

82FSE030 (2w) Bayonne

97

# PROPERTY FILE

EVALUATION OF **002582**  
BAYONNE MINE *June*  
*1975*  
by  
E.W. Grove, Ph.D., P.Eng.

# PROPERTY FILE

## THE BAYONNE MINE

### Location and Access

The Bayonne group of mineral claims lies on the southwest slope of John Bull Mountain, north of Bayonne Creek, in the Nelson Mining District (Fig. 1). Until 1965, when the Salmo-Creston road was completed, access to the mine was from Tye on the west side of Kootenay Lake, a distance of 23 miles over an unimproved road. The present access is 5.6 miles long from the Salmo-Creston road, starting 4.7 miles east of the summit.

### History

The claims comprising the Bayonne mine proper were staked between 1901 and 1905. Prior to 1915 the veins were developed on three adit levels. The property was relatively inactive until 1929 and work was intermittent until 1935. In 1936 a 60 ton/day cyanide plant was erected and an underground development program was initiated. Significant production was achieved in 1937-38, 1940-42, and in 1946.

### Production

Between 1935 and 1951 the Bayonne mine produced 88,933 tons from which 41,556 oz. gold, 118,474 oz. silver, and about 100,000 pounds of combined lead-zinc were recovered. In the peak production years of 1938 and 1941, the mine employed 83 and 72 men respectively, of which half worked underground.

The cyanide plant and jigs treated an average of about 40 tons of ore per day. The cyanide and jig products were treated and retorted on the property to produce bullion. A single dividend of \$25,000.00 was paid in 1942.

### Geology

The Bayonne mine lies at the southwest corner of the Bayonne batholith. The batholith rock is mainly highly fractured granodiorite with sheets or horses of included, altered country rock.

The Bayonne quartz veins in which the ore occurs are localized within a major northeasterly fracture zone in the granodiorite. The quartz veins are irregular, having a branching nature, and generally have a width of about 2 feet. In anastomosing

vein areas, widths of up to 10 feet have been reported.

### Mineralogy

The primary minerals recognized in the quartz veins include galena, pyrite, sphalerite, chalcopyrite and tetrahedrite listed in order of apparent abundance. Massive lenses of argentiferous galena were reported in parts of the vein system.

The ore consists of oxidized vein material comprizing mainly limonite in a vuggy, or spongy quartz matrix. All the known high-grade has been mined from the oxidized material which lies within 150 feet of the surface. The primary ore which lies below this oxide zone has a lower value with assays of 0.5 to one ounce of gold common. This apparently extends about 50 feet to depth and is in turn replaced by lower grade mineralization averaging about 0.4 ounces of gold.

### Ore Potential

At the time of mine closure in 1946, the mine reserves were estimated at 11,000 tons grading 0.76 ounces gold/ton. This tonnage appears to constitute mainly measured reserves located below 6 level as stope extensions and partly as developed ore. No indicated or inferred tonnage estimates are available (Fig. 2).

Most of these reserves are found in the "A" vein with lesser tonnages in the south and main veins (Fig. 3).

### Current Mine Status

Since cessation of mine development in 1964 the mill, mine buildings, and workings, have seriously deteriorated. It is assumed here that any new production must be preceded by extensive mine rehabilitation, new buildings, and a new mill.

On the basis of the information available, it appears that there is sufficient measured tonnage at the Bayonne Mine to support a small plant. The oxidized nature of the ore will probably require cyanidation and a new closed-circuit system will probably be required.

The potential of the veins has not been tested below 9 level and possible westerly extensions of the veins are also future exploration targets.

### Recommendation

- (1) Mr. Sostad should be requested to comply with Section 72.

Recommendation (cont'd.)

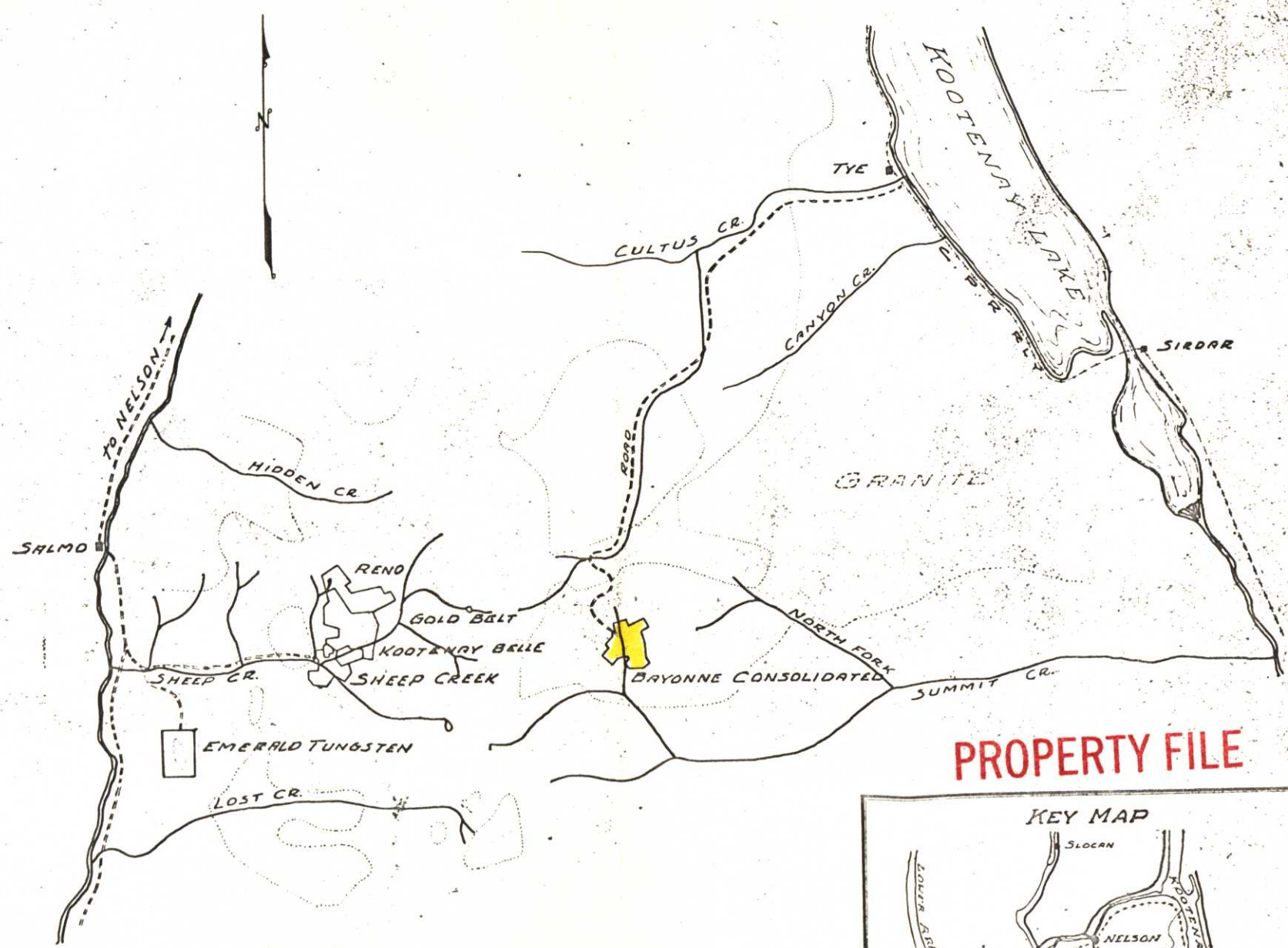
- (2) Inspection Division should be cognizant of the proposal.
- (3) An exploration program should be appended as part of the mine development program.

EWG/jr

E.W. GROVE,  
Senior Geologist, Geological Division,  
Mineral Resources Branch.



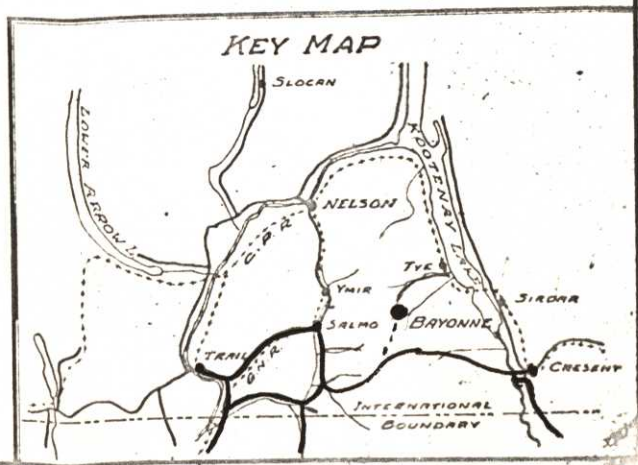
CLAIM MAP  
BAYONNE CONSOLIDATED MINES LTD  
SCALE 1" = 600

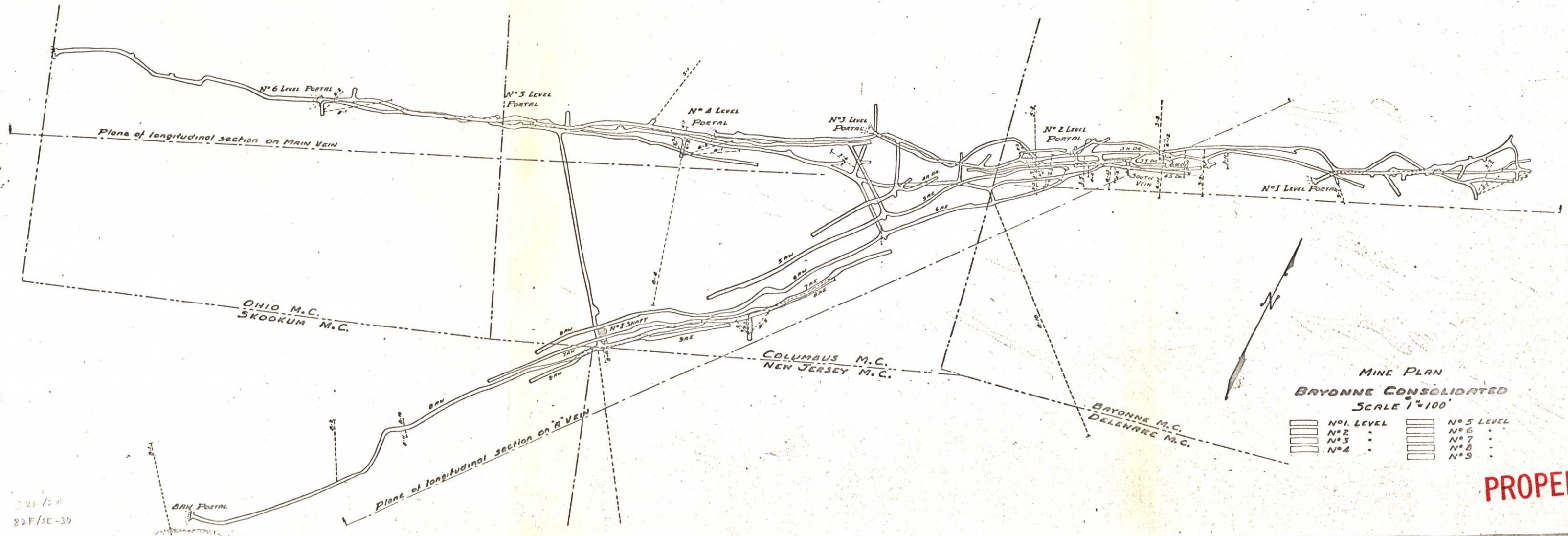
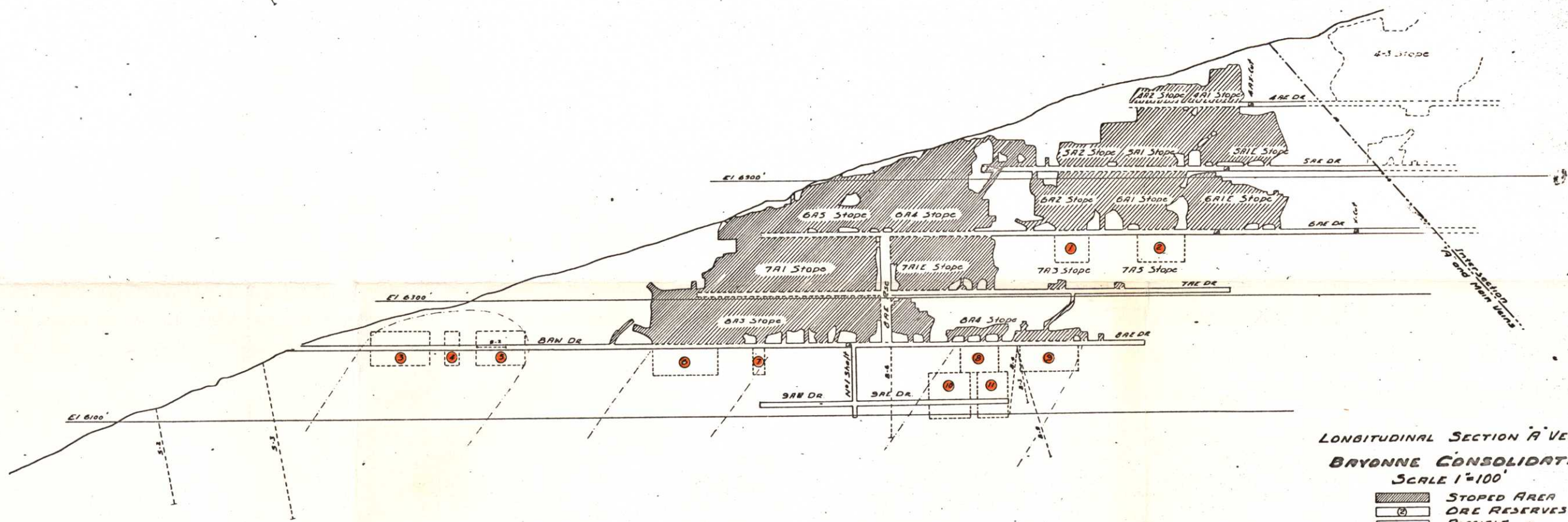
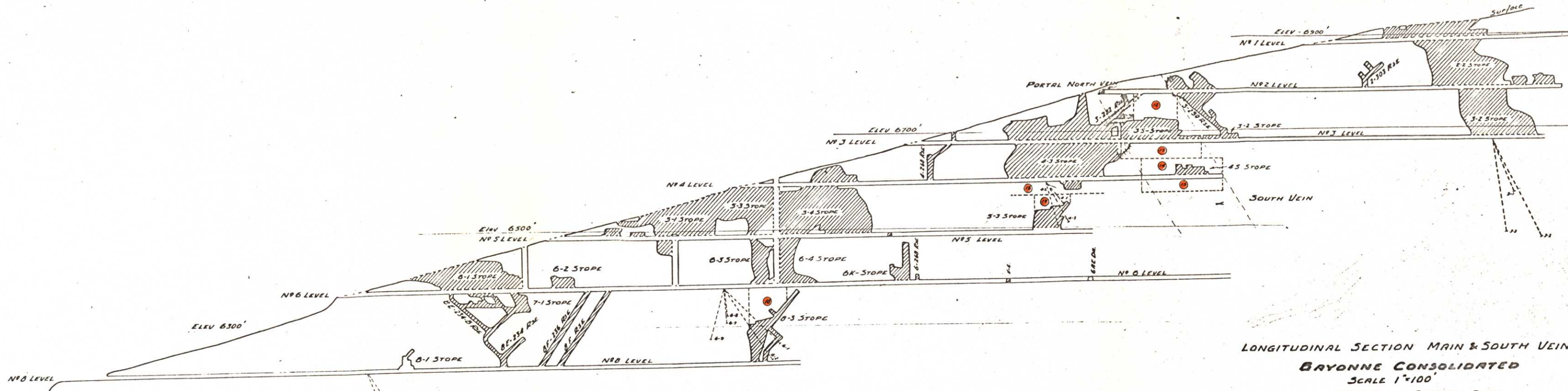


MAP  
Showing  
MINING PROPERTIES  
SHEEP CREEK - BAYONNE AREA  
Scale 1" = 2 miles

32F/20  
82F/51 - 30,31

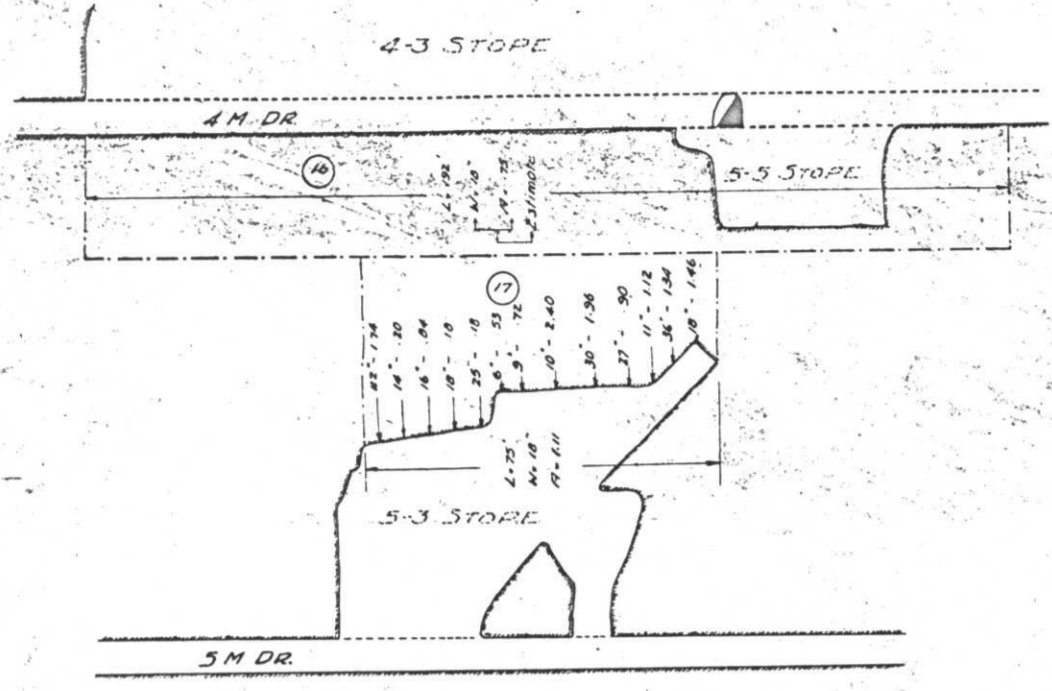
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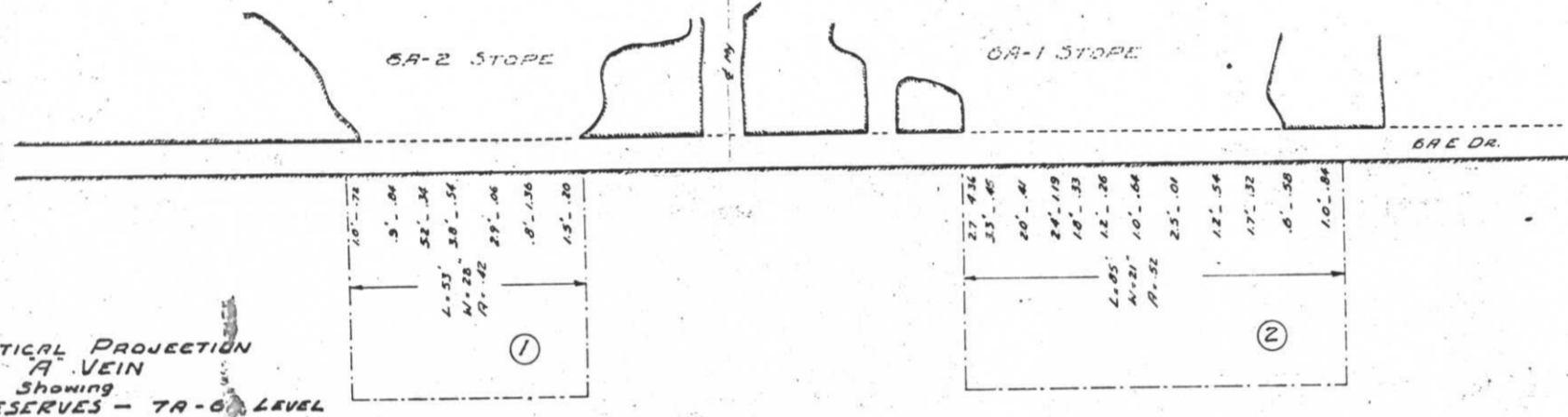


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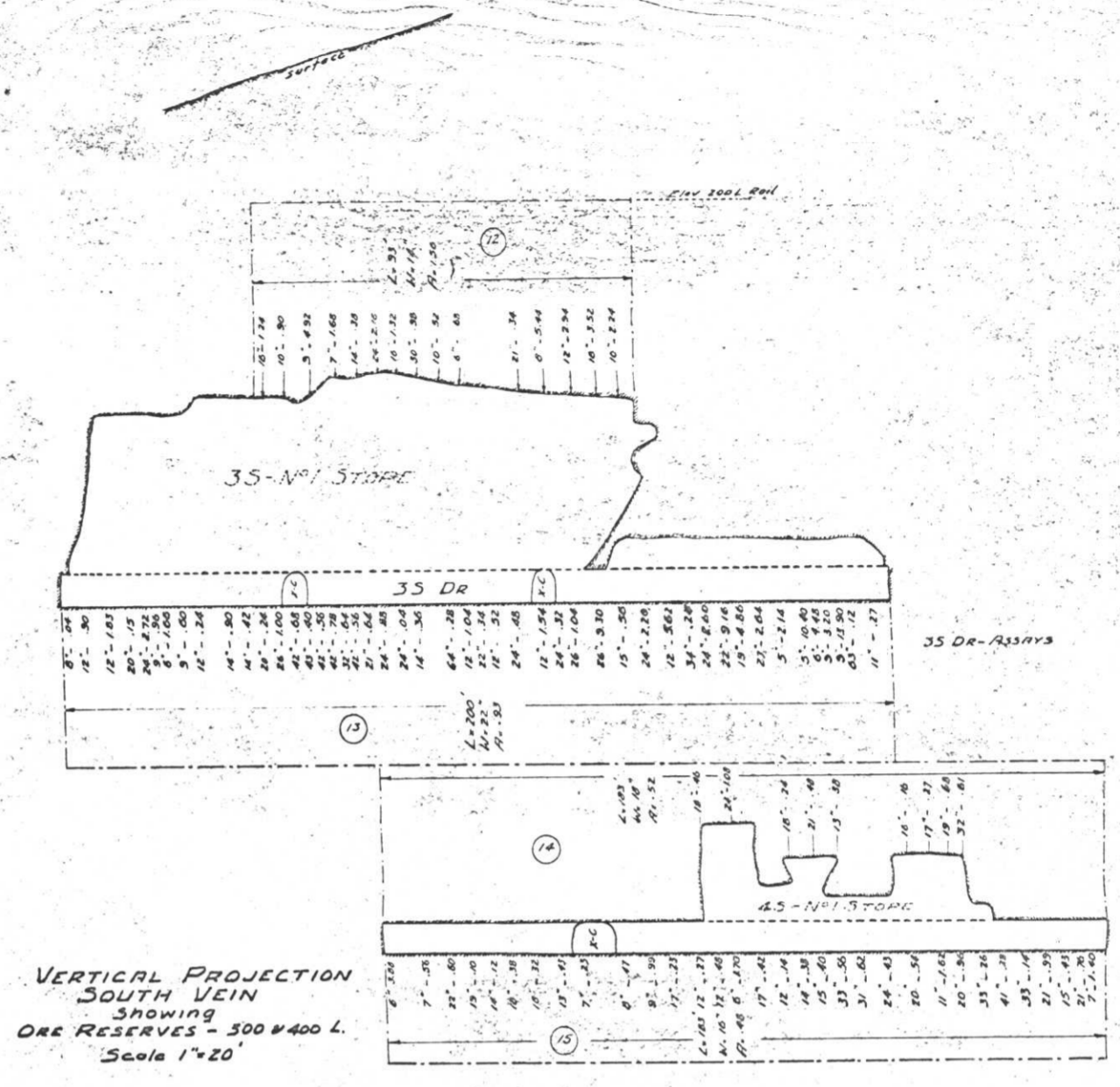
FIG. 2



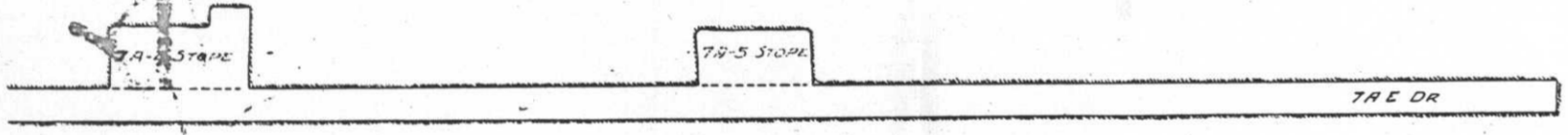
VERTICAL PROJECTION  
MAIN VEIN  
SHOWING  
ORE RESERVES - 5-3 SLOPE  
Scale 1"=20'



VERTICAL PROJECTION  
A VEIN  
SHOWING  
ORE RESERVES - 7A-6 LEVEL  
Scale 1"=20'



VERTICAL PROJECTION  
SOUTH VEIN  
SHOWING  
ORE RESERVES - 500' LEVEL  
Scale 1"=20'



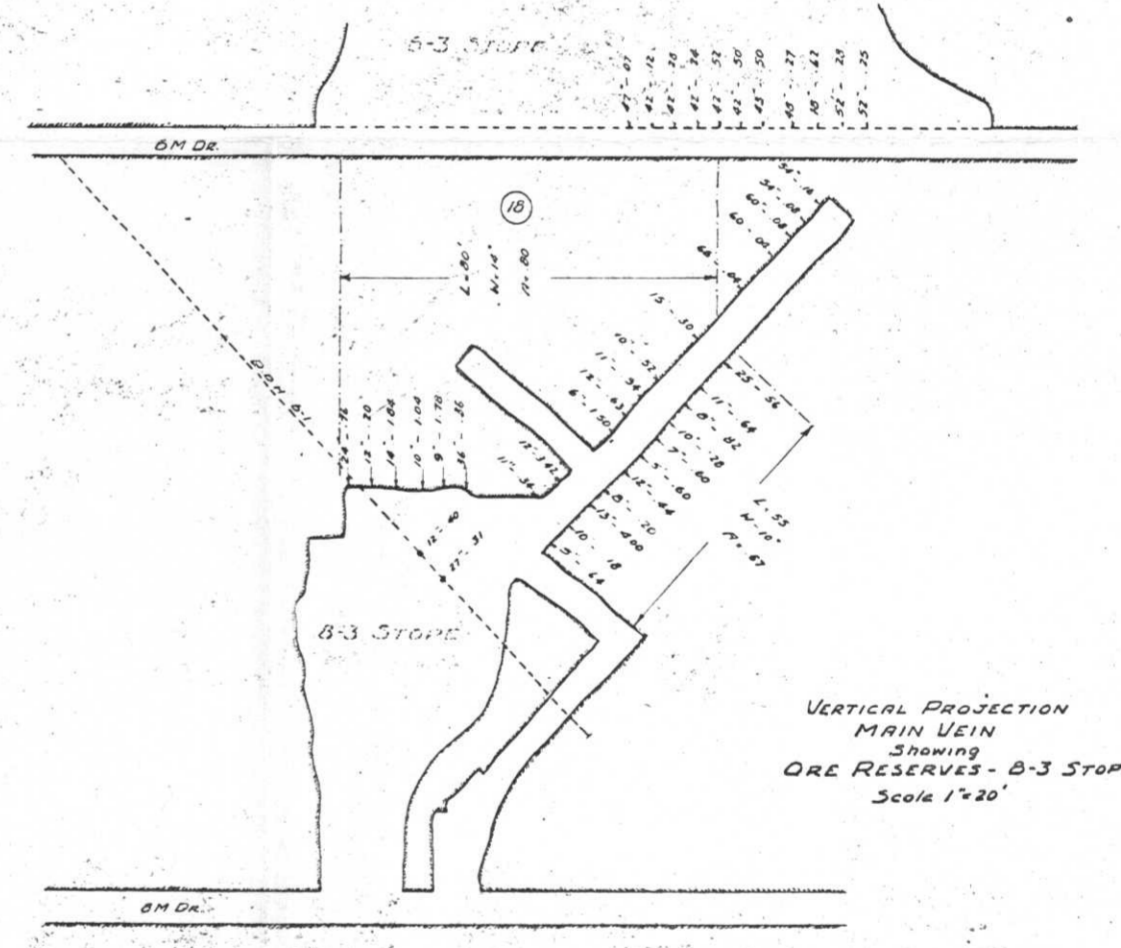
VEIN	BLOCK#	TONS	WIDTH	GRADE
A	1	600	28"	.42
A	2	700	21"	.52
A	3	600	12"	.75
A	4	100	10"	1.35
A	5	300	9"	1.13
A	6	1,000	22"	.54
A	7	400	32"	1.10
A	8	300	18"	1.04
A	9	900	24"	1.13
A	10	900	21"	.47
A	11	900	18"	.59
TOTAL		6,300	21"	.72

VEIN	BLOCK#	TONS	WIDTH	GRADE
SOUTH	12	500	14"	1.56
SOUTH	13	1,300	22"	.93
SOUTH	14	300	18"	.52
SOUTH	15	600	10"	.48
TOTAL		3,300	19"	.81
MAIN	16	700	18"	.75
MAIN	17	400	18"	1.11
MAIN	18	300	14"	.80
TOTAL		1,400	17"	.87

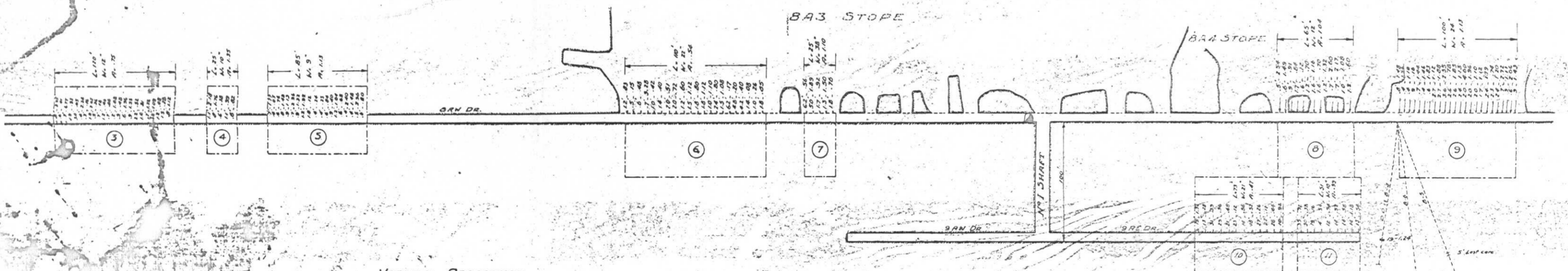
**SUMMARY OF ORE RESERVES**

VEIN	TONS	WIDTH	GRADE-OR.AWT
A	6,300	21"	0.72
S	3,300	19"	0.81
MAIN	1,400	17"	0.87
TOTAL	11,000	20"	0.76

Note:  
In calculating Ore Reserves:  
1. All high erratic assays cut.  
2. No allowance made for dilution.  
3. Tons, widths & assays weighted.  
4. No estimate made of possible ore.



VERTICAL PROJECTION  
MAIN VEIN  
SHOWING  
ORE RESERVES - B-3 SLOPE  
Scale 1"=20'



VERTICAL PROJECTION  
A VEIN  
SHOWING  
ORE RESERVES - B LEVEL & 9 LEVEL  
Scale 1"=40'

PROPERTY FILE