

## 結 論

今回の調査によりスワジランド炭田で炭層賦存状況が最も良好なMain Seamは、調査地域の北部（"A"断層の北側）の方が炭層賦存深度も浅く、単位面積当りの可採炭量も多く、更にドレライトの貫入が少ない事が判明した。従って、この北部区域のMain Seamを開発対象炭層として選定した。Main Seamの山丈はこの区域で一般に3.0～5.0mあり、可採炭量は約3,500万トンが計上された。

生産規模は精炭51万トン/年（原炭64万トン/年）とし、開発準備期間は5年を見込み、4年目より出炭を開始し、6年目よりフル生産に入るものとした。開坑は斜坑方式とし、炭層の賦存状況及びドレライトの貫入を考慮して採炭はコンテナス・マイナーによる柱房式とした。採炭を機械化する事により、鉱山の総人員は約300人で、出炭能率は約180T/人/月（原炭）が期待される。

今回の調査はプレ・フィージビリティ・スタディであり、主として技術的見地より炭鉱開発を検討したが、今回の試算によると初期投資額は約2,690万米ドル、山元原価は約US\$16.00/精炭トン（1985年度ベース、金利を含まず）が予想される。この原価は現在の国際石炭市場においても十分に競合可能なものである。従って、本地域における炭鉱開発は火力発電所等の国内向、及び輸出向として有望なプロジェクトと判断される。

今後、本地域の石炭開発に当っては下記の諸点が明らかになってからフィージビリティ・スタディを実施するのが望ましい。

石炭開発に関する諸政策の明確化

石炭市場の具体化

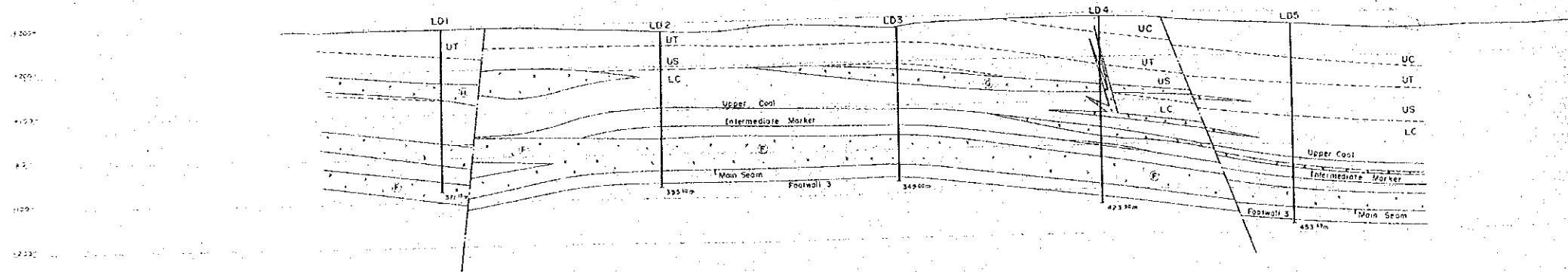
開発推進体制の強化

# GEOLOGIC PROFILE

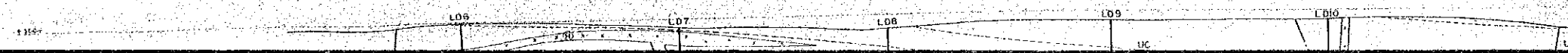
-75 000Y  
+2 922 000X

+2 925 000X

A - A'



B - B'



A

+2 922 000X -75 000Y

-80 000Y

+2 925 000X

Mpaka St.

UC
UF
US
LC
Upper Coal
Intermediate Shale
Lower Shale

UC
UF
UC

A

B

UT

LD1

LD2

UT

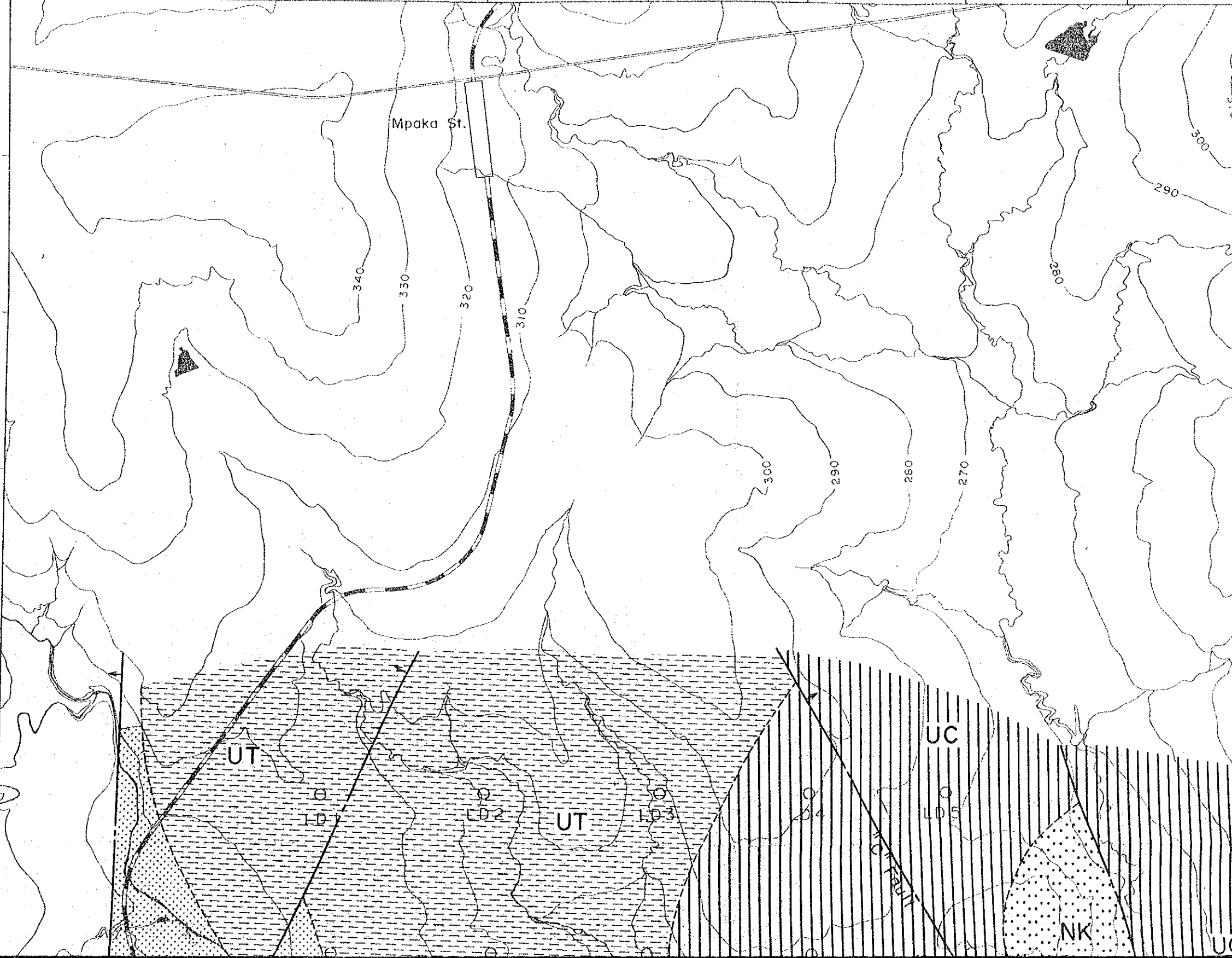
LD3

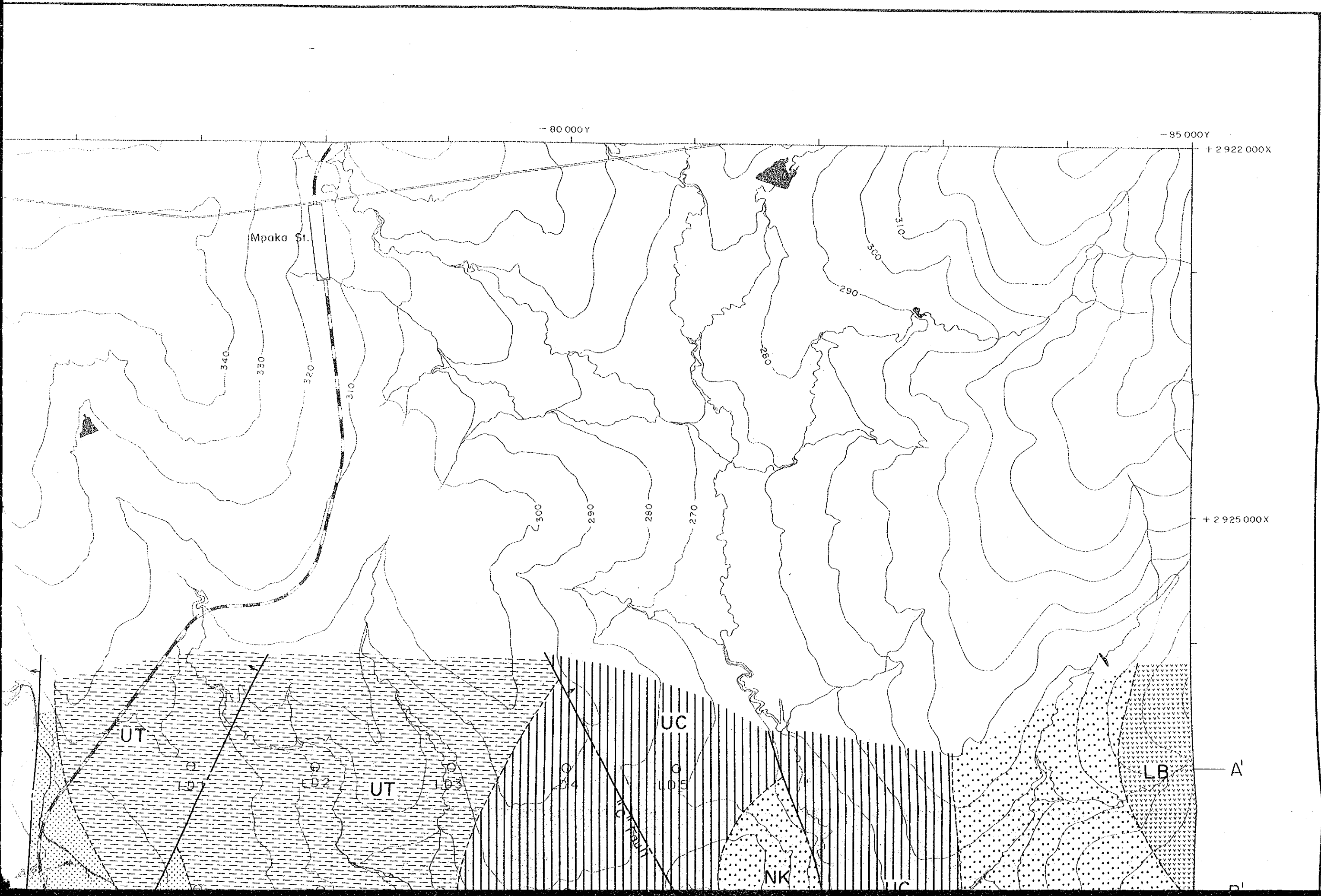
UC

LD5

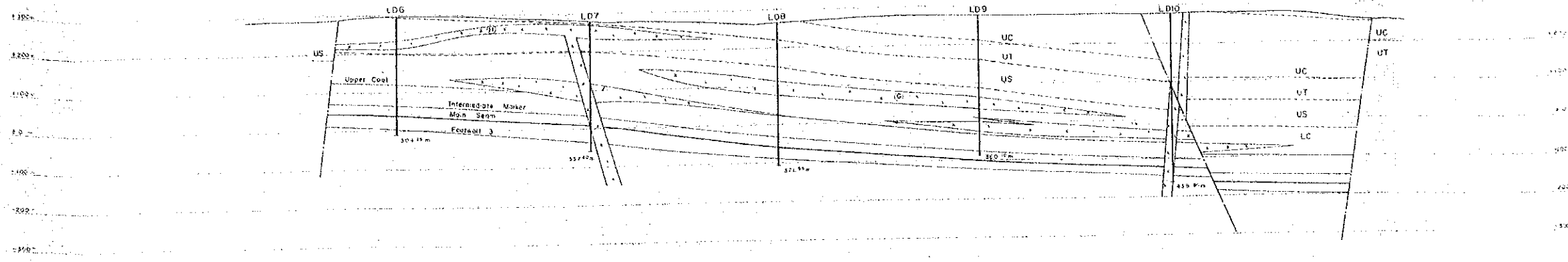
NK

UPPER FAULT

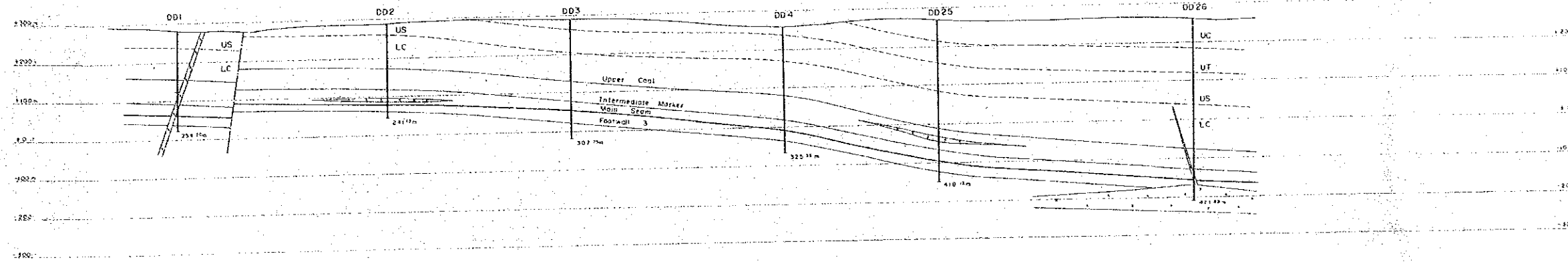




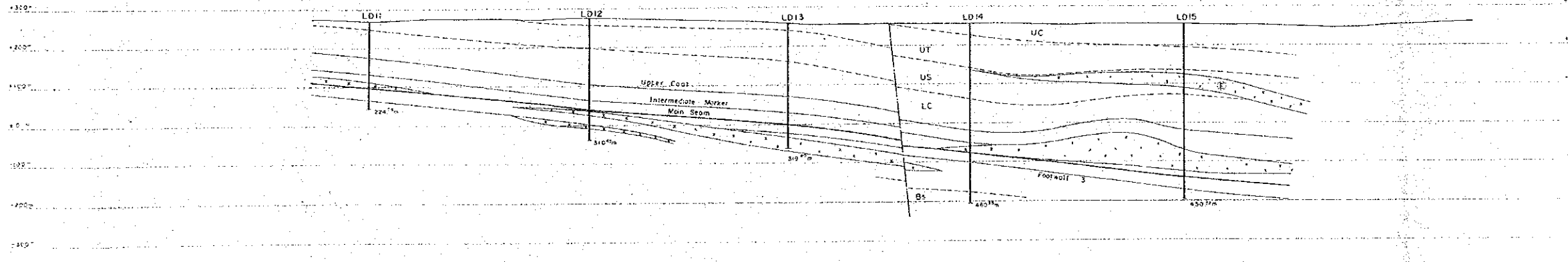
B - B'



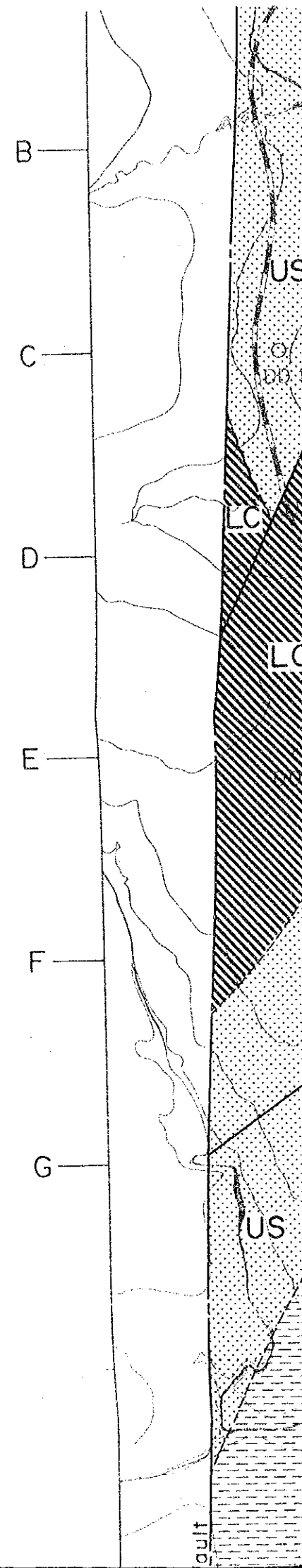
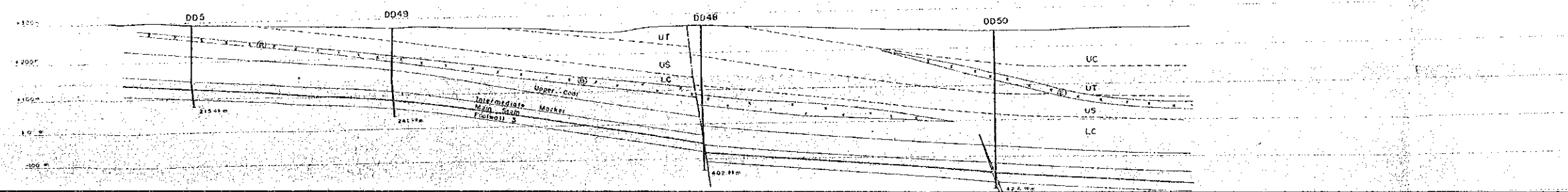
C - C'

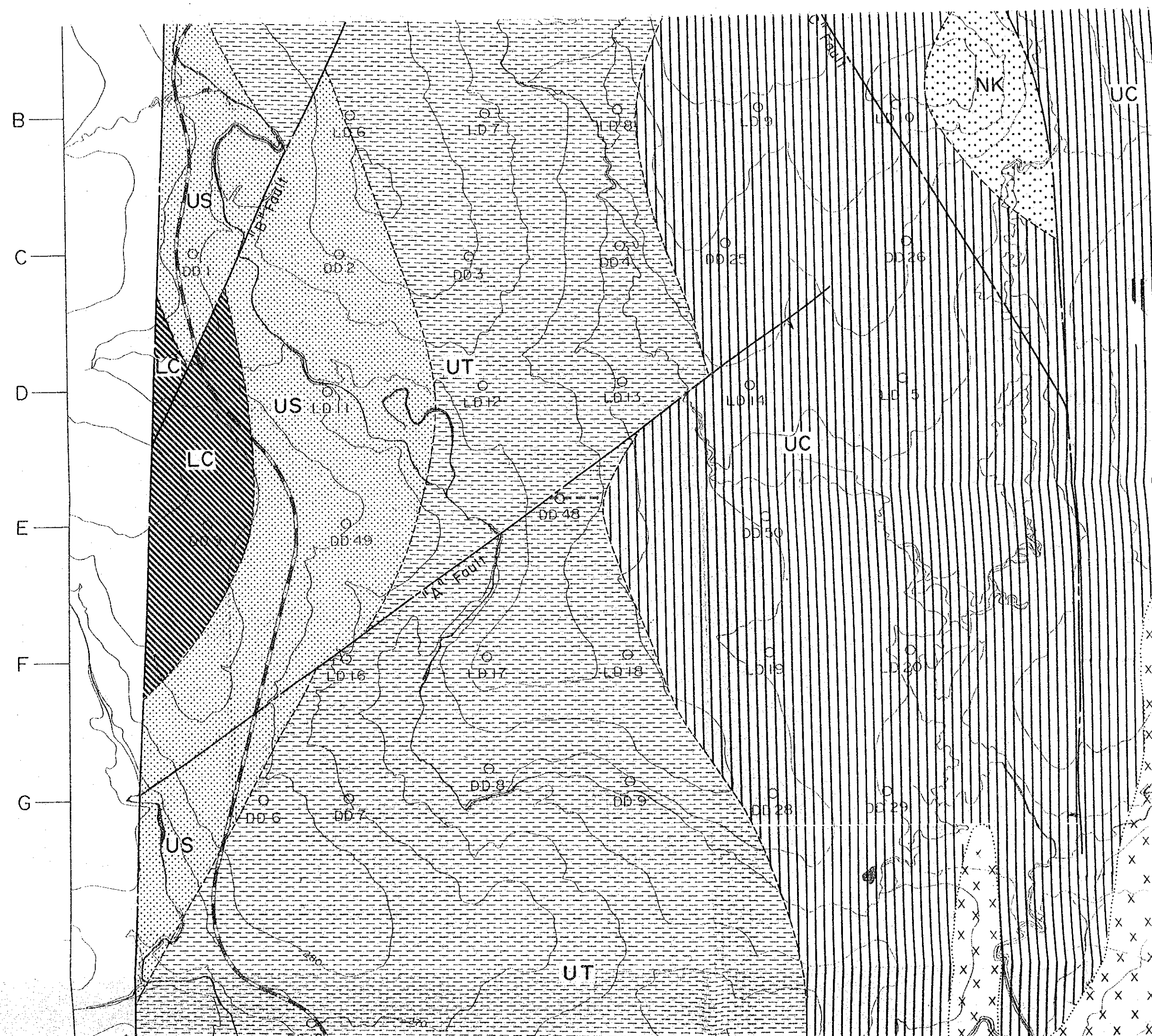
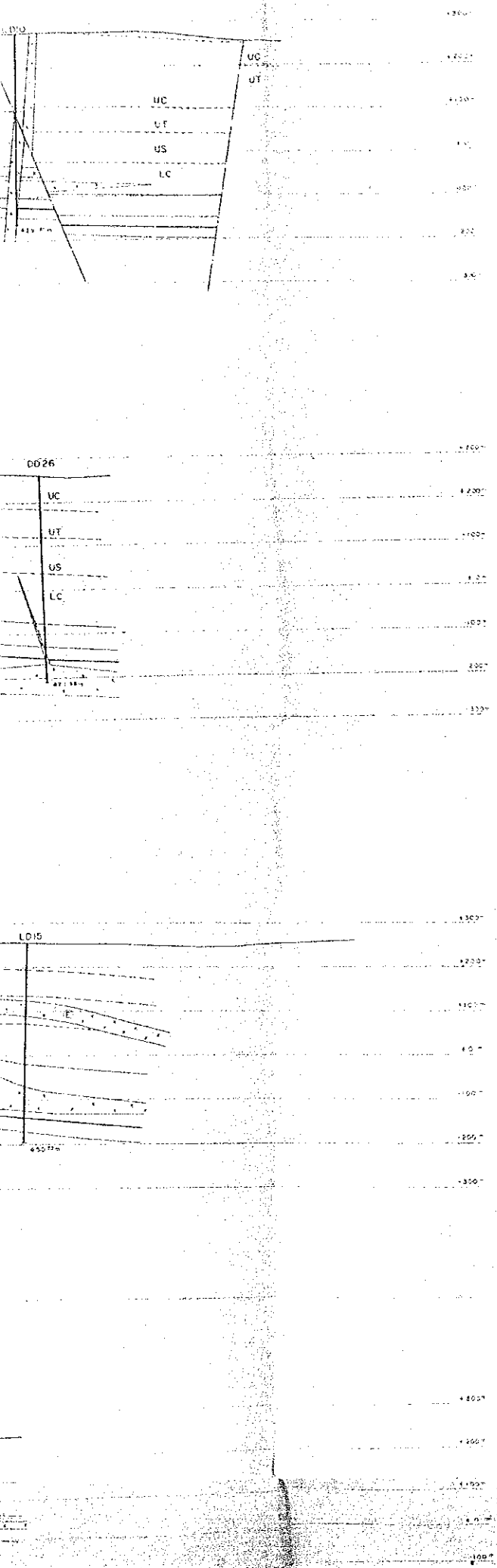


D - D'

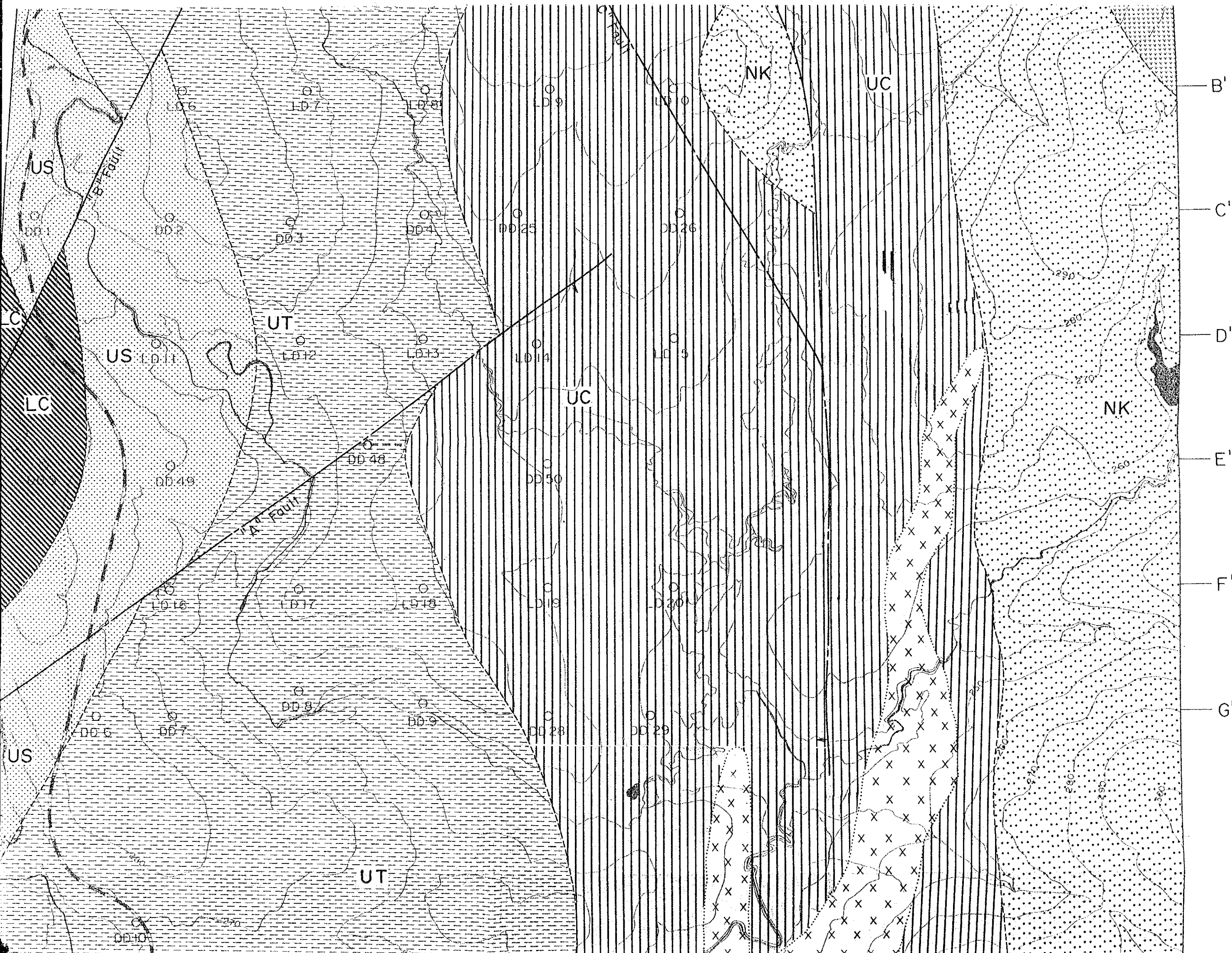


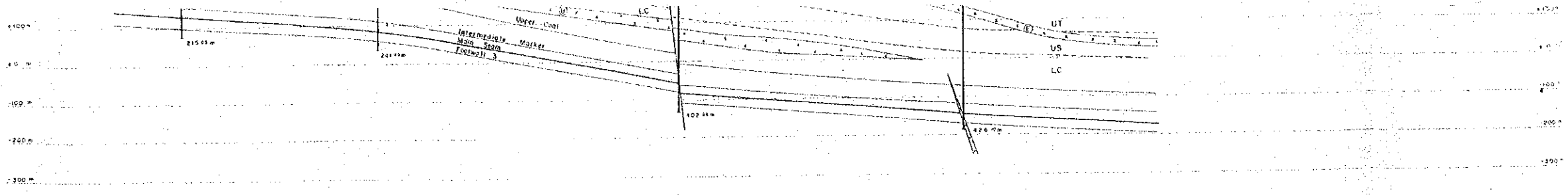
E - E'



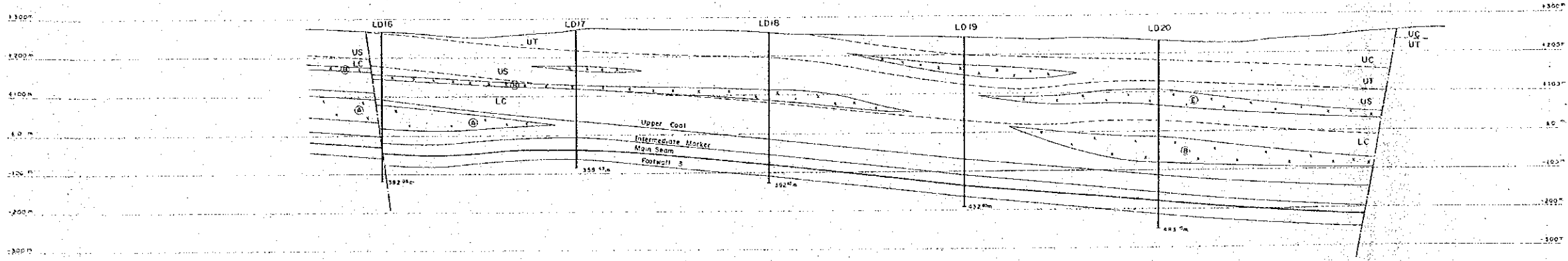




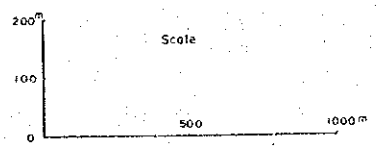
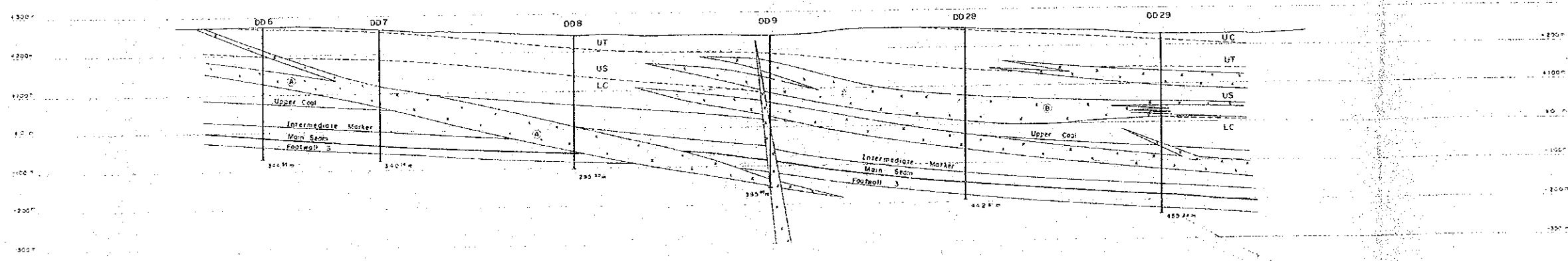




F - F'



G - G'



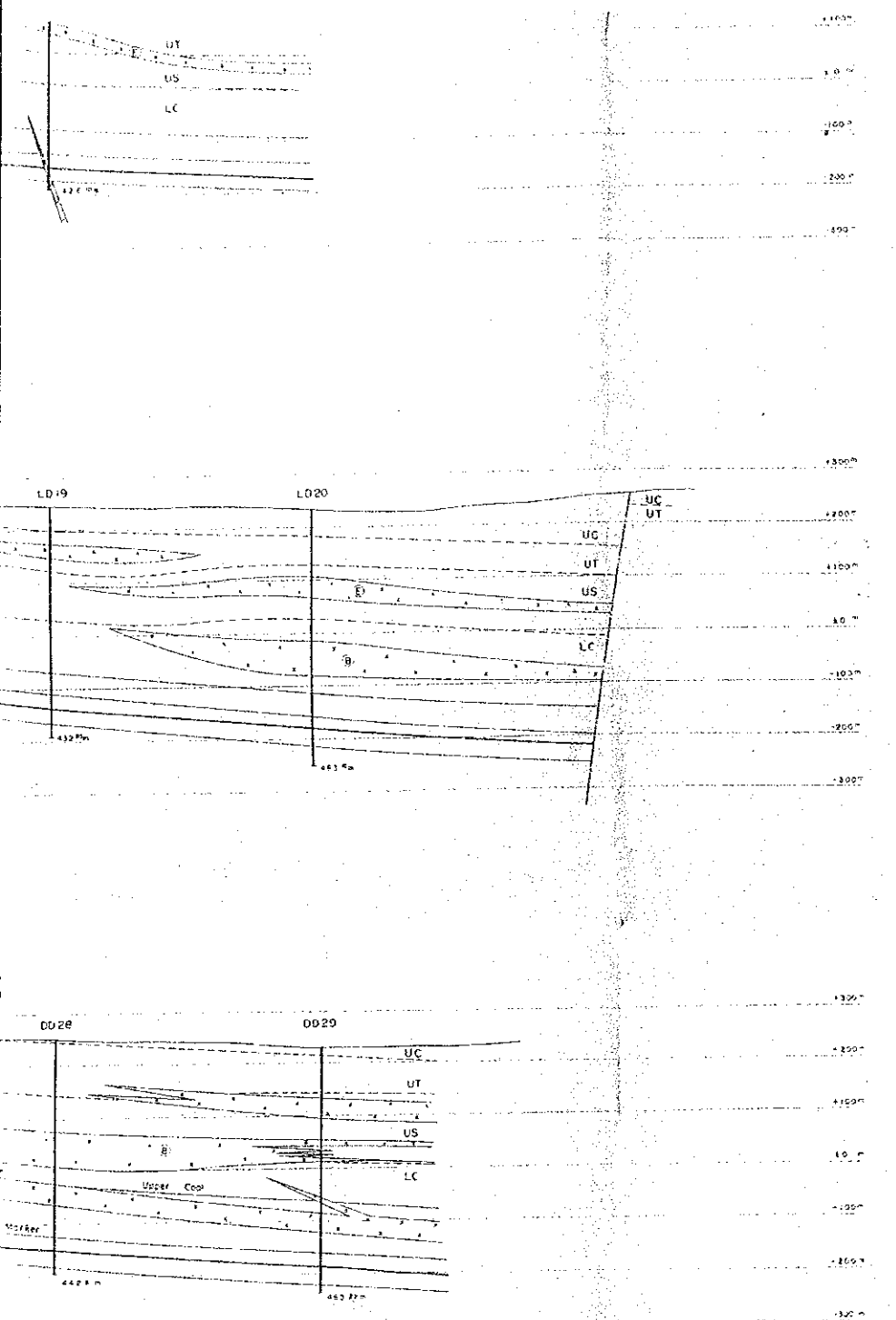
+ 2 935 000 X

+ 2 940 000 X

Lubhuka Fault

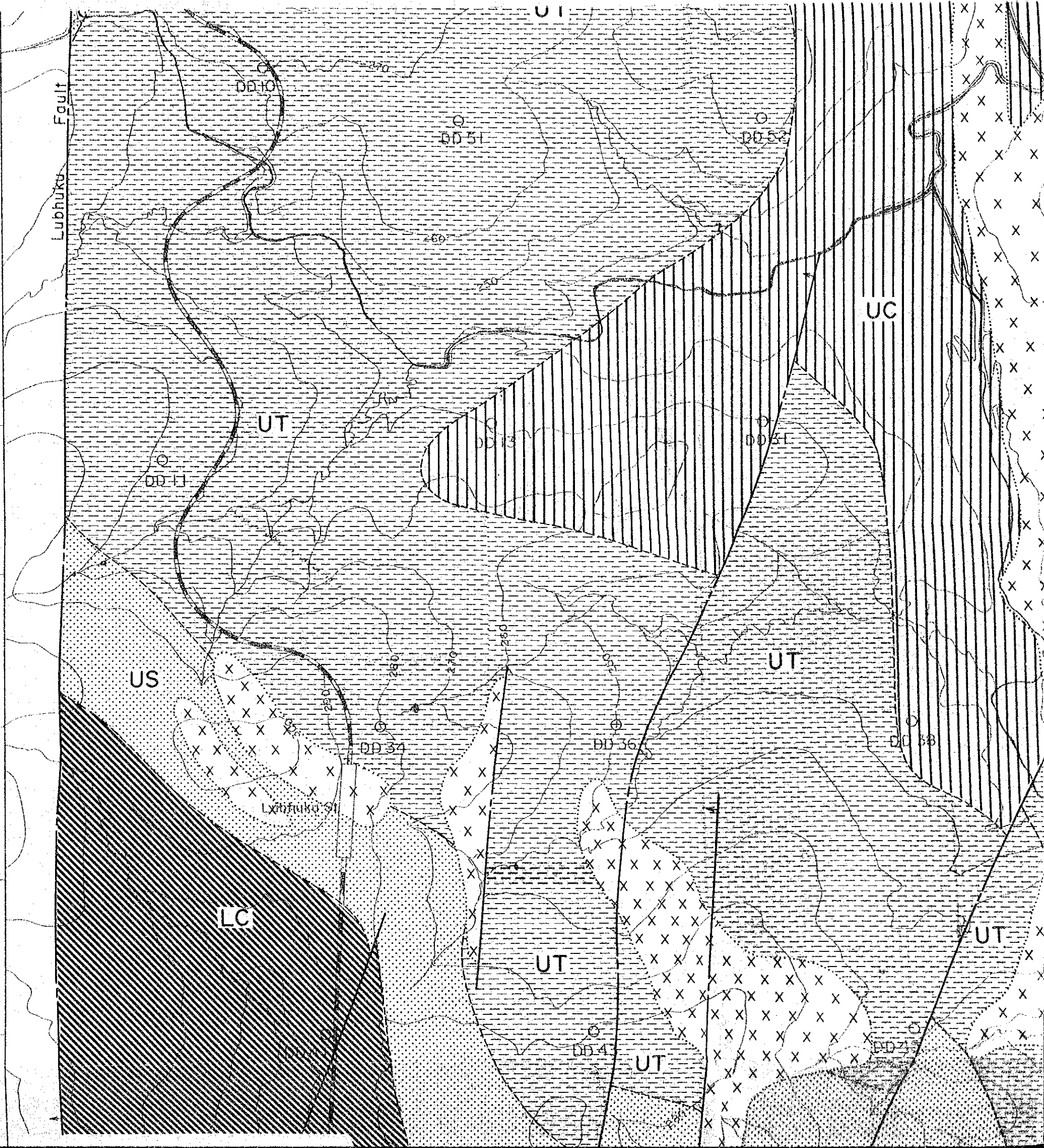
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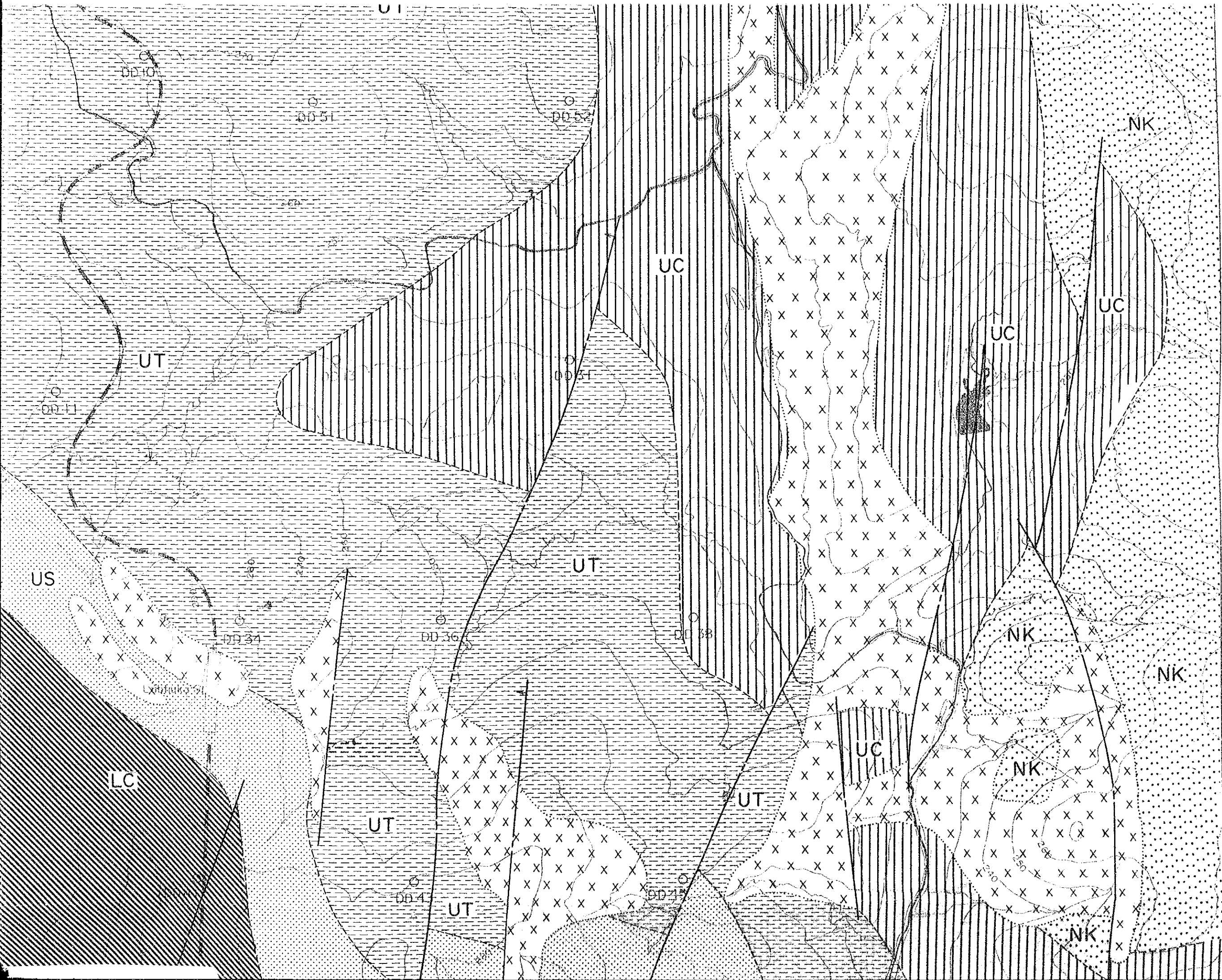




+ 2 935 000 X

+ 2 940 000 X





+ 2 935 000 X

+ 2 940 000 X

DD 10

DD 51

DD 52

NK

UC

UT

DD 11

DD 51

UC

UC

US

UT

DD 34

DD 36

DD 38

NK

NK

LC

UT

UT

UC

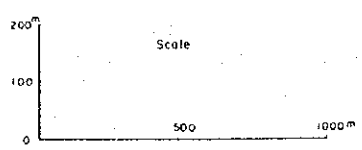
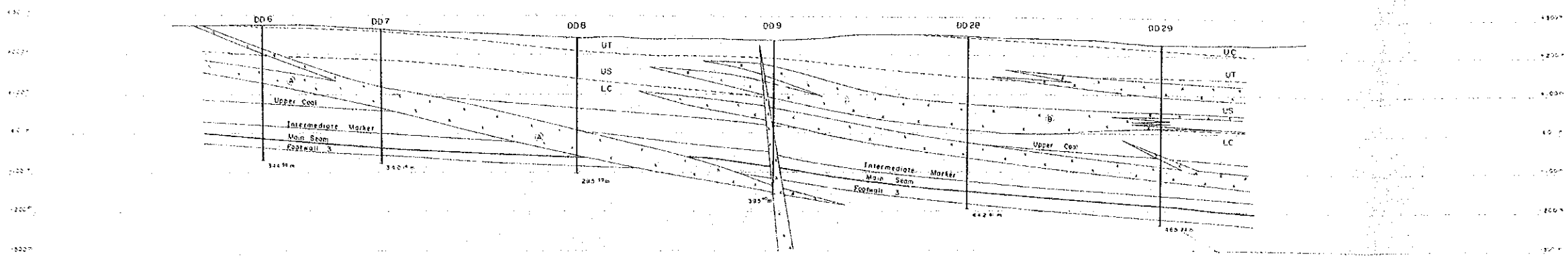
NK

DD 4

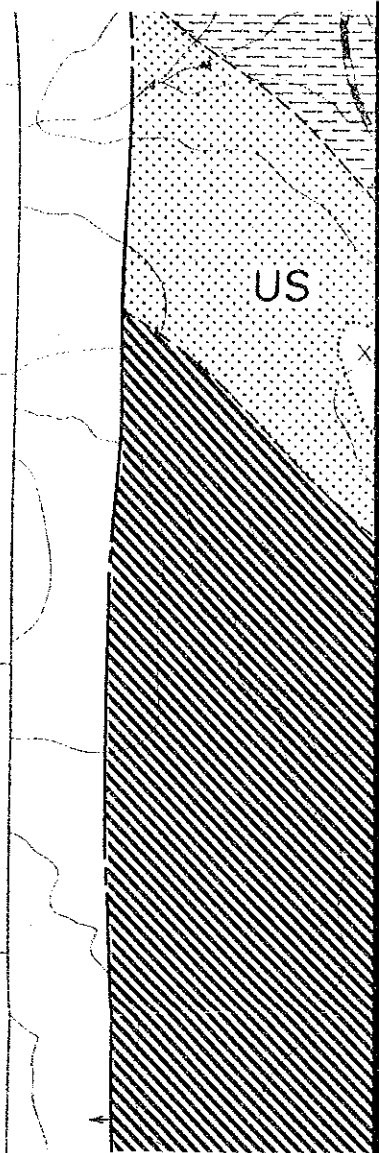
DD 3

NK

G - G'



+ 2 940 000 X



Legend

- LB Sable River Basalt
- NK Nkondolo Group
- UC Upper Coal Zone
- UT Upper Transition Bed
- US Upper Sandstone
- LC Lower Coal Zone (LC) Basal Sandstone (BS)
- X X X Dolerite
- LD1 Borehole Location

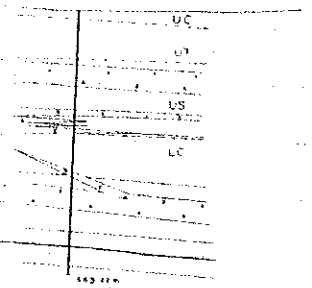
(Contour Lines in

+ 2 944 000 X

- 75 000 Y



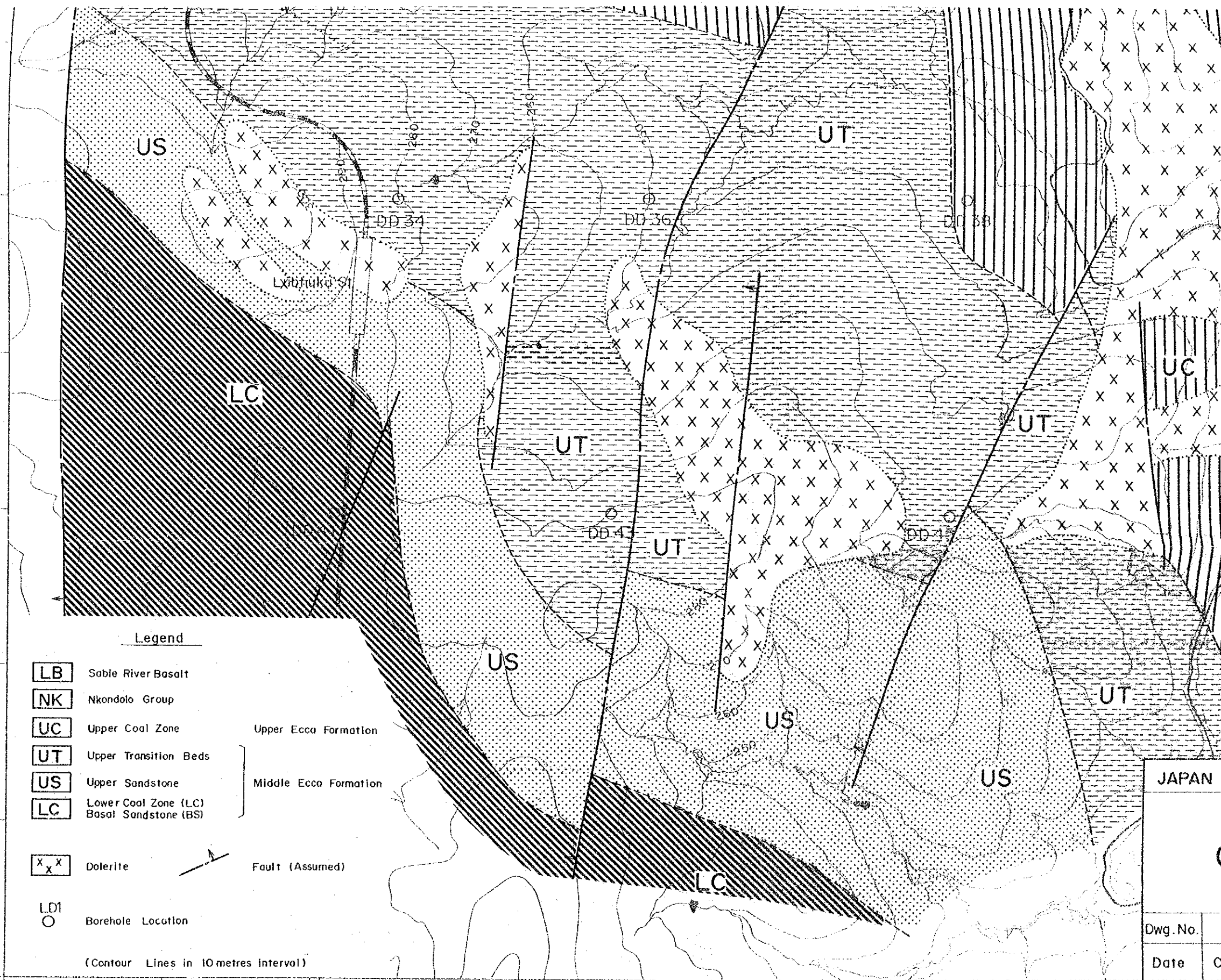
DD 29



+300  
+250  
+200  
+150  
+100  
+50  
0  
-50  
-100  
-150  
-200

+ 2 940 000 X

+ 2 944 000 X



Legend

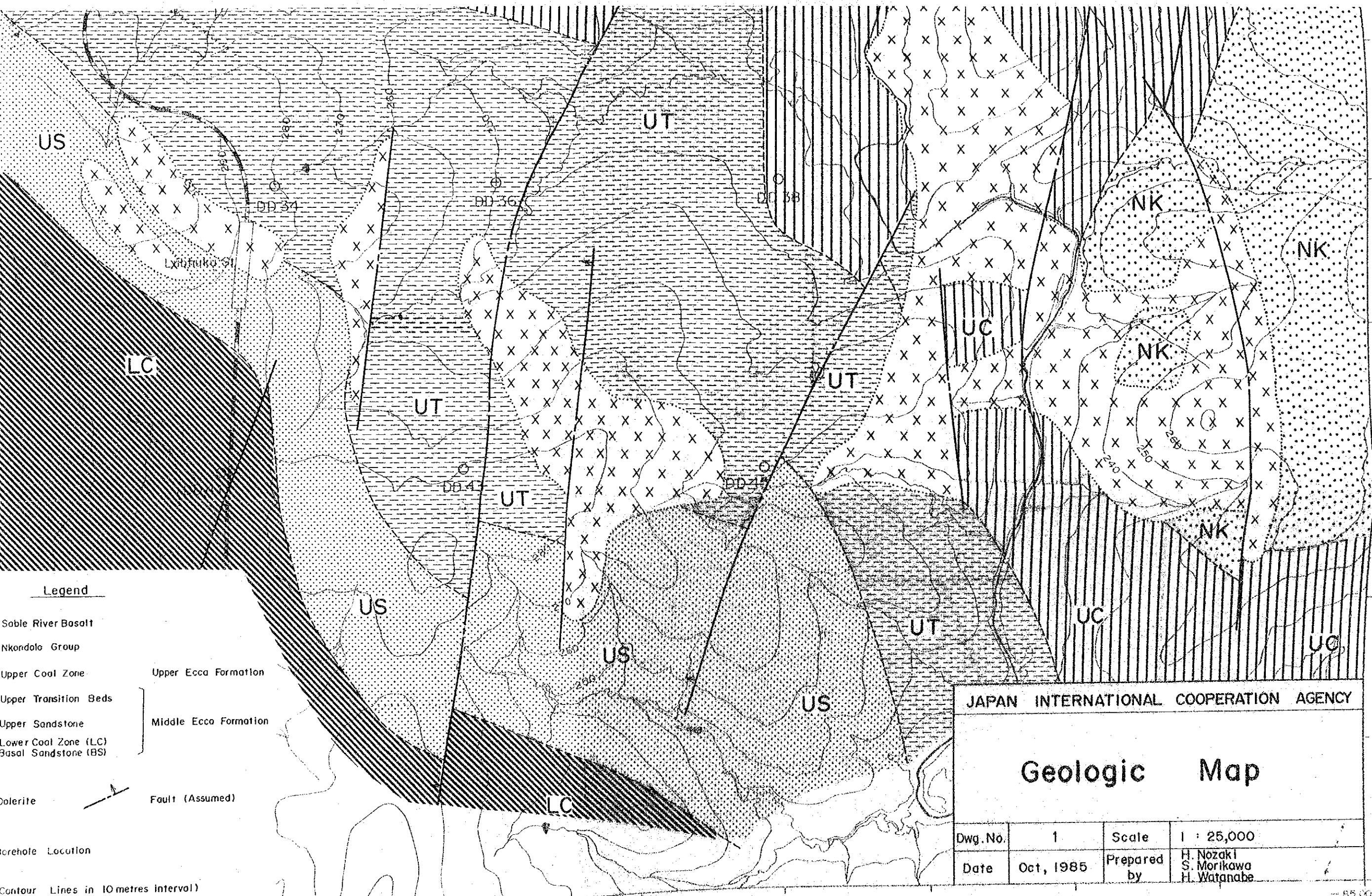
- LB** Sable River Basalt
- NK** Nkondolo Group
- UC** Upper Coal Zone
- UT** Upper Transition Beds
- US** Upper Sandstone
- LC** Lower Coal Zone (LC)  
Basal Sandstone (BS)
- x x x** Dolerite
- LD1** Borehole Location
- |—** Fault (Assumed)
- Upper Ecca Formation
- Middle Ecca Formation

(Contour Lines in 10 metres interval)

- 75 000 Y

80 000 Y

JAPAN	
Dwg. No.	
Date	



**Legend**

- Sable River Basalt
- Nkondolo Group
- Upper Coal Zone
- Upper Transition Beds
- Upper Sandstone
- Lower Coal Zone (LC)
- Basal Sandstone (BS)
- Dolerite
- Microhole Location
- Contour Lines in 10metres interval)
- Upper Ecca Formation
- Middle Ecca Formation
- Fault (Assumed)

JAPAN INTERNATIONAL COOPERATION AGENCY			
<b>Geologic Map</b>			
Dwg. No.	1	Scale	1 : 25,000
Date	Oct, 1985	Prepared by	H. Nozaki S. Morikawa H. Watanabe

+ 2 940 000 X

+ 2 944 000 X  
- 85 000 Y

- 80 000 Y



+ 2 922 000X  
-75 000Y

- 80 000Y







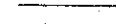
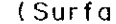
- 85 000Y

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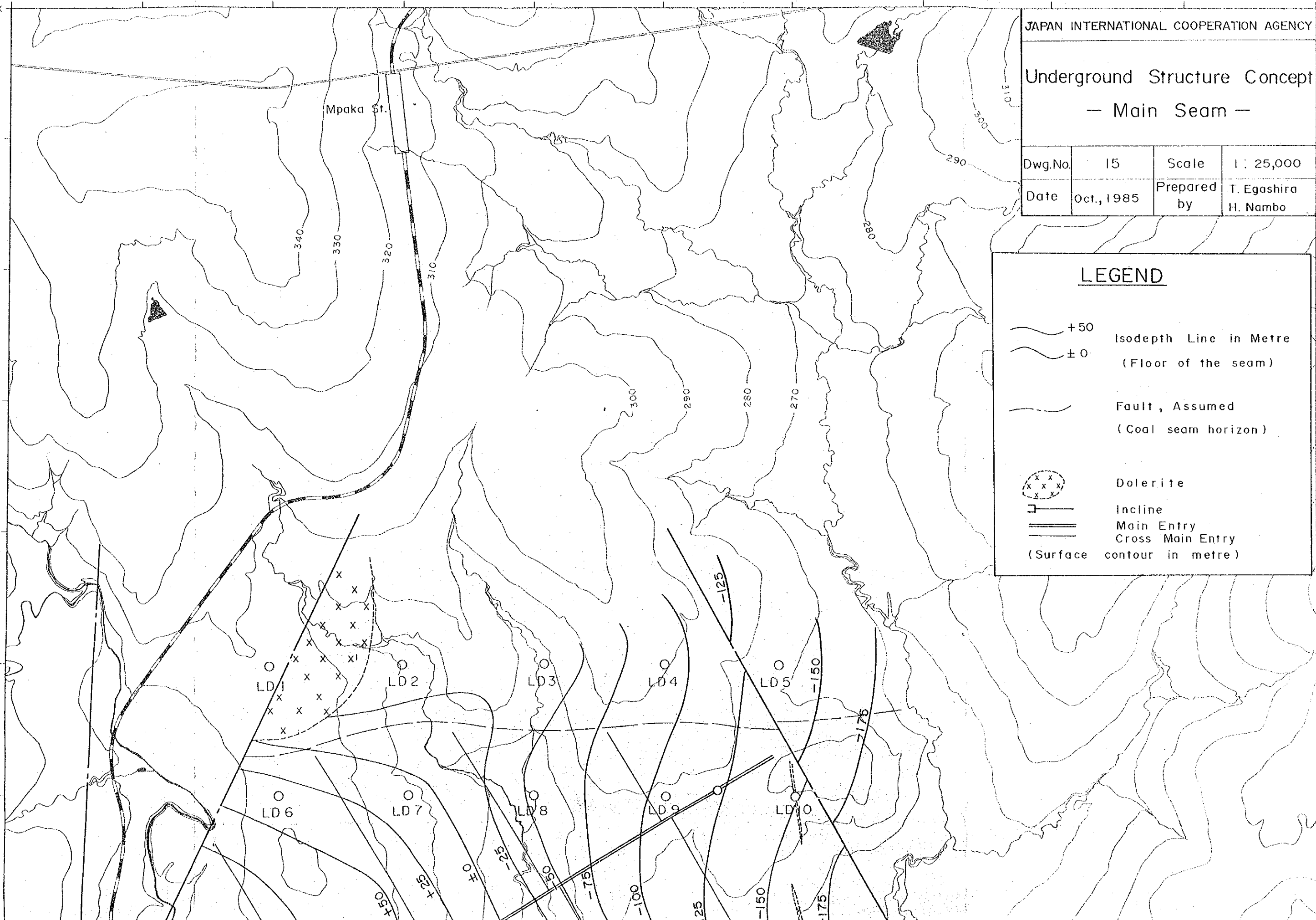
# Underground Structure Concept — Main Seam —

Dwg.No.	15	Scale	1 : 25,000
Date	Oct., 1985	Prepared by	T. Egashira H. Nambo

## LEGEND

-  +50 Isodepth Line in Metre
-  ±0 (Floor of the seam)
-  Fault, Assumed (Coal seam horizon)
-  Dolerite
-  Incline
-  Main Entry
-  Cross Main Entry
-  (Surface contour in metre)

+ 2 925 000X



-- 80 000Y

-- 85 000Y

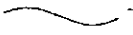

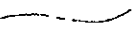

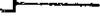
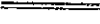

+ 2 922 000X

JAPAN INTERNATIONAL COOPERATION AGENCY

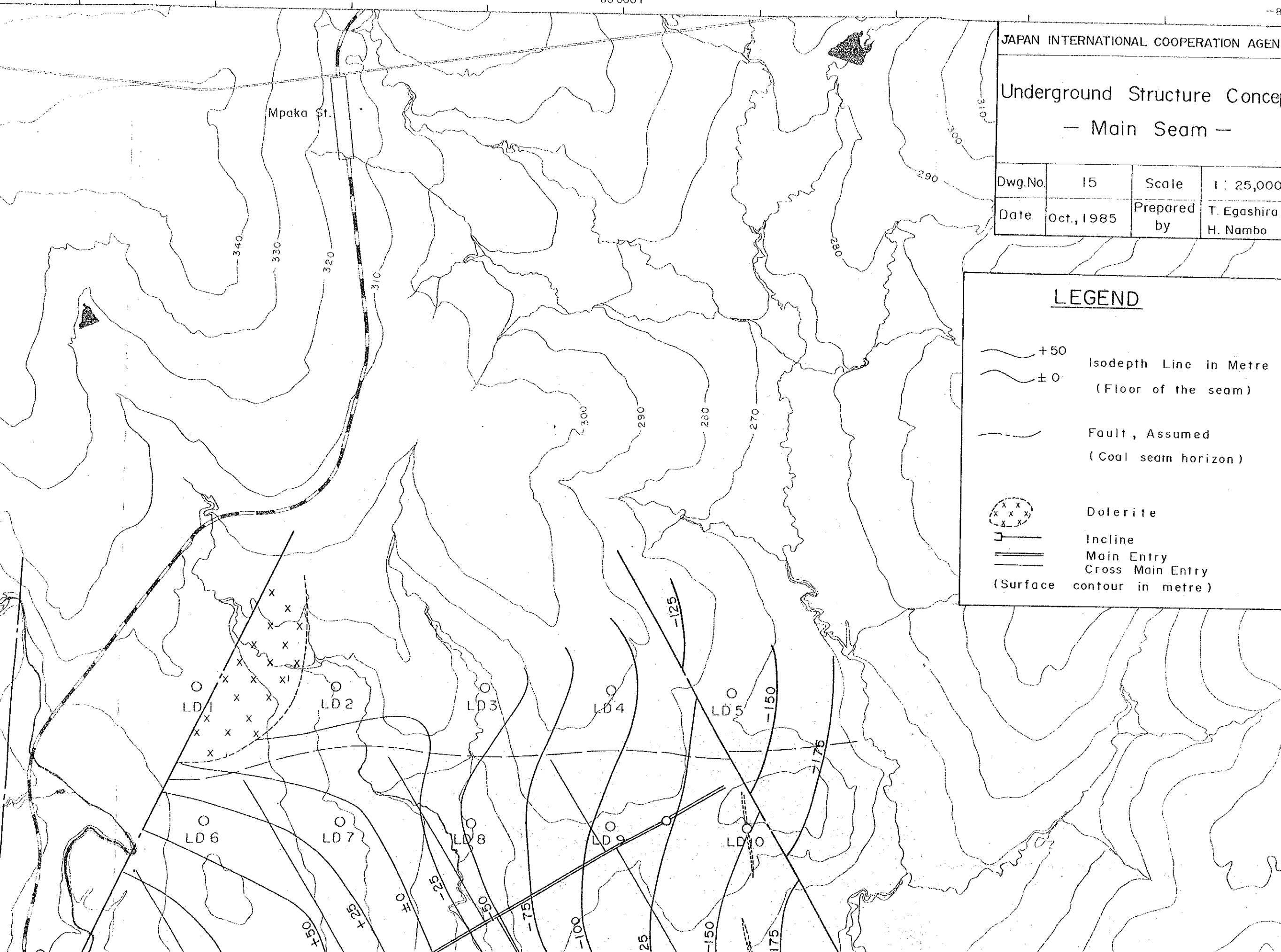
# Underground Structure Concept — Main Seam —

Dwg.No.	15	Scale	1 : 25,000
Date	Oct., 1985	Prepared by	T. Egashira H. Nambo

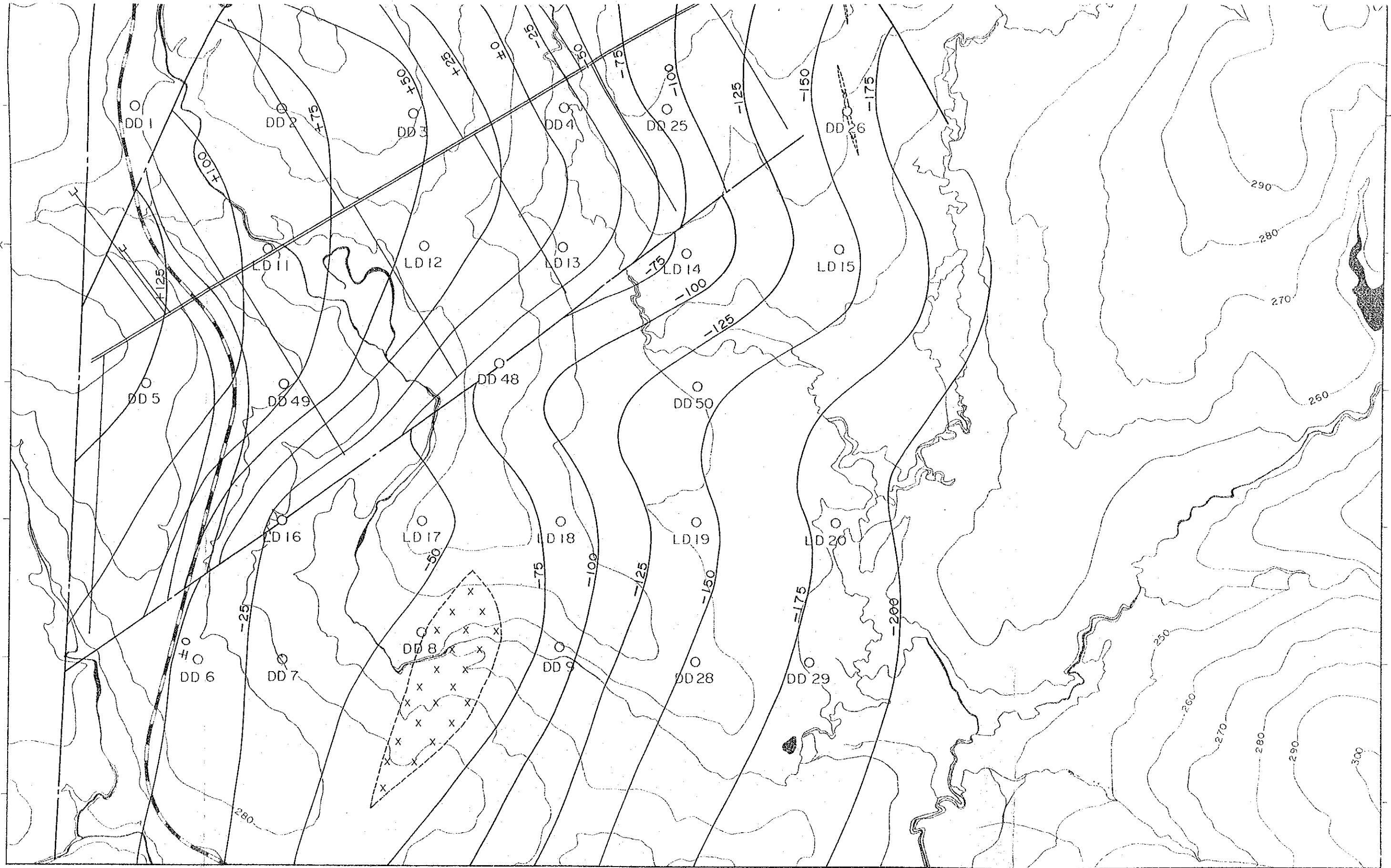
## LEGEND

-  +50  
Isodepth Line in Metre
-  ± 0  
(Floor of the seam)
-  Fault, Assumed  
(Coal seam horizon)
-  Dolerite
-  Incline
-  Main Entry
-  Cross Main Entry
- (Surface contour in metre)

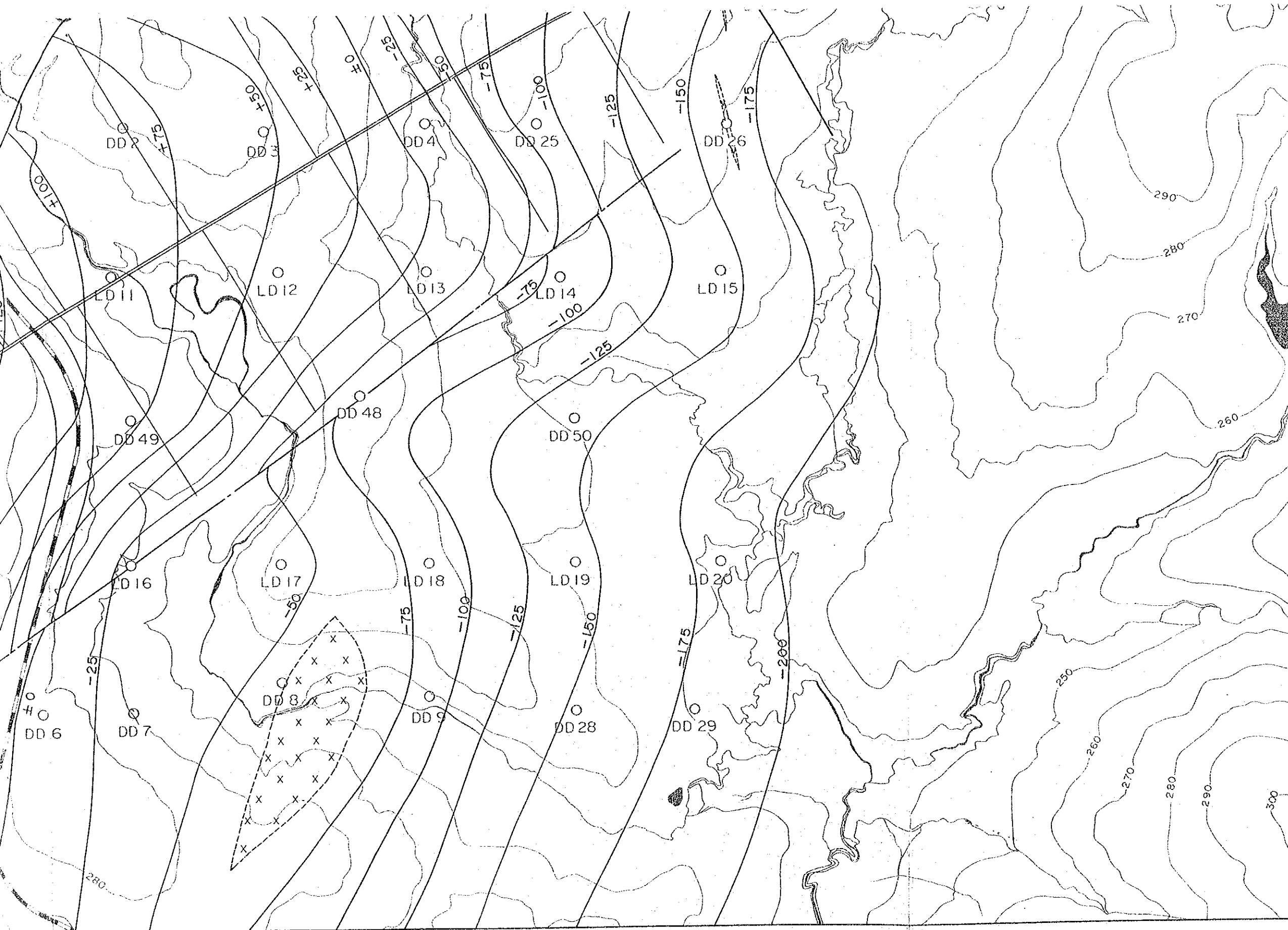
+ 2 925 000X



+2 930 000X



+2



+ 2 930 000 X

+2 922 000X  
-75 000Y

-80 000Y


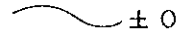
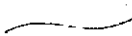


-85 000Y

JAPAN INTERNATIONAL COOPERATION AGENCY

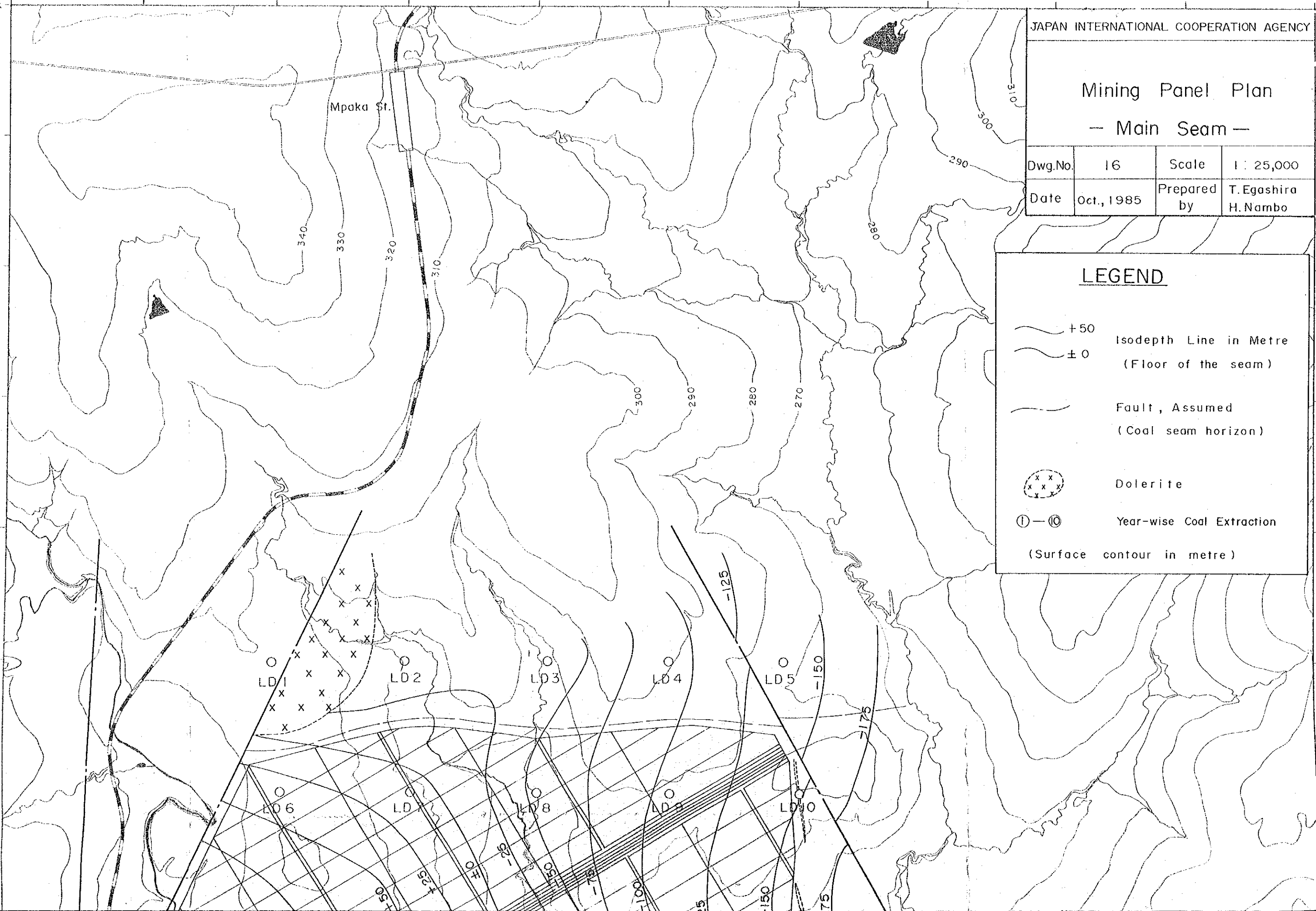
# Mining Panel Plan — Main Seam —

Dwg.No.	16	Scale	1 : 25,000
Date	Oct., 1985	Prepared by	T. Egashira H. Nambo

## LEGEND

-  +50
-  ±0
-  Fault, Assumed  
(Coal seam horizon)
-  Dolerite
-  ①—⑩ Year-wise Coal Extraction  
(Surface contour in metre)

+2 925 000X





- 80 000Y

- 85 000Y

+ 2 922 000X




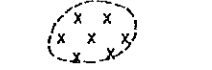
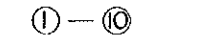
JAPAN INTERNATIONAL COOPERATION AGENCY

# Mining Panel Plan

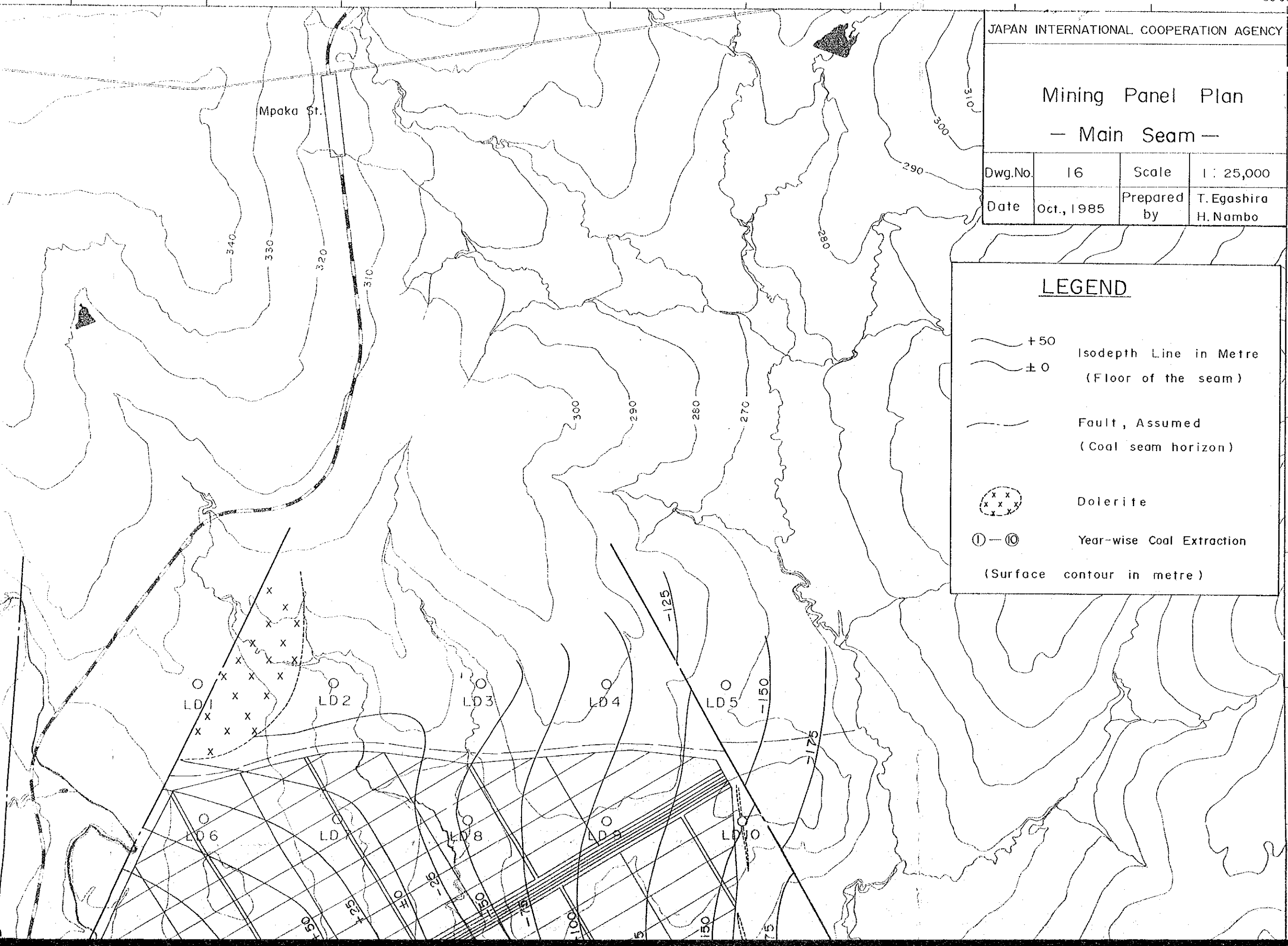
## - Main Seam -

Dwg.No.	16	Scale	1 : 25,000
Date	Oct., 1985	Prepared by	T. Egashira H. Nambo

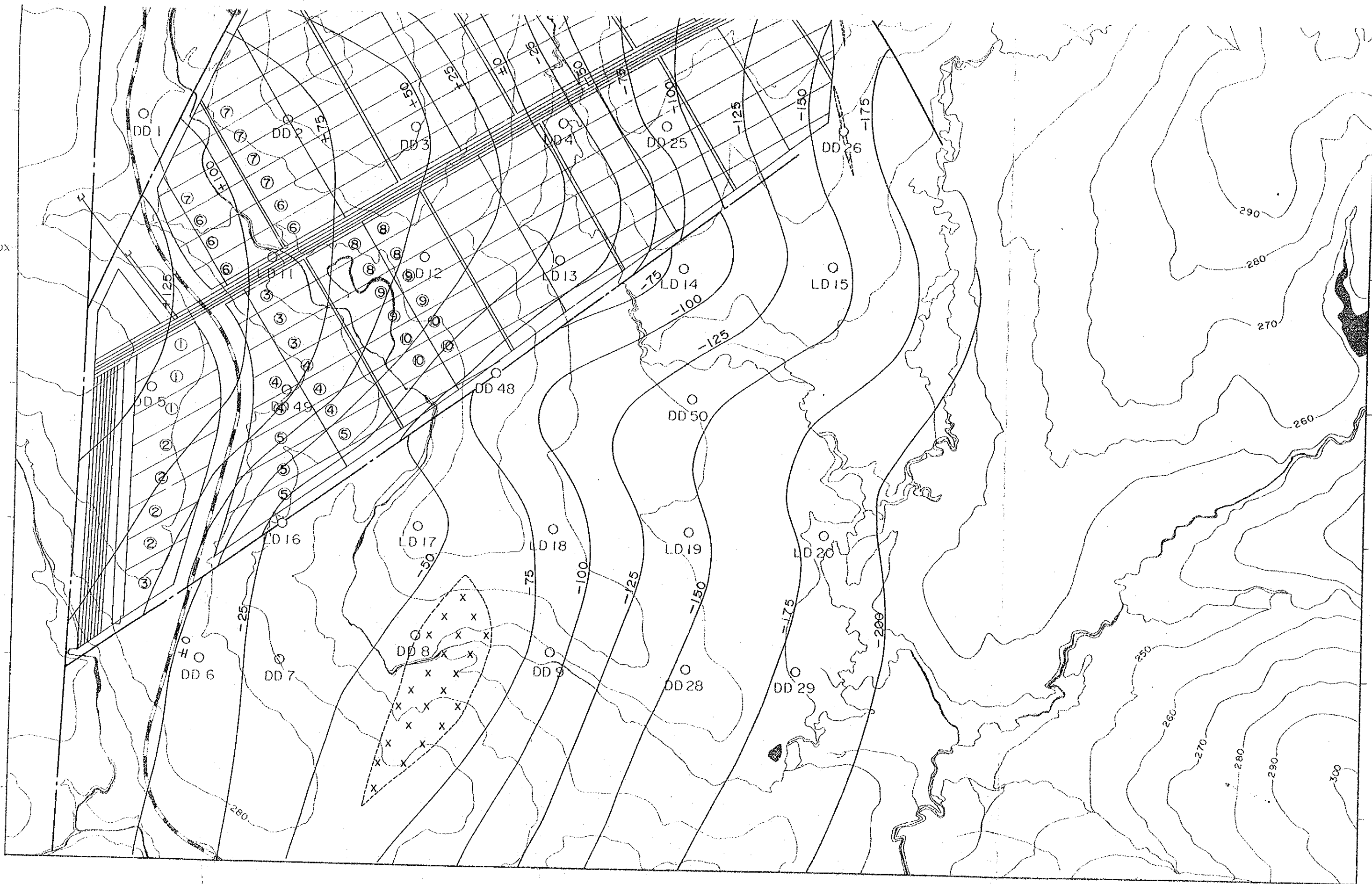
### LEGEND

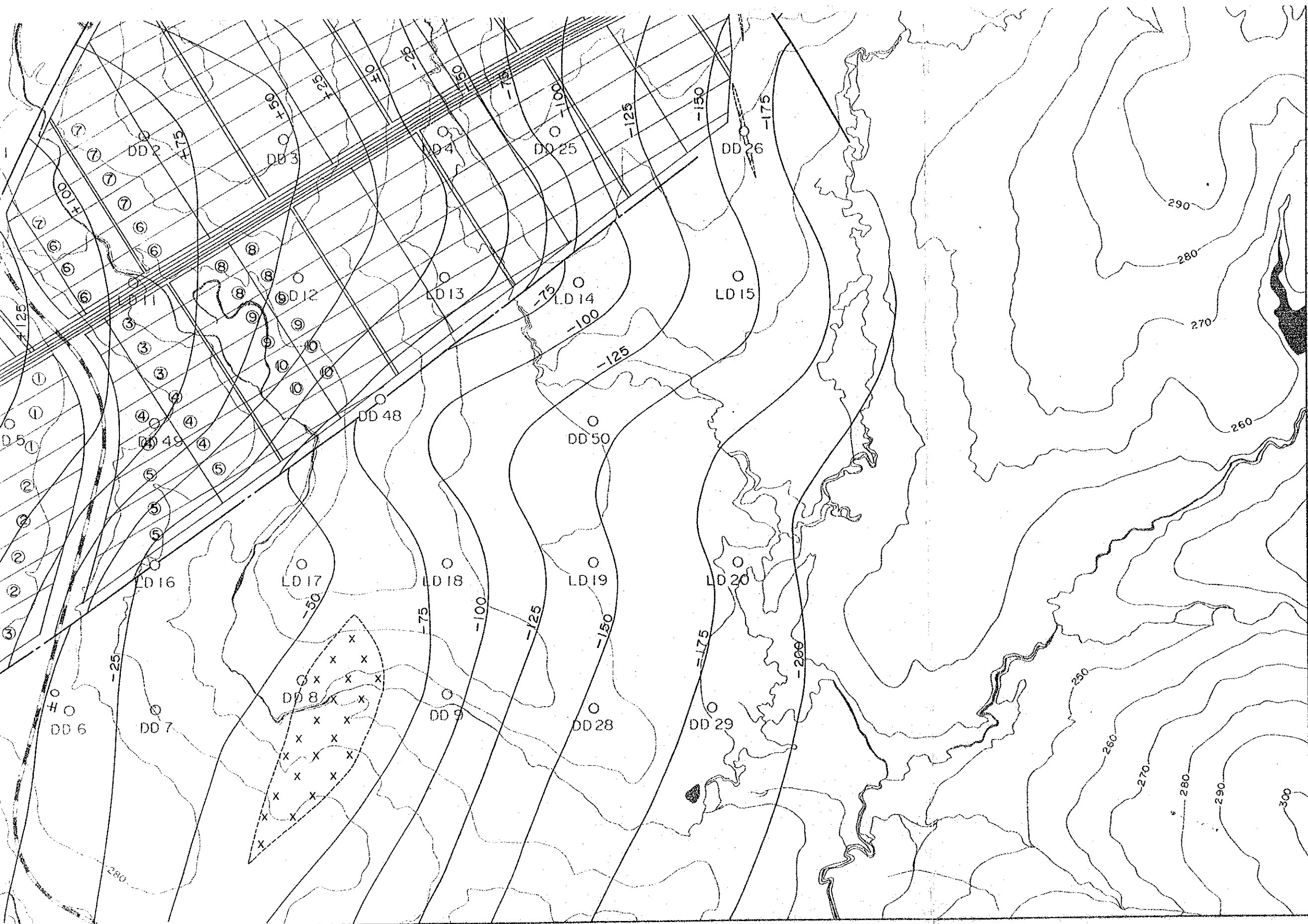
-  +50
-  ±0
-  Fault, Assumed  
(Coal seam horizon)
-  Dolerite
-  ①—⑩ Year-wise Coal Extraction  
(Surface contour in metre)

+ 2 925 000X



+2 930 000X





+ 2 930 000 X

