GOLDEN STANDARD MINES LTD.(NPL)

GEOCHEMICAL REPORT

on the

GSTD MINERAL CLAIMS

NTS 106-E-1
134°23'W 65°05'N

Ocotber, 1976

by

R. Darney - Geologist
C. K. Ikona - P.Eng.

090208

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of

$3,300.00

Resident ~~Geologist~~ or
Resident Mining Engineer

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

B. R. BAXTER
Supervising Mining Recorder

Commissioner of Yukon Territory

TABLE OF CONTENTS

INTRODUCTION

The GSTD Mineral Claims were located in January of 1976 by A. Harman & associates. The claims were located in an overburden covered area north of the OTIS group and south of the WERNECKE group, both of which have known uranium mineralization. In February, 1976 the claims were subsequently sold to Golden Standard Mines Ltd. who contracted a preliminary geochemical soil sampling survey to be conducted during the 1976 field season.

The following report is a documentation of the field proceedures and results of the geochemical program.

LIST OF CLAIMS

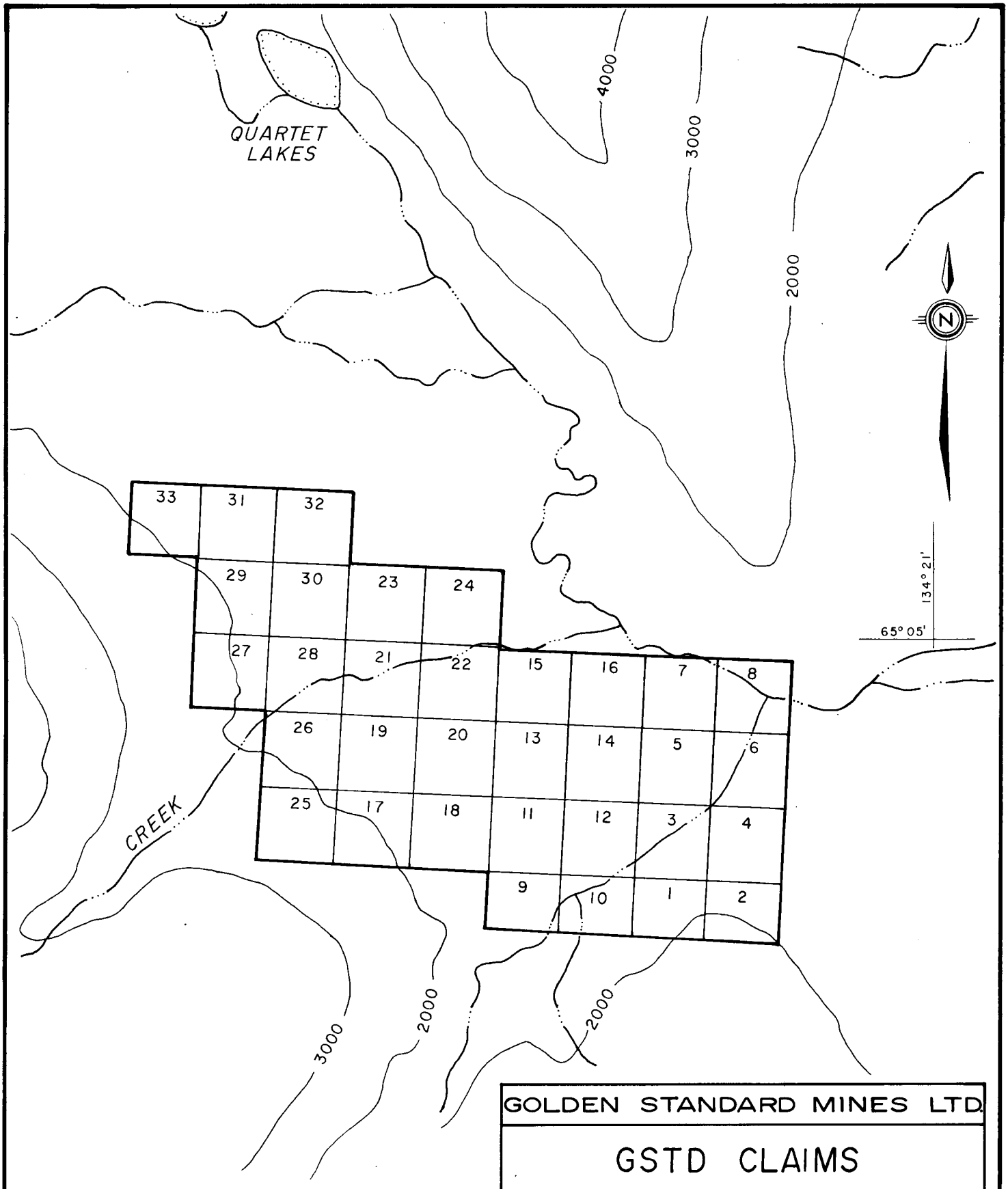
The GSTD group consists of 33 full sized mineral claims staked in accordance with the Yukon Quartz Mining Act.

CLAIM NAME	TAG NO.	STAKING DATE	RECORDING DATE
GSTD 1-33	YA1818-1850	January 23/76	February 3/76

LOCATION AND ACCESS

The GSTD claims are located in the Mayo Mining District at 134°23'W Longitude and 65°05' N Latitude on N.T.S. 106-E-1.

Access to the property is by float equipped aircraft from the city of Mayo, Y.T. to Quartet Lake, a distance of 115 miles. From Quartet Lakes it is approximately 3 miles south to the property. This distance can easily be covered on foot in one hour, however, helicopter support from Quartet Lakes is necessary to estabilish a camp within the claims area.



GOLDEN STANDARD MINES LTD.

GSTD CLAIMS

CLAIM LOCATION MAP

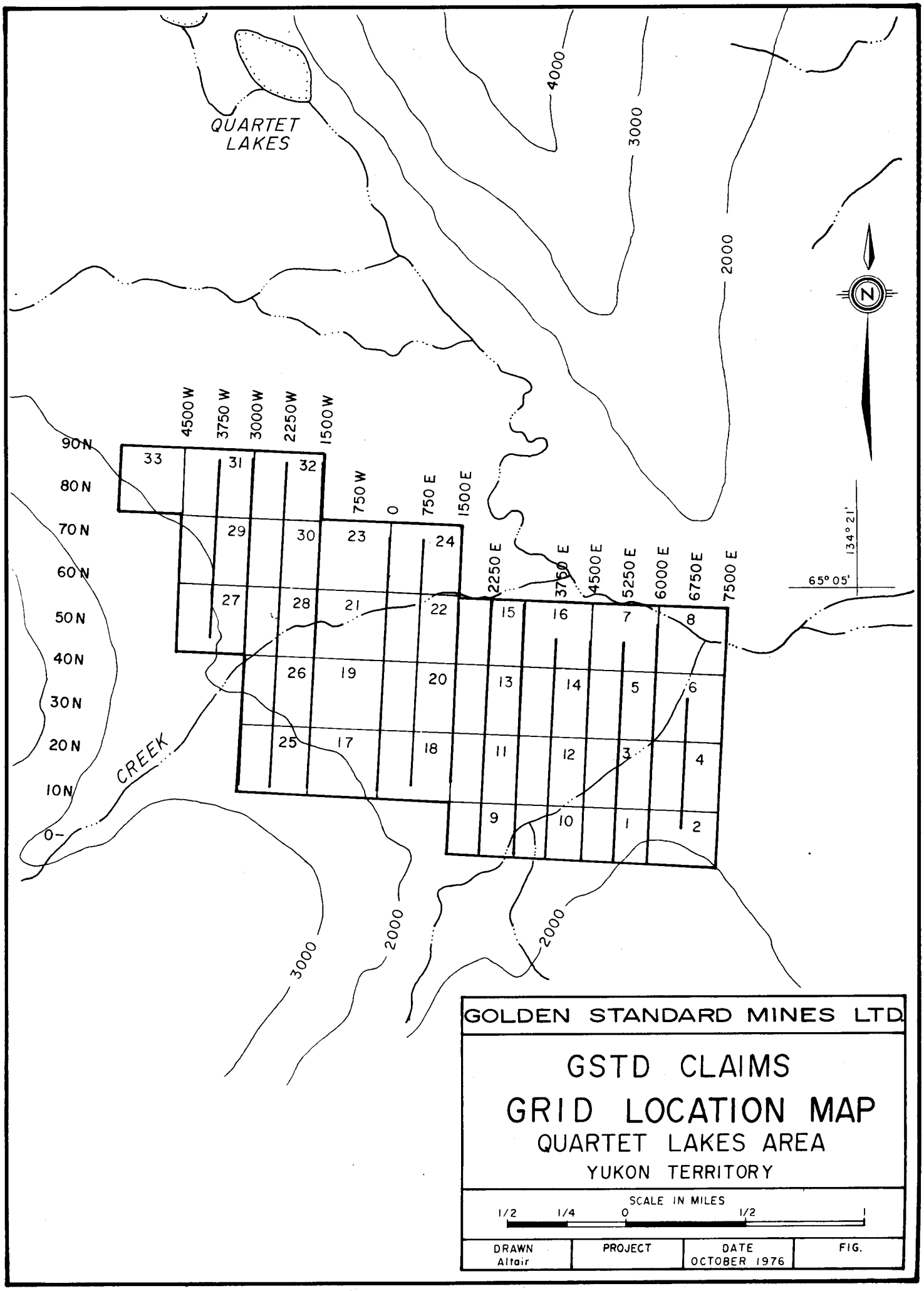
QUARTET LAKES AREA

YUKON TERRITORY

SCALE IN MILES

1/2 1/4 0 1/2 1

DRAWN	PROJECT	DATE	FIG.
Altair			

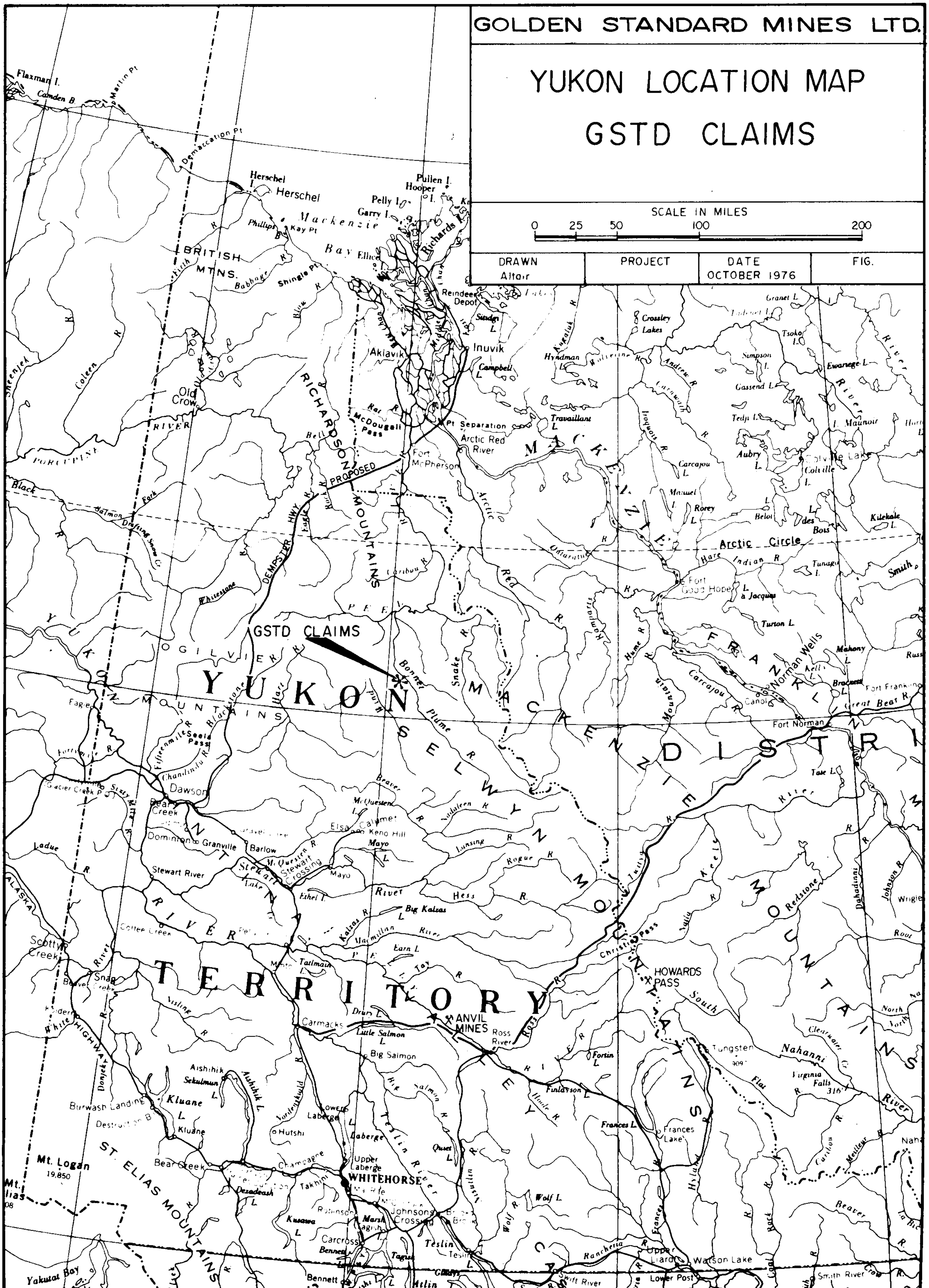


GOLDEN STANDARD MINES LTD.

GSTD CLAIMS
GRID LOCATION MAP
QUARTET LAKES AREA
YUKON TERRITORY

SCALE IN MILES
1/2 1/4 0 1/2 1

DRAWN	PROJECT	DATE	FIG.
Altair		OCTOBER 1976	


GOLDEN STANDARD MINES LTD.
YUKON LOCATION MAP
GSTD CLAIMS
SCALE IN MILES
0 25 50 100 200
DRAWN
Altair
PROJECT
DATE
OCTOBER 1976
FIG.
GSTD CLAIMS
YUKON
TERRITORY
MACKENZIE DISTRICT
Arctic Circle
HOWARDS PASS
ANVIL MINES
WHITEHORSE
Dawson
Mayo
Keno Hill
Elsa
Carmacks
Ross River
Watson Lake
Inuvik
Aklavik
Old Crow
Fort McPherson
Fort Good Hope
Norman Wells
Fort Norman
Herschel
Mackenzie Bay
BRITISH MTNS.
RICHARDSON MOUNTAINS
OGILVIE MOUNTAINS
SELWYN MOUNTAINS
MACKENZIE MOUNTAINS
FRANKLIN MOUNTAINS
ST. ELIAS MOUNTAINS
DEMPSTER HWY.
PROPOSED
Mt. Logan
19,850

Both helicopter and fixed wing aircraft as well as full expediting services are available in Mayo.

REGIONAL GEOLOGY

The Quartet Lakes region lies in the Wernecke Mountains of the north eastern Yukon Territory. In the general area, the Werneckes consist of local Ranges which include the Rackla Range, Bonnet Plume Range and Knorr Range. Topography is normally moderate to rugged with elevations ranging from 2000 to 6500 feet. The major river valleys are broad, timbered and extensively overburden covered, while most mountain slopes present greater than 60% outcrop above the 4000 foot level.

The entire area has been mapped by the Geological Survey of Canada and three separate publications are presented. The following memoir and open file reports give 1"=4 miles geological coverage of the Nash Creek, Nadaleen River, Wind River and Snake River map areas.

(1) Geology of Nash Creek, Larsen Creek and Dawson Map-Area, Yukon Territory by L.H. Green 1972 (Memoir 364).

(2) Open File 205 (Geology of Nadaleen River and Bonnet Plume Lake Map sheets by S. Blusson) 1975.

(3) Open File 279 (Geology of Snake River and Wind River sheets by D.K. Norris) 1975.

In the Quartet-Fairchild-Gillespie Lakes region Helikian rocks are exposed over an area of some 1500 sq. miles in a roughly circular fashion centered near Longitude 134°00W and

Latitude 65°00'N.

These rocks, which represent early deposition in the northern portion of the Selwyn Basin or Richardson Trough, have been described as Units 1 & 2 by L. Green on the Nash Creek Sheet.

Unit 1 is composed of a thick succession of moderately metamorphosed slates, argillites, phyllites and quartzites with interbedded dolomites. The lowest subdivision of Unit 1, whose base is not exposed, consists of chloritic-schists and calc-silicates all probably of volcanic origin.

Unit 2, which conformably overlies the uppermost slate-quartzite section of Unit 1, consists mainly of thickly bedded orange weathering dolomites. The base of the Unit is marked by a series of transitional beds of alternating buff weathering dolomites and interbedded slates and quartzites.

Erratically distributed throughout the Proterozoic metasediments are irregularly shaped breccia bodies. The breccia zones vary from tens of feet to several thousand feet in size and appear as cross cutting pipe like features at all levels in the stratigraphic column. Several varities exist, but all exhibit an assortment of angular clasts derived from rock types common to the area. Hornfels margins observed at several localities indicate an intrusive origin.

A common association with many of the breccia bodies are zones of veining or locally pervasive feldspar alterations seen as internal features within the breccias or in host rocks adjacent to them.

The alteration zones are pink in colour due to either K-spar or strong hemitization and in some instances contain varying amounts of specularite, chalcopyrite and minor uranium mineralization.

STRUCTURE

Two major periods of deformation have taken place within the Wernecke Mountain region. During the first period or Racklan Orogeny, the Proterozoic rocks of Units 1 and 2 underwent intense folding and faulting. Folds are tight to isoclinal with the development of strong axial plane cleavage and commonly an almost vertical foliation.

A major unconformity of Lower Hadrynian age forms the upper contact of Unit 2. In many localities, erosion beneath this unconformity has resulted in the complete removal of Unit 2 and the strong angular relationship between the relatively flat lying Cambrian and younger rocks directly overlying Unit 1 is apparent.

Further unconformities near the Upper Hadrynian, Lower Cambrian and Upper Cambrian margins leave Devonian carbonates directly over the Helikian section.

The second period of deformation, which involves both Paleozoic and Proterozoic strata, is weak compared to the first. This is particularily evident in the younger Carbonate sections to the west and southwest where deformation consists mainly of broad open folding and minor overthrusting.

GEOCHEMISTRY

A total of 225 geochemical soil samples were collected during the survey. The samples were taken at 400 foot intervals on 750 feet spaced lines which were located to give complete reconnaissance coverage to the entire claims area.

All samples were selected from B-horizon material and special care was taken to assure that no organic material was obtained. The samples were placed in kraft envelopes where they were dried prior to shipment to Chemex Labs Limited in North Vancouver, B.C.

METHOD OF ANALYSIS

Upon receipt at Chemex Labs Ltd. the samples are screened to -80 mesh. Then a 1/4 gram portion is digested with dilute HNO_3 and ppm U_3O_8 determined by standard fluorometric proceedures.

RESULTS

The values in parts per million U_3O_8 for each sample are plotted on Fig. 1 at a scale of 1" = 1000'.

Approximately 65 percent of the samples fell below the normal detection limits and are shown as <0.5 ppm. Among the remaining 35 percent, the values range from 0.5 ppm to 9.0 ppm.

Simple hand contouring of the results using 0.5 ppm as the approximate background level shows a large above background zone in the central grid area and a second zone in the far

FIG.1

GOLDEN STANDARD MINES LTD.

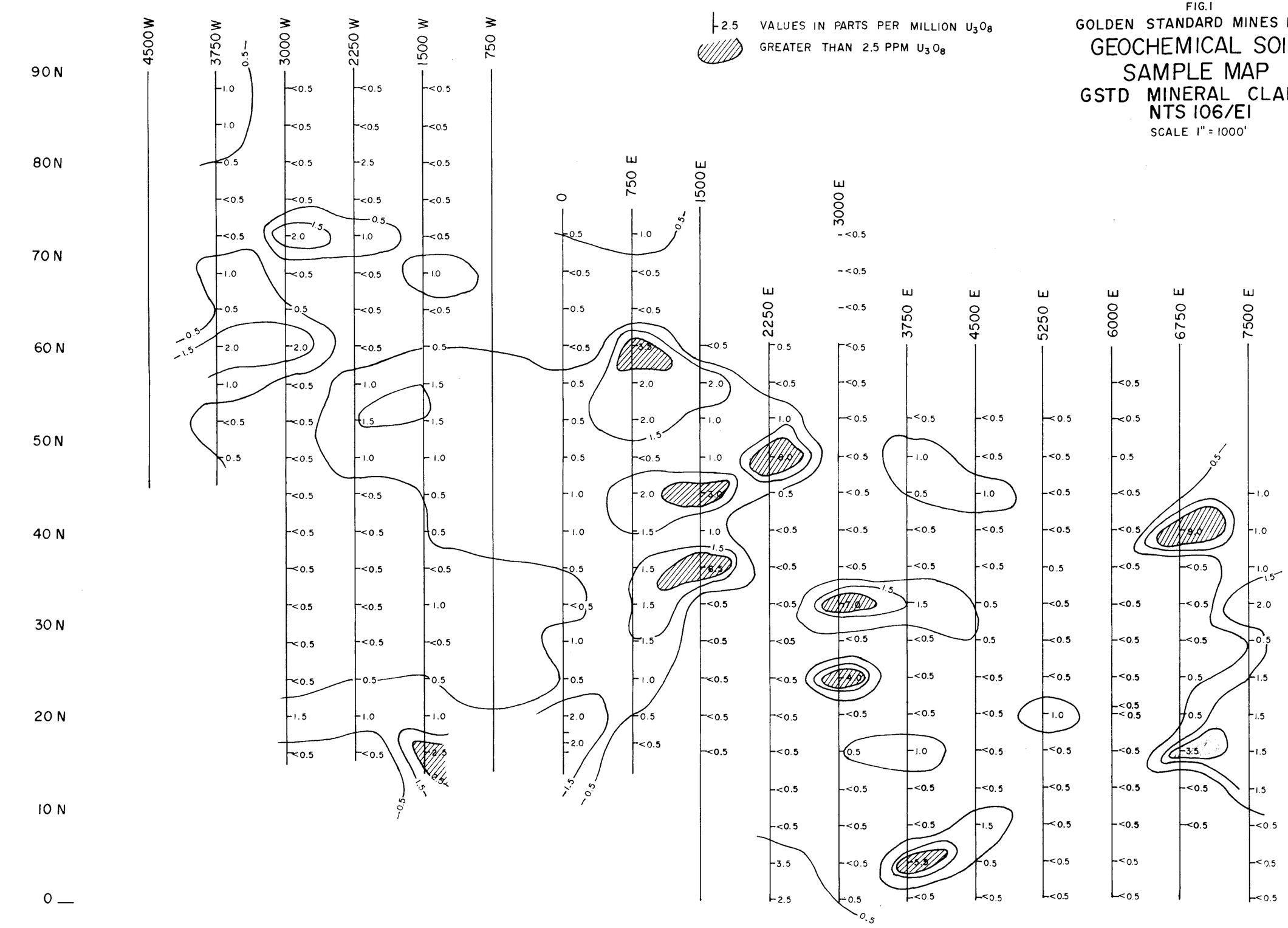
GEOCHEMICAL SOIL SAMPLE MAP

GSTD MINERAL CLAIMS NTS 106/E1

SCALE 1" = 1000'

2.5 VALUES IN PARTS PER MILLION U_3O_8

GREATER THAN 2.5 PPM U_3O_8



east protion of the claims. Within these areas, values above 2.5 ppm could be considered as anomalous in the area of the claims. The central zone has a peak value of 8.0 ppm while the eastern zone peaks at 9.0 ppm.

The remaining values greater than 2.5 ppm occur as station highs and may be considered as erratic values within the limits of the survey.

CONCLUSIONS & RECOMMENDATIONS

Two areas of weakly anomalous U_3O_8 geochemistry occur within the GSTD mineral claims. Only brief prospecting has been done in the immediate area and therefore no comment can be made on the cause of the anomalies. However, due to widespread overburden cover on the claims, it is likely that geochemistry will be a valuable exploration tool. Since an apparent copper-uranium association exists within many of the known showings in the area, it is recommended that the existing samples be analysed for copper for comparison with the U_3O_8 plot. If the copper results are encouraging, a follow-up program should be initiated on the property. The program should include the establishment of intermediate grid lines and fill-in geochemical sampling, detailed prospecting and hand held scintilometer survey of the areas of interest.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
CHARLES K. IKONA

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 985-0648
AREA CODE: 604
TELEX: 043-52597

CHEMEX LABS LTD.

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 38443

TO: Harman Management,
907 - 675 W. Hastings,
Vancouver, B.C.

INVOICE NO. 18125

RECEIVED Sept. 2/76

ANALYSED Sept. 6/76

ATTN: GSTD

SAMPLE NO. :	PPM Uranium
OE16N	2.0
OE20N	2.0
OE24N	0.5
OE28N	1.0
OE32N	<0.5
OE36N	0.5
OE40N	1.0
OE44N	1.0
OE48N	0.5
OE52N	0.5
OE56N	0.5
OE60N	<0.5
OE64N	0.5
OE68N	<0.5
OE72N	0.5
750E16N	<0.5
750E20N	0.5
750E24N	1.0
750E28N	1.5
750E32N	1.5
750E36N	1.5
750E40N	1.5
750E44N	2.0
750E48N	<0.5
750E52N	2.0
750E56N	2.0
750E60N	3.5
750E64N	<0.5
750E68N	<0.5
750E72N	1.0
1500E16N	<0.5
1500E20N	<0.5
1500E24N	<0.5
1500E28N	<0.5
1500E32N	<0.5
1500E36N	6.5
1500E40N	1.0
1500E44N	3.0
1500E48N	1.0
1500E52N	1.0
STD.	4.5

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY

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CANADA V7J 2C1
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907 - 675 W. Hastings,
Vancouver, B.C.

ATTN: GSTD

SAMPLE NO. :	PPM Uranium
1500E56N	<2.0
1500E60N	<0.5
2250E0N	2.5
4N	3.5
8N	<0.5
12N	<0.5
16N	<0.5
20N	<0.5
24N	<0.5
28N	<0.5
32N	<0.5
36N	<0.5
40N	<0.5
44N	0.5
48N	8.0
52N	1.0
56N	<0.5
2250E60N	0.5
3000E0N	0.5
4N	<0.5
8N	<0.5
12N	<0.5
16N	0.5
20N	<0.5
24N	<4.0
28N	<0.5
32N	7.0
36N	<0.5
40N	<0.5
44N	<0.5
48N	<0.5
52N	<0.5
56N	<0.5
60N	<0.5
64N	<0.5
68N	<0.5
3000E72N	<0.5
3750E0N	<0.5
4N	5.5
3750E8N	<0.5
STD.	4.5

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TO: Harman Management,
907 - 675 W. Hastings,
Vancouver, B.C.

ATTN:

SAMPLE NO. :	PPM Uranium
	GSTD
3750E12N	<0.5
16N	1.0
20N	<0.5
24N	<0.5
28N	<0.5
32N	1.5
36N	<0.5
40N	<0.5
44N	0.5
48N	1.0
3750E52N	<0.5
4500E0N	<0.5
4N	0.5
8N	1.5
12N	<0.5
16N	<0.5
20N	<0.5
24N	<0.5
28N	0.5
32N	0.5
36N	<0.5
40N	<0.5
44N	1.0
48N	<0.5
4500E52N	<0.5
5250E0N	<0.5
5250E4N	<0.5
8N	<0.5
12N	<0.5
16N	<0.5
20N	1.0
24N	<0.5
28N	<0.5
32N	<0.5
36N	0.5
40N	<0.5
44N	<0.5
48N	<0.5
5250E50N	<0.5
6000E0N	<0.5
STD.	4.5

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Vancouver, B.C.

INVOICE NO. 18125

RECEIVED Sept. 2/76

ANALYSED Sept. 6/76

ATTN:

GSTD

SAMPLE NO. :	PPM Uranium	
6000E4N	<0.5	
8N	<0.5	
12N	<0.5	
16N	<0.5	
20N	<0.5	
20+50'	<0.5	
24N	<0.5	
28N	<0.5	
32N	<0.5	
36N	<0.5	
40N	<0.5	
44N	<0.5	
48N	0.5	
52N	<0.5	
6000E56N	<0.5	
6750E8N	<0.5	
12N	<0.5	
16N	0.5	
20N	0.5	
24N	0.5	
28N	<0.5	
32N	<0.5	
36N	<0.5	
6750E40N	9.0	
7500E0N	<0.5	
4N	<0.5	
8N	<0.5	
12N	1.5	
16N	1.5	
20N	1.5	
24N	1.5	
28N	0.5	
32N	2.0	
36N	1.0	
40N	1.0	
44A	1.0	
7500E44BN	1.0	(Silt)
1500W16N	2.5	
20N	1.0	
1500W24N	0.5	
STD.	4.5	

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CERTIFICATE NO. 39447

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ANALYSED Sept. 6/76

TO: Harman Management,
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Vancouver, B.C.

ATTN: GSTD

SAMPLE NO. :	PPM Uranium
1500W28N	<0.5
32N	1.0
36N	<0.5
40N	0.5
44N	0.5
48N	1.0
52N	1.5
56N	1.5
60N	0.5
64N	<0.5
68N	1.0
72N	<0.5
76N	<0.5
80N	<0.5
84N	<0.5
1500W88N	<0.5
2250W16N	<0.5
20N	1.0
24N	0.5
28N	<0.5
32N	<0.5
36N	<0.5
40N	<0.5
44N	<0.5
48N	1.0
52N	1.5
56N	1.0
60N	<0.5
64N	<0.5
68N	<0.6
72N	1.0
76N	<0.5
80N	2.5
84N	<0.5
2250W88N	<0.5
3000W16N	<0.5
20N	1.5
24N	<0.5
28N	<0.5
3000W32N	<0.5
STD.	4.5

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TO: Harman Management,
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SAMPLE NO. :	PPM Uranium
3000W36N	<0.5
40N	<0.5
44N	<0.5
48N	<0.5
52N	<0.5
56N	<0.5
60N	2.0
64N	0.5
68N	<0.5
72N	2.0
76N	<0.5
80N	<0.5
84N	<0.5
3000W88N	<0.5
3750W48N	0.5
52N	<0.5
56N	1.0
60N	2.0
64N	0.5
68N	1.0
72N	<0.5
76N	0.5
80N	0.5
84N	1.0
3750W88N	1.0
STD.	4.5

CTA
MEMBER
CANADIAN TESTING
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