

002121

MEMORANDUM

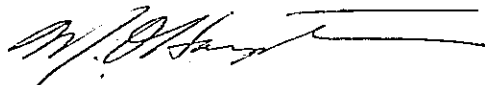
TO: J. W. Mossop
FROM: M. O. Hampton
DATE: September 8, 1971
SUBJECT: PIT PLANNING 1972 YEAR END PHASE 1

The accompanying pages layout the Faro No. 1 Pit Plan for 1972, for the year and the first phase of development.

The prints illustrate the pit as it should appear on March 17 and December 31, 1972. The bar chart illustrates the relation of development to the ore to be mined.

Planning work will continue for the remaining phases of 1972 and the plans issued when completed.

A reduction in the equipment schedule will definitely be permitted after Phase 1, 1972.


M. O. Hampton
Chief Engineer

cc. R.E. Thurmond
J.F. Olk
N. G. Cornish
N. G. Stephanson
H. Grenier
Planning ✓
Ore Control

1972 Pit Plan Notes

1. Grades shown are as per reserve estimate ore block grades. These have not been adjusted according to the ore block reliability factor at this time.
2. The grade shown for 1972 follows the promise that all ore over the 6600 TPD figure for the original plant capacity will be made up of low grade originally scheduled for stockpile.

e.g. for 7500 TPD

6600 @ 12%
<u>900 @ 7.35%</u>
7500 @ 11.4%

Tonnages over 7500 TPD grades would be reduced with proportionally higher amounts of low grade ore. Any such increase of consumption of lower grade ore facilitates the mining operations.

3. Two pit designs have been carried out, as follows:
 - a. In Plan A, at the end of 1972, working pit slopes would be flattened to the point where a minimum 75 foot bench width is established and maintained (105 feet toe - to - toe). This permits, with few exceptions, two way traffic at all times. At the same time, it permits advancing frontly in the direction of development with one or two shovels on a bench, rather than the end - to - end method where two shovel operation is not always possible, and must be very carefully scheduled. This method allows more flexibility and efficiency. Also, with wide benches, spill from blasting is practically eliminated. This plan calls for a high stripping ratio to be maintained throughout 1972 to accomplish the objectives of ore availability and optimize pit development. Future expansion should have a reduced stripping ratio.

The disadvantage of this plan, aside from continued heavy equipment scheduling, is that a large amount of stripping expense that could be delayed is expended during the tax-free period, thus losing any tax benefit from this expense.

- b. In order to overcome the disadvantages of Plan A, an alternate Plan B, with tightened working slopes, has been estimated. The ore objectives will be the same, but the bench widths will be reduced to 45 feet (75 feet toe - to - toe) in the stripping benches.

4. In calculating stripping capacity 1.5 ore shovel shifts per day is allowed and the average production per shovel shift in waste used was 2250 in yds.

COMPARISON OF PLANS

	<u>WASTE & L.G. ORE</u>	<u>ORE DEVELOPED FOR MILL</u>	
	<u>Yds.</u>	<u>Tons</u>	<u>Grade</u>
PLAN "A" (105 ft. toe-toe)	5,950,000	3,389,000	11.4
PLAN "B" (75 ft. toe-toe)	5,137,000	3,389,000	11.4
DECREASE IN YARDAGE (Plan A to Plan B)	813,000		

1972 PIT PLAN - YEAR

OBJECT:

To have developed at December 31, 1972 about six months ore, in addition to 1972 mill feed requirements.

<u>Bench</u>	<u>Ore Developed for Mill</u>		<u>Low Grade for Stockpile</u>	
	<u>Tons</u>	<u>Grade</u>	<u>Tons</u>	<u>Grade</u>
4100			42,200	6.6
4065			57,400	8.0
4030	96,000	12.4		
3990			250,900	9.9
3950	795,000	10.24	235,000	8.2
3910	790,000	11.13	390,000	7.3
3870	829,000	11.16	637,000	6.7
3830	<u>879,000</u>	<u>12.93</u>	<u>216,000</u>	<u>8.6</u>
TOTAL	3,389,000	11.43	1,828,500	7.7

Ore Availability

	<u>Tons</u>	<u>Grade</u>
Developed for Jan.1/72	757,000	11.4
Developed during 1972	<u>3,389,000</u>	<u>11.4</u>
	4,146,000	11.4

At 7500 T.P.D. = 553 days = July 5, 1973

1972 YEAR WASTE & L.G.

<u>BENCH</u>	<u>Cu. Yds.</u>
4170	162,000
4135	473,240
4100	705,780
4065	794,440
4030	813,160
3990	951,390
3950	745,210
3910	353,345
3870	137,990
	<u>5,136,555</u>

1972 PIT PLAN - PHASE 1

OBJECT:

To develop a minimum of six months ore at 12% average grade for a milling rate of 6600 T.P.D. and provide for milled tonnage over 6600 T.P.D. at 7% average grade.

Best estimate of milling rate 7500 T.P.D. Therefore, feed grade should be 11.4% comb. Pb and Zn.

<u>Bench</u>	<u>Ore Developed for Mill</u>		<u>Low Grade for Stockpile</u>	
	<u>Tons</u>	<u>Grade</u>	<u>Tons</u>	<u>Grade</u>
4100			42,200	6.6
4065			57,400	8.0
4030	96,300	12.4		
3990			130,400	9.9
3950	339,500	10.0	158,300	7.9
3910	260,350	11.6	267,700	7.6
3870	105,500	12.6	245,960	7.8
3830	<u>554,100</u>	<u>11.7</u>		
TOTAL	1,355,750	11.4	901,960	8.0

Ore Availability

	<u>Tons</u>	<u>Grade</u>
Developed Jan.1/72	737,000	11.6
	<u>20,000</u>	<u>7.0</u>
	757,000	11.4

At 7500 T.P.D. = 101 days = April 10, 1972

Developed by Phase 1/72 = 180 days = October 7, 1972

1972 PHASE I WASTE & L.G.

<u>BENCH</u>	<u>Cu. Yds.</u>
4170	162,000
4135	164,500
4100	197,000
4065	191,430
4030	174,840
3990	263,940
3950	94,960
3910	34,770
3870	12,800
	<u>1,296,240</u>

EQUIPMENT SCHEDULING PHASE I/72

The total volume of material to be moved during the year indicates reduction in equipment scheduling would be permitted. However, the ore supply during the first quarter is critical and the present schedule of 9 shovel shifts per day, seven days per week must be maintained during that time to ensure a continuous supply of ore being available.

TOTAL WASTE	1,189,790 cu. yds.
L.G. Ore	<u>106,450</u>
	1,296,240 cu. yds.

$$\text{COMPLETION} = \frac{1,296,240 \text{ yds.}}{7.5 \text{ s.s./day} \times 2250 \text{ yd/s.s.}} = 77 \text{ dys.} = \text{March 17/72}$$

This scheduling leaves a margin of 24 days ore supply only.

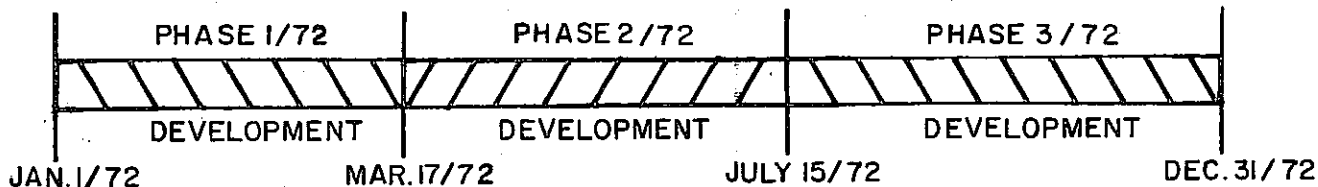
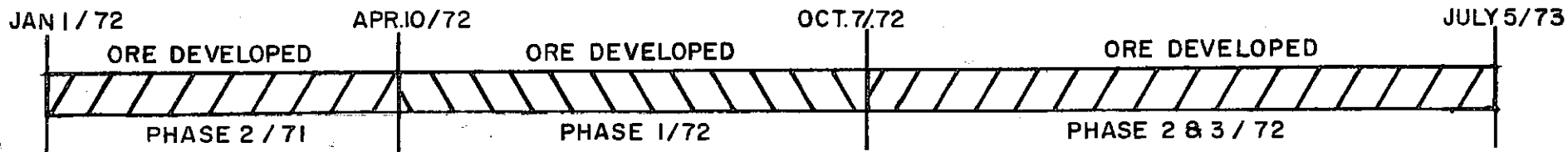
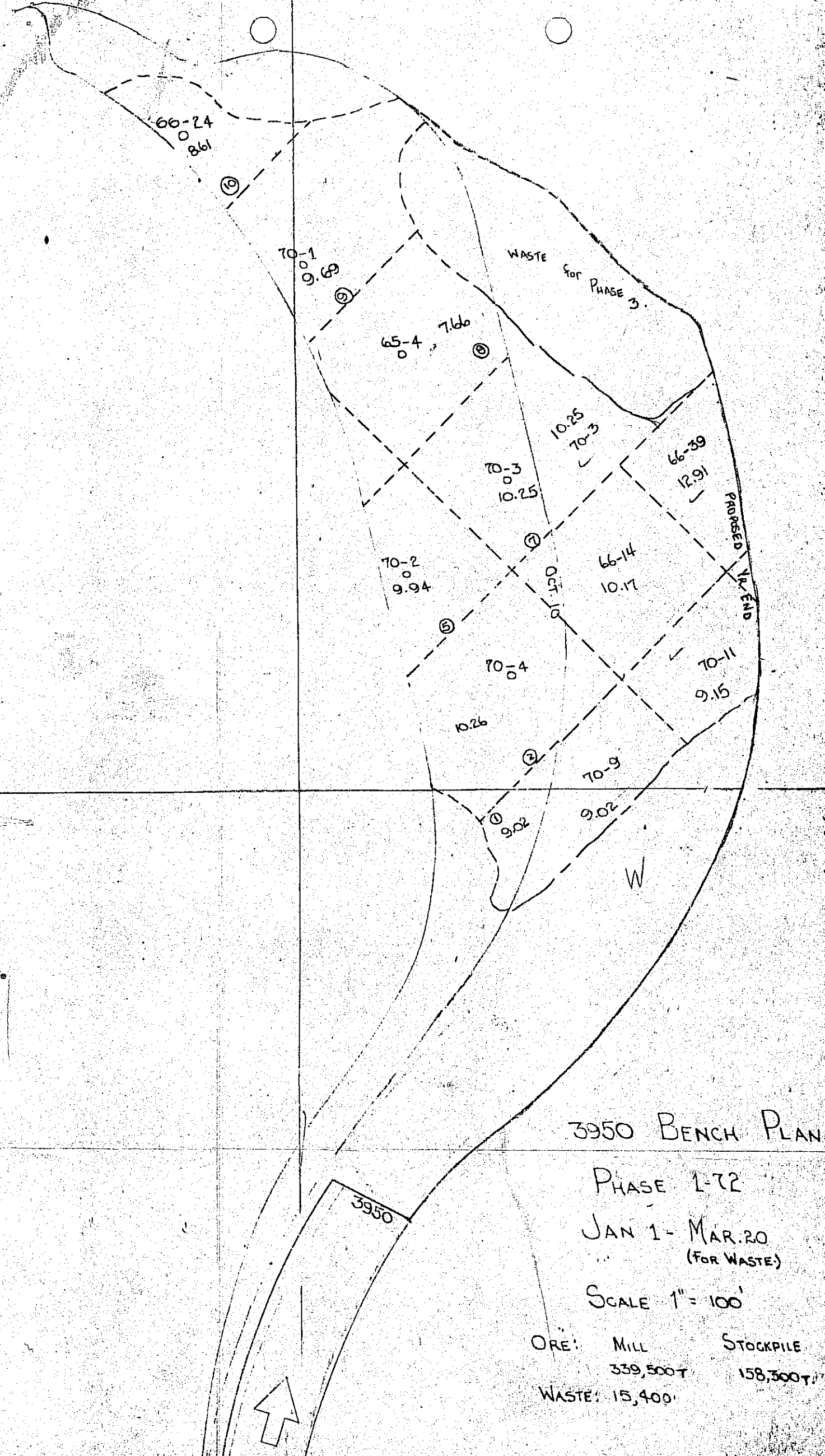


CHART SHOWING RELATIONSHIP OF
DEVELOPMENT AND ORE AVAILABILITY
(TO ACCOMPANY 1972 PLAN)

ANVIL MINING CORP.
FARO, Y. T.

DWG. N^o FD-7166

FILE: W-1



3950 BENCH PLAN

PHASE 1-72

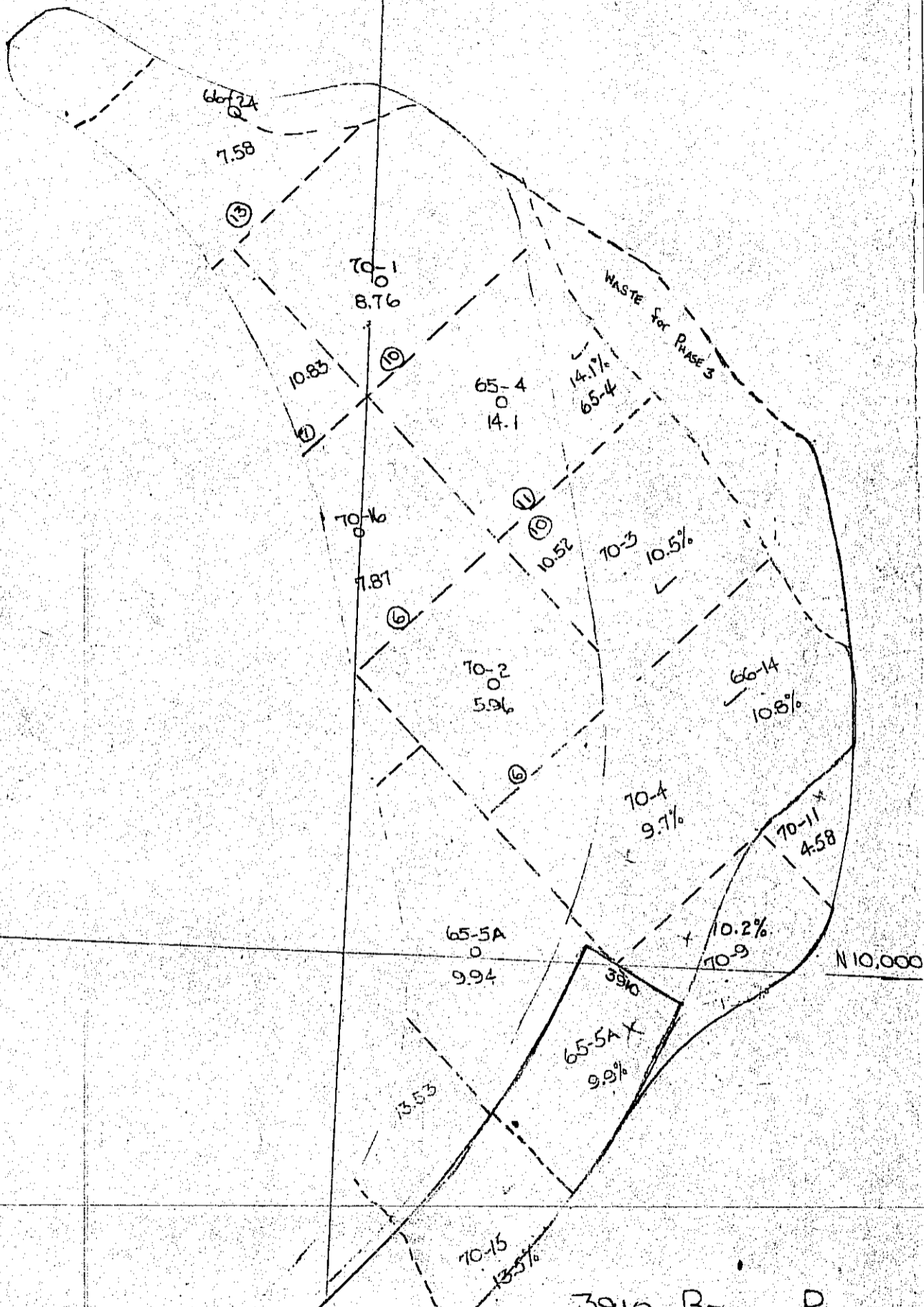
JAN 1 - MAR. 20
(FOR WASTE)

SCALE 1" = 100'

ORE:	MILL	STOCKPILE
	339,500T	158,300T
WASTE:	15,400'	



* } refer only to position
 for stockpiling and mining
 of specific blocks only
 during the period Oct. 1 - Dec. 31
 for maintaining grade. Not
 used during entire Phase 2
 study.



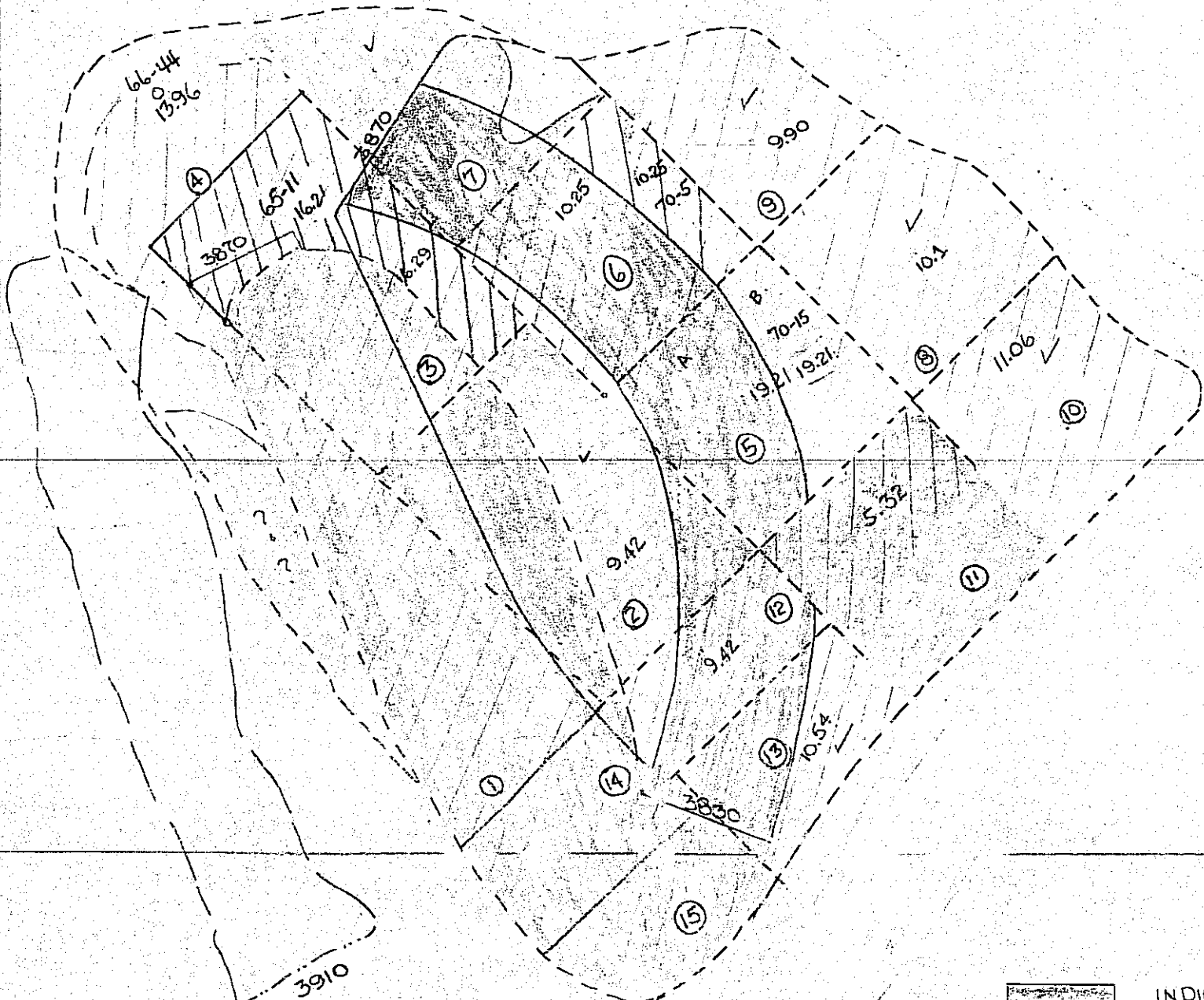
3910 BENCH PLAN
 PHASE 1-72

JAN 1 - MAR. 20
 (WASTE) - 3950

ORE: MILL STOCKPILE
 272,410 T 236,800 T

WASTE: 0

SCALE 1" = 100'



10,000



INDICATES AREA MINED
IN PH. 1-12



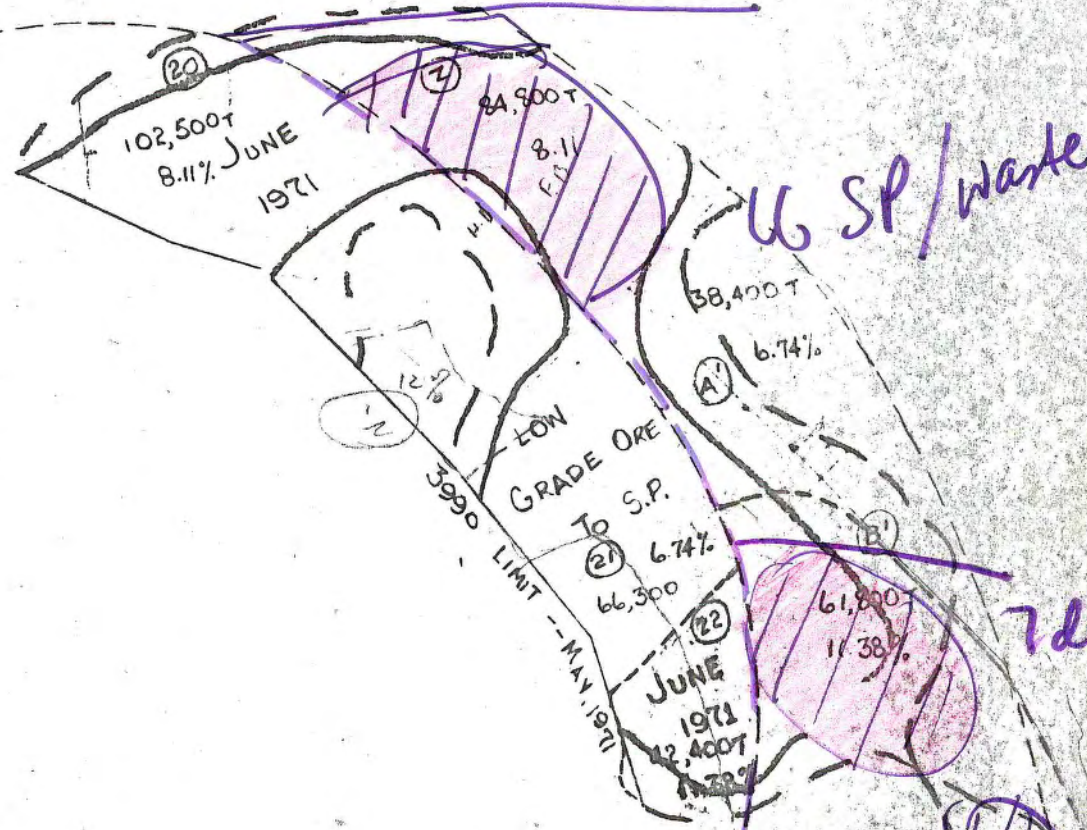
ORE TO CRUSHER



ORE TO STOCKPILE

1971-Phrasen 2.

13,000 E

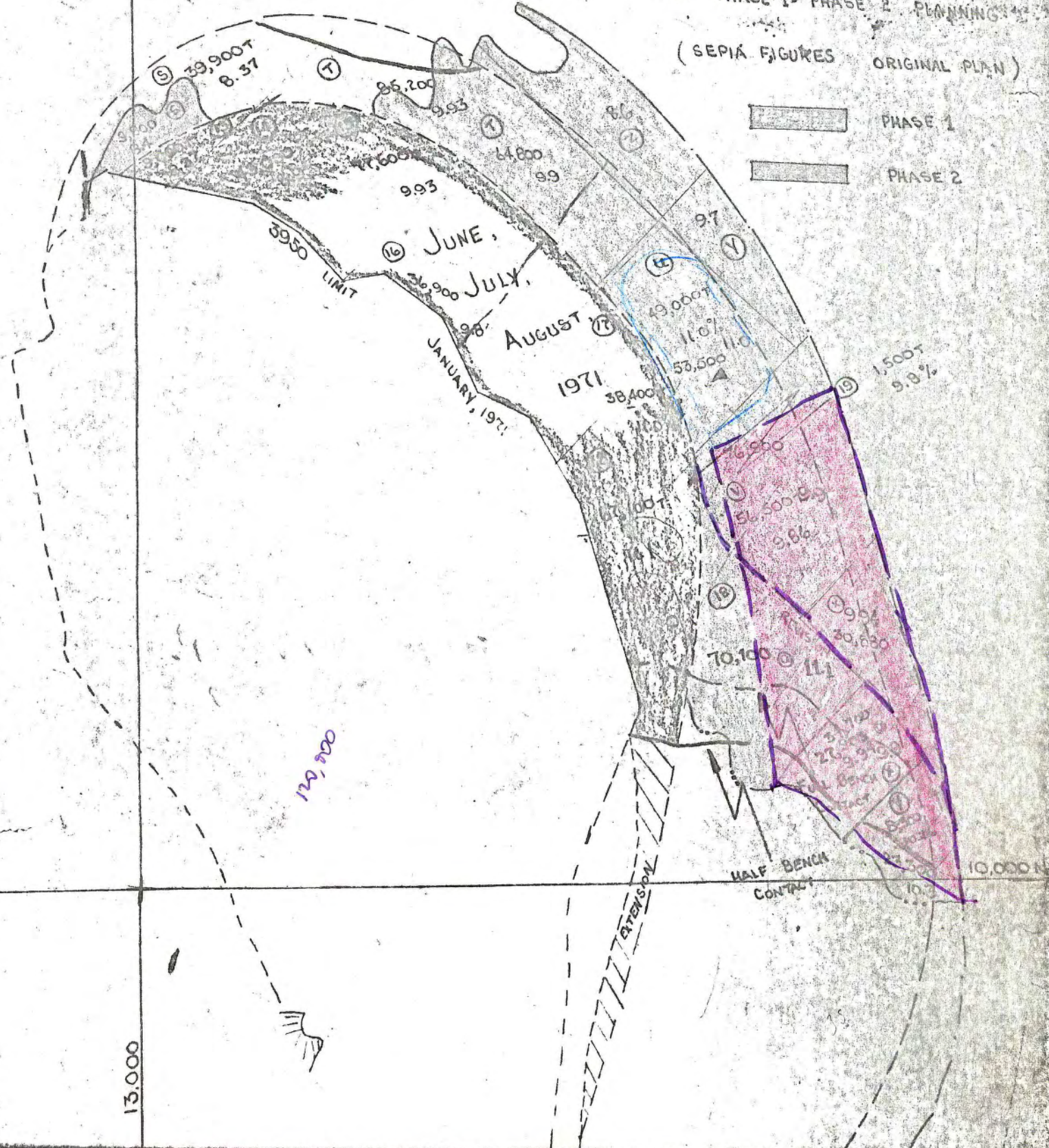


10,000

3950 BENCH

KEY: USE PENCILLED-IN FIGURES
 (TONNAGES & GRADES)
 FOR PHASE 1- PHASE 2 PLANNING
 (SEPIA FIGURES ORIGINAL PLAN)

PHASE 1
 PHASE 2

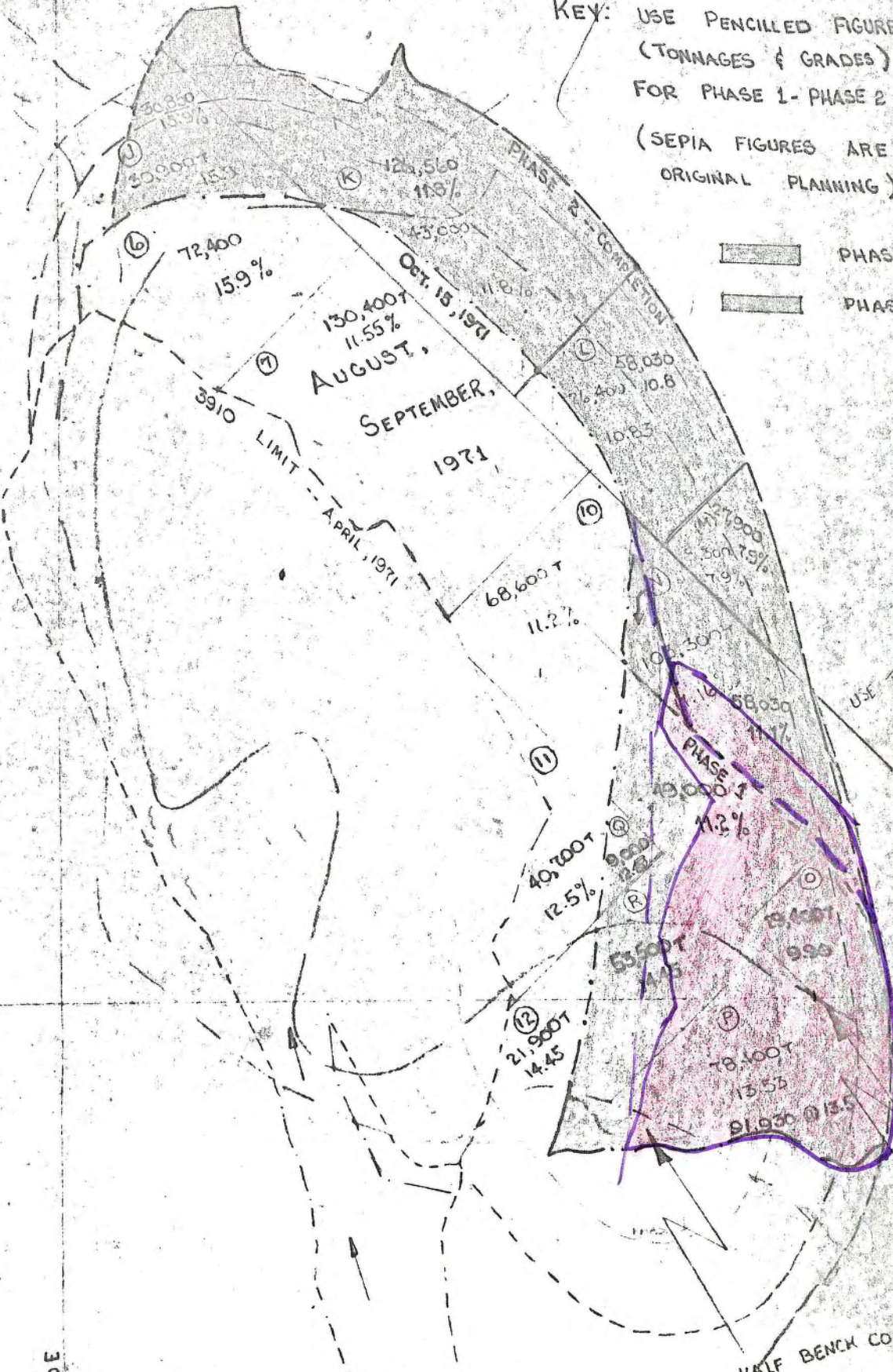


3910 BENCH

13,000 E

KEY: USE PENCILLED FIGURES
(TONNAGES & GRADES).
FOR PHASE 1- PHASE 2 PLANNING
(SEPIA FIGURES ARE FOR
ORIGINAL PLANNING)

PHASE 1
PHASE 2



60
6

11	5	55
10	3	30
13	8	104
		189
14	3	42
		231
78,600		
29,400		
49,000		
20,000		
186,800		

10,000 E

13,000 E

FULL BENCH CONTACT
HALF BENCH CONTACT

KEY: USE PENCILLED-IN FIGURES
 FOR PHASE 1 -- PHASE 2 PLANNING
 IN REGARDS TO TONNAGES & GRADES.

DEVELOPED DURING
 PHASE 1
 DEVELOPED DURING
 PHASE 2



— Full BENCH CONTACT
 - - - HALF BENCH

2/5/89
 158

13,000E

10,000 N