REPORT, PHASE 1
MINERAL EXPLORATION PROJECT
MADAWASKA AREA
ONTARIO

NTS: 31E/9E, Murchison Township,
District of Nipissing
UTM 733400E, 5045200N, Zone 17
Lat 45°31'23"N, Long 78°00'41"W

Southern Ontario Mining Division
Claims 1150671, 1150672 & 1150673

Prepared For:

Mr. Allan Reed
R.R. #1
Madoc, Ontario
K0K 2K0

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MADAWASKA AREA, ONTARIO

INTRODUCTION

General

This report presents the results of a reconnaissance level property geology inspection of three mining claims situated near Madawaska, Ontario. The work has been undertaken on behalf of Mr. Allan Reed (Lic. No. A 49686), of R.R. #1 Madoc, Ontario, the recorded owner of the claims. Pegmatite hosted mineralization is the current focus of exploration on these claims.

In the following sections, the geological setting and economic geology of the site is discussed with reference to recent site observations, geochemical test results and a geophysical test grid.

Property Location and Access

The subject mining claims are situated in the north half of Lots 14, 14 and 16, Concession IV, Murchison Township, District of Nipissing, in the Southern Ontario Mining Division. The claims are recorded under *Nos. 1150671,1150672 and 1150673*, staked on May 13, 1991.

The claims are easily accessible from the community of Madawaska via a well established logging road (generally known as the Victoria Lake Road) which proceeds northward from Highway 60 at Madawaska. The claim group is situated approximately 4km north of the community (see Figure 1).

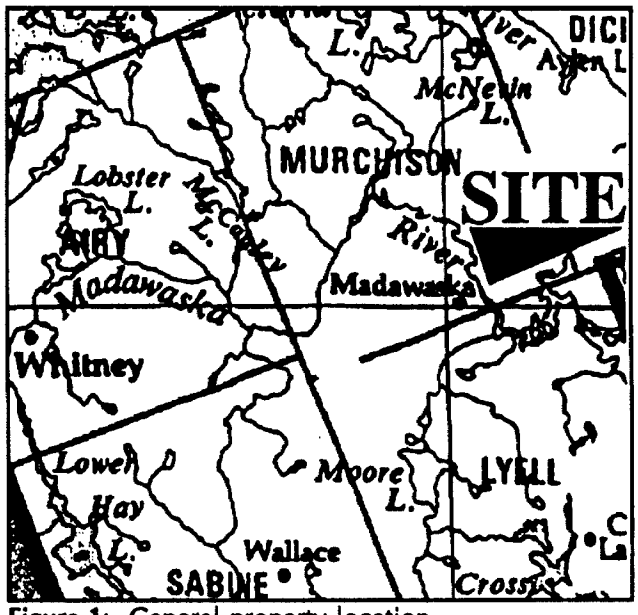


Figure 1: General property location.

A haul road connecting to the Victoria Lake Road provides vehicle (four-wheel drive) access to a small quarry in the central part of the group.

Background

The claim group area contains a well documented pegmatite deposit which reportedly has been worked periodically since about 1938. The earliest records indicate that the deposit was staked by W.B. Cameron (of Madawaska) in 1938. Various owners operated a small mining operation at the site which produced about 10,000 tons of feldspar and quartz from 1938 to 1940. Evidently, no other recorded production occurred until 1976 when a small amount of quartz was produced.

In 1984, the Ministry of Natural Resources issued a quarry permit to the Comet Quartz Company which was later renamed the Algonquin Mining Corporation. The quarry permit allows for the extraction of quartz as the only commodity. From 1984 to 1988, about 16 cubic yards of quartz was reportedly mined and removed from the property. Since 1988, it appears that there has been very little activity at the quarry.

There appears to be little detailed information available about the end uses of the quartz and feldspar mined from the deposit. Reportedly, attempts to use some of the mined quartz in the manufacture of piezoelectric crystals and optoelectronic components were undertaken in recent years. However, the success of these attempts is unclear. Feldspar production may have had a more favourable history, considering the reported tonnage mined.

Although feldspar has several industrial uses, the potassium feldspar mined from this deposit was likely used in the manufacture of glass and ceramics. The peak in production (to the 1940's) occurred prior to the widespread use of nepheline syenite.[1] Today, nepheline syenite is generally preferred due to its consistently high alumina content and single source.

[1] Nepheline syenite production in Ontario began with the staking of claims at Blue Mountain (near Peterborough) in 1932. The industry gradually developed over the years through market and technical research. Nepheline syenite is preferred in glass and ceramic manufacturing due to its high alumina and alkali content and lower melting temperatures. Yield and quality of glass are enhanced. It is also extensively used as a mineral filler.

The property is also well known as a mineral collecting locality, containing a significant waste rock dump.

Selected references from MNDM files are presented in Appendix I.

Previous Work

The current claim owner has performed a limited amount of prospecting on the claims, although no assessment work has been filed previous to this report. It is understood that the claim owner has obtained small bulk samples of the pit materials for small scale experimental horticultural and related uses.

SCOPE OF WORK

The scope of work undertaken during this investigation included the following items:

1. Compilation and review of the available background information, including geological maps, MNDM files and published works;

2. Reconnaissance level prospecting and a geological inspection of the workings, wall rocks and in the principal pegmatite zones;

3. Sampling and identification of representative rock units and minerals;

4. Whole-rock geochemical analysis of four representative samples augmented by two semi-quantitative (spectrographic) analyses;

5. Surveying of two preliminary geophysical (magnetometer) test lines across the main features to determine response and efficacy for future exploration; and

6. Preparation of this report summarizing the work carried out, the findings, conclusions and recommendations for follow-up investigations.

The work described in this report was undertaken within the period November 6, 1993 to November 28, 1993. The work was carried out by the author and Mr. Paul V.G. Tulonen (assisting geologist). The claim owner and helper were present during the field reconnaissance and had completed some preparatory work in advance of our visit.

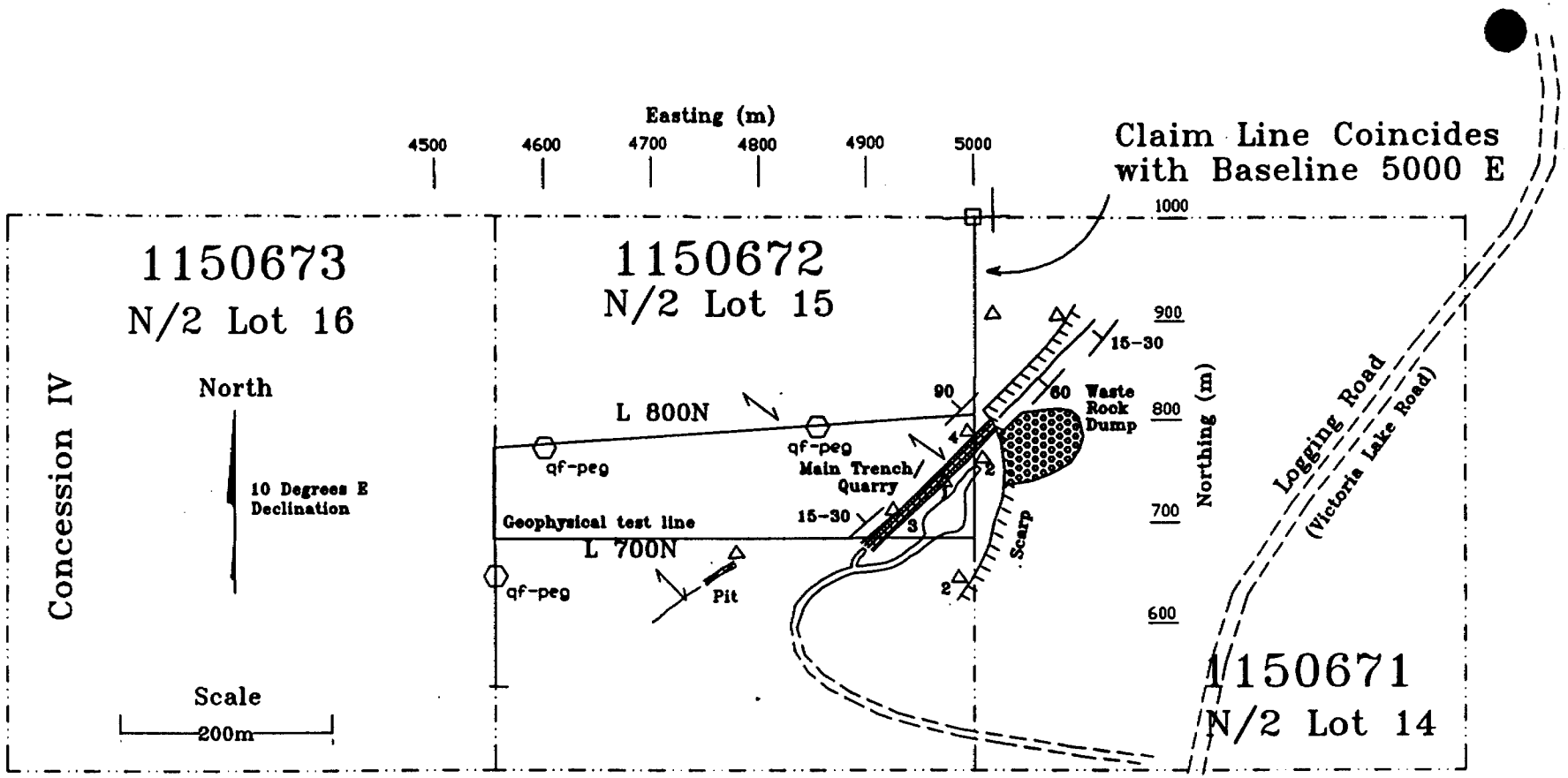
STUDY FINDINGS

Regional Geology

The claim group is situated within the Central Gneiss Belt of the Grenville Province. The Central Gneiss Belt consists largely of upper amphibolite quartzofeldspathic gneisses. The Central Gneiss Belt is further subdivided into a series of lithotectonic terrains including the "Algonquin Terrain", within which the subject claims are situated.

Rocks of the Algonquin Terrain consist of medium to high metamorphic grade gneisses thought to be Mesoproterozoic in age. The Algonquin Domain is further subdivided into "domains". The claim group appears to be within a domain referred to as the *Opeongo Domain*. These rocks reportedly have been age dated in the range 1,400 million years to 1,500 million years, but could conceivably be much older.

In the Central Gneiss Belt, five major periods of magmatism can be discerned in the geological record. These periods occurred at 1,740 ma to 1,680 ma; 1,450 ma to 1,420 ma (dominant in the Opeongo Domain); 1,350 ma to 1,320 ma; 1,250 ma; and 1,170 ma. Although each period of intrusive activity has some importance to economic geology, it is generally thought that the time of pegmatite emplacement corresponds to a younger period, when metamorphism was most intense, causing partial melting of deeply buried rocks and injection of magmas in zones of structural weakness.



Legend

- Sample Location
- Qtz-Feld Peg. Float
- Claim Post (Found)
- Pit/Open Cut
- Grid Line
- Foliation
- Pegmatite Contact

Reed-Madawaska Claim Group

Murchison Township, District of Nipissing

Site Plan

Figure 2

Property Geology

Within the claim group, our reconnaissance inspection revealed an apparently simple gross stratigraphy consisting of various highly metamorphosed, hornblende-biotite gneisses which have been intrusively cut by younger, granitic pegmatite trending about 030°. The pegmatites observed are zoned in the classic fashion, having coarse, relatively pure quartz in the centre, coarse crystalline feldspar (up to 0.6m diameter k-spar crystals observed) bordering the quartz and a mixed zone of coarse feldspar and other minerals near the outer contacts.

There is very little evidence of metasomatism visible, although some minor assimilation of the brecciated country rock was observed, especially along the northeast contact. In general, the pegmatite contacts are well defined, cross-cutting the country rock foliation at approximately 90°.

On a gross scale, the main pegmatite body appears to dip near vertical although some "role" was noted. At several locations, near horizontal off-shoots of the main body could be seen near the southern end of the workings.

In general, the pegmatite's quartz zone consists of clear to white, massive crystalline quartz which exhibits considerable strain and fracturing. Locally, the quartz is cloudy (smoky quartz) due to the presence of impurities, perhaps affected by local radioactivity.

The accessory mineralogy observed in the main pegmatite consists of very coarse crystals of biotite (> 0.5m diameter "books" observed), magnetite euhedra (locally up to 5 cm), coarse crystals of allanite, and, trace amounts of sulphide minerals, primarily weathered pyrite. Yellow iron oxide and haematite were observed as coatings on several of the coarser feldspar crystals.

Along shear planes within and along the pegmatite-wall rock contacts, slip surfaces are highly mineralized by what appears to be re-mobilized biotite, forming thin sheets of crystal aggregates. At several locations, these features are exposed for several square metres.

It is understood from the background data that the somewhat rare mineral ***Fergusonite*** is present in the pegmatite.

A second pit situated approximately 150m west of the main workings exposes a similar, although somewhat smaller pegmatite with approximately the same orientation and mineral composition.

Geochemical Data

Of the grab samples collected during the reconnaissance inspection, four samples were selected for geochemical analysis to represent the major rock & mineral types thought to be of most likely economic significance. The sample locations are shown on Figure 2, including the locations of other grab samples collected for archival use.

Samples representing zones of:

1. mixed feldspar +quartz +magnetite +biotite;

2. contact zone country rock (biotite gneiss)

3. grey quartz, AND

4. massive k-spar

were submitted to Lakefield Research for whole-rock geochemical analyses. Spectrographic (semi-quantitative) analyses were also performed on two of the samples (#1, mixed zone k-spar, and #2 wall rock). In addition, all samples were scanned at the laboratory for radioactivity. The laboratory certificates are presented in Appendix II.

The whole-rock geochemical results indicate the expected trends. The data suggests that for No. 3 (smoky quartz), the impurities are largely iron based, probably magnetite considering the levels of Fe and Cr present. The whole-rock geochemical results are consistent with a published analysis of quartz obtained from the waste piles at the quarry site..

The spectrographic (semi-quantitative) analysis data indicates that trace levels of heavy metals (i.e. Mn, Ga, Zn and Ti) are present in the mineralized sample (#1) and in the

contact zone wall rock sample (#2). Interestingly, the trace levels are highest in the contact zone sample.

Magnetometer Test Survey

In attempts to determine the best approach for future exploration of the claims, a test magnetometer survey was conducted on two east-west lines within the central claim group area, covering the main workings. Readings were taken at 12.5m intervals along two lines, 100m apart. The test survey was undertaken utilizing a Scintrex Model MP-2 magnetometer. The test data is presented in Figures 3, 4 and 5. The tabulated data points are presented in Appendix III.

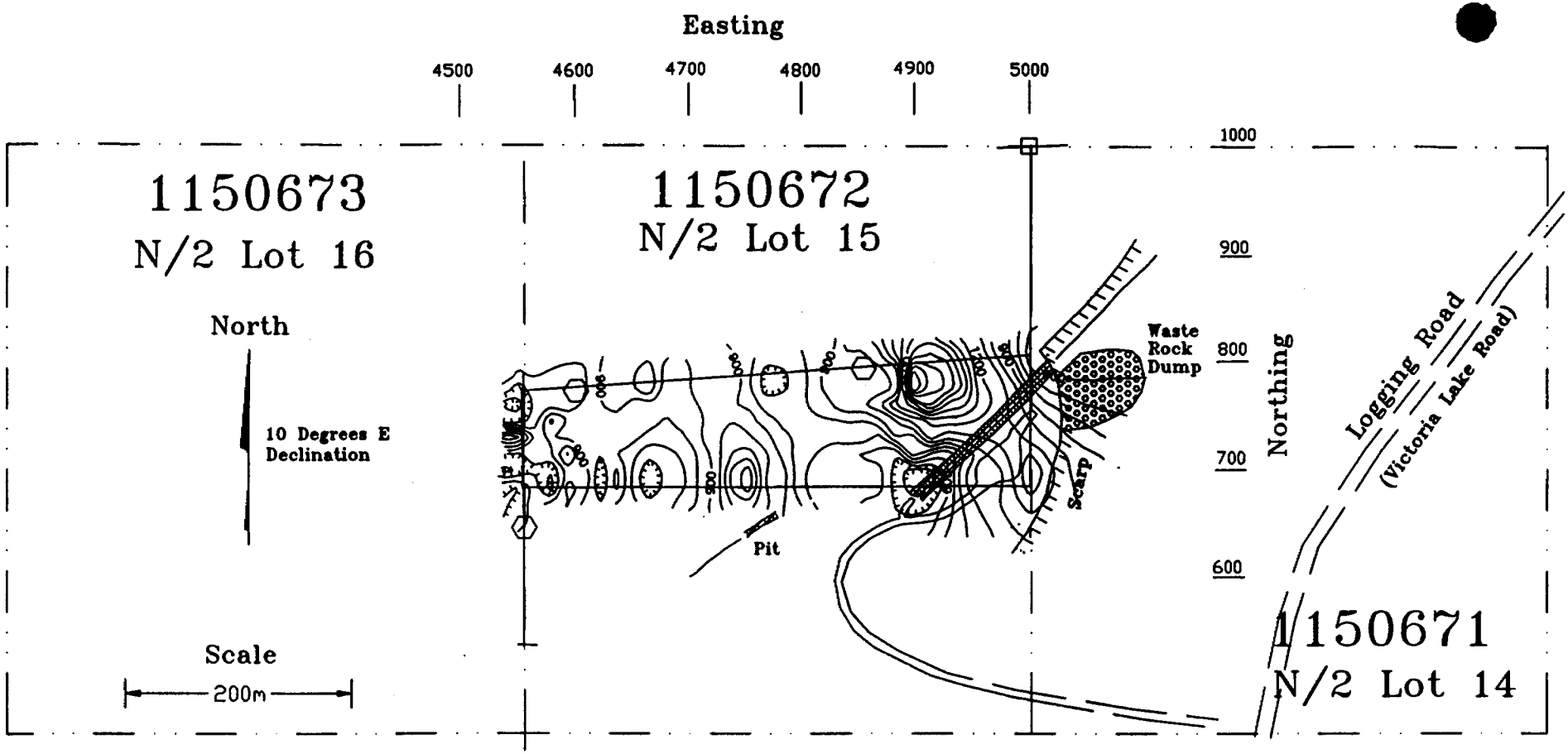
Briefly, the magnetometer survey detected probable total field anomalies which appear to correlate with the main workings and the smaller pegmatite exposed to the west. Although it is possible that the anomalies correspond to magnetic zones in the country rock, the presence of coarse magnetite in the pegmatites was demonstrated in-the-field to produce very localized highs. Therefore, it is interpreted that the anomalies found are indicative of the pegmatites, thus the technique appears to be reasonable for further exploration use.

The highest total field readings observed occurred approximately 60m northeast of the main workings. Near this location, pegmatite derived float was observed, however the float rock was not the source of the anomaly.

Economic Geology and Discussion

Quarry Permit Area:

The main pegmatite zone and workings are currently administered by Quarry Permit AP 16423, in the name of the Mohawk Quartz Mining Company, c/o Mr. D. Steckley of Oshawa, Ontario. The quarry permit appears to limit the operator to the extraction of quartz only. It is understood that the quarry licence does not restrict the claim owner with respect to exploration for any other commodities (and quartz beyond the licensed area).



Legend

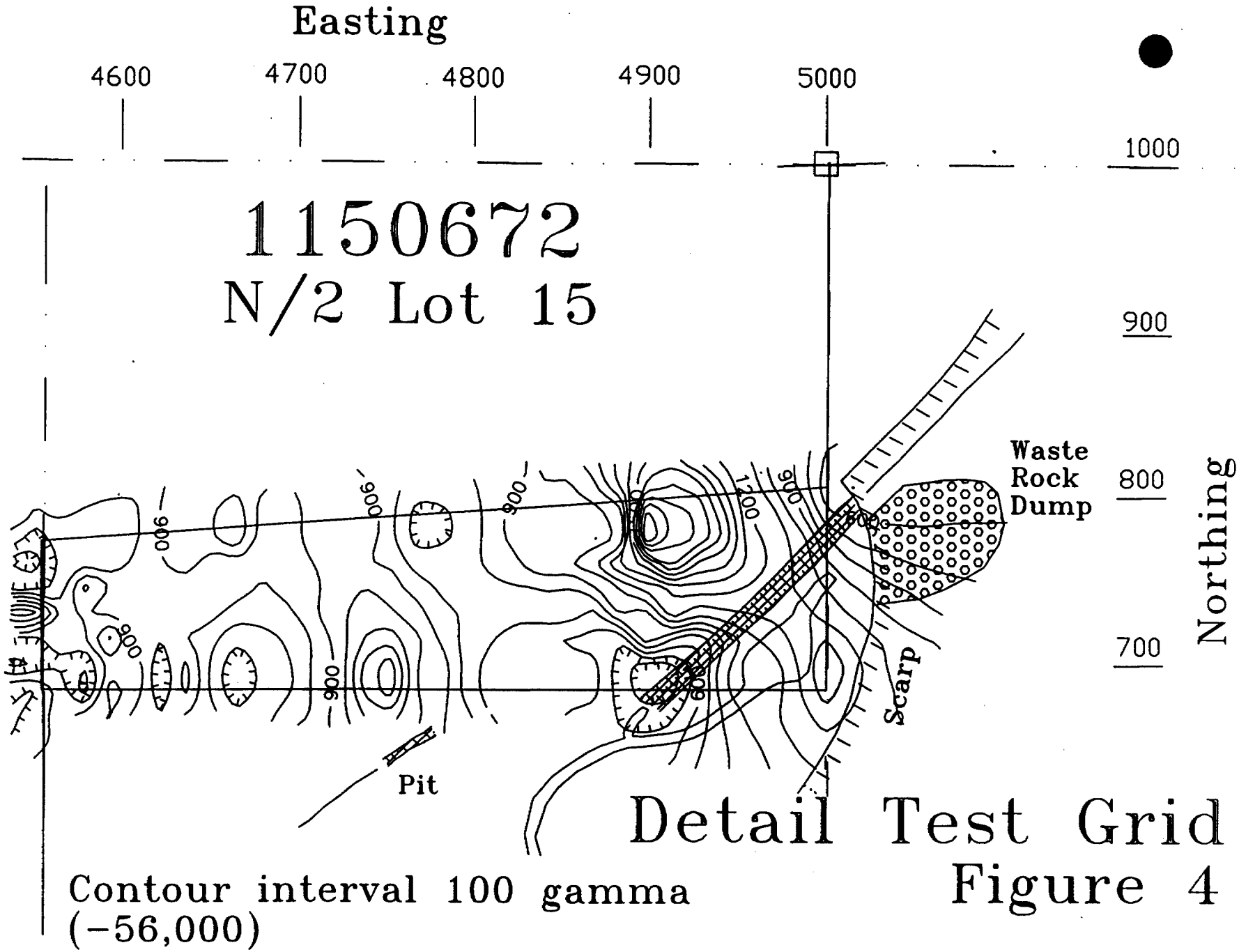
- Qtz-Feld Peg. Float
- Claim Post (Found)
- Pit/Open Cut
- Grid Line

Contour interval 100 gamma

Reed-Madawaska Claim Group

Test Grid Plan

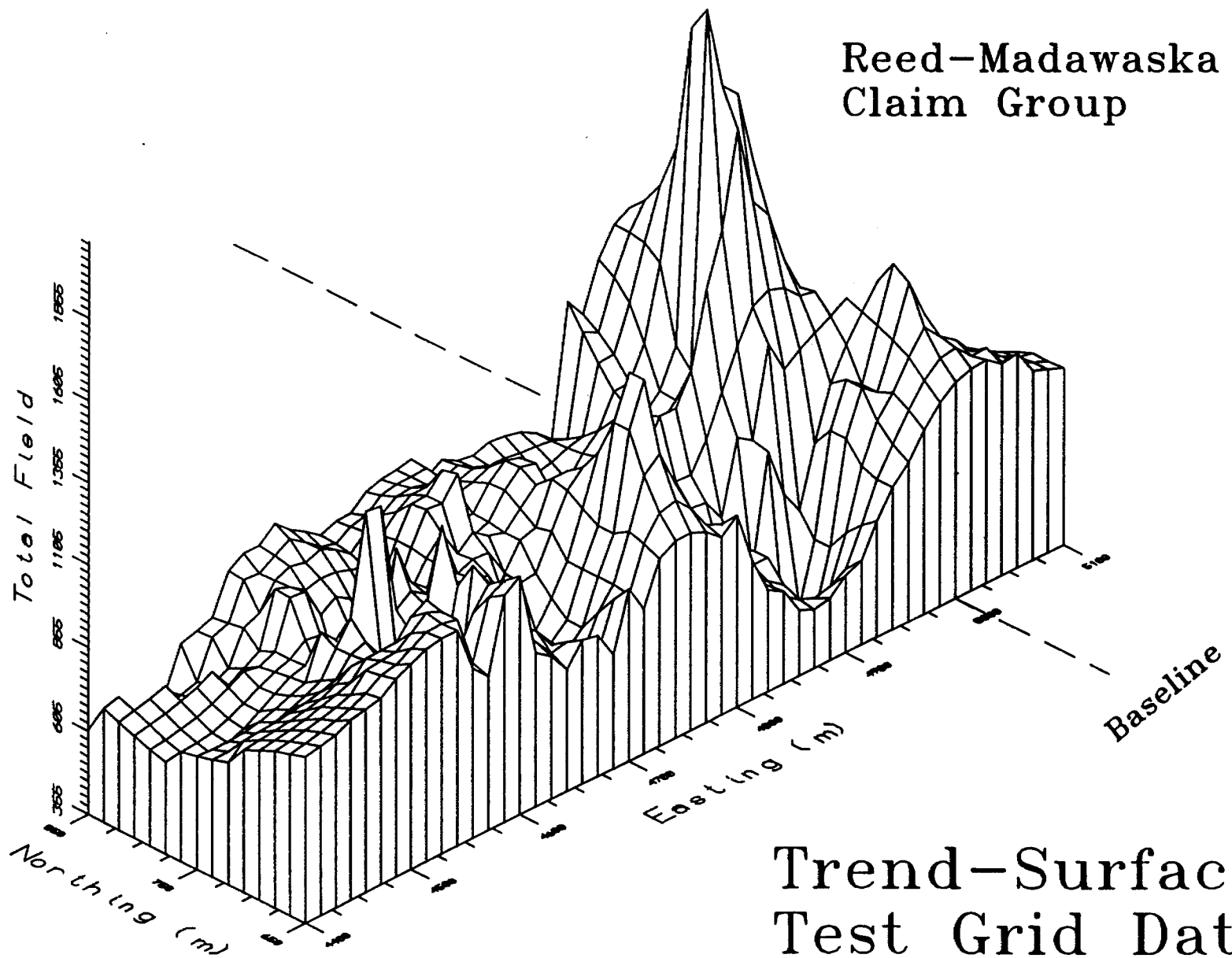
Figure 3



Detail Test Grid

Contour interval 100 gamma
(-56,000)

Figure 4



Trend-Surface Plot
Test Grid Data
Figure 5

However, it is not clear how interference issues between competing interests would be resolved. For example, if a commodity of interest to the claim owner occurs as an "impurity" in the quartz, or in close association with the quartz, which interests dominate?

The exact boundaries of the quarry permit area are not clearly marked out in the field, and no clear legal description appears to be present in the background data. It is understood that the sketches accompanying the quarry permit (Appendix IV) are not considered accurate.

Significant Mineral Occurrences:

In addition to the typical quartz and feldspar association, the pegmatite zones contain the minerals:

Allanite $(Ce,Ca,Y)_2(Al,Fe)_3(SiO_4)_3(OH)$

and

Fergusonite $YNbO_4$

Allanite is a rare-earth silicate mineral, dark brown to black in colour, which commonly exhibits slight radioactivity, especially when appreciable amounts of thorium are present (as a substitution for Ce). At the quarry, the remains of large allanite prisms (> 0.3m in length) were observed. In several cases, a classic radiating pattern (halo) was observed to emanate from the crystal cast suggesting some radioactivity was present.

Radioactivity at the site is likely quite localized since the laboratory screening of the samples indicated no significant radioactivity was detected (see Appendix II). Although not a widespread feature, future exploration for additional pegmatite resources could use methods which take advantage of the localized radioactivity.

Allanite apparently has only minor economic interest in terms of large scale, commercial rare earth or radioactive element production.

Fergusonite is an oxide mineral of Yttrium and Niobium and can be an important ore of the rare earth element Yttrium. Within the main workings, Fegusonite occurs as a dark yellowish brown intergrowth within the coarse biotite crystals. It is reported that excellent samples of Fergusonite are present at the quarry, although it appears that the workings have been well picked over. It is likely that continued extractive activities at the quarry will uncover further good specimens.

In addition to the somewhat rare minerals described above, coarse crystals of *biotite* (mica) were observed throughout the workings. Large "books" of biotite are present, in places > .5m in diameter. Although the industrial market for biotite is not likely to be sufficient to warrant large scale mica production from this deposit, as a bi-product (of Yttrium production, for example) the biotite may have a small commercial value. The coarse biotite crystals most likely have their greatest value to the mineral collector.

The coarse feldspar crystals present in the main body of the pegmatite(s) are not considered to be of economic interest with respect its use in the glass and ceramic industries. Although this use was likely important in past decades, other mineral products have essentially taken over that market (e.g. nepheline syenite). The coarse feldspar crystals are however of interest to the collector and/or for ornamental use.

It is understood that the claim owner has undertaken some experimentation with materials derived from samples of the coarse feldspar, for horticultural use.

The exclusive rights to mine the coarse quartz (in the permit area) are currently held by the quarry permit holder. The probability is relatively high that additional quartz resources are present within the claim group (or nearby)[2].

Based on observations of the quartz in the main pit, the potential commercial value of the quartz is not clear. Although the background information indicates that some material has been tested for use in the electronics industry, the degree of fracturing, strain and impurities (e.g. our sample #3) would likely preclude most of the quartz from conventional uses for semi-conductor, piezoelectric or optoelectronic uses where purity and fabric are critical.

[2] It is interesting to note that a similar quartz rich pegmatite is reportedly present on nearby Lot 12.

However, given the large volume of quartz available in this deposit, manual sorting of the quartz could result in some acceptable materials.

The quartz crystals could potentially also be of interest to collectors and/or for ornamental use.

Outside of the pegmatite, the wall rocks (chiefly biotite and hornblende gneisses) appear to offer little economic value with respect to common ore minerals. However, in the field it was noted that a weak alteration of the wall rocks could be discerned in several locations immediately along the pegmatite contact. The alteration appears to be a marginal reaction to the pegmatite which caused recrystallization of biotite in the host gneisses.

A sample representing the marginal (contact) zone of coarser biotite (sample #2) was submitted for spectrographic analysis. The geochemical data suggests that some metals may be elevated in the contact zone in comparison to materials from within the pegmatite. Migration of volatiles during emplacement and cooling of the pegmatite could represent an important mineralizing mechanism. Thus, future exploration should include a review of the contact zone along with the pegmatite.

It is understood that the claim owner has also undertaken some experimentation with materials derived from samples of the wall rock, for horticultural use.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this reconnaissance level investigation, we conclude the following:

1. The claim group contains at least two significant zoned, intrusive type pegmatite deposits. The pegmatite(s) host considerable unusual and somewhat rare minerals including Fegusonite, a potential ore mineral (oxide) of the rare earth Yttrium. In addition, exceptionally coarse crystals of potassium feldspar, quartz and biotite are present in significant, quantities. No estimates of resource reserves have been calculated.

2. Given the varied mineralogical content of the pegmatite, a moderate potential for economic levels of the rarer minerals is present. We conclude that the small scale production of some "heavy" rare earth elements should be explored.

3. The coarse crystalline nature of the pegmatite(s) can yield large mineral specimens which would likely be of interest to the collector. The deposit is relatively well known by collectors, reportedly containing "world class" specimens of Fergusonite. The coarse feldspars, allanite, biotite, magnetite and quartz (outside the quarry permit area) are potential economic commodities in the mineral collector market. Perhaps the most significant obvious value of the pegmatites is their potential exploitation for collector mineral specimens.

Based on the results of this reconnaissance level investigation, we recommend the following:

1. Efforts should be directed toward accurately determining the boundaries of the quarry permit area, and clearly delimiting the boundaries in the field.

2. The claim owner should meet with the mining recorder (at Sudbury) to obtain direction regarding the nature of competing interests with respect to mineral, mining and quarrying rights on the property.

3. A marketing study is warranted to determine the marketability of collector minerals, either mined by the owner or as a collector locality.

4. A program of further exploration should be considered. The exploration program should focus in two key directions:

   i) identifying additional pegmatites on and near the claim group, and

   ii) mineralogical evaluations of the rare minerals, their chemical content, habit, mode of occurrence and collector quality.

   In addition, the contact zone wall rocks should be evaluated in the same manner.

5. It is recommended that a future exploration program incorporate the following:

   Establishment of a cut line grid with 50m line spacings, chained and picketed every 25m;

   Undertake a total field magnetometer survey and scintillometer survey of the grid to attempt to identify additional pegmatite deposits;

   Detail prospecting and stripping/trenching of any anomalous zones;

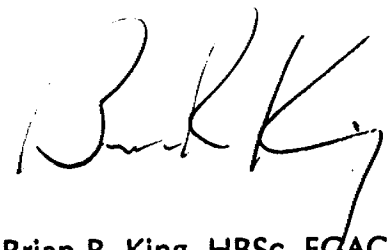
   Collection of mineral samples (separates) for detailed geochemical analysis for REE's, and

   Collection of mineral specimens for evaluation as collector samples.

6. The claim owner should consider environmental liabilities associated with any future mineral production and/or operation of any processing facilities planned for the site. To mitigate future environmental liabilities, a study of the baseline environmental conditions should be undertaken by a qualified individual.

   The study should examine potential effects on groundwater and surface water. Samples for hydrochemical/bacteriological analyses should be collected and analyzed periodically during the exploration program to establish the baseline conditions.

Respectfully submitted
MDX GeoServices
November 29, 1993.



Brian R. King, HBSc, FGAC.
Geologist

BIBLIOGRAPHY

Easton, R.M. 1992, The Grenville Province and the Proterozoic history of central and southern Ontario, *in* Geology of Ontario, Ontario Geological Survey, Special Volume 4, Part 2.

Ferguson, S. A. 1971, Columbium (Niobium) Deposits of Ontario, Mineral Resources Circular 14, Ontario Department of Mines (and Northern Affairs).

Hewitt D. F. 1967, Uranium and Thorium Deposits of Southern Ontario, Mineral Resources Circular No. 4, Ontario Department of Mines.

Satterly J. 1945, Annual Report No. 53, Ontario Department of Mines.

Storey 1981, Mineral Deposits Circular No. 22, Ontario Geological Survey.

APPENDIX I

Selected MNDM Background Files Information

RECN/1	2382
OCCNA/1	Comet Quartz Mine (Quarry)
OCCNA/2	Cameron, W.B. (1938)
OCCNA/3	Gole, J.G. Mine (1941)
OCCNA/4	Gole Feldspar Quarry
OCCNA/5	D.L. Ross and Company (Montreal 1942-1944)
TWP/1	Murchison
CONLOT/1	4 14 N
CONLOT/2	4 15 N
CONLOT/3	4 16
CO/1	Nipissing
COM_M/1	quartz*
COM_M/2	feldspar
COM_O/1	fergusonite!*
COM_O/2	allanite
COM_O/3	oligoclase var. sunstone
COM_O/4	zircon
COM_O/5	rare earths
COM_O/6	euxenite!*
COM_O/7	albite var. peristerite
COM_O/8	biotite
COM_O/9	chlorite
COM_O/10	granite var. graphic
COM_O/11	magnetite
COM_O/12	samarskite
EL_M/1	Cb
EL_O/1	U
HOSTR_M/1	pegmatite dike (pink)
HOSTR_O/1	hornblende biotite gneiss
HOSTR_O/2	biotite granite
CLASSIF/1	D-pink, zoned granitic pegmatite dike
CLASSIF/2	HR-
NTS/1	31E/9
HOLTYPE/1	open cut (500'l x 30'w, 10-30'd)
HOLTYPE/2	open cut (70'l x 15'w , 20'face)
SOURCE/1	OGS 1945 AR 53(3):120
SOURCE/2	OGS 1967 MRC 4:50
SOURCE/3	GSC 1971 Paper 70-50:54
SOURCE/4	International Geological Congress 1972 Excursion A C47:53-54
SOURCE/5	OGS 1981 MDC 22:161-164
NOTES/1	! - World class specimens of this mineral found at this locality are amoung the best to date (Kennedy, I. 1986)
NOTES/2	* exceptional specimens of this mineral have been obtained from this property
STATUS/1	Past Producer
STATUS/2	Mineral Collecting Site 3
STATUS/3	Crown Land
PROD/1	1938 - staked
PROD/2	1943 - 700 tons feldspar shipped and 3,550 tons quartz shipped
PROD/3	1944 - 825 tons feldspar shipped and 5,089 tons quartz shipped
PROD/4	1976-1980's - small amount of quartz extracted
PROD/5	1984-1989 - Quarry Permit issued by MNR to Algonquin Mining Corp. 16 cu yards of quartz material removed
PRE/1	7-Feb-1990
PRE/2	4-May-1990

$

GRID REF: _____ CON: IV

LOT: 14

PROPERTY NAME: J.G. GOLE QUARRY

ALTERNATE NAME(S):

MINERALS REPORTED

albite, var. peristerite
allanite
biotite
euxenite*
fergusonite*
granite, var. graphic
magnetite
oligoclase, var. sunstone
quartz *
samarskite

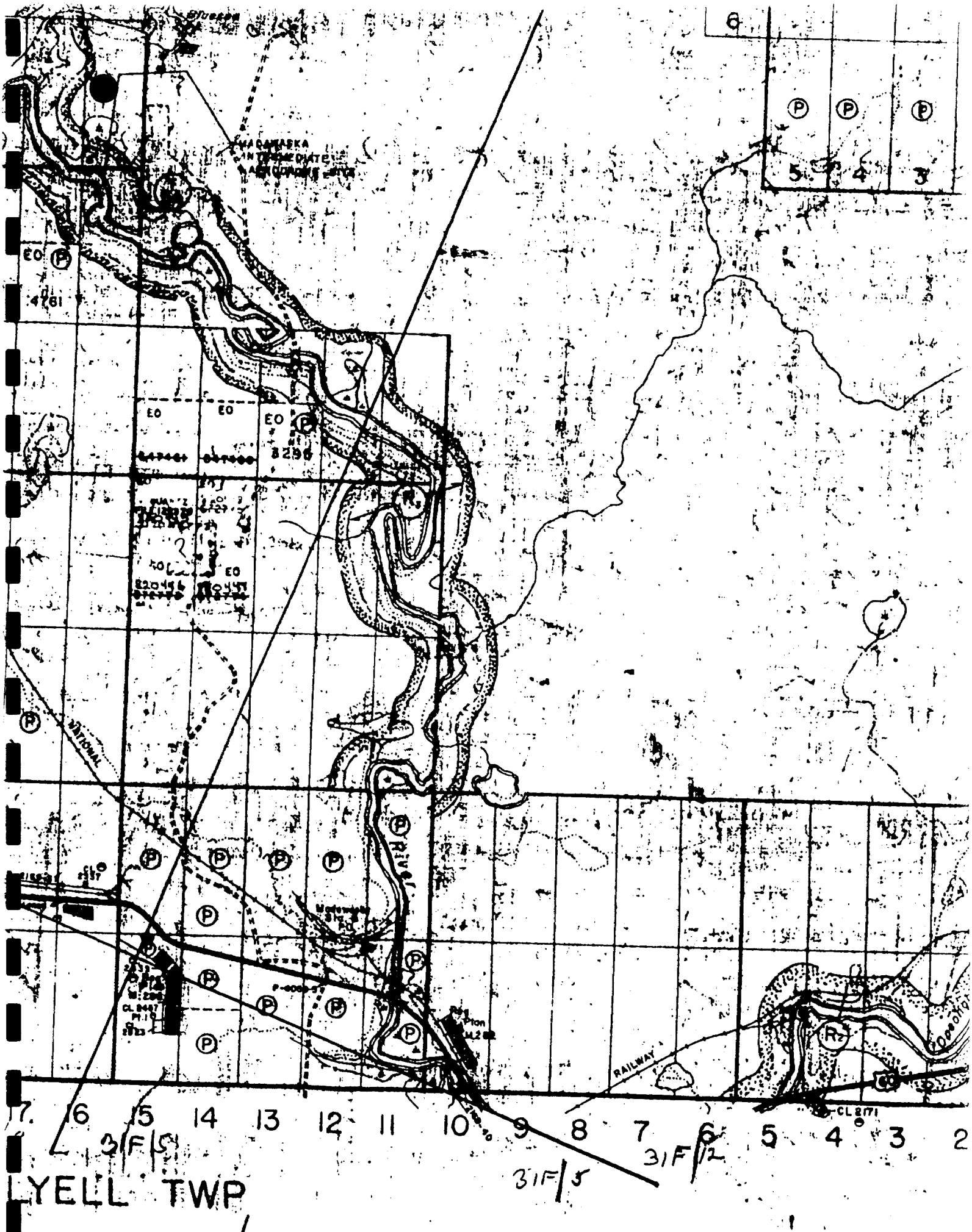
* exceptional specimens of this mineral have been obtained from this property

REFERENCES:

Kennedy (1984)
Hogarth, Moyd, Rose, Steacy (1972) p.53-54
Sabina (1971) p.54
Satterly (1977) p.149
163 Locations to Explore

GENERAL COMMENTS:

ACCESS: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31F/5

LYELL TWP

GSC Paper 70-50
Sabina (1971)

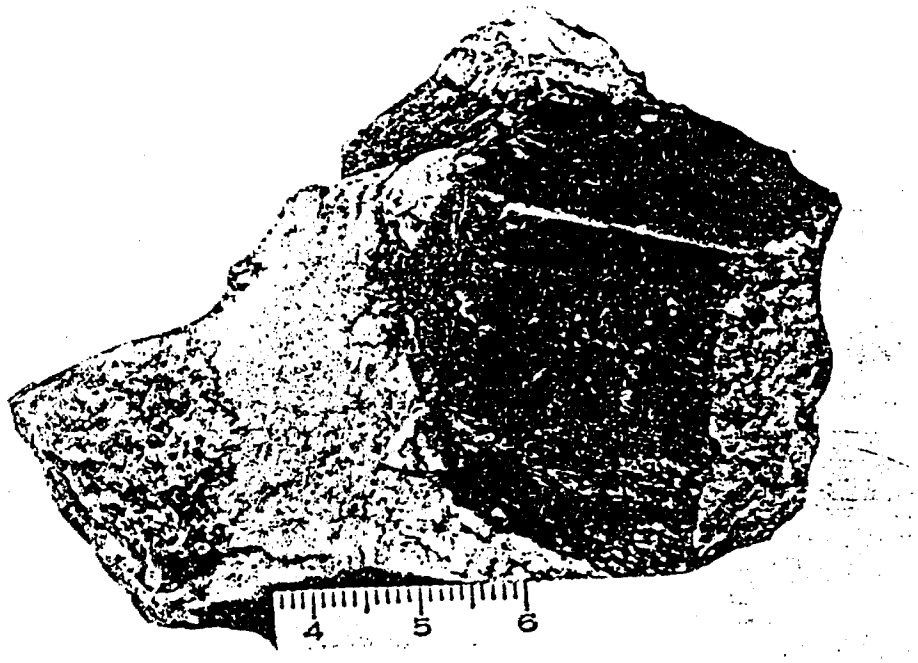

Plate XII. Muscovite crystal in pegmatite, J.G. Gole quarry. (GSC photo 201420-G, scale in mm)

#274

J.G. Gole Quarry Muscovite V/14-15

PERISTERITE, SUNSTONE, FELDSPAR, QUARTZ, BIOTITE, GRAPHIC GRANITE, CHLORITE, FERGUSONITE, MAGNETITE

In pegmatite

Pink peristerite and greyish pink sunstone suitable for lapidary purposes occur in this quarry. The sunstone (orthoclase) has attractive reddish gold flecks in it. The pegmatite consists of pink microcline, white to grey plagioclase, white to smoky quartz, biotite, and graphic granite. The plagioclase exhibits good twinning striations. Accessory minerals in the pegmatite include chlorite, allanite, magnetite, and dark brown fergusonite crystals. During mining operations large crystals of feldspar, including one which produced 300 tons of feldspar, were encountered.

This was the largest feldspar mine in the Madawaska district with a production of close to 10,000 tons of feldspar. Quartz was also mined. The mine consists of two open-cuts (500 feet and 70 feet long) into the southeast side of a hill. It was operated from 1937 until 1944 by J.G. Gole and D.L. Ross.

Road log from Highway 60 at Mile 71.7:

FELDSPAR DEPOSITS IN ONTARIO (CONTINUED)

County or District	Township	Location	Name of Mine	Operators	Years of Operation	Approximate Production	Gp.	References (see bibliography)
Nipissing (cont.)	Dickens	Lot 19, con. 1	Lake	W. B. Cameron			5	
		Lot 14, con. 3		Can. Non-Metallic Minerals' Ltd.	1922-23	500 tons	5	Spence, p. 52
		Lot 27, con. 5		Can. Flint and Spar Co.	1943		5	Satterly (3), p. 122
		Lot 17, con. 7	Five Mile	Keystone Contractors	1947-8	5,116 tons	4	
	Mattawan	Lot 6, con. 2	Purdy	Purdy Mica Mines, Ltd.	1943	197 tons	5	
		Lot 29, con. 3		O'Brien and Fowler	1926	3,084 tons	4	Spence, p. 52
	Murchison	Lot 11, con. 4		J. A. Cameron	1924	18 tons	5	
		Lots 14, 15, con. 4	J. G. Gole	J. G. Gole, D. C. Ross	1937-44	9,643 tons	4	Satterly, (3), p. 120
		Lot 13, con. 5			1943	51 tons	5	
		Lot 22, con. 8	Cameron	W. B. Cameron, Keystone, Bowser Bros.	1940-45, 1950	6,027 tons	4	Satterly, (3), p. 121
		Lot 17, con. 6	Cameron and Aleck	Cameron and Aleck	1949-1950	1,789 tons	4	
	Papineau	Lot 10, con. 9			1925	Few cars	5	
		Lot 18, con. 10		Morin and Nesult	1926	250 tons	5	Spence, p. 52
	Sabine	Lots 28, 29, con. 1		Mahoney and Morin	1924-5	200 tons	5	Spence, p. 53
		Lots 26, 27, con. 8		Prince and Prince	1936-39	228 tons	5	
		Lot 27, Hastings Road, W.	Gunter	J. Gunter	1934-37	2,428 tons	4	Spence, p. 53
Parry Sound	Burton	Lot 37, con. 14		Magnetawan Feld. Syndicate	1940-41, 1943	46 tons	5	
	Chapman	Lot 20, con. 1		Burks Falls Feldspar Syndicate, Ltd.				
				J. Bell	1948	2 cars	5	
		Lot 13, con. 2		W. E. Brandt	1949	Prospect	P	
		Lot 26, con. 2		Wheeling Feldspar Co.	1920, 1922-3	868 tons	5	Satterly, (1), p. 56
		Lot 18, con. 4	Hungry Lake	T. B. Tough	1941	Prospect	P	Satterly, (1), p. 56
		Lot 10, con. 8			1942	Prospect	P	
	Christie	Lot 27, con. 6		Industrial Minerals Corp.	1923-24	200 tons	5	Satterly, (1), p. 56
	Conger	Lot 5, con. 8		Standard Feldspar and Silica Co.	1911-12	Prospect	P	Satterly, (1), p. 56
		Lot 4, con. 9		Ojaipee Silica-Feldspar, Ltd.	1910-12	3,890 tons	4	Satterly, (1), p. 57
		Lot 10, con. 9	McQuire	McQuire and Robinson	1925	618 tons	5	Satterly, (1), p. 57
		Lot 7, con. 10	Brignall	McQuire and Robinson	1923-5	4,239	4	Satterly, (1), p. 57
		R½ Lot 6, con. 10		Conger Feldspar Mining Co.	1945	1,000 tons	5	
		Lot 8, con. 10		Conger Feldspar Mining Co.	1946	417 tons	5	
	Foley	Lot 10, con. 3				Prospect	P	Satterly, (1), p. 57
	Harrison	Lots 38, 39, con. 13			1927	Prospect	P	
	Henvey	Lot 3, con. A	Ambeau	Wanup Feldspar Mines, Ltd.	1926-27	1,000 tons	5	Satterly, (1), p. 58
		Lot 5, con. B	Besner	Wanup Feldspar Mines, Ltd.	1926-29	2,500 tons	4	Satterly, (1), p. 58
		Lots 5, 6, con. 4			1929-30	Prospect	P	
	Lount	Lot 3, con. 5			1941	Prospect	P	
	McConkey	Lot 11, con. 2				Prospect	P	Satterly, (1), p. 58
		Lot 20, con. 5				Prospect	P	Satterly, (1), p. 58
		Lot 22, con. 5			1940	Prospect	P	Satterly, (1), p. 59
		Lot 17, con. 6				Prospect	P	Satterly, (1), p. 59
	McDougall	Lot 5, con. 10			1926	Prospect	P	Satterly, (1), p. 59
		Lot 3, con. 11				Prospect	P	Satterly, (1), p. 59
	McKellar	Lot 4, con. 6		C. F. McQuire	1937-38	600 tons	5	Satterly, (1), p. 60
	Machar	Lot 30, con. 6			1942	Prospect	P	
	Nipissing	Lot 30, con. 10		Holden and Waltenbury	1941	Prospect	P	Satterly, (1), p. 60
	Ryerson	Lot 18, con. 13		T. B. Tough	1941	190 tons	5	Satterly, (1), p. 60
	Strong	Lot 19, con. 1			1942	Prospect	P	
		Lot 19, con. 3				Prospect	P	
	Wallbridge	Mill Site A			1930	Few cars	5	
Renfrew	Brudenell	Lots 22, 23, con. 2		T. H. Craig	1942	30 tons	5	Satterly, (3), p. 37
	Clara	Lot 28, con. 6			1924	1 car	5	
	Fraser	N½ Lot 24, con. 16		W. J. Barr	1934-6	1,107 tons	4	Satterly, (3), p. 37
		S½ Lot 24, con. 16		J. Collins		Prospect	P	Satterly, (3), p. 38
	Grattan	Lot 22, con. 8	Keyfortmore	G. Colautti	1943	1,174 tons	4	Satterly, (3), p. 38
	Head	Lot 14, A, Carey			1924-28	3,000 tons	4	
	Jones	Lot 10, con. 11		Raymond and Sawyer	1937	121 tons	5	Satterly, (3), p. 39
		Lot 117, range B, N. Opeongo Road		G. Colautti	1942	260 tons	5	Satterly, (3), p. 39
	Lyndoch	Lot 30, con. 15		Renfrew Minerals, Can. Beryllium Mines and Alloys, Ltd.	1935-36, 1949	675 tons	5	Satterly, (3), p. 39
	South Algona	Lot 19, con. 9		A. Lauzon	1922	Prospect	P	Satterly, (3), p. 39

Satterly Min. Occ. in the Nipissing Dist.

FELDSPAR

Murchison Township

Concession IV, Lots 14 and 15

Satterly[1] has described a feldspar deposit in lots 14 and 15, concession IV, Murchison township:-

"A pegmatite dike in lots 14 and 15, concession IV, Murchison township, Nipissing district, has been worked almost continuously since 1938. The occurrence was staked by W. B. Cameron, of Madawaska, in 1938; the property was taken over in 1940 by J. G. Gole, and in 1941 was acquired by D. L. Ross and Company, Montreal, who are the present operators. The property is 2⅛ miles by road from Madawaska station on the Canadian National railway.

The main working is on the southeast side of a hill from 50 to 75 feet above the level of the sand flat below. The working is an open cut 500 feet long, which trends N.30°E. with two short jogs of 60 and 50 feet to the north at 65 and 390 feet from the southwest end. Fifty feet to the northeast is another open cut 70 feet long and 15 feet wide, with a 20-foot face. The average width of the main open cut is 30 feet, and the depth ranges from 10 to 30 feet. Water and waste rock conceal

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1. J. Satterly, op. cit., p. 120.

the bottom, and waste rock much of the southeast side of the working.

The dike trends N.30°E., dips vertically, and ranges from 30 to 40 feet in width. It cuts hornblende or biotite gneiss, which has a variable dip and strike, sometimes at right angles to the dike but also parallel to it. From what can be seen, and from additional information supplied by L. A. Middlestead, the dike for several feet from the walls consists of a white to grey plagioclase streaked with red. Following this on the northwest side is a large mass of white to grey, glassy quartz containing at intervals very large, quite pure crystals of pink or grey microcline. Measurements of some of the spaces left by the removal of these crystals are 10 by 5 by 4 feet, 18 by 10 by 8 feet, and 20 by 20 by 10 feet. The foreman reports that one crystal supplied 300 tons of feldspar. To the southeast of this occurrence other microcline crystals occurred, none of which can now be seen in place, with plagioclase pegmatite forming wedges between them and extending to the southeast wall of the dike. This association forms the first 300 feet of the dike and is replaced to the northeast by biotite-plagioclase pegmatite, which is of no commercial value. A number of crushed chloritized books of biotite, from 1 to 3 feet across, were seen in this section of the dike.

Potash and soda feldspars and quartz have been

shipped from this property. Production in 1943 was as follows: feldspar, 700 tons; quartz, 3,550 tons."

In 1944, the property was operated by Madawaska Feldspar Company, which produced 525 tons of feldspar, and 5,089 tons of quartz.

APPENDIX II

Geochemical Data

LAKEFIELD RESEARCH

A Division of Falconbridge Limited

P.O. Box 4300, 185 Concession St., Lakefield, Ontario, KOL 2HO

Phone : 705-652-2000 - FAX : 705-652-6365

King, Brian
P.O. 427
Bridgenorth, ON, KOL 1HO

Lakefield, November 26, 1993

Date Rec. : November 22, 1993
LR. Ref. : NOV9109.C93
Reference : ---
Project : LR9344238

CERTIFICATE OF ANALYSIS

No.	Sample ID	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	LOI %	SUM %
1	Reed 1	69.6	13.2	5.90	0.33	1.26	3.25	4.44	0.18	0.03	0.06	0.14	0.17	98.6
2	Reed 2	51.3	16.1	11.4	4.86	4.51	3.51	3.33	1.37	0.40	0.27	0.07	1.06	98.2
3	Reed 3	96.9	0.22	0.70	< 0.05	0.04	< 0.05	0.03	< 0.01	< 0.01	< 0.01	0.23	-0.07	98.1
4	Reed 4	64.7	18.0	0.29	< 0.05	0.07	1.50	13.5	< 0.01	< 0.01	< 0.01	0.06	0.18	98.3

J. R. Johnston

A MEMBER OF IAETL CANADA

Accredited by CAEAL for specific tests registered with the Association

LAKEFIELD RESEARCH
A Division of Falconbridge Limited
P.O. Box 4300, 185 Concession St., Lakefield, Ontario, K0L 2H0
Phone : 705-652-2000 - FAX : 705-652-6365

[redacted]ing, Brian
P.O. 427
Bridgenorth, ON K0L 1H0

Lakefield, November 26, 1993

Date Rec. : November 22, 1993
LR. Ref. : NOV9112.C93
Reference : ---
Sample : (1) Rock Samples
Project : LR9344238

CERTIFICATE OF ANALYSIS

Semi-Quantitative Spectrographic Analysis

Sample ID	Range %		Major Elements
Reed 2	10	- 100	Si
	3	- 30	Fe,Al
	1	- 10	Na,Ca
	0.3	- 3	Mg,K
	0.1	- 1	Ti
	0.03	- 0.3	
	0.01	- 0.1	Mn,Ga,Zn
	0.003	- 0.03	V,Zr,Ni,Sr
	0.001	- 0.01	Pb,Co,Cr
	0.0003	- 0.003	Cu
	0.0001	- 0.001	
		< 0.0003	Mo
		I	
		S	

J. R. Johnston

Notes:
I = Interference prevents positive identification
S = Strong spectral lines, unable to estimate amount

Analytical Method: OE

Unless specified above, the following were not detected at the approximate lower limits of:

0.5 ppm	Cu, Ag	25 ppm	Ge, Fe, Pb, Mo, Si, Sr, Sn, Ti, Zr, Tl		
1 ppm	Mn	50 ppm	Al, Sb, B, Cd, Ga, Li, Zn		
5 ppm	Mg, Cr, Pd	100 ppm	As, Au, Ba, In, Na	300 ppm	P, Te, Y, Ce
10 ppm	Be, Bi, Ca, Co, Ni, V	200 ppm	Nb, Ta, W, Rb, Pt	1000 ppm	K, U, Th

LAKEFIELD RESEARCH
A Division of Falconbridge Limited
P.O. Box 4300, 185 Concession St., Lakefield, Ontario, KOL 2HO
Phone : 705-652-2000 - FAX : 705-652-6365

King, Brian
P.O. 427
Bridgenorth, ON KOL 1HO

Lakefield, November 26, 1993

Date Rec. : November 22, 1993
LR. Ref. : NOV9109.C93
Reference : ---
Sample : (4) Routine Pulp
Project : LR9344238

CERTIFICATE OF ANALYSIS

Semi-Quantitative Spectrographic Analysis

Sample ID	Range %		Major Elements
Reed 1	10	- 100	Si
	3	- 30	Al
	1	- 10	Fe
	0.3	- 3	Na,K,Ca
	0.1	- 1	
	0.03	- 0.3	Mg
	0.01	- 0.1	Ti
	0.003	- 0.03	Ga,Sr,Cr
	0.001	- 0.01	Pb,Mn,V,Zn,Ni
	0.0003	- 0.003	Zr,Co
	0.0001	- 0.001	Cu
		< 0.0003	Mo
		I	
		S	

J. R. Johnston

Notes:
I = Interference prevents positive identification
S = Strong spectral lines, unable to estimate amount

Analytical Method: OE

Unless specified above, the following were not detected at the approximate lower limits of:

0.5 ppm	Cu, Ag	25 ppm	Ge, Fe, Pb, Mo, Si, Sr, Sn, Ti, Zr, Tl		
1 ppm	Mn	50 ppm	Al, Sb, B, Cd, Ga, Li, Zn		
5 ppm	Mg, Cr, Pd	100 ppm	As, Au, Ba, In, Na	300 ppm	P, Te, Y, Ce
10 ppm	Be, Bi, Ca, Co, Ni, V	200 ppm	Nb, Ta, W, Rb, Pt	1000 ppm	K, U, Th

LAKEFIELD RESEARCH
A Division of Falconbridge Limited
P.O. Box 4300, 185 Concession St., Lakefield, Ontario, KOL 2HO
Phone : 705-652-2000 - FAX : 705-652-6365

[redacted]ing, Brian
P.O. 427
[redacted]ridgenorth, ON, KOL 1HO

Lakefield, November 26, 1993

Date Rec. : November 22, 1993
LR. Ref. : **NOV9109.C93**
Reference : ---
Project : LR9344238

CERTIFICATE OF ANALYSIS

No.	Sample ID	Radioact. µRem/hr
1	Reed 1	5
2	Reed 2	5
3	Reed 3	0
4	Reed 4	5

Note: These represent readings on or about the background readings in the building and are considered to be minimal.

J. R. Johnston

A MEMBER OF IAETL CANADA

Accredited by CAEAL for specific tests registered with the Association

APPENDIX III

Magnetometer Test Data

MDX GeoServices

Magnetometer Test Line Data

Reed-Madawaska Claim Group, November 19, 1993.

LINE (Northing m)	Easting (m)	Total Field
700	5020	57046
700	5000	57367
700	4987.5	57127
700	4975	56909
700	4962.5	56977
700	4950	57091
700	4937.5	56741
700	4925	56445
700	4912.5	56316
700	4900	56327
700	4887.5	56375
700	4875	56676
700	4862.5	56614
700	4850	56632
700	4837.5	56608
700	4825	56582
700	4812.5	56650
700	4800	56702
700	4787.5	57037
700	4775	56889
700	4762.5	57142
700	4750	57787
700	4737.5	56816
700	4725	56958
700	4712.5	56791
700	4700	56640
700	4687.5	56678
700	4675	56547
700	4662.5	56306
700	4650	57139
700	4637.5	56852
700	4625	56565
700	4612.5	57111
700	4600	57136
700	4587.5	56495
700	4575	56773
700	4562.5	56955
700	4550	57007
710	4550	56422
720	4550	56404

730	4550	57830
740	4550	57064
750	4550	56454
760	4550	56558
770	4550	56549
780	4450	56653
785	4550	56914
785	4562.5	56601
785	4575	56903
785	4587.5	56712
785	4600	56744
785	4612.5	56775
785	4625	56784
785	4637.5	57153
785	4650	56835
785	4662.5	57104
785	4675	57101
785	4687.5	56724
785	4700	56866
785	4725	56997
785	4737.5	56992
785	4750	56988
785	4762.5	56707
785	4775	56614
785	4787.5	56690
785	4800	56700
785	4812.5	56845
785	4825	56953
785	4837.5	56994
785	4850	56914
785	4862.5	56868
785	4875	56998
785	4887.5	56701
785	4900	58631
785	4912.5	57722
785	4925	57885
785	4937.5	57704
785	4950	57375
785	4962.5	57050
785	4975	57241
800	5000	56491

APPENDIX IV

Quarry Permit Information (Current)

Ministry of Natural Resources
Ontario

Ministère des Richesses naturelles

Aggregate Resources Act

Loi de 1989 sur les ressources en agrégats

Aggregate Permit

Permis d'extraction d'agrégats

Aggregate Permit No.
N° du permis d'extraction d'agrégats: AP 164[redacted]

Account No.
N° de compte: A515179

Pursuant to the Aggregate Resources Act and Regulations thereunder, and subject to the limitations thereof and to the terms and conditions of this Aggregate Permit and the requirements of the site plan, this Permit is issued to:
Conformément à la *Loi de 1989 sur les ressources en agrégats* et à ses règlements, et sujet aux restrictions qu'ils comportent, aux conditions d'octroi du permis et aux exigences du plan du site, le présent permis d'extraction d'agrégats est délivré à :

Name / Nom: Mohawk Quarts Mining c/o D. Steckley

Address / Adresse: 276 Saguenay Street, Apartment #10; Oshawa, Ontario L1J 2M8
Postal Code / Code postal

to operate a / pour exploiter un/une: Quarry (pit / quarry / puits d'extraction ou carrière) from a / sur le terrain de: 16.19 hectare site situated in: / hectares situé à/au :

Permit location / Emplacement faisant l'objet du permis: Lot 14 and 15, Concession IV, Murchison Township

Type of material: / Type de matériaux : Quarts

Permit fee: / Droit de permis : $100.00

Royalty payment:
Paiement des redevances : Le titulaire du permis devra payer 25 cents per tonne / cents par tonne shall be paid by the Permittee to the Treasurer of Ontario on or before the 10th day of each month for all material removed during the preceding month unless paid at the time of issuance of this permit.
au trésorier de l'Ontario pour le dixième jour de chaque mois et ce pour tous les matériaux extraits pendant le mois précédent sauf si ce montant a été payé lors de la délivrance du présent permis.

Rehabilitation Security to be deposited: / Cautionnement de réhabilitation :
- ☐ at time of issuance / sera déposé lors de la délivrance du permis
- ☐ waived / ne sera pas perçu
- ☒ annually / sera déposé chaque année

Effective / Date d'entrée en vigueur: December 1, 1993

Date of expiry / Date d'expiration: November 30, 1994

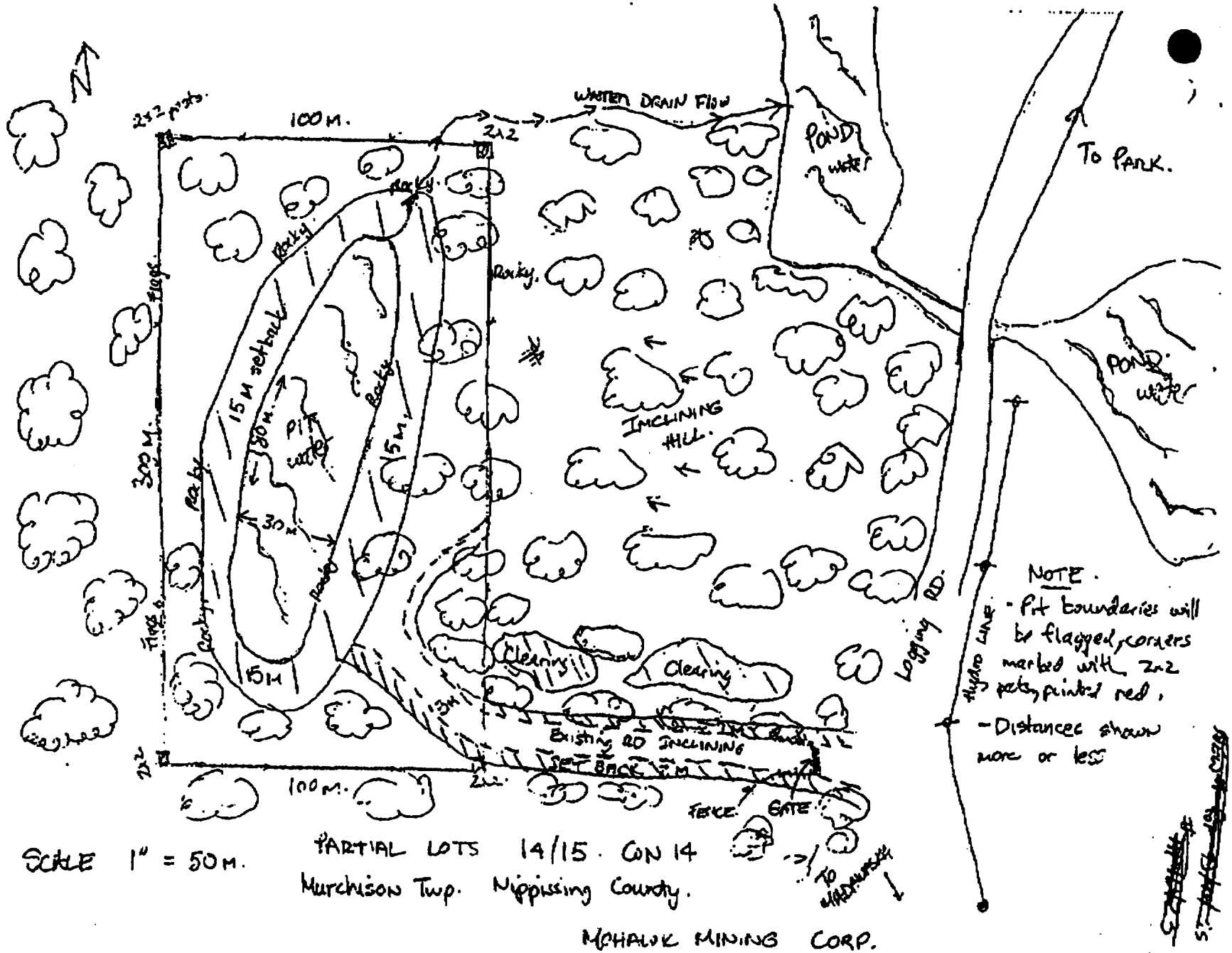
District Manager, Ministry of Natural Resources
Chef de district, Ministère des Richesses naturelles

9037 (99:08)

- ☐ New Aggregate Permit / Nouveau permis d'extraction d'agrégats
- ☒ Renewal of Aggregate Permit no. / Renouvellement du permis d'extraction d'agrégats n° AP16403
- ☒ Commercial Aggregate Permit (single source) / Permis d'extraction commerciale d'agrégats (source unique)
- ☐ Commercial Aggregate Permit (multiple source) / Permis d'extraction commerciale d'agrégats (source multiple)
- ☐ Public Authority Aggregate Permit / Permis d'extraction d'agrégats - autorité publique
- ☐ Personal Aggregate Permit / Permis d'extraction d'agrégats à des fins personnelles

- *A Return on the form provided showing the quantity of aggregate and/or topsoil removed in the previous month must be submitted to the District Office of the Ministry on or before the 10th day of each month. The royalty payment must be submitted with the Return. If no material has been removed a Return must still be submitted showing "Nil" removal.*
  On doit remplir le relevé annexé en indiquant la quantité d'agrégats et de terre arable extraits pendant le mois précédent et le présenter au bureau de district du ministère pour le dixième jour de chaque mois. Les redevances doivent être jointes au relevé. Même si aucun matériau n'a été extrait, on doit présenter le relevé en y indiquant "aucune" extraction.
- *This Aggregate Permit does not convey any right of ownership or title to the site.*
  Le présent permis d'extraction d'agrégats ne confère aucun droit ni titre de propriété envers l'emplacement mentionné.
- *This permit is subject to the attached conditions.*
  Le présent permis est assujetti aux conditions ci-jointes.

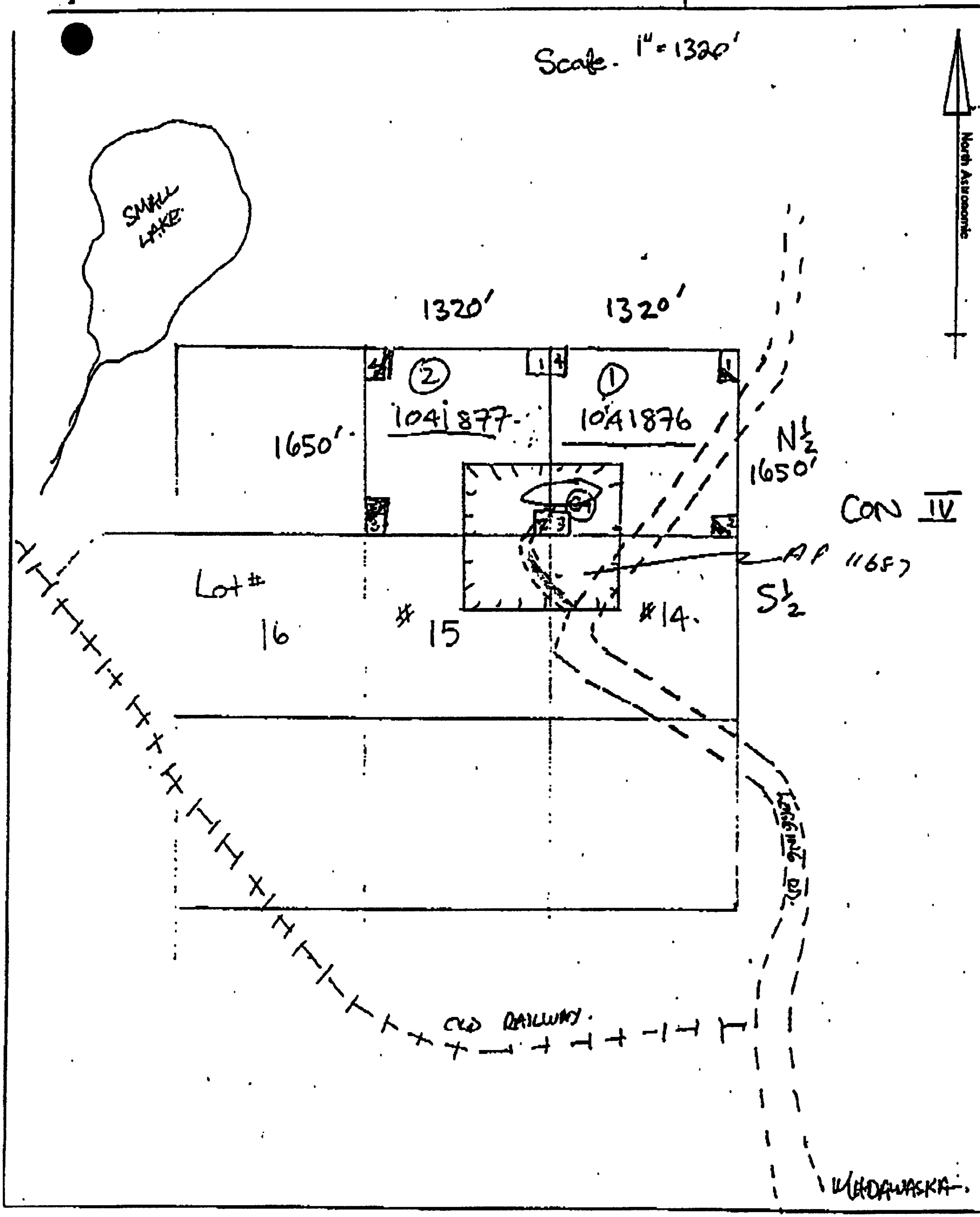
SAMPLE PLAN



SCALE 1" = 50 M.

PARTIAL LOTS 14/15. CON 14
Murchison Twp. Nipissing County.

MOHAWK MINING CORP.


Scale. 1" = 1320'
North Astronomic
SMALL LAKE
1320'
1320'
2
1041877
1
1041876
1650'
N 1/2
1650'
CON IV
AP 11657
Lot #
16
15
14.
S 1/2
Logging Rd
OLD RAILWAY.
MADAWASKA.

APPENDIX V

Qualification Summary

Mr. Brian R. King has been continuously practising in the field of geology for more than fourteen years. His experience includes the management of major mining operations and exploration projects in northern and western Canada, and exploration throughout Ontario. The most recent experience includes about 5 years of active mineral exploration in the Grenville Province of Southeastern Ontario plus four years actively applying geological techniques in an environmental capacity.

Mr. King has a Geological Sciences degree from Brock University, (St. Catharines, Ontario) and is a Fellow of the Geological Association of Canada and a Member of the International Association of Hydrogeologists.

Recent project experience includes:

Fox Lake Copper Mine: 1982 to 1985; Sherritt Gordon Mines Ltd., Lynn Lake, Manitoba.

- Progressive positions within mine management team including Chief Geologist (1985) of 2,500 ton/day Cu-Zn Fox Lake Mine near Lynn Lake, Manitoba: Surface and Underground Exploration.

Bannockburn Gold Deposit, Madoc Township: 1985 to 1988; Mono Gold Mines Inc., Vancouver, B.C.

- Project Management of Prospecting, Geological Mapping, Geophysical Surveys and Diamond Drilling of Old Bannockburn Mine and new discovery in preparation for underground exploration program (later carried out by Mr. David Bell).

Dingman Drilling Project: 1986 to 1988; Noranda Exploration Co. Ltd., Timmins Ontario.

- Responsible for design and implementation of 45,000 ft. diamond drilling program of large tonnage, low grade gold deposit in Marmora and Madoc Township.

Madoc Area Reconnaissance Project: 1986 to 1989; Noranda Exploration Co. Ltd., Timmins Ontario.

- Project Management of Prospecting, Geological Mapping, Geophysical Surveys and Diamond Drilling in Madoc, Marmora, Lake, Limerick and Tudor Townships.

Proposed Traprock Quarry, Belmont Township: 1990; Harnden & King Construction Ltd., Cobourg, Ontario.

- Project management of resource evaluation, drilling and well construction for hydrogeological study in support of quarry licence application.

Houston-Bedford Graphite Property: 1989 to Present; Private Grubstakers Group, Managed by Mr. A. D. Houston, Prospector, Warkworth, Ontario.

- Geological Mapping, sampling and experimental geophysical surveys of large graphite property in Bedford Township (Kingston Area).

Contaminant Migration Study, Amherstview, Ontario: 1992; Ministry of Transportation, Ontario.
- Geological and Hydrogeological Investigation of Water Supply Contamination through Geochemical Testing and Evaluation of Regional Stratigraphy (Kingston Area).

In addition to the above described project .experience, Mr. King has successfully completed approximately 45 hydrogeological investigations for landfill site studies and private developments throughout Ontario. Of note are geological and hydrogeological studies of the existing Belmont Township Landfill property, and similar studies for a proposed new site in Marmora Township.

Personal references within the mining industry include Mr. Paul Kingston, Resident Geologist (Tweed) OMNDM, Mr. John Wakeford, Noranda Exploration Co. Ltd., Timmins, Ontario.

Mr. Paul V.G. Tulonen has been involved in basic and advanced exploration throughout Ontario and Manitoba since 1979. His experience covers many Greenstone Belts including the Lynn Lake Belt, the Quetico Belt, the Geraldton-Beardmore Belt, the Abitibi Belt, the Swayzi Belt, and the Batchewanna Belt. He also has explored extensively within the Southern Province and the Grenville Province (Southeastern Ontario).

Mr. Tulonen's educational experience includes a strong background in Hardrock Geology, Geochemistry, Sedimentology, Glaciology, Chemistry and Physics gained in completing and honours BSc and MSc in Geology and Physics at Brock University in St. Catharines, Ontario.

Mr. Tulonen is currently a Fellow of the Geological Association of Canada, a Member of the Prospectors and Developers Association and a Member of the International Association of Hydrogeologists.

Mr. Tulonen has provided exploration geological consulting services and has worked under contract on many programs. His experience includes research geological mapping with the GSC under Mr. Denver Stone and Dr. Peter Brown in northwestern Ontario and southeastern Manitoba, "grass roots" gold and base metal exploration with Sherritt Gordon Mines Ltd. in northern Manitoba, advanced exploration for gold at Keezhik Lake and Opikeigen Lake (east of Pickel Lake) in northern Ontario with Noramco.

As the project geologist and having budgetary responsibility for several advanced diamond drilling programs with expenditures in the millions of dollars each, Mr. Tulonen has co-ordinated airborne and ground geophysical programs, regional geochemical sampling studies, and detailed delineation drilling programs. Mr. Tulonen has also provided ore reserve estimation services for many mineral deposits.

Personal references within the mining industry includes the Swazye Belt Resident Geologist Mr. Jim Ireland of the Timmins MNDM, Mr. Art Murdy of Noramco Exploration, Mr. Peter Cooper of Noranda Exploration and the past President of the PDAC Mr. Robert Ginn, now with Watts Grifith and McOuat.

Ontario

Ministry of Northern Development and Mines

Ministère du Développement du Nord et des Mines

Geoscience Approvals Section
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (705) 670-5853
Fax: (705) 670-5863

March 14, 1994

Our File: 2.15233
Transaction #: W9390.00068

Mining Recorder
Ministry of Northern Development
and Mines
MacDonald Block
Room M2-17
900 Bay Street
Toronto, Ontario
M7A 1C3

Dear Sir/Madam:

Subject: APPROVAL OF ASSESSMENT WORK CREDITS ON MINING CLAIMS SO.1150671 ET AL IN MURCHISON TOWNSHIP

The deficiencies in the original submsission have been clarified.

The assessment work credits have been approved under Other Authorized Work, Section 18(9) of the Mining Act Regulations. The credits have been approved as originally filed.

The approval date is March 14, 1994.

If you have any questions regarding this correspondence, please contact Lucille Jerome at (705) 670-5855.

Yours sincerely,

Ron C. Gashinski
Senior Manager, Mining Lands Section
Mining and Land Management Branch
Mines and Minerals Division

LJ/jl
Enclosures:

cc: Resident Geologist
Tweed, Ontario

Assessment Files Library
Toronto, Ontario

Rec. Dec. Tweed

Ministry of Northern Development and Mines

Ontario

Report of Work Conducted After Recording Claim

Mining Act

Transaction Number: W9390.00068

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 199 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

2.15233

Instructions:
- Please type or print and submit in duplicate.
- Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining Recorder.
- A separate copy of this form must be completed for each Work Group.
- Technical reports and maps must accompany this form in duplicate.
- A sketch, showing the claims the work is assigned to, must accompany this form.

Recorded Holder(s): ALAN REED.	Client No.: 186410.
Address: RR#1 MADOC, ONT K0K-2K0	Telephone No.: 613-473-2969.
Mining Division: S.D.	Township/Area: WICKHAM TWP. SK	M or G Plan No.: G-1391.
Dates Work Performed: From: NOV 19/93.	To: NOV 28/93.

Work Performed (Check One Work Group Only)

	Work Group	Type
√	Geotechnical Survey	SAMPLING, PRELIMINARY GEOPHYSICAL, GEOLOGICAL INSPECTION
	Physical Work, Including Drilling	
	Rehabilitation	
	Other Authorized Work	
	Assays	
	Assignment from Reserve	

605416.

RECEIVED
DEC 07 1993
MINING LANDS BRANCH

Total Assessment Work Claimed on the Attached Statement of Costs $ 2609-93, 2610-AL.

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 90 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
BRIAN R. KING GEOLOGIST	MDX GEOSERVICES, P.O. BOX 427 BOULDERWOOD
PAUL V.G. TUUONEN GEOLOGIST	ONT, K0L-1H0 tel(705) 745-8582
ALAN REED PROSPECTOR	RR#1 MADOC, K0K-2K0 613-473-2969.
DAVID STEVENSON-LABORER	RR#1 MADOC, K0K-2K0 613-473-2969.

(attach a schedule if necessary)

Certification of Beneficial Interest • See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date: NOV 30/93	Recorded Holder or Agent (Signature): A. Reed

Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Address of Person Certifying: ALAN REED RR#1 MADOC, ONT, K0K-2K0		
Telephone No.: 613-473-2969.	Date: NOV 19/93.	Certified By (Signature): A. Reed

For Office Use Only

Total Value Cr. Recorded	Date Recorded	Mining Recorder	Recorded Holder
$2,610.	Nov 30/93		
	Deemed Approval Date: Feb 28/93-94	Date Approved	
	Date Notice for Amendments Sent		

RECEIVED
NOV 3 0 1993
AM PM
7 8 9 10 11 12 1 2 3 4 5 6

Ministry of Northern Development and Mines
Ontario

Report of Work Conducted After Recording Claim

Mining Act

Transaction Number: W9390.00068

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

Instructions:
- Please type or print and submit in duplicate.
- Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining Recorder.
- A separate copy of this form must be completed for each Work Group.
- Technical reports and maps must accompany this form in duplicate.
- A sketch, showing the claims the work is assigned to, must accompany this form.

Recorded Holder(s): ALAN REED.		Client No. 186410.
Address: RR#1 MADOC, ONT, K0K-2K0.		Telephone No. 613-473-2969.
Mining Division: S.O.	Township/Area: MUNCHISON TWP. S½	M or G Plan No.: G-1391
Dates Work Performed: From: NOV 19/93.	To: NOV 28/93.	

Work Performed (Check One Work Group Only)

	Work Group	Type
√	Geotechnical Survey	PRELIMINARY GEOPHYSICAL, GEOLOGICAL SAMPLING & INSPECTION
	Physical Work, Including Drilling	
	Rehabilitation	
	Other Authorized Work	
	Assays	
	Assignment from Reserve	

Total Assessment Work Claimed on the Attached Statement of Costs $ ~~2609.90~~ 2610 AR

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
BRIAN R. KING GEOLOGIST	MDX GEOSERVICES P.O. BOX 427, BRIDGENORTH
PAUL V.G. TALONEN GEOLOGIST	ONT, K0L-1H0 tel (705) 775-8582
ALAN REED PROSPECTOR.	RR#1 MADOC, ONT, K0K-2K0 613-473-2969
DAVID STEVENSON LABOURER	RR#1 MADOC, ONT, K0K-2K0 613-473-2969.

(attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date: NOV 30/93.	Recorded Holder or Agent (Signature): [signature]

Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.

Name and Address of Person Certifying: ALAN REED RR#1 MADOC ONT, K0K-2K0

Telepone No.	Date	Certified By (Signature)
613-473-2969.	NOV 19/93.	[signature]

For Office Use Only

Total Value Cr. Recorded	Date Recorded	Mining Recorder
	Deemed Approval Date	Date Approved
	Date Notice for Amendments Sent	

RECORDED STAMP: MINING DIVISION RECEIVED NOV 30 1993 AM PM 7 8 9 10 11 12 1 2 3 4 5 6

0241 (03/91)

(over 100)

Total Number of Claims	Number of Claim Units	Claim Number (see Note 2)	Work Report Number for Applying Reserve
	1	1150671	
	1	1150672	
	1	1150673	

Total Value Work Done	Total Value Work Applied	Value of Assessment Work Done on this Claim	Value Applied to this Claim
2610	2610	870	870
		870	870
		870	870

Total Assigned From	Total Reserve	Value Assigned from this Claim	Reserve Work to be Claimed at a Future Date

Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to priorize the deletion of credits. Please mark (✓) one of the following:

1. ☑ Credits are to be cut back starting with the claim listed last, working backwards.
2. ☐ Credits are to be cut back equally over all claims contained in this report of work.
3. ☐ Credits are to be cut back as priorized on the attached appendix.

In the event that you have not specified your choice of priority, option one will be implemented.

Note 1: **Examples of beneficial interest are unrecorded transfers, option agreements, memorandum of agreements, etc., with respect to the mining claims.**

Note 2: **If work has been performed on patented or leased land, please complete the following:**

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.	Signature	Date

Ontario

Ministry of Northern Development and Mines

Ministère du Développement du Nord et des mines

Statement of Costs for Assessment Credit

État des coûts aux fins du crédit d'évaluation

Mining Act/Loi sur les mines

Transaction No./N° de transaction: W9390.00068

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adresser toute quesiton sur la collece de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4e étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre	70-	70-
	Field Supervision Supervision sur le terrain	175-	175-
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert-conseil	Type GEOLOGICAL	2,000-	2,000.
			2000-
Supplies Used Fournitures utilisées	Type		
Equipment Rental Location de matériel	Type AXES, SHOVELS,	25	25
	PICK		
			25
	Total Direct Costs Total des coûts directs		2270-

2. Indirect Costs/Coûts indirects

** Note: When claiming Rehabilitation work indirect costs are not allowable as assessment work.
Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type RENT TRUCK @	50.	50-
	598 km x @ .05	29.90	29.90
	FUEL	75-	75.
			154.90
Food and Lodging Nourriture et hébergement	BED + BREAKFAST	35-	65-
	FOOD.	30-	
Mobilization and Demobilization Mobilisation et démobilisation	12hr x @ 10.	120-	120-
	Sub Total of Indirect Costs Total partiel des coûts indirects		339.90
	Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)		
	Total Value of Assessment Credit (Total of Direct and Allowable Indirect costs) / Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)		2609.90

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Filing Discounts

1. Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
2. Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
× 0.50 =	

Remises pour dépôt

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.
2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Evaluation totale demandée
× 0,50 =	

Certification Verifying Statement of Costs

I hereby certify:
that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as RECORDED HOLDER (Recorded Holder, Agent, Position in Company) I am authorized

to make this certification

Attestation de l'état des coûts

J'atteste par la présente :
que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de _____ (titulaire enregistré, représentant, poste occupé dans la compagnie) je suis autorisé

à faire cette attestation.

Signature	Date
[signature]	NOV 30/93

0212 (04/91)

Note : Dans cette formule, lorsqu'il désigne des personnes, le masculin est utilisé au sens neutre.

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

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

	Description	Order No.	Date	Disposition	File
(1)	SEC. 36/80	W. 5/81	1/9/81	M & S	149759
(2)	PARK RESERVE	W.61/83	12/9/83	M & S	188534

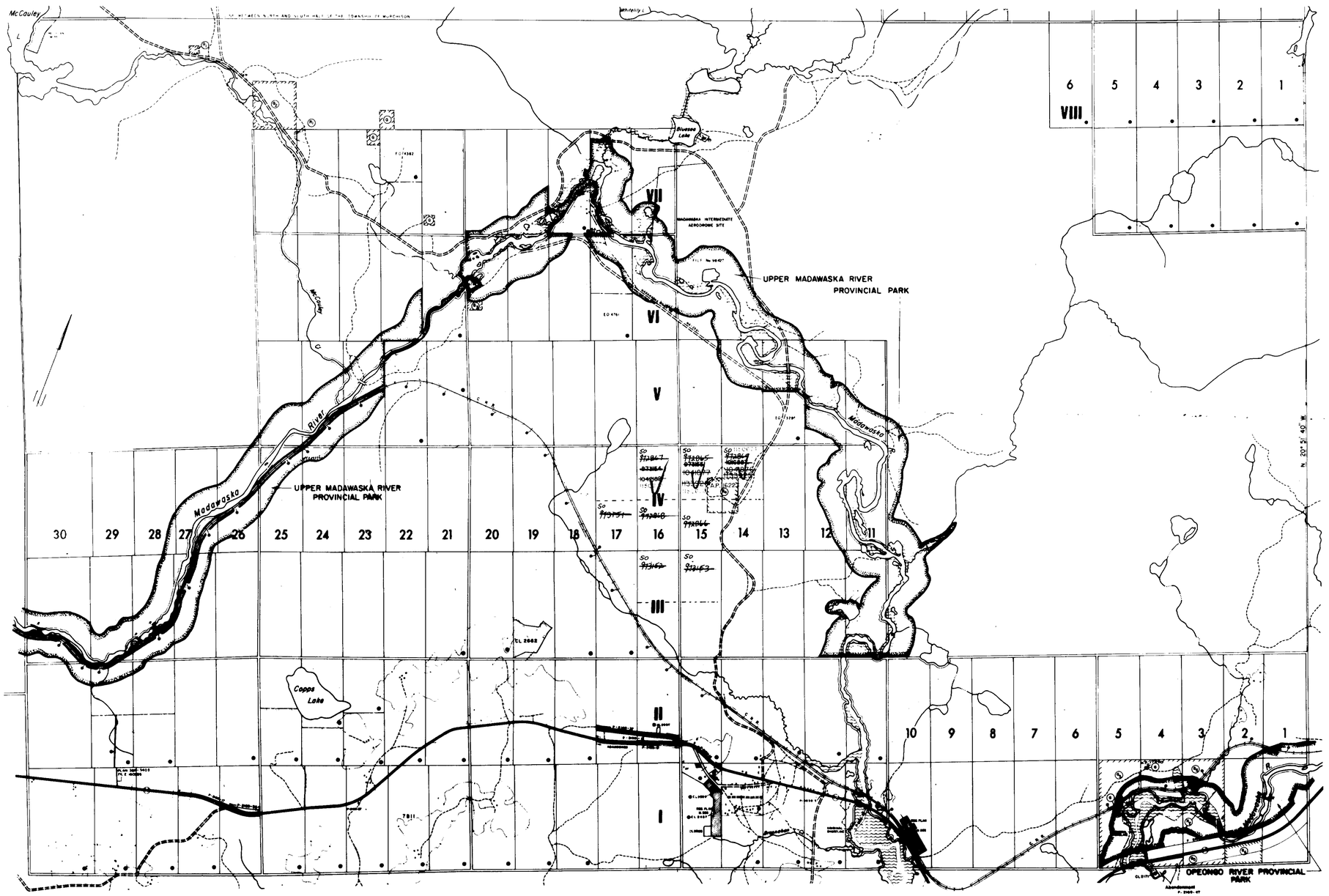
* SUBJECT TO TIMBER OPERATIONS APRIL 1, 1989 TO MARCH 31, 1990 *

NOTES

SUBDIVISION OF THIS TOWNSHIP INTO LOTS & CONCESSIONS WAS PARTIALLY ANNULLED 7th MARCH, 1955

SAND and GRAVEL

(1) QUARRY PERMIT
(2) MTC PIT 5A26
(3) MTC PIT 5A19
(4) GRAVEL FILE 27919
(5) QUARTZ FILE 122379
(6) MTC PIT 5A22
(7) MTC PIT 5A23



LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES: TOWNSHIPS, BASE LINES, ETC. / LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES: LOT LINES / PARCEL BOUNDARY / MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
" , SURFACE RIGHTS ONLY	◓
" , MINING RIGHTS ONLY	◒
LEASE, SURFACE & MINING RIGHTS	■
" , SURFACE RIGHTS ONLY	▣
" , MINING RIGHTS ONLY	▤
LICENCE OF OCCUPATION	▼
ORDER-IN-COUNCIL	OC
RESERVATION	⊖
CANCELLED	⊗
SAND & GRAVEL	◔

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC 1.

Metres 500 0 1000 Metres
Chains 10 0 10 20 30 40 50 60 70 Chains
Feet 500 0 1000 2000 3000 4000 5000 Feet

SCALE 1:20 000

DATE OF ISSUE
[illegible] – 1990
SOUTHERN ONTARIO MINING DIVISION

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.

TOWNSHIP
MURCHISON
SOUTH HALF
M.N.R. ADMINISTRATIVE DISTRICT
ALGONQUIN PARK
MINING DIVISION
SOUTHERN ONTARIO
LAND TITLES / REGISTRY DIVISION
NIPISSING

Ontario
Ministry of Natural Resources
Ministry of Northern Development and Mines

Date SEPTEMBER 1986
Number G-1391

200