So. 157 Howard Street
Spokane 4, Washington
October 29, 1962

Memorandum

To: Chief, Division of Field Operations

From: Acting Field Officer, Region I

Subject: Examination report
OMX-61894 (Gold-Silver-Lead)
Basic Metals Mining and Milling Company, Inc.
Eldorado, et al., Claims
Jefferson County, Montana

INTRODUCTION

Basic Metals Mining and Milling Company, Inc., P. O. Box 289, Helena, Montana, applied September 20, 1961, for OMX aid to explore on two groups totaling nine claims in secs. 28, 29, 32, and 34, T. 8 N., R. 5 W., P.M. The application was lacking or incomplete with regard to several important items of required information. Some of this vital information was furnished with a letter dated January 17, 1962, from Ralph E. Krause, and a referral of the application to the field was received January 29, 1962. Still to be acquired was a reasonable description of the mineral occurrence, a proposed program of exploration, and a cost outline. By this time, the property had become inaccessible because of heavy snow.

Mr. John D. Clouse was advised during a telephone call which he made to the Spokane office April 19, 1962, that before an examination of the property would be made there was still lacking certain necessary basic information but that this could be acquired by an interview in Helena. He replied that Ralph E. Krause, treasurer and general manager, was thoroughly familiar with the property and the proposed work and had full authority to speak for the company.

On the evening of April 24, 1962, I met with Mr. Krause in Helena for about an hour. He said that it would be another two to four weeks before the property would be accessible. Only four claims would be involved in the proposed exploration: Eldorado 1, Eldorado 2, Plateau 1, and Plateau 2. The Eldorado vein was said to be in a zone over 18 feet wide, striking nearly east-west and dipping 45° N.; the Plateau vein was said to be somewhat narrower, to strike slightly north of west and to dip 65° S. Mr. Krause also said that little, if any, work had been done on the Plateau vein but that a shaft had been put down to a depth of 110 feet on the Eldorado vein, which has been further exposed by several surface trenches and pits. Water seepage requiring constant pumping caused the winzing to be discontinued. Krause further said

that a drift had been started on the Eldorado vein near the west end of Eldorado 1 claim and that the company proposal was to continue this drift for about 500 feet to pass below the winze and to drill longholes northerly to explore the Plateau vein. If the results of the longhole drilling were encouraging, the proposal would also include crosscutting to and drifting on the Plateau vein. The total cost of this proposal was estimated to be $50,000. Mr. Krause was advised that before any program could be considered it would be necessary to have the 110-foot shaft dewatered and accessible for inspection and sampling and to have any trenches or pits on either or both veins sufficiently cleaned out for check sampling. He was also asked to prepare an itemized breakdown of his estimated cost of the proposed project.

An attempt to visit the property with Mr. Krause was made June 14, 1962. Snowdrifts and soft, boggy roads in the higher country prevented us getting closer than about a mile to the property. At this point the two front wheels sank in the road to the hub caps, and about two hours was required to get the car back on solid ground. Because of the lost time and the obvious evidence that much of the surface at the property would be snow covered, the attempted inspection was abandoned.

On August 31, 1962, an inspection was made in the company of Mr. Krause and Rodrigo Rigor, a Philippine trainee. Upon meeting Mr. Krause, he advised us that the pump had broken down and that therefore the shaft would be only partly accessible but that other openings could be inspected and sampled. At the property, Herman Clausen, resident miner-prospector, joined the inspecting party.

ACCESSIBILITY

Starting at the Main Hotel in Helena, proceed to and follow westerly U. S. Highway 12 for a total distance of 6.6 miles. Here a sign indicates a road to the left leading to Rimini; follow this improved graveled road to the dam at the south edge of the town of Rimini, a distance of 7.6 miles. Continue along the Forest Service road starting at the dam for one mile to Forest Service road sign. Bear left and follow Banner Creek road for 2.0 miles to second Forest Service road sign. Again bear left and follow Crescent Mine road for 1.9 miles, then take left switchback from Crescent Mine road. Follow most used road for 2.0 miles to the property. After leaving the dam at Rimini, the road is usually in fair to good condition and climbs at fairly steep grades to the switchback from the Crescent Mine road; from this point it becomes progressively poorer and during rainy weather and periods of snow thaw is full of soft boglike patches treacherous to car travel, if not impassable. Only that section of road from Helena to Rimini is kept open during the winter months, and for reasonable assurance of reaching the property the rest of the year a four-wheel drive vehicle is recommended.

PROPERTY

The applicant controls nine unpatented mining claims as follows:

Claims	Book	Page
Eldorado 1	50	15
Eldorado 2	*	*
Plateau 1	*	*
Plateau 2	*	*
Secre	*	*
San Juan 1	49	423
San Juan 2	49	425
San Juan 3	49	427
San Juan 4	49	429

*Book and page numbers not stated in field copy of application but may be in Washington docket file.

The work proposed by the applicant will be done entirely within Eldorado 1 and possibly Plateau 1 claims.

Buildings on the property comprise three log cabins, a shop, and a combined compressor-tool house grouped near the tunnel at the east end of Eldorado 1 claim. Workings seen on the Eldorado vein are a shallow debris-filled trench, three caved shafts of unknown depth, and a water-filled shaft said to be 110 feet deep, from the west side of which is an open stope that has caved from an undetermined but probably shallow depth to the surface. A trench, now filled with tree cuttings, is said to expose a vein more or less parallel to the one on which the other workings are located. An iron-stained zone crossing the access road beside the trench indicates the presence of this vein (fig. 1). A tunnel has been started east of the trench. It is about 50 feet long, open for the full length, and is not on any structure.

North of Eldorado 1 claim, the applicant showed the examiners some apparently very old pits and shallow trenches. They were all so filled with debris that no structure was discernible. It was with some difficulty and only after considerable searching in the heavily timbered and brush-covered area that the applicant was able to locate these old workings, and as he could not locate a claim corner there is some question as to their being on the Plateau 1 claim; possibly they are farther north.

GEOLOGY AND ORE OCCURRENCE

The only rock seen on the property is quartz monzonite of the Boulder Batholith. It is medium grained, grey, leaving a sandy residual soil. The quartz monzonite is cut by at least two veins that strike about N. 85° E. and dip 60°-80° northerly. Only one vein was clearly exposed; the other is said to be exposed in a trench, and its existence is inferred by an iron oxide-stained zone. Although it is possible

that these two veins, 20-25 feet apart, represent hanging wall and footwall veins of a shear zone, nothing could be seen to bear this out.

The more northerly of the two veins is exposed in the flooded 110-foot shaft and the caved stope immediately to the west of the shaft. At the time of the inspection, the water in the winze was about 25 feet below the collar. Between 15 and 20 feet below the collar, the shaft broke into the stope to the east and appeared to break into workings on the west. In the shaft, the back and sides were too loose to permit the taking of samples with any degree of safety. The walls of the stope where it has broken through to the surface were steep, and the condition of the bottom support questionable so that the resulting pit could not be entered. The vein strikes N. 85° E. and dips 60° northerly. It has an average width of 3 to 4 feet and appears to be composed of quartz. Vein material on the dump is quartz containing nodules of galena. A sample of vein material on the dump assayed 0.45 ounce gold and 6.8 ounces silver per ton and 3.9 percent lead. An old shaft about 100 feet easterly from the one described is filled with water to within 10 feet of the surface. The exposed part of this shaft is tightly timbered, but the timber is badly rotted and broken. A sample of vein material taken from the dump assayed 0.12 ounce gold and 2.3 ounces silver per ton and 0.55 percent lead. There are two other old shafts, respectively 85 feet and 115 feet westerly of the 110-foot deep shaft. Each is now completely caved and is evidenced by a bowl-like depression 4 or 5 feet deep. Samples of vein material from dumps at these shafts assayed, respectively, 0.20 ounce gold and 13.8 ounces silver per ton and 2.1 percent lead, and 0.29 ounce gold and 1.8 ounces silver per ton and 1.75 percent lead.

There is no available information as to the depths of the three shafts last described, but from the material on the various dumps the easternmost shaft could be in the order of 100 feet deep, the westernmost, possibly as deep as 50 feet, and the last one probably less than 50 feet deep. According to Mr. Clausen, who has worked at various mines and prospects in the area for many years, the custom was to sink on an ore showing as deep as possible until seepage of ground water could no longer be pumped economically. There is no record of production from these workings except for a statement by Clausen that 40 tons shipped from the 110-foot shaft dump resulted in the recovery of 22 ounces gold, 839 ounces silver, and 1800 pounds lead. This would appear to indicate an average grade for the shipment of about 0.55 ounce gold and 20.97 ounces silver per ton and 0.02 percent lead. To what extent the material was sorted before shipment is not known.

Production from two mines, the Congo and the Crescent, said to be adjacent to the applicant's claims is reported in "Mines and Mineral Deposits (Except Fuels), Jefferson County, Montana," State of Montana, Bureau of Mines Bull. 10, by R. N. Roby, W. C. Ackermann, F. B. Fulkerson, and F. A. Crowley (1960), as follows:

From 1939 through 1941, the Congo Mine produced 307 tons of ore yielding 142 ounces gold, 4,818 ounces silver, 4,941 pounds lead, and 2,149 pounds copper, indicating an average grade of about 0.46 ounce gold and 15.69 ounces silver per ton, 0.8 percent lead, and 0.35 percent copper.

During the years 1935, 1939 through 1943, 1947, 1952, and 1956, the Crescent Mine produced a total of 399 tons of ore yielding 190 ounces gold, 3,392 ounces silver, 45,934 pounds lead, 15,138 pounds zinc, and 5,466 pounds copper, indicating an average grade of about 0.47 ounce gold and 8.5 ounces silver per ton, 5.76 percent lead, 1.90 percent zinc, and 0.68 percent copper. None of these workings are now accessible, according to Mr. Krause.

The above productions and grades are tabulated below for comparison and average.

Mine or Sample	Tons Ore	Oz. Au/T	Oz. Ag/T	% Pb	% Zn	% Cu
Crescent Mine	399	0.47	8.5	5.76	1.90	0.68
Congo Mine	307	0.46	15.69	0.8	N.A.	0.35
110-foot winze	40	0.55	20.97	0.02	N.A.	N.A.
Average grade		0.47	12.13	3.41		

The applicant took two samples from the 110-foot shaft, one at a depth of 65 feet, the other at a depth of 110 feet, each representing a vein width of 36 inches. The assays are:

Sample Depth	Oz. Au/T	Oz. Ag/T	% Pb
65 ft.	0.01	199.8	29.4
110 ft.	0.12	653.0	73.2
Average	0.06	426.4	51.3

He also submitted a sample taken over a width of 18 feet in the trench on the southerly vein. It assayed 0.35 ounce gold and 2.2 ounces silver per ton and nil lead.

The average grade of the four OME samples from the shaft dumps is 0.25 ounce gold and 6.17 ounces silver, and 2.07 percent lead. The OME sample from the dump at one end of the trench assayed 0.02 ounce gold and 0.7 ounce silver per ton and trace lead.

The OME dump samples do not even approximately check the applicant's vein samples, nor is there any approximation of similarity between the applicant's samples from the shaft and the 40 tons of ore reportedly shipped from the shaft dump. However, when the average grade of the ore shipped from the three mines is compared to that of the four

CMR shaft dump samples, although the latter grade is about half that of the former, the ratio of gold to silver and of silver to lead is very similar, and taken together indicate a potential average value of gold and silver between $15.72 and $30.16 per ton might be expected.

CONCLUSIONS AND RECOMMENDATION

The small reported production over a several-year period from the three adjacent mines strongly suggests that the ore shoots that may be expected are small. At $35.00 per ounce for gold, $1.13 per ounce for silver, and $0.095 per pound for lead, and at the average grade of the ore shipped from the three mines, the 746 tons shipped would be worth about $27,228.00, or about $36.50 per ton.

A bare minimum of 600 feet of drifting at $35.00 per foot would be required to drift from the face of the applicant's drift to a point just below, or possibly within, the 110-foot shaft and would cost at least $21,000. It is concluded that such a drift would not disclose as much ore as the three mines have produced. It is further concluded that, although there may be small high grade pockets of ore on the veins the applicant proposes to explore, the chance of making a significant discovery is poor. It is therefore recommended that the application be denied.

D. R. Maclaren

Attachment
Distribution:
CMR(3)
Docket
Maclaren
SRO

P. O. Box 808

Phone SK 2-5612

CERTIFICATE OF ASSAY

FROM

PETER MACK

ASSAYER AND CHEMIST

Office of Minerals Exploration

Wallace, Idaho, Sept. 10, 1962

MARKED	Gold ozs. per ton	Silver ozs. per ton	Lead %	Zinc %	Copper %	Iron %	Insol. %	U_3O_8 %	%
163 C	0.14	0.15	0.15	0.1					
164 C	0.06	0.1	0.05	0.1					
165 C	0.02	0.7	Tr						
166 C	0.24	1.8	1.75						
167 C	0.20	13.8	2.1						
168 C	0.45	6.8	3.9					Sec. 28	
169 C	0.12	2.3	0.55					T 8 N	
9)	1.01	24.7	8.30					R 5 W	
	.25	6.17	2.07						
			RECEIVED						

Charges

SEP 12 1962

U S G. S.
SPOKANE, WASH.

Peter Mack

4m 11 61 12

P. O. Box 808

Phone SK 2-5612

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SEP 12 1962

U S G. S.
SPOKANE, WASH.

Peter Mack

Charges

4m 11 61.12

Application for Location

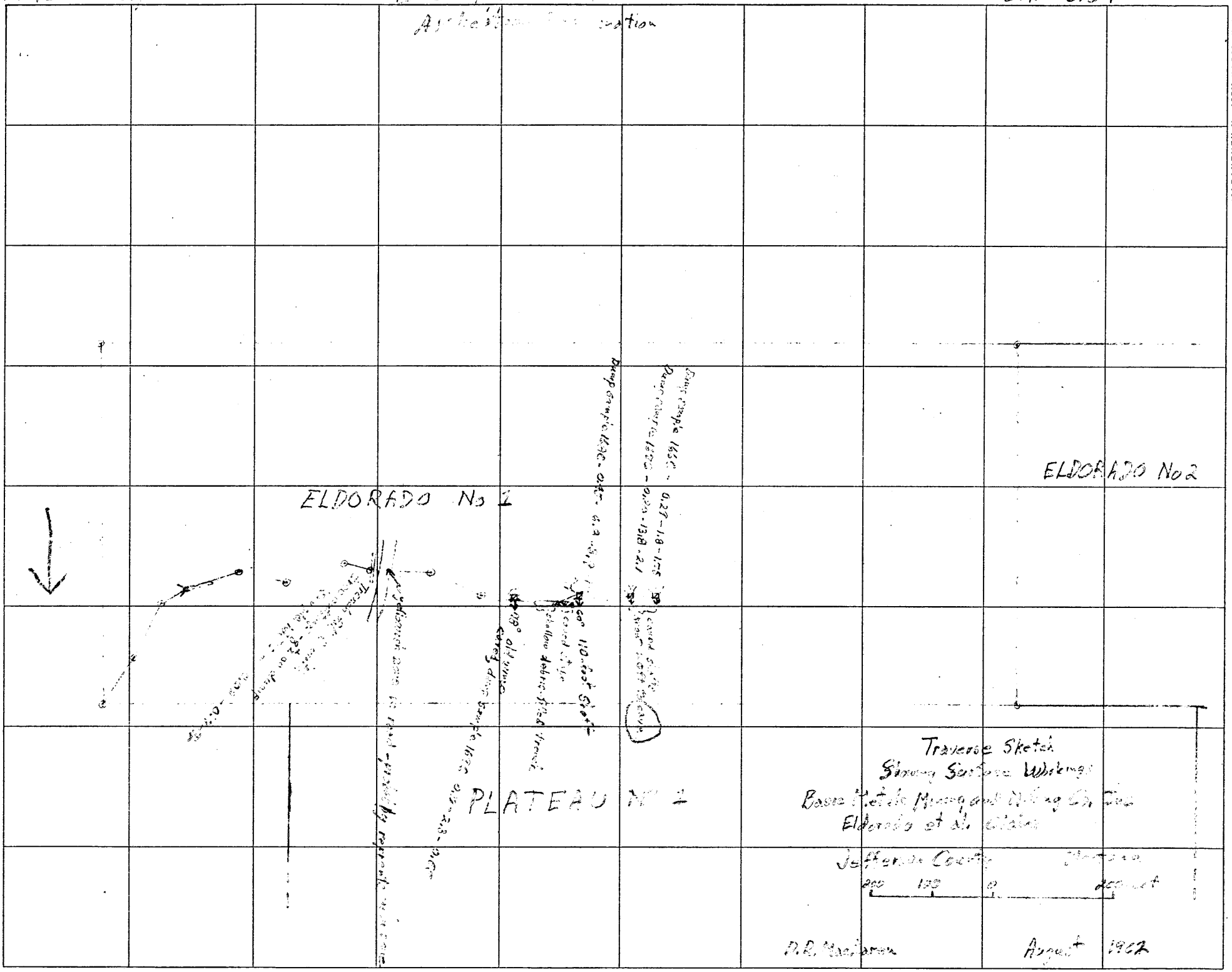
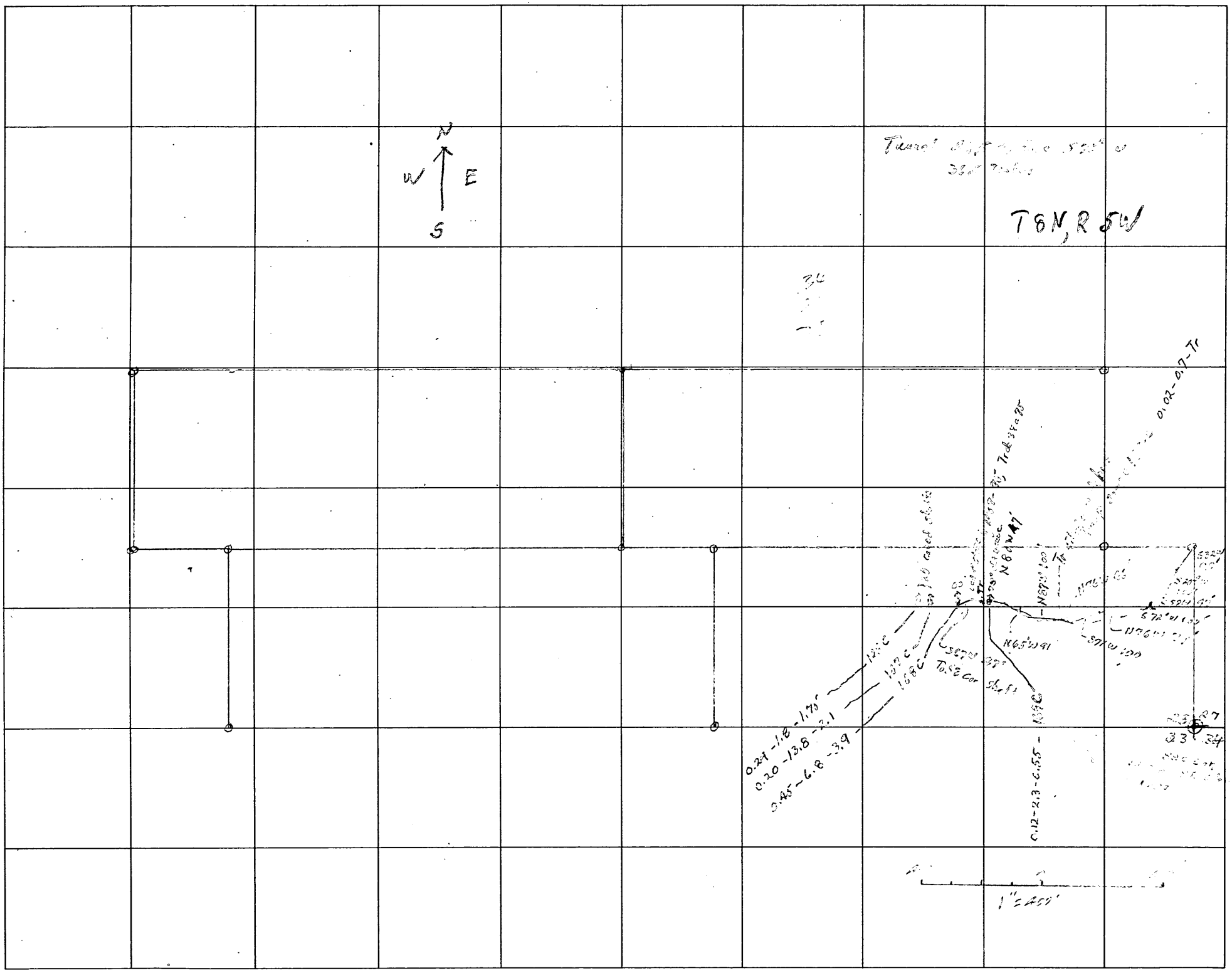


Fig 1

"ALBANENE" NO. 195M K&E CO., N.Y. REG. U.S. PAT. OFF.



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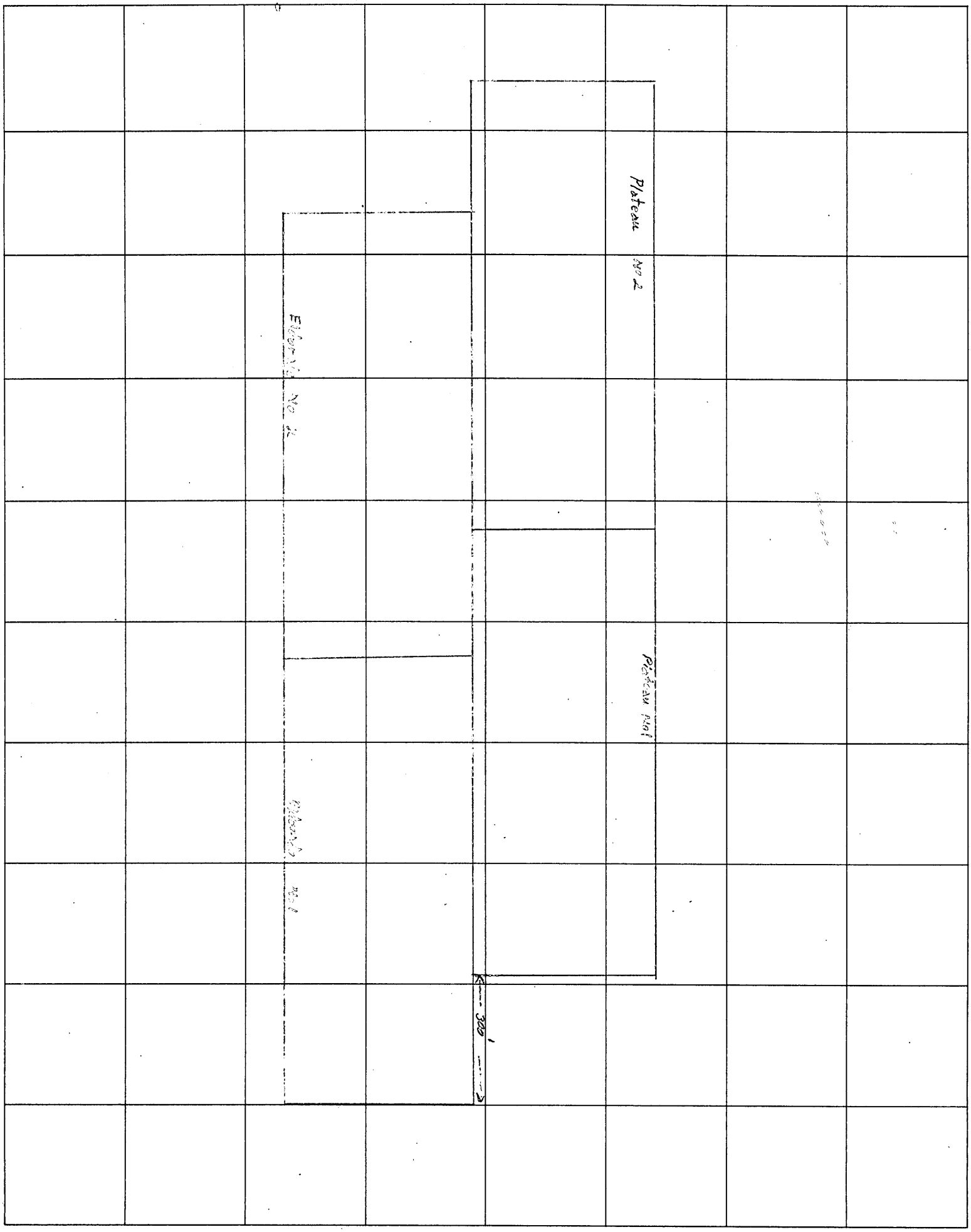
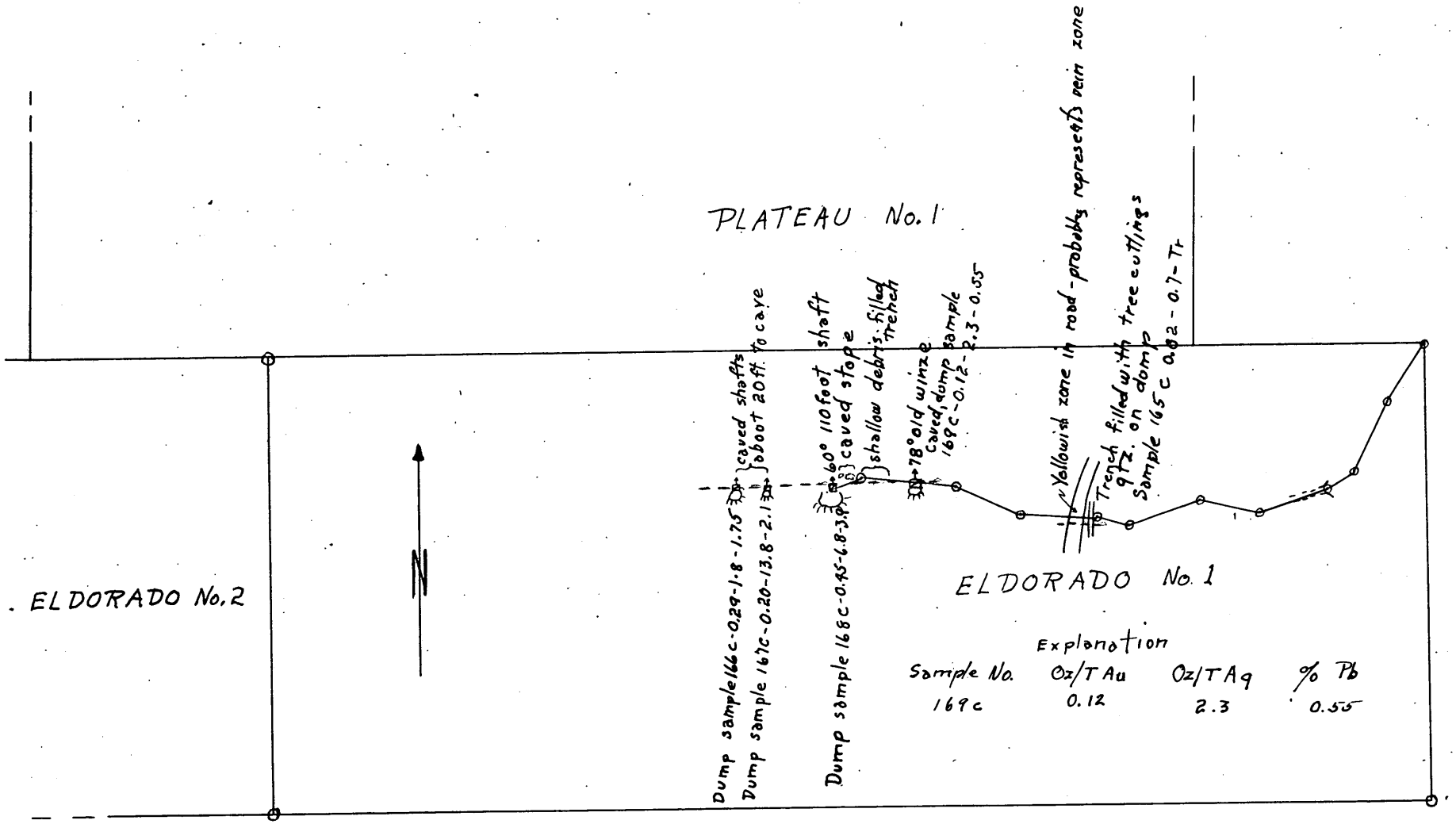
REG. U.S. PAT. OFF.
J. A. Gendron Co., Spokane


Plateau No 2
Plateau No 1
300'



Traverse Sketch
Showing Surface Workings
Basic Metals Mining and Milling Co., Inc.
Eldorado et al. Claim
Jefferson County Montana

200 100 0 200 Feet

DR. MacLaren

August 1962

Fig. 1