

6511

REPORT ON
GEOCHEMICAL AND GEOPHYSICAL SURVEYS
AND HAND TRENCHING

by

D.A. Donnelly - B.Sc.
G.R. Peatfield - P.Eng.

and

W.A. Gasteiger - Geophysicist

on the

ROSE PROPERTY (LANCASTER & ROSE GROUPS)

situated north of Ealue Lake
in the Liard Mining Division

57°47'N; 129°53'W

N.T.S. 104H/13W

owned by

Texasgulf Canada Ltd.

December, 1977.

Vancouver, B.C.

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INTRODUCTION:

The Rose Property, consisting of 15 contiguous mineral claims aggregating 94 units, was staked on behalf of Texasgulf Canada Ltd. during the 1975 and 1976 field seasons. The claims cover areas containing copper mineralization in monzonitic rocks and associated Upper Triassic volcanic and volcanoclastic sedimentary rocks.

This report is based on a programme of geophysical and geochemical surveys, hand trenching, and sampling trenches for assay.

LOCATION, ACCESS & TERRAIN:

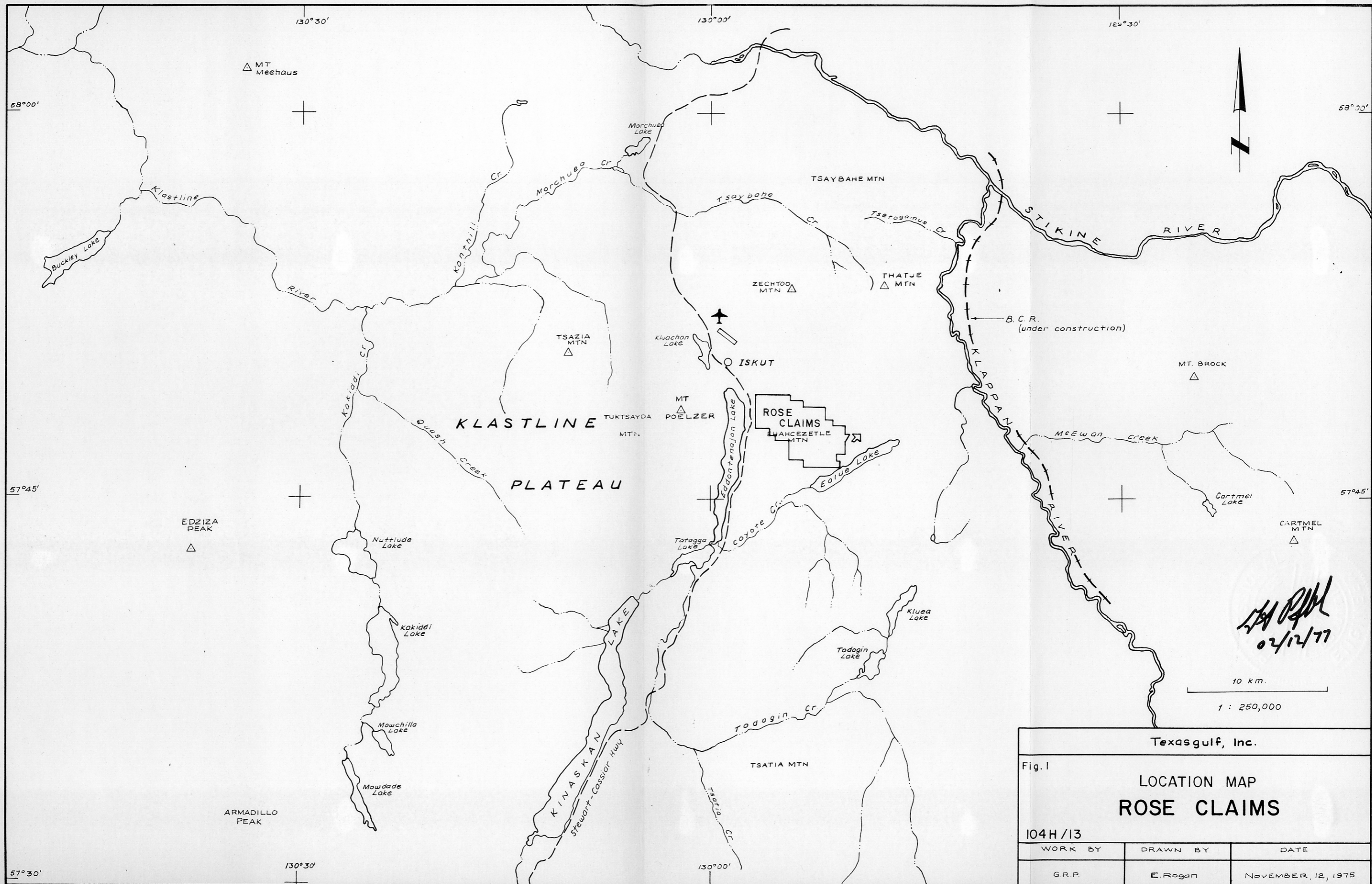
The property is located in the Liard Mining Division, centred approximately 7 km S.E. of Iskut, B.C. at 57°47'N and 129°55'W. (see Figure 1). It is accessible by helicopter from points along the Stewart-Cassiar highway of the "Keen Access Road" which runs along the north shore of Ealue Lake.

The terrain is mountainous, with a total relief of 1000 metres on the property, ranging from 900 metres at Ealue Lake to 1900 metres at the highest point on the claims. An upland surface of moderate relief has been deeply incised by streams which now flow in steep-walled canyons. In many areas, working conditions are extremely hazardous. The bulk of the property is covered by open grasslands, scree slopes or cliffs, but some very heavy scrub timber exists in the deeper canyons and on the flanks of the mountain.

HISTORY:

The earliest recorded work in the general area of the property was in 1929, when eight claims were staked on the "Klapan-Rose" showing, which lies on adverse ground immediately east of the Rose property. This showing was worked sporadically for years.

During the 1960's, several concerns examined the large "stain-zone" directly above Eddontenajon, and the ground was staked at



least once. Copper showings were discovered in the northwest flowing creek which cuts across the northwestern corner of the property (see Figure 2), but little work was done.

In the late 1960's, Yukonadian Mineral Explorations acquired a 35 claim block covering the old "Klapan-Rose" showing and adjacent ground to the northwest. Granduc Mines Ltd. examined the ground in 1970, and the results of their work appear in Assessment Work Report #3128. The claims finally lapsed in 1974, and Texasgulf Canada Ltd. began a programme of property acquisition in June 1975. Mr. J. Schussler located the four "Hi" claims in November 1974, and has continued to expand his property interests to the east of the Rose property.

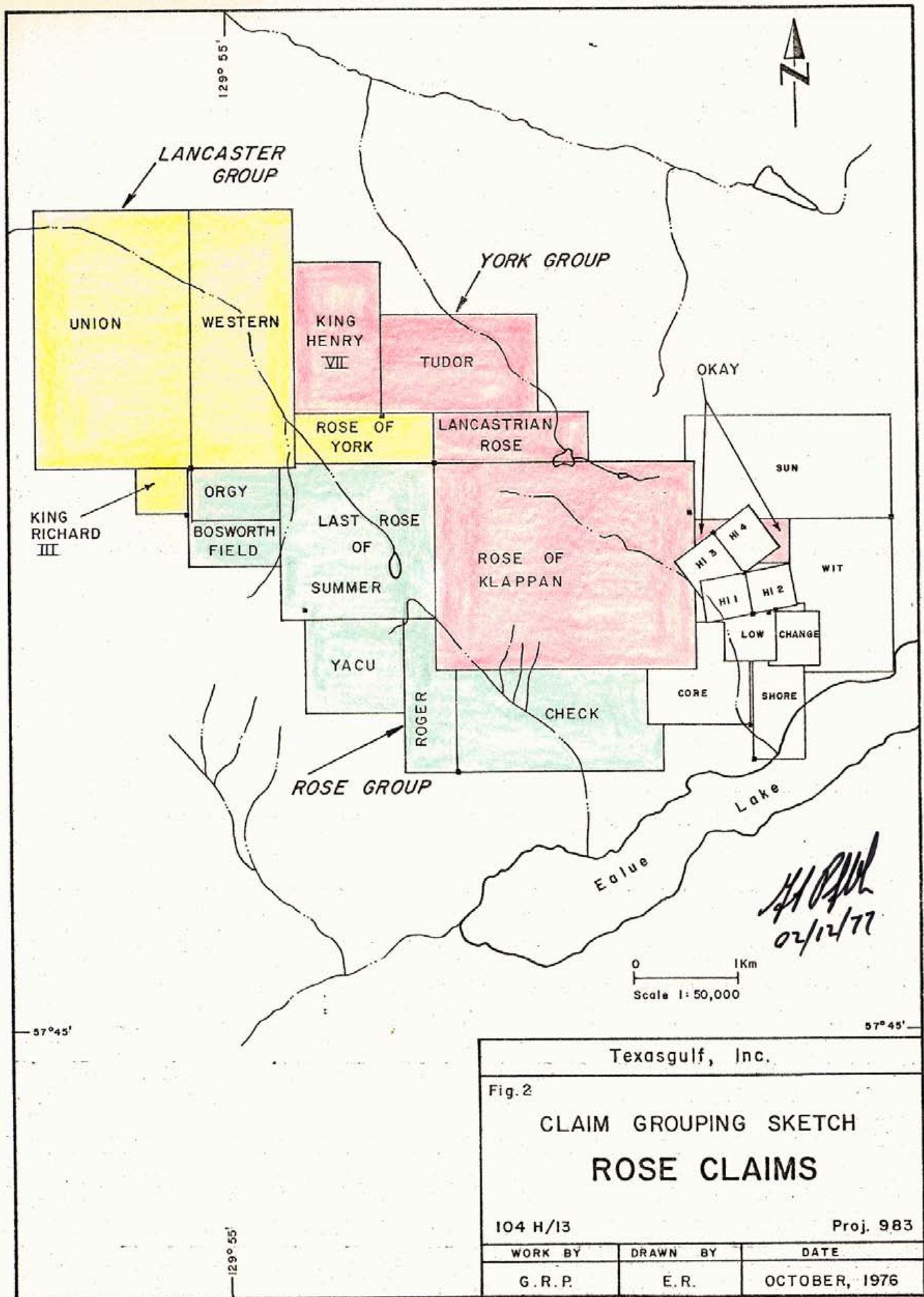
Texasgulf did preliminary mapping in 1975 and continued with an integrated geological, geochemical, geophysical and diamond drilling project the following year. In 1977, geochemical and geophysical coverage was expanded and several hand trenches were excavated.

GRID ESTABLISHMENT:

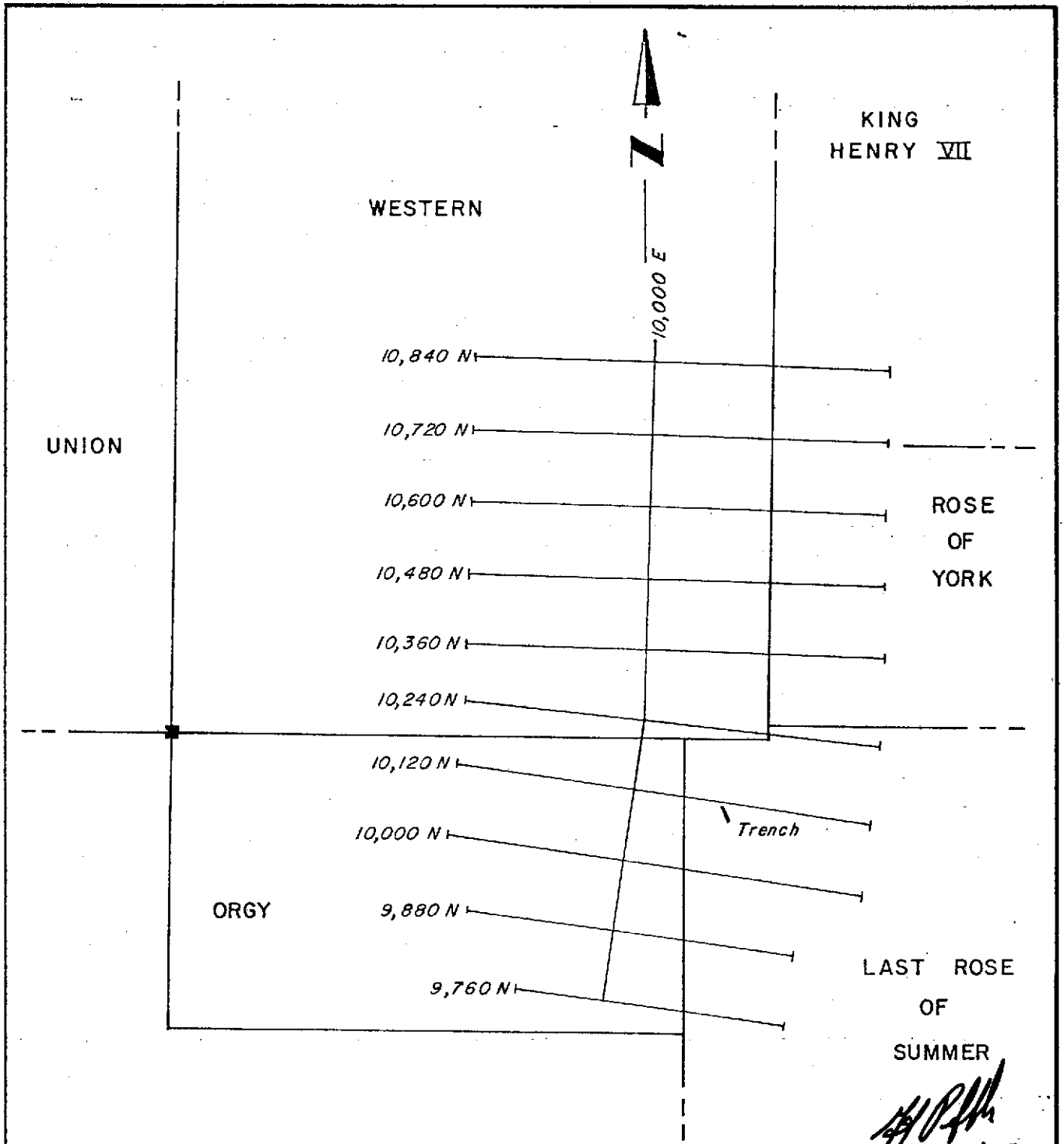
Control for the 1977 phase of geophysical and geochemical surveying was provided by a cut grid established in 1976. A baseline and 10 cross lines were transit controlled and picketed (Figure 3).

GEOCHEMISTRY:

A total of 148 soil samples were taken, of which 144 were claimed for assessment credit. The locations and results of all samples are shown on Figure 4, 5 & 6. Samples consisted mainly of talus fines which were covered by humus to depths varying between 5 and 50 cm.



Texasgulf, Inc.		
Fig. 2 CLAIM GROUPING SKETCH ROSE CLAIMS		
104 H/13		Proj. 983
WORK BY	DRAWN BY	DATE
G. R. P.	E. R.	OCTOBER, 1976



Texasgulf, Inc.		
Fig. 3		
GRID LAYOUT SKETCH CIRQUE GRID		
ROSE CLAIMS		
104H/13		Proj. 983
WORK BY	DRAWN BY	DATE
G. R. P.	E. R.	NOVEMBER, 2, 1976

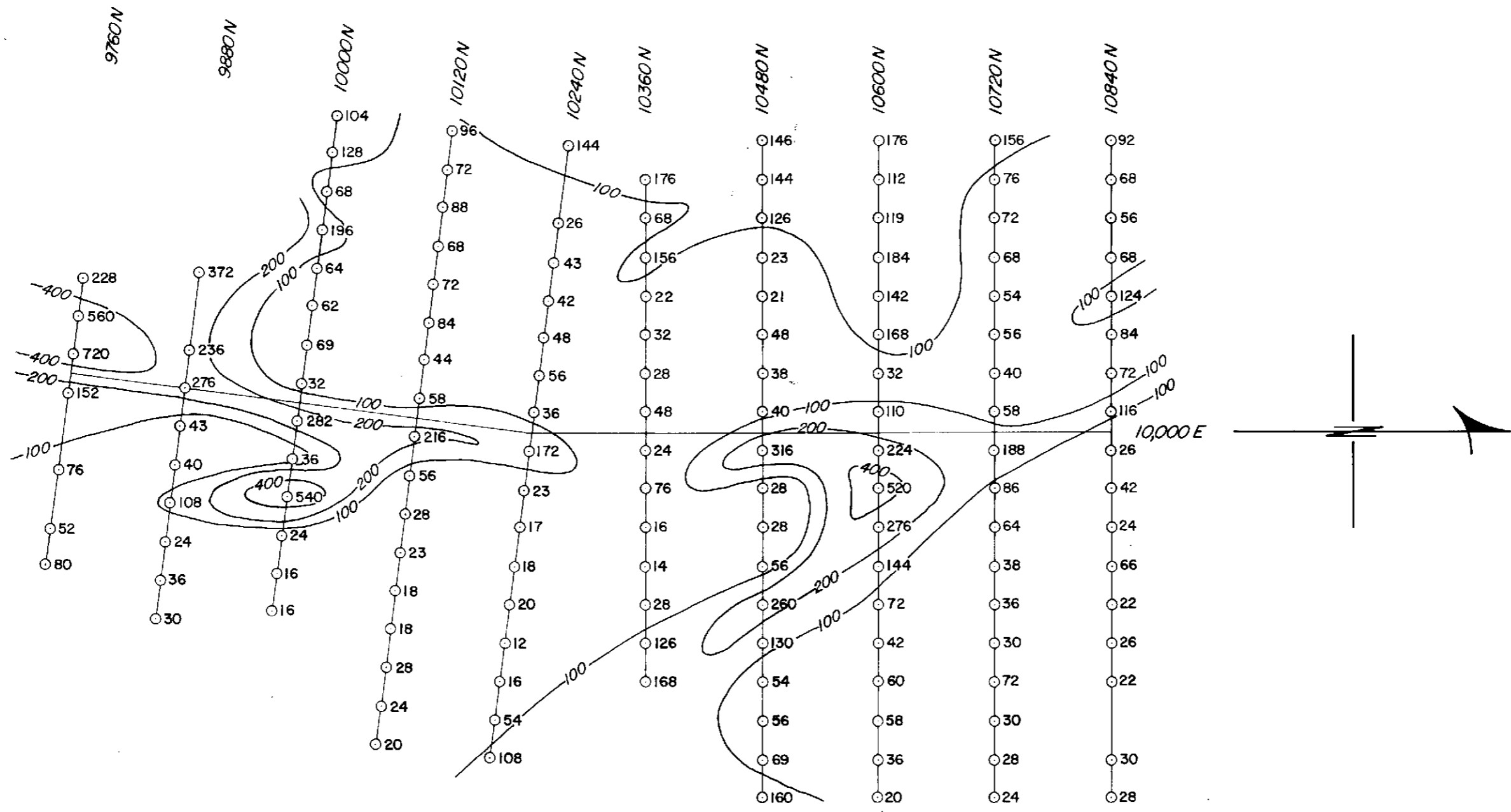
The soil samples were collected in numbered Kraft bags, air dried, and shipped to Bondar-Clegg & Co. Ltd. in North Vancouver. At this lab, the -80 mesh fraction was analyzed for total Cu, Zn and Mo, using hot acid extraction and standard analytical techniques. Results are quoted as ppm total metal.

Values for copper in the samples range from 12 to 720 ppm with a calculated arithmetic mean at 93.8, and median at 58 ppm. Molybdenum values range from 1 to 30 ppm with a background of 3-4 ppm. Values for zinc range from 15 to 320 ppm with a calculated mean at 96 ppm and a median at 92 ppm. Histograms for all three metals are shown in Figures 7, 8 & 9. Plans of these results (Figures 4-6) show coherent but not coincident anomalies in copper and molybdenum. Zinc results are low with the higher values occurring with the higher copper values. Contour intervals on the plans were arbitrarily chosen.

The sampled area is underlain by an altered and pyritic monzonitic stock which intruded, and caused propylitic alteration of, volcanic and volcanoclastic rocks of the Upper Triassic Takla group. Copper and molybdenum occurrences in the intrusive and copper showings in the volcanic rocks were observed. These showings are widely scattered and disseminated in nature but they could account for the apparent anomalous concentration in some samples.

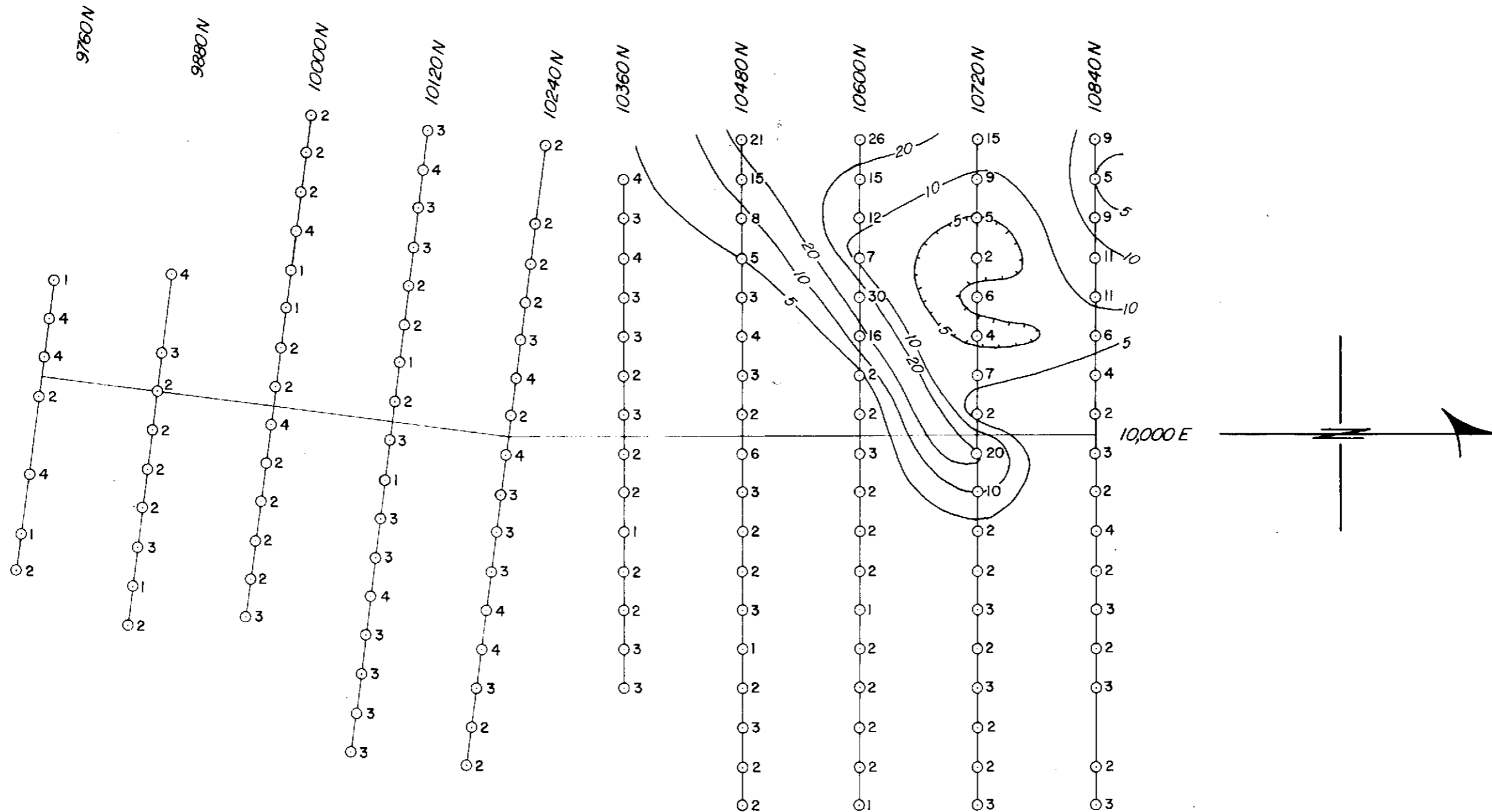
HAND TRENCHING:

Four trenches (Figure 10), totalling 39.8 m in length, were excavated employing an Atlas-Copco "plugger" and dynamite. This work was performed by a crew provided by BEMA Industries Ltd. The trenches which are approximately 1 m wide and of varying depths, were divided into 3 m sections where possible and sampled by taking continuous rock chips over this length.



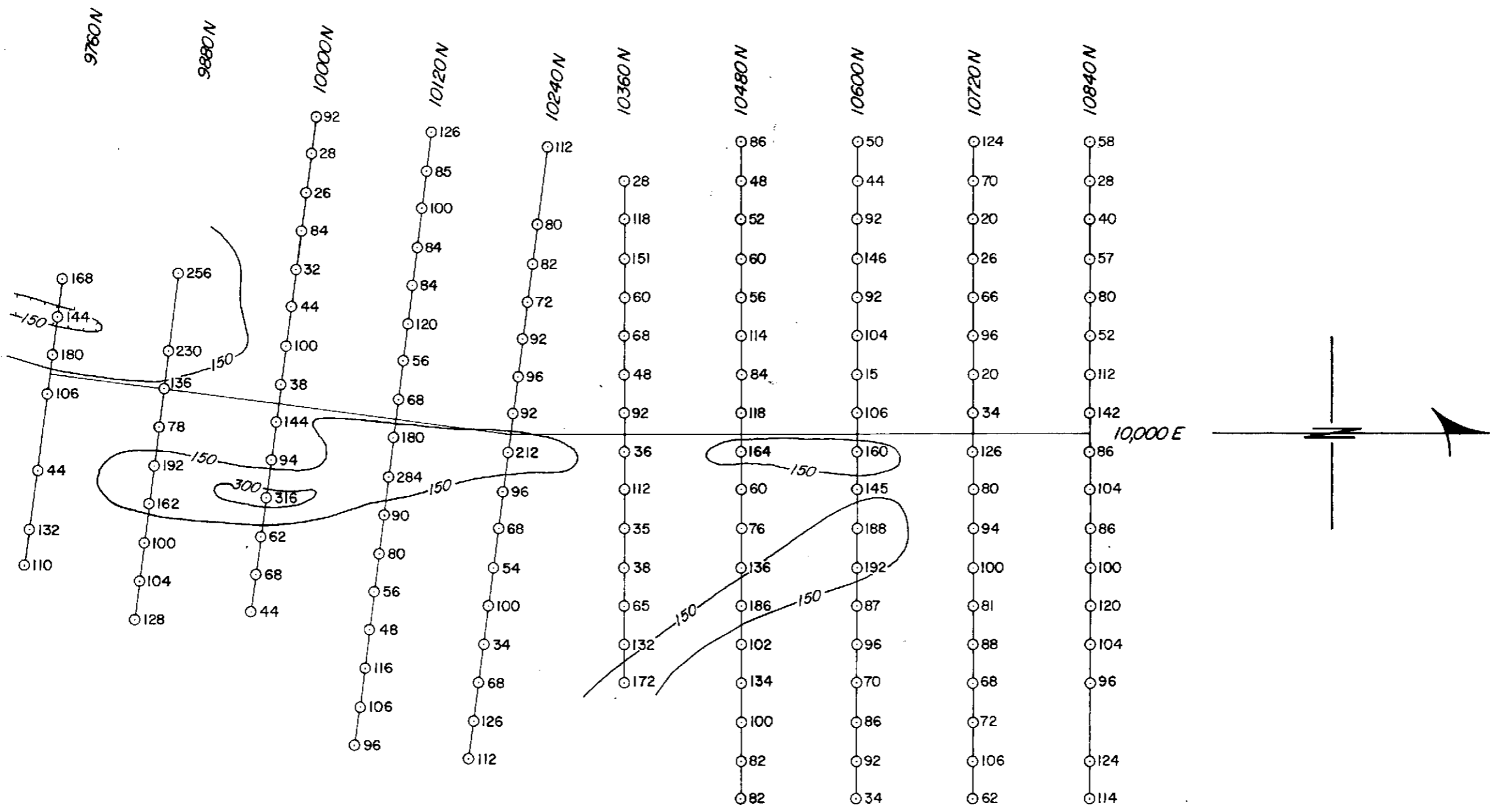
Handwritten signature and date:
 [Signature]
 02/14/77

Texasgulf Inc.			
Fig. 4 ROSE PROPERTY LANCASTER GROUP SOIL GEOCHEMISTRY Copper (ppm)			
WORK BY	DRAWN BY	DATE	DRW,G NO.
G.D.	A.T.A.	Oct. 1977	
<p>Scale in Metres</p>			



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 02/14/77

Texasgulf Inc.			
<i>Fig. 5</i> ROSE PROPERTY LANCASTER GROUP SOIL GEOCHEMISTRY Molybdenum (ppm)			
WORK BY	DRAWN BY	DATE	DRW,G NO.
G.D.	A.T.A.	Oct. 1977	
<p>Scale in Metres</p>			



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 H.A.M.
 2/12/77

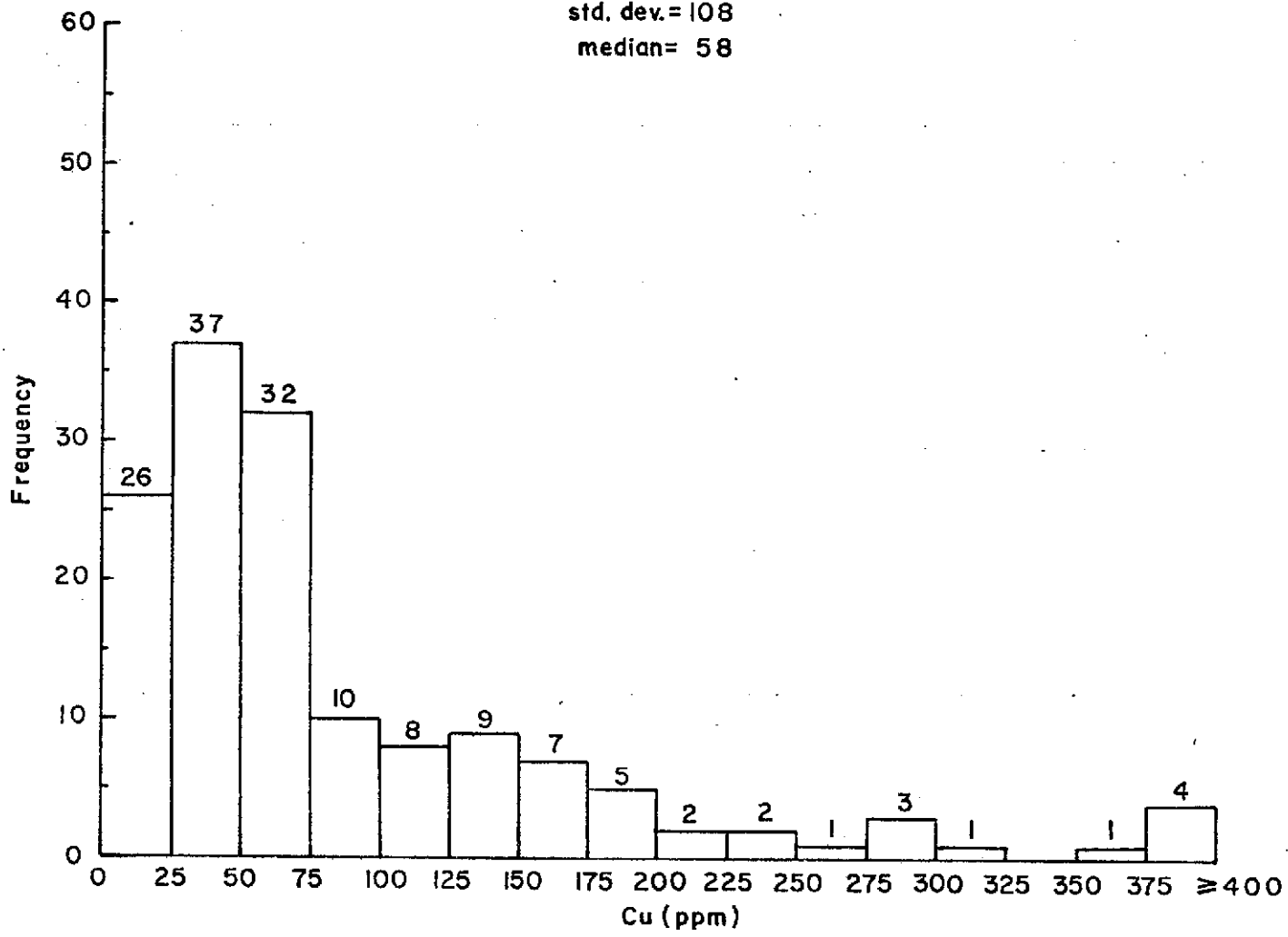
Texasgulf Inc.

Fig. 6
**ROSE PROPERTY
 LANCASTER GROUP
 SOIL GEOCHEMISTRY
 Zinc (ppm)**

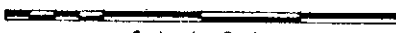
WORK BY	DRAWN BY	DATE	DRW,G NO.
G.D.	A.T.A.	Oct. 1977	

100 50 0 100 200 300 400
 Scale in Metres

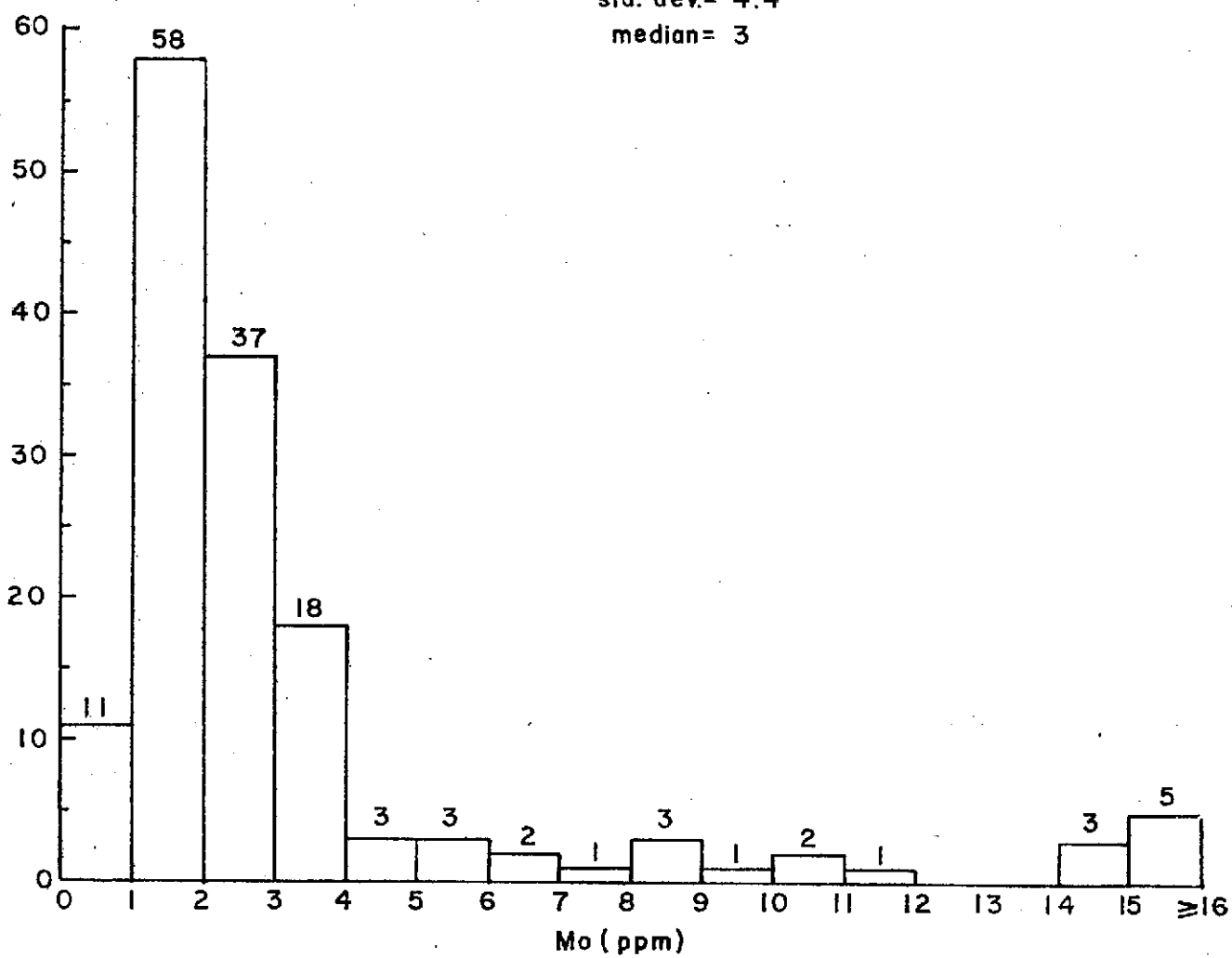
n= 148
 mean= 93.8
 std. dev.= 108
 median= 58




H. D. D.
 02/12/77

Texasgulf Inc.			
Fig. 7		Rose Property	
HISTOGRAM - SOIL SAMPLES COPPER			
WORK BY	DRAWN BY	DATE	DRWG. NO.
D.A.D.	D.A.D.	Oct, 1977	
 Scale in Feet			

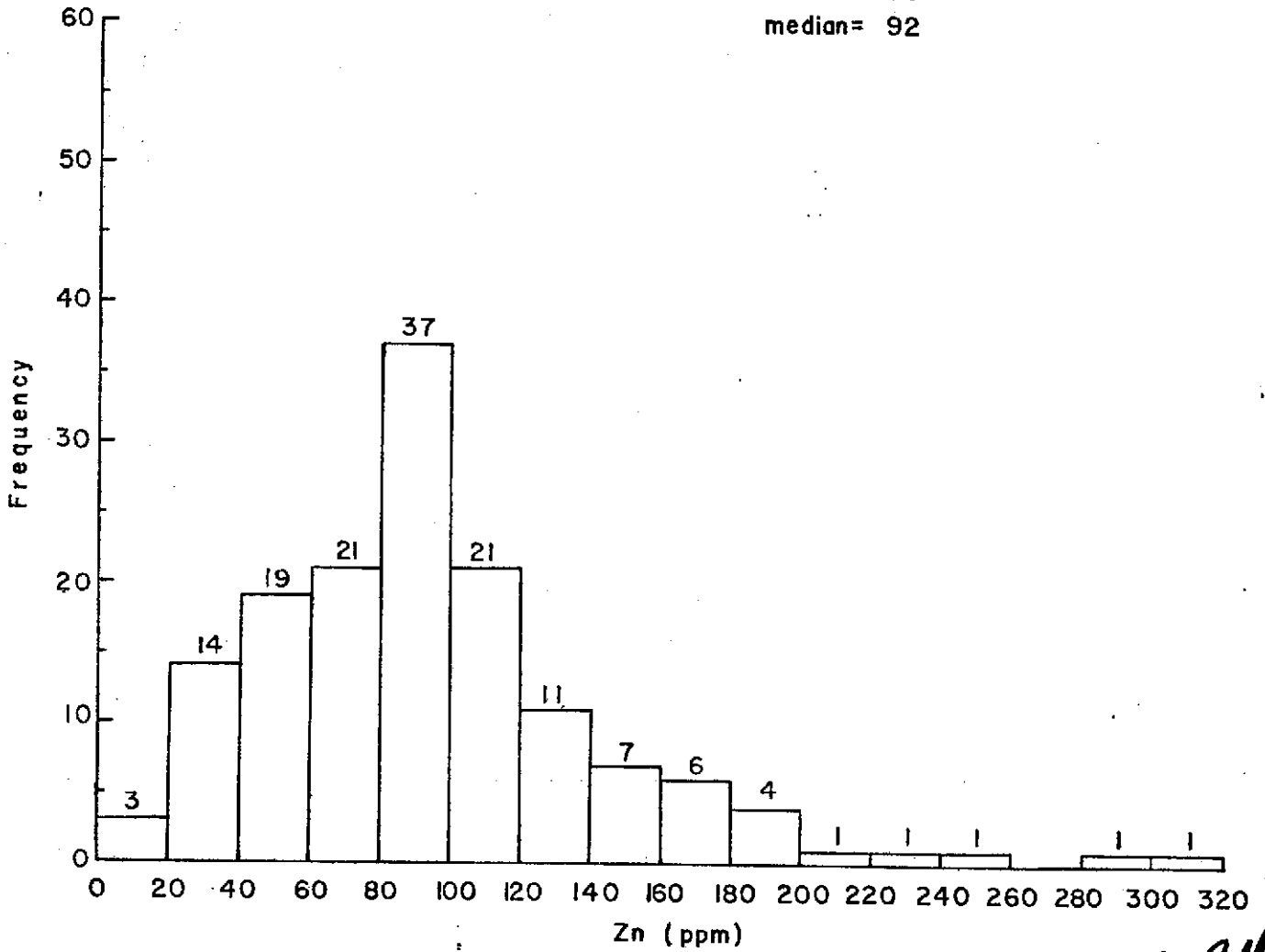
n=148
 mean= 4
 std. dev.= 4.4
 median= 3




D.A.D.
02/12/77

Texasgulf Inc.			
Fig. 8 Rose Property			
HISTOGRAM - SOIL SAMPLES MOLYBDENUM			
WORK BY	DRAWN BY	DATE	DRWG. NO.
D.A.D.	D.A.D.	Oct., 1977	
 Scale in Feet			

n=148
 mean= 96
 std. dev.= 50
 median= 92



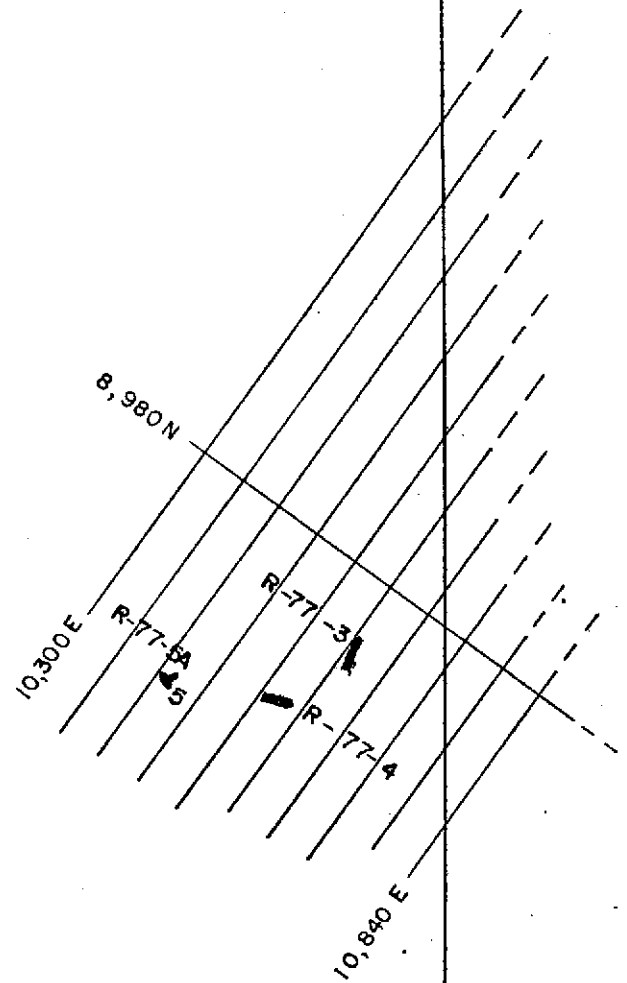
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 02/14/77

Texasgulf Inc.			
Fig. 9 Rose Property			
HISTOGRAM - SOIL SAMPLES ZINC			
WORK BY	DRAWN BY	DATE	DRWG. NO.
D. A. D.	D. A. D.	Oct., 1977	
 Scale in Feet			



LAST ROSE
OF
SUMMER

LCP



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Texasgulf Inc.			
Fig. 10		Rose Property	
TRENCH LOCATIONS			
WORK BY	DRAWN BY	DATE	DRWG. NO.
D. A. D.	D. A. D.	Oct, 1977	
100	0	100	200 300 400
Scale in Metres			

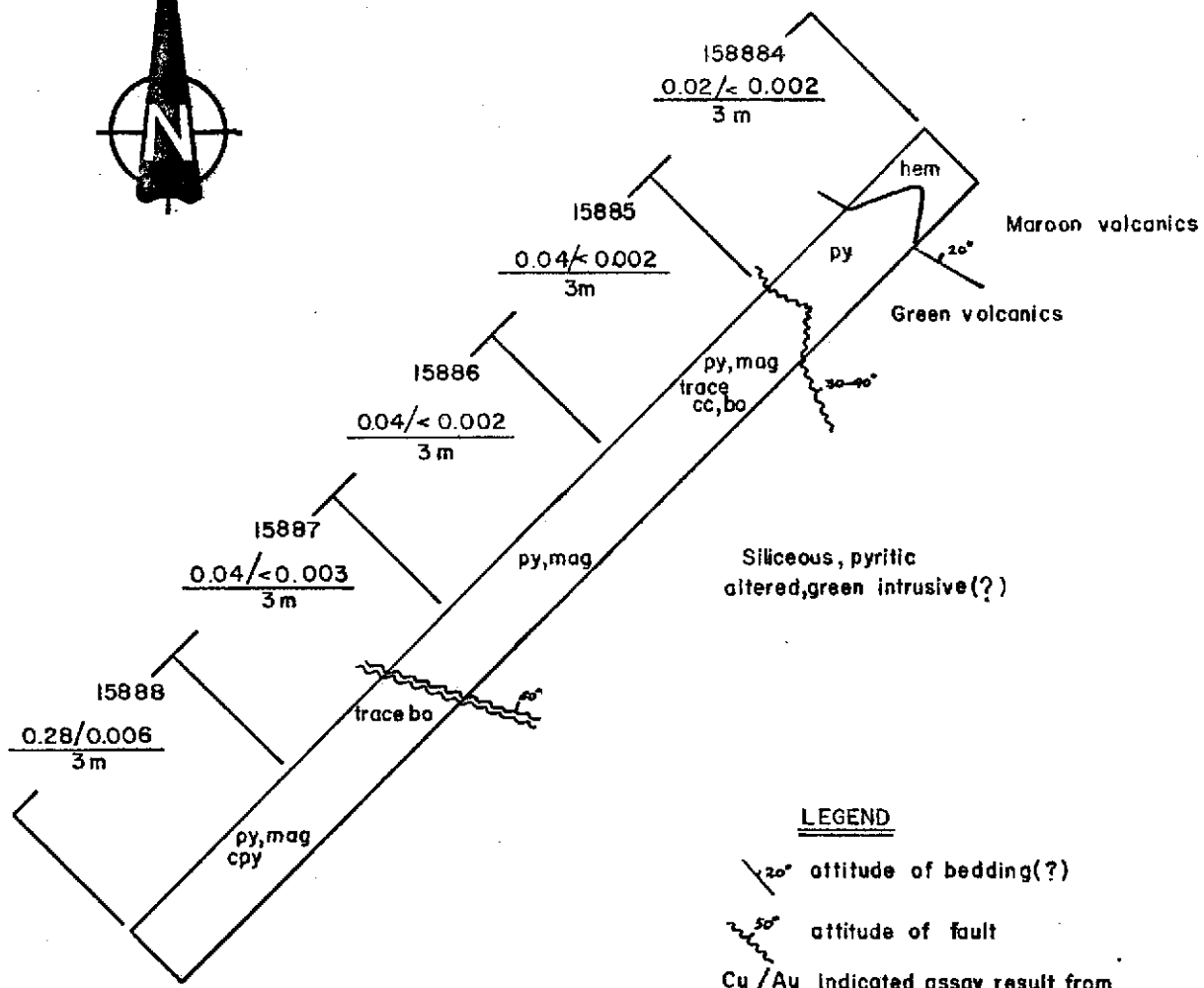
A total of 13 samples were collected in this manner and stored in plastic bags. The samples were then crushed and a 1/8 split was sent to Bondar-Clegg for copper and gold analysis. The results are shown on detailed trench plans (Figures 11, 12 & 13). A certificate of assay is included in Appendix B.

GEOPHYSICAL SURVEY:

Geophysical work, consisting of a gradient array I.P. survey over 8 lines (9,760N to 10,600N) of the cut grid, was done by F. Glass, Texasgulf Geophysicist. Interpretation of the results are presented in a report by W.A. Gasteiger included as Appendix A.


D.A. Donnelly, B.Sc.


G.R. Peatfield, P.Eng.



LEGEND

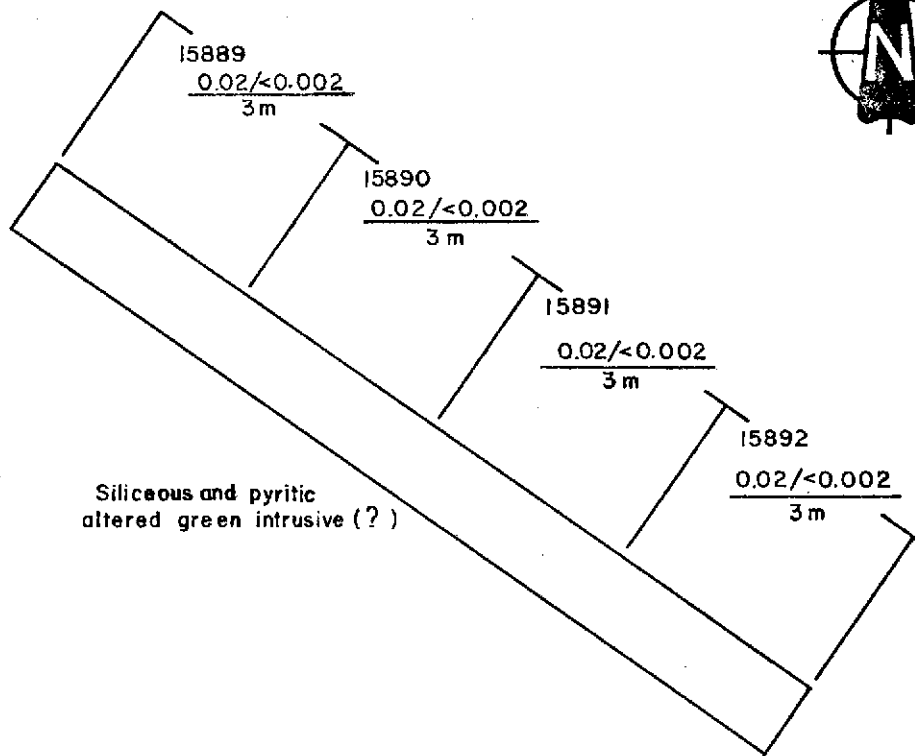
- 20° attitude of bedding(?)
- 50° attitude of fault

$\frac{Cu}{Au}$
3m Indicated assay result from continuous rock chip over indicated width. Cu values in % Au values in oz/ton.

- bo Bornite
- cc Chalcocite
- cpy Chalcocopyrite
- hem Hematite
- mag Magnetite
- py Pyrite

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Texasgulf Inc.			
Rose Property			
Trench R-77-3			
WORK BY	DRAWN BY	DATE	DRWG NO.
D.A.D.	D.A.D.	Oct, 1977	
Scale in Metres			

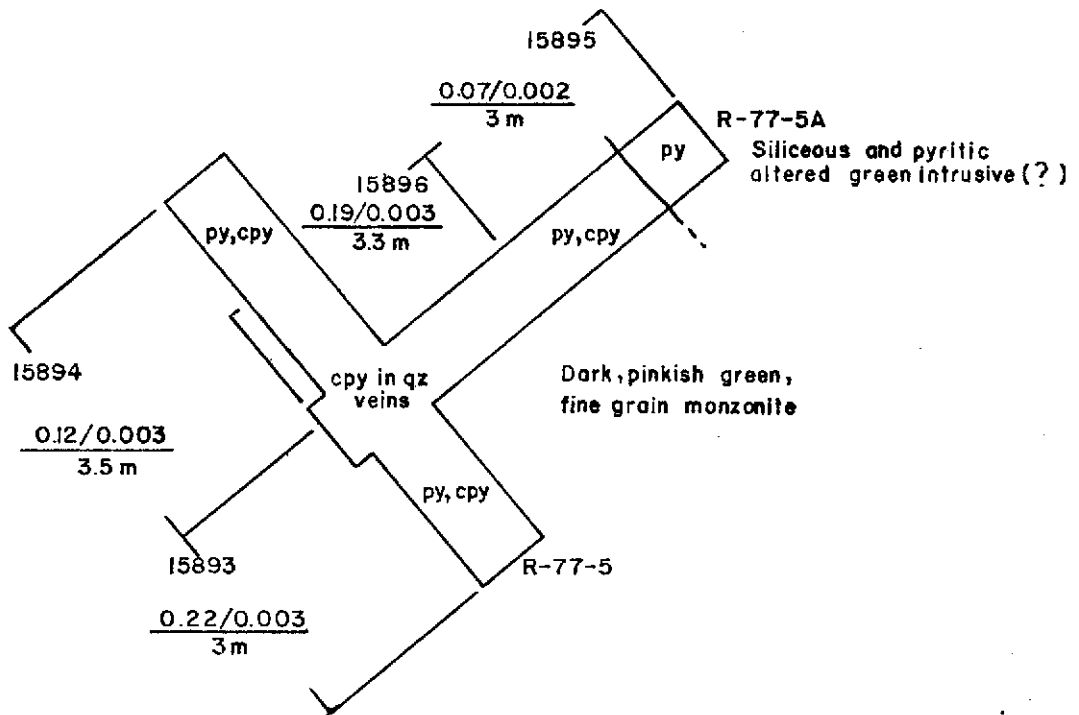
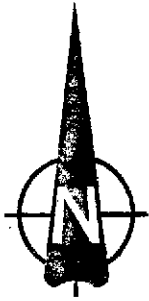


Siliceous and pyritic altered green intrusive (?)

$\frac{\text{Cu/Au}}{3\text{m}}$ see fig. 11

D.A.D.
02/12/77

Texasgulf Inc.			
Fig. 12	Rose Property		
Trench R-77-4			
WORK BY	DRAWN BY	DATE	DRWG. NO.
D.A.D.	D.A.D.	Oct., 1977	
0 2 3 4			
Scale in Metres			



NOTE - see fig. // for legend.

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Texasgulf Inc.			
Fig. 13 Rose Property			
Trench R-77-5&5A			
WORK BY	DRAWN BY	DATE	DRWG. NO.
D.A.D.	D.A.D.	Oct, 1977	
Scale in Metres			

APPENDIX A

GEOPHYSICAL REPORT by W.A. Gasteiger

TEXASGULF CANADA LTD.
REPORT ON GEOPHYSICAL WORK
ROSE CLAIM GROUP
CIRQUE GRID
BRITISH COLUMBIA

November, 1977

W.A. Gasteiger

TEXASGULF CANADA LTD.
REPORT ON GEOPHYSICAL WORK
ROSE CLAIM GROUP
CIRQUE GRID
BRITISH COLUMBIA

Geophysical Surveys consisting of induced polarization traverses were performed over eight cut lines on the Cirque Grid.

Surveying was done during the month of August under the direction of Frank Glass. This completed work that had been started in September, 1976.

SURVEY DETAILS:

The topography is very rugged in this area. Because of this, a gradient array was used in order to reduce the amount of equipment movement.

A potential electrode spacing of forty metres was used. On the two lines done in 1976, readings were taken at forty metre intervals; in the present survey, stations were occupied every twenty metres.

At every station occupied, anywhere from three to eighteen chargeability readings were recorded. The mean value was calculated and this was plotted.

SURVEY RESULTS:

Magnetic surveying completed in 1976 indicated a trend of high

magnetics that ran from the north-west of the grid to the south-east in the pattern of flattened "S". It was observed at that time that this may have represented a magnetite enriched alteration zone at the edge of a mineralized intrusive.

The chargeability map indicates virtually the same pattern if one follows the 30 or 40 millesecond contour across the page. In the vicinity of 10100E on Lines 10,600N and 10,720N there is a localized anomalous condition that appears to be part of the intrusive complex. The low percentage sulphides (<3%), the limited aerial extent, and lack of magnetic expression make this zone a low priority target.

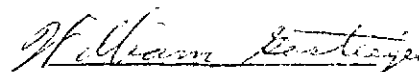
In the south-west portion of the grid, the chargeability values are somewhat higher. This area may contain up to 7% sulphides.

The resistivity map shows no definite patterns. Most of the variations may be due to a combination of changes in overburden depths and topographic effects. The resistivity values are generally higher than would be expected from a "wet" porphyry system.

CONCLUSIONS AND RECOMMENDATIONS:

It appears that the grid is located on an edge of a major mineralized system. Within the grid area itself, there does not appear to be any geophysical target of interest. The vicinity of the high chargeability anomaly in the south-west of the grid should be prospected. The combination of chargeability and resistivity in this area suggests the possibility of a fair percentage (5-8%) of finely disseminated sulphides in a competent, non-fractured matrix.

November, 1977


W.A. Gasteiger

APPENDIX B
CERTIFICATE OF ASSAY

To: Texasgulf Inc.

REPORT No A27 - 364

PAGE No. 1

BONDAR-CLEGG & COMPANY LTD.

DATE July 14, 1977

701 - 1281 West Georgia
Vancouver, B.C.
V6E 3J7

CERTIFICATE OF ASSAY

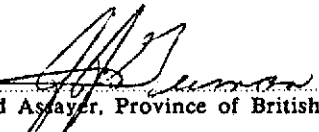
Samples submitted: July 7, 1977
Results completed: July 14, 1977

PROJECT: 283

I hereby certify that the following are the results of assays made by us upon the herein described ore samples.

MARKED	GOLD		SILVER	Cu							TOTAL VALUE PER TON (2000 LBS.)
	Ounces per Ton	Value per Ton	Ounces per Ton	Percent	Percent	Percent	Percent	Percent	Percent		
15884	<0.002			0.02							
15885	<0.002			0.04							
15886	<0.002			0.04							
15887	0.003			0.05							
15888	0.006			0.28							
15889	<0.002			0.02							
15890	<0.002			0.02							
15891	<0.002			0.02							
15892	<0.002			0.02							
15893	0.003			0.22							
15894	0.003			0.12							
15895	0.002			0.07							
15896	0.003			0.19							

cc D. A. Donnelly


Registered Assayer, Province of British Columbia

APPENDIX C

STATEMENTS OF QUALIFICATION

STATEMENTS OF QUALIFICATION

Texasgulf Personnel

D.A. DONNELLY - Geologist

D.A. Donnelly obtained his B.Sc. degree in Geology from the University of British Columbia in 1976. While attending university, he was employed in exploration during the summer field seasons by Texasgulf Inc. He has been employed by Texasgulf Inc. as an exploration geologist since graduation.

W.A. GASTEIGER - Geophysicist

W.A. Gasteiger obtain his B.Sc. in Geological Science (Geophysics Option) from Queen's University. He has been continuously employed, as a geophysicist, by Texasgulf Inc. since graduation. Mr. Gasteiger is a member of the Association of Professional Engineers of the Province of Ontario.

F.S. GLASS - Geophysicist

F.S. Glass was employed by Texasgulf Inc. as a geophysical party chief during the Summer of 1977. He graduated from U.B.C. in 1971 with a B.Sc. degree in geophysics and geology and is presently attending McGill University, working towards an M.Sc. degree in mineral exploration.

During the summers while attending U.B.C. he worked for various mining companies, both as a geological and geophysical assistant. From 1971 to 1976 he was employed as senior geophysicist by Geoterrex Ltd., supervising and carrying out both ground and airborne geophysical surveys.

Mr. Glass is a member of the Society of Exploration Geophysicists and the European Association of Exploration Geophysicists.

G. DIX - Geological Assistant

G. Dix was employed by Texasgulf Inc. as a geological assistant during the summer of 1977. He is presently enrolled in 4th year in the

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02/12/77

Department of Earth Sciences at Queen's University, Kingston. He has previous experience with Texasgulf in Quebec and with the Ontario Ministry of Natural Resources.

Mr. Dix is regarded as a keen, competent and conscientious employee.

S.R. CRUDGE - Geophysical Assistant

S.R. Crudge was employed by Texasgulf Inc. as a geophysical assistant during the summer of 1977. He is presently enrolled at York University and will be graduating in 1978 with a B.Sc. degree in earth sciences.

This is Mr. Crudge's first season of field experience.

R. JANOWICZ - Geophysical Helper

Mr. Janowicz is a recent high school graduate with one year's course work in Sciences at Vancouver City College, and is contemplating transfer to the Geological Sciences programme at U.B.C. This was his first season of geologically related field experience.

P. NEWTON - Geophysical Helper

Mr. Newton is a recent high school graduate. Although he has a varied work experience, this was his first season of geologically related field experience.

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02/14/77

APPENDIX D

STATEMENTS OF EXPENDITURES

STATEMENT OF EXPENDITURES
ROSE & LANCASTER GROUPS
 (I.P. SURVEY)

SALARIES AND FRINGE BENEFITS - TEXASGULF, INC.

G.R. Peatfield, P.Eng. - Supervision		
Period Aug 5-22	1 1/2 days @ \$120.00	180.00
F. Glass - Geophysicist		
Period Aug 5-22	13 days @ \$60.00	780.00
S. Crudge - Geophysical Assistant		
Period Aug 5-14	10 days @ \$35.00	350.00
R. Janowicz - Geophysical Helper		
Period Aug 5-14	10 days @ \$35.00	350.00
P. Newton - Geophysical Helper		
Period Aug 5-14	10 days @ \$27.50	<u>275.00</u>
		1,935.00
		1,935.00

HELICOPTER SUPPORT

Texasgulf Bell 206B	6 hrs @ \$300.00	1,800.00
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ROOM AND BOARD

44 1/2 man-days @ \$25.00		1,112.50
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MISCELLANEOUS

Equipment rental	150.00	
Travel (pro-rated)	200.00	
Shipping (pro-rated)	<u>150.00</u>	
	\$500.00	
		<u>500.00</u>
		<u>\$5,347.50</u>

pro-rating:

Rose Group 50%	\$2,673.75
Lancaster Group 50%	<u>\$2,673.75</u>
	\$5,347.50

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STATEMENT OF EXPENDITURES
ROSE & LANCASTER GROUPS
(GEOCHEMICAL SURVEY)

SALARIES AND FRINGE BENEFITS - TEXASGULF INC.

G.R. Peatfield, P. Eng. - Supervision			
Period July 25-26	1/2 days @ \$120.00	60.00	
G. Dix - Assistant			
July 25-26	2 days @ \$42.50	<u>85.00</u>	
		145.00	145.00

HELICOPTER SUPPORT

Texasgulf Bell 206B	1 hr @ \$300.00		300.00
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ROOM AND BOARD

2 1/2 man-days @ \$25.00			62.50
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ANALYTICAL COSTS

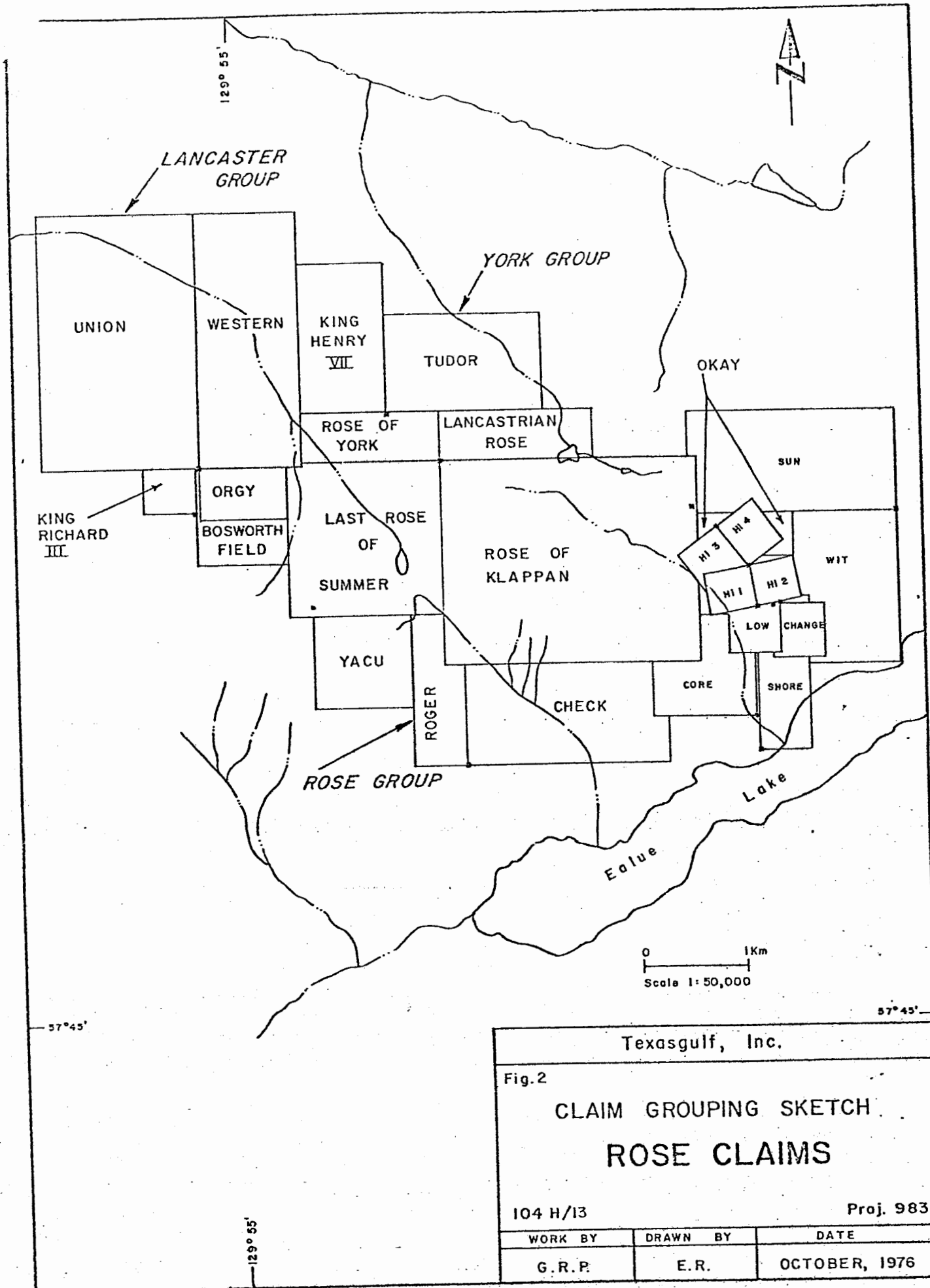
144 soil sample analyses @ \$2.85			<u>410.40</u>
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\$917.90

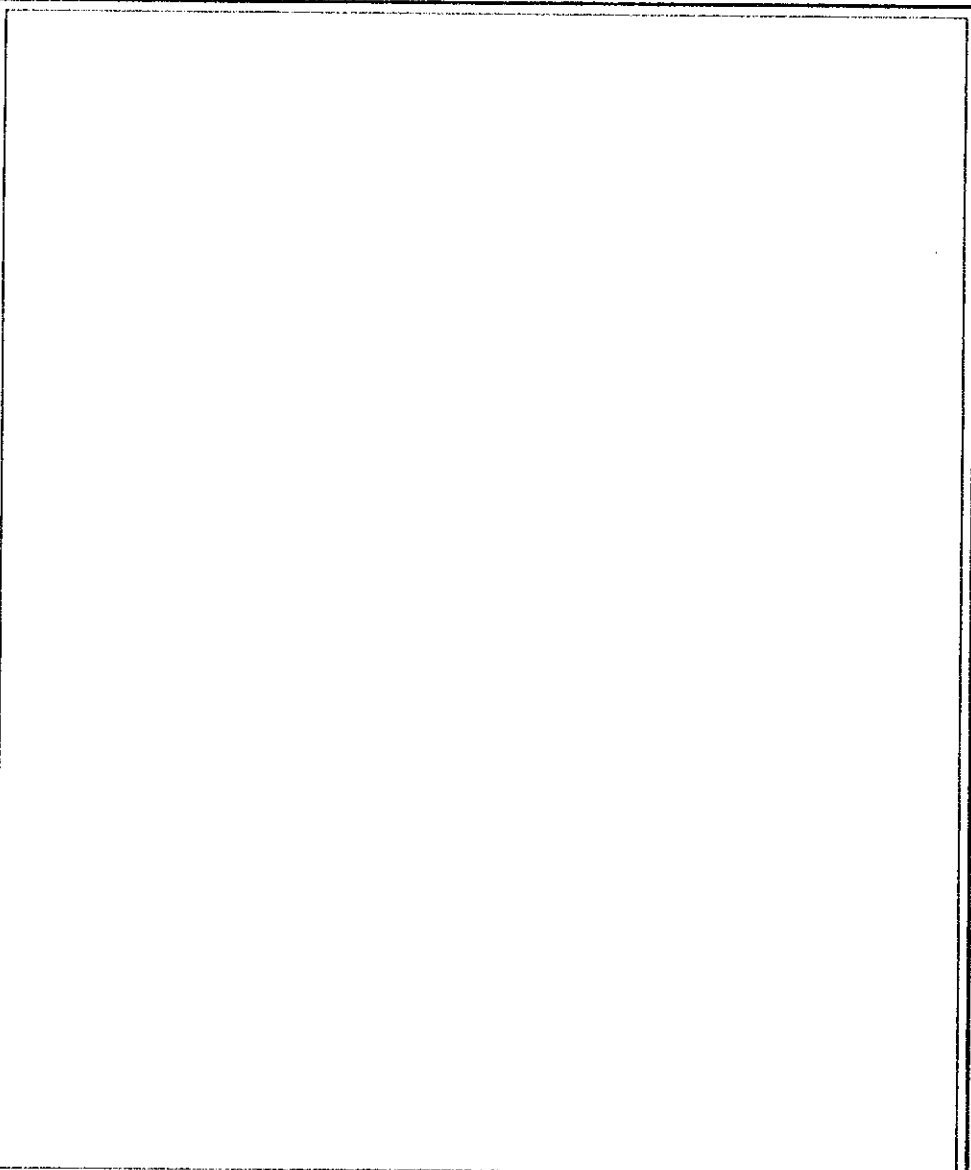
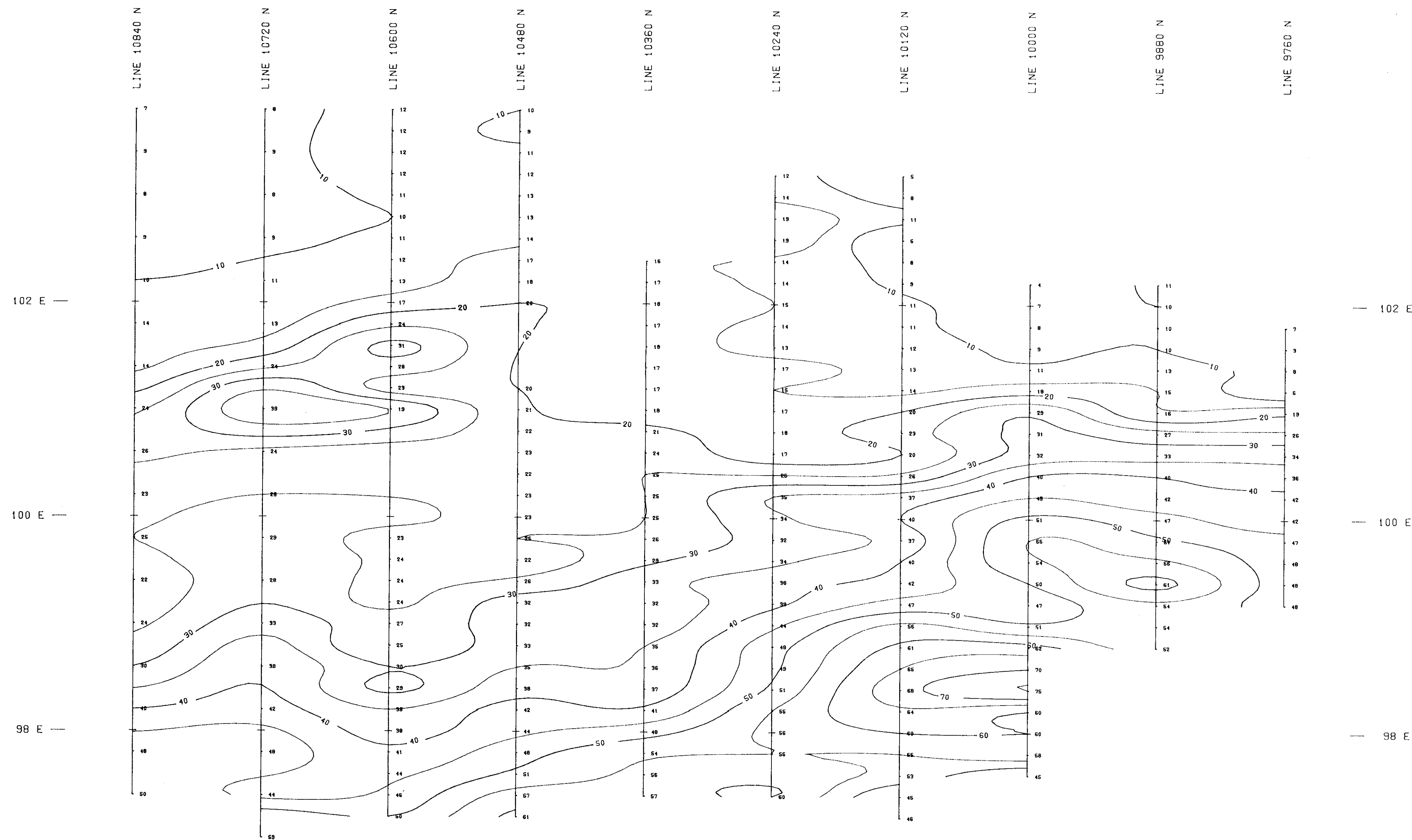
pro-rating:

Rose Group 35%	\$321.25	
Lancaster Group 65%	<u>\$596.65</u>	
	\$917.90	

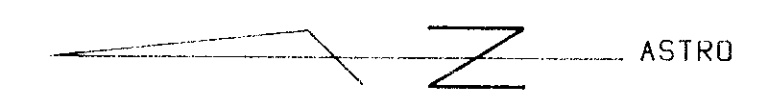
HPM
02/14/77



Texasgulf, Inc.		
Fig. 2 CLAIM GROUPING SKETCH ROSE CLAIMS		
104 H/13		Proj. 983
WORK BY	DRAWN BY	DATE
G. R. P.	E. R.	OCTOBER, 1976



KEY MAP

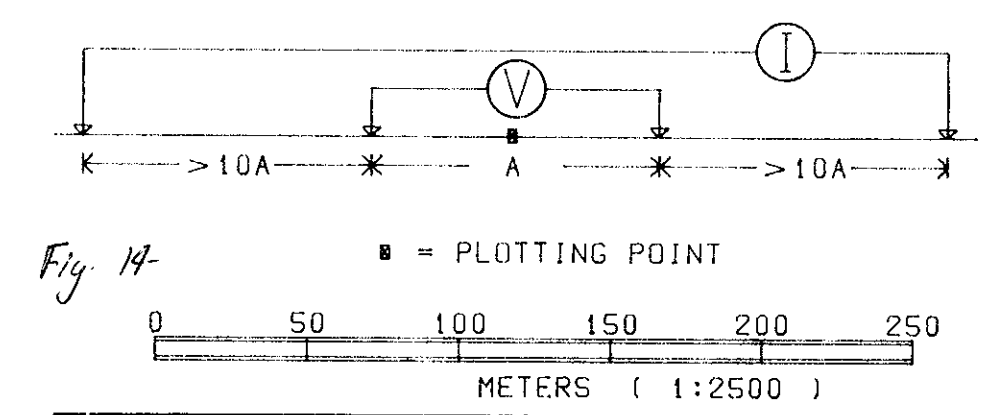


To accompany
 Report on Geochemical and Geophysical Surveys
 and Hand Trenching
 ROSE PROPERTY
 Kinaskan area, Liard Mining Division
 by
 D.A. Donnelly, G.R. Peatfield, W.A. Gasteiger

W.A. Gasteiger
 02/12/77

LEGEND

- TRANSMITTER : CRONE 250 WATT IP TRANSMITTER
- RECEIVER : CRONE N-10 I.P. RECEIVER
- CHARGING TIME : 2.0 SECONDS
- OFF TIME : 2.0 SECONDS
- DELAY TIME : 0.45 SECONDS
- INTEGRATION TIME : 0.45 SECONDS
- ELECTRODE CONFIGURATION : GRADIENT
- A = 40 METERS
- READINGS : APPARENT CHARGEABILITY IN MILLISECONDS

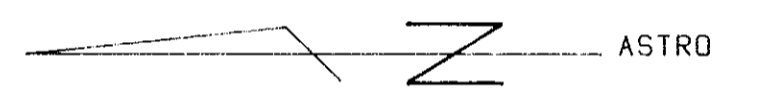


MINERAL RESOURCES BRANCH
 ASSESSMENT REPORT
 NO. **6511**

TEXASGULF INC.	
I.P. SURVEY (CHARGEABILITY)	
CIRQUE GRID	
ROSE CLAIMS	
NTS:104H12	PROJ.#283
WORK BY	DATE
	1977



KEY MAP

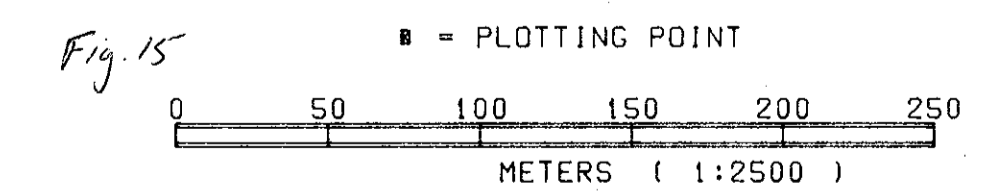
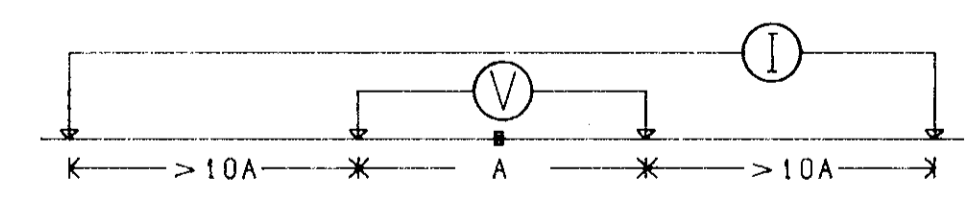


To accompany
 Report on Geochemical and Geophysical Surveys
 and Hand Trenching
 ROSE PROPERTY
 Kinaskan area, Liard Mining Division
 by
 D.A. Donnelly, G.R. Peatfield, W.A. Gasteiger

Handwritten signature and date:
 02/12/77

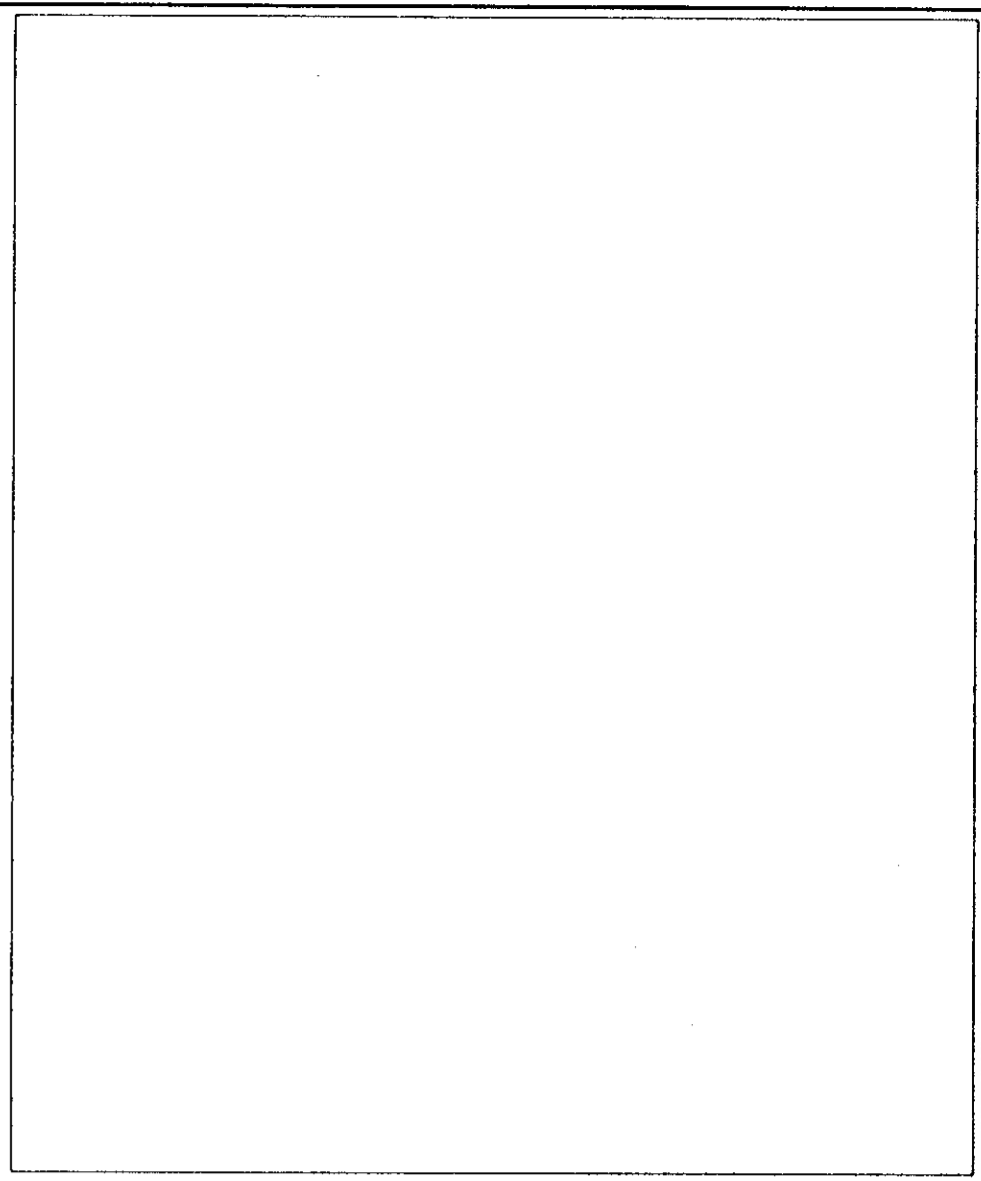
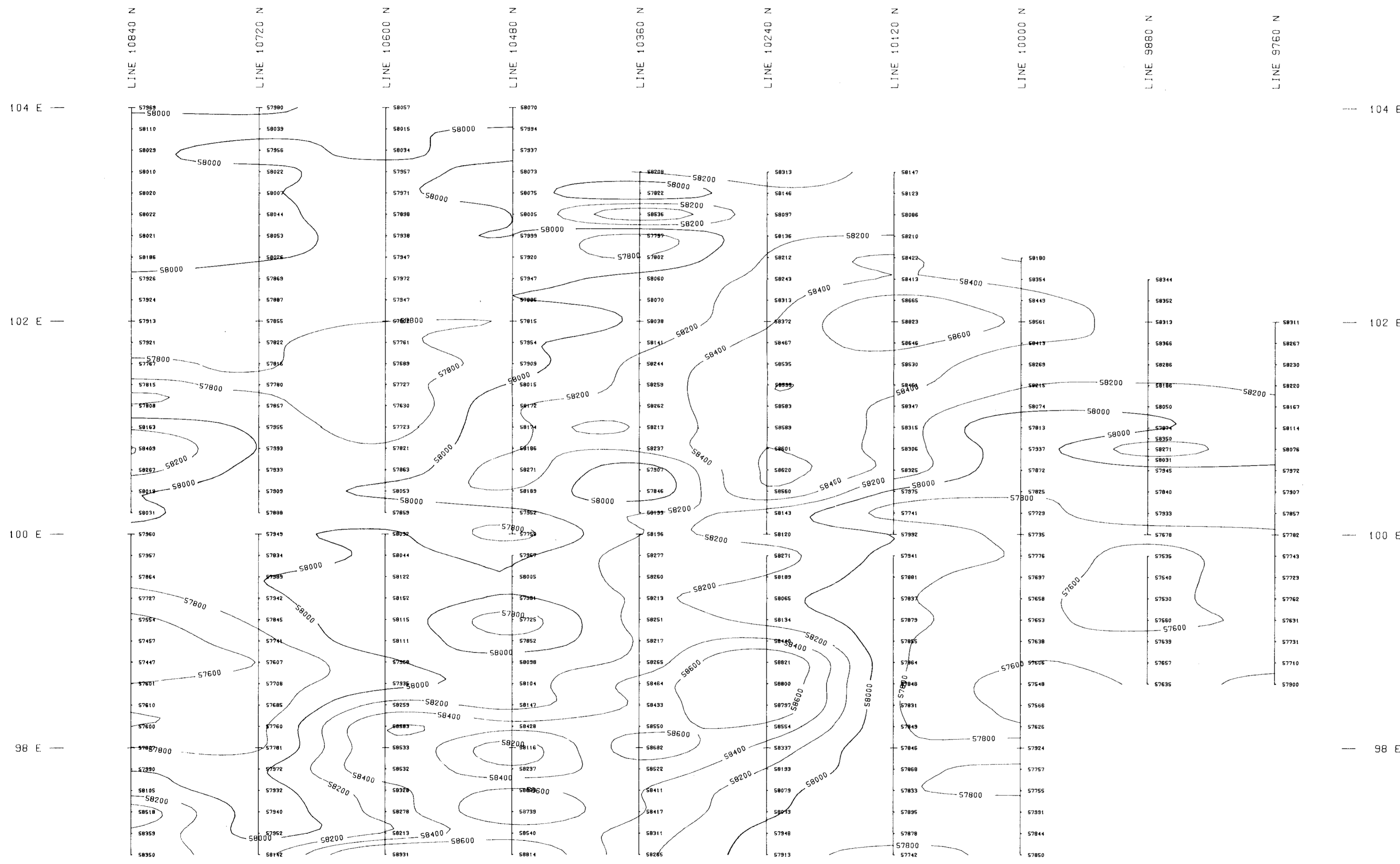
LEGEND

TRANSMITTER : CRONE 250 WATT IP TRANSMITTER
 RECEIVER : CRONE N-10 I.P. RECEIVER
 CHARGING TIME : 2.0 SECONDS
 OFF TIME : 2.0 SECONDS
 DELAY TIME : 0.45 SECONDS
 INTEGRATION TIME : 0.45 SECONDS
 ELECTRODE CONFIGURATION : GRADIENT
 A = 40 METERS
 READINGS : APPARENT RESISTIVITY IN OHM-METERS

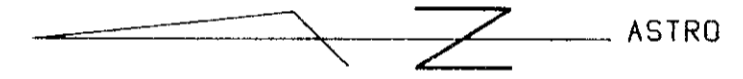


TEXASGULF INC.	
I.P. SURVEY (RESISTIVITY)	
CIRQUE GRID	
ROSE CLAIMS	
NTS:104H12	PROJ.#283
WORK BY	DATE
	1977

MINERAL RESOURCES BRANCH
 ASSESSMENT REPORT
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KEY MAP



To accompany
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[Handwritten signature]
 02/12/77

LEGEND

INSTRUMENT : GEOMETRICS G816
 TYPE : PROTON PRECESSION, TOTAL FIELD
 READINGS IN GAMMAS
 ▲ MAGNETIC BASE STATION

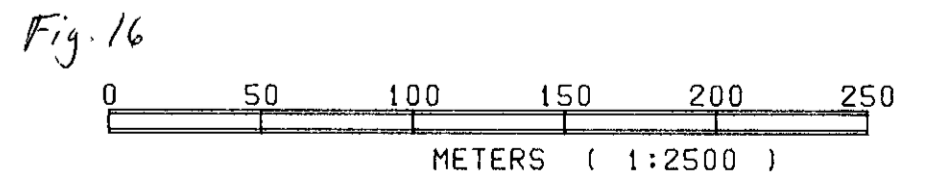


Fig. 16

TEXASGULF INC.	
MAGNETIC SURVEY	
CIRQUE GRID	
NTS:104H12	
WORK BY	DATE
	1977

MINERAL RESOURCES BRANCH
 ASSESSMENT REPORT
 NO. **6511**