82-170-10236

ASSESSMENT REPORT

GEOCHEMICAL REPORT ON THE STAR, SUN AND CO CLAIMS (38 UNITS)

OMINECA MINING DIVISION

by

SHEILA A. CRAWFORD

LOCATION: 57°11' to 57°13' N Latitude
126°52' to 126°58' W Longitude
N.T.S. 94E/2W

OWNER/OPERATOR: SEREM LTD.

DATES WORK PERFORMED: September 21, 27 and 29, 1981

DATE OF REPORT: March 1982

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LIST OF ILLUSTRATIONS

INTRODUCTION

The Star, Sun and Co claims are located between 57°11' N and 57°13' N latitude and 126°52' W and 126°58' W longitude in the Toodoggone River map sheet area, N.T.S. 94E/2W, Omineca Mining Division (see Figures 1 and 2). Elevation ranges from about 1460 to 1935 metres above sea level. Topography is moderately rugged.

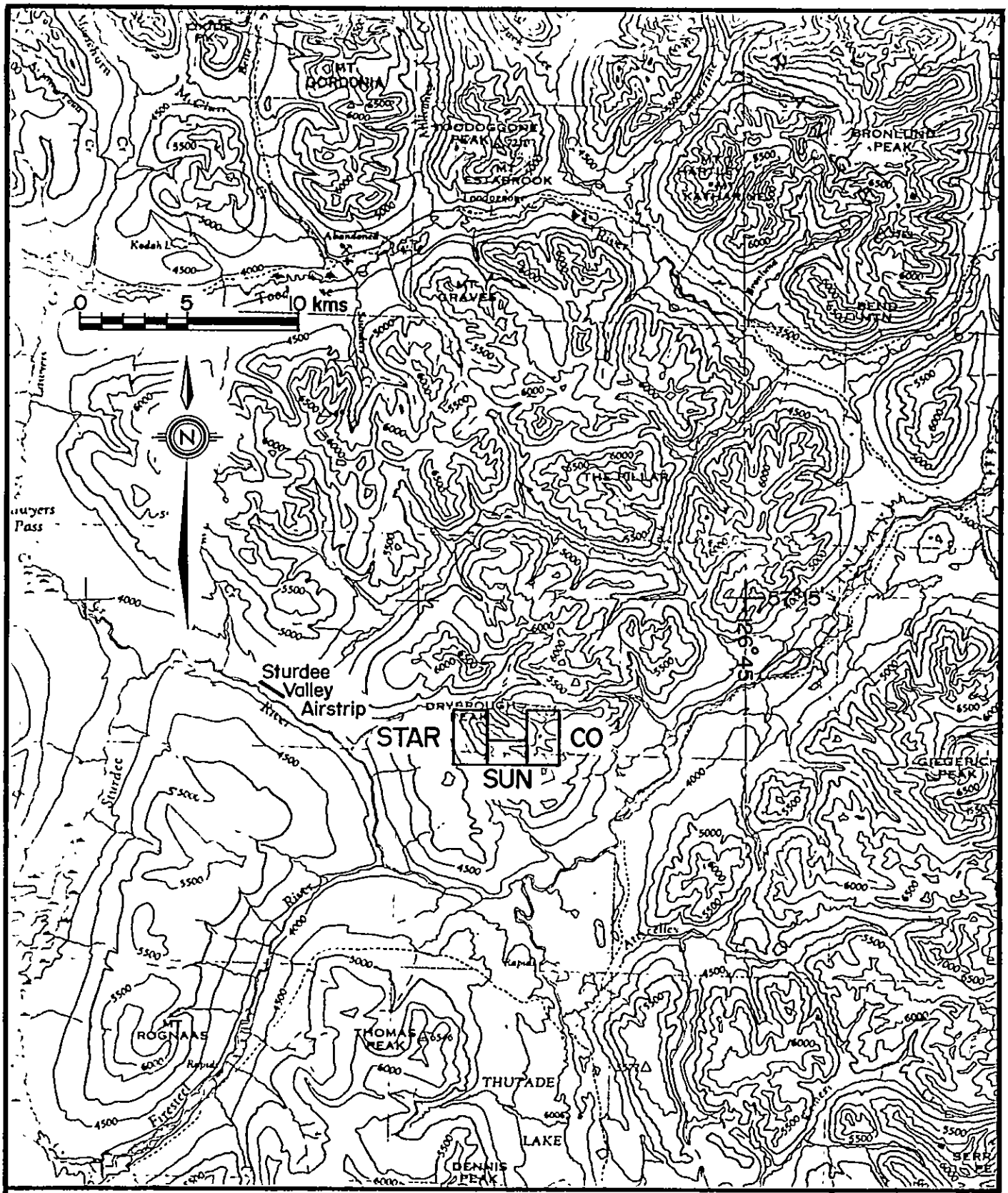
Access to the property is by fixed wing plane from Smithers to Sturdee Airstrip, a distance of 280 kilometres; and from Sturdee Airstrip to the property by helicopter, a distance of about 6 kilometres.

The number of units and record number of each claims are as follows:

Name	Record No.	No. of Units
Star	3683	15
Sun	3684	8
Co	3681	15

The claims are owned and operated by Serem Ltd. Cominco Ltd. holds four claim units overlapping the northwest corner of the Sun claims (Amigo claim, Assessment Report No. 6762).

In 1981, Serem Ltd. carried out a soil geochemical survey on the Star claim (Figure 3). 204 samples were analysed for gold, silver, copper, lead and molybdenum. The purpose of the survey was to test an area of poor rock exposure. Copper mineralization occurs in nearby outcrop areas.

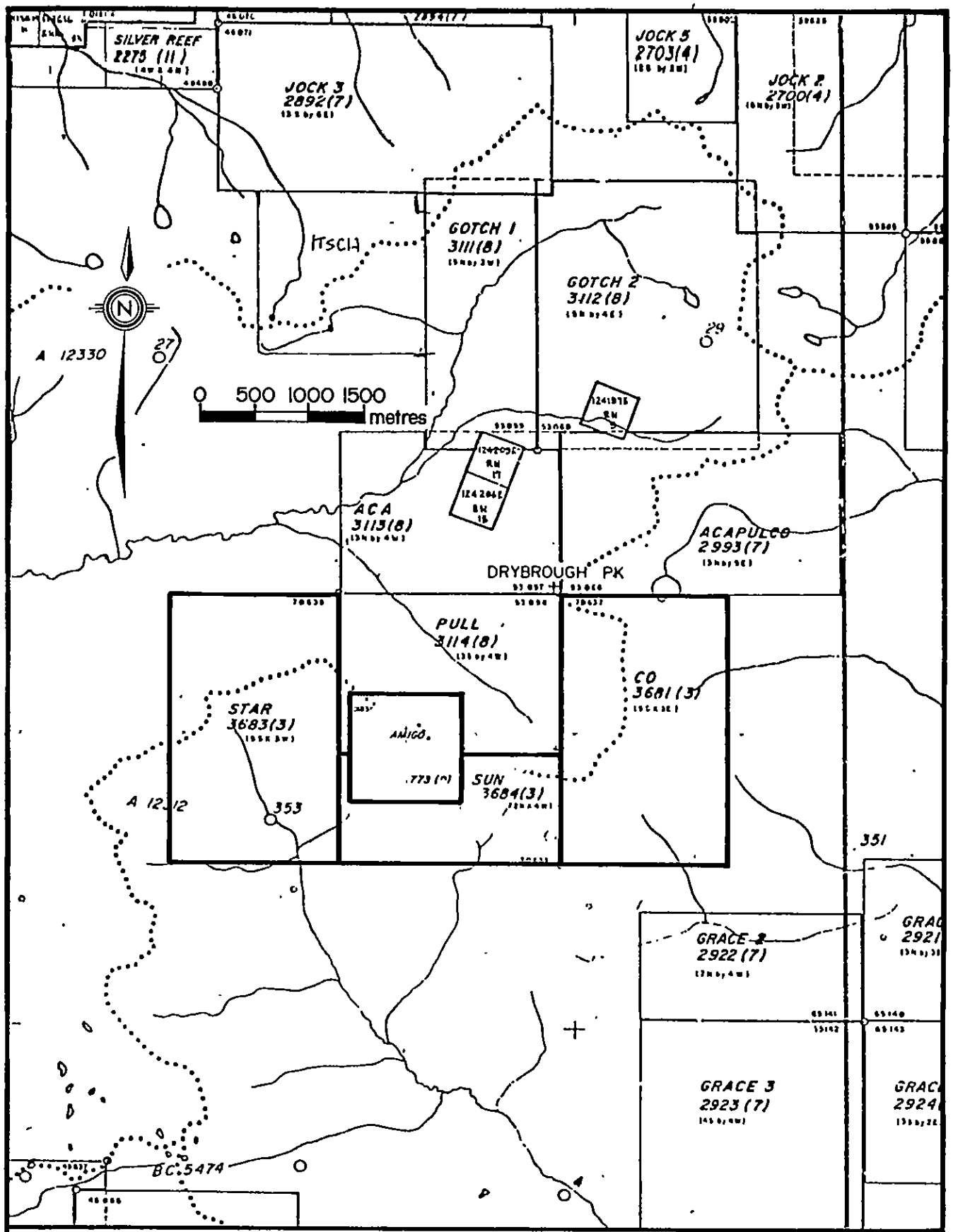


LOCATION MAP:

STAR, SUN, AND CO CLAIMS

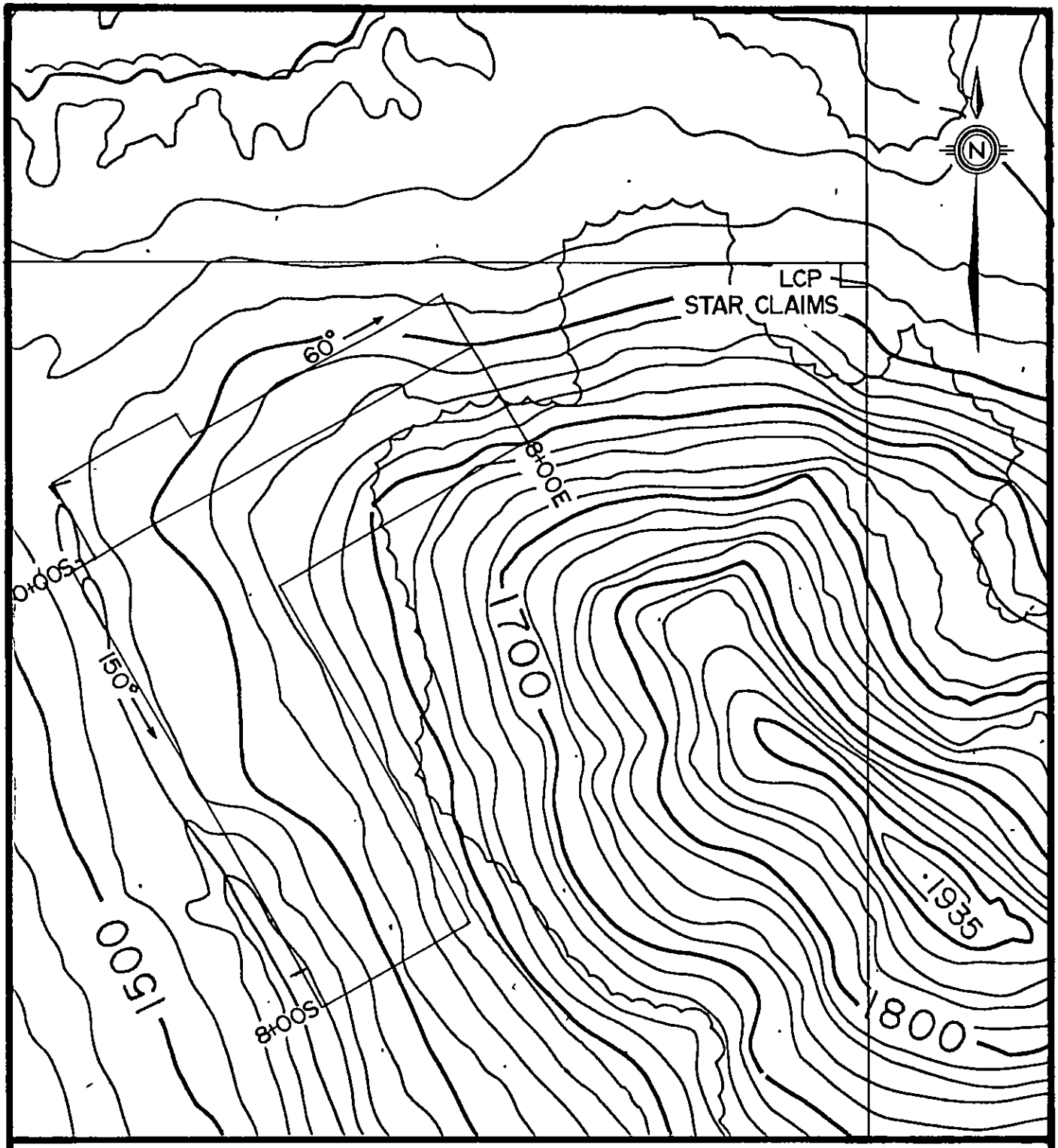
FIGURE:

1



CLAIMS MAP:
STAR, SUN, AND CO CLAIMS

FIGURE:
2



STAR CLAIMS : SOIL GRID LOCATION MAP

DATE: NOV. 1981	DATA: S.C.
N.T.S.: 94E/2W	DRAWN: C.G.
SCALE: 1:10,000	CHECKED:

Metres:
100 0 100 200 300 400 500

FIGURE: 3

GEOLOGY

The claims area is underlain by limestone intruded by a multiple-phase pluton. Feldspar porphyritic mafic volcanics occur as interbedded tuffs, subvolcanic sills and dikes in the limestone. The limestone itself is composed of massive, thick beds of recrystallized calcite. Skarn zones may contain malachite, bornite, chalcocite or chalcopyrite.

The geology of the soil grid area is illustrated in Figure 4. The intrusive contact is partly inferred from geochemical and topographic data. Rusty soils may indicate underlying skarn or sulphide zones.

GEOCHEMICAL SOIL SAMPLING

Soils were taken at 50-metre intervals on lines 50 metres apart. Lines 0+00S to 8+00S and 0+00E to 8+00E were set with chain and compass and picketed every 50 metres. Soil lines were run from these baselines, using Topofil and compass for control. All sample sites were flagged with the grid coordinates. Soil was placed in brown paper bags and the locality, topographic features and soil characteristics noted.

Horizons are moderately to well developed in the forested areas. Organic content is higher in the northeast portion of the grid and in areas of poor drainage. Topographic features are illustrated in Figure 5.

GEOCHEMICAL ANALYSIS

Samples were sent to Min-En Laboratories and were analysed for gold, silver, copper, lead and molybdenum. 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 molybdenum, 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 Spectrophotometers using the CH_2H_2-Air Flame combination for silver, copper, and lead. The C_2H_2-NO_2 mixture is used for molybdenum.

GEOCHEMICAL RESULTS AND INTERPRETATION

Gold, silver, copper, lead and molybdenum analyses are plotted on Figures 5a to 5e respectively. The values are contoured.

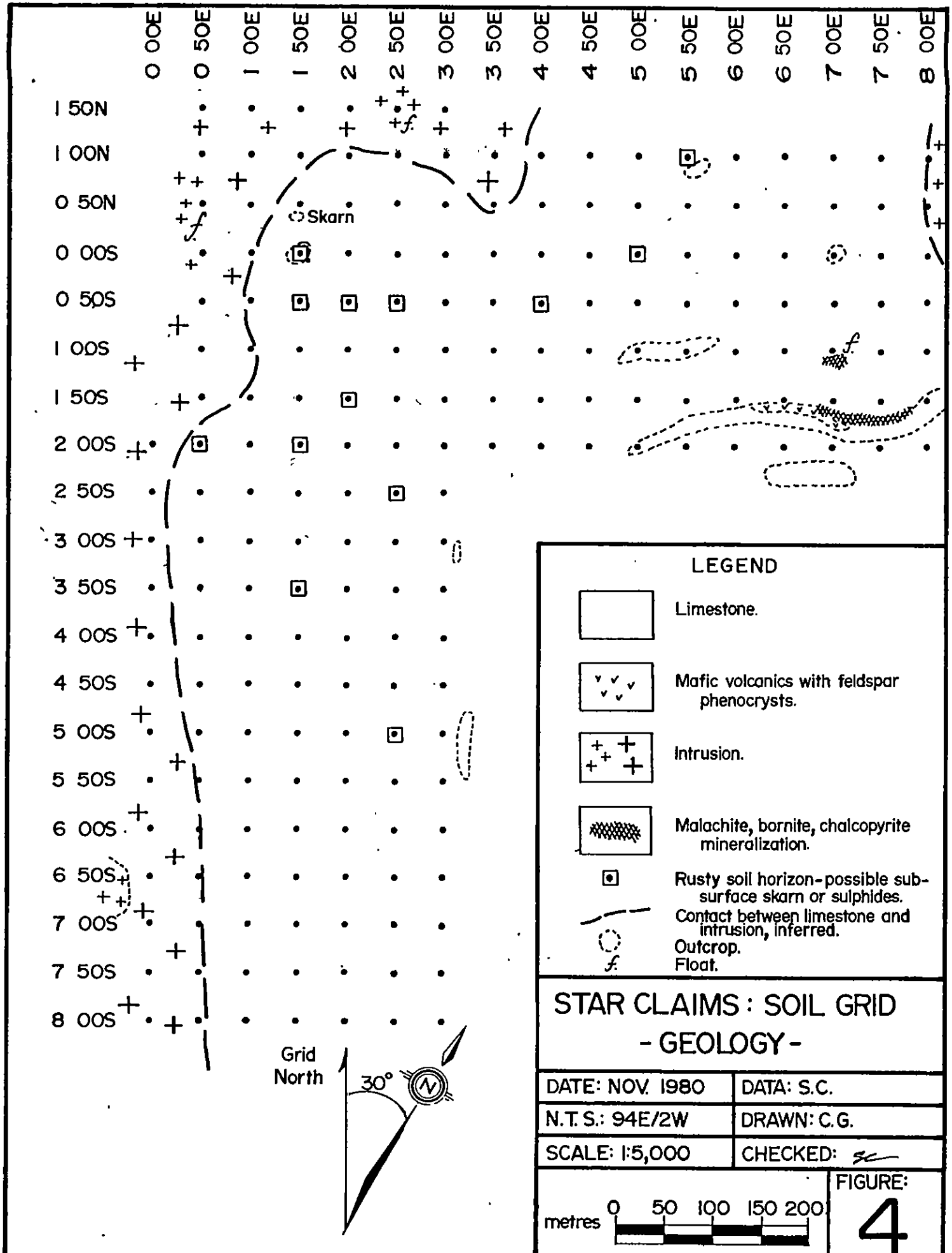
An anomaly in all five elements occurs between lines 6+00 and 8+00E and is open to the east. Values are as high as 310 ppb gold, 12.9 ppm silver, 3230 ppm copper, 3700 ppm lead, and 29 ppm molybdenum. Malachite-bornite mineralization occurs at the contact between limestone and volcanic rocks in this area. The anomaly is dispersed downslope.

One gold anomaly centred on 0+00S - 1+50E may be associated with underlying skarn. The anomaly at 6+00S-1+50E is in transported soil and is probably downslope from its source.

Lead values are above normal background levels over most of the grid and appear to be a geochemical signature of the limestone.

CONCLUSIONS AND RECOMMENDATIONS

Geochemical anomalies in gold, silver, copper, lead and molybdenum are associated with skarn zones in limestone. In addition, some lead mineralization in the limestone is probably derived from earlier mineralizing events. It is recommended that a magnetometer survey, along with detailed mapping and prospecting, be carried out in this area.



LEGEND

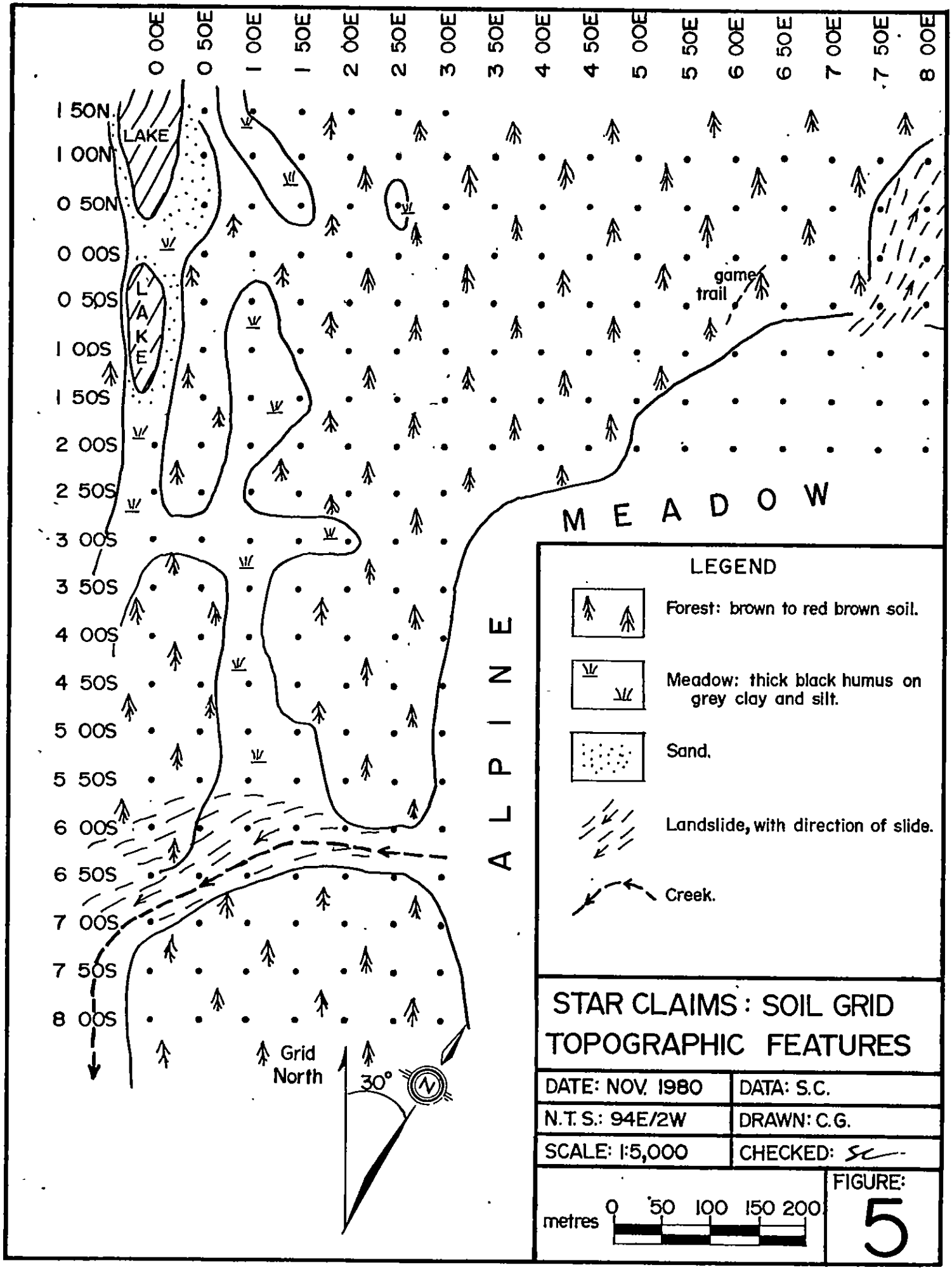
- Limestone.
- Mafic volcanics with feldspar phenocrysts.
- Intrusion.
- Malachite, bornite, chalcopyrite mineralization.
- Rusty soil horizon-possible sub-surface skarn or sulphides.
- Contact between limestone and intrusion, inferred.
- Outcrop.
- f. Float.

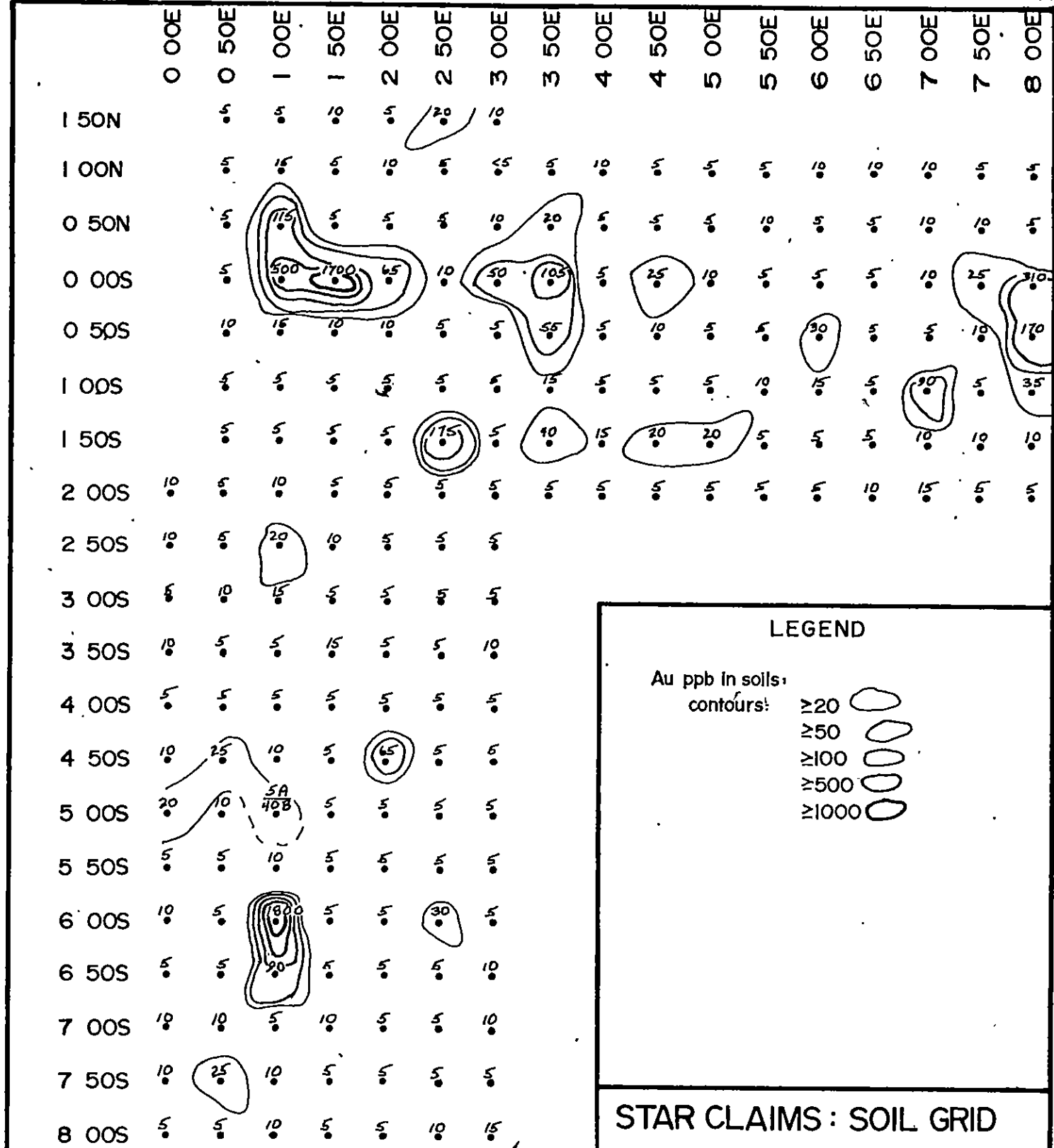
STAR CLAIMS : SOIL GRID - GEOLOGY -

DATE: NOV. 1980	DATA: S.C.
N.T.S.: 94E/2W	DRAWN: C.G.
SCALE: 1:5,000	CHECKED:

metres 0 50 100 150 200

FIGURE: 4


0 00E
0 50E
1 00E
1 50E
2 00E
2 50E
3 00E
3 50E
4 00E
4 50E
5 00E
5 50E
6 00E
6 50E
7 00E
7 50E
8 00E
1 50N
1 00N
0 50N
0 00S
0 50S
1 00S
1 50S
2 00S
2 50S
3 00S
3 50S
4 00S
4 50S
5 00S
5 50S
6 00S
6 50S
7 00S
7 50S
8 00S
LAKE
LAKE
game trail
MEADOW
ALPINE
Grid North
30°
N
LEGEND
Forest: brown to red brown soil.
Meadow: thick black humus on grey clay and silt.
Sand.
Landslide, with direction of slide.
Creek.
STAR CLAIMS: SOIL GRID
TOPOGRAPHIC FEATURES
DATE: NOV. 1980
DATA: S.C.
N.T.S.: 94E/2W
DRAWN: C.G.
SCALE: 1:5,000
CHECKED: SC
metres 0 50 100 150 200
FIGURE: 5



LEGEND

Au ppb in soils; contours:

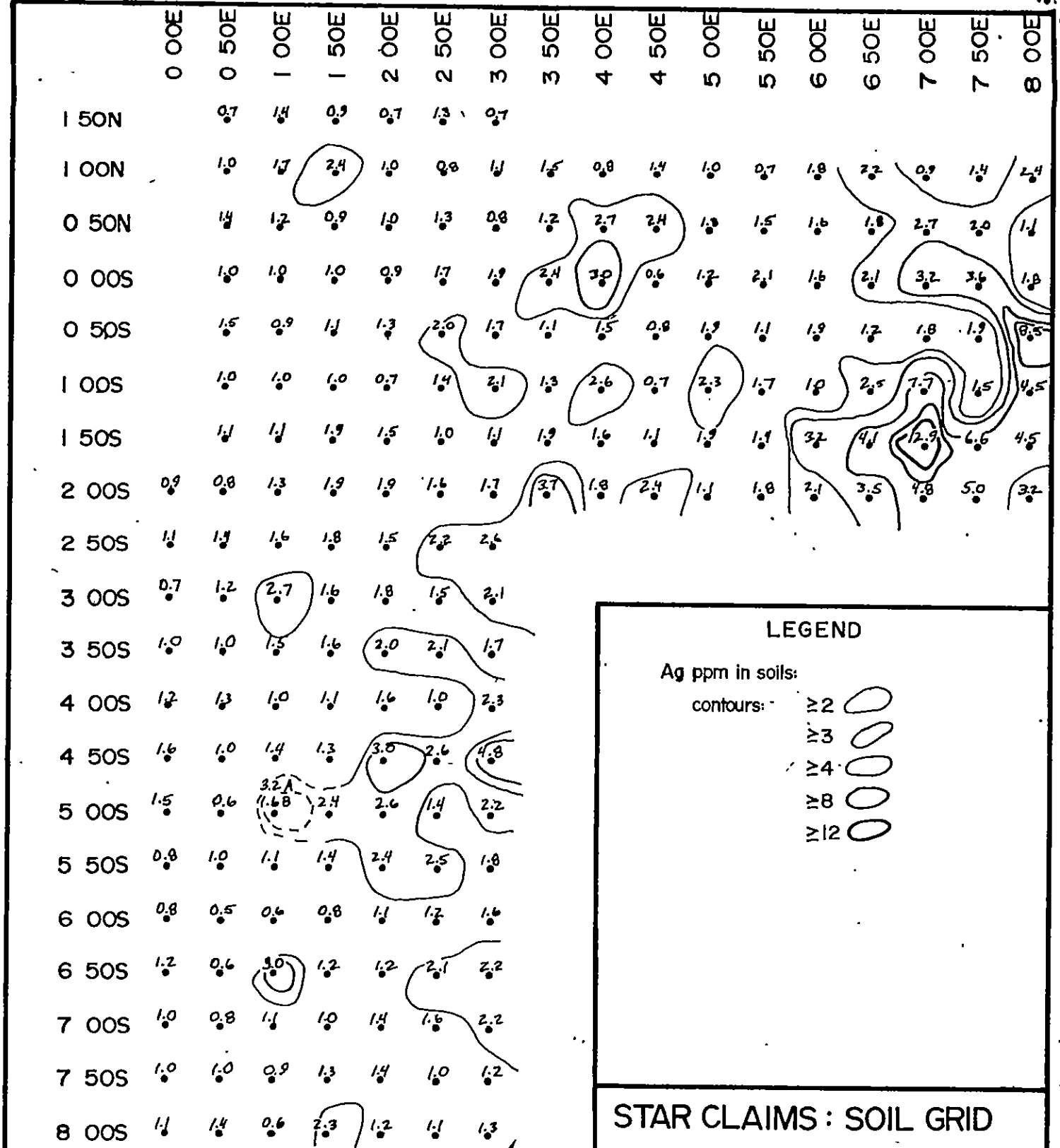
- ≥20
- ≥50
- ≥100
- ≥500
- ≥1000

STAR CLAIMS : SOIL GRID GOLD VALUES IN SOILS

DATE: NOV. 1980	DATA: S.C.
N.T.S.: 94E/2W	DRAWN: C.G.
SCALE: 1:5,000	CHECKED:

metres 0 50 100 150 200

FIGURE: 6a



LEGEND

Ag ppm in soils:

contours: ≥2 ≥3 ≥4 ≥8 ≥12

Grid North

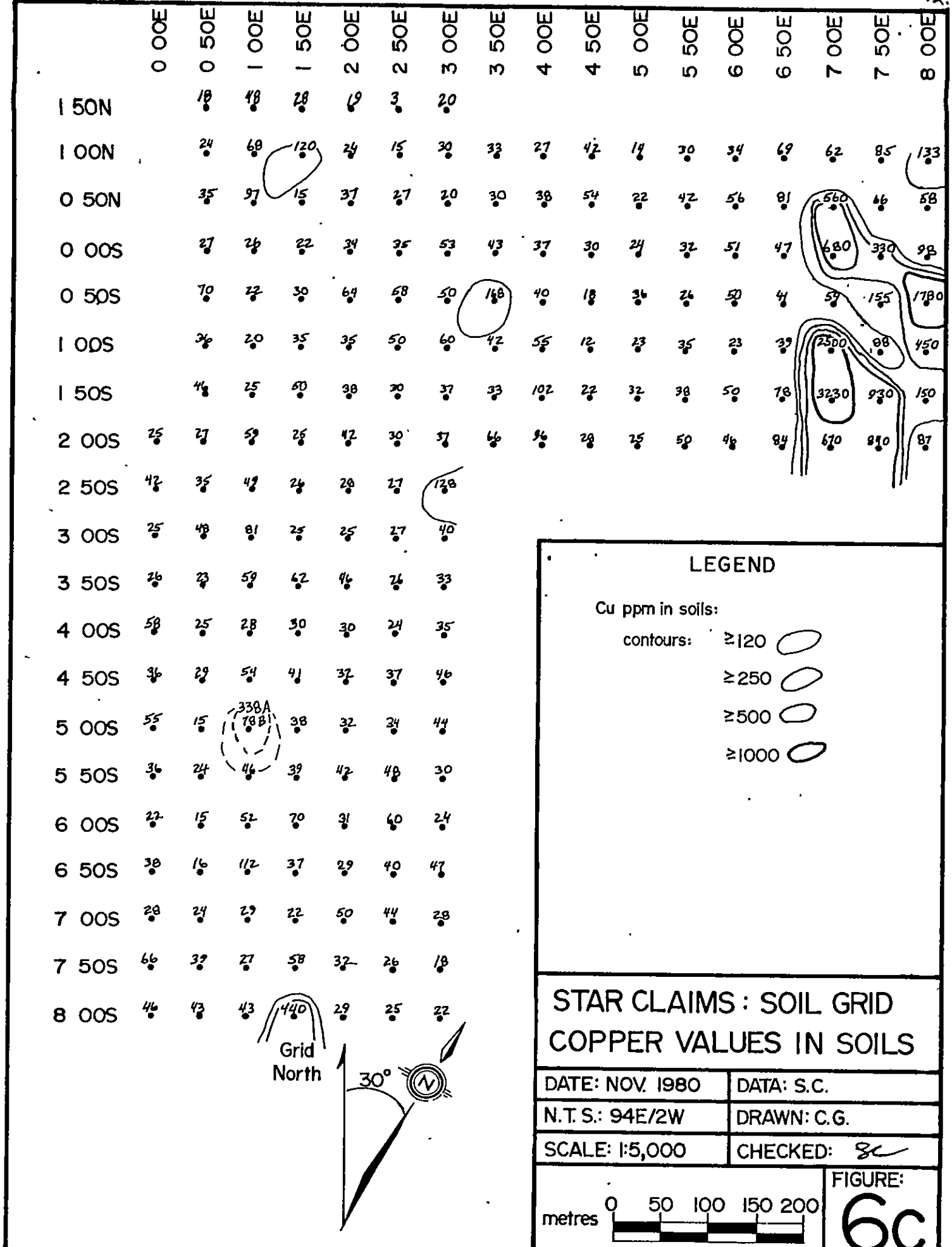
30°

STAR CLAIMS : SOIL GRID
SILVER VALUES IN SOILS

DATE: NOV. 1980	DATA: S.C.
N.T.S.: 94E/2W	DRAWN: C.G.
SCALE: 1:5,000	CHECKED:

metres 0 50 100 150 200

FIGURE: 6b



LEGEND

Cu ppm in soils:

contours: ≥120

≥250

≥500

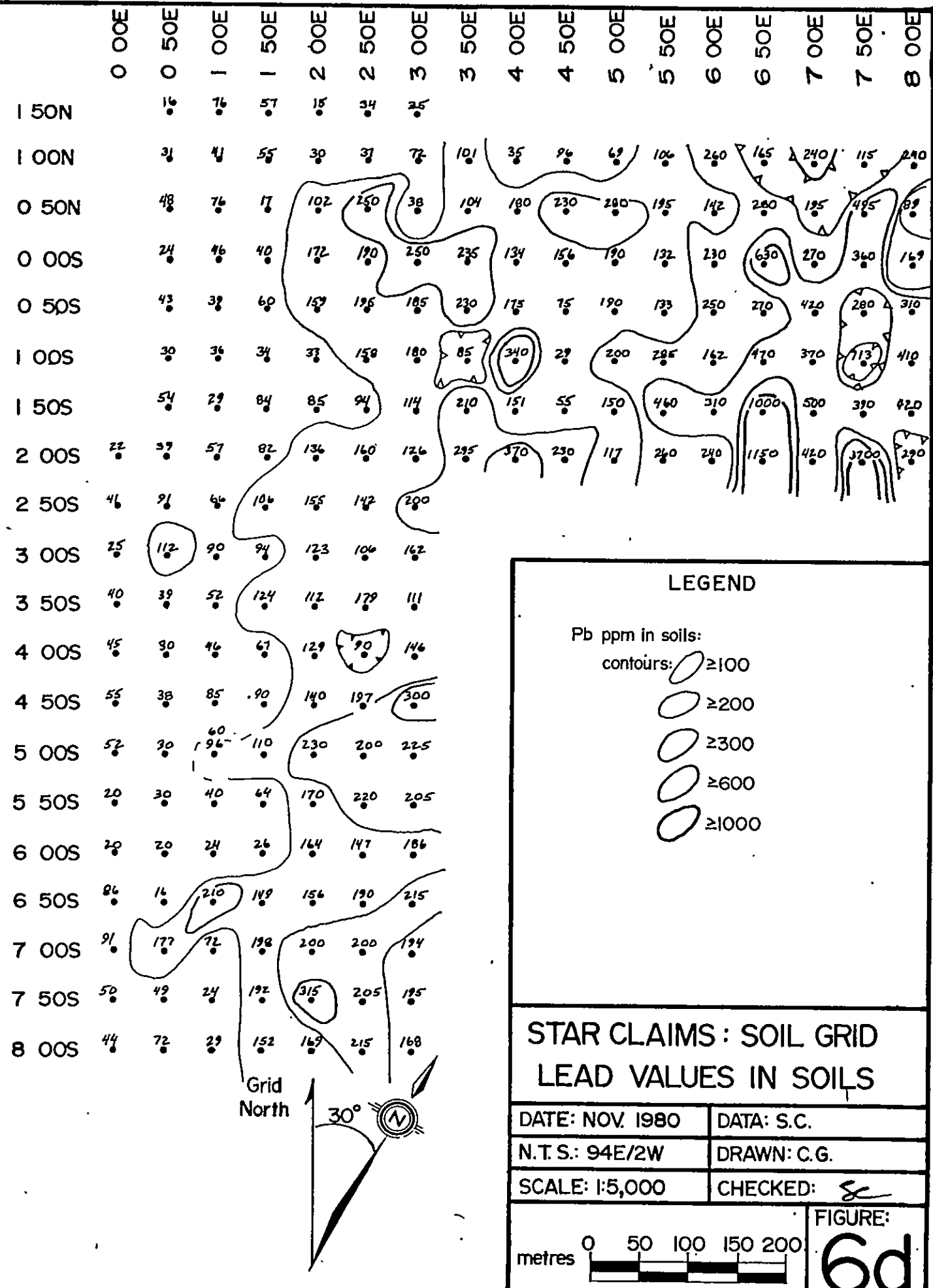
≥1000

STAR CLAIMS : SOIL GRID COPPER VALUES IN SOILS

DATE: NOV. 1980	DATA: S.C.
N.T.S.: 94E/2W	DRAWN: C.G.
SCALE: 1:5,000	CHECKED: 8c

metres 0 50 100 150 200

FIGURE: 6C



LEGEND

Pb ppm in soils:

contours: ≥100

≥200

≥300

≥600

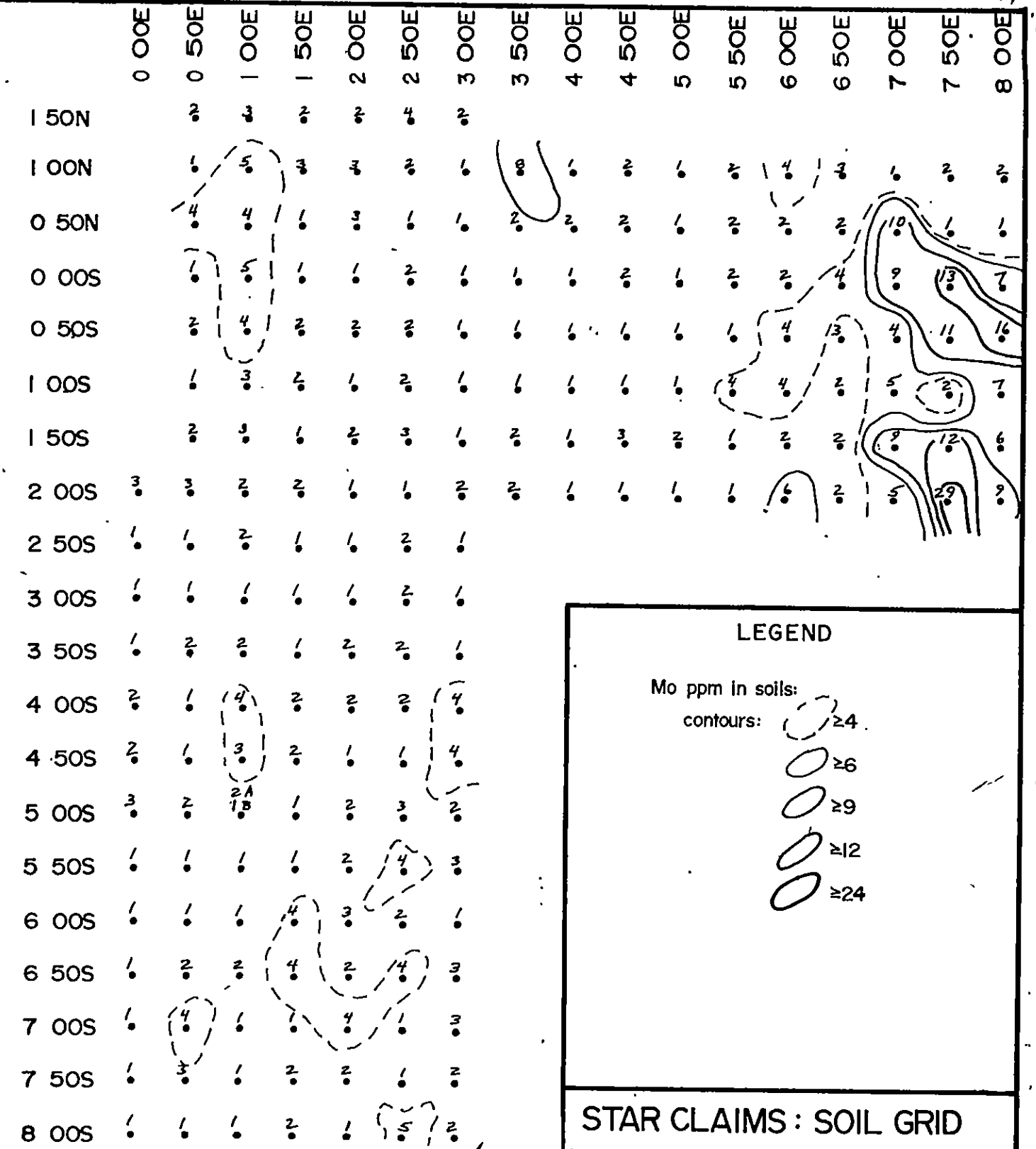
≥1000

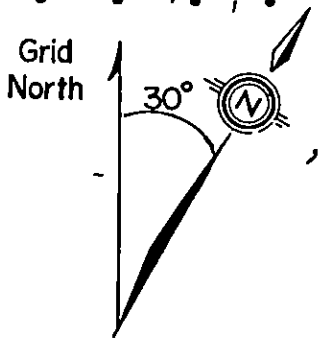
STAR CLAIMS : SOIL GRID
LEAD VALUES IN SOILS

DATE: NOV. 1980	DATA: S.C.
N.T.S.: 94E/2W	DRAWN: C.G.
SCALE: 1:5,000	CHECKED: SC

metres 0 50 100 150 200

FIGURE: 6d





LEGEND

Mo ppm in soils:

contours: ≥4

≥6

≥9

≥12

≥24

STAR CLAIMS : SOIL GRID
MOLYBDENUM VALUES IN SOILS

DATE: NOV. 1980	DATA: S.C.
N.T.S.: 94E/2W	DRAWN: C.G.
SCALE: 1:5,000	CHECKED:

metres 0 50 100 150 200

FIGURE: 6e

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

Analyses

204 soil samples analysed for Au, Ag, Cu, Mo, Pb	@ $10.55	$2,152.20	
Sample shipment from Smithers to Vancouver Lab.			
204 samples	@ $ 0.30	61.20	
			$2,213.40

Wages

Grid preparation, geology and geochemical sampling September 21, 27 and 29, 1981:

S. Crawford	2½ days	@ $ 92	$ 230.00	
E. DeBock	2 days	@ $ 94	188.00	
M. Sangster	2 days	@ $ 50	100.00	
				518.00

Report writing and map preparation:

S. Crawford	1 day	@ $115	115.00	

Drafting:

C. Greig	1 day	@ $ 72	72.00	
				187.00

Board, Lodging and Field Expenses

6½ man-days	@ $52/day	338.00

Transportation

Helicopter	1 hr. 35 min. @ $475/hour, incl. fuel	752.00

Topographic Map, 1:10,000 scale

(Burnett Resources)	144.00
TOTAL	$4,152.40