

August 29, 1990

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SUJET
SUBJECT:Fall 1990 Drill Proposal - LC, Richter and Rainbow Properties

INTRODUCTION

A 14 hole, 2150 metre drill program is proposed to test various targets on the LC, Richter, and Rainbow properties. Drilling is planned to commence on the LC property, on about September 4, 1990, where 620 metres of NQ drilling are planned (4³ holes) to test for epithermal gold mineralization. Following completion of the LC program, the "Albite Zone" and the new IP anomaly on the Testalinden grid at Richter will be tested by 470 metres of drilling, in 3 holes. Drilling at Rainbow will be in the Midway Mine area, testing structurally controlled Tertiary mineralization related to the listwanite belt and to the quartz feldspar porphyry intrusion. A total of 1060 metres of drilling in 7 holes have been proposed for this area. Details of the target areas are discussed below.

LC PROPERTY

A large epithermal alteration system is known on the LC property, characterized by widespread anomalous mercury and arsenic values in soil and rock samples, and by extensive bleaching and alteration of the rocks. Drilling is proposed for the LC grid area, where anomalous values are concentrated along the contact between brecciated volcanics and an overlying polymictic pebble conglomerate. Exploration in 1989 and 1990 has concentrated on defining this contact, by geological mapping, geochemistry, geophysics and trenching. This work has been successful in outlining a large southeast trending Hg-As soil anomaly, which when exposed by trenching, corresponded well with the volcanic/conglomerate contact (see Figure 1). Anomalous gold

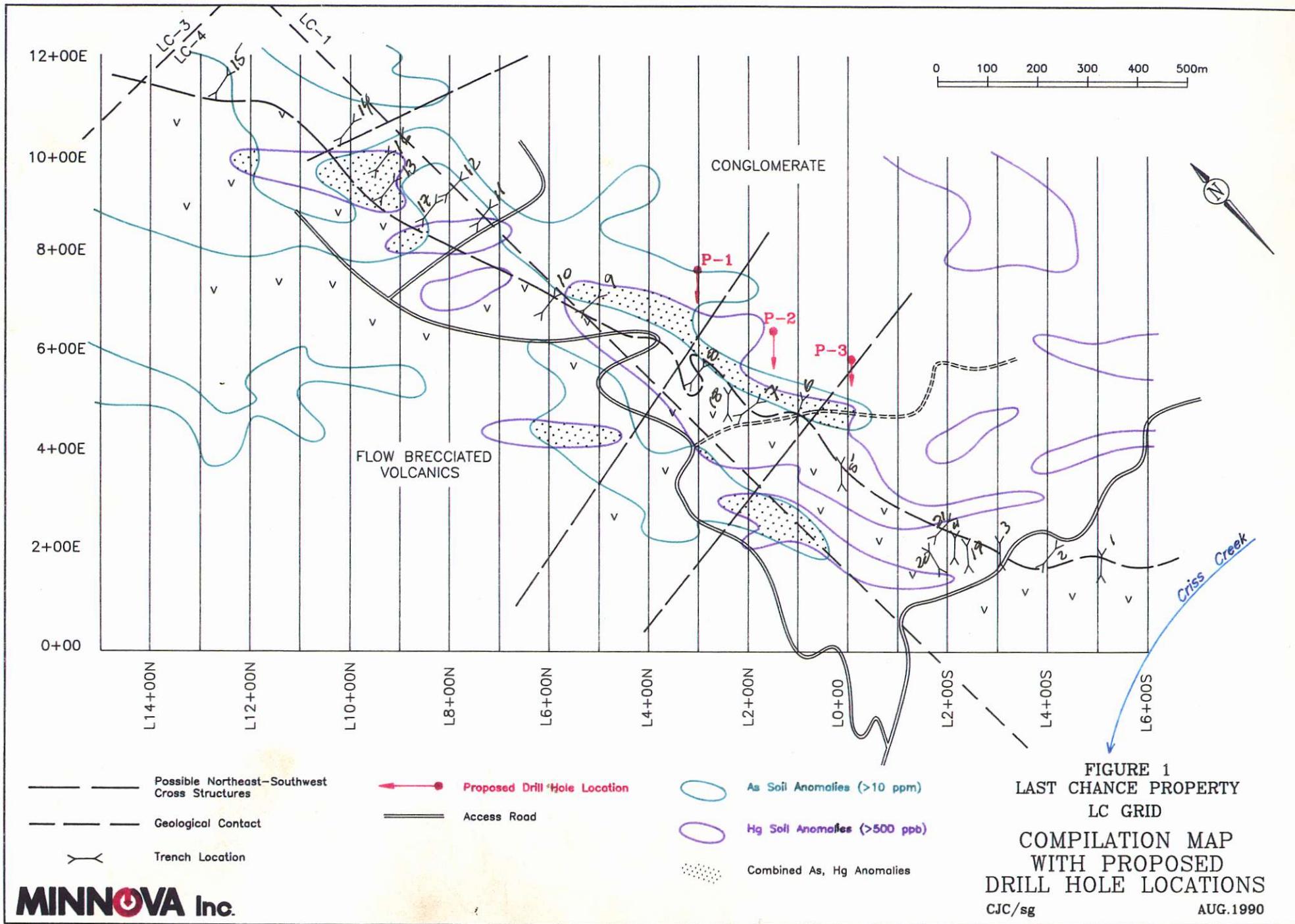


FIGURE 1
 LAST CHANCE PROPERTY
 LC GRID
 COMPILATION MAP
 WITH PROPOSED
 DRILL HOLE LOCATIONS
 CJC/sg AUG.1990

values are rare, perhaps because the exposed surface is high in the system. During the recent trenching program, values to 1.8 g/t Au over 2 metres occurred locally along the volcanic/conglomerate contact, which tends to strike northwest and dip shallowly to moderately southeast. Locally along the contact, steep northeast trending cross structures are exposed in trenches and indicated by geophysics. Anomalous gold values in rocks seem to correlate well with the position of these cross structures. The model proposed to explain the alteration system at LC is thus as follows: Fluids move upwards along steep northeast trending structures until they reach the volcanic/conglomerate contact. At this point a rapid drop in pressure is expected, hence boiling and deposition of precious metals. The conglomerate acts as a much more permeable host than the volcanics, causing remaining fluids (rich in Hg and As) to travel up along the contact, preferentially altering the conglomerate.

Proposed Drilling:

The 1990 fall drill program on the LC Property will be directed at testing the volcanic/conglomerate contact at depth, in the vicinity of inferred steep northeast trending cross structures. Drill hole locations are shown in Figure 1 and specific details of the holes are given in Table 1.

Three holes, P1-P3, are designed to test, at depth, the down-dip contact of the flow brecciated volcanic unit with the chert pebble conglomerate over 200 metres of strike length. Very high Hg and As values (to 11,000 ppb Hg) occur in soils coincident with this contact, and the presence of northeast trending cross structures is indicated by VLF.

Hole P1 (Figure 2) will test the vicinity of the intersection of the volcanic/conglomerate contact with a steep NE structure inferred from VLF-EM. Anomalous As results in soil occur where this structure is projected to surface.

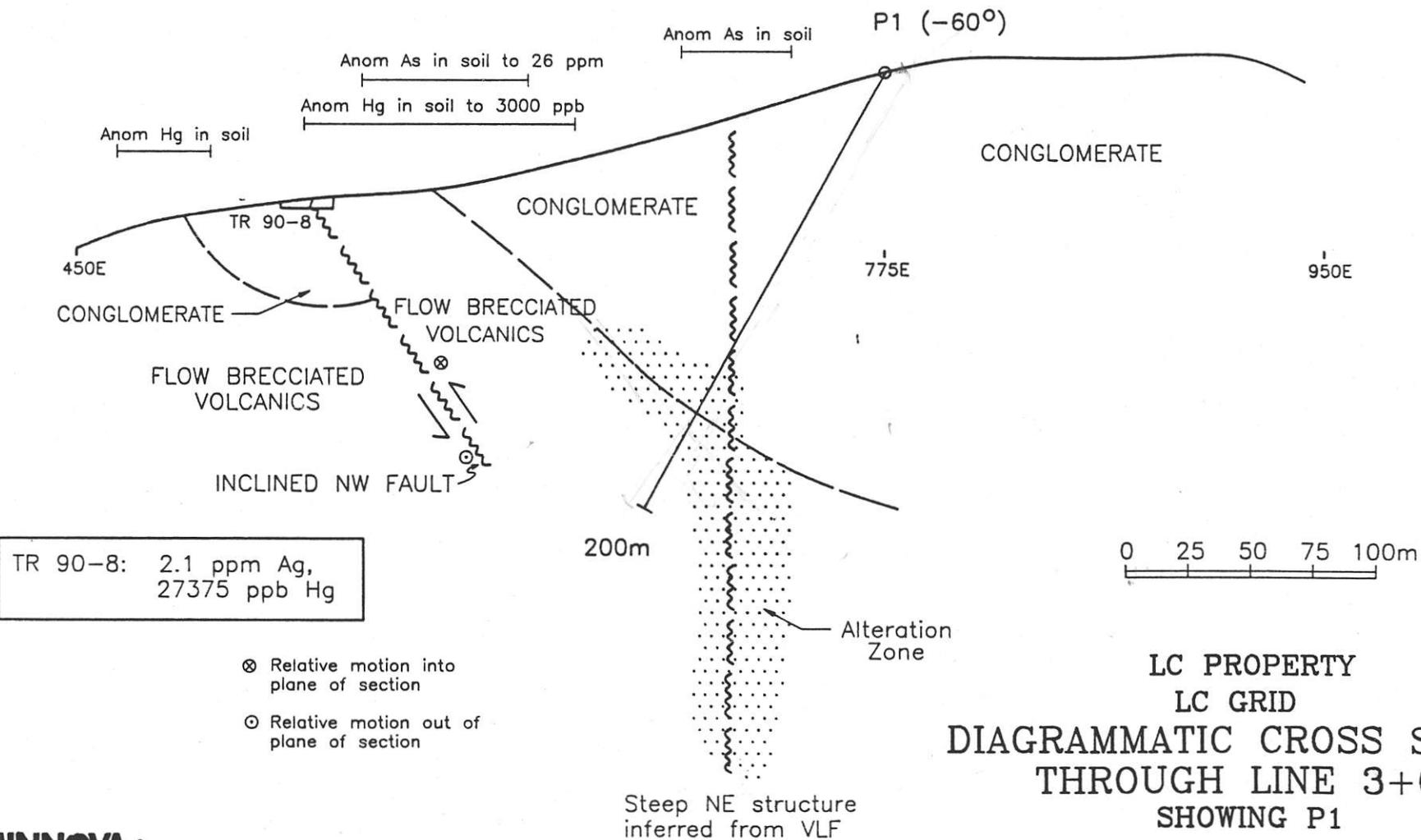
Figure 3 shows the orientation of hole P2. This hole will test the down-dip contact in the vicinity of a gossan zone exposed in trench TR-90-7 and projected to depth. At surface this zone had

TABLE 1
LC PROPERTY - PROPOSED DRILL HOLE LOCATIONS

HOLE	LOCATION	COLLAR			DEPTH	TARGET
		AZIMUTH	DIP	ELEV		
P-1	7+75E 3+00N <i>2197N</i>	225	-60	1036 m	200 m <i>650</i>	volc/cong. contact 150 m down dip from surface
P-2	<u>6+40E</u> 1+50N <i>7+50E</i>	225	-70	1020 m	200 m <i>650</i>	volc/cong. contact 200 m down dip from surface
P-3	6+00E 0+00N	225	-60	930 m	220 m <i>722</i>	northeast cross structure east of TR-90-5, below volc/cong. contact

W

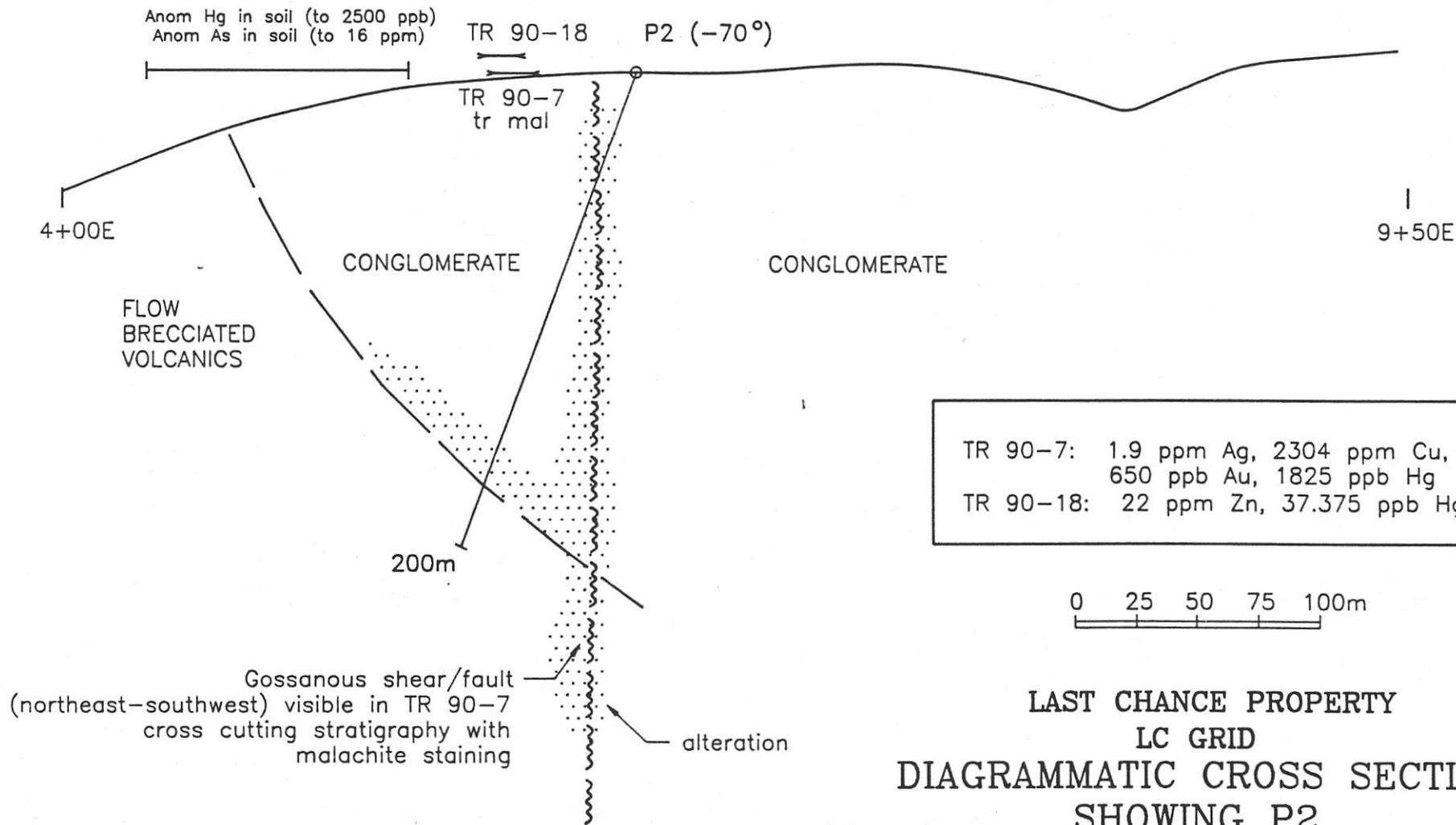
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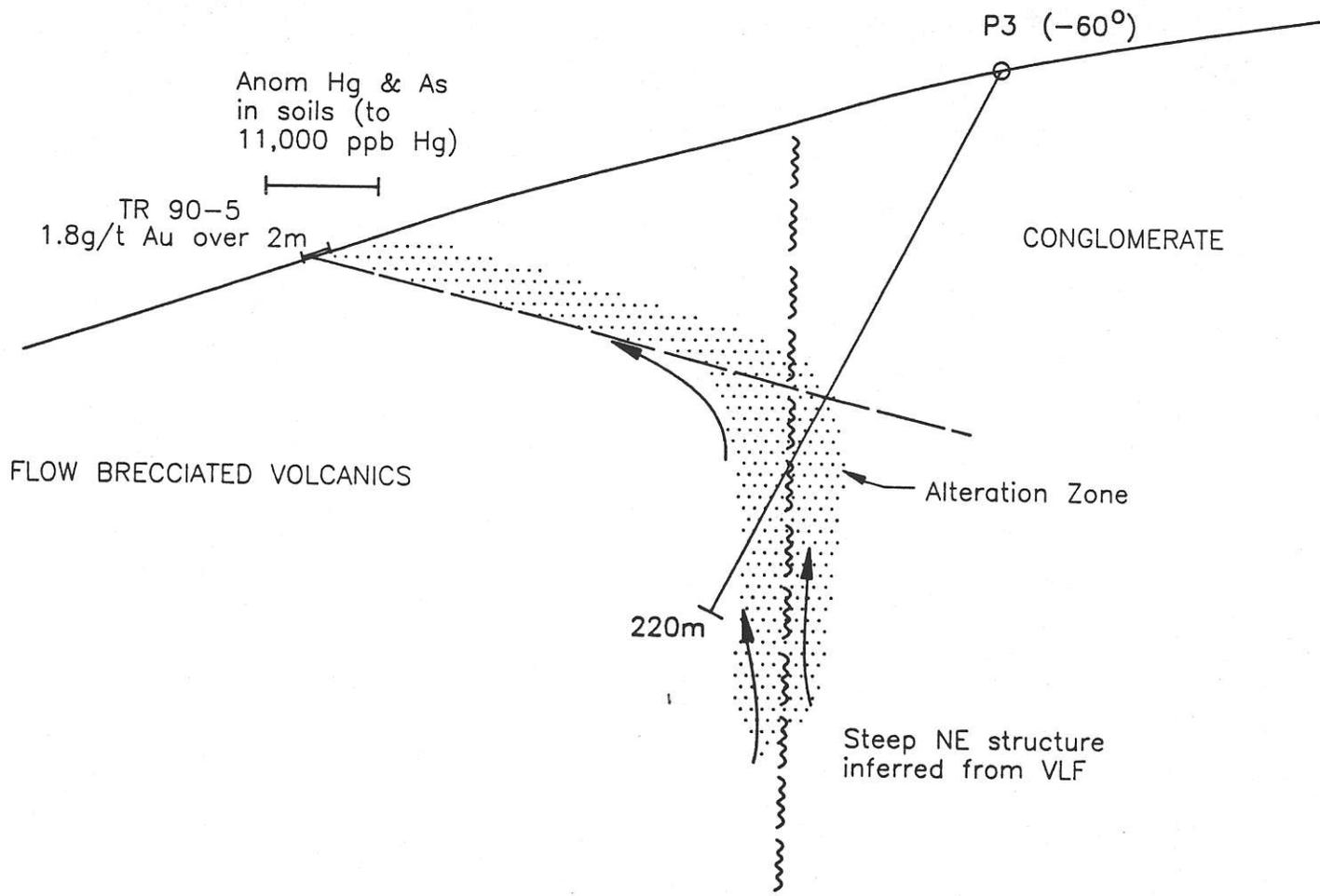
LC PROPERTY
 LC GRID
 DIAGRAMMATIC CROSS SECTION
 THROUGH LINE 3+00N
 SHOWING P1

W

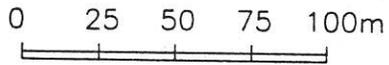
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LAST CHANCE PROPERTY
LC GRID
DIAGRAMMATIC CROSS SECTION
SHOWING P2
SECTION 1+50N



LC PROPERTY
 CROSS SECTION
 THROUGH TR 90-5
 SHOWING P3



associated malachite staining and yielded anomalous Au values to 650 ppb.

The final hole proposed, P3, is a longer angle hole to test the volcanic/conglomerate contact down-dip of trench TR-90-5, where anomalous gold values to 1.8 g/t Au occurred in the conglomerate, adjacent to the contact with the volcanics. The orientation of this hole is shown in Figure 4.

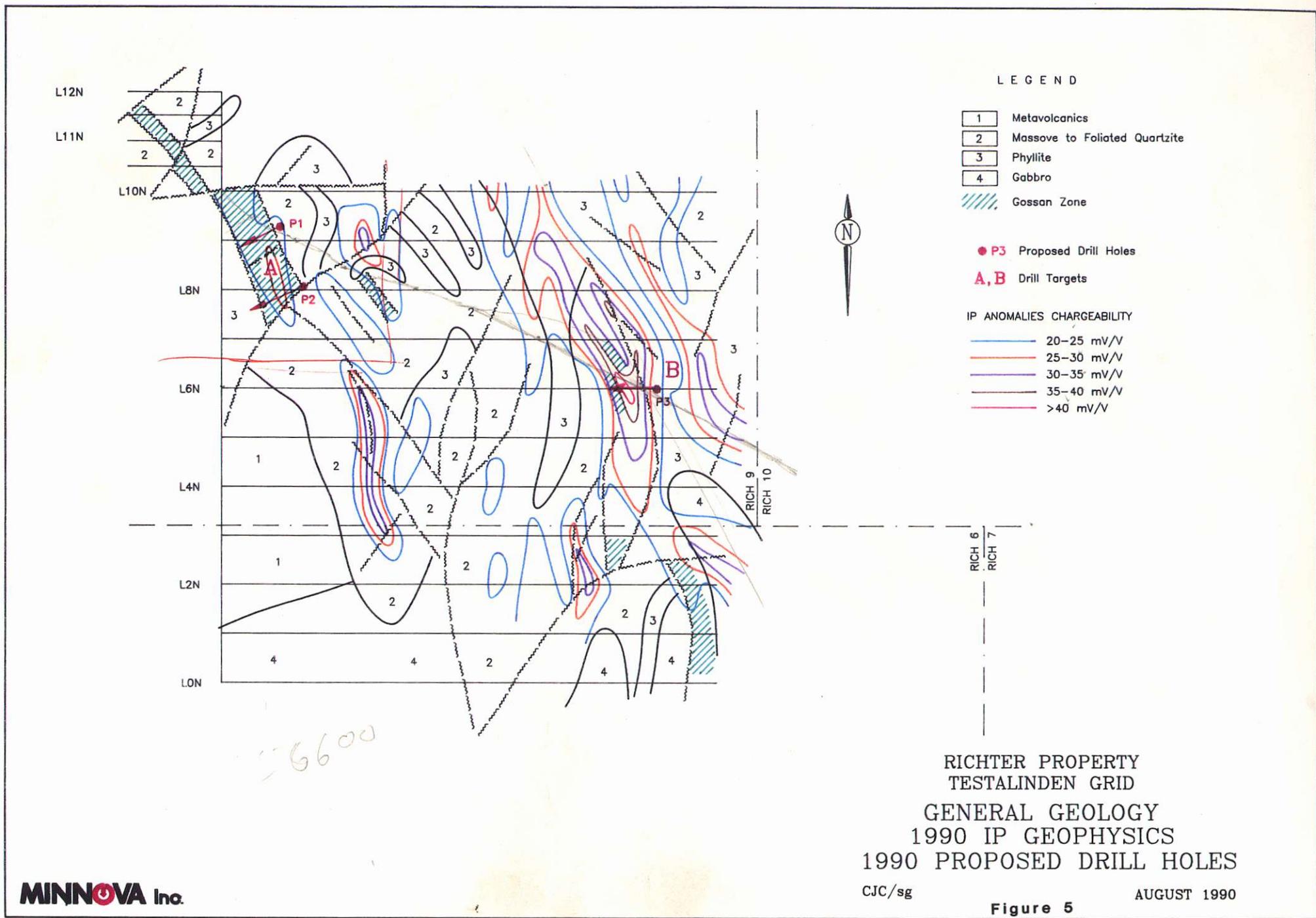
RICHTER PROPERTY

The Richter property is underlain by highly deformed Paleozoic Kobau Group metasediments and metavolcanics, and Mesozoic Nelson plutonic rocks. Drilling is proposed for the Testalinden grid area, located in the south-eastern corner of the Rich 9 claim. As shown in Figure 5, the grid is underlain primarily by complexly folded Kobau Group phyllites and quartzite. To the south, a gabbroic intrusion is present. Numerous north, northeast, and northwest trending faults cut the stratigraphy. A large (200m x 75 m) gossanous zone, the Albite Zone, occurs in the northwest corner of the grid. Trenching in 1989 focussed on this area, where gossanous rocks, characterised by pervasive albite alteration, occur within complexly folded Kobau Group phyllites and quartzites. Anomalous gold values to 6800 ppb were obtained from rock samples of this zone and trenching has suggested that gold values may increase with depth into the gossan.

Pole-dipole induced polarization geophysics was completed over the Testalinden grid in July, 1990. Three linear zones of high chargeability were defined by the survey (see Figure 5). The two most significant of these anomalies are described below.

ANOMALY A

- corresponds to Albite Zone
- north-south linear trend paralleling faults bounding zone
- weak chargeability high with maximum 28.5 mV/V on line 8+00N, 8+25W (n=3)
- no corresponding resistivity low
- gold values to 6800 ppb in rocks



RICHTER PROPERTY
 TESTALINDEN GRID
 GENERAL GEOLOGY
 1990 IP GEOPHYSICS
 1990 PROPOSED DRILL HOLES

ANOMALY B

- two northwest-southeast trending linear zones from line 9+00N to line 6+00N intersecting at line 6+00N and continuing to line 4+00N
- spatially related to faults in area, and may be related to subcropping gossan zone
- highest chargeability (55.0 mV/V, n=4) occurs at point of convergence of the two zones (line 6+00N, 2+00W)
- chargeability increases and broadens with depth
- maximum chargeability at convergence corresponds to strong resistivity low with resistivity decreasing with depth to 4.6 ohm-m
- Au to 140 ppb, Ag to 2.2 ppm in rocks, little outcrop and no trenching done
- weak Zn and Au soil anomaly
- regional resistivity low

Proposed Drilling:

The 1990 fall drilling program on the Richter property will be directed at testing the Albite Zone at depth, and at drill testing Anomaly B, a strong chargeability high and corresponding resistivity low which occurs to the east of the Albite Zone. Drill hole locations are shown on Figure 5 and specific details of the holes are given in Table 2.

Two holes, P1 and P2, are designed to test the Albite Zone, and corresponding chargeability high, at depth. Gold values to 6800 ppb occur in highly gossanous and albite altered rocks on surface. Figure 6 is an east-west section through the zone, showing the location of hole P1. This hole will be drilled to the southwest at -45° under Trench A, to test the zone at depth. The hole will also test the east and west fault boundaries of the Albite Zone. P2 will be drilled parallel to P1, but about 100 metres to the southeast, to test the Albite Zone where the geophysical response was the strongest (see Figure 7).

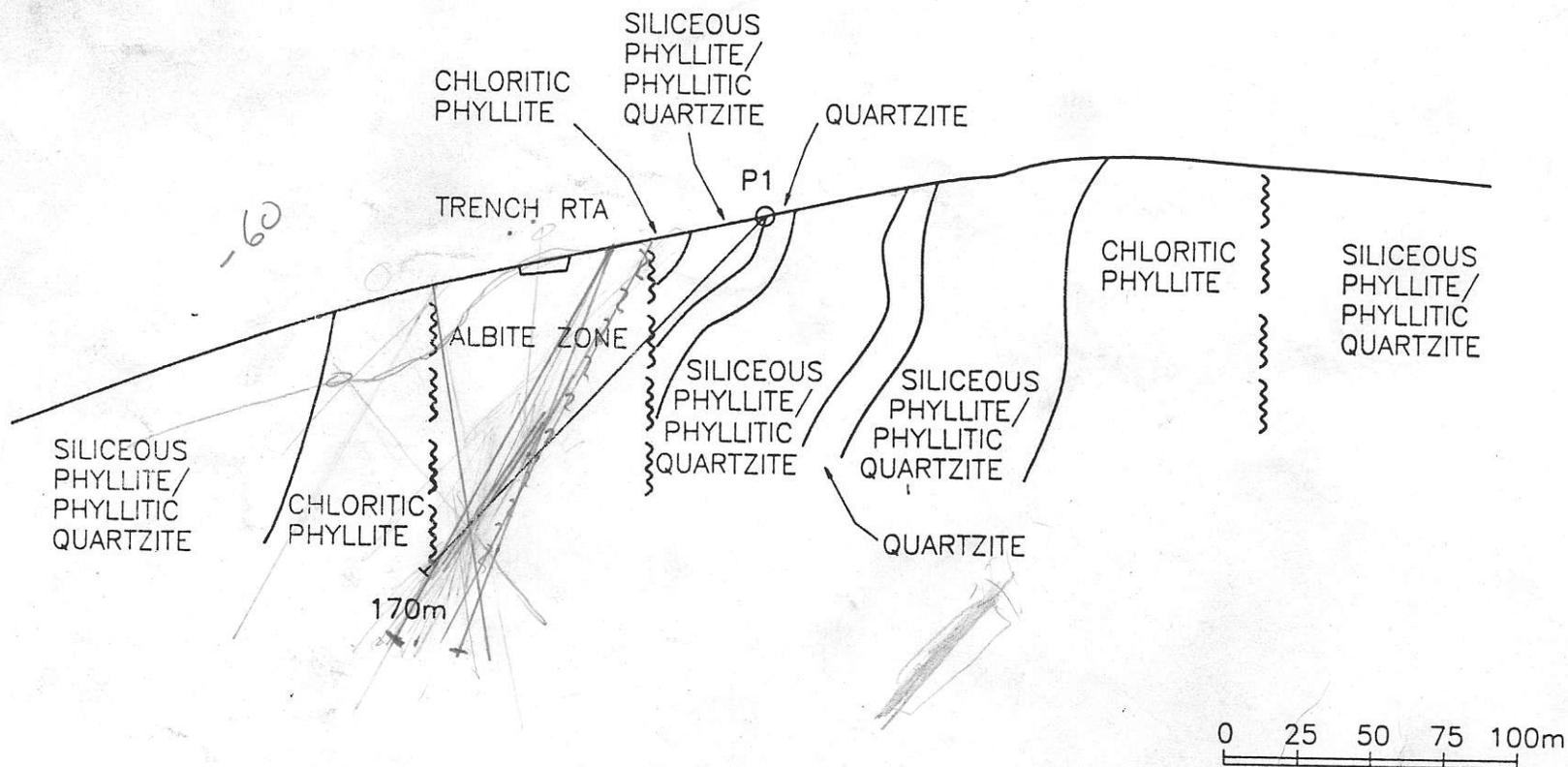
The final hole, P3, will test Anomaly B, a strong chargeability high and corresponding resistivity low, located about 700 metres to the southeast of the Albite Zone. Weakly anomalous gold values (to 140 ppb) occur in surface exposures of gossanous material within this zone. Outcrop is minimal, however, and no

TABLE 2
RICHTER PROPERTY - PROPOSED DRILL HOLE LOCATIONS
TESTALINDEN GRID

HOLE	LOCATION	COLLAR			DEPTH	TARGET
		AZIMUTH	DIP	ELEVATION		
P-1	9+00W 9+20N 8+30W 235W 920N new line P-10N	240	-45	1410 m	170 m	Albite Zone at depth of 60 m below Trench RTA.
P-2	8+50W 8+40N	240	-45	1340 m 1370	150 m	Albite Zone, south of P-1, in area of 2 fault intersections & increasing IP chargeability
P-3	1+15W 6+00N	270	-45	1225 m	150 m	IP Anomaly B at a depth of about 50 m below surface

SW

NE



1989 TRENCH RTA:

RTA003:	270	ppb	Au
RTA004:	202	ppb	Au
RTA007:	770	ppb	Au
RTA008:	570	ppb	Au
RTA010:	360	ppb	Au
RTA011:	237	ppb	Au
RTA017:	800	ppb	Au

RICHTER PROPERTY
 TESTALINDEN GRID
 DIAGRAMMATIC CROSS SECTION
 SHOWING P1
 VIEWING 330 deg

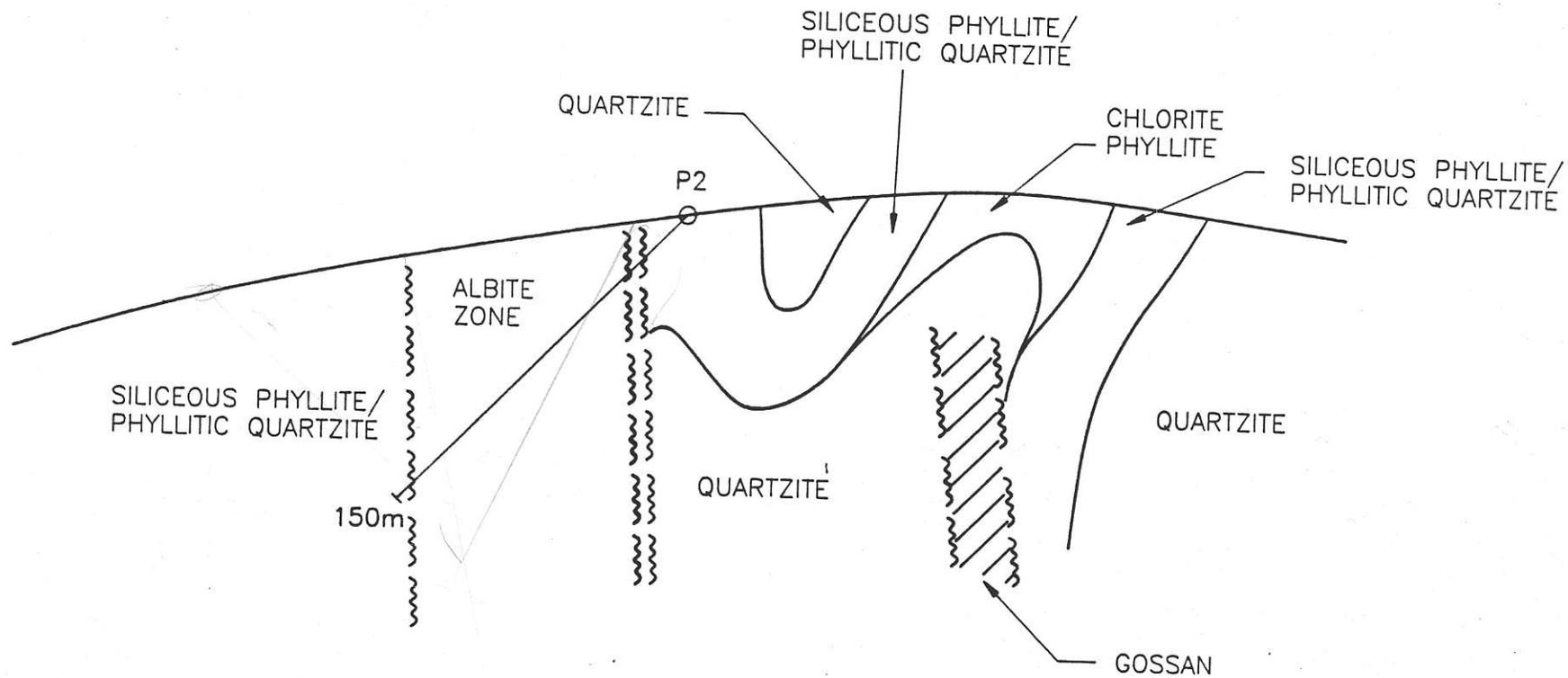
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Figure 7

AUGUST 1990

SW

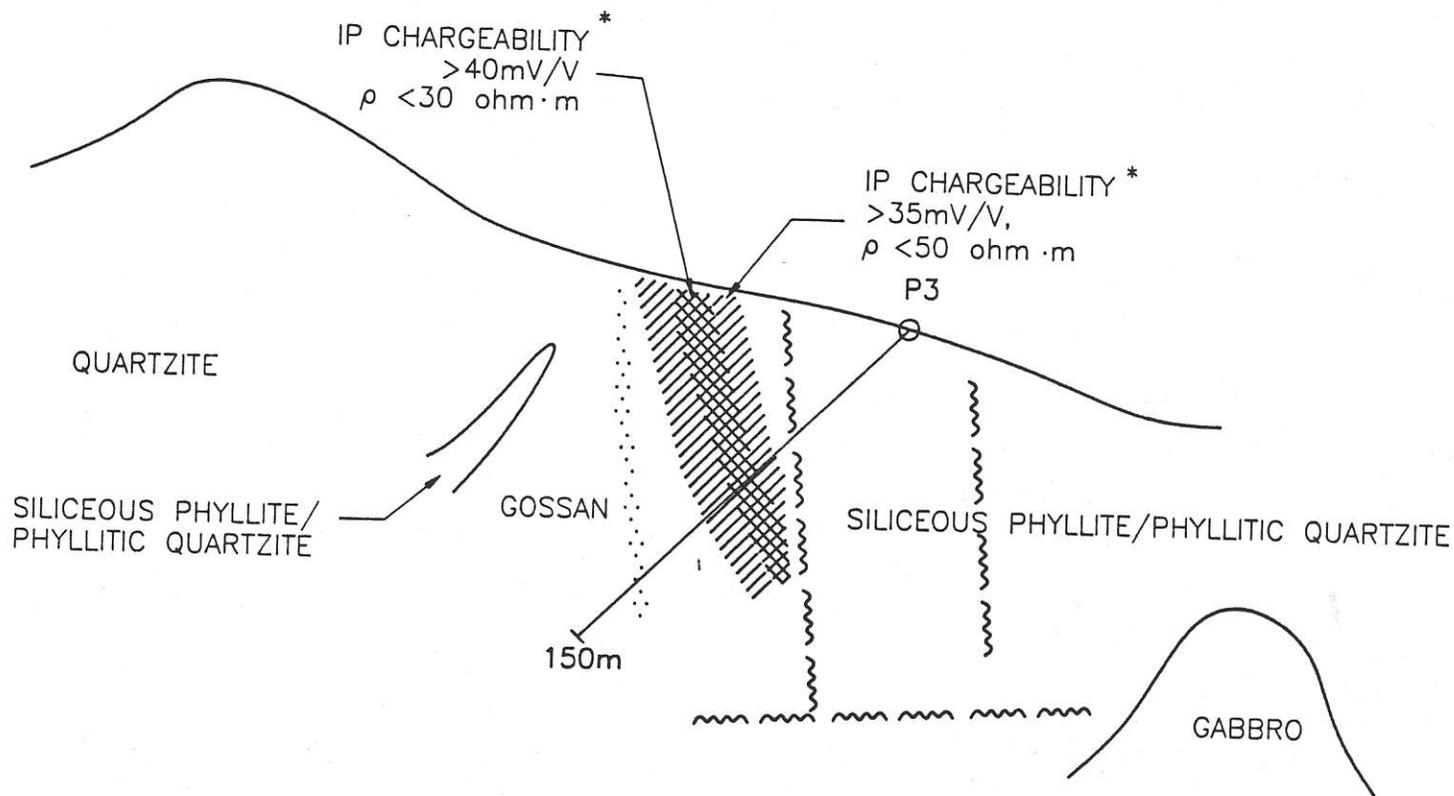
NE



RICHTER PROPERTY
TESTALINDEN GRID
DIAGRAMMATIC CROSS SECTION
SHOWING P2
VIEWING 330 deg
Figure 6

W

E



* -Chargeability increases to 55mV/V with depth
 ρ decreases to 4.6 ohm m with depth

RICHTER PROPERTY
 TESTALINDEN GRID
 DIAGRAMMATIC CROSS SECTION
 SHOWING P3
 VIEWING 330 deg
 Figure 8

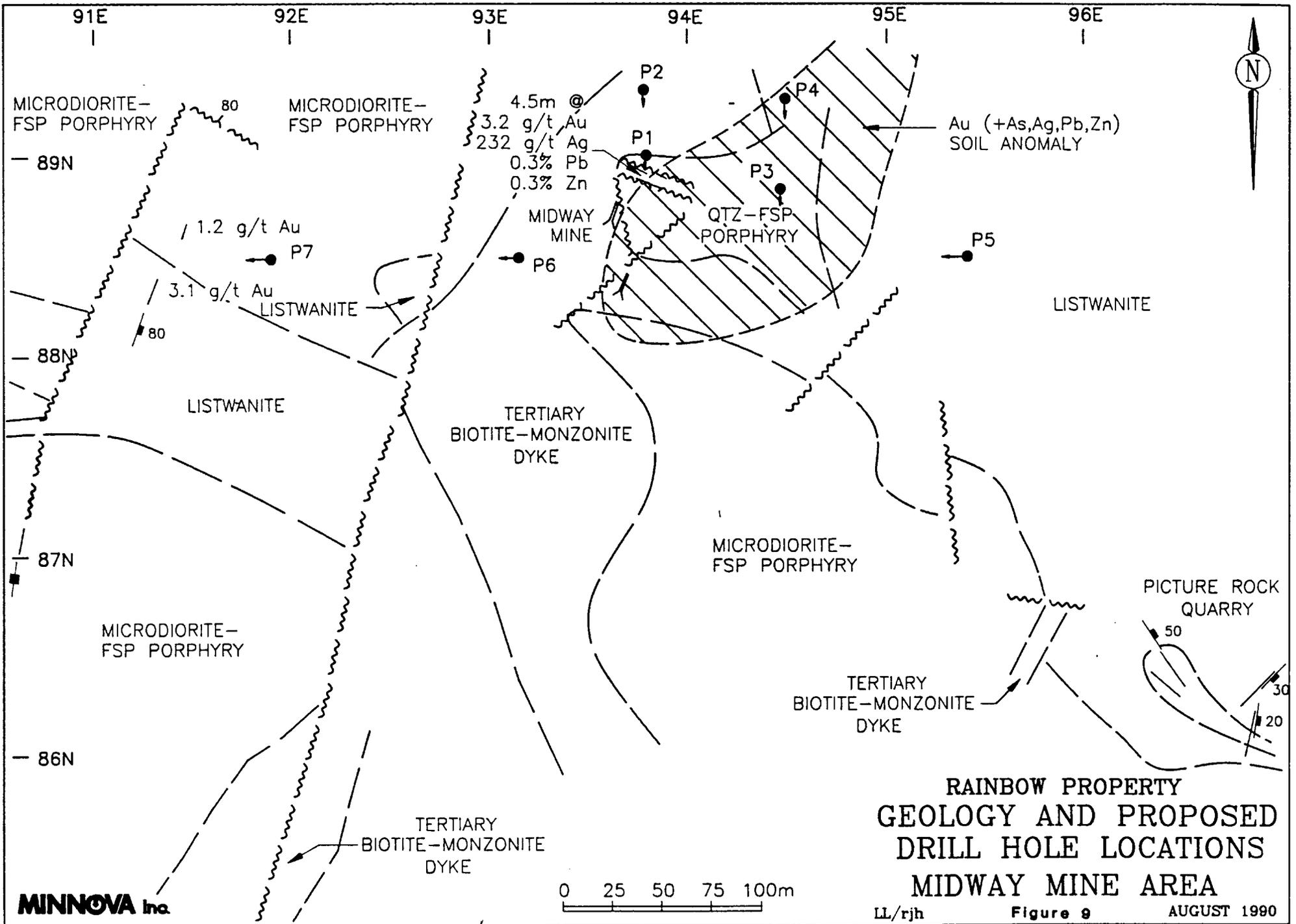
trenching has been done in this area. Mapping shows several intersecting faults, which correspond well with the position of the IP anomaly. Drilling will test these faults as well as the chargeability anomaly, as shown in Figure 8.

RAINBOW PROPERTY

Drilling is proposed for the Midway Mine area on the Rainbow property (see Figure 9). Several different styles of mineralization are known in this area, all apparently post-dating the listwanite alteration, and probably related to late Tertiary intrusives. At the Midway Mine itself, steep east-west trending massive sulfide shear zones cut a quartz-feldspar porphyry intrusion and carry good base and precious metal values (to 11 g/t Au, 830 g/t Ag over 30 cm). Adjacent to these shears, the intrusion is strongly altered (qtz-py-seric). In the upper pit at the mine, one section across a shear and the adjacent altered wall rock ran 3.2 g/t Au, 232 g/t Ag, 0.3% Zn and 0.3% Pb over a width of 4.5 metres. A large multielement soil anomaly occurs east of the mine and appears to correspond closely with the position of the quartz-feldspar porphyry intrusion. The soil anomaly will be tested by backhoe trenching prior to this drill program. This should help to better define the position of any controlling structures.

A number of steep northeast trending structures have been identified in the Midway Mine area. These structures offset the listwanite belt, control the position of Tertiary dykes, and have associated epithermal type chalcedonic veining with local anomalous gold values (to 3.1 g/t). In addition, the "Midway Mine geochem anomaly" appears to be elongate along the trend of one of these northeast structures.

Whether or not two discreet episodes of mineralization are present in the Midway Mine area is unclear at this time, however both east-west and northeast structures seem to be important in controlling mineralization. Only minimal alteration has been noted adjacent to the northeast structures, although they are generally poorly exposed and such alteration may in fact be present. Quite



extensive alteration (and mineralization) is, however, noted in the wallrock adjacent to the east-west structures at the Midway Mine.

Proposed Drilling:

The 1990 fall drill program on the Rainbow property will consist of 7 holes, for a total of 1060 metres of NQ drilling. All drilling will be in the vicinity of the Midway Mine, testing both east-west and northeast trending structures. Figure 9 shows the geology of the mine area, and the locations of the proposed drill holes. Specific details of the drill holes are given in Table 3.

The first four holes are designed to test the Midway Mine shear zones and associated alteration in the quartz-feldspar porphyry intrusion. Figure 10 is a north-south section through the Midway Mine, showing the locations of P-1 and P-2. P-1 will test the east-west mineralized structure, exposed in the upper mine pit, at a depth of about 15 metres and will continue through the steep northeast trending fault contact of the quartz-feldspar porphyry with the listwanites, and then through the basal fault(?) contact of the listwanite belt. P-2 will be drilled to test the same structure at a depth of about 55 metres. The third and fourth drill holes will test the eastern extension of this structure, as shown on Figure 11. Again, both holes will extend through the quartz-feldspar porphyry into the listwanite.

The final three holes are designed to test for mineralization along steep northeast trending structures. Figure 12 is an east-west section through the mine area, showing the location of these holes. P-5 is collared to the east of the mine and the quartz-feldspar porphyry intrusion and will be drilled to a depth of 250 m, into the Tertiary dyke which offsets (?) the Midway Mine shears. P-6 collars at the western edge of the same dyke, and is drilled to the west to test a major northeast structure and the listwanite belt west of this fault. Finally, P7 tests a third northeast trending fault, with which epithermal chalcedonic veining and anomalous gold values are known.

TABLE 3
RAINBOW PROPERTY - PROPOSED DRILL HOLE LOCATIONS

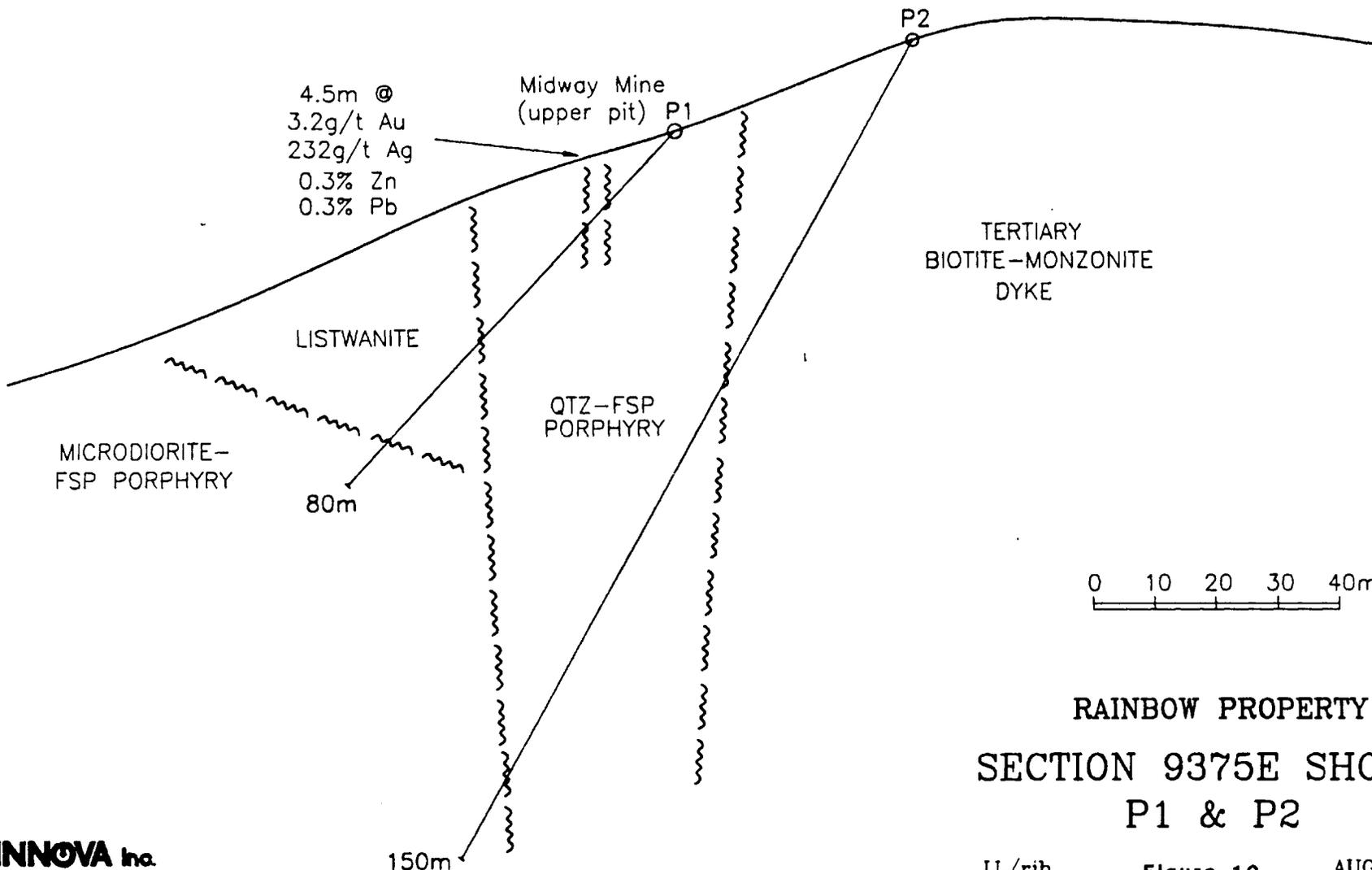
HOLE	LOCATION	COLLAR			DEPTH	TARGET
		AZIMUTH	DIP	ELEV		
P-1	93+75E 89+00N	180	-45	975 m	80 m	Midway Mine shear zone 15 m below surface, and NE fault contact of porphyry
P-2	93+75E 89+45N	180	-60	990 m	150 m	Midway Mine shear zone 80 m below surface, and NE fault contact of porphyry
P-3	94+50E 88+90N	180	-45	981 m	80 m	Midway Mine shear zone, 75 m east of P-1, at 10 m depth
P-4	94+50E 89+25N	180	-60	985 m	150 m	Midway Mine shear zone, 75 m east of P-2, at 70 m depth, and NE trending fault
P-5	95+55E 89+50N	270	-45	967 m	250 m	NE trending fault to E of Midway Mine, and QFP at depth
P-6	93+25E 89+50N	270	-45	965 m	150 m	NE trending fault to W of Midway Mine
P-7	91+95E 89+50N	270	-45	962 m	200 m	NE trending fault to W of Midway Mine

S

N

88N

90N



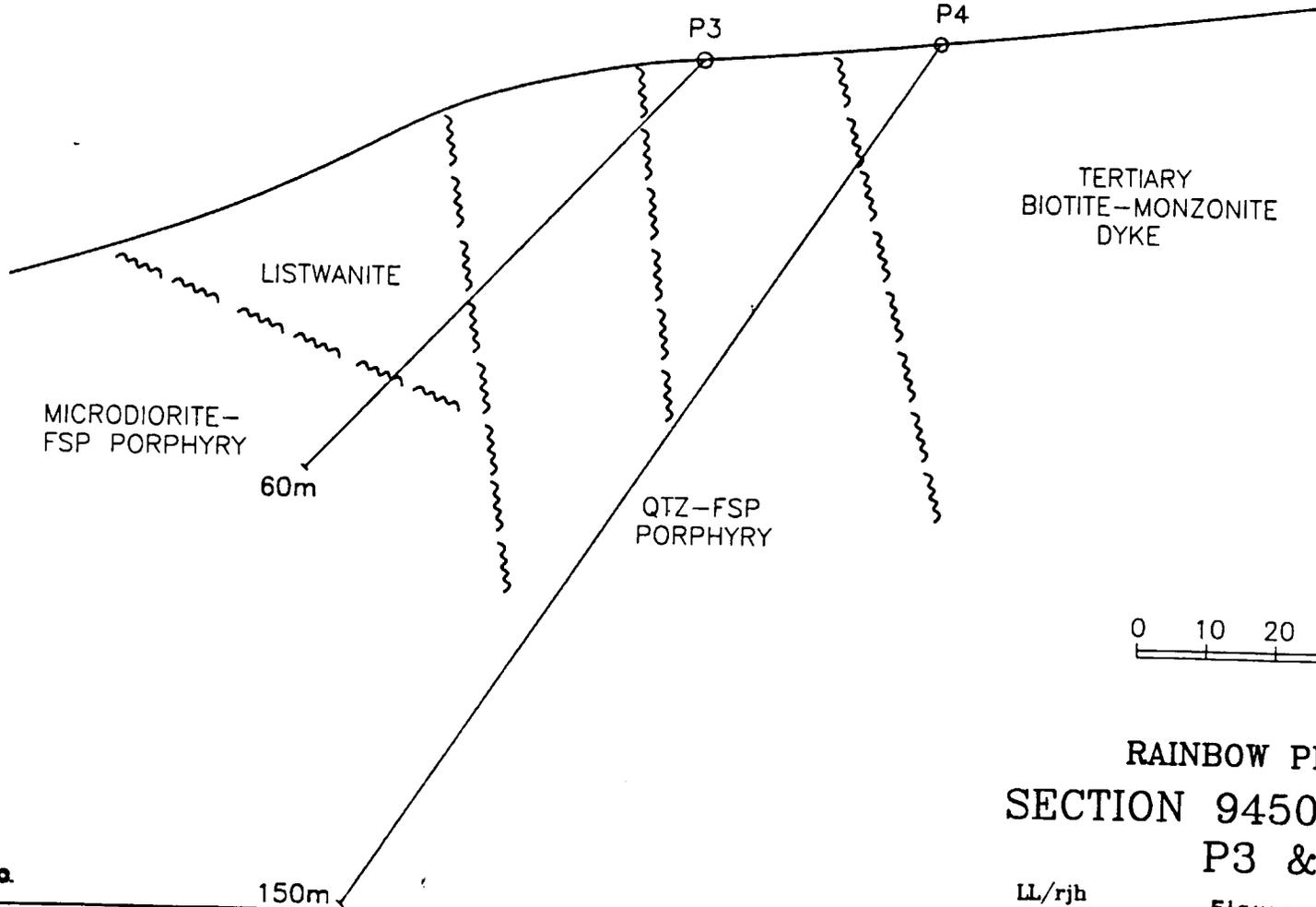
RAINBOW PROPERTY
SECTION 9375E SHOWING
P1 & P2

S

N

88N

90N



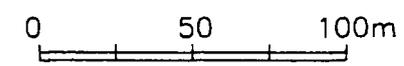
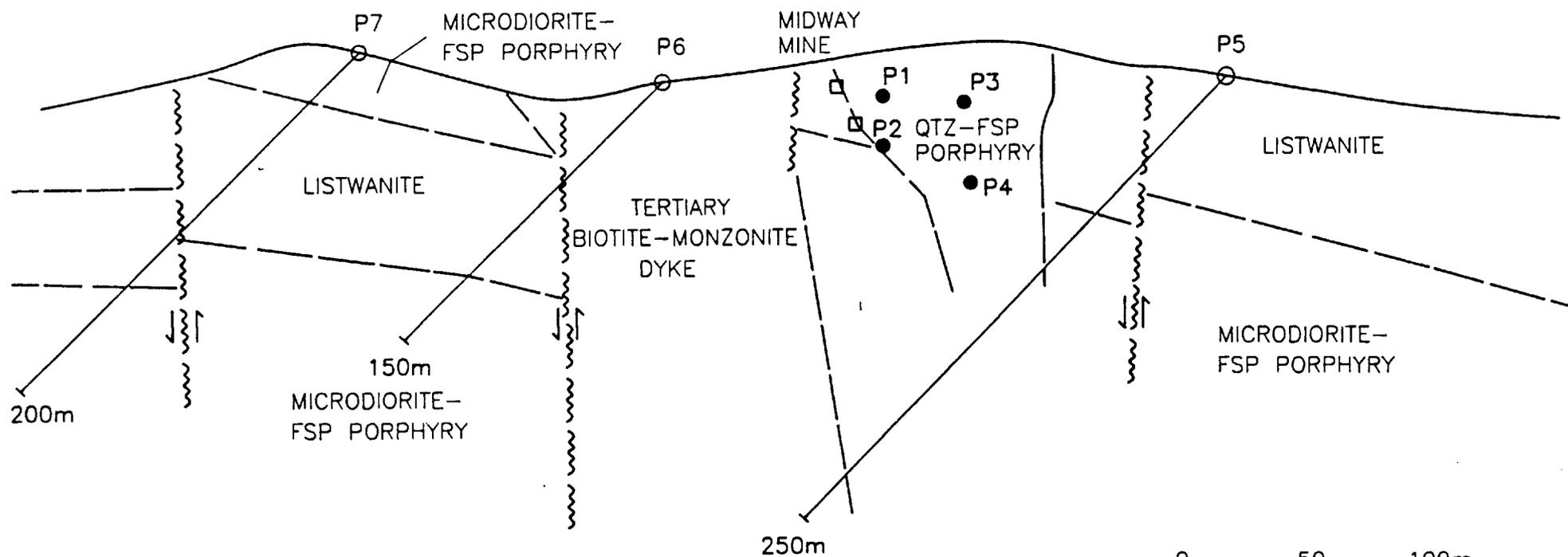
RAINBOW PROPERTY
SECTION 9450E SHOWING
P3 & P4

W

E

- 91E

- 96E



RAINBOW PROPERTY
SECTION 8850N SHOWING
P5, P6, & P7