

009064

EXPLORATION PROGRAM

PHASE I, II, III & IV

L. P. STARK.

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MESSRS:

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FROM..... L.P. STARCK.....

SUBJECT..... EXPLORATION PROGRAM -
..... PHASE I, II, III AND IV

The concept of a "capital" exploration program to assess the ore potential of the favourable ultrabasic rocks which host the Giant Nickel Mine was proposed in 1968 as it was apparent that the future of the property depended on the discovery of new zones, either above or below the 2600 main haulage level, with grades of mineralization which would result in the continuation of the operation at its then rated capacity of 1,500 tons per day, or permit consideration of increasing the plant capacity to treat lower grades at higher tonnages.

This program was started on a limited scale in 1969 with the intent that it would be expanded in 1970 when it was expected that the self-generated funds would substantially increase as a result of a newly negotiated sales agreement, metal prices, higher than normal ore grades and the anticipated introduction of equity capital.

Unfortunately, with the fire in 1970 and the financial strictures that resulted from the overrun of the final reconstruction costs in relation to the original engineering estimates, the insurance settlement and the Panarctic commitment, the program could not be fully implemented at that time. Nor has it been possible to implement it on a full scale since that date because of the reduction in earnings due to lower ore grades, lack of normal ore discoveries, loss of the favourable Sumitomo concentrate sales agreement and the Panarctic commitments. However, on a low key basis, the program was carried on and by mid-1972 the first and part of the second phase of the original program were completed. This work added extensively to the geologic knowledge of the property and delineated a number of geologically favourable areas for future testing, but it was not successful in discovering any new ore zones. On the basis of the experience of B.C. Nickel, Pacific Nickel and Western Nickel, it was premised that statistically this capital exploration longhole diamond drilling could indicate some 15 to 150 tons of new ore per foot drilled, as with a similar program, but by

pattern drilling, they intercepted 16 ore zones and indicated over one million tons of ore that on detail drilling expanded to three million tons. This, however, was not the case with the 1969-1972 program.

In the summer of 1972 an expanded exploration program was proposed which included extensive development work and diamond drilling beyond the immediate environs of the existing workings, and testing by diamond drilling below the 2600 main haulage level and in areas above that level to some 1,000 to 1,500 feet beyond the existing workings. It was anticipated that funds for this expanded capital exploration program to continue the assessment of the property would be available from an equity financing that was being arranged in the United States and later in Canada. However, neither of these underwritings were consummated but consideration is now being given to a financing to meet the Company's current financial requirements and provide for a limited "capital" exploration program of some \$300,000.

Since 1970 the normal "close-in" exploration work, which is an ongoing part of the mining operation, coupled with a limited amount of "capital" exploration work, has been unsuccessful except for the discovery of three small zones in the 6800 area. Furthermore, the "close-in" diamond drilling in recent months has tended to delineate the proven, probable and possible zones and other targets which had promising possibilities with the result that the number of promising exploration target areas "close-in" to the existing workings that can be anticipated to replace the producing stopes in the near term is limited.

For ease of reference both the "close-in" and "capital" exploration programs have been combined in this report and will be referred to as the "Exploration program - Phase I, Phase II, Phase III and Phase IV".

PHASE I

This phase encompasses the 1973 surface geological and geophysical work, the results of which are now being correlated, and the continuation of it in the summer of 1974.

PHASE II

This phase consists of some 100,000 feet of underground diamond drilling to be done from the existing workings on and above the 2600 main haulage level.

PHASE III

This phase consists of a diamond drilling program below the main haulage level.

PHASE IV

This phase involves the driving of exploration drifts and raises outwards from the present underground workings and diamond drilling from these entries into new areas that cannot be practically explored at the present time. It would possibly include shaft sinking below the 2600 main haulage level.

Phases I and II are presently underway on a limited basis and will be accelerated as soon as the financing presently being considered is consummated.

Phases III and IV may be undertaken in the future if major financing is available, as they are essential for a complete assessment of the property. However, the emphasis in these two phases would have to be reviewed on a continuing basis with due consideration to prevailing conditions, as the geological and economic assessments of a mining property are not necessarily compatible.

It is not possible to develop a firm exploration program on a property such as Giant Nickel for a full twelve month period as exploration is a continually evolving situation and is subject to changes and revisions resulting from new information; practical limitations as to the availability of work areas, drills and personnel; economic factors, etc. The "Exploration" program proposed at this time has been developed with reference to the various hypotheses as to the most geologically favourable areas for ore and on the basis of the personal knowledge of the members of the staff who have been responsible for the Company's past ore

discoveries, and of others who have been involved in the correlation of the geology in recent years. In its preparation consideration has been given to the practical limitations on diamond drilling during production, the economics of the mine and other factors, but it will have to be refined on the basis of the availability of funds, the results of the recent surface work, the results obtained during the program, etc. The cost of the program will also have to be reduced in scope as it totals 120,000 feet of drilling but only 100,000 feet is budgeted.

The favourable ultrabasic rocks at the Giant Nickel Mine form an irregular stock-like mass approximately 1.8 miles in the east-west direction by 1.4 miles north-south, intruding a batholithic mass of diorite. Within this norite-diorite ultrabasic complex a total of 25 ore bodies have been found to date. These ore bodies have various configurations but are normally pipe-like in shape and steeply inclined to the vertical; in general they have horizontal cross-sectional areas of 8,000 feet or less and a vertical continuity of 100 to 1,100 feet. They are generally zoned, with disseminated mineralization and gradational contacts, or unzoned with massive mineralization and sharp contacts. Exploration for these steeply plunging pipe-like ore bodies is very difficult due to their limited horizontal extent, although the disseminated types are somewhat easier to discover than the massive type as they frequently have a halo of favourable rock with low grade mineralization that provides a target larger than the ore body itself. However, the task of outlining these irregular deposits by diamond drilling is difficult as a drill hole can pass within a few feet of the periphery of the ore body without any indication of ore. Some measure of the problem is that of the 25 ore bodies encountered to date, eleven are of less than 100,000 tons in size, four are less than 150,000 tons, one is less than 200,000 tons, three are less than 300,000 tons and one is less than 500,000 tons. The four main zones are from 500,000 to 800,000 tons in size. The details as to the size of the known ore bodies and their vertical extent are as follows:

<u>Ore Zone</u>	<u>Tons</u>	<u>Feet of Vertical Extent</u>
4600	805,000	643
Pride of Emory	704,000	875
1500	668,000	1,130
Brunswick 2	570,000	825
Brunswick 5	409,000	600
Brunswick 2A	290,000	350
Chinaman	287,000	555
1600	216,000	425
Climax	172,000	508
1800	144,000	115
Brunswick 2G	131,000	300
Brunswick 1	123,000	525
2200	121,000	750
2663	102,000	425
600	83,000	300
4300	62,000	225
1400	53,000	468
1900	45,000	294
Brunswick 10	38,000	200
512	28,000	225
Brunswick 7	23,000	200
Brunswick 8	12,000	175
2000	3,000	50
Dolly	1,000	100
1700	1,000	50



The ore controls have been studied by at least forty independent, government and staff geologists since 1923, but they are still obscure. Some geologists have postulated that the ore bodies are of high temperature hydrothermal and magmatic sulphide injection origin, whereas others relate their formation to the sulphurization theory. As many of the ore bodies are located at the juncture of the main N 45° - 50° W and N 25° W to N 25° E fault systems, structural control is also considered to have influenced deposition of the mineralization.

In the course of exploration the following features have been found to be characteristic of economic concentrations of mineralization and are therefore guides for finding new ore:

1. The ore zones are always associated with ultrabasic rocks and generally are indiscriminate as to the type of ultrabasic, whether it be peridotite or hornblende pyroxenite. However, mineralization may also be found in the pyroxenite (sulphurization theory).
2. The ore zones are generally near or at a diorite or norite contact or at the juncture of the main N 45° - 50° W and N 25° W and N 25° E fault systems.
3. There is little evidence of secondary alteration within the intrusive complex, but some secondary actinolite, talc, chlorite and serpentine are present in association with shearing and faulting and some talc and biotite is evident in the crumbly alteration areas of the peridotite, but alteration does not appear to have any relation to the ore zones.
4. Ore zones are frequently in embayments of diorite and norite (sulphurization theory).
5. Many of the ore zones have an arcuate outline which suggests that they occupy openings in folds or are at the juncture of the two main fault systems.
6. The ore outlines are generally pipe-like and steeply inclined to the vertical. The rake is variable and may change within a single ore body.

7. Some of the ore zones are richer in mineralization at the bottom, which indicates that after remobilization the sulphide deposition was affected by gravity (magmatic segregation theory).
8. Several of the ore zones are terminated by pre-ore faults that may have acted as a dam. However, there are indications that post-ore faulting has offset some of the ore zones.
9. Some ore zones that appear to be offset have a gradational decrease or increase in mineral content, either above or below the offset.
10. Several ore zones within the last year proved to be distinctly brecciated, whereas in other ore zones the brecciation is minor.
11. The ultrabasic mass as a whole plunges to the north and it is reasonable that the ore zones, if not individually, then as groups, should extend to depth. There is no reason why there should not be zones of mineralization below the main haulage level, assuming, which on the evidence it is reasonable to do, that the ultrabasics extend to depth below that level.
12. Dike-like lenses and blobs of sulphides, even if associated with hornblende dikes, are sometimes related with ore zones and should be followed up.
13. Lineations of sulphide segregation or blebs have been found to be parallel with the axis of some ore zones and therefore repetitions of this condition bear investigation.

The details of the four phases of the program are as follows:

Phase I - Surface Program

The 1973 surface program of geology and geophysics has been completed and until this work is correlated it is not possible to comment on the extension of this phase of the work in the summer of 1974. A certain amount of surface diamond drilling was done last summer and, in all probability, further drilling will be recommended.

Phase II - Underground Drilling on and above the
2600 main haulage level (Appendix I)

This phase of the program has been laid out to be done from accessible existing workings and is presently underway. The holes have, for the most part, been laid out on various bearings but pattern drilling on the same bearing to the main drift would possibly be preferable but not practical while the mine is in operation. It might, therefore, be preferable to do a large portion of the diamond drilling on a saturation basis on one or two main levels. This policy discovered 14 zones on 3550 level whereas, as shown by the following table, random drilling intercepted only nine new ore zones at the 3250 horizon, one at the 2950 horizon and one at the 2600 level. There always, of course, is the possibility that the 3550 and 3250 horizons may be more favourable to the deposition of ore but there is no known geological evidence to support that theory.

<u>Ore Zone</u>	<u>Horizons on which the ore bodies have been intercepted</u>					
	<u>4150</u> <u>Ft.</u>	<u>3850</u> <u>Ft.</u>	<u>3550</u> <u>Ft.</u>	<u>3250</u> <u>Ft.</u>	<u>2950</u> <u>Ft.</u>	<u>2600</u> <u>Ft.</u>
Chinaman				xxx	xxx	
Climax				xxx	xxx	
4600				xxx	xxx	
1500			xxx	xxx	xxx	xxx
1400			xxx	xxx		
1900			xxx			
2000						xxx
2200				xxx	xxx	xxx
2663					xxx	xxx
512		xxx	xxx			
600			xxx	xxx		
1600			xxx	xxx		
1800				xxx		
4300				xxx	xxx	
4400				xxx		
6800				xxx	xxx	
Brunswick 1		xxx	xxx			
Brunswick 2		xxx	xxx	xxx	xxx	xxx
Brunswick 5		xxx	xxx	xxx		
Brunswick 7				xxx		
Brunswick 8			xxx			
Brunswick 9			xxx			
Brunswick 10			xxx			
Brunswick 24		xxx	xxx			
Pride of Emory	xxx	xxx	xxx			

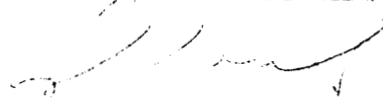
Phase III - Underground Drilling below the 2600
main haulage level (Appendix II)

Phase IV - Extending the present levels into new
areas and diamond drilling from them

Both Phases III and IV are important phases of the "Exploration" program for the geological assessment of the property as they would be carried out in virgin areas of the ultrabasics and could well result in the discovery of economic concentrations of mineralization that could firmly establish the future of the operation. However, the risk factor in this type of exploration, where, for the most part, the targets are fairly broad, is high. The scope of these phases would be reviewed on a continuing basis and tailored to the results obtained.

In all probability the grade and/or tonnage of any mineralization found below the main haulage level would have to be higher than that found above the level in order to be economic as the capital requirements and operating costs would be greater.

Yours truly,



LPS/lg

L.P. Starck

PHASE II2600 LEVEL DIAMOND DRILLING LAYOUT2600 E - 7570 M - 2663 Crosscut at 202 Drawpoint(Brunswick No. 2G)

- *M - 1 N 42° E - 0° - 450 feet *2-4500*
- *M - 3 N 22° E - 0° - 450 feet *2-4501*
To test for mineralization in holes 4279, 3804 and 3807 which assayed 0.52%, 0.39% and 0.45% nickel over 28, 25 and 26 feet respectively.
- *M - 2 N 15° E - 0° - 1,000 feet
To test for the mineralization in holes 4279, 3804 and 3807 as above and for 0.18% and 0.32% nickel over 20 and 10 feet respectively in hole 3784. Also for the extension of the mineralization in holes 3771 and 3778 which ran 0.60% and 0.83% nickel over 14 and 15 feet respectively. Possibly a 500 foot exploration drift should be driven into this area and diamond drilling carried out from that point.
- M - 4 N 13° W - 0° - 950 feet
To explore for the downward extension of the 6800 zone in the same rock types that occur on 2950 level and to test the areas of holes 3807 and 3804 which had mineralized sections of 48 and 93 feet, assaying 0.28% and 0.28% nickel respectively.
- M - 5 S 42° E - 25° - 225 feet
- M - 6 S 36° E - 25° - 225 feet
To further test the downward extension of the 2663 ore zone below the 2600 level.
- M - 7 N 77° W - 25° - 350 feet
- M - 8 N 84° W - 25° - 350 feet
- M - 9 West - 25° - 350 feet
To test the downward extension of the Brunswick No. 2 below the 2600 level.
- G - 10 S 20° W - 0° - 1400 feet
To explore the area south of the Brunswick zones and towards the cirque on the surface where sulfides were found this summer. If the favourable ultrabasics extend out into this area then consideration would be given to driving an exploration crosscut and doing further drilling from the face of it.

3450 E - 7550 N (Near the shifter's shack)

- G - 100 S 25° E - 0° - 1,000 feet
To test an area of hornblendite which has only been intersected in the drift and also for the diorite contact to the south.

4220 E - 7870 N - End of 2647 Crosscut

- G - 101 North - 0° - 1,200 feet
- G - 102 N 35° E - 0° - 1,300 feet (AT 26-176 DPT.) + 05° - 4' - 4.552
Exploration north and west of the 4600 zone for the northern ultrabasic-diorite contact.
- G - 103 S 35° W - 0° - 400 feet
- G - 104 S 64° W - 0° - 700 feet
These two holes would explore an area northeast of the shaft station where no previous drilling has been done. There should be a pyroxenite-hornblendite-diorite contact in this area.

5160E - 7230 N

- G - 69 S ^{21°}~~15°~~ W + 9° - 1,000 feet
To test the mineralization in holes 22 and 3348 and also explore for the ultrabasic-diorite contact to the south.

4675 E - 7250 N

- G - 62 N 06° W - 0° - 900 feet
- G - 63 N 30° E - 0° - 650 feet
To test the area between the 4600 and 1500 zones and along the strike of the long axis of the 4600 zone.

4860 E - 7200 N

- G - 61 S 82° E + 30° - 165 feet
To explore for the downward extension of the 1600 zone.

5230 E - 7780 N *2637XC - 1518-U.D.PT. "1500" ST.*

- G - 64 N 13° E - 45° - 400 feet
- G - 65 N 43° E - 35° - 500 feet
- G - 66 North - 0° - 1,200 feet
- G - 67 N 32° W - 0° - 1,000 feet
- G - 68 N 30° E - 0° - 1,200 feet
 To test for the downward and northern extensions of the 1500 zone which was cut off by a flat fault on 2600 level.

5960 E - 6900 N

- G - 115 S 14° W - 0° - deepen hole 2300 from 320 to 1000 feet
 Exploration between 5500 E and 6000 E where no previous drilling has been done.

6850 E - 7050 N *2620 #2 2620/0*

- M - 18 S 17° E + 25° - 300 feet (This differs from L. DeRoux's layout)
- M - 20 S 22° W + 15° - 300 feet (This differs from L. DeRoux's layout)
- G - 23 S 08° W + 20° - 250 feet
- G - 24 S 61° W - 0° - 400 feet
- G - 25 S 87° W - 0° - 900 feet
- G - 26 N 79° W - 0° - 900 feet

These holes are to test below the mineralization that lies S 80° W and some 200 feet south of the Climax on 3050 level and under the mineralization in hole 3865 which was drilled from the 3052 crosscut, that assayed 0.52% nickel over 44 feet.

7020 E - 7090 N *Climax, 1892-07, 1892-07, 1892-07*

- M - 22 S 5° E - 0° - 300 feet (This differs from L. DeRoux's layout)
- G - 19 Eliminated
- G - 21 Eliminated

6800 E - 7670 N *178*

- M - 27 S 40° W + 10° - 350 feet
- M - 28 S 17° W + 13° - 900 feet
- G - 29 S 35° E - 0° - 700 feet
- G - 70 N 60° W + 10° - 1,000 feet
- G - 71 N 43° E - 0° - 1,200 feet
- To check the mineralization in the 2600 crosscut.
(In this area hole 3720 ran 0.23% nickel over 125 feet.)

6780 E - 8110 N *2620. NO 5.02. % AT 108 D.P.T.*

- G - 72 N 43° E + 0° or slightly inclined upwards - 1,000 feet
To test an unexplored area to the east of the crosscut.

6700 E - 8600 N

- G - 73 ~~The 2620 crosscut~~ could be extended along hole 4031 which assayed 0.35% nickel across 92 feet from 59 to 151 feet or 56 feet of 0.54% nickel from 86 to 132 feet and then a series of holes could be drilled from east to west above and below the level (approximately 5,000 feet of drilling). Otherwise, the following series of holes, which aggregate 9,900 feet, could be drilled from the face of the present crosscut.

- G - ~~140~~¹⁰⁴ N 86° E - 0° - 1,500 feet
- G - 105 N 63° E - 0° - 1,500 feet
- G - 106 N 42° E - 0° - 1,500 feet
- G - 107 N 23° E - 0° - 1,500 feet
- G - 108 N 22° W - 0° - 1,500 feet
- G - 109 N 65° W - 0° - 1,500 feet
- G - 110 S 83° W - 0° - deepen hole 4006 by 900 feet

- M - 113 At least two 250 foot holes should be drilled to the
and 114 right and left of hole 4031. *The hole to be drilled is 178
to 1020, 2003*

6600 E - 6400 N

M - 111 S 80° E - 0° - 600 feet

To test the mineralization in holes 12, 7 and 1910.) *Done*

G - 112 South - 0° - 1,000 feet

~~4-1382~~

To test the southern ultrabasic-diorite contact.

2950 LEVEL DIAMOND DRILLING3130 E 8370 N - Pride of Emory Crosscut at face

- M - 49 N 32° W - 0° - Extend hole 84 from 322 to 500 feet
- M - 50 N 3° W - 0° - Extend hole 1883 from 258 to 500 feet
To test for the ultrabasic-diorite contact and the possible extension of the 0.40% nickel in hole 1883 and 0.21% nickel in hole 84. These holes were stopped within 15 to 20 feet of this mineralization.
- M - 51 N 12° E - 0° - 500 feet
- M - 52 N 18° W - 0° - 500 feet
To test for extensions of the mineralization in holes 84 and 1883.

4270 E - 7730 N - 2960 west drift at No. 5 drawpoint

- M - 30 N 27° W - 0° - 1,200 feet
To test for the 20 feet of 0.16% nickel in hole 3610 and for the northern ultrabasic-diorite contact.

4540 E - 7700 N - at 139 raise and bottom of 4400 zone

- G - 54 N 30° W - 0° - 1,200 feet
- G - 141 North - 0° - 1,000 feet
- G - 53 N 30° E - 0° - 1,200 feet
To explore to the north, northeast and northwest of the 4600 zone and to test for the northern diorite-ultrabasic contact.
- G - 55 N 72° E - 0° - extend hole 3453 from 251 feet to 1,000 feet
- G - 56 N 87° E - 0° - extend hole 3454 from 291 feet to 600 feet
To explore to the north of the 1500 stope and for the mineralization projected from holes 3556 and 2926.

4970 E - 7230 N - In 2952 Crosscut at No. 6 cutout

- 57 S 10° W eliminated
- G - 58 N 34° W - 0° - 500 feet.
To test the unexplored area parallel to the axis of the 1600 and 4600 zones which is an untested area.
- G - 60 N 13° E - 0° - extend hole 3500 from 400 to 1200 feet.
To test the area to the west of the 1500 zone and to determine the northern ultrabasic-diorite contact. Also to explore for th mineralization projected from holes 3556 and 2926.
- G - 59 S 40° E - 0° - 1,200 feet
- G - 116 S 65° E - 0° - extend hole 3499 from 350 feet to 1,000 feet
- G - 117 East -0° - 1,000 feet
To test the unexplored area to the east and south of the 1500 zone.

4750 E - 7220 N - 2952 Crosscut at 2953 crosscut

- G - 75 N 34° W - 0° - 500 feet
To test the unexplored area between the 1600 and 4600 zones.
- M - 74 S 03° W - 0° - extend hole 3641 from 252 to 1100 feet
To test for the southern ultrabasic-diorite contact and the minor mineralization in hole 3630.

4500 E - 7260 N

- G - 118 S 15° W - 0° - 1000 feet
To test for the southern ultrabasic -diorite contact.

4020 E - 7360 N

- 44531
G - 119 S 15° W - 0° - 1000 feet
To test for the southern ultrabasic-diorite contact.

3550 E - 7500 N

- G - 120 S 15° W - 0° - 1,000 feet
To test for the southern ultrabasic-diorite contact.

3050 LEVEL DIAMOND DRILLING6940 E - 7230 N (3052 Crosscut)

- M - 11 S 74° W - 0° - 650 feet
 M - 12 Bearing depends on the S 74° W hole - 6° - 650 feet
 M - 13 Bearing depends on the S 74° W hole - 6° - 650 feet

These three holes are to test for the 44 feet of 0.52% nickel in hole 3865.

6750 E - 8340 N

- M - 15 N 46° W - 0° - 1200 feet
 M - 16 N 56° W - 0° - 1200 feet

These holes are to test for the mineralization in hole 3844 which assayed 52 feet of 0.18 to 0.20% nickel, 125 feet of 0.20 to 0.24% nickel and 82 feet of 0.23 to 0.30% nickel.

- G - 17 N 35° E - 0° - 1000 feet

This hole will test an unexplored area northeast of the Chinaman tunnel and a surface geochemical anomaly.

6870 E - 8700 N

- G - 14 N 35° E - 0° - 1,000 feet

This hole will test an unexplored area northeast of the Chinaman tunnel and a surface geochemical anomaly.

6870 E - 8620 N

- G - 132 N 40° W - 0° - 1500 feet
 G - 133 N 17° W - 0° - 1500 feet
 G - 134 North - 0° - 1500 feet
 G - 135 N 18° E - 0° - 1500 feet
 G - 136 N 37° E - 0° - 1500 feet

The northeast holes are to explore under a geochemical anomaly. The northerly hole will run 100 feet west of this geochemical anomaly and the northwest holes will test below the Ida and Dome magnetic anomalies.

3250 LEVEL DIAMOND DRILLING3040 E - 7880 N

- G - 76 N 38° W - 0° - deepen hole 2437 from 571 to 900 feet
To test for the main ultrabasic-diorite contact.
- G - 77 N 78° E - 0° - 800 feet
To test the area between the Pride of Emory and 600 zones
and along the hornblende-diorite contact.

4220 E - 7700 N & 4290 E - 7760 N

- G - 37 N 80° W - 0° - 500 feet
To test the area east of the 600 zone.
- G - 41 N 20° W - 0° - 1,000 feet
- G - 40 North - 0° - 1,200 feet
- G - 38 N 10° E - 0° extend hole 3218 from 170 to 900 feet
- G - 39 N 40° E - 0° - extend hole 3217 from 296 to 1,200 feet

These five holes are to test the unexplored area to the north, northwest and northeast of the 4600 zone and outwards to the ultrabasic-diorite contact. Also to test for a 3 foot intersection of 1.58% nickel in hole 3534 on 3550 level (8380 N - 4020 E).

4250 E - 7450 N

- G - 84 S 45° W - 0° - 1,400 feet
To test under the surface "B" pulse anomaly and for the mineralization in hole 3626 on 3550 level which ran 0.33% nickel over 14 feet.

4680 E - 7400 N

- G - 85 S 40° W - 0° - 1,200 feet
To explore for the southern ultrabasic-diorite contact.

4780 E - 7520 N

- G - 78 N 25° E - 0° - deepen hole 2101 from 124 to 1,250 feet
- G - 79 N 12° W - 0° - 600 feet
- G - 80 N 04° E - 0° - deepen hole 3481 from 385 to 1100 feet
To explore for the mineralization north of the 1900 crosscut on 3550 level, test the area west of hole 3481, which assayed 0.20% nickel and probe for the pyroxenite-peridotite-diorite contact to the north.

5000 E - 7000 N

- G - 33 N 50° E - 0° - 1,100 feet
To explore the area between the 1500 and 512 zones.
- G - 32 N 85° E - 0° - 1,200 feet
To test the area under the Nickel Star and 512 zones and under several surface magnetometer anomalies.
- G - 34 S 46° E - 0° - deepen hole 2043 from 200 to 800 feet
35 S 60° E - 0° - deepen hole 2046 from 178 to 1,200 feet
36 S 32° E - 0° - deepen hole 2041 from 202 to 1,000 feet
To explore the area to the southeast of the 4600, 1900, 1600 and 1400 zones, part of the "C" pulse anomaly and a surface geochemical anomaly. On the 3550 level hole 3604 intersected 220 feet of 0.12% nickel and 85 feet of 0.12% nickel, and hole 142 intersected several feet of 0.14% nickel and two feet of 0.53% nickel.
- G - 31 N 80° W - 0° - 1,200 feet
To test parallel to the crosscut along the assumed diorite-ultrabasic contact.

4750 E - 7330 N

- G - 81 S 2° W - 0° - deepen hole 4156 from 448 to 1,000 feet
G - 82 S 22° W - 0° - deepen hole 4162 from 471 to 1,000 feet
G - 83 S 35° W - 0° - deepen hole 4163 from 455 to 1,000 feet
To explore the area below 3550 level where holes 223, 224 and 225 intersected several narrow zones of ore grade nickel and copper.

3275 LEVEL DIAMOND DRILLING6360 E - 8620 N

G - 121	S 65° W - 0°	- 800 feet
G - 122	N 81° W - 0°	- 1500 feet
G - 123	N 50° W - 0°	- 1500 feet
M - 97	N 33° W - 0°	- 1500 feet
M - 98	N 14° W - 0°	- 1500 feet
G - 124	N 6° E - 0°	- 1500 feet
G - 125	N 26° E - 0°	- 1500 feet

These holes would test under the Ida and Dome magnetic anomalies. Holes 97 (N 33° W) and 98 (N 14° W) would also test to the east and west of B.C. Nickel hole 92, which intersected 17 feet of 0.43% nickel and two feet of 0.56% nickel.

6550 E - 8480 N

G - 126	N 30° E - 0°	- 1500 feet	To explore under several magnetic and geochemical anomalies.
G - 127	S 45° W - 0°	- 900 feet	To test unexplored areas between the 512 crosscut and the Chinaman tunnel.

7000 E - 8520 N & 6920 E - 8320 N

G - 128	N 30° E - 0°	- 1500 feet	
G - 129	S 30° W - 0°	- 1300 feet	To explore for geological information.

8075 E - 7940 N & 8440 E - 7810 N

G - 130	N 30° E - 10°	- 1500 feet	
G - 131	N 29° E - 10°	- 1500 feet	To explore for geological information.

3550 LEVEL DIAMOND DRILLING4760 E - 7750 N (Face of 1900 crosscut)

- M - 86 N 47° W - 0° - 900 feet
To test some 60 feet to the east of the four feet of 1.58% nickel intersected in hole 3534 at the diorite contact.
- M - 87 N 05° E - 0° - 700 feet
To check some 40 feet of mineralization in hole 121 which had values of 0.48% nickel over four feet and 0.35% nickel over five feet at the diorite contact.
- M - 88 N 24° E - 0° - 1500 feet
To test 50 feet to the east of mineralization in hole 121.
- M - 89 N 50° E - 0° - 1400 feet
To check 30 and 50 feet east of the mineralization in hole 122 which ran 0.13 to 0.22% nickel over 41 feet. This hole also had one foot 0.37% nickel in this section. This hole will also explore within 100 feet of the 512 crosscut at 8700 N, where there are several surface magnetic anomalies at elevation 4000 to 4100 feet.
- M - 90 N 80° E - 0° - 700 feet
To drill to the north of the 1500 zone and under a geochemical anomaly to the north of the "Road Showing". There is also a section of mineralization in the 512 crosscut in this general area.
- M - 91 S 77° E - 0° - 1100 feet
To test the area 100 to 200 feet south of the "Road Showing" as far east as the 512 crosscut. It will also cover the area 250 feet north of a zone of surface mineralization that is apparently 400 feet south of the "Road Showing" at elevation 4050.

4700 E - 7580 N (1900 crosscut)

M - 92 N 73° E - 0° - 300 feet
 M - 93 N 87° E - 0° - 300 feet
 M - 94 S 82° E - 0° - 300 feet
 M - 95 S 68° E - 0° - 300 feet

To follow up on the mineralization in holes 128 and 136.

M - 96 S 74° E - 0° - to deepen hole 136 from 610 to 950 feet

To explore below known surface mineralization.

5180 E - 6860 N

M - 44 S 11° W - 0° - 800 feet

To test 75 feet west of known mineralization in hole 142 which had one section of 0.53% nickel over two feet. Also this hole would explore for the norite-pyroxenite contact and the area under the "C" pulse anomaly.

5880 E - 6670 N (512 crosscut)

M - 47 N 50° E - 0° - deepen hole 21 from 295 to 900 feet

To test above a 44 foot intersection of 0.52% nickel in hole 3865 which was drilled from the 3052 crosscut. A norite-peridotite contact could also be cut.

5870 E - 7280 N (512 crosscut)

G - 48 N 70° W - 0° - deepen hole 106 from 147 to 750 feet

To test under a zone of surface mineralization which is exposed at elevation 4050

G - 139 N 20° E - 0° - 1500 feet
 G - 140 N 45° E - 0° - 1300 feet

To explore under several surface anomalies to the west of the Chinaman zone.

5880 E - 7550 N (512 crosscut)

G - 45
G - 46

N 55° W - 0° - 860 feet
N 68° W - 0° - 950 feet

These two holes would explore under the "Road Showing" and a geochemical anomaly above the 2600 level position of the 1500 zone.

3870 E - 7240 N (3550 main drift)

U-4505 M - 42

N 50° E +30° - 1500 feet U-4505

Drilling for the upward extension of the 4600 zone.

4070 E - 7180 N (3550 main drift)

U-4529 M - 43

N 57° E +25° - 1500 feet

Drilling for the upward extension of the 4600 zone.

4650 E - 7000 N

G - 137

S 30° W - 0° - 1100 feet

To test for the southern ultrabasic-diorite contact.

G - 138

N 30° E - 0° - 700 feet

To explore the area between the 1900, 1600 and 1500 zones.

PHASE IIDIAMOND DRILL HOLES

<u>Hole No.</u>	<u>Bearing</u>	<u>Dip</u>	<u>Length</u>	<u>Hole No.</u>	<u>Bearing</u>	<u>Dip</u>	<u>Length</u>				
<u>2600 LEVEL:</u>											
1	N 42 E	0°	450	73	-	-	-				
3	N 22 E	0°	450	104	N 86 E	0°	1,500				
2	N 15 E	0°	1,000	105	N 63 E	0°	1,500				
4	N 13 W	0°	950	106	N 42 E	0°	1,500				
5	S 42 E	-25°	225	107	N 23 E	0°	1,500				
6	S 36 E	-25°	225	108	N 22 W	0°	1,500				
7	N 77 W	-25°	350	109	N 65 W	0°	1,500				
8	N 84 W	-25°	350	110	S 83 W	0°	900				
9	West	-25°	350	113	-	0°	250				
10	S 20 W	0°	1,400	114	-	0°	250				
99	-	-	-	111	S 80 E	0°	600				
100	S 25 E	0°	1,000	112	South	0°	1,000				
101	North	0°	1,200								
102	N 35 E	0°	1,300	<u>TOTAL 2600 LEVEL</u>			<u>37,745</u>				
103	S 35 W	0°	400								
104	S 64 W	0°	700	<u>2950 LEVEL:</u>							
69	S 15 W	+9°	1,000	49	N 32 W	0°	178				
62	N 6 W	0°	900	50	N 3 W	0°	242				
63	N 30 E	0°	650	51	N 12 E	0°	500				
61	S 82 E	+30°	165	52	N 18 W	0°	500				
64	N 13 E	-45°	400	30	N 27 W	0°	1,200				
65	N 43 E	-35°	500	54	N 30 W	0°	1,200				
66	North	0°	1,200	141	North	0°	1,000				
67	N 32 W	0°	1,000	53	N 30 E	0°	1,200				
68	N 30 E	0°	1,200	55	N 72 E	0°	749				
115	S 14 W	0°	680	56	N 87 E	0°	309				
18	S 17 E	+25°	300	57	-	-	-				
19	-	-	-	58	N 34 W	0°	500				
20	S 22 W	+15°	300	60	N 13 E	0°	800				
21	-	-	-	59	S 40 E	0°	1,200				
22	S 5 E	0°	300	116	S 65 E	0°	650				
23	S 8 W	+20°	250	117	East	0°	1,000				
24	S 61 W	0°	400	75	N 34 W	0°	500				
25	S 87 W	0°	900	74	S 3 W	0°	848				
26	N 79 W	0°	900	118	S 15 W	0°	1,000				
27	S 40 W	+10°	350	119	S 15 W	0°	1,000				
28	S 17 W	+13°	400	120	S 15 W	0°	1,000				
29	S 35 E	0°	900								
70	N 60 W	+10°	1,000	<u>TOTAL 2950 LEVEL</u>			<u>15,576</u>				
71	N 43 E	0°	1,200								
72	N 43 E	0°	1,000								

Hole No.	Bearing	Dip	Length	Hole No.	Bearing	Dip	Length	
<u>3250 LEVEL:</u>				<u>3275 LEVEL</u>				
76	N 38 W	0°	329	121	S 65 W	0°	800	
37	N 80 W	0°	500	122	N 81 W	0°	1,500	
77	N 78 W	0°	800	123	N 50 W	0°	1,500	
41	N 20 W	0°	1,000	97	N 33 W	0°	1,500	
40	North	0°	1,200	98	N 14 W	0°	1,500	
38	N 10 E	0°	730	124	N 6 E	0°	1,500	
39	N 40 E	0°	904	125	N 26 E	0°	1,500	
84	S 45 W	0°	1,400	126	N 30 E	0°	1,500	
85	S 40 W	0°	1,200	127	S 45 W	0°	900	
78	N 25 E	0°	1,126	128	N 30 E	0°	1,500	
79	N 12 W	0°	600	129	S 30 W	0°	1,300	
80	N 4 E	0°	715	130	N 30 E	-10°	1,500	
33	N 50 E	0°	1,100	131	N 29 E	-10°	1,500	
32	N 85 E	0°	1,200					
34	S 46 E	0°	600	TOTAL 3275 LEVEL				18,000
35	S 60 E	0°	1,022					
36	S 32 E	0°	798	<u>3550 LEVEL:</u>				
31	N 80 W	0°	1,200	86	N 47 W	0°	900	
81	S 2 W	0°	552	87	N 5 E	0°	700	
82	S 22 W	0°	529	88	N 24 E	0°	1,500	
83	S 35 W	0°	545	89	N 50 E	0°	1,400	
TOTAL 3250 LEVEL			18,050	90	N 80 E	0°	700	
				91	S 77 E	0°	1,100	
<u>3050 LEVEL:</u>				92	N 73 E	0°	300	
11	S 74 W	0°	650	93	N 87 E	0°	300	
12	-	0°	650	94	S 82 E	0°	300	
13	-	0°	650	95	S 68 E	0°	300	
15	N 46 W	0°	1,200	96	S 74 E	0°	340	
16	N 56 W	0°	1,200	44	S 11 W	0°	800	
17	N 35 E	0°	1,000	47	N 50 E	0°	605	
14	N 35 E	0°	1,000	48	N 70 W	0°	603	
132	N 40 W	0°	1,500	139	N 20 E	0°	1,500	
133	N 17 W	0°	1,500	140	N 45 E	0°	1,300	
134	North	0°	1,500	45	N 55 W	0°	860	
135	N 18 E	0°	1,500	46	N 68 W	0°	950	
136	N 37 E	0°	1,500	42	N 50 E	+30°	1,500	
TOTAL 3050 LEVEL			13,200	43	N 57 E	+25°	1,500	
				137	S 30 W	0°	1,100	
				138	N 30 E	0°	700	
				TOTAL 3550 LEVEL				18,958
				<u>TOTAL</u>				<u>121,529</u>

PHASE IIIDIAMOND DRILLING BELOW 2600 LEVEL

The productive areas above the 2600 Level have received little or no exploration attention below this level.

Two drilling programs are detailed below to test the 6,000 feet known productive length of the ultrabasics to 600 feet and 1,000 feet below the level, respectively, at approximately 400 feet vertical and horizontal intervals. Please refer to the accompanying map for layout of drill sections.

Each section will contain some or all of the holes of the following proposed drilling patterns.

<u>600 Feet Below Level</u>			<u>1,000 Feet Below Level</u>		
<u>Hole</u>	<u>Dip</u>	<u>Length</u>	<u>Hole</u>	<u>Dip</u>	<u>Length</u>
A	-90°	600'	A	-90°	1,100'
			B	-69°	1,150'
C	-56°	750'	C	-52°	1,400'
D	-37°	1,050'	D	-40°	1,600'
E	-18°	1,300'	E	-21°	1,500'
H	0°	<u>1,200'</u>	H	0°	<u>1,500'</u>
Maximum Footage/Section		<u>4,900'</u>			<u>8,250'</u>

The following tables summarize the estimated footage involved, assuring completion of either of the programs.

(a) 600 feet below level

<u>Section</u>	<u>Holes</u>	<u>Direction</u>	<u>Footage</u>
I	A, C	South	1,350
	C, D	North	1,800
IA	C, D	Northeast	1,800
II	A, C, E, H	North	3,850
	C, E	South	2,050
IIA	C, E, H (900 ft.)	Northeast	2,550
Shaft	A	-	700
IIB	C, D, E (900 ft.)	Northwest	2,700
III	A, C, D, E, H	North	4,900
	C, E, (700 ft.)	North	1,450
	A, C, E (900 ft.)	South	2,250
IIIB	C, D, E (1100 ft.)	Northwest	2,900
IIIA	C, D, E (1500 ft.)		
	H (1500 ft.)	Northeast	4,800
IV	A, C, D, E	North	3,700
	C, E (900 ft.)	South	1,650
IVA	C, D, E	Southwest	3,100
IVB	C, D, E	Southeast	3,100
V	A, C, E	North	2,650
	C, D, E	North	3,100
VA	A, C, D, E	South	3,700
	C, D, E	Northwest	2,800
TOTAL FOOTAGE			56,900

(b) 1000 feet below level

<u>Section</u>	<u>Initial Phase</u>			<u>Secondary Phase</u>		
	<u>Holes</u>	<u>Direction</u>	<u>Footage</u>	<u>Holes</u>	<u>Direction</u>	<u>Footage</u>
I.	A, C&E	South	4000			
	B-E	North	5650			
IA				B-E	Northeast	5650
II	A-E	North	6750			
	H	North	1200			
	C&E	South	2900			
IIA				B-E	Northeast	5650
				H	Northeast	1300
IIB				B-C	Northwest	2550
				E	Northwest	900
III	A-E	North	6750			
	H	North	1500			
	B&D (700')	North	1850			
	A, C&E	South	4000			
IIIA				B-E	Northeast	5650
				H	Northeast	1500
IIIB				B-C	Northwest	2550
				E	Northwest	1500
IV	A-E	North	6750			
	B-C	South	2550			
	D	South	1600			
	E	South	1000			
IVA				B-E	Southwest	5650
IVB				B-E	Southeast	5650
V	A-E	North	6750			
	H	North	1500			
	B-E	North	5650			
	A-E	South	6750			
VA				B-C	Northwest	2550
				E	Northwest	1000
VI	A-E	North	6750			
	B-E	South	5650			
VII	A-E	North	6750			
	B-E	South	5650			
SHAFT	A		1100			
TOTAL:			93,050			42,100

TOTAL FOOTAGE BOTH PHASES:

135,150