82-169-10235

ASSESSMENT REPORT

GEOLOGICAL AND GEOCHEMICAL REPORT ON THE MESS 1, 2, 3 AND 4 CLAIMS (47 UNITS)

OMINECA MINING DIVISION

by

SHEILA A. CRAWFORD

LOCATION: 57°03' to 57°06' N Latitude
126°37' to 126°41' W Longitude
N.T.S. 94E/2E

OWNER/OPERATOR: SEREM LTD.

DATES WORK PERFORMED: July 9, 11-14, 1981
September 7, 1981

DATE OF REPORT: MARCH 1982

ABSTRACT

Geological mapping, prospecting, trenching and geochemical soil sampling were carried out on the Mess claims during the 1981 field season. The claims are located in the Toodoggone River area (N.T.S. 94E/2E), 280 kilometres north of Smithers, B.C.

The area is underlain by Takla and Toodoggone volcanics, intruded to the northeast and southwest by multiple-phase plutons. Quartz-barite-calcite veins occur throughout a zone of hydrothermally-altered Takla volcanics approximately 2,000 metres long and 500 metres wide. Within this zone, a small pod of barite-galena-tetrahedrite veins was discovered and trenched. One 6-metre interval grades 14.68 oz/ton silver, and gold runs as high as .045 oz/ton near the veins. Initial prospecting has not located any other areas of significant precious metal mineralization.

Detailed prospecting should be carried out on this zone. Further work would depend on the discovery of additional mineralization.

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LIST OF ILLUSTRATIONS (Continued)

1. INTRODUCTION

The Mess 1, 2, 3 and 4 claims are located between 57°03' N and 57°06' N latitude and 126°37' W and 126°41' W longitude in the Toodoggone River map sheet area, N.T.S. 94E/2E, Omineca Mining Division (see Figures 1 and 2). Topography is moderately rugged. Outcrop is well exposed on cliffs and ridges, and sparse in the plateau areas and valleys. Elevation ranges approximately from 1450 metres to 1900 metres above sea level.

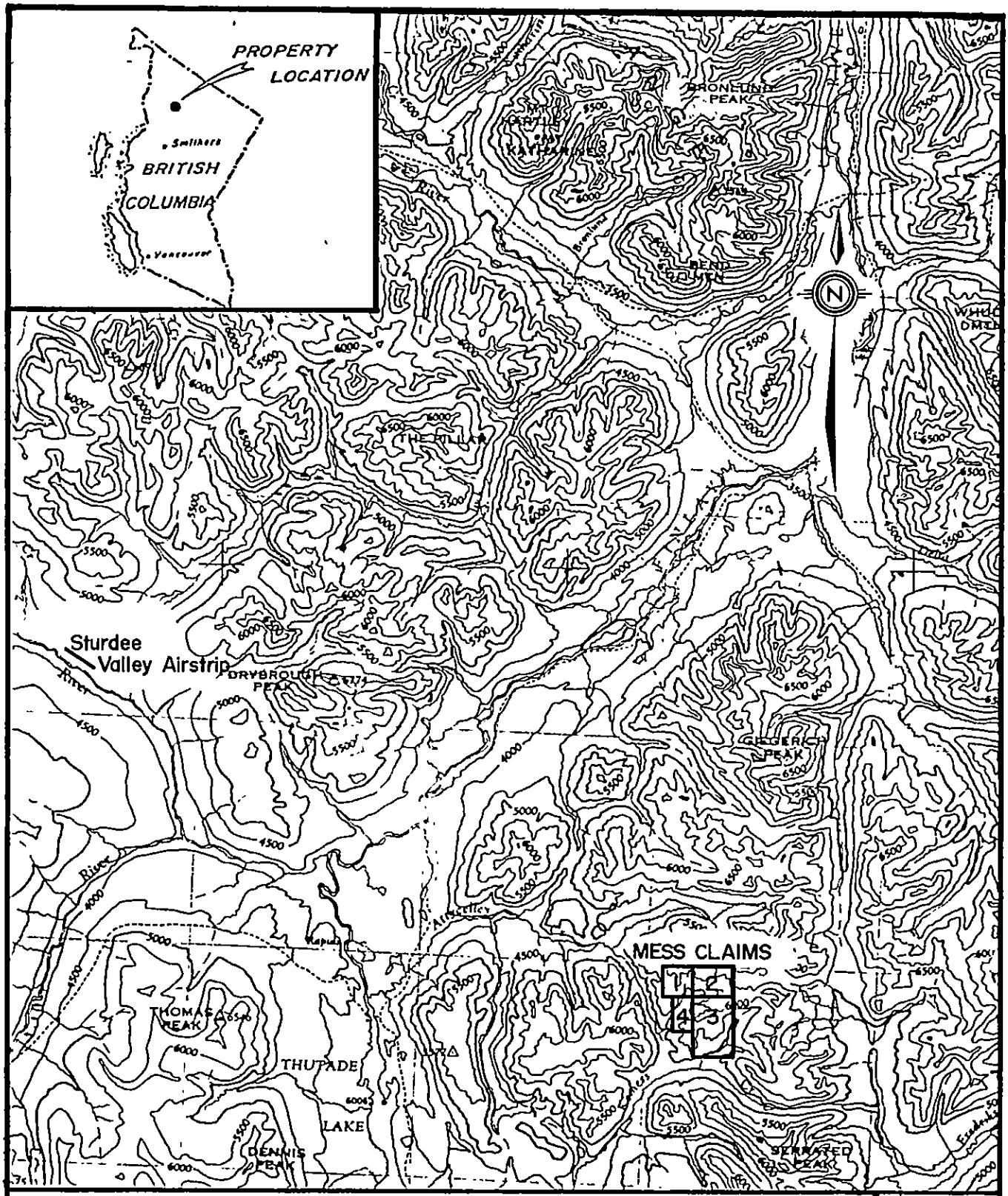
Access to the property is by plane from Smithers to Sturdee airstrip, a distance of 280 kilometres and from Sturdee airstrip to the property by helicopter, a distance of about 27 kilometres.

The Mess 1, 2, 3 and 4 claims consist of 9, 12, 20 and 6 units respectively. They are owned and operated by Serem Ltd. Previous work is described in the March 1981 assessment report.

Work performed in 1981 by Serem Ltd. includes mapping, prospecting, soil sampling along contours and on two grids, and trenching. The numbers of samples taken on each claim are listed below:

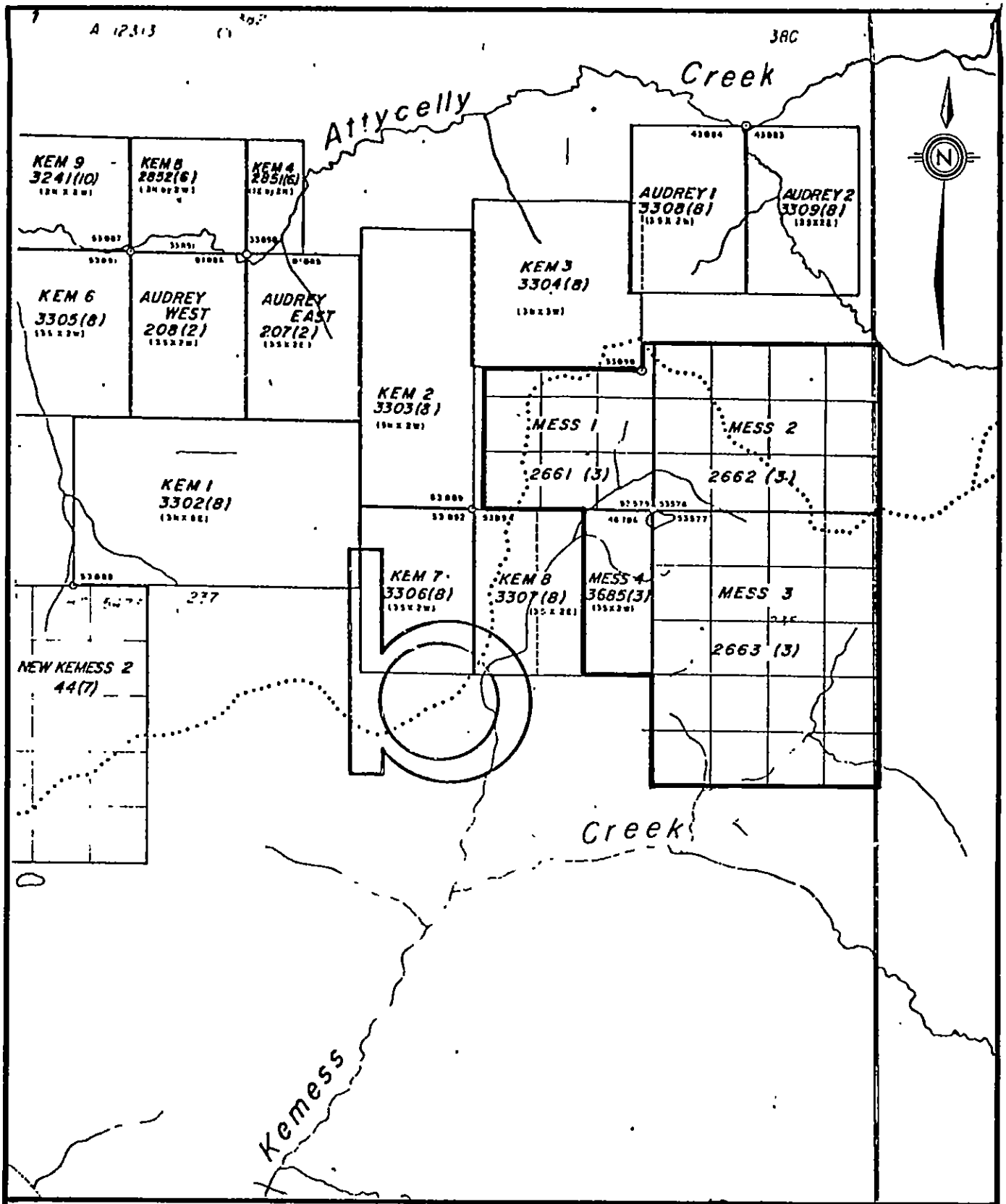
TABLE 1. Detailed List of Samples Taken on Each Claim.

Sample Type	Claim	Number of Samples	
Contour soils	Mess 1	9	
	3	53	
	4	27	
			89
Grid soils	Mess 1	33	
	3	8	
	4	67	
			108
Stream silts	Mess 1	8	8
Grab rock samples	Mess 1	1	
	2	4	
	3	1	
	4	29	
			35
Trench samples	Mess 4	17	17



MESS CLAIMS: LOCATION MAP

FIGURE: 1



MESS CLAIMS: CLAIMS MAP

FIGURE:
2

2. GEOLOGY

The claims area is underlain by volcanics and associated sediments, intruded by multiple-phase plutons to the northeast and southwest (Figure 3a). The volcanics are similar to those described as Toodoggone (Lower to Middle Jurassic), Hazelton (Lower to Middle Jurassic), and Takla (Upper Triassic).

"Takla" volcanics are characterized by coarse green pyroxene phenocrysts, coarse plagioclase laths and chlorite-filled amygdules. Phenocryst proportions vary greatly, and in places the rock is aphanitic. The groundmass is grey if fresh and green if altered.

"Hazelton" volcanics include both flows and tuffs, characterized by abundant fine to medium-grained plagioclase laths. Large, round amygdules in the flows are filled with calcite, chlorite, chalcedony or zeolites. Conglomerates and mudstones interbedded with the volcanics are hematized and contain clasts of the volcanics.

"Toodoggone" volcanics consist of pyroclastic flows, crystal lapilli tuffs and tuffaceous sediments. In general, the phenocryst composition is as follows:

5-35%	subhedral, white to pink, medium to coarse feldspar; > 75% plagioclase
5-10%	round, clear, fine to coarse quartz
2-10%	mafic minerals; fine to medium biotite, chlorite after hornblende or pyroxene

A thick-bedded sequence of pink to grey tuffs and tuffaceous sediments underlie most of Mess 1 and 2. Some beds contain grit and pebbles of aphanitic and feldspar porphyritic volcanics, mudstone and siltstone. Two distinctive units on Mess 3 and 4 are illustrated on Figure 3a. One is brick-red to purple welded tuff, containing 15-35% flattened

lapilli and 10-20% plagioclase phenocrysts. The other is a pyroclastic flow, containing feldspar porphyritic lapilli and block-sized pyroclasts in a groundmass of similar composition. Xenolithic pebbles and cobbles form up to 15% of the basal portion. Orange to green hematite-chlorite alteration also distinguishes this unit.

The multiple-phase intrusions have not been mapped in detail. Rocks collected include coarse-grained, equi-granular granodiorite and diorite, and fine-grained aplite.

Toodoggone beds dip 35 to 50 degrees north to northwest and appear to lie unconformably on the Takla volcanics. Numerous fault-related fracture systems control both stratigraphy and alteration zoning. Faults trending 170-180^{o} and 020^{o} are offset by faults trending 090^{o} and 120^{o}.

3. ALTERATION AND MINERALIZATION

Alteration zones are illustrated in Figure 3b. Takla volcanics on the Mess 1 and 4 claims are pervasively altered to chlorite and epidote. Quartz-barite-calcite veins with cockscomb and banded textures occur in argillic alteration envelopes throughout this zone. In a few localities, these veins contain disseminated or layered pyrite, galena, chalcopyrite and rarely sphalerite. Precious metal values occur in some veins (see Table 2). One area of barite-galena tetrahedrite mineralization was trenched and is described in detail in the following section.

Zeolite alteration is common on fractures throughout the Toodoggone volcanics and is pervasive along some faults.

One area of Toodoggone volcanics is veined with banded calcite and chalcedony. These veins are barren, and silts taken from streams draining this area carry no geochemical anomalies.

4. TRENCHING

A zone of barite-galena-tetrahedrite mineralization was trenched in August and September 1981. The veins occur in Takla volcanics adjacent to a feldspar porphyry intrusion of probable Toodoggone age. Geology of the trench area is plotted on Figure 4a and assay localities and detailed trench geology on Figure 4b.

The zone was initially traced with hand-dug pits. Trench No. 1 was blasted along this zone and Trench No. 2 along a soil geochemical anomaly perpendicular to the barite veins. Mineralized veins and highly-altered volcanic rock were sampled at one-metre intervals, taking chips from a lengthwise channel one metre long and 10 centimetres wide. Samples were assayed for gold (fire assay) and silver by Min-En Laboratories in North Vancouver.

The barite-galena-tetrahedrite veins appear to pinch out at depth and along strike. Before blasting, the zone of high-grade mineralization pinched and swelled along a strike length of twelve metres, to a maximum depth of 1.5 metres and width of one metre. A 6-metre interval in Trench No. 1 averages 14.64 oz/ton silver and a one-metre interval in Trench No. 2 assayed .045 oz/ton gold. Elsewhere, gold values are not significant.

5. GEOCHEMICAL SOIL, SILT AND ROCK SAMPLING

Soil samples were taken every 100 to 150 metres along traverses at approximately constant elevation. A 2000-metre, picketed baseline was set with compass and chain and two areas along this baseline were sampled. Soils were taken at 25-metre intervals on lines 25 metres apart on Grid No. 1, and at 50-metre intervals on lines 50 metres apart on Grid No. 2. The purpose of this detailed survey was to trace geochemical anomalies in 1980 silt and contour soil samples. Most grid soil samples were taken from a poorly-developed B horizon. Most contour soil samples were taken from the C horizon, since no B horizon is developed on these slopes. Soil was placed in brown paper envelopes and notes were made on the terrane and localities.

Silts were taken from a few streams to supplement the 1980 survey. Material was taken from the active part of the stream, that is, under flowing water, and placed in brown paper envelopes.

Rock samples were taken from outcrop or talus with favourable geology.

All sample sites were flagged with the sample number and localities plotted on a 1:10,000 scale enlargement of the topographic map.

6. GEOCHEMICAL ANALYSIS

Samples were sent to Min-En Laboratories and were analysed for gold, silver, copper, lead, zinc and barium. The analytical procedure for each element is briefly described below:

The samples are dried at 95° C. Soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed and pulverized by ceramic plated pulverizer.

For gold, a suitable sample, weight 5 or 10 grams, is pretreated with HNO_3 and $HClO_4$ mixture.

After pretreatment, the samples are digested with Aqua Regia solution, and after digestion the samples are taken up with 25% HCl to suitable volume.

Sample solutions are prepared with Methyl Iso-Butyl Ketone for the extraction of gold.

With a set of suitable standard solutions, gold is analysed by Atomic Absorption instruments. The obtained detection limit is 5 ppb.

For silver, copper, lead, and zinc, samples weighing 1.0 gram are digested for 6 hours with HNO_3 and $HClO_4$ mixture.

After cooling, the samples are diluted to standard volume. The solutions are analysed by Atomic Absorption Spectrophotometer using the CH_2H_2-Air Flame combination.

For barium, a sample weighing 0.25 grams is fused with 2.5 grams of fluxing material at 800° C. The sample is dissolved and filtered on Whatman No. 42 filter paper. The solution is chemically precipitated and filtered to reduce any chemical interferences. It is then diluted to 25 ml and analysed by Atomic Absorption Spectrophotometer.

TABLE 2a. (Continued)

Sample No.	Rock Description	O = Outcrop F = Float	Gold (ppb)	Silver (ppm)	Lead	Copper
SC-21-81- 4	Quartz-chalcedony breccia	O	5	1.5		
- 6	Calcite-chalcedony breccia	O	5	1.1		
- 7	Quartz-chalcedony breccia	O	15	2.9		
- 9	Argillic-altered volcanic	O	5	0.5		
SC-22-81- 8	Quartz-barite vein in Takla volcanic	O	280	0.8		
SC-23-81-15	Volcanic altered to clay and silica	O	5	1.0		
CG-19-81- 6	Silicified volcanic with disseminated pyrite and galena	F	35	7.4	565	18

TABLE 2b. Assays*

Sample No.	Rock Description	O = Outcrop F = Float	Gold oz/ton	Silver oz/ton
JC-9-81-1	Quartz-filled breccia	F	< .01	< .1
-2	"	F	< .01	< .1
-2a	" ; malachite stained	F	< .01	.1
-3	Quartz breccia with chalco-pyrite, malachite	F	< .01	.1
-3a	Quartz breccia	F	< .01	.2
-3b	Quartz breccia with galena	F	< .01	.1

* Atomic Absorption assays, Smithers field laboratory.

TABLE 2a. Geochemical Analyses.

Sample No.	Rock Description	O = Outcrop F = Float	Gold (ppb)	Silver (ppm)
BL-16-81- 7	Quartz-calcite vein	F	60	6.2
-10a	Quartz vein in volcanic	F	10	2.9
-10b	" with malachite	F	5	0.5
-11	Vuggy quartz vein	F	5	1.4
CL-21-81-10		O	5	2.4
GD-22-81- 3	Quartz vein	O	5	1.2
- 5		F	5	1.5
- 8	Quartz-filled breccia	O	5	0.7
- 9	Grey quartz vein in Takla volcanic	O	5	1.5
GD-23-81- 9	Grey quartz-filled breccia	O	240	1.5
-10	Banded quartz vein	O	5	0.3
-11	Barite-quartz-calcite-filled breccia	O	5	2.0
-13	"	O	5	1.9
-15	Banded grey chalcedony	O	5	1.8
-22	Grey quartz vein with minor limonite	F	10	2.1
-23	Vuggy quartz vein in Takla volcanic	F	5	0.8
SC-20-81-20	Quartz-filled breccia	O	15	3.5
-21	"	F	20	1.0
-23	"	O	385	0.8
-26	"	O	5	2.4
-27	"	O	5	4.5
-28	"	O	5	1.4

Continued ...

7. GEOCHEMICAL RESULTS AND INTERPRETATION

Gold, silver, copper, lead, zinc and barium in silts and contour soils are plotted on Figures 5a to 5f respectively. Circles or triangles are blackened completely for anomalous values and partially for threshold values. The background levels in this area, determined by frequency distributions, are lower than regional levels. Anomalies on the Mess claims are restricted to the area of altered and veined Takla volcanics: values in 1981 samples run as high as 95 ppb gold, 5.4 ppm silver, 280 ppm copper, 468 ppm lead, and 2490 ppm barium. There are no zinc anomalies.

The same six elements in soils taken on Grid No. 1 are plotted on Figures 6a to 6f respectively. Results from Grid No. 2 and a location map for the two grids are illustrated in Figure 7. Values are contoured. On Grid No. 1, several anomalies occur in silver and gold, with values as high as 13.5 ppm silver and 860 ppb gold. One anomaly in gold, silver, copper and lead is derived from the barite-galena-tetrahedrite mineralization. No anomalies in gold, silver, copper, lead or zinc occur on Grid No. 2. Barium is weakly anomalous.

Analytical results and descriptions of rock samples are listed in Table 2 and localities plotted on Figure 3b. Most gold and silver values are in the background range and all are sub-economic.

8. CONCLUSIONS AND RECOMMENDATIONS

Quartz-barite-calcite vein breccias occur throughout a zone of altered Takla volcanics approximately 2000 metres long and 500 metres wide. Within this zone, a small pod of high-grade barite-galena-tetrahedrite veins was discovered. Gold as high as .045 oz/ton occurs near the veins. Initial prospecting has not located any other areas of significant precious metal mineralization.

It is recommended that detailed prospecting be carried out on this zone. Further work would depend on the discovery of additional mineralization.

CERTIFICATE OF QUALIFICATIONS

I, Sheila A. Crawford, certify that:

1. I am a geologist, employed by Serem Ltd.

2. I have an Honours Bachelor of Science degree (First Class) in Geology from Carleton University in Ottawa, Ontario.

3. I have worked in mineral exploration or geological mapping since 1976 and have acted in responsible positions since 1979.

4. I personally examined the property and directed the geochemical survey.

5. I have no financial interest, either direct or indirect, in the property.

Vancouver, B.C.

Sheila A. Crawford.

STATEMENT OF EXPENDITURES - GEOLOGY AND GEOCHEMISTRY

Analyses

149 soils analysed for Au, Ag, Cu, Pb, Zn, Ba	@ $14.80	$2,205.20	
56 soils & silts analysed, Au, Ag, Cu, Pb, Zn	@ $10.55	590.80	
1 rock analysed for Au, Ag, Cu, Pb	@ $11.05	11.05	
28 rocks analysed for Au, Ag	@ $ 9.25	259.00	
23 rocks assayed for Au, Ag	@ $18.25	419.75	
Shipment cost from Smithers to Vancouver Laboratory	257 samples @ $ 0.30	77.10	
			$3,562.90

Wages

Geochemical survey, prospecting - July 9, 11-14, 1981:				
C. Greig	3 days	@ $ 50.00	$ 150.00	
B. Lane	3 days	@ $ 56.00	168.00	
G. Dawson	3 days	@ $ 58.00	174.00	
C. Lormand	1 day	@ $ 50.00	50.00	
Geological mapping, evaluation, supervision - July 9, 11-14, August 24, September 7, 1981:				
S. Crawford	6 days	@ $ 92.00	552.00	
J. Carne	1 day	@ $106.00	106.00	
M. Vulimiri	½ day	@ $106.00	53.00	
Report writing & map preparation, Dec. 1981, Jan. 1982:				
S. Crawford	3 days	@ $115.00	345.00	
Drafting:				
C. Greig	4 days	@ $ 72.00	288.00	
				$1,886.00

Board, Lodging and Field Expenses

17.5 man-days	@ $52.00	$ 910.00	910.00

Transportation

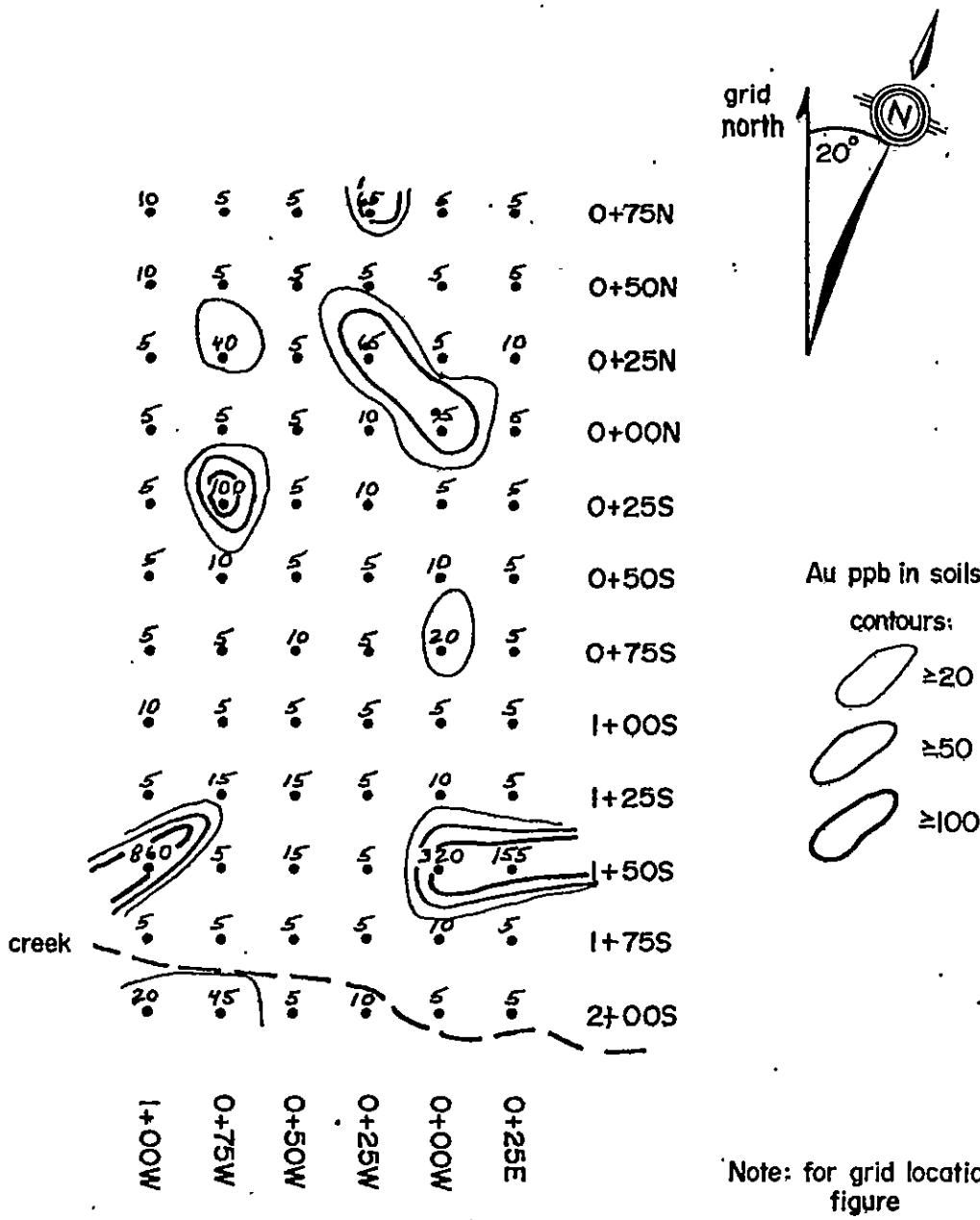
Helicopter: 3 hrs. 25 min. @ $475/hr, including fuel	$1,623.00	$1,623.00
Drafting materials	$ 100.00	$ 100.00
TOTAL		$8,081.90

STATEMENT OF EXPENDITURES - PHYSICAL WORK

Blasting and Trenching - Contract crew, BEMA Industries

August 23, 24, 25; September 1, 2, 1981:

Contract payment:		
Labour	$2,507.00	
Disbursements	1,563.50	
Bema-supplied equipment	242.00	
		$4,312.50
Board, lodging and field expenses:		
(at SEREM field camp)		
15 man-days @ $52.00	$ 780.00	$ 780.00
Transportation:		
Helicopter (including fuel)		
4 hrs. 10 min. @ $475/hr.	$1,979.00	$1,979.00
TOTAL		$7,071.50



Note: for grid location see figure

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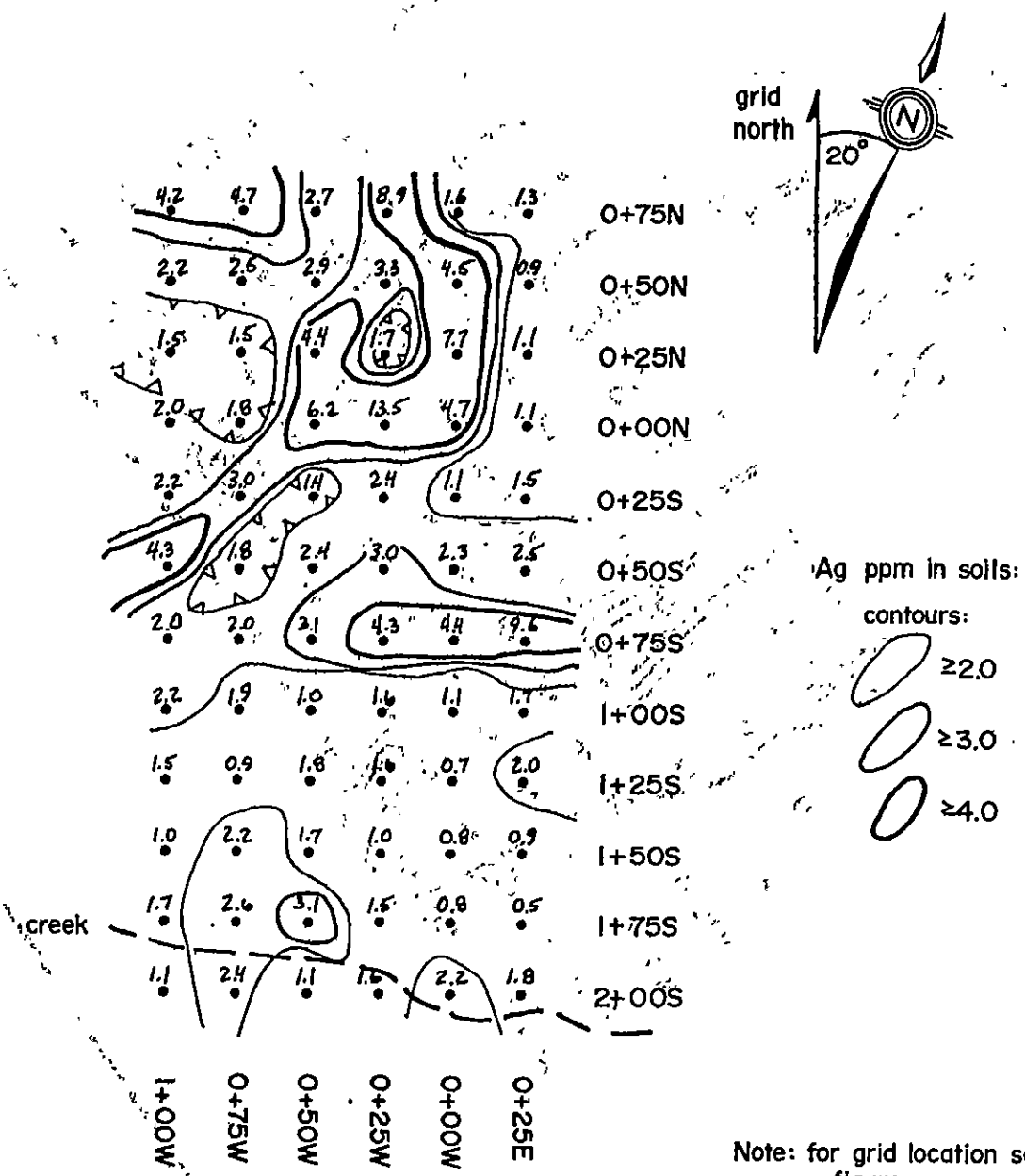
SEREM LTD.-TOODOGGONE PROJECT

MESS CLAIMS: SOIL GRID NO. 1
GOLD VALUES IN SOILS

FIGURE: 6a

DATE: NOV. 1981	DATA: S.C.
N.T.S.: 94E/2E	DRAWN: C.G.
SCALE: 1:2500	CHECKED:

metres 0 25 50 75 100 125 150



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SEREM LTD.-TOODOGGONE PROJECT

MESS CLAIMS: SOIL GRID NO. 1
SILVER VALUES IN SOILS

FIGURE: 6b

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SCALE: 1:2500	CHECKED:

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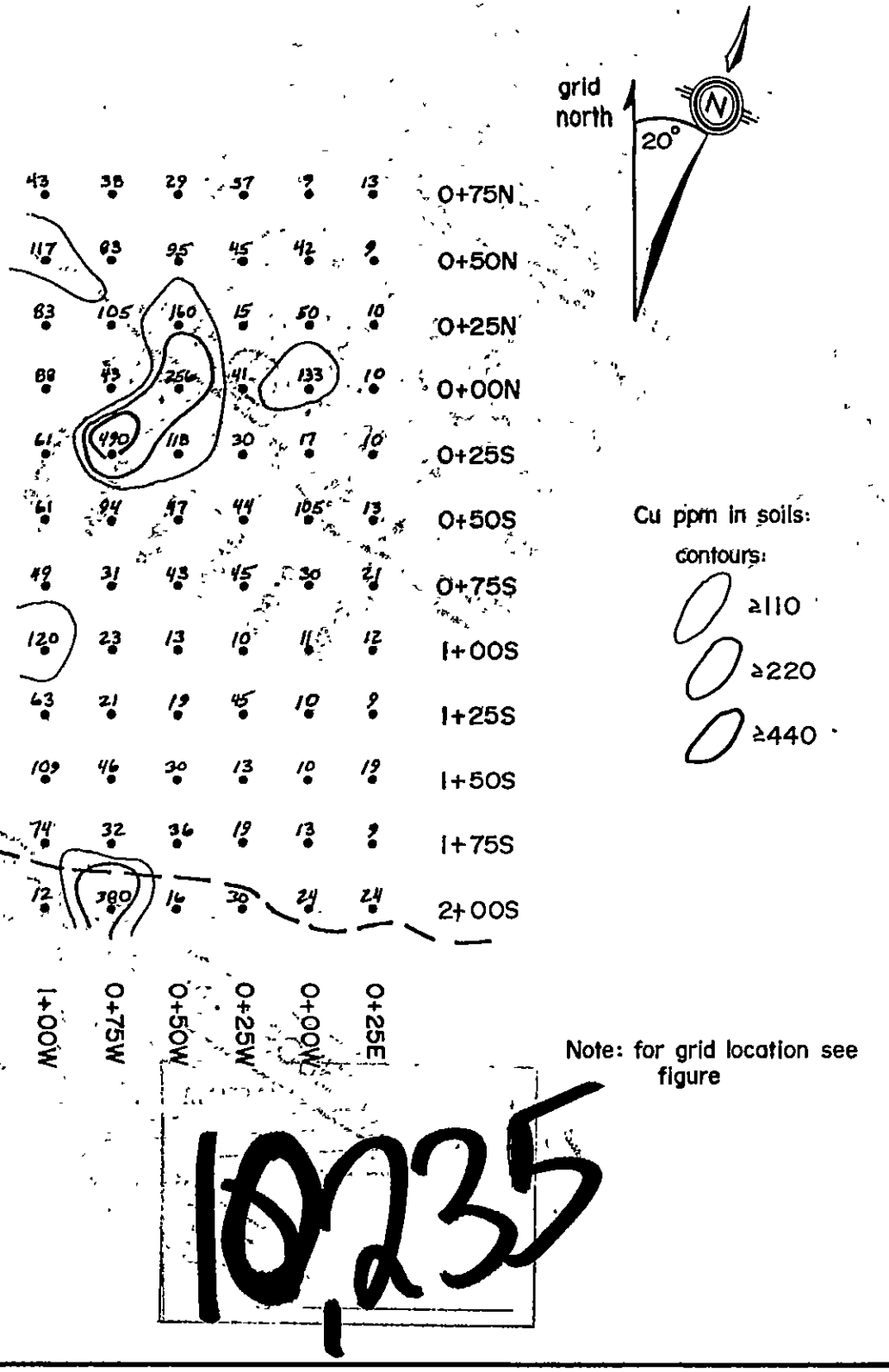

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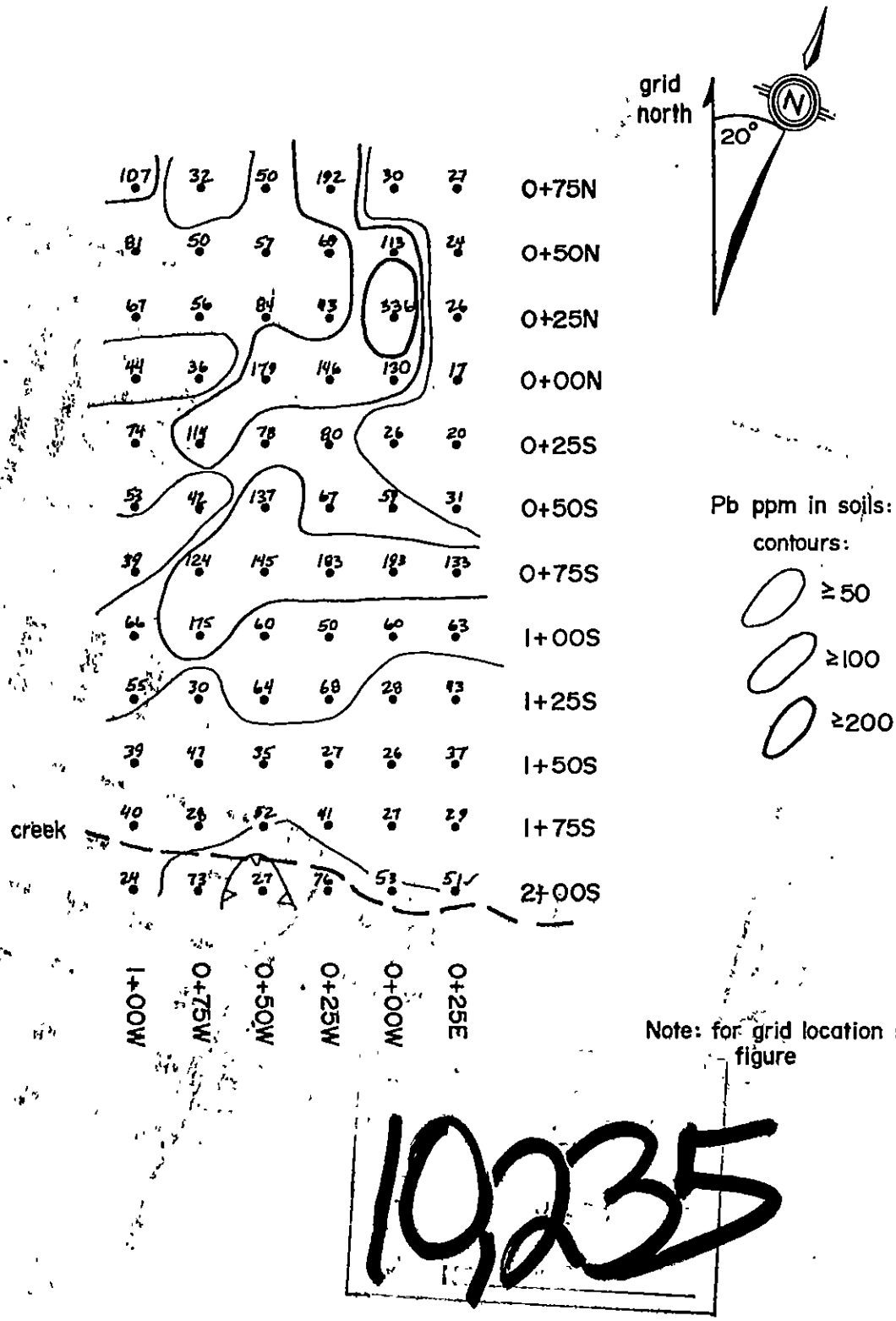
SEREM LTD.-TOODOGGONE PROJECT

MESS CLAIMS: SOIL GRID NO. 1
COPPER VALUES IN SOILS

FIGURE: 6c

DATE: NOV. 1981	DATA: S.C.
N.T.S.: 94E/2E	DRAWN: C G
SCALE: 1:2500	CHECKED: SC

metres 0 25 50 75 100 125 150



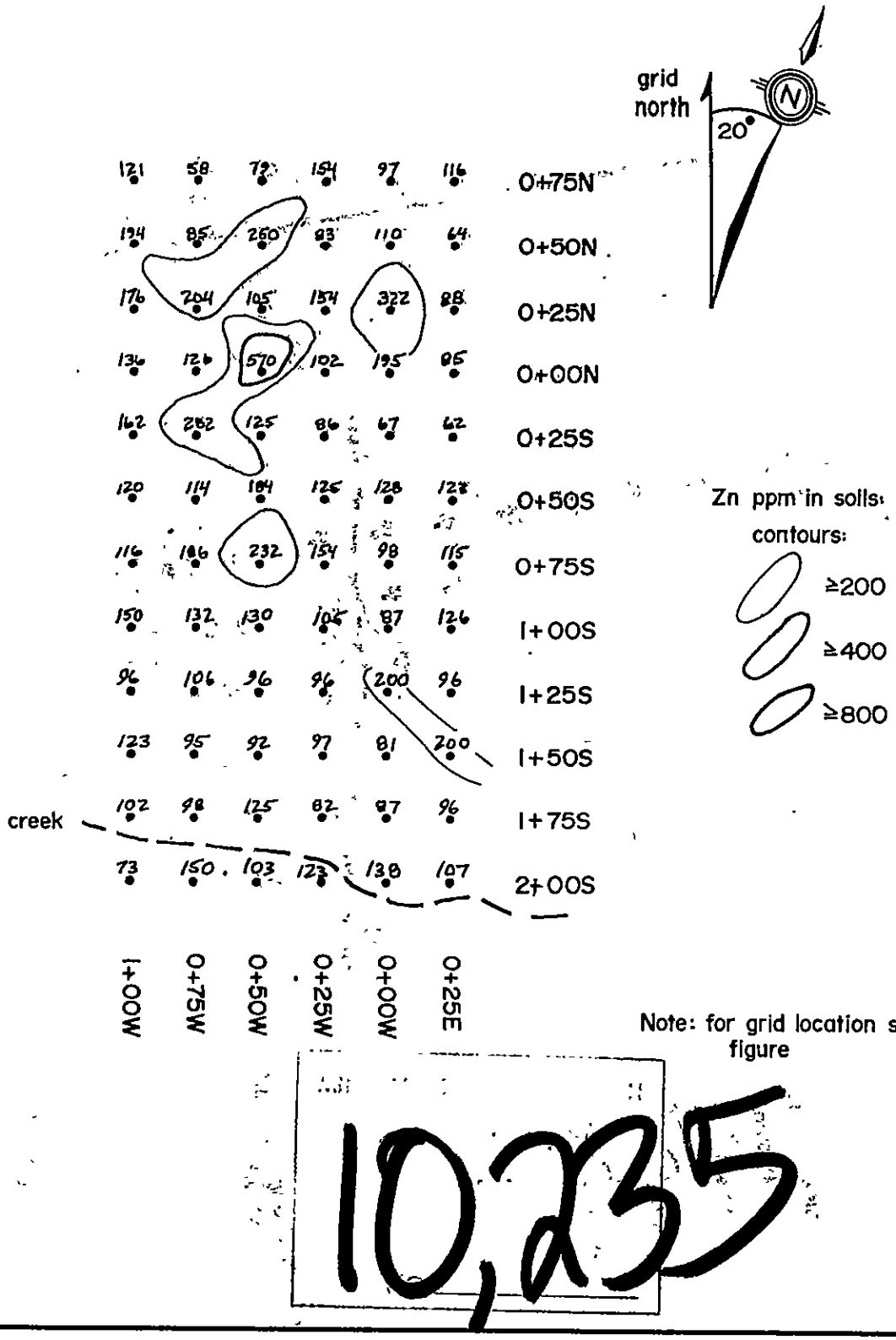
SEREM LTD.-TOODOGGONE PROJECT

MESS CLAIMS: SOIL GRID NO. 1
LEAD VALUES IN SOILS

FIGURE: 6d

DATE: NOV. 1981	DATA: S.C.
N.T.S.: 94E/2E	DRAWN: C.G.
SCALE: 1:2500	CHECKED:

metres 0 25 50 75 100 125 150



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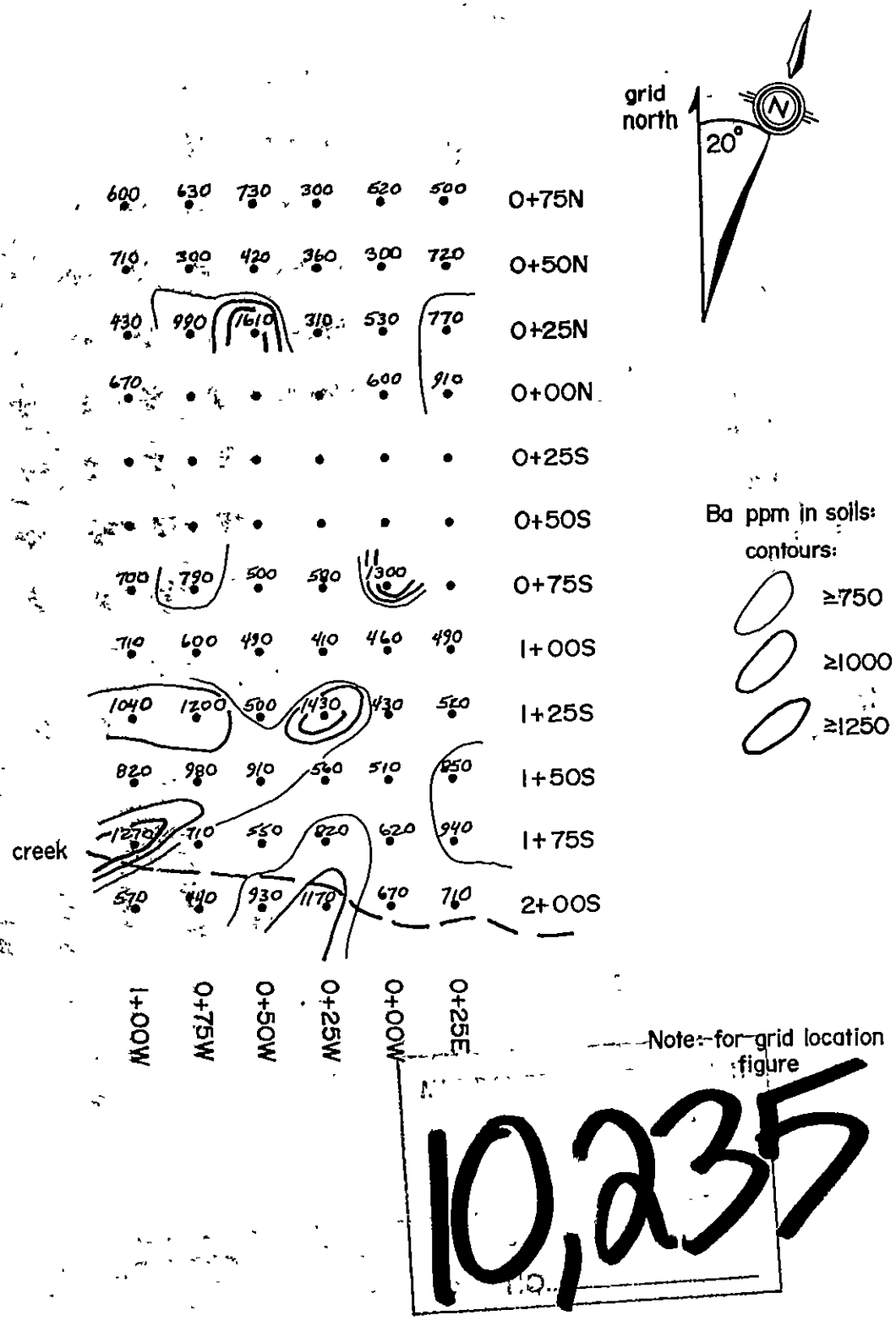
SEREM LTD.-TOODOGGONE PROJECT

MESS CLAIMS: SOIL GRID NO. 1
ZINC VALUES IN SOILS

FIGURE: 6e

DATE: NOV. 1981	DATA: S.C.
N.T.S.: 94E/2E	DRAWN: C.G.
SCALE: 1:2500'	CHECKED:

metres 0 25 50 75 100 125 150



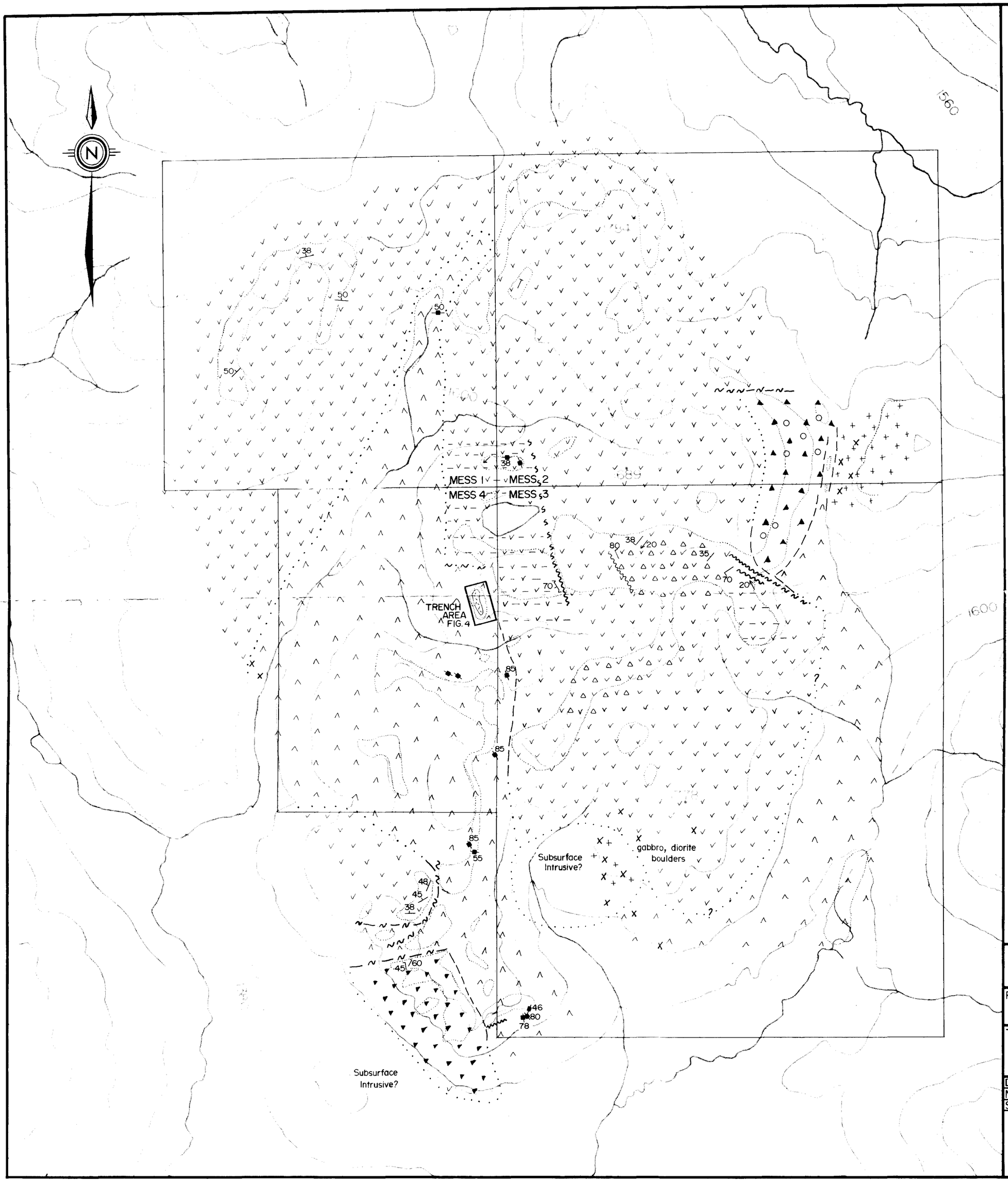
SEREM LTD.-TOODOGGONE PROJECT

MESS CLAIMS: SOIL GRID NO. 1
BARIUM VALUES IN SOILS

FIGURE: 6f

DATE: NOV. 1981	DATA: S.C.
N.T.S.: 94E/2E	DRAWN: C.G.
SCALE: 1:2500	CHECKED:

metres 0 25 50 75 100 125 150



LEGEND

- Multiple phase intrusion; includes granodiorite, aplite, diorite.
- "Toodoggone" volcanics - tuffs and tuffaceous sediments.
  - Welded crystal lapilli tuff, strongly hematized.
  - Pyroclastic flow.
  - Subvolcanic monzonite - Toodoggone equivalent?
- "Hazelton"(?) volcanics: andesite flows and tuffs: fine plagioclase laths, coarse pyroxene phenocrysts, round amygdules; hematized.
  - Conglomerate, mudstone, containing clasts of above volcanics, interbedded with volcanics.
- "Hazelton"(?) volcanics: tuffs and tuffaceous sediments, fine grained feldspar phenocrysts.
- "Takla" volcanics: mafic tuffaceous volcanics, aphanitic to porphyritic, pyroxene and plagiclase phenocrysts.
- 35 Bedding plane and dip.
- 80 Fracture plane and dip.
- 85 Vein and dip.
- 70 Shear plane and dip.
- →20 Slickenside lineation and plunge.
- Geological contact; approximate, inferred.
- Fault; observed, approximate.
- Area of outcrop.
- x x Area of float.

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SEREM LTD.

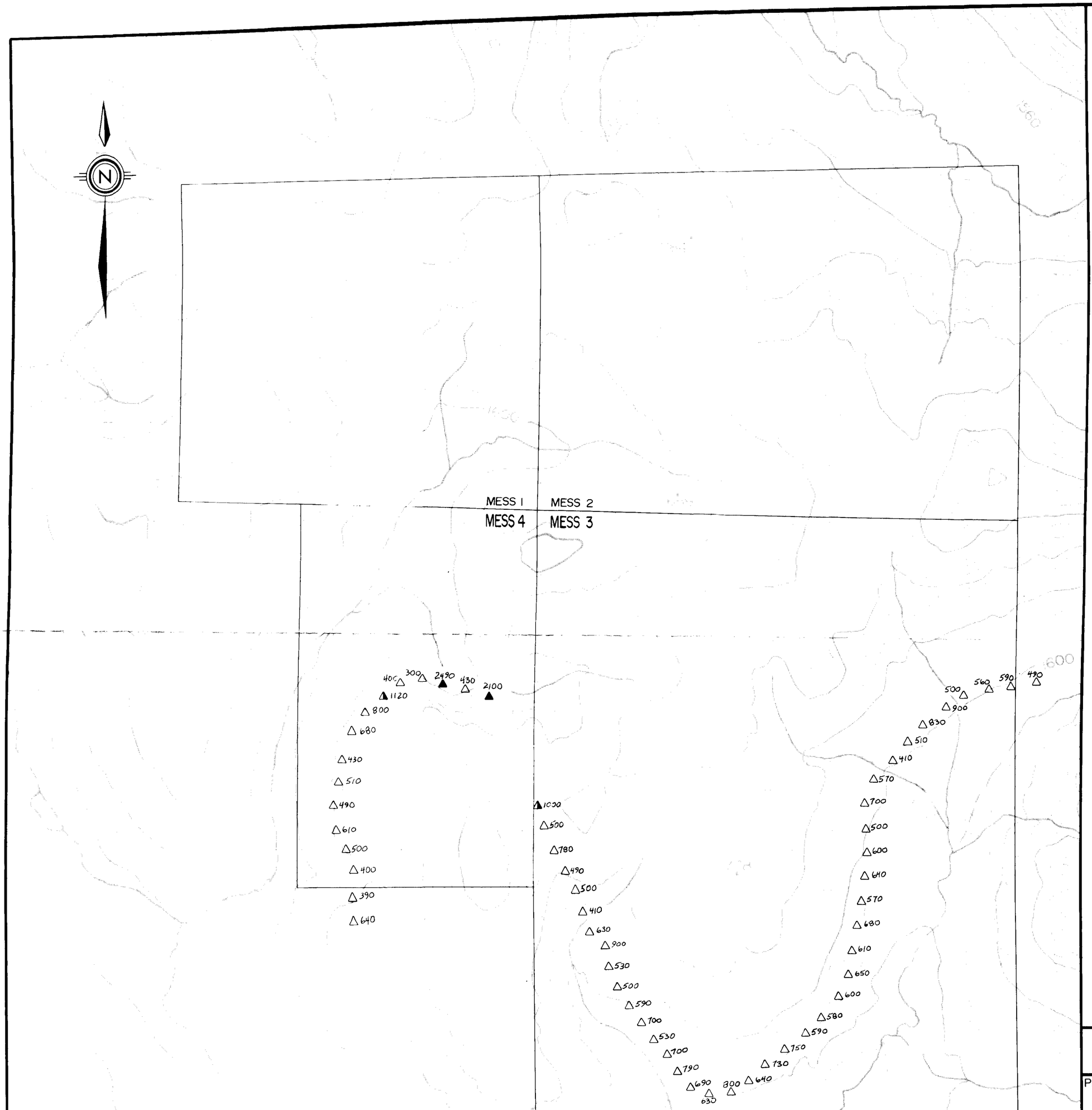
PROJECT: *TOODOGGONE*

TITLE: MESS CLAIMS: GEOLOGY

DATE: FEB. 82	DATA: S.C.
N.T.S.: 94E/2E	DRAWN: C. G.
SCALE: 1:10,000	CHECKED:

0 100 200 300 400 500 600 Metres

FIGURE: 3a



LEGEND

- ◮ Ba, soil sample, ≥1000 ppm.
- ▲ Ba, soil sample, ≥2000 ppm.
- ◑ Ba, silt sample, ≥1000 ppm.
- ● Ba, silt sample, ≥2000 ppm.

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SEREM LTD.

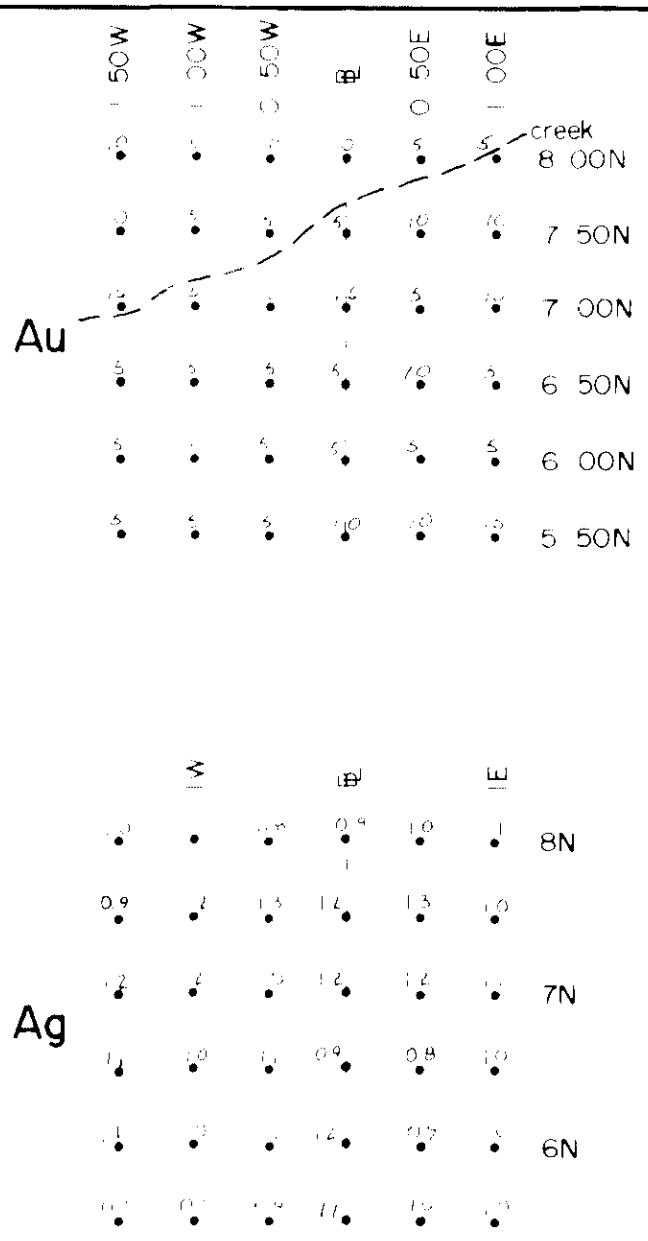
PROJECT: *TOODOGGONE*

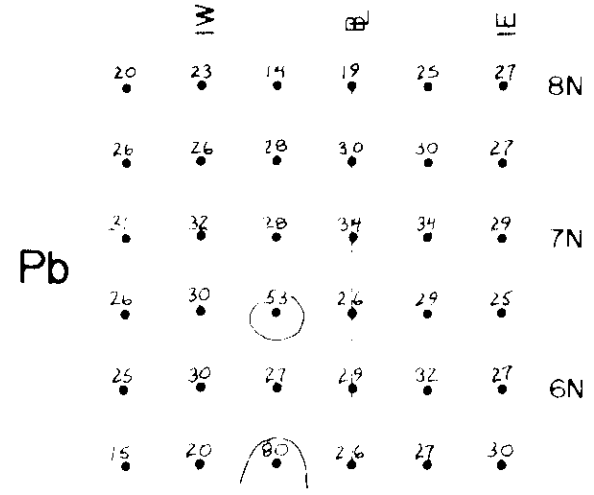
TITLE: MESS CLAIMS: BARIUM IN SILTS AND CONTOUR SOILS

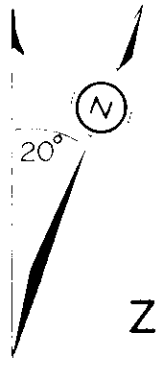
DATE: FEB. 82	DATA: S.C.
N.T.S.: 94E/2E	DRAWN: C. G.
SCALE: 1:10,000	CHECKED:

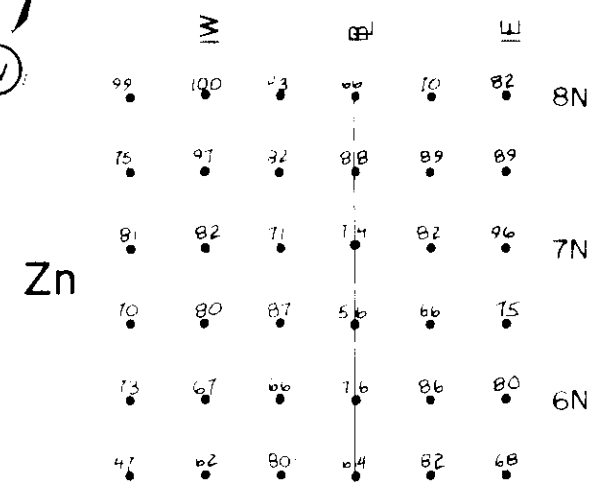
0 100 200 300 400 500 600 Metres

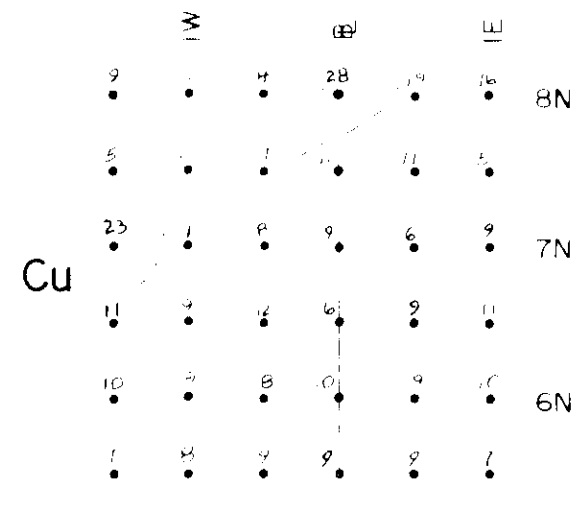
FIGURE: 5f

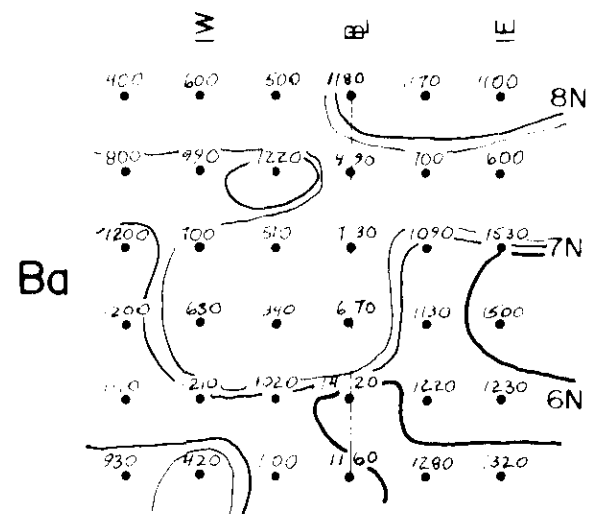


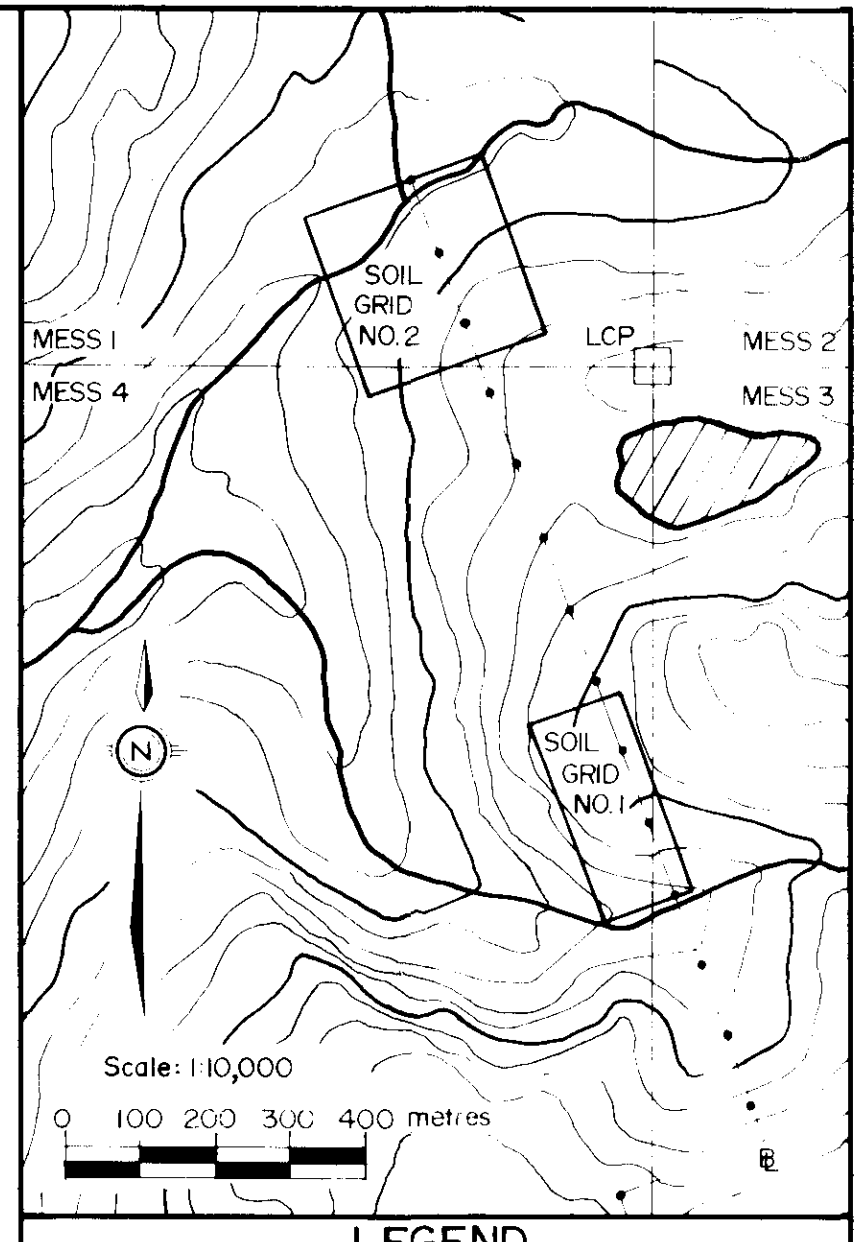












LEGEND

- sample site, ppb Au; ppm Ag, Cu, Pb, Zn, Ba

≥20 ppb Au
≥2.0 ppm Ag
≥110 ppm Cu
≥50 ppm Pb
≥200 ppm Zn
≥750 ppm Ba

≥50 ppb Au
≥3.0ppm Ag
≥220 ppm Cu
≥100 ppm Pb
≥400 ppm Zn
≥1,000 ppm Ba

≥100 ppb Au
≥4.0 ppm Ag
≥440 ppm Cu
≥200 ppm Pb
≥1,250 ppm Ba

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SEREM LTD.

PROJECT TOODOGGONE

MESS CLAIMS SOIL GRID NO.2

DATE: NOV. 1981	DATA: S.C.
N.T.S. 94E/2E	DRAWN: C.G.
SCALE: 1:5,000	CHECKED:

metres 0 50 100 150 200 250

FIGURE: 7

LEGEND

- Quartz-barite-calcite veins, breccia.
- Chlorite-epidote (propylitic) alteration, local argillic alteration and disseminated pyrite.
- Calcite-chalcedony veins.
- Gossan.
- Zeolite alteration.
- SC·21·81·4 — Rock geochemical sample site (see Table 2 for values).
- gn sp cp — Galena, sphalerite, and chalcopyrite mineralization.

N

SC·23·81·15

Rare chalcocite

SC·21·81·4 to 9

MESS 1 | MESS 2

MESS 4 | MESS 3

BL·16·81·7

gn (see figures 4a, 4b)

GD·22·81·3

tetrahedrite

GD·22·81·5

GD·22·81·8,9

SC·36·81·6,7

gn cp sp

CG·19·81·6

BL·16·81·10a, b

gn cp

SC·20·81·26, 27, 28

BL·16·81·11

JC·9·81·1 to 3a

gn cp

GD·23·81·9 to 15

SC·20·81·20 to 25

GD·23·81·22, 23

SC·22·81·8

K-Spar quartz stringers

CL·21·81·10

1600

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SEREM LTD.

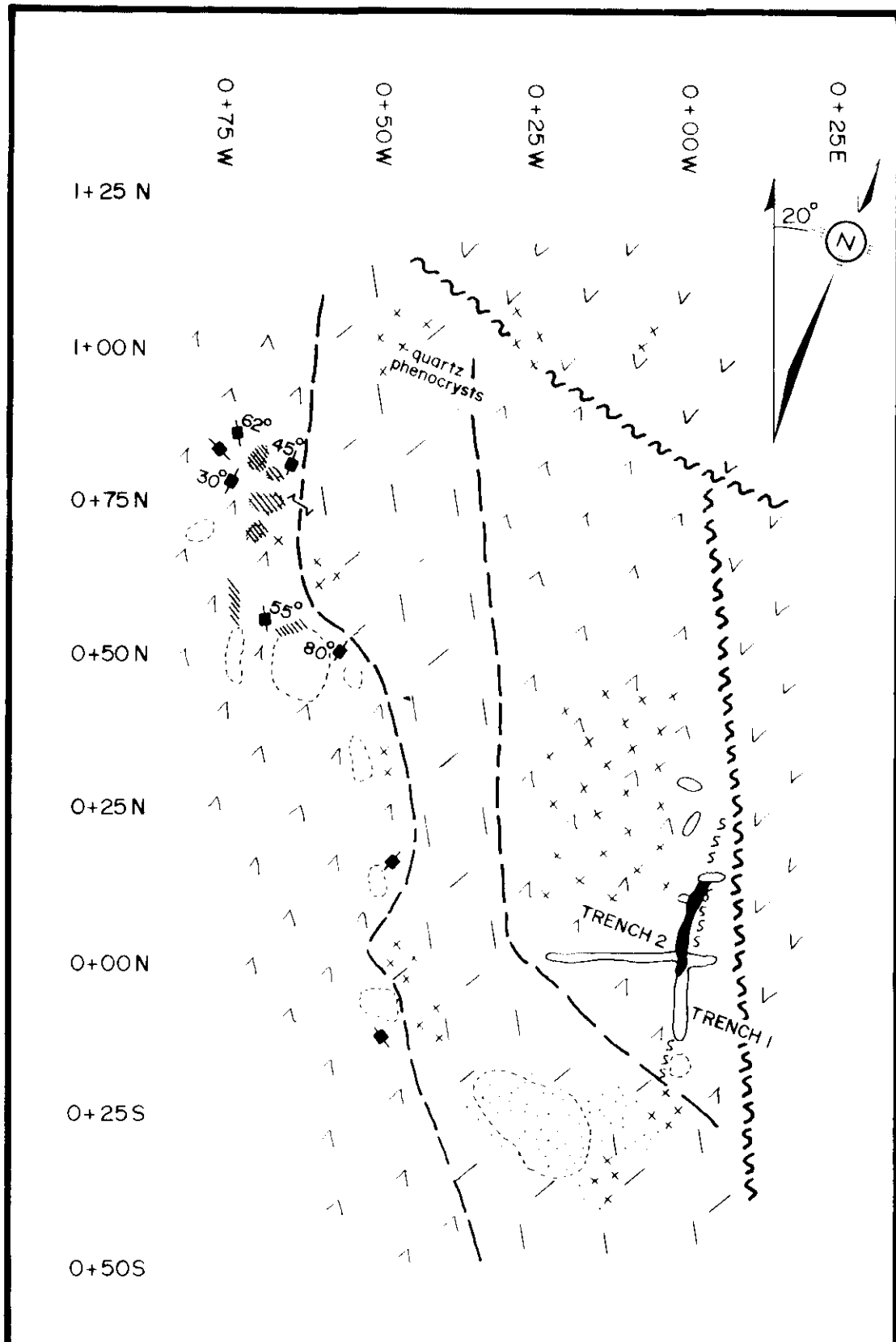
PROJECT: *TOODOGGONE*

TITLE: **MESS CLAIMS: ALTERATION, MINERALIZATION, AND ROCK SAMPLE LOCATIONS**

DATE: FEB. 82	DATA: S.C.
N.T.S.: 94E/2E	DRAWN: C. G.
SCALE: 1:10,000	CHECKED:

0 100 200 300 400 500 600 Metres

FIGURE: 3b



LEGEND

- Feldspar porphyry (Toodoggone ?).
- Toodoggone crystal lapilli tuff.
- Takla mafic volcanic -- altered to chlorite and clay.
- Quartz veins ≥ 50 % of outcrop.
- Feldspar phenocrysts -- altered to sericite (?).
- 30° Quartz vein, dip
- Shear
- Geological contact; approximate
- Fault zone, approximate
- Outcrop
- Felsenmeer
- 1+25 N Soil grid line
- Trench
- Barite galena tetrahedrite mineralization.

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TOODOGGONE

GEOLOGY OF TRENCH AREA, MESS CLAIMS

DATE: FEB 82	DATA: S.C.
N.T.S. 94E/2E	DRAWN: C.G.
SCALE 1:1,000	CHECKED:

10 5 0 10 20 30 Metres

FIGURE: 4a

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TOODOGGONE PROJECT

DETAILED MAP OF 1981 TRENCHES, MESS CLAIMS

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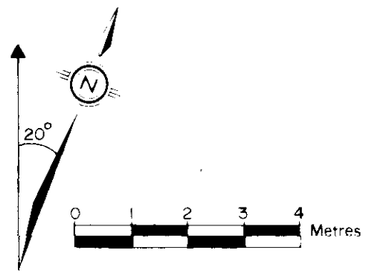


Date: December 1981	Data: S.C.
N.T.S.: 94E/2E	Drawn: C.G.
Scale: 1:100	Checked:

LEGEND

Host Rock - mafic volcanics, aphanitic and amygdaloidal. moderate argillic alteration superimposed (?) on propylitic alteration.

veins: quartz barite calcite

argillic alteration, moderate to intense limonite and Mn oxides - minor pyrite

calcite fracture fillings

hematized host rock

fault fracture plane

60° vein orientation and dip

1.30/.003 / 1.62/.011 Ag/Au (oz/ton)
32 31 30

.12/.002 17/.005 .7/.045 Ag/Au (oz/ton)
24 23 22 21

TRENCH 2

rare barite ± quartz stringers with disseminated pyrite

Amygdaloidal

some feldspar porphyry - possibly a small dike

.10/.016 .04/.006 .06/.005 .04/.001 Ag/Au (oz/ton)
12 11 10 9 8 metres

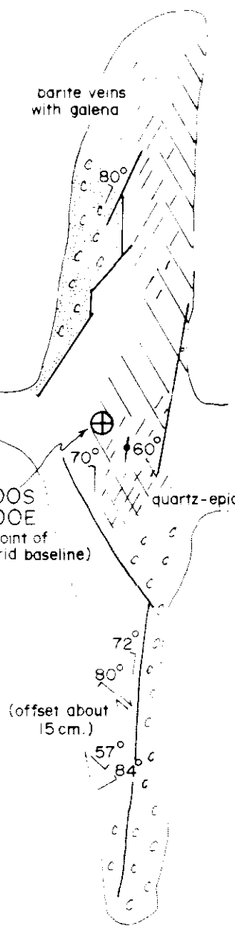
quartz vein a few mm wide with pyrite, chalcopyrite, and Cu stain

down slope ← → down slope

NOTE: Rock is badly broken throughout Trench 2 and parts of Trench 1, making structural measurements difficult or impossible.

Rich barite-galena-tetrahedrite vein in Trench 1 was mostly blasted away. It was approximately 1.5m thick (in depth), and pinched and swelled over a strike length of about 12 metres, to a maximum width of about one metre. Strike length includes the showing in Trench 3.

TRENCH 1



metres	Ag oz/ton	Au oz/ton
0		
1	3.9	.005
	12.90	.007
2	3.90	.007
3	30.60	.010
4	25.50	.012
5	2.02	.003
6	.29	.001
7	.30	.001
8		

FIGURE: 4b

LEGEND

- △ Au, soil sample, ≥ 20 ppb.
- ▲ Au, soil sample, ≥ 100 ppb.
- ◑ Au, silt sample, ≥ 20 ppb.
- ● Au, silt sample, ≥ 100 ppb.

MESS 1 | MESS 2
MESS 4 | MESS 3

1560 1600 1640 1680 1720 1760 1380

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SEREM LTD.

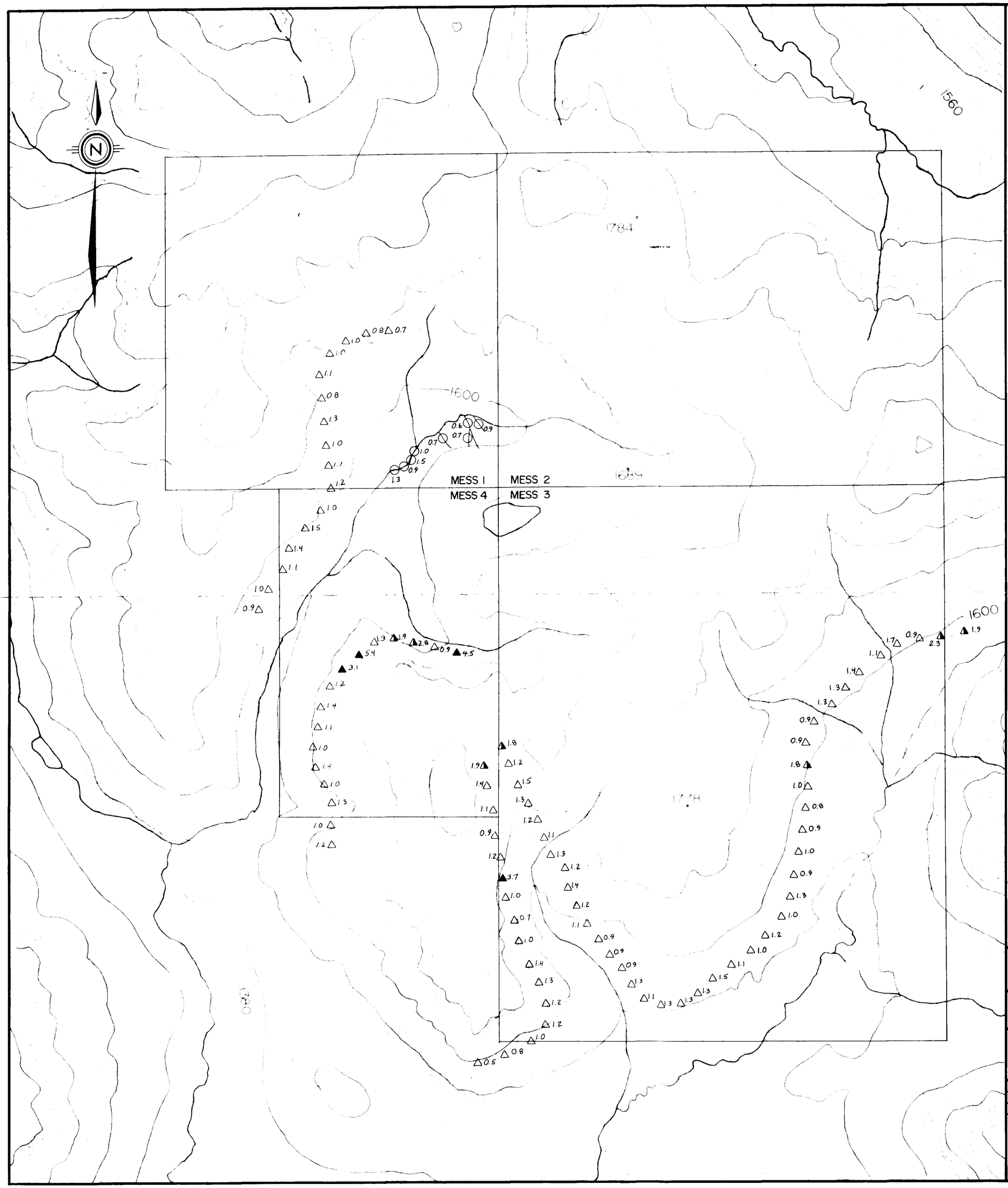
PROJECT: *TOODOGGONE*

TITLE: MESS CLAIMS: GOLD IN SILTS AND CONTOUR SOILS

DATE: FEB. 82	DATA: S.C.
N.T.S.: 94E/2E	DRAWN: C. G.
SCALE: 1:10,000	CHECKED:

0 100 200 300 400 500 600 Metres

FIGURE: 5a



LEGEND

- ◮ Ag, soil sample, ≥1.8 ppm.
- ▲ Ag, soil sample, ≥3.0 ppm.
- ◑ Ag, silt sample, ≥1.8 ppm.
- ● Ag, silt sample, ≥3.0 ppm.

19235

SEREM LTD.

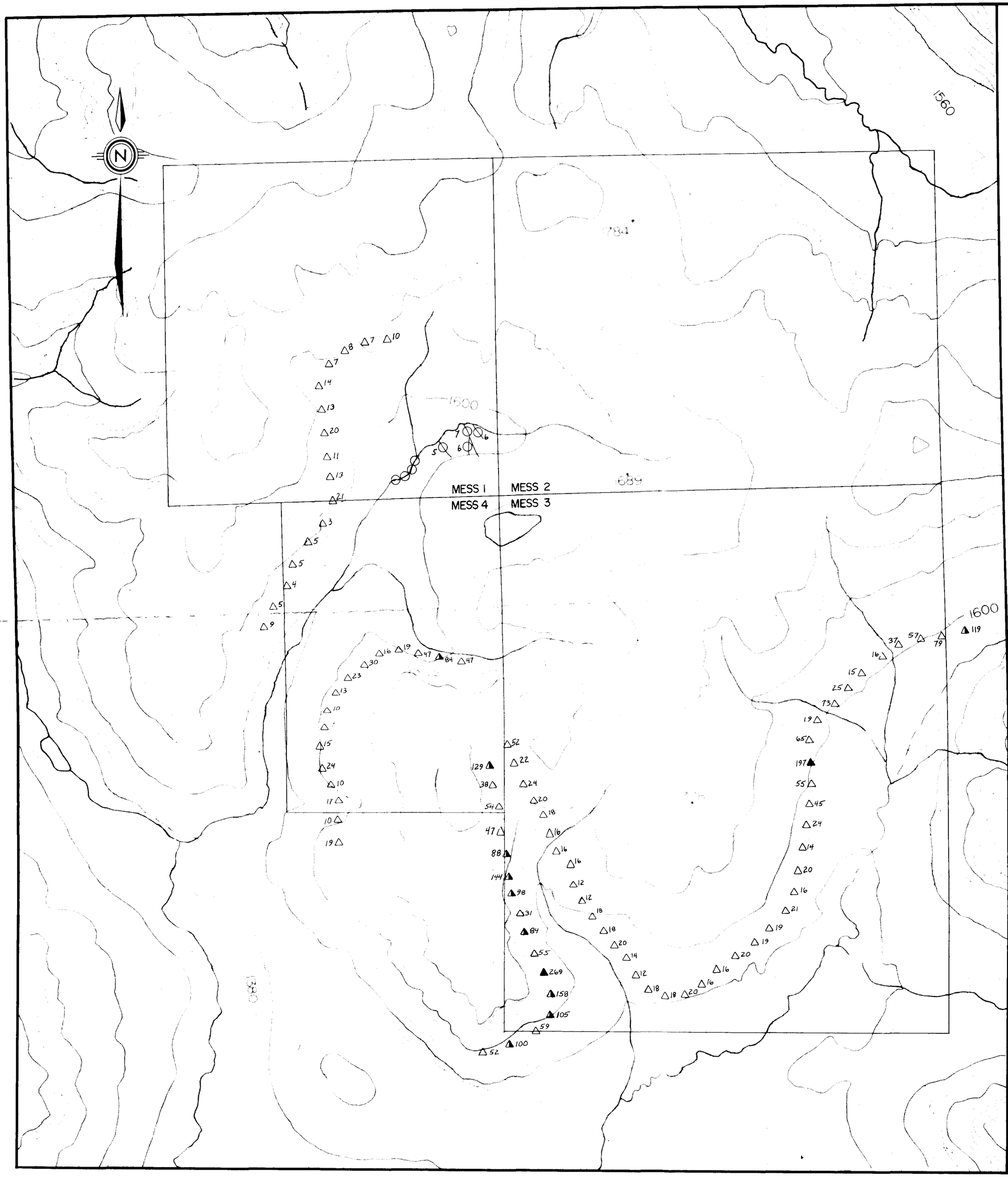
PROJECT: *TOODOGGONE*

TITLE: MESS CLAIMS: SILVER IN SILTS AND CONTOUR SOILS

DATE: FEB. 82	DATA: S.C.
N.T.S.: 94E/2E	DRAWN: C. G.
SCALE: 1:10,000	CHECKED:

0 100 200 300 400 500 600 Metres

FIGURE: 5b



LEGEND

- △ Cu, soil sample, ≥ 80 ppm.
- ▲ Cu, soil sample, ≥ 160 ppm.
- ◑ Cu, silt sample, ≥ 80 ppm.
- ● Cu, silt sample, ≥ 160 ppm.

10,235

SEREM LTD.

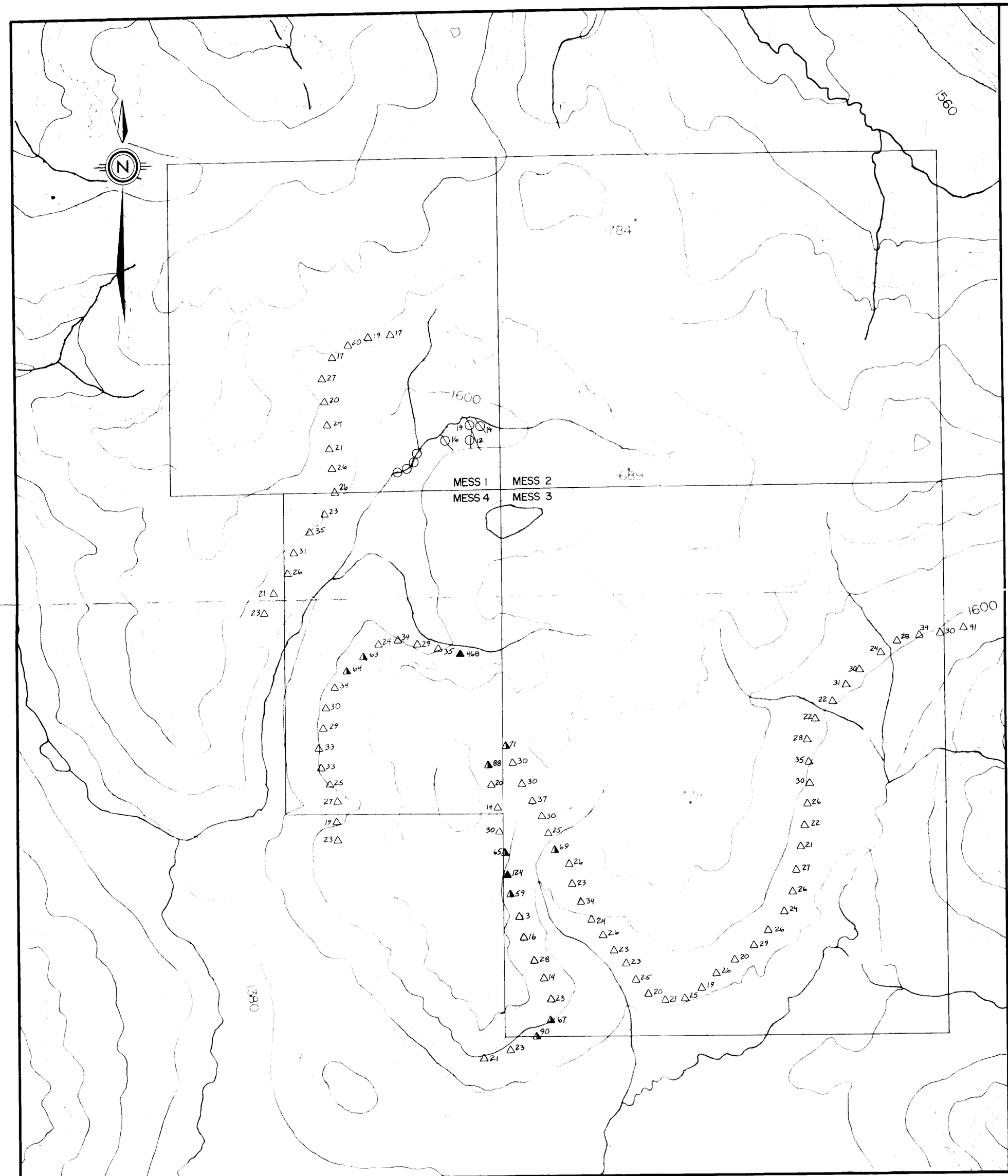
PROJECT: *TOODOGGONE*

TITLE: MESS CLAIMS: COPPER IN SILTS AND CONTOUR SOILS

DATE: FEB. 82	DATA: S.C.
N.T.S.: 94E/2E	DRAWN: C. G.
SCALE: 1:10,000	CHECKED:

0 100 200 300 400 500 600 Metres

FIGURE: 5c



LEGEND

- ◭ Pb, soil sample, ≥50 ppm.
- ▲ Pb, soil sample, ≥100 ppm.
- ◑ Pb, soil sample, ≥50 ppm.
- ● Pb, silt sample, ≥100 ppm.

10,235

SEREM LTD.

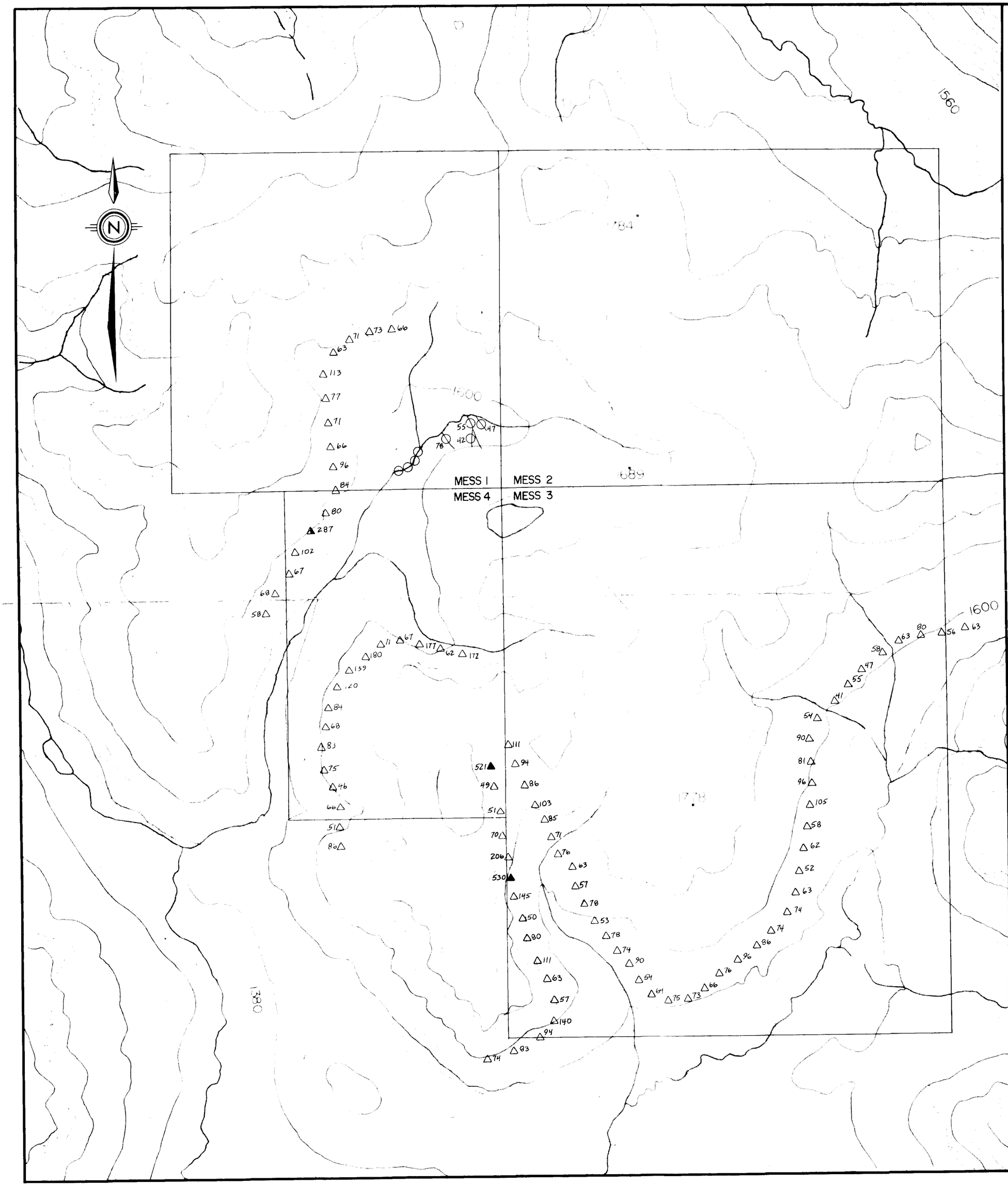
PROJECT: *TOODOGGONE*

TITLE: MESS CLAIMS: LEAD IN SILTS AND CONTOUR SOILS

DATE: FEB. 82	DATA: S.C.
N.T.S.: 94E/2E	DRAWN: C. G.
SCALE: 1:10,000	CHECKED: SC

0 100 200 300 400 500 600 Metres

FIGURE: 5d



LEGEND

- ◮ Zn, soil sample, ≤250 ppm.
- ▲ Zn, soil sample, ≤500 ppm.
- ◑ Zn, silt sample, ≤250 ppm.
- ● Zn, silt sample, ≤500 ppm.

10,235

SEREM LTD.

PROJECT: *TOODOGGONE*

TITLE: MESS CLAIMS: ZINC IN SILTS AND CONTOUR SOILS

DATE: FEB. 82	DATA: S.C.
N.T.S.: 94E/2E	DRAWN: C. G.
SCALE: 1:10,000	CHECKED: SC

0 100 200 300 400 500 600 Metres

FIGURE: 5e