

## Geochemical Rock Chip Survey SHIK 1 &amp; SHIK 2 Claims

<u>Specific Claims</u>	<u>Record #</u>	<u># Units</u>
SHIK 1	4331 (5)	20
SHIK 2	4332 (6)	18

## Cariboo Mining Division

NTS Location Map	93 A/6W
Latitude	52° 27'
Longitude	121° 27'
Ownership	J.W. Morton and R. Durfeld
Operator	J.W. Morton and R. Durfeld
Author of Report	J.W. Morton and R. Durfeld

Date Submitted: May 30, 1983

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**11,297**

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## Introduction

### (1) Location Access and Physiography

The SHIK claims are located in the Cariboo Mining Division of the Central British Columbia interior map sheet NTS 93 A/6. Specifically at 121 degrees 27 minutes west longitude and 52 degrees 27 minutes north latitude.

The property is bounded on the north by the south shore of Quesnel Lake and on the east by the Horsefly River. The topography of the property is gently rolling with elevations ranging between 2400 and 3300 feet. The area was forested with fir, and spruce and cedar but is now largely clearcut logged.

Access to the area is achieved by 100 km of paved and all-weather road from Williams Lake via Horsefly townsite and then the Mitchell Bay Forest access road.

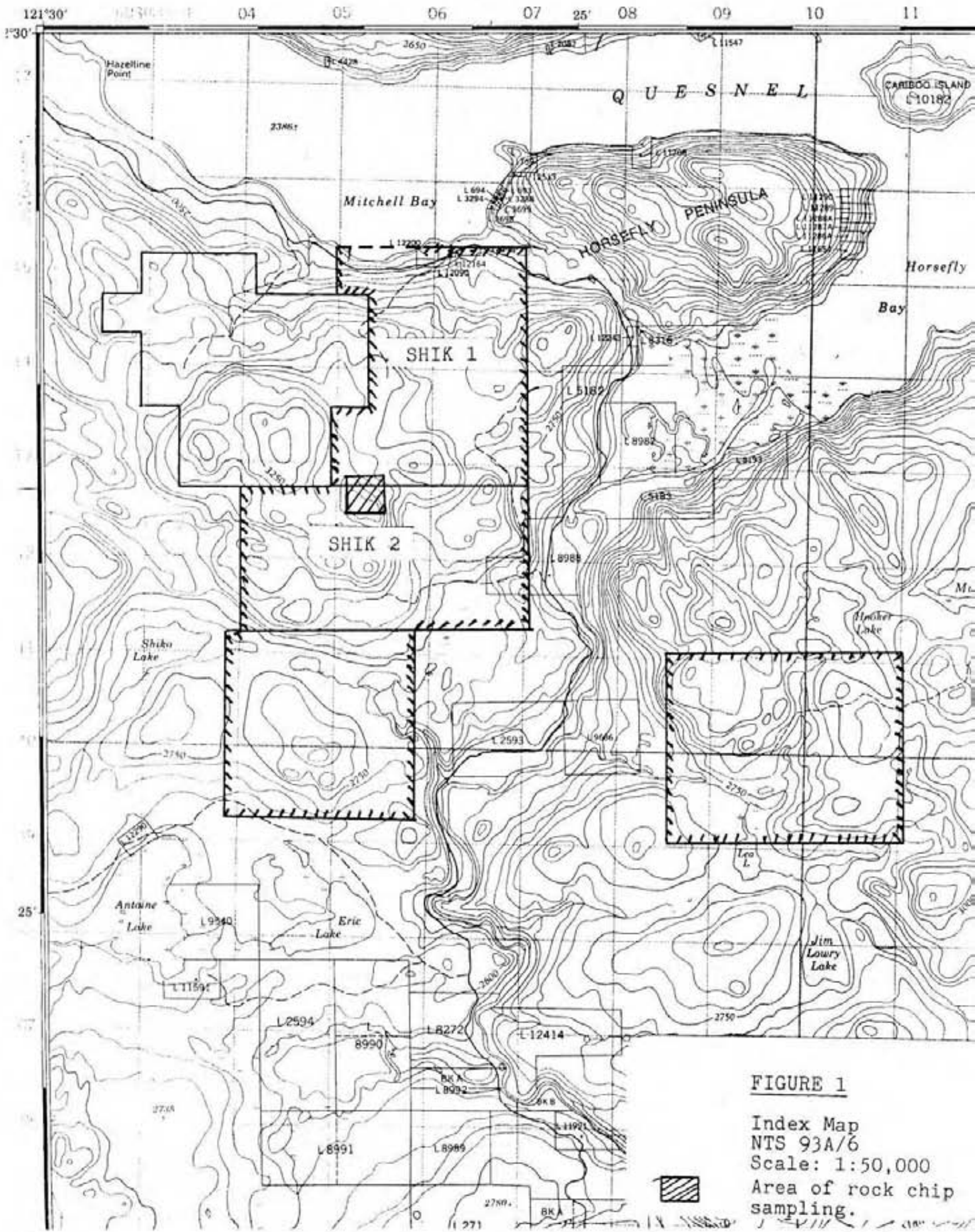
### (11) Property Definition

#### (a) Regional Geology

This area of the interior is underlain by a large structurally controlled feature known as the Quesnel Trough. The Quesnel Trough consists of thick sequences of mainly Upper Triassic and Lower Jurassic volcanic - clastic rocks bounded by the Omineca Geanticline to the east and the Pinchi Geanticline to the west.

To date the Cariboo - Bell, copper-gold, and the Quesnel River, gold, properties and several lesser gold prospects have been discovered in this section of the Quesnel Trough.

In the Shiko Lake Area the predominant lithologies recognized are alkalic volcanics and associated intrusive rocks.



**FIGURE 1**

Index Map  
NTS 93A/6  
Scale: 1:50,000  
Area of rock chip  
sampling.

(b) Economic Geology of the Area

<u>Property</u>	<u>Reserves</u>	<u>Grade</u>
Quesnel River	1.0 x 10 <sup>6</sup> Tons	0.21 oz/Ton Au
Cariboo Bell	82 x 10 <sup>6</sup> Tons*	0.49% Cu 0.02 oz/Ton Au

(c) History of Exploration in the vicinity of the  
SHIK 1 and 2 Claims

Excepting reconnaissance geochemical and magnetometer surveys (report #4557) all previous assessment reports document exploration completed on the adjacent SL claims in an area some distance from the Shik claims.

The previous exploration activities filed for assessment report purposes in the Shiko Lake Area are summarized as follows:

<u>Year</u>	<u>Company</u>	<u>Type of Work</u>	<u>Assessment Report No.</u>
1973	Fox Geological	Geochemical and Magnetometer Survey	4557
1973	Fox Geological	Induced Polarization Survey (closest portion of survey approximately 1 kilometer northwest of Shik claims)	4601
1974	Newconex	Percussion Drilling (7 holes on adjacent SL claims)	5540

(111) MethodsGeochemical Rock Chip Survey

Three rock chip sampling programs were conducted in the vicinity of the discovery showing during three periods in 1982 and early 1983. An initial baseline and reconnaissance grid was established between July 11 and July 13, 1982. A total of 25 samples were located and collected on this grid and were sent to Acme Labs in Vancouver for multi-element geochemical plasma analyses. (gold by fire assay and standard geochemical techniques) Between the first program and the second sampling program (Sept. 28 - Oct. 4/82) the Forest Service conducted a slash burn and destroyed the original grid. A new grid was established and with the fortunate survival of a single station from the original sampling program the second grid was co-ordinated with the first. A total of 58 samples were collected between Sept. 28 and Oct. 4/82 and were subsequently sent to Chemex Labs in North Vancouver for geochemical analyses. On April 20 and 21, 1983 a third sampling program was completed. A total of 19 samples were collected and were sent to Chemex Labs in North Vancouver for geochemical analyses.

A summary of Sampling is given below:

<u>Date</u>	<u>#Samples</u>	<u>Lab</u>	<u>Elements analysed</u>	<u>Methods</u>
July 11-13/82	25	Acme	Cu, As, Au	ICP (Gold by fire assay and atomic absorpti
Sept. 28 & Oct. 4/82	58	Chemex	Cu, Au	A.A. (Gold by fire assay and atomic absorpti
April 20-21/83	19	Chemex	Cu, Au	A.A. (Gold by fire assay and atomic absorpti

Abbreviation: I.C.P. Inductively coupled argon plasma  
A.A. Atomic absorption

(IV) Summary of Works Completed

Flaqqed, chained and picketed Line 3.5 Kilometers

25 samples analysed by I.C.P. for Cu, As, Au (Gold by fire assay and A.A.)

77 samples analysed by A.A. for Cu, Au (Gold by fire assay and A.A.)

Total samples collected and analysed 102

(V) Samples were collected on both the Shik 1 and Shik 2 Mineral claims.

Abreviation: I.C.P. Inductively coupled argon plasma

A.A. Atomic absorption

(V) Discussion

An extensive geochemically anomalous copper-gold zone occurs in the area of the survey. (dimensions presently established at 300 meters by 300 meters and unclosed) Copper values over 200 parts per million are common and values over 1000 parts per million are not uncommon. (up to 2000 P.P.M.) Gold values over 100 parts per billion are common with values as high as 1350 p.p.b. occurring.

Gold values are thought to be associated with pervasive epidote-calcite-pyrite alteration developed in subvolcanic basalt to syenodiorite and are not directly related to copper mineralization.

The most encouraging area of the survey occurs in the vicinity of grid location 2+00E, 2+00N where gold values up to 1350 p.p.b. and copper values up to 2000 p.p.m. occur. The second most encouraging area of the survey occurs in the vicinity of 1+50E, 0+00N where pervasively altered subvolcanic rocks have values up to 1450 p.p.m. copper and 80 p.p.b. gold.



Itemized Cost StatementEstablishing Grid and  
First Rock Geochemical Program

Morton	July 11 - July 13/82	3 days @\$200 day	\$600
Eberlee	July 11 - July 13/82	3 days @\$100 day	300

Establishing Grid and  
Second Rock Geochemical Program

Morton	Sept. 28 & Oct. 4/82	2 days @\$200 day	400
Durfeld	Sept. 28 & Oct. 4/82	2 days @\$200 day	400

Continuing Grid and  
Third Rock Geochemical Program

Morton	Apr. 20 - 21/83	2 days @\$200 day	400
Durfeld	Apr. 20 - 21/83	2 days @\$200 day	400

Vehicle Costs

4 x 4 for 7 return trips @200 km per trip @40¢ per km	560
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Geochemical Analytical Costs

Chemex	77 samples for Cu, Au @\$9.40 each	723.80
Acme	25 samples for Cu, As, Au @\$11.00 each	255

Miscellaneous Costs

Hip chain string, ribbon, pickets, etc.	100
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Writing Report and Drafting Maps

Morton	2 days @\$200 day	400
Durfeld	2 days @\$200 day	400

Total	<u>\$4938.80</u>
-------	------------------

*Richard R. Ruppel*

Statement of Author Qualifications

I, James W. Morton of Mission Road, Box 4438, Williams Lake, B.C., hereby certify that:

1. I am a graduate of Carleton University, B(Sc) Geology 1971
2. I am a graduate of the University of British Columbia, M(Sc) Soil Science 1976.
3. I am a fellow of the Geological Association of Canada.
4. I am the Co-author of this report which describes work completed on the Shik 1 and Shik 2 Mineral claims between July 1, 1982 and April 21, 1983.

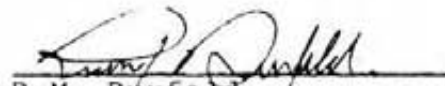
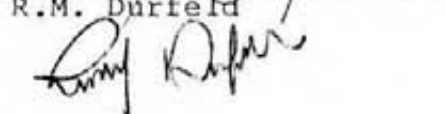
May 28, 1983

  
J.W. Morton

I, Rudolf M. Durfeld of 2029 South Lakeside Drive, Williams Lake, British Columbia, hereby certify that:

1. I am a graduate of the University of British Columbia, Bachelor of Science (Geology Major) in 1972 and have practiced my profession as geologist since that time.
2. I am a Fellow of the Geological Association of Canada.
3. I am the co-author of this report which describes work completed (on the Shik 1 and 2 mineral claims) July 1, 1982 to April 20, 1983.

May 28, 1983

  
R.M. Durfeld  




# CHEMEX LABS LTD.

212 BROOKSBANK AV  
NORTH VANCOUVER, B  
CANADA V7J 2

TELEPHONE: (604) 984-0  
TELEX: 043-525

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : DURFELD GEOLOGICAL

180 YORSTON STREET  
WILLIAMS LAKE, B.C.  
V2G 3Z1

CERT. # : A8311143-0  
INVOICE # : I8311143  
DATE : 9-MAY-83  
P.O. # : NONE

Sample description	Prep code	Cu ppm	AU-AA ppb	North	East	Rock Type
45453	205	1000	200	-- 180	-- 280	-- 2a
45454	205	152	10	-- 130	-- 280	-- 2a, k-sp
45455	205	680	50	-- 133	-- 278	-- 3?5
45456	205	250	10	-- 153	-- 280	-- 2a
45457	205	445	<10	-- 186	-- 260	-- 2a, k-sp
45458	205	14	<10	-- 200	-- 260	-- 1a
45459	205	130	<10	-- 185	-- 255	-- 2
45460	205	20	<10	-- 167	-- 203	-- 2a
45461	205	1920	10	-- 160	-- 203	-- 2a
45462	205	185	<10	-- 150	-- 165	-- 2a
45486	205	1330	220	-- 180	-- 207	-- 2a, cpy-
45487	205	38	<10	-- 179	-- 220	-- 2a, k-sp
45488	205	135	<10	-- 181	-- 220	-- 2a
45489	205	198	<10	-- 177	-- 223	-- 2a
45490	205	45	10	-- 186	-- 238	-- 2a
45491	205	268	20	-- 190	-- 212	-- 2a
45492	205	43	<10	-- 167	-- 180	-- 5
45493	205	133	140	-- 163	-- 203	-- 5, 5a
45494	205	145	10	-- 150	-- 192	-- 2, 2a

Samples collected April 20, 1983.



MEMBER  
CANADIAN TESTING  
ASSOCIATION

Certified by Hart Buchler



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NORTH VANCOUVER  
CANADA V7,

TELEPHONE: (604) 98  
TELEX: 043-1

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• GEOCHEMISTS

• REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : RIOCANEX INCORPORATED

STE. 520 - 800 W. PENDER STREET  
VANCOUVER, B.C.  
V6C 2V6

CERT. # : A8213856-  
INVOICE # : 18213856  
DATE : 21-OCT-82  
P.O. # : NONE

ATTN: JACK McCLINTOCK

Sample description	Prep code	Cu ppm	Au FA+AA ppb	North	East	Rock Ty
38101	205	104	<5	--300	--210	-- 2
38102	205	20	<5	--285	--200	-- 3
38103	205	1200	265	--265	--200	-- 4
38104	205	143	<5	--250	--180	-- 2
38105	205	12	<5	--220	--250	-- 3
38106	205	136	1350	--175	--220	-- 2a,3
38107	205	2000	750	--175	--200	-- 2a
38108	205	280	60	--150	--210	-- 4
38109	205	41	<5	--230	--150	-- 2
38110	205	33	<5	--230	--140	-- 2a
38111	205	118	<5	--020	--005	-- 2a
38112	205	60	20	--020	--010	-- 2a
38113	205	3	5	--020	--015	-- 4
38114	205	280	<5	--005	--010	-- 2a
38115	205	138	<5	--003	--012	-- 2a
38116	205	6	<5	--005S	--010	-- 2a
38117	205	104	<5	--005S	--030	-- 2a
38118	205	6	<5	--115	--200	-- 3
38119	205	115	<5	--090	--210	-- 2
38120	205	14	<5	--055	--195	-- 2
38121	205	3	15	--045	--200	-- 2a
38122	205	126	35	--035	--200	-- 2a
38123	205	9	15	--030	--200	-- 2a
38124	205	275	25	--090	--150	-- 2a
38125	205	1450	40	--005	--140	-- 2a

*[Faint stamp]*



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TELEPHONE: (604) 984  
TELEX: 043-5

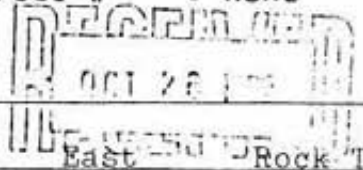
## CERTIFICATE OF ANALYSIS

TO : RIOCANEX INCORPORATED

STE. 520 - 800 W. PENDER STREET  
VANCOUVER, B.C.  
V6C 2V6

CERT. # : A8213963-1  
INVOICE # : I8213963  
DATE : 25-OCT-82  
P.O. # : NONE

ATTN: J. McCLINTOCK



Sample description	Prep code	Cu ppm	Au FA+AA ppb	North	East	Rock	Typ
38126	205	107	15	--010S	--140	3	--
38127	205	91	80	--025S	--155	2a	--
38128	205	260	5	--025	--215	4	--
38129	205	19	<5	--025	--250	2	--
38130	205	109	<5	--025	--280	2a	--
38131	205	28	<5	--025	--325	3	--
38131 B	205	126	35	--025	--345	4	--
38132	205	20	20	--142	--100	2a	--
38133	205	18	5	--175	--110	2a	--
38134	205	265	20	--175	--130	2a	--
38135	205	1500	15	--175	--130	2a	--
38136	205	129	25	--194	--105	2a	--
38137	205	490	30	--227	--120	2a	--
38138	205	400	165	--275	--100	2a	--
38139	205	42	5	--025S	--100	2a	--
38140	205	210	<5	--050S	--125	5a	--
38141	205	183	10	--050S	--100	3	--
38142	205	81	5	--013S	--065	2a	--
38143	205	128	<5	--042S	--065	2a	--
38144	205	16	<5	--060S	--090	2a	--
38145	205	141	<5	--090S	--100	2a	--
38146	205	62	<5	--100S	--100	2a	--
38147	205	16	<5	--005	--080	2a	--
38148	205	49	<5	--050	--105	4	--
38149	205	39	5	--090	--103	4	--
38150	205	36	30	--125	--100	2a	--
151	205	4	5	--121	--068	2a	--
152	205	3	45	--121	--048	2a	--
153	205	22	10	--100	--050	2a	--
154	205	3	<5	--080	--050	3	--
155	205	34	15	--055	--050	2a	--
156	205	27	<5	--030	--050	3	--
157	205	54	<5	--float	--	--	--

Samples Collected September 28, October 4&5, 1982.



MEMBER  
CANADIAN TESTING  
ASSOCIATION

Certified by *Hunter B. Miller*

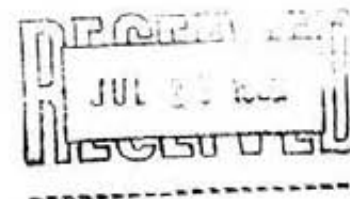
ICP GEOCHEMICAL ANALYSIS

A .500 GRAM SAMPLE IS DIGESTED WITH 3 ML OF 3:1:3 HCL TO H2O3 TO H2O AT 90 DEG.C. FOR 1 HOUR. THE SAMPLE IS DILUTED TO 10 MLS WITH WATER.  
 THIS LEACH IS PARTIAL FOR: Ca, P, Mg, Al, Ti, La, Na, K, W, Ba, Sr, Cr AND B. Au DETECTION 3 ppb.  
 Au# ANALYSIS BY AA FROM 10 GRAM SAMPLE. SAMPLE TYPE - ROCK CHIPS

DATE RECEIVED JULY 15 1982 DATE REPORTS MAILED July 21/82 ASSAYER D. Toye DEAN TOYE, CERTIFIED B.C. ASSAYER

RIOCANEX		PROJECT # SHIK CLAIMS			FILE # 82-0595		PAGE# 1
SAMPLE #	CU ppm	AS ppm	Au# ppb	NORTH	EAST	ROCK TYPE	
SM-4	293	5	570	025	000	2a	
SM-5	4	5	5	025	000	2a	
SM-6	277	7	5	045	000	2a	
SM-7	27	11	5	050	000	2a	
SM-8	18	6	5	070	000	2a	
SM-9	234	19	20	105	000	3	
SM-10	5	8	5	095	000	3	
SM-11	117	6	5	075	033	3	
SM-12	17	6	5	060	011	3	
SM-13	1	5	5	110	033	3	
SM-14	5	8	5	105	025	3	
SM-15	20	5	5	120	015	2a	
SM-16	8	6	5	110	015	2a	
SM-17	74	9	5	005S	068	4	
SM-18	1	8	5	015S	070	4	
SM-19	175	3	5	000	075	4	
SM-20	358	4	20	000	160	4	
SM-21	780	2	20	020	125	2a	
SM-22	674	9	50	035	150	2a	
SM-23	98	8	5	005	180	2a	
SM-24	55	7	5	025	185	2a	
SM-25	289	11	60	200	050	2a	
SM-26	32	8	15	062S	050	3	
SM-27	11	3	70	062S	050	3	
SM-28	4061	6	5	Float		4	
STD A-1	30	10	5				
SE-1	85	5	5				
SE-2	58	9	5				

Samples collected July 12&13, 1982.



GEOCHEMICAL PROCEDURESChemex Laboratories

1. Geochemical samples (soil, silts) are dried at 80°C for a period of 12 to 24 hours. The dried sample is sieved to -80 mesh fraction through a nylon and stainless steel sieve. Rock geochemical materials are crushed, dried and pulverized to -100 mesh.
2. A 1.00 gram portion of the sample is weighed into a calibrated test tube. The sample is digested using hot 70% HClO<sub>4</sub> and concentrated HNO<sub>3</sub>. Digestion time = 2 hours.
3. Sample volume is adjusted to 25 mls. using demineralized water. Sample solutions are homogenized and allowed to settle before being analysed to atomic absorption procedures.
4. Detection limits using Techtron A.A.5 atomic absorption unit.

Copper	-	1ppm
Molybdenum	-	1ppm
Zinc	-	1ppm
*Silver	-	0.2ppm
*Lead	-	1ppm

\* Ag & Pb are corrected for background absorption.

5. Elements present in concentrations below the detection limits are reported as one half the detection limit, i.e. Ag - 0.1 ppm.

PPB Gold: 5 gm samples ashed @ 800°C for one hour, digested with aqua regia - twice to dryness - taken up in 25% HCL-, the gold then extracted as the bromide complex into MIBK and analyzed via A.A. Detection limit - 10 PPB

PPB Mercury: The sample is digested with nitric acid plus a small amount of hydrochloric acid. Following digestion the resulting clear solution is transferred to a reaction flask connected to a closed system absorption cell. Stannous sulfate is rapidly added to reduce mercury to its elemental state. The mercury is then flushed out of the reaction vessel into the absorption cell where it is measured by cold vapour atomic absorption methods with a Jarrell Ash Multi-Versatility Spectro-photometer. The absorbance of samples is compared with the absorbance of freshly-prepared mercury standard solutions carried through the same procedure. The detection limit of this method is 5 ppb.

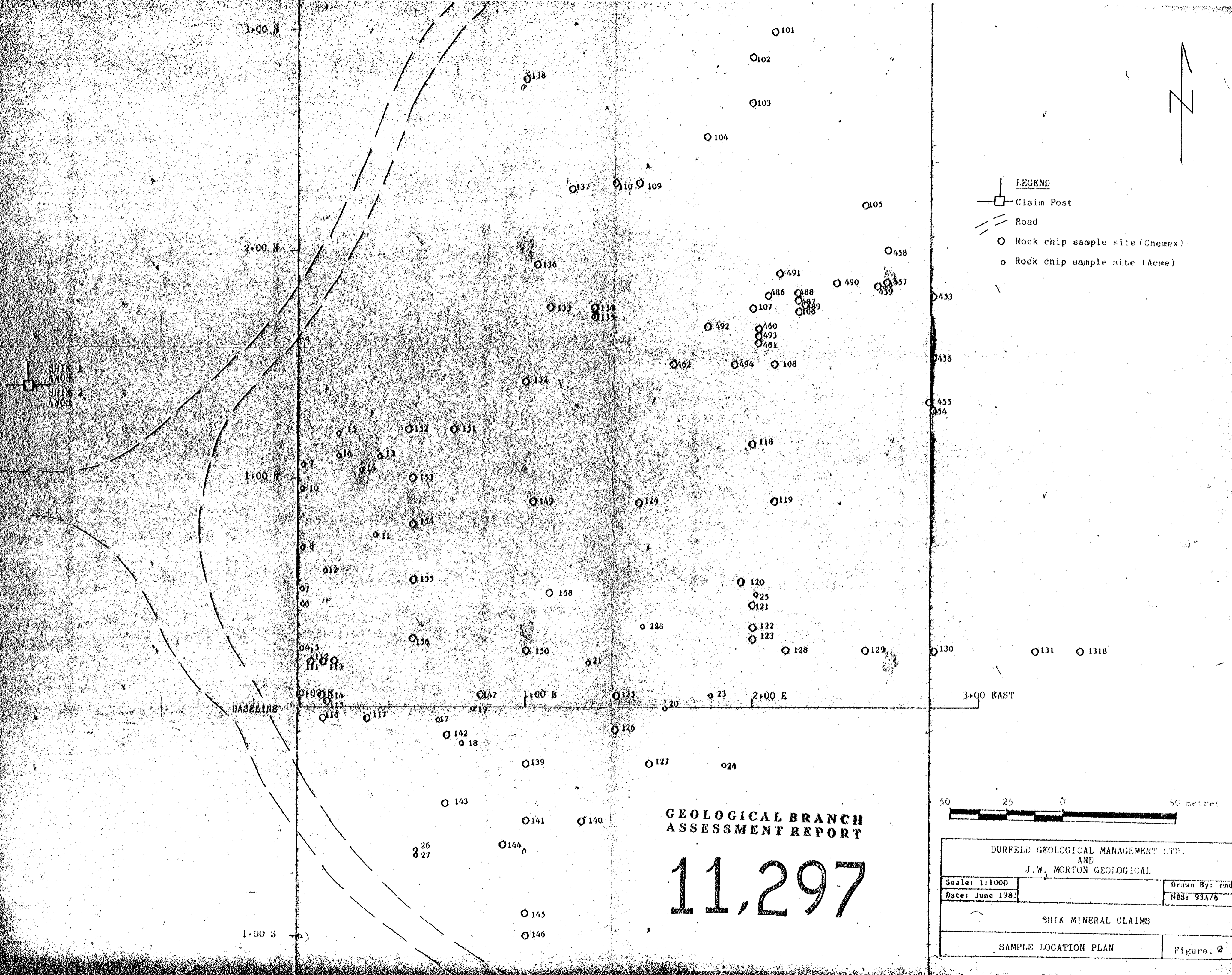
PPM Arsenic: a 1.0 gram sample is digested with a mixture of perchloric and nitric acid to strong fumes of perchloric acid. The digested solution is diluted to volume and mixed. An aliquot of the digest is acidified, reduced with KI and mixed. A portion of the reduced solution is converted to arsine with  $\text{NaBH}_4$  and the arsenic content determined using flameless atomic absorption.

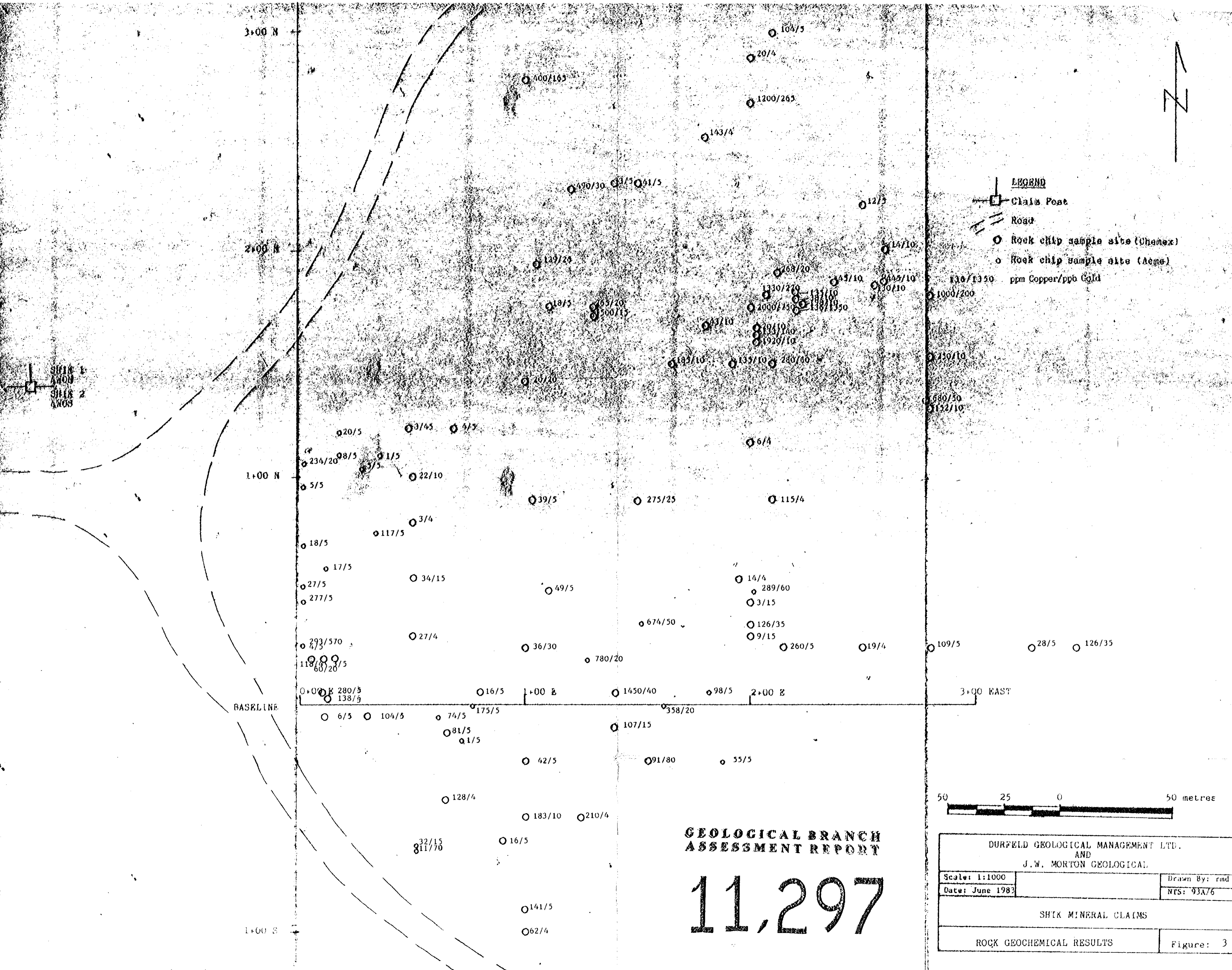
Detection limit - 1 PPM






PPM Silver: a 1.0 gm portion of sample is digested in conc. perchloric-nitric acid ( $\text{HClO}_4 - \text{HNO}_3$ ) for approx. 2 hours. The digested sample is cooled and made up to 25 mls with distilled water. The solution is mixed and solids are allowed to settle. Silver is determined by atomic absorption technique using background correction on analysis

Detection limit - 0.2 PPM



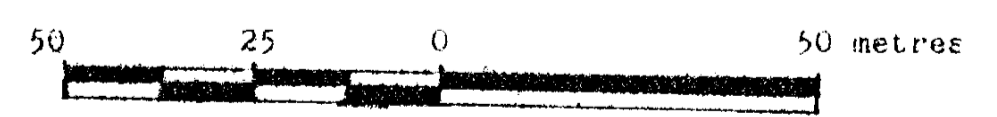




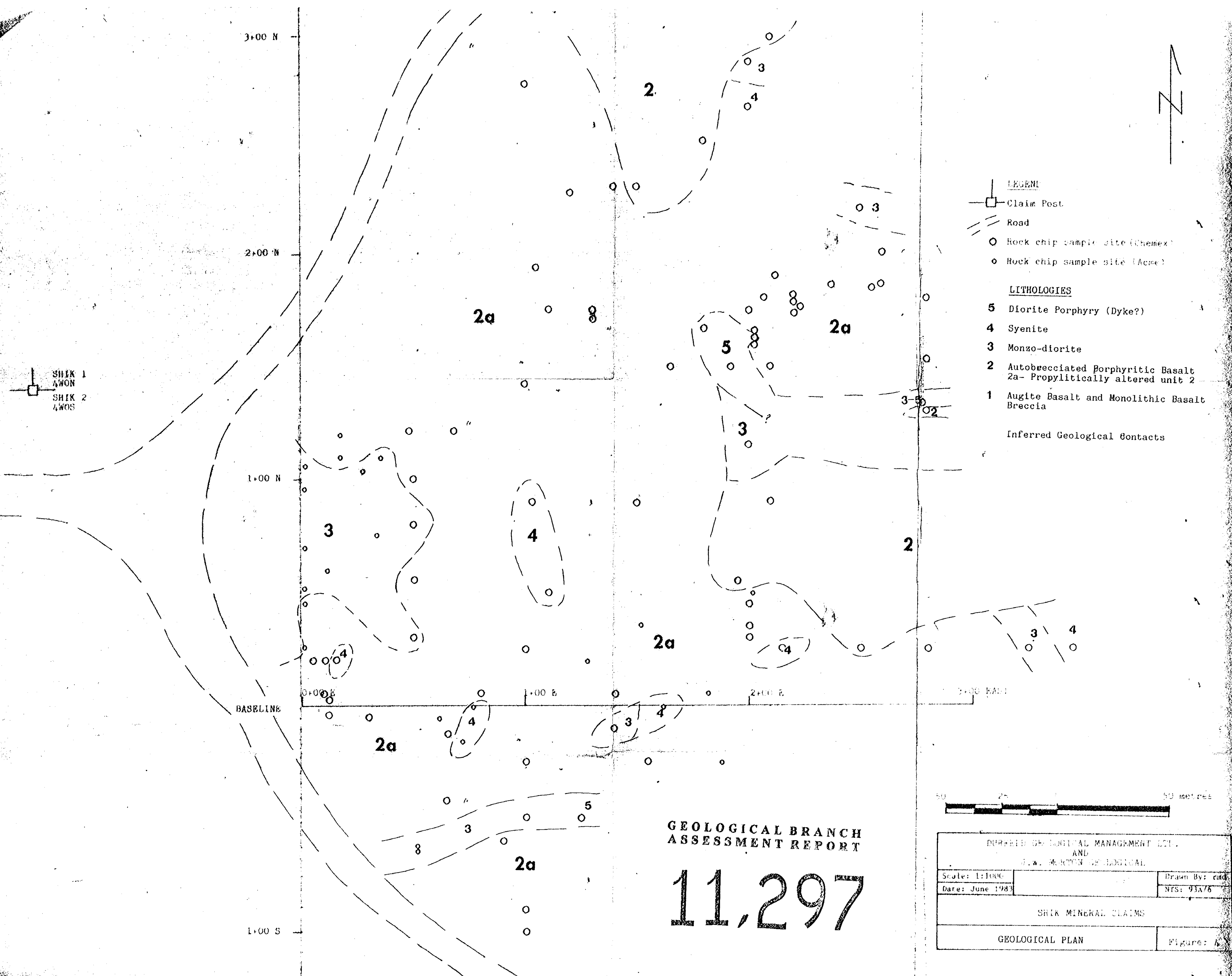
- LEGEND**
-  Claim Post
  -  Road
  -  Rock chip sample site (Chamex)
  -  Rock chip sample site (Aeme)
  -  ppm Copper/ppb Gold

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**11,297**



DURFELD GEOLOGICAL MANAGEMENT LTD. AND J.W. MORTON GEOLOGICAL		
Scale: 1:1000		Drawn By: rmd
Date: June 1987		NTS: 93A/6
SHIX MINERAL CLAIMS		
ROCK GEOCHEMICAL RESULTS		Figure: 3



- LEGEND**
- Claim Post
  - Road
  - Rock chip sample site (Chemex)
  - Rock chip sample site (Acme)
- LITHOLOGIES**
- 5 Diorite Porphyry (Dyke?)
  - 4 Syenite
  - 3 Monzo-diorite
  - 2 Autobrecciated Porphyritic Basalt  
2a- Propylitically altered unit 2
  - 1 Augite Basalt and Monolithic Basalt Breccia
- Inferred Geological Contacts

SHIK 1  
AWON  
SHIK 2  
AWOS

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**11,297**



DURFIELD GEOLOGICAL MANAGEMENT LTD. AND J.W. MASON GEOLOGICAL		
Scale: 1:1000		Drawn By: rcd
Date: June 1983		NFS: 93A/6
SHIK MINERAL CLAIMS		
GEOLOGICAL PLAN		Figure: 1