Getty North Deposit
Geological & Grade Block Modelling
Report

for

Getty Copper Corp.
1000 Austin Avenue
Coquitlam, British Columbia
V3K 3P1

By: KHA Modelling Inc.
Penticton, B.C.

December 18, 1997

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KHA Resource Modelling Inc.

December 18, 1997

Report:

Getty North Resource Calculation (Dec. 5, 1997 model)

Summary of Getty North Model - December 5, 1997

The resource estimate is based on a block model created using the MEDSYSTEM mine evaluation software system. The following data and parameters were used in the generation of the model.

Assay Data:

The drillhole dataset used for the model contains the following data within the Getty North model area:

1) 132 recent drillholes dating 1993 or newer up to and including GN97-64.

2) 31 drillholes from prior to 1993 that we were able to locate and had reasonable (not composited) assay intervals continuous through the mineralized zone.

3) 40 drillholes from prior to 1993 that were located but had gaps in assay information or only long composites. This group also includes the percussion holes.

   For a complete listing of the drillholes used see Table 1.

Group three was used to help in the interpretation of geology on section but their grades were not used in the grade interpolation of the model.

The grades within the model area display two populations. A low grade population below approximately 0.3 TCu and a high grade population above 0.3 TCu. The high grade population displays a very uniform distribution (figures 1,2) up to about 2.5% total copper. There are only 5 samples (0.03% of the total number of samples) above 2.5% and these values were cut to 2.5. The dataset also contains gaps in the assay information, usually where there was no visible mineralization. These gaps were filled with 0.0 grades to prevent the assayed intervals from spreading across the gaps. The drillhole database contains two grade items called TCU, TCUF. TCU contains the original un-cut assay intervals and TCUF contains a copy of TCU with the high grades cut and the missing intervals filled with zero grades.

The assay data was composited into 5M down the hole composites to provide uniform support for use in the model grade interpolation. The composite file also contains TCU and TCUF and the block model

has separate grade items interpolated from each item to evaluate the effect of the cuts on the model grades. The distribution of composite grades in the high grade zone is shown in figure 3.

Geological Interpretation:

A set of 16 geological sections was provided by Vic Preto, defining the following zones based on information in the drillhole logs:

1) Bottom of overburden. All blocks above this contour were classified as un-mineralized waste.

2) Bottom of tertiary volcanics. Blocks above the contour were also excluded from grade interpolation.

3) Bottom of the oxide zone. Blocks above this outline were coded as oxide and grades were interpolated using only composites found inside the oxide zone. The blocks below this zone were classified as the sulphide zone.

4) High grade mineralization zone. This zone was created by outlining the portions of the drillholes with assays averaging greater than 0.3 total copper. This zone spanned both the oxide and sulphide zone. Blocks within this zone were interpolated using only composites inside the zone. This zone does not include short intersections of greater than 0.3 grade found in areas of predominantly low grade. These samples were only allowed to influence the grade of the nearest block when interpolating block grades outside the high grade zone.

5) Zone of low grade fringe mineralization, provided by Art Frye. This outline was used to interpolate grades in blocks associated with low grade drillhole intersections adjacent to the high grade zone.

Grade interpolation:

The block model has a block size of 10M X 10M X 10M and covers an area 1000M X 1300M X 800M

The high grade zone includes 13,945 of the model blocks.

Variography was performed using the 5M total copper composites. Variograms were generated for both the Sulphide and Oxidized high grade zones. They both produced very similar variograms except the vertical range in the oxide zone was limited by the thickness of the zone. This seems to indicate that the copper mineralization in both zones is part of the same population with their major difference being the level of oxidation. In the end the same variogram was used to model both zones, but the grades from each zone were not allowed to cross the zone boundaries. The grades were interpolated into the block model using kriging. The kriging was performed in three passes to allow the classification of the blocks as indicated or inferred. These results were stored as TCUF and TCU where TCUF was derived from composites with missing grades filled in with 0.0 grade and all grades above 2.5 cut to 2.5 and TCU from unfilled and uncut grades. TCUF is the grade that should be used for further work. A fourth pass was run and stored as TCUFO to examine the effect of using the pre-93 drillholes to estimate all of the grade blocks.

Summary of the interpolation runs:

All runs used the following variogram. (Figure 4)

Nugget 0.01554, Sill 0.0204 (total sill 0.03594 – nugget)

Range - in first direction 150M @ 45degree Azimuth and a dip of +60degrees

- second direction 100M @ 135degree Azimuth and a dip of 0degrees

- third direction 35M @ 45 degree Azimuth and a dip of –30degrees

Pass 1 – Indicated (Maximum search one half of the variogram range and less than one third of the variogram range to the nearest composite)

Minimum number of composites for an estimate		4
Maximum number of composites		12 nearest
Maximum number of composites from one hole		3 (this forces a minimum of two drillholes within the search radius to generate a grade estimate.)
Maximum search	First direction	75M - ½ of the VG range
	Second	50M - ½ of the VG range
	Third	18M - ½ of the VG range
Maximum distance to the nearest composite		50M - 1/3 of the VG range (if there is no composite less than 50M from the block center no estimate is created)

Only drillholes from 1993 and later were used

This pass generated estimates for 88% (12,338) of the high grade zone blocks

Pass 2 – Inferred (Maximum search two thirds of the variogram range)

Minimum number of composites for an estimate		3
Maximum number of composites		12 nearest
Maximum number of composites from one hole		3 (this allows an estimate from a single drillhole)
Maximum search	First direction	100M
	Second	66M
	Third	24M

Only drillholes from 1993 and later were used

This pass added estimates for a further 10% (1,413) blocks in the high grade zone

Pass 3 – Inferred (Maximum search two thirds of the variogram range)

Same as pass 2 but allow the use of pre 1993 drillholes to fill in grades still missing after passes 1&2.

This pass provided estimates for the final 2% (194) blocks in the high grade zone

Pass 4 – Same as pass 3 but re-interpolate all of the blocks using the old and new drilling together. This result was reported as a separate grade (TCUFO) and is included for comparison only.

Comparing the two estimated block grades TCU, TCUF shows that cutting the few high assays and replacing the missing assay intervals with zeros has a negligible effect on the model grades. Recalculating the block grades as TCUFO using the old drillholes also had very little effect on the result.

Passes 1, 2 & 3 provide estimates for all of the blocks in the model coded as being part of the high grade zone.

Refer to table 2 for a summary of the Getty North model results.

Summary of Drillholes used in the Getty North Model

Group 1, used for passes 1, 2 & 3

1	GN97-01	45	GN97-47	89	GN95-28
2	GN97-02	46	GN97-48	90	GN95-29
3	GN97-03	47	GN97-49	91	GN95-30
4	GN97-04	48	GN97-50	92	GN95-31
5	GN97-05	49	GN97-51	93	GN95-32
6	GN97-06	50	GN97-52	94	GN95-33
7	GN97-07	51	GN97-53	95	GN96-1
8	GN97-08	52	GN97-54	96	GN96-2
9	GN97-09	53	GN97-55	97	GN96-3
10	GN97-10	54	GN97-56	98	GN96-4
11	GN97-11	55	GN97-57	99	GN96-5
12	GN97-12	56	GN97-58	100	GN96-6
13	GN97-13	57	GN97-59	101	GN96-7
14	GN97-14	58	GN97-61	102	GN96-8
15	GN97-15	59	GN97-62	103	GN96-9
16	GN97-16	60	GN97-63	104	GN96-10
17	GN97-17	61	GN97-64	105	GN96-11
18	GN97-18	62	GN95-1	106	GN96-12
19	GN97-19	63	GN95-2	107	GN96-13
20	GN97-20	64	GN95-3	108	GN96-14
21	GN97-21	65	GN95-4	109	GN96-15
22	GN97-22	66	GN95-5	110	GN96-16
23	GN97-23	67	GN95-6	111	GN96-17
24	GN97-24	68	GN95-7	112	GN96-18
25	GN97-25	69	GN95-8	113	GN96-19
26	GN97-26	70	GN95-9	114	GN96-20
27	GN97-27	71	GN95-10	115	GN96-22
28	GN97-28	72	GN95-11	116	GN96-23
29	GN97-29	73	GN95-12	117	GN96-24
30	GN97-30	74	GN95-13	118	GN96-25
31	GN97-31	75	GN95-14	119	GN96-26
32	GN97-32	76	GN95-15	120	GN96-34
33	GN97-33	77	GN95-16	121	GN96-35
34	GN97-34	78	GN95-17	122	GN96-36
35	GN97-35	79	GN95-18	123	GN96-37
36	GN97-36	80	GN95-19	124	GN96-38
37	GN97-38	81	GN95-20	125	GN96-39
38	GN97-39	82	GN95-21	126	GN96-40
39	GN97-40	83	GN95-22	127	M96-1
40	GN97-41	84	GN95-23	128	DH93-1
41	GN97-43	85	GN95-24	129	DH93-2
42	GN97-44	86	GN95-25	130	DH93-3
43	GN97-45	87	GN95-26	131	DH93-4
44	GN97-46	88	GN95-27	132	DH93-5

Table 1

Summary of Drillholes used in the Getty North Model

Group 2, used for pass 3 only

1	DH65-1	12	DH65-14	22	K-3
2	DH65-2	13	DH65-15	23	K-4
3	DH65-3	14	DH65-16	24	K-18
4	DH65-4	15	DH65-21	25	K-23
5	DH65-5	16	DH65-22	26	K-25
6	DH65-6	17	DH71-1	27	K-28
7	DH65-7	18	DH71-2	28	SS-30
8	DH65-8	19	DH73-2	29	SS-31
9	DH65-11	20	K-1	30	SS-32
10	DH65-12	21	K-2	31	SS-33
11	DH65-13				

Group 3, not Used for interpolation

1	DH65-9	15	K-11	28	K-27
2	DH65-10	16	K-12	29	P-2
3	DH65-17	17	K-13	30	P-3
4	DH65-18	18	K-14	31	P-4
5	DH65-19	19	K-15	32	P-5
6	DH65-20	20	K-16	33	P-15
7	DH66-1	21	K-17	34	P-16
8	DH66-2	22	K-19	35	P-71-3
9	K-5	23	K-20	36	P-71-10
10	K-6	24	K-21	37	P-71-14
11	K-7	25	K-22	38	P-71-15
12	K-8	26	K-24	39	P-71-16
13	K-9	27	K-26	40	P-71-19
14	K-10				

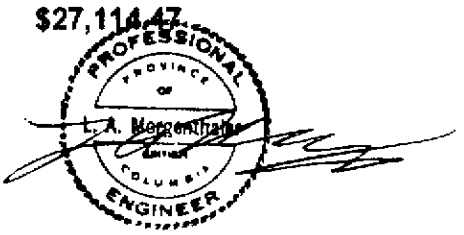
Table 1

Statement of Costs:

To accompany Report on Getty North Deposit geological and grade block modelling (December 18, 1998).

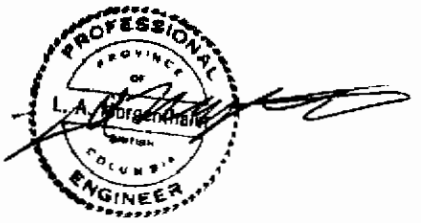
Computerized deposit modelling and report writing:

Able Drafting (L. Morgenthaler, P.Eng.)	$12,245.71
KHA Resource Modelling Inc. (A. Frye, B.Sc.)	$14,868.76
TOTAL:	**$27,114.47**



December 18, 1997

I, Lyle A. Morgenthaler, P.Eng. have reviewed the information in the memo report from Mr. Art Frye, B.Sc. to Dr. Bruce Perry, Dr. Vic Preto and Mr. Lyle Morgenthaler dated December 18, 1997, re: Getty Copper Corp. Getty North Resource Calculation December 5, 1997 model. I also have discussed in depth with Mr. Art Frye his methods and the data used in the block modelling. I find his methodology and use of the data to be current and consistent with normal block modelling procedures.



L.A. Morgenthaler, P.Eng., B.A.Sc. (MMPE)

Getty North Model of Dec 05, 1997

CUMULATIVE RESOURCE	Pass 1 and 2 used only 1993 - 1997 drilling for TCUF and TCU					
	TCUFO used pre-1993 drillholes for all passes					
OVERBURDEN	Cumulative <<<	Cumulative <<<	Cumulative <<<	Cumulative <<<	Cumulative <<<	Cumulative <<<
CUT-OFF GRADE TCUF	0.000					
TONNES	4,078,222					
Volume (METERS)	1,568,547					
TCUF GRADE	0.000					
TCU GRADE	0.000					
TCUFO GRADE	0.000					
TERTIARY						
CUT-OFF GRADE TCUF	0.000					
TONNES	7,947,369					
Volume (METERS)	3,056,681					
TCUF GRADE	0.000					
TCU GRADE	0.000					
TCUFO GRADE	0.000					
OXIDE-P1						
CUT-OFF GRADE TCUF	0.000	0.100	0.150	0.200	0.250	0.300
TONNES	7,873,476	6,762,860	6,469,060	6,453,460	6,419,660	6,328,660
Volume (METERS)	3,028,260	2,601,100	2,488,100	2,482,100	2,469,100	2,434,100
TCUF GRADE	0.457	0.522	0.540	0.541	0.543	0.547
TCU GRADE	0.457	0.522	0.540	0.541	0.543	0.547
TCUFO GRADE	0.449	0.511	0.530	0.531	0.532	0.536
OXIDE-P2						
CUT-OFF GRADE TCUF	0.000	0.100	0.150	0.200	0.250	0.300
TONNES	4,907,760	3,237,000	1,396,200	429,000	338,000	280,800
Volume (METERS)	1,887,600	1,245,000	537,000	165,000	130,000	108,000
TCUF GRADE	0.137	0.173	0.240	0.416	0.469	0.510
TCU GRADE	0.137	0.173	0.240	0.416	0.469	0.510
TCUFO GRADE	0.133	0.168	0.230	0.392	0.441	0.476
OXIDE-P3						
CUT-OFF GRADE TCUF	0.000	0.100	0.150	0.200	0.250	0.300
TONNES	1,093,690	33,800	2,600	0	0	0
Volume (METERS)	420,650	13,000	1,000	0	0	0
TCUF GRADE	0.011	0.125	0.160	0.000	0.000	0.000
TCU GRADE	0.011	0.128	0.160	0.000	0.000	0.000
TCUFO GRADE	0.011	0.127	0.160	0.000	0.000	0.000

Table 2

SULPH-P1

CUT-OFF GRADE TCUF	0.000	0.100	0.150	0.200	0.250	0.300
TONNES	94,424,570	27,565,540	25,755,470	25,682,950	25,503,400	24,406,200
Volume (METERS)	36,317,140	10,602,130	9,905,950	9,878,520	9,809,000	9,387,000
TCUF GRADE	0.155	0.410	0.431	0.432	0.433	0.440
TCU GRADE	0.155	0.410	0.431	0.432	0.434	0.441
TCUFO GRADE	0.156	0.408	0.430	0.431	0.432	0.438

SULPH-P2

CUT-OFF GRADE TCUF	0.000	0.100	0.150	0.200	0.250	0.300
TONNES	95,965,960	29,152,740	17,625,400	7,062,400	3,738,800	3,198,000
Volume (METERS)	36,909,990	11,212,590	6,779,000	2,724,000	1,438,000	1,230,000
TCUF GRADE	0.087	0.185	0.228	0.313	0.402	0.425
TCU GRADE	0.087	0.185	0.228	0.313	0.402	0.425
TCUFO GRADE	0.090	0.188	0.229	0.315	0.406	0.429

SULPH-P3

CUT-OFF GRADE TCUF	0.000	0.100	0.150	0.200	0.250	0.300
TONNES	175,372,800	1,499,264	1,024,400	736,400	504,400	504,400
Volume (METERS)	67,450,980	576,640	394,000	284,000	194,000	194,000
TCUF GRADE	0.003	0.260	0.328	0.391	0.471	0.471
TCU GRADE	0.003	0.260	0.328	0.391	0.471	0.471
TCUFO GRADE	0.003	0.260	0.328	0.391	0.471	0.471

Total Resource for all Material Classes Combined

CUT-OFF GRADE	0.000	0.100	0.150	0.200	0.250	0.300
TONNES	391,663,700	68,251,200	52,273,130	40,356,210	36,504,260	34,716,060
Volume (METERS)	150,639,800	26,250,460	20,105,050	15,521,620	14,040,100	13,353,100
TCUF GRADE	0.071	0.310	0.368	0.428	0.450	0.459
TCU GRADE	0.071	0.310	0.369	0.428	0.451	0.460
TCUFO GRADE	0.072	0.310	0.367	0.425	0.447	0.456

This listing is from the block model generated on December 5, 1997. The modelling parameters are the same as those used for the September, 1997 and November, 1997 models. Changes in the resource are a result of additional drillhole information. The drillhole database includes all new drilling that had complete results as of December 5, 1997. The grade boundaries were updated to reflect the new drill results.

This report shows the total (cumulative) tonnes and grade above each cut-off.

Note: Both the oxide and sulphide grades are total copper. The TCUF grades were interpolated from total copper composites, missing assay intervals assigned a grade of 0.00 and any grades >2.5% were cut to 2.5%. TCU grades were interpolated without filling missing assays with 0.00 and none of the high grades were cut. Both TCUF and TCU were calculated without using the pre-93 holes unless no estimate was possible without them. None of the indicated blocks used pre-93 data. TCUFO was interpolated using both the old and new drillhole data for all of the blocks. TCU and TCUFO were included for comparison only. No attempt has been made to estimate the level of oxidation in the oxide zone.

Table 2

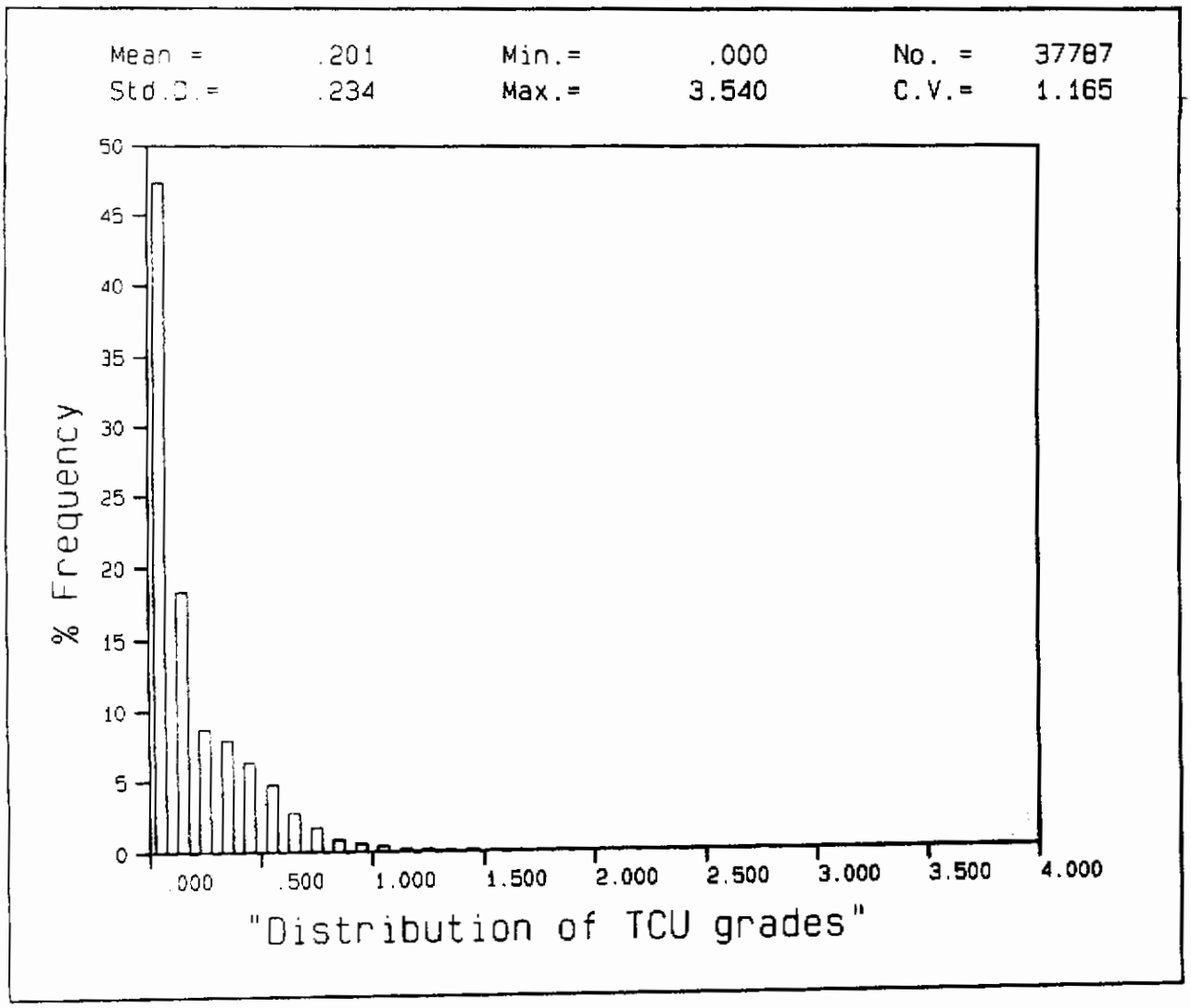
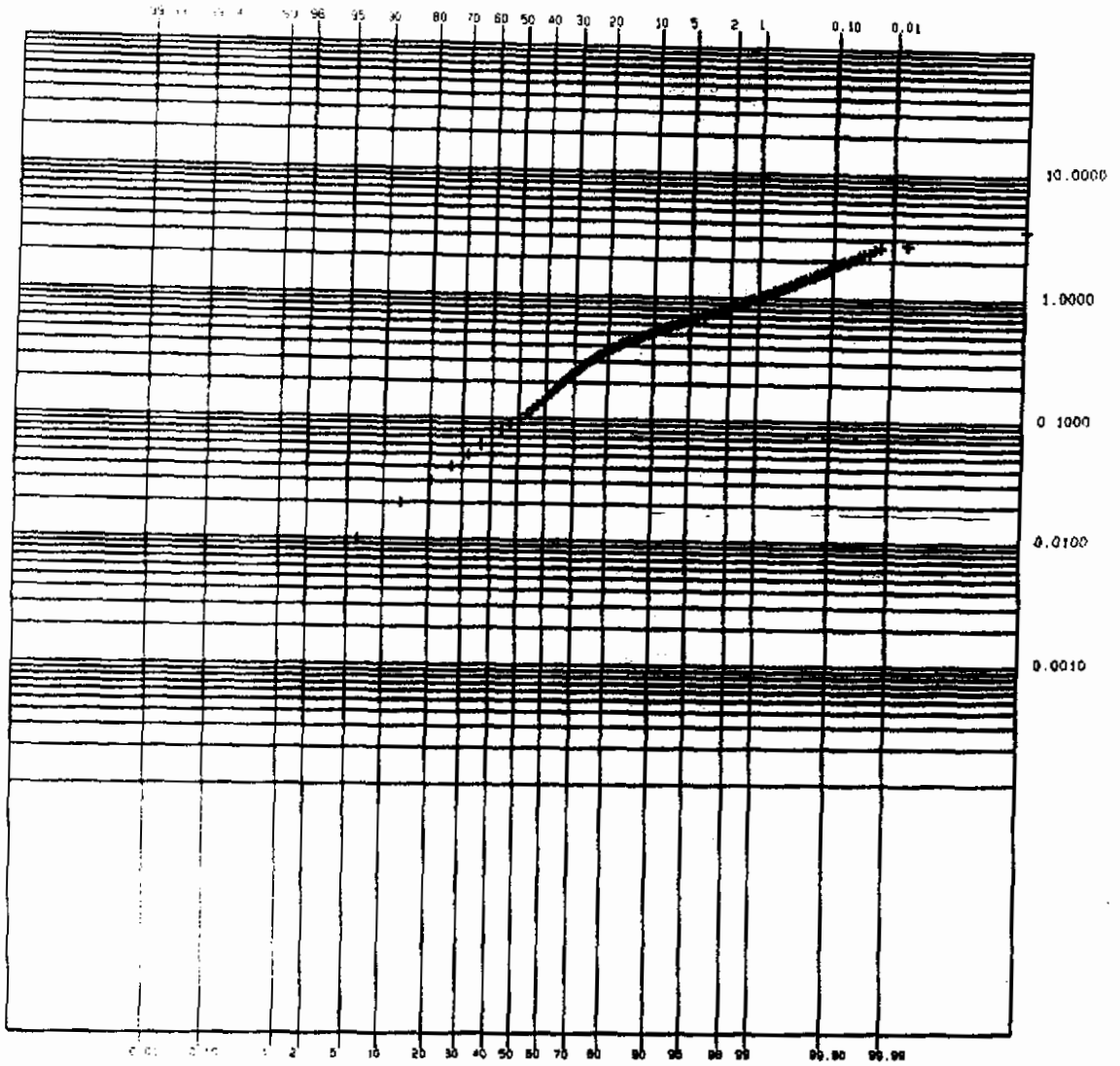

Mean = .201
Min.= .000
No. = 37787
Std.D.= .234
Max.= 3.540
C.V.= 1.165
% Frequency
50
45
40
35
30
25
20
15
10
5
0
.000
.500
1.000
1.500
2.000
2.500
3.000
3.500
4.000
"Distribution of TCU grades"

Figure 1

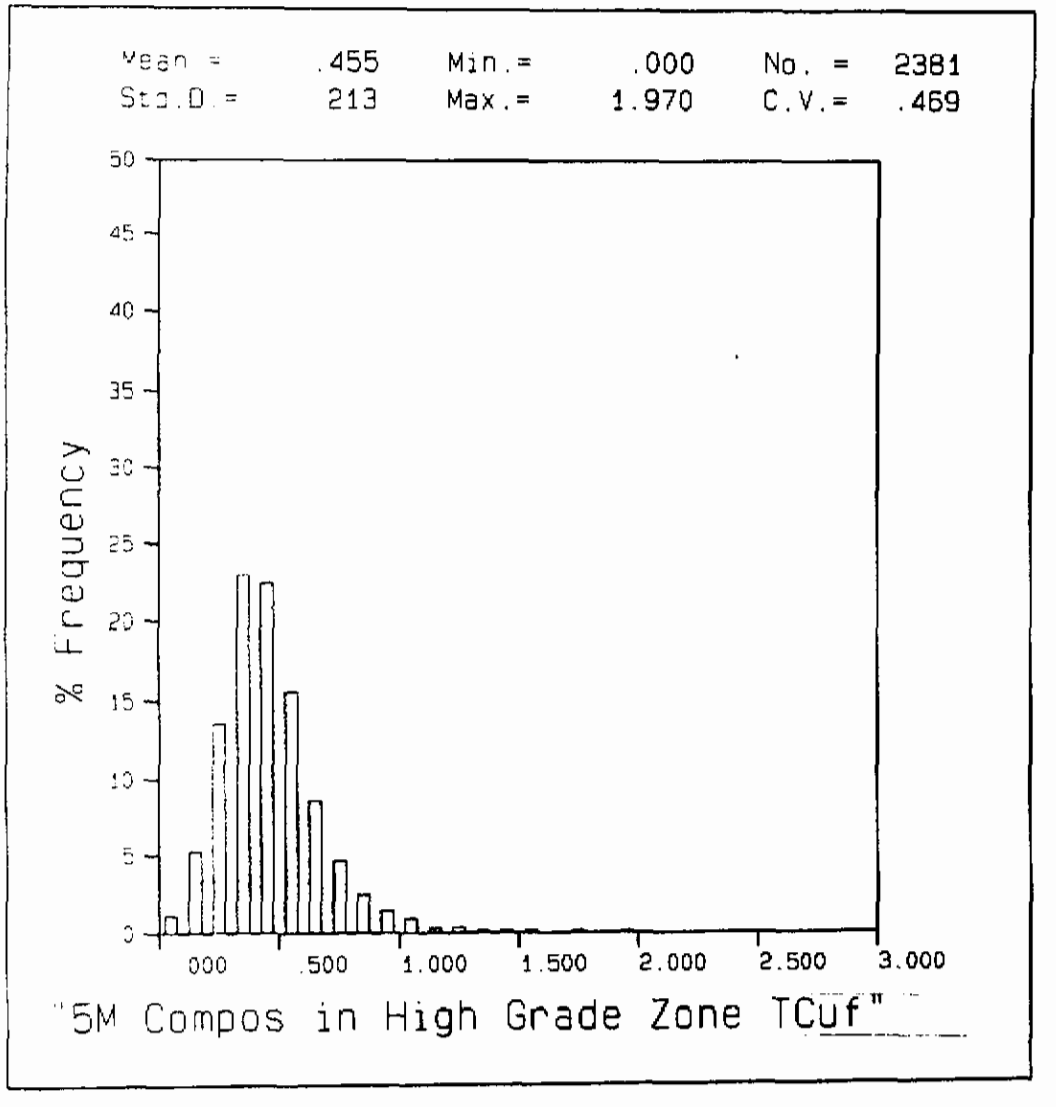


** PROBABILITY DISTRIBUTION PLOT OF TCU **

ITEM	TCU	NATURAL LOGS	
NUMBER	18966	NUMBER	18966
MEAN	0.2050	MEAN	-2.2430
MINIMUM	0.0100	MINIMUM	-4.6050
MAXIMUM	3.5400	MAXIMUM	1.2640
VARIANCE	0.0560	VARIANCE	1.5020
ST.DEV.	0.2370	ST.DEV.	1.2260

Log prob of un-cut TCU grades

Figure 2


Mean = .455 Min.= .000 No. = 2381
Std.D.= 213 Max.= 1.970 C.V.= .469
% Frequency
50
45
40
35
30
25
20
15
10
5
0
000
.500
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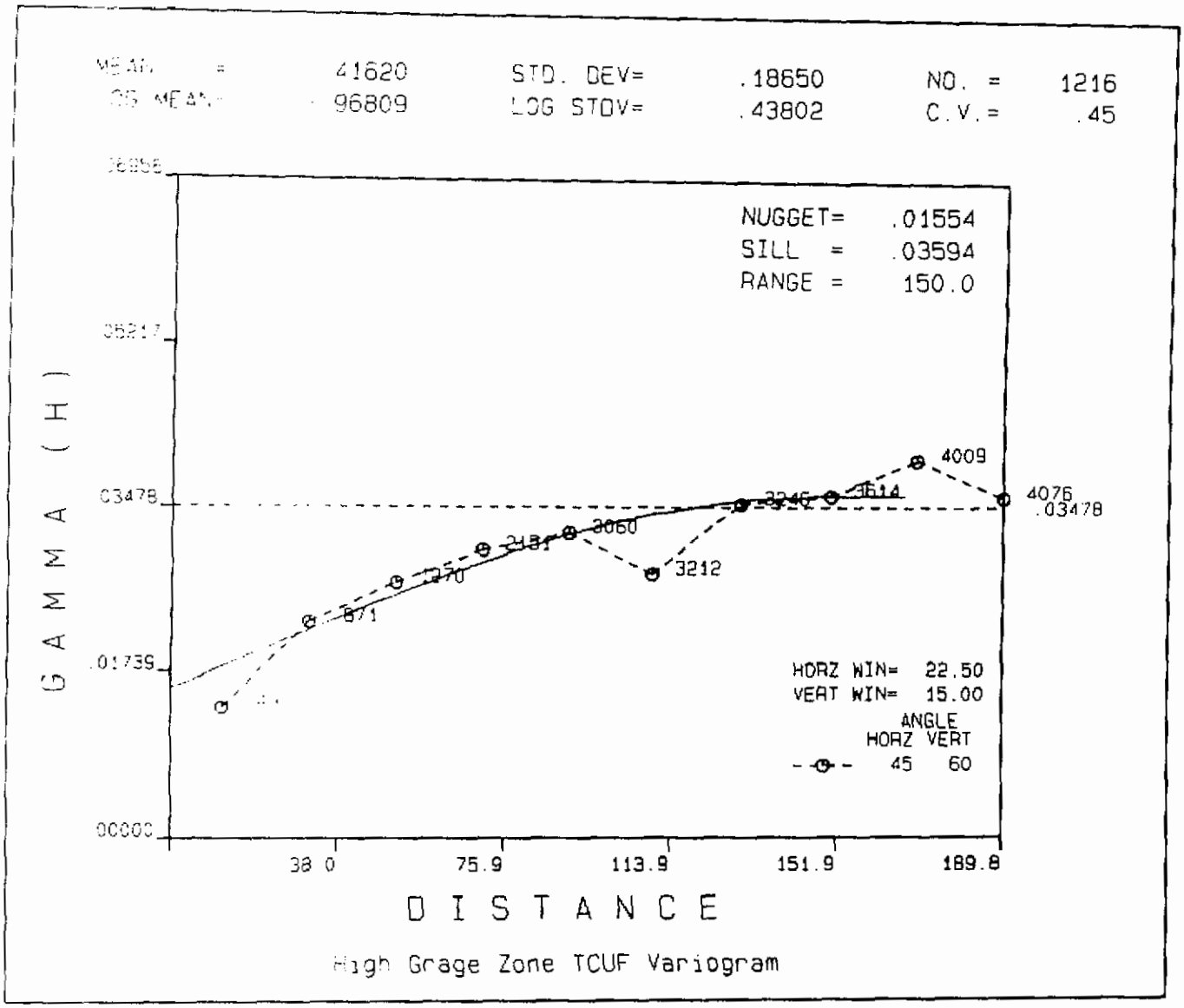
1.500
2.000
2.500
3.000
"5M Compos in High Grade Zone TCuf"

Figure 3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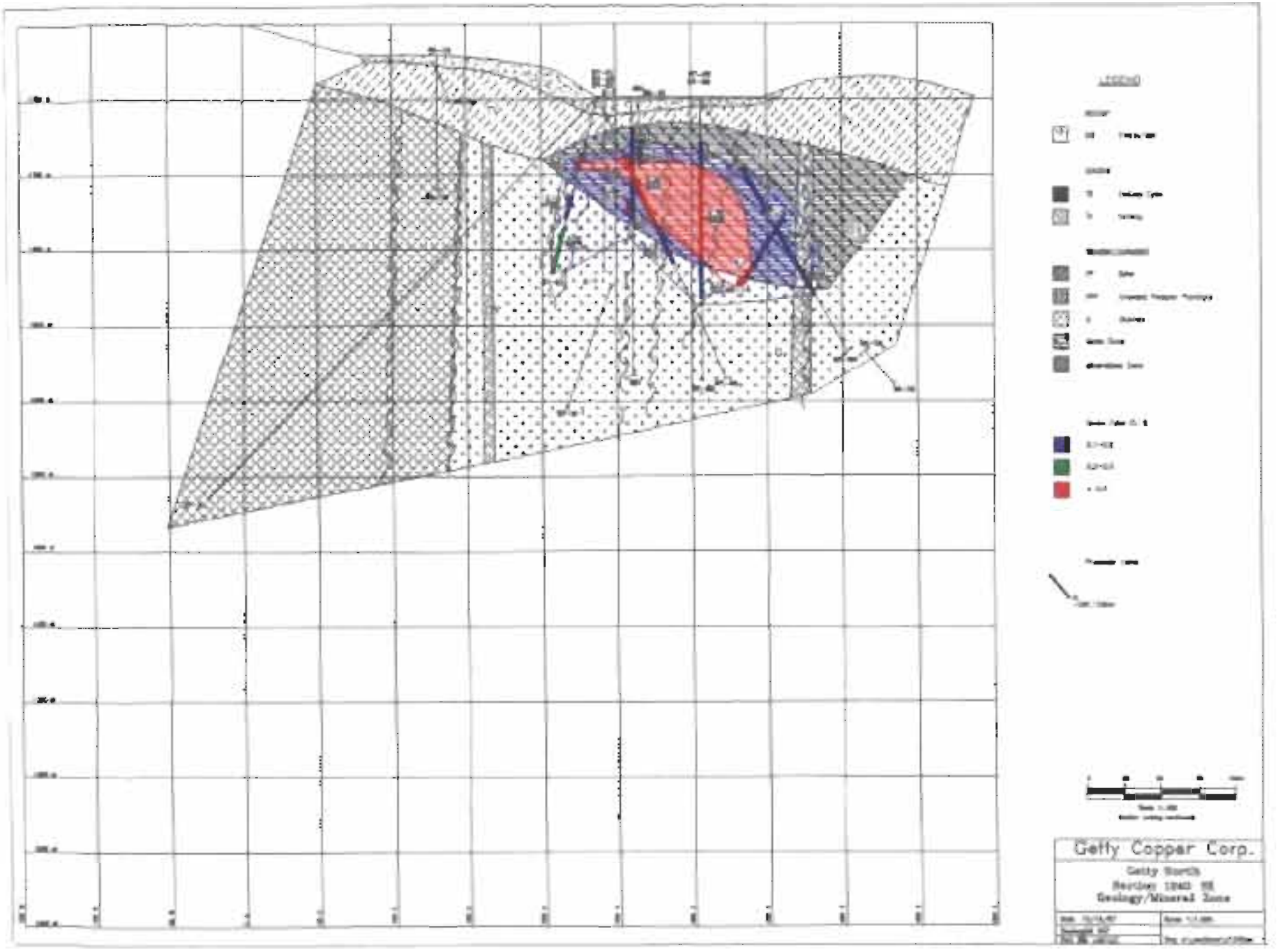
STD. DEV= .18650
LOG STDV= .43802
NO. = 1216
C.V. = .45
NUGGET= .01554
SILL = .03594
RANGE = 150.0
.03478
.01739
.00000
4009
4076
3060
3212
HORZ WIN= 22.50
VERT WIN= 15.00
ANGLE
HORZ VERT
45 60
38.0
75.9
113.9
151.9
189.8
GAMMA (H)
DISTANCE
High Grage Zone TCUF Variogram

Figure 4



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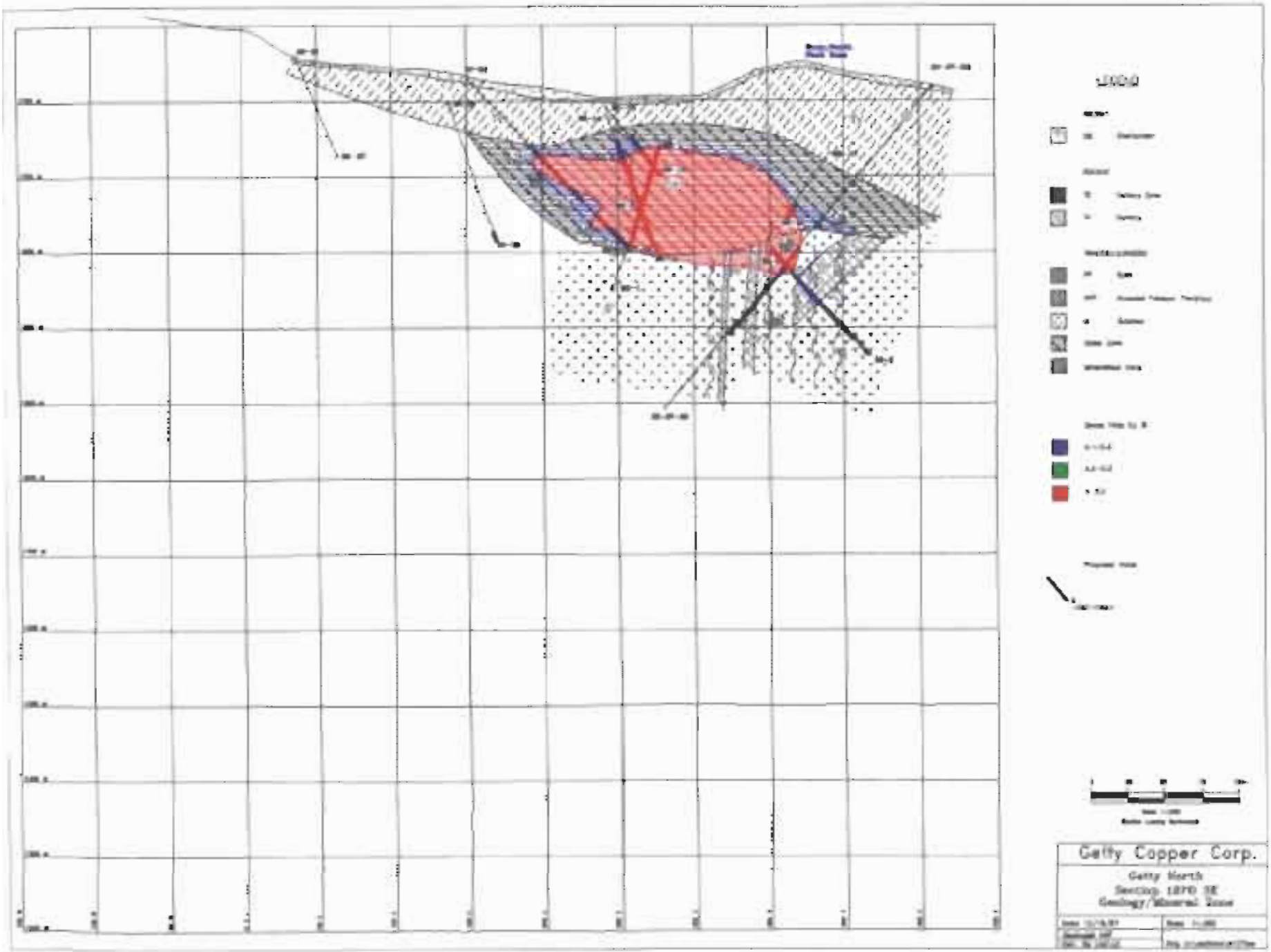
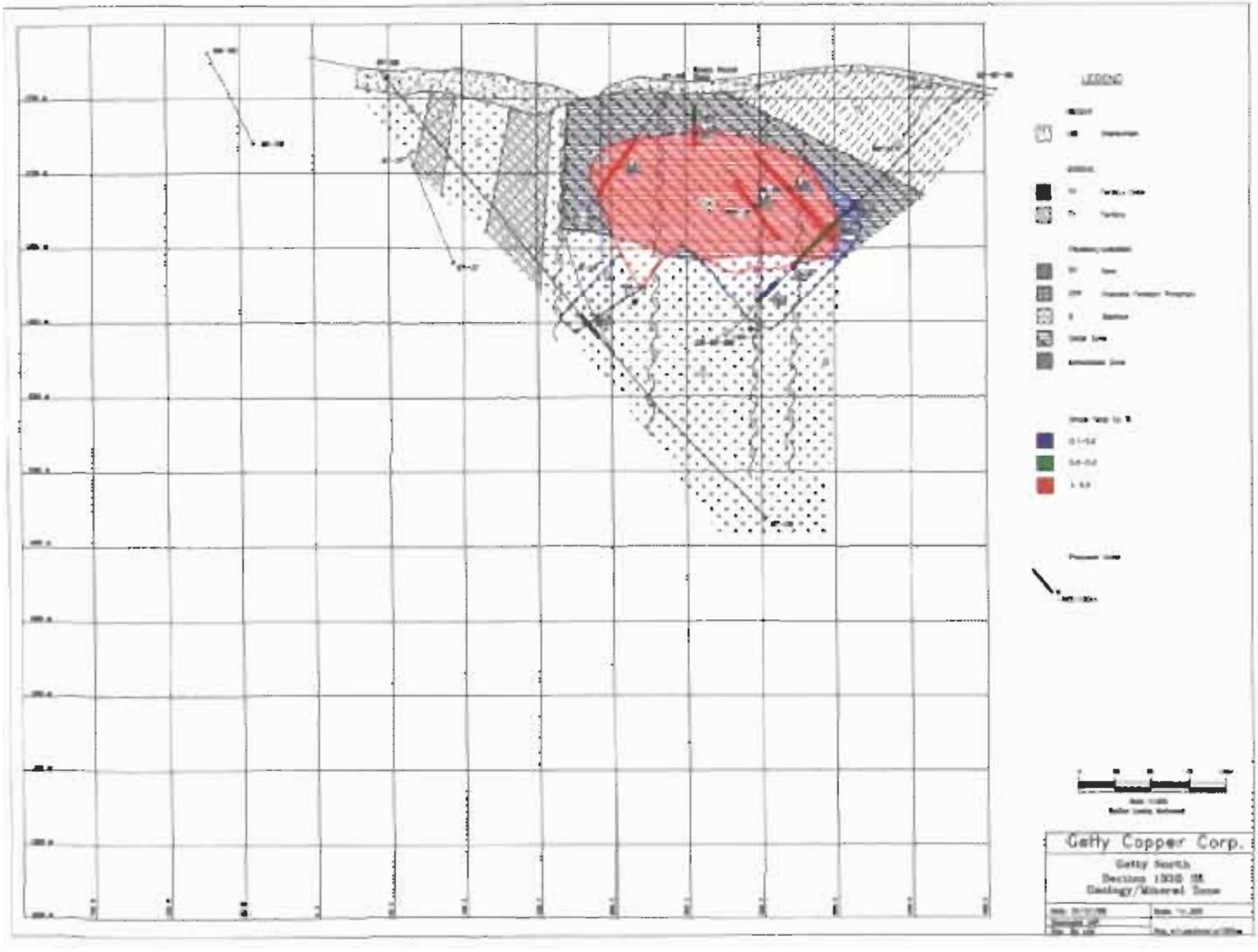
Getty North

Section 12400 SE

Geology/Mineral Zone


Getty Copper Corp.
Getty North
Section 1870 SE
Geology/Mineral Zone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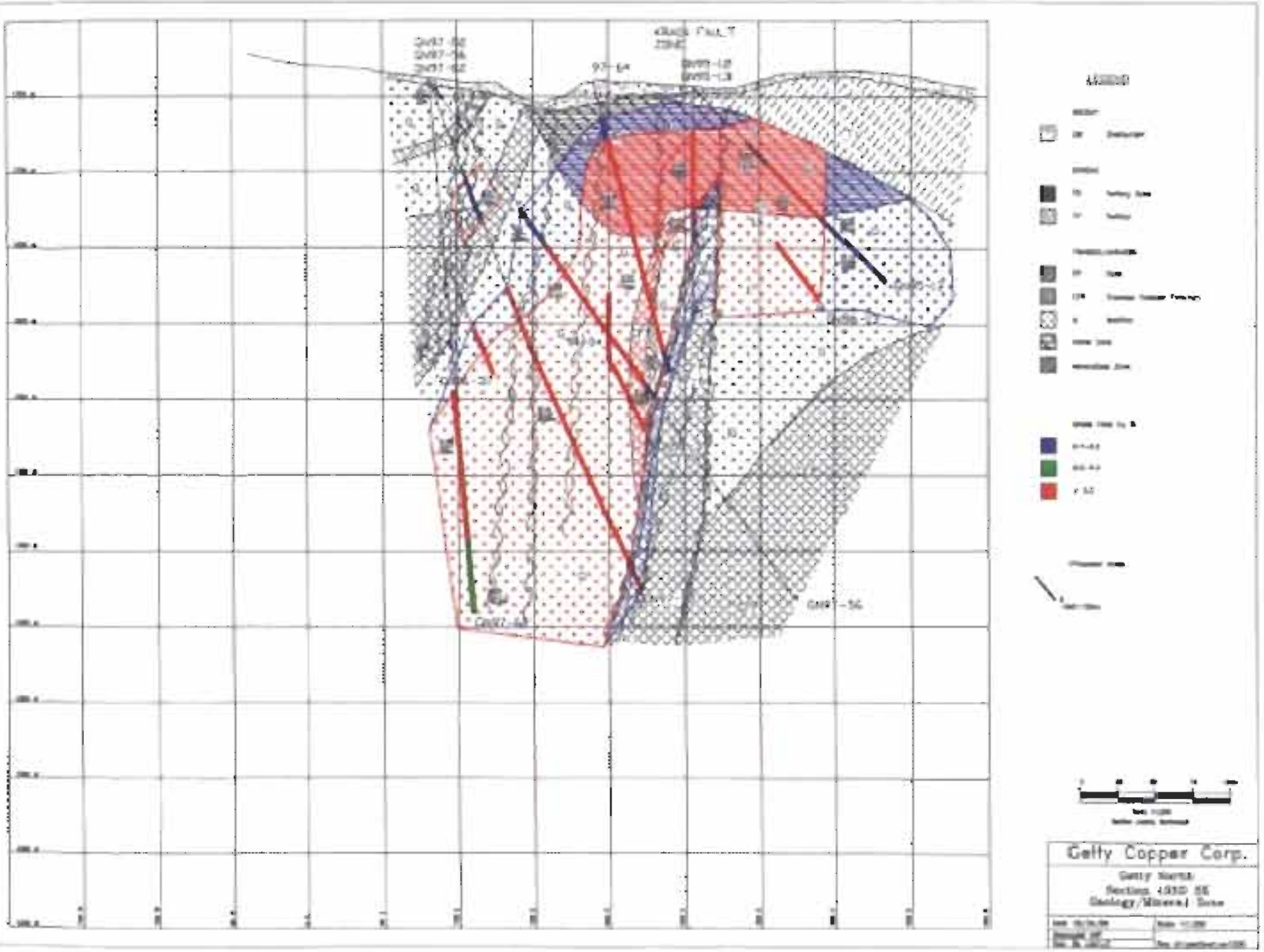
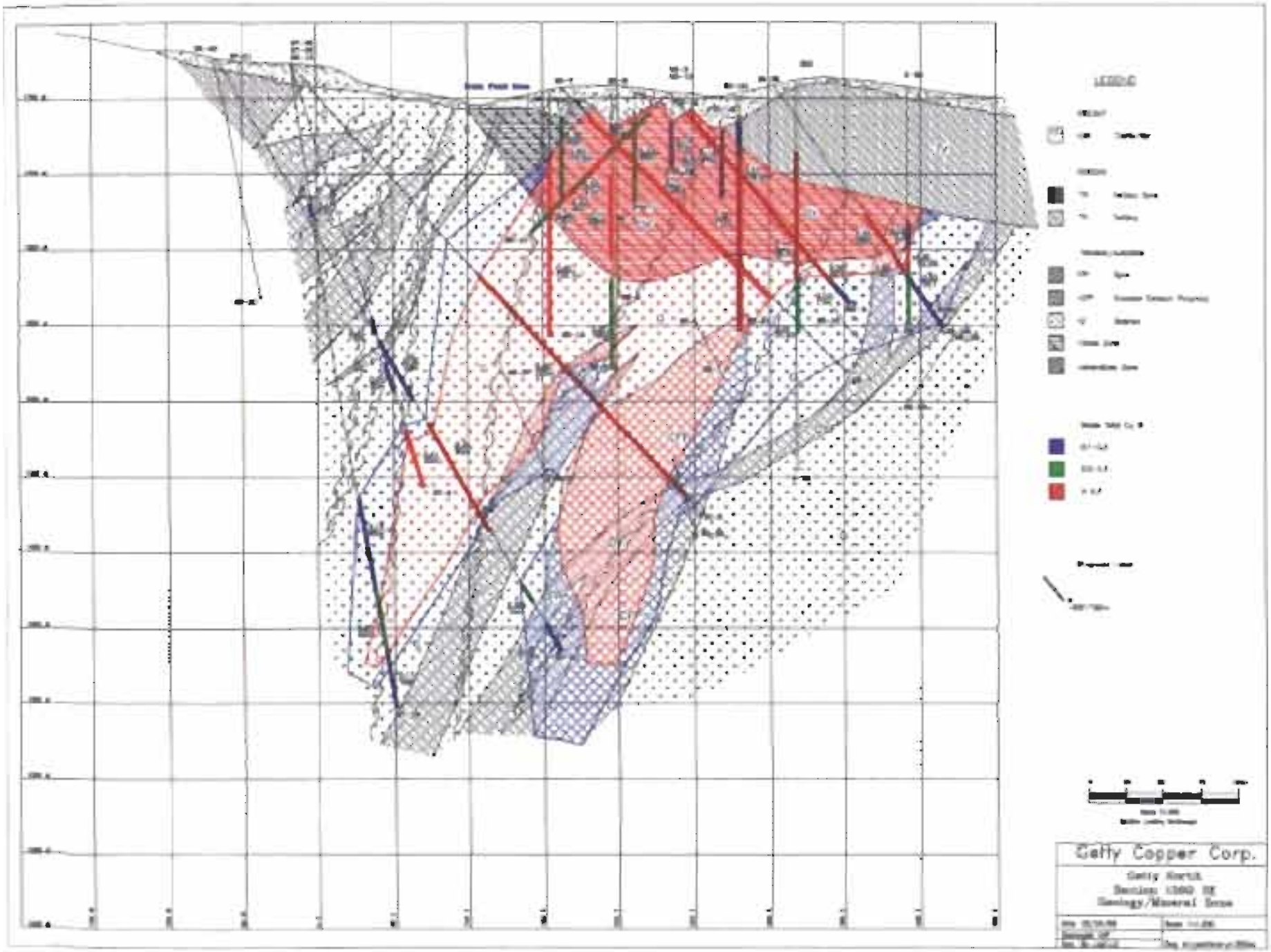
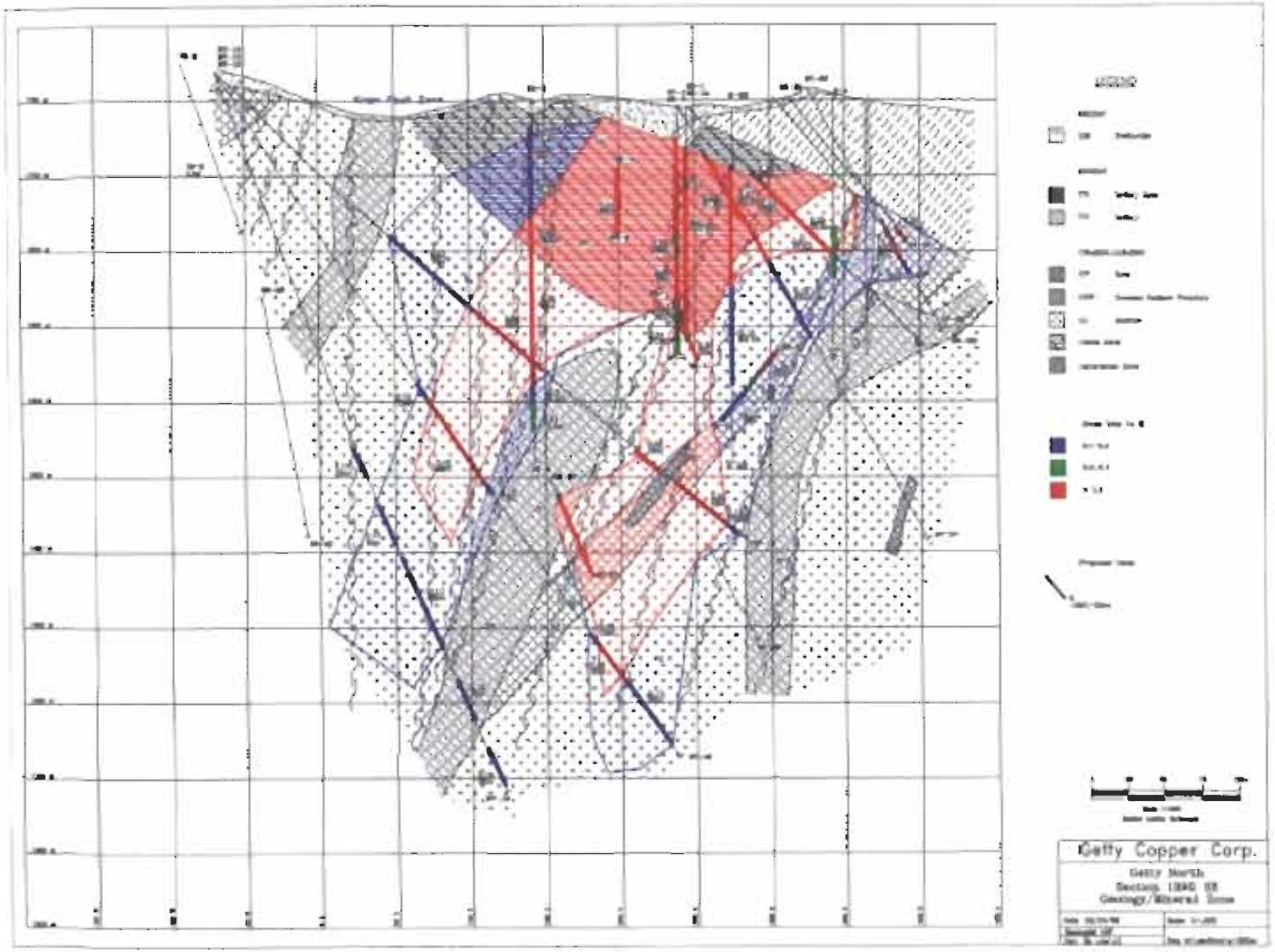
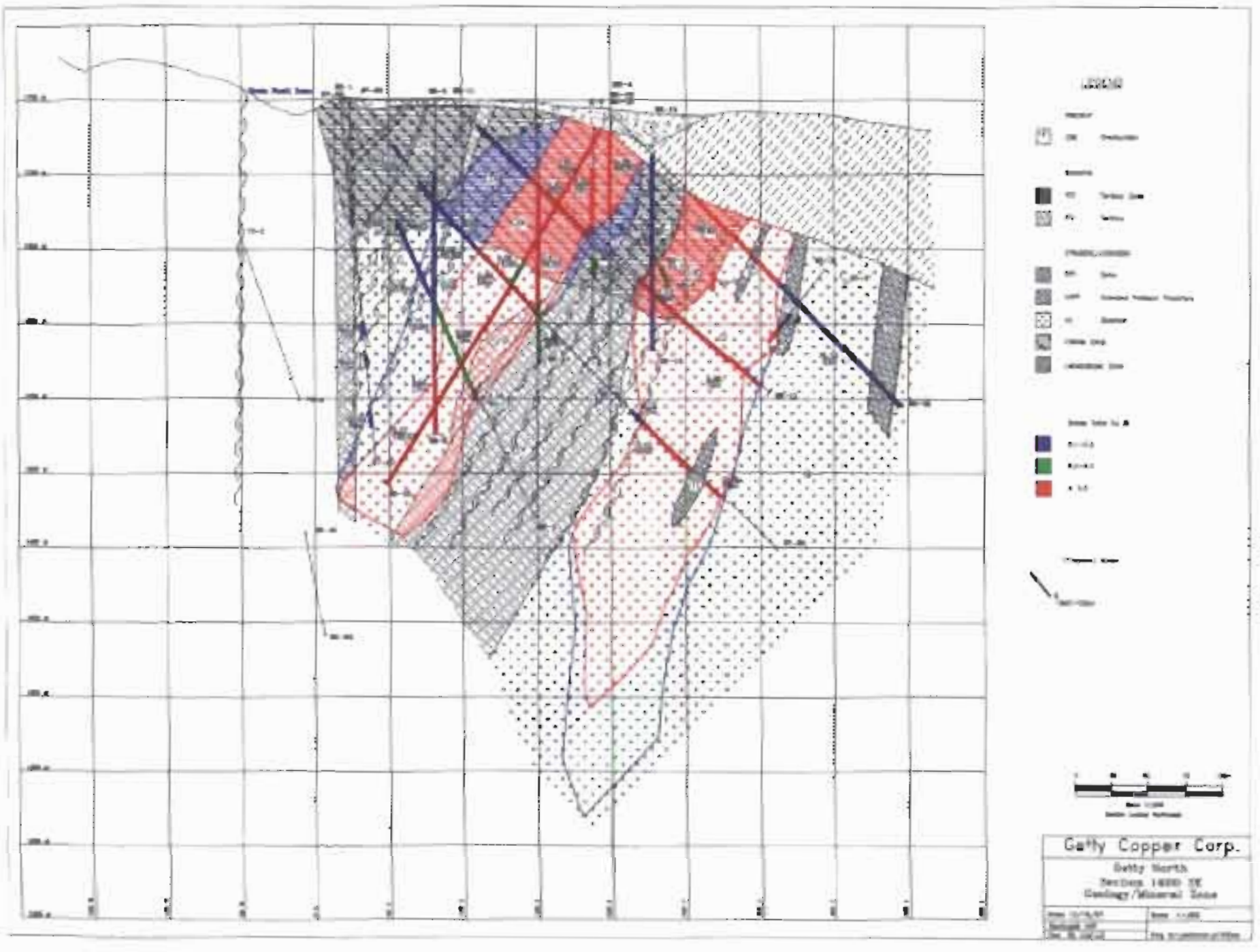
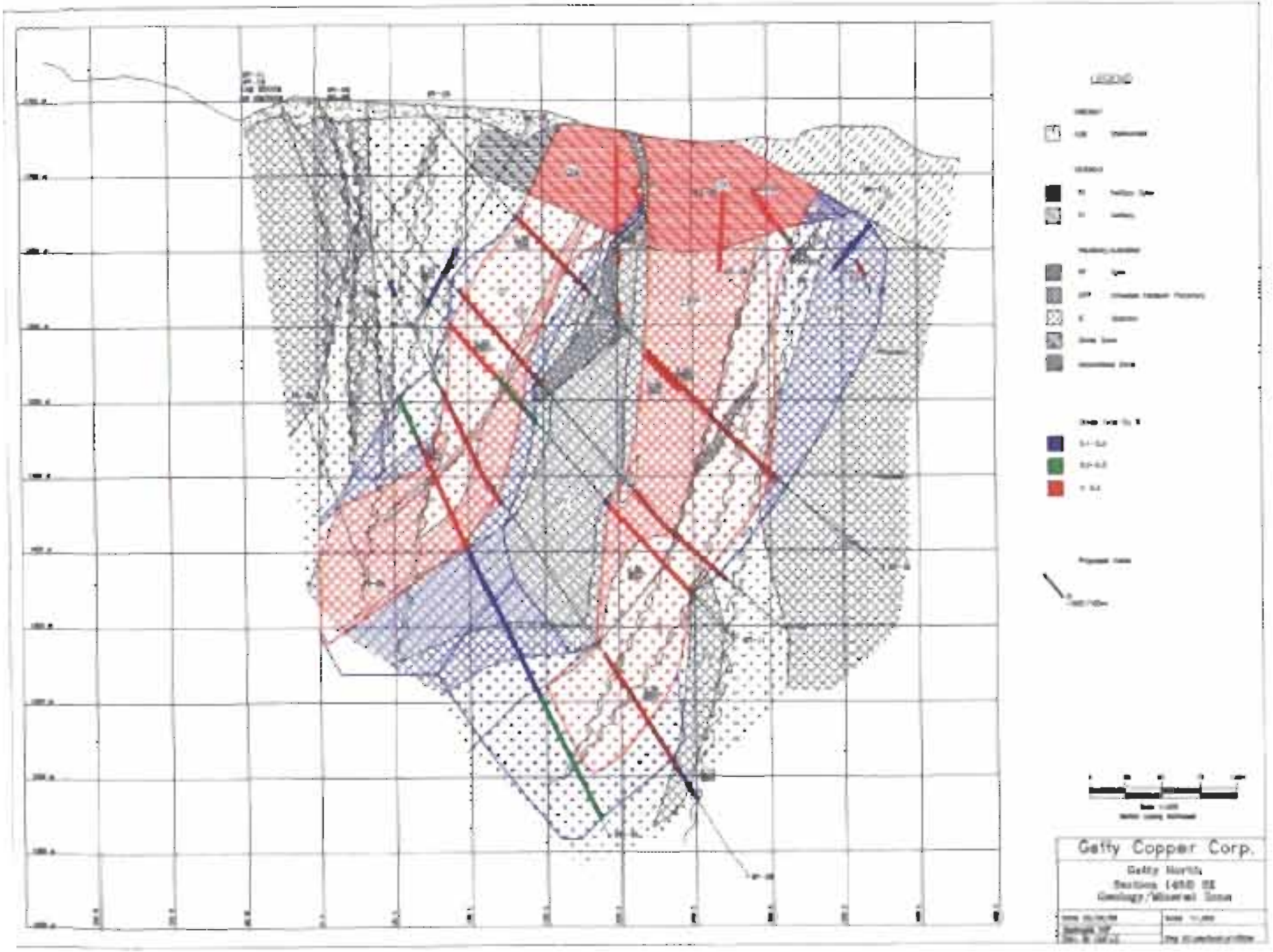
Getty Copper Corp.
Getty North
Section 1930 SE
Geology/Mineral Zones


Getty Copper Corp.


Getty Copper Corp.


Getty Copper Corp.
Getty North
Section 1890 SE
Geology/Mineral Zones


Gatty Copper Corp.
Gatty North
Geology/Mineral Zone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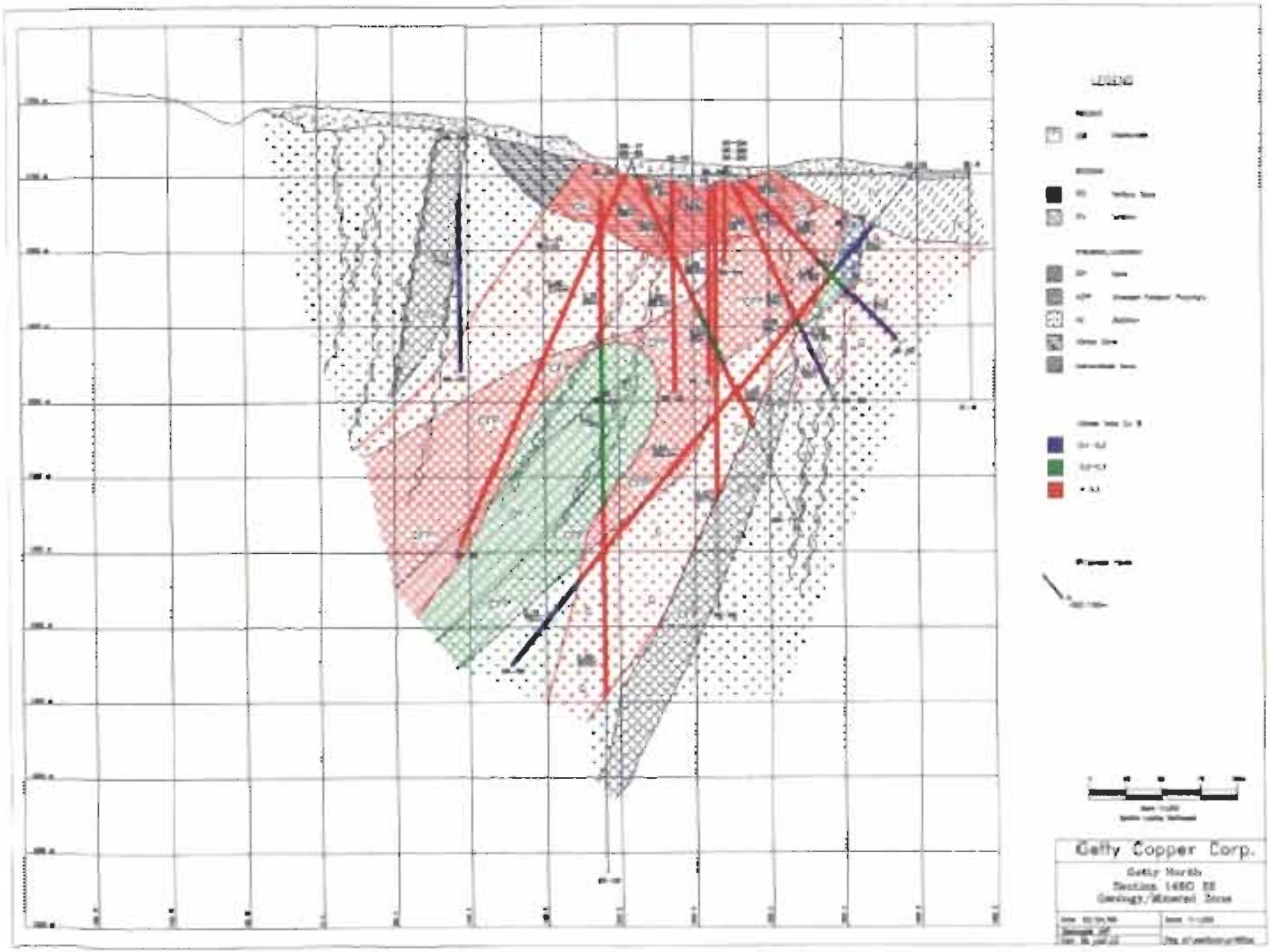
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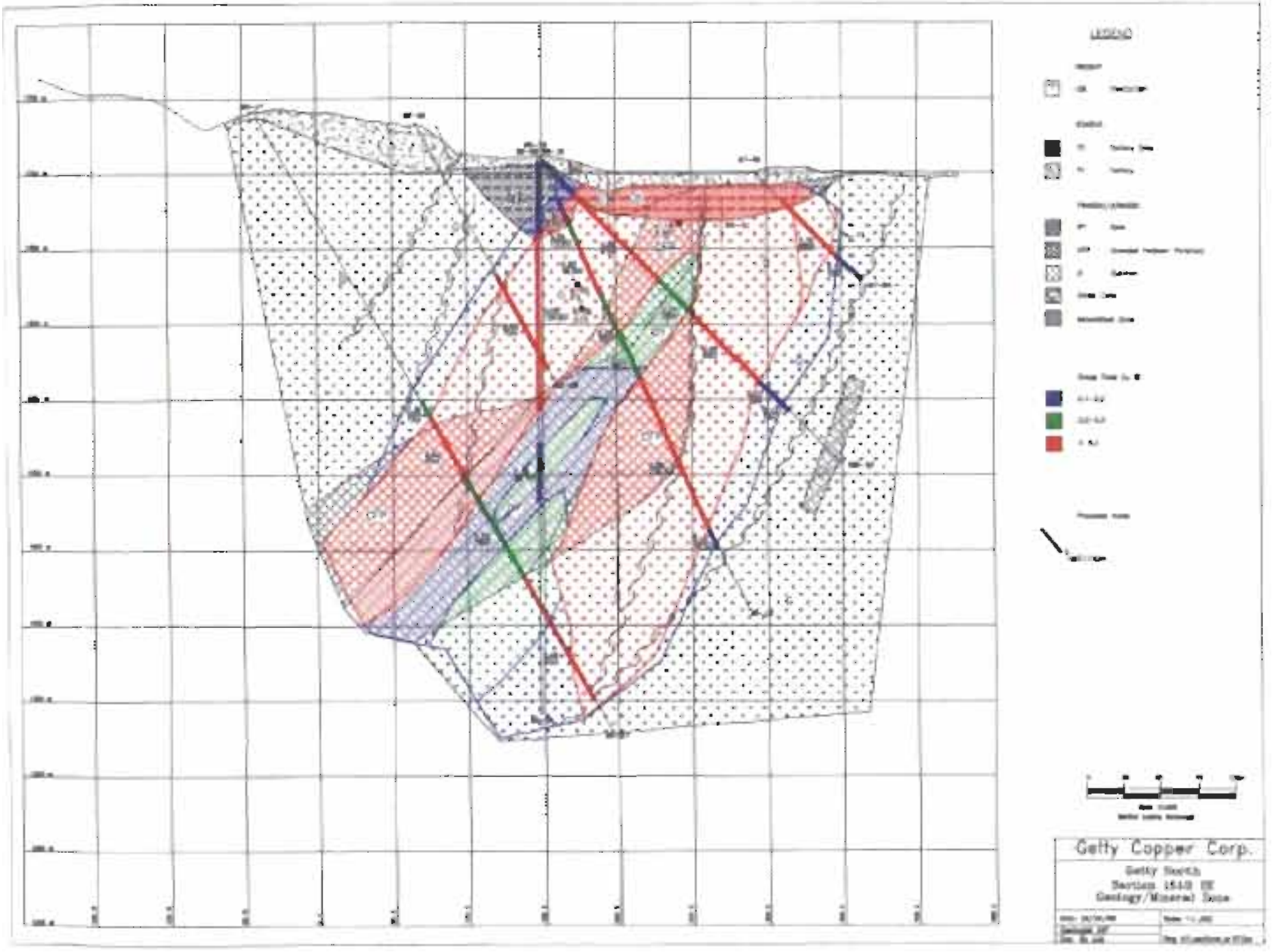
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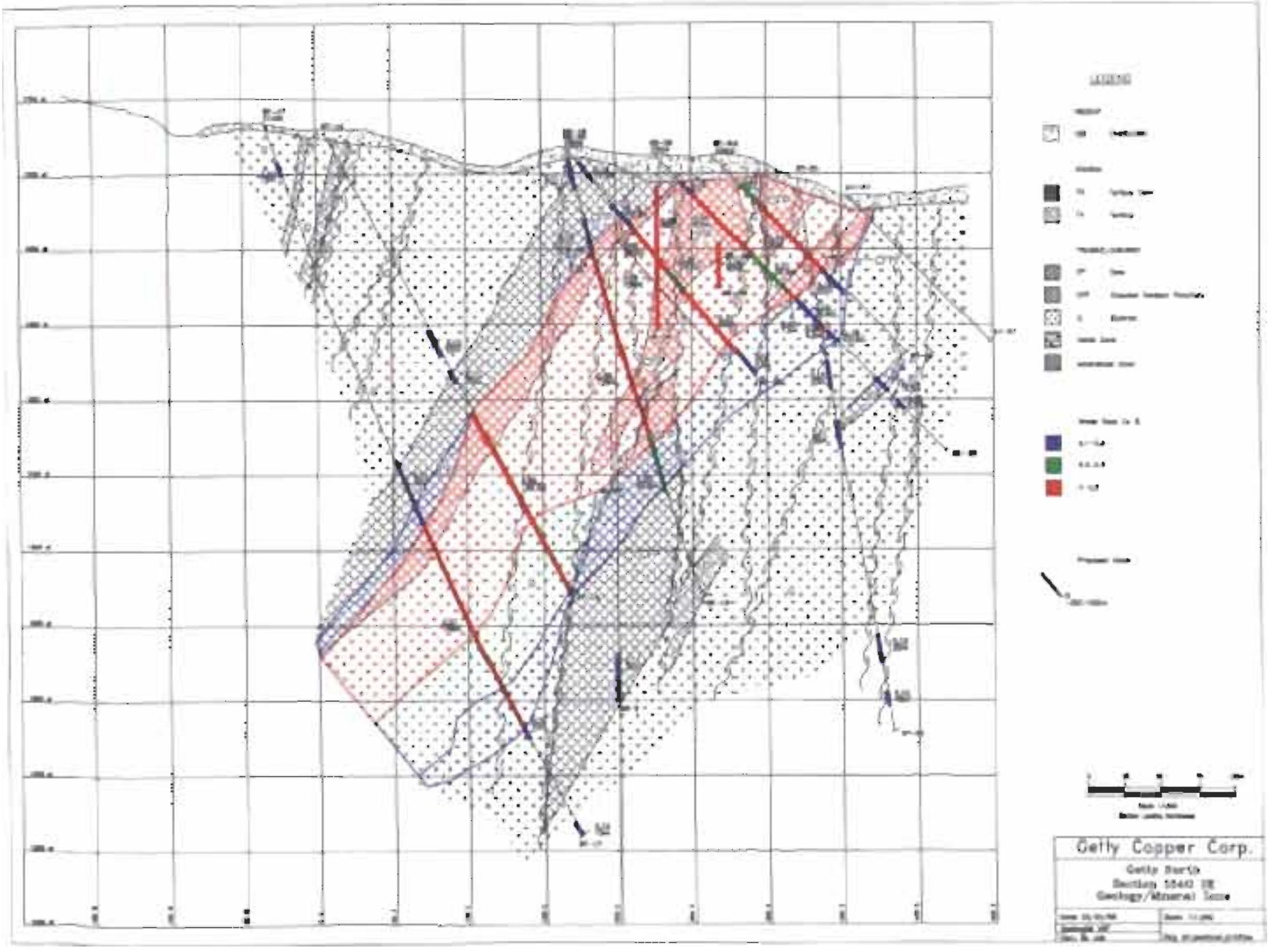
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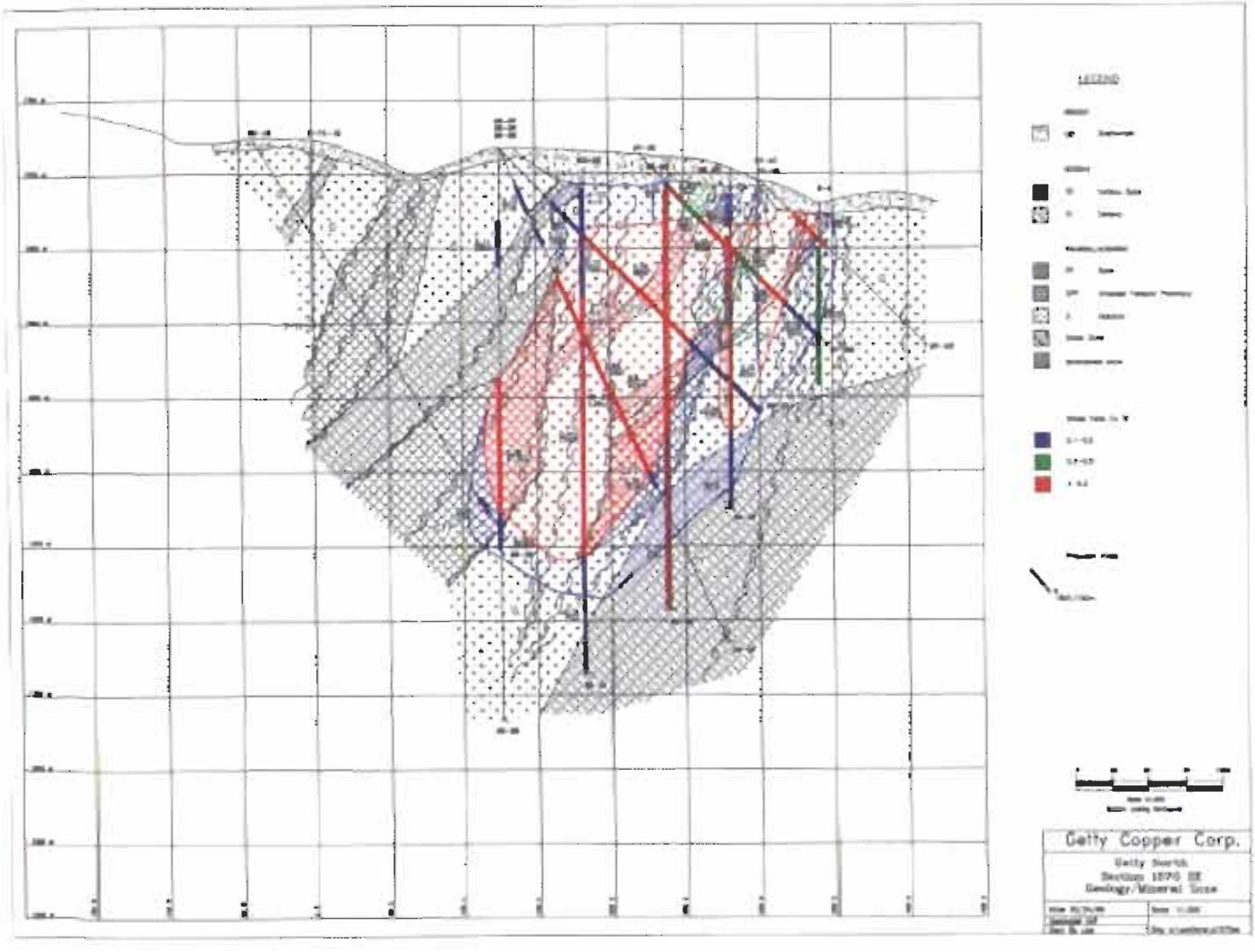
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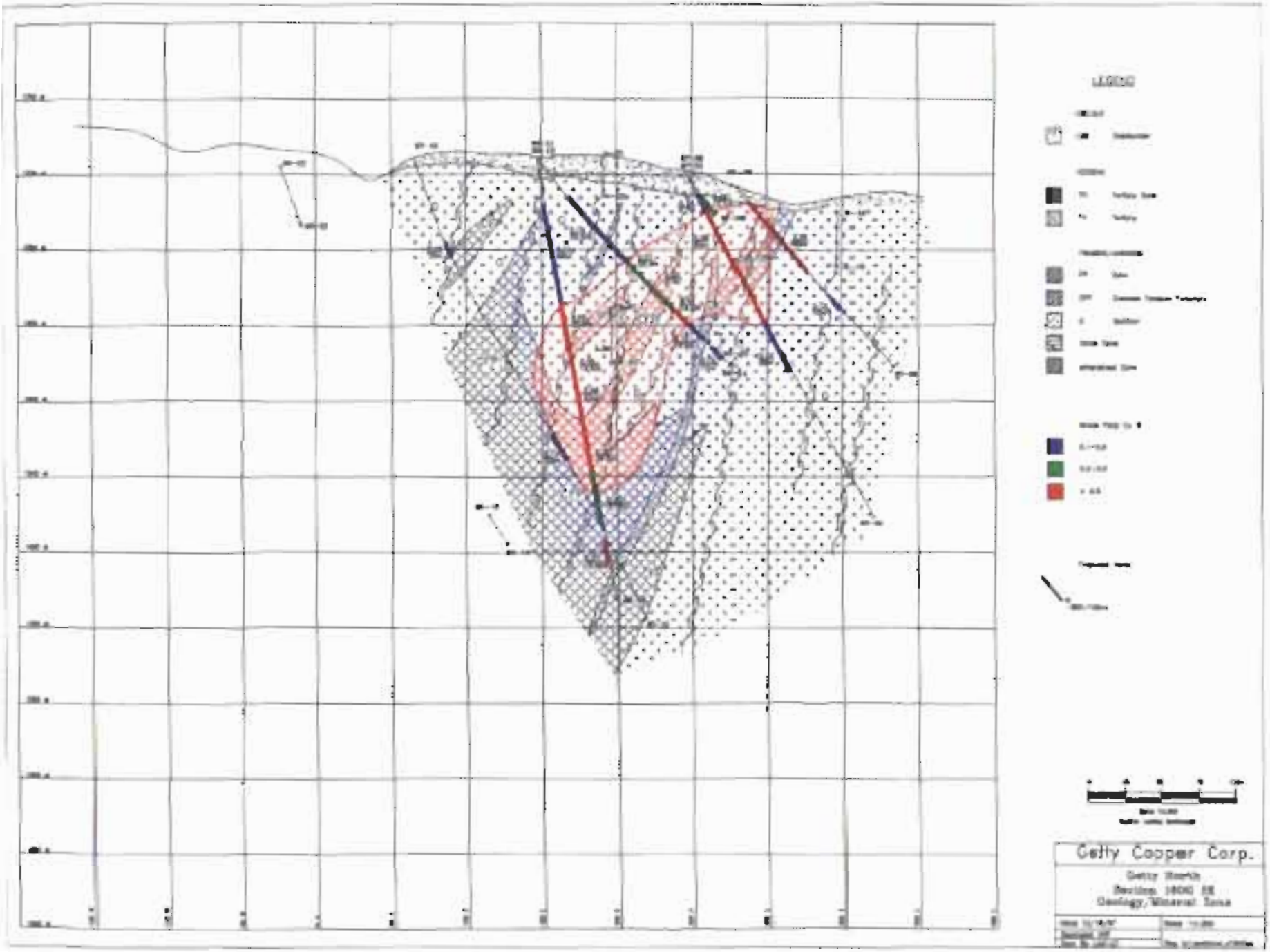
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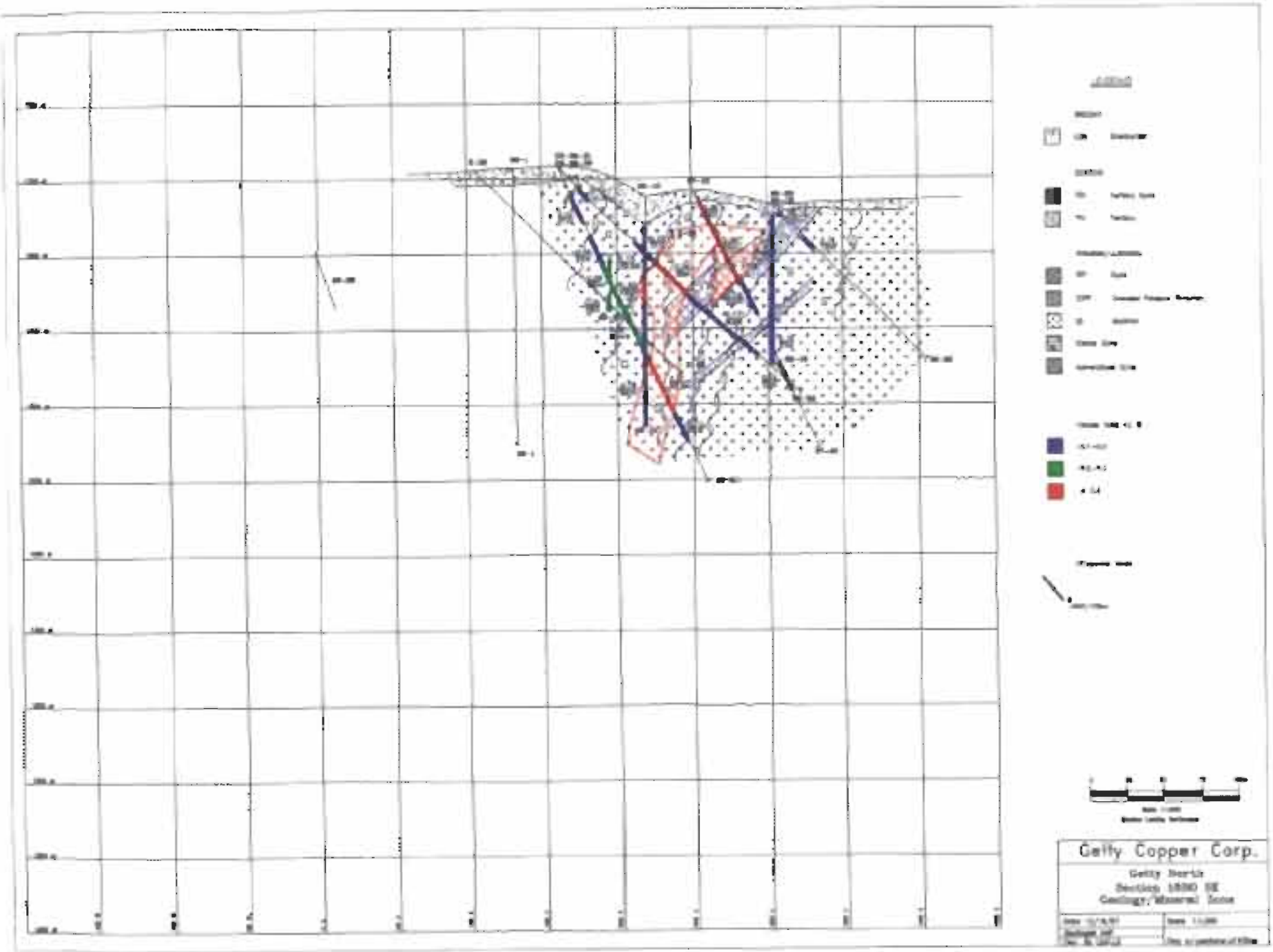
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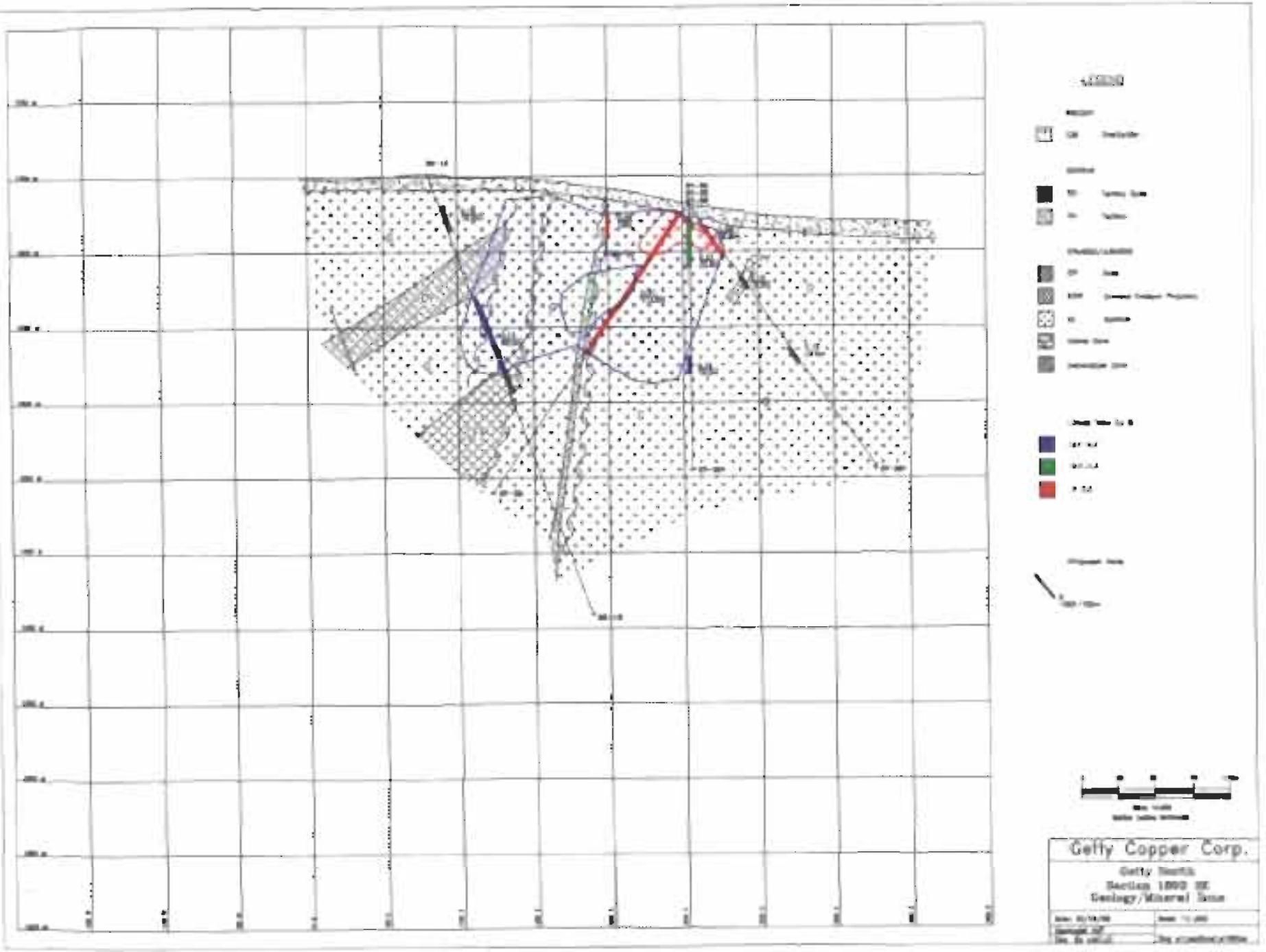

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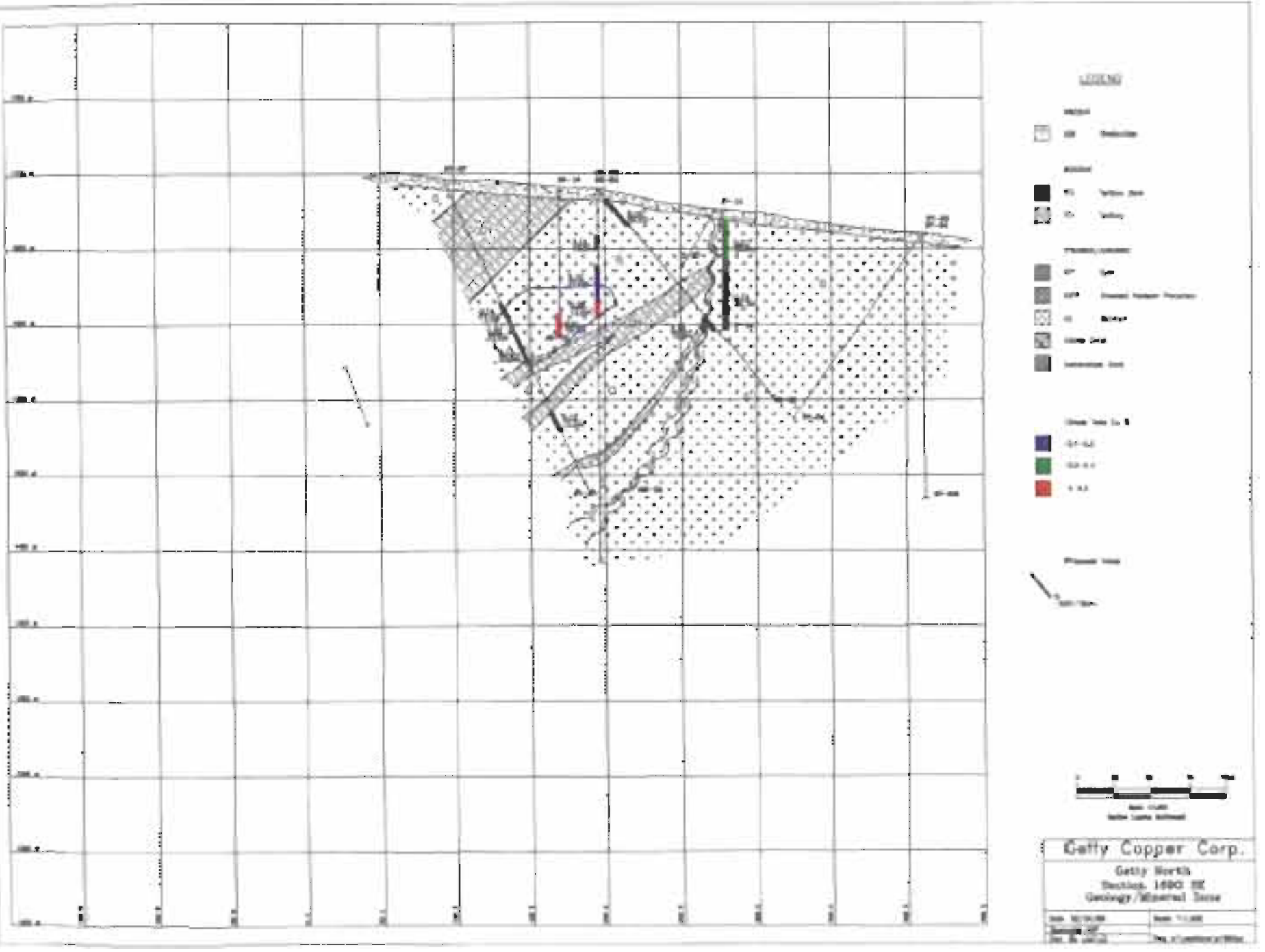
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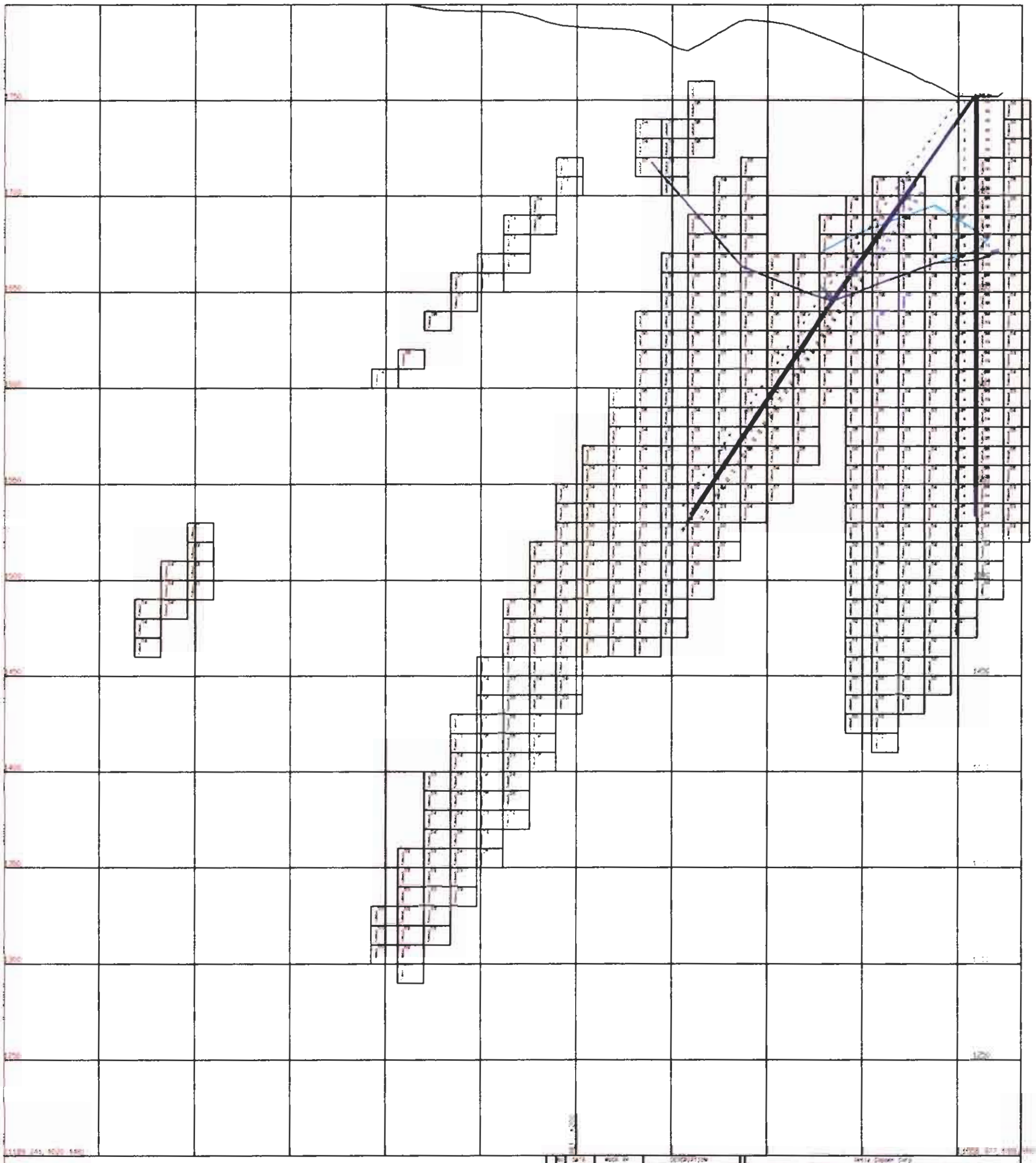
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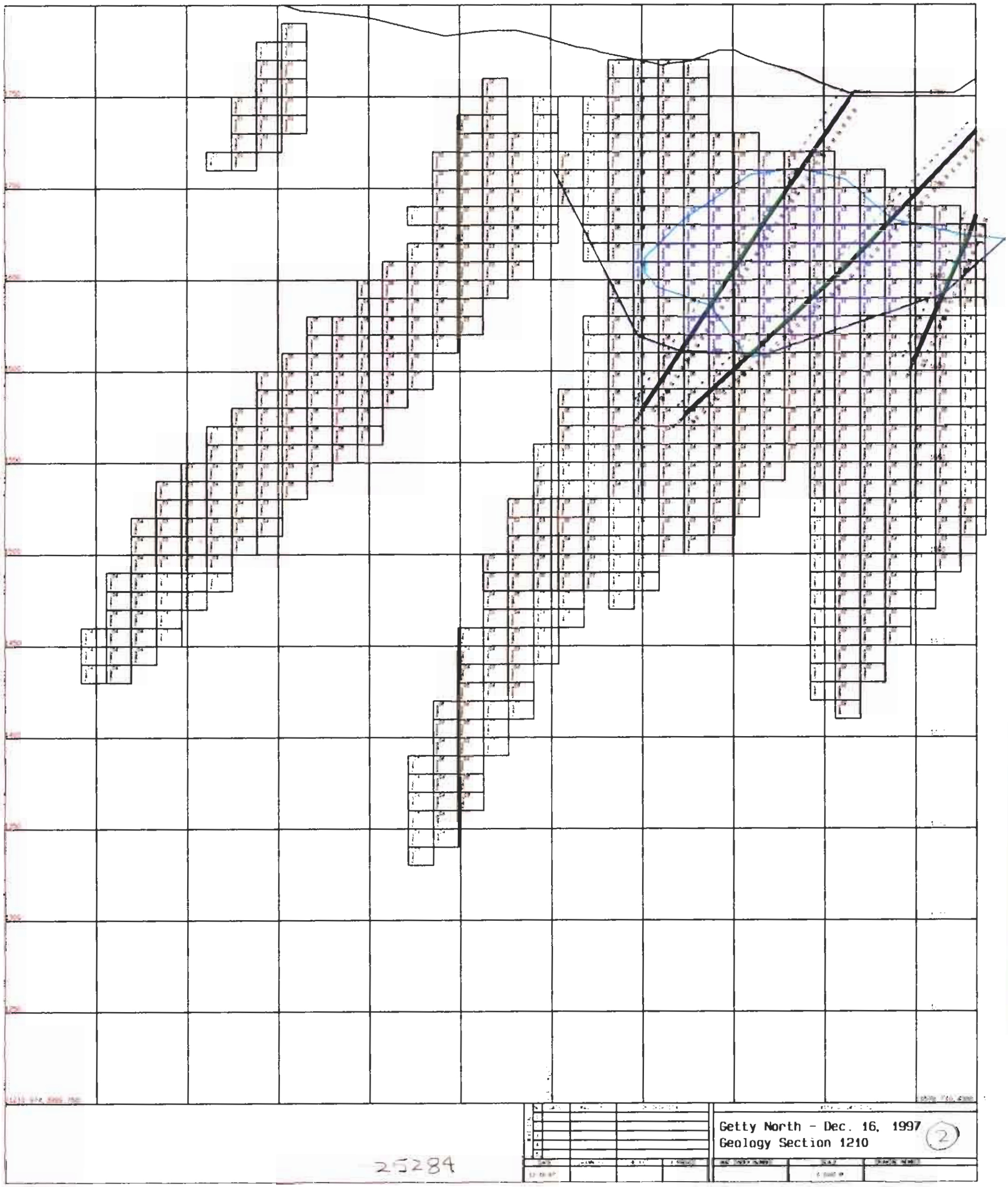

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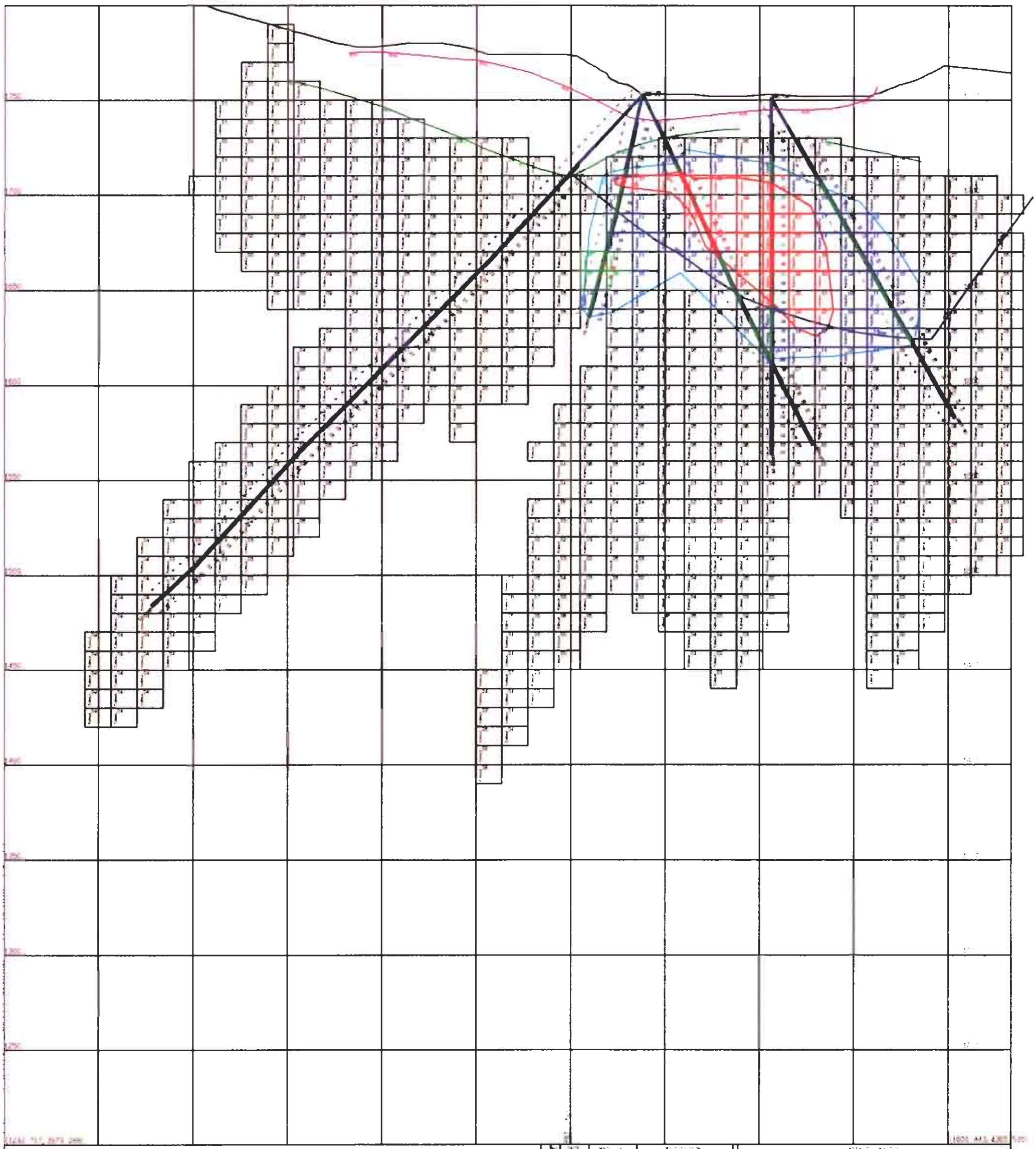

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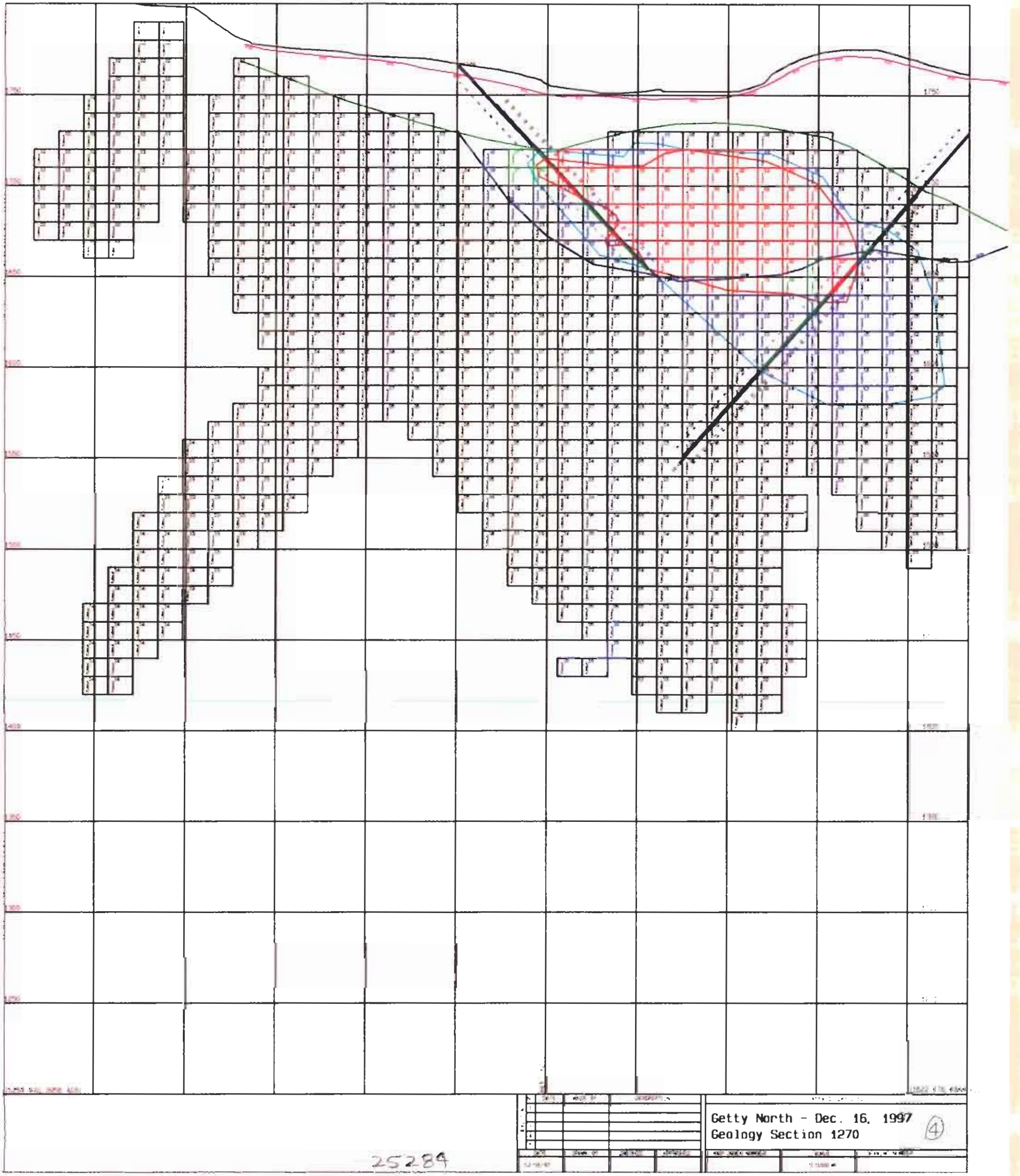

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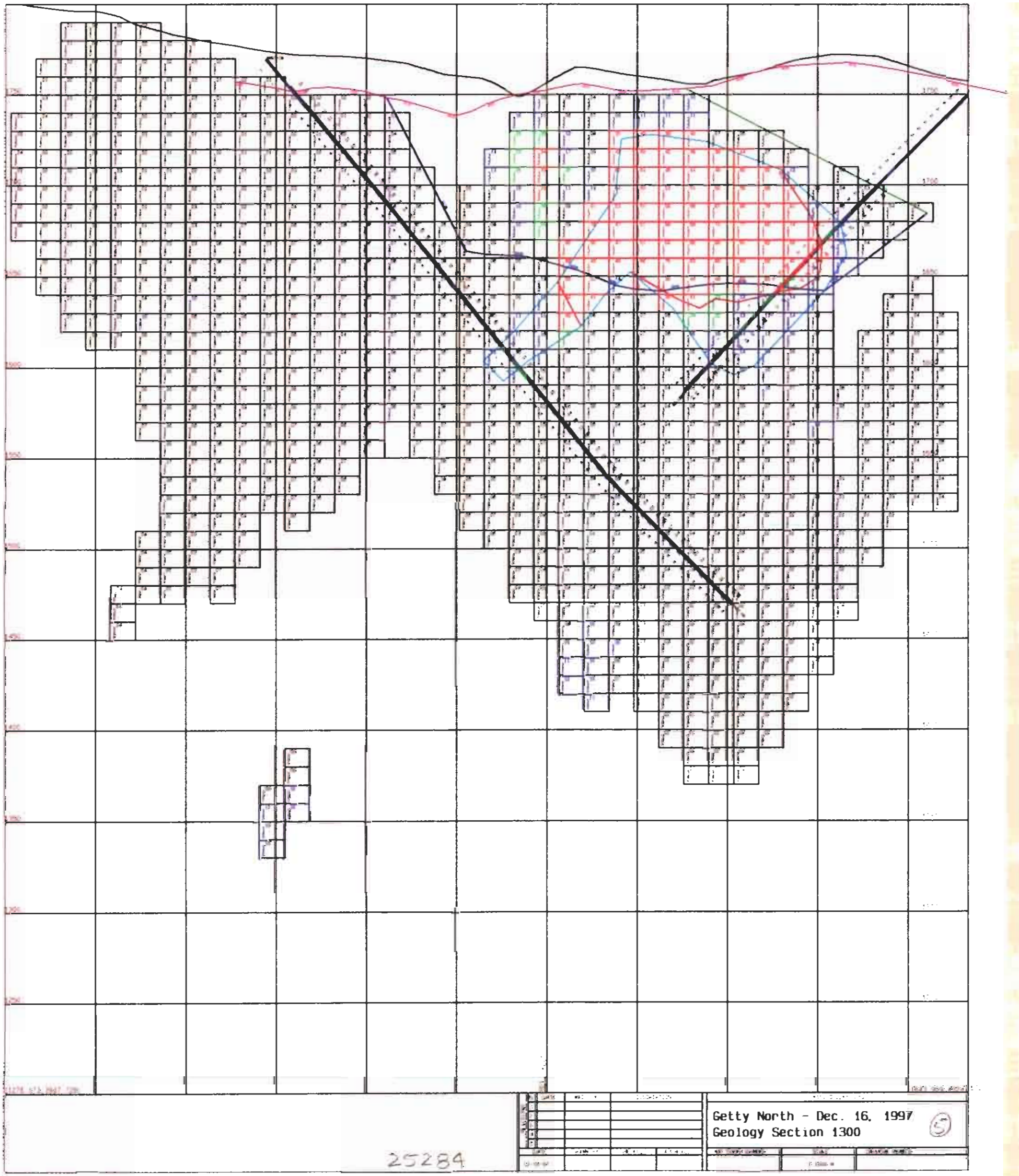
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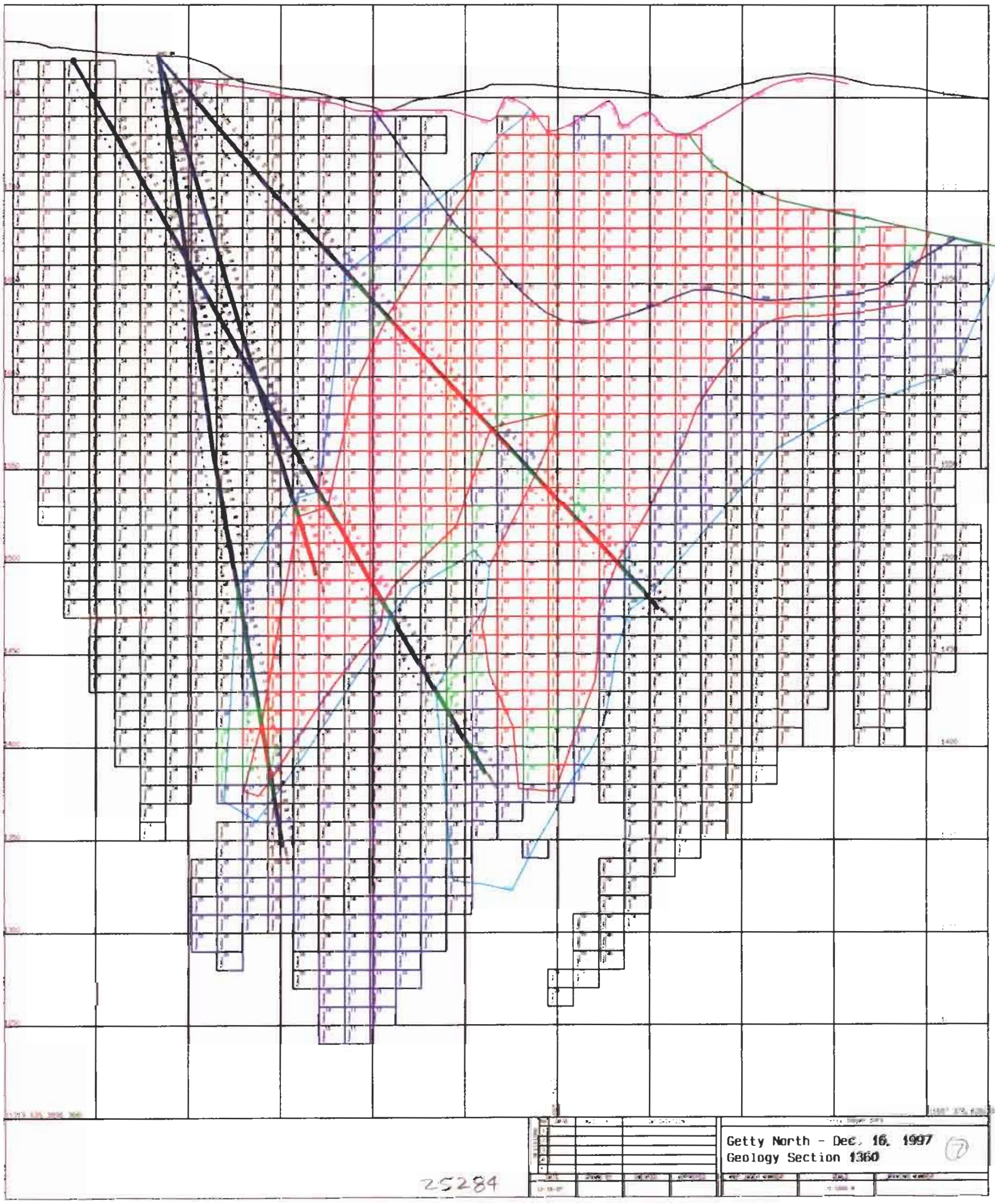

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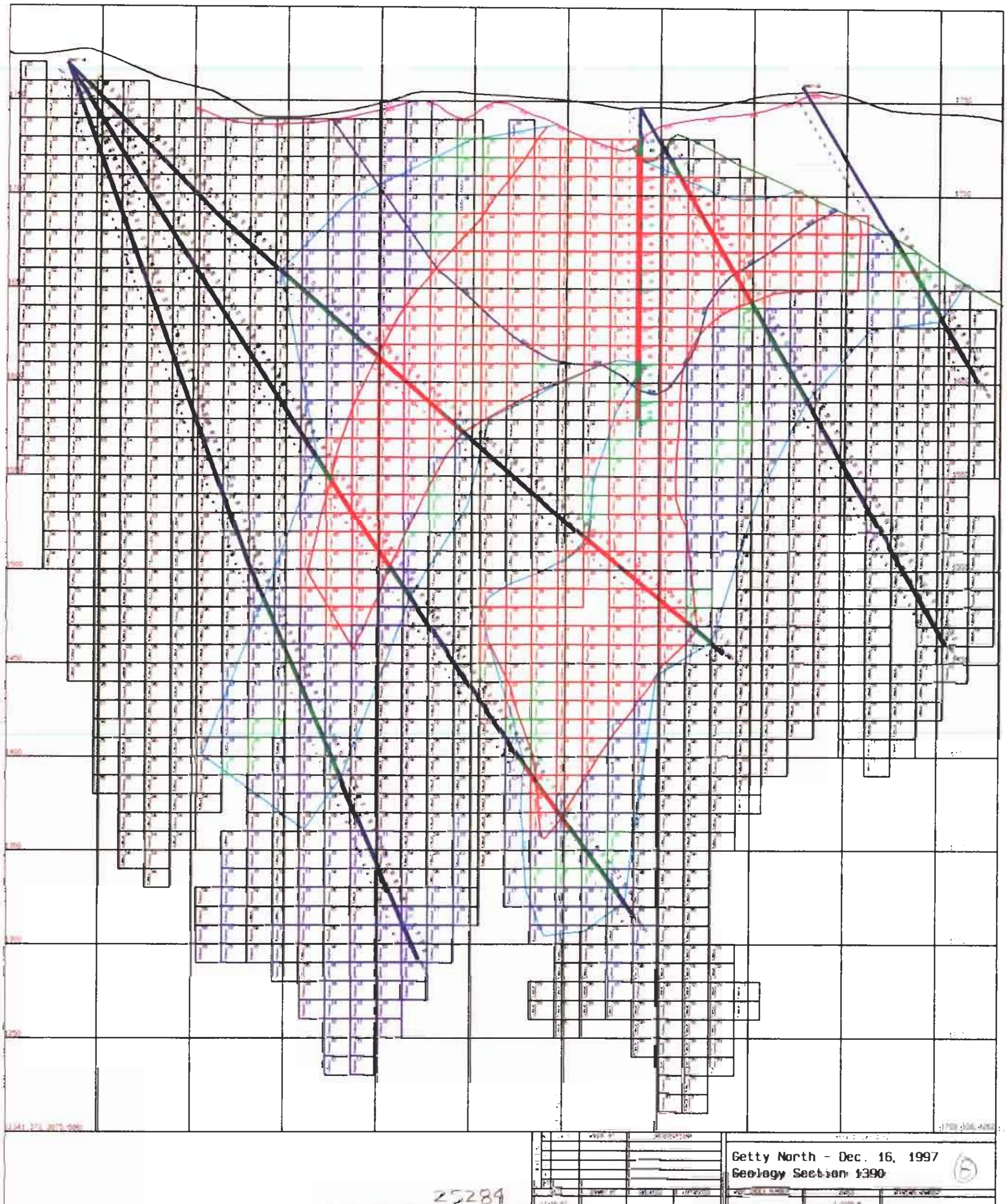
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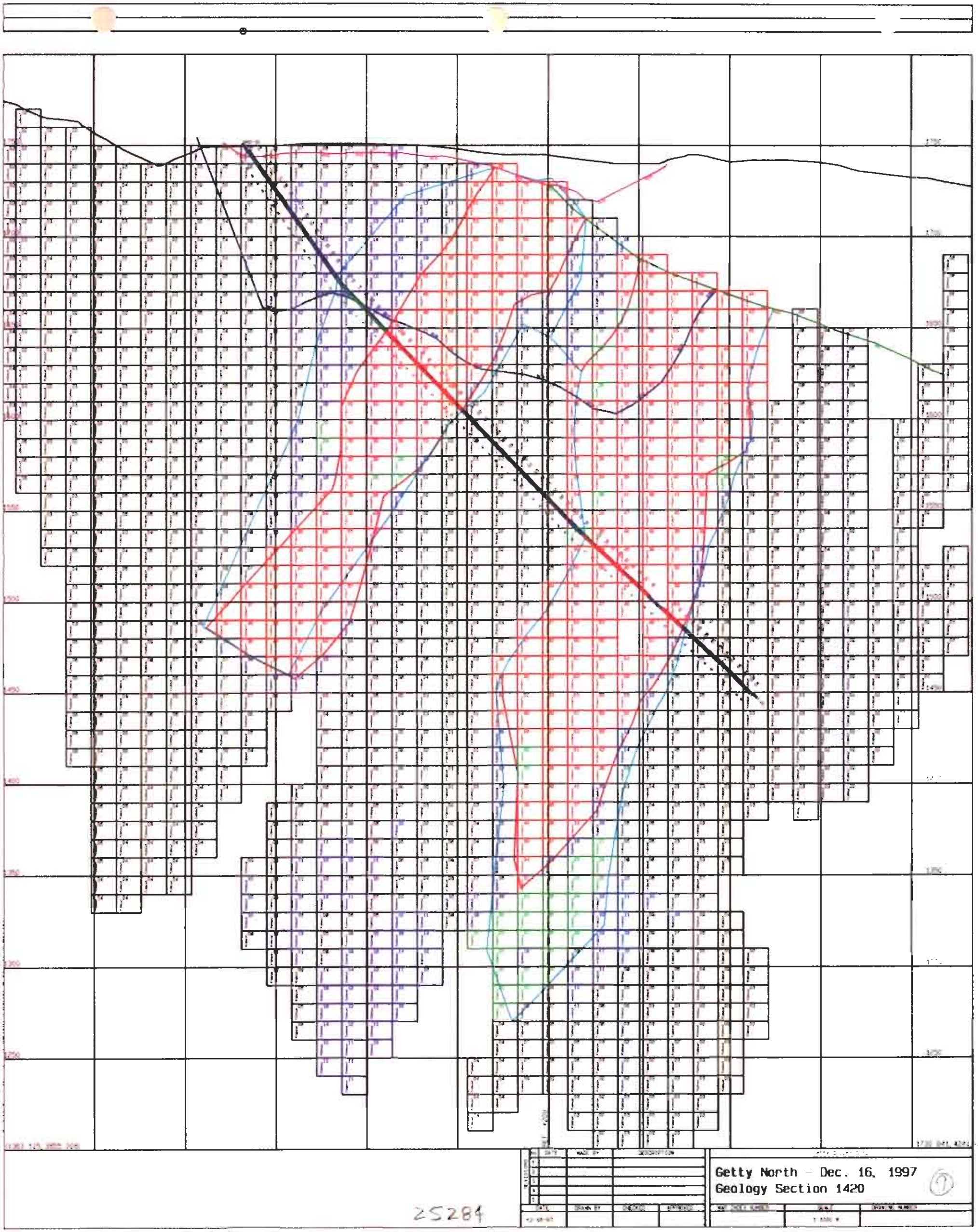
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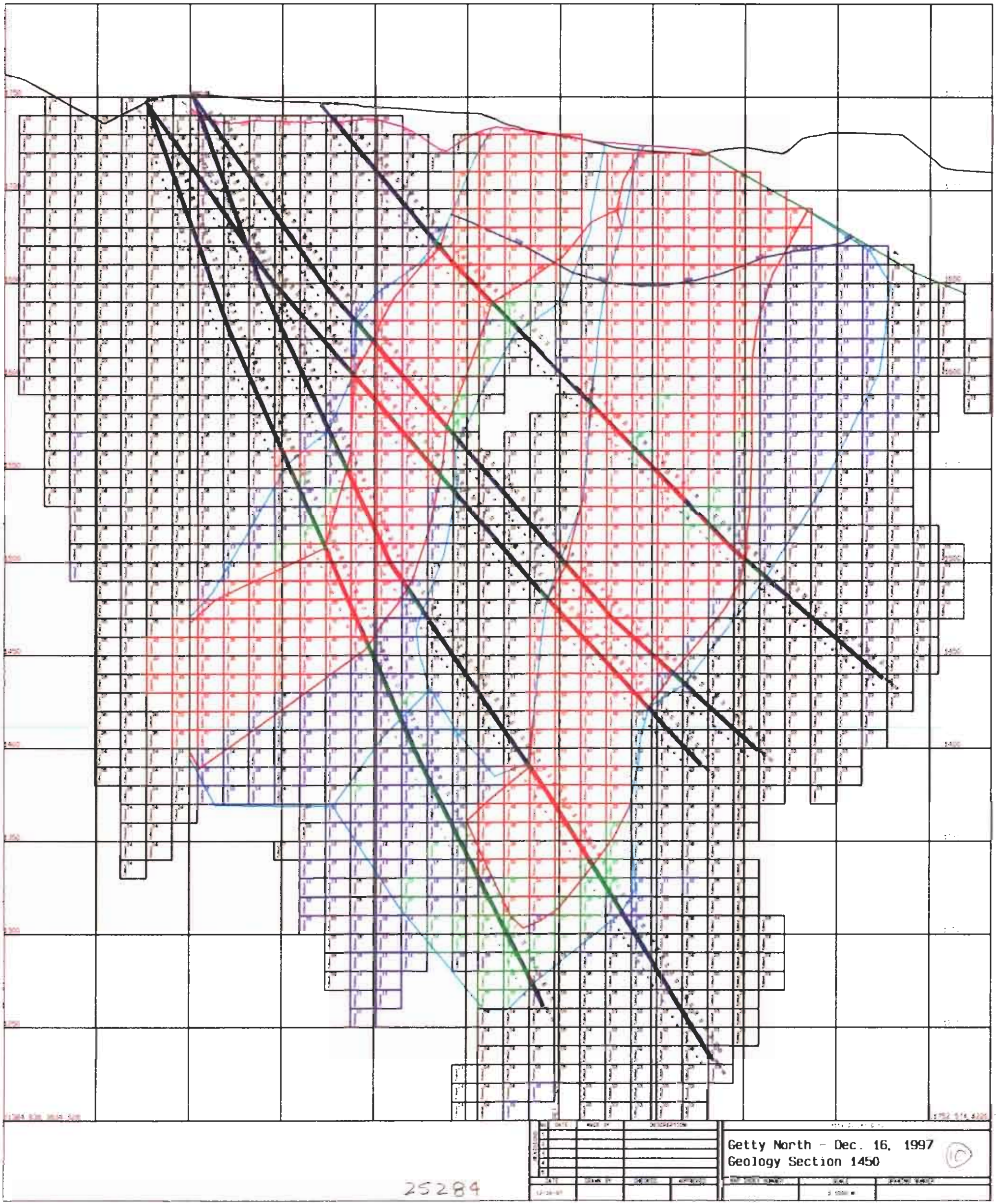
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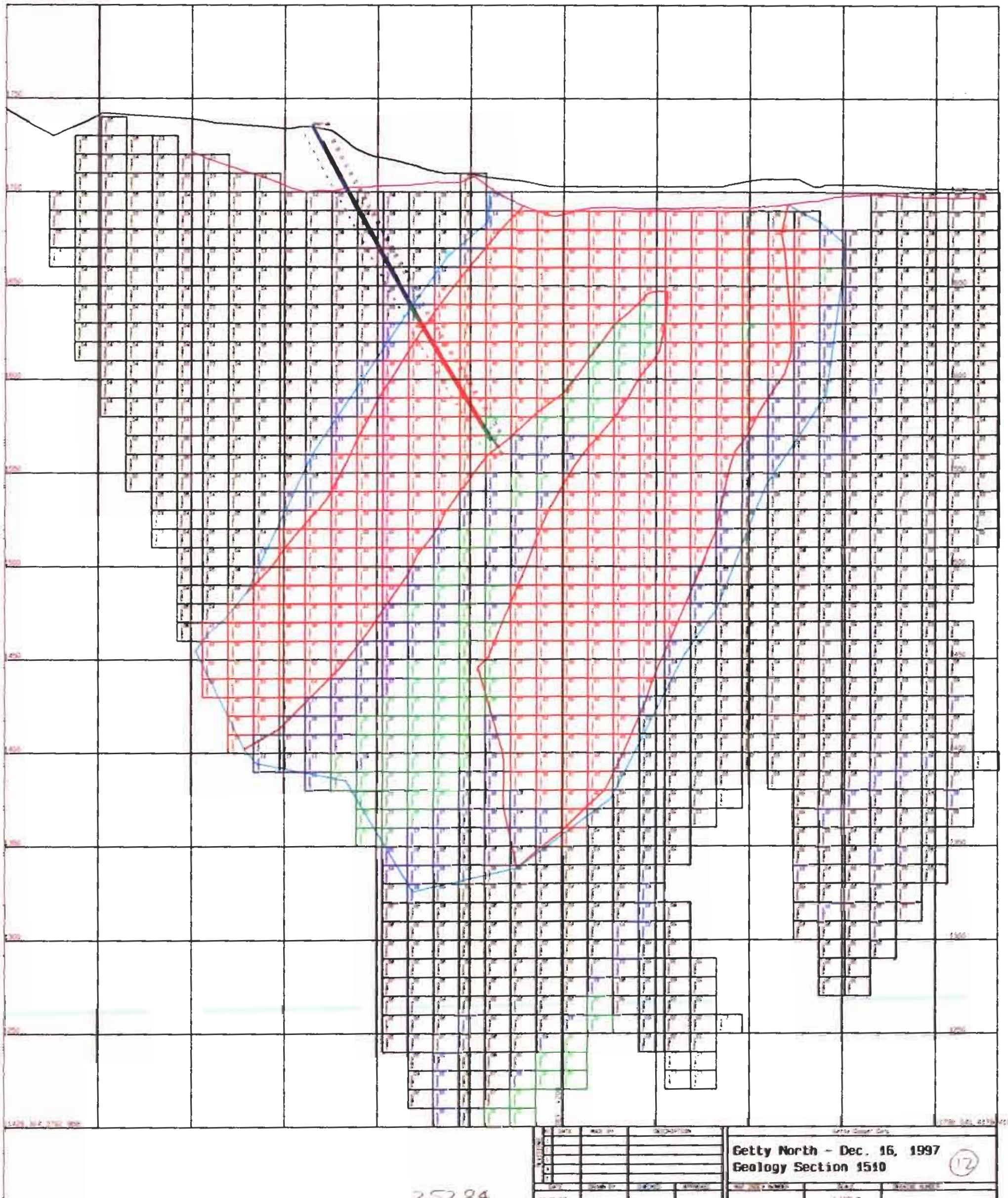
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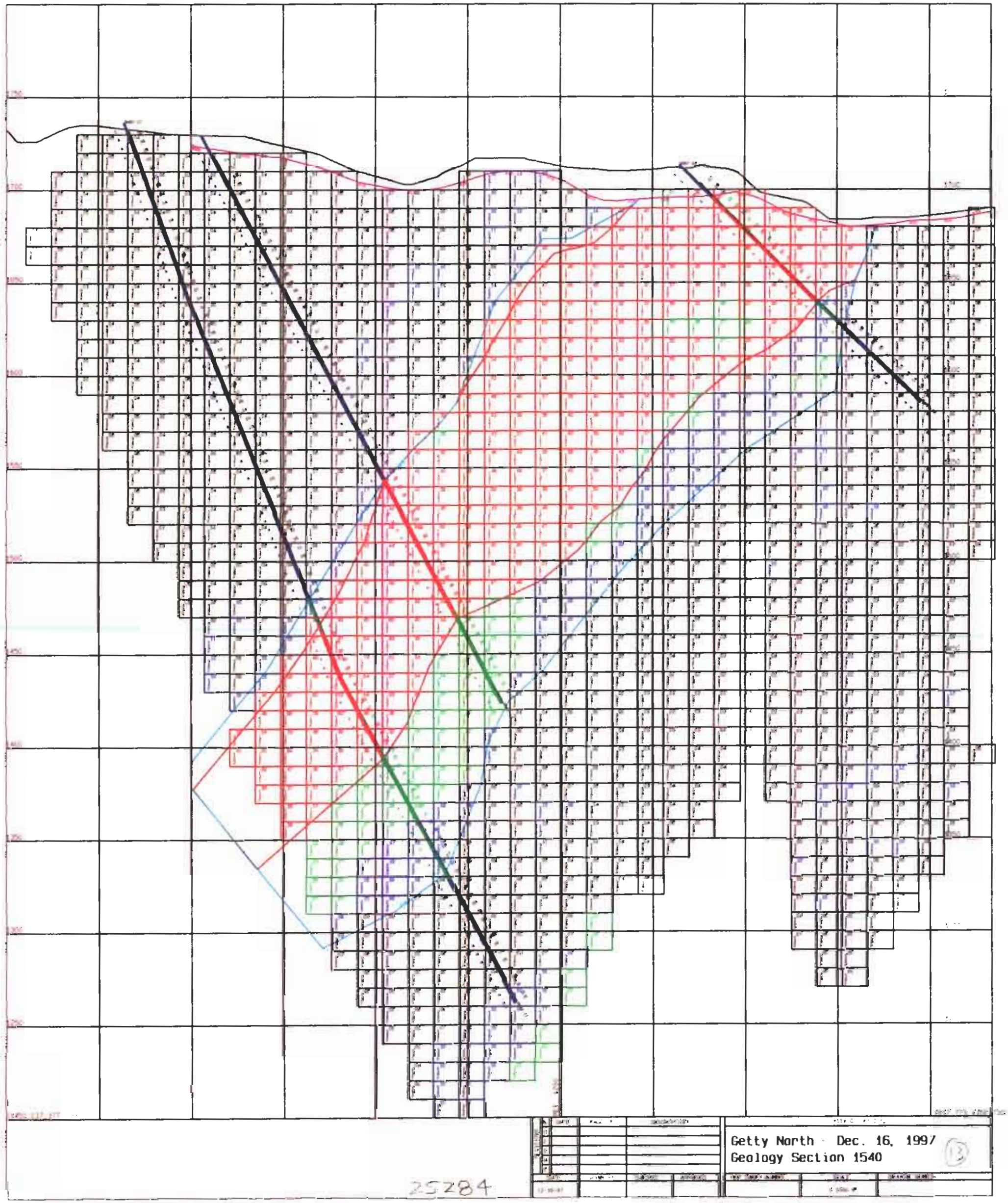
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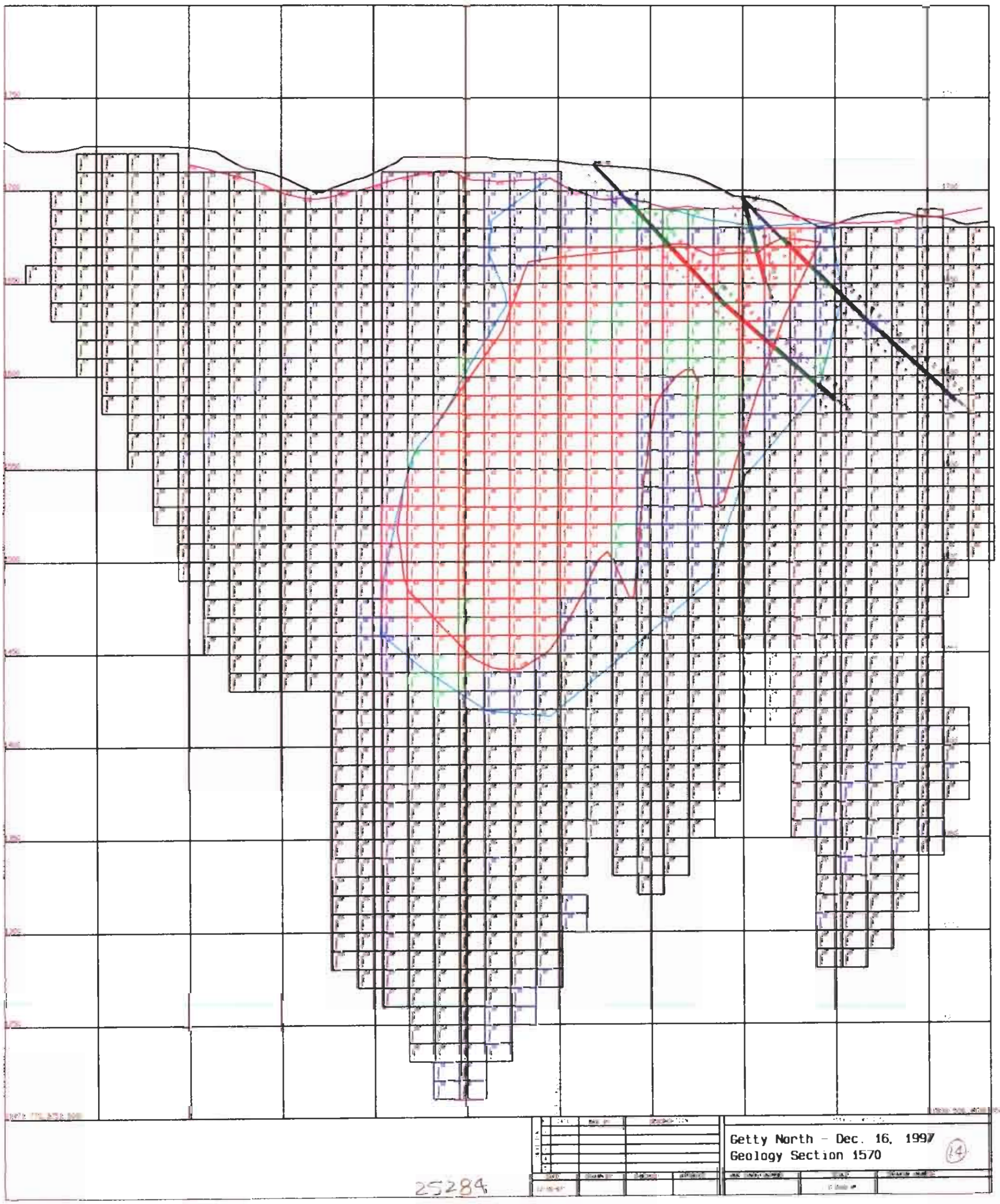
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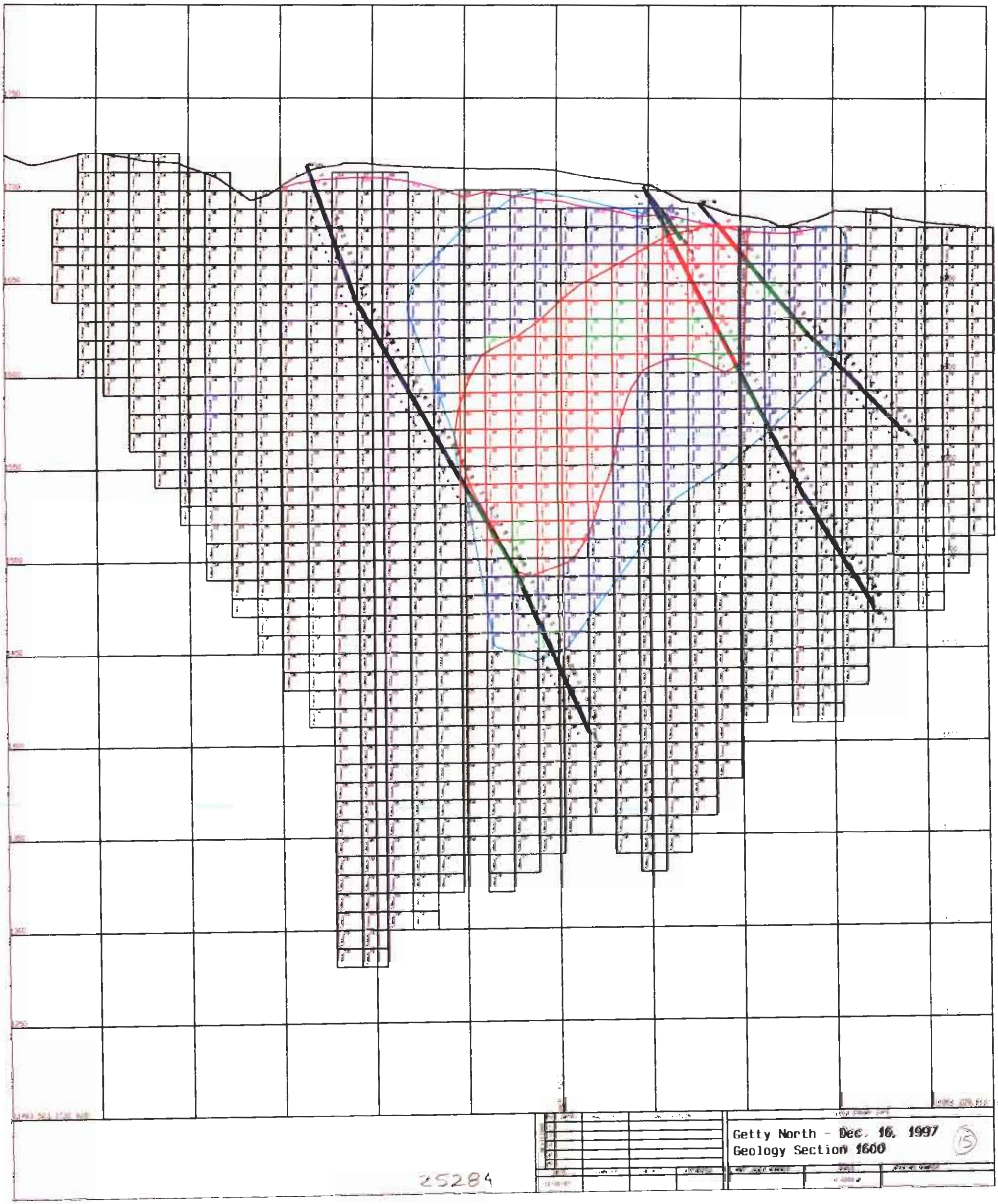

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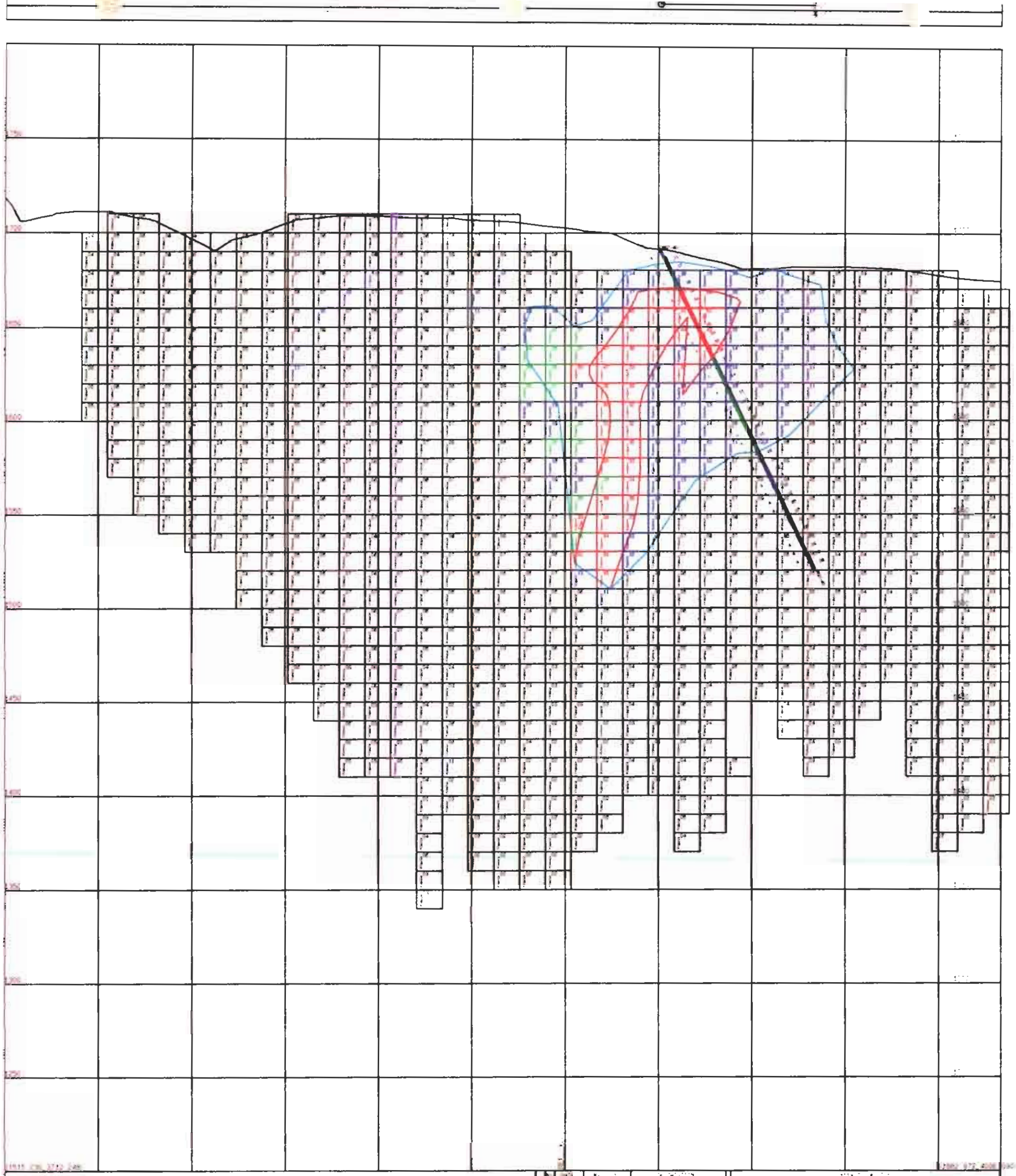

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