1980 Geological, Geochemical,
Geophysical Assessment Report

TITLE	TOOTSEE RIVER PROPERTY
AUTHORS	G.W. Booth, J.L. LeBel, & A.C. Hitchins
DATE	September, 1980
COMMODITY	Tungsten
LOCATION-Area	Southeastern Yukon and Northern British Columbia
-Mining District	Watson Lake
-Mining Division	Liard
-Coordinates	Latitude 60°00'N Longitude 130°07'W
-NTS	104 0 16 and 105 B 1

Field work carried out between May 27 - June 28, 1980.

Office work May 20 - 23, 1980.

September 1 - 4, 1980, October 6 - 8, 1980.

AMAX Vancouver Office

090681

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of

$ 31,200.00

Resident Geologist or
Resident Mining Engineer

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

B. R. BAXTER
Supervising Mining Recorder

for Commissioner of Yukon Territory

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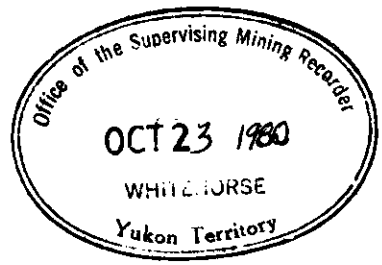


ILLUSTRATIONS

SUMMARY

This report summarizes work completed in 1980 on the Tootsee River property consisting of the HOT claims 1-80 located in the Yukon and the HEAP claims 1-32 in British Columbia staked in 1979. The claims cover Lower Cambrian calc-silicate units thought to be the source of stream sediment tungsten anomalies.

Previous property work in 1979 consisted of preliminary geological mapping and cutting of 40 km of grid over the most intensely skarned portions of the sequence.

During the 1980 field season, a program involving detailed geological mapping, soil sampling, panning, VLF-EM and magnetometer surveys was initiated to further evaluate the area.

Results from mapping and soil geochemistry confirmed the presence of a rather broad zone of low grade tungsten mineralization in fractures which also contain pyrrhotite, pyrite, chalcopyrite, bornite and minor sphalerite.

Northwest-trending magnetic highs and electromagnetic conductors occur in the zone of scheelite mineralization.

INTRODUCTION

General Statement

This report presents the results of a detailed geological, geochemical and geophysical evaluation of the Tootsee River property carried out between May 28 and June 28, 1980. Work was conducted under Project #1068 by G.W. Booth, B.E. Booth, G.O. Skok of AMAX and P. Slominski, T. Knorr of JP Geophysics.

Previous property work is described in a brief summary report by A.C. Hitchins.

Location, Access and Topography

The Tootsee River property lies on the Yukon-British Columbia border 18 miles southeast of Rancheria on the Alaska Highway, within the Watson Lake Mining District and Liard Mining Division.

Access to the property is by helicopter from Watson Lake, 85 km to the east or Swift River 50 km to the west. Heavy equipment can be transported to within 12 km of the property by means of a bush road which extends south from the highway along the west side of Tootsee River.

The property is characterized by low to moderate relief with elevations ranging from 1200 - 1600 m. The main tungsten showings outcrop above tree line near the 1500 m mark. The area is well drained by local valleys, in which bedrock is covered largely by alluvium and ground moraine.

Claims Data

The Tootsee River property consists of Hal #1-80 claims in the Yukon and Heap #1-2 claims of 16 units each in British Columbia (Figure 2). All claim posts are located on

the property base map and the appropriate tags affixed to the Yukon posts in accordance with the Quartz Mining Act.

Previous Work

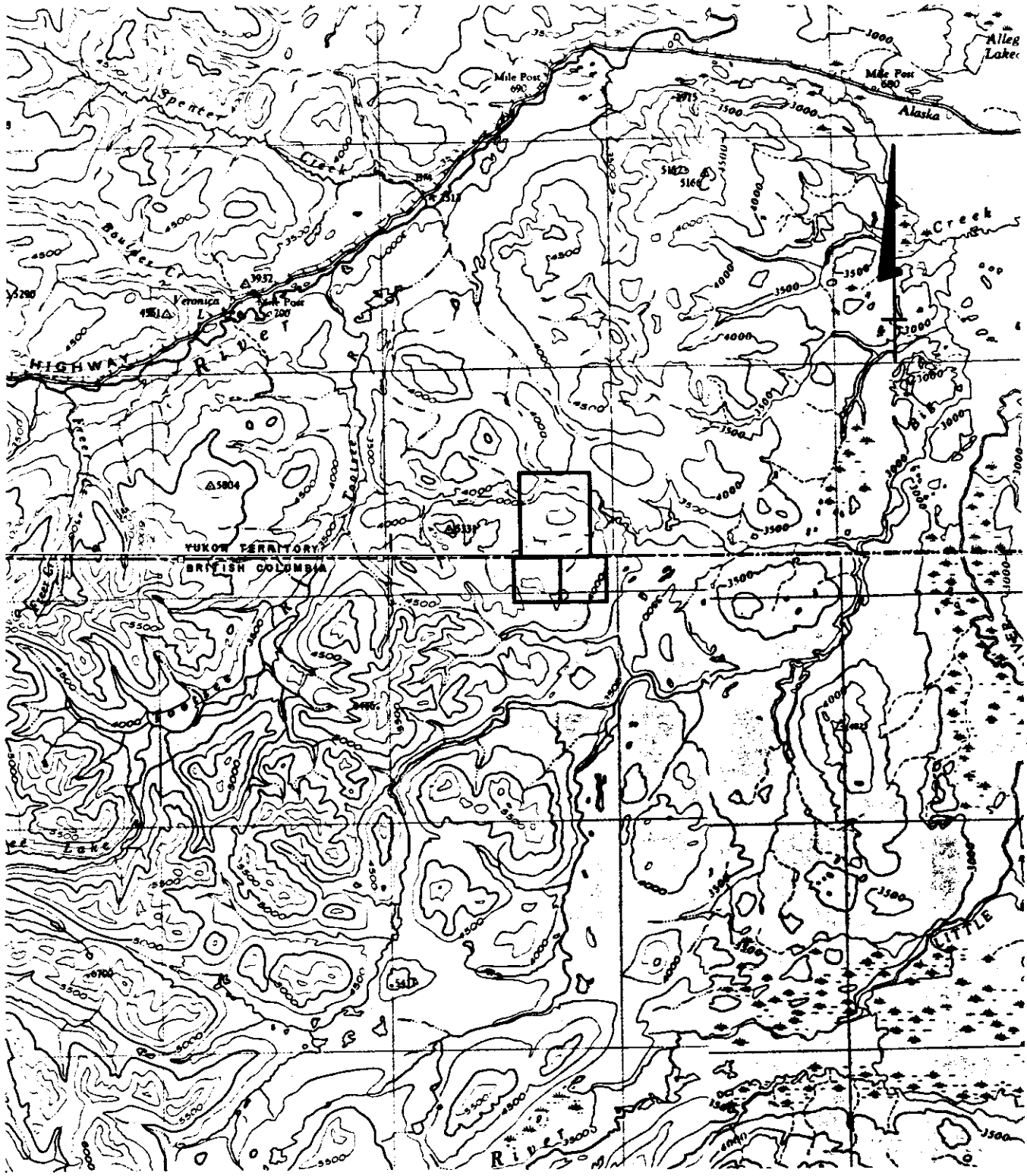
AMAX crews panned major creeks east of the property in 1978. Anomalous concentrations of scheelite were traced to a steeply dipping weakly mineralized calc-silicate sequence.

Claims were staked in 1979 and preliminary geological mapping, rock chip and panning surveys were carried out. Assays of up to 150 ppm WO_3 and 320 ppm Zn were obtained. A 17 line (40 km) grid was added in September of 1979 in preparation for the 1980 field program.

1980 Exploration Program

??? Soil sampling was conducted over the property at 50 m intervals on lines 240 m apart. A metric contoured 1:10,000 scale orthophoto provided ground control for detailed geological mapping; UV lamp prospecting was carried out concomitantly. All local creeks draining the property were panned at regular intervals and the concentrates lamped for scheelite.

VLF and magnetometer surveys were completed over the grid areas in an attempt to delineate buried pyrrhotite-rich portions of the skarn.



AMAX OF CANADA LIMITED

TOOTSEE RIVER PROPERTY

WATSON LAKE M.D. — YUKON
ATLIN M.D. — B.C.

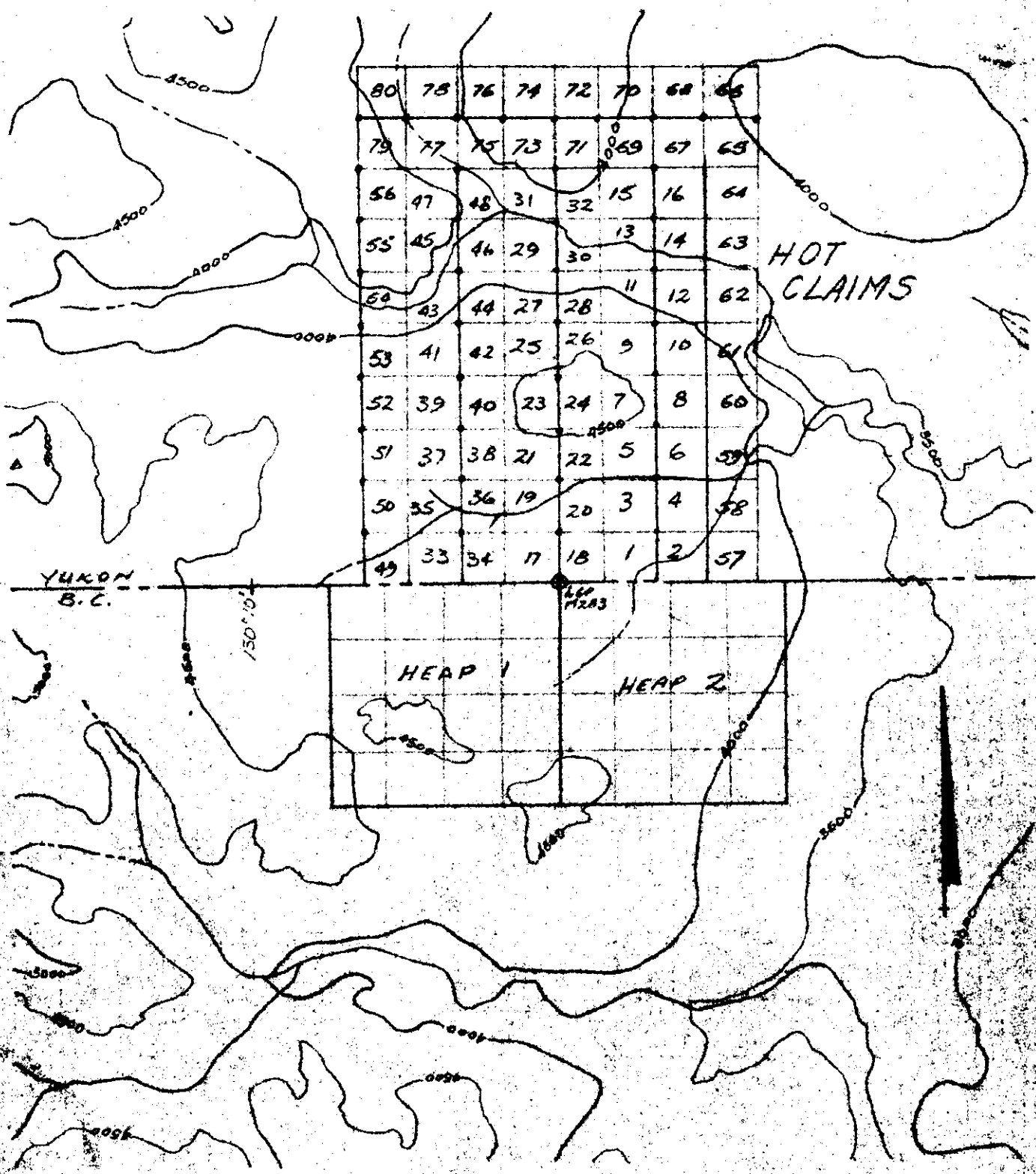
LOCATION MAP

SCALE 8 0 8 KILOMETRES
4 0 4 MILES

1 : 250,000

N.T.S. Ref. 104 O 16, 105 B 1

Fig. 1



AMAX OF CANADA LIMITED

TOOTSEE RIVER PROPERTY

WATSON LAKE M.D. - YUKON

ATLIN M.D. - B.C.

1:50,000

REGIONAL GEOLOGY

The area is underlain by north-northwest striking Cambrian to Devonian metasediments intruded by small apophyses of the Cretaceous Cassiar Batholith. Northeast and northwest striking faults are common within this area and may be conjugate to the Liard and Tintina breaks which bound the area to the north and northwest respectively. Scattered base metal, tin, and tungsten showings have been found to the northwest, particularly along the margins of the Cassiar Batholith, but no ore zone of major proportions has as yet been discovered within the immediate area.

PROPERTY GEOLOGY

General Statement

Heap 1-2 claims were mapped at 1:50,000 scale (Figure 2, in pocket) during the period May 28 - June 4, 1980, followed by Hal 1-80 claims from June 5 to 23, 1980.

Rock Units

The Tootsee River property is underlain by a north-northwest striking, now variably skarned and hornfelsed sequence of middle Cambrian-middle Silurian limestone and argillite (Unit 4). The zone of most intense calc-silicate/hornfels development represented by Units 4d, 4e, 4f on the accompanying map covers an ellipse approximately 2500 m x 1500 m in the centre of the claim group.

Middle Silurian-middle Devonian quartzites, limestones and minor quartz breccia overlie the calc-silicate/hornfels to the southwest and are in fault contact with Upper Devonian and Mississippian greywacke and arkosic grits.

Only two small monzonite and diabase dykes were found in the northern and central sections of the Hot claim group.

MINERALIZATION

Tungsten occurs mainly in the northern half of the property as scheelite in the form of fine grained disseminations in Units 4c - 4f. No spatial association with either quartz veining or fracturing was observed. Up to 15% pyrrhotite and minor pyrite mainly on fresh joint surfaces accompanies scheelite. Minor chalcopyrite, covellite, bornite, galena and occasionally sphalerite also occur in some fractures.

GEOCHEMISTRY

General Statement

During the 1980 field season a total of 632 soil samples were collected at 50 m spacings on the grid; the eastern halves of lines 1680N, 1920N and 2160W were sampled at 25 m intervals. An additional 32 soil samples were obtained from the area bordering the west side of the Hal claims in order to establish background metal concentrations for this particular area.

Thirty-three rock chip samples were taken from the various lithologies on the property mainly from those bearing visible scheelite.

Twenty-seven pan and silt samples were obtained from local streams draining the property. Each pan sample was lamped to determine its relative scheelite component.

Samples were analyzed for W,Mo,Cu,Pb,Zn,Fe,Mn,Ag, and Au. Results are plotted on Figure 4; complete analytical results are found in the Appendix.

Soil Type and Provenance

Wooded soils frequently covered by thick layers of sphagnum moss, and with weakly developed red brown B horizons occur in the valleys on the property. These soils appear to have formed from a heterogeneous combination of talus, glacial drift and alluvium.

Along ridges and hill sides the B horizon is better developed in the soil profile and an increase in the percentage of rock fragments with depth of the sample was observed. Although a glacial component is present, tungsten values in soils correspond closely with scheelite concentrations in nearby outcrops suggesting that soil anomalies are a good reflection of bedrock concentrations.

Results

a) Soils Eight separate anomalous zones are evident in the contoured soil sample data. The zones are discontinuous, trend northwest, parallel to regional strike and coincide with most intense calc-silicate development (e.g. lines 1440-2160N). The average value for the lines is approximately 100 ppm tungsten with a maximum recorded concentration of .16% tungsten.

b) Rock Chips Like the soil analyses, strongly anomalous rock chip results appear confined to the calc-silicate zone located in the south central portion of the Hal claims, in particular on L1920N. Individual assays of up to 600 ppm tungsten were recorded while the combined average of all rock chip samples was 70 ppm tungsten.

c) Pan and Silt In spite of the fact that it was this mode of sampling that stimulated interest in the area, the results of the pan and silt survey were generally unimpressive. One average sample was found to contain a mere nine grains of scheelite and only 1 of the 27 concentrates attained the 100 grain mark.

GEOPHYSICAL SURVEYS

Introduction

A very low frequency electromagnetic (VLF-EM) survey and a magnetometer survey were conducted from June 12 to 27 to supplement the geological and geochemical evaluation of the property.

The objectives of the survey were to confirm two aeromagnetic anomalies which were partially responsible for attracting attention to the area on the ground and to delineate the extent of possible massive pyrrhotite tungsten skarns on the property.

A Sabre electronics VLF-EM receiver tuned to the transmitter located at Seattle, Washington and a Geometrics G-816 proton precession magnetometer were used to conduct the surveys. A Geometrics G-836 base station magnetometer was used to monitor for magnetic storms and to correct the magnetometer survey for diurnal variations.

The surveys were conducted by J.P. Geophysical Services, 2462 Thompson Drive, Kamloops, B.C. on a 40 km picket grid that was installed in 1979. Readings were taken at 25 m intervals along lines spaced 240 m apart.

Presentation of Results

The VLF-EM dip angles (in degrees) and relative horizontal field strength(in %)are shown in profile (Figure 5). Conductor axes are identified by arrows. The results of the magnetometer survey are also shown in profile (Figure 6) because the large variations recorded could not be effectively contoured.

Results

A large number of VLF-EM anomalies were recorded on the property.

No attempt was made to rate the quality of the conductors shown by the arrows on Figure 5 because, in this case, their frequency is considered more important than their relative quality. The anomalies are concentrated in a zone between lines 1200N and 2400N in the vicinity of the hill near the centre of the grid. The concentration varies but achieves a maximum of four anomalies per 200 m on line 1680N between 500E-700E and line 2160N between 050W-150E. A smaller concentration occurs on lines 3600N and 3840N at the peak of the hill in the northwest corner of the grid. Most of the anomalies reflect relatively shallow and narrow conductors, one obvious exception is a 50 m deep conductor on line 000N at 300E. The conductor which occurs at the crest of a hill between lines 000N and 240N at approximately 600W and the broad anomalies over the hill centred 1920N, 050W are probably caused by topography. The wide line spacing discourages attempts to link conductors from line to line especially in areas where the anomaly density is high. In spite of the wide line spacing conductors such as the one at about 900E on lines 3120N to 3840N seem to form continuous features. The general trend of the conductors conforms to the northwest striking lithology.

The magnetometer survey detected a large number of narrow "spiky" anomalies varying up to several thousand gammas. The relatively insensitive scale used in the profiles tends to mute anomalies less than 100 gammas. The magnetic anomalies which are concentrated in four main areas on the grid; between lines 1200N and 2640N, the northwest corner, the southwest corner, and on line 480N between 100E and 600E are also caused by narrow and shallow sources. The 5000 gamma anomaly centred at 1440N,150W is probably a result of the super-position of several unresolved anomalies caused by narrow sources rather than a single wide source. Away from these concentrations of anomalies the background response is quite uniform. The zones of magnetic anomalies generally correlate with an increase in the number of VLF-EM conductors but in detail not all the magnetic anomalies correlate with individual VLF-EM conductors and vice-versa.

Discussion of Results

The main (central) zone of VLF-EM and magnetic anomalies outlines the zone of most intense calc-silicate development, hornfelsing, and geochemical anomalies. Since no massive sulphide skarns were observed and graphite is not present on the property, the anomalies probably reflect narrow bands of sulphides. The results suggest that the sulphides occur in three different modes: pyrite alone (VLF-EM anomalies lacking a magnetic response), pyrite and pyrrhotite (coincident VLF-EM and magnetic anomalies), and pyrrhotite alone (magnetic anomalies) in insufficient amounts to cause a conductor. The mapping was not done in sufficient detail and outcrop exposures were not frequent enough to identify the cause of individual VLF-EM magnetic anomalies. Scattered conductors and magnetic anomalies outside the alteration zones indicate that sulphides occur in unaltered sediments as well.

The central and northwestern zones of magnetic anomalies appear to be responsible for the two magnetic anomalies recorded by the government aeromagnetic survey. The aeromagnetic survey senses the series of narrow anomalies as a "lumped" source. Direct evidence of a concealed intrusion (a broad magnetic high or low on which the narrow magnetic features are superimposed) is not evident in the results of the magnetometer survey.

The increase in the number of conductors and magnetic anomalies in the centre of the grid suggests that sulphides were hydrothermally introduced, lending indirect support for the presence of a shallow(?) intrusive. The response of a concealed massive sulphide skarn at the intrusive contact would be effectively masked by the anomalies caused by the shallow unrelated sulphides.

INTERPRETATION AND ECONOMIC POTENTIAL

Although only one or two dykes and small amounts of quartz-feldspar porphyry float were observed on the property, the combined evidence of numerous VLF-EM conductors, magnetic anomalies, the calc-silicate/hornfels alteration and sulphide distribution as well as the presence of anomalous tungsten, lead, zinc and molybdenum in both soils and rock chips suggest that a shallowly buried intrusive underlies the property.

The data collected to date does not rule out the possible presence of high-grade tungsten skarn or a tungsten stockwork deposit.

Extensive development of hornfels and calc-silicate, fracture-controlled pyrrhotite, pyrite and scheelite and the presence of porphyry dykes tend to suggest a stockwork-type deposit, but the absence of quartz veining down grades the probability that it exists at surface.

No coarse grained high-sulphide skarns have been found on the property but the setting is similarly favourable for high grade tungsten skarn if a suitably reactive limy unit were to occur near the intrusive contact.

G.W. Booth

J.L. Lebel Oct. 16/80

J.L. Lebel

Anthony Hitchins Oct 16 1980

A.C. Hitchins

APPENDIX I

TOOTSEE RIVER PROPERTY

Rossbacher Laboratory

GEOCHEMICAL ANALYSTS & ASSAYERS

AMAX

SEP 8 1980

VANCOUVER OFFICE

2225 S. SPRING /E.,
BURNABY, B. C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604

CERTIFICATE NO. 80254.1

INVOICE NO.

DATE ANALYSED JULY 1980

PROJECT 1068

CERTIFICATE OF ANALYSIS

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Zn	W	Sn							No.
01	80 JBE 1			22	58	40	0							01
02	2			22	68	25	0							02
03	3			38	192	15	40							03
04	4			54	150	10	0							04
05	5			16	92	0	0							05
06	6			22	88	0	0							06
07	7			16	352	0	0							07
08	8			40	136	0	0							08
09	9			36	154	0	0							09
10	80 JBE 10			28	114	0	0							10
11	11			42	230	0	0							11
12	12			32	108	15	0							12
13	13			46	246	15	0							13
14	14			28	190	10	0							14
15	15			36	204	0	0							15
16	16			38	196	0	0							16
17	80 JBE 17			40	112	25	0							17
18	STD C			190	118		–							18
19														19
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Rossbacher Laboratory

GEOCHEMICAL ANALYSTS & ASSAYERS

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INVOICE NO. 282
DATE ANALYSED JULY 1980
PROJECT 1068

CERTIFICATE OF ANALYSIS

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Fe	Ag	Zn	W	Pb	PPB Au				No.
01	80JLS381		4	136	4.2	1.2	640	120	16	10				01
02	382		3	150	3.2	1.6	460	60	28	10				02
03	383		2	260	5.9	0.6	494	140	60	10				03
04	384		5	140	5.2	0.6	410	200	30	10				04
05	385		3	66	3.4	1.2	660	150	43	10				05
06	386		6	92	2.9	0.8	410	200	22	10				06
07	387		6	56	2.7	0.6	390	250	19	10				07
08	388		7	84	1.9	0.6	196	75	26	10				08
09	389		6	228	5.4	1.0	352	20	28	10				09
10	390		4	96	3.4	0.4	170	140	32	10				10
11	80JLS391		2	110	4.2	0.2	376	120	28	10				11
12	392		2	90	3.8	0.6	344	90	28	10				12
13	393		1	56	5.4	0.6	960	75	24	10				13
14	394		3	176	6.8	0.4	386	150	34	10				14
15	395		3	650	5.7	1.0	750	140	30	10				15
16	396		3	400	3.4	1.4	390	130	32	10				16
17	397		3	102	5.5	0.8	396	50	62	10				17
18	398		1	76	3.0	0.4	88	200	12	10				18
19	399		1	160	3.0	1.0	840	55	56	10				19
20	STDC		16	176	1.0	0.3	104	0	74	[illegible]				20
21	80JLS400		1	128	3.8	0.8	158	60	14	10				21
22	401		1	130	3.0	0.8	972	0	50	10				22
23	402		1	92	3.3	0.2	128	20	12	10				23
24	403		1	118	3.0	0.4	204	20	22	10				24
25	80JLS404		1	79	2.6	0.2	132	0	10	10				25
26	STDC		16	82	1.1	0.6	102	20	88					26
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Rossbacher Laboratory

GEOCHEMICAL ANALYSTS & ASSAYERS

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CERTIFICATE NO. 80254-6
INVOICE NO. 282
DATE ANALYSED Aug, 1980
PROJECT 1068

CERTIFICATE OF ANALYSIS

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Fe	Ag	Zn	Pb	W	PPB Au				No.
01	80JKS455		2	318	4.9	0.8	309	180	150	10				01
02	456		1	256	5.2	1.0	590	105	40	10				02
03	457		1	183	2.6	1.0	292	46	8	10				03
04	458		4	381	5.1	1.0	426	76	70	10				04
05	459		4	496	3.4	0.8	318	52	30	10				05
06	460		5	428	4.1	0.8	320	42	35	10				06
07	461		13	318	3.0	2.0	286	38	18	10				07
08	80JKS462		12	250	2.5	2.0	210	34	20	10				08
09	80JKS463		6	164	3.4	0.6	384	40	120	10				09
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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 80254-5
INVOICE NO. 282
DATE ANALYSED JULY 1980
PROJECT 1068

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Fe	Ag	Zn	Pb	W	PPB Au				No.
01	80JKS417		16	288	6.6	1.0	280	42	1000	10				01
02	418		7	102	4.3	1.0	212	20	500	10				02
03	419		4	70	4.4	0.8	178	22	100	10				03
04	420		1	28	2.2	0.6	80	12	5	10				04
05	421		2	26	2.6	0.8	88	10	20	10				05
06	422		4	100	4.2	0.8	336	40	250	10				06
07	423		3	40	2.0	0.8	60	24	20	10				07
08	424		2	110	2.9	1.2	276	24	30	10				08
09	425		4	234	3.6	1.0	206	40	35	10				09
10	426		2	46	3.0	0.6	156	32	80	10				10
11	80JKS427		3	540	5.0	0.8	188	50	100	10				11
12	428		4	218	3.8	1.0	230	50	120	10				12
13	429		3	166	8.4	0.8	92	22	120	10				13
14	430		3	286	5.1	1.0	276	28	50	10				14
15	431		3	340	4.4	0.6	213	30	20	10				15
16	432		3	212	60	10.6	3400	1990	40	10				16
17	433		3	220	4.6	0.6	134	48	380	30				17
18	434		5	223	3.7	0.6	126	46	100	10				18
19	435		4	245	4.2	0.6	184	64	80	10				19
20	STD E		5	78	3.0	0.2	134	10	20	10				20
21	80JKS436		1	212	4.1	0.6	240	36	60	10				21
22	437		1	70	3.1	0.2	110	14	20	10				22
23	438		1	76	3.6	0.2	100	20	24	10				23
24	439		1	72	3.1	0.4	86	20	10	10				24
25	440		1	50	3.5	0.2	98	18	15	10				25
26	441		2	48	3.0	0.2	98	14	10	10				26
27	442		2	58	3.1	0.2	94	18	10	10				27
28	443		2	62	3.7	0.2	108	18	15	10				28
29	444		2	80	3.0	0.4	88	16	10	10				29
30	80JKS445		2	128	3.6	0.4	102	24	40	20				30
31	446		2	46	4.3	0.2	66	4	5	10				31
32	447		1	198	1.3	0.6	24	6	5	10				32
33	448		2	320	5.1	1.0	236	40	20	10				33
34	449		1	110	4.2	0.4	88	16	50	10				34
35	450		2	214	4.3	0.4	168	28	30	10				35
36	451		1	218	2.9	0.2	146	26	50	10				36
37	452		1	500	4.6	1.0	310	28	10	10				37
38	453		4	580	6.4	0.6	396	48	60	10				38
39	80JKS454		3	272	2.7	0.6	120	18	20	10				39
40	STD E		4	86	3.6	0.2	148	10						40

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Rossbacher Laboratory

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 80254-4
INVOICE NO. 282
DATE ANALYSED JULY, 1980
PROJECT 1068

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Fe	Ag	Zn	Pb	W	PPB Au				No.
01	80JKS379		3	10	0.7	0.2	68	28	0	10				01
02	380		3	14	2.3	0.8	640	128	0	10				02
03	381		2	10	1.8	0.2	328	30	0	10				03
04	382		2	10	2.2	0.2	106	46	10	10				04
05	383		1	6	1.2	0.2	56	20	10	10				05
06	384		1	10	1.6	0.2	64	18	2	10				06
07	385		1	10	1.8	0.2	72	24	0	10				07
08	386		1	12	1.8	1.0	64	18	0	10				08
09	387		1	6	0.9	0.2	52	8	2	10				09
10	388		1	12	1.7	0.2	352	14	2	10				10
11	80JKS389		1	12	1.7	0.2	400	10	10	10				11
12	390		1	16	1.4	0.2	780	42	10	10				12
13	391		1	16	2.1	0.2	990	46	2	10				13
14	392		1	32	3.0	1.0	1260	44	0	10				14
15	393		1	12	1.8	0.2	474	16	0	10				15
16	394		4	16	2.0	0.2	206	30	0	10				16
17	395		2	10	0.9	0.2	316	22	15	10				17
18	396		2	14	2.0	0.2	1090	70	10	10				18
19	397		1	18	2.0	0.2	780	54	0	10				19
20	STD E		4	86	3.0	0.2	168	14	0	10				20
21	80JKS398		1	32	2.2	0.8	730	34	5	10				21
22	399		1	20	2.1	1.0	274	30	0	10				22
23	400		1	26	1.1	0.6	209	14	0	10				23
24	401		1	14	1.4	0.4	126	24	10	10				24
25	402		3	30	1.8	0.6	226	48	0	10				25
26	403		6	24	2.3	0.4	276	42	0	10				26
27	404		5	28	1.5	0.2	90	20	0	10				27
28	405		7	30	1.9	0.2	126	44	0	10				28
29	406		7	34	1.9	0.2	88	22	2	10				29
30	80JKS407		6	30	1.5	0.2	90	18	2	10				30
31	408		4	32	1.9	0.4	104	18	0	10				31
32	409		1	16	2.2	0.2	70	12	0	10				32
33	410		1	16	3.2	0.2	32	8	0	10				33
34	411		1	14	3.0	0.2	62	8	2	10				34
35	412		2	16	1.9	0.2	372	36	2	10				35
36	413		3	16	1.3	0.2	216	28	2	10				36
37	414		2	14	1.5	0.2	172	24	2	10				37
38	415		4	14	1.5	0.2	206	22	5	10				38
39	80JKS416		1.5	164	4.3	0.6	962	56	400	10				39
40	STD E		4	86	3.1	0.2	150	14						40

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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S SPRINGER AVE.,
BURNABY, B.C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 80254-3
INVOICE NO. 282
DATE ANALYSED JULY, 1980
PROJECT 1068

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Fe	Ag	Zn	Pb	W	PPB Au				No.
01	80JKS341		2	42	2.8	0.2	94	28	30	10				01
02	342		3	38	2.7	0.2	96	24	25	10				02
03	343		2	26	2.7	0.2	112	20	10	10				03
04	344		3	30	2.8	0.2	100	24	15	10				04
05	345		2	16	2.7	0.2	92	18	0	10				05
06	346		4	26	2.9	0.2	132	30	0	10				06
07	347		4	14	2.7	0.2	126	30	10	10				07
08	348		4	12	2.2	0.2	98	38	0	10				08
09	349		2	12	2.6	0.2	110	32	0	10				09
10	350		2	18	2.4	0.4	132	36	20	10				10
11	80JKS351		2	12	2.3	0.2	100	12	20	10				11
12	352		3	30	1.8	0.4	104	10	0	10				12
13	353		2	20	1.9	0.2	78	10	0	10				13
14	354		3	20	2.0	0.2	90	10	0	10				14
15	355													15
16	356		3	80	2.5	0.2	126	10	0	10				16
17	357		3	28	2.3	0.2	106	26	10	10				17
18	358		3	24	2.0	0.2	96	10	0	10				18
19	359		4	18	2.7	0.2	98	84	10	10				19
20	STD B		29	154	1.0	0.8	130	98	60	10				20
21	80JKS360		2	32	3.5	0.4	208	42	10	10				21
22	361		1	24	3.3	0.2	98	12	20	10				22
23	362		3	42	2.7	0.4	180	26	0	10				23
24	363		3	14	2.2	0.2	108	26	0	10				24
25	364		6	20	3.0	0.2	108	16	0	10				25
26	365		1	18	2.8	0.2	122	22	0	10				26
27	366		2	46	2.2	0.4	150	12	0	10				27
28	367		3	26	2.2	0.6	202	24	0	10				28
29	368		2	24	3.0	0.2	100	12	0	10				29
30	369		2	66	3.0	0.4	110	10	0	10				30
31	80JKS370		5	28	2.6	1.2	800	174	0	10				31
32	371		4	18	2.2	0.8	490	76	0	10				32
33	372		5	28	2.2	0.8	530	104	0	10				33
34	373		5	24	1.2	1.2	496	106	0	10				34
35	374		4	24	2.2	1.2	600	102	0	10				35
36	375		4	8	0.8	2.2	88	22	15	10				36
37	376		7	6	0.8	0.2	96	36	10	10				37
38	377		6	8	2.2	0.8	580	48	0	10				38
39	80JKS378		4	8	1.5	0.2	137	40	0	10				39
40	STD B		28	164	1.0	0.8	148	96	45	-				40

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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S SPRIN(/E.,
BURNABY, B.C
CANADA
TELEPHONE: 299-6910
AREA CODE: 604

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 80254.1
INVOICE NO. 282
DATE ANALYSED JULY 1980
PROJECT 1068

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Zn	W	Sn							No.
01	80JBT 1			22	52	40	0							01
02	2			22	68	25	0							02
03	3			38	192	15	40							03
04	4			54	150	10	0							04
05	5			16	92	0	0							05
06	6			22	88	0	0							06
07	7			16	352	0	0							07
08	8			40	136	0	0							08
09	9			36	154	0	0							09
10	80JBT10			28	114	0	0							10
11	11			40	230	0	0							11
12	12			32	[illegible]	15	0							12
13	13			46	246	15	0							13
14	14			28	196	10	0							14
15	15			36	204	0	0							15
16	16			38	196	0	0							16
17	80JBT17			42	112	25	0							17
18	STD C			190	118	-	-							18
19														19
20														20
21														21
22														22
23														23
24														24
25														25
26														26
27														27
28														28
29														29
30														30
31														31
32														32
33														33
34														34
35														35
36														36
37														37
38														38
39														39
40														40

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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B. C.
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TELEPHONE: 299-6910
AREA CODE: 604

CERTIFICATE NO. 80207-7A

CERTIFICATE OF ANALYSIS

INVOICE NO.

DATE ANALYSED JULY 1980

PROJECT 1060

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	% Fe	Ag	Zn	Pb	W	PPB Au				No.
01	80JK5131		3	20	2.8	0.2	196	34	12	10				01
02														02
03														03
04														04
05														05
06														06
07														07
08														08
09														09
10														10
11														11
12														12
13														13
14														14
15														15
16														16
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20														20
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27														27
28														28
29														29
30														30
31														31
32														32
33														33
34														34
35														35
36														36
37														37
38														38
39														39
40														40

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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B. C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604
CERTIFICATE NO. 80205-6
INVOICE NO.
DATE ANALYSED JUNE 1980
PROJECT 1068

CERTIFICATE OF ANALYSIS

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Fe	Ag	Zn	Pb	W	Au ppb				No.
01	80IK5 75		2	18	2.8	0.4	304	28	15	10				01
02	76		2	22	3.3	1.0	740	120	15	10				02
03	77		2	16	3.2	0.6	820	64	10	10				03
04	78		3	20	3.6	0.2	840	64	15	10				04
05	79		2	20	2.8	0.4	428	40	10	10				05
06	80		2	24	3.0	0.6	366	40	0	10				06
07	81		1	22	3.6	0.4	250	32	5	10				07
08	82		1	18	2.8	0.8	268	46	10	10				08
09	83		2	30	4.2	0.4	334	38	15	10				09
10	80IK5 84		2	22	3.0	0.4	290	46	5	10				10
11	85		3	20	3.5	0.2	94	18	5	10				11
12	86		2	14	3.1	0.2	234	24	0	10				12
13	87		3	18	3.2	0.4	208	28	5	10				13
14	88		2	18	2.8	0.4	182	38	10	10				14
15	89		2	14	2.7	0.6	156	40	5	10				15
16	90		1	48	2.9	0.4	660	76	10	10				16
17	91		2	20	2.7	0.4	194	68	10	10				17
18	92		2	18	3.0	0.4	224	68	15	10				18
19	93		1	22	3.2	2.2	800	240	5	10				19
20	STD D		2	124	0.8	4.0	526	106	15	-				20
21	80IK5 94		1	34	3.6	0.6	660	92	15	10				21
22	95		1	44	1.3	0.6	120	80	15	10				22
23	96		2	28	2.5	0.2	272	78	15	10				23
24	97		2	58	5.2	0.6	540	86	20	10				24
25	98		2	30	3.7	0.4	214	36	10	10				25
26	99		2	28	4.0	0.2	202	22	85	10				26
27	100		2	58	5.2	0.4	220	22	15	10				27
28	101		1	16	2.6	0.4	190	16	10	10				28
29	102		3	58	4.4	0.8	360	86	15	10				29
30	103		5	62	4.1	0.4	332	24	10	10				30
31	80IK5 104		4	40	3.8	0.8	196	78	5	10				31
32	105		3	22	3.5	0.4	208	32	10	10				32
33	106		3	14	3.0	0.4	216	28	10	10				33
34	107		3	98	3.0	0.6	232	56	10	10				34
35	108		3	32	3.1	0.4	118	36	10	10				35
36	109		3	28	3.4	0.2	148	28	5	10				36
37	110		3	36	2.4	0.2	152	28	5	10				37
38	111		5	34	3.3	0.2	172	46	2	10				38
39	112		3	38	2.0	1.0	320	88	2	10				39
40	STD D		2	126	1.5	4.0	526	104	35					40

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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B. C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604
CERTIFICATE NO. 80205-7
INVOICE NO.
DATE ANALYSED JUNE 1980
PROJECT 1068

CERTIFICATE OF ANALYSIS

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Fe	Ag	Zn	Pb	W	Au ppb				No.
01	80IK5 113		3	38	2.3	0.6	166	70	0	10				01
02	114		2	62	2.1	0.8	98	26	0	10				02
03	115		2	32	3.0	0.2	158	32	15	20				03
04	116		1	30	2.4	0.2	102	20	0	20				04
05	117		3	34	2.3	0.2	110	36	10	20				05
06	118		3	28	3.1	0.2	176	38	40	10				06
07	119		3	30	3.3	0.2	190	36	0	20				07
08	120		6	38	3.7	0.2	146	30	25	10				08
09														09
10	80IK5 122		3	26	3.9	0.2	100	20	10	10				10
11	123		3	28	3.7	0.2	110	22	10	10				11
12	124		3	18	3.1	0.2	88	20	15	10				12
13	125		2	16	3.3	0.2	84	16	20	10				13
14	126		4	20	3.6	0.2	106	20	12	20				14
15	127		2	22	3.4	0.2	114	16	5	20				15
16	128		2	30	3.0	0.2	70	22	8	10				16
17	129		1	14	2.8	0.2	36	16	10	10				17
18	130		3	26	3.6	0.2	390	140	5	20				18
19	132		1	32	4.1	0.2	198	24	5	20				19
20	STD A		5	22	2.7	0.2	32	26	25	-				20
21	80IK5 133		1	42	2.6	0.2	164	46	5	10				21
22	134		2	64	2.8	1.2	260	88	10	10				22
23	135		5	54	2.5	0.2	198	80	35	10				23
24	136		2	34	2.8	0.2	174	20	20	10				24
25	137		2	28	3.2	0.2	192	28	20	10				25
26	138		2	54	2.3	0.2	186	76	8	10				26
27	139		3	54	4.3	0.2	158	20	8	10				27
28	140		3	52	2.8	0.4	242	94	15	10				28
29	141		2	58	2.6	0.2	194	66	15	10				29
30	142		2	66	2.6	0.2	198	44	15	10				30
31	80IK5 143		2	58	4.0	0.2	434	58	15	10				31
32	144		1	40	5.9	0.2	174	14	18	10				32
33	145		2	34	3.3	0.2	370	32	60	10				33
34	146		2	26	3.0	1.2	408	34	35	10				34
35	147		2	70	2.8	1.0	440	48	35	10				35
36	148		5	42	3.1	0.2	170	18	18	10				36
37	149		4	64	3.6	0.2	178	22	30	10				37
38	150		1	22	3.3	0.2	226	20	18	10				38
39	151		3	42	3.7	0.8	302	36	18	10				39
40	STD A		6	22	2.7	0.2	34	22						40

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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B. C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 80205-4
INVOICE NO.
DATE ANALYSED JUNE 1980
PROJECT 1068

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Fe	Ag	Zn	Pb	W	Au				No.
01	80JKS 1		1	10	3.0	0.2	84	40	0	10				01
02	2		1	10	3.0	0.2	90	28	0	10				02
03	3		1	14	2.8	0.2	158	70	0	10				03
04	4		1	16	3.0	0.2	124	46	0	10				04
05	5		2	14	3.5	0.2	166	36	0	10				05
06	6		2	30	3.6	0.2	100	46	0	10				06
07	7		1	14	2.9	0.2	116	42	0	10				07
08	8		1	10	2.9	0.4	190	52	0	10				08
09	9		2	12	2.7	0.4	236	38	0	10				09
10	80JKS 10		2	16	2.8	0.2	158	44	2	10				10
11	11		2	36	2.8	0.4	150	58	0	10				11
12	12A		2	30	2.9	0.2	130	50	0	10				12
13	12B		1	30	3.4	0.2	122	30	0	10				13
14	13		2	16	2.7	0.2	172	54	0	10				14
15	14		2	50	3.0	0.2	168	70	0	10				15
16	15		1	58	3.8	0.4	72	44	10	10				16
17	16		2	58	3.7	0.6	180	66	8	10				17
18	17		2	20	2.7	0.4	96	42	0	10				18
19	18		1	40	2.8	0.4	104	40	8	10				19
20	STD A		6	24	2.7	0.6	14	20	25	-				20
21	80JKS 19		2	48	3.5	0.2	100	36	20	10				21
22	20		1	16	3.5	0.2	108	28	12	10				22
23	21		1	22	3.1	0.2	98	28	10	10				23
24	22		1	22	3.3	0.2	88	34	10	10				24
25	23		1	20	3.3	0.2	88	24	25	10				25
26	24		2	44	3.8	0.2	142	60	20	10				26
27	25		2	20	4.1	0.4	262	44	20	10				27
28	26		1	22	3.0	0.2	416	36	15	10				28
29	27		2	28	3.6	0.2	106	42	15	10				29
30	28		2	34	3.2	0.2	154	46	5	10				30
31	80JKS 29		1	12	3.8	0.2	108	18	8	10				31
32	30		3	38	3.5	0.2	110	52	10	10				32
33	31		1	62	3.0	0.2	172	50	0	10				33
34	32		1	20	2.7	0.2	156	46	5	10				34
35	33		1	14	3.3	0.4	118	36	2	10				35
36	34		1	16	3.0	0.4	138	42	0	10				36
37	35		2	30	3.1	2.0	600	440	2	60				37
38	36		2	32	3.2	2.2	620	438	5	10				38
39	37		1	42	3.2	3.0	820	560	0	10				39
40	STD B		28	148	0.9	4.0	136	106	35	-				40

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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B. C.
CANADA
TELEPHONE: 299-6910

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 80205-5
INVOICE NO.
DATE ANALYSED JUNE 1980
PROJECT 1068

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C. V6E 3L6

No.	Sample	pH	Mo	Cu	Fe	Ag	Zn	Pb	W	Au (ppb)				No.
01	80JKS 38		1	30	2.8	0.2	136	20	10	10				01
02	39		1	42	4.7	0.2	126	20	10	10				02
03	40		2	46	5.3	0.2	160	26	10	10				03
04	41A		1	26	2.9	0.2	64	22	0	10				04
05	41B		1	38	4.0	0.2	104	20	0	10				05
06	42		2	38	4.3	0.2	92	16	5	10				06
07	43		2	48	4.4	0.2	224	30	20	30				07
08	44		2	60	6.4	0.2	390	34	15	10				08
09	45		2	26	3.3	0.2	110	30	0	10				09
10	80JKS 46		2	38	3.0	0.2	70	22	0	10				10
11	47		3	16	3.2	0.2	76	28	0	10				11
12	48		4	12	4.0	0.2	66	40	0	10				12
13	49	missing												13
14	50		2	38	2.0	0.2	56	14	0	10				14
15	51		1	44	2.4	0.4	204	22	0	10				15
16	52		1	34	2.5	0.4	48	10	0	10				16
17	53		2	14	3.7	0.2	106	18	0	10				17
18	54		3	14	3.1	0.2	54	16	0	10				18
19	55		3	62	2.6	0.2	54	14	0	10				19
20	STD C		15	182	1.4	1.0	108	86	15	-				20
21	80JKS 56		1	8	3.0	0.2	60	20	0	10				21
22	57		1	10	3.4	0.2	68	16	0	10				22
23	58		1	18	3.4	0.2	62	12	0	10				23
24	59		2	14	2.5	0.2	54	14	0	10				24
25	60		2	16	3.7	0.2	62	14	0	10				25
26	61		1	12	3.4	0.2	54	14	10	10				26
27	62		2	14	3.3	0.2	68	14	0	10				27
28	63		2	20	3.1	0.2	62	16	0	10				28
29	64		2	20	3.4	0.2	74	14	0	10				29
30	65		2	18	3.3	0.2	74	24	0	10				30
31	80JKS 66		4	14	3.5	0.2	66	10	0	10				31
32	67		3	10	2.7	0.2	196	26	0	10				32
33	68		4	14	3.0	0.2	168	62	15	10				33
34	69		3	10	4.1	0.2	42	6	0	10				34
35	70		3	20	3.9	0.2	74	8	0	10				35
36	71		4	44	3.3	0.4	230	22	15	10				36
37	72		3	44	3.7	0.2	264	18	25	10				37
38	73		2	28	2.9	0.2	164	16	10	10				38
39	74		3	26	2.9	0.2	238	28	20	10				39
40	STD D		3	118	1.3	4.0	498	78	15	-				40

Certified by J. Rossbacher

Rossbacher Laboratory

GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B. C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604

CERTIFICATE NO. 80205-2

INVOICE NO.

DATE ANALYSED JUNE 1980

PROJECT 1068

CERTIFICATE OF ANALYSIS

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Fe	Ag	Zn	Pb	W	Au				No.
01	80JLS112		3	26	2.8	0.4	334	22	20	10				01
02	113		5	16	2.6	0.2	242	16	15	10				02
03	114		7	22	2.6	0.6	320	16	10	10				03
04	115		5	180	2.2	0.6	146	20	20	10				04
05	116		6	18	1.9	0.2	92	20	15	20				05
06	117		3	56	2.3	0.4	114	16	20	10				06
07	118		2	10	1.8	0.2	102	18	5	20				07
08	119		2	16	1.7	0.4	136	18	2	30				08
09	120		2	16	1.2	0.2	58	24	0	20				09
10	80JLS121		3	22	1.6	0.2	68	22	5	20				10
11	122		1	14	2.0	0.2	102	30	10	10				11
12	123		2	48	2.8	0.4	294	42	10	10				12
13	124		2	56	2.6	0.2	162	46	35	140				13
14	125		1	14	2.2	0.2	86	20	15	20				14
15	126		2	36	2.0	0.2	218	74	5	20				15
16	127		2	22	1.7	0.2	114	40	10	40				16
17	128		2	26	1.8	0.2	146	54	15	10				17
18	129		1	18	0.9	0.2	62	22	10	10				18
19	130		1	28	1.6	0.4	128	52	5	10				19
20	Std A		5	22	2.0	0.2	12	18	15	/				20
21	80JLS131		2	26	1.9	0.4	144	34	0	10				21
22	132		4	48	2.2	0.2	170	50	25	10				22
23	133		3	42	1.7	0.4	120	38	20	10				23
24	134		12	30	2.4	0.2	168	76	45	10				24
25	135		4	36	2.0	0.4	148	32	20	10				25
26	136		7	50	2.1	0.2	164	26	25	10				26
27	137		8	18	2.2	0.2	352	76	90	10				27
28	138		7	34	2.0	0.2	168	18	80	10				28
29	139		4	46	2.2	0.2	232	20	90	10				29
30	140		5	104	4.0	0.4	128	28	260	10				30
31	80JLS141		1	18	4.2	0.2	388	76	2	10				31
32	142		3	106	3.4	0.6	412	36	55	10				32
33	143		2	30	3.9	0.2	290	20	35	10				33
34	144		2	90	2.8	0.2	148	36	25	440				34
35	145		2	28	1.4	0.4	70	26	10	10				35
36	146		2	24	2.1	0.2	270	54	15	10				36
37	147		3	42	2.5	0.2	114	20	90	10				37
38	148		3	54	2.9	0.2	124	32	25	10				38
39	149		5	52	3.8	0.2	274	24	15	10				39
40			6	22	2.1	0.2	8	18	20	/				40

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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B. C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604

CERTIFICATE NO. 80205-3

INVOICE NO.

DATE ANALYSED JUNE 1980

PROJECT 1068

CERTIFICATE OF ANALYSIS

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Fe	Ag	Zn	Pb	W	ppb Au				No.
01	80JLS150		3	32	2.9	0.2	136	24	40	10				01
02	151		2	30	2.6	0.2	148	32	65	10				02
03	152		2	30	2.3	0.2	162	32	45	10				03
04	153		2	44	2.8	0.2	156	32	35	10				04
05	154		4	28	2.6	0.2	134	34	25	10				05
06	155		1	8	1.0	0.4	60	20	15	10				06
07	156		2	10	2.2	0.4	276	28	15	10				07
08	157		2	30	2.7	0.4	148	32	20	10				08
09	158		2	90	3.3	0.2	204	30	20	10				09
10	80JLS159		2	44	3.3	0.4	162	26	50	10				10
11	160		2	16	3.1	0.2	194	18	15	10				11
12	161		2	20	3.7	0.2	376	28	30	10				12
13	162		2	36	4.2	0.2	290	30	40	10				13
14	163		4	82	4.5	0.2	160	60	35	10				14
15	164		4	74	4.7	0.2	326	40	30	10				15
16	165		3	24	2.6	0.4	760	70	25	10				16
17	166		4	20	2.2	0.2	92	30	10	10				17
18	167		7	28	2.5	0.2	108	60	0	10				18
19	Std A		7	24	2.4	0.2	38	20	40	/				19
20														20
21														21
22														22
23														23
24														24
25														25
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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
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AREA CODE: 604

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 80235-3
INVOICE NO.
DATE ANALYSED JULY 1980
PROJECT 1068

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Pb	Zn	Fe	As	Ag	Au				No.
01	80JBT131		6	14	22	540	3.7	.2	80	5				01
02	132		6	16	20	460	2.4	0.2	50	20				02
03	133		38	78	22	960	2.6	0.2	38	280				03
04	135		8	26	34	1100	3.1	0.2	64	75				04
05	136		9	24	60	2740	3.4	0.2	48	15				05
06	137		8	2	10	540	1.4	0.2	44	35				06
07	140		7	72	40	640	9.1	0.2	392	0				07
08	141		7	18	34	100	1.6	0.2	84	0				08
09	80JBT154		7	8	22	50	1.1	0.2	17	0				09
10	600		16	480	10	320	2.6	0.2	68	—				10
11														11
12														12
13														13
14														14
15														15
16														16
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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
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CANADA
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AREA CODE: 604

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 80205-1
INVOICE NO.
DATE ANALYSED JUNE 1980
PROJECT 1068

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Fe	Ag	Zn	Pb	W	FBB Au				No.
01	80JLS74		4	14	2.8	0.4	108	16	0	10				01
02	75		2	6	0.8	0.2	30	24	20	10				02
03	76		5	22	1.7	0.2	116	48	5	10				03
04	77		5	26	2.3	0.4	124	50	10	10				04
05	78		1	20	1.3	0.2	52	10	5	10				05
06	79		2	18	1.2	0.2	78	14	10	30				06
07	80		3	44	1.2	0.2	82	22	5	10				07
08	81		6	92	3.4	0.2	262	34	20	10				08
09	82		4	24	2.4	0.2	180	34	10	10				09
10	80JLS83		4	20	2.1	0.2	152	38	2	10				10
11	84		4	28	2.6	0.2	202	42	10	10				11
12	85		5	20	2.5	0.2	194	40	10	10				12
13	86		5	22	2.3	0.2	198	36	5	10				13
14	87		4	90	4.0	0.2	136	30	35	10				14
15	88		4	46	2.9	0.2	120	22	45	30				15
16	89		3	60	3.0	0.4	164	36	25	10				16
17	90		6	26	1.9	0.2	158	30	35	10				17
18	91		5	62	2.9	0.2	190	34	40	10				18
19	92		6	62	3.0	0.6	148	34	35	10				19
20	STD A		7	22	2.6	0.2	39	18	20	10				20
21	80JLS93		10	18	2.4	0.4	186	14	15	20				21
22	94		8	20	2.4	0.2	106	18	40	30				22
23	95		6	36	3.0	0.6	266	22	15	10				23
24	96		2	34	4.4	0.4	480	26	15	10				24
25	97		2	42	3.1	0.6	358	24	15	10				25
26	98		2	64	2.0	0.4	198	40	5	30				26
27	99		2	30	3.0	0.8	340	24	20	20				27
28	100		3	26	3.8	0.4	430	16	80	20				28
29	101		2	24	3.3	0.6	308	18	15	20				29
30	102		6	140	4.6	1.2	388	28	140	30				30
31	80JLS103		3	20	3.2	0.6	282	22	85	10				31
32	104		8	194	4.4	0.4	438	44	160	10				32
33	105		7	72	4.0	0.4	268	28	240	10				33
34	106		5	104	4.2	0.4	172	30	100	10				34
35	107		4	40	3.9	0.4	312	26	55	10				35
36	108		6	54	3.3	0.6	280	22	180	10				36
37	109		4	74	4.9	0.6	740	46	140	10				37
38	110		4	38	3.7	0.4	210	22	85	10				38
39	111		8	318	7.4	0.6	278	30	160	30				39
40	STD A		7	24	2.5	0.2	28	20	80	—				40

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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B.C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 80256-1
INVOICE NO.
DATE ANALYSED JULY 1980
PROJECT 1068

TO: AMAX MINERALS EXPLORATION
801 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Ni	Mn	Fe	As	Zn	U	Au			No.
01	80JLT1		8	264	30	420	3.7	.02	80	10				01
02	2		4	148	82	1960	3.4	0.2	66	280				02
03	3		4	84	38	220	1.7	0.2	106	0				03
04	4		5	120	44	360	2.5	0.2	48	55				04
05	5		2	8	22	840	2.2	0.2	70	280				05
06	6		6	12	34	720	1.6	0.2	62	0				06
07	7		6	16	48	770	2.3	0.2	38	0				07
08	8		5	10	34	220	2.8	0.2	72	0				08
09	9		5	12	40	200	1.6	0.2	16	0				09
10	10		5	14	38	600	3.2	0.2	48	0				10
11	80JLT11		5	12	34	160	1.4	0.2	10	0				11
12	610		15	562	14	320	2.6	0.2	64	-				12
13														13

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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B.C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 80256-2
INVOICE NO.
DATE ANALYSED JUNE 1980
PROJECT 1068

TO: AMAX MINERALS EXPLORATION
801 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Ni	Mn	Fe	As	Zn	W	Au			No.
01	80JRT4		2	520	24	430	3.0	.42	80					01
02	5		2	20	26	2230	2.7	0.2	22					02
03	5A		2	140	20	1080	6.6	0.2	30					03
04	11		1	4	12	70	0.8	0.2	4					04
05	31		3	4	16	190	0.3	0.2	16					05
06	43		2	28	32	150	1.7	0.2	30					06
07	45		1	372	16	70	4.2	0.2	14					07
08	45A		3	18	24	330	0.9	0.2	366					08
09	46		3	60	34	120	2.1	0.2	26					09
10	46		2	30	38	190	1.1	0.2	40					10
11	80JRT44A		1	12	28	240	0.9	0.2	36					11
12	47		1	6	26	310	1.2	0.2	48					12
13	48		2	4	40	180	2.7	0.2	36					13
14	49		1	32	20	140	1.3	0.2	36					14
15	52		1	8	34	280	3.2	0.2	64					15
16	57		2	132	36	490	1.5	0.2	58					16
17	59		4	12	34	160	1.9	0.2	32					17
18	59A		3	16	20	130	1.8	0.2	26					18
19	66		3	2	14	830	3.6	0.2	20					19
20	6		30	160	14	170	0.9	1.0	142					20
21	80JRT67		3	10	12	1820	1.9	0.2	50					21
22	64		2	8	18	1620	4.3	0.2	80					22
23	71		4	92	94	1890	6.7	0.2	124					23
24	72		5	400	80	3140	>10	0.2	90					24
25	74		2	16	16	1480	0.9	0.2	54					25
26	74A		4	16	16	1570	2.6	0.2	214					26
27	74B		5	12	36	270	1.3	0.2	56					27
28	76		1	4	8	70	0.2	0.2	14					28
29	85		3	28	38	760	2.9	0.2	244					29
30	80JRT88		5	16	46	310	3.6	0.2	84					30
31	95		4	12	28	670	1.5	0.2	44					31
32	116		4	8	30	400	2.3	0.2	28					32
33	118		4	46	20	420	1.2	0.2	16					33
34	120		5	316	22	1140	3.5	0.2	128					34
35	126		3	44	24	370	2.8	0.2	36					35
36	127		3	6	28	140	1.7	0.2	10					36
37	128		3	68	32	380	2.3	0.2	54					37
38	129		3	96	34	270	1.6	0.2	34					38
39	80JRT130		5	22	24	1290	4.0	0.2	76					39
40	6		31	164	14	190	1.0	0.8	138					40

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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B.C.
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AREA CODE: 604

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 80230-4
INVOICE NO.
DATE ANALYSED JULY 1980
PROJECT 1068

TO: AMAX MINERALS EXPLORATION
801 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Fe	Mn	Zn	Pb	As	Au				No.
01	80JKS337		3	14	7.9	8.2	276	52						01
02	39		2	16	3.3	0.2	238	118						02
03	39		3	20	3.4	0.4	5040	42						03
04	80JKS340		3	16	2.7	0.2	232	32						04
05	340 B		29	152	1.0	0.3	132	98						05
06														06
07														07
08														08
09														09
10														10
11														11
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14														14
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16														16
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18														18
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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S SPRINGER AVE.,
BURNABY, B.C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 80250-2

INVOICE NO.

DATE ANALYSED JULY 1980

PROJECT 1068

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Fe	Ag	Zn	Pb	U	Au				No.
01	80JLS353		1	44	2.6	0.2	88	22						01
02	54		1	44	2.5	0.2	92	24						02
03	55		1	40	2.7	0.2	84	24						03
04	56		1	48	2.6	0.2	90	28						04
05	57		1	36	2.6	0.2	70	18						05
06	58		1	32	2.7	0.2	68	16						06
07	59		1	20	2.4	0.2	86	16						07
08	60		1	12	2.4	0.2	90	22						08
09	61		1	18	2.1	0.2	74	16						09
10	62		1	12	1.9	0.2	74	10						10
11	80JLS363		1	20	2.5	0.2	82	14						11
12	64		1	18	2.4	0.2	66	12						12
13	65		1	18	2.0	0.2	64	14						13
14	66		2	24	2.0	0.2	60	12						14
15	67		1	28	2.4	0.2	60	14						15
16	68		1	26	2.5	0.2	84	14						16
17	69		1	60	3.2	0.2	78	20						17
18	70		1	28	2.8	0.2	72	14						18
19	71		2	24	2.6	0.2	74	16						19
20	〃		2	120	0.6	3.6	482	92						20
21	80JLS372		1	68	3.2	0.2	98	22						21
22	73		1	66	3.5	0.2	90	22						22
23	74		1	28	0.7	0.2	20	8						23
24	75		1	36	2.0	0.2	60	14						24
25	76		1	64	3.0	0.2	100	28						25
26	77		1	80	2.1	0.2	74	20						26
27	78		1	38	1.4	0.2	40	16						27
28	79		2	64	2.2	0.2	64	22						28
29	80JLS380		1	20	1.9	0.2	46	14						29
30														30
31														31
32														32
33														33
34														34
35														35
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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B.C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 80250-3

INVOICE NO.

DATE ANALYSED JULY 1980

PROJECT 1068

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Fe	Ag	Zn	Pb	U	Au				No.
01	80JKS299		1	16	1.8	0.2	346	14						01
02	300		1	24	0.7	0.2	132	4						02
03	01		1	36	3.1	0.2	188	34						03
04	02		1	120	2.8	0.2	246	10						04
05	03		1	114	2.6	0.2	330	18						05
06	04		1	40	0.8	0.2	126	2						06
07	05		2	12	3.1	0.2	100	26						07
08	06		2	20	3.6	0.2	178	24						08
09	07		2	24	4.7	0.2	64	14						09
10	08		2	36	2.4	0.2	54	6						10
11	80JKS309		2	52	1.8	0.2	248	24						11
12	10		2	60	3.4	0.2	100	22						12
13	11		2	18	3.6	0.2	90	12						13
14	12		2	18	2.3	0.2	50	10						14
15	13		2	10	2.7	0.2	50	30						15
16	14		2	10	2.8	0.2	54	10						16
17	15		2	10	3.3	0.2	46	10						17
18	16		2	20	3.7	0.2	62	8						18
19	17		2	10	2.6	0.2	48	12						19
20	〃		13	188	7.1	0.4	144	78						20
21	80JKS318		1	14	2.1	0.2	88	14						21
22	19		1	8	2.9	0.2	76	10						22
23	20		1	8	1.8	0.2	58	12						23
24	21		1	6	9.0	0.2	68	18						24
25	22		1	32	3.7	0.2	190	46						25
26	23		1	50	3.5	0.2	298	36						26
27	24		1	22	4.0	0.2	166	26						27
28	25		1	48	2.0	0.2	76	16						28
29	26		1	62	3.2	0.2	126	24						29
30	80JKS327		1	60	3.3	0.4	256	42						30
31	28		1	56	2.8	0.2	190	46						31
32	29		1	22	4.6	0.2	224	12						32
33	30		1	20	2.8	0.2	220	24						33
34	31		2	30	3.8	0.2	106	32						34
35	32		1	22	3.5	0.2	142	26						35
36	33		1	28	5.8	0.2	280	24						36
37	34		1	18	4.0	0.2	270	34						37
38	35		1	30	3.9	0.2	590	70						38
39	80JKS336		1	24	3.9	0.2	240	42						39
40	〃		13	182	12	0.6	116	80						40

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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
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CANADA
TELEPHONE: 299-6910
AREA CODE: 604

CERTIFICATE NO. 80208-8

INVOICE NO.

DATE ANALYSED JUNE 1980

PROJECT 1068

CERTIFICATE OF ANALYSIS

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Fe	Ag	Zn	Pb	W	PPB Au				No.
01	80JLS282		3	144	4.8	0.6	216	48	15	10				01
02	283		3	300	3.6	1.6	448	122	20	10				02
03	284		3	146	3.6	0.6	128	40	35	10				03
04	285		2	108	3.6	0.4	98	28	95	10				04
05	286		3	174	4.0	0.6	182	46	75	10				05
06	287		1	108	3.1	0.4	126	32	20	10				06
07	288		1	42	1.8	0.4	68	20	80	10				07
08	289		1	78	2.5	0.6	60	24	10	10				08
09	290		2	68	2.7	0.6	88	24	5	10				09
10	80JLS291		2	80	3.1	0.6	178	30	15	10				10
11	292		2	126	3.7	0.6	236	50	80	10				11
12	293		2	110	2.9	0.6	232	32	0	10				12
13	294		1	90	2.6	0.8	240	32	15	10				13
14	295		1	64	4.9	0.4	188	20	15	10				14
15	296		1	112	3.0	1.2	208	52	80	10				15
16	297		1	90	3.5	0.8	320	64	25	10				16
17	298		1	22	3.0	0.8	208	26	35	10				17
18	299		1	140	3.5	1.6	216	26	30	10				18
19	300		5	478	4.6	1.6	700	46	60	10				19
20	STD E		4	76	2.8	0.6	156	20	15	-				20
21	80JLS301		4	108	6.7	0.6	294	36	100	20				21
22	302		6	114	6.0	1.0	358	60	80	20				22
23	303		2	48	3.8	0.8	570	36	65	10				23
24	304		1	58	3.0	0.6	376	32	45	10				24
25	305		4	80	4.2	0.6	442	46	90	10				25
26	306		4	70	3.7	0.6	258	36	45	10				26
27	307		9	244	5.1	0.8	318	52	200	10				27
28	308		9	147	2.9	0.8	660	36	35	10				28
29	309		6	68	2.8	0.6	412	24	35	10				29
30	310		4	54	3.3	1.8	640	46	55	10				30
31	80JLS311		5	76	3.4	1.2	394	34	40	10				31
32	312		8	168	4.8	0.8	464	42	75	10				32
33	313		5	142	3.4	1.2	900	28	50	10				33
34	314		6	484	4.0	1.0	380	26	80	10				34
35	STD E		3	78	2.2	0.6	140	18	15	-				35
36														36
37														37
38														38
39														39
40														40

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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B. C.
CANADA
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AREA CODE: 604

CERTIFICATE NO. 80230-1

INVOICE NO.

DATE ANALYSED JULY 1980

PROJECT 1068

CERTIFICATE OF ANALYSIS

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Fe	Ag	Zn	Pb	W	Au				No.
01	80JLS315		3	178	4.2	0.2	448	74						01
02	16		2	42	2.9	0.2	240	26						02
03	17		2	28	2.5	0.2	124	36						03
04	18		1	16	1.7	0.2	260	26						04
05	19		3	24	2.0	0.2	472	48						05
06	20		1	28	0.3	0.4	126	24						06
07	21		2	16	1.9	0.2	222	32						07
08	22		4	26	1.4	0.4	110	52						08
09	23		3	116	0.8	1.0	198	12						09
10	24		7	84	2.2	0.2	230	30						10
11	80JLS325		6	116	1.1	0.6	182	28						11
12	26		27	52	2.2	0.2	230	24						12
13	27		6	220	2.9	0.4	186	30						13
14	28		2	140	0.9	0.2	148	38						14
15	29		4	100	2.6	0.2	88	34						15
16	30		3	36	1.4	0.2	60	20						16
17	31		4	48	2.2	0.2	74	22						17
18	32		5	116	2.3	0.2	96	38						18
19	33		5	230	2.7	0.2	124	48						19
20	6		30	168	0.8	0.6	146	96						20
21	80JLS334		4	34	2.8	0.2	124	38						21
22	35		4	44	2.8	0.2	178	56						22
23	36		4	32	2.2	0.2	180	46						23
24	37		5	40	2.3	0.2	220	46						24
25	38		6	24	2.3	0.2	210	56						25
26	39		4	20	2.9	0.2	260	52						26
27	40		3	18	2.8	0.2	230	24						27
28	41		4	12	3.2	0.2	216	72						28
29	42		3	8	3.1	0.2	212	34						29
30	80JLS343		3	12	3.2	0.2	194	58						30
31	44		1	8	2.8	0.2	202	64						31
32	45		1	12	2.9	0.2	104	24						32
33	46		1	16	2.8	0.2	118	44						33
34	47		1	16	2.9	0.2	182	106						34
35	48		1	42	3.4	0.2	96	20						35
36	49		1	44	3.1	0.6	76	22						36
37	50		1	32	2.3	0.2	82	22						37
38	51		1	12	2.7	0.2	52	10						38
39	80JLS352		1	62	2.2	0.2	108	30						39
40	5		28	156	0.7	0.8	136	95						40

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2225 S. SPRINGER AVE.,
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CANADA
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AREA CODE: 604

CERTIFICATE NO. 80208-6

INVOICE NO.

DATE ANALYSED JUNE 1980

PROJECT 1068

CERTIFICATE OF ANALYSIS

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Fe	Ag	Zn	Pb	W	PPB Au				No.
01	80 JLS 206		2	16	2.4	0.2	164	22	0	10				01
02	207		2	28	2.0	0.2	94	32	0	10				02
03	208		2	34	1.8	0.4	272	20	0	10				03
04	209		2	98	2.2	0.6	258	30	0	10				04
05	210		3	34	2.7	0.4	174	26	25	10				05
06	211		3	28	0.2	0.6	102	30	10	10				06
07	212		1	14	3.0	0.4	50	22	10	10				07
08	213		2	20	2.1	0.4	124	34	10	10				08
09	214		2	62	2.8	0.6	218	26	30	10				09
10	80 JLS 215		4	62	3.4	0.4	146	34	15	10				10
11	216		1	34	1.6	2.8	66	40	0	80				11
12	217		1	13	1.7	0.4	110	44	5	10				12
13	218		6	52	3.1	0.4	376	16	100	20				13
14	219		8	120	5.0	0.8	274	24	80	20				14
15	220		6	90	4.5	1.0	428	20	45	20				15
16	221		5	120	5.6	0.6	340	22	130	20				16
17	222		6	100	4.3	0.8	620	22	130	20				17
18	223		3	12	2.7	0.6	144	18	0	20				18
19	224		2	18	2.6	0.4	100	16	0	20				19
20	STD B		30	134	0.8	1.6	134	90	15	—				20
21	80 JLS 225		2	10	2.5	0.2	100	18	0	20				21
22	226		3	52	3.1	0.6	204	26	0	10				22
23	227		1	16	2.2	0.4	110	18	0	20				23
24	228		1	10	1.0	0.4	60	14	0	20				24
25	229		2	18	1.8	0.4	92	20	0	20				25
26	230		2	92	2.7	0.8	168	26	20	10				26
27	231		2	110	2.6	0.6	130	20	20	20				27
28	232		2	84	2.7	0.6	240	34	20	10				28
29	233		3	132	2.4	1.0	154	20	15	10				29
30	234		6	84	3.0	0.4	178	28	30	10				30
31	80 JLS 235		17	364	2.8	1.0	230	34	20	10				31
32	236		38	64	2.5	0.6	168	82	45	10				32
33	237		23	496	4.4	1.8	1900	80	160	10				33
34	238		5	76	1.5	1.0	210	26	90	10				34
35	239		8	340	5.4	0.4	156	80	135	20				35
36	240		7	458	4.5	0.6	320	76	85	10				36
37	241		8	160	4.7	0.4	146	36	70	10				37
38	242		14	360	4.4	1.2	204	120	15	20				38
39	243		5	220	3.9	0.6	120	46	20	10				39
40	STD B		30	134	0.8	1.6	136	90	15	7				40

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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B. C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604

CERTIFICATE NO. 80208-7

INVOICE NO.

DATE ANALYSED JUNE 1980

PROJECT 1068

CERTIFICATE OF ANALYSIS

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Fe	Ag	Zn	Pb	W	PPB Au				No.
01	80 JLS 244		8	306	5.1	0.6	350	86	35	10				01
02	245		4	438	5.3	0.6	570	98	55	10				02
03	246		4	268	5.1	1.0	430	114	45	10				03
04	247		3	140	2.8	0.4	100	38	40	10				04
05	248		3	80	2.7	0.2	94	26	50	10				05
06	249		2	116	3.3	0.2	74	24	35	10				06
07	250		2	280	5.9	0.4	104	30	10	10				07
08	251		1	30	3.2	0.2	70	18	10	10				08
09	252		2	34	3.9	0.2	68	14	25	10				09
10	80 JLS 253		1	44	2.6	0.2	60	20	5	10				10
11	254		1	76	2.5	0.2	56	20	10	10				11
12	255		1	36	3.0	0.2	108	18	10	10				12
13	256		2	52	2.7	0.4	90	80	15	10				13
14	257		1	94	3.1	0.4	146	32	10	10				14
15	258		2	28	2.8	0.2	90	20	10	10				15
16	259		2	18	2.7	0.2	68	16	15	10				16
17	260		1	20	2.6	0.2	82	14	5	10				17
18	261		2	20	3.2	0.2	76	16	5	10				18
19	262		2	16	2.9	0.2	76	16	10	10				19
20	STD C		18	184	1.4	0.8	124	88	20	10				20
21	80 JLS 263		11	136	3.9	0.6	302	42	55	10				21
22	264		12	280	3.8	1.0	1140	68	90	10				22
23	265		4	192	4.5	1.0	360	60	45	10				23
24	266		34	242	1.3	3.2	174	34	2	10				24
25	267		13	166	5.4	0.6	336	52	280	10				25
26	268		8	86	2.6	0.8	110	32	110	10				26
27	269		3	20	3.5	0.4	162	28	15	10				27
28	270		3	26	4.3	0.6	174	28	15	10				28
29	271		2	76	3.0	0.4	120	30	10	10				29
30	272		9	456	8.6	0.8	300	54	130	10				30
31	80 JLS 273		6	158	5.2	1.8	366	80	90	10				31
32	274		6	248	5.1	0.8	438	38	15	10				32
33	275		3	158	4.4	0.8	302	66	25	10				33
34	276		—	[illegible]			—	—	—	—				34
35	277		3	52	3.2	0.4	118	18	25	10				35
36	278		3	100	3.3	0.6	252	42	15	40				36
37	279		6	328	6.8	0.8	288	64	5	10				37
38	280		4	274	3.7	0.8	152	40	15	10				38
39	281		2	90	2.4	0.2	100	20	15	10				39
40	STD C		18	192	1.4	0.8	124	88	15	7				40

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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B.C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604

CERTIFICATE NO. 80208-4

INVOICE NO.

DATE ANALYSED JUNE 1980

PROJECT 1068

CERTIFICATE OF ANALYSIS

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Fe	Ag	Zn	Pb	W	Au (PPB)				No.
01	80 IKS 266		3	20	2.8	0.4	182	60	0	10				01
02	267		3	22	2.8	0.4	184	50	0	10				02
03	268		3	16	2.5	0.4	118	40	0	10				03
04	269		2	14	3.1	0.4	122	32	0	10				04
05	270		1	20	2.4	0.4	90	32	10	10				05
06	271		2	16	2.7	0.4	106	36	0	10				06
07	272		2	16	2.2	0.4	102	28	0	10				07
08	273		2	24	2.6	0.4	90	28	15	10				08
09	274		2	26	2.4	0.4	96	24	0	10				09
10	80 IKS 275		2	22	2.4	0.2	100	32	0	10				10
11	276		2	28	2.8	0.2	102	28	2	10				11
12	277		1	18	2.6	0.4	96	24	0	10				12
13	278		2	26	2.9	0.4	120	28	0	10				13
14	279		1	28	2.6	0.4	112	30	0	10				14
15	280		1	92	3.2	0.4	104	30	20	10				15
16	281		2	16	2.7	0.4	70	16	0	10				16
17	282		1	20	2.6	0.4	82	24	0	10				17
18	283		1	20	3.0	0.4	120	26	0	10				18
19	284		2	14	2.6	0.6	138	18	0	10				19
20	STD E		3	80	3.0	0.6	164	20	35	10				20
21	80 IKS 284		2	12	3.1	0.2	182	24	0	10				21
22	286		2	14	3.8	0.6	232	26	0	10				22
23	287		2	20	2.8	0.6	96	22	0	10				23
24	288		2	22	3.1	0.6	166	28	0	10				24
25	289		1	16	2.7	0.4	122	18	0	10				25
26	290		2	30	2.8	0.4	98	22	0	10				26
27	291		1	22	2.4	0.4	86	16	0	10				27
28	292		2	16	1.6	0.4	144	32	0	10				28
29	293		2	36	2.9	0.6	170	26	10	10				29
30	294		2	30	3.0	0.4	120	24	0	10				30
31	80 IKS 295		2	22	3.0	0.2	76	10	0	10				31
32	296		2	68	1.6	0.6	34	6	0	10				32
33	297		2	58	2.3	0.6	78	28	0	10				33
34	298		2	22	4.2	0.2	76	10	0	10				34
35	STD E		3	68	2.7	0.6	134	18	40	[illegible]				35
36														36
37														37
38														38
39														39
40														40

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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B.C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604

CERTIFICATE NO. 80208-5

INVOICE NO.

DATE ANALYSED JUNE 1980

PROJECT 1068

CERTIFICATE OF ANALYSIS

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Fe	Ag	Zn	Pb	W	Au (PPB)				No.
01	80 ILS 168		3	58	2.3	0.6	138	26	2	10				01
02	169		3	66	3.0	0.4	172	30	2	10				02
03	170		2	50	3.4	0.8	160	32	2	10				03
04	171		2	36	3.4	0.4	174	30	0	10				04
05	172		3	32	3.5	0.6	142	28	0	10				05
06	173		2	12	2.4	0.6	94	20	0	10				06
07	174		2	12	3.0	0.8	182	18	0	10				07
08	175		2	10	1.4	0.6	106	24	0	10				08
09	176		1	10	1.1	0.4	48	30	0	10				09
10	80 ILS 177		3	52	1.8	0.6	82	26	0	10				10
11	178		7	76	4.0	0.6	84	20	0	10				11
12	179		3	30	3.4	0.8	134	18	0	10				12
13	180		7	78	4.4	0.6	112	20	30	10				13
14	181		3	36	2.5	0.4	110	16	10	10				14
15	182		6	68	4.3	0.8	174	14	10	10				15
16	183		3	38	3.6	0.8	182	20	10	10				16
17	184		3	44	1.4	2.2	94	24	10	10				17
18	185		1	18	1.6	0.6	106	18	15	10				18
19	186		3	36	2.8	0.6	238	20	10	10				19
20	80 ILS 187A		4	52	2.9	0.8	112	20	10	10				20
21	80 ILS 187B		2	40	3.0	0.4	214	22	25	10				21
22	188		7	146	3.7	1.0	96	24	10	10				22
23	189		2	30	1.6	0.4	70	18	10	10				23
24	190		5	98	3.1	1.2	146	44	80	10				24
25	191		2	82	3.7	0.4	158	38	35	10				25
26	192		-	[illegible]					-	-				26
27	193		2	114	3.0	1.0	192	30	35	10				27
28	194		3	80	3.3	0.6	214	46	15	10				28
29	195		2	18	2.2	0.4	98	20	5	10				29
30	196		1	54	2.4	0.6	208	38	2	10				30
31	80 ILS 197		1	36	2.9	0.6	184	40	20	10				31
32	198		1	26	3.0	2.4	440	58	20	10				32
33	199		1	20	2.4	1.0	478	58	15	10				33
34	200		1	16	2.6	0.6	468	62	10	10				34
35	201		1	28	2.6	0.8	660	54	10	10				35
36	202		3	20	2.6	0.4	234	36	10	10				36
37	203		4	26	2.2	0.4	123	42	5	10				37
38	204		3	20	2.3	0.4	98	36	0	10				38
39	205		2	18	2.3	0.2	100	26	0	10				39
40	STD E		3	78	3.0	0.6	160	20		[illegible]				40

(4) TWO SAMPLES MARKED 187.

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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B. C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 80208-2

INVOICE NO.

DATE ANALYSED JUNE 1980

PROJECT 1068

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Fe	Ag	Zn	Pb	W	PPB Au				No.
01	80JKS190		3	500	5.7	0.2	296	76	140	10				01
02	191		7	238	3.3	0.2	228	26	120	10				02
03	192		32	264	700	0.2	336	18	480	10				03
04	193		10	200	4.1	0.8	970	52	80	10				04
05	194		6	136	4.1	0.2	130	20	60	10				05
06	195		2	62	4.6	0.2	152	24	100	10				06
07	196		3	158	5.4	0.2	114	22	130	10				07
08	197		2	102	5.7	0.4	80	26	240	10				08
09	198		4	188	3.6	0.4	306	22	90	10				09
10	80JKS199		12	200	4.0	1.7	256	24	70	10				10
11	200		9	184	4.8	0.2	206	68	1200	40				11
12	201		2	26	2.3	0.2	94	22	50	10				12
13	202		9	182	4.0	0.2	200	48	400	30				13
14	203		11	88	3.3	0.2	212	50	240	20				14
15	204		6	78	3.0	0.6	186	40	100	20				15
16	205	BROKEN			BAG	—	—	—	-	-				16
17	206		2	84	3.0	0.2	158	48	40	10				17
18	207		13	370	6.0	0.4	640	58	150	20				18
19	208		5	468	4.0	0.2	374	86	30	60				19
20	STD A		4	26	2.5	0.2	30	22	20	—				20
21	80JKS209		7	374	4.8	0.4	426	48	100	20				21
22	210		5	316	3.9	1.2	368	56	30	40				22
23	211		3	230	6.4	0.6	436	54	50	20				23
24	212		3	272	4.4	1.8	790	114	160	10				24
25	213		4	538	4.8	0.8	334	86	50	20				25
26	214		3	242	3.4	0.4	196	60	70	10				26
27	215		4	272	4.7	0.2	194	46	100	20				27
28	217A		2	276	3.6	0.2	132	26	60	30				28
29	217		4	304	5.2	0.4	320	46	80	20				29
30	218		3	344	6.5	0.6	180	34	10	20				30
31	80JKS 219		4	52	2.0	0.6	170	32	5	20				31
32	220		6	144	1.9	1.6	180	38	5	30				32
33	221	BROKEN			BAG	—	—	—	-	-				33
34	222	BROKEN			BAG	—	—	—	-	-				34
35	223		10	504	5.2	1.0	246	132	300	10				35
36	224		2	16	3.0	0.2	182	128	0	20				36
37	225		1	22	3.8	0.4	224	42	0	10				37
38	226		2	22	2.6	0.4	214	60	0	80				38
39	227		3	22	2.9	0.2	160	58	0	80				39
40	STD B		6	24	2.6	0.2	36	22	80	—				40

TWO SAMPLES WERE MARKED AS JKS 217

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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B. C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 80208-3

INVOICE NO.

DATE ANALYSED JUNE 1980

PROJECT 1068

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Fe	Ag	Zn	Pb	W	PPB Au				No.
01	80JKS228		3	22	2.9	0.8	1000	76	0	10				01
02	229		4	24	2.5	0.6	180	52	0	10				02
03	230		4	22	2.7	0.6	172	50	0	10				03
04	231		3	20	2.4	0.6	168	50	0	10				04
05	232		2	14	2.7	0.4	78	26	0	10				05
06	233		2	12	2.1	0.4	88	42	0	10				06
07	234		2	16	2.8	0.6	138	52	0	10				07
08	235		2	12	2.1	0.4	136	20	0	10				08
09	236		4	12	1.7	0.4	168	38	0	10				09
10	80JKS237		1	8	2.6	0.4	108	30	0	10				10
11	238		3	10	3.0	0.4	190	44	0	10				11
12	239		4	12	2.4	0.4	170	56	0	10				12
13	240		3	14	3.2	0.6	218	60	0	10				13
14	241		4	10	2.6	0.4	194	38	0	10				14
15	242		2	10	3.4	0.4	90	32	0	10				15
16	243		2	22	3.1	0.6	116	26	0	10				16
17	244		2	18	3.3	0.4	352	26	0	10				17
18	245		2	10	3.5	0.4	128	26	0	10				18
19	246		1	8	2.0	0.4	78	16	0	10				19
20	STD D		1	122	0.7	4.2	530	106	-					20
21	80JKS247		2	10	3.6	0.4	80	20	0	80				21
22	248		2	12	2.8	0.4	602	18	0	30				22
23	249		2	12	3.5	0.4	126	26	0	30				23
24	250		1	10	3.2	0.4	126	18	0	20				24
25	251		3	16	3.4	0.4	104	18	0	30				25
26	252		2	18	2.5	0.6	120	22	0	20				26
27	253		2	20	2.8	0.6	156	34	0	20				27
28	254		2	32	2.3	0.6	150	54	0	20				28
29	255		2	30	3.2	0.4	160	34	0	20				29
30	256		1	14	1.8	0.6	220	68	0	10				30
31	80JKS257		2	12	2.6	0.4	140	38	0	10				31
32	258		3	12	2.6	0.4	156	46	0	10				32
33	259		2	16	2.4	0.6	218	70	0	10				33
34	260		2	14	2.4	0.8	154	54	0	10				34
35	261		2	12	2.8	0.4	186	64	0	10				35
36	262		2	12	2.4	0.6	154	68	6	10				36
37	263		2	18	2.9	0.4	156	44	0	10				37
38	264		1	16	2.6	0.4	168	32	0	10				38
39	265		2	22	2.9	0.6	180	52	0	10				39
40	STD D		2	126	0.6	4.0	530	96	-	—				40

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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B. C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604
CERTIFICATE NO. 80171-2
INVOICE NO.
DATE ANALYSED JUNE 1980
PROJECT 1068, Tootsie Rv

CERTIFICATE OF ANALYSIS

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Pb	Ag	Zn	Ni	W	F	Au ppb	Sn		No.
01	80JKS39		1	18	2.1	0.4	110	14	0	540	30	-		01
02	40		2	20	2.4	0.2	190	16	0	640	20	0		02
03	41		1	86	3.3	0.6	174	14	0	900	40	-		03
04	42		2	84	3.3	0.4	202	26	0	1000	50	-		04
05	43		2	166	0.9	2.0	76	10	0	250	40	-		05
06	44		1	68	3.4	1.6	400	24	15	900	40	-		06
07	45		3	68	4.1	0.6	420	28	80	500	40	-		07
08	46		2	124	4.8	0.4	392	42	35	1200	50	-		08
09	47		1	84	2.7	0.8	870	30	0	300	40	-		09
10	48		4	282	4.1	0.8	760	20	25	640	40	-		10
11	49		3	100	3.2	0.4	212	16	30	900	50	-		11
12	50		3	84	3.4	0.2	196	24	120	810	30	0		12
13	51		4	170	4.7	2.0	94	82	210	950	50	-		13
14	52		3	62	2.8	0.4	112	22	80	670	40	-		14
15	53		1	60	2.3	0.2	118	24	80	660	30	-		15
16	54		3	44	3.6	0.2	290	28	180	860	30	-		16
17	55		5	124	4.4	0.8	364	38	195	1000	20	-		17
18	56		4	100	3.2	0.2	304	30	50	980	20	-		18
19	57		3	102	4.8	0.2	300	32	180	800	20	-		19
20	STD D		2	114	0.9	3.6	504	98	20	400	-	-		20
21	58		5	298	5.8	1.0	346	20	195	1450	30	-		21
22	59		3	84	3.5	0.4	384	16	90	720	20	-		22
23	60		1	66	4.1	0.6	414	16	210	610	80	0		23
24	61		2	126	6.0	0.8	760	18	240	850	30	-		24
25	62		8	194	7.4	1.0	750	60	105	1200	40	-		25
26	63		4	198	6.6	0.6	326	14	60	1350	30	-		26
27	64		2	80	4.2	0.4	320	22	65	740	60	-		27
28	65		4	116	5.6	0.6	302	16	210	750	30	-		28
29	66		2	160	5.2	0.6	236	26	50	1200	40	-		29
30	67		1	28	2.8	0.6	302	20	80	660	50	-		30
31	68		3	62	5.0	0.4	288	22	150	800	30	-		31
32	69		3	128	5.4	0.6	270	20	75	1150	30	-		32
33	70		4	160	6.4	0.6	332	42	40	950	30	30		33
34	71		4	320	4.2	3.2	234	58	210	1250	40	-		34
35	72		2	286	3.7	2.4	240	26	15	1450	30	-		35
36	73		2	96	3.2	2.0	192	16	40	900	30	-		36
37	STD D		2	120	0.8	3.8	500	102	20	930	-	-		37
38														38
39														39
40														40

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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B. C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604
CERTIFICATE NO. 80208-1
INVOICE NO.
DATE ANALYSED JUNE 1980
PROJECT 1068

CERTIFICATE OF ANALYSIS

TO: AMAX MINERALS EXPLORATION
601 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Pb	Ag	Zn	Ni	W	Au				No.
01	80JKS152	BROKEN			BAG		—	—	—	—				01
02	153		8	116	4.4	0.6	226	26	70	10				02
03	154		8	122	4.8	0.4	220	22	100	10				03
04	155		10	78	3.2	0.4	186	16	80	10				04
05	156		5	34	3.8	0.6	366	18	50	10				05
06	157		11	132	4.3	0.4	250	26	60	10				06
07	158		5	160	4.0	0.4	190	26	160	10				07
08	159		6	112	6.2	0.4	284	16	240	10				08
09	160	BROKEN			BAG		—	—	—	—				09
10	80JKS161		5	106	3.5	0.2	158	16	180	10				10
11	162		6	180	5.7	0.4	214	32	320	10				11
12	163		3	46	4.1	0.6	406	20	90	10				12
13	164		7	44	2.0	0.4	348	14	8	10				13
14	165		5	144	6.0	0.6	840	54	100	10				14
15	166		5	150	5.8	0.8	780	52	120	10				15
16	167		5	116	6.3	0.4	880	36	320	10				16
17	168		3	92	4.0	0.8	442	36	120	10				17
18	169		4	124	5.1	0.4	458	72	90	10				18
19	170		3	68	4.0	0.4	470	64	70	10				19
20	STD A		6	22	2.4	0.2	34	18	20	10				20
21	80JKS171		4	56	3.7	0.4	490	44	60	10				21
22	172		2	38	3.8	0.6	438	36	50	10				22
23	173		2	40	4.3	0.2	398	74	50	10				23
24	174		2	36	4.0	0.4	318	44	25	10				24
25	175		2	82	4.1	0.2	288	54	70	10				25
26	176		2	30	2.7	0.2	216	20	50	10				26
27	177		3	56	3.8	0.2	214	30	50	10				27
28	178		3	62	3.5	0.2	228	36	5	10				28
29	179		3	82	3.8	0.2	398	40	70	10				29
30	180	BROKEN			BAG		—	—	-	-				30
31	80JKS181		2	56	3.9	0.2	260	36	30	10				31
32	182		3	58	5.1	0.2	810	40	70	10				32
33	183		6	186	5.7	0.6	450	58	240	10				33
34	184		6	120	5.4	0.6	1020	50	240	10				34
35	185		2	54	2.9	0.8	458	34	30	10				35
36	186		3	56	4.2	0.8	540	42	120	10				36
37	187		2	62	3.6	0.8	820	28	100	10				37
38	188		7	200	6.0	0.4	302	46	240	10				38
39	189		4	118	4.7	0.6	610	40	200	10				39
40	STD A		8	28	3.0	0.2	40	24	80	-				40

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GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B. C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604

CERTIFICATE NO. 80171-1

INVOICE NO.

DATE ANALYSED JUNE 1980

PROJECT 1068, TOOTSEE RIVER

CERTIFICATE OF ANALYSIS

TO: AMAX MINERALS EXPLORATION
801 - 535 THURLOW ST.
VANCOUVER, B.C.

No.	Sample	pH	Mo	Cu	Pb	Ag	Zn	Ni	W	F	As	Sn		No.
01	80JLS 1		5	22	3.1	0.4	250	24	0	580	20	-		01
02	2		6	16	2.1	0.2	112	16	0	630	20	-		02
03	3		8	24	1.8	0.2	158	40	0	400	20			03
04	4		5	30	2.0	0.4	256	46	0	730	20			04
05	5		5	24	2.0	0.2	154	18	0	500	20			05
06	6		6	48	2.9	0.4	232	20	0	560	30			06
07	7		4	32	2.9	0.4	234	16	12	600	20			07
08	8		5	42	2.9	0.4	134	12	10	730	20	-		08
09	9		9	22	2.7	0.6	134	14	12	530	20			09
10	10		9	18	3.1	0.4	186	12	20	600	20	0		10
11	11		5	12	2.0	0.4	112	14	12	430	20	-		11
12	12		7	26	2.6	0.8	228	20	15	610	10			12
13	13		11	176	4.0	0.8	208	22	120	1200	10			13
14	14		8	22	2.6	0.4	184	14	12	690	10			14
15	15		5	26	2.3	0.2	166	14	20	680	20	-		15
16	16		6	38	3.3	0.2	326	8	25	890	20			16
17	17		3	38	2.7	0.6	190	8	30	730	10			17
18	18		7	24	2.7	1.0	222	14	20	530	30	-		18
19	19		12	156	5.4	0.6	286	16	225	1100	20			19
20	STD C		18	182	1.2	2.6	112	74	2	340	10			20
21	20		13	256	5.7	1.0	360	12	195	1200	20	10		21
22	21		5	104	5.6	0.6	404	16	210	620	10	-		22
23	22		5	118	3.4	0.6	396	14	90	700	20			23
24	23		5	110	4.8	0.6	220	18	120	660	20	-		24
25	24		5	106	4.5	0.6	252	14	180	600	10			25
26	25		4	100	4.1	1.0	236	14	250	820	10			26
27	26		9	148	5.5	0.8	220	12	150	1310	20			27
28	27		10	344	6.5	0.6	290	20	195	2000	50			28
29	28		6	278	5.6	0.4	214	20	210	1650	20			29
30	29		15	318	9.1	1.0	312	18	240	1250	10			30
31	30		11	104	4.2	1.4	398	20	30	800	20	0		31
32	31		4	116	4.9	0.4	180	18	105	1150	20			32
33	32		3	152	5.3	0.2	182	16	210	1150	20	-		33
34	33		3	42	3.5	0.4	184	12	20	770	10			34
35	34		2	24	3.7	0.2	156	8	15	100	20			35
36	35		3	34	4.4	0.2	210	6	10	800	20			36
37	36		5	42	3.0	0.2	130	12	15	900	20			37
38	37		3	20	1.9	0.2	140	10	0	320	20			38
39	38		2	16	2.1	0.2	182	14	0	540	20			39
40	STD C		17	150	1.2	2.1	102	66	20	240				40

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APPENDIX II

Kossbacher Laboratory
GEOCHEMICAL ANALYSTS & ASSAYERS

BURNABY, B.C.
CANADA
TELEPHONE 299-6910
AREA CODE 604

April 30, 1974

SUMMARY OF SOME ANALYTICAL TECHNIQUES CURRENTLY IN USE AT ROSSBACHER LABORATORY

A ANALYTICAL TECHNIQUES FOR GEOCHEMICAL SAMPLES

SAMPLE PREPARATION

Packages of samples are opened as soon as they arrive at the laboratory and the bags placed in numerical sequence in an electrically heated sample drier (maximum temperature 70°C).

After drying soil and sediment samples they are lightly pounded with a wooden block to break up aggregates of fine particles and are then passed through a 35 mesh stainless steel sieve. The coarse material is discarded and the minus 35 mesh fraction replaced in the original bag providing that this is undamaged and not excessively dirty.

Rock samples are exposed to the air until the outside surfaces are dry; only if abnormally wet are rocks placed in the sample drier. Rock samples are processed in such manner that a fully representative 1/2 g. sample can be obtained for analysis. The entire amount of each sample is passed through a jaw crusher and thus reduced to fragments of 2 mm. size or less. A minimum of 1 kg. is then passed through a pulverizer with plates set such that 95% of the product will pass through a 100 mesh

Rock Chips

Composite rock chip samples generally consist of some ten small fragments broken from unweathered outcrop with a steel hammer. Each fragment weighs some 50 gms. Samples are placed in strong polythene bags and sealed with non-contaminating wire tabs. Samples are restricted to a single rock type and obvious mineralization is avoided.

Soil, sediment and rock samples are packed securely in cardboard boxes or canvas sacks and dispatched by road or air.

Calibration

1. Set 1 gamma/ml to read 40 equivalent to 20 gamma/gm

   Factor $\frac{1}{2}$ x meter reading

   Check standards

   4, 10, 20, 40 ppm Ag in sample

2. Set 15 gamma/ml to 100 equivalent to 100 ppm

   Check standards

   40, 100 ppm

   Factor directly in ppm Ag

3. Rotate burner to maximum angle

   Set 10.0 gamma/ml Ag to read 100

   Check standards

   100,200,400,1000 ppm Ag

   Factor 10x scale reading

4. Samples higher than 1000 ppm should be re-analyzed by assay procedure

5. Background correction for sample reading between 1 to 5 ppm

   Calibrate AA in step 1

   Dial wavelength to 300 (peak)

   Read the samples again

   Subtract the background reading from the first reading

Standards

1. 1000 gamma/ml Ag - 0.720 gm Ag_2SO_4 dissolved in 20 mls $HxlO_3$ and dilute to 500 mls

2. 100 gamma/ml Ag - 10 mls of above + 20 mls $HClO_4$, dilute to 100 mls

3. Recovery spiked standard

   5 gamma/ml Ag - 5 mls 100 gamma/ml dilute to 100 mls with "mixed" acid

Working AA Standards

Pipette .2, .5, 1, 2, 5, 10 mls of 100 gamma/ml and 2, 5 mls 1.000 gamma/ml dilute to 100 mls with 20% $HClO_4$. This equivalent to 4, 10, 20, 40, 100, 200, 400, and 1000 ppm Ag in the sample .50 gm diluted to 10 mls.

Recovery Standard

Pipette 2 mls of 5 gamma/ml Ag in mix acids into a sample and carry through the digestion. This should give a reading of 20 ppm Ag + original sample content.

Follow the general geochemical procedure for sample preparation and digestion.

For low assay Ag, the same procedure is used. Ag is then calculated in oz/ton.

1 ppm = .0292 oz/ton

conversion factor

oz/ton = .0292 x ppm Ag

Procedures for Collection and Processing of Geochemical Samples

Analytical Methods for Ag, Mo, Cu, Pb, Zn, Fe, Mn, Ni, Co and W in sediments and soils; Mo, Cu, Zn, Ni and SO_4^{--} in waters.

Amax Exploration, Inc.
Vancouver Office.

September 1970

SAMPLE COLLECTION

Soils

B horizon material is sampled and thus organic rich topsoil and leached upper subsoil are avoided. Occasionally organic rich samples have to be taken in swampy depressions.

Samples are taken by hand from a small excavation made with a cast iron mattock. Approximately 200 gms of finer grained material is taken and placed in a numbered, high wet-strength, Kraft paper bag. The bags are closed by folding and do not have metal tabs.

Observations as to the nature of the sample and the environment of the sample site are made in the field.

Drainage Sediments

Active sediments are taken by hand from tributary drainages which are generally of five square miles catchment or less. Composite samples are taken of the finest material available from as near as possible to the centre of the drainage channel thus avoiding collapsed banks. More than one sample is taken if marked mineralogical or textural segregation of the sediments is evident.

Some 200 gm of finer material is collected unless the sediment is unusually coarse in which case the weight is increased to 1 kg. Samples are placed in the same type of Kraft paper bag as are employed in soil sampling. Water samples are taken at all appropriate sites. Approximately 100 mls are sampled and placed in a clean, screw sealed, polythene bottle. Observations are made at each site regarding the environment and nature of the sample.

screen. Those samples not appreciably heavier than 2 g the material is split after jaw crushing by means of a Jones splitter. After pulverizing the sample is mixed by rolling on paper and is then placed in a Kraft paper bag.

SAMPLE DIGESTION

Digestion tubes (130 x 16 mm) are marked at the 5 ml level with a diamond pencil. Tubes are cleaned with hot water and concentrated HCl. 0.5 g samples are weighed accurately, using a Fisher Dial-O-Gram balance, and placed in the appropriate tubes.

To each of the samples thus prepared are added 2 ml of an acid mixture comprising 15% nitric and 5% perchloric acids. Racks of tubes are then placed on an electrical hot plate, brought to a gentle boil ($\frac{1}{2}$ hour) and digested for $4\frac{1}{2}$ hours. Samples unusually rich in organic material are first burned in a porcelain crucible heated by a Bunsen burner before the acid mixture is added. Digestion is performed in a stainless steel fume hood.

After digestion tubes are removed from the hot plate and the volume is brought up to 5 ml with deionized water. The tubes are shaken to mix the solution and then centrifuged for one minute. The resulting clear upper layer is used for Cu, Mo, Pb, Zn, Ag, Fe, Mn, Ni and Co determination by a Perkin-Elmer 290B atomic absorption spectrophotometer. Analytical procedures are given on the following pages.

ANALYTICAL PROCEDURES

Silver

1. Scope - This procedure covers a range of silver in the sample from less than .5 to 1000 ppm
2. Summary of Method - The sample is treated with nitric and perchloric acid mixture to oxidize organics and sulphides. The silver then is present as perchlorate in aqueous solution. The concentration is determined by atomic absorption spectrophotometer
3. Interferences - Silver below 1 gamma/ml is not very stable in solution. Maintaining the solution in 20% perchloric prevents silver being absorbed on the glass container. Determination must be completed on the same day as the digestion.

   Samples high in dissolved solids, especially calcium, cause high background absorbance. This background absorbance must be corrected using an adjacent Ag line.

Silver AA Settings P.E. 290

Lamp - Ag

Current 4 ma position 3

Slit 7 A

Wavelength 3281A Dial 287.4

Fuel - acetylene - flow - 14

Oxidant - air - flow - 14

Burner - techtron AB_51 in line

Maximum Conc. 3 to 4x

Zn Geochemical AA Setting

Lamp Zn

Current 8 #3 Slit 20A

Wave length 2138 Dial 84.9

Fuel - Acetylene Flow 14

Oxidant - Air Flow 14

Burner - P.E. short path 90°

Range

0 - 20 gamma/ml Factor 4x - 0 to 400 ppm

0 - 50 gamma/ml Factor 10x -0 to 1000 ppm

For Waters - Burner AB- 51 in line 1 gamma/ml read 100 to give 0 to 1000 ppb

High Zn Burner Boling in line. Wavelength 3075. Dial 250 Slit 7A

Fuel 14 Air 14.5

0 to 1000 gamma/ml read 0 to 20 Factor 400 x

Pure Standard 10,000 gamma/ml

1 gm Zn dissolved, H_2O, HCl, HNO_3, $HClO_4$, fumed to $HClO_4$ - make up to 100 mls H_2O

1000, 100 gamma/ml and 100 ml by dilution in 20 % $HClO_4$

0 to 200 gamma/ml Zn use combined Cu, Ni, Co, Pb, Zn standards

Pipette

1, 2, 3, 5, 8, 10 mls of 10,000 gamma/ml - dilute to 100 mls with 20% $HClO_4$ to give

100, 200, 300, 500, 800, 1000 gamma/ml Zn for high standards

Co Geochemical AA Setting

Lamp - 5 multi element

Current 10 #4 Slit 2A

Wavelength 2407 Dial 133.1

Fuel - Acetylene Flow 14

Oxidant - Air Flow 14

Burner - AB 51 in line

Range

0 - 10 gamma/ml read 100 Factor 2 x reading to 200 ppm

0 - 20 gamma ml read 100 Factor 4 x reading to 400 ppm

Burner at maximum angle

0 - 100 gamma/ml read 100 Factor 20 x reading to 2000 ppm

0 - 200 gamma/ml read 100 Factor 40 x reading to 4000 ppm

Standards - 1000 gamma/ml

1.000 gm cobalt metal dissolved in HCl, HNO, and fumed into $HClO_4$, dilute to 1 liter

Pipette

1, 2, 10, 20 mls into 100 ml vol flasks diluted to mark with 20% $HClO_4$

This gives

10, 20, 100, 200 gamma/ml Co

Mixed - combination standards of Cu, Ni, Co, Pb, Zn

of

1, 2, 5, 10, 20, 30, 50, 80, 100, 150, 200 gamma/ml are used for calibration

Mn Geochemical AA Setting

Lamp Multi element Ca, Ni, Co, Mn Cr

Current 10 #4 Slit 7A

Wave length 4030.8 Dial 425.2

Fuel - Acetylene Flow 14.0

Oxidant - Air Flow 14.0

Burner - P.E. short path (or AB 50)

Range

0 - 100 gamma/ml Factor 20x - 0 to 2000 ppm

0 - 200 gamma/ml Factor 40x - 0 to 4000 ppm

Burner 90°

0 - 1000 gamma/ml Factor 200x - 0 to 20,000 ppm

0 - 2000 gamma/ml Factor 400x - 0 to 40,000 ppm

EDTA Extraction - use AB 51 in line

0 - 20 gamma/ml Factor 4x - 0 to 400 ppm

Standards

Fisher 10,000 gamma/ml (ml)

10x Dilution 1000 gamma/ml

Pippette

.5, 1, 2, 3, 5, 8, 10, ml of 1000 gamma/ml

2, 3, 5, 8, 10, 15, 20 ml of 10,000 gamma/ml dilute to 100 mls with 20% $HClO_4$. This gives

5, 10, 20, 30, 50, 80, 100, 200, 300, 500, 800, 1000, 1500, 2000 gamma/ml

Mo Geochemical AA Setting

Lamp ASL H/C Mo

Current 5 #5 Slit 7A

Wavelength 3133 Dial 260.2

Fuel - Acetylene Flow 12.0 to give 1" red feather

Oxidant - Nitrous oxide Flow 14.0

Burner - AB 50 in line

Caution read the operation using N_2O and acetylene flame at end of general AA procedure

Range

0 - 10 gamma/ml Factor 2x - 0 to 200 ppm

Rotate burner to max. angle

0 - 50 gamma/ml Factor 10 x 0 to 1000 ppm

0 - 100 gamma/ml Factor 20 x 0 to 2000 ppm

Standards 1000 gamma/ml

Dissolve .750 gms MoO_3 (acid molybdic) with 20 mls H_2O, 6 lumps NaCH, when all dissolved, add 20 mls HCl, dilute to 500 mls

100 gamma/ml - 10 x dilution

Pipette

.2, .5, 1, 2, 3, 5, 8, 10 mls of 100 gamma/ml

2, 3, 5, 8, 10 mls of 1000 gamma/ml add 5 mls 10% $AlCl_3$ and dilute to 100 mls with 20% $HClO_4$

This gives

.2, .5, 1, 2, 3, 5, 8, 10, 20, 30, 50, 80, 100 gamma/ml Mo

Cu Geochemical AA Setting

Lamp Single Cu or

5 multi element

Current 10 for multi element #4 Slit 7A

4 for single #3 Slit 7A

Wavelength 3247 Dial 280

Burner Techtron AB 51 (For Cu in natural waters)

P.E. Short Path (For geochem)

Fuel Acetylene Flow 14

Oxidant Air Flow 14

Range

0 - 5 gamma/ml Factor 1x to 100 ppm (for low Cu)

0 - 20 gamma/ml Factor 4x to 400 ppm

Burner 90°

0 - 200 gamma/ml Factor 40x to 4000 ppm

Wavelength 2492 Dial 147

Burner in line

Range

0 - 1000 gamma/ml Factor 200x to 20,000 ppm

0 - 2000 gamma/ml Factor 400x to 40,000 ppm

Higher range than 40,000 ppm requires 10x dilution

Standards

10,000 gamma/ml

1.000 gm metal powder, H_2O, HCl, HNO_3 until dissolved, add $HClO_4$, fume dilute to 100 mls

1000 gamma/ml 10x dilution above in 20% $HClO_4$

2000 gamma/ml 20 mls 10,000 gamma/ml - dilute to 100 mls in 20% $HClO_4$

100 gamma/ml 10x dilution 1000 gamma/ml dilute to 100 mls in 20% $HClO_4$

200 gamma/ml 10x dilution 2000 gamma/ml dilute to 100 mls in 20% $HClO_4$

Pipette

1, 2, 3, 5, 8, 10 mls 100 gamma/ml - dilute to 100 mls with 20% $HClO_4$ to give 1, 2, 3, 5, 8, 10 gamma/ml

Combined standards Cu, Ni, Co, Pb, Zn

1, 2, 5, 10, 20, 30, 50, 80, 100, 150, 200 gamma/ml

Pb Geochemical AA Setting

Lamp ASL H/c Pb

Current 5 ma Slit 7A

Wave length 2833 Dial 208

Fuel - acetylene Flow 14

Oxidant - air Flow 14

Burner AB 51 in line

Range

0 - 20 gamma/ml to read 0 to 80. Factor 5x 0 to 500 ppm

0 - 200 gamma/ml to read 0 to 80. Factor 50x 0 to 5000 ppm

Standards - 10,000 gamma/ml

1.000 pure metal, dissolved in HNO_3, fumed to $HClO_4$ make up to 100 mls in 20% $HClO_4$

1000 gamma/ml and 100 gamma/ml Successive 10x dilutions in 20% $HClO_4$

Pipette

1, 2, 5, 8, 10 mls 100 gamma/ml

2, 5, 8, 10, 20 mls 1000 gamma/ml dilute to 100 mls in 20% $HClO_4$ this gives

1, 2, 5, 8, 10, 20, 50, 80, 100, 200 gamma/ml

Combined Standards Cu, Ni, Co, Pb, Zn, are used as working standards

W in Soils and Silts

Reagents and apparatus

Test tubes - pyrex disposable

Test tubes - screw cap

Bunsen Burner

Flux - 5 parts Na_2CO_3

4 parts NaCl

1 part KNO_3 pulverized to -80 mesh

7% $SnCl_2$ in 70% HCl

20% KSCN in H_2O

Extractant - 1 part tri-n-butyl phosphate

9 parts carbon tetrachloride

Standards

1000 gamma/ml W

.18 gms Na_2WO_4 $2H_2O$ dissolved in H_2O, make up to 100 mls

100 gamma/ml, 10 gamma/ml by dilution

Standardization

Pipette .5, 1, 2, 3, 5, 8, 10 ml of 10 gamma/ml and 1.5, 2 mls of 100 gamma/ml - dilute to 10 mls

continue from step #4

Artificial colors - Nabob pure Lemon Extract, dilute with 1:1 ethanol and water to match. Tightly seal these for permanent standards

Procedure

1. Weigh 1.0 gram sample, add 2 gm flux, mix

Fe Geochemical AA Setting

Lamp - Fe

- Do not use multi element Fe

Current 10 #4 Slit 2A

Wavelength 3440.6 Dial 317.5

Fuel - Acetylene Flow 14.0

Oxidant - Air Flow 14.0

Burner - PE Short Path 90°

Range

0 - 5000 gamma/ml 0.1 x % - 0 to 10.0%

0 - 10,000 gamma/ml 0.2 x % - 0 to 20.0%

Higher Fe - 10 x dilution

Standards 10,000 gamma/ml

Weigh 5.000 gms iron wires, into beaker, add H_2O, HCl, HNO_3, $HClO_4$, heat to $HClO_4$ fumes. Add $HClO_4$ to 100 mls + 100 mls H_2O, warm, dilute to 500 mls

Pipette

1, 5, 10, 20, 30, 50, 80 mls 10,000 gamma/ml dilute to 100 mls with 20% $HClO_4$ to give

100, 500, 1000, 2000, 3000, 5000, 8000 gamma/ml to be equivalent to .2, 1.0, 2.0, 4.0, 6.0, 10.0%, 16.0% Fe in geochem sample

Ni Geochemical AA Setting

Lamp P.E. H/C. Ni or multi element Cu, Ni, Co, Mn, Cr

Current 10 #4, Slit 2A

Wave length 3415 Dial 312.5

Fule - Acetylene Flow 14.0

Oxidant - Air Flow 14.0

Burner AB 51 in line

Range

0 - 20 gamma/ml Factor 4x - 0 - 400 ppm

0 - 100 gamma/ml Factor 20x - 0 - 2000 gamma

45° 0 - 200 gamma/ml Factor 40x - 0 - 4000 ppm

0 - 500 gamma/ml Factor 100x - 0 - 10,000 ppm

Ni in waters and very low ranges

Wave length 2320 Dial 113

Range 0 - 5 gamma/ml Factor 1x - 0 - 100 ppm

Standards 10,000 gamma/ml

1.000 gm pure Ni metal dissolved in HCl, HNO_3, $HClO_4$ to perchloric fumes, dilute to 100 ml H_2O

1000 gamma/ml and 100 gamma/ml Successive 10x dilutions in 20% $HClO_4$

1, 2, 5, 8, 10 mls of 100 gamma/ml

2, 5, 8, 10 mls 1000 gamma/ml

2, 5, 8, 10 mls 10,000 gamma/ml - dilute to 100 mls in 20% HClO4. This gives

1, 2, 5, 8, 10, 20, 50, 80, 100, 200, 500, 800, 1000 gamma/ml Ni

Combined Standards - Cu, Ni, Co, Pb, Zn is used as a working standard

2. Sinter in rotary for 2 to 3 minutes (Flux dull red for one minute)
3. Cool, add 10 mls H_2O, heat in sand bath to boiling, cool, let sit overnight
4. Stir, crush, and mix. Let settle
5. Take 2 ml aliquot into screw cap test tube
6. Add 7 mls $SnCl_2$, heat in hot water bath for 5 minutes (80°C)
7. Cool to less than 15°C
8. Add 1 ml 20% KSCN, mix (if lemmon yellow; compare color standard 10x)
9. Add ½ ml extractant, cap, shake vigorously 1 minute
10. Compare color

Molybdenum in Water Samples

1. Transfer 50 mls to 125 separatory funnel
2. Add 5 ml .2% ferric chloride in conc HCl
3. Add 5 mls of mixed KSCN and $SnCl_2$
4. Add 1.2 mls isopropyl ether, shake for 1 minute, and allow phases to separate
5. Drain off water
6. Compare the color of extractant

Standardization

Pipette 0, .2, .5, 1, 2, 3, 4, 5, mls of 1 gamma/ml and 1, 1.5, 2, mls of 10 gamma/ml dilute to 50 mls with demineralized H_2O, and continue step #2.

This equivalent to

1, 4, 10, 20, 40, 60, 80, 100, 200, 300, 400 ppb Mo

Artificial color - Nabob orange extract dilute with 1:1 H_2O to methanol to match. Seal tightly

$SnCl_2$ - 15% in 15% HCl

300 gm $SnCl_2 \cdot 2H_2O$ + 300 mls HCl, until $SnCl_2$ dissolved dilute to 2 liters

KSCN - 5% in H_2O

Mixed $SnCl_2$ - KSCN

3 parts $SnCl_2$ to 2 parts KSCN

Water Samples Run for AA

1. Cu - 2 gamma/ml reads 80 scale therefore 1 unit = 25 ppb
2. Zn - 1 gamma/ml reads full scale therefore 1 unit = 10 ppb
3. Ni - 2.5 gamma/ml reads 50 scale therefore 1 unit = 50 ppb

Burner: long slot techtron burner in line

Sulphate in Natural Waters

1. Pipette 0.5 ml sulphate reagent mix into a colorimetric tube
2. Add 5 ml water sample and mix
3. Read at 343 mμ against a demineralized water blank
4. Read again at 400mμ and subtract from sulphate reading
5. Calculate ppm sulphate from the graph

Reagent

Dissolve 54 grams red mercuric oxide (J.T. Baker 2620- Can Lab) in 185 ml 70% perchloric acid and 20 ml H_2O, shake for one hour. Add 46.3 grams ferric perchlorate [$Fe(ClO_4)_3 \cdot 6H_2O$] (GFS 39) and 47 grams aluminum perchlorate [$Al(ClO_4)_3 \cdot 3H_2O$] (GFS 2) Add 400 ml water to dissolve, let settle overnight, decant into bottle and make to 1 liter

pH MEASUREMENTS

Soil and drainage sediment samples are dampened with water in a glass beaker to a pasty consistency. Demineralized water is used for this purpose as it has a low buffer capacity and thus does not influence the pH of the sample. Measurement is made with a Fisher Acument pH meter. Electrodes are stored in buffer overnight. A 30 minute warm up time is allowed for the instrument each morning. A 10 ml aliquot is taken from water samples for pH measurement.

ROSSBACHER LABORATORY

P. Rossbacher

APPENDIX III

STATEMENT OF QUALIFICATIONS

APPENDIX III

A.C. Hitchins

601-535 Thurlow Street, Vancouver, B.C. V6E 3L6

Education - University of Toronto - B.A. Sc. 1970
University of Toronto - M.Sc. 1973

Experience -AMAX of Canada Limited - Staff Geologist - 1972 to present

J.L. LeBel

601-535 Thurlow Street, Vancouver, B.C. V6E 3L6

Education - B.Sc. (1971) Queens' University - Geological Engineering - Geophysics Option
M.Sc. (1973) University of Manitoba - Geophysics

Experience -5/70-9/70 - AMAX Exploration, Inc. Vancouver, B.C.
- conducting and compiling magnetometer surveys
5/71-9/71 - AMAX Exploration, Inc. Toronto, Ontario
- conducting and reporting on IP/resistivity surveys
5/72-12/72- Gulf Minerals, Toronto, Ont.
- senior geophysical operator
- conducting and reporting on magnetometer electromagnetic and scintillometer surveys
3/73-12/73- Scintex Surveys, Concord, Ontario
- junior geophysicist
- conducting, supervising of and reporting on airborne magnetometer and electromagnetic surveys, ground electromagnetic and IP/ resistivity surveys
4/74- - AMAX of Canada Limited - Toronto & Vancouver
- Staff Geophysicist

G. Skok

2279 Berkley Road, North Vancouver, B.C. V7H 1Z6

Education - Windsor Secondary - Grade 12

Experience- AMAX of Canada Limited - Junior Assistant - 1980 Field Season

G.W. Booth

#509 - 30 Charles Street West, Toronto, Ontario M4Y 1R5

Education - Secondary - University of Toronto Schools 1969-1973
Tertiary - Western Australian Institute of Technology, 1973-1974 University of Toronto, 1974-1980; B.Sc. Geology 1978, M.Sc. Geology 1981.
Scholarships - Rotary International Student Exchange Scholarship to Perth, Western Australia, to attend the Western Institute of Technology
M.Sc. Thesis Topic - The Pamiutuq Lake Batholith; a large (700 sq.km.) hypabyssal porphyritic acidic intrusion of Paleohelikan age located in the Baker Lake Basin of the N.W.T. A petrological, geochemical and geophysical evaluation of the body has been undertaken as part of a 1:250,000 scale regional mapping project of the Basin itself, initiated by the Geological survey of Canada in 1976.

Experience -1973 - Underground and surface labourer,Agnico Eagle Gold Mines Ltd.
1975 - Junior Geologist, Camflo Gold Mines Ltd.
1976 - Junior Geologist, Hollinger Mines Ltd. Labrador Mining Ltd.
1977 - Junior Geologist, United Siscoe Mines Ltd.
1978 - Senior Geologist, Geological Survey of Canada, Precambrian Division
1979 - Senior Geologist, Geological Survey of Canada, Precambrian Division
1980 - Senior Geologist - AMAX of Canada Limited - 1980 Field Season

B.E. Booth

#509 - 30 Charles Street West, Toronto, Ontario M4Y 1R5

Education - University of Toronto B.Sc. 1981 or 1982
Gemological Institute of America G.G. 1981
W.A. Porter Collegiate Grade 13 1974

Experience- AMAX of Canada Limited - 1980 field season - junior assistant

APPENDIX IV

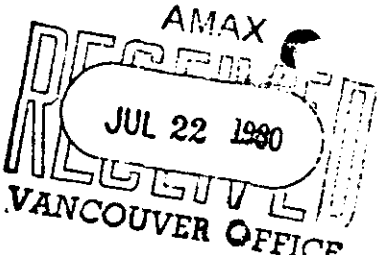
STATEMENT OF COSTS

APPENDIX IV

Personnel Employed		
G. Booth	- 509-30 Charles Street West, Toronto, Ontario	
	Senior Geologist; 40 days @ 74.96/day	$2,998.40
B. Booth	- 509-30 Charles Street West, Toronto, Ontario	
	Junior Assistant; 35 days @ 37.57/day	1,314.95
G. Skok	- 2279 Berkley Road, North Vancouver, B.C.	
	Junior Assistant; 35 days @ 35.51/day	1,242.85
T. Hitchins	- 601-535 Thurlow Street, Vancouver, B.C.	
	Staff Geologist; 13 days @ 134.40/day	1,747.20
Board & Camp Supplies		3,725.00
149 man days X$25/man day		
Expediting Costs		
Bema Industries		448.00
Dupont		82.06
Geophysical Contractor - J.P. Geophysical Services		
Travel Costs		1,006.30
Survey Costs		4,175.73
Truck Rentals		
Bowmac, Whitehorse		303.92
Castle, Vancouver		911.21
Ship truck to Yukon 1/3 costs to and from Whitehorse		266.67
Maps and Photos		
Orthophoto and Scribed Map-Pacific Survey		1,570.00
Airphotos, topo maps claim maps		240.63
Airfares -1/3 of Vancouver - Whitehorse return for		
Booths, Skok 1/3 (308X3)		·308.00
Hitchins		308.00
Helicopter		
May 28, 1980	Frontier Invoice #6367	1,187.92
31	" " " 6378	412.50
June 4	" " " 6385	853.56
12	" " " 5406	609.69
16	" " " 5482	650.34
17	" " " 5414	406.46
June17, 1980	Terr Air Invoice #4	302.40
22	" " " 3	345.60
23	" " " 2	388.80
26	" " " 1	172.80
27	" " " 0	604.80
29	" " " 9	691.20

(cont'd)

Geochemical Analyses - Invoice No. 0203	$5,773.35
Rossbacher Laboratories - Invoice No. 0282	3,059.90
Telephone, misc.	200.00
Expense Accounts	699.21
Drafting and Report Preparation (G. Booth, L. Lebel, T. Hitchins)	1,259.00
	$38,266.45



BEMA INDUSTRIES LTD. ~~10790 - 88 AVENUE RR #11 LANGLEY B.C. V3A 6Y3 (604)888-9300~~ 530-9731
5780-203rd Street, Langley, B.C. V3A 1W3

INVOICE A 354

Amax Canada Ltd.
Ste. 601 - 535 Thurlow Street
Vancouver, B.C. V6E 3L6
Attention: Mr. Tony Hitchins

DATE June 30, 1980

FILE NO.

PROJECT 80-B

RE: Expediting Services - May 28 - June 28, 1980
Your Project No. 1068

Expediting Retainer for the above period		$175.00
Hourly charges as per the attached		
✓ 4½ hours at $20.00 per hour		90.00 ✓
86830		$265.00 $265.00 ✓

DISBURSEMENTS:

86890 ✓	Northern Metalic Sales	P.O. #0530	$ 23.86 ✓
	Norte'n Services Ltd.	P.O. #0565	11.30 ✓
86200	Northwe' tel		11.20 ✓
	Woolworth Co. Limited	P.O. #0608	68.97 ?
	M. Sills Expense Account		30.87 ✓
	M. Sills Expense Account		12.93 ✓
			$159.13
	15% Disbursement Charge		23.87 ✓
	Total Disbursements		$183.00 ✓ $183.00 ✓
	TOTAL INVOICE		$448.00 ✓

This is our account: $448.00

BEMA INDUSTRIES LTD.

Per: Barbara Miller

:pcl

ADD & EXT. CORRECT
APPROVED 7/23/80 B

Project Number	Group Code	Activity Code	Acct Class	Sub Class	Amount
1068			86200		128
1068			86830		265.00
1068			86890		90.80
			86100	533	79.32
					448.00

Date of issue: July 15, 1980

CK 20075 JUL 23 1980

32.55 32.71 435 6891 +15% = 7732

DU PONT CANADA EXPLORATION

DU PONT OF CANADA EXPLORATION LIMITED
SUITE 102, 1550 ALBERNI STREET,
VANCOUVER, B.C. V6G 1A5
TELEPHONE: (604) 684-9264

1980 July 24

Amax of Canada Limited
601 - 535 Thurlow Street
Vancouver, BC
V6E 3L6

Attention: Mr. A.C. Hitchins

I N V O I C E

June 1-30, 1980

1068 - 86830

PROJECT 1068 EXPEDITING

T. J. Skinner
1 day ($55.06 + $27.00) per day $ 82.06

---

cc: T.J. Skinner
K.T. Rowcliffe

ADD & EXT FORCES
APPROVED 7/25/80

Project Number	Group Code	Account Code	Amount
1068		86830	82.06

20105 JUL 25 1980

JP Geophysical Services

2462 Thompson Drive, Kamloops, B.C., V2C 4L1

Telephone (604) 372-7481

EXPENSES

TOOTSEE RIVER

KAMLOOPS TO WATSON LK	377 - ✓
WHITEHORSE TO KAMLOOPS	377 - ✓
2 Exchange	20 - ✓
EXCESS BAGGAGE	28 - ✓
	30 - ✓
Meal	6.40 ✓
TAXI June 11/80	10 - ✓
TAXI June 12/80 Hotel To Frontier Helicopters	4 - ✓
Battery Watson Lake Motors	86.80 ✓
Meal	14. - ✓
Watson Lk Hotel June 11/80	40 - ✓
Meal June 12/80	10 - ✓
Chilcoot Motel	35 - ✓
	1038.20 ✓
	<3190>
	1006.20

ADD & EXT. CORRECT
APPROVED 7/9/80

Project Number	Group Code	Activity Code		Amount
1668		8690		1038.20
		06200	544	<3190>
				1006.20

K 19953 JUL 8 1980

34 NORTHERN SAFETY LTD
INV 4387
RAIN JACKET + PANTS
#3190

JP Geophysical Services

2462 Thompson Drive, Kamloops, B.C., V2C 4L1

Telephone (604) 372-7481

JULY 6 /80

ATT. TONY HITCHINS
GEOFF BOOTH
CHRIS HODGSON
AMAX EXPLORATION
#601-535 THURLOW ST.
VANCOUVER, B.C.

Please accept this invoice for Geophysical Work performed by J P GEOPHYSICAL on the TOOTSEE RIVER PROPERTY.

MAGNETOMETER	SURVEY	37.84 KM.	
VLF-E.M.	SURVEY	37.84 KM.	
Paid (2) TOTAL EXPENSES	PAID CK. 19953 1038.20 +	155.73	155.73 ✓ ~~1193.93~~
8640 TRAVEL DAYS	8 x 75		600.00 ✓
STANDBY DAYS	5 x 75		375.00 ✓
SURVEY DAYS	21 x 145	8640	3045.00 ✓
			4175.73 ~~5213.93~~
ADVANCES - 5/18 CK 19598			<700.00>
7/11 E/A 7-129			
AMOUNT OWED			$3475.73 ✓ ~~4513.93~~

ADD & EDIT CORRECT					
APPROVED		DATE			
Project Number	Group Code	Activity Date	Account Class	Sub Class	Amount
1068			8620		3420.00
1068			8940		755.73
			0600	523	(700.00)
					3475.73

Project Reports, Expense Receipts, Field Data and CONTOUR MAPS are enclosed.

Yours Truly
P. Sloninski

P. SLOMINSKI
J P GEOPHYSICAL

OK to pay
CJ Hodgson

TRUCK RENTALS

A DIVISION OF BOWELL McLEAN MOTOR CO. LTD.
A WESTERN CANADIAN OWNED AND OPERATED COMPANY

78397
INVOICE NUMBER

AGENT/CITY CODE 3000

RENTAL CONTRACT BETWEEN
BOW MAC TRUCK RENTALS (OWNER)

AND Amax Minerals Expl. (LESSEE)

AMAX RECEIVED JUN 23 1980 VANCOUVER OFFICE

ADDRESS 601 - 535 Thurlow St.

CITY Vancouver B.C.

P.O. NO. PROJECT (1067)

All Accidents to be Reported Immediately	REMIT TO: 1154 WEST BROADWAY, VANCOUVER, B.C. V6H 1G5

REPLACEMENT VEHICLE NO.

THE LESSEE AGREES THAT THE FOLLOWING VEHICLE

TYPE OF VEHICLE Chev. 4x2. UNIT NO. 150092

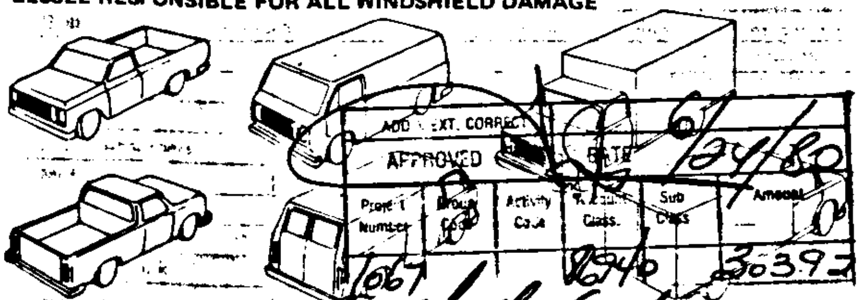
IS TO BE USED IN OR BETWEEN

THE LESSEE AGREES TO RETURN THE VEHICLE TO THE OWNER ON DATE May 31st 1980

LESSEE RESPONSIBLE FOR ALL WINDSHIELD DAMAGE

ALL TRAFFIC VIOLATIONS AND ALL DAMAGES RESULTING FROM COLLISION WITH AN UNDERPASS OR OTHER OBJECT DUE TO INSUFFICIENT CLEARANCE OF HEIGHT OR WIDTH ARE LESSEE RESPONSIBILITY	~~$100.00 LIABILITY~~ BY SIGNING, LESSEE AGREES TO PAY THE OWNER FOR ALL LOSS OR DAMAGE TO VEHICLE LIMITED HOWEVER TO $100.00 PER ACCIDENT. PROVIDED VEHICLE IS OPERATED OR USED IN CONFORMITY WITH RENTAL AGREEMENT, BUT RENTER SHALL BE FULLY LIABLE FOR ALL SUCH DAMAGE IF SAID VEHICLE IS OPERATED IN VIOLATION OF ANY LAW OR THIS RENTAL CONTRACT. EXCLUDES WRECKER OR TOWING CHARGES. X LESSEE SIGNATURE	~~$1,000.00 LIABILITY~~ BY SIGNING LESSEE AGREES TO PAY THE OWNER FOR ALL LOSS OR DAMAGE TO VEHICLE LIMITED HOWEVER TO $1000.00 PER ACCIDENT. PROVIDED VEHICLE IS OPERATED OR USED IN CONFORMITY WITH RENTAL AGREEMENT BUT RENTER SHALL BE FULLY LIABLE FOR ALL SUCH DAMAGE IF SAID VEHICLE IS OPERATED IN VIOLATION OF ANY LAW OR THIS RENTAL CONTRACT. EXCLUDES WRECKER OR TOWING CHARGES. X LESSEE SIGNATURE
	COMPANY INSURANCE	

MILES/KM IN	1007	DATE IN	June 1	TIME IN	
MILES/KM OUT	20	DATE OUT	May 27/80	TIME OUT	NOON
MILES/KM RUN	✓ 987	TOTAL DAYS		TOTAL HOURS	
MILES/KM ALLOWED				UNIT NO.	
EXTRA MILES/KM					



ACCT. CORRECT	APPROVED	DATE			
		6/24/80			
Project Number	Group Code	Activity Code	Account Class.	Sub Class.	Amount
1067			8240		303.92

Damage Description as per shaf. Grab

CK. 19849 JUN 23 1980

VEHICLE INSPECTION INITIAL

MONTHS ●	MONTH		
WEEKS ●	WEEK		
5 DAYS ● 25	DAY ✓	125	00
987 MILES/KM ● 16	MILES/KM ✓	157	92
OTHER (TAXABLE ONLY)			

1. Failure of the Lessee to return the vehicle within three days after the specified time shall constitute an unauthorized taking, use and operation of the vehicle and any costs and expenses incurred by the Owner for seizure and return of the vehicle to the Owner's premises shall be recovered from the Lessee.
2. Lessee hereby indemnifies Owner against any fines or penalties assessed against Owner as a result of violation by Lessee of this agreement as to traffic and/or parking violations.
3. Lessee agrees to be responsible for all damage to the vehicle while in his possession caused by neglegent operation of the vehicle.
   I.E. OPERATING VEHICLE WITH LACK OF WATER – OIL – ANTIFREEZE – LUBRICANTS etc.
4. Lessee agrees to report all accidents and vehicle failures to the Owner immediately on occurrence.
5. LESSEE TO BE ONLY AUTHORIZED DRIVER.
6. Lessee agrees that the vehicle herein described must not be used, operated or driven nor does Owner give its consent, expressed or implied, to the vehicle being used, operated or driven by any other person than the Lessee or such other driver(s) as herein specifically named.

I/we hereby agree to be bound and to comply with all of the above terms and conditions which include the terms and conditions on the "REVERSE SIDE" hereof.

PERSONAL ACCIDENT INSURANCE

BY HIS INITIALS, Lessee agrees to pay an additional fee for Personal Accident Insurance under a policy arranged by Bow Mac. Insurance applies during the term this Rental Agreement is in force.

P.A.I. SIGNATURE

SUB TOTAL		445	282 92
S.S. TAX			
SEE ATTACHED INVOICE	MECHANICAL & TIRES	447.0	
	BODY	447.A	
	INSURANCE DEDUCTABLE CHARGE BACK	446.A	
PLUS FUEL	15.1	448	21 00
P.A.I.		446	
INSURANCE COVERAGE AS ABOVE		446	
TOTAL CASH	20001	220	
TOTAL CHARGE	40925		
DEPOSIT			
TOTAL RENTAL			303 92
BALANCE/REFUND			

LESSEE'S SIGNATURE Tony Wilhelmis

DRIVER'S SIGNATURE Tony Wilhelmis

DRIVER'S OR CHAUFFER'S LICENSE NO. 3414236 BC

OTHER IDENTIFICATION

DEPOSIT PAID				
DATE	Initial	AMOUNT	Cash	C.C.

REFUND SIGNATURE

BUSINESS PHONE	LESSEE'S PHONE	SIGNATURE OF AUTHORIZED AGENT Gary Ardent

RENT-A-TRUCK from BOW MAC

78397

CK. 19849 JUN 23 1980

CANADA WIDE LOCATIONS

BRITISH COLUMBIA				YUKON	ALBERTA		SASKATCHEWAN	MANITOBA
ABBOTSFORD	FORT NELSON	PENTICTON	TERRACE	MAYO	CALGARY	GRANDE PRAIRIE	REGINA	BRANDON
CHETWYND	FORT ST. JOHN	PR. GEORGE	VERNON	ROSS RIVER	EDMONTON	LETHBRIDGE	SASKATOON	WINNIPEG
CRANBROOK	KAMLOOPS	QUESNEL	VICTORIA	WHITEHORSE	FT. McMURRAY	MEDICINE HAT		
DAWSON CREEK	KELOWNA	REVELSTOKE	VANCOUVER			RED DEER		
	NELSON	SMITHERS	WILLIAMS LAKE					

CASTLE RENTALS INC.

1790 Marine Dr., North Vancouver, B.C. V7P 1V2

Phone: 986-3351
Telex: 04-352763

MAY 15 1980
VANCOUVER OFFICE

INVOICE

CHARGE TO: Amax Exploration Ltd. DATE May 13, 1980

#601 - 535 Thurlow Street

Vancouver, B.C.

V6E 3L6

No: 3018

R/A No.: 5013

Unit No: B03

Period: May 13 to May 31, 1980

RE: PROJECT 1067/1068

Basic Rental: (18/31 of 400.00)	232	26
Canopy: (18/31 of 80.00)	46	45
Extra Equipment: (18/31 of 7.00)	4	06
Insurance: (18/31 of 70.00)	40	65

APPROVED DATE 5/15/80

Project Number	Group Code				Amount
1067			8670		162 00
1068			8670		167 73
					334 73

NOTE: Photocopy of R/A #5013 attached;
please retain for your records

TAX	11	31
TOTAL DUE	334	73

196 12 MAY 15 1980

DATE DUE: May 15, 1980

CASTLE RENTALS INC.

A CANADIAN COMPANY

1790 Marine Dr., North Vancouver, B.C. V7P 1V2

Phone: 986-3351
Telex: 04-352763

INVOICE

CHARGE TO: Amax Exploration Ltd. AMAX
#601 - 535 Thurlow Street
Vancouver, B.C
V6E 3L6

DATE May 26, 1980

RECEIVED MAY 26 1980 VANCOUVER OFFICE

No: 3031

R/A No.: 5013
Unit No: 803
Period: June 1 to June 30, 1980 Booths

RE: PROJECT 1067/1068 – 86940 Tootsee

Basic Rental:	400	00
Canopy:	80	00
Extra Equipment:	7	00
Insurance:	70	00
TAX	19	48
TOTAL DUE	576	48

ADD & EXT. CORRECT
APPROVED DATE 6/4/80

Project Number			Account Code		Amount
1067			86940		288 48
1068			86940		288 00
					576 48

CK. 19701 JUN 4 1980

DATE DUE: June 1, 1980

White Pass & Yukon Route

P.O. BOX 10140 701 WEST GEORGIA ST.
VANCOUVER B.C. V7Y 1E6
PHONE (604) 683-7221 TELEX 0451412

AND ARCTIC RAILWAY AND NAVIGATION COMPANY; BRITISH COLUMBIA YUKON RAILWAY COMPANY; THE BRITISH YUKON RAILWAY COMPANY FURNISHING THE MEANS OF TRANSPORTATION KNOWN AS:

WHITE PASS & YUKON ROUTE

(HEREIN COLLECTIVELY CALLED "THE CARRIERS" OR "THE COMPANY" REFERENCE TO "THE CARRIER" SHALL MEAN THE INDIVIDUAL CARRIER HAVING THE GOODS IN ITS OWN CUSTODY) AND, IN CONNECTION THEREWITH, LOISELLE TRANSPORT LIMITED.

CONNECTING CARRIER	CODE	CARTAGE COMPANY	$	INDICATE WHETHER		INVOICE / WAYBILL NO.
AMAX				☐ PREPAID	☒ COLLECT	11 275

CONSIGNEE AND DESTINATION
AMAX EXPLORATION
WHITEHORSE, YT.

RECEIVED
MAY 28 1980
VANCOUVER OFFICE

3964

SHIPPER AND ORIGIN
AMAX OF CANADA LTD.
VANCOUVER, B.C

3964

PARTICULARS FURNISHED BY SHIPPER OF GOODS

DEST 16 | ORIGIN 2 | CLASS 10

NO OF PIECES OR PACKAGES	DESCRIPTION OF GOODS INCLUDE MARKS, NUMBERS, AND CUBIC FEET IF APPLICABLE	WEIGHT SUBJECT TO CORRECTION	TARIFF ITEM	CODE	WEIGHT OR UNITS	RATE	FREIGHT
	IF HEATED OR COOLER OR FREEZER SERVICE DESIRED, SPECIFY SERVICE REQUIRED — REFER TO TARIFF						
1	1979 FORD PICK-UP (RED) 1980 WITH CANOPY	5000	105		1 UNIT	400.00	400 00
	S.N. F25GCJA1808						
	1068-86800						

ADD & EXT CORRECT
APPROVED
6/4/80

Project Number	Group Code	Activity Code	Account Class	Qty	Amount
1068			86800		400.00

THIS IS YOUR INVOICE.
NO OTHER STATEMENT WILL BE ISSUED
Please remit to White Pass & Yukon Corp.
Box 4070, Whitehorse, Yukon Y1A 3T1
within 7 days.

"The vehicle(s) received hereunder is/are insufficiently crated or packaged to afford protection against ordinary shipping hazards, and the carrier will not be responsible for any scratches, minor dents and other light damage."

This vehicle contains sufficient Anti-freeze to protect it to a minimum temperature which may be encountered.

Signed _____ For the Shipper

Personal Effects Shipped at Shipper's O.R.O.

CONTAINER	WEIGHT ANALYSIS	FREIGHT CHARGES	400 00
	K 19703 JUN 4 1980		
3674	5000	C.O.D.	
		C.O.D. FEE	
		TOTAL CHARGES	400 00
		PREPAID	
		COLLECT	

DECLARED VALUE OF SHIPMENT
$ _____

PAGE ___ OF ___

TOTAL FREE GOODS TOTAL 5000

NOT RESPONSIBLE FOR IMPROPER MARKING OF PACKAGES SEIZED BY U.S. OR CANADIAN CUSTOMS OFFICIALS
IN NO EVENT SHALL CARRIERS LIABILITY EXCEED THE DECLARED VALUE.

Received, subject to the classifications and tariffs in effect on the date of issue of this original bill of lading, goods described above, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned and destined as indicated above. The Company agrees to carry said goods to its usual place of delivery to the destination, if on the company's route, otherwise to deliver to another connecting carrier on the route to destination. It is mutually agreed, as to each carrier, of all or any of said goods over all or any portion of route to destination, and as to each party at any time interested in all or any of said goods, that every service performed hereunder is subject to the terms and conditions, whether printed or written, herein contained (including conditions on the back hereof as they are set out and/or incorporated by reference) Shipper accepts and agrees to all such terms and conditions for himself and his assigns

DATED AT _____ THIS ___ DAY OF _____ 19 ___

SHIPPER _____ BY: _____
NAME SIGNATURE

ON BEHALF OF CARRIERS SEVERALLY AND NOT JOINTLY

ABOVE GOODS RECEIVED BY UNDERSIGNED ON BEHALF OF NAMED CONSIGNEE

DATE _____

103453

STRAIGHT BILL OF LADING
NOT NEGOTIABLE

INVOICE

PACIFIC SURVEY CORPORATION

1409 WEST PENDER STREET, VANCOUVER, B.C., CANADA V6G 2S4 TELEPHONE: 683-6501 TELEX: 04-507805

AMAX

RECEIVED
MAY 9 1980
VANCOUVER OFFICE

Amax Minerals Exploration
601-535 Thurlow St.
Vancouver, B.C. V6B 3L6

INVOICE No. 534
DATE May 8, 1980
YOUR ORDER No.
JOB No. 80-50
PACKING SLIP No.
SHIPPED VIA

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL
	Location: 1.) Tootsee River 2.) ~~Big Salmon River~~ (read Dyer Creek) ✓		
1068	1.) Tootsee River Property: 1:10000/10M scribed map 1:10000/10M orthophoto	$ 1095.00 475.00	
		1570.00 ✓	
1067	2.) ~~Big Salmon River~~ Read Dyer Creek Property: Pencil manuscript mapping Mosaic	1145.00 275.00	
		1420.00 ✓	$ 2990.00

ADD & EXT CORRECT
APPROVED [illegible] 5/15/80

Project Number	Group Code	Account	Account Class	Sub Class	Amount
1067		86260			1420.00
1068		86260			1570.00
					2990.00

CK. 19641 MAY 15 1980

TERMS: NET CASH, INTEREST AT THE RATE OF 1½% PER MONTH (18% PER ANNUM) CHARGED AFTER 30 DAYS.

Frontier Helicopters Ltd.

HEAD OFFICE: P.O. BOX 2220 ABBOTSFORD, B.C. V2S 4N9 TEL. 853-5887
VAN. (604) 526-0400
WATSON LAKE (403) 536-7766

FLIGHT TICKET/INVOICE

CHARTERER: AMAX of CANADA

ADDRESS: 601-535 Thurlow

Vancouver VANCOUVER OFFICE POSTAL CODE V6E 3L6

DATE: 25 MAY 80
A/C: XGA
TYPE: 206B
BASE: WATSON

PILOTS NAME
PRINT: LEITER
SIGNATURE: Leiter

FUEL SUPPLIED BY CUST. ☐ FRONTIER ☑
1.0 FRONTIER FUEL 2.0
44 GALS. FROM CH AT 1.43 PER GAL.
___ GALS. FROM ___ AT ___ PER GAL.
___ GALS. FROM ___ AT ___ PER GAL.

REMARKS	PASS	CARGO	TIME
WATSON - RANCHERIA			
SLING CAMP - WATSON			
Cliff Booth			
G Booth OK 19 166			
G Skaf Jun 4/80			
T Hitchins			
#106B			
4.1			
TERMS NET 10 DAYS — TOTALS			3.0

FUEL COST $ ✓ 62.92
FLYING 3.0 HRS. AT $ 375 $ 1125.
EXPENSES $ ✓

AUTHORIZED BY
PRINT: Terry Hitchins
SIGNATURE: Terry Hitchins

TICKET Nº 6367

CHEQUE ☐ CASH ☐ CHARGE ✓
P.O.
TOTAL $ 1187.92

By the signing of this flight report I acknowledge that the terms and conditions thereof as set forth in the ... of Frontier Helicopters Ltd.

...ir Rotary Ltd.

...88, LAC LA BICHE, ALBERTA T0A 2C0
TELEPHONE: (403) 623-2190

FLIGHT TICKET
Nº 02

GENERAL DELIVERY, ROSS RIVER, Y.T.
TELEPHONE: (403) 969-2240

DATE JUNE 23/1980 A/C C-GVJH

CHARTER ☑ CONTRACT ______ AMAX NON - REV. ☐

CUSTOMER AMAX MINERALS EXPLORATION

ADDRESS 601-535 THURLOW Rd. VANCOUVER B.C.

P.O.# ______ PROJECT TOOTSEE

RECEIVED JUL 21 1980 ... OFFICE

	Fuel Supplied by STRV	CUST	HRS.	MIN.
CREW SETOUT				.9
Gord Sh...				
Bob Bo...				
Goff "				
TOTAL FLIGHT HOURS				.9 ✓
TOTAL HOURS THIS CONTRACT			2	.4 ✓

PILOTS SIG. V Cobb

CUSTOMERS SIG. Tony ... 1068

MTCE. ENG.

A/F TTSOH

ENG. TTSOH

FUEL USED | CACHE REMAINING

N.W.T. ☐
YUKON ☑
ALBERTA ☐
B.C. ☐
SASK. ☐
MAN. ☐
ONT. ☐
QUE. ☐

SPECIAL REMARKS 20080 JUL 23 1980

FLYING: .9 HR x $365/HR = 328.50 ✓
FUEL: .9 HR x 30 GAL/HR x $2.20/GAL = 59.40 ✓
OIL: .9 HR x $1.00/HR = .90 ✓
388.80

...ir Rotary Ltd.

...668, LAC LA BICHE, ALBERTA T0A 2C0
TELEPHONE: (403) 623-2190

FLIGHT TICKET
Nº ...01

GENERAL DELIVERY, ROSS RIVER, Y.T.
TELEPHONE: (403) 869-2240

DATE JUNE 26/1980 A/C C-GUJH

CHARTER ☑ CONTRACT ______ NON - REV. ☐

CUSTOMER AMAX MINERALS EXPLORATION AMAX

ADDRESS 601-535 THURLOW Rd VAN...

P.O.# ______ PROJECT TOOTSEE

RECEIVED JUL 21 1980 VANCOUVER

	Fuel Supplied By: [illegible] / CUST.	HRS.	MIN.
PERSONAL TRANSPORT TO CAMP FROM SWIFT RIVER.			.4
Tony Hitchins			
TOTAL FLIGHT HOURS			2.4
TOTAL HOURS THIS CONTRACT	28	2	.7

PILOTS SIG. V Cobb.

CUSTOMERS SIG. Tony Hitchins 1068

MTCE. ENG.

A/F TTSOH

ENG. TTSOH

N.W.T. ☐
YUKON ☑
ALBERTA ☐
B.C. ☐
SASK. ☐
MAN. ☐
ONT. ☐
QUE. ☐

SPECIAL REMARKS CK. 20090 JUL 23 1980

FUEL USED	CACHE REMAINING

FLYING: .4 HR x $365/HR = 146.00 ✓
FUEL: .4 HR x 30 GAL/HR x $2.20/GAL = 26.40 ✓
OIL: .4 HR x $1.00/HR = .40 ✓
TOTAL 172.80

Air Rotary Ltd.

BOX 888, LAC LA BICHE, ALBERTA T0A 2C0
TELEPHONE: (403) 623-2190

FLIGHT TICKET
Nº [illegible]

GENERAL DELIVERY, ROSS RIVER, Y.T.
TELEPHONE: (403) 869-2240

DATE JUNE 27/1980 A/C C-GVJH

AMAX

CHARTER ☐ CONTRACT ✓

CUSTOMER AMAX MINERALS EXPLOR[ATION]

ADDRESS 601-535 THURLOW Rd. VANCOUVER, BC.

P.O.# ____ PROJECT TOOTSEE

RECEIVED JUL 21 1980 VANCOUVER

	Fuel Supplied By: Co.	Fuel Supplied By: Cust.	HRS.	MIN.
PERSONEL TRANSPORT	✓		1	.4
Tony Hitchins				
TOTAL FLIGHT HOURS			1	.4
TOTAL HOURS THIS CONTRACT	4.2		4	.1

A/F TTSOH

ENG. TTSOH

PILOTS SIG. R. Cobly

CUSTOMERS SIG. Tony Hitchins 1068

MTCE. ENG.

FUEL USED	CACHE REMAINING

N.W.T. ☐
YUKON ☑
ALBERTA ☐
B.C. ☐
SASK. ☐
MAN. ☐
ONT. ☐
QUE. ☐

SPECIAL REMARKS CK. 20080 JUL [illegible] 1980

FLYING: 1.4 HR x $365/HR = 511.00 ✓
FUEL: 1.4 HR x 30 GAL/HR x $2.20/GAL = 92.40 ✓
OIL: 1.4 HR x $1.00/HR = 1.40 ✓
604.80

...ir Rotary Ltd.

...688, LAC LA BICHE, ALBERTA T0A 2C0
TELEPHONE: (403) 623-2190

FLIGHT TICKET
Nº O9

GENERAL DELIVERY, ROSS RIVER, Y.T.
TELEPHONE: (403) 869-2240

DATE June 29 80 A/C C GUSH

AMAX REV. ☐

CHARTER ☐ CONTRACT

CUSTOMER AMAX Mineral Explora...

ADDRESS

P.O.# PROJECT

RECEIVED JUL 21 1980 VANCOUVER

	Fuel Supplied By		HRS.	MIN.
Move Camp out to Cranbrook [illegible]	✓		1	.6
Gord Stock				
Bob Booth				
Geoff Booth				
Pete Slominski				
TOTAL FLIGHT HOURS			1	.6
TOTAL HOURS THIS CONTRACT	5.8			

PILOTS SIG. [signature]

CUSTOMERS SIG. [signature] 1068

MTCE. ENG.

CK. ...

A/F TTSOH	
ENG. TTSOH	
42.	
FUEL USED	CACHE REMAINING

N.W.T. ☐
YUKON ☒
ALBERTA ☐
B.C. ☐
SASK. ☐
MAN. ☐
ONT. ☐
QUE. ☐

SPECIAL REMARKS

lost tarps from sling and damage to personal items

FLYING: 1.6 HR x $365/HR	=	584.00 ✓
FUEL: 1.6 HR x 30 GAL/HR x $2.20/GAL	=	105.60 ✓
OIL: 1.6 HR x $1.00/HR	=	1.60 ✓
TOTAL		691.20 ✓ B.

Rossbacher Laboratory Ltd.

GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B.C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604

AMAX MINERALS EXPLORATION
601-535 Thurlow St.
Vancouver, B.C.
Project 1068

AMAX RECEIVED JUL 22 1980 VANCOUVER OFFICE

DATE July 19,1980
INVOICE NO. 0202
CERTIFICATE NO. 80205-1to7a
80171-1to2, 80208-1to8

ITEM	DESCRIPTION		SUB-TOTAL	TOTAL
~~637~~ 600	Geochem analysis for 6 elements	@ $ 3.30	$ 2,102.10	1426.50
~~637~~ 600	W	2.25	~~1,433.25~~ 1,800.00	1,818.00
~~637~~ 600	Au	3.00	~~1,800.00~~ 17.50	15.75
~~637~~ 600	Sn	2.25	~~17.50~~ 231.00	
~~637~~ 600	F	3.00	231.00	
77				
600	Soil prep	0.30	180.00	

ADD & EXT. CORRECT
APPROVED 7/29/80

Project Number	Group Code	Activity Code	Amount	Sub Class	Amount
1068			6910		5,773.35

K 2007 6 JUL 23 1980

5,773.35
$ 5,763.85

TERMS – NET 30 DAYS

Rossbacher Laboratory Ltd.

GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B.C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604

AMAX MINERALS EXPLORATION

601-535 Thurlow St.

Vancouver, B.C.

Project 1068

DATE Sept 2,1980

INVOICE NO. 0282

CERTIFICATE NO. as marked

ITEM	DESCRIPTION		SUB-TOTAL	TOTAL
✓330	Geochem analysis for 6 elements	@ $ 3.30	$ 1,089.00 ✓	
✓18	2	1.90	34.20 ✓	
342 ~~341~~	W	2.25	~~767.25~~	
312 ~~314~~	Au	3.00	~~942.00~~	
✓17	Sn	2.50	42.50 ✓	
✓254	Soil prep	0.30	76.20 ✓	
75 ~~77~~	Rock prep	1.50	~~115.50~~	

ADD & VAT CORRECT
APPROVED 9/4/80

Project Number			Amount
1068		8690	3059.90

... 20339 SEP 4 1980

V3.

~~$ 3,066.65~~

TERMS – NET 30 DAYS

NAME [illegible] -5-

DATE May 30, 1980

X. A/C 6-80

MONTH May 1980

AMAX EXPLORATION, INC.
EMPLOYEES EXPENSE ACCOUNT

AMAX RECEIVED JUN 4 1980 VANCOUVER OFFICE

No. 6-80
CORP. 6
LOC. 5
ENT. 5

DATE	LOCATIONS	CHARGED ON COMPANY CREDIT CARDS OR CHG. A/CS: CREDIT CARD NAME	FOR	AMOUNT	TRAVEL (1) LODGING AMOUNT	(2) MEALS AMOUNT	(3) TRANSPORTATION TYPE	AMOUNT	(4) ENTERTAINMENT AMOUNT	(5) MISC. TRAVEL (DETAIL ON BACK) AMOUNT	(6) MISC. FIELD EXP (DETAIL ON BACK) AMOUNT	TOTAL CASH EXPENDITURE
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20	Toronto & Vancouver				55.65	27.10	TAXI	36.00				118.75
21	Vancouver				55.65	31.47					10.–	97.12
22	Vancouver				55.65	24.09					~~79.74~~	79.74
23	Vancouver				55.65	24.32					7.14	87.11
24	Vancouver				55.65	18.94						74.59
25	Vancouver				55.65	34.00						89.65
26	Vancouver				55.65	26.85	TAXI	3.06				85.56
27	Vancouver, Whitehorse					41.95	TAXI	12.80			2.–	~~56.75~~
28	Whitehorse + camp					1.30						1.30
29												
30												
31												699.21
	TOTALS				389.55	230.62		60.50			19.14	[illegible]

FOR ACCOUNTING OFFICE USE ONLY

PROJECT	GROUP CODE	ACTIVITY CODE	ACCOUNT CLASS	SUB CLASS	AMOUNT
068			86310		7.14
068			86900		11.50
068			86940		670.57
068			86950		10.00
			09500	544	699.21

NOTE: IF ABOVE COSTS ARE CHARGEABLE TO A PROJECT OTHER THAN YOUR BASE OFFICE, GIVE DETAILS BELOW

DATES	PROJECT
May 20-31	1068 # 1965

ADVANCES:

PREVIOUS BALANCE —

THIS MONTH:

E/A 6.79 21-5-80 $80.00
J16-26 23-5-80 600.00
26-5-80 500.00
$ 1180.00

TOTAL ADVANCED ~~699.21~~

LESS CASH EXPENSES ~~[illegible]~~

NEW BALANCE ~~[illegible]~~ 480.79

SUBMITTED BY [signature]

CHECKED BY [signature]

APPROVED [signature]

APPROVED

Air Rotary Ltd.

888, LAC LA BICHE, ALBERTA T0A 2C0
TELEPHONE: (403) 623-2190

GENERAL DELIVERY, ROSS RIVER, Y.T.
TELEPHONE: (403) 869-2240

FLIGHT TICKET Nº 04

$365/hr

DATE: JUNE 17/1980 A/C: C-GUJH

CHARTER ☐ CONTRACT ______ NON-REV. ☐

CUSTOMER: AMAX MINERALS EXPLORATION

ADDRESS: 601-535 THURLOW ST. VANCOUVER BC

P.O.# ______ PROJECT: TOOTSEE

AMAX
JUL 21 1980
VANCOUVER OFFICE

	Fuel Supplied By		HRS.	MIN.
SUPPLIES TRANSPORTED				.7
TOTAL FLIGHT HOURS				
TOTAL HOURS THIS CONTRACT				

PILOTS SIG.: N. Cobb.

CUSTOMERS SIG.: Tony Mitchell 1068

MTCE. ENG.

A/F TTSOH

ENG. TTSOH

N.W.T. ☐
YUKON ☑
ALBERTA ☐
B.C. ☐
SASK. ☐
MAN. ☐
ONT. ☐
QUE. ☐

SPECIAL REMARKS

CK 20080 JUL 23 1980

FUEL USED	CACHE REMAINING

FLYING: .7 HR x 365/HR = 255.50 ✓
~~FUEL: .7 HR x 30 GAL/HR x $2.20/GAL~~ = 46.20 ✓
OIL: .7 HR x $1.00/HR = .70 ✓
302.40 ✓

...ir Rotary Ltd.

...68, LAC LA BICHE, ALBERTA T0A 2C0
...ELEPHONE: (403) 623-2190

GENERAL DELIVERY, ROSS RIVER, Y.T.
TELEPHONE: (403) 869-2240

FLIGHT TICKET No. 03

DATE JUNE, 22 / 1980 A/C C-GUTH

CHARTER ☑ CONTRACT ☐ NON - REV. ☐

CUSTOMER AMAX MINERALS EXPLORATION

ADDRESS 624-535 THURLOW ROAD VANCOUVER B.C.

P.O.# PROJECT TOOTSEE

AMAX
JUL 21 1980
VANCOUVER OFFICE

	CUST	HRS.	MIN.
CREW SET OUT			.6
Geoff Booth			
Bob "			
Gord Stark			
TOTAL FLIGHT HOURS			.8 ✓
TOTAL HOURS THIS CONTRACT		1	.4 ✓

PILOTS SIG. V Cobb

CUSTOMERS SIG. Tom Mitchell 1068

MTCE. ENG.

	A/F TTSOH
	ENG. TTSOH

N.W.T. ☐
YUKON ☑
ALBERTA ☐
B.C. ☐
SASK. ☐
MAN. ☐
ONT. ☐
QUE. ☐

SPECIAL REMARKS OK 20080 JUL 23 1980

	FUEL USED	CACHE REMAINING
FLYING: .8 HR x $365/HR	=	292.00 ✓
FUEL: .8 HR x 30 GAL/HR x $2.20/GAL	=	52.80 ✓
OIL: .8 HR x $1.00/HR	=	.80 ✓
TOTAL		345.60 ✓ B.

Frontier Helicopters Ltd.

FLIGHT TICKET/INVOICE Head Office: P.O. BOX 220, ABBOTSFORD, B.C. V2S 4N9, TEL. 853-5887 VAN. (604) 526-0400 WATSON LAKE (403) 536-7766

JUL 17 1980 VANCOUVER OFFICE

CHARTERER	Amax Exploration Inc.
ADDRESS	601-535 Vancouver St.
	Vancouver [illegible]
POSTAL CODE	
DATE	17 June 80
A/C	CF-FHK
TYPE	206 B
BASE	Watson
PILOTS NAME PRINT	D. Payne
SIGNATURE	[signature]

REMARKS	PASS	CARGO	TIME
Grocery Run to Camp			
Watson - Camp - Watson		✓	1.0
TERMS NET 10 DAYS — TOTALS			1.0

(4.8)

CK. 20029 JUL 17 1980

FUEL SUPPLIED BY CUST: ☐ FRONTIER ☒

FRONTIER FUEL

22 GALS. FROM QH AT 1.43 PER GAL.

___ GALS. FROM ________ AT ______ PER GAL.

___ GALS. FROM ________ AT ______ PER GAL.

FUEL COST	$ 31.46
FLYING 1.0 HRS. AT $ 375	$ 375 —
EXPENSES	$

AUTHORIZED BY PRINT W. Vanderpoll PROJ. 1068

SIGNATURE [signature]

TICKET № 5414

CHEQUE	CASH	CHARGE
P.O.		

TOTAL $ 406.46

By the signing of this flight report I acknowledge that the terms and conditions thereof as set forth in the tariff filed with the A.T.B. are available for examination at Frontier Helicopters Ltd.

Frontier Helicopters Ltd.

FLIGHT TICKET/INVOICE Head Office: P.O. BOX 220, ABBOTSFORD, B.C. V2S 4N9 TEL. 853-5887 VAN. (604) 526-0400 WATSON LAKE (403) 536-7766

CHARTERER: AMAX

ADDRESS:

POSTAL CODE:

DATE: 16/06/80

A/C: FHK

TYPE: 206B

BASE: WATSON

PILOTS NAME
PRINT: LASKARIN
SIGNATURE:

RECEIVED JUL 17 1980 VANCOUVER OFFICE

FUEL SUPPLIED BY CUST. ☐ FRONTIER ☑
FRONTIER FUEL
35.2 GALS. FROM FRONTIER AT 1.43 PER GAL.
___ GALS. FROM ___ AT ___ PER GAL.
___ GALS. FROM ___ AT ___ PER GAL.

REMARKS	PASS	CARGO	TIME
GROCERY RUN			1.6
TRIP UNSUCCESSFUL DUE TO FOG			
TERMS NET 10 DAYS	TOTALS		1.6

FUEL COST	$ 50.34
FLYING 1.6 HRS. AT $375.	$ 600.00
EXPENSES	$

AUTHORIZED BY
PRINT: W. VANDERPOL
SIGNATURE: PROJ. 1068

TICKET Nº 5482

CHEQUE ☑ CASH ☐ CHARGE ☐
P.O.

CK 20029 JUL 17 1980

TOTAL $ 650.34

By the signing of this flight report I acknowledge that the terms and conditions thereof as set forth in the tariff filed with the A.T.B. are available for examination at Frontier Helicopters Ltd.

Frontier Helicopters Ltd.

Head Office P.O. BOX 220, ABBOTSFORD, B.C. V2S 4N9 TEL. 853-5887 VAN. (604) 526-0400 WATSON LAKE (403) 536-7766

FLIGHT TICKET/INVOICE

CHARTERER AMAX

ADDRESS

RECEIVED JUN 25 1980 VANCOUVER OFFICE

POSTAL CODE

DATE 12 JUNE 80

A/C CF-QGP

TYPE 206B

BASE WATSON

PILOTS NAME PRINT D. BAYNR

SIGNATURE

FUEL SUPPLIED BY CUST. ☐ FRONTIER ☒

FRONTIER FUEL

33 GALS. FROM GK AT 1.43 PER GAL.

___ GALS. FROM ___ AT ___ PER GAL.

___ GALS. FROM ___ AT ___ PER GAL.

REMARKS	PASS	CARGO	TIME
WATSON AMAX CAMP - WATSON	2	✓	1.5
LOCAL LIFT TOOTSEE 1068			
TERMS NET 10 DAYS	TOTALS		1.5

FUEL COST	$ 47.19
FLYING 1.5 HRS. AT $ 375	$ 562.50
EXPENSES	$ ✓

AUTHORIZED BY PRINT GEOFF BOOTH

SIGNATURE Geoffrey W. Booth

TICKET Nº 54106

CHEQUE ☐ CASH ☐ CHARGE ☐

P.O.

TOTAL $ 609.69

(4.T) CK 19873 JUN 25 1980

By the signing of this flight report I acknowledge that the terms and conditions thereof as set forth in the tariff filed with the A.T.B. are available for examination at Frontier Helicopters Ltd

Frontier Helicopters Ltd.

AMAX

Head Office: P.O. BOX 220, ABBOTSFORD, B.C. V2S 4N9 TEL. 853-5887 VAN. (604) 526-0400 WATSON LAKE (403) 536-7766

FLIGHT TICKET/INVOICE

RECEIVED JUN 16 1990 VANCOUVER OFFICE

CHARTERER: AMAX

ADDRESS:

POSTAL CODE:

DATE: 4 JUN 90

A/C: Q6P

TYPE: 206 B

BASE: WATSON

PILOTS NAME
PRINT: LEITER
SIGNATURE:

FUEL SUPPLIED BY CUST. ☐ FRONTIER ☒

FRONTIER FUEL

46.2 GALS. FROM Ott AT 1.43 PER GAL.

___ GALS. FROM ___ AT ___ PER GAL.

___ GALS. FROM ___ AT ___ PER GAL.

REMARKS	PASS	CARGO	TIME
WATSON - RANCHERIA AREA - WATSON (TWICE)	1		1.1
			1.0
Prog. # 0068 TOOTSIE R.			
CK. 19819 JUN 17 1990			
(Y.T)			2.1
TERMS NET 10 DAYS — TOTALS			4.2

FUEL COST	$	66.06
FLYING 2.1 HRS. AT $375	$	787.50
EXPENSES	$	

AUTHORIZED BY
PRINT: JEFF BOOTH
SIGNATURE:

TICKET Nº 0885

CHEQUE ☒ CASH ☐ CHARGE ☐

P.O.

TOTAL $ 853.56

By the signing of this flight report I acknowledge that the terms and conditions thereof as set forth in the tariff filed with the A.T.B. are available for examination at Frontier Helicopters Ltd.

Frontier Helicopters Ltd.

AMAX

FLIGHT TICKET/INVOICE Head Office: P.O. BOX 220, ABBOTSFORD, B.C. V2S 4N9 TEL. 853-5887 VAN. (604) 526-0400 WATSON LAKE (403) 536-7766

CHARTERER: AMAX EXP

ADDRESS:

RECEIVED JUN 25 1980 VANCOUVER OFFICE

DATE: 31 MAY 80

A/C: QGI

TYPE: 206 B

BASE: WATSON

PILOTS NAME PRINT: LEITER

SIGNATURE: Leiter

FUEL SUPPLIED BY CUST. ☐ FRONTIER ☐

FRONTIER FUEL

___ L.S. FROM ___ ___ A. ___ PER GAL.

___ GALS. FROM ___ AT ___ PER GAL.

___ GALS. FROM ___ AT ___ PER GAL.

REMARKS	PASS	CARGO	TIME
TRANSPORT 1 PERSON			
FROM CAMP - RANCHERIA			1.1
Tony Hitchins			
# 1068			
TERMS NET 10 DAYS	TOTALS		1.1

FUEL COST	$
FLYING 1.1 HRS. AT $375.	$ 412.50
EXPENSES	$ ✓

AUTHORIZED BY PRINT: A. Hitchins

SIGNATURE: Tony Hitchins

TICKET Nº 6378

CHEQUE | CASH | CHARGE ✓

P.O.

TOTAL $ 412.50

CK. 19873 JUN 25 1980

By the signing of this flight report I acknowledge that the terms and conditions thereof as set forth in the tariff filed with the A.T.B. are available for examination at Frontier Helicopters Ltd.

— N —

LEGEND

CRETACEOUS

- 15 — Quartz - feldspar porphyry
- 14 — Diabase, syenodiorite ?

UPPER DEVONIAN AND LOWER MISSISSIPPIAN

- 7b — Greywacke, arkosic grit, chert pebble conglomerate, argillite

MIDDLE SILURIAN AND MIDDLE DEVONIAN

- 6a — Quartzite, dolomitic quartzite
- 6b — Limestone, siliceous limestone
- 6c — Quartz breccia

MIDDLE CAMBRIAN TO MIDDLE SILURIAN

- 4a — Brown argillite, limey siltstone, calcilutite, cherty siltstone
- 4b — Limestone, marble, siliceous limestone
- 4c — Intercalated maroon argillite and carbonate or calc silicate bands
- 4d — Banded calc silicate skarn
- 4e — Calc silicate skarn and hornfelsed argillite
- 4f — Dark green diopsidic, tremolitic calc silicate, skarn

SYMBOLS

- Outcrop, subcrop, boulders
- Geological contact (defined)
- Geological contact (interpreted)
- Bedding, or banding, inclined, vertical
- Jointing, inclined, vertical
- Fold axis
- Shear zone, inclined, vertical
- Fault
- Iron stain, gossan
- Grid picket line
- Legal corner post, claim boundary
- Claim unit boundary
- Claim unit identification post
- Claim post
- Property boundary
- Stream
- 1250 — Topographic contour (contour interval 10 metres)

AMAX OF CANADA LIMITED

TOOTSEE RIVER PROPERTY

HOT CLAIMS

WATSON LAKE MINING DISTRICT - YUKON TERRITORY

HEAP CLAIMS

ATLIN MINING DIVISION BRITISH COLUMBIA

GEOLOGICAL MAP

400 0 400 METRES

1200 0 1200 FEET

1:10,000

To accompany 1980 Property Report by: G.W. Booth, J.L. LeBel and A.C. Hitchins.

Vancouver

N.T.S. Ref. 104 O/16, 105 B

FIG.

Boundary of HOT claims

BASE CAMP

Helicopter pad

YUKON
BRITISH COLUMBIA

HEAP 1

HEAP 2

SYMBOLS

- Soil } Sample site, sample number, p.p.m. W
- Rock chip }
- Pan sample-number of grains of scheelite in concentrate
- Grid picket line
- Legal corner post, claim boundary
- Claim unit boundary
- Claim unit identification post
- Claim post
- Property boundary
- Stream
- 1250 Topographic contour (contour interval 10 metres)

AMAX OF CANADA LIMITED

TOOTSEE RIVER PROPERTY

HOT CLAIMS

WATSON LAKE MINING DISTRICT - YUKON TERRITORY

HEAP CLAIMS

ATLIN MINING DIVISION BRITISH COLUMBIA

GEOCHEMICAL MAP

400 0 400 METRES

1200 0 1200 FEET

1:10,000

To accompany 1980 Property Report by: G.W. Booth, J.L. LeBel and A.C. Hitchins.

Vancouver

N.T.S. Ref 104 O 16, 105 B 1

FIG. 4

N

Instrument: Sabre

SYMBOLS

- E.M. profiles scale { Dip angle / Field strength
- Conductor axes
- Grid picket line
- Legal corner post, claim boundary
- Claim unit boundary
- Claim unit identification post
- Claim post
- Property boundary
- Stream
- 1250 Topographic contour (contour interval 10 metres)

AMAX OF CANADA LIMITED

TOOTSEE RIVER PROPERTY

HOT CLAIMS

WATSON LAKE MINING DISTRICT - YUKON TERRITORY

HEAP CLAIMS

ATLIN MINING DIVISION BRITISH COLUMBIA

VLF-EM SURVEY

400 0 400 METRES

1200 0 1200 FEET

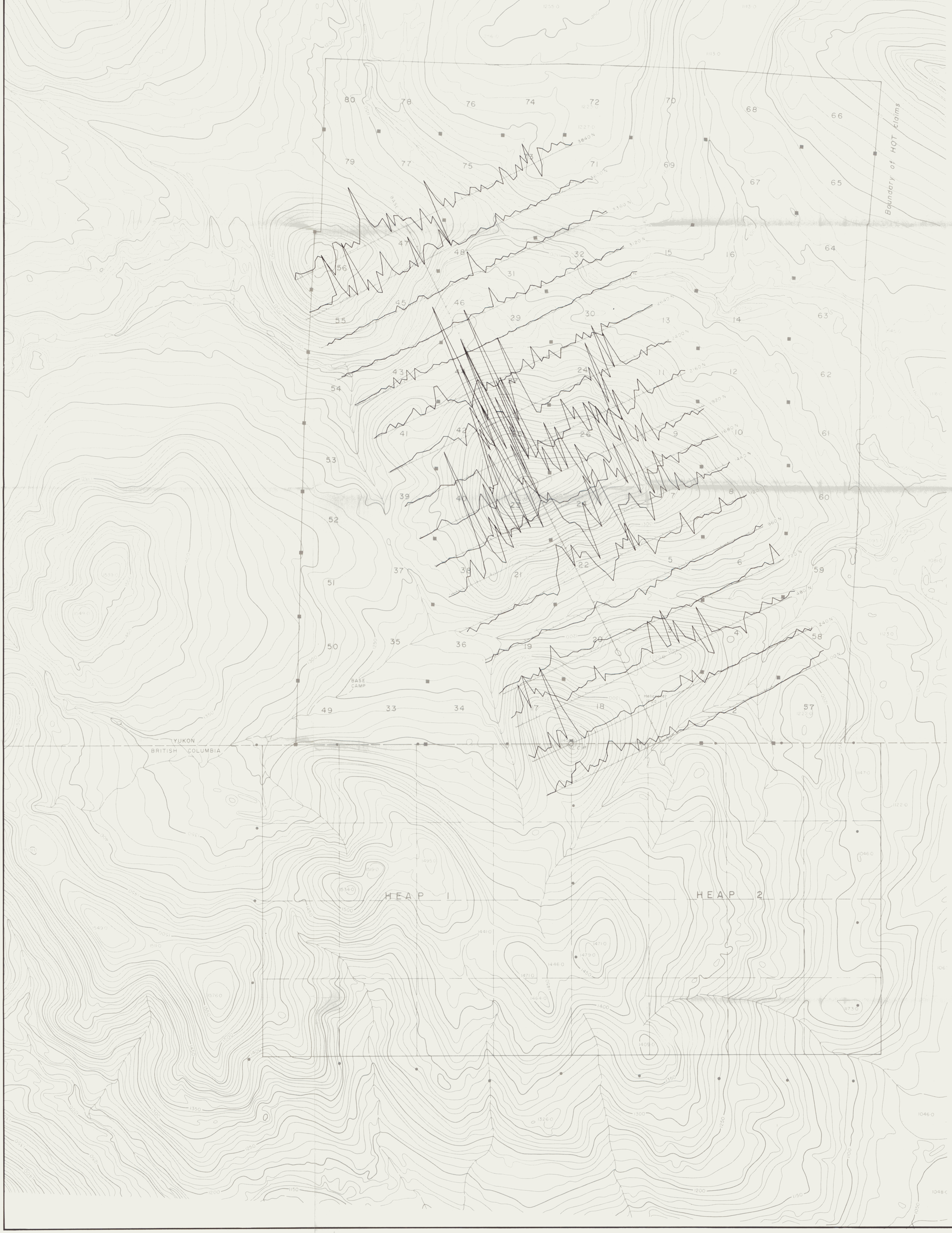
1:10,000

To accompany 1980 Property Report by: G. W. Booth, J. L. LeBel and A. C. Hitchins.

Vancouver

N.T.S. Ref 104 O 16, 105 B 1

FIG. 5



N

SYMBOLS

Profile Scale
59,500 gammas
59,000
58,500
58,000
57,500

Grid picket line

Legal corner post, claim boundary

Claim unit boundary

Claim unit identification post

Claim post

Property boundary

Stream

1250 Topographic contour (contour interval 10 metres)

AMAX OF CANADA LIMITED

TOOTSEE RIVER PROPERTY

HOT CLAIMS

WATSON LAKE MINING DISTRICT - YUKON TERRITORY

HEAP CLAIMS

ATLIN MINING DIVISION BRITISH COLUMBIA

MAGNETOMETER SURVEY PROFILES

400 0 400 METRES
1200 0 1200 FEET
1:10,000

To accompany 1980 Property Report by: G.W. Booth, J.L. LeBel and A.C. Hitchins.

Vancouver

N.T.S. Ref 104 O 16, 105 B 1

FIG.