ASSESSMENT REPORT

Diamond Drilling Paterson Lake

April, 1990 John Wilson

19943

ARIS SUMMARY SHEET

District Geologist, Victoria Off Confidential: 90.12.29

ASSESSMENT REPORT 19943 MINING DIVISION: Alberni

PROPERTY: Paterson Lake
LOCATION: LAT 49 20 00 LONG 125 00 00
UTM 10 5466728 336531
NTS 092F06E
CLAIM(S): Paterson Lake 2
OPERATOR(S): S.T.S. Res.
AUTHOR(S): Wilson, J.R.
REPORT YEAR: 1990, 17 Pages
COMMODITIES
SEARCHED FOR: Copper,Gold,Silver
KEYWORDS: Triassic,Karmutsen Formation,Basalts,Chalcopyrite,Bornite
WORK
DONE: Drilling
DIAD 170.0 m 4 hole(s);BQ
RELATED
REPORTS: 16101,16239
MINFILE: 092F 340

DIAMOND DRILLING ASSESSMENT REPORT

ON

PATERSON LAKE #1 TO #6 AND PATERSON #8 MINERAL CLAIMS
ALBERNI MINING DIVISION

NTS 92 F-6E

Latitude 49° 20′ N Longitude 125° 00′ W

OWNER AND OPERATOR: STS Resources Limited

April 1990

John R. Wilson, FGAC

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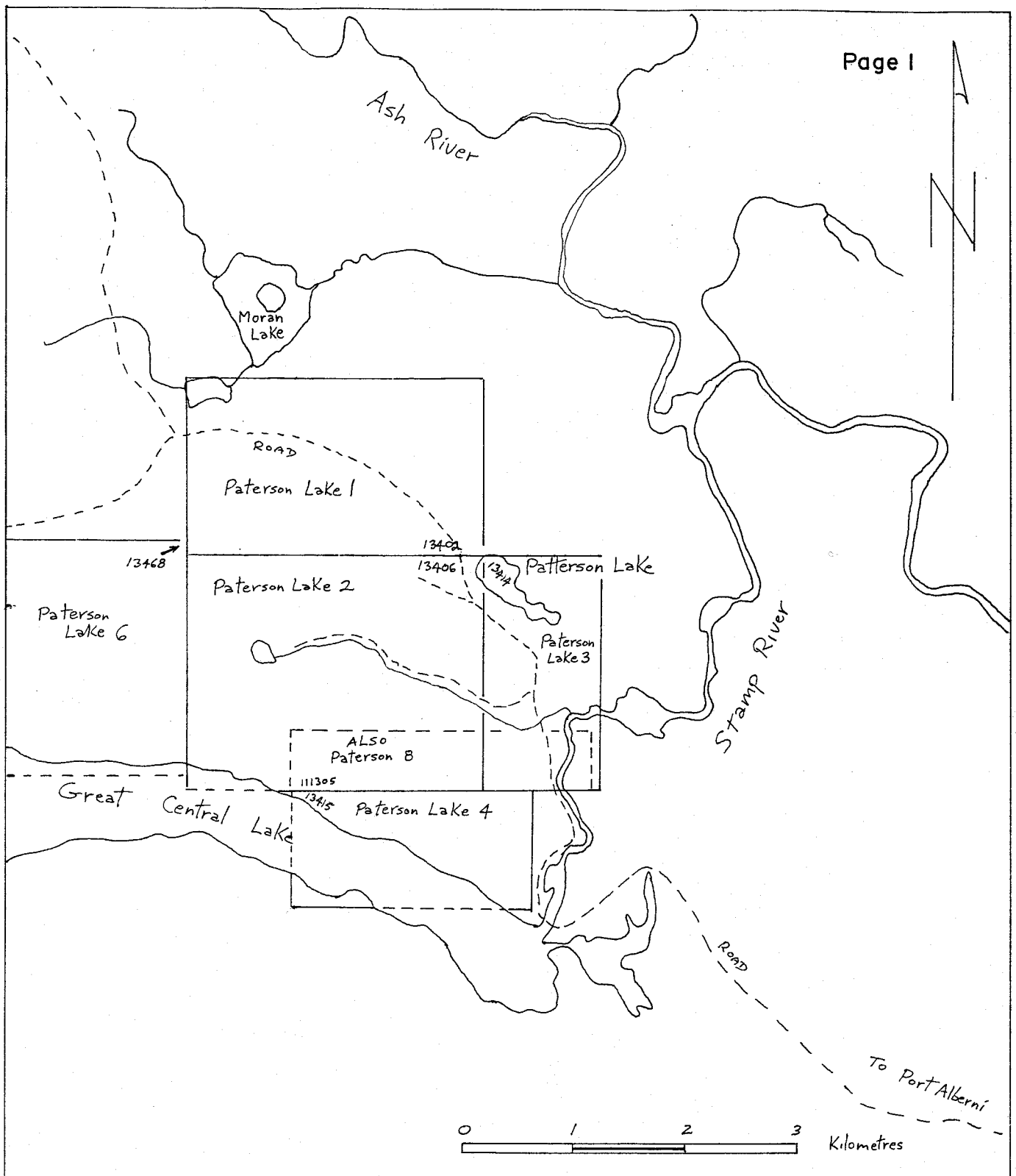


STS RESOURCES LIMITED

INDEX MAP

PATERSON LAKE PROPERTY

SCALE: 1:50,000

NTS: 92F6E FIGURE: 1

INTRODUCTION

Diamond drilling was used to test a northwest trending vein and shear zone on the Paterson Lake #2 mineral claim which is part of a group consisting of Paterson Lake #1 to #6 and Paterson Lake #8 claims in the Port Alberni mining division.

The claim group is situated approximately 20 kilometers northwest from Port Alberni, B.C. They occupy the northeastern shore of Great Central Lake and extend north from the shoreline for approximately four kilometers. They lie west of Stamp River.

Elevations within the claim group range from 83 meters above sea level at Great Central Lake to approximately 480 meters ASL further inland. Moderately steep forested slopes rim Great Central Lake here. These slopes usually level out at about 300 meters ASL and the majority of the claims' topography consists of hummocky forested ground with higher points comprised of rocky knobs or sparse vegetation. Lower ground within the hummocky area contains forest, swamp, lakes and creeks.

The claims are accessible by a network of logging roads and an electrical power transmission corridor.

The claims were recorded in 1984. In 1987 an assessment report by Ellen Lambert and J.C. Stephen entitled "Geological, Geophysical Report on Paterson Lake #1 to #6 Mineral Claims" described the results of magnetometer, VLF, IP, geological mapping and sampling surveys throughout the claims. Mineralization consists of malachite, chalcopyrite, bornite and pyrite in Karmutsen volcanic shears and quartz breccias. The site drilled and described in the present report is in the vicinity of two old adits where Lambert and Stephen located low grade gold and silver values associated with copper mineralization.

The current owner and operator is STS Resources Limited.

Diamond drilling described in this report consists of four holes drilled to 59.25 m, 44.50 m, 25.25 m, and 41.00 m for a total of 170.00 meters. The core is stored in Port Alberni at the premises of SYMC Resources Ltd.

Copper, silver and gold mineralization has been located on the claims but the amounts found so far remain uneconomic.

LOCAL GEOLOGY

The claims in the drill area are underlain by Triassic Karmutsen formation basaltic lavas. Previous work (Lambert and Stephen, referred to earlier) suggests the pillow lavas, massive and porphyritic flows and tuffaceous units belong to the middle to upper Karmutsen. They also refer to a Jurassic granodiorite intrusion in the extreme western part of Paterson #6 claim and related hornblende porphyry dykes and diorite dykes which cut the Karmutsen volcanics.

DIAMOND DRILLING REPORT

The purpose of the drilling was to investigate a northwest trending vein-shear zone with gold, silver and copper mineralization. The zone was thus tested to approximately 40 meters below surface by drilling two angle holes (at 45^{0} and 70^{0}) from each of two set-ups approximately 40 meters apart. The core was logged but not split or assayed.

Core consists of Karmutsen basalt with quartz veins of unknown age up to 2.18 meters wide. The basalt is usually green and sometimes grey with augite phenocrysts to 5 mm in places. Minor probable flow top breccias and interstitial pillow material are present. Amygdaloidal quartz, epidote and chlorite sometimes hold chalcopyrite. Total sulphides, as pyrite and chalcopyrite, reach 5% over 30 cm in veinlets, amygdales and disseminations within the basalt. Lesser amounts of sulphides are found within quartz veins and in ankerite zones.

Holes STS - 01 and 02 both contain a shear zone (3.0 and 3.3 meters wide respectively) and a prominent chalcopyrite bearing quartz vein (1.25 and 1.15 meters wide respectively). Based on core angles from logging and inspection of the cross-section it's likely that both drill holes have intersected the same shear structure and a parallel single quartzvein. Both vein and shear dip northeasterly at 50^0 in the plane of the section.

Holes STS - 03 and 04 intersect ankerite alteration. If the ankerite is continuous and planar from hole to hole it has an apparent northeasterly dip of 42^0. Hole 03 contains a 2.18 meter wide chalcopyrite bearing quartz vein immediately below the 1.6 meter wide ankerite zone. The 4 meter wide chalcopyrite bearing ankerite section in hole 04 is underlain by a 1 meter wide shear containing some quartz vein material. It's likely that a common structural feature has been intersected by holes 03 and 04 but the core angles measured during logging doesn't support this hypothesis. More fieldwork is required to determine if there is a single or multiple ankerite - quartz vein zone in this section.

Mineralized sections of drill core need to be analysed by assay or rock geochemistry to help assess the economic potential of the claim.

ITEMIZED COST STATEMENT

Diamond drilling contract: SYMC Resources Limited completed 170 meters of B.Q. diamond drilling during the period February 6 to February 20, 1989 at an all inclusive price of $150.00 per meter for a total of $25,500.00.

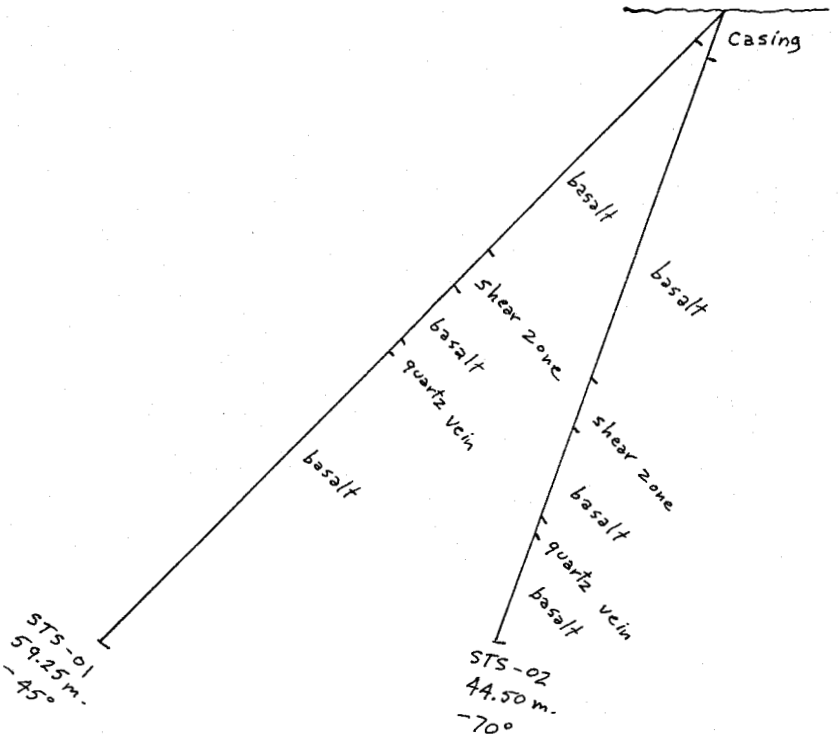
CERTIFICATE

I, John R. Wilson, of Merville, B.C. hereby certify that:

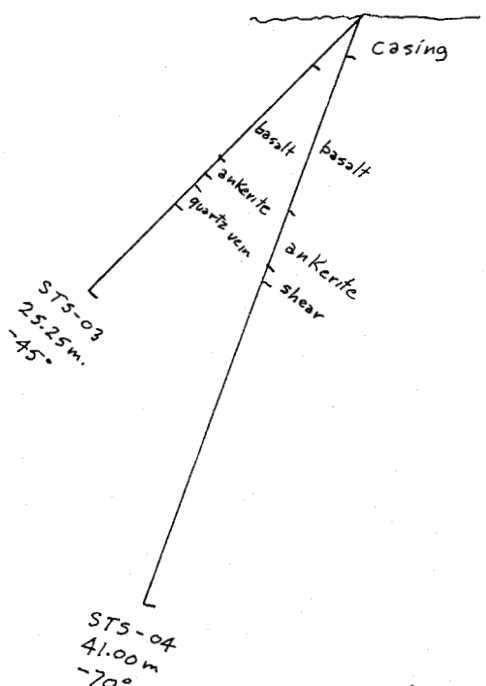
1. I am a graduate of the University of British Columbia with a BSc (honours geology), - 1972.
2. I am a Fellow of the Geological Association of Canada.
3. I have worked as a professional mineral exploration geologist in B.C. and eastern North America every year since 1972.
4. This report is based on information provided by STS Resources Limited, my logging of the drill core and a visit to the drill site and legal corner post. I did not participate in the drilling operation.

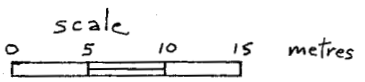
John R. Wilson, F.G.A.C.

Collars
DDH STS-01, STS-02



DDH STS-03, STS-04 COLLARS





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DRILL HOLE SECTIONS

PATERSON LAKE PROPERTY

SCALE: 1:500 FIGURE 2

NORTH _____ STARTED _____

EAST _____ COMPLETED _____

ELEV. 120 metres (approx.) LENGTH 59.25 metres

BEARING Southwesterly

DIP -45°

STS RESOURCES LIMITED

PROPERTY
Paterson Lake
BQ Core

PURPOSE To test quartz vein.

LOGGED BY J. Wilson C.L.

HOLE No. STS-01

CLAIM Paterson Lake #2

SECTION _____

OFFSET _____

PLOTTED _____

metres	DESCRIPTION	SAMPLE						
0 - 2.44	Casing							
2.44 - 30.50	Basaltic volcanic. Medium to dark green. Augite phenocrysts							
	to 7mm. Often chloritic. Quartz amygdales to 4mm							
	in places. Scattered, weak epidotization as pervasive							
	alteration, in amygdales or rarely as veinlets.							
	Rare quartz veinlets at about 35°.							
	4.50 - 4.88 : specimen removed before logging							
	13.15 - 13.30 : silicified. Trace pyrite as 50° veinlets.							
	13.60 - 13.80 : broken, rusty core							
	14.90 - 15.30 : silicified zone at 50°							
	16.60 - 19.73 : chloritic, slickensides at 5°-20°. Minor quartz							
	and calcite veinlets							
	18.25 - 18.40 : silicified. Weak epidote. Rare 1mm							
	red hematitic veinlets at 50°							
	19.73 - 20.85 : breccia (flow top?). 85°							
	upper contact. 70° lower contact. Silicified.							

V15WO

metres	DESCRIPTION	SAMPLE		C.L.				
	20.85 - 22.32 : Several quartz - epidote - calcite veinlets at 45°							
	and occasional silicified patches							
	22.32 - 25.32 : shear / fault zone with gouge and							
	strong quartz veinlets / veining to 2 cm. Scattered calcite							
	veinlets and patchy disseminated chalcopyrite throughout.							
	40° upper contact. 80° lower contact. Minor veinlet							
	and disseminated pyrite in places. Total sulphides : 1-2%							
	25.32 - 30.50 : occasional quartz veinlets and veining							
	to 1 cm at 55°, sometimes with minor red hematite.							
	Up to 5% grey hematite is disseminated through rare							
	5 cm wide zones. Minor chalcopyrite in quartz veinlets							
	at 26.5 - 26.6 and at 29.7 metres.							
30.50 - 31.75	Quartz vein with 30% basaltic volcanic rock							
	fragments. Occasional calcite veinlets. Strongly							
	epidotized patches in rock to 1 cm. Occasional							
	hematite (red) veinlets at 65° to 80° may be							
	intensely spaced across 5 cm. Minor gouge. Occasional							
	veinlets and blebs of chalcopyrite in top 40 cm.							
	50° upper contact. 60° lower contact.							

SHEET No. 2

HOLE No. STS - 01

V15WO

metres	DESCRIPTION	SAMPLE		C.L.				
31.75 - 33.90	Basaltic volcanic rock (as above) interlayered with quartz veining. 20% of section is quartz vein material which occurs as several 5 to 10 cm wide veins at approximately 50°. Quartz veins often have 2 mm, red hematitic edges. The massive, white quartz veins often encase euhedral, clear quartz crystals to 5 mm. Epidote veinlets are common.							
33.90 - 51.45	Basaltic volcanic (as above). Weak to moderately epidotized in most places. Occasional quartz veins to 1 cm above 34.8 m. Broken core is chloritic with calcite-quartz veinlets at 40.1 to 40.4 m. Broken core with chloritic fractures at 40.8 to 41.7 m. 47.4 - 48.2 : 15% amygdales of epidote, quartz and chlorite with occasional chalcopyrite. Minor chalcopyrite in quartz veinlets. 49.15 - 49.25 : calcite-quartz vein and shear at 30° 49.25 - 51.45 : massive grey-green volcanic (basaltic). 49.88 - 50.50 : calcite-quartz shear at 60°. Hematite veinlets.		Core Recovery from to % 2.44 - 4.88 m 70% 4.88 - 26.24 100% 26.24 - 32.24 95% 32.24 - 59.25 100%					
51.45 - 59.25	Basaltic volcanic rock (as above, but purplish mainly).							
end of hole	58.90 - 59.25 : 20% amygdales carrying quartz, epidote, chlorite and occasional chalcopyrite.							

SHEET No. 3

HOLE No. STS - 01

NORTH _____ STARTED _____

EAST _____ COMPLETED _____

ELEV. 120 metres (approx.) LENGTH 44.50 metres

BEARING Southwesterly

DIP -70°

STS RESOURCES LIMITED

PROPERTY
Paterson Lake
BQ Core

PURPOSE To test quartz vein.

LOGGED BY J. Wilson

HOLE No. STS-02

CLAIM Paterson Lake #2

SECTION _____

OFFSET _____

PLOTTED _____

metres	DESCRIPTION	SAMPLE		C.L.				
0 - 3.00	Casing							
3.00 - 35.75	Basaltic volcanic. Pale to dark green.							
	Augite phenocrysts to 5mm in places. Amygdaloidal							
	in places. Moderatly chloritic with occasional chloritic							
	slickensides.							
	9.3 - 10.0: trace disseminated chalcopyrite							
	10.0 - 10.6: broken, rusty zone with slickensides							
	and gouge (?) at 5° to 20°							
	16.45 - 25.74: weak to moderate silicification							
	and epidotization							
	25.74 - 29.04: several shear/fault							
	zones to 20 cm wide at 25°, 70°.							
	Shears are calcite rich.							
	27.52: 5 mm quartz-calcite-hematite							
	veinlets at 15°							

V15WO

metres	DESCRIPTION	SAMPLE		C.L.
	29.4 - 35.75 : quartz - calcite veinlets and veins			
	are common. Rare epidote veinlets			
	34.8 : Trace disseminated pyrite. Hematite stain.			
35.75 - 36.90	Quartz Vein. Broken in places. Quartz is grey			
	and white and carries calcite veinlets. Some			
	very chloritic rock fragments to 1 cm.			
	50° upper contact. 70° lower contact.			
	35.55 - 36.00 : 1% chalcopyrite in quartz veinlets			
	within country rock and main quartz vein.			
	Very minor disseminated chalcopyrite in the main			
	quartz vein below 36.0 m.			
36.90 - 44.50	Basaltic volcanic (as above but medium green			
end of hole	in colour). Very rare quartz veinlets or			
	calcite veinlets. Epidote veinlets common.		CORE RECOVERY	
	Interstitial calcite common.		from to	%
	41.05 - 41.15 : trace chalcopyrite in amygdales.		3.00 25.88	100 %
			25.88 26.49	62 %
			26.49 27.58	138 %
			27.58 29.50	21 %
			29.50 44.50	100 %

SHEET No. 2

HOLE No. STS - 02

NORTH _____ STARTED _____

EAST _____ COMPLETED _____

ELEV. 120 metres (approx) LENGTH 25.25 metres

BEARING Southwesterly

DIP -45°

STS RESOURCES LIMITED

PROPERTY

Paterson Lake

BQ Core

PURPOSE To test quartz vein

LOGGED BY J. Wilson

HOLE No. STS-03

CLAIM Paterson Lake #2

SECTION _____

OFFSET _____

PLOTTED _____

metres	DESCRIPTION	SAMPLE	C.L.
0 – 4.00	Casing		
4.00 – 12.70	Basaltic volcanic. Dark green. Augite phenocrysts to 5 mm in places. Weak to moderately chloritic. Rusty, broken sections at 4.0 – 6.5 and 9.20 – 10.55		
	9.50 – 12.70 : strong interstitial calcite and veinlet calcite.		
	9.6 – 12.7 : occasional red hematite veinlets		
	10.55 – 12.70 : calcite-quartz veinlets common.		
12.70 – 14.30	Ankerite alteration. Buff to orange colour. Mainly soft to medium hard. Occasional quartz veinlets. Interstitial calcite throughout.		
14.30 – 14.80	Gouge / shear zone. Grey colour. Interstitial calcite throughout.		

V15WO

metres	DESCRIPTION	SAMPLE		C.L.				
14.80 – 16.98	Quartz vein. Light to medium grey in colour							
	with dark grey rock chips in places. Moderately							
	broken core. Scattered patches of disseminated							
	chalcopyrite and pyrite eg. 14.80 – 15.00, 15.70 – 15.80,							
	16.80 – 16.98. Total sulphide content: 2 – 4%.							
	Gradational upper contact. 40° (?) lower contact.							
16.98 – 25.25	Basaltic volcanic (as above)							
end of hole	16.98 – 19.15: strong quartz-calcite veinlets.							
	moderately chloritic. Some gouge.							
	18.8 – 13.9: ankerite alteration. Buff to orange.							
	18.85 – 19.15: quartz veinlets and blebs of							
	chalcopyrite. To 5% chalcopyrite.							
	19.15 – 20.25: rare quartz – calcite vein,							
	rare epidote vein.		CORE RECOVERY					
			from	to	%			
			4.00 m.	5.33 m.	100 %			
			5.33	6.33	70			
			6.33	9.33	33			
			9.33	10.33	65			
			10.33	25.25	100			

SHEET No. 2

HOLE No. STS – 03

NORTH _____ STARTED _____

EAST _____ COMPLETED _____

ELEV. 120 metres (approx.) LENGTH 41.00 metres

BEARING Southwesterly

DIP -70°

STS RESOURCES LIMITED

PROPERTY
Paterson Lake
BQ Core

PURPOSE To test quartz vein -

LOGGED BY J. Wilson

HOLE No. STS - 04

CLAIM Paterson Lake #2

SECTION _____

OFFSET _____

PLOTTED _____

metres	DESCRIPTION	SAMPLE		C.L.					
0 - 2.13	Casing								
2.13 - 13.10	Basaltic Volcanic. Dark green to grey.								
	Augite phenocrysts to 5mm in places. Weak to								
	moderatly chloritic. Very rare calcite -								
	quartz veinlets. Rare epidote veinlets.								
	Broken and rusty core above 6.4 metres.								
	Traces of chalcopyrite throughout, in								
	2 to 3 mm black (chlorite?) patches.								
13.10 - 17.10	Ankerite alteration. Soft to medium								
	hardness. Buff to orange colour.								
	With angular fragments to 3cm.								
	15.8 - 16.2 : 2% chalcopyrite as								
	blebs to 1cm								
	Upper contact of zone 30°. Lower contact								
	at 20°								

V15WO

metres	DESCRIPTION	SAMPLE		C.L.
17.10 - 18.10	Shear / fault zone. Gouge with vein quartz material. Upper contact 20°. Lower contact 50°(?).			
18.10 - 39.90	Basaltic volcanic (as above).			
	18.10 - 20.50 : broken grey volcanic. Strong quartz veinlets. Silicification. Patchy disseminated pyrite to 3% eg 20.0 - 20.3 m. Chalcopyrite in veinlets to 3 mm in places. Total sulphides 1-2%.			
	20.50 - 21.50 : intense quartz veinlets with chalcopyrite (Eg. 21.2 to 21.5 m is silicified zone with 5% chalcopyrite)			
	21.50 - 23.90 : occasional quartz veinlets or quartz - epidote veinlets. Rare speck of chalcopyrite. Red hematite veinlets are common.		CORE RECOVERY	
	23.9 - 39.90 : weak to moderate epidotization.		From to	%
	Very rare veinlets of quartz or epidote.		2.13 3.05	54%
39.90 - 41.00	Basaltic volcanic (as above but with		3.05 4.50	100
end of hole.	purplish tinge, quartz amygdales common.		4.50 5.11	65
	Very rare veinlets of quartz.		5.11 6.40	100
			6.40 7.62	81
			7.62 41.00	100

SHEET No. 2

HOLE No. STS - 04

claim boundary

LCP Paterson Lake 2 Mineral claim

LCP Paterson Lake 3 Mineral claim

Patterson Lake

Drill Holes STS 1 and 2

Drill Holes STS 3 and 4

portals

Creek

road

claim boundary

road

creek

Stamp River

Road to Great Central Lake and Port Alberni

Scale (metres)

0 100 200 300

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,943

Claim post and boundary locations were located by topographic map.

STS RESOURCES LIMITED

DIAMOND DRILL HOLE LOCATIONS

PATERSON LAKE PROPERTY

Scale: 1:5000 NTS: 92F·6E

Figure 3