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REPORT on the GEOLOGICAL SURVEY  
on the  
GOLDROCK RESOURCES INC.  
Sewell and Reeves Townships Property  
by  
Scott Frostad

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FEB - 2 1987  
**MINING LANDS SECTION**



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SUMMARY

The Goldrock Resources Inc. holds a 20 claim property in the Foleyet region of Northeastern Ontario which is located in the Abitibi Greenstone belt. The property is located in Sewell and Reeves Townships and covers an area which can be correlated lithostratigraphically and structurally with the Timmins camp which has produced over 60 million ounces of gold since 1909 from massive sulphide, and quartz-carbonate vein system deposits associated with the Destor-Porcupine fault system.

The Sewell 18 claim block covers an Sb-As anomaly and surrounds a gold showing first discovered in 1916. Visible gold occurs in rusty quartz float on the two detached claims in Reeves Township. Considerable exploration has been conducted previously over the claims using geophysical techniques and geological mapping with follow-up diamond drilling. Nevertheless the known gold showings, together with geochemical anomalies, show evidence of pervasive hydrothermal alteration and comparisons with the Timmins camp and were considered to merit re-examination of the property using an integrated programme of systematic geological, geophysical and lithogeochemical mapping.

New geological mapping has indicated favourable horizons for gold mineralization with the most promising being the variolitic to non-variolitic interflow horizon, particularly where a major fold structure and the Gosselin Fault zone occur. The strike

extension of this horizon, in addition to the graphitic - argillaceous metasediment, and the previously reported mineralized felsic tuff, warrant detailed examination by I.P. survey, stripping, trenching and diamond drilling.

#### INTRODUCTION

The properties in Sewell and Reeves Townships, held by Goldrock Resources Inc., were geologically mapped and systematically rock sampled during November and December, 1986. Whole rock analyses and Au, As and CO<sub>2</sub>% determinations were carried out on 33 samples with Au, As and Sb determinations for a further 29 samples (see Appendix B). The results of geophysical surveys (Mag and VLF) which were also carried out during November and December, 1986 have been previously reported by Goldrock Resources. The work is presented as a project requiring further exploration and development.

The geological survey was carried out over 20 unpatented, 40-acre mining claims (total of approximately 760 acres) with 18 contiguous claims located in Sewell Twp. and two detached claims in Reeves Twp. The mapping was conducted at a scale of 1:25,000 over a grid with a north-south base line (Sewell-Reeves Twp. boundary line), an east-west base line (Reeves-Penhorwood Twp. boundary line) and north-south traverse lines at 100m intervals with numbered pickets every 25m. The grid was cut orthogonally in the southern area of the Sewell claim block to help to

delineate the predominantly north-south stratigraphy and the east-west structure.

#### LOCATION AND ACCESS

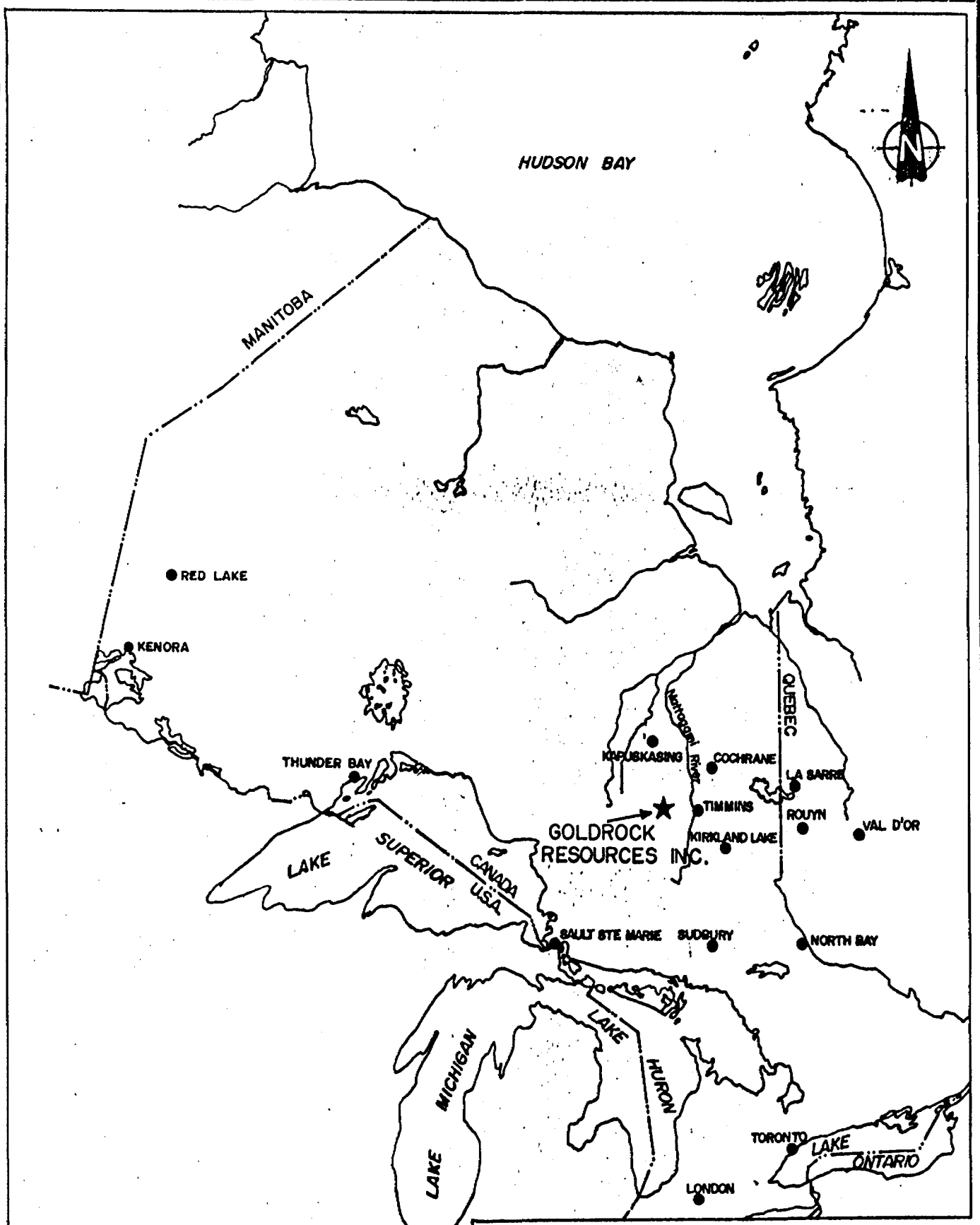
The Sewell group of claims is located 20 air miles east of the Town of Foleyet and 35 air miles SW of the City of Timmins in Northeastern Ontario (see Figure 1). The 18 claim block is in south-west Sewell Twp. and the Reeves Twp. boundary provides its western limit; the two detached claims, approximately one mile to the south, are located in the extreme south-east corner of Reeves Twp. Foleyet is situated on a major branch line of the Canadian National Railways from the City of Sudbury, 135 airmiles to the southeast.

The property is readily accessible by a lumber road and connecting bush roads that branch south from Highway 101 West and pass immediately east of Sewell Lake, into the eastern area, through the two southern claims and just south of the northern boundary. Highway 101, which connects Timmins and Foleyet, is approximately one mile north of the property boundary.

#### PROPERTY - OWNERSHIP

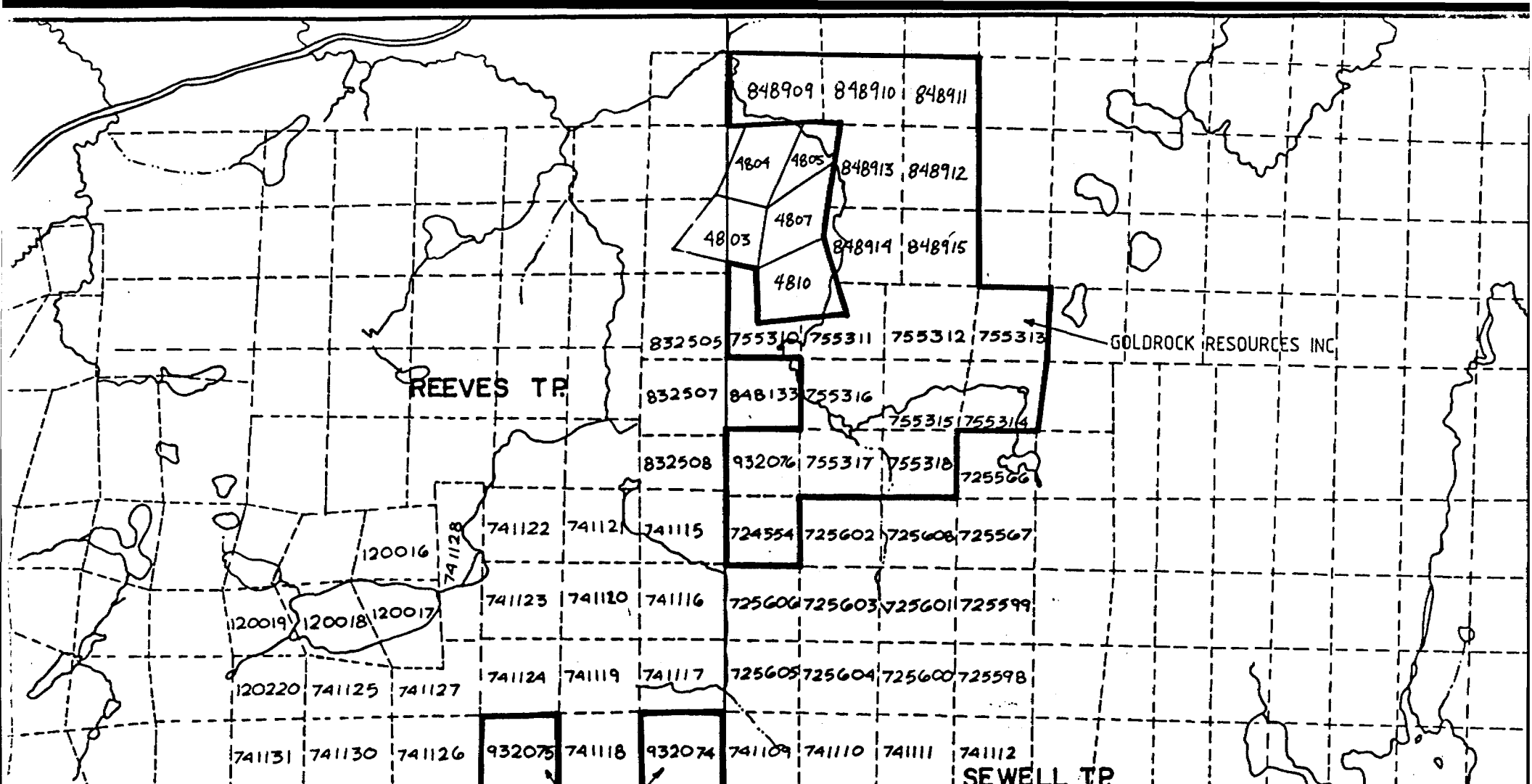
The property described in this report comprises 20 unpatented claims in Sewell and Reeves Townships, Porcupine Mining Division, District of Sudbury, Ontario (see Figure 2).

The claims are as follow:



<b>REVISIONS</b>	<b>ROBERT S. MIDDLETON EXPLORATION SERVICES INC.</b>	
	for	<b>GOLDROCK RESOURCES INC.</b>
	Title	<b>PROVINCE OF ONTARIO Location Map</b>
	Date: Dec / 86	Scale: 1:110 000 000 N.T.S.
	Drawn:	Approved: File: M-201

FIG. 1



PENHORWOOD TWP.

GOLDROCK RESOURCES INC.

SEWELL TP.

KENOGAMING TP.

GOLDROCK RESOURCES INC.

REVISIONS	ROBERT S. MIDDLETON EXPLORATION SERVICES INC.
	for GOLDROCK RESOURCES INC.
	Title
	CLAIM INDEX MAP
	Fig. 2
Scale: 1/2" = 1/2 MI.	T.S.
Drawn: P.G. - C.G.	Approved: File: M-201

Claim Nos.	Date Recorded	No. of Claims
724554	July 14/83	1
755310-755318 incl.	May 21/85	9
848909-848915 incl.	April 30/85	7
932074 & 932076	June 5/86	2
932075	June 24/86	$\frac{1}{20}$

Sixteen claims in Sewell Township, (P.753310-753318 inclusive and P.848909-848915 inclusive) were purchased by agreement on July 4, 1986, from a prospector, Henry T. Gonzalez, and the claims have been transferred to the Goldrock prospector's licence. One claim, number 724554, was acquired by an agreement dated August 27, 1986 with Comstate Resources Ltd. The remaining three claims, numbers 932074 to 932076, were acquired by staking and transferred to Goldrock.

#### TOPOGRAPHY

The area covered by the claims is relatively flat and typical of the heavily glaciated Precambrian Shield. Relief is moderate with low rounded hills and ridges that rise to 50 to 200 feet above the stream channel. The overburden cover is extensive, but relatively thin consisting mainly of fine sands and other glaciolacustrine deposits. Low-lying areas consist of muskeg and alder swamps. Extensive outwash sand plains cover the



southeastern one-third of the main claim group; and alder and muskeg swamps cover much of the northeastern one-third; with the remainder of the property comprising about 20% rock outcrop. A large portion of the property has been logged so that linecutting and geophysical surveying are hampered in places by the slash left behind.

Drainage in the region forms part of the Arctic watershed; major rivers flow in a general northerly direction into James Bay. The property encompasses a number of small ponds and one meandering creek that flows in a generally northerly direction through the center of the main 18-Claim Group. Sewell Lake, after which the property is named, is located one-half mile east of the property.

#### PREVIOUS WORK

1916 : Gold was first discovered in a quartz vein near the

south-west boundary of Sewell Twp. within the patented claims S4803-S4805 which are now known as the Lamport-Lumbers Occurrence; the quartz veins also contain pyrite, pyrrhotite, chalcopyrite, tourmaline and mariposite (see Appendix A). A sample of the vein collected by T.L. Tanton is reported to have assayed 0.02 oz. Au/ton.

Circa 1924 : The Lamport-Lumbers vein was cleared and stripped

for a distance of 1/2 mile, and 3 pits sunk to a depth of approximately 8 feet.

1935 : Rusty quartz float containing visible gold was found in the extreme south-east corner of Reeves Twp. (Goldrock Claim No.932074). A grab sample of quartz from the float trench assayed 0.13 oz. Au/ton. Follow-up exploration by Kalbrook Mining Company in 1946 included trenching and diamond drilling (13 holes) but failed to identify the source of the gold-bearing boulder.

1946 : The discovery of the Joburke Gold Mine in Keith Township, approximately 12 miles south-west of Goldrock's Sewell Lake Property, prompted re-staking of the property several times by prospectors but little assessment work was carried out because of the low price of gold (see Appendix A).

1957 : The Canadian Johns-Manville Company Limited examined eight different claim groups in Sewell Township, including the Goldrock Sewell claim using ground magnetic and horizontal loop surveys. A number of pyritic quartz veins were located and low gold values were reported from some of these but no further work was done.

1967 : Antimony (stibnite) mineralization was discovered in the south-western part of Sewell Township, Goldrock Claim No.724554, by V.G. Milne, Ontario Department of Mines (ODM preliminary Geological Map No.P.464) (see Appendix A).

1971 : A 17-claim property in Reeves and Sewell Townships was staked by Card Lake Copper Mines to investigate the

antimony showing. Magnetic and electromagnetic (Vertical Loop) surveys were performed over the entire property and 29 diamond drill holes sunk between 1971 and 1974 with nine shallow holes and two deeper holes drilled in the area of the antimony showing. The other holes were drilled into numerous mineralized quartz veins and graphite horizons in the eastern part of the claim group.

1979-80 : Texas Gulf Canada Limited acquired a 13-claim property located in Reeves and Sewell Townships which included the antimony showing previously held by Card Lake. Exploration by Texas Gulf involved electromagnetic (Horizontal Loop and VLF), magnetic and geological surveys over the entire property.

1982 : Gold Fields Canadian Mining Ltd. conducted ground geophysics (VLF and magnetics) over a property that overlaps the north-east section of Goldrock's Sewell claim group. Although follow-up soil geochemistry and detailed IP surveys were recommended, no further work was done.

1984 : Comstate Resources Ltd. completed a preliminary lithochemical and partial trace element survey over parts of 4 claims including the antimony showing (Goldrock Claim No.724554).

1985-86 : The 20-Claim Sewell Lake Property was staked and acquired by Goldrock Resources Inc. and a preliminary exploration report on this gold prospect was prepared by K.H.

Darke. Ground geophysics (magnetics and VLF surveys) was conducted over the entire property.

#### REGIONAL GEOLOGY

The Sewell Lake Region lies near the eastern margin of the Abitibi Greenstone Belt of the Superior Province of the Precambrian Shield. The rocks comprise Archean metavolcanics and metasediments into which a few diabase dikes of Early to Middle Precambrian age have been emplaced. The sequence has been intensely folded and intruded locally by peridotite, gabbro, diorite and quartz-feldspar and feldspar porphyries.

In the Timmins area, the metavolcanic rocks have been divided into two groups, each of which represents a volcanic cycle. The older Deloro Group is a mainly calc-alkaline sequence while the Tisdale Group which is higher in the sequence grades upwards from a series of basal ultramafic and high-magnesium basalts to high iron tholeiitic and felsic metavolcanics. A major difference between the two groups is that the upper part of the Deloro Group contains abundant oxide, sulphide and carbonate facies iron-formation, whereas iron-formation is lacking in the Tisdale Group. Virtually all the gold mineralization in the Porcupine Camp is hosted by komatiitic and the tholeiitic flow units of the Tisdale Group. The two groups are separated by an east-trending structure known as the Destor-Porcupine Fault.

The regional setting and lithogeochemical results indicate

that the stratigraphy in the Sewell Lake Region is equivalent to the Tisdale Group of the Timmins Area.

#### PROPERTY GEOLOGY

The Sewell Lake Property is underlain mainly by mafic to intermediate metavolcanic flows of iron formation (awaiting Jensen & AFM plots). Two metasedimentary horizons were mapped, the most westerly of these being associated with pillow breccia and hyaloclastite. The sequence has been intruded by diorite plugs, quartz-feldspar and feldspar porphyries and north-northeast trending diabase dikes. Although no felsic rocks were found during the present survey, previous diamond drill logs record a mineralized felsic tuff unit.

The metavolcanic flows were mapped on the basis of their association with variolitic or non-variolitic pillow lava. The presence of very small pillows with thick selvages, pillow breccia and hyaloclastite which are considered to represent horizons where greater than average seawater-rock interaction were also used for mapping purposes has occurred. Variation from massive to pillowed, and vice-versa occurs within individual units along strike. These characteristics were therefore not used as a basis for correlation of lava flows.

The non-variolitic pillowed flows and associated massive flows are stretched and in places sheared and carbonatized, and have west to southwest facing tops. They are generally

fine-grained and a greenish-grey in colour. The variolitic pillowed flows also have southwest to south facing tops, but they are medium to coarse grained, and they have varioles that coalesce locally and which are stretched sometimes to half an inch in length.

The metasedimentary horizon near the eastern boundary of the property is a fine grained, bedded, locally pyritic and rusty, carbonaceous argillite unit. On the property the unit has a north-south strike and dips steeply to the west. It is part of a large open fold structure and can be traced to the south of the property where it has been extensively trenched. To the extreme south of the property or further south the argillite is associated with massive, grey, fine grained outcrops that may be the same unit recorded in previous drill logs as a "palagonite tuff".

The metasedimentary horizon along the western boundary of the Sewell claims lies stratigraphically above stripped outcrops of pillow breccia and hyaloclastite, and between the non-variolitic and variolitic pillow flow units. The apparent strike of this unit is northwest to north-northwest at its northern extension while to the south it strikes north-south. The exposures of the metasedimentary unit are mainly off the property with the exception of one exposure adjacent to a diabase dike where the rock is baked to a black, fine-grained hornfels.

Away from the immediate contact the host rock is grey and fine grained with relict laminations similar to exposures which occur off the property, and which have been reported in previous diamond drill records as grey, banded tuff. The metasedimentary horizon is provisionally mapped as a tuffaceous unit.

Isolated diorite plugs intrude the volcanic sequences. They comprise dark green, medium to coarse grained, massive rocks and locally have a "spotted" appearance caused by the development of green, chloritic porphyroblasts.

The exposed feldspar porphyry intrusions occur as dikes and/or sills along the non-variolitic - variolitic interflow horizon. They consist of white feldspar phenocrysts in a finer grained, light to medium grey felsic matrix. The quartz-feldspar porphyries occur more randomly; they are larger in size, and consist of K-feldspar and quartz phenocrysts in a fine to medium grained matrix of quartz, muscovite and biotite.

Two parallel, north-northwesterly trending diabase dikes intrude the volcanic sequence near the western boundary of the property. They are 10 to 50 metres wide and approximately 150 metres apart. The dikes are massive, medium to coarse grained, dark green to black, magnetic and locally develop rusty weathering. The most westerly of the two appears to pinch out to the north, immediately off of the property. The volcanics at the margins of the dikes have been metamorphosed to a black, fine

grained, hornfels. In addition three wide, subparallel, diabase dikes have been mapped using a combination of geophysics and sparse outcrop information on the east side of the property. The most easterly of the three dikes hosts quartz veins containing pyrite, galena and chalcopyrite immediately adjacent to the property boundary. The diabase dikes appear to be the youngest rocks in the area.

In several places the diorite intrusive and massive mafic flows are difficult to distinguish and were mapped on the basis of their weathering. Some medium to coarse grained mafic units with intrusive contacts which were mapped as dioritic plutons may instead be feeder dikes related to the mafic volcanism. Samples of massive and pillowed flows, diorite, metasediments and highly sheared mafics were collected to provide information on gold concentrations and to provide genetic information including evidence of the presence of volcanic cycles and of hydrothermal alteration systems.

#### STRUCTURAL GEOLOGY

The structural geology of the area is dominated by a large scale fold and north-northwest faults subparallel to the contact of the non-variolitic and variolitic interflow horizon (Figure 5). East-southeast faults and shears including the Gosselin Fault in the north of the Sewell claim block crosscut the property.



Near to the Sewell-Reeves baseline a sudden change in strike from north-northeast to east-southeast coincides with a change from iron variolitic to variolitic pillowed basalts. This change of strike also occurs in the most northeast of the Goldrock claim (No. 848909) and is clearly shown by Canadian John-Manville's magnetic survey on the map compiled from previous work. The marked change of strike, previously interpreted by Texas Gulf as a major unconformity, is suggested here to be related to a major fold structure with differential movement along the non-variolitic and variolitic interflow horizon. The parallel strike of the variolitic and non-variolitic flows, as determined from pillow shapes, and their separation by pillow breccia and hyaloclastite in the vicinity of claim No. 932076 supports such an interpretation. The most westerly of the later diabase dikes appears to crosscut and offset the interflow horizon. The diabase dikes may have been emplaced into fractures associated with the major fold near the interflow horizon. The east-southeast faulting and shearing has a poor geophysical response and has been mapped using sheared outcrops and slight changes in the strike of pillows.

#### ECONOMIC GEOLOGY

The Sewell Lake property has many characteristics that are comparable to the Porcupine Camp which hosts economic gold mineralization. In Timmins, virtually all the gold

mineralization is hosted within a series of mafic volcanic flows (massive, pillowed and variolitic pillows) of Fe and Mg tholeiitic composition, and carbonaceous interflow sediments of the Tisdale Group. The rocks of the Sewell Lake property can be directly correlated with those of the Tisdale group. Other characteristics of gold mineralization in the Timmins camp which can be compared with the Sewell property include carbonate wallrock alteration, quartz-feldspar porphyry intrusions and the presence of major structures.

One of the most prospective areas for gold mineralization on the property is considered to be in the vicinity of the antimony showing and its associated interflow horizon. Kerrich (1982) noted that Archean lode gold deposits of both vein and chemical sedimentary types typically have major enrichments of certain rare elements including Sb and As. In Red Lake, Ontario well defined anomalies of Au, As and Sb are directly above the ore zones (Pirie, 1983), and in Hemlo the antimony and arsenic minerals account for the largest number of ore minerals found within the deposit (Harris, 1986). A study by Fyon et al. (1983) of gold exploration in the Timmins area also concluded that Sb and As enrichment are useful for discriminating between "barren" and "gold-mineralized" alteration zones.

It is proposed that movement along the western interflow horizon, located between the variolitic and non-variolitic pillow

flows, provided the channels for hydrothermal fluids and is not restricted to the one antimony showing. The structural setting is comparable to mineralized structures in the McIntyre-Hollinger Mine in Timmins, which are concentrated in structures controlled by the tops of volcanic flows, interflow sedimentary units, thinly bedded volcanic flow and breccia units and porphyry contacts (Mason, 1986).

On the Lampion-Lumbers Property, Sewell Township, gold mineralization was found in a chlorite carbonate schist along a well-defined fault zone (Gosselin Fault) which is largely filled with irregular masses of quartz. Pyrite, pyrrhotite and chalcopyrite mineralization is associated with the quartz. It is in this vicinity that the present lithogeochemical survey identified anomalous gold values. A detailed report on the Lampion-Lumbers occurrence is given in the appendix of this report. The Goldrock claims immediately east of this showing has geophysical evidence supporting a major fold structure and the possibility of a dilatent zone. The gold showing may also be related to the non-variolitic and variolitic interflow horizon to the south.

The eastern interflow unit is a graphitic argillite that is generally pyritic but contains sphalerite, chalcopyrite and galena in some trenched areas. This unit appears to be continuous across the property and extends off of the property to

the south as indicated by located exposures and trenches. Considerable drilling of this unit has been conducted by past operators. The new anomalous gold values and the significance of thin carbonaceous interflow, sedimentary rocks, found as an integral part of or proximal to all major zones of gold mineralization in the Porcupine camp, indicates that further investigations are warranted.

A geophysical survey (Tremblay, 1979) indicated a northerly trending electromagnetic conductor divided by a diabase dike. The dike is the most easterly of the two parallel dikes located in the west of the property. Card Lake Copper Mines Ltd. drilled two diamond drill holes (B-1,B-2) through the northern conductor and intersected 15 feet of mineralization. No anomalous gold values were reported but the southern extension of this conductor has not been tested.

#### CONCLUSIONS

The presence on the Sewell Lake Property of highly altered (carbonatized) mafic volcanics containing quartz-carbonate veins with associated sulphide mineralization and anomalous gold values is considered significant and encouraging particularly since the geological environment can be correlated directly to the gold producing Timmins camp. Anomalous (less than 95 or 97.5% percentiles) Au and coincident As, CO<sub>2</sub> anomalies on the property are at levels comparable to the threshold indicated as

significant in the Timmins camp. (Fyon and Crocket, 1983).

Although substantial exploration has been conducted over much of the property previously, favourable, essentially untested, horizons still exist.

The two interflow horizons have anomalous gold values and their possible strike extensions warrant further investigation. Since the horizon containing the antimony showing has been extended by the present geologic mapping this horizon in particular warrants detailed exploration along strike. The mineralized felsic tuff horizon found and drilled by previous workers did not contain associated gold or base metal mineralization in economic concentrations but their possible strike extensions should also be investigated further.

Due to the known widespread occurrences of disseminated sulphide mineralization on the property, a detailed I.P. Survey should be completed over the two interflow horizons and the recorded felsic tuff horizon, to delineate their strike extensions. The I.P. survey should cover the northern area of the property to delineate and measure the I.P. response of the major fold structure and the Gosselin Fault and particularly the area of the gold geochemical anomaly. The two detached claims in Reeves Township also warrant follow-up I.P. since sparse outcrops indicate shearing and carbonatization in this area.

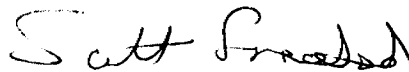
RECOMMENDATIONS

It is recommended that a detailed I.P. Survey be carried out over the selected geological targets.

Where feasible, the I.P. anomalies should be evaluated by detailed geological mapping, stripping, trenching and sampling of selected outcrop areas for further gold and pathfinder determinations.

The selected targets from the previous evaluation program should be tested by diamond drilling.

Respectfully submitted



Scott Frostad

REFERENCES

- Fyon, J.A., and Crocket, J.H.  
1983 Gold Exploration in the Timmins Area Using Field and Lithogeochemical Characteristics of Carbonate Alteration Zones; Ontario Geological Survey, Study 26, 56p.
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1986 Mineralogy and Geochemistry of the Main Hemlo Gold Deposit, Hemlo, Ontario, Canada, in Macdonald, A.V., ed., Proceedings of Gold '86, an International Symposium on the Geology of Gold: Toronto, 1986 p.297-310
- Kerrich, R., and Hodder, R.W.  
1982 Archean Lode Gold and Base Metal Deposits: Evidence for Metal Separation into Independent Hydrothermal Systems, in Hodder, R.W., et al., ed., Geology of Canadian Gold Deposits, C.I.M. special volume 24, p.144-160
- Mason, R., and Melnik, N.  
1986 The Anatomy of an Archean Gold System - The McIntyre-Hollinger Complex at Timmins, Ontario, Canada, in Macdonald, A.V., ed., Proceedings of Gold '86, an International Symposium on the Geology of Gold: Toronto, 1986, p.40-55

Milne, V.G.  
1972

Geology of the Kukatush-Sewell Lake Area; District of Sudbury; Ontario Division of Mines, Geological Report 97, 116p. accompanied by Geological Map 2230 (coloured), Reeves and Sewell Townships; and Geological Map 2231 (coloured), Penhorwood & Kenogaming Townships; both at a scale of 1 inch = 2640 feet.

ODM  
1967

Reeves Township, District of Sudbury, Ontario Department of Mines, Preliminary Geol. Map P.418; Scale 1 inch = 1320 feet  
Geology 1966

1968

Sewell Township, District of Sudbury, Ontario Department of Mines, Preliminary Geol. Map P.464, Scale 1 inch = 1320 feet  
Geology 1967

1973

Timmins-Kirkland Lake, Cochrane, Sudbury & Timiskaming Districts, Ontario Department of Mines, Geol. Compilation Series Map 2205; Scale 1 inch = 4 miles

1976

Chapleau-Foleyet; Algoma, Cochrane & Sudbury Districts; Ontario Department of Mines, Geol. Compilation Series Map 2221; Scale 1 inch = 4 miles

Pirie, V.  
1982

Regional Geological Setting of Gold Deposits, Eastern Red Lake Area, Northwestern Ontario, in Hodder, R.W., et al., ed., Geology of Canadian Gold Deposits, C.I.M. special volume 24, p.171-183



Thurston, P.C., Siragusa, G.M. & Sage, R.P.  
1977  
Geology of the Chapleau Area;  
Districts of Algoma, Sudbury  
& Cochrane; ODM Geoscience Report  
157, 293 p. accompanied by  
Geol. Maps & Figures.

CERTIFICATION

I, Scott R. Frostad, of 136 Cedar Street South, in the city of Timmins, Province of Ontario, certify as follows concerning my report on the Goldrock property in Sewell and Reeves Townships, Province of Ontario and dated January 27, 1987.

1. I am a graduate of the University of Western Ontario, at London, Ontario, with a B.Sc. in geology, obtained in 1984.
2. I have been practising my profession in Canada since 1984.
3. I have no direct interest in the property, leases, or securities of Goldrock Resources Ltd., nor do I expect to receive any.

Dated this January 27, 1987  
TIMMINS, Ontario

*Scott Frostad*

Scott Frostad

*Qual  
2.6223*

A P P E N D I X A

Lamport-Lumbers Property  
Sewell Township, Ontario

Ontario Division of Mines  
Geological Report 97

GEOLOGY OF THE  
KUKATUSH-SEWELL LAKE AREA  
DISTRICT OF SUDBURY

by V.G. Milne; 1972

Lamport-Lumbers Property (2, 6)

One of the first gold showings discovered in the map-area is located within a group of five patented claims, P4803 to P4805, P4807 to P4810, situated on the western boundary of Sewell Township, about 3,000 feet south of Highway 101. These claims were owned, in 1967, by N.W. Lamport and J. Lumbers.

The claims are part of a group of six known originally as the Gosselin Claims and described by E.W. Todd (1924, p.14-15) as follows:

... They were originally staked by ... [D.] Arkell. Gold was found in a quartz vein on one of these claims in 1916 by T.L. Tanton, who reports an assay of 0.02 ounces per ton from a sample taken across the vein.

The rocks in this neighbourhood are chlorite carbonate schists resulting from the alteration of Keewatin volcanic and intrusive rocks, principally basalt, andesite, and diabase. A prominent ridge of fresh diabase intrudes the schists on claim 4808.

Extending north and south across claims 4810, 4807, and 4805 is a well-defined faulted zone which is largely filled with irregular masses of quartz. The vein material mixed with country rock in places reaches a width of fifty feet. Associated with the quartz are pyrite, pyrrhotite, chalcopyrite, calcite, tourmaline, and mariposite, a chrome mica.

The rocks enclosing the quartz are liberally impregnated with sulphides, resulting in the development of much iron oxide in proximity to the fault. No porphyry is observed in the area shown on the sketch map, but one-half mile to the south a number of dikes of fresh feldspar porphyry intrude the Keewatin rocks. These dikes are probably of Algomian age. [These dikes were not found by Milne.]

Some surface work has been done on the deposits: the vein has been cleared and stripped for a distance of half a mile, and three pits have been sunk to a depth of about eight feet. [Pits were not found by Milne.]

The rocks within the claim area are pillowed mafic flows intruded by a 150-foot wide diabase dike. Strong shearing has converted the flow rocks to dark green, rusty weathering, chlorite-carbonate schist. Much of the rusty iron oxide weathering is due to alteration of the carbonate, which is sideritic, and this ferruginous carbonate usually occurs as brown,  $\frac{1}{8}$  inch, rhombohedral porphyroblasts in the dark green chlorite schist.

There is no record of any further work on these claims and the stripping and trenching is now overgrown.

Ontario Geological Survey  
MINERAL DEPOSITS CIRCULAR 18  
GOLD DEPOSITS OF ONTARIO  
PART 2; 1979

Joburke Mine (Past Producer)

MAIN METALS: Au

LOCATION: Approximately 11 miles southeast of Foleyet, in east-central Keith Township. Shaft located in patented claim S43254. Latitude 48.14°, Longitude 82.28°. Map reference: ODM 1950-4, Parts of Keith and Muskego Townships.

GEOLOGY: The area is underlain by east-trending mafic metavolcanics, lesser amounts of felsic metavolcanics and interlayered iron formation, and mafic to ultramafic sills. Intrusive into these formations are quartz and feldspar porphyry dikes of Kenoran age and late diabase dikes. Prominent strike faults, the Joburke and Palomar Lake Faults, roughly parallel the trend of the metavolcanics. The Joburke Fault, which passes approximately 500 feet north of this deposit, has a left lateral displacement of more than 3,000 feet.

The ore zone is an intricate network of quartz stringers and veins in variously silicified, albitized, and carbonatized andesite and dacite. Vein material is largely quartz, albite, carbonate, and pyrite, with minor chalcopyrite and occasional visible gold. The presence of chalcopyrite is an indicator of gold values, but the better values are usually found where marked concentrations of pyrite are also present.

The veins occur in drag folds, and the ore shoots, arranged *en echelon* to the north, rake eastward. The occurrence of veins and ore shoots is believed to be related to movement on the Joburke Fault, with attendant tensional openings providing channels for vein-forming solutions.

ECONOMIC FEATURES: It has been estimated (Northern Miner, June 7, 1973, p.8) that ore reserves total 172,000 tons grading approximately 0.25 ounce of Au per ton.

In 1974 production was taking place on the main

No.1 Zone, in which two blocks of ore had been outlined to a depth of 60 feet. One of these was 60 feet square and the other was 80 feet long with widths ranging from 20 to 40 feet. The total tonnage in these two blocks was about 60,000 tons. Ore shoots on the 250-foot level totalled 838 feet in length, averaged 6.3 feet in width, and had a cut grade of 0.25 ounce of Au per ton.

OWNERSHIP: Noranda Exploration Limited.

HISTORY: 1946-1947: Property acquired by Joburke Gold Mines Limited and a three-compartment vertical shaft sunk to a depth of 408 feet, with levels at 125, 250, and 375 feet. Lateral development consisted of 130 feet of crosscutting on the 250- and 375-foot levels. Diamond-drilling in 1947 totalled 24,600 feet in 60 surface holes and 774 feet in five underground holes.

1948: Joburke Gold Mines Limited did 2,394 feet of drifting and 190 feet of crosscutting, as well as 2,462 feet of underground diamond-drilling in 60 holes. Work ceased in 1948.

1949-1950: McIntyre Porcupine Mines Limited took an option on the property, and dewatered and sampled the 250 and 375-foot levels.

1964: 5,000 feet of diamond-drilling was done under an agreement with Denison Mines Limited.

1973: Property optioned by Noranda Exploration Limited and the mine put into production. Old ore dumps were shipped and a decline was sunk on a 17° slope to the 60-foot level.

PRODUCTION:

Year	Gold (ounces)	Ore Milled (tons)	Recovered Grade (ounce of Au per ton)
1973-1975	16,467	182,292	0.09

Operations at the mine were suspended in December, 1975.

REFERENCES: Northern Miner, June 7, 1973, p.8; October 25, 1973, p.1, 13.  
ODM 1948, Vol.57, pt.7, p.42, 43.  
ODM 1949, Vol.58, p.35.  
ODM 1950, Vol.59, pt.7, p.34-37.

Ontario Division of Mines  
Geoscience Report 157

GEOLOGY OF THE  
CHAPLEAU AREA

P.C. Thurston, G.M. Siragusa,  
and R.P. Sage; 1977

Card Lake Copper Mines Limited (214)  
Sewell Township  
District of Sudbury

In the southwest corner of Sewell Township an occurrence of antimony was recently mapped by Milne (1972, Map 2230). The deposit can be reached by a logging road south of Highway 101.

A brief visit was made to the showing. The antimony mineralization is associated with silicification and sericitization along a zone of shearing which cuts mafic pillow lavas. The zone strikes S25E and dips from vertical at the northern end, to 27SW at its southernmost exposure. Mineralization has been exposed by intermittent stripping and several pop holes over a length of 180 feet (55 m). The mineralized zone averages between 4 and 5 feet (1.2 to 1.5 m) in width. The shearing is parallel to the elongation of the pillows in mafic metavolcanics located on the north side of the shear zone. The metavolcanics are silicified and altered on both sides of the zone of shearing.

The antimony mineralization is very fine to medium grained and banded, with the high-grade material appearing as narrow lensoid stringers. The pit located at the southern extremity of the exposure shows the richest concentration. Two grab samples were taken by the author [Sage] for assay. The first, from a pit at the southern end of the exposure, assayed 14.2 percent antimony, 3.05 percent arsenic and 0.02 percent copper. The second, from the north end of the exposure, assayed 0.55 percent antimony, 1.10 percent arsenic and 0.02 ounces gold per ton. A 30 element spectrographic analysis disclosed nothing of further interest. X-ray diffraction analysis of the metallic minerals indicated that the antimony-bearing mineral is berthierite and that the arsenic is contained in fine-grained arsenopyrite (assays and analyses by Mineral Research Branch, Ontario Division of Mines). A polished section prepared from a high-grade sample containing berthierite showed fine- to medium-grained berthierite occurring as irregular grains in quartz. This is the third reported occurrence of this mineral in the Province of Ontario. Berthierite in association with gold mineralization, has also been reported from the Little Long Lac mine and Talsmora mine, Errington Township, District of Thunder Bay (Pye 1951, p.57) and from the Cochenour Willans mine, Dome Township, District of Kenora (Traill 1970, p.73).

Drilling by Card Lake Copper Mines Limited (The Northern Miner 1971, Oct. 7, p.19; Oct. 14, p.13; Oct 28, p.2) on two anomalies designated "A" and "B", has disclosed copper, nickel, and antimony mineralization. Two holes on anomaly "B" disclosed copper and nickel values and two holes on anomaly "A" disclosed antimony mineralization with a width of 30 feet (9 m).

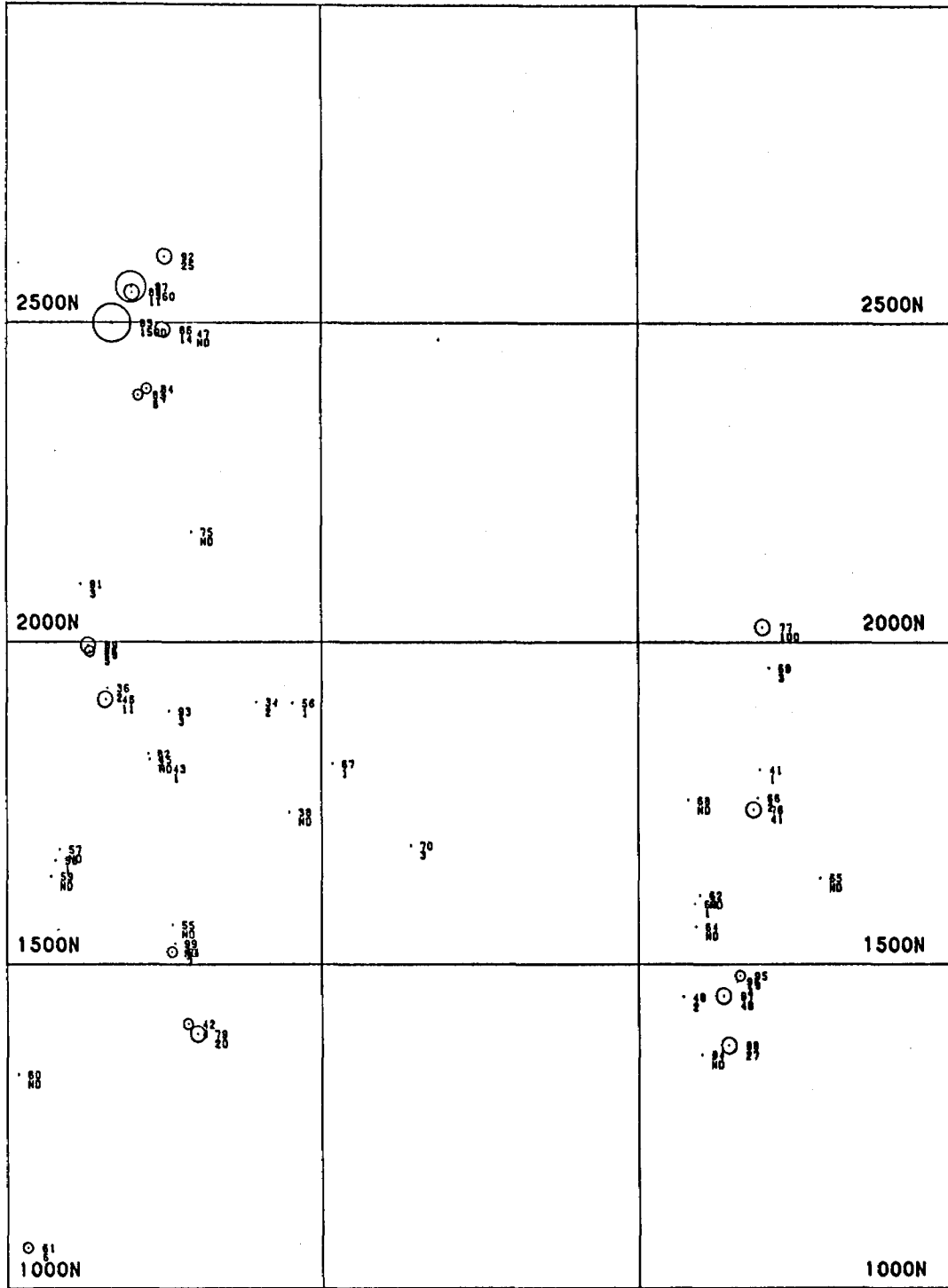
A P P E N D I X B

100W

400E

900E

1400E



100W

400E

900E

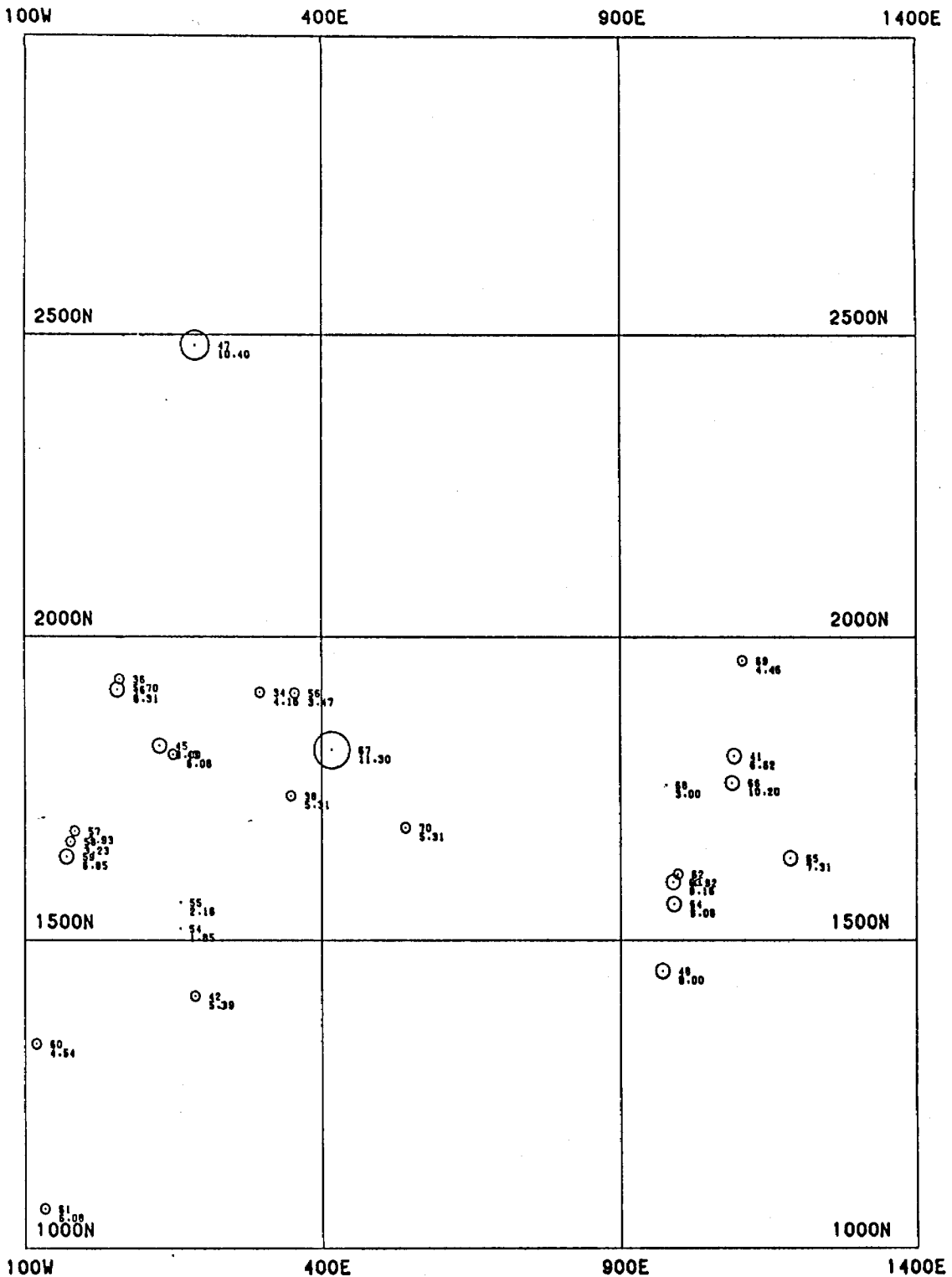
1400E



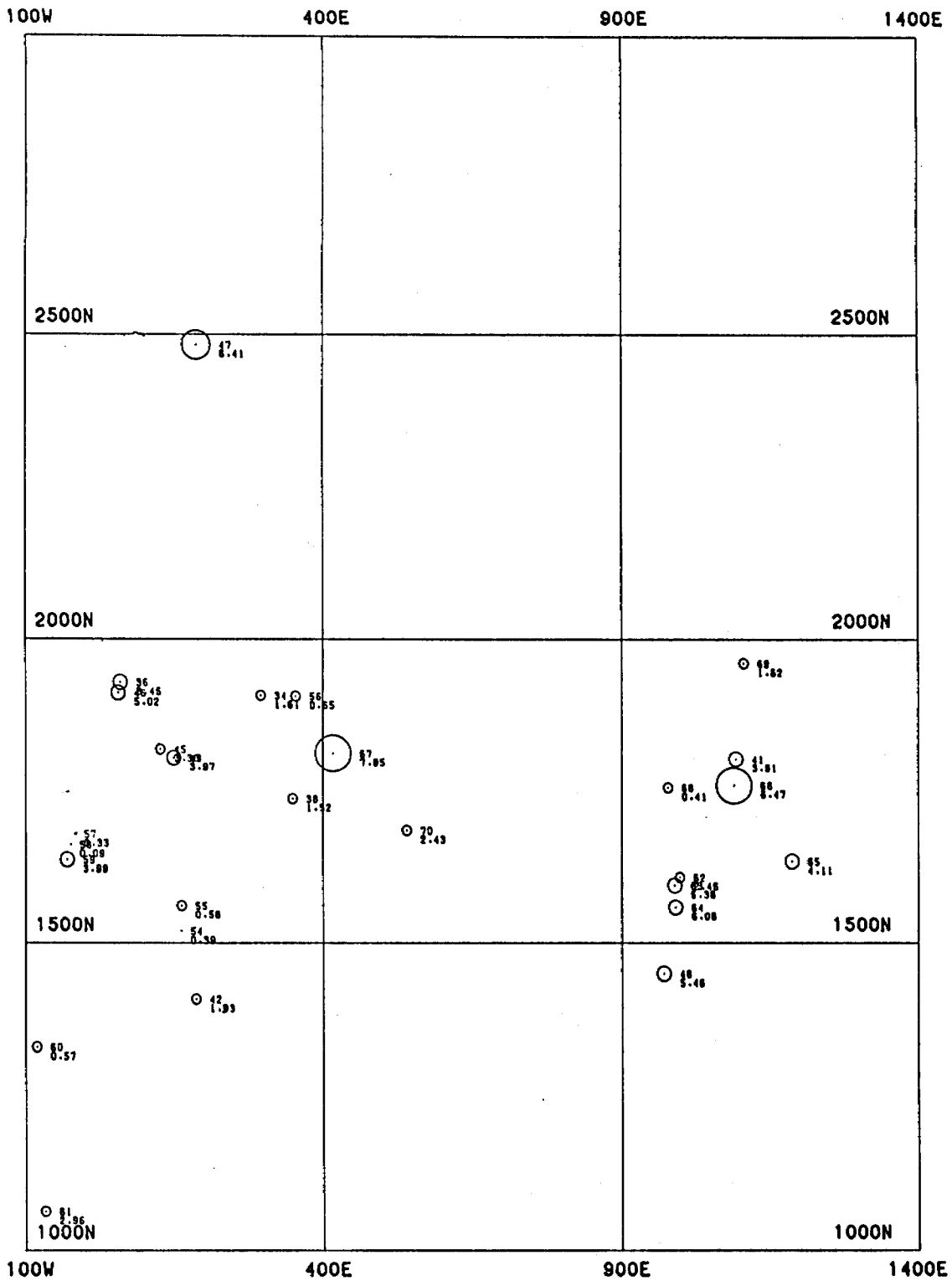
LEGEND		ROBERT S. MIDDLETON EXPLORATION SERVICES INC.	
EXAMPLE: ○ (circle with dot) = not detected		<b>GEOCHEMICAL SURVEY</b>	
PERCENTILE SCALE:		Client: GOLDROCK RESOURCES INC.	
○ (large)	> 97.5	Project:	DEVELL IMP
○ (medium)	95.0 - 97.5	Survey:	AN (ppb)
○ (small)	75.0 - 95.0	Scale:	1:10000
● (dot)	50.0 - 75.0	File Path:	
· (dash)	< 50.0	Drawn by:	
		Date:	14-JAN-97
		Checked by:	
		Approved by:	
		Drawn by:	NORTHERN GEOTECH





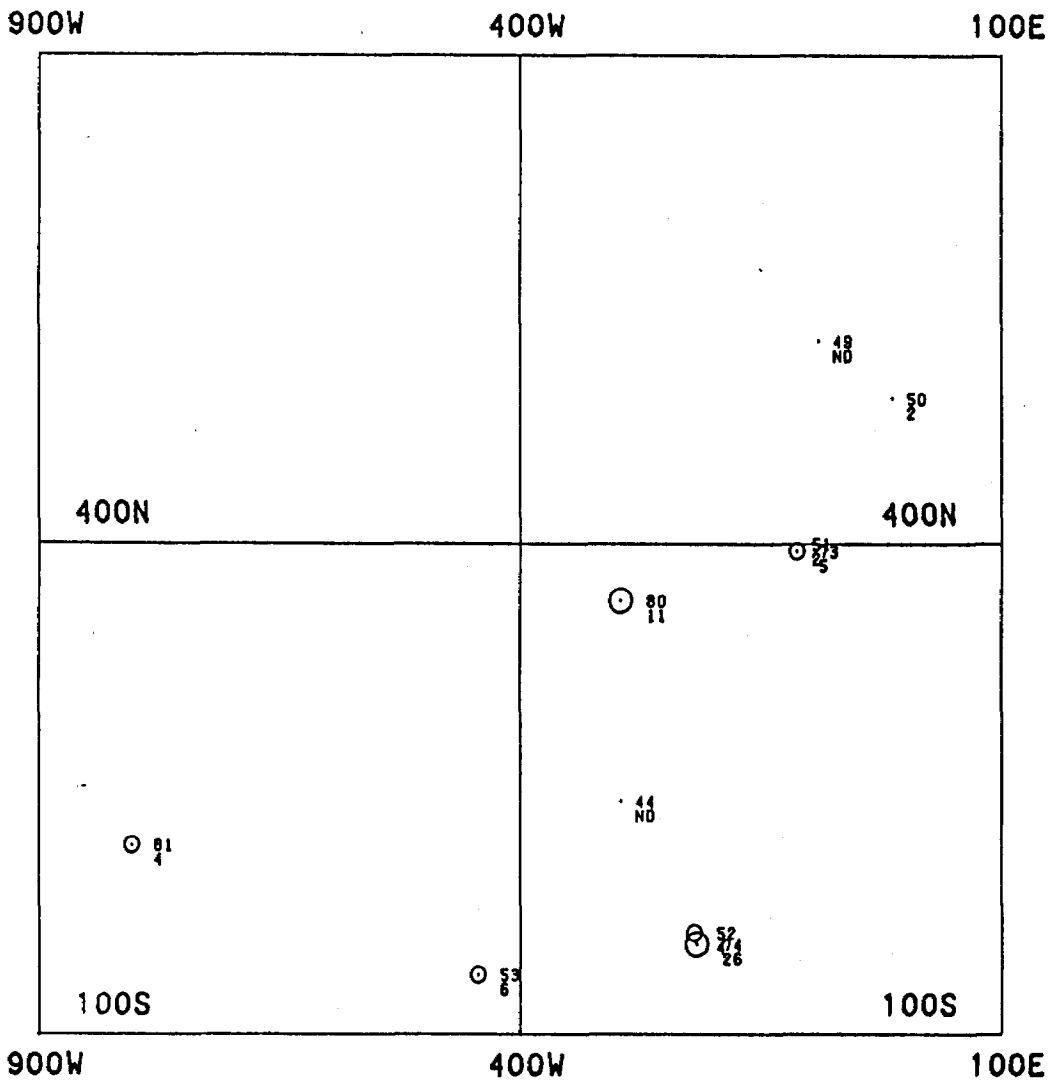


LEGEND		ROBERT S. MIDDLETON EXPLORATION SERVICES INC.	
EXAMPLE:		GEOCHEMICAL SURVEY	
○ (circle with dot) = not detected		Client: GOLDROCK RESOURCES INC.	
PERCENTILE SCALE:		Project: SEWELL TMP	
○ (large)	> 97.5	Survey: LDI (S)	
○ (medium)	80.0 - 97.5	Scale: 1:8000	
○ (small)	75.0 - 80.0	File Name:	
○ (tiny)	50.0 - 75.0	Map Date:	
○ (dot)	< 50.0	Date: 15-JAN-87	
		Surveyed by:	
		Approved by:	
		Checked by:	
		Drawn by: NORTHERN GEOTECH	

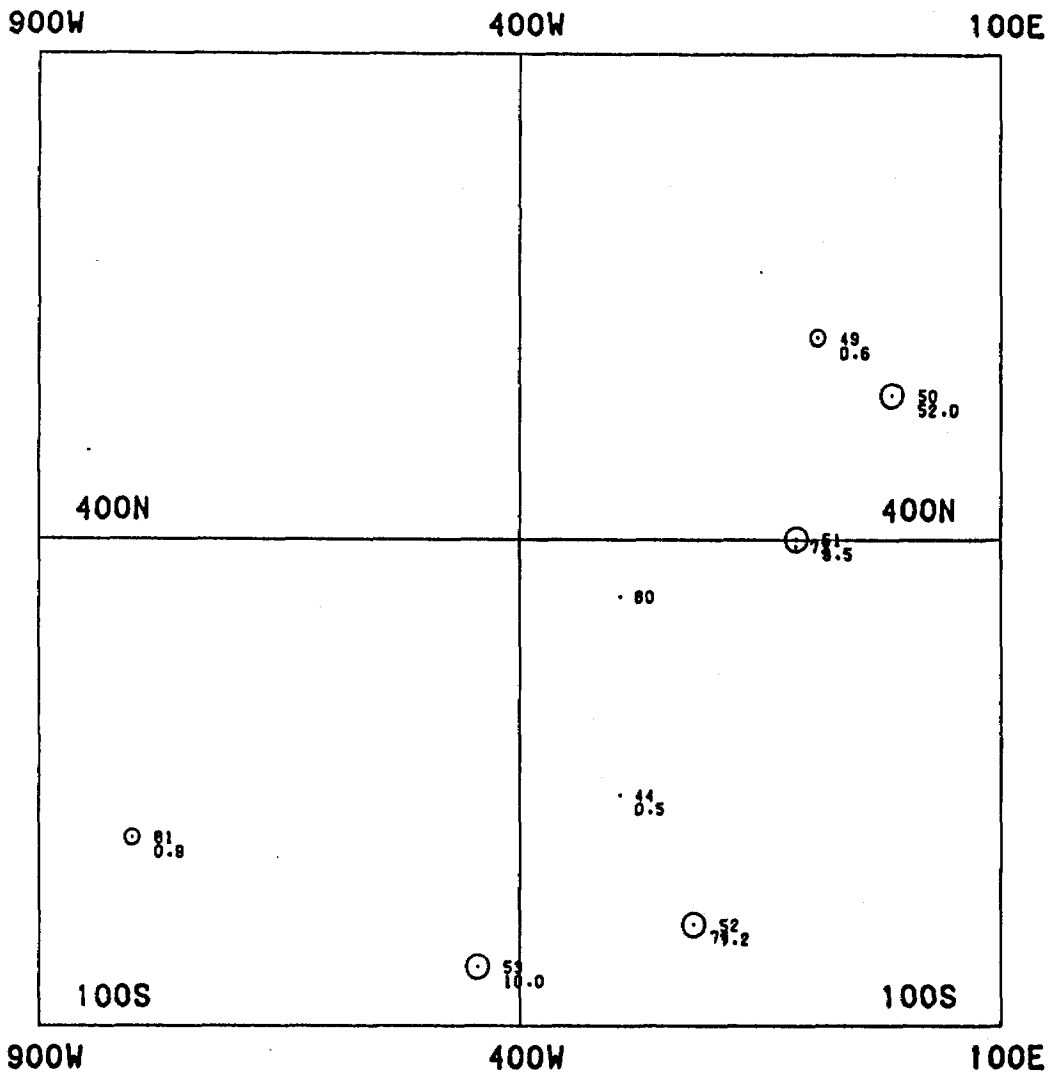


LEGEND		ROBERT S. MIDDLETON EXPLORATION SERVICES INC.	
EXAMPLE:		GEOCHEMICAL SURVEY	
○ (circle with dot) = not detected		Client:	GOLDROCK RESOURCES INC.
PERCENTILE SCALE:		Product:	SEVELL IMP
○ (small circle)	00.0	Contract:	CO2 (L)
○ (medium circle)	00.0 - 07.0	Scale:	1:8000
○ (large circle)	07.0 - 08.0	File No:	
○ (very large circle)	08.0 - 20.0	Map No:	
○ (largest circle)	> 20.0	Date:	18-JAN-07
		Drawn by:	
		Checked by:	
		Drawn by:	NORTHERN GEOTECH

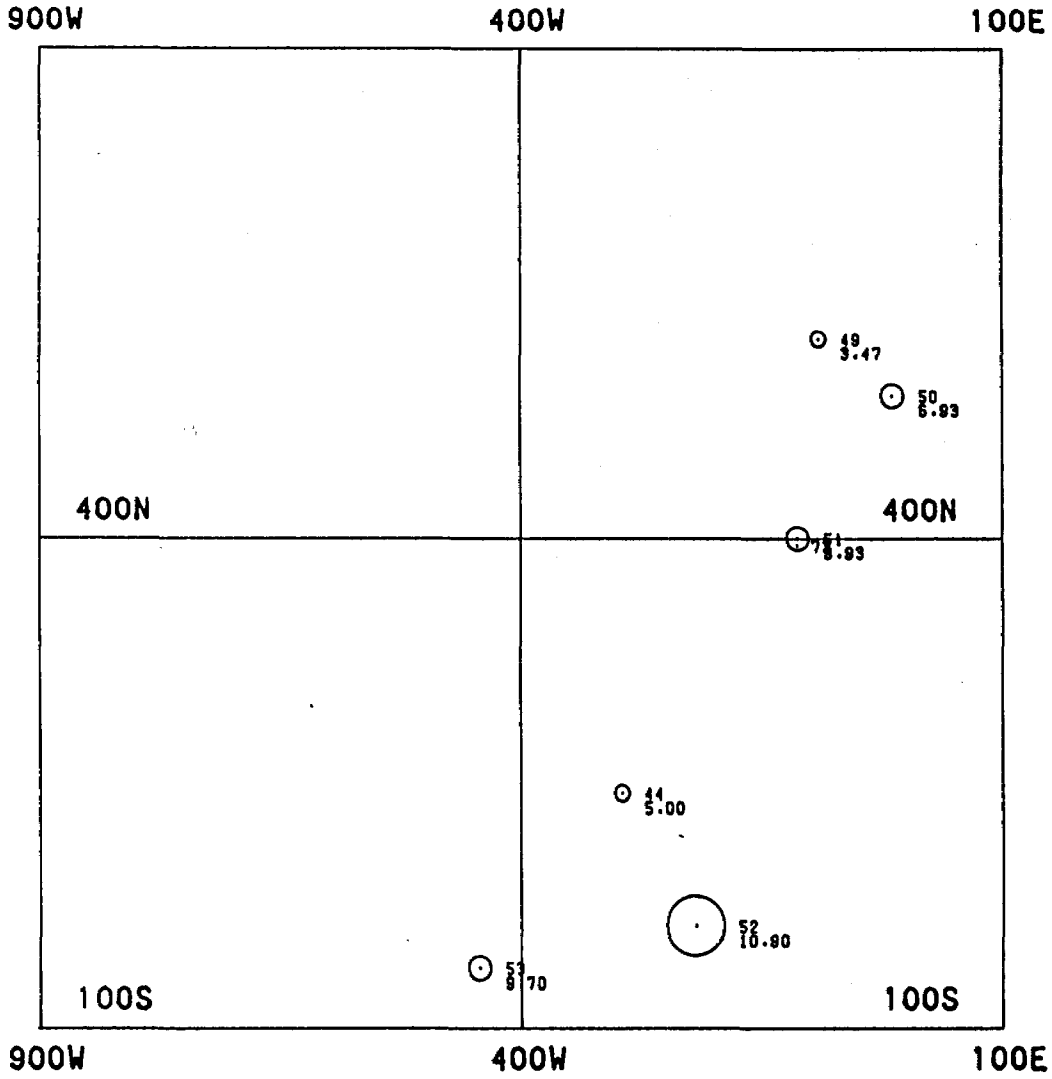




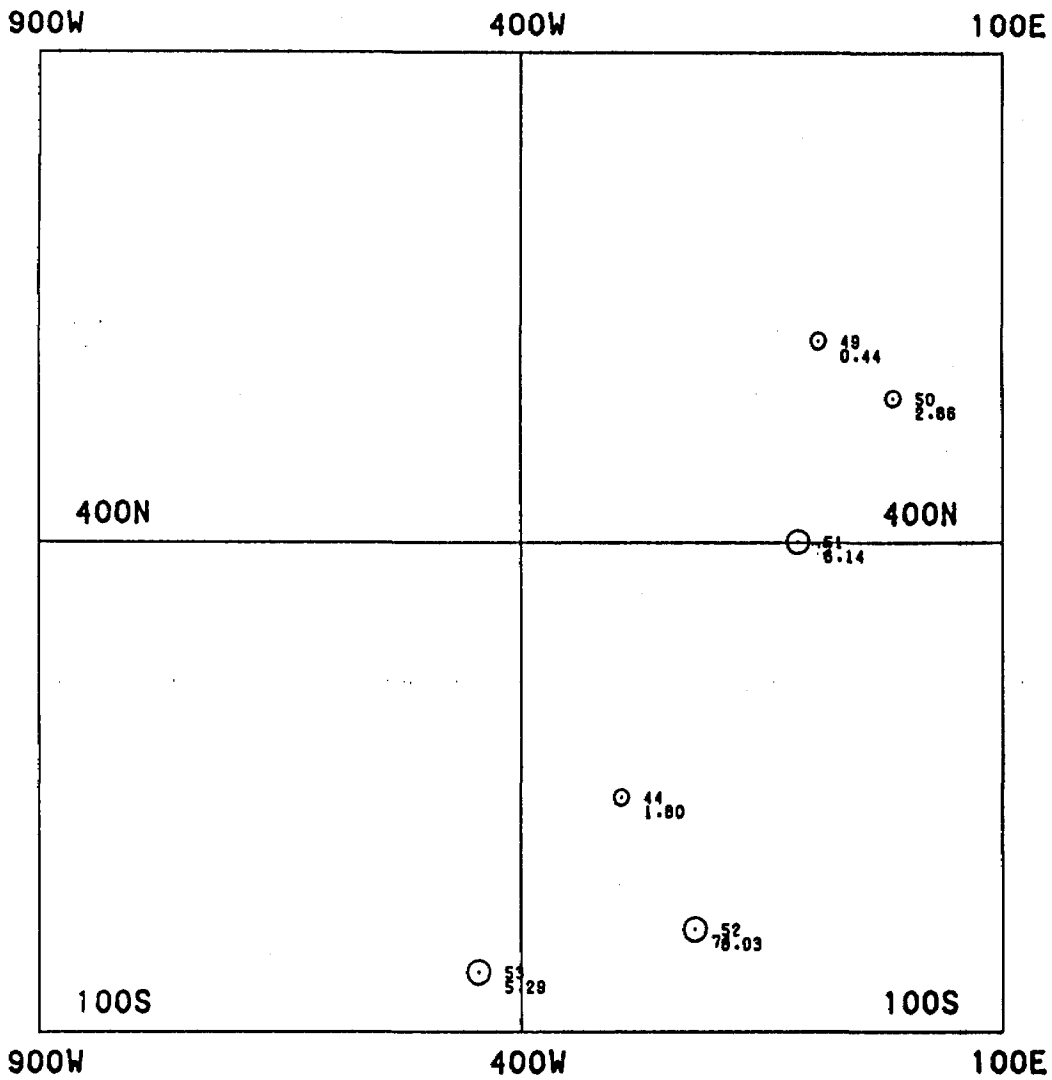
LEGEND		ROBERT S. MIDDLETON EXPLORATION SERVICES INC.	
EXAMPLE: ○ (ppb) (ppm) not detected		<b>GEOCHEMICAL SURVEY</b>	
PERCENTILE SCALE:		Form	GOLDROCK RESOURCES INC.
○	> 97.5	Project	SEWELL TWP
○	95.0 - 97.5	Survey	Au (ppb)
○	75.0 - 95.0	Scale	1:8000
○	50.0 - 75.0	File No.	
○	< 50.0	Dwg. No.	
		Date	15-JAN-87
		Draw'n by	
		Appr'd by	
		Chk'd by	
		Draw'n by	NORTHERN GEOTECH



LEGEND		ROBERT S. MIDDLETON EXPLORATION SERVICES INC.	
EXAMPLE: ○ 81 D.D. not detected		GEOCHEMICAL SURVEY	
PERCENTILE SCALE:		Firm GOLDROCK RESOURCES INC.	
○	> 97.5	Project SEVELL TWP	
○	95.0 - 97.5	Survey As (ppm)	
○	75.0 - 95.0	Scale 1:8000	
○	50.0 - 75.0	File loc	
•	< 50.0	Req not	
		Date 15-JAN-87	
		Draw'n by	
		Appr'd by	
		Calc'd by	
		Draw'n by	NORTHERN GEOTECH

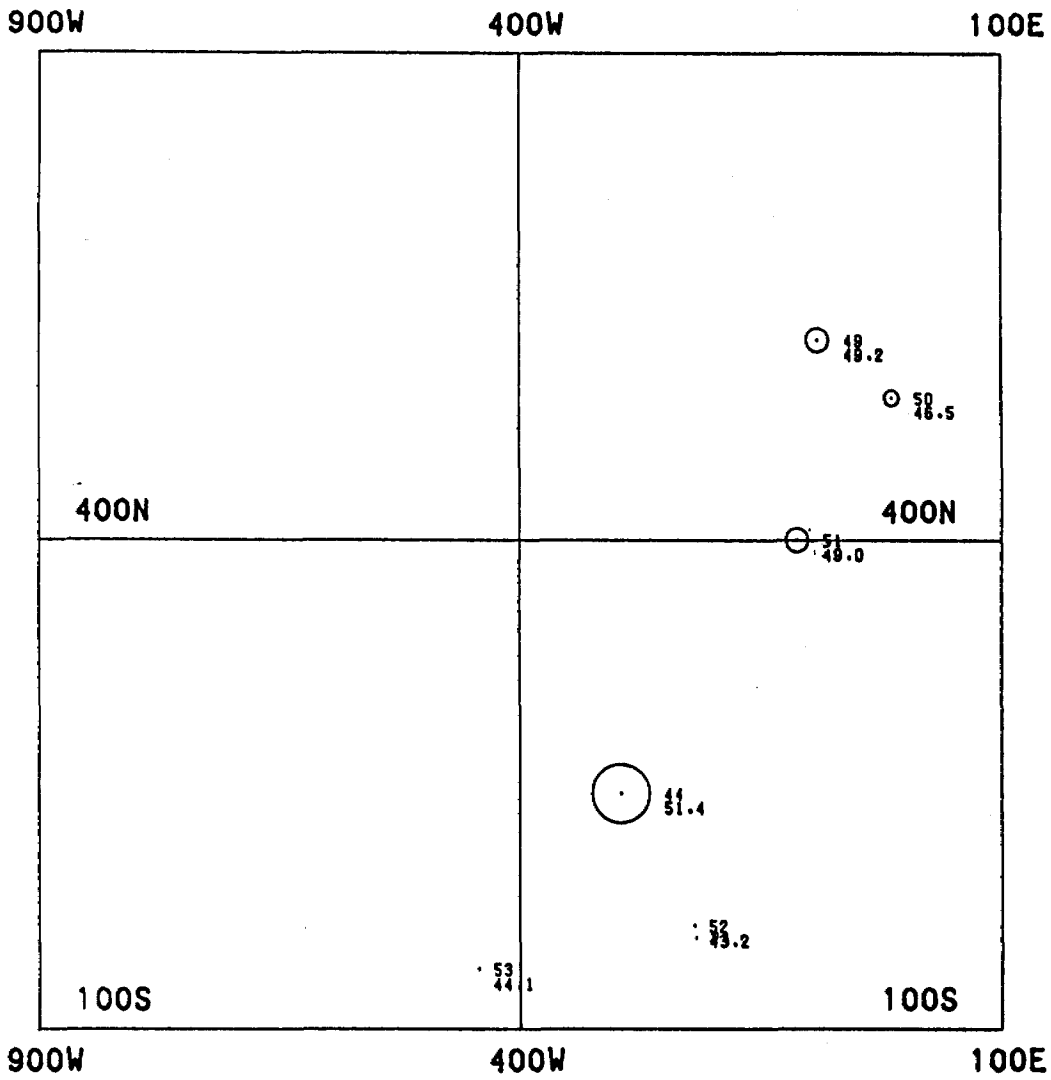


LEGEND		ROBERT S. MIDDLETON EXPLORATION SERVICES INC.	
EXAMPLE: ○ (Note: 0.0 = not detected)		<b>GEOCHEMICAL SURVEY</b>	
PERCENTILE SCALE:		Form	GOLDROCK RESOURCES INC.
○	> 97.5	Project	SEWELL TWP
○	85.0 - 97.5	Survey	LOI (X)
○	75.0 - 85.0	Scale	1:8000
●	50.0 - 75.0	File No.	
•	< 50.0	Drawn by	
		Date	15-JAN-87
		Checked by	
		Approved by	
		Checked by	
		Scale	NORTHERN GEOLOG



LEGEND		ROBERT S. MIDDLETON EXPLORATION SERVICES INC.	
EXAMPLE: ○ (100% not detected)		GEOCHEMICAL SURVEY	
PERCENTILE SCALE:		Part	GOLDROCK RESOURCES INC.
○	> 97.5	Project	SEWELL TWP
○	95.0 - 97.5	Survey	CO2 (X)
○	75.0 - 95.0	Scale	1:8000
●	50.0 - 75.0	File loc	
•	< 50.0	Dwg no	
		Date	15-JAN-87
		Draw'n by	
		Appr'd by	
		Chk'd by	
		Draw'n by	NORTHERN GEOTECH





LEGEND		ROBERT S. MIDDLETON EXPLORATION SERVICES INC.	
EXAMPLE: ○ (circle with dot) = not detected		GEOCHEMICAL SURVEY	
PERCENTILE SCALE:		Form	GOLDROCK RESOURCES INC.
○ (large)	> 97.5	Project	SEWELL TWP
○ (medium)	95.0 - 97.5	Survey	S102 (2)
○ (small)	75.0 - 95.0	Scale	1:8000
● (dot)	50.0 - 75.0	File loc	
· (dash)	< 50.0	Dwg no	
		Date	15-JAN-87
		Draw'n by	
		Appr'd by	
		Chk'd by	
		Draw'n by	NORTHERN GEOTECH



42A04NW0021 2.9737 REEVES

900

371/86

Mi

Type of Survey(s) <b>GEOLOGICAL</b>		Township or Area <b>SEWELL AND REEVES</b>	
Claim Holder(s) <b>GOLDROCK RESOURCES INC.</b>		Prospector's Licence No. <b>T-4715</b>	
Address <b>Box 1637 TIMMINS ONTARIO P4N7W8</b>			
Survey Company <b>ROBERT S. MIDDLETON EXPLORATION</b>	Date of Survey (from & to) 23 11 86 06 12 86 Day Mo. Yr. Day Mo. Yr.	Total Miles of line Cut <b>31.07 miles</b>	
Name and Address of Author of Geo-Technical report <b>SCOTT FROSTAD 1637 TIMMINS, ONTARIO P4N7W8</b>			

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	
	Days per Claim	
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
For each additional survey: using the same grid: Enter 20 days (for each)	- Other	
	Geological	20
	Geochemical	
Man Days	Geophysical	
	Days per Claim	
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits	Geophysical	
	Days per Claim	
Note: Special provisions credits do not apply to Airborne Surveys. <b>DEC 04 1986</b>	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Mining Claims Traversed (List in numerical sequence)

Mining Claim			Mining Claim		
Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
P	755310				
	755311				
	755312				
	755313				
	755314				
	755315				
	755316				
	755317				
	755318				
	848909				
	848910				
	848911				
	848912				
	848913				
	848914				
	848915				
	932074				
	932075				
	932076				
	<del>450272</del>				

RECEIVED

DEC 10 1986

MINING LANDS SECTION

RECORDED

DEC 04 1986

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.

Date **Nov 28/86** Recorded Holder or Agent (Signature) *Masha Cane*

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
380	Dec. 4/86	<i>[Signature]</i>
	Date Approved as Recorded	Branch Chief or
	87.Y.6	<i>[Signature]</i>

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

149

ROBERT S. MIDDLETON EXPLORATION SERVICES INC.

TELEPHONE (705) 264-4246  
(705) 264-4247

P.O. BOX 1637  
TIMMINS, ONTARIO  
P4N 7W8

January 29, 1987

**RECEIVED**

FEB - 2 1987

**MINING LANDS SECTION**

Mr. Arthur Barr  
Ministry of Northern Development and Mines  
Whitney Block  
Room 6610  
Queen's Park  
TORONTO, Ontario  
M7A 1W3

RE: Mining claims P755310, et al,  
in the Townships of Sewell and Reeves

Dear Mr. Barr:

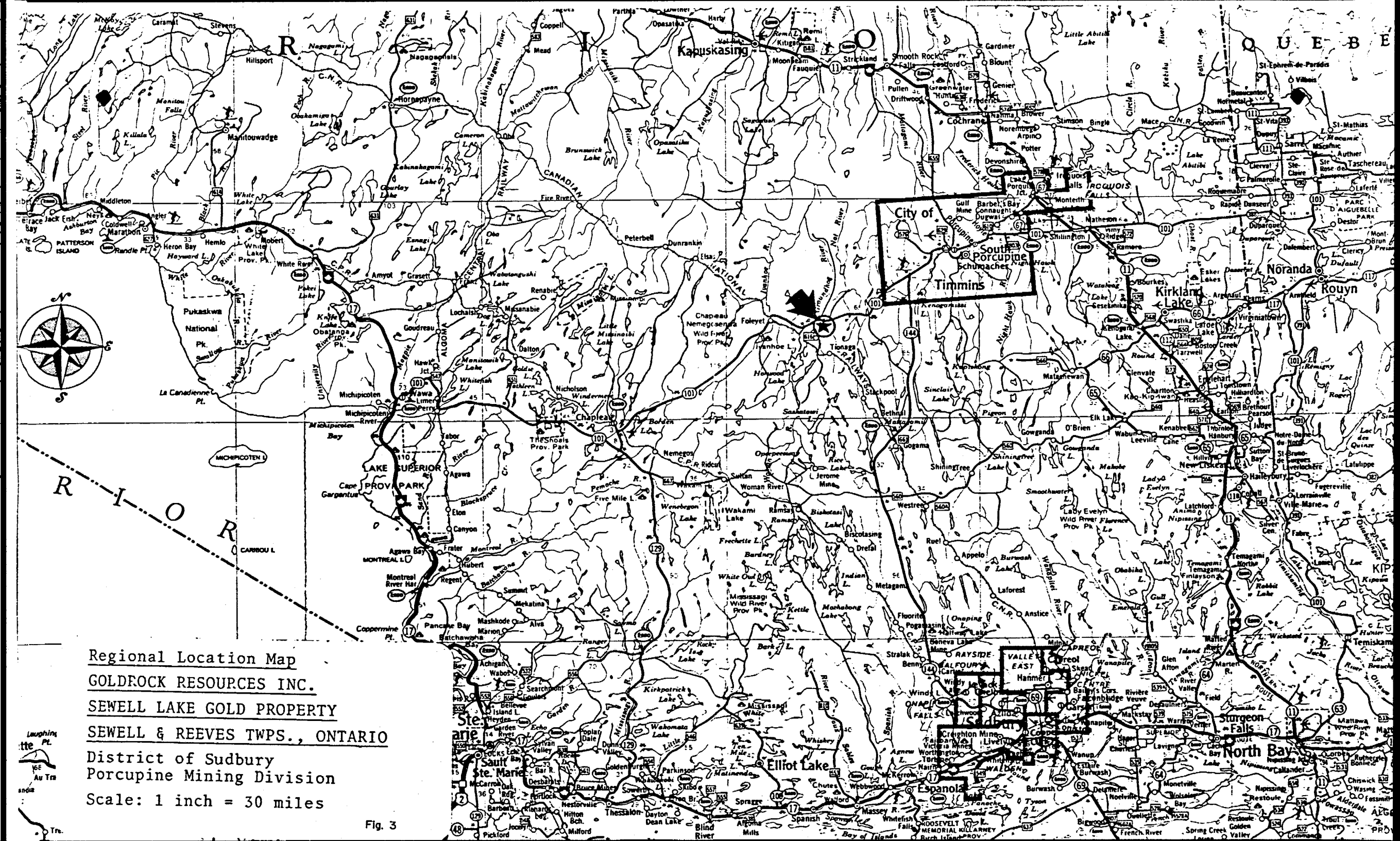
Enclosed please find 2 copies of the reports  
and maps (in duplicate) for the Geological Survey  
on the above mentioned claims.

Sincerely

*Nadia Caira*

Nadia Caira

NC/lm



Regional Location Map  
**GOLDROCK RESOURCES INC.**  
 SEWELL LAKE GOLD PROPERTY  
 SEWELL & REEVES TWP., ONTARIO  
 District of Sudbury  
 Porcupine Mining Division  
 Scale: 1 inch = 30 miles

Fig. 3

**LEGEND**

**PHANEROZOIC**

**CENOZOIC**

**QUATERNARY**

**PLEISTOCENE AND RECENT**

Till, clay, sand, gravel.

**UNCONFORMITY**

**MESOZOIC**

**LATE JURASSIC TO EARLY CRETACEOUS<sup>a</sup>**

12 Lamprophyre dikes.

**INTRUSIVE CONTACT**

**PRECAMBRIAN**

**LATE PRECAMBRIAN**

**MAFIC TO INTERMEDIATE INTRUSIVE ROCKS<sup>b</sup>**

11a Hornblende syenite.  
 11b Syenodiorite and diorite.  
 11c Hornblende monzonite.  
 11d Porphyritic hornblende diorite, quartz diorite, and gabbro (plagioclase porphyry).  
 11e Mafic hornfels.

**CARBONATITE-ALKALIC COMPLEXES<sup>b</sup>**

10a Alkalic syenite, pulaskite.  
 10b Brecciated alkalic syenite and related rock types.  
 10c Fertilized rocks.  
 10d Massive mafic nepheline syenite (malignite).  
 10e Massive to foliated nepheline syenite and related rocks.  
 10f Stövite (calcite-rich carbonatite).  
 10g Magnetite-apatite rock.  
 10h Urtite, ijolite, melteigite (nepheline-pyroxene rocks).

**INTRUSIVE CONTACT**

**EARLY TO MIDDLE PRECAMBRIAN  
 MAFIC INTRUSIVE ROCKS**

9 Diabase dikes.

**INTRUSIVE CONTACT**

**EARLY PRECAMBRIAN**

**SHAWMERE ANORTHOSITE COMPLEX**

8a Anorthosite to gabbroic anorthosite.  
 8b Anorthosite gabbro.  
 8c Gabbro.  
 8d Brecciated anorthositic to gabbroic rocks.  
 8e Gneissic to flaser-textured tonalite and monzonite.

**INTRUSIVE CONTACT**

**KAPUSKASING STRUCTURAL ZONE ROCKS**

7a Meta-igneous rocks (metamorphosed mafic to intermediate intrusive rocks).  
 7b Melanocratic granulite (pyroxene-quartz-hornblende-plagioclase granulite).  
 7c Pelitic and psammitic granulites (pyroxene-garnet-quartz-feldspar granulite).  
 7d Metasedimentary gneiss, including intercalations of metavolcanic gneiss (metamorphosed to upper amphibolite facies).  
 7e Arkosic metasediments.

**FAULT CONTACT  
 FELSIC IGNEOUS AND METAMORPHIC ROCKS<sup>c</sup>**

**Felsic Intrusive and Hybrid Rocks<sup>c</sup>**

6 Unsubdivided.<sup>d</sup>  
 6a Massive to weakly foliated, biotite and hornblende trondhjemite, granodiorite, and minor quartz diorite.  
 6b Gneissic, biotite and hornblende trondhjemite, granodiorite, and minor quartz diorite.  
 6c Massive to weakly foliated, hornblende and biotite quartz-monzonite.  
 6d Gneissic biotite and hornblende quartz-monzonite.  
 6e Syenitic rocks.  
 6f Pegmatite, aplite.  
 6g Augen gneiss.  
 6h Hornblende granodiorite to diorite (in part hybrid rocks).  
 6j Porphyritic granitic rocks.

**INTRUSIVE OR GRADATIONAL CONTACT**

**Migmatitic Rocks<sup>c</sup>**

5 Unsubdivided.<sup>d</sup>  
 5a Migmatite with metavolcanic paleosome<sup>e</sup> of quartz-feldspar-hornblende gneiss; veined with more than 25% granitic material (neosome<sup>f</sup>).  
 5b Migmatite with metasedimentary paleosome<sup>e</sup> of biotite-quartz-feldspar gneiss; veined with more than 25% granitic material (neosome<sup>f</sup>).

**INTRUSIVE CONTACT**

**MAFIC AND ULTRAMAFIC INTRUSIVE ROCKS**

4 Unsubdivided.<sup>d</sup>  
 4a Diorite and gabbro.  
 4b Ultramafic rocks and their serpentized equivalents, minor gabbro.

**INTRUSIVE CONTACT**

**METASEDIMENTS<sup>g</sup>**

3 Unsubdivided.<sup>d</sup>  
 3a Greywacke, arkose, quartzite.  
 3b Conglomerate.  
 3c Argillaceous, fine-grained metasediments.  
 3d Biotite-quartz-feldspar schist and gneiss.  
 3e Migmatized metasediments (10-25% granitic material).

**METAVOLCANICS<sup>h</sup>**

**Felsic to Intermediate Metavolcanics**

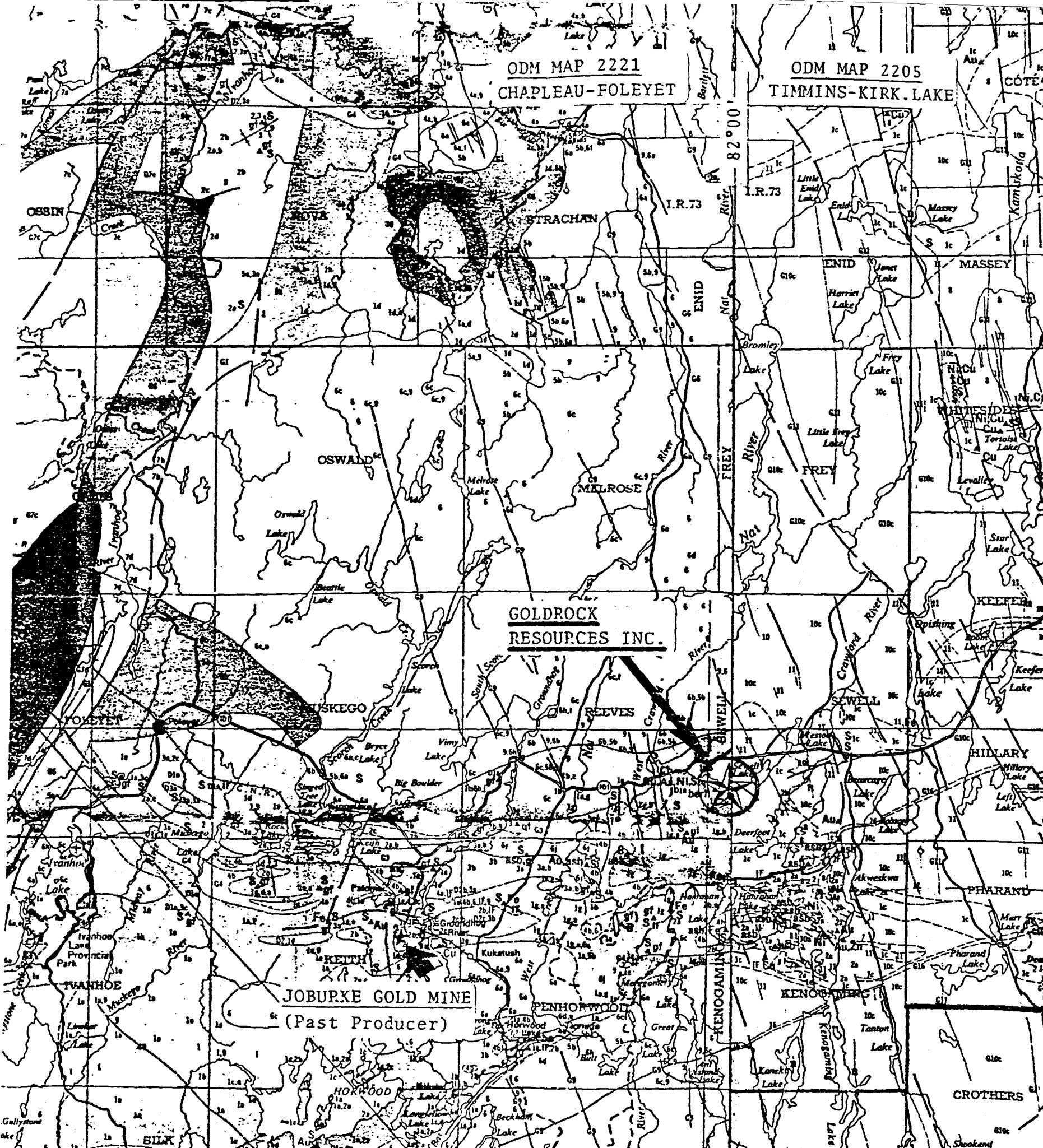
2 Unsubdivided.<sup>d</sup>  
 2a Rhyolite to dacite flows and fragmental rocks.  
 2b Tuff, banded tuff, and lapilli-tuff.  
 2c Agglomerate, breccia.  
 2d Porphyritic flows, quartz-feldspar porphyry.

**Mafic to Intermediate Metavolcanics**

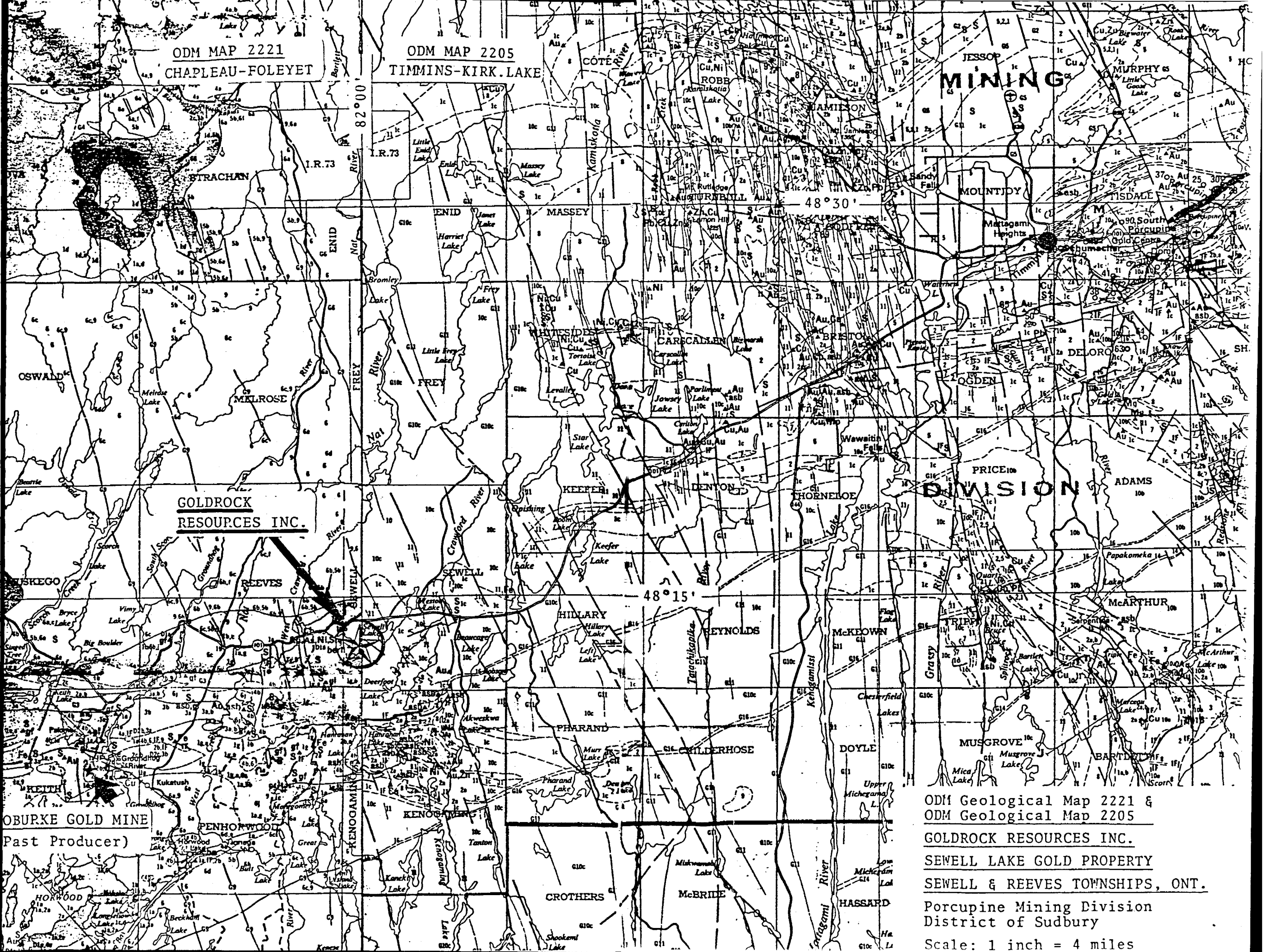
1 Unsubdivided.<sup>d</sup>  
 1a Basalt to andesite flows and porphyritic flows, massive to foliated.  
 1b Basalt to andesite pillow lava.  
 1c Mafic pyroclastic rocks.  
 1d Layered amphibolite.  
 1e Diorite, gabbro (coarse-grained flows or intrusions).  
 1g Migmatized mafic metavolcanics (10-25% granitic material).

IF Iron formation (associated with 1, 2 and 3 map units).

S Sulphide mineralization.







ODM MAP 2221  
CHAPLEAU-FOLEYET

ODM MAP 2205  
TIMMINS-KIRK LAKE

JESSOP  
**MINING**

**GOLDROCK**  
**RESOURCES INC.**

PRICE  
**DIVISION**

ODM Geological Map 2221 &  
ODM Geological Map 2205

**GOLDROCK RESOURCES INC.**  
**SEWELL LAKE GOLD PROPERTY**  
**SEWELL & REEVES TOWNSHIPS, ONT.**

Porcupine Mining Division  
District of Sudbury

Scale: 1 inch = 4 miles



MELROSE TP. M.861

THE TOWNSHIP OF

REEVES

DISTRICT OF SUDBURY

PORCUPINE MINING DIVISION

SCALE 1-INCH = 40 CHAINS

LEGEND

- PATENTED LAND ● P ⊕
- CROWN LAND SALE C.S.
- LEASES ⊕
- LOCATED LAND Loc.
- LICENSE OF OCCUPATION L.O.
- MINING RIGHTS ONLY M.R.O.
- SURFACE RIGHTS ONLY S.R.O.
- ROADS —
- IMPROVED ROADS —
- KING'S HIGHWAYS —
- RAILWAYS —
- POWER LINES —
- MARSH OR MUSKEG —
- MINES X
- CANCELLED e
- PATENTED S.R.O. e

NOTES

400 surface rights reservation along the shores of all lakes and rivers.

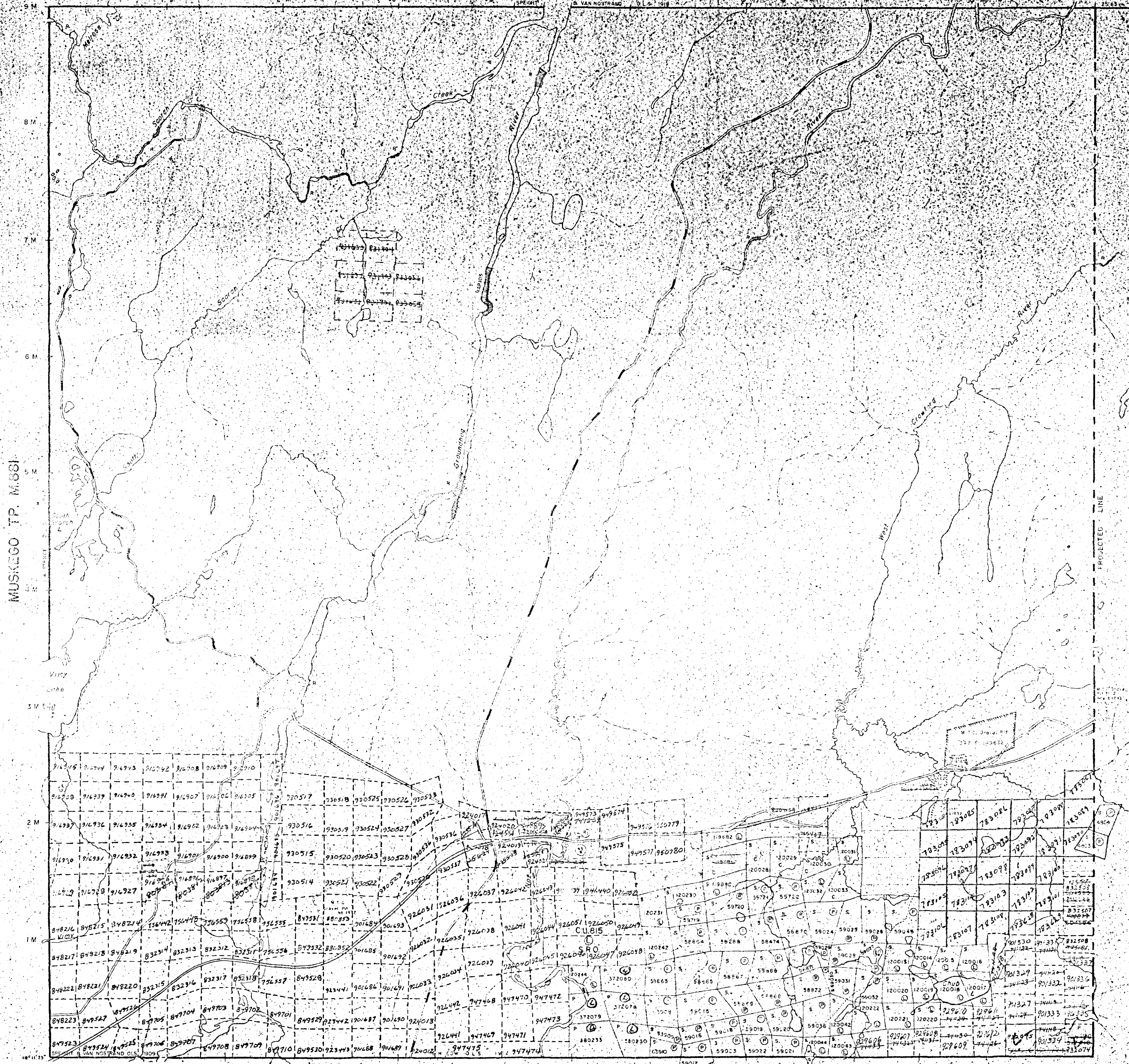
Areas withdrawn from staking under Section 43 of the Mining Act (R.S.O. 1970)

Order No	File	Date	Disposition
63322		27-7-72	CR 8 U A

S.R.O. with no mining interest, see Section 43 of the Mining Act (R.S.O. 1970) and 43(2)(b).

MUSKOGEE TP. M.861

SEWELL TP. M.1102



PENHORWOOD TP. M.1055

RECEIVED  
DEC 09

Rec. Feb 11/80

PLAN NO. M.1074

ONTARIO  
MINISTRY OF NATURAL RESOURCES  
SURVEYS AND MAPPING BRANCH



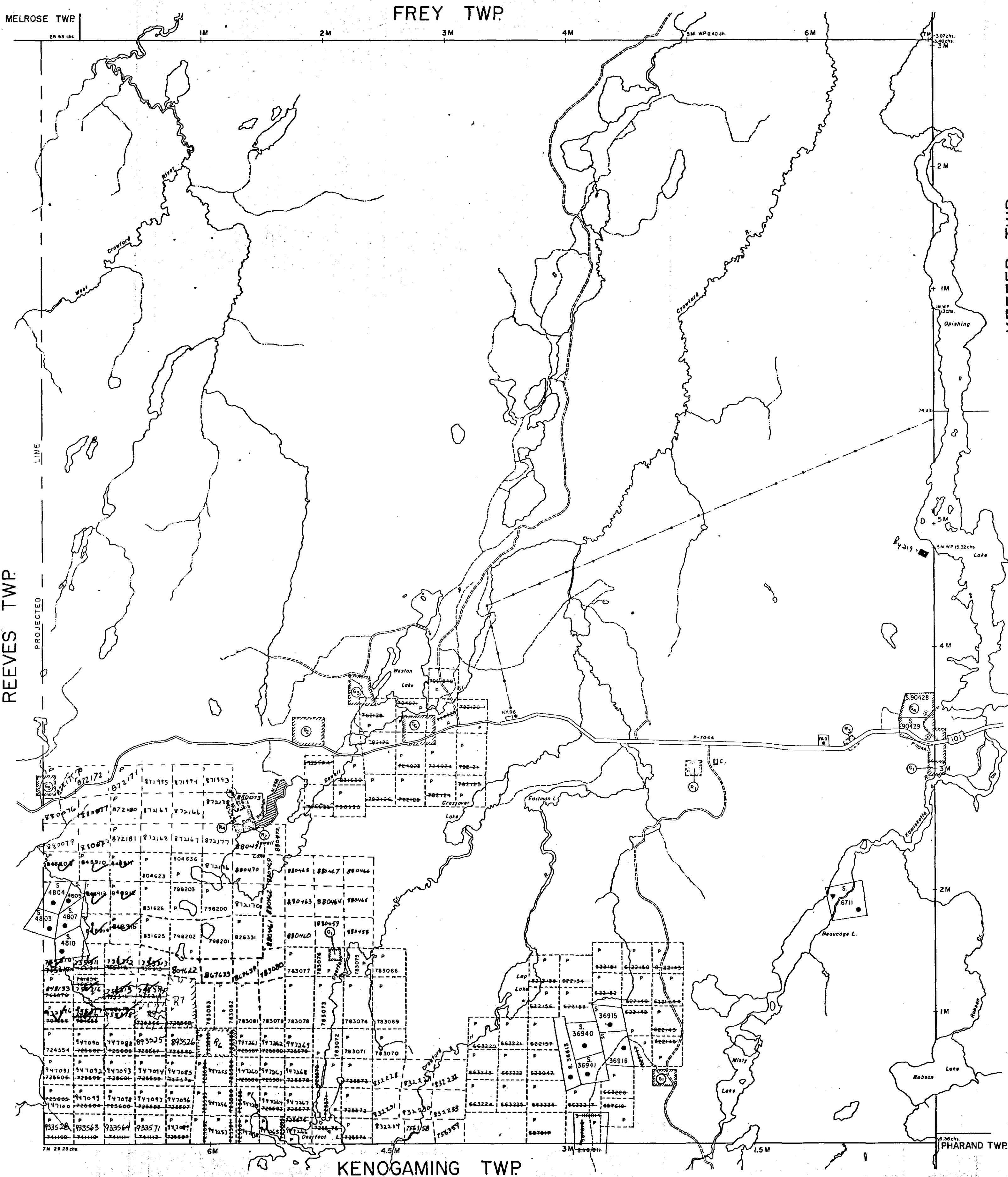
REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

Description	Order No.	Date	Disposition	File
M.R.O. - MINING RIGHTS ONLY				
S.R.O. - SURFACE RIGHTS ONLY				
M.+S. - MINING AND SURFACE RIGHTS				
① SEC 43/70	W. 30/77	11/3/77	S.R.O.	135748
② SEC. 43/70	W. 19/78	10/4/78	S.R.O. - M.R.O. 188543	
③ SEC. 43/70	W 10/78	14/11/78	S.R.O.	135748
④ DUMP ATTENUATION ZONE				
⑤ SEC 36/80	W. 46/83	14/8/83	M.+S.	
⑥ NOT OPEN FOR STAKING (AWAITING INSPECTION) 7/1/86				
⑦ Filed Only (D-26/86)				

SAND AND GRAVEL

① GRAVEL	FILE	135748
② M.T.C.	PIT	1577
③ M.T.C.	PIT	3H-1 FILE 135748
④ M.T.C.	PIT	1576
⑤ M.T.C.	PIT	3H-2 FILE 184702
⑥ M.T.C.	PIT	1243



LEGEND

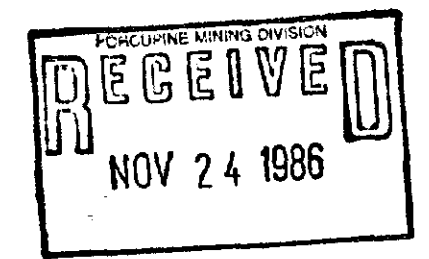
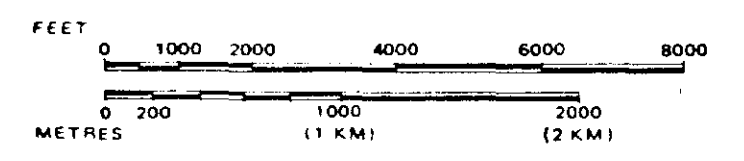
HIGHWAY AND ROUTE No.	
OTHER ROADS	
TRAILS	
SURVEYED LINES:	
TOWNSHIPS, BASE LINES, ETC.	
LOTS, MINING CLAIMS, PARCELS, ETC.	
UNSURVEYED LINES:	
LOT LINES	
PARCEL BOUNDARY	
MINING CLAIMS ETC.	
RAILWAY AND RIGHT OF WAY	
UTILITY LINES	
NON-PERENNIAL STREAM	
FLOODING OR FLOODING RIGHTS	
SUBDIVISION OR COMPOSITE 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	○
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



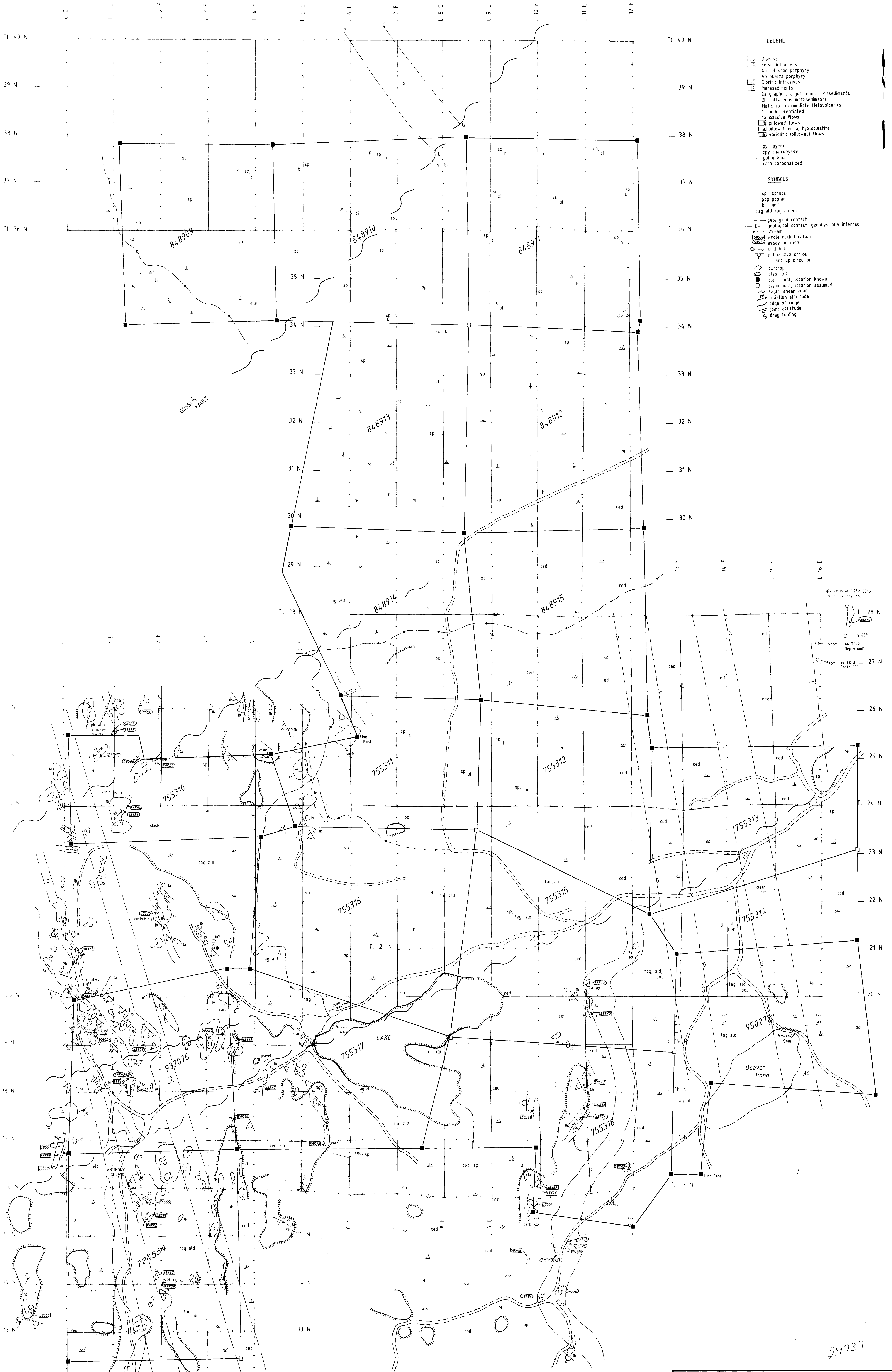
TOWNSHIP  
**SEWELL**  
M.N.R. ADMINISTRATIVE DISTRICT  
**TIMMINS**  
MINING DIVISION  
**PORCUPINE**  
LAND TITLES / REGISTRY DIVISION  
**SUDBURY**

Ministry of Natural Resources  
Land Management Branch

Date MARCH 1985  
Number G-3247







- LEGEND**
- Diabase
  - Felsic intrusives
  - 4a felsopar porphyry
  - 4b quartz porphyry
  - Dioritic intrusives
  - Metasediments
  - 2a graphitic-argillaceous metasediments
  - 2b tuffaceous metasediments
  - Mafic to Intermediate Metavolcanics
  - 1 undifferentiated
  - 1a massive flows
  - 1b pillowed flows
  - 1c pillow breccia, hyaloclastite
  - 1d variolitic (pill-wed) flows
- py pyrite  
 cpy chalcopyrite  
 gal galena  
 carb carbonatized
- SYMBOLS**
- sp spruce
  - pop poplar
  - bi birch
  - tag ald tag alders
  - geological contact
  - geological contact, geophysically inferred
  - stream
  - whole rock location
  - assay location
  - drill hole
  - pillow lava strike and up direction
  - outcrop
  - blast pit
  - claim post, location known
  - claim post, location assumed
  - fault, shear zone
  - foliation attitude
  - edge of ridge
  - joint attitude
  - drag folding

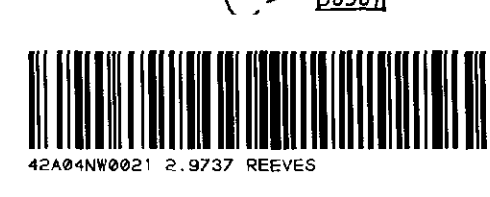
92 veins at 100° 10' W  
 with py, cpy, gal

TL 28 N  
 45°  
 86 TS-2  
 Depth 400'

TL 27 N  
 45°  
 86 TS-3  
 Depth 650'

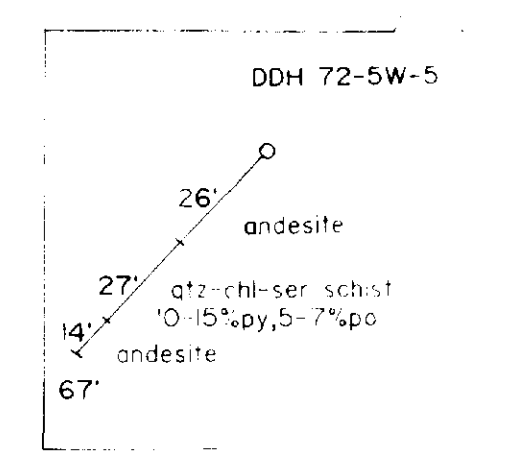
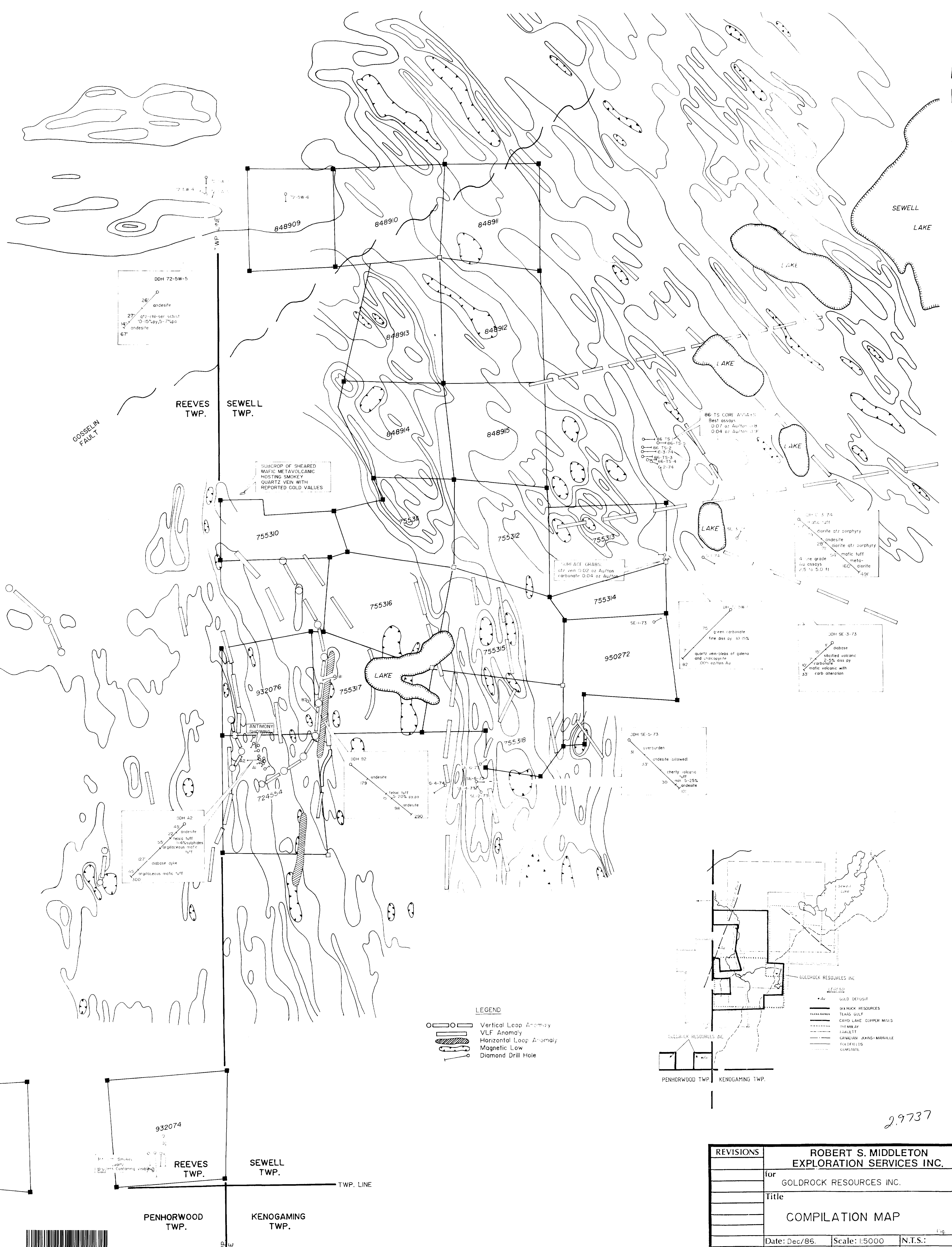
29737

REVISIONS	ROBERT S. MIDDLETON EXPLORATION SERVICES INC.		
for	GOLDROCK RESOURCES INC.		
Title	Sevel Twp. <b>GEOLOGY MAP</b>		
Date:	NOV 1986	Scale:	1:2500
Drawn:	CG	Approved:	N.T.S.
		File:	M-201









SUBCROP OF SHEARED  
MAFIC METAVOLCANIC  
HOSTING SMOKEY  
QUARTZ VEIN WITH  
REPORTED GOLD VALUES

DIAMOND DRILL CORES  
at 100' depth  
carbonate 0.04 oz Au/ton

86-TS CORE ANALYSIS  
Best assays  
0.07 oz Au/ton  
0.04 oz Au/ton

86-TS-3  
0.3-74  
0.2-74  
0.2-74  
0.2-74

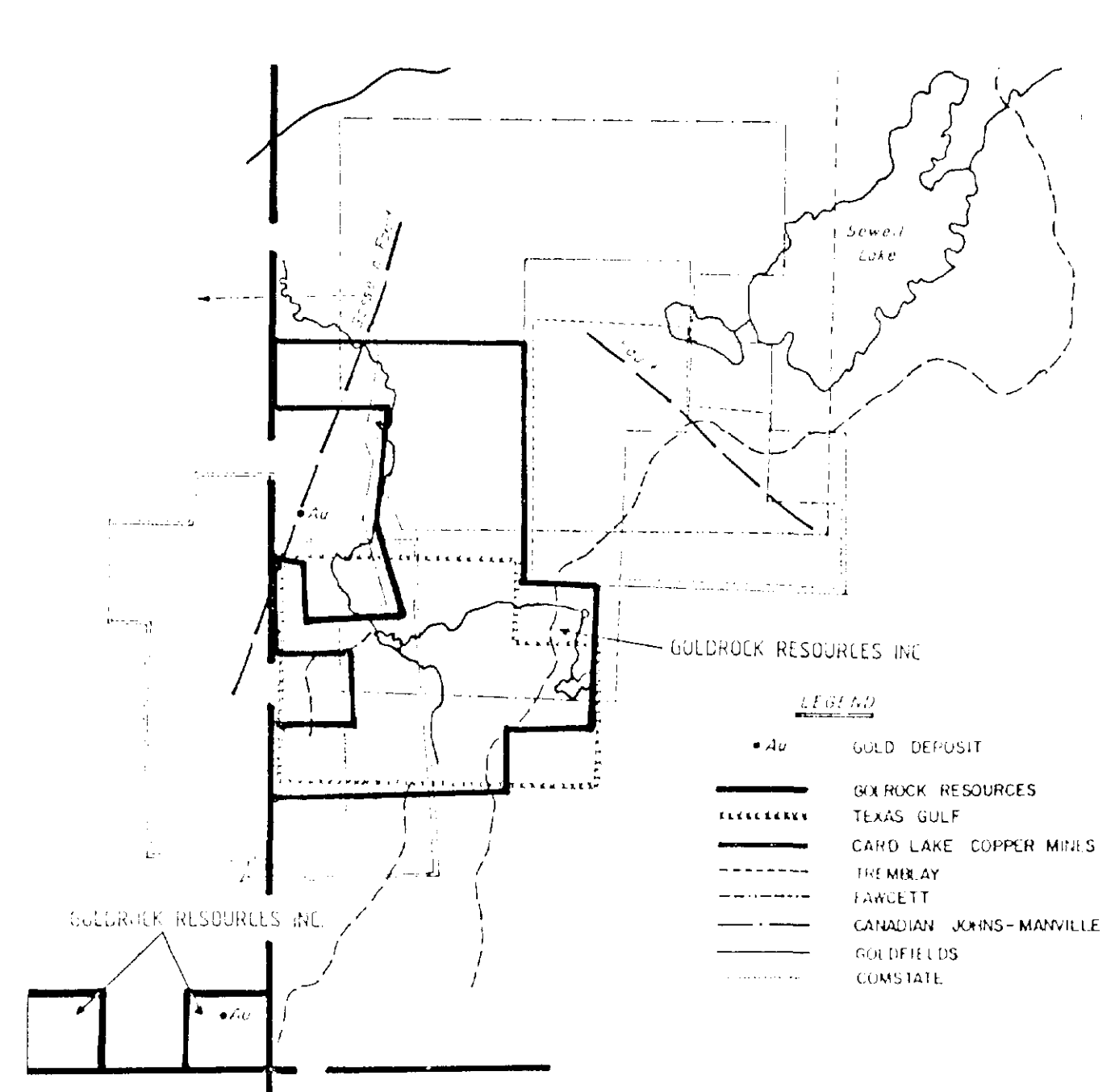
86-TS-3  
0.3-74  
0.2-74  
0.2-74  
0.2-74

DDH 42  
05 andesite  
05 felsic tuff  
05 argillaceous mafic tuff  
07 diabase dyke  
05 argillaceous mafic tuff

DDH 92  
179 andesite  
felsic tuff  
70% pyro  
98 andesite

DDH SE-0-73  
51 overburden  
53 andesite (altered)  
30 cherty volcanic  
tuff  
with 0.25%  
andesite

- LEGEND**
- Vertical Leap Anomaly
  - VLF Anomaly
  - Horizontal Loop Anomaly
  - Magnetic Low
  - Diamond Drill Hole



2.9737

REVISIONS		ROBERT S. MIDDLETON EXPLORATION SERVICES INC.	
		for GOLDROCK RESOURCES INC.	
		Title COMPILATION MAP	
		Date: Dec/86.	Scale: 1:5000
		Drawn: P.G.	Approved:
		N.T.S.:	File: M-201

