

Figure B3.1.2 Simplified Drill Logs (2)

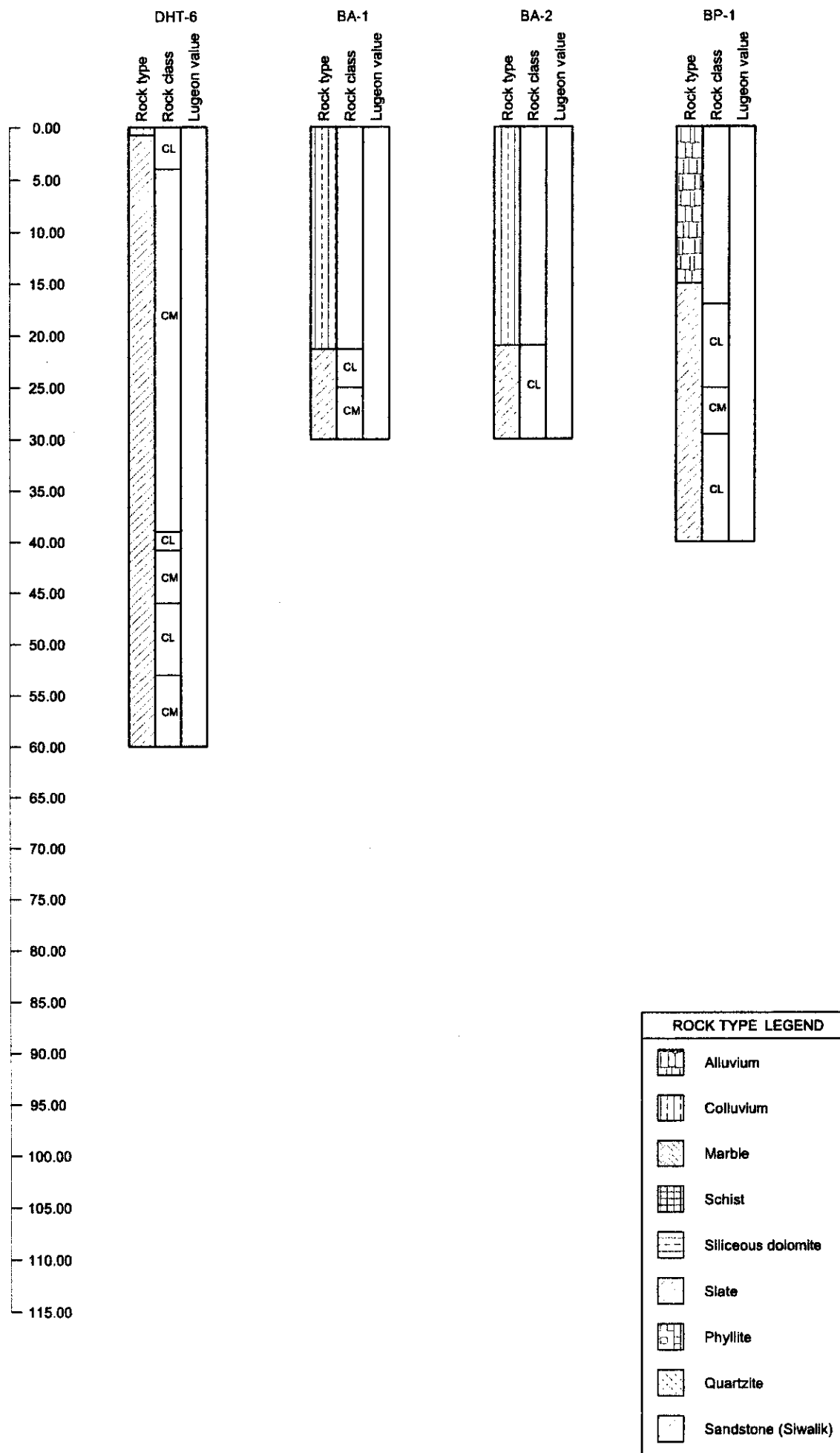


Figure B3.1.2 Simplified Drill Logs (3)

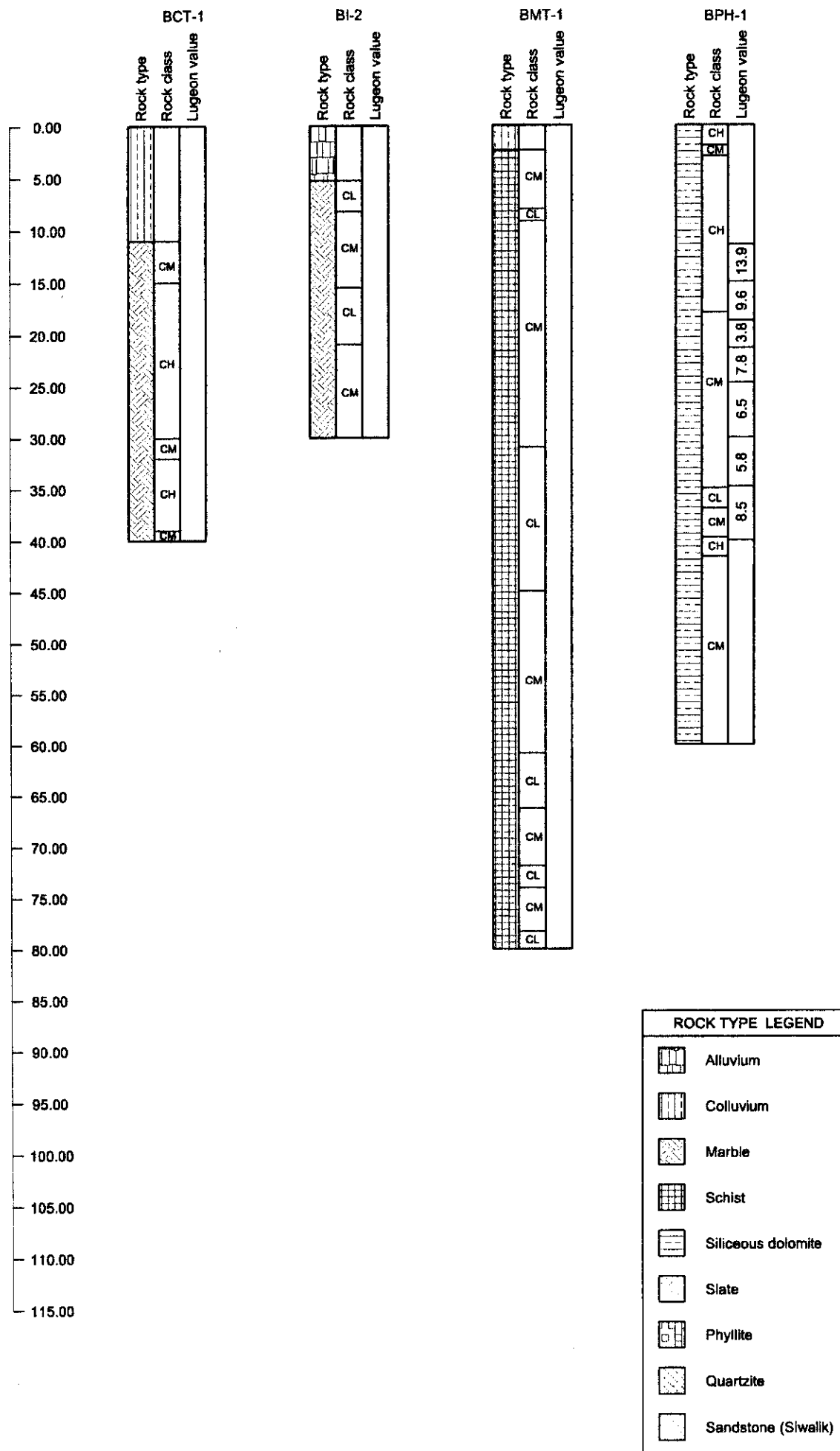


Figure B3.1.2 Simplified Drill Logs (4)

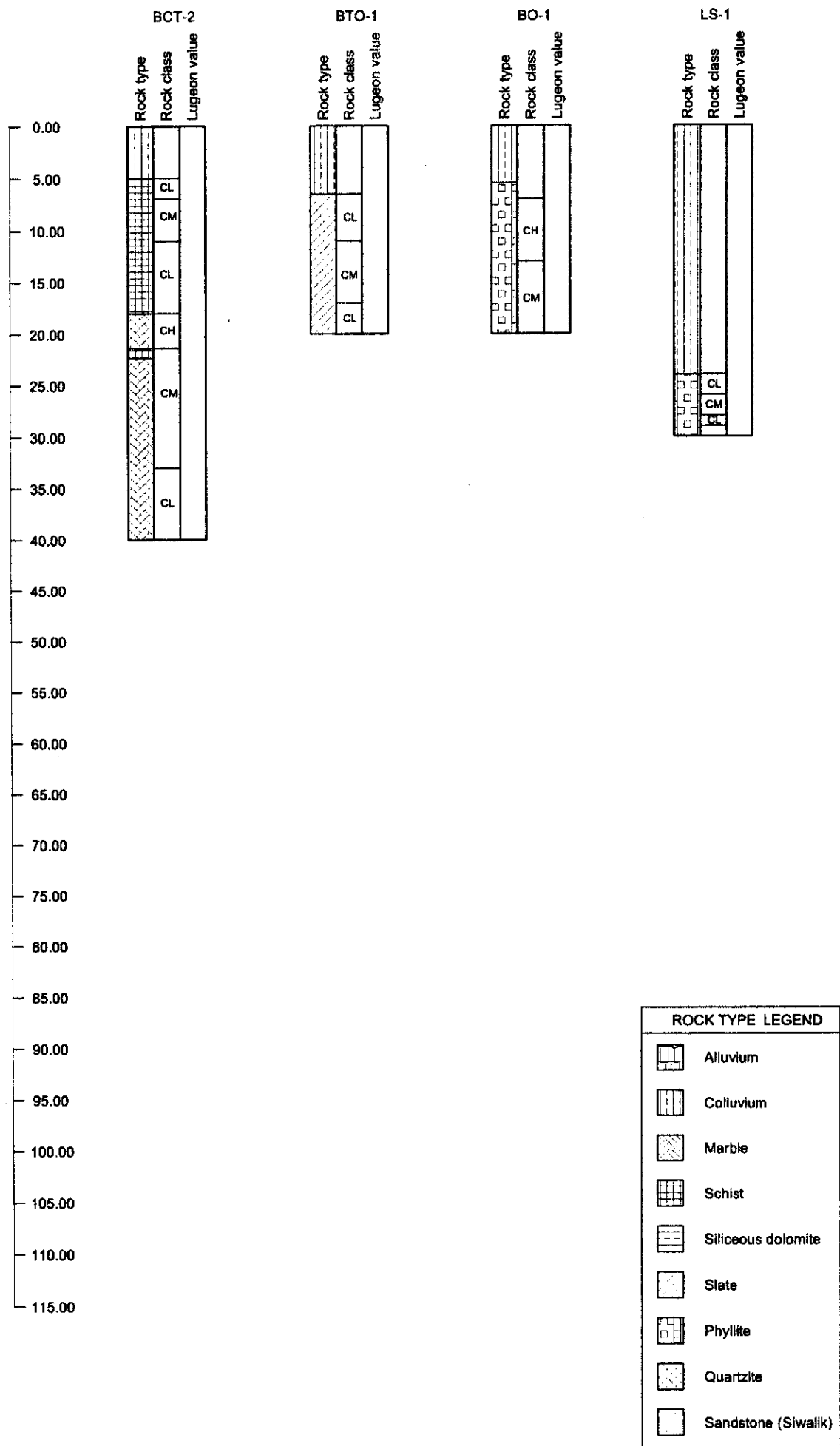


Figure B3.1.2 Simplified Drill Logs (5)

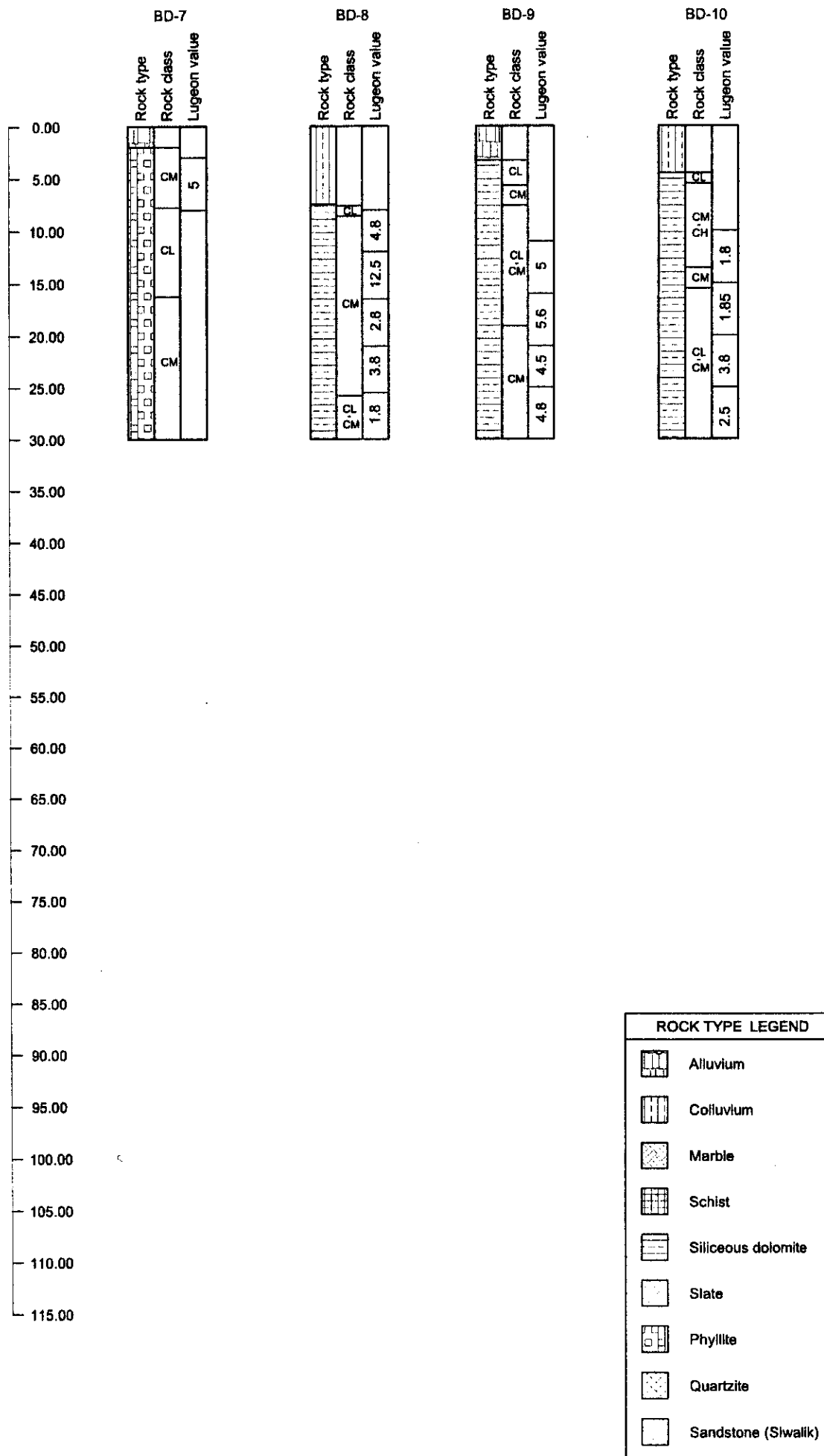


Figure B3.1.2 Simplified Drill Logs (7)

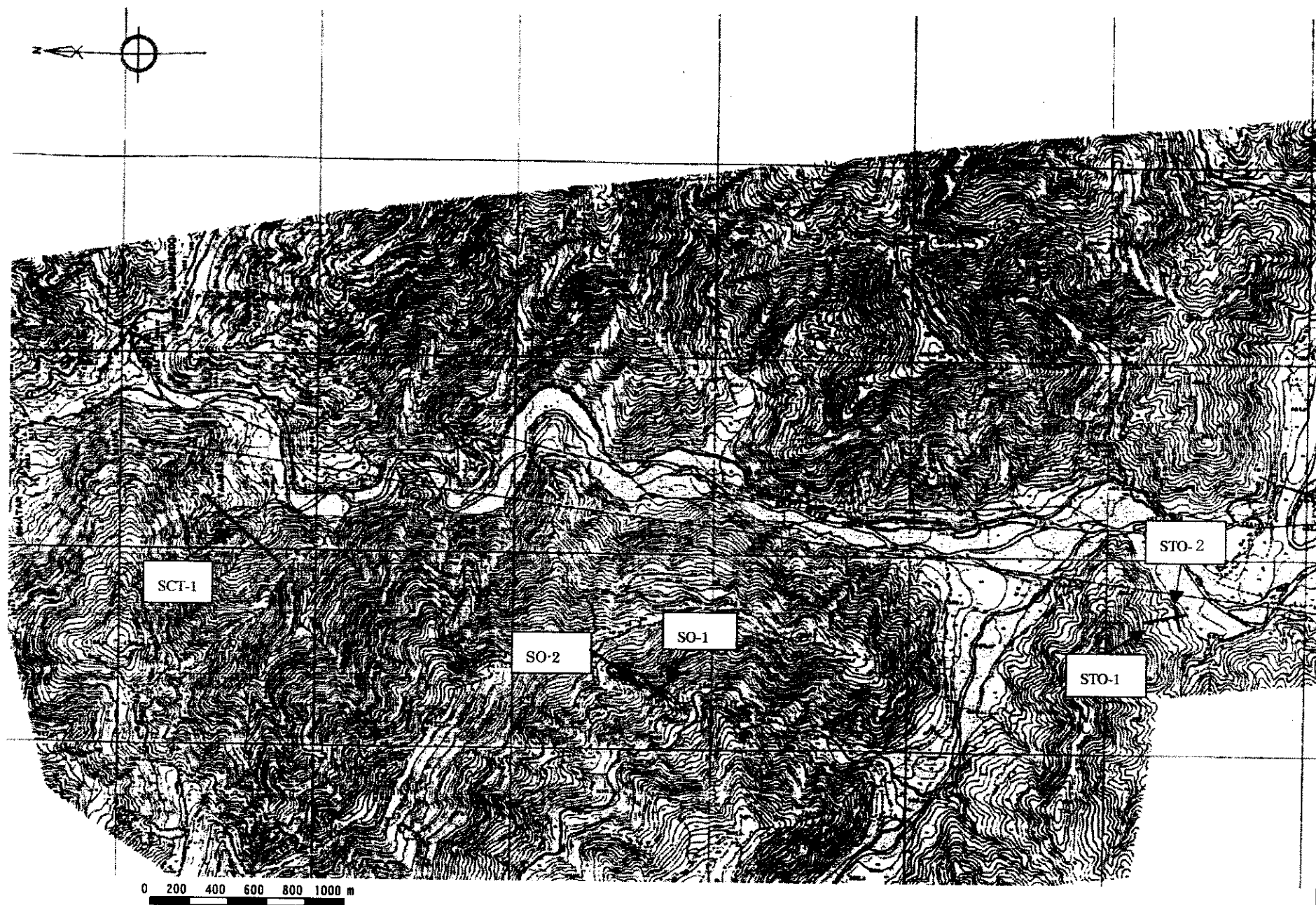


Figure B3.5.1 Alignment of Seismic Refraction Prospecting

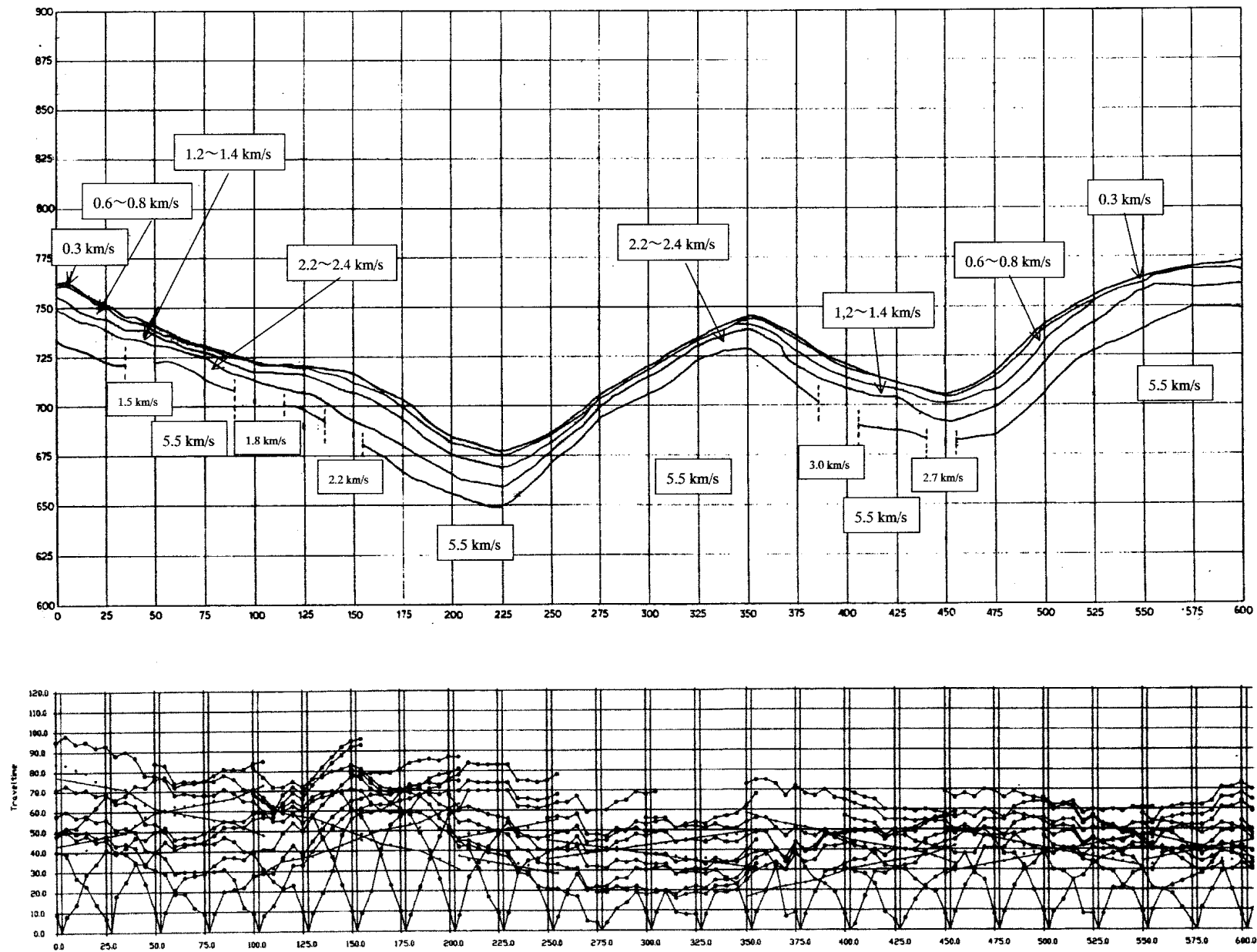


Figure B3.5.2 Results of Seismic Refraction Prospecting (SCT-1)

Line SO-1

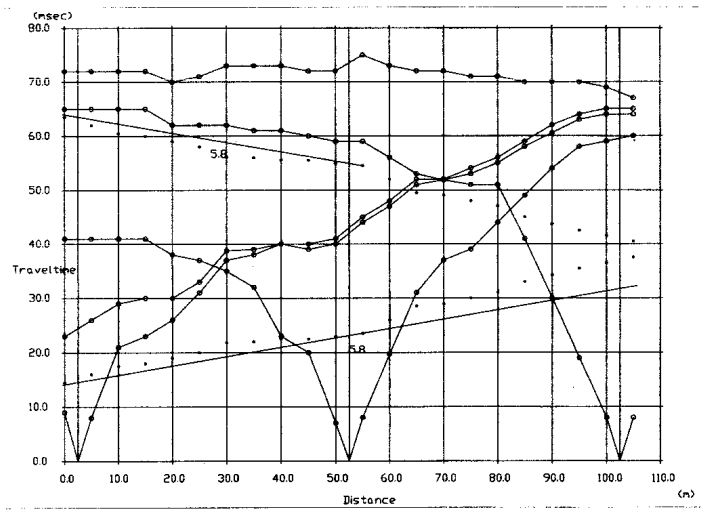
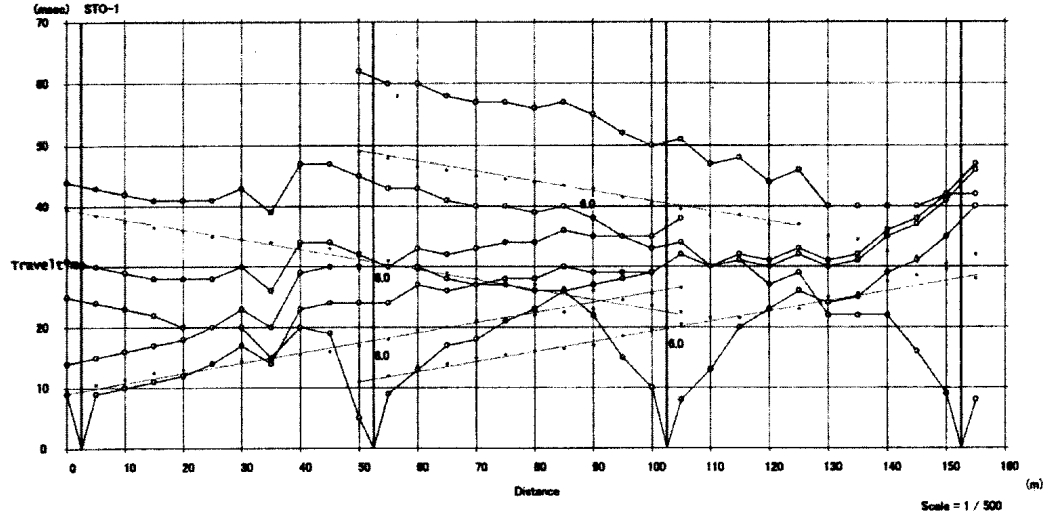
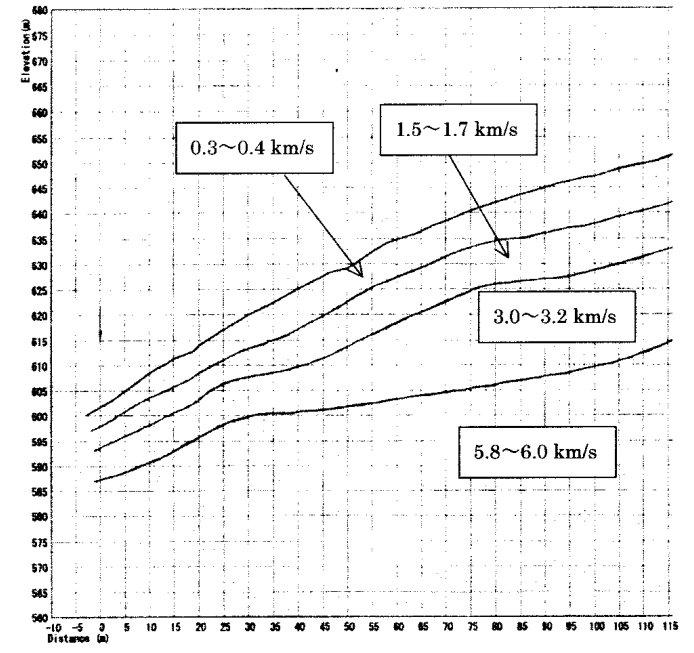
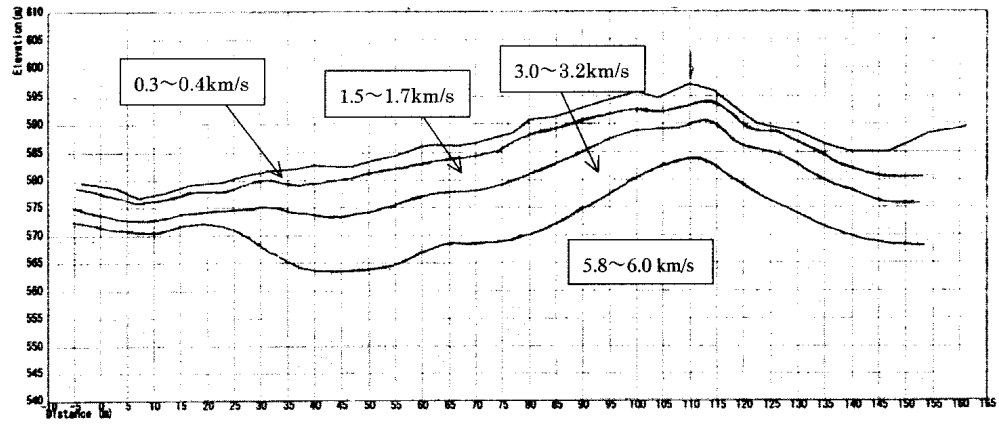


Figure B3.5.3 Results of Seismic Refraction Prospecting (SO-1, 2)

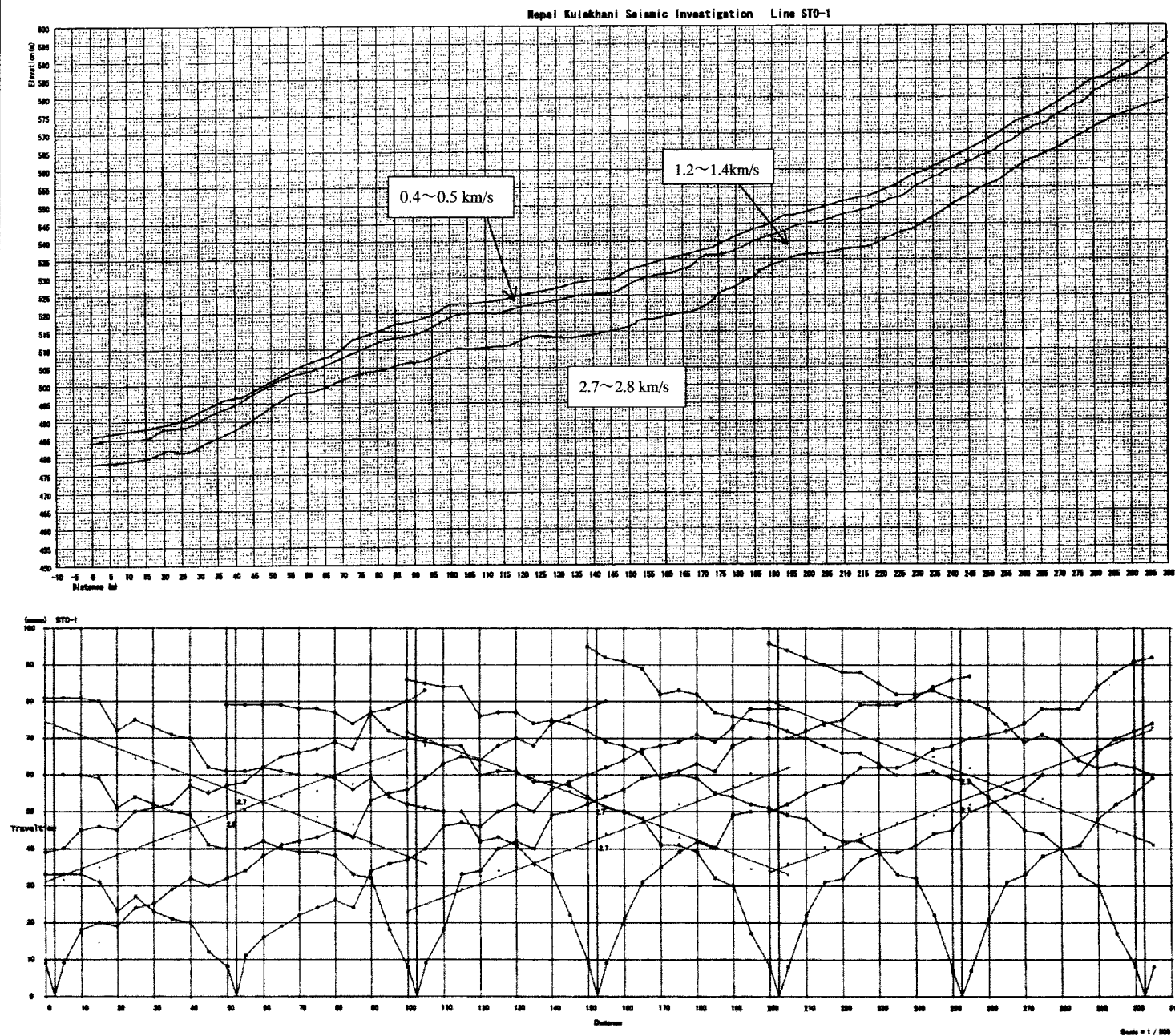


Figure B3.5.4 Results of Seismic Refraction Prospecting (STO-1)

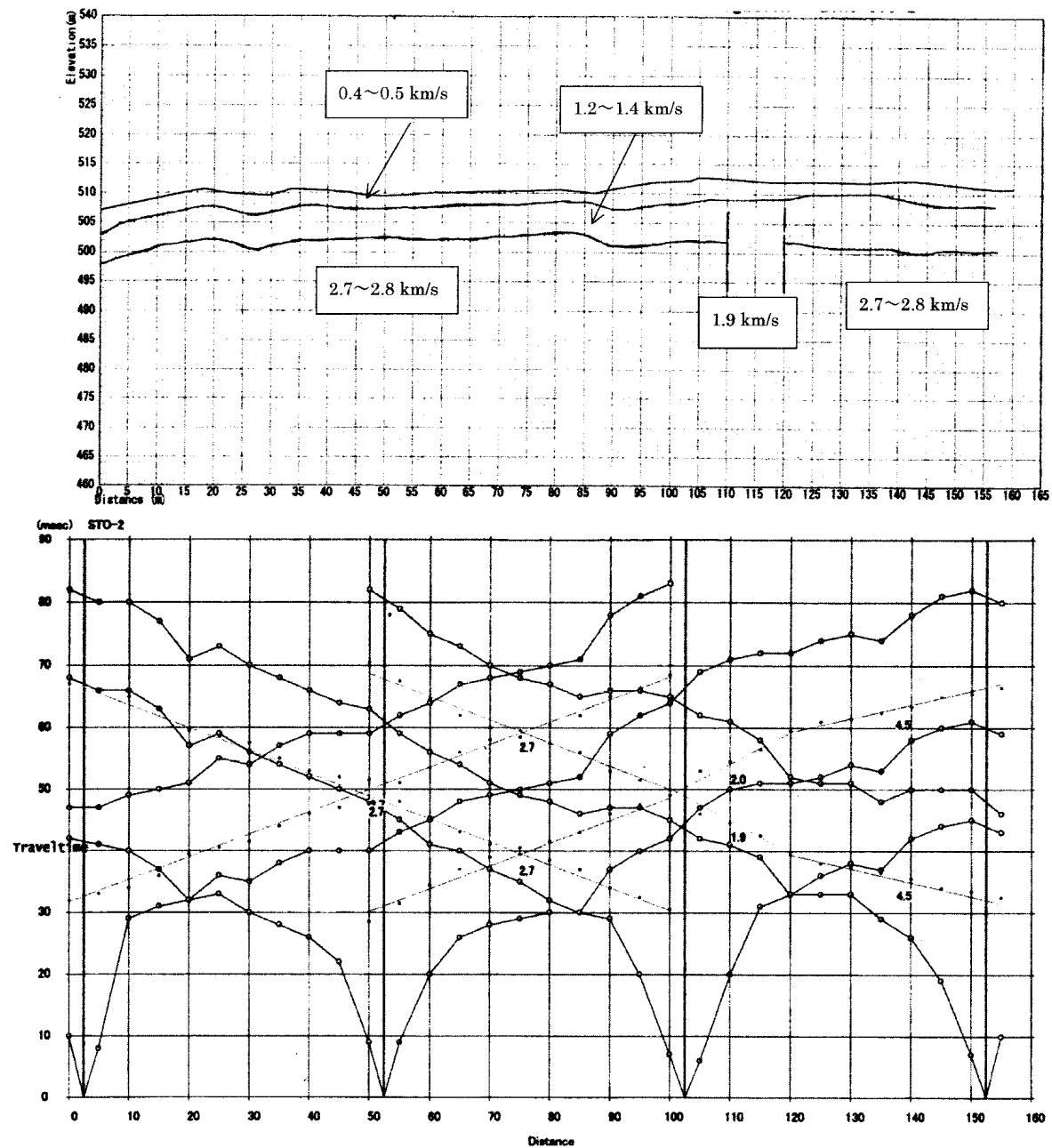
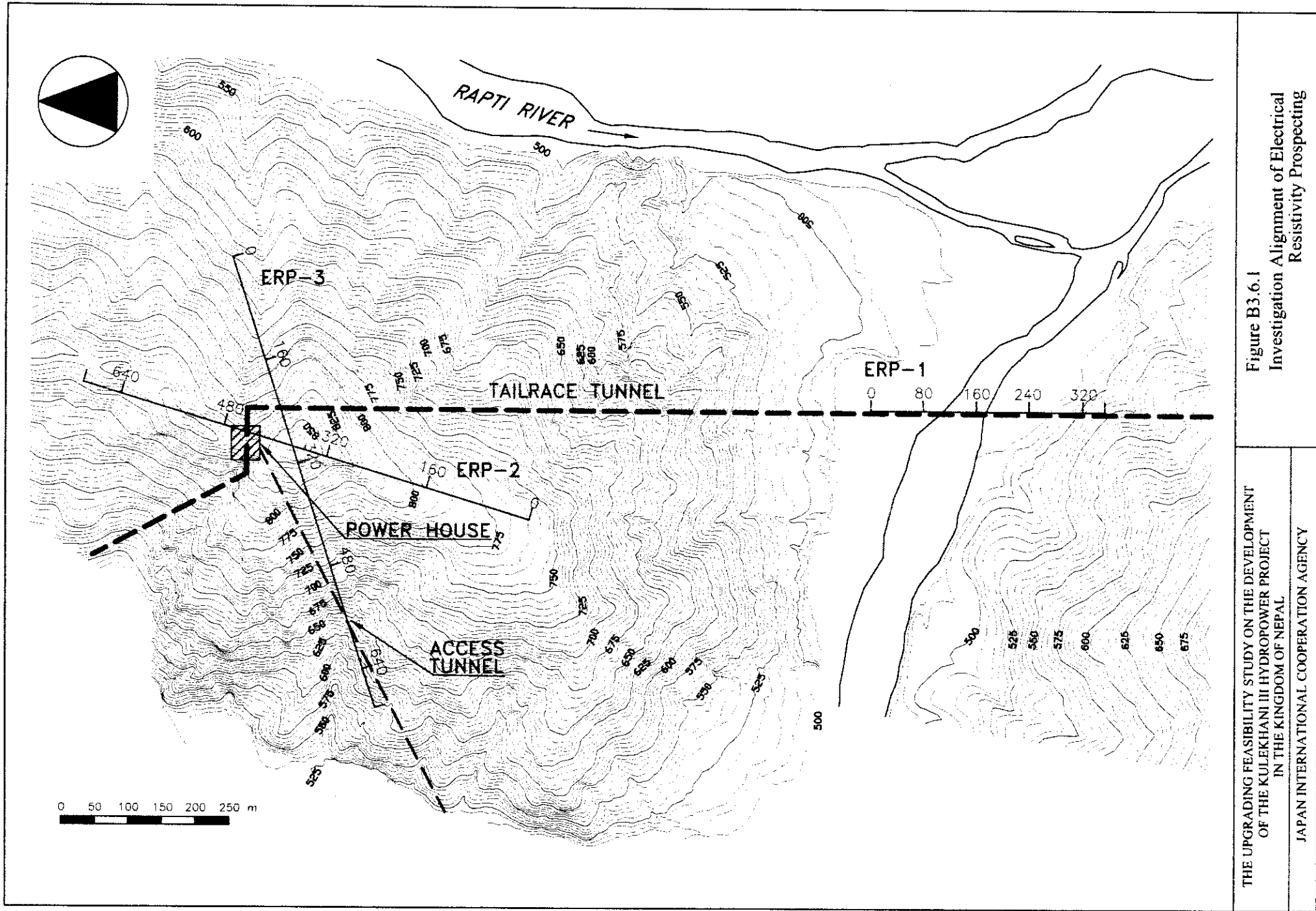
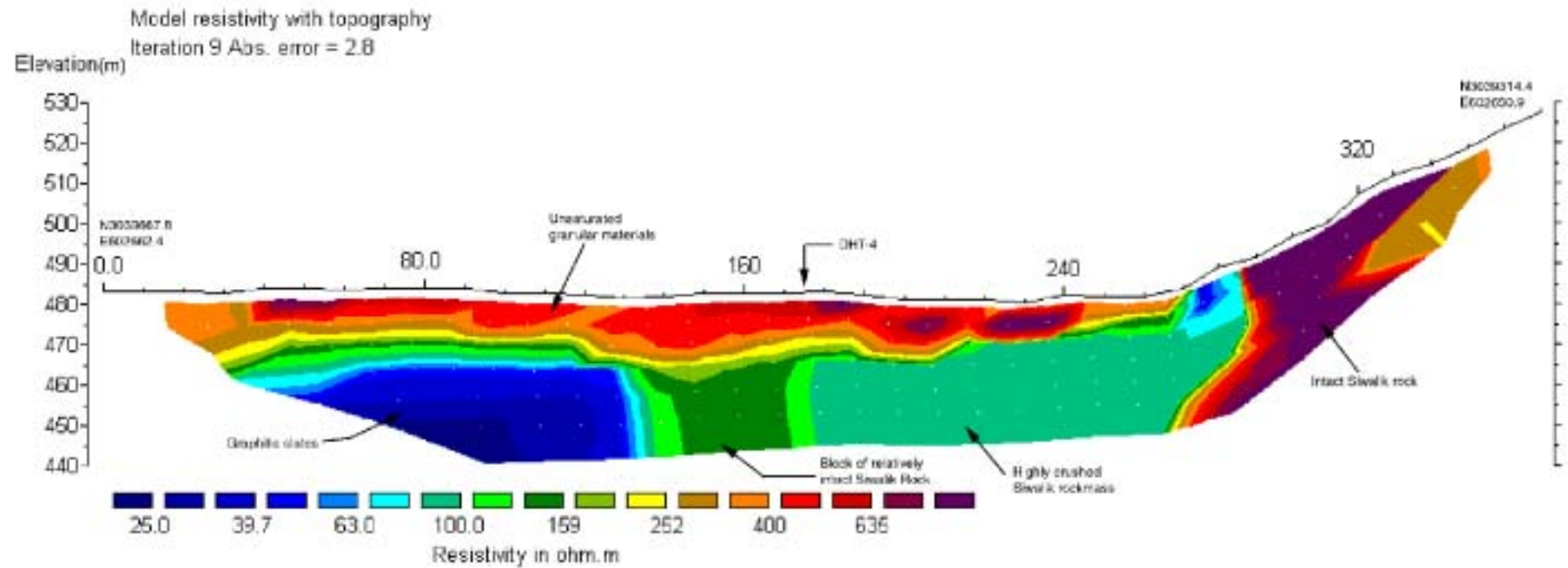


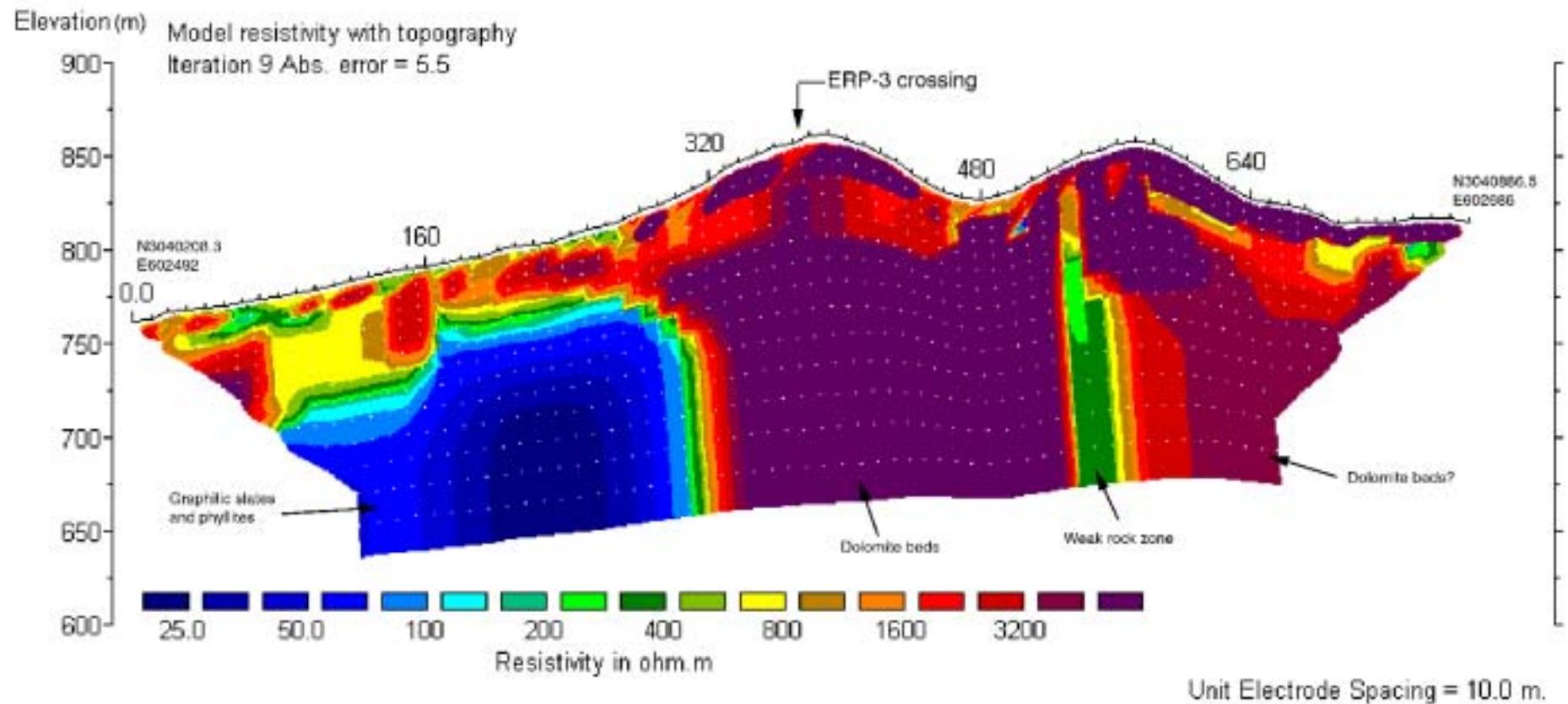
Figure B3.5.5 Results of Seismic Refraction Prospecting (STO-2)



(Tailrace, ERP-1)



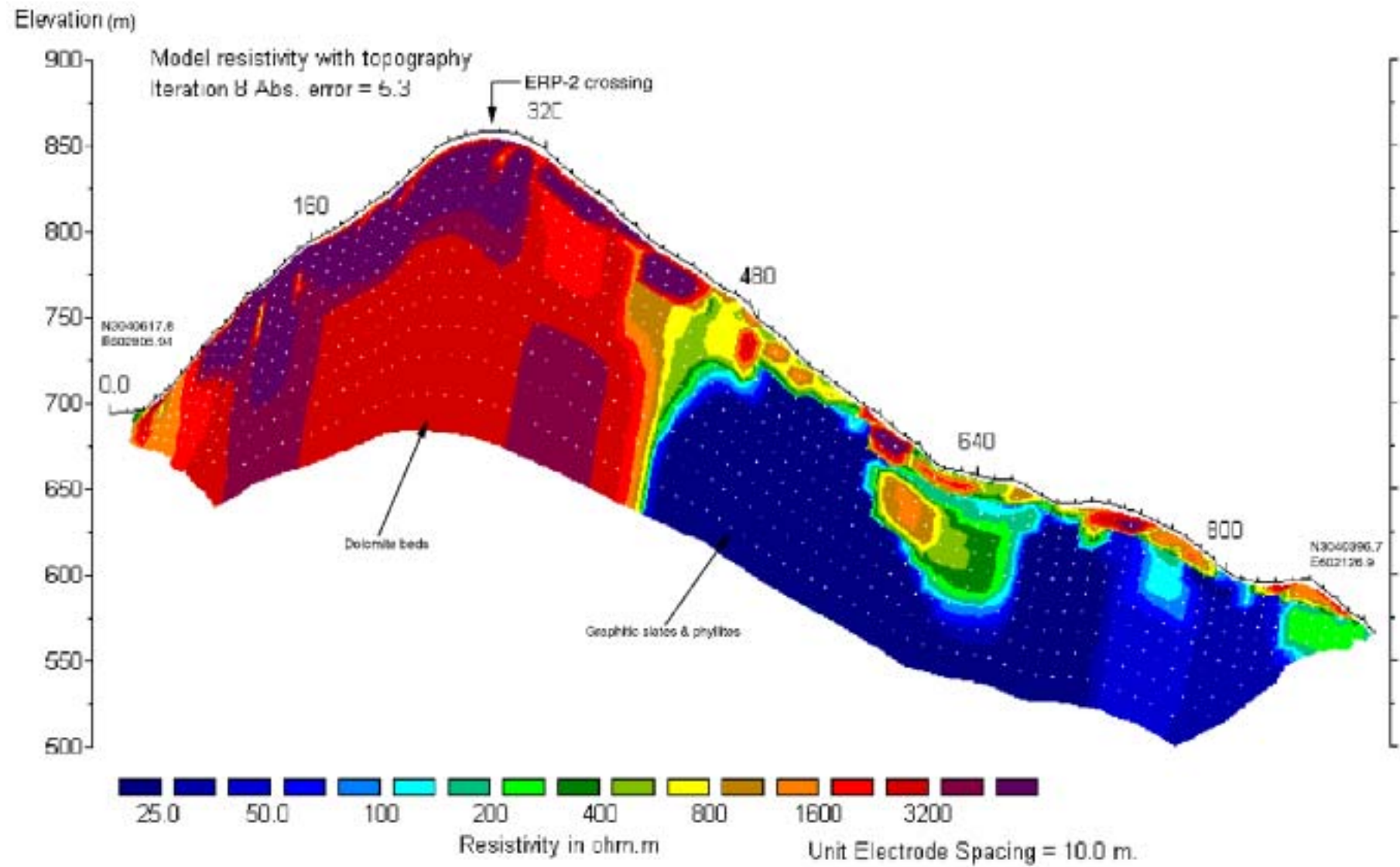
(Powerhouse, ERP-2)



Horizontal scale is 10.00 pixels per unit spacing
Vertical exaggeration in model section display = 1.00
First electrode is located at 0.0 m.
Last electrode is located at 760.0 m.

Coordinates are given for the first and last electrodes

(Powerhouse, ERP-3)



Horizontal scale is 10.00 pixels per unit spacing
Vertical exaggeration in model section display = 1.00

First electrode is located at 0.0 m
Last electrode is located at 900.0 m

Coordinates are given for the first and last electrodes

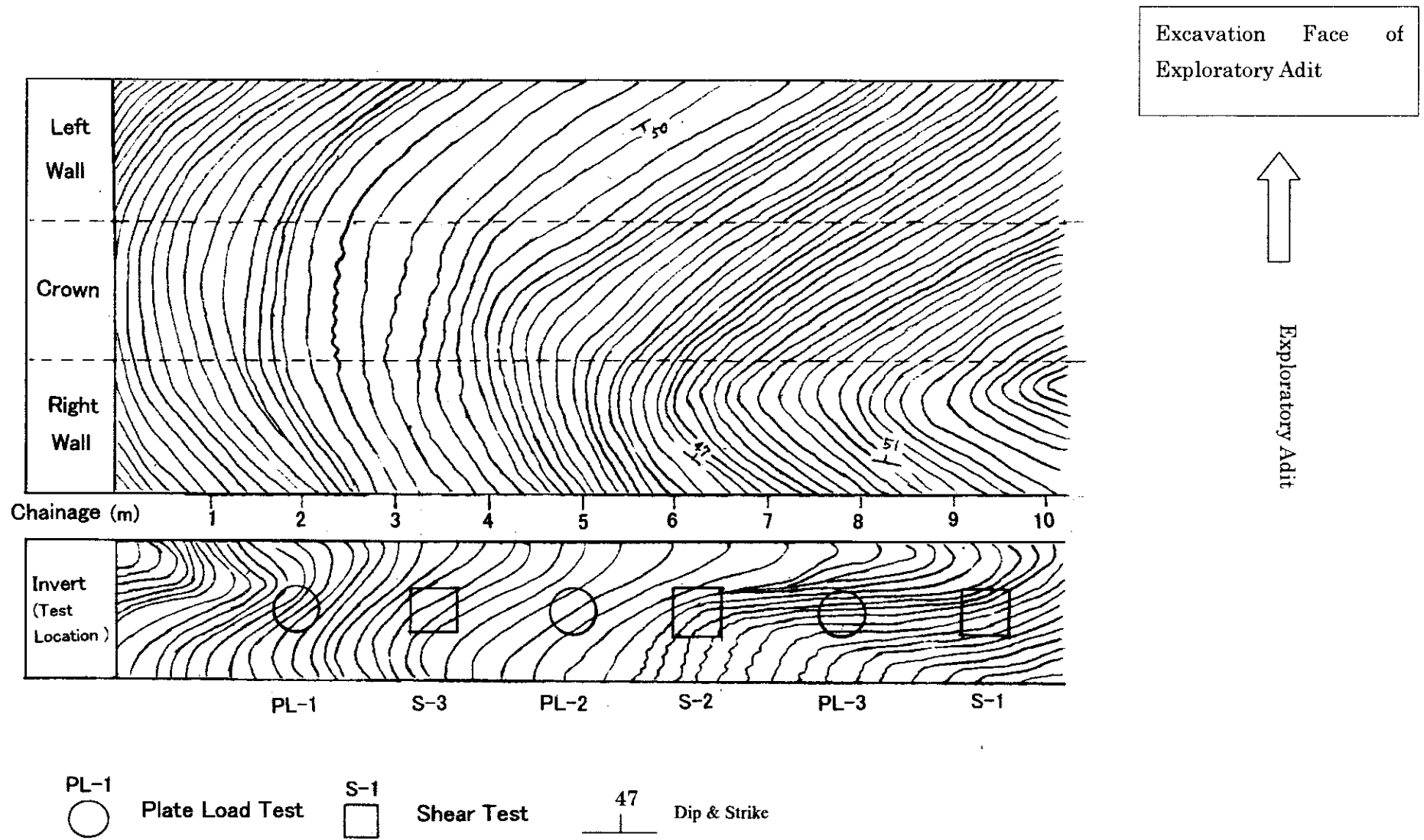


Figure B3.7.1 Plan of Branch Adit for In-situ Rock Testing



Rock condition of Testing Site
(Dolomite around portal portion of Test Chamber)



Rock condition of Testing Site
(Dolomite around excavation face of Test Chamber)



Plate Loading Test
(Loading Plate and Testing Equipment)

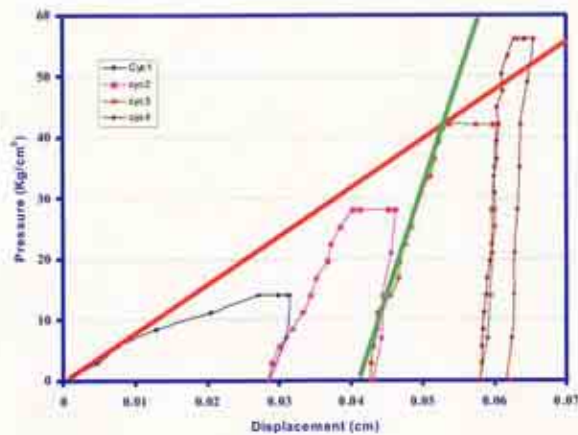


Rock condition of Testing site
(Dolomite in the bottom portion of Test Chamber)



Block Shear Test
(Sheared Block and Testing Equipment)

Figure B3.7.2 Testing Condition of Branch Adit



PL-1

PL-1

$$D = (1 - \mu^2) \times dF/dS \times 0.5 a$$

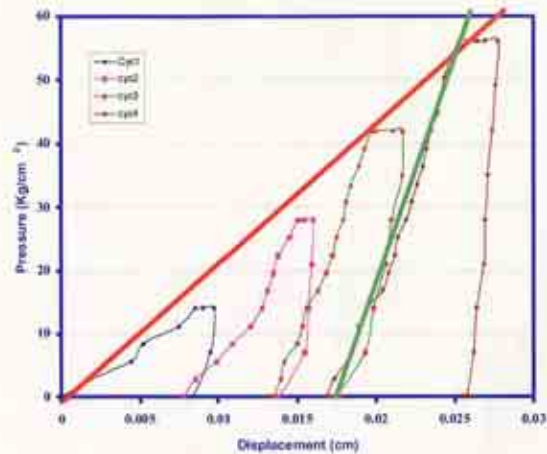
$$= (1 - 0.2^2) \times (9.686 \times 10^{-4}) / (0.0531 - 0.00) \times 1 / (2 \times 27.5)$$

$$= 3,183.9 \text{ MPa}$$

$$E = (1 - \mu^2) \times dF/dS \times 0.5 a$$

$$= (1 - 0.2^2) \times (9.686 \times 10^{-4}) / (0.0531 - 0.04156) \times 1 / (2 \times 27.5)$$

$$= 14,650.3 \text{ MPa}$$



PL-2

PL-2

$$D = (1 - \mu^2) \times dF/dS \times 0.5 a$$

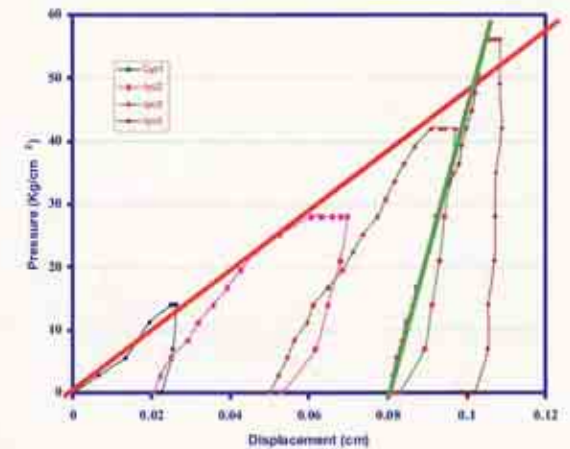
$$= (1 - 0.2^2) \times (11.9672 \times 10^{-4}) / (0.025 - 0.00) \times 1 / (2 \times 27.5)$$

$$= 9,366.9 \text{ MPa}$$

$$E = (1 - \mu^2) \times dF/dS \times 0.5 a$$

$$= (1 - 0.2^2) \times (11.9672 \times 10^{-4}) / (0.025 - 0.0027) \times 1 / (2 \times 27.5)$$

$$= 25,340.5 \text{ MPa}$$



PL-3

PL-3

$$D = (1 - \mu^2) \times dF/dS \times 0.5 a$$

$$= (1 - 0.2^2) \times (11.17522 \times 10^{-4}) / (0.10270 - 0.00) \times 1 / (2 \times 27.5)$$

$$= 1,869.5 \text{ MPa}$$

$$E = (1 - \mu^2) \times dF/dS \times 0.5 a$$

$$= (1 - 0.2^2) \times (11.17522 \times 10^{-4}) / (0.10270 - 0.00973) \times 1 / (2 \times 27.5)$$

$$= 8,392.9 \text{ MPa}$$

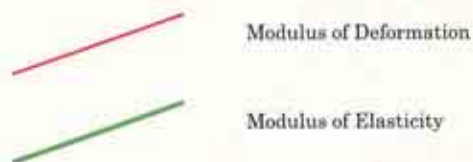
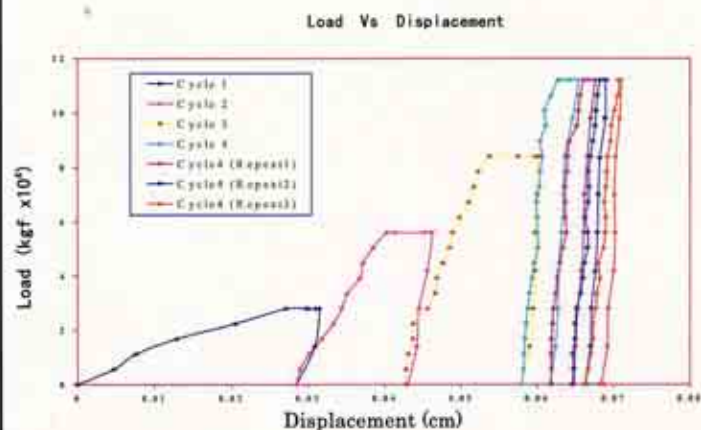
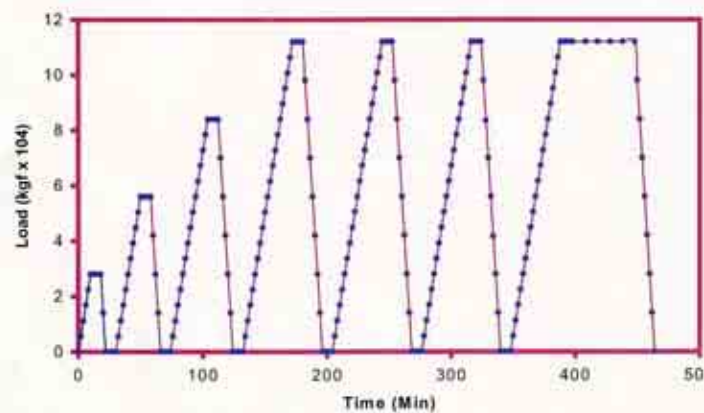


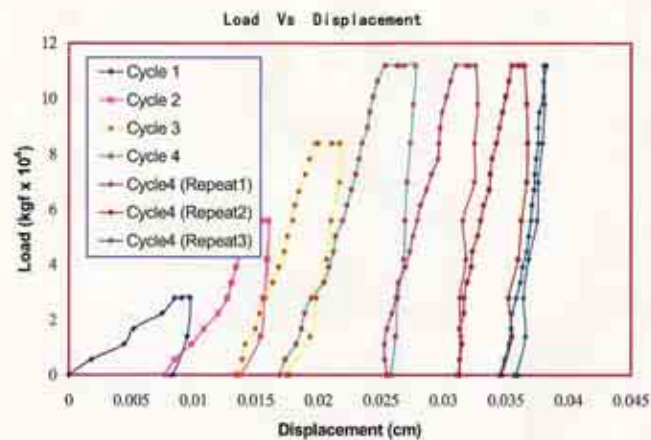
Figure B3.7.3 Results of Plate Loading Test



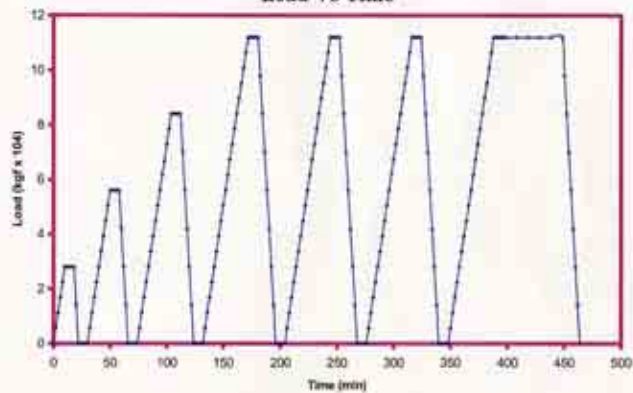
Load Vs Time



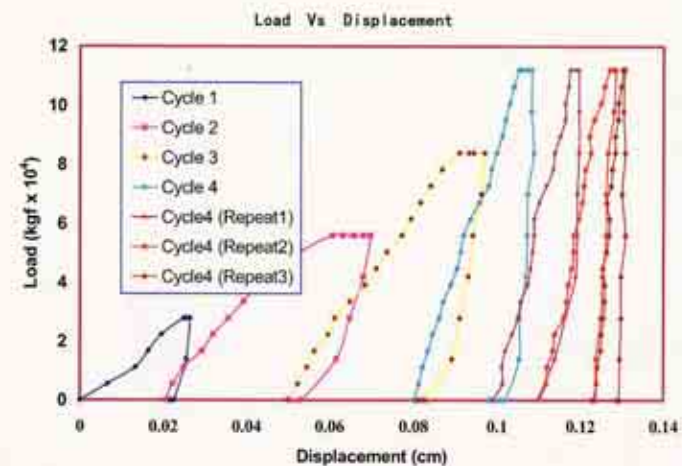
PL-1



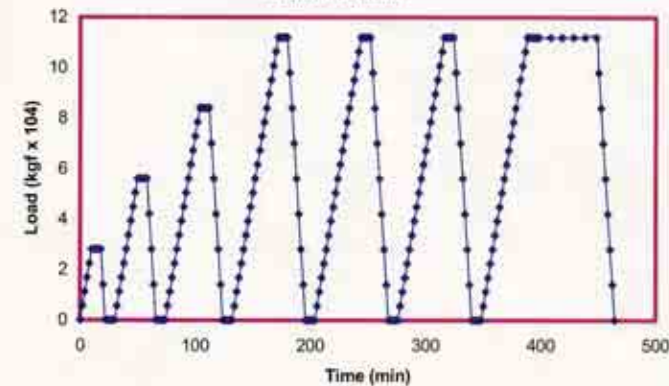
Load Vs Time



PL-2



Load Vs Time



PL-3

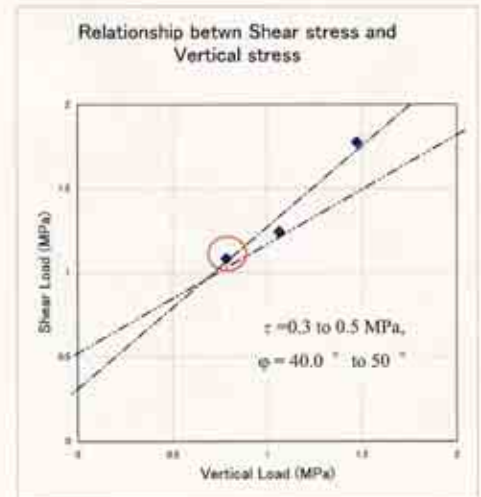
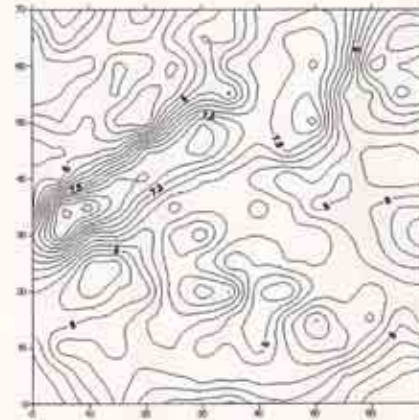
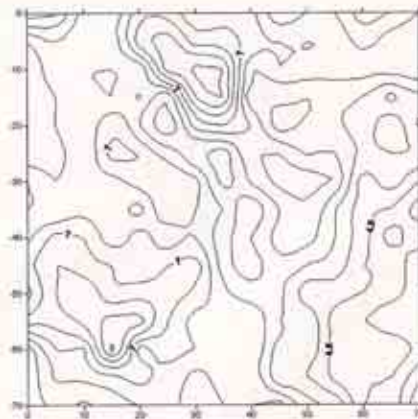
Figure B3.7.4 Detailed Results of Plate Loading Test

Testing Plane
(Before cleaning)
And
Testing Block
(Sheared)

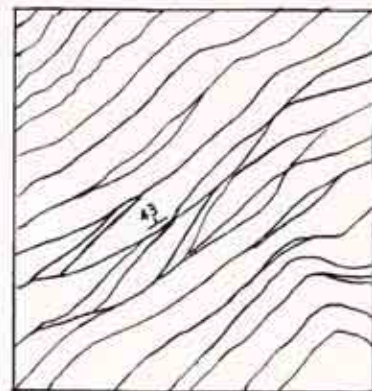


Plot between Shear Load and displacement for the 1st block

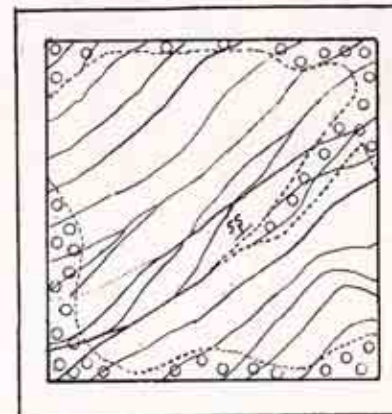
Contour Map
(Unit: cm)



Geological
Sketch



Before Testing



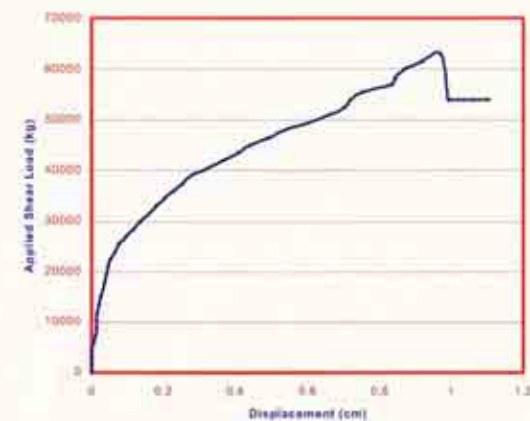
After Testing



Mortar Cover

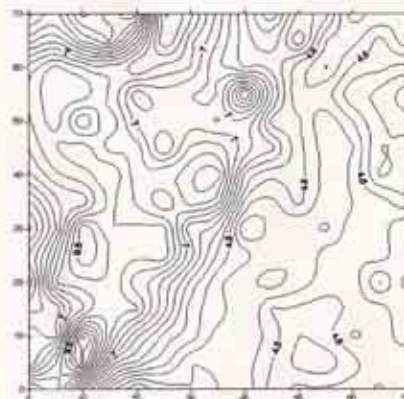
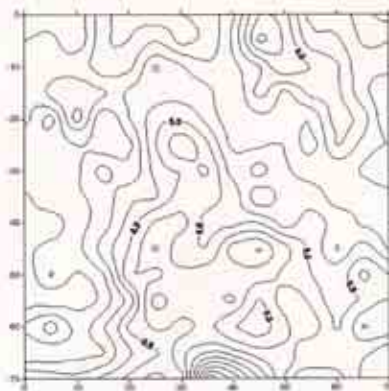
Figure B3.7.5 Summary Sheet of Block Shear Test (BL-1)

Testing Plane
(Before cleaning)
And
Testing Block
(Sheared)

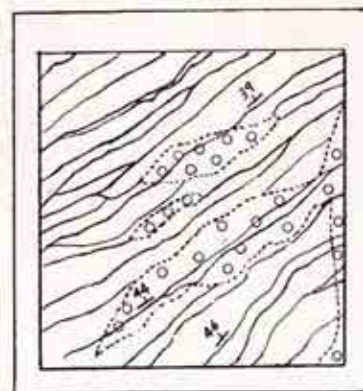
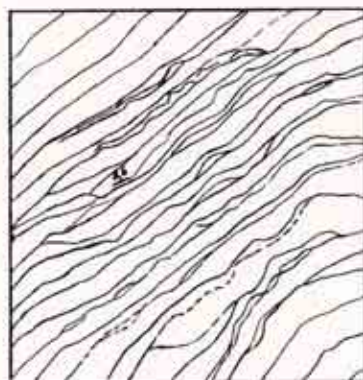


Plot between Shear Load and displacement for the 2nd block

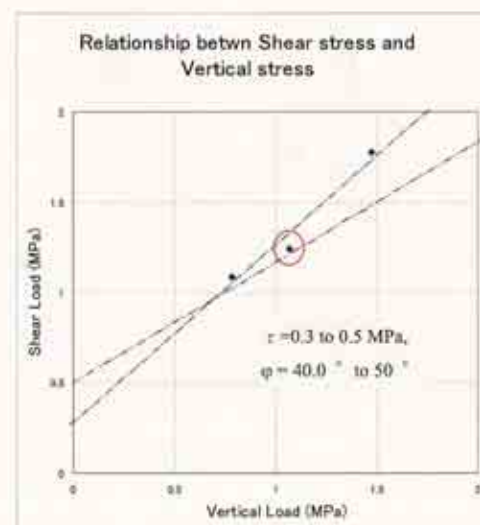
Contour Map



Geological Sketch



Mortar Cover



Before Testing

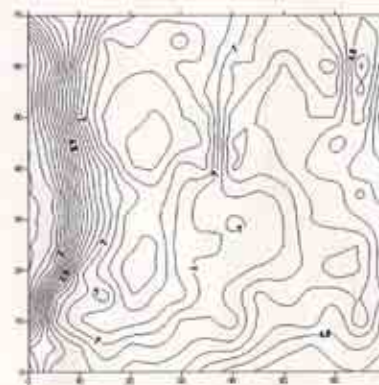
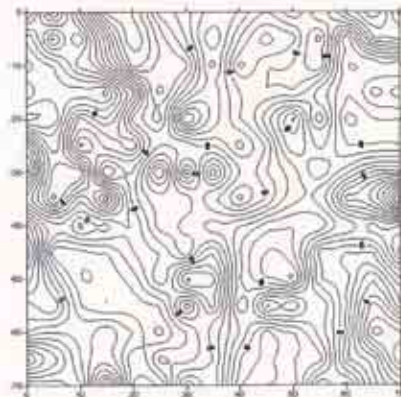
After Testing

Figure B3.7.6 Summary Sheet of Block Shear Test (BL-2)

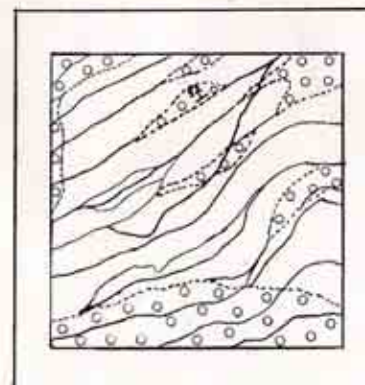
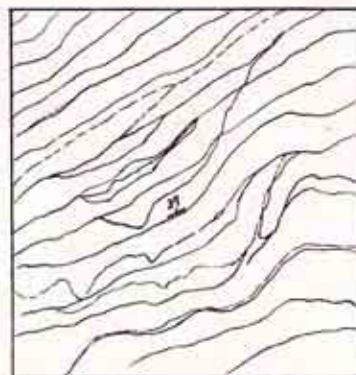
Testing Plane
(Before cleaning)
And
Testing Block
(Sheared)



Contour Map
(Unit: cm)

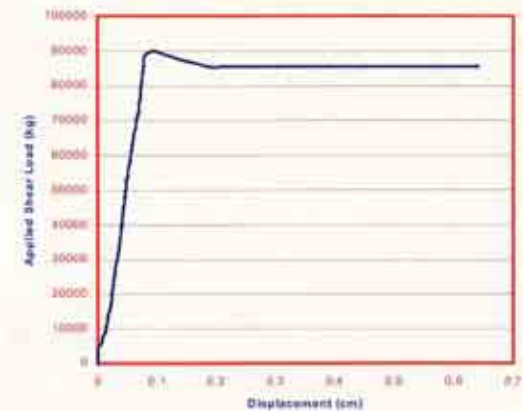


Geological Sketch

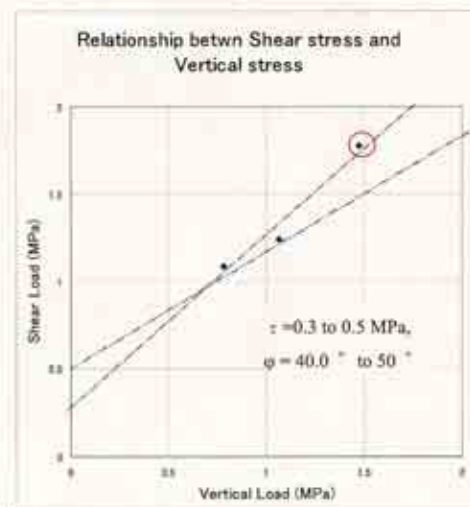


Before Testing

After Testing



Plot between Shear Load and displacement for the 3rd Block



Mortar Cover

Figure B3.7.7 Summary Sheet of Block Shear Test (BL-3)