

LOG NO: 1007
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REVISION:

1989 PROSPECTING REPORT
ON THE
WATERFALL #1 CLAIM

Located in the Telegraph Creek Area
Liard Mining Division
NTS 104G/13W

FILMED

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RECEIVED
OCT 23 1989
M.R. # _____ \$ _____
VANCOUVER, B.C.

57° 48' North Latitude
131° 53' West longitude

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,231

-prepared for-
INTEGRATED RESOURCES LTD.

-prepared by-
Tom Bell, Prospector

October, 1989

1989 PROSPECTING REPORT ON THE WATERFALL #1 CLAIM

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1.0 INTRODUCTION

The Waterfall #1 claim was staked in 1988 to cover favorable geology and the possible source of an anomalous silt sample collected during a regional Government geochemical survey in 1987 (sample #871167). The claim, located along Limpoke Creek, is approximately 45 kilometers southwest of Telegraph Creek in northwestern British Columbia (Figure 1). The geological similarity to the Galore Creek, Iskut River, Sulphurets and Stewart mining camps to the south and the area's potential for precious metal mineralization have sparked renewed exploration interest throughout the area.

Reconnaissance exploration, consisting of prospecting and silt and rock geochemical sampling, was carried out over the Waterfall #1 claim in July of 1989. Equity Engineering Ltd. conducted this program for Integrated Resources Ltd. and has been retained to report on the results of the fieldwork.

2.0 LIST OF CLAIMS

Records of the British Columbia Ministry of Energy, Mines and Petroleum Resources indicate that the following claim (Figure 2) is owned by Integrated Resources Ltd..

Claim Name	Record Number	No. of Units	Record Date	Expiry Year
Waterfall #1	5048	20	July 30, 1988	1990*

*note: one year's assessment work applied in July 1989.

PROPERTY LOCATION



INTEGRATED RESOURCES LTD.			
WATERFALL #1 CLAIM			
PROPERTY LOCATION MAP			
<p>0 100 200 MILES 0 100 200 300 KILMETRES</p>			
EQUITY ENGINEERING LTD.			
Drawn.	J.W.	N.T.S.	104G/13W.
Date.	Sept. 1989	FIG. No.	1.

3.0 LOCATION, ACCESS AND GEOGRAPHY

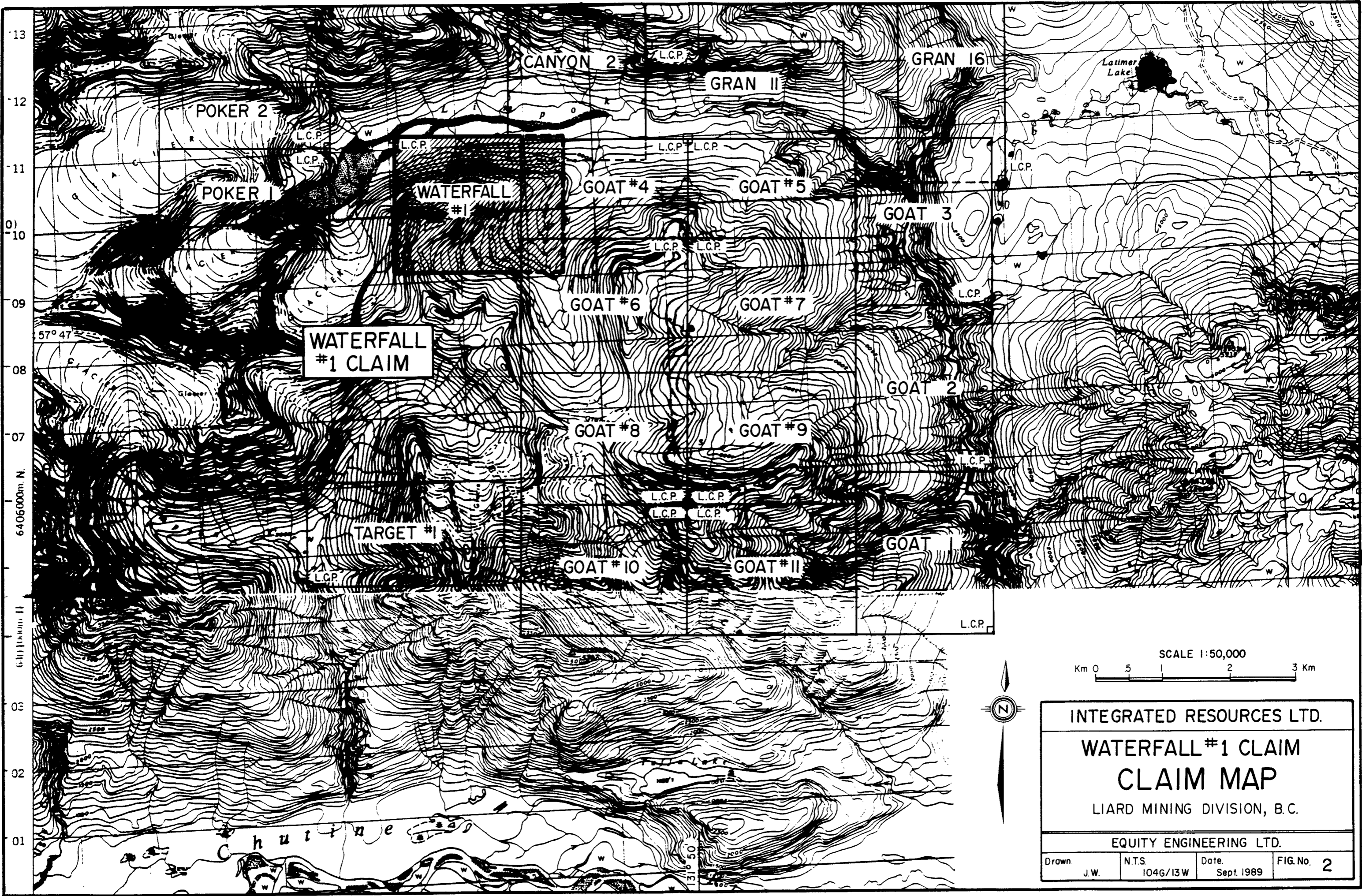
The Waterfall #1 claim is located within the Coast Range Mountains approximately 45 kilometers southwest of Telegraph Creek in northwestern British Columbia (Figure 1). It lies within the Liard Mining Division, centered at 57° 48' north latitude and 131° 53' west longitude.

A secondary road extends sixteen kilometers south of Telegraph Creek to Glenora on the Stikine River. An access road suitable for four-wheel drive vehicles has been constructed southwest from Glenora to the site of Integrated Resources' placer mining camp on the Barrington River. In the 1960's, a cat road was built up Shakes Creek from the Barrington River road, passing within thirteen kilometers of the Waterfall #1 claim. This cat road would have to be cleared and upgraded before it could be accessed. Access to the Waterfall property for the 1989 exploration program was provided by daily helicopter setouts from Integrated Resources' placer mining camp on the Barrington River, a distance of less than ten kilometers.

Topography on the Waterfall #1 claim is rugged, typical of mountainous and glaciated terrain, with elevations ranging from 900 meters on Limpoke Creek to 1675 meters on the ridge above the creek. The claim covers a north facing hillside and is located mostly above timberline.

Steep, lower slopes are covered by a dense growth of slide alder, however most of the claim at higher elevations, has open grassy slopes and alpine vegetation.

The property lies in an intermediate or gradational belt between the wet belt of the Coast Range and the dry belt of the



SCALE 1:50,000
 Km 0 5 1 2 3 Km

INTEGRATED RESOURCES LTD.			
WATERFALL #1 CLAIM			
CLAIM MAP			
LIARD MINING DIVISION, B.C.			
EQUITY ENGINEERING LTD.			
Drawn.	N.T.S.	Date.	FIG. No.
J.W.	104G/13W	Sept. 1989	2

Stikine Plateau. There is little rain during the summer months and the snowfall is considerably lighter than in the wet belt. Prospecting could be started in late June and continued through to October.

4.0 PROPERTY MINING HISTORY

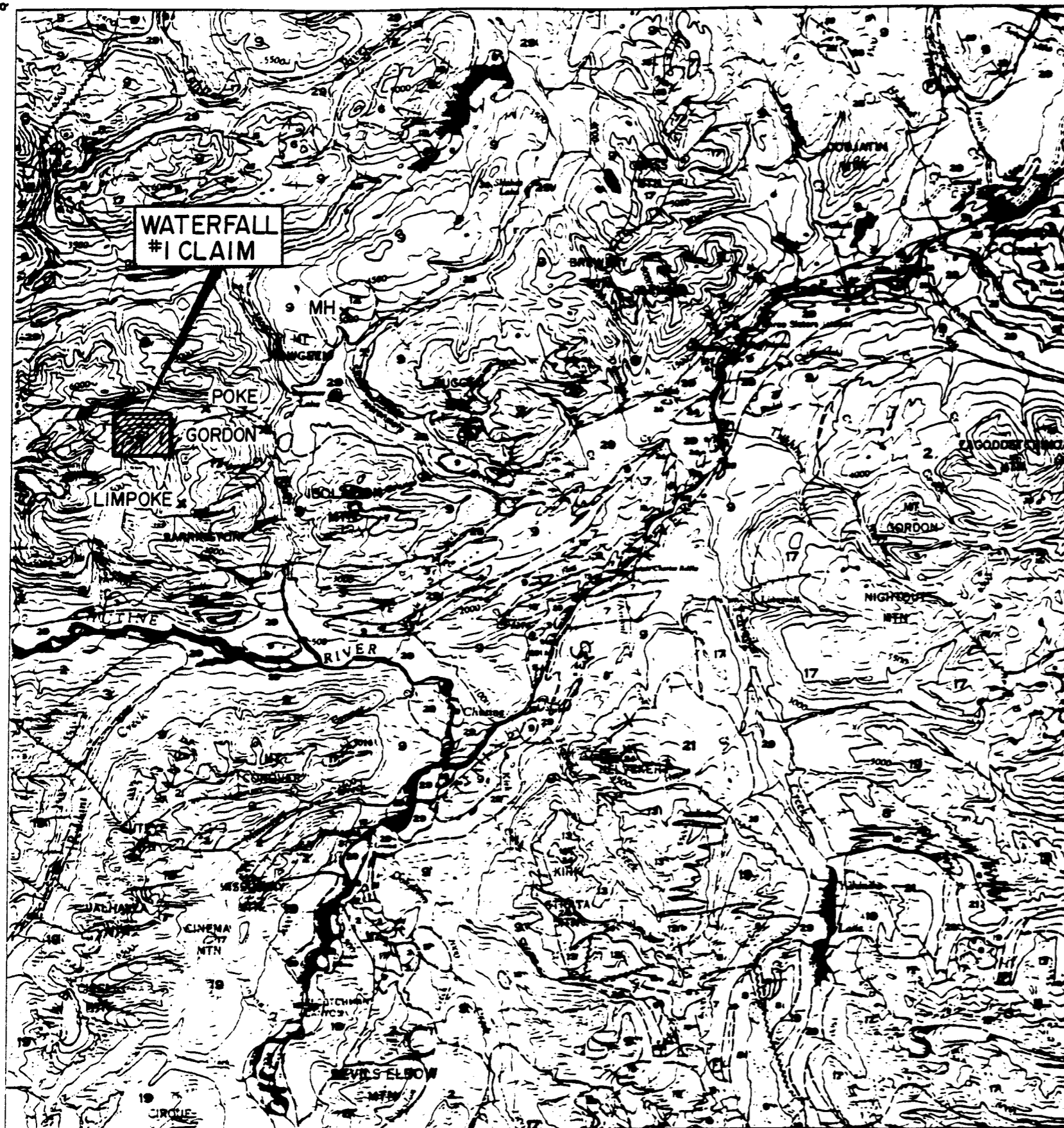
4.1 Previous Work

Placer gold was discovered on gravel bars of the Stikine River between Glenora and Telegraph Creek in 1861 and worked extensively until the early 1900's. The placer gold deposits of the lower Barrington River, ten kilometers southeast of the Waterfall #1 claim, have been worked sporadically since 1903.

The area south and west of Telegraph Creek was extensively explored for its copper potential throughout the 1960's, following the discovery of the Galore Creek copper-gold porphyry deposit in 1955 and the Schaft Creek copper-molybdenum deposit in 1957, both of which host greater than one million tonnes of contained copper. These deposits are located 85 kilometers south-southwest and 60 kilometers south, respectively, from Telegraph Creek.

Several copper occurrences were discovered southwest of Telegraph Creek at this time. Kennco explored copper mineralization within a syenitic border phase of a large granodiorite stock and its intruded volcanics on their Poke claims, 3.2 kilometers upstream on Limpoke Creek from Barrington River. Their Gordon claims, located at the junction of Limpoke Creek and the Barrington River, also hosted disseminated copper mineralization within the syenitic phase of the stock and the intruded volcanics (BCDM, 1966). The MH iron deposit, hosted by a pyroxenite stock on Shakes Creek, ten kilometers northeast of the

132° 00'
58° 00'



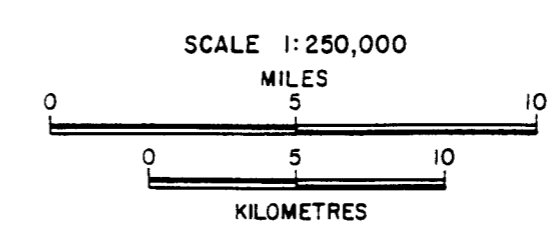
LEGEND

- QUATERNARY**
PLEISTOCENE AND RECENT
28 Pleistocene gravel, sand, silt; glacial outwash, till, alluvial terraces and colluvium
- TERTIARY AND QUATERNARY**
UPPER TERTIARY AND PLEISTOCENE
25 Sand, siltstone, loess, loess-related pyroclastic rocks and associated intrusions; minor rhyolite in part younger than 28
- CRETACEOUS AND TERTIARY**
UPPER CRETACEOUS AND LOWER TERTIARY
BLOOD GROUP
26 Light green, purple and white rhyolite, trachyte and dacite flows, pyroclastic rocks and derived alluvium
- SEWY GROUP
25 Chert-pebble conglomerate, granite-boulder conglomerate, quartzite, sandstone, siltstone, alluvium, carbonaceous shale and minor coal
- 23 Multicoloured conglomerate, part boulder-basaltic quartzite sandstone
- JURASSIC AND/OR CRETACEOUS**
POST-UPPER TRIASSIC PRE-TERTIARY
18 Basaltic diorite
17 Quartzite, quartz diorite, minor diorite, lamprophyre and migmatite
- LOWER JURASSIC**
19 Conglomerate, polytuff conglomerate, granite-boulder conglomerate, gneiss, gneiss, sillstone, basaltic and andesitic volcanic rocks, porphyry, pillow-breccia and derived volcanoclastic rocks
- TRIASSIC AND JURASSIC**
POST-UPPER TRIASSIC PRE-LOWER JURASSIC
16 Gneiss, orthogneiss porphyry, monzonite, pyroxenite
- TRIASSIC**
UPPER TRIASSIC
9 Undifferentiated volcanic and sedimentary rocks (units 6 to 8 inclusive)
8 Amphibolite flows, pyroclastic rocks, derived volcanoclastic rocks and related intrusions; minor gneiss, sillstone and polytuff conglomerate
7 Siltstone, thin-bedded siltstone, siltstone, ribbon chert, calcareous and calcareous siltstone, gneiss, volcanic conglomerate, and minor limestone
6 Limestone, (old argillaceous limestone, calcareous shale and rhyolite limestone may be in part younger than units 7 and 8)
- PERMIAN**
MIDDLE AND UPPER PERMIAN
3 Limestone, thin-bedded mainly basaltic limestone; minor siltstone, chert and tuff
- PERMIAN AND OLDER**
2 Pyroxene, argillaceous quartzite, quartz-carbonate schist, chlorite schist, gneiss, minor chert, siltstone, tuff and limestone
1 Amphibolite, amphibolite gneiss, age unknown probably pre-Upper Jurassic



SYMBOLS

- Geological boundary (defined and approximate, assumed) / / /
- Striking (horizontal, inclined, vertical, overcrossed) + / / /
- Anticline + / / /
- Syncline - / / /
- Fault (defined and approximate, assumed) - - - - -
- Thrust fault, fault on hanging-wall side (defined and approximate, assumed) - - - - -
- Fault locality - - - - -
- Mineral property - - - - -
- Clearer - - - - -



INTEGRATED RESOURCES LTD.

**WATERFALL #1 CLAIM
REGIONAL GEOLOGY**

LIARD MINING DIVISION, B.C.

EQUITY ENGINEERING LTD.

DRAWN. J.W.	N.T.S. 1046/13W	DATE. SEPT. 1989	FIG. No. 3
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Waterfall #1 claim, was also explored extensively in the 1960's.

The eastern portion of the Waterfall #1 claim was examined by Kennco Explorations in the 1960's and was staked as the Limp #2 claim by Teck Explorations in 1980. Teck undertook a soil geochemical survey in 1981 and discovered erratic high values in copper, gold and molybdenum and a small zone of anomalous silver. Lead, zinc and arsenic values were uniformly low and uninteresting. No further work was recommended by Teck.

4.2 1989 Work Program

During July of 1989, Integrated Resources Ltd. carried out reconnaissance exploration on the Waterfall #1 claim, consisting of prospecting and stream sediment sampling, using a topographic plan map at a scale of 1:10,000. This program was targeted at gold-rich mesothermal, base metal veins similar to those occurring within a similar geological environment to the southeast in the Galore Creek, Iskut River, Sulphurets and Stewart mining districts.

During the course of this program, 1 silt sample and 27 rock samples were taken. The silt sample was taken from silt accumulations in an unnamed tributary of Limpoke Creek which was initially sampled during the 1987 National Geochemical Reconnaissance survey. Silts are sieved to minus 80 mesh in the laboratory and analysed geochemically for gold and 32-element ICP (Figure 4). Prospecting and sampling were carried out over the claim, using a 1:10,000 topographic plan map with 100 feet (approximately 30 meters) contour intervals, as a base (Figure 4). Rock samples, described in Appendix C, were taken from zones of alteration and mineralization and analysed geochemically for gold and 32-element ICP. Analytical certificates are attached in Appendix D.

5.0 REGIONAL GEOLOGY

The Telegraph Creek area lies on the western margin of the Intermontane Belt within the Stikine Arch near its contact with the Coast Plutonic Complex (Figure 3). A sequence of Paleozoic to middle Triassic oceanic sediments is unconformably overlain by Upper Triassic Stuhini Group island arc volcanics and sediments. These have been intruded by Upper Triassic to Lower Jurassic syenitic stocks and by Jurassic to Lower Cretaceous quartz diorite and granodiorite plutons of the Coast Plutonic Complex.

The oldest rock assemblage in the Telegraph Creek area consists of Permian bioclastic limestone (Unit 3) overlying metamorphosed sediments and volcanics (Unit 2) and crinoidal limestone (Unit 1).

Unconformably overlying the Permian limestone unit are Upper Triassic Stuhini Group island arc volcanics and sediments (Units 5 through 8). In the Telegraph Creek area, Souther (1971) grouped these volcanic and sedimentary members in Unit 9, noting however that it was composed predominantly of augite andesite breccia, conglomerate and volcanic sandstone. Several significant gold occurrences are hosted by Upper Triassic Stuhini volcanics in a cluster around Galore Creek, seventy kilometers to the south. This Upper Triassic volcanosedimentary package is also correlative with that which hosts the Snip and Stonehouse gold deposits of the Iskut River district a further sixty kilometers to the south.

Small, equidimensional syenite, pyroxenite and orthoclase porphyry stocks (Unit 12), dated as Late Triassic to Early Jurassic by Souther (1971), intrude mainly Stuhini volcanics. A stock, possibly belonging to Unit 12 but mapped as Unit 17 (granodiorite) on the regional Government geology map for the area, outcrops south

of Limpoke Creek and west of the Barrington River in the vicinity of the Waterfall #1 claim. This same intrusive is associated with the Poke and Gordon copper occurrences, located a few kilometers east of the Waterfall property. The Galore Creek and Copper Canyon copper-gold porphyry deposits are hosted by Upper Triassic volcanics intruded by syenitic stocks of Unit 12. Orthoclase porphyry or syenite stocks are associated with most significant precious metals deposits in the Stewart, Sulphurets and Isküt River districts, including the Silbak Premier, Sulphurets, and Snip deposits.

Lower Jurassic conglomerates (Unit 13) with granodiorite clasts unconformably overly Triassic sediments of the Stuhini Group. The Jurassic volcano-sedimentary strata are similar in appearance to those of the underlying Stuhini Group, with differentiation possible mainly through fossil identification.

Jurassic and Cretaceous granodiorite to quartz diorite batholiths (Unit 17) of the Coast Plutonic Complex intrude all older lithologies. This unit consists mainly of medium-grained hornblende-biotite granodiorite with lesser hornblende quartz diorite and is locally foliated near its margins. Marginal phases of this intrusive unit have been noted by Government geologists, to be syenitic and they conclude, "much additional work is needed to subdivide the many phases of this map-unit." Important mineral occurrences are associated with the border phases of Unit 17 (Poke and Gordon, etc.)

Coarse conglomerate, sandstone, siltstone and minor black shale of the Upper Cretaceous and Lower Tertiary Sustut Group (Unit 21) unconformably overlies Jurassic strata on Mount Helveker and are found along the Stikine River below Telegraph Creek. Conformably overlying the Sustut Group on Helveker Mountain are about 160 meters of felsic to intermediate, mainly pyroclastic

LIMPOKE CREEK

L.C.P.
WATERFALL #1

PROPERTY
BOUNDARY

WATERFALL #1

SILT GEOCHEMICAL RESULTS

Sample	Au(ppm)	Ag(ppm)	Cu(ppm)	Pb(ppm)	Zn(ppm)	As(ppm)
446584	85	1.4	478	8	140	<5

ROCK GEOCHEMICAL RESULTS

Sample	Au(ppm)	Ag(ppm)	Cu(ppm)	Pb(ppm)	Zn(ppm)	As(ppm)
446585	195	1.8	438	12	28	<5
446586	15	1.2	1225	14	124	5
446587	<5	0.6	111	4	16	15
446588	50	0.6	341	8	18	<5
446589	10	<0.2	129	10	46	10
446593	5430	26.4	1055	16	44	<5
446594	9670	10.0	108	24	30	<5
446595	120	2.6	1035	26	88	<5
446596	175	5.6	1100	58	74	80
446597	15	<0.2	151	4	154	25
446598	<5	0.2	91	16	30	20
446641	<5	0.6	369	26	138	<5
446642	30	2.0	765	20	50	<5
446643	15	1.2	187	18	18	20
446644	5	<0.2	163	14	62	10
446645	10	<0.2	157	16	114	25
446646	120	1.2	788	32	128	10
446647	10	0.4	438	8	46	5
446652	<5	<0.2	96	20	22	<5
446653	10	<0.2	50	14	84	40
446654	<5	<0.2	34	14	44	<5
446655	<5	<0.2	78	336	54	55
446656	40	<0.2	194	22	104	15
446657	75	<0.2	270	22	100	<5
446658	15	<0.2	109	20	118	10
446659	<5	<0.2	293	26	118	15

LEGEND

- ROCK GEOCHEMICAL SAMPLE
- X SILT GEOCHEMICAL SAMPLE
- ? GEOLOGICAL CONTACT, INFERRED

Granodiorite

Pyritic Seds.

4500

4000



57°48'

131°53'

SCALE 1:10,000



INTEGRATED RESOURCES LTD.			
WATERFALL #1 CLAIM			
SAMPLE LOCATION MAP			
LIARD MINING DIVISION, B.C.			
EQUITY ENGINEERING LTD.			
Drawn. J.W.	N.T.S. 104G/13W	Date. Sept. 1989	FIG. No. 4

rocks (Unit 24), correlated by Souther (1972) to the Early Tertiary Sloko Group found further to the northwest.

Upper Tertiary and Quaternary basalt flows (Unit 25) are exposed in the Stikine River and north of Dodjatin Mountain.

6.0 PROPERTY GEOLOGY AND GEOCHEMISTRY

6.1 Property Geology

The Waterfall #1 claim is underlain by Upper Triassic, undifferentiated, volcanic and sedimentary rocks (Unit 9 on regional Government map) which are intruded by Upper Triassic/Lower Jurassic granitic or syenitic stocks. Immediately to the east of the claim a large stock mapped as Unit 17 on the regional Government map, is associated with the Poke and Gordon occurrences (Figure 3). Granitic dykes were noted to outcrop in the southern portions of the property and presumably are related to the nearby stock east of the claim.

The southern area of the claim appears, geologically, to be more complex than the northern parts. Evidence of contact metamorphism exists in the gossanous and hornfelsed volcanics and sediments particularly where granitic and basaltic dykes were observed. The variety in the geology observed in the south area of the claim is replaced by mainly one predominant rock type (argillite) in the north which exhibits quartz and calcite veining, and is intruded by the occasional porphyritic dyke. Gold, silver and copper geochemistry is distinctly more anomalous in the south within the volcanic lithologies whereas lead geochemistry has higher values in the quartz/calcite veined argillites in the north.

Two samples of talus float found along the banks of the upper reaches of an easterly flowing tributary contain extremely anomalous gold, silver, and copper geochemistry. Sample number 446593 was composed of "altered greenstone with coarse clusters of fine grained pyrite". At least 2 to 3% of talus material in this area contained mineralized boulders similar to this sample. The results from this sample for gold, silver and copper are 5430 ppb, 26.4 ppm, and 1055 ppm respectively. Sample number 446594 was collected approximately 30 meters up slope from the sample mentioned above and contained 9670 ppb gold, 10.0 ppm silver and 108 ppm copper. This float sample is described as grey box-work quartz with 25% silver pyrite and a 20 cm. thick coating of limonite. The sample has a much lower copper content than the volcanic rock sample collected from the talus slope 30 meters below (sample #446593); however, gold values are enhanced and may be typical of the concentrating effects by the quartz veining in the volcanic rocks of the area.

Samples from fresh and altered basaltic dykes were collected and found to contain evidence of copper mineralization in the form of disseminated chalcopyrite and/or pyrrhotite. One sample (#446588) contained slightly anomalous gold geochemistry (50 ppb).

Evidence of quartz veining and silicification was observed in argillites along the upper elevations of the northern facing hillside on the claim and some samples were collected which carried slightly anomalous gold and copper values. Sample #446665 contained 40 ppb gold and 194 ppm copper, while sample #446657 contained 75 ppb gold and 270 ppm copper.

6.2 Geochemistry

An anomalous silt sample collected during the 1987 National Geochemical Reconnaissance program was followed up with a silt and 27 rock samples, collected upstream from the original silt sample on the Waterfall #1 claim.

The results of this program showed the follow up silt to be slightly anomalous in gold and copper with values of 85 ppb and 478 ppm, respectively; as well, select silicified, pyritized rock samples from the upstream area carried more anomalous values in gold, copper and silver which ranged from 5430 to 9670 ppb for gold, 108 to 1055 ppm for copper, and 26.4 to 10.0 ppm for silver.

7.0 DISCUSSION AND CONCLUSIONS

During the course of limited exploration work during 1989, an anomalous stream sediment sample and several anomalous rock samples were taken from the headwaters of an unnamed drainage on the Waterfall #1 claim.

Several of the anomalous rock samples were collected from talus float indicating possibility that a mineralized outcropping exists up slope from those sample locations and is the probable source of the anomalous silt geochemistry.

Other rock samples collected from the property which showed notable gold, silver, and copper geochemistry were collected from outcrops of argillitic sedimentary rocks in close proximity to dykes or granitic stocks. These outcrops contained quartz veining and stockworks with abundant disseminated pyrite, pyrrhotite, chalcopyrite and/or arsenopyrite.

Extremely encouraging initial results, coupled with the exploration successes achieved all along the regional trend between

the Stewart, Iskut River, Galore Creek and Schaft Creek areas provide abundant incentive to conduct further exploration work on the Waterfall #1 claim.

Respectfully submitted,
EQUITY ENGINEERING LTD.

Tom Bell

Tom Bell, Prospector

Vancouver, British Columbia
October, 1989

APPENDIX A

BIBLIOGRAPHY

BIBLIOGRAPHY

- Allen, D.G., A. Panteleyev and A.T. Armstrong (1976): Galore Creek, in CIM Special Volume 15, pp. 402-414.
- BCDM (1963-66): Annual Report; British Columbia Department of Mines.
- Fox, P.E., E.W. Grove, R.H. Seraphim and A. Sutherland Brown (1976): Schaft Creek, in CIM Special Volume 15, pp. 219-226.
- Folk, P. (1981): Geochemical Report on the Limp #2 Claim; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #9092.
- Geological Survey of Canada (1988): National Geochemical Reconnaissance, Sumdum - Telegraph Creek, British Columbia (NTS 104F - 104G); GSC Open File 1646.
- Souther, J.D. (1972): Telegraph Creek Map Area, British Columbia; Geological Survey of Canada Paper 71-44.

APPENDIX B

STATEMENT OF EXPENDITURES

STATEMENT OF EXPENDITURES
 WATERFALL #1 CLAIM
 (July 23-26)

PROFESSIONAL FEES AND WAGES:

Bruno Kasper, Geologist		
0.5 day @ \$250/day	\$	125.00
Tom Bell, Prospector		
2.5 days @ \$250/day		625.00
Don Coolidge, Prospector		
2.5 days @ \$250/day		<u>625.00</u>
		\$ 1,375.00

EQUIPMENT RENTALS:

Truck Rental (Standby)		
2 days @ \$10/day	\$	20.00
Handheld Radios		
4 days @ \$5/day		20.00
Fly Camp		
4 mandays @ \$10/manday		<u>40.00</u>
		80.00

CHEMICAL ANALYSES:

Stream sediment		
1 @ \$13.86	\$	13.86
Rock geochemical		
27 @ \$16.45		<u>444.15</u>
		458.01

EXPENSES:

Printing and Reproductions	\$	13.48
Meals (Integrated Camp)		171.00
Telephone Distance Charges		24.40
Courier and Telefax		25.50
Expediting		3.75
Helicopter		<u>755.00</u>
		993.13

REPORT (estimated) 1,000.00

MANAGEMENT FEE:

15% on expenses 148.96

\$ 4,055.10
 =====

APPENDIX C

ROCK DESCRIPTIONS

APPENDIX D

CERTIFICATES OF ANALYSIS



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: EQUITY ENGINEERING LTD.

207 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N2

A8922906

Comments :

CERTIFICATE A8922906

EQUITY ENGINEERING LTD
PROJECT INT 89-01
P O # NONE

Samples submitted to our lab in Vancouver, BC.
This report was printed on 20-AUG-89.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
205	46	Rock Geochem: Crush, split, ring
238	46	ICP: Aqua regia digestion

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
100	46	Au ppb: Fuse 10 g sample	FA-AAS	5	10000
921	46	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
922	46	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	200
923	46	As ppm: 32 element, soil & rock	ICP-AES	5	10000
924	46	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
925	46	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
926	46	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
927	46	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
928	46	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
929	46	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
930	46	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
931	46	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
932	46	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
933	46	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
951	46	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
934	46	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
935	46	La ppm: 32 element, soil & rock	ICP-AES	10	10000
936	46	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
937	46	Mn ppm: 32 element, soil & rock	ICP-AES	5	10000
938	46	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
939	46	Na %: 32 element, soil & rock	ICP-AES	0.01	5.00
940	46	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
941	46	P ppm: 32 element, soil & rock	ICP-AES	10	10000
942	46	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
943	46	Sb ppm: 32 element, soil & rock	ICP-AES	5	10000
958	46	Sc ppm: 32 elements, soil & rock	ICP-AES	1	100000
944	46	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
945	46	Ti %: 32 element, soil & rock	ICP-AES	0.01	5.00
946	46	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
947	46	U ppm: 32 element, soil & rock	ICP-AES	10	10000
948	46	V ppm: 32 element, soil & rock	ICP-AES	1	10000
949	46	W ppm: 32 element, soil & rock	ICP-AES	10	10000
950	46	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 BROOKSBANK AVENUE, NORTH VANCOUVER
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To: EQUITY ENGINEERING LTD.

207 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N2

Project: INT 89-01

Comments:

Page No.: 1-B
Tot. Pages: 2
Date: 20-AUG-89
Invoice #: I-8922906
P.O. #: NONE

CERTIFICATE OF ANALYSIS A8922906

SAMPLE DESCRIPTION	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
446585	205 238	18	0.20	11	2250	12	5	4	97	0.34	< 10	< 10	107	< 10	28
446586	205 238	12	0.09	5	1700	14	5	15	101	0.27	< 10	< 10	213	< 10	124
446587	205 238	4	0.08	10	260	4	< 5	2	84	< 0.01	< 10	< 10	41	< 10	16
446588	205 238	8	0.16	9	1510	8	< 5	5	49	0.30	< 10	< 10	79	< 10	18
446589	205 238	2	0.35	34	1020	10	5	16	165	0.43	< 10	< 10	191	< 10	46
446593	205 238	2	0.07	5	2300	16	< 5	7	28	0.29	< 10	< 10	170	20	44
446594	205 238	< 1	0.01	12	260	24	< 5	1	7	0.05	< 10	< 10	20	< 10	30
446595	205 238	315	0.14	24	870	26	< 5	2	172	0.16	< 10	< 10	138	< 10	88
446596	205 238	9	< 0.01	101	420	58	< 5	4	26	0.09	< 10	< 10	154	< 10	74
446597	205 238	6	0.31	21	1280	4	5	4	493	0.15	< 10	< 10	60	< 10	154
446598	205 238	2	0.63	20	1620	16	5	1	516	0.17	< 10	< 10	23	< 10	30
446641	205 238	30	0.09	16	2260	26	< 5	9	91	0.52	< 10	< 10	255	< 10	138
446642	205 238	11	0.07	35	1910	20	< 5	5	246	0.45	< 10	< 10	178	< 10	50
446643	205 238	24	0.10	7	1230	18	< 5	2	135	0.38	< 10	< 10	86	< 10	18
446644	205 238	2	0.06	41	1240	14	< 5	20	71	0.02	< 10	< 10	150	< 10	62
446645	205 238	< 1	0.23	17	1220	16	5	16	311	0.14	< 10	< 10	202	10	114
446646	205 238	1	0.10	61	1890	32	< 5	7	37	0.32	< 10	< 10	188	< 10	128
446647	205 238	1	0.07	7	1320	8	< 5	6	176	0.21	< 10	< 10	125	< 10	46
446652	205 238	1	0.05	3	510	20	5	1	97	< 0.01	< 10	< 10	30	< 10	22
446653	205 238	< 1	0.01	14	630	14	5	6	930	< 0.01	< 10	< 10	39	< 10	84
446654	205 238	< 1	0.02	3	360	14	5	6	523	< 0.01	< 10	< 10	40	< 10	44
446655	205 238	4	< 0.01	8	180	336	10	5	477	< 0.01	< 10	< 10	22	< 10	54
446656	205 238	< 1	0.03	8	1190	22	10	9	77	0.14	< 10	< 10	117	< 10	104
446657	205 238	2	0.08	12	860	22	10	5	110	0.21	< 10	< 10	183	< 10	100
446658	205 238	< 1	0.06	3	760	20	10	5	57	0.22	< 10	< 10	176	< 10	118
446659	205 238	1	0.28	16	670	26	15	9	182	0.29	< 10	< 10	130	< 10	118
446660	205 238	3	0.04	26	1310	62	5	5	162	0.22	< 10	< 10	117	< 10	266

CERTIFICATION: B. Coughlin



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE. NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: EQUITY ENGINEERING LTD.

207 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N2

Project: INT 89-01
Comments:

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CERTIFICATE OF ANALYSIS A8922906

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
446585	205 238	195	1.41	1.8	< 5	90	0.5	2	1.17	< 0.5	25	62	438	7.24	< 10	< 1	0.19	20	0.65	420
446586	205 238	15	1.25	1.2	5	120	< 0.5	2	3.80	0.5	20	73	1225	4.93	< 10	< 1	0.18	< 10	1.27	930
446587	205 238	< 5	0.46	0.6	15	450	< 0.5	2	0.28	< 0.5	4	110	111	2.40	< 10	< 1	0.28	< 10	0.05	235
446588	205 238	50	0.96	0.6	< 5	100	< 0.5	2	0.95	< 0.5	17	33	341	4.02	< 10	< 1	0.27	20	0.39	145
446589	205 238	10	2.81	< 0.2	10	120	< 0.5	< 2	2.84	< 0.5	30	67	129	5.04	< 10	< 1	0.31	< 10	1.66	515
446593	205 238	5430	1.20	26.4	< 5	100	< 0.5	64	0.69	< 0.5	14	38	1055	8.79	< 10	1	0.53	10	0.83	375
446594	205 238	9670	0.20	10.0	< 5	40	< 0.5	110	0.10	< 0.5	34	93	108	>15.00	< 10	< 1	0.10	< 10	0.03	20
446595	205 238	120	0.96	2.6	< 5	50	< 0.5	6	0.68	< 0.5	154	41	1035	>15.00	< 10	< 1	0.17	40	0.59	730
446596	205 238	175	2.25	5.6	80	30	< 0.5	< 2	0.54	< 0.5	77	22	1100	>15.00	< 10	< 1	< 0.01	20	0.81	555
446597	205 238	15	5.58	< 0.2	25	100	< 0.5	< 2	5.36	0.5	14	53	151	3.49	10	< 1	0.20	< 10	0.42	265
446598	205 238	< 5	4.31	0.2	20	60	< 0.5	< 2	3.76	0.5	20	28	91	2.48	10	< 1	0.07	< 10	0.10	125
446641	205 238	< 5	1.91	0.6	< 5	60	< 0.5	4	1.37	< 0.5	32	31	369	7.42	< 10	< 1	0.18	10	1.04	630
446642	205 238	30	1.17	2.0	< 5	40	< 0.5	< 2	1.31	0.5	29	54	765	8.87	< 10	< 1	0.20	20	0.64	475
446643	205 238	15	0.52	1.2	20	100	< 0.5	2	0.55	< 0.5	9	45	187	7.40	< 10	1	0.10	30	0.15	150
446644	205 238	5	0.90	< 0.2	10	420	< 0.5	2	4.76	< 0.5	22	132	163	4.73	< 10	1	0.48	< 10	1.18	845
446645	205 238	10	2.58	< 0.2	25	70	< 0.5	< 2	9.26	1.0	19	59	137	4.04	< 10	< 1	0.09	< 10	1.46	970
446646	205 238	120	1.01	1.2	10	20	< 0.5	< 2	1.16	0.5	32	62	788	4.58	< 10	1	0.19	20	0.67	380
446647	205 238	10	1.07	0.4	5	140	< 0.5	< 2	0.74	< 0.5	5	35	438	3.14	< 10	< 1	0.19	20	0.63	305
446652	205 238	< 5	0.64	< 0.2	< 5	260	< 0.5	< 2	4.18	< 0.5	9	52	96	3.63	< 10	< 1	0.24	< 10	0.20	650
446653	205 238	10	0.81	< 0.2	40	140	< 0.5	< 2	>15.00	0.5	10	38	50	3.49	< 10	< 1	0.14	< 10	1.38	1510
446654	205 238	< 5	0.52	< 0.2	< 5	1210	0.5	< 2	11.40	< 0.5	7	31	34	4.21	< 10	< 1	0.14	< 10	2.80	1425
446655	205 238	< 5	0.29	< 0.2	55	5110	< 0.5	2	>15.00	< 0.5	8	47	78	3.80	< 10	< 1	0.10	< 10	0.16	1955
446656	205 238	40	7.08	< 0.2	15	770	< 0.5	< 2	10.95	< 0.5	11	39	194	3.13	< 10	< 1	0.02	< 10	1.11	950
446657	205 238	75	1.40	0.2	< 5	240	< 0.5	< 2	2.52	1.0	23	29	270	5.53	< 10	< 1	0.15	20	0.77	1010
446658	205 238	15	1.74	< 0.2	10	70	0.5	2	2.91	0.5	11	23	109	2.92	< 10	< 1	0.13	10	0.72	680
446659	205 238	< 5	6.21	< 0.2	15	100	< 0.5	< 2	6.51	0.5	24	34	293	3.36	< 10	< 1	0.14	< 10	0.69	405
446660	205 238	60	3.03	1.0	15	20	< 0.5	< 2	2.93	3.0	21	44	236	5.89	< 10	< 1	0.05	< 10	0.62	230

CERTIFICATION:



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To: EQUITY ENGINEERING LTD.

207 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N2

A8922905

Comments:

CERTIFICATE A8922905

EQUITY ENGINEERING LTD

PROJECT : INT 89-01

P O # : NONE

Samples submitted to our lab in Vancouver, BC.

This report was printed on 15-AUG-89.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	3	Dry, sieve -80 mesh; soil, sed.
238	3	ICP: Aqua regia digestion

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
100	3	Au ppb: Fuse 10 g sample	FA-AAS	5	10000
921	3	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
922	3	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	200
923	3	As ppm: 32 element, soil & rock	ICP-AES	5	10000
924	3	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
925	3	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
926	3	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
927	3	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
928	3	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
929	3	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
930	3	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
931	3	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
932	3	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
933	3	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
951	3	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
934	3	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
935	3	La ppm: 32 element, soil & rock	ICP-AES	10	10000
936	3	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
937	3	Mn ppm: 32 element, soil & rock	ICP-AES	5	10000
938	3	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
939	3	Na %: 32 element, soil & rock	ICP-AES	0.01	5.00
940	3	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
941	3	P ppm: 32 element, soil & rock	ICP-AES	10	10000
942	3	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
943	3	Sb ppm: 32 element, soil & rock	ICP-AES	5	10000
958	3	Sc ppm: 32 elements, soil & rock	ICP-AES	1	100000
944	3	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
945	3	Ti %: 32 element, soil & rock	ICP-AES	0.01	5.00
946	3	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
947	3	U ppm: 32 element, soil & rock	ICP-AES	10	10000
948	3	V ppm: 32 element, soil & rock	ICP-AES	1	10000
949	3	W ppm: 32 element, soil & rock	ICP-AES	10	10000
950	3	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000



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CERTIFICATE OF ANALYSIS A8922905

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
446584	201 238	85	1.61	1.4	< 5	90	1.0	< 2	1.12	0.5	25	80	478	6.25	< 10	< 1	0.24	10	1.25	1005

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CERTIFICATION : B. Coughlin



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CERTIFICATE OF ANALYSIS A8922905

SAMPLE DESCRIPTION	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
446584	201 238	5	0.02	39	1440	8	< 5	8	54	0.25	< 10	< 10	220	< 10	140

CERTIFICATION :

B. Coughlin

APPENDIX E

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, TOM BELL, of Box 33, R.R. #1, Kispiox Valley Road, Hazelton, in the Province of British Columbia, DO HEREBY CERTIFY:

1. THAT I am a Prospector whose primary employment since 1973 has been in the field of mineral exploration.
2. THAT my experience has encompassed a wide range of geological environments and has allowed considerable familiarization with standard exploration techniques.
3. THAT this report is based on fieldwork carried out under my direction from July 23 through 26, 1989.

DATED at Vancouver, British Columbia, this 18 day of October, 1989.

Tom Bell

Tom Bell, Prospector