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FILE NO:

Barrington River Project Report on Geological and Geochemical Programs on the Hour 1 Claim Liard Mining Division

## NTS 104 F/16

Latitude: 57°51' Longitude: 132°13'W

Owner/Operator:

Candela Resources Ltd. c/o Prime Explorations 11th Floor, Box 10 808 West Hastings Street Vancouver, B.C. V6C 2X6



David St. Clair Dunn, F.G.A.C.

HI-TEC RESOURCE MANAGEMENT LTD. #1500 - 609 Granville St. Vancouver, B.C. V7Y 1G5

October 31, 1990

# GEOLOGICAL BRANCH ASSESSMENT REPORT

21,018

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## Maps

MAP 1:	Geology	and	Sample	Locations	In Pocket
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### 1.0 INTRODUCTION

A reconnaissance geological/geochemical program was carried out on the Hour 1 claim on the 7th of July, 1990 by a two person crew. Two pan concentrate samples, two silt samples and seven rock samples were taken. The purpose of the program was to evaluate the potential of the claim to host gold mineralization.

The Hour 1 claim is located in northwestern British Columbia on the headwaters of the Barrington River, a tributary of the Stikine River. (See Fig 1+2) Access was achieved by helicopter from Telegraph Creek.

The claim is owned by Candela Resources Ltd. which paid for the work being reported on. The Hour 1 claim was staked in 1989 with a record number of 5963 (3). Upon acceptance of this report the expiry date will be March 26, 1992.

There is no record of past work on the property, but it is 1.0 km south-west of a weak molybdenum porphyry system listed in B.C. Minfile as the Sam and Ang showing 104 F/16 #006.

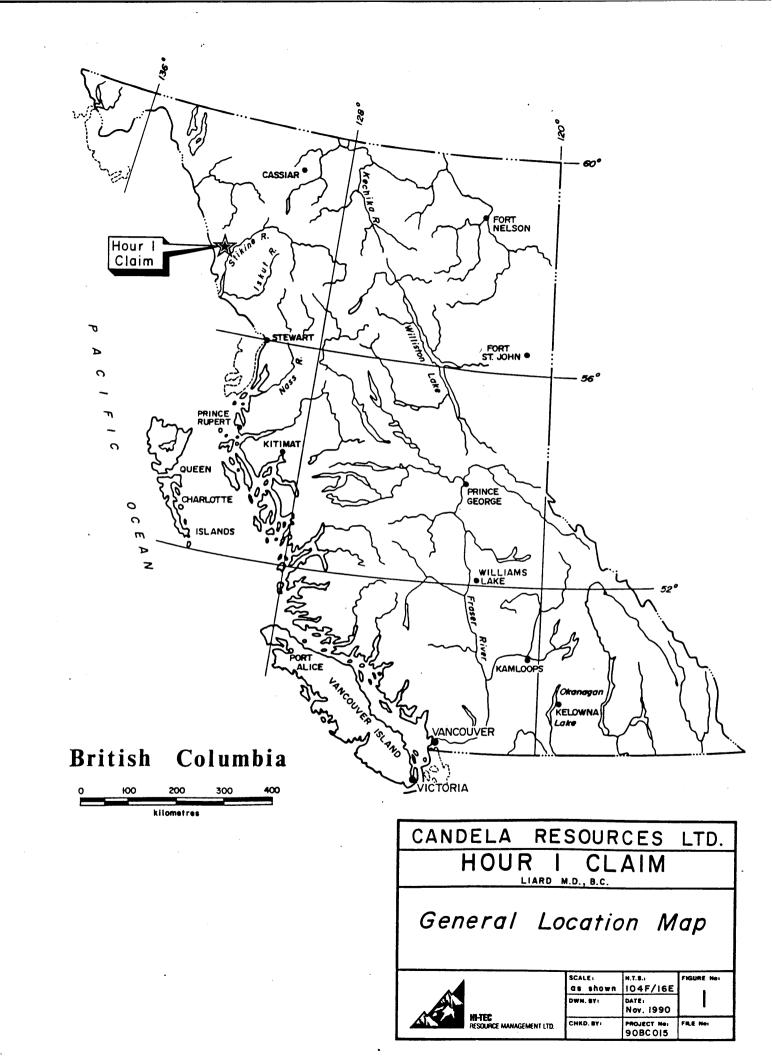
Topography on the claim is gentle on the ridge crests but extreme as the Barrington river is approached. Elevations range from 850 m on the Barrington River to 1600 m on the western boundary of the claims.

Treeline is at approximately 1300 m with lower slopes covered by mature spruce.

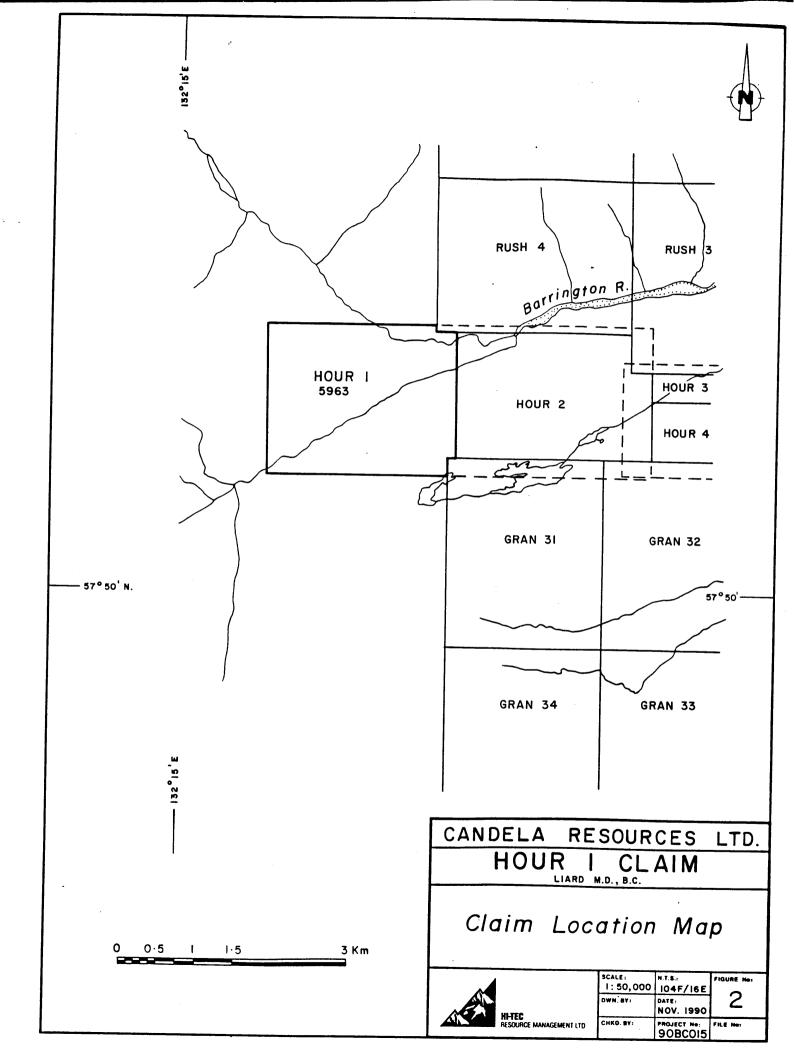
Climate is mild with heavy precipitation, which accumulates as up to 4.0 meters of snow in the winter.



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Mineral exploration can be carried out most effectively from late May to mid - October.

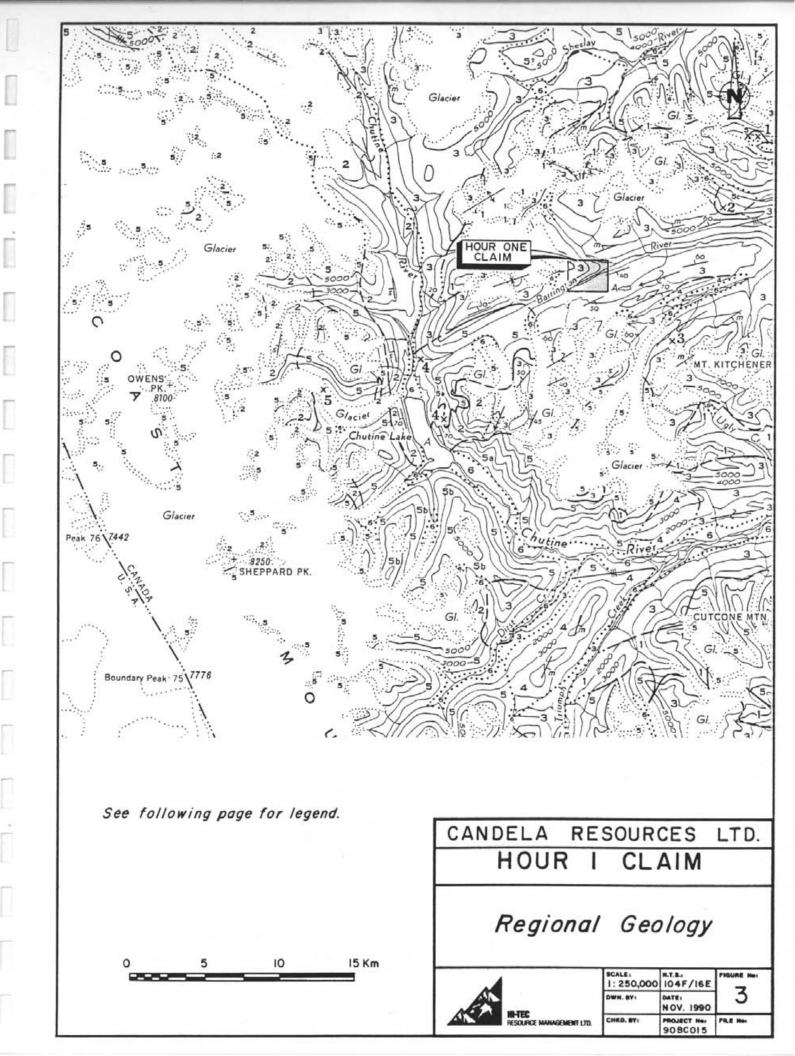
### 2.0 GEOLOGY

#### 2.1 Regional Geology

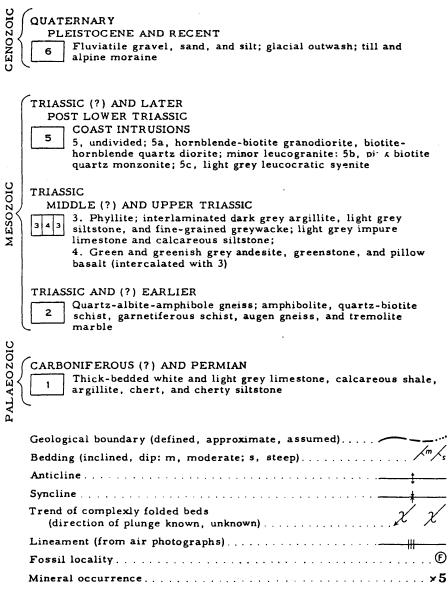
The Barrington River Project area is located on the eastern flank of the main belt of the Coast Plutonic Complex and on the western margin of the Intermontane Belt within the Stikine arch. The Stikine Arch of Permian to Middle Triassic consists oceanic sediments unconformably overlain by Upper Triassic Stuhini Group island arc volcanics and sediments. These volcanics and sediments have been intruded by syenitic stocks and by quartz diorite and grandiorite plutons of the Coast Plutonic complex (Souther, 1971). Souther's (1958) mapping of map sheet 104F, where the Hour l claim is located, show the Coast Range Intrusions as being post Lower Triassic age.

### 2.2 Property Geology

The crest of the ridge covered by the Hour 1 claim is underlain by a sequence of Upper Triassic argillite, siltstone, chert, and dacite tuff. These rocks strike northeast and dip moderately northwest. Souther's 1958 mapping show the claim covers the southern flank of a in the northeast trending syncline. Lower east stratigraphic section, to the south of the ridge crest, andesite tuff is the predominant rock type, with the other rocks being minor components. Quartz sweat veins are common, sub-parallel to bedding. The dominant topographic feature is a south east facing scarp, with crosses the center of the claim block. This scarp



LEGEND
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#### INDEX TO MINERAL OCCURRENCES

- 1 Small high-grade pockets of molybdenite near borders of stock
- 2 Property presently held by American Metals-Climax Co.; pyritemolybdenite-bearing quartz veinlets in fractured syenite
- 3 Pyrite, chalcopyrite, and bornite (?) disseminated in sheared phyllite
- 4 Veins and disseminated rosettes of coarse molybdenite in finegrained leucogranite (5a)
- 5 Float from medial moraine on glacier; fine-grained leucogranite with veins and disseminated rosettes of coarse molybdenite

#### Geology by J.G. Souther, 1958

Trail	
Suitable landing site for float-equipped aircraftA	
International boundary	•
Glacier	
Contours (interval 1000 feet)	
Height in feet above mean sea-level	

Cartography by Geological Cartography Unit, 1959

forms the north bank of the Barrington River. It appears to be the manifestation of a regional scale conjugate fault, trending orthogonal to the dominant northwest structural trend. As the top of the scarp is approached, quartz veining increases. Budget constraints did not allow for examination of the base of the scarp.

Seven rock samples were taken of the quartz veins and pyrite bearing country rock. One sample, taken of rusty, foliated, andesite tuff was weakly anomalous in gold and copper (60 ppb and 178 ppm respectively).

## 3.0 GEOCHEMISTRY

Two pan concentrate samples and two silt samples were taken from streams draining the northeast quadrant of the property. No anomalous values were returned. Sampling methodology is described in Appendix B.

#### 4.0 CONCLUSIONS

Although no values of economic interest were returned from samples taken from the property, the regional scale of the northeast trending structure crossing the property combined with the numerous quartz veins observed and the proximity to a molybdenum porphyry system indicate further work is warranted. The reconnaissance nature of the work covered in this report did not adequately test the property.



#### 5.0 RECOMMENDATIONS

Four person days should be spent prospecting and mapping the base of the scarps on either side of the Barrington River where they cross the Hour 1 claim. The emphasis of this work should be on sampling and mapping any significant quartz veins encountered. Character samples for analysis should also be taken of any other silicified or mineralized rock.

This work should cost approximately \$5000, if carried out in conjunction with other work in the area.

Respectfully Submitted,

<u>st. Clair Dunn, F.G.A.C.</u>



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6.0 Statement of Costs

Salaries:

D. Dunn, Geologist 3 days at \$400/day 16/7/90, 24, 31/10/90	\$1,200.00
A. Kriberg Prospector 1 day at \$250/day 16/7/90	250.00
Project Expenses:	
Domicile: 2 man days @ \$75/day	150.00
Analytical costs: 7 rock samples at \$18.75/sample 2 pan concentrate samples @ \$14.00/sample 2 silt samples @ \$14.75/sample	103.25 28.00 29.50
Helicopter Support 1.5 hours at \$685.00/hour	1,027.50
Accounting, Communication, Freight	200.00
Field Supplies	50.00
Report Preparation, drafting and compilation	300.00

TOTAL COSTS \$3,338.25

In Dim



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#### 7.0 BIBLIOGRAPHY

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- Seraphim, R.H. (1968): Report on the LLC claims: Appendix IV in British Columbia Ministry of Energy, Mines and Petroleum Resources assessment report #1,893.



Souther, J.G. (1959): Chutine Map Area, Cassiar District, British Columbia; Geological Survey of Canada, Preliminary Map 7-1959.

Souther, J.G. (1971): Telegraph Creek Map Area, British Columbia; Geological Survey of Canada Paper 71- 44.

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### 8.0 STATEMENT OF QUALIFICATIONS

I, David St. Clair Dunn, with a business address of #1500-609 Granville Street, Vancouver, B.C. to hereby certify that:

- 1. I am a consulting geologist registered with the Geological Association of Canada (Fellow #4943).
- 2. I am an Affiliate member of the Association of Exploration Geochemists.
- 3. I hold a B.Sc. degree (1980) in geology from the University of British Columbia.
- 4. I have been practising my profession as a prospector and geologist for over 20 years.
- 5. I personally supervised the work on Candela Resources Ltd. Hour 1 claim.
- 6. I do not hold any equity interest in the Hour 1 claim or Candela Resources Ltd.
- 7. I consent to the use of this report in a Prospectus or statement of Material Facts for the purpose of a private or public financing.

In Dm



## APPENDIX A

## Sample Results



PRIME EXPLORATIONS - ETK 90-363

10041 EAST TRANS CANADA HWY. KAMLOOPS, B.C. V2C 233 PHOWE - 604-573-5700 FAX - 604-573-4557

#### JULY 31, 1990

VALUES IN PPN UNLESS OTHERWISE REPORTED

#### 10TH FLOOR, BOB W. HASTINGS STREET VANCOUVER, B.C. V&C 2X4

ATTENTION: JIN FOSTER

#### PROJECT: 90-BC-015 BARRINGTON RIVER 2 SILI SAMPLES RECEIVED JULY 25, 1990

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EI	DESCRIPTION AU(		AG AL(%)	AS	B	88	BI CA(%)	C0	C0	CR		K( % )	LA HG(%)	MN	HO NA(1)	NI	P	P8	SB	SN	SR TI	l <b>(%)</b>	U	y	W	T	ZH
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#### NOTE: f = LESS than R = -42 NeSH

CC: V. KURAN FAX: JIM FOSTER - PRIME

reizo CO-TECH LABORATOGHES U.D. JUTTA/JEALOUSE B.C. CERTIFIED ASSAVER

SC90/015



ASSAYING - ENVIRONMENTAL TESTING 10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

AUGUST 8, 1990

CERTIFICATE OF ANALYSIS ETK 90-364

PRIME EXPLORATIONS LTD. P.D. BOX 10, 10TH FLOOR 808 WEST HASTINGS STREET VANCOUVER, B.C. V6C 2X4

ATTENTION: JIM FOSTER

SAMPLE	IDENTIFICATION:	2 HEAVY I PROJEC	<b>T: 90-8</b> 0	C-015 84	received ARRINGTON	-	1990	
		SHIPME! AU	NT NO.: AG	6 CU	PB	ZN	AS	MO
ET#	Description	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
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364 -	2 93075	(5	.1	106	15	127	18	12
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		JUTTA/ J	EALOUSE	X				
FAX: 3	I. FOSTER 1-687-	1-		HSSAFE			· .	
cc: V	. KURAN HI-TEC		1					
SC90/HI	GH TEC-015							
	e po de la compañía 🔨	$\checkmark$	~					



ASSAYING - ENVIRONMENTAL TESTING 10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

AUGUST 3, 1990

## CERTIFICATE OF ANALYSIS ETK 90-365

PRIME EXPLORATIONS LTD. P.O. BOX 10, 10TH FLOOR 808 WEST HASTINGS STREET VANCOUVER, B.C. V6C 2X4

#### ATTENTION: JIM FOSTER

SAMPLE	IDENT:	IFICATION:	PROJECT SHIPMEN	T NO.:	15 BARR: 6	INGTON RI	VER		
ET#	Der	scription	A dqq )		CU (ppm)	PB (ppm)	ZN (ppm)	AS (ppm)	MO (mogn)
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365 -	7	93083	</td <td></td> <td>294</td> <td>/ 26</td> <td><b>3</b>15</td> <td>3</td> <td>50</td>		294	/ 26	<b>3</b> 15	3	50
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FAX: J	J. FOST	TER 1-687-							
cc: V	. KURA	W HI-TEC							
SC90/HI	OH TEC	-010							

APPENDIX B

Sampling Methodology



#### SAMPLING METHODOLOGY

#### A. <u>STREAM SEDIMENTS</u>

#### Silt Samples

Approximately 0.5 kg of silt was collected from the active stream channel, placed in a standard gusseted kraft bag and shipped to Eco-Tech Laboratories in Kamloops. These samples were then dried and sieved to -80 mesh. A ten gram split of the sample was analyzed for gold by fire assay with atomic absorption finish. A one gram split of the remainder of the sample was analyzed for 30 elements using Aqua Regia extraction and ICP.

#### Heavy Mineral Samples

A sample of between 5 gm and 30 gm was panned in the field from two pans of -1.4 cm gravel and one pan of moss. The panned material was placed in 6 mil plastic bags and shipped to Eco-Tech Laboratories Ltd. in Kamloops. A one gram split of this material was analyzed for silver, lead, copper and zinc using wet extraction and atomic absorption. The remainder of the sample was analyzed for gold using fire assay and atomic absorption finish.

#### B. LITHOGEOCHEMICAL SAMPLING

Approximately 2 kg of rock was collected and placed in 6 mm plastic bags and shipped to Eco-Tech Laboratories in Kamloops. This material was crushed and pulverized to -140 mesh and a 1 assay ton split taken. The split was analyzed for gold using fire assay and atomic absorption finish. Another 10 gm split was analyzed for copper, lead, zinc and silver using wet extraction and atomic absorption finish.

#### C. SOIL SAMPLES

Approximately 0.5 kg of "B" horizon soil, where available, or talus fines where not, was placed in standard gusseted kraft bag and shipped to Eco-Tech Laboratories in Kamloops. This material was dried and sieved to -80 mesh. A 14 gram sample was analyzed for gold using fire assay and atomic absorption finish. Another one gram split was analyzed for 30 elements using Aqua Regia extraction and ICP. APPENDIX C

Analytical Methods



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## ECO-TECH LABORATORIES LTD.

ASSAYING - ENVIRONMENTAL TESTING 10041 East Trans Canada Hwy., Kamioops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

### GEOCHEMICAL LABORATORY METHODS

#### SAMPLE PREPARATION (STANDARD)

- 1. Soil or Sediment: Samples are dried and then sieved through 80 mesh nylon sieves.
- 2. Rock, Core: Samples dried (if necessary), crushed, riffled to pulp size and pulverized to approximately -140 mesh.
- 3. Heavy Mineral Separation: Samples are screened to -20 mesh, washed and separated in Tetrabromothane. (SG 2.96)

### METHODS OF ANALYSIS

All methods have either certified or in-house standards carried through entire procedure to ensure validity of results.

1. Multi-Element Cd, Cr, Co, Cu, Fe (acid soluble), Pb, Mn, Ni, Ag, Zn, Mo

Digestion

Finish

Finish

Finish

ICP

Hot aqua-regia

Atomic Absorption, background correction applied where appropriate

Hydride generation - A.A.S.

Hydride generation - A.A.S.

A) Multi-Element ICP

<u>Digestion</u>

Hot aqua-regia

2. Antimony

Digestion

Hot aqua regia

3. Arsenic

Digestion

Finish

Hot aqua regia

4. Barium

<u>Digestion</u> <u>Finish</u> Lithium Metaborate Fusion I.C.P.



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5. Beryllium

Digestion

Hot aqua regia

6. Bismuth

Digestion

Hot aqua regia

7. Chromium

Digestion

Sodium Peroxide Fusion

8. Fluorine

Digestion

Lithium Metaborate Fusion

9. Mercury

Digestion

Hot aqua regia

10. Phosphorus

Digestion

Lithium Metaborate Fusion

11. Selenium

Digestion

Hot aqua regia

12. Tellurium

### Digestion

Hot aqua regia Potassium Bisulphate Fusion <u>Finish</u>

Atomic Absorption

<u>Finish</u>

Atomic Absorption

<u>Finish</u>

Atomic Absorption

## <u>Finish</u>

Ion Selective Electrode

### <u>Finish</u>

Cold vapor generation - A.A.S.

### <u>Finish</u>

I.C.P. finish

## <u>Finish</u>

Hydride generation - A.A.S.

### <u>Finish</u>

Hydride generation - A.A.S. Colorimetric or I.C.P.



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13. Tin

## Digestion

## Finish

Annonium Iodide Fusion

## 14. Tungsten

Digestion

Hydride generation - A.A.S.

Colorimetric or I.C.P.

Atomic Absorption

### Finish

Potassium Bisulphate Fusion

15. Gold

### Digestion

### Finish

Fire Assay Preconcentration followed by Aqua Regia

16. Platinum, Palladium, Rhodium

## Digestion

## <u>Finish</u>

Fire Assay Preconcentration followed by Aqua Regia

Graphite Furnace - A.A.S.

APPENDIX D

Sample Descriptions

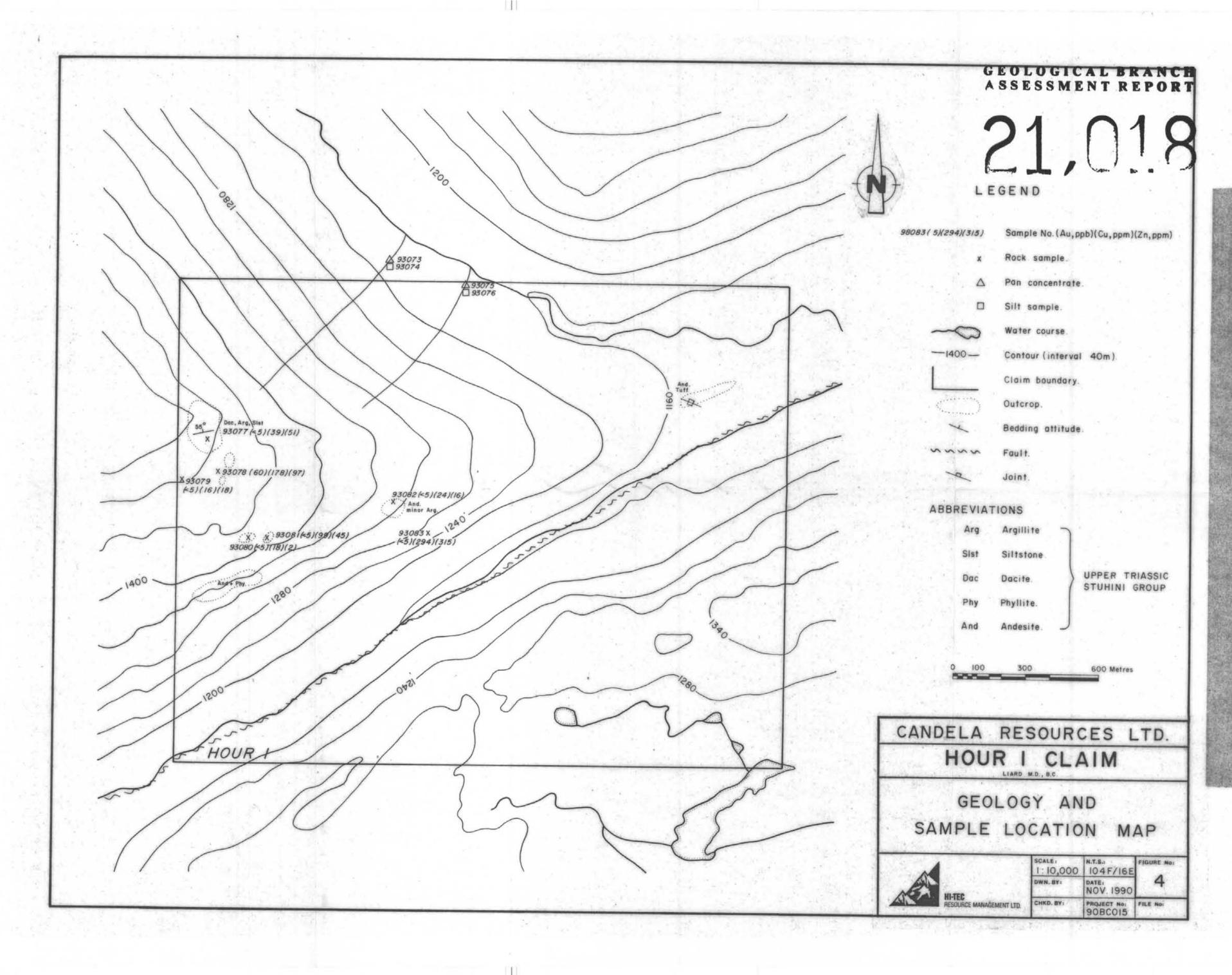


Hour 1 (KR) 16/7/90 Sample 93073, 74 P.C., Silt On northern boundary Hour 1, Elevation 980 meters Flt. is 50% foliated And. tuff, 30% foliated slstn, 20% foliated chert Sample 93075, 76 P.C., Silt 250 m South of north boundary Hour 1 Elevation 980 meters Flt. is 10% foliated syenite, 50% And. tuff, 20% Slstn, 10% Arg 10% chert, minor qtz Sample 93077, Rusty sericite schist Elevation 1610 m Southwest side ridge; 40 cm chip Sample 93078, Rusty And. Tuff foliated minor pyrite; Elevation 1550 South of 93077 Sample 93080, 10 cm chip of quartz vein Minor pyrite 1380 Elevation, Milky quartz. Banded; 2 mm black bands 🗢 200m; SE 93079 Sample 93081, 0.5 m chip of Silicified chloritized And. w/ 1% pyrite 30 m SE93080 Elevation 1370 Sample 93082 1.0 m chip of Rusty Arg. Elevation 1160 m; South flank of ridge Sample 93083, 40 cm chip of quartz vein in schistose; volcanics Series of stringers and veins to 30 cm parallel to schistosity Sweats? Attitude of veins and

#### Note:

A sequence of Arg, Slstn, Chert and Dacite Tuff Striking Northeast dipping N forms upper elevations on ridge. Underlain by And. tuff. Quartz veins to 0.5m appear to be sweats parallel to bedding and increase as scarp on North side Barrington River is approached.

schistosity S93° D70°N



	GEOLOGICAL BRANCE ASSESSMENT REPORT
1	21 010
th	CL,U.O
$(\mathbf{N})$	LEGEND
T	
- 9	8083(5)(294)(315) Sample No. (Au, ppb)(Cu, ppm)(Zn, ppm)
	x Rock sample.
8.20	△ Pan concentrate.
1. S	Silt sample.
·	
S. mein	
1	Claim boundary.
1.893	Outcrop.
	Bedding attitude.
	Fault.
	Joint.
	ABBREVIATIONS
	Arg Argillite
	Sist Siltstone
	Dac Dacite. UPPER TRIASSIC STUHINI GROUP
	Phy Phyllite.
	And Andesite.
	0 100 300 600 Metres
C	ANDELA RESOURCES LTD.
	HOUR I CLAIM
-	LIARD M.D., B.C.
	GEOLOGY AND
	SAMPLE LOCATION MAP
	SCALE; N.T.S.: FIGURE No: 1:10,000 104 F/16E
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