# REPORT

on the

## MINER MOUNTAIN PROJECT

**Princeton Area**
**Similkameen Mining Division, British Columbia**

**Latitude 49° 25' N., Longitude 120° 27' W.**
**NTS map sheet 93H/8W**

by

**James W. McLeod, P.Geo.**

on behalf of

**Nustar Resources Inc.**

**July 10, 2004**
**Delta, British Columbia**

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## SUMMARY

During the period, March 16-21, 2004 a self potential (SP) survey was undertaken on the Miner Mountain property situated 0.6 miles (1 km.) northeast of the Town of Princeton, in the Similkameen Mining Division, British Columbia, Canada. The program consisted of establishing a slope corrected grid within the boundaries of the Guy 1, 2, 9 and 10 mineral claims (see Figure 3). The SP survey was conducted in an area which contains very sparse rock exposure, but does exhibit anomalous copper-gold soil geochemistry and induced polarization results from two previous surveys.

The survey area and the previous survey grid have been tied-in to the starting point, L0+00W – baseline of the current grid, beginning at the initial claim post of the Guy 1-4 mineral claims. The SP survey was undertaken in rounded, open grass covered rangeland on a gentle southeast drainage slope. The area was chosen because of the lack of rock exposure in an area containing coincident IP (conductivity) and a soil geochemical copper-gold response.

The current survey outlines a large central area of weakly negative SP response which may be related to an underlying zone of anomalous alteration and possible porphyry mineralization.

An induced polarization survey with subsequent drill testing of anomalous zones is recommended to test the area of weakly negative SP. This work is expected to cost $200,000 and take 60 days to complete.

## INTRODUCTION

The current SP survey was carried-out during the period March 16-21, 2004.

The survey was conducted on behalf and at the request of Nustar Resources Inc. of Delta, British Columbia, Canada.

## LOCATION AND ACCESS

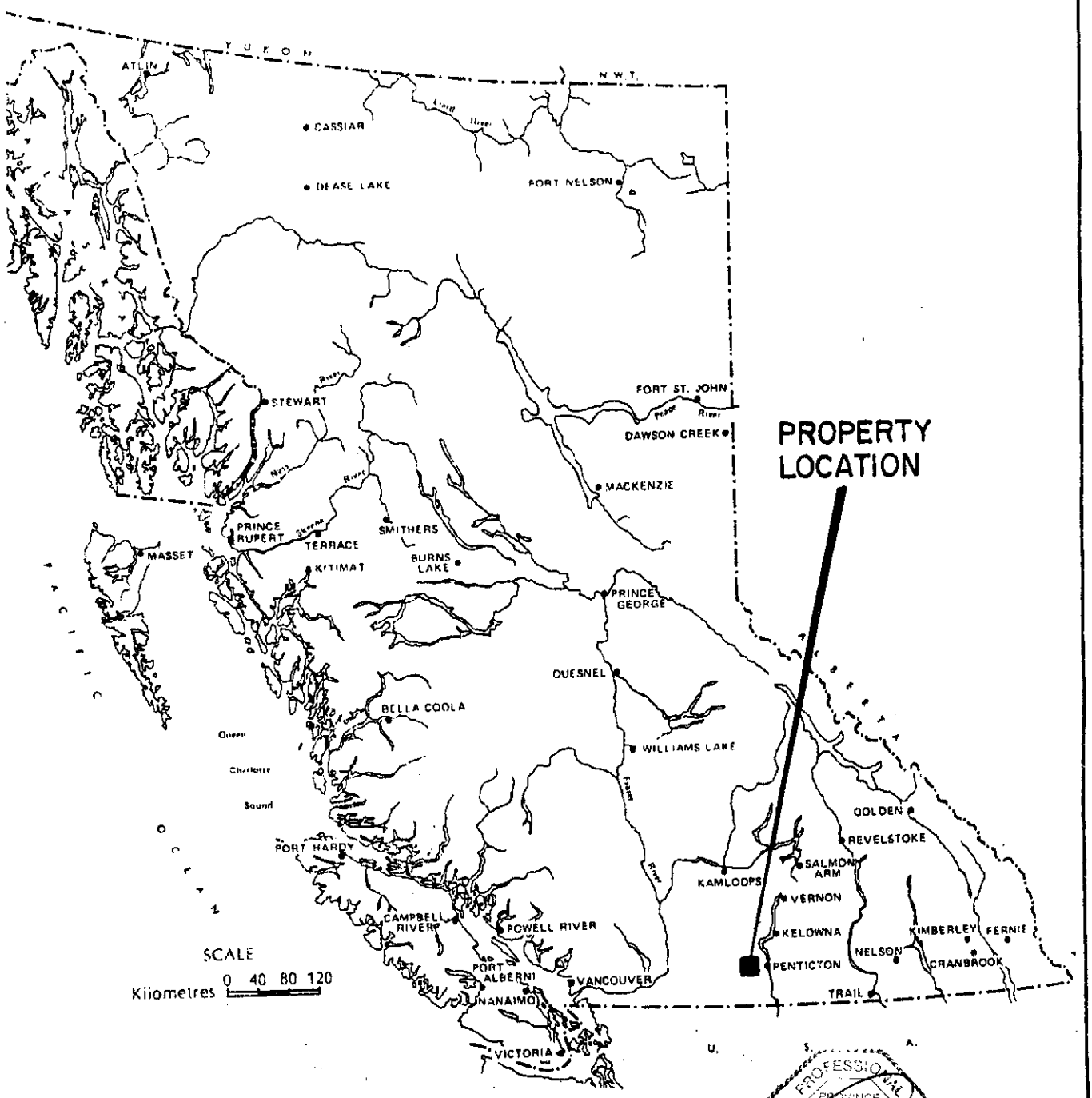
The claim area can be located on NTS map sheet, 92H/8W at latitude 49° 25' north and longitude 120° 27' west. The property is situated to the north of the Town of Princeton, B.C., on the northwesterly facing slope of Miner Mountain (formerly Iron Mountain) and occurs in the Similkameen Mining Division, British Columbia, Canada.

Access to the mineral claims is gained by traveling 3 km. (1.8 miles) north of Princeton, B.C. on the good all weather Princeton-Summerland road and just after crossing Allison Creek traveling to the east for 0.5 km.(0.3 mile) on the Iron Mountain road.

## TOPOGRAPHICAL AND PHYSICAL ENVIRONMENT

The mineral claims lie within the Dry Interior belt and cover low, rounded, mountainous terrain with patches of conifer covering plateau or terraced rangeland. The elevations of the claim area range from 700 metres (2,300') to 1,000 metres (3,300'). The easterly flowing Similkameen River valley is the most dominant feature in the area and forms the southern boundary of Miner Mountain. The glacial and/or fluvial glacial cover on the claim area is generally thin with thicker occurrences in the bedrock depressions and areas of intense alteration and/or faulting. The mineral claim area covers open rangeland with coniferous tree patches that are composed of western yellow pine (ponderosa), Douglas fir, lodgepole pine while separate clusters of aspen occur in moister areas that may indicate an underlying zone of alteration and/or faulting. The stream valleys in the area generally exhibit a north-south or east-west pattern that appear to reflect underlying faults/contacts.

The general area experiences approximately 40 cm. of precipitation annually, of which 25%-30% may occur as a snow equivalent. The




# MINER MOUNTAIN PROJECT
# LOCATION MAP

N.T.S. 92H-8 SIMILKAMEEN M.D.,B.C.

| | |
|---|---|
| SCALE: AS SHOWN | DATE: JAN. 2002 |
| DRAWN BY: J. M. | FIGURE Nº. 1 |

winter weather usually lasts for less than four months, November - February. It is not uncommon for the property area to experience little or no snow and mild conditions throughout the winter.

## PROPERTY AND OWNERSHIP

The two-post lode mineral claims total 14 as one contiguous group known as the Miner Mountain Property and are listed as follows:

| Name | Tenure No. | Claims | Expiry Date |
|---|---|---|---|
| Guy 1-10 | 345479-88 | 10 | April 24 |
| Guy 11-14 | 345489-92 | 4 | April 27 |
| | Total | 14 | |

The claim area totals approximately 350 hectares or 865 acres.

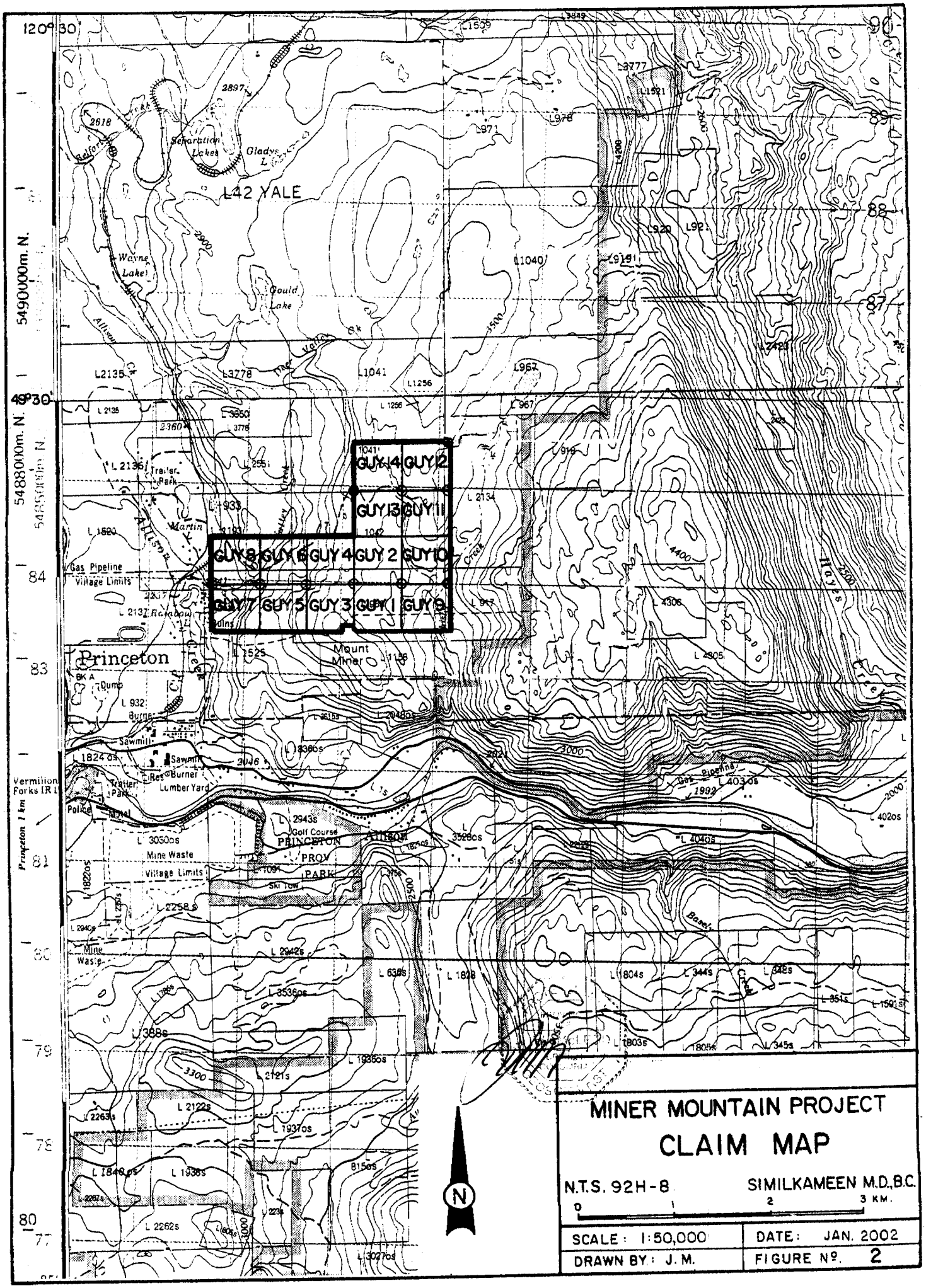
The above listed mineral claims are 100% owned by Nustar Resources Inc. of Delta, British Columbia, Canada.

There is a 3% net smelter return (NSR) royalty held on the property by Mr. G. Delorme of Merritt, British Columbia.

## HISTORY

The recorded mining history of the general area dates from the 1860's with the discovery of placer gold on the Tulameen and Similkameen rivers. Lode gold was discovered in the Hedley area, 32 km. (19 miles) due east of the Miner Mountain property in 1894. By 1904 the Nickel Plate Mine, in the Hedley Camp was producing for the first of three extended periods, the latest of which ended during the 1990's after successful mining by Mascot Gold Mines (Corona Corporation).

The large alkalic porphyry copper deposits containing some gold and platinum group elements, (PGE) deposits of the Copper Mountain area were first discovered in 1884, but not staked until 1892 and did not actually reach production until 1925 when it was brought on stream by the Granby Consolidated Mining, Smelting and Power Company. The mines here operated between 1925 and 1930 and 1937 and 1957 producing 31.5 million tons of ore grading better than 1% copper. The latest episode of this areas production began in 1972 by the Newmont




# MINER MOUNTAIN PROJECT

## CLAIM MAP

N.T.S. 92H-8 SIMILKAMEEN M.D., B.C.

0 1 2 3 KM.

| | |
|---|---|
| SCALE: 1:50,000 | DATE: JAN. 2002 |
| DRAWN BY: J. M. | FIGURE Nº. 2 |

Mining Corporation on the westside of the Similkameen River at the adjacent Ingerbelle volcanic skarn deposit. Newmont later consolidated the Copper Mountain and Ingerbelle operations and were active under the Princeton Mining Corporation until 1996 as the Similco Operation.

The Miner Mountain area has undergone exploration work intermittently since the 1950's and continuously since 1997 when the similarities between the property and the Ingerbelle deposit were recognized (summaries of these events can be found in previous British Columbia Energy Mines and Petroleum Resource (BCEMPR) - Annual Assessment Reports).

## REGIONAL GEOLOGY

The regional, geological setting of the area has been described by other parties (see References). A synopsis by the writer is included as follows to outline the underlying geological setting that is being used in the current report.

The oldest rocks in the general area are the Upper Triassic Nicola Group of volcanic flows and minor sediments. They are north-south trending zones that are divided into three east-west belts on the basis of bounding north-south faults. The Nicola Group is characterized by greenish (tight) andesites, coarser grained augite diorite and tuffaceous lavas with isolated occurrences of limestone and minor argillites. The Nicola Group is an elongated belt of eugeosynclinal rocks that may be observed from near the 49$^{th}$ parallel and trending northward for over 240 kilometres (150 miles). The width of the belt approaches 50 km. (30 miles) in places and may be bound on its' east margin by early Jurassic intrusives and rarely by older Paleozoic (Permian) sedimentary and volcanic rocks. Its' west margin is bounded by early Tertiary intrusives to older Cretaceous intrusives and older still Triassic intrusive rocks.

The next oldest rocks in the general area are the Copper Mountain Intrusives which have been assigned a post Upper Triassic age and are characterized by intermediate composition alkaline intrusives that are seen to range in composition from syenite through gabbro and pyroxenite. This differentiated rock suite may be the parent intrusive of the overlying Nicola volcanic rocks.

The next youngest rocks observed in the general area are the more acidic, calc-alkaline intrusives that are seen to range in composition from granite through quartz diorite, these units have been assigned an Upper Cretaceous or Lower Tertiary age.

The youngest rocks observed in the claim area are those of the Princeton Group, assigned a Tertiary age and comprised of a lower volcanic unit of andesite or basalt and an upper sedimentary unit composed of shale, sandstone, conglomerate that are sometimes seen to contain economic occurrences of coal and coal-bed methane i.e. within the Princeton Basin. The lower Princeton Group volcanics has been observed in places to lie unconformably over portions of the Copper Mountain intrusions.

The Nicola Group is found in places to have been cut by small stocks and dykes of ages varying from late Triassic into the Tertiary.

The general area has also experienced widespread faulting that exhibit an east-west and northwesterly trend which in turn have sometimes been cut by younger northerly trending faults. For example in the Copper Mountain-Ingerbelle Mines the western boundary of the Copper Mountain Stock is truncated by the north trending, west dipping "Boundary Fault". East of the "Boundary Fault" faulting is generally east-west, northwesterly and northeasterly. These faults appear to effect ore control at the Copper Mountain-Ingerbelle deposits.

Within the major southeastern lobe of the Nicola Group some 39 km. east-southeast of Princeton, B.C. is seen to occur the famous lode gold mines of the Hedley area. These deposits are found to occur within metamorphosed limestone units (skarns) of the Nicola Group near diorite-gabbro intrusive contacts.

## LOCAL GEOLOGY

The area being described in this report deals with the Miner Mountain area to the east of the northerly trending Allison and Deer Valley creek valleys, just north of the Town of Princeton, B.C., situated on the north and west facing slopes of Miner Mountain. This area is seen to be underlain by Upper Triassic Nicola Group volcanics that are the oldest rock units observed in the area, as well as what appears to be a

younger volcanic unit comprising a hornblende feldspar porphyritic diorite of possibly Cretaceous age and minor sediments which are sometimes coal bearing and tuffaceous volcanic units of Tertiary age, i.e. (Middle Eocene - Princeton Group).

Mineralization observed in surface occurrences and/or from diamond drill core from the property are listed as follows: chalcopyrite, malachite, minor azurite, very minor bornite and most abundant pyrite. Magnetite is most often present or found bracketing, above and/or below the most abundant occurrences of chalcopyrite. These sections are found mainly in the volcanic skarn zone and sometimes with accompanying hematite as fracture-welds that may occur as regressive alteration of magnetite. It is within what appears to be the zones with the most abundant chalcopyrite that the highest gold-palladium values occur.

The alteration minerals observed throughout the property including from diamond drill core in order of decreasing abundance are listed as follows: gypsum (anhydrite), chlorite, sericite, epidote, potassium feldspar (2°), calcite and quartz.

## PREVIOUS WORK

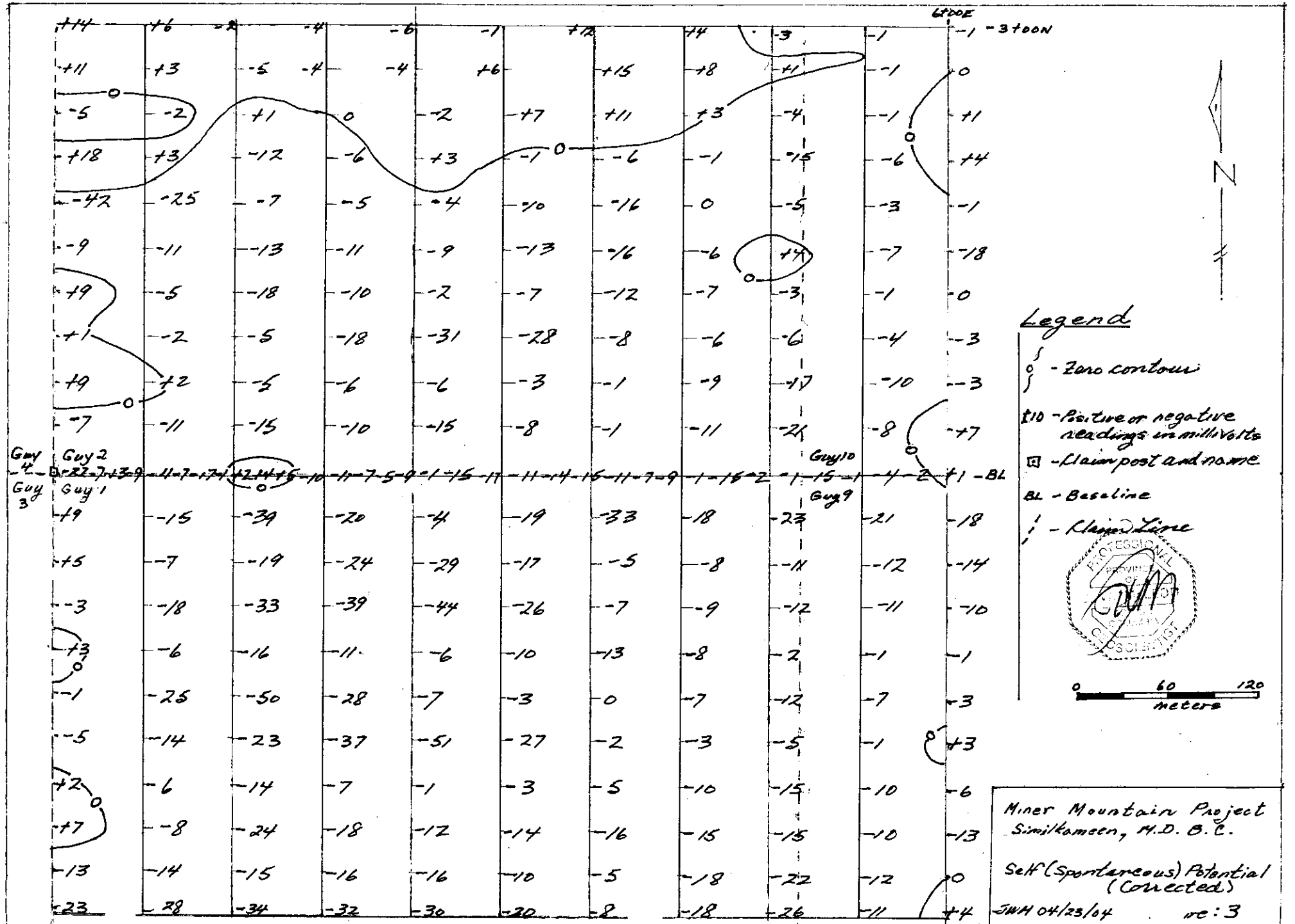
Granby Consolidated Mining held the ground from 1951 to 1962 and conducted diamond drilling, trenching, geochemical soil and rock, electromagnetic and magnetic surveys. Climax Copper Mines Ltd. conducted trenching, geochemical surveys, percussion and diamond drilling programs in 1962. Granby re-optioned the property in 1965 and drilled 41 percussion holes totaling 1782 meters (5,880 ft) in the area of the Granby trenches (central portion of claims). Joy Mining conducted a diamond drilling program in 1970. The results and chips or core from the aforementioned drilling is no longer available. In 1973 Bethlehem Copper Corporation optioned the property from Joy and completed five diamond drill holes. Bethlehem Copper DDH 73-4 averaged 0.27% copper from 66' to 300' and 0.05% copper from 300' to 598'. DDH 73-4 is located on the eastern margin of the Guy 4 claim. The other four Bethlehem Copper holes had no anomalous intersections and none of the holes were on the Guy claims.

Nustar Resources Inc. has held the property since 1996 and in 1997 drilled five diamond drill holes totaling 717 meters (2,354 ft.). Only selective portions of two drill holes were assayed (DDH 97-1, 220' to 355', which averaged 0.115% copper and DDH 97-2, 175' to 350', which averaged 0.18% copper). In 2000 Nustar completed five diamond drill holes for a total footage of 565 meters (1,854 ft.). Only DDH 00-1 was partially assayed and from 300' to 430' the hole averaged 0.252% copper. In 2002 Nustar undertook four diamond drill holes for a total of 295 metres (970 ft.) all of these holes were collared near a west-east trending, steeply dipping fault and the drill became stuck in all four holes and none of these were completed. No copper mineralization was encountered in any of the holes.

## PRESENT WORK PROGRAM

The present fieldwork program was undertaken during the period March 16-21, 2004.

The program consisted of installing a slope corrected grid using a chain and compass. The grid was 600 m. X 300 m. or 18 hectares (44 acres) in size. The line-spacing of the grid was 60 metres with a station interval of 30 metres (see Figure 3). Once the grid installation was complete the survey was undertaken by calibrating the porous pots that had been charged with a saturated copper sulphate solution (crystalline copper sulphate still on the bottom of the carrying container after the distilled water was saturated at room temperature, approximately 20 degrees C or 70 degrees F). The pot calibration required reading the difference between 'A' pot, i.e. the none moving pot at the "reading" station where the high impedence millivolt meter was situated. The 'B' or "moving" pot was placed approximately 10 cm. (4 inches) from the 'A' pot and the reading was taken. Depending on the sign, plus or minus of the reading taken at the start of a days work and at intervals during the work day, the station readings for that period were increased or decreased accordingly. The survey method worked about the baseline, i.e. the "moving" pot was advanced a total of 300 metres north, the maximum length of wire on the spool. As the wire was reeled-in at 30 metre intervals, readings were taken, i.e. at for instance gridline and station, L6+00E – 3+00N, followed by the next station, L6+00E – 2+70N, then L6+00E – 2+00N and so on, back to baseline




Miner Mountain Project
Similkameen, M.D. B.C.

Self (Spontaneous) Potential
(Corrected)

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(see Figure 3). The field data was corrected utilizing the pot differences in millivolts. A total of 12.6 km. of gridline readings were taken and 0.6 km. of baseline readings. The survey was conducted by the writer and assisted by Jacqueline McLeod, reel and instrument operator and Samuel McLeod, station locator. The line and grid stations were marked in the underlying range grass using a biodegradable, red coloured, marker spray paint.

## CONCLUSIONS

The SP results were found to exhibit a weakly negative zone over a large covered area, approximately 480 m. X 600 m., 29 hectares (71 acres).

## RECOMMENDATIONS

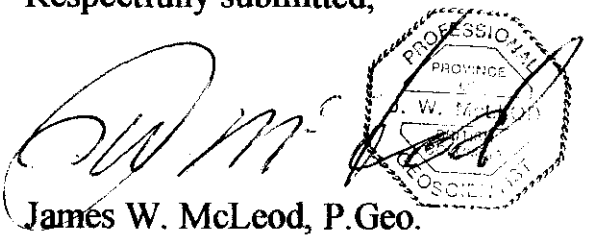
The writer recommends that a program of selective induced polarization (IP) surveying over a 200 metre line-spaced by 50 metre station interval grid including the area covered by the current, large weak negative value SP zone. If significant chargeability responses are encountered drilling should be undertaken in the covered areas which are thought to be typical of a large, low grade porphyry copper occurrence.

## COST ESTIMATE

| | |
|---|---|
| Accommodations - 2 men for 60 days = 120 mandays @ $100/manday | $ 12,000 |
| Selective induced polarization surveying at $2,500/line kilometer | 13,150 |
| Bulldozer work, drill sites, reclamation, roads assume 25 hours @ $100/hour | 2,500 |
| Drilling costs (mobilization/demobilization included) 3,000 ft @ $40/ft | 120,000 |

| | | |
|---|---|---|
| Supervision and data collection: | | |
| Senior geologist two months @ $8,000/mo | | 16,000 |
| Junior geologist one month @ $5,000/mo | | 5,000 |
| Assays, assume 200 core samples @ $20/sample | | 4,000 |
| Transportation – two months @ $1,500/mo | | 3,000 |
| Vehicle operation and maintenance | | 1,500 |
| Data compilation and presentation | | 7,000 |
| | Sub-total | $184,150 |
| Allowance for contingencies | | 15,850 |
| | Total | $200,000 |

Respectfully submitted,



James W. McLeod, P.Geo.

## STATEMENT OF COSTS

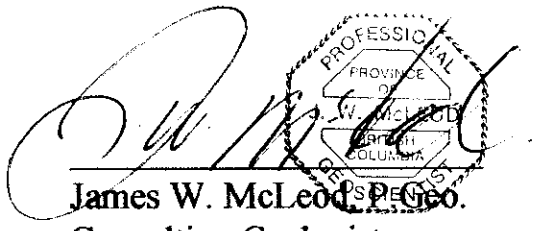
| | | |
|---|---|---|
| Geology and SP survey, J.W. McLeod, P.Geo., Assistants, J.A. McLeod and S.C McLeod | | $1,800 |
| Transportation | | 250 |
| Accommodation and board | | 800 |
| Report | | 250 |
| | Total | $3,100 |

## CERTIFICATE

I, JAMES W. McLEOD, of the Municipality of Delta, Province of British Columbia, hereby certify as follows:

1) I am a Consulting Geologist with an office at #203 - 1318 56th Street, Delta, B.C., V4L 2A4.
2) I am a Professional Geoscientist registered in the Province of British Columbia and a Fellow of the Geological Association of Canada.
3) I graduated with a degree of Bachelor of Science, Major Geology, from the University of British Columbia in 1969.
4) I have practiced my profession since 1969.
5) I am the President and CEO of Nustar Resources Inc.
6) The above report is based on personal field experience gained by working on the property at various times during the past 35 years, the latest being during 2004 while conducting this program.

DATED at Delta, Province of British Columbia this 10th day of July, 2004.




James W. McLeod, P.Geo.
Consulting Geologist

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