LOG NO: 0830	RD.
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REPORT ON THE GEOLOGICAL AND GEOCHEMICAL EXPLORATION OF THE FERROUX GROUP OF CLAIMS

Ferroux Creek
Greenwood Mining Division, British Columbia
NTS Map Area 82E/11
Latitude 49deg 32' 30" Longtitude 119deg 08'

Minnova Inc.
3rd fl, 311 Water St.
Vancouver, B.C.
V6B 1B8

by
N.W.Gibson

dated
Aug 13, 1989

SUMMARY

The Ferroux Group of mineral claims of Minnova Inc. consists of 72 units located 52 km southwest of Kelowna, B.C. in the Greenwood Mining Division. The principal drainage on the property is Ferroux creek. The 1989 gold exploration program is a grass roots project with no specific targets.

The Ferroux Group is located in the vicinity of two historic mining camps. The Highland Bell mine at Beaverdell and the Carmi property located approximately 3.5 km southeast of the Ferroux property.

Geological mapping (1:10000) and soil sampling made up the 1989 exploration program. The results of the work have narrowed the area to be explored. Multielement soil geochemical anomalies (Cu, Zn, As, Au, Ag and Hg) and gold bearing quartz monzonites are indicated on the northern portion of the claim area.

A program of soil geochemical, and geophysical surveys along with trenching and detailed (1:2000) mapping is recommended as the next stage of exploration.

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1) INTRODUCTION

This report describes the results of a mapping and geochemical exploration program for gold mineralization on the Ferroux Group of mineral claims. These claims are located in the Greenwood Mining Division of southern British Columbia.

The claims were staked in 1988 for Minnova Inc. They are located adjacent to the historic Beaverdell mining camp and the Carmi mining camp.

The property is situated on a basement of Jurassic Nelson granodiorite which is overlain in part with Tertiary Marama dacite and probable Tertiary quartz monzonite. The most prominent structural feature is a north trending fault marked by Ferroux Creek. Sulphide mineralization has been located in the quartz monzonite which has returned a 340 ppb Au value.

The 1989 exploration program consisted of 33 man days of field work which included mapping, soil sampling (93 samples), and rock sampling (119 samples).

1.1 Location & Access

The Ferroux property is located 52 km southeast of Kelowna and 10 km northwest of Beaverdell. It is situated within NTS area 82E/11 and is centred at 49deg 32' 30" latitude and 119deg 08' longtitude.

Access to the property is by the Wilkinson Creek Rd which branches west from Highway 33, the Kelowna-Rock Creek highway, approximately 65 km south of Kelowna. The roads are clear of snow from early May to late October. As most of the property is logged, access to most areas within the claim boundaries is excellent. The property location is shown in figure 1.

1.2 Physiography

The Ferroux property lies within th Okanagan Highlands in southern British Columbia. The elevation ranges from 1670 m (5300 ft) on the western boundary to 800 m (2850 ft) where the southern boundary crosses Wilkinson Creek.

The relief is moderate near the broad valley of Ferroux Creek and steepens quickly as the east and west boundaries are approached.

The majority of the property has been clear cut and remains bare. The remainder is timbered with a relatively young growth of spruce.

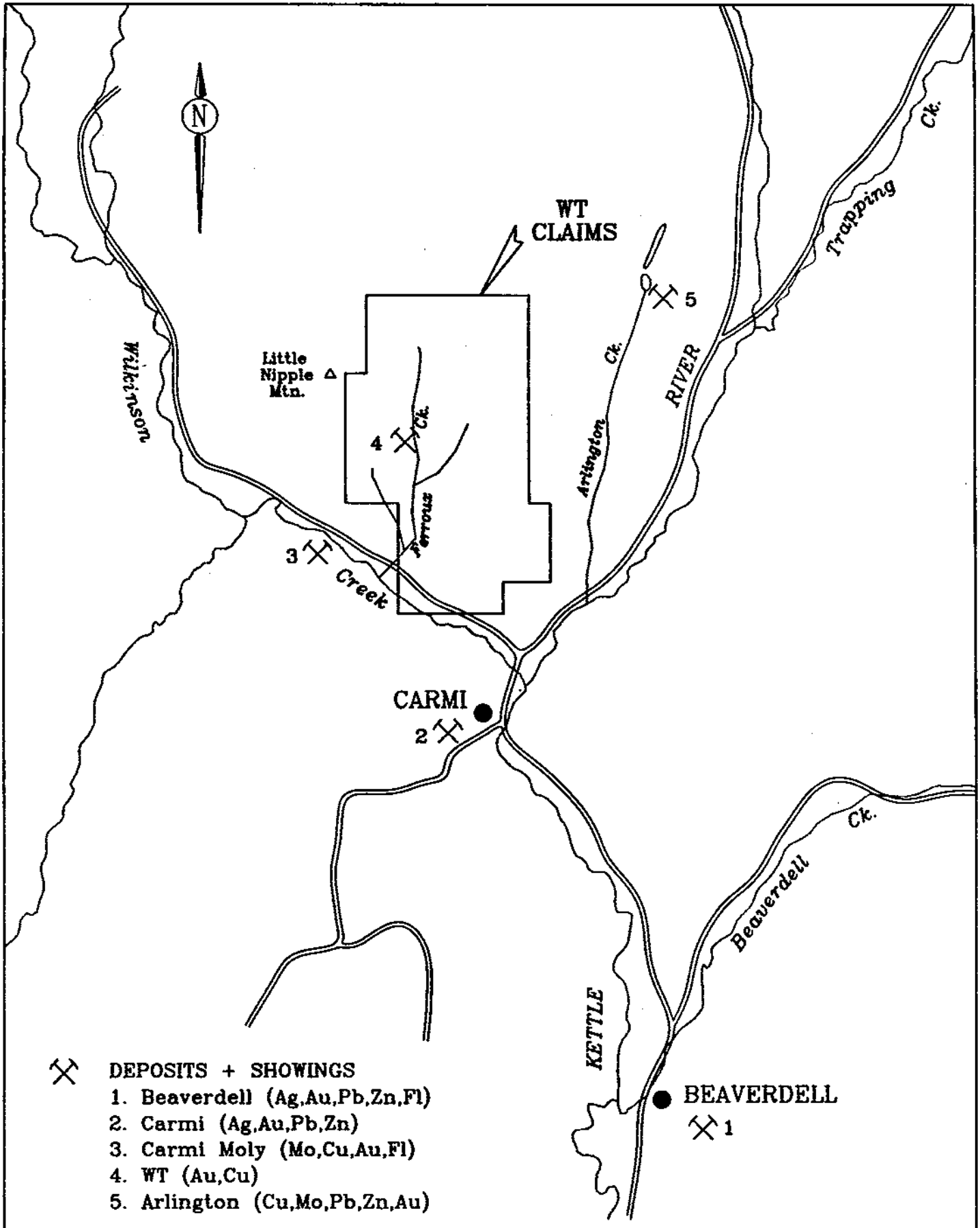


FIGURE 1

WT PROPERTY

LOCATION MAP

MINNOVA Inc.

FILE:D:\8X11\WEETT

NTS 82E/11E

SEPTEMBER 1988

1.3 Ownership & Claim Status

Figure 2 is a recent claim plan of the area. Table 1 summarizes the particulars of the claim.

Table 1. Summary of Claim Information

Claim Name	Record No	Units	Expiry Date	Recorded Holder
WT	5170	20	June 2/91	Minnova Inc.
WT2	5186	12	June 20/91	Minnova Inc.
WT3	5187	6	June 20/91	Minnova Inc.
WT4	5188	12	June 20/91	Minnova Inc.
WT5	5189	18	June 20/91	Minnova Inc.
WT6	5243	4	Aug 16/91	Minnova Inc.

1.4 History

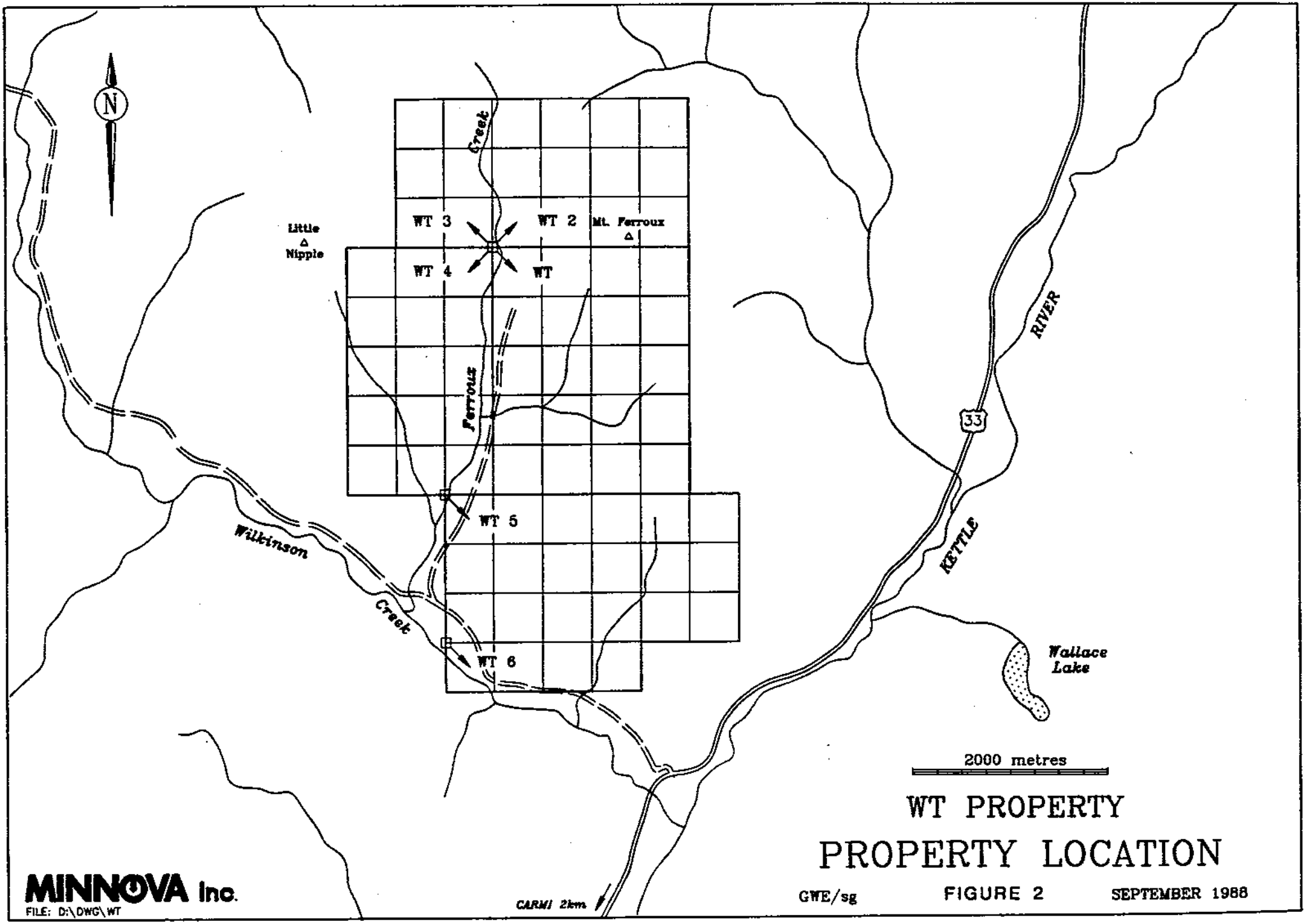
There are no published references to mineral exploration in the area of what is now the W.T. claims. However, prospecting has been undertaken on the property, witnessed by a number of pits and trenches which reveal a northwesterly trending shear zone. Within the shear is a well mineralized Qtz monzonite. These workings are located on WT6 and extends across Wilkinson Ck Rd.

The area has been the site of active exploration since the discovery of the Highland Bell Mine at Beaverdell around 1890. This mine has been producing Ag-Zn-Pb & Au very nearly continuously since 1900. The metals are realized from a maze of qtz veins hosted predominantly in the Westkettle granodiorite under Wallace Mtn 1.6 km east of the village of Beaverdell.

Another historic producer, situated approximately 3.5 km SE of the Ferroux Property, is the Carmi Property. Gold and silver was produced intermittently from 1899 to 1946. The ore was extracted from 3 mines; the Carmi, the Butcher Bay and the May. The property is the site of ongoing exploration. (See AR # 9714)

The Carmi-Moly property is a mineralized molybdenum prospect that has been the site of extensive exploration since 1961. It is located on the south side of Wilkinson Creek approximately 1 km south of the Ferroux property.

Two ore grade targets have been discovered, the E zone and the Lake zone. These are brecciated bodies occuring in Nelson granodiorite.


N
Creek
WT 3
WT 2
Mt. Ferroux
Little
Nipple
WT 4
WT
Ferroux
RIVER
33
WT 5
Wilkinson
Creek
KETTLE
Wallace
Lake
WT 6
2000 metres
WT PROPERTY
PROPERTY LOCATION
MINNOVA Inc.
FILE: D:\DWG\WT
CARMI 2km
GWE/sg
FIGURE 2
SEPTEMBER 1988

2) GEOLOGY

2.1 Regional Geology

The regional geology of the Penticton map sheet (NTS 82E) was mapped and compiled by D.Templeman-Kluit and published in 1989 as GSC open file 1969.

Kluit has mapped 5 separate rock types in the surrounding region. The oldest of these is Anarchist Group which is carboniferous or older in age. It consists of metamorphosed mafic volcanics, ie. greenstone, schists, etc., with lesser amounts of sediments. The Okanagan Batholith is the most prominent rock in the region, bordering nearly all other rock types. It is mapped as Middle to Early Mesozoic and is a massive med. to coarse grained, fresh biotite granite and granite. The Nelson Plutonic rocks are likely genetically related to the Okanagan Batholith, and are a moderately foliated version of the same.

Two Tertiary rock types occur in the surrounding region, the Coryell Syenite and the Marron Group. The Coryell are exposed as stocks of alkalic to calc alkalic high level syenites and quartz monzonites. The Marron Group is described as undifferentiated andesite, dacite and trachyte. It occurs on the property as Marama Dacite.

2.2 Property Geology

2.2.1 Lithology

Figures 3a & 3b show the geology of the property as determined by the 1989 field mapping. Three rock units are represented in the area: Jurassic Nelson granodiorite, Tertiary Marama dacite and a quartz monzonite which is loosely interpreted as Tertiary.

The granodiorite is generally leucocratic, fine to medium grained, mildly weathered and occasionally displays good fissility. Biotite phenocrysts are well developed in some localities. Epidote alteration was noticed but chlorite is a more common alteration product. Pyrrohtite was found in one outcrop in a contact zone with the Marama dacite. Pyrite occurs infrequently as fine grained, disseminated mineralization in minor amounts.

The Marama dacite occurs as a grey to purple to green, fine grained to very fine grained feldspar porphyry. Medium grained hornblende is also seen occasionally. Silicification and chlorite alteration are common. Heavily clay altered dacite was located on the upper slopes of the eastern ridge. The type of occurrence varies from large massive outcrops, horizontal columnar jointing, to volcanic breccias and small dykes. The columnar dacite usually displays strong flow banding. The volcanic breccia noted in one location, is a matrix supported, grey to black vesicular rock with feldspar porphyry dacite frags up to 3 cm across. Significant mineralization seems confined to contact zones with the quartz monzonite. Up to 5-10% disseminated py, po can occur.

The quartz monzonite is the least prevalent rock unit on the property. It occurs as a black to grey to dark green, fine to very fine grained unit. Its most outstanding feature is the consistent mineralization. Pyrrohtite is the most common sulphide and can occuras up to 15% of the rock, 5% is more the norm. It occurs in disseminated form along with lesser amounts of arsenopyrite,

chalcopyrite and pyrite. Most of the anomalous gold values have been returned from the quartz monzonite. Two samples returned 340 ppb Au. It seems to occur along and adjacent to probable fault structures.

2.2.2 Structure

The claims straddle Ferroux Ck, which is interpreted as a north trending fault and the largest structural feature on the property. Nearly all other faults and/or shears on the property are parallel to or subparallel to the Ferroux Ck fault. The faulting is of exploration importance because the gold bearing quartz monzonite occurs along the fault zones. This is best illustrated at the north end of the property where two north trending faults and one west trending fault reveal the only large exposures of quartz monzonite on the property. The only other showing is a northwesterly trending shear zone which cuts across the Wilkinson Ck Road at the south end. Follow-up work should concentrate on the location and extent of these structures.

2.2.3 Geochemistry

Table 2 lists the analyses and descriptions of three representative or anomolous rock samples. Appendix II gives their analyses certificates. Figures 4a & 4b show the location and anomolous values of the rock samples. The rocks were analyzed for Cu, Pb, Zn, Ag and Au. Histograms were produced for each element (see appendix V). Also, a correlation matrix was produced which numerically indicate the correlation between all possible pairs of elements. This is shown in figure 5.

The quartz monzonite is the most suitable host rock for gold mineralization. Where the gold occurs in the quartz monzonite there is a correlation with increased copper values. This is seen in samples FG 061 (Table 2) and FG 030, a quartz vein within quartz monzonite. The correlation matrix reveals that the gold-copper correlation is confined to the quartz monzonite as it doesn't show a high correlation when all the samples are compared.

The Marama dacite reveals an occasional high gold value (FG 089, Table 2). Sample FG 063 is a representative description and analysis of the Marama dacite.

FERROUX ROCK SAMPLES (GEO)

CORRELATION MATRIX: (99.0 INDICATES COEFFICIENT COULD NOT BE CALCULATED)

	CU	PB	ZN	AG	AU
CU	1.000	0.096	-0.063	0.289	0.229
PB	0.096	1.000	0.238	0.375	-0.083
ZN	-0.063	0.238	1.000	0.410	-0.124
AG	0.289	0.375	0.410	1.000	0.083
AU	0.229	-0.083	-0.124	0.083	1.000

FIGURE 5

TABLE 2 : Rock Analyses - 1989

Sample No	Description	Cu(ppm)	Pb(ppm)	Zn(ppm)	Ag(ppm)	Au(ppb)
FG 061	fine grained, dark grey, siliceous qtz monzonite 10% pyrite, pyrrhotite	150	8	33	0.6	340
FG 063	fractured, weathered, mildly gossanous feldspar and hornblende porphyry Marama dacite	20	5	35	0.2	5
FG 089	fresh, feldspar porphyry Marama dacite, trace py, hematitic fracture surfaces	39	4	10	0.4	65

3) SOIL GEOCHEMISTRY

3.1 Introduction

Contour soil sampling and grid sampling was done on the property. The contour sampling was done on the west facing slope at the 3800 ft, 3900 ft and 4000 ft elevations. A total of 4700 m was sampled at 100 m intervals. Figure 7 shows the sample locations and results.

A grid oriented east-west was placed over the north end of the property to cover the underlying mineralized quartz monzonite and related fault structures. Four 1100 m lines were sampled at 100 m intervals. Figure 8 shows ths grid with the results.

All samples were analyzed for Cu, Pb, Zn, Ag, Au, As and Hg. The results are shown in Figure 7 & 8 and Appendix III.

3.2 Sampling Method

Conventional sampling practices were followed. Samples were collected at flagged stations and placed in 3.5 * 6" kraft paper bags. The B soil horizon was sampled. Coarse gravel and rock fragments were removed before bagging. Samples were air dried before sending to the laboratory.

3.3 Analytical Procedure

The samples were analyzed by Min-en Laboratories Ltd., 705 W 15 St., North Vancouver, B.C. Analysis certificates are shown in Appendices II & III. The analytical procedure is presented in Appendix IV.

3.4 Data Handling

Histograms were produced for each element. These are shown in Appendix VI. A correlation matrix was computed which numerically compares the strength of the correlation for each possible pair of elements (see Figure 6). As the soils returned rather low values overall, no other data analytical techniques were utilized.

FERROUX SOILS

CORRELATION MATRIX: (99.0 INDICATES COEFFICIENT COULD NOT BE CALCULATED)

	CU	PB	ZN	AG	AU	AS	HG
CU	1.000	0.214	-0.021	0.642	0.177	0.835	-0.009
PB	0.214	1.000	0.493	0.158	-0.011	0.223	0.395
ZN	-0.021	0.493	1.000	0.240	0.106	0.174	0.264
AG	0.642	0.158	0.240	1.000	0.243	0.498	-0.085
AU	0.177	-0.011	0.106	0.243	1.000	0.345	-0.133
AS	0.835	0.223	0.174	0.498	0.345	1.000	0.033
HG	-0.009	0.395	0.264	-0.085	-0.133	0.033	1.000

FIGURE 6

3.5 Results

Copper

The copper values are generally low. The highest value is 82 ppm. Anomalous values above 10 ppm are grouped in the north half of the contour lines and the west half of the grid. On the correlation matrix, copper is shown to have an excellent correlation with As.

Lead

The lead values are generally low. The highest value is 21 ppm. Anomalous values, those over 12 ppm are sporatic and show no good grouping pattern. The correlation matrix reveals a moderately strong correlation with zinc and silver.

Zinc

Zinc displays a good range of values. The highest value is 164 ppm. the histogram reveals an anomalous value of 90 ppm. Three anomalous groups appear in the grid on the northwest corner, in the central area and on the southeast corner. The contour lines show an anomalous group in the southwest and central portion of the grid. A moderately strong correlation is shown with Pb and Ag.

Silver

Like zinc, silver displays a good range of values. The highest value is 1.1 ppm. The histogram shows a distinct anomalous value of 0.6 ppm or greater. The contour silver anomolies are few and well spread out. The grid, however, is widely anomalous in silver. Just over 25% of the grid is anomalous and the anomolous values are well grouped in the central and western portion. Silver displays a moderately strong correlation with lead and zinc.

Gold

Gold displays little range in values. The highest value is 40 ppb. The contour soils revealed no anomalous values, those over 10 ppb. The grid soils returned 4 anomalous values which are well grouped, overlying and downslope from known mineralized quartz monzonite.

Arsenic

Arsenic has displayed a moderately good range of values. The highest value is 62 ppm. The histogram reveals a distinct anomalous value of 6 ppm or greater. The contour soils returned six spot highs of arsenic. The grid returned seven highs of which six are well grouped in the northwest corner. The correlation matrix reveals arsenic has an excellent correlation with copper and a moderate correlation with Ag.

Mercury

Mercury has displayed an excellent range of values on the contour lines. If it is compared to the grid, only nine samples aren't anomalous (20 ppm or greater). If a 35 ppm is used as an anomoly cut-off, then the southern half of the contoured area is widely anomalous. The grid shows that the southeastern portion is anomalous using either a 20 ppm or 35 ppm cut-off.

3.6 Discussion of Results

The most consistently anomalous area is the northwest portion of the northern grid. It has returned an anomalous group of values in Cu, Zn, Au, Ag and As. This correlates well with the known underlying mineralized quartz monzonite and the 340 ppb Au rock samples taken from that area. Silver, zinc and mercury each show a group of anomalous values overlying and, or downslope from another known outcropping of mineralized quartz monzonite on the north central portion of the northern grid.

On the contoured area, mercury has responded well but the possibility of a much higher background value must be considered. There doesn't seem to be any area of coincident grouping of anomolous values in this area as no strong correlations were unveiled. Gold was negligible over the entire contoured area. Further work here must be veiwed with scepticism.

4) CONCLUSION

4.1 Geology

Three rock types have been identified on the property. The oldest is the Jurrasic Nelson granodiorite. It is leucratic, fine to medium grained and mildly weathered. It occurs on the southern portion of the property. Overlying the granodiorite is the Tertiary Marama dacite. The most common form is a light grey, fine grained feldspar porphyry. Silicification and chlorite alteration are common. Quartz monzonite of probable Tertiary age is the least prevalent rock type. It occurs as a dark, fine grained to very fine grained rock. It is consistently mineralized with minor to 15% pyrrohtite and pyrite.

The strongest structural feature on the property is a north trending fault marked by Ferroux Creek. Most other faults are subparallel to this one. The quartz monzonite pccurs along these fault zones.

4.2 Geochemistry

The quartz monzonite has returned the highest and most consistent gold values with a correlation between the gold and copper being revealed in the quartz monzonite. The highest Au value returned is 340 ppb Au from two samples taken from quartz monzonite.

Two areas were soil sampled. A grid was employed on the north end of the property and contour soils were taken on the west facing slpoe at three elevations. The contour soils were consistently high in mercury, but only spot highs were recovered in the other elements.

The northern grid shows two areas of anomalous values. The strongest showing is on the northwest portion of the grid, which is anomalous in Cu, Zn, Au, Ag and As. The second showing is on the northwest portion of the grid and is anomalous in Silver, Zinc, and Mercury. Both these areas overlie known mineralized quartz monzonite.

4.3 Potential.

The results of the geological and geochemical work undertaken on the Ferroux Group to date are encouraging. The quartz monzonite is the most promising target for gold mineralization in the form of a gold porphy system. To date it has returned five anomalous Au values. The quartz monzonite seems to be related to the fault systems at the north end of the property, which is encouraging as the faults themselves are not exposed and proved to be the site of the highest concentations of gold. The soil samples taken in the vicinity have outlined anomalous zones in areas where the quartz monzonite is shown to occur.

5) Recommendations.

Based on the results of the 1989 geochemical and geological work I recommend that Minnova Inc. proceed with a second stage of gold exploration on the Ferroux Group of mineral claims. In consideration of the 1989 findings, I suggest that the stage two program consist of the following work.

1) Further soil sampling should be undertaken as the stage 1 soils were responsive. The grid should be extended over all posible fault zones, and tightened to 50m lines and 25m stations for greater control.

2) A geophysical survey should be implemented over the same grid. The I.P. geophysical method is one possible type of survey that could help differenyiate between the quartz monzonite and the Marama dacite.

3) Trenching along easily accessed areas to expose and sample more quartz monzonite.

4) Detailed mapping (1:2000) on the northern portion of the property to extract as much surface information as possible.

Contingent with the results of stage 2, a program of diamond drilling could be reccomended.

6) Itemized Cost Statment.

93 Soil Samples Analysis @ $10/sample x 93 samples	= $930.00
Truck rental @ $50/day x 18 days	= $900.00
Geologist @ $250/day x 16 days	= $4,000.00
Assistant and field crew @ $150/day x 22 man days	= $3,300.00
Lithogeochemical Rock Samples @ $35/sample x 26 samples	= $910.00
Geochemical Rock Samples @ $15/sample x 93 samples	= $1,395.00
Report and Drafting @ $250/day x 5 days	= $1,250.00
Materials and field supplies	= $415.00
	$13,000.00

7) Certificate.

I, Nicholas William Gibson, resident of Vancouver, Province of British Columbia, hereby certify as follows:

1) I am a contract geologist presently employed by Minnova Inc.

2) I graduated with a Bachelor of Science, Geology, from the University of Windsor in 1986.

3) I have practiced my profession continuously since graduation.

4) I have no direct, indirect, or contingent interest in the shares or business in the properties of Minnova Inc., nor do I intend to have any interest.

5) This report, dated August 13, 1989 is based on my examination of available reports, examination of air photos, geological field mapping, organization and supervision of geochemical sampling in the Ferroux Group of mineral claims between April 15 abd April 30, 1989.

N.W. Gibson
Geologist.

APPENDIX I

Bibliography

Bibliography

Leary, G. and R.Falls, 1981. Carmi Molybdenum Deposit, Southern British Columbia, Private Summary Report.

Reineche, L., 1915. Ore Deposits of the Beaverdell Map Area, GSC Memoir 79.

Templeman-Kluit, D., 1989. Geology of Penticton Map Sheet (82E); 1:250000. Gsc Open File 1969.

APPENDIX II

Analysis Certificates - Rock

MIN
• EN
LABORATORIES

SPECIALISTS IN MINERAL ENVIRONMENTS
CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

VANCOUVER OFFICE:
705 WEST 15TH STREET
NORTH VANCOUVER, B.C. CANADA V7M 1T2
TELEPHONE (604) 980-5814 OR (604) 988-4524
TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

TIMMINS OFFICE:
33 EAST IROQUOIS ROAD
P.O. BOX 867
TIMMINS, ONTARIO CANADA P4N 7G7
TELEPHONE: (705) 264-9996

Geochemical Analysis Certificate

9/V/0272/R/5/001

Company: MINNOVA INC.
Project: 655
Attn: G.EVANS

Date: MAY-03-89
Copy 1. MINNOVA INC., VANCOUVER, B.C.
2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Geochemical Analysis of 30 ROCK GEOCHEM samples submitted APR-25-89 by N.GIBSON.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU PPB
FG001	24	6	18	0.3	5
FG002	83	13	43	0.6	5
FG003	16	9	35	0.4	5
FG004	76	14	164	0.8	5
FG005	152	22	46	2.3	10
FG006	16	8	43	0.4	5
FG007	22	9	39	0.5	5
FG008	46	3	11	0.3	5
FG009	34	12	62	0.7	5
FG010	97	10	30	0.9	5
FG011	88	11	37	1.0	5
FG012	26	9	76	0.9	5
FG013	89	12	51	0.9	5
FG014	18	16	73	0.6	5
FG015	19	7	55	0.4	5
FG016	21	6	49	0.3	5
FG017	18	8	52	0.3	5
FG018	29	14	66	0.8	5
FG019	26	13	69	0.8	5
FG020	29	13	61	0.7	5
FG021	7	41	129	1.9	10
FG022	9	24	248	1.2	5
FG023	342	16	42	1.2	15
FG024	21	11	68	0.7	5
FG025	53	14	132	0.8	5
FG026	12	6	48	0.4	5
FG027	12	8	71	0.7	5
FG028	18	8	24	0.5	5
FG029	57	7	21	0.4	50
FG030	188	8	9	0.8	340

Certified by

MIN-EN LABORATORIES

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VANCOUVER OFFICE:
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Geochemical Analysis Certificate

9/V/0272/R/G/001

Company: MINNOVA INC.
Project: 655
Attn: G.EVANS

Date: MAY-04-89
Copy 1. MINNOVA INC., VANCOUVER, B.C.
2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Geochemical Analysis of 13 ROCK GEOCHEM samples submitted APR-25-89 by N.GIBSON.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-WET PPB
FG031	27	15	57	0.6	5
FG032	34	9	24	0.4	5
FG033	24	7	31	0.3	5
FG034	29	6	20	0.4	5
FG035	72	12	79	0.6	5
FG036	33	9	68	0.8	5
FG037	37	11	83	0.7	5
FG038	64	10	104	0.7	5
FG039	18	4	102	0.3	5
FG040	9	6	7	0.3	5
FG041	8	8	38	0.4	5
FG042	16	5	41	0.4	5
FG043	16	15	73	0.7	5

Certified by

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TELEPHONE: (705) 264-9996

Geochemical Analysis Certificate

9/V/0292/R/G/001

Company: MINNOVA INC.
Project: 655
Attn: G.EVANS

Date: MAY-04-89
Copy 1. MINNOVA INC., VANCOUVER, B.C.
2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Geochemical Analysis of 30 ROCK samples submitted MAY-02-89 by G.EVANS.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU PPB
FG044	21	33	52	0.4	5
FG045	45	10	47	0.4	5
FG046	14	9	43	0.2	5
FG047	680	14	25	0.5	5
FG048	16	15	54	0.2	5
FG049	18	14	52	0.3	5
FG050	10	7	38	0.3	5
FG051	22	14	57	0.4	5
FG052	15	23	70	0.5	5
FG053	13	11	57	0.5	5
FG054	10	4	60	0.2	5
FG055	17	10	33	0.4	5
FG056	17	6	74	0.3	5
FG057	23	22	35	0.4	5
FG058	19	16	71	0.4	5
FG059	10	12	65	0.2	5
FG060	164	54	35	0.7	5
FG061	150	8	33	0.6	340
FG062	40	7	26	0.2	5
FG063	20	5	35	0.2	5
FG064	32	8	26	0.2	60
FG065	113	7	25	0.3	5
FG066	4	27	64	0.2	5
FG067	22	6	44	0.1	5
FG068	19	3	45	0.2	5
FG069	24	5	59	0.2	5
FG070	18	3	43	0.2	5
FG071	17	5	42	0.1	5
FG072	18	4	45	0.1	5
FG073	9	6	42	0.5	5

Certified by _____

MIN-EN LABORATORIES

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SPECIALISTS IN MINERAL ENVIRONMENTS
CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

VANCOUVER OFFICE:
705 WEST 15TH STREET
NORTH VANCOUVER, B.C. CANADA V7M 1T2
TELEPHONE (604) 980-5814 OR (604) 988-4524
TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

TIMMINS OFFICE:
33 EAST IROQUOIS ROAD
P.O. BOX 867
TIMMINS, ONTARIO CANADA P4N 7G7
TELEPHONE: (705) 264-9996

Geochemical Analysis Certificate

9/V/0292/R/G/002

Company: MINNOVA INC.
Project: 655
Attn: G.EVANS

Date: MAY-04-89
Copy 1. MINNOVA INC., VANCOUVER, B.C.
2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Geochemical Analysis of 20 ROCK samples submitted MAY-02-89 by G.EVANS.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-WET PPB
FG074	17	15	62	0.4	5
FG075	18	6	44	0.2	5
FG076	43	12	60	0.4	5
FG077	5	5	8	0.1	5
FG078	4	12	93	0.4	5
FG079	5	4	44	0.2	5
FG080	24	11	43	0.2	5
FG081	7	6	5	0.2	5
FG082	4	21	43	0.1	5
FG083	143	10	45	0.8	20
FG084	9	11	64	0.3	5
FG085	37	10	52	0.2	5
FG086	13	15	57	0.3	5
FG087	10	50	66	0.4	5
FG088	12	25	58	0.2	5
FG089	39	4	10	0.4	65
FG090	68	16	275	1.1	5
FG091	53	14	240	0.8	5
FG092	63	15	390	1.0	10
FG093	103	5	17	0.6	5

Certified by _____

MIN-EN LABORATORIES

COMPANY: MINNOVA INC. MIN-EN LABS ICP REPORT (ACT:F31) PAGE 1 OF 1
PROJECT NO: 655 705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2 FILE NO: 9/V/0272/R/P/001
ATTENTION: G.EVANS (604)980-5814 OR (604)988-4524 TYPE ROCK GEOCHEM % DATE: 05-04-1989

(VALUES IN PPM)	MO	AS	BA	CU	PB	SB	ZN	AU-FB
FL001 fresh	.4	1	72	87	27	1	54	5
FL002 fresh	.4	1	186	23	21	1	53	5
FL003 fresh	.2	9	77	25	11	1	39	10
FL004 colourless	.3	11	129	24	19	1	60	5
FL005	.3	10	67	16	30	4	58	5
FL006	.5	1	78	8	30	4	50	5
FL007 clay alt	.4	1	79	18	29	3	71	5
FL008	.5	15	65	8	19	3	45	5
FL009	.4	23	46	93	24	2	37	10
FL010	.5	65	57	75	23	4	32	20
FL011	.6	31	24	65	19	2	70	5
FL012	1.4	18	35	98	18	2	70	5
FL013	1.0	10	9	103	32	4	52	5

COMPANY: MINNOVA INC. MIN-EN LABS ICP REPORT (ACT:F26) PAGE 1 OF 2

PROJECT NO: 655 705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2 FILE NO: 9/V/0272/R/X/001

ATTENTION: G.EVANS (604)980-5814 OR (604)988-4524 * TYPE ROCK GEOCHEM * DATE: 05-04-1989

(VALUES IN %)	AL2O3	BAT	CAO	FE2O3	K2O	MGO	MNO2	NA2O	P2O5	SIO2	TIO2	S
FL001	16.92	.121	6.37	6.43	2.72	2.45	.15	3.60	.17	58.22	.59	.06
FL002	14.37	.088	2.15	2.39	3.26	1.03	.05	3.00	.05	68.20	.28	.07
FL003	12.97	.092	1.75	1.73	3.68	.35	.03	3.29	.03	73.37	.25	.06
FL004	14.23	.099	2.38	2.25	3.54	.54	.05	3.31	.03	69.50	.28	.08
FL005	16.64	.115	4.27	4.07	2.38	1.58	.10	3.98	.10	63.17	.43	.07
FL006	17.12	.085	4.15	4.66	2.03	1.63	.09	4.86	.11	62.80	-.47	.09
FL007	16.83	.160	3.18	5.58	3.35	1.83	.16	3.13	.18	61.01	.56	.07
FL008	16.61	.047	1.26	2.85	6.77	.61	.07	4.52	.05	64.85	.55	.08
FL009	17.82	.112	6.53	3.79	2.74	1.85	.07	3.72	.11	61.15	-.41	.64
FL010	17.95	.085	6.22	3.86	2.07	1.79	.08	4.02	.14	60.17	.45	.18
FL011	15.14	.057	6.79	3.29	1.52	1.79	.05	2.53	.09	66.52	-.54	1.16
FL012	14.60	.089	11.54	4.94	2.79	2.05	.12	.68	.17	60.00	.53	1.70
FL013	15.25	.039	13.70	7.55	1.53	3.17	.22	3.80	.14	47.52	.65	5.10

COMPANY: MINNOVA INC. | MIN-EN LABS ICP REPORT | (ACT:F26) PAGE 2 OF 2
PROJECT NO: 655 | 705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2 | FILE NO: 9/V/0292/R/L/002
ATTENTION: G.EVANS | (604)980-5814 OR (604)988-4524 | * TYPE ROCK GEOCHEM * | DATE: 05-04-1989

COMPANY: MINNOVA INC. | MIN-EN LABS ICP REPORT | (ACT:F26) PAGE 1 OF 2

COMPANY: MINNOVA INC. | MIN-EN LABS ICP REPORT | (ACT:F31) PAGE 1 OF 1
PROJECT NO: 655 | 705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2 | FILE NO: 9/V/0292/R/J/002
ATTENTION: G.EVANS | (604)980-5814 OR (604)988-4524 | * TYPE ROCK GEOCHEM * | DATE: 05-04-1989

(VALUES IN PPM)	AG	AS	BA	CU	PB	SB	ZN	AU-PPB
FL014 fresh	.5	17	6	15	29	7	35	5
FL015 fresh	.5	10	89	27	31	3	54	5
FL016 alt	.8	11	62	83	34	6	50	5
FL017 alt	.6	1	775	24	29	1	57	5
FL018 Fresh	.5	4	87	20	12	2	47	5
FL019 schistose	.7	9	24	44	34	6	80	10
FL020 alt alt	.3	12	120	46	17	3	46	5
FL021 gossan	.6	12	15	107	10	2	18	5
FL022 Gossan	.4	13	110	19	23	4	54	5
FL023 Md	.4	12	452	15	31	4	60	5
FL024	.3	3	320	13	32	3	54	5
FL025	.2	4	462	17	20	2	63	5
FL026	.2	10	125	12	14	2	47	5

COMPANY: MINNOVA INC. | MIN-EN LABS ICP REPORT | (ACT:F26) PAGE 1 OF 2

PROJECT NO: 655 | 705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2 | FILE NO: 9/V/0292/R/L/002

ATTENTION: G.EVANS | (604)980-5814 OR (604)988-4524 | * TYPE ROCK GEOCHEM * | DATE: 05-04-1989

(VALUES IN %)	AL2O3	BAT	CAO	FE2O3	K2O	MGO	MNO2	NA2O	P2O5	SIO2	TIO2	S
FL014	8.90	.020	8.30	3.43	.43	1.68	.16	.02	.09	63.90	.30	.60
FL015	17.25	.049	9.19	7.64	1.72	3.38	.15	3.28	.24	53.26	.72	.50
FL016	16.40	.150	7.15	9.03	2.34	4.49	.17	3.90	.29	51.07	.87	.60
FL017	15.50	.109	5.99	2.64	1.40	1.64	.04	1.91	.06	56.66	.32	.60
FL018	15.31	.113	2.63	2.86	3.23	.44	.02	4.05	.03	67.64	.29	.70
FL019	15.14	.067	7.61	5.91	2.14	2.84	.21	3.40	.19	55.75	.55	.80
FL020	14.90	.102	2.54	2.49	3.49	.89	.04	3.58	.05	67.37	.31	.60
FL021	19.12	.037	10.27	5.95	1.29	2.79	.09	3.82	.22	51.06	.84	.90
FL022	15.93	.160	6.53	6.85	3.26	3.75	.13	3.74	.40	55.27	.94	.70
FL023	16.44	.174	4.35	4.67	4.96	2.23	.09	3.64	.26	58.49	.71	.60
FL024	16.29	.174	4.20	4.73	4.78	2.17	.09	3.46	.26	59.39	.68	.05
FL025	16.46	.182	4.18	4.84	4.81	1.90	.16	3.60	.28	59.98	.71	.06
FL026	14.51	.106	1.94	2.22	3.86	.65	.04	3.68	.03	70.16	.29	.06

(VALUES IN %)	TOT(%)
FL014	87.83
FL015	97.36
FL016	96.46
FL017	86.87
FL018	97.31
FL019	94.60
FL020	96.36
FL021	96.40
FL022	97.64
FL023	96.61
FL024	96.28
FL025	97.19
FL026	97.54

APPENDIX III

Analysis Certificates - Soil

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VANCOUVER OFFICE:
705 WEST 15TH STREET
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TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

TIMMINS OFFICE:
33 EAST IROQUOIS ROAD
P.O. BOX 867
TIMMINS, ONTARIO CANADA P4N 7G7
TELEPHONE: (705) 264-9996

Geochemical Analysis Certificate

9V-0460-SG1

Company: MINNOVA INC.
Project: 655
Attn: I.PIRIE/G.EVANS

Date: JUN-15-89
Copy 1. MINNOVA INC., VANCOUVER, B.C.
2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Geochemical Analysis of 30 SOIL samples submitted JUN-08-89 by KEVIN LEE.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-WET PPB	AS PPM	HG PPB
F-12101	10	10	81	0.6	5	3	65
F-12102	10	6	71	0.4	5	1	35
F-12103	5	8	80	0.2	5	1	25
F-12104	7	6	55	0.2	10	1	20
F-12105	5	4	40	0.2	5	1	30
F-12106	8	4	43	0.1	10	1	25
F-12107	13	4	40	0.3	5	5	15
F-12108	10	8	62	0.4	5	5	20
F-12109	10	8	51	0.2	5	5	15
F-12110	6	6	60	0.2	10	3	30
F-12111	8	10	120	0.5	5	2	25
F-12112	22	12	73	0.4	5	2	35
F-12113	4	5	45	0.3	5	1	15
F-12114	5	9	58	0.2	5	1	30
F-12115	6	4	66	0.3	10	2	35
F-12701	9	15	92	1.0	5	7	55
F-12702	7	6	128	0.4	5	3	30
F-12703	9	6	93	0.4	5	6	35
F-12704	10	8	94	0.3	5	4	45
F-12705	8	6	70	0.2	5	2	40
F-12706	8	5	55	0.3	10	6	35
F-12707	8	8	57	0.2	5	3	20
F-12708	6	6	63	0.3	5	4	30
F-12709	6	8	38	0.4	5	8	30
F-12710	5	6	54	0.2	5	4	35
F-12711	6	7	49	0.4	10	3	45
F-12712	6	8	43	0.2	5	2	20
F-12713	11	6	46	0.4	10	10	30
F-12714	22	8	51	0.3	10	16	35
F-12715	8	10	104	0.4	5	3	40

Certified by _____

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TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

TIMMINS OFFICE:
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P.O. BOX 867
TIMMINS, ONTARIO CANADA P4N 7G7
TELEPHONE: (705) 264-9996

Geochemical Analysis Certificate

9V-0460-SG2

Company: MINNOVA INC.
Project: 655
Attn: I.PIRIE/G.EVANS

Date: JUN-15-89
Copy 1. MINNOVA INC., VANCOUVER, B.C.
2. MINNOVA INC., PENTICTON, B.C.

He hereby certify the following Geochemical Analysis of 17 SOIL samples submitted JUN-08-89 by KEVIN LEE.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-WET PPB	AS PPM	HG PPB
F-12716	6	12	41	0.4	5	2	25
F-15001	9	9	65	0.4	5	2	40
F-15002	8	10	71	0.6	10	2	35
F-15003	6	4	29	0.2	5	2	25
F-15004	10	8	35	0.2	5	1	15
F-15005	6	6	52	0.3	5	2	35
F-15006	8	4	47	0.2	5	4	20
F-15007	14	4	67	0.3	10	14	30
F-15008	7	6	114	0.2	5	4	25
F-15009	12	4	58	0.2	10	3	25
F-15010	8	4	85	0.2	10	3	15
F-15011	10	2	60	0.2	5	3	15
F-15012	10	4	59	0.3	10	4	20
F-15013	9	4	49	0.2	5	5	15
F-15014	82	8	72	0.6	10	62	25
F-15015	5	2	29	0.2	5	4	10
F-15016	9	4	73	0.4	5	5	25

Certified by _____

MIN-EN LABORATORIES

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TIMMINS OFFICE:
33 EAST IROQUOIS ROAD
P.O. BOX 867
TIMMINS, ONTARIO CANADA P4N 7G7
TELEPHONE: (705) 264-9996

Geochemical Analysis Certificate

9/V/0364/S/B/001

Company: MINNOVA INC.
Project: 655
Attn: G.EVANS

Date: MAY-28-89
Copy 1. MINNOVA INC., VANCOUVER, B.C.
2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Geochemical Analysis of 30 SOIL samples submitted MAY-22-89 by W.HINDLEY.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-WET PPB	AS PPM	HG PPB
F-101	14	9	117	0.6	10	15	5
F-102	6	10	96	0.6	5	3	15
F-103	8	19	102	0.3	5	11	10
F-104	8	13	63	0.4	5	2	5
F-105	12	10	66	0.4	5	6	15
F-106	8	7	57	0.3	5	3	5
F-107	8	9	51	0.4	5	5	5
F-108	6	5	58	0.5	5	3	10
F-109	6	6	64	0.3	5	1	5
F-110	7	6	39	0.4	5	2	5
F-111	8	9	72	0.4	5	2	5
F-112	9	9	64	0.5	10	1	5
F-201	9	8	84	0.6	40	12	5
F-202	38	10	89	0.7	15	19	5
F-203	11	10	86	0.5	10	5	20
F-204	12	9	93	0.7	5	4	15
F-205	6	8	45	0.6	15	1	5
F-206	8	7	54	0.6	5	4	15
F-207	8	7	81	0.6	5	3	10
F-208	11	8	105	0.7	5	8	15
F-209	9	12	66	0.5	5	4	5
F-210	7	8	43	0.4	5	1	5
F-211	8	5	23	0.3	5	2	10
F-212	6	9	55	0.4	5	3	20
F-301	7	9	76	0.6	5	5	5
F-302	16	11	59	0.6	5	5	5
F-303	78	14	58	1.1	10	27	15
F-304	16	9	79	0.8	5	5	20
F-305	6	7	88	0.6	5	3	10
F-306	7	4	81	0.4	15	5	5

Certified by Pat Laffoley
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TIMMINS OFFICE:
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P.O. BOX 867
TIMMINS, ONTARIO CANADA P4N 7G7
TELEPHONE: (705) 264-9996

Geochemical Analysis Certificate

9/V/0364/S/G/002

Company: MINNOVA INC.
Project: 655
Attn: G.EVANS

Date: MAY-28-89
Copy 1. MINNOVA INC., VANCOUVER, B.C.
2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Geochemical Analysis of 18 SOIL samples submitted MAY-22-89 by W.HINDLEY.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-WET PPB	AS PPM	HG PPB
F-307	41	8	56	0.5	10	33	25
F-308	9	12	64	0.6	5	3	20
F-309	5	8	96	0.4	5	2	25
F-310	4	4	23	0.2	5	1	5
F-311	8	9	42	0.3	5	2	15
F-312	5	10	67	0.3	5	4	15
F-401	13	9	46	0.4	5	2	25
F-402	6	8	58	0.3	5	1	15
F-403	6	9	139	0.4	5	5	5
F-404	4	8	82	0.4	5	3	15
F-405	8	11	51	0.5	10	4	10
F-406	5	9	39	0.2	5	3	20
F-407	6	10	72	0.6	5	5	25
F-408	7	9	52	0.3	5	2	30
F-409	7	21	129	0.4	10	4	45
F-410	6	15	164	0.4	5	5	40
F-411	3	5	32	0.3	5	1	25
F-412	4	9	65	0.4	10	4	35

Certified by Pat Jeffrey
MIN-EN LABORATORIES

APPENDIX IV

Analytical Procedures

Analytical Procedures

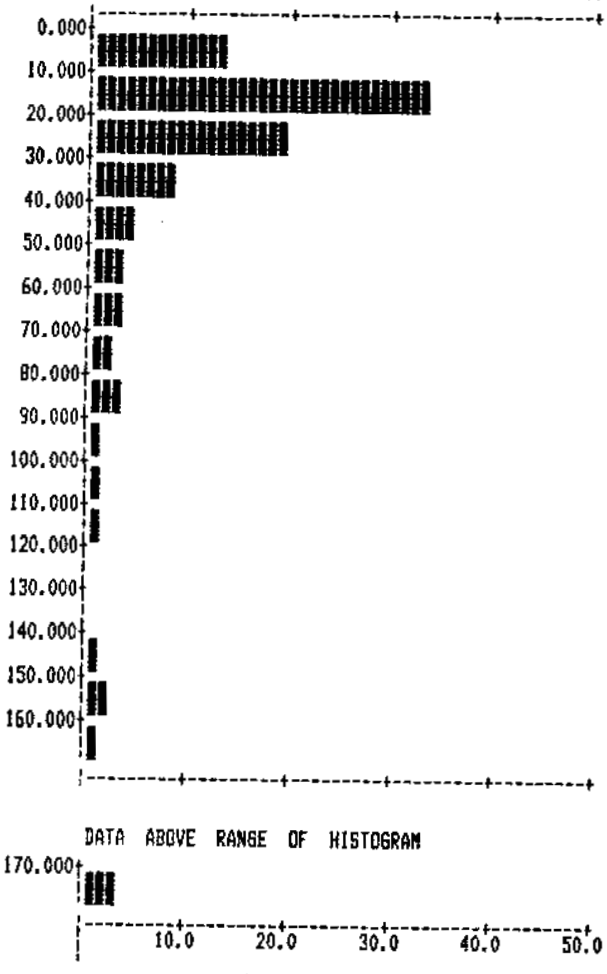
Samples were shipped to Min-En Laboratories in North Vancouver for preparation and analysis. Rock samples collected averaged 1 kilogram in size while soil samples were generally about 150 grams. Samples were analyzed for Cu, Pb, Zn, Ag, Au, As and Hg. All elements were analyzed by standard ICP methods, with the exception of Au and Hg. Gold was analyzed by fire assay and atomic absorption and mercury was analyzed by atomic absorption.

APPENDIX V

Histograms - Rock

DATA TITLE : DATA

VARIABLE : CU

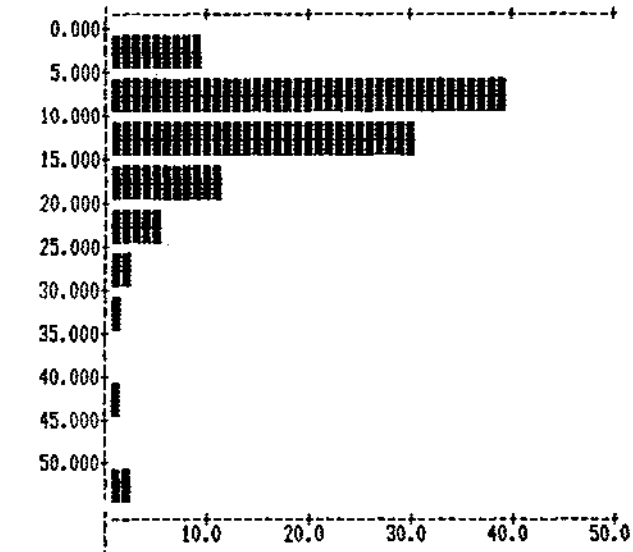


LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.000
10.000	12	12.90	12.90	10.000
20.000	31	33.33	46.24	20.000
30.000	18	19.35	65.59	30.000
40.000	7	7.53	73.12	40.000
50.000	4	4.30	77.42	50.000
60.000	3	3.23	80.65	60.000
70.000	3	3.23	83.87	70.000
80.000	2	2.15	86.02	80.000
90.000	3	3.23	89.25	90.000
100.000	1	1.08	90.32	100.000
110.000	1	1.08	91.40	110.000
120.000	1	1.08	92.47	120.000
130.000	0	0.00	92.47	130.000
140.000	0	0.00	92.47	140.000
150.000	1	1.08	93.55	150.000
160.000	2	2.15	95.70	160.000
	1	1.08		
170.000	3	3.23	96.77	170.000

VARIABLE:	CU
NUMBER OF OBSERVATIONS:	93
MINIMUM:	4.000
MAXIMUM:	680.000
MEAN:	46.355
STANDARD ERROR OF MEAN:	8.586
STANDARD DEVIATION:	82.798
COEFFICIENT OF VARIATION:	178.617
SKEWNESS:	5.434
KURTOSIS:	35.868

DATA TITLE : DATA

VARIABLE : PB

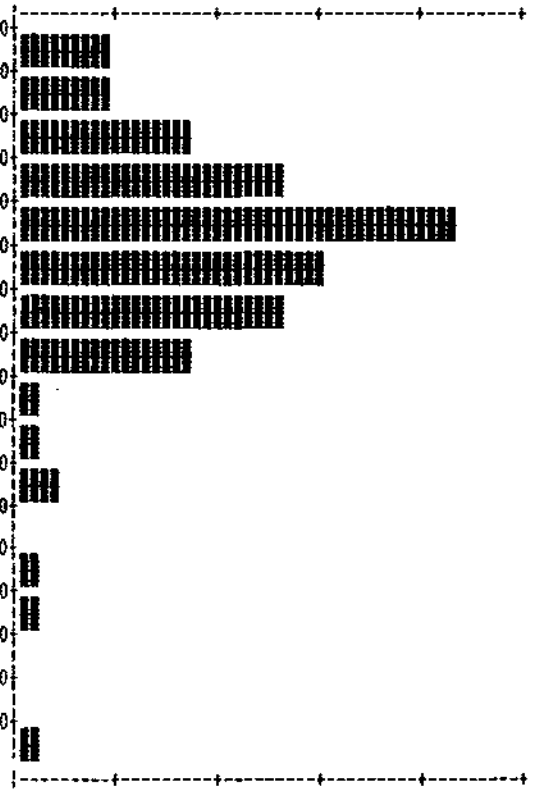


LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.000
0.000	8	8.60	8.60	5.000
5.000	36	38.71	47.31	10.000
10.000	28	30.11	77.42	15.000
15.000	10	10.75	88.17	20.000
20.000	5	5.38	93.55	25.000
25.000	2	2.15	95.70	30.000
30.000	1	1.08	96.77	35.000
35.000	0	0.00	96.77	40.000
40.000	1	1.08	97.85	45.000
45.000	0	0.00	97.85	50.000
50.000	2	2.15		

VARIABLE:	PB
NUMBER OF OBSERVATIONS:	93
MINIMUM:	3.000
MAXIMUM:	54.000
MEAN:	11.935
STANDARD ERROR OF MEAN:	0.915
STANDARD DEVIATION:	8.820
COEFFICIENT OF VARIATION:	73.901
SKEWNESS:	2.592
KURTOSIS:	8.294

DATA TITLE : DATA

VARIABLE : ZN

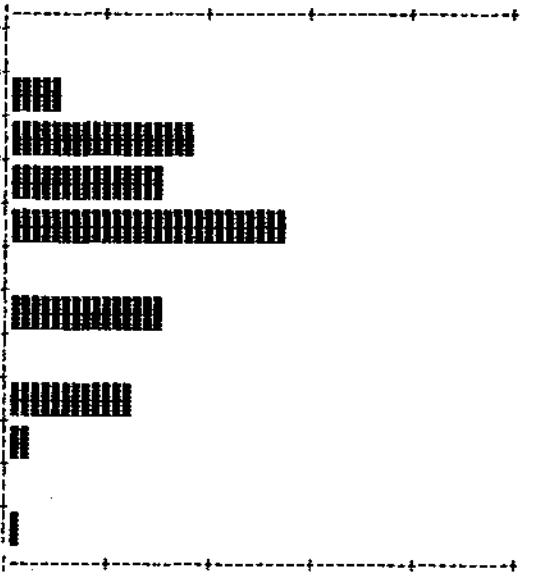


LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
0.000			0.00	0.000
10.000	4	4.30	4.30	10.000
20.000	4	4.30	8.60	20.000
30.000	8	8.60	17.20	30.000
40.000	12	12.90	30.11	40.000
50.000	20	21.51	51.61	50.000
60.000	14	15.05	66.67	60.000
70.000	12	12.90	79.57	70.000
80.000	8	8.60	88.17	80.000
90.000	1	1.08	89.25	90.000
100.000	1	1.08	90.32	100.000
110.000	2	2.15	92.47	110.000
120.000	0	0.00	92.47	120.000
130.000	1	1.08	93.55	130.000
140.000	1	1.08	94.62	140.000
50.000	0	0.00	94.62	150.000
160.000	0	0.00	94.62	160.000
	1	1.08		
DATA ABOVE RANGE OF HISTOGRAM				
180.000	4	4.30	95.70	180.000

VARIABLE:	ZN
NUMBER OF OBSERVATIONS:	93
MINIMUM:	5.000
MAXIMUM:	390.000
MEAN:	60.882
STANDARD ERROR OF MEAN:	5.862
STANDARD DEVIATION:	56.530
COEFFICIENT OF VARIATION:	92.852
SKEWNESS:	3.451
KURTOSIS:	14.199

DATA TITLE : DATA

VARIABLE : AG



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.000
0.000	0	0.00	0.00	0.100
0.100	5	5.38	5.38	0.200
0.200	17	18.28	23.66	0.300
0.300	14	15.05	38.71	0.400
0.400	25	26.88	65.59	0.500
0.500	0	0.00	65.59	0.600
0.600	14	15.05	80.65	0.700
0.700	0	0.00	80.65	0.800
0.800	11	11.83	92.47	0.900
0.900	2	2.15	94.62	1.000
1.000	0	0.00	94.62	1.100
1.100	1	1.08		
1.200	4	4.30	95.70	1.200

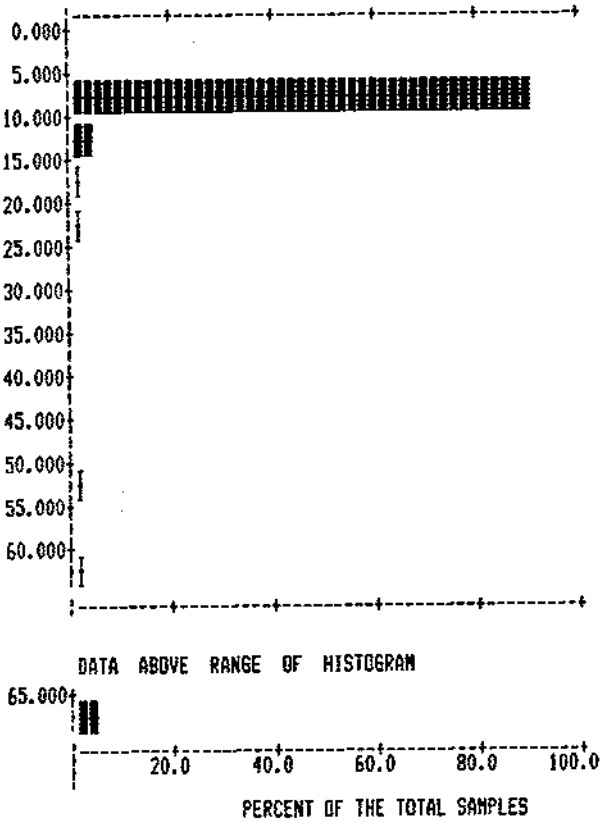
VARIABLE:	AG
NUMBER OF OBSERVATIONS:	93
MINIMUM:	0.100
MAXIMUM:	2.300
MEAN:	0.502
STANDARD ERROR OF MEAN:	0.037
STANDARD DEVIATION:	0.357
COEFFICIENT OF VARIATION:	71.016
SKEWNESS:	2.186
KURTOSIS:	7.266

APPENDIX VI

Histograms - Soil

'TA TITLE : DATA

,ARIABLE : AU

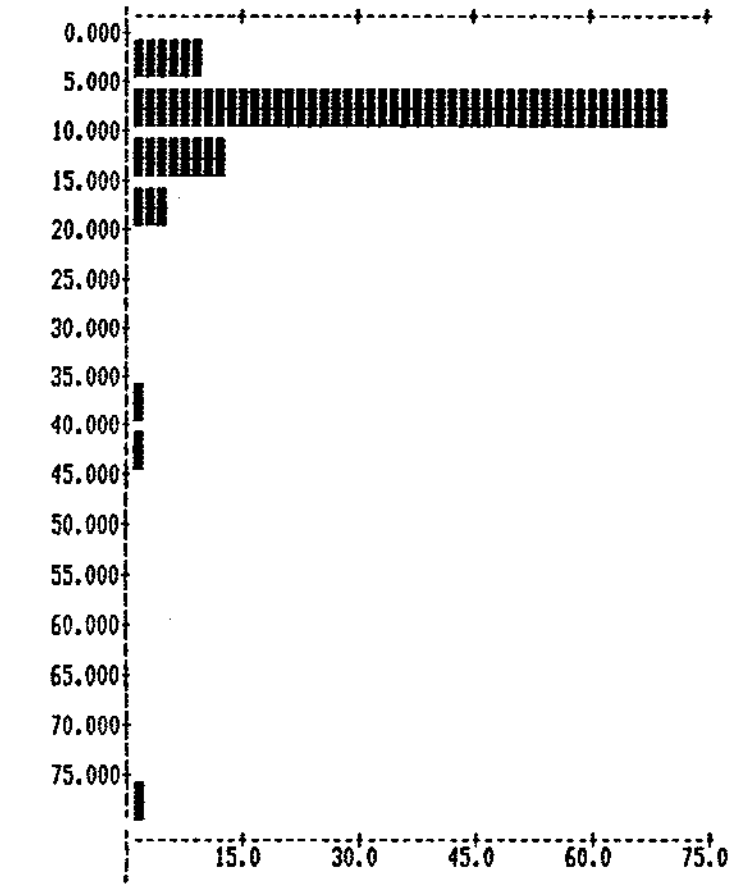


LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.000
0.000	0	0.00	0.00	5.000
5.000	83	89.25	89.25	10.000
10.000	3	3.23	92.47	15.000
15.000	1	1.08	93.55	20.000
20.000	1	1.08	94.62	25.000
25.000	0	0.00	94.62	30.000
30.000	0	0.00	94.62	35.000
35.000	0	0.00	94.62	40.000
40.000	0	0.00	94.62	45.000
45.000	0	0.00	94.62	50.000
50.000	1	1.08	95.70	55.000
55.000	0	0.00	95.70	60.000
60.000	1	1.08		
DATA ABOVE RANGE OF HISTOGRAM				
65.000	3	3.23	96.77	65.000

VARIABLE:	AU
NUMBER OF OBSERVATIONS:	93
MINIMUM:	5.000
MAXIMUM:	340.000
MEAN:	14.355
STANDARD ERROR OF MEAN:	5.132
STANDARD DEVIATION:	49.493
COEFFICIENT OF VARIATION:	344.784
SKEWNESS:	6.143
KURTOSIS:	37.327

DATA TITLE : FERROUX SOILS

VARIABLE : CU

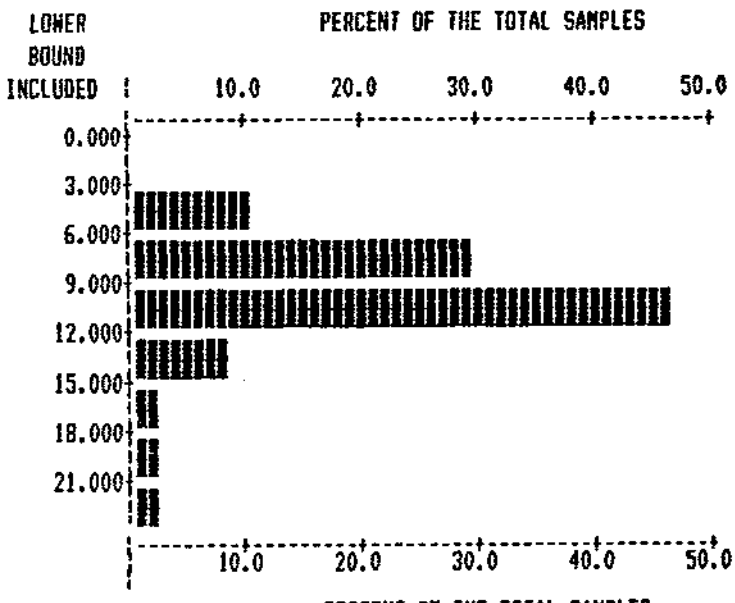


LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.000
0.000	4	8.33	8.33	5.000
5.000	33	68.75	77.08	10.000
10.000	6	12.50	89.58	15.000
15.000	2	4.17	93.75	20.000
20.000	0	0.00	93.75	25.000
25.000	0	0.00	93.75	30.000
30.000	0	0.00	93.75	35.000
35.000	1	2.08	95.83	40.000
40.000	1	2.08	97.92	45.000
45.000	0	0.00	97.92	50.000
50.000	0	0.00	97.92	55.000
55.000	0	0.00	97.92	60.000
60.000	0	0.00	97.92	65.000
65.000	0	0.00	97.92	70.000
70.000	0	0.00	97.92	75.000
75.000	1	2.08		

VARIABLE:	CU
NUMBER OF OBSERVATIONS:	48
MINIMUM:	3.000
MAXIMUM:	78.000
MEAN:	10.625
STANDARD ERROR OF MEAN:	1.755
STANDARD DEVIATION:	12.158
COEFFICIENT OF VARIATION:	114.427
SKEWNESS:	4.074
KURTOSIS:	18.015

A TITLE : FERROUX SOILS

VARIABLE : PB

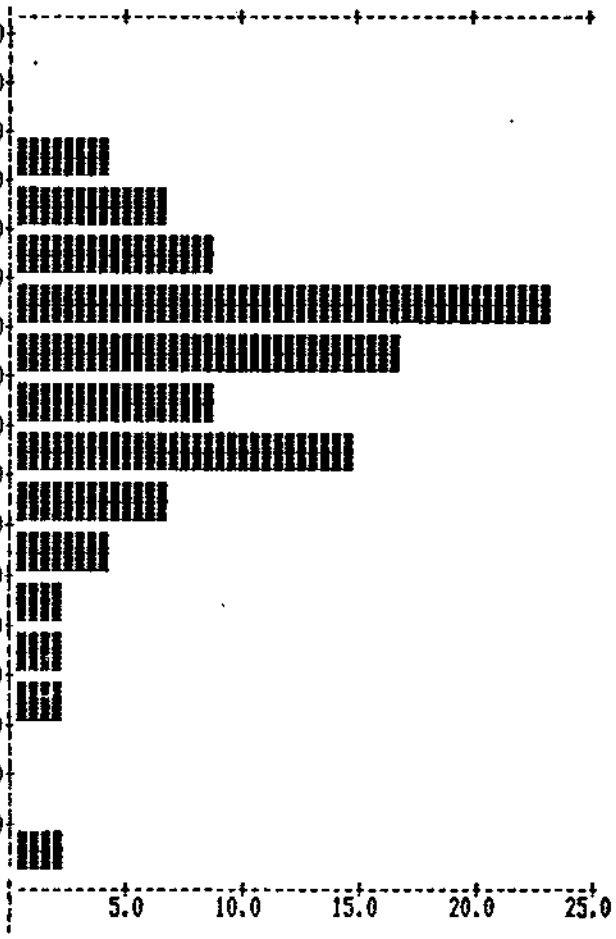


NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
		0.00	0.000
0	0.00	0.00	3.000
5	10.42	10.42	6.000
14	29.17	39.58	9.000
22	45.83	85.42	12.000
4	8.33	93.75	15.000
1	2.08	95.83	18.000
1	2.08	97.92	21.000
1	2.08		

VARIABLE:	PB
NUMBER OF OBSERVATIONS:	48
MINIMUM:	4.000
MAXIMUM:	21.000
MEAN:	9.187
STANDARD ERROR OF MEAN:	0.467
STANDARD DEVIATION:	3.233
COEFFICIENT OF VARIATION:	35.191
SKEWNESS:	1.477
KURTOSIS:	3.380

DATA TITLE : FERROUX SOILS

VARIABLE : ZN

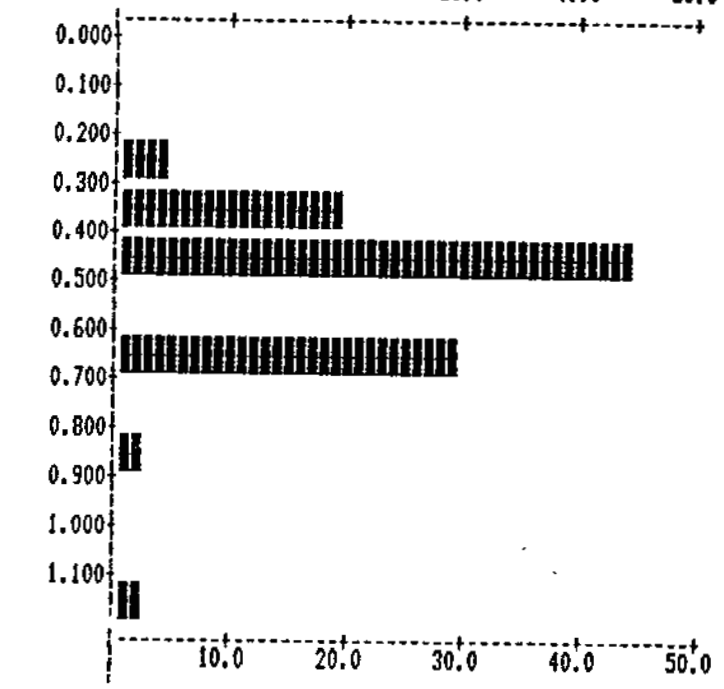


LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.000
10.000	0	0.00	0.00	10.000
20.000	0	0.00	0.00	20.000
30.000	2	4.17	4.17	30.000
40.000	3	6.25	10.42	40.000
50.000	4	8.33	18.75	50.000
60.000	11	22.92	41.67	60.000
70.000	8	16.67	58.33	70.000
80.000	4	8.33	66.67	80.000
90.000	7	14.58	81.25	90.000
100.000	3	6.25	87.50	100.000
110.000	2	4.17	91.67	110.000
120.000	1	2.08	93.75	120.000
130.000	1	2.08	95.83	130.000
140.000	1	2.08	97.92	140.000
150.000	0	0.00	97.92	150.000
160.000	0	0.00	97.92	160.000
	1	2.08		

VARIABLE:	ZN
NUMBER OF OBSERVATIONS:	48
MINIMUM:	23.000
MAXIMUM:	164.000
MEAN:	70.646
STANDARD ERROR OF MEAN:	4.116
STANDARD DEVIATION:	28.513
COEFFICIENT OF VARIATION:	40.361
SKEWNESS:	0.997
KURTOSIS:	1.259

DATA TITLE : FERROUX SOILS

VARIABLE : AG

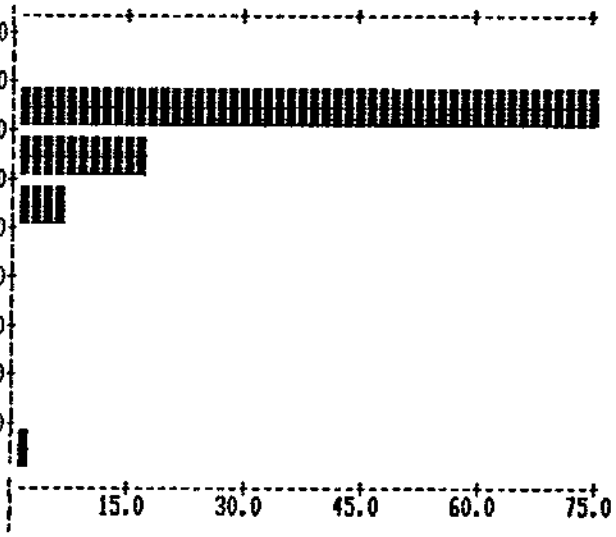


LOWER BOUND	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND
0.000			0.00
0.100	0	0.00	0.00
0.200	0	0.00	0.00
0.300	2	4.17	4.17
0.400	9	18.75	22.92
0.500	21	43.75	66.67
0.600	0	0.00	66.67
0.700	14	29.17	95.83
0.800	0	0.00	95.83
0.900	1	2.08	97.92
1.000	0	0.00	97.92
1.100	0	0.00	97.92
	1	2.08	

ARIABLE:	AG
NUMBER OF OBSERVATIONS:	48
MINIMUM:	0.200
MAXIMUM:	1.100
MEAN:	0.473
STANDARD ERROR OF MEAN:	0.024
STANDARD DEVIATION:	0.169
COEFFICIENT OF VARIATION:	35.635
SKEWNESS:	1.073
KURTOSIS:	2.075

DATA TITLE : FERROUX SOILS

VARIABLE : AU

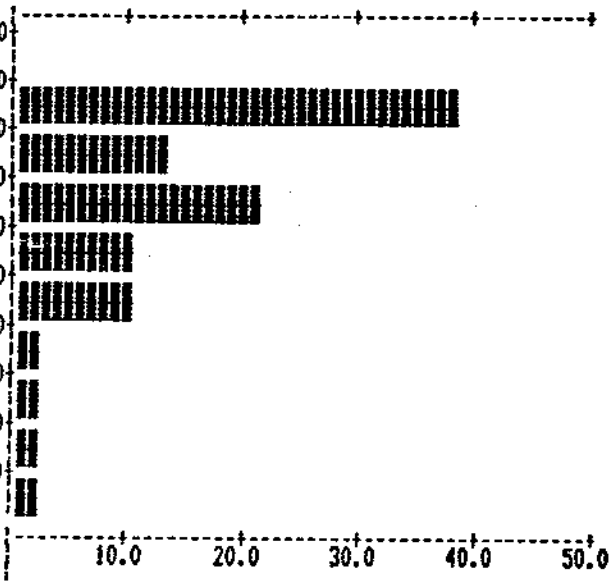


LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.000
0.000	0	0.00	0.00	5.000
5.000	36	75.00	75.00	10.000
10.000	8	16.67	91.67	15.000
15.000	3	6.25	97.92	20.000
20.000	0	0.00	97.92	25.000
25.000	0	0.00	97.92	30.000
30.000	0	0.00	97.92	35.000
35.000	0	0.00	97.92	40.000
40.000	1	2.08		

VARIABLE:	AU
NUMBER OF OBSERVATIONS:	48
MINIMUM:	5.000
MAXIMUM:	40.000
MEAN:	7.187
STANDARD ERROR OF MEAN:	0.814
STANDARD DEVIATION:	5.640
COEFFICIENT OF VARIATION:	78.476
SKEWNESS:	4.244
KURTOSIS:	21.116

DATA TITLE : FERROUX SOILS

.RIABLE : HG

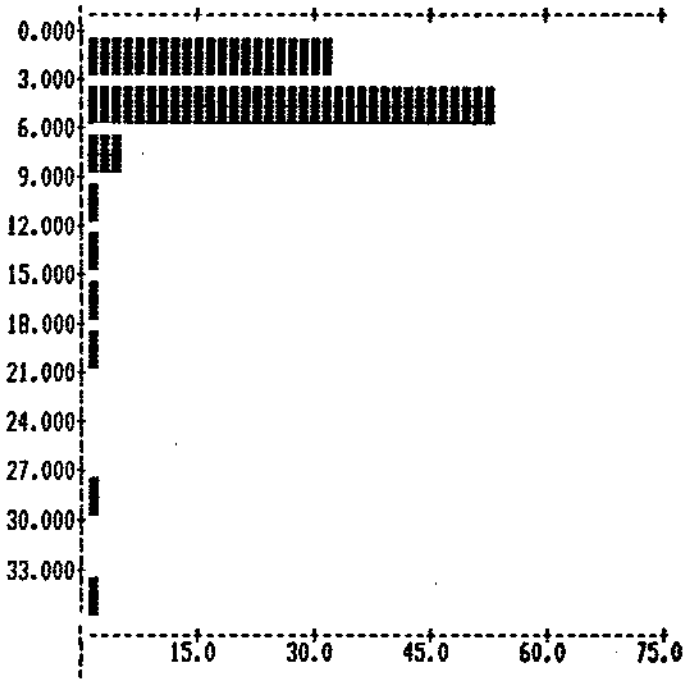


LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.000
0.000	0	0.00	0.00	5.000
5.000	18	37.50	37.50	10.000
10.000	6	12.50	50.00	15.000
15.000	10	20.83	70.83	20.000
20.000	5	10.42	81.25	25.000
25.000	5	10.42	91.67	30.000
30.000	1	2.08	93.75	35.000
35.000	1	2.08	95.83	40.000
40.000	1	2.08	97.92	45.000
45.000	1	2.08		

VARIABLE:	HG
NUMBER OF OBSERVATIONS:	48
MINIMUM:	5.000
MAXIMUM:	45.000
MEAN:	14.062
STANDARD ERROR OF MEAN:	1.441
STANDARD DEVIATION:	9.982
COEFFICIENT OF VARIATION:	70.981
SKEWNESS:	1.133
KURTOSIS:	0.833

DATA TITLE : FERROUX SOILS

.RIABLE : AS



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.000
0.000	15	31.25	31.25	3.000
3.000	25	52.08	83.33	6.000
6.000	2	4.17	87.50	9.000
9.000	1	2.08	89.58	12.000
12.000	1	2.08	91.67	15.000
15.000	1	2.08	93.75	18.000
18.000	1	2.08	95.83	21.000
21.000	0	0.00	95.83	24.000
24.000	0	0.00	95.83	27.000
27.000	1	2.08	97.92	30.000
30.000	0	0.00	97.92	33.000
33.000	1	2.08		

VARIABLE:	AS
NUMBER OF OBSERVATIONS:	48
MINIMUM:	1.000
MAXIMUM:	33.000
MEAN:	5.292
STANDARD ERROR OF MEAN:	0.913
STANDARD DEVIATION:	6.328
COEFFICIENT OF VARIATION:	119.580
SKEWNESS:	2.840
KURTOSIS:	8.207

LITTLE NIPPLE

MOUNT FERROUX

Purroux Creek

WT 3
WT 4

WT 2
WT

Md

Gdi

Qm

Mdvd

N

NORTH SHEET

SOUTH SHEET

LEGEND

TERTIARY
Eocene

- Md — Marama Dacite
- Md — (c) Columnar Marama Dacite; (vc) Volcaniclastic Marama Dacite
- Qm — Quartz Monzonite

MESOZOIC
Middle Jurassic

- Gdi — Nelson Granodiorite

- Outcrop
- Creek
- Legal Corner Post
- Roads
- Fault
- Possible Fault
- Geological Contact, Possible Contact
- Trench
- Fracture
- Flow Banding

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,108

MINNOVA Inc.

FERROUX PROPERTY

NORTH SHEET

GEOLOGY

0 100 200 300 400 500m

SCALE: 1:5000

N.T.S.	92I/5W	SCALE: 1:5000	FIG. No. 3A
DATE:	AUGUST 1989	REVISED:	
DRAWN BY:	NG/sg		

N

Md

Gdi

WT 5

WT 6

Wilkinson

Ferroux

Creek

LEGEND

TERTIARY
Eocene

Md	Marama Dacite
Md	(c) Columnar Marama Dacite, (vc) Volcaniclastic Marama Dacite
Qm	Quartz Monzonite

MESOZOIC
Middle Jurassic

Gdi	Nelson Granodiorite

- Outcrop
- Creek
- Legal Corner Post
- Roads
- Fault
- Possible Fault
- Geological Contact, Possible Contact
- Trench
- Fracture
- Flow Banding

NORTH SHEET

SOUTH SHEET

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,108

MINNOVA Inc.

FERROUX PRPERTY

SOUTH SHEET

GEOLOGY

0 100 200 300 400 500m

SCALE: 1:5000

N.T.S. 92I/5W	SCALE: 1:5000	FIG. No. 3B
DATE: AUGUST 1989	REVISED:	
DRAWN BY: NG/sg		

FL020
FG089 (65 Au ppb)
FG030 (188 Cu ppm,340 Au ppb)
FG029 (50 Au ppb)
FG028
FL011
FG058
FG056
FG054
FG026
FG027
FG057
FL017
FL015
FL016
FG055
FL010 (20 Au ppb)
FL009
FL008
FG082
FG060 (164 Cu ppm)
FG061 (150 Cu ppm,340 Au ppb)
FG066
FG070
FG069
FL018
FG068
FG067
FG065 (113 Cu ppm)
FG063
FG062
FG064 (60 Au ppb)
WT 3
WT 4
FL007
FG025
WT 2
WT
FG088
FL025
FG043
Creek
Fourmile
LITTLE NIPPLE
MOUNT FERROUX
5000
4900
4800
4700
4600
4500
4400
4300
4200
4100
4000

N

GEOLOGICAL BRANCH
ASSESSMENT REPORT
19,108

NORTH SHEET
SOUTH SHEET

Rock Sample Location * (Cu ppm,Pb ppm,Zn ppm, Ag ppm,Au ppb)

MINNOVA Inc.

FERROUX PROPERTY

NORTH SHEET

ROCK GEOCHEMISTRY

SAMPLE LOCATIONS & ANOMALOUS RESULTS

0 100 200 300 400 500m
SCALE: 1:5000

N.T.S. 92E/2W	SCALE: 1:5000	FIG. No. 4A
DATE: AUGUST 1989	REVISED:	
DRAWN BY: NG/sg		

N

FG088
FL025
FG043
FL024
FG042
FG041
FL022
FG086
FL023
FG087
FG085
FG059
FG024
FG020
FG021 (128 Zn ppm, 1.9 Ag ppm)
FG022 (248 Zn ppm,1.2 Ag ppm)
FG023 (342 Zn ppm,1.2 Ag ppm,15 Au ppb)
FL006
FL005
FG019
FG052
FL014
FG053
FG051
FG074
FG050
WT 5
WT 4
WT
FG049
FG048
FG018
FG047 (680 Cu ppm)
FG017
FG015
FL004
FG016
Wilkinson
Ferroux
FG071
FG072
FG046
FG045
FG044
FL001
FL002
FL003
FG001
FG002
FG003
FG004
FG005 (152 Cu ppm,2.3 Ag ppm)
FG006
FG007
FG075
FG084
FG008
WT 6
FG090 (275 Zn ppm,1.1 Ag ppm)
FG091 (240 Zn ppm,0.8 Ag ppm)
FG092 (390 Zn ppm,1.0 Ag ppm,10 Au ppb)
FG009
FG093
FL019
FG073
FG040
FG077
FG076
FG078
FL020
FG010
FG011
FG012
FG013
FG014
FG079
FG035
FL012
FG031
FG032
FL013
FG033 (103 Cu ppm,1.0 Ag ppm)
FG034
FG036
FG037
FG080
FG034
FL021
FG081
FG084 (143 Cu ppm,20 Au ppb)
FG082
Creek

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,108

Rock Sample Location * (Cu ppm,Pb ppm,Zn ppm,Ag ppm,Au ppb)

NORTH SHEET

SOUTH SHEET

MINNOVA Inc.

FERROUX PRPERTY
SOUTH SHEET
ROCK GEOCHEMISTRY
SAMPLE LOCATIONS & ANOMALOUS RESULTS

0 100 200 300 400 500m
SCALE: 1:5000

N.T.S. 92I/5W	SCALE: 1:5000	FIG. No. 4B
DATE: AUGUST 1989	REVISED:	
DRAWN BY: NG/sg		

LITTLE NIPPLE

MOUNT FERROUX

Creek

Purroux

WT 3 WT 2
WT 4 WT

N

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,108

NORTH SHEET

SOUTH SHEET

Soil Sample Location Cu ppm Pb ppm Zn ppm Ag ppm Au ppb Mo ppm

MINNOVA Inc.

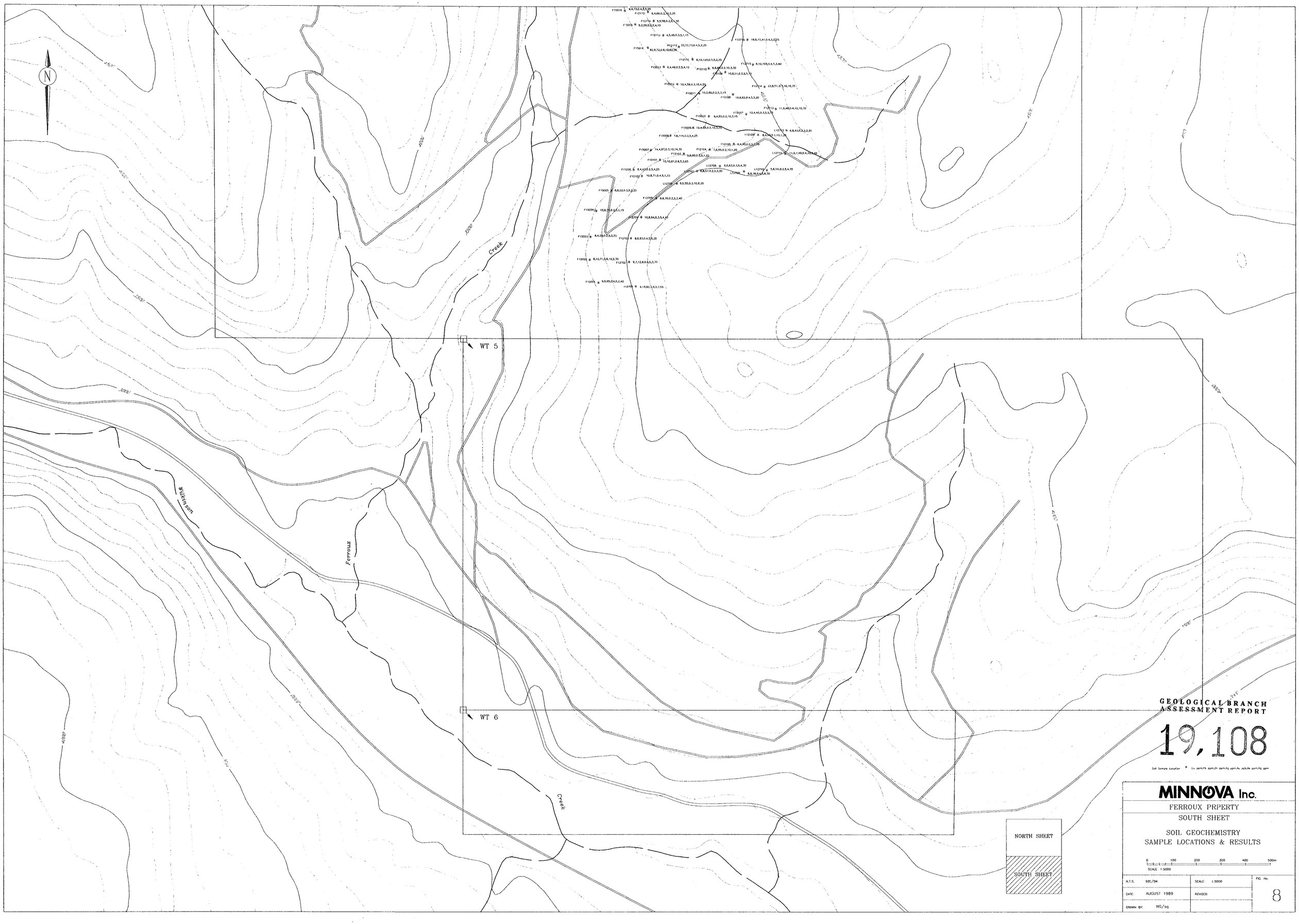
FERROUX PROPERTY

NORTH SHEET

SOIL GEOCHEMISTRY
SAMPLE LOCATION & RESULTS

0 100 200 300 400 500m
SCALE: 1:5000

N.T.S. 92E/5W	SCALE: 1:5000	FIG. No. 7
DATE: AUGUST 1989	REVISED:	
DRAWN BY: NG/sg		



GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,108

Soil Sample Location * Cu ppm,Pb ppm,Zn ppm,Ag ppm,As ppb,Au ppb,Mo ppm

NORTH SHEET

SOUTH SHEET

MINNOVA Inc.

FERROUX PRPERTY

SOUTH SHEET

SOIL GEOCHEMISTRY
SAMPLE LOCATIONS & RESULTS

0 100 200 300 400 500m
SCALE 1:5000

N.T.S. 92E/SW	SCALE: 1:5000	FIG. No.	8
DATE: AUGUST 1989	REVISED:		
DRAWN BY: NG/sg			