



52N04SW2022

2.20919

FAIRLIE

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2. 209 19

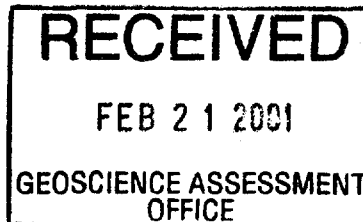
RESULTS OF GEOPHYSICAL SURVEYING

ST. PAUL BAY,

RED LAKE, ONTARIO

for

FREEWEST RESOURCES CANADA INC

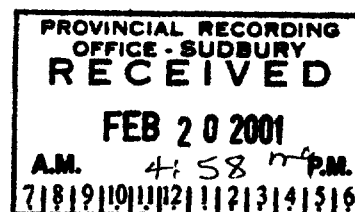


by

J. B. Boniwell

Exploration Geophysical Consultant

February 19, 2001



EXGALIBUR INTERNATIONAL CONSULTANTS LTD.



- i -

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INTRODUCTION

A grid of lines, 50 m apart, has been surveyed across St. Paul Bay with both VLF and magnetics from winter ice. The target of this work was the projected interaction of the Pipestone Bay - St. Paul Bay deformation zone (PBDZ) with the East Bay deformation zone (EBDZ) under the lake adjacent to the Dome stock. This was considered a highly prospective situation, especially since a system of ultramafic rocks are seen to thread the local setting.



DESCRIPTION OF PROPERTY

The subject property is comprised of 12 contiguous regular 16 ha (40 acre) claims as listed below and disposed as shown (Fig. 1). The survey area was confined to St. Paul Bay and its western approaches in Red Lake and involved the four claims KRL 775731, KRL 963600, KRL 1143079 and KRL 1143080 only. The grid was laid out entirely on lake ice.

Access to this portion of the property was readily had from the town of Red Lake by road and a bush track suitable for 4x4 transport. Total distance to the grid per this route was 5.5 kms, 2.6 kms along the Madsen Highway from the intersection with the Howey Bay Road, 2.9 kms along a track to the east end of St. Paul Bay. All traversing thereafter was undertaken by foot.

<u>Claim #</u>	<u>Twp.</u>	<u>Size</u>	<u>Remarks</u>
KRL 775725	Fairlie	16 ha	
775726	"	"	
775727	"	"	
775728	"	"	
775731	"	"	



<u>Claim # (cont.)</u>	<u>Twp.</u>	<u>Size</u>	<u>Remarks</u>
963598	Fairlie	16 ha	
963599	"	"	
1235866	"	"	Previously #775732
KRL 963600	Baird	"	
1143079	"	"	
1143080	"	"	
KRL 963597	Heyson	"	
<hr/>		<hr/>	
Totals: 12 claims		192 ha	

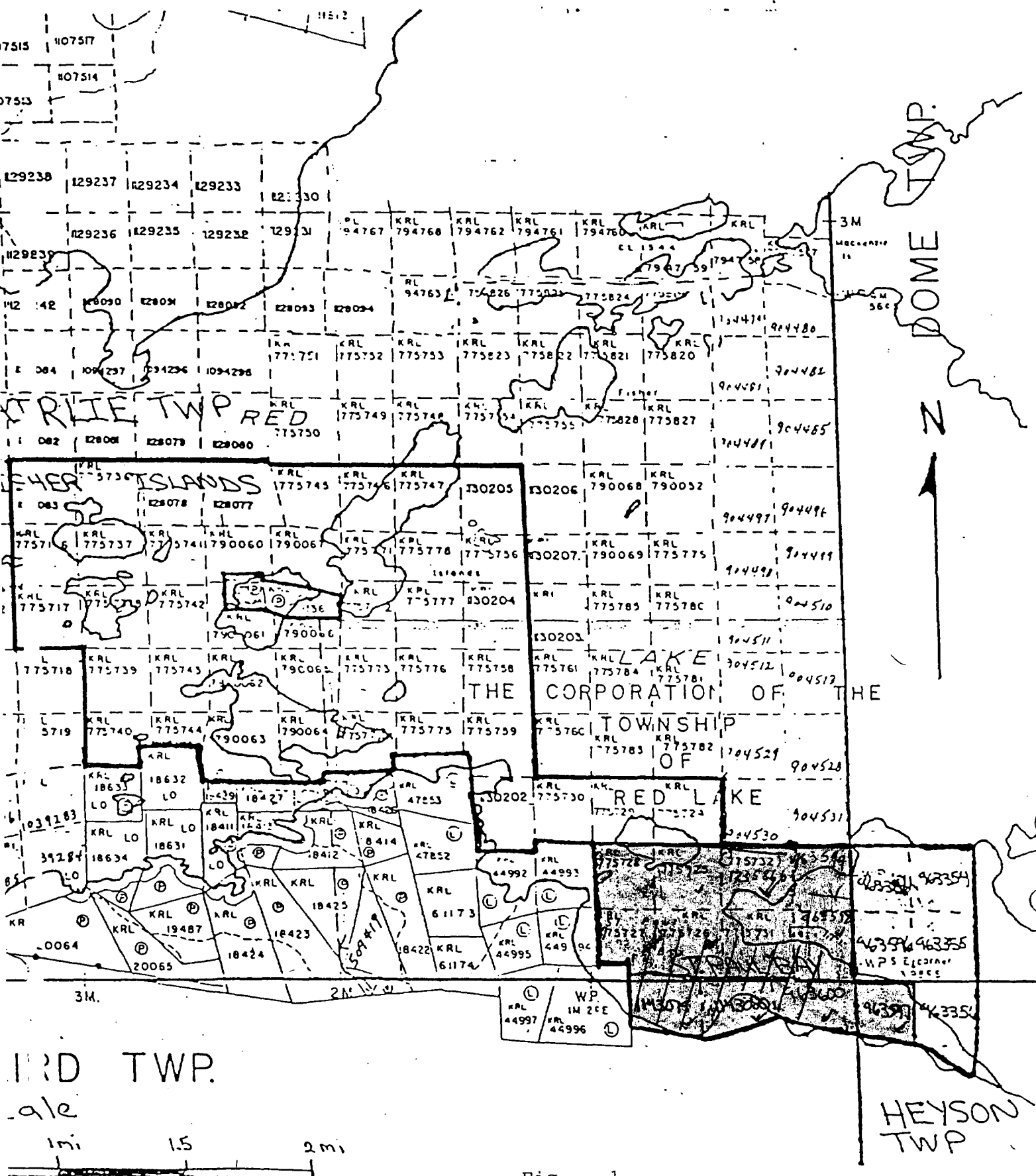


Fig. 1

CLAIMS AND SURVEY LOCALITY

1:31,680

DETAILS OF SURVEY

Grid lines were oriented due N-S spaced 50 m apart and pegged every 25 m.

The VLF survey was conducted with a Geonics model Em-16 receiver tuned to NAA broadcasting at 24.0 kHz from Cutler, Maine. Measurements of the in-phase and out-of-phase component of the vertical field were made at each observation point to a sensitivity of 1° of tilt and 1% of primary field respectively. The operator faced north throughout the survey for all observations.

The magnetic readings of the terrestrial field were collected with a Geometrics model GM-816 with a sensitivity of 1 nT to an accuracy of ±2 nT. Diurnal changes were monitored by looping back to established bases approximately every 2 hours during the working day.

No attempt was made to process the collected data locally, instead all results were relayed to Toronto where appropriate corrections to them could be made and processed into



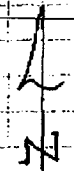
maps. Specifically the VLF readings were plotted in stacked profiles then (Fraser) filtered to remove extremes of response and to supply a first derivative peaking over all inflection points. The latter were contoured to depict all those spatial relationships of anomaly that would likely occur across the area. The magnetic data for their part were compensated for diurnal drift and brought to a common datum. They then too were plotted in profile, posted in plan and contoured.

These geophysical outputs are all presented herewith at a plan scale of 1:5000.





# VLF PROFILE ALONG EW LINE IN ST. PAUL BAY



R.R.L. 1143079

K.R.L. 1143080

East Bay D. 2. ?

F<sub>2</sub> phase

Quadrature

SULPHUR SPRING  
APPROX. 12M SOUTH

1200M 1100M 1000M 900M 800M 700M 600M 500M 400M 300M 200M 100M

+35  
+30  
+25  
+20  
+15  
+10  
+5  
0  
-5  
-10  
-15  
-20  
-25  
-30  
-35

↓ Anomaly position

Vertical scale:  
1 cm = 10%

CLAMP LINE

SCALE 1:5000

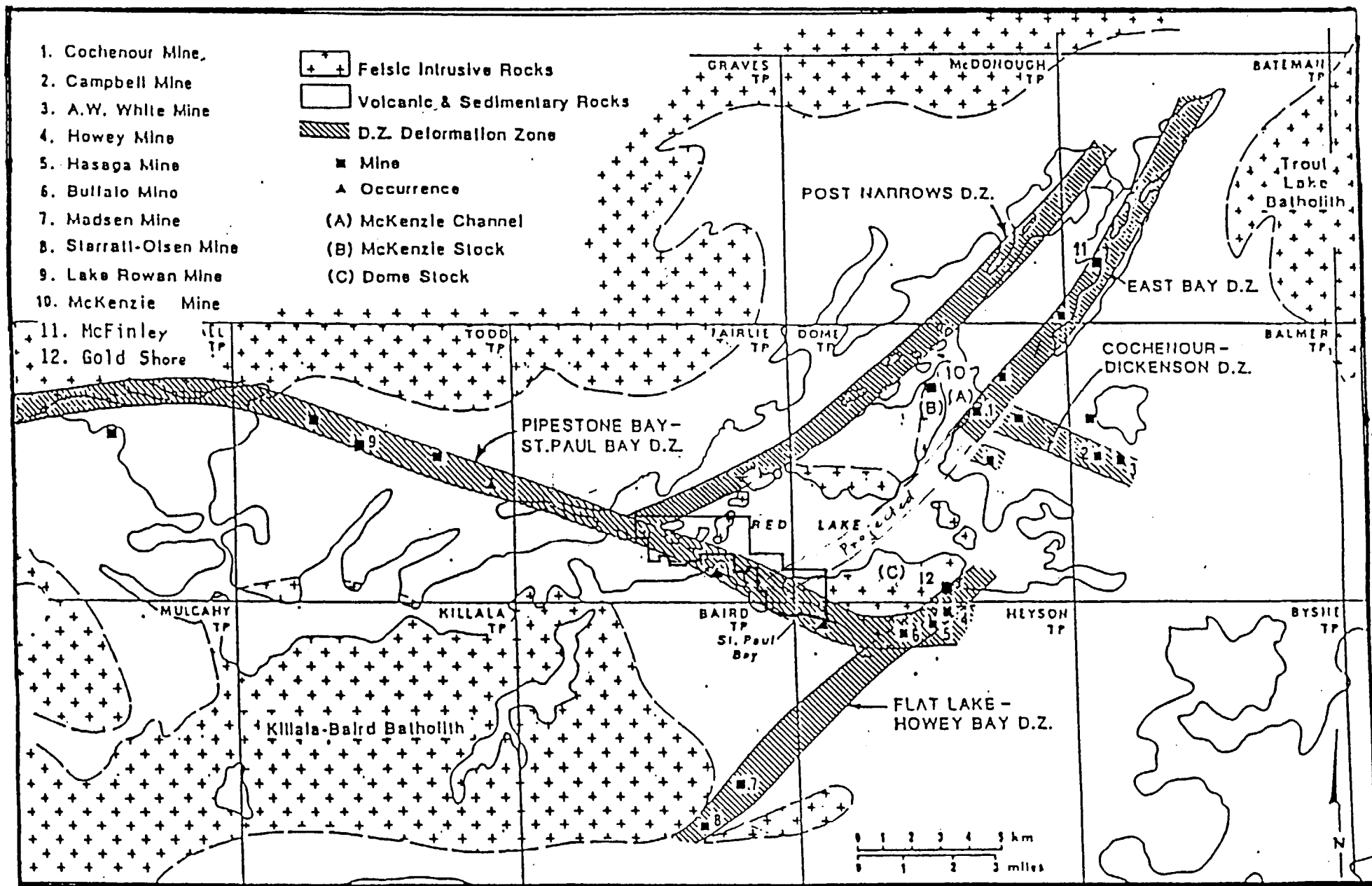


Figure 2: Past and present producing mines as well as regional deformation zones.

1: ~ 200,000

DISCUSSION

The VLF traverses are aligned N-S. This orientation provides a good attitude with respect to the NAA field which is broadcast at 24.0 kHz from Cutler, Maine; it also supplies an excellent sampling of the PBDZ as it passes through the St. Paul Bay environment and a reasonable description of the EBDZ should it enter the area from the northeast as prescribed (Fig. 2). A previous trial traversing E-W with VLF utilizing the NAA field showed that there was a very fair chance that the EBDZ could be picked up even in the deeper parts of the lake, even though response signals would naturally be weaker (see sketch).

As it turns out, the new survey data disclose a slightly more complicated picture. This is regarded as inevitable, given the structural and lithologic heterogeneity of the bedrock geology. Notwithstanding, some definite trends can be perceived, the most eminent of which follows the strong magnetic horizon to the south side of the grid. Water is more shallow here and near-outcrop conditions are projected to prevail, especially around the edges of the central line 100W land protuberance into the lake.



Other trends exist, even well out into the lake. These are seen despite the weakness of the secondary signal in some places. Such a circumstance was anticipated and comes as no surprise. However weak anomalies can be important anomalies in these conditions and thus are treated here with all due consideration. Thus some credence can be attached to the weak anomaly system that angles across lines 450W and 400W at the BL whereafter it swings ENE. This fits the EBDZ projection, at least in orientation and general position of the zone's east edge. This is best seen in the Fraser filter presentation (Dwg. No. EIC-2753).

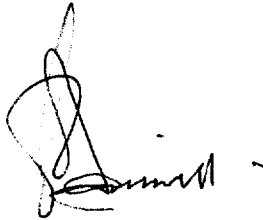
From the perspective of gold incidence, the most prospective section on this anomaly's axis falls near the south end of line 450W as it interacts with the ultramafic magnetic feature there and is lost. It is in this location that drilling is recommended. A suitable first hole would be:

Collar at:           00+50S/450W  
                          to be drilled grid S at -50° for 155 m

It is to be noted that the magnetics have been abated locally in



this vicinity, and could well represent thereby alteration by either magnetite depletion or silica flooding or both. In any event, the chances of gold occurrences would be substantially improved hereabouts.



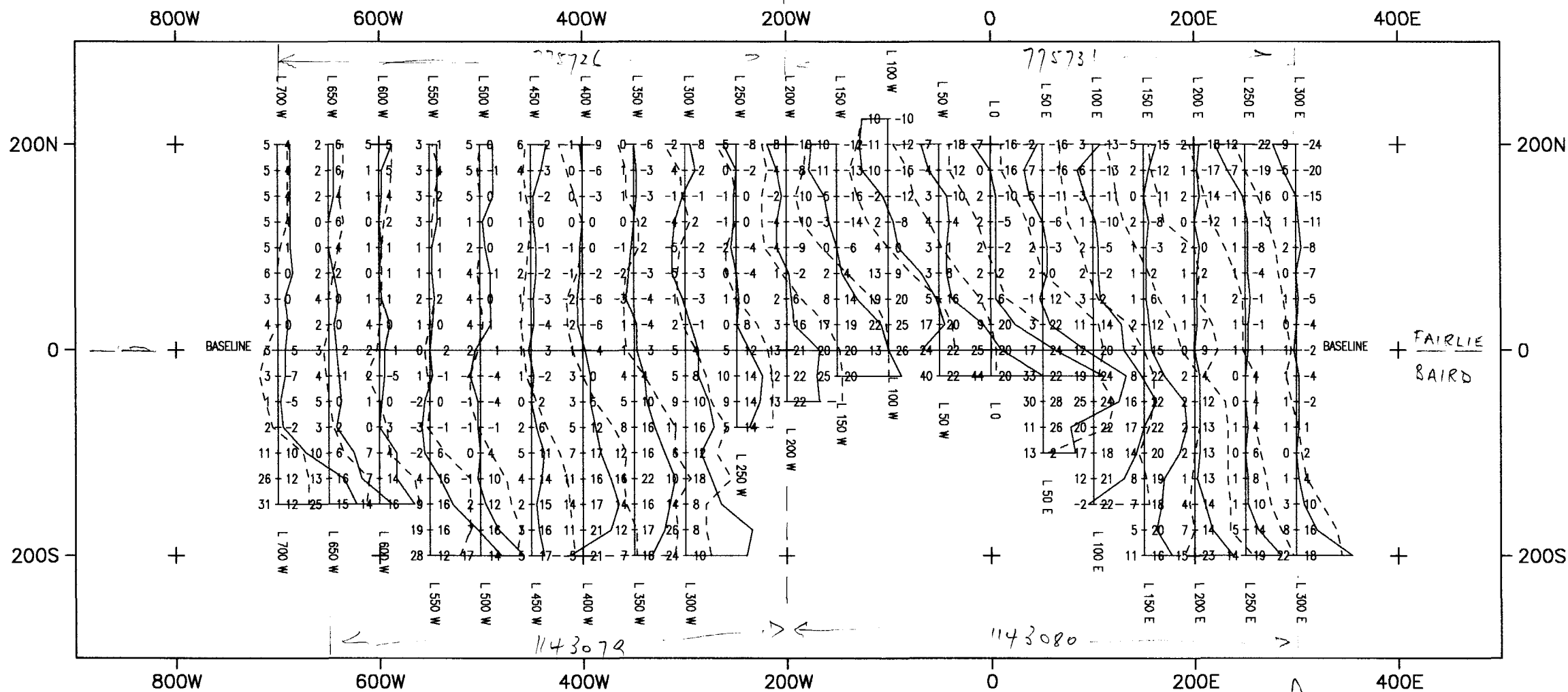
JBB:sb

J. B. Boniwell

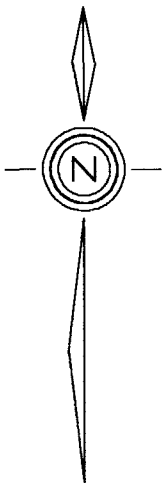
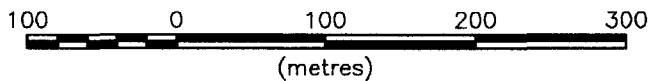
February 19, 2001

Exploration Geophysical Consultant



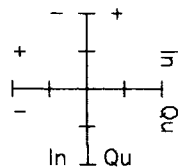


Scale 1:5000



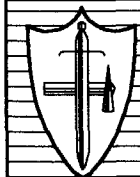
**VLF LEGEND**

Profile scale 1 cm = 20 %  
 Inphase profile ———  
 Quadrature profile - - - - -



**FREWEST RESOURCES CANADA INC.**  
 Red Lake Area

**VLF SURVEY (NAA)  
 PROFILES**



**EXCALIBUR INTERNATIONAL  
 CONSULTANTS LIMITED**  
 TORONTO ONTARIO

Tel. 905-271-1043

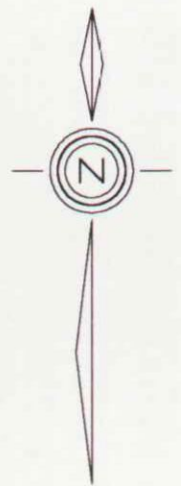
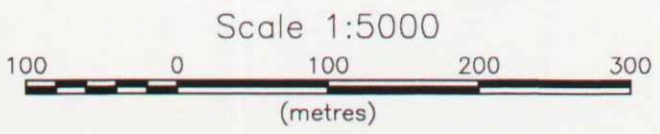
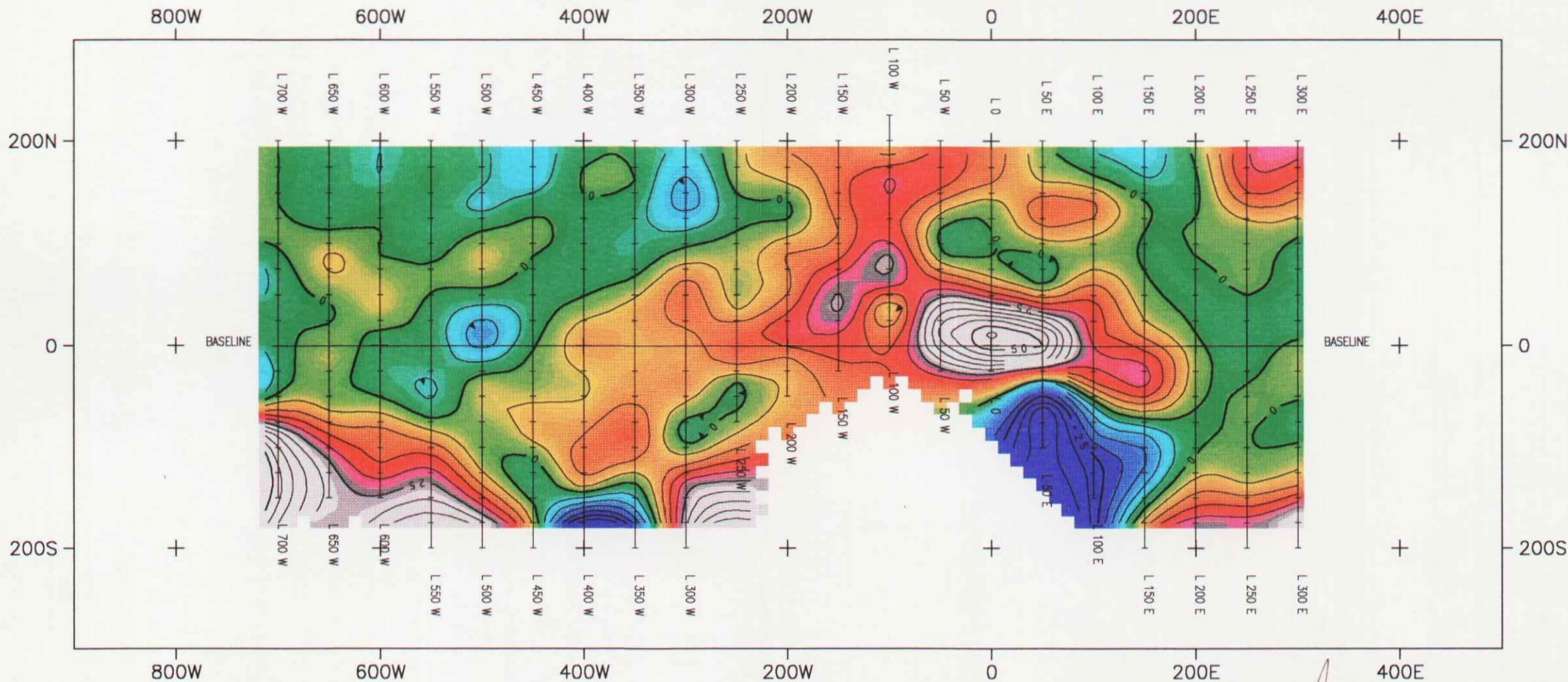
PREP. BY: T.J.M.

UTM Zone

DATE: February 2001


SCALE: 1:5,000

DWG. No. E.I.C. 2752



**CONTOUR INTERVAL**

—————	5	—————
—————	25	—————
—————	100	—————

<b>FREEWEST RESOURCES CANADA INC.</b> Red Lake Area	
<h2 style="margin: 0;">VLF SURVEY (NAA)</h2> <h3 style="margin: 0;">FRASER FILTER CONTOURS</h3>	
 <b>EXCALIBUR INTERNATIONAL CONSULTANTS LIMITED</b> TORONTO ONTARIO Tel. 905-271-1043	PREP. BY: T.J.M. UTM Zone DATE: February 2001 SCALE: 1:5,000 DWG. No. E.I.C. 2753



Declaration of Assessment Work Performed on Mining Land

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Transaction Number (office use) W.0120.00023 Assessment Files Research Imaging



52N04SW2022 2.20919 FAIRLIE 900

sections 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, this report work and correspond with the mining land holder. Questions about this collection sent and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

2. 20919

Instructions: - For work performed on Crown Lands before recording a claim, use form 0240. - Please type or print in ink.

1. Recorded holder(s) (Attach a list if necessary)

Form with fields for Name, Address, Client Number, Telephone Number, Fax Number for David J. Meunier.

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

Form with checkboxes for Geotechnical, Physical, and Rehabilitation work, and fields for Work Type, Dates Work Performed, Township/Area, etc.

Please remember to: - obtain a work permit from the Ministry of Natural Resources as required; - provide proper notice to surface rights holders before starting work; - complete and attach a Statement of Costs, form 0212; - provide a map showing contiguous mining lands that are linked for assigning work; - include two copies of your technical report.

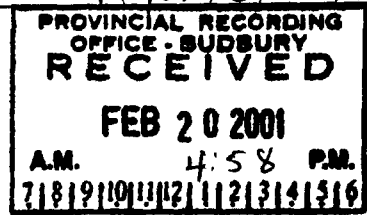
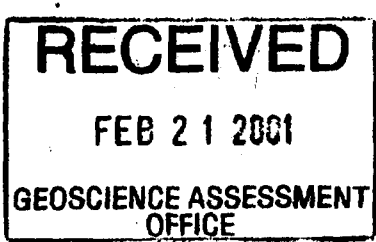
3. Person or companies who prepared the technical report (Attach a list if necessary)

Form with fields for Name, Address, Telephone Number, Fax Number for John B. Boninwell.

4. Certification by Recorded Holder or Agent

I, John B. BONIWELL, do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Form with fields for Signature of Recorded Holder or Agent, Date, Agent's Address, Telephone Number, Fax Number.



#3335



6. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

W. 0120.00023

Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date
eg TB 7827	16 ha	\$28,825	N/A	\$24,000	\$2,825
eg 1234567	12	0	\$24,000	0	0
eg 1234568	2	\$ 8,892	\$ 4,000	0	\$4,892
1 114 30 79	1	* 1050	0	* 1050	
2 114 30 80	1	1000	0	1000	
3 77 57 26	1	1360	* 800	350	* 210
4 77 57 31	1	1359	700	0	659
5 77 57 25	1	0	800	0	
6 77 57 27	1	0	800	0	
7 77 57 28	1	0	800	0	
8					
9					
10					
11					
12					
13					
14					
15					
Column Totals	7	* 4769	* 3900	* 2400	* 869

I, JOHN B. BONIWELL (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorder or Agent Authorized in Writing: \_\_\_\_\_ Date: 20 Feb. '01

6. Instructions for cutting back credits that are not approved.

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

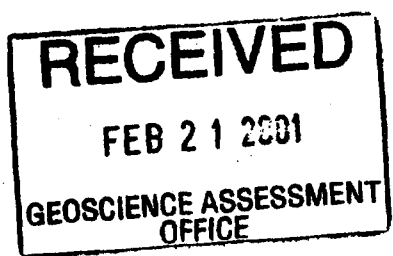
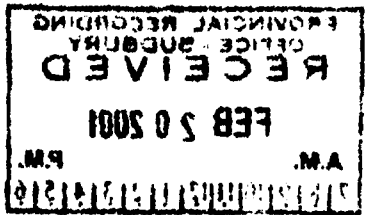
- 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- 3. Credits are to be cut back equally over all claims listed in this declaration; or
- 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

Received Stamp	Deemed Approved Date	Date Notification Sent
	Date Approved	Total Value of Credit Approved
	Approved for Recording by Mining Recorder (Signature)	

2. 209 19



# 3335

**Statement of Costs for Assessment Credit**

Transaction Number (office use)  
*W.0120.00023*

Personal information collected on this form is obtained under the authority of subsection 6 (1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, this information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to a Provincial Mining Recorder, Ministry of Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Work Type	Units of work Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.	Cost Per Unit of work	Total Cost
Grid preparation	8.25 kms incl. BL	\$225 / km	1856.00
VLF survey	7.25 kms of traverse	\$100 / km	725.00
Data processing, map generation	1 day @ 350	\$350 / day	350.00
Interpretation, report writing	7.5 hrs	\$85.00 / hr.	638.00
<b>Associated Costs (e.g. supplies, mobilization and demobilization).</b>			
<b>Transportation Costs</b>			
	Use of 4x4 truck daily	75.00 / day	300.00
<b>Food and Lodging Costs</b>			
	3 people for 4 days	75.00 / day / person	900.00
<b>Total Value of Assessment Work</b>			<b>\$4769.00</b>

**Calculations of Filing Discounts:**

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK  $\times 0.50 =$  Total \$ value of worked claimed.

**Note:**

- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

**Certification verifying costs:**

I, JOHN B. BONINELL, do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying

Declaration of Work form as agent I am authorized to make this certification.  
(recorded holder, agent, or state company position with signing authority)

**RECEIVED**  
FEB 21 2001  
GEOSCIENCE ASSESSMENT OFFICE

Signature *[Signature]* Date 20 Feb '01

PROVINCIAL RECORDING OFFICE - SUDBURY  
**RECEIVED**  
FEB 20 2001  
A.M. 4:58 P.M.  
21819101112111213141516

#3335

Geoscience Assessment Office  
933 Ramsey Lake Road  
6th Floor  
Sudbury, Ontario  
P3E 6B5

Telephone: (888) 415-9845  
Fax: (877) 670-1555

March 5, 2001

DAVID MEUNIER  
P.O. BOX 1624  
403 DOME STREET  
SOUTH PORCUPINE, Ontario  
P0N-1H0

Visit our website at:  
[www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm](http://www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm)

Dear Sir or Madam:

**Submission Number:** 2.20919

**Status**

**Subject: Transaction Number(s):** W0120.00023 Approval

---

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. **WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.**

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact JIM MCAULEY by e-mail at [james.mcauley@ndm.gov.on.ca](mailto:james.mcauley@ndm.gov.on.ca) or by telephone at (705) 670-5858.

Yours sincerely,



ORIGINAL SIGNED BY  
Lucille Jerome  
Acting Supervisor, Geoscience Assessment Office  
Mining Lands Section

# Work Report Assessment Results

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**Submission Number:** 2.20919

**Date Correspondence Sent:** March 05, 2001

**Assessor:** JIM MCAULEY

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<b>Transaction Number</b>	<b>First Claim Number</b>	<b>Township(s) / Area(s)</b>	<b>Status</b>	<b>Approval Date</b>
W0120.00023	1143079	FAIRLIE, BAIRD	Approval	March 05, 2001

**Section:**  
14 Geophysical VLF

At the discretion of the Ministry, the assessment work performed on the mining lands noted in this work report may be subject to inspection and/or investigation at any time.

**Correspondence to:**

Resident Geologist  
Red Lake, ON

Assessment Files Library  
Sudbury, ON

**Recorded Holder(s) and/or Agent(s):**

John, B. Boniwell  
MISSISSAUGA, ONTARIO, CANADA

DAVID MEUNIER  
SOUTH PORCUPINE, Ontario

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GRAVES TWP. G 3751

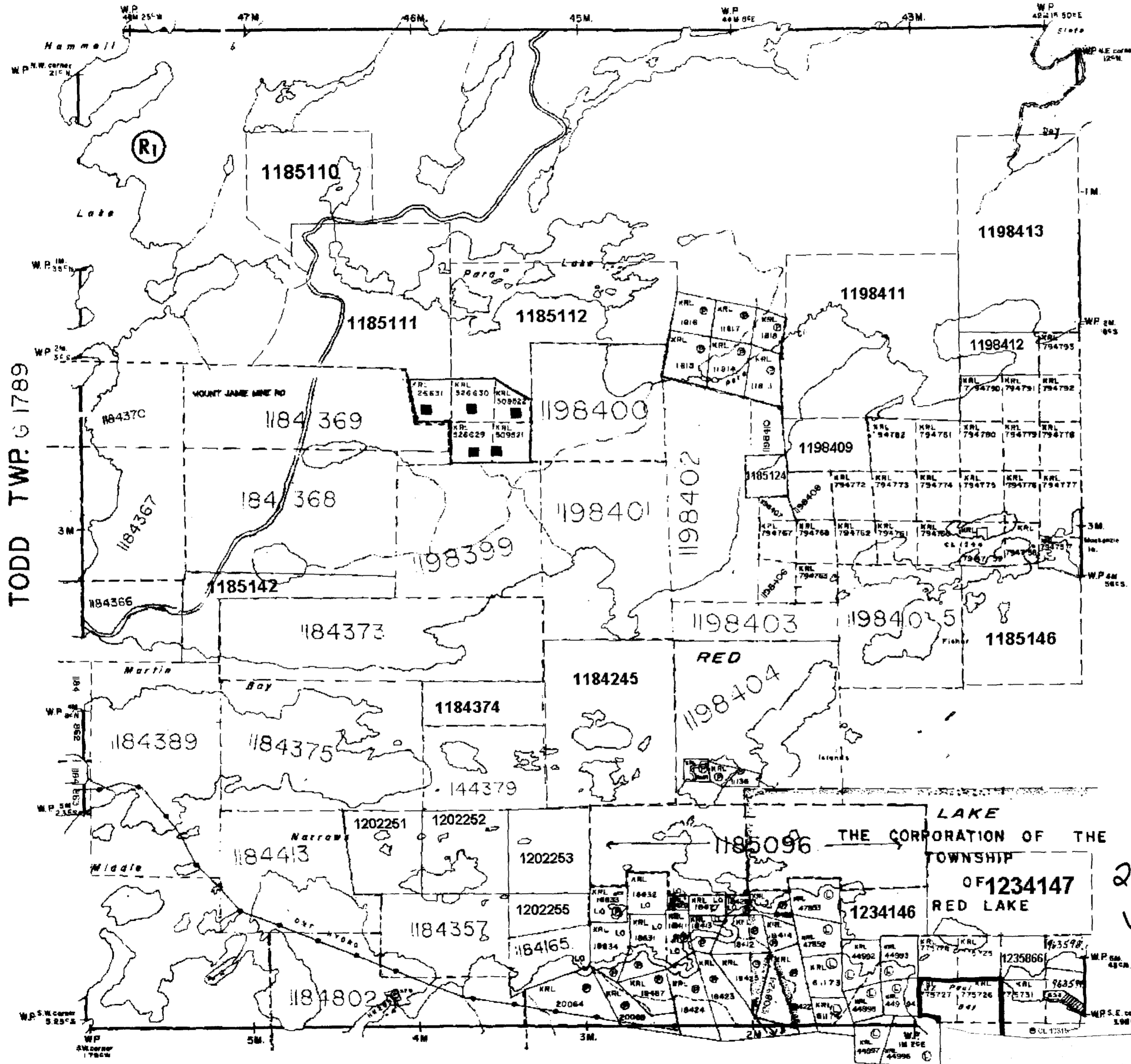
THE TOWNSHIP OF

FAIRLIE

DISTRICT OF KENORA  
(PATRICIA PORTION)

RED LAKE  
MINING DIVISION

SCALE: 1-INCH=40 CHAINS



LEGEND

PATENTED LAND	
CROWN LAND SALE	
LEASES	
LOCATED LAND	
LICENSE OF OCCUPATION	
MINING RIGHTS ONLY	
SURFACE RIGHTS ONLY	
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	

AREAS WITHDRAWN FROM DISPOSITION

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

Disposition Order No. Date Disposition File

FOREST ACTIVITY INFORMATION

THIS TOWNSHIP/AREA FALLS WITHIN THE  
**RED LAKE CROWN**  
AND MAY BE SUBJECT TO FORESTRY OPERATIONS.  
THE M.N.R. UNIT FORESTER FOR THIS AREA CAN BE  
CONTACTED AT:

P.O. BOX 5003  
RED LAKE, ONTARIO P0V 2M0  
(807) 727-2253

Rec.35 W.LL-C2354/99 ONT 06/05/99 S & M

RECEIVED

FEB 21 2001

GEOSCIENCE ASSESSMENT  
OFFICE



Ministry of Natural Resources  
Ministry of Northern Development and Mines

Date: AUGUST, 1986

Number

G-3731



BAIRD TWP. G 3739

2.20919  
VLF

THE CORPORATION OF THE  
TOWNSHIP OF  
RED LAKE

Fairlie Twp. G 3731  
Red Lake

THE CORPORATION OF THE  
TOWNSHIP

OF  
RED LAKE 2.20919  
VLF

THE TOWNSHIP  
OF








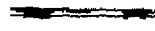







**BAIRD**

DISTRICT OF  
KENORA  
PATRICIA PORTION

RED LAKE  
MINING DIVISION


SCALE: 1-INCH 40 CHAINS

**LEGEND**

- PATENTED LAND 
- CROWN LAND SALE 
- LEASES 
- LOCATED LAND 
- LICENSE OF OCCUPATION 
- MINING RIGHTS ONLY 
- SURFACE RIGHTS ONLY 
- ROADS 
- IMPROVED ROADS 
- KING'S HIGHWAYS 
- RAILWAYS 
- POWER LINES 
- MARSH OR MUSKOKEE 
- MINES 
- CANCELLED 

**RECEIVED**  
FEB 21 2001  
GEOSCIENCE ASSESSMENT  
OFFICE

**NOTES**

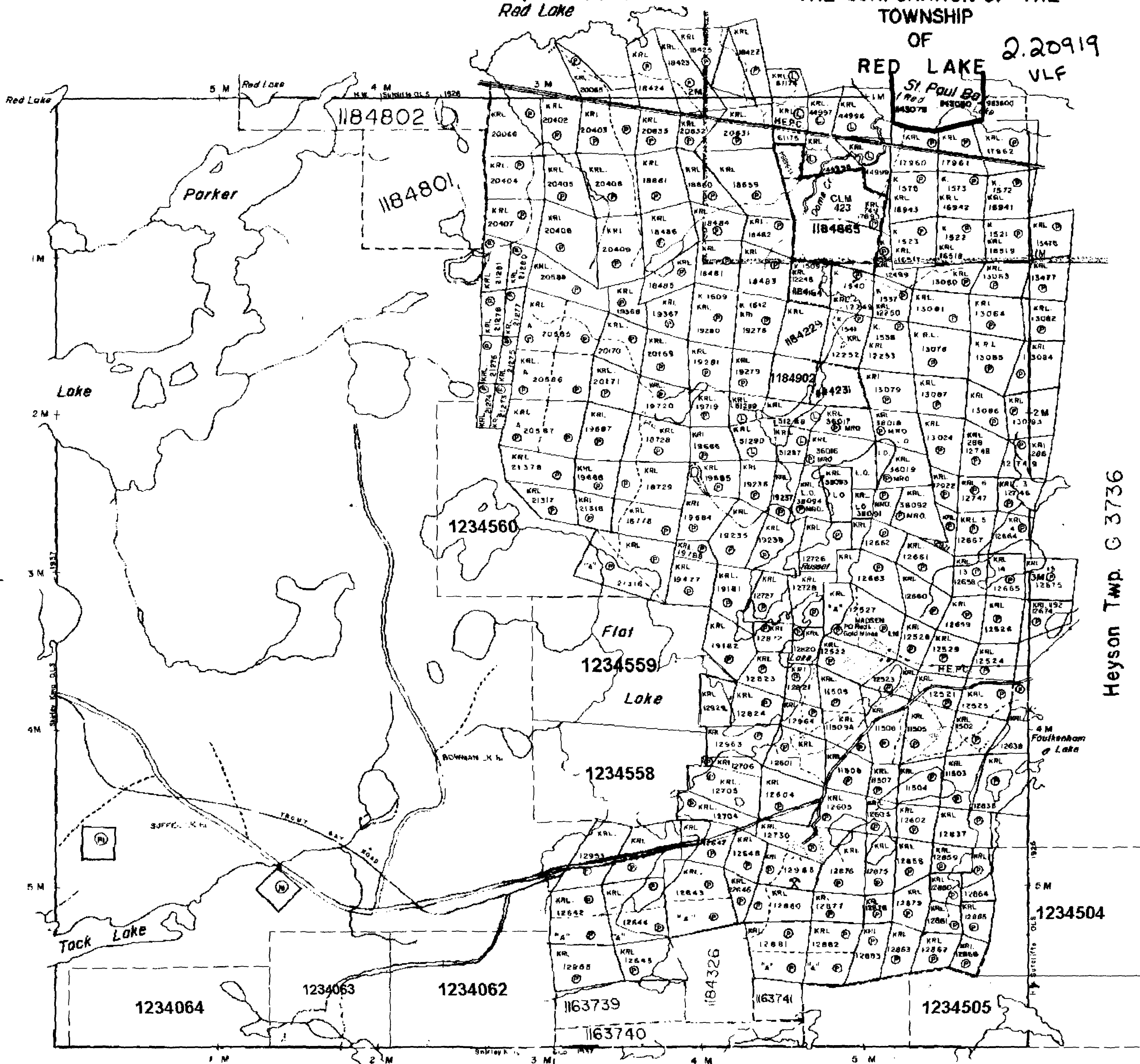
- 400' surface rights reservation along the shores of all lakes and rivers.
- Areas withdrawn from staking under Section 43 of the Mining Act
- Order No. File Date Disposition
-  REC-36180 KRL 2474 J.L. 22/94 S.A.B. 2000 27204,25

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

**FOREST ACTIVITY**  
THIS TOWNSHIP/AREA FILE  
AND MAY BE SUBJECT TO THE M.N.R. UNIT FORESTER CONTACTED AT:  
P.O. BOX 5009  
RED LAKE, ONT  
(807) 727-2263

PLAN NO. G-3739

ONTARIO  
MINISTRY OF NATURAL RESOURCES  
SURVEYS AND MAPPING BRANCH



FAULKENHAMLAKE G 1773

