

42G07SW2003 2.19212 CUMMING

010

REPORT ON RAILWAY PIT PROPERTY

BULK SAMPLE PROGRAM

CUMMING TOWNSHIP

PORCUPINE MINING DIVISION

for

Leo Alarie and Sons Limited

Submitted by: Don T. Fudge
Fudge & Associates
February 1999



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MAPS

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APPENDIX

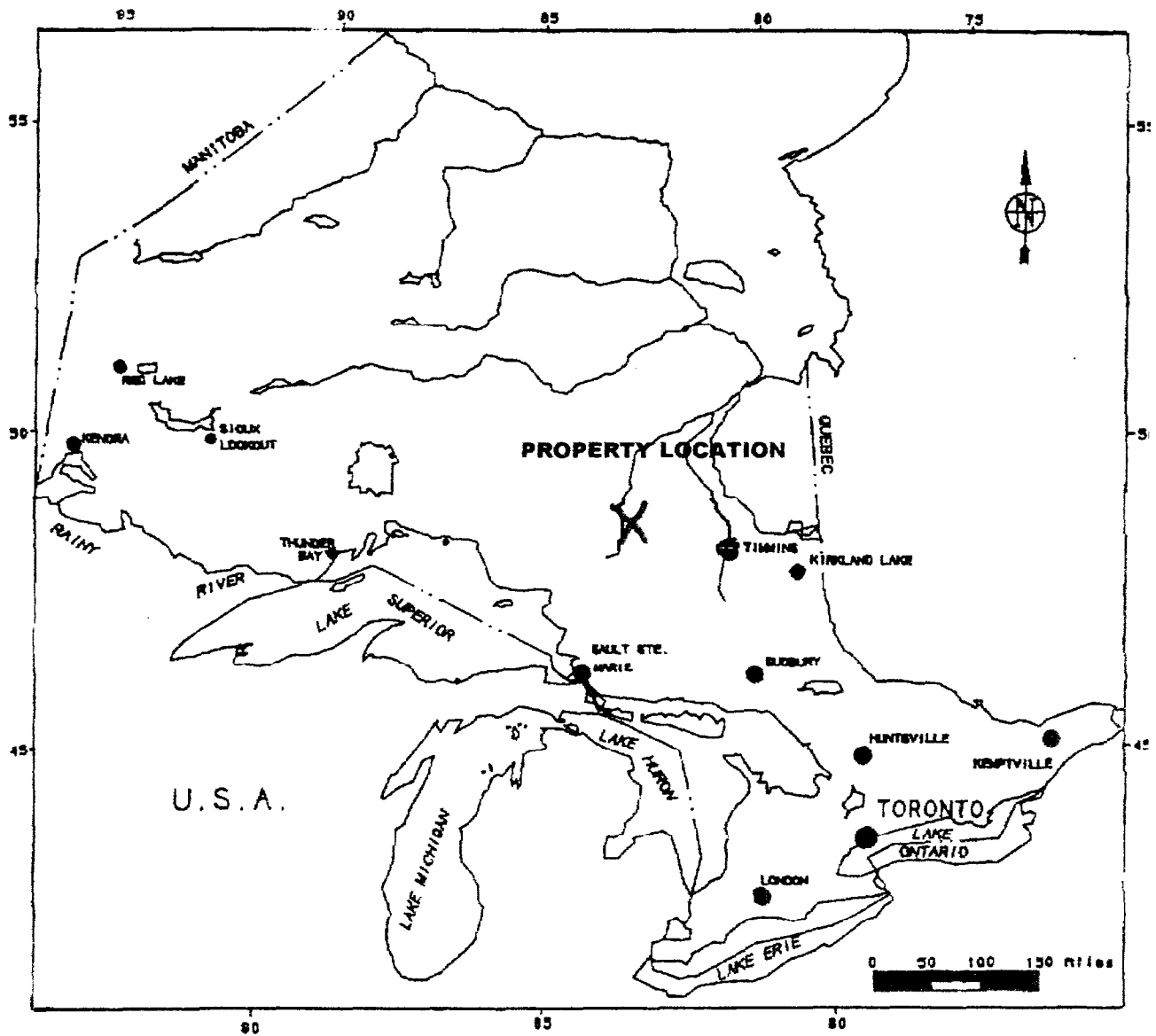
- Appendix "A" - PERMISSION TO TEST ORE
- Appendix "B" - Laboratory Test Results
- Appendix "C"- Bulk Sampling Costs

1.0 INTRODUCTION

This report deals with the logistics and results of a bulk sampling program carried out on the "Railway Pit Property" of Leo Alarie and Sons Limited, Cumming Township, Porcupine Mining Division.

The "Railway Pit Property" is comprised of 5 unpatented mining claims recorded in the name of Leo Alarie and Sons Limited, Timmins, Ontario. Bulk sampling was carried out by Leo Alarie and Sons Limited under the supervision of Fudge & Associates of North Bay, Ontario.

A scarcity of suitable local aggregates required for development of Agrium's Phosphate Mine in Cargill Township created a need for alternative granular sources. The Bulk Sampling Program was designed to determine suitability of diorites and quartz diorites peripheral to the Cargill Carbonatite Complex to produce a range of road aggregate and concrete specification products.



PROVINCE OF ONTARIO

PROPERTY LOCATION MAP
 CUMMING TWP.
 FIGURE #1

2.0 LOCATION AND ACCESS

The "Railway Pit Property" is located in the south west corner of Cumming Township and the north west corner of Cargill Township, approximately 30 km southwest of the Town of Kapuskasing, Ontario (Figs 1&2).

The property is accessible by road 6 km west of Kapuskasing on Highway 11, then south on secondary gravelled Cargill Road, then west on Ecclestone Road for 4.5 km to Agrium's Phosphate Mine, then 3 km north through the mine site on the Opatatika Road to the claim group. Alternate access can be made via Highway 11 approximately 5 km east of the Town of Opatatika, then 25 km south on seasonal Opatatika Road to the claim group.

3.0 CLAIM STATUS

The property is comprised of 64 contiguous claim units, for mining rights only in Cumming Township numbered P 1224027, P 1224138, P 1224142, P 1224142 and P 1224135, P 1224142 in Cargill Township. The claims are held directly or beneficially 100% by Leo Alarie and Sons Limited, Timmins , Ontario.

3.1 Surface Rights

Surface rights of the 64 unit claim group were formerly held under an expired Licence of Occupation issued to Sherritt Gordon Mines in 1988. Agrium Inc. was in the process of re-acquiring the surface rights for a new Licence of Occupation for the purpose of waste rock disposal, accordingly a "Notice of Intention to Perform Assessment Work" was filed with the Director of Land Management prior to the work being performed.

PAVE

PAVE

CARGILL

CORPORATION DE RH

Over
E.R.

CUMMING TWP.
FIG. 2

Communications



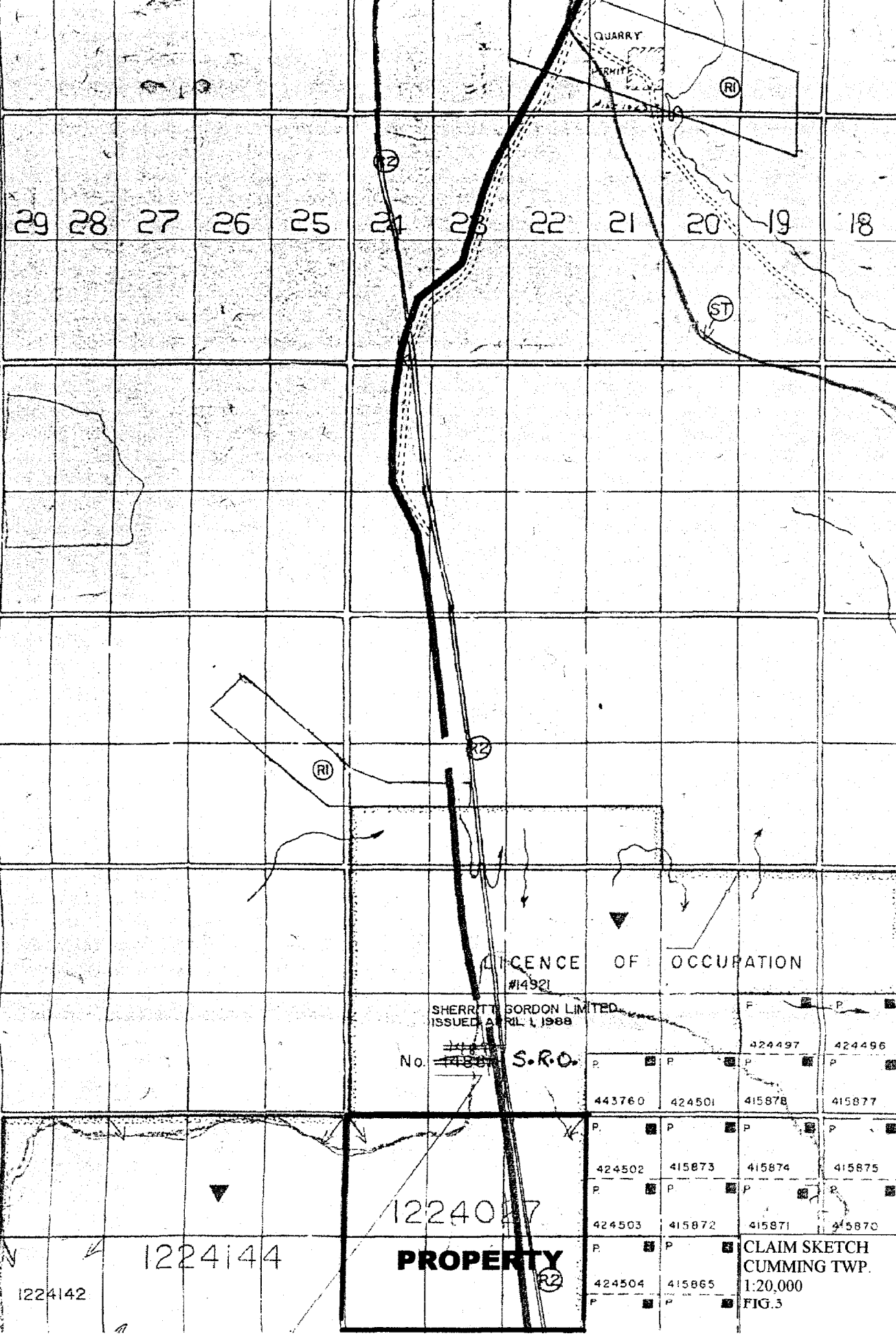
KEY MAP 1:100000

CUMMING

XIX
XVIII
XVII
XVI
XV
XIV
XIII
XII
XI
X
IX
VIII
VII
VI
V
IV
III
II
I

26 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 20 24 27 30 33 34 35 32 31 30 29 28 18 17 16

XI
X
IX
VIII
VII
VI
V
IV
III
II
I



QUARRY

PERMIT

(RI)

29 28 27 26 25 21 23 22 21 20 19 18

(ST)

(RI)

(R2)

LICENCE OF OCCUPATION

#14921

SHERRITT GORDON LIMITED
ISSUED APRIL 1, 1988

No. ~~443760~~ S.R.O.

424497

424496

443760

424501

415878

415877

424502

415873

415874

415875

424503

415872

415871

415870

1224027

PROPERTY

CLAIM SKETCH
CUMMING TWP.
1:20,000
FIG. 3

1224142

1224144

4.0 PREVIOUS WORK

The Cargill Carbonatite Complex was first examined for its copper-nickel potential in 1955, 1965 and 1970 by Continental Copper Mines Limited and Keneco Exploration (Canada) Limited. R.P. Sage in his Ontario Geological Survey Study # 36, Cargill Township Carbonatite Complex provides the following summary of previous work:

"Bennet *et al* first mapped the complex as part of a regional reconnaissance program and Gittins *et al* (1967) completed a K - ar isotopic age determination. Allen (1972) did detailed studies on the mafic rocks on the complex using samples of diamond drill core obtained from Keneco Exploration Canada Limited. Sandavik and Erdosh (1977) have published a summary of the work completed by the International Minerals and Chemical Corporation (Canada) Limited on the residual apatite accumulations lying above the bedrock.

Gasparini *et al* (1971) published a brief note on the composition of the amphibole and phlogopite found within the complex. In 1973, Kowman and Rucklidge published data on the composition of clinohumite found at the Cargill Carbonatite. Gittins *et al* (1975) have proposed that the phlogopite found in close association with the pyroxenite at Cargill is the result of fenitization of the pyroxenite by an intruding alkali-rich carbonatite magma. In 1983, Twyman completed an extensive study of the carbonatite-rich phases and contained minerals. His study was an extension of the work completed by Alan (1972) on the mafic silicate phases. Twyman (1983) made numerous comparisons between the Cargill and similar Argor carbonatite complex.

Kwon (1986) completed isotopic studies on the Cargill complex and Sharp (1987) completed work in Rb-Sr isotopic systems. ".¹

In 1988 Sherritt Gordon undertook testing of the residual apatite for its economic potential. Agrium Inc. began construction of an open pit phosphate mine on the southern limb of the complex in 1998.

5.0 GENERAL GEOLOGY

The Cargill Township Carbonatite Complex lies within the Kapuskasing Subprovince of the Superior Province and has been interpreted from O.D.M. - G.S.C. aeromagnetic maps as a dumbbell shaped body approximately 7.2 km long. Two pronounced aeromagnetic anomalies are interpreted as being faulted portions of a once more circular body. The Cargill complex is enveloped in Early Precambrian quartz diorite, gneiss and amphibolite. Sandivik and Erdosh (1977) reported evidence of post-emplacement adjustment along the main fault as evidenced by the presence of unfenitized quartz diorite in contact with the southern subcomplex, and the presence of visible fenitization peripheral to the west away from the fault. Relatively undisturbed diorite and quartz diorite outcropping approximately 1 to 1.5 km west of the fault are the focus of this program.

6.0 WORK PROGRAM

The work program is the second of two parts. During the earlier phase, in February 1998 prospecting identified an outcropping north-east trending ridge in the south west corner of Cumming Township. Preliminary observations indicated that it may be a late phase dyke composed of diorite and quartz diorite and was likely structurally and chemically stable thus suitable for aggregate production.

The current work program undertaken in November 1998, consisted of drilling, blasting and crushing on site of a 400 tonne bulk sample, carried out under authority of a "PERMISSION TO TEST ORE" issued by the Director of Mine Rehabilitation pursuant to Section 52(2) of the Mining Act, R.S.O., 1990. See Dwg. 1., Appendix "A".

An access trail and crusher pad were construct from blasted rock on site, whereon drilling equipment, crushing and ancillary loaders and lab were located. Blasted rock was picked up

by a Cat 988B loader and fed into a Hewit Robin Model C 125 - 30" x 48" jaw crusher reducing the feed to minus 150 mm. Output from the primary jaw was then fed into a 1560 Omni Cone secondary and reduced to minus 75 mm. Output from the secondary was fed in to tertiary HP 300, Norberg Cone closed circuit plant wherein it was reduced to minus 7/8" gravel. Crushed product was collected off the belt with a Cat 988B loader and stockpiled on site.

Representative samples were collected by Mr. Jan Luthe and shipped to John Emery Geotechnical Engineering Limited in Timmins for analysis. Minor amounts of sulphide, generally less than .005% were noted in localized sections of the test pit, accordingly Standard Acid Based Accounting tests were run in addition to usual aggregate tests.

Testing consisted of:

Sieve Analysis	M.T O. LS - 602
Crushed Particles	M.T O. LS - 607
Petrographic Examination	M.T O. LS - 609
Los Angeles Abrasion	M.T O. LS - 603
Asphalt Coated Particles	M.T O. LS - 621
Standard Acid Base Accounting	Sobek Method

Individual Test results are listed in Appendix "B".

7.0 PERSONNEL

The following personnel were directly involved with the Bulk Sampling Program.

Brian Alarie	Leo Alarie & Sons Limited	Timmins, Ontario
--------------	---------------------------	------------------

Denis Alarie	Leo Alarie & Sons Limited	Timmins, Ontario
Al Boucher	Leo Alarie & Sons Limited	Timmins, Ontario
Leo Lavine	Leo Alarie & Sons Limited	Timmins, Ontario
Paul Allan	Leo Alarie & Sons Limited	Sudbury, Ontario
Lional Chiasson	Leo Alarie & Sons Limited	Timmins, Ontario
Denis Chiasson	Leo Alarie & Sons Limited	Timmins, Ontario
Piere Laroque	Leo Alarie & Sons Limited	Timmins, Ontario
Roger Secord	Leo Alarie & Sons Limited	Timmins, Ontario
Gilles Levesque	Leo Alarie & Sons Limited	Timmins, Ontario
Mark Levoy	Leo Alarie & Sons Limited	Timmins, Ontario
Jan Luthe	Leo Alarie & Sons Limited	Timmins, Ontario
Don Fudge	Fudge & Associates	North Bay, Ontario

8.0 CONCLUSIONS AND RECOMMENDATIONS

Laboratory and production scale crusher tests confirm the "Railway Pit Property" is suitable for production of high quality road aggregates. Acid based accounting tests confirm that pit aggregates are not acid generating.

Based upon test results, a decision was made to open a commercial quarry wherein the bulk sample location was converted to commercial operations under authority of Aggregate Permit No. 20272 issued to Leo Alarie and Sons Limited.

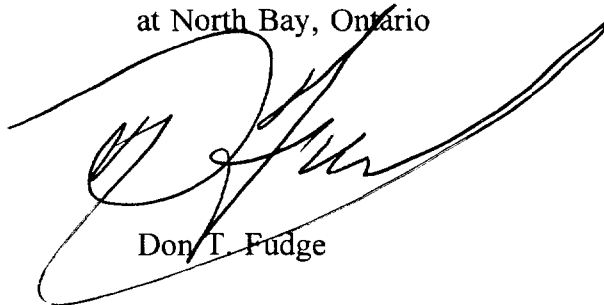
¹ Sage.R.P.
1988 Geology of Carbonatite - Alkaline Rock Complexes in Ontario: Cargill Township Carbonatite Complex, District of Cochrane, Ontario Geological Survey, Study 36, pg. 5

CERTIFICATION

I, Donald Thomas Fudge of North Bay, Ontario hereby certify that:

1. I hold a three year Business Administration Diploma from Cambrian College of Applied Arts, North Bay, Ontario, obtained in 1969 and a Bachelor of Arts obtained from Carleton University, Ottawa obtained in 1973;
2. That I am a Prospector and have been practising my profession since 1975 in Ontario, Quebec, Newfoundland, Manitoba, Alberta, British Columbia, the United States of America, Jamaica, and China.
3. I have been employed directly by Teck Corporation, Metallgesellschaft Canada Ltd., the Ontario Ministry of Natural Resources, and have been self-employed with Fudge & Associates since 1984.
4. I hold no interest, directly or indirectly in this property, nor do I expect to receive any interest or consideration from the property, other than for professional fees rendered.

Dated this 8th day of February, 1999
at North Bay, Ontario



Don T. Fudge

APPENDIX "A"

Ministry of
Northern Development
and Mines
Mines Group
B4 – 933 Ramsey Lake Road
Sudbury, Ontario
P3E 6B5

Ministère du
Développement du Nord
et des Mines
Tel: (705) 670-5787
Fax: (705) 670-5803



June 15, 1998

Mr. Don Fudge
Fudge Associates
160 Bryan Road
North Bay, Ontario P1C 1C2

Dear Mr. Fudge:

SUBJECT: Application to Remove Bulk Sample, Claim P1224027

Attached is a copy of the "Permission to Test Ore" under the authority of subsection 52(1) of the Mining Act, R.S.O. 1990 as per your request. It has been issued to Leo Alarie & Sons Limited, the recorded claim holder of claim P1224027.

Please note the fourth paragraph of the attached "Permission" in which it is stipulated that "removal and testing of said samples shall be completed by August 31, 1998, and a project report showing tonnes extracted and tested, test results, and costs of conducting the bulk sample shall be submitted to the Provincial Mining Recorders office by October 31, 1998. Also note the last paragraph which states "rehabilitation measures must be undertaken as outlined in Appendix A".

Please be aware that any production from this site will require an Aggregate Permit under the authority of the Aggregate Resources Act.

If you have any questions or need assistance please do not hesitate to call me or Mr. Robert I. Ferguson in our Timmins office at (705) 235-1628.

Sincerely,

A handwritten signature in black ink, appearing to read "W. R. Cowan", with a long horizontal flourish extending to the right.

W. R. Cowan
Director of Mine Rehabilitation

cc: Mining Recorder, Porcupine Mining Division
District Geologist, Timmins
R. Ferguson, MNDM Timmins

PERMISSION TO TEST ORE

Under the authority of subsection 52(1) of the Mining Act, R.S.O. 1990, Leo Alarie & Sons Limited is hereby granted permission to remove a bulk sample from the following site:

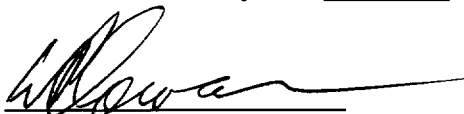
Mining Claim P1224027 – 12 Units, Cumming Township

The sample shall consist of up to 400 tonnes of bedrock material, blasted, crushed and tested for aggregate suitability. Removal and testing of said samples shall be completed by August 31, 1998 and all information regarding tonnes extracted and tonnes tested, test results, and costs of conducting the bulk sampling and evaluation shall be submitted to the Provincial Recording Office by October 31, 1998.

Under subsection 62(4) of the Mining Act, any proceeds above and beyond the cost of stripping, removing, transporting, processing and testing said samples shall be eschewed to the Crown and paid via a cheque made out to the Minister of Finance.

Further, this permission is conditional upon the claimholder, Leo Alarie & Sons Limited, adhering to all applicable legislation, regulations and permit requirements. Rehabilitation measures must be undertaken as outlined in Appendix A. Any variances to this letter of permission must be pursuant to a letter of amendment.

Dated at Sudbury this 15th day of June, 1998.



W. R. Cowan
Director of Mine Rehabilitation


APPENDIX A

Permission to Test Ore – Leo Alarie & Sons Limited
Mining Claim P1224027

Rehabilitation Requirements

With respect to this work, the following rehabilitation measures shall be undertaken when removal of the sample is completed.

- Install proper signage at the entrance to the extraction site and the entrance of any test pit or quarry
- Block access road to the site
- Stripped topsoil and overburden shall be stockpiled for future rehabilitation
- Stripped areas to be recovered
- Waste rock to be returned to the pit of excavation. The waste material should be stabilized at the natural angle of repose
- All chemicals, oils, etc., and garbage to be removed from the site
- The site to be left in a safe condition
- Any pit wall that poses a safety or stability concern shall be closed out as per the *Rehabilitation of Mines Guidelines for Proponents*
- A fence may be required at the brow of any vertical rock face or pit wall following inspection
- Any temporary rock piles of material left on site must be stabilized to the natural angle of repose
- Monitor the site for measures implemented above



Ministry of
Northern Development
and Mines

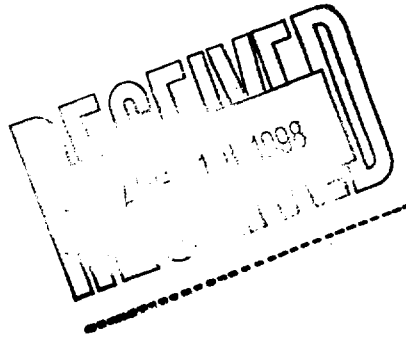
Ministère du
Développement du Nord
et des Mines



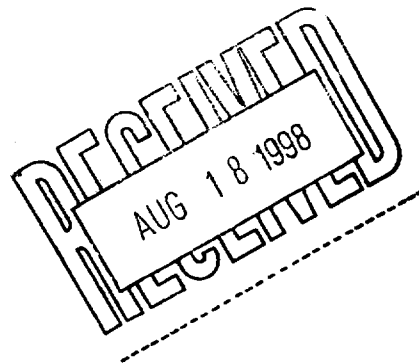
Mines Group
B4-933 Ramsey Lake Road
SUDBURY, Ontario
P3E 6B5

Tel: (705) 670-5784
Fax: (705) 670-5803

August 10, 1998



Mr. Don Fudge
Fudge Associates
160 Bryan Road
North Bay, Ontario
P1C 1C2



Dear Mr. Fudge:

RE: **Request for Extension of Time**
Bulk Sample, Claim P1224027, Cumming Twp.

Your request for an extension of time for completion of the testing program from August 31, 1998 to November 30, 1998 is hereby approved.

Sincerely,

A handwritten signature in black ink, appearing to read "W. R. Cowan".

W. R. Cowan
Director of Mine Rehabilitation

cc: Provincial Mining Recorder, Porcupine Mining Division
A. Wilson, District Geologist, Timmins
R. Ferguson, MNDM, Timmins

APPENDIX "B"

JOHN EMERY GEOTECHNICAL ENGINEERING LIMITED

CONSULTING ENGINEERS

#1, 109 Woodbine Downs Boulevard, Toronto, Ontario M9W 5Y1

Telephone: (416) 213-1060 Facsimile: (416) 213-1070 E-Mail: jegel@comnet.ca www.jegel.com

November 2, 1998

JEGEL: 198089

JEGEL ID #: 001506

Leo Alarie and Sons Limited
 P.O. Box 912
 Timmins, Ontario P4N 7H1

Attention: Mr. Jan Luthe, P.Eng.

Dear Sirs:

Aggregate Testing

As requested, John Emery Geotechnical Engineering Limited, Consulting Engineers (JEGEL), has completed testing of a sample of Granular B material from Cumming Quarry, supplied by Leo Alarie and Sons Limited. The testing consisted of:

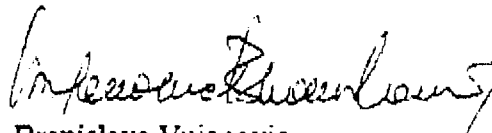
Sieve Analysis	MTO LS-602
Crushed Particles	MTO LS-607
Petrographic Examination	MTO LS-609
Los Angeles Abrasion	MTO LS-603
Asphalt Coated Particles	MTO LS-621

The test results are presented in the attached Tables 1 and 2.

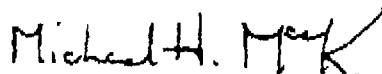
We trust that the results of this testing are satisfactory for your purposes. Please contact us with any questions or if you require any additional information.

Yours very truly,

JOHN EMERY GEOTECHNICAL ENGINEERING LIMITED



Branislava Vujanovic
 Petrographer



Michael H. MacKay, M.Eng., P.Eng.
 Principal Geotechnical Engineer

ISO 9001

Engineering / Research / Development / Education
 Soil / Rock / Aggregates / Slags / Asphalt / Cement / Concrete / Byproducts
 JEGEL • DYNATEST • PAVMATEC

TABLE 2
 AGGREGATE PHYSICAL PROPERTIES TEST RESULTS
 CUMMING QUARRY

TEST	TEST RESULT	SPECIFICATION REQUIREMENTS
	Granular B	OPSS/MTO Maximum Limits
		Granular B
Petrographic Requirement % by Mass, Crushed Glass and/or Ceramic Material	0	15
% by Mass of wood, Clay Brick and/or Gypsum and/or Gypsum Wall Board or Plaster	0	1
Los Angeles Abrasion, % Loss	11.0	-
Crushed Particles, %	100	60 Minimum
Asphalt Coated Particles, %	0	30

TABLE 1
GRADATION TEST RESULTS
CUMMING QUARRY

SIEVE SIZE	PERCENT PASSING	
	Granular B Type I	OPSS Requirements
		Granular B
150.0 mm		100
75.0 mm	100.0	-
53.0 mm	95.3	-
37.5 mm	84.6	-
26.5 mm	70.0	50-100
19.0 mm	57.8	-
16.0 mm	52.9	-
13.2 mm	50.0	-
9.5 mm	41.0	-
4.75 mm	27.2	20-100
2.36 mm	18.5	-
1.18 mm	12.6	10-100
600 μ m	8.4	-
300 μ m	5.8	2-65
150 μ m	4.1	
75 μ m	3.2	0-8

JOHN EMERY GEOTECHNICAL ENGINEERING LIMITED

CONSULTING ENGINEERS

#1, 108 Woodbine Downs Boulevard, Toronto, Ontario M9W 6Y1
Telephone: (416) 213-1060 Facsimile: (416) 213-1070 E-Mail: jegel@comnet.ca www.jegel.com

December 1, 1998

JEGEL: 198089

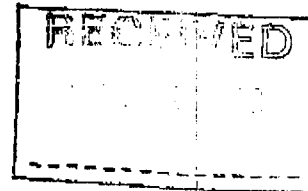
JEGEL ID #: 001506

Leo Alarie and Sons Limited
P.O. Box 912
Timmins, Ontario P4N 7H1

Attention: Mr. Jan Luthe, P.Eng.

Dear Sirs:

Aggregate Testing



As requested, John Emery Geotechnical Engineering Limited, Consulting Engineers (JEGEL), has completed additional acid generation testing of a sample of Granular B material from Cumming Quarry, supplied by Leo Alarie and Sons Limited.

The acid generation testing was carried out on our behalf by RPS Technology and Innovation Specialists.

The test results are presented in the attached Table 1.

We trust that the results of this testing are satisfactory for your purposes. Please contact us with any questions or if you require any additional information.

Yours very truly,

JOHN EMERY GEOTECHNICAL ENGINEERING LIMITED

Branislava Vujanovic
Petrographer

Michael H. MacKay, M.Eng., P.Eng.
Principal Geotechnical Engineer

ISO 9001

Engineering / Research / Development / Education
Soil / Rock / Aggregates / Slags / Asphalt / Cement / Concrete / Byproducts
JEGEL • DYNATEST • PAVMATEC

TABLE 1
STANDARD ACID BASE ACCOUNTING

TEST		TEST RESULT
Total Sulphur	%	0.19
Acid Production Potential	CaCO ₃ kg/t	6.0
Neutralizing Potential (pH 7.0)	CaCO ₃ kg/t	11
Net Neutralizing Potential (pH 7.0)	CaCO ₃ kg/t	5
Theoretical Acid Producer		No

The standard acid/base accounting was determined by the Sobek method. Sulphur was determined using Leco combustion/infrared procedures.

A negative value for NP indicates that the material is a net acid producer.

APPENDIX "C"

COST SUMMARY
RAILWAY PIT BULK SAMPLING PROGRAM

Leo Alarie and Sons Limited and Laboratory Costs				\$55,200.00
Fudge & Associates				
November/98	5 days @ \$400.00/day	\$2,000.00		
January/99	2 days @ \$400.00/day	\$ 800.00		
February/99	2 days @ \$400.00/day	\$ 800.00		
Expenses		<u>\$ 968.00</u>		<u>\$ 4,568.00</u>
Total				\$59,768.00



LEO ALARIE AND SONS LIMITED

General Contractors

Head office: P.O. Box 912
Timmins, Ontario P4N-7H1
(705) 268-2106
Fax 268-3571 Operations
Fax 268-2541 Accon't & Est.

P.O. Box 130
Matheson, Ontario
POK-1N0
(705) 273-2436
Fax 273-2803

P.O. Box 100
Marathon, Ontario
P0T-2E0
(807)229-2200
Fax 229-2311

M9809-Stone Testing Costs981104

Nov. 4, 1998

Reference: Cumming Quarry-Aggregate Testing Costs

Mobilization of gear to build trail	\$4000.00
Build access trail to get to potential quarry and build pad for crusher	\$24500.00
Mobilization of drill & blast gear, powder, & crew	\$2900.00
Mobilization of crusher spread	\$9000.00
Drill and blast rock for trail, pad and sample	\$6000.00
Set up crusher to crush sample and crush	\$7000.00
Sample Tests: Petrographic analysis and gradation	\$900.00
Gather sample, deliver samples to Timmins	\$650.00
Prep samples in Timmins, pack & ship to lab in Toronto	\$250.00
Total:	\$55200.00

Demobilization costs charged to production because we did production crushing after doing sample.

Jan Luthe, P. Eng.

JOHN EMERY GEOTECHNICAL ENGINEERING LIMITED

CONSULTING ENGINEERS

#1, 109 Woodbine Downs Boulevard, Toronto, Ontario M9W 6Y1
Telephone: (416) 213-1060 Facsimile: (416) 213-1070 E-Mail: jegel@comnet.ca www.jegel.com

November 30, 1998
JEGEL Project: 198089
Invoice: 4/765

Leo Alarie & Sons Limited
P.O. Box 912, Highway 101 West
Timmins, Ontario P4N 7H1

Attention: Mr. Jan Luthé, P.Eng.
Project Engineer

INVOICE FOR PROFESSIONAL SERVICES

Aggregate Testing of Granular B Material from Cumming Quarry.

Engineering and Technical Services to November 15/98:

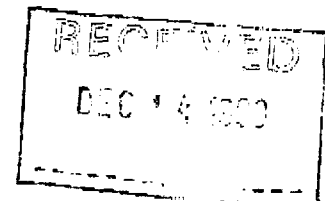
Principal Geotechnical Engineer (M. MacKay)	1 hour @ \$125.00	\$ 125.00
Laboratory Testing (JEGEL #1506)		
Sieve Analysis	1 @ \$ 68.00	68.00
Crushed Particles	1 @ \$ 45.00	45.00
Petrographic Examination	1 @ \$100.00	100.00
Los Angeles Abrasion	1 @ \$205.00	205.00
Asphalt Coated Particles	1 @ \$ 45.00	45.00
Additional Testing: Acid Generation	1 @ \$125.00	<u>125.00</u>
	Engineering and Technical Services	\$ 713.00
	GST on Services	<u>49.91</u>

TOTAL THIS INVOICE \$ 762.91

(This total includes \$49.91 GST. Our GST Number is 102687118RT.)

- Notes: 1. Net 15 days from receipt of this Invoice, 1½% per month (19.6% per annum) surcharge on overdue accounts.
2. We appreciate the opportunity to be of service and trust this Invoice is in order.

9814-101 *Plutcher*



ISO 9001

Engineering / Research / Development / Education
Soil / Rock / Aggregates / Slags / Asphalt / Cement / Concrete / Byproducts
JEGEL • DYNATEST • PAVMATEC

Transaction Number (office use)
W9960.00081
Assessment Files Research Imaging



42G07SW2003 2.19212 CUMMING 900

Section 86(2) of the Mining Act. Under section 8 of the Mining Act, all assessment work and correspond with the mining land holder. Questions should be directed to the Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Timmins, Ontario P4S 1K1.

- Instructions:
- For work performed on mining lands, use form 0241.
 - Please type or print in Ink.

2. 1993 12

PROVINCIAL RECORDING OFFICE - SLIDERY
RECEIVED
FEB 12 1999
A.M. 9:45 AM
7 8 9 10 11 12 1 2 3 4 5 6

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

LEO ALARIE AND SONS LIMITED	Client Number	159410
P.O. Box 912, HIGHWAY 701 WEST	Telephone Number	705 268-2106
TIMMINS, ONTARIO	Fax Number	705 268 2541
	Client Number	
	Telephone Number	
	Fax Number	

RECEIVED
FEB 12 1999
GEOSCIENCE ASSESSMENT OFFICE

Type of work performed. Only regional surveys and prospecting work are allowed on Crown Lands before recording. For work performed after recording a claim or on other mining lands, use form 0241.

Work Type	BULK SAMPLE	Office Use		
		Commodity		
		Total \$ Value of Work Claimed	29,768	
Assessment Work performed From	01 Day 11 Month 1998 Year	To	30 Day 11 Month 98 Year	NTS Reference
Global Positioning System Data (if available)	Township/Area	CUMMING TWP	Mining Division	Prospec
	M or G-Plan Number	M-743	Resident Geologist District	Timmins

- Please remember to:
- 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;
 - provide proper notice to surface rights holders before starting work.

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

Name	DON FUDGE, FUDGE & ASSOCIATES	Telephone Number	(705) 472-3053
Address	160 BRYAN ROAD, NORTH BAY ONT	Fax Number	(705) 472 9244
Name		Telephone Number	
Address		Fax Number	
Name		Telephone Number	
Address		Fax Number	

4. Certification by Recorded Holder or Agent

I, DON FUDGE (Print Name), 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.

Signature of Recorded Holder or Agent	<i>[Signature]</i> AGENT	Date	Feb 8 1999
Agent's Address	160 BRYAN ROAD	Telephone Number	705 472 3053
	NORTH BAY, ONTARIO	Fax Number	705 472 9244

M. J. H. 12/99

Work to be recorded and distributed. Work that is performed on Crown Lands and not subsequently recorded as a mining claim, can be claimed at 100% of its value (state this amount in column "a" below). If work is performed on Crown lands and not enclosed within a subsequently recorded claim, it can be claimed at 25% of its value (state this amount in column "b" below). Work can only be assigned to claims that are contiguous to (adjoining) the lands where work was performed at the time work was performed. A map showing the contiguous link must accompany this form.

Mining Claim Number	No. of Claim Units	Value of work performed before recording a mining claim		Value of work applied to this claim	Value of work assigned to other mining claims	Bank. Value of work to be distributed at a later date.
		(a) Work now within a claim. Show 100% of cost.	(b) Work on adjacent Crown lands. Show 25% of cost.			
eg 1234567	4	\$4980	\$725	\$1800	\$800	\$3305
eg 1234568	2	N/A	N/A	\$ 800	N/A	N/A
1A 1224027	12	59,768. ⁰⁰		14,400. ⁰⁰		45,368. ⁰⁰
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
Column Totals						

I, DON FUDGE (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 Recorded Holder or Agent Authorized in Writing: [Signature] Date: Feb 8 1999

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 RECEIVED FEB 12 1999 GEOSCIENCE ASSESSMENT OFFICE	Deemed Approved Date	Date Notification Sent
	Date Approved	Total Value of Credit Approved
	Approved for Recording by Mining Recorder (Signature)	

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, the 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 the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Work Type	Units of Work <small>Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.</small>	Cost Per Unit of work	Total Cost
BULK SAMPLING	400 TONNES	\$109.67/T	\$43,868. ⁰⁰
		2 10 2	12
Associated Costs (e.g. supplies, mobilization and demobilization).		\$ 39.75 T	\$ 15,900
Transportation Costs			
Food and Lodging Costs			
Total Value of Assessment Work			59,768.⁰⁰

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:

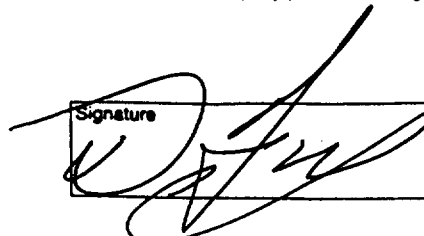
TOTAL VALUE OF ASSESSMENT WORK × 0.50 = Total \$ value of worked claimed.

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, DON FUDGE (please print full name), 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 (recorded holder, agent, or state company position with signing authority) I am authorized to make this certification.

Signature:  Date: July 8, 1999

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

March 29, 1999

LEO ALARIE AND SONS LIMITED
BOX 912
Highway 101 West
TIMMINS, Ontario
P4N-7H1

Telephone: (888) 415-9846
Fax: (877) 670-1555

Visit our website at:
www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

Dear Sir or Madam:

Submission Number: 2.19212

Status

Subject: Transaction Number(s): W9960.00081 Deemed 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 Steve Beneteau by e-mail at steve.beneteau@ndm.gov.on.ca or by telephone at (705) 670-5855.

Yours sincerely,



ORIGINAL SIGNED BY
Blair Kite
Supervisor, Geoscience Assessment Office
Mining Lands Section

Work Report Assessment Results

Submission Number: 2.19212

Date Correspondence Sent: March 29, 1999

Assessor: Steve Beneteau

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9960.00081	1224027	CUMMING	Deemed Approval	March 18, 1999

Section:
18 Other BULK

Correspondence to:

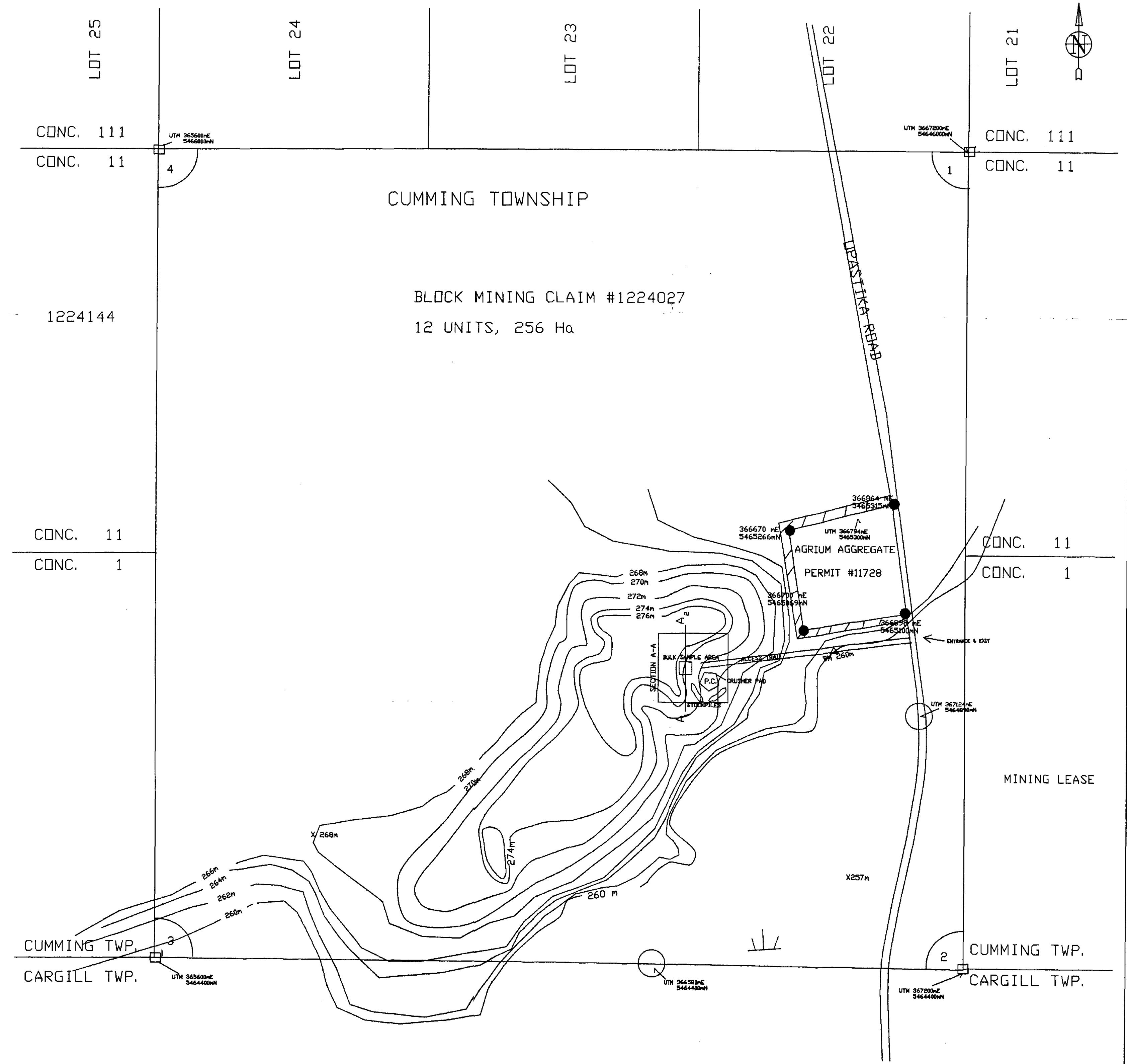
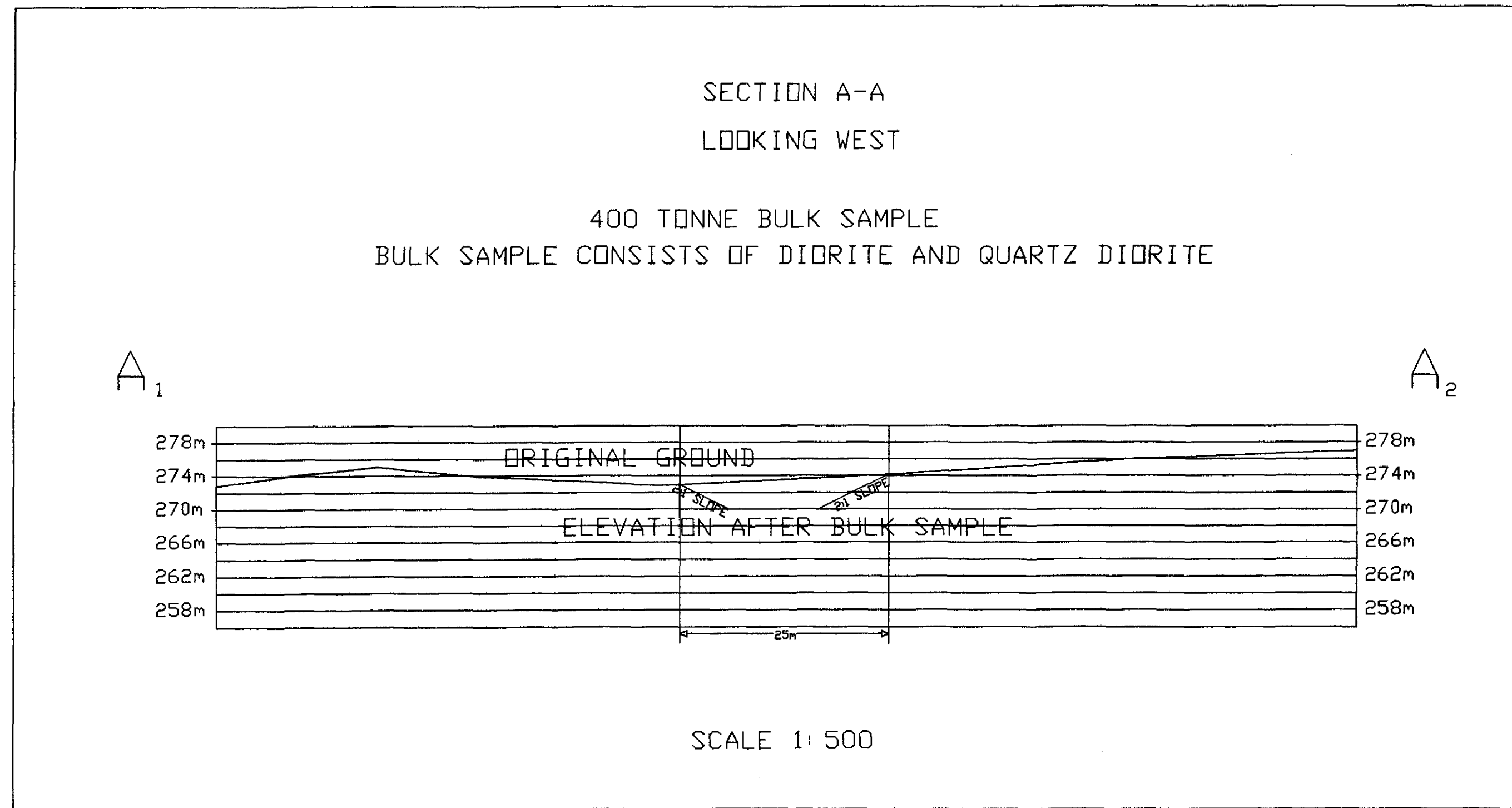
Resident Geologist
South Porcupine, ON

Assessment Files Library
Sudbury, ON

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

Don T. Fudge
NORTH BAY, ON, CAN

LEO ALARIE AND SONS LIMITED
TIMMINS, Ontario



- LEGEND
- MAP DATUM FOR: UTM'S - NAD-27
 - MINING CLAIM POST
 - MINING CLAIM BOUNDARY
 - PORTABLE CRUSHER
 - TOPOGRAPHIC CONTOURS (METERS)
 - SWAMP
 - STOCKPILES
 - BULK SAMPLE AREA
 - SPOT ELEVATIONS X 266m

NOTE: TOPOGRAPHIC INFORMATION WAS OBTAINED IN DIGITAL FORM FROM ONTARIO BASE MAP SERIES 1:20,000. TWO METER CONTOURS INFORMATION WAS INTERPOLATED DIGITALLY FROM 10m CONTOURS ON OBM.

Client: LEO ALARIE AND SONS LTD.	
Property: CUMMING TOWNSHIP PROPERTY	
Title: BULK SAMPLE MAP	
Draftsman: R.G.HAMILL	LEO ALARIE & SONS LIMITED
Date: NOVEMBER 1998	HWY. 101 WEST, TIMMINES, ONTARIO
Province: ONTARIO	TEL. (705) 268-2108
Scale: 1:5000	Township: CUMMING
	Drawing: 1 OF 1