N.T.S.:- 32 D/5,12
GRD RPT NO. 5

REPORT

ON

GEOLOGICAL MAPPING AND GEOCHEMISTRY

GHOST RIVER PROPERTY

GARRISON AND HARKER TOWNSHIPS

LARDER LAKE MINING DIVISION

ONTARIO

FOR

GRANDAD RESOURCES LIMITED

F.J. SHARPLEY

NOVEMBER 1984

GRANDAD RESOURCES LIMITED

GHOST RIVER PROPERTY

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GRANDAD RESOURCES LIMITED

GHOST RIVER PROPERTY

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SUMMARY

The Ghost River property is situated within the Kinojevis Group of rocks in the Abitibi Volcanic Belt south of the Destor-Porcupine Break in Garrison and Harker Townships of Ontario.

As a follow-up to the discovery of the McDermott gold deposit by Camflo in Holloway Township, a program in the summer of 1984 on the Ghost River property consisted of ground magnetometer, VLF-EM, Au and As soil geochemistry and geological mapping.

In the area the contact between the iron-rich and the magnesium-rich metavolcanics is prospective for gold-pyrite mineralization associated with altered interflow sediments. This contact on the property is represented by a strong break in the magnetics or a 'magnetic low' such as the North Zone, the North-Central Zone, the Central Zone, and the South-Central Zone. (see Compilation Map 1:5000)

The North Zone has been tested with soil geochemistry with negative results but the overburden is probably deep.

The Central Zone is indicated over a width of 25 to 50 m by a magnetic low representing probable interflow sediments between two mafic flows. The zone is anomalous in gold in the humus at 2 to 6 times background intermittently over a strike length of 3.2 km. (see Anomalies 'A' and 'B' - Compilation Map 1:5000) This the Central Zone is interpreted to be the extension of the McDermott Zone and warrants follow-up basal till sampling and diamond

drilling.

The North-Central and the South-Central Zones have not been tested and warrant follow-up geochemistry.

The Moore Zone is a pyritized lapilli tuff over a width of 25 to 50 m over a strike length of 600 m. Soil geochemistry is 2 to 3 times background in gold. Further trenching and sampling is warranted on this target.

INTRODUCTION

In December 1983 and February 1984 a total of 45 claims were staked in Garrison and Harker Townships to explore for pyrite-gold type deposits associated with interflow sediments similar to discoveries made by Camflo Mines Limited on strike to the east in Holloway Township.

PROPERTY

Garrison and Harker Township

Larder Lake Mining Division, Ontario

Garrison Township:- 9 unpatented claims

Claims: L 737509 to L 737517 inclusive

Harker Township:- 36 unpatented claims

Claims: L 737529 to L 737548 inclusive

L 738103 to L 738112 inclusive

L 738114 to L 738119 inclusive

OWNERSHIP

100 % Grandad Resources Limited

ASSESSMENT WORK REQUIREMENTS

Claims:

	work recorded	recording date	work requirements
L 737509-737517	80	12/29/83	20 days-12/29/86
L 737529-737548	80	12/29/83	20 days-12/29/86
L 738103-738112	80	02/24/84	20 days-02/24/87

L 738114-738119 80 02/24/84 20 days-02/24/87

LOCATION AND ACCESS

The property is located 44 km (27 mi) east of Matheson adjacent to the boundary of Garrison and Harker Townships. Accessibility is via Highway 101 east for 44 km (27 mi) and south from the highway along a logging road for 5 km (3 mi).

TOPOGRAPHY

The topography on the property is relatively flat between the Thacheray and Ghost rivers and appears to be covered with clay. Topographic relief were outcrop is exposed varies up to 25 m in the south central and northwest part of the property.

The property has been cut over by a logging company.

In April of 1984 the property was burnt over by a forest fire.

EXPLORATION HISTORY

In 1946 Northland Mines (1940) Limited carried out geological mapping and ground magnetometer surveys over a portion of the present property over a strike length of 13 km (1.5 mi) in Garrison and Harker Townships.

In 1984 the Ontario Geological Survey flew the area with Input and Total Intensity Magnetometer Surveys.

GENERAL GEOLOGY

The general area forms part of the Abitibi Volcanic Belt.

The Destor-Porcupine Break occurs 5 km to the north. Generally the rock to the south of the break belongs to the Kinojevis Group of tholeiitic metavolcanics. In the Matheson - Black River area numerous syenite plugs intrude along the break and to the south.

The Ghost River property is underlain by rocks of the Kinojevis Group which include mafic volcanic and minor felsic and lapilli tuff striking 070 degrees and dipping 80 degrees south. (O.G.S. P 2433 and P 2434 Jensen 1982)

Camflo Mines Limited drilling 10.5 km to the east on strike in Holloway Township discovered a gold-pyrite zone in interflow sediments that vary up to 50 m between the grey-green and the dark green-black mafic flows.

LITHOLOGY

On the Ghost River Property the rocks of Precambrian age strike at 070 degrees and dip steeply south.

These rocks consist of magnesium-rich metavolcanics, iron-rich mafic metavolcanics, felsic metavolcanics, metasediments, felsic intrusive rocks, Matachewan diabase, and Keweenawan diabase.

The magnesium-rich metavolcanics are medium grey to green in colored andesite and basalt. These rocks are massive,

hyaloclastic, variolitic, amygdaloidal, pillow lava, and interflow sediments.

The iron-rich mafic metavolcanics are black to dark green basalts that are massive, diabasic, fragmental, lapilli tuff-breccia, pillow lava and interflow sediments. The basalts weather dark brown.

The felsic metavolcanics are subdivided into spherulitic and granular tuff, tuff-breccia, cherty tuff, dacite and rhyolite. These rocks are light green to white and weather white.

The metasediments are dark grey to black that are subdivided into conglomerate, wacke, arkose, argillite, sandstone, and ironstone.

The felsic intrusive rocks are pink colored and subdivided into syenodiorite, monzonite and feldspar porphyry.

The Matachewan diabase and Keweenawan diabase are coarse-grained and weather brown.

GEOLOGY AND MINERALIZATION

The property is underlain by basic volcanics and a band of interflow sediments up to 50 m wide that is thought to be the same stratigraphic horizon as the McDermott deposit located six miles to the northeast in Holloway Township (OGS Map 1951-4). The interflow sediments on the property are not observed in outcrop but are inferred from ground magnetometer surveys as a magnetic low. The footwall rock is a medium green pillowed

andesite while the hanging wall rock is a black to dark green basalt that commonly contains magnetite. This zone is referred to as the CENTRAL ZONE extends from 4 West to 34 East a distance of 3800 m at or adjacent to the 8 South baseline. The zone varies from 25 to 50 m wide. At the east end the CENTRAL ZONE is split into two zones from 14 E to 34 E. A possible north-south fault extends though the area at 13+50 E and 8+00 S striking 160 degrees. West of this fault abundant outcrop occurs along a ridge from 3 W to 13 E and varies up to 25 m above the surrounding area.

The MOORE ZONE is a pyritized lapilli tuff that occurs over a strike length of 700 m from 3W to 4E and varies from 25 to 50 m wide at about 1200 m south. The mineralization consists of 2-5 percent pyrite with minor amounts of malachite and quartz stringers and stockwork. The hanging wall rock is dark green pillow lava and the footwall rock is dark green basalt. A total of four grab samples were assayed for gold and silver using the fire assay method by X-Ray Assay Laboratories Limited. A table of the assays is as follows:

TABLE NO. 1

GHOST RIVER PROPERTY
MOORE ZONE

ASSAY NO.	SECTION		OZ/AU/TON	OZ/AG/TON	REMARKS
2389	2+00 E	12+00 S	nil	tr	GRAB SPL.
2390	1+00 E	11+65 S	.009	tr	GRAB
2391	0+50 W	12+10 S	tr	nil	GRAB
2393	1+80 W	12+70 S	tr	tr	GRAB

GHOST RIVER PROPERTY
OTHER SAMPLES

2392	1+00 W	10+60 S	nil		GRAB
2394	6+00 E	00+25 N	nil		GRAB
2395	6+00 E	9+00 S	.001		GRAB

The NORTH ZONE is a zone of Metasediments crossing the property from 11+00 W to 10+00 E at about 3+00 N over a width of 250 m. The ground magnetics signifies the zone as low magnetic area. A drill hole by Camflo on the property to the north and east of our Ghost River block of claims intersected 137+ m of laminated charcoal grey sediments with 1-2 % disseminated pyrite with gold assays mostly trace with minor .01 oz. Au per ton values.

GEOLOGICAL MAPPING

During the period from June 11 to August 10,1984 and again from August 16 to August 19,1984 Rory Moore of New Liskard, Ontario located outcrop and claim posts on the property. The writer from

July 25 to 29,1984 mapped the outcrops geologically.

The grid consists of a total of 105.5 km (65.35 mi) of picket line. This is sub-divided into 4.8 km (2.95 mi) of baseline, 13.13 km (8.16 mi) of tie line, 81.58 km (50.69 mi) of picket line, and 6 km (3.73 mi) of reference line.

SOIL GEOCHEMISTRY

During the period from September 27 to October 2,1984 Rory Moore of New Liskard, Ontario collected 333 humus soil samples as follows:

1. NORTH ZONE: 72 samples
2. CENTRAL ZONE: 214 samples
3. MOORE ZONE: 17 samples
4. SOUTH ZONE: 30 samples

The samples were analysed for gold and arsenic by X-Ray Assay Laboratories of Toronto using the Neutron Activation method. For gold the background value is 5 ppb; the threshold is 10 ppb; the peak value is 30 ppb. Arsenic is generally the same value but in ppm. There are 25 anomalous gold values on the Central Zone, 8 on the Moore Zone, 1 on the South Zone and 3 on the North Zone.

On the Central Zone there are eight separate gold anomalies in the soil (humus) extending from 4E to 35 E. All these anomalies are weak except two which have peak values of 30 ppb gold as follows:

Anomaly A - 3+50 E to 6+50 E at 8 S to 9 S

Anomaly B - 18+50 E to 23+50 E at 7+75 S to 8+50 S

The anomaly 'A' is split into two and is 4 to 6 times background in gold over a strike length of 300 m.

The anomaly 'B' is split into two and is 3 to 6 times background in gold over a strike length of 500 m.

The Moore Zone is weakly anomalous in gold in the humus from 2 W to 3 E over a strike length of 500 m; the anomalous zone is 2 to 3 times background.

The North Zone and South Zone both have isolated weakly anomalous gold values in the humus. The North Zone has an isolated value of 28 ppm As with corresponding 10 ppb Au.

CONCLUSIONS AND RECOMMENDATIONS

The ground magnetometer survey outlined two zones of probable interflow sediments as indicated by a magnetic low situated between two volcanic flows; the dark green pillowed andesites and the black basalts as follows:

1. NORTH ZONE
2. CENTRAL ZONE

Soil geochemistry over the North Zone yielded mainly background values in gold although the overburden is probably deep but a diamond drill hole by Camflo along strike on the adjacent

property yielded only low values. The North Zone is low priority for exploration.

The Central Zone contains anomalous gold values ranging from two to six times background over the full length of the property a strike distance of 3900 m. This zone is the probable extension of the McDermott zone currently being drilled by Barrick Resources Inc. 9.7 km to the northeast.

The Central Zone is an excellent target for gold and warrant follow-up with basal till sampling and diamond drilling.

The Moore Zone is weakly anomalous in gold in the soil at two to three times background over a strike length of 600 m and warrants trenching and sampling. This zone is exposed as a pyritized lapilli tuff over a width of 25 to 50 m for a strike length of 700 m.

On the property the contact between the iron-rich and the magnesium-rich metavolcanics is prospective for gold-pyrite mineralization associated with altered interflow sediments. This contact is represented by a strong break in the magnetics or a 'magnetic low'. Two of these contacts, the North-Central and the South-Central zone have not been tested with geochemistry (see Compilation Map 1:5000) and warrant further work.

Burlington Ontario

November 5,1984

F.J. Sharpley

REFERENCES

JENSEN L.S. and LANGFORD F.F. 1983 - Geology and Petrogenisis of the Archean Abitibi Belt in the Kirkland Lake Area, Ontario. O.G.S.- O.F.R.- 5455

ONTARIO MINISTRY OF NATURAL RESOURCES - 1984

Airborne Electromagnetic Survey
Total Intensity Magnetic Survey

Map 80598 - Matheson - Black River Area
Garrison Township

Map 80599 - Matheson - Black River Area
Harker Township

SATTERLY 1951 - O.D.M. Vol. IX, Part VII,
Geology of Harker Township

SATTERLY 1953 - O.D.M. Vol. LXII, Part 7, 1953
Geology of the North Half of Holloway Township

SHARPLEY 1984 - Summary Report on the Ghost River Property
Garrison and Harker Townships
Larder Lake Mining Division, Ontario for
Grandad Resources Limited

WOOLHAM 1984 - DERRY, MICHENER, BOOTH & WAHL
Report on the Geophysical Surveys
on the Ghost River Property
Garrison and Harker Townships for
Grandad Resources Limited
NTS 32D/5, 12

CERTIFICATE OF QUALIFICATIONS

I, Frederick James Sharpley of the city of Burlington, Province of Ontario, do hereby certify:

1) That I am a geologist and reside at 2372 Sinclair Circle, Burlington, Ontario, L7P 3C3.

2) That I graduated from the University of Saskatchewan in 1959 with a degree of Bachelor of Arts, Geology.

3) That I am a member of the Geological Association of Canada.

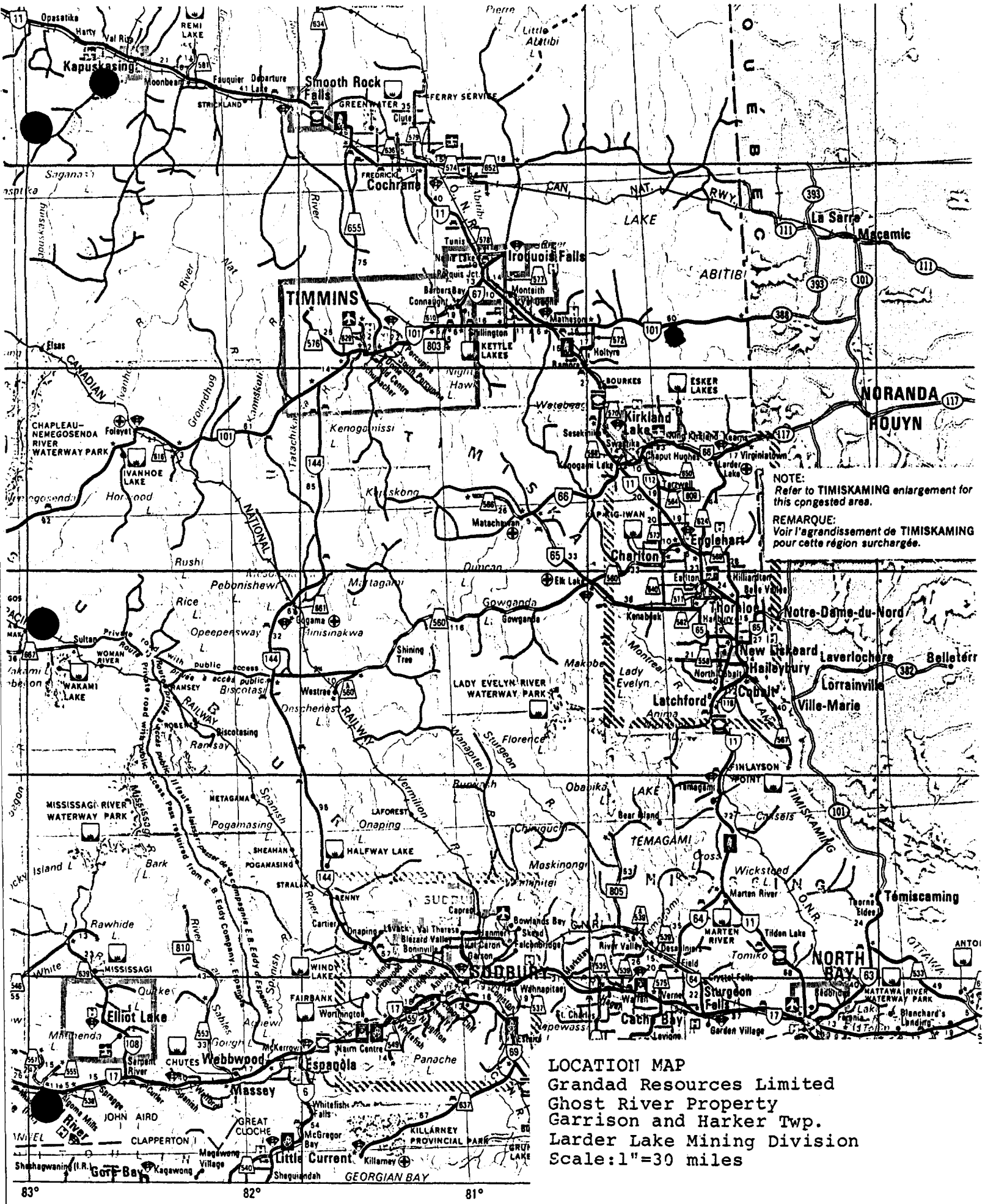
4) That I have been practising my profession for a period of 25 years.

5) That I personally was involved with the technical supervision of the work and wrote the report.

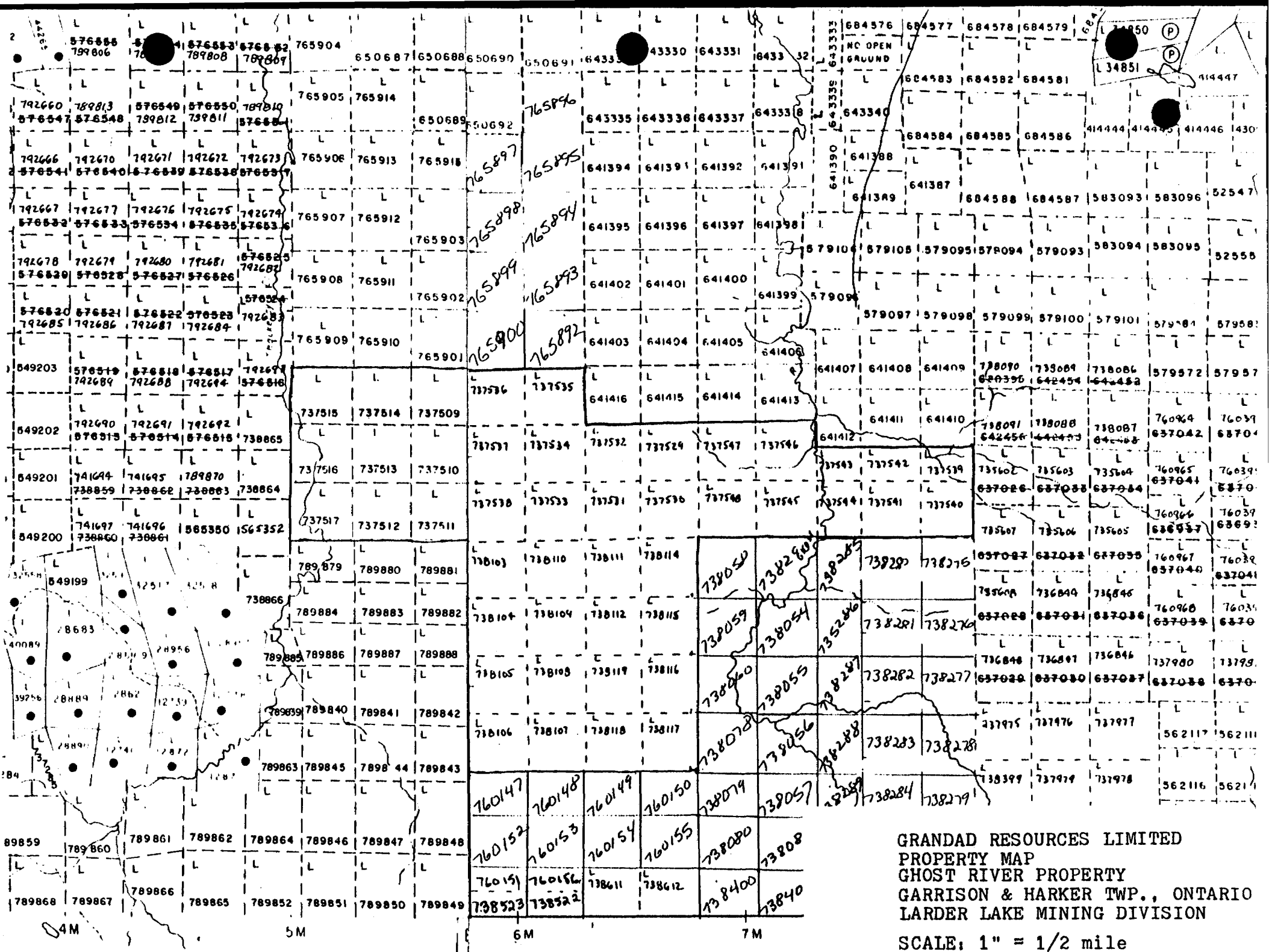
F.J. Sharpley

November 5,1984

Dual
63.2392

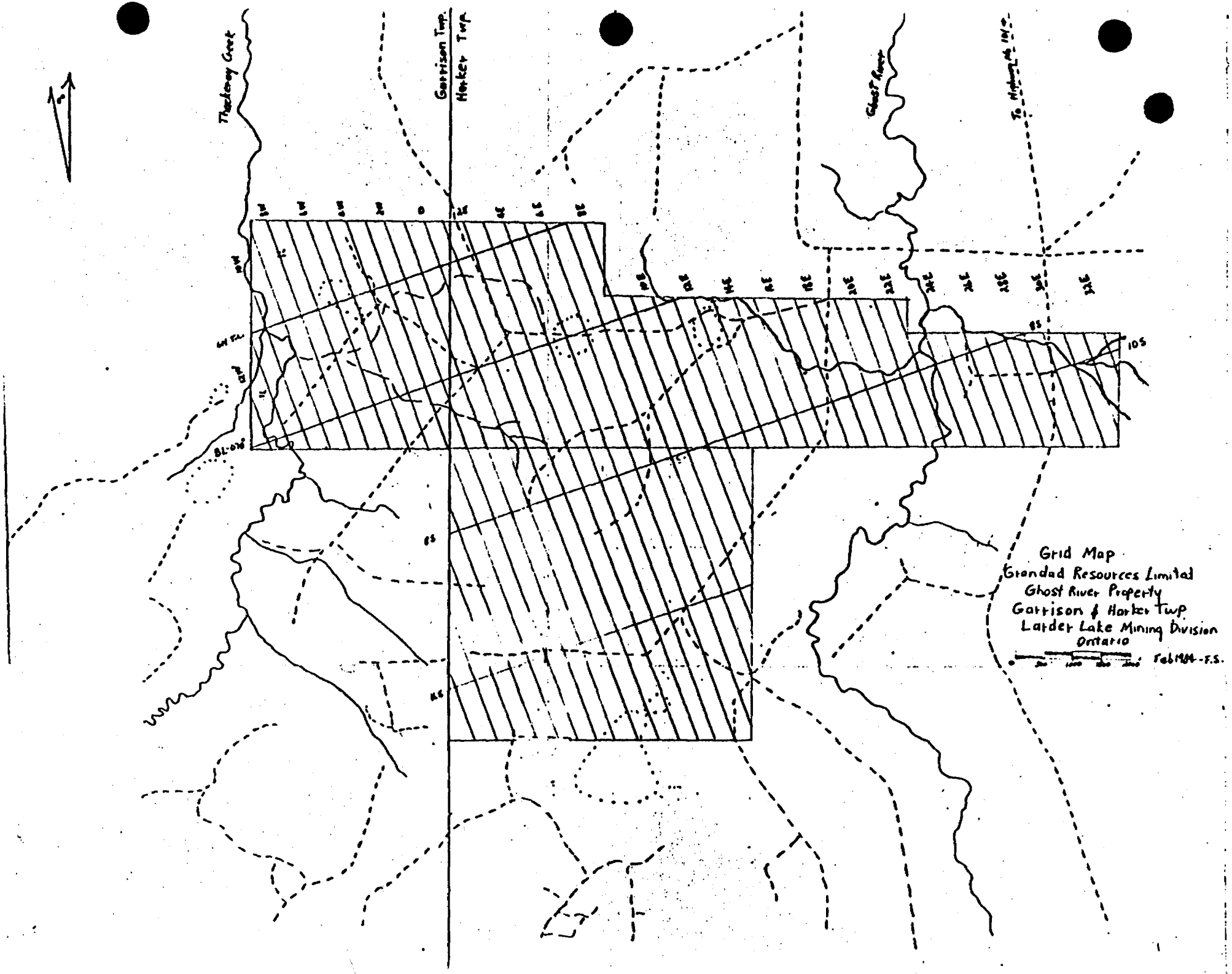


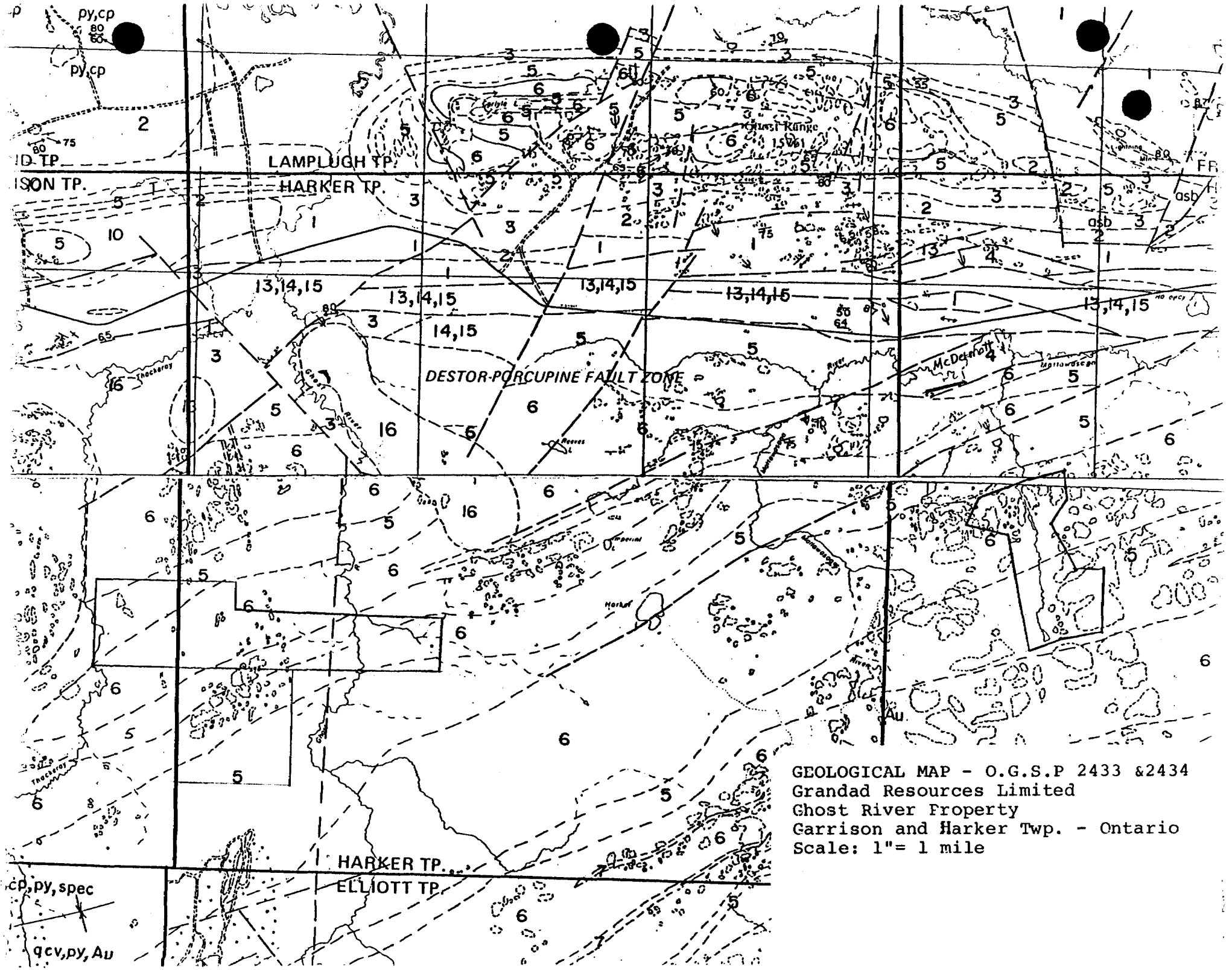
LOCATION MAP
Grandad Resources Limited
Ghost River Property
Garrison and Harker Twp.
Larder Lake Mining Division
Scale:1"=30 miles



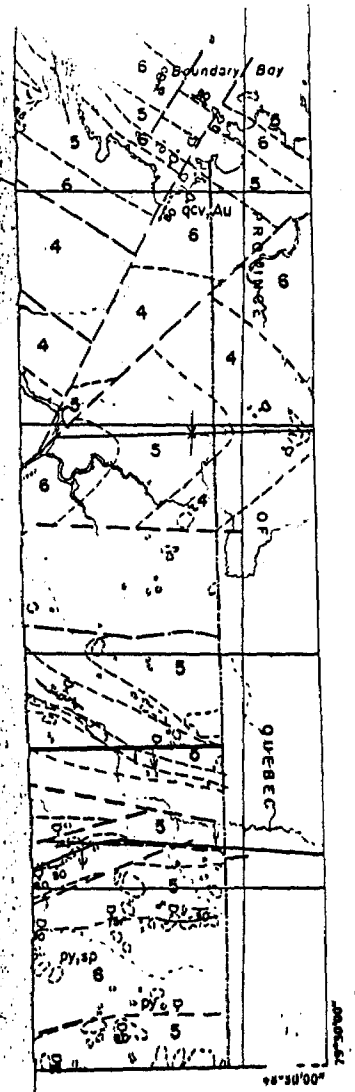
GRANDAD RESOURCES LIMITED
PROPERTY MAP
GHOST RIVER PROPERTY
GARRISON & HARKER TWP., ONTARIO
LARDER LAKE MINING DIVISION

SCALE: 1" = 1/2 mile


Thackeray Creek
Garrison Twp.
Harker Twp.
Ghost River
To Highway No. 101
Grid Map
Grandad Resources Limited
Ghost River Property
Garrison & Harker Twp
Larder Lake Mining Division
Ontario
Feb 1984 - F.S.



GEOLOGICAL MAP - O.G.S.P 2433 &2434
Grandad Resources Limited
Ghost River Property
Garrison and Harker Twp. - Ontario
Scale: 1"= 1 mile



AND MINERAL REVIATIONS

.....Asbestos
.....Gold
.....Chalcopyrite
.....Iron Formation
.....Pyrite
..... Quartz carbonate vein
.....Sohalerite

OF INFORMATION

st Resources Inventory maps, Lands and y of Natural Resources.

s.

ntario Ministry of Natural Resources, Kirk-

in 1973.

CREDITS

ssistants, 1973.

n made to ensure the accuracy of the infor-; however, the Ontario Ministry of Natural ny liability for errors that may occur. Users ormation; sources include both the refer-tion on file at the Resident or Regional Ge- Recorder's office nearest the map-area.

ion may be quoted if credit is given. It is be made in the following form:

Till, reworked till, [illegible]
clay, dune sand, alluvium, and peat

UNCONFORMITY

PRECAMBRIAN
MIDDLE TO LATE PRECAMBRIAN (PROTEROZOIC)
MAFIC INTRUSIVE ROCKS

18 — 18 Diabase, quartz diabase (Keweenawan)

INTRUSIVE CONTACT

EARLY PRECAMBRIAN (ARCHEAN)
MAFIC INTRUSIVE ROCKS

17 — 17 Diabase (Matachewan)

INTRUSIVE CONTACT

FELSIC INTRUSIVE ROCKS

16 — 16 Equigranular and porphyritic syenodiorite, monzonite, feldspar porphyry, pegmatite, lamprophyre

INTRUSIVE CONTACT

ALKALIC METAVOLCANICS
Felsic Metavolcanics

15 — 15 Sodic trachyte, benmorite, alkalic dacite, rhyolite

Mafic Metavolcanics

14 — 14 Hawaiite, alkali basalt, mugearite, nephelinite

METASEDIMENTS

13 — 13 Conglomerate, wacke, arkose, argillite, sandstone, ironstone

UNCONFORMITY

FELSIC INTRUSIVE ROCKS

12 — 12 Trondhjemite, quartz diorite, diorite

INTRUSIVE CONTACT

MAFIC INTRUSIVE ROCKS

11 — 11 Gabbro, quartz gabbro, hornblende gabbro, granophyre

INTRUSIVE CONTACT

ULTRAMAFIC INTRUSIVE ROCKS

10 — 10 Peridotite, dunite; pyroxenite, rodingite

INTRUSIVE CONTACT

UPPER CALC-ALKALIC METAVOLCANICS
Felsic Metavolcanics

9 — 9 Massive flow breccia, tuff-breccia, crystal tuff, feldspar, and quartz feldspar porphyritic rhyolitic and dacitic rocks

Mafic and Intermediate Metavolcanics

8 — 8 Massive and pillowed flows, pillow-breccia, pyroclastic breccia, volcanoclastic, tuff, lapilli-tuff, amygdaloidal, porphyritic feldspar, basaltic and andesitic rocks

THOLEIITIC METAVOLCANICS
Felsic Metavolcanics

7 — 7 Spherulitic and granular tuff, tuff-breccia, cherty tuff, dacite, and rhyolite

Iron-Rich Mafic Metavolcanics

6 — 6 Black to dark green, massive, pillowed, pillow-breccia, hyaloclastic, variolitic, amygdaloidal basalt, andesite rocks, and interflow sediments

Magnesium-Rich Metavolcanics

5 — 5 Grey to green, massive, pillowed, pillow-breccia, hyaloclastic, variolitic, porphyritic feldspar, amygdaloidal basaltic rocks, and interflow sediments

KOMATIITIC METAVOLCANICS
Basaltic Metavolcanics

4 — 4 Massive, pillowed, pillow-breccia, hyaloclastic, variolitic, spinifex-textured basaltic rock

Ultramafic Metavolcanics

3 — 3 Massive, pillowed, polysutured, spinifex-textured ultramafic metavolcanics

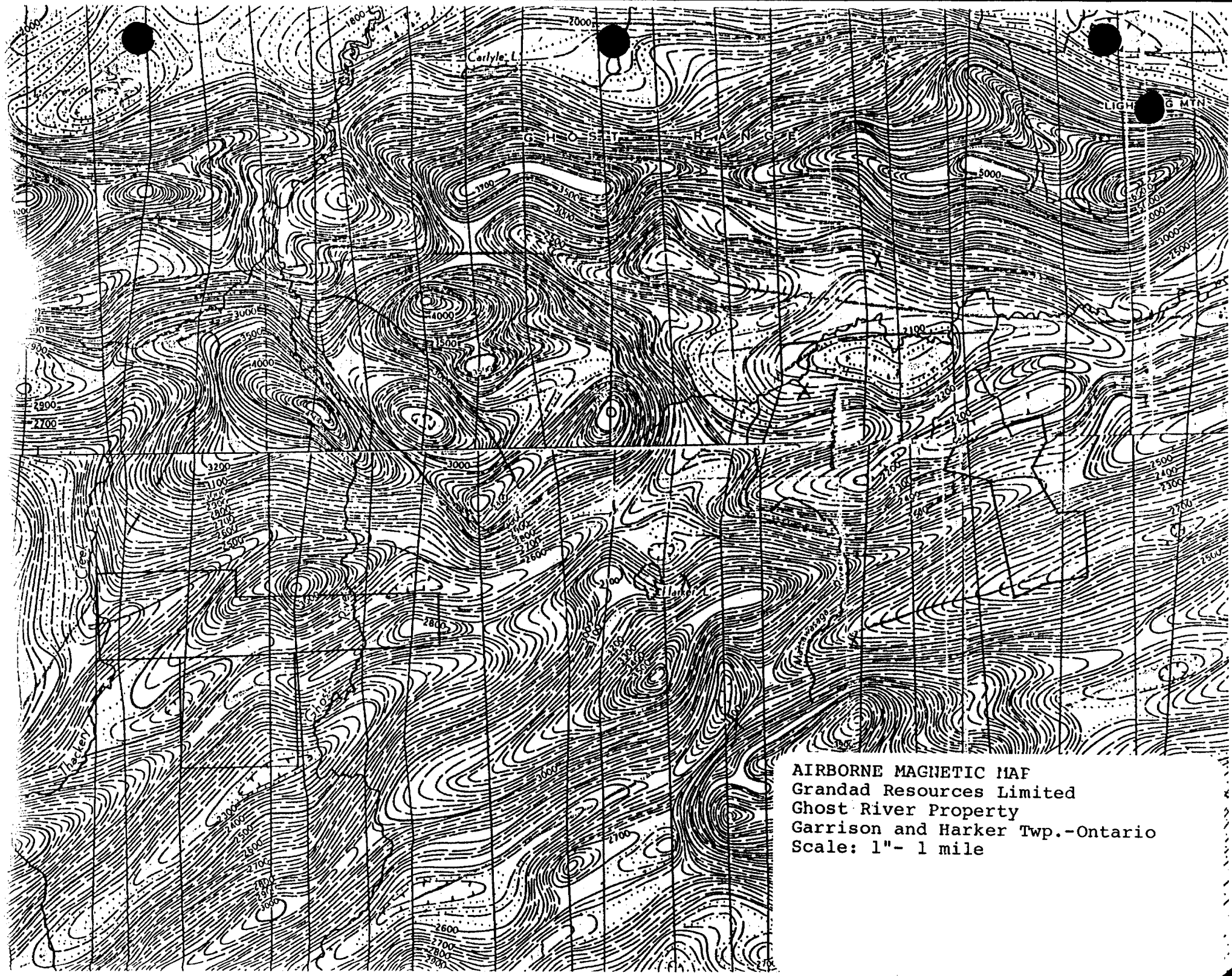
UNCONFORMITY

LOWER CALC-ALKALIC METAVOLCANICS
Felsic Metavolcanics

2 — 2 Tuff-breccia, crystal tuff, tuff, quartz and feldspar porphyritic rhyolitic and dacitic rocks, argillite, chert, and ironstone

Mafic and Intermediate Metavolcanics

1 — 1 Massive, pillowed, pillow-breccia, pyroclastic breccia, tuff, amygdaloidal basaltic and andesitic rocks



AIRBORNE MAGNETIC MAP
Grandad Resources Limited
Ghost River Property
Garrison and Harker Twp.-Ontario
Scale: 1"- 1 mile

900

Mining Lands Section

File No 2.7607

Control Sheet

TYPE OF SURVEY

____ GEOPHYSICAL

__✓__ GEOLOGICAL

____ GEOCHEMICAL

____ EXPENDITURE

MINING LANDS COMMENTS:

log L.D.

J. Hunt

Signature of Assessor

Date

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

Mining Act

27607

#540

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s): Geological

Township or Area: Garrison, Harker

Claim Holder(s): GRANDAD RESOURCES LIMITED

Prospector's Licence No.: T-1685

Address: Suite 709, 185 Bay Street, Toronto, Ontario M5J 1K6

Survey Company: Seal River Explorations Limited

Date of Survey (from & to): 11 6 84 (Day Mo. Yr.) to 2 10 84 (Day Mo. Yr.)

Total Miles of line Cut: 65.53

Name and Address of Author (of Geo-Technical report): F. J. Sharpley, 2372 Sinclair Circle, Burlington, Ontario L7P 3C3

Credits Requested per Each Claim in Columns at right

		Days per Claim
Special Provisions: For first survey: Enter 40 days. (This includes line cutting) For each additional survey: using the same grid: Enter 20 days (for each)	Geophysical	
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	20
	Geochemical	
Man Days: Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits: Note: Special provisions credits do not apply to Airborne Surveys.		Days per Claim
	Electromagnetic	
	Magnetometer	
	Radiometric	

LAR... LAKE MINING DIV. RECEIVED NOV 2, 1984 AM 7 8 9 10 11 12 1 2 3 4 5 6 PM

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
L	737509	20
	737510	20
	737511	20
	737512	20
	737513	20
	737514	20
	737529	20
	30	20
	31	20
	32	20
	33	20
	34	20
	35	20
	36	20
	37	20
	38	20
	39	20
	40	20
	41	20
	737542	20
	737515	20
	16	20
	17	20

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
L	737543	20
	44	20
	45	20
	46	20
	47	20
	737548	20
	738103	20
	04	20
	05	20
	06	20
	07	20
	08	20
	09	20
	10	20
	11	20
	738112	20
	14	20
	15	20
	16	20
	17	20
	18	20
	738119	20

Total number of mining claims covered by this report of work: 45

For Office Use Only

Total Days Cr. Recorded: 900

Date Recorded: NOV 26 1984

Mining Recorder

Date Approved as Recorded: Dec 21/84

Branch Director

Date: Nov. 20/84

Recorded Holder or Agent (Signature): F Sharpley

Certification Verifying Report of Work

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: F.J. Sharpley, 2372 Sinclair Circle, Burlington, Ontario L7P 3C3

Date Certified: Nov. 20/84

Certified by (Signature): F Sharpley

1362 (81/9)

Ontario

Ministry of Natural Resources

File_____

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) Geological

Township or Area Garrison & Harker

Claim Holder(s) Grandad Resources Limited
185 Bay Street, Suite 709, Toronto

Survey Company Seal River Explorations Limited

Author of Report F.J. Sharpley

Address of Author 2372 Sinclair Circle, Burlington

Covering Dates of Survey April 1 to October 2,1984
(linecutting to office)

Total Miles of Line Cut 65.53

SPECIAL PROVISIONS CREDITS REQUESTED		DAYS per claim.
ENTER 40 days (includes line cutting) for first survey.	Geophysical	
	–Electromagnetic	
	–Magnetometer	
	–Radiometric	
ENTER 20 days for each additional survey using same grid.	–Other	
	Geological	20
	Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer_____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: December 15, 1984 SIGNATURE: F Sharpley
Author of Report or Agent

Res. Geol._____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
L	737509
	737510
	737511
	737512
	737513
	737514
	737515
	737516
	737517
	737529
	737530
	737531
	737532
	737533
	737534
	737535
	737536
	737537
	737538
	737539
	737540
	737541

TOTAL CLAIMS 45

If space insufficient, attach list

OFFICE USE ONLY

837 (5/79)

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 _____

MAGNETIC

Instrument _____

Accuracy – Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

_____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

_____

Base station value and location _____

_____

Elevation accuracy _____

INDUCED POLARIZATION
RESISTIVITY

Instrument _____

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

Ontario

Ministry of Natural Resources

File _____

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) _____

Township or Area _____

Claim Holder(s) _____

_____

Survey Company _____

Author of Report _____

Address of Author _____

Covering Dates of Survey _____
(linecutting to office)

Total Miles of Line Cut _____

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

DAYS per claim.

Geophysical
–Electromagnetic _____
–Magnetometer _____
–Radiometric _____
–Other _____
Geological _____
Geochemical _____

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: _____ SIGNATURE: _____
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
L	737542
	737543
	737544
	737545
	737546
	737547
	738103
	738104
	738105
	738106
	738107
	738108
	738109
	738110
	738111
	738112
	738114
	738115
	738116
	738117
	738118
	738119

TOTAL CLAIMS _____

If space insufficient, attach list

OFFICE USE ONLY

837 (5/79)

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 _____

MAGNETIC

Instrument _____

Accuracy – Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

_____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

_____

Base station value and location _____

_____

Elevation accuracy _____

INDUCED POLARIZATION
RESISTIVITY

Instrument _____

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

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_____

Type of Sample_____
(Nature of Material)

Average Sample Weight_____

Method of Collection_____

_____

Soil Horizon Sampled_____

Horizon Development_____

Sample Depth_____

Terrain_____

_____

Drainage Development_____

Estimated Range of Overburden Thickness_____

_____

_____

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis_____

_____

_____

_____

General_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others_____

Field Analysis (_____tests)

Extraction Method_____

Analytical Method_____

Reagents Used_____

Field Laboratory Analysis

No. (_____tests)

Extraction Method_____

Analytical Method_____

Reagents Used_____

Commercial Laboratory (_____tests)

Name of Laboratory_____

Extraction Method_____

Analytical Method_____

Reagents Used_____

General_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

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 _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

Drainage Development _____

Estimated Range of Overburden Thickness _____

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

General _____

ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

GRANDAD RESOURCES LIMITED
SUITE 709, 185 BAY STREET
TORONTO ONTARIO
M5J 1K6

December 15,1984

Land Management Branch
Mining Lands Section
Ministry of Natural Resources
Rm 6610, Whitney Block
Queen's Park
Toronto, Ontario
M7A 1W3

Re: Assessment Work
45 Claims - Garrison & Harker Township
Larder Lake Mining Division

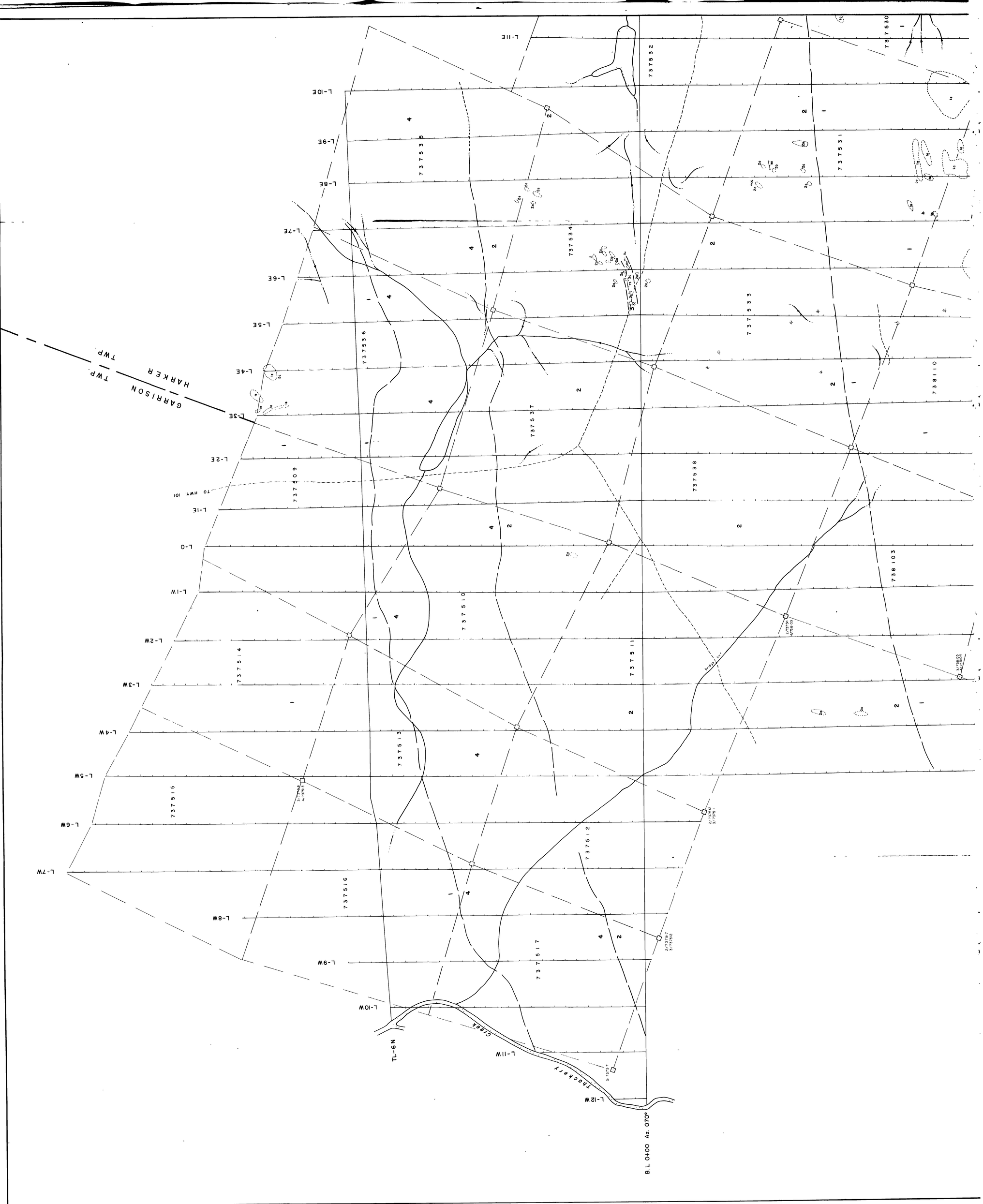
Gentlemen:

Enclosed are two copies of a Technical Report by F.J. Sharpley geologist, covering geological surveys on the Ghost River property in Garrison & Harker Townships, Ontario which we are submitting for assessment work.

Yours truly,

Grandad Resources Limited

F.J. Sharpley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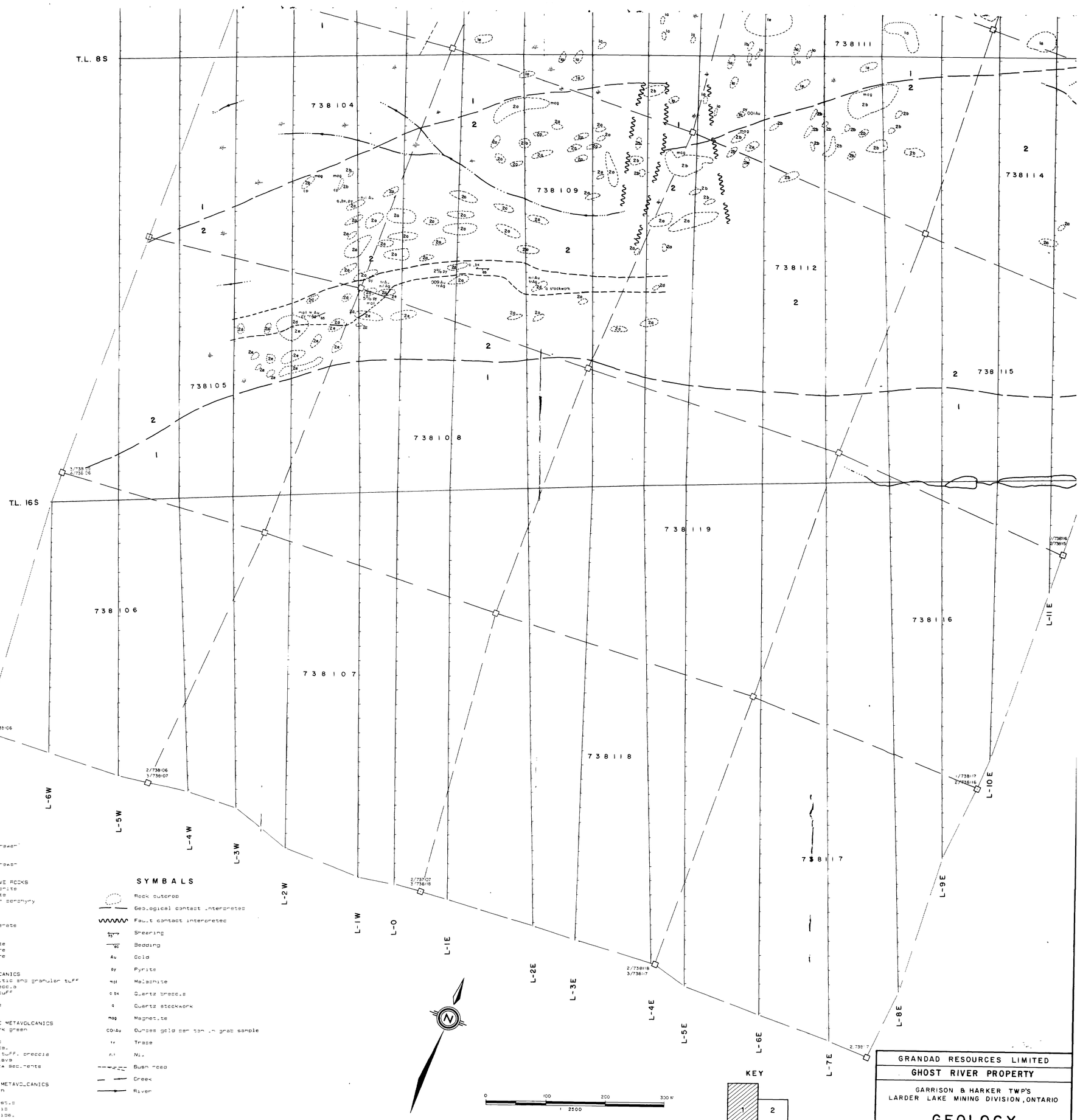
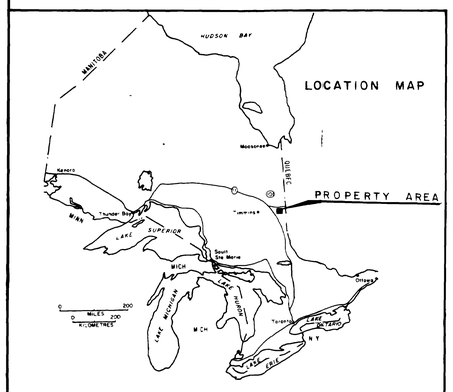
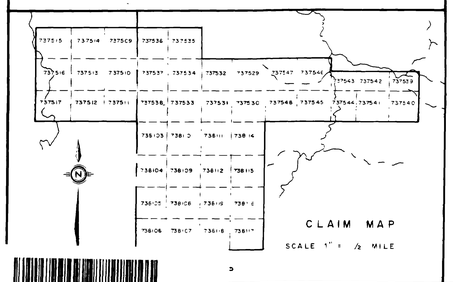
L-11W
L-12W
7375 32
7375 35
7375 34
7375 36
7375 33
7375 31
7375 30
7375 09
7375 37
7375 38
7381 10
7375 10
7375 14
7375 13
7375 11
7381 03
7375 15
7375 16
7375 12
7375 17
GARRISON TWP.
HARKER TWP.
TO HWY. 101
TL-6N
Creek
Thackerry
B.L. 0+00 Az. 070°







GEOLOGICAL LEGEND

7 DIABASE (Keweenawan)

6 DIABASE (Matachewan)

5 FELSIC INTRUSIVE ROCKS
- (a) Syenodiorite
- (b) Monzonite
- (c) Feldspar porphyry

4 METASEDIMENTS
- (a) Conglomerate
- (b) Wacke
- (c) Arkose
- (d) Argillite
- (e) Sandstone
- (f) Ironstone

3 FELSIC METAVOLCANICS
- (a) Spherulitic and granular tuff
- (c) Tuff-breccia
- (d) Cherty tuff
- (d) Dacite
- (e) Rhyolite

2 IRON-RICH MAFIC METAVOLCANICS
- black to dark green
- (a) Massive
- (b) Gabbroic
- (c) Fragmental
- (d) Lapilli tuff, breccia
- (e) Pillow lava
- (f) Interflow sediments

1 MAGNESIUM-RICH METAVOLCANICS
- grey to green
- (a) Massive
- (b) Hyaloclastic
- (c) Variolitic
- (d) Amygdaloidal
- (e) Pillow lava
- (f) Interflow sediments

SYMBALS

- Rock outcrop
- Geological contact interpreted
- Fault contact interpreted
- Shearing
- Bedding
- Au — Gold
- py — Pyrite
- mal — Malachite
- q bx — Quartz breccia
- q — Quartz stockwork
- mag — Magnetite
- CO1Au — Ounces gold per ton in grab sample
- tr — Trace
- ni — Ni
- Bush road
- Creek
- River

GRANDAD RESOURCES LIMITED

GHOST RIVER PROPERTY

GARRISON & HARKER TWP'S
LARDER LAKE MINING DIVISION, ONTARIO

GEOLOGY

SHEET 1

DATE: NOV., 1984

L-11E L-12E L-13E L-14E L-15E L-16E L-17E L-18E L-19E L-20E L-21E L-22E L-23E L-24E L-25E L-26E L-27E L-28E L-29E L-30E L-31E L-32E L-33E L-34E L-35E

B.L.-OL-18E Az. 070°

TO HWY. 101 ⟶

T.L.-8S

T.L.-16S

RIVER

GHOST

737532 737529 737547 737546 737530 737548 737545 737543 737542 737539 738114 757544 737541 738115 737540

1/737548
2/737547
3/737546
4/737545

1/737545
2/737546
3/737543
4/737544

2/737548
3/737545

2/737545
3/737544

2/737544
3/737541

2/737544
3/737540

2/737540

1/738114

1/738115
2/738114

1/738116
2/738115

1/737539

1/737540
2/737539

0 100 200 300 M
1: 2500

NOTE: For claim and location maps see map number 1.

KEY

1 2

GRANDAD RESOURCES LIMITED

GHOST RIVER PROPERTY

GARRISON & HARKER TWP'S
LARDER LAKE MINING DIVISION, ONTARIO

GEOLOGY

SHEET 2
FOR LEGEND SEE SHEET Nº 1

DATE: NOV., 1984

L-11E

L-10E

L-9E

L-8E

L-7E

L-6E

L-5E

L-4E

L-3E

L-2E

TO HWY. 101

L-1E

L-0

L-1W

L-2W

L-3W

L-4W

L-5W

L-6W

L-7W

L-8W

L-9W

L-10W

L-11W

L-12W

GARRISON TWP.

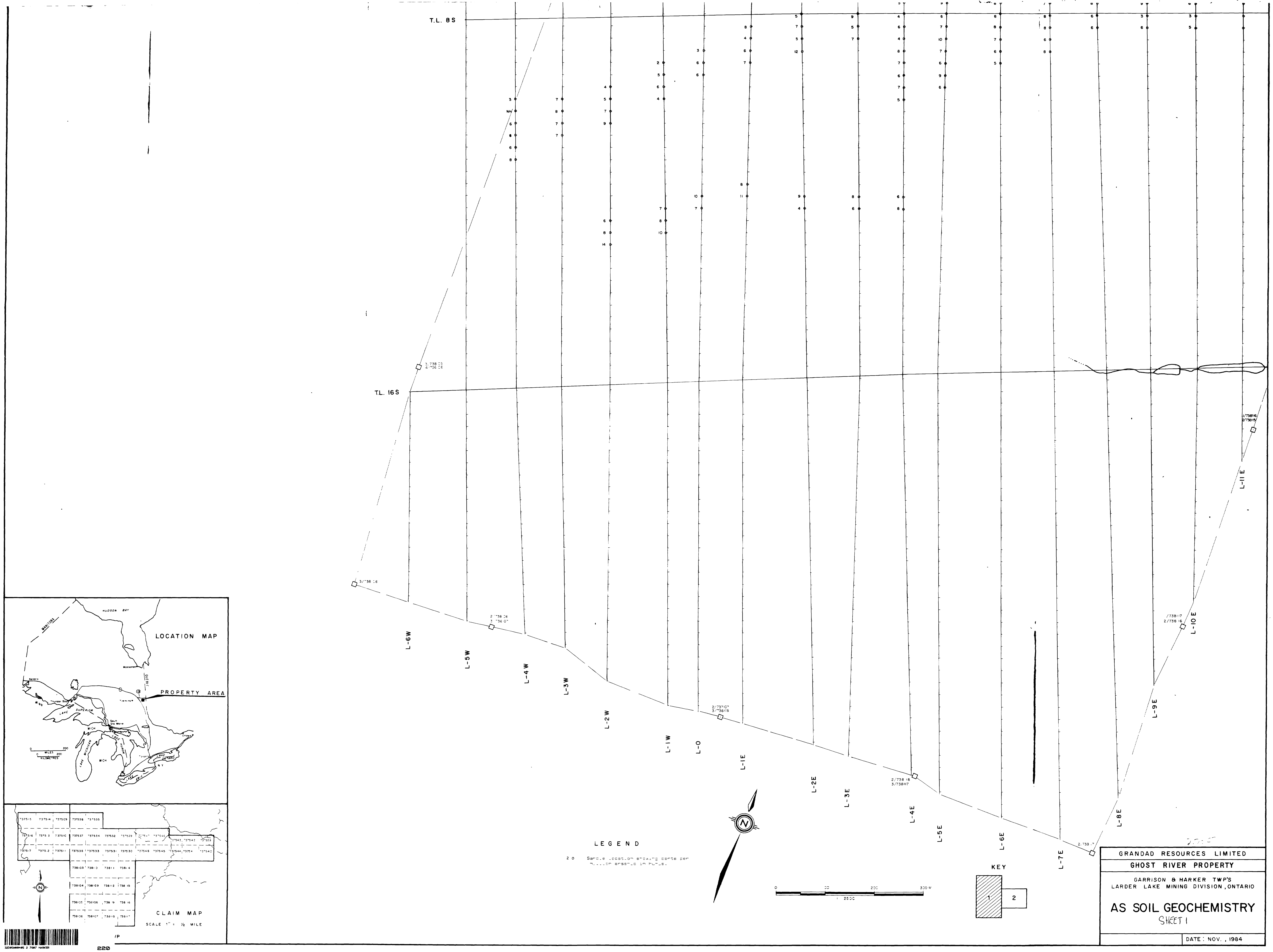
HARKER TWP.

Creek

Thockberry

TL-6 N

B. L. 0+00 Az. 070°


T.L. 8S
T.L. 16S
L-6W
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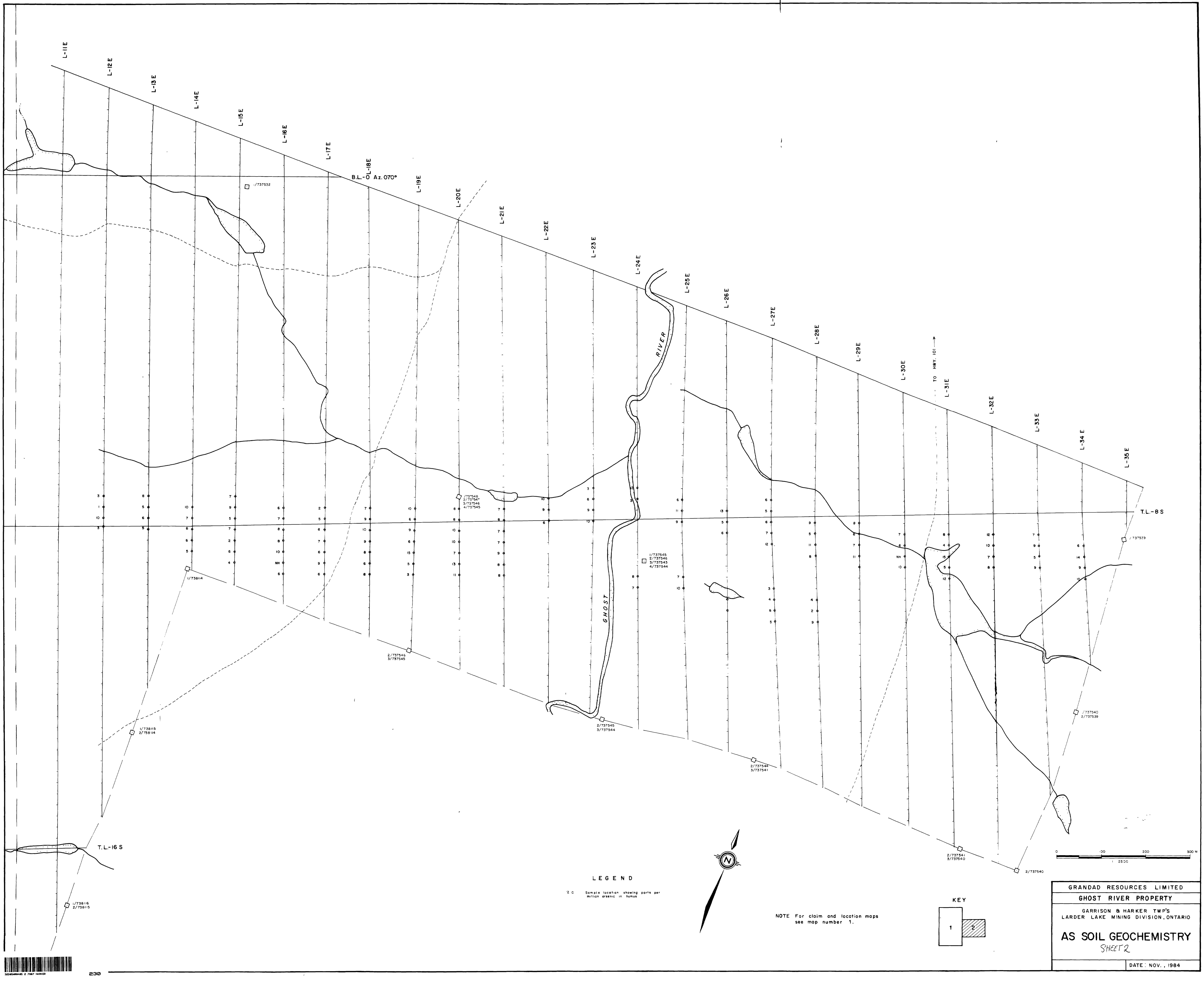
L-2E
L-3E
L-4E
L-5E
L-6E
L-7E
L-8E
L-9E
L-10E
L-11E
LOCATION MAP
HUDSON BAY
PROPERTY AREA
CLAIM MAP
LEGEND
2 o Sample location showing parts per million arsenic in humus.
KEY
1
2
GRANDAD RESOURCES LIMITED
GHOST RIVER PROPERTY
GARRISON & HARKER TWP'S
LARDER LAKE MINING DIVISION, ONTARIO
AS SOIL GEOCHEMISTRY
SHEET 1
DATE: NOV., 1984
220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L-29E
L-30E
L-31E
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L-35E
B.L.-0 Az. 070°
T.L.-8 S
T.L.-16 S
GHOST
RIVER
TO HWY. 101
0 100 200 300 M
1 : 2500
LEGEND
2 0 Sample location showing parts per million arsenic in humus
NOTE For claim and location maps see map number 1.
KEY
1
2
GRANDAD RESOURCES LIMITED
GHOST RIVER PROPERTY
GARRISON & HARKER TWP'S
LARDER LAKE MINING DIVISION, ONTARIO
AS SOIL GEOCHEMISTRY
SHEET 2
DATE: NOV., 1984

230

L-11E

L-10E

L-9E

L-8E

L-7E

L-6E

L-5E

L-4E

L-3E

L-2E

L-1E

L-0

L-1W

L-2W

L-3W

L-4W

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L-6W

L-7W

L-8W

L-9W

L-10W

L-11W

L-12W

GARRISON TWP.

HARKER TWP.

TO HWY 101

TL-6 N

Creek

Thackerry

B.L. 0+00 Az. 070°

3/73754
4/73755

2/73756
3/73757

2/73759
3/73760

3/73603
4/73604

2/73757
3/73592

3/73757

T.L. 8 S

T.L. 16 S

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3/738117

2/738117

3/738116
2/738115

1/738117
2/738116

NH

LEGEND

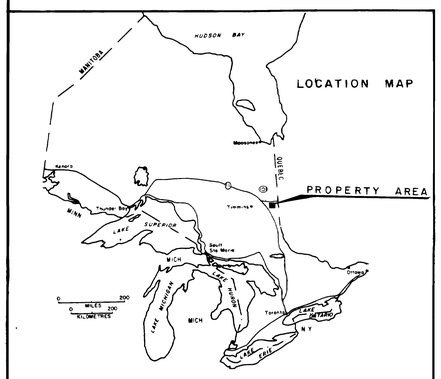
0 12 Sample location showing ppb Au (humus)

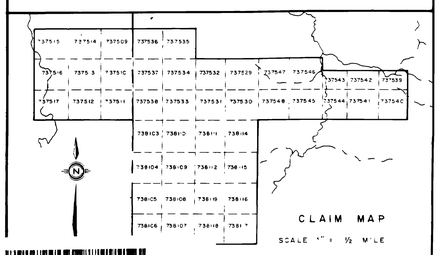
(10 / 20) Contour interval 10 parts per billion, gold in humus

0 100 200 300 M
1 2500

KEY

1 2





GRANDAD RESOURCES LIMITED

GHOST RIVER PROPERTY

GARRISON & HARKER TWP'S
LARDER LAKE MINING DIVISION, ONTARIO

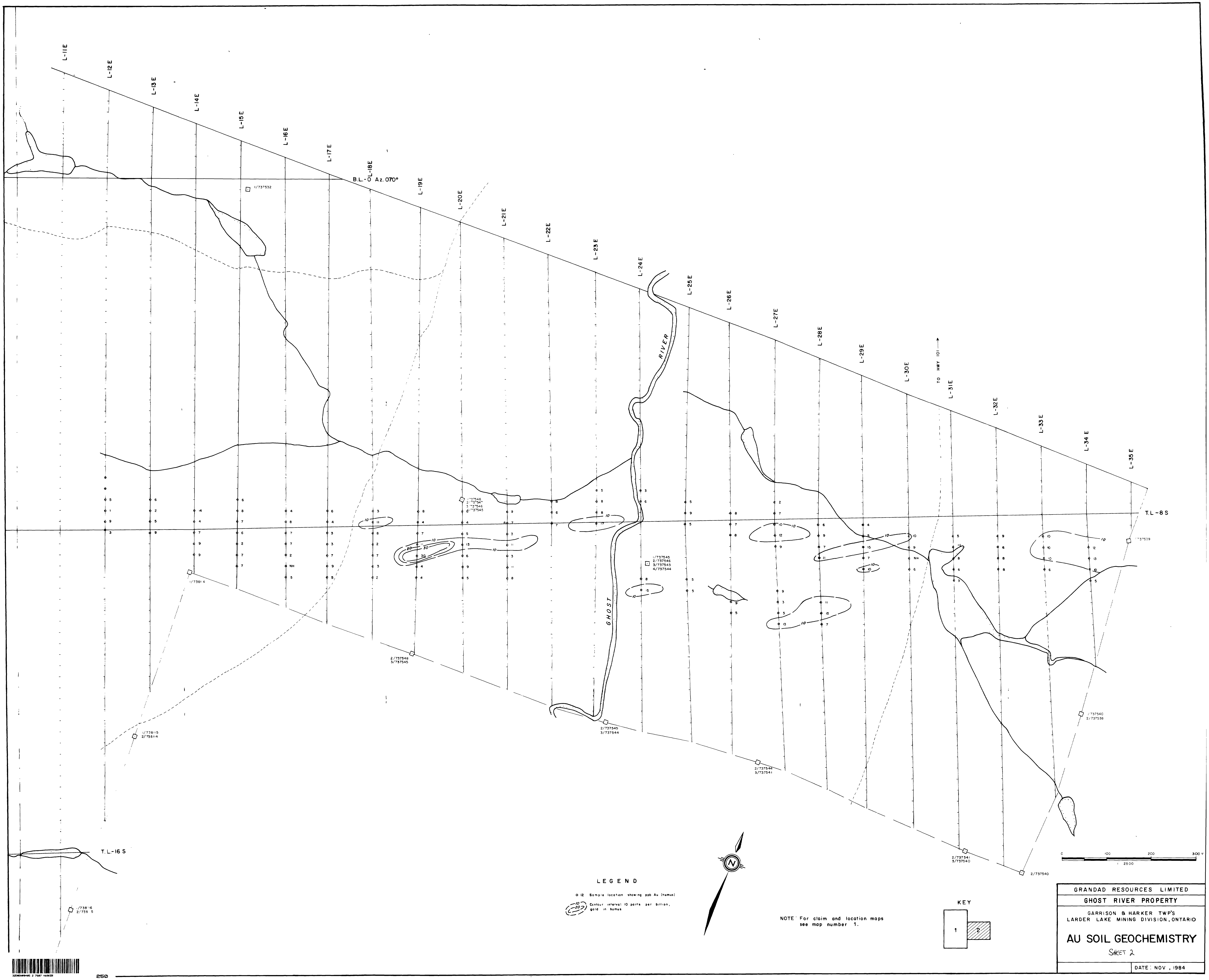
AU SOIL GEOCHEMISTRY

SHEET 1

DATE: NOV. , 1984

NP

240



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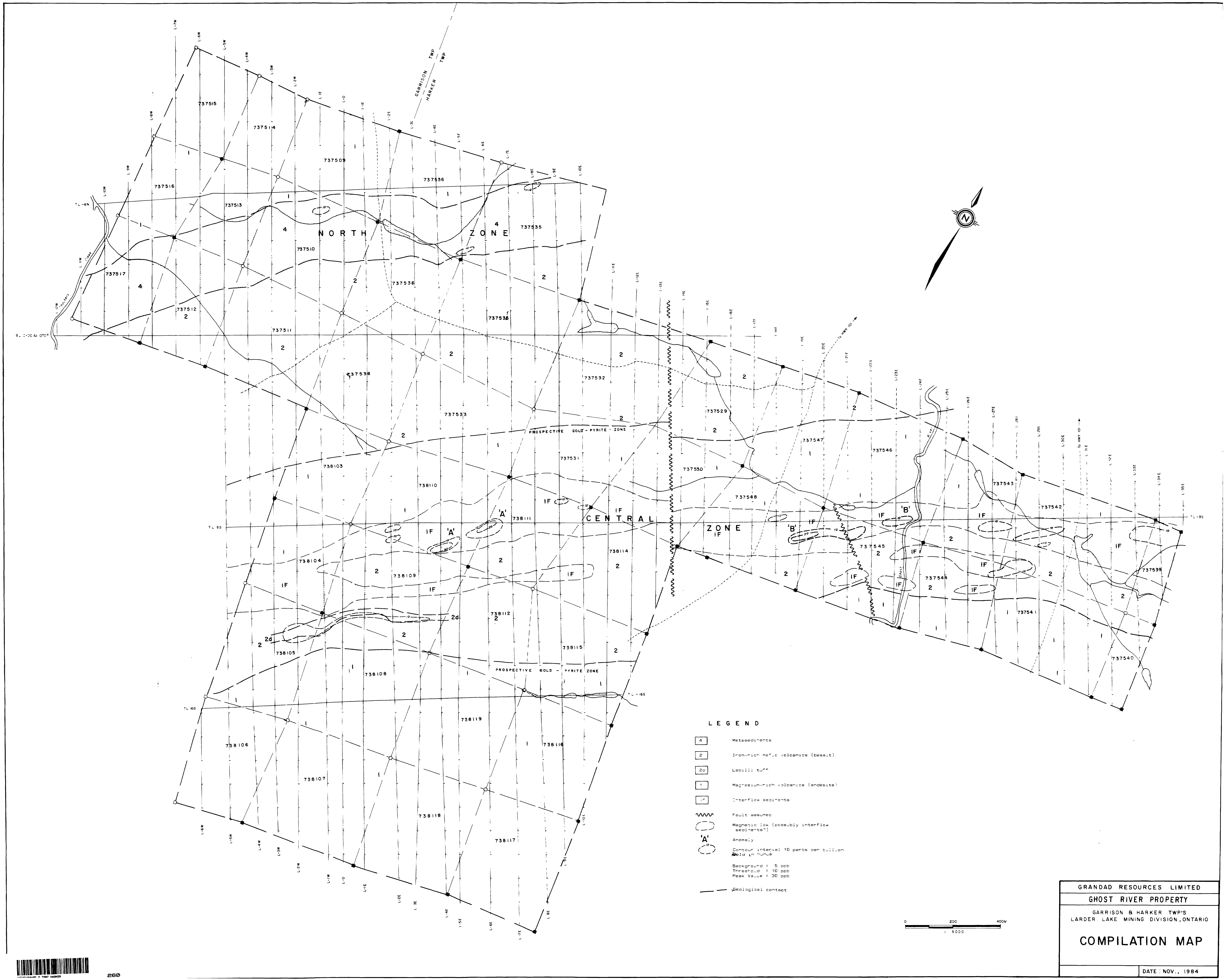
L-32E
L-33E
L-34E
L-35E
B.L.-O Az. 070°
T.L.-8S
T.L.-16S
GHOST RIVER
TO HWY 101
LEGEND
12 Sample location showing ppb Au (humus)
Contour interval 10 parts per billion, gold in humus
NOTE: For claim and location maps see map number 1.
KEY
1
2
0 100 200 300
1 2500
GRANDAD RESOURCES LIMITED
GHOST RIVER PROPERTY
GARRISON & HARKER TWP'S
LARDER LAKE MINING DIVISION, ONTARIO
AU SOIL GEOCHEMISTRY
SHEET 2
DATE: NOV, 1984

250



NORTH ZONE
CENTRAL ZONE
PROSPECTIVE GOLD - PYRITE - ZONE
PROSPECTIVE GOLD - PYRITE ZONE
GARRISON TWP
HARKER TWP
LEGEND
4 Metasediments
2 Iron-rich mafic volcanics (basalt)
2a Lapilli tuff
1 Magnesium-rich volcanics (andesite)
IF Interflow sediments
Fault assumed
Magnetic low (possibly interflow sediments?)
'A' Anomaly
Contour interval 10 parts per billion Gold in humus
Background = 5 ppb
Threshold = 10 ppb
Peak Value = 30 ppb
Geological contact
GRANDAD RESOURCES LIMITED
GHOST RIVER PROPERTY
GARRISON & HARKER TWP'S
LARDER LAKE MINING DIVISION, ONTARIO
COMPILATION MAP
DATE : NOV., 1984