# 1981 TRENCHING, STRIPPING, AND DRILLING OF THE BUR PROPERTY, YUKON TERRITORY



Claims Jo 4, Jo 6, and Wen 5
Whitehorse Mining District

Geographic Coordinates
61° 22' N
139° 19' W
NTS Sheet 115 G/6

by

L. B. Halferdahl, Ph.D., P.Eng.

1981 09 30

Work on Property Conducted 1981 07 09 to 1981 08 16



Halferdahl & Associates Ltd.
18, 10509 - 81 Avenue
Edmonton, Alberta
T6E 1X7

This report has been examined by the Geological Evaluation under Section 53 (4) Yukon Quartz Mining Act and is allowed as representation work in the amount of $ 19,200.00.

R. Dabrecki for
Regional Manager, Exploration and Geological Services for Commissioner of Yukon Territory.

From: Mining Recorder at WHITEHORSE File No.

To: Supervising Mining Recorder at Whitehorse, Y.T.

Office of the Supervising Mining Recorder
OCT 20 1981
WHITEHORSE
Yukon Territory

FOR ACTION:

____ New Application for Lease to Prospect: Name

____ Renewal Appl'n Lease to Prospect: Name No.

____ Affidavit of Expenditure on Placer Lease: Name No.

____ Assignment of Prospecting Lease No.

From To

____ Grouping Appl'n under Sec. 52( 2) Placer Mining Act: Owner

____ Diamond Drill Logs:

Owner: Claim Sheet No.

✓ Quartz Assessment Report:

Claims: EL 1-8 JO 1-8, SUE 5-8, NAN 5-8, JAN 2 dec Claim Sheet No. 115-6-6

Type of Report: TRENCHING, STRIPPING, DRILLING

Submitted By: HALTER DAHL & ASSOCIATES LTD.

Claims work performed on: JO 4, 6, WEN 5

$ Req. for Renewal application: $19,200.00

Signature

Date: 14 OCTOBER 1981

20756.8

Reply Action Date Ref

Signature

Date

**DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVEL[illegible]T**

YUKON QUARTZ MINING ACT

FORM "C" - APPLICATION FOR A CERTIFICATE OF WORK

RECEIVED
2 SEP 1981
MINING RECORDERS OFFICE WHITEHORSE, Y.T.

(This form required in duplicate with sketch showing location of work.)

| | |
|---|---|
| I (Name) Laurence B. Halferdahl | Occupation Engineer |
| (Postal Address) 18, 10509-81 Avenue Edmonton, Alberta T6E 1X7 | OFFICE DATE STAMP |

**MAKE OATH AND SAY, THAT:**

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.
2. I have done, or caused to be done, work on the following mineral claim(s):

(Here list claims on which work was actually done by number and name)

YA 23540 JO4

situated at Burwash & Tatamagouche creeks Claim Sheet No. 115G/6

in the Whitehorse Mining District, to the value of at least 7000

dollars, since the 29th day of August 19 80,

to represent the following mineral claims under the authority of Grouping Certificate No. 9029 (1)

(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

| | | |
|---|---|---|
| YA 23529-30 | EL 1,2 | 4 years each |
| YA 23540 | JO 4 | |
| YA 23567-68 | NAN 7,8 | |
| YA 23570 | JAN 2 | |
| YA 23572-76 | JAN 4-8 | |
| YA 23577-78 | DEN 1,2 | |
| YA 23586-88 | WEN 2-4 | |

3. The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

From 1981 07 09 to 1981 07 18
Bulldozer trenching and stripping involving the movement of 4684 cubic yards
@ $1.50 $7026

Sworn before me at Edmonton, Alberta

this 31st day of August 19 81.

Notary Public

L. Halferdahl

Applicant

RONALD G. O'HOWNE

**DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVEL... ...NT**

YUKON QUARTZ MINING ACT

FORM "C" - APPLICATION FOR A CERTIFICATE OF WORK

RECEIVED
2 SEP 1981
MINING RECORDERS OFFICE
WHITEHORSE, Y.T.

(This form required in duplicate with sketch showing location of work.)

| | |
|---|---|
| I (Name) Laurence B. Halferdahl | Occupation Engineer |
| (Postal Address) 18, 10509-81 Avenue Edmonton, Alberta T6E 1X7 | OFFICE DATE STAMP |

**MAKE OATH AND SAY, THAT:**

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.
2. I have done, or caused to be done, work on the following mineral claim(s):

(Here list claims on which work was actually done by number and name)

YA 23589 WEN 5

situated at Burwash & Tatamagouche Creeks Claim Sheet No. 115G/6

in the Whitehorse Mining District, to the value of at least 6600

dollars, since the 29th day of August 19 80,

to represent the following mineral claims under the authority of Grouping Certificate No. 9030 Q

(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

YA 23531-36 EL 3-8
YA 23579-84 DEN 3-8
YA 23589-92 WEN 5-8
} 4 years each

28 Aug 82 EL 3-8 28 Aug 83
28 Aug 82 Den 5-8 28 Aug 82 Wen 5-8 28 Aug 84
28 Aug 85, Wen 5,
28 Aug 84

Laurence B. Halferdahl

3. The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

From 1981 08 11 to 1980 08 16 Diamond drilling of 81-5 N/A

| | | |
|---|---|---|
| Casing | 0-15' 15' @ $34 | $510.00 |
| Coring | 15-228' 213' @ $29 | 6177.00 |
| | | $6687.00 |

Sworn before me at Edmonton, Alberta

this 31st day of August 1981.

Notary Public

Ronald G. Atkinson

L.B. Halferdahl

Applicant

**DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVEL AT**

YUKON QUARTZ MINING ACT

FORM "C" - APPLICATION FOR A CERTIFICATE OF WORK

RECEIVED
2 SEP 1981
MINING RECORDERS OFFICE
WHITEHORSE, Y.T.

OFFICE DATE STAMP

(This form required in duplicate with sketch showing location of work.)

I (Name) Laurence B. Halferdahl Occupation Engineer

(Postal Address) 18, 10509-81 Avenue Edmonton, Alberta T6E 1X7

**MAKE OATH AND SAY, THAT:**

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.
2. I have done, or caused to be done, work on the following mineral claim(s):

(Here list claims on which work was actually done by number and name)

YA 23542 JO6

situated at Burwash & Tatamagouche creeks Claim Sheet No. 115G/6

in the Whitehorse Mining District, to the value of at least 7000

dollars, since the 29th day of August 19 80,

to represent the following mineral claims under the authority of Grouping Certificate No. 9028 Q

(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

| | | |
|---|---|---|
| YA 23537-39 | JO 1-3 | 25 Aug. 85 Laurence B. Halferdahl |
| YA 23541-44 | JO 5-8 | |
| YA 23549-52 | SUE 5-8 | 4 years each Nan 5 25 Aug 85, |
| YA 23565-66 | NAN 5,6 | |
| YA 23585 | WEN 1 | 28 Aug. 85 |
| YA 23599-600 | AND 7,8 | |

3. The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

From 1981 08 09 to 1981 08 10
Diamond Drilling of 81-4

| | |
|---|---|
| Casing 0-5' 5' @ $34 | $170.00 |
| Coring 5-242' 237' @ $29 | 6873.00 |
| | 7043.00 |

Sworn before me at Edmonton, Alberta

this 31st day of August 19 81.

Notary Public

Kenneth E. Thomas

25 Halferdahl

Applicant

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## LISTS OF ILLUSTRATIONS



## LIST OF APPENDICES

## INTRODUCTION

Eighty quartz mineral claims covering the confluence of Burwash and Tatamagouche Creeks and surrounding ground in the Kluane Ranges of the western Yukon were staked as the Bur property in 1978. Exploration consisting of geological mapping, geochemical prospecting, a magnetometer survey, and overburden drilling was conducted in one or more of the field seasons in 1978, 1979, and 1980. During 1981 part of claim Jo 4 was stripped and trenched, and five holes were cored: three on Jo 4 and one each of claims Jo 6 and Wen 5. Information on the stripping and trenching on two of the drillholes as required for representation work is contained herein. Time has permitted only very limited interpretation of the data obtained; further work on the core is anticipated.

In 1980, 72 additional claims were started. The work on these claims during 1981 will be submitted separately.

## TRENCHING AND STRIPPING

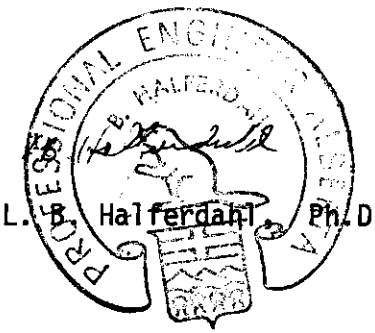
The trenches and sumps (Fig. 3) were excavated in permanently frozen glacial till below a thin layer of unfrozen humus by a D7G bulldozer equipped with a ripper. In trench 1 gabbro bedrock was reached at its upper end and in the middle (Fig. 4). It was sampled by random chips as indicated. Where bedrock was not reached, samples of grey till were collected and the -80 mesh fraction analyzed by standard atomic absorption techniques. The plan and sections in Fig. 4 show that approximately 1338.8 $m^3$ or 1751.2 cubic yards were excavated.

Trench 2 was not excavated as deep as trench 1 and did not reach bedrock. It permitted an increased flow of water into the lower sump which was stripped and excavated to provide water for the drilling. Samples of till were collected from the places indicated and analyzed by standard atomic absorption techniques. The plan in Fig. 5 shows that approximately 893.0 $m^3$ or 1168.0 cubic yards were excavated.

The upper sump was stripped and excavated to provide another source of water for the drilling. It did not reach bedrock. Samples of till were collected from the places indicated and analyzed by standard atomic absorption techniques. The plan in Fig. 6 shows that approximately 1349.8 $m^3$ or 1765.5 cubic yards were excavated.

## DRILLING

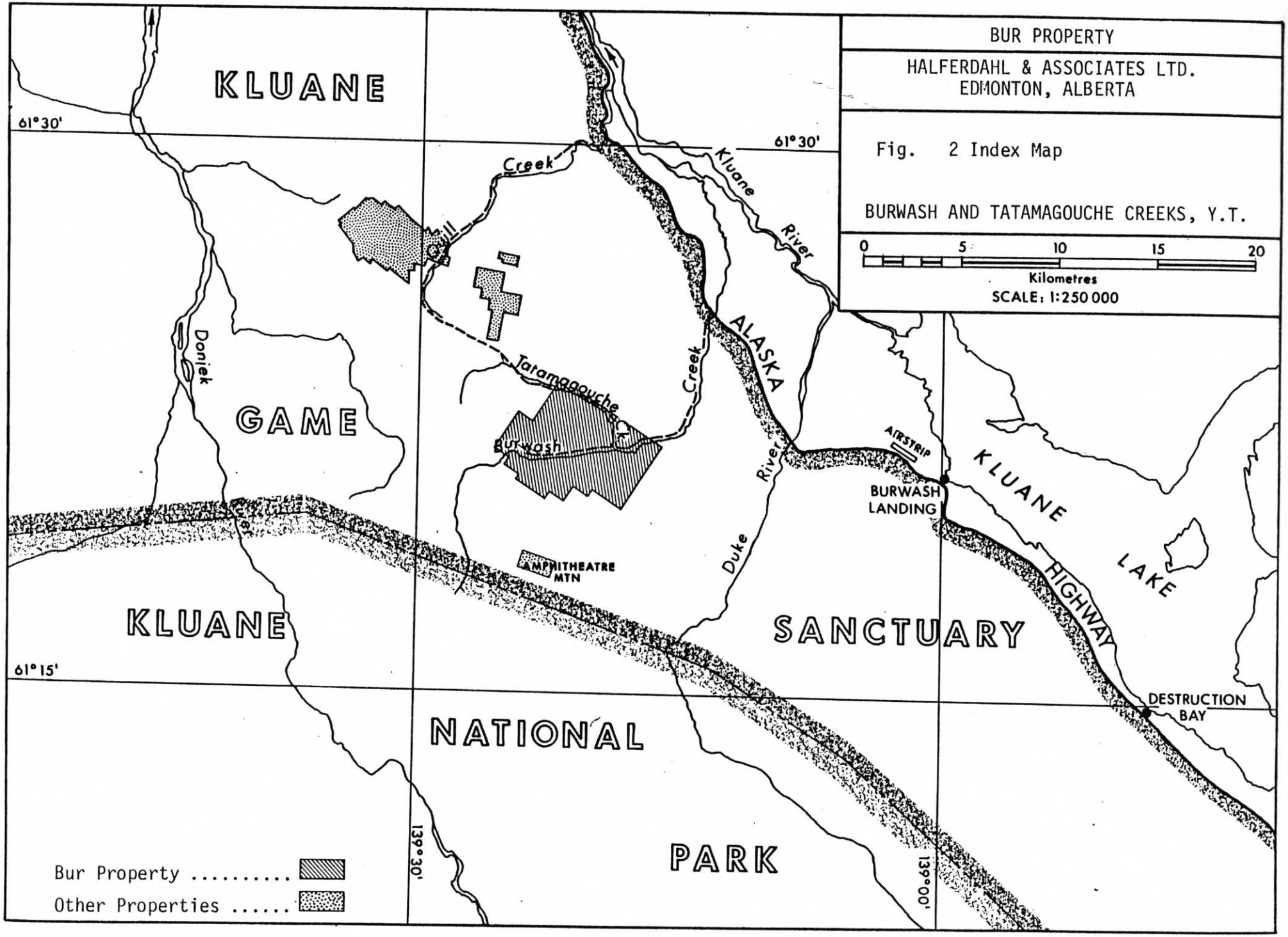
Five diamond drillholes were cored, but information on only two, 81-4 and 81-5 totalling 143.3 m is included here, (Fig. 3). A Hydrowink drill was used. As steep slopes and permafrost hindered ground access, the drill was moved from site to site by a Jet Ranger helicopter based at Haines Junction. Lithological logs are in appendix 1 and assays in appendix 2.



1981 09 30

L. B. Halferdahl, Ph.D. P.Eng.


Fig. 1 Location Map - Bur Property, Yukon Territory


BUR PROPERTY
HALFERDAHL & ASSOCIATES LTD.
EDMONTON, ALBERTA
Fig. 2 Index Map
BURWASH AND TATAMAGOUCHE CREEKS, Y.T.
0 5 10 15 20
Kilometres
SCALE: 1:250 000
KLUANE
GAME
KLUANE
SANCTUARY
NATIONAL
PARK
KLUANE
LAKE
61°30'
61°15'
139°30'
139°00'
Kluane River
Creek
Doniek
Tatamagouche Creek
Burwash
Duke River
ALASKA
HIGHWAY
AIRSTRIP
BURWASH LANDING
AMPHITHEATRE MTN
DESTRUCTION BAY
Bur Property .....
Other Properties .....

# APPENDIX 1: LITHOLOGICAL LOGS FOR DRILLHOLES 81-4 AND 81-5

Bur Property
Drillhole 81-4

Depth: 73.8 m
Inclination: -90°
Core recovered: 96.0%
Core size: BQ

Location: Burwash and Tatamagouche Creeks, Y.T. 1014 m N; 3996 m E
Elevation: 1308 ± 3 m
Started: 1981 08 09
Finished: 1981 08 10
Drilled by Drilcor Industries Ltd.
Logged by C. Gibson

| Metrage | Interval | Description |
|---|---|---|
| 0.000 - 1.334 | 1.334 | Overburden, glacial till; BW casing to 1.5 m |
| 01.334 - 33.841 | 32.507 | Gabbro, black, pyroxenitic, medium- to coarse-grained, riddled with magnetite veinlets invariably at approximately 45° to core axis, also interspersed coarser magnetite veinlets (2 mm-4 mm thick) with approximate core angles of 15°. Low grade sulfides disseminated throughout, but fracture infillings show enhanced grades. Fractures highly irregular and intensely concentrated in places to form "fracture zones." They evidence the movement of carbonate fluids which form coatings along their planes; up to 10% sulfides can be formed along some fractures; principal sulfides are pyrite, chalcopyrite, pyrrhotite, and galena.<br>7.590 15° core angle movement plane serpentinized and slickensided<br>9.144 - 13.594 well fractured and recovered as angular fragments, slickensided, and serpentinized surfaces, some gouge present, minor rounded blebs of pyrrhotite associated with coatings<br>19.817 - 20.122 intensely fractured<br>28.232 - 28.963 pyrite grains, mostly cubes associated with carbonate fracture infillings<br>30.793 appreciable red mica grains<br>Sample 4426 32.317 - 33.841 1.52 m |
| 33.841 - 34.756 | 0.915 | Quartzite or Tuff? massive, medium-grained, leucocratic, xenolith or country rock unassimilated by gabbro, distinctly unmagnetic<br>33.841 some pyrite associated with carbonate infilling of fractures<br>Sample 4474 33.841 - 34.756 0.91 m |
| 34.756 - 41.646 | 6.890 | Gabbro, similar to previous<br>34.756 - 36.280 approximately 5% sulfides with chalcopyrite coating at 34.909<br>36.280 - 40.244 occasional fractures with coatings of pyrrhotite and other sulfides finely disseminated in gabbro |

| Metrage | Interval | Description | | |
|---|---|---|---|---|
| | | Sample 4473 | 34.756 - 35.671 | 0.91 m |
| | | Sample 4472 | 35.671 - 37.195 | 1.52 m |
| | | Sample 4471 | 37.195 - 38.720 | 1.52 m |
| 41.646 - 44.817 | 3.171 | Quartzite or Tuff? similar to previous | | |
| | | Sample 4470 | 43.293 - 44.817 | 1.52 m |
| 44.817 - 56.707 | 11.890 | Gabbro, similar to previous | | |
| | | 44.817 finely disseminated sulfides at contact including silverish metallic (galena?) | | |
| | | 52.439 - 53.659 approximately 10% sulfides, essentially associated with carbonate infilled fractures, mostly as platy chalcopyrite coatings | | |
| | | 52.896 galena surrounded by chalcopyrite which appears to be replacing it | | |
| | | 53.963 - 56.402 about 8% sulfides, mostly chalcopyrite | | |
| | | 56.402 - 56.707 sulfide mineralization reducing to 5% | | |
| | | Sample 4469 | 44.817 - 46.341 | 1.52 m |
| | | Sample 4468 | 46.341 - 47.866 | 1.52 m |
| | | Sample 4467 | 47.866 - 49.390 | 1.52 m |
| | | Sample 4466 | 49.390 - 50.915 | 1.52 m |
| | | Sample 4465 | 50.915 - 52.439 | 1.52 m |
| | | Sample 4464 | 52.439 - 53.963 | 1.52 m |

| Metrage | Interval | Description |
|---|---|---|
| | | Sample 4463 53.963 - 55.488 1.52 m |
| | | Sample 4462 55.488 - 56.707 1.22 m |
| 56.707 - 57.622 | 0.915 | Quartzite or Tuff? similar to previous, non magnetic, carbonated xenolith<br>Sample 4461 56.707 - 57.622 0.91 m |
| 57.622 - 73.780 | 6.158 | Gabbro, similar to previous<br>57.622 - 57.927 more than 5% sulfides including discrete grains of galena and coatings of chalcopyrite<br>57.927 - 58.537 about 3% sulfides<br>58.537 - 60.707 red mica and fibrous amphibole veinlets at 45° core angle, approximately 2% sulfides<br>60.707 - 63.109 badly shattered, serpentinized and striated gabbro with only occasional occurrences of sulfides<br>63.109 - 71.220 red mica prominent with silica in places up to 5%<br>71.220 - 73.780 in places gabbro appearing acidic due to incomplete digestion of quartzite or tuff<br>Sample 4460 57.622 - 58.537 0.91 m |
| | | Sample 4459 60.061 - 61.585 1.52 m |
| | | Sample 4458 61.585 - 63.109 1.52 m |
| | | Sample 4457 63.109 - 64.634 1.52 m |
| | | Sample 4456 64.634 - 66.159 1.52 m |

Bur Property
Drillhole 81-4



| Metrage | Interval | Description | | |
|---|---|---|---|---|
| | | Sample 4455 | 66.159 - 67.683 | 1.52 m |
| | | Sample 4454 | 67.683 - 69.207 | 1.52 m |
| | | Sample 4453 | 69.207 - 71.189 | 1.98 m |
| | | Sample 4452 | 71.189 - 72.256 | 1.06 m |
| | | Sample 4451 | 72.256 - 73.780 | 1.52 m |
| 73.780 | | End of hole | | |

Bur Property
Drillhole 81-5
Bearing: 102°
Depth 69.5 m
Inclination: -60°
Core recovery: 61.6%
Core size: BQ

Location: Burwash and Tatamagouche Creeks, Y.T. 690 m N; 3360 m E
Elevation: 1261 ± 5 m
Started: 1981 08 11
Finished: 1981 08 16
Drilled by Drilcor Industries Ltd.
Logged by C. Gibson

| Metrage | Interval | Description |
|---|---|---|
| 0.000-4.572 | 4.572 | Overburden, glacial till and boulders; BW casing 4.6 m |
| 4.572 69.494 | 64.922 | Cherty Siltstone, pale greenish grey dirty impure siltstone with vague evidence of thin bedding. In places rock has the appearance of impure chert. intercalations of sandstone bands 2 cm to 10 cm thick common, some bands contain up to pebble sized clasts of mainly quartz.<br>12.195 - 18.902 sandstone intercalations not evident and thin bedding in siltstone more discernable<br>18.598 - 18.902 innumerable cross-cutting fractures infilled with pyrite and pyrrhotite associated with black coating<br>20.884 - 25.609 pyrite and pyrrhotite in contaminated siltstone associated with black coatings<br>25.915, 28.963-30.488, 31.555-31.860 dark patches infilling fractures<br>35.976 - 39.024 mainly pyrite associated with calcite veining with some mafic solutions causing black coating and deposition of pyroxene crystals along fractures, also limonitic staining along fractures<br>39.024 calcite rhombs, muscovite grains and perfect cubes of pyrite<br>39.176 - 44.207 rock becoming more carbonated with common occurrence of calcite rhombs up to 1/2 cm, and ubiquitous white mica; Pyrite coating fractures and disseminated in siltstone together with pyrrhotite veinlets<br>44.207 - 46.646, consistent sulfide content of about 5% including pyrite, pyrrhotite and chalcopyrite disseminated in siltstone as well as coating calcite-filled fractures, most of which are limonitic<br>61.738 - 64.024 contaminated by solutions which partially decompose siltstone to form "carbonate silicate hornfels", no sulfides evident in hand specimen, but siltstone above and below contaminated section contain up to 5% sulfides both disseminated and along fractures<br>66.446 - 67.970 light-grey on surface cut by bit, dark-greenish grey on freshly broken surface, 1-2% very fine sulfides |

| Metrage | Interval | Description |
|---|---|---|
| | | probably pyrrhotite but with a few disseminated silvery white grains of sulfide; some fractures approximately parallel to core axis, others at 70°; much of rock will break between fingers |
| | | Sample 4045 66.446 - 67.970 1.52 m |
| | | 67.970 - 69.434 lighter and darker slightly coarser grained bands 5 - 10 cm thick, 1 - 2% finely disseminated sulfides |
| | | Sample 4046 67.970 - 69.494 1.52 m |
| 69.494 | | End of hole |

APPENDIX 2: CERTIFICATES OF ANALYSIS FOR SAMPLES FROM TRENCHES AND DRILLHOLES 81-4 AND 81-5

(Some analyses are from other samples.)

# CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: (604)984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS


## CERTIFICATE OF ANALYSIS

TC : Halferdahl & Assoc. Ltd.,
Dept. 18,
10509 - 81st Ave.,
Edmonton, Alta.
T6E 1X7

CERT. # : A8113027-001-A
INVOICE # : I8113027
DATE : 31-AUG-81
P.O. # : NONE

ATTN: L.B. HALFERDAHL

| Sample description | Prep code | Cu ppm | Pb ppm | Zn ppm | Ni ppm | Co ppm | Cr ppm |
|---|---|---|---|---|---|---|---|
| T-1-20 | 203 | 136 | 2 | 112 | 1000 | 77 | 680 |
| T-1-25 | 201 | 80 | 2 | 58 | 154 | 24 | 275 |
| T-1-30 | 203 | 101 | 3 | 75 | 240 | 33 | 335 |
| T-1-35 | 203 | 95 | 3 | 80 | 198 | 28 | 250 |
| T-1-40 | 201 | 94 | 3 | 85 | 164 | 29 | 250 |
| T-1-45 | 201 | 91 | 3 | 80 | 149 | 24 | 240 |
| T-1-50 | 201 | 111 | 4 | 80 | 166 | 27 | 245 |
| T-1-55 | 201 | 122 | 2 | 75 | 250 | 39 | 310 |
| T-1-60 | 201 | 129 | 2 | 76 | 245 | 37 | 315 |
| T-1-65 | 201 | 107 | 3 | 72 | 200 | 31 | 295 |
| T-1-70 | 201 | 88 | 8 | 82 | 177 | 27 | 184 |
| T-1-75 | 201 | 92 | 7 | 110 | 142 | 20 | 84 |
| T-1-80 | 201 | 121 | 9 | 102 | 123 | 13 | 76 |
| T-1-85 | 201 | 80 | 8 | 94 | 89 | 13 | 76 |
| T-1-90 | 201 | 98 | 7 | 95 | 105 | 12 | 98 |
| T-2-0 | 201 | 46 | 5 | 112 | 81 | 13 | 70 |
| T-2-5 | 201 | 62 | 7 | 117 | 150 | 24 | 110 |
| T-2-10 | 201 | 57 | 6 | 105 | 93 | 16 | 86 |
| T-2-15 | 201 | 61 | 7 | 126 | 133 | 21 | 150 |
| T-2-20 | 201 | 40 | 3 | 118 | 122 | 32 | 235 |
| T-2-25 | 201 | 67 | 4 | 100 | 191 | 11 | 126 |
| T-2-30 | 201 | 82 | 6 | 88 | 163 | 8 | 110 |
| T-2-35 | 203 | 79 | 4 | 56 | 151 | 9 | 108 |
| T-2-40 | 203 | 220 | 3 | 44 | 250 | 9 | 108 |
| T-2-45 | 201 | 77 | 3 | 60 | 128 | 7 | 134 |
| T-2-50 | 201 | 136 | 5 | 95 | 225 | 18 | 210 |
| T-2-55 | 201 | 104 | 7 | 90 | 189 | 13 | 126 |
| T-2-60 | 203 | 113 | 4 | 50 | 163 | 8 | 96 |
| T-2-65 | 201 | 102 | 4 | 82 | 164 | 13 | 160 |
| T-2-70 | 201 | 117 | 6 | 87 | 196 | 13 | 144 |
| T-2-75 | 201 | 102 | 7 | 100 | 165 | 13 | 148 |
| T-2-80 | 201 | 115 | 6 | 92 | 149 | 15 | 166 |
| T-2-85 | 201 | 85 | 6 | 94 | 158 | 10 | 94 |
| T-2-90 | 201 | 97 | 6 | 70 | 137 | 9 | 74 |
| T-2-95 | 201 | 79 | 5 | 92 | 134 | 11 | 70 |
| T-2-100 | 201 | 60 | 6 | 78 | 119 | 11 | 76 |
| T-2-105 | 201 | 87 | 7 | 70 | 106 | 8 | 76 |
| T-2-110 | 201 | 70 | 19 | 88 | 88 | 18 | 200 |
| T-2-115 | 201 | 114 | 5 | 78 | 125 | 18 | 154 |
| T-2-115-5E | 201 | 90 | 3 | 76 | 96 | 20 | 205 |

Certified by .H. Ant. Bielle...

# CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1

TELEPHONE: (604)984-0221
TELEX: 043-52597


• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : Halferdahl & Assoc. Ltd.,
Dept. 18,
10509 - 81st Ave.,
Edmonton, Alta.
T6E 1X7

CERT. # : A8113027-001-B
INVOICE # : I8113027
DATE : 31-AUG-81
P.O. # : NONE

ATTN: L.B. HALFERDAHL

| Sample description | Prep code | AS ppm | V ppm | AU-NAA ppb | | | |
|---|---|---|---|---|---|---|---|
| T-1-20 | 203 | 6 | 95 | 3 | -- | -- | -- |
| T-1-25 | 201 | 5 | 190 | 2 | -- | -- | -- |
| T-1-30 | 203 | 11 | 155 | 5 | -- | -- | -- |
| T-1-35 | 203 | 9 | 170 | 5 | -- | -- | -- |
| T-1-40 | 201 | 12 | 195 | 3 | -- | -- | -- |
| T-1-45 | 201 | 17 | 185 | 2 | -- | -- | -- |
| T-1-50 | 201 | 11 | 180 | 5 | -- | -- | -- |
| T-1-55 | 201 | 12 | 175 | 4 | -- | -- | -- |
| T-1-60 | 201 | 10 | 180 | 8 | -- | -- | -- |
| T-1-65 | 201 | 11 | 180 | 4 | -- | -- | -- |
| T-1-70 | 201 | 7 | 160 | 11 | -- | -- | -- |
| T-1-75 | 201 | 22 | 140 | 3 | -- | -- | -- |
| T-1-80 | 201 | 14 | 125 | 6 | -- | -- | -- |
| T-1-85 | 201 | 11 | 110 | 3 | -- | -- | -- |
| T-1-90 | 201 | 12 | 120 | 11 | -- | -- | -- |
| T-2-C | 201 | 11 | 105 | <1 | -- | -- | -- |
| T-2-5 | 201 | 19 | 140 | 2 | -- | -- | -- |
| T-2-10 | 201 | 15 | 130 | 3 | -- | -- | -- |
| T-2-15 | 201 | 20 | 165 | 2 | -- | -- | -- |
| T-2-20 | 201 | 12 | 180 | 2 | -- | -- | -- |
| T-2-25 | 201 | 5 | 130 | 3 | -- | -- | -- |
| T-2-30 | 201 | 5 | 125 | 3 | -- | -- | -- |
| T-2-35 | 203 | 22 | 140 | 1 | -- | -- | -- |
| T-2-40 | 203 | 6 | 95 | 8 | -- | -- | -- |
| T-2-45 | 201 | 4 | 110 | 3 | -- | -- | -- |
| T-2-50 | 201 | 5 | 150 | 9 | -- | -- | -- |
| T-2-55 | 201 | 4 | 130 | 5 | -- | -- | -- |
| T-2-60 | 203 | 4 | 85 | 4 | -- | -- | -- |
| T-2-65 | 201 | 5 | 145 | 4 | -- | -- | -- |
| T-2-70 | 201 | 9 | 118 | 5 | -- | -- | -- |
| T-2-75 | 201 | 6 | 150 | 5 | -- | -- | -- |
| T-2-80 | 201 | 6 | 160 | 4 | -- | -- | -- |
| T-2-85 | 201 | 9 | 155 | 3 | -- | -- | -- |
| T-2-90 | 201 | 10 | 135 | 7 | -- | -- | -- |
| T-2-95 | 201 | 9 | 120 | 4 | -- | -- | -- |
| T-2-100 | 201 | 7 | 120 | 4 | -- | -- | -- |
| T-2-105 | 201 | 7 | 125 | 3 | -- | -- | -- |
| T-2-110 | 201 | 13 | 110 | 2 | -- | -- | -- |
| T-2-115 | 201 | 14 | 170 | 5 | -- | -- | -- |
| T-2-115-5E | 201 | 6 | 135 | 3 | -- | -- | -- |

Certified by Hank Biddle

CTA MEMBER CANADIAN TESTING ASSOCIATION

# CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: (604)984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : Halferdahl & Assoc. Ltd.,
Dept. 18,
10509 - 81st Ave.,
Edmonton, Alta.
T6E 1X7

CERT. # : A8113027-002-A
INVOICE # : I8113027
DATE : 31-AUG-81
P.O. # : NONE

ATTN: L.B. HALFERDAHL

| Sample description | Prep code | Cu ppm | Pb ppm | Zn ppm | Ni ppm | Co ppm | Cr ppm |
|---|---|---|---|---|---|---|---|
| T-2-115-5W | 201 | 82 | 4 | 90 | 72 | 19 | 200 |
| T-2-115-10E | 201 | 64 | 6 | 73 | 71 | 14 | 134 |
| T-2-115-10W | 201 | 69 | 3 | 75 | 65 | 17 | 164 |
| T-2-115-15E | 201 | 73 | 6 | 92 | 97 | 20 | 176 |
| T-2-115-20E | 201 | 113 | 3 | 83 | 115 | 29 | 300 |
| T-2-115-24E | 201 | 114 | 3 | 80 | 115 | 31 | 310 |
| T-3-0 | 201 | 64 | -- | -- | 56 | 13 | 74 |
| T-3-10 | 201 | 65 | -- | -- | 148 | 31 | 285 |
| T-3-20 | 201 | 62 | -- | -- | 45 | 16 | 74 |

Certified by Hart Biddle

CTA MEMBER CANADIAN TESTING ASSOCIATION

# CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: (604)984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : Halferdahl & Assoc. Ltd.,
Dept. 18,
10509 - 81st Ave.,
Edmonton, Alta.
T6E 1X7

CERT. # : A8113027-002-B
INVOICE # : I8113027
DATE : 31-AUG-81
P.O. # : NONE

ATTN: L.B. HALFERDAHL

| Sample description | Prep code | AS ppm | V ppm | AU-NAA ppb | | | |
|---|---|---|---|---|---|---|---|
| T-2-115-5W | 201 | 11 | 190 | 4 | -- | -- | -- |
| T-2-115-10E | 201 | 4 | 145 | 2 | -- | -- | -- |
| T-2-115-10W | 201 | 5 | 190 | 8 | -- | -- | -- |
| T-2-115-15E | 201 | 7 | 175 | 3 | -- | -- | -- |
| T-2-115-20E | 201 | 10 | 180 | 5 | -- | -- | -- |
| T-2-115-24E | 201 | 15 | 185 | 5 | -- | -- | -- |
| T-3-0 | 201 | -- | 115 | 14 | -- | -- | -- |
| T-3-10 | 201 | -- | 210 | 2 | -- | -- | -- |
| T-3-20 | 201 | -- | 105 | 2 | -- | -- | -- |

Certified by .....

CTA MEMBER CANADIAN TESTING ASSOCIATION

BONDAR-CLEGG & COMPANY LTD.

136B INDUSTRIAL RD, WHITEHORSE, YUKON Y1A 4X1

PHONE: (403) 667-6523
TELEX: 036-8-460

# Geochemical Lab Report

FROM: Halferdahl & Assoc. Ltd.

REPORT NUMBER: 41-625

PROJECT:

DATE: September 2, 1981

| SAMPLE NUMBERS | Ni ppm | Co ppm | Cu ppm | V ppm | Cr ppm | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 3862 | 1300 | 83 | 119 | 26 | 296 | | | | |
| 3863 | 1220 | 84 | 104 | 15 | 191 | | | | |
| 3864 | 1360 | 86 | 115 | 24 | 232 | | | | |
| 3865 | 1340 | 90 | 127 | 25 | 272 | | | | |
| 3866 | 1640 | 101 | 152 | 28 | 300 | | | | |
| 3867 | 179 | 36 | 119 | 66 | 78 | | | | |
| 3868 | 1540 | 84 | 142 | 18 | 208 | | | | |
| 3868 | 1520 | 95 | 161 | 22 | 215 | | | | |
| 3870 | 1240 | 83 | 123 | 26 | 341 | | | | |
| 3871 | 79 | 26 | 63 | 150 | 150 | | | | |
| 3872 | 1220 | 92 | 148 | 22 | 290 | | | | |
| 3873 | 1560 | 92 | 108 | 17 | 238 | | | | |
| 3874 | 1240 | 88 | 172 | 32 | 269 | | | | |
| 3875 | 1100 | 90 | 123 | 25 | 285 | | | | |
| 4001 | 1440 | 95 | 119 | 23 | 151 | | | | |
| 4002 | 1180 | 92 | 98 | 22 | 263 | | | | |
| 4003 | 1500 | 95 | 103 | 18 | 185 | | | | |
| 4004 | 1600 | 96 | 124 | 24 | 151 | | | | |
| 4005 | 1520 | 91 | 101 | 21 | 130 | | | | |
| 4006 | 1740 | 96 | 86 | 21 | 187 | | | | |
| 4013 | 1520 | 92 | 325 | 18 | 140 | | | | |
| 4026 | 1640 | 102 | 72 | 42 | 424 | | | | |
| 4027 | 1060 | 88 | 71 | 32 | 336 | | | | |
| 4028 | 1260 | 97 | 70 | 29 | 323 | | | | |
| 4029 | 1260 | 92 | 97 | 32 | 215 | | | | |
| 4030 | 1500 | 93 | 120 | 30 | 256 | | | | |
| 4031 | 1740 | 98 | 124 | 23 | 190 | | | | |
| 4032 | 1640 | 93 | 168 | 29 | 297 | | | | |
| 4033 | 1460 | 95 | 143 | 22 | 161 | | | | |
| 4034 | 1600 | 104 | 131 | 20 | 150 | | | | |
| 4035 | 1460 | 100 | 132 | 24 | 151 | | | | |
| 4036 | 1840 | 96 | 138 | 23 | 199 | | | | |
| 4037 | 1440 | 95 | 149 | 24 | 181 | | | | |
| 4038 | 1240 | 95 | 128 | 23 | 168 | | | | |
| 4039 | 375 | 44 | 56 | 58 | 240 | | | | |

FOR METHOD, EXTRACTION AND FRACTION USED – SEE ATTACHED

BONDAR-CLEGG & COMPANY LTD.

136B INDUSTRIAL RD, WHITEHORSE, YUKON Y1A 4X1

PHONE: (403) 667-6523
TELEX: 036-8-460

# Geochemical Lab Report

FROM: Halferdahl & Associates Ltd. REPORT NUMBER: 41-699

PROJECT: _____ DATE: September 29, 1981

| SAMPLE NUMBERS | Cu ppm | Pb ppm | Ni ppm | Co ppm | V ppm | Cr ppm | | | |
|---|---|---|---|---|---|---|---|---|---|
| 4426 | 148 | 6 | 1300 | 145 | 22 | 276 | | | |
| 4451 | 152 | 4 | 1500 | 150 | 22 | 261 | | | |
| 4452 | 166 | 4 | 1400 | 165 | 17 | 224 | | | |
| 4453 | 154 | 2 | 1200 | 160 | 23 | 268 | | | |
| 4454 | 164 | 4 | 1350 | 155 | 14 | 232 | | | |
| 4455 | 119 | 4 | 1250 | 160 | 16 | 246 | | | |
| 4456 | 133 | 6 | 1250 | 150 | 20 | 241 | | | |
| 4457 | 178 | 4 | 1200 | 160 | 29 | 449 | | | |
| 4458 | 172 | 6 | 1350 | 170 | 28 | 412 | | | |
| 4459 | 129 | 6 | 1200 | 175 | 15 | 199 | | | |
| 4460 | 182 | 8 | 1250 | 170 | 23 | 216 | | | |
| 4461 | 45 | 6 | 520 | 32 | 26 | 101 | | | |
| 4462 | 176 | 3 | 1200 | 170 | 16 | 215 | | | |
| 4463 | 162 | 4 | 1150 | 180 | 17 | 210 | | | |
| 4464 | 156 | 4 | 1150 | 180 | 16 | 232 | | | |
| 4465 | 222 | 6 | 1200 | 180 | 15 | 238 | | | |
| 4466 | 160 | 8 | 1100 | 175 | 23 | 284 | | | |
| 4467 | 165 | 1 | 1300 | 165 | 19 | 300 | | | |
| 4468 | 63 | 3 | 1300 | 150 | 16 | 271 | | | |
| 4469 | 65 | 2 | 1400 | 145 | 14 | 194 | | | |
| 4470 | 10 | 7 | 300 | 22 | 9 | 41 | | | |
| 4471 | 62 | 4 | 1400 | 155 | 18 | 250 | | | |
| 4472 | 45 | 3 | 1300 | 155 | 16 | 218 | | | |
| 4473 | 105 | 4 | 1350 | 160 | 14 | 164 | | | |
| 4474 | 13 | 3 | 90 | 32 | 45 | 29 | | | |
| 4475 | NS | NS | NS | NS | NS | NS | | | |

NS - denotes no sample

FOR METHOD, EXTRACTION AND FRACTION USED – SEE ATTACHED

BONDAR-CLEGG & COMPANY LTD.

136B INDUSTRIAL RD, WHITEHORSE, YUKON Y1A 4X1

PHONE: (403) 667-6523
TELEX: 036-8-460

# Certificate of Analysis

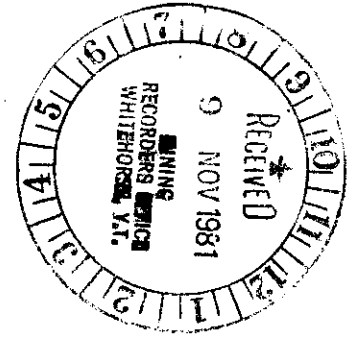
TO Halferdahl & Associates Ltd.
18 - 10509 81 Ave.
Edmonton, Alta. T6X 1X7

REPORT NO. A41-249

DATE October 30, 1981

I hereby certify that the following are the results of analyses made by us upon the herein described ... rock ..... samples

| MARKED | oz/ton Au | oz/ton Ag |
|---|---|---|
| 4045 | L0.002 | L0.05 |
| 4046 | 0.002 | L0.05 |
| 4426 | 0.002 | L0.05 |
| 4451 | 0.002 | L0.05 |
| 4452 | 0.002 | L0.05 |
| 4453 | 0.002 | L0.05 |
| 4454 | 0.002 | L0.05 |
| 4455 | 0.002 | L0.05 |
| 4456 | 0.002 | L0.05 |
| 4457 | 0.002 | L0.05 |
| 4458 | 0.002 | L0.05 |
| 4459 | 0.002 | L0.05 |
| 4460 | 0.002 | L0.05 |
| 4461 | 0.002 | L0.05 |
| 4462 | 0.002 | L0.05 |




L - denotes less than

BONDAR-CLEGG & COMPANY LTD.

Steven Seagram

NOTE:
Rejects retained two weeks
Pulps retained three months
unless otherwise arranged.

A15

BONDAR-CLEGG & COMPANY LTD.

136B INDUSTRIAL RD, WHITEHORSE, YUKON Y1A 4X1

PHONE: (403) 667-6523
TELEX: 036-8-460

# Certificate of Analysis

TO Halferdahl & Associates Ltd.



REPORT NO. A41-249

DATE October 30, 1981

I hereby certify that the following are the results of analyses made by us upon the herein described rock samples

| MARKED | oz/ton Au | oz/ton Ag | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4463 | 0.002 | L0.05 | | | | | | | | |
| 4464 | 0.002 | L0.05 | | | | | | | | |
| 4465 | 0.002 | L0.05 | | | | | | | | |
| 4466 | 0.002 | L0.05 | | | | | | | | |
| 4467 | 0.002 | L0.05 | | | | | | | | |
| 4468 | 0.002 | L0.05 | | | | | | | | |
| 4469 | 0.002 | L0.05 | | | | | | | | |
| 4470 | 0.002 | L0.05 | | | | | | | | |
| 4471 | 0.002 | L0.05 | | | | | | | | |
| 4472 | 0.002 | L0.05 | | | | | | | | |
| 4473 | 0.002 | L0.05 | | | | | | | | |
| 4474 | 0.002 | L0.05 | | | | | | | | |
| 4475 | 0.002 | L0.05 | | | | | | | | |

L - denotes less than

BONDAR-CLEGG & COMPANY LTD.

Steven Seagram

NOTE:
Rejects retained two weeks
Pulps retained three months
unless otherwise arranged.

A16

TATAMAGOUCHE

CREEK

Creek

Wen

Creek

C.REEK

45 PUP

BURWASH

Joyce

Creek

Trailer

Camp

Baseline or 1000 N

3500 E

3400 E

3300 E

3200 E

3100 E

3000 E

2900 E

2800 E

1245

1250

1200

1150

1300

1400

1350

1100

1150

1250

1300

1200

1100

1100

1150

1200

1250

1300

JO 7 JO 8

JO 5 JO 6

JO 3 JO 4

JO 1 JO 2

AND 7 AND 8

WEN 7 WEN 8

WEN 5 WEN 6

WEN 3 WEN 4

81-1

81-2

81-3

81-4

81-5

TRENCH 1

TRENCH 2

LOWER SUMP

UPPER SUMP

## SYMBOLS

Fault, defined ..... interpreted .....

Trench, excavation .....

Drillhole with number and projection ..... 81-2

Claim post .....

Claim line, location line ..... other .....

Claim name ..... WEN 5

Contour (interval 10m) ..... 1250

Road, unimproved .....

## NOTES

Locations of claim posts, claim lines, trenches, and drillholes were located approximately with compass and topofil chain.

Diamond drillholes:

| No. | Depth (m) | From No. 1 Post Jo 6 Distance (m) | Azimuth | Bearing | Dip |
|---|---|---|---|---|---|
| 81-1 | 14.0 | 317 | 129° | — | Vert. |
| 81-2 | 23.2 | 314 | 128.5° | 320° | 60° |
| 81-3 | 96.6 | 275 | 138.5° | — | Vert. |
| 81-4 | 73.7 | 311 | 94° | — | Vert. |
| 81-5 | 69.5 | 679 | 119° | 102° | 60° |

BUR PROPERTY

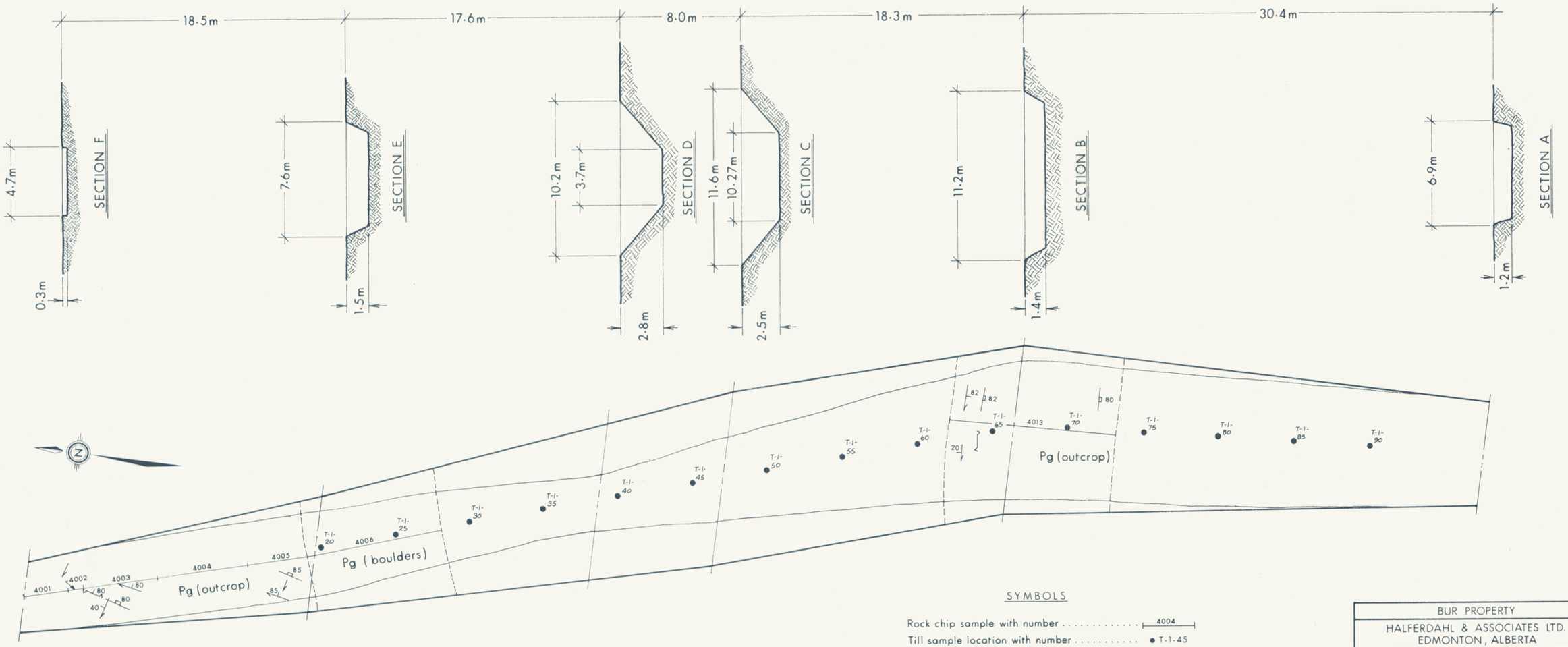
HALFERDAHL & ASSOCIATES LTD.
EDMONTON, ALBERTA

Fig. 3 Locations of Trenches, Sumps, and Drillholes.

BURWASH & TATAMAGOUCHE CREEKS, Y.T.

0 50 100 150 200
METRES

DRN. SCALE 1:2000 1981




SYMBOLS

Rock chip sample with number ..... 4004

Till sample location with number ..... • T-1-45

Banding (inclined, vertical, dip unknown) ....

Joint (inclined) .....

Shearing and dip .....

See appendix 2 for analyses of samples.

BUR PROPERTY

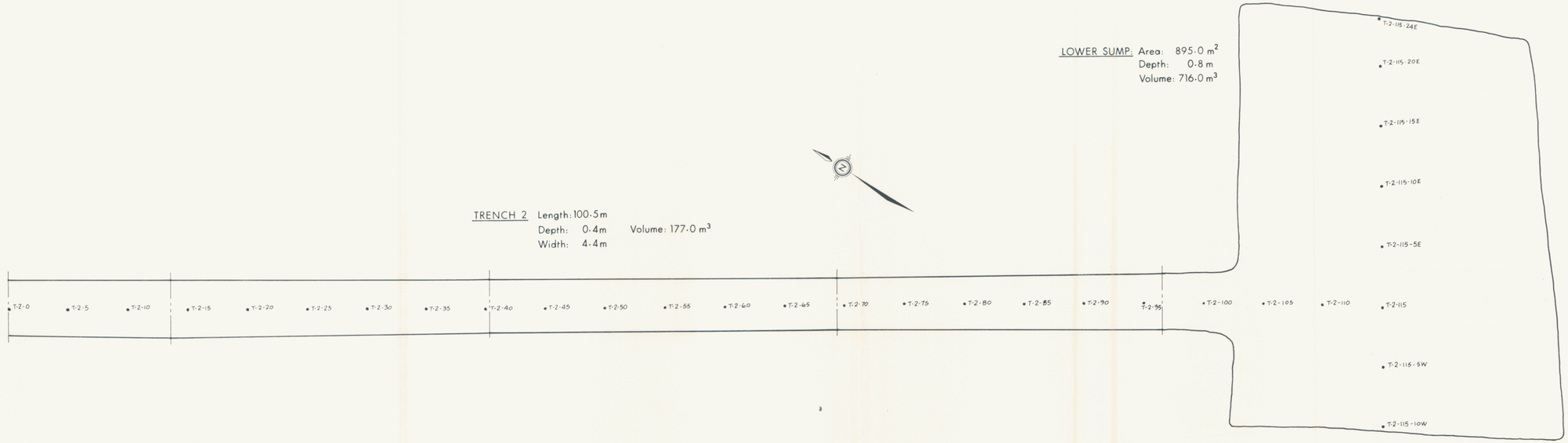
HALFERDAHL & ASSOCIATES LTD.
EDMONTON, ALBERTA

Fig. 4 Plan and Sections of Trench 1

BURWASH & TATAMAGOUCHE CREEKS, Y.T.

0 5 METRES 10 15

DBN SCALE: 1:200 1981.10




SYMBOLS

Till sample with number ..... • T-2-75

See appendix 2 for analyses of till samples.

BUR PROPERTY

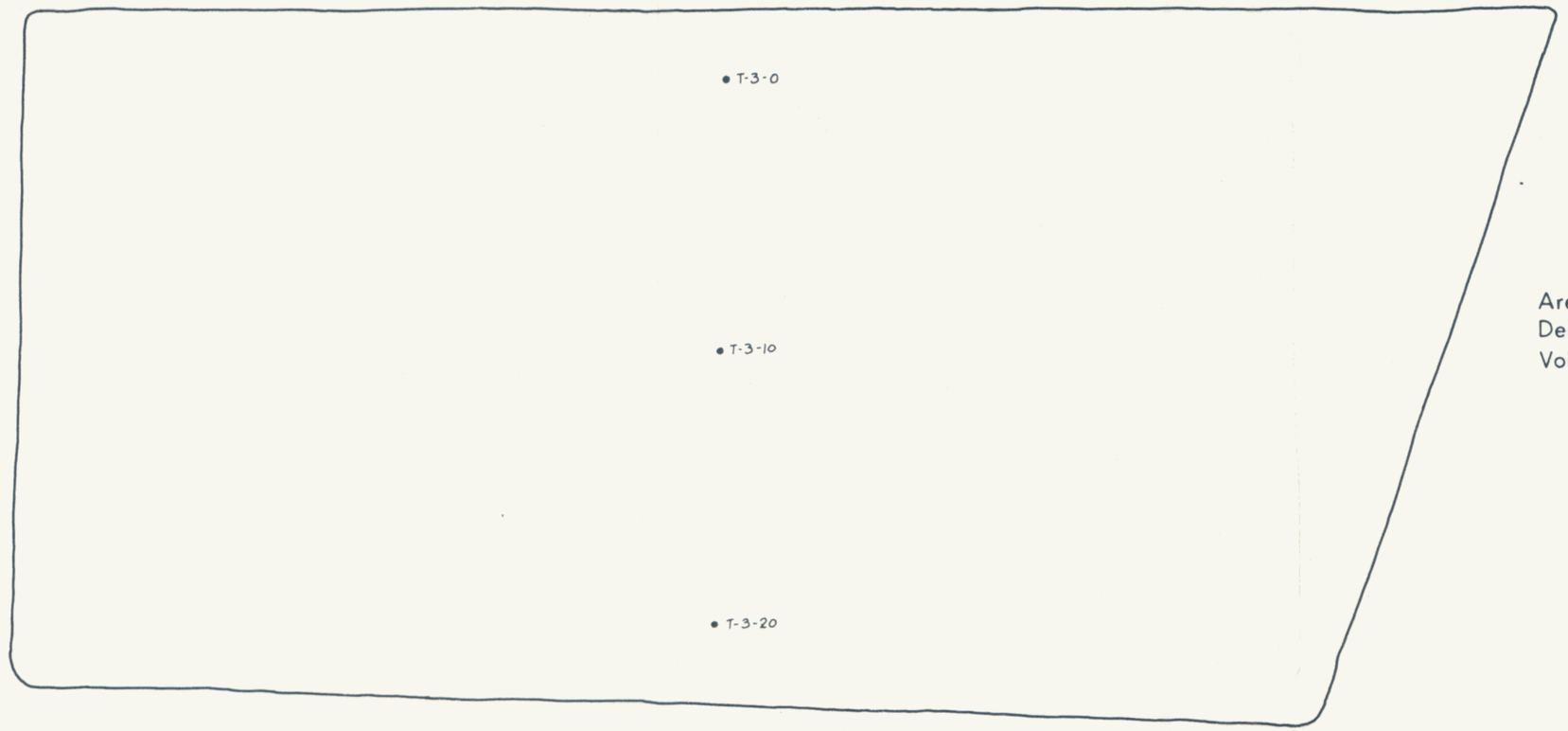
HALFERDAHL & ASSOCIATES LTD.
EDMONTON, ALBERTA

Fig. 5 Plan of Trench 2 and Lower Sump

BURWASH & TATAMAGOUCHE CREEKS, Y.T.

0 5 METRES 10 15

DBN SCALE: 1:200 1981-10


Area: 1337.0 $m^2$
Depth: 1.01 m
Volume: 1349.8 $m^3$

SYMBOLS

Till sample location with number..... • T-3-10

See appendix 2 for analyses of till samples.

BUR PROPERTY

HALFERDAHL & ASSOCIATES LTD.
EDMONTON, ALBERTA

Fig. 6 Plan of Upper Sump.

BURWASH & TATAMAGOUCHE CREEKS, Y.T.

0 5 METRES 10 15

DBN SCALE: 1:200 1981.10