

LOG NO: 0414	RD.
ACTION:	
FILE NO:	

GEOLOGICAL AND GEOPHYSICAL REPORT
BAR PROJECT
FY CLAIM GROUP
KAMLOOPS MINING DIVISION
LAT. 51°20'N LONG. 120°00'W

GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,264

SUB-RECORDER RECEIVED	
MAR 2 1988	
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VANCOUVER, B.C.	

FILMED

MARCH 2/88

Ian D. Pirie
Minnova Inc.
4th FL, 311 Water St.
Vancouver, B. C. V6B 1B8

ARIS SUMMARY SHEET

District Geologist, Kamloops

Off Confidential: 89.01.15

ASSESSMENT REPORT 17264

MINING DIVISION: Kamloops

PROPERTY: Bar
 LOCATION: LAT 51 15 00 LONG 119 58 05
 UTM 11 5681593 292866
 NTS 082M04W 082M05W

CLAIM(S): FY 2
 OPERATOR(S): Minnova
 AUTHOR(S): Pirie, I.D.
 REPORT YEAR: 1988, 17 Pages

COMMODITIES
 SEARCHED FOR: Copper, Lead, Zinc, Gold, Silver

GEOLOGICAL

SUMMARY: The area is underlain by volcanics and sediments of the Devonian-Mississippian Eagle Bay Formation which strikes northwest with unknown dips. Foliation is stray, also strikes northwest and dips at 20-50 degrees to the northeast. Areas of sericitic alteration with weakly disseminated pyrite occur within felsic volcanics but there are not known occurrences of significant mineralization.

WORK

DONE: Geological, Geophysical
 EMGR 15.0 km; HLEM
 Map(s) - 2; Scale(s) - 1:2500
 GEOL 187.5 ha
 Map(s) - 1; Scale(s) - 1:2500
 ROCK 96 sample(s); ME
 Map(s) - 6; Scale(s) - 1:2500

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INTRODUCTION

General

Minnova Inc. is the owner of a large block of claims which straddle the Barriere River east of Barriere, B. C. known as the Bar Project. This report presents the results of a mapping, sampling and geophysical program carried out in the summer of 1987 on a part of the property known as the FY claim group.

Location and Access (Figure 1)

The claims are located about 12km ENE of the town of Barriere which is, itself, 65km north of Kamloops on the Yellowhead Highway. Access is by way of the Barriere Lakes Road and the Bottrel Creek logging road.

Physiography

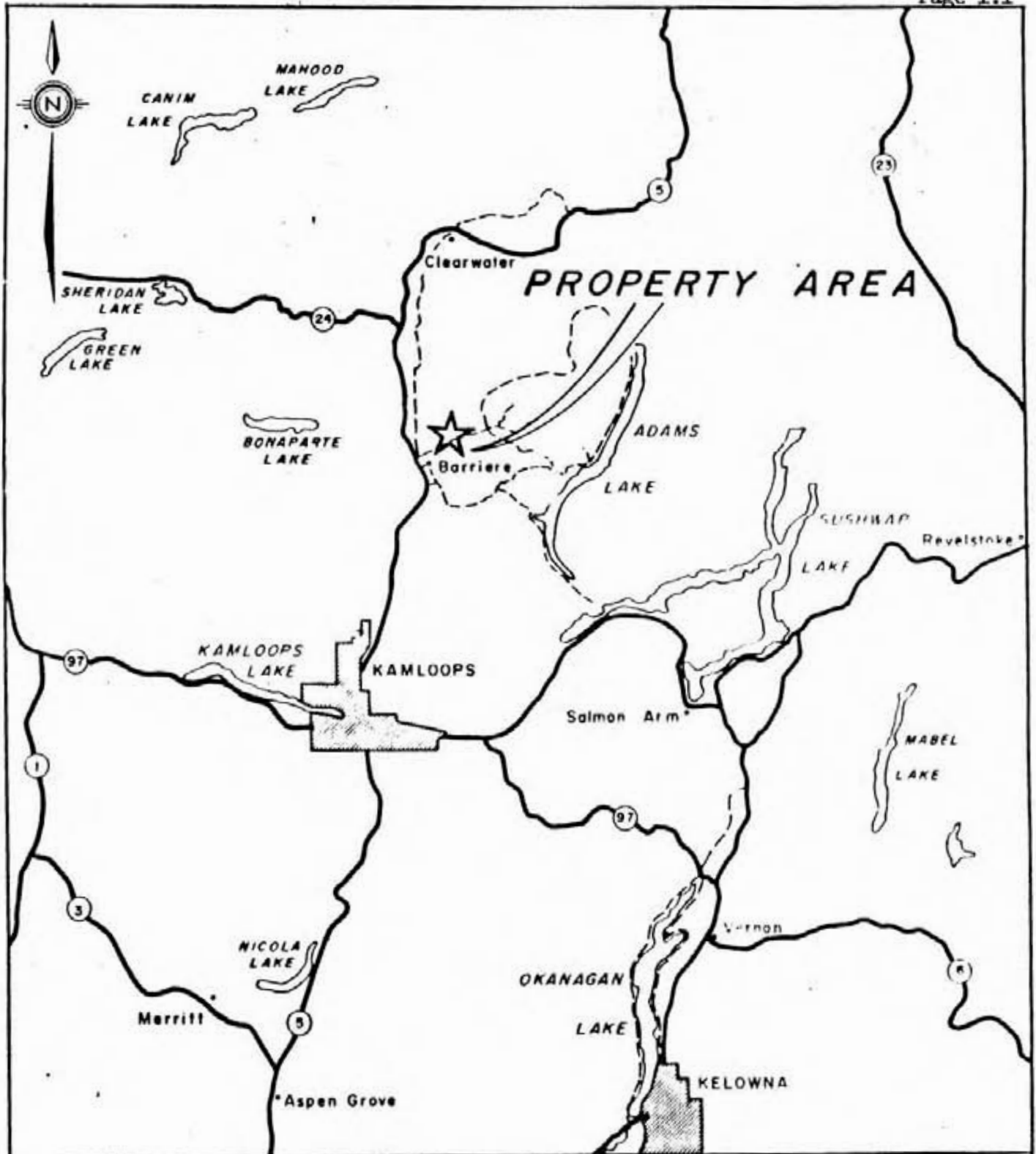
The Bar Project area is part of the Shuswap Highlands with elevations ranging from less than 600m to almost 2000m. The FY group lies at around 900m on the south facing slope of the Barriere River. The area is dry to temperate with active logging and minor valley cultivation.

Property and Ownership

Figure 2 shows the configuration of the Bar Property with the FY claim group highlighted. Table 1 summarizes the pertinent claim data. All are 100% owned and operated by Minnova Inc.

Table 1

<u>Claim</u>	<u>Record No.</u>	<u>Units</u>	<u>Expiry Date</u>
FY-1	6496	12	January 17/88
FY-2	6497	18	January 17/88
FY-3	6498	18	January 17/88
FY-4	6499	18	January 17/88



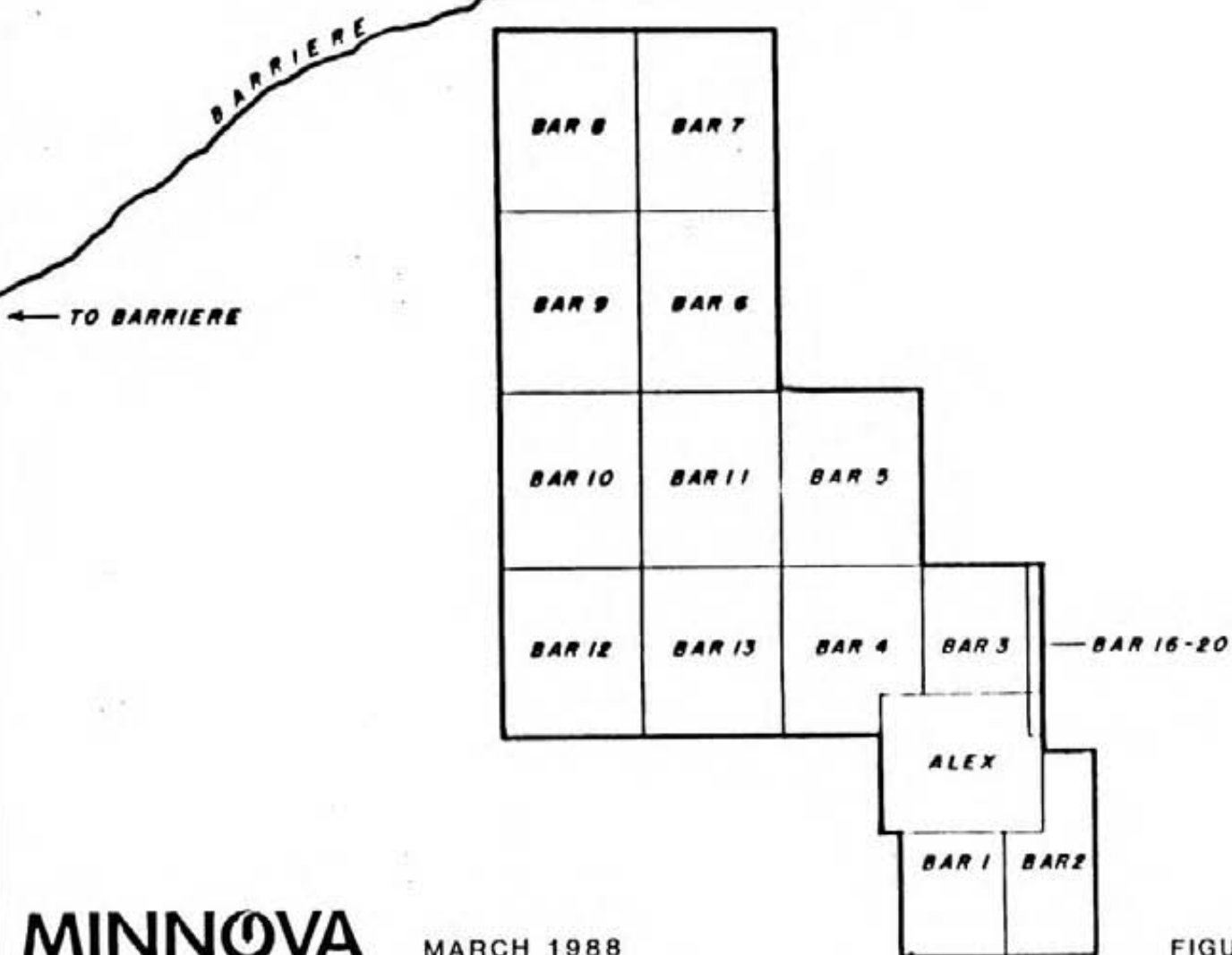
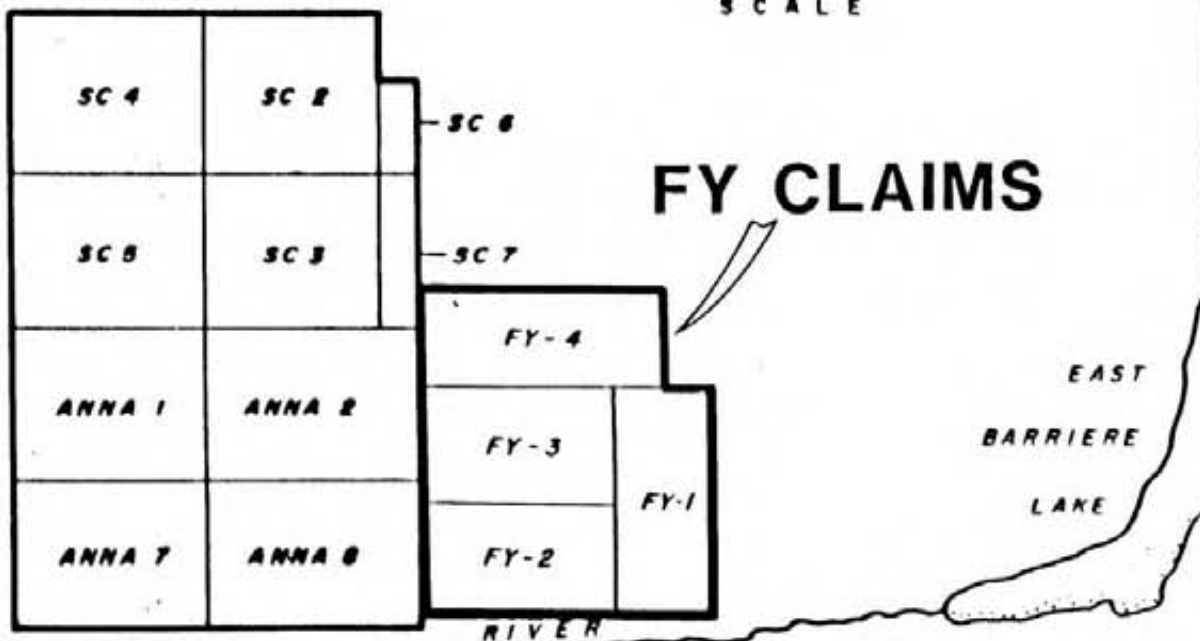
SCALE



**BAR PROPERTY
- LOCATION MAP -
MARCH 1988**

SC 1

BAR PROJECT CLAIM CONFIGURATION



History

The majority of the Bar Property was acquired by Minnova in 1983-84 to cover favourable stratigraphy between the Rea Gold discovery, near Johnson Lake, and the Chu Chua massive sulphide deposit on Chu Chua Mountain. The FY claims were added in 1986 to cover the extension of favourable stratigraphy mapped on the Anna claims.

Apart from a linecutting survey performed by Minnova in 1986 no previous work has been recorded on the claims.

Work Done

During 1987 much of the grid cut in 1986 was covered by HEM (MaxMin II), the geology was mapped at a scale of 1:2,500 and lithogeochemical sampling was done. The purpose of this work was to determine the potential of the claims for hosting volcanogenic massive sulphides. Work was entirely carried out on the FY-2 claim.

LOGISTICS

Max Min II Survey

The Max Min survey was conducted by MWH Geophysics Ltd. of Calgary between August 15th and 19th, 1987. A Max Min II instrument was used and the survey employed a 150m coil spacing with stations at 25m along lines 100m apart. Frequencies used were 444 Hz and 1777 Hz.

At each station, secant measurements were taken to correct for nominal coil spacing irregularities induced by rough terrain. The in-phase and out-of-phase values, read as a percentage of the primary field strength, were recorded for each of the frequencies.

Limitations on what could actually be surveyed on the grid were imposed by fences and by poor location control on an old part of the grid.

Lithogeochemistry

Rock samples were taken wherever possible at 50m intervals unless lithological factors dictated otherwise. Samples were sent to Min-En Labs of North Vancouver for analysis for all major elements plus Cu, Pb, Zn, Au, Ag, As, Sb and Ba. A standard fusion process with ICP finish was used for the majors. Au was determined by wet geochemical method and other traces by aqua-regia digestion with an ICP finish.

A data listing is presented in Appendix I.

RESULTS

The gridded area is underlain by strongly deformed volcanics and sediments of the Paleozoic Eagle Bay Formation (Map 1). In general terms, the western part of the grid consists of reasonably well exposed felsic tuffs and lapilli tuffs while the eastern third is predominantly argillite and is poorly exposed. The contact between the two is not exposed but has been interpreted from the outcrop pattern and the Max Min data (Maps 2,3).

The felsic volcanics have a southeasterly strike. Foliation, which is strong, dips northeasterly at 20° to 50°, but this may not be the bedding dip. Indeed the sequence appears to be strongly folded about an east to southeast axis so bedding may be quite variable. Sericitic alteration is present locally along with minor carbonate, however feldspar phenocrysts are generally preserved. Quartz phenocrysts are also found. Mineralization is restricted to the occasional rusty zone with between 1% and 5% disseminated pyrite.

A single well defined Max Min anomaly cuts the felsics between 42+00E, 58+75N and 49+00E, 55+00N and is open at both ends. The responses indicate that the conductor strengthens to the NW and is thickest around line 46+00E. It appears to correspond to an argillite horizon exposed between lines 47 and 48E.

A possible second conductor is present between 51+00E, 60+50N and 54+00E, 55+50N. Although close to the contact with argillites it appears to lie within the felsic package. The complex response is indicated on both the 1777 Hz (Map 3) and Geology (Map 1) maps.

The area underlain by argillites has only a handful of outcrops, mainly close to the volcanics. Two small exposures of felsic tuff indicate at least minor interbedding. A road cut at around 55+30E, 59+50N has exposed chevron folded sediments confirming the strong deformation in the area.

The Max Min responses over the sediments are too broad and complex to rationalize without much more detail. It is concluded that the sediments are broadly conductive and highly deformed. They may also be quite flat lying in places.

A preliminary review of the litho-geochemistry (Maps 4-9) shows the felsics to be more andesitic/dacitic than rhyolitic in composition with SiO_2 content in the 60-70% range and TiO_2 around 0.45%. Alteration indicators such as Na_2O and K_2O suggest reasonable homogeneity with only limited soda-depletion (see areas marked on Map 6). Interestingly, both Na_2O and K_2O are relatively high in the few sediment samples taken indicating that they are immature and probably volcanic derived.

Base and precious metal data indicate some definite activity in relative terms, albeit of fairly low amplitude. Of particular note is a 450 ppb Au anomaly on line 54E at 56N and anomalies in Ag of 11.5 ppm and 8.3 ppm on line 54E at 51+70N and 51+20N respectively. Since both are in areas of soda-depletion these are potentially quite significant.

CONCLUSIONS AND RECOMMENDATIONS

The integrated program of geology, geophysics and geochemistry has outlined a package of felsic volcanics and sediments on the FY grid which has potential for hosting volcanogenic massive sulphides. The most significant potential is considered to lie within the western felsic package, especially where a conductive sediment interval suggests a depositional hiatus and in the area of the volcanic-sediment contact.

Preliminary interpretation of the geochemical results has revealed several discrete areas of hydrothermal alteration, at least two of which are related to precious metal anomalies.

A more thorough analysis of the geochemical data is recommended including statistical analysis and relating it to other data in the area. This should be followed by detailed ground re-examination of the anomalous areas involving detailed mapping, additional sampling, etc. In addition, the intra-volcanic Max Min conductor should be extended southeast towards the baseline so that it's spatial relationship to high Ag anomalies may be established.

This initial examination of the FY group being positive, it is further recommended that the rest of the claim group be examined for similar geology.

ITEMIZED COST STATEMENT

Max Min II Survey

MWH Geophysics Ltd.

5 days @ \$550/day	=	\$2,750.00	
plotting \$500	=	500.00	\$ 3,250.00

Geology

K. Sutherland	16 days @ \$250		4,000.00
Field Expenses	16 days @ \$50		800.00
(incl. accommodation & food)			

Geochemistry

R. Holder	16 days @ \$150		2,400.00
Field Expenses	16 days @ \$50		800.00
96 samples @ \$20			1,920.00

Truck	15 days @ \$60		900.00
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Supervision and Report

I. D. Pirie	4 days @ \$400		1,600.00
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Drafting

S. Gokool	5 days @ \$145		725.00
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Miscellaneous

(typing, computer, supplies, etc.)			500.00
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	TOTAL		\$16,895.00

STATEMENT OF QUALIFICATIONS

I, Ian D. Pirie certify that:

1. I am an Exploration Geologist residing at 4580 44B Ave., Delta, B.C.
2. I have a BSc (Hons) in Applied Geology from the University of Strathclyde, Glasgow, Scotland (1977) and a MSc (Geology/Geochemistry) from Queen's University at Kingston, Ontario (1980).
3. I have practised my profession since 1977.
4. I personally supervised the work reported herein.

Dated this 28th day of March, 1988.



Ian D. Pirie
Senior Geologist



APPENDIX I

LITHOGEOCHEMICAL LISTING

ROCKTYPE (RTYPE) KEY

- 2.3 Intermediate Tuff
- 2.4 Intermediate Lapilli Tuff

- 3.3 Felsic Tuff
- 3.4 Felsic Lapilli Tuff

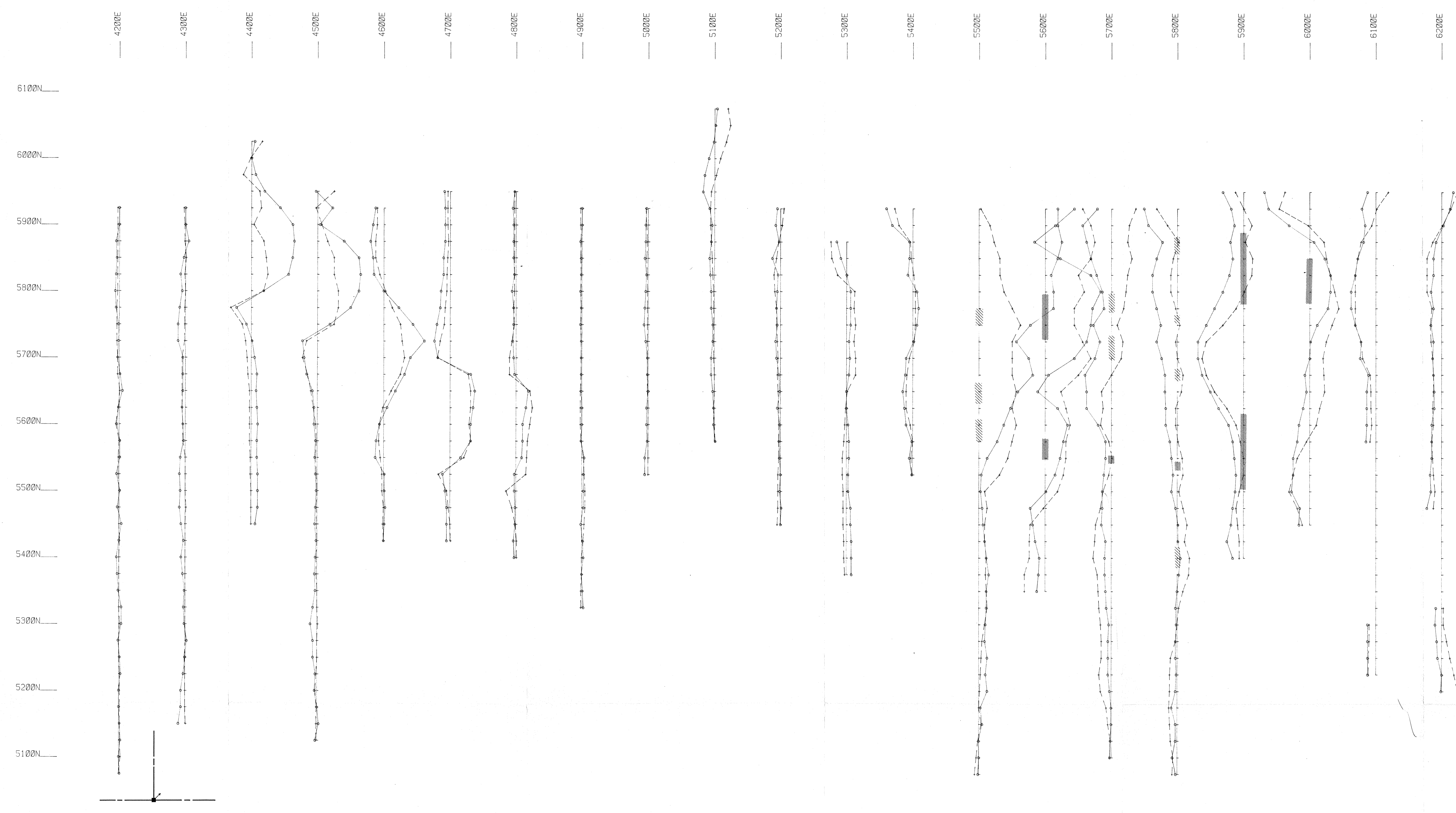
- 6 Undefined Sediment
- 6.5 Argillite

SAMPLE NO.	RTYPE	AG(PPM)	AS(PPM)	B(PPM)	CU(PPM)	PB(PPM)	SB(PPM)	ZN(PPM)	AU(PPB)	AL2O3	BA	CAU
FYB71000	2.4	0.6	4.	5.	3.	23.	1.	29.	5.	13.43	0.108	6.07
FYB71001	6.5	0.7	1.	13.	24.	9.	3.	135.	5.	12.53	0.088	2.62
FYB71002	2.3	0.7	6.	3.	12.	29.	1.	219.	5.	19.71	0.162	2.09
FYB71003	3.4	0.7	6.	5.	27.	16.	1.	29.	10.	17.86	0.117	4.95
FYB71004	3.3	0.4	8.	4.	12.	56.	4.	27.	5.	17.18	0.121	0.05
FYB71005	3.3	0.4	8.	5.	4.	6.	1.	19.	5.	16.55	0.147	1.63
FYB71006	3.3	0.8	4.	4.	4.	10.	2.	33.	5.	17.45	0.117	1.65
FYB71007	3.3	0.8	5.	2.	3.	19.	1.	13.	5.	14.13	0.129	1.76
FYB71008	3.4	0.9	5.	3.	12.	14.	2.	12.	10.	17.91	0.115	1.88
FYB71009	3.3	0.6	9.	6.	23.	6.	3.	35.	5.	23.14	0.14	0.4
FYB71010	3.3	0.9	12.	4.	31.	36.	2.	32.	15.	21.02	0.182	2.9
FYB71011	3.3	0.9	1.	3.	6.	18.	2.	16.	5.	17.49	0.122	2.14
FYB71012	3.3	0.8	12.	6.	22.	4.	2.	35.	5.	18.95	0.112	3.87
FYB71013	3.4	0.9	2.	7.	41.	3.	3.	41.	10.	20.64	0.108	2.79
FYB71014	3.4	0.6	13.	1.	7.	13.	2.	10.	5.	3.29	0.021	0.81
FYB71015	3.4	0.9	1.	5.	4.	15.	2.	19.	5.	14.21	0.086	2.64
FYB71016	6.5	1.	46.	1.	13.	21.	5.	18.	5.	2.56	0.022	0.01
FYB71017	3.4	0.9	22.	1.	10.	19.	3.	67.	5.	14.29	0.061	0.05
FYB71018	3.4	0.7	16.	1.	21.	57.	2.	14.	10.	19.94	0.162	0.22
FYB71019	3.4	0.7	8.	1.	5.	23.	1.	10.	5.	14.46	0.085	2.7
FYB71020	3.4	0.8	3.	1.	25.	21.	2.	30.	5.	12.29	0.078	2.97
FYB71021	3.3	0.8	4.	1.	8.	6.	1.	23.	5.	16.54	0.123	1.92
FYB71022	3.3	1.	3.	1.	55.	13.	1.	25.	5.	17.05	0.111	1.94
FYB71023	3.4	0.7	11.	4.	15.	10.	4.	49.	10.	16.89	0.105	1.03
FYB71024	3.4	0.9	8.	19.	5.	22.	2.	24.	5.	15.08	0.089	0.19
FYB71025	3.4	0.7	22.	1.	5.	9.	2.	14.	5.	13.87	0.083	0.11
FYB71026	3.4	0.9	10.	12.	7.	29.	3.	60.	5.	15.76	0.095	3.24
FYB71027	3.4	8.3	7.	10.	39.	46.	24.	54.	10.	15.52	0.128	1.89
FYB71028	3.4	11.5	1.	8.	51.	68.	27.	25.	5.	13.31	0.137	3.73
FYB71029	3.4	0.9	7.	6.	13.	19.	3.	11.	5.	15.97	0.153	1.86
FYB71030	3.4	1.7	26.	1.	9.	21.	6.	3.	5.	11.86	0.218	0.02
FYB71031		0.4	16.	1.	12.	44.	1.	55.	25.	0.5	0.	0.19
FYB71032	6.	1.7	1.	9.	6.	112.	8.	3.	450.	17.04	0.384	0.02
FYB71033	3.4	0.9	8.	8.	6.	6.	2.	56.	5.	16.47	0.25	6.33
FYB71034	6.5	0.9	4.	21.	109.	48.	13.	124.	15.	19.07	0.091	0.03
FYB71035	3.4	1.1	4.	3.	19.	21.	5.	11.	5.	16.61	0.136	1.4
FYB71036	3.4	0.7	5.	2.	14.	11.	5.	30.	5.	19.3	0.177	0.63
FYB71037	3.4	1.	18.	1.	5.	46.	8.	8.	5.	19.22	0.173	0.02
FYB72000	2.3	1.	13.	7.	26.	14.	4.	28.	10.	15.89	0.088	4.69
FYB72001	2.3	1.	4.	4.	34.	35.	4.	31.	10.	17.21	0.117	1.04
FYB72002	2.3	0.8	1.	4.	20.	18.	3.	20.	5.	17.59	0.132	1.26
FYB72003	2.3	1.3	10.	4.	22.	20.	3.	25.	5.	18.51	0.132	3.58
FYB72004	2.3	1.	2.	3.	11.	21.	4.	11.	10.	16.69	0.123	1.24
FYB72005	2.3	1.	3.	3.	38.	16.	4.	21.	5.	19.24	0.15	1.62
FYB72006	2.3	1.	9.	6.	11.	11.	4.	25.	15.	18.69	0.124	1.03
FYB72007	2.3	1.1	5.	3.	15.	19.	5.	20.	5.	18.61	0.114	1.63
FYB72008	2.3	0.4	1.	2.	12.	12.	1.	12.	5.	18.21	0.124	1.39
FYB72009	2.3	0.7	1.	2.	6.	19.	2.	8.	10.	16.73	0.103	2.46
FYB72010	2.3	0.5	9.	6.	7.	29.	2.	32.	5.	15.71	0.082	2.42
FYB72011	2.3	0.5	6.	2.	7.	12.	2.	14.	5.	16.7	0.091	2.31
FYB72012	2.3	0.6	1.	1.	3.	14.	2.	10.	25.	15.31	0.091	0.57
FYB72013	2.3	0.8	3.	4.	33.	25.	3.	42.	5.	17.03	0.105	3.4
FYB72014	2.3	0.7	9.	5.	14.	9.	3.	37.	5.	17.62	0.088	2.67
FYB72015	2.3	0.3	3.	4.	50.	9.	3.	35.	5.	17.25	0.075	1.11
FYB72016	2.3	0.3	5.	5.	24.	9.	4.	75.	10.	15.99	0.118	0.14
FYB72017	2.3	0.7	18.	9.	12.	7.	3.	67.	5.	16.47	0.105	2.12
FYB72018	2.3	0.9	7.	4.	29.	18.	2.	65.	5.	18.92	0.123	3.04
FYB72019	2.3	0.7	5.	6.	19.	33.	4.	81.	5.	18.53	0.086	1.08
FYB72020	2.3	0.6	5.	7.	14.	11.	3.	79.	5.	16.13	0.07	1.92
FYB72021	2.3	0.7	4.	4.	17.	17.	1.	63.	5.	14.09	0.063	3.85

SAMPLE NO.	RTYPE	AG (PPM)	AS (PPM)	B (PPM)	CU (PPM)	PB (PPM)	SB (PPM)	ZN (PPM)	AU (PPB)	AL2O3	BA	CAO
FY872022	2.3	0.8	5.	6.	55.	13.	5.	46.	5.	17.6	0.11	0.98
FY872023	2.3	1.	8.	11.	19.	12.	3.	82.	10.	15.52	0.085	5.41
FY872024	2.3	0.7	2.	2.	14.	9.	1.	44.	5.	14.99	0.08	4.16
FY872025	2.3	0.8	7.	3.	27.	9.	3.	24.	5.	15.81	0.106	1.01
FY872026	2.3	0.8	1.	2.	3.	23.	2.	20.	10.	12.41	0.077	2.71
FY872027	2.3	0.9	13.	11.	7.	12.	4.	67.	5.	16.26	0.104	2.45
FY872028	2.3	2.2	2.	5.	31.	151.	5.	48.	15.	15.69	0.094	5.09
FY872029	2.3	0.8	11.	6.	20.	14.	5.	52.	5.	17.12	0.113	1.11
FY872030	6.5	1.1	6.	14.	32.	16.	10.	130.	5.	18.51	0.092	0.14
FY872031	6.5	0.4	9.	18.	34.	12.	6.	138.	5.	16.91	0.053	0.1
FY872032	3.4	1.	3.	1.	7.	32.	2.	22.	20.	13.56	0.065	4.95
FY872033	6.5	0.4	26.	18.	37.	19.	3.	123.	5.	15.92	0.075	0.17
FY872034	6.5	0.8	3.	17.	49.	17.	6.	108.	5.	15.22	0.078	0.18
FY873000	2.4	0.7	1.	6.	22.	79.	5.	34.	10.	17.43	0.096	1.17
FY873001	3.4	0.7	11.	20.	7.	15.	11.	133.	5.	14.64	0.034	1.28
FY873002	3.4	0.9	15.	8.	12.	13.	5.	47.	5.	16.56	0.091	3.85
FY873003	3.4	0.7	11.	12.	41.	8.	7.	77.	10.	16.59	0.091	1.
FY873004	3.4	0.8	5.	5.	20.	11.	3.	44.	5.	16.04	0.104	3.95
FY873005	3.4	1.	1.	10.	17.	28.	5.	36.	5.	18.58	0.131	1.12
FY873007	3.4	1.4	4.	7.	45.	21.	5.	163.	5.	19.55	0.121	2.71
FY873008	3.4	1.	7.	5.	11.	44.	4.	173.	5.	18.39	0.127	0.5
FY873009	3.4	1.2	8.	11.	14.	11.	8.	95.	10.	18.3	0.114	3.04
FY873010	3.4	1.4	10.	9.	14.	14.	6.	54.	5.	16.86	0.095	3.98
FY873011	3.4	0.9	6.	1.	5.	12.	1.	15.	5.	14.11	0.142	3.38
FY873012	3.4	0.6	1.	8.	12.	12.	5.	76.	5.	17.66	0.15	0.13
FY873013	3.4	0.8	16.	9.	18.	11.	5.	77.	5.	18.11	0.096	1.35
FY873014	3.4	0.9	18.	1.	6.	17.	2.	9.	5.	16.	0.082	1.43
FY873015	3.4	0.8	2.	8.	5.	21.	3.	47.	5.	16.55	0.138	0.61
FY873016	3.4	0.7	2.	10.	56.	12.	2.	155.	10.	21.2	0.142	2.68
FY873017	3.4	1.2	3.	9.	15.	103.	2.	60.	5.	19.19	0.121	4.28
FY873018	3.4	0.7	2.	13.	8.	9.	6.	86.	5.	20.18	0.144	0.71
FY873019	3.4	0.9	14.	8.	26.	35.	4.	59.	5.	16.77	0.123	3.12
FY873020	3.4	0.9	7.	27.	6.	11.	3.	34.	5.	17.9	0.097	4.08
FY873021	3.4	1.	5.	8.	14.	9.	5.	61.	5.	15.79	0.083	3.03
FY873022	6.5	0.8	9.	18.	53.	14.	11.	120.	5.	17.63	0.072	0.12
FY873023	6.5	0.8	11.	14.	47.	11.	10.	90.	5.	15.66	0.068	0.18

SAMPLE NO.	FE203	K2O	MGO	MNO2	NA2O	SI02	SR	TIO2	ZR	TOT(%)
FY871000	2.46	3.9	0.72	0.25	1.96	62.32	0.06	0.23	0.01	91.53
FY871001	6.99	2.34	1.41	0.02	0.78	67.92	0.03	0.66	0.012	95.41
FY871002	2.77	6.59	1.48	0.11	0.58	63.58	0.02	0.35	0.016	97.46
FY871003	4.75	4.04	1.6	0.16	2.98	58.03	0.05	0.49	0.012	95.03
FY871004	4.04	3.32	1.28	0.02	3.07	67.95	0.03	0.5	0.009	97.58
FY871005	3.5	4.47	0.88	0.08	2.15	66.12	0.03	0.43	0.01	95.98
FY871006	4.9	4.26	0.72	0.15	2.76	63.51	0.02	0.45	0.011	96.01
FY871007	3.17	4.01	0.6	0.12	2.28	69.43	0.03	0.26	0.009	95.93
FY871008	2.93	4.34	0.67	0.06	3.11	64.18	0.02	0.47	0.009	95.7
FY871009	5.31	5.97	1.38	0.06	2.91	57.25	0.01	0.62	0.019	97.22
FY871010	6.42	6.13	1.11	0.19	2.61	53.95	0.03	0.56	0.018	95.12
FY871011	3.03	4.69	0.82	0.07	2.56	64.78	0.03	0.49	0.01	96.22
FY871012	6.56	5.31	1.44	0.19	2.03	56.55	0.03	0.5	0.012	95.53
FY871013	5.94	4.83	1.69	0.15	3.25	56.15	0.03	0.54	0.015	96.11
FY871014	0.8	1.09	0.15	0.01	0.01	90.95	0.01	0.13	0.005	97.25
FY871015	1.94	3.54	0.49	0.1	1.95	70.16	0.03	0.25	0.007	95.39
FY871016	1.15	0.84	0.13	0.02	0.04	92.61	0.	0.1	0.005	97.47
FY871017	2.33	2.52	0.31	0.07	3.64	73.99	0.01	0.26	0.005	97.53
FY871018	1.98	5.91	1.03	0.02	1.8	66.23	0.01	0.35	0.009	97.67
FY871019	1.19	2.	0.35	0.12	4.7	69.33	0.04	0.25	0.007	95.23
FY871020	2.51	3.14	0.9	0.11	1.31	71.32	0.02	0.51	0.009	95.17
FY871021	4.15	3.44	0.58	0.13	3.14	65.57	0.02	0.4	0.01	96.03
FY871022	3.04	3.98	0.66	0.11	2.87	65.28	0.02	0.46	0.013	95.53
FY871023	4.62	3.41	1.03	0.12	2.82	66.55	0.02	0.41	0.015	97.03
FY871024	2.14	4.6	1.08	0.06	0.85	73.31	0.01	0.28	0.011	97.71
FY871025	1.14	2.09	0.36	0.02	4.28	75.27	0.01	0.26	0.	97.51
FY871026	4.16	3.1	0.75	0.13	2.9	64.34	0.02	0.37	0.009	94.88
FY871027	4.33	3.16	1.03	0.09	3.68	65.96	0.03	0.28	0.008	96.1
FY871028	1.92	3.55	0.95	0.07	1.53	69.23	0.03	0.24	0.009	94.71
FY871029	2.49	5.5	1.42	0.04	0.86	68.03	0.02	0.28	0.007	96.63
FY871030	0.63	1.3	0.09	0.	4.13	79.06	0.01	0.27	0.005	97.59
FY871031	1.54	0.09	0.17	0.08	0.04	95.82	0.	0.02	0.	98.46
FY871032	0.76	4.04	0.14	0.	1.34	73.08	0.01	0.64	0.	97.46
FY871033	4.46	3.38	0.93	0.22	1.21	59.18	0.03	0.47	0.	92.93
FY871034	10.2	4.11	2.93	0.03	0.74	58.42	0.01	1.1	0.014	96.74
FY871035	2.59	4.59	1.04	0.05	2.68	67.16	0.03	0.29	0.014	96.58
FY871036	3.47	5.77	1.01	0.04	1.64	64.73	0.01	0.79	0.01	97.58
FY871037	3.71	6.37	0.91	0.01	1.5	64.9	0.01	0.77	0.01	97.62
FY872000	4.18	3.51	1.26	0.13	2.12	60.81	0.05	0.45	0.009	93.18
FY872001	5.68	4.94	0.91	0.13	2.23	64.77	0.02	0.48	0.011	97.55
FY872002	4.2	5.18	1.2	0.09	2.34	64.89	0.03	0.47	0.008	97.39
FY872003	5.27	5.21	0.79	0.17	3.38	58.81	0.02	0.48	0.012	96.37
FY872004	3.07	4.78	0.75	0.06	2.5	66.95	0.02	0.44	0.008	96.62
FY872005	5.03	4.49	0.76	0.13	3.86	60.63	0.02	0.51	0.013	96.44
FY872006	4.16	4.78	0.88	0.11	2.99	64.12	0.02	0.51	0.012	97.42
FY872007	3.7	4.91	0.91	0.07	3.13	63.74	0.02	0.5	0.011	97.35
FY872008	2.77	4.77	0.89	0.06	3.45	65.42	0.02	0.48	0.011	97.6
FY872009	2.26	3.98	0.76	0.04	3.85	64.45	0.04	0.44	0.009	95.13
FY872010	5.32	3.35	1.04	0.12	2.74	64.26	0.03	0.41	0.01	95.51
FY872011	2.65	3.88	0.81	0.07	3.38	65.01	0.03	0.44	0.008	95.37
FY872012	2.21	3.54	0.6	0.08	3.11	71.93	0.02	0.29	0.007	97.75
FY872013	4.61	4.32	1.2	0.11	1.88	62.3	0.03	0.45	0.007	95.43
FY872014	4.5	4.16	1.21	0.09	2.34	63.01	0.02	0.46	0.009	96.18
FY872015	4.55	3.57	0.82	0.11	3.09	66.38	0.02	0.44	0.006	97.42
FY872016	5.84	3.3	0.6	0.05	2.61	68.4	0.01	0.41	0.011	97.48
FY872017	7.44	2.89	1.01	0.23	2.76	62.58	0.03	0.41	0.008	96.05
FY872018	4.45	4.11	0.77	0.08	2.93	62.4	0.02	0.49	0.016	97.37
FY872019	6.56	3.22	0.75	0.1	3.44	63.09	0.02	0.48	0.009	97.36
FY872020	7.	2.54	0.75	0.09	3.23	63.85	0.02	0.41	0.005	96.02
FY872021	6.88	2.27	0.54	0.16	2.55	64.3	0.02	0.37	0.005	95.09

SAMPLE NO.	FE203	K2O	MGO	MNO2	NA2O	SI02	SR	TIO2	ZR	TOT(%)
FY872022	5.55	3.52	0.73	0.11	3.17	64.61	0.02	0.43	0.008	96.84
FY872023	8.1	2.79	1.14	0.26	2.41	57.33	0.04	0.39	0.01	93.46
FY872024	5.07	3.12	1.01	0.15	2.75	62.86	0.03	0.37	0.008	94.59
FY872025	3.05	4.54	0.88	0.08	0.97	70.69	0.01	0.42	0.008	97.58
FY872026	2.26	3.58	0.62	0.1	1.19	72.14	0.03	0.23	0.005	95.35
FY872027	7.26	2.73	1.29	0.16	2.7	62.	0.02	0.41	0.008	95.39
FY872028	3.34	3.06	0.75	0.15	2.84	62.06	0.04	0.38	0.009	93.51
FY872029	5.27	4.14	0.88	0.05	2.5	64.89	0.02	0.43	0.003	96.53
FY872030	7.46	3.9	2.69	0.01	0.74	62.84	0.01	1.24	0.015	97.64
FY872031	8.12	3.17	3.23	0.08	1.08	63.74	0.01	1.07	0.01	97.58
FY872032	2.16	1.64	0.59	0.15	4.83	65.63	0.06	0.25	0.012	93.9
FY872033	7.55	3.21	2.28	0.05	0.8	66.4	0.	1.09	0.016	97.58
FY872034	6.69	3.49	2.02	0.04	1.08	67.82	0.01	0.97	0.013	97.6
FY873000	4.35	4.37	0.82	0.06	2.13	66.74	0.01	0.44	0.01	97.64
FY873001	13.89	1.4	1.64	0.13	2.45	60.94	0.01	0.39	0.007	96.82
FY873002	5.8	3.63	0.94	0.18	2.36	60.72	0.03	0.41	0.011	94.57
FY873003	7.44	2.94	1.06	0.08	2.91	64.23	0.01	0.43	0.009	96.79
FY873004	5.22	3.11	0.6	0.15	3.35	60.77	0.02	0.38	0.01	93.74
FY873005	4.32	3.81	0.73	0.08	3.24	64.38	0.02	0.46	0.009	96.88
FY873007	4.09	5.1	0.72	0.12	2.69	61.06	0.02	0.6	0.008	96.8
FY873008	2.44	4.34	0.67	0.09	3.04	67.74	0.01	0.34	0.011	97.68
FY873009	6.09	3.73	1.32	0.12	2.74	59.18	0.03	0.48	0.016	95.15
FY873010	7.64	3.56	2.14	0.29	2.98	56.13	0.02	0.53	0.009	94.25
FY873011	2.65	4.85	1.	0.18	1.2	67.97	0.03	0.25	0.007	95.76
FY873012	6.47	4.23	1.81	0.06	2.26	64.39	0.01	0.31	0.018	97.49
FY873013	7.85	3.83	1.41	0.12	2.29	60.87	0.02	0.47	0.01	96.43
FY873014	1.76	3.27	0.89	0.04	4.21	69.52	0.03	0.38	0.005	97.61
FY873015	3.24	3.86	0.92	0.06	3.38	68.5	0.02	0.3	0.006	97.59
FY873016	8.2	3.85	1.39	0.08	3.23	54.59	0.03	0.78	0.012	96.19
FY873017	5.06	3.21	0.92	0.18	2.78	57.6	0.03	0.54	0.009	93.92
FY873018	7.18	3.27	1.43	0.1	2.67	61.26	0.02	0.53	0.016	97.52
FY873019	5.69	3.21	1.59	0.14	2.65	62.3	0.02	0.4	0.01	96.04
FY873020	3.97	4.38	1.55	0.12	2.14	59.7	0.03	0.45	0.006	94.43
FY873021	7.21	3.21	1.07	0.22	2.52	61.9	0.02	0.39	0.011	95.46
FY873022	7.9	3.49	2.24	0.04	1.54	63.08	0.01	1.03	0.01	97.17
FY873023	7.1	3.27	2.42	0.02	1.21	65.84	0.01	1.36	0.015	97.16



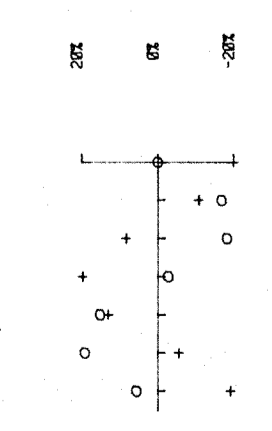
BASELINE

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

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FIG.2

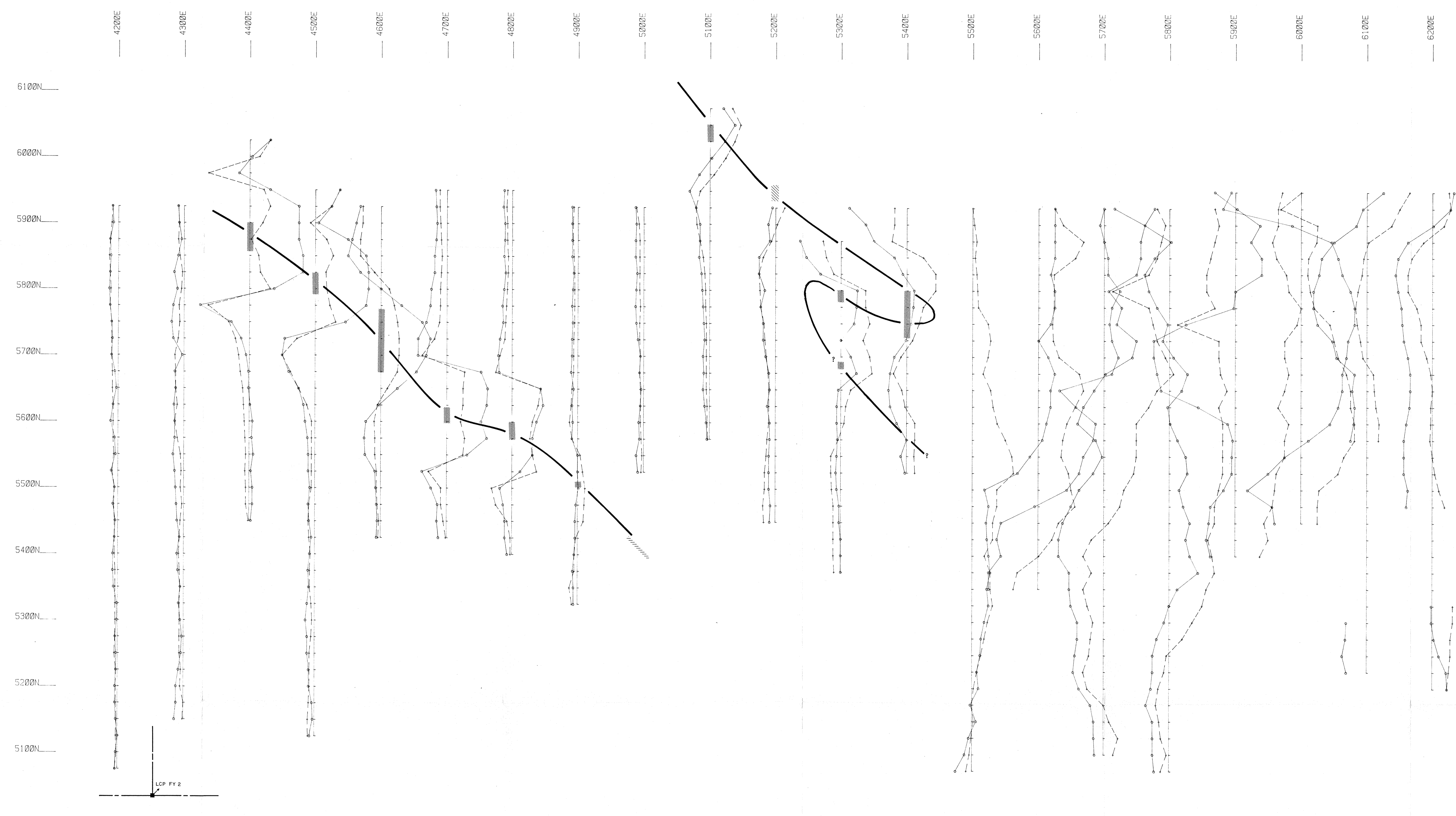
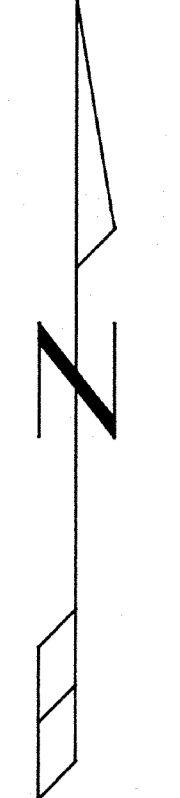
ANOMALY
 Defined
 Poorly defined



CLAIM POST LOCATED WITH RESPECT TO GRID

Instrument : M80MIN II
 Coil Spacing : 15m
 Vertical Scale: 1 cm = 200
 Frequency : 444 Hz
 In Phase : - - - - -
 Quadrature : + + + + +

MINNOVA, INC.	
HLEM SURVEY FREQ. 444 HERTZ PROJECT: F.Y. BASELINE AZIMUTH : 90 Deg.	
SCALE = 1: 2500	DATE : 10/18/87
SURVEY BY : DR	NTS : 82M
FILE: LIFY M W H Geophysics Ltd.	



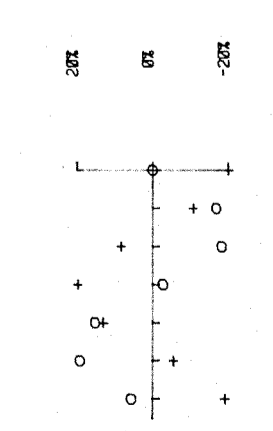
BASELINE

**GEOLOGICAL BRANCH
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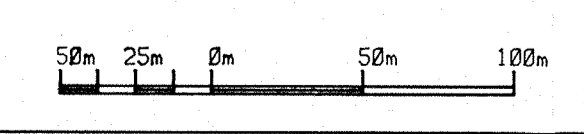
FIG.3

ANOMALY
 ■ Defined
 ▨ Poorly defined



CLAIM POST LOCATED WITH RESPECT TO GRID

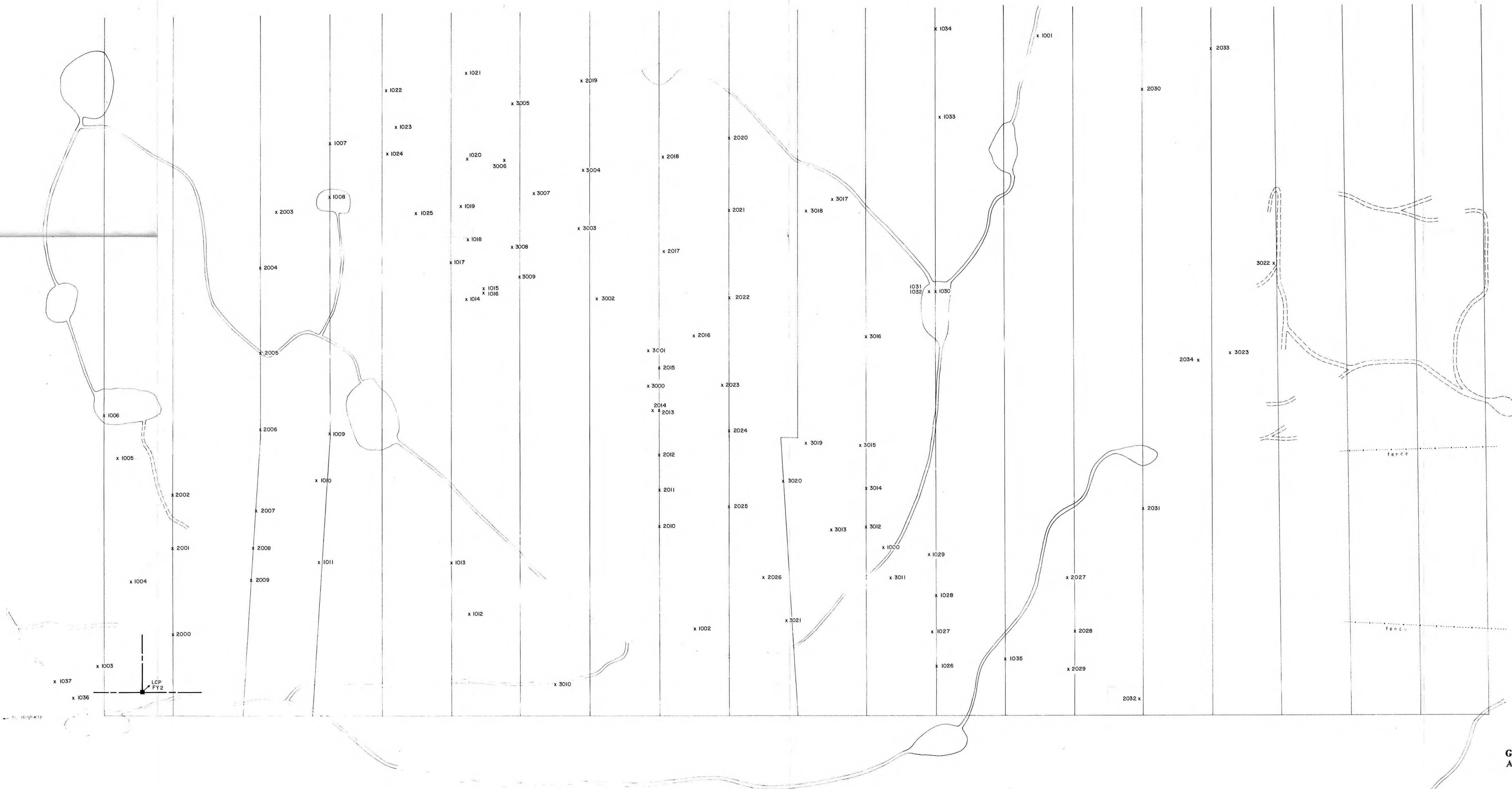
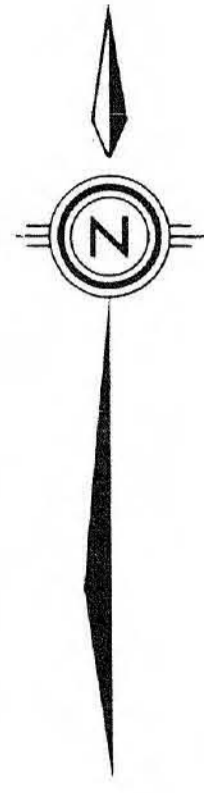
Instrument : MOKIN II
 Coil Spacing : 150m
 Vertical Scale : 1 cm = 20m
 Frequency : 1777 Hz
 In Phase : - - - -
 Quadrature : + + + +



MINNOVA, INC.	
HLEM SURVEY FREQ. 1777 HERTZ PROJECT: F.Y.	
BASELINE AZIMUTH : 90 Deg.	
SCALE = 1 : 2500	DATE : 10/18/87
SURVEY BY : DR	NTS : 82M
FILE: HIFY M W H Geophysics Ltd.	

L 42E L 43E L 44E L 45E L 46E L 47E L 48E L 49E L 50E L 51E L 52E L 53E L 54E L 55E L 56E L 57E L 58E L 59E L 60E L 61E L 62E

60N
59N
58N
57N
56N
55N
54N
53N
52N
51N
BL 50N

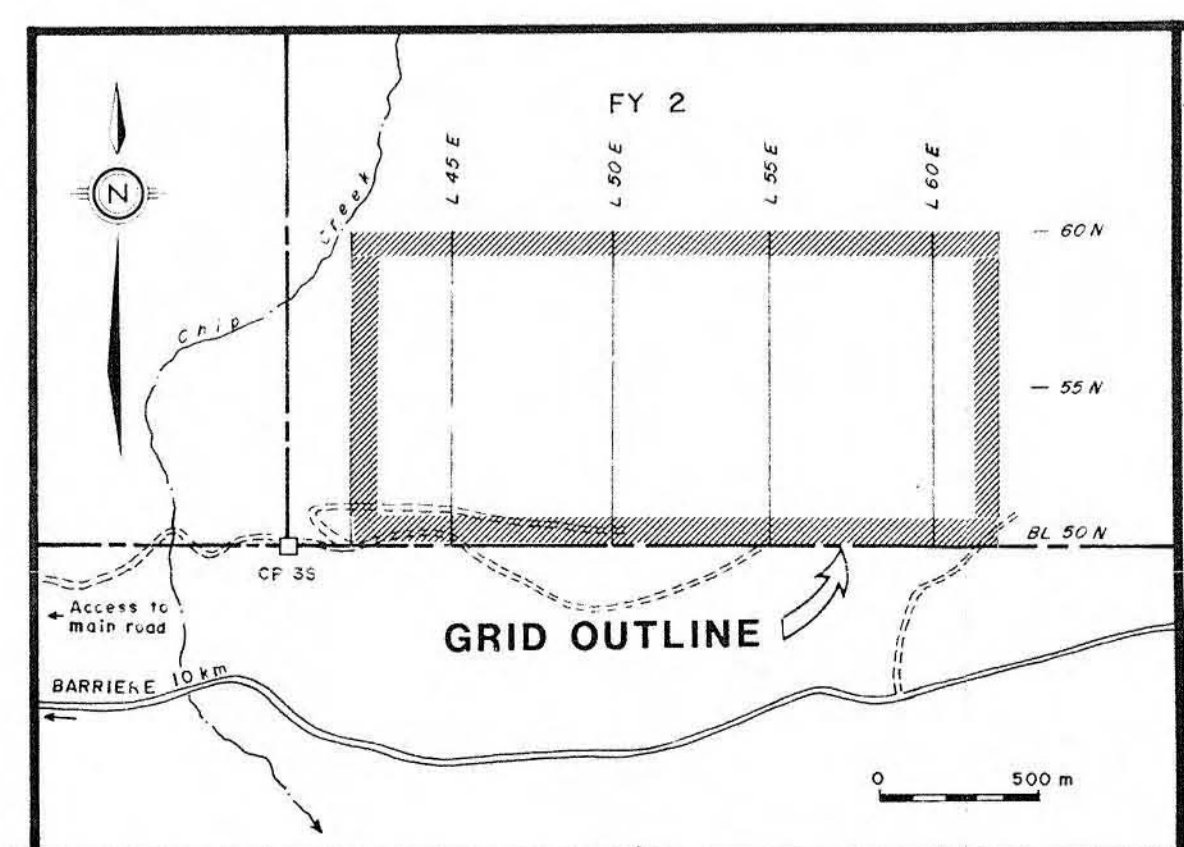


GEOLOGICAL BRANCH
ASSESSMENT REPORT

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x 2034
sample location

CLAIM POST LOCATED WITH RESPECT TO GRID.



MINNOVA Inc.	
BAR PROJECT	
FY CLAIMS	
LITHOGEOCHEMISTRY	
SAMPLE LOCATIONS	
0 50 100 250m SCALE: 1:2500	
DRAWN BY: IP/sg	FIG. NO.: 4
DATE: MAR.1988	N.T.S. 82M/5W

L 42E

L 43E

L 44E

L 45E

L 46E

L 47E

L 48E

L 49E

L 50E

L 51E

L 52E

L 53E

L 54E

L 55E

L 56E

L 57E

L 58E

L 59E

L 60E

L 61E

L 62E

60N

59N

58N

57N

56N

55N

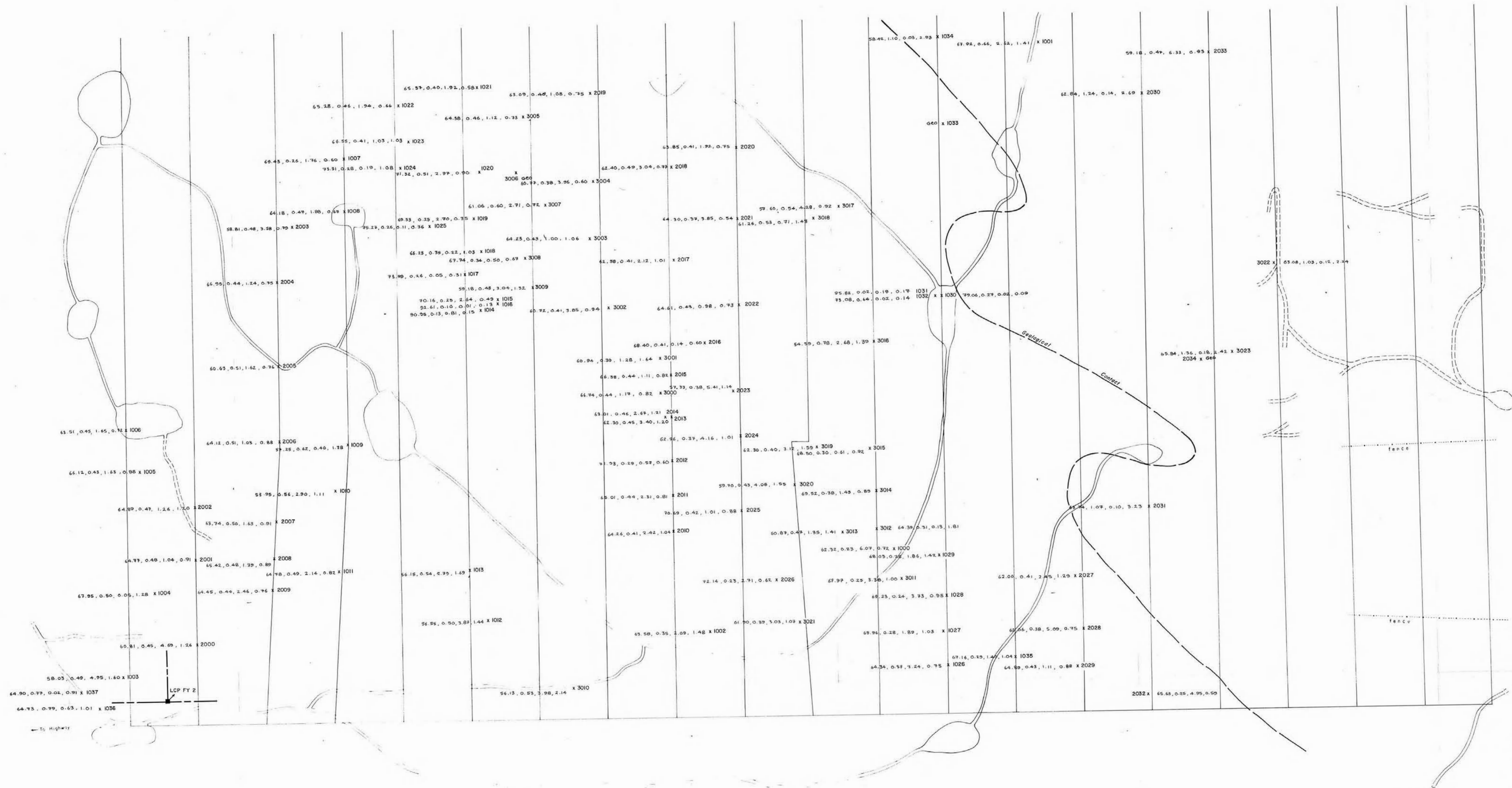
54N

53N

52N

51N

BL 50N

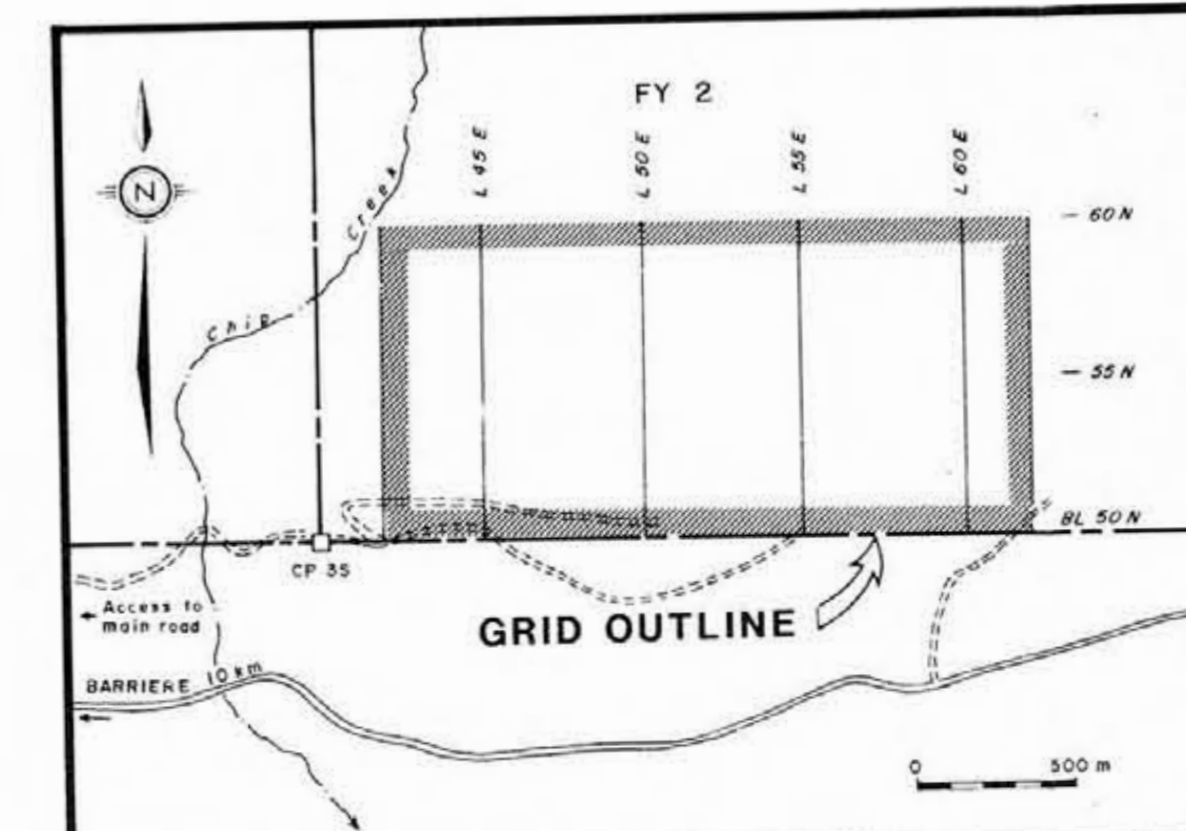


GEOLOGICAL BRANCH
ASSESSMENT REPORT

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65.74, 0.09, 0.10, 3.25 x 2031
SiO₂, TiO₂, MgO, MgO % sample location

CLAIM POST LOCATED WITH RESPECT TO GRID



MINNOVA Inc.

BAR PROJECT
FY CLAIMS
LITHOGEOCHEMISTRY

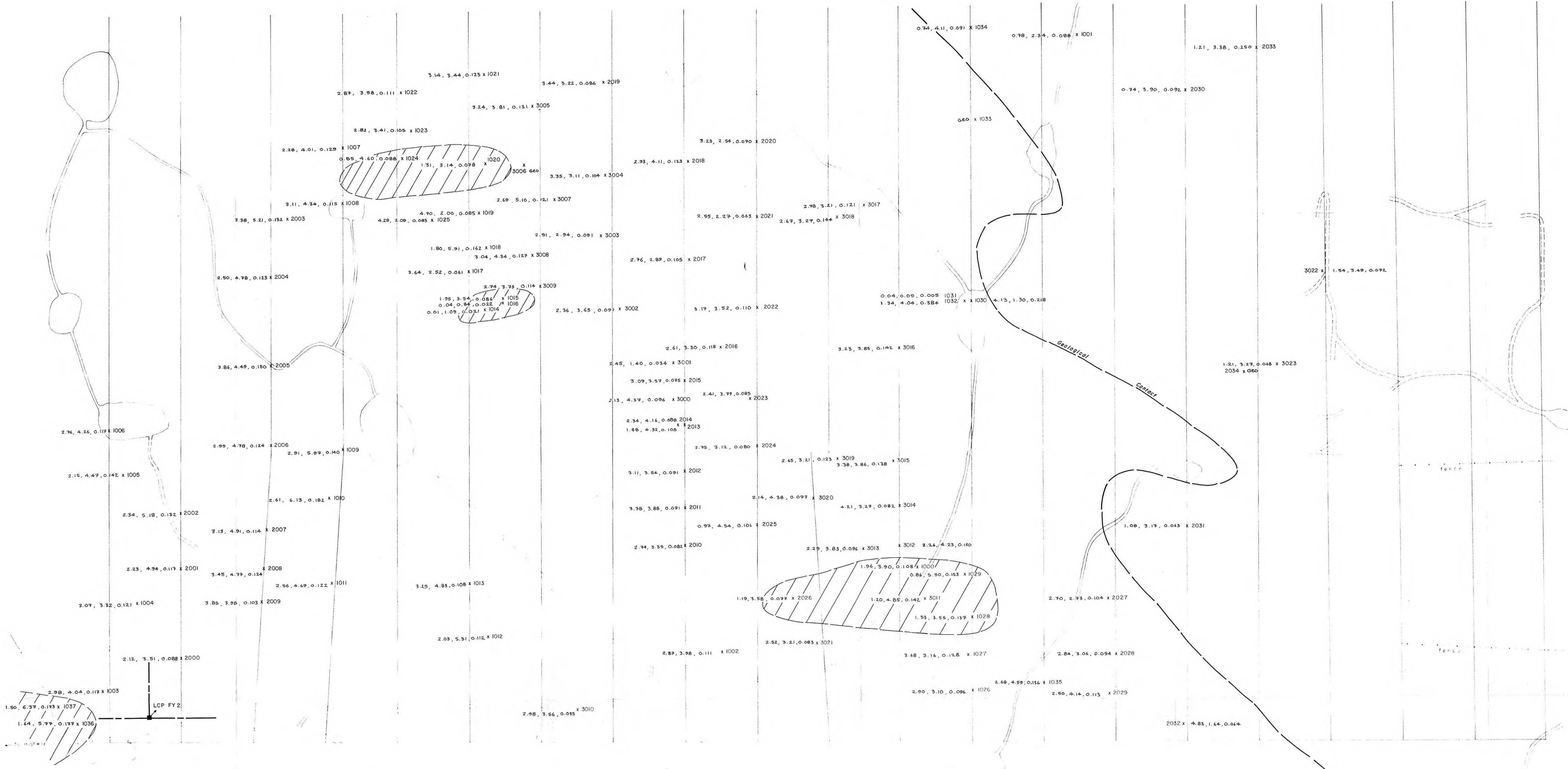
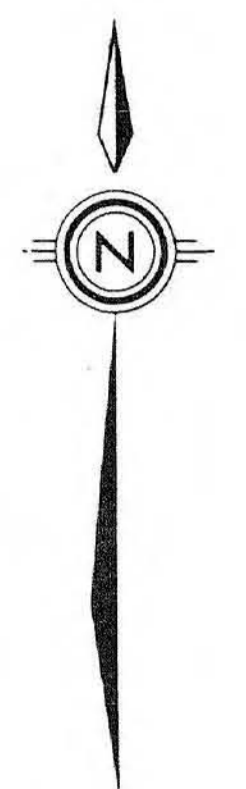
SiO₂, TiO₂, CaO, MgO %

0 50 100 250m
SCALE: 1:2500

DRAWN BY: IP/sg
DATE: MAR.1988
N.T.S. 82M/5W
FIG. NO.:
5

L 42E L 43E L 44E L 45E L 46E L 47E L 48E L 49E L 50E L 51E L 52E L 53E L 54E L 55E L 56E L 57E L 58E L 59E L 60E L 61E L 62E

60N
59N
58N
57N
56N
55N
54N
53N
52N
51N
BL 50N

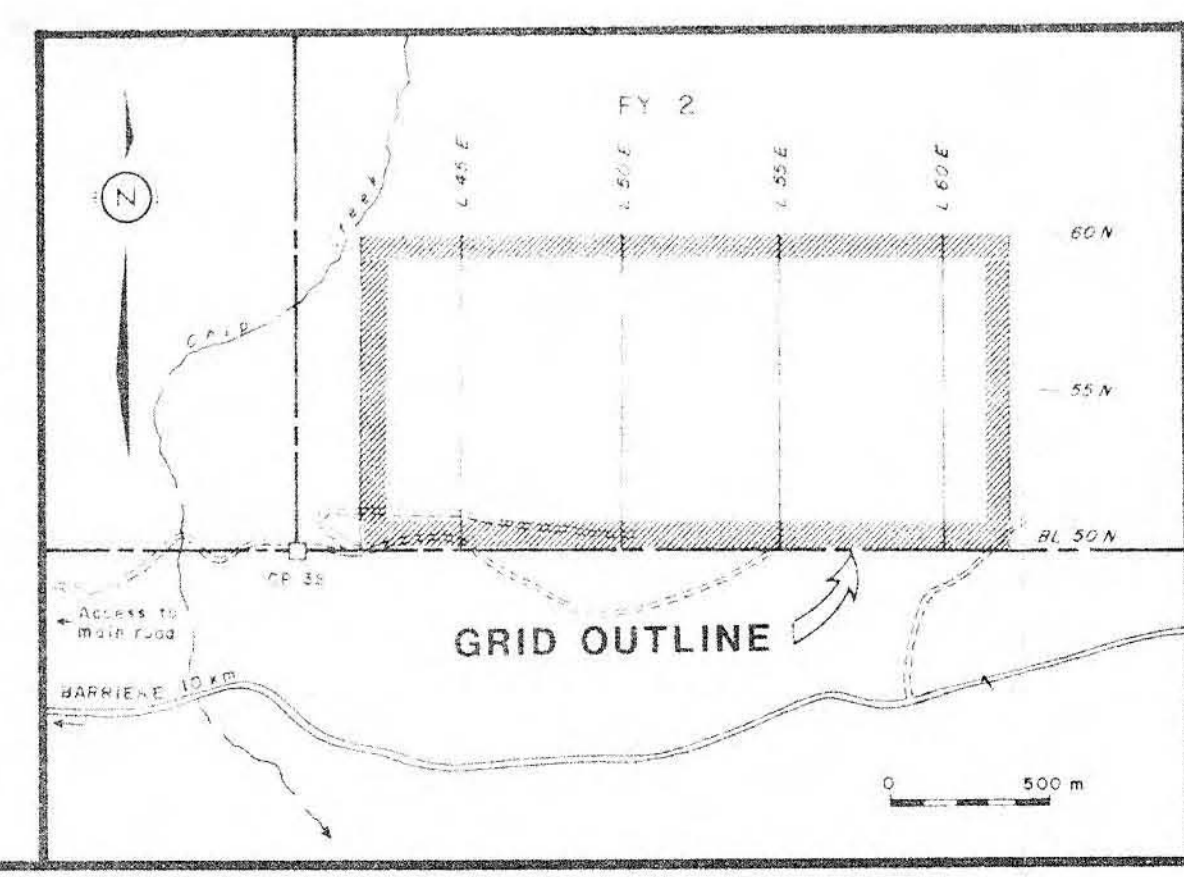


**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

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Possible Na₂O depletion
1.08, 3.17, 0.043 x 2031
Na₂O, K₂O, Ba % sample location

CLAIM POST LOCATED WITH RESPECT TO GRID



MINNOVA Inc.

BAR PROJECT
FY CLAIMS
LITHOGEOCHEMISTRY
Na₂O, K₂O, Ba %

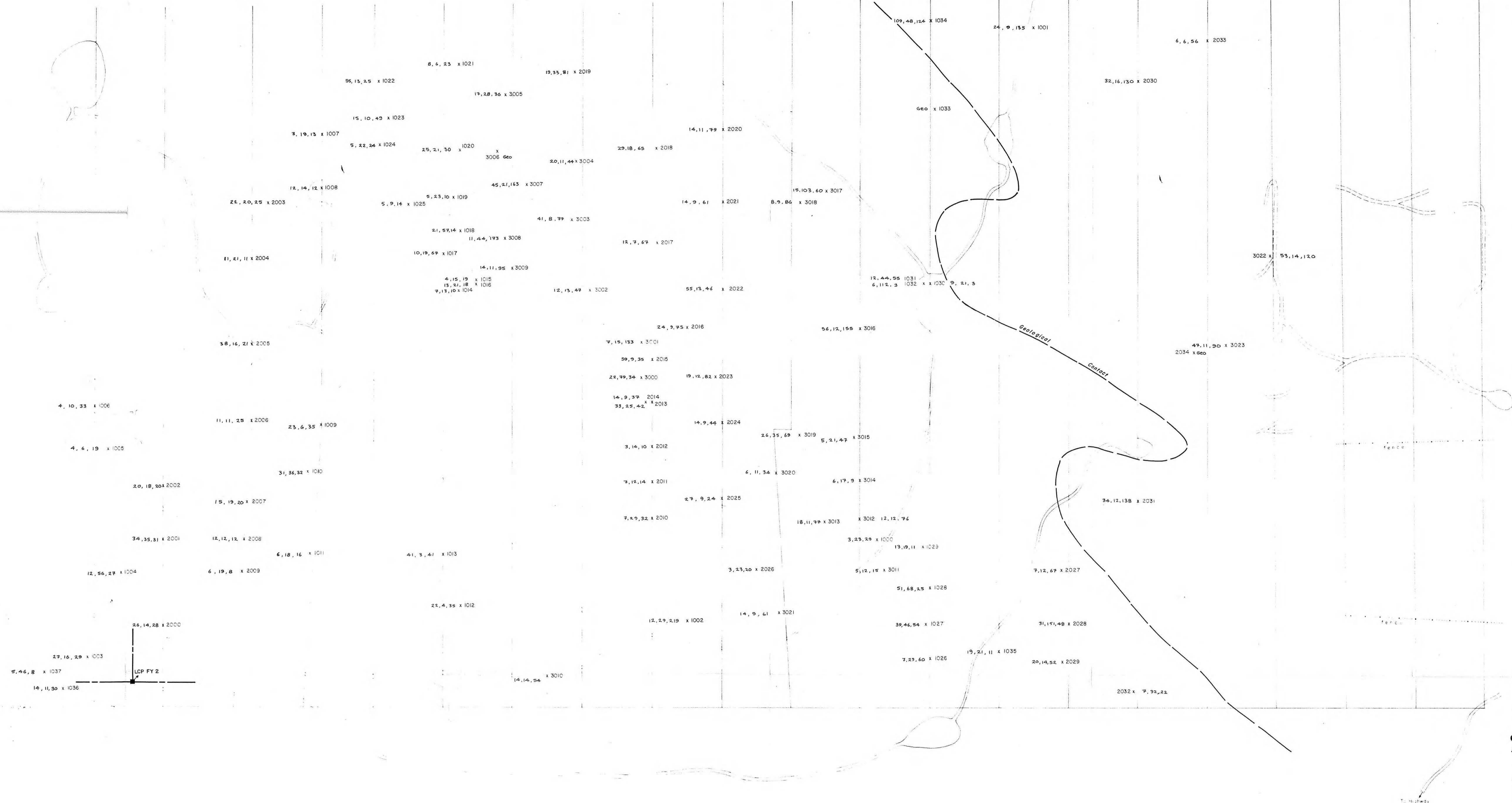
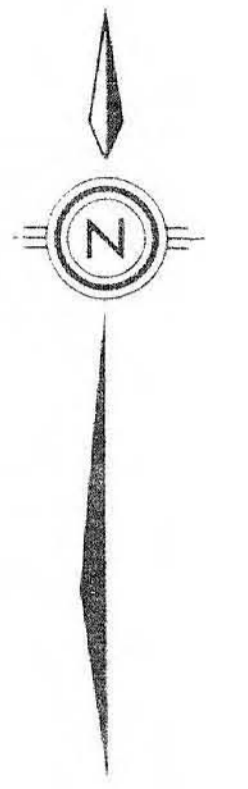
0 50 100 250m
SCALE: 1:2500

DRAWN BY: IP/sg
DATE: MAR, 1988 N.T.S. 82M/5W

FIG. NO.:
6

L 42E L 43E L 44E L 45E L 46E L 47E L 48E L 49E L 50E L 51E L 52E L 53E L 54E L 55E L 56E L 57E L 58E L 59E L 60E L 61E L 62E

60N
59N
58N
57N
56N
55N
54N
53N
52N
51N

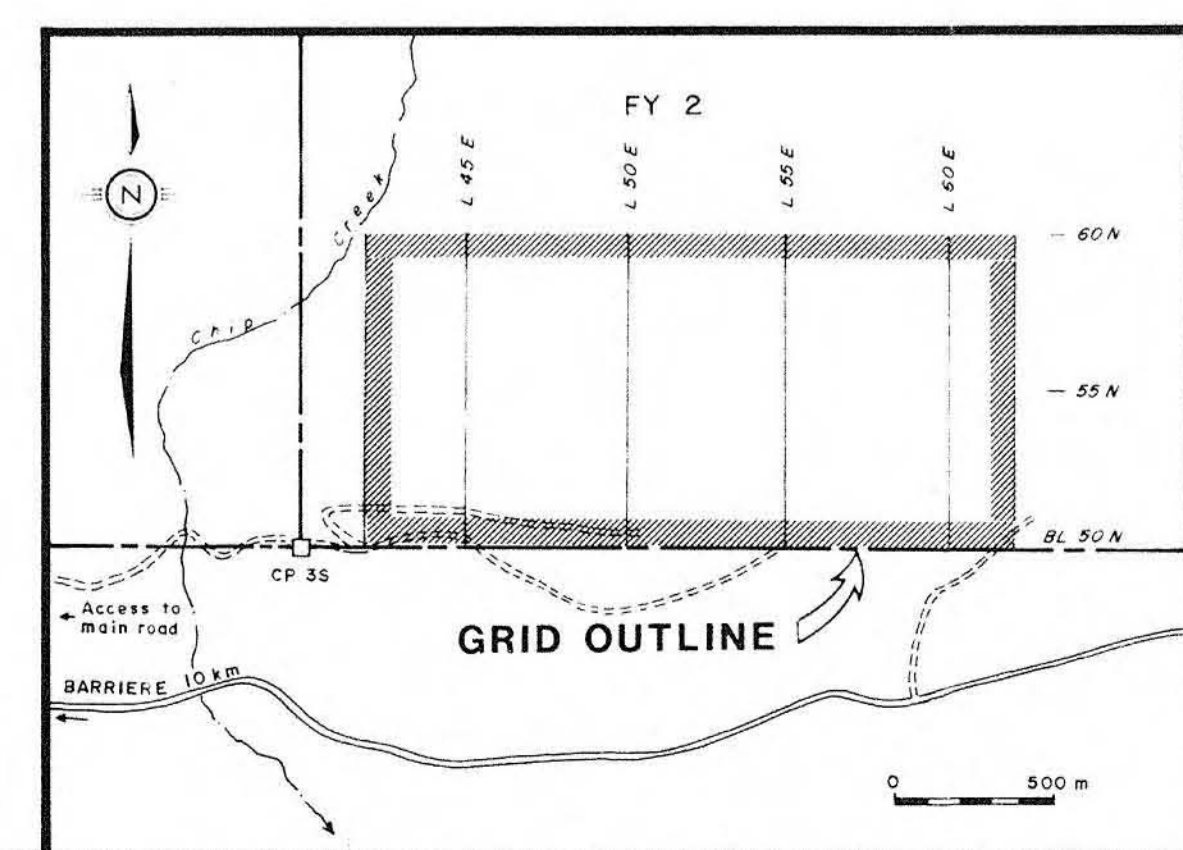


BL 50N
GEOLOGICAL BRANCH
ASSESSMENT REPORT

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34, 12, 15B x 2031
Cu, Pb, Zn ppm sample location

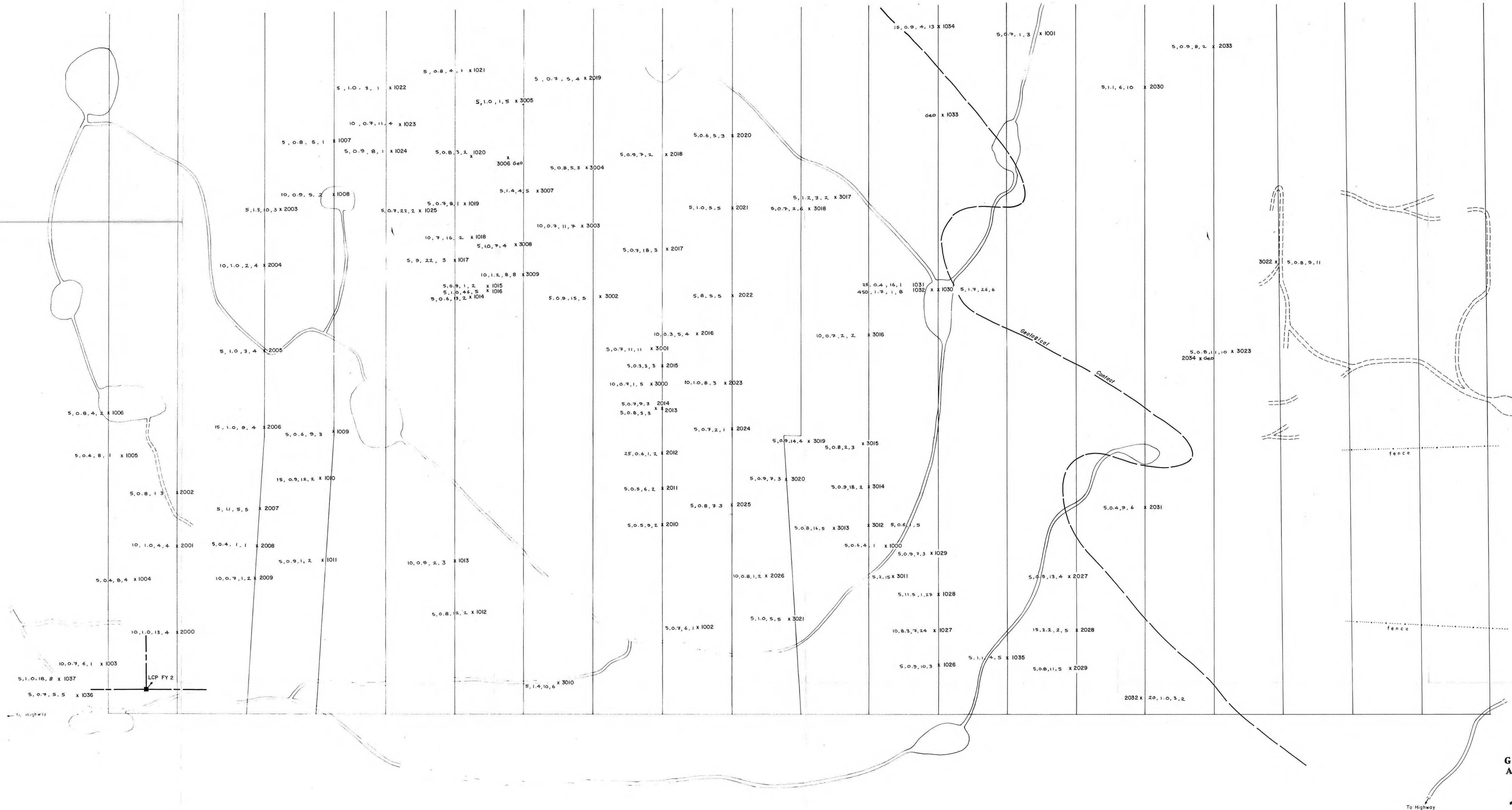
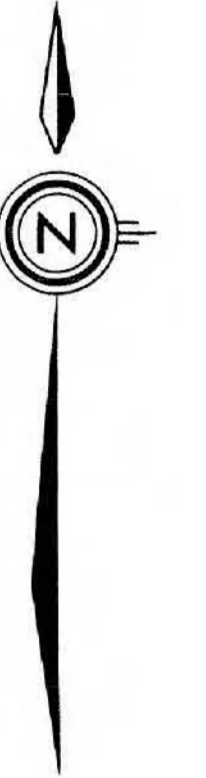
CLAIM POST LOCATED WITH RESPECT TO GRID



MINNOVA Inc.	
BAR PROJECT	
FY CLAIMS	
LITHOGEOCHEMISTRY	
Cu, Pb, Zn ppm	
 SCALE: 1:2500	
DRAWN BY: JP/sg	FIG. NO.: 7
DATE: MAR. 1988	N.T.S. 82M/5W

L 42E L 43E L 44E L 45E L 46E L 47E L 48E L 49E L 50E L 51E L 52E L 53E L 54E L 55E L 56E L 57E L 58E L 59E L 60E L 61E L 62E

60N
59N
58N
57N
56N
55N
54N
53N
52N
51N
BL 50N

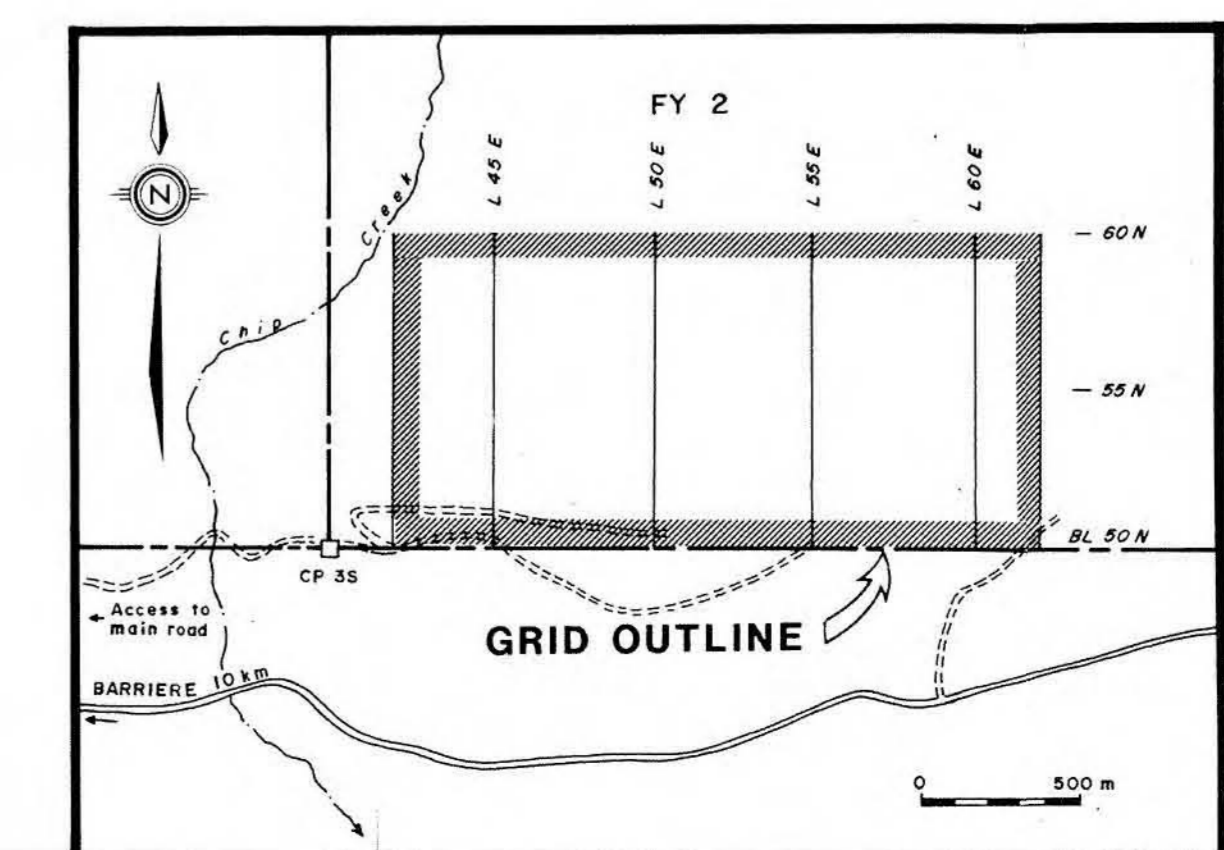


GEOLOGICAL BRANCH
ASSESSMENT REPORT

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5.0.4.9.6 x 2031
Au ppb, Ag, As, Sb ppm sample location

CLAIM POST LOCATED WITH RESPECT TO GRID



MINNOVA Inc.

BAR PROJECT
FY CLAIMS
LITHOGEOCHEMISTRY
Au ppb, Ag, As, Sb ppm

SCALE: 1:2500

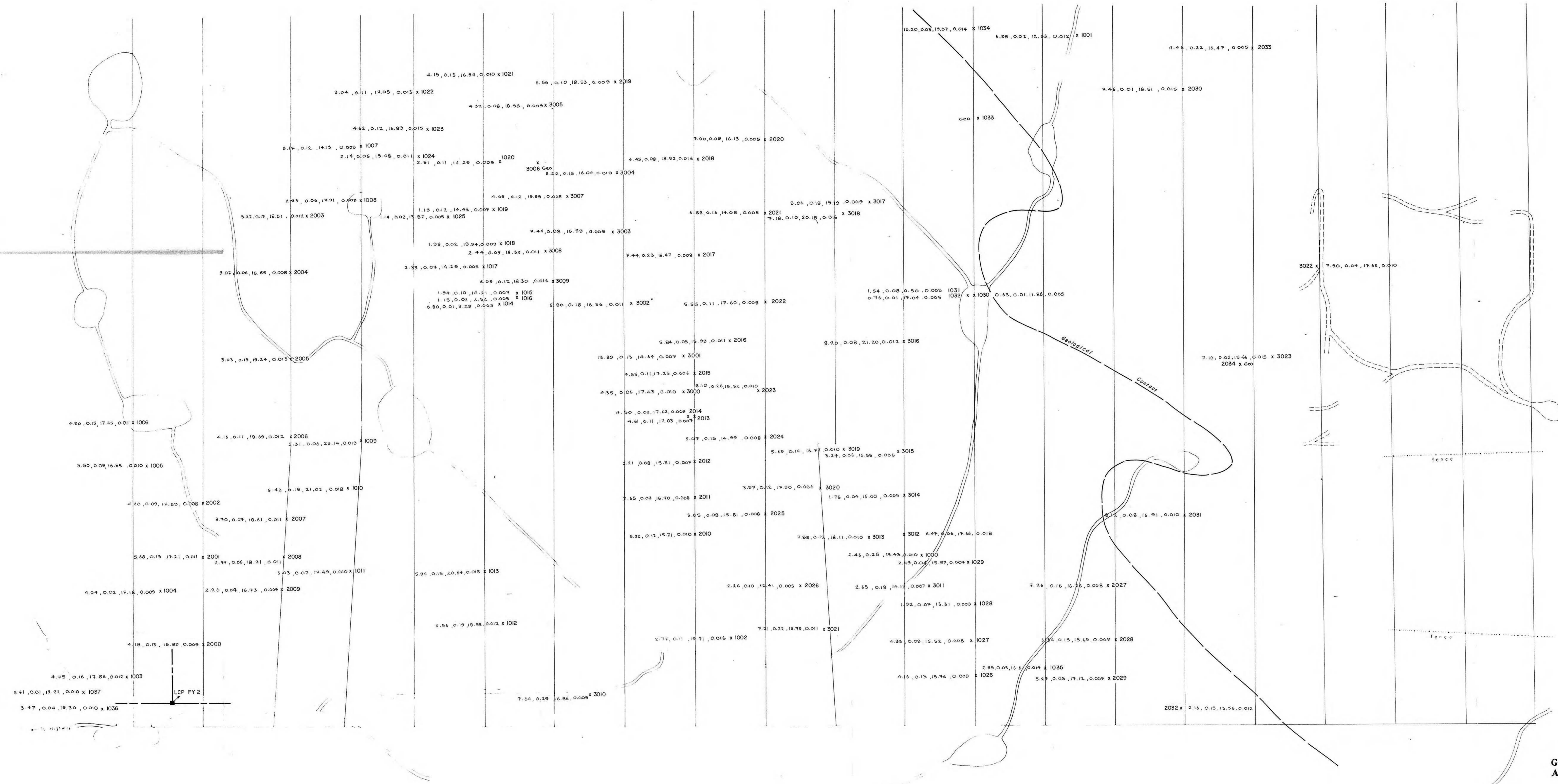
0 50 100 250m

FIG. NO.: 8

DRAWN BY: IP/sg
DATE: MAR. 1988 N.T.S. 82M/5W

L 42E L 43E L 44E L 45E L 46E L 47E L 48E L 49E L 50E L 51E L 52E L 53E L 54E L 55E L 56E L 57E L 58E L 59E L 60E L 61E L 62E

60N
59N
58N
57N
56N
55N
54N
53N
52N
51N
BL 50N

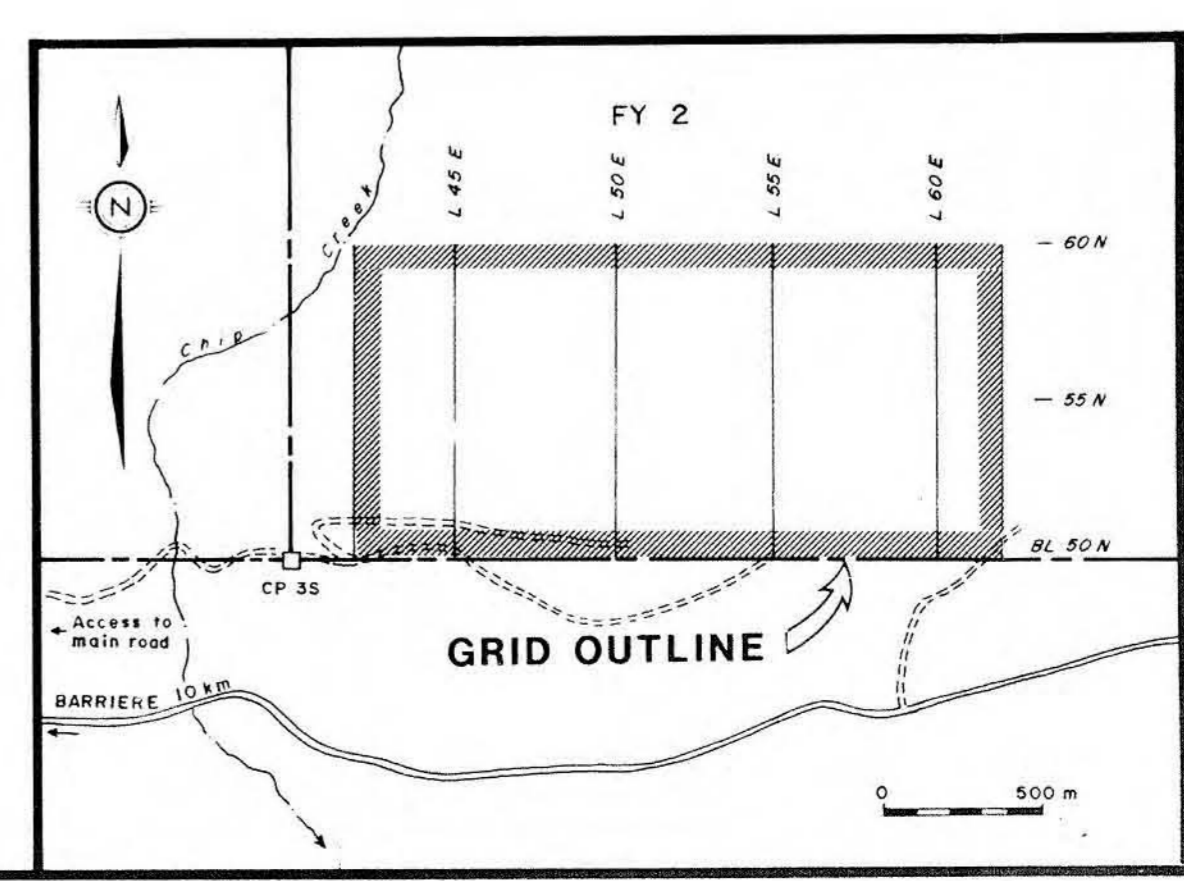


GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,264

9.12, 0.08, 16.91, 0.010 x 2031
Fe2O3, MnO2, Al2O3, Zr % sample location

CLAIM POST LOCATED WITH RESPECT TO GRID



MINNOVA Inc.	
BAR PROJECT	
FY CLAIMS	
LITHOGEOCHEMISTRY	
Fe2O3, MnO2, Al2O3, Zr %	
0 50 100 250m SCALE: 1:2500	
	DRAWN BY: IP/sg DATE: MAR.1988 N.T.S. 82M/5W
FIG. NO.:	9