

ARIS SUMMARY SHEET

District Geologist, Kamloops

Off Confidential: 89.06.17

ASSESSMENT REPORT 17820

MINING DIVISION: Clinton

PROPERTY: Graduation
LOCATION: LAT 51 07 42 LONG 122 10 43
UTM 10 5664198 557478
NTS 092001E
CLAIM(S): Graduation
OPERATOR(S): Ashworth, C.
AUTHOR(S): Stritychuk Hopkins, J.M.;Yacoub, F.F.
REPORT YEAR: 1988, 31 Pages

COMMODITIES

SEARCHED FOR: Gold

GEOLOGICAL

SUMMARY: Lower Cretaceous Jackass Mountain Group sediments (greywacke, shale, pebble and massive boulder conglomerates) are overlain to the northeast of the claim by Quaternary deposits of till, gravel, sand, clay and silt.

WORK
DONE: Geochemical
SILT 20 sample(s) ;ME
Map(s) - 1; Scale(s) - 1:10 000
MINFILE: 0920 055

LOG NO: 1006 RD.
ACTION:
FILE NO:

NTS 920/1E
Lat. 51 07'N
Long. 122 10'W

GEOCHEMICAL REPORT
ON THE
GRADUATION CLAIM

CLINTON MINING DIVISION
BRITISH COLUMBIA

FILMED

SUB-RECORDER
RECEIVED
SEP 22 1988
M.R. # \$
VANCOUVER, B.C.

For

Clive E. Ashworth
Owner
4491 Marine Drive
West Vancouver, B.C.
V7W 2N8

GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,820
By

Janet M. Stritychuk Hopkins, Hons.B.Sc.
Fayz Yacoub, B.Sc.

September 7, 1988

SUMMARY

The Graduation Claim Group consists of one mineral claim (20 units) in the Clinton Mining Division. It is situated approximately 40 kilometres northwest of Clinton.

The Graduation claim area is known for hosting gold mineralization in quartz veins as seen at the Astonisher-Chisholm crown grants. This group of crown grants is located 1.5 kilometres west of the Graduation claim.

The geology of the property is largely inferred, due to lack of outcrop, from the regional geology map by H. W. Tipper, 1978. It consists mainly of Lower Cretaceous Jackass Mountain Group sediments overlain by Quaternary till. A possibility exists that Eocene volcanics, similar to those which host the Blackdome gold deposit, may underlie the overburden present in the northeast corner of the claim.

Previous work on the Buster showing (believed to be on the Graduation claim) revealed a high antimony value with accompanying silver values.

The 1988 stream sediment sampling program yielded one significant gold result of 365 ppb gold and minor mercury values.

An exploration program consisting of prospecting and rock sampling has been recommended.

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1. INTRODUCTION

This report was prepared at the request of Mr. Clive Ashworth. It summarizes the area history, previous work, regional geology, property geology and geochemical nature of the Graduation claim, and outlines a further exploration program.

One of the authors, Mr. Fayz Yacoub, visited the property on June 15 and 16, 1988.

2. PROPERTY STATUS (Figure 2)

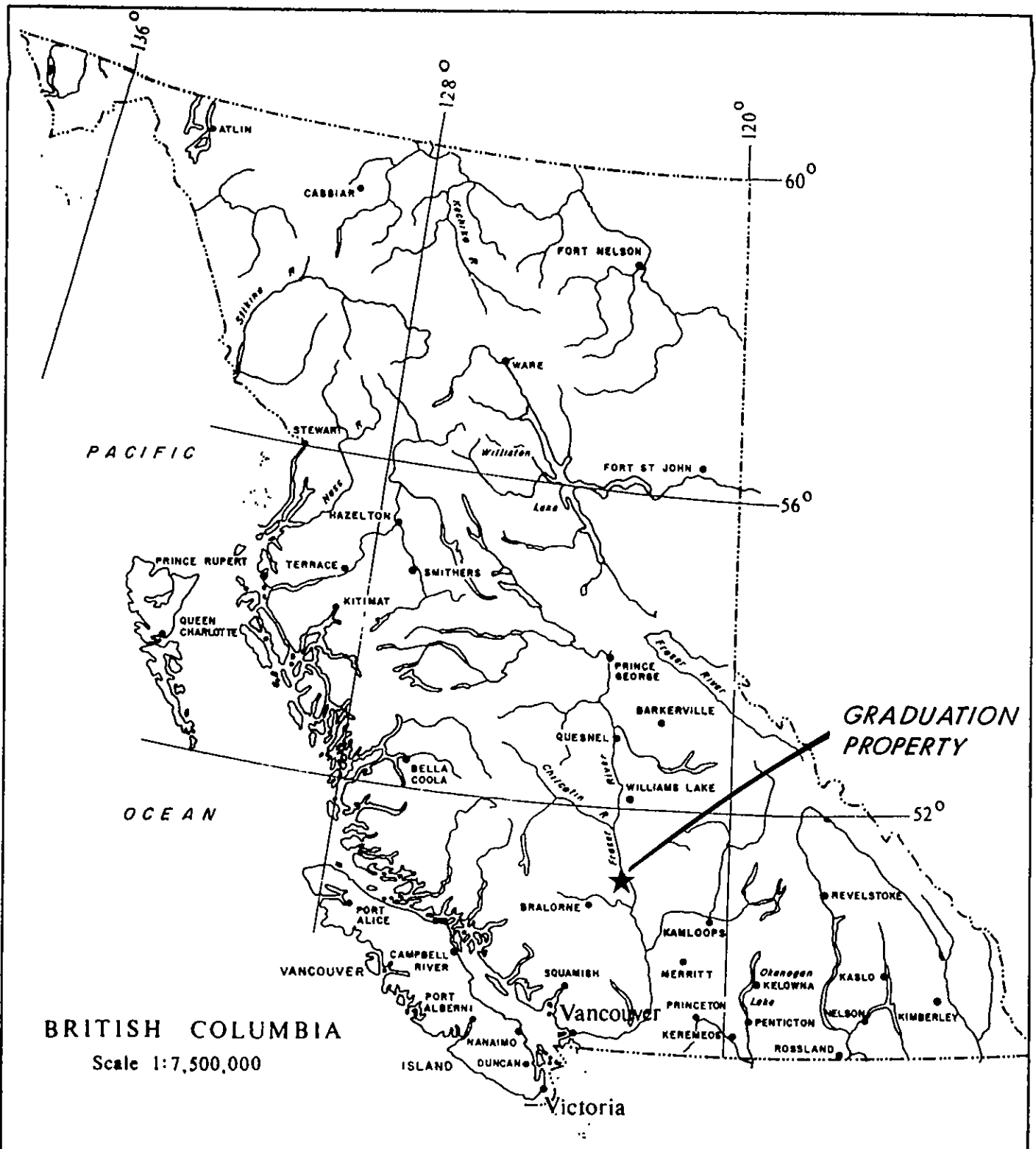
The Graduation claim consists of 20 units and lies in the Clinton Mining Division. The property is owned by Mr. Clive Ashworth of 4491 Marine Drive, West Vancouver, B.C., V7W 2N8. Pertinent claim data is below:

<u>CLAIM</u>	<u># OF UNITS</u>	<u>RECORD #</u>	<u>RECORD DATE</u>
Graduation	20	2304	June 24, 1987

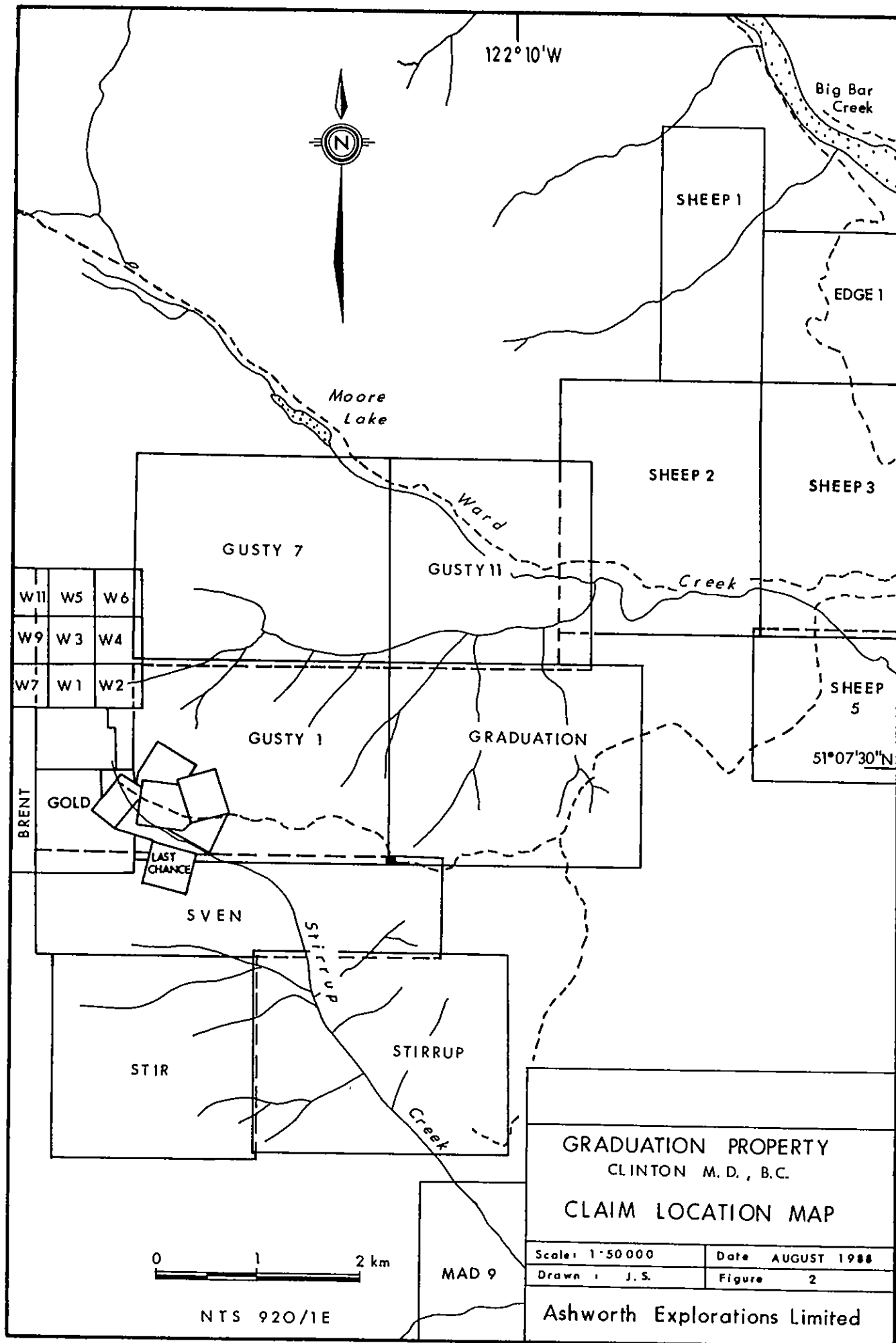
3. LOCATION, ACCESS AND PHYSIOGRAPHY (Figure 1)

The Graduation claim is located approximately 40 kilometres northwest of Clinton and approximately 5.25 kilometres north of the confluence of Stirrup Creek and Ward Bar Creek. Access can be obtained by two separate routes. The first is a four-wheel drive road via Big Bar Creek ferry across the Fraser River. The second is via logging and ranch access roads from Lillooet.

The property lies on the north-facing slope of the un-named creek which flows into Ward Creek approximately 3 kilometres southeast from Moore Lake.



GRADUATION PROPERTY CLINTON M.D., B.C.	
GENERAL LOCATION MAP	
Scale 1 7500 000	Date AUGUST, 1988.
Drawn : J.S.	Figure 1
Ashworth Explorations Limited	



122°10'W



Big Bar Creek

SHEEP 1

EDGE 1

Moore Lake

SHEEP 2

SHEEP 3

GUSTY 7

Ward

GUSTY 11

Creek

W11	W5	W6
W9	W3	W4
W7	W1	W2

SHEEP 5

51°07'30"N

GUSTY 1

GRADUATION

BRENT

GOLD

LAST CHANCE

SVEN

Stirrup

STIR

STIRRUP

Creek

GRADUATION PROPERTY

CLINTON M. D., B.C.

CLAIM LOCATION MAP

Scale: 1:50 000

Date AUGUST 1988

Drawn: J. S.

Figure 2

MAD 9



NTS 920/1E

Ashworth Explorations Limited

Elevations range from approximately 1260 metres in the north to approximately 1740 metres in the southwest corner of the claim. This gives a total relief of approximately 480 metres. Vegetation is relatively sparse, consisting of sagebrush and bunch grass.

4. AREA HISTORY

A great deal of exploration work has been completed in the general area of the Graduation claim, including placer mining which was concentrated around Stirrup Creek roughly from 1918 and onwards. The 1933 B.C. Ministry of Mines Report recorded an approximate annual production of \$3,500 (at \$18 to \$19/oz, with pure gold valued at \$20.67/oz) from the creek workings. The rough nature of the placer gold and its common occurrence with quartz vein material suggested very little travel. Further prospecting led to the location of the Astonisher claims around 1926.

The Astonisher group of claims is located on the north side of the head of Stirrup Creek. Development work, to 1933, consisted of several short crosscuts and open cuts into the hill along and slightly above an argillite/diorite contact. The cuts exposed a feldspar-quartz dyke present at, or close to, the contact. A 100 foot crosscut was driven at N 15 degrees E with an 80 foot winze sunk 75 feet from the portal. Sampling of oxidized quartz and argillite close to the top of the winze revealed .5 oz/ton Au and .1 oz/ton Ag.

The Chisholm group of claims occur immediately west of the Astonisher group and cover the headwaters of both Stirrup and Ward Creeks. Several hundred feet of trenching was completed while prospecting several narrow quartz veins

present in the argillite unit. A sample of oxidized quartz and argillite from a one ton dump of material taken from the deepest cut assayed .16 oz/ton Au and .04 oz/ton Ag.

Both of these claims groups lie approximately 1.5 kilometres to the west of the Graduation claim. Approximately .5 kilometres to the northwest of the Astonisher-Chisholm crown grants and 2.5 kilometres west-northwest of the Graduation claim, the W 1-12 claims underwent geochemical soil surveys and percussion drilling by Rio Tinto Canadian Exploration Limited in 1971 with no assay results documented (B.C. Dept. of Mines & P.R., G.E.M. 1971).

In 1973 the Astonisher and Chisholm groups of crown grants (Astonisher, Monitor, Chevalier, Ajax, Monty, and Sun Fr.) and the W 1-12 and Last Chance claims were mapped, sampled and trenched by Canex Placer Limited. Assay results are unknown (B.C. Dept. of Mines and P.R., G.E.M., 1973).

In 1975, Chevron Standard Limited was in control of the crown grants plus claims W 1-18 and Last Chance. Two diamond drill holes were completed, totalling 200 metres on claims W 2 and W 3 with no documented assay results (B.C. Dept. of Mines & P.R., G.E.M., 1975).

The Eagle claim was staked in 1980 and was located immediately west of the old Chisholm and Astonisher properties and approximately 2.75 kilometres west of the Graduation claim. Early work completed in the area exposed stibnite mineralization, and in 1981 a reconnaissance program of rock and soil sampling was completed on the claim. In 1982 the survey was extended for additional

reconnaissance-scale information along with some detailed soil sampling. Anomalous values of greater than 1000 ppm antimony, 100 ppm arsenic and 374 ppb gold were detected. Due to the lack of outcrop, trenching was recommended for bedrock sampling (Livingstone, 1982). The southeast area is now covered by the Brent and Gold claims owned by Chevron Minerals Limited.

The Mad property (Mad 1-9 claims) was staked as a gold prospect in 1982 and is owned by BHP-Utah Mines Limited. It is located along, and to the south of, Watson Bar Creek, approximately 3 kilometres south-southeast of the Graduation claim. A preliminary geological and geochemical exploration program was carried out in May and June 1983. The work included line cutting, soil and rock sampling and geological mapping over the entire property. Gold mineralization (no values given except on an illegible map) occurred in highly silicified sandstone beds and in massive sulphide veins. Soil anomalies were few, probably due to the presence of thick overburden from the downslope movement of non-mineralized debris (Pollock, 1983).

The Big Bar property (Kerr Addison Mines Ltd.) was located immediately south-southwest of the Fraser River, opposite Big Bar Creek and approximately 2 kilometres northeast of the Graduation claim. Percussion drilling was performed in 1980 and obtained a high Au value of 2600 ppb, As 1000 ppm and Ag 25.2 ppm (Neelands, 1980).

Brenwest Mining Ltd. now controls the old Big Bar claim area plus additional property to the south (Edge 1, Sheep 1-6 claims). The Sheep 2 claim is approximately 250 metres north of the northeast boundary of the Graduation

claim and the Sheep 5 claim is located approximately 1 kilometre east of the Graduation claim's east boundary.

Surface sampling, trenching, geophysical work and limited drilling have indicated a series of drill targets including a northwest-trending I.P. anomaly, 950 metres long and open in both strike directions. Previously obtained values include a surface sample high of 3480 ppb Au and a drill intersection over 3 metres of 0.13 oz/ton Au (Brenwest Mining Ltd., 1988).

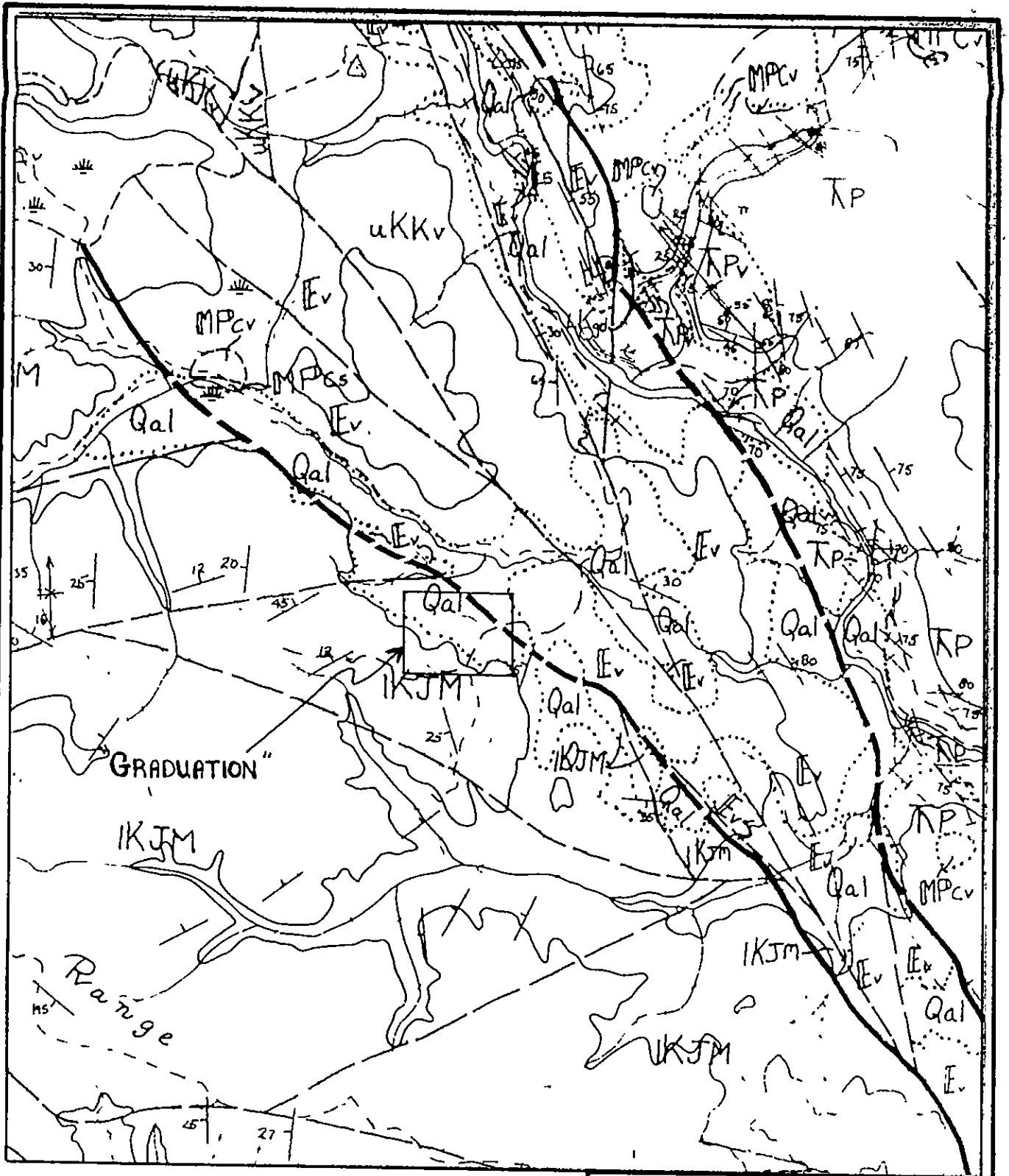
5. PREVIOUS WORK

According to Minfile coordinates the old Buster showing is located in the area covered by the Graduation claim. The showing was not located during the 1988 work program although only minimal coverage of the claim area was completed.

The Buster property was first documented in 1925 and in the 1926 Minister of Mines report, work on this showing was described as the opening up of the "ore-body". This involved the uncovering of a vertical ledge 5 feet wide, below the outcropping of an 18 inch seam of heavy mineral. Assays revealed 47% antimony plus undocumented silver values (B.C. Department of Mines, 1926).

6. REGIONAL GEOLOGY (Figure 3)

The dominant regional feature is the northwest trending fault zones. These enclose the Lower Cretaceous Jackass Mountain group of sediments towards both the east and the west. This group consists of buff to green graywacke, light gray shale, pebble conglomerate and massive boulder conglomerate.



GRADUATION PROPERTY
CLINTON M.D., B.C.

REGIONAL GEOLOGY MAP
(After H.W. Tipper, 1978)

Scale 1:125 000

Date: SEPTEMBER 1988.

Drawn :

Figure 3

Ashworth Explorations Limited

REGIONAL GEOLOGY - LEGEND

QUATERNARY

PLEISTOCENE AND RECENT

Qal Till, gravel, sand, clay and silt

UPPER MIOCENE AND/OR PLIOCENE
Chilcoten Group

MPCv Olivine basalt, andesite; minor relate tuff and breccia

MPCs Buff to gray siltstone, diatomite, clay and silty sand; coarse reddish brown conglomerate; minor ash beds and lignite

EOCENE AND YOUNGER (?), OLDER (?)

Ev Rhyolitic and dacitic tuff, breccia, and flows; minor andesitic to basaltic rocks

CRETACEOUS

UPPER CRETACEOUS (CENOMANIAN)
Kingsvale Group

uKkv Varicoloured andesitic, dacitic, basaltic pyroclastics; minor flows and volcanic sediments

LOWER CRETACEOUS (BARREMIAN TO ALBIAN)
Jackass Mountain Group


IKJM Buff to green graywacke, gray shale and pebble conglomerate; massive boulder conglomerate

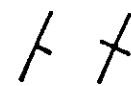
TRIASSIC

MIDDLE AND/OR LOWER TRIASSIC AND (?) LOWER
Pavilion Group

TPv Tuff, graywacke, volcanic flows, chert argillite, limestone


TP Chert argillite; minor tuff, limestone, lithic sandstone, volcanic flows

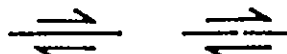
GEOLOGICAL CONTACT (defined, approximate, assumed) 

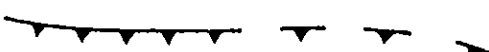
BEDDING (inclined, vertical) 

SYNCLINE 

ANTICLINE 

FAULTS (sense of movement not indicated) 

FAULT (right lateral transcurrent defined, approximate) 

FAULT (thrust or high-angle reverse) 

To the northeast, the Jackass Mountain sediments are in fault contact with Eocene (?) volcanic rocks consisting of rhylitic and dacitic tuff, breccia and flows, minor andesitic to basaltic rocks with minor inclusions of Oligocene (?) volcanic tuff, breccia and flows. Also north of, and along this fault occur Quaternary deposits of till, gravel, sand, clay and silt. The Yalakom fault forms the western boundary of the group and marks the beginning of the Shulaps Ultramafite complex to the north with the Triassic Bridge River sediments and volcanics to the south.

Although faults are an abundant and characteristic feature of the Jackass Mountain Group, the bedding dips are relatively moderate and folds within the group are inconspicuous. The two northwest faults marking the east and west boundaries of the Jackass Mountain group are splays off the Fraser River fault zone.

Northwest trending faults are common throughout the Lillooet-Gold Bridge area and are of particular interest as most of the past producing gold mines lie along them. The past-producing Big Slide mine lies on a northwest fault approximately 20 kilometres south of the Graduation claim. Gold, silver and copper were removed from this deposit. The placer mining operations along Stirrup Creek and the Astonisher-Chisholm showings also illustrate the promising relationship between the regional northwest fault trend and gold mineralization.

7. PROPERTY GEOLOGY

Work on the Graduation claim to date has revealed no evidence of outcrop. However it appears from the regional geology that the northeast corner of the

property straddles the north fault mentioned above with the Jackass Mountain sediments underlying most of the property southwest of the fault. A close examination of the regional geology map by Tipper (1978) also indicates the possibility that Eocene volcanics are present in the northeast corner of the property. The Eocene volcanics host the Blackdome gold deposit located approximately 32.5 kilometres to the northwest. The extensive overburden, which may conceal the volcanic unit, is due to the northeastern half of the property being covered by Quaternary deposits.

8. 1988 PROGRAM

8.1 Scope and Purpose

On June 15 and 16, 1988 one of the authors, Mr. Yacoub, visited the property, accompanied by an assistant. They prospected and obtained silt samples along the two north-south trending creeks which cut the property (Map 1). The purpose of the program was to perform prospecting, rock sampling and silt sampling to aid in obtaining an overall picture of the mineral potential of the property.

8.2 Methods and Procedures

Stream sediment sampling was performed along the two creeks ("A" and "B") but as no outcrops were present no mapping or rock sampling could be completed. A total of 20 silt samples were collected and analyzed for gold, mercury and multi-element ICP by Vangeochem Lab Ltd. See Appendix A for analytical reports and techniques.

9. RESULTS

The stream sediment sampling revealed some anomalous results. Sample GRA88-BT-7 was anomalous in gold (365 ppb). The results from Creek B were relatively higher than those from Creek A in Au and Hg.

In general, the results are insignificant, possibly a result of the amount of overburden present, which could be masking the true geochemical nature of the bedrock.

10. CONCLUSIONS

Additional work is required on this property before its true mineral potential can be determined. Only minimal work was performed on this claim in 1988. Due to the gold values present on surrounding properties, and similar geology present on the Graduation claim towards the southwest, a more organized and thorough program is required. Also, the possibility exists that Eocene volcanics, similar to those which host the Blackdome gold deposit, may underlie the Quaternary till on the northeast portion of the claim. The overburden problem must be addressed so a more accurate picture of the geology can be obtained.

11. RECOMMENDATIONS

Phase I

Prospect the entire claim searching for outcrop and where present, map and obtain rock samples.

Phase II

Contingent upon favourable results from Phase I, a trenching program and/or an induced polarization survey should be performed. The quantity of overburden would not have a detrimental effect on the geophysics. The results would likely produce the best picture of the bedrock and any mineralization present.

REFERENCES

- B.C. Dept. of Mines & Petroleum Resources, Geology, Exploration & Mining, 1970, 1971, 1973, 1975.
- B.C. Minister of Mines Report, 1925, 1926, 1933.
- Brenwest Mining Ltd., Promotional Map Release - Edge Group, Blackdome Area, Clinton, B.C., 1988.
- Livingstone, K.W., 1982. Geochemical Survey Report on the Eagle Property, Clinton M.D., Assessment Report 10,383.
- Neelands, J.T., 1980. Report on the Percussion Drilling of the Big Bar Property (Big Bar and Big Bar Too Claims), Clinton M.D., Kerr Addison Mines Ltd., Assessment Report 8,142.
- Pollock, T., 1983. Geological and Geochemical Report, Mad Property, Clinton M.D., Utah Mines Ltd., Assessment report 11,585.
- Tipper, H.W., 1978. Taseko Lakes (920) Map Area, G.S.C. Open File 534.

CERTIFICATE

I, JANET M. STRITYCHUK HOPKINS, of 2862 Banbury Avenue, Coquitlam, B.C., V3B 5H2, do hereby state that:

1. I am a graduate of Laurentian University, Sudbury, Ontario, with a Honours Bachelor of Science Degree in Geology, 1981.
2. I am a full member of the Canadian Institute of Mining and Metallurgy and an Associate of the Geological Association of Canada.
3. I have been employed as a geologist in Ontario, Quebec and British Columbia.
4. The information, opinions, and recommendations in this report are based on published and unpublished literature and results of fieldwork carried out on the subject property from June 14 to June 16, 1988.
5. I have no interest, direct or indirect, in the subject claims.
6. I consent to the use of this report in a Prospectus or Statement of Material Facts for the purpose of private or public financing.



Janet M. Stritychuk Hopkins, Hons.B.Sc.

Dated at Vancouver, September 7, 1988

CERTIFICATE

I, FAYZ YACOUB, of #201 - 733 W. 14th Avenue, Vancouver, British Columbia do hereby declare:

1. That I am a graduate in geology and chemistry from Assuit University, Egypt (B.Sc. 1967), and Mining Exploration Geology of the International Institute for Aerial Survey and Earth Sciences (I.T.C.), Holland (Diploma 1978).
2. I have actively pursued my career as a geologist for the past fifteen years.
3. The information, opinions, and recommendations in this report are based on fieldwork carried out by myself, and on published and unpublished literature. I was present on the subject property on June 15 and 16, 1988.
4. I have no interest, direct or indirect, in the subject claim.
5. I consent to the use of this report in a Prospectus or Statement of Material Facts for the purpose of private or public financing.



Fayz F. Yacoub, B.Sc.

Dated at Vancouver, September 7, 1988

GRADUATION CLAIM - ITEMIZED COST STATEMENT

Project Preparation			\$	400
Mob/Demob				1,500
<u>Field Crew</u>				
Project Geologist \$275/day x 2 days	\$	550		
1 Geotechnician \$210/day x 2 days		<u>420</u>		970
<u>Field Costs</u>				
Food and Accommodation \$70/day x 4 mandays	\$	280		
Communications \$25/day x 2 days		50		
Supplies		135		
1 4X4 Truck \$110/day x 2 days		<u>220</u>		685
<u>Lab Analysis</u>				
20 silt samples @ \$16.35/sample	\$	<u>327</u>		327
<u>Report Costs</u>				
Report Writing	\$	900		
Map plotting and Drafting		500		
Word Processing, Copying, Binding		<u>300</u>		<u>1,700</u>
TOTAL			\$	<u><u>5,582</u></u>

APPENDIX A
ANALYTICAL REPORTS AND TECHNIQUES



VANGEOCHEM LAB LIMITED

MAIN OFFICE AND LABORATORY
1988 Triumph Street
Vancouver, B.C. V5L 1K5
(604) 251-5656 FAX: 254-5717

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

=====

GEOCHEMICAL ANALYTICAL REPORT

=====

CLIENT: ASHWORTH EXPLORATION LTD.
ADDRESS: Mez. Fl., 744 W. Hastings St.
: Vancouver, B.C.
: V6C 1A5

DATE: June 30 1988

REPORT#: 880593 GA
JOB#: 880593

PROJECT#: 131
SAMPLES ARRIVED: June 21 1988
REPORT COMPLETED: June 30 1988
ANALYSED FOR: Au ICP

INVOICE#: 880593 NA
TOTAL SAMPLES: 20
SAMPLE TYPE: 20 Silt
REJECTS: DISCARDED

SAMPLES FROM: Vancouver office.
COPY SENT TO: All copies sent to Vancouver office.

PREPARED FOR: Mr. Peter Leriche

ANALYSED BY: VGC Staff

SIGNED: _____

GENERAL REMARK: Mercury results will follow.



VANGEOCHEM LAB LIMITED

MAIN OFFICE AND LABORATORY
1988 Triumph Street
Vancouver, B.C. V5L 1K5
(604)251-5656 FAX:254-5717

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: 880593 GA

JOB NUMBER: 880593

ASHWORTH EXPLORATION LTD.

PAGE 1 OF 1

SAMPLE #	Au ppb
GRA 88 - TA - 1	5
GRA 88 - TA - 3	5
GRA 88 - TA - 5	10
GRA 88 - TA - 7	10
GRA 88 - TA - 9	15
GRA 88 - TA - 11	10
GRA 88 - TA - 13	5
GRA 88 - TA - 15	20
GRA 88 - TA - 17	20
GRA 88 - TB - 1	5
GRA 88 - TB - 3	20
GRA 88 - TB - 5	5
GRA 88 - TB - 6	5
GRA 88 - TB - 7	365
GRA 88 - TB - 9	15
GRA 88 - TB - 11	10
GRA 88 - TB - 13	15
GRA 88 - TB - 15	15
GRA 88 - TB - 17	20
GRA 88 - TB - 19	20

DETECTION LIMIT
nd = none detected

5

-- = not analysed

is = insufficient sample

VANGEOCHEM LAB LIMITED

MAIN OFFICE: 1988 TRIUMPH STREET, VANCOUVER B.C. V5L 1K5 PH: (604)251-5656 TELEX: 04-35257B
 BRANCH OFFICE: 1630 PANDORA STREET, VANCOUVER B.C. V5L 1L6 PH: (604)251-7282 FAX: (604)254-5717

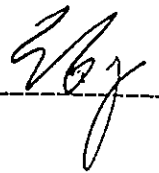
ICAP GEOCHEMICAL ANALYSIS

A .5 GRAM SAMPLE IS DIGESTED WITH 5 ML OF 3:1:3 HCL TO HNO3 TO H2O AT 95 DEG. C FOR 90 MINUTES AND IS DILUTED TO 10 ML WITH WATER.
 THIS LEACH IS PARTIAL FOR SN,NI,FE,CA,P,CR,NI,BA,PD,AL,NA,K,W,PT AND SR. AU AND PD DETECTION IS 3 PPM.
 IS= INSUFFICIENT SAMPLE, ND= NOT DETECTED, -- NOT ANALYZED

COMPANY: ASHWORTH EXPL
 ATTENTION: P LERICHE
 PROJECT: 131

REPORT#: 880593 PA
 JOB#: 880593
 INVOICE#: 880593 NA

DATE RECEIVED: 88/06/21
 DATE COMPLETED: 88/06/26
 COPY SENT TO:

ANALYST 

PAGE 1 OF 1

SAMPLE NAME	AG PPM	AL %	AS PPM	AU PPM	BA PPM	BI PPM	CA %	CD PPM	CO PPM	CR PPM	CU PPM	FE %	K %	NI %	NR PPM	NO PPM	NA %	NI PPM	P %	PB PPM	PD PPM	PT PPM	SB PPM	SN PPM	SR PPM	U PPM	W PPM	ZK PPM
GRA 88-TA-1	.1	2.01	19	ND	253	ND	1.46	.9	23	24	43	3.74	.07	.99	2346	2	.01	35	.06	1	ND	ND	ND	5	197	ND	ND	91
GRA 88-TA-3	.1	2.13	17	ND	166	ND	1.34	.4	14	24	30	2.67	.06	.73	626	1	.01	29	.05	2	ND	ND	ND	4	143	ND	ND	76
GRA 88-TA-5	.1	2.23	16	ND	165	ND	1.69	.5	13	27	35	2.47	.07	.73	644	1	.01	31	.06	4	ND	ND	ND	4	163	ND	ND	77
GRA 88-TA-7	.1	2.08	18	ND	160	ND	1.20	.5	14	25	29	2.57	.07	.72	598	1	.01	29	.05	6	ND	ND	ND	5	136	ND	ND	74
GRA 88-TA-9	.1	2.30	15	ND	155	ND	.91	.4	16	30	28	2.79	.07	.78	768	1	.01	33	.06	4	ND	ND	ND	4	115	ND	ND	74
GRA 88-TA-11	.1	1.95	14	ND	141	ND	1.36	.6	11	25	22	2.09	.06	.68	880	1	.01	24	.06	4	ND	ND	ND	4	121	ND	ND	65
GRA 88-TA-13	.1	1.77	16	ND	126	ND	1.45	.5	11	23	20	2.16	.07	.64	811	1	.01	24	.06	6	ND	ND	ND	4	113	ND	ND	72
GRA 88-TA-15	.2	1.34	16	ND	109	ND	1.76	.6	12	23	22	2.07	.07	.57	2132	1	.01	20	.07	8	ND	ND	ND	5	137	ND	ND	70
GRA 88-TA-17	.1	1.49	13	ND	146	ND	1.97	.7	10	31	18	1.84	.07	.58	2147	1	.01	19	.08	8	ND	ND	ND	4	128	ND	ND	91
GRA 88-TB-1	.1	1.12	13	ND	63	ND	2.61	.5	6	15	30	1.15	.08	.33	721	1	.01	19	.06	10	ND	ND	ND	4	135	ND	ND	31
GRA 88-TB-3	.1	2.57	24	ND	137	ND	2.11	.8	12	22	52	2.45	.08	.71	781	3	.01	28	.08	6	ND	ND	ND	5	132	ND	ND	49
GRA 88-TB-5	.1	1.80	17	ND	120	ND	2.26	.6	11	21	41	2.04	.07	.61	529	2	.01	26	.07	8	ND	ND	ND	5	126	ND	ND	54
GRA 88-TB-6	.1	2.27	20	ND	160	ND	1.51	.6	14	24	41	2.77	.07	.79	562	2	.01	27	.06	9	ND	ND	ND	6	120	ND	ND	62
GRA 88-TB-7	.3	2.28	20	ND	145	ND	1.17	.6	16	25	61	3.16	.06	.97	493	2	.01	28	.07	12	ND	ND	ND	6	108	ND	ND	85
GRA 88-TB-9	.3	2.12	22	ND	129	ND	.93	.7	16	25	35	3.15	.06	.94	503	2	.01	28	.06	10	ND	ND	ND	7	102	ND	ND	63
GRA 88-TB-11	.2	2.08	18	ND	131	ND	.89	.8	16	25	41	3.16	.06	.90	463	2	.01	28	.06	21	ND	ND	ND	8	99	ND	ND	62
GRA 88-TB-13	.4	2.30	22	ND	154	ND	1.20	.7	17	22	48	3.18	.06	.98	543	2	.01	27	.06	20	ND	ND	ND	6	114	ND	ND	70
GRA 88-TB-15	.2	2.18	24	ND	163	ND	1.80	.6	15	22	36	2.78	.07	.89	467	2	.01	24	.06	15	ND	ND	ND	6	136	ND	ND	60
GRA 88-TB-17	.3	2.20	22	ND	162	ND	2.11	.6	15	21	42	2.68	.07	.87	461	3	.01	25	.07	14	ND	ND	ND	6	148	ND	ND	66
GRA 88-TB-19	.2	1.62	18	ND	131	ND	3.91	1.1	10	17	48	1.83	.06	.68	463	2	.01	19	.09	16	ND	ND	ND	6	191	ND	ND	59
DETECTION LIMIT	.1	.01	3	3	1	3	.01	.1	1	1	1	.01	.01	.01	1	1	.01	1	.01	2	3	5	2	2	1	5	3	1



VANGEOCHEM LAB LIMITED

MAIN OFFICE AND LABORATORY
1988 Triumph Street
Vancouver, B.C. V5L 1K5
(604) 251-5656 FAX: 254-5717

BRANCH OFFICE
1830 PANDORA ST.
VANCOUVER, B.C. V6L 1L6
(604) 251-5656

=====

GEOCHEMICAL ANALYTICAL REPORT

=====

CLIENT: ASHWORTH EXPLORATION LTD.
ADDRESS: Mez. Fl., 744 W. Hastings St.
: Vancouver, B.C.
: V6C 1A5

DATE: July 13 1988

REPORT#: 880593 GB
JOB#: 880593

PROJECT#: 131
SAMPLES ARRIVED: June 21 1988
REPORT COMPLETED: July 13 1988
ANALYSED FOR: Hg

INVOICE#: 880593 NA
TOTAL SAMPLES: 20
SAMPLE TYPE: 20 Silt
REJECTS: DISCARDED

SAMPLES FROM: Vancouver office.
COPY SENT TO: All copies sent to Vancouver office.

PREPARED FOR: Mr. Peter Leriche

ANALYSED BY: VGC Staff

SIGNED: _____


GENERAL REMARK: Gold & ICP results previously sent.



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1630 PANDORA ST.
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(604) 251-5656

REPORT NUMBER: 880593 6B

JOB NUMBER: 880593

ASHWORTH EXPLORATION LTD.

PAGE 1 OF 1

SAMPLE #	Hg ppb
GRA 88 - TA - 1	70
GRA 88 - TA - 3	45
GRA 88 - TA - 5	90
GRA 88 - TA - 7	55
GRA 88 - TA - 9	45
GRA 88 - TA - 11	40
GRA 88 - TA - 13	40
GRA 88 - TA - 15	50
GRA 88 - TA - 17	60
GRA 88 - TB - 1	145
GRA 88 - TB - 3	120
GRA 88 - TB - 5	90
GRA 88 - TB - 6	55
GRA 88 - TB - 7	90
GRA 88 - TB - 9	55
GRA 88 - TB - 11	50
GRA 88 - TB - 13	80
GRA 88 - TB - 15	80
GRA 88 - TB - 17	80
GRA 88 - TB - 19	115

DETECTION LIMIT
nd = none detected

5

-- = not analysed

is = insufficient sample



VANGEOCHEM LAB LIMITED

MAIN OFFICE
1521 PEMBERTON AVE
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

December 1st, 1987

TO: Peter Leriche
ASHWORTH EXPLORATION LTD.
Mezz Fir - 714 W. Hastings St.
Vancouver, B.C. V6C 1A5

FROM: Vangeochem Lab Limited
1521 Pemberton Avenue
North Vancouver, British Columbia
V7P 2S3

SUBJECT: Analytical procedure used to determine gold by fire assay method and detect by atomic absorption spectrophotometry in geological samples.

1. Method of Sample Preparation

- (a) Geochemical soil, silt or rock samples were received at the laboratory in high wet-strength, 4" x 6", Kraft paper bags. Rock samples would be received in poly ore bags.
- (b) Dried soil and silt samples were sifted by hand using an 8" diameter, 80-mesh, stainless steel sieve. The plus 80-mesh fraction was rejected. The minus 80-mesh fraction was transferred into a new bag for subsequent analyses.
- (c) Dried rock samples were crushed using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for subsequent analyses.

2. Method of Extraction

- (a) 20.0 to 30.0 grams of the pulp samples were used. Samples were weighed out using a top-loading balance and deposited into individual fusion pots.
- (b) A flux of litharge, soda ash, silica, borax, and, either flour or potassium nitrite is added. The samples are then fused at 1900 degrees Fahrenheit to form a lead "button".
- (c) The gold is extracted by cupellation and parted with diluted nitric acid.



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(d) The gold bead is retained for subsequent measurement.

3. Method of Detection

(a) The gold bead is dissolved by boiling with sodium cyanide, hydrogen peroxide and ammonium hydroxide.

(b) The detection of gold was performed with a Techtron model AA5 Atomic Absorption Spectrophotometer with a gold hollow cathode lamp. The results were read out on a strip chart recorder. The gold values, in parts per billion, were calculated by comparing them with a set of known gold standards.

4. Analysts

The analyses were supervised or determined by Mr. Conway Chun or Mr. David Chiu and his laboratory staff.

A handwritten signature in black ink, appearing to read 'D. Chiu', written over a horizontal line.

David Chiu
VANGEOCHEM LAB LIMITED



VANGEOCHEM LAB LIMITED

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December 1st, 1987

TO: Peter Leriche
ASHWORTH EXPLORATION LTD.
Mezz Fir - 744 W. Hastings St.
Vancouver, B.C. V6C 1A5

FROM: Vangeochem Lab Limited
1521 Pemberton Avenue
North Vancouver, British Columbia
V7P 2S3

SUBJECT: Analytical procedure used to determine hot acid soluble
for 28 element scan by Inductively Coupled Plasma
Spectrophotometry in geochemical silt and soil samples.

1. Method of Sample Preparation

- (a) Geochemical soil, silt or rock samples were received at the laboratory in high wet-strength, 1" x 6", Kraft paper bags. Rock samples would be received in poly ore bags.
- (b) Dried soil and silt samples were sifted by hand using an 8" diameter, 80-mesh, stainless steel sieve. The plus 80-mesh fraction was rejected. The minus 80-mesh fraction was transferred into a new bag for subsequent analyses.
- (c) Dried rock samples were crushed using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for subsequent analyses.

2. Method of Digestion

- (a) 0.50 gram portions of the minus 80-mesh samples were used. Samples were weighed out using an electronic balance.
- (b) Samples were digested with a 5 ml solution of HCL:HN03:H2O in the ratio of 3:1:2 in a 95 degree Celsius water bath for 90 minutes.
- (c) The digested samples are then removed from the bath and bulked up to 10 ml total volume with dmineralized water and thoroughly mixed.



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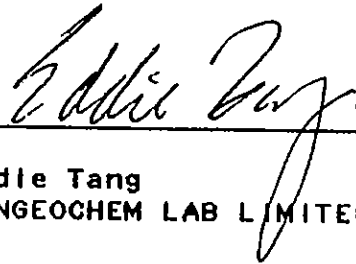
BRANCH OFFICE
1630 PANDORA ST
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

3. Method of Analyses

The ICP analyses elements were determined by using a Jarrel-Ash ICAP model 9000 directly reading the spectrophotometric emissions. All major matrix and trace elements are interelement corrected. All data are subsequently stored onto disk.

4. Analysts

The analyses were supervised or determined by either Mr. Eddie Tang, and, the laboratory staff.



Eddie Tang
VANGEOCHEM LAB LIMITED



VANGEOCHEM LAB LIMITED

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BRANCH OFFICE
1830 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5658

Sept 22, 1988

TO: Peter Leriche
ASHWORTH EXPLORATIONS LTD.
1010 - 789 W. Pender
Vancouver, B.C. V6C 1H2

FROM: Vangeochem Lab Limited
1988 Triumph Street
Vancouver, British Columbia
V5L 1K5

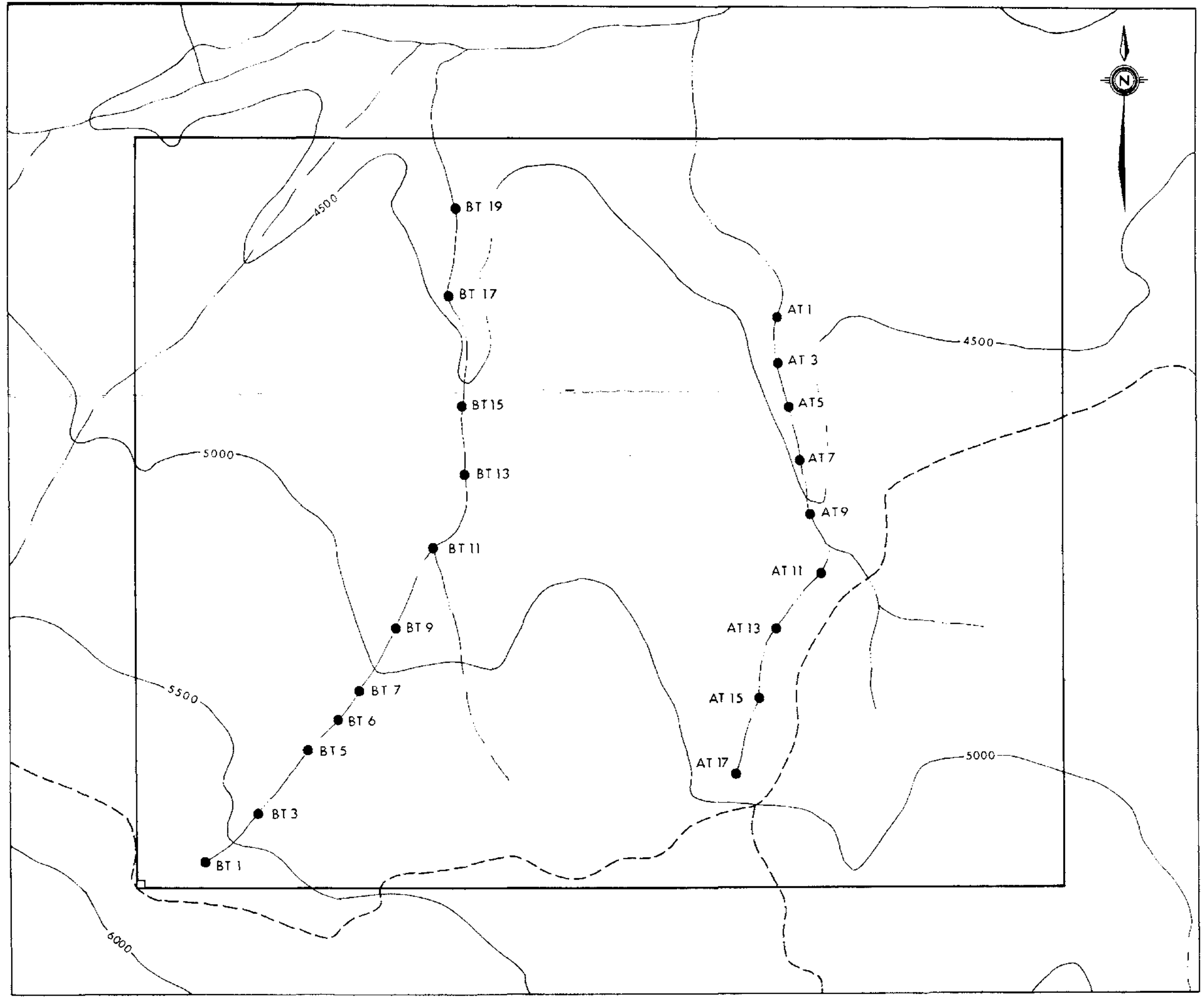
SUBJECT: Analytical procedure used to determine aqua regia soluble mercury in soil, silt, lake sediments and rock samples.

1. Method of Sample Preparation

- (a) Geochemical soil, silt or rock samples were received at the laboratory in high wet-strength, 4" x 6", Kraft paper bags. Rock samples would be received in poly ore bags.
- (b) Dried soil and silt samples were sifted by hand using an 8" diameter, 80-mesh, stainless steel sieve. The plus 80-mesh fraction was rejected. The minus 80-mesh fraction was transferred into a new bag for subsequent analyses.
- (c) Dried rock samples were crushed using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for subsequent analyses.

2. Method of Extraction

- (a) 0.50 grams of the minus 80-mesh samples were used. The samples were weighed out into test tubes with a top-loading balance.
- (b) The samples were digested with aqua-regia in a hot water bath for an hour.
- (c) The samples were agitated and diluted with demineralized water to a fixed volume and left to settle.



SAMPLE NO.	Au (ppb)	Hg (ppb)
GRA88-AT-1	5	70
GRA88-AT-3	5	45
GRA88-AT-5	10	90
GRA88-AT-7	10	55
GRA88-AT-9	15	45
GRA88-AT-11	10	40
GRA88-AT-13	5	40
GRA88-AT-15	20	50
GRA88-AT-17	20	60
GRA88-BT-1	5	145
GRA88-BT-3	20	120
GRA88-BT-5	5	90
GRA88-BT-6	5	55
GRA88-BT-7	365	90
GRA88-BT-9	15	55
GRA88-BT-11	10	50
GRA88-BT-13	15	80
GRA88-BT-15	15	80
GRA88-BT-17	20	80
GRA88-BT-19	20	115

LEGEND

- Legal Corner Post
- ┌ Claim boundary (approximate)
- Creek
- ~ 4500 ~ Topographical contour (interval 500m)
- Road
- AT 9 Stream sediment location and number

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

0 100 200 300 400 500 600m

NTS 92 O/1E
17,820

GRADUATION PROPERTY
CLINTON M.D., B.C.

**STREAM SEDIMENT
GEOCHEMISTRY**

Scale 1:10000 Drawn: F.Y. / J.S.
Date: AUGUST 1988. Map: 1

Ashworth Explorations Limited