drilling in the immediate area.

Record of drilling on the Garrett as follows :

Year	No. of holes	Lessee
1925	28	H H Green
1928	23	Commerce M & R Co
1932-1938	8	Eagle Picher M & S Co
1945	1	F J Childress & Son
1946	8	Clarence Zuvekas
1947	10	U S B M
	78	

Holes drilled on the Chubb-Stoskopf

1925	32	H H Green
1928	12	Commerce M & R Co
Burns	8	Eagle Picher
Thomas	2	Ralph Tuthill
	6	Eagle-Picher
Total	138	

In 1937 Eagle-Picher acquired the leases from the Commerce M & R Co.

On july 18, 1937 Eagle-Picher were making preparations to sink the 5 x 9 shaft. The shaft was sunk without difficulty through the Cherokee shale to a depth of 180 ft. Then the rock formation was grouted to a depth of 462 ft by means of forcing cement into a drill hole which had been drilled in one corner of the shaft. In sinking the shaft to a depth of 442 ft a total of 7000 sacks of cement were used and very little water was encountered above 390 ft. The drift was started at the 435 ft level and advanced about 35 ft before appreciable amounts of water was encountered, which appeared to be the extent of the grouting penetration.

From this point on, drift advance was slow due to increasing amounts of water and shutdowns due to frequent changes of pumps of larger capacity. By March 5, 1939 the drift as reported had been driven ahead 80 ft from the whaft. On March 19 1939 Eagle-Picher pulled all their pumps and shortly thereafter surrendered their leases. It has been reported that their royalty commitments totaled 17½%.

Clarence Zuvekas of Joplin acquired the Garrett and surrounding leases in the fall of 1945. Upon completing a few test holes he made application to the R F C for a mining loan in amount of $166,000, which was approved in June 1947, to Zuvekas-Lavrion Mining Co. Inc.

Actual work got started on the property in September 1947. Two 10" 2000 gpm each Byron Jackson pumps were put into service on Jan 11 1948 and a third was put in service Feb 12 1948. The water table then stood at 211 ft and it was estimated that for a while the 3 pumps were discharging 7000 gpm.

During the period of dewatering three 22" holes were drilled in the shaft and the 3 pumps reset. The water was completely out of the drift by June 7 1948, however the water table for the surrounding area stood at about 100 ft higher.

On May 5 1948 they had to pull the #3 pump due to motor failure. From this date on they had a succession of pump failures and though there were days when work could be done underground yet there never was a prolonged period of time when the water was out to afford of such achievement.

Lavrion put about 35 tons of mine dirt on the dump during the period 6/7/48 the date the water was out to 6/6/49, the day the operation stopped, elapsed time one year.

Lavrion Mining Co had exhausted RFC loan funds by Feb of 1949 and from that date on the operation was sustained by Kuvekas personally. By the time he quit his support had cost him $35,000 so he said.

The Lavrion operation did not disprove th existence of ore in the drift or the character of the formation in or near the ore body ahead since he did not advance the drift a single foot.

The 2 rounds of upraise just west of drill hole CR 31 showed some very good ore which was unexpected considering the location and log of this hole.

A. List of present equipment and buildings on property are :

1 40x40 ft galv iron compressor house, cement floor,
1 3 rm office bldg on concrete foundation, good condition.
1 change house 14x16, concrete floor " "
1 26x16 frame derrick 40' high with head house, good condition
Equipment:
1 1000 cu ft CP compound air compressor, 2nd hand & 2 in circulating pump
1 200 HP 60 cyc, 3 phase 2300 v. motor and bolts, 2nd hand
1 Air Receiver
1 electric hoist
1 Auxilary hoist, air driven
2 pressure type blowers with motors
3 50 KVA transformers
3 10" 2000 GPM, 300 HP Byron Jackson submersible pumps
At present installed in shaft & regarded as having only salvage value.
Office equipment consists of typewriter, adding machine & filing cabinet and Miscl supplies.

2 miles of good telephone line. All above cost in place about $62,000

The road leading into the property is of gravel and in poor condition.

Reports on property have been made by :
1. George Fowler, Eng. Eagle-Picher
2. Carl Plumb, local mining engineer
3. Ralph Calhoun, Eng. American Z L & S Co
W L Kepner, Sup. Eng. RFC 1 report for RFC and 2 reports to USBM & this report

E. Y. Ellis. Sup. Eng. RFC

RI 4415 March 1949. U.S.Dept of the Int. U.S.Bureau of Mines.
Investigation of zinc-lead deposits on extensions of Miami Trouth, Ottawa Co Okla & Cherokee Co. Kansas by Clinton Knox.
R14337 Sept 1948. Investigations of Melrose Zinc-lead Dist. Ottawa Co. Okla & Cherokee Co. Kansas by Clinton C Knox.

6. Water Supply Due to the open character of the formation in the mineralized horizon, as shown by the drilling, the area has always been regarded as having strong water. However this opinion has been now largely discounted due to the experience factor and electric power cost.

Exhibit 6-B of the Eagle-Picher operation which over a period of a year but only one month of continuous capacity pumping.

It is to be noted that apparently the heaviest pumping was in Jan 1939 with 730 HP connected load. 468,400 KwK consumed and the cost $3,579.83. Total power cost for year $19,227.53 is regarded as being a very liberal charge.

The complete figures furnished by the Empire District Elec Co of Joplin Mo. furnishes the best evidence of what the actual cost of dewatering will be. Exhibit 6-C.

An analysis of this statement shows for the actual dewatering to make the drift accessible, the period of 1/11/48 to 6/7/48, shows a consumption of 2,062,600 KwH at a cost of $22,720 excluding the fuel cost which is a seasonable temporary measure.

This dewatering was accomplished by the 3 10" 2000 gpm each Byron Jackson submersible type pump, each powered with a 300 HP 2300 v. motor.

A condensed record of pumping data follows :

Date	Water level in shaft	No pumps running	Water level 16 CR	Chubb #24
1/11/48	211			
2/11/48	365			
2/12/48	422	2 4,000 gpm		
3/12/48	422	3 5,000		264
		3 "		297
Period for resetting pumps 2 & 3 pumps running intermittently				
4/9/48	434	3		307
Motor failure this period 2 running mos of time.				
5/19/48	430	2 & 3		315
6/7/48	435	2 & 3		

The above shows that strong water was encountered at 442 ft which required 30 days of steady pumpin for all 3 pumps before the water started to weaken. Due to so many pump failures after April 9 it is difficult to estimate the rate of dewatering after that date had all 3 pumps remained in steady operation. However the same pump capacity without delays should make the ,round accessible easily in 4 months.

According to the data the outside water table will la which is due to the fact that as the water table is lowered, the static head decreases, the net result that with the reduced pressure less water enters the cut ground through existing openings.

To overcome this condition the idea will be given consideration to drill one or more holes from the surface into the drift which will allow the upper water free drainage into the drift area. It appears that at the 422 ft level or thereabouts, there is considerable open ground which acts as a reservoir so by the medium of the additional holes it is figured this impounded water will be released much more readily than though it would have to make its way down through existing voids in the rock.

Hole 31-CR, 50 ft SE of the shaft was opened up for an air hole however when it holed through into the drift it ran so much water that it failed to servce its purpose. It was estimated that this hole ran 1800 gpm of water, hence the conclusion that additional holes will expedite the lowering of the outside water table and thus eliminate the prolonged dewatering program which befell the Lavrion.

Large inflow of water in working parts of the mine are a serious handicap for efficient and economical mining besides being detrimental to pumping operations, due to fine gravel ~~xxxxxx~~ being washed into the pump. In order to more evenly distribute the drainage of the underground workings as well as to help lower the outside water table, it is proposed to drill at least 2 outlying pump holes for the installation of 2 turbine pumps of 1000 gpm each capacity.

These pumps will materially aid in reducing the dewatering time provided the same pump capacity is maintained at the shaft for initial dewatering.

It is to be noted that Lavrion estimated their inflow at time of shutdown at 3000 gpm which is corrobated by the approx. 50% reduction in Kw hrs consumed. Under this same circumstance, with 2 outlying pumps handling 2000 gpm the remaining 1000 gpm inflow at the shaft would not be at all burdensome.

After initial dewatering idle pump units would be standby equipment which is always necessary for efficient maintaining of successful drainage.

7.

See Map. Exhibit 7-D

Two ore bodies have been delineated as outlined on the map, from a study of drill logs and their analysis. The ore body on the north side of the shaft has been designated as the North or Zinc block since zinc is the predominating ore and the ore body to the SE of the shaft has been designated as the South or Lead block since lead predominates.

According to the drilling most of the lead occurrence is betwen 385 and 425 ft. It is proposed to sink a new shaft at a point approx _____ ft SE of the present shaft and also to connect the 2 shafts underground by drift. This shaft should be sunk as it will solve the ventilating problem and will greatly facilitate mining operations.

It is also proposed to make this one of the 2 main hoisting shafts which will require the shaft to be fully equipped.

It is also proposed to sink a new shaft at a point approx. _____ ft north of the present shaft and connect with underground drift.

The ore occurrance in this block is mostly below 400 ft and bottoms at about 440 ft. This proposed new shaft would also be of necessity a hoisting shaft and would need to be fully equippet.

The sites of these 2 proposed shafts are marked on the map.

The present shaft would be largely for pumping, handling men, powder, steel and misc. and some hoisting. It will also serve in facilitating ventilation.

To comply with the State mining code at least one new shaft with underground connection will be required.

8. Production to the present has been nil. After the opening up stages then each of the 2 shafts should produce 250 tons of ore rock daily per 8 hr shift.

9. It is not proposed to build a mill on the property since there are ample custom milling facilities in the distridt. By running in a switch track from the MKO RR which crosses the property it will allow for the loading of ore rock onto cars for direct shipment to the Eagle-Picher central mill, a distance of 5 miles.

There are several approved custom mills within a range of 4-6 miles which would require truck transportation. Custom milling costs range from $1.15 - $1.25 per ton. Trucking costs are approx. .04 per ton mile.

10. Mining Costs During the past few years mining costs have been noticably reduced through the introduction of mechanical units for drilling operations, loading and haulage. As an example the C K & N Mining Co operating 1½ miles SW of the Garrett, report that by spending $40,000 for full mechanization they were able to reduce their former mining cost 40% and maintain a more average daily output. Through mechanization mine output has been increased from 5 tons per man shift to almost 15 tons.

Details of costs of a representative mechanized operation follows :

Royalty	.30
Breaking	.43
Loading	.22
Hauling	.11
Hoisting	.23
Mis.	.27
Milling	.91
General	.37
	3.04

Applicant has practically of even date acquired a mining lease on the property therefore no expenditure has been made as of date.

Lavrion Mining Co, the immediate predecessor spent an estimated total in drilling, engineering, equipment, dewatering & misc. $209,500.

11. Milling: By local custom mills.

12. Smelting Concentrates sold to local ore buyers.

13. Power

Estimated initial load requirements for pumping 11,000 HP
Estimated working load 1050 HP

The Empire District Elec Co. Joplin maintain an extension of their 66,000 volt line to the property. They have set up a sub-station 1500 KVA capacity transformers, which steps the voltage down to 2300 v. for delivery to customer. This line extension cost the Lavrion $15,000 which was refunded at rate of 10% of each month's power bill. Refund amounted to $7,240.

There will be no charge to applicant for a new connection. There will be however a meter deposit required which willa mouth to estimated power bill for 1½ months. It should eb approx. 11 to $12,000. A rate schedule is included. Exhibit 13-E

14. Labor

There has always been an adequate supply of good experienced American labor living within easy driving distance of any mine in the Picher district.
Wages are based on the price of zinc concentrates and a definite ratio is maintained by the larger mining companies. Average wages per 8 hour day based on the present price of zinc concentrates at $115.00 per ton are $10 - $12.
The full operation of this property should furnish employment for 30-40 men daily.

15. Ore or Mineral Reserves:

1. See Exhibit 15-F.
2. " " 15-G & drill hole analyses, Exhibit 15-H
3. which includes computation for establishing mineral content of the North & South blocks.
3. See Map.
The weighted % of mineral in each block in terms of concentrates follows :

Ore thickness	Concentrates weighted per cent Galena	Blende
North Block 12.8 ft	.58	5.65
South Block 21.3 ft	4.23	.46

5. Estimates of tonnage;
The limitations of the two ore bodies with respect to "Known" ore reserves, have been rather closely drawn. Also ample allowance has been made for pillar and lean areas.
The computations show known tonnage reserves as follows :

Block	Rock tons	Concentrates tons blende	Tons Galena
North	174,080	9,834.	1,010.
South	145,692	670	6,163
		10,505.	7,173.

Complete computations are shown in Exhibit 15-F

Estimates on Probably reserves. Estimates have been made by other engineers, as follows :

	Probable tons	Possible tons
Geo. W. Fowler	80,230	540,541
C.H.Plumb	271,000	256,000

Considering the relative relationship of the two ore bodies, it is certainly reasonable to suppose that the area to the northeast of the present shaft will ultimately prove to be mineralized as mining progresses in that direction.

Obviously there are a few holes indicative of sufficient value to make a tonnage estimate, however the area could easily yield 150,000 to 200,000 tons.

According to information received which is regarded as being reliable the area Southwest and west of the present shaft is also highly profitable mineralized area. This opinion is based on information regarding two drill holes, the location of which do not appear on the map. One is a hole about 200 ft SW of the shaft which showed cuttin s up to 5% lead, which were reportedly taken away without further information.

It is also reported about adrill hole, drilled in the early days, along the west line some 400 ft S of the NW corner. This hole is reported to have had cuttings estimated at 15% blende.

7. Sampling consisted of saving part of cuttings from each s crew.

16. The closest known production is at the C K & E mine in Sec. 34, 1½ miles SW of the Garrett. This mine has been in production since 1943 except for a short time during period of low prices following end of premium price plan. Their recovery has always been well over the average of the field and latest reports are that combined recovery of lead and zinc as concentrates is over 8 %.

The MacArthur mine in Sec. 6 is 1½ miles SE of the Garrett. MacArthur started operating in '43 and their combined recovery has been approx. 3.5% lead & zinc concentrates.

The Eagle-Picher Foley mine in Sec. 7 is location 1-3/4 miles S and E of the Garrett. It is reported their recovery averages 5% combined with lead & zinc concentrates.

17. Conventional Tri-State mining methods will be followed. However, mechanization will be put to use where possible.

18. Trucking of mine ore to custo mills cost 4-5 cents per ton, concentrates are sold in bin and purchaser s tands loading & f reight charge to the smelter.

19. Reserves offered as security for loan:

Values herein are based on current prices paid by smelters for 80% base lead and 60% zinc concentrates, in the Tri-State mining field, as of September 16, 1950, which were :

Blende $115. per ton based on $.175 metal f. St Louis

Galena $205.27 per ton based on $.16 metal f. St Louis per pound

Ore or mineral resvs	Est. tons	Gr Val per ton	Recovble value per ton	Est. cost of Prdctn	Est. profit per ton	Total Est. Profit.
N.Block	174,080	$7.69	$7.69	$3.75	$3.94	$686,000
S. "	145,692	9.21	9.21	3.75	5.46	795,000
	319,772					$1,480,000
Deduct 5 & 8% royalty						180,000
						1,300,000
Deduct $1 per ton amortization						320,000
Net profit before income tax						$ 980,000.

Probable reserves 500,000 - 600,000 rock tons.

Remarks: The estimated rock ton cost for mining under average conditions would be figured at $1.95 a rock ton, however, for the Garrett 25 cents a ton has been added to take care of probable excess pumping over average conditions. The estimated cost is therefore $2.10 for mining and $1.50 for milling, total cost $3.50.

Previous operations have disclosed that the Garrett water has some corrosive action which has been given consideration in the analysis of this project.

W. L. Kepner

W. L. Kepner
Mining Consultant
Joplin, Missouri

THE EMPIRE DISTRICT ELECTRIC COMPANY
Joplin, Missouri

6-B

GARRETT OPERATIONS.

EAGLE PICHER MINING & SMELTING COMPANY

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1938				
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Details of Pumping Load :

Connected Load	10"	Pomona	200 HP
	14"	Peerless	330 HP
	12"	Pomona	200 HP
			730 HP

Garrett

1v F

Lavrion Revised Tonnage Estimates — Dec 20 1946

Main North Block

250' x 700'		175,000 sq ft
Extension to 16 and 17 125' x 300'		37,500 "
		212,500 sq ft
20% pillars & lean areas		42,500
Net area		170,000
Thickness 12.8'		2,176,000 cu ft
@ 12½ cu. ft. per ton		174080 rock tons

South Block

160' x 600'	96,000 sq ft	
50% pillar & dead areas	48,000	
Net area		48,000 sq. ft.
Shaft area 250' x 300'	75,000	
50% pillars & dead areas	37,500	37,500
Total south block areas		85,500
Thickness 21.3'		1,821,150 cu ft
@ 12.5 cu. ft. rock ton		145,692 rock tons
Total rock tons N & S blocks		319,772

	Rec Blende	Tons Blende	Rec Galena	Tons Galena
Concentrates in				
North block	5.65%	9835	.58%	1010
South block	.46	670	4.23%	6163
		10,505		7173
Weighted Avg.	3.28%		2.24%	

Garrett Mine Reserve.
Drill Hole Analysis - Garrett North Block

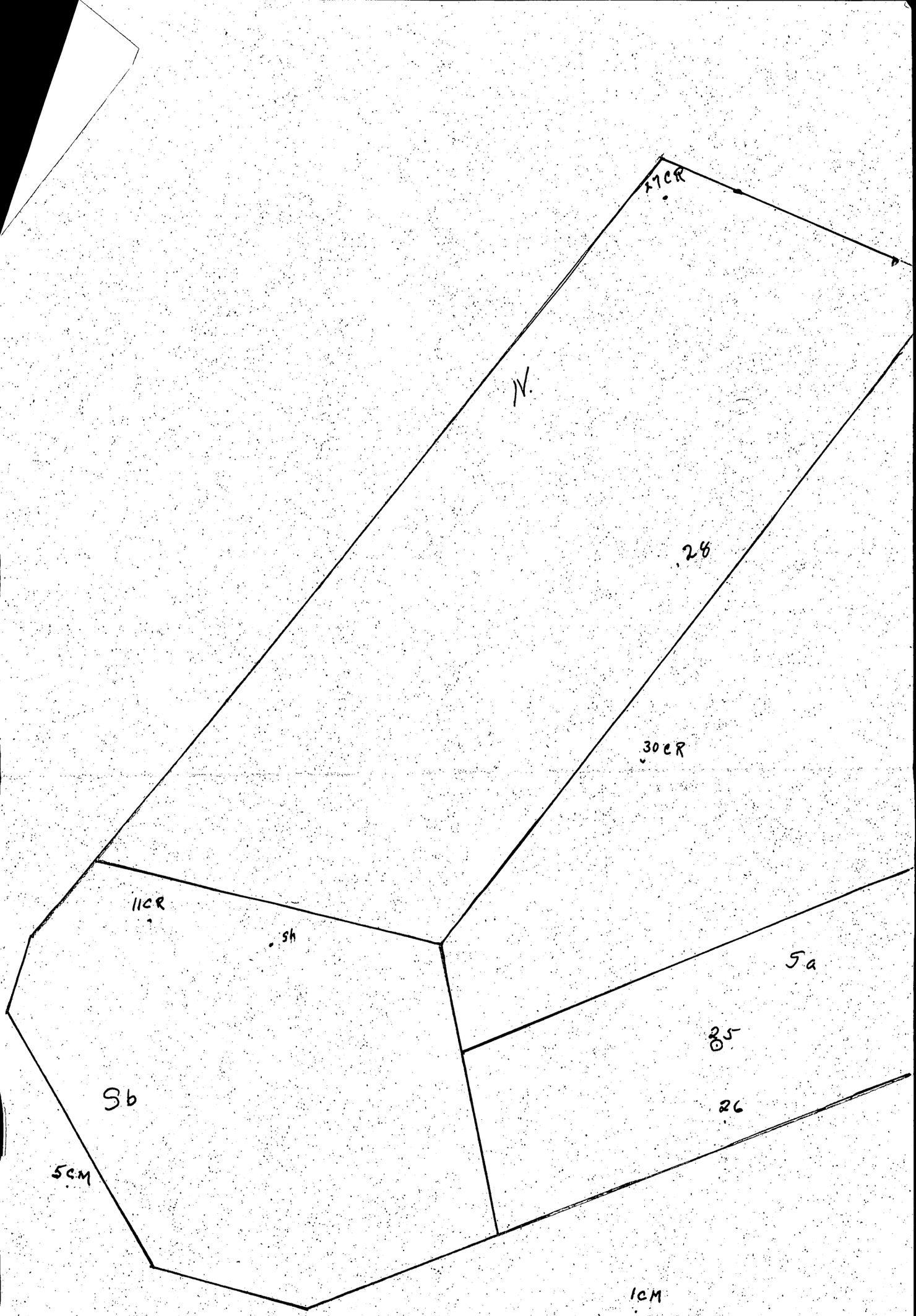
Hole No.		Ore Horizon	Thickness	Metallic Zn	Metallic Pb	Original Assays 60% Blende	Original Assays 80% Galena	Weighted Blende	Weighted Galena
1	12-CR	415-423	8			.526	1.486	4.21	11.89
2	13-CR	427-436	9			2.600	.02	23.40	.18
3	14-CR	413-420	7			4.93		34.54	
4	16-CR	408-420	12			2.74	.6	32.92	7.08
5	17-CR	429-435	6			2.84		15.87	
6	18-CR	410-442	32	2.9				157.20	
7	20-CR	434-443	9	5.81	1.36			87.10	12.33
8	27-CR	425-435	10	3.06	.04			51.20	.50
9	22-CR	433-446	12	4.70	.02			93.93	.40
10	Z-2	432½-438½	6	3.52	.36			35.25	2.18
11	Z-3	418-448	20	5.03				250.20	
12	Z-8	400-405	5	4.18	.03			34.85	.20
			146					820.67	24.74
13	16	406-448	21	1.81	2.15			63.00	56.70
14	17	398-410	12	6.78	.91			133.93	12.65
			180					1017.60	104.04
			12.86		5.65		.58		

Garrett

Drill Hole Analysis South Block

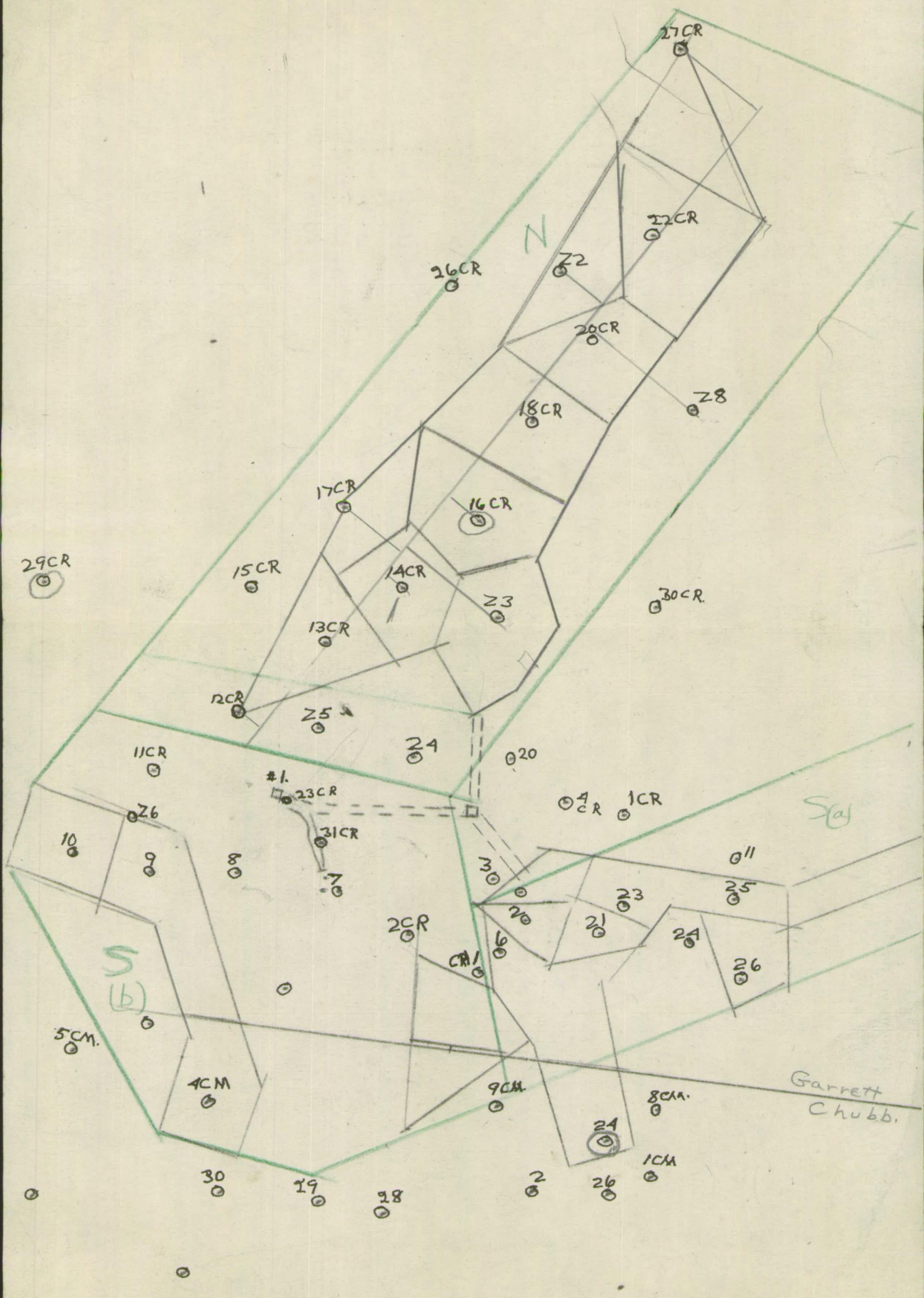
15-H

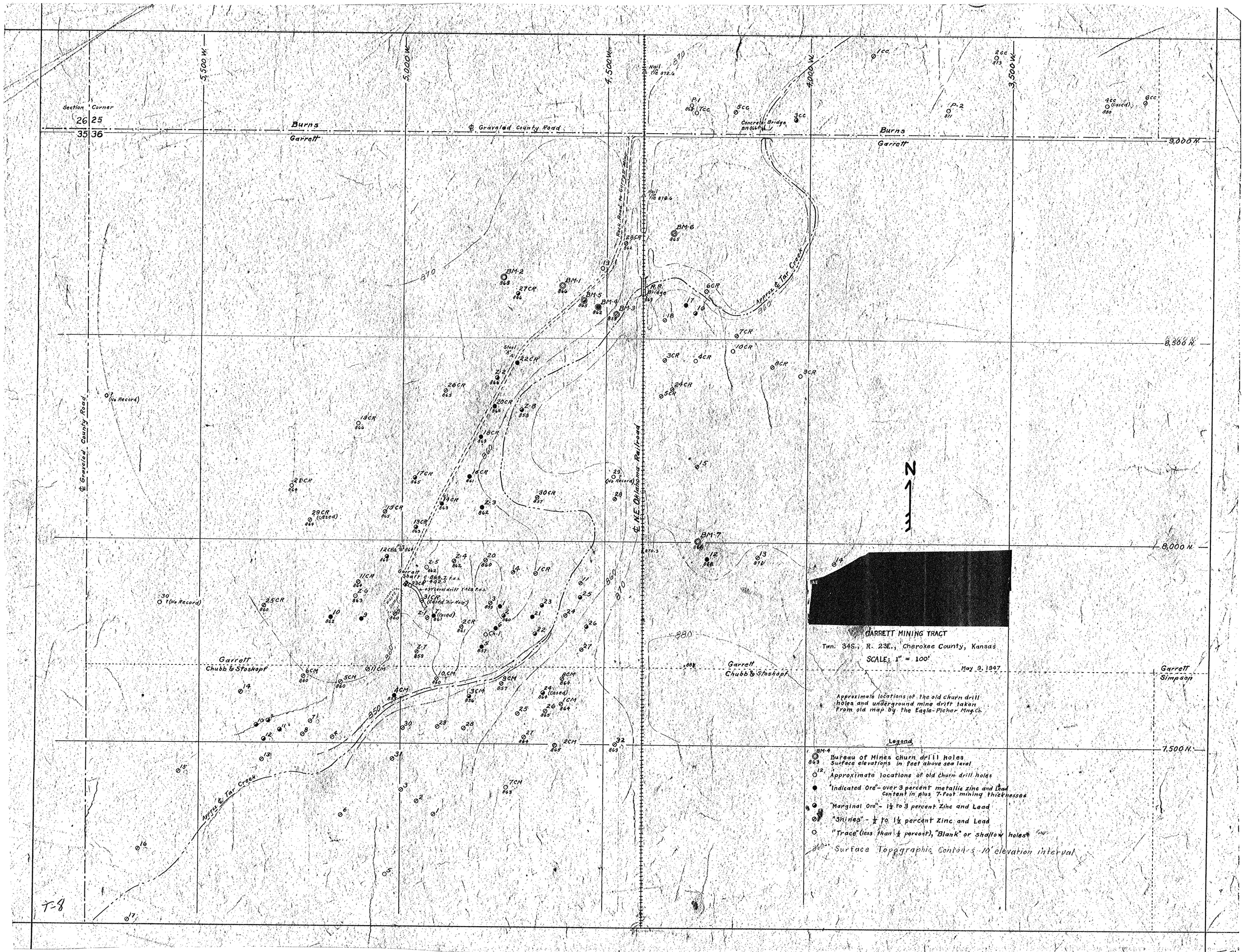
Hole No.		Ore Horizon	Thickness	Original Assays Metallis Zn	Pb	60%	80%	Weighted Zn	Pb
1	#1	385-425	40	0.0	4.8				192.00
2	2	385-400	15	.88	1.21			13.20	18.15
3	5	385-420	35	0.0	5.00			0.0	175.15
4	6	380-405	25	0.0	3.53			0.0	89.75
5	9	400-410	10	0.0	4.05			0.0	30.50
6	10	420-442	22	0.0	5.58			0.0	122.80
7	12	395-430	35	0.0	2.59			0.0	90.75
8	21	392-414	22	0.0	4.16			0.0	91.65
9	22	394-398	4	0.0	2.10			0.0	8.20
10	23	398-417	19	0.0	2.81			0.0	53.50
11	25	392-401	9	0.0	2.48			0.0	22.33
12	26	397-421	24	.56	1.91			13.35	45.75
			260	.102	3.619			26.55	940.92
13	7	400-432	32	.55	3.50			17.40	111.60
		Chubb Lease							
14	3-CM	415-426	11	.23	2.28			2.53	25.08
15	4-CM	417-434	17	2.44	.62			41.51	10.64
			320	.28	3.4			87.99	1038.24
Avg. face			21.3						
Converted Blende (Galena)						.46	4.23	146.65	1360.30
Consolidated: North Block as 60% blende & 80% Galena									
			180			5.65	.58	1017.60	104.04
South block as 60% blende & 80% Galena									
			320			.46	4.23	146.65	1360.30
			500					1164.25	1464.34
Weighted average 16.63						2.33	2.93		


17CR
N.
24
30CR
11CR
5h
5a
25
26
5b
5CM
1CM

Garrett.

Scale 1" = 100'
9/11/44.




GARRETT MINING TRACT
Twn. 34S., R. 23E., Cherokee County, Kansas
SCALE: 1" = 100'
May 9, 1947
Approximate locations of the old churn drill holes and underground mine drift taken from old map by the Eagle-Picher Mng.Co.
Legend
BM-4 Bureau of Mines churn drill holes
843 Surface elevations in feet above sea level
12 Approximate locations of old churn drill holes
"Indicated Ore"- over 3 percent metallic zinc and lead content in plus 7-foot mining thicknesses
"Marginal Ore"- 1½ to 3 percent Zinc and Lead
"Shines" - ½ to 1½ percent Zinc and Lead
"Trace" (less than ½ percent), "Blank" or shallow holes
360 Surface Topographic Contours - 10' elevation interval
Section Corner
26 25
35 36
Burns
Garrett
℄ Graveled County Road
5,500 W.
5,000 W.
4,500 W.
4,000 W.
3,500 W.
9,000 N.
8,500 N.
8,000 N.
7,500 N.
Concrete Bridge
R.R. Bridge
Approx. ℄ Tar Creek
℄ N.E. Oklahoma Railroad
Rock Road to Galena
Garrett Shaft
Chubb & Stoskopf
Simpson
N

T-8