

1990 PROSPECTING REPORT  
on the  
CANYON PROPERTY

25453

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**1990 PROSPECTING REPORT**

on the

**CANYON PROPERTY**

Liard Mining Division  
British Columbia

North Latitude 57°14' West Longitude 131°21'  
NTS 104G/6W,3W

Prepared for

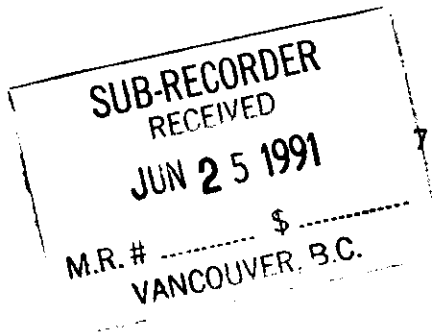
**APEX ENERGY CORP.**  
717-602 West Hastings Street  
Vancouver, B.C.  
V6B 1P2

Prepared by

W.R. Kushner, B.Sc.

**Coast Mountain Geological Ltd.**  
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Vancouver, B.C.  
V6B 4N9

June, 1991



## SUMMARY

Regional government geochemical surveys indicate a potential for economic mineralization on the property. Previous work on the property was performed by Homestake Mineral Development Company (1989).

Personnel employed by the Coast Mountain Geological Ltd. / Quest Canada Exploration Services Inc. joint venture were engaged by Apex Energy Corporation to map, prospect, and sample accessible parts of the Canyon claim during September, 1990. No areas of good mineral potential have been recognized to date and further work is not recommended; however, there still remain some unexplored areas of the property.

21,453

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## 1.0 INTRODUCTION

### 1.1 REGIONAL SYNOPSIS

The Scud North property is located approximately 70 km south of Telegraph Creek in the heart of the Galore Creek gold camp.

The Stikine Arch, stretching from Stewart to the Iskut River and up through Galore Creek, is currently undergoing extensive exploration as a result of mineral discoveries in the area. Recently discovered examples include Skyline's Stonehouse gold deposit (740,000 tons grading 0.52 oz/ton gold), the Cominco-Prime joint venture Snip deposit (1.032 million tons of 0.875 oz/ton gold), the Newhawk-Granduc Sulphurets deposit (0.72 million tons grading 0.431 oz/ton gold and 19.7 oz/ton silver) and the Silbak Premier property under investigation by Westmin-Pioneer-Canacord (open pit reserves of 5.7 million tons grading 0.065 oz/ton gold and 2.7 oz/ton silver). Mine development is either under way or anticipated for each of the above deposits. Historically, the Silbak Premier mine was British Columbia's third largest gold deposit, producing 1.3 million ounces of gold and 32 million ounces of silver in the period from 1920 to 1936.

Numerous precious and base metal occurrences have been discovered throughout the Galore Creek district, including the Paydirt deposit being developed by Consolidated Silver Standard (0.2 million tons of 1.06% copper and 0.012 oz/ton gold). Very encouraging results from Gigi Resources' Trophy project and the Stikine Copper deposit

at Galore Creek, have sparked increased precious metals exploration in this area of northwestern British Columbia.

This report describes the geology and work program conducted throughout two man days of mapping, prospecting and geochemical sampling of the Canyon property in September, 1990.

## 1.2 PROPERTY SUMMARY

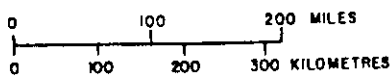
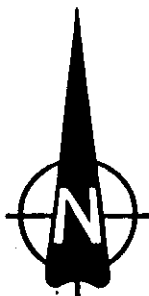
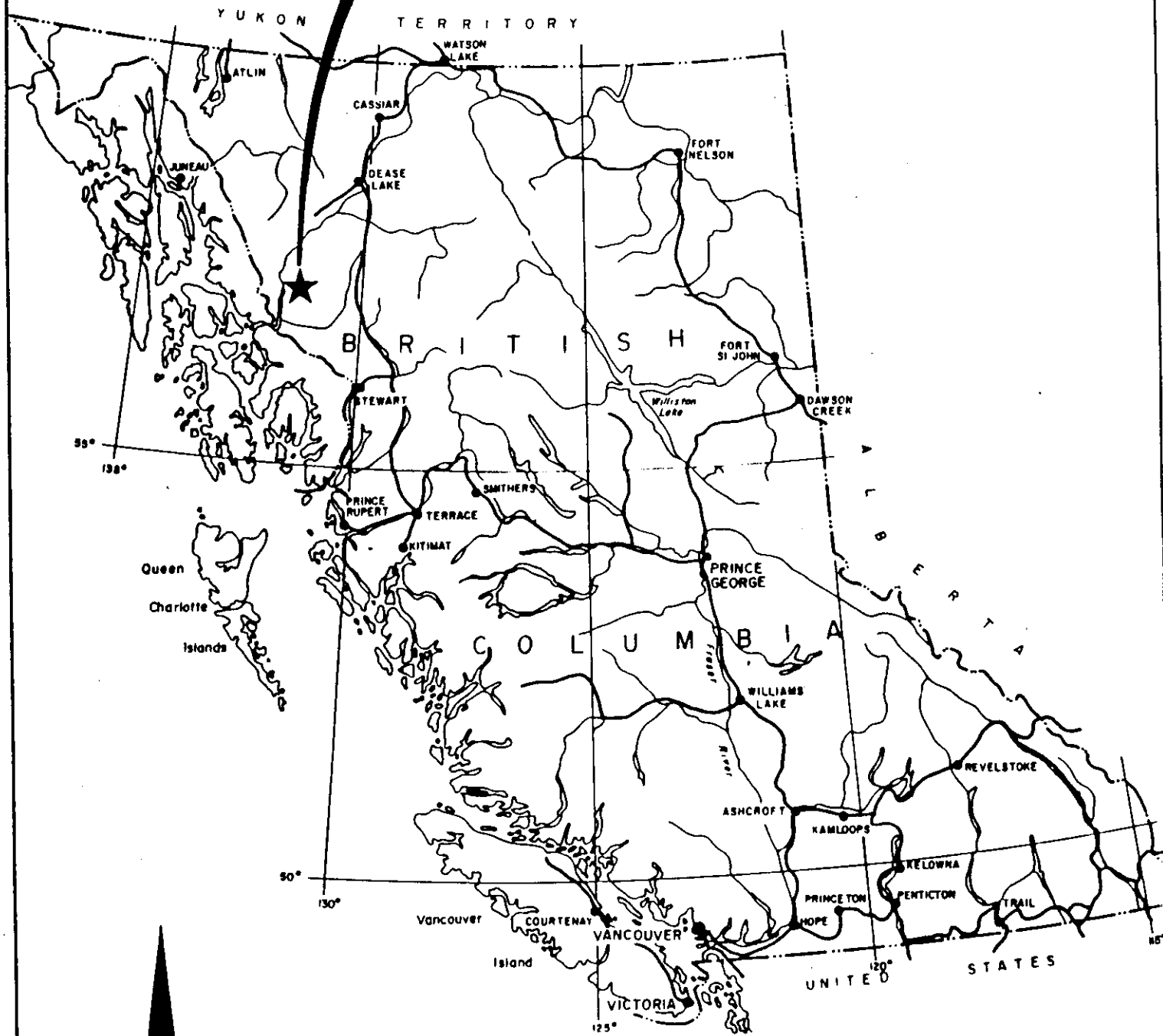
The Canyon property, located north of Galore Creek in the Stikine River district of northern British Columbia (Figure 1), is presently owned by Edward Asp of Dease Lake, B.C., and was operated by Apex Energy Corporation Ltd. of Vancouver, B.C. The property consists of one 20 unit modified grid system claim (Figure 2).

The property is accessed by helicopter from the Scud River airstrip; alternately, the property may be reached by helicopter from Telegraph Creek.

The topography of the Canyon property is moderately rugged, and heavy precipitation is characteristic, especially during the winter months.

Personnel employed by the Coast Mountain Geological Ltd. / Quest Canada Exploration Services Inc. joint venture were engaged by Apex Energy Corporation to prospect and sample parts of the Canyon property during September, 1990.

**PROPERTY  
LOCATION**



<b>APEX ENERGY CORP.</b>			
<b>CANYON PROPERTY PROPERTY LOCATION MAP</b>			
LIARD MINING DIVISION			
COAST MOUNTAIN GEOLOGICAL LTD. / QUEST CANADA RESOURCES LTD.			
DRAWN BY: B.K.	NTS: 104G/6W,3W	DATE: DECEMBER, 1990	FIGURE: 1

### 1.3 LOCATION AND ACCESS

The Canyon property is situated at the headwaters of Scud River, two kilometres downstream from the toe of the Scud Glacier in the Galore Creek area of the Coast Range Mountains of northwestern British Columbia. The property lies approximately 72 kilometres south of Telegraph Creek, within the Liard Mining Division, and is centered at 57°14' north latitude and 131°21' west longitude.

Access to the property is possible via helicopter from Scud Camp, located at the Scud River airstrip, 27 kilometres west of the property at the confluence of the Scud and Stikine rivers. Historically, the Stikine River has been navigated by barges as far as Telegraph Creek, thus affording economical transport of equipment, machinery, fuel and other supplies to the Scud River airstrip. Fixed wing service to the Scud River airstrip can be chartered from Smithers, Telegraph Creek or Dease Lake; regular scheduled flights to the airstrip are available during the field season via Smithers. A helicopter is then used to reach the Canyon property from Scud Camp.

### 1.4 PHYSIOGRAPHY AND CLIMATE

The Canyon property drains into the Scud River, which in turn drains into the Stikine River. Topography on the property is moderate for the area, typical of glaciated mountainous terrain, with elevations ranging from 300 meters at the Scud River, to 1300



meters on the eastern border.

Vegetation on the property consists of well timbered old growth stands of spruce, hemlock and fir with sparse undergrowths of blueberries and devils' club at the intermediate elevations. Near the river, dense undergrowths of slide alder, huckleberry and devils' club are encountered.

Bedrock exposure varies greatly - from total outcrop in many steep areas to very limited exposures in the vegetated parts of the claims.

The claims are situated at the boundary between the wet belt and the gradational belt. In this area temperatures range from -30 degrees to +30 degrees centigrade and about 300 centimetres of precipitation is recorded per year, mostly in the form of snow. The exploration season lasts from late May until early to mid October. Field work is hampered by the persistence of snow in sheltered areas until mid-season, and the early arrival of the deep winter snow pack near the end of the field season.

#### 1.5 LIST OF CLAIMS

The Canyon property, located in the Liard Mining Division of northwestern British Columbia, is comprised of one modified grid system claim staked in accordance with the provisions of the British Columbian Mineral Tenure Act (Figure 2). The claim covers



**CANYON  
PROPERTY**



**GRAN 12**

**APEX ENERGY CORP.**

**CANYON PROPERTY  
CLAIM MAP**

**LIARD MINING DIVISION**

**COAST MOUNTAIN GEOLOGICAL LTD. / QUEST CANADA RESOURCES LTD.**

**DRAWN BY:  
B.K.**

**NTS:  
104G/6W,3W**

**DATE:  
DECEMBER, 1990**

**FIGURE:  
2**

**SCALE 1:50,000**

**500 0 500 1000 2000  
METERS**

approximately 460 hectares. Records of the British Columbia Ministry of Energy, Mines and Petroleum Resources indicate that the following claim is owned by Edward Asp of Dease Lake, B.C.:

TABLE 1: Claim Status

<u>Claim</u>	<u>Record No.</u>	<u>No. of Units</u>	<u>Expiry Date*</u>
Gran 12	4669	20	14/06/92

\*Pending acceptance of this report.

The exact location of the cornerpost has not been verified by the author.

## 2.0 PROPERTY HISTORY

### 2.1 REGIONAL EXPLORATION HISTORY

The first recorded mineral exploration in the area was undertaken in 1861 when placer gold was discovered on the Stikine River just downstream from the Telegraph Creek townsite.

In the period from the 1920's to the 1940's, mineral exploration emphasis shifted from placer exploration to exploration for lode deposits. Early exploration was confined to accessible areas along the Stikine River, and a number of small copper occurrences were discovered.

The Galore Creek copper-porphyry deposit (137.6 million tons grading 1.02% copper and 0.014 oz/ton gold) was discovered in 1955

by Hudson Bay Exploration and Development Company Limited. It was later explored jointly by Hudson Bay, Kennco Explorations Limited and Consolidated Mining and Smelting (Cominco) under a new company, Stikine Copper Limited. Exploration activity in the area around Galore Creek in the early 1960's was conducted by Kennco, whose exploration efforts were directed toward finding large tonnage porphyry copper deposits similar to the Galore Creek deposit. Discoveries include the Copper Canyon (27 million tons grading 1.02% copper and 0.02 oz/ton gold) and Schaft Creek (363 million ton grading 0.40% and 0.010 oz/ton gold) deposits.

Exploration in recent years has resulted in the discovery of the Paydirt (0.2 million ton grading 0.12 oz/ton gold), Jack Wilson and Trophy deposits. The Galore Creek camp is currently undergoing a resurgence of exploration activity as mining companies search further north within the 'Stikine Arch' mineral belt that has produced the successful Stewart and Iskut Gold Camps.

## 2.2 PROPERTY EXPLORATION HISTORY

The Canyon property has been explored by prospecting and sampling. Previous work by Homestake Mineral Development Company (1989) have been reported elsewhere (Marud, 1990).

The British Columbia Geological Survey Branch completed a regional geochemical survey of the lower Stikine River area in 1989 (Brown & Gunning, 1989, and Logan and Koyanagi, 1989), in which 4 rock

samples were obtained from just outside the Canyon property boundaries. One silt sample was obtained from a drainage on the property. The locations of the samples are shown on Figure 3.

### 2.3 1990 Work Program

The Coast Mountain/Quest Canada joint venture crew was engaged by Apex Energy Corporation in late September, 1990 to carry out a rapid program of evaluation of the Canyon property.

A total of 2 mandays were spent on the claims in the fall of 1990, during which 1 stream sediment sample and 4 rock samples were collected.

The 1990 work program was conducted by the following Coast Mountain Geological Ltd. personnel:

David Ridley - - - - - Prospector

Catherine Ridley - - - - - Prospector

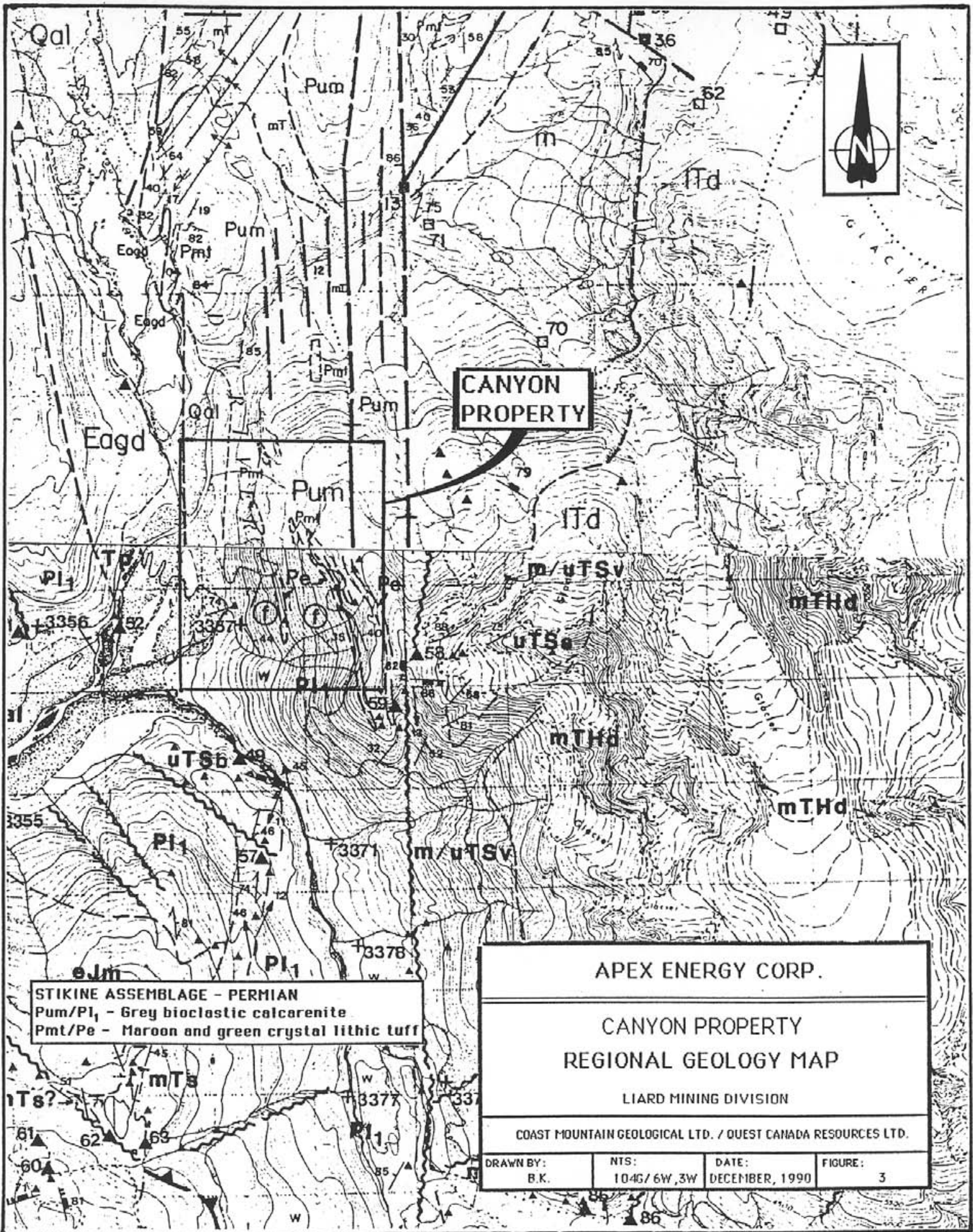
Rock descriptions are attached in Appendix D and analytical certificates form Appendix E. Sample locations are plotted on Figure 4.

## 3.0 GEOLOGY AND GEOCHEMISTRY

### 3.1 REGIONAL GEOLOGY

The Galore Creek Mining Camp lies on the western margin of the Intermontane Belt within the Stikine Arch in contact with the Coast





**STIKINE ASSEMBLAGE - PERMIAN**  
 Pum/PI<sub>1</sub> - Grey bioclastic calcarenite  
 Pmt/Pe - Maroon and green crystal lithic tuff

<b>APEX ENERGY CORP.</b>			
<b>CANYON PROPERTY</b>			
<b>REGIONAL GEOLOGY MAP</b>			
LIARD MINING DIVISION			
COAST MOUNTAIN GEOLOGICAL LTD. / QUEST CANADA RESOURCES LTD.			
DRAWN BY: B.K.	NTS: 104G/6W,3W	DATE: DECEMBER, 1990	FIGURE: 3

Plutonic Complex. The Stikine Arch is a northeasterly trending belt of metamorphic rocks that formed a positive tectonic element throughout the Mesozoic (Souther and Armstrong, 1966). Sediments derived from rocks of the Stikine Arch were shed north and northeast into the southern extension of the Whitehorse Trough during Upper Triassic and Lower Jurassic time.

The oldest rocks in the vicinity of Galore Creek consist of highly deformed Permian and older metamorphic rocks and Permian crystalline limestones belonging to the Stikine Assemblage, and a thin succession of Middle Triassic siltstones. These are in fault contact with, or unconformably overlain by, the Upper Triassic Stuhini Group consisting of augite andesite and andesitic breccias, agglomerates, flows and tuffs interspersed with locally derived sandstones and siltstones. These have been intruded by Upper Triassic to Lower Jurassic age syenite stocks and dykes, quartz diorite and granodiorite stocks and plutons, and by Jurassic to Tertiary age quartz monzonite, granodiorite, and quartz diorite of the Coast Plutonic Complex.

### 3.2 PROPERTY GEOLOGY

The Canyon property is included in the area mapped in 1989 at 1:50,000 scale by the Geological Survey Branch (BCDM). This shows the property to be composed mainly of limestone, with some tuffaceous rocks appearing throughout the property.

Rock examined during the examination of the property was basically unmineralized, with only minor pyrite and sporadic spots of malachite encountered.

### 3.3 GEOCHEMISTRY

One stream sediment sample was collected in a kraft gusseted paper bag and sent to Acme Analytical Labs of Vancouver, B.C., for analysis. At Acme, the sample was oven dried at approximately 60 degrees Celsius, sieved to minus 80 mesh and analyzed geochemically for 32 elements by the induced coupled plasma (ICP) technique, and for gold by the atomic absorption (AA) technique.

The stream sediment sample contained 5 ppb Au, 18 ppm Cu, 2 ppm Pb and 41 ppm Zn.

Rock samples were collected in plastic bags and also sent to Acme. Samples were then crushed to 3/16 of an inch, and then about .25 kg was pulverized to minus 100 mesh. A 0.5 gram sample of the minus 80 fraction of the samples was digested in hot, dilute aqua regia in a boiling water bath and then diluted to 10 millilitres with distilled water. Samples were analyzed for a group of 30 elements by ICP technique. In addition, gold was analyzed from a 10 gram fraction by AA.

The rock samples were very low in amounts of gold, silver, copper and lead. One sample, 90F COR D5, assayed 172 ppm Zn.





**CANYON  
PROPERTY**

GRAN 12

1500

DS CS1 D6

R221  
TALUS

R222

31364 (0.1) (1)

31365 (0.1) (1)

31362 (0.1) (1)

31361 (0.1) (1)

31440 (0.1) (1)

31443 (0.1) (1)

31442 (0.1) (1)

31441 (0.1) (2)

31440 (0.1) (3)

31439 (0.1) (5)

31436 (0.1) (6)

W

**LEGEND**

- SILT SAMPLE
- FLOAT SAMPLE
- GRAB SAMPLE
- TRAVERSE

**APEX ENERGY CORP.**

1:14285

**CANYON PROPERTY  
SAMPLE LOCATION MAP**

**LIARD MINING DIVISION**

**COAST MOUNTAIN GEOLOGICAL LTD. / QUEST CANADA RESOURCES LTD.**

DRAWN BY: B.K.	NTS: 1:04G/6W,3W	DATE: DECEMBER, 1990	FIGURE: 4
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Rock sample descriptions are attached in Appendix D and analytical certificates form Appendix E.

#### 4.0 DISCUSSION

Numerous mineral deposit types have been recognized in the Galore Creek Camp and the Porcupine Creek area. These include porphyry deposits, structurally controlled shears and veins, skarns, and breccias. Both a Lower Jurassic mineralizing event and a Tertiary mineralizing event are recognized.

The exploration program on the Canyon property was very limited due to time and budget constraints, and thus only provided a cursory look at the property. Work was directed to the northern accessible portion of the property. Outcrop was examined and talus from below cliffs was also prospected in the course of the program. Complete evaluation of the entire property was not possible; however, the prospectors who worked on the property reported that the area traversed consisted mainly of unmineralized, unaltered limestone, and reported seeing no interesting areas worthy of extensive sampling or follow-up work.

#### 5.0 RECOMMENDATIONS

No areas of good mineral potential were identified during the 1990 exploration program. Based on results to date, further work on the Canyon property is not recommended; however there remains areas of the property which are as of yet unexplored.

**APPENDIX A**  
**STATEMENT OF QUALIFICATIONS**

## STATEMENT OF QUALIFICATIONS

I, WILLIAM R. KUSHNER, of 1942 East 2nd Avenue, Vancouver, in the Province of British Columbia, DO HEREBY CERTIFY:

1. THAT I am a Geologist in the employment of Coast Mountain Geological Ltd. with offices at 820-650 West Georgia Street, Vancouver, British Columbia.
2. THAT I am a graduate from the University of Alberta with a bachelor of Science degree in Geology (1987).
3. THAT my primary employment since graduation has been in the field of mineral exploration.
4. THAT this report is based on field work conducted by Coast Mountain Geological Ltd. on the Canyon Property during September, 1990, and on information from government publications and reports filed with the Government of British Columbia.
5. THAT I did not visit the subject property in the 1990 season.
6. THAT I do not own or expect to receive any interest in the property described herein, nor in any securities of any company rendered in the preparation of this report.

DATED at Vancouver, British Columbia, this 20th day of June, 1991.



William R. Kushner, B.Sc.  
Geologist

**APPENDIX B**  
**STATEMENT OF EXPENDITURES**

## STATEMENT OF EXPENDITURES

Mobilization/Demobilization:		500.00
Project Prep:		50.00
Wages:		
Prospector	1 day @ \$235/day	235.00
Prospector	1 day @ \$225/day	<u>225.00</u>
		460.00
Camp Charges:		
Crew	2 days @ \$125/day	250.00
Communications:		
2 mandays @ \$15/day		30.00
Field Gear Consumables:		17.00
Field Gear Rental:		
2 days @ \$5/day		10.00
Helicopter:		
.6 hrs. @ \$700/hr.		420.00
ASSAYS:		
1 sediment @ \$8.20	8.20	
4 rocks @ \$10.15	40.60	
		48.80
Expediting (pro rata)		10.00
Management Fee (13.5%)		<u>242.43</u>
	TOTAL GEOLOGICAL COSTS	\$2,038.23
	TOTAL REPORT COSTS	\$465.00
	TOTAL COST OF PROJECT	\$2,503.23

**APPENDIX C**

**REFERENCES**

## REFERENCES

- Brown, D.A. and M.H. Gunning, 1989: Geology of the Scud River Area, northwestern B.C. (104G/5 and 6), British Columbia Ministry of Energy, Mines and Petroleum Resources, Geological Survey Branch Open File 1989-7.
- Logan, J.M. and Koyanagi, V.M. (1989): Geology and Mineral Deposits of the Galore Creek Area, Northwestern B.C., B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Field work, 1988, Paper 1989-1, pp. 269-284.
- Marud, D., 1990: Report of 1989 Activities on the Grand Canyon-Stikine Project, Liard Mining Division, Private Report for Equity Silver Mines Ltd.
- Souther, J.G., 1971: Telegraph Creek Map Area, British Columbia, Geological Survey of Canada, Paper 71-44
- Souther, J.G. 1972: Telegraph Creek Map Area, B.C., GSC Paper 71-44
- Wetherill, J., 1990: 1990 Prospecting Report on the Scud North property, Liard Mining Division - Assessment Report for Equity Silver Mines Ltd.



**APPENDIX D**  
**ROCK SAMPLE DESCRIPTIONS**

**ROCK SAMPLE SHEET**

Sampler D. Ridley / C.J. Ridley  
 Date Sept 26 / 90

Property Gran #12

NTS \_\_\_\_\_

SAMPLE NO.	Sample Vch.	DESCRIPTION			ADDITIONAL OBSERVATIONS	ASSAYS			
		Rock Type	Alteration	Mineralization					
90FR221	F	black limst	—	—	mariposite? in qtz veinlets @ base of talus				
90FR222	F	limst	limonite	z-f-gr-py	@ base of talus				
90FCOR D5	F	volcanic		malachite	340 m elevation				
90FCOR D6	F	"		trace py	530 m elevation @ base of cliffs.				

**APPENDIX E**  
**CERTIFICATE OF ANALYSIS**

ACME ANALYTICAL LABORATORIES LTD.

852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6

PHONE(604)253-3158 FAX(604)253-1716

**GEOCHEMICAL ANALYSIS CERTIFICATE**

Quest Canada Exploration File # 90-5450 Page 1  
P.O. Box 11569 Vancouver, Vancouver BC V6B 4N8

MPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
F-COR-D5	3	126	7	172	.8	15	21	291	2.58	63	5	ND	2	142	.3	2	2	34	4.75	.009	2	13	1.71	125	.25	13	2.89	.09	.29	1	12
F-COR-D6	1	18	2	18	.3	9	8	123	2.30	2	5	ND	1	254	.3	2	2	29	7.66	.004	3	7	.21	33	.17	4	6.56	.21	.14	1	19
JF-R221	1	95	3	8	.1	1	2	15	.17	2	5	ND	1	236	.3	5	2	2	41.11	.009	2	14	.36	21	.01	3	.04	.01	.01	1	1
JF-R222	2	51	2	43	.1	11	11	378	2.29	23	5	ND	1	100	.2	5	2	21	6.42	.056	5	25	.83	69	.01	3	.69	.01	.14	1	5
IS-12-C1	1	18	2	41	.3	8	7	684	2.24	10	5	ND	2	121	.3	2	2	20	16.87	.025	4	15	1.17	16	.01	2	1.34	.04	.07	1	5
STANDARD C/AU-R	19	61	39	133	7.1	73	31	1052	3.97	40	18	7	40	53	18.8	15	20	61	.46	.096	41	61	.89	192	.08	33	1.89	.06	.13	12	530

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
- SAMPLE TYPE: P1 ROCK P2 SOIL AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: OCT 23 1990 DATE REPORT MAILED: *Oct 26/90* SIGNED BY: *C. Leung* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS