

SUMMARY REPORT

Shoal Lake Properties

Kenora Mining Division

NTS 52E/10

for

GOLDEN RULE RESOURCES LITD.

RECEIVED

AUG 1 1 1986

MINING LANDS SECTION

by Jens E. Hansen, P.Eng.

and

R. K. Netolitzky, M.Sc., P.Geol.
TAIGA CONSULTANTS LTD.
#100, 1300 - 8th Street S.W.
Calgary, Alberta T2R 1B2

March 1986



52E10SW8575 2.9325 SHOAL LAKE

Ø10C

TABLE OF CONTENTS

SUMMARY																														
INTRODUCTION Property	,																													
REGIONAL GE	DLOGY		•	•	•	•	•	•		•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	4
ECONOMIC GR	EOLOGY		•	•	•			•	•	•		•		•	•	•	•	•	•			•			•	•	•	•	•	5
EXPLORATION	HISTO	RY.	•	•	•				•	•	•		•	•	•		•		•					•	•	•		•	•	-
BAG BAY CLA	AIMS .		•	•	•	•			•	•	•		•		•	•			•	•	•		•		•		•	•	•	8
ECHO BAY CI	LAIMS.		•	•			•		•	•		•	•		•	•	•	•	•	•				•	•	•	•	•	•	12
HELLDIVER I	BAY-CLA	IMS	•		•		•	•		•			•	•	•	•		•		•	•	•		•		•	•	•	•	13
CONCLUSIONS	5 / REC		ENI	ZA.I	TC	NS	;.	•	•		•					•		•		•	•				•	•	•			14
BIBLIOGRAPA	Y		•	•	•				•	•						•		•			•		•		•	•	•		•	16
APPENDIX A	- PREV	'IOUS	S W	ЮR	K.	AN	D	GO	LD	S	но	WI:	NG	S	IN	T	HE	C	AN(ÞΕ	L	١XI	E 5	STC	СК	. A	RE	ĊΑ		
Figure 1	Genera	al P	ro:	jec	t	L	ca	at:	ior	n.	•											•	•	•	•		•	•	•	:
Figure 2	Locati	lon i	Maj	ọ.	•	•	•	•				•		•	•	•	•	•		•	•	•	. •	•	•		•	•	•	:
Figure 3	Soil C	Seoci	her	nis	stı	·Y	. I	Зас	g I	Bay	y (Cla	air	ns		•											•		•	1

LIST OF MAPS

86-1A - Geology Helldiver Bay Claims

86-1B - Geology Bag Bay Claims

85-1A - Geology Shoal Lake Property

85-1B - Geology Echo Bay Property

SUMMARY

The property is being explored by Northern Abitibi Mining Corp. of Montreal which is a subsidiary of Golden Rule Resources Ltd. of Calgary. It consists of 17 claims, 15 were initially staked in May 1983 and two were staked in September 1985.

A program of geophysics consisting of magnetometer and VLF surveying was carried out in 1984. The grid was geologically mapped at the same time with supplementary mapping work being carried out in September 1985. It is this work that is the subject of the present report.

The claims are adjacent to properties owned by Kenora Prospectors and Miners Limited which cover the Mikado and Cedar Island mines. These mines produced some gold around the turn of the century and again in the 1930's.

A small amount of additional work was also carried out on 21 adjoining claims which also belong to the Northern Abitibi/Golden Rule group. The work on these claims was initially submitted in August 1985. The 1985 geological maps have been modified slightly and are attached to the present report.

OFFICE USE ONLY

837 (5/79)

Ontario

Ministry of Natural Resources

GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

	प्रक्रों के क्रिक्ट महिल्ला है। या केट का जो का का नाम अनेक स्वयुक्ति क्रिक्ट के क्रिक्ट के क्रिक्ट के क्रिक्ट	annigation (ser transport for transport for transpo rt serts of the section of the section 2015). It is the section of the se	«MMPPUAWPO», A + «ANESTO CHERTESTORIU PREMIETRIS COMPRESSONIA PROMIETRIS PROMIETRIS COMPRESSONIA PROMIETRIS PROMIETRIS PROMIETRIS PROMIETRIS PROMIETR
Type of Survey(s) _ Township or Area _	Geology Glass Townsl	hip G-2642 Shoal Lake	
Claim Holder(s)	Jens E. Han	sen	MINING CLAIMS TRAVERSED List numerically
(·/	19 Nesbitt	Street,Nepean, Ont. K2H 8C	1
Survey Company Author of Report_		ltants and Geotest Corpora sen and R.K. Netolitzky	ation K ₇₁₀₇₇₅ 710775 (number)
Address of Author.	19 Nesbitt	Street, Nepean, Ont. K2H 8	8C4 710777
		4 - September 1985 (linecutting to office)	
Total Miles of Line	Cut		710781
SPECIAL PROVI		DAYS per claim	710782
CREDITS REQU	ESTED	Geophysical	710783
ENTER 40 days line cutting) for f	•	-Electromagnetic	710784
survey.	1131	710785	
ENTER 20 days additional survey		-Other	710786
same grid.	using	Geological 20 Geochemical 20	710787
AIRBORNE CRED	ITS (Special provisi	on credits do not apply to airborne surveys)	audi
Magnetometer	Electromagne (enter da	etic Radiometric sys per claim)	710789
DATE: August 4	<u>. 1986</u> SIGNA	TURE: Author of Report or Agent	710790
		Author of Report or Agent	842065
			842066
Res. Geol.	Qualifi	cations	
Previous Surveys File No. Type	e Date	Claim Holder	
133101 2,4			
	•••••		
	•••••		
	•••••		·····
			TOTAL CLAIMS 17

INTRODUCTION

Exploration programs on the Shoal Lake properties were conducted over a two-year period by crews in the employ of Taiga Consultants Ltd. and Geotest Corporation. These programs had the objective of completing assessment requirements under considerable budget constraints. The data collected during these programs are of use in evaluating the property potential; however, the results should not be compared to programs in which an integrated approach has been used.

This report compiles the exploration data and discusses the economic connotations of the results obtained.

Property

The property is comprised of 37 mineral claims in three non-contiguous groups:

Bag Bay

K-710775 to K-710777, K-710779 to 710788, K-777817 to

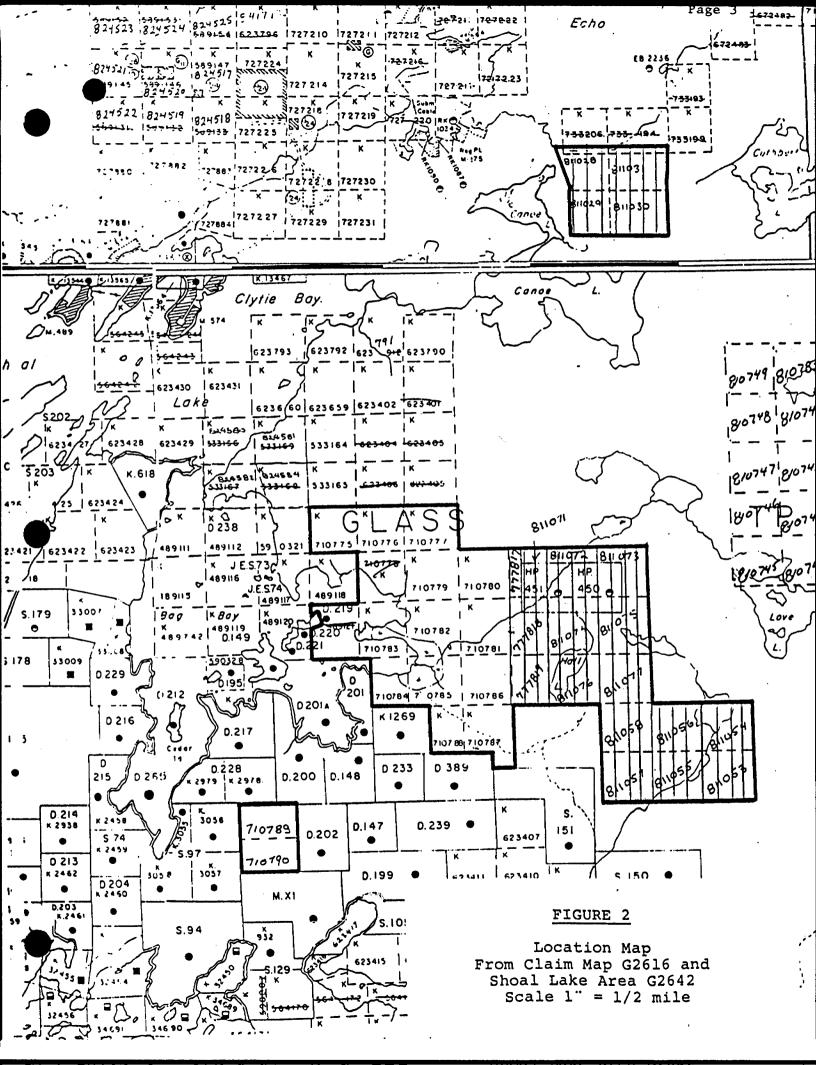
777819, K-811071 to 811077, K842065 and 842066.

Echo Bay

K-811028 to 811031

Helldiver Bay K-710789 to 710790

The property is situated 35 km west of Kenora. Access to the property is obtained by a secondary road off Highway 17 to Clytie Bay / Rush Bay. Trails not suitable for ordinary motor vehicles could be used for winter access to the properties. Summer access is best obtained by motorboat from the Clytie Bay boat ramp. The main claim group is less than 3 km from the boat ramp. The general project area is indicated on Figure 1, with more specific claim locations indicated on Figure 2.



REGIONAL GEOLOGY

The properties are situated in the Shoal Lake area of the Kenora Mining District. The geologic mapping covering the property area is presented on the Bag Bay map-sheet (Ontario Geological Survey, Map 2422) at a scale of } mile to the inch. The map-sheet covers a portion of the Wabigoon Greenstone Belt of Archean age.

The properties are within and peripheral to the Canoe Lake Stock, which intrudes volcanic rocks. As is illustrated on Figure 1, numerous gold occurrences are situated along the western edge of the stock. Most of these are associated with east-west trending shear systems which continue into the stock.

ECONOMIC GEOLOGY

The gold occurrences of the region, with the exception of the Dupont deposit, are generally associated with late-stage shear zones. Modest prior production has been obtained from these structures on a historical basis. Very little recent exploration of these structures has been completed.

The properties were acquired as a result of limited surface investigations which located mineralized structures within the Canoe Lake Stock. Stocks intruding volcanic piles have been demonstrated to be very attractive environments for gold exploration. The presence of numerous gold occurrences in the adjacent volcanics, especially near intrusive contacts, is a positive indicator.

Gold deposits hosted by fissure veins and shear systems form the traditional exploration targets. However, many traditional prospectors shy away from exploring the intrusives as unproductive, even in instances in which gold occurrences are known to be present within the intrusives. The historical records indicate this to be the case for the Canoe Lake Stock.

The Bourlamaque batholith in the Val d'Or camp was one of the areas of successful exploration within favourable intrusives. More recent successes have been obtained from the Star Lake area of northern Saskatchewan. Recent discoveries by Calnor Resources Ltd. in the High Lake intrusive (12 miles to the northwest of the Shoal Lake area) further illustrate the importance of these settings. The intrusives are favourable settings for shear-related deposits in that the units are generally homogeneous and more susceptible to the development of brittle fracturing and the local development of dilatant zones.

Historical prospecting often had little success in this environment as the best developed shears were recessive weathering and often totally obscured by overburden.

Geophysical procedures (VIF-EM and ground magnetics) can be very useful in the exploration for this type of deposit. Since the intrusives often are flat magnetically and without significant conductance, the above-mentioned methods have the potential of responding to the shear systems and being of direct use in defining drill targets.

The weakly developed conductivity and the magnetic responses associated with the shearing are often too subtle to be of use in tracing these targets through more variably responding volcanic and sedimentary environments.

The other methods which have been of particularly good use are soil geochemistry and basal-till sampling with overburden drilling techniques in areas where soil conditions are not suitable for soil geochemistry.

EXPLORATION HISTORY

The region has had a long and colourful history for gold mining and exploration. The main periods of activity were 1890-1910 and 1934-1943. Most of the gold discoveries in the region were made from 1885 to 1895, utilizing conventional prospecting techniques.

One of the more important past-producers, the Mikado Mine, is situated immediate west of the Bag Bay claims. The Mikado has recorded production of 28,335 cunces of gold.

Figure 1 illustrates the gold occurrences in this region. The cluster of known occurrences around the Canoe Lake Stock and the High Lake Stock has not until very recently been identified as an important indicator of possible significant new deposits within the intrusive bodies.

Recent results announced by Calnor Resources from the High Lake Stock and the preliminary results obtained by Golden Rule in the Canoe Lake Stock indicate that considerable potential exists for economic gold occurrences which can be identified by and explored for with modern techniques.

BAG BAY CLAIMS

The Bag Bay claims have been expanded to the present 30 claims which are on the western side of the Canoe Lake Stock. The most recent staking covers the Tycoon shaft on an island in Bag Bay. This occurrence is described in ODM Mineral Deposit Circular 16 as:

303. Tycoon Occurrence

Islands in Bag Bay, Shoal Lake (Cls. D219-21, JES 54) NTS: 52E/10SW

NTS: 52E/10SW Lat: 49.60° Long: 94.96° Kenora Regional Geologist Files (Tycoon; Kuryliw, C.J., Bag Bay Grp., Shoal Lake)

ODM Vols: 9, (1900) 20, (1911) 1898-1899: Sh. 78 ft. deep and 713 ft. DD. Believed to be an extension of the Mikado No.2 vein. Qtz. veins in massive, altered q. diorite. DD hole: No.1 · Cl.D219 · 1.0 oz. Au/ton over 11 ft.-width. No.2 · 3.75 oz. Au/ton over 19 ft., 3.20 oz. Au/ton over 12.5 ft, No.3 · 0.37 oz. Au/ton over 26 ft., 0.92 oz. Au/ton over 6.5 ft.

The values reported may not have been duplicated by further investigations. The summary descriptions of other gold occurrences in close proximity to the claims are listed below:

34. Bullion No.2 Prospect

Glass Tp., Shoal Lake Area (Cls. D.233, D.390) NTS: 52E/10SW Lat: 49.59° Long: 94.95° Kenora Regional Geologist Files (Bullion No.2) ODM Vols: 9,(1900) 10, p.79 (1901)

Two Sh. 75 ft. and 115 ft. deep, w/ 300 ft. of development work. 3 small faulted q. veins.

61. Crown Point

Glass Tp., between Bag Bay and Clytie Bay in Shoal Lake (C1.D258) NTS: 52E/10SW Lat: 49.61° Long: 94.97° ODM Statistical Files (Crown Pt. Mining Co.)
ODM PR 1962-5,p.8-9, 13-14
Kenora Regional Geologist
Files (Crown Pt. Mine;
Kuryliw, C.J.-Shoal Lk.)
ODM Vols: 9,p.59(1900)
10, p.79 (1901)

13, pt.1, p.61 (1904)

Production: 1900: 100 oz. Au/from 150 tons. = 0.67 oz. Au/ton. 3 Sh: 60 ft., 65 ft., 125 ft. deep w/100 ft. drifting. Fire in main sh in 1900. Pyritic q. stringers in contact shear zone between granite and metabasalts. Main vein strikes 90°.

183. Mikado Mine

Glass Tp., Bag Bay, Shoal Lake NTS: 52E/10SW Lat: 49.58° Long: 94.96° ODM Statistical Files (Mikado Gold Mining Co. Ltd.)

Kenora Regional Geologist Files (Mikado Mine; No.1 sh: 66 Kuryliw, C.J. - Shoal Lk.)

GSC Economic Geology Series No.15,p.40 ment mainly ODM PR 1965-2,p.41-2 ODM Vols: 7 to 13 (1898-1904) main pegmatite (trending 33 (1934) wide. Au wide. Au wide.

Production: 1896-1902, 1910-11, 1931: 28,335 oz. Au & 41 oz. Ag from 57,813 tons = 0.49 oz. Au/ton. No.1 sh: 660 ft. deep w/ 10 levels. No.2 sh: 250 ft.; No.3 sh: 80 ft. No.4 sh: 65 ft. Also 7500 ft. lateral development mainly in No.1 Sh. 1932-34: 2800 ft. underground drilling. Keewatin mafic volcanics cut by E. trending pegmatite dike which is cut by vein (trending 330°) which is 16 in. to 5 ft. wide. Au with cpy, galena, tetradymite, bismuthinite, Mo.

269. Sirdar Prospect Glass Tp., E, of Bag Bay Shoal Lake (Cls. D410, S 182) NTS: 52E/10SW Lat: 49.66°

Lat: 49.66° Long: 94.95° Kenora Regional Geologist Files (Sirdar; Kuryliw-Shoal Lake) ODM Vol. 20,p.165 (1911)

9 (1900) 8 (1899)

44 (1935)

125 ft. Sh. w/500 ft. drifting & 200 ft. tunnel. Veins occur in a sheared zone of altered granite, 3 to 4 ft. wide. Some py and cpy reported.

296. Toronto & Western Co.
Occurrence

Bag Bay, Shoal Lake (Cl. D410) NTS: 52E/10SW

NTS: 52E/10SW Lat: 49.59° Long: 94.96° ODM Vol.8 (1899)

2 Sh.: 120 ft. and 57 ft. deep. 4 ft. wide zone of altered granite impregnated by q. & py. Adjoins Mikado on the E.

The claim group was gridded and covered by VLF-EM and magnetic surveys and reconnaissance geology. The eastern portion of the grid has been mapped while observations of outcrop distribution were completed by the geophysical crews on the western claims.

Maps 1 to 3 (in pocket) summarize the grid geophysical and geological observations. Gold mineralization in the main shaft area is associated with quartz veining and shear systems. Test geochemical B-horizon soil surveys confirm that such procedures can be used to explore in this area subject to caution in regard to patchy lacustral clay deposits in the lowland areas. The limited soil results also suggest that gold mineralization may be more widespread than that indicated by sampling of the old workings.

Magnetic and VIF-EM features, which may relate to shear systems, form excellent exploration targets in this environment. The exploration programs have confirmed that gold mineralization is controlled by shear zones that are present within the intrusive. The property has excellent potential for Bourlamaque type targets. Recent discoveries in the nearby intrusive at High Lake further confirm the potential for the region.

The initial claims were acquired by the Northern Abitibi/Golden Rule joint venture after field examinations in the region confirmed that the east-west trending veins in the Bag Bay area were related to shear structures which probably post-date the intrusion. Upon staking the property and conducting the initial exploration program, old prospect shafts and trenches were located that are not described in the historical records. Grab samples from these trenches returned highly anomalous gold values and instigated the staking of additional claims.

Figure 3 illustrates the gold geochemical responses obtained from B-horizon soil samples collected in proximity to one of the areas in which old workings were identified. Some of the results of grab samples collected from these workings are listed below to indicate the extent of gold enrichment.

Shaft 'D'	1		Au ppb
	-	lled wtih water nearly to surface; wallrock massive pi	nb
		ssive white quartz boulders up to 15 cm diameter in du	
		oritic/pyritic in bands; also in dump, highly oxidized	
		granodiorite boulders.	
D-1	grab	from dump; rusty weathering, highly pyritic chlorite schist (shear zone).	278
D-2	grab	from dump; massive quartz vein containing minor dissemited pyrite and sheared chloritic/pyritic highly altered granodiorite.	144
D-3	grab	from dump; rusty weathered, pyritic, siliceous, calcareous chlorite schist (shear) - previously broken by Geotest.	470
Shaft 'E'	<u> </u>		
		er, unaccessible; wallrock massive white granodiorite; p steeply NE, approximate width 1.5 metres.	shear
E-1	-	· · · · - · · · · · · ·	6000
E-2		wallrock massive white granodiorite	22
	llen tre	e, dug by Geotest altered zone; narrow quartz stringers in sheared granodiorite, shearing at 160°, vertical.	780
Shaft 'H	1		

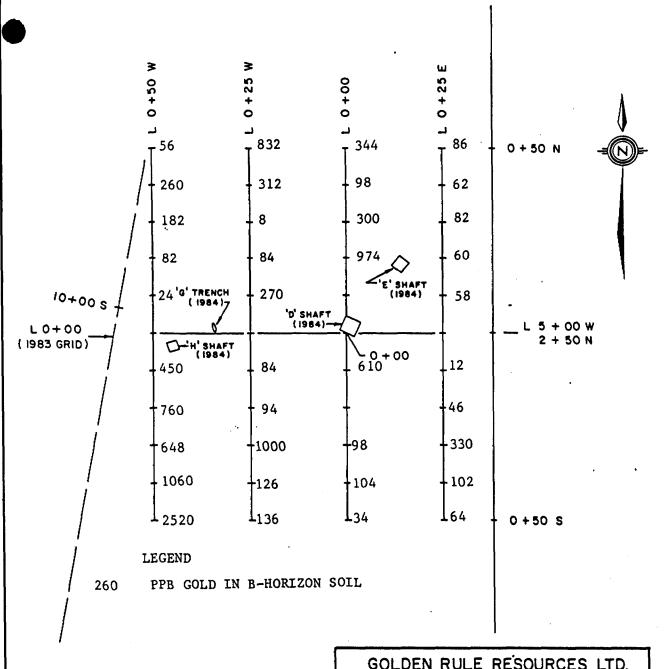
unaccessible, at least 20' deep, filled with water to this level; highly sheared, calcareous chloritic granodiorite, with disseminated pyrite, strike 170', vertical, width not determined due to inaccessibility; calcareous quartz

chloritic, disseminated pyrite.

from dump; sheared granodiorite, siliceous,

veining present at least 6 cm in width.

7100



25 grams of minus 80 mesh material were analysed by fire assay - A.A. proceedures.

GOLDEN RULE RESOURCES LTD.

777817 - 777819, 811071-811077, 811053 - 811058 MINING CLAIMS : ECHO BAY & BOYS TWP., SHOAL LAKE ONT. MINI SOIL GRID

DATE JULY, 1985	NTS 5	2 E/IO					
PROJECT GR-ONT-5 FIGURE 3							
SCALE 1:1000							
TAIGA CONSULTANTS LTD. MAP							

ECHO BAY CLAIMS

Four claims were staked to cover the historical occurrence referred to as the Great Granite Gold Mining and Development Company shaft:

117. Great Granite Occurrence Glass Tp., S. of Echo Bay (Cl. 248E, 272E) NTS: 52F/10NW

Lat: 49.630 Long: 94.920 Kenora Regional Geologist Files (Great Granite Co.) ODM Vol.8,p.68 (1899) 9, (1900) ODM GR 41,p.46 (1965)

Au and bornite in 70 ft. Sh. in granite. Sh on Cl.272E. 4 pits on Cl.248E. Q. veins near contact of q. diorite and metavolcanics.

The four claims have been covered by a 100-metre spaced grid. Geological mapping and total-field ground magnetic and VLF-EM surveys were completed.

Selected grab samples from the shaft returned a maximum value of 890 ppb gold from a sericitic schist, containing minor pyrite and minor malachite staining.

The magnetic coverage did not outline any prominent trends. A few short VLF-EM conductors were outlined which may warrant further consideration.

HELLDIVER BAY CLAIMS

Two claims are held within the volcanics about a mile to the southwest of the Bag Bay claim group. The property may partially cover a historical occurrence referred to as the Helldiver Group. The Olympia Mine is situated approximately 300 metres to the southeast, with the relevant data as follows:

219. Olympia Mine Glass Tp., NW shore of Helldiver Bay, Shoal Lk. NTS: 52E/10SW

Lat: 49.580 Long: 94.960 **ODM Statistical Files** Kenora Regional Geologist Files (Machin Cls.; Olympia Loc. M.11). Canadian Mines Handbook, 1964, p.184. Survey of Mines 1969,p.171. ODM MP 22,p.12-14, 1968.

Production: 1906-1915: 332 oz. Au & (Olympia Gold Mining Ltd.) 58 oz. Ag from 1,598 tons = 0.20 oz. Au/ton. 5 Sh w/deepest to 125 ft., also 3 tunnels for total of 962 ft. of lateral work. 125 ft. tunnel sampled every 10 ft. yielded 0.107 oz. Au/ton Av. width (44 in. wide). Basic metavolcanics intruded by porphyry dikes. Au with py in q. and q.-carbonate veins in NW fractures.

The two claims were covered with 100-metre spaced north-south grid lines. Ground VLF-EM and total-field magnetic surveys were completed. Several strong VLF-EM conductors were outlined. The magnetic results indicate considerable activity, with some of the magnetic responses associated with the conductors.

During grid emplacement, one trench and prospect shaft were observed on the southern portion of Line 3E. Grab samples were collected from the shaft area and analyzed geochemically for gold by fire assay/AA procedures:

<u>Sample</u>	<u>ppb Au</u>
A-2	8,285
A-3	245
A-4	20
A-5	1,005

The shaft is located immediately south of a moderate VLF-EM conductor and appears to coincide with a linear magnetic high.

CONCLUSIONS

The Canoe Lake Stock has considerable potential to host Bourlamaque type deposits within the stock and in the contact zone with the surrounding volcanics. Gold deposits in this environment will be structurally controlled and probably will be associated with east-west shear systems. Mineralized shears trending at approximately 160° Az have also been recognized on the property.

Sufficient exploration has been completed to identify possible shear structures on the basis of geophysical coverage. Soil geochemical procedures have been tested with excellent positive responses. The patchy presence of lacustral clays within the region indicates the need for considerable care in conducting any large-scale geochemical programs.

RECOMMENDATIONS

- Geochemical coverage should be extended to cover all the suitable terrain with a minimum sample density of 12.5 x 100 metres. A minimum of 25 grams of -80 mesh material should be analyzed for Au by fire assay/AA technique.
- 2. Any extensive areas of unsuitable terrain should be geochemically sampled by a Wacker overburden system, at an initial minimum density of 25x100 m. Samples should be analyzed in the same manner as the soils, after proper descriptions are completed.
- The better geophysical and geochemical targets should be subjected to diamond drill testing. Strong geochemical targets should be given drill priority.
- 4. The land position should be reviewed and further staking should be considered based on renewed interest in the region due to the activity at High lake.

Respectfully submitted,

JEMS E. HANSEN, P.Eng.

and

R.K. Netolitzky, M.Sc., P.Geol.

BIBLIOGRAHY

Beard, Richard C., and Garratt, Glen L. (1976): Gold Deposits of the Kenora-Fort Frances Area; O.D.M. Mineral Deposit Circular 16.

Davies, J.C. (1982): Bag Bay; Ont. Geol.Surv., Map 2422.

Company Reports:

Aussant, Claude H. (1984): Geological Evaluation of a Portion of the Shoal Lake Claims, Ontario.

Hansen, Jens E. (1984): Work Report, Shoal Lake Claims, Glass Twp., Kenora Mining Division, NTS 52E/10.

Hansen, Jens E. (1985): 1985 Program, Work Report, Shoal Lake Property, Glass Twp., Kenora Mining Division.

CERTIFICATE

- I, Jens Eskelund Hansen of the City of Nepean, in the Municipality of Ottawa- Carleton do hereby declare:
- 1. That I am a consulting geophysicist residing at 19 Nesbitt Street, Nepean, Ontario K2H 8C4;
- 2. That I am a graduate of Engineering Physics of Queens University, Kingston, Ontario in 1964 and have been continuously engaged as a practicing geophysicist since that time, and I am a Registered Professional Engineer in the Province of Ontario;
- 3. That I have visited the property and that the foregoing report is based on personal supervision and interpretation of the data discussed in the report.

JENS E. HANSEN, P.Eng. Consulting Geophysicist

Nepean, Ontario

August 4, 1986

APPENDIX A

PREVIOUS WORK

AND

GOLD SHOWINGS

IN THE

CANOE LAKE STOCK AREA

PREVIOUS WORK AND GOLD SHOWINGS IN CANOE LAKE STOCK AREA

GENERAL COMMENT

Numerous pits and short shafts are present in the area but systematic resampling of most of these workings indicate very low average gold grades. Minor previous production from small quartz veins, lenses with visible gold, not presently economic. Most of the gold exploration since the 70' has concentrated on stratabound tuff-hosted targets like the Duport deposit. Canoe Lake Stock is geologically unusual, may be analogous to intrusive associated with porphyry-type mineralization-alteration. Previous geological studies but no systematic gold exploration within the pluton. See Economic Geology sections of OGS reports and papers and assessment reports copied, for summaries of gold showings in area.

1) TYCOON SHOWING (On island in Bag Bay)

<u>Diamond Drilling Report 31</u> (Copied)

Five drill holes by Pancontinental Mining in 1979. Intersected altered intrusive with only low gold values (>0.06 opt) and no quartz veins.

<u>Diamond Drilling Report 32</u> Claim 489120, Island in Bag Bay

Holes SL 83-1, 2 and 3: On NE island near old shaft. Each hole to approx. 100 metres depth. Altered quartz diorite, non-magnetic, red staining, silicified intervals to few metres with 0.5 to few % pyrite. Assays not given.

2-3213: Petrographic Report on drill core. Copied.

2-4104: Claims K 489111-121, K 489741-742. Tasu Resources

VLF and Mag surveys on the ice over Bag Bay. Purpose: to outline regional fractures, faults in quartz diorite, areas of conductivity in regional structures, and trend of intrusive contact. Results: east-west VLF conductors (may becaused by overburden), magnetics indicate location of contact, intrusive magnetically heterogeneous either due to screens of volcanics or zoning.

2) GREAT GRANITE AU SHOWING

70' shaft. No known production. No recent reports.

3) CROWN POINT SHOWING (Fairservice Option)

Crown Point mine was located within a WNW shear within the Canoe Lake Stock. 150 tons treated, approx. 100 oz. Au produced. Three shafts. 1968 Magnetic and HLEM surveys and 7 diamond drill holes, reports not available.

2-1008: Geologic Mapping by Kuryliw, 1972.

Later work indicates mapping inaccurate.

2-1139: Electromagnetic and Magnetic Surveys, C.J. Kuryliw, 1973.

Two weak VLF anomalies, magnetic anomalies due to magnetic peridotites?

2-3671: Sherritt Gordon 1980

Mapping and trenching. Sampling in area between Main and Vent shafts returned only low gold values, max. 0.06 opt/0.7 feet across narrow shear zone. Porphyry dykes associated with shears in quartz diorite. Target was tuff-hosted stratabound mineralization such as at the Duport deposit, not interested in shear-hosted gold.

63-4287: Selco Inc. 1983

Mag, MaxMin, VLF geophysical surveys: Several conductors tested by previous drilling in 1968; due to po-mag mineralization in banded sediments and mudstone with fine pyrite. Humus geochem survey: One strong anomaly (4000 ppb Au), related to east-west shear in pluton.

4) SQUAW LAKE Cu-Zn-Ag SHOWING

Diamond Drilling Report 18: Kerr Addison 1972

I.P. anomaly near Cu-Zn Ag showing. One drill hole: intersected quartz diorite with < 1% pyrite, cut by acid porphyry dyke(50'), ended in amphibolite(?). Few short zones of chalcopyrite, pyrite, sphalerite, on fractures in intrusive. Best assay to 0.06 opt Au, 2.94 opt Ag, 2.22% Cu.

2-96: EM and Mag surveys, Noranda 1980.

Same area as 1972 Kerr Addison drilling. High conductivity due to lake bottom sediments? Outcrops of quartz feldspar and granitic porphyries. Results 'interesting but inconclusive'.

GEOLOGY OF THE CANOE LAKE STOCK AREA

SEE COPIES OF OGS GEOLOGY REPORTS

NOTES ON CAMPBELL'S THESIS (Copy available at OGS library).

S.W. Campbell, Canoe Lake Stock. M. Sc. thesis, U of Manitoba, 1973.

Description of the Canoe Lake Stock:

- 1) Quartz diorite
- 2) Severe magmatic hydrothermal alteration.
- 3) No penetrative cataclastic foliation. Cataclasis limited to margins of shear zones and along the contacts of the stock.
- 4) Abundant pre- and post- hydrothermal fractures and shears.
- 5) Numerous porphyritic felsic dykes associated (genetically and spatially) with the Canoe Lake Stock.
- 6) Fracture-controlled contact in Bag Bay-Helldiver Bay area is unique to Canoe Lake Stock, not seen in other nearby stocks.
- 7) Pervasive porphyry-type copper mineralization associated with major, fractures. Mineral association: pyrite-chalcopyrite-pyrrhotite-sphalerite-molybdenite.
- 8) Peripheral gold mineralization appears to be associated with Bag Bay-Helldiver Bay contact zone.

Mineralization and Alteration

The mineralization and alteration in the Canoe Lake Stock is comparable to the typical porphyry copper model. Potassic, phyllic and propylitic alteration zoning.

BIBLIOGRAPHY

* copy available. # notes available.

PUBLICATIONS ON THE GOLD DEPOSITS & GEOLOGY OF SHOAL LAKE AREA

BUREAU OF MINES ANNUAL REPORTS: excerpts.

* 1895, 1896, 1898, 1900, 1911, 1921.

Gold Deposits in Ontario Part 1, Glass Township p.146-149

* 1971 OGS MRC 13.

Blackburn, C.E. and D.A. Janes

* 1983 Gold Deposits in Northwestern Ontario; p.194-197 in The Geology of Gold in Ontario, OGS MP 110.

Campbell, S.W.

* 1973 Geology of the Canoe Lake Stock, unpublished M.Sc. thesis, University of Manitoba.

Davies, J. C.

* 1965 Geology of the High Lake-Rush Bay Area Ont Dept. Mines. Geology Report 41.

* 1978 Geology of the Shoal Lake-Western Pennisula Area, OGS Open File Report 5242.

* 1983 Gold Deposits of the Lake of the Woods Area; p. 241-245 in Summary of Field Work 1983. OGS MP 116.

ASSESSMENT REPORTS

TYCOON Au SHOWING

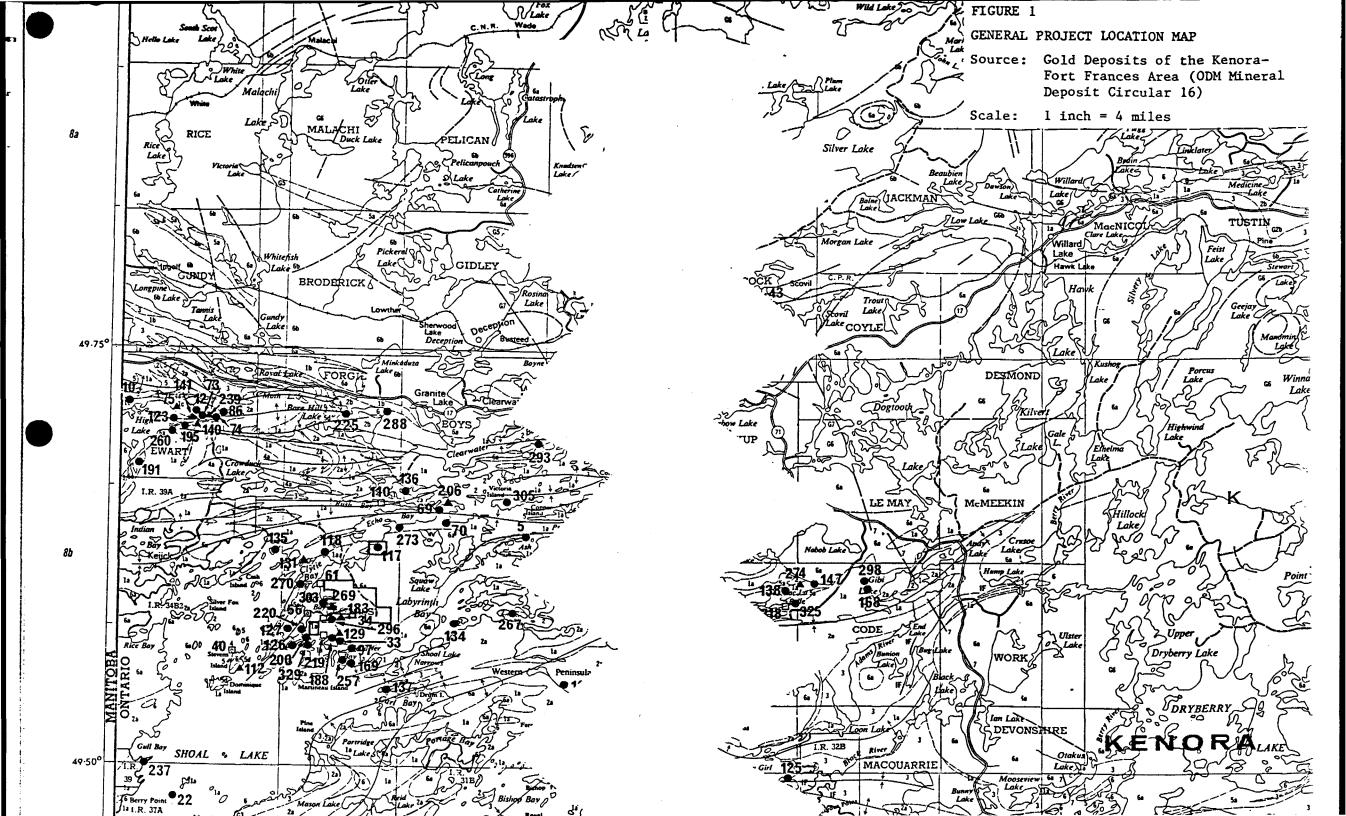
- * <u>Diamond drilling Report 31</u>: Report on Diamond Drilling Programme; Claims 489111-121, 489741-742; H.G. Tibbo, November 20, 1979.
- # <u>Diamond drilling Report 32</u>: Diamond Drilling Logs, Claim K 489120; Tasu Resources Ltd. H.G. Tibbo, June 1983.
- * 2-3213: Report on thin and polished thin section examination of samples from the Canoe Lake Batholith., R. Valliant, October 17,1979.
- # 2-4104: Report on VLF EM-16 and Magnetic Surveys, Shoal Lake Property, Ont. Tasu Resources Ltd. Ian G. Park, May 26, 1981.

CROWN POINT AU SHOWING

- * 2-1008: Report on a Geologic Mapping of the Bag Bay-Shoal Lake Claim Group, Kenora Mining Division, N. W. Ontario, C.J. Kuryliw, August 30, 1972.
- # 2-1139: Reports on Electromagnetic and Magnetic Surveys over the Bag Bay Claim Group, Claims 274182-199, Shoal Lake Kenora M.D. C.J. Kuryliw, January 6, 1973.
- # 2-3671: Kenora Gold Project, Crown Pt. Cl.(Fairservice Option), Geological and Trenching Report. Bag Bay Area, Glass Twp. District of Kenora, Ont. Sherritt Gordon Mines Ltd. D. G. Harder and R. H. Morse, December 31, 1980.
- # 63-4287: Report on Grid 'C'- Fairservice Option, Shoal Lake Gold Project, Selco Inc. B. Zebev, November 1983.
- 2-6911: Work Report, Shoal Lake Claims, Glass Twp., Kenora M.D. 52 E/10. J. E. Hansen, June 24, 1984.
- 2-8337: 1985 Program Work Report, Shoal Lake Property, Glass Twp., Kenora M.D., NTS 52 E/10. J. E. Hansen, August 1, 1985.

SQUAW LAKE Cu-Zn-Ag SHOWING

- # <u>Diamond Drilling Report 18</u>: Drill Log KX-72-1, Kerr Addison Mines Ltd. March 1972.
- #2-96: Electromagnetic and Magnetometer Survey, Squaw Lake Option, Claims K203198-205. Noranda Exploration Co. Ltd. P.G. Cooper, 1980.





Ministry of Northern Affai m<u>d-M</u>ines



exceeds space on this form, attach a list. Note: - Only days credits calculated in the "Expenditures" section may be entered

52	E105#85/5 2.9325 5no/	AL LAKE		300	_		opend. Days Cr Jhaded areas belo	
Type of Survey(s)					Township o		marco meas pero	vv.
6	EULOGIC	-01			SW	DAL C	DKE	
Claim Holder(s)	202000	/~ <u>_</u>			3770		Licence No.	
J 1	- I-IANS	EAL				BU	5202	
Address	- 1-17-100	12 10		The second of the second of		ዜ . ያረ - ማ .		***
Box 1138	5 57N	"H	0	TTANA	ONT	K1	4 761	
Survey Company			, •	TTANA Date of Survey	(from & to)		otal Miles of line	Cut
GEOTE Name and Address of Author to	EST CORP	•		35 No. 8	VI. Day I	80. 81	15	
J. E HANSEN	Box 113.		TN"H"	OTTAN	DA ON	7	KZH 7	<u> </u>
Credits Requested per Each (Claim in Columns at r	ight		laims Traversed (I		,		
Special Provisions	Geophysical	Days per Claim	Prefix	Aining Claim Number	Expend. Days Cr.	Prefix Mir	ning Claim Number	Expend. Days Cr.
For first survey:	- Electromagnetic		K	†				
Enter 40 days. (This	-	·	<u> </u>	710775				
includes line cutting)	- Magnetometer		1	710776				
For each additional survey:	- Radiometric		}	7/0777				
using the same grid:	· Other		ŀ	1	1			
Enter 20 days (for each)	Other			710779	ļ			
	Geological	20	•	710780				1
	Geochemical		ľ	710781				
Man Days		Days per	ľ			İ		
Complete versus aids	Geophysical	Claim	1	710782	 			
Complete reverse side and enter total(s) here	Electromagnetic			7/0783		1 :		
	- Magnetometer			710784				
						-		<u> </u>
	- Radiometric			710785	:	-		
,	- Other		ł	7/0786		}		
	Geological			710787				
			1		 	-		
	Geochemical			710788			KENOI MINING D	3 \/ '
Airborne Credits		Days per Claim		710789		1	Tally in	VIII 5
Note: Special provisions	Electromagnetic			_		一一片	13 0 6 1	A
credits do not apply				7/0790.]	70	8 O YAM	1986
to Airborne Surveys.	Magnetometer			842065	1	AM-		1000 801
	Radiometric			842066	1	78	9,10,11,12,1	23458
Expenditures (excludes pow	er stripping)	<u> </u>				1		
Type of Work Performed			ļ		<u> </u>	$c_{\mathcal{E}_{I}}$		
						Car		
Performed on Claim(s)		ĺ	1			1	(F ~	
					 	6	~ <i>U</i>	
]	P	· · · · · · · · · · · · · · · · · · ·	WIII	14 / 70	`~	
Calculation of Expenditure Day					MINING A		.)	
Total Expenditures		Total s Credits			Ju	102, SEV		
\$	÷ 15 =	── ┐	L	1	<u></u>	•	IUN -	
Ψ	÷ [15] = [_		7	10775		claims cove	ber of mining ered by this	17
Instructions Total Days Credits may be as	positioned at the state	holder's				report of v	vork.	
Total Days Credits may be a choice. Enter number of day		i i		For Office Use C			1	1
in columns at right.			Recorded	ys Cr. Date Bacorded	dlas	Mining Re	grder	#

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true. Name and Postal Address of Person Certifying Box 1/385 J. E. HANSEN

Certification Verifying Report of Work

Date

UTTAWA

Order of the Minister

AUG, 8/86 Room 6610, Whitney Block Queen's Park Toronto, Ontario M7A 1W3 416/965-4888

Mining Act

In the matter of mining claims:

K 710775 to 77 inclusive

710779 to 90 inclusive

842065-66

in the Area of Shoal Lake.

On consideration of an application from the record	ded holder,J.E. Hansen	
under Section 77 Subsection 22 of the Mining Geological	Act, I hereby order that the time for filing reports and plans in su assessment work recorded on May 8,	pport of 986
be extended until and including <u>August 8</u> ,	19 <u>_86</u> .	
1986.07.07	Fluidt	
Date	Signature of Director, Land Management Branch	

Copies:

J.E. Hansen Box 11385, Station "H" Ottawa, Ontario K2H 7V1 Mining Recorder Kenora, Ontario File: 63-86 July 3, 1986

Report of Work#63

J.E. Hansen Box 11385 Station "H" Ottawa, Ontario K2H 7V1

Dear Sir:

RE: Mining Claims K 710775, et al, in the Area of Shoal Lake

We have not received the reports and maps (in duplicate) for the Geological Survey on the above-mentioned claims.

As the assessment "Report of Work" was recorded by the Mining Recorder on May 8, 1986 the 60 day period allowed by Section 77 of the Mining Act for the submission of the technical reports and maps to this office will expire on July 7, 1986.

If the material is not submitted to this office by July 7, 1986 we will have no alternative but to instruct the Mining Recorder to delete the work credits from the claim record sheets.

For further information, please contact Mr. Arthur Barr at (416)965-4888.

Yours sincerely,

J.C. Smith, Supervisor Mining Lands Section

Whitney Block, 6th Floor Queen's Park Toronto, Ontario M7A 1W3

Telephone: (416) 965-4888

AB/mc

cc: Mining Recorder Kenora, Ontario

Fncl

OFFICE USE ONLY



Ministry of Natural Resources

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s)Geology		
Township or AreaGlass Townsh	ip G-2642 Shoal Lake	MINING CLAIMS TRAVERSED
Claim Holder(s) Jens E. Hans	en	List numerically
19 Nesbitt S	treet,Nepean, Ont. K2H 8C4	
Survey Company Taiga Consul	tants and Geotest Corporation	
Author of Report Jens E. Hans	en and R.K. Netolitzky	710776 (prefix) (number)
Address of Author 19 Nesbitt S	treet, Nepean, Ont. K2H 8C4	710777
Covering Dates of Survey May 1984	- September 1985 (linecutting to office)	710779
Total Miles of Line Cut	(unfectiting to office)	710780
		710781
SPECIAL PROVISIONS	DAYS	710782
CREDITS REQUESTED	Geophysical per claim.	710782 710783 710784
ENTER 40 days (includes	Electromagnetic	710784
line cutting) for first survey.	-Magnetometer	710785
ENTER 20 days for each	-Other	710786
additional survey using	Geological 20	
same grid.	Geochemical	710787
AIRBORNE CREDITS (Special provision	n credits do not apply to airborne surveys)	710788
MagnetometerElectromagnet	tic Radiometric	710789
DATE: August 4, 1986 SIGNAT	IIRE: AMM	710790
	Author of Report or Agent	842065
		842066
Res. Geol. Qualific	ations	1
Previous Surveys File No. Type Date	Claim Holder	
7, pe Duc	RECEIVED	
	14.10. 1.1.1086	
	Market LAMbie SECTION	
		TOTAL CLAIMS 17

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS - If more than one survey, specify data for each type of survey

Number of Stations	Number of Readings
Station interval	Line spacing
Profile scale	
Contour interval	
Instrument Accuracy — Scale constant Diurnal correction method Base Station check-in interval (hours)	
Accuracy - Scale constant	
Diurnal correction method	
Base Station check-in interval (hours)	
Base Station location and value	
Instrument	
· ·	
Accuracy	
Method:	
Frequency	
Parameters measured	
•	
Instrument	
Base station value and location	
Elevation accuracy	
Instrument	
Method	☐ Frequency Domain
Parameters - On time	Frequency
- Off time	Range
– Delay time	
— Integration time	
— Off time — Delay time — Integration time Power	
Electrode array	
Electrode spacing	
Type of electrode	

INDUCED POLARIZATION

SELF POTENTIAL	
	Range
Survey Method	·
Corrections made	
RADIOMETRIC	
Instrument	
	Background Count
Size of detector	<u> </u>
Overburden	
(type,	, depth — include outcrop map)
OTHERS (SEISMIC, DRILL WELL LOGGING	ETC.)
Type of survey	
Instrument	
Accuracy	
Parameters measured	
Additional information (for understanding resul	lts)
<u>AIRBORNE ŞURVEYS</u>	
Type of survey(s)	
Instrument(s)	ify for each type of survey)
Accuracy(spec	
Aircraft used	
Aircraft altitude	Line Spacing
Miles flown over total area	Over claims only

GEOCHEMICAL SURVEY - PROCEDURE RECORD

Numbers of claims from which samples taken							
Total Number of Samples	ANALYTICAL METHODS						
Type of Sample (Nature of Material)	n n m l]]					
Average Sample Weight Method of Collection	F.F. v.]					
	Cu, Pb, Zn, Ni, Co, Ag, Mo, As	s,-(circle)					
Soil Horizon Sampled	Others						
Horizon Development	Field Analysis (tests)					
Sample Depth	Extraction Method						
Terrain	Analytical Method						
	Reagents Used						
Drainage Development	Field Laboratory Analysis						
Estimated Range of Overburden Thickness	No. (tests					
	Extraction Method						
-	Analytical Method						
	Reagents Used						
SAMPLE PREPARATION	Commercial Laboratory (tests					
(Includes drying, screening, crushing, ashing)	Name of Laboratory						
Mesh size of fraction used for analysis	Extraction Method Analytical Method						
	Reagents Used						
	Reagents Oseu						
	General ————————————————————————————————————						
General							
							

File No 2.9325

Mining Lands Section

Control Sheet

	TYPE OF SURVEY	GECT SICAL GEOLOGICAL GEOCHEMICAL EXPENDITURE
MINING LANDS	COMMENTS:	
		•
		· · · · · · · · · · · · · · · · · · ·
•		
		p. Aurst
		Signature of Assessor aug 13/14

Date

September 5, 1986

Your File: 63-86 Our File: 2.9325

Mining Recorder Ministry of Northern Development and Mines 808 Robertson Street Box 5080 Kenora, Ontario **P9N 3X9**

Dear Sir:

RE: Notice of Intent dated August 18, 1986 Geological Survey on Mining Claims K 710775, et al, in the Shoal Lake Area

The assessment work credits, as listed with the above-mentioned Notice of Intent, have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours sincerely,

J.C. Smith, Supervisor Mining Lands Section

Whitney Block, 6th Floor Queen's Park Toronto, Ontario M7A 1W3

Telephone: (416) 965-4888

SH/mc

cc: J.E. Hansen Box 11385 Station "H" Ottawa, Ontario K2H 7V1

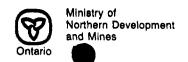
Encl.

bcc: Resident Geologist

Kenora, Ontario

bcc: Mr. G.H. Ferguson Mining & Lands Commissioner

Toronto, Ontario



Technical Assessment Work Credits

				File		
				2 9325		
Date			Mining R	ecorder's Report of	_	
August	18,	1986	WORK NO.	63-86		

Recorded Holder				
	J.E. HANSEN			
Township or Area	SHOAL LAKE AF	REA		
Type of survey and n	umber of			
Assessment days credi	t per claim		Mining Claim	s Assessed
Geophysical				
Electromagnetic	days			
Magnetometer	days			
Radiometric	days			
Induced polarization	days			
Other	days			
Section 77 (19) See "Mining Clai				
Geological				K 710775-76-77-79 710780-81-82
Geochemical	days			710785 to 790 inclusive
Man days 🗌	Airborne 🗌			
Special provision X	Ground 🚺			
Credits have been reduced be coverage of claims.	ecause of partial			
Credits have been reduced be to work dates and figures of				
Special credits under section 77	(16) for the following m	ining claims		
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	g old		
5 DAYS	10 DA	<u>YS</u>	15 DAYS	
K 710783	K 842	065	K 710784	
No credits have been allowed for	the following mining cl	aims		
not sufficiently covered by the	he survey	insufficient tech	nical data filed	
K 842066				

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geologocal - 40; Geochemical - 40; Section 77(19) - 60.



Sept 2/86

Ministry of Northern Development and Mines

August 18, 1986

Your File: 63-86 Our File: 2.9325

Mining Recorder
Ministry of Northern Development and Mines
808 Robertson Street
Box 5080
Kenora, Ontario
P9N 3X9

Dear Sir:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

For further information, if required, please contact Mr. R.J. Pichette at (416) 965-4888.

Yours sincerely,

J.C. Smith, Supervisor Mining Lands Section

Whitney Block, 6th Floor Queen's Park Toronto, Ontario M7A 1W3

SH/mc Encl.

cc: J.E. Hansen
Box 11385
Station "H"
Ottawa, Ontario
K2H 7V1

Mr. G.H. Ferguson Mining & Lands Commissioner Toronto, Ontario



Ministry of Northern Development and Mines

> Notice of Intent for Technical Reports

August 18, 1986

2.9325/63-85

An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on the record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands' Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted directly to the Land Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.

			 2.9000		
• 72 95 1			1		
	V		V		
	V .	\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.	V		
		58			1
		89			
		90			_
		842065	1/2.		
•/	3/4	842065 66	WC.		

•



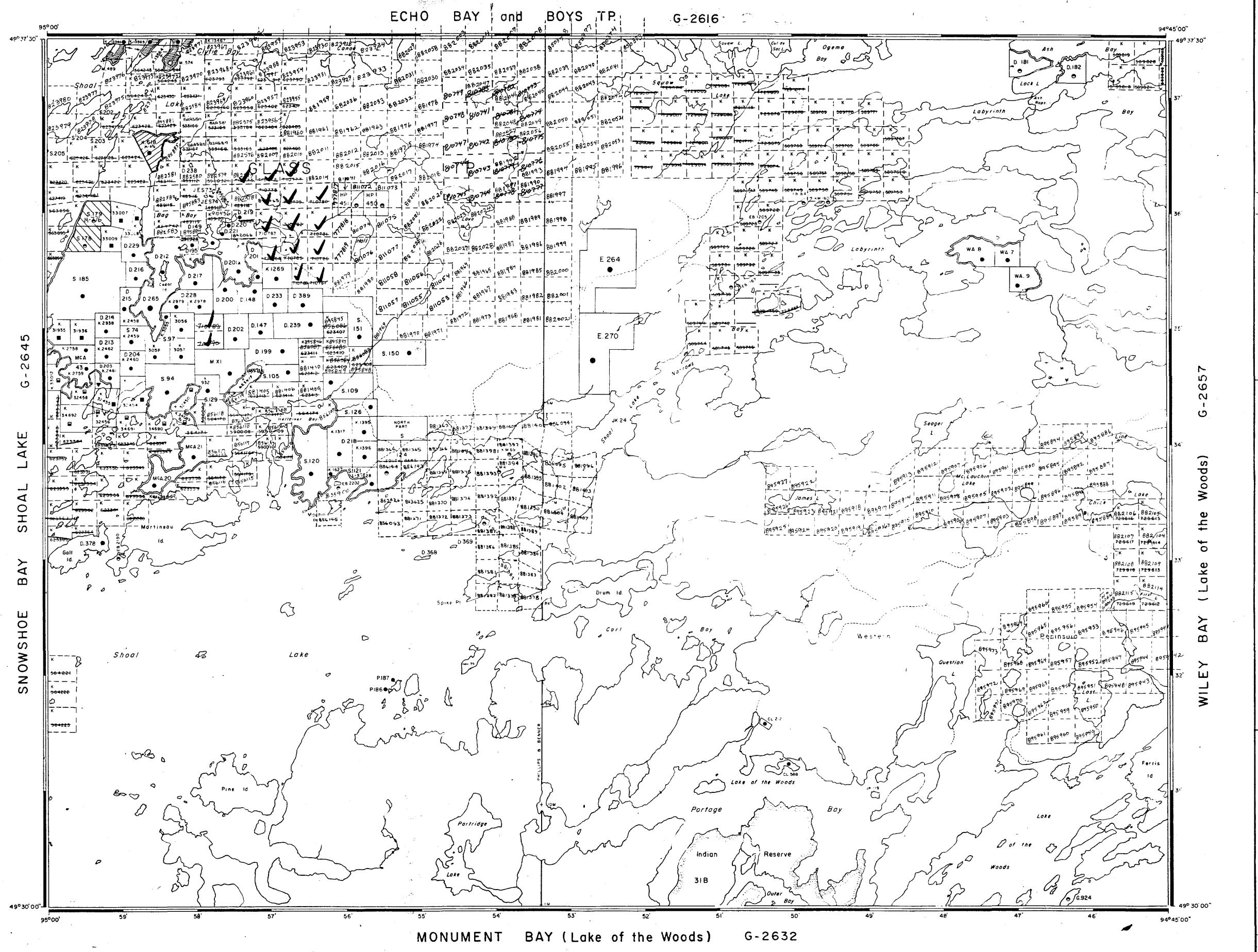


REFERENCES

AREAS WITHDRAWN FROM DISPOSITION M.R.O. - MINING RIGHTS ONLY

S.R.O. - SURFACE RIGHTS ONLY - MINING AND SURFACE RIGHTS

goding Rights reserved to 1064 mean



TAPE OF DOC MENT

THE STREET OF PRICING PATENTER BY THE

SCALE TINCH 40 CHAINS

SHOAL LAKE

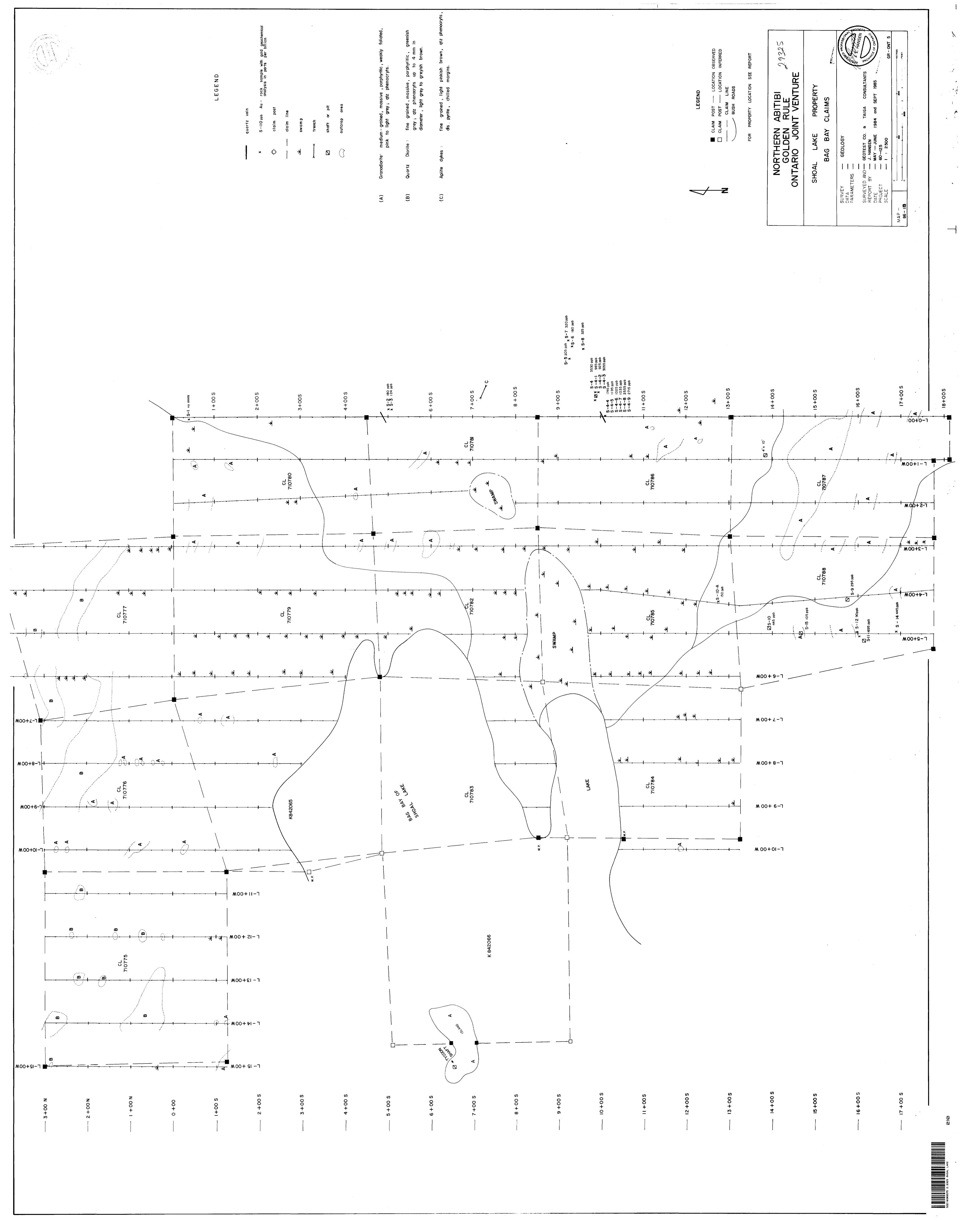
KENORA

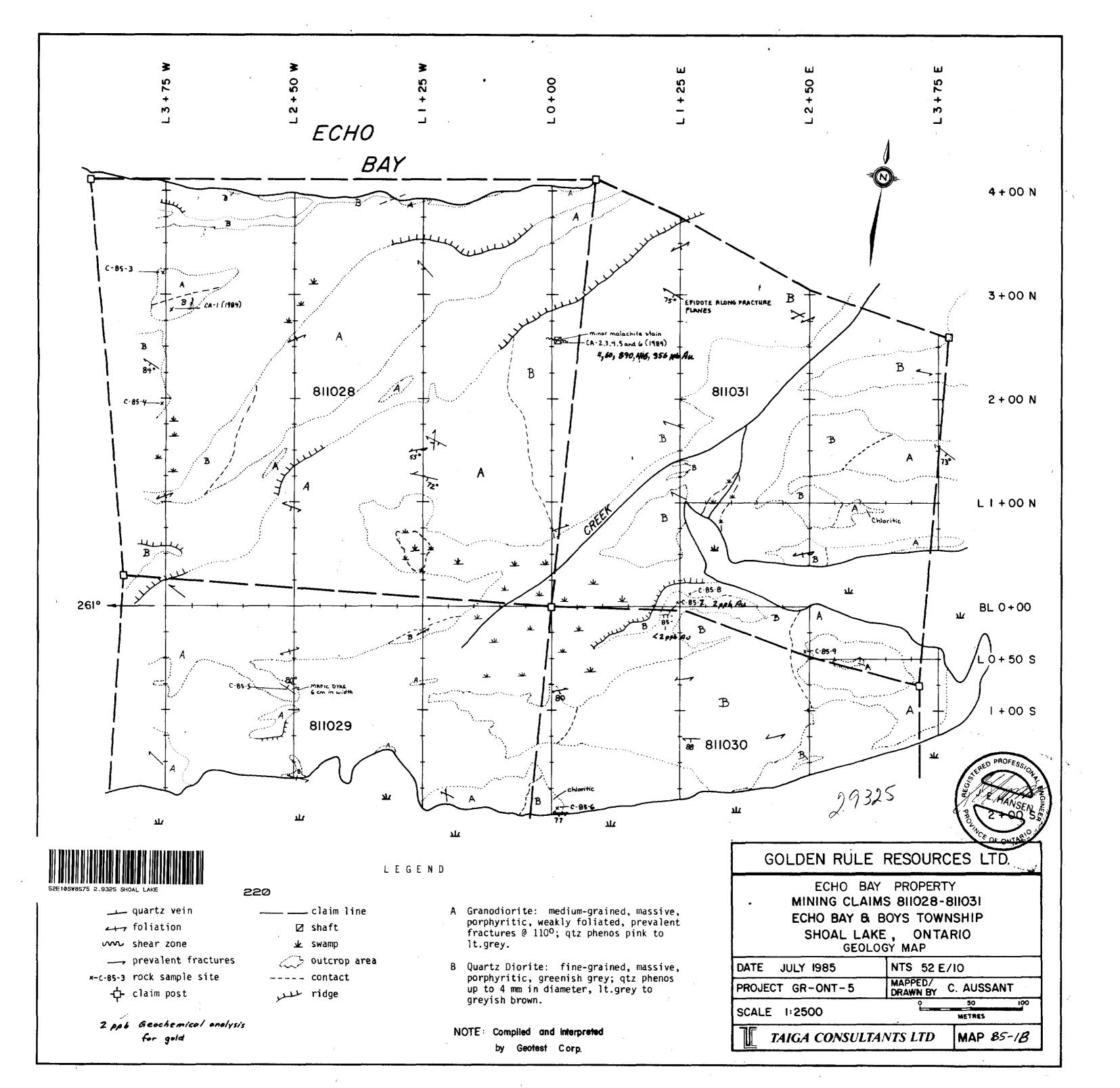
Manager Devices KENORA

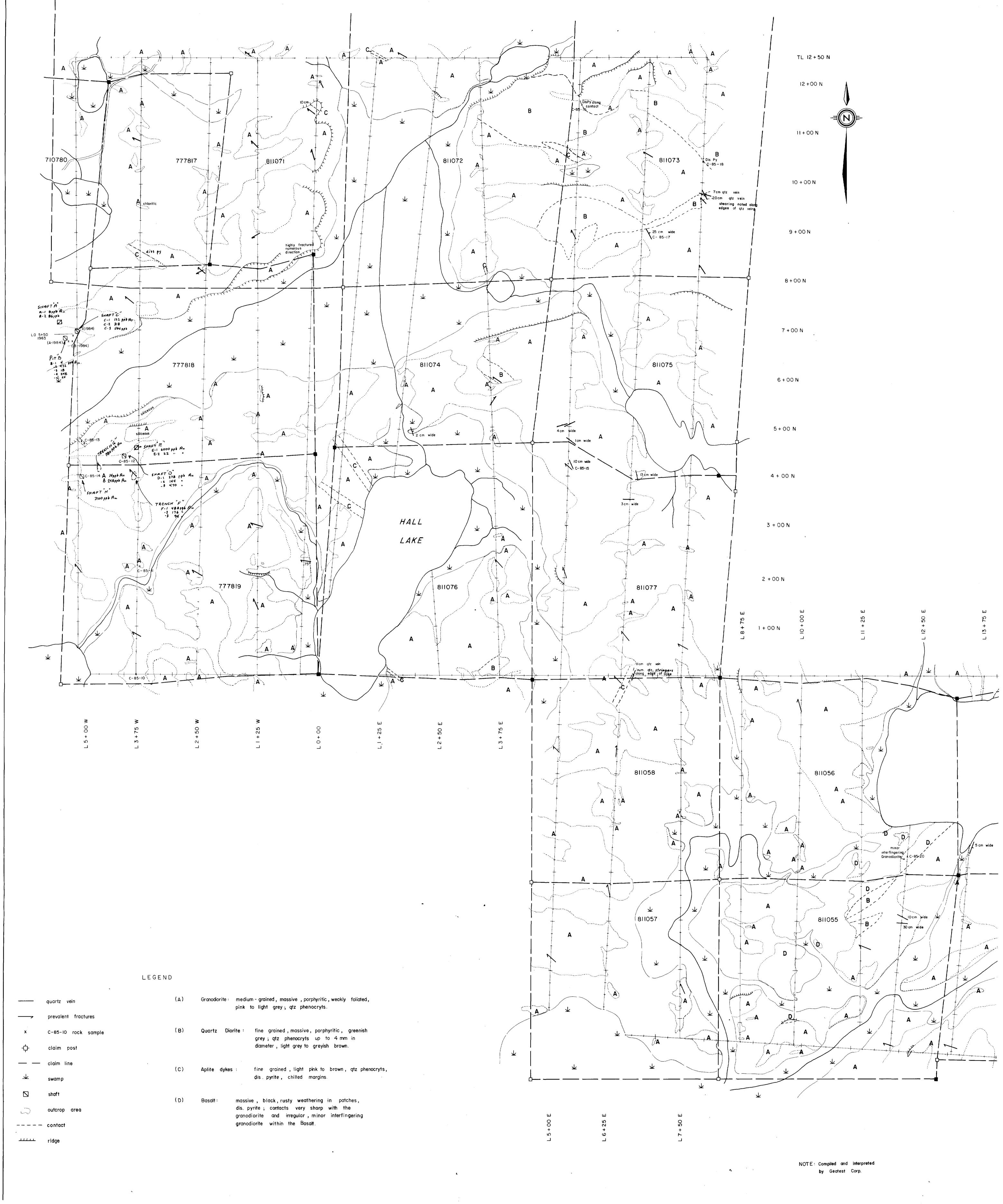
KENORA



G SUBTRESHIN







52E10SW8575 2.9325 SHOAL LAVE

LEGEND

outcrop area

S 110 100 ppb Au-rock sample with gold geochemical analysis in parts per billion

- Granodiorite: medium grained, massive, porphyritic, weakly foliated, (A) pink to light grey; qtz phenocryts.
- massive, black, rusty weathering in patches, dis. pyrite; contacts very sharp with the granodiorite and irregular, minor interfingering granodiorite within the Basalt.

LEGEND

CLAIM POST

---- CLAIM LINE

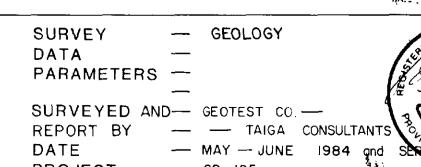
FOR PROPERTY LOCATION SEE REPORT

NORTHERN ABITIBI GOLDEN RULE ONTARIO JOINT VENTURE

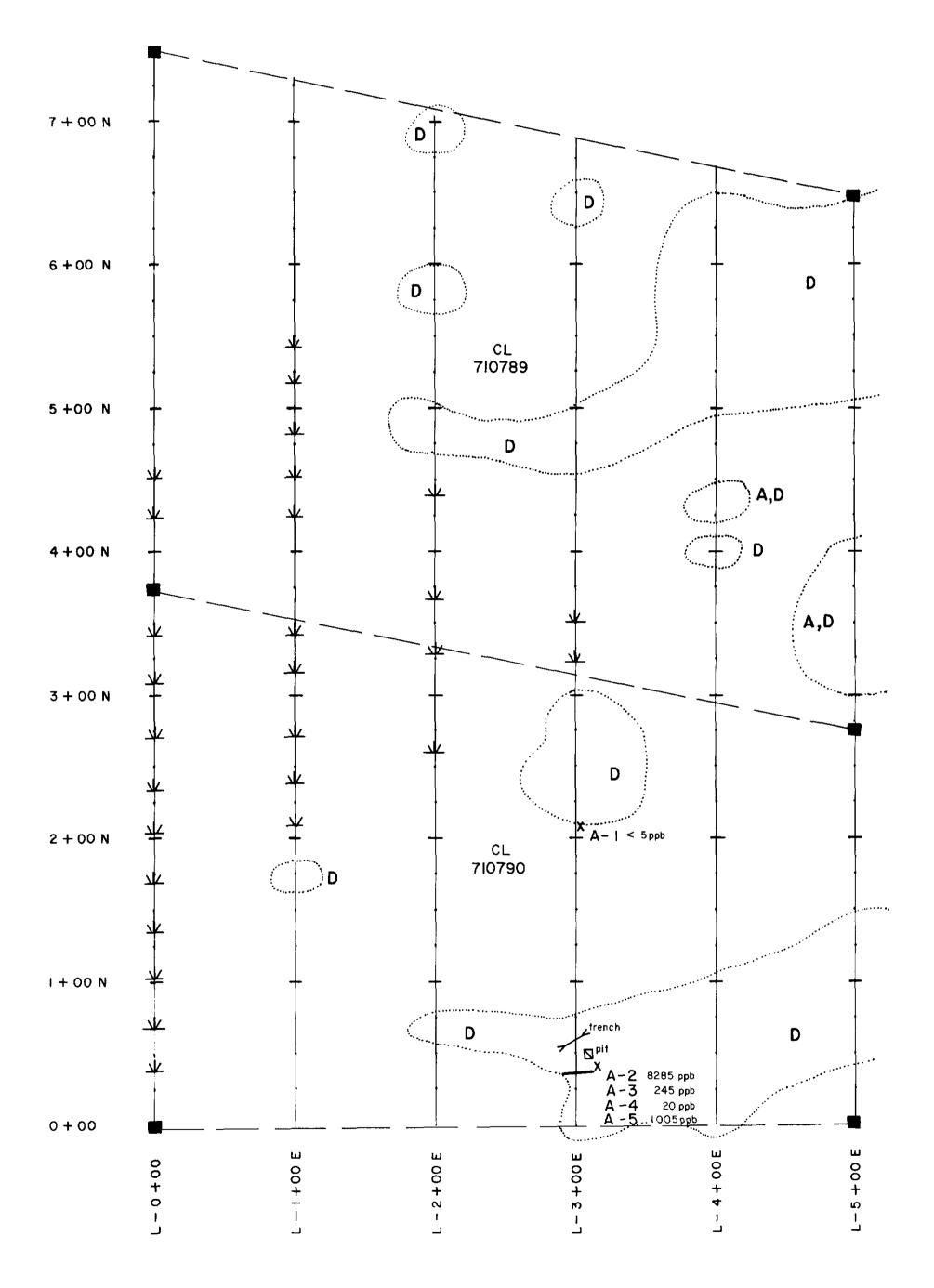
SHOAL LAKE

PROPERTY

CLAIMS



- MAY - JUNE 1984 - 60-125 PROJECT SCALE -- I : 2500



A CONTRACTOR OF THE CONTRACTOR

