

AUG 27 1987

MINNOVA

MEMORANDUM

DATE: August 21, 1987

TO: A.J. Davidson

COPIES TO: D.H. Watkins

DE FROM: C. Burge

SUJET SUBJECT: Proposed Diamond Drill Program, Britannia Option, Furry-Clipper Divide area

826140

INTRODUCTION

820 metres of diamond drilling is proposed to test Britannia Mine stratigraphy four kilometers east of the former producer. The target is a precious metal rich VMS deposit hosted within mineralized sericitized pyroclastic rocks.

GEOLOGY

Last fall's drill program identified two zinc-rich exhalite horizons within pyroclastic rocks immediately below a coarse dacite tuff-breccia and above a soda-depleted felsic flow/dome. Summer field mapping and sampling has traced this package a further 400 metres to the east where extensive chalcopyrite, pyrite and sphalerite stringer systems were discovered in very old pits and adits. Proposed drill holes P1, P2 and P6 will test this stratigraphic package within the south limb of a northwest plunging anticline and in particular strike extensions of exhalite and bedded pyrite encountered in the 1986 (FC-02, FC-03, FC-04) Watershed drill program.

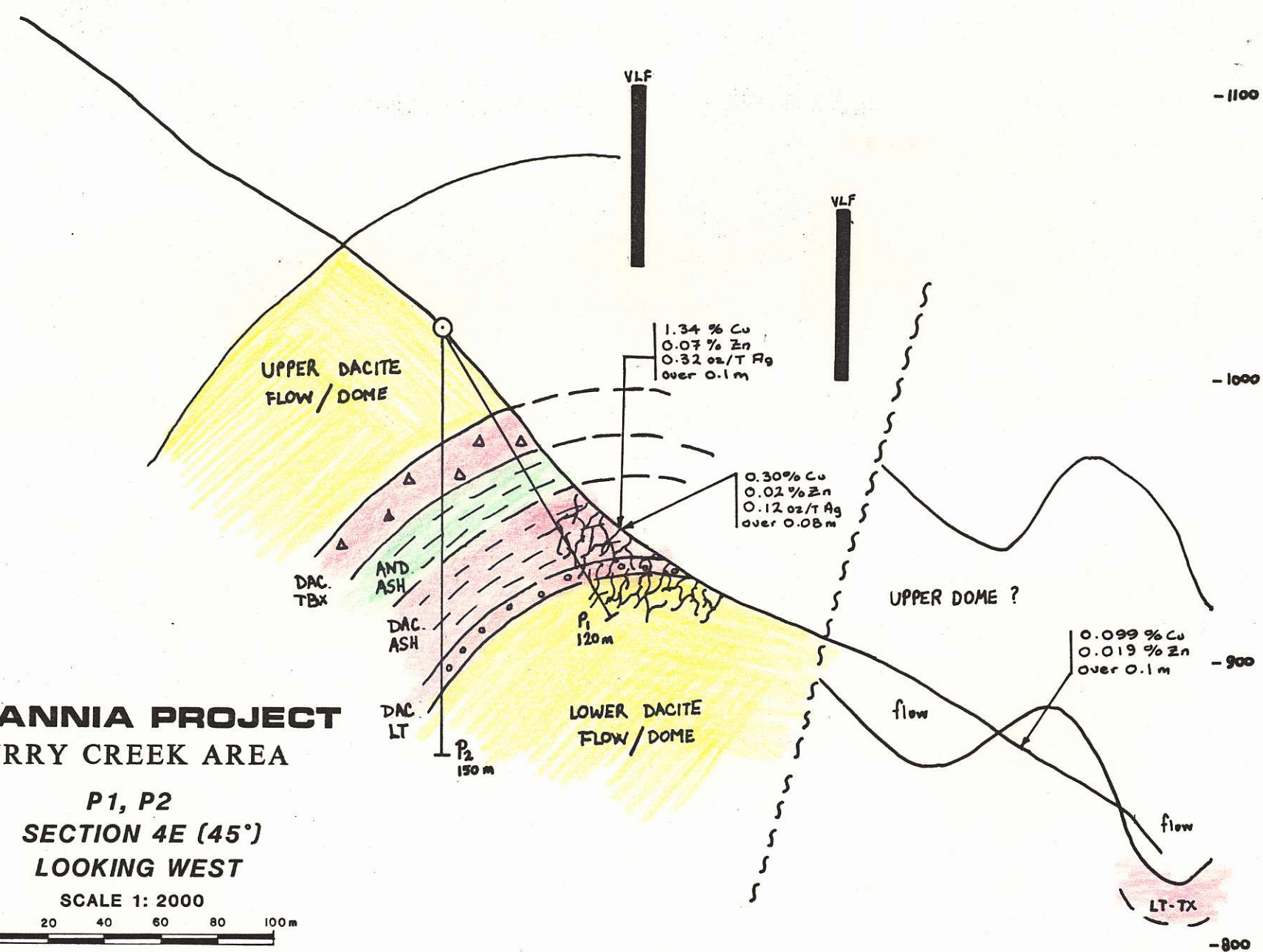
Proposed holes P3, P4 and P5 are designed to test base metal enriched cherty ash beds above a silica flooded andesite breccia. This horizon is interpreted to be stratigraphically below the Watershed sequence and forms a westward plunging anticline. The andesite breccia bears a remarkable resemblance to descriptions of the "silica healed breccia" which hosts the No. 8 ore body in Britannia (2.0 m.t. of Cu 1.5%, 4.5% Zn and 10 g.p.t. Au, Hodgson, 1969). Detailed geology and individual proposed hole orientation and cost are contained in the attached table.



TABLE 1 PROPOSED DIAMOND DRILL HOLES BRITANNIA OPTION

HOLE #	LENGTH	AZIMUTH	DIP	EASTING	NORTHING	COST	COMMENTS
P1	150m	045°	55°	4+40E	1+75S	\$16,500	P1 will test a VLF anomaly in a felsic ash sequence containing disseminated chalcopyrite and sphalerite. An extensive chalcopyrite and pyrite stringer network occurs within flow/dome rocks beneath this horizon.
P2	150m	045°	90°	4+40E	1+75S	\$16,500	P2 will be contingent on results from P1 and will test the down dip extension of mineralized exhalite horizons likely to be hosted by the felsic ash sequence in P1.
P3	120m	060°	60°	8+00E	1+35S	\$13,200	P3 will test cherty argillites and chalcopyrite mineralization which occur above a silica flooded andesite breccia.
P4	150m	060°	90°	8+00E	1+35S	\$16,500	P4 will test the down dip extent of mineralization encountered in P3 and will be therefore contingent on P3.
P5	100m	240°	60°	9+50E	1+70N	\$11,000	P5 will test a VLF anomaly as well as a cherty ash horizon containing disseminated chalcopyrite and sphalerite stratigraphically above a silica flooded andesite breccia.
P6	150m	045°	55°	3+60E	1+00S	\$16,500	P6 will test a VLF anomaly which coincides with the dacitic ash sequence which hosts mineralized exhalite horizons encountered in the 1986 Watershed diamond drilling. P6 is located 100m west of P1 and tests the same stratigraphy.
	820m					\$90,200	
Note:	Costs are based on a direct drilling cost of \$110/per metre which includes salaries, assays and set-up construction. Helicopter support for a period of 21 days including fuel will total					\$23,520	
						\$113,720	

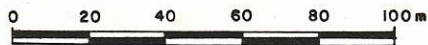
- Na₂O
+ Cu, Zn, Ag



BRITANNIA PROJECT
FURRY CREEK AREA

P1, P2
SECTION 4E (45°)
LOOKING WEST

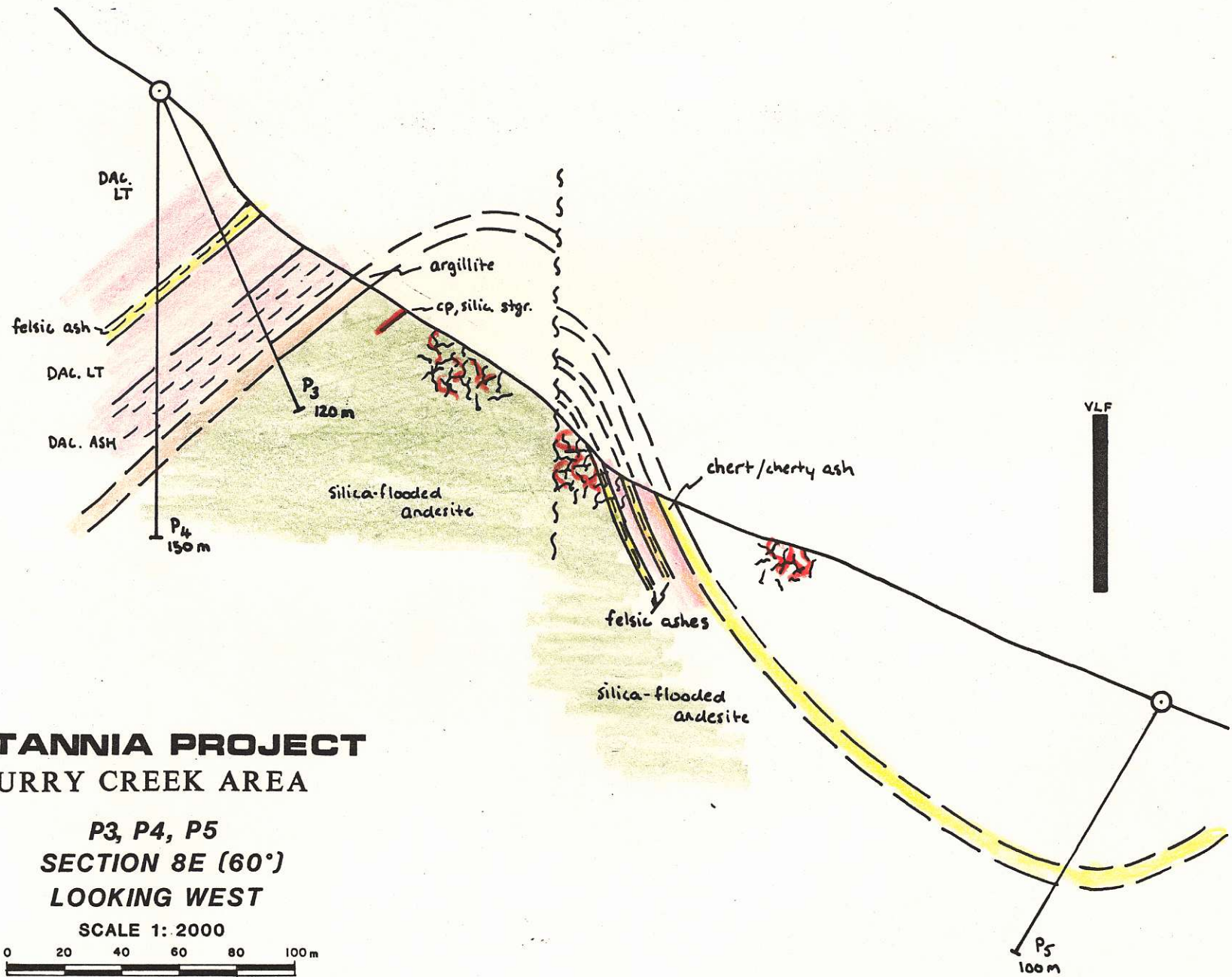
SCALE 1: 2000



- 1000

- 900

- 800

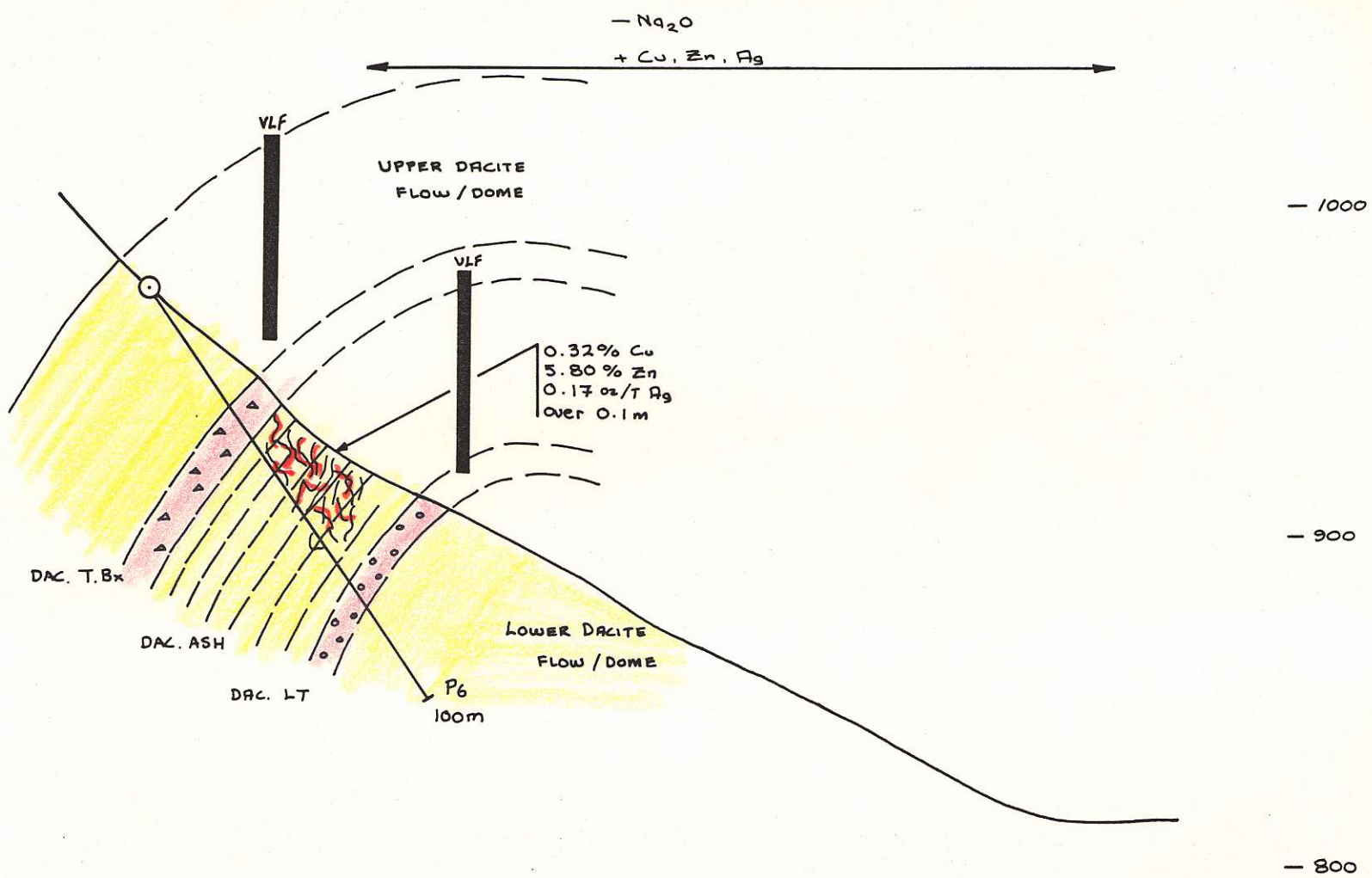


BRITANNIA PROJECT
FURRY CREEK AREA

P3, P4, P5
SECTION 8E (60°)
LOOKING WEST

SCALE 1: 2000

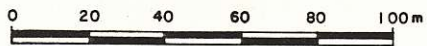


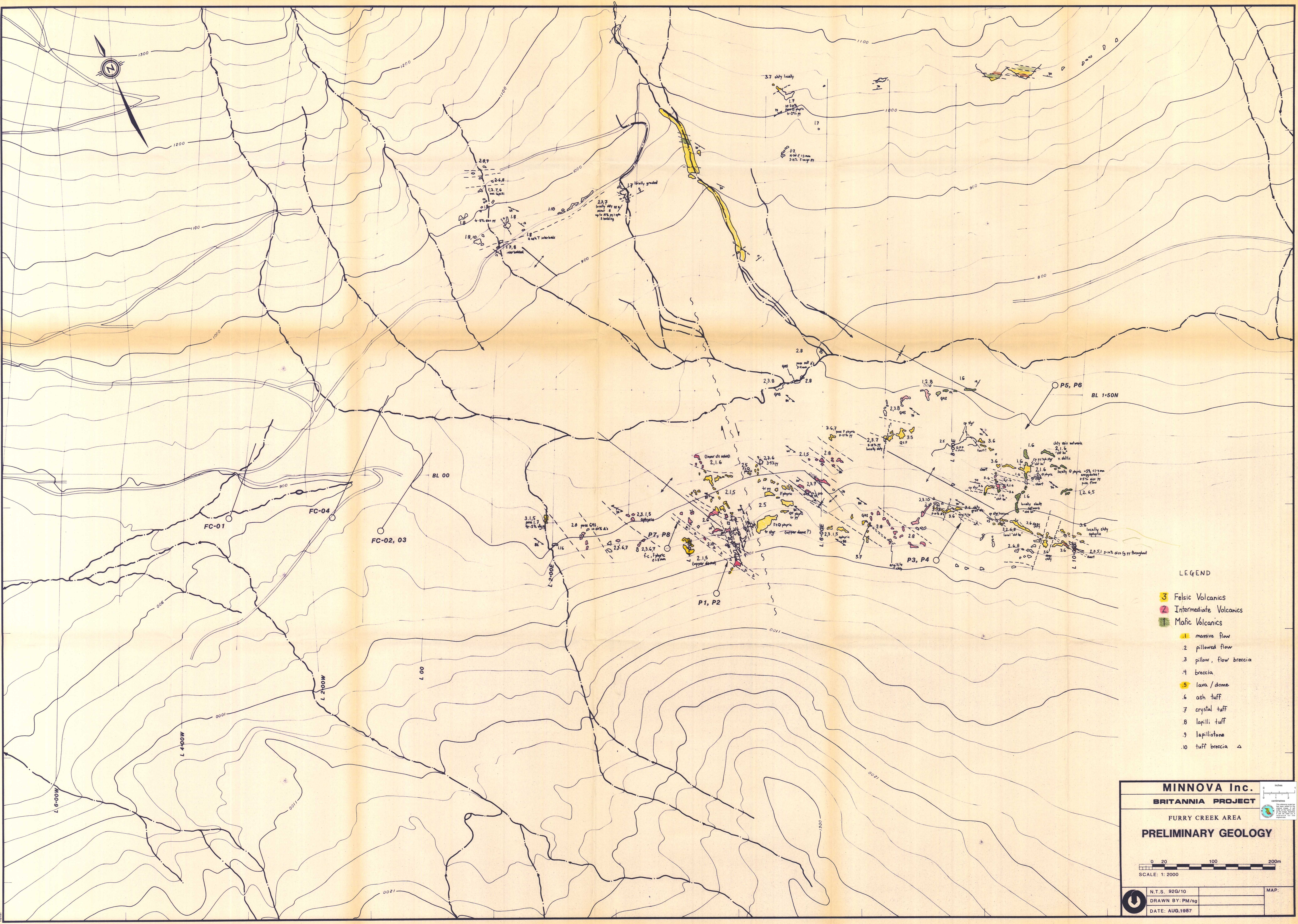


BRITANNIA PROJECT
FURRY CREEK AREA

P6
VERTICAL SECTION (45°)
LOOKING WEST

SCALE 1: 2000





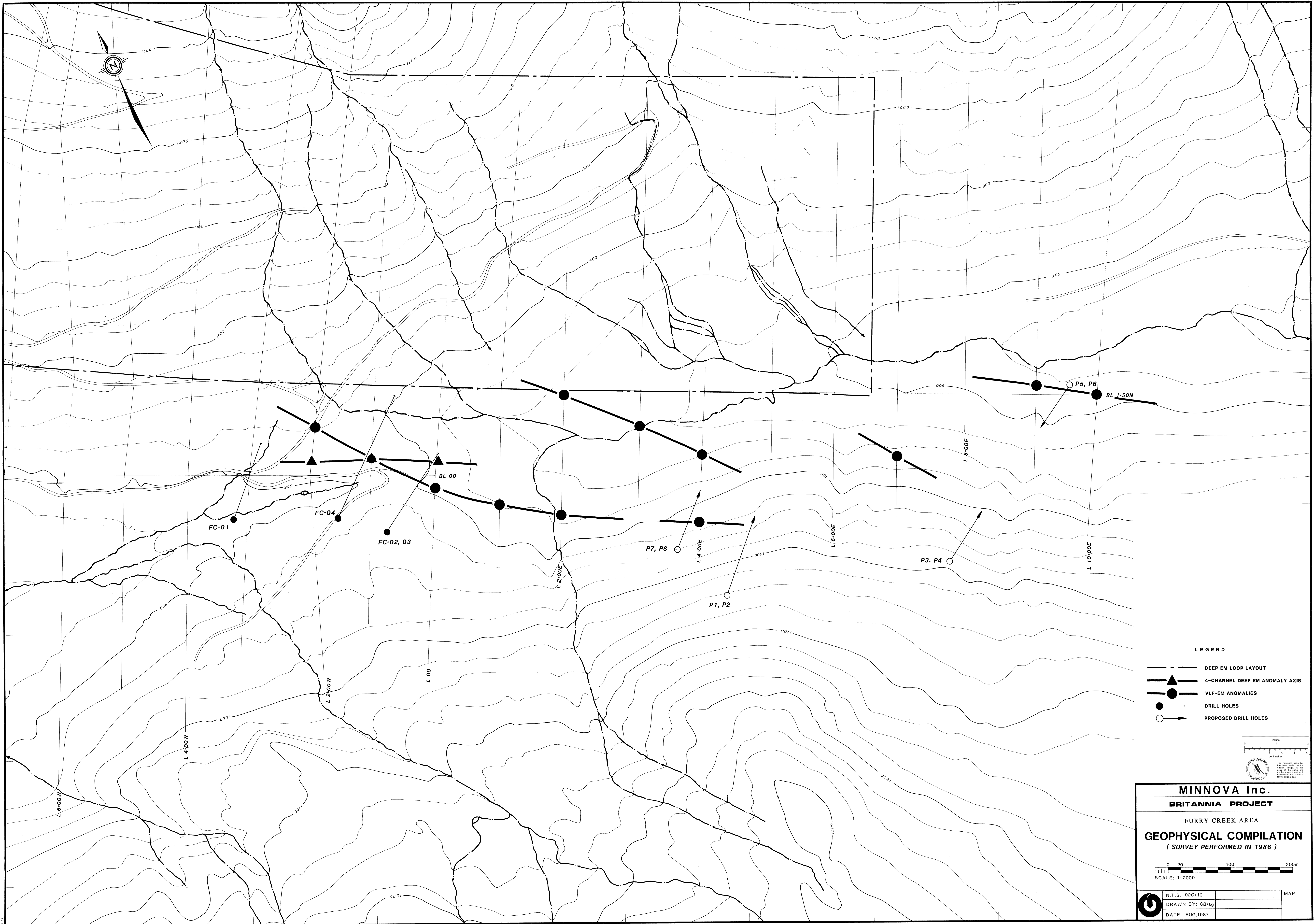
LEGEND

- 3 Felsic Volcanics
- 2 Intermediate Volcanics
- 1 Mafic Volcanics
- 1 massive flow
- 2 pillowed flow
- 3 pillow, flow breccia
- 4 breccia
- 5 lava / dome
- 6 ash tuff
- 7 crystal tuff
- 8 lapilli tuff
- 9 lapillistone
- 10 tuff breccia Δ

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BRITANNIA PROJECT
 FURRY CREEK AREA
PRELIMINARY GEOLOGY

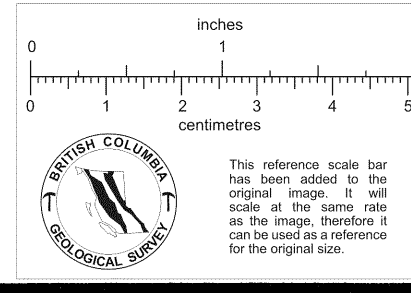
0 20 100 200m
 SCALE: 1:2000

N.T.S. 92G/10	MAP:
DRAWN BY: PM/sg	
DATE: AUG.1987	



LEGEND

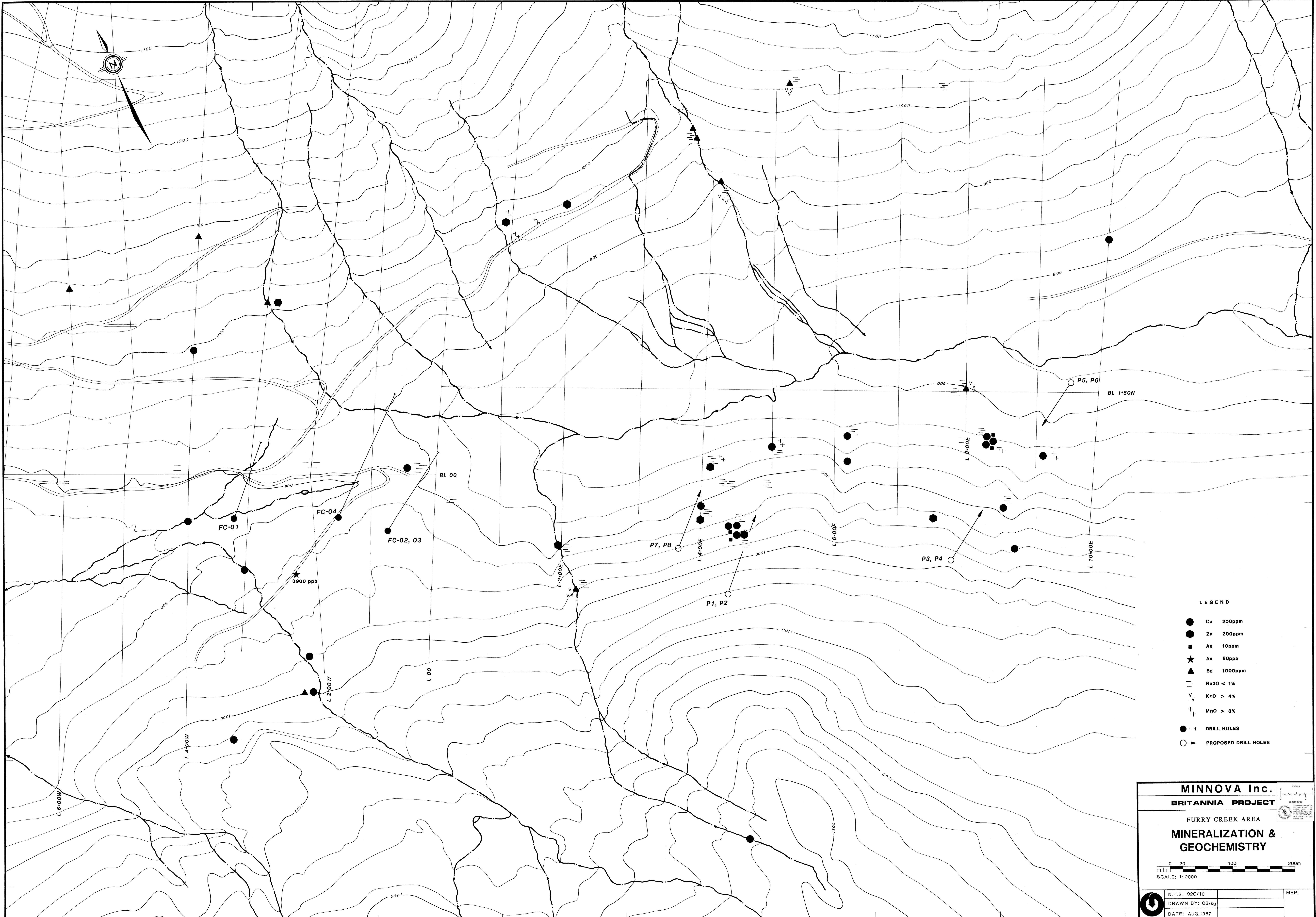
- DEEP EM LOOP LAYOUT
- 4-CHANNEL DEEP EM ANOMALY AXIS
- VLF-EM ANOMALIES
- DRILL HOLES
- PROPOSED DRILL HOLES



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BRITANNIA PROJECT
 FURRY CREEK AREA
GEOPHYSICAL COMPILATION
 (SURVEY PERFORMED IN 1986)

0 20 100 200m
 SCALE: 1:2000

N.T.S. 92G/10	MAP:
DRAWN BY: CB/sg	
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LEGEND

- Cu 200ppm
- Zn 200ppm
- Ag 10ppm
- ★ Au 80ppb
- ▲ Ba 1000ppm
- ≡ Na₂O < 1%
- ∇ K₂O > 4%
- ⊕ MgO > 8%
- DRILL HOLES
- PROPOSED DRILL HOLES

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BRITANNIA PROJECT

FURRY CREEK AREA
MINERALIZATION & GEOCHEMISTRY

0 20 100 200m
 SCALE: 1:2000

N.T.S. 920/10	MAP:
DRAWN BY: CB/sg	
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