

MEDICAL EXPLORATION REPORT

ON

THE SUBJECT CHARGED BY DEPARTMENT PROCEED

IN

THE CASE OF (NAME)

1944, 1945

U.S. DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION

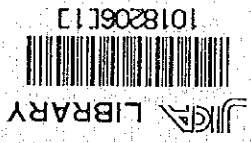
U.S. GOVERNMENT PRINTING OFFICE

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國際協力事業団		

REPORT

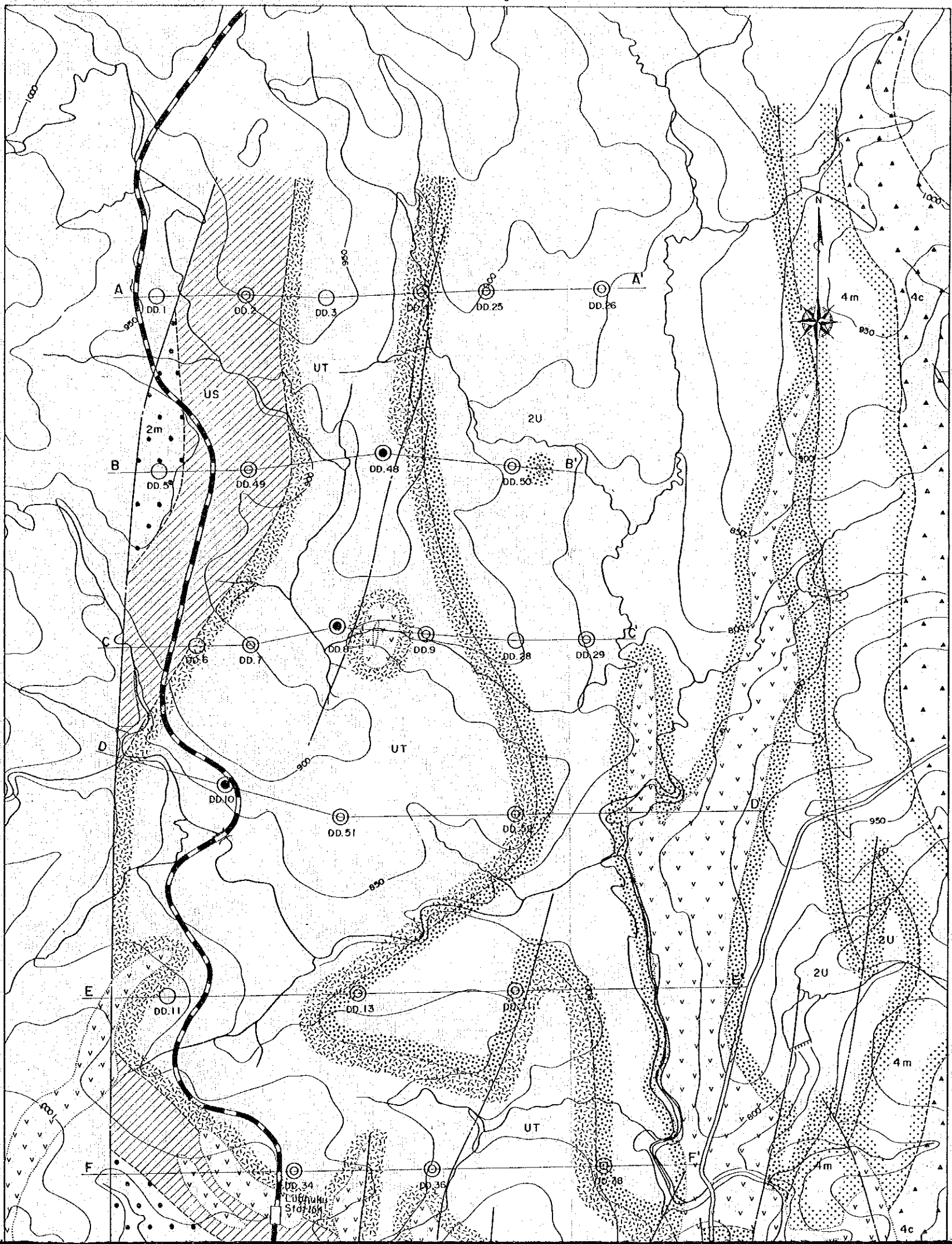
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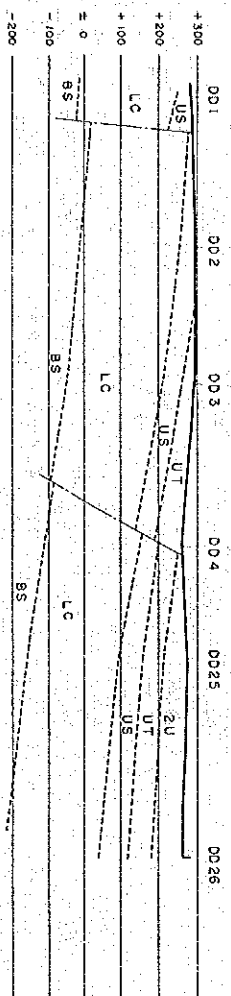
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GEOLOGIC PROFILE

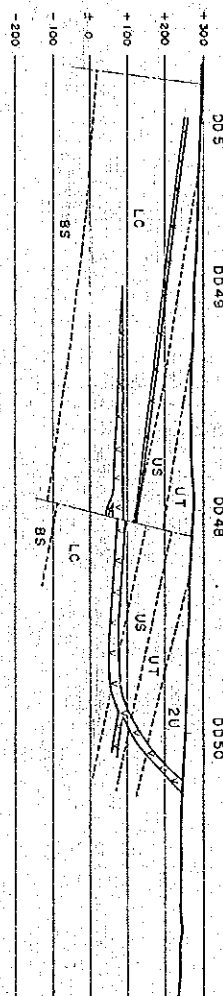
A - A

D - D



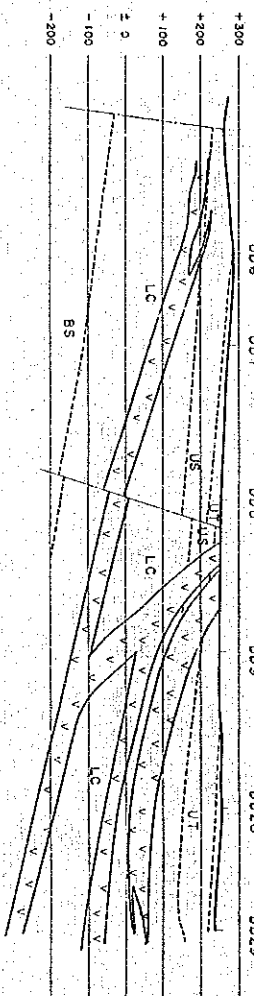
B - B

E - E



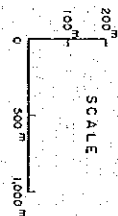
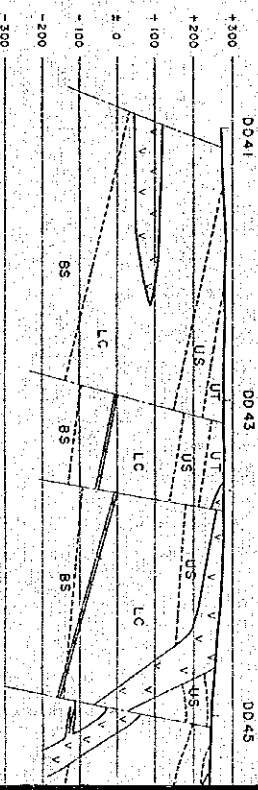
C - C

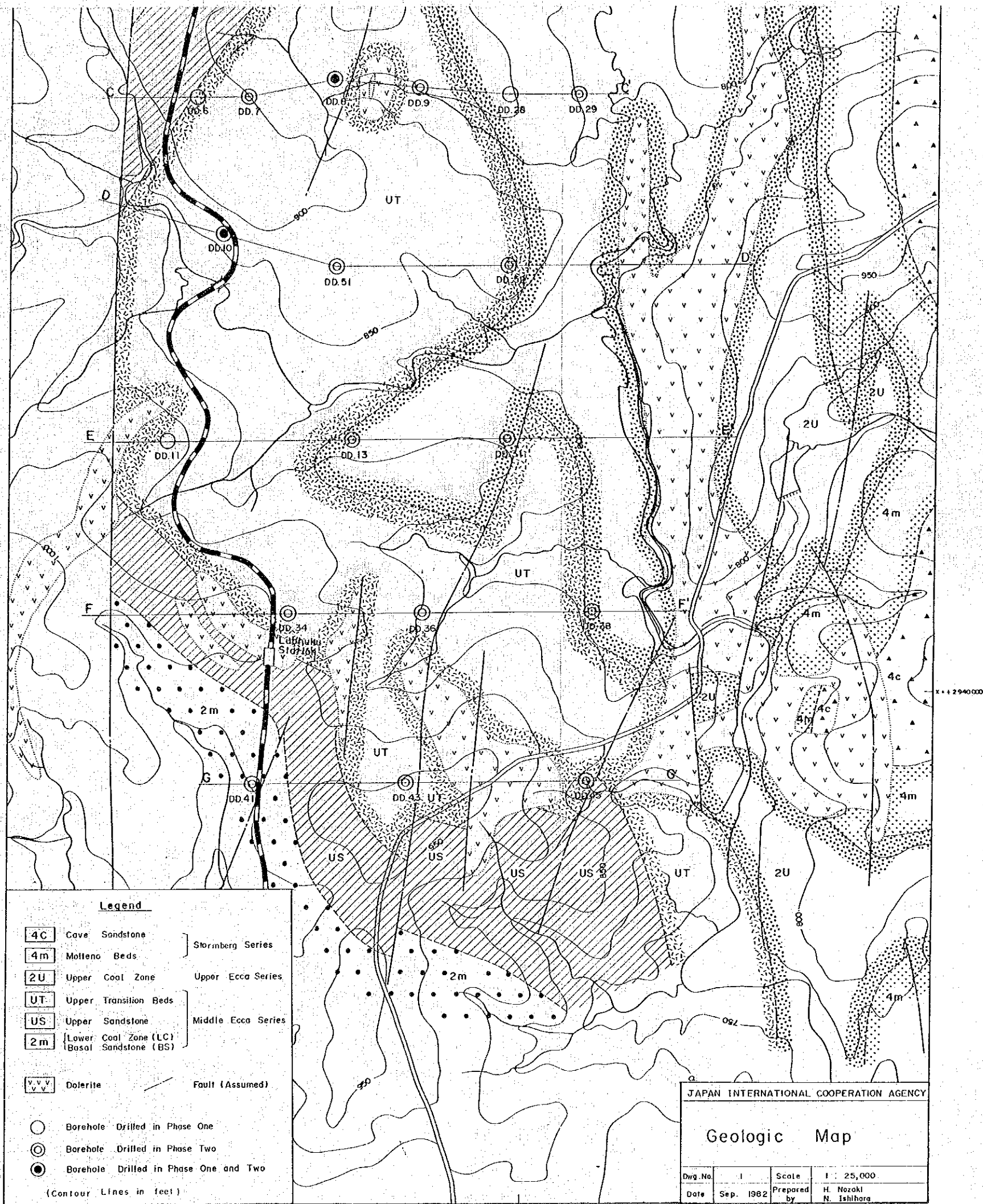
F - F



D - D

G - G





GEOLOGIC PROFILE

D - D'

Legend

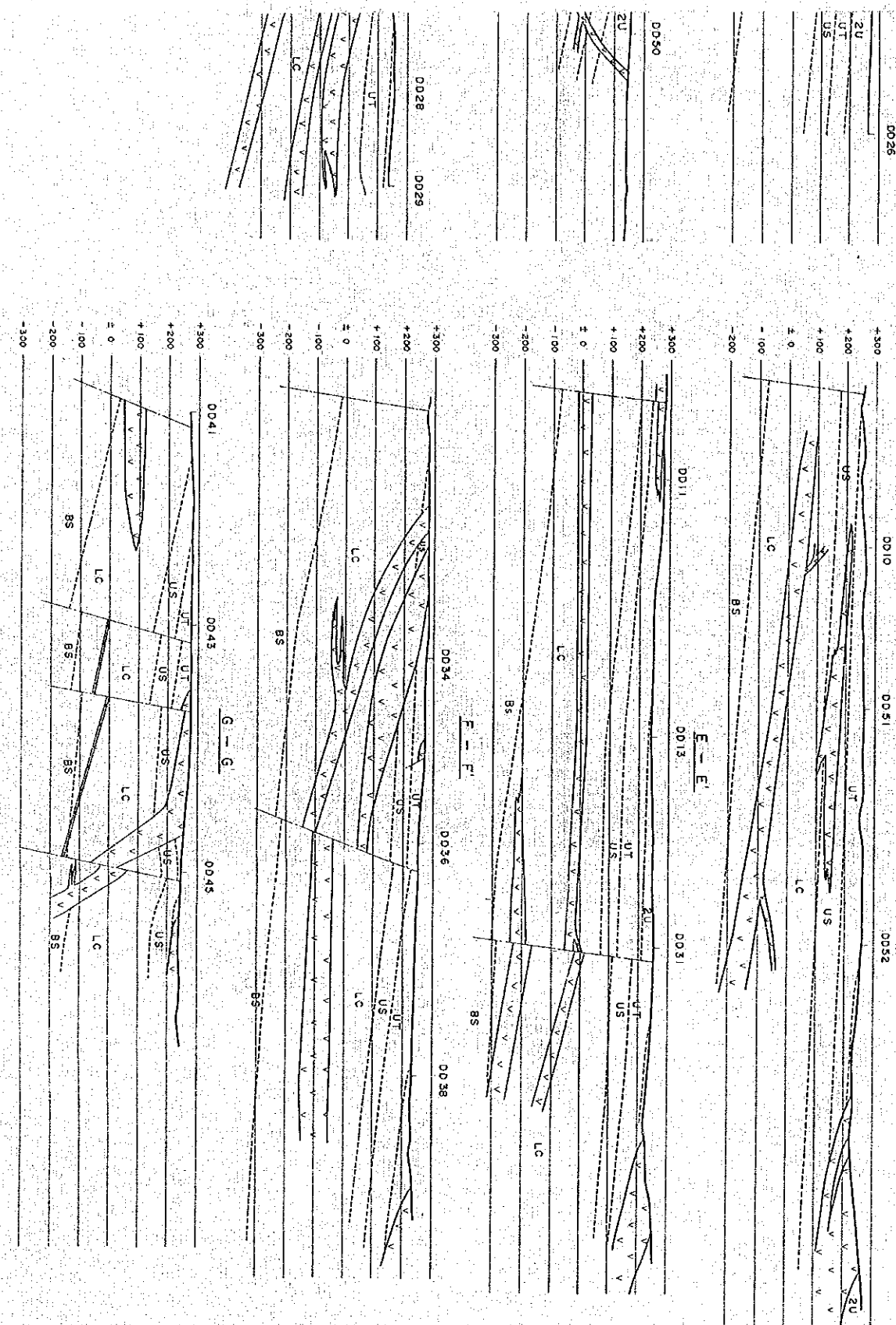
4C	Cave Sandstone	Stormberg Series
4m	Motteno Beds	
2U	Upper Coal Zone	Upper Ecca Series
UT	Upper Transition Beds	Middle Ecca Series
US	Upper Sandstone	
2m	Lower Coal Zone (LC) Basal Sandstone (BS)	
V.V.V.V	Dolerite	Fault (Assumed)
○	Borehole Drilled in Phase One	
⊙	Borehole Drilled in Phase Two	
●	Borehole Drilled in Phase One and Two	

(Contour Lines in feet)

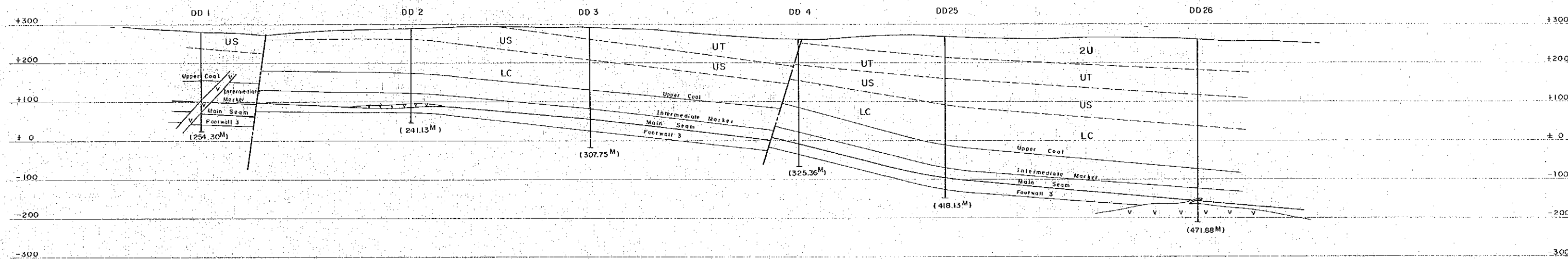
JAPAN INTERNATIONAL COOPERATION AGENCY

Geologic Map

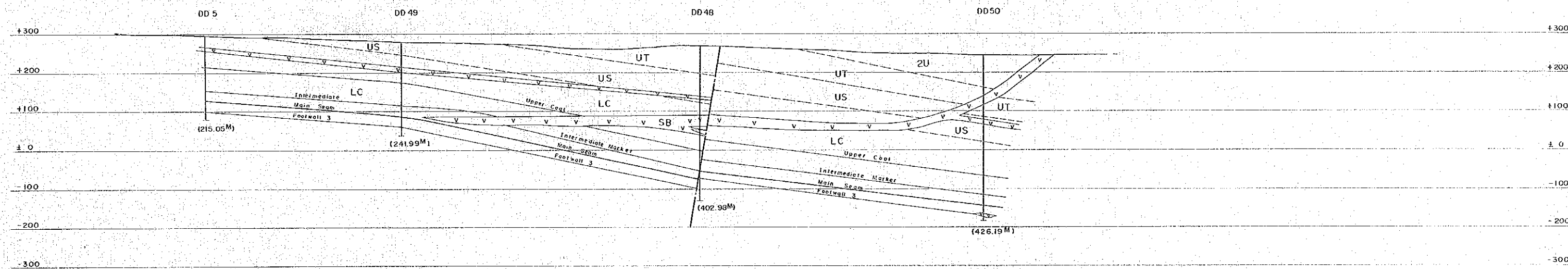
Dwg. No.	1	Scale	1 : 25,000
Date	Sep. 1982	Prepared by	H. Nozaki N. Ishihara



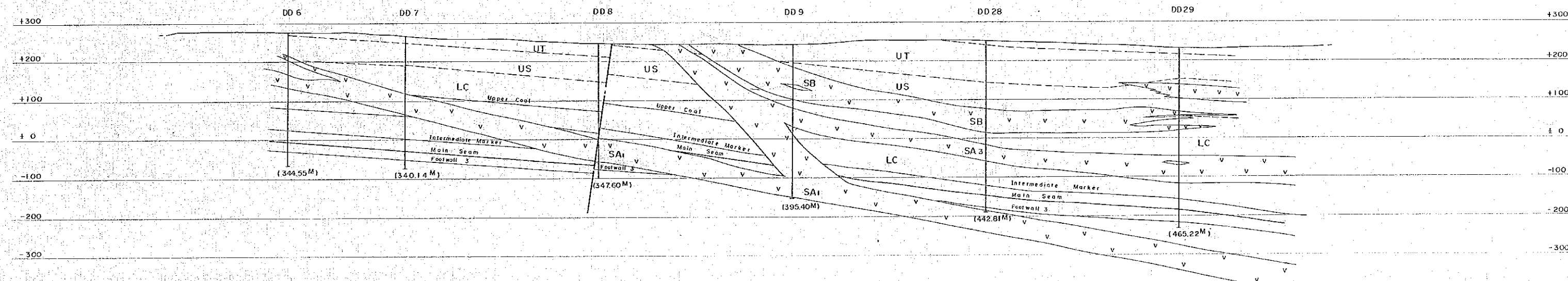
A — A'



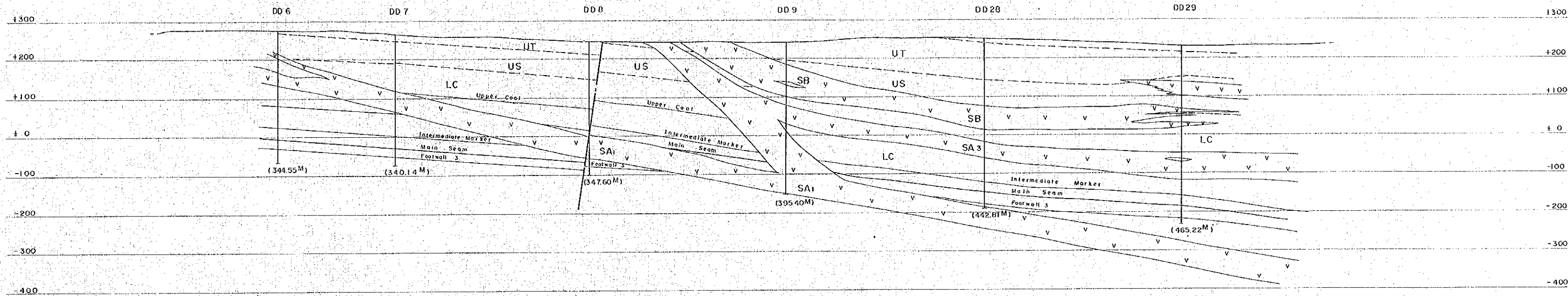
B — B'



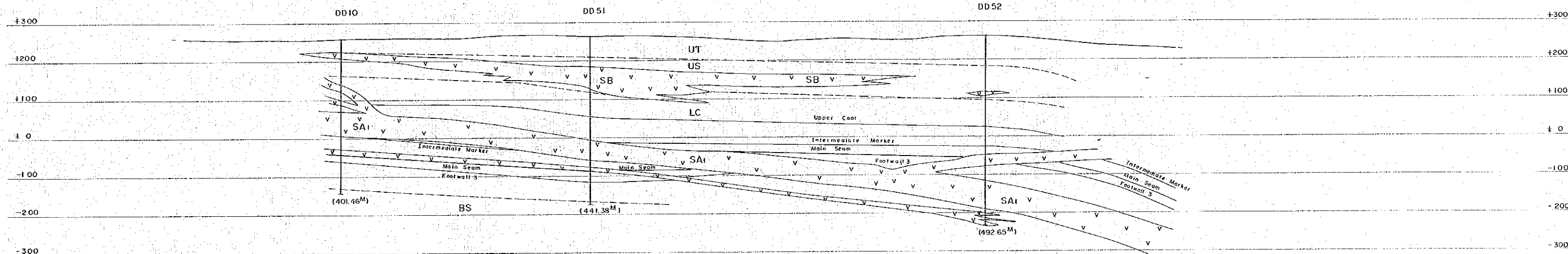
C — C'



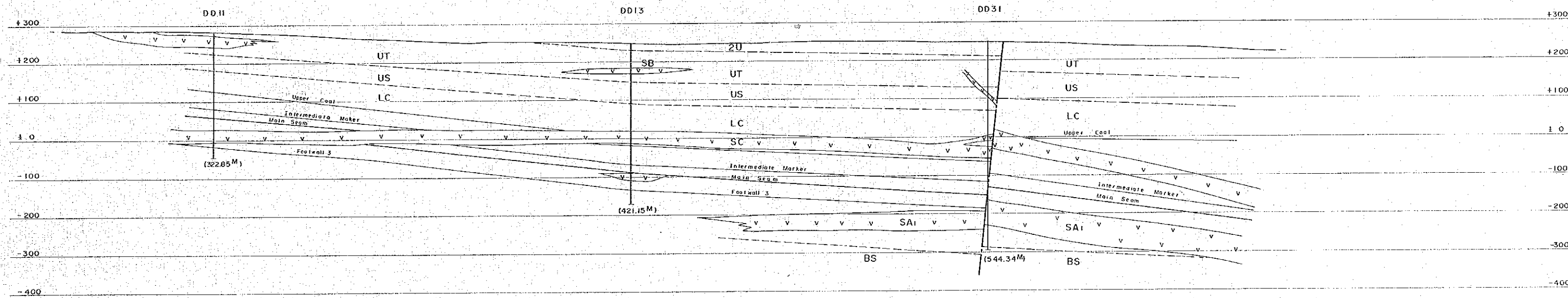
C - C'



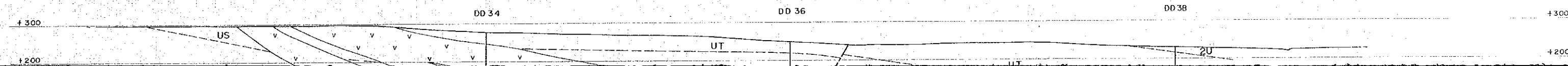
D - D'

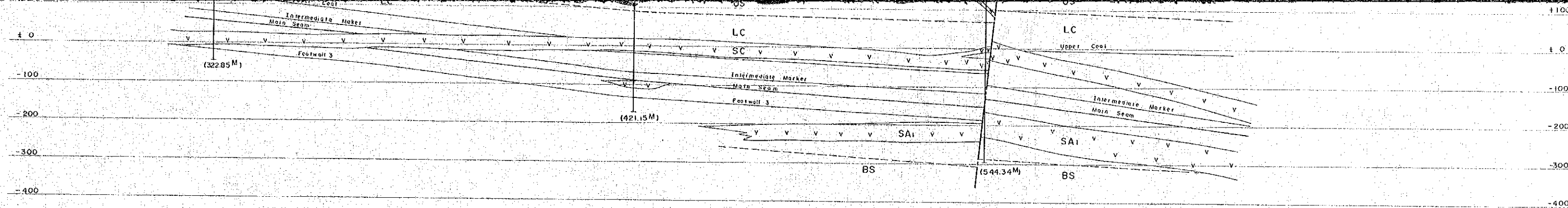


E - E'

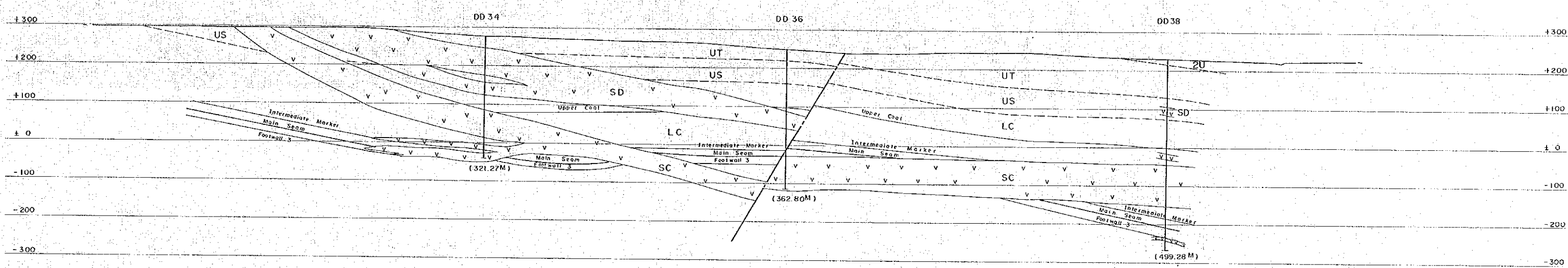


F - F'

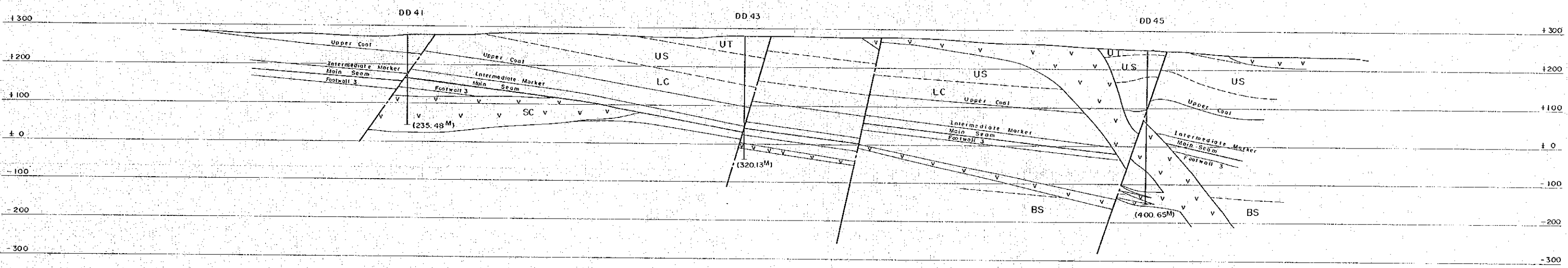




F — F'

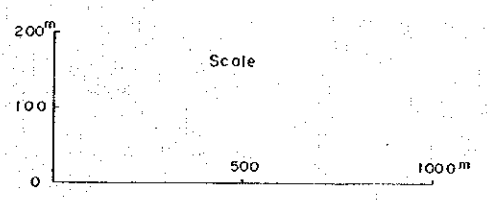


G — G'



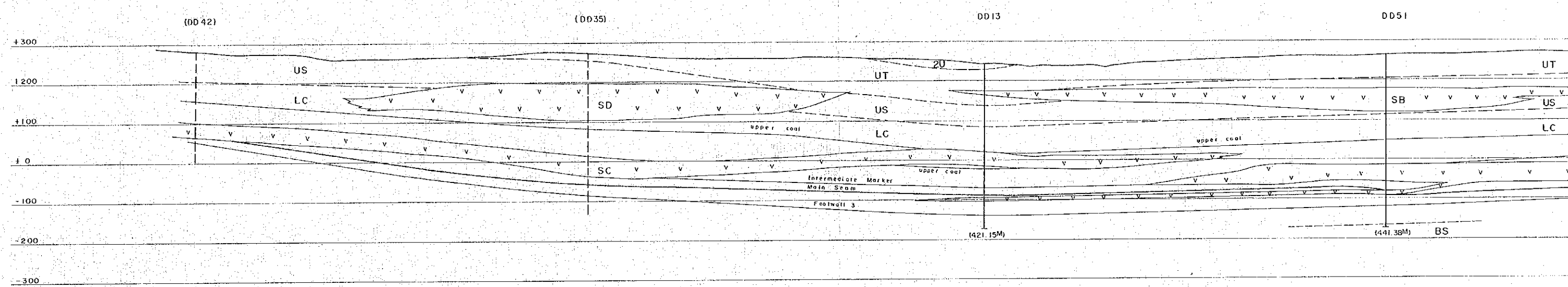
LEGEND

- 2U Upper Coal Zone
- UT Upper Transition Beds
- US Upper Sandstone
- LC Lower Coal Zone
- BS Basal Sandstone
- SA Dolerite
- Fault, Assumed

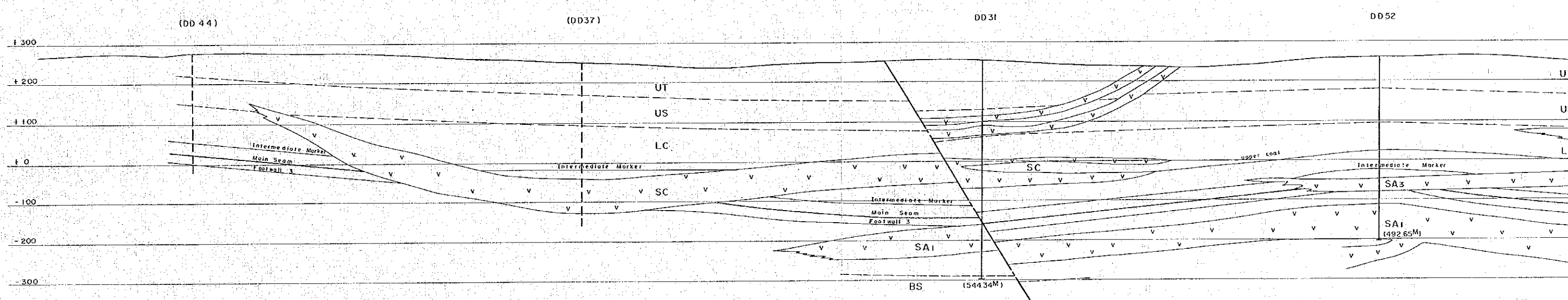


JAPAN INTERNATIONAL COOPERATION AGENCY			
Geologic Profile			
Dwg. No.	2a	Scale	H = 1:10,000 V = 1:5,000
Date	Sep., 1982	Prepared by	H. Nozaki N. Ishihara

H - H'



I - I'



LEGEND

- 2U Upper Coal Zone
- UT Upper Transition Beds
- US Upper Sandstone
- LC Lower Coal Zone
- BS Basal Sandstone
- SA Dolerite
- / Fault, Assumed

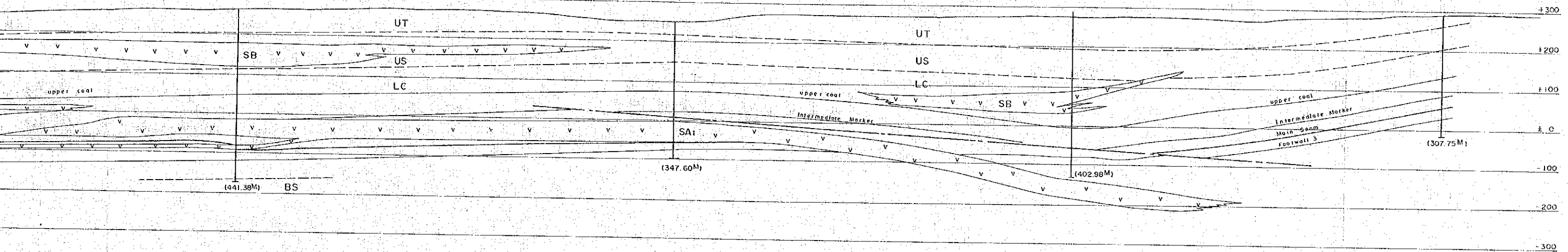
H - H'

DD51

DD8

DD48

DD3



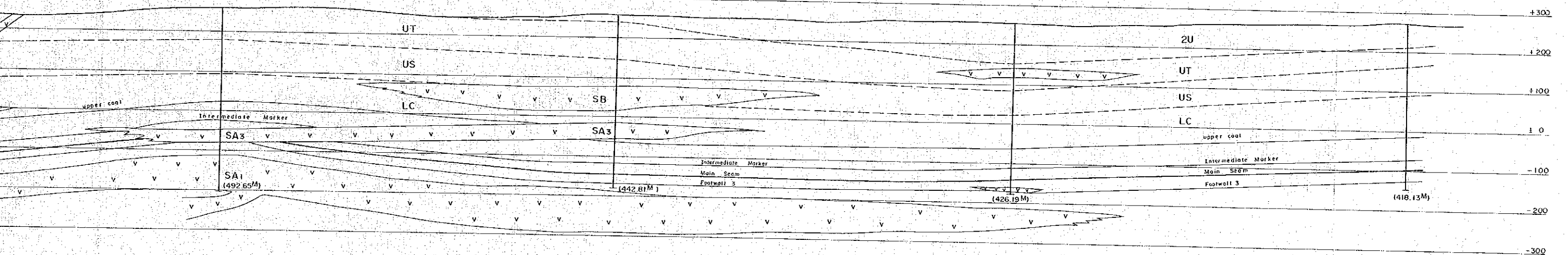
I - I'

DD52

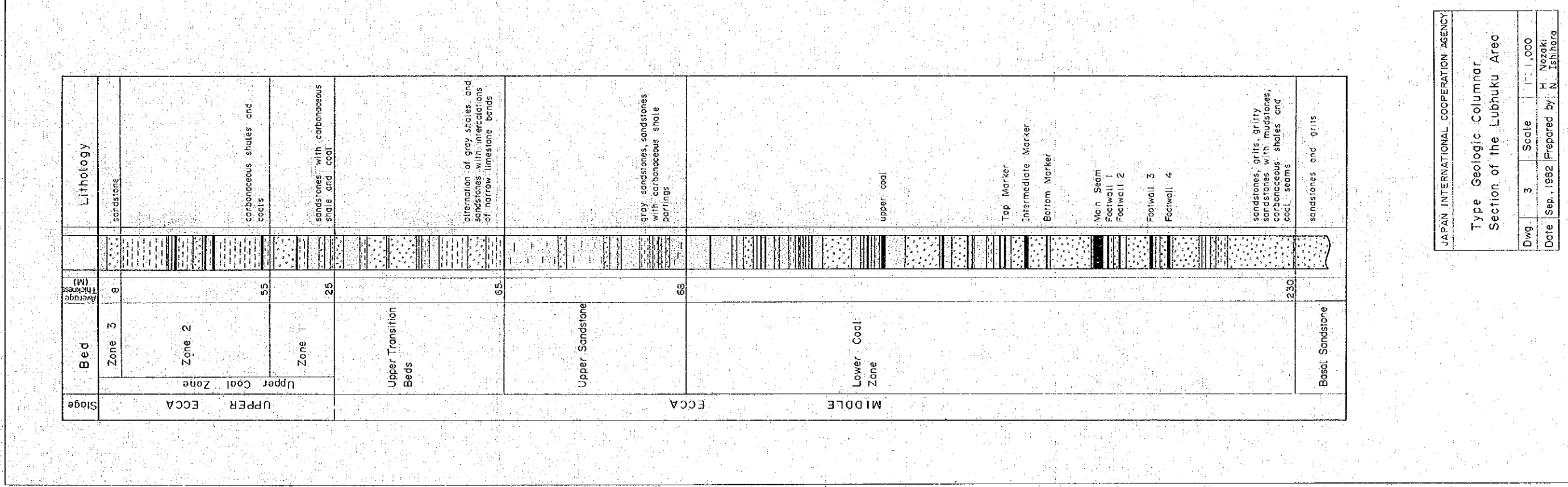
DD28

DD50

DD25



JAPAN INTERNATIONAL COOPERATION AGENCY			
Geologic Profile			
Dwg. No.	2b	Scale	H = 1:10,000 V = 1:5,000
Date	Sep., 1982	Prepared by	H. Nazaki N. Ishihara



JAPAN INTERNATIONAL COOPERATION AGENCY

Type Geologic Columnar
Section of the Lubhuku Area

Dwg. 3 Scale 1:1,000
Date Sep. 1982 Prepared by H. Nozaki
N. Ishihara

JAPAN INTERNATIONAL COOPERATION AGENCY
 Borehole Log DD2
 Date: 1982 State: I-200
 Date: 1982 Prepared by: Nippon Oil, N. Higashi

HOLE NO. DD2
 AREA LUBUKU
 DATE DRILLED FEB. 5, 1982 - FEB. 4, 1982
 TOTAL DEPTH 241.15 m
 ELEVATION +252.50 m
 COORDINATE X + 2,929,020 Y + 76,993

Depth of Borehole (m)	Apparent Thickness of Strata (m)	True Thickness of Strata (m)	Dip of Strata Section	Column of Strata	Rock Description
3.00					Shale, micaceous, weathered
5.00					Sandstone, coarse grained, white
6.00					Shale to sandstone, fine grained
10.00					Sandstone, fine grained, red shale, micaceous, brownish gray
13.00					Sandstone, medium to fine grained, white
14.00					Sandstone, fine grained, and shale sandstone rich
16.00					Shale, carbonaceous
21.00					Sandstone, fine grained, with shale, weathered
23.00					Shale, carbonaceous with sandstone
26.00					Sandstone, medium grained, with shale
27.00					Sandstone, coarse grained
28.00					Sandstone, medium grained, with coal fragments
30.00					Sandstone, fine grained, shale and coal
33.10					Sandstone, coarse grained
34.00					Sandstone, coarse grained
36.30					Sandstone, fine grained, micaceous, light gray (Core log 2.0m)
39.72					Sandstone, fine grained, micaceous, laminated, shale
40.20					Shale, carbonaceous
40.88					Sandstone, fine grained, and shale in alternation, laminated
44.20					Sandstone, medium grained, with carbonaceous matter
50.10					Sandstone, fine grained, with carbonaceous matter
56.32					Sandstone, coarse grained, quartz and feldspar rich, white coal, bright
56.33					Sandstone, coarse grained, quartz and feldspar rich, white coal, bright
58.10					Sandstone, coarse grained, quartz and feldspar rich, white coal, bright, weathered, dull coal
59.37					Sandstone, fine grained, cross-bedded, thin, shale
60.90					Sandstone, medium grained, mica, ribbed
61.20					Shale with sandstone bands
63.69					Sandstone, medium to fine grained, laminated, thin, shale
64.07					Shale, carbonaceous
64.94					Shale, sand, mica-laminated, thin, sandstone
65.18					Shale, carbonaceous with coal streaks
65.65					Sandstone, fine grained, laminated, thin, shale, coal, bright
65.84					Sandstone, fine grained, laminated, thin, shale, coal, bright
65.87					Sandstone, fine grained, laminated, thin, shale, coal, bright
66.18					Sandstone, medium grained, very fine grained, gray, coal, bright, weathered, dull coal
66.32					Shale, carbonaceous, and sandstone, fine grained, in alternation
68.81					Sandstone, coarse grained, white coal, bright, weathered, dull coal
69.02					Shale, carbonaceous
69.18					Sandstone, fine grained, gray
69.89					Sandstone, coarse grained, white coal, bright, weathered, dull coal
71.38					Sandstone, fine grained, light gray, & white coal, dull, weathered, brown coal
74.90					Sandstone, fine grained, very fine grained, in alternation, shale, coal, bright, weathered, brown coal
75.87					Sandstone, very fine grained, carbonaceous, shale
77.96					Shale, sand, mica-laminated, sandstone, lamellarly
79.44					Sandstone, medium grained, very fine grained, gray, coal, bright, weathered, dull coal
81.32					Sandstone, medium grained, white coal, bright, weathered, dull coal
81.72					Shale, carbonaceous, and sandstone, fine grained, in alternation
82.54					Sandstone, coarse grained, white coal, bright, weathered, dull coal
83.20					Shale, carbonaceous
84.40					Sandstone, fine grained, gray
84.90					Sandstone, coarse grained, white coal, bright, weathered, dull coal
86.04					Sandstone, coarse grained, white coal, bright, weathered, dull coal
86.67					Sandstone, fine grained, very fine grained, of the bottom medium grained, coal, dull and bright coal
87.00					Sandstone, fine grained, weathered, brown coal
87.24					Shale, sand, mica-laminated, sandstone, lamellarly
87.77					Sandstone, very fine grained, carbonaceous, shale
89.32					Shale, sand, mica-laminated, sandstone, lamellarly
91.70					Sandstone, medium grained, light gray, coal, bright
92.12					Sandstone, coarse grained, quartz and feldspar rich, white coal, bright, weathered, dull coal
93.30					Sandstone, coarse grained, white coal, bright, weathered, dull coal
94.90					Sandstone, fine grained, and shale in alternation, at the bottom, shale rich
102.57					Sandstone, coarse grained, quartz and feldspar rich, white coal, bright, weathered, dull coal
104.02					Shale, carbonaceous
104.30					Sandstone, coarse grained, white coal, bright, weathered, dull coal
104.90					Sandstone, fine grained, weathered, brown coal
109.91					Sandstone, coarse to medium grained, in part, mica, ribbed
110.80					Shale, sand, mica-laminated, sandstone, lamellarly
110.91					Shale, sand, mica-laminated, sandstone, lamellarly
111.50					Sandstone, medium grained, micaceous, light gray
118.45					Sandstone, very fine grained, and shale, sand, in alternation, in part, gray
121.22					Sandstone, coarse grained, quartz and feldspar rich, white coal, bright, weathered, dull coal
121.89					Shale, carbonaceous
124.52					Sandstone, coarse grained, white coal, bright, weathered, dull coal
125.20					Sandstone, fine grained, weathered, brown coal
126.00					Sandstone, coarse grained, quartz and feldspar rich, white coal, bright, weathered, dull coal
126.70					Shale, sand, mica-laminated, sandstone, lamellarly
127.02					Sandstone, coarse grained, quartz and feldspar rich, white coal, bright, weathered, dull coal
130.15					Sandstone, fine grained, weathered, brown coal
130.36					Sandstone, fine grained, weathered, brown coal

Non-core Drilling

JAPAN INTERNATIONAL COOPERATION AGENCY
 Borehole Log. 003
 Date: May 1981
 Scale: 1:200
 Prepared by: [illegible]

HOLE NO. : DD3
 AREA : LU8-HUKU
 DATE DRILLED : JAN. 17 - FEB. 14
 TOTAL DEPTH : 307.75m
 ELEVATION : +292.20m
 COORDINATE : X: +2 923 047 Y: -77 9 14

Depth of Borehole (m)	Apparent Thickness of Strata (m)	Dip of Column of Strata (%)	Rock Description
12.80	13.28		Shale with thin sandstone beds medium medium grained, quartz rich.
24.90	25.37	2-5	Shale, interbedded with beds with calcite, dark grey. medium fine grained, quartz rich.
26.80			Thin, dark grey.
29.80	30.29		Sandstone, medium grained, calcareous. interbedded with thin shales, irregular.
33.60		3	Sandstone, medium grained, quartz rich.
36.45	36.91		Shale, very fine grained, dark grey.
37.00			Shale, very fine grained, dark grey.
38.70			Sandstone, fine grained, calcareous. interbedded with thin shales, irregular.
46.10			Sandstone, fine grained, including calcareous interbedded with thin shales, irregular.
48.90			Sandstone, fine grained, light grey.
55.50			Sandstone, fine grained, with brachiopods, irregularly interbedded with thin shales, irregular.
57.10			Shale, medium grained, calcareous.
61.22			Sandstone, coarse to medium grained, interbedded thin shales, thin beds, calcareous, dark grey.
62.10			Shale, medium grained, calcareous.
64.12			Sandstone, fine grained, with brachiopods, irregularly interbedded with thin shales, irregular.
65.45			Shale, very fine grained, dark grey.
66.80			Shale, very fine grained, dark grey.
68.80			Shale, very fine grained, dark grey.
69.80			Shale, very fine grained, dark grey.
71.00			Shale, very fine grained, dark grey.
78.60	79.10		Sandstone, coarse grained, mostly sandy, light grey. interbedded with thin shales, irregular.
81.85		3	Shale, very fine grained, dark grey.
85.80		1	Sandstone, coarse to medium grained.
86.40		1	Sandstone, coarse to medium grained, with brachiopods, irregularly interbedded with thin shales, irregular.
87.65		1	Shale, medium grained, calcareous, light grey.
89.30		1	Shale, medium grained, calcareous, light grey.
91.60		1	Sandstone, fine grained, interbedded thin shales, irregular, calcareous.
93.00		1	Shale, medium grained, calcareous, light grey.
94.80		1	Shale, medium grained, calcareous, light grey.
96.45		1	Shale, medium grained, calcareous, light grey.
98.80		1	Shale, medium grained, calcareous, light grey.
101.75	102.06		Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
104.25			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
105.30			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
107.07			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
107.80			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
108.58			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
109.75			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
110.30			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
113.35			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
114.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
115.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
116.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
117.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
118.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
119.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
120.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
121.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
122.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
123.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
124.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
125.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
126.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
127.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
128.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
129.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
130.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
131.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
132.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
133.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
134.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
135.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
136.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
137.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
138.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
139.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
140.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
141.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
142.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
143.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
144.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
145.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
146.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
147.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
148.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
149.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
150.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
151.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
152.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
153.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
154.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
155.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
156.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
157.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
158.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
159.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.
160.00			Shale, very fine grained, dark grey, with thin shales, interbedded with thin shales, irregular.

JAPAN INTERNATIONAL COOPERATION AGENCY
Borehole Log DD4

HOLE NO. : DD4
AREA : LUBBUKU
DATE DRILLED : DEC. 9, 1981 - JAN. 14, 1982
TOTAL DEPTH : 325.36m
ELEVATION : 260.6m
COORDINATE : X + 2 929,000, Y + 79,000

Depth of Bore hole (Strat.) (M)	Apparent Thickness of Strata (M)	True Thickness of Strata (M)	Core Section	Rock Description
1.00				Silt.
2.00				Sandstone, coarse grained, well sorted.
10.00				Sandstone, coarse to medium grained, and fragments of shale.
13.00				Sandstone, coarse grained, well sorted.
20.00				Sandstone, medium to coarse grained and shale.
23.43				Sandstone, coarse grained.
26.15				Sandstone, coarse grained, towards the upper part, medium grained.
34.54				Sandstone, fine grained with thin carbonaceous streaks, light gray.
35.42				Sandstone, very fine grained, gray.
36.90				Shale, sandy, with sandstone, dark gray.
42.81				Sandstone, coarse to medium grained, streaked with carbonaceous matter.
44.92				Sandstone, medium grained with very thin carbonaceous matter.
50.00				Sandstone, coarse grained, in part, quartz and siltstone, rich, white.
51.50				Sandstone, medium grained and shale in alternation.
52.90				Sandstone, coarse grained, white.
54.00				Sandstone, medium grained, thin carbonaceous streaks, light gray.
54.63				Shale, carbonaceous and sandstone, very fine grained in alternation.
55.15				Sandstone, very fine grained, streaked, gray.
59.48				Shale and sandstone, very fine grained in alternation, micaceous, brown, gray.
60.40				Sandstone, coarse grained, in part, quartz and siltstone, rich, white.
63.30				Shale, sandy to sandstone, very fine grained with very thin carbonaceous matter, gray.
64.20				Shale, dark gray.
65.30				Sandstone, very fine grained with thin carbonaceous matter, dark gray.
66.50				Sandstone, fine to medium grained with thin carbonaceous streaks.
68.35				Sandstone, coarse to medium grained, part with thin carbonaceous streaks, white.
71.20				Sandstone, fine grained with thin carbonaceous bands, light gray.
72.00				Sandstone, very fine grained, to shale, sandy, micaceous, gray.
74.00				Shale with thin sandstone bands, at the bottom, shale, carbonaceous.
74.90				Sandstone, light gray, streaked, brown, gray.
75.25				Shale, carbonaceous.
76.77				Shale, carbonaceous, sandstone, dark gray.
79.60				Sandstone, fine grained, micaceous.
80.50				Sandstone, coarse grained.
81.80				Sandstone, fine grained with thin shale bands, gray.
82.95				Shale and sandstone, very fine grained in alternation, light gray.
83.80				Shale, sandy with thin carbonaceous matter, completely dark gray.
85.40				Sandstone, fine grained to medium grained.
86.30				Sandstone, fine grained to medium grained in alternation.
87.36				Sandstone, very fine grained with thin carbonaceous streaks, dark gray.
102.10				Sandstone, coarse to medium grained, part sandy and heterolithic, white.
107.48				Sandstone, medium to fine grained with shale bands.
107.51				Coal, dark, medium, bright coal.
110.80				Sandstone, fine to very fine grained, gray.
111.50				Sandstone, medium grained, micaceous, light gray.
112.00				Sandstone, very fine grained, micaceous, light gray.
113.00				Sandstone, fine to very fine grained, streaked, very thin shale, gray.
113.70				Sandstone, very fine grained, gray.
114.00				Sandstone, fine grained, light gray.
116.90				Sandstone, very fine grained and shale in alternation, dark gray.
122.90				Sandstone, fine to very fine grained, streaked, shale, gray.
124.53				Shale to shale sandy.
124.73				Sandstone, very fine grained, and shale sandy with thin carbonaceous bands.
125.40				Sandstone, coarse to medium grained, in part, quartz and siltstone, rich, white and light.
130.65				Shale, sandy, dark gray.
131.67				Sandstone, medium grained, carbonaceous shale bands, micaceous, light gray.
133.20				Shale, sandy, dark gray, sandstone, brown.
133.31				Shale, sandy, dark gray, sandstone, brown.
133.40				Sandstone, very fine grained, streaked, white bands, micaceous, light gray.
133.80				Shale, sandy to sandstone, very fine grained.
134.40				Shale with thin sandstone, black to dark gray.
139.40				Sandstone, very fine grained, sandy towards the bottom, shale, gray.
139.73				Sandstone, medium grained, sandstone, bands, blackish, gray.
142.50				Sandstone, medium grained.
143.00				Shale, carbonaceous.
143.05				Sandstone, very fine grained and shale in alternation.
143.30				Coal, bright and dark coal with dolomite, brown.
143.62				Sandstone, coarse grained, white.
143.65				Shale, carbonaceous.
143.68				Sandstone, coarse grained.
143.84				Shale and sandstone, fine grained in alternation.
149.15				Sandstone, very fine grained, in alternation.
150.91				Shale, carbonaceous.
151.30				Sandstone, very fine grained and shale in alternation.
151.62				Coal, bright and dark coal with dolomite, brown.
151.64				Sandstone, coarse grained, white.
151.71				Shale, carbonaceous.

Drilling

Non-Core

