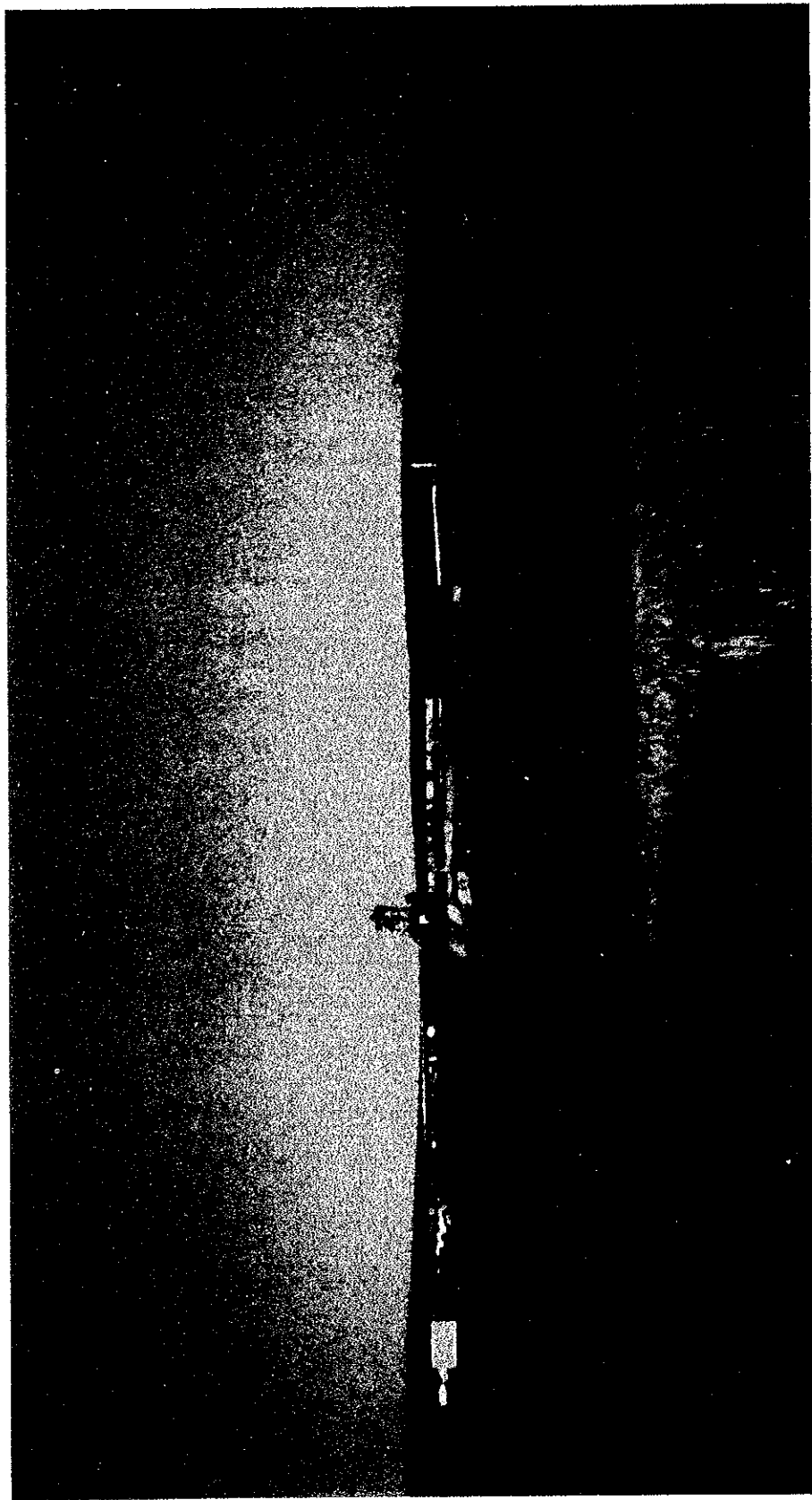
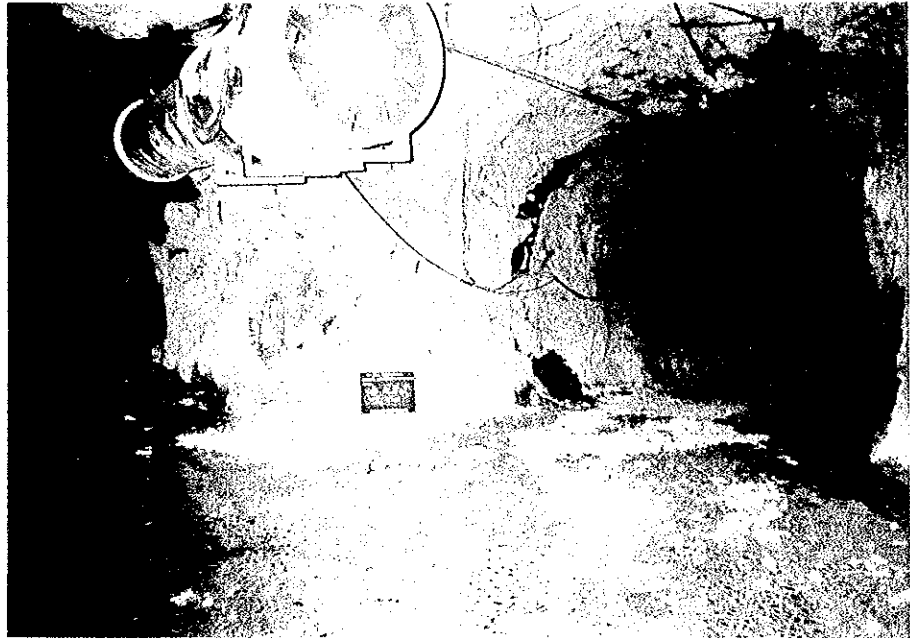


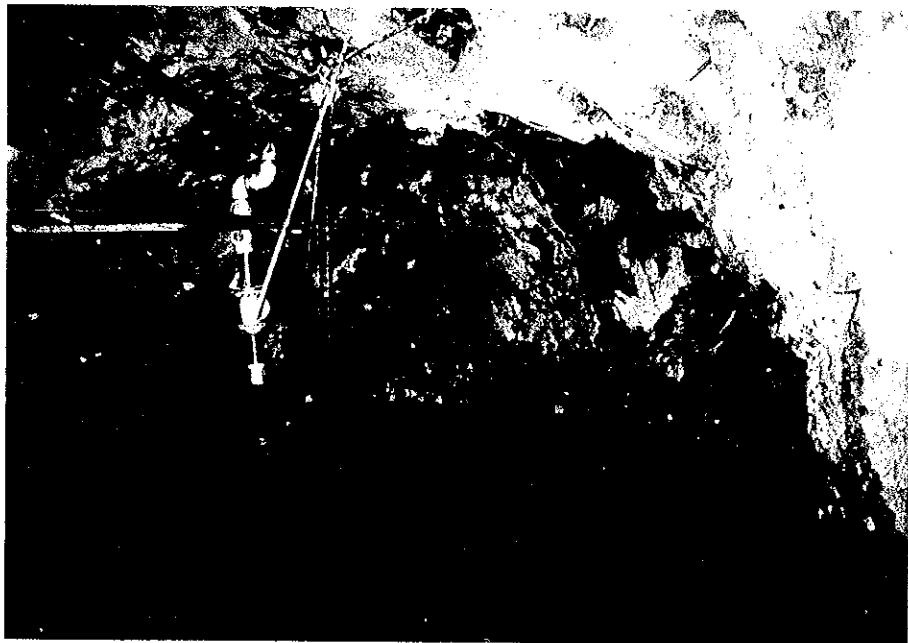
作業状況写真



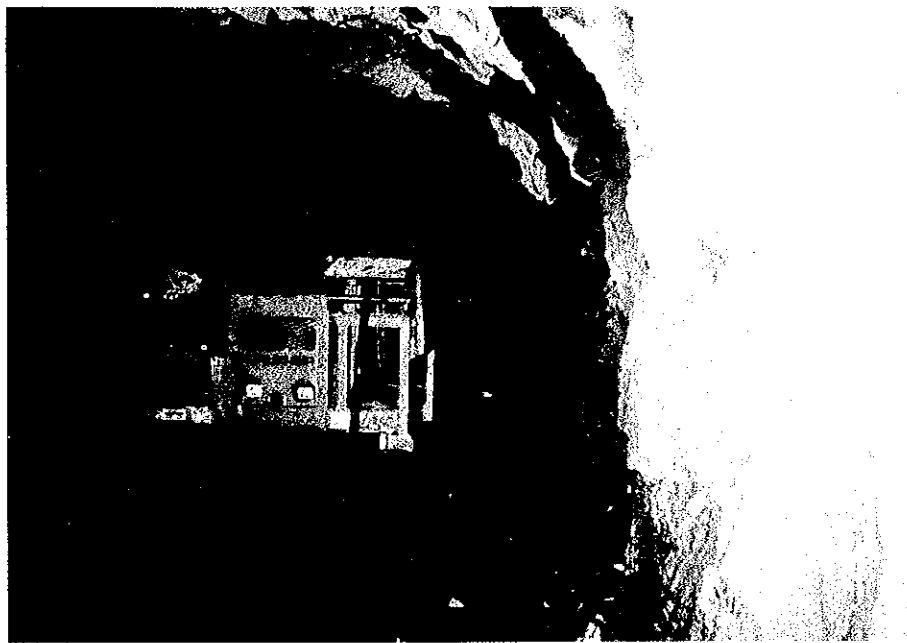
ツアグ調査地全景



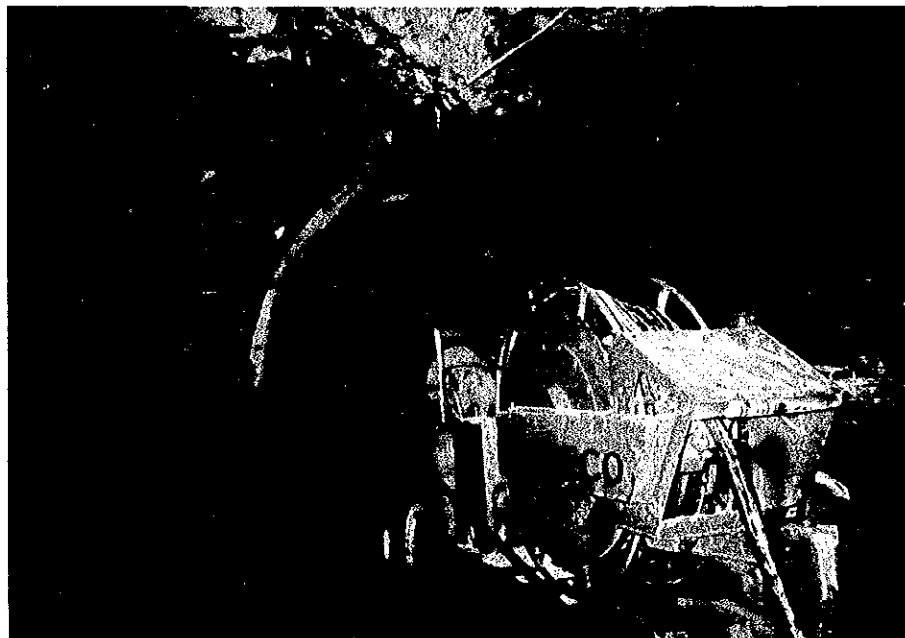
北向き、南向き分岐部



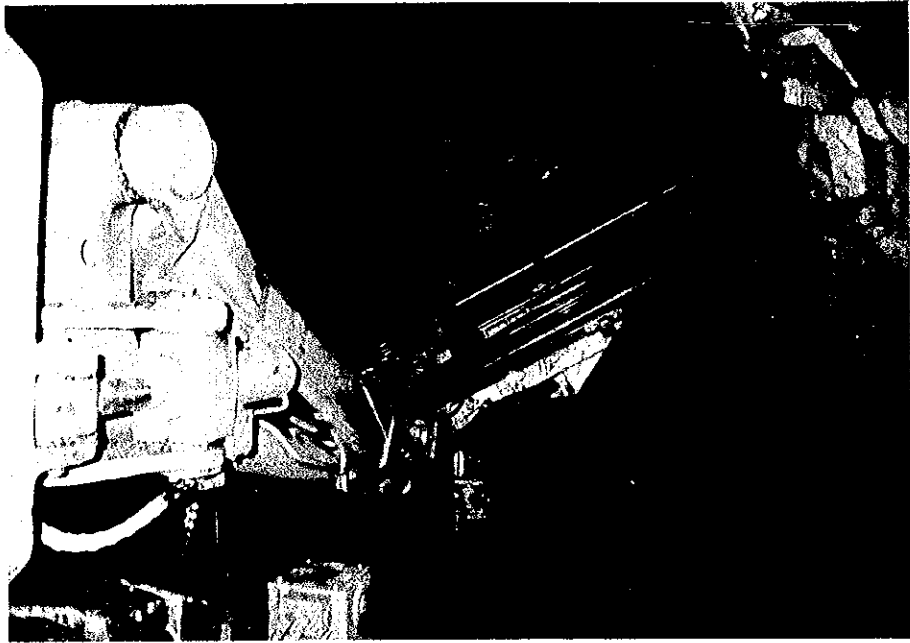
ポンプ座



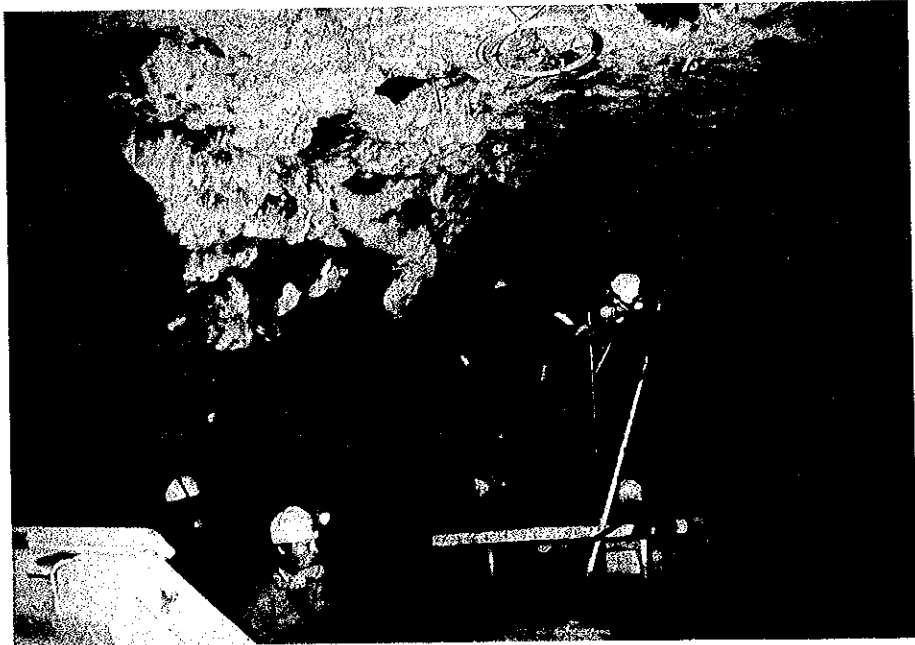
穿孔作業（タイプ1部）



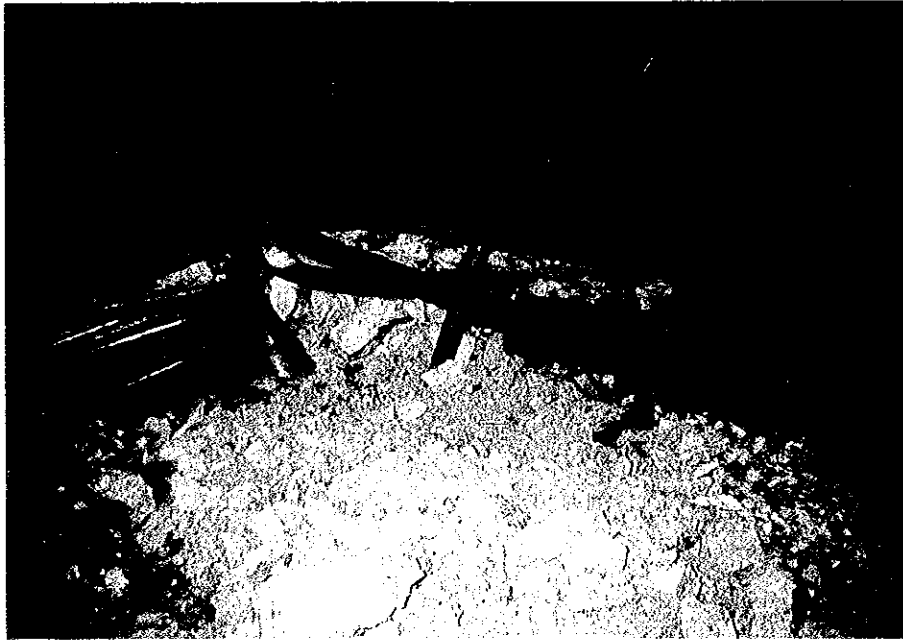
穿孔作業（タイプ2部）



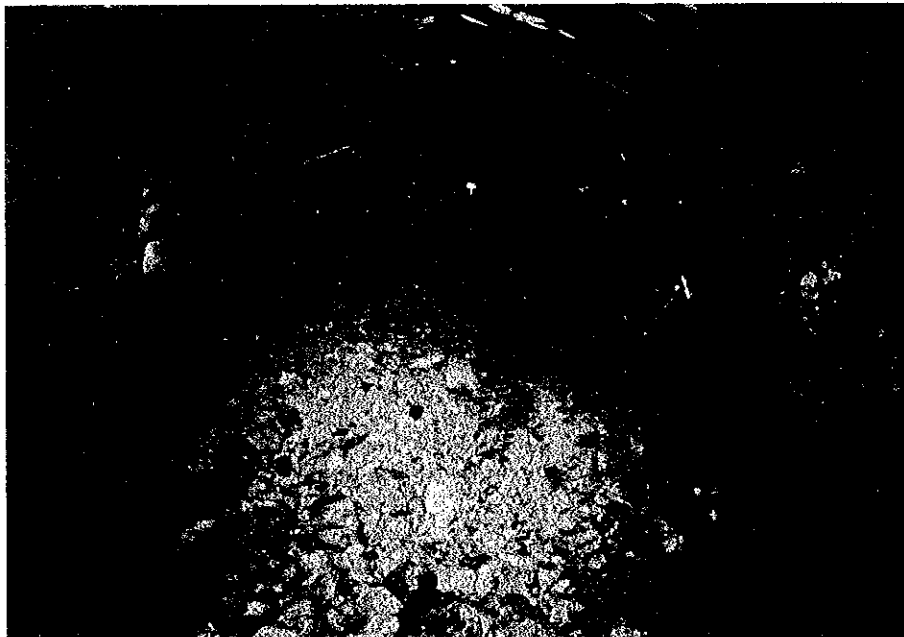
ロックボルト穿孔作業



ロックボルト挿入作業



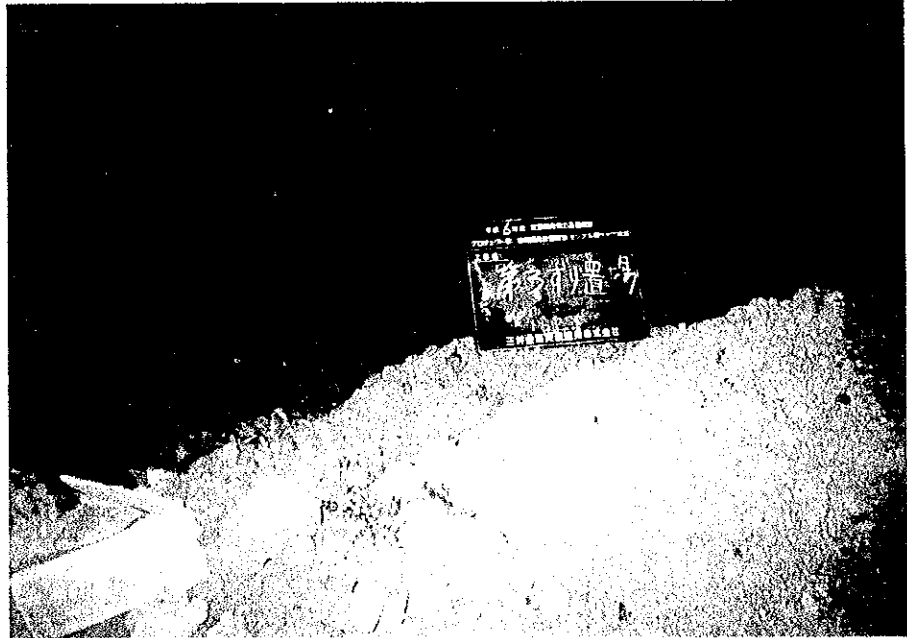
第3ずり置き場崩壊状況



第3ずり置き場差抜作業



第3 ずり置き場差抜作業



第3 ずり置き場埋設状況

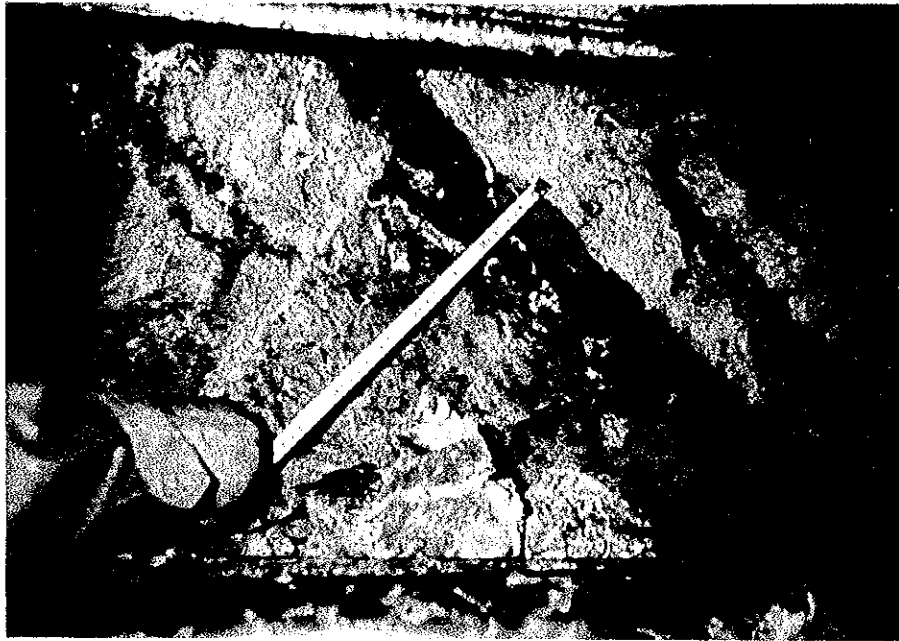


立入坑道引立部



立入坑道全景





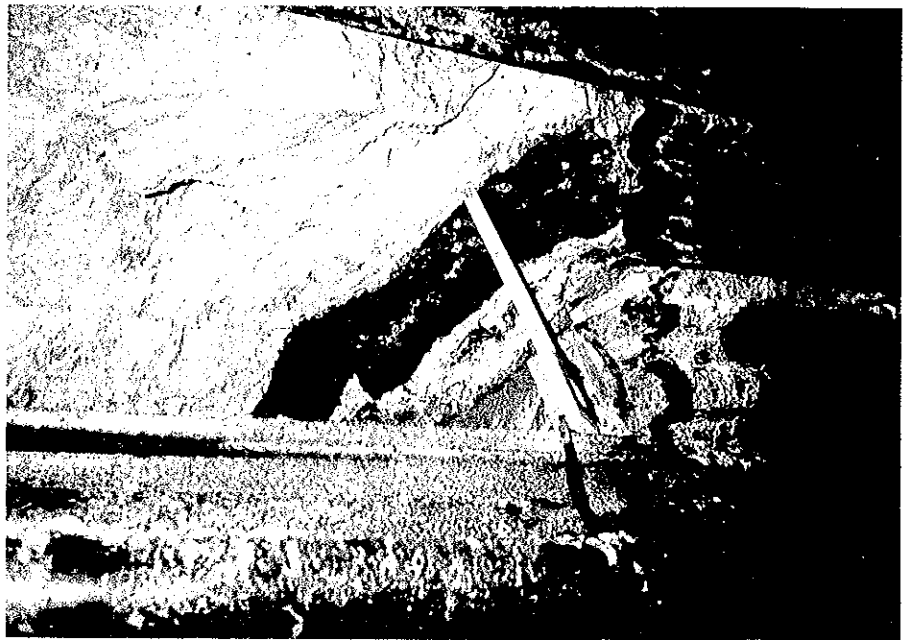
立入坑道鉞石部（右土平）



立入坑道鉞石部（引立部）



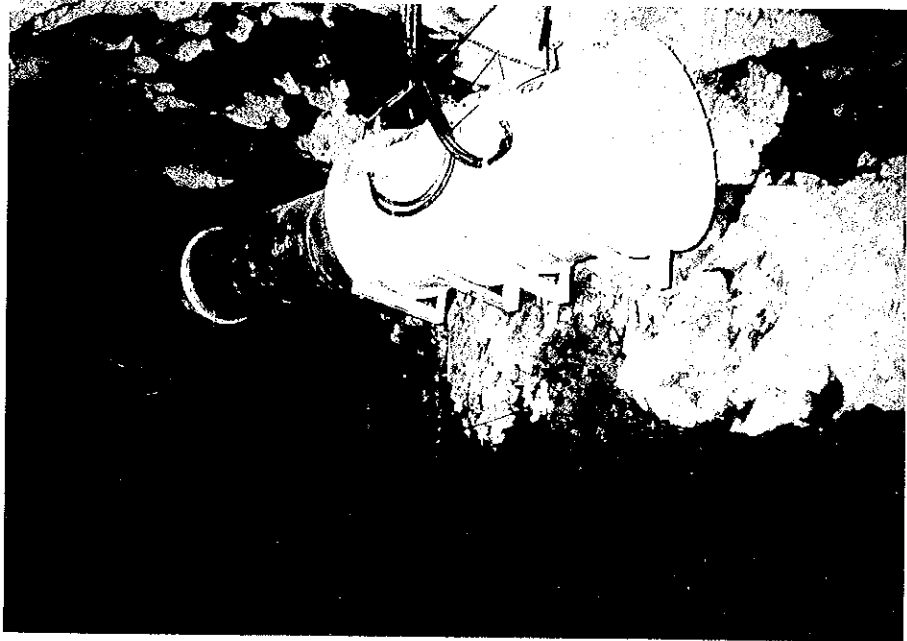
第4ずり置き場全景



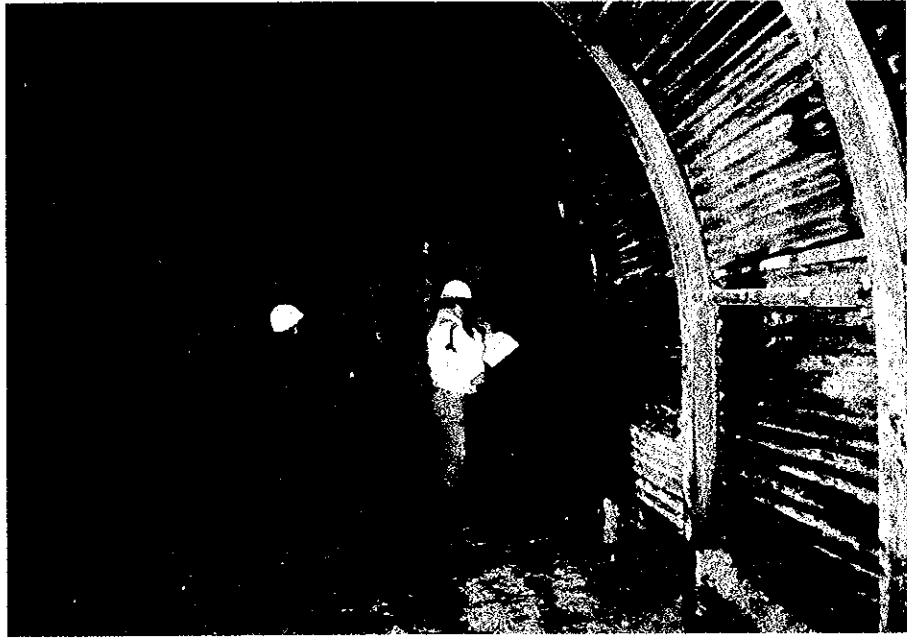
第4ずり置き場（右土平）



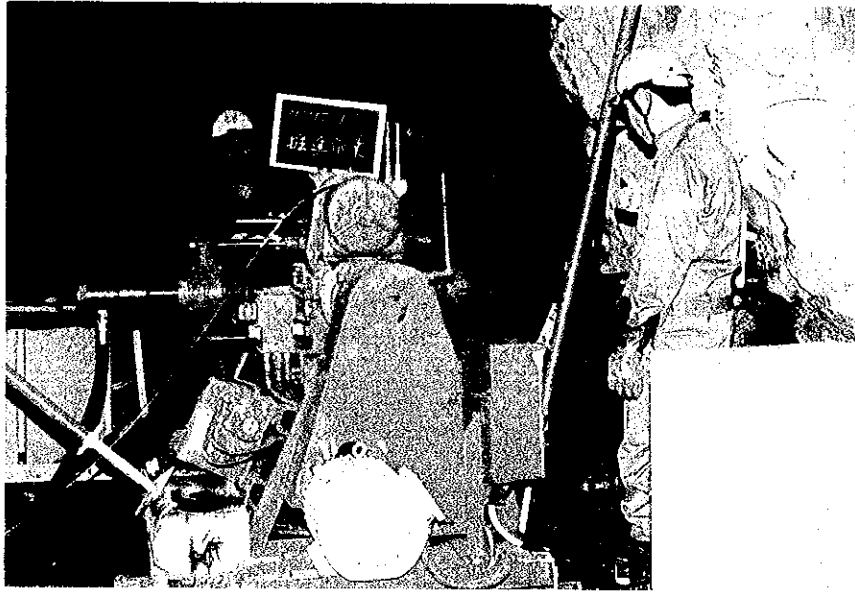
第4ずり置き場（引立部）



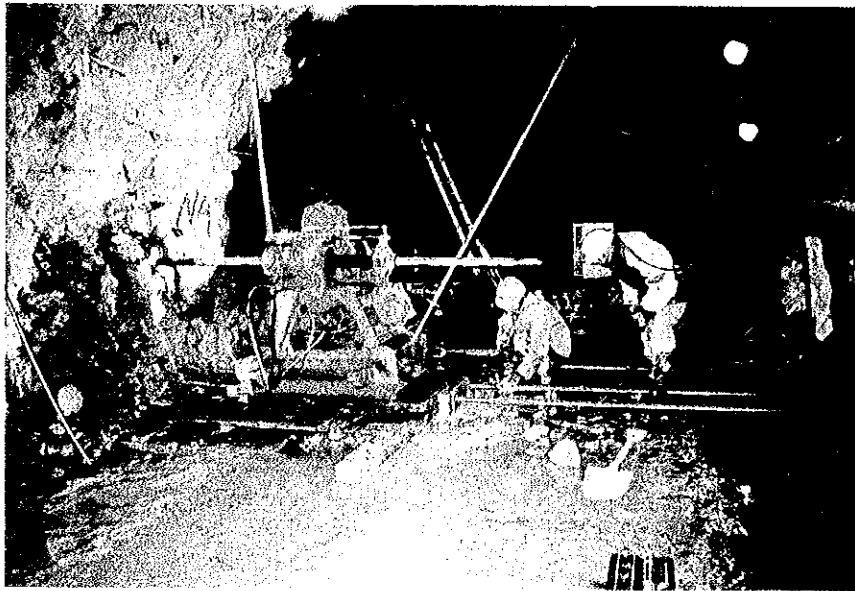
扇風機及び鉄製風管設置状況



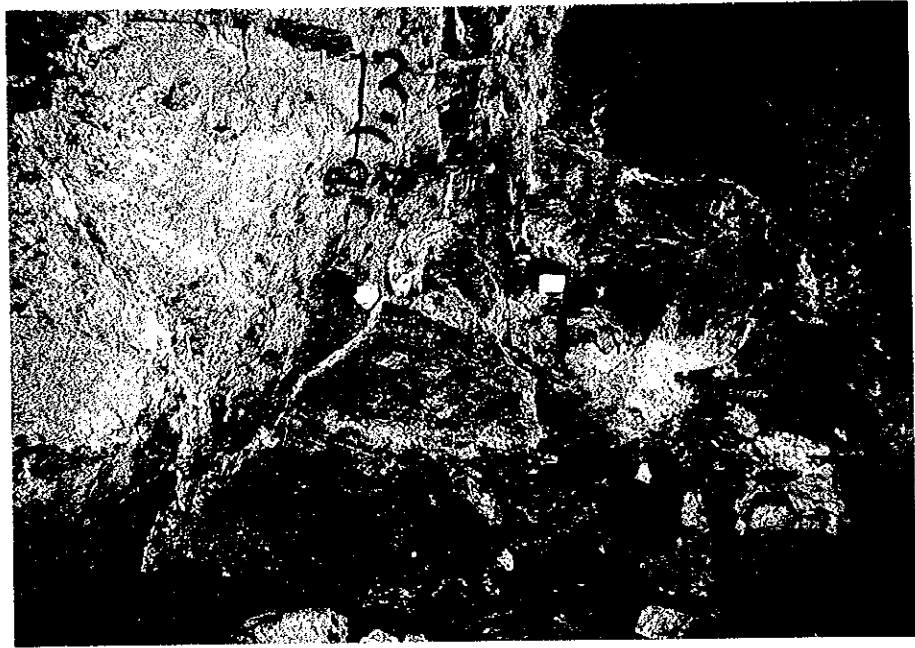
JICA/MMAJ 検査風景



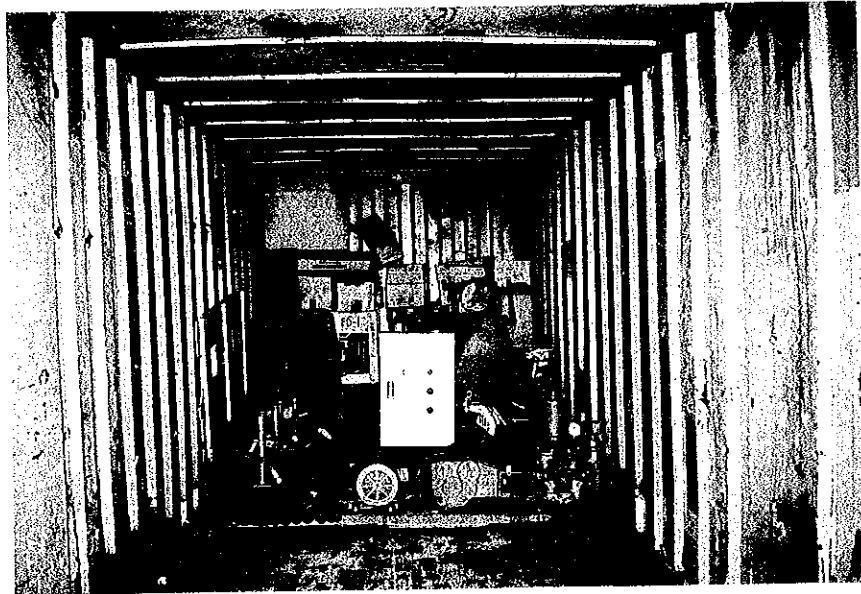
掘進作業風景



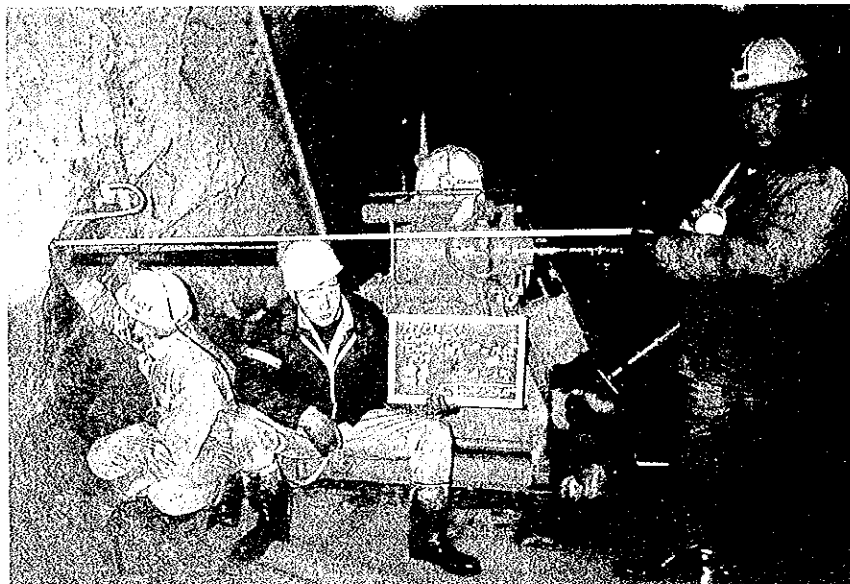
設営風景



止水狀況（13、14孔）



保管狀況



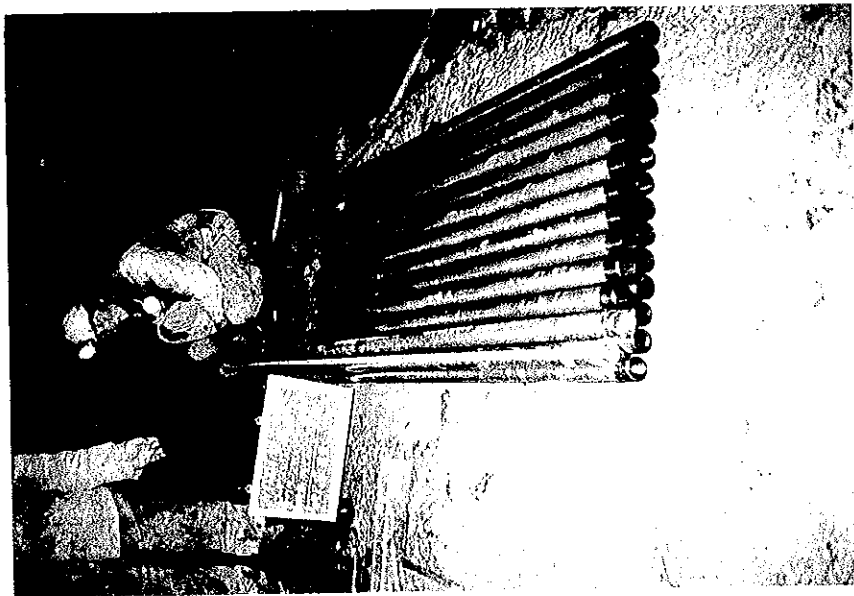
MJMT-1 孔ロッド検尺



MJMT-2 孔ロッド検尺

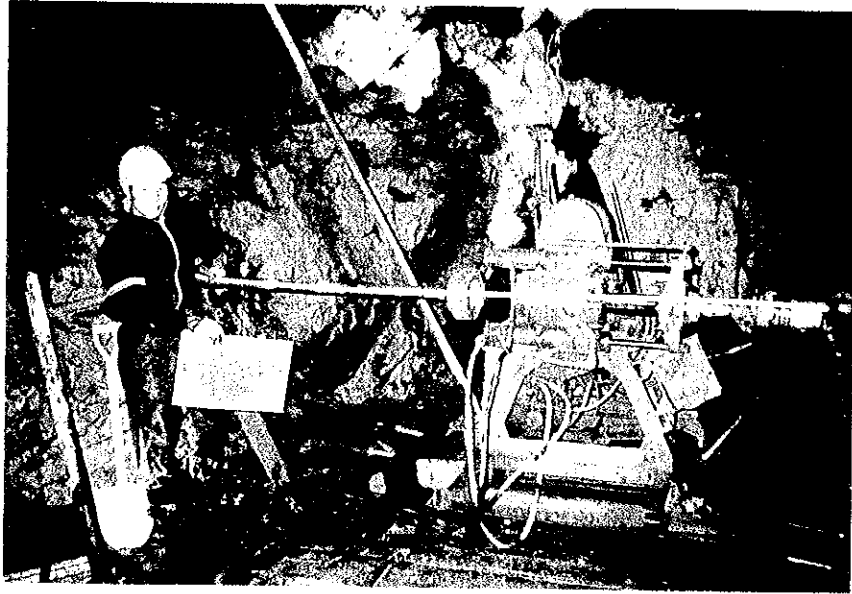


MJMT-3 孔ロッド検尺

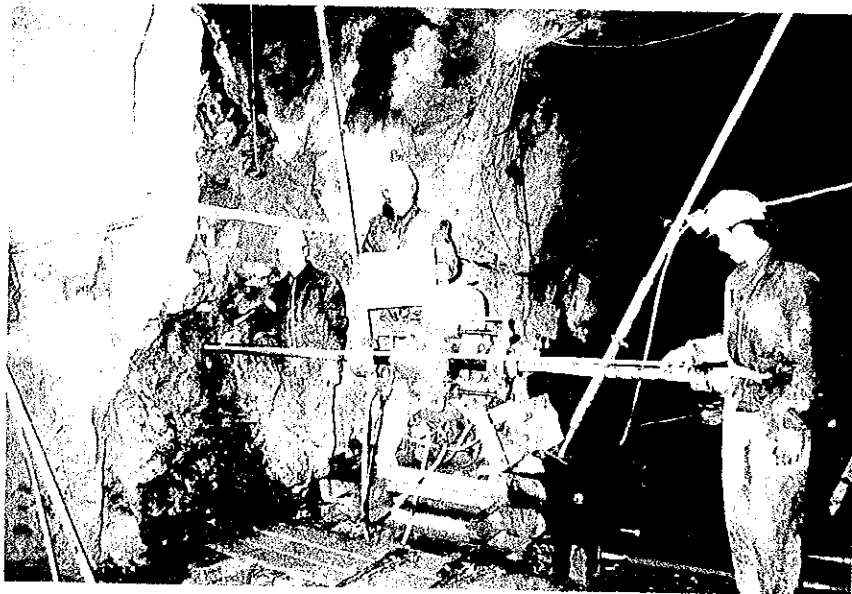


MJMT-4 孔ロッド検尺

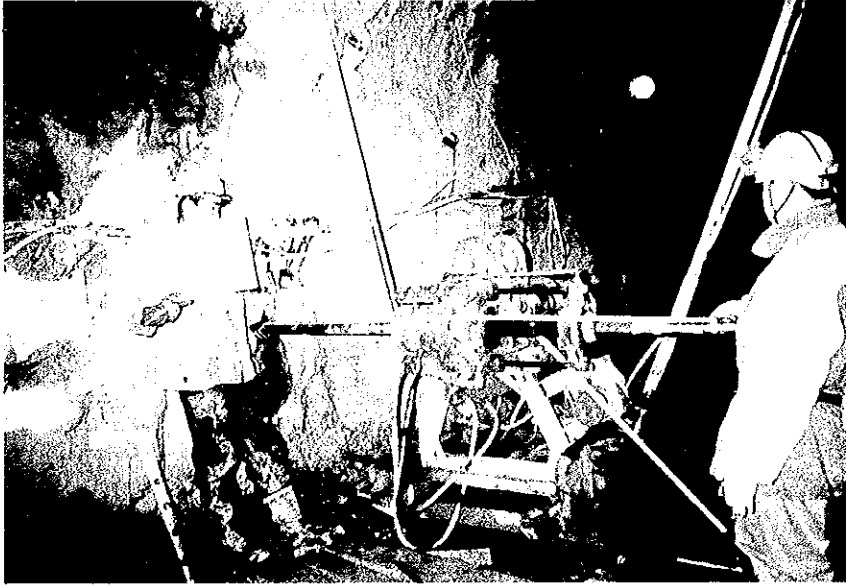




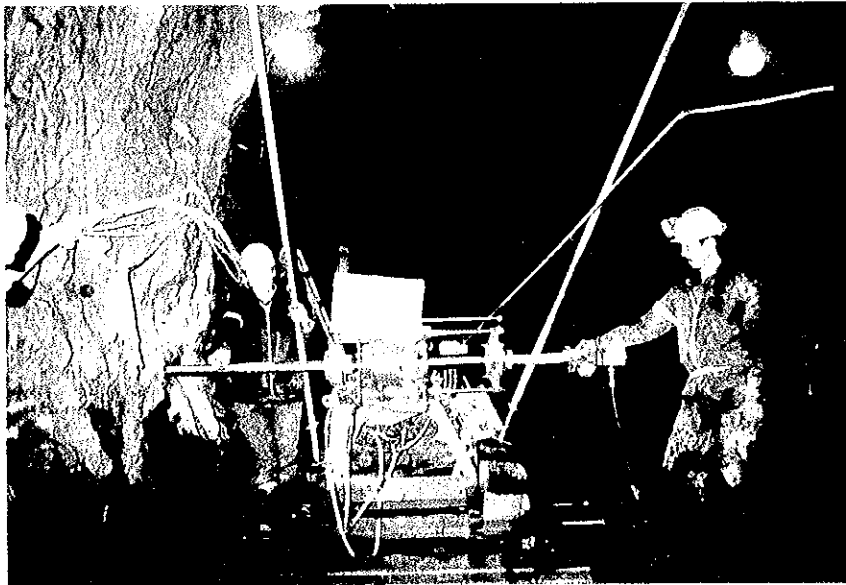
MJMT-5 孔ロッド検尺



MJMT-6 孔ロッド検尺



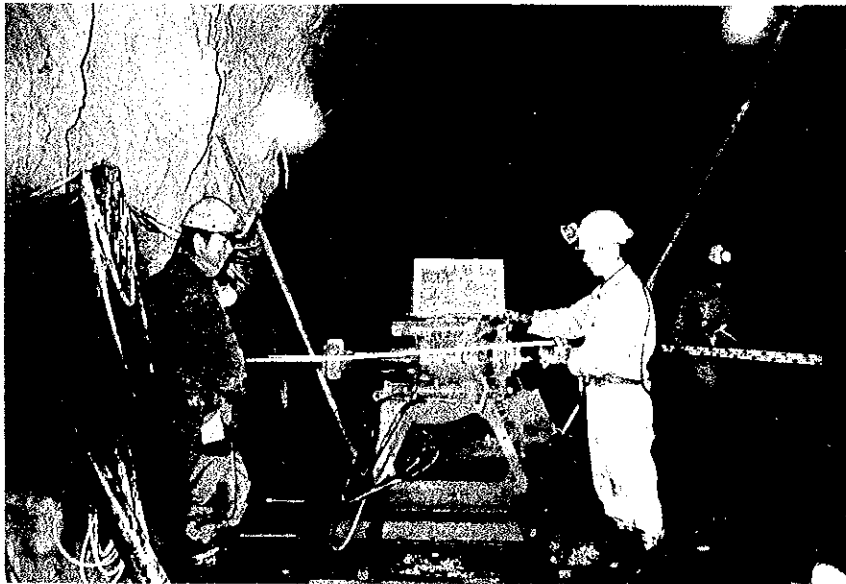
MJMT-7 孔ロッド検尺



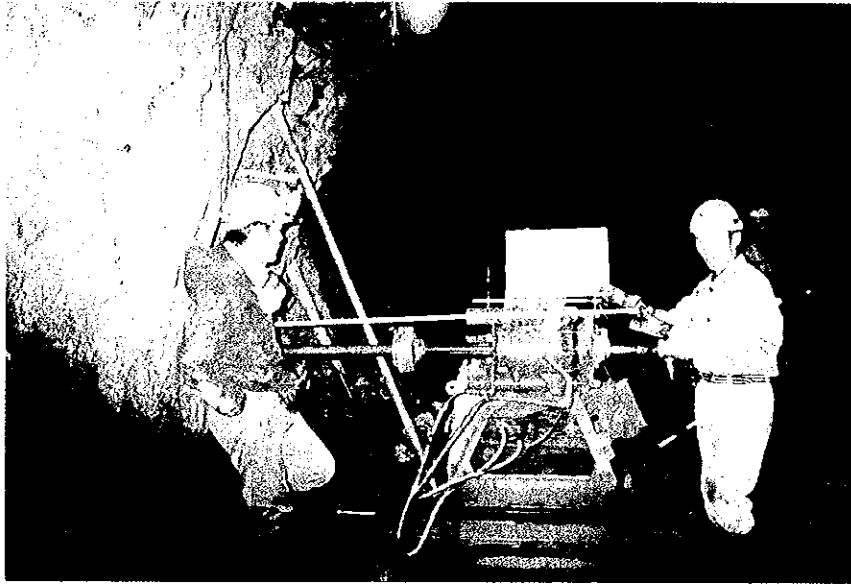
MJMT-8 孔ロッド検尺



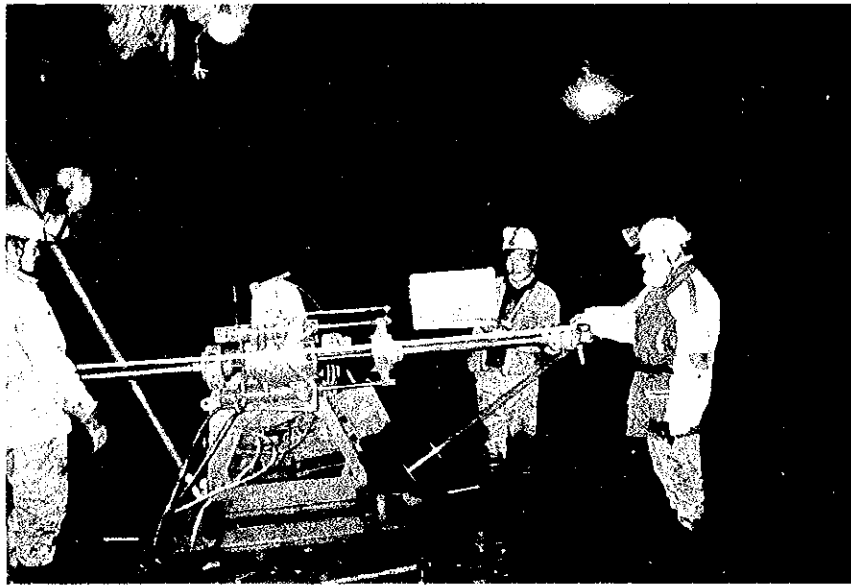
MJMT-9 孔ロッド検尺



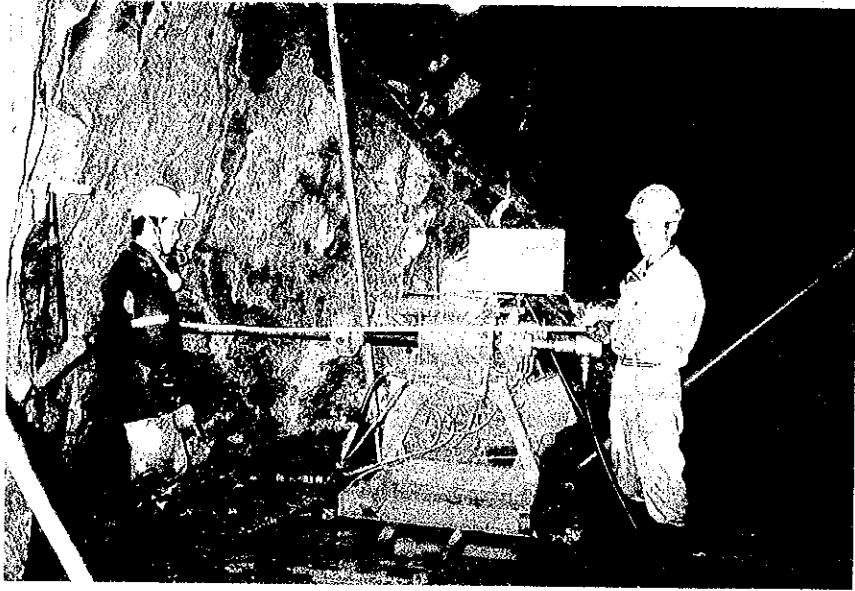
MJMT-10 孔ロッド検尺



MJMT-1 1孔ロッド検尺



MJMT-1 2孔ロッド検尺



MJMT-13 孔ロッド検尺



MJMT-14 孔ロッド検尺



LHDによるトレンチ掘削



バックホーによるトレンチ掘削



人力によるトレンチ掘削



4号鍾サンプリング風景

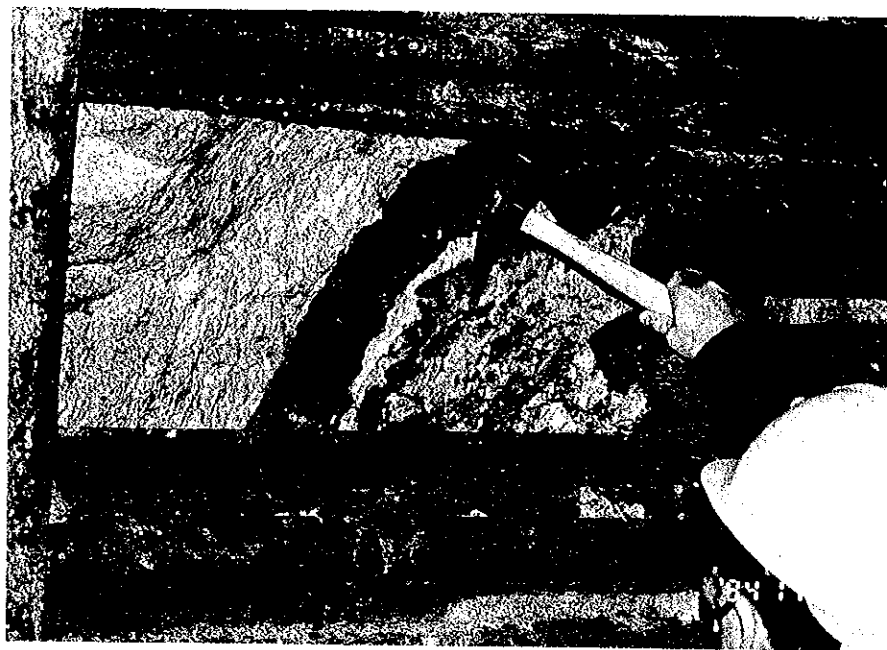


サンプリング作業

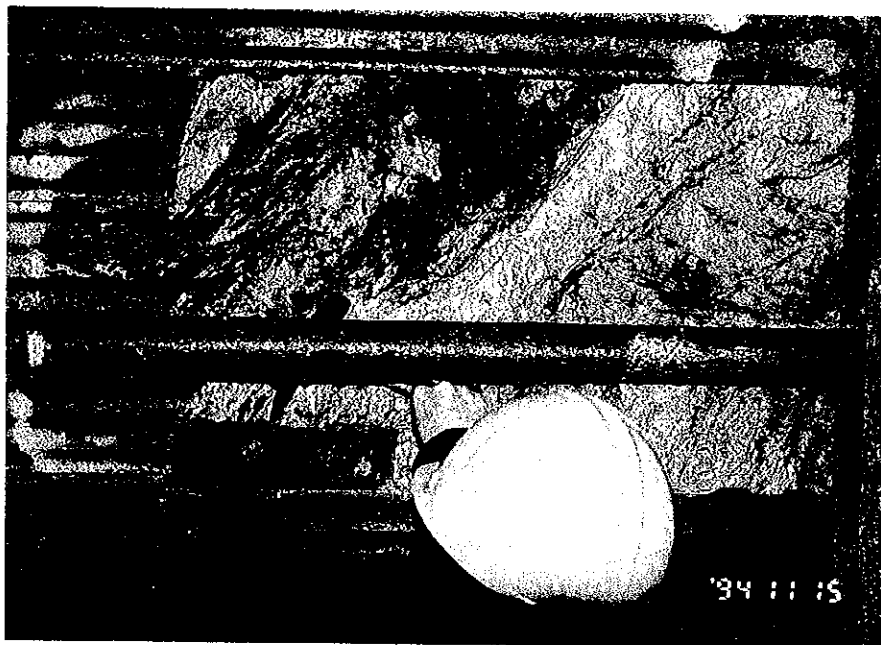


坑内調査





立入坑道鉦石部（21.5m付近）



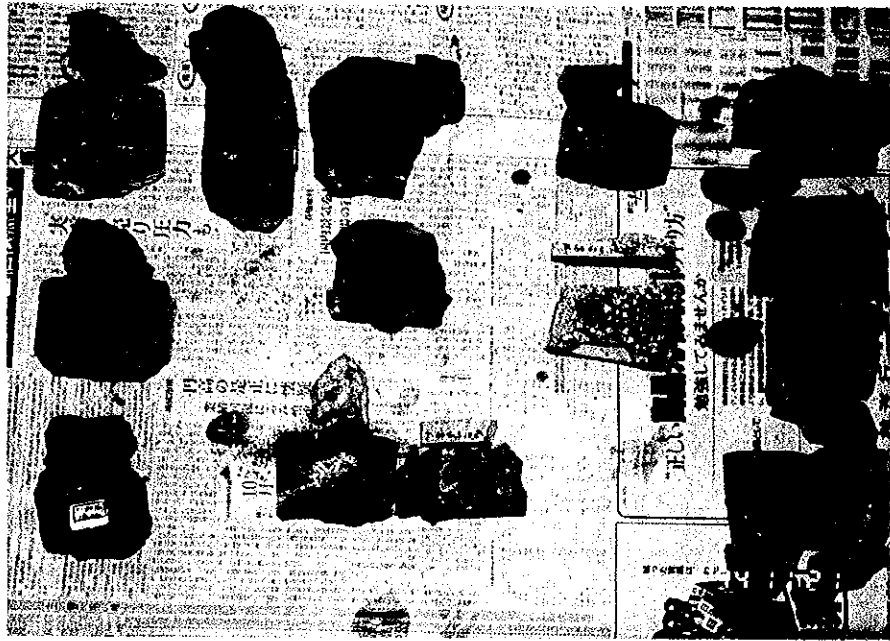
立入坑道鉦石部（23m付近）



第4 ずり置き場 鉱石部



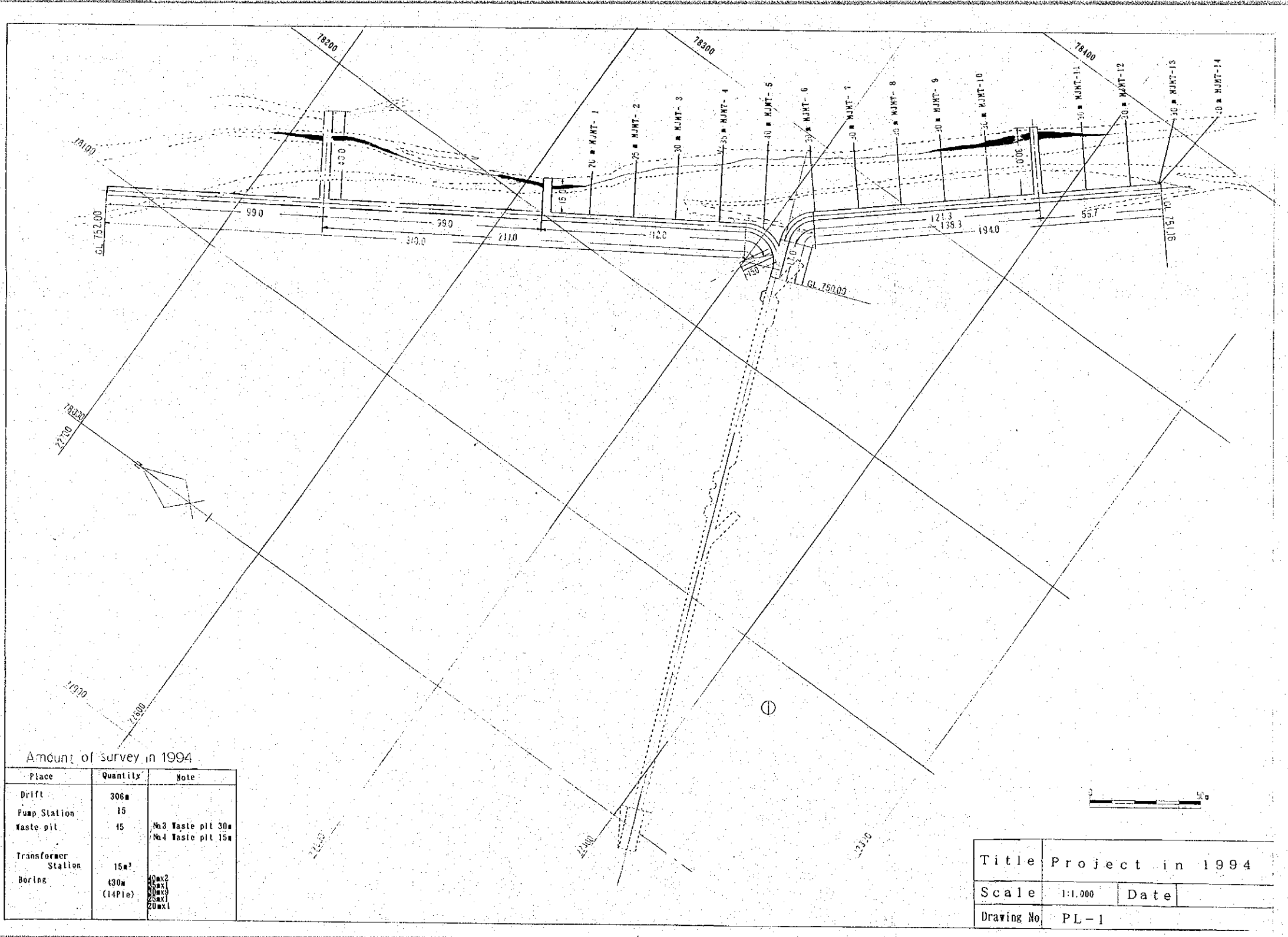
サンプルカッター作業



サンプル

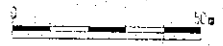


ボーリングサンプル

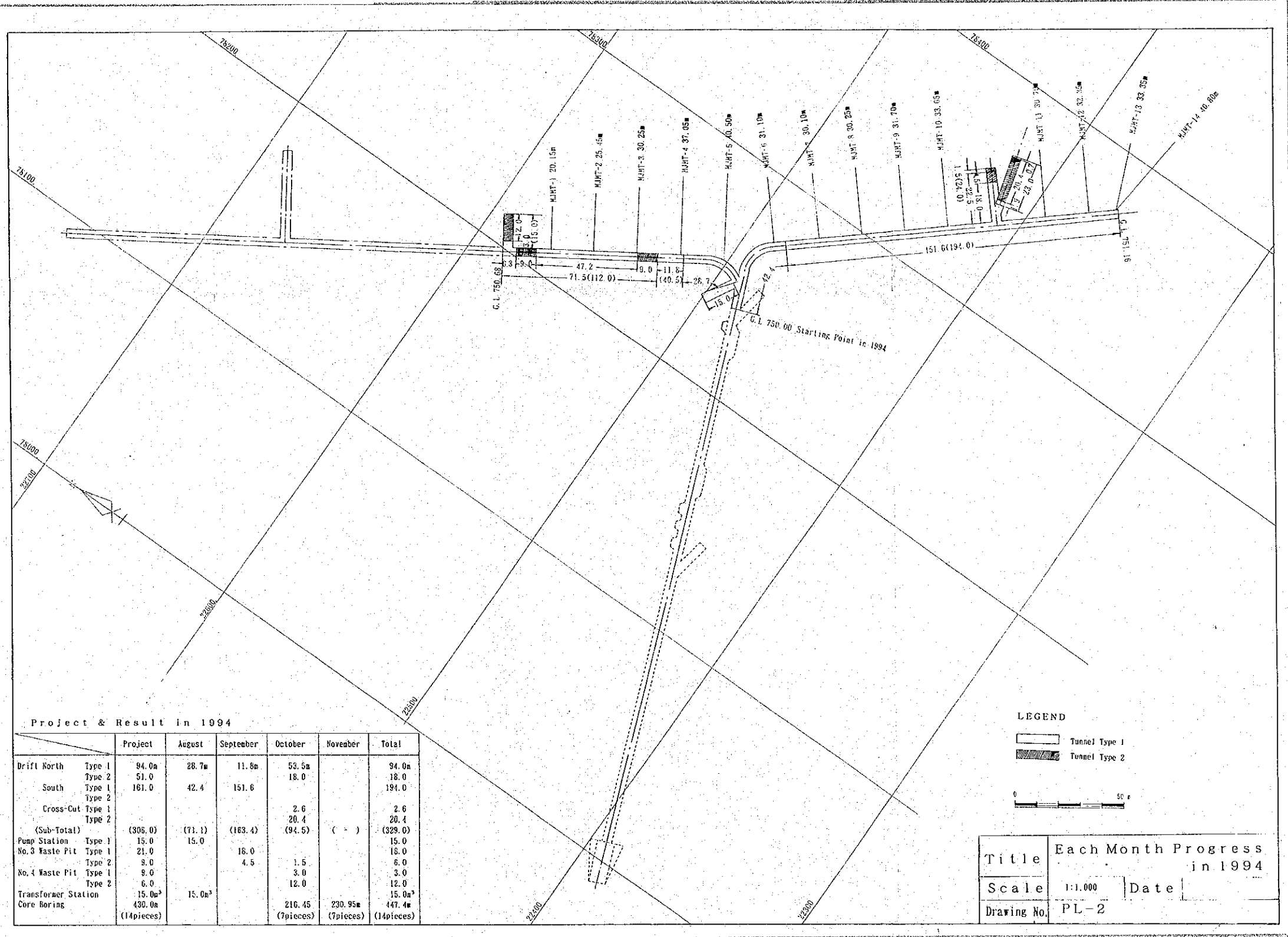


Amount of survey in 1994

Place	Quantity	Note
Drift	306m	
Pump Station	15	
Waste pit	15	No.3 Waste pit 30m No.4 Waste pit 15m
Transformer Station	15m <sup>2</sup>	
Boring	430m (14Pie)	40x2 30x1 30x3 30x1 20x1



Title	Project in 1994		
Scale	1:1,000	Date	
Drawing No	PL-1		



Project & Result in 1994

		Project	August	September	October	November	Total
Drift North	Type 1	94.0m	28.7m	11.8m	53.5m		94.0m
	Type 2	51.0			18.0		18.0
South	Type 1	161.0	42.4	151.6			194.0
	Type 2						
Cross-Cut	Type 1				2.6		2.6
	Type 2				20.4		20.4
(Sub-Total)		(305.0)	(71.1)	(163.4)	(94.5)	( - )	(329.0)
Pump Station	Type 1	15.0	15.0				15.0
No. 3 Waste Pit	Type 1	21.0		18.0			18.0
	Type 2	9.0		4.5	1.5		6.0
No. 4 Waste Pit	Type 1	9.0			3.0		3.0
	Type 2	6.0			12.0		12.0
Transformer Station		15.0m <sup>3</sup>	15.0m <sup>3</sup>				15.0m <sup>3</sup>
Core Boring		430.0m (14pieces)			216.45 (7pieces)	230.95m (7pieces)	447.4m (14pieces)

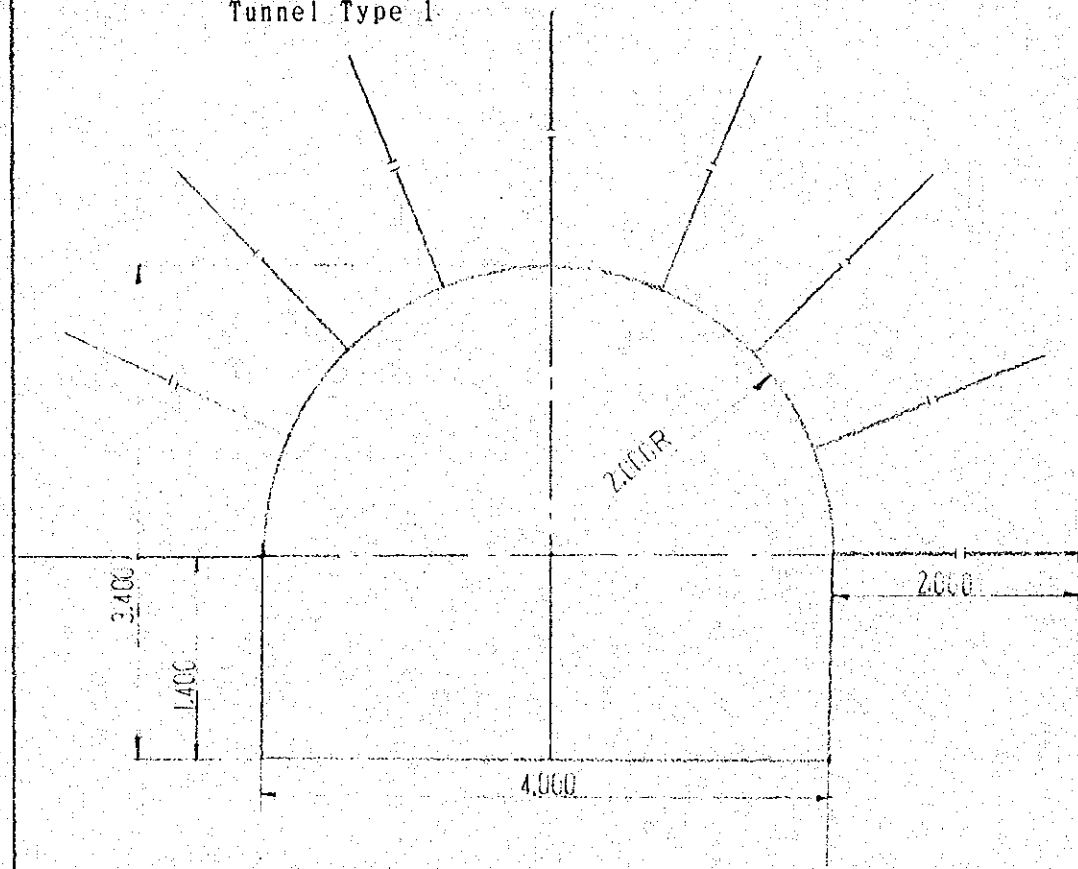
LEGEND

- Tunnel Type 1
- Tunnel Type 2

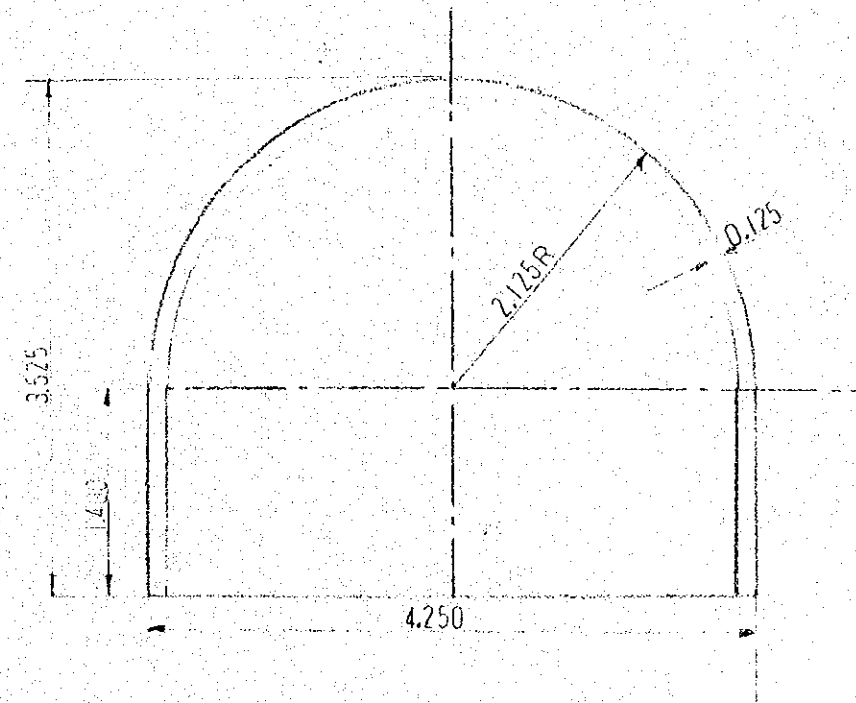


Title	Each Month Progress in 1994	
Scale	1:1,000	Date
Drawing No.	PL-2	

Tunnel Type 1



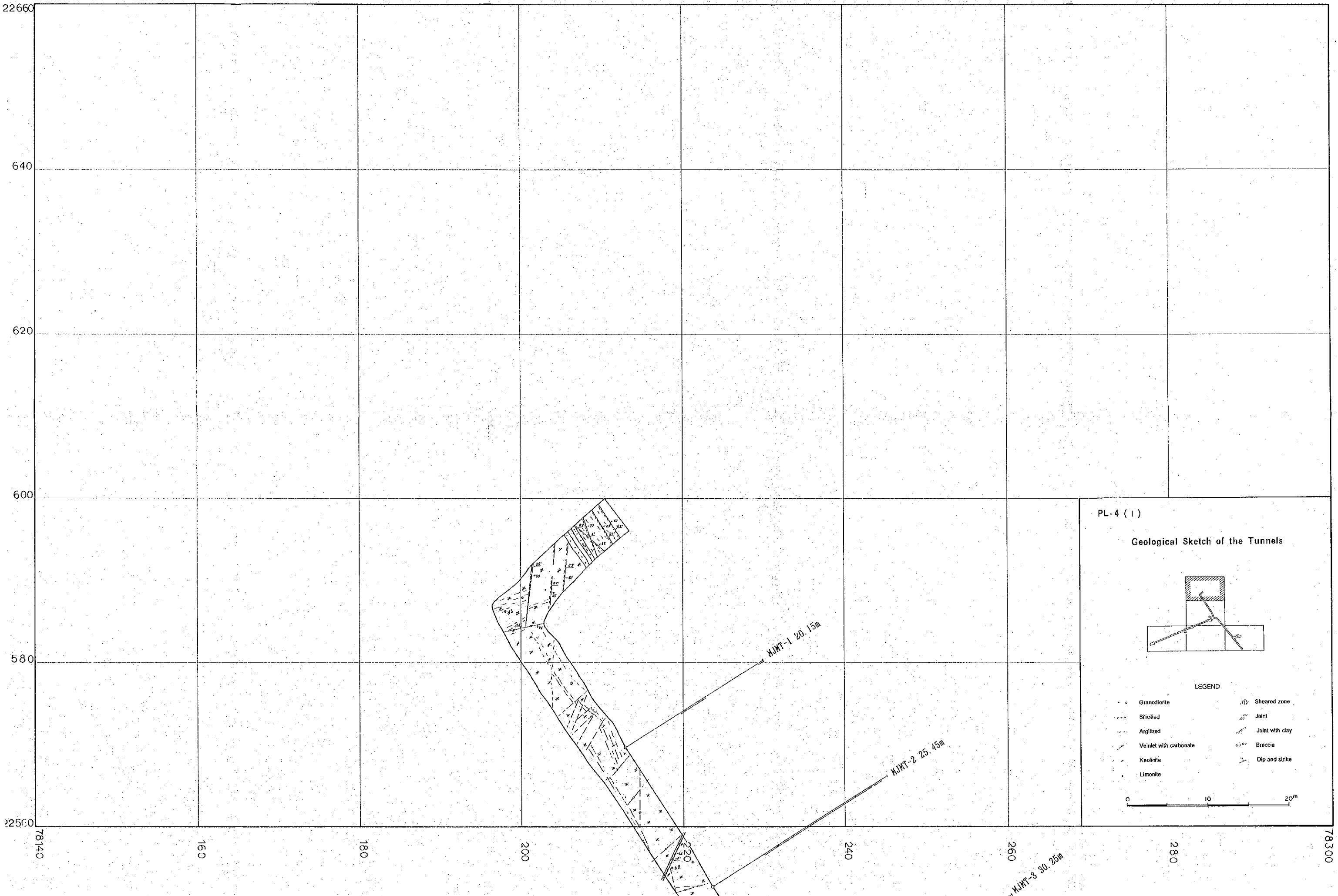
Tunnel Type 2



P L - 3 Tunnel Section			
Scale	1/50	Date	
Drawing No.	P L - 3		

N3E1	N3E2
N2E1	N2E2

N3E2



PL-4 (1)

Geological Sketch of the Tunnels

LEGEND

x	Granodiorite	///	Sheared zone
...	Silicified	///	Joint
- - -	Argillized	///	Joint with clay
—	Veinlet with carbonate	o o o	Breccia
—	Kaolinite	—	Dip and strike
.	Limonite		

0 10 20<sup>m</sup>

N2E1	N2E2
N1E1	N1E2

N2E2

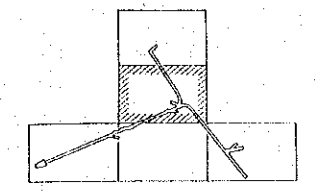
MJMT-2 25.00

MJMT-3 30.25m

MJMT-8 31.10m

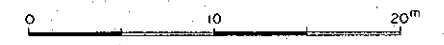
PL-4 (2)

Geological Sketch of the Tunnels



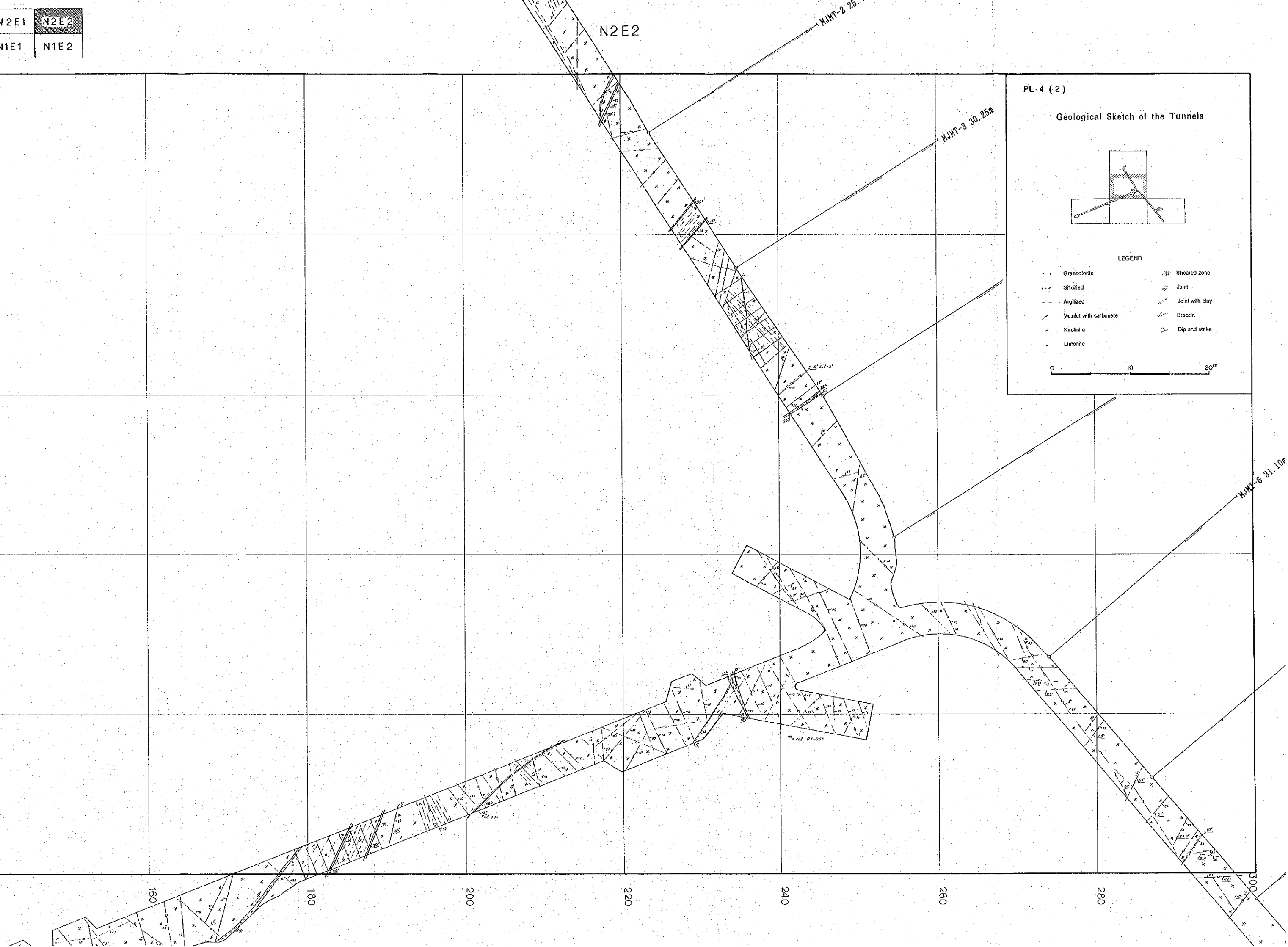
LEGEND

- |       |                        |       |                 |
|-------|------------------------|-------|-----------------|
| -x-   | Granodiorite           | ///   | Sheared zone    |
| ...   | Silicified             |       | Joint           |
| - - - | Argilized              | - - - | Joint with clay |
| —/—   | Veinlet with carbonate | o o o | Breccia         |
| ~     | Kaolinite              | ↘ ↙   | Dip and strike  |
| •     | Limonite               |       |                 |



2560  
540  
520  
500  
480  
2260

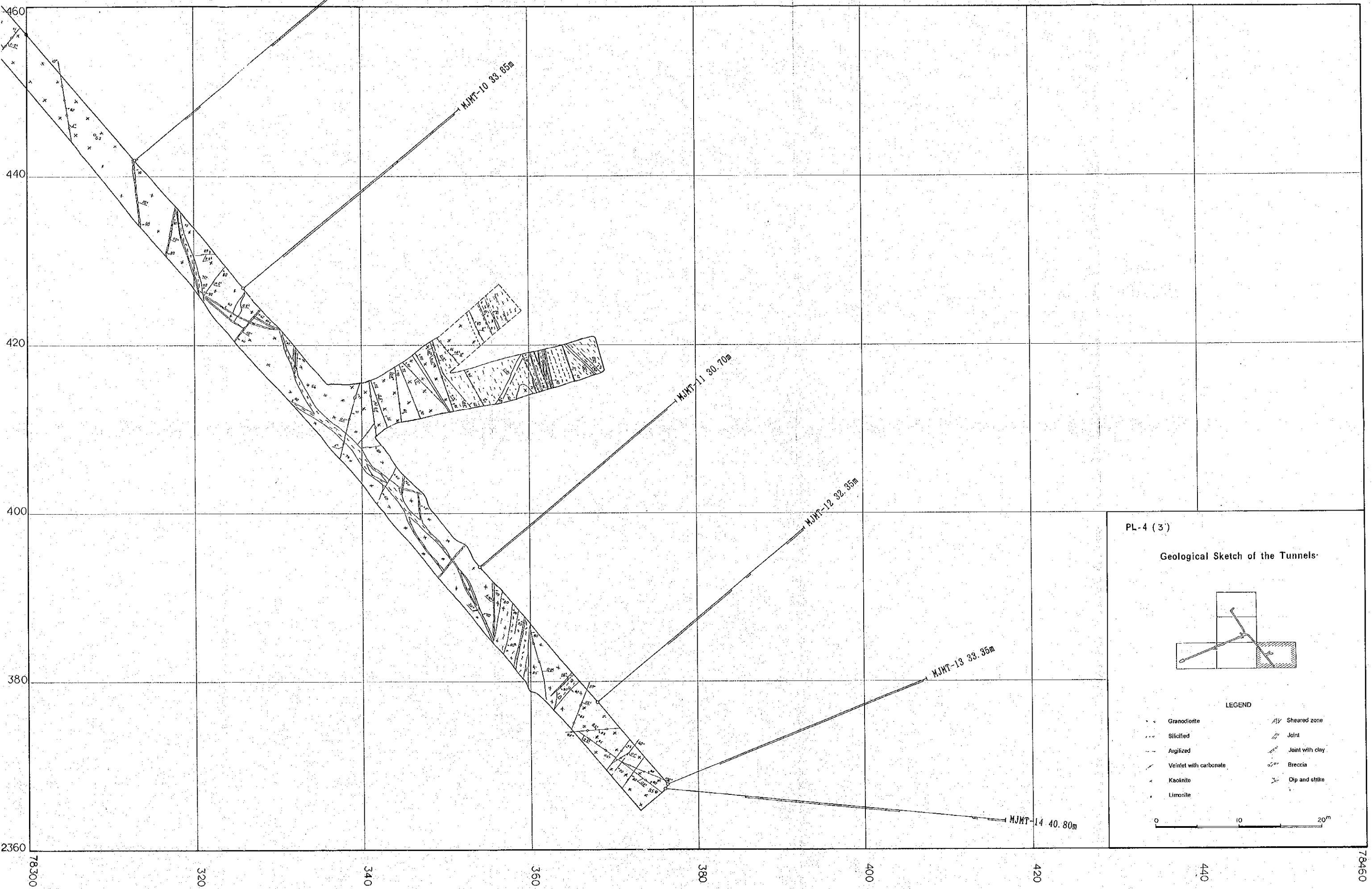
78.140 160 180 200 220 240 260 280 300





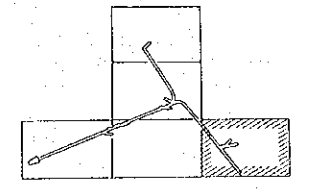
N2E2	N2E3
N1E2	N1E3

N1E3



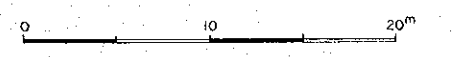
PL-4 (3)

Geological Sketch of the Tunnels



LEGEND

- \* x Granodiorite
- ... Silicified
- Argillized
- Veinlet with carbonate
- ▲ Kaolinite
- Limonite
- /// Sheared zone
- /// Joint
- Joint with clay
- o Breccia
- ∠ Dip and strike



78300

320

340

360

380

400

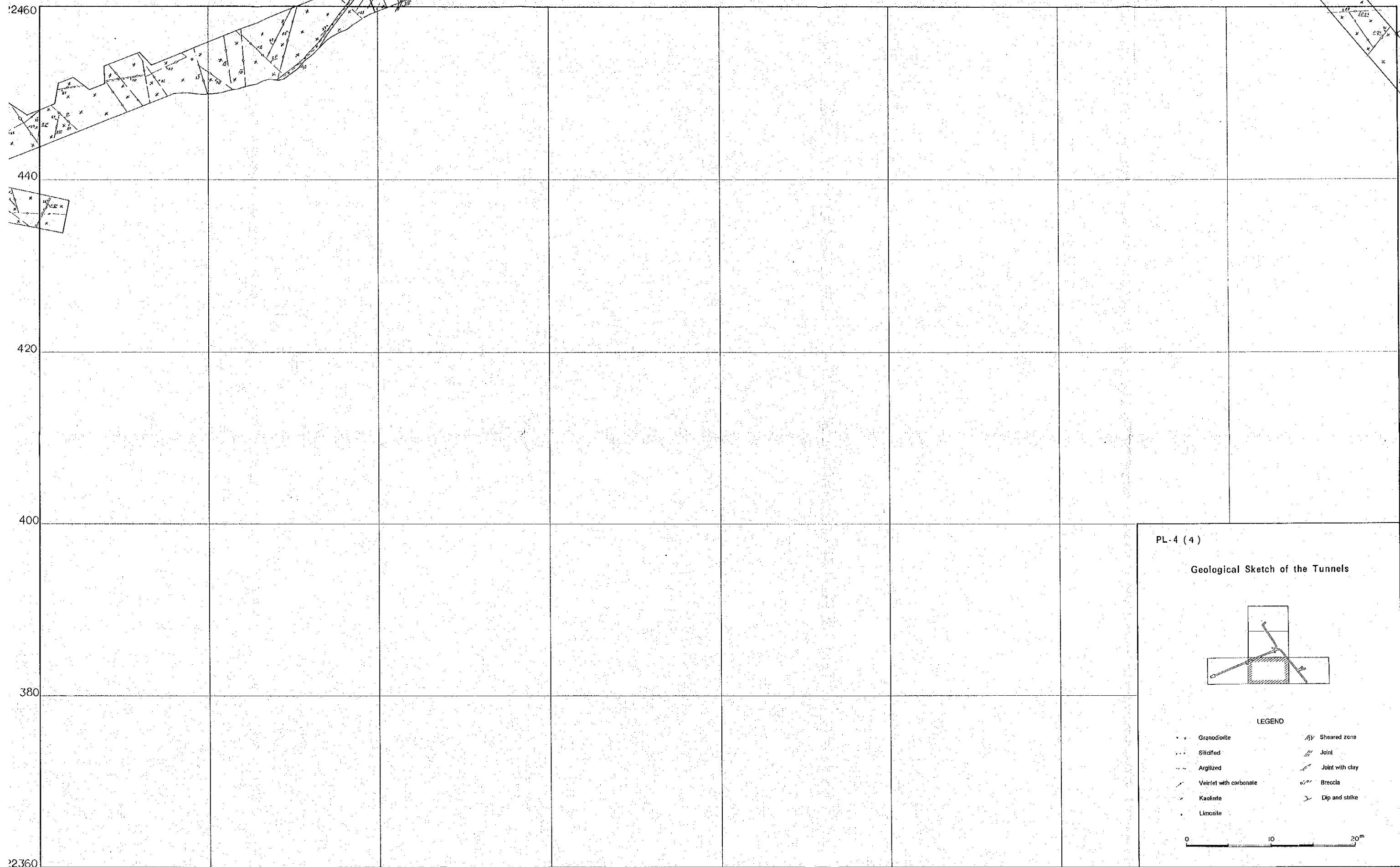
420

440

78460

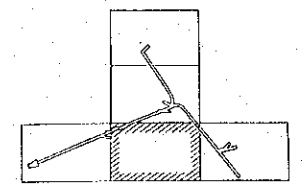
N2E1	N2E2
N1E1	N1E2

N1E2



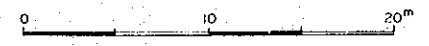
PL-4 (4)

Geological Sketch of the Tunnels



LEGEND

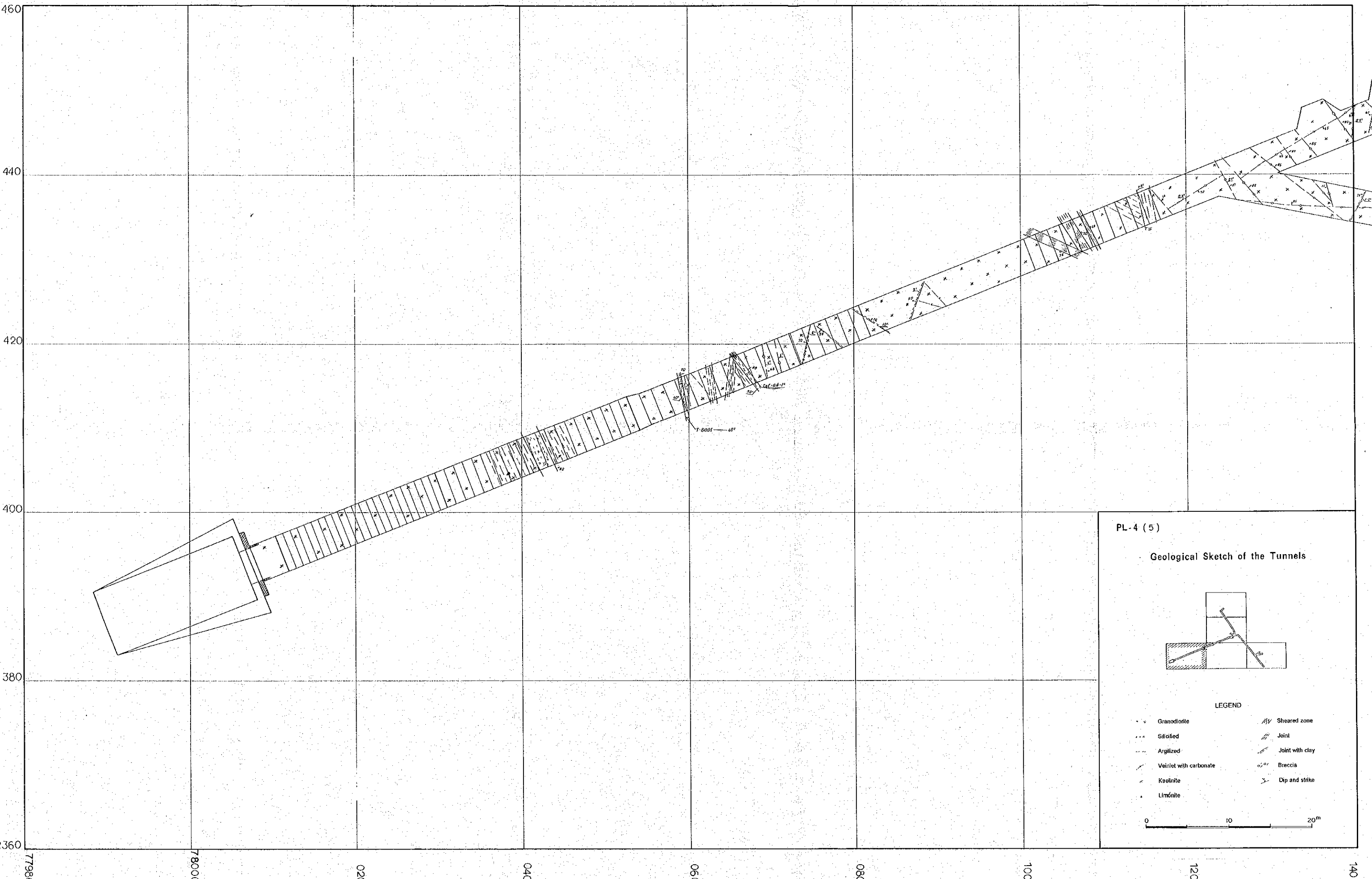
- x Granodiorite
- ... Silicified
- ~ Argillized
- Veinlet with carbonate
- ~ Kaolinite
- Limonite
- /// Sheared zone
- Joint
- Joint with clay
- o Breccia
- ~ Dip and strike



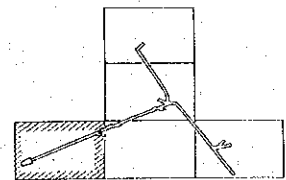
78140 160 180 200 220 240 260 280 78300

N2E1	N2E2
N1E1	N1E2

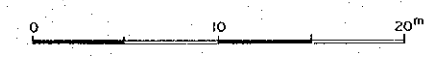
N1E1

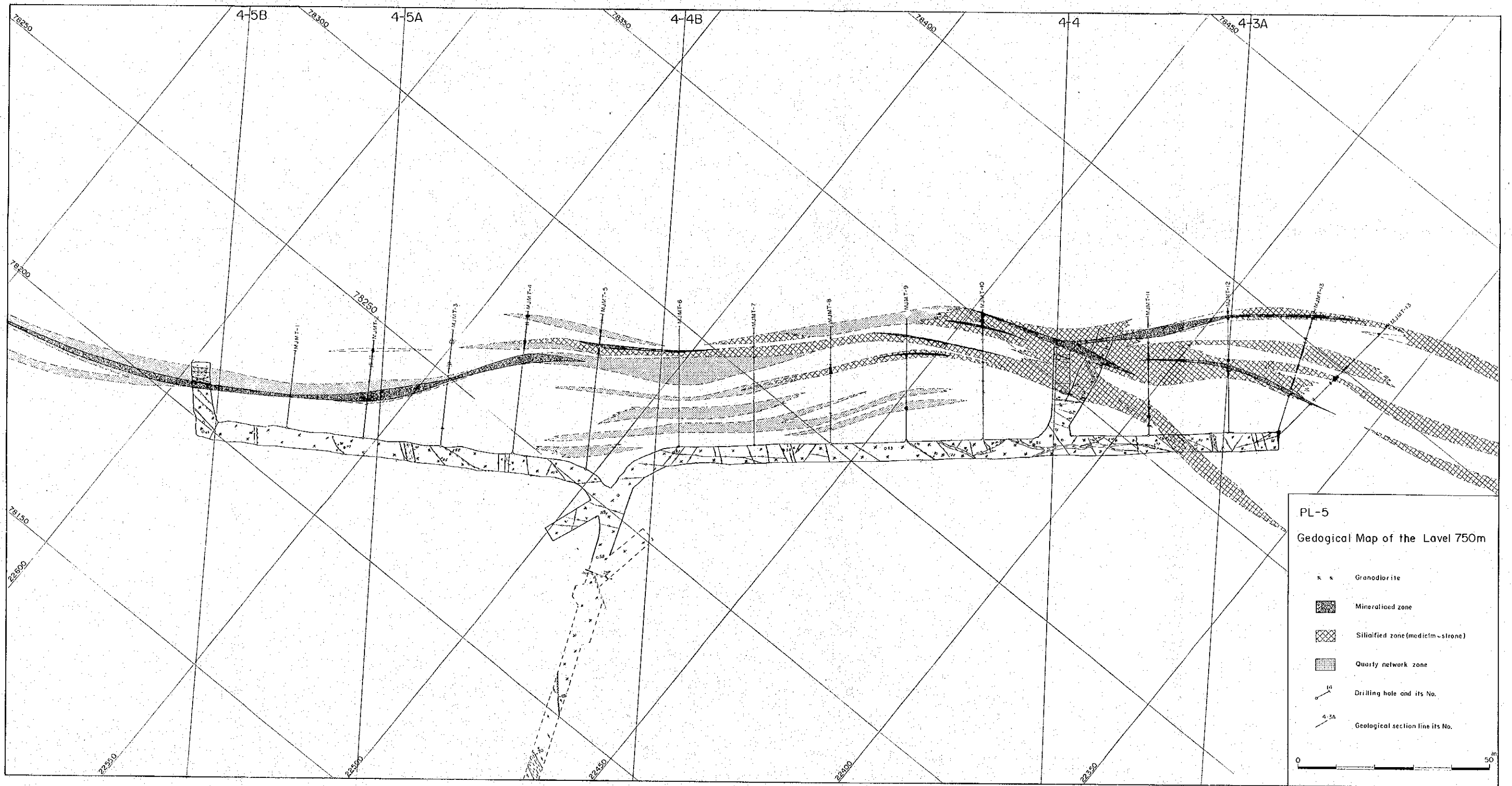


PL-4 (5)  
Geological Sketch of the Tunnels



- LEGEND
- Granodiorite
  - Silicified
  - Argilized
  - Veinlet with carbonate
  - Kaolinite
  - Limonite
  - /// Sheared zone
  - /// Joint
  - /// Joint with clay
  - o•o Breccia
  - Dip and strike





PL-5  
Geological Map of the Level 750m

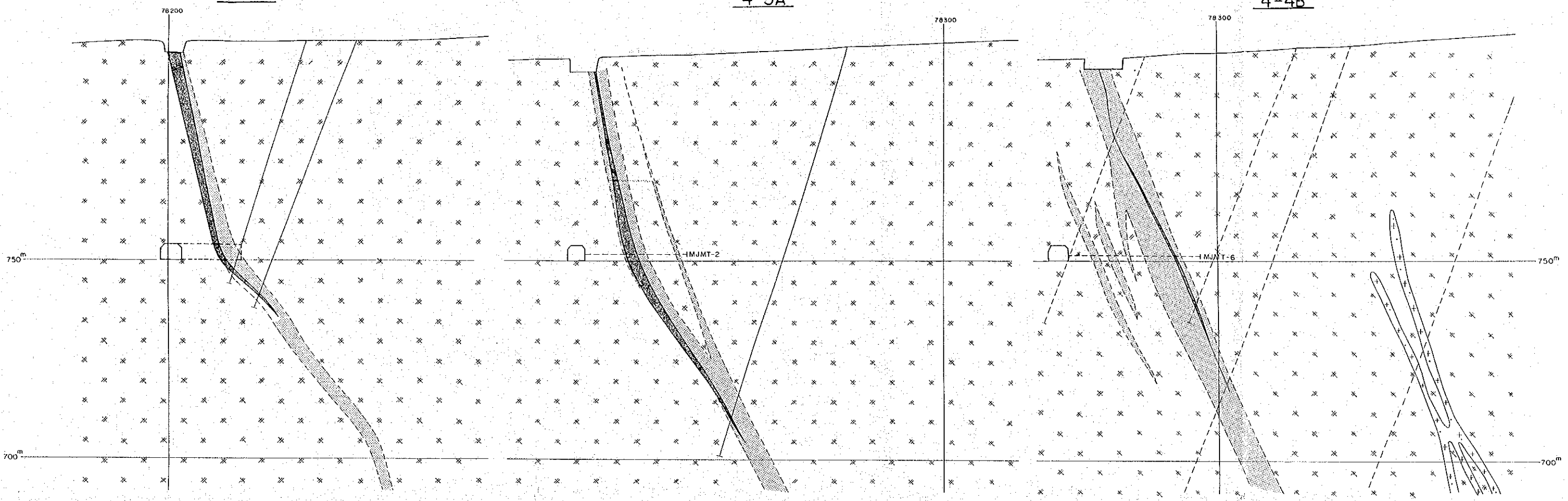
- x x Granodiorite
- Mineralized zone
- Silicified zone (medicm-stone)
- Quarry network zone
- Drilling hole and its No.
- Geological section line its No.



4-5B

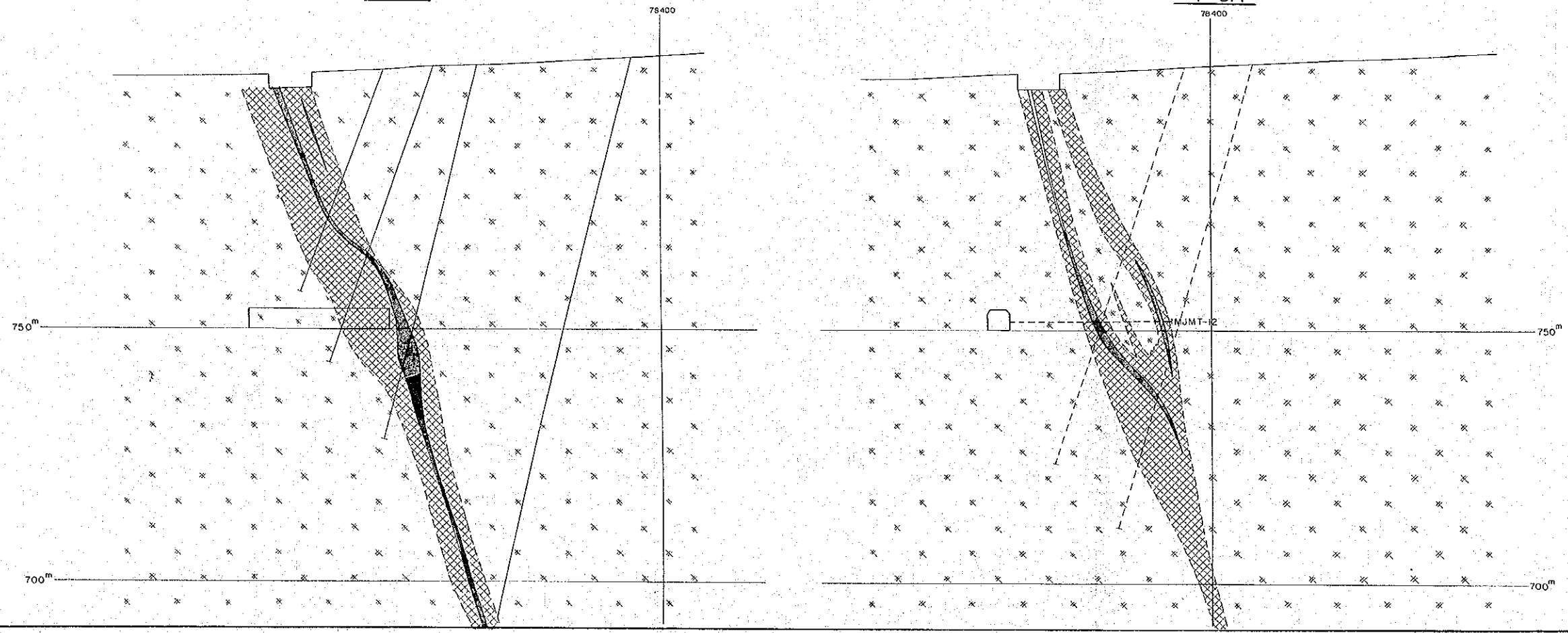
4-5A

4-4B



4-4

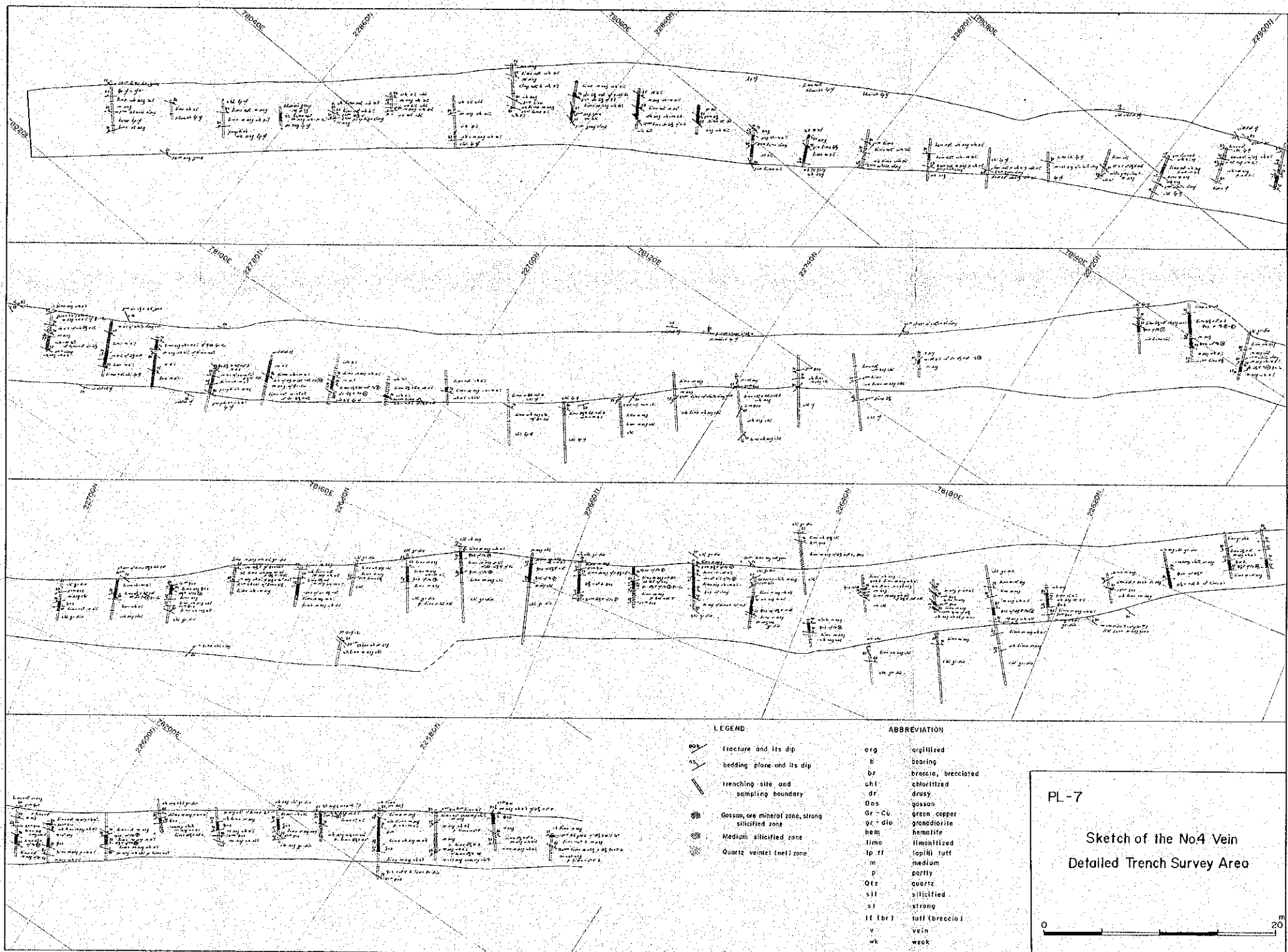
4-3A



PL-6  
Geological Section  
of the No.4 Vein Detailed Survey

- × × Granodiorite
- + + Granite porphyry
- Mineralized zone
- ▨ Silicified zone (medium ~ strong)
- Quarly network zone
- 1 MJMT-6 Drilling hole and its No.

0 50m



LEGEND:

- fracture and its dip
- bedding plane and its dip
- trenching site and sampling boundary
- Gossan, ore mineral zone, strong silicified zone
- Medium silicified zone
- Quartz veinlet (mst) zone

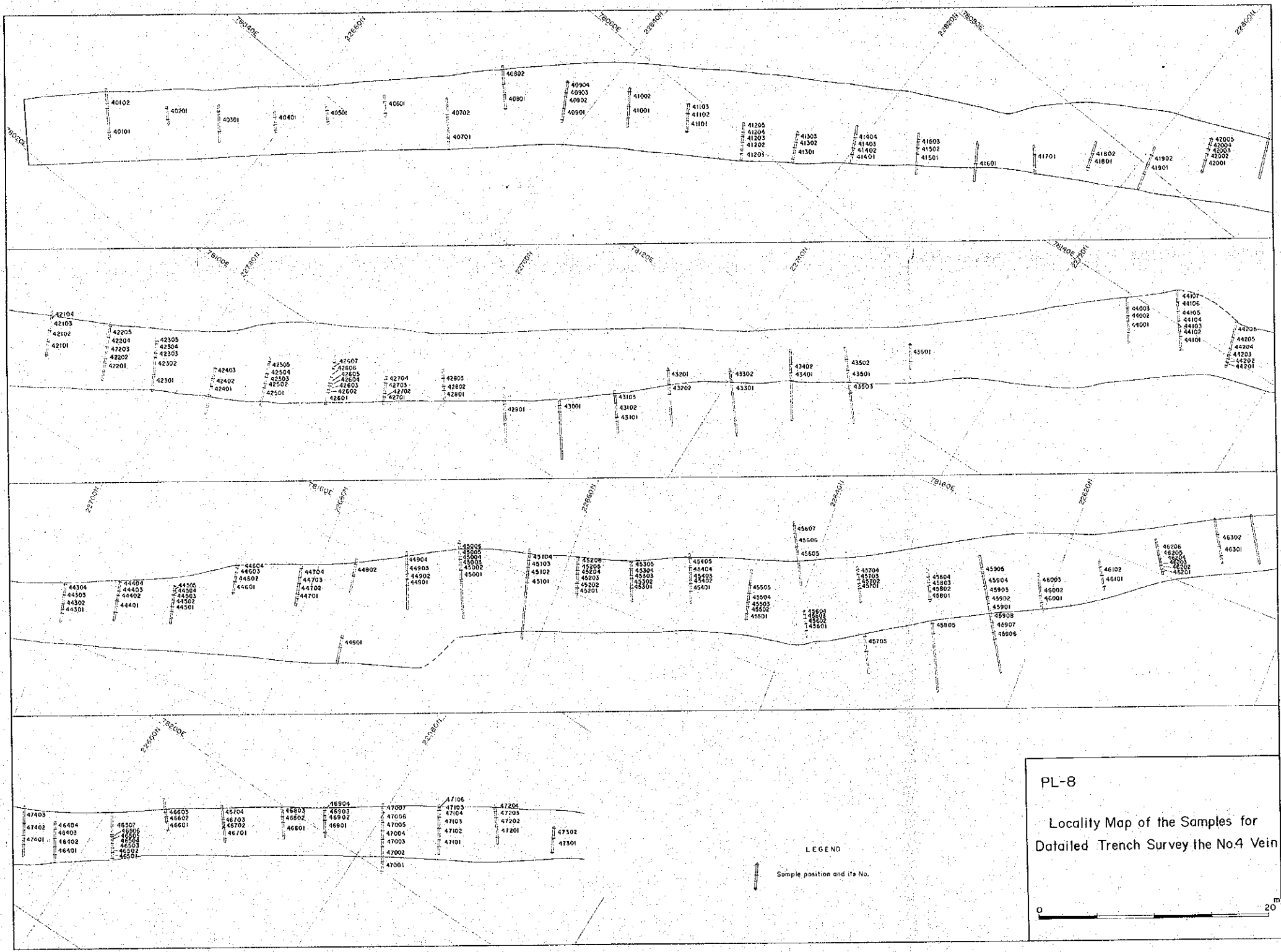
ABBREVIATION

- org organitized
- B bearing
- br breccia, brecciated
- chl chloritized
- dr drusy
- Gos gossan
- Gr-Cu green copper
- gr-dio gonodiorite
- hem hematite
- limo limonitized
- lp-ff lapilli tuff
- m medium
- p partly
- Qtz quartz
- sil silicified
- st strong
- ff (br) tuff (breccia)
- v vein
- wk weak

PL-7

Sketch of the No. 4 Vein  
Detailed Trench Survey Area

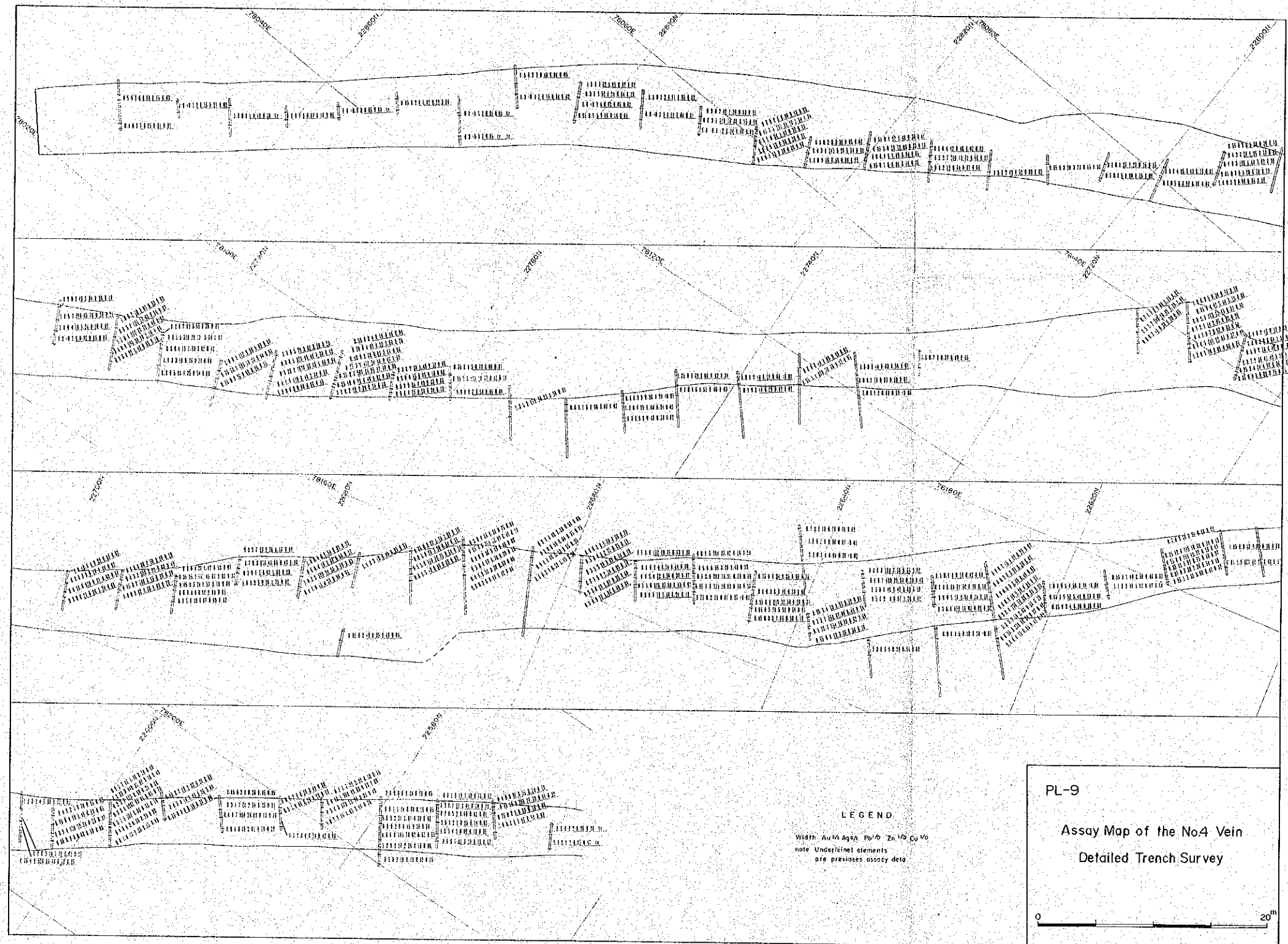




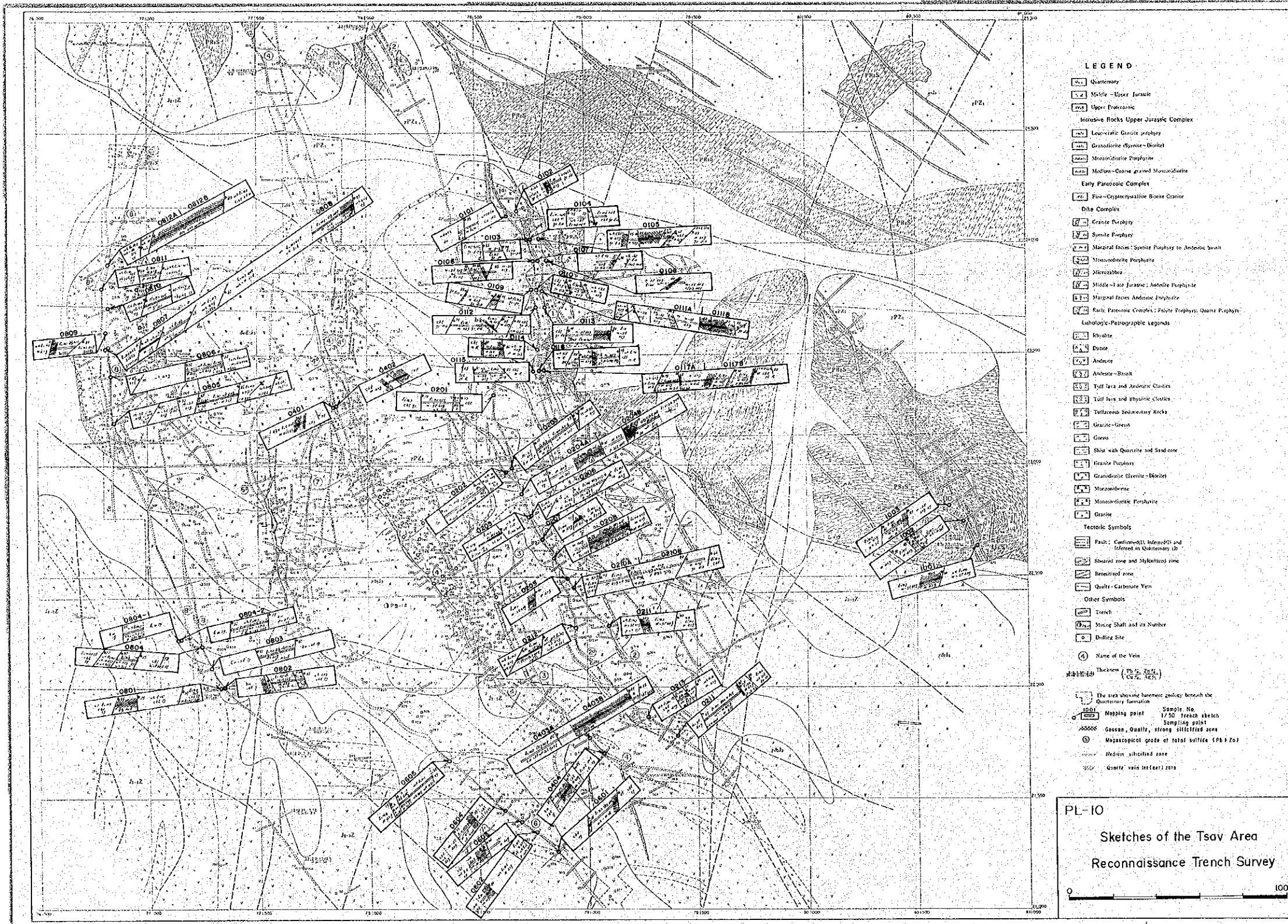
PL-8  
 Locality Map of the Samples for  
 Detailed Trench Survey the No.4 Vein

LEGEND  
 Sample position and its No.





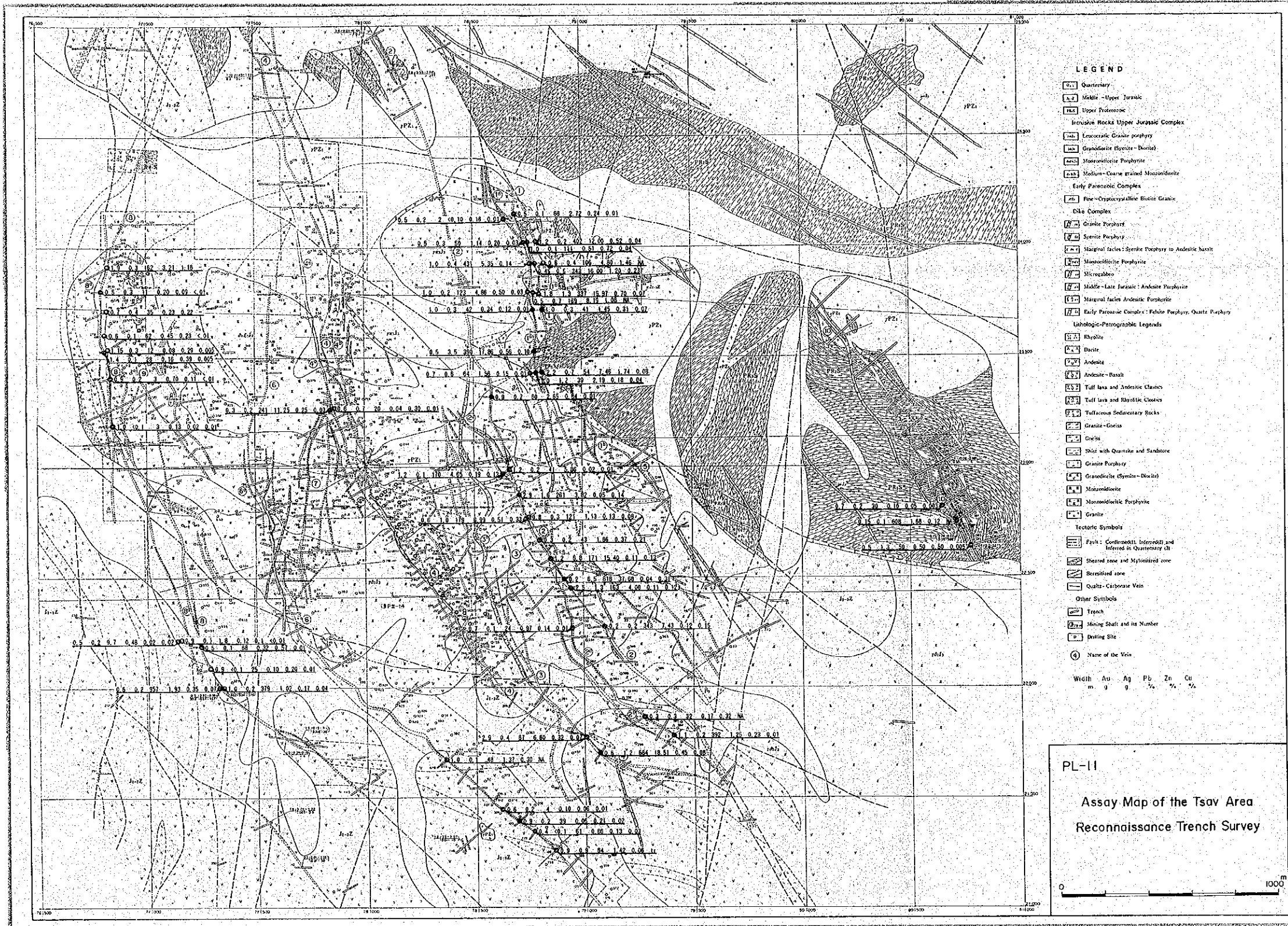




- LEGEND**
- Quaternary
  - Middle - Upper Jurassic
  - Upper Proterozoic
  - Intrusive Rocks Upper Jurassic Complex
    - Leucocratic Granite porphyry
    - Granodiorite (Syncline-Dioctel)
    - Monzonitic Porphyrite
    - Medium-Coarse grained Muscovite
  - Early Proterozoic Complex
    - Five-Crystalline Biotite Granite
  - Dike Complex
    - Granite Porphyry
    - Syenite Porphyry
    - Marginal facies: Syenite Porphyry to Andesite Spalt
    - Muscovite Porphyrite
    - Microzircon
    - Middle-Late Jurassic: Andesite Porphyrite
    - Marginal facies Andesite Porphyrite
    - Early Proterozoic Complex: Plutite Porphyry, Quartz Porphyry
  - Lithologic-Petrographic Legends
    - Shivite
    - Diorite
    - Andesite
    - Andesite-Basalt
    - Tuff lava and Andesite Clastics
    - Tuff lava and Bitynic Clastics
    - Tuffaceous Sedimentary Rocks
    - Granite-Gneiss
    - Gneiss
    - Shale with Quartzite and Sandstone
    - Granite Porphyry
    - Granodiorite (Gneiss-Dioctel)
    - Muscovite
    - Muscovite Porphyrite
    - Granite
  - Tectonic Symbols
    - Fault: Confined to Inferred in Quaternary (Q)
    - Shaded zone and Mylonitized zone
    - Benevolent zone
    - Quartz-Carbonate Vein
  - Other Symbols
    - Trench
    - Mining Shaft and its Number
    - Drilling Site
    - Name of the Vein
    - Thickness (m, ft, m, ft)
  - The area showing bareness beneath the Quaternary formation
  - Mapping point 1/50 trench sketch
  - Sampling point
  - Gossan, Quartz, strong silicified zone
  - Megascopic zone of total sulfide (Sb & Zn)
  - Medium silicified zone
  - Quartz vein (Sb & Zn)

PL-10  
 Sketches of the Tsav Area  
 Reconnaissance Trench Survey

0 1000 m



JICA