

ARIS SUMMARY SHEET

District Geologist, Victoria

Off Confidential: 90.05.17

ASSESSMENT REPORT 18773

MINING DIVISION: Alberni

PROPERTY: Sar
LOCATION: LAT 48 53 00 LONG 125 01 00
UTM 10 5416228 352151
NTS 092C14E

MP: 023 Sarita - Gordon River Area

AIM(S): Sar 1-2

OPERATOR(S): Halleran, W.

AUTHOR(S): Halleran, W.

REPORT YEAR: 1989, 18 Pages

COMMODITIES

SEARCHED FOR: Copper, Silver, Gold

KEYWORDS: Bonanza Group, Volcanics, Island Intrusions, Breccia, Skarn, Pyrite
Pyrrhotite, Chalcopyrite, Tetrahedrite

MARK

REMARKS: Prospecting, Geochemical

PROS 500.0 ha

Map(s) - 1; Scale(s) - 1:10 000

ROCK 15 sample(s); ME

FILE: 092C 064, 092C 066

LOG NO: 0525	RD.
ACTION:	
FILE NO:	

ASSESSMENT REPORT

GEOCHEMISTRY

SAR 1 AND 2 CLAIMS

FILMED

SUB-RECORDER
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MAY 17 1989
M.R.# _____ \$ _____
VANCOUVER, B.C.

ALBERNI MINING DISTRICT

NTS 92C/14

REGIONAL BRANCH
ASSESSMENT REPORT

18,773

BY

WILL HALLERAN

MAY 16 1989

INDEX

Introduction.....	page 1
Property.....	page 1
Location and Access.....	page 1
History.....	page 1
Geology.....	page 1
figure 1 Location map.....	page 2
figure 2 Claim map.....	page 3
Table 1	page 4
Mineralization.....	page 5
figure 3.....	page 6
Geochemistry.....	page 7
Conclusion.....	page 7
Cost statment.....	page 8
Statement of qualifications.....	page 9
Appendix I.....	page 10
Appendix II Assay sheets.....	page 13
Sample descriptions.....	page 18
Figure 4 Property Map.....	In Pocket

INTRODUCTION

The SAR 1 and 2 claims were staked to cover massive sulphide mineralization in Bonanza Volcanics, skarn mineralization in Quatsino Limestone and mineralized silified zones in Island Intrusives. This report is based on personal examinations of the property with additional information from government and assessment reports from the surrounding area.

PROPERTY

The property consists of two modified grid claims as follows:

CLAIM NAME	UNITS	RECORD #	EXPIRY DATE	OWNER
SAR #1	4	3571	May 20/89	Will Halleran
SAR #2	20	3628	Aug. 8/89	Will Halleran

LOCATION AND ACCESS

The claims are located at latitude 48° 53' and longitude 125° 01' on NTS map sheet 92C 14 or 92C 085, in the Alberni mining district (figure 1). The Alberni-Bamfield road cuts through the eastern portion of Sar #2, the Sarita logging camp road crosses west near the center of Sar #2. A good gravel road branches off the Alberni-Bamfield road going down Sarita river then along the seashore, cutting through both claims, ending up at Sarita logging camp in the northwest corner of Sar #2. Bamfield is approximately 9 kilometers southwest of the property. (Figure 2)

The property includes large areas of logged and reforested ground with some mature forest. Elevations range from sealevel to 500 meters above sealevel.

HISTORY

In the early 1890's material was reported to have been mined from the southern tip of Santa Maria Island for it's iron content. Min Dep file # 66 reports the ore as magnetite bearing sulphides. In the mid 1980's an airmag was flown over the property then covered by the Sigma claim. Approximately 1 kilometer to the east are three copper-silver-gold replacement bodies in limestones and volcanics. These properties are currently held by crown grants and mineral claims with much of the mineralization on the Indian reserve. See figure 2. Appendix I lists Min Dep file summaries of nearby properties.

GEOLOGY

The area is underlain by the Gordon River Belt consisting of early Mesozoic Vancouver Island and Bonanza Group rocks with related Island Intrusives and Westcoast Complex. (O.F. 821 G.S.C.) (see table I)



Figure 1

TABLE 1

PERIOD	STAGES	GROUP OR FORMATION	MAP UNIT	LITHOLOGY	THICKNESS (Feet)	
TERTIARY	Miocene?	Tertiary Volcanics, Sediments	Tv Ts	Basaltic to dacitic lava, tuff, breccia; conglomerate conglomerate	1,000	
	Not in contact; disconformable?					
	Eocene?	Tertiary Intrusions	Tg	Quartzdiorite		
Intrusive contact in Alberni map-area						
CRETACEOUS	UPPER	Maestrichtian? Campanian	Nanaimo Group (incl. Squash Fm.)	uKn	Greywacke, siltstone, shale conglomerate, coal	400
		Disconformable contact?				
	LOWER	Cenomanian Albian	Queen Charlotte Group	IKQc	Greywacke, conglomerate, siltstone, shale, coal	1,000-3,500
		Disconformable contact				
		Barremian Hauterivian Valanginian	Longarm Formation	IKL	Greywacke, conglomerate, siltstone	200-1,300
Equal age but diverse tectonic setting						
		Pacific Rim Sequence	JKs	Argillite, greywacke? conglomerate		
JURASSIC	MIDDLE	Unconformable contact				
		Island Intrusions	Jg	Quartz diorite, granodiorite, quartz monzonite, quartz-feldspar porphyry		
	Intrusive contact					
	LOWER	Pliensbachian Sinemurian	Vancouver Group (gradational contacts within group)			
TRIASSIC	UPPER	Norian	Bonanza Volcanics Harbledown Fm.	IJBv JH	Andesitic to rhyodacitic lava, tuff, breccia; greywacke, argillite, tuff	1,000-18,500
		Karnian	Parson Bay Fm.	uRPB	Calcareous siltstone, shale, greywacke, conglomerate, breccia	1,000-2,000
			Quatsino Fm.	uRQ	Limestone	100-2,500
	Mid.	Ladinian	Karmutsen Fm. includes in upper part Intervolcanic Limestone	muRk uRQ2	Basaltic lava, pillow lava, breccia Limestone	10,000-20,000
			Sediment - sill unit		Diabase, argillite	2,500
PENNSYLVANIAN?		Disconformable or unconformable contact				
		Sicker Group	Ps	Limestone, siltstone	700	
Migmatic contact?						
	pre-Cretaceous	Westcoast Complex	PMd	Quartz diorite, agmatite, amphibolite, gneiss		

GORDON RIVER BELT

The Quatsino Limestone overlies the Karmutsen Formation conformably. The limestone is massive, blueish grey, micritic and shows few recognizable sedimentary structures.

The Karmutsen Formation consists of pillowed basalts, locally with conspicuous plagioclase clusters, pillow breccia with aquagene tuff and layered amygdaloidal basalt.

The Early Jurassic terrane of migmatitic, plutonic, and volcanic rocks are rather arbitrarily divided into the Westcoast complex, Island Intrusions and Bonanza Group volcanics.

The Westcoast complex consists of a variety of plutonic and metamorphic basic crystalline rocks ranging from fine grained amphibolite-diorite and tonalite, all composed mainly of calcic plagioclase and hornblend. Karmutsen and Sicker volcanics are believed to be the protolith. Bodies of recrystallized Quatsino limestone are found in the complex.

The Island intrusions are relatively small in size and generally have gradational contacts with other units. They are mostly composed of quartz diorite and granodiorite.

The Bonanza Group is composed of voluminous remnants of an Early Jurassic volcanic arc terrane, considered to be consanguineous with Westcoast complex and Island Intrusions.

These rocks are largely dark-brown, maroon and yellow grey massive tuff, volcanic breccia and massive or plagiophyric flows, the latter not uncommonly with aligned bladed plagioclase phenocrysts. Compositions range from basalt to rhyolite. Near the Jurassic intrusions the basalt is recrystallized to fine grained diorite and has in places been included in the Westcoast complex.

Relationships between the different units is shown on figure 3. Figure 4 shows the geology of the property and the surrounding area. (In Pocket)

MINERALIZATION

Mineralization on the property occurs in three different modes.

On the southern tip of Santa Maria Island and the adjacent shore there are a series of 3 or 4 subparallel, 1 to 4 meter wide bands of massive to disseminated pyrite with pyrrhotite, chalcopyrite, and tetrahedrite. These bands trend 47° to 58° and dip 45° to 32° south and are hosted in the Bonanza volcanics or fine grained diorite.

In the northeast corner of Sar #2 a skarn mineralized in pyrite, pyrrhotite and minor chalcopyrite occurs within silified limestone, associated with a small plug of Island Intrusive. In close proximity to this skarn the intrusive contains small (up to 3 cm wide) pyrite rich silified zones.

In the central portion of Sar #2 a fractured and brecciated zone approximately 25 meters wide cuts the intrusive. Silified and pyrite rich veins and breccia zones occur within this larger zone and are anomalous in gold, silver, copper and zinc.

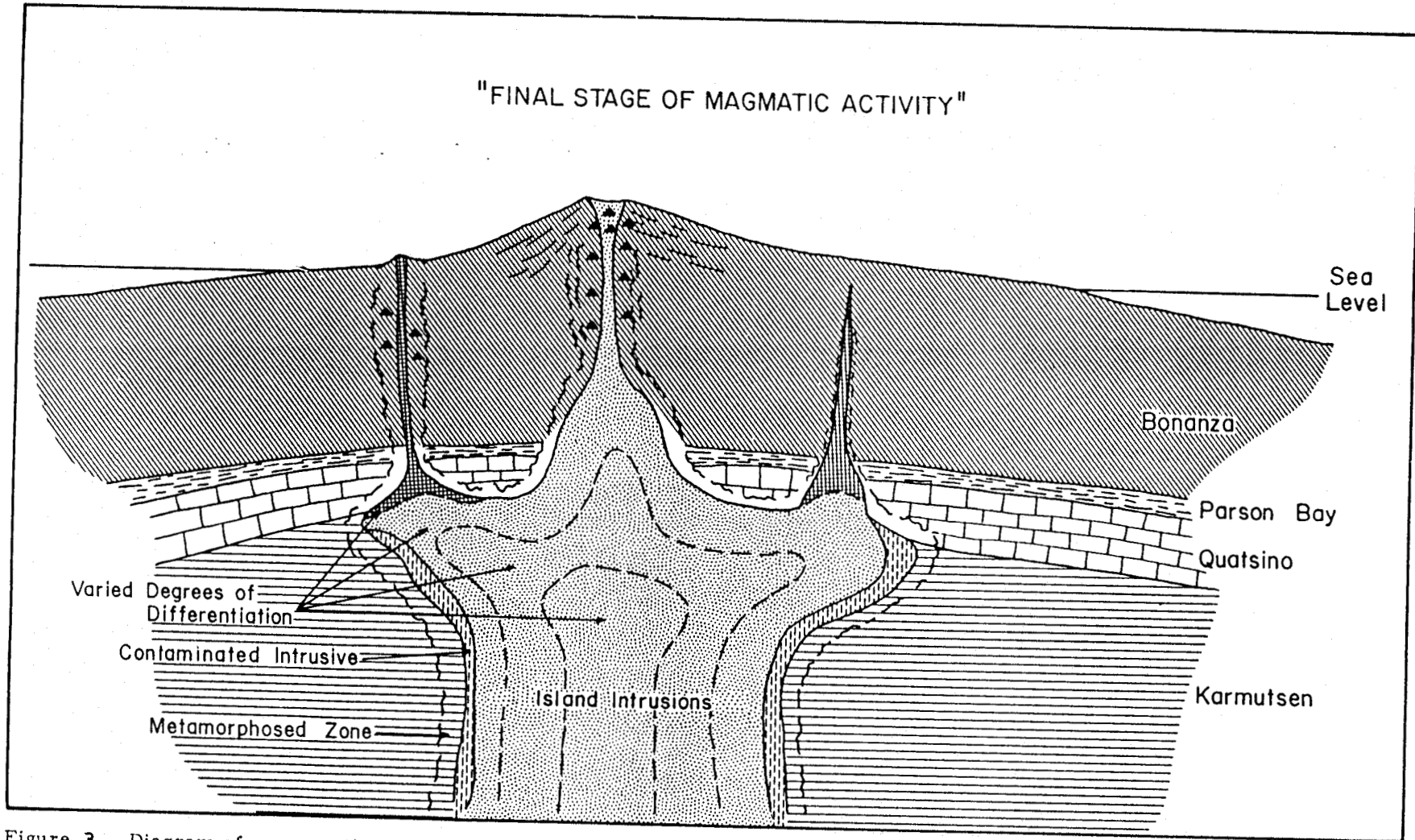


Figure 3. Diagram of comagmatic relationships between Island Intrusions and Bonanza volcanics.

GEOCHEMISTRY

A total of 25 rock and chip samples were collected. Of these 17 were assayed for 16 elements including copper, lead, zinc, silver, and gold. Two samples were analyzed for Au, Pt, Pd, Rh, and Cu. Results are shown in appendix II.

The southern tip of Santa Maria Island contains massive sulphides with values upto 2.11% copper and 0.91 opt silver. The silified and brecciated zone on Sar #2 returned values of 0.14% copper, 0.3% zinc, 0.1 opt silver and 0.005 opt gold.

CONCLUSION

The Sar claims cover 3 types of mineralization. Copper and gold values had previously been reported from the skarn in the north east corner of Sar #2. The massive sulphides on Santa Maria Island run up to 2.11% copper and almost 1 opt silver. A silified and brecciated zone 25 meters wide, traced for 150 meters, returned up to 0.14% copper and is anomalous in gold, silver, and zinc.

STATEMENT OF COSTS

Field days.....	May ^{W.N. U.H.} 13-24, 1988.....	2
	August 3-5, 1988.....	3
	January 30-31 1989.....	2
	March 22-24, 1989 (x2).....	6
	Total days.....	13
Cost.....	13 days @ 250/day=	\$3250.00
Assay costs....	14 rocks @ 22.00/rock.....	\$418.00
Truck.....	10 days @ 25.00/day.....	\$250.00
Ferry.....	6 trips @ 26.25/trip.....	\$157.50
Accom ^m adations and food..	13 days @ 50/day.....	\$650.00
Gas.....		\$120.00
Office days.....	6 days @ 250 day.....	\$1500.00
Office costs.....		\$74.00
TOTAL.....		\$6419.50

CERTIFICATION OF QUALIFICATIONS

I, Will Halleran, of 406-1250 Comox Street, Vancouver B.C. do hereby declare:

- 1) I am a 1983 graduate of the University of British Columbia with a B.Sc. degree in Geology
- 2) I have practised my profession continuously since graduation in the Yukon, B.C. and N.W.T.
- 3) This report is based on my field examinations of the property and available government reports.

APPENDIX I

Reference number
name
commodities
minerals
description

#6

Doer

Iron copper Zinc

Magnetite Chalcopyrite Sphalerite Arsenopyrite

Replacement of limestone adjacent to volcanics and quartz diorite

#32

Sarita, Union, Eureka, Blackbear, Oma, Kid

Iron

Magnetite

Beal diorite of the Jurassic Island Intrusions contains roof pendants of Vancouver Group limestone and volcanics. Limestone is replaced for about 800 meters along or near a diorite contact. At the west end the ore is fairly clean magnetite, towards the east the magnetite is mixed with garnet, pyrite, pyrrhotite, marcasite and chalcopyrite.

#64

Dan

Copper Gold

Chalcopyrite Tetrahedrite

Jurassic rocks of the Bonanza subgroup (phyllites, greywackes, limestones, and rhyolite) intruded by 2 small plugs of the Island Intrusive Complex. Skarn mineralized in pyrite, pyrrhotite, and minor chalcopyrite.

#66

Sarita Island

Iron

APPENDIX I CONT.

66 Continued

Magnetite

Magnetite bearing sulphides extracted for iron ore many years before 1896

82

Da

Copper Molybdenum

Chalcopyrite Molybdenite

Quartz diorite plug intruding Jurassic-Cretaceous diorite.

Chalcopyrite and Molybdenite in small quartz veins.

#96

Gambler, Omar

Copper Silver

Chalcopyrite Bornite Tetrahedrite

Gambler- highly sheared limestone replaced by garnet-diopside-epidote skarn accompanied by pyrrhotite, chalcopyrite, bornite and tetrahedrite.

Omar- altered silified zones and shears in Bonanza volcanics contain lenses of magnetite and zones of pyrrhotite with minor chalcopyrite.

ACME ANALYTICAL LABORATORIES

DATE RECEIVED: JUN 03 1988

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

PHONE 253-3158

DATA LINE 251-1011 DATE REPORT MAILED:

June 9/88

GEOCHEMICAL ICP-MS ANALYSIS

10 GRAM SAMPLE FIRE ASSAY AND ANALYSIS BY ICP MASS SPECTROMETER.

- SAMPLE TYPE: SOIL/ROCK

ASSAYER: *C. Leong* D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

A.D. HALLERAN File # 88-1746

SAMPLE#	Au PPB	Pt PPB	Pd PPB	Rh PPB	Cu %
DOL-1-87	12	7	12	2	-
TAK-1	4	3	3	2	-
TAK-2	7	4	3	2	-
TAK-3	2	2	3	2	-
S-5-88	22	1	2	2	1.92
S-6-88	12	1	2	2	.32
WETCH-3	5	1	2	2	-
WETCH-5	4	1	2	2	-
DOL-2-87	7	2	3	2	-
417B	5	1	2	2	-
436	12	1	2	2	-
MILL-1	12	4	3	2	-

ASSAY CERTIFICATE

- SAMPLE TYPE: ROCK

DATE RECEIVED: NOV 15 1988

DATE REPORT MAILED: Nov 22/88

SIGNED BY: *C. Long* D. TOYE, C. LEONG, B. CHAN, J. WANG; CERTIFIED B.C. ASSAYERS

A.D. HALLERAN

File # 88-5841A

SAMPLE#	Mo %	Cu %	Pb %	Zn %	Ag OZ/T	Ni %	Co %	Mn %	Fe %	As %	U %	Th %	Cd %	Sb %	Bi %	Au OZ/T
* SARITA-1	.001	.66	.01	.03	.01	.01	.17	.03	40.14	.01	.002	.01	.01	.01	.01	.001
MER-S	.001	.07	28.37	.11	48.47	.01	.01	.12	2.33	1.72	.002	.01	.01	18.23	.01	.009
10-4-M-2	.001	.02	.47	.05	.78	.01	.01	.10	5.31	.11	.002	.01	.01	.35	.01	.003

ASSAY CERTIFICATE

- SAMPLE TYPE: ROCK

DATE RECEIVED: FEB 10 1989

DATE REPORT MAILED: Feb 15, 1989

SIGNED BY: *D. Toye* D. TOYE, C. LEONG, B. CHAN, J. WANG; CERTIFIED B.C. ASSAYERS

D. HALLERAN

File # 89-0297

SAMPLE#	Mo %	Cu %	Pb %	Zn %	Ag OZ/T	Ni %	Co %	Mn %	Fe %	As %	U %	Th %	Cd %	Sb %	Bi %	Au OZ/T
SAR 0189-1	.001	.30	.01	.01	.05	.01	.01	.12	21.75	.01	.002	.01	.01	.01	.01	.001
SAR 0189-2	.002	.51	.01	.01	.01	.02	.03	.04	36.25	.01	.002	.01	.01	.01	.01	.001
SAR 0189-3	.044	2.11	.01	.01	.91	.01	.01	.12	10.13	.02	.002	.01	.01	.01	.01	.001
SAR 0189-4	.001	.10	.01	.01	.01	.01	.02	.07	9.19	.01	.002	.01	.01	.01	.01	.001

ASSAY CERTIFICATE

- SAMPLE TYPE: ROCK

DATE RECEIVED: APR 4 1989

DATE REPORT MAILED: April 7/89

SIGNED BY: *C. Long* D. TOYE, C. LEONG, J. WANG: CERTIFIED B.C. ASSAYERS

A.D. HALLERAN PROJECT SAR File # 89-0716

SAMPLE#	Mo %	Cu %	Pb %	Zn %	Ag OZ/T	Ni %	Co %	Mn %	Fe %	As %	U %	Th %	Cd %	Sb %	Bi %	Au OZ/T
SAR 0389-1	.001	.01	.01	.02	.01	.01	.01	.07	6.40	.01	.002	.01	.01	.01	.01	.001
SAR 0389-2	.001	.01	.01	.01	.01	.01	.01	.08	6.25	.01	.002	.01	.01	.01	.01	.001
SAR 0389-3	.001	.01	.01	.01	.01	.01	.01	.20	8.24	.01	.002	.01	.01	.01	.01	.001
SAR 0389-4	.005	.05	.01	.01	.04	.01	.02	.17	22.94	.01	.002	.01	.01	.01	.01	.001
SAR 0389-5	.004	.03	.01	.02	.01	.01	.01	.26	9.80	.01	.002	.01	.01	.01	.01	.001
SAR 0389-6	.001	.01	.01	.01	.01	.01	.01	.07	7.22	.01	.002	.01	.01	.01	.01	.001
SAR 0389-9	.028	.96	.01	.01	.18	.01	.01	.17	10.23	.01	.002	.01	.01	.01	.01	.001
SAR 0389-10	.001	.01	.01	.01	.03	.01	.05	.02	12.99	.01	.002	.01	.01	.01	.01	.001
SAR 0389-11	.003	.01	.01	.01	.01	.01	.06	.02	12.57	.01	.002	.01	.01	.01	.01	.001
SAR 0389-12	.003	.14	.01	.02	.10	.01	.01	.01	7.96	.01	.002	.01	.01	.01	.01	.002
SAR 0389-13	.001	.01	.01	.01	.01	.01	.01	.12	4.97	.01	.002	.01	.01	.01	.01	.001
SAR 0389-14	.001	.10	.02	.30	.07	.01	.01	.02	9.87	.04	.002	.01	.01	.01	.01	.005

SAMPLE DESCRIPTIONS

SAMPLE #	TYPE OF SAMPLE	DESCRIPTION
S-5-88	Random chip.....	Sulphide zone
S-6-88	"	"
018901	Chip over 1.5 m.....	from hangingwall of adit zone, includes 15 cm dyke
018902	Chip over 0.8 m.....	massive sulphide
018903	Random chip.....	Boulder of volc. breccia with good malachite stain, Pyrite and Chalco.
018904	Chip.....	On apparent strike extension of adit zone. Sulphides on fracture plane of altered volc.
038901	Random grabs.....	Disseminated sulphides in intrusive rock in close proximity to silification of intrusive rock.
038902	Random grabs.....	as above
038903	Random grabs.....	Iron bands (hematite) in calc-silicate.
038904	Grab sample.....	Massive pyrite possible chalco. zone approx. 0.8m wide in intrusive stops at shear on hangingwall side (north), Gradational contact on S side into strong manganese fracture zone.
038905	Chip accross width of above outcrop	
038906	Grab.....	Contact between intrusive and fine grained unit. Sample of fine-grained unit.
038907	not taken	
038908	Grab	Intrusive of above
038909	Random grabs	Malachite stained silified and fractured volcanic with disseminated sulphides.

cont.

- 038910 select grabs.....Massive pyrite in fractures of various attitudes within intermediate to mafic volcanic quartz-epidote alteration accompanying fracture zone.
- 038911 Random grabs.....Strongly mineralized shear zone with massive sulphide core and disseminated sulphides. Mineralized zone approx. 0.2m wide.
- 038912 Random grabs.....Series of pyritic-silified shear zones in mafic volcanic. Zone 7 m highly fractured rock. Individual shears up to 0.3m wide.
- 038913 Random grabs.....Breccia zone 1.0m wide, 7 meters south of #12
- 038914 Random grabs.....Silified shear with disseminated pyrite and black sulphides.

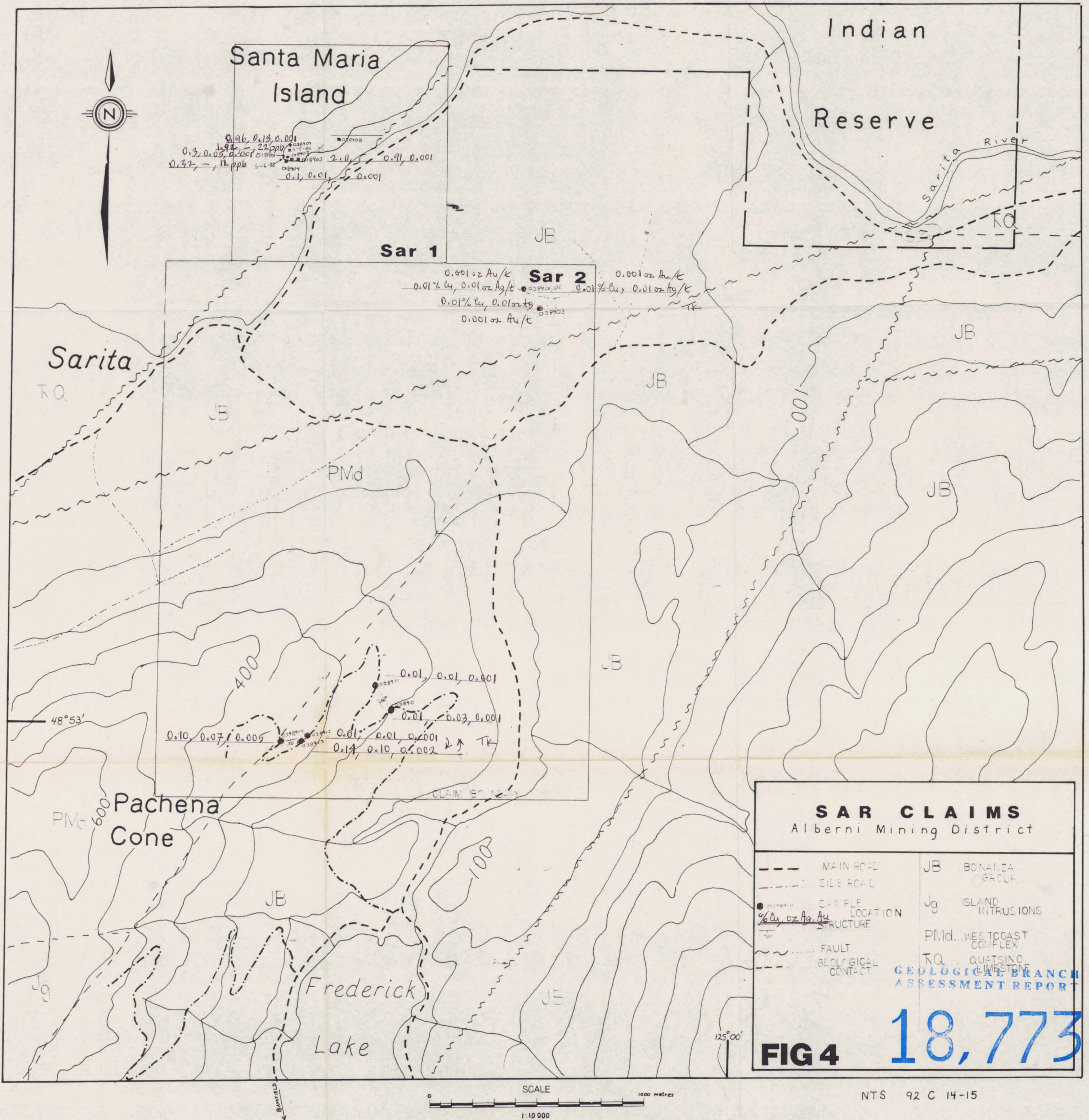


FIG 4 **18,773**

GEOLOGICAL BRANCH
ASSESSMENT REPORT