010

GEOLOGICAL REPORT - PART II
Reeves Joint Venture Property
in
Reeves, Sewell, Penhorwood and
Kenogaming Townships
Porcupine Mining Division
for
GLEN AUDEN RESOURCES LIMITED
and
GOLDROCK RESOURCES INC.
by
Ron Burk, M.Sc.Eng.
October, 1988

Dual
210291.

SUMMARY

Geological mapping has been done on 84 claims in Sewell and Kenogaming Townships, Porcupine Mining Division, Ontario which form the northwestern portion of the 427-claim Reeves Joint Venture Property jointly held by Glen Auden Resources Limited and Goldrock Resources Inc. In addition to the mapping, 107 rock samples were collected from the claims and chemically analyzed for major oxide and trace element concentrations. The data is presented on three maps drafted at 1:2500 scale.

Mafic metavolcanic units underlie most of the area covered by the 84 claims. The eastern boundary of the claims broadly follows a major contact between the mafic units and a granodiorite pluton. Two zones of shear deformation and chlorite-carbonate alteration have been identified on the claim group. Rock samples from these zones, however, do not contain gold concentrations greater than background gold contents determined for unaltered volcanic rocks.

An overburden covered shear structure is postulated to extend from Deerfoot Lake across the claim group to the Mining Corp. gold showing located southeast of Lap Lake in Sewell Township. Should this structure exist, it would be a prospective target for future exploration work.

TABLE OF CONTENTS

LIST OF FIGURES

INTRODUCTION

Geological mapping was done in May and June, 1988 on 84 contiguous, unpatented mining claims in Sewell and Kenogaming Townships, Porcupine Mining Division, Ontario. These claims are part of the 427-claim Reeves Joint Venture Property jointly held by Toronto-based junior mining companies Glen Auden Resources Limited and Goldrock Resources Inc. Mapping was done by pace-and-compass method with mapping traverses following claim lines as well as transecting all claims. To compliment the field mapping, a study was done of the lithogeochemistry of the rocks found on the claim group. Sixty-seven rock samples were analyzed for trace element concentrations, while an additional 42 samples were analyzed for major oxide and rare earth element contents. The field data is presented on geologic maps drafted at 1:2500 scale. The basic objective of the mapping program was to identify direct and/or indirect indications of gold mineralization on the claim group.

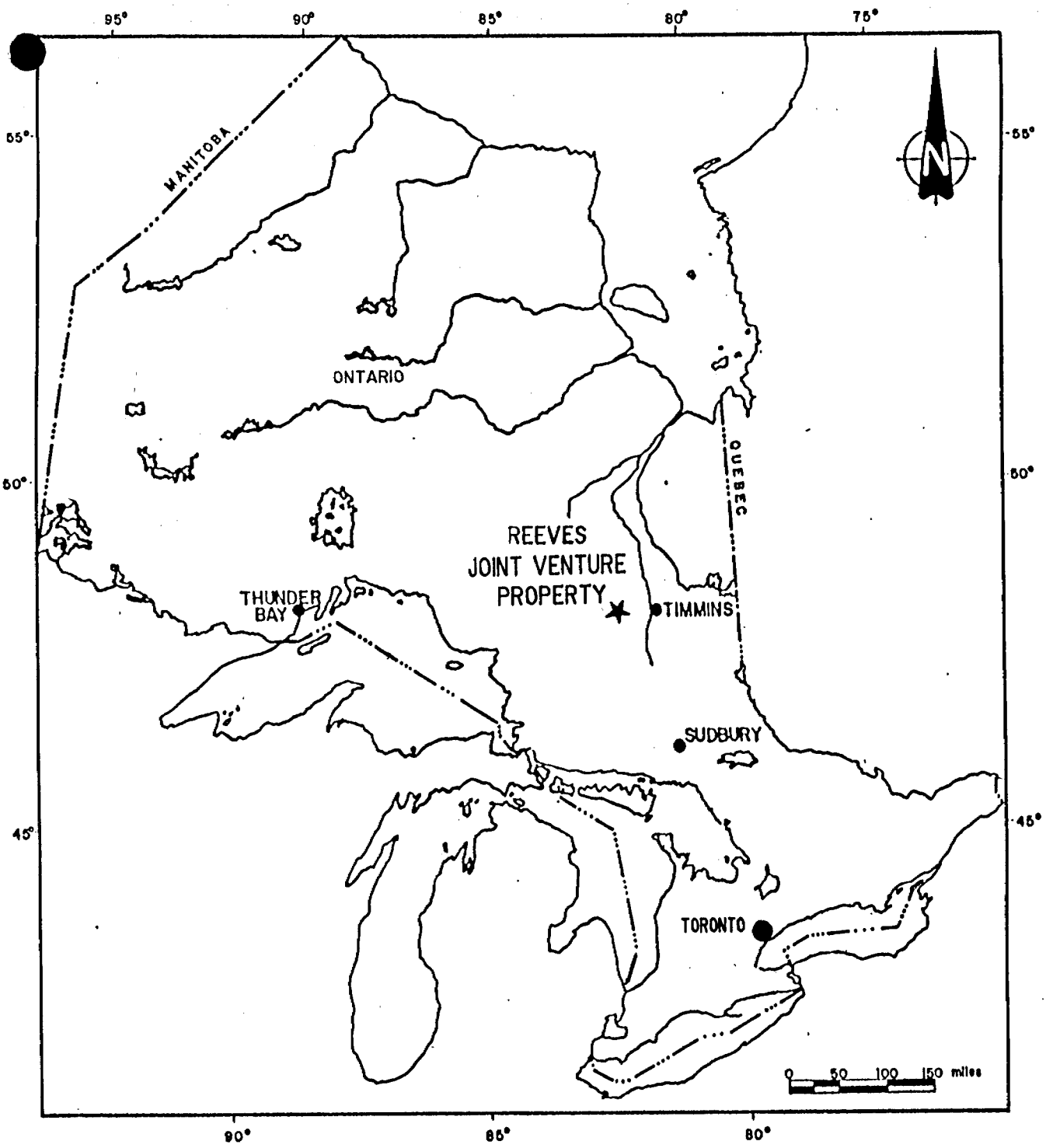
PROPERTY LOCATION AND ACCESS

The Reeves Joint Venture (RJV) property encompasses approximately 6,850 hectares broadly centred on the four-corner junction of Reeves, Sewell, Penhorwood and Kenogaming Townships, some 55 kilometers west of Timmins, Ontario (Figure 1). The group of 84 claims described in this report form the northeastern part of the RJV property and can be accessed from Highway 101 which skirts the northern boundary of the claim group and the Kenogaming logging road.

TOPOGRAPHY AND VEGETATION

There is generally little topographic relief on the property. As is common in this area of northeastern Ontario, low ridges are interspersed with broad low-lying areas. Deerfoot Lake lies at the southwest corner of the claim group and north-flowing tributaries of the Crawford River cross the claims. Glacial overburden consisting of deposits of sand and boulder till varies in thickness across the property.

While a few stands of mature spruce occur on the claims, much of the original coniferous and mixed forest cover has been logged over and replaced by secondary growths of poplar, birch, moose maple and, locally, jack pine. Cedar woods are common in low-lying areas. Bedrock exposures constitute only a very small percentage of the total area.



REVISIONS	ROBERT S. MIDDLETON EXPLORATION SERVICES INC.		
	for GOLDROCK RESOURCES INC./ GLEN AUDEN RESOURCES LTD. J.V.		
	Title PROPERTY LOCATION MAP Fig. 1		
	Date: Oct. 87	Scale: 1"=160mi.	N.T.S.:
	Drawn: B.S.B.	Approved:	File: M-223.

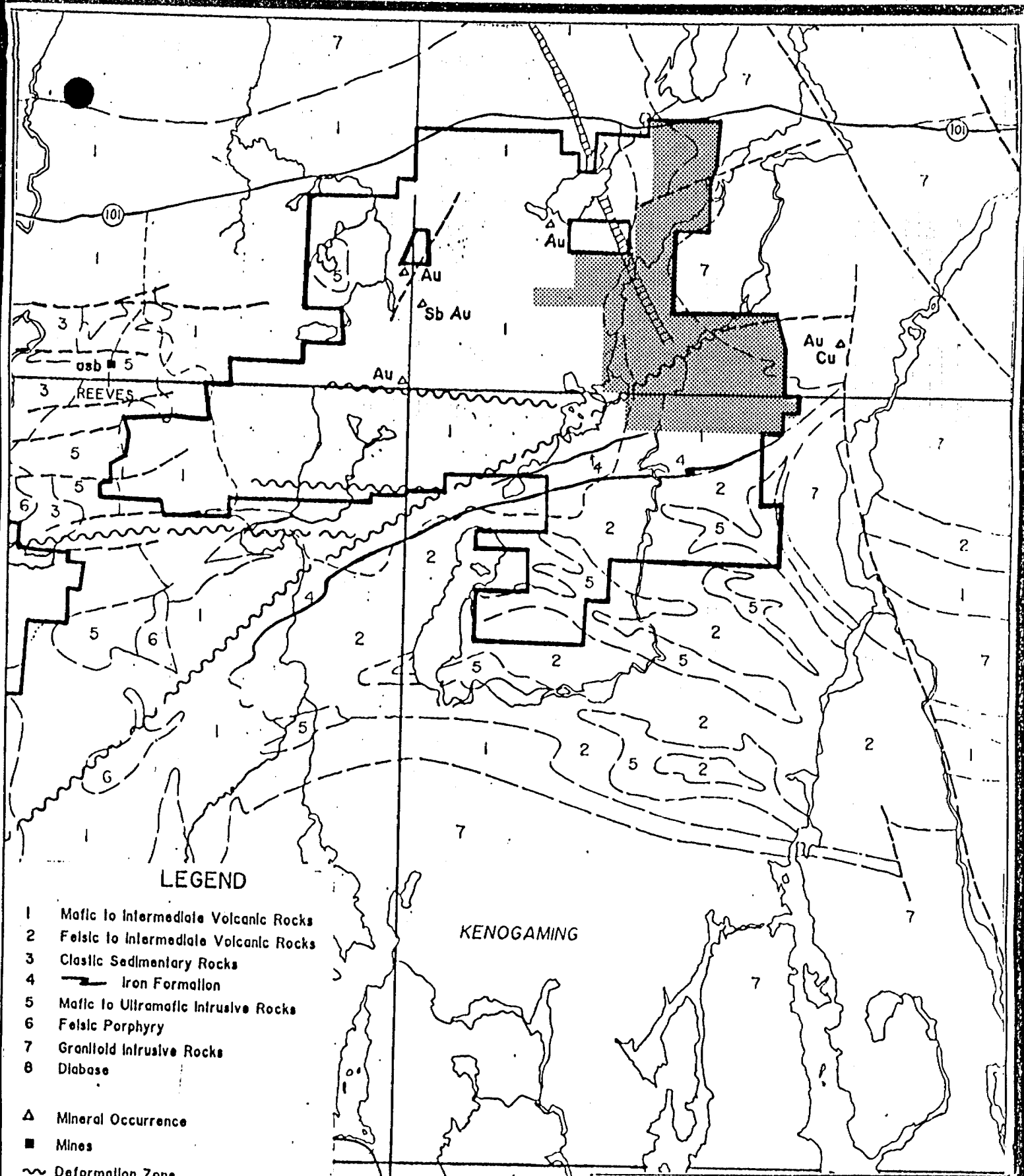
GENERAL GEOLOGY

The Reeves Joint Venture property lies in the northern part of the Archean-age Swayze Greenstone Belt (Figure 2) and covers typical sequences of mafic submarine flows and less abundant intermediate to felsic volcanics (Milne, 1972; Burk, 1987). Exposures of sedimentary rocks are sparse on the property, although two prominent units of oxide and sulfide facies banded iron formation have been identified. Intrusive sheets and pods of ultramafic and mafic rocks are common in western and southeastern areas of the property.

The 84-claim block lies in the northeastern corner of the Swayze greenstone belt where mafic volcanic units appear to strike in a northwesterly direction, essentially wrapping around a granodiorite pluton. A number of southwesterly striking faults which transect the greenstone/granodiorite contact have been delineated on the claim block by Milne (1972).

ECONOMIC GEOLOGY AND PREVIOUS WORK

One of the earliest discoveries of gold in the North Swayze greenstone belt is located on a small property consisting of four patented claims which straddle the Reeves-Sewell township line. This gold occurrence is surrounded by the northernmost claims of the RJV property, but is located west of the 84-claim block



LEGEND

1 Mafic to Intermediate Volcanic Rocks
2 Felsic to Intermediate Volcanic Rocks
3 Clastic Sedimentary Rocks
4 Iron Formation
5 Mafic to Ultramafic Intrusive Rocks
6 Felsic Porphyry
7 Granitoid Intrusive Rocks
8 Diabase

Δ Mineral Occurrence
■ Mines
Deformation Zone
Fault
Geological Boundary
Highway
Gravel Road
Railway
Property Boundary

REVISIONS	ROBERT S. MIDDLETON EXPLORATION SERVICES INC.
	for GLEN AUDEN / GOLDROCK
	Title Figure 2 Ron Burk 84-claim block within REEVES JOINT VENTURE PROP.
	Date: Oct 19/88 | Scale: 1in - 4m | N.T.S.:
	Drawn: RRB | Approved: | File:

Fig

reported on here. Another property with a known gold showing adjoins the 84-claim group on its eastern boundary south of Lap Lake. The gold showing on this property consists of a chloritic schist in a sheared basic syenite or gabbro which hosts pyrite-, chalcopyrite-, and gold-bearing quartz veins up to 50 cm wide. The mineralized zone was drilled by Mining Corp. of Canada (a former affiliate of Noranda Mining) in 1947, and based on 13 drill holes is estimated to contain approximately 30,000 tons of ore grading 0.172 ounces gold per ton to a depth of 500 feet (pers. comm. by Noranda Exploration staff, 1988).

Evidently little serious exploration work has been done on the group of 84 claims by other mining companies. Milne (1972) reports that Canadian Johns-Manville Co. Ltd. held 18 claims in the area north of Deerfoot Lake in the mid-1960's. Following ground geophysical surveys that company drilled a single hole on the west bank of Deerfoot Creek. At about the same time, L. Lapierre, who operated a lumber mill on Weston Lake, explored a property covering greenstone rocks located east of Sewell Lake. Four diamond drill holes totalling 1250 feet were drilled on this property, with all holes intersecting light coloured mafic metavolcanics. No significant mineralization is reported to have been encountered.

A review of the geological work done by Milne (1972) for the Ontario Department of Mines, followed by a program of

reconnaissance mapping and lithogeochemical analysis carried out by D. Pyke (1987) led Glen Auden Resources to conclude that the supracrustal sequences in the North Swayze greenstone belt are similar, texturally and compositionally, to the volcanic units of the Timmins mining camp. Based on the empirical relationship to the productive Timmins camp, the decision was made to stake a large portion of the North Swayze Belt. The 84 claims reported on here were staked as part of this objective.

Exploration work done by Glen Auden Resources on portions of the RJV property which were staked prior to the 84-claim block includes geological mapping (Burk, 1987; Frostad, 1986), lithogeochemical analysis (Burk, 1988A), magnetics interpretation (Burk, 1988B) and outcrop stripping and trenching (Burk, 1988C). A review of work done in the area of the property by previous claim-holders and mining companies is given by Burk (1987).

GEOLOGY OF THE CLAIMS

Geological mapping of the 84 claims in Sewell and Kenogaming Townships was done by following claim lines and pace-and-compass controlled traverses which bisected the claims. Three maps showing the observed geology and surface features have been produced at 1:2500 scale. No bedrock exposures were observed on the claims covered by Map 3, i.e., the area south of Lap Lake and east of Deerfoot Lake.

By far the most common lithology observed on the 84 claims is mafic metavolcanic rock. Massive flow units appear to predominate over pillowed flows. Only poorly defined pillowed structures were observed, with no flow-top directions being established. In the central part of the claim group (see Map 2) outcrops of mafic flow rock generally consist of massive, fine-grained actinolite and plagioclase, which are greenish-grey on fresh surfaces and weather to a pale grey or buff colour. In the northern part of the claim block (see Map 1) the volcanic rocks within one kilometer of the greenstone/granodiorite contact have developed a gneissosity to varying degrees. This fabric trends in a NNW direction, or roughly conformable to the contact, and is vertical dipping. West of Crossover Lake, within 100 meters of the intrusive contact, the mafic rock has been thermally metamorphosed to a fine-grained amphibole hornfels. In addition, there are a few exposures of strongly foliated mafic flow rock consisting largely of chlorite with minor amounts of calcite and iron carbonate. The best of these exposures is along the Crawford River a short distance south of the Sewell-Kenogaming township line.

Outcrops of intermediate to felsic volcanic rock are sparse on the claims. A few exposures of intermediate tuffaceous rock are located close to the southern boundary of claim 997161 (see Map 1). Elsewhere, pale coloured, fine-grained and hard volcanic

rock likely represents carbonatized and/or silicified mafic flow rock.

Sedimentary rocks are also rare on the claims. A single outcrop of sulfide facies iron formation was identified in the northeast corner of claim 997134 (see Map 2).

Exposures of the large granodiorite pluton underlying the eastern half of Sewell Township are largely limited to the northern part of the claim group, specifically northwest of Crossover Lake (see Map 1). Here the intrusive consists of fine- to medium-grained biotite-hornblende granodiorite. The greenstone/granodiorite contact is actually a geologically complex feature, where numerous felsic dikes extend into the volcanic rocks and there exists an abundance of mafic volcanic xenoliths within the intrusive.

On the government geology map of Sewell Township (Milne, 1972) a small body of serpentinized ultramafic rock is shown to occur east of Sewell Lake at the end of an apophasy of the pluton. The recent mapping has identified an outcrop of carbonate-rich, high magnesian (probably ultramafic) rock on claim 997148, broadly in the same area of the previously mapped ultramafic body.

Two areas on the 84-claim block have indications of high strain deformation and hydrothermal activity. North of Deerfoot Lake outcrops of mafic volcanic rock in the eastern part of claim

997141 (east side of Kenogaming logging road), the western part of claim 997131 and the northeastern quadrant of claim 997118 (see Map 2) show well developed, northwest-striking foliations as well as chlorite and localized iron carbonate alteration. The other area of deformed and altered rocks is centred on the Crawford River about 200 meters south of the Sewell-Kenogaming township line. Here there are outcrops of chlorite schist which is locally crenulated and drag folded. At this latter location there are outcrops of medium-grained felsic rock probably related to the granodiorite as well as an abundance of quartz vein float.

LITHOGEOCHEMICAL ANALYSES

Sixty-five rock samples collected from the 84-claim group were analyzed for gold and 24 other trace elements by X-RAY Assay Laboratories of Toronto using the neutron activation technique. An additional 42 samples were analyzed by X-RAY for major oxide concentrations using the x-ray fluorescence method and rare earth element contents using ICP-MS.

The results of this sampling program are generally unimpressive. Only one sample gave a gold assay value which can be considered geochemically anomalous. This sample was collected from the single small outcrop of sulfide facies iron formation located on claim 997133 and yielded a value of 140 ppb gold. Sampling of other sulfide-bearing iron formation outcrops in the

region, noteably along the Nat River iron formation in Kenogaming Township, has shown that this rock type typically contains between 50 and 150 ppb gold. Samples of mafic volcanic rock, including those taken from strongly foliated and carbonatized exposures, rarely yielded assay values greater than 10 ppb gold.

CONCLUSIONS

The recent program of mapping essentially supports the geological interpretation of Milne (1972) for the areas of Sewell and Kenogaming Townships covered by the 84 claims. While the number of bedrock exposures located by the mapping considerably exceeds those examined by Milne, no new rock units were identified. As shown by Milne (1972), a low- to medium-grade metamorphosed mafic flow sequence underlies most of the 84 claims. These flows appear to strike in a northwesterly direction and are truncated on the east by the granodiorite pluton.

In addition to the northwesterly trending zone of shearing and carbonate alteration identified by Milne (1972) approximately 500 meters north of Deerfoot Lake, a zone of chlorite-carbonate schist likely marking a second shear structure has been located crossing the Crawford River about 200 meters south of the Sewell-Kenogaming township line. Numerous quartz vein boulders have also been found in the vicinity of this second shear zone.

Widespread sampling of the bedrock exposures on the 84 claims failed to identify any significant gold mineralization. Even samples from the zones of shear deformation and carbonate alteration did not yield gold assay values appreciably greater than background values. A sample of sulfide-facies iron formation gave an assay value of 140 ppb gold, a value which is considered not unusual for this rock type in the region.

RECOMMENDATIONS

Based on the gold analyses and, to a lesser degree, the recent mapping, no specific gold exploration target areas have been identified. However, the apparent lack of prospective sites for mineralization may be attributed to the paucity of bedrock exposures.

Data from an airborne geophysical survey covering the southern half of Sewell Township (Dighem, 1983) shows a weak electromagnetic conductor trending northeastwards through Deerfoot Lake to the Mining Corp. gold occurrence located southeast of Lap Lake. It is suggested that the shear structure shown by Milne (1972) to be controlling the mineralization in this small deposit may extend southwestwards to Deerfoot Lake and can be interpreted as the source of the linear electromagnetic anomaly. It is recommended that an attempt be made to geophysically delineate this proposed structure on the ground. A

horizontal-loop electromagnetic (Max-Min) survey or possibly an induced polarization survey would potentially identify this structure. Once located geophysically, a program of trenching might be implimented to try and expose the structure along its strike length. If the overburden thickness prohibits trenching, a program of diamond drilling might be considered.

Respectfully submitted

Ron Burk

Ron Burk, M.Sc.Eng.

REFERENCES

BURK, R.
1987 — *Geological report on the Reeves Joint Venture Property of Goldrock Resources Inc. and Glen Auden Resources Limited, Reeves, Sewell, Penhorwood and Kenogaming Townships, Porcupine Mining Division.*

BURK, R.
1988A — *Report on Lithogeochemical Study, Reeves Joint Venture Property for Goldrock Resources Inc. and Glen Auden Resources Limited.*

BURK, R.
1988B — *Report on Magnetometer Survey on the Reeves Joint Venture Property of Glen Auden Resources Limited and Goldrock Resources Inc.*

BURK, R.
1988C — *Report on the Outcrop Stripping - Trenching Program, Reeves Joint Venture Property for Glen Auden Resources Limited and Goldrock Resources Inc.*

DIGHEM LTD.
1983 — *Dighem survey of the Foleyet area, Ontario. Dighem Limited for MPH Consulting Ltd.*

FROSTAD, S.
1986 — *Report on the Geological Survey on the Goldrock Resources Inc. Sewell and Reeves Townships property.*

MILNE, V.G.
1972 — *Geology of the Kukatush-Sewell Lake area, District of Sudbury; Ontario Department of Mines Geological Report 7, 116p., Maps 2230 and 2231.*

PYKE, D.R.
1987 — *Report on the Geology of the Kukatush area, Reeves, Sewell, Penhorwood and Kenogaming Townships.*

CERTIFICATION

I, Ron Burk of 29 Wardencourt Drive, Agincourt, Ontario certify that;

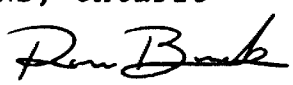
1. *I am a graduate of the University of Toronto with a Bachelor of Applied Science in Geo-Engineering*

2. *I am a graduate of Queen's University with a Master of Science, Geological Engineering.*

3. *I have been practising my profession in Canada for 5 years.*

4. *I have no economic interests in the property covered by this report.*

Dated this October 14, 1988
TIMMINS, Ontario



Ron Burk, M.Sc.Eng.

A P P E N D I X A

File

CERTIFICATE OF ANALYSIS

REPORT 6100

TO: ROBERT S. MIDDLETON EXPLORATION
ATTN: DON GARNER
BOX 1637
136 CEDAR STREET SOUTH
TIMMINS, ONTARIO P4N 7W8

CUSTOMER No. 1078

DATE SUBMITTED
27-Jul-88

REF. FILE 2202-R3

Total Pages 4

42 ROCKS Proj. M223

	METHOD	DETECTION LIMIT
WRMAJ %	WR	0.01
WRMIN PPM	WR	10.
Y PPM	ICPMS	1.
LA PPM	ICPMS	0.1
CE PPM	ICPMS	0.1
PR PPM	ICPMS	0.1
ND PPM	ICPMS	0.1
SM PPM	ICPMS	0.1
EU PPM	ICPMS	0.05
GD PPM	ICPMS	0.1
TB PPM	ICPMS	0.1
DY PPM	ICPMS	0.1
HO PPM	ICPMS	0.05
ER PPM	ICPMS	0.1
TM PPM	ICPMS	0.1
YB PPM	ICPMS	0.1
LU PPM	ICPMS	0.05

X-RAY ASSAY LABORATORIES LIMITED

DATE 06-SEP-88

CERTIFIED BY .....

OFFICE COPY:DISTRIBUTION 1078- 1- 7 R2I2:
INVOICE 1078- 1- 7

XRAL

06-SEP-88 REPORT 6100 REF.FILE 2202-R3 PAGE 1 OF 4

SAMPLE	Y PPM	LA PPM	CE PPM	PR PPM	ND PPM	SM PPM	EU PPM	GD PPM
0001	5	3.4	7.4	1.3	5.9	1.7	0.73	1.6
0002	25	4.9	11.9	2.0	10.2	3.1	1.24	4.0
0003	15	2.2	5.3	1.0	5.0	1.6	0.82	2.3
0004	22	3.1	8.7	1.6	8.4	2.7	1.42	3.6
0005	5	5.0	13.4	2.3	12.0	3.3	1.14	2.7
0006	13	2.4	5.1	<0.1	4.4	1.5	0.80	2.0
0007	4	4.2	10.7	1.8	9.0	2.7	0.94	2.3
70266	22	31.3	79.3	11.4	47.7	7.7	2.03	5.7
70267	29	5.7	18.1	3.3	17.1	4.8	1.19	5.9
70268	15	6.3	12.0	1.7	7.3	2.0	0.88	2.5
70269	14	11.2	24.6	3.5	14.1	3.1	1.13	3.1
70270	2	<0.1	1.8	<0.1	1.2	0.5	<0.05	0.5
70271	20	5.9	17.2	2.9	13.6	3.1	0.98	3.9
70272	23	4.3	10.6	1.8	9.4	3.0	1.15	4.2
70273	7	2.1	3.5	<0.1	2.4	0.9	<0.05	1.2
70274	4	7.6	16.8	2.5	10.7	2.4	0.90	1.9
70275	5	13.4	30.0	4.2	18.0	3.0	1.16	2.2
70276	19	3.3	8.0	1.4	6.7	2.4	1.04	3.2
70277	15	3.0	7.3	1.3	6.3	2.1	0.95	2.7
70278	14	9.0	20.5	2.9	12.6	2.9	1.09	2.9
70279	19	3.0	7.7	1.4	7.3	2.5	1.02	3.2
70280	12	2.2	4.9	<0.1	4.3	1.5	0.95	1.9
70281	19	7.8	17.9	2.7	11.9	3.1	1.20	3.6
70282	7	20.3	43.4	5.9	24.8	4.2	1.41	2.9
70283	11	1.9	4.0	0.8	3.7	1.3	0.58	1.7
70284	15	14.2	30.4	4.2	17.9	3.5	1.38	3.1
70285	25	4.8	12.1	2.1	10.7	3.4	1.27	4.3
70286	15	1.6	3.9	<0.1	4.6	1.8	1.00	2.5
70287	10	25.2	56.1	7.4	30.4	4.9	1.44	3.5
70288	27	5.1	13.2	2.2	11.0	3.5	1.36	4.4
70289	15	3.6	8.6	1.5	6.8	2.0	0.87	2.5
70290	17	14.6	32.7	4.6	20.6	4.2	1.70	3.8
70291	11	19.6	44.4	5.9	25.1	4.2	1.50	3.2
70292	11	2.4	5.6	<0.1	4.6	1.4	0.59	1.8
70293	5	5.8	10.5	1.4	6.4	1.6	0.70	1.7
70294	15	14.4	32.5	4.6	20.9	4.1	1.42	3.5
70295	15	2.3	5.3	1.0	5.1	1.6	0.80	2.0
70296	23	12.1	27.4	4.0	18.3	4.4	1.61	4.8
70297	4	2.0	4.1	<0.1	3.5	1.1	0.54	1.1
70298	10	1.5	3.4	<0.1	3.4	1.2	0.63	1.6
70299	15	8.3	18.7	2.8	12.4	3.0	1.09	2.9
70300	13	27.2	57.0	7.5	30.6	5.0	1.65	3.7

XRAL

06-SEP-88 REPORT 6100 REF.FILE 2202-R3 PAGE 2 OF 4

SAMPLE	TB PPM	DY PPM	HO PPM	ER PPM	TM PPM	YB PPM	LU PPM
0001	0.3	1.6	0.34	0.8	0.1	0.8	0.29
0002	0.7	5.1	1.13	3.3	0.4	2.9	0.55
0003	0.4	3.1	0.69	1.9	0.3	1.7	0.40
0004	0.8	4.1	0.96	2.8	0.5	2.6	0.51
0005	0.5	1.5	<0.05	0.8	0.2	<0.1	<0.05
0006	0.5	2.5	0.57	1.7	0.4	1.6	<0.05
0007	0.4	1.1	<0.05	0.6	0.2	<0.1	<0.05
70266	1.0	4.7	0.93	2.6	0.5	2.3	<0.05
70267	1.1	6.0	1.29	3.6	0.6	3.1	0.54
70268	0.6	2.9	0.67	2.0	0.4	1.9	<0.05
70269	0.6	3.0	0.64	1.8	0.4	1.6	<0.05
70270	0.2	<0.1	<0.05	0.4	0.2	<0.1	<0.05
70271	0.6	4.2	0.95	2.7	0.3	2.0	0.45
70272	0.8	4.6	1.03	3.1	0.6	2.8	0.56
70273	0.3	1.4	<0.05	1.0	0.3	<0.1	<0.05
70274	0.4	1.2	<0.05	0.6	0.2	<0.1	<0.05
70275	0.4	1.5	<0.05	0.8	0.2	<0.1	<0.05
70276	0.7	3.6	0.85	2.6	0.5	2.4	0.51
70277	0.6	3.2	0.73	2.1	0.4	1.9	<0.05
70278	0.6	2.8	0.64	1.8	0.4	1.7	<0.05
70279	0.7	3.9	0.85	2.5	0.5	2.4	<0.05
70280	0.5	2.4	0.54	1.6	0.4	1.5	<0.05
70281	0.7	3.9	0.88	2.6	0.5	2.5	0.52
70282	0.5	1.8	<0.05	1.0	0.3	1.1	<0.05
70283	0.3	2.2	0.53	1.4	0.2	1.1	0.32
70284	0.6	2.8	0.64	1.8	0.4	1.8	<0.05
70285	0.9	5.1	1.15	3.3	0.6	3.2	0.62
70286	0.6	3.1	0.69	2.0	0.4	1.9	<0.05
70287	0.6	2.3	<0.05	1.2	0.3	1.0	<0.05
70288	1.0	5.3	1.20	3.4	0.6	3.4	0.62
70289	0.6	3.0	0.69	1.9	0.4	1.8	<0.05
70290	0.7	3.4	0.74	2.1	0.4	1.9	<0.05
70291	0.6	2.6	0.50	1.4	0.3	1.1	<0.05
70292	0.4	2.3	0.52	1.5	0.3	1.5	<0.05
70293	0.4	1.2	<0.05	0.6	0.2	<0.1	<0.05
70294	0.6	3.2	0.67	1.9	0.4	1.7	<0.05
70295	0.4	2.8	0.66	1.8	0.2	1.7	0.40
70296	0.9	4.9	1.03	2.7	0.5	2.5	<0.05
70297	0.3	1.0	<0.05	0.6	0.2	<0.1	<0.05
70298	0.4	2.1	<0.05	1.4	0.3	1.3	<0.05
70299	0.6	3.0	0.65	1.8	0.4	1.6	<0.05
70300	0.6	2.8	0.59	1.6	0.3	1.5	<0.05

XRAL

XRF - WHOLE ROCK ANALYSIS 06-SEP-88 REPORT 6100 REFERENCE FILE 2202 PAGE 3 of 4

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
0001	44.7	13.6	9.65	4.77	1.06	1.26	11.2	0.18	0.81	0.07	0.01	10.8	98.2
0002	46.2	12.3	11.3	6.18	1.05	0.26	17.2	0.30	1.21	0.11	<0.01	2.39	98.5
0003	47.7	14.7	10.9	7.57	2.00	0.50	12.6	0.19	0.76	0.06	0.04	1.23	98.3
0004	47.8	14.3	9.63	5.41	1.31	0.61	16.7	0.19	1.24	0.10	<0.01	3.08	100.4
0005	52.1	17.1	2.83	2.57	2.74	0.64	13.7	0.09	1.98	0.16	<0.01	5.16	99.2
0006	47.1	15.0	9.32	7.39	1.10	0.07	11.8	0.18	0.77	0.06	0.04	5.47	98.3
0007	44.8	13.7	11.0	2.84	1.95	0.32	12.5	0.27	1.46	0.12	<0.01	11.2	100.2
70266	57.0	16.1	6.60	3.51	4.19	1.32	7.67	0.14	0.88	0.23	<0.01	0.62	98.4
70267	46.9	7.09	12.0	11.6	0.88	0.40	17.8	0.16	0.40	0.02	<0.01	0.93	98.2
70268	50.3	14.6	10.9	6.71	2.03	0.53	10.9	0.21	0.74	0.06	0.04	1.54	98.6
70269	42.2	13.0	17.9	6.70	0.59	0.76	14.7	0.32	0.77	0.12	<0.01	1.00	98.1
70270	39.4	2.62	0.90	35.2	0.02	0.03	7.74	0.17	0.16	0.03	0.74	11.7	98.7
70271	48.1	4.40	12.4	10.6	0.67	0.28	20.2	0.15	0.26	0.01	<0.01	1.08	98.2
70272	47.7	13.3	9.04	7.42	0.92	0.11	15.1	0.19	1.21	0.10	0.02	3.23	98.4
70273	54.4	17.1	11.5	3.98	3.67	0.58	6.90	0.11	0.74	0.02	0.05	1.16	100.3
70274	44.5	13.5	8.53	6.30	2.47	1.11	8.88	0.16	0.85	0.10	0.02	12.5	99.0
70275	45.9	12.7	7.48	9.97	0.48	0.24	10.7	0.15	0.65	0.09	0.07	10.1	98.6
70276	49.5	12.7	9.51	7.07	3.03	0.22	12.7	0.20	1.11	0.08	0.02	1.93	98.1
70277	44.6	11.4	8.38	12.4	0.70	0.19	15.4	0.22	0.88	0.07	0.01	4.08	98.4
70278	52.5	16.0	5.87	3.22	4.55	1.49	7.54	0.10	0.93	0.14	0.02	6.08	98.5
70279	47.7	14.9	12.6	6.90	1.33	0.06	13.2	0.20	1.11	0.08	0.05	2.08	100.2
70280	47.0	15.9	11.8	5.15	2.04	0.17	10.7	0.18	0.68	0.05	0.05	4.70	98.4
70281	50.7	15.5	6.86	6.62	2.49	0.39	13.2	0.18	1.15	0.14	0.01	1.54	98.8
70282	48.4	16.5	7.55	4.04	3.63	1.12	9.57	0.12	0.79	0.24	<0.01	8.23	100.3
70283	43.8	13.6	8.96	7.83	2.34	0.15	10.6	0.18	0.60	0.05	0.05	10.7	98.9
70284	36.9	13.1	21.5	2.58	0.66	0.77	10.3	0.20	0.66	0.26	<0.01	12.5	99.5
70285	48.9	14.2	12.1	4.34	2.35	0.21	14.6	0.25	1.48	0.12	0.01	1.93	100.5
70286	41.8	12.6	12.0	6.31	0.29	0.03	18.3	0.26	1.66	0.08	<0.01	5.47	98.8
70287	59.3	15.6	3.24	2.80	5.45	0.12	9.20	0.10	0.72	0.28	0.01	1.85	98.7
70288	51.3	13.3	9.51	2.43	1.88	0.04	15.1	0.19	1.52	0.13	<0.01	3.00	98.4
70289	46.2	15.1	12.0	8.28	1.87	0.12	11.9	0.19	0.71	0.06	0.03	2.85	99.3
70290	50.7	16.7	5.46	7.50	5.88	0.12	6.51	0.11	0.97	0.29	0.01	4.85	99.1
70291	55.4	15.8	4.31	3.42	3.73	1.95	7.54	0.12	0.93	0.28	0.02	4.77	98.4
70292	55.2	16.4	10.3	2.70	1.31	0.14	9.11	0.15	0.69	0.06	0.05	2.54	98.7
70293	42.9	13.0	7.97	6.66	2.12	0.12	14.4	0.15	1.24	0.05	<0.01	9.93	98.6
70294	55.6	16.0	9.92	3.67	3.22	0.77	8.01	0.15	0.96	0.22	0.03	1.39	100.0
70295	48.3	15.0	11.4	7.79	2.18	0.41	12.2	0.20	0.82	0.06	0.05	1.62	100.1
70296	50.1	13.3	11.0	6.48	1.91	0.51	14.3	0.22	1.72	0.15	0.02	0.70	100.5
70297	50.4	15.6	8.75	2.28	1.71	0.58	8.39	0.13	0.67	0.05	0.05	9.85	98.5
70298	46.2	15.9	11.5	8.54	1.48	0.08	10.3	0.16	0.56	0.05	0.05	4.00	98.8
70299	48.2	12.5	8.03	7.42	2.88	0.25	13.3	0.17	0.64	0.13	0.07	4.77	98.4
70300	52.6	13.7	5.81	5.83	0.56	1.53	13.6	0.16	0.63	0.27	<0.01	3.54	98.4

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

XRAL

XRF - WHOLE ROCK ANALYSIS 06-SEP-88 REPORT 6100 REFERENCE FILE 2202 PAGE 4 of 4

SAMPLE \ PPM	RB	SR	Y	ZR	NB	BA
0001	40	68	11	30	<10	619
0002	15	140	36	45	13	38
0003	26	270	11	<10	<10	71
0004	35	207	31	41	<10	206
0005	35	114	19	101	20	409
0006	13	110	13	19	21	<10
0007	18	92	25	68	26	57
70266	27	526	11	107	27	426
70267	14	17	21	27	27	34
70268	11	132	12	29	22	95
70269	29	86	13	59	18	49
70270	14	<10	<10	<10	<10	23
70271	11	24	<10	46	<10	40
70272	<10	98	17	63	27	35
70273	24	185	14	16	12	136
70274	28	445	14	26	<10	286
70275	15	282	<10	<10	<10	52
70276	12	122	13	35	19	15
70277	21	80	16	38	11	54
70278	46	216	<10	82	14	397
70279	12	112	24	32	18	15
70280	<10	91	26	20	<10	35
70281	31	284	18	55	11	80
70282	45	409	13	72	16	271
70283	<10	92	10	20	<10	62
70284	46	573	<10	40	26	163
70285	15	88	25	68	15	39
70286	<10	98	<10	<10	18	<10
70287	19	136	<10	153	14	110
70288	<10	250	22	74	19	22
70289	<10	104	<10	<10	16	<10
70290	11	142	<10	95	24	53
70291	58	319	<10	91	20	923
70292	<10	343	<10	14	18	23
70293	<10	75	<10	<10	20	26
70294	27	516	<10	48	<10	209
70295	31	454	41	<10	<10	69
70296	33	155	17	74	15	152
70297	16	180	24	18	16	97
70298	<10	97	24	<10	<10	<10
70299	<10	283	12	15	<10	137
70300	42	993	23	78	16	355

APPENDIX B

SAMPLE	AU PPB	NA %	CA %	SC PPM	CR PPM	FE %	CO PPM	NI PPM	ZN PPM	AS PPM
8101	<5	1.70	6	22.0	160	15.5	100	200	90	<2
8102	<5	2.10	7	24.2	240	8.45	41	<200	130	<2
8103	<5	1.70	6	31.9	290	10.5	34	<200	300	<2
8104	<5	0.47	<1	1.9	300	0.69	<5	<200	<50	<2
8105	<5	1.50	<1	13.1	210	5.06	23	<200	<50	3
8106	<5	2.00	4	31.6	20	10.5	49	<200	140	<2
8107	<5	0.99	3	30.7	120	14.7	86	300	100	4
8108	<5	0.76	10	26.9	90	13.6	62	<200	100	<2
8109	<5	0.07	1	22.9	150	14.8	83	<200	130	2
8110	<5	2.70	4	41.8	340	7.27	45	<200	<50	6
8111	<5	1.70	7	53.0	460	11.5	48	<200	160	8
8112	<5	3.90	4	22.6	40	5.69	24	<200	<50	3
8113	<5	2.60	5	46.2	410	5.07	43	<200	200	<2
8114	8	0.09	11	16.0	180	13.7	160	200	120	2
8115	<5	2.60	6	34.3	250	7.42	31	<200	70	<2
8116	<5	0.76	5	31.5	150	9.63	71	<200	210	<2
8117	7	0.14	8	61.6	220	15.9	63	<200	200	3
8118	<5	1.90	6	26.5	200	7.81	41	<200	120	<2
8119	<5	0.86	3	13.8	270	4.90	18	<200	70	<2
8120	<5	2.10	2	8.9	200	6.77	13	<200	100	<2
8121	<5	0.76	6	45.5	100	8.86	34	<200	190	3
8122	<5	0.97	6	18.1	110	8.15	17	<200	100	<2
8123	<5	0.91	8	36.9	410	7.75	45	<200	100	<2
8124	24	1.30	7	32.1	90	9.60	66	<200	110	9
8125	<5	0.05	1	7.9	140	15.1	16	<200	330	<2
8126	140	1.20	5	10.7	180	4.92	54	<200	5400	35
8127	10	1.30	4	43.8	410	7.81	57	<200	230	5
8128	55	2.40	1	9.6	100	10.3	50	<200	590	<2
8129	9	3.00	4	42.9	160	9.47	47	<200	180	<2
8130	<5	1.00	<1	48.8	50	15.6	78	<200	530	13
8131	<5	1.80	3	56.2	60	9.97	40	<200	200	11
8132	<5	2.60	3	11.4	130	4.08	24	<200	650	2
8133	8	2.60	4	23.1	290	7.84	36	<200	110	11
8134	<5	0.65	6	43.7	370	9.39	50	300	240	8
8135	<5	0.80	7	47.4	140	14.2	60	<200	290	<2
8136	<5	<0.05	<1	3.0	50	5.76	6	<200	110	<2
8137	65	0.57	2	5.1	80	2.30	25	<200	2600	16
8138	6	0.22	1	0.7	130	2.46	17	<200	80	<2
8139	<5	1.40	<1	3.7	<10	1.34	<5	<200	<50	2
8140	<5	0.08	6	23.5	2100	7.97	90	700	180	<2
8141	<5	3.20	2	5.4	40	2.07	5	<200	<50	<2
8142	<5	0.84	1	26.2	30	4.59	18	<200	120	5
8143	<5	1.50	2	6.7	70	2.16	17	<200	390	<2
8144	<5	1.10	1	9.2	110	3.03	14	<200	60	5
8145	<5	2.00	2	42.3	200	8.33	36	<200	170	5
8146	9	2.00	4	32.0	40	4.82	24	<200	150	<2
8147	<5	1.20	3	23.8	1400	6.66	65	1400	70	<2
8148	<5	2.80	<1	6.8	10	1.26	<5	<200	<50	<2
8149	<5	<0.05	4	16.4	1700	6.09	72	1600	140	<2
8150	<5	3.90	2	5.6	20	2.09	9	<200	90	5

SAMPLE	AU PPB	NA %	CA %	SC PPM	CR PPM	FE %	CO PPM	NI PPM	ZN PPM	AS PPM
8151	<5	<0.05	5	26.7	2200	7.19	68	1200	170	<2
8152	6	0.23	<1	0.4	10	0.76	<5	<200	<50	9
8153	<5	3.00	2	4.7	20	1.92	7	<200	<50	<2
8154	<5	1.50	5	47.5	140	8.90	46	<200	250	2
8155	11	1.30	5	40.3	300	8.73	48	<200	140	2
8156	<5	2.20	5	24.7	520	8.47	50	400	190	<2
8157	<5	1.50	11	23.3	60	5.47	26	<200	<50	7
8158	<5	1.80	4	41.3	20	12.0	49	<200	250	<2
8159	<5	0.95	7	38.8	120	7.70	44	<200	190	<2
8160	<5	2.30	9	44.4	180	9.32	49	300	350	<2
8161	<5	1.80	5	40.8	50	13.6	49	<200	300	3
8162	<5	<0.05	3	10.4	3000	5.95	91	2900	110	47
8163	<5	3.60	2	7.6	40	2.79	13	<200	<50	12
8164	<5	<0.05	7	8.1	360	2.23	12	200	<50	3
8165	10	4.70	<1	1.3	10	0.66	<5	<200	<50	2
~~8166~~	~~750~~	~~0.42~~	~~1~~	~~9.2~~	~~<10~~	~~2.28~~	~~13~~	~~<200~~	~~1000~~	~~<2~~
~~8167~~	~~160~~	~~0.25~~	~~<1~~	~~8.1~~	~~40~~	~~17.7~~	~~54~~	~~200~~	~~670~~	~~120~~

SAMPLE	SE PPM	RB PPM	MO PPM	AG PPM	SB PPM	BA PPM	LA PPM	CE PPM	SM PPM
8101	<5	<40	<5	<5	0.2	<200	8	16	3.5
8102	<5	<40	<5	<5	0.2	<100	10	18	1.9
8103	<5	<30	<5	<5	0.2	<100	19	37	3.2
8104	<5	<30	<5	<5	0.2	<100	2	3	0.4
8105	<5	<30	<5	<5	0.3	100	18	42	3.5
8106	<5	<40	<5	<5	0.2	300	45	91	9.5
8107	<5	<30	<5	<5	0.2	<100	28	54	7.8
8108	<5	<30	<5	<5	<0.2	<200	11	31	6.7
8109	<5	<30	<5	<5	<0.2	<100	6	20	2.4
8110	<5	50	<5	<5	<0.2	<100	3	11	1.4
8111	<5	<30	<5	<5	0.3	<100	4	16	3.5
8112	<5	<50	6	<5	<0.2	<100	17	42	3.3
8113	8	<40	<5	<5	0.2	<100	4	13	2.3
8114	<5	<30	<5	<5	<0.2	<200	12	32	6.9
8115	<5	40	<5	<5	0.5	400	18	34	3.4
8116	<5	<30	<5	<5	0.2	<200	3	9	1.8
8117	<5	<30	<5	<5	0.3	<100	7	25	3.7
8118	<5	<30	<5	<5	<0.2	200	9	18	2.3
8119	<5	<30	<5	<5	0.2	100	3	7	1.1
8120	<5	<30	<5	<5	0.3	200	22	39	3.7
8121	<5	<30	<5	<5	<0.2	<100	6	16	3.6
8122	<5	40	<5	<5	<0.2	500	15	28	3.8
8123	<5	<30	<5	<5	0.7	100	3	10	1.5
8124	<5	50	<5	<5	0.2	300	<1	<3	0.9
8125	<5	<30	<5	<5	0.5	<100	11	21	2.0
8126	<5	40	<5	<5	0.6	400	19	34	3.4
8127	<5	40	<5	<5	0.2	<200	2	9	1.3
8128	5	<30	<5	<5	0.5	200	10	20	2.4
8129	9	<30	<5	<5	0.4	<100	3	17	2.3
8130	<5	<30	<5	<5	0.2	<100	6	18	3.8
8131	<5	50	<5	<5	0.2	500	5	17	3.7
8132	<5	50	<5	<5	0.4	400	24	49	4.5
8133	<5	<30	<5	<5	0.4	<100	56	94	9.5
8134	<5	<30	<5	<5	0.5	<100	4	13	2.3
8135	<5	30	8	<5	<0.2	<100	5	9	2.7
8136	<5	<30	<5	<5	0.2	<100	4	7	0.8
8137	<5	<30	<5	<5	0.4	200	8	14	1.6
8138	<5	<30	<5	<5	<0.2	<100	1	<3	0.1
8139	<5	50	<5	<5	0.5	100	11	17	1.5
8140	<5	<30	<5	<5	0.4	100	1	4	0.5
8141	<5	<50	<5	<5	0.2	300	12	22	1.7
8142	<5	<30	<5	<5	<0.2	200	3	6	1.8
8143	<5	40	<5	<5	0.2	200	14	27	2.6
8144	<5	<30	<5	<5	0.2	100	21	38	3.7
8145	<5	<30	<5	<5	0.4	100	3	13	1.8
8146	<5	80	13	<5	0.7	400	4	12	1.5
8147	<5	<30	<5	<5	0.4	200	15	29	2.7
8148	<5	<30	<5	<5	<0.2	900	25	41	4.2
8149	<5	<30	<5	<5	0.2	<200	<1	3	0.5
8150	<5	60	<5	<5	1.2	600	15	24	2.7

SAMPLE	SE PPM	RB PPM	MO PPM	AG PPM	SB PPM	BA PPM	LA PPM	CE PPM	SM PPM
8151	<5	<30	<5	<5	0.5	<100	1	4	0.6
8152	<5	<30	<5	<5	0.8	100	<1	<3	<0.1
8153	<5	<30	<5	<5	0.2	400	15	20	2.0
8154	<5	<30	<6	<5	<0.2	<100	4	13	2.3
8155	<5	<30	<5	<5	0.3	100	2	<3	1.5
8156	<5	<30	<5	<5	0.3	<300	43	92	8.9
8157	<5	<30	<5	<5	0.4	200	8	17	2.4
8158	<5	<30	<5	<5	<0.2	200	5	19	3.6
8159	<5	<30	<5	<5	0.2	<100	3	14	2.2
8160	<5	50	<5	<5	0.8	<100	4	16	2.3
8161	<5	<30	<5	<5	0.2	300	5	15	3.4
8162	<5	<30	<5	<5	0.4	<100	1	<3	0.3
8163	<5	<30	<5	<5	0.4	1100	81	126	13.7
8164	<5	<30	<5	<5	0.2	<100	1	<3	1.0
8165	<5	<30	<5	<5	0.3	200	8	13	1.3
~~8166~~	~~<5~~	~~<30~~	~~<5~~	~~<5~~	~~<0.2~~	~~<300~~	~~1~~	~~<3~~	~~0.5~~
~~8167~~	~~<5~~	~~50~~	~~<5~~	~~<5~~	~~4.6~~	~~500~~	~~13~~	~~25~~	~~2.6~~

SAMPLE	EU PPM	YB PPM	LU PPM	HF PPM	TA PPM	W PPM	IR PPB	TH PPM	U PPM
8101	<0.2	2.0	0.30	1	<1	<4	<20	0.6	<0.6
8102	<0.2	1.2	0.21	2	<1	<4	<20	8.6	2.1
8103	<0.2	2.0	0.33	1	<1	<4	<20	2.5	<0.5
8104	<0.2	0.2	<0.05	<1	<1	<4	<20	<0.5	<0.5
8105	<0.2	0.7	0.14	1	<1	16	<20	0.7	0.6
8106	3.0	1.6	0.24	2	<1	<4	<20	1.1	0.8
8107	1.3	2.3	0.28	2	<1	<4	<20	2.2	0.8
8108	1.7	3.7	0.54	1	<1	<4	<20	0.8	<0.5
8109	<0.2	1.6	0.15	2	<1	<4	<20	1.8	0.9
8110	<0.2	1.3	0.21	1	<1	<4	<20	<0.5	<0.7
8111	1.1	2.9	0.43	1	<1	<4	<20	<0.5	<0.5
8112	<0.2	1.4	0.28	1	<2	<4	<20	1.4	<0.7
8113	1.2	1.8	0.30	1	<1	<4	<20	<0.5	<0.5
8114	1.3	3.4	0.47	1	<1	<4	<20	0.5	<0.5
8115	0.5	1.4	0.20	1	<1	12	<20	1.1	<0.5
8116	0.9	1.8	0.29	1	<1	<4	<20	<0.5	<0.5
8117	1.1	2.5	0.43	<1	<1	5	<20	<0.5	0.8
8118	1.3	1.1	0.12	1	<1	<4	<20	0.7	<0.5
8119	0.3	0.7	0.14	1	<1	<4	<20	<0.5	<0.5
8120	1.1	0.7	0.14	2	<1	<4	<20	2.2	<0.5
8121	1.1	3.2	0.46	2	1	<4	<20	<0.5	<0.6
8122	1.4	1.3	0.22	2	<1	<4	<20	1.9	0.8
8123	<0.2	1.4	0.20	1	<1	<4	<20	<0.5	<0.5
8124	<0.3	0.9	0.15	<1	<1	8	<20	0.7	<0.6
8125	0.6	1.0	0.17	2	<1	<4	<20	1.9	<0.5
8126	0.6	1.3	0.23	3	<1	<4	<20	2.1	<0.5
8127	<0.2	1.5	0.23	1	<1	<4	<20	<0.5	<0.5
8128	1.3	1.0	0.23	2	<1	<4	<20	1.5	0.9
8129	<0.2	2.0	0.30	1	<1	<4	<20	<0.5	<0.5
8130	1.1	3.6	0.51	2	<1	<4	<20	<0.5	<0.5
8131	0.9	3.9	0.63	3	<1	<4	<20	<0.5	1.6
8132	<0.2	1.6	0.30	2	<1	7	<20	3.1	1.3
8133	2.5	1.5	0.22	1	<1	<4	<20	5.0	<0.5
8134	0.8	2.1	0.32	2	<1	<4	<20	<0.5	<0.6
8135	1.1	2.4	0.40	2	<1	<4	<20	<0.5	<0.5
8136	0.2	0.4	0.08	1	<1	<4	<20	0.8	<0.5
8137	0.4	0.6	0.11	1	<1	<4	<20	1.0	<0.5
8138	<0.2	<0.2	<0.05	<1	<1	<4	<20	<0.5	<0.5
8139	0.5	0.4	0.10	3	<1	<4	<20	2.3	0.7
8140	<0.2	0.8	0.12	<1	<1	<4	<20	<0.5	<0.5
8141	<0.2	0.5	0.10	3	<1	4	<20	1.9	1.2
8142	0.7	2.1	0.29	1	<1	<4	<20	<0.5	<0.5
8143	0.4	0.8	0.15	2	1	<4	<20	1.8	<0.5
8144	0.9	0.5	0.08	<1	<1	<4	<20	2.2	<0.5
8145	<0.2	2.1	0.38	1	2	<4	<20	<0.5	<0.5
8146	<0.5	1.3	0.34	<1	<1	4	<20	<0.5	<0.5
8147	<0.2	0.7	0.19	1	<1	<4	<20	1.3	<0.7
8148	0.9	0.8	0.12	2	<2	<4	<20	4.4	1.3
8149	<0.2	0.6	0.09	<1	<1	<4	<20	<0.5	<0.5
8150	<0.2	0.5	0.11	2	<1	<4	<20	2.2	<0.5

SAMPLE	EU PPM	YB PPM	LU PPM	HF PPM	TA PPM	W PPM	IR PPB	TH PPM	U PPM
8151	<0.2	0.9	0.15	<1	<1	<4	<20	<0.5	0.9
8152	<0.2	0.2	<0.05	<1	<1	<4	<20	<0.5	<0.5
8153	0.8	0.5	0.09	3	<1	<4	<20	2.2	0.8
8154	0.8	2.0	0.30	1	2	<4	<20	<0.5	<0.5
8155	<0.2	1.7	0.26	1	<1	<4	<20	<0.5	<0.5
8156	1.5	1.3	0.22	2	<1	<4	<20	2.3	<0.5
8157	0.9	1.4	0.29	1	<1	<4	<20	0.7	<0.5
8158	1.0	3.8	0.59	2	<1	<4	<20	0.6	1.2
8159	<0.2	2.0	0.31	<1	<1	<4	<20	<0.5	<0.5
8160	<0.2	2.2	0.34	1	<1	<4	<20	<0.5	<0.5
8161	<0.2	3.4	0.53	2	<1	<4	<20	<0.5	<0.5
8162	<0.2	0.3	<0.05	<1	<1	<4	<20	<0.5	<0.6
8163	3.7	1.5	0.30	4	<2	<4	<20	13.0	3.7
8164	0.6	0.8	0.12	<1	<1	<4	<20	<0.5	<0.5
8165	<0.2	0.2	<0.05	1	<2	<4	<20	1.4	<0.5
8166	~~<0.2~~	~~0.5~~	~~0.10~~	~~<1~~	~~<1~~	~~7~~	~~<20~~	~~<0.5~~	~~<0.5~~
8167	~~0.5~~	~~0.9~~	~~0.12~~	~~2~~	~~<1~~	~~<4~~	~~<20~~	~~1.4~~	~~<0.6~~

Ontario

900

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

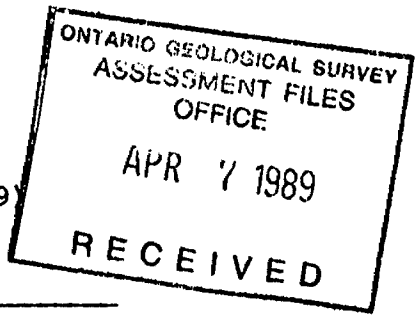
880 Bay Street
3rd Floor
Toronto, Ontario

(416) 965-4888

March 31, 1989

Your File : W8906-046/053
Our File : 2.11869

Mining Recorder
Ministry of Northern Development and Mines
60 Wilson Avenue
Timmins, Ontario
P4N 2S7



Dear Sir:

Re: Data for Assaying submitted under Section 77(19) of the Mining Act R.S.O. 1980 on Mining Claims P 993733 et al, in Sewell/Kenogaming

---

The enclosed statement of assessment work credits for Assaying has been approved as of the above date.

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

Yours sincerely,

W.R. Cowan
Provincial Manager, Mining Lands
Mines & Minerals Division
RM
Encl:

cc: Glen Auden Resources Limited
P.O. Box 1637
Timmins, Ontario
P4N 7W8

cc: Resident Geologist
Timmins, Ontario

Ministry of Northern Development and Mines

Ontario

Technical Assessment Work Credits

File 2.11869

Date March 31, 1989

Mining Recorder's Report of Work No. W8906-046/053

Recorded Holder: GLEN AUDEN RESOURCES LIMITED

Township or Area: SEWELL/KENOGAMING

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	$5647.00 spent on samples taken from mining claims:
Electromagnetic ____ days	P 993733
Magnetometer ____ days	997102
Radiometric ____ days	997115
Induced polarization ____ days	997118 - 119
Other ____ days	997127
Section 77 (19) See "Mining Claims Assessed" column	997130 - 131
Geological ____ days	997133 - 135 inclusive
Geochemical ____ days	997141
Man days ☐ Airborne ☐	997146 to 148 inclusive
Special provision ☐ Ground ☐	997150
☐ Credits have been reduced because of partial coverage of claims.	997152 to 155 inclusive
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	997157 - 158
	997161
	997163
	997183
	997186
	1027090 - 091
	376.46 days credit allowed which may be grouped in accordance with Section 76(6) of the Mining Act R.S.O. 1980

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey ☐ insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not

(m-223)

Ministry of Northern Development and Mines
Ontario

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

Mining Act

DOCUMENT No. W 8906.046

2.11869

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

Type of Survey(s): ASSAYING : SECTION 77(19)

Township or Area: SEWELL / KENOGAMING

Claim Holder(s): GLEN AUDEN RESOURCES LIMITED

Prospector's Licence No.: T-1915

Address: c/o P.O. Box 1637 Timmins ONTARIO P4N 7W8

Survey Company: R.S. Middleton Exploration Services Inc

Date of Survey (from & to): 10 05 88 (Day Mo. Yr.) 30 06 88

Total Miles of line Cut:

Name and Address of Author (of Geo-Technical report): R. Burk. c/o P.O. Box 1637 Timmins Ontario P4N 7W8.

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical	
	· Electromagnetic	
	· Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	· Radiometric	
	· Other	
	Geological	
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical	
	· Electromagnetic	
	· Magnetometer	
	· Radiometric	
	· Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

RECEIVED
FEB 15 1989
MINING LANDS SECTION

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	933566	20
	933568	20
	933570	20
	929610	40

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

RECEIVED
NOV 17 1988
2:10 PM BB.

RECORDED
NOV 17 1968

Expenditures (excludes power stripping)

Type of Work Performed: ASSAYING: P-993733, P-997102, P-997115

Performed on Claim(s): P-997118, P-997119, P-997130-P-997131, P-997133-135, P-997141, P-997146-148, P-997150, P-997152-155, P-997158, P-997161, P-997186, P-1027090-091.

Calculation of Expenditure Days Credits

Total Expenditures			=	Total Days Credits
$ 5,647.00	÷	15	=	376

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

Total number of mining claims covered by this report of work: 4

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
100	Nov. 17/88	
	Date Approved as Recorded	Branch Director

Date: Nov 17/88

Recorded Holder or Agent (Signature): Cynthia Abernethy

Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying: Cynthia Abernethy R.S. Middleton Exploration Services Inc
P.O. Box 1637 Timmins Ontario P4N 7W8

Date Certified: Nov 17/88

Certified by (Signature): Cynthia Abernethy

DOCUMENT No. W 8906•053

Ministry of Northern Development and Mines
Ontario

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

2.11869

Mining Act

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

Type of Survey(s): Assaying

Township or Area: Sewell/Reeves

Claim Holder(s): GlenAuden Resources Limited

Prospector's Licence No.: T-1915

Address: c/o P.O. Box 1637 Timmins, Ontario P4N 7W8.

Survey Company: R.S. Middleton Exploration Services Inc

Date of Survey (from & to): 10 05 88 | 30 06 88.

Total Miles of line Cut:

Name and Address of Author (of Geo-Technical report): R. Burk, P.O. Box 1637 Timmins Ontario P4N 7W8

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical - Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid:	- Radiometric	
Enter 20 days (for each)	- Other	
	Geological	
	Geochemical	

RECEIVED
FEB 15 1989
MINING LANDS SECTION

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical - Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

RECORDED
DEC 13 1988

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Prefix	Number	Expend. Days Cr.
P	1027204	20 *
	993731	20 *
	993732	20 *
	993733	20 *
	1029371	20 *
	1029372	20 *
	1029373	20 *
	724554	~~23~~ *

not allowed ... may ...

* Expenditures credits to be obtained from original submission of Assaying credits made November 17, 1988.

103 days Assaying credit remaining

RECEIVED
DEC 13 1988
@ 2:15

Expenditures (excludes power stripping)

Type of Work Performed: Assaying: P-993733, P-997102, P-997115

Performed on Claim(s): P-997118-119 inc. P-997130, P-997131, P-997133-135 inc., P-997141, P-997-146-148 inc., P-997150, P-997152-155 inc. P-997158, P-997161, P-997186, P-1027090-091.

Calculation of Expenditure Days Credits

Total Expenditures $ 5,647.00 ÷ 15 = Total Days Credits 376

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

Total number of mining claims covered by this report of work: 8

For Office Use Only		
Total Days Cr. Recorded: 140	Date Recorded: Dec 13/88	Mining Recorder: [signature]
	Date Approved as Recorded	Branch Director

Date: Dec. 13/88

Recorded Holder or Agent (Signature): Cynthia Abernethy

Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying: Cynthia Abernethy R.S. Middleton Exploration Services Inc. P.O. Box 1637 Timmins Ont. P4N 7W8

Date Certified: Dec 14/88

Certified by (Signature): Cynthia Abernethy

1885 LESLIE STREET • DON MILLS ONTARIO M3B 3J4 • (416) 445-5809

INVOICE TO: GLEN ANDEN RESOURCES LIMITED
c/o ROBERT S. MIDDLETON EXPLORATION
ATTN: DON GARNER
BOX 1637
136 [redacted]R STREET SOUTH
TIMMINS, ONTARIO P4N 7W8

COPY TO:

COPY

SUBMITTED TO:
ROBERT S. MIDDLETON EXPLORATION
ATTN: DON GARNER
BOX 1637
136 CEDAR STREET SOUTH
TIMMINS, ONTARIO P4N 7W8

SAME

CUSTOMER NO. 1078

INVOICE NO.	INVOICE DATE	WORK ORDER NO.	DATE SUBMI
6100	06-Sep-88	2202	27-Jul-

TERMS
TERMS NET 30 DAYS
1.5% PER MONTH INTEREST ON ACCOUNT OVER 30 DAYS

CLIENTS P.O. NO.	CLIENT PROJECT NO.		TYPE OF SAMPLES SUBMITTED
	M223		ROCK

NO OF PKGS	SHIPPED VIA	WAY BILL NO.	SHIPPED FROM
1 BOX	ONR	X411961	TIMMINS

QUANTITY	DESCRIPTION METHOD	CODE NUMBER	UNIT COST	AMOUNT
1. 42	REE BY ICP/MS	12, 0, 0, 0, 0	75.00	3150.0
2. 42	WHOLE ROCK ANALYSIS	6, 0, 0, 0, 0	25.00	1050.0
3. 42	CRUSHING & MILLING	1, 0, 0, 0, 0	3.50	147.0

Courier
Via Carolyn
Dept 14/88

SUB-TOTAL $ 4347.00

MISC CHARGES

SHIPPING CHARGES	CUSTOM BROKERAGE	TELEX	MINIMUM CHARGES
4.50			
OTHER			SURCHARGE - RUSH SERVICE
			$ 4.5

ORIGINAL INVOICE WITH YOUR CHEQUE

TOTAL IN CANADIAN FUNDS $ 4351.5

1885 LESLIE STREET • DON MILLS ONTARIO M3B 3G4 • (416) 445-5805

INVOICE TO: Glen Auden Resources Ltd
c/o ROBERT S. MIDDLETON EXPLORATION
ATTN: RON BURK
BOX 1637
136 CEDAR STREET SOUTH
TIMMINS, ONTARIO P4N 7W8

COPY TO

SAME Corrected to Carolyn July 22/

SUBMITTED TO:
ROBERT S. MIDDLETON EXPLORATION
ATTN: RON BURK
BOX 1637
136 CEDAR STREET SOUTH
TIMMINS, ONTARIO P4N 7W8

SAME

CUSTOMER NO. 1078

INVOICE NO.	INVOICE DATE	WORK ORDER NO.	DATE SUBM
5485	12-Jul-88	1834	27-Jun

TERMS
TERMS NET 30 DAYS
1.5% PER MONTH INTEREST ON ACCOUNT OVER 30 DAYS

CLIENTS P.O. NO	CLIENT PROJECT NO.		TYPE OF SAMPLES SUBMITTED
	M223		ROCK

NO OF PKGS	SHIPPED VIA	WAY BILL NO	SHIPPED FROM
2 BOXES	ONR	X410925	TIMMINS

	QUANTITY	DESCRIPTION METHOD	CODE NUMBER	UNIT COST	AMOUNT
1.	67	L-VIAL, 02-6 (LOT)	14, 20, 0, 0, 0	15.00	1005.0
2.	33	CRUSH & AGATE MILL	1, 0, 0, 0, 0	5.00	165.0
3.	34	CRUSH & CHROME MILL	1, 0, 0, 0, 0	3.50	119.0

JOB NO. √ M-223
Approved by J W Newsome
Date Approved July 20/88
Posted

SUB-TOTAL $ 1289.00

MISC. CHARGES	SHIPPING CHARGES	CUSTOM BROKERAGE	TELEX	MINIMUM CHARGES	
	6.50				$ 6.5
	OTHER			SURCHARGE - RUSH SERVICE	

TOTAL IN CANADIAN FUNDS $ 1295.5

ORIGINAL INVOICE

MINING LANDS: PLEASE COMPLETE THIS FORM & RETURN IT WITH REPORT TO THE ASSESSMENT FILES OFFICE

DATE REMOVED: (from AFO) Mar 9/89 DATE RETURNED: (to AFO') _____

REPORT # : 2.11869

FICHE NO. : _____ (where applicable)

REASON FOR REQUESTING REPORT (complete #1-4 below):

1. INFORMATION ADDED TO EXISTING PAGES OF REPORT: [X]

IF YES, SPECIFY PAGES: 6

: _____

: _____

2. a) PAGES/MAPS ADDED TO THIS REPORT: 6 TOTAL PAGES ADDED

: ____ TOTAL MAPS ADDED

b) TYPE OF PGS ADDED: 1 CORRESPONDENCE

: _____ WORK REPORTS (AMENDED)

: 2 WORK RPTS (NEW)

: _____ MISSING PAGES OF TEXT

: 3 OTHER (PLEASE SPECIFY)

(1 statement + 2 invoices)

3. a) REMOVAL OF PGS FROM REPORT: _____ TOTAL PGS REMOVED

b) TYPE OF PAGES REMOVED : _____ CORRESPONDENCE

: _____ WORK REPORTS

: _____ PGS OF TEXT

: _____ OTHER (PLEASE SPECIFY)

4. REPORT NEEDED FOR REFERENCE ONLY: [X]

NO INFORMATION ALTERED : [X]

NO INFORMATION ADDED : [ ]

NO INFORMATION DELETED : [X]

*NOTE: ENTER "X" IN APPLICABLE BOXES

Ontario

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Mining Lands Section
3rd floor, 880 Bay Street
Toronto, Ontario
M5S 1Z8

Telephone: (416) 965-4888

December 20, 1988

Your file: W8806-50117
Our file: 2.11869

Mining Recorder
Ministry of Northern Development and Mines
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

Re: Notice of Intent dated December 1, 1988 - Geological Survey
submitted on Mining Claims P 997102 et al in Sewell & Kenogaming Townships

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

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

Yours sincerely,

W.R. Cowan
Provincial Manager, Mining Lands
Mines & Minerals Division
R.M.
RM:pl
Enclosure

cc: Mr. G.H. Ferguson
Mining and Lands Commissioner
Toronto, Ontario

Resident Geologist
Timmins, Ontario

Glen Auden Resources Limited
c/o P.O. Box 1637
Timmins, Ontario
P4N 7W8

R.S. Middleton Exploration Services
P.O. Box 1637
Timmins, Ontario
P4N 7W8

Ministry of Northern Development and Mines
Ontario

Technical Assessment Work Credits

File 2.11869

Date December 1, 1988

Mining Recorder's Report of Work No. W8806-50117

Recorded Holder: Glen Auden Resources Limited

Township or Area: Sewell and Kenogaming Townships

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	P 997102 to 131 inclusive 997133 to 158 inclusive 997160 to 165 inclusive 997182-183 997186 1027088 to 102 inclusive 993731 to 733 inclusive
Electromagnetic _____ days	
Magnetometer _____ days	
Radiometric _____ days	
Induced polarization _____ days	
Other _____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological 20 days	
Geochemical _____ days	
Man days ☐ Airborne ☐	
Special provision ☒ Ground ☒	
☐ Credits have been reduced because of partial coverage of claims.	
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

5 days Geological

P 997101

No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey ☐ insufficient technical data filed

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

Ministry of Northern Development and Mines

Ontario

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

Mining Act

DOCUMENT No. W8806.50117

Dec 9

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

Type of Survey(s): Geological Mapping

Township or Area: Sewell & Kenogaming Twps

Claim Holder(s): Glen Auden Resources Limited 2.11839

Prospector's Licence No.: T-1915

Address: c/o P.O. Box 1637 Timmins Ontario

Survey Company: R.S. Middleton Exploration Services

Date of Survey (from & to): 10 05 88 (Day Mo. Yr.) 30 06 88 (Day Mo. Yr.)

Total Miles of line Cut:

Name and Address of Author (of Geo-Technical report): R. Burk P.O. Box 1637 Timmins Ont P4N 7W8

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical - Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	20
	Geochemical	

RECEIVED NOV 1 1988 MINING LANDS SECTION

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical	
	- Electromagnetic	
	- Magnetometer	
	Radiometric	
	Other	
	Geological	
	Geochemical	

RECEIVED OCT 20 1988

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

RECORDED OCT 20 1988

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

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

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Number	Expend. Days Cr.
P	997101	
	997102	
	997103	
	997104	
	997105	
	997106	
	997107	
	997108	
	997109	
	997110	
	997111	
	997112	
	997113	
	997114	
	997115	
	997116	
	997117	
	997118	
	997119	
	997120	
	997121	
	997122	
	997123	

Mining Claim Prefix	Number	Expend. Days Cr.
P	997124	
	997125	
	997126	
	997127	
	997128	
	997129	
	997130	
	997131	
	997133	
	997134	
	997135	
	997136	
	997137	
	997138	
	997139	
	997140	
	997141	
	997142	
	997143	
	997144	
	997145	
	997146	
	997147	

PAGE 1 OF 2.

Total number of mining claims covered by this report of work: 84

For Office Use Only

Total Days Cr. Recorded: 1,680

Date Recorded: Oct 20/88

Mining Recorder: G. White

Date Approved as Recorded: See revised statement.

Branch Director

Date: Oct 20/88.

Recorded Holder or Agent (Signature): Cynthia Abernethy

Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying: CYNTHIA ABERNETHY P.O. Box 1637 Timmins Ontario P4N 7W8

Date Certified: Oct 20/88.

Certified by (Signature): Cynthia Abernethy

1362 (85/12)

Ministry of Northern Development and Mines

Ontario

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

DOCUMENT No. W 8806.50117

Mining Act

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

Type of Survey(s)	Township or Area
Geological Mapping	Sewell/Kenogaming
Claim Holder(s)	**Prospector's Licence No.**
Glen Auden Resources Limited	T-1915
Address	
Survey Company	**Date of Survey (from & to)** Day | Mo. | Yr. | Day | Mo. | Yr. — **Total Miles of line Cut**
Name and Address of Author (of Geo-Technical report)	

Credits Requested per Each Claim in Columns at right

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

RECEIVED
OCT 20 1988

RECORDED
OCT 20 1988

Expenditures (excludes power stripping)

Type of Work Performed	
Performed on Claim(s)	

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

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

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	997148	
	997149	
	997150	
	997151	
	997152	
	997153	
	997154	
	997155	
	997156	
	997157	
	997158	
	997160	
	997161	
	997162	
	997163	
	997164	
	997165	
	997182	
	997183	
	997186	
	1027088	
	1027089	
	1027090	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	1027091	
	1027092	
	1027093	
	1027094	
	1027095	
	1027096	
	1027097	
	1027098	
	1027099	
	1027100	
	1027101	
	1027102	
	993731	
	993732	
	993733	

PAGE 2 OF 2

Total number of mining claims covered by this report of work.

For Office Use Only		
Total Days Cr. Recorded	Date Recorded	Mining Recorder: S. White
	Date Approved as Recorded	Branch Director

Date: Oct 20/88 — Recorded Holder or Agent (Signature): Cynthia Abernethy

Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying
CYNTHIA ABERNETHY

Date Certified: Oct 20/88. — Certified by (Signature): Cynthia Abernethy

1362 (85/12)

REFERENCES

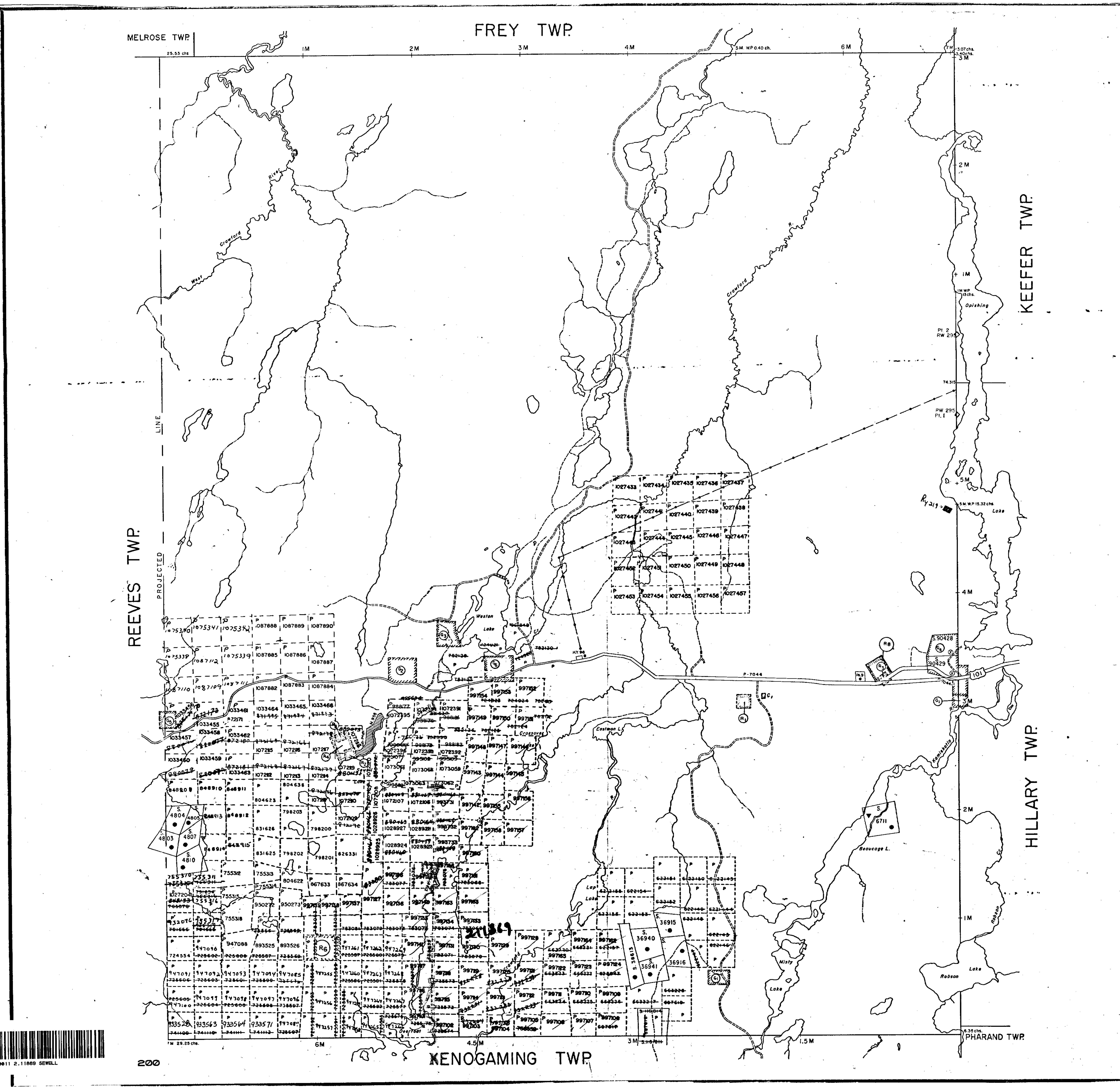
AREAS WITHDRAWN FROM DISPOSITION

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

	Description	Order No.	Date	Disposition	File
R1	SEC 43/70	W. 30/77	11/3/77	S.R.O.	135748
R2	SEC. 43/70	W. 19/78	10/4/78	S.R.O. + M.R.O.	188543
R3	SEC. 43/70	W. 10/78	14/11/78	S.R.O.	135748
R4	DUMP ATTENUATION ZONE				
R5	SEC. 36/80	W. 46/83	14/8/83	M. + S.	
R6	Not open for staking AWAITING INSPECTION 71/86				
R7	"FILED ONLY" D-26/86				
R8	NOT OPEN FOR STAKING + BONA FIDE APPLICATION UNDER PUBLIC LANDS ACT PENDING. 21/01/87				

SAND AND GRAVEL

G1	GRAVEL	FILE	135748
G2	M.T.C.	PIT	1577
G3	M.T.C.	PIT	3H-1 FILE 135748
G4	M.T.C.	PIT	1576
G5	M.T.C.	PIT	3H-2 FILE 184702
G6	M.T.C.	PIT	1243



42A04NE0011 2.11889 SEWELL

200

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.

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000
METRES 0 200 1000 (1 KM) 2000 (2 KM)

TOWNSHIP

SEWELL

M.N.R. ADMINISTRATIVE DISTRICT
TIMMINS
MINING DIVISION
PORCUPINE
LAND TITLES / REGISTRY DIVISION
SUDBURY

NOV. 4 1988

Ontario — Ministry of Natural Resources — Land Management Branch

Date MARCH, 1985

Number G-3247

checked L.P.

REFERENCE

AREAS WITHDRAWN FROM DISPOSITION

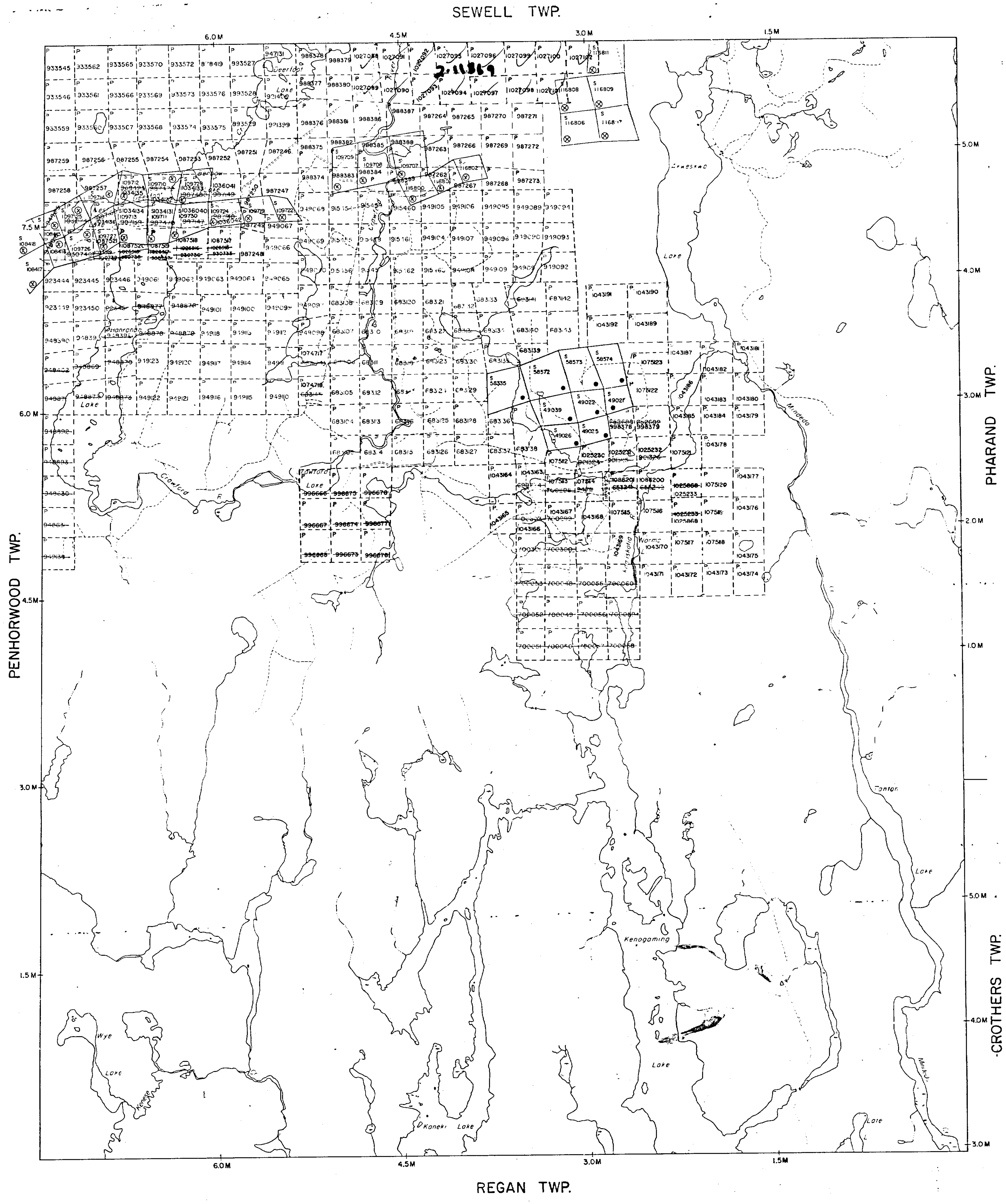
M.R.O. – MINING RIGHTS ONLY

S.R.O. – SURFACE RIGHTS ONLY

M.+ S. – MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File

210



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.

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000

METRES 0 200 1000 (1 KM) 2000 (2 KM)

TOWNSHIP

KENOGAMING

M.N.R. ADMINISTRATIVE DISTRICT

TIMMINS

MINING DIVISION

PORCUPINE

LAND TITLES / REGISTRY DIVISION

SUDBURY

Ministry of Natural Resources — Ontario

Land Management Branch

Date APRIL 1985

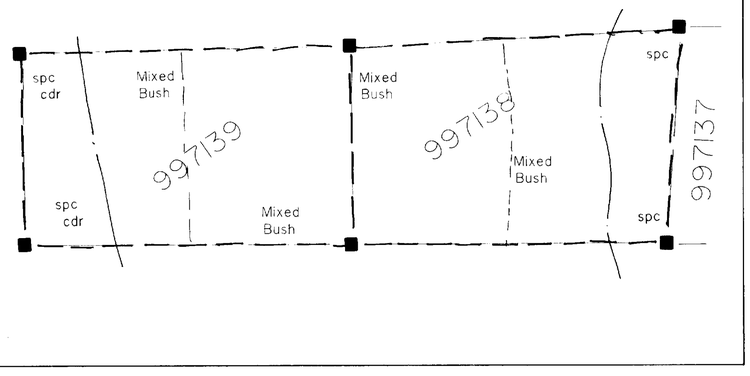
Number G-3239

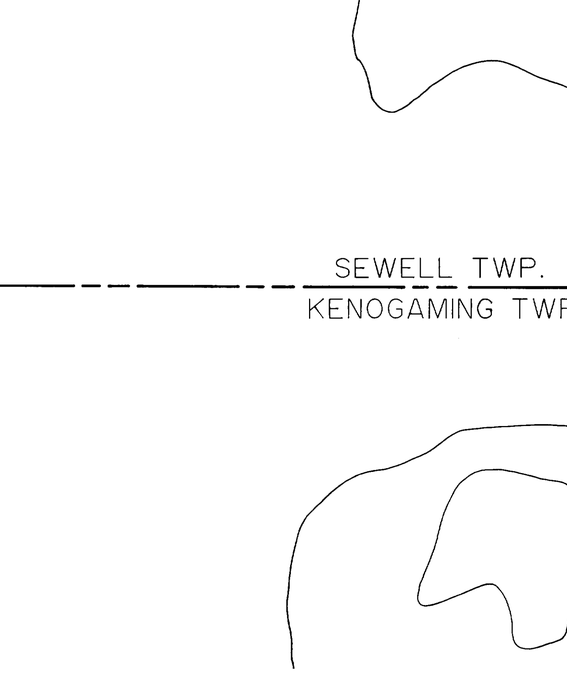
RECEIVED APR 22/87


SEWELL LAKE
SEWELL LAKE
Sewell Creek
x BM 728258
Gravel Pit
Gravel Pit
Gravel Pit
TRAPPERS CABIN
997154
997153
997150
997149
997148
997147
997146
997145
997144
997143
997142
997155
997156
997157
997158
997161
997163
997182
997183
997186
997125
997140
993731
993732
993733
70266
70268
70269
70270
70271
70272
70273
70274
70275
70276
70277
70278
70279
70280
70281
70282
70283
70284
70285
70286
70287
70288
8101
8102
8103
8104
8107
8108
8109
8110
8111
8112
8113
8114
8115
8116
8117
8118
8119
8120
8121
8122
Fault Zone
Fault Zone (?)
DDH's (?)
Sulphides
Mixed High Ground Bush
Mixed Bush
Immature Spc
jack pne
(flooded spc forest)
immature spc pne
SHEET 1
SHEET 2
SHEET 3
SEWELL TWP.
KENOGAMING TWP.
ROCK TYPES
LATE INTRUSIVE ROCKS
8 Proterozoic diabase
7 EARLY FELSIC INTRUSIVE ROCKS
7a granitic rocks
7b quartz-feldspar porhyry
6 EARLY MAFIC AND INTERMEDIATE INTRUSIVE ROCKS
6a gabbro
6b pyroxene-porphritic rock
6c diorite
6d feldspar porphyry
5 ULTRAMAFIC ROCKS
5a peridotite
5b serpentinized peridotite
5c komateiitic rock
5d carbonatized ultramafic rock
4 SEDIMENTARY ROCKS
4a argillite
4b wacke (siltstone, sandstone)
4c conglomerate
4d chert
4e iron formation
4f graphitic rock
3 FELSIC VOLCANIC ROCKS
3a massive flow or undifferentiated
3b flow breccia
3c porphyritic flow
3d tuff, crystal tuff
3e lapilli tuff
2 INTERMEDIATE VOLCANIC ROCKS
2a massive flow or undifferentiated
2b pillow flow
2c pillow or flow breccia
2d amygdaloidal
2e porphyritic
2f tuff, crystal tuff
2g lapilli tuff
2h agglomerate
2j reworked tuff (tuffacous sedimentary ro
ABBREVIATIONS
ROCKS
qtz quartz
qv quartz vein
silic silicified
carb carbonate
cc calcite
ank ankerite
ep epidote
chl chlorite
pyx pyroxene
feld feldspar
mag magnetite
py pyrite
po pyrrhotite
cpy chalcopyrite
120340 whole rock and trace element sample
120341 trace element analysis only
TREES
adr alder
ppl poplar
bch birch
spc spruce
mpl maple
bsm balsam
cdr cedar
pne pine
MAPPED BY D. GARNER

220

Claims Appended East of Claim No. 997137





ROCK TYPES

LATE INTRUSIVE ROCKS

8 Proterozoic diabase

7 EARLY FELSIC INTRUSIVE ROCKS

7a granitic rocks
7b quartz-feldspar porhyry

6 EARLY MAFIC AND INTERMEDIATE INTRUSIVE ROCKS

6a gabbro
6b pyroxene-porphritic rock
6c diorite
6d feldspar porhyry

5 ULTRAMAFIC ROCKS

5a peridotite
5b serpentinized peridotite
5c komatiitic rock
5d carbonatized ultramafic rock

4 SEDIMENTARY ROCKS

4a argillite
4b wacke (siltstone, sandstone)
4c conglomerate
4d chert
4e iron formation
4f graphitic rock

3 FELSIC VOLCANIC ROCKS

3a massive flow or undifferentiated
3b flow breccia
3c porphyritic flow
3d tuff, crystal tuff
3e tapilli tuff

2 INTERMEDIATE VOLCANIC ROCKS

2a massive flow or undifferentiated
2b pillow flow
2c pillow or flow breccia
2d amygdaloidal
2e porphyritic
2f tuff, crystal tuff
2g tapilli tuff
2h agglomerate
2j reworked tuff (tuffaceous sedimentary rock)

1 MAFIC VOLCANIC ROCKS

1a massive pillow or undifferentiated
1b pillowed flow
1c pillow or flow breccia
1d amygdaloidal
1e variolitic
1f porphyritic
1g pyroclastic

— MAPPING TRAVERSES

SYMBOLS

gneissosity
foliation with dip
cleavage with dip
lineation with plunge
jointing with dip
drag fold
rock sample
bedding with dip and tops direction
pillow tops direction
shearing
x rock outcrops
scarp
vegetation boundary
wet lowland
creek
esker
gravel road
road in disrepair
overgrown trail

ABBREVIATIONS

ROCKS

IF iron formation
qtz quartz
qv quartz vein
silic silicified
carb carbonate
cc calcite
ank ankerite
ep epidote
chl chlorite
pyx pyroxene
feld feldspar
mag magnetite
py pyrite
po pyrrhotite
cpy chalcopyrite

120340 whole rock and trace element sample

120341 trace element analysis only

TREES

adr alder
ppl poplar
bet birch
spc spruce
mpl maple
bsm balsam
cdr cedar
pne pine

MAPPED BY T. GUOTH, M. ZEEMAN


LAP LAKE
FLOATING BOG
997129
997128
997165
997164
997162
997119
997120
997121
997122
997123
997124
997114
997113
997112
997111
997110
997109
997104
997105
997106
997107
997108
1027091
1027092
1027095
1027096
1027099
1027100
1027102
1027090
1027093
1027094
1027097
1027098
1027101
Mixed High Ground Bush
Mixed Bush
Jack pne
Boulders
High Ground
Deadfall
Thick Mixed
Mixed Bush with Black Ash
Mixed Bush with Alders
7a X (bld?)
Old Cut
Sandy Till
Old Cut adr immature pne
Till
Lowland Wet
BEAVER DAM
Open
Higher Ground
Mixed Forest
Open Cut Low Bush
Pebble to Boulder Till Overburden Cover
Open Mixed
Mixed Patches
Low Thick
Cut Area
Lowland Wet
X 2a
ROCK TYPES
LATE INTRUSIVE ROCKS
8 Proterozoic diabase
7 EARLY FELSIC INTRUSIVE ROCKS
7a granitic rocks
7b quartz-feldspar porphyry
6 EARLY MAFIC AND INTERMEDIATE INTRUSIVE ROCKS
6a gabbro
6b pyroxene-porphritic rock
6c diorite
6d feldspar porphyry
5 ULTRAMAFIC ROCKS
5a peridotite
5b serpentinized peridotite
5c komatiitic rock
5d carbonatized ultramafic rock
4 SEDIMENTARY ROCKS
4a argillite
4b wacke (siltstone, sandstone)
4c conglomerate
4d chert
4e iron formation
4f graphitic rock
3 FELSIC VOLCANIC ROCKS
3a massive flow or undifferentiated
3b flow breccia
3c porphyritic flow
3d tuff, crystal tuff
3e lapilli tuff
2 INTERMEDIATE VOLCANIC ROCKS
2a massive flow or undifferentiated
2b pillow flow
2c pillow or flow breccia
2d amygdaloidal
2e porphyritic
2f tuff, crystal tuff
2g lapilli tuff
2h agglomerate
2j reworked tuff (tuffaceous sedimentary rock)
1 MAFIC VOLCANIC ROCKS
1a massive pillow or undifferentiated
1b pillowed flow
1c pillow or flow breccia
1d amygdaloidal
1e variolitic
1f porphyritic
1g pyroclastic
— Mapping Traverses.
ABBREVIATIONS
ROCKS
qtz quartz
qv quartz vein
silic silicified
carb carbonate
cc calcite
ank ankerite
ep epidote
chl chlorite
pyx pyroxene
feld feldspar
mag magnetite
py pyrite
po pyrrhotite
cpy chalcopyrite
120340 whole rock and trace element sample
120341 trace element analysis only
TREES
adr alder
ppl poplar
bch birch
spc spruce
mpl maple
bsm balsam
cdr cedar
pne pine
SYMBOLS
foliation with dip
cleavage with dip
lineation with plunge
jointing with dip
drag fold
sample location
bedding with dip and tops direction
pillow tops direction
shearing
rock outcrops
scarp
vegetation boundary
wet lowland
creek
esker
gravel road
trail
REVISION
MAPPED BY D. GARNER, T. GUOTH, M. ZEEMAN
240

x BM 728258

Gravel Pit

70268 la

la 7a (xeno's)

la 8102 8103 mag 7a

Mixed High Ground Bush

Gravel Pit

Mixed High Ground Bush

Immature Spc adr

Mixed High Ground Bush

Mixed Bush

la X 8105 qv py 8106

101

997153

997154

997152

cdr

cdr

spc adr

Mixed Bush

Mixed Bush

70266 6c

Mixed High Ground Bush

adr immature spc

adr immature spc

7a 9

Mixed High Ground Bush

Sewell Creek

997150

997149

Mixed Bush

Mixed Bush

la, silic, py 8104

la 70269

Mixed High Ground Bush

Mixed Bush

997151

spc

cdr

7a 9

la,lg

cdr

Mixed Bush

spc

spc cdr

spc

cdr

70267 la 8101

cdr

la (gneissose)

cdr

spc cdr

7a (la xeno's)

997148

997147

997146

Mixed Bush

7a (with la xeno's) 5d high Mg 70270

8110 8111 8112

70273 7a

cdr

cdr

8107 Fault Zone 8109 (sericitized, chloritized)

lg la, py, quartz-carb

70271 la

8108 DDH's (?)

7a la

la Fault Zone (?) la xeno's

7a

8113 (float)

la,py 8114

cdr

cdr

spc

Mixed Bush

cdr

Mixed High Ground Bush

spc

jack pne

jack pne

Mixed Bush

997145

997144

997143

spc

spc cdr

cdr

cdr

Mixed Bush

993731

cdr

spc cdr

Mixed High Ground Bush

7a (la xeno's)

spc

Mixed High Ground Bush

997156

spc

spc

Mixed High Ground Bush

997155

997142

Mixed High Ground Bush

Mixed High Ground Bush

993732

la 70272 9

70276 la

TRAPPERS CABIN

70277 8116 la, carb py

6a la

Mixed Bush

Mixed Bush

la 70274 8115

spc

spc (sandy)

997158

997182

spc cdr

70275 6a carb py

997157

Sulphides lf la qtz eyes 8117 8118

Mixed

spc

immature spc pne

Mixed Bush

spc

993733

Mixed High Ground Bush

Mixed High Ground Bush

9 (bld?)

70278 lf carb

2a, qv 9 70281 8119

spc

spc adr

spc

9 tr,py 70279

Gravel Pit

6c spc pne la

70280 la, chlorite

spc

spc jack pne

Mixed Bush

997186

997161

70288 8121

(qv) 6a? 8? 8120 70287

6a spc

2a 70282

spc pne

(flooded spc forest)

70283 carb 6a

70284 8122 2f,3d (carb)

2f,3d?

2f,3d?

la carb 70286

70285

997140

997163

997183

SHEET 3

ROCK TYPES

LATE INTRUSIVE ROCKS

6 Proterozoic diabase

7 EARLY FELSIC INTRUSIVE ROCKS

7a granitic rocks
7b quartz-feldspar porhyry

6 EARLY MAFIC AND INTERMEDIATE INTRUSIVE ROCKS

6a gabbro
6b pyroxene-porphritic rock
6c diorite
6d feldspar porphyry

5 ULTRAMAFIC ROCKS

5a peridotite
5b serpentinized peridotite
5c komatiitic rock
5d carbonatized ultramafic rock

4 SEDIMENTARY ROCKS

4a argillite
4b wacke (siltstone, sandstone)
4c conglomerate
4d chert
4e iron formation
4f graphitic rock

3 FELSIC VOLCANIC ROCKS

3a massive flow or undifferentiated
3b flow breccia
3c porphyritic flow
3d tuff, crystal tuff
3e lapilli tuff

2 INTERMEDIATE VOLCANIC ROCKS

2a massive flow or undifferentiated
2b pillow flow
2c pillow or flow breccia
2d amygdaloidal
2e porphyritic
2f tuff, crystal tuff
2g lapilli tuff
2h agglomerate
2j reworked tuff (tuffaceous sedimentary rock)

1 MAFIC VOLCANIC ROCKS

1a massive pillow or undifferentiated
1b pillowed flow
1c pillow or flow breccia
1d amygdaloidal
1e variolitic
1f porphyritic
1g pyroclastic

ABBREVIATIONS

ROCKS

atz	quartz
qv	quartz vein
silic	silicified
carb	carbonate
cc	calcite
ank	ankerite
ep	epidote
chl	chlorite
pyx	pyroxene
feld	feldspar
mag	magnetite
py	pyrite
po	pyrrhotite
cpy	chalcopyrite

TREES

ndr	alder
ppl	poplar
bch	birch
spc	spruce
mpl	maple
bsm	balsam
cdr	cedar
pne	pine

I20340 whole rock and trace element sample

I20341 trace element analysis only

MAPPED BY D. GARNER

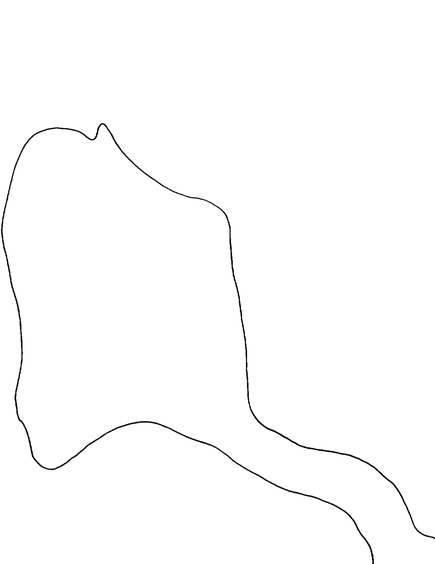
SYMBOLS

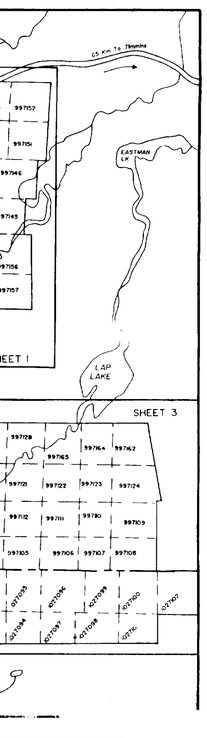
- gneissosity
- foliation with dip
- cleavage with dip
- lineation with plunge
- jointing with dip
- drag fold
- sample location
- bedding with dip and tops direction
- pillow tops direction
- shearing
- rock outcrops
- scarp
- vegetation boundary
- wet lowland
- creek
- esker
- highway
- gravel road
- road in disrepair
- overgrown trail
- mapping traverses

2.11

REVISIONS	ROBERT S. MIDDLETON EXPLORATION SERVICES INC.		
	for GOLDROCK RESOURCES INC. GLEN AUDEN RESOURCES LIMITED		
	Title Reeves Joint Venture Geology (Sheet 1)		
	Date: Aug 88	Scale: 1:2500	N.T.S.:
	Drawn: BSB/DG	Approved:	File: M-223

Claims Appended East of Claim No. 997137





ROCK TYPES

LATE INTRUSIVE ROCKS

6 Proterozoic diabase

7 EARLY FELSIC INTRUSIVE ROCKS

7a granitic rocks
7b quartz-feldspar porhyry

6 EARLY MAFIC AND INTERMEDIATE INTRUSIVE ROCKS

6a gabbro
6b pyroxene-porphiritic rock
6c diorite
6d feldspar porphyry

5 ULTRAMAFIC ROCKS

5a peridotite
5b serpentinized peridotite
5c komatiitic rock
5d carbonatized ultramafic rock

4 SEDIMENTARY ROCKS

4a argillite
4b wacke (siltstone, sandstone)
4c conglomerate
4d chert
4e iron formation
4f graphitic rock

3 FELSIC VOLCANIC ROCKS

3a massive flow or undifferentiated
3b flow breccia
3c porphyritic flow
3d tuff, crystal tuff
3e tapilli tuff

2 INTERMEDIATE VOLCANIC ROCKS

2a massive flow or undifferentiated
2b pillow flow
2c pillow or flow breccia
2d amygdaloidal
2e porphyritic
2f tuff, crystal tuff
2g tapilli tuff
2h agglomerate
2j reworked tuff (tuffaceous sedimentary rock)

1 MAFIC VOLCANIC ROCKS

1a massive pillow or undifferentiated
1b pillowed flow
1c pillow or flow breccia
1d amygdaloidal
1e variolitic
1f porphyritic
1g pyroclastic

— MAPPING TRAVERSES.

SYMBOLS

- gneissosity
- foliation with dip
- cleavage with dip
- lineation with plunge
- jointing with dip
- drag fold
- rock sample
- bedding with dip and tops direction
- pillow tops direction
- shearing
- x rock outcrops
- scarp
- vegetation boundary
- wet lowland
- creek
- esker
- gravel road
- road in disrepair
- overgrown trail

ABBREVIATIONS

ROCKS

IF	iron formation
qtz	quartz
qv	quartz vein
silic	silicified
carb	carbonate
cc	calcite
ank	ankerite
ep	epidote
chl	chlorite
pyx	pyroxene
feld	feldspar
mag	magnetite
py	pyrite
po	pyrrhotite
cpy	chalcopyrite

120340 whole rock and trace element sample

120341 trace element analysis only

TREES

adr	alder
ppl	poplar
bch	birch
spc	sprurce
mpl	maple
bsm	balsam
cdr	cedar
pne	pine

MAPPED BY T. GUOTH, M. ZEEMAN

REVISIONS	ROBERT S. MIDDLETON EXPLORATION SERVICES INC.
	for GOLDROCK RESOURCES INC. GLEN AUDEN RESOURCES LTD.
	Title Reeves Joint Venture Geology (Sheet 2)
	Date: Aug 88 | Scale: 1:2500 | N.T.S.:
	Drawn: BSB | Approved: | File: M-223

LAP LAKE

FLOATING BOG

Mixed Bush

Mixed High Ground Bush

Mixed Bush with Black Ash

Mixed Bush with Alders

7a X (bld?)

6 Boulders

Jack pine

997128 997165 997164 997162 997121 997122 997123 997124 997112 997111 997110 997109 997105 997106 997107 997108 1027095 1027096 1027099 1027100 1027102 1027094 1027097 1027098 1027101

High Ground

Deadfall

Lowland Wet

Thick Mixed

Old Cut

Open

Open Cut Low Bush

Pebble to Boulder Till Overburden Cover

Mixed Forest

Mixed Patches

Cut Area

SEWELL TWP.

KENOGAMING TWP.

N

ABBREVIATIONS

ROCKS

qtz quartz
qv quartz vein
sric silicified
carb carbonate
cc calcite
cpx pyroxene
feld feldspar
mag magnetite
py pyrite
po pyrrhotite
cpy chalcopyrite

10C340 whole rock and trace element sample

10C341 trace element analysis only

TREES

adr alder
ppl poplar
bch birch
spc spruce
mpl maple
bsm balsam
cdr cedar
pne pine

SYMBOLS

foliation with dip
cleavage with dip
lineation with plunge
jointing with dip
drag fold
sample location
bedding with dip and tops direction
pillow tops direction
shearing
x rock outcrops
scarp
vegetation boundary
wet lowland
creek
esker
gravel road
trail

MAPPED BY D. GARNER, T. GUOTH, M. ZEEMAN

2.11039

REVISIONS	ROBERT S. MIDDLETON EXPLORATION SERVICES INC.		
	for GOLDROCK RESOURCES INC. GLEN AUDEN RESOURCES LTD.		
	Title Reeves Joint Venture Geology (Sheet 3)		
	Date: Aug 88	Scale: 1"=200'	N.T.S.:
	Drawn: BSB	Approved:	File: NT-223