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REPORT
OF
EVALUATION

NINA 1 MINERAL CLAIM
OMINECA MINING DIVISION
NTS 93N/15W

for

RIO ALGOM EXPLORATION INC.

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,977

Submitted by
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September 23, 1985

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SUMMARY

The Nina 1 mineral claim, located in north central British Columbia, covers basalt and intracalated sediments of the upper Paleozoic Slide Mountain terrane. Sulphide mineralization, carrying Cu, Au and Ag concentrations of ore tenor, occurs at a restricted stratigraphic interval near sediment. Two strataform EM anomalies may be in response to concentrations of massive sulphides. Silica alteration and sulphide mineralization is interpreted to be part of a syngenetic geothermal system.

A program of further property evaluation, ground geophysics and soil chemistry, is recommended. Airborne geophysics, detailed geological mapping and prospecting is recommended to evaluate the potential of the area.

1. INTRODUCTION

1.1 The Property

The Property consists of one mineral claim (Figure 1) described as follows:

<u>Claim Name</u>	<u>No. of Units</u>	<u>Record No.</u>	<u>Anniversary Date</u>
Nina 1	20	7229	August 20, 1985

1.2 Location, Access and Physical Features

The Nina 1 mineral claim is located in north central British Columbia, 260 km. northwest of Prince George, at the south end of the Swannell Range in the Omineca Mountains. The station of Germansen Landing, located at the crossing of the "Omineca mining road" over the Omineca River, is 18 km. south-southeast of the property.

Access to the property was by helicopter from the logging community of Mackenzie located 125 km southeast of the property. Mackenzie is connected by paved road to Highway 97, the Hart Highway. An unmaintained road 3 km south of the property in the valley of Nina Lake, originates at the "Omineca mining road" 10 km north of Germansen Landing. Nina Lake is large enough to accommodate a fixed wing aircraft.

The property is centered on three smooth ridges set from a central peak. Topographic relief on the property ranges from a maximum of 1,820 meters to 1,350 meters. Although steep, access was restricted to only two areas on the property: the headwall of a cirque developed along the north side of the west ridge, and a local precipitous area immediately below the peak. Timberline is at about 1,600 meters elevation.

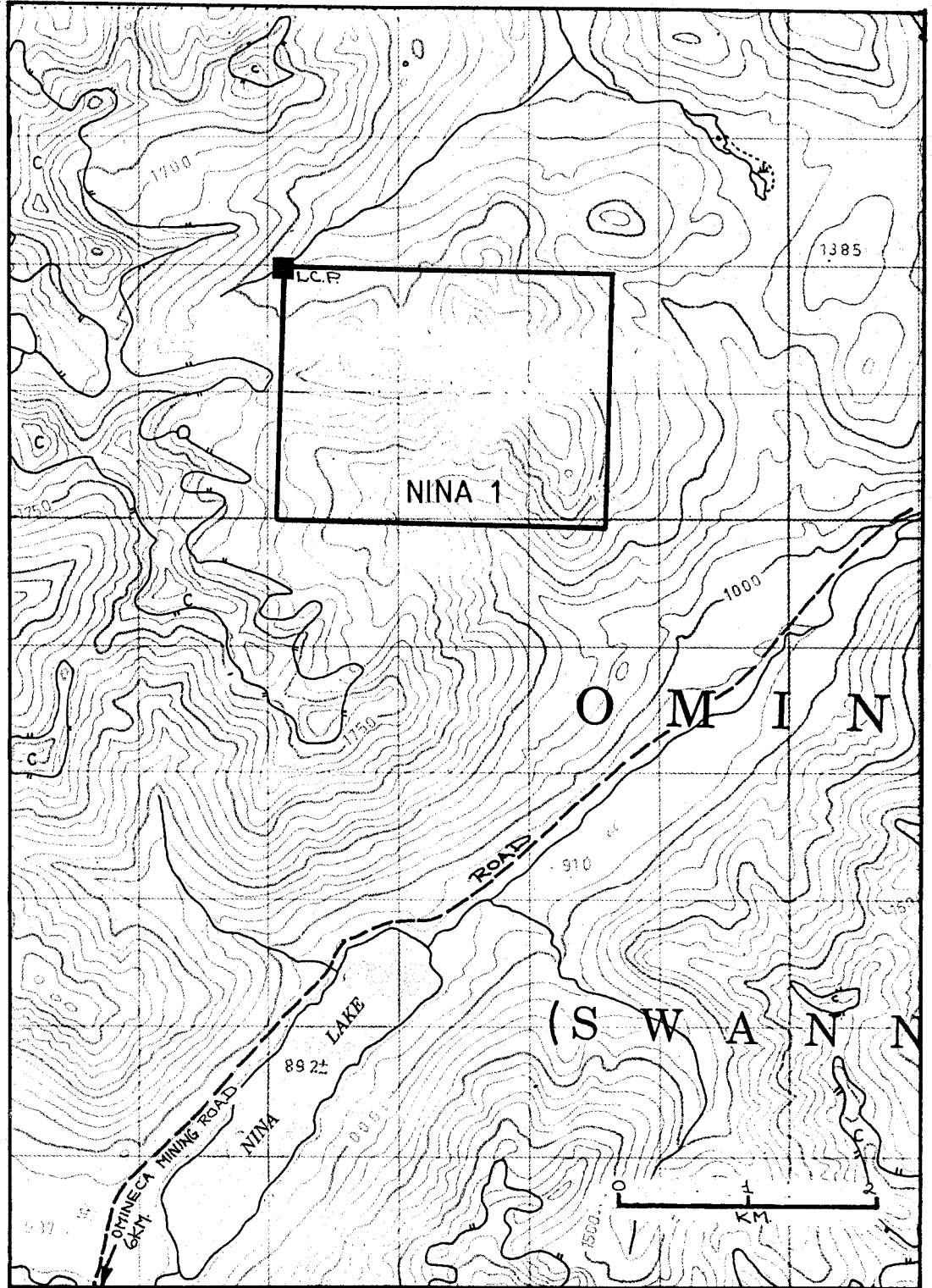


Figure 1. Location map, Nina 1 mineral claim. (NTS 93N/15)

1.3 Property History

No history of work is reported from the area of the Nina claim. Anomalous concentrations of copper and precious metals from gossan stained bedrock were reported by Anaconda Canada Ltd. in 1982.

The decision to stake the Nina 1 claim followed an examination of the anomalous gossan and the discovery of another anomalous gossan by Rio Algom Exploration Inc. and JAM Geological Services on July 23, 1985.

2. GEOLOGICAL SETTING

2.1 Regional Geology

Isolated outcrop areas of late Paleozoic volcanic and sedimentary rocks of similar stratigraphic and lithologic association are located along the total length of the Omineca Crystalline Belt (Figure 2), and are referred to as the eastern assemblage (Monger, 1977) and as the Slide Mountain terrane (Monger and Berg, 1984). Rocks of these areas appear to have similar gross stratigraphy (Figure 3) with a lower predominantly clastic sedimentary part, and an upper part of submarine mafic volcanic and local alpine-type ultramafic rocks. The sedimentary division can be transitional between older strata and the upper volcanic division. Age of the terrane ranges from Early Mississippian to Late Permian.

The Nina 1 claim lies within the Nina Creek belt (Figure 4) of the Slide Mountain terrane. Here the sedimentary package comprises 2,100 meters of cherty pelite, pelite and chert, minor conglomerate and thin argillaceous limestone and includes thick gabbro and diabase sills, presumably related to the overlying volcanic sequences (Monger and Paterson, 1974). Quartz-eye bearing tuff is reported (Monger, 1977) from this section. Mafic volcanic rocks of suspected Permian age, with an apparent thickness of 1,500 meters, overlie the sedimentary sequence. Chemical analysis of basalt collected 10 km. north of the property returned very low K_2O and relatively high TiO_2 values (Gabrielse, 1975). The Nina 1 claim covers mafic volcanic flow rocks located near the base of the volcanic sequence (Figure 4).

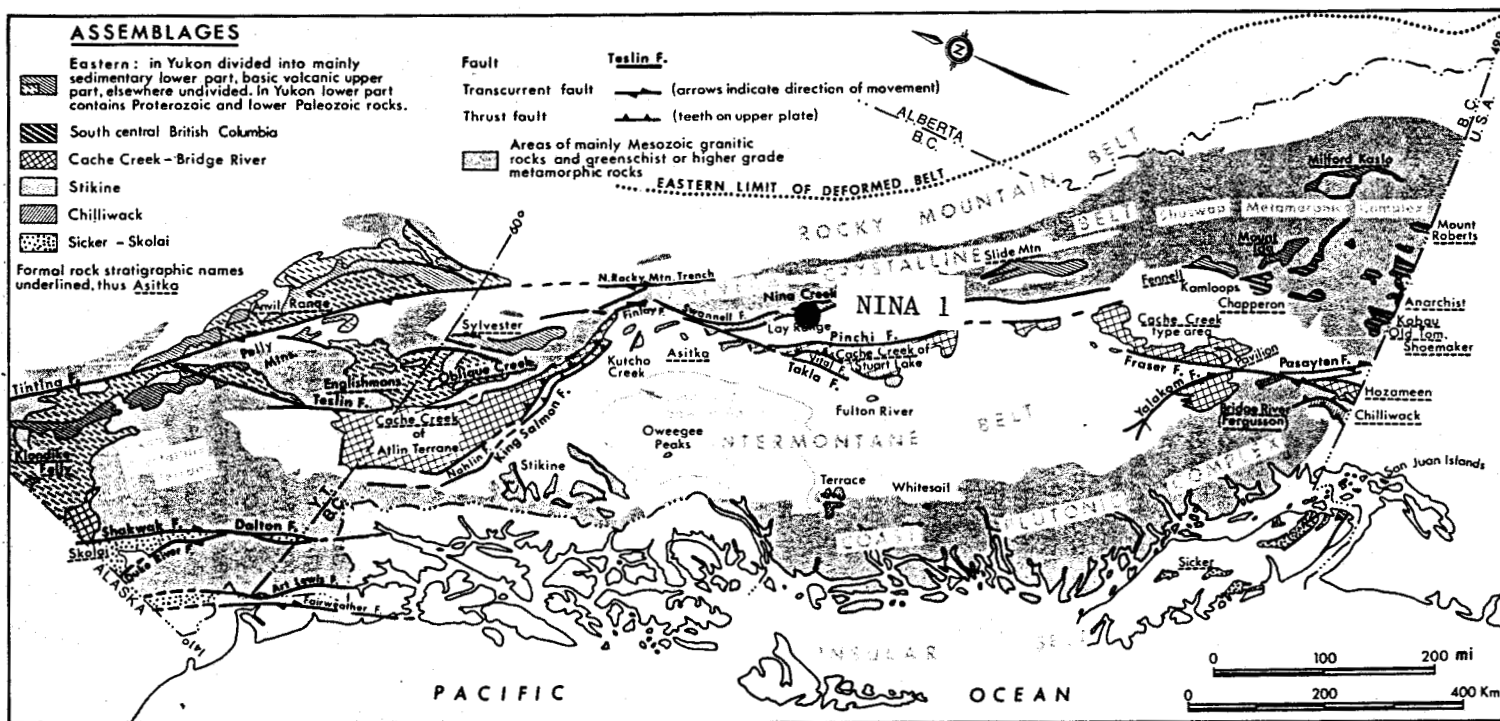


Figure 2. Distribution of outcrop area of upper Paleozoic volcano-sedimentary assemblages in the Canadian Cordillera and location of the Nina 1 claim (from Monger, 1977).

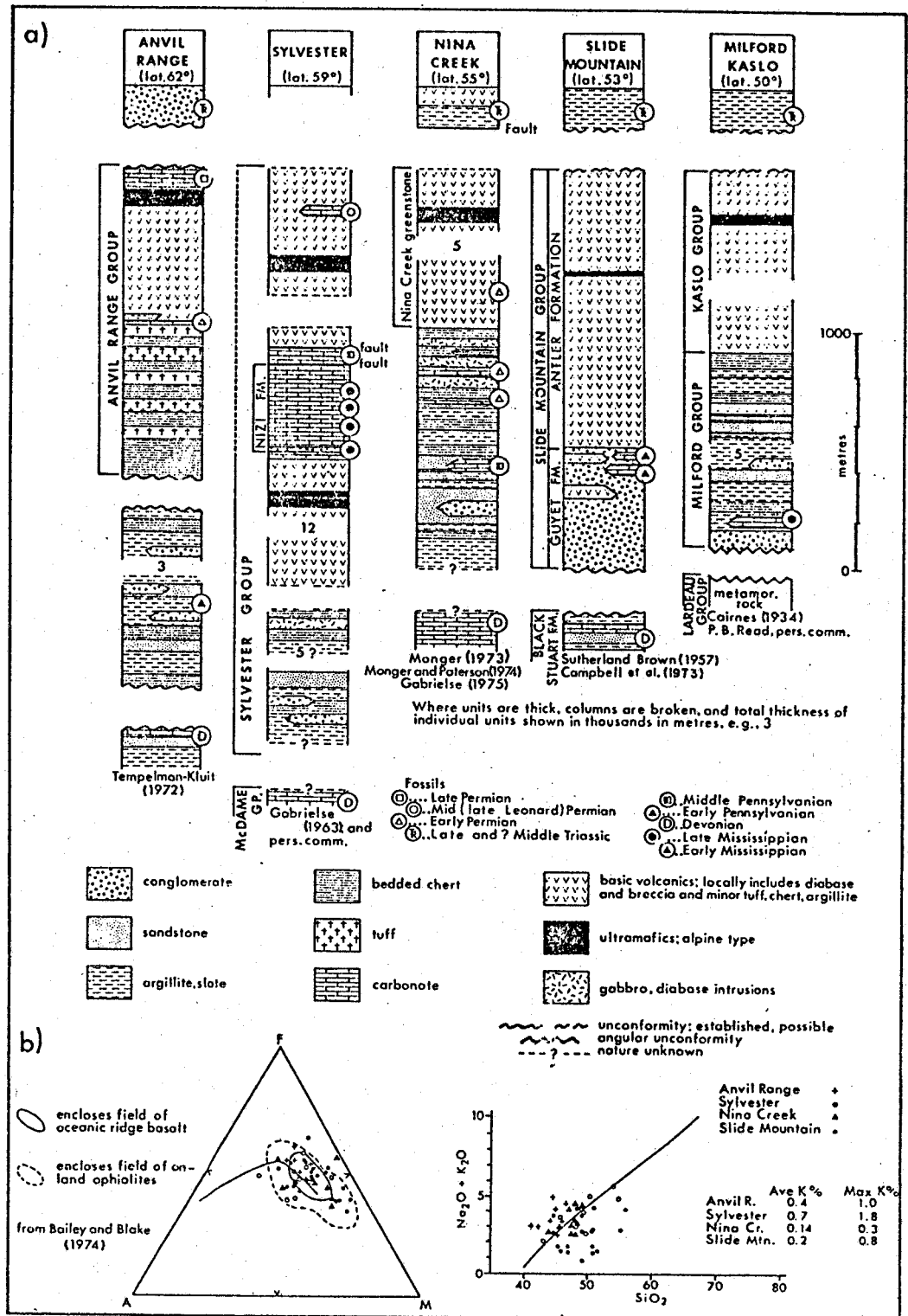


Figure 3. Eastern assemblage, Slide Mountain terrane:
 (a) stratigraphy
 (b) chemistry of volcanic rocks (from Monger, 1977).

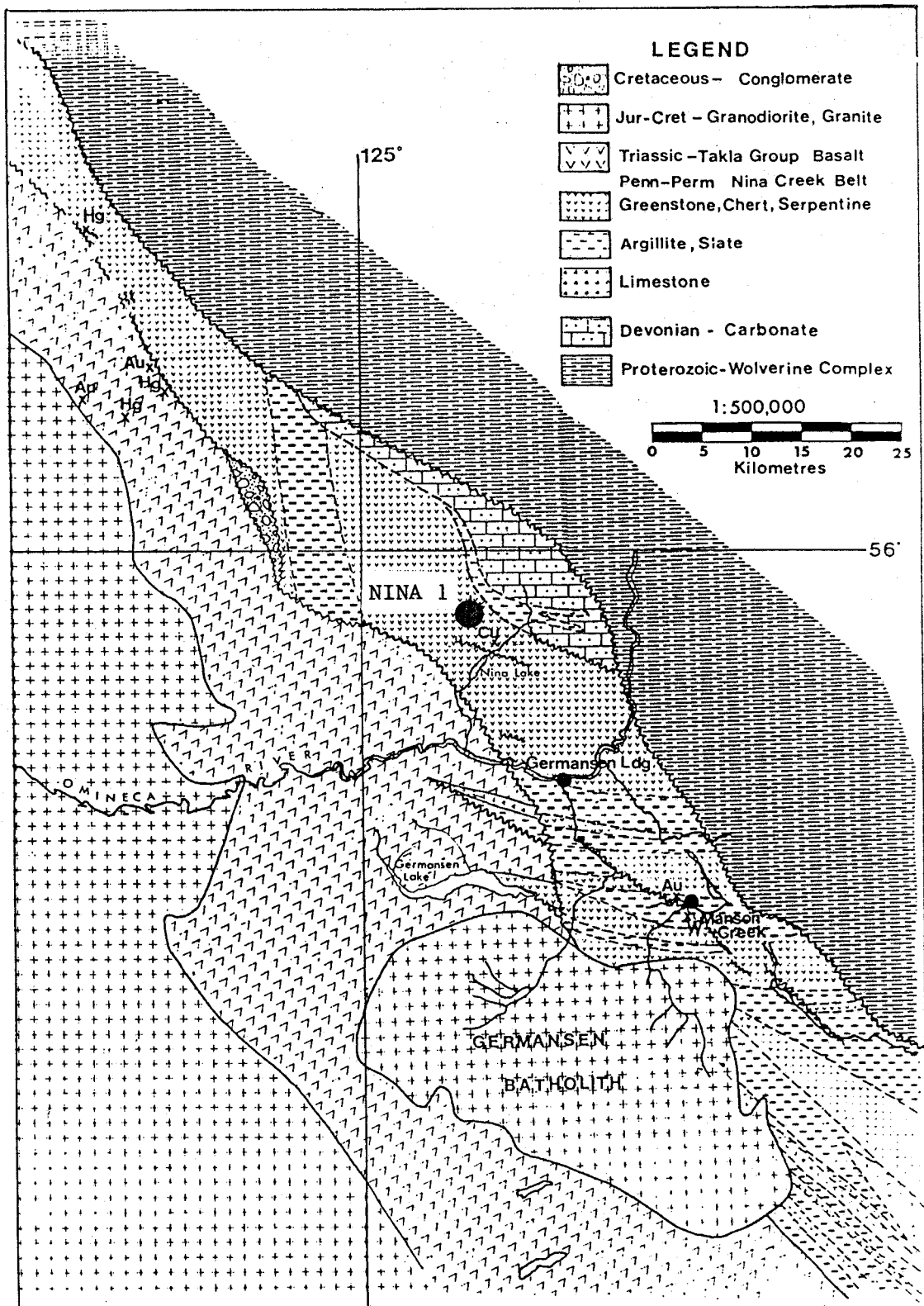


Figure 4. Geology of the Nina 1 claim area (from Armstrong, 1949 and Roots, 1954).

The Nina Creek belt, to the northwest of the property, becomes disrupted to a series of fault slices of volcanic and sedimentary rocks, in contact on the east with rocks of the Omineca Crystalline Belt, and on the west with the Triassic Takla Group. To the southeast the Nina Creek belt is an intercalated assemblage of mafic volcanic, argillite, slate and carbonate units. Here it is bisected by the Manson fault zone marked by altered ultramafic rocks. The western part of the belt is juxtaposed against the Jurassic or Cretaceous Germansen Batholith.

3. PROGRAM OF EVALUATION

Two geologists from JAM Geological Services spent seven days on the Nina 1 claim from August 18 to 25, 1985. The evaluation centered on the area of the two mineral showings previously identified.

A 1,000 meter, flagged baseline, trending at 140° was established over the ridge hosting the two mineral showings. Geological mapping, VLF-EM traverses and sample sites were tied to the baseline. Away from the mineral showing area, geology was plotted on a 1:5000 topographic map enlarged from a 1:50,000 topographic sheet.

3.1 Property Geology (Maps 1 and 2)

Stratigraphic and structural relationships within the Nina Creek belt are not known. Stratigraphy in the property area appears to be part of a homoclinal succession topping and dipping westerly.

3.1.1 Lithologies and stratigraphic relationships

The property is underlain predominantly by weakly metamorphosed massive, green to brownish green weathered, fine grained, altered basalt (Map unit 1a) . The metabasalt is locally variolitic, brecciated or pillowed. Intracalated with metabasalt is a metasedimentary unit (Map unit 2a) with an apparent thickness of up to 150 meters, that flexes in trend from 100° to 140°, and thins markedly towards the north side of the property. The metasediments are predominantly dark brown, weakly foliated, fine grained mafic tuffs,

locally argillaceous. Near the basalt contact, the sediments are distinctly layered with siliceous, cherty bands to 1 cm wide (Map unit 2b), which locally grade to massive chert (Map unit 2d). No stratigraphic top indicators were recognized.

3.1.2 Hydrothermal Breccia (Map unit 1e)

On lines 2+00S and 3+00S, within massive and pillowed metabasalt, a 50 x 150 m area is underlain by a mixed basalt and cherty breccia (Photo 8). Here, massive basalt and chert have been shattered to angular fragments of millimeter to 10 centimeter size to form a matrix supported breccia. The matrix is either a dense, creamy grey siliceous groundmass, or mixed lamellae of fine basalt and chert shards in a siliceous groundmass. No sulphide minerals were seen within this breccia body. The contact between mixed breccia and host massive basalt is not sharp, but grades from an in-situ shattered basalt (Photo 7).

3.1.3 Structure

On the property, basalt flow rocks have little or no penetrative deformation. Pillowed and brecciated basalt have retained their primary textures. However, within the sedimentary unit, a vertical foliation is developed. Near line 1+50N, chert bands in tuff define an open, upright synform with small amplitude shallow, north

plunging drag folds well developed. Bedding plane mullions have a shallow north plunge. It is interpreted that these small folds are geometrically similar to larger folds developed in the west dipping homoclinal succession of Nina Creek belt rocks. No major disruption of the stratigraphic package by faults is recognized.

3.1.4 Sulphide mineralization

Localized areas of sulphide mineralization occur within a 100 meter interval in metabasalt on the east side of the sedimentary unit. Two styles of mineralization are recognized:

1. clastic sulphide mineralization (Photos 3, 4, 5 and 6)
2. disseminated sulphide mineralization

Fragments of massive sulphide are mixed with monolithic, fragment supported, conglomerate like, unmineralized basalt (Map unit lf). This style of mineralization is identified in two areas 300 meters apart at the same stratigraphic position relative to the sediment-basalt contact. The larger of the two areas (Photo 2) is lens shaped in plan view, measures 25 by 130 meters, and is elongated parallel to the sediment contact. The smaller zone is less defined (Photo 1). It measures 5 by 60 meters with its long axis conformable to the sediment contact. Sulphide fragments are composed of fine grained, granular textured pyrite with grey quartz. The chalcopyrite content of individual fragments is variable (Table 1). The total sulphide content of the two zones does not exceed 15%.

Table 1

Analytical results of individual sulphide-rich fragments from
clastic sulphide zones

Sample No	Cu %	Pb % (ppm)	Zn % (ppm)	Ag gm/T	Au gm/T	Co ppm	Ba ppm	Mo ppm	As ppm
D3001	0.10	0.01	0.04	75.5	3.00	11			
D3002	1.74	0.01	0.05	84.5	0.30	21			
D3003	3.15	0.02	0.05	226.5	0.90	32			
D3004	0.41	0.01	0.01	26.0	0.60	18			
D3005	0.36	0.01	0.06	146.5	6.90	8			
D3006	0.17	0.01	0.01	9.5	0.05	186			
D3007	0.09	0.01	0.51	10.0	1.20	19			
D3008	0.46	0.01	0.01	3.5	0.05	10			
D3009	0.17	0.01	0.01	7.0	0.40	18			
D3013	0.80	0.01	0.02	38.0	1.90	10			
D3014	0.21	0.01	0.01	10.0	4.70	3			
*D5459	0.19	(129)	(193)	96.8	1.80		5	3	238
*D5460	0.07	(27)	(48)	9.8	0.15		9	7	67
*D5461	0.31	(35)	(53)	7.6	0.05		8	12	131
*D5462	0.41	(63)	(157)	23.7	0.40		9	8	117
*D5464	14.91	(47)	(1167)	20.2	0.60		9	8	164

* Sample collected on July 23 during initial property examination

Localized areas of disseminated pyrite with varying amounts of fine grained chalcopyrite and minor sphalerite are intracalated with metabasalt (Map unit lg). These mineralized areas are small, not exceeding 3 meters in width and 20 meters in length. They tend to occur at a stratigraphic interval 100 meters from the sediment contact.

3.1.5 Alteration

Metamorphism in the Nina claim area appears to be of the lower greenschist facies. Metabasalt is commonly a fine grained assemblage of suspected plagioclase, amphibole and chlorite. Fine leucoxene is ubiquitous in the metabasalt. Silica replacement of basalt is widespread, occurring as distinct fracture controlled linear zones and as large strataform replacement zones (Map unit lc). Cherty bands in sediment may be silica replacement (Photo 10). Fracture related siliceous zones are texturally similar to the matrix of the hydrothermal breccia, consisting of fine lamellae of creamy grey chert.

Metabasalt is crosscut by a wide spaced northeast trending set of steeply dipping quartz-epidote veins that postdates silica alteration.

3.2 VLF-EM Survey

Using the Seattle station, VLF-EM was run with hipchain and clinometer on lines spaced at 50 and 100 meter intervals over the ridge hosting the sulphide showings. Readings were recorded at 20 meter intervals on lines. All readings are listed in the appendices and contoured Fraser filtered results are shown on Map 4.

Two stratigraphically parallel, open ended EM anomalies are identified: one conforming to the east side of the sedimentary unit and the second within metabasalt. Both anomalies may represent massive sulphide concentrations.

3.3 Analytical Results

Samples collected for chemical analysis are grouped by rock type in Tables 1, 2, 3, 4, 5 and 6. Laboratory reports can be found in the appendices.

Summary of analytical results:

1. Individual pyrite rich fragments from the sulphide clastic zone:
 - a) Cu, Ag and Au are enriched and reach ore tenor (Table 1).
 - b) Anomalous Au correlates with Cu poor pyrite fragments, anomalous Ag correlates with Cu rich fragments (Figure 5).

c) Zn and As are anomalous, Pb is weakly anomalous (Table 1).

2. Mineralized and unmineralized metabasaltic rocks:

a) Host rock of the sulphide clast zones is not anomalous in barium (Table 2). Unmineralized basalt near mineralization is not anomalous in trace elements (Table 5).

b) Pyritized zones in basalt are everywhere enriched in Cu and Ag and reach ore tenor, are anomalous in Zn and erratically anomalous in Pb and Au.

3. Sediments:

a) Sediments are anomalous in Ba (Table 3).

4. Siliceous rocks:

a) Siliceous rocks other than cherty sediments are not anomalous in trace elements (Table 6).

Table 2

Analytical results from clastic sulphide zones,
sulphide clasts and host rock

Sample No	Sample Size	Cu %	Pb ppm	Zn ppm	Ag gm/T	Au gm/T	Ba ppm	As ppm	Mo ppm
D5457	0.7m chip	0.18	33	127	7.1	0.10	18	6	6
D5465	4.0m chip	1.24	25	229	4.8	0.20	44	43	6
D5467	5.0m chip	0.06	76	134	3.0	0.05	113	27	3
D5469	5.0m chip	0.04	23	322	2.4	0.05	133	20	1
D5470	5.0m chip	0.83	86	459	44.7	1.80	4	302	5
D5471	1.0m x 2.0m chip	0.14	1065	719	47.0	4.80	5	423	4
D5472	5.0m chip	0.02	37	216	4.4	0.05	61	29	2
D5473	4.0m chip	0.09	104	950	4.2	0.45	53	116	4

Table 3

Analytical results of banded chert and siliceous tuff

Sample No	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Co ppm	Au ppb	Ba ppm
G0558	31	7	47	0.1	4	1	1654
G0561	874	6	52	0.9	5	1	775
G0577	89	21	80	0.1	10	1	2532
G0578	29	8	55	0.1	6	1	1990
G0580	49	5	47	0.1	4	4	3734
* G0581	47	12	54	0.3	5	1	362
* G0582	72	4	61	0.1	7	1	394
G0583	98	10	82	0.1	1	1	4128
G0584	22	21	47	0.1	6	1	2785

* May be silicified basalt

Table 4

Analytical results of pyritized basalt

Sample No	Cu ppm (%)	Pb ppm	Zn ppm	Ag ppm (gm/T)	Co ppm	Au ppb (gm/T)	Ba ppm	Mo ppm	As ppm
G0556	1077	25	117	2.8	9	50			
G0559	1810	229	386	4.9	41	160			
G0560	238	37	323	0.3	11	5			
* D5463	(0.37)	23	38	(3.4)	-	(0.05)	4	6	7
* D5466	(0.13)	22	245	(1.7)	-	(0.05)	49	1	28

* Sample collected on July 23 during initial property examination

Table 5

Analytical results of unmineralized "fresh" metabasalt

Sample No	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Co ppm	Au ppb
G0555	50	7	59	0.1	15	1
G0562	66	6	64	0.1	16	2
G0563	39	2	63	0.1	15	1
G0565	36	4	78	0.1	21	1
G0566	64	5	64	0.1	19	1
G0567	64	4	69	0.1	20	1
G0568	17	8	92	0.1	20	1
G0572	50	4	81	0.1	20	1
G0573	26	5	67	0.1	18	2
G0576	46	2	70	0.1	17	2
* Basalt	50	5	100	0.1	50	4

* Average abundance (Levinson, 1974)

Table 6

Analytical results of siliceous rock,
other than sediment

Sample No	Cu ppm (%)	Pb ppm	Zn ppm	Ag ppm	Co ppm	Au ppb	Ba ppm
G0557 1	40	6	65	0.1	8	1	510
G0564 2	57	4	75	0.1	12	1	
G0569 1	3	2	11	0.1	8	2	104
G0570 1	604	8	28	0.3	7	1	97
G0571 1	29	21	59	0.2	5	1	
G0572 1	50	4	81	0.1	20	1	1
G0574 1	15	2	25	0.1	10	1	168
G0575 1	5	2	39	0.1	5	1	427
G0579 2	63	4	20	0.1	5	1	116

1. Silicified basalt
2. Siliceous matrix to hydrothermal breccia

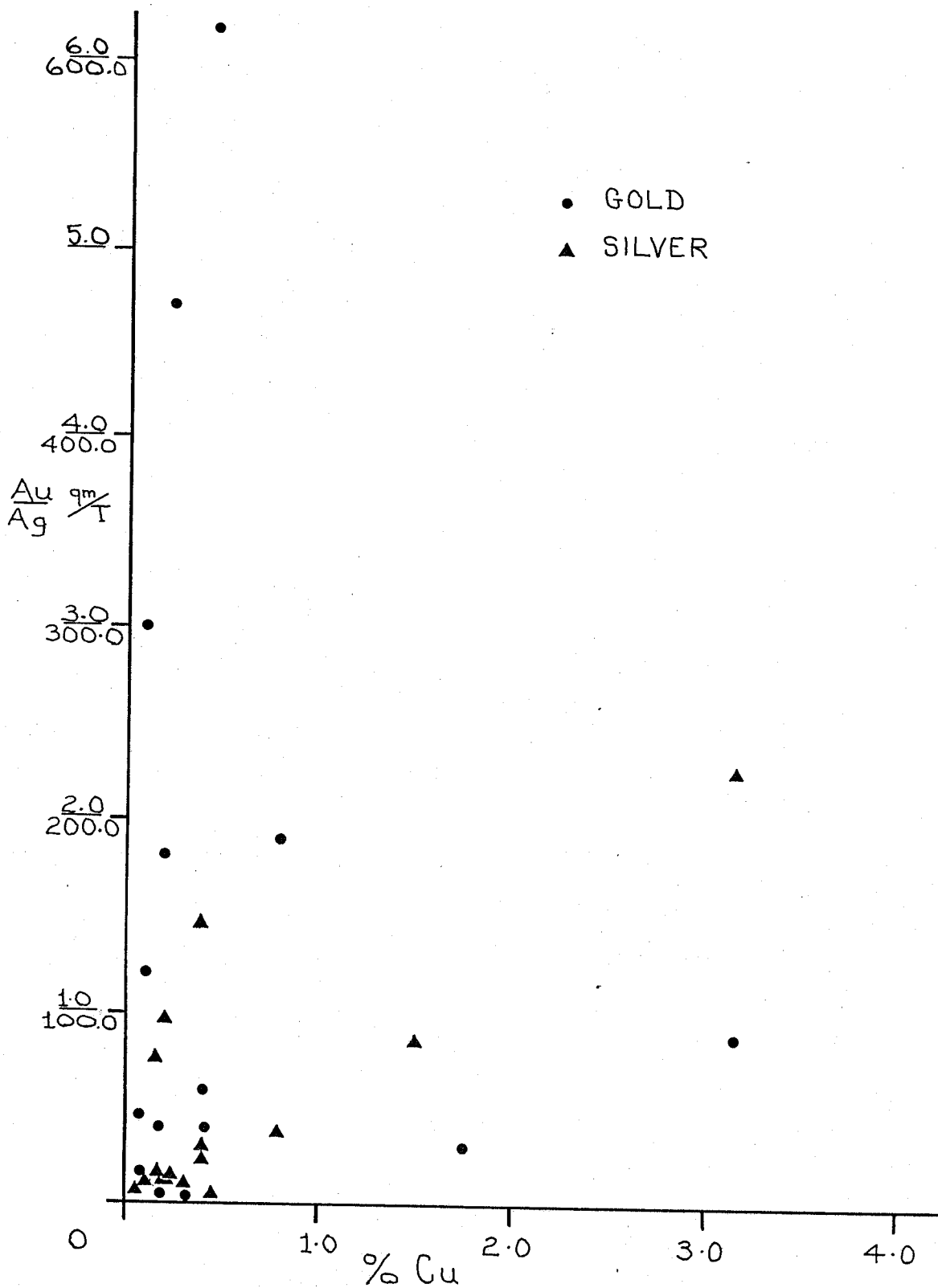


Figure 5. Graph Cu versus Au and Ag of individual massive sulphide fragments from the sulphide clastic zone.

4. DISCUSSION

Sulphide mineralization on the Nina 1 claim is interpreted here to be related to a syngenetic hydrothermal system. Evidence in support of this inference is:

1. The two mineralized areas hosting massive sulphide fragments are located at the same relative stratigraphic position. It is interpreted that the massive sulphide fragments were transported and redeposited after their formation.
2. Variability in ore element content of individual massive sulphide fragments suggests the source is a mineralogically zoned massive sulphide body.
3. An intracalated sedimentary unit within massive basalt indicates a pause in active volcanism and an environment favourable for exhalative ore formation.
4. Widespread silicification, and a hydrothermal breccia of apparent restricted dimensions are evidence for the existence of a high level, synvolcanic, geothermal system.
5. Barium is concentrated in the sedimentary unit and may have a synsedimentary origin.
6. The two electromagnetic anomalies may indicate massive sulphide concentrations. These anomalies appear to be strataform.
7. Disseminated pyrite zones within massive basalt are enriched in zinc and lead relative to massive sulphide, and these zones may be peripheral to a hydrothermal conduit.

8. An analogy with Besshi type deposits can be made, (Franklin, et al, 1981):

a) Regional tectonostratigraphic setting e.g. strata of clastic sedimentary rocks and basalt near a tectonic boundary; and,

b) compositional-average Besshi ore at 1.40% Cu, 0.3 to 0.9% Zn, 20 to 200 ppm Pb.

Besshi type deposits are characteristically exceptionally elongate to tabular massive ore zones and, when folded, can locally increase significantly in thickness and ore grade. Also, the stratigraphic setting is similar to the large, upper Paleozoic exhalative massive sulphide deposits at Anyox and Windy-Craggy.

5. RECOMMENTATIONS

5.1 Property evaluation

Further surface work to drill target definition is recommended for the Nina 1 claim as follows:

- 1) 41 km of grid established over the known and projected favourable stratigraphic interval (Figure 6)
- 2) A second opinion from a geophysicist as to the quality of the VLF-EM anomalies identified.
- 3) Detailed ground geophysics: magnetometer and electromagnetic surveys
- 4) Approximately 800 soil samples collected at 30 meter intervals from the 50% of the grid suitable for soil sampling, and analysed geochemically for Cu, Zn, Ag, Ba and As.
- 5) Trenching of near surface anomalies

5.2 Area evaluation

Exhalative massive sulphides in the Nina Creek volcanic belt is a valid exploration target. Additional work in the area is recommended:

- 1) An airborne eletromagnetic survey, and/or,
- 2) Detailed geologic mapping and prospecting

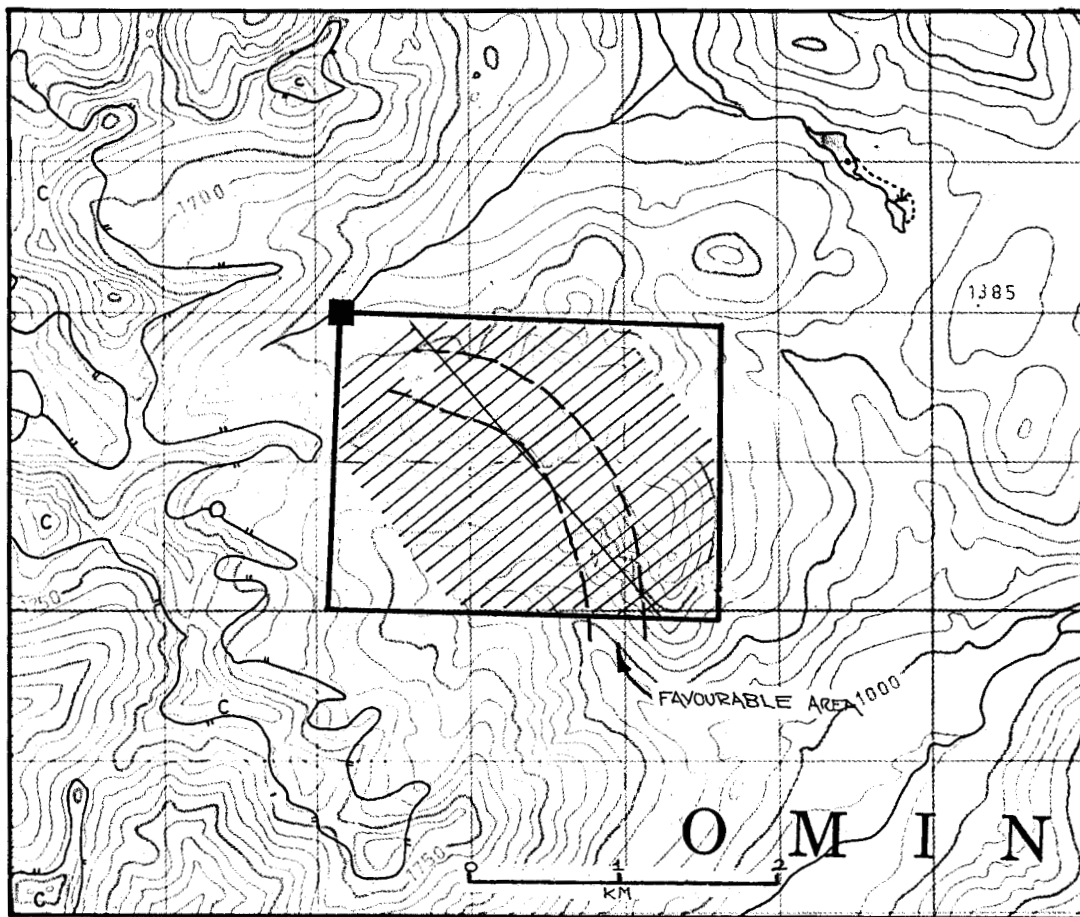


Figure 6. Proposed grid, Nina 1 mineral claim.

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7. STATEMENT OF COST

a) Travel

Travel time - JAM Geological Services	\$ 900.00
Helicopter - Northern Mountain Helicopter	1,773.84
Truck - JAM Geological Services	400.00
Motels	161.67
Meals	194.35
Fuel	124.50
Incidentals	52.00

b) Field Work

JAM Geological Services	2,100.00
Supplies	262.40

c) Analysis

Acme Analytical Lab	714.00
Transport	8.00

d) Report

Drafting - WHW Drafting Service	200.00
Typing - Woodcomp Management Ltd.	245.00
Materials	67.09
Preparation - JAM Geological Services	1,200.00

\$8,402.85

CERTIFICATE OF QUALIFICATIONS

I, John J. Watkins, of 3546 Island Highway, Royston, B.C., Canada, do hereby certify that:

I am a graduate of the Northern Alberta Institute of Technology in Exploration Technology 1967, Queen's University with a B.Sc. Honours Geology 1972, and Queen's University with M.Sc. Geology 1980.

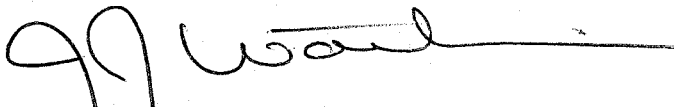
I have been a practising geologist for 18 years holding senior positions as exploration geologist and positions as mine geologist. I have been a practising consultant geologist since 1983.

I am a Fellow of the Geological Association of Canada holding membership F0520.

I personally supervised work described in "Report of Evaluation, Nina 1 Claim, Omineca Mining Division", dated September 23, 1985

DATED at Royston, B.C., this 24th day of September, 1985.

Respectfully submitted



John J. Watkins

APPENDIX 1

Sample Descriptions

- D3001 3 cm diameter massive sulphide clast, fine grained granular textured pyrite.
- D3002 10 cm diameter massive sulphide clast, 70% fine grained granular textured pyrite in light grey siliceous host, 3% chalcopyrite, trace sphalerite.
- D3003 10 cm diameter massive sulphide clast, fine grained granular pyrite, 5% blotchy chalcopyrite.
- D3004 2 cm diameter massive sulphide clast, very fine grained granular pyrite, trace of chalcopyrite.
- D3005 5 cm diameter massive sulphide clast, very fine grained granular pyrite.
- D3006 10 cm diameter sulphide-rich clast, 60% fine grained granular pyrite, light grey siliceous matrix, uniform textured.
- D3007 15 cm silica-rich clast (light grey chert) with 30% disseminated pyrite.
- D3008 From three individual quartz-rich clasts containing 20% pyrite and trace of chalcopyrite.
- D3009 20 cm elongated massive, granular pyrite clast.
- D3010 Chip sample across 2.0 meters of gossan stained bleached basalt, 5% pyrite, minor chalcopyrite.
- D3011 Chip sample across 2.0 meters of gossan stained bleached basalt fragmental with sulphide-rich clasts, 5% chalcopyrite, 5% pyrite.
- D3012 Chip sample across 1.0 meter, bleached basalt fragmental, 20% coarse pyrite.
- D3013 4 cm clast with massive, fine granular pyrite.

- D3014 10 cm clast of massive, fine granular pyrite.
- G0555 Light grey, spherulitic basalt.
- G0556 Local gossan, partly scree covered, of pillowed basalt with interstitial disseminated pyrite to 10%.
- G0557 Ribbed massive chert intracalated with basalt flow, trace of fine pyrite.
- G0558 Light grey uniform textured siliceous rock, vague pseudomorphed basalt texture (?), 2% disseminated pyrite, coarsely sheared at $135^{\circ}/^{+90^{\circ}}$.
- G0559 Local gossan, massive granular pyrite patchy and disseminated, possibly interclastic, 20% pyrite.
- G0560 Small, 2 by 2 meter gossan, disseminated and wispy pyrite in massive, weakly bleached basalt, 5% pyrite.
- G0561 Silicified tuff banded at $135^{\circ}/^{+90^{\circ}}$ with 3% disseminated pyrite.
- G0562 Massive, uniform textured basalt, fresh.
- G0563 Massive fine grained weakly bleached to fresh basalt.
- G0564 Light grey silica rich rock, wispy and banded clastic (?) that appears to cross-cut fresh basalt.
- G0565 Massive, fine grained weakly bleached to fresh basalt.
- G0566 Fine grained, massive basalt, fresh but with distinct fine leucoxene spotting.
- G0567 Fine grained, massive basalt, fresh with leucoxene spotting.
- G0568 Fine grained, massive basalt, fresh with leucoxene spotting.
- G0569 1 to 2 meter areas of silica rich, altered basalt in fresh basalt.

- G0570 Silica rich altered basalt.
- G0571 Silica rich, altered basalt.
- G0572 Fine grained, massive, fresh basalt.
- G0573 Fine grained, massive, leucoxene rich basalt.
- G0574 Silica-rich altered basalt as patch in fresh basalt.
- G0575 Silica-rich altered basalt as patch in fresh basalt.
- G0576 Fine grained, massive, fresh basalt.
- G0577 Banded (bedded) cherty tuff, siliceous bands at 1 cm.
- G0578 Massive, featureless, grey chert.
- G0579 Scree sample of explosion breccia, sampled siliceous matrix material.
- G0580 Chip samples over 2 meters of grey, banded, siliceous tuff.
- G0581 Massive grey chert
- G0582 Foliated siliceous tuff (?) from margin to fault, similar to matrix of explosion breccia.
- G0583 Chip sample over 2 meters of grey siliceous tuff.
- G0584 Chip sample over 0.5 meters of grey siliceous tuff.

Samples collected during initial property evaluation, July 23, 1985.

- D-5457 Chip sample across 0.7 meters of fragmental basalt containing 10% pyrite-rich clasts.
- D-5458 Silica-rich 1 cm wide vein(?) in sulphide clastic zone, 50% pyrite.
- D-5459 12 cm round fine granular pyrite-rich clast.
- D-5460 Chips from numerous massive, granular pyrite clasts.
- D-5461 Chips from four massive, granular pyrite clasts.
- D-5462 Chips from numerous massive granular pyrite clasts over 10 meters.
- D-5463 Patchy granular pyrite as possible interclastic material to pillowed or blocky basalt.
- D-5464 10 cm quartz-rich clast with 30% blotchy chalcopyrite from zone of clastic basalt.
- D-5465 Chip sample across 4 meters of gossan.
- D-5466 5% disseminated pyrite in bleached basalt.
- D-5467 Chip sample over 5 meters of bleached, clastic (fractured?) basalt, 3% disseminated pyrite.
- D-5468 Pools and blocks to 10 cm. of massive and semi-massive granular pyrite.
- D-5469 Chip samples over 5 meters of bleached clastic basalt with 2% disseminated pyrite.
- D-5470 Selected grab samples of massive granular pyrite over 5 meters.
- D-5471 1 by 2 meter panel, selected grab samples of massive, pyritic clasts to 10 cm.

D-5472 Chip samples over 5 meters of bleached, fragmental basalt with 1% irregularly distributed pyrite.

D-5473 Chip samples over 5 meters of fragmental basalt with 1% pyrite.

D-5474 Chip samples over 4 meters of bleached fragmental basalt with patchy (clasts?) disseminated pyrite to 10%.

APPENDIX 2

VLF-EM DATA

"NINA PROPERTY" - SEATTLE FREQUENCY

	<u>Quadrature</u>	<u>In Phase</u>		<u>Quadrature</u>	<u>In Phase</u>
<u>Line 5+00N</u>			<u>Line 4+00N</u> (Continued)		
2+60W	+14	+32	0+20E	- 2	+ 9
2+40	+12	+29	0+40	- 4	+ 4
2+20	+12	+22	0+60	- 2	+ 1
2+00W	+10	+15	0+80	0	+ 2
1+80	+ 6	+ 8	1+00E	+ 2	+ 3
1+60	+ 3	+ 5	1+20	+ 2	- 1
1+40	0	+ 5	1+40	0	- 9
1+20	- 2	+15	1+60	- 3	-16
1+00W	- 2	+36	1+80	- 6	-21
0+80	- 1	+46	2+00E	- 9	-27
0+60	- 1	+41	2+20	-12	-32
0+40	- 3	+34	2+40	-12	-31
0+20W	- 4	+25	2+60	- 9	-27
0+00	- 5	+10	2+80	- 8	-26
0+20E	- 4	+ 5	3+00E	- 9	-25
0+40	- 2	+ 3			
0+60	0	+ 2	<u>Line 3+00N</u>		
0+80	- 2	- 2	1+80W	+ 7	+ 2
1+00E	- 1	- 5	1+60	+ 4	- 3
1+20	+ 2	- 4	1+40	+ 6	- 2
1+40	0	- 6	1+20	+ 4	- 4
1+60	0	- 8	1+00W	+ 4	- 5
1+80	- 1	-10	0+80	+ 6	- 5
2+00E	- 3	-12	0+60	+ 2	- 9
2+20	- 6	-13	0+40	- 4	- 8
2+40	- 8	-16	0+20W	+ 4	+29
2+60	-10	-19	0+00	0	+28
2+80	-12	-22	0+20E	0	+12
3+00E	-18	-25	0+40	+ 1	+ 9
			0+60	+ 1	+ 4
<u>Line 4+00N</u>					
2+60W	+14	+16	0+80	+ 2	0
2+40	+11	+11	1+00E	+ 2	- 4
2+20	+ 9	+ 6	1+20	+ 1	-11
2+00W	+ 8	+ 4	1+40	0	-19
1+80	+ 6	0	1+60	0	-27
1+60	+ 3	- 4	1+80	0	-32
1+40	0	- 8	2+00E	- 2	-38
1+20	- 4	-11	2+20	- 2	-38
1+00W	- 6	- 7	2+40	- 1	-34
0+80	0	+ 5	2+60	- 2	-30
0+60	+ 4	+24	2+80	- 5	-29
0+40	+ 2	+30	3+00E	- 8	-30
0+20	- 1	+23	3+20	-10	-31
0+00	- 2	+15	3+40	-14	-33

"NINA PROPERTY" - SEATTLE FREQUENCY

<u>Line 2+00N</u>			<u>Line 1+00N</u> (Continued)		
	<u>Quadrature</u>	<u>In Phase</u>		<u>Quadrature</u>	<u>In Phase</u>
1+20	+14	+ 1	0+60E	+ 2	+10
1+00W	+11	- 4	0+80	0	0
0+80	+10	- 7	1+00E	- 1	- 8
0+60	+ 9	- 9	1+20	+ 4	- 7
0+40	+ 4	-12	1+40	+ 3	-10
0+20W	- 3	- 6	1+60	- 1	-16
0+00	+ 4	+19	1+80	- 2	-22
0+20E	+ 1	+23	2+00E	- 4	-25
0+40	- 5	+16	2+20	- 6	-30
0+60	+ 4	+15	2+40	- 8	-33
0+80	+ 4	+ 7	2+60	-11	-36
1+00E	+ 2	- 1	2+80	-10	-33
1+20	+ 3	- 9	3+00E	-12	-34
1+40	+ 2	-14	3+20	-14	-34
1+60	+ 1	-21	3+40	-15	-31
1+80	+ 2	-20	3+60	-14	-25
2+00E	+ 1	-24	3+80	-11	-14
2+20	- 3	-27	4+00E	- 8	- 5
2+40	- 7	-30	4+20	- 7	- 4
2+60	-10	-33	4+40	- 2	+ 5
2+80	-14	-36	4+60	+ 4	+ 8
3+00E	-15	-35	4+80	+10	+12
3+20	-19	-42	5+00E	+16	+16
<u>Line 1+50N</u>			<u>Line 0+50N</u>		
1+00W	+11	- 2	1+20	+10	+ 1
0+80	+ 8	- 6	1+00W	+14	- 1
0+60	+ 8	- 5	0+80	+13	- 3
0+40	+ 9	- 5	0+60	+13	- 5
0+20W	+ 4	- 4	0+40	+15	- 2
0+00	+ 2	+ 3	0+20W	+18	- 3
0+20E	+ 1	+23	0+00	+10	- 6
0+40	- 5	+16	0+20E	+ 6	- 2
0+60E	+ 4	+15	0+40	+ 3	+ 6
<u>Line 1+00N</u>			0+60	- 3	+ 2
1+20	+ 8	+ 4	0+80	- 6	- 2
1+00W	+10	+ 6	1+00E	- 2	0
0+80	+12	+ 5	1+20	- 6	- 5
0+60	+13	+ 5	1+40	- 5	- 9
0+40	+19	0	1+60	- 6	-13
0+20W	+18	- 2	1+80	- 8	-18
0+00	+ 6	- 5	2+00E	- 8	-20
0+20E	+ 6	+10	2+20	- 7	-22
0+40	+ 5	+16	2+40	- 6	-23
			2+60	- 8	-24
			2+80	- 8	-24

"NINA PROPERTY" - SEATTLE FREQUENCY

	<u>Quadrature</u>	<u>In Phase</u>		<u>Quadrature</u>	<u>In Phase</u>
<u>Line 0+50N</u>	(Continued)		<u>Line 0+50S</u>		
3+00E	-11	-26	3+00W	+ 2	+ 5
3+20E	-12	-24	2+80	+ 2	+ 8
3+40	-10	-19	2+60	+ 1	+ 4
3+60	-11	-17	2+40	- 2	0
3+80	- 8	-11	2+20	0	0
4+00E	- 6	- 5	2+00W	+ 2	0
4+20	- 2	+ 4	1+80	+ 2	- 2
4+40	+ 2	+10	1+60	+ 2	- 5
4+60	+ 7	+16	1+40	+ 6	- 2
4+80	+12	+22	1+20	+ 7	- 5
5+00E	+18	+21	1+00W	+ 5	- 8
			0+80	+ 2	-11
			0+60	+ 2	-15
			0+40	0	-15
<u>Line 0+00</u>			0+20W	- 3	-15
2+20	- 1	+ 1	0+00	- 8	-15
2+00W	0	0	0+20E	- 8	-15
1+80	+ 2	0	0+40	-10	-13
1+60	+ 2	0	0+60	- 6	- 7
1+40	+ 4	- 1	0+80	- 8	- 9
1+20	+ 8	- 3	1+00E	- 8	-10
1+00W	+ 7	- 9	1+20	- 8	-10
0+80	+ 6	-11	1+40	- 8	-11
0+60	+ 6	- 8	1+60	- 7	-11
0+40	+ 8	- 8	1+80	- 8	-11
0+20W	+ 8	- 7	2+00E	- 5	-11
0+00	+ 1	-18	2+20	- 5	-11
0+20E	- 2	-12	2+40	- 5	-10
0+40	- 6	-12	2+60	- 5	- 8
0+60	- 4	- 6	2+80	- 4	- 7
0+80	- 3	- 4	3+00E	- 4	- 6
1+00E	- 4	- 6			
1+20	- 6	-10			
1+40	- 8	-13			
1+60	- 9	-16	<u>Line 1+00S</u>		
1+80	- 5	-16			
2+00E	- 3	-16	3+00W	+ 4	+ 4
2+20	- 4	-16	2+80	+ 3	+ 2
2+40	- 6	-19	2+60	+ 1	0
2+60	- 7	-22	2+40	+ 2	- 1
2+80	- 7	-18	2+20	+ 1	- 3
3+00E	-10	-20			

"NINA PROPERTY" - SEATTLE FREQUENCY

	<u>Quadrature</u>	<u>In Phase</u>		<u>Quadrature</u>	<u>In Phase</u>
<u>Line 1+00S</u>	(Continued)		<u>Line 1+50S</u>		
2+00W	+ 2	- 5	3+00W	+ 4	+10
1+80	+ 4	- 7	2+80	+ 6	+10
1+60	+ 4	- 9	2+60	+ 4	+ 6
1+40	+ 6	-11	2+40	+ 4	+ 4
1+20	+ 4	-14	2+20	+ 2	0
1+00W	+ 6	-17	2+00W	+ 1	- 5
0+80	+ 1	-22	1+80	+ 5	- 4
0+60	- 1	-25	1+60	+ 7	- 6
0+40	- 4	-23	1+40	+ 6	-12
0+20W	- 8	-21	1+20	+ 4	-14
0+00	- 9	-19	1+00W	+ 3	-17
0+20E	-11	-17	0+80	- 2	-20
0+40	-10	-11	0+60	- 4	-19
0+60	-10	-11	0+40	- 6	-16
0+80			0+20W	- 6	-15
1+00E	- 8	-11	0+00	-12	-17
1+20	- 7	- 9	0+20E	-14	-19
1+40	- 7	- 9	0+40	-15	-17
1+60	- 7	- 8	0+60		
1+80	- 6	- 7	0+80		
2+00E	- 4	- 6	1+00E		
2+20	- 3	- 5	1+20		
2+40	- 2	- 3	1+40	- 8	- 4
2+60	- 1	- 2	1+60	- 8	- 4
2+80	+ 2	+ 3	1+80	- 6	- 4
3+00E	+ 6	+ 7	2+00E	- 6	- 2
3+20	+10	+11	2+20E	- 4	0
3+40	+14	+16			
3+60	+16	+18			
3+80	+16	+16			
4+00E	+16	+16			
4+20	+14	+16			
4+40	+14	+19			
4+60	+13	+21			
4+80	+11	+23			
5+00E	+14	+35			
5+20	+22	+45			
5+40	+19	+39			
5+60	+18	+35			
5+80E	+16	+32			

"NINA PROPERTY" - SEATTLE FREQUENCY

	<u>Quadrature</u>	<u>In Phase</u>		<u>Quadrature</u>	<u>In Phase</u>
<u>Line 2+00S</u>			<u>Line 2+00S</u> (Continued)		
3+00W	+ 4	+ 6	5+00E	+20	+46
2+80	+ 5	+ 3	5+20	+17	+41
2+60	+ 4	- 5	5+40	+12	+36
2+40	+ 3	- 7	5+60	+15	+39
2+20	+ 3	- 9	5+80E	+10	+34
2+00W	+ 4	-12			
1+80	+ 4	-14			
1+60	+ 4	-18	<u>Line 2+50S</u>		
1+40	+ 2	-22			
1+20	+ 2	-23	2+60W	+ 5	0
1+00W	- 2	-23	2+40	+ 5	- 5
0+80	- 5	-21	2+20	+ 4	- 8
0+60	- 5	-25	2+00W	+ 4	-11
0+40	- 4	-21	1+80	+ 3	-14
0+20W	- 8	-24	1+60	0	-20
0+00	-15	-26	1+40	- 5	-22
0+20E	-16	-22	1+20	- 5	-21
0+40	-16	-22	1+00W	- 4	-17
0+60	-15	-19	0+80	- 6	-10
0+80	-18	-21	0+60	- 8	- 9
1+00E	-16	-20	0+40	- 8	-10
1+20	-20	-16	0+20W	- 9	-13
1+40	-14	-11	0+00	-10	-14
1+60	-11	-11	0+20E	-14	-26
1+80	-10	- 9	0+40	-17	-30
2+00E	- 4	- 6	0+60	-19	-31
2+20	+ 2	0	0+80	-18	-26
2+40	+ 6	+ 4	1+00E	-18	-23
2+60	+10	+11	1+20	-18	-21
2+80	+13	+15	1+40	-12	-21
3+00E	+16	+18	1+60	-19	-20
3+20	+17	+20	1+80	-15	-11
3+40	+18	+20	2+00E	- 6	- 8
3+60	+18	+21	2+20	+ 2	+ 2
3+80	+18	+20	2+40	+12	+15
4+00E	+18	+21	2+60	+19	+22
4+20	+18	+20	2+80	+20	+24
4+40	+14	+20	3+00E	+16	+21
4+60	+11	+19	3+20	+19	+25
4+80	+12	+32	3+40	+20	+26
			3+60	+21	+24
			3+80E	+18	+20

"NINA PROPERTY" - SEATTLE FREQUENCY

	<u>Quadrature</u>	<u>In Phase</u>		<u>Quadrature</u>	<u>In Phase</u>
<u>Line 3+00S</u>			<u>Line 3+50S</u>		
2+60W	+ 3	- 8	2+80W	+ 7	0
2+40	+ 4	-10	2+60	+ 2	- 8
2+20	+ 7	- 9	2+40	- 2	-15
2+00W	+ 2	-20	2+20	- 5	-19
1+80	- 2	-22	2+00W	- 6	-19
1+60	- 3	-18	1+80	- 8	-18
1+40	- 4	-14	1+60	- 8	-15
1+20	- 6	-16	1+40	-11	-18
1+00W	- 9	-14	1+20	-12	-24
0+80	-11	-19	1+00W	- 9	-23
0+60	- 9	-21	0+80	-10	-26
0+40	-12	-25	0+60	-11	-28
0+20W	-14	-26	0+40	-14	-32
0+00	-21	-38	0+20W	-13	-32
0+20E	-17	-32	0+00	-13	-33
0+40	-16	-29			
0+60	-17	-32	<u>Line 4+00S</u>		
0+80	-17	-27	0+00	- 8	-31
1+00E	-14	-24	0+20E	- 4	-25
1+20	-15	-22	0+40	- 8	-28
1+40	-14	-21	0+60	-10	-30
1+60	-11	-16	0+80	- 6	-25
1+80	- 8	-12	1+00E	- 8	-23
2+00E	- 6	- 8	1+20	-10	-22
2+20	- 6	- 3	1+40	-11	-21
2+40	+ 4	+ 6	1+60	-10	-19
2+60	+10	+14	1+80	-10	-15
2+80	+14	+21	2+00E	- 8	-10
3+00E	+22	+28	2+20	- 3	- 3
3+20	+22	+26	2+40	+ 2	+ 3
3+40	+22	+25	2+60	+ 8	+ 9
3+60	+19	+22	2+80E	+11	+12
3+80E	+17	+18			

"NINA PROPERTY" - SEATTLE FREQUENCY

Quadrature In Phase

Line 4+00S (Continued)

3+00E	+15	+16
3+20	+16	+20
3+40	+16	+27
3+60	+18	+35
3+80	+12	+33
4+00E	+ 9	+39
4+20	+17	+58
4+40	+13	+49
4+60	+10	+37
4+80	+ 4	+28

Line 5+00S

2+80W	- 9	-20
2+60	-10	-23
2+40	-11	-27
2+20	-13	-38
2+00W	- 6	-28
1+80	- 4	-17
1+60	- 6	-18
1+40	- 1	-18
1+20	+ 1	-19
1+00W	- 1	-22
0+80	- 2	-23
0+60	- 1	-22
0+40	- 2	-23
0+20W	- 4	-22
0+00	- 8	-23

APPENDIX 3

Photos

Photo 1. Gossan from clastic sulphide zone located between lines 1+00N and 2+00N. Cavity in upper center of photo is 50 cm in diameter and could have been massive sulphide.

Photo 2. Looking down onto gossan of the clastic sulphide zone lying on line 2+00S.



Photo 3. Closeup of Photo 2. Mixed basalt and massive sulphide breccia: rounded, blocky basalt fragments to 10 cm mixed with 10% massive, granular pyrite fragments.

Photo 4. Closeup of Photo 3.



Photo 5. Massive sulphide clast from sulphide clastic zone.

Photo 6. Massive sulphide clasts from sulphide clastic zone.



Photo 7. Shattered, in-situ breccia from contact with massive basalt and transitional to intensely broken hydrothermal breccia.

Photo 8. Hydrothermal breccia: angular, fresh-looking basalt fragments with occasional angular chert fragments hosted by massive and tuffaceous-like chert. Mixed lithologic types indicates some movement of fragments before consolidation, but movement was minimal as evidenced by angularity of fragments.



Photo 9. Coarsely banded chert from south end of southeast ridge. Chip sample returned 1,654 ppm barium.

Photo 10. Banded cherty tuff in contact with massive basalt at 1+35N, 0+40E looking northwest. Light grey siliceous bands could be silica replacement developed from bedding planes.



APPENDIX 4

Analytical Results

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE 253-3158 TELEX 04-53124

DATE RECEIVED: AUG 29 1985

DATE REPORT MAILED: *Sept 5/85*

ASSAY CERTIFICATE

SAMPLE TYPE: ROCK CHIPS AU: 10 GRAM REGULAR ASSAY

ASSAYER: *T. Saundry* DEAN TOYE OR TOM SAUNDY. CERTIFIED B.C. ASSAYER

RIO ALGOM EXPLORATION PROJECT-8609 FILE # 85-2119A PAGE 1

SAMPLE#	Cu %	Pb %	Zn %	Ag GM/T	Au GM/T	Co PPM
D3001	.10	.01	.04	75.5	3.00	11
D3002	1.74	.01	.05	84.5	.30	21
D3003	3.15	.02	.05	226.5	.90	32
D3004	.41	.01	.01	26.0	.60	18
D3005	.36	.01	.06	146.5	6.90	8
D3006	.17	.01	.01	9.5	.05	186
D3007	.09	.01	.51	10.0	1.20	19
D3008	.46	.01	.01	3.5	.05	10
D3009	.17	.01	.01	7.0	.40	18
D3010	.35	.01	.02	1.0	.05	20
D3011	3.36	.01	.04	14.0	.30	72
D3012	.60	.03	.08	27.0	.70	20
D3013	.80	.01	.02	38.0	1.90	10
D3014	.21	.01	.01	10.0	4.70	3
STD R-1	.89	1.32	2.37	-	-	-

ACME ANALYTICAL LABORATORIES LTD.
 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
 PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: 1

DATE REPORT MAILED: *Sept 5/85*

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH JML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
 THIS LEACH IS PARTIAL FOR MN, FE, CA, P, CR, MG, BA, TI, B, AL, NA, K, W, SI, ZR, CE, SN, Y, NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.
 - SAMPLE TYPE: HEAVY MINERALS AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE. BA* NAOH FUSION. EDTA LEACH AND ICP ANALYSIS.

ASSAYER: *T. Saundry* DEAN TOYE OR TOM SAUNDY, CERTIFIED B.C. ASSAYER

RIO ALGOM EXPLORATION PROJECT-8609 FILE # 85-2119 PAGE 1

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Co PPM	Au* PPB	Ba* PPM
G0555	50	7	59	.1	15	1	-
G0556	1077	25	117	2.8	9	50	-
G0557	40	6	65	.1	8	1	510
G0558	31	7	47	.1	4	1	1654
G0559	1810	299	386	4.9	41	160	-
G0560	238	37	323	.3	11	5	-
G0561	874	6	52	.9	5	1	775
G0562	66	6	64	.1	16	2	-
G0563	39	2	63	.1	15	1	-
G0564	57	4	75	.1	12	1	-
G0565	36	4	78	.1	21	1	-
G0566	64	5	64	.1	19	1	-
G0567	64	4	69	.1	20	1	-
G0568	17	8	92	.1	20	1	-
G0569	3	2	11	.1	8	2	104
G0570	604	8	28	.3	7	1	97
G0571	29	21	59	.2	5	1	-
G0572	50	4	81	.1	20	1	-
G0573	26	5	67	.1	18	2	-
G0574	15	2	25	.1	10	1	168
G0575	5	2	39	.1	5	1	427
G0576	46	2	70	.1	17	2	-
G0577	89	21	80	.1	10	1	2532
G0578	29	8	55	.1	6	1	1990
G0579	63	4	20	.1	5	1	116
G0580	49	5	47	.1	4	2	3734
G0581	47	12	54	.3	5	1	362
G0582	72	4	61	.1	7	1	394
G0583	98	10	82	.1	1	1	4128
G0584	22	21	47	.1	6	1	2785
STD C/AU-0.5	58	40	137	7.2	27	510	-

ACME ANALYTICAL LABORATORIES LTD.
 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
 PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: JULY 27 1985

DATE REPORT MAILED: *Aug 1/85*

ASSAY CERTIFICATE

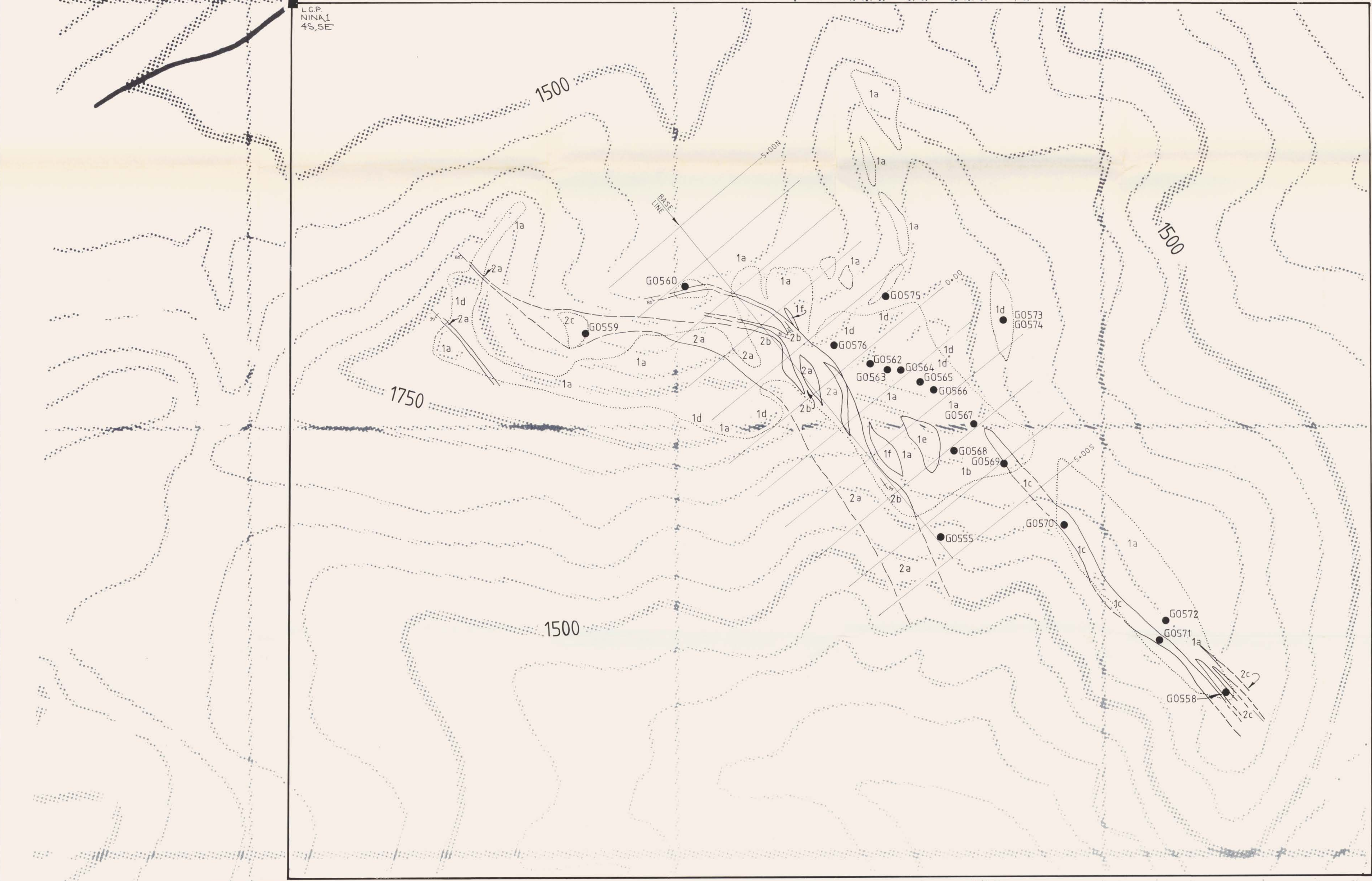
.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
 THIS LEACH IS PARTIAL FOR MN.FE.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.V.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.
 - SAMPLE TYPE: ROCK CHIPS AG# ANALYSIS BY AA BACKGROUND CORRECTED. AU# ANALYSIS BY AA FROM 10 GRAM SAMPLE.

ASSAYER: *J. Saundry* DEAN TOYE OR TOM SAUNDRY. CERTIFIED B.C. ASSAYER

RIO ALGOM EXPLORATION PROJECT - 8301 FILE # 85-1604 PAGE 1

SAMPLE#	Mo PPM	Pb PPM	Zn PPM	As PPM	Ba PPM	Cu %	Ag GM/T	Au GM/T
D-5457	6	33	127	6	18	.18	7.1	.10
D-5458	7	150	3122	97	22	.08	12.9	2.25
D-5459	3	129	193	238	5	.19	96.8	1.80
D-5460	7	27	48	67	9	.07	9.8	.15
D-5461	12	35	53	131	8	.31	7.6	.05
D-5462	8	63	157	117	9	.41	23.7	.40
D-5463	6	23	38	7	4	.37	3.4	.05
D-5464	8	47	1167	164	9	14.91	20.2	.60
D-5465	6	25	229	43	44	1.24	4.8	.20
D-5466	1	22	245	28	49	.13	1.7	.05
D-5467	3	76	134	27	113	.06	3.0	.05
D-5468	7	90	113	56	3	.12	16.0	.20
D-5469	1	23	322	20	133	.04	2.4	.05
D-5470	5	86	459	302	5	.83	44.7	1.80
D-5471	4	1065	719	423	5	.14	47.0	4.80
D-5472	2	37	216	29	61	.02	4.4	.05
D-5473	4	104	950	116	53	.09	4.2	.45
D-5474	2	10	55	12	56	.02	1.3	.05
STD C/R-1	20	40	135	39	174	.89	102.3	-

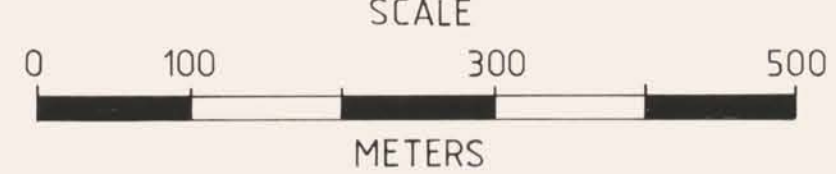




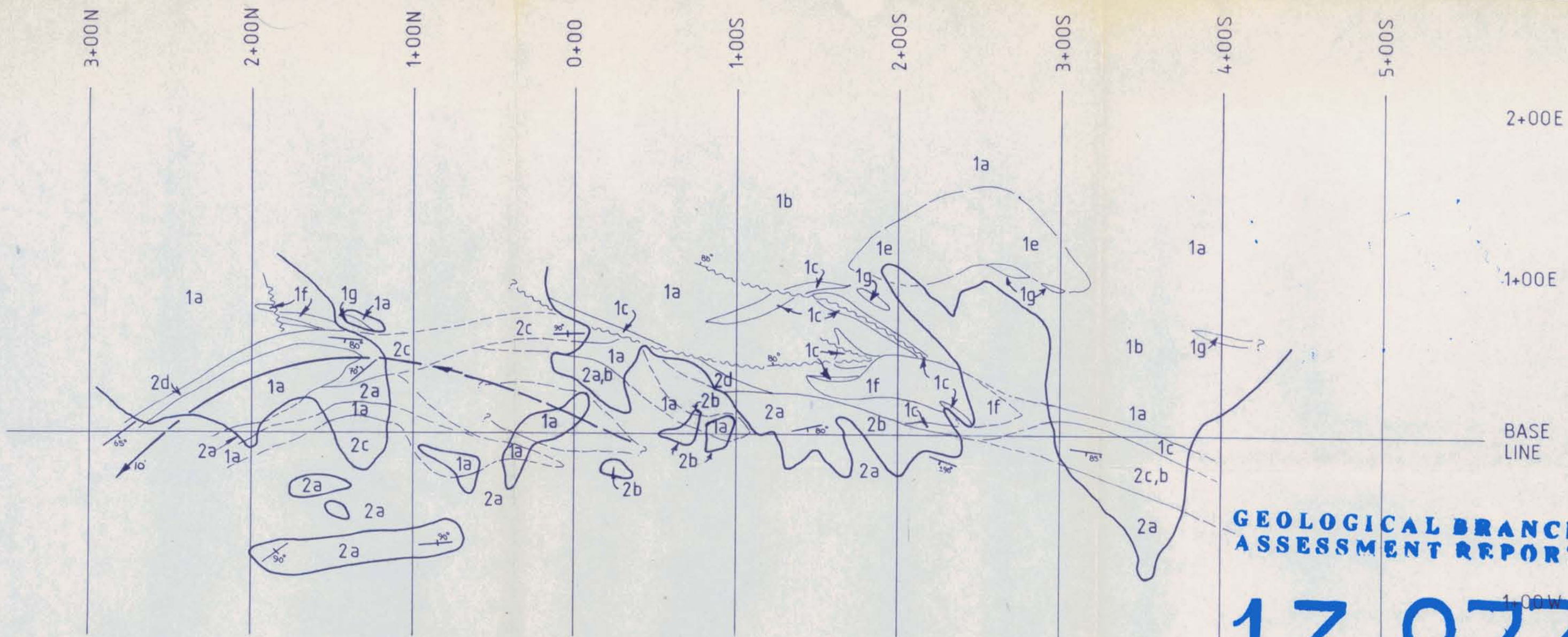
**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,977

- EXPLANATION**
- | | |
|--------------------------------------|------------------------------------|
| 1. MAFIC VOLCANIC FLOW | 2. SEDIMENT |
| [a] massive | [a] foliated mafic tuff |
| [b] pillowed | [b] foliated tuff with chert bands |
| [c] pervasive silica | [c] banded chert |
| [d] patchy silica | [d] massive chert |
| [e] hydrothermal breccia | ● sample location |
| [f] blocky with sulphide rich clasts | — contour interval: 50 meters |
| ○ outcrop | — attitude of primary texture |
| — geological contact | |
| - - - projected geological contact | |



NINA 1 MINERAL CLAIM
OMINECA MINING DIVISION
MAP 1
GEOLOGY
N.T.S. 93N 15 DATE Sept/85 JAM GEOLOGICAL



EXPLANATION

1. MAFIC VOLCANIC FLOW

- [a] massive
- [b] pillowed
- [c] pervasive silica
- [d] patchy silica
- [e] hydrothermal breccia
- [f] blocky with sulphide rich clasts
- [g] pyritic

2. SEDIMENT

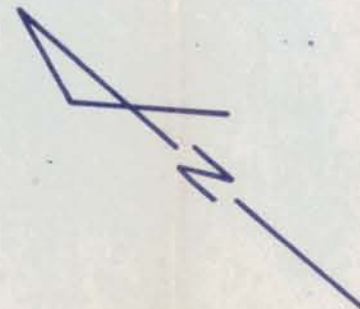
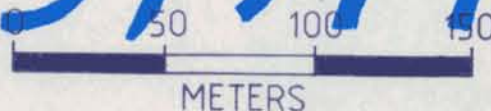
- [a] foliated mafic tuff
- [b] foliated tuff with chert bands
- [c] banded chert
- [d] massive chert

- fault attitude
- bedding attitude
- plunging synform axis

- geological contact
- projected geological contact

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,977



NINA 1 MINERAL CLAIM	
OMINECA MINING DIVISION	
MAP 2	
MINERAL SHOWING AREA	
GEOLOGY	
N.T.S.: 93N/15	DATE: Sept/85 JAM GEOLOGICAL

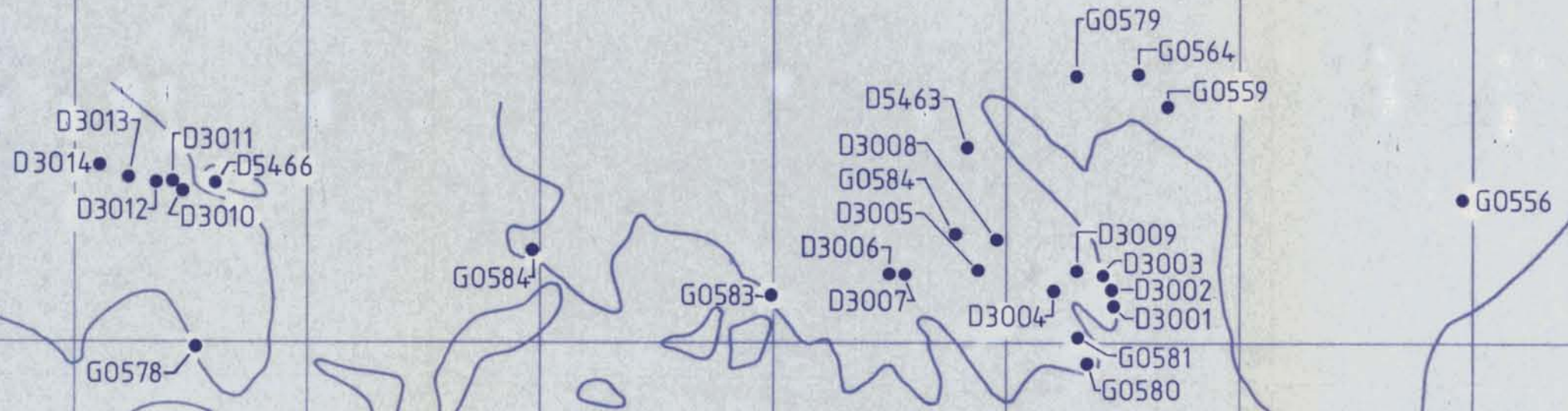
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2+00E

1+00E

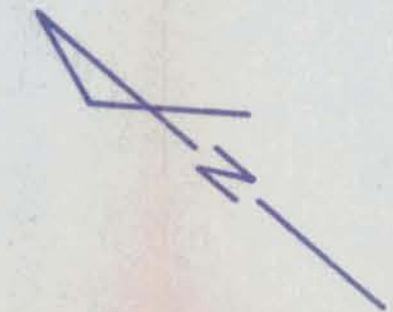
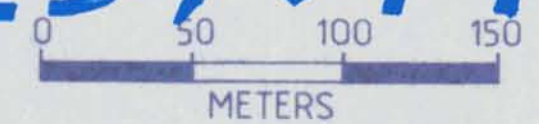
BASE LINE

1+00W



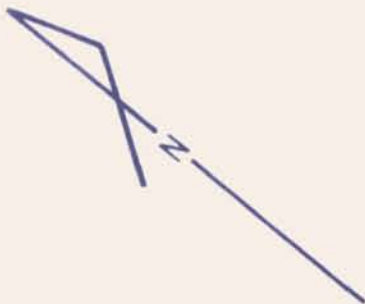
**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,977



NINA 1 MINERAL CLAIM	
OMINECA MINING DIVISION	
MAP 3	
MINERAL SHOWING AREA	
SAMPLE LOCATIONS	
N.T.S.: 93N/15	DATE:
JAM GEOLOGICAL	

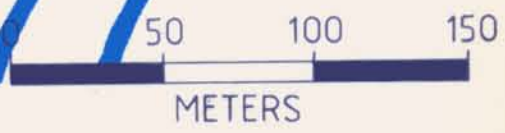
5+00N 4+00N 3+00N 2+00N 1+00N 0+00 1+00S 2+00S 3+00S 4+00S



5+00E
4+00E
3+00E
2+00E
1+00E
BASE LINE
1+00W
2+00W
3+00W

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,977



CONTOUR INTERVAL 10%

STATION DIRECTION
SEATTLE

INSTRUMENT:
GEONICS VLF-EM 16

NINA 1 MINERAL CLAIM
OMINECA MINING DIVISION
MAP 4
MINERAL SHOWING AREA
VLF-EM
FRASER FILTERED
N.T.S. 93N/15 DATE: Sept/88 JAM GEOLOGICAL