

MAP NO.: ASSESSMENT REPORT X  
105 D 3 PROSPECTUS CONFIDENTIAL X  
OPEN FILE

DOCUMENT NO: 092119  
MINING DISTRICT: WHITEHORSE  
TYPE OF WORK: GEOLOGY, DIAMOND DRILLING

REPORT FILED UNDER: MineQuest Exploration Assoc. Ltd.

DATE PERFORMED: 11/03/85, 30/06/86, 25/07/86, 22/09/86 DATE FILED: March 30, 1988

LOCATION: LAT.: 60°01'N AREA: Partridge Lake  
LONG.: 135°13'W VALUE \$: 3,200.00

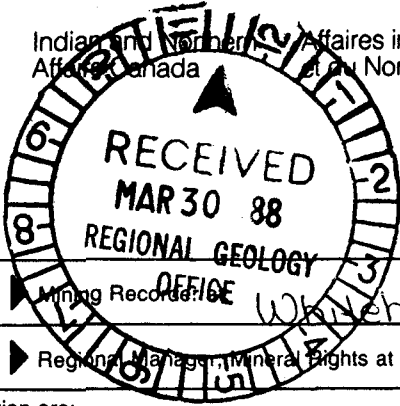
CLAIM NAME & NO.: PART 1-27 YA86430-456  
PART 28-35 YA95043-050  
PART 36-46 YA95231-241  
PART 48-50 YA96338-341

WORK DONE BY: A.W. Gourlay

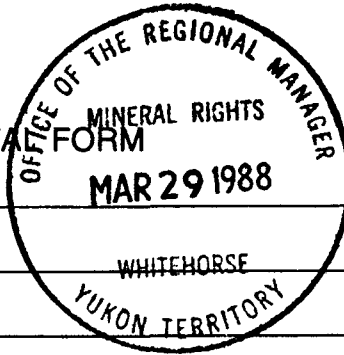
WORK DONE FOR: Sirius Resource Corporation

DATE TO GOOD STANDING:


REMARKS: #91 PART  
In 1988, one BQ was drilled totalling 349.3 m. The hole failed to encounter significant mineralization at depth.



TRANSMITTAL FORM



M.R. file no.	340-13-2
R.M.M.R. file no.	
Date forwarded	29 Mar 88

From Mining Records Office Whitehorse  
 To Regional Manager, Mineral Rights at Whitehorse, Y.T.

For action are:

<input type="checkbox"/> NEW APPLICATION FOR PLACER LEASE TO PROSPECT	Name	
<input type="checkbox"/> RENEWAL APPLICATION PLACER LEASE TO PROSPECT	Name	Lease no.
<input type="checkbox"/> AFFIDAVIT OF EXPENDITURE ON PLACER LEASE	Name	Lease no.
<input type="checkbox"/> SECURITY DEPOSIT		
<input type="checkbox"/> FINANCIAL ABILITY		
<input type="checkbox"/> ASSIGNMENT OF PLACER LEASE NO.	From	To
<input type="checkbox"/> GROUPING APPLICATION UNDER SEC. 52(2) PLACER MINING ACT.	Owner	
<input checked="" type="checkbox"/> DIAMOND DRILL LOGS	Claims	Claim sheet no.
	PART 1-46, 48-50	YA86430-438 YA95049-495
		105-D-3
<input type="checkbox"/> QUARTZ ASSESSMENT REPORT	Claims	Claim sheet no.
		YA86443-445 YA95239-241
	Type of report	Submitted by
	Geology + D.D.	MING QUAST
	Cls. work performed on	\$ req. for ren. application
		3200.00

Signature: *[Signature]*

092119

Date returned: 7 April, 1988

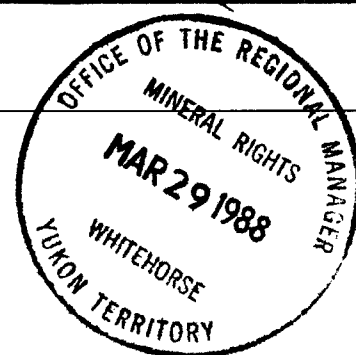
REPLY ACTION

Approved for amount required

Signature: *[Signature]*

092119

MineQuest Report #190  
Ref. No. RM4603



**PART CLAIMS  
FINAL REPORT**

October and November, 1987

Partridge Lake

Southwest Yukon

Whitehorse Mining Division

N.T.S. 105D/3E

Latitude 60°01'N

Longitude 135°13'W

by

A.W. Gourlay

of

MineQuest Exploration Associates Ltd.

for

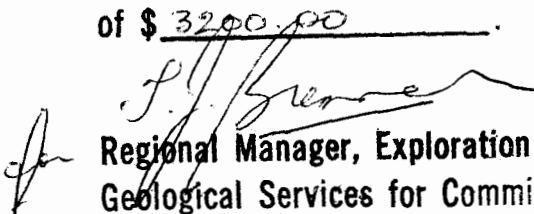
Sirius Resource Corporation



Work Performed on Claims:

<u>Claims</u>	<u>Tag Numbers</u>	<u>Date Recorded</u>
Part 1-27	YA86430 to 86456	Mar. 11, 1985
Part 28-35	YA95043 to 95050	June 30, 1986
Part 36-46	YA95231 to 95241	July 25, 1986
Part 48-50	YA96338 to 96341	Sept 22, 1986
Vancouver, B.C.	092119	January, 1988

This report has been examined by  
the Geological Evaluation Unit  
under Section 53 (4) Yukon Quartz  
Mining Act and is allowed as  
representation work in the amount  
of \$ 3200.00.

  
Regional Manager, Exploration and  
Geological Services for Commissioner  
of Yukon Territory.

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- Appendix V Cost Statement
- Appendix VI Application for a Certificate of Work

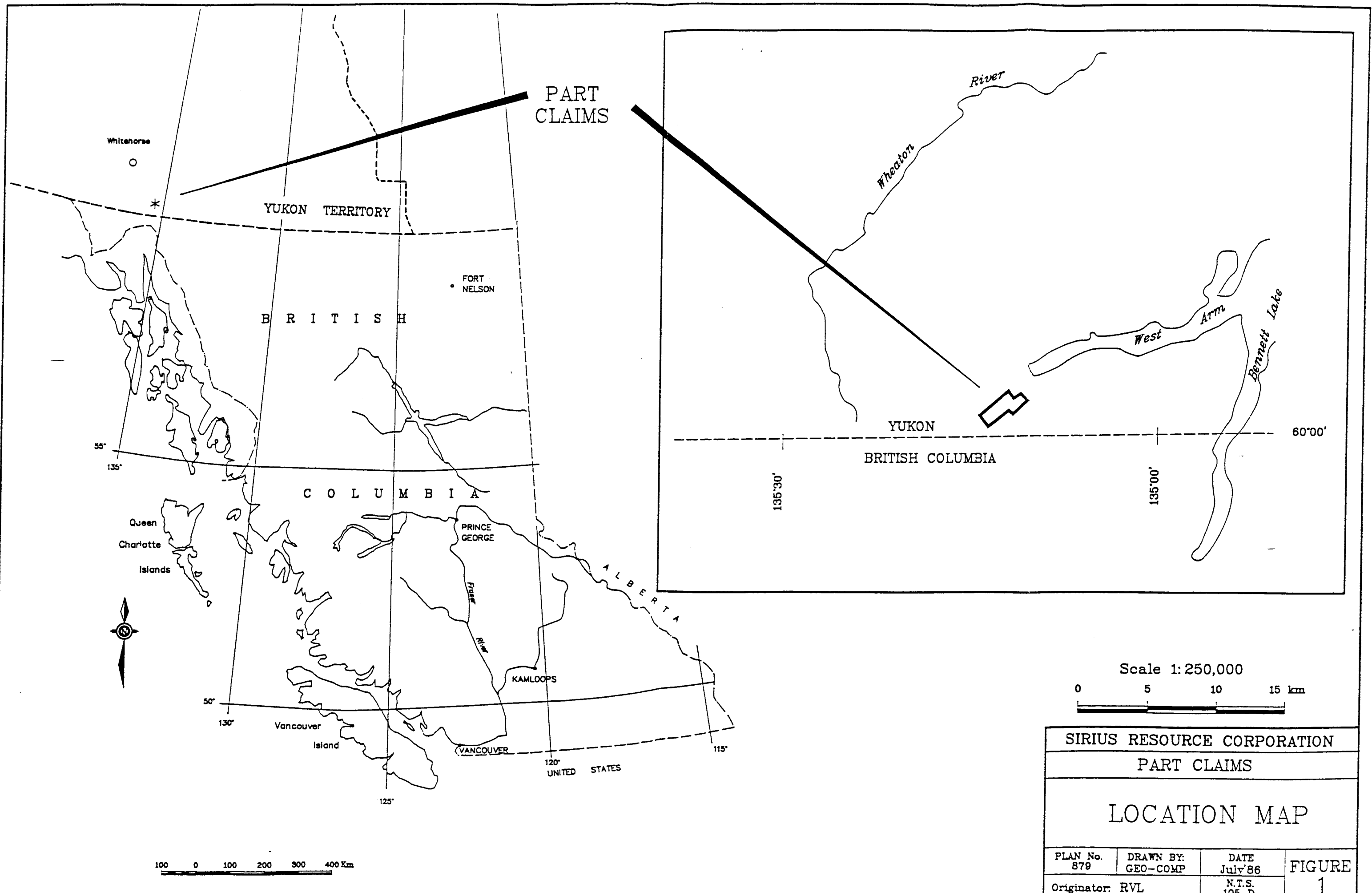
1.0

INTRODUCTION

The PART claims cover ground formerly staked in 1978 and drilled for uranium. At that time the precious metal potential of the claims was not thought to be high, uranium values were low, and the claims were dropped.

The ground was restaked for gold and silver in 1985 by L.O. Allen and R.J Bilquist in co-operation with MineQuest Exploration Associates Ltd. Preliminary sampling carried out during June 1985 returned values up to 1.69 oz/ton gold and 100.4 oz/ton silver. In February 1986 the claims were optioned to Eaglet Mines Ltd., for whom MineQuest Exploration Associates conducted a program of geological mapping, geochemistry, geophysical surveys, and diamond drilling.

In 1987 Sirius Resource Corporation assumed Eaglet Mines Ltd.'s obligations. This report describes a diamond drill program carried out during October and November, 1987.



PART CLAIMS

Whitehorse

YUKON TERRITORY

FORT NELSON

B R I T I S H

C O L U M B I A

Queen Charlotte Islands

PRINCE GEORGE

A L B E R T A

KAMLOOPS

Vancouver Island

VANCOUVER

120° UNITED STATES

115°

100 0 100 200 300 400 Km

River

Wheaton

YUKON

BRITISH COLUMBIA

West Arm

Bennett Lake

60°00'

135°30'

135°00'

Scale 1:250,000

0 5 10 15 km

SIRIUS RESOURCE CORPORATION

PART CLAIMS

LOCATION MAP

PLAN No. 879	DRAWN BY: GEO-COMP	DATE July '86	FIGURE 1
Originator: RVL	N.T.S. 105 D		
MINEQUEST EXPLORATION ASSOCIATES LTD.			

2.0

LOCATION, ACCESS, TOPOGRAPHY

The claims cover ground straddling the Partridge River in southern Yukon some two kilometres north of the British Columbia boundary, and south-west of the West Arm of Bennett Lake (see Figure 1).

Although much of the ground on either side of the Partridge River valley is mountainous, the claims, which occupy the valley floor, cover subdued terrain.

During the fall of 1987 the claims were accessed by helicopter from the Wheaton River strip and from Carcross. Any substantial exploration program on the claims could be more economically serviced by boat from Carcross.

The greater part of the claim area consists of rocky knolls with a sparse covering of scrub pine. Lakes, swamps, and alluvium cover some 50% of the property.

3.0

OWNERSHIP AND CLAIM STATUS

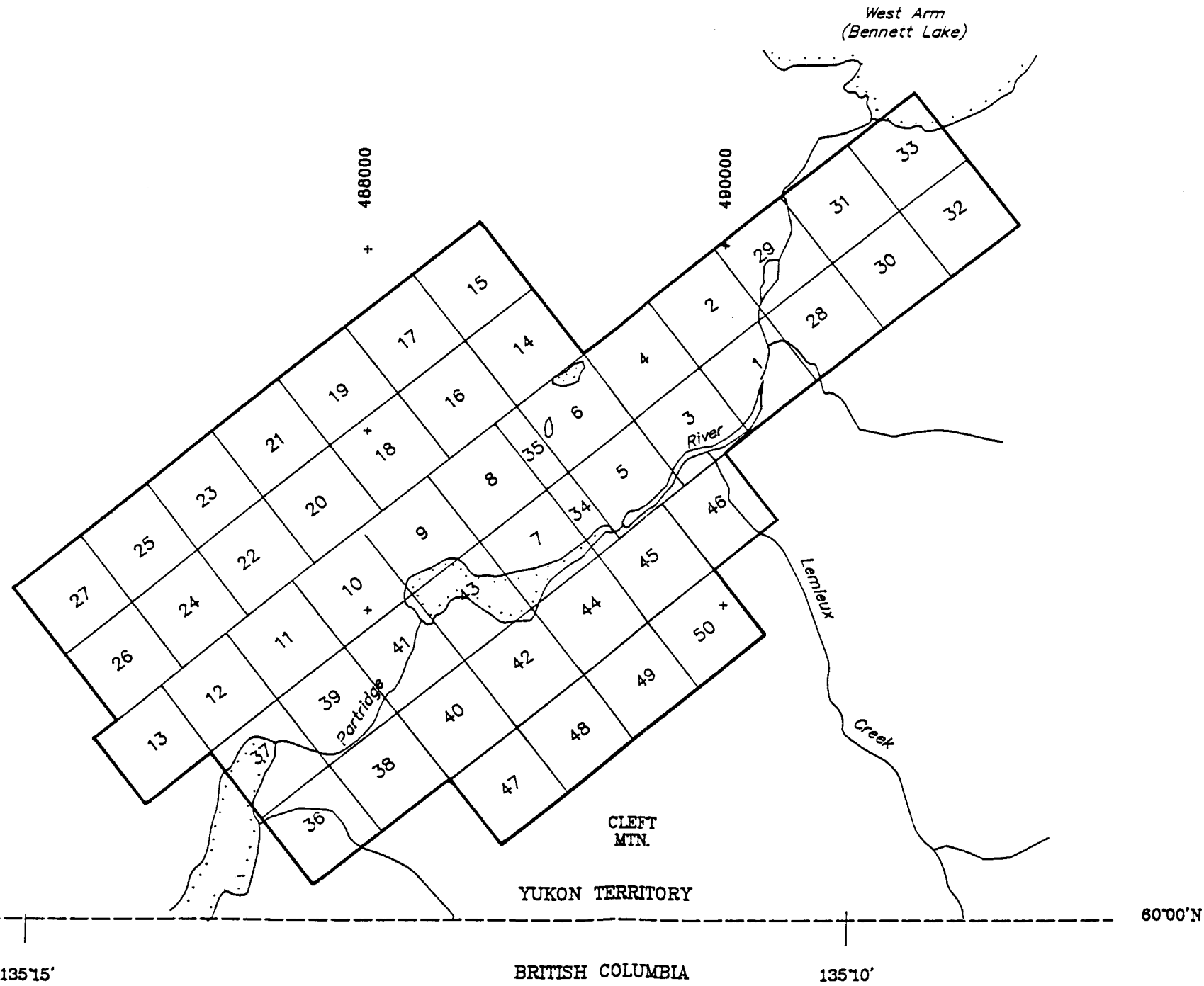
The claims consist of the following:

<u>Claim</u>	<u>Tag Number</u>	<u>Date Recorded</u>	<u>Recorded Owner</u>
Part 1	86430	March 11, 1985	L.O. Allen
Part 2	86431	"	"
Part 3	86432	"	"
Part 4	86433	"	"
Part 5	86434	"	"
Part 6	86435	"	"
Part 7	86436	"	"
Part 8	86437	"	"
Part 9	86438	"	"
Part 10	86439	March 11, 1985	R.J. Bilquist
Part 11	86440	"	"
Part 12	86441	"	"
Part 13	86442	"	"
Part 14	86443	"	"
Part 15	86444	"	"
Part 16	86445	"	"
Part 17	86446	"	"
Part 18	86447	"	"
Part 19	86448	"	"
Part 20	86449	"	"
Part 21	86450	"	"
Part 22	86451	"	"
Part 23	86452	"	"
Part 24	86453	"	"
Part 25	86454	"	"
Part 26	86455	"	"
Part 27	86456	"	"
Part 28	95043	June 30, 1986	L.O. Allen
Part 29	95044	"	"
Part 30	95045	"	"
Part 31	95046	"	"
Part 32	95047	"	"
Part 33	95048	"	"
Part 34	95049	"	"
Part 35	95050	"	"

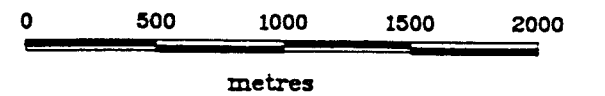
<u>Claim</u>	<u>Tag Number</u>	<u>Date Recorded</u>	<u>Recorded Owner</u>
Part 36	95231	July 25, 1986	R.J. Bilquist
Part 37	95232	"	"
Part 38	95233	"	"
Part 39	95234	"	"
Part 40	95235	"	"
Part 41	95236	"	"
Part 42	95237	"	"
Part 43	95238	"	"
Part 44	95239	"	"
Part 45	95240	"	"
Part 46	95241	"	"
Part 47	96338	Sep. 22, 1986	R.J. Bilquist
Part 48	96339	"	"
Part 49	96340	"	"
Part 50	96341	"	"



865300C



Scale 1:30,000



SIRIUS RESOURCE CORPORATION			
PART CLAIMS			
CLAIM MAP			
PLAN No. 905	DRAWN BY: GEO-COMP	DATE Dec. '86	FIGURE <b>2</b>
Originator: AWG		N.T.S. 105D/3	
MINEQUEST EXPLORATION ASSOCIATES LTD.			

4.0

HISTORY AND PREVIOUS WORK

The Bennett Lake Caldera has been the scene of exploration for copper, molybdenum, uranium and silver at various times during the last 15 years.

In 1962 Kennecott Exploration carried out a silt sampling program which led to the acquisition of claims near the centre of the caldera.

In 1978 D.J. Leighton & Associates, operating on behalf of E&B Explorations Ltd., carried out geological and geochemical surveys for uranium on the ground now covered by the PART claims. Four diamond holes were drilled, none of them in zones prospective for precious metals.

The potential of the claims for silver and gold was first recognized by R.J. Bilquist and L.O. Allen, who were responsible for initiating the staking and sampling of the claims in 1985. In June 1985, Messrs. R.J. Bilquist, L.O. Allen, and R.V. Longe conducted a preliminary rock chip sampling survey, from which encouraging values of gold and silver were returned. (MineQuest Exploration Associates Ltd. Report No. 111). During 1986 the claims were the focus of geological mapping, prospecting, rock chip sampling, soil geochemistry, geophysical surveys, and limited diamond drilling. (MineQuest Exploration Associates Ltd. Report No. 150).

5.0

WORK CARRIED OUT IN 1987

A single BQ diamond drill hole totalling 349.3 metres (1146 feet) was drilled during late October and November. E. Caron Diamond Drilling Limited supplied drill services from a camp on the Partridge River. Core logging and sampling was carried out by R.J. Bilquist and A.W. Gourlay.

**6.0****GEOLOGY****6.1 Regional Geology**

The geology of the Bennett Lake caldera is described in Lambert (1974). The complex, of Eocene age, straddles the boundary between British Columbia and Yukon Territory, and is a twin of the Skukum Caldera 12 miles to the north (Figure 3). The Bennett Lake volcanic rocks include more fragmental units than are found in the Skukum Group, a feature which adds to the potential of the Bennett Lake area for disseminated types of gold deposits.

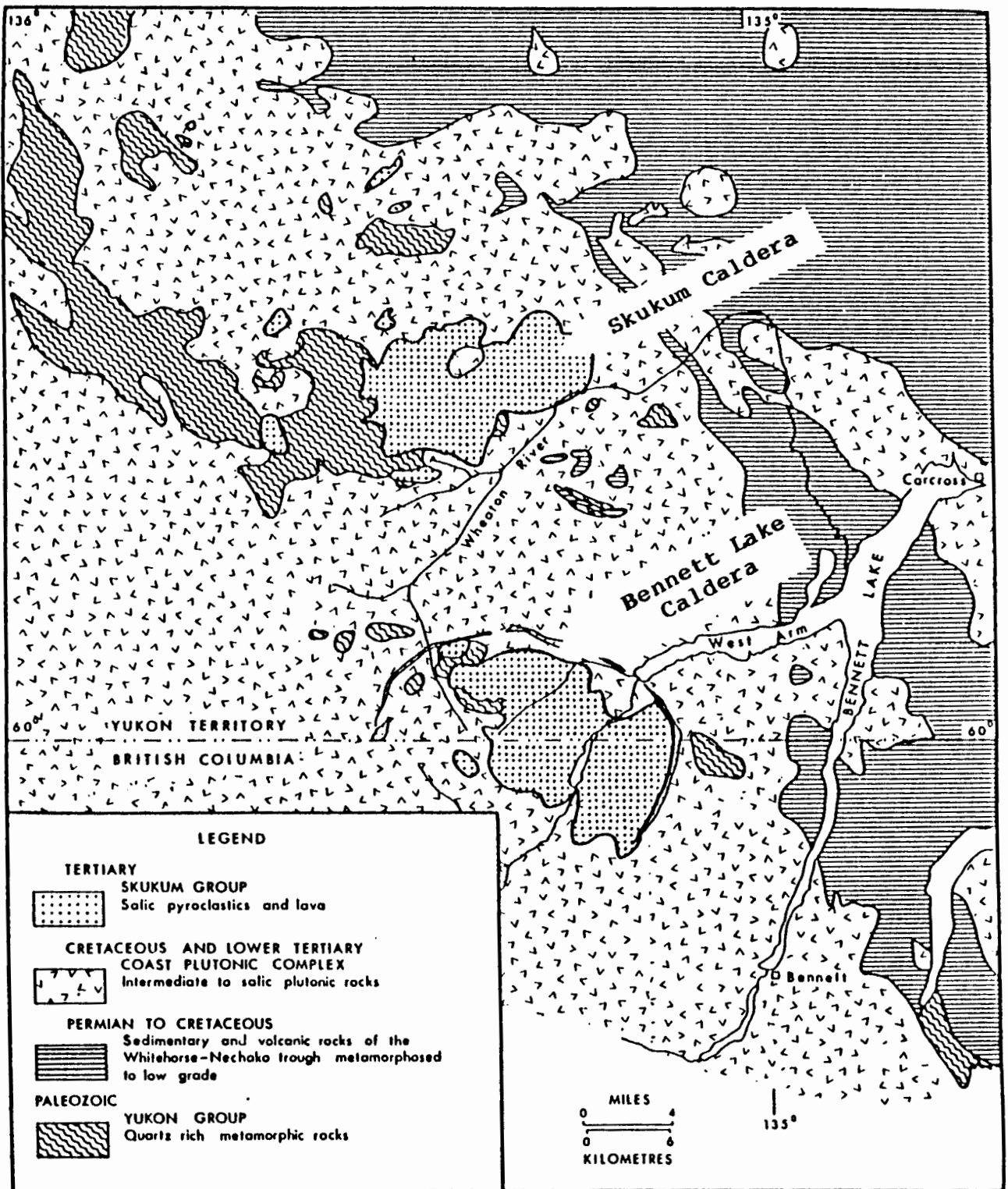
Lambert described the Bennett Lake caldera as a subsidence complex filled by a succession of predominantly volcanoclastic units, each representing a separate volcanic event. Each unit consists of tuff, ignimbrite or lava with, in some cases, subordinate sediments. In general the base of each unit is less welded than the overlying parts of the same unit.

The volcanic units are predominantly silicic in composition. Ash flow tuffs, ignimbrites and breccias are more abundant than lavas. Intrusive rhyolites, in particular a large ring dyke circumscribing the complex, are also present.

**6.2 Property Geology**

The geology of the grid on the PART claims has been summarized by Gourlay (1986) as follows:

"Unit 1 (the Basement rock) is a fine to medium grained quartz monzonite of Upper Cretaceous or Lower Tertiary age. The quartz monzonite is composed of subhedral quartz and feldspar, with 15% mafics, mostly hornblende, now replaced by chlorite. The quartz monzonite weathers grey and is pinkish-green on a fresh surface. The basement is cut by massive,



Regional geology in the vicinity of Bennett Lake, British Columbia and Yukon Territory. Geology modified after Christie (1957) and Wheeler (1961). Reproduced from Lambert (1974).

Figure 3

fine-grained, sucrosic, aplite dykes comprising less than 5% of outcrop. Much less common are massive, green, chloritic basalt dykes. The aplite dykes are coeval with the basement rocks while the basalt dykes are related to the waning stages of volcanism in the caldera.

Unit 2 is a Sedimentary Unit restricted to paleotopographic lows on the quartz monzonite basement. It is composed of three distinct subunits: quartz pebble conglomerate, quartz monzonite pebble conglomerate, and quartz monzonite breccia.

Quartz monzonite breccia is the most common of the three subunits found in the sedimentary package. It is made up of unsorted, angular quartz monzonite fragments supported in a massive, medium grained chloritic matrix. Fragments range in size up to three centimetres. In outcrop, the angular fragments are highlighted by differential weathering of the matrix. The quartz monzonite breccia was probably formed by avalanches sloughing off fault escarpments during collapse of the caldera complex. Quartz pebble conglomerate is composed of white quartz pebbles up to three centimetres in diameter, supported by a fine to medium grained matrix. Quartz pebbles are well rounded but have low sphericity. The matrix is poorly sorted subrounded to angular quartz grains. Quartz pebbles make up as much as 50% of the rock, and the unit varies over short distances from conglomerate to grit. The quartz pebble conglomerate weathers grey, on a fresh surface is light grey with weak iron staining, and in outcrop displays distinct "pimples" formed by large white quartz pebbles.

The quartz monzonite pebble conglomerate is massive in outcrop. Subrounded quartz monzonite pebbles up to four centimetres size are supported by an unsorted medium grained sandy grit.

Unit 3 is a Lithic Tuff that unconformably overlies both the quartz monzonite basement and the sedimentary unit. In outcrop the lithic tuff is a massive, grey weathering rock that is pale grey to buff coloured on a fresh surface. The tuff is predominantly a very fine-grained matrix supporting 10 to 20% angular to subrounded fragments and shards. Fragments are grey, aphanitic and siliceous with size ranging from one to six millimetres. Shards are rare in the lower section of the lithic tuff, and increase in frequency up section as the fragment content decreases. The lithic tuff includes thin interbeds of green tuff composed of devitrified shards, spherulitic beds, and distinct quartz-eye rhyolites. The area of lithic tuff outcrop between 5100E and 5300E from 4050N to 5100N is locally brecciated with drusy quartz cementing angular fragments.

Unit 3a is a transitional unit between units 3 and 4. It is a welded tuff that displays some of the features of both the vitric lapilli tuff and the ignimbrite. It lacks the lapilli feature of unit 3 and the massive black character of unit 4.

Unit 4 is a densely welded tuff or ignimbrite. The rock, which is grey weathering and black on a fresh surface, is massive in outcrop and locally eutaxitic texture is well developed. This unit hosts the fracture controlled mineralization found at the Discovery, Elbow Creek, and West Bank showings."

The 1986 drill program revealed more of the stratigraphy of Unit 3 than is apparent at surface. In drill core, the volcanic section found at surface is interbedded with waterlain lithic tuff or a "grit" equivalent, and an avalanche breccia. Contacts are gradational over as little as 10 cm. The "grit", compositionally very similar to the lithic tuff, is a grey-green colour and occasionally displays layered beds of rapidly varying grain size. A medium to fine-grained matrix supports up to 40% sub-rounded to angular clasts. Clast composition is 50% grey to white, aphanitic siliceous fragments, 25% black siliceous fragments, and 25% lithic tuff fragments. Well rounded clasts of quartz monzonite are extremely rare. Clast size ranges up to four centimetres.

The avalanche breccia is a distinct lithology characterized by angular fragments of lithic tuff supported by an aphanitic maroon matrix. The lithic tuff fragments are light grey and are often well banded. The fragments may carry minor disseminated pyrite, 1 to 2mm size, commonly associated with subhedral, pale green inclusions within the lithic tuff fragments. Fragments are commonly four to five centimetres in size, and range up to a maximum of eight centimetres.

On a gross scale the lower section of the lithic tuff is an unaltered, fragment-dominated tuff that grades upwards into lapilli tuff, which in turn becomes increasingly welded up section.

## 7.0 RESULTS OF THE 1987 PROGRAM

### 7.1 Diamond Drilling

The diamond drill hole tested the projected down dip extension of mineralized veins found at the Discovery showing and in the three holes drilled in the fall of 1986. Core size was BQ, with a diameter of 3.6 cm. Core recovery was very good, averaging 95%. Samples were split manually, half was bagged for shipment, and the other half was returned to the core box for reference. Sample intervals varied from 0.3 to 0.9 metres. All core is stored on the property.

### 7.2 Geology

The upper portion of this year's drill hole cored the same lithologies as the three 1986 holes. The hole was collared on bedrock and cased to 1.82 metres. From 1.82 to 79.10 metres is massive, black, siliceous ignimbrite of Unit 4. At 79.10 metres there is an abrupt transition over 25 cm to Unit 3a, the Transitional Unit. In this section Unit 3a varies rapidly from green lithic tuff to reddish-brown porphyritic tuff. Both lithologies are massive and the lithic tuff beds are often moderately welded. The contact with Lithic Tuff of Unit 3 at 108.50 m is marked by a distinct colour change to a grey, groundmass supported lithic tuff. The avalanche breccia and "grit" units observed in the 1986 drilling are found in the upper sections of Unit 3, which continues to a depth of 292.80 metres. The Lithic Tuff is a monotonous sequence of angular or subrounded fragments supported by a very fine grained to aphanitic groundmass. The fragments composed up to 50% of the tuff, and are predominantly comprised of grey aphanitic siliceous fragments with lesser amounts of black, brown or white aphanitic fragments, finely layered quartz porphyritic fragments, and rare quartz monzonite fragments. Lower in the section andesite tuff beds

up to 9 metres thick are found, as well as sections of chloritized hornblende diorite up to 6 metres thick. These sections may represent slump features or large clasts. Within the Lithic Tuff contacts between sections of different clast composition and grain size are marked by thin zones of irregular or disrupted lithic tuff that probably mark the boundaries between individual depositional or eruptive events. The lowermost 10 metres of Unit 3 is a polyolithic tuff or conglomerate composed of angular to rounded fragments, up to 15 cm in size, supported by an aphanitic groundmass. Fragment content is the same as the upper section of the lithic tuff.

At a depth of 292.80 metres, there is a sharp contact between the basal Lithic Tuff and Feldspar Porphyritic Black Tuff (Unit 2b), a lithology not recognized at surface. The feldspar porphyritic black tuff is a massive, siliceous rock that is moderately to strongly welded. Phenocryst content ranges from 0 to 20% subhedral to anhedral white feldspar phenocrysts, up to 5 mm size supported by an aphanitic black groundmass. Individual flows of weakly to non porphyritic tuff are up to 5 metres thick, and flow contacts are marked by weakly developed breccias or jumbles of angular tuff fragments up to 20 cm size. Feldspar porphyritic black tuff continues to the bottom of the hole at 349.28 metres.

### **7.3 Mineralization**

The 1987 drilling encountered weak quartz sheeting between 216 and 220 metres depth. Quartz veins reach a maximum thickness of 3 mm, and carry pyrite but not galena as found in the 1986 holes. Gold values reach a high of 20 ppb, and silver 7.6 ppm. Traces of disseminated pyrite are found between 229.90 and 231.90 metres, but both gold and silver are at detection limits. At the only place where galena was observed, at 238.75 metres, a sample returned 30 ppb gold and 1.5 ppm silver. Three other samples of calcite veining produced a high of 9.8 ppm silver and gold at the 5 ppb level.

## 8.0

DISCUSSION

The PART claims cover a high grade gold and silver discovery located in an area of subdued topography within the Bennett Lake caldera. The high grade showing is hosted by fractures within an ignimbrite which, based on surface mapping, was assumed to be near the top of a volcanic sequence resting on basement rocks. Recent drilling, however, has intersected another welded tuff or ignimbrite not recognized at surface, suggesting that there is another volcanic sequence between Units 3, 3A and 4 mapped at surface, and the sedimentary unit and basement (Units 2 and 1). This implies that the basement is at an unknown depth below the latest drilling.

Lambert's (1974) structural interpretation of the Bennett Lake caldera locates a small, nested caldera just to the west of the PART claims. The eastern margin of the nested caldera is marked by a major north-northwest trending fault extending north from Lesser Partridge Lake, some 1000 metres west of the Discovery Zone. A number of subparallel splays are mapped in the vicinity of the Discovery Zone and are probably growth faults along the caldera margin. Lambert (1974) suggests that the Bennett Lake caldera was "hinged" or flexed at the western margin and the eastern margin was marked by a series of arcuate fault blocks. Early volcanic sequences would have been deposited in the nested caldera basin and buried by subsequent deposits which lapped onto basement rocks to the east as the two calderas were filled.

Units 4, 3a and 3 may now be correlated with the Cleft Mountain Formation, as mapped by Lambert (1974) and Unit 2b, the feldspar porphyritic black tuff, with the Partridge Lake Formation.

At surface the mineralized fractures are unobtrusive and nondescript. The ignimbrite is a massive, tight rock that does not appear to be a likely host, and within the upper portion of the lithic tuff, mineralization is found in a sheeted zone of narrow quartz veins. The single deep drill hole did not encounter increased mineralization or vein width with depth, nor a distinct fracture zone. Drilling has only tested the section beneath the Discovery Zone, leaving the strike extensions and presumably the depth possibility along strike as potential targets.

Lithologies hosting mineralized veins at surface and in drill holes are tight unreceptive hosts. Growth faults related to a nested caldera margin would provide a plumbing system for mineralizing fluids and any dilation zones along those faults, or permeable lithologies crosscut by faulting would be a preferred site of mineral deposition.

9.0

SUMMARY AND CONCLUSIONS

1. The PART claims cover an area of quartz monzonite overlain unconformably by quartz pebble conglomerate, quartz monzonite pebble conglomerate, and quartz monzonite breccia. These rocks are apparently overlain by welded tuffs of the Partridge Lake Formation, which is in turn overlain by lithic tuff that grade upwards into vitric lithic tuff, which in turn grade into ignimbrites, all of the Cleft Mountain Formation.
2. Surface mineralization occurs as fracture-controlled galena, pyrite, and chalcopyrite within the ignimbrite unit.
3. Mineral occurrences are controlled by north-south fractures, the presence of which has been confirmed by geophysical surveys. Most mineralization is found near a strong northwest-southeast trending magnetic feature. These fractures are subparallel to the margin of a nested caldera located immediately west of the PART claims.
4. Drilling has tested the mineralized fractures to a depth of 300 metres. Geochemically anomalous gold and silver values which increase in sulphide content and precious metal values with depth were returned from all three shallow holes. A single deep hole encountered weakly developed fractures with negligible gold and silver values.

## 10.0

RECOMMENDATIONS

The source of the high grade gold and silver values found at surface has proved to be enigmatic. To-date, limited drilling beneath the Discovery Showing has failed to find a plumbing system that would provide an adequate feeder to the fracture controlled mineralization at surface. A more detailed examination of the Discovery Showing is required to better understand the controls of mineralization at surface. Hand trenching, using a plugger and blasting, to crosscut the trend of the mineralized fractures, north and south of the Discovery Zone, is recommended. Trenching will provide more information on the attitude, widths and dips of mineralized fractures with which to plan more drilling.

Other targets within the Bennett Lake Caldera, in particular the BOUD claims, require a thorough evaluation during the next exploration season and have a stronger claim on funds than further drilling on the PART claims. If more follow-up work is decided upon, the trenching plan recommended above will cost approximately \$50,000 and will take about two weeks to complete. Further diamond drilling is not warranted until a better understanding of the nature and orientation of the mineralization at the Discovery Zone is developed.

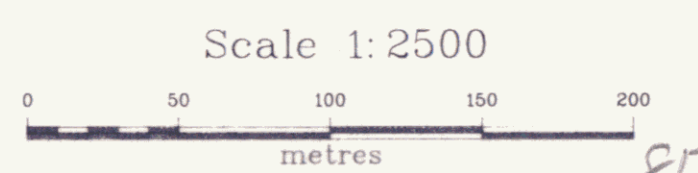
11.0

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- Gourlay, A.W., 1986.  
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- Gourlay, A.W., 1986.  
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- Lambert, M.B. 1974.  
The Bennett Lake Cauldron Subsidence Complex, British Columbia and Yukon Territory  
GSC Bulletin 227.
- Longe, R.V., 1985.  
Part Claims - Partridge Lake - Southwest Yukon MineQuest Exploration Associates Ltd. Report Number 111 (submitted as Assessment Report).



- LEGEND**
- Strike/dip, bedding or eotaxitic layering
  - Strike/dip, fracture
  - Strike/dip, vein
  - Outcrop
  - Escarpment
  - Swamp
  - Geological Contact known, approximate, inferred
  - Fault
  - Lake
  - Mineral Showing
  - Diamond Drill Hole
- Tertiary**
- 4 Ignimbrite
  - 3a Undifferentiated welded lithic tuff and ignimbrite
  - 3 Lithic Tuff
  - 2b Feldspar Porphyritic Black Tuff
  - 2 Lower Sedimentary unit: quartz monzonite pebble conglomerate, quartz pebble conglomerate, quartz monzonite breccia
  - 1 Upper Cretaceous or Lower Tertiary Medium to fine grained quartz monzonite



SIRIUS RESOURCE CORP.					
PART CLAIMS					
GEOLOGY & DRILL HOLE LOCATIONS					
Originator	Drawn	Date	PLAN No.	FIGURE	
Original	AWG	Geo-Comp	JAN '88	9042	4
Revision				N.T.S.	
Revision				105D/3	

MINEQUEST EXPLORATION ASSOCIATES LTD.

092119

4910 E, 5100 N

DEPTH  
00 meters

HOLE: DDH-PRT 87-001  
Dip: -70  
Azm: 065  
Coordinate: 5100 N  
4910 E  
Section at 065° looking North

100

200

0.1 7.4 87001

5.0 9.8 87002






20.0 6.6 87003  
15.0 7.5 87004  
10.0 8.4 87005  
5.0 9.3 87006  
1.6 87011

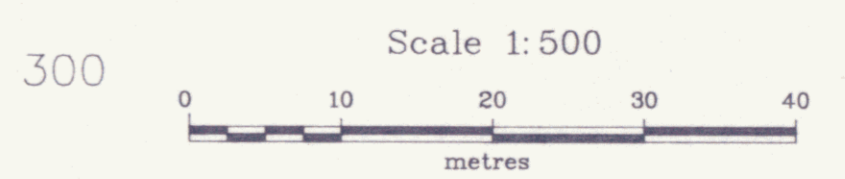
2.3 87012  
1.2 87013  
1.6 87014  
1.5 87015

5.0 0.4 87016

87-1

LEGEND

-  OVERBURDEN
-  UNIT 4 Ignimbrite
-  UNIT 3A Undifferentiated welded lithic tuff and ignimbrite
-  UNIT 3 Lithic Tuff
-  UNIT 2B Feldspar Porphyritic Black Tuff
- 20.0, 6.6, 87001 Au(ppm), Ag(ppm), Sample No.



818

SIRIUS RESOURCE CORP.					
PART CLAIMS					
SECTION: DDH 87-1					
	Originator	Drawn	Date	PLAN No.	FIGURE
Original	AWG	Geo-Comp	Jan '88	1207	5
Revision				N.T.S.	
Revision				105D/3	
MINEQUEST EXPLORATION ASSOCIATES LTD.					

**APPENDIX I**

Names and Addresses of Persons Performing  
Work Described in this Report

APPENDIX I

Names and Addresses of Persons Performing  
Work Described in this Report

R.J. Bilquist  
Box 81  
Gabriola Island, B.C.  
V0P 1X0

A.W. Gourlay  
9188 - 122B Street  
Surrey, B.C.  
V3V 7M1

**APPENDIX II**

Laboratory Techniques  
and  
Laboratory Reports

## APPENDIX II

### Analytical Techniques

All samples were sent to the Bondar-Clegg and Co. Ltd., Whitehorse, Yukon for preparation.

Rock samples were processed as follows. The sample was put through a primary jaw crusher followed by a secondary cone crusher, which reduced the sample to 80% less than 10 mesh. A representative split of approximately 250 grams was obtained by passing the entire crushed sample through a Jones Riffle splitter. This split was then pulverized for 2.5 minutes in a ring and puck grinder which reduced the particle size to 99% less than 100 mesh.

Rock pulps were then shipped to Bondar-Clegg and Co. Ltd., North Vancouver, B.C. for analysis, as follows:

- Gold: Two thirds of an assay ton by fire assay extraction and atomic absorption determination, and
- Silver: Lefort aqua regia extraction, atomic absorption determination.





**APPENDIX III**

Drill Log

















































































**APPENDIX IV**

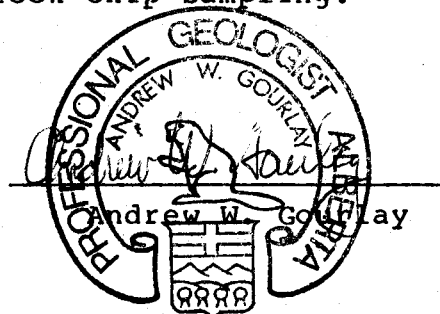
**Statement of Qualifications**

STATEMENT OF QUALIFICATIONS

I Andrew Gourlay, hereby certify that:

1. I am presently employed by MineQuest Exploration Associates Ltd. as Senior Geologist.
2. I am a graduate of the University of British Columbia (B.Sc. Hons., 1977, in geology).
3. I am a Professional Geologist in good standing with the Association of Professional Engineers, Geologists and Geophysicists of Alberta, and a Fellow of the Geological Association of Canada.
4. I have practised my profession as geologist for ten years.
5. The information used in this report is based on personal execution of the geological mapping and supervision of the rock chip sampling.

Signed



Dated at Vancouver, B.C. this  
11<sup>th</sup> day of February 1988

**APPENDIX V**

**Cost Statement**

**COST STATEMENT**

PARTRIDGE

OCTOBER 1, 1987 to FEBRUARY 29, 1988

Fees	\$ 8,159.50
Temporary Staff	4,177.00
Casual Staff - Salary & Wages	17.50
Casual Wages O/R	8.75
Air Fares - Scheduled	632.00
Fuels & Lubricants - Vehicles	30.98
Charter Helicopter	27,167.60
Taxis, Parking, Fares	122.50
Freight	466.85
Drilling	45,643.45
M.Q. Equip. Chg. - Field	152.00
M.Q. Equip. Chg. - Camp	160.00
Equipment Rentals	453.37
Groceries, Kitchen Supplies	1,334.24
Food & Accommodation - in Field	480.61
General Supplies	95.90
Geochemical Analyses	192.00
Telephone, Telex, Telegrams	417.84
Expeditor	8,887.00
Courier/Postage/Air Express	147.92
Drafting	292.50
Reprographics, In House	7.00
Reprographics	42.92
Photocopies, In-House	149.95
Report Prep./Word Processing	199.50
Distribution O/R	8,703.97
Total	<u>\$ 108,142.85</u>

Fees

R.V. Longe	3.25 hrs. @	\$ 80.00/hr.	\$ 260.00
A.W. Gourlay	11.5 days @	385.00/day	4,427.00
	54.25 hrs. @	64.00/hr	3,472.00
			<hr/>
			\$ 8,159.00
			<hr/> <hr/>

Temporary Staff

R.J. Bilquist	9.0 days @	185.00/day	\$ 1,665.00
T. Grossett	16.0 days @	135.00/day	2,160.00
C.M. Russell	11.0 hrs. @	32.00/hrs.	352.00
			<hr/>
			\$ 4,177.00
			<hr/> <hr/>

**APPENDIX VI**

Application for a Certificate of Work



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT  
YUKON QUARTZ MINING ACT  
FORM "C" - APPLICATION FOR A CERTIFICATE OF WORK

*These were sent by air - guaranteed flight  
MARCH 9 88 Jc*

(This form required in duplicate with sketch showing location of work.)

I (Name) S.L. Eng	Occupation Claims Manager
(Postal Address) MineQuest Exploration Associates Ltd. 500-164 Water St., Van., B.C., V6B 1B5	

OFFICE DATE STAMP

MAKE OATH AND SAY, THAT:

- I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.
- I have done, or caused to be done, work on the following mineral claim(s):  
(Here list claims on which work was actually done by number and name)

Part 5 YA 86434

situated at Partridge Lake Claim Sheet No. 105 D/3  
in the Whitehorse, Yukon Mining District, to the value of at least \$8,000  
dollars, since the 1st day of October 19 87.

to represent the following mineral claims under the authority of Grouping Certificate No. \_\_\_\_\_  
(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

PART 1988 GROUP

Part 1 YA 86430	Part 2 YA 86431	Part 3 YA 86432
Part 4 YA 86433	Part 5 YA 86434	Part 6 YA 86435
Part 7 YA 86436	Part 8 YA 86437	Part 9 YA 86438
Part 14 YA 86443	Part 16 YA 86445	Part 34 YA 95049
Part 35 YA 95050	Part 44 YA 95239	Part 45 YA 95240
Part 46 YA 95241		

FIVE YEARS REQUESTED FOR THE THE CLAIMS LISTED ABOVE

3. The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 63.)

October 29 - November 13, 1987 R.J. Bilquist and A.W. Gourlay supervised 1146 feet of BQ diamond drilling in one hole on PART 5 Claim (5 man drill crew including cook).  
Samples analysed in November, December, Report written in December, 1987, January and February, 1988.

Sworn before me at Vancouver, British Columbia  
this 9<sup>th</sup> day of March 19 88

Brian E. Abraham  
Notary Public For British Columbia

S.L. Eng  
Owner or Authorized Agent

BRIAN E. ABRAHAM  
Barrister & Solicitor  
2500 - 595 BURRARD STREET  
P.O. BOX 49200  
VANCOUVER, B.C. V7X 1L1