86-406 -14870

GEOLOGICAL MAPPING - SHIK GRID

SPECIFIC CLAIMS INVOLVED:	Shik 1 #4331 Shik 2 #4332
MINING DIVISION:	Cariboo
SPECIFIC N.T.S. LOCATION:	93A/6W
LATITUDE & LONGITUDE:	52° 27' 121° 27'
OWNER OF CLAIMS:	R. DURFELD & J.W. MORTON
OPERATOR:	R. DURFELD & J.W. MORTON
AUTHOR OR REPORT:	J.W. MORTON
DATE:	JULY, 1986

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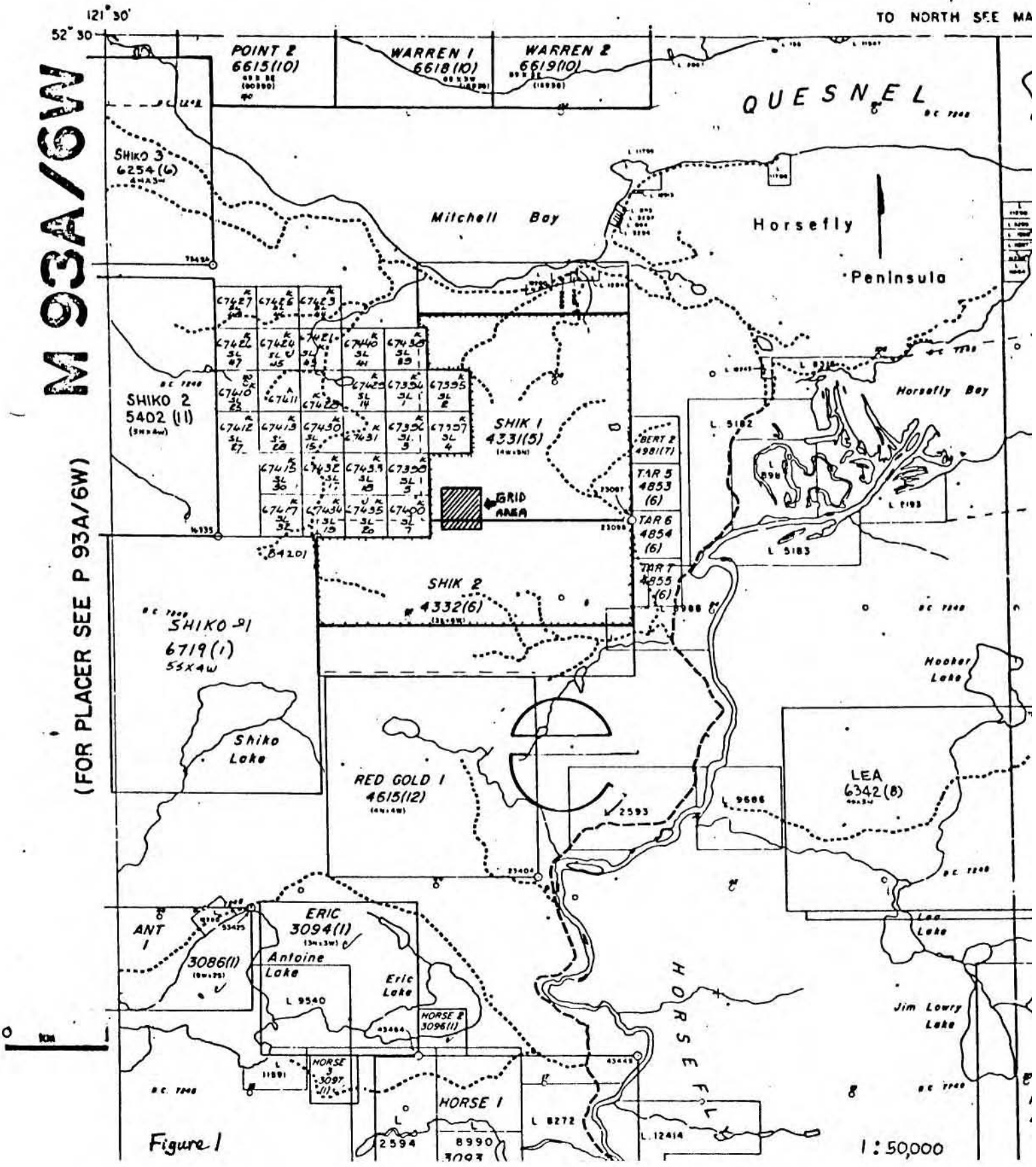
121°30'
52°30'
TO NORTH SEE MA
M 93A/6W
(FOR PLACER SEE P 93A/6W)
POINT 2
6615(10)
WARREN 1
6618(10)
WARREN 2
6619(10)
QUESNEL
SHIKO 3
6254(6)
Mitchell Bay
Horsefly
Peninsula
SHIKO 2
5402 (11)
SHIK 1
4331(5)
SHIK 2
4332(6)
GRID AREA
BERT 2
4981(7)
TAR 5
4853
(6)
TAR 6
4854
(6)
TAR 7
4855
(6)
Horsefly Bay
L 5182
L 5183
SHIKO 91
6719(1)
55X4W
Shiko Lake
Hooker Lake
RED GOLD 1
4615(12)
LEA
6342(8)
L 9686
2593
ANT 1
3086(11)
ERIC
3094(1)
Antoine Lake
Eric Lake
L 9540
HORSE 2
3096(11)
HORSE 3
3097
(11)
HORSE 1
HORSE FL
Jim Lowry Lake
Lee Lake
L 8272
L 12414
2594
8990
0
KM
Figure 1
1:50,000

Location and Physiographic Position

The Shik Mineral claims are located in the Central Interior of B.C. near the southwest end of Quesnel Lake. The claims occupy a region of rolling topography with elevations varying between 730 m and 1,000 m (2,400 ft. to 3,300 ft.). The mature vegetation type occurring on the claims is of a wet belt, mixed coniferous variety. In recent years, clearcut logging has been conducted on much of the area of Shik claims.

Access to the Shik claims is via 100 kilometers of paved and all-weather gravel road (via the Horsefly Road to Horsefly townsite and then the Mitchell Bay Forest Access Road).

Property Definition (Regional Summary)

The most significant single geological structure in the Horsefly area is called the Quesnel Trough. The Quesnel Trough is a Mesozoic tectonic feature that occurrs between the Paleozoic Omineca Crystalline Belt to the east and the oceanic deposited rocks of the Paleozoic Cache Creek group to the west. Deposition within the trough has been predominantly by Triassic-Jurassic volcanics and their minor intercalated volcaniclastic sediments. The volcanic pile, in large, is derived from phreatic eruption and submarine laharic activity. Phreatic centres are identified by the presence of comagmatic felsic intrusives (often with a subvolcanic habit). The Quesnel Trough is an extensive feature, thought to have formed by an Upper Triassic to Lower Jurassic active island arc system. It more or less extends from the United States border to the Yukon border where it becomes known as the Whitehorse Trough. Throughout its length, composition of rocks varies between calc-alkaline and distinctly alkaline. In the Horsefly area the trough has a higher alkaline habit. During the late nineteenth century, major placer gold occurrences were worked in several locations within the Horsefly River watershed.

Summary of Work Completed

- 5 hand trenches completed (average 1.5m X 1m X 2m)
- 16 samples cut with diamond saw and stained for potassium feldspars
- 7 rock samples submitted for analyses by multi element neuton activation methods
- detailed geological mapping completed within a grid area of 300m by 300m.

Work was completed on the Shik 1 and Shik 2 claims.

Description of Geological Program

Systematic mapping, coincident with rock geochemical sampling, had previously been attempted on the Shik grid. The complexity of the breccias and the pervasiveness of the alteration had, however, prevented satisfactory type distinction and consistent identification. In order to obtain a more satisfactory geological frame work it was decided to remap the shik grid in the light of new associations which had become apparent during the last few years of work on the property (geological mapping had not previously been submitted for assessment credits). Sixteen representative sample specimens were collected and were cut with a diamond saw. Samples were then etched with hydrofluoric acid and were then stained with sodium cobaltinitrite to identify potassium feldspars and plagioclase in preparation for detailed hand specimen descriptions. (see appendix for procedures) All other outcrops were then correlated with these type specimens.

Much of the area of the Shik grid is covered by a layer of clay often in excess of one meter deep. Two of five hand trenches completed during this program were terminated at a depth of 1.5 meters without encountering bedrock.

Seven rock samples were collected and were sent to Bondar - Clegg in North Vancouver for analyses using neutron activation procedures. A summary table follows with the complete certificates and lab procedures included in the appendix of this report.

Location	Lithology	Gold p.p.b.	Copper p.p.m.	Antimony p.p.m.	Barium p.p.m.	Iron %
2+80E 1+94N	propylitized lapilli breccia	1230	7200	12.0	100	9.1
1+90E 2+00N (northside)	propylitized lapilli breccia	2330	5700	19.0	100	11.0
1+90E 2+00N (southside)	sheared chlorite sericite lapilli breccia	10	540	2.7	2700	6.2
0+45E 3+48N	propylitized lapilli breccia	270	400	1.8	100	8.8
1+00E 0+20N	augite porphyry auto breccia	7	230	4.4	3600	8.3
1+55E 0+10S	propylitized lapilli breccia	58	590	5.0	400	8.4
Shik 2 (post 6W 2S)	pyritic limestone	5	34	0.9	310	3.0

Conclusions and Observations

A complete list of specimen descriptions and staining results is included in this report. On the basis of cutting and staining and field relationships the following lithological classification was established:

5 Monzodiorite or Syenite Dyke
4 Syenodiorite Intrusive Breccia
3 Polylithic Trachyte Debris Breccia
2b Sheared Chloritized and Sericitized Lapilli Breccia
2a Propylitized Lapilli Breccia
1b Augite - Kspar Porphyry Autobreccia
1a Augite Porphyry Autobreccia

Type descripts of these lithologies occur in the list of speciment descriptions which follow.

Cutting and staining established that pervassively propylitized sections (epidote, chlorite, (carbonate)) appear to be a fragmental unit believed to have been derived from an andesitic lapilli breccia.

The propylitized lapilli breccia is typically low in kspar content and is weakly magnetic to non magnetic. The low magnetism is anomalous in that the general suite of rocks in this stratigraphic section contains a relatively high proportion of magnetite. It is presumed that a propylitic phase of hydrothermal alteration may have destroyed primary magnetite in this unit. Intense propylitic alteration is restricted to the lapilli breccia and may have been confined to this unit because of favourable porosity conditions.

The degree of economic mineralization is correlative to the degree of propylitization and the sulfide content. (although gold content is not necessarily restricted to the copper sulfides.)

DETAILED HAND SPECIMEN DESCRIPTIONS

2 + 00E
1 + 50N
- augite plagioclase porphyry in a fine grained, stained matrix (kspar)
- looks like a dyke but could be a tuff
- strongly magnetic
- genesis: intrustive
- classification: monzodiorite dyke

1 + 00E
0 + 20N
- augite rich rock
- 25% carbonate replacement
- fine grained stained matrix (kspar)
- high carbonate content
- strongly magentic
- surface diagenetically altered to cruddy grey material
- genesis: autobreccia
- classification: augite porphyry autobreccia

0 + 48E
0 + 50N
- augite feldspar porphyry in fine grained kspar rich matrix
- high kspar content
- low carbonate content
- strong magnetism
- fine grained with chilled margins at contact
- genesis: dyke
- classification: monzodiorite dyke

0 + 48E (First Sample)
3 + 50N
- greater than 60% epidote
- fragmental precursor (plagioclase microporphyry)
- anastamizing sericite chlorite alteration fabric
- low kspar content
- low carbonate content
- non magnetic
- sheared at 330^{o}
- genesis: pyroclastic breccia
- classification: propylitized lapilli breccia

0 + 48E (Second Sample)
3 + 50N
- fresh augite, kspar porphyry (augite phenocrysts to 7mm, kspar phenocrysts smaller and lath shaped)
- high kspar content
- low carbonate content
- moderately magnetic
- genesis: flow breccia or debris slope breccia
- classification: augite - kspar porphyry autobreccia

0 + 45E
3 + 48N
- greater than 60% epidote
- fragmental precursor (plagioclase microphorphyry)
- low kspar content
- low carbonate content (a few calcite veinlets)
- non magnetic
- minor chalcocite, chalcopyrite and pyrite
- total sulfides 2%
- covered by 1 meter of clay till
- genesis: pyroclastic breccia
- classification: propylitized lapilli breccia

2 + 00E
1 + 75N
- fragmental (fragments composed of augite and kspar)
- fragments within a kspar rich matrix
- high kspar content
- moderately magnetic
- genesis: flow breccia or debris slope breccia
- classification: augite-kspar phorphyry autobreccia

2 + 80E (First Sample)
1 + 94N
- epidote 40%, plagioclase 40%, total sulfides 10%
- fine grained interconnecting sericite - chlorite veinlets
- some malacite stain
- low kspar content
- low carbonate content
- non magnetic
- chalcocite abd chalcopyrite to 3%
- formerly called, Newmont showing, sample R-4112
- genesis: pyroclastic breccia
- classification: propylitized lapilli breccia

2 + 80E (Second Sample)
1 + 94N
- fragmental
- relic plagioclase microporphyry clasts now altered to epidote - chlorite sericite
- total sulfides to 2% including pyrite, chalcocite, chalcopyrite
- low kspar content
- low carbonate content excepting minor microveining
- non magnetic
- formerly called, Newmont showing
- genesis: pyroclastic breccia
- classification: propylitized lapilli breccia

1 + 90E
2 + 00N
(Northside)
- fragmental
- relic clasts of plagioclase porphyry now altered to epidote - chlorite
- low kspar content
- low carbonate content
- non magnetic
- minor malachite
- genesis: pyroclastic breccia
- classification: propylitized lapilli breccia

1 + 90E
2 + 00N
(Southside)
- zone of ductile deformation
- two domains - #1 as described for northside plus mylonitic ductile deformation zone
- clasts of augite plagioclase porphyry now slightly foliated and enveloped within a fine grained sericite - chlorite 'taffy' like zone
- low kspar content
- low carbonate content
- total sulfides approximately 2%
- weakly magnetic
- genesis: ductile shear zone
- classification: sheared chlorite sericite lapilli breccia

1 + 90E
2 + 00N
(Northside #2)
- greater than 70% epidote
- relic fragment fabric
- anastamizing quartz veins to 5mm.
- approx. 2% sulfides
- low kspar content
- low carbonate content
- weakly magnetic
- genesis: pyroclastic breccia
- classification: propylitized lapilli breccia

0 + 50E
0 + 25N
- angular breccia dominated by equigranular salmon coloured kspar fragments
- occasional epidote altered fragment
- kspar dominated matrix
- minor carbonate content
- moderate magnetism
- genesis: intrusive breccia
- classification: syenodiorite intrusive breccia

1 + 55E
0 + 10S
- greater than 60% epidote
- greater than 20% calcite
- 1% sulfides
- hint of relic fragmental fabric
- relic augite phenocrysts altered to chlorite
- low kspar content
- non magnetic
- genesis: pyroclastic breccia
- classification: propylitized lapilli breccia

1 + 00E
2 + 28N
- polylithic breccia
- clasts to 5cm angular and rounded
- minor argillic alteration on edges of clasts
- some hematite clasts
- may be subareal in origin
- high kspar content
- strong magnetism
- genesis: subareal volcaniclastic breccia
- classification: polylithic trachyte breccia

0 + 75E
0 + 00N
- augite, porphyry in fine grained stained matrix (kspar)
- high carbonate content
- strong magnetism
- genesis: autobreccia
- classification: augite porphyry autobreccia

Cost Statement

Morton *geologist*	May 22 to May 25/86 May 27 and May 29/86	6 days @ $200 day	$1,200
Durfeld *geologist*	June 3, August 7, Oct. 4/85 May 24, 25/86	5 days @ $200 day	1,000
Vehicle Costs - Vancouver - Williams Lake Return plus 8 trips Williams Lake Property return 2,487 km. @ 30¢ km.			746
Room and Board (Morton)		6 man days @ $50 day	300
Rock Sawing and Staining costs			299
Analytical Costs			134
Consumables - Hip chain string, ribbon, new pickets			56
Report Preparation			600
Total			$4,335

Author's Qualifications

I, JAMES W. MORTON, CERTIFY THE FOLLOWING:

I graduated from Carleton University in 1971 with a Bachelor of Science in Geology.

I graduated from the University of British Columbia in 1976 with a Master of Science in Soil Science.

I have worked for various mining and exploration companies since 1969.

J.W. Morton,
Geologist

Staining Procedures

1. Specimen cut in two with diamond rock saw.
2. One half of specimen etched by submersing in concentrated HF for 15-20 seconds.
3. Specimen then dipped in water.
4. The still wet specimen is then submersed in a saturated solution of sodium cobaltinitrite for one to two minutes.
5. The specimen is then rinsed and dried.

Colour reactions

- Kspar is stained bright yellow
- Plagioclase is left chalky white
- Qtz is left dull grey

Geochemical procedures

Samples are pulverized and encapsulated in a vial (10g of sample in the vial). Vials are then directly irradiated and concentrations are determined directly using instrumental Neuton Activation procedures.

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
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ne: (604) 985-0681
Telex: 04-352667

BONDAR-CLEGG

Geochemical Lab Report

REPORT: 126-1519

PROJECT: NONE GIVEN PAGE 14

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Sb PPM	As PPM	Ba PPM	Cd PPM	Cs PPM	Cr PPM	Co PPM	Eu PPM	Hf PPM	Ir PPB
R2 2+80E 1+94N		1230	12.0	56	<100	<10	<1	350	77	<2	<2	<100
R2 BK-C-4(H)		16	16.0	145	640	<10	4	<50	17	<2	3	<100
R2 BK-C-14		34	76.5	785	160	<10	<1	180	61	<2	<2	<100
R2 BKE10-E21		10	8.6	38	420	<10	1	250	17	<2	<2	<100
R2 NEW SHIKO LIME		<5	0.9	16	310	<10	<1	140	12	<2	<2	<100
R2 SK 0+45E 3+48N		270	1.0	23	<100	<10	<1	410	65	<2	2	<100
R2 SK 1+00E 0+20N		7	4.4	18	3600	<10	<1	370	14	<2	<2	<100
R2 SK 1+55E 0+10S		58	5.0	21	<100	<10	<1	380	25	<2	<2	<100
R2 SK 1+90E 2+00N NORTH		2330	19.0	59	<100	<10	<1	320	69	<2	<2	<100
R2 SK 190E 200N SOUTH		10	2.7	11	2700	<10	<1	350	21	<2	2	<100

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Geochemical Lab Report

REPORT: 126-1519

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SAMPLE NUMBER	ELEMENT UNITS	Fe PCT	La PPM	Mo PPM	Ni PPM	Rb PPM	Sc PPM	Se PPM	Ag PPM	Ta PPM	Tb PPM	Th PPM
R2 2+80E 1+94N		9.1	13	2	63	<10	15.0	<10	<5	<1	<1	2.2
R2 BK-C-4(H)		5.6	14	3	<50	43	27.0	<10	<5	<1	<1	1.7
R2 BK-C-14		11.0	7	67	<50	20	11.0	<10	<5	<1	<1	1.1
R2 BKE10-E21		6.2	<5	<2	<50	<10	33.0	<10	<5	<1	<1	<0.5
R2 NEW SHIKO LIME		3.0	8	3	<50	54	11.0	<10	<5	<1	<1	0.8
R2 SK 0+45E 3+48N		8.8	13	5	57	<10	21.0	<10	<5	<1	<1	2.5
R2 SK 1+00E 0+20N		8.3	11	<2	120	69	19.0	<10	<5	<1	<1	2.1
R2 SK 1+55E 0+10S		8.4	8	<2	100	<10	19.0	<10	<5	<1	<1	2.0
R2 SK 1+90E 2+00N NORTH		11.0	12	3	120	11	15.0	<10	5	<1	<1	2.0
R2 SK 190E 200N SOUTH		6.2	12	2	200	65	17.0	<10	<5	<1	<1	2.2

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Geochemical Lab Report

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SAMPLE NUMBER	ELEMENT UNITS	W PPM	U PPM	Yb PPM	Zn PPM	Cu PPM
R2 2+60E 1+94N		<2	2.2	<5	<200	7200
R2 BK-C-4(H)		10	1.0	<5	<200	66
R2 BK-C-14		7	<0.5	<5	<200	310
R2 BKE10-E21		8	<0.5	<5	<200	68
R2 NEW SHIKO LIME		<2	1.9	<5	<200	34
R2 SK 0+45E 3+48N		3	2.7	<5	<200	400
R2 SK 1+00E 0+20N		<2	1.3	<5	<200	230
R2 SK 1+55E 0+10S		<2	3.1	<5	<200	590
R2 SK 1+90E 2+00N NORTH		<2	3.0	<5	210	5700
R2 SK 190E 200N SOUTH		<2	1.5	<5	<200	540

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BONDAR-CLEGG

Geochemical Lab Report

REPORT: 136-1519 (COMPLETE)

REFERENCE INFO:

CLIENT: JW MORTON & ASSOCIATES
PROJECT: NONE GIVEN

SUBMITTED BY: B MORTON
DATE PRINTED: 13-JUN-86

ORDER		ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au	Gold	10	5 PPB	NOT APPLICABLE	IND. NEUTRON ACTIV.
2	Sb	Antimony	10	0.2 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
3	As	Arsenic	10	1 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
4	Ba	Barium	10	100 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
5	Cd	Cadmium	10	10 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
6	Cs	Cesium	10	1 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
7	Cr	Chromium	10	50 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
8	Co	Cobalt	10	10 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
9	Eu	Europium	10	2 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
10	Hf	Hafnium	10	2 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
11	Ir	Iridium	10	100 PPB	NOT APPLICABLE	IND. NEUTRON ACTIV.
12	Fe	Iron	10	0.5 PCT	NOT APPLICABLE	IND. NEUTRON ACTIV.
13	La	Lanthanum	10	5 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
14	Mo	Molybdenum	10	2 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
15	Ni	Nickel	10	50 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
16	Rb	Rubidium	10	10 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
17	Sc	Scandium	10	0.5 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
18	Se	Selenium	10	10 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
19	Ag	Silver	10	5 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
20	Ta	Tantalum	10	1 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
21	Tb	Terbium	10	1 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
22	Th	Thorium	10	0.5 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
23	W	Tungsten	10	2 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
24	U	Uranium	10	0.5 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
25	Yb	Ytterbium	10	5 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
26	Zn	Zinc	10	200 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
27	Cu	Copper	10	1 PPM	HNO3-HCL HOT EXTR	Atomic Absorption

SURFACE GEOLOGY

SHEK GRID

Legend

5 Monzodiorite Dyke

4 Syenodiorite Intrusive Breccia

3 Polylithic Trachyte Debris Breccia

2b Sheared Chloritzed and Sericitized Lapilli Breccia

2a Propylitized Lapilli Breccia

1b Augite - Kspar Porphyry Autobreccia

1a Augite Porphyry Autobreccia

Prominant Shearing

Stratigraphic Strike and Dip 35°

Strike and Dip of Dyke 176°

Outcrop

Hand Trench

Sample Site for cut and Stained Specimens.

overburden > 1m

3+00N
2+00N
1+00N
0+00N
1+00S
0+00E
1+00E
2+00E
3+00E

N

0 meters 100

JUNE 1986

Figure 2.