# REPORT ON THE VERMILION RIVER PLACER PROPERTY
# METEOR-OPIKINIMIKA LAKE AREA
# GARIBALDI, MOFFAT AND BEULAH TOWNSHIPS
# LARDER LAKE MINING DIVISION, ONTARIO
# N.T.S. 41P/6

FOR

Harlin Resources Limited
Ste. 810 - 625 Howe Street
Vancouver, B.C.
V6C 2T6

BY

Les Demczuk, M.Sc.,
Project Geologist
Hi-Tec Resource Management Ltd.
Ste. 1590-609 Granville St.
Vancouver, B.C.
V7Y 1C6

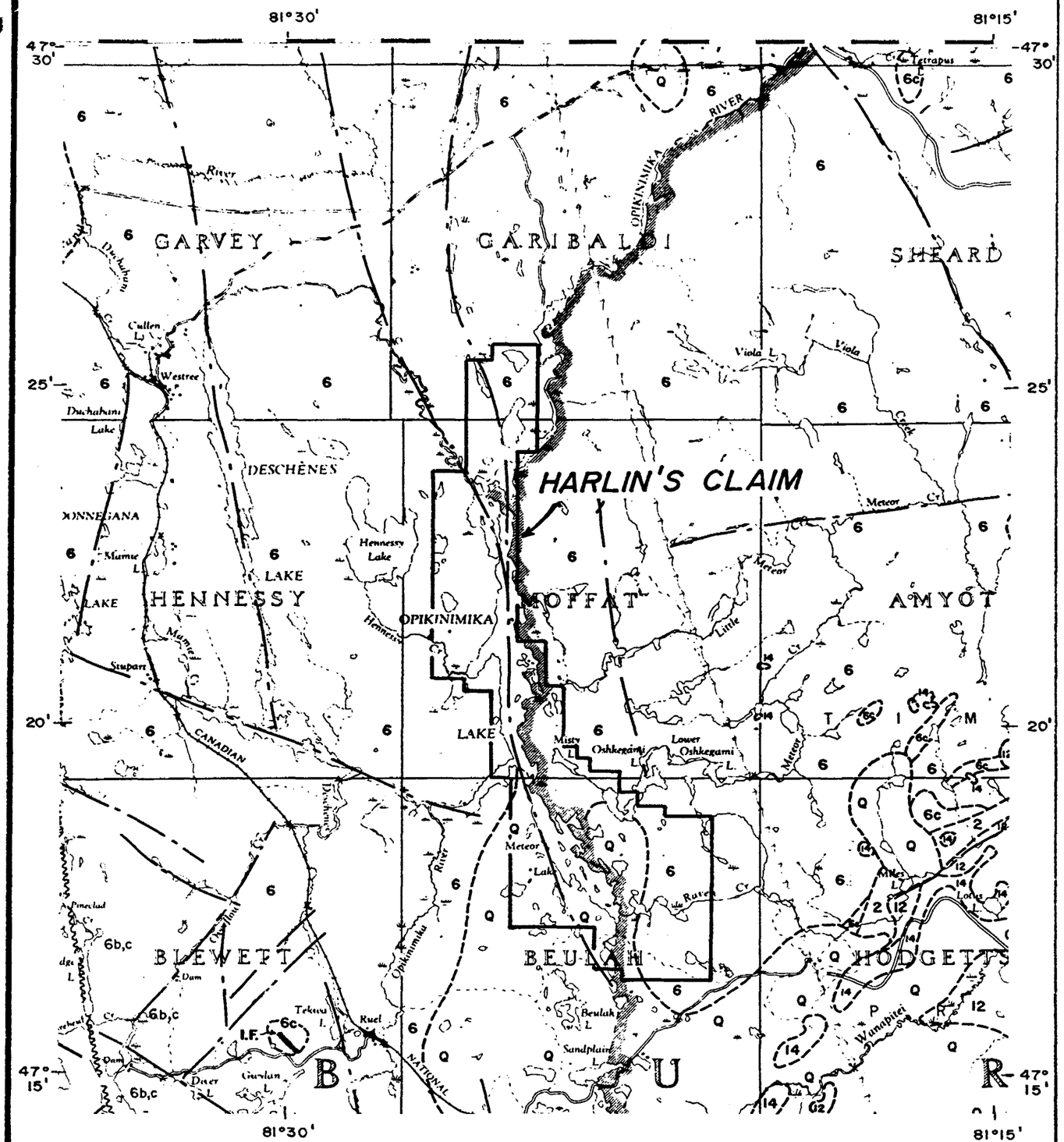
and

Michael D. Philpot, B.Sc., M.B.A.,
Consulting Placer Geologist
M.D.P. Management Services



September 15, 1986

HI-TEC
RESOURCE
MANAGEMENT
LIMITED




## LEGEND

CENOZOIC

PLEISTOCENE AND RECENT

Q — Sand , Gravel , Clay

PRECAMBRIAN

PROTEROZOIC

MAFIC INTRUSIVE ROCKS

14 — a - Gabbro , Diabase
b - Metagabbro , Amphibolite

HURONIAN SYSTEM - Cobalt Group

13 — Quartzite , Arkose , Siltstone , Conglomerate

12 — Conglomerate , Argillite , Arkose

ARCHEAN

SILICIC INTRUSIVE ROCKS

6 — 6 - Undifferentiated
a - Granite , Syenite
b - Quartz Monzonite , Granodiorite
c - Migmatite , Quartzo - Feldspathic Gneiss

MAFIC VOLCANIC ROCKS

2 — 2 - Undifferentiated
a - Andesite , Basalt
b - Interflow Sedimentary Rocks

Geological Contact

Fault

Lineament

▲ Mineral Occurence

1" = 2 Miles

MILES 2 1 0 2 4 MILES

# HARLIN RESOURCES LTD.

GARIBALDI, MOFFAT, BEULAH TWPS., SUDBURY DISTRICT

OPIKINIMIKA LAKE PROJECT

## REGIONAL GEOLOGY

| N.T.S. | DATE : SEPT. 1986 |
|---|---|
| FIGURE : 3 | |

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## 1.0 SUMMARY

Hi-Tec Resource Management Ltd. was contracted by Harlin Resources Ltd. to conduct a placer evaluation program on the Vermilion River property in Larder Lake Mining Division, Ontario.

The property consists of 306 mineral claims and was optioned to Harlin by Mssrs. G. Larch and D.McKinnon of Timmins.

The placer evaluation program was conducted in July and August 1986 under the writers supervision and included Rotasonic drilling, pit and bulk sampling programs.

The programs included the excavation of 113 test pits and 35 drill holes (2197 feet), and thoroughly prospected all formations for the presence of gold.

The best samples with visual gold were selected for semi-quantitative spectrographic analysis and amalgamation.

Gold values in the gravels generally are less then .001 ounces per cubic yard with anomalous values ranging from .001 to .004 oz/cu yard.

The negative results from the various programs do not preclude the possibility of locating a pre-glacial channel under the area delineated by Meteor and Opikinimika Lakes. However this would require further drilling during winter. Should a gold-bearing pre-glacial channel be discovered, it is unlikely one would achieve the necessary permits to mine in this area. It is unlikely that a major large volume, low grade placer deposit has been overlooked. For these reasons it is recommended that Harlin does not pursue any further programs on this property.

## 2.0 INTRODUCTION

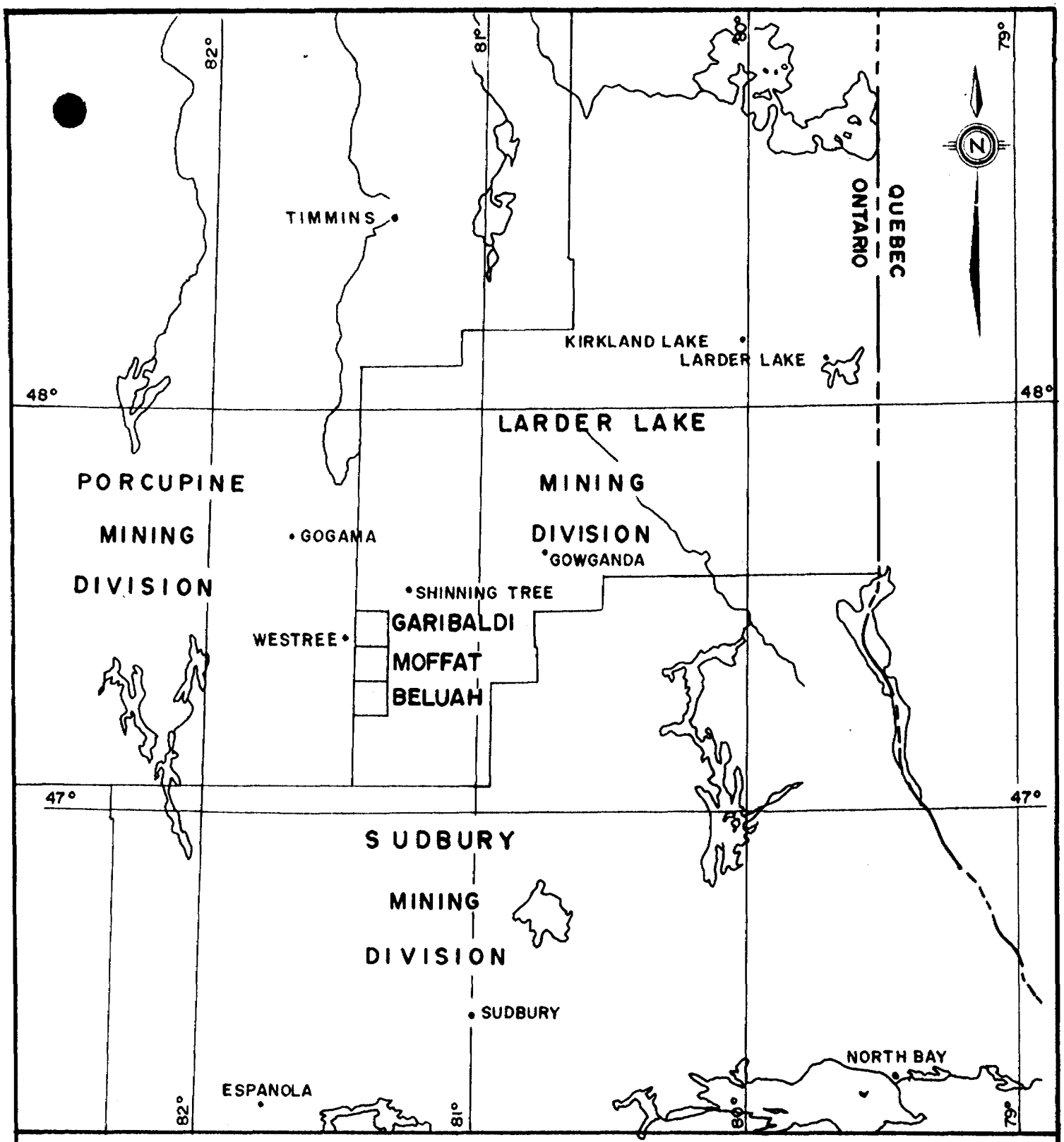
The Meteor-Opikinimika placer gold property is 48 kiliometers southeast of Gogama, Ontario. The property consists of 306 claims in the Garibaldi, Moffat and Beulah Townships of Ontario, which cover part of a Pleistocene river system that is known to host placer gold occurrences. Hi-Tec Resource Management Ltd. (Hi-Tec) on behalf of Harlin Resources Ltd. (Harlin) was contracted to explore and delineate sufficient placer gold reserves to warrant further bulk sampling or production.

In July and August, 1986 Hi-Tec carried out a placer gold exploration program on the property consisting of test pit sampling, bulk sampling and overburden drilling. The program was designed to test the distribution of gold values within the different overburden stratigraphies, to confirm values defined by previous exploration programs and to ensure sufficient assessment work is applied for one year credit.

This report, prepared at the request of Mr. A.L. Agostino of Harlin is based on writings listed in the attached bibliography and from the results of the various 1986 exploration programs.

### 2.1 Location and Access

The property is located in Garibaldi, Moffat and Beulah Townships, Larder Lake Mining Division, Ontario. The property can be reached from Highway 560 which connects to Highway 144 at a junction 110 kilometers south of Timmins or 100 kilometers northwest of Sudbury. Three (3) kilometers east from the junction of Highways 560 and 560A a gravel road parallels a transmission line in a southerly direction providing gravel road access to both the northern and southern portions of the

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OPIKINIMIKA LAKE PROJECT

## LOCATION MAP

| | |
|---|---|
| N.T.S.: 41P/6 | SCALE: 1 = 900,000 |
| FIGURE: 1 | DATE: SEPT. 1986 |

property. A boat can also be used to reach all portions of the property via Opikinimika River, Opikinimika Lake and Meteor Lake.

Alternative access modes include the C.N.R. railline which runs within 5 kilometers of the southwest corner of the property and by float plane

Secondary road access was constructed from the power transmission line from a point just south of Lower Oshkegami Lake west to Oshkegami Lake and then northwest to the northern part of Meteor Lake. Accessory routes from this road provided the necessary access to Meteor Lake, which was the primary mode for transporting test samples to the processing facilities located at the south end of Meteor Lake.

## 2.2 Property and Ownership

The property was optioned to Harlin from Messrs. John Larche and Don McKinnon. The Vermilion River placer property consists of 306 mineral claims located in Garibaldi, Moffat and Beulah townships within the Larder Lake Mining Division of Ontario.

Hi-Tec has been retained by Harlin to manage the 1986 exploration program and to ensure necessary work is conducted to maintain the property in good status.

The individual claim numbers and locations are illustrated on Drawing 2. A list of these claims and townships in which they occur is provided in Table 1.

TABLE 1

| Garibaldi Township | | Expiry Date |
|---|---|---|
| L.749632 - 749634 inclusive | - 3 claims | August 26, 1987 |
| L.749637 - 749656 inclusive | - 20 claims | August 26, 1987 |
| Subtotal | - 23 claims | |
| **Moffat Township** | | |
| L.743421 - 743440 inclusive | - 20 claims | August 26, 1987 |
| L.743566 - 743590 inclusive | - 25 claims | August 26, 1987 |
| L.749051 - 749065 inclusive | - 15 claims | August 26, 1987 |
| L.749552 - 749631 inclusive | - 80 claims | August 26, 1987 |
| Subtotal | -140 claims | |
| **Beulah Township** | | |
| L.748901 - 748957 inclusive | - 57 claims | August 26, 1987 |
| L.748959 - 748962 inclusive | - 4 claims | August 26, 1987 |
| L.748965 | - 1 claim | August 26, 1987 |
| L.748969 - 748972 inclusive | - 4 claims | August 26, 1987 |
| L.748976 | - 1 claim | August 26, 1987 |
| L.748978 - 748999 inclusive | - 22 claims | August 26, 1987 |
| L.749001 - 749024 inclusive | - 24 claims | August 26, 1987 |
| L.749026 - 749043 inclusive | - 18 claims | August 26, 1987 |
| L.872318 - 872327 inclusive | - 10 claims | August 26, 1987 |
| L.880165 - 880164 inclusive | - 2 claims | August 26, 1987 |
| Subtotal | -143 claims | |
| PROPERTY TOTAL | - 306 Claims | |

## 2.3 History

Placer gold was first discovered in the Vermilion River system in 1897. This caused considerable excitement which lead to other discoveries northward in the vicinity of Meteor Lake. Onaping Mining Company was the first organization to seriously explore and develop the area. Onaping worked the surface gravels located on a southeasterly trending peninsula on the northern portion of Meteor Lake. Isolated surface workings suggest the grade was not sufficient to support a small scale operation. No serious work was conducted in the area until 1958, however the Onwatin Placer Mining Syndicate performed considerable test pitting and some drilling south of Meteor Lake at the section of the Vermilion River between Capreol and Milnet.

Interest was revived in the area in 1958 when Casgoran Mines Limited and Kamis Uranium Mines Limited staked a large number of claims in the Meteor-Opikinimika Lakes area. The companies performed geologic mapping, test pitting and overburden drilling. Areas drilled included 3 holes in the northern portion of Opikinimika Lake, 7 holes along the eastern shores of Meteor Lake and 1 hole south of Meteor Lake. Values were reported qualitatively as "good, fair, some and nil" (refer to Drawing 5).

Subsequently the property claims lapsed as assessment work was not performed. In the early 1980's, Mssrs. J. Larche and D. McKinnon staked a large area encompassing the Pleistocene river gravels from Meteor Lake northward to the Opikinimika River drainage. This property was then optioned to Harlin who have since performed airborne magnetics, seismic, and radar surveys prior to this years exploration program.

## 3.0 GEOLOGY

### 3.1 Regional Geology

Bedrock consists of the following Precambrian rocks: Keewatin Formation (mafic to felsic metavolcanics), Timiskaming Formation (metasediments), Pre-Algoman Formation (ultramafic to intermediate intrusives), Algoma Formation (intermediate to felsic intrusives), and Matachewan Formation (diabase dikes). Porphyritic granite, gneiss, granodiorite and diorite of the Algoma Formation are the most predominant rock type in the vicinity of the property.

There is approximately 10 percent bedrock exposure as the area has been masked by Pleistocene glacio-fluvial sediments. The Vermilion River system appears to be partly controlled by a north-northwesterly fault system. Within this system lies the following glacial deposits:

glacio-eolian: dune sands and silts
glacio-lacustrine: lake bottom silts and clays, deltaic deposits
glacio-fluvial: gravels, sands and silts deposited as eskers, kame terraces or outwash.

### 3.2 Quaternary Geology

The quaternary geology of the area is best described by Coleman (1901) and Prest (1948), however the authors have included their interpretations based on the findings of the 1986 exploration program.

Placer gold was first discovered in 1897 on the Vermilion River system near the town of Capreol, 20 kilometers north of Sudbury. Alluvial gold was soon traced northwards up to Meteor Lake - Opikinimika Lake area, a total distance of 100

kilometers.

The Vermilion-Opikinimika river system represents only one of the major outlets from a massive ice-front lake. These materials were transported and partially sorted by ice contact and outwash river flows from melting ice. The river flow appears to have been controlled by a large north-northwesterly fault structure which coincides with the present Vermilion-Opikinimika valley.

The Pleistocene deposits of the Meteor-Opikinimika area include those materials deposited by ice, water and to some extent wind. The primary alluvial unit is glacio-fluvial consisting of cobble-boulder gravels, sand and silt deposited as outwash, deltas and possibly eskers and kame terraces. The quaternary geology of the property is best described by the different stages of deposition.

Throughout the length of the property, running in a strip ranging from 1 kilometer to 5 kilometers in width, is a high energy glacio-fluvial gravel deposit. The irregular and hummocky nature of the surface of the formation is the best guideline for delineating the boundaries of this channel. The gravels consist of water-worn boulders generally less than 25 centimeters in diameter. The matrix is mostly medium to coarse sand, with intermittent layers of silt and clay. The gravels tend to poorly sorted and are composed of cobbles and boulders of lithologies described in the Regional Geology section, though various granites are the most predominant.

Peripheral to the core gravels are distinct outwash deposits comprising of stratified and crossbedded sand and silts. These deposits are most pervasive in the southern section of the property and likely represent flooded or overflow sections of the main channel. The northern portion of the property represents somewhat of a mystery as the main channel

cannot be located. Where this channel should of been situated is either glacio-fluvial sand or silts or glacio-eolian formations. It is hypothesized that the channel abruptly changed directions to the east at the northern end of Opikinimika Lake and has subsequently been eroded from bedrock topographic highs. The channel is easily located in road cuts along Highway 560, approximately 4 kilometers to the north.

In the search for placer deposits in the Meteor-Opikinimika Lake area the primary target is the high energy glacio-fluvial gravels. This environment is more conducive to placer gold deposition than the outwash unit. A secondary target to consider is the possibility of a buried, preserved pre-glacial channel, though it is unlikely considering the number of periods and extent that the area has been glaciated.

## 4.0 EXPLORATION PROGRAM

### 4.1 Pit and Bulk Sampling Program

#### 4.1.1 Objective

The prime objective of a placer sampling program is to obtain a representative sample. Samples obtained from rotasonic overburden drilling (4 1/2" diameter hole) are small in volume (estimated 10 kg per meter section), therefore larger more representative samples are obtained from test pits and trenches. However, the primary drawback of sampling from test pits is the limited depth that excavating equipment can reach.

Previous overburden drilling and pit sampling on the property indicated that the top 8 meters of glacial-fluvial gravels tend to be enriched with fine gold. Therefore by sampling gravels of larger volume by means of shallow test pits, 2-4 meters in depth, throughout the property, the lateral parameters of the gold bearing channel would be quantitatively delineated.

#### 4.1.2 Equipment, Location and Sampling Procedure

Selected test pits were excavated with a modified S-1 Bombardier Muskeg Tractor with a John Deer 450 backhoe attachment. This unit ensured that all areas of the property, otherwise not accessible to standard track backhoes due to the swampy nature of ground, would be thoroughly sampled.

Test pit locations were selected to cover a broad area encompassing the favourable gravel unit. Of prime interest is the area southeast of Opikinimika Lake and northeast of Meteor Lake where some mining activity occurred in 1897. Fifty one (51) pits were excavated on 30 to 50 meter intervals on line spacings of 70 to 150 meters covering an area 4.0 square

kilometers.

The second area of interest, delineated by churn drilling in 1958 by Concor-Chibougamau Mines Ltd., is on the east side of Meteor Lake in the area of two northwesterly trending peninsulas. A total of 32 test pits covering an area of 1.2 square kilometers were sampled. The last area tested was to the south and southeast of Meteor Lake where 34 test pits represent a 5.4 square kilometer. Altogether 117 sample locations along the north-south trending gold bearing channel within the Meteor Lake area were sampled and analyzed.

From each test pit a representative channel sample was collected from the top to the bottom of the test pit in plastic 5 gallon buckets. After collecting the sample, pits were filled back in by the backhoe to comply with Ontario Department of Mines regulations. Samples were then transported back to a central processing station located near the camp at the south end of Meteor Lake.

Pit sample numbers 86TR-001 to 86TR-013 and 86TR-061 to 86TR-117 were processed through a longtom. Sample sizes range from 34 kg to 161 kg with the mean size being 85 kg. A longtom is a sample device that washes, classifies to minus 3/8" and concentrates a bulk material into a small volume of material. Material less than 3/8" in size is concentrated over a 4' length of 1/2" expanded metal and interwoven plastic matting. Once the selected sample has been processed the resulting concentrate is washed into a tub where the matting is thoroughly washed. The product is then washed into a gold pan for further upgrading. The resulting high grade black sand concentrate is visually analyzed for free gold particles, with the number of particles and size fraction being recorded prior to being stored in a zip-lock bag. Results of this procedure are outlined in Appendix I and locations are plotted on Drawing 4.

Samples with sufficient free gold content are then amalgamated to obtain a measureable weight of free gold within the black sand concentrate. The amalgamation process includes washing the concentrate in dilute nitric acid to ensure that any residue coating the gold particles is dissolved. The concentrate is then flushed with water prior to the addition of a small bead of mercury. Once the mercury has adhered to all the gold particles the amalgum is removed and retorted, resulting in a bead of gold which is later weighted. The more favourable results from the amalgamation process are outlined in Appendix I.

Larger bulk samples weighting an average 215 kg, numbers 86TR-015 to 86TR-060, were run through a sophisticated processing plant contracted out by Freegold Recovery Inc. The plant consists of a 1' x 3' aries screening unit with a 10 mesh screen. Material less than 10 mesh is laundered into a Salo SPV 181 slurry pump with the slurry feed pumped into a Reichert Mark 7 L.G. spiral concentrator. The Reichert spiral produces three splits; a high grade concentrate, middlings and tailings. Tailings are disgarded out the system, middlings are recycled back into the head feed and the concentrate is fed into a Gemini #250 finishing concentrating table. The table produces 4 splits being; free gold, table concentrate, table middlings and table tails. For the purpose of our analysis the number of grains of free gold were recorded and collected in plastic bags along with the table concentrates.

## 4.2 Rotasonic Drilling Program

### 4.2.1 Objective

Due to the backhoes limited reach capability, over-burden drilling is required to obtain a continuous sample of alluvium from surface to bedrock. Preference is given to a drill method which is able to recover an in situ sample with

minimal disturbance.

Of importance to the Meteor - Opikinimika Lakes are the hypothesized buried preglacial gold bearing channels that may have been left undisturbed by the last event of Pleistocene glaciation.

### 4.2.2 Equipment, Location and Sampling Procedure

The overburden drilling was contracted to MidWest Drilling of Winnipeg, Manitoba. MidWest are the forerunners of the rotasonic drill method. The rotasonic drill produces a near continuous undisturbed core of solid and unconsolidated materials. Opposed to other overburden drill methods which utilizes either; rotary, down-the-hole hammer or above-the-hole hammer, or reverse circulation and compressed air to recover the alluvium. The rotasonic drill transmits resonant and rotary power to the drill stem for penetration of overburden. It is the author's opinion that the resonant drill method is the most efficient system for recovery of a continuous unconsolidated sample without disturbing clasts.

Two drill lines were established, one at the northern extreme end of the property where a gravel road traverses the northern portion of Opikinimika Lake and the other from the eastern property boundry to the northeastern point of Meteor Lake. Both drill lines were projected to traverse the north-south trending gold bearing gravel channel which parallels Opikinimika and Meteor Lakes.

Nine (9) holes were drilled at 200 to 400 meter intervals along the north drill line while twenty-six (26) holes were drilled at 50 to 200 meter intervals along the southern drill line (Drawing 4).

Samples were collected at approximately three meter intervals with retrieved cores gently vibrated into a plastic tube-like bag and individually crated for transportation back to the longtom for sample processing.

The sampling procedure for concentrating drill samples is the same as described in the Pit-Bulk Sampling Program. Drill holes 86DH-001 to 86DH-004 were processed through Freegold's portable recovery plant while drill holes 86DH-005 to 86DH-040 were processed through the longtom. Results from the drilling program are outlined in Appendix II.

## 4.3 Discussion of Results

Of the sample concentrates obtained from the pit testing, bulk sampling and drilling programs, those samples in which anomalous visual observations of gold were made were selected for further analytical tests. These tests include heavy mineral identification, semi-quantitative spectrographic analysis and amalgamation.

The primary heavy minerals from four representative samples of the property indicate that the following minerals, listed in order of abundance, are present:

magnetitie
silica
ilmenite
zircon
gold
± cassiterite

No other minerals of economic importance were identified, though spectrographic analysis indicated minor detections of vanadium, strontium and niobium.

Only one drill hole sample, 86DH-011 interval 10.67 - 15.24 m, contained sufficient gold to warrant amalgamation. The free gold content of this sample provided a grade of less than .001 ounces gold per cubic yard.

Thirteen test pits and bulk pit samples were also selected for amalgamation. The quantitative results of these tests are outlined in Appendix I. Calculations were determined in the following manner, whereas:

WAu - weight of free gold content in concentrate (oz)
Ws - weight of sample material (lbs.)
Wa - assumed mean weight of one cubic yard of material (2500 lbs/cu. yd)
X - grade of sample (oz/cu. yd)

$$\frac{X}{WAu} = \frac{Wa}{Ws} \quad ; \quad X\,Ws = Wa\,2500$$

All anomalous samples were collected within the glacio-fluvial gravel channel providing credance to the findings that this unit hosts the more favourable depositional characteristics for alluvial gold. The outwash unit also hosts minor amounts of detrial gold but of no significant grade. In summary values ranged from less than .001 to .004 ounce gold per cubic yard ($0.55 - $2.20/cu. yd - Cdn $550/oz). For those samples not amalgamated because of poor visual gold results it is assumed that the grade is less than .001 oz/cu yd or non-detectable.

It is of interest to note that neither of the two drill lines intersected any evidence of a pre-glacial channel.

## 5.0 CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

- The main alluvial unit overlying much of the property is the glacial-fluvial gravel channel which is flanked by outwash sand and silt.

- The various exploration tests; pit sampling, bulk sampling and drilling thoroughly prospected all formations for the presence of gold, with the exception of the areas overlain by lakes.

- The sampling process utilized included some of the most sophisticated gravity recovery systems available ensuring with the utmost confidence that there was negligible loss of gold throughout testing.

- Anomalous alluvial gold values were only encountered in the high energy glacio-fluvial gravel unit which is present throughout the length of the property with the exception of a portion of the property where it is believed to have been eroded or scoured off bedrock topographic highs.

- Gold values in the gravels generally are less than .001 ounces per cubic yard with anomalous values ranging from .001 to .004 oz/cu. yd.

- These grades are not of sufficient value or consistancy to warrant a large volume, low grade operation which would require a consistant grade of greater than .007 ounces per cubic yard.

- There is no evidence of a buried pre-glacial gold bearing river channel on the portion of the property drilled.

Recommendations

Having conducted such a detailed program on both the surface gravels and potential deep lead gravels, all demonstrating poor results, it is unlikely that a major large volume, low grade placer deposit, which would be amenable to open pit or dredge mining, has been overlooked. However, there is the possibility that a pre-glacial channel does exist in the depression outlined by Meteor and Opikinimika lakes. To test this hypothesis a line of holes could be drilled from the lake during winter. However, the prime drawback to any placer discovery underneath these lakes is that it would be unlikely to be granted the necessary permits to drain the lakes for mining. For these reasons it is recommended that Harlin discontinue further placer evaluation of the Vermilion River placer property.

Respectfully submitted,

L. Demczuk, M.Sc.
per:
Hi-Tec Resource Management Ltd.
and
Harlin Resources Ltd.

M. D. Philpot, B.Sc., M.B.A.
per:
M.D.P. Management Services

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# APPENDIX I

## Pit Logs

| Pit # | Depth (metres) | Sample Interval (m) | Lithology | Gold Description | Weight (kg) | Volume est. gal | Estimated Au Value oz/cu yd |
|---|---|---|---|---|---|---|---|
| 86TR-001A | 1.7 | 0.0-1.7 | sand | nil | 21 | 4.5 | |
| -001B | 3.5 | 1.7-3.5 | sand | nil | 22 | 4.5 | |
| 86TR-002A | 1.6 | 0.0-1.6 | sand | 1 medium-fine* 2 very fine | 18 | 4.0 | |
| -002B | 3.2 | 1.6-3.2 | sand | nil | 21 | 4.25 | |
| 86TR-003A | 1.5 | 0.0-1.5 | sand | nil | 19 | 4.0 | |
| -003B | 3.0 | 1.5-3.0 | sand | nil | 25 | 4.75 | |
| 86TR-004A | 1.6 | 0.0-1.6 | sand | nil | 20 | 4.25 | |
| -004B | 3.0 | 1.6-3.0 | sand | nil | 27 | 5.0 | |
| 86TR-005A | 1.8 | 0.0-1.8 | sand with gravel | nil | 28 | 4.5 | .0040 |
| -005B | 3.5 | 1.8-3.5 | coarse gravel | 2 very fine | 31 | 4.75 | |
| 86TR-006A | 1.6 | 0-1.6 | gravel with | 1 medium, 2 very fine | 27 | 4.75 | .0040 |
| -006B | 3.3 | 1.6-3.3 | gravel | 2 medium-fine, 2 very fine | 30 | 4.75 | |
| 86TR-007A | 1.5 | 0-1.5 | sand | nil | 48 | 9.5 | |
| -007B | 3.2 | 1.5-3.2 | sand | 1 very fine | 45 | 9.5 | |
| 86TR-008A | 1.6 | 0-1.6 | sand | 1 very fine | 46 | 9.5 | |
| -008B | 3.0 | 1.6-3.0 | sand | 1 very fine | 25 | 4.5 | |
| 86TR-009A | 1.7 | 0-1.7 | sand | nil | 47 | 9.5 | |
| -009B | 3.2 | 1.7-3.2 | sand | nil | 26 | 4.75 | |

* Gold Size Classification

| Pit # | Depth (metres) | Sample Interval (m) | Lithology | Gold Description | Weight (kg) | Volume est. gal | Estimated Au Value oz/cu yd |
|---|---|---|---|---|---|---|---|
| 86TR-010A | 1.5 | 0-1.5 | sand | nil | 25 | 5.0 | |
| -010B | 2.8 | 1.5-2.8 | sand | nil | 25 | 5.0 | |
| -010C | 3.6 | 2.8-3.6 | sand | nil | 24 | 4.5 | |
| 86TR-011A | 1.6 | 0-1.6 | sand | nil | 46 | 9.5 | |
| -011B | 3.0 | 1.6-3.0 | sand | 1 very fine | 23 | 4.75 | |
| 86TR-012A | 1.5 | 0-1.5 | sand | nil | 49 | 9.5 | |
| -012B | 3.2 | 1.5-3.2 | sand | nil | 51 | 9.5 | |
| 86TR-013A | 1.4 | 0-1.4 | sand | nil | 47 | 9.5 | |
| -013B | 3.1 | 1.4-3.1 | sand | nil | 53 | 10.0 | |

| Pit # | Depth (metres) | Sample Interval (m) | Lithology | Au Colour Concentration | Weight (kg) | Screen +10 mesh (kg) | Estimated Au Value oz/cu yd |
|---|---|---|---|---|---|---|---|
| 86TR-014 | 3.0 | 0-3.0 | sand/gravel | | | | |
| -015 | 3.0 | 0-3.0 | gravel/sand | nil | 243 | 125 | |
| -016 | 3.0 | 0-3.0 | gravel/sand | | | | |
| 86TR-017 | 2.8 | 0-2.8 | sand/silt | nil | 213 | -- | |
| 86TR-018 | 2.7 | 0-2.7 | sand/gravel | nil | 215 | -- | |
| 86TR-019 | 3.0 | 0-3.0 | sand/gravel | nil | 200 | -- | |
| 86TR-020 | 3.0 | 0-3.0 | gravel | <10-15 colors* | 334 | -- | |
| 86TR-021 | 3.0 | 0-3.0 | gravel | <10-15 colors | 354 | 186 | |
| 86TR-022 | 3.0 | 0-3.0 | gravel | <10-15 colors | 370 | 191 | |
| 86TR-023 | 3.0 | 0-3.0 | sand/gravel | " | 407 | 68 | |
| 86TR-024 | 3.0 | 0-3.0 | sand/gravel | " | 384 | 170 | |
| 86TR-025 | 2.5 | 0-2.5 | sand/gravel | " | 423 | 209 | |
| 86TR-026 | 3.0 | 0-3.0 | sand/gravel | " | 419 | 243 | |
| 86TR-027 | 3.0 | 0-3.0 | sand/gravel | " | 372 | 36 | |
| 86TR-028 | 3.0 | 0-3.0 | sand/gravel | 20-25 colors | 214 | 141 | |
| 86TR-029 | 3.0 | 0-3.0 | sand/gravel | 5-10 colors | 211 | 181 | |
| 86TR-030 | 3.0 | 0-3.0 | sand/gravel | 15-20 colors | 190 | 127 | |

* General classification of number of gold colors.

| Pit # | Depth (metres) | Sample Interval (m) | Lithology | Au Colour Concentration | Weight (kg) | Screen +10 mesh (kg) | Estimated Au Value oz/cu yd |
|---|---|---|---|---|---|---|---|
| 86TR-031 | 3.0 | 0-3.0 | sand/gravel | 45-50 colors | 190 | 43 | .001 |
| 86TR-032 | 3.0 | 0-3.0 | sand/gravel | 6-10 colors | 168 | 18 | |
| 86TR-033 | 3.0 | 0-3.0 | sand/silt | 1 color | 151 | -- | |
| 86TR-034 | 3.0 | 0-3.0 | sand/silt | 1-5 colors | 183 | nil | |
| 86TR-035 | 3.0 | 0-3.0 | sand/silt | nil | 187 | nil | |
| 86TR-036 | 3.0 | 0-3.0 | sand/silt | nil | 167 | nil | |
| 86TR-037 | 3.0 | 0-3.0 | sand/silt | 1 color | 141 | nil | |
| 86TR-038 | 3.0 | 0-3.0 | gravel | 7-10 colors | 195 | 152 | |
| 86TR-039 | 3.0 | 0-3.0 | sand | nil | 167 | nil | |
| 86TR-040 | 3.0 | 0-3.0 | gravel/silt | 3 colors | 211 | 173 | |
| 86TR-041 | 3.0 | 0-3.0 | silt/sand | 2-5 colors | 154 | nil | |
| 86TR-042 | 3.0 | 0-3.0 | pebble gravel | 35-40 colors | 223 | 154 | .001 |
| 86TR-043 | 3.0 | 0-3.0 | pebble gravel | 15-20 colors | 164 | 89 | |
| 86TR-044 | 3.0 | 0-3.0 | pebble gravel | 15-20 colors | 209 | 54 | |
| 86TR-045 | 3.0 | 0-3.0 | gravel | 2-5 colors | 220 | 130 | |
| 86TR-046 | 3.0 | 0-3.0 | silt/sand | nil | 163 | nil | |
| 86TR-047 | 3.0 | 0-3.0 | silt/sand | nil | 141 | nil | |

| Pit # | Depth (metres) | Sample Interval (m) | Lithology | Au Colour Concentration | Weight (kg) | Screen +10 mesh (kg) | Estimated Au Value oz/cu yd |
|---|---|---|---|---|---|---|---|
| 86TR-048 | 3.0 | 0-3.0 | pebble gravel | 3 colors | 211 | 159 | |
| 86TR-049 | 3.0 | 0-3.0 | sand/gravel | 1 color | 141 | 29 | |
| 86TR-050 | 3.0 | 0-3.0 | gravel | 3-5 colors | 141 | 100 | |
| 86TR-051 | 3.0 | 0-3.0 | pebble gravel | nil | 141 | 104 | |
| 86TR-052 | 3.0 | 0-3.0 | silt/gravel | nil | 145 | -- | |
| 86TR-053 | 3.0 | 0-3.0 | sand/gravel | nil | 230 | 38 | |
| 86TR-054 | 3.0 | 0-3.0 | sand | nil | 143 | nil | |
| 86TR-055 | 3.0 | 0-3.0 | sand/gravel | 5-10 colors | 116 | 32 | |
| 86TR-056 | 3.0 | 0-3.0 | gravel | nil | 134 | 118 | |
| 86TR-057 | 3.0 | 0-3.0 | sand/gravel | 2 colors | 79 | 43 | |
| 86TR-058 | 3.0 | 0-3.0 | gravel | 2 colors | 93 | 73 | |
| 86TR-059 | 3.0 | 0-3.0 | gravel | 1 color | 84 | 63 | |
| 86TR-060 | 3.0 | 0-3.0 | gravel | 1 color | 189 | 123 | |

| Pit # | Depth (metres) | Sample Interval (m) | Lithology | Gold Description | Weight (kg) | Volume est. gal | Estimated Au Value oz/cu yd |
|---|---|---|---|---|---|---|---|
| 86TR-061 | 3.0 | 0-3.0 | gravel | 1 coarse, 2 medium, 7 fine | 84 | 12.0 | |
| 86TR-062 | 2.8 | 0-2.8 | gravel | 2 medium, 2 fine | 140 | 12.0 | |
| 86TR-063 | 3.1 | 0-3.1 | gravel | 2 fine, 2 very fine | 145 | 18.0 | |
| 86TR-064 | 3.0 | 0-3.0 | gravel | 3 fine, 1 very fine | 98 | 12.0 | |
| 86TR-065 | 2.7 | 0-2.7 | gravel | 3 fine, 4 very fine | 141 | 19.0 | |
| 86TR-066 | 2.8 | 0-2.8 | gravel | 4 fine, 5 very fine | 136 | 20.5 | |
| 86TR-067 | 3.0 | 0-3.0 | gravel/clay | 2 fine, 10 very fine | 120 | 19.0 | |
| 86TR-067A | 3.3 | 3.0-3.3 | gravel | 1 fine, 1 very fine | 35 | 5.0 | |
| 86TR-068 | 2.5 | 0-2.5 | gravel | 2 fine, 6 very fine | 139 | 19.0 | |
| 86TR-069 | 3.0 | 0-3.0 | gravel | 3 medium, 2 fine, 6 very fine | 127 | 18.0 | .002 |
| 86TR-070 | 3.1 | 0-3.1 | gravel/silt | 1 coarse | 39 | 5.5 | |
| 86TR-071 | 3.0 | 0-3.0 | gravel | 2 fine, 1 very fine | 91 | 10.0 | |

| Pit # | Depth (metres) | Sample Interval (m) | Lithology | Gold Description | Weight (kg) | Volume est. gal | Estimated Au Value oz/cu yd |
|---|---|---|---|---|---|---|---|
| 86TR-072 | 3.4 | 0-3.4 | gravel/silt | 2 fine, 3 very fine | 118 | 15.0 | |
| 86TR-073 | 3.3 | 0-3.3 | gravel/silt | 1 coarse, 3 medium, 3 fine | 108 | 15.0 | .002 |
| 86TR-074 | 3.5 | 0-3.5 | gravel | 1 medium | 129 | 20.0 | |
| 86TR-075 | 3.0 | 0-3.0 | gravel | 2 medium, 2 fine, 3 very fine | 91 | 14.0 | .001 |
| 86TR-076 | 2.8 | 0-2.8 | silt/gravel | 1 medium, 1 fine | 95 | 10.0 | |
| 86TR-077 | 3.1 | 0-3.1 | silt/sand | 2 very fine | 126 | 16.0 | |
| 86TR-078 | 3.1 | 0-3.1 | gravel | nil | 82 | 12.5 | |
| 86TR-079 | 3.0 | 0-3.0 | gravel | 2 fine | 152 | 24.0 | |
| 86TR-080 | 2.8 | 0-2.8 | silt/gravel | 1 medium | 130 | 20.0 | |
| 86TR-081 | 3.0 | 0-3.0 | gravel | 1 very fine | 82 | 12.0 | |
| 86TR-082 | 3.0 | 0-3.0 | gravel | nil | 84 | 14.0 | |
| 86TR-083 | 3.0 | 0-3.0 | gravel | 6 very fine | 132 | 19.0 | |
| 86TR-084 | 2.8 | 0-2.8 | gravel | 3 fine, 5 very fine | 148 | 20.0 | |
| 86TR-085 | 2.9 | 0-2.9 | gravel | 3 fine, 2 very fine | 109 | 15.0 | |

| Pit # | Depth (metres) | Sample Interval (m) | Lithology | Gold Description | Weight (kg) | Volume est. gal | Estimated Au Value oz/cu yd |
|---|---|---|---|---|---|---|---|
| 86TR-086 | 2.5 | 0-2.5 | gravel | 4 fine, 3 very fine | 161 | 20.0 | |
| 86TR-087 | 2.5 | 0-2.5 | gravel/silt | 3 medium, 3 fine, 21 very fine | 95 | 18.0 | .002 |
| 86TR-088 | 2.5 | 0-2.5 | silt/gravel | 4 fine, 18 very fine | 105 | 14.0 | .001 |
| 86TR-089 | 2.5 | 0-2.5 | gravel/silt | 2 fine, 4 very fine | 91 | 15.0 | |
| 86TR-090 | 2.6 | 0-2.6 | gravel/sand | 3 fine, 2 very fine | 109 | 16.0 | |
| 86TR-091 | 2.7 | 0-2.7 | gravel | 1 medium, 3 fine | 89 | 15.0 | |
| 86TR-092 | 2.5 | 0-2.5 | sand/gravel | 1 medium, 5 very fine | 79 | 15.0 | |
| 86TR-093 | 3.0 | 0-3.0 | sand/gravel | 1 medium, 3 fine, 3 very fine | 161 | 23.0 | |
| 86TR-094 | 2.5 | 0-2.5 | gravel/sand | 1 medium, 1 fine, 14 very fine | 105 | 15.0 | .001 |
| 86TR-095 | 2.5 | 0-2.5 | sand/gravel | 1 fine, 3 very fine | 95 | 14.0 | |
| 86TR-096 | 2.5 | 0-2.5 | sand/gravel | 1 fine, 1 very fine | 109 | 13.0 | |

| Pit # | Depth (metres) | Sample Interval (m) | Lithology | Gold Description | Weight (kg) | Volume est. gal | Estimated Au Value oz/cu yd |
|---|---|---|---|---|---|---|---|
| 86TR-097 | 3.0 | 0-3.0 | sand/gravel | 1 medium, 2 fine | 82 | 13.0 | <.001 |
| 86TR-098 | 2.5 | 0-2.5 | sand/gravel | 3 fine | 66 | 10.0 | |
| 86TR-099 | 2.5 | 0-2.5 | sand/gravel | nil | 132 | 20.0 | |
| 86TR-100 | 3.0 | 0-3.0 | sand/gravel | 1 fine, 1 very fine | 74 | 9.5 | |
| 86TR-101 | 2.6 | 0-2.6 | sand/gravel | nil | 111 | 15.0 | |
| 86TR-102 | 2.5 | 0-2.5 | sand | nil | 114 | 20.0 | |
| 86TR-103 | 3.0 | 0-3.0 | sand/gravel | 1 very fine | 109 | 15.0 | |
| 86TR-104 | 2.5 | 0-2.5 | sand/gravel | 1 coarse | 86 | 14.0 | |
| 86TR-105 | 2.5 | 0-2.5 | gravel | 2 fine | 66 | 10.0 | |
| 86TR-106 | 2.5 | 0-2.5 | sand/gravel | 1 fine | 86 | 15.0 | |
| 86TR-107 | 2.5 | 0-2.5 | sand/gravel | 1 fine | 73 | 15.5 | |
| 86TR-108 | 2.5 | 0-2.5 | sand/gravel | 1 medium | 91 | 14.0 | |
| 86TR-109 | 2.5 | 0-2.5 | gravel | 1 medium, 2 fine, 1 very fine | 168 | 24.0 | .001 |
| 86TR-110 | 2.5 | 0-2.5 | gravel | nil | 104 | 14.0 | |

| Pit # | Depth (metres) | Sample Interval (m) | Lithology | Gold Description | Weight (kg) | Volume est. gal | Estimated Au Value oz/cu yd |
|---|---|---|---|---|---|---|---|
| 86TR-111 | 2.5 | 0-2.5 | gravel/sand | 1 fine, 4 very fine | 102 | 13.5 | |
| 86TR-112 | 2.7 | 0-2.7 | gravel | 2 fine | 82 | 12.0 | |
| 86TR-113 | 2.5 | 0-2.5 | gravel | 2 coarse, 1 fine | 127 | 15.0 | |
| 86TR-114 | 3.0 | 0-3.0 | gravel | 6 fine | 113 | 15.0 | |
| 86TR-115 | 2.5 | 0-2.5 | gravel | 3 medium, 1 fine | 107 | 15.0 | .001 |
| 86TR-116 | 2.5 | 0-2.5 | gravel | 3 fine | 95 | 12.5 | |
| 86TR-117 | 2.5 | 0-2.5 | gravel | 3 fine | 116 | 15.0 | |

# APPENDIX II

## Drill Logs

| Drill Hole # | Depth (metres) | Sample Interval (m) | Lithology | Gold Description | Weight (kg) | Volume est. gal | Comments |
|---|---|---|---|---|---|---|---|
| 86DH-001 | 3.42 | 0.00- 3.42 | sand/gravel | nil | 22 | 4.5 | |
| | 6.70 | 3.42- 6.70 | sand/gravel/ bedrock | nil | 20 | 4.0 | |
| 86DH-002 | 3.00 | 0.00- 3.00 | silt/sand | nil | 18 | 3.5 | |
| | 6.42 | 3.00- 6.42 | silt/sand | nil | 23 | 4.0 | |
| | 9.85 | 6.42- 9.85 | gravel | 2 fine* | 25 | 5.5 | |
| | 13.05 | 9.85-13.05 | gravel | 2 very fine, 2 fine | 28 | 5.5 | |
| | 17.82 | 13.05-17.82 | gravel/sand | nil | 25 | 5.0 | |
| | 24.05 | 17.82-24.05 | sand | nil | 48 | 8.0 | |
| | 31.39 | 24.05-31.39 | sand/bedrock | nil | 50 | 7.5 | |
| 86DH-003 | 3.05 | 0.00- 3.05 | sand | nil | 32 | 6.0 | |
| | 4.57 | 3.05- 4.57 | sand | nil | 15 | 3.0 | |
| | 8.23 | 4.57- 8.23 | sand | nil | 27 | 5.5 | |
| | 10.06 | 8.23-10.06 | sand | nil | 24 | 5.0 | |
| | 13.72 | 10.06-13.72 | sand | nil | 30 | 5.5 | |
| | 16.76 | 13.72-16.76 | sand | nil | 25 | 5.0 | |
| | 18.59 | 16.76-18.59 | sand | nil | 28 | 4.5 | |
| | 21.37 | 18.59-21.37 | sand | nil | 34 | 6.0 | |
| | 22.86 | 21.37-22.86 | sand | nil | 20 | 3.5 | |
| | 24.69 | 22.86-24.69 | sand | nil | 29 | 5.5 | |
| | 26.82 | 24.69-26.82 | sand | nil | 30 | 5.5 | |
| | 28.65 | 26.82-28.65 | sand | nil | 45 | 6.5 | |
| | 30.48 | 28.65-30.48 | bedrock | nil | 50 | 4.0 | |

* Gold size classification.

| Drill Hole # | Depth (metres) | Sample Interval (m) | Lithology | Gold Description | Weight (kg) | Volume est. gal | Comments |
|---|---|---|---|---|---|---|---|
| 86DH-004 | 3.96 | 0.00- 3.96 | sand | nil | 32 | 5.0 | |
| | 8.53 | 3.96- 8.53 | sand | nil | 36 | 5.0 | |
| | 12.80 | 8.53-12.80 | sand | nil | 34 | 4.5 | |
| | 16.76 | 12.80-16.76 | sand | 1 fine | 32 | 5.0 | |
| | 19.81 | 16.76-19.81 | sand/gravel | 1 fine, 2 very fine | 38 | 5.5 | |
| | 22.86 | 19.81-22.86 | sand | nil | 36 | 5.5 | |
| | 24.38 | 22.86-24.38 | sand | nil | 23 | 3.5 | |
| | 27.43 | 24.38-27.43 | sand | nil | 34 | 5.0 | |
| | 29.26 | 27.43-29.26 | sand | nil | 20 | 3.0 | |
| | 31.09 | 29.26-31.09 | sand | nil | 22 | 3.0 | |
| | 33.22 | 31.09-33.22 | sand | nil | 25 | 3.5 | |
| | 35.05 | 33.22-35.05 | sand | nil | 21 | 3.0 | |
| | 36.57 | 35.05-36.57 | sand | nil | 27 | 4.5 | |
| | 38.10 | 36.57-38.10 | sand | nil | 22 | 4.0 | |
| | 39.62 | 38.10-39.62 | sand | nil | 25 | 4.5 | |
| | 41.15 | 39.62-41.15 | sand | nil | 20 | 3.0 | |
| | 42.67 | 41.15-42.67 | sand | nil | 18 | 2.8 | |
| | 44.19 | 42.67-44.19 | sand | nil | 26 | 3.6 | |
| | 46.63 | 44.19-46.63 | sand | nil | 34 | 4.5 | |
| | 50.29 | 46.63-50.29 | sand/bedrock | nil | 36 | 5.0 | |
| 86DH-008 | 3.35 | 0.00- 3.35 | gravel | 1 very fine | 29 | 4.5 | |
| | 7.62 | 3.35- 7.62 | gravel | 1 medium, 1 fine | 36 | 5.0 | |
| | 11.28 | 7.62-11.28 | gravel | nil | 25 | 3.0 | |
| | 13.72 | 11.28-13.72 | gravel | 1 medium | 31 | 5.0 | |
| | 18.59 | 13.72-18.59 | sand/gravel | nil | 36 | 5.5 | |
| | 22.55 | 18.59-22.55 | sand/gravel | nil | 45 | 6.0 | |
| | 26.82 | 22.55-26.82 | sand/gravel | nil | 64 | 7.8 | |
| | 42.37 | 33.53-42.37 | sand | nil | 77 | 9.9 | |
| | 47.24 | 42.37-47.24 | sand/bedrock | nil | 38 | 5.2 | |

| Drill Hole # | Depth (metres) | Sample Interval (m) | Lithology | Gold Description | Weight (kg) | Volume est. gal | Comments |
|---|---|---|---|---|---|---|---|
| 86DH-011 | 8.83 | 0.00- 8.83 | sand/gravel | 1 medium | 82 | 9.9 | |
| | 10.67 | 8.83-10.67 | sand | nil | 37 | 4.4 | |
| | 15.24 | 10.67-15.24 | gravel | 1 coarse, 1 medium, 2 very fine | 43 | 5.0 | <.001 |
| | 16.76 | 15.24-16.76 | bedrock | nil | 13 | 2.0 | |
| 86DH-012 | 3.66 | 0.00- 3.66 | gravel/silt | 1 medium, 2 fine | 34 | 4.0 | |
| | 4.88 | 3.66- 4.88 | bedrock | nil | 5 | 1.0 | |
| 86DH-013 | 3.05 | 0.00- 3.05 | gravel/silt/ clay | 1 very fine | 29 | 5.0 | |
| | 5.10 | 3.05- 5.10 | gravel | nil | 29 | 4.5 | |
| | 10.97 | 5.10-10.97 | gravel/bed- rock | 1 medium | 56 | 6.5 | |
| 86DH-014 | 3.35 | 0.00- 3.35 | clay/silt/ gravel | 2 fine | 29 | 5.0 | |
| | 10.67 | 3.35-10.67 | gravel/bed- rock | nil | 52 | 5.5 | |
| 86DH-015 | 6.09 | 0.00- 6.09 | silt/sand | nil | 41 | 6.0 | |
| | 12.19 | 6.09-12.19 | sand/bedrock | nil | 48 | 5.5 | |
| 86DH-016 | 2.47 | 0.00- 2.47 | silt/gravel/ bedrock | nil | 11 | 4.0 | |
| 86DH-017 | 3.66 | 0.00- 3.66 | silt/gravel | nil | 20 | 4.0 | |
| | 7.62 | 3.66- 7.62 | gravel | 1 very fine | 27 | 4.0 | |
| | 11.89 | 7.62-11.89 | gravel/bed- rock | 3 very fine | 48 | 8.0 | |

| Drill Hole # | Depth (metres) | Sample Interval (m) | Lithology | Gold Description | Weight (kg) | Volume est. gal | Comments |
|---|---|---|---|---|---|---|---|
| 86DH-018 | 3.96 | 0.00- 3.96 | silt/gravel | 2 very fine | 48 | 3.5 | |
| | 7.62 | 3.96- 7.62 | gravel | 1 very fine | 23 | 3.5 | |
| | 13.72 | 7.62-13.72 | gravel/bed-rock | nil | 39 | 5.0 | |
| 86DH-019 | 3.96 | 0.00- 3.96 | silt/sand | nil | 18 | 3.0 | |
| | 6.40 | 3.96- 6.40 | gravel | nil | 14 | 2.5 | |
| | 9.45 | 6.40- 9.45 | gravel | nil | 11 | 2.5 | |
| | 13.72 | 9.45-13.72 | gravel | nil | 18 | 3.0 | |
| | 16.76 | 13.72-16.76 | clay/gravel | 1 very fine | 36 | 5.0 | |
| | 20.73 | 16.76-20.73 | gravel | nil | 36 | 5.0 | |
| | 25.60 | 20.73-25.60 | gravel/bed-rock | nil | 72 | 8.0 | |
| 86DH-020 | 3.96 | 0.00- 3.96 | gravel | nil | 43 | 5.0 | |
| | 9.14 | 3.96- 9.14 | gravel | nil | 43 | 5.0 | |
| | 17.37 | 9.14-17.37 | sand/bedrock | 3 very fine | 72 | 11.0 | |
| 86DH-021 | 3.66 | 0.00- 3.66 | gravel | 2 fine, 1 very fine | 36 | 6.0 | |
| | 11.28 | 3.66-11.28 | sand/gravel | nil | 48 | 8.0 | |
| | 16.46 | 11.28-16.46 | sand/bedrock | nil | 45 | 6.0 | |
| 86DH-022 | 6.71 | 0.00- 6.71 | sand | 2 very fine | 61 | 10.0 | |
| | 12.19 | 6.71-12.19 | sand | nil | 41 | 7.0 | |
| | 16.76 | 12.19-16.76 | sand/bedrock | nil | 38 | 7.0 | |
| 86DH-023 | 3.66 | 0.00- 3.66 | silt/gravel | nil | 31 | 5.0 | |
| | 7.62 | 3.66- 7.62 | sand/gravel | 1 fine | 43 | 6.0 | |
| | 14.94 | 7.62-14.94 | sand | nil | 50 | 6.0 | |
| | 21.33 | 14.94-21.33 | sand/gravel | nil | 86 | 12.0 | |
| | 27.43 | 21.33-27.43 | sand | 1 fine | 84 | 14.0 | |
| | 35.35 | 27.43-35.35 | sand/bedrock | nil | 80 | 13.0 | |

| Drill Hole # | Depth (metres) | Sample Interval (m) | Lithology | Gold Description | Weight (kg) | Volume est. gal | Comments |
|---|---|---|---|---|---|---|---|
| 86DH-024 | 4.57 | 0.00- 4.57 | clay/gravel | 1 very fine | 34 | 5.0 | |
| | 11.28 | 4.57-11.28 | sand | nil | 47 | 8.0 | |
| | 17.37 | 11.28-17.37 | sand | nil | 46 | 8.0 | |
| | 22.86 | 17.37-22.86 | sand | nil | 53 | 9.0 | |
| | 28.96 | 22.86-28.96 | sand/gravel | 1 fine | 54 | 10.0 | |
| | 34.14 | 28.96-34.14 | sand/bedrock | nil | 59 | 10.0 | |
| 86DH-025 | 4.27 | 0.00- 4.27 | sand/gravel | 1 very fine | 38 | 7.0 | |
| | 8.84 | 4.27- 8.84 | sand/gravel | nil | 36 | 5.0 | |
| | 14.63 | 8.84-14.63 | gravel/sand | nil | 54 | 8.5 | |
| | 22.55 | 14.63-22.55 | sand | 1 very fine | 63 | 10.0 | |
| | 30.48 | 22.55-30.48 | sand | 4 very fine | 72 | 12.0 | |
| | 37.18 | 30.48-37.18 | sand/bedrock | 1 very fine | 70 | 10.0 | |
| 86DH-026 | 5.49 | 0.00- 5.49 | sand/gravel | nil | 53 | 8.0 | |
| | 8.84 | 5.49- 8.84 | gravel | 1 fine | 32 | 4.0 | |
| | 14.33 | 8.84-14.33 | sand/gravel | 1 fine | 50 | 8.0 | |
| | 19.81 | 14.33-19.81 | sand | nil | 59 | 9.0 | |
| | 26.82 | 19.81-26.82 | sand/gravel | 1 fine | 84 | 12.0 | |
| | 28.04 | 26.82-28.04 | bedrock | nil | 18 | 3.0 | |
| 86DH-027 | 5.79 | 0.00- 5.79 | silt/gravel | 1 fine | 50 | 9.0 | |
| | 10.06 | 5.79-10.06 | gravel/clay | nil | 50 | 7.5 | |
| | 15.54 | 10.06-15.54 | gravel | nil | 59 | 8.0 | |
| | 22.25 | 15.54-22.25 | sand/gravel | 4 very fine | 69 | 10.0 | |
| | 27.43 | 22.25-27.43 | sand | nil | 55 | 10.0 | |
| | 32.00 | 27.43-32.00 | sand/bedrock | nil | 48 | 7.0 | |
| 86DH-028 | 4.88 | 0.00- 4.88 | sand/gravel | nil | 43 | 7.5 | |
| | 11.58 | 4.88-11.58 | sand/gravel | nil | 50 | 7.5 | |
| | 19.50 | 11.58-19.50 | sand | 1 medium | 68 | 12.0 | |
| | 23.77 | 19.50-23.77 | sand/bedrock | nil | 34 | 5.0 | |

| Drill Hole # | Depth (metres) | Sample Interval (m) | Lithology | Gold Description | Weight (kg) | Volume est. gal | Comments |
|---|---|---|---|---|---|---|---|
| 86DH-029 | 6.70 | 0.00- 6.70 | silt/gravel/ sand | 1 fine, 1 very fine | 61 | 9.0 | |
| | 12.80 | 6.70-12.80 | sand/gravel | 1 fine | 43 | 7.0 | |
| | 18.90 | 12.80-18.90 | sand/gravel/ bedrock | 1 fine | 41 | 6.0 | |
| 86DH-030 | 3.35 | 0.00- 3.35 | gravel | 1 fine | 29 | 5.0 | |
| | 7.01 | 3.35- 7.01 | gravel | nil | 32 | 5.0 | |
| | 12.80 | 7.01-12.80 | sand/gravel/ bedrock | nil | 50 | 5.0 | |
| 86DH-031 | 5.49 | 0.00- 5.49 | silt/gravel | 1 fine | 43 | 6.0 | |
| | 6.40 | 5.49- 6.40 | bedrock | nil | 11 | 1.5 | |
| 86DH-032 | 6.10 | 0.00- 6.10 | silt/gravel | 1 fine | 52 | 9.0 | |
| | 12.80 | 6.10-12.80 | sand/gravel | nil | 50 | 8.5 | |
| | 18.90 | 12.80-18.90 | sand/gravel/ bedrock | nil | 57 | 10.0 | |
| 86DH-033 | 4.57 | 0.00- 4.57 | silt/sand/ gravel | nil | 52 | 7.5 | |
| | 9.45 | 4.57- 9.45 | sand/gravel | nil | 54 | 7.0 | |
| | 14.02 | 9.45-14.02 | gravel/silt | nil | 41 | 5.5 | |
| | 19.50 | 14.02-19.50 | gravel/silt/ sand | nil | 61 | 7.5 | |
| | 28.04 | 19.50-28.04 | sand/bedrock | nil | 91 | 13.0 | |
| 86DH-034 | 6.10 | 0.00- 6.10 | gravel | 1 fine | 57 | 8.0 | |
| | 7.01 | 6.10-7.01 | bedrock | niil | 9 | 1.0 | |
| 86DH-035 | 3.96 | 0.00- 3.96 | sand/gravel | nil | 45 | 8.5 | |
| | 4.57 | 3.96- 4.57 | bedrock | nil | 5 | 1.0 | |

| Drill Hole # | Depth (metres) | Sample Interval (m) | Lithology | Gold Description | Weight (kg) | Volume est. gal | Comments |
|---|---|---|---|---|---|---|---|
| 86DH-036 | 4.57 | 0.00- 4.57 | sand/gravel/ silt | nil | 49 | 8.0 | |
| | 10.36 | 4.57-10.36 | sand/gravel | nil | 48 | 8.0 | |
| 86DH-037 | 6.10 | 0.00- 6.10 | gravel | 1 fine | 66 | 10.0 | |
| | 10.97 | 6.10-10.97 | gravel | nil | 41 | 5.0 | |
| | 16.76 | 10.97-16.76 | gravel/silt | 1 very fine | 57 | 10.0 | |
| | 22.55 | 16.76-22.55 | sand/silt/ bedrock | nil | 57 | 8.0 | |
| 86DH-038 | 7.01 | 0.00- 7.01 | silt/sand | nil | 66 | 11.5 | |
| | 7.92 | 7.01- 7.92 | bedrock | nil | 9 | 1.5 | |
| 86DH-039 | 1.52 | 0.00- 1.52 | sand/silt/ | nil | 16 | 3.0 | |
| | 2.13 | 1.52- 2.13 | bedrock | nil | 3 | 0.5 | |
| 86DH-040 | 3.66 | 0.00- 3.66 | gravel | 1 medium | 45 | 7.0 | |
| | 9.75 | 3.16- 9.75 | sand/gravel | nil | 52 | 8.0 | |
| | 15.85 | 9.75-15.85 | sand/clay | nil | 45 | 7.0 | |
| | 16.76 | 15.85-16.76 | bedrock | nil | 7 | 1.0 | |

# APPENDIX III

## Laboratory Results

cantest ltd.

1523 WEST 3rd AVENUE. VANCOUVER, B.C. V6J 1J8 • TELEPHONE (604) 734-7276 • TELEX 04-54210

To: MDP Management Services

Queenstake Resources Ltd.

900 - 850 W. Hastings St.

Vancouver, B.C. V6C 1E1 Att'n: Michael

## SEMI QUANTITATIVE SPECTROGRAPHIC ANALYSIS CERTIFICATE

File No. 13242F

Date Sept.12/86



We hereby Certify that the following are the results of semi quantitative spectrographic analysis made on _____ samples submitted.

| | | 1 | 2 | | | 1 | 2 |
|---|---|---|---|---|---|---|---|
| Aluminum | Al | 1. | 1. | Cerium | Ce | ND | ND |
| Antimony | Sb | 0.04 | 0.02 | Cesium | Cs | ND | ND |
| Arsenic | As | ND | ND | Dysprosium | Dy | ND | ND |
| Barium | Ba | ND | ND | Erbium | Er | ND | ND |
| Beryllium | Be | TRACE | 0.01 | Europium | Eu | ND | ND |
| Bismuth | Bi | ND | ND | Gadolinium | Gd | ND | ND |
| Boron | B | ND | ND | Hafnium | Hf | ND | ND |
| Cadmium | Cd | ND | ND | Holmium | Ho | ND | ND |
| Calcium | Ca | 3. | 2. | Indium | In | ND | ND |
| Chromium | Cr | 0.2 | 0.2 | Lanthanum | La | ND | ND |
| Cobalt | Co | ND | ND | Lithium | Li | ND | ND |
| Copper | Cu | 0.004 | 0.005 | Lutetium | Lu | ND | ND |
| Gallium | Ga | ND | ND | Neodymium | Nd | ND | ND |
| Gold | Au | TRACE | TRACE | Praseodymium | Pr | ND | ND |
| Iron | Fe | MATRIX | MATRIX | Rubidium | Rb | ND | ND |
| Lead | Pb | ND | ND | Samarium | Sm | ND | ND |
| Magnesium | Mg | 1.5 | 1. | Scandium | Sc | ND | ND |
| Manganese | Mn | 0.5 | 0.4 | Selenium | Se | ND | ND |
| Molybdenum | Mo | 0.03 | 0.02 | Tellurium | Te | ND | ND |
| Niobium | Nb | TRACE | TRACE | Terbium | Tb | ND | ND |
| Nickel | Ni | 0.01 | 0.008 | Thallium | Tl | ND | ND |
| Potassium | K | ND | ND | Thulium | Tm | ND | ND |
| Silicon | Si | MATRIX | MATRIX | Ytterbium | Yb | ND | ND |
| Silver | Ag | TRACE | TRACE | Yttrium | Y | ND | ND |
| Sodium | Na | 0.1 | TRACE | Zirconium | Zr | 0.08 | 0.07 |
| Strontium | Sr | 0.03 | 0.02 | Iridium | Ir | ND | ND |
| Tantalum | Ta | ND | ND | Osmium | Os | ND | ND |
| Thorium | Th | ND | ND | Palladium | Pd | ND | ND |
| Tin | Sn | TRACE | TRACE | Platinum | Pt | ND | ND |
| Titanium | Ti | 1. | 0.8 | Rhenium | Re | ND | ND |
| Tungsten | W | ND | ND | Rhodium | Rh | ND | ND |
| Uranium | U | ND | ND | Ruthenium | Ru | ND | ND |
| Vanadium | V | 0.09 | 0.08 | | | | |
| Zinc | Zn | ND | ND | | | | |

Sample Identification

**Sample 1:** 86 TR 92, 86 TR 93 — Composite #1

**Sample 2:** 86 TR 90, 86 TR 86 — Composite #2

Percentages of the various elements expressed in these analysis may be considered accurate to within plus or minus 35 to 50% of the amount present.

Semi-quantitative spectrographic analytical results for gold and silver are normally not of sufficient degree of percision to enale calculation of the true value of ores. Therefore, should exact values be required, it is recommended that these elements be assayed by the conventional Fire Assay Method. Quantitative and Fire Assays may be carried out on the retained pulp samples.

Silicon, aluminum, magnesium calcium and iron are normal components of complex silicates.

MATRIX — Major constituent
MAJOR — Above normal spectrographic range
TRACE — Detected but minor amounts
N.D. — Not detected
* — Suggest assay (above 0.3%)

All results expressed as Percent

Note: Pulps retained one week.



CAN TEST LTD.

Anthony Pan R.H.

Spectroscopist

cantest ltd.

1523 WEST 3rd AVENUE. VANCOUVER. B.C. V6J 1J8 • TELEPHONE (604) 734-7276 • TELEX 04-54210

To: MDP Management Services

Queenstake Resources Ltd.

900 - 850 W. Hastings St.

Vancouver, B.C. V6C 1E1 Att'n: Michael

## SEMI QUANTITATIVE SPECTROGRAPHIC ANALYSIS CERTIFICATE

File No. 13242F

Date Sept. 12/86



We hereby Certify that the following are the results of semi quantitative spectrographic analysis made on _____ samples submitted.

| | | 3 | 4 | | | 3 | 4 |
|---|---|---|---|---|---|---|---|
| Aluminum | Al | 1. | 1. | Cerium | Ce | ND | ND |
| Antimony | Sb | 0.03 | 0.03 | Cesium | Cs | ND | ND |
| Arsenic | As | ND | ND | Dysprosium | Dy | ND | ND |
| Barium | Ba | ND | ND | Erbium | Er | ND | ND |
| Beryllium | Be | 0.01 | 0.02 | Europium | Eu | ND | ND |
| Bismuth | Bi | ND | ND | Gadolinium | Gd | ND | ND |
| Boron | B | ND | ND | Hafnium | Hf | ND | ND |
| Cadmium | Cd | ND | ND | Holmium | Ho | ND | ND |
| Calcium | Ca | 2. | 3. | Indium | In | ND | ND |
| Chromium | Cr | 0.2 | 0.3 | Lanthanum | La | ND | ND |
| Cobalt | Co | ND | ND | Lithium | Li | ND | ND |
| Copper | Cu | 0.005 | 0.004 | Lutetium | Lu | ND | ND |
| Gallium | Ga | ND | ND | Neodymium | Nd | ND | ND |
| Gold | Au | TRACE | TRACE | Praseodymium | Pr | ND | ND |
| Iron | Fe | MATRIX | MATRIX | Rubidium | Rb | ND | ND |
| Lead | Pb | ND | ND | Samarium | Sm | ND | ND |
| Magnesium | Mg | 2. | 1.5 | Scandium | Sc | ND | ND |
| Manganese | Mn | 0.6 | 0.4 | Selenium | Se | ND | ND |
| Molybdenum | Mo | 0.03 | 0.04 | Tellurium | Te | ND | ND |
| Niobium | Nb | TRACE | TRACE | Terbium | Tb | ND | ND |
| Nickel | Ni | 0.01 | 0.01 | Thallium | Tl | ND | ND |
| Potassium | K | ND | ND | Thulium | Tm | ND | ND |
| Silicon | Si | MATRIX | MATRIX | Ytterbium | Yb | ND | ND |
| Silver | Ag | TRACE | TRACE | Yttrium | Y | ND | ND |
| Sodium | Na | 0.1 | 0.5 | Zirconium | Zr | 0.07 | 0.06 |
| Strontium | Sr | 0.03 | 0.02 | Iridium | Ir | ND | ND |
| Tantalum | Ta | ND | ND | Osmium | Os | ND | ND |
| Thorium | Th | ND | ND | Palladium | Pd | ND | ND |
| Tin | Sn | TRACE | TRACE | Platinum | Pt | ND | ND |
| Titanium | Ti | 0.8 | 1. | Rhenium | Re | ND | ND |
| Tungsten | W | ND | ND | Rhodium | Rh | ND | ND |
| Uranium | U | ND | ND | Ruthenium | Ru | ND | ND |
| Vanadium | V | 0.08 | 0.1 | | | | |
| Zinc | Zn | ND | ND | | | | |

**Sample Identification**

Sample 3: 86 TR 116, 86 TR 107 Composite #3

Sample 4: 86 TR 63, 86 TR 64 Composite #4

Percentages of the various elements expressed in these analysis may be considered accurate to within plus or minus 35 to 50% of the amount present.

Semi-quantitative spectrographic analytical results for gold and silver are normally not of sufficient degree of percision to enale calculation of the true value of ores. Therefore, should exact values be required, it is recommended that these elements be assayed by the conventional Fire Assay Method. Quantitative and Fire Assays may be carried out on the retained pulp samples.

Silicon, aluminum, magnesium calcium and iron are normal components of complex silicates.

MATRIX — Major constituent
MAJOR — Above normal spectrographic range
TRACE — Detected but minor amounts
N.D. — Not detected
* — Suggest assay (above 0.3%)

All results expressed as Percent

Note: Pulps retained one week.



CAN TEST LTD.

A. Wong Per R.H.

Spectroscopist

# APPENDIX IV

## Statement of Costs

HARLIN RESOURCES LTD.

STATMENT OF COST - VERMILION RIVER PLACER PROPERTY

| | |
|---|---|
| Power Stripping | $ 72,675.00 |
| Rotasonic Drilling | 59,963.76 |
| Freegold Recovery Systems (upgrading pit and drill samples) | 7,747.02 |
| M.D.P. Management Services (placer consultant) | 6,948.84 |
| Office, Field Supplies | 1,980.22 |
| Room and Board | 2,382.20 |
| Travel | 6,581.78 |
| Analyses, Report)<br>Office Overheads) | 8,721.18 |
| Engineering Supervising and Project Preparation | 8,000.00 |
| TOTAL: | $175,000.00 |

# APPENDIX V

## Statement of Qualifications

## STATEMENT OF QUALIFICATIONS

I, LES DEMCZUK of the City of Vancouver, Province of British Columbia hereby certify that:

1. I am a Mining Geologist Engineer residing at 210-1860 Nelson Street, Vancouver, B.C.

2. I graduated from Univesrity of Mining and Metallurgy, Krakow, Poland in 1977 with a Master of Science degree in Geology.

3. I have worked in mineral and coal exploration since 1977 and have practiced my profession since 1977.

4. I am temporarily employed with Hi-Tec Resource Management Ltd. of Vancouver, B.C. and have been since June, 1986.

5. I have no direct or indirect interest in the properties, leases or securities of Harlin Resources Limited nor do I expect to receive any.

5. I consent to the use of this report in or in connection with, a prospectus, or Statement of Material Facts relating the the raising of funds for this project.

Les Demczuk, M.Sc.

2. 96 96

## STATEMENT OF QUALIFICATIONS

I, Michael D. Philpot, principal of M.D.P. Management Services of 2724 Bayview Street, in the Municipality of Surrey, Province of British Columbia, certify as follows regarding the report on the Vermilion River Placer Property, Meteor-Opikinimika Lake Area; Garibaldi, Moffat and Beulah Townships, Larder Lake Mining Division, Ontario dated September 1986.

1. I am a consulting geologist having practiced my profession in Canada for the past 8 years.

2. I am a graduate of the University of British Columbia with a B.S. degree in Geology obtained in 1978 and of City University with a M.B.A degree in Business Administration obtained in 1985.

3. I am a member in good standing of the Geological Association of Canada (F.G.A.C.)

4. I have no direct or indirect interest in the properties, leases or securities of Harlin Resources Limited nor do I expect to receive any.

5. I was the consulting geologist on the project having organized the sampling programs on site between the dates of July 27 and August 9, 1986.

6. I consent to the use of this report, in or in connection with, a prospectus, or a statement of material facts relating to the raising of funds for this project.

Dated this 30 day of September, 1986, Vancouver, B.C.

Michael D. Philpot, B.Sc., M.B.A.

Ministry of Northern Development and Mines
Ontario

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

Lands 9i 5o

41P06NW0011 2.9696 GARIBALDI

900

Mining Act

WF6 of 524

| Type of Survey(s) | Township or Area |
|---|---|
| Mining Act Section 77(19) Benefication Study Evaluation of Placer Potential of Mining Claims | GARIBALDI, MOFFAT, BEULAH |

| Claim Holder(s) | Prospector's Licence No. |
|---|---|
| HARLIN RESOURCES LTD (304 claims) DANIEL LACROIX (2 claims) | T1707 |

Address: 810 - 625 Howe Street, Vancouver, B.C. V6C 2T6 604-687-7261

| Survey Company | Date of Survey (from & to) | Total Miles of line Cut |
|---|---|---|
| HI-TEC RESOURCE MANAGEMENT LTD. | 26 07 86 (Day Mo. Yr.) 15 08 86 (Day Mo. Yr.) | N/A |

Name and Address of Author (of Geo-Technical report): HI-TEC RESOURCE MANAGEMENT LTD (604) 669-5557
LES DEMCZUK and MICHAEL D. PHILPOT Suite 1590 - 609 Granville Street, Vancouver, B.C. V7Y 1C6

Credits Requested per Each Claim in Columns at right

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

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

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

RECEIVED
DEC 22 1986
MINING LANDS SECTION

Mining Claims Traversed (List in numerical sequence)

| Mining Claim Prefix | Mining Claim Number | Expend. Days Cr. | Mining Claim Prefix | Mining Claim Number | Expend. Days Cr. |
|---|---|---|---|---|---|
| L | 749632 | 16.26 | L | 749656 | 16.26 |
| | 749633 | 16.26 | | 743421 | 16.26 |
| | 749634 | 16.26 | | 743422 | 16.26 |
| | 749637 | 16.26 | | 743423 | 16.26 |
| | 749638 | 16.26 | | 743424 | 16.26 |
| | 749639 | 16.26 | | 743425 | 16.26 |
| | 749640 | 16.26 | | 743426 | 16.26 |
| | 749641 | 16.26 | | 743427 | 16.26 |
| | 749642 | 16.26 | | 743428 | 16.26 |
| | 749643 | 16.26 | | 743429 | 16.26 |
| | 749644 | 16.26 | | 743430 | 16.26 |
| | 749645 | 16.26 | | 743431 | 16.26 |
| | 749646 | 16.26 | | 743432 | 16.26 |
| | 749647 | 16.26 | | 743433 | 16.26 |
| | 749648 | 16.26 | | 743434 | 16.26 |
| | 749649 | 16.26 | | 743435 | 16.26 |
| | 749650 | 16.26 | | 743436 | 16.26 |
| | 749651 | 16.26 | | 743437 | 16.26 |
| | 749652 | 16.26 | | 743438 | 16.26 |
| | 749653 | 16.26 | | 743439 | 16.26 |
| | 749654 | 16.26 | | 743440 | 16.26 |
| | 749655 | 16.26 | | 743566 | 16.26 |
| | see | attached | | sheets | |

Total number of mining claims covered by this report of work: 306

Expenditures (excludes power stripping)

Type of Work Performed: Rotasonic Drilling, Placer pit and Consulting, Concentration - Upgrading of drill samples

Performed on Claim(s): See attached Sheet #7 for list of claims

Calculation of Expenditure Days Credits

Total Expenditures: $ 74659.62 ÷ 15 = Total Days Credits: 16.26

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.

For Office Use Only

| Total Days Cr. Recorded | Date Recorded | Mining Recorder |
|---|---|---|
| 4975.56 | NOV 27 1986 | M.C. Warren |
| | Date Approved as Recorded | Branch Director |
| | | See work statement |

| Date | Recorded Holder or Agent (Signature) |
|---|---|
| Nov 10 1986 | |

Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying
LES DEMCZUK 1590-609 Granville Street Vancouver, B.C. V7Y 1C6

Suite

2/7

L.D.

| Mining Claim Prefix | Mining Claim Number | Expend. Days Cr. |
|---|---|---|
| L | 743567 | 16.26 |
| L | 743568 | 16.26 |
| L | 743569 | 16.26 |
| L | 743570 | 16.26 |
| L | 743571 | 16.26 |
| L | 743572 | 16.26 |
| L | 743573 | 16.26 |
| L | 743574 | 16.26 |
| L | 743575 | 16.26 |
| L | 743576 | 16.26 |
| L | 743577 | 16.26 |
| L | 743578 | 16.26 |
| L | 743579 | 16.26 |
| L | 743580 | 16.26 |
| L | 743581 | 16.26 |
| L | 743582 | 16.26 |
| L | 743583 | 16.26 |
| L | 743584 | 16.26 |
| L | 743585 | 16.26 |
| L | 743586 | 16.26 |
| L | 743587 | 16.26 |
| L | 743588 | 16.26 |
| L | 743589 | 16.26 |
| L | 743590 | 16.26 |
| L | 749051 | 16.26 |
| L | 749052 | 16.26 |
| L | 749053 | 16.26 |
| L | 749054 | 16.26 |

| Mining Claim Prefix | Mining Claim Number | Expend. Days Cr. |
|---|---|---|
| L | 749055 | 16.26 |
| L | 749056 | 16.26 |
| L | 749057 | 16.26 |
| L | 749058 | 16.26 |
| L | 749059 | 16.26 |
| L | 749060 | 16.26 |
| L | 749061 | 16.26 |
| L | 749062 | 16.26 |
| L | 749063 | 16.26 |
| L | 749064 | 16.26 |
| L | 749065 | 16.26 |
| L | 749552 | 16.26 |
| L | 749553 | 16.26 |
| L | 749554 | 16.26 |
| L | 749555 | 16.26 |
| L | 749556 | 16.26 |
| L | 749557 | 16.26 |
| L | 749558 | 16.26 |
| L | 749559 | 16.26 |
| L | 749560 | 16.26 |
| L | 749561 | 16.26 |
| L | 749562 | 16.26 |
| L | 749563 | 16.26 |
| L | 749564 | 16.26 |
| L | 749565 | 16.26 |
| L | 749566 | 16.26 |
| L | 749567 | 16.26 |
| L | 749568 | 16.26 |

L.D.

| Mining Claim | | Expend | Mining Claim | | Expend. |
|---|---|---|---|---|---|
| refix | Number | Days Cr. | Prefix | Number | Days Cr. |
| L | 749569 | 16.26 | L | 749597 | 16.26 |
| L | 749570 | 16.26 | L | 749598 | 16.26 |
| L | 749571 | 16.26 | L | 749599 | 16.26 |
| L | 749572 | 16.26 | L | 749600 | 16.26 |
| L | 749573 | 16.26 | L | 749601 | 16.26 |
| L | 749574 | 16.26 | L | 749602 | 16.26 |
| L | 749575 | 16.26 | L | 749603 | 16.26 |
| L | 749576 | 16.26 | L | 749604 | 16.26 |
| L | 749577 | 16.26 | L | 749605 | 16.26 |
| L | 749578 | 16.26 | L | 749606 | 16.26 |
| L | 749579 | 16.26 | L | 749607 | 16.26 |
| L | 749580 | 16.26 | L | 749608 | 16.26 |
| L | 749581 | 16.26 | L | 749609 | 16.26 |
| L | 749582 | 16.26 | L | 749610 | 16.26 |
| L | 749583 | 16.26 | L | 749611 | 16.26 |
| L | 749584 | 16.26 | L | 749612 | 16.26 |
| L | 749585 | 16.26 | L | 749613 | 16.26 |
| L | 749586 | 16.26 | L | 749614 | 16.26 |
| L | 749587 | 16.26 | L | 749615 | 16.26 |
| L | 749588 | 16.26 | L | 749616 | 16.26 |
| L | 749589 | 16.26 | L | 749617 | 16.26 |
| L | 749590 | 16.26 | L | 749618 | 16.26 |
| L | 749591 | 16.26 | L | 749619 | 16.26 |
| L | 749592 | 16.26 | L | 749620 | 16.26 |
| L | 749593 | 16.26 | L | 749621 | 16.26 |
| L | 749594 | 16.26 | L | 749622 | 16.26 |
| L | 749595 | 16.26 | L | 749623 | 16.26 |
| L | 749596 | 16.26 | L | 749624 | 16.26 |

Of Mining Claims GARIBALDI

4/7

L.D.

| Mining Claim Prefix | Mining Claim Number | Expend. Days Cr. | Mining Claim Prefix | Mining Claim Number | Expend. Days Cr. |
|---|---|---|---|---|---|
| L | 749625 | 16.26 | L | 748922 | 16.26 |
| L | 749626 | 16.26 | L | 748923 | 16.26 |
| L | 749627 | 16.26 | L | 748924 | 16.26 |
| L | 749628 | 16.26 | L | 748925 | 16.26 |
| L | 749629 | 16.26 | L | 748926 | 16.26 |
| L | 749630 | 16.26 | L | 748927 | 16.26 |
| L | 749631 | 16.26 | L | 748928 | 16.26 |
| L | 748901 | 16.26 | L | 748929 | 16.26 |
| L | 748902 | 16.26 | L | 748930 | 16.26 |
| L | 748903 | 16.26 | L | 748931 | 16.26 |
| L | 748904 | 16.26 | L | 748932 | 16.26 |
| L | 748905 | 16.26 | L | 748933 | 16.26 |
| L | 748906 | 16.26 | L | 748934 | 16.26 |
| L | 748907 | 16.26 | L | 748935 | 16.26 |
| L | 748908 | 16.26 | L | 748936 | 16.26 |
| L | 748909 | 16.26 | L | 748937 748938 | 16.26 |
| L | 748910 | 16.26 | L | 748939 | 16.26 |
| L | 748911 | 16.26 | L | 748940 | 16.26 |
| L | 748912 | 16.26 | L | 748941 | 16.26 |
| L | 748913 | 16.26 | L | 748942 | 16.26 |
| L | 748914 | 16.26 | L | 748943 | 16.26 |
| L | 748915 | 16.26 | L | 748944 | 16.26 |
| L | 748916 | 16.26 | L | 748945 | 16.26 |
| L | 748917 | 16.26 | L | 748946 | 16.26 |
| L | 748918 | 16.26 | L | 748947 | 16.26 |
| L | 748919 | 16.26 | L | 748948 | 16.26 |
| L | 748920 | 16.26 | L | 748949 | 16.26 |
| L | 748921 | 16.26 | L | 748950 | 16.26 |

Luxor, B.C. V6C 2X10 [illegible] Total Miles [illegible]

5/7

L.D.

| Mining Claim Prefix | Mining Claim Number | Expend. Days Cr. | Mining Claim Prefix | Mining Claim Number | Expend. Days Cr. |
|---|---|---|---|---|---|
| L | 748951 | 16.26 | L | 748989 | 16.26 |
| L | 748952 | 16.26 | L | 748990 | 16.26 |
| L | 748953 | 16.26 | L | 748991 | 16.26 |
| L | 748954 | 16.26 | L | 748992 | 16.26 |
| L | 748955 | 16.26 | L | 748993 | 16.26 |
| L | 748956 | 16.26 | L | 748994 | 16.26 |
| L | 748957 | 16.26 | L | 748995 | 16.26 |
| L | 748959 | 16.26 | L | 748996 | 16.26 |
| L | 748960 | 16.26 | L | 748997 | 16.26 |
| L | 748961 | 16.26 | L | 748998 | 16.26 |
| L | 748962 | 16.26 | L | 748999 | 16.26 |
| L | 748965 | 16.26 | L | 749001 | 16.26 |
| L | 748969 | 16.26 | L | 749002 | 16.26 |
| L | 748970 | 16.26 | L | 749003 | 16.26 |
| L | 748971 | 16.26 | L | 749004 | 16.26 |
| L | 748972 | 16.26 | L | 749005 | 16.26 |
| L | 748976 | 16.26 | L | 749006 | 16.26 |
| L | 748978 | 16.26 | L | 749007 | 16.26 |
| L | 748979 | 16.26 | L | 749008 | 16.26 |
| L | 748980 | 16.26 | L | 749009 | 16.26 |
| L | 748981 | 16.26 | L | 749010 | 16.26 |
| L | 748982 | 16.26 | L | 749011 | 16.26 |
| L | 748983 | 16.26 | L | 749012 | 16.26 |
| L | 748984 | 16.26 | L | 749013 | 16.26 |
| L | 748985 | 16.26 | L | 749014 | 16.26 |
| L | 748986 | 16.26 | L | 749015 | 16.26 |
| L | 748987 | 16.26 | L | 749016 | 16.26 |
| L | 748988 | 16.26 | L | 749017 | 16.26 |
| | | | L | 749018 | 16.26 |

L.D.

| Mining Claim Prefix | Mining Claim Number | Expend. Days Cr. | Mining Claim Prefix | Mining Claim Number | Expend. Days Cr. |
|---|---|---|---|---|---|
| L | 749019 | 16.26 | L | 872322 | 16.26 |
| L | 749020 | 16.26 | L | 872323 | 16.26 |
| L | 749021 | 16.26 | L | 872324 | 16.26 |
| L | 749022 | 16.26 | L | 872325 | 16.26 |
| L | 749023 | 16.26 | L | 872326 | 16.26 |
| L | 749024 | 16.26 | L | 872327 | 16.26 |
| L | 749026 | 16.26 | L | 880165 | 16.26 |
| L | 749027 | 16.26 | L | 880164 | 16.26 |
| L | 749028 | 16.26 | | | |
| L | 749029 | 16.26 | | | |
| L | 749030 | 16.26 | | | |
| L | 749031 | 16.26 | | | |
| L | 749032 | 16.26 | | | |
| L | 749033 | 16.26 | | | |
| L | 749034 | 16.26 | | | |
| L | 749035 | 16.26 | | | |
| L | 749036 | 16.26 | | | |
| L | 749037 | 16.26 | | | |
| L | 749038 | 16.26 | | | |
| L | 749039 | 16.26 | | | |
| L | 749040 | 16.26 | | | |
| L | 749041 | 16.26 | | | |
| L | 749042 | 16.26 | | | |
| L | 749043 | 16.26 | | | |
| L | 872318 | 16.26 | | | |
| L | 872319 | 16.26 | | | |
| L | 872320 | 16.26 | | | |
| L | 872321 | 16.26 | | | |

LES DEMCZUK 1590-609 Granville Street Vancouver, B.C. V7Y 1C6

Date Certified: Nov 10 1986

Certified by (Signature): Les Demczuk

7/7

Work was performed on the following claims:

748915
748916
748917
748918
748919
748931
748932
748933
748935
748936
748938
748939
748940
748941
748946

748951
748952
748953
748954
748955
748956
748957
748965
748976

743429
743430
743431
743437
743438
743439

749005
749006
749007
749008
749012
749013
749014
749015

872318
872320
872321
872322
872323
872324
872325
880164

Ministry of Northern Development and Mines

Ontario

# Geophysical-Geological-Geochemical Technical Data Statement

File _____

**TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT**
**FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT**
**TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.**

Type of Survey(s) Beneficiation Study - Evaluation of Placer Potential of Mining Claims

Township or Area Garibaldi, Moffat, Beulah

Claim Holder(s) Harlin Resource Ltd.
810 - 625 Howe Street, Vancouver, B.C.

Survey Company HI-TEC Resource Management Ltd.

Author of Report Les Demczuk and Michael D. Philpot

Address of Author 1590 - 609 Granville Street Vancouver, B.C. V7Y 1C6

Covering Dates of Survey August 5 to August 16, 1986
(linecutting to office)

Total Miles of Line Cut _____

| SPECIAL PROVISIONS CREDITS REQUESTED | | DAYS per claim |
|---|---|---|
| ENTER 40 days (includes line cutting) for first survey. | Geophysical | |
| | --Electromagnetic | |
| | --Magnetometer | |
| | --Radiometric | |
| ENTER 20 days for each additional survey using same grid. | --Other | |
| | Geological | |
| | Geochemical | |

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: Nov. 14, 1986 SIGNATURE: _____
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

| File No. | Type | Date | Claim Holder |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**MINING CLAIMS TRAVERSED**
**List numerically**

(prefix) (number)

L 749632 - 749634 incl.
L 749637 - 749656 incl.
L 743421 - 743440 incl.
L 743566 - 743590 incl.
L 749051 - 749065 incl.
L 749552 - 749631 incl.
L 748901 - 748957 incl.
L 748959 - 748962 incl.
L 748965 - ~~748~~
L 748969 - L 748972 incl.
L 748976 -
L 748978 - L 749024 incl.
L 749026 - 749043 incl.
L 872318 - 872327 incl.
L 880165 - L 880164

If space insufficient, attach list

TOTAL CLAIMS 306

OFFICE USE ONLY

837 (85/12)

# GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

## MAGNETIC

Instrument _____

Accuracy – Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

_____

## ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

## GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

_____

Base station value and location _____

_____

Elevation accuracy _____

## INDUCED POLARIZATION RESISTIVITY

Instrument _____

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

## SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

## RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

## OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey Beneficiation Study - Evaluation of Placer Potential of Mining Claims.

Instrument Rotasonic Drill, Free Gold Recovery System.

Accuracy _____

Parameters measured Thickness of placer channel, gold content of channel (width and

_____

Additional information (for understanding results) _____

_____

_____

## AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

# GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

_____

_____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

_____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

_____

Drainage Development _____

Estimated Range of Overburden Thickness _____

_____

_____

## SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

_____

_____

_____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

## ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

Ministry of Northern Development and Mines
Ontario

**Geotechnical Report Approval**

File 2.9696

Jan. 23/87

Mining Lands Comments

Clarence Kustra:

I feel that there is no problem assessing this entire submission as a Consultant's Report + Beneficiation Study ~~of~~ under Section 77(19). Do you agree? ✓

Denis Kunz

☐ To: Geophysics

Comments

☐ Approved ☐ Wish to see again with corrections | Date | Signature

☑ To: Geology - Expenditures

Comments

☑ Approved ☐ Wish to see again with corrections | Date Feb. 3/87 | Signature CKustra

☐ To: Geochemistry

Comments

☐ Approved ☐ Wish to see again with corrections | Date | Signature

☐ To: Mining Lands Section, Room 6610, Whitney Block. (Tel: 5-4888)

Ministry of Northern Development and Mines
Ontario

**Technical Assessment Work Credits**

File 2.9696

Date March 13, 1987

Mining Recorder's Report of Work No. 524/86

Recorded Holder
HARLIN RESOURCES LIMITED & DANIEL LACROIX

Township or Area
BEULAH, GARIBALDI & MOFFAT TOWNSHIPS

| Type of survey and number of Assessment days credit per claim | Mining Claims Assessed |
|---|---|
| Geophysical<br>Electromagnetic _____ days<br>Magnetometer _____ days<br>Radiometric _____ days<br>Induced polarization _____ days<br>Other _____ days<br>Section 77 (19) See "Mining Claims Assessed" column<br>Geological _____ days<br>Geochemical _____ days<br>Man days ☐ Airborne ☐<br>Special provision ☐ Ground ☐<br>☐ Credits have been reduced because of partial coverage of claims.<br>☐ Credits have been reduced because of corrections to work dates and figures of applicant. | $74,659.62 SPENT ON A CONSULTANT'S REPORT AND BENEFICIATION STUDY TAKEN FROM MINING CLAIMS:<br>L• 743430 - 31<br>• 743437 to 39 inclusive<br>• 748915 to 19 inclusive<br>• 748932 - 33<br>• 748938 to 41 inclusive<br>• 748946<br>• 748951 to 57 inclusive<br>• 748976<br>• 749006 to 15 inclusive<br>• 749026<br>• 749634 •<br>• 749637 •<br>• 749641 to 43 inclusive<br>• 872318<br>• 872320 to 25 inclusive<br>• 880164<br>4975.56 ASSESSMENT WORK DAYS ARE ALLOWED WHICH MAY BE GROUPED IN ACCORDANCE WITH SECTION 76(6) OF THE MINING ACT. |

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

**No credits have been allowed for the following mining claims**

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

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

March 13, 1987

Your File: 524/86
Our File: 2.9696

Mining Recorder
Ministry of Northern Development and Mines
4 Government Road East
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

RE: Consultant's Report and Beneficiation Study
submitted on Mining Claims L 743430, et al,
in Beulah, Garibaldi and Moffat Townships

---

The enclosed statement of assessment work credits for Consultant's Report and Beneficiation Study have been approved as of the above date.

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

Yours sincerely,

J.C. Smith, A/Manager
Mining Lands Section
Mineral Development and Lands Branch
Mines and Minerals Division

Whitney Block, Room 6610
Queen's Park
Toronto, Ontario
M7A 1W3

Telephone: (416) 965-4888.

DK/mc
cc: Harlin Resources Limited
Daniel Lacroix
Suite 810
625 Howe Street
Vancouver, B.C.
V6C 2T6

Hi-Tec Resource Management Ltd
Suite 1590
609 Granville Street
Vancouver, B.C.
V7Y 1C6

Resident Geologist
Kirkland Lake, Ontario

Encl.

HI-TEC
RESOURCE
MANAGEMENT
LIMITED

STOCK EXCHANGE TOWER, P.O. BOX 10107
1500-609 GRANVILLE STREET, VANCOUVER, B.C. V7Y 1C6
TEL. (604) 669 5559

January 14, 1987

Mr. J.C. Smith
Ministry of Northern Development
and Mines
Mining Lands Section
Whitney Block, 6th Floor
Queens Park
Toronto, Ontario
M7A 1W3

Dear Mr. Smith:

Re: Mining Claims L749632 et al., in Garibaldi, Moffat and Beulah Townships

Please find enclosed with this letter, two copies of the reports and maps for the Benefication Survey on the above-mentioned claims. I trust you will receive them before January 20, 1987 which is the expiry date for the reports to be filed.

Thank you for your attention to this matter.

Yours sincerely,

HI-TEC RESOURCE MANAGEMENT LTD.

Virginia Kuran

Virginia Kuran,
General Manager

VK:mkm

Enclosures

## AREAS WITHDRAWN FROM DISPOSITION

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

| Description | Order No. | Date | Disposition | File |
|---|---|---|---|---|
| SEC. 36/80 | W32/85-NR | | M&S | |

MIRAMICHI TOWNSHIP

GARVEY TOWNSHIP

SHEARD TOWNSHIP

MOFFAT TOWNSHIP

5M 4M 3M 2M 1M

ONT. HYDRO 99' R/W

L.O. 6066

560

ONT. HYDRO 99' R/W

River

Opikinimiko

Viola L.

L 749634 L 749633 L 749632
L 749637 L 749638 L 749639 L 749640 L 749641
L 749646 L 749645 L 749644 L 749643 L 749642
L 749647 L 749648 L 749649 L 749650 L 749651
L 749656 L 749655 L 749654 L 749653 L 749652

## LEGEND

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

## DISPOSITION OF CROWN LANDS

| TYPE OF DOCUMENT | SYMBOL |
|---|---|
| PATENT, SURFACE & MINING RIGHTS | |
| " , SURFACE RIGHTS ONLY | |
| " , MINING RIGHTS ONLY | |
| LEASE, SURFACE & MINING RIGHTS | |
| " , SURFACE RIGHTS ONLY | |
| " , MINING RIGHTS ONLY | |
| LICENCE OF OCCUPATION | |
| ORDER-IN-COUNCIL | OC |
| RESERVATION | R |
| CANCELLED | |
| SAND & GRAVEL | S |

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.

500 0 1000 Metres

10 0 10 20 30 40 50 60 70 Chains

500 0 1000 2000 3000 4000 5000 Feet

SCALE 1:20 000

TOWNSHIP

# GARIBALDI

M.N.R. ADMINISTRATIVE DISTRICT

GOGAMA

MINING DIVISION

LARDER LAKE

LAND TITLES / REGISTRY DIVISION

SUDBURY

Ontario Ministry of Natural Resources
Ministry of Northern Development and Mines

Date SEPTEMBER 1986

Number G-973

## AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY

S.R.O. – SURFACE RIGHTS ONLY

M.+ S. – MINING AND SURFACE R...

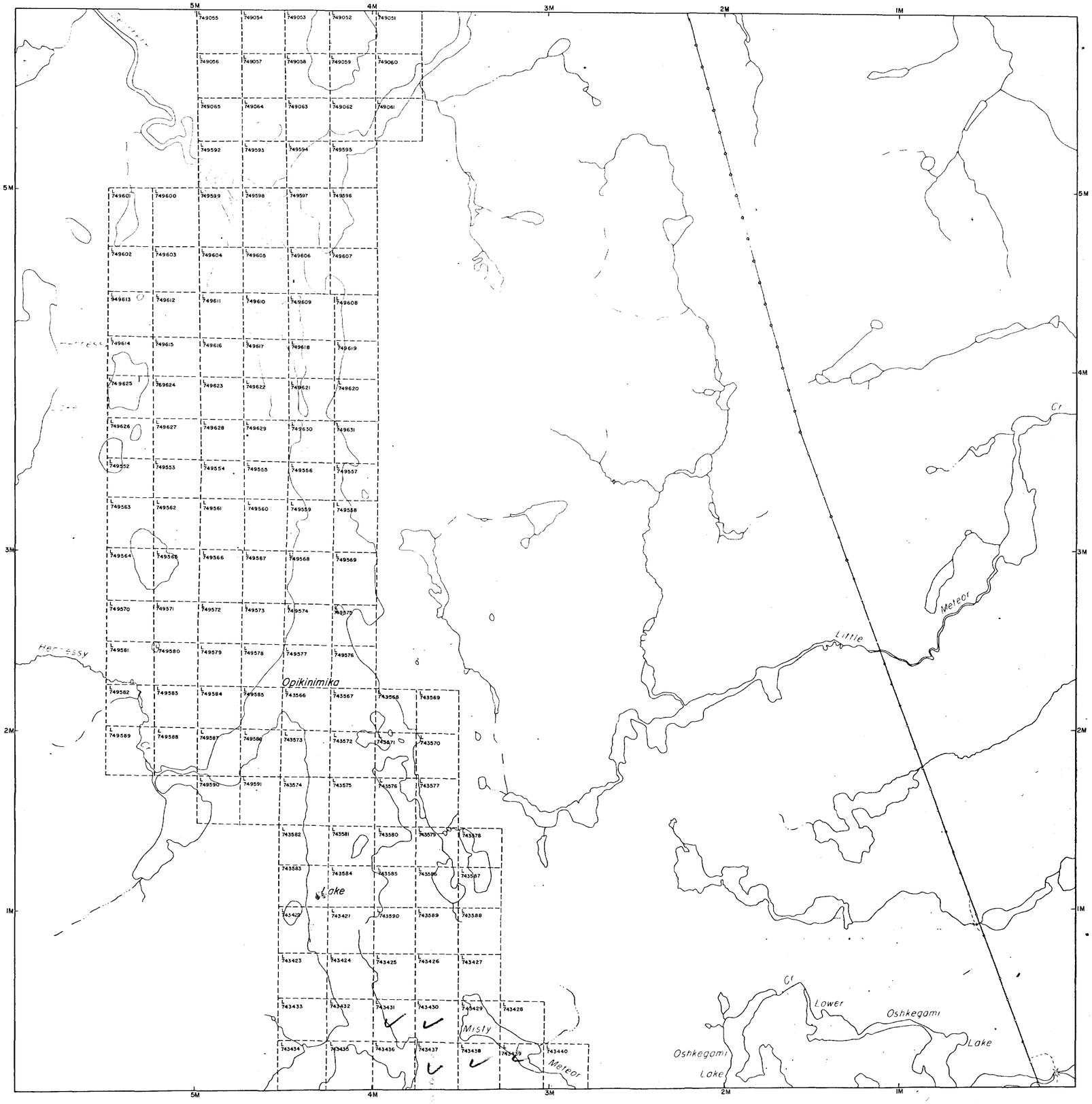
| Description | Order No. | Date | Disposition | File |
|---|---|---|---|---|

GARIBALDI TOWNSHIP

HENNESSY TOWNSHIP

AMYOT TOWNSHIP

BEULAH TOWNSHIP




## LEGEND

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

## DISPOSITION OF CROWN LANDS

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

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

500 Metres 0 1000 Metres

10 Chains 0 10 20 30 40 50 60 70 Chains

500 Feet 0 1000 2000 3000 4000 5000 Feet

SCALE 1:20 000

TOWNSHIP

# MOFFAT

M.N.R. ADMINISTRATIVE DISTRICT

**GOGAMA**

MINING DIVISION

**LARDER LAKE**

LAND TITLES / REGISTRY DIVISION

**SUDBURY**

Ontario Ministry of Natural Resources

Ministry of Northern Development and Mines

Date OCTOBER, 1986

Number G-995

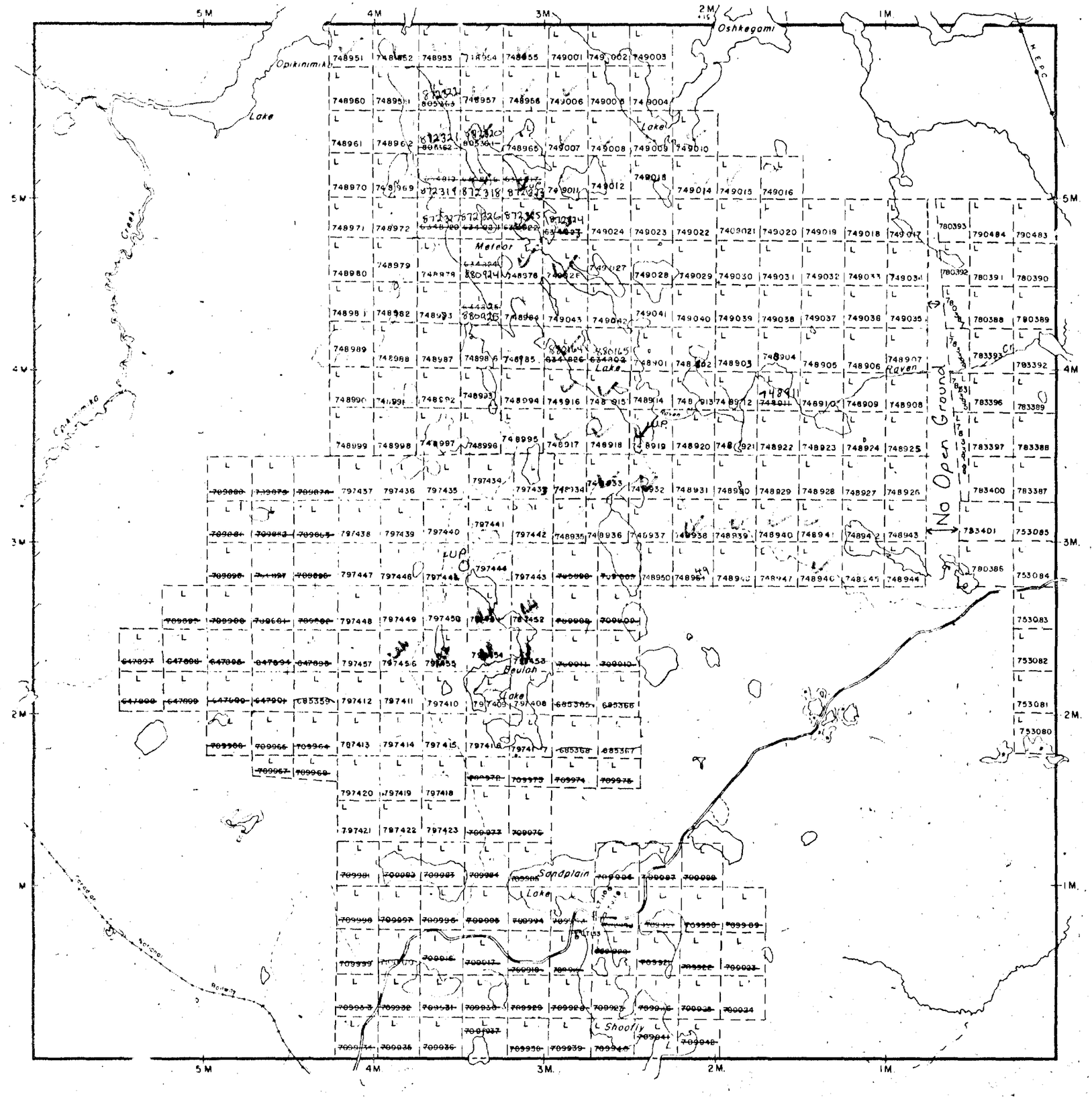
41P05NW0211 2.9696 GARIBALDI

MOFFAT TWP.

BLEWETT TWP.

HODGETTS TWP.

MARSHAY TWP.




# THE TOWNSHIP OF BEULAH

DISTRICT OF SUDBURY

LARDER LAKE MINING DIVISION

SCALE: 1-INCH=40 CHAINS

## LEGEND

| | |
|---|---|
| PATENTED LAND | Ⓟ |
| 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 | |
| CANCELLED | C. |

## 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 |
|---|---|---|---|

DATE OF ISSUE

FEB 13 1987

413

PLAN NO.- M·661

ONTARIO

MINISTRY OF NATURAL RESOURCES

SURVEYS AND MAPPING BRANCH

81°30' 81°26' 81°22' 81°18'

47°27' 24' 20' 16' 47°15'

Deschenes Creek
White's Lake
Opikinimika River
Viola Lake
GARIBALDI TWP.
MOFFAT TWP.
Coyne Lake
HENNESSEY LAKE
HENNESSY TWP.
OPIKINIMIKA LAKE
Coonie's Bay
Leo's Lake
Deschênes Lake
Misty Lake
Lower Oshkegami Lake
Oshkegami L.
AMYOT TWP.
Meteor Creek
Little Meteor Creek
MOFFAT TWP
BEULAH TWP.
Pheasant Lake
METEOR LAKE
BLEWETT TWP.
Opikinimika River
Deschênes CNR
Tekwa Lake
Beulah Lake
HODGETTS TWP.
Raven Creek

749634 749633 749632
749637 749638 749639 749540 749641
749646 749645 749644 749643 749642
749647 749648 749649 749650 749651
749656 749655 749654 749653 749652
749055 749054 749053 749052 749051
749056 749057 749058 749059 749060
749064 749065 749063 749062 749061
749592 749593 749594 749595
749601 749600 749599 749598 749597 749596
749602 749603 749604 749605 749606 749607
749613 749612 749611 749610 749609 749608
749614 749615 749616 749617 749618 749619
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749826 749627 749628 749629 749630 749631
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749570 749571 749572 749573 749574 749575
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749589 749588 749587 749586 743573 743572 743571 743570
749590 749591 743574 743575 LAKE 743576 743577
743582 743581 743580 743579 743578
743583 743584 743585 743586 743587
743422 743421 743590 743589 743588
743423 743424 743425 743426 743427
743433 743432 743431 743430 743429 743428
743434 743435 743436 743437 743438 743439 743440
748951 748952 748953 748954 748955 749001 749002 749003
748960 748959 872322 748957 748956 749006 749005 749004
748961 748962 872321 872320 748965 749007 749008 749009 749010
748970 748969 872319 872318 872323 749011 749012 749013 749014 749015 749016
748971 748972 872327 872326 872325 872324 749024 749023 749022 7409021 749020 749019 749018 749017
748980 748979 748978 880924 748976 749026 749027 749028 749029 749030 749031 749032 749033 749034
748981 748982 748983 880925 748984 749043 749042 749041 749040 749039 749038 749037 749036 749035
748989 748988 748987 748986 748985 880164 880165 748901 748902 748903 748904 748905 748906 748907
748990 748991 748992 748993 748994 748916 748915 748914 748913 748912 748911 748910 748909 748908
748999 748998 748997 748996 748995 748917 748918 748919 748920 748921 748922 748923 748924 748925
748934 748933 748932 748931 748930 748929 748928 748927 748926
748935 748936 748937 748938 748939 748940 748941 748942 748943
748950 748951 748948 748947 748946 748945 748944

## LEGEND

- Claim Boundary
- Road
- Power Line

## SCALE

1:20,000

METRES 400 200 0 400 800 1200 1600 2000 METRES

29696

# HARLIN RESOURCES LTD.

GARIBALDI, MOFFAT, BEULAH TWPS, SUDBURY DISTRICT-ONT.

OPIKINIMIKA LAKE PROJECT

## CLAIM MAP

| | |
|---|---|
| NTS: 41P/6 | DATE: NOVEMBER 1986 |
| DRAWN BY: J. Serwin | FIGURE: 2 |

41P06NW0011 2.9696 GARIBALDI

81°30'
81°26'
81°22'
81°18'
47°27'
24'
20'
16'
47°15'

Deschenes Creek
White's Lake
Opikinimika River
Viola Lake
Coyne Lake
Sand with thin Gravel
HENNESSEY LAKE
Deschênes Lake
Coonie's Bay
Leo's Lake
Misty Lake
Oshkegami L.
Lower Oshkegami Lake
Meteor Creek
Little Meteor Creek
Pheasant Lake
Jen Lake
Raven Creek
Beulah Lake
Tekwa Lake
CNR
Deschenes River
Opikinimika River

SAND ± GRAVEL
SAND
GRAVEL
GRANITE

OPIKINIMIKA VALLEY
OPIKINIMIKA GLACIAL TILL
METEOR LAKE

86DH-001
86DH-002
86DH-003
86DH-004
86DH-008
86DH-010
86DH-011
86DH-012
86DH-013
86DH-014
86DH-015
86DH-016
86DH-017
86DH-018
86DH-019
86DH-020
86DH-021
86DH-022
86DH-023
86DH-024
86DH-025
86DH-026
86DH-027
86DH-028
86DH-029
86DH-030
86DH-031
86DH-032
86DH-033
86DH-034
86DH-035
86DH-036
86DH-037
86DH-038
86DH-039
86DH-040

748989
748990
748998
748999

N

## LEGEND

- Claim Boundary
- Geological Contact ( Inferred )
- Road
- Power Line
- 86DH-011 — Drill Hole
- • 01 — Test Pit ( 86TR-001 ) ( Stripping work )

NOTE: Please use Figure 3 as an overlay to show the claim boundaries relative to work completed.

SCALE
1:20,000

METRES 400 200 0 400 800 1200 1600 2000 METRES

2.9696

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GARIBALDI, MOFFAT, BEULAH TWPS, SUDBURY DISTRICT - ONT.

OPIKINIMIKA LAKE PROJECT

## DRILL HOLES & TEST PITS LOCATION

| | |
|---|---|
| N.T.S.: 41P/6 | DATE: SEPTEMBER 1986 |
| DRAWN BY: J. Serwin | FIGURE: 4 |

81°30' 81°26' 81°22' 81°18'

47°27'

Deschenes Creek

White's Lake

SAND ± GRAVEL

86DH-014 013 86DH-012 86DH-011 86DH-008 86DH-004 86DH-003 86DH-002 86DH-001

Opikinimika River

Viola Lake

SAND ± GRAVEL

Coyne Lake

Sand with thin Gravel

GRAVEL

B-111 Fair colours 0-15.1'

B-110 Fair colours 0-45.3'

B-112 Fair colours 0-77.0'

24'

HENNESSEY LAKE

GRANITE

GRAVEL

SAND

OPIKINIMIKA LAKE

Coonie's Bay

Leo's Lake

Little Meteor Creek

Lower Oshkegami Lake

Oshkegami L.

Meteor Creek

20'

Deschênes Lake

Misty Lake

B-113 Fair colours 0-45.1'

Good colours 0-15.0 BH-6 Fair colours 15.0-21.0'

Fair colours 0-33.5' BH-2

Good colours 0-20.0 Fair colours 20.0-72.0'

BH-5

Pheasant Lake

METEOR LAKE

BH-3 Fair colours 0-52.0'

Fair colours 0-7.5' BH-1

BH-4 Fair colours 0-7.0' Some colours 7-101.3'

Jen Lake

748989 748990 748998 748999

Fair colours 0-40.0' No colours 40.0-98.0' BH-102 BH-103

Occ. colours 0-25.0' No colours 25.0-96.6'

Not completed to bedrock

No colours 0-400' Hole finished

BH-117 No colours 0-17.0' Completed to bedrock

BH-115 BH-114 No colours 0-47.6' Hole finished

Raven Creek

BH-104 Occ. colours 0-15.1' BH-107 Occ. colours 0-15.8' BH-106 Occ. colours 0-34.4' BH-108 Occ. colours 0-20.1' BH-109 Occ. colours 0-28.0' BH-105 No colours 0-40.0'

Deschênes CNR Creek

Opikinimika River

Tekwa Lake

Beulah Lake

16'

47°15'

81°30' 81°26' 81°22' 81°18'

## LEGEND

- Claim Boundary
- Geological Contact ( Inferred )
- Road
- Power Line
- 86DH-011 Drill Hole
- • 01 Test Pit ( 86TR-001 ) ( Stripping work )
- △ BH-110 Previous Drill Hole
- x Previous Test Pit

CASGORAN MINES LTD.-1960

NOTE: Please use Figure 3 as an overlay to show the claim boundaries relative to work completed.

SCALE 1:20,000

METRES 400 200 0 400 800 1200 1600 2000 METRES

2.9696.

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GARIBALDI, MOFFAT, BEULAH TWPS, SUDBURY DISTRICT-ONT.

OPIKINIMIKA LAKE PROJECT

## COMPILATION MAP

| | |
|---|---|
| N.T.S.: 41P/6 | DATE: SEPTEMBER 1986 |
| DRAWN BY: J. Serwin | FIGURE: 5 |