Cyprus Anvil Mining Corporation — Interoffice Correspondence

000690

To: D. Gregoire

Date: January 9, 1979

From: J. W. Mustard

Subject: DECEMBER FEED GRADES

Tonnage and grade comparisons for December are summarized:

	Tons (000's)	% Pb	% Zn	Comb.
Tonnage and Grade Model	304	4.10	6.30	10.40
Blasthole Assays	291	4.30	6.70	11.00
Metallurgical Balance	266	4.09	6.45	10.45
Calculated Balance	266	4.04	6.33	10.37
Third Quarter Review	318	3.00	4.60	7.60
Variance (Blasthole vs. Model)	- 4%	+5%	+6%	+6%
Variance (Met. Balance vs. Model)	-12%	-	+2%	-
Variance (Calculated Balance vs. Model)	-12%	-1%	-	-
Variance (Calculated Balance vs. Blasthole)	- 8%	-6%	-5%	-6%

Attached is a breakout for blasthole and mine model sources.

The negative tonnage variance between the model and blasthole data resulted from 10,000 tons pyrite waste on 3710. The larger negative variance in tonnage between the calculated balance and blasthole data is a result of stockpiling some 15,000 tons of ore during the month.

A larger than expected negative variance in grade between the calculated balance and blasthole data cannot be fully explained, since there was minimal dilution during the month.

J. W. Mustard
Mine Geologist

JWM/mm

Attach.

CYPRUS

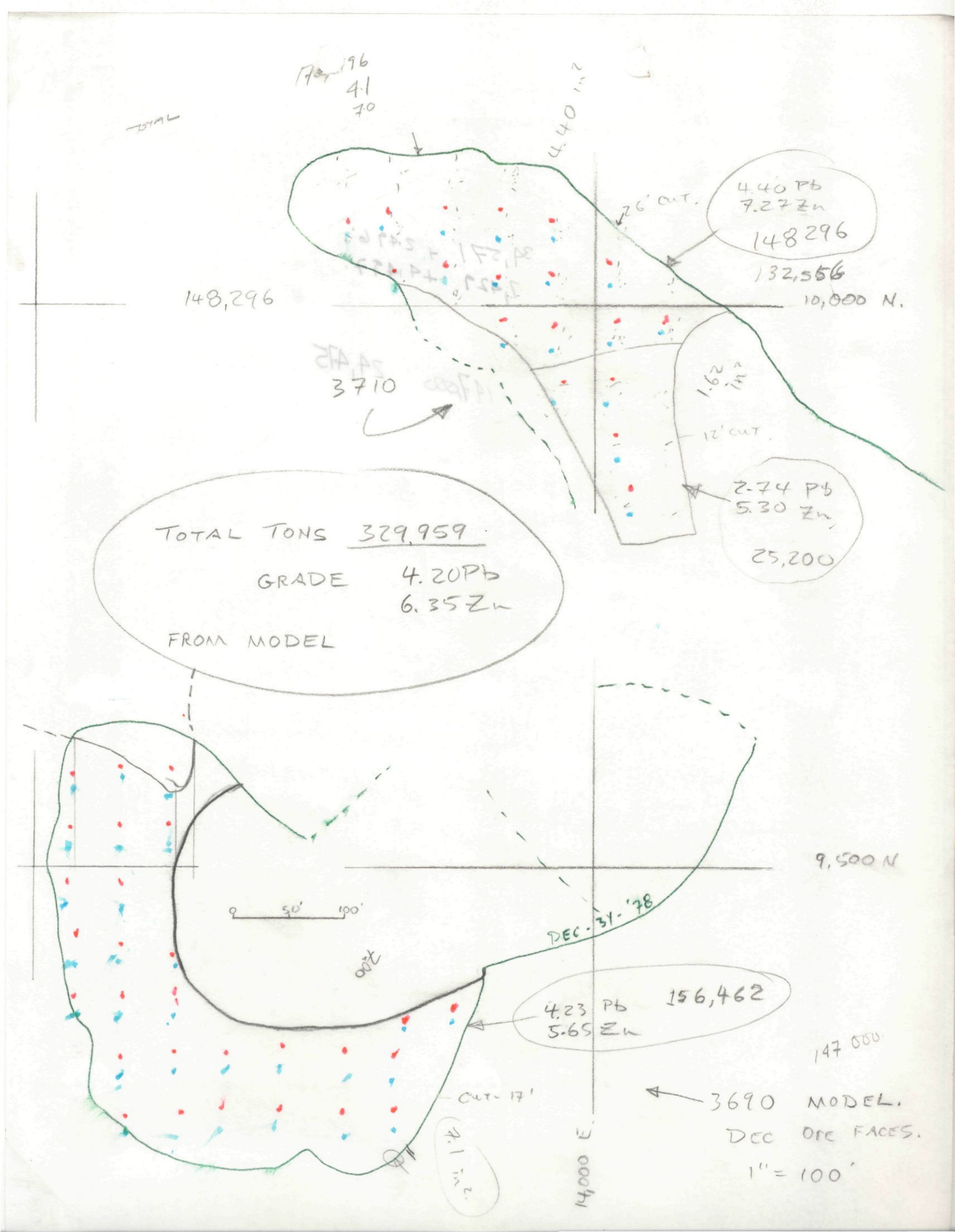
STAR PRINTING 9-1016-75

BLASTHOLE ASSAYS

Blast	Tons	Pb %	Zn %	Comb.
3710 AM	121,000	3.6	6.3	9.9
3710 AN	26,000	3.1	5.2	8.3
Sub-Total	147,000	3.5	6.1	9.6
3690 I	102,000	5.1	7.2	12.3
3690 J	42,000	5.4	7.4	12.8
Sub-Total	144,000	5.2	7.2	12.4
TOTAL	291,000	4.3	6.7	11.0

MINE MODEL

3710	157,000	4.1	6.9	11.0
3690	147,000	4.2	5.6	9.8
TOTAL	304,000	4.1	6.3	10.4


4.40 Pb
7.27 Zn
148296
132,556
26' CUT.
148,296
10,000 N.
3710
12' CUT.
2.74 Pb
5.30 Zn
25,200
TOTAL TONS 329,959
GRADE 4.20 Pb
6.35 Zn
FROM MODEL
9,500 N
DEC. 31. '78
4.23 Pb
5.65 Zn
156,462
CUT 17'
147 000
14000 W
3690 MODEL.
DEC OPE FACES.
1" = 100'

3710 AM 121,000 3.6 Pb
6.3 Zn. 147,000

3710 AN 26,000 3.1 Pb
5.2 Zn
147,000 3.5 6.1

3690 I 102,000 5.1 Pb
7.2 Zn
144,000

3690 J 42,000 5.4 Pb
7.4 Zn
144,000 5.2 7.2

MONTH END TOTAL → 291,000 TONS.

4.3 Pb
6.7 Zn.

DECEMBER BLAST HOLE INFO.

Cyprus Anvil Mining Corporation — Interoffice Correspondence

To: D. Gregoire

Date: December 8, 1978

From: J. W. Mustard

Subject: NOVEMBER FEED GRADES

Tonnage and grade comparisons for November are given below:

	Tons (000's)	% Pb	% Zn	Comb.
Tonnage and Grade Model	307	3.70	5.50	9.20
Blasthole Assays	316	3.90	5.90	9.80
Metallurgical Balance	302	3.97	5.97	9.94
Calculated Balance	302	3.95	5.65	9.59
Third Quarter Review	307	3.30	5.00	8.30
*Variance (Blasthole vs. Model)	+4%	+5%	+9%	+7%
Variance (Met. Balance vs. Model)	-2%	+7%	+9%	+8%
Variance (Calculated Balance vs. Model)	-2%	+7%	+3%	+4%
Variance (Calculated Balance vs. Blasthole)	-4%	+1%	-4%	-2%

* Excludes stockpile movements

Attached is a breakout for blasthole and mine model sources.

For meaningful comparisons with mill tonnages and grades, stockpile movements have been accounted for. Comparisons between assay and model data account for only that material moved from the pit.

J. W. Mustard
Mine Geologist

JWM/mm

Attach.

CYPRUS

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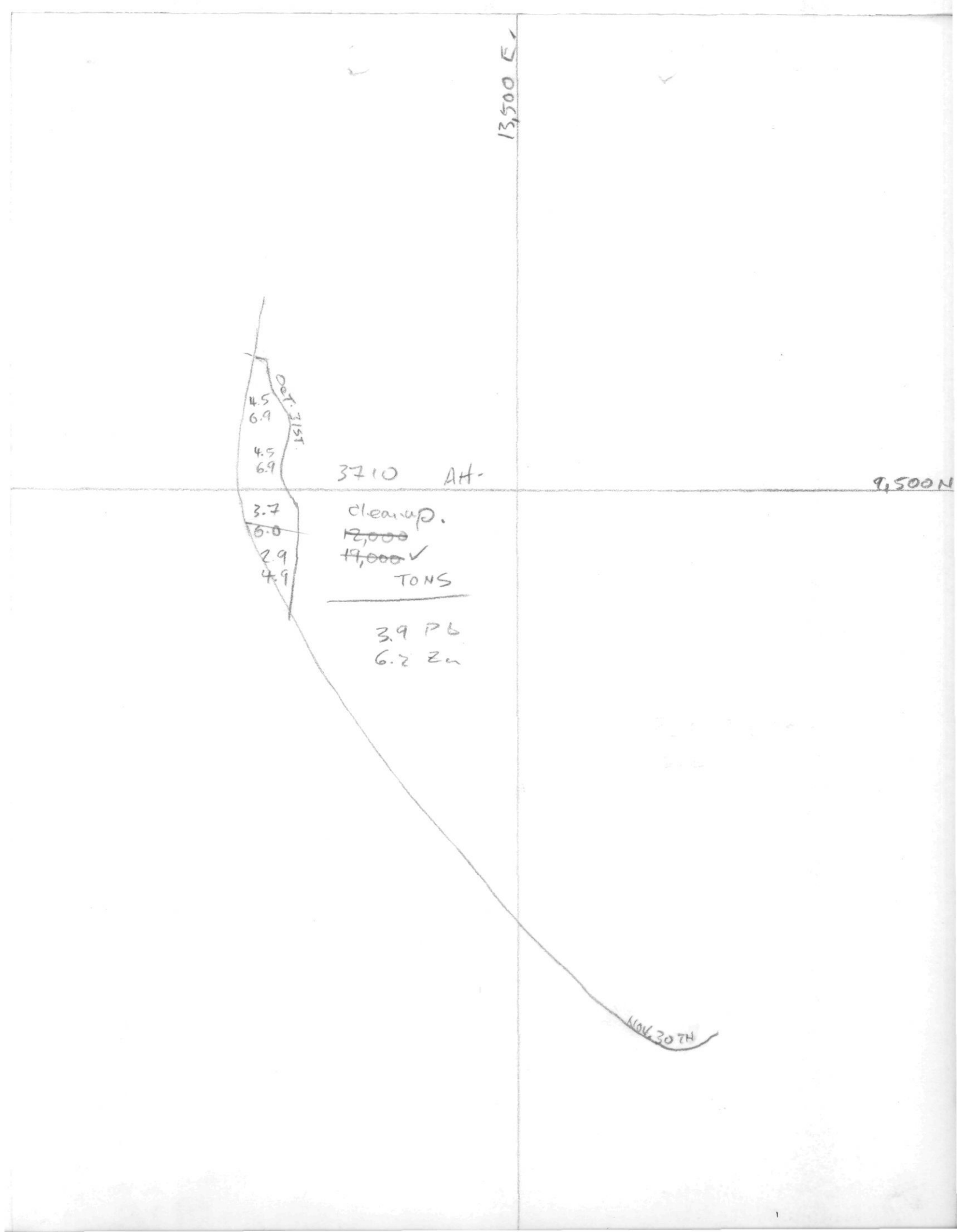
BLASTHOLE ASSAYS

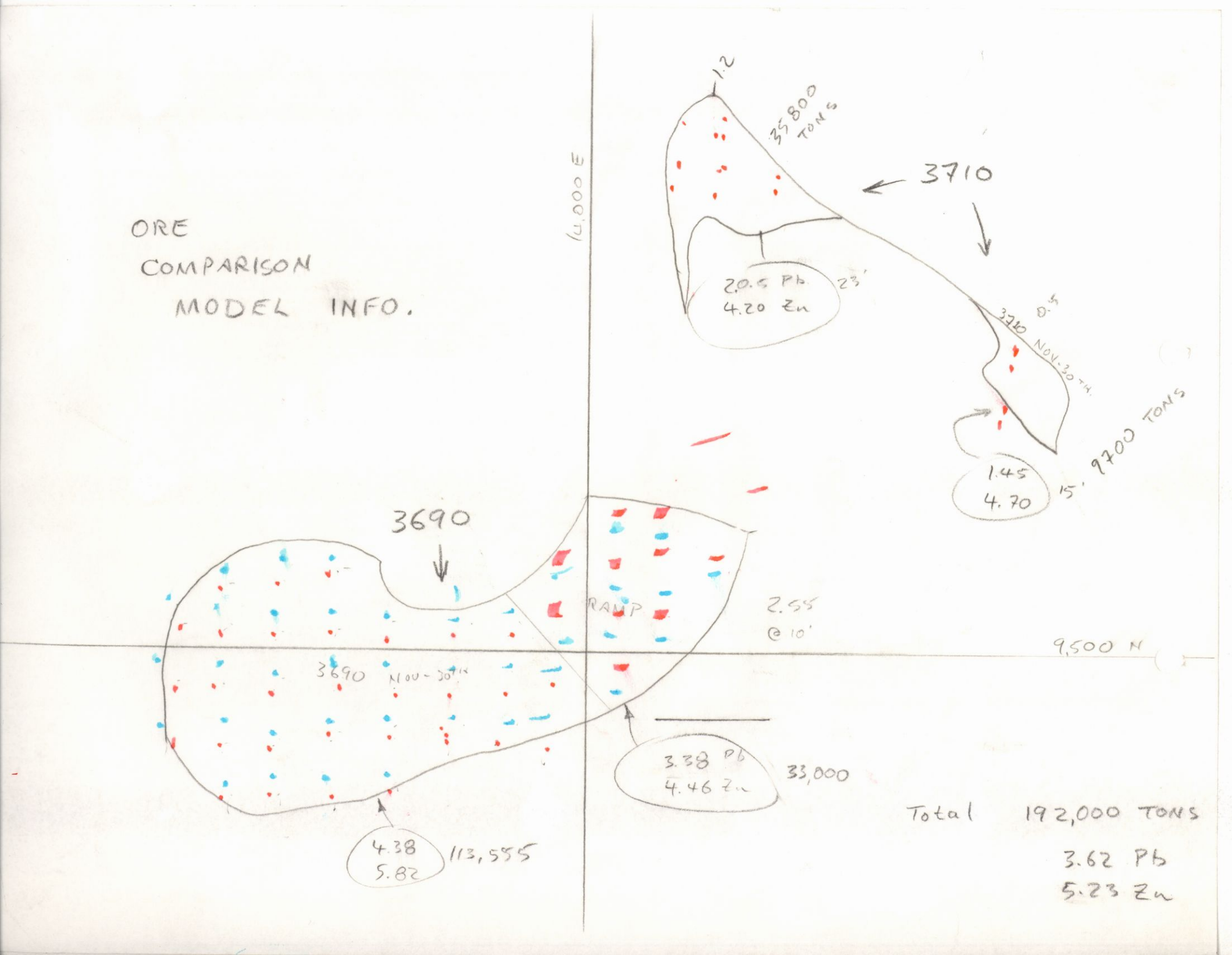
Blast	Tons	Pb %	Zn %	Comb.
3690 G	82,000	3.6	5.0	8.6
3690 H	80,000	4.9	6.6	11.5
3690 I	40,000	4.2	6.1	10.3
Sub-Total	202,000	4.2	5.9	10.1
3710 AJ	45,000	3.4	6.4	9.8
3710 AH	12,000	2.0	4.0	6.0
Sub-Total	57,000	3.1	5.9	9.0
CFSP	22,000	3.4	6.3	9.7
Coarse Ore Stockpile	35,000	3.7	5.7	9.4
Total	316,000	3.9	5.9	9.8

MINE MODEL

3690	186,000	4.2	5.6	9.8
3710	64,000	2.5	4.9	7.4
Coarse Ore Stockpile	35,000	3.7	5.7	9.4
CFSP	22,000	3.4	6.3	9.7
Total	307,000	3.7	5.5	9.2


13,500 E
9,500 N
OCT. 31ST
4.5
6.9
4.5
6.9
3710 AH-
3.7
6.0
2.9
4.9
clean up.
~~12,000~~
~~19,000~~ ✓
TONS
3.9 Pb
6.2 Zn
NOV. 30TH

ORE
COMPARISON
MODEL INFO.



Total 192,000 TONS

3.62 Pb

5.23 Zn

Nov.- 78. BLAST HOLE INFO.

3690 I 40,000 TONS
4.2 % Pb
6.1 % Zn

3690 H 86,000 TONS
5.1 Pb
6.6 Zn

3690 G 82,000 TONS
3.7 Pb
5.0 Zn

3710 AJ 50,000 TONS.
3.4 Pb
6.4 Zn

TOTAL TONS - 258,000 — TONS
AV. GRADE 4.2 % Pb
6.0 % Zn

COARSE ORE MILL FEED — 35,700 · NOV-13 → 18 (5days)
3.8 Pb
6.0 Zn

TOTAL — 293,700
4.1 Pb
6.0 Zn

IAN: I NEED GRADES ON THESE

MINE MODEL – 3690 – 186,000 TONS 4.2/5.6
3710 AH – 19,000 " 3.9/6.2
3710 AJ 45,500 " 1.9/4.3

250,500. → 3.8/5.4

CFSP 22,000 3.5/6.5
TOTAL – 272,500 – FROM PIT
COARSE ORE ≃ 35,700 ?

MODEL → 308,200 3.8/5.5

BLASTHOLE INFO. 3690 – 202,000 – 4.2/6.0
3710 AH – 12,000 2.0/4.0
3710 AJ – 45,000 3.4/6.4
259,000 – 3.9/6.0
CFSP 22,000 3.5/6.5

BLASTHOLE TOTAL → 281,000 3.9/6.0

+COARSE ORE – 35,700 ?

BLASTHOLE → TOTAL – 316,700 TONS (S.D.T.)
3.9 Pb
6.0 Zn

Cyprus Anvil Mining Corporation — Interoffice Correspondence

To: D. Gregoire

Date: November 9, 1978

From: J. W. Mustard

Subject: OCTOBER FEED GRADES

Tonnage and grade comparisons for October are given below:

	Tons (000's)	% Pb	% Zn	Comb.
Tonnage and Grade Model	369	3.1	5.2	8.3
Blasthole Assays	344	4.1	6.5	10.6
Metallurgical Balance	307	3.83	6.37	10.2
Calculated Balance	307	3.99	6.22	10.21
Third Quarter Review	318	3.4	5.0	8.4
Variance (Blasthole vs. Model)	-7%	+32%	+25%	+28%
Variance (Met. Balance vs. Model)	-17%	+24%	+23%	+23%
Variance (Calculated Balance vs. Model)	-17%	+29%	+20%	+23%
Variance (Calculated Balance vs. Blasthole)	-11%	-3%	-4%	-4%

Attached is a separate breakout for blasthole and mine model sources.

The tonnage variance between calculated and blasthole data results from 40,000 tons of coarse ore stockpiled during the month.

J. W. Mustard
Mine Geologist

JWM/mm

Attach.

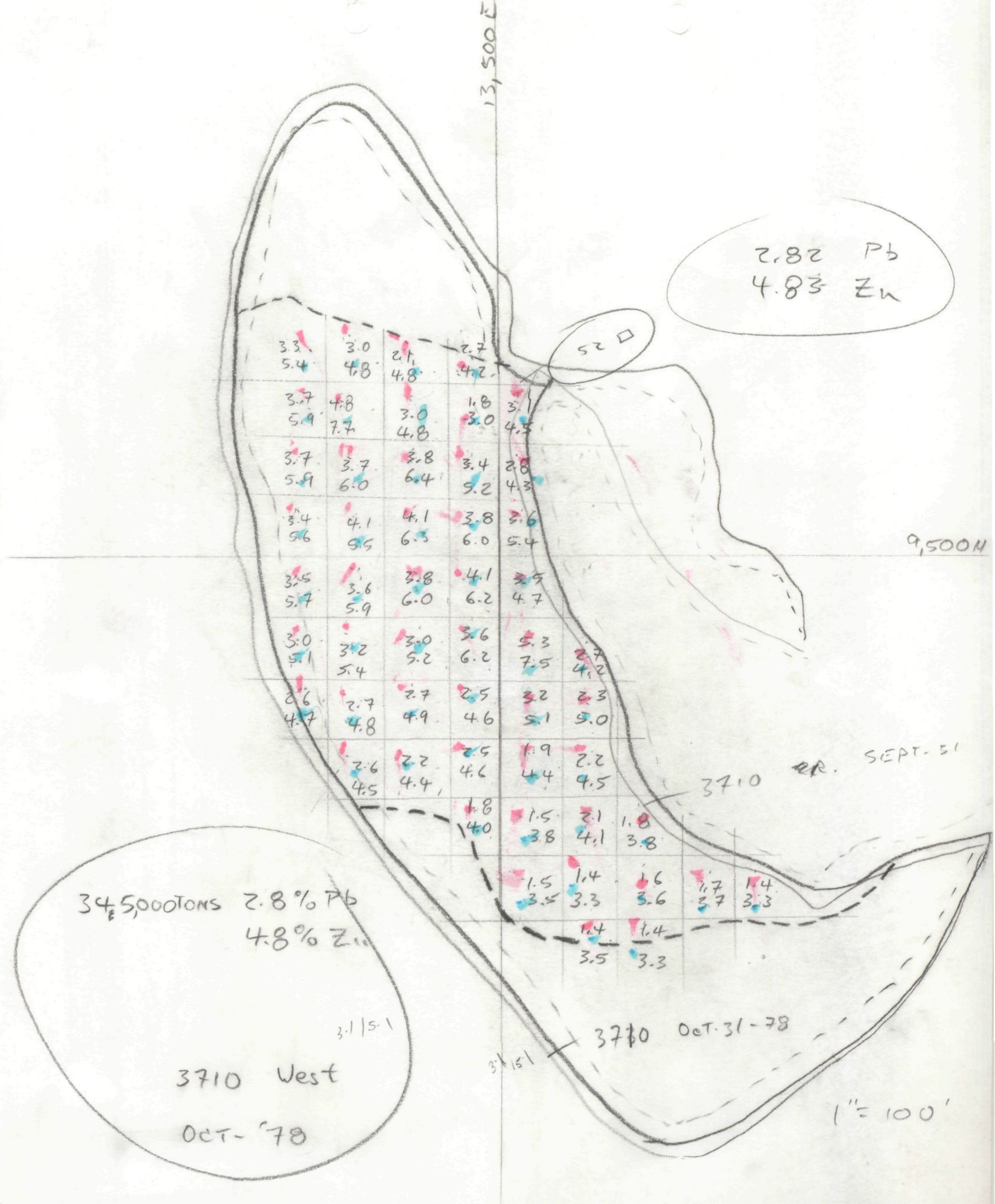
CYPRUS

BLASTHOLE ASSAYS

Blast	Tons	Pb %	Zn %	Comb.
3710 AC	8,000	2.0	4.5	6.5
3710 AE	4,000	2.7	4.5	7.2
3710 AF	115,000	5.0	7.6	12.6
3710 AG	17,000	2.3	3.9	6.2
3710 AH	154,000	3.8	5.9	9.7
3710 AI	15,000	6.0	8.5	14.5
3710 AJ	31,000	3.5	7.0	10.5
TOTAL	344,000	4.1	6.5	10.6

MINE MODEL

3710	369,000	3.1	5.2	8.3


13,500E
2.82 Pb
4.83 Zn
52
9,500N
SEPT-81
3710
345,000 TONS 2.8% Pb
4.8% Zn
3710 Oct-31-78
3710 West
Oct-'78
1" = 100'

Cyprus Anvil Mining Corporation | Interoffice Correspondence

To: B. Ferguson

Date: October 23, 1978

From: J. W. Mustard

Subject: FEED GRADE COMPARISON

Attached are feed grades given by month for the period November, 1977 to September, 1978 inclusive. The grades and tonnages are those calculated from blasthole assays for monthly comparisons.

J. W. Mustard
Mine Geologist

JWM/mm

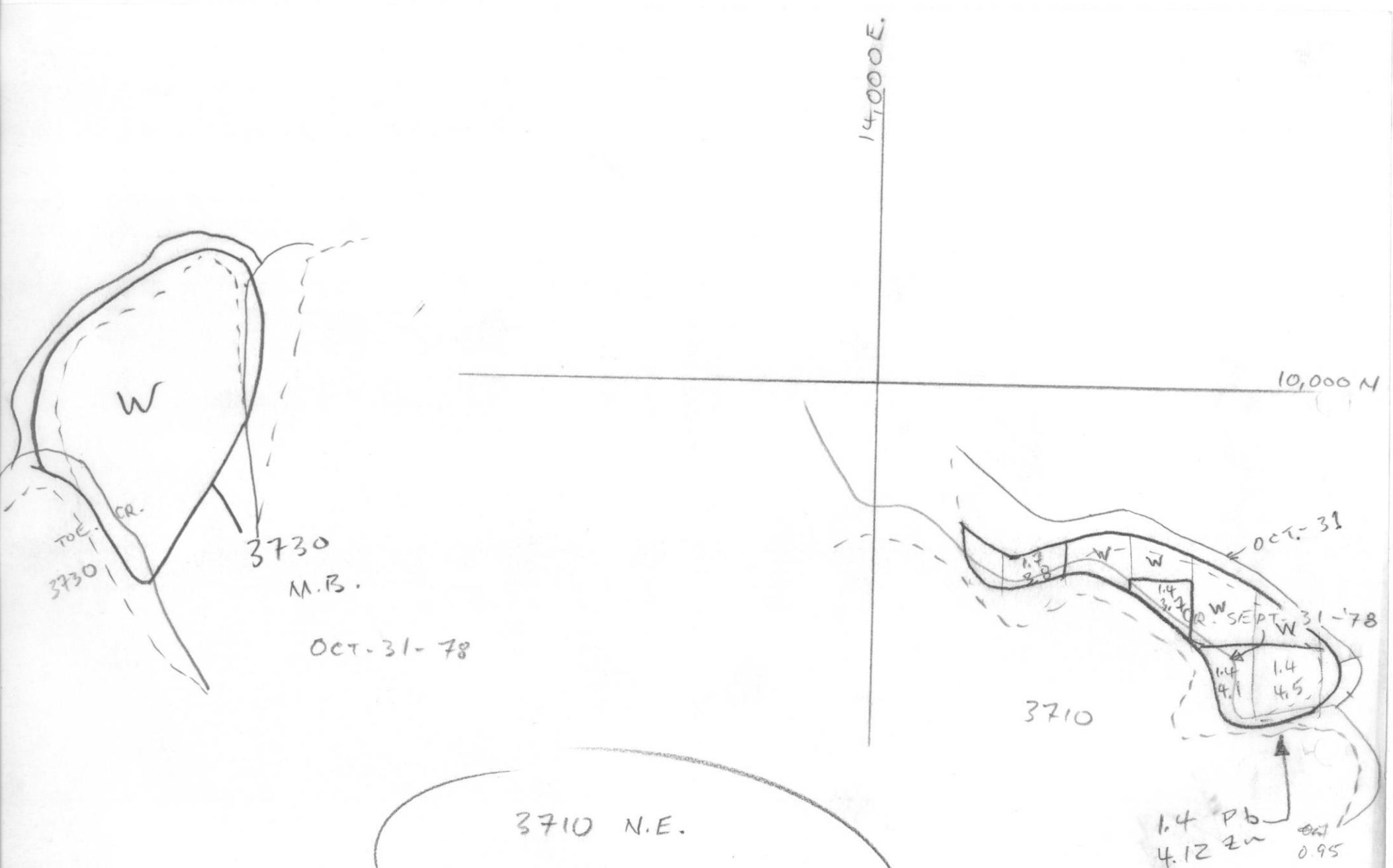
Attach.

CYPRUS ANVIL

FEED GRADES AS DETERMINED FROM BLASTHOLE ASSAYS

NOVEMBER, 1977 - SEPTEMBER, 1978

Month	Tons	% Pb	% Zn
November	315,000	2.6	4.9
December	318,000	2.5	4.2
January	332,000	2.7	4.1
February	283,000	2.6	5.4
March	337,000	3.2	4.6
April	329,000	3.0	4.6
May	295,000	2.8	5.3
June	251,000	2.7	5.1
July	304,000	3.0	5.5
August	298,000	3.0	5.4
September	295,000	3.6	5.7



3710 N.E.

24,600 TONS

1.4 Pb

41 Zn

1" = 100'

Cyprus Anvil Mining Corporation — Interoffice Correspondence

To: D. Gregoire

Date: October 5, 1978

From: J. W. Mustard

Subject: SEPTEMBER FEED GRADES

Tonnage and grade comparisons for September are given below:

	Tons (000's)	% Pb	% Zn	Comb.
Tonnage and Grade Model*	299	3.30	5.20	8.50
Blasthole Assays**	295	3.60	5.70	9.30
Metallurgical Balance	292	3.39	5.66	9.05
Calculated Balance	292	3.52	5.86	9.38
Third Quarter Review	308	3.20	5.30	8.50
Variance (Blasthole vs. Model)	-1%	+9%	+10%	+9%
Variance (Met. Balance vs. Model)	-2%	+3%	+9%	+6%
Variance (Calculated Balance vs. Model)	-2%	+7%	+13%	+10%
Variance (Calculated vs. Blasthole)	-1%	-2%	+3%	+1%

* As Mined
** As Milled

Attached is a separate breakout for blasthole and mine model sources.

A positive adjustment in the mill feed variance has resulted in an overall positive variance for calculated heads vs. blasthole assays.

J. W. Mustard
Mine Geologist

JWM/mm

Attach.

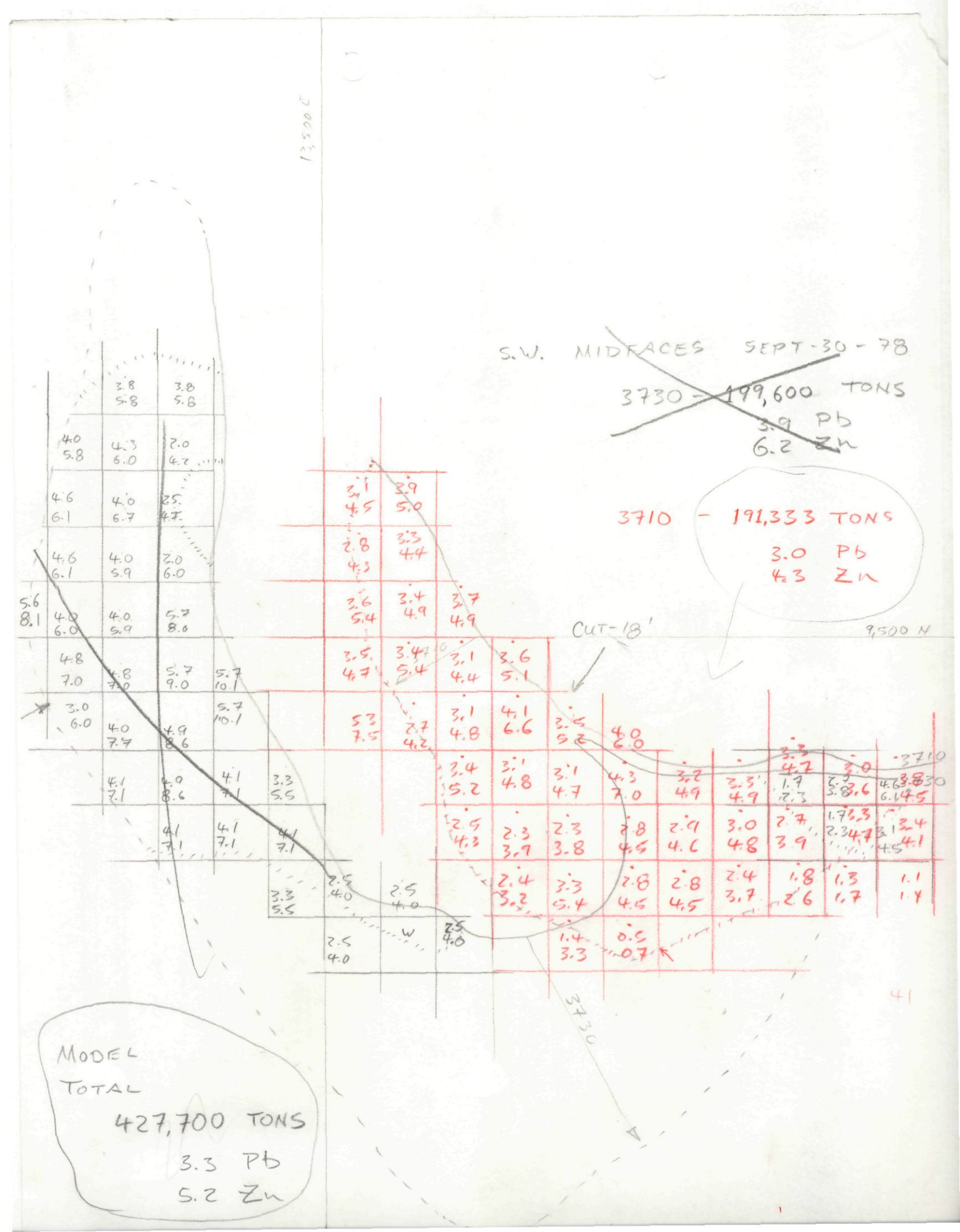
CYPRUS ANVIL

BLASTHOLE ASSAYS

Blast	Tons	Pb %	Zn %	Comb.
3730 P	38,000	3.8	6.0	9.8
3730 R	35,000	3.6	5.9	9.5
3730 T	18,000	3.4	4.9	8.3
3730 U	11,500	3.0	4.6	7.6
3730 V	7,000	3.7	6.1	9.8
Sub-Total	109,500	3.6	5.6	9.2
3710 AC	20,000	2.1	4.5	6.6
3710 AD	56,000	4.3	6.6	10.9
3710 AE	84,000	3.8	5.8	9.6
3710 AF	6,000	2.4	4.2	6.6
Sub-Total	166,000	3.7	5.9	9.6
CFSP	20,000	2.7	4.2	6.9
TOTALS (as milled)	295,500	3.6	5.7	9.3
(as mined)	275,500	3.7	5.8	9.5

MINE MODEL

Bench	Tons	Pb %	Zn %	Comb.
3730	108,000	3.0	5.1	8.1
3710	191,000	3.4	5.2	8.6
TOTAL	299,000	3.3	5.2	8.5


S.W. MIDFACES SEPT-30-78
3730 - 199,600 TONS
3.9 Pb
6.2 Zn
3710 - 191,333 TONS
3.0 Pb
4.3 Zn
CUT-18'
9,500 N
13,500 E
3730
3710
MODEL
TOTAL
427,700 TONS
3.3 Pb
5.2 Zn
41

BLAST HOLE INFO SEPT- 78

3710 AF 5,700 TONS
2.6 Pb
4.4 Zn

3730 P
4900 TONS
3.8 Pb
6.4 Zn

3710 AE 84,500 Tons
3.8 Pb
5.8 Zn

3710 AD 56,000 Tons
4.3 Zn
6.6 Pb

3710 AC 20,000 Tons.
2.1 Pb
4.5 Zn

TOTAL
249,600 TONS.
3.65 Pb
5.76 Zn
+CFSP
13,200 TONS.
Lower. 3.5/5.5

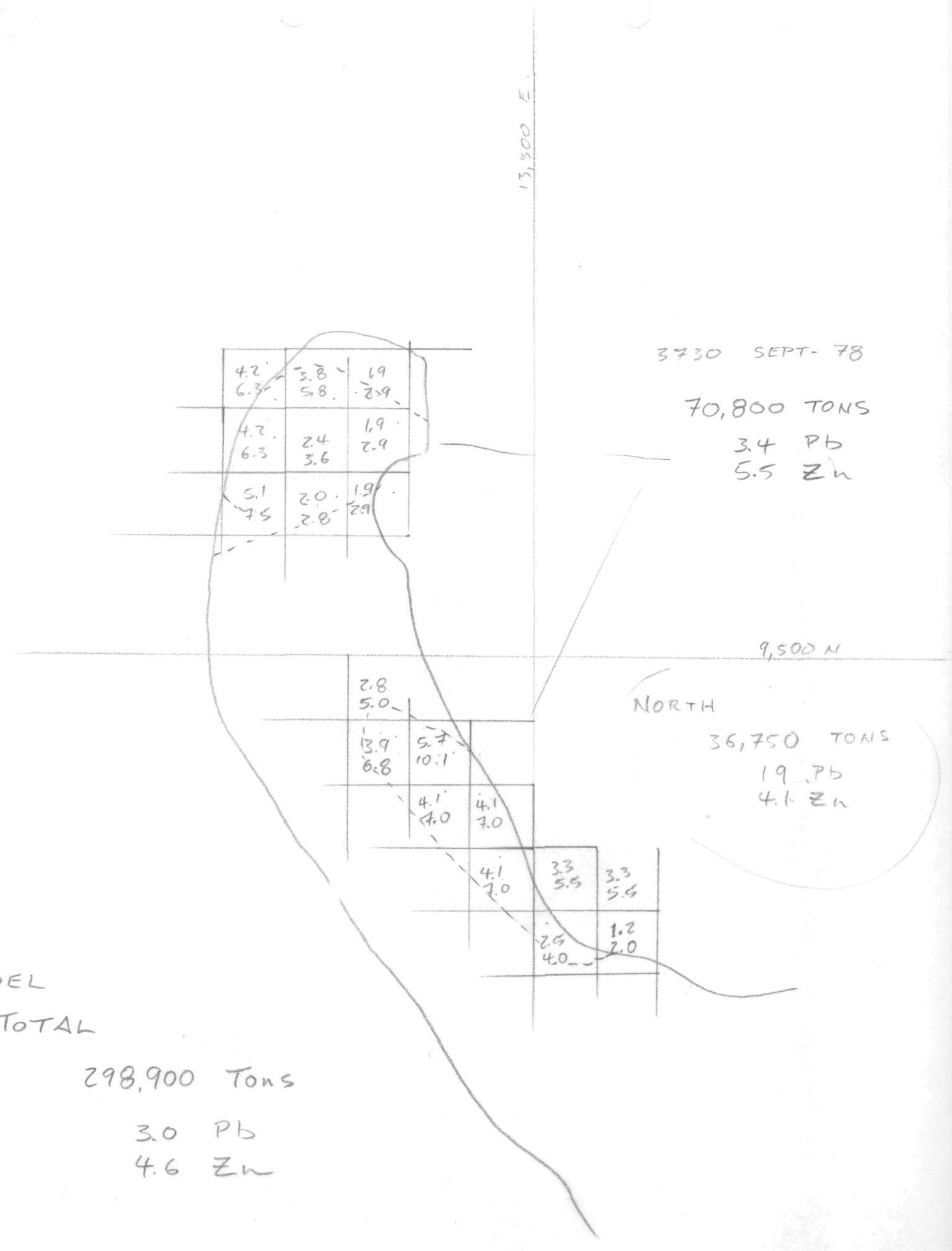
3730 V 7,000 Tons
3.7 Zn
6.1 Pb

255,800 TONS
3.6 Pb
5.8 Zn

3730 U 11,500 Tons
3.0 Pb
4.6 Zn

3730 T 18,000 TONS
3.4 Pb
4.9 Zn

3730 R 35,000 TONS
3.6 Pb
5.9 Zn



3730 SEPT- 78

70,800 TONS

3.4 Pb

5.5 Zn

NORTH

36,750 TONS

1.9 Pb

4.1 Zn

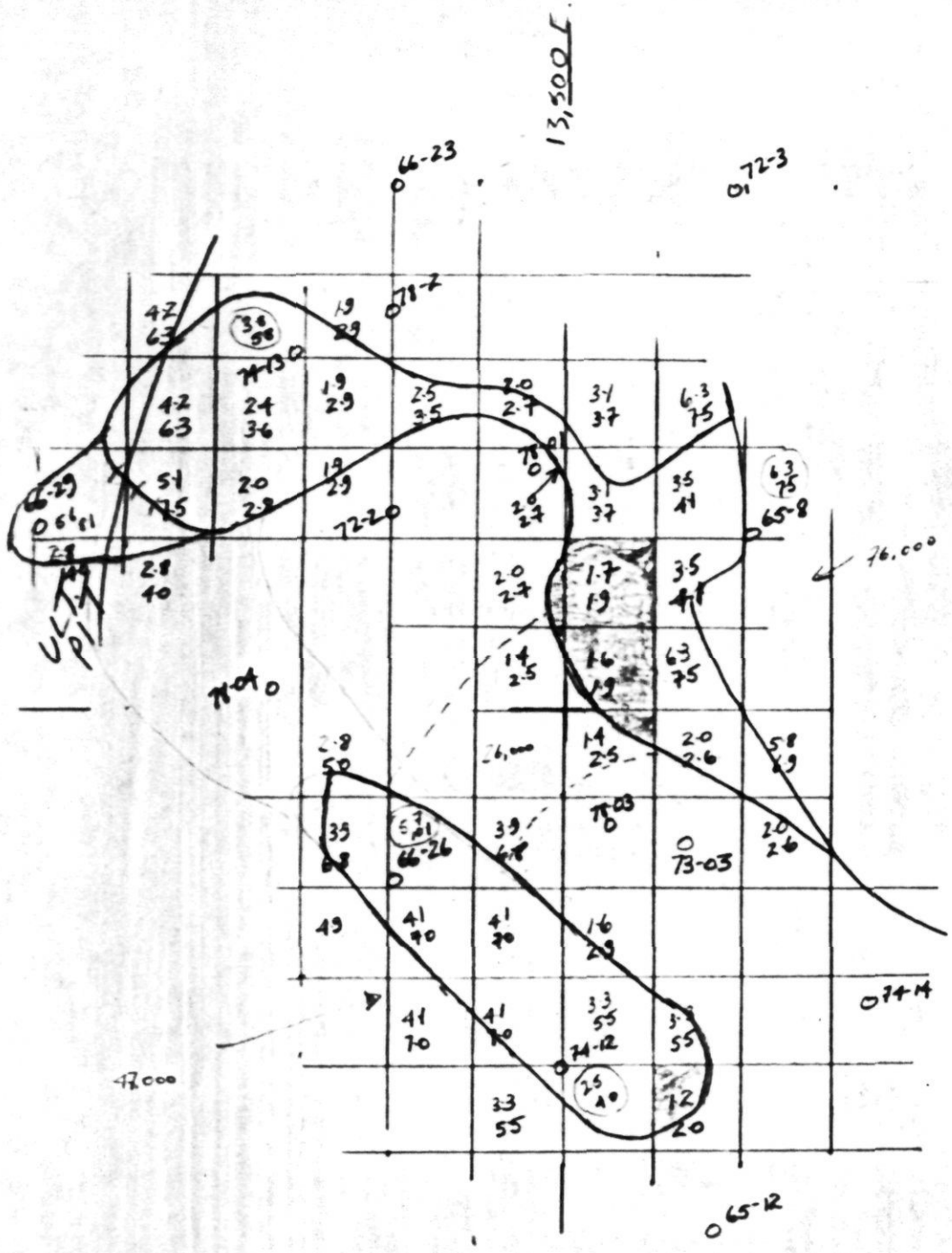
MODEL

TOTAL

298,900 Tons

3.0 Pb

4.6 Zn



3730

25' COT

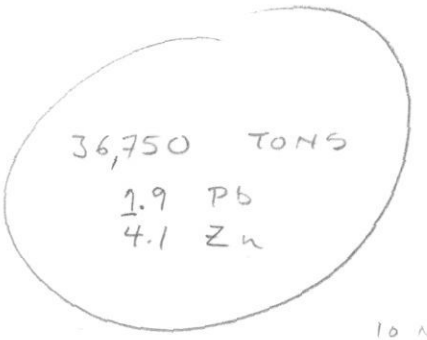
BENCH

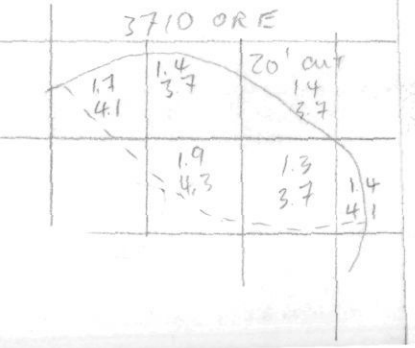
PLAN

10% dilution.

35,000 TONS


3730 ORE.
RAMP
3730
3750
cut
23'
3.2
4.9
2.7
4.5


36,750 TONS
1.9 Pb
4.1 Zn


3710 ORE
1.1
4.1
1.4
3.7
20' cut
1.4
3.7
1.9
4.3
1.3
3.7
1.4
4.1

Cyprus Anvil Mining Corporation — Interoffice Correspondence

To: D. Gregoire — Date: September 13, 1978

From: J. W. Mustard

Subject: AUGUST FEED GRADES

Tonnage and grade comparisons for August are given below:

	Tons (000's)	% Pb	% Zn	Comb.
*Tonnage and Grade Model	334	3.20	5.40	8.60
**Blasthole Assays	298	3.00	5.40	8.40
Metallurgical Balance	326	2.94	5.41	8.35
Calculated Balance	326	2.60	4.95	7.55
August Flash Forecast (August 7)	317	2.90	5.46	8.36
Second Quarter Review	306	3.54	6.67	10.21
Variance (Blasthole vs. Model)	-1%	-6%	-	-2%
Variance (Met. Balance vs. Model)	+8%	-8%	-	-3%
Variance (Calculated Balance vs. Model)	+8%	-19%	-8%	-12%
Variance (Calculated Balance vs. Blasthole)	+9%	-13%	-8%	-10%

* As mined
** As mill feed

Attached is a separate breakout for blasthole and mine model sources.

The large variance between the Second Quarter Review and actual is explained in the July feed grade memo.

A positive tonnage variance resulted from picking up spill (3730, 3750) on the 3710 level. Most of this material was at lower grade than plan for the month.

J. W. Mustard
Mine Geologist

JWM/mm

Attach.

CYPRUS ANVIL

BLASTHOLE ASSAYS

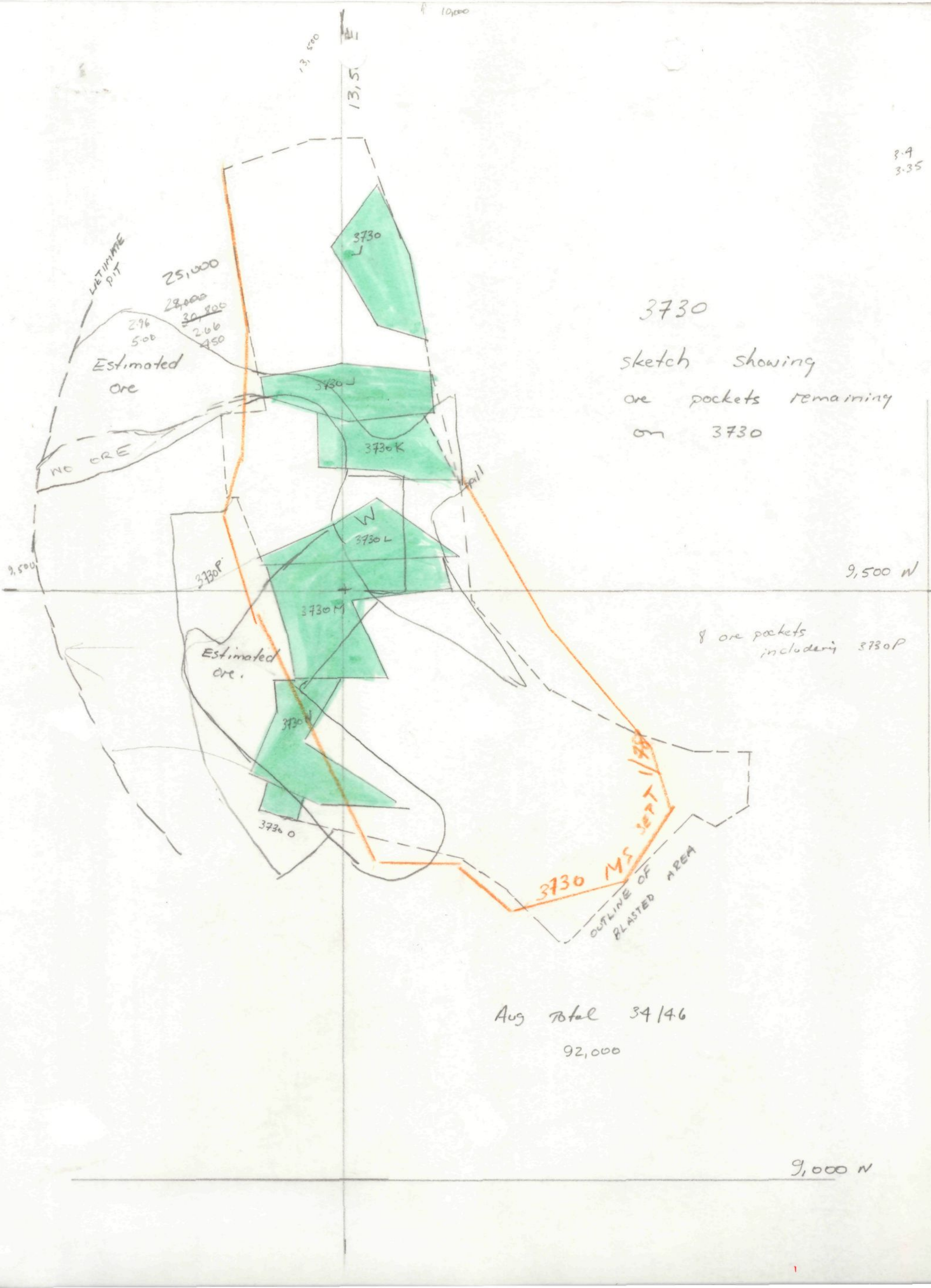
Blast	Tons	% Pb	% Zn	Comb.
3750 AZ	25,000	2.7	5.0	7.7
3750 BB	30,000	2.8	4.9	7.7
3750 BC	11,000	3.6	5.5	9.1
Sub-Total	66,000	2.9	5.0	7.9
NE-Ramp				
3730 G	38,000	2.5	5.5	8.0
3730 H	46,000	2.7	5.7	8.4
3730 I	97,000	3.1	5.5	8.6
Sub-Total	181,000	2.9	5.6	8.5
3730 J	22,000	2.9	4.2	7.1
3730 K	15,000	2.6	3.9	6.5
3730 L	14,000	4.2	6.6	10.8
3730 M	28,000	3.4	5.7	9.1
3730 N	5,000	3.2	5.1	8.3
Sub-Total	84,000	3.2	5.1	8.3
CFSP*	-33,000	2.7	5.2	7.9
TOTAL	298,000	3.0	5.4 (as mill feed)	8.4
	331,000	3.0	5.4 (as mined)	8.4

* Net gain of 33,000 SDT during month in stockpile.

MINE MODEL

Bench	Tons	% Pb	% Zn	Comb.
3750	82,000	3.4	5.0	8.4
3730 (NE-Ramp)	160,000	3.0	6.0	9.0
3730*	92,000	3.4	4.6	8.0
	334,000	3.2	5.4	8.6

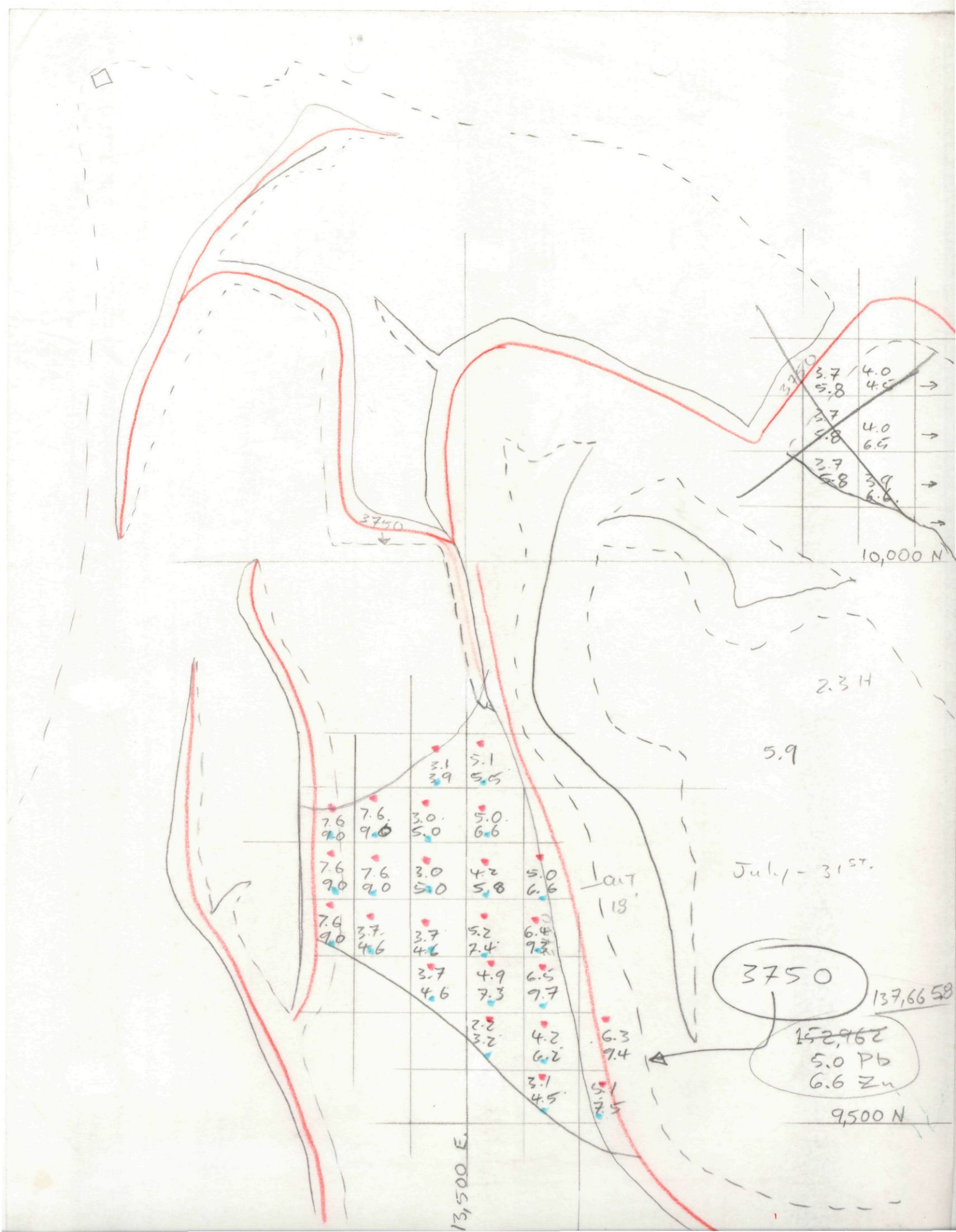
* 10% dilution not used.

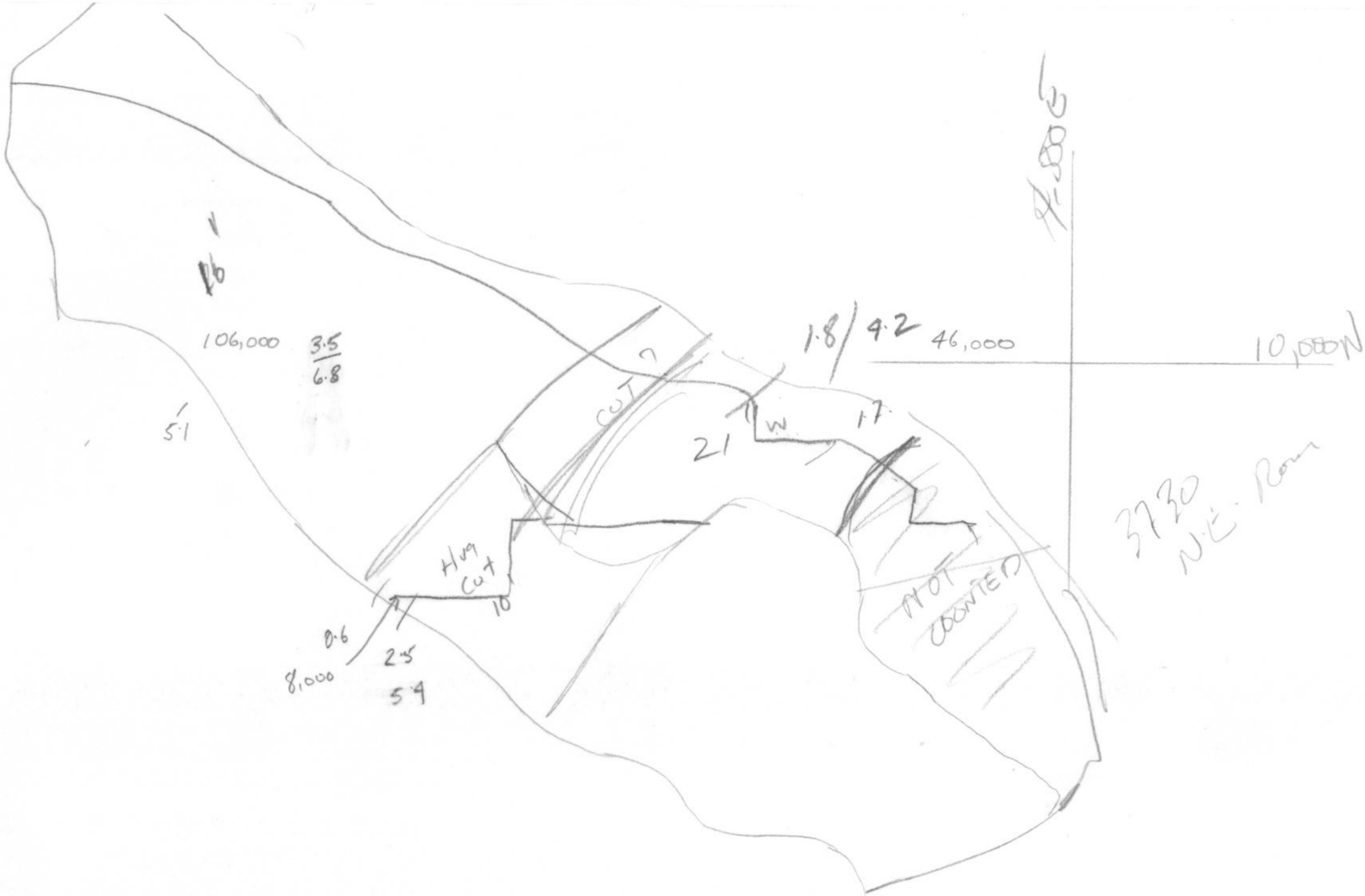

3730
sketch showing
ore pockets remaining
on 3730
10,000
13,500
13,5
3.4
3.35
ULTIMATE PIT
25,000
28,000
30,800
2.96
5.00
2.66
4.50
Estimated ore
3730 J
3730J
3730K
NO ORE
spill
W
3730 L
3730P
9,500
9,500 W
3730M
8 ore pockets including 3730P
Estimated ore.
3730N
3730 O
3730 MS
OUTLINE OF BLASTED AREA
Aug total 34/46
92,000
9,000 N

ORa Comparisons

7	3750 BB	30,400	2·8	4·9	3 pockets.
·	3750 AZ	25,000	2·7	5·0	2 pockets.
OK	3750 BC	11,000	3·6	5·5	1
		66,400	2·9	50	

7	3730 M	28,000	3·4	~~5~~·7	1
cont.	3730 L	14,000	4·2	6·6	1
	3730 K	15,000	2·6	3·9	1
~~plotted~~	3730 J 2200	29,000	2·9	4·2	27,000 STP - 2·3?
	3730 N	3,600	3·2	5·1	
		82.6	3·2	5·1	
		87,000			
cont.	3730 I	~~125,000~~	3·0	5·5	
	3730 H	46,400	2·7	5·7	Complete.
	~~3730 F~~				
	3730 G	53,000	2·5	5·5	
		15			
LAST.					
- 3730 G.		15,000	2·4	5·4	
		201·4	2·7	5·5	
	A	350,000	2·8	5·3	A
			3·0	5·4	

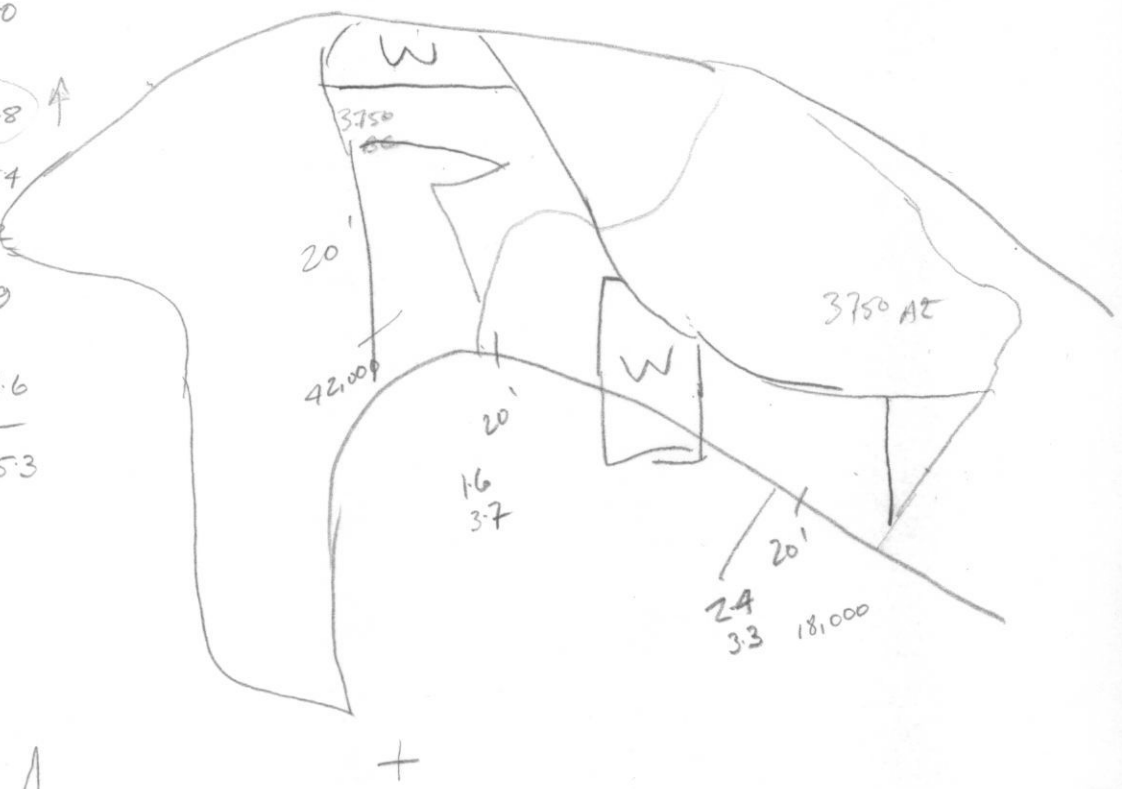

3750
10,000 N
2.3 H
5.9
July - 31st.
3750
137,66 58
5.0 Pb
6.6 Zn
9,500 N
13,500 E.

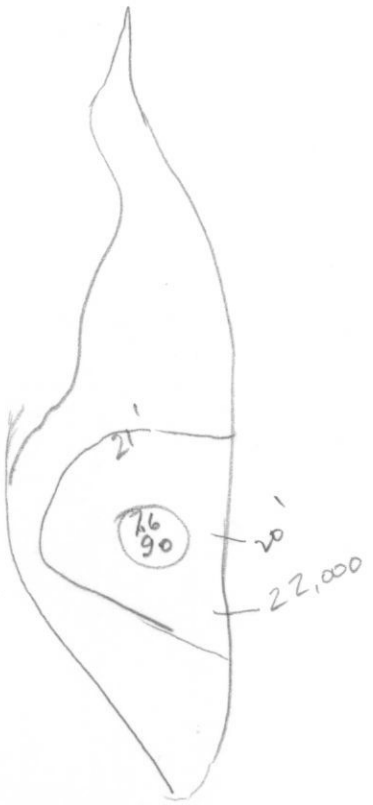

16
106,000
3.5
6.8
5.1
CUT
1.8/4.2
46,000
10,000N
21
W
17
Hug cut
10
0.6
8,000
2.5
5.4
NOT COUNTED
3730

Model Total.

3750 -	~~82~~,000	7.6	9.0
	42,000	1.6	3.7
	18,000	2.4	3.3
	82,000	34	50
3730 east	106,000	3.5	6.8
	8,000	2.5	54
	46,000	1.8	42
	160,000	3.0	5.9
west 3730	92,000	34	4.6
TOTAL	334,000	32	5.3

10,500N 13,500E





3750.

9,500N

Cyprus Anvil Mining Corporation — Interoffice Correspondence

To: D. Gregoire

Date: August 8, 1978

From: J. W. Mustard

Subject: JULY FEED GRADES

Tonnage and grade comparisons for July are given below:

	Tons	% Pb	% Zn	Comb.
Tonnage and Grade Model	384,000	3.97	5.90	9.87
Blasthole Assays	303,750	3.04	5.53	8.57
Metallurgical Balance	317,881	2.65	5.06	7.71
Calculated Balance	317,881	2.73	5.12	7.85
July Flash Forecast	317,500	3.66	6.14	9.80
Second Quarter Review	306,000	3.54	6.67	10.21
Variance (Blasthole vs. Model)	-21%	-23%	- 6%	-13%
Variance (Met. Balance vs. Model)	-17%	-33%	-14%	-22%
Variance (Calculated Balance vs. Model)	-17%	-31%	-13%	-20%
Variance (Cal. Balance vs. Blasthole)	+ 5%	-13%	- 9%	-10%

Attached is a separate breakout for blasthole and mine model sources.

Combined shortfalls in tonnage and grade on the 3750 bench in the west side of the pit contributed significantly to not meeting the Second Quarter Review or July flash feed forecast. A 67% loss of tonnage, 25% lower lead grade and 12% lower zinc grade occurred on this area of the 3750 bench.

The loss in tonnage was partially offset by a gain on 3770, but at a lower grade.

The tonnage difference between blasthole assays and the metallurgical balance is a result of moving ore from the crusher feed stockpile. Grade differences are assumed to be a result of dilution at the face, resulting from waste surrounding "islands" of ore. This month, there were 9 ore sources (blasts), 10 including the crusher feed stockpile, compared to 4 in June.

During July, the western portion of Phase V ore was re-evaluated as a result of 6 additional boreholes and detailed relogging of existing boreholes. A significant change occurred on the 3730 with a drop in tonnage and grade (see separate attachment for details). Grade changes on all the remaining benches are minor variations except 3670 IV; tonnages within the ultimate pit do not change on any bench except 3730.

CYPRUS ANVIL

A revised Second Quarter Review incorporating the current ore situation was published as a result of the evaluation.

Methods of improving short range forecasts are presently being evaluated.

J. W. Mustard
Mine Geologist

JWM/mm

Attach.

BLASTHOLE ASSAYS

Phase	Blast	Tons	% Pb	% Zn	Comb.
V	3770 C	30,500	2.4	5.4	7.8
V	3770 D	12,000	4.6	6.7	11.3
V	3770 E	13,400	4.3	6.2	10.5
V	3770 G	38,900	3.8	5.6	9.4
Subtotal		94,800	3.52	5.76	9.28
V	3750 AN	78,750	2.3	5.0	7.3
V	3750 AX	37,500	3.8	5.9	9.7
V	3750 AY	46,000	3.3	6.1	9.4
V	3750 BA	6,700	3.3	5.1	8.4
Subtotal*		168,950	2.94	5.50	8.44
V	3730 G	15,000	2.40	5.40	7.80
	CFSP	25,000**	2.3	4.9	7.2
TOTAL		303,750	3.04	5.53	8.57

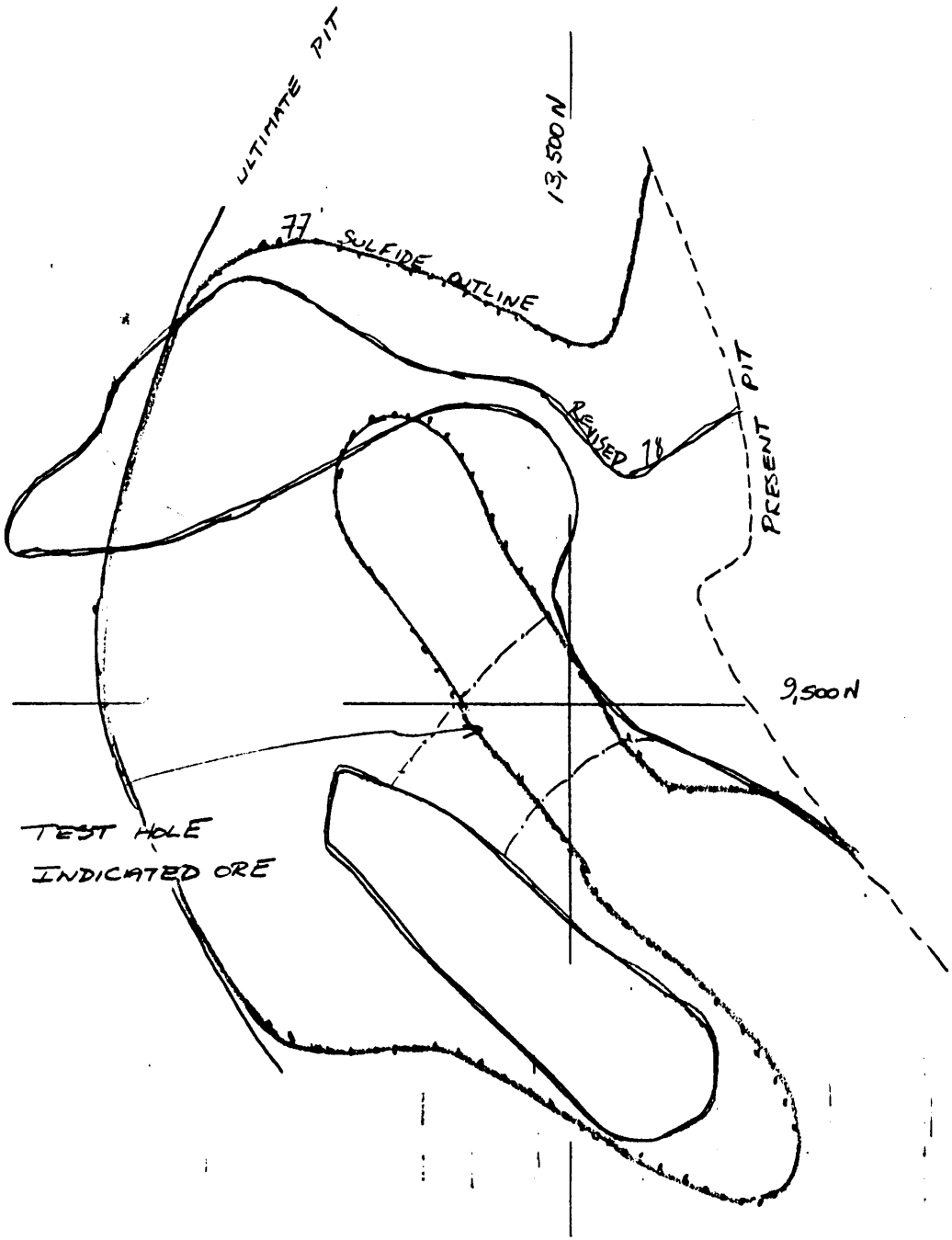
* West side 44,000 tons, 3.72% Pb, 5.78% Zn.

** Tonnage estimate from truck count.

MINE MODEL

Phase	Bench	Tons	% Pb	% Zn	Comb.
V	3770	50,000	4.0	5.9	9.9
V	3750*	315,000	4.0	5.9	9.9
V	3730 (NE Ramp)	19,000	3.5	5.9	9.4
TOTAL		384,000	3.97	5.90	9.74

* West side 136,000 tons, 5.0% Pb, 6.6% Zn.



3730

20' CUT

ESTIMATED ORE - 78

149,000 SDT

3.66 % Pb

5.63 % Zn.

ORIGINAL ESTIMATE - 77

390,000 SDT

4.01 % Pb

6.47 % Zn

SCALE

0' 100'

Legend:

-------- 1977 Sulfide Outline

———— 1978 Sulfide Outline Revised

BLAST HOLE INFO
July -'78

✓ 3750 "BA" BLAST.
6,700 TONS *
3.3 Pb
5.1 Zn

3750 AY
46,000 TONS
3.3 Pb
6.1 Zn

3750 AX *
37,500
3.8 Pb
5.9 Zn.

✓ 3750 AW
78,750
2.3 Pb
5.0 Zn.

✓ 3770 "D" July-3RD
12,000 TONS
4.6 Pb
6.7 Zn

✓ 3770 E
13,400 TONS
4.3 Pb
6.2 Zn

✓ 3770 "G" BLAST
38,700
3.8 Pb
5.6 Zn

July-30TH
3730 G BLAST
FROM TRUCK COUNT.
14,931 2.5/5.5

JUNE-27
✓ 3770 "C" BLAST
30,500
2.4 Pb
5.4 Zn.

CFSP 15,000
2.4 Pb
5.4 Zn.

3750 AZ NOT TAKEN YET.

293,281 TONS ✓

3.08 Pb
5.58 Zn

✓ COMP
8.7

5.58

1636.67

		Tons	% Pb	% Zn
?	3770 C ✓	30,500 ✓	2.4	5.4
?	3770 D ✓	12,000	4.6	6.7
	3770 E ✓	13,400	4.3	6.2
	3770 G ✓	38,900	3.8	5.6
	SUBTOTAL	94,800	3.52	5.76
✓	3750 AW	78,750	2.3	5.0
✓	3750 AX	37,500	3.8	5.9
✓	3750 AY	46,000	3.3	6.1
✓	3750 BA	6,700 ✓	3.3	5.1
	SUBTOTAL	168,950	2.94	5.5
	3730 G	15,000	2.4	5.4
	CFSP	25,000	~~2.4~~ 2.3	~~5.0~~ 4.9
		303,750	~~3.04~~	5.53 ?

Cyprus Anvil Min' ' Corporation Inte 'fice Correspondence

To J. Mustard

Date July 7, 1978

From R. Lopaschuk

Subject JUNE FEED GRADES

Tonnage and grade comparisons for June are given below:

	Tons	% Pb	% Zn	Comb.
Tonnage and Grade Model	336,500	2.30	4.88	7.18
Blasthole Assays	251,300	2.66	5.13	7.79
Metallurgical Balance	297,000	2.64	5.17	7.81
Calculated Balance	297,000	2.75	4.45	7.19
June Short Range Plan	307,000	2.85	5.25	8.10
Second Quarter Review	307,000	2.94	4.92	7.86
Variance (Blasthole vs. Model)	-34%	+13%	+ 5%	+ 8%
Variance (Met. Balance vs. Model)	-13%	+13%	+ 6%	+ 8%
Variance (Calculated Balance vs. Model)	-13%	+16%	-10%	0%

Attached is a separate breakout for blasthole and mine model sources.

A 34% tonnage loss (Blasthole vs. Model) resulted from decreased tonnage on 3790 and from 42,000 tons of internal pyrite waste on 3710 that had been predicted as ore by the model.

A 15% shortfall in tonnage (Calculated Balance vs. Blasthole Assays) is due to a net decrease of 47,000 tons in the crusher feed stockpile for the month of June.

R. Lopaschuk
Geological/Geotechnical Engineer

RL/mm

Attach.

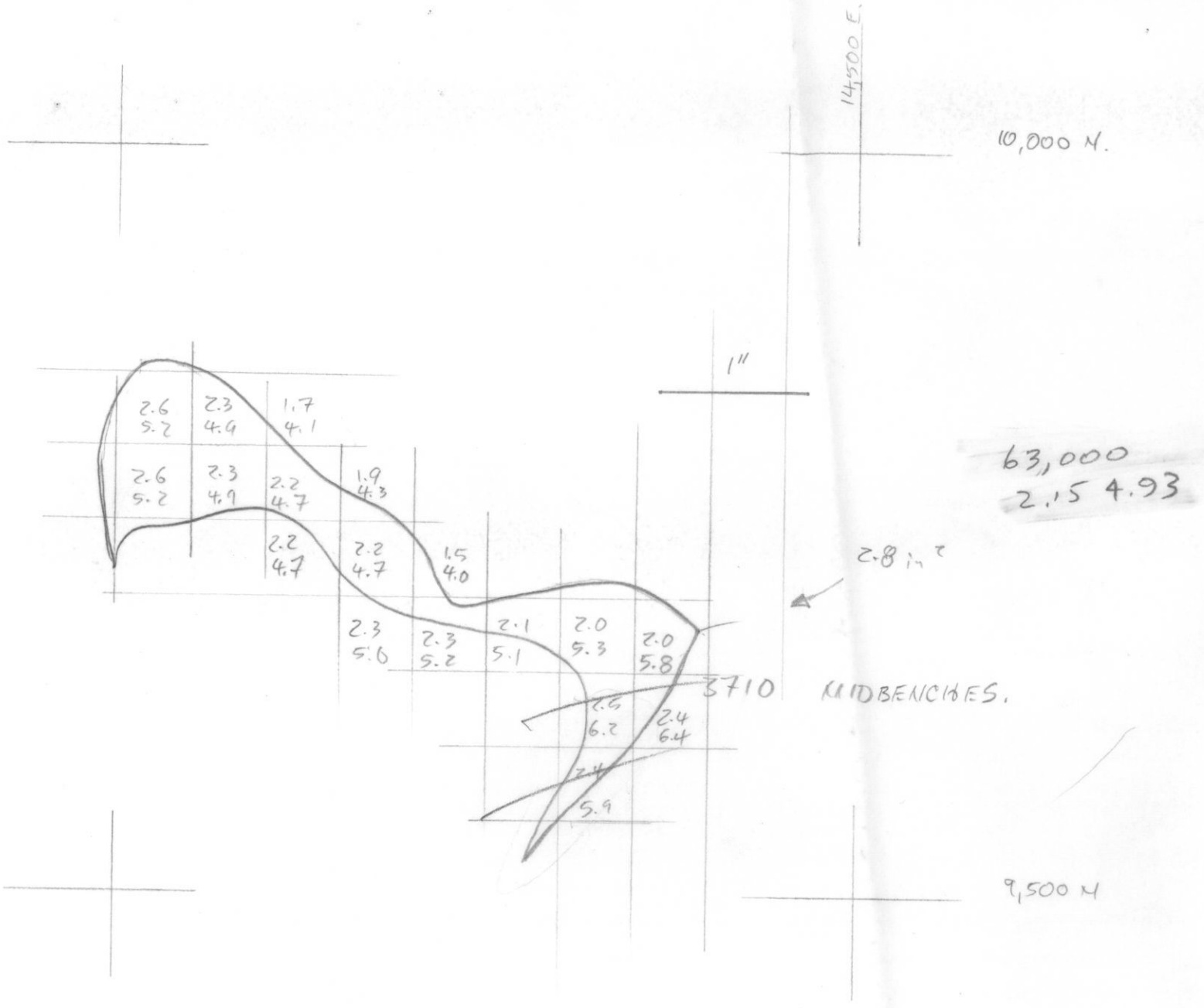
CYPRUS

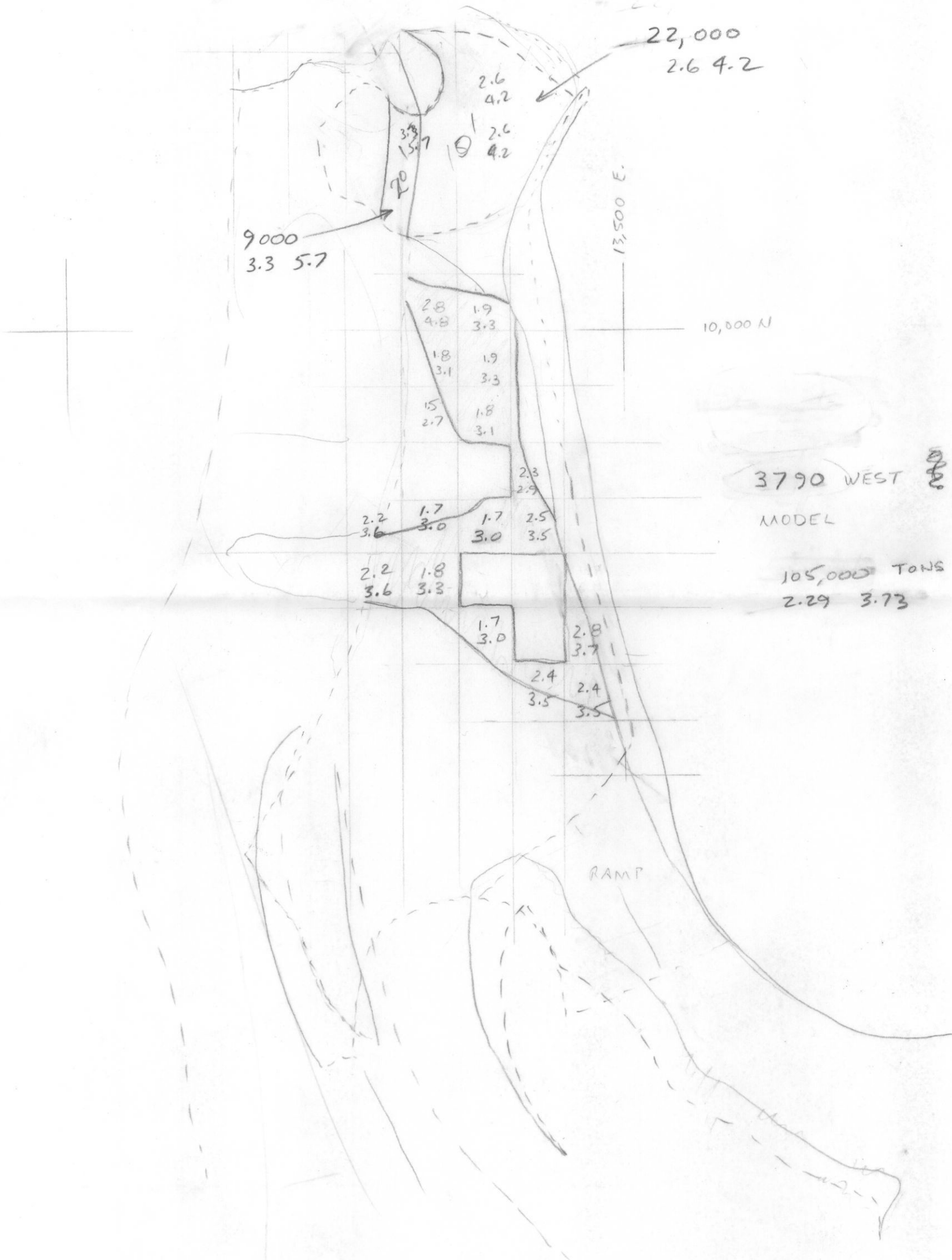
BLASTHOLE ASSAYS

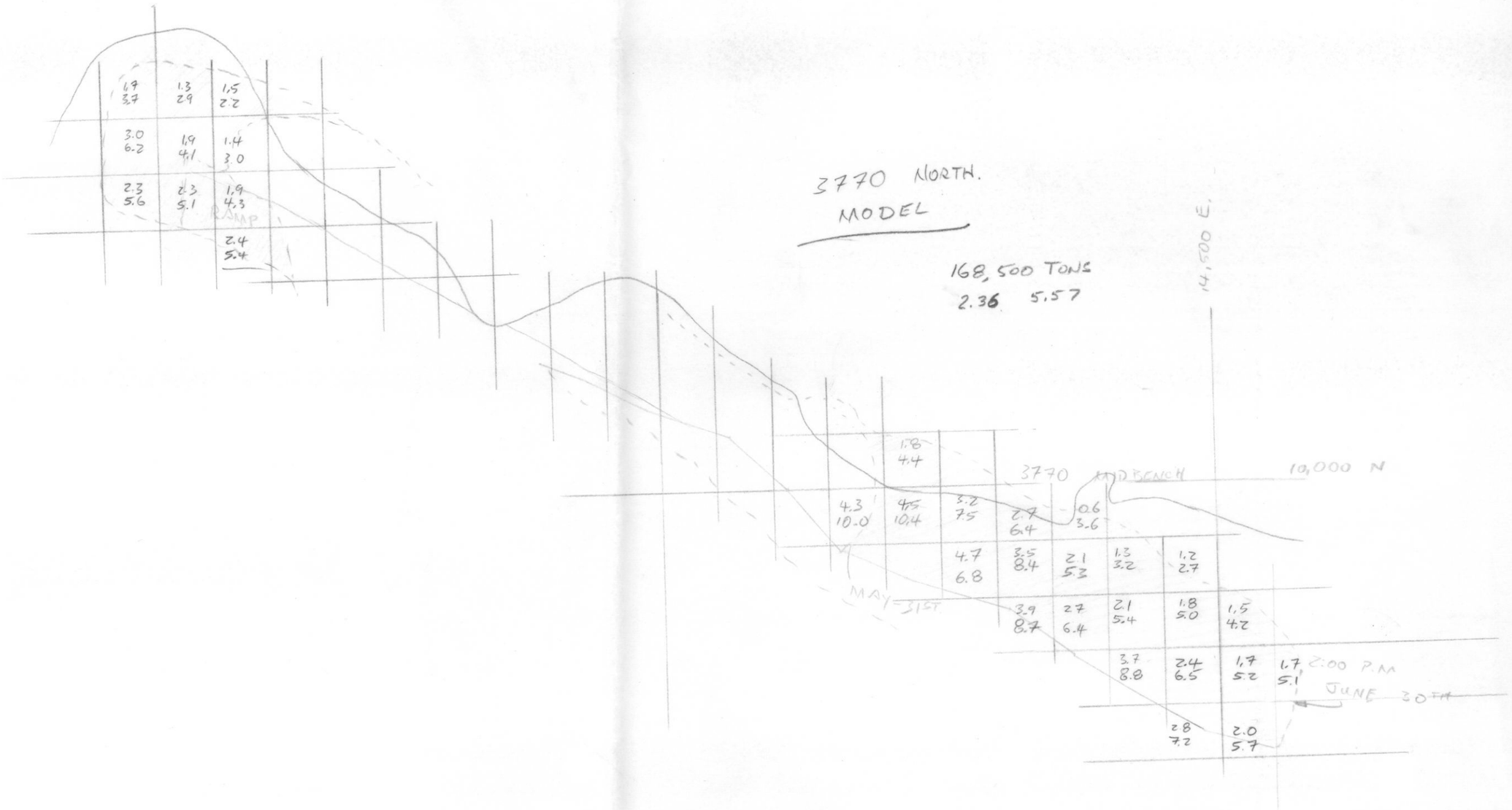
Phase	Bench	Blast	Tons	% Pb	% Zn	Comb.
V	3790	AR	64,600	4.0	6.2	10.2
V	3770	B	123,000	2.1	4.5	6.6
V	3770	C	42,700	2.4	5.6	8.0
IV	3710	AB	21,000	2.4	4.6	7.0
Total			251,300	2.66	5.13	7.79

MINE MODEL

V	3790 (west side of pit)	105,000	2.29	3.73	6.02
V	3770 (N.E. ramp)	168,500	2.36	5.57	7.93
IV	3710	63,000	2.15	4.93	7.08
Total		336,500	2.30	4.88	7.18


14500 E.
10,000 N.
1"
63,000
2.15 4.93
2.8 in²
2.6 5.2
2.3 4.4
1.7 4.1
2.6 5.2
2.3 4.9
2.2 4.7
1.9 4.3
2.2 4.7
2.2 4.7
1.5 4.0
2.3 5.6
2.3 5.2
2.1 5.1
2.0 5.3
2.0 5.8
3710
MIDBENCHES.
2.5 6.2
2.4 6.4
2.4
5.9
9,500 N


22,000
2.6 4.2
9000
3.3 5.7
13,500 E.
10,000 N
3790 WEST
MODEL
105,000 TONS
2.29 3.73
RAMP


3770 NORTH.
MODEL
168,500 TONS
2.36 5.57
4,500 E.
10,000 N
3770 MID BENCH
MAY 31ST
JUNE 20TH
2:00 P.M
1.7 3.7
1.3 2.9
1.5 2.2
3.0 6.2
1.9 4.1
1.4 3.0
2.3 5.6
2.3 5.1
1.9 4.3
2.4 5.4
1.8 4.4
4.3 10.0
4.5 10.4
3.2 7.5
2.7 6.4
0.6 3.6
4.7 6.8
3.5 8.4
2.1 5.3
1.3 3.2
1.2 2.7
3.9 8.7
2.7 6.4
2.1 5.4
1.8 5.0
1.5 4.2
3.7 8.8
2.4 6.5
1.7 5.2
1.7 5.1
2.8 7.2
2.0 5.7

Cyprus Anvil Mini Corporation Inter ice Correspondence

To D. Gregoire

Date June 7, 1978

From R. Lopaschuk

Subject MAY FEED GRADES

Tonnage and grade comparisons for May are given below:

	Tons	% Pb	% Zn	Comb.
Tonnage and Grade Model	200,000	2.56	5.56	8.12
Blasthole Assays	295,000	2.84	5.33	8.17
Metallurgical Balance	250,000	2.84	4.87	7.71
Calculated Balance	250,000	3.08	5.30	8.38
May Short Range Plan	317,000	3.00	5.25	8.25
First Quarter Review	317,000	2.5	5.7	8.2
Variance (Blasthole vs. Model)	+32%	+10%	- 4%	+0.6%
Variance (Met. Balance vs. Model)	+20%	+10%	-12%	-5%
Variance (Calculated Balance vs. Model)	+20%	+17%	- 5%	+3%

Attached is a separate breakout for blasthole and mine model sources.

A 32% tonnage gain (Blasthole vs. Model) resulted from increased tonnage on 3790 and 3770. We gained 18,000 tons on 3790 and 58,000 tons on 3770 over what the model had predicted.

A 20% shortfall in tonnage (Calculated Balance vs. Blasthole Assays) is due to the following:

(1) There was a net increase of 23,000 tons in the crusher feed stockpile for the month of May.

(2) Lower specific gravity ore from Phase V gave a total lower tonnage throughput at a constant rate.

R. Lopaschuk
Geological/Geotechnical Engineer

RL/mm

Attach.

CYPRUS

BLASTHOLE ASSAYS

Phase	Bench	Blast	Tons	% Pb	% Zn	Comb.
IV	3710	AA	108,000	2.4	4.5	6.9
V	3810	G	14,259	2.3	4.1	6.4
V	3790	AN	39,600	3.9	6.2	10.1
V	3770	A	116,000	3.0	5.9	8.9
V	3770	B	17,000	2.7	5.8	8.5
Total			294,859	2.84	5.33	8.17

MINE MODEL

IV	3710	101,000	2.6	5.2	7.8
V	3810	2,600	1.5	4.8	6.3
V	3790	22,000	3.0	5.4	8.4
V	3770 A	59,629	2.2	5.7	7.9
V	3770 B	14,600	3.4	7.9	11.3
Total		199,829	2.56	5.56	8.12

1.

2,600.00

1.50

4.30

2.

22,000.00

3.00

5.40

3.

101,000.00

2.60

5.20

4.

59,629.00

2.20

5.70

5.

14,600.00

3.40

7.90

199,829.00

2.56

5.56

1.

14,259.00

2.30

4.10

2.

39,600.00

3.90

6.20

3.

133,000.00

3.00

5.90

4.

17,000.00

2.70

5.80

5.

108,000.00

2.40

4.50

311,859.00

2.85

5.36

1.

14,259.00

2.30

4.10

2.

39,600.00

3.90

6.20

3.

116,000.00

3.00

5.90

4.

17,000.00

2.70

5.80

5.

108,000.00

2.40

4.50

294,859.00

2.84

5.33

PRODUCTION AS PREDICTED BY MODEL.

3810 — 2,600 TONS
1.5 Pb
4.8 Zn

3790 — 22,000 TONS
3.0 Pb
5.4 Zn

3710 — 101,000 TONS
2.6 Pb
5.2 Zn

3770A — 59,629 TONS
2.2 Pb
5.7 Zn

3770B — 14,600 TONS
3.4 Pb
7.9 Zn

contact along North Wall

TOTAL
199,829 TONS
2.6 Pb
5.6 Zn

8.2 COMBINED

PRODUCTION FROM MILL REPORT

DRY FEED — 249,752 TONS
2.8 Pb
4.9 Zn.

7.7 COMBINED

CFSP INCREASED BY — 23,153 TONS

TOTAL FEED — 272,905 TONS

MONTHLY PRODUCTION COMPARISON

MAY - 78

BLASTHOLE INFORMATION

3810 - 14,259 TONS
2.3 Pb
4.1 Zn

3790 AN 39,600 TONS
STOCKPILE 3.9 Pb
6.2 Zn

3770 A 133,000 TONS -(17,000)
SMALLER CUTS MAYBE 3.0 Pb 116,000
5.9 Zn
3770 B 17,000 TONS
2.7 Pb
5.8 Zn.

3710 (AA) 108,000 TONS
2.4 Pb
4.5 Zn

TOTAL

~~311,859~~ TONS
~~2.9~~ Pb
~~5.4~~ Zn

8.3 COMBINED

294,859
2.84
5.33

S

75,000 3770
18,000

Cyprus Anvil Mining Corporation — Interoffice Correspondence

To: D. Gregoire

Date: May 2, 1978

From: J. W. Mustard

Subject: APRIL FEED GRADES

Tonnage and grade comparisons for April are given below:

	Tons	% Pb	% Zn	Comb.
Tonnage and Grade Model	317,000	2.87	5.06	7.93
Blasthole Assays	329,000	3.17	4.65	7.82
Metallurgical Balance	298,000	3.01	4.62	7.63
Calculated Balance	298,000	3.37	4.91	8.28
April Flash Forecast (April 3)	307,000	2.55	4.70	7.25
First Quarter Review	307,000	2.40	4.70	7.10
Variance (Blasthole vs. Model)	+4%	+10%	-8%	-1%
Variance (Met. Balance vs. Model)	-6%	+5%	-9%	-4%
Variance (Calculated Balance vs. Model)	-6%	+17%	-2%	+4%

Attached is a separate breakout for blasthole and mine model sources.

A 4% tonnage gain (Assays vs. Model) resulted from increased tonnage on 3810. A loss in tonnage on 3710 (-13%) was more than offset by a gain on 3810 (+44%), leaving a net gain of over 4% for the month. Feed grades (Assay vs. Model), with a combined variance of -1%, resulted in compensating variances in lead and zinc.

A 6% shortfall in tonnage and a combined 4% shortfall in feed grades (Met. Balance vs. Model) is due to the following:

1) Turnover of stockpiled ore estimated to be 50,000 tons, of which 80% was lower grade ore stockpiled prior to April.

2) Pyritic ore on 3710 with a combined grade of 5.95 mined during the first 5 days of the month.

3) Lower specific gravity ore from Phase V gave a total lower tonnage throughput at a constant rate.

4) 45,000 tons higher grade 3810 ore stockpiled during April.

J. W. Mustard
Mine Geologist

JWM/mm

Attach.

BLASTHOLE ASSAYS

Phase	Bench	Blast	Tons	% Pb	% Zn	Comb.
IV	3730	F	37,000	2.3	4.0	6.3
IV	3710	X	45,000	2.7	5.3	8.0
IV	3710	Y	49,000	3.6	5.1	8.7
IV	3710	Z	88,000	3.4	4.0	7.4
Subtotal	3710		182,000	3.28	4.62	7.90
V	3810 (3790)*	AK	22,000	3.3	5.5	8.8
V	3810	G	88,000	3.3	4.8	8.1
Subtotal	3810		110,000	3.30	4.34	8.24
TOTAL			329,000	3.17	4.65	7.82

* Blasted as 3790, 22,000 tons credited to 3810 bench.

MINE MODEL

Phase	Bench	Tons	% Pb	% Zn	Comb.
IV	3730	46,000	2.9	4.8	7.7
IV	3710	210,000	3.0	5.2	8.2
V	3810	61,000	2.4	4.8	7.2
TOTAL		317,000	2.87	5.06	7.93

CYPRUS ANVIL MINING CORPORATION

From: J. MUSTARD Date .....

To .....

BLAST HOLE INFO.

3730 "F" BLAST

37,000 TONS

2.3 Pb.

4.0 Zn

3710

X BLAST

45,300

2.7 Pb — "X" BLAST
5.3 Zn

49,000 3.6 Pb ← "Y" BLAST
5.1 Zn

88,000 3.4 Pb
4.0 Zn — "Z" BLAST

CYPRUS ANVIL MINING CORPORATION

From: J. MUSTARD Date .....

To .....

3810

80,000 TONS

3.8 Pb

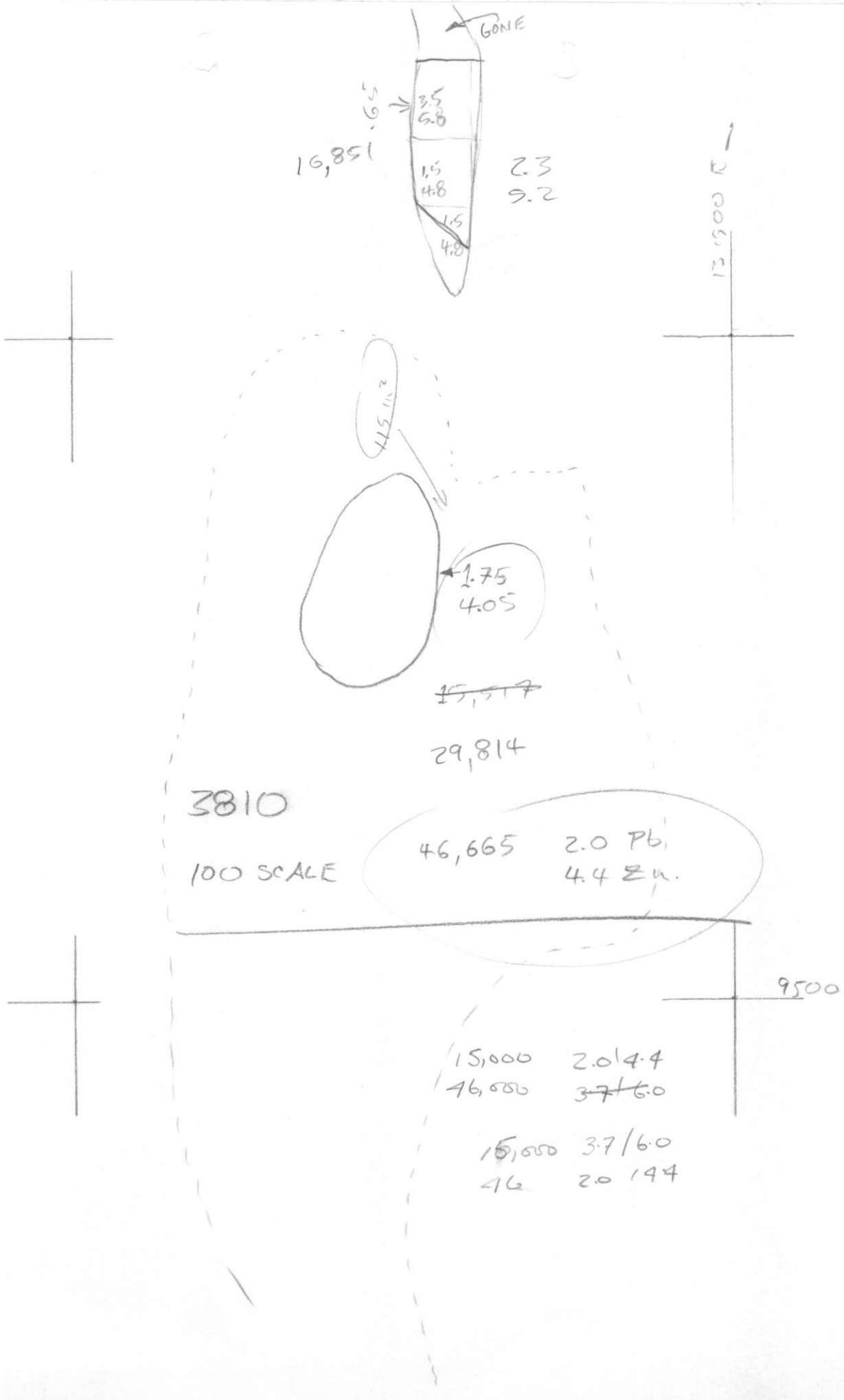
5.6 Zn

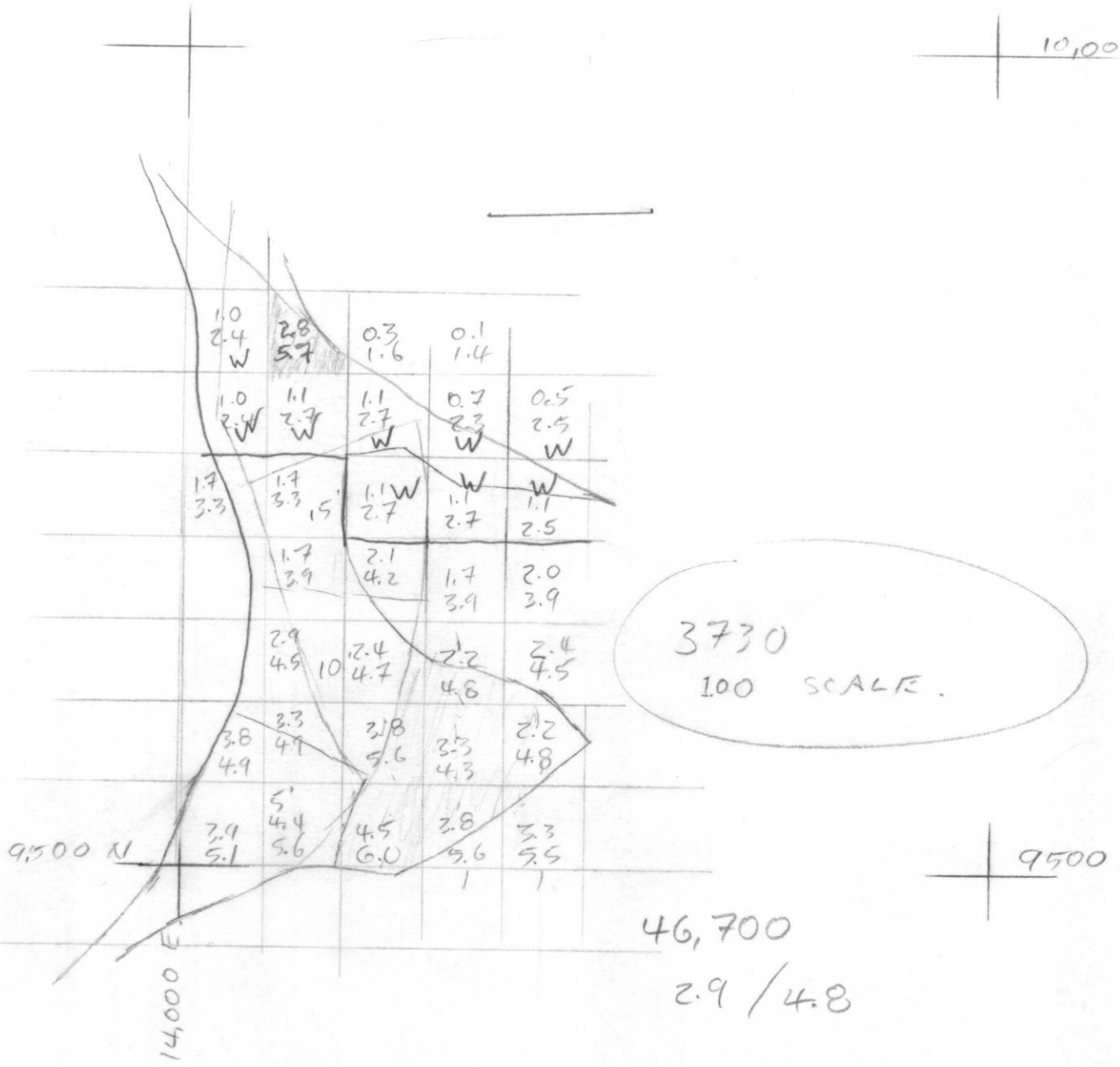
BLAST HOLE INFO

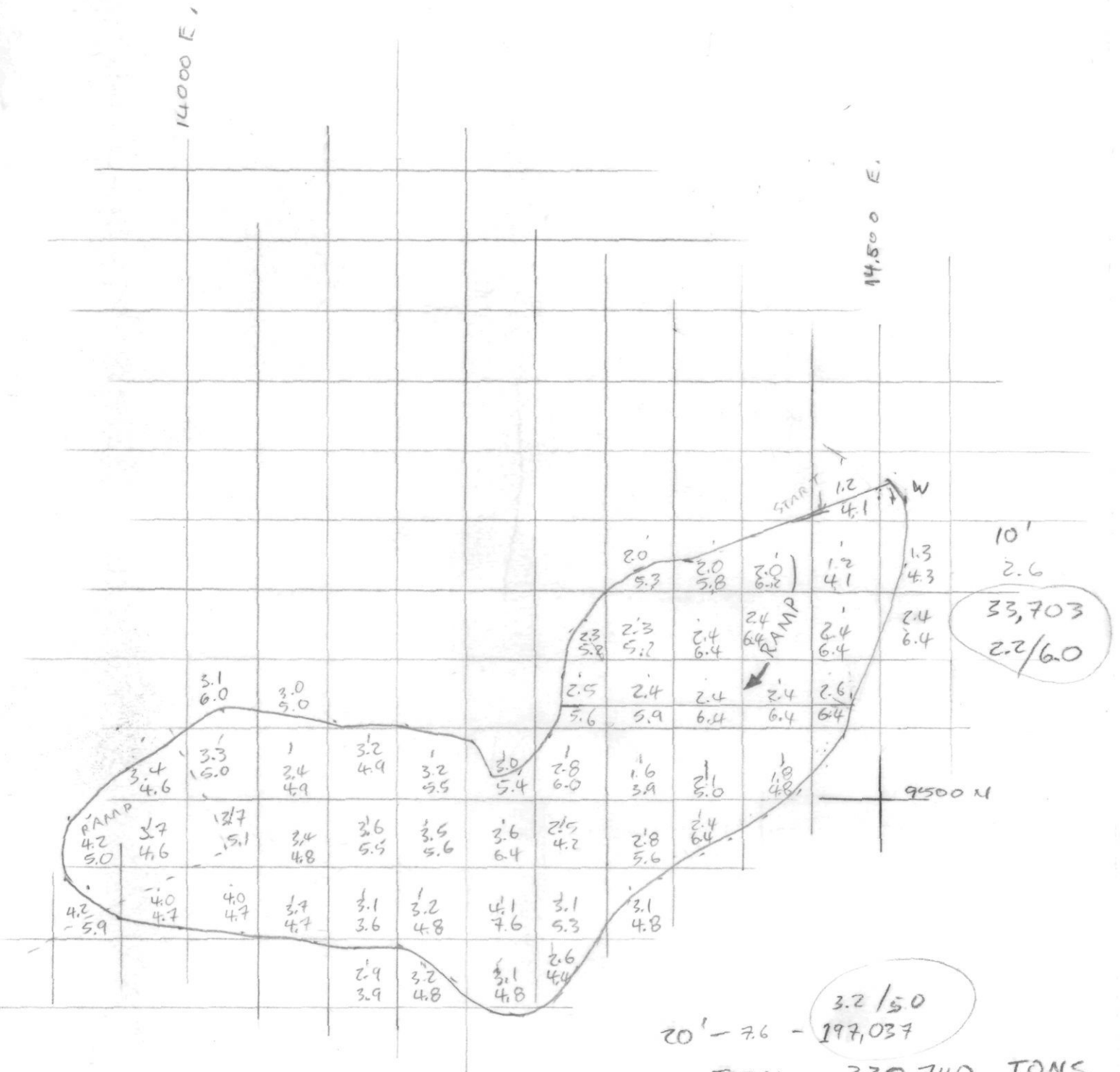
TOTAL TONS - 299,300

3.29 Pb

4.80 Zn


GONE
3.5
6.8
1.5
4.8
1.5
4.8
16,851
2.3
9.2
1.75
4.05
29,814
3810
100 SCALE
46,665 2.0 Pb
4.4 Zn.
9500
15,000 2.0 4.4
46,000 3.7 6.0
15,000 3.7/6.0
46 2.0 4.4


10,000 N
9500
9,500 N
14,000 E
3730
100 SCALE.
46,700
2.9 / 4.8


14000 E.
14500 E.
START
W
RAMP
RAMP
9500 N
10'
2.6
33,703
2.2/6.0
3.2/5.0
20' - 7.6 - 197,037
TOTAL 230,740 TONS.
3.0/5.2
3710 100 SCALE.

Cyprus Anvil Mining Corporation Interoffice Correspondence

To: D. Gregoire

Date: April 5, 1978

From: J. W. Mustard

Subject: MARCH FEED GRADES

Tonnage and grade comparisons for March are given below:

	Tons	% Pb	% Zn
Tonnage and Grade Model	359,000	3.54	5.17
Blasthole Assays	337,000	3.15	4.64
Metallurgical Balance	325,000	3.04	4.44
March Short Range Plan	325,000	3.25	5.39
Variance (Blasthole vs. Model)	-6%	-11%	-10%
Variance (Metallurgical Balance vs. Model)	-9%	-14%	-14%

Attached is a separate breakout for blasthole and mine model sources.

An apparent loss in tonnage (Met. Bal. vs. Assays) is accountable for by an increase in stockpile inventory of 10,000 tons during March. A 6% tonnage loss for the month was due to a deficit in tonnage on 3830, Phase V. The dyke contact on 3730 encountered during Phase IV resulted in a net gain of ore over the mine model, which partially offset the loss on Phase V.

The high variance in feed grades for March results from two factors:

1) Shortfall in tonnage and feed grade on 3830. See attachment.

2) Shortfall in grade on 3730. Numerous massive pyrite lenses on the 3730 bench diluted feed grades within, and on the margins of ore pockets.

Stockpile movements had little effect on mill reported grades for the month.

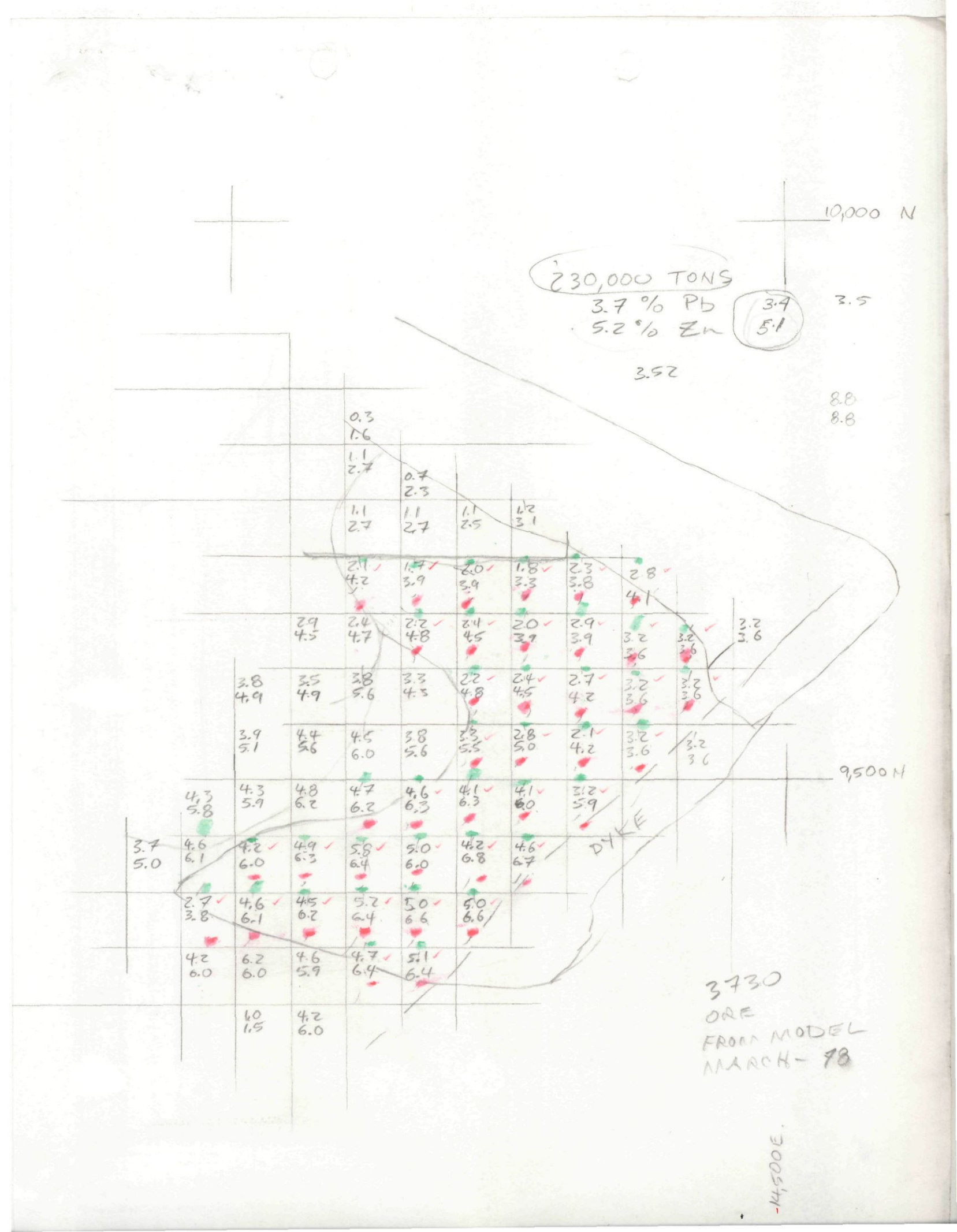
J. W. Mustard
Mine Geologist

BLASTHOLE ASSAYS:

Bench	Blast	Tons	% Pb	% Zn
3730	C	65,000	2.5	4.5
3730	D	47,000	3.0	3.8
3730	E	80,000	3.5	4.1
3730	F	50,000	2.9	5.4
3830	AS & AR	95,000	3.5	5.2
		337,000	3.15	4.64

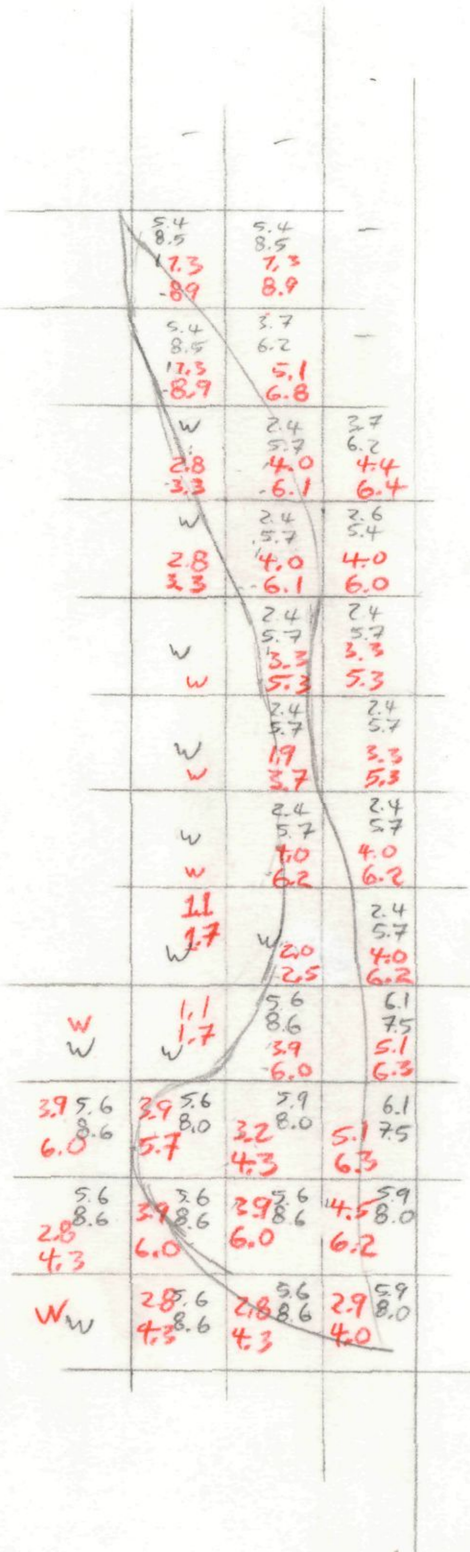
MINE MODEL:

3730	230,000	3.4	5.1
3830	129,000	3.8	5.3
	359,000	3.54	5.17


10,000 N
230,000 TONS
3.7 % Pb
5.2 % Zn
3.4
5.1
3.5
3.52
8.8
8.8
9,500 N
3730
ORE
FROM MODEL
MARCH - 78
K4500E.

13700 E

10 500 N



RED IS COMPO
3890
+3830

165,925 TONS
3.8 % Pb
5.3 % Zn

1" = 100'

Cyprus Anvil Mining Corporation — Interoffice Correspondence

To: J. C. Devitt

Date: March 14, 1978

From: J. W. Mustard

Subject: FEBRUARY FEED GRADES

Tonnage and grade comparisons for February are given below.

	Tons	% Pb	% Zn
Tonnage and Grade Model	370,000	2.7	5.5
Blasthole Assays	283,000	2.6	5.4
Metallurgical Balance	300,000	2.2	4.8
February Short Range Plan	325,000	2.6	5.2
Variance (Blasthole vs. Model)	-24%	-4%	-2%
Variance (Metallurgical Balance vs. Model)	-19%	-19%	-13%

Attached is a separate breakout for blasthole and the mine model sources.

A shortfall in tonnage predicted resulted from a deficit of 88,000 tons on the 3870 bench. This loss has been attributed to complexly folded (F_4?) contacts in this area.

Grades for February show little variance when comparing blasthole vs. mine model information. Mill reported heads show a significant difference than blasthole information. There are two contributing factors for this variance.

1) A shortfall in tonnage mined (46,000 tons by truck count vs. 75,000 tons predicted by blasthole assays). This difference is a result of a lower tonnage factor than Phase IV ore (3.5 SDT/BCY used).

2) Numerous massive pyrite lenses on the 3730 bench diluted feed grades within and on the margins of ore-waste contacts. Closer attention to "digging to the stakes" would alleviate part of this problem.

Stockpile movements had little effect on mill reported grades for the month.

J. W. Mustard
Mine Geologist

cc. D. Gregoire

CYPRUS ANVIL

BLASTHOLE ASSAYS

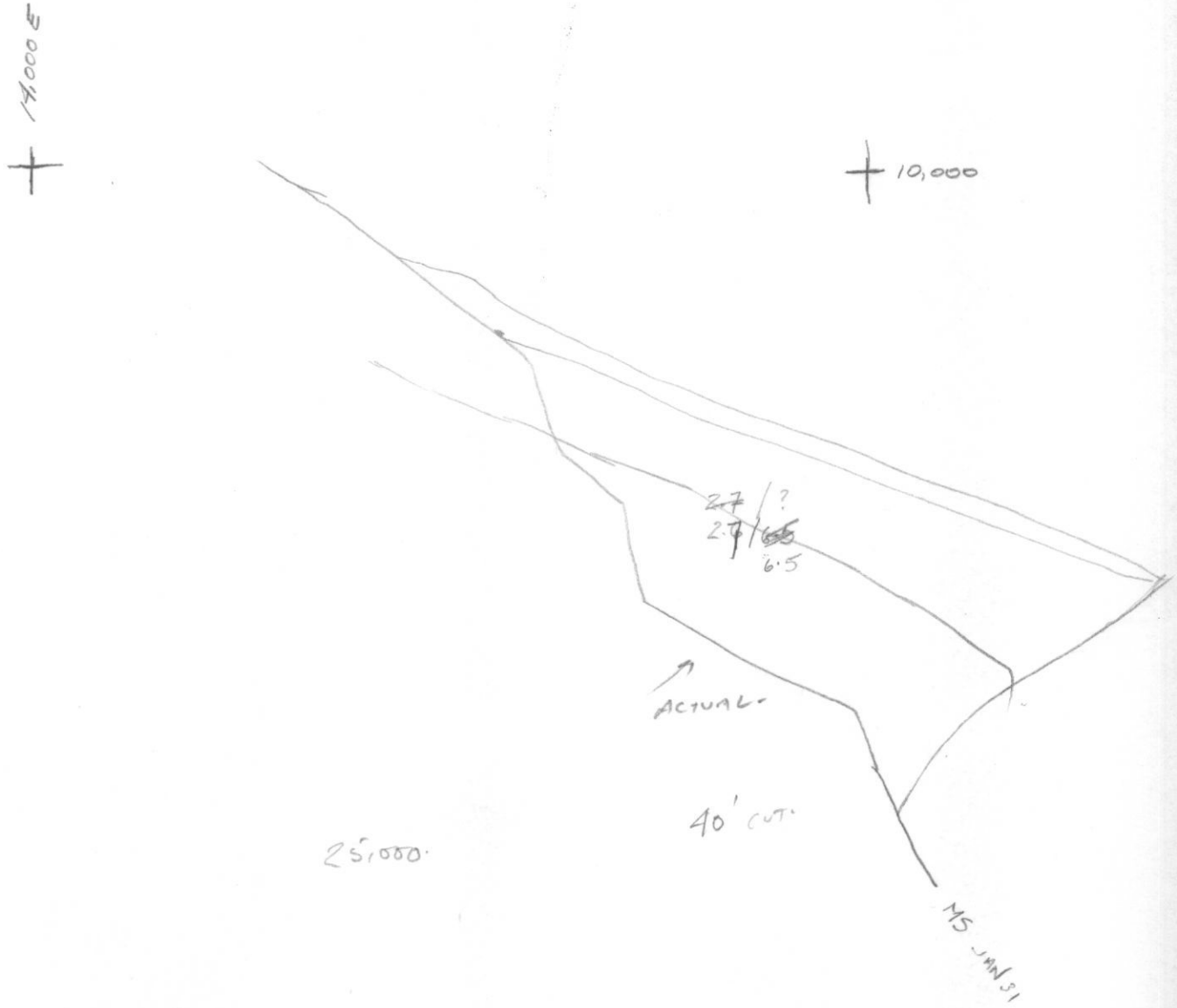
Bench	Blast	Tons	% Pb	% Zn
3870		75,000*	3.0	5.3
3750	AS	99,000	2.5	5.5
3730	A	24,000	2.7	6.0
3730	B	50,000	2.5	5.4
3730	C	35,000	2.3	4.9
		283,000	2.6	5.4

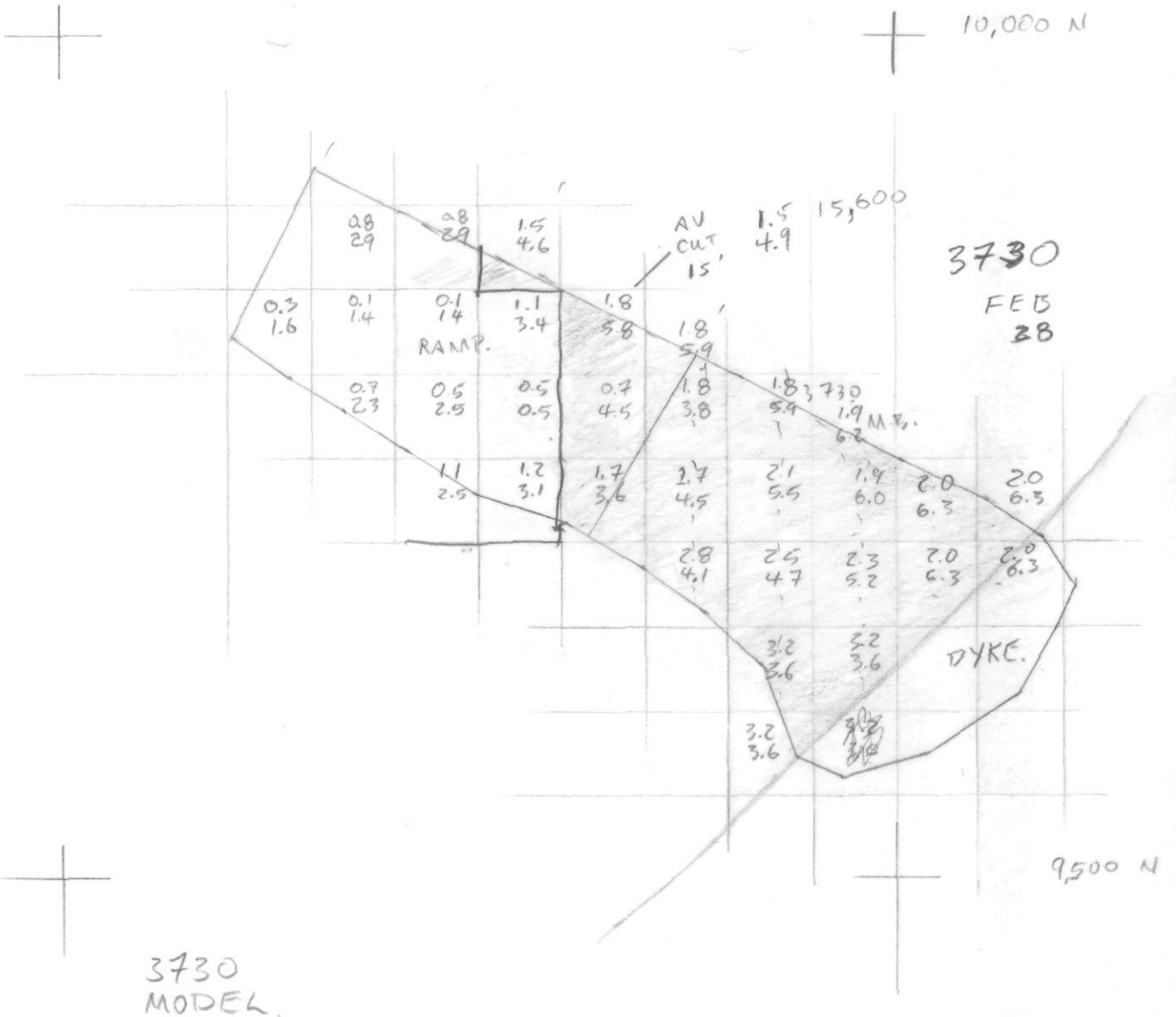
MINE MODEL

3870		163,000	3.1	5.3
3750		98,000	2.7	6.5
3730		109,000	2.0	4.8
		370,000	2.7	5.5

* 46,000 tons by truck count

3750 Mine Model





3730
MODEL.

2.0
4.8
98,600 TONS.

2.2
4.8
83,000
2.0

1.5
4.9
15,600

14,000 E.

14,500 E.

Cyprus Anvil Mining Corporation

Interoffice Correspondence

To J. C. Devitt

Date February 6, 1978

From J. W. Mustard

Subject JANUARY FEED GRADES

Tonnage and grades for January are compared for the Mine Model, Blasthole Assays and month end Metallurgical Balance.

	Tons	% Pb	% Zn
Tonnage and Grade Model	290,000	2.9	5.5
Metallurgical Balance	337,000	2.5	3.9
Blasthole Assays	332,000	2.7	4.1

Attached is a separate breakout by source for the blasthole assays and the mine model.

The combined difference of 1.6% Pb and Zn between blasthole assays and the model is accounted for mainly by a shortfall in zinc (88%). Massive pyrite lenses were unexpectedly encountered in areas where zinc grade was significantly high (greater than 6.5% Zn predicted). The difference in tonnage is mainly a result of combining 3750 and 3770 ore benches to a 40' bench.

The difference between metallurgical balance and blasthole grades resulted from unavoidable dilution in areas of near horizontal contacts.

Stockpile movements had little effect on mill reported grades for the month.

Grades predicted by the model deviate significantly in areas of external contacts. This problem should be eliminated on lower benches of Phase IV as the contact between the dike and ore is vertical and very definite, thereby facilitating mining.

J. W. Mustard
Mine Geologist

JWM/mm

Enc.

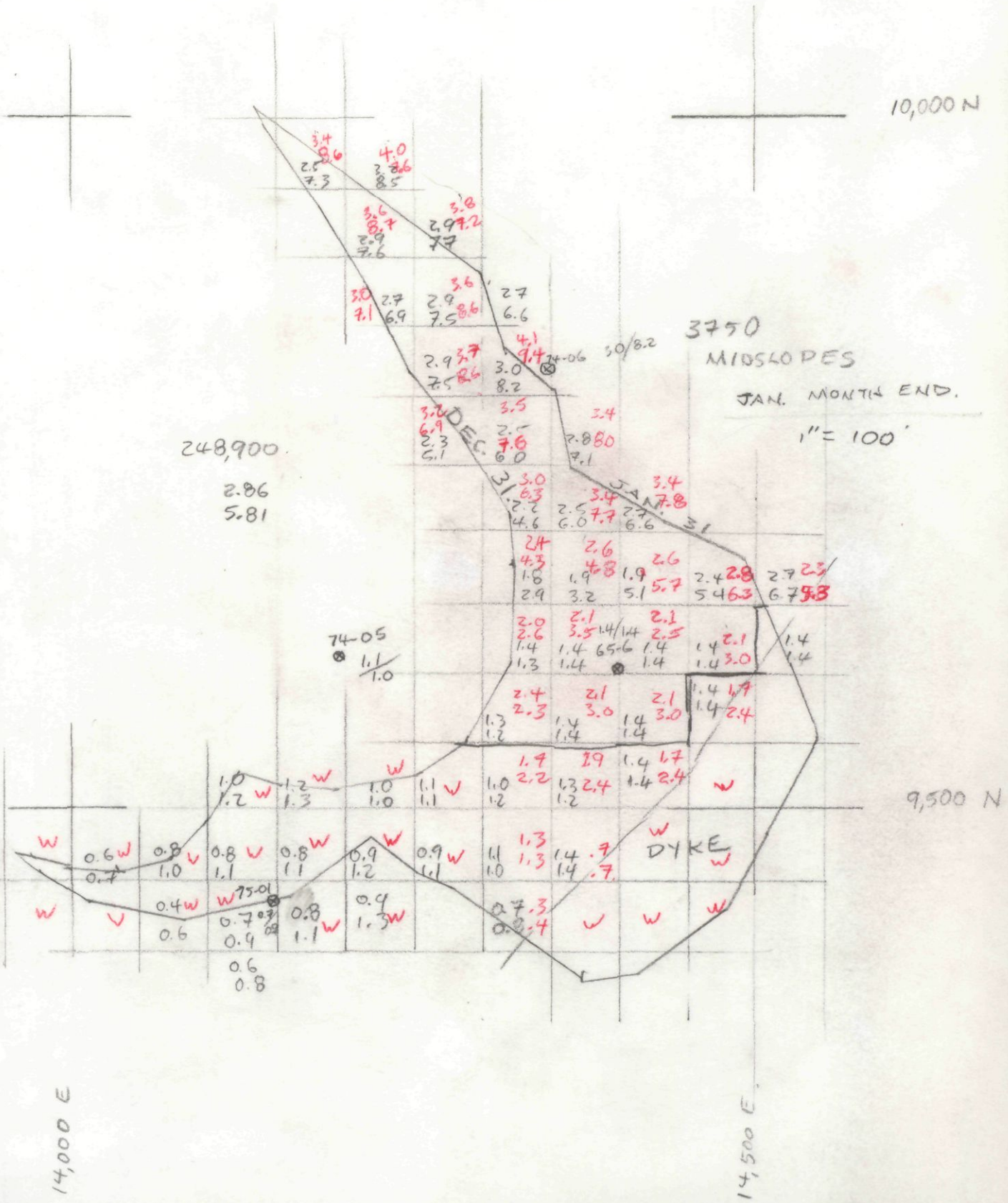
CYPRUS ANVIL

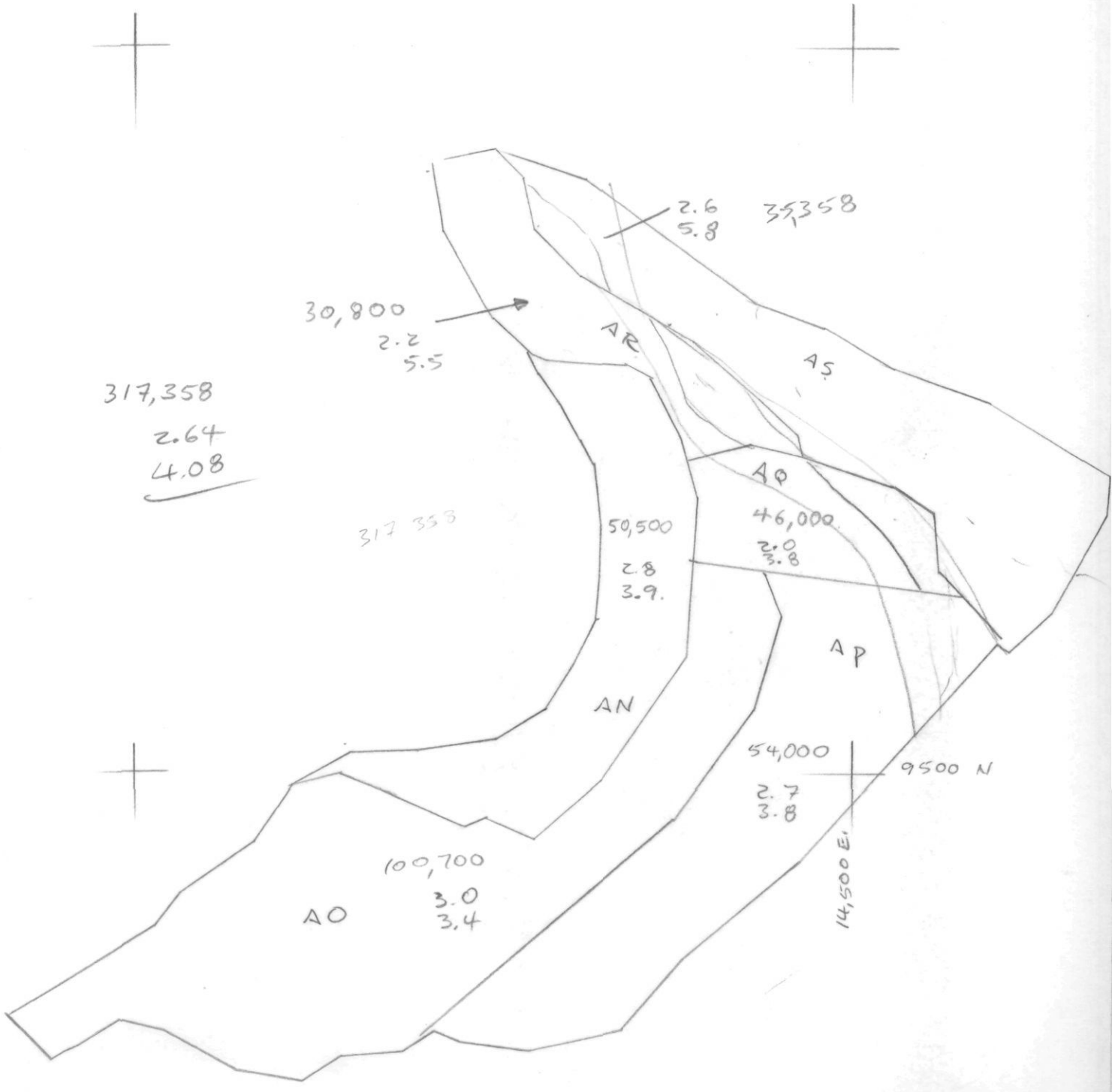
BLASTHOLE ASSAYS

Bench	Blast	Tons	% Pb	% Zn
3910	AF	14,000	3.5	5.6
3750	AN	51,000	2.8	3.9
	AO	101,000	3.0	3.4
	AP	54,000	2.7	3.8
	AQ	46,000	2.0	3.8
	AR	31,000	2.2	5.5
	AS	35,000	2.6	5.8
		332,000	2.7	4.1

MINE MODEL

3910		14,000	4.1	5.0
3750		276,000	2.9	5.5
		290,000	2.9	5.5


10,000 N
9,500 N
14,000 E
14,500 E
3750
MIDSLOPES
JAN. MONTH END.
1" = 100'
248,900
2.86
5.81
DEC. 31
JAN. 31
74-05
74-06
DYKE


2.6
5.8
35,358
30,800
2.2
5.5
AR
AS
317,358
2.64
4.08
317 353
AQ
46,000
2.0
3.8
50,500
2.8
3.9.
AP
AN
54,000
2.7
3.8
9500 N
14,500 E
100,700
3.0
3.4
AO


3730
"C"
70,000
2.8/4.6
Pyrite.
BROKEN
Pyr.
3730
"D"
DRILLED OFF
40,000
2.9/3.5
W
9500N

Cyprus Anvil Mining Corporation — Interoffice Correspondence

To: J.C. Devitt

Date: January 6, 1978

From: J.W. Mustard

Subject: DECEMBER FEED GRADES

Tonnage and grades for December are compared for the Mine Model, Blasthole Assays, and Final Metallurgical Balance.

	Tons	%Pb	%Zn
Tonnage and Grade Model	312,000	2.8	4.7
Metallurgical Balance	311,000	2.3	4.0
Blasthole Assays	318,500	2.5	4.2

Attached is a separate breakout by source for the Blasthole Assays and the Mine Model.

The Metallurgical Balance and Blasthole Assays show a difference of 0.2% for both Pb and Zn. This difference cannot be fully explained; possibly dilution on 3750 (massive pyrite) and 3910 (calc-silicate waste) are the largest contributing factors.

The combined difference of 0.8% Pb and Zn between the blasthole assays and the tonnage and grade model is, for the most part, explained by dilution. On all three benches mined during the month, contact zones were encountered which are difficult to mine without a certain amount of dilution. Mining 3750 on a 20' bench would have significantly reduced this difference.

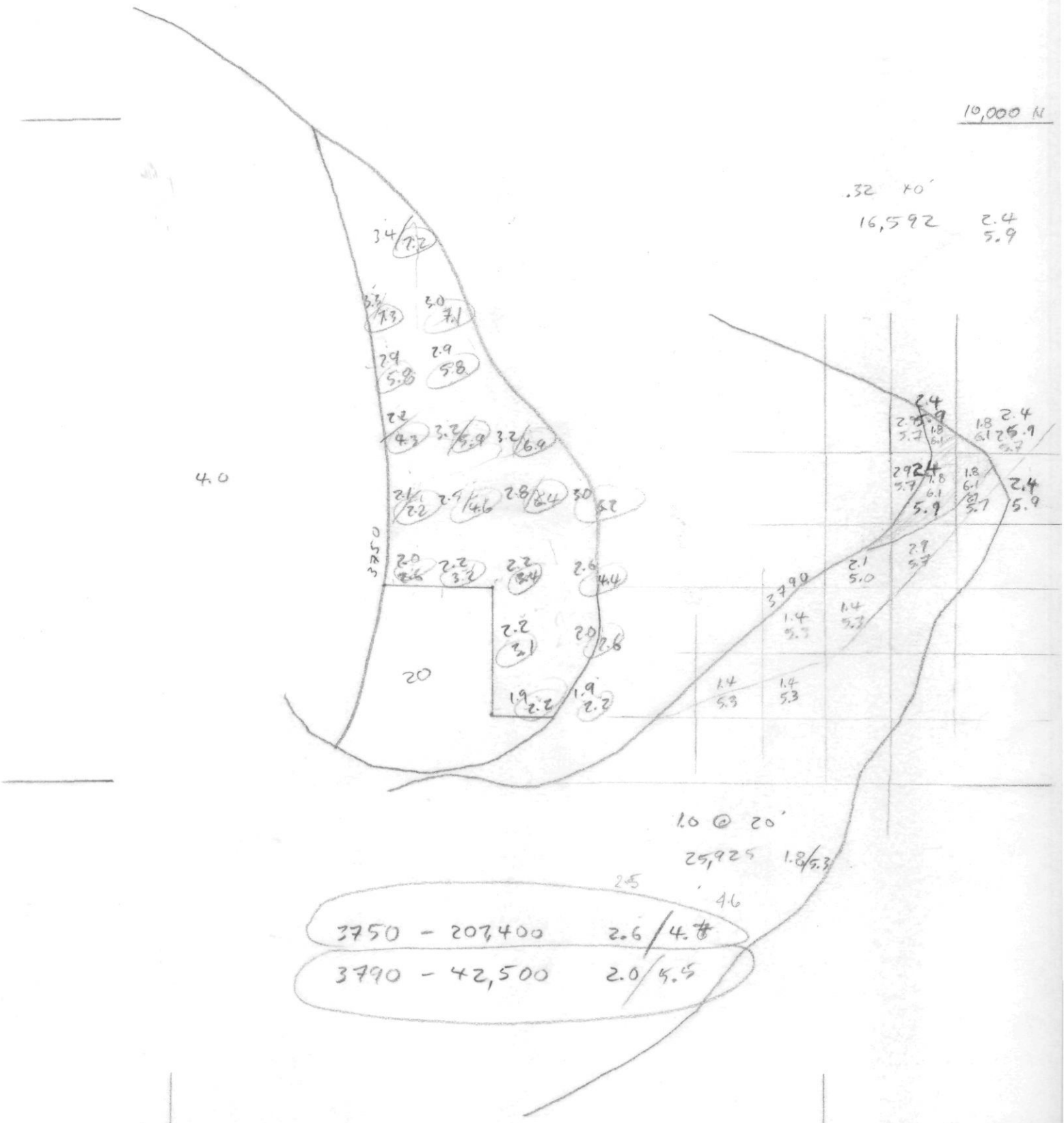
J.W. Mustard
Mine Geologist

JWM/mm

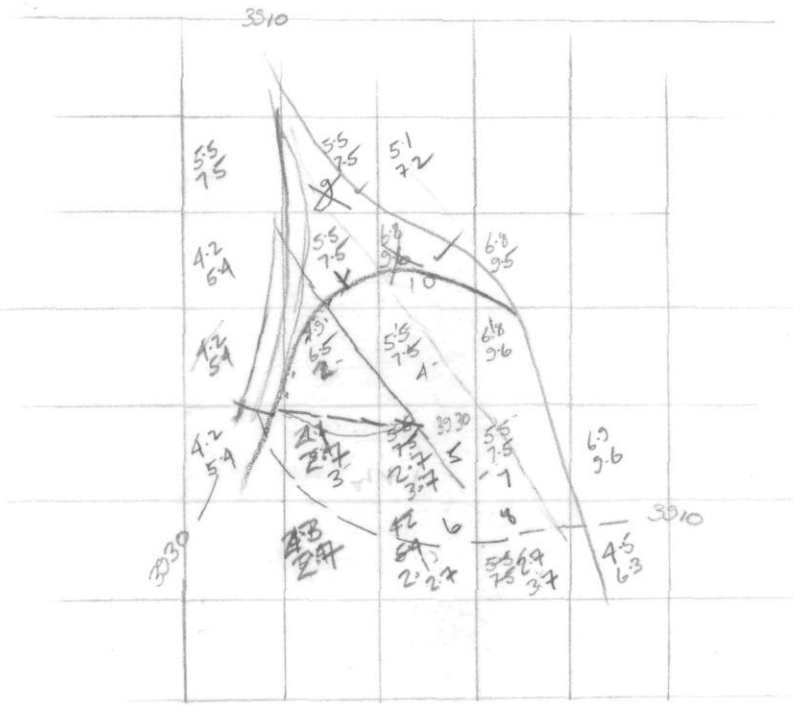
Attach:

BLASTHOLE ASSAYS

Bench	Blast	Tons	%Pb	%Zn
3750	AJ	58,000	2.4	4.9
3750	AK	95,000	2.0	3.2
3750	AL	20,000	1.7	4.0
3750	AM	38,900	2.2	3.1
		211,900	2.1	3.7
3790	AG	20,000	2.4	3.5
3790	AH	34,800	2.4	4.3
		54,800	2.4	4.0
3910	AF	51,800	~~2.4~~ 6	~~4.0~~ 6.2
	TOTAL:	318,500	2.5	4.2


10,000 N
.32 x0'
16,592
2.4
5.9
3750 - 207,400 2.6/4.7
3790 - 42,500 2.0/5.5
1.0 @ 20'
25,925 1.8/5.3
14,500 E

comb 3930 / 3910 83,000 tons
mixed at 40' Bench.



10,000

4.0
39/ 5.2
4.1 ~~5.6~~ 5.9

1.2

62,200 4.2 4.6 4.5 4.9

MODEL.
TOTAL

312,100 2.9 4.8

3930	11,000	6.4 / 9.6
3910	39,000	5.2 / 6.8
total	49,000	5.6 / 7.5 4.5
Blast Assays -	77,000	3.8 / 5.9 · 4.5

CYPRUS ANVIL MINING CORPORATION
P.O. BOX 1000, FARO Y.T. Y0B 1K0

FROM

TO

DATE 19

SUBJECT

POSTCODE

MESSAGE

DEC - 77 ORE COMPARISONS.

BLASTHOLE INFO.	3750	AL - 20,000	1.7 / 4.0
		AJ - 58,000	2.4 / 4.9
		AK - 95,000	2.0 / 3.2
		AM - 38,900	2.2 / 3.1
		211,900	2.1 / 3.7
	3790	AH - 34,800	2.4 / 4.3
		AG - 20,000	2.4 / 3.5
		54,800	2.4 / 4.0

REPLY FROM

DATE 19

	3910	AF	51,800	3.6 / 6.2
		TOTAL	318,500	2.5 / 4.2
MINE MODEL.	3750		207,400	2.6 / 4.7
	3790		42,500	2.0 / 5.5
	3910		62,200	4.6 / 4.9
		TOTAL	312,100	2.9 / 4.8

SMEM

KEEP YELLOW COPY FOR FOLLOW-UP

CYPRUS ANVIL MINING CORPORATION
P.O. BOX 1000, FARO Y.T. Y0B 1K0

FROM J.W. MUSTARD

TO D. Gregoire

POSTCODE

DATE Dec 7/77 19

SUBJECT November Feed Grades

MESSAGE

	TONS	%Pb	%Zn
TONNAGE + GRADE MODEL	291,500	2.4	4.9
METALLURGICAL BALANCE	306,834	2.6	5.4
3rd Quart. Review	300,000	2.9	4.6
BLAST HOLE ASSAYS	314,703	2.6	4.9

Attached is a separate breakout by source for the blast hole assays.

The tonnage and grade model and blastholes assays compare favourably for grades. Tonnages were slightly up (23,000) due to reduced waste pockets encountered on the north ramp

The discrepancy between reported zinc grades in the mill versus blasthole assays and model cannot be fully explained. Sources of error could be in sampling techniques both in the mill and in the pit and crusher fed stockpile movements.

Jim

REPLY FROM DATE 19

SMEM

BLAST	TONNAGE	%Pb	%Zn
3790 Y	30,000	2.9	3.8
3790 Z	16,203	2.3	5.5
3790 AA	67,400	2.2	5.0
3790 AB	66,000	2.3	4.9
3790 AC	92,000	3.1	5.4
3790 AE	20,000	2.9	5.8
3790 AF	9,100	2.8	3.4
3790 AO	30,000	2.0	3.4
	314,703	2.6	4.9

Stockpile movements have not been considered in the calculation; in future they will be accounted for.

The spill cleanup along the 3750 ramp has been accounted for because most of that material was blasted in November from the ramp above.

MINE MODEL.

Oct MODEL →	160 000	103,000	28,500
	2.4	2.25	2.80
	5.15	4.09	4.22

291,500
2.36
4.88

13,500 E.

14,000 E.

10,000 N

RAMP

OCT.

3790
1" = 100'

NOV. - 77

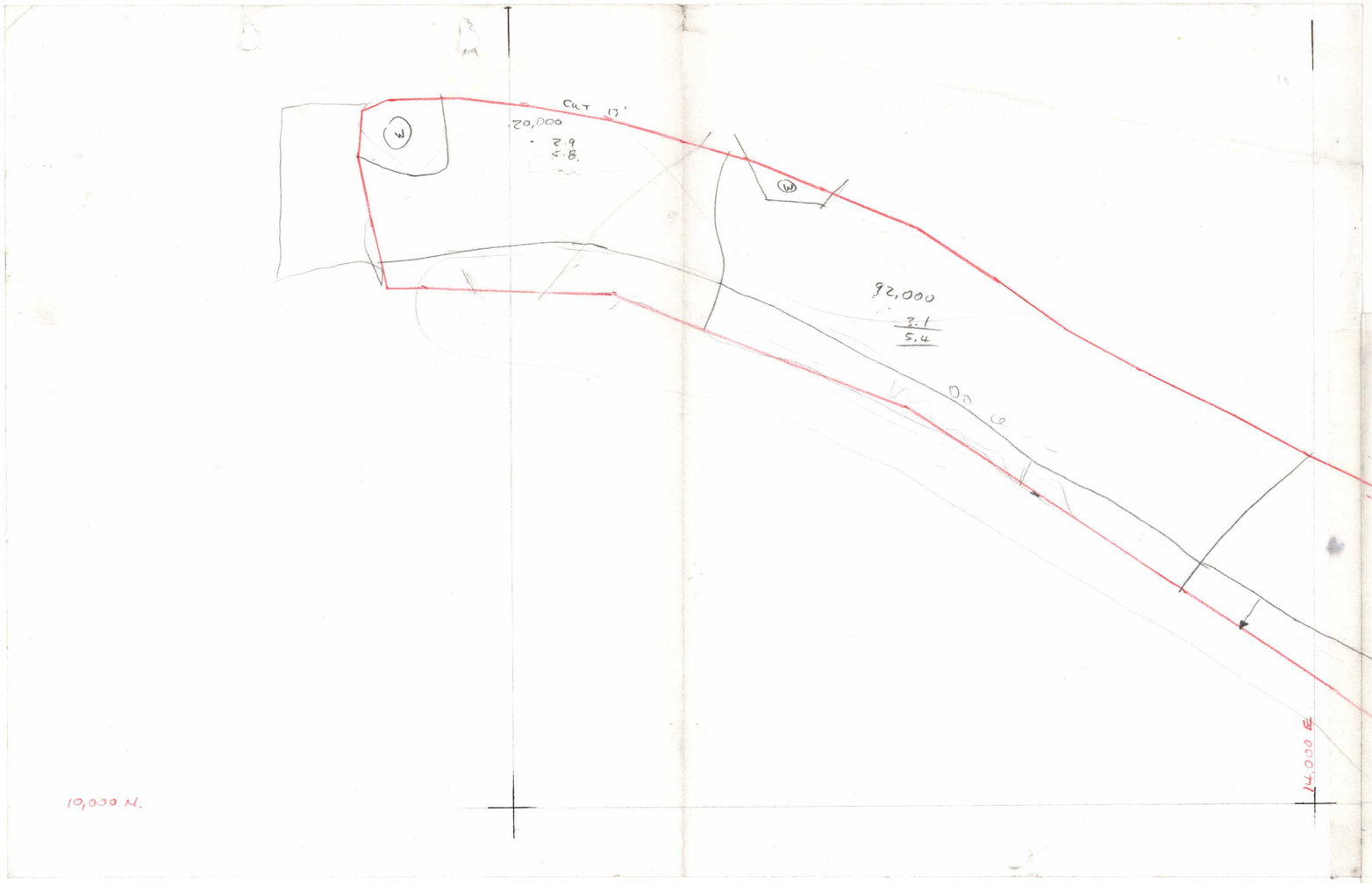
2.8 / 4.22 → 2.2 in².
28,500 TONS

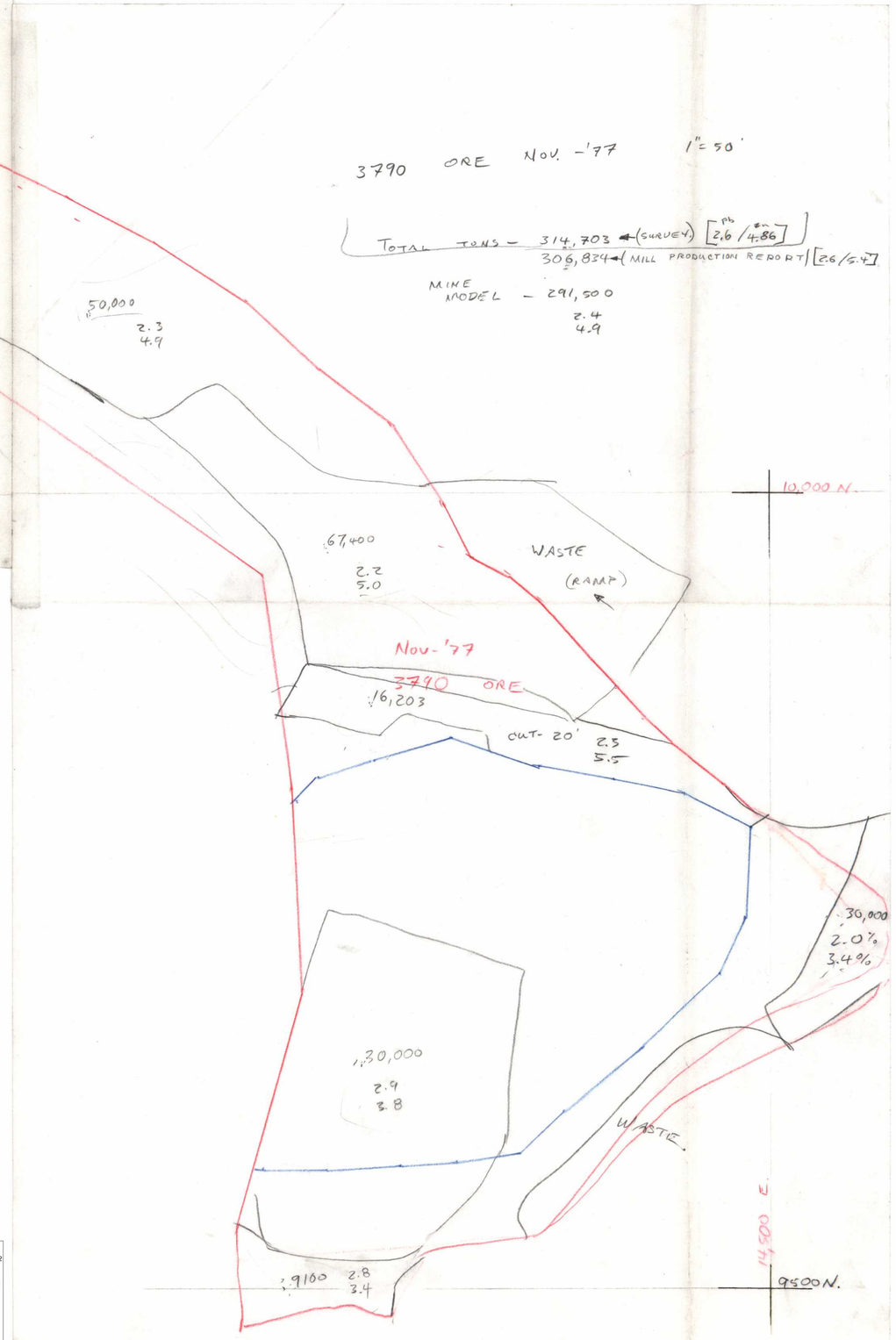
4.0 in²
103,000 TONS

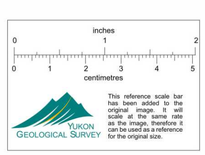
9,500 N.

2.25
4.09

14,500 E.


CUT 13'
20,000
2.9
5.8
92,000
3.1
5.4
10,000 N.
14,000 E


3790 ORE NOV. -'77 1"=50'
TOTAL TONS - 314,703 (SURVEY) [2.6/4.86]
306,834 (MILL PRODUCTION REPORT) [2.6/5.47]
MINE MODEL - 291,500
2.4
4.9
50,000
2.3
4.9
10,000 N.
67,400
2.2
5.0
WASTE
(RAMP)
NOV-'77
3790 ORE
16,203
CUT- 20'
2.5
5.5
30,000
2.0%
3.4%
30,000
2.9
3.8
WASTE.
9100 2.8
3.4
14,500 E
9500N.


inches
0
1
2
centimetres
0
1
2
3
4
5
YUKON GEOLOGICAL SURVEY
This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.