

ASSESSMENT REPORT

ON

BIG CLAIMS 17 to 68 (YA 74921 - 972)

AND

SAM CLAIMS 1 to 16 (YA 74977 - 992)

105F14

$61^{\circ}48'N$   $133^{\circ}23'W$

GEOPHYSICAL, GEOLOGICAL  
& ROCK SAMPLING

WHITEHORSE MINING DISTRICT

AUGUST 9-27, 1982

E. W. YARROW

FEBRUARY 1983

091472

This receipt is to be signed by

The Receiver General of the Yukon Territory  
under Order in Council No. 1000-1947  
in respect of the amount of \$8,000.  
Approved for the Receiver General  
of \$ 8,000

*R. Watson*  
Regional Manager, Exploration and  
Geological Service for Commissioner  
of Yukon Territory.

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APPENDIX III	ASSAY SHEETS

INTRODUCTION:

The following report is prepared to satisfy requirements for assessment work covering geological, geophysical and rock sampling work on a group of 68 mineral claims which were staked to cover tungsten bearing skarn zones. The BIG Claims (17 to 68) and SAM Claims (1 to 16) were staked in July and August of 1982 and subsequently recorded in early August 1982. During the period August 9 to August 27 a crew of four men completed the following:

- i) Geological Mapping - Outcrop mapping of the property on a 1:25000 scale plus 1:2000 mapping in the main showing area.
- ii) Geophysics - VLF-EM and magnetometer surveys were completed on a grid covering the main showing area.
- iii) Sampling - twenty two rock samples were collected for rock geochemical analysis. In addition 29 rock samples were collected from mineralized zones in the main showing area. All these samples were analyzed for  $WO_3$  by Bondar-Clegg & Company Limited, 136 Industrial Rd., Whitehorse, Yukon Territory.

LOCATION AND ACCESS:

Plate No. 1.

The claims are located in the Whitehorse Mining Division, claim sheet 105 F-14 centered at  $61^{\circ}48'N$ ,  $133^{\circ}23'W$ . The closest community is Ross River located 55 Kilometers northeast with the major logistics center, Whitehorse, 155 Kilometers southwest.

Access is via Trans North Turbo Air helicopter from Ross River with the South Canal Road 13 Kilometers due east from the south boundary of the claims.

PERSONNEL:

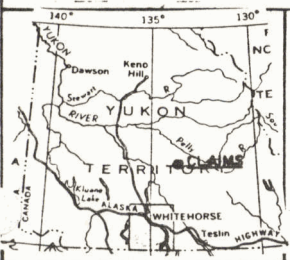
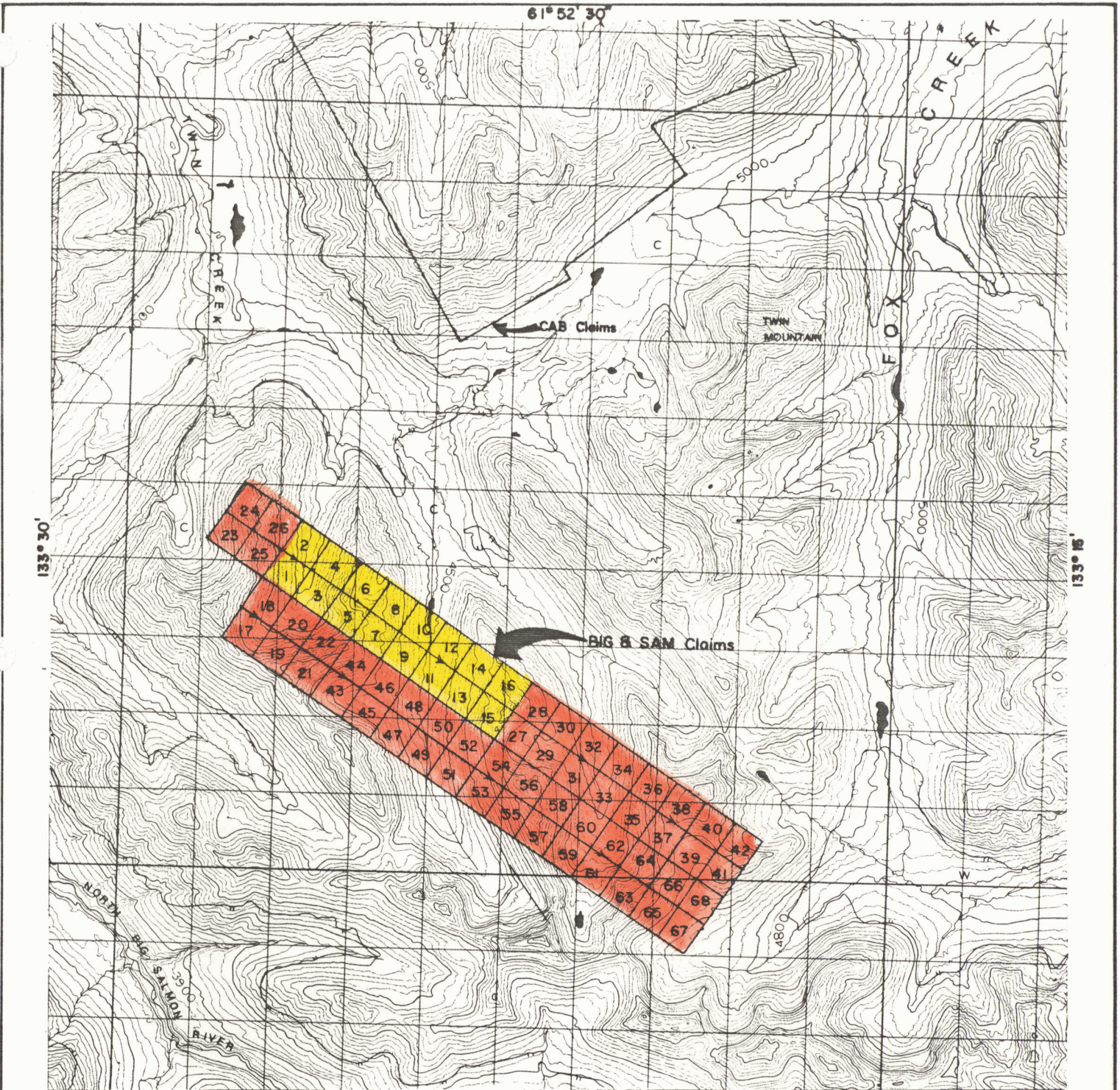
The following personnel were involved in the project during the 1982 field season:

D. Downing - Project Supervisor - Statement of Qualifications  
in Appendix II.

Richard Facey-Crowther - Field Assistant

Todd McKinlay - Field Assistant

Matt Uza - Field Assistant



- 17-68 BIG CLAIMS YA 74921 to 74972
- 1-16 SAM CLAIMS YA 74977 to 74992

	NW	NE	
	SW	SE	

I.T.S. 105 F 14 / SW

**HUDSON BAY EXPLORATION & DEVELOPMENT**  
 WHITEHORSE COMPANY LTD. OFFICE

## LOCATION

### BIG & SAM CLAIMS

SCALE: 1:50,000 PLATE NO. 1 DATE: \_\_\_\_\_

This report was prepared, in consultation with Mr. Downing, by Edward W. Yarrow, Senior Geologist, Hudson Bay Exploration and Development whose Statement of Qualifications are contained in Appendix II.

CLAIM OWNERSHIP:

All claims are owned by Hudson Bay Exploration and Development Company Limited, 100-10 Burns Road, Whitehorse, Yukon Territory. YIA 4Y9

SAM 1 to 16 inclusive - Grant No's. YA 74977 - YA 74992

BIG 17 to 68 inclusive - Grant No's. YA 74921 - YA 74972

GEOLOGY AND MINERALIZATION:

Plate No. 2 and 3.

All claims were geologically mapped on 1:25000 scale with the main area of scheelite mineralization mapped on 1:2000 scale. Plates 2 and 3 in the back folder are the resultant maps.

Regionally the property lies within the Yukon Cataclastic Complex to the southwest of the Tintina Fault which forms the southwest boundary of the Selwyn Basin.

Locally the claims are underlain by schists, gneisses and marbles of Proterozoic and/or Lower Cambrian age which have been intruded by Cretaceous quartz monzonites of the Big Salmon Batholith or apophysis of this intrusive body. The metamorphic package of rocks strike northwest and dip steeply northeast with limey horizons often altered to skarn when near intrusive bodies. Two types of skarn, mineralogically, are found on the property. One a garnet diopside skarn contains little if any scheelite and occurs in long narrow northwest striking bands paralleling the contact with the batholith. The second skarn, pyrrhotite diopside skarn, is more localized and hosts the best scheelite mineralization which is located on the north part of the property. Skarns in this area are up to 3 meters wide and contain irregularly disseminated to massive pyrrhotite with associated scheelite. An assay of 1.8%  $WO_3$  across 2.2 meters was obtained from one of these zones.

TABLE OF FORMATIONS (from O. File 486)  
Relationship to Big Sam Claims Geology

MESOZOIC INTRUSIVES

- KTqfp Quartz Feldspar Porphyry Dykes
- Kqm Equigranular Quartz Monzonite
- Kpam Biotite Quartz Monzonite

Mesozoic Sediments

5 Quartz Monzonite

Paleozoic Sediments & Volcanics

BIG SAM CLAIMS CORRELATION

- 4a Quartz Biotite Schist
- 4 Quartz Biotite Gneiss
- 3 Marble
- 2 Garnet Diopside Skarn
- 1 Pyrrhotite Diopside Skarn

LOWER CAMBRIAN

- 1Cd Dolomite
- 1Ec Calcareous Argillite
- 1Ccl Limestone
- 1Cqs Quartzite

PROTEROZOIC AND/OR L. CAMBRIAN

- Pns Muscovite Biotite Gneiss
- Pn Biotite Granodiorite Gneiss
- Pns\* Muscovite Biotite Gneiss, Auger Gneiss, Schist
- P1Es Biotite Schist

GEOPHYSICS:

A magnetometer survey using a Scintrex MF-2 Proton Precession Magnetometer and a VLF EM survey using a Ronka EM-16 unit were completed on a grid covering the area of best scheelite mineralization. The grid used was established by chain and compass with cross lines every 100 meters along a base line and stations marked with flagging tape every 25 meters along the cross lines.

i) MAGNETOMETER SURVEY:

A total of 13.2 line kilometers of magnetometer work was completed on the 100m x 25m grid with 16.55 kilometers of magnetic work on the detailed 25m x 5m grid.

The Proton Precession Magnetometer gives a total field digital readout and has a sensitivity of one gamma. The theory behind the application of this instrument is as follows:

"The proton precession magnetometer is so named because it uses the precession of spinning protons or nuclei of the hydrogen atom in a sample of hydrocarbon fluid to measure the total magnetic intensity. The spinning protons in a sample of water, kerosene, or alcohol behaves as small, spinning magnetic dipoles. These magnets are temporarily aligned or polarized by application of a uniform magnetic field generated by a current in a coil of wire. When the current is removed, the spin of the protons causes them to precess about the direction of the ambient or earth's magnetic field, much as a spinning top precesses about the gravity field. The precessing protons then generate a small signal in the same coil used to polarize them, a signal whose frequency is precisely proportional to the total magnetic field intensity and independent of the orientation of the coil, i.e., a sensor of the magnetometer. The proportionality constant which relates frequency to field intensity is a well known atomic constant: the gyromagnetic ratio of the proton. The precession frequency, typically 2,000 Hz, is measured by modern digital counters as the absolute value of the total magnetic field intensity with an accuracy of 1 gamma, and in special cases 0.1 gamma, in the earth's field of approximately 50,000 gammas."

Operational procedure for this survey was:

1. Sensor was attached to a 2.5 meter staff to reduce effects from any highly magnetic surface materials.
2. At commencement of survey readings were rapidly acquired at every cross line on base line 20 + 00N. This eliminated repeated walks to a single reference station as survey loops of cross lines were tied into these base readings.
3. Readings, in gammas, were recorded in a field notebook along with the time.
4. Readings were recorded every 25 meters, except in detailed areas (5M) with loops tied into base stations as mentioned in (3) above. The following corrections were applied to the readings. A linear distributed correction was made for each loop based on diurnal drift during the loop. Another linear correction was applied to each loop based on the fixed base station readings. The following is an example of the corrections applied to achieve a final result.

Reading (gammas)	Diurnal Drift Loop Correction	Reading	Base Station Correction	Final Reading Gammas
57803	-1	57802	+30	57832

ii) ELECTROMAGNETIC SURVEY:

A brief explanation of the VLF (very low frequency) system follows: \*

'The VLF method uses powerful radio transmitted set up in different parts of the world for military communications. This powerful radio transmitter induces electric currents in conductive bodies thousands of miles awa. Induced currents produce secondary magnetic fields which can be detected at surface through deviation of the normal VLF field'

The VLF electromagnetic survey completed on the grid used the transmitter station located at Seattle, Washington with 17.0 line kilometers completed. Raw in phase dip data in degrees were filtered using the 'Fraser Filter' technique with final results plotted and contoured on Plate No. 5 in the back envelope. An example of the filter calculation is given below. The general formula could be expressed as  $(R_1+R_2)-(R_3+R_4)$ ,  $(R_2+R_3)-(R_4+R_5)$  etc.

\* From Practical Geophyscis for the Exploration Geologist, Northwest Mining Association p.270

Line 30+00E

Co-ordinates	10+00N	10+25N	10+50N	10+75N	11+00N
Raw EM data	+30	+25	+22	+36	+33
		+		+	
		55		58	
Filtered reading					-3

Discussion of Geophysical Results

The geophysical work outlines the predominantly north striking structural grain of the property with both EM and magnetics approximately outlining the main showing area. The detailed magnetometer survey indicates the showings generally lack lateral continuity. However, notwithstanding this there are at least three areas which require follow up:

- 1) Moderate EM and magnetic anomalies occur on the projected north strike of the main showings. This area is mainly drift covered.
- 2) A strong open ended magnetic anomaly with moderate EM response occurs in the north part of the grid are (L33+00E, 19+75N).
- 3) South east portion of the grid (L40+00E, 19+00N) contains a strong open ended EM anomaly with moderately strong magnetic response.

ROCK SAMPLING

Twenty two grab rock samples were collected and analyzed for copper and  $WO_3$  by Bondar Clegg & Co. Ltd. in Whitehorse. These results, designated by letter A thru V, are plotted on Plate No. 2 contained in the back envelope. In the vicinity of the main showings an additional twenty nine rock samples were collected and analyzed for  $WO_3$  content. Their locations and values are shown on Plate No. 3 in the back envelope.

CONCLUSIONS & RECOMMENDATIONS:

Work thus far has outlined narrow scheelite bearing skarn bands which are cut off by intrusives to the southeast with possible northwestern extension lying in an overburden covered valley and slope. The following is recommended:

- 1) All claims except SAM 1-8, BIG 17-22, 25, 26 be allowed to lapse.
- 2) All geophysical anomalies be closed off with detailed magnetometer surveys completed over anomalous magnetics.
- 3) Ultra violet light prospecting should be undertaken over the above areas.

4) Since pyrrhotite is associated with scheelite shortcable Max Min electromagnetics might be another way of delineating possible trenching and/or drilling targets.

5) Trenching of anomalies outlined in 2 to 4 above.

A handwritten signature in black ink, appearing to read 'E. W. Yarrow', written in a cursive style.

Edward W. Yarrow,  
Sr. Geologist,  
Hudson Bay Expl. & Dev.

APPENDIX I

I, Edward William Yarrow, do hereby affirm that the following expenses were incurred on the SAM Claims 1 to 16 (YA 74977-992) and BIG Claims 17 to 68 (YA74921-972) in the period August 9 to 27, 1982.

1. Helicopter - Trans North Air

Aug. 20	Invoice 61597	1,197.77	
Aug. 24	Invoice 61598	816.60	
Aug. 28	Invoice 61599	<u>1,143.32</u>	3,157.69

2. Assay Charges - Bondar Clegg

Sept. 14	Invoice 42-316	426.30	
Sept. 10	Invoice A42-89	368.00	
Aug. 19	Invoice A42-84	224.00	
Sept. 21	Invoice 42-356	658.00	
Sept. 23	Invoice 42-355	<u>559.05</u>	2,235.35

3. ~~Gas~~ Costs (Aug. 9-27, 1982)

*Camp* 19 days x 4 x 25.00/day 1,900.00

4. Wages

Downing - 19 x 150.00/day =	2,850.00	
McKinlay - 19 x 100.00/day =	1,900.00	
Facey-Crowther - 19 x 90.00/day =	1,710.00	
Uza - 19 x 75.00/day =	<u>1,425.00</u>	<u>7,885.00</u>

\$ 15,178.04

APPENDIX II

STATEMENT OF QUALIFICATIONS

I, Edward William Yarrow, do hereby affirm

- That I am a B. Sc. graduate in Geology from the University of British Columbia in 1970.
- That I have practised my profession in Europe, United States and Canada since graduation. This work has included supervision of geochemical, geophysical, geological and diamond drill programs.
- That I am a Fellow of the Geological Association of Canada.
- That I am presently employed as Senior Geologist, British Columbia, for Hudson Bay Exploration and Development Company Limited.

DAVID A DOWNING

Address: 83 Tamarack Dr.,  
Whitehorse, Y. T.

Education: Geological Engineering - Queen's University  
graduated in 1978.

Employment: 1978 - 1980 - exploration geologist in  
Yukon, Hudson Bay Exploration and Development  
Company Limited

1980 - 1981 - Geological Engineer, CDC Oil and  
Gas Company Limited, Calgary, Alberta.

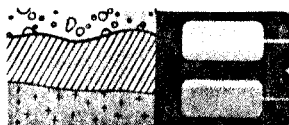
1981 - 1982 - Project Geologist, Whitehorse office  
Hudson Bay Exploration and Development Company  
Limited

APPENDIX III

ASSAY SHEETS

SAMPLE RESULTS

LETTER	% WO <sub>3</sub>	WIDTH (meters)	TYPE
A	0.66	0.45	Chip
B	1.90	1.35	"
C	1.80	2.20	"
D	0.20	0.32	"
E	0.62	0.38	"
F	0.16	0.80	"
G	7.16	0.35	"
H	0.24	1.00	"
I	0.88	--	Grab
J	0.078	1.00	Chip
K	0.11	1.00	"
L	0.14	1.00	"
M	1.19	1.45	"
N	0.29	1.30	"
O	0.10	0.25	"
(from NE to SW)	0.28	0.25	"
	0.57	0.25	"
	0.53	0.25	"
	0.11	0.25	"
	0.24	0.25	"
	0.22	0.25	"
	0.23	0.25	"
	0.53	0.25	"
	0.35	0.25	"
	0.11	0.25	"
	<0.005	0.25	"
	0.032	0.25	"
	0.039	0.25	"
	0.12	0.25	"



CLIENT: WREN

REPORT NUMBER: 642-355

GEOLOGIST: D. W. BURNHAM

PROJECT: BIG SALMON

NUMBER OF SAMPLES: 24

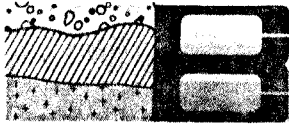
PRIORITY: F

DATE: SEPTEMBER 23, 1982

SEE APPENDIX FOR EXPLANATION OF DIGESTION, ANALYSIS, SAMPLE TYPE, AND SIEVE SIZE CODES.

NO.	SAMPLE NUMBER	T/S	CU/A1 PPM	FE/A1 PPM	ZN/A1 PPM	MO/A1 PPM	SN/V1 PPM	WT/V PPM	AS/E4 PPM	AS/D2 PPM
0001	74847 R A		18					400		
0002	74848 R A		186					500		
0003	74849 R A		24					32		
0004	73258 R A		2	2	25	1	L 5	L 2	6	47
0005	73259 R A		2	2	10	1	L 5	L 2	4	6
0006	73260 R A		4	6	20	3	L 5	L 2	8	6
0007	73261 R A		1	4	30	1	L 5	L 2	6	8
0008	73262 R A		1	4	10	2	L 5	L 2	10	5
0009	73263 R A		2	10	5	1	L 5	L 2	12	3
0010	73264 R A		2	4	2	3	L 5	650	3	2
0011	73265 R A		1	4	15	12	L 5	40	L 2	2
0012	73266 R A		2	12	20	1	L 5	L 2	2	2
0013	73267 R A		2	4	15	2	L 5	L 2	6	L 2
0014	73268 R A		4	4	5	2	L 5	L 2	2	2
0015	73269 R A		1	2	20	2	L 5	L 2	2	L 2
0016	74870 R A		2	4	15	1	L 5	L 2	L 2	L 2
0017	74844 R A		2	2	25	1	L 5	L 2	5	L 2
0018	74845 R A		1	6	25	2	L 5	L 2	2	L 2
0019	74846 R A		1	4	15	1	L 5	L 2	2	L 2
0020	74850 R A		1	2	15	1	L 5	L 2	5	L 2
0021	71707 R A		2	8	5	3	L 5	32	L 2	11
0022	71708 R A		1	4	10	4	L 5	L 2	2	2
0023	71709 R A		2	6	10	2	L 5	L 2	3	L 2
0024	71710 R A		2	6	10	2	8	L 2	L 2	L 2

ALL IN PPM



CLIENT: MSED

REPORT NUMBER: 642-356

PROJECT: BIG SALMON

ACCESSIBILITY:

PROJECT: BIG SALMON

NUMBER OF SAMPLES: 36

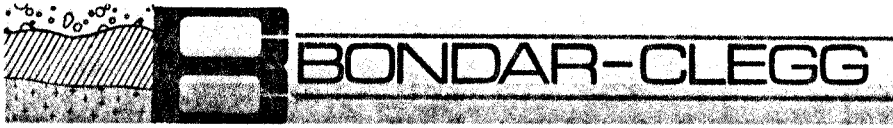
PRIORITY: P

DATE: SEPTEMBER 16, 1982

SEE APPENDIX FOR EXPLANATION OF DIGESTION, ANALYSIS, SAMPLE TYPE, AND SIEVE SIZE CODES.

REQ#	SAMPLE NUMBER	T/S	CU/A1 PPM	NO/A1 PPM	BN/I1 PPM	W/T2 PPM	
0001	105 F 13457	S 1	8	2	10	L 2	5
0002	13458	S 1	6	1	10	L 2	24
0003	13459	S 1	4	1	5	L 2	15
0004	13460	S 1 R	50	3	5	L 2	—
0005	13461	S 1 D	6	2	L 5	8	—
0006	13462	S 1	8	3	L 5	24	18
0007	13463	S 1	24	2	6	L 2	3
0008	13464	S 1	18	1	5	L 2	4
0009	13465	S 1	19	1	5	L 2	1
0010	13466	S 1	16	2	L 5	L 2	3
0011	13467	S 1	12	1	L 5	L 2	2
0012	13468	S 1	12	1	L 5	L 2	9
0013	13469	S 1	4	1	L 5	L 2	28
0014	13468	S 1	12	2	L 5	L 2	
0015	13469	S 1	20	2	L 5	L 2	
0016	13670	S 1 R	90	3	7	L 2	
0017	13671	S 1 D	12	2	6	L 2	
0018	13672	S 1	16	1	L 5	L 2	
0019	13673	S 1	4	1	L 5	L 2	
0020	13674	S 1	8	3	L 5	L 2	
0021	13675	S 1	6	1	L 5	L 2	
0022	13676	S 1	16	1	L 5	L 2	
0023	13677	S 1	8	1	L 5	L 2	
0024	13678	S 1	8	2	L 5	L 2	
0025	13679	S 1	12	1	L 5	L 2	
0026	13680	S 1 R	20	4	L 5	L 2	
0027	13681	S 1 D	1	1	L 5	L 2	
0028	13682	S 1	1	1	L 5	L 2	
0029	13683	S 1	6	2	L 5	L 2	
0030	13684	S 1	12	3	L 5	L 2	
0031	13685	S 1	16	2	L 5	L 2	
0032	13686	S 1	12	1	L 5	L 2	
0033	13687	S 1	12	1	L 5	L 2	
0034	13688	S 1	14	1	L 5	L 2	
0035	105 F 13689	S 1	1	1	L 5	L 2	

BIG Salmon Soils.  
Camp #1



Page No. \_\_\_\_\_

CLIENT: MDEB

REPORT NUMBER: 642-356

GEOLOGIST: J. J. JENNINGS, P.

GEOLOGIST: \_\_\_\_\_

PROJECT: B14 SALMON

NUMBER OF SAMPLES: 56

PRIORITY: P

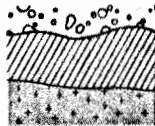
DATE: SEPTEMBER 16, 1982

SEE APPENDIX FOR EXPLANATION OF DIGESTION, ANALYSIS, SAMPLE TYPE, AND SIEVE SIZE CODES.

NO. /	SAMPLE NUMBER	/ T/ S	CU/A1 PPM	MO/A1 PPM	SN/I1 PPM	W/T2 PPM
0036	105F 13890	S 1 R	42	14	L 5	L 2
0037	13891	S 1 D	12	1	L 5	L 2
0038	13892	S 1	14	1	L 5	L 2
0039	13893	S 1	16	1	L 5	L 2
0040	13894	S 1	14	1	L 5	L 2
0041	13895	S 1	22	2	L 5	L 2
0042	13896	S 1	12	1	L 5	L 2
0043	13897	S 1	10	1	L 5	L 2
0044	13898	S 1	12	1	L 5	L 2
0045	13899	S 1	8	2	L 5	L 2
0046	13900	S 1 R	6	1	L 5	L 2
0047	13901	S 1 D	10	1	L 5	L 2
0048	13902	S 1	10	2	L 5	L 2
0049	13903	S 1	4	2	L 5	L 2
0050	13904	S 1	2	1	L 5	L 2
0051	13905	S 1	6	2	L 5	L 2
0052	13906	S 1	16	2	S	L 2
0053	13907	S 1	4	1	L 5	L 2
0054	13908	S 1	6	1	L 5	L 2
0055	105F 13909	S 1	4	1	L 5	L 2
0056	105F 14712	S 1	30	1	L 5	L 2

B14 SALMON silt  
Comp #1 & #2

---END---



PAGE NO. 1

CLIENT: HUDSON BAY EXPLORATION

REPORT NUMBER: 842-316

PROJECT: 7360

NUMBER OF SAMPLES: 21

PRIORITY: F

DATE: SEPTEMBER 02, 1982

SEE APPENDIX FOR EXPLANATION OF DIGESTION, ANALYSIS, SAMPLE TYPE, AND SIEVE SIZE CODES.

REQ# /	SAMPLE NUMBER / T / S	CU/A1 PPM	MO/A1 PPM	W/T2 PPM	AU/E4 PPM	GN/I1 PPM
0001	74820 R A	14	4	L 2	L 2	10
0002	74824 R A	33	2	L 2	3	L 5
0003	74825 R A	60	4	L 2	7	L 5
0004	74826 R A	60	5	L 2	4	5
0005	74827 R A	20	5	32	2	L 5
0006	74828 R A	720	1	L 2	2	50
0007	74829 R A	40	6	L 2	L 2	10
0008	74830 R A	10	3	L 2	L 2	L 5
0009	74831 R A	50	4	L 2	2	L 5
0010	74832 R A	7	2	L 2	2	L 5
0011	74833 R A	28	5	L 2	L 2	L 5
0012	74834 R A	31	2	L 2	6	L 5
0013	74835 R A	33	3	L 2	2	L 5
0014	74836 R A	3	1	L 2	L 2	L 5
0015	74837 R A	57	5	L 2	L 2	10
0016	74838 R A	36	3	5	L 2	10
0017	74839 R A	63	5	55	2	7
0018	74840 R A	240	5	450	L 2	15
0019	74841 R A	2880	1	L 2	140	7
0020	74842 R A	91	2	L 2	7	L 5
0021	74843 R A	20	1	L 2	L 2	5

AU IN PPB

---END---



# BONDAR-CLEGG & COMPANY LTD.

136B INDUSTRIAL RD, WHITEHORSE, YUKON Y1A 4X1

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

## Certificate of Analysis

TO HBED  
\_\_\_\_\_  
\_\_\_\_\_

(1)

REPORT NO. A42-89.....

DATE .. Sept. 10, 1982.....

*Big-SAM Trench  
Sampling*

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

MARKED	%	%								
	Cu	WO3								
73231A	0.03	0.10								
73232A	0.02	0.28								
73233A	0.01	0.57	} 0.55/1.5m							
73234A	0.14	0.53								
73235A	L0.01	0.11								
73236A	0.01	0.24		} 0.20/1.0m						
73237A	L0.01	0.22								
73238A	0.01	0.23	} 0.44/1.5m							
73239A	0.01	0.53								
73240A	L0.01	0.35								
73241A	L0.01	0.11								
73242A	L0.01	L0.005								
73243A	L0.01	0.032								
73244A	L0.01	0.039								
73245A	L0.01	0.12								

L denotes less than

BONDAR-CLEGG & COMPANY LTD.

*Steven Sengier*

NOTE:  
Rejects retained two weeks



# BONDAR-CLEGG & COMPANY LTD.

136B INDUSTRIAL RD, WHITEHORSE, YUKON Y1A 4X1

PHONE: (403) 667-6523

TELEX: 036-8-460

## Certificate of Analysis

TO HBED  
\_\_\_\_\_  
\_\_\_\_\_

(2)

REPORT NO. A42-89

DATE Sept. 10, 1982

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

MARKED	%	%							
	Cu	W03							
73246A	L0.01	0.17							
73247A	L0.01	0.12							
73248A	L0.01	L0.005							
73249A	L0.01	0.034							
73250A	L0.01	0.28							
73251A	L0.01	0.14							
73252A	0.02	0.095							
73253A	L0.01	0.052							
L enotes less than									

BONDAR-CLEGG & COMPANY LTD.

**NOTE:**

Rejects retained two weeks  
Pulps retained three months

*W. J. Smith*



# BONDAR-CLEGG & COMPANY LTD.

136B INDUSTRIAL RD, WHITEHORSE, YUKON Y1A 4X1

PHONE: (403) 667-6523

TELEX: 036-8-460

## Certificate of Analysis

TO HUDSON BAY EXPLORATION

REPORT NO. A42-84

DATE Aug. 19/82

*7360 - Big Salmon  
Big-SAM Claims - Grab Samples*

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

MARKED	%	%							
	Cu	W <sub>03</sub>							
73216 A	L0.01	0.043							
73217 A	0.01	0.14							
73218 A	0.04	1.095							
73219 A	L0.01	0.14							
73220 A	0.02	0.30							
73221 A	0.03	1.19							
73222 A	L0.01	0.18							
73223 A	L0.01	0.20							
73224 A	L0.01	0.025							
73226 A	0.06	0.73							
73227 A	L0.01	0.045							
73228 A	L0.01	0.20							
73229 A	L0.01	0.028							
73230 A	L0.01	0.24							

NOTE:  
Rejects retained two weeks  
Reprints retained three months

BONDAR-CLEGG & COMPANY LTD.

*Steven Segin*



# BONDAR-CLEGG & COMPANY LTD.

136B INDUSTRIAL RD, WHITEHORSE, YUKON Y1A 4X1

PHONE: (403) 667-6523

TELEX: 036-8-460

## Certificate of Analysis

TO HUDSON BAY EXPLORATION  
\_\_\_\_\_  
\_\_\_\_\_

REPORT NO. A42-54 .....

DATE July 22/82 .....

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

MARKED	%	%	%	%					
	Cu	Mo	Sn	W					
73202	0.83	LO.005	LO.005	0.024					
73203	0.16	LO.005	LO.005	0.88					
73204	LO.01	LO.005	0.010	0.16					
73205	0.16	0.005	LO.005	7.16					
73206	0.01	LO.005	0.010	0.20					
73207	0.18	LO.005	LO.005	0.62					
73208	LO.01	LO.005	LO.005	0.078					
73209	LO.01	LO.005	LO.005	0.11					
73210	LO.01	LO.005	LO.005	0.14					
73211	0.04	LO.005	LO.005	0.29					
73212	0.23	LO.005	LO.005	1.19					
73213	0.14	LO.005	LO.005	1.80					
73214	0.06	LO.005	LO.005	1.90					
73215	0.14	LO.005	LO.005	0.56					

BONDAR-CLEGG & COMPANY LTD.

NOTE:  
Rejects retained two weeks  
P..... retained three months



# TRANS NORTH AIR

TRANS NORTH TURBO AIR LTD.

BOX 4338 • WHITEHORSE • YUKON TERRITORY • Y1A 3T6  
TELEPHONE (403) 688-2177 • TELEX 036-8-290

*Hudson Bay Ex. S. Dev*

CHARTERER

BILLING ADDRESS

FUEL & OIL-X	TNTA FUEL USED	HRG.-GALS.	FROM
<input checked="" type="checkbox"/>	<i>JP-4</i>	<i>1.5</i>	<i>RR</i>

FROM	MILES	HOURS	ZONE	REMARKS - NO. OF PASS - FREIGHT LBS.
<i>RR</i>		<i>1.5</i>	<i>B</i>	<i>DAVE DOWNES</i>
<i>TO</i>				<i>More Regional Camp to RISBY</i>

*7360-39*

SUB	QTY	AMOUNT
	<i>1.5</i>	<i>500.00</i>
		<i>751.00</i>

TERMS NET 30 DAYS 2% INTEREST PER MONTH 24% PER ANNUM WILL BE CHARGED ON ALL OUTSTANDING AMOUNTS OVER 30 DAYS	WAITING TIME @ /HR.
<input checked="" type="checkbox"/>	FUEL: <i>33.0</i> @ <i>2.02</i> /GAL. <i>66.60</i>
CHARTERER'S SIGNATURE	FUEL: @ /GAL.
<i>[Signature]</i>	MEALS & LODGING
PILOT'S SIGNATURE	OTHER
<i>[Signature]</i>	OTHER
INITIALS OF PILOT'S NAME	ENGINEER'S NAME
	FLIGHT ATTENDANT

**TOTAL \$ 916.60**

FLIGHT REPORT  
CUSTOMER COPY



# TRANS NORTH AIR

TRANS NORTH TURBO AIR LTD.

BOX 4338 • WHITEHORSE • YUKON TERRITORY • Y1A 3T6  
TELEPHONE (403) 688-2177 • TELEX 036-8-290

*Hudson Bay Ex. S. Dev*

CHARTERER

BILLING ADDRESS

FUEL & OIL-X	TNTA FUEL USED	HRG.-GALS.	FROM
<input checked="" type="checkbox"/>	<i>JP-4</i>	<i>2.2</i>	<i>RR</i>

FROM	MILES	HOURS	ZONE	REMARKS - NO. OF PASS - FREIGHT LBS.
<i>RR</i>		<i>2.2</i>	<i>B</i>	<i>DAVE DOWNES</i>
<i>TO</i>				<i>RISBY TO MORE</i>
				<i>2 CAMPS</i>

*7360-12*

SUB	QTY	AMOUNT
	<i>2.2</i>	<i>500.00</i>
		<i>1111.00</i>

TERMS NET 30 DAYS 2% INTEREST PER MONTH 24% PER ANNUM WILL BE CHARGED ON ALL OUTSTANDING AMOUNTS OVER 30 DAYS	WAITING TIME @ /HR.
<input checked="" type="checkbox"/>	FUEL: <i>46.4</i> @ <i>2.02</i> /GAL. <i>93.72</i>
CHARTERER'S SIGNATURE	FUEL: @ /GAL.
<i>[Signature]</i>	MEALS & LODGING
PILOT'S SIGNATURE	OTHER
<i>[Signature]</i>	OTHER
INITIALS OF PILOT'S NAME	ENGINEER'S NAME
	FLIGHT ATTENDANT

**TOTAL \$ 1111.00**

FLIGHT REPORT  
CUSTOMER COPY





# BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110 TELEX: 053-4455

Hudson Bay Exploration & Dev.,  
100-10 Burns Rd.,  
Whitehorse

INVOICE: **F 05028**

DATE: **Sept. 14, 1982**

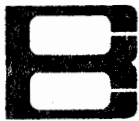
REPORT NO: **42-316**

PROJECT:

---

21 Analysis for copper, molybdenum	\$2.80@	\$ 58.80
21 Analysis for tin	4.00	84.00
21 Analysis for tungsten	4.25	89.25
21 Analysis for gold	6.50	136.50
21 Rock sample preparation	2.75	<u>57.75</u>
	TOTAL	<del>\$\$\$</del> <u><u>\$426.30</u></u>

7366-37



# BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110 TELEX: 053-4455

Hudson Bay Exploration & Dev.,  
14 Burns Rd.,  
Whitehorse

INVOICE: **F 95008**

DATE: **Sept. 10, 1982**

REPORT NO: **A42-89**

PROJECT:

---

23 Assay copper analysis	\$6.50@	\$149.50
23 Assay tungsten analysis	9.50	<u>218.50</u>
	<b>TOTAL</b>	<b><u><u>\$368.00</u></u></b>

7360-37



# BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110 TELEX: 053-4455

HUDSON BAY EXPLORATION  
100-10 BURNS RD.  
WHITEHORSE, YUKON

INVOICE: **F 04809**

DATE: **Aug. 19/82**

REPORT NO: **A42-84**

PROJECT:

---

14 assay analysis of copper	@6.50	\$91.00
14 assay analysis of tungsten	@9.50	<u>133.00</u>
	<b>TOTAL</b>	<u><u>\$224.00</u></u>

7360-40



# BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110 TELEX: 053-4455

Hudson Bay Exploration & Dev.,  
#100-10 Burns Rd.,  
Whitehorse

INVOICE: **F 05086**

DATE: **Sept. 21, 1982**

REPORT NO: **42-356**

PROJECT: **Big Salmon**

---

56 Analysis for copper, molybdenum	\$2.80@	\$ 156.80
56 Analysis for tin	4.00	224.00
56 Analysis for tungsten	4.25	238.00
56 X Soil sample preparation	0.70	<u>39.20</u>
	<b>TOTAL</b>	<b><u><u>\$658.00</u></u></b>

7360-37



# BONDAR-CLEGG & COMPANY LTD.

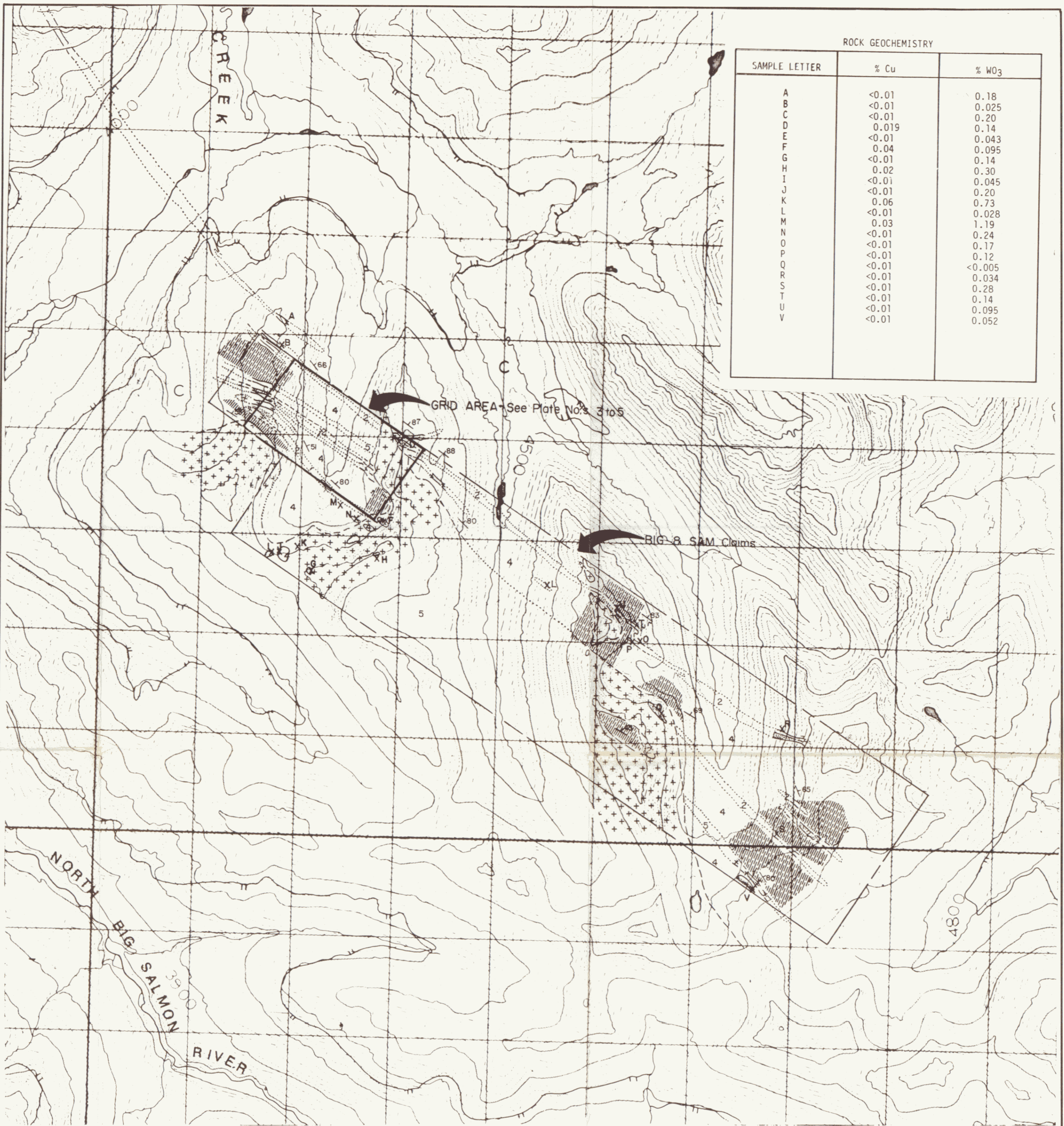
764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110 TELEX: 053-4455

Hudson /Bay Exploration & Dev.  
100-10 Burns Rd.,  
Whitehorse

INVOICE: **F 05120**  
DATE: **Sept. 23, 1982**  
REPORT NO: **g42-355**  
PROJECT: **Big Salmon**

24 Analysis for copper,	\$1.90@	\$ 45.60
21 Analysis for lead, zinc, molybdenum	2.70	56.70
21 Analysis for tin	4.00	84.00
24 Analysis for tungsten	4,25	102.00
21 Analysis for gold	6.60	136.50
21 Analysis for arsenic	3.25	68.25
24 Rock sample preparation	2.75	<u>66.00</u>
	<b>TOTAL</b>	<b><u><u>\$559.05</u></u></b>

7360-37



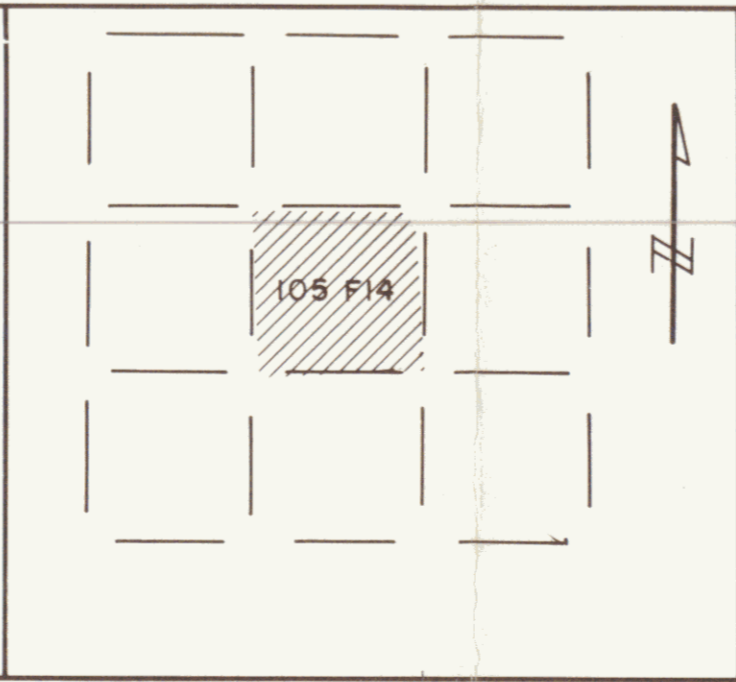
ROCK GEOCHEMISTRY

SAMPLE LETTER	% Cu	% WO <sub>3</sub>
A	<0.01	0.18
B	<0.01	0.025
C	<0.01	0.20
D	0.019	0.14
E	<0.01	0.043
F	0.04	0.095
G	<0.01	0.14
H	0.02	0.30
I	<0.01	0.045
J	<0.01	0.20
K	0.06	0.73
L	<0.01	0.028
M	0.03	1.19
N	<0.01	0.24
O	<0.01	0.17
P	<0.01	0.12
Q	<0.01	<0.005
R	<0.01	0.034
S	<0.01	0.28
T	<0.01	0.14
U	<0.01	0.095
V	<0.01	0.052

PLATE NO. 2

**LEGEND**

<b>CRETACEOUS</b>		
Quartz Monzonite	Outcrop/Drift Cover	
<b>PROTEROZOIC &amp;/or L. CAMBRIAN</b>		
Quartz Biotite Gneiss, 4a Qtz. Biot Schist	Strike & Dip - Bedding	
Marble	" " - Overturned	
Garnet Diopside Skarn	Fault	
Pyrrhotite Diopside Skarn	Geologic Contact - defined, approx., interpreted	
	Sample	



**HUDSON BAY EXPLORATION & DEVELOPMENT Co. Ltd.**  
WHITEHORSE OFFICE

**GEOLOGY 091472**

**BIG & SAM CLAIMS**

YUKON TERRITORY

SCALE: 1:25,000 DATE:

SAMPLE RESULTS

LETTER	% WO <sub>3</sub>	WIDTH (meters)	TYPE
A	0.66	0.45	Chip
B	1.90	1.35	"
C	1.80	2.20	"
D	0.20	0.32	"
E	0.62	0.38	"
F	0.16	0.80	"
G	7.16	0.35	"
H	0.24	1.00	"
I	0.88	"	Grab
J	0.078	1.00	Chip
K	0.11	1.00	"
L	0.14	1.00	"
M	1.19	1.45	"
N	0.29	1.30	"
O	0.10	0.25	"
(From NE to SW)	0.28	0.25	"
	0.57	0.25	"
	0.53	0.25	"
	0.11	0.25	"
	0.24	0.25	"
	0.22	0.25	"
	0.23	0.25	"
	0.53	0.25	"
	0.35	0.25	"
	0.11	0.25	"
	0.005	0.25	"
	0.032	0.25	"
	0.039	0.25	"
	0.12	0.25	"



20+00N

15+00N

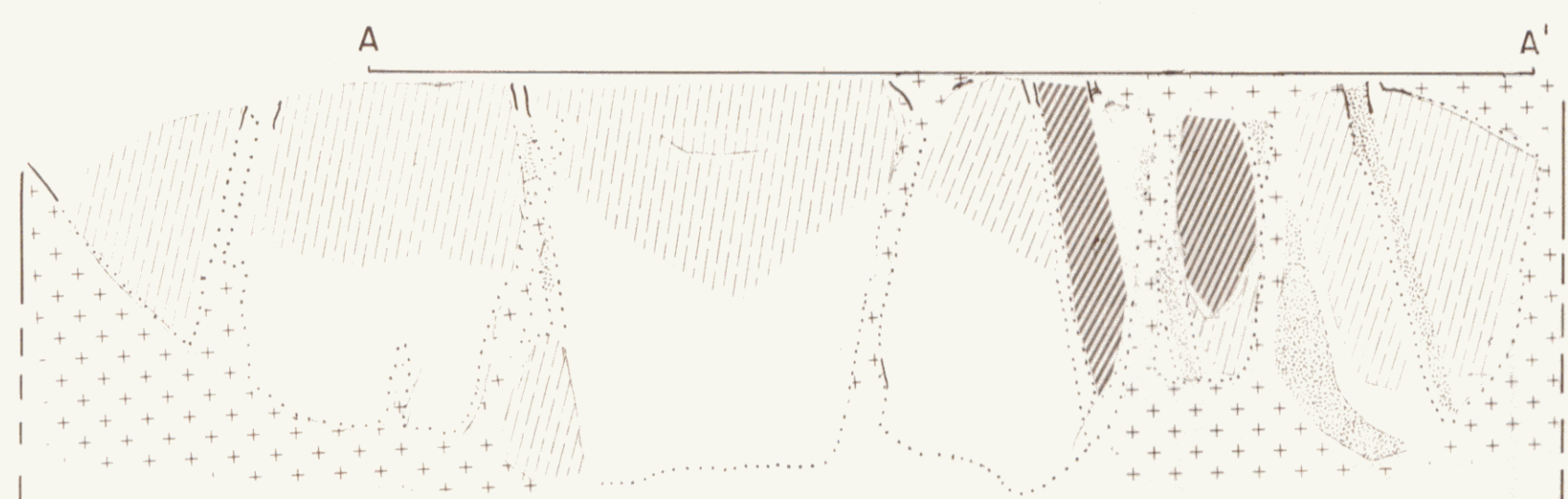
10+00N

30+00E

35+00E

40+00E

CROSS SECTION A - A'

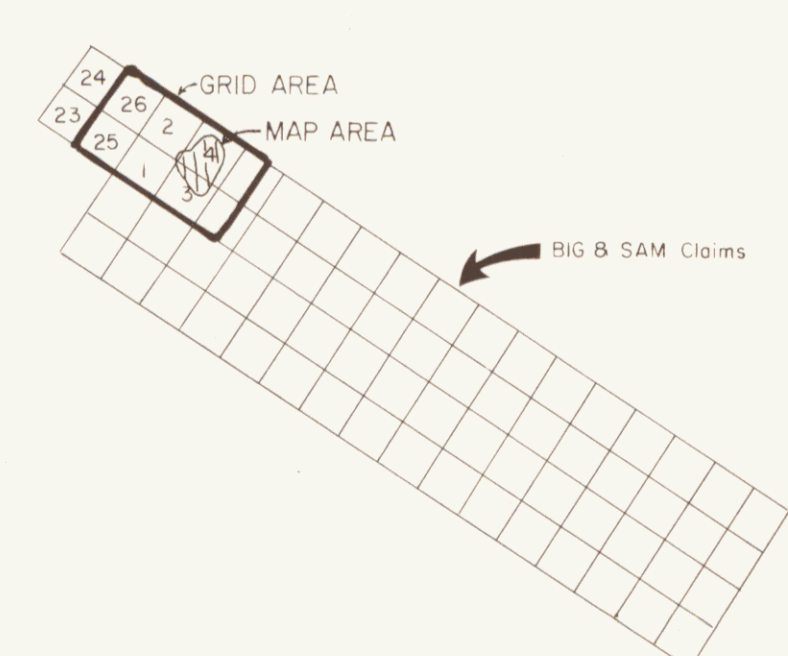


Horizontal Scale 1:2000, Vertical Scale Schematic

LEGEND

- CRETACEOUS**
- 5 Quartz Monzonite
- PROTEROZOIC &/or L. CAMBRIAN**
- 4 Quartz Biotite Muscovite Schist
- 4 Quartz Biotite Gneiss
- 3 Marble
- 2 Garnet Diopside Skarn
- 1 Pyrrhotite Diopside Skarn
- Outcrop/Drift Cover
- Strike & Dip - Bedding
- Strike & Dip - Overturned
- Fault
- Geologic Contact - defined, approx, interpreted
- X<sup>F</sup> Rock Sample
- Claim post

LOCATION MAP



HUDSON BAY EXPLORATION & DEVELOPMENT  
 WHITEHORSE COMPANY LTD. OFFICE

GEOLOGICAL PLAN  
 091472

MAIN SHOWING AREA

SCALE 1:2,000 DATE DRAWN BY PLATE No. 3

0 50 100 150 200 meters



20+00N

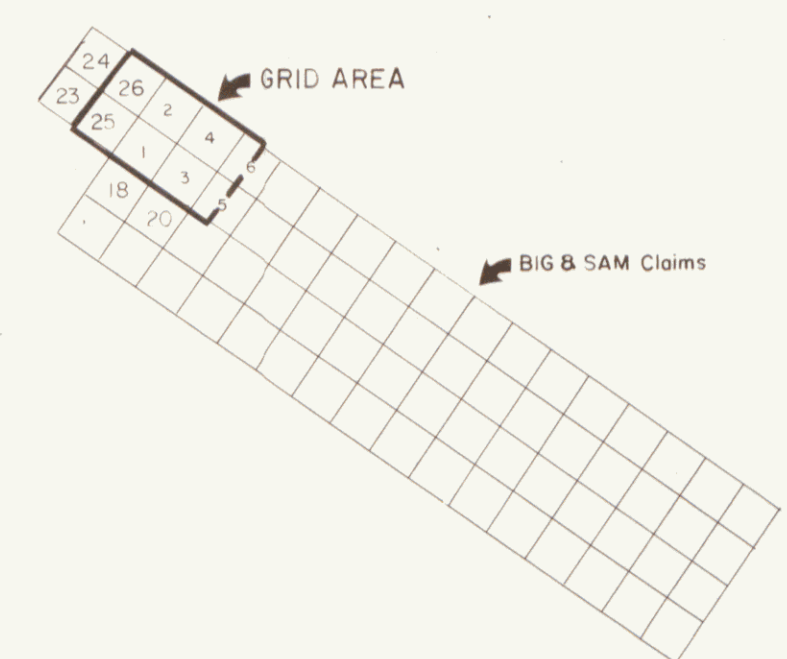
15+00N

10+00N

30+00E

35+00E

40+00E



Readings in GAMMAS - all readings 58,000+ unless otherwise shown  
Contour Interval 5800, 150, 200, 250, 300, 350, 400

- 150-199
- 200-249
- 250-299
- 300-349
- 350-399
- 400+
- Claim Post

HUDSON BAY EXPLORATION & DEVELOPMENT  
WHITEHORSE COMPANY LTD. OFFICE

MAGNETOMETER SURVEY

0914-2

SCALE 1:12,000 DATE DRAWN BY PLATE No. 4

0 50 100 150 200 meters



20+00N

15+00N

10+00N

30+00E

35+00E

40+00E

NOTE: SEATTLE TRANSMITTING STATION Used - Plotting point

FRASER FILTER CALCULATION - L 30+00E

STATION 10+00N 10+25N 10+50N 10+75N 11+00N

FILTERED R4

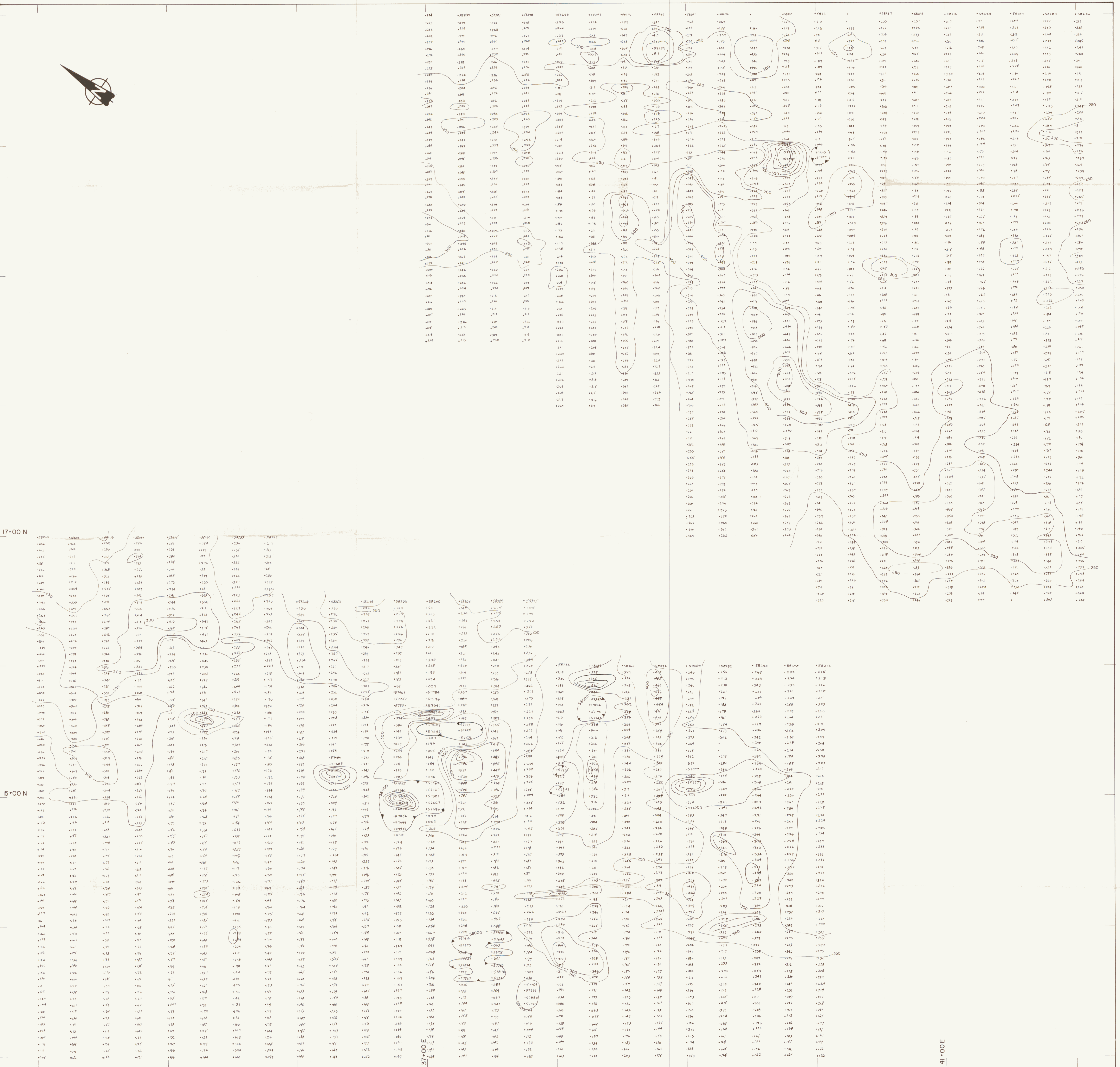
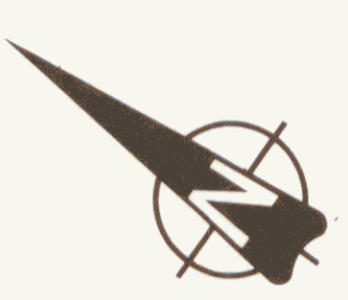
- 0 to 10°
- 10 to 20°
- 20 to 30°
- 30 to 40°
- 40 to 50°
- 50°

HUDSON BAY EXPLORATION & DEVELOPMENT  
WHITEHORSE COMPANY LTD. OFFICE

VLF EM-16 SURVEY  
(Fraser Filtered)

SCALE 1:1 2,000 DATE DRAWN BY PLATE No. 5  
0 50 100 150 200 meters

091472

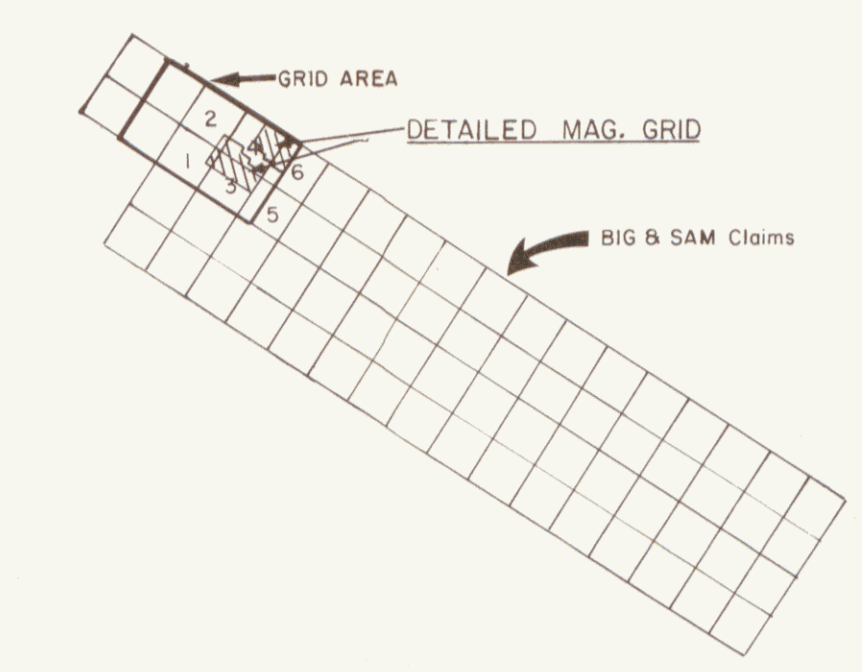


17°00' N

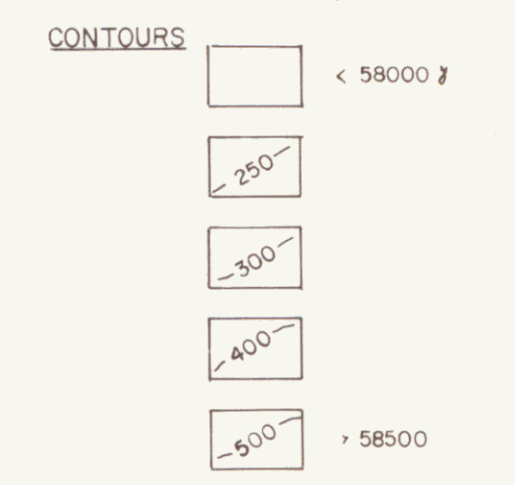
15°00' N

37°00' E

41°00' E



All readings 58000 + grommas unless noted otherwise



HUDSON BAY EXPLORATION & DEVELOPMENT  
 WHITEHORSE COMPANY LTD. 09147 OFFICE

DETAILED MAGNETOMETER SURVEY

SCALE 1:1,000 DATE DRAWN BY PLATE No. 6

0 50 100 150 200 meters