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REPORT ON MAG SURVEY WITH GEOLOGICAL STUDY

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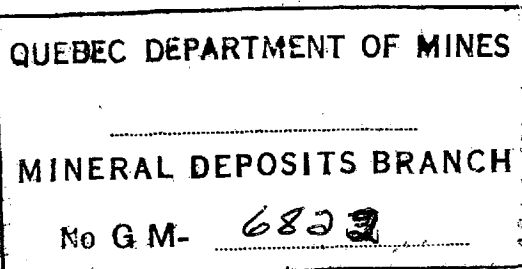
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CENTRAL MINING CORPORATION

(NO PERSONAL LIABILITY)

465 ST. JOHN STREET
MONTREAL, P.Q.

REPORT ON THE MAGNETOMETER SURVEY
AND GEOLOGICAL STUDY
OF

QUEBEC MINING EXPLORERS & D'ARAGON-JOLIN OPTIONS,
BOURLAMAQUE TOWNSHIP, N-W. QUEBEC.

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January 1941.

INTRODUCTION

Location.

Quebec Mining Explorers property and D'Aragon-Jolin Option are located in the heart of Bourlamaque Township. They consist of 58 and 74 claims respectively and cover together about 5,300 acres.. The Quebec Mining Explorers property is located mainly South-East of the center post of the township and the major part of D'Aragon- Option North-West of it.

Detail on claim numbers, acreage, etc., will be found at the end of this report.

The two properties stretch for a distance of $5\frac{1}{2}$ miles East-West and $3\frac{1}{2}$ miles North-South. They adjoin the following properties and claim groups:

Lamaque Mining Co.
Porcumaque Gold Mines
Farrar Quebec Mines

the most important mass of intrusive rocks that is located closer to the center post of the township.

Work Performed in 1940.

This work consisted in:

1. A magnetometer survey extending practically over the whole area of the two properties.
2. A geoelectrical survey: two parallel resistivity profiles, 400 feet apart, cutting through the center section of the two properties.
3. A considerable amount of trenching opening up almost all the outcrops existing on the properties.
4. A vertical test diamond drilling. Only 3 holes out of 7 reached the bed rock.
5. A very limited program of conventional diamond drilling which also encountered some difficulties in reaching the bed rock.

Trenching and diamond drilling were under the supervision of Messrs. P. D'Aragnon and L. K. Smith, and the results of this work will be dealt in this report only so far as necessary for the understanding of the geological picture and the results of the magnetometer survey.

The present report will treat exclusively of the results of the magnetometer survey, those of the electrical resistivity measurements forming the object of a separate report.

All results of the magnetometer survey are concentrated on 8 maps presented herewith. 7 maps, at a scale of 200 ft. to the inch, cover the entire property. They show in detail all the values of the magnetometer measurements obtained, magnetic contours, profiles, etc., as well as the principal results of trenching and diamond drilling.

The map at a scale of 1,000 ft. to the inch is made for the purpose of presenting, in the light of the general geological facts of the district, the results of the geological interpretation of the magnetometer measurements taken on the property.

As all the geological facts obtained from the survey are actually shown on the 1,000 ft. to the inch map, it is suggested that students of this report refer only to the general map, the 200 ft. to the inch maps being studied exclusively when a detail information on the magnetometer results is desired.

The various zones presented on the map, and which are supposed to be underlain by different geological formations, are numbered and will be referred to in this report in accordance with this numbering.

GENERAL GEOLOGY

Broadly speaking, the two properties under study are located in a 3 mile wide east-west belt of Keewatin volcanic greenstones that lies between the Bourlamaque granodiorite batholith to the North and the wide belt of Temiscamian sediments to the South.

On the Government geological maps by James & Mawdsley (1926-1929) and Hawley (1930) this belt is considered to be underlain mostly by greenstone. Lately, several small outcrops of intrusive rocks were discovered, and our magnetometer survey shows that a large mass of intrusive rocks (2 x 2½ miles) straddles the east-west township center line in the center of the two properties. A dyke of quartz diorite ("older gabbro" type), outcropping on the Goldore property, was traced by the magnetometer survey and diamond drilling for nearly a mile and a half on the Quebec Mining Explorers claims.

The presently known gold deposits in the Harricana district are invariably closely related to intrusive rocks and, furthermore, it seems that the deposition of gold took place at the very end of the pre-huronian intrusive cycle. This is true at Siscoe, Sullivan, Lamaque, Sigma, Beaucour, Cournor, Perron, Pascalis and Senore Mines which are all closely related to the intrusive rocks of the main Bourlamaque granodiorite batholith or its satellites.

Gold deposits of the neighbouring Malartic and Cadillac areas are governed by the important fractures and some occasional porphyritic intrusives that exist along the contact of the Keewatin volcanics and the Temiscamian sediments.

At last, the most important deposits of heavy sulphides of western Abitibi seem to be genetically closely related and contemporaneous with the intrusion of the Keweenawan (younger diabase) dykes.

Keewatin Geology.

The knowledge of the Keewatin volcanic rock underlying the properties and the surrounding area is far from being complete; nevertheless, if one studies the magnetometer survey results in connection with the greenstone outcrops known on the neighbouring properties, several fairly well defined bands seem to exist.

Going from North to South we have the following series of Keewatin volcanics:

Zone No. 1 is formed by rhyolite flows and other acid volcanic rocks. It is very probable that this zone is the direct continuation of the band of rhyolites near the north contact of which are located the gold and zinc bearing ore-bodies of Quebec Manitou.

In the central section of the properties, immediately South of Zone No.1, lies the large intrusive mass which destroyed the normal succession of Keewatin rocks; nevertheless, it must be noted that West of the intrusive mass and considerably South of Zone No.1 exists a second band of acid volcanics which seems to correspond to the acid band existing on the Wolverine property.

South and East of the intrusive mass, Keewatin volcanic rock formations are well developed. The following should be noted:

Zone No. 21 is underlain by a complex of slightly porphyritic rocks which nevertheless present structures of volcanics nature, i.e., agglomerates, breccias and tuffs containing volcanic bombs. The porphyritic texture of all these rocks seems to indicate a very pronounced metamorphism, a secondary recrystallization and a probable presence, at not too great a depth, of a fairly large intrusive body.

This zone has many large rock outcrops and is actually the best exposed section of the Quebec Mining Explorers property.

According to the results of the magnetometer survey, the zone extends from the Goldore boundary to about Line 48, where it stops against the great fault which will be described further on. On the North, the zone reaches the property boundary and is limited, on the South, by a contact with acid volcanics.

Although the whole zone can be considered as a batholith hood and should be, therefore, favorable to mineralization, the fact that the magnetic survey did not show any definite structure, where mineralization could naturally concentrate, would indicate that this zone is not particularly interesting for further exploration. Its numerous outcrops could be expected to have yielded some encouragement only if the zone would have been worthy of further exploration.

Zone No. 20 The south rhyolite band shows no outcrops within the limits of the property, it is well indicated by the results of the magnetometer survey, and several outcrops of this formation are known to exist along the strike on the neighbouring Goldore property.

From the economic point of view, the rhyolites are a com-

petent rock for replacement by heavy sulphides. In this respect, it would be advantageous to study by means of diamond drilling the contact between the rhyolites and the andesitic greenstones lying to the South.

Zones Nos. 19, 18, 17 and 22 cover the largest area of the Quebec Mining Explorers property. Although there are no outcrops whatsoever to prove this assertion, we believe that these zones are underlain largely by andesitic lava flows and more or less basic volcanic rocks. The average value of the magnetometer measurements made over these zones and the existence of fairly regular, East-West elongated, moderate magnetic anomalies are usually a sure sign of a Keewatin volcanic area formed by lavas of intermediate composition and presenting a series of interbedded basic magnetic lava flows.

Some intrusive rocks of the "older gabbro" quartz diorite type can give magnetic anomalies of the same magnitude and character. It is not impossible therefore that some of the east-west elongated anomalies, marked on the map as magnetic lava flows, could actually be intrusives of this kind.

Small ore-bodies have been found in the Harricana district in large areas of greenstone, but as a rule they were either considered from the start to be unprofitable, or when production had been attempted, as at Green Stabell and Shawkey, it was found to be unprofitable. It is our considered opinion that as little exploration effort as possible should be spent over the areas underlain by large masses of greenstone, and most of the work concentrated in areas where small or large intrusive bodies are known to occur.

GEOLOGY OF INTRUSIVES

Quartz Diorite Dyke.

Zone No. 16 In the east end of the Quebec Mining Explorers claims the most important geological feature is the presence of the quartz diorite dyke. The existence of this dyke on the property is positively proved by: (1) A small outcrop near the Goldore boundary and in diamond drill hole No.2; (2) Diamond drill hole No.3 which cuts the same dyke about 3,000 feet West of the first outcrop; (3) A sample of the same rock which was pulled out from the vertical test hole No.1, just West of the great fault. Elsewhere the continuity of the dyke is well proven by the magnetic measurements and can be traced up to the sharp bend of the Sabourin River where it leaves the property limits.

The quartz diorite, also known under the name of "older gabbro", is considered to be the oldest intrusive in the district. It was even regarded to be an interbedded sill of Keewatin age. At present, there is much geological evidence to the effect that this intrusion is perhaps the oldest of the other intrusive rocks of the pre-huronian cycle known in the district, but should be nevertheless considered definitely post-Temiscamian.

The dyke of quartz diorite that cuts the property is of considerable magnitude. Its width on the property attains 500 feet and, outside, nearly 1,000 feet. It extends, to the East, for at least 7 miles where it is known near the center post of Louvicourt township on the Vicour claims. To the West, the dyke is interrupted by several faults and probably pinches out, but another dyke of the same composition starts in "échelon" in the west part of the Orenada property and extends for several miles further west.

It can be easily understood that a dyke of such importance, constituting a break of many miles long, should be in the same time deeply rooted and should present an excellent channel for ascending ore-bearing solutions. In fact, gold deposits have been found in several places along the dyke: in the East, at Vicour, diamond drilling has outlined several bodies of low to medium-grade ore, which are located in the silicified middle section of the dyke and are formed by a multitude of more or less flat dipping quartz stringers criss-crossing the rock. Further west, still in Louvicourt, high-grade quartz stringers were found in the dyke on Met-Mac and Sim-Clerc properties. Still further West, on Goldore Development property, less than a mile from Quebec Mining Explorers boundary, a considerable amount of free gold was discovered in a flat dipping stringer. On the Orenada property, about 2 miles South-West from the point where the dyke leaves the Quebec Mining Explorers ground, a large ore-deposit of rather low grade was outlined by diamond drilling. Of all these discoveries only Vicour is at present under development.

On the properties where the discoveries were occasional and with a very limited possible tonnage, the dyke rock is of a composition fairly similar to the quartz diorite that is found in diamond drill holes Nos. 2 and 3 on the Quebec Mining Explorers ground. On the contrary, where large deposits were outlined, as at Vicour and Orenada, the rock is strongly serpentized. It would be therefore logical to assume that commercial deposits on the Quebec Mining Explorers property, if they do exist somewhere along the dyke, would be also accompanied by an alteration and serpentinization of the quartz diorite. In our opinion, it would be a good prospecting policy to make 4 or 5 widely spaced big

diamond drill holes, cutting the quartz diorite from one contact to the other, and follow this preliminary program by more detailed drilling if diamond drill core in the first drilling shows signs of alteration.

Faulting of the Dyke. The magnetic survey showed that at least in three places on the Quebec Mining Explorers ground the quartz diorite dyke is subjected to strong faulting. The first fault is located between Lines 28 and 32 on the east boundary of claim A-63085. Here the displacement is: the west limb to the South. Diamond drill holes Nos. 3 and 4 placed in the vicinity of the fault showed the presence of acid soda feldspar porphyries flanking the dyke. Hole No.3 cut also a well mineralized quartz vein which did not carry gold values.

The second probable fault located by the magnetometer survey is found some 800 feet West. The horizontal displacement along this fault is rather small but, on the contrary, there should be a considerable vertical displacement which is proved by the fact that on both sides of the fault the Keewatin volcanics are different and give quite different reactions.

The third fault discovered by the survey should be probably considered as one of the biggest in the district. It is found between picket lines 52 and 56. Here, once more, the horizontal displacement is really negligible, about 200 feet, with the west limb displaced towards the North. On the other hand, the vertical displacement should be considerable, probably of many thousand feet. This opinion is based on the following facts:

1. The dyke on both sides of the fault is of different composition and gives magnetic anomalies of quite different intensities.
2. North of the dyke, West of the fault, we have a basic greenstone giving an average magnetometer value of + 800^r while to the East the values are slightly negative and undoubtedly due to acid volcanics.

It is highly probable that this important fault is in fact the continuation of the great fault having a 2,000 ft. offset and discovered last summer by the Government geologists some 12,000 feet South of the quartz diorite dyke.

The seemingly contradictory fact that the offsets are in opposite directions at the quartz diorite dyke on the Quebec Mining Explorers property and in the South should not be an obstacle to this hypothesis, as probably the fault is actually a dip fault and whatever horizontal offsets do exist are due to dips of the various dykes.

Detail magnetic measurements made along cross lines between North-South lines 48 and 56 suggest that the fault is actually a fault zone, having a certain width, filled with material that has magnetic properties of a definite nature intermediate between the magnetic properties of the rocks lying on both sides of the fault. For the moment, there is no clue whatsoever to decide whether the material filling the fault zone is an intrusive rock or just a mass of altered and sheared rock.

Both the fault and the quartz diorite dyke are major geological structures, having a considerable horizontal extent and therefore undoubtedly deep-rooted; they should present excellent possible channels for ascending mineralized solutions. The intersection of the quartz diorite dyke with the fault should be a particularly interesting spot for exploration by diamond drilling.

Center Post Intrusive Mass

Considered as a whole, zones Nos. 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13 and 14 represent a large area (some 2,000 acres) that, according to the results of the magnetometer survey, is underlain by a complex of intrusive rocks. Outcrops in this wide area are either very few or non-existent. The interpretation was forcibly based on the magnetometer measurements, but the magnetic anomalies are of a well defined nature and in most sections of the area the interpretation is made without any possible doubt.

On the other hand, as the magnetic anomalies present different characteristics from one zone to another, we have divided the whole intrusive area in sections that seem to be underlain by different kinds of intrusives. Some of these may be actually very much akin to each other and, although having variations in the content of magnetic minerals, be in fact classified as one rock species.

The few scarce rock outcrops found in the intrusive area and the two vertical test holes performed, all disclosed intrusive rocks, and to date the presence of at least four different intrusions is evident. It is our opinion that more diamond drill-

ing will show a still greater variety of rocks in the intrusive complex.

The mere fact of the presence on the property of such a complex mass of intrusives is highly encouraging, because it denotes a prolonged intrusive activity and great possibilities for ore channels to be open to ore-bearing solutions at the right time.

We are now going to describe first the zones that have been exposed by some trenches or a test diamond drilling, the description of zones completely covered by overburden being given further on.

Zone No. 2 is underlain by a coarse grained diorite which is exposed in a few trenches near the north contact. This rock is formed by very altered calcosodic feldspar, no quartz is present. Dark minerals form about 30% of the rock and are represented by biotite mica and amphibole in about even proportions.

Within the zone are found some positive and negative magnetic anomalies that could be either dykes or magmatic segregations. As none of these anomalies are opened up by trenches or diamond drilling, the question of their exact nature is still unsettled.

There is a strong chance that the negative anomaly extending from N7 Line 28 to N14 Line 56 is due to an acid dyke cutting the diorite.

Zone No. 3, according to the results of the magnetometer survey, is underlain by an acid intrusive. In fact, a vertical test hole made near the river bank brought up a core of fine-grained pink syenite, composed mostly of albite and orthoclase with practically no quartz and rather few dark minerals. Some very minute brown minerals, probably, zircons, are also abundant in the rock.

Zone No. 4, occupying the largest area of all, is exposed by a vertical test hole and in a small outcrop on its boundary with zone No.6.

The rock is almost identical with the one found in the test hole of zone No.3.

Zone No. 6 is exposed in a series of rock outcrops and is formed by what was called in the field "green porphyry". The rock consists of a ground mass of very small crystals that

present to the naked eye a dark-green color. In fact, under the microscope, it can be seen that this ground mass is mainly formed by altered feldspars. In this fine-grained mass float fairly large phenocrysts of very altered feldspar. The only determination that we managed to make under the microscope showed the phenocryst to be a calcosodic feldspar having a composition of Ab 75%, An 25%.

The extreme alteration of this "green porphyry" would suggest that it is one of the oldest rocks in the intrusive complex and, therefore, the least interesting from the economic point of view.

The "green porphyry" is cut by a series of small microgranitic dykes of very irregular form. Petrographically, these resemble very much the rocks of zones Nos. 3 and 4 but contain a large amount of quartz.

Zone No. 11, fairly well exposed in outcrops and trenches, presents coarse feldspar porphyries which are very similar to the green porphyry of zone No. 6. The rocks are almost identical to the naked eye, except for the color which is grey or white instead of being green. As we did not study this rock under the microscope, we cannot give more details on its composition.

Zones Nos. 5, 7, 8, 9, 12, 13 and 14 are underlain by rocks that were not reached by trenching and diamond drilling. The only clue to their determination lies in the results of the magnetometer survey.

Rocks underlying zones Nos. 7, 9, 12 and 14, according to the magnetometer results, should be of rather acid composition. Zones 7 and 14 are particularly similar in their magnetic reactions to zones Nos. 3 and 4 underlain by syenites.

On the contrary, zones Nos. 5, 8 and 13 are probably formed by basic rocks, more or less similar to the diorite of the type exposed in zone No. 2.

Genetic Relationship and Age of the Center Post Intrusive Mass.

From the economic point of view, it is particularly important to know whether the intrusive complex under study is genetically related to the main Bourlamaque granodiorite batholith, which gave origin to ^{now} profitable ore-bodies near its contacts and in each one of the presently known satellites. This question could be answered without ambiguity only by a thorough petrographical study and numerous rock analysis. At pre-

sent, most of the petrographical evidence is rather supporting the hypothesis that the mass is genetically related to the granodiorite batholith. For instance, the most convincing point is the similarity of the feldspars found in the batholith and in the various rocks forming the Center Post Intrusive Mass.

On the contrary, some of the tectonical facts observed, in particular the disposition of faults cutting both the quartz diorite and the younger diabase, could be considered as evidence for attributing the Keweenawan age to the Center Post Intrusive Mass. If such be the case, the fact would be interesting from the point of view of pure geology, and the intrusive body would probably be responsible for the deposition of some heavy sulphide mineralization in the immediate neighbourhood of its contacts.

Granodiorite Intrusions in the N-W. of D'Aragon Option

There are no outcrops of granodiorite on Central Mining ground, but a fairly large outcrop appears on Porcumague and Lamaque properties, immediately to the West. This induced us to interpret a medium-low magnetic anomaly, found over zone No.10, as being underlain by a similar granodiorite.

The zone does not present any particular economic interest, except where it is cut by a north-south fault which is also indicated only by the magnetometer survey.

Lamaque Contact Intrusives

Zone No. 23, in the west end of the D'Aragon Option, shows very irregular and rather weak magnetic anomalies. Such anomalies usually indicate the presence of irregular dykes of different intrusive rock cutting a greenstone complex. In fact, diamond drilling done by the old Lamaque Contact company did disclose quite a complex of intrusive rocks cutting the zone very irregularly. As said above, there is strong evidence to the effect that the whole zone was found by the drilling to be barren of any gold ore.

South-West Anomaly - Zone No. 15

In the south-west corner of Quebec Mining Explorers property, along the west limit of claim No. A-87443, there seems to exist another intrusive body indicated by the magnetometer survey and apparently entering the property for only a few hundred feet.

The zone covers stations 15 to 30 South, on the north-south center line, and stations 18 to 24 South on line 140. There are no outcrops to indicate the composition of this intrusive body which is probably of the basic "older gabbro" type.

TECHNICAL DETAILS
OF THE MAGNETOMETER SURVEY

Network of Measurement Stations

On both properties the magnetometer measurements were made along picket lines. These were cut 400 feet apart and measurement stations placed along these lines at 100 ft intervals.

The entire system of picket lines was carefully chained and tied to known topographical spots, i.e. Government survey posts on the two, north-south and east-west, center lines of the township and the surveyed claim posts. All stations are represented on the 200 ft to the inch maps and the system of numbering can be clearly seen and understood from same. As a general rule, when chainages were made along the lines pickets were displaced and used to indicate the measurement spots, all the unnecessary ones being cast away. Numbers were written not only on the pickets but, when feasible, on neighboring blazed trees.

In all, some 120 miles of picket lines were cut. The whole work was performed by the group of men under the supervision of L. K. Smith, but we checked quite a fair percentage of the chainages.

A certain number of additional detail measurements were done in the sections covered by maps Nos. 1 and 2. In the north-west section of D'Araron Option some 200 measurements were made outside of the property limits, this mainly due to the fact that the property boundaries were not checked over before the line cutting and measurements were performed.

All the magnetometer measurements performed on the two properties can be classified as follows:

| | <u>Quebec Mining</u> <u>Explorers</u> | <u>D'Araron</u> <u>Option</u> |
|--|--|----------------------------------|
| General network | 2,201 | 3,374 |
| Detail work | 182 | - |
| Base stations | <u>11</u> | <u>11</u> |
| Totals: | 2,394 | 3,385 |
| General total of magnetometer measurement stations | 5,779. | |

Magnetometer Survey

On the Quebec Mining Explorers ground the survey started April 15th and lasted till July 9th 1940. On the D'Aragon Option property the survey started July 1st and was completed September 28th 1940. The preparation of maps and reports, which was interrupted by the performance of the geoelectrical survey, continued till the middle of January 1941.

The measurements were done with an Askania magnetometer measuring the variations of the vertical component of the natural magnetic field. The magnetometer was specially set for making precise measurements, with the scale of temperature coefficients greatly reduced. Number of other precautions were taken to obtain accurate results.

The sensitivity of the magnetometer is in the order of 2-3 gammas, while the precision of the survey is of only about 10 gammas, this fact mainly due to the absence of an additional magnetometer for recording the daily variations of the natural magnetic field.

We wish to point out that the sensitivity of the ordinary dip needle and the Berg magnetometer varies from 300 to 1,500 gammas. Therefore, most of the anomalies and contacts found on the properties could not have been outlined by other magnetic instruments except the Askania Magnetometer.

All the relative values of the vertical component measured were referred to an arbitrary base station considered to have a zero value. The results plotted on our maps are expressed in gammas (1 gamma (γ) = 1/100,000 Gauss C.G.S.). Measurements on base stations were checked at least three times and special precautions for obtaining more accurate results taken.

A table of magnetic values of the various base stations is given hereby.

MAGNETIC VALUES OF BASE STATIONS

| <u>No. of Line</u> | <u>No. of Station</u> | <u>Value in Gammas</u> | |
|------------------------|---------------------------|----------------------------|----|
| 20 | 36 | + 327.5 | |
| 40 | 36 | 0. | 1) |
| 84 | 0 | +1026.0 | |
| 100 | 0 | + 649.1 | |
| Camp base: | | +1035.0 | 2) |
| 120 | 0 | + 490.2 | |
| 140 | 0 | + 474.6 | |
| 140 | S 10.60 | + 724.4 | 3) |
| 172 | N 4 | +1043.9 | 4) |
| 200 | N 10.57 | + 744.0 | |
| Base "X": | | + 601.7 | 5) |
| Base "Y": | | + 405.8 | 6) |
| 32 SW | 0 | + 352.9 | 7) |
| 40 E | 0 | + 565.8 | |
| 52 E | 0 | +1023.3 | |
| 12 W | 0 | + 641.7 | |
| 24 W | 0 | +496.7 | |
| 40 W | 0 | + 90.5 | |
| Base "Z": | | + 56.5 | 8) |
| 60 W | 0 | + 62.0 | |
| 80 W | 0 | + 85.0 | |
| 100 W | 0 | +159.0 | |

-
- 1) Main base.
 - 2) This base is located 20 ft. south and 150 ft. east of Station S 53 Line 72, 80 ft. just south of the Sabourin River camp.
 - 3) North shore of Sabourin River.
 - 4) South shore of Bourlamaque River.
 - 5) West shore of Bourlamaque River on east-west township center line.
 - 6) East shore of Bourlamaque River at the intersection with the east-west base line of d'Aragon Option claim group.
 - 7) On east-west township center line.
 - 8) On Line 36 N 56.70 south of the Rouyn-Louvicourt highway.

Object of the Survey and Interpretation Methods

Inasmuch as there are nearly no outcrops on the Quebec Mining Explorers ground, and on the D'Aragon Option group most of them are concentrated in the western section of the property, any geological information that the magnetometer survey could obtain should be considered of great value.

Gold deposits in the Harricana district are invariably associated with the intrusive rocks intruding Keewatin greenstones. Therefore, one of the tasks of the survey was to outline any possible intrusive bodies. The quartz diorite dyke in the south-east section of Quebec Mining Explorers ground was already known to enter the property. It was traced by the survey for nearly $1\frac{1}{2}$ miles on the Company claims. On the other hand, due to the survey an important mass ($2\frac{1}{2}$ x 2 miles) of intrusive rock was discovered and outlined in the center of the township, This was entirely unsuspected by the various geologists who have studied the district.

The geophysical and geological interpretations were carried on by means of magnetic contours and magnetic profiles. The latter were made at varying scales and having different zero points, on separate map sheets, in order to suit best the particular requirements of the interpretation. The contacts of different formations were outlined mainly from the study of the magnetic profiles and according to the inflexion point rule.

The distinction between areas of Keewatin greenstones and the intrusive rocks was made by a careful study of the behavior of various magnetic anomalies and based on an extensive experience of application of the magnetometer method to the local geological conditions.

All the results are concentrated on 7 sheets of 200 ft. to the inch scale maps. Furthermore, a general map made to the scale of 1,000 ft. to the inch shows in a condensed form the geological interpretation of the results of the magnetometer survey in the frame of the general geology of the district.

Sworn before me
at Val d'Or Que.,
this 18th day of February
1941
Edouard Viney

Th. Houliou

EDWARD VINEY

COMMISSAIRE DE LA COUR SUPÉRIEURE
POUR LE DISTRICT D'ABITIBI, QUÉ.