TAFT & MADONNA GROUPS

near Mina, at a distance of 10 miles, Santa Fe Mining Dist,

Mineral County (Nevada)

Cu Ag

The attached report made by F. J. DeWilde of New York City, who was one of the engineers accompanying Col. Powell when he made an exhaustive examination of the Taft and Madonna claims, I hereby confirm in most of the details except that I take issue with him relative to the source of the main mineralization. My contention is as follows: That there is a true and direct contact along the mountain a few hundred feet below the top, between granite and lime. That there has been a Basaltic flow to a depth of two or three hundred feet covering the main ore deposition and that this igneous rock Granite constitutes the true foot wall of the ore deposit and that its dip is shown conclusively to be approximately 45°. Furthermore that in the footwall itself and following the contour of the mountain for thousands of feet is a tremendous ledge ranging in width from 60 to 100 feet, which ledge has had all its values leached from the top portion. That this leached condition is perfectly shown in a tunnel which has been run as a crosscut and that with depth this leached condition will be replaced with the zone of secondary enrichment. That with depth this footwall ledge will encounter the main source of all the tremendous ore showings of the lower country around the base of the mountain, and that this eventual source of the ore deposits will unquestionably be found to be under the Basalt and between the Granite and the Lime.

That the proper work to be performed at present is an incline shaft in the footwall (because of the comparative ease of sinking in this material) carrying the ledge itself as the hanging wall of this incline shaft and crosscutting every 100 feet through this ledge. If this procedure is followed there is absolutely no doubt in my mind that the zone of secondary enrichment will be reached within the first four hundred feet and it would not surprise me to reach this ore within the first two hundred feet. This shaft should be a double compartment shaft, costing about $20.00 per foot. I am furthermore confident that after careful examination of this property no engineer of experience will be found who can consistently disagree with this diagnosis of the property.

A. C. Powell.

GEOGRAPHY

The Taft and Madonna groups comprising 20 unpatented claims lie due east of Mina, at a distance of 10 miles, by excellent wagon and Auto road.

The claims are located in the Santa Fe Mining District, Mineral Co., Nevada.

Mina is a small station on the S. P. R. R., and also a terminal point for the California & Nevada R. R.

TOPOGRAPHY

Both groups are located on the southern slope of the Santa Fe mountains, just south of a high plateau formed by a thick capping of basalt. The drainage is to the south, finally trending to the west, following a broad valley-like depression which opens into a larger valley of which Mina is near the center.

The slope from the cliffs to the lower reaches of the property is comparatively gentle, and is covered with a sparse growth of brush.

EQUIPMENT

This property is well supplied with buildings, such as blacksmith shop, barn, bunkhouses and boarding house.

There is a small assay outfit. Water for all purposes can be obtained from Biddles well, 3 miles to the east, and from other small springs nearby.

CLIMATE

The climatic conditions favor the operation of the property the year around. Great extremes in heat or cold are seldom experienced. The elevation above sea-level is approximately 6500 feet.

ACCESSIBILITIES & TRANSPORTATION FACILITIES

The claims are accessible at present by an excellent wagon or Automobile road. The cost of building a railroad would be comparatively

light as the grade is very low. Auto trucks can be used very effectively at the start of operations and the cost per ton mile would not exceed 8 cents.

GEOLOGY

(General Statement)

The structural features are quite simple. A series of limestones of great thickness have been intruded by granite, quartz, porphyry and rhyolite. These intrusions probably took place in Post Carboniferous times (?) The latter intrusive may be correlated to the Post-Cretaceous of early Tertiary age.

The limestone strikes northeasterly and dips about 30 degrees to the northwest. Near the mountain ridges, the limestone is capped by a heavy flow of vesicular basalt varying in thickness from 150 - 250 feet. Boulders and fragments of basalt form a considerable talus at the base of the cliffs.

DETAIL GEOLOGY

The individual limestone beds vary in thickness from a few inches to several feet. Metamorphism has obscured the bedding in most places. The denser grey beds contain cherty nodules, this giving them a rusty appearance. The white beds are crystalline in character and composed mainly no doubt of crinoid stems.

The larger fractures apparently trend in a northerly direction, but aross shearing and fracturing are also much in evidence. The intrusions are in the forms of dykes and stocks and in every instance they are accompanied by at least some mineralization. A more or less continuous line of contact between the porphyry and limestone parallels the basalt cliffs.

The length from the Madonna No. 1 to the Madonna No. 4, is approximately 10,000 feet. The outcrops here are larger than upon other portions of the two groups of claims. The widths vary from 70 - 800 feet. (See accompanying map).

GENESIS AND COMPARISONS

All indications point to the porphyry as being the origin of the ore deposits, which are contact metamorphic in type.

The occurance of rich secondary ore to-wit:- malachite, azurite, chrysocolla chalcocite and bornite, near the surface indicate the probable occurrance of primary pyrite and chalcopyrite at no very great depth beneath the surface.

The extensive fractured areas and their well mineralized character are here certainly good indicators of rich ore-bodies of workable size. The great purity of a large part of the limestone certainly favors extensive metasomatism.

Although conditions are not identical to those of the bonanza copper deposits at Bisbee, Arizona, the ores are identical and the general geologic features resemble those of the above camp. Some garnet is to be observed.

DEVELOPMENT WORK

During the early ninties, the Taft No. 8 and No. 9 were worked by chloriders for rich silver ores. One shaft was sunk to a depth of 175 feet, and a considerable area stoped. Numerous shallow workings honey comb the surface here and there. Subsequent shipments from one of the dumps averaged 3½ per cent copper and 23 ounces silver.

A very large outcrop is in evidence on the Taft No. 3 claim.

This outcrop consists of limonite and manganese all accompanied by garnet. A shaft 100 feet deep is well mineralized for it's entire depth. 300 tons of shipping ore were mined from various cuts and shallow tunnels.

On the Taft No. 5 claim, several shafts and open stopes expose considerable ore and leached material. These showings are exceptionally good.

Near the base of the basalt cliffs, a number of small prospect shafts and tunnels were driven. Patches of bornite and chalcocite were encountered in addition to the malachite and chrysocolla. The presence of secondary sulphide near the base of the cliffs certainly is significant for the reason that this basalt may overlie more or less oxidized sulphide ores.

The Raft No. 11 claim contains the "West End" mine. Here a tunnel was driven to the granite limestone contact and an ore-body 40 feet in width was encountered at a depth of approximately 100 feet beneath the surface outcrop. A winze 40 feet deep developed ore for it's entire depth. Numerous shipments were made from this ore-body. At the Madonna Nos. 1, 2 and 3, the contacts outcrops are very strong and also well mineralized. At present, a tunnel driven to the large contact is encountering well mineralized grounds.

SHIPMENTS

In the aggregate 1000 tons of oxidized ore have been shipped from this property. The following compilation of the smelter settlement sheets will give a representative idea of the grade of the copper ores, precious values and net returns.

The following comprises a summation of the settlement sheets received by Messrs. Thompson and Baker in account with the Mason Valley Smelter, located at Wabuska, Nevada.

Date			Per Cent Copper	Ounces - Silver	- Dry Tons	-Gross Value	-Net Returns.
Jan.	23.	1912.	1.95	22.20	23.053	322.27	184.80
Feb.	12.	"	1.31	8.85	26.769	168.96	26.80
"	21.	"	5.67	7.10	19.301	287.88	167.04
"	21.	"	7.22	11.54	15.592	315.62	220.36
"	26.	"	7.30	9.50	32.506	634.05	435.55
Mar.	7.	"	7.68	8.30	49.1725	968.14	668.98
"	13.	"	8.47	12.88	27.77	658.90	490.82
"	21.	"	11.52	9.20	21.669	610.33	477.06
"	28.	"	9.72	9.04	22.011	551.15	439.55
May.	1.	"	9.54	3.06	27. 725	646.33	502.13
"	18.	"	7.60	.70	9.35	162.01	111.58
"	27.	"	6.95	.95	26.247	419.10	292.04
June.	1.	"	1.27	22.08	19.721	269.13	164.86
"	15.	"	5.24	1.87	20.756	294.29	189.59
"	15.	"	6.16	1.70	19.928	326.86	224.23
"	22.	"	5.61	1.80	24.054	343.83	220.33
"	28.	"	5.87	0.00	21.449	324.79	214.61
July.	6.	"	6.40	1.90	21.283	371.78	263.59
"	10.	"	5.12	1.50	21.667	300.61	189.14
"	19.	"	4.90	.95	14.778	180.38	100.17
"	27.	"	4.62	2.86	21.118	274.71	166.15
"	31.	"	5.88	.00	20.452	311.62	206.18
Aug.	7.	"	5.90	3.40	20.23	344.44	248.68
"	10.	"	5.35	2.15	20.563	311.34	200.06
"	21.	"	7.13	1.83	19.208	373.52	276.55
"	30.	"	7.64	5.67	19.08	434.90	337.58
Sept.	14.	"	5.53	6.34	21.187	257.77	147.96
"	23.	"	2.27	2.36	32.015	203.68	39.90
Oct.	1.	"	3.21	3.05	16.819	157.97	70.79
"	9.	"	3.1	4.03	32.289	370.11	178.29
			Av. 5.79	-Av. 5.58	692.767	11198.37	7455.37

ORE RESERVES

As the property is in a prospective stage, the ore in sight at present is not large. The West End Mine and other openings contain approximately 50000 tons of ore averaging about 3 per cent copper.

All the openings contain more or less ore, and future deep developments will no doubt open up large bodies of ore very rapidly.

METALLURGY

The low silica and high iron content, make these copper deposits desirable smelting ores. Limestone as a gangue rock makes the ore self fluxing.

CONCLUSIONS

Both groups of claims are well mineralized and the splendid geological conditions certainly favor the formation of large and rich bodies of copper ore containing gold and silver.

The writer was requested by Mr. B. R. Baker and Mr. G. F. Thompson to act as Consulting Engineer.

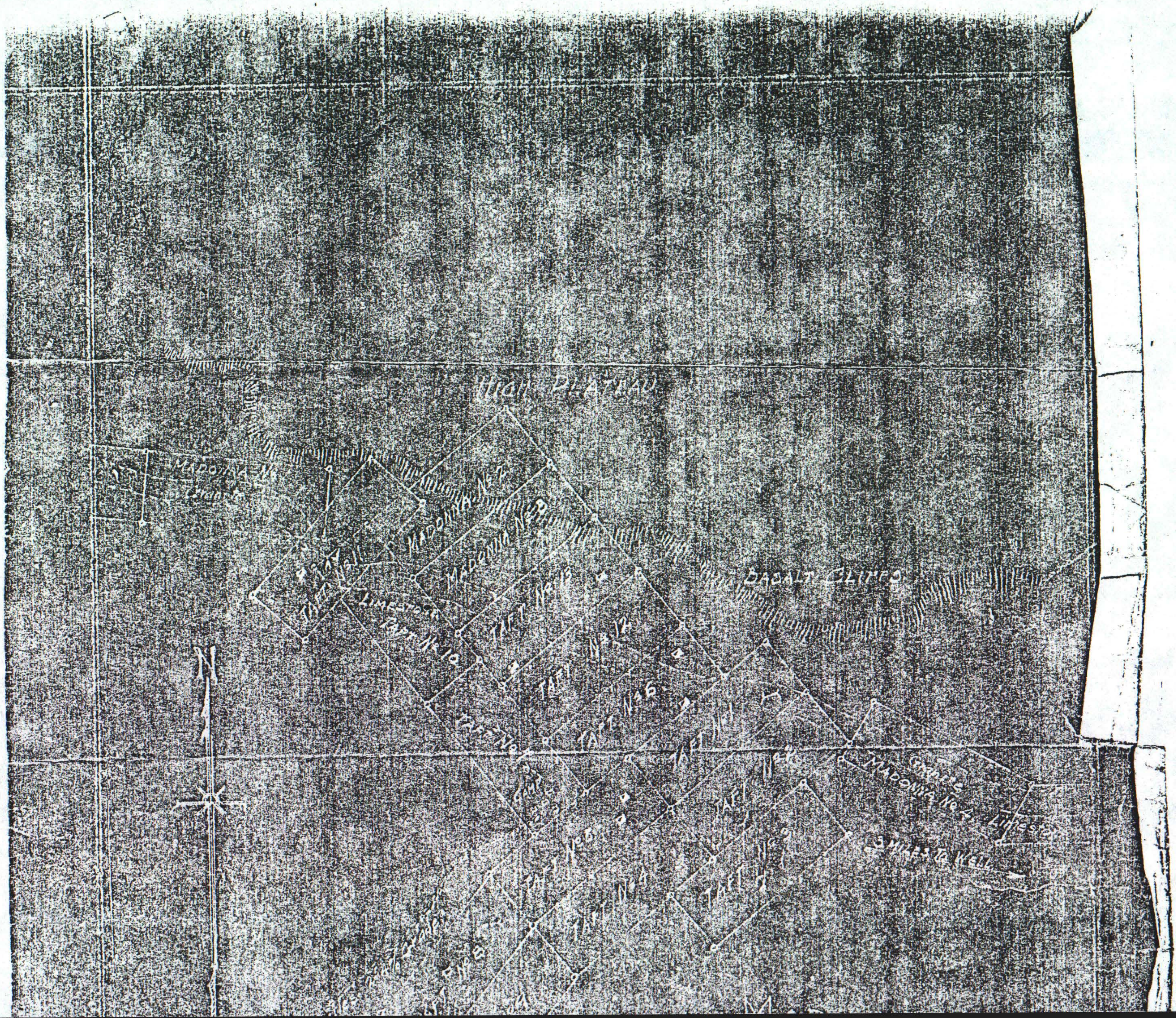
Very respectfully submitted,

F. J. DeWilde.

Map of Taft and Madonna Claims

Showing location of tunnels, shafts and principal line of contact between granite and limestone.

Scale 1" to 1000'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TAFT No 10
Granite
MADONNA No 4
Limestone
3 MILES TO WELL
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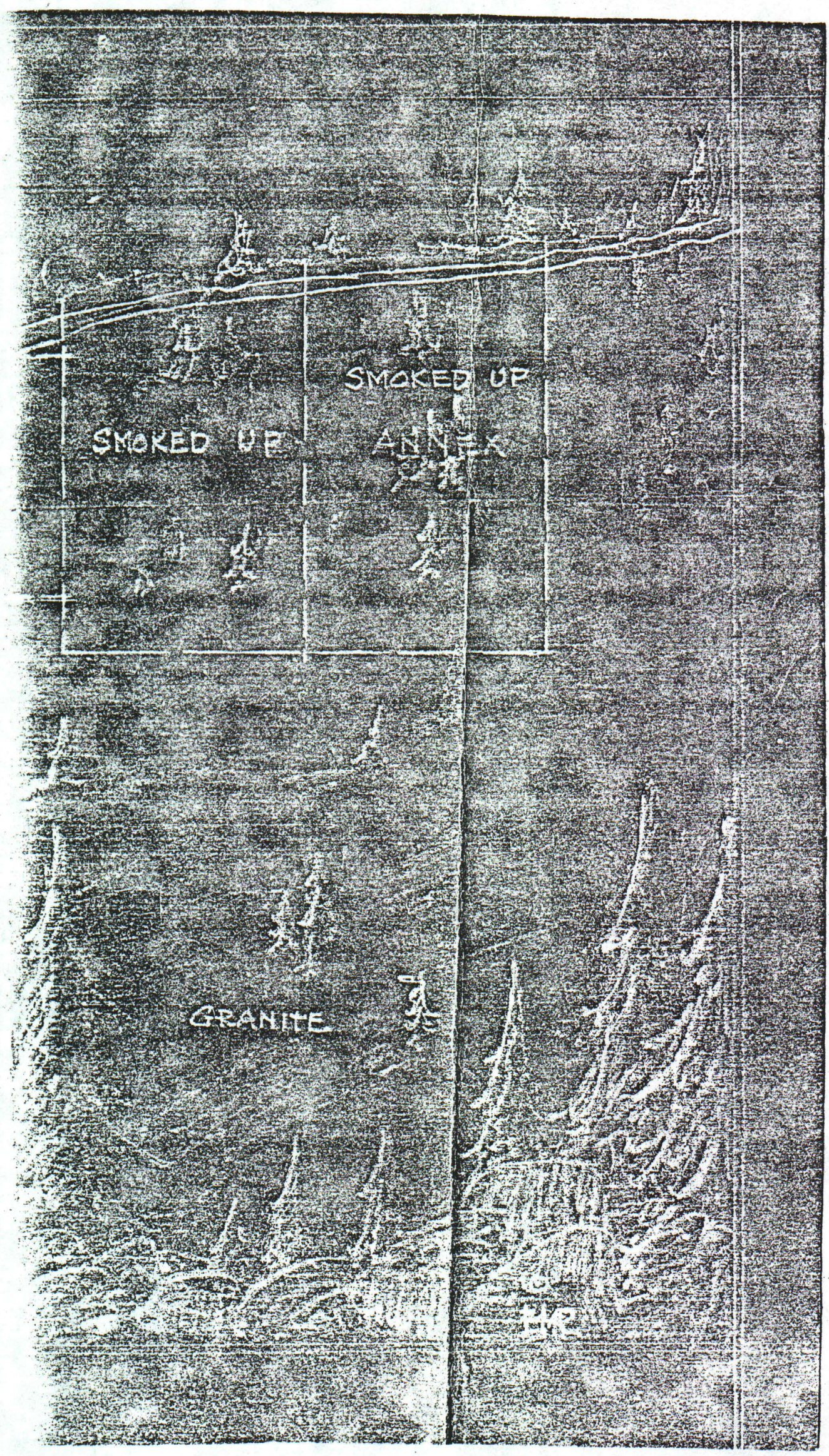
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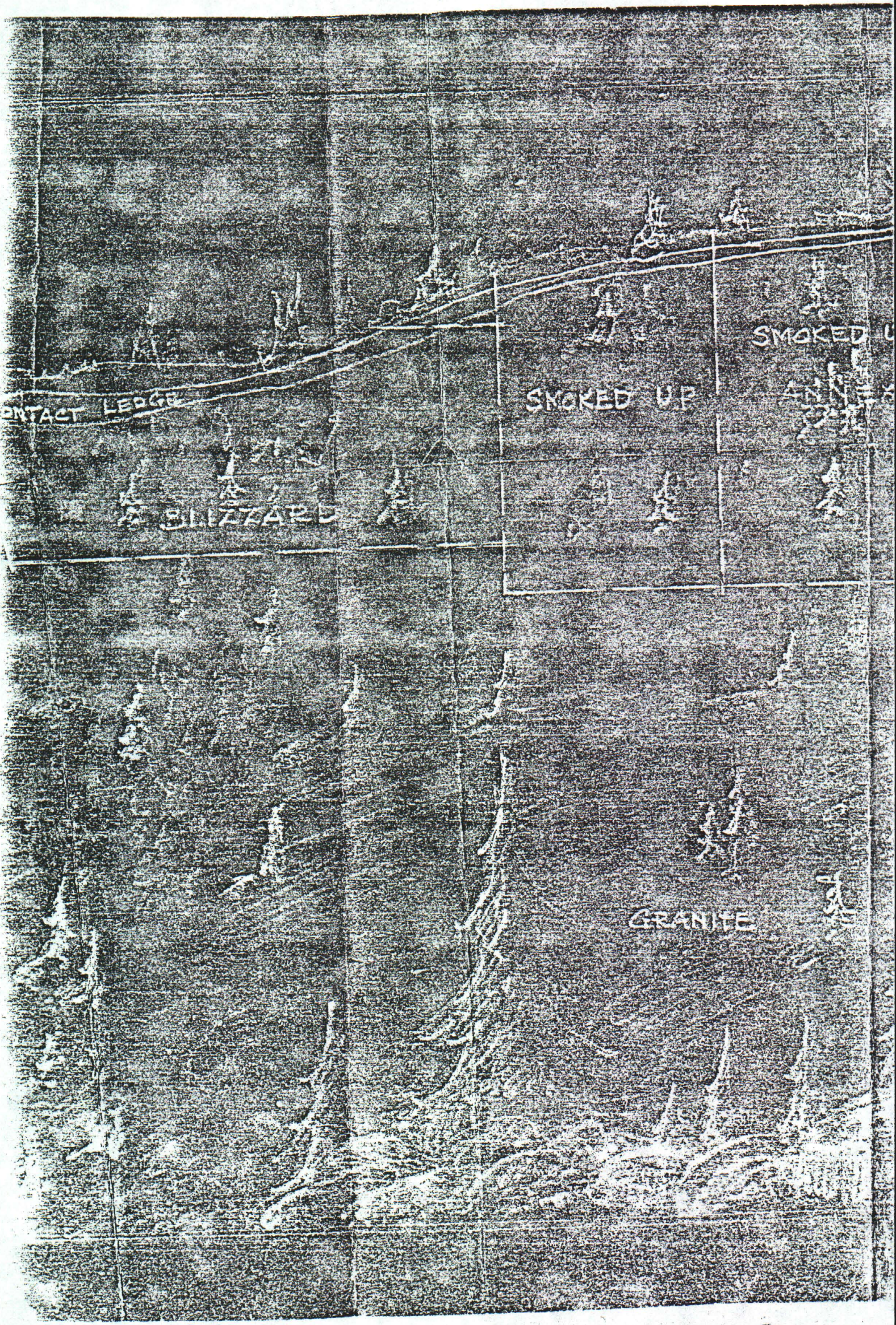
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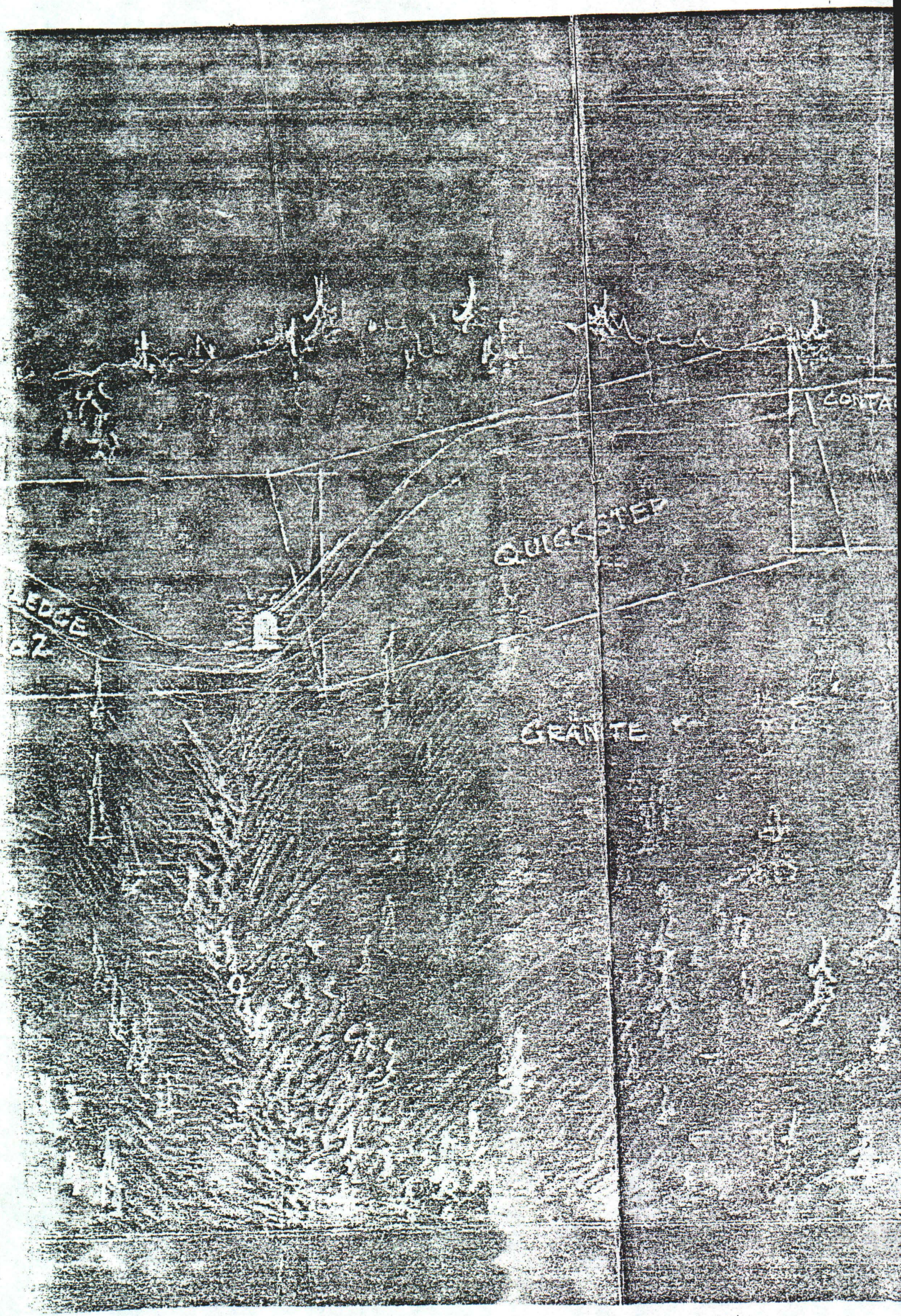
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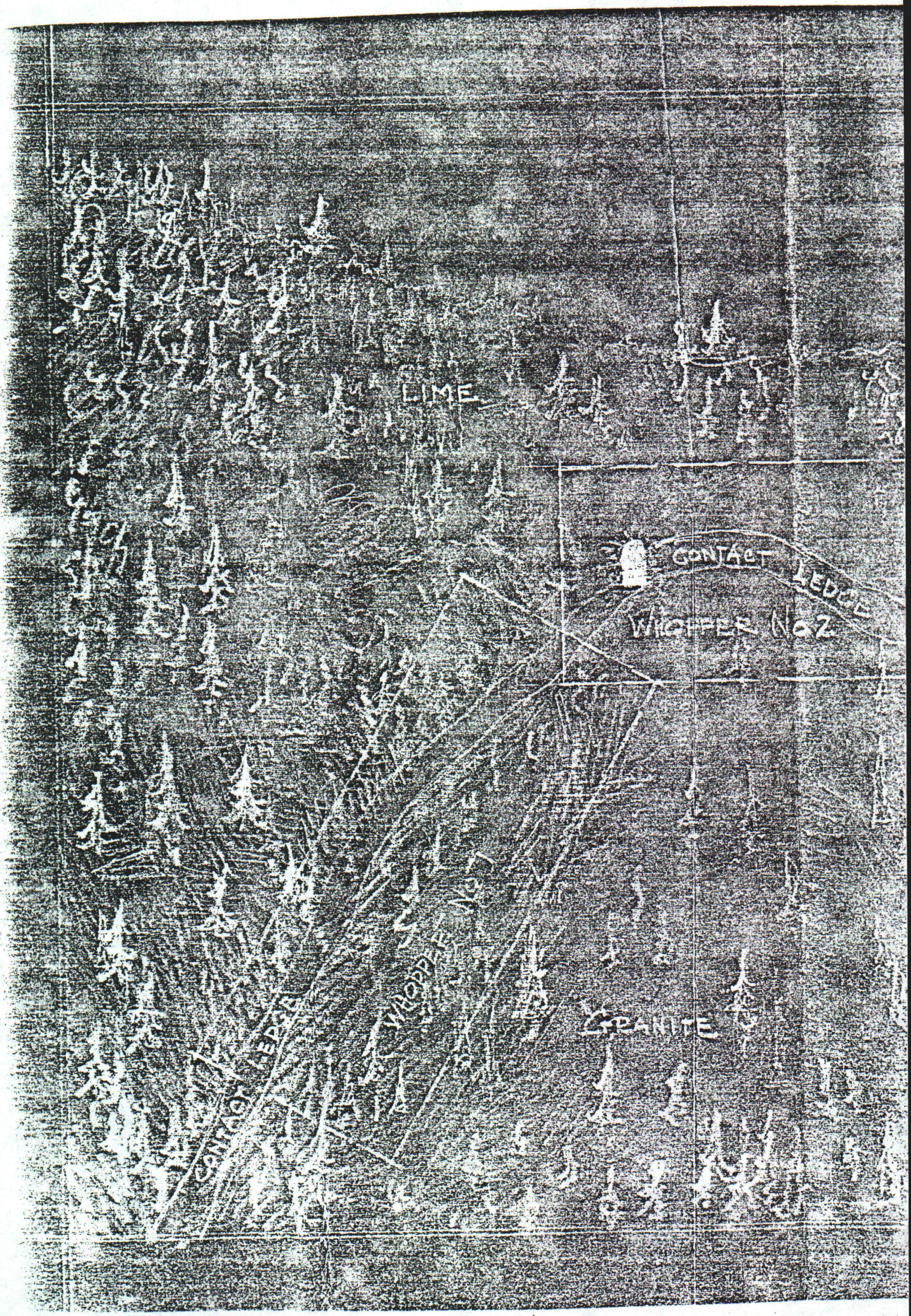
LIME
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