ASSESSMENT REPORT

GEOLOGICAL AND GEOCHEMICAL REPORT
ON THE
LOOTZ 1 - 40 MINERAL CLAIMS

WATSON LAKE MINING DISTRICT
YUKON TERRITORY
CANADA

60°17' N 126°40' W
N.T.S. 95 D-7

For
SEREM LTD.

REPORT BY: MICHAEL A. STAMMERS
WORK PERFORMED BETWEEN: September 18, 1981 and August 13, 1982

DATE OF REPORT: AUGUST 13, 1982

This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) Yukon Quartz
Mining Act and is allowed as
representation work in the account
for $ 8,000 .

P.L. Watson

for Regional Manager, Exploration and
Geological Services for Commissioner
of Yukon Territory.

TABLE OF CONTENTS

LIST OF FIGURES

1. INTRODUCTION

The Lootz 1-40 mineral claims were staked in the northern Lootz Lake area, southeastern Yukon, in September 1981 to cover significant lead, silt and soil geochemical anomalies outlined by earlier Serem exploration parties. Acquisition of this property is considered part of Serem Ltd.'s Coal River Regional exploration project.

The property is underlain by sedimentary and volcanic rocks of Paleozoic age.

Minor galena, vein-type mineralization was discovered by Serem prospector Peter Newman in a south flowing stream cut. This showing, and the anomalous lead soil geochemistry, appear to be entirely underlain by flow, tuffaceous, and amygdaloidal volcanic rocks.

Evaluation work during the 1981 field season included prospecting, soil geochemistry based on a flag and compass grid, and geological mapping.

Geological mapping, prospecting, and stream sediment sampling was carried out on the claims and in the immediate claims' area in 1982.

2. LIST OF CLAIMS

Claim Name	Grant Numbers	Expiry Date
Lootz 1-40 incl.	YA67232 - YA67271 incl.	18 Sept. 1982

SEREM LTD.

SELWYN BASIN, Y.T.

PROJECT LOCATION MAP

JAN 82

SCALE IN MILES

80 60 40 20 0 20 40 60 80

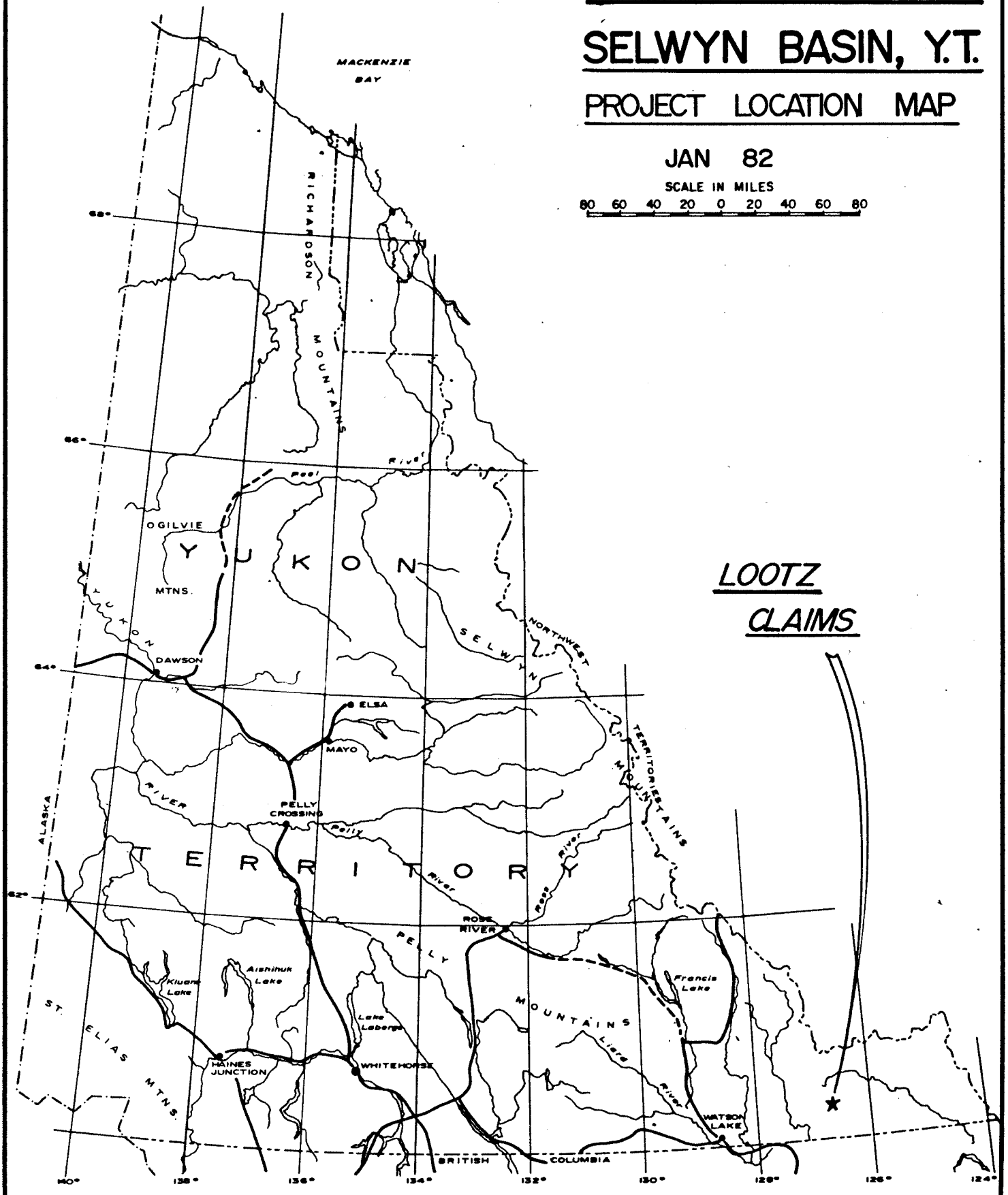
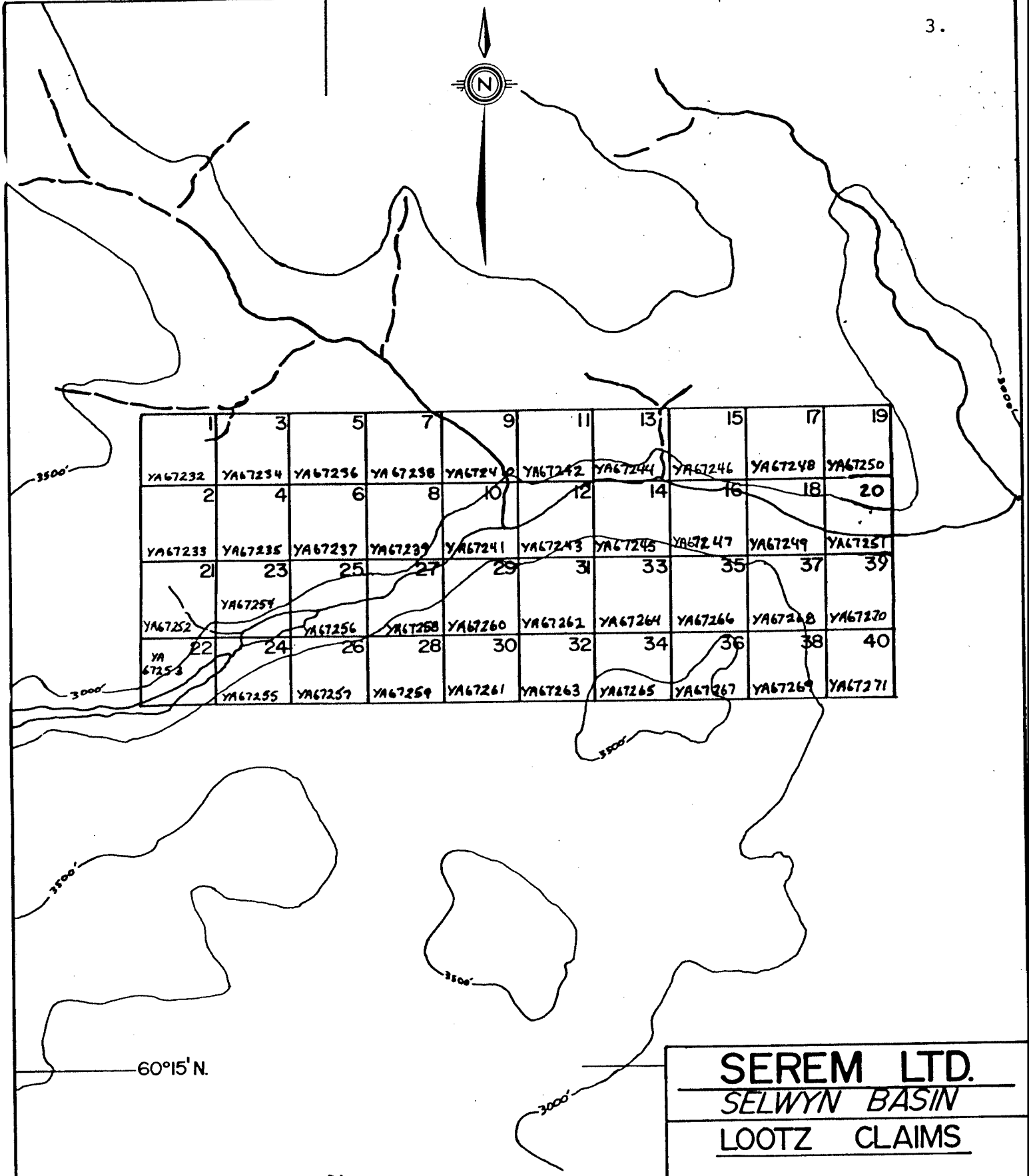


FIGURE ONE



SEREM LTD.

SELWYN BASIN

LOOTZ CLAIMS

CLAIMS MAP

DATE JAN 82	REV.
NTS 95D/7	DATA: MS DR: DGD
SCALE 1 inch = 1/2 mile	
0 — 1 mi.	2

3. LOCATION AND ACCESS

The Lootz 1-40 claims are located 130 kilometres east-northeast of Watson Lake and 15 kilometres north-northeast of Lootz Lake at latitude 60°17' N and longitude 126°40' W.

Access during the field season was provided by float-equipped aircraft from Watson Lake, Y.T., to the Serem Ltd. base camp on Gusty Lakes and thence southwest 24 kilometres by Hughes 500D helicopter to the property.

4. PHYSIOGRAPHY AND CLIMATE

Elevations on the Lootz 1-40 mineral claims range between 900 and 1100 metres (2950 and 3610 feet) above sea level. Relief is generally flat or gentle, except where creeks downcut the plateau-like terrain. Outcrop is restricted entirely to the steep creek banks and is typical of the poor exposure of the region.

Climate in the Lootz claims' area is characterized by short, warm summers and long cold winters. The best exploration season lasts from May through to September.

Wildlife, including moose, beaver and black bear, is plentiful in the Lootz claims' area.

5. EXPLORATION HISTORY

Very limited exploration work has been performed in the southeastern Coal River map area. Inhospitable terrain, including limited exposure, heavy forest cover and glacial deposits, make assessment of the mineral potential very difficult.

Serem Ltd. initiated a regional base metal exploration programme in the Coal River map area in September 1980. Follow-up work during the 1981 field season resulted in the staking of the Lootz claims.

Serem Ltd. carried out further property and regional exploration in the Lootz claims' area in 1982.

A claim post from the early 1960's was found on the property but evidence of the claims having ever been recorded is not available.

6. REGIONAL GEOLOGY

The regional geology is based on Geological Survey of Canada mapping by H. Gabrielse and S. Blusson performed in 1967 and by E. Roots in 1953 (G.S.C. Map 11-1968).

The oldest rocks found in the Lootz claims' area are Middle Ordovician dolomites of the Sunblood Formation (G.S.C.). This dominant stratigraphic unit is overlain by Ordovician to Devonian aged Road River and Nonda Formation sedimentary and volcanic rocks. Results of mapping by Serem geologists in 1982 indicate that older stratigraphy, including Lower Cambrian Rabbitkettle Formation, may be present.

Major structures in the area include the Toobally Fault to the east, the Rock River Fault to the west, and the Caribou Anticline to the north.

7. PROPERTY GEOLOGY

Limited geological mapping carried out in 1981 was updated by detailed work in June 1982. Exposure on the property

is limited to the large east-west glacial channel-way that roughly bisects the Lootz claims. Geological mapping has revealed a faulted and folded sequence of Lower Cambrian (?) to Devonian sedimentary and volcanic rocks (Fig. 3). A gently dipping, north plunging anticlinorium has been tentatively outlined (Fig. 3).

The oldest rocks are tentatively assigned to the Lower Cambrian and include a silty, light-grey weathering limestone (Rabbitkettle Formation ?) underlain by a moderately thick sequence of volcanic agglomerates, amygdaloidal flows, and tuffs. The volcanic rocks weather light to medium green-grey and include some smokey quartz eye-bearing acidic lithologies.

Overlying the volcanic rocks is an interbedded sequence of sandy dolomites, dolomitic sandstones and minor dolomitic fine-pebble conglomerate. This sandy-dolomitic package weathers buff-grey and is blocky weathering.

The youngest unit on the property consists of an interbedded sequence of Road River Formation limestones, chert and shale. In the western outcrops of Road River Formation, dark grey, thin to medium bedded limestone is interbedded with thin beds of chert. In the eastern outcrop areas limestone is interbedded with shale and chert.

Other stratigraphy found in the claims' area includes Middle Ordovician aged orange and grey weathering dolomites.

Structurally, the claims appear to be underlain by a shallow, north plunging antiform. The stratigraphy strikes generally north with dips gentle to the east and west with frequent horizontal bedding. Faults off the east flank of the antiform have disrupted and sheared Road River and underlying sandy dolomite stratigraphy.

SEREM LTD. LOOTZ CLAIMS

TITLE: PRELIMINARY GEOLOGY FIGURE 3

LOCATION : COAL RIVER AREA
YUKON TERRITORY

N.T.S. : 95·D·7 / D·6

SCALE : 1" = ½ MILE

DATA : M.A. STAMMERS

DATE : AUGUST 1982

0 1000 2000 3000 4000 5000
FEET

LEGEND:

3 UNDIVIDED VOLCANIC ROCKS 3V AND SILTY LIMESTONE 3L LOWER CAMBRIAN (?)

2 DOLOMITIC SANDSTONE AND SANDY DOLOMITE MINOR FINE PEBBLE CONGLOMERATE

1 ROAD RIVER FORMATION ORDOVICIAN TO DEVONIAN LIMESTONE, CHERT, SHALE

10 STRIKE/DIP OUTCROP GEOLOGICAL CONTACT

60°15'W

126°45'W

CLAIM BOUNDARY

LOOTZ 1-40

LOOTZ CREEK

LAKE

3500'

3000'

4000'

N.T.S. 95·D·6 | N.T.S. 95·D·7

MAP # 95-D-7 Doc # 091073 (106)

8. MINERALIZATION

Mineralization to date on the property includes small stringers and veinlets of galena and minor disseminated pyrite and pyrrhotite found in the volcanic rocks.

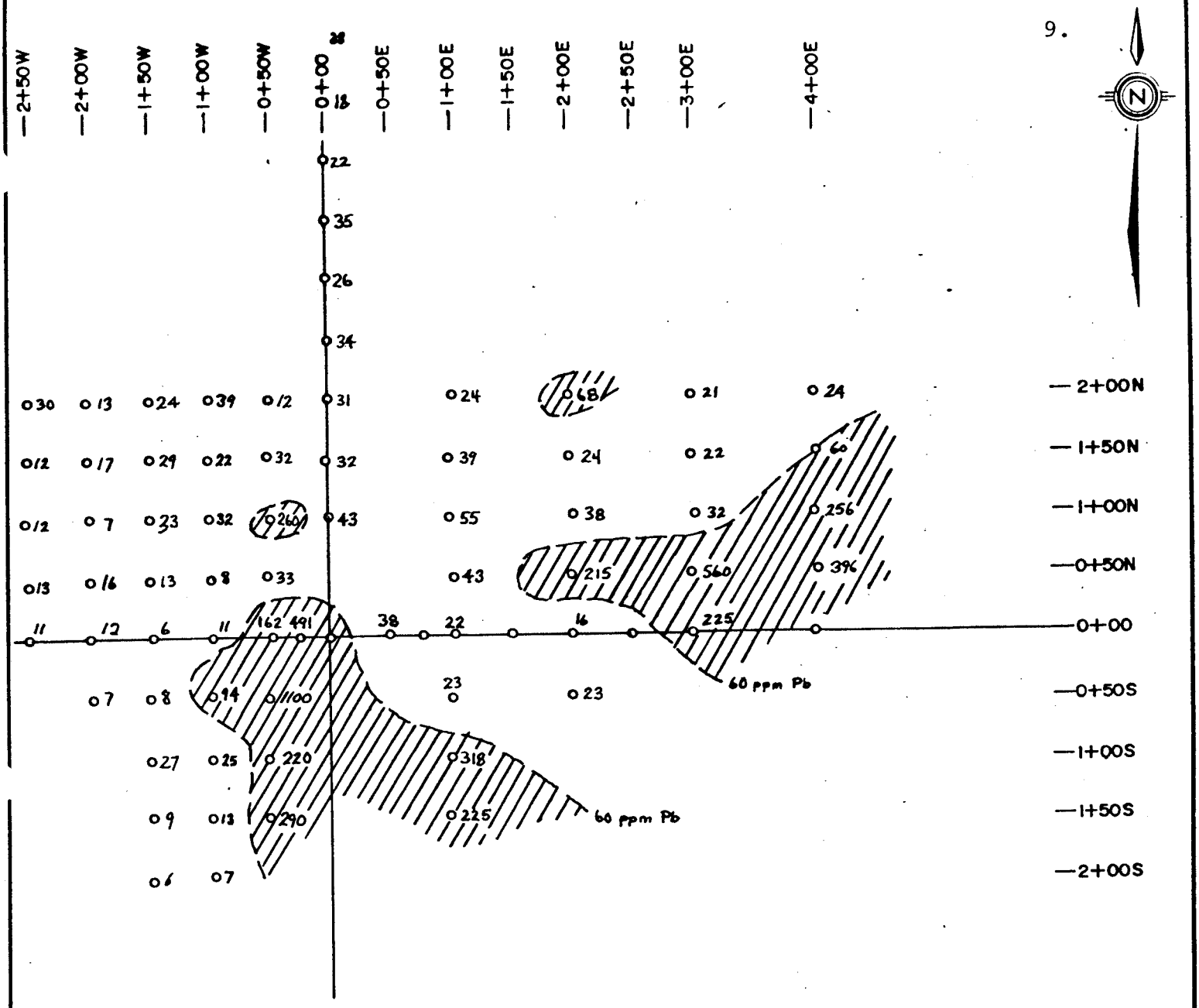
Elsewhere on the property, barite veins in dolomite, rare sphalerite in quartz veins, and hydrozincite in shales and limestone, have been reported in small showings.

9. GEOCHEMISTRY

A significant conventional lead stream silt geochemical anomaly was discovered late in the 1980 field season. Six stream samples ran better than 100 ppm lead. Limited soil sampling in 1981 near the stream anomaly's peak produced coincident anomalous lead values which resulted in the claim staking in September 1981. An expanded soil geochemical grid was emplaced late in the field season and outlines a large lead anomaly with values up to 1100 ppm lead.

Results from zinc and silver soil geochemistry indicate a lower order of anomaly with values reaching 550 ppm zinc and 2.5 ppm silver. One anomalous gold value of 450 ppb was returned from the east central grid area.

Stream silt sampling in the claims' area has revealed further interesting values in lead. Creeks to the south, north and northeast returned values of 110, 68 and 145 ppm lead. Further prospecting and detailed soil sampling should be carried out in those areas anomalous in lead stream geochemistry.



> 60 ppm

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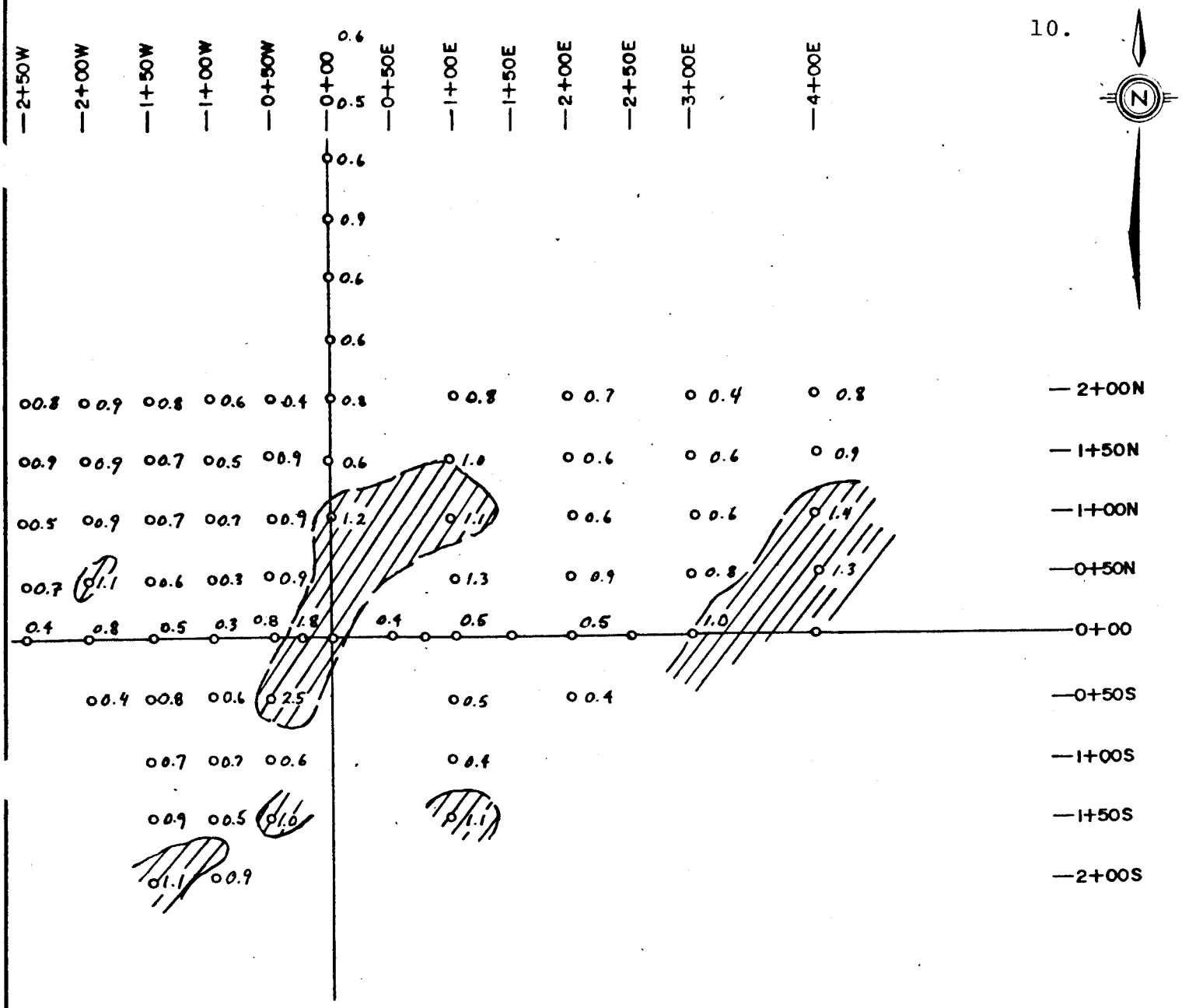
SOIL GEOCHEMISTRY

LEAD in ppm

DATE: JAN. 82	DATA: MS
NTS 95D 7	DR: DGD
SCALE 1 : 5 000	FIGURE 4

0 250m



> 1.0 ppm

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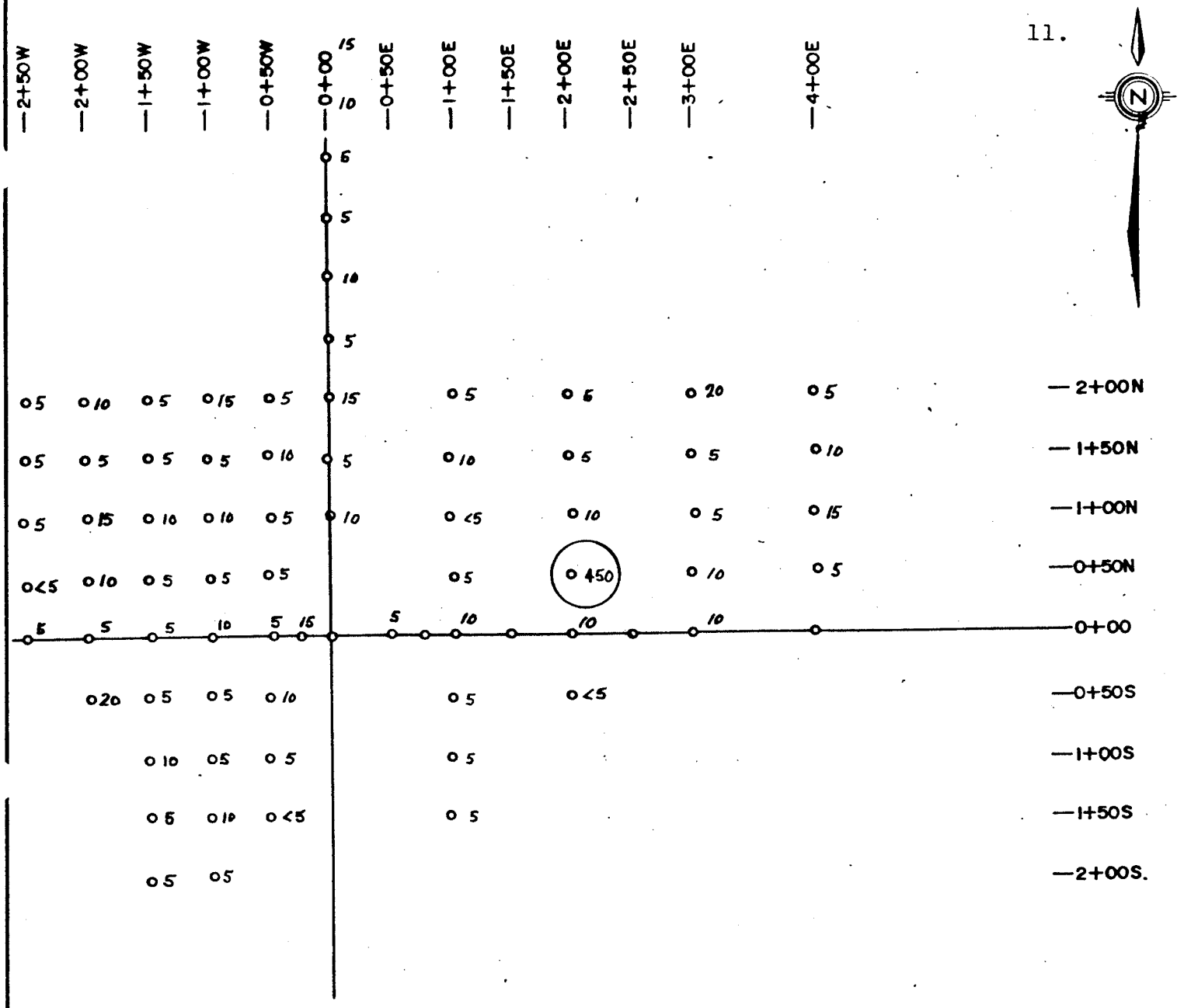
LOOTZ CLAIMS

SOIL GEOCHEMISTRY

SILVER in ppm

DATE: JAN. 82	DATA: MS
NTS 95D 7	DR: DGD
SCALE 1:5 000	FIGURE 5

0 250m



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LOOTZ CLAIMS

SOIL GEOCHEMISTRY

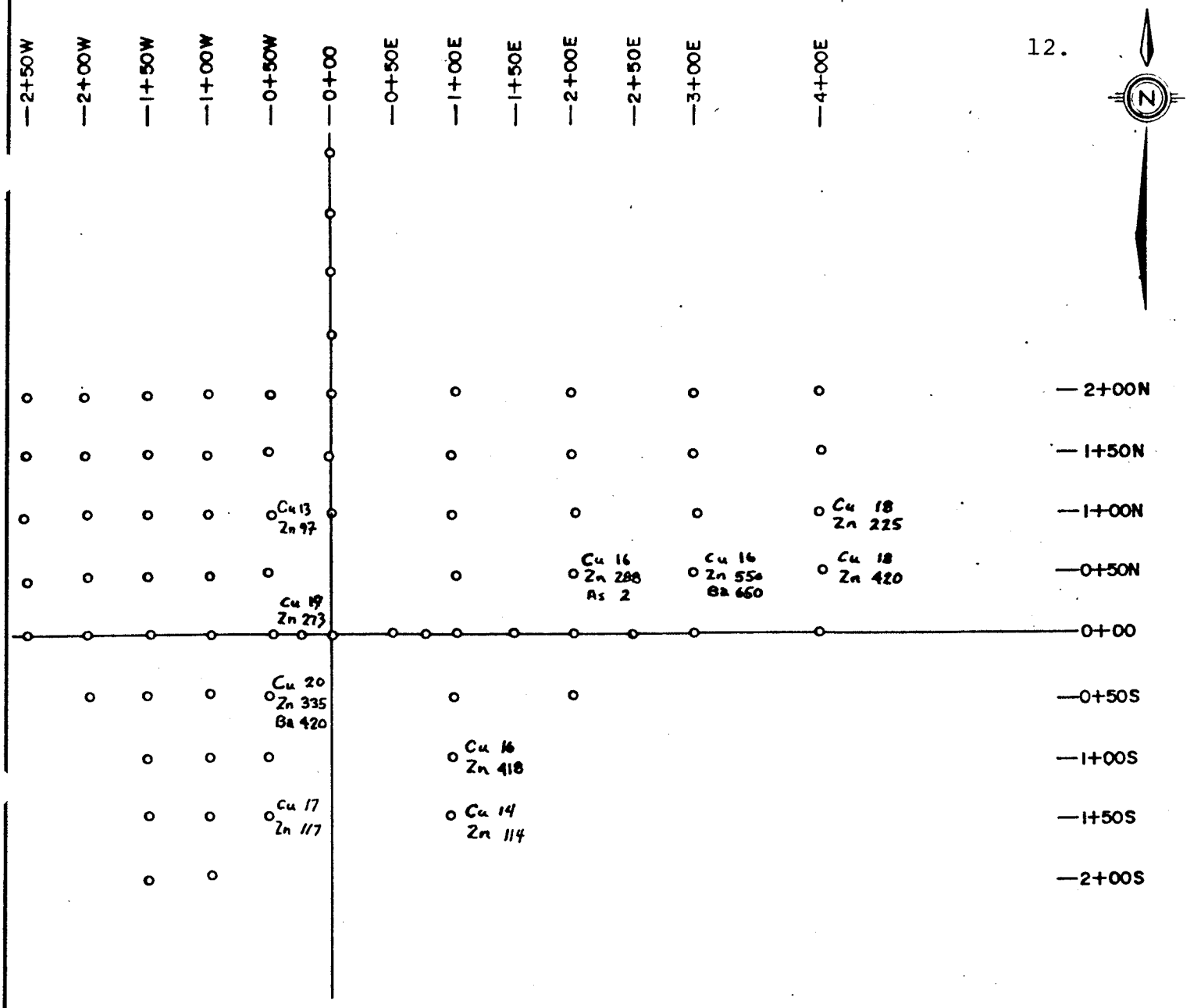
GOLD in ppb

DATE: JAN. 82	DATA: MS
NTS 95D 7	DR: DGD

SCALE 1 : 5 000

0 250m

FIGURE 6



ALL IN PPM:

COPPER (Cu)
ZINC (Zn)
BARIUM (Ba)
ARSENIC (As)

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SOIL GEOCHEMISTRY

OTHER ELEMENTS

DATE: JAN. 82	DATA: MS
NTS 95D 7	DR: DGD
SCALE 1 : 5 000	FIGURE 7

0 250 m

SEREM LTD. LOOTZ CLAIMS

TITLE: LEAD-ZINC-SILVER GEOCHEMISTRY

LOCATION : COAL RIVER AREA YUKON TERRITORY

N.T.S. : 95-D-7 / D-6

SCALE : 1" = ½ MILE

DATA : M.A. STAMMERS

DATE : AUGUST 1982

0 1000 2000 3000 4000 5000 FEET

LEGEND: Figure 8

- SILT SAMPLE LOCATION
- SOIL SAMPLE LOCATION
- ROCK SAMPLE LOCATION
- 35 LEAD ppm
- 28, 54, 0.9 LEAD-ZINC-SILVER PPM

60°15'W

126°45'W

CLAIM BOUNDARY

LOOTZ 1-40

SOIL GRID

LOOTZ CREEK

LAKE

3500'

3000'

4000'

N.T.S. 95-D-6

N.T.S. 95-D-7

MAP #95-D-7 Doc#091072 (107)

10. CONCLUSIONS

Results of work to date on the Lootz mineral claims are moderately encouraging with respect to the anomalous lead geochemistry and the favourable underlying volcanic stratigraphy. A potential for volcanogenic massive sulfide mineralization is fair.

In contrast, it can be concluded that the Road River Formation, as seen on the claims, contains too much limestone to be a suitable host for a shale-hosted massive sulfide deposit. Also, it is possible that the lead soil anomaly can be explained by small, uneconomic galena vein type mineralization.

In conclusion, further work on the property should focus on identifying the source of the lead anomalies and evaluating the particular mode of mineralization in view of its economic potential.

11. RECOMMENDATIONS

1. Expand the present soil grid to determine the entire size of the lead geochemical anomaly.

2. Hand trenching is recommended for the sites of the highest lead soil geochemistry in an attempt to locate and define lead mineralization.

3. The employment of a geophysical survey over favourable stratigraphy. Various methods should be studied and tested in the field where possible.

4. Follow-up soil geochemistry, prospecting and geological mapping in areas of as yet unexamined high lead stream geochemistry.

APPENDIX 1

LIST OF PERSONNEL

LOOTZ 1 - 40 MINERAL CLAIMS

Name/Position	Residence	Dates Worked (1982)
Michael Cullen, Junior Geologist	North Vancouver, B.C.	June 8-11 (incl.) June 12, 18, 19
James Crawford, Geologist	West Vancouver, B.C.	June 18, 23
Daniel MacIsaac, Prospector	Nanaimo, B.C.	June 7-10 (incl.) June 12, 19
Paula Power, Cook	Squamish, B.C.	June 9, 10
Michael Stammers, Geologist	Port Coquitlam, B.C.	June 2, 1982

APPENDIX 2

STATEMENT OF COSTS

LOOTZ 1-40 MINERAL CLAIMS

SALARIES			
Field:			
Geologist	1 day @ $137.50/day x 1.55	$ 213.12	
Geologist	2 days @ $135.00/day x 1.55	418.50	
Prospector	6 days @ $ 66.00/day x 1.35	534.60	
Junior Geologist	6 days @ $ 58.00/day x 1.35	469.80	
Cook	2 days @ $ 58.00/day x 1.35	156.60	
Office:			
Geologist	3 days @ $137.50/day x 1.35	556.88	
Geologist	1 day @ $135.00/day x 1.35	182.25	
Secretarial/ Drafting		150.00	
			$2,681.75
TRANSPORTATION			
Helicopter	9.6 hr @ $400/hr	$3,840.00	
Fuel	9.6 hr x 30 gal/hr x $4/gal	1,152.00	
Truck Rental + Gas		50.00	
Fixed Wing	½ trip	275.00	
			$5,317.00
FIELD COSTS	20 man days @ $30/day		$ 600.00
ANALYSIS			
Geochemistry	77 soils	$ 714.25	
	97 silts @ $4.65	451.05	
Freight	200 lb. x $.50/lb.	100.00	
			$1,265.30
	TOTAL LOOTZ 1-40		$9,864.05

APPENDIX 3

GEOCHEMICAL METHODS AND ANALYSIS

Silt samples were collected from the active section of streams and placed in Kraft sample bags. Soil samples were collected from typical "B" horizon mineral soil and placed in similar bags. Both silt and soil samples were then shipped to Min-En Laboratories Ltd., North Vancouver, B.C. to be dried, sieved to -80 mesh and then analysed for the respective element by methods listed below:

Cu, Pb, Zn, Ag	Nitric, perchloric digestion, Atomic Absorption
Ba	Fusion-Multi Acid, Atomic Absorption
As	Spectrophotometric and Atomic Absorption
Au	Aqua Regia, Atomic Absorption

APPENDIX 4

STATEMENT OF QUALIFICATIONS

I, MICHAEL STAMMERS, of Port Coquitlam, British Columbia, hereby certify that:

1. I am a geologist employed by Serem Ltd. of 300 - 535 Thurlow Street, Vancouver, B.C.

2. I hold a B.A. degree in geology and geography from McMaster University, Hamilton, Ontario.

3. I have worked in geology and mineral exploration for 9 years.

4. I am the author of this report and the field work described in this report was carried out under my supervision.

5. I have no financial interest in the claims covered by this report or in Serem Ltd.

Michael Stammers,
Geologist.

Vancouver, B.C.
August 1982.

AFFIDAVIT

IN THE MATTER OF APPLICATION FOR CERTIFICATE OF WORK FOR THE LOOTZ 1-40 MINERAL CLAIMS, WATSON LAKE MINING DISTRICT, YUKON TERRITORY, SUBMITTED ON BEHALF OF SEREM LTD.

I, Michael Stammers, geologist of SEREM Ltd., Suite 300, 535 Thurlow Street, Vancouver, British Columbia, HEREBY CERTIFY THAT:

The preceding SUMMARY OF COSTS totalling $9,864.05 which is submitted in support of the Application for Certificate of Work, is the actual amount incurred by SEREM Ltd., in conducting geological and geochemical surveys on the Lootz 1-40 Mineral Claims, Watson Lake Mining District, between September 18, 1981 and August 13, 1982.

AND THAT Application for Certificate of Work is attached for the following Representation Work:

MINERAL CLAIMS	GRANT NUMBERS	AMOUNT APPLIED
LOOTZ 1-40 incl.	YA67232-YA67271 incl.	$8,000.00
	Total applied	$8,000.00
	Balance of Cost Unapplied	$1,864.05

SWORN BEFORE ME at WATSON LAKE, Y.T.
, this day
of AUG 19 1982, 19

Notary Public

Michael Stammers