

Assessment Report  
describing  
**Trenching and Sampling**



on the

**HAT 1-40 Claims**  
YB57537-YB57556  
YB58021-YB58026  
YB58049-YB58056  
YB58139-YB58140  
YB66395-YB66398

located at: latitude N 60° 45.3', longitude W 135° 10.5'

NTS: 105 D/11, 105 D/14

in the

Whitehorse Mining District  
Yukon Territory

094022

registered owner:  
Kluane Drilling Ltd. and Northwest Enterprises Inc.

prepared for:  
Kluane Drilling Ltd.

prepared by:

Owen Peer, geologist  
Cordillera Resource Company Ltd.

work completed:

12 April to 5 May, 1998

This report has been examined by  
the Geological Exploration Unit  
under Section 52 (4) Public Quartz  
Mining Act and is allowed as  
representative work in the amount  
of \$ 4000.00

*M. B. B.*  
for National Manager, Exploration and  
Development Section, Commissioner  
of Mines, Ontario.

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**Abstract:**

|                     |  |
|---------------------|--|
| Location:           | 2 km west of the Alaska Highway within the city of Whitehorse  |
| Deposit Type:       | Precious Metal Enriched Skarn  |
| Stage of Project:   | Exploration  |
| Host Rocks:         | Triassic Lewes River Group and Jurassic Labarge Group Sediments and late Cretaceous to Tertiary Whitehorse Batholith |
| Physiography:       | Limited outcropping, glacio-fluvial sediments 1-10 meters thick lying in terraces                                    |
| Mineralized Target: | 500 meters of PME Skarn deposit north of War Eagle pit and a gold porphyry   |
| Schedule:           | Bulk sampling of the deposit and expanded geophysics summer 1999   |

**Recommendations:**

Bulk testing of the material exposed in trenches TR-97-02 and TR-98-01. A geophysical exploration programme targeted towards porphyry style deposits.

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**Introduction:**

The HAT claim block consists of 40 contiguous claims. The HAT 1-40 claims are 50% owned by Kluane Drilling Ltd. and 50% by Norwest Enterprises Inc. The claims are staked in the Whitehorse Copper Belt, north along strike from the War Eagle pit and east .

The Whitehorse Copper Belt is a 32 km. long northwest trending series of copper bearing skarns. The War Eagle pit represents the northern most producing pit of the belt. The War Eagle pit produced approximately 900,000 tonnes of 1.25% Cu, 0.22 g/t Au, 8.6 g/t Ag, and 0.005% Mo during its operating life.

The 1997 exploration programme uncovered narrow (2-5m), parallel bands of mineralized limestone skarn approximately 200 m north of the War Eagle pit. The 1998 exploration programme was designed to determine the strike length of the mineralized bands.

The 1998 exploration programme saw four trenches totalling 499 meters excavated and 43 channel samples sent for assay. This report describes the 1998 programme.

**Location, Access and Infrastructure:**

The HAT claims are located within the city of Whitehorse. The claim block is located adjacent to the Alaska highway west of the Porter Creek subdivision. The claims cover and are accessed to the south through the city's landfill site. The northern portion of the claims are accessed via the Kulan Industrial Park.

The trenches are located on the HAT 31 and HAt 32 claims. They are accessed through the municipal landfill by 2 km of secondary road from the Alaska highway to the War Eagle pit. From the north end of the pit a tote trail provides the last 200 m. of access.

The claim block falls within the Whitehorse Mining District boundaries. The centre of the claim block is located at latitude N 60° 45.3', longitude W 135° 10.5'.

**Land Status and Property Description:**

The HAT claim block is 50% owned by Kluane Drilling Ltd. and 50% owned by Norwest Enterprises Inc. Part of the claim block overlies the Whitehorse municipal landfill. This is a source of contention. The claims were staked in good faith and are recognized as valid by Indian and Northern Affairs Canada. The claim block is outlined in Figure 1. The claim particulars are outlined in Table 1.

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| Claim name and number | Grant number        | Expiry date | Registered owner         | % owned |
|-----------------------|---------------------|-------------|--------------------------|---------|
| HAT 1-20              | YB57537-<br>YB57556 | 11-Nov-2000 | Kluane Drilling Ltd.     | 50%     |
|                       |                     |             | Norwest Enterprises Inc. | 50%     |
| HAT 21-26             | YB58021-<br>YB58026 | 11-Nov-2002 | Kluane Drilling Ltd.     | 50%     |
|                       |                     |             | Norwest Enterprises Inc. | 50%     |
| HAT 27-34             | YB58049-<br>YB58056 | 11-Nov-2002 | Kluane Drilling Ltd.     | 50%     |
|                       |                     |             | Norwest Enterprises Inc. | 50%     |
| HAT 35-36             | YB58139-<br>YB58140 | 11-Nov-2001 | Kluane Drilling Ltd.     | 50%     |
|                       |                     |             | Norwest Enterprises Inc. | 50%     |
| HAT 37-40             | YB66395-<br>YB66398 | 16-Nov-2000 | Kluane Drilling Ltd.     | 50%     |
|                       |                     |             | Norwest Enterprises Inc. | 50%     |

Table 1.HAT Claim Particulars

### **History, and Previous Work**

The Copper King deposit was discovered in 1897 and first staked by Jack McIntyre on 6 July, 1898. Most of the deposits known today in the Whitehorse Copper Belt were discovered and staked by 1899. The War Eagle deposit saw production along with the rest of the belt from 1900 to 1920.

Renewed interest in the belt started in 1948 with Noranda conducting some exploration and

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drilling. This was followed in 1954 by the formation of Imperial Mines and Metals Ltd. who began acquiring claims in the belt. By 1963, Imperial Mines and Metals Ltd. renamed New Imperial Mines Ltd. had gained control of the belt. Accelerated exploration occurred between 1963 and 1965 resulting in 5.0 million tonnes of reserves being outlined. The Whitehorse Copper mill commenced operation in March 1967 and ceased at the end of 1982 having processed 10,247,936 tonnes of ore grading 1.37% Cu, 0.7 g/t Au and 13.0 g/t Ag. The War Eagle pit produced approximately 900,000 tonnes of ore for the mill grading 1.25% Cu, 0.22 g/t Au, 8.6 g/t Ag, and 0.005% Mo.

1981 saw a hole drilled very near the Alaska highway by Rabbits Foot canyon (entrance to municipal dump). While 1990 saw some trenching in the same area.

Rob Hamel of Norwest Enterprises Inc. staked the HAT claims in the fall of 1994 and proceeded with minor amounts of trenching. 1997 saw 200 m of trenching on strike from the War Eagle pit. One assay from this programme graded over 7 g/t Au and 8.9% Cu.

### **Property Geology and Mineralization:**

The property is underlain by a sequence of Upper Triassic Lewes River Group greywakes and limestones intrude by a mid-Cretaceous granodiorite of the Whitehorse batholith. The bedrock is covered by Quaternary glacio-fluvial sediments deposited in terraces.

Economic mineralization in the copper belt occurs mainly within limestone of the Lewes River Group within a 100 meters of the granodiorite. Two main types of skarn deposit were noted in the belt: iron-rich and silicate rich. The iron rich skarn deposits are usually associated with non-magnetic diorite, while the silica rich skarns deposits are associated with strongly magnetic phases of the diorite (Tenney 1981). The silicate skarn usually formed the foot wall of the deposits. Conversations with M. Smith a geologist with Whitehorse Copper Mines in the late 1960's indicated that the silicate skarn was used to help grind the iron skarn material. The silicate skarn material would be imbed itself in the mild mill steel forming an overall much harder steel to grind with. This reduced mill steel wear and costs. Due to its high grinding index the silicate skarn material by its self is unlikely to be economic.

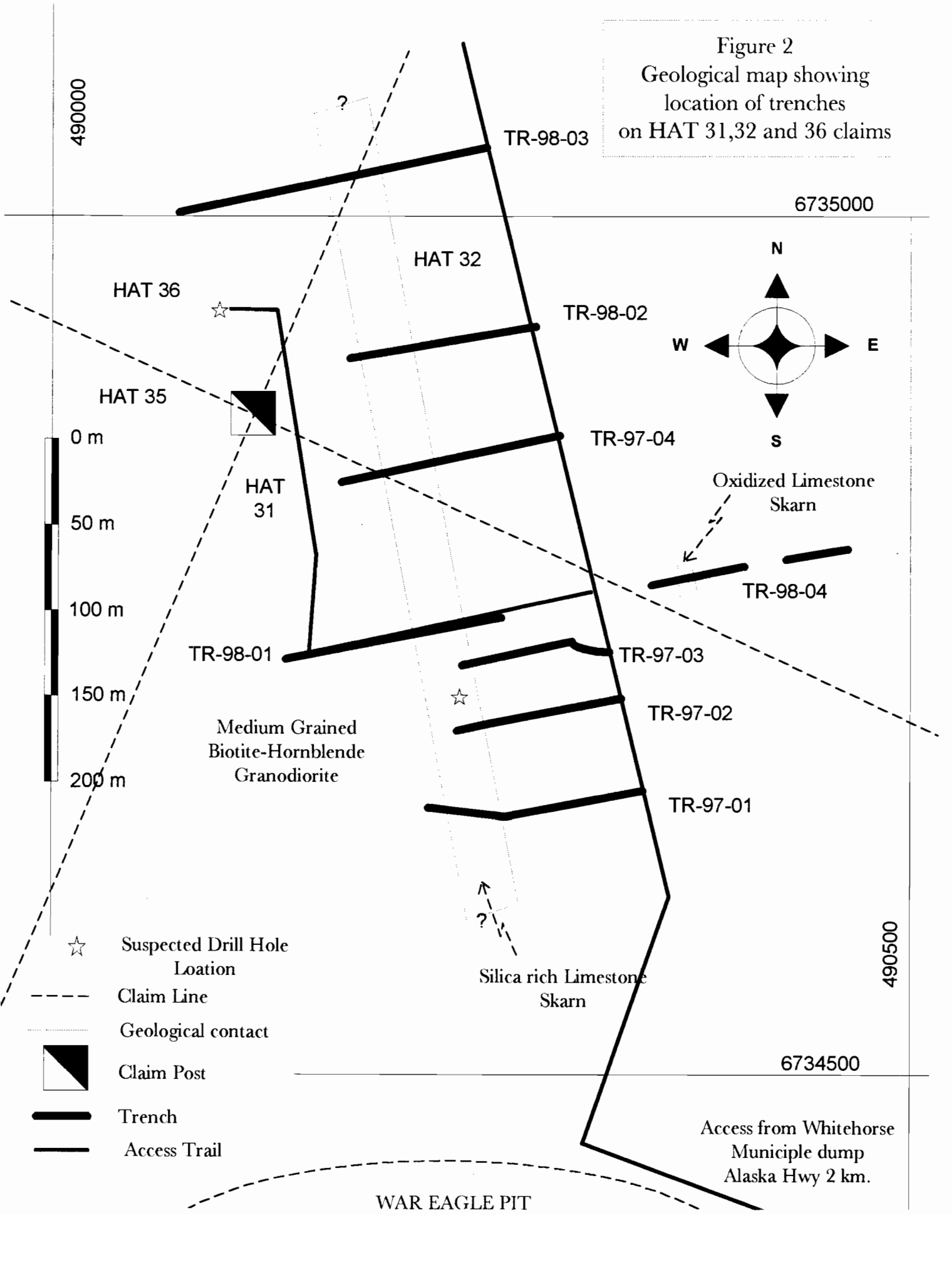
Mineralization within the HAT 31 trenches is both banded and disseminated. The majority of mineralization present is in the form of chalcopyrite. However bornite, azurite, pyrrhotite, arsenopyrite, pyrite, and sphalerite are observed. Assay results suggest that gold mineralization is related to sulphide content. A correlation between gold and bismuth, silver, zinc, stibnite, and copper has been observed.

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Figure 2  
 Geological map showing  
 location of trenches  
 on HAT 31,32 and 36 claims



The skarns examined were formed from a limestone protolith as characterized by the wollastonite, and the green pyroxenes and garnets. Epidote and amphibole retrograde mineralization was also observed. Retrograde mineralization is consistent with gold occurrences in other skarn deposits. This skarn deposit falls within the Whitehorse Copper belt silica type deposit.

Tenney (1981) indicates that there is no correlation between gold and copper grades from producing pits in the Whitehorse Copper Belt. The Little Chief pit produced the majority of the ore for the belt. According to Tenney (1981) the Little Chief pit graded 1.29 % Cu, and 496 ppb Au. The Whitehorse Copper Belt skarns were collectively considered as copper class skarns.

The War Eagle pit formed the northern most producing pit of the Belt. The pit's grades of 1.37% Cu and 0.7 g/t Au places it within the gold skarn (PME) field. There is a definite increase in gold mineralization with proximity to the Whitehorse batholith.

### **Sample Collection, Preparation and Analysis**

The trenches were excavated using a 235 Caterpillar excavator. The trenches in all cases were excavated to and into bedrock using the mechanical equipment. The trenches were then cleaned by hand to expose the bedrock. Surface rock was then removed to expose fresh rock for sampling. All samples taken were channel samples with a minimum length of 2 meters. Samples were taken using hammer and chisels and a pneumatic jack hammer.

The trenches were measured East to West. A post was planted and labelled at the zero mark of each trench and 5 meter intervals were marked on the trench walls using paint. Samples were chipped from chosen intervals. A list of sample location is appended. Some samples crossed geological contacts. The majority of samples of collected were silica rich skarnified limestone.

Geochemical sampling was undertaken to determine elemental indicators of mineralization and to reveal grades for the different rock units. The samples were used to asses the combination of elements that are indicative of alteration, mineralization, and mineralization types on the property. Samples were collected from bedrock in exposed trenches. Sampling was focused on HAT 31 as this claim had exposed skarn mineralization showing retrograde alteration. The different rock units were identified, then channel sampled. The channels were first cleaned to expose fresh rock (no localized surface weathering or enrichments). The samples were collected and delivered to Northern Analytical Laboratory.

Northern Analytical Laboratory dried, crushed to -10 mesh, split, and a 250 gram sample pulverized to -150 mesh. A portion of the pulp, (60 g) was fire assayed and then measured using atomic-absorbtion spectrophotometry in Whitehorse for copper and gold. The remainder

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of the pulp was assayed in Vancouver by International Plasma Laboratories by 30 element inductively coupled-plasma atomic emission spectrometry (ICP). The pulps were initially aqua-regia acid dissolved (HCl-HNO<sub>3</sub>). This acid dissolution of samples method does result in a partial determination of some elements.

### **Summary, and Recommendations**

The assay results from the material sampled indicate that the skarns are similar in nature to known and classified precious metal enriched skarns (PME). The HAT 31 skarns, based on limited sampling fall within the gold skarn class. Due to the nature of the showing uncovered on HAT 31, a silica skarn, the economics of mining are uncertain. The showing may be uneconomical in the absence of iron rich skarn material to blend with it. A bulk sample of the material should be processed to determine this.

The proximity of the War Eagle silica rich PME skarn to the Whitehorse batholith cannot be overlooked. As well as the presence of Whitehorse pluton granodiorite float containing disseminated chalcopyrite and veinlets of bornite (C. Hart 1995). A geophysical survey targeted at porphyry style deposits should be attempted.

### **References**

Hart, C., 1995, A visit to the HAT property of Rob Hamel, unpublished report; available from the Canada/Yukon Geoscience Office, 2 p.

Meinert, L.D., 1989, Gold Skarn Deposits: Geology and Exploration Criteria, Economic Geology, monograph 6, p 537-552.

Peer, O., 1997, Geological Assessment Report on HAT 1-40 Claims, Whitehorse Mining Recorder, 17 p.

Tenney, D., 1981, Whitehorse Copper Belt: Mining, Exploration, and Geology (1967-1980), Department of Indian and Northern Affairs Canada, Bulletin 1, 29 p.

### **Limitations**

1. The work performed in this report was carried out in accordance with our contract. The conclusions presented herein are based solely upon the scope of services and time and budgetary limitations described in our contract.

2. The report has been prepared in accordance with generally accepted geological practices. No other warranties, either expressed or implied, are made as to the professional services provided under the terms of our contract and included in this report.

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3.The services performed and outlined in this report were based, in part, upon visual observations of the property. Our opinion cannot be extended to portions of the property which were unavailable for direct observation or situations reasonably beyond the control of the Cordillera Resource Company Ltd.

4.The objective of this report was to assess the geology and mineral potential of the property, within the context of our contract and existing environmental regulations within the applicable jurisdiction. Evaluating compliance of past or future owners with applicable local, provincial and federal government laws and regulations was not included in our contract for services.

5.The conclusions of this report are based in part, on the information provided by others. The possibility remains that unexpected conditions may be encountered on the property in locations not specifically investigated. Should such an event occur, the Cordillera Resource Company Ltd. must be notified in order that we may determine if modifications to our conclusions are necessary.

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## Statement of Qualifications

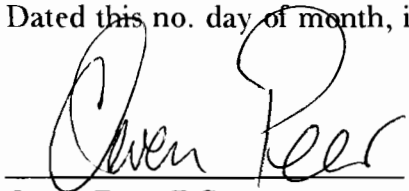
I, Owen Peer, do hereby certify that I am an independent consulting geologist with offices at Fox Farm Road, Whitehorse, Yukon Territory.

I further certify that:

1. I graduated from the University of Victoria with a Bachelor of Science in Physics, and in Earth and Ocean Sciences.
2. I have practiced in my profession for over ten years both as an independent consultant and as a geologists for mining companies in Canada and overseas.
3. I have no investment interest in the property, nor do I expect to receive directly or indirectly any interest in the property described in this report.
4. I have based this report on field work carried out directly by myself.

Dated this no. day of month, in city, country.

11 may 1999 in Whitehorse  
Yukon Canada.



**Owen Peer, B.Sc.**

Consulting Geologist

Mailing address:

P.O. Box 3866,  
Whitehorse, Yukon Territory.  
Canada  
Y1A-5M6

tel: (867) 393-1997

fax (867) 668-4142

e-mail: owenpeer@hotmail.com

This report contains 21 pages including maps and appendices as listed in the table of contents.

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## Appendix A: Statement of Costs

Excavation of the HAT 31, 32 and 36 trenches by excavator:

50 hours @ \$135/hr \$6750.00  
mob/demob. \$ 340.00

TR-98-01 128m

TR-98-02 110m

TR-98-03 183m

TR-98-04 78m

HAT 31 claim 26%

HAT 32 claim 50%

HAT 36 claim 24%

Geological services:

field work 5 days @ \$350/day \$1750.00

office work 3 days @ \$350/day \$1050.00

Assay costs:

43 ICP assays @ 23.81/assay \$1023.72

**TOTAL \$10913.72**

HAT 31 claim \$2837.57

HAT 32 claim \$5456.86

HAT 36 claim \$2619.29

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| Sample Number | Trench Number | Interval Start | Interval Stop | Sample Length (m) | Mineralogy   |
|---------------|---------------|----------------|---------------|-------------------|--|
| 751           | TR-98-01      | 0              | 5             | 5                 | Med. gr Bt-Hd Gdt. w tr. diss. Py. 1-3% & mr. bd. of Cpy. Py.      |
| 752           | TR-98-01      | 10             | 15            | 5                 | Med. gr Bt-Hd Gdt. w tr. diss. Py. 1-3% & mr. bd. of Cpy. Py.      |
| 753           | TR-98-01      | 15             | 20            | 5                 | Med. gr Bt-Hd Gdt. w tr. diss. Py. 1-3% & mr. bd. of Cpy. Py.      |
| 754           | TR-98-01      | 20             | 25            | 5                 | Med. gr Bt-Hd Gdt. w tr. diss. Py. 1-3% & mr. bd. of Cpy. Py.      |
| 755           | TR-98-01      | 25             | 30            | 5                 | Med. gr Bt-Hd Gdt. w tr. diss. Py. 1-3% & mr. bd. of Cpy. Py.      |
| 756           | TR-98-01      | 30             | 35            | 5                 | Med. gr Bt-Hd Gdt. w tr. diss. Py. 1-3% & mr. bd. of Cpy. Py.      |
| 757           | TR-98-01      | 35             | 40            | 5                 | Med. gr Bt-Hd Gdt. w tr. diss. Py. 1-3% & mr. bd. of Cpy. Py.      |
| 758           | TR-98-01      | 40             | 45            | 5                 | Med. gr Bt-Hd Gdt. w tr. diss. Py. 1-3% & mr. bd. of Cpy. Py.      |
| 759           | TR-98-01      | 45             | 50            | 5                 | Med. gr Bt-Hd Gdt. w tr. diss. Py. 1-3% & mr. bd. of Cpy. Py. Pyrr |
| 760           | TR-98-01      | 50             | 55            | 5                 | Si rich Lmst. skrn. w 1 m dyke same as 759                         |
| 761           | TR-98-01      | 55             | 60            | 5                 | Med. gr Bt-Hd Gdt. w tr. diss. Py. 1-3% & mr. bd. of Cpy. Py. Pyrr |
| 762           | TR-98-01      | 98             | 100           | 2                 | Si rich skrn. diss. & vein of Py, Cpy, Bnt, Az, Aspy               |
| 763           | TR-98-01      | 100            | 105           | 5                 | Si rich Lmst. skrn. w diss. Py Cpy 5%,                             |
| 764           | TR-98-01      | 105            | 110           | 5                 | Si rich Lmst. skrn. w diss. Py Cpy 5%, Wl                          |
| 765           | TR-98-01      | 112            | 115           | 3                 | Si rich Lmst. skrn. w diss. Py Cpy 5%, Az, Aspy                    |
| 766           | TR-98-01      | 115            | 120           | 5                 | Med. gr Bt-Hd Granodiorite w tr. diss. Py. <1% & mr. bd.           |
| 767           | TR-98-01      | 120            | 125           | 5                 | Si rich skrn. diss. & vein of Py, Cpy, Bnt, Az, Aspy               |
| 768           | TR-98-01      | 125            | 128           | 3                 | Med. gr Bt-Hd Granodiorite w tr. diss. Py. 3% & mr. bd. Aspy       |
| 769           | TR-98-01      | 115            | 120           | 5                 | Si rich skrn. diss. & vein of Py, Cpy, Bnt, Az, Aspy               |
| 770           | TR-98-01      | 110            | 115           | 5                 | Si rich Lmst. skrn. w diss. Py Cpy 5%, oxi                         |
| 771           | TR-98-01      | 105            | 110           | 5                 | Si rich Lmst. skrn. w diss. Py Cpy 5%, oxi                         |
| 772           | TR-98-02      | 7.5            | 10            | 2.5               | Si rich Lmst. skrn. w diss. Py Cpy 5%, Az, Aspy, oxi               |
| 773           | TR-98-02      | 10             | 15            | 5                 | Si rich Lmst. skrn. w diss. Py Cpy 5%, Az, Aspy, oxi               |
| 774           | TR-98-02      | 25             | 30.5          | 5.5               | Med. gr Bt-Hd Granodiorite w tr. diss. Py. <1% & mr. bd.           |
| 775           | TR-98-02      | 62             | 65            | 3                 | Si rich Lmst. skrn. w diss. Py Cpy 5%, Az, Aspy, oxi               |
| 776           | TR-98-02      | 65             | 70            | 5                 | Si rich Lmst. skrn. w diss. Py Cpy 5%, Az, Aspy, oxi               |
| 777           | TR-98-02      | 70             | 75            | 5                 | Si rich Lmst. skrn. w diss. Py Cpy 5%, Wl                          |
| 778           | TR-98-02      | 75             | 78.5          | 3.5               | Si rich Lmst. skrn. w diss. Py Cpy 5%,                             |
| 779           | TR-98-03      | 25             | 26            | 1                 | Med. gr Bt-Hd Granodiorite w tr. diss. Py. <1% & mr. bd.           |
| 780           | TR-98-03      | 40.5           | 41.5          | 1                 | Med. gr Bt-Hd Granodiorite w tr. diss. Py. <1% & mr. bd.           |
| 781           | TR-98-03      | 41.5           | 42.5          | 1                 | Si rich Lmst. skrn. w diss. Py Cpy 5%,                             |
| 782           | TR-98-03      | 47             | 47.5          | 0.5               | Med. gr Bt-Hd Granodiorite w tr. diss. Py. <1% & mr. bd.           |
| 783           | TR-98-03      | 80             | 84            | 4                 | Si rich Lmst. skrn. w diss. Py Cpy 5%,                             |
| 784           | TR-98-03      | 84             | 84.5          | 0.5               | Med. gr Bt-Hd Granodiorite w tr. diss. Py. 3% & mr. bd. Cpy        |
| 785           | TR-98-03      | 118            | 121           | 3                 | Med. gr Bt-Hd Granodiorite w tr. diss. Py. <1% & mr. bd.           |
| 786           | TR-98-03      | 129            | 130           | 1                 | Si rich Lmst. skrn. w diss. Py Cpy 5%,                             |
| 787           | TR-98-03      | 134            | 136           | 2                 | Si rich Lmst. skrn. w diss. Py Cpy 5%,                             |
| 788           | TR-98-03      | 146            | 148.5         | 2.5               | Med. gr Bt-Hd Granodiorite w tr. diss. Py. <1% & mr. bd.           |
| 789           | TR-98-02      | 87             | 89            | 2                 | Si rich Lmst. skrn. w diss. Py Cpy 5%,                             |
| 790           | TR-98-04      | 3              | 4             | 1                 | Med. gr Bt-Hd Granodiorite w tr. diss. Py. <1% & mr. bd.           |
| 791           | TR-98-04      | 5              | 7             | 2                 | Med. gr Bt-Hd Granodiorite w tr. diss. Py. <1% & mr. bd.           |
| 792           | TR-98-04      | 20             | 25            | 5                 | Med. gr Bt-Hd Granodiorite w tr. diss. Py. <1% & mr. bd.           |
| 793           | TR-98-04      | 25             | 28            | 3                 | Si rich Lmst. skrn. w diss. Py Cpy 5%,                             |

## Appendix B: Certificates of Analyses

| Sample Status      | Sample Number | Trench Number | Interval Start | Interval Stop | Sample Length (m) | Sample Type              |
|--------------------|---------------|---------------|----------------|---------------|-------------------|--------------------------|
| assayed            | 751           | TR-98-01      | 0              | 5             | 5                 | chan. chip               |
| assayed            | 752           | TR-98-01      | 10             | 15            | 5                 | chan. chip               |
| assayed            | 753           | TR-98-01      | 15             | 20            | 5                 | chan. chip               |
| assayed            | 754           | TR-98-01      | 20             | 25            | 5                 | chan. chip               |
| assayed            | 755           | TR-98-01      | 25             | 30            | 5                 | chan. chip               |
| assayed            | 756           | TR-98-01      | 30             | 35            | 5                 | chan. chip               |
| assayed            | 757           | TR-98-01      | 35             | 40            | 5                 | chan. chip               |
| assayed            | 758           | TR-98-01      | 40             | 45            | 5                 | chan. chip               |
| assayed            | 759           | TR-98-01      | 45             | 50            | 5                 | chan. chip               |
| assayed            | 760           | TR-98-01      | 50             | 55            | 5                 | chan. chip               |
| assayed            | 761           | TR-98-01      | 55             | 60            | 5                 | chan. chip               |
| assayed            | 762           | TR-98-01      | 98             | 100           | 2                 | chan. chip               |
| assayed            | 763           | TR-98-01      | 100            | 105           | 5                 | chan. chip               |
| assayed            | 764           | TR-98-01      | 105            | 110           | 5                 | chan. chip               |
| assayed            | 765           | TR-98-01      | 112            | 115           | 3                 | chan. chip               |
| assayed            | 766           | TR-98-01      | 115            | 120           | 5                 | chan. chip               |
| assayed            | 767           | TR-98-01      | 120            | 125           | 5                 | chan. chip jack hammered |
| assayed            | 768           | TR-98-01      | 125            | 128           | 3                 | chan. chip               |
| assayed            | 769           | TR-98-01      | 115            | 120           | 5                 | chan. chip jack hammered |
| assayed            | 770           | TR-98-01      | 110            | 115           | 5                 | chan. chip jack hammered |
| assayed            | 771           | TR-98-01      | 105            | 110           | 5                 | chan. chip jack hammered |
| <del>assayed</del> | 772           | TR-98-02      | 7.5            | 10            | 2.5               | chan. chip jack hammered |
| assayed            | 773           | TR-98-02      | 10             | 15            | 5                 | chan. chip jack hammered |
| assayed            | 774           | TR-98-02      | 25             | 30.5          | 5.5               | chan. chip jack hammered |
|                    | 775           | TR-98-02      | 62             | 65            | 3                 | chan. chip jack hammered |
|                    | 776           | TR-98-02      | 65             | 70            | 5                 | chan. chip jack hammered |
|                    | 777           | TR-98-02      | 70             | 75            | 5                 | chan. chip jack hammered |
| NAL May1           | 778           | TR-98-02      | 75             | 78.5          | 3.5               | chan. chip jack hammered |
| NAL May1           | 779           | TR-98-03      | 25             | 26            | 1                 | chan. chip               |
| NAL May1           | 780           | TR-98-03      | 40.5           | 41.5          | 1                 | chan. chip               |
| NAL May1           | 781           | TR-98-03      | 41.5           | 42.5          | 1                 | chan. chip               |
| NAL May1           | 782           | TR-98-03      | 47             | 47.5          | 0.5               | rock chip for chemex     |
| NAL May1           | 783           | TR-98-03      | 80             | 84            | 4                 | chan. chip               |
| NAL May1           | 784           | TR-98-03      | 84             | 84.5          | 0.5               | chan. chip quartz only   |
| NAL May1           | 785           | TR-98-03      | 118            | 121           | 3                 | chan. chip               |
| NAL May1           | 786           | TR-98-03      | 129            | 130           | 1                 | chan. chip               |
| NAL May1           | 787           | TR-98-03      | 134            | 136           | 2                 | chan. chip               |
| NAL May1           | 788           | TR-98-03      | 146            | 148.5         | 2.5               | chan. chip               |
| NAL May1           | 789           | TR-98-02      | 87             | 89            | 2                 | chan. chip               |
| NAL May1           | 790           | TR-98-04      | 3              | 4             | 1                 | chan. chip               |
| NAL May1           | 791           | TR-98-04      | 5              | 7             | 2                 | chan. chip               |
| NAL May1           | 792           | TR-98-04      | 20             | 25            | 5                 | chan. chip               |
| NAL May1           | 793           | TR-98-04      | 25             | 28            | 3                 | chan. chip               |









Certificate#: 98D0384  
 Client: Northern Analytical Laboratories  
 Project: WO# 7972  
 No. of Samples: 12  
 Date In: Apr 28, 1998  
 Date Out: Apr 29, 1998

| Sample Name       | Au<br>ppb | Ag<br>ppm | Cu<br>ppm | Pb<br>ppm | Zn<br>ppm | As<br>ppm | Sb<br>ppm | Hg<br>ppm | Mo<br>ppm |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 762 Pulp          | 12        | 0.9       | 799       | 15        | 34        | 12        | <5        | <3        | 8         |
| 763 Pulp          | 2         | 0.4       | 269       | <2        | 20        | 12        | <5        | <3        | 5         |
| - 764 Pulp        | 298       | 5         | 8148      | 2         | 39        | <5        | <5        | <3        | 4         |
| - 765 Pulp        | 358       | 9.4       | 1.1659    | <2        | 42        | 7         | 13        | <3        | 8         |
| 766 Pulp          | 21        | 1.4       | 2029      | <2        | 28        | 12        | <5        | <3        | 5         |
| - 767 Pulp        | 120       | 5.6       | 7017      | 2         | 35        | 18        | <5        | <3        | 10        |
| 768 Pulp          | 30        | 1.7       | 2256      | <2        | 23        | 9         | <5        | <3        | 2         |
| - 769 Pulp        | 103       | 3.4       | 6463      | 3         | 37        | <5        | <5        | <3        | 10        |
| - 770 Pulp        | 341       | 11.1      | 20184     | <2        | 62        | 6         | 12        | <3        | 4         |
| - 771 Pulp        | 273       | 12.7      | 33336     | 3         | 87        | <5        | <5        | <3        | 3         |
| - 773 Pulp        | 156       | 3.6       | 1683      | <2        | 36        | 32        | <5        | <3        | 5         |
| 774 Pulp          | 6         | 0.5       | 418       | <2        | 31        | 14        | <5        | <3        | 7         |
| Minimum detection | 2         | 0.1       | 1         | 2         | 1         | 5         | 5         | 3         | 1         |
| Maximum detection | 10000     | 100       | 20000     | 20000     | 20000     | 10000     | 1000      | 10000     | 1000      |
| Method            | FA/AAS    | ICP       | ICP       | ICP       | ICP       | ICP       | ICP       | ICP       | ICP       |







**CERTIFICATE OF ANALYSIS**  
IPL 98E0416

2036 Columbia Street  
Vancouver, B.C.  
Canada V5Y 1E1  
Phone (604) 273-7973  
Fax (604) 273-8841

Client: **Marshall Analytical Laboratories**  
Project: **WJ 1572**

**15 Samples**  
(10/03)

(041612:04:49:803E0810)

Date: **May 08, 1998**  
In: **May 06, 1998**

Page: **1 of 1**  
Estimate: **2111**

| Sample Name | Al  | Ag  | Cu  | Pb   | Zr  | As  | Sr  | Hg  | Mo  | Tl  | Bi  | Co  | Cd  | Hf  | Sa  | V   | Cr  | Y   | Mn  | Li  | Ca  | Zn  | Sn  | Ti  | Al   | Ca   | Fe   | Na   | K    | P    |      |      |
|-------------|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|
|             | ppb | ppb | ppm | ppm  | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm  | ppm  | ppm  | ppm  | ppm  | ppm  |      |      |
| 772         | P   | 940 | 5.5 | 6998 | 35  | 28  | <   | <   | <   | 4   | <   | 125 | 4.3 | 9   | 13  | 31  | <   | 48  | 30  | 280 | 2   | 194 | 1   | 1   | 0.01 | 0.49 | 4.90 | 6.43 | 0.31 | 0.01 | <    | 0.04 |
| 775         | P   | 10  | 1.7 | 1620 | 18  | 103 | <   | <   | <   | 3   | <   | <   | 2.3 | 11  | 12  | 126 | <   | 73  | 16  | 651 | 3   | 343 | 1   | 1   | <    | 1.01 | 6.96 | 2.72 | 1.04 | 0.19 | <    | 0.02 |
| 776         | P   | 20  | 2.6 | 7245 | 16  | 96  | <   | <   | <   | 2   | <   | <   | 4.6 | 16  | 12  | 63  | <   | 40  | 19  | 806 | 3   | 292 | 1   | 2   | 0.01 | 1.28 | 9.72 | 5.39 | 0.81 | 0.67 | <    | 0.03 |
| 777         | P   | 12  | 1.4 | 5283 | 20  | 60  | 7   | <   | <   | 3   | <   | <   | 2.4 | 11  | 17  | 39  | 11  | 62  | 21  | 371 | 3   | 55  | 1   | 1   | 0.05 | 0.94 | 4.22 | 3.48 | 0.81 | 0.17 | <    | 0.05 |
| 778         | P   | <   | 0.3 | 191  | 8   | 15  | 24  | <   | <   | 5   | <   | <   | 0.7 | 5   | 10  | 79  | <   | 52  | 12  | 118 | 7   | 203 | 5   | 1   | 0.05 | 1.03 | 3.64 | 0.97 | 0.30 | 0.02 | 0.04 | 0.08 |
| 779         | P   | <   | 1.0 | 77   | 33  | 25  | 18  | <   | <   | 3   | <   | <   | 1.4 | 15  | 19  | 37  | <   | 66  | 39  | 73  | 8   | 46  | 8   | 1   | 0.10 | 0.78 | 0.73 | 2.21 | 0.62 | 0.13 | 0.05 | 0.12 |
| 780         | P   | 2   | 0.6 | 408  | 10  | 52  | <   | <   | <   | 6   | <   | <   | 2.1 | 19  | 26  | 44  | <   | 80  | 80  | 140 | 10  | 24  | 7   | 1   | 0.15 | 0.74 | 0.54 | 3.49 | 0.86 | 0.44 | 0.03 | 0.15 |
| 781         | P   | <   | 0.6 | 93   | 418 | 379 | 10  | <   | <   | 6   | <   | <   | 4.6 | 9   | 16  | 44  | <   | 53  | 63  | 412 | 10  | 173 | 5   | 5   | 0.06 | 1.11 | 3.64 | 2.22 | 1.30 | 0.09 | 0.02 | 0.11 |
| 783         | P   | 44  | 1.7 | 3028 | 8   | 41  | 9   | <   | <   | 8   | <   | <   | 2.1 | 26  | 34  | 91  | <   | 93  | 102 | 240 | 6   | 83  | 3   | 6   | 0.11 | 1.48 | 1.25 | 3.32 | 1.59 | 0.14 | 0.02 | 0.14 |
| 784         | P   | 2   | 0.5 | 393  | 6   | 34  | 11  | <   | <   | 16  | <   | <   | 2.7 | 19  | 48  | 25  | <   | 133 | 105 | 141 | 5   | 43  | 2   | 4   | 0.08 | 1.54 | 0.94 | 4.19 | 1.54 | 0.06 | 0.03 | 0.15 |
| 785         | P   | 4   | 0.6 | 617  | 5   | 35  | 6   | <   | <   | 7   | <   | <   | 1.5 | 15  | 16  | 42  | <   | 68  | 44  | 76  | 3   | 32  | 7   | 1   | 0.08 | 0.87 | 0.56 | 2.15 | 0.98 | 0.40 | 0.04 | 0.05 |
| 786         | P   | <   | 0.1 | 80   | 8   | 197 | 16  | <   | <   | 6   | <   | <   | 3.6 | 8   | 7   | 54  | <   | 46  | 31  | 82  | 4   | 47  | 3   | 2   | 0.06 | 0.91 | 1.00 | 1.59 | 1.05 | 0.33 | 0.03 | 0.05 |
| 787         | P   | 12  | 8.1 | 3222 | 11  | 168 | 21  | <   | <   | 4   | <   | <   | 2.8 | 125 | 39  | 40  | <   | 64  | 39  | 54  | 4   | 54  | 12  | 2   | 0.11 | 0.89 | 1.72 | 2.90 | 0.59 | 0.17 | 0.01 | 0.09 |
| 788         | P   | 2   | <   | 117  | <   | 8   | <   | <   | <   | 2   | <   | <   | 1.1 | 13  | 16  | 34  | <   | 31  | 10  | 53  | 9   | 30  | 5   | <   | 0.04 | 0.29 | 0.80 | 1.79 | 0.11 | 0.02 | 0.03 | 0.11 |
| 789         | P   | 28  | 1.4 | 5321 | <   | 18  | <   | <   | <   | 2   | <   | <   | 1.5 | 4   | 4   | 34  | <   | 62  | 12  | 221 | <   | 17  | 18  | 1   | 0.05 | 0.49 | 3.52 | 2.29 | 0.04 | 0.05 | <    | 0.03 |
| 790         | P   | <   | <   | 106  | <   | 6   | <   | <   | <   | 13  | <   | <   | 1.4 | 9   | 10  | 39  | <   | 22  | 12  | 68  | 6   | 47  | 5   | <   | 0.05 | 0.44 | 0.93 | 2.25 | 0.12 | 0.04 | 0.04 | 0.10 |
| 791         | P   | <   | <   | 67   | 3   | 18  | <   | <   | <   | 5   | <   | <   | 1.4 | 10  | 9   | 65  | <   | 40  | 32  | 125 | 5   | 32  | 1   | 1   | 0.10 | 0.78 | 0.41 | 2.28 | 1.04 | 0.22 | 0.04 | 0.10 |
| 792         | P   | 3   | 0.1 | 202  | 3   | 24  | <   | <   | <   | 5   | <   | <   | 1.6 | 12  | 6   | 42  | <   | 45  | 69  | 125 | 4   | 31  | 1   | 3   | 0.14 | 0.94 | 0.56 | 2.64 | 1.03 | 0.43 | 0.04 | 0.10 |
| 793         | P   | 22  | 0.9 | 1742 | 3   | 17  | 10  | <   | <   | 9   | <   | <   | 1.7 | 8   | 14  | 14  | <   | 43  | 19  | 240 | 4   | 22  | 7   | 1   | 0.04 | 0.70 | 2.66 | 2.64 | 0.19 | 0.03 | <    | 0.09 |

12 '98 10:00 0000 NAL WHITEHORSE 1-403-668-4899

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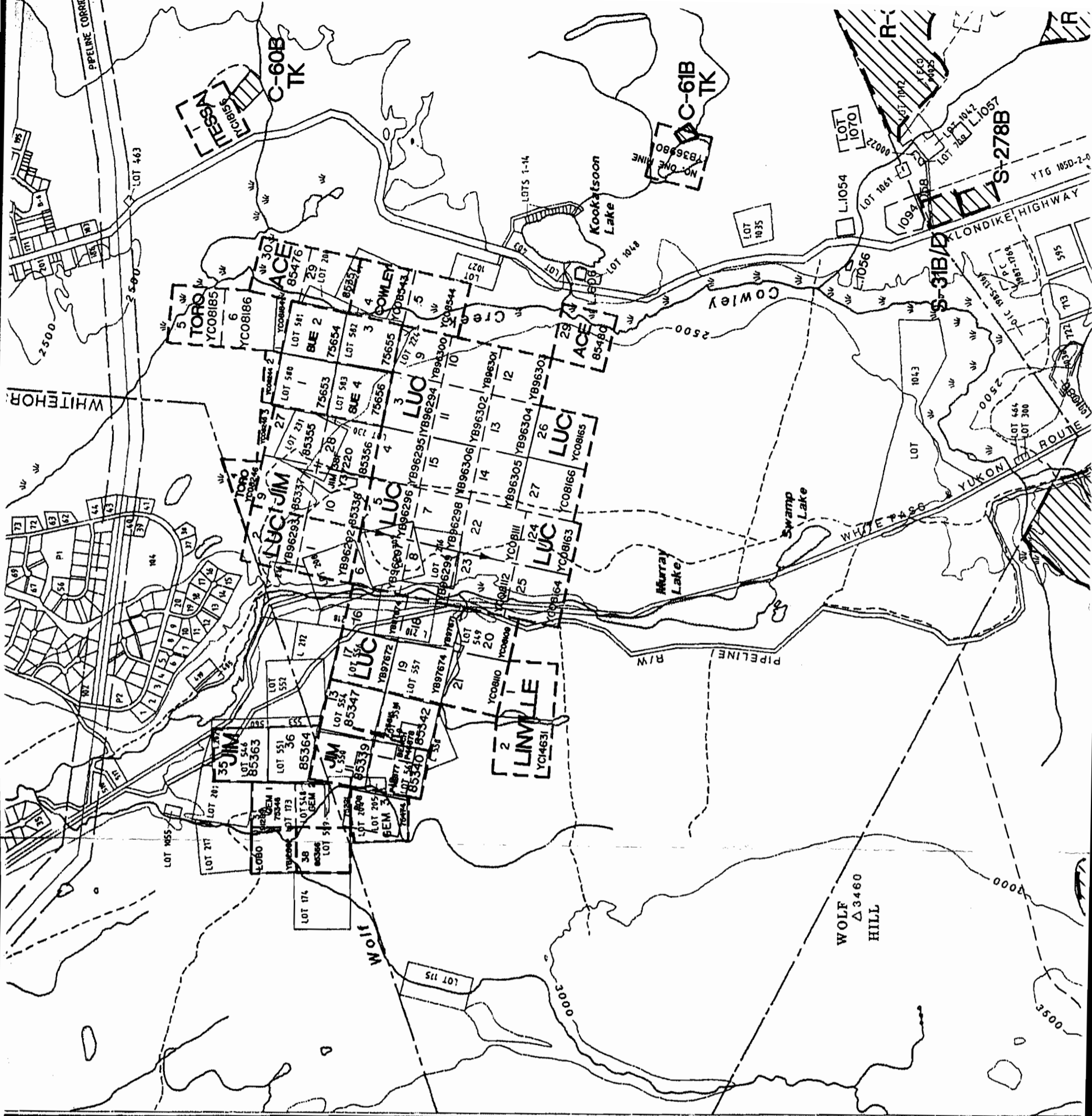


fig 2 claim Map Toro claims

**105D-10**  
**QUARTZ & PLACER**

LATITUDE 60°30 TO 60°45  
 LONGITUDE 134°30 TO 135°00

ISSUED UNDER THE AUTHORITY OF THE MINISTER  
 OF  
 INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

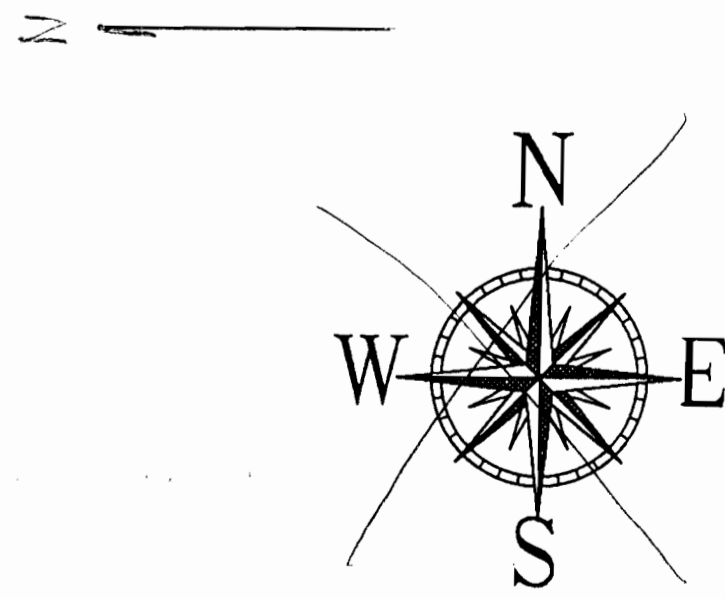
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1000 0 1000 2000

METRES

1500 0 1500 3000 4500 6000 7500 9000 10500

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