(101)

ITEM 109

3860 0032

REPORT ON
MOHAWK MINE, ARGENTITE
ESMERALDA COUNTY, NEVADA

By Ira B. Joralemon April 28, 1964

The Mohawk Mine is 24 miles by dirt road climbing 4000 feet from Silver Peak, Nevada. A shorter but steeper 12 mile road can probably be reconditioned at low expense. The principal outcrops are high on the west slope of the Silver Peak Mountains, at 7000 to 9000 ft. elevation. The mine and camp are well equipped for operation at the rate of about 200 tons per day. A good 200 ton flotation mill was built at Silver Peak, but the refractory ore yielded little more than 50% recovery. Tests showed that cyaniding is just as bad. American Cyanamid and Sunshine Mining Company are said to have obtained a 90% extraction in small tests by roasting followed by cyaniding. Further testing must be done.

There has been great interest in the Mohawk Mine during the past three years. Mr. Avery Brundage of Chicago, with Mr. E. R. Hines of Tonopah in direct charge, developed a beautiful body of 40 ounce silver ore on a tunnel level, 100 to 150 feet below the surface. Many companies, including Anaconda and AMAX, made detailed examinations but could not obtain satisfactory terms. In 1953 Sunshine Mining Company took over the property on option, but did not find enough additional ore to justify the severe terms asked by Mr. Brundage. The terms asked are still very severe, for the reason that Mr. Brundage has spent more than $1,000,000 on the property, and is in such a high tax bracket from other sources that he must rely on capital gains rather than income to get his investment back. He now asks a guaranteed payment of $350,000, of which $55,000 must be paid this year, and the balance can come out of a royalty varying with grade of ore from 10% to 25% of net mint or smelter returns; and after this is paid a continuing royalty of 10%. While the terms are almost prohibitive, the great interest in the property by large companies justified an examination.

GEOLOGY

The country rock at Argentite is andesitic lava and tuff, with obscure bedding. Impure sandstone and other sediments underlie the volcanic rocks on the east slope of the mountain, 2000 feet below the Mohawk outcrops.

The strong Mohawk vein or mineralized shear zone strikes

(10)

ITEM 110

N 18° E and has an average dip of 55 degrees West. Outcrops are generally covered by soil or talus, but pits and trenches indicate that the vein is 8000 feet or more long, of which the central 3500 feet are in the Mohawk group. Values in the pits and trenches are very low, and there was no surface indication of the rich ore found at depth. The vein material consists of quartz, barite, iron and manganese oxides; iron, manganese and calcium carbonates; and highly altered andesite, with 1% to 2% lead and from a trace to 100 ounces per ton of silver, in the form of argentite and silver chloride. The vein itself is from a few feet to 50 or more feet in width, and the walls are highly altered and iron stained through a much greater width. The better silver values are in rather soft banded limonite, manganese oxide, and quartz, in the center or hanging wall of the wide, lean material. The harder quartz and carbonates are generally barren. The vein is thoroughly oxidized at the lowest developed horizon, though the material is less porous there than on upper levels.

DEVELOPMENT

The underground workings and orebodies at the Mohawk Mine are shown on the accompanying vertical projection. Older workings consisted of a 55 degree inclined shaft with short levels 100, 200, 300, 400 and 500 feet on the slope below the surface. This work found only low grade material. Mr. Brundage ran a tunnel from the south, connecting with the shaft at the 218 foot level, and found the high grade South Orebody as well as the North Orebody. Sunshine Mining Company continued this tunnel, and did additional drifting on the 500 level. It added little to the indicated ore, and so gave up the option. The last 300 feet on the 218 foot level were run to the northeast, in the footwall of the vein. All ore thus far developed is within 1015 feet along the strike of the vein, and the maximum developed length is 1215 feet, not including crosscuts that are not on the main fissure.

ORESBODIES

As shown on the projection, the main orebody extends from 210 to 532.5 feet south of the shaft on the 218 foot level. The northern half of the orebody is 5 to 7 feet wide. Then it expands at the intersection of the 55 degree dipping vein with a series of nearly vertical hanging wall branches to a maximum width of more than 30 feet of high grade ore. The steep stringers seem to leave the main vein at an acute angle to the south, and both these stringers and the flatter footwall become low grade a short distance from the intersection. At the north end also the silver content drops to less than 10 ounces. Four raises show that ore extends up the footwall for 25 to 30 feet, and an inclined winze is said to be in ore 80 feet below the 218 foot level.

Channel samples by Anaconda and AS&R in the main orebody, 218 ft. level, average 41.5 oz. Ag, 1.5% Pb and 0.01 oz. Au for 13.6 ft. in average width and 322.5 ft. length. Car samples averaged 36.6 oz. Ag. It is safe to assume 322.5 ft. by 13.6 ft., averaging 40 oz. Ag per ton.

On the 500 level down the dip from this beautiful orebody the main drift found much alteration, with quartz and iron oxide stringers, but only scattered values and no ore. A parallel vein 80 ft. in the footwall, near the south end of the 500 level, found 100 ft. of ore 4.7 ft. wide averaging about 17 oz. Ag per ton, with lean material in both ends of the drift. The average dip from this footwall vein to the 218 ft. level is 60 degrees. If there is a flat southerly pitch, along the intersection of the footwall vein with the steep hanging wall stringers, there may be better ore further south on the 500 level.

The north orebody on the 218 ft. level extends from 185 to 320 ft. north of the shaft. Channel samples for the 235 ft. length average 37.7 oz. Ag for 5.7 ft. width. Car samples, representing a slightly greater width, averaged 35.5 oz. It seems safe to assume 32 oz. for the actual grade. The 300 ft. level north drift is just entering the ore 155 feet from the shaft. In the 500 level north drift there are two small orebodies. The first, from 20 to 110 ft. north of the shaft, is 90 ft. long by 5.3 ft. wide averaging 17.3 oz. Ag according to channel samples and 14.8 oz. from car samples. The second, from 200 ft. north to the face at 255 ft., is 55 ft. long by 4.8 ft. wide averaging 29.4 oz. Ag from channel samples, but only 15.6 oz. Ag from cut samples. The true grade may approximate 22 oz. The north face assays 32.4 oz. across 6.5 ft., and there may be a fair extension in this direction.

With the probable specific gravity factor of 13 cubic ft. per ton, the south orebody on the 218 ft. level would make 340 tons of 40 oz. ore per vertical foot, and on the 500 level only 36 tons of 17 oz.ore per vertical foot. The wide ore at the intersection with steep hanging wall branches, that makes the relatively large tonnage of rich ore on the 218 foot level, may extend for less than 100 feet vertically. Until the vertical extent of this wide ore is proven, it is dangerous to assume more than 50,000 tons of 30 to 35 oz. ore in the South Orebody.

The North Orebody on the 218 foot level will make 130 tons of 32 oz. ore per vertical foot, and on the 500 level only 54 tons of 18 oz. ore per vertical foot. It is not safe to estimate more than 20,000 tons of 25 ounce ore in this body, though further development may increase the tonnage.

CONCLUSION

In spite of the beautiful showings on the 218 foot level, development completed thus far indicates only a small tonnage of fairly rich ore in the Mohawk Mine. The orebodies are like those in the Nivloc Mine, about three miles east of the Mohawk and 1600 feet lower in altitude, but are much smaller and no richer. The Nivloc ore played out at depths of 800 to 900 feet. The low assays on the 500 level of the Mohawk suggest that the vertical extent of Mohawk ore may be even lower.

If a satisfactory treatment process can be installed at the Mohawk Mill at moderate expense, the mine may make an operating profit of nearly a million dollars above future expenditures. This will not justify purchase of the mine on the terms asked by Mr. Brundage.

Mohawk or Argentite Mine Apr. 20 '54

E R Hines Brady Enterprises Box 589 Tonopah Nev

Located 24 m. by dirt road using 4000 ft. from Silver Peak Esmeralda Co. Nev. Road fair. A shorter road could - they say - be made by bulldozer from an old road S W from Silver Peak, cutting the dist. to 12 miles - but still 4000 ft. rise, from 4000 to 8000 ft. elev. Claims are on the high west slope of the Silver Peak range, from 8000 to 9000 ft. above sea level, on steep slopes with scattered pinion. The nearest water is in small springs 2 to 5 m. away.

The 200 T flotation mill is at Silver Peak, ore must be hauled there. Mill - in a good gable iron building - crushing plant separate. Ample water is avail. close to the mill.

Main equip. is

200 T coarse ore bin
← Jaw crusher
← Conveyor
4 ft Symons cone crusher
Conveyor
2 800 T fine ore bin
7 ft. Hardinge ball mill
6 x 24 ft. rake classifier
240,000 gallon 5 tray Dorr thickener - outside building
9 Denver + 6 Ragers flotation cells
8 x 24 ft. concentrate thickener
5 leaf Amer. filter

The mill (formerly Black Mammoth) was rebuilt after a fire with almost all new equipment. It proved not suitable for Mohawk ore, - only about 50% recov. - and Amer. Cyan. Co. found cyaniding equally bad. Cyan. after flot. increased recov. very little. By leaching in sulphuric acid + cyan. tails Amer. Cyan. got a 85% recov. on 6.5 oz. ore, and a similar recov. by roasting with 20% wood blocks at 700° C then cyaniding. Both of these processes seemed too costly. Possibly heating solutions would help. Solving the metallurgy is the most urgent problem.

Hines says that later tests by Sunshine (Church Holmes) and Collins of San Francisco give over 90% recov. by roasting to 1200°F + cyaniding.

Lead. The strong vein or shear zone strikes nearly N 16° E N S + dips ± 55° W, cutting highly altered andesite. Mineralization is in a wide zone - up to 50 or 60 ft. - of thoroughly silicified andesite, Fe + Mn carbonates, calcite, often barite + much limonite + Mn oxide. Most of the silicified or carbonated material is very lean - 2 oz Ag or less. Bands of ribbon quartz, iron + manganese oxides + barite, from a few ft to a max. of 5 ft. wide, carry from 10 to 100 or more oz Ag, in shoots several hundred feet long. Am Cyanamid reports

2

Argentite Mohawk

~~and Ag a partly in argentite and horn silver, partly~~ locked up with the Mn minerals. All are in strongly ox. down to the 500 level – though the limonite + MnO_4 seem less open + porous there.

At the end of working on the 218 foot level level many stringers branch dipping stringers near the 55 degree most dipping footwall, which is rather indefinite. The expansion to 300 or 400 ft. of ruck are within body may be due to the intersection of the steep flatter structures. The 500 is under this and but found only a narrow band of 55 dipping ore, a little to far in the footwall and a limonite band with lean values 50 ft. further in the hanging. Below there is a long time still further in the foot, the ruck are has pinched below the intersection with the steep fracture.

From the barge south orebody had the 55° incline there is a 300 ft. stretch of lean vein with much iron stained quartz but little ribbon limonite, barite rare. Then comes in the North Orebody averaging about 6 ft. wide of fair ribbon ore. North of this a zone of indistinct N 35° E fractures cut the course of the vein with a lot of iron stain + alteration but little solid vein material. The Sunshine north drift followed this lean zone for about 400 ft. Geochemists suggest that the main vein resumes its normal strike beyond the NE fracture, but it is represented by several lean Fe or stringers in a line width of 20 ft. or more. Outcrops high up on a 2000 ft. ridge suggest that the vein may continue 3000 ft. or more on N to the property line, but more has been found by shallow pits.

The main Mohawk Argentite group includes 4 claims (one short) totalling 5300 ft. along the zone, with 2 hanging wall claims. The vein is said to continue S into the Argentite Hard Co. group in the canyon owned by Burndage + Tiner, and north into a group owned by

into claims owned by Shirley Bros. So the vein may be 5000 ft. long.

The prop. to the NW is said to have a 3 ft. vein of fair ore amenable to flotation. The values in silver are from 0.02 to 0.04 oz per ton

Argentite & Mohawk. Continued Mar 21 '54 3

Indicated Ore

South Orebody

218 ft Level 320' x 1.25' ± 42.7 g Agpt (Maybe 4 oz ±)

3 Raises 25-30' above 218 Lev. Tops 25 oz

Winze 20' below 218 Lev Bot. 36 oz

500 Lev. – FW 100' x 5' ± 15 oz (check)

North Orebody

218 Level 220' x 6' ? 35 oz ? 90 to 310' S

500 " " 80' x 6.3' ±24 oz ? 90–100 & 200–250

No 12.5 cu ft per T

218 Lev & One makes 450 T per vert ft

320 " 40

Total ore makes 490 ÷ 2 = 245 Tons

Vert. Interval = 25 + 400 = 425 ft

Poss. Tons 104,000

Phone to Mr Avery Brundage – Stat. 2-6168 Apt. Mar 21 from Rene to Chu

No forgiveness for 1,000,000 spent.

Arrangement can be changed if not satisfied

Must 1. Sell the mean substantial cash, & initials.

Arrange depends on his gamble.

Does 350,000 to Brundage incl. 370,000 to Shulman?

Need 250,000 new money – of which 50,000 to Brundage.

4

Mohawk – Argentite Contin

Terms suggested by Mr. E.R. Kimes Apr 20 '54

Cash to Brundage $25,000
To Brundage Nov '53 30,000
Guaranteed Addit. to Brundage, out of 2.00 pt, or 10% of ptg, Shirley rd 125,000
To Shirley, out of Roy. 10% on 10.00 & 25% on 25.00 ore +, Guaranteed compl. by May 1956 170,000

Total Guaranteed Prop. Payts $350,000

(Note: At first said Brundage was to be given 350,000, not inclusive of 170,000 to Shirley. Both Kimes + Brundage later indicated the smaller figure).

Probable Added Expense

Mine expense, 4 mos. for testing + mg. for revamping mill 40,000
Overhead, Admin + Exec 4,000
Testing ore, maybe 10,000
Revamping Mill — Maybe 100,000
Working Cap. say 50,000
Total

Plus Prop. Payts. before prod. 204,000
Total Minimum new money — 55,000
259,000

The balance of 295,000 in guaranteed property payts will, with luck, be paid out of profits

Apr 21 If ore avg. 35 oz Ag to mill
Recover 90% or 31.5 oz @ .90 = 28.35 per ton
Royalties – To Shirley 25% 7.09
To Brundage 2.00 pt 2.00
9.09
Remains for exp + prof. $ 19.26 pt

Poss. Costs – @ 200 T p.d.
Mining — 9.00
Milling 5.00
Overhead 1.00
15.00 "
Poss. gain 4.26 pt
Less Inc. Tax, maybe 1.00
Gain 3.26 pt × 24000 78,500
Tons to pay Shirley 170,000 24,000 or ± 5 mos.
Payt. to Brundage out of this 48,000
Tons to complete Brundage, 77,000 ÷ 2.835 27,200 T or ± 5.5 mo.
Gain to Co. from 27,200 T × 10.50 = 285,600 Tax 5,214,000 10½ mos. on 259,000 new money

125.00
9.00
77.00
28.35
2.85
25.50
15
10.50
214,000
292,500

Mohawk – Argentite Mine Ap. 27 '54
Contin.

Analysis of Assay Maps.

248 Lev. South – S. to N. – Tunnel

Location – NE of Portal	Channels – Length	Width	oz Ag	L×W	L×W×Ag	Car Samp. – Length	oz Ag	Sunshine % Pb
150'		No Samples				8'	11.2	
170'	30'	12.0 Ss	42.1	360.0	14400		29.3	
		6.0 Ss	45.9 (Dissg)				13.1	
200	17.5	7.0 Ss	7.2	122.5	880		34.5	2.45
215	15.0	8.0 Ss	2.9	120.0	348		42.0	1.60
230	15.0	8.0 Ss	4.6	120.0	552		34.5	1.35
245	15.0	8.0 Ss	86.6	120.0	10392		42.2	2.00
260	20.0	6.4 Ss	109.7	120.0	12060		34.5	1.35
		3.5 Ass	90.7				61.4	1.90
285	20.0	10.5 Ss	44.3	210.0	9300		39.0	1.60
300	9.0	28.0 Ass	40.3	252.0	10150		47.7	1.90
303	13.0	25.0 Ss	20.9 (Dissg)				25.4	1.15
		25.0 Ss	46.9	325.0	15230		35.4	1.10
326	29.0	31.0 Ss	40.1	900.0	36090		30.5	1.15
362	25.0	23.0 Ass	55.8	645.0	36000		19.5	1.58
382	16.5	11.0 Ss	42.2	182.0	7680		11.6	1.25
395	20.5	7.6 Ss	60.0	156.0	9360		7.5	1.25
423	34.0	7.5	30.3	255.0	7720		47.7	1.20
463	40.0	12.8	24.4	512.0	12470		25.8	1.90
							14.3	1.40
							32.7	1.20
							21.2	1.80
							47.2	1.70
							72.7	1.80
	322.5	13.6	41.5	43995	182632		80.7	316÷21 = 15.0
							98.1	Ag Contin
							97.5	50.1
							71.7	41.9
							59.6	34.1
							41.6	34.9
							48.9	34.5
							45.2	44.5
							39.6	12.8
							40.8	12.8
							31.4	25.8
							23.2	39.8
							25.0	43.8
							21.8	30.7
							39.7	30.5
							64.0	34.0
							67.0	24.1
							67.6	29.4
							68.5	22.6
							48.7	24.8
							45.6	24.2
							53.6	34.1
							48.8	33.3
							67.7	38.7
							48.2	30.3
							53.6	42.4
							47.4	33.0
							47.9	34.0
							39.7	22.4
							41.8	24.1
							40.5	17.3
							34.8	14.0
							39.7	14.6
							45.6	14.0
							47.8	17.4
							47.4	15.2
							35.7	18.2
							43.3	18.4
							40.1	19.1

11.9 703
6.0 495
17.9

695
485
210
322
532.1

2.5
20.9
25.1
17.3
16.5

43.0
33.0
72.4
69.0
38.7
42.2
60.0

480

Anaconda Sect. gives 43,400 T per Vert. Ft
for 100 ft – "Possible" – 42.1 oz p.t.

Grabs 42387 ÷ 113 = 36.602

So an excellent check, as grab samples represent a somewhat greater width than channels. Channels are roundely separated that 40 oz. seems a safer average for 322.5×13.6 or 44000 oz/ft., ÷ 13 = 340 tons per vert. ft.

Mohawk Mine Assay Map - contin - Ap 27 '54

Inferred on 218' Level

Portal + 480 to ℄ Shaft
℄ Shaft to 85' N.

215' (to 695')
85'
300'

4049 ÷ 43 = 9.4 oz av
(2.2 to 23.3 oz

Loc No & Sh.	L	W	oz Ag	L×W	L×W×Ag	Cars 33
185–195	10.0	5.5	21.6	55.0	1190	22.4
95–110	15.0	7.0	32.4	105.0	3400	25.2
110–125	15.0	7.1	32.9	106.5	3500	24.4
125–135	10.0	6.7	29.8	67.0	1998	32.6
135–145	10.0	6.5	29.6	65.0	1920	27.0
145–155	10.0	5.7	29.1	57.0	1658	32.5
155–165	10.0	6.4	33.1	64.0	2115	26.7
165–177	12.0	6.6	50.3	79.2	3980	25.9
177–188	11.0	5.8	78.6	63.8	5010	25.3
188–199	11.0	7.0	63.9	77.0	4910	26.4
199–210	11.0	6.4	47.6	70.4	1240	23.3
210–220	11.0	6.2	20.7	68.2	1410	29.1
220–230	10.0	5.0	55.2	50.0	2760	27.3
230–240	10.0	5.4	24.3	54.0	1310	25.6
240–250	10.0	6.0	29.1	60.0	1746	32.9
250–260	10.0	4.0	36.5	40.0	1460	31.9
260–270	10.0	5.2	28.7	52.0	1491	27.7
270–280	10.0	4.6	64.1	46.0	2950	26.9
280–290	10.0	4.4	56.6	44.0	2485	32.9
290–300	10.0	4.2	40.1	42.0	1681	22.1
300–310	10.0	3.0	32.5	30.0	975	22.3
310–320	10.0	3.8	31.1	38.0	1180	2.8
				1332.1	50369	9.1

Sunshine Chan-nel width 10 ft

695
520
1215

235 × 5.7'
÷ 13 = 102 T per Vert Ft 37,70 oz

320–470' 0.8 to 1.5' 6.6 to 28.8 Grabs
< 10 oz

470–520 0.3 oz

520–815 N55E < 1 oz

+c NW @ 520 120' Best site 2.0' 59

+c NW @ 640 8d Best on 3.8

May be a vein in crosscuts, but no good

Say 3 oz

10.5
17.1
16.3
22.4
22.0
4.6
14.3
11.6
21.1
24.6
24.2
47.8
35.6
40.8
32.6
21.7
46.8
42.9
34.3
23.5
24.9
25.6
17.6
1295.9
÷ 47 26.5 oz

Mohawk Mine Assay Maps - Contin. 4-27-54

300 Lev. 118' S 20° W, with 35' + cW, and 155' + c N.
All 12 to 0 oz save 50' 15.2 oz 90' S of shaft
and 3' 14.2 oz 35' N. Last 10' to N #12 m. 5' 2 oz ore in face
400 Lev 35' S (Last 17' a diag. + c) all 0 to 3.4 oz
4' 1 N with 23' + c, all 0.2 to 5.1 oz

500 Lev S. Main drift 430' S, 10-20° W, Grabs 0 to 17.0 oz
Best stretch 125-175', Grabs 13.1 oz Ag Cuts short
stks up to 3.8' 20.6 oz. No Ore

Crosscut SE @ 390' S 90', Vein dip 53° @ 80-86'.

50' SDFT	6.6	23.9	143.2
	3.8	30.3	115.0
	4.2	12.1	50.8
	4.4	11.1	48.8
	3.9	17.8	69.5
	5.7	12.5	71.4
	28.0		498.7
	4.7'	17.8 oz	

New NE DFT about 50', similar values
Say 100' x 4.7' 17 oz p.T

It seems likely this is the main vein the ore has almost played out from the 215 to the 500 Level. The 500 S face is 420' S of the shaft (proj. down dip from 215 Level) and 215 Lev ore is from 215 to 537 ft. south. It would take a flat pitch to carry the ore S of the 500 Level. Probably the rich 215 Level ore is due to the intersection of nearly vert. min. fract. with the 55° W dipping footwall, and on the 500 only the flat structure is left

500 Lev. N Loc	L	W	Ag	L x W	L x W x Ag	Cars
20' N of sh	5'	2.8'	15.8	14.0	221	5s Cars + full width chan. 14.8 oz
30	10'	3.6'	13.6	36	490	
40	10'	3.0	23.5	30	705	
50	10.0	5.8	20.0	58	1160	
60	10.0	5.4	12.6	54	681	
70	10.0	5.6	11.3	56	634	
80	10.0	5.8	29.6	58	1720	
90	10.0	4.4	5.2	44	228	
100 + cFW	10.0	11.8	18.8	118	2220	
110	5.0	2.3	20.8	11.5	240	
	90'	5.3'	17.3	473.5	8298	
110-200'	Cars	0-9 oz				
200-255		20	47.3		95	Say 5' 2 oz
		3.7	37.7		139	
		8.0	19.2		1536	
		3.7	27.3		101.0	
		8.5	32.4	29.4	2160	
Av 4.8'	23.7				7046	

3.6 13.6 49
5.2 21.2 110
1.8 18.8 22.2
7 1282
5 Full W 14.8 oz

11) 15.15
Cars 15.6 oz

Mohawk – Continued

Summarizing Ore

S Orebody –	218 Lev	322.5 × 13.6 =	4399.5 sq ft	400 oz	
	500 "	100.0 × 4.7	470.0	170 oz	
N Orebody	218 Lev.	235 × 5.7'	1332 sq ft	37.7 oz	Say 320 oz
	500 Lev.	90 × 5.3	479 "	17.3 "	Say 170 oz
		55 × 5.0	225 "	22.0	
	Ore in N Face on 500				

There is evidently enrichment at about the 218 ft. level, and ore in the south orebody on that level is very wide and rich where a mineralized vertical shear zone leaves the 55° dipping vein. The wide ore will meet the footwall & probably narrow about 50 ft. below the 218' Level, and the surface is only 50 to 100 ft. above the 218 Level at the wide ore. The ~~[illegible]~~ wide ore can therefore not be large. The other ore is much too small to have any great value.

Argentite on Mohawk Mine At 20' 571

215 ~~[illegible]~~ Lev. N from SH ± 53°

90' 90' ± 10 oz

152' 60' 7' 30 oz + c 1.6 + 2.4 oz

330' 180' 4–7' Up to 88 oz Av ± 40 oz. Last 20' pinch to 3' 1.5 oz

460' 130' 1.3' 1.5' 14–29 oz or 2.7 to 4.8' 16 to 4.6

Then turns to FW 30° on irreg Alt for 340'

60' HW Crosscut 170' back from Face has bands likely Anac. long samp. LG

Bands better? [illegible]

220' S Low Grade, broken Muddy ± 60°

540' 320' Main ore body Vert first + 60° W FW, fairly defined

12.8'	24.4	312.5		
7.5	30.8	230.5		
7.4	66.0	444.0		
7.6	60.0	Part ? 456.0	Av of Samples 2055 / 16 =	128.5' 48.8 oz
11.0	42.3	465.3		
23.0	55.8	1280.0	Samples across full width	
31.0	40.3	1248.0		
15.0	20.5	Part 314.0	157.7 / 9 =	17.5'
25.0	46.0	1150.0		
28.0	46.3	1125.0		
10.5	44.3	Part 466.0	6735.3 / 157.7 =	42.7 oz
5.4	103.4	532.0		
5.5	20.0	495.0		
6.0	86.0	632.8		
5.8	45.9	266.0		
		480.0		
203.5	48.4	10817.1		

Then 160' Tun to Portal LG – In FW in close to it. Stks go toward ore to S

300 145' N Fair – ± 15 oz Face Ok

110' S LG – 5' 15.2 near Face

N 320 N

70' x 3–5' Av < 20 Max 28

100' (30) + c 10.9' 22.4 30 x 10.9 327 22.4 70–120'

to 135' 35' 1.5–2' 4.3 – 20.8 oz 50 x 3.5 175 / 50 6.3 502 27.0? 200–250'

200' LG? In FW?

" 250' 50' ± 3.5' 16.9 to 37.3

Face { 5.5' 32.4 3.4 oz
44.0 9.1 or 4.3 oz

S 500S to 350' Quartzy, less of it. Stks up to 3.3' 20.6 Most LG

To 345' F LG + to HW LG

~~35' + cut 350 to FW Anglesite NG Quartzy~~

FW band 40' N Gars av ± 13 oz Part in FW

105' S Decreases from 3.5' 30.3 to 5' 12 oz 60° Dip

S [illegible] drift [illegible] 55° dip [illegible]

Apr 20 '54

Firm commitment on
350,000 Might allow
money to bring to production
Take out of royalty.
Pd in 4 yrs.
170,000 to be pd.
May 8 '52 to Shirley
on 25% on 25^00 net
smelter ret — to be pd to
30,000 due to Bernudage
Nov 15
Down Payt — not large if
mill built

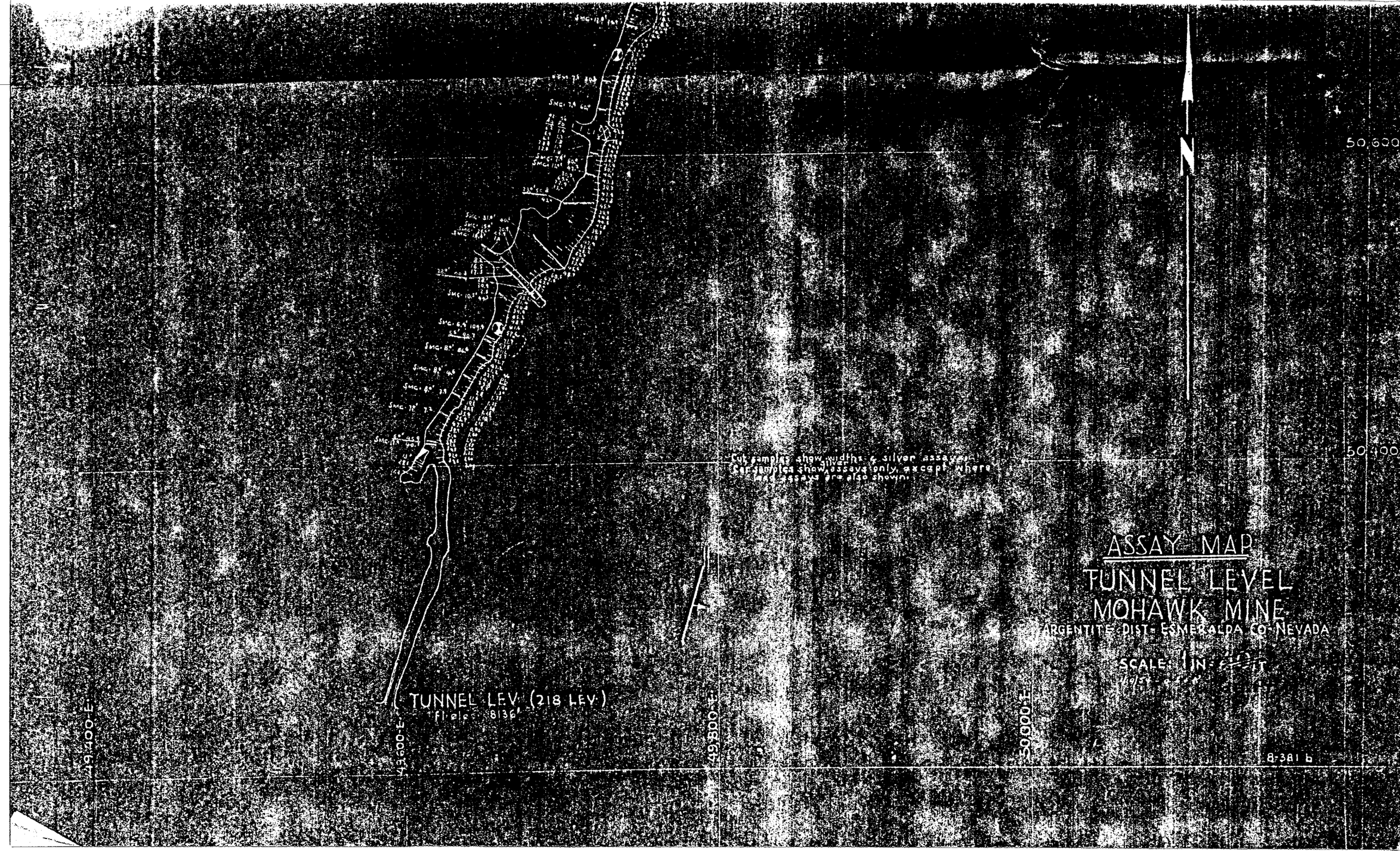
Cash required — new money
Pay to Bernudage
Cash 25,000
Note 30,000

Mine exp. 4 mos. from
Testing 20,000
Resta royalty 10,000
Insurance 2,000
Expense in Mill Bldg
4 mos exp Mine 22,000
Mill Expense 100,000

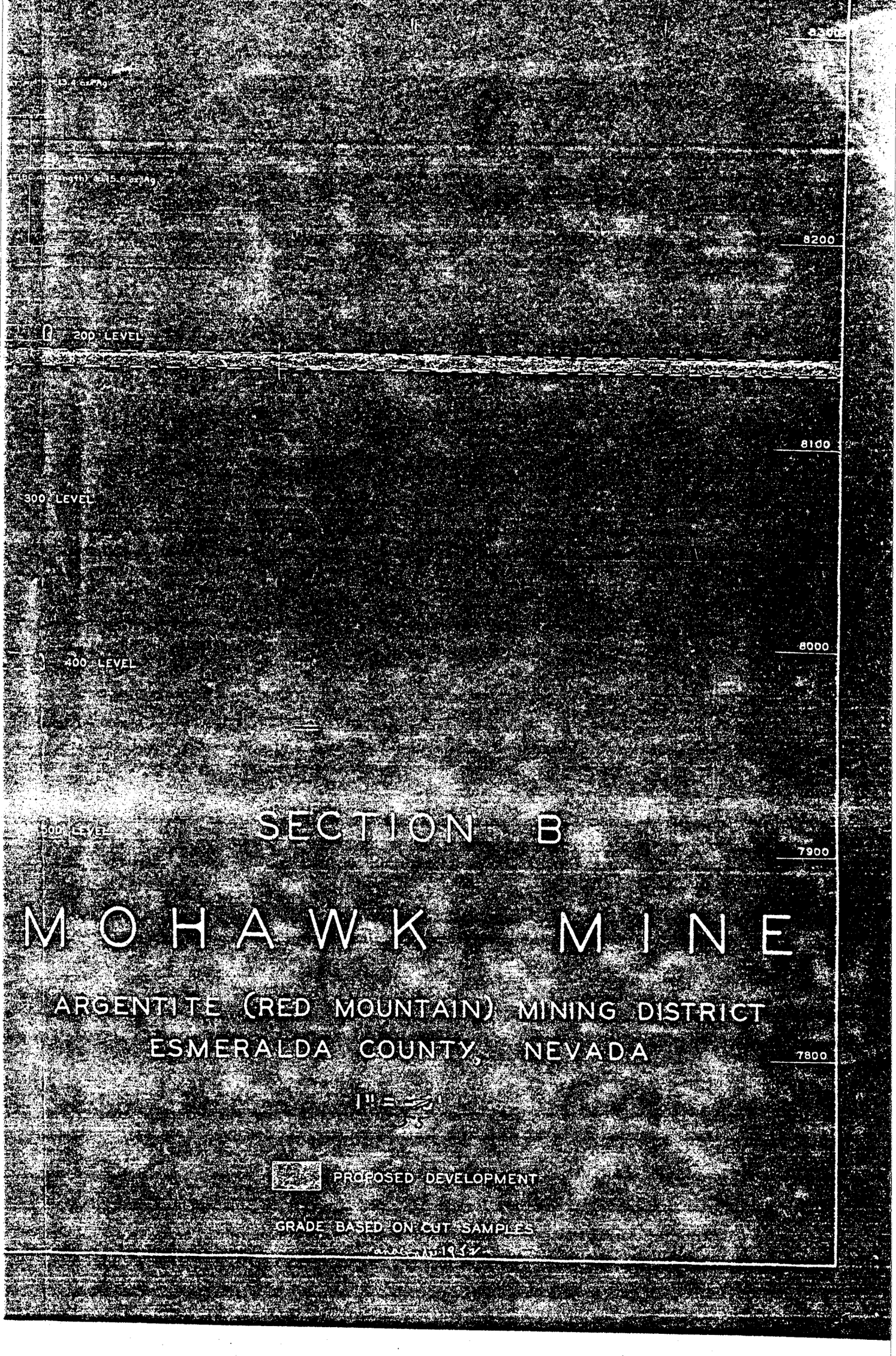
Tot 209,000
Other payts might come
out of mine

So to Bernudage
350,000 firm commitment, — time to be adjusted
If mill built in prod, small payt on this
About 2^00 royalty to Bernudage till Shirley has
then more (10%) royalty till Bernudage has
$1,400,000 he is in.
About 10% royalty to Bernudage from time Shirley
pd off till Bernudage has 1,400,000 tot.
including the 30,000 he wants in Nov for inventory

To Shirley
Sliding scale 10% on 10^00 to 25% on 25^00 net
with guarantee of $170,000 by May 8 '52
Tot gross 350,000 + 170,000 + amt. spent on
mine + mill — royalty & store


N
50,600
50,400
Cut samples show widths & silver assays.
Car samples show assays only, except where
lead assays are also shown.
ASSAY MAP
TUNNEL LEVEL
MOHAWK MINE
ARGENTITE DIST. ESMERALDA CO. NEVADA
SCALE: 1 IN = 20 FT
TUNNEL LEV. (218 LEV.)
Flev. 8136'
49,400-E
49,600-E
49,800-E
50,000-E
8-381 b

51,200
51,000
50,800
Course of Longitudinal Projection
MOHAWK SHAFT
Elev. col: 8300 (assumed)
SEC A



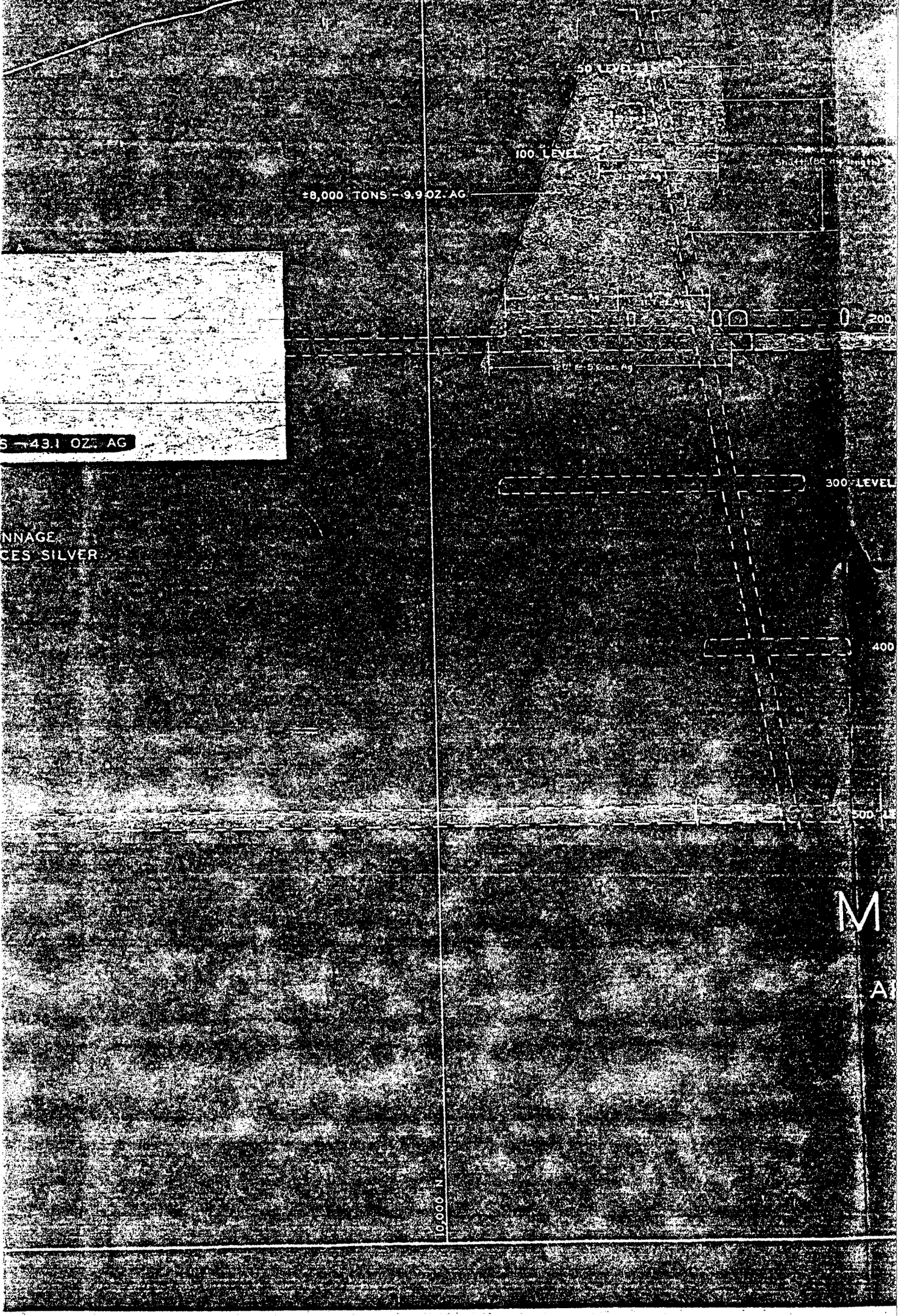
SECTION B

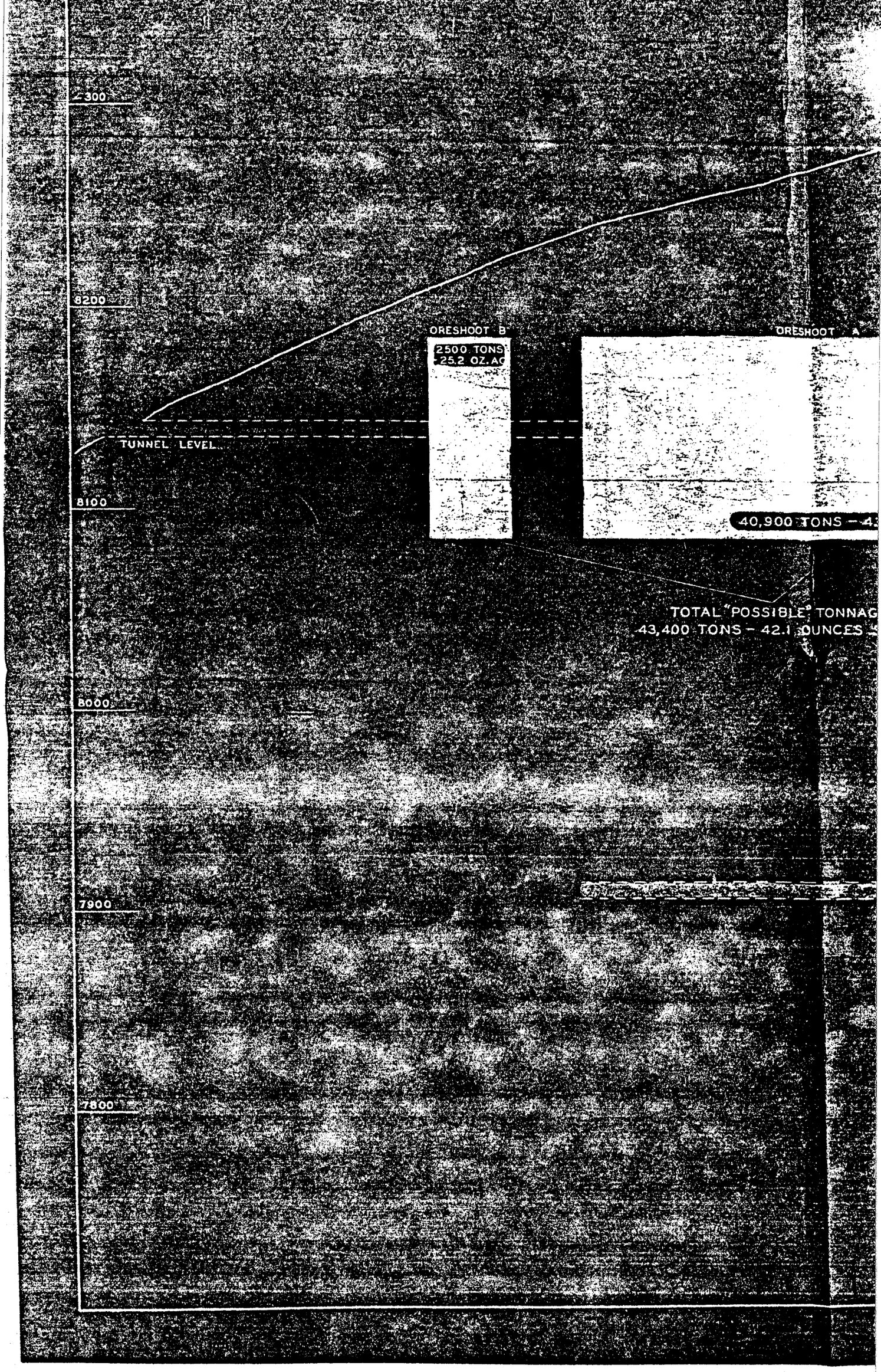
MOHAWK MINE

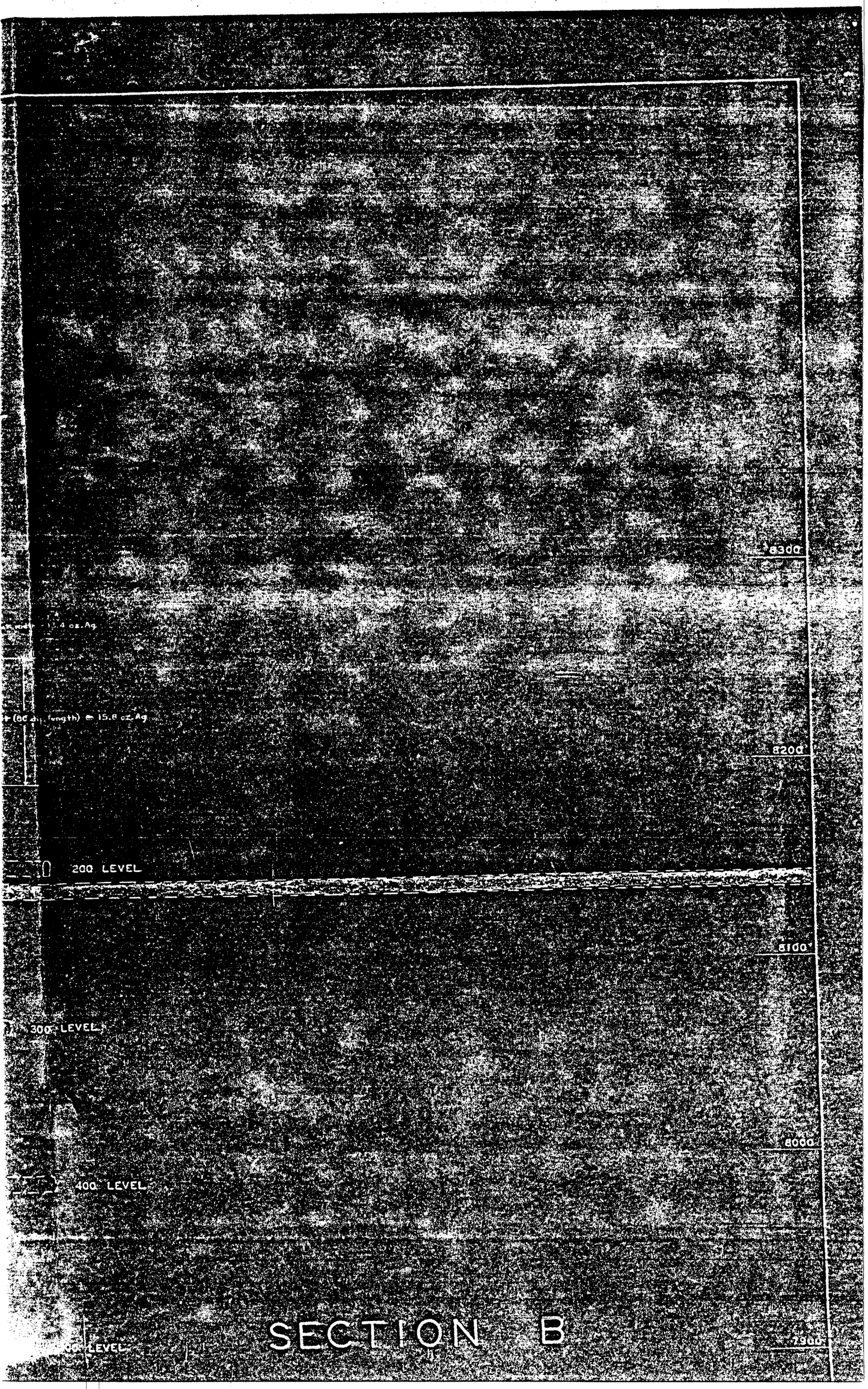
ARGENTITE (RED MOUNTAIN) MINING DISTRICT

ESMERALDA COUNTY, NEVADA

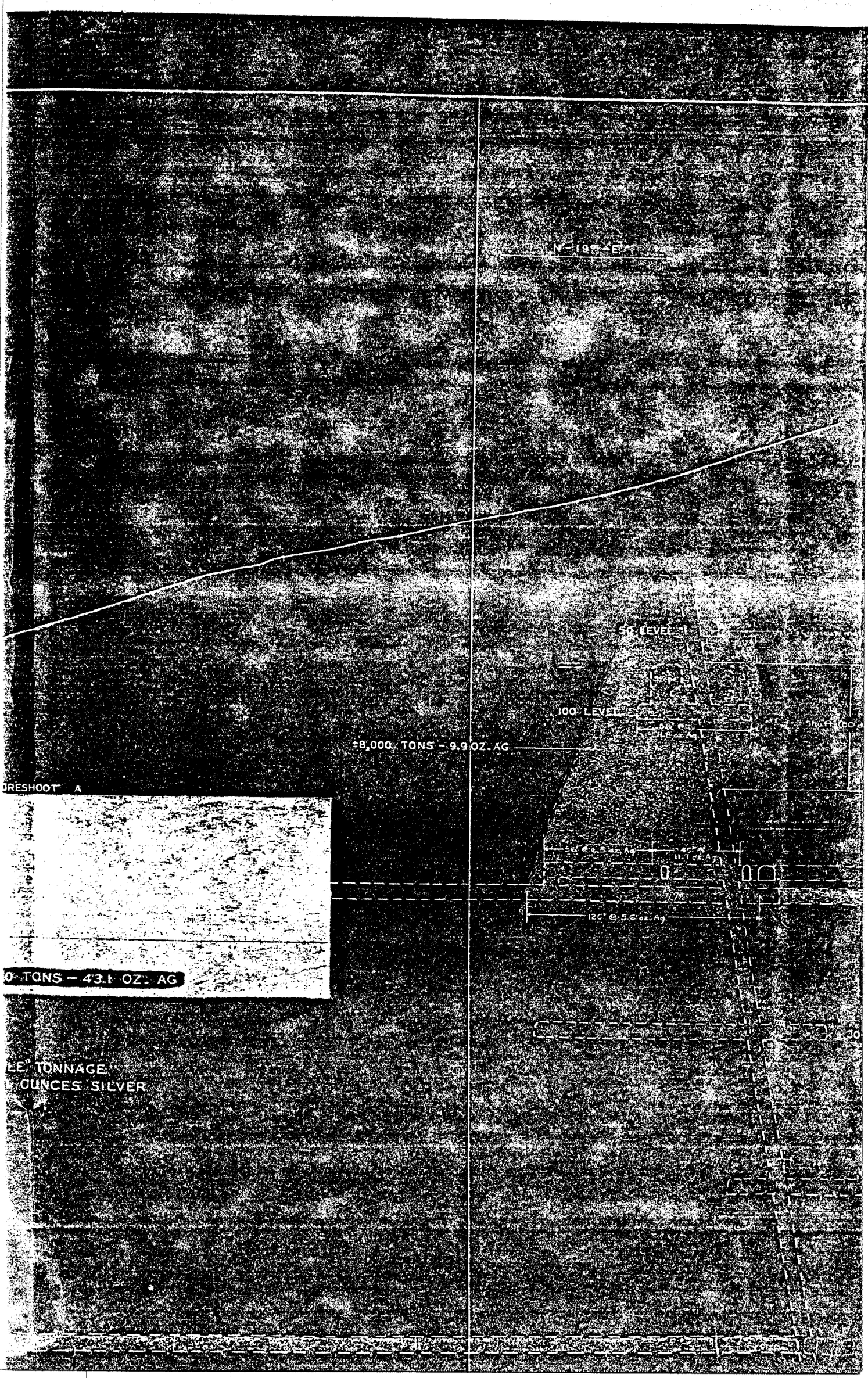
1" = [illegible]'

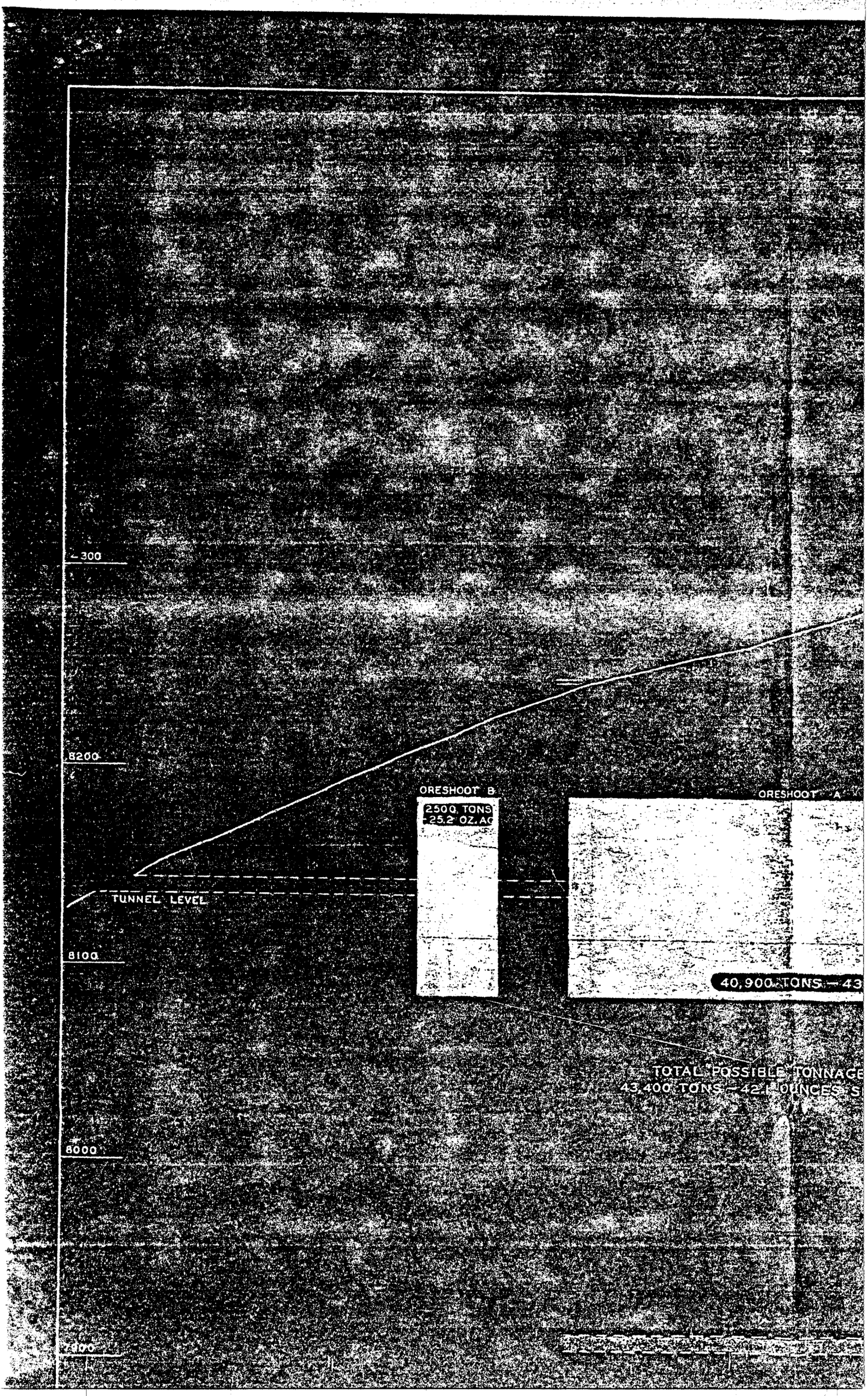

50 LEVEL
100 LEVEL
±8,000 TONS - 9.9 OZ. AG
200
300 LEVEL
400
500
S - 43.1 OZ. AG
NNAGE
CES SILVER
6,000 N

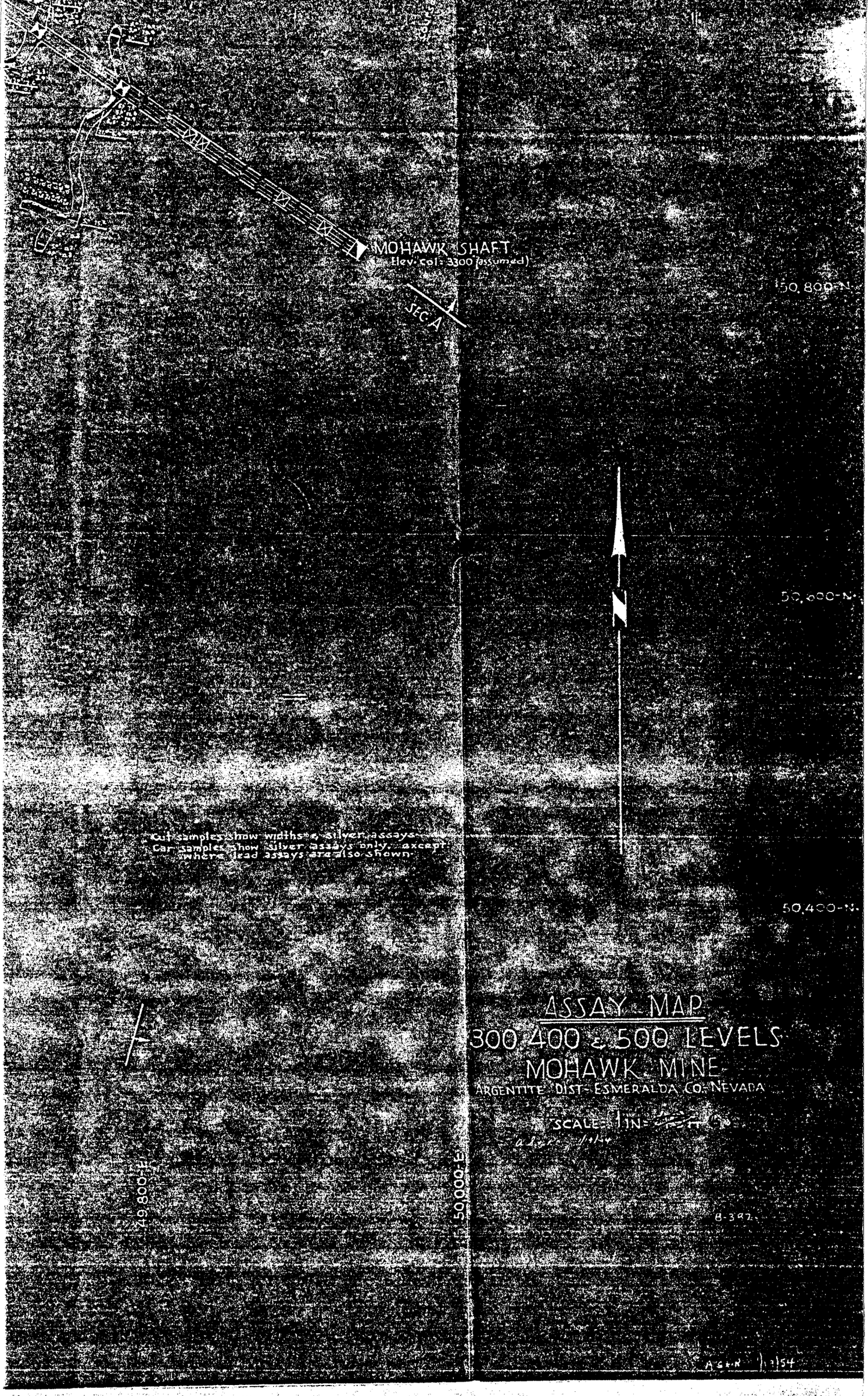

8300
8200
8100
8000
7900
7800
TUNNEL LEVEL
ORESHOOT B
2500 TONS
25.2 OZ. AG
ORESHOOT A
40,900 TONS – 4
TOTAL "POSSIBLE" TONNAG
43,400 TONS – 42.1 OUNCES


8300
.4 oz. Ag
(80 ft. length) @ 15.8 oz. Ag
8200
200 LEVEL
8100
300 LEVEL
8000
400 LEVEL
LEVEL
7900

SECTION B

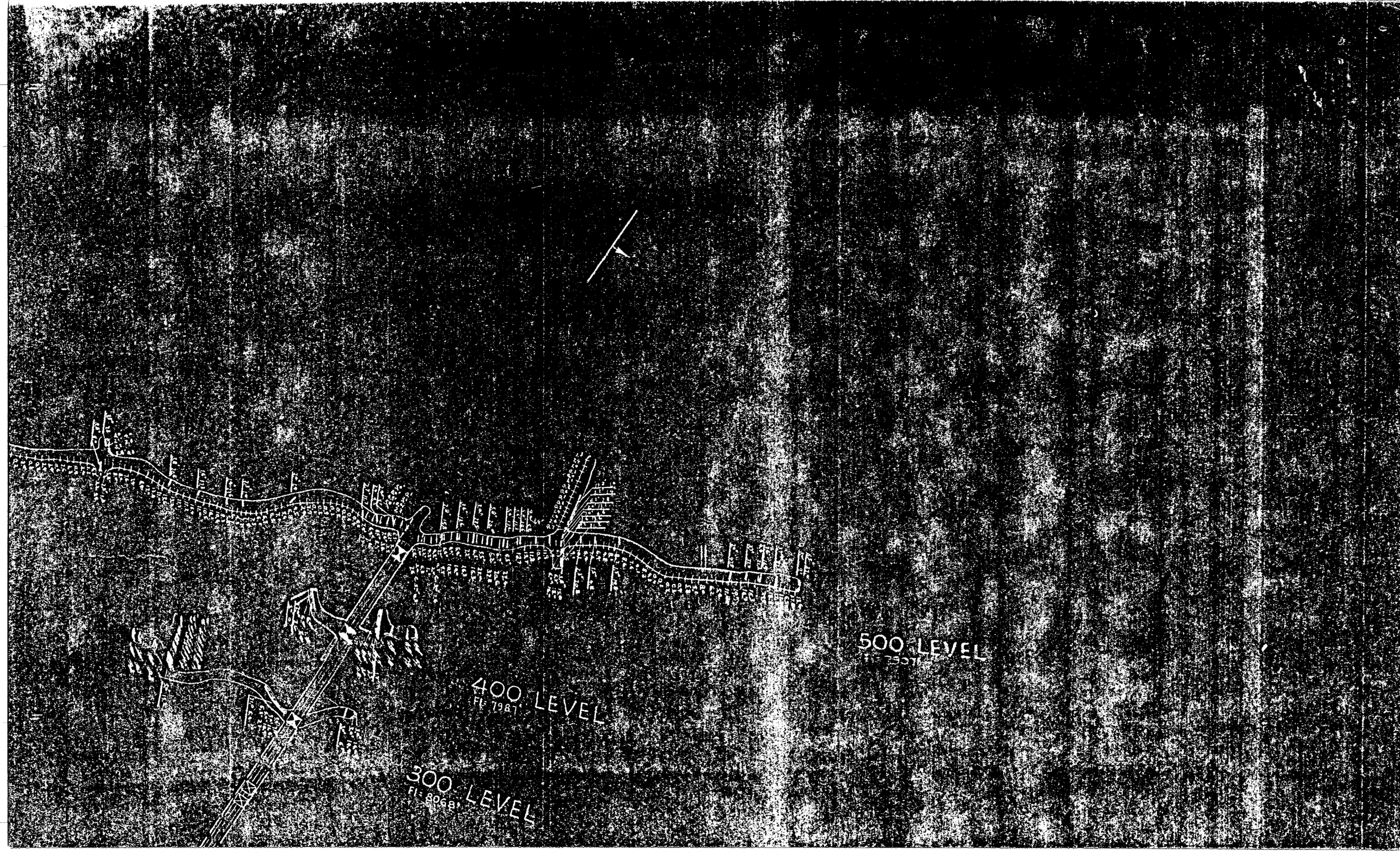

N-19°-E
50' LEVEL
100' LEVEL
±8,000 TONS - 9.9 OZ. AG
DRESHOOT A
0 TONS - 43.1 OZ. AG
LE" TONNAGE
OUNCES SILVER


-300
8200
ORESHOOT B
2500 TONS
25.2 OZ. AG
ORESHOOT A
TUNNEL LEVEL
8100
40,900 TONS
TOTAL POSSIBLE TONNAGE
43,400 TONS
8000
7900


MOHAWK SHAFT
Elev. col: 3300 (assumed)
SEC. A
50,800-N.
50,600-N.
50,400-N.
N
Cut samples show widths & silver assays
Car samples show silver assays only except
where lead assays are also shown
49,800-E.
50,000-E.
ASSAY MAP
300 400 & 500 LEVELS
MOHAWK MINE
ARGENTITE DIST- ESMERALDA CO. NEVADA
SCALE- 1 IN=
8-392
A.G.R. 1/2/54


49,400-E
49,600-E
49,800-E

51,600 N.
1,400 N.
51,200 N.
51,000 N.
50,800 N.
Course of Longitudinal Section in Plane of Vein
N.16° E.
300 LEVEL
Ft. 8068.
MOHAWK SHAFT
Elev-col: 3300 (assumed)
SEC


500 LEVEL
400 LEVEL
300 LEVEL