Photo for Seabed Level Survey I

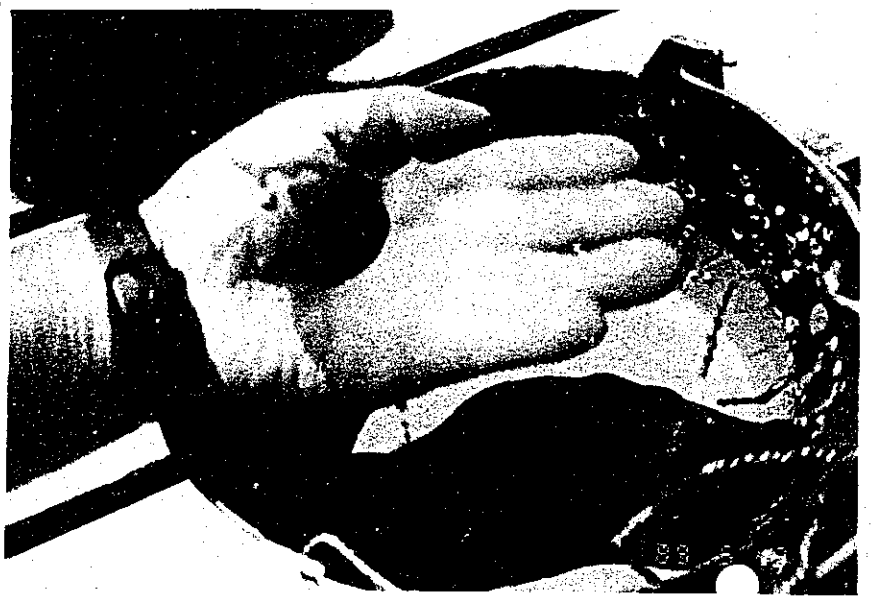
(Including Record of Ech Sounding)

Surveyed on : 13th and 14th May 1989

210kHz (6.0m) Seabed obtained by lead(Depth:8.3m)

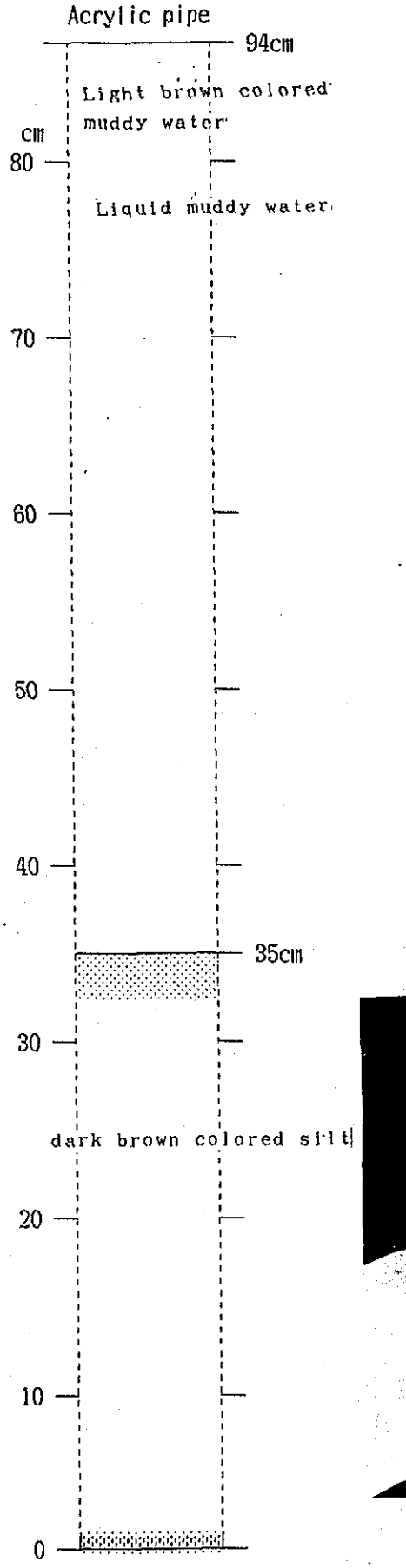
(8.3m)

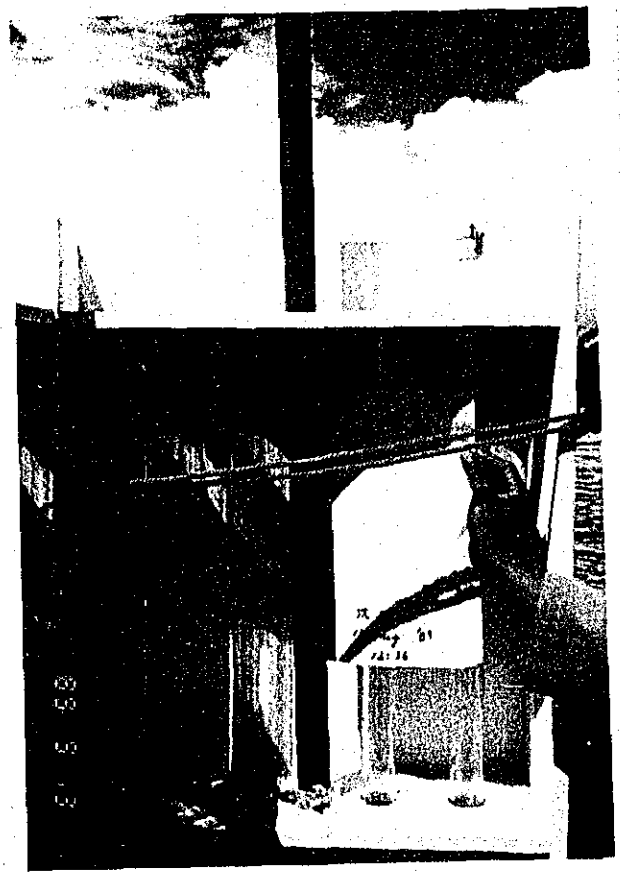
Seabed obtained by 33kHz (to be considered)

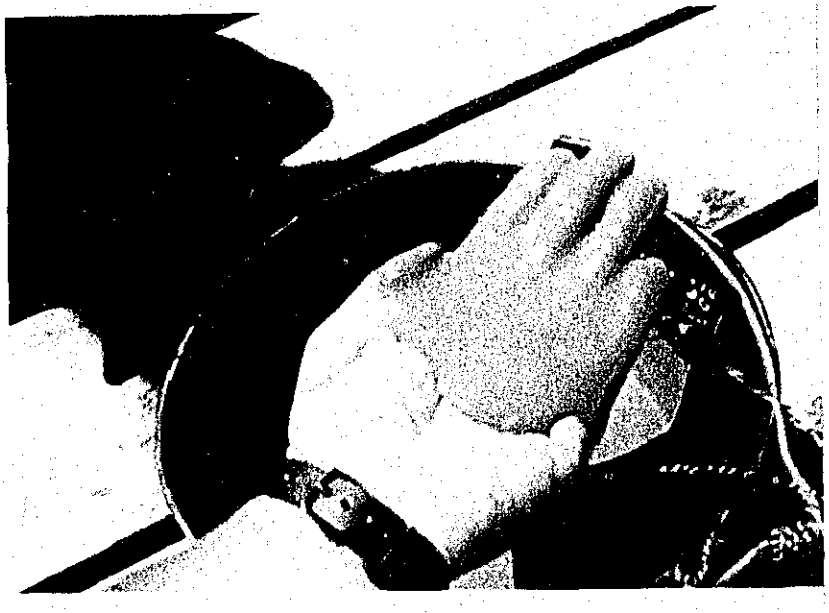


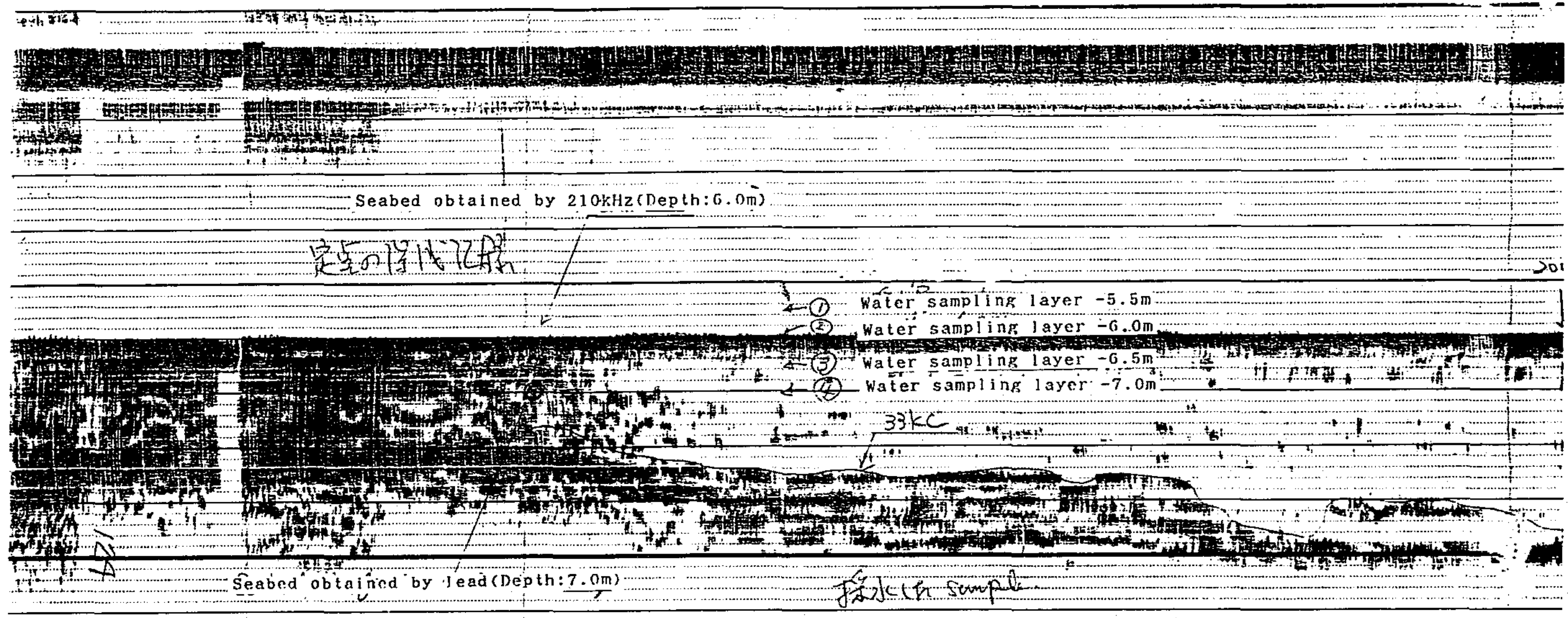
Position at Finished time was shifted
Eastward about 10m from Start Time.

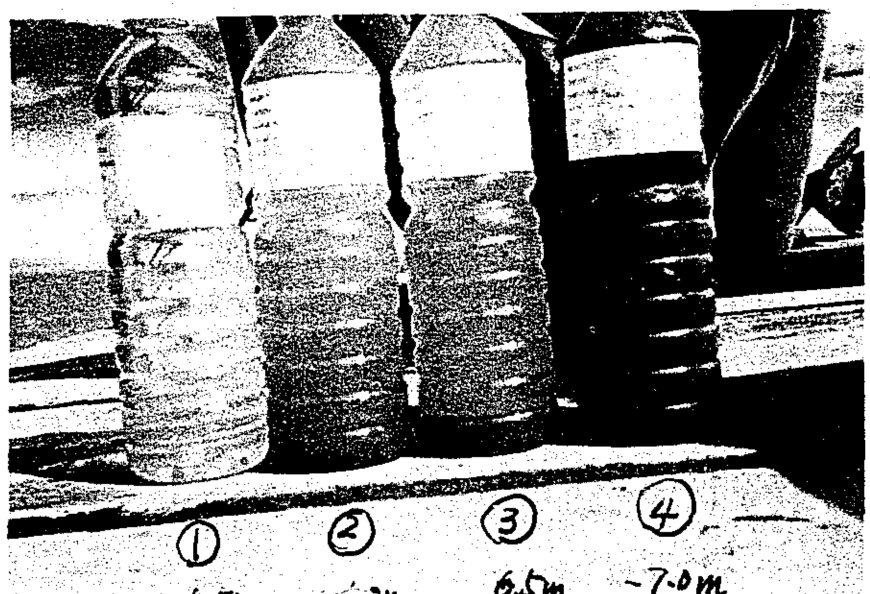
St.4300 (near St.J)　　Date : 13th May 1989,　　SamPling time : 13:38



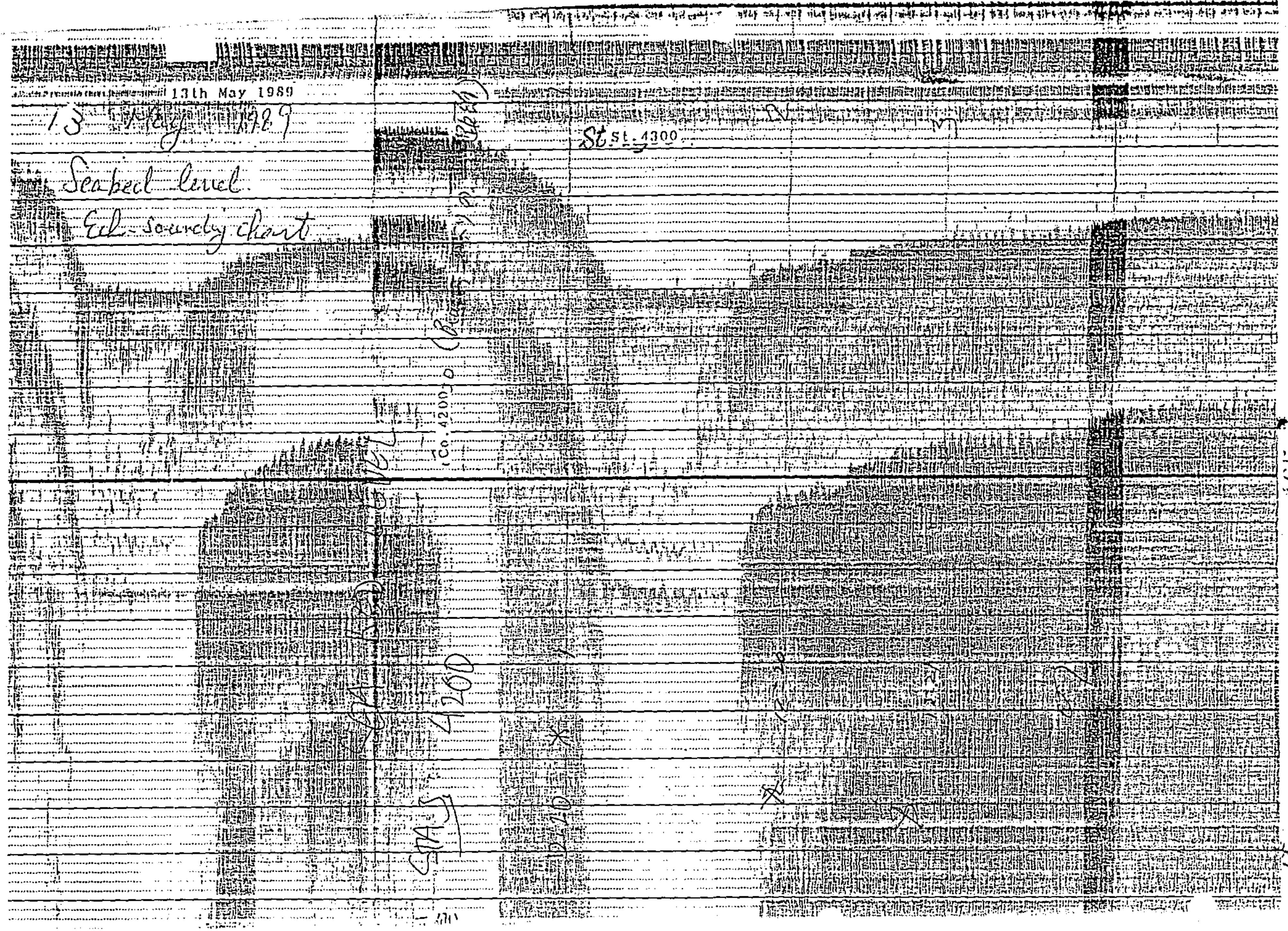


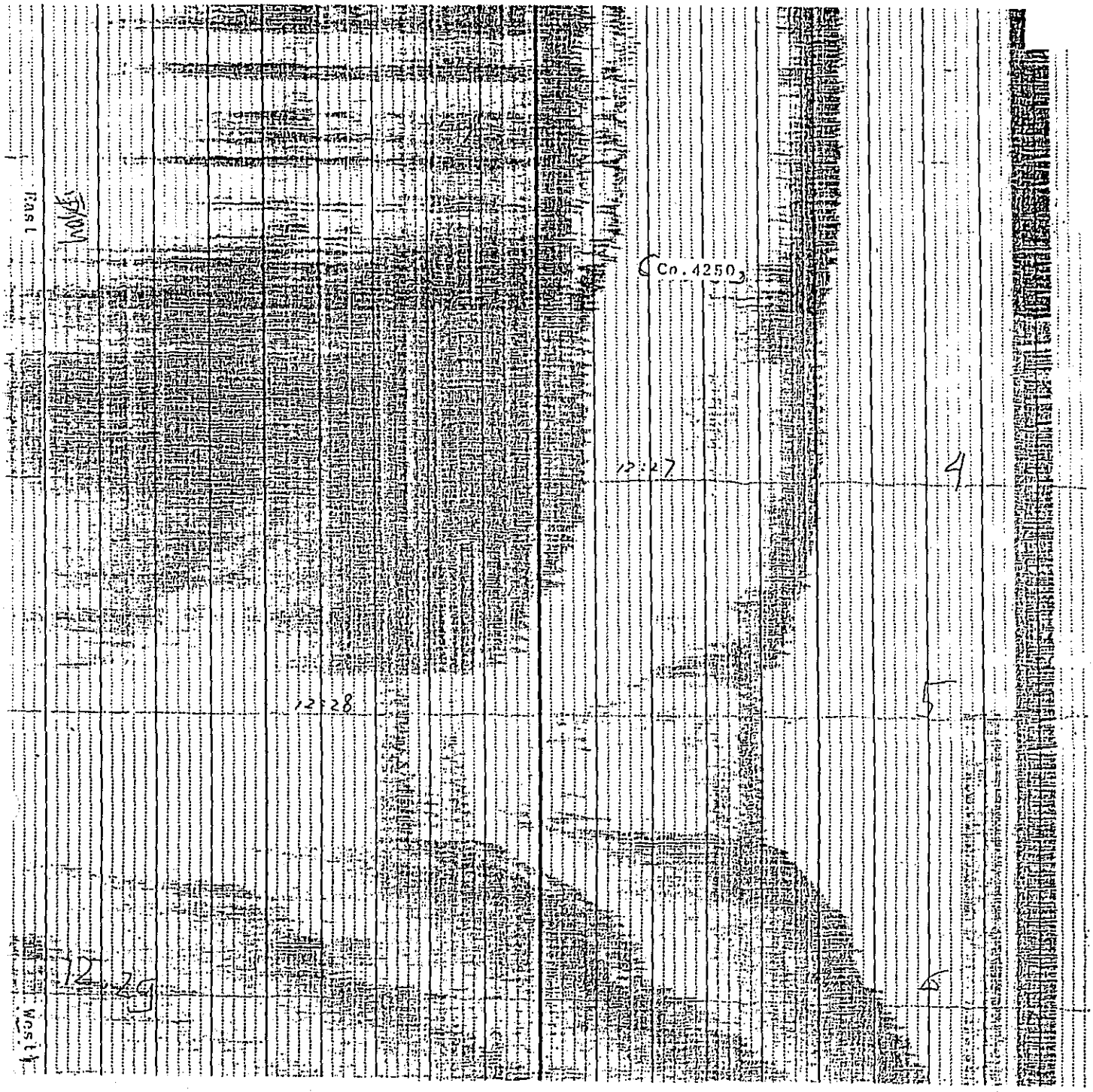






Sample in bottle every layer

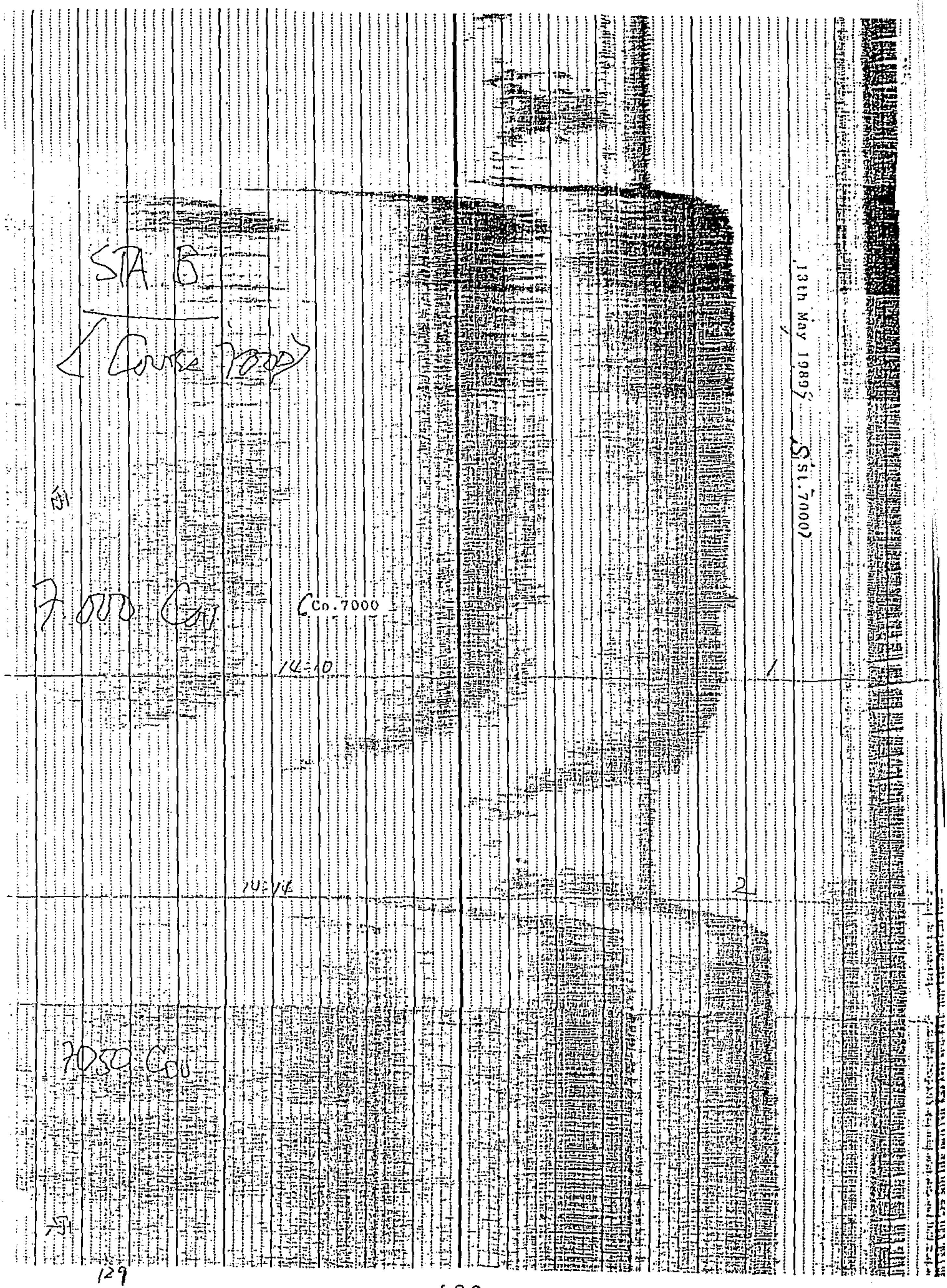

13th May 1989
13 May 1989
Seabed level
Echo-soundy chart
St. St. 4300
Co. 4200 o
4200
1220



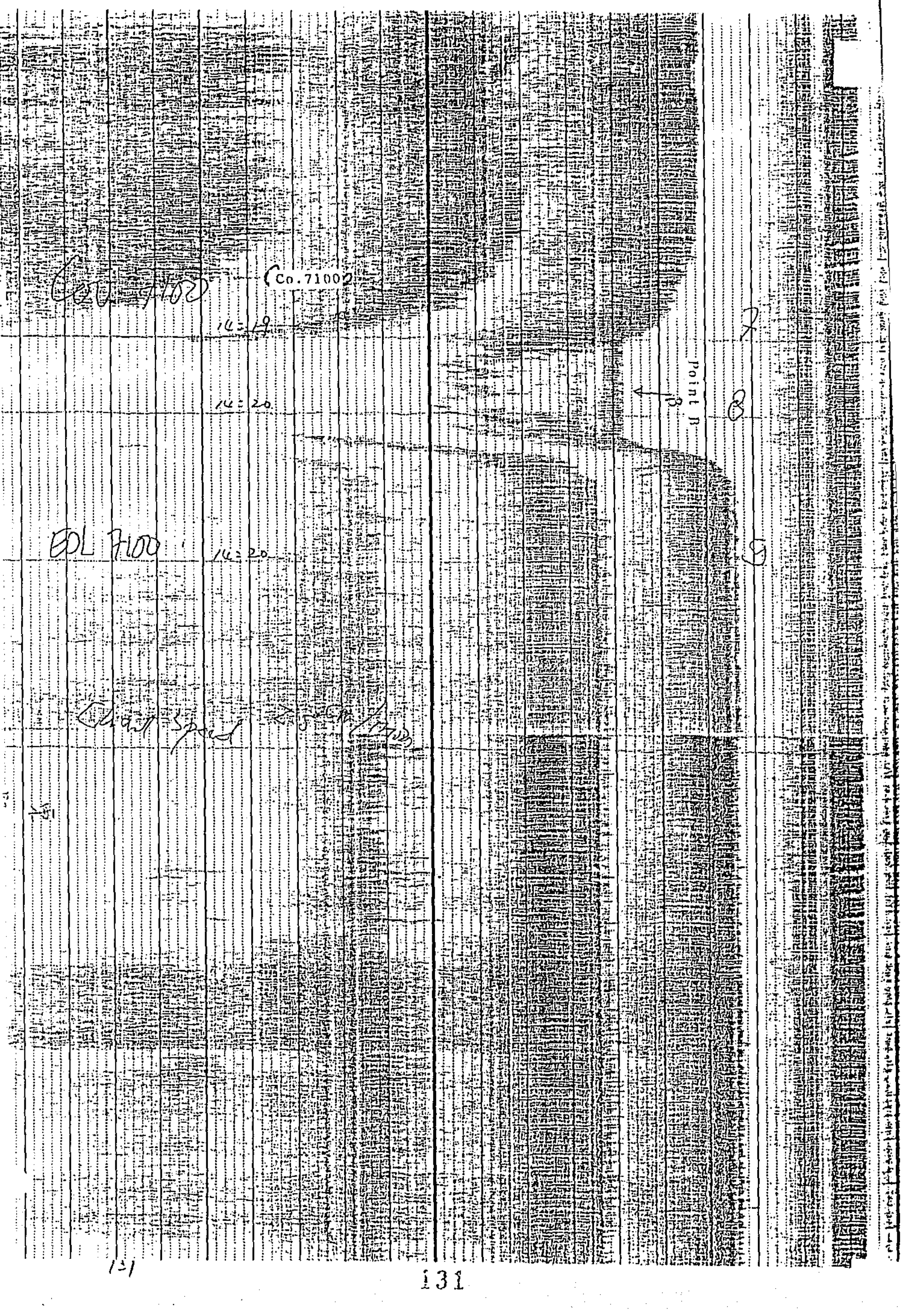
126

127

St.7000 (In Access Channel)


STA 6
(Course 7000)
13th May 1989
SSL 7000
Co.7000
7000 Cau
14:10
1
14:14
2
7030 Cau
129

130


Co.7100
14:19
14:20
Point B
EOL 7100
14:20

Seabed obtained by 210kHz(Depth:5.8m)

St.B

1.Sampling layer:-5.5m

2.Sampling layer:-6.0m

3.Sampling layer:-6.5m

Seabed obtained by lead(depth:9.5m)

Seabed obtained by 33kHz

Sam, s in bottle every layer

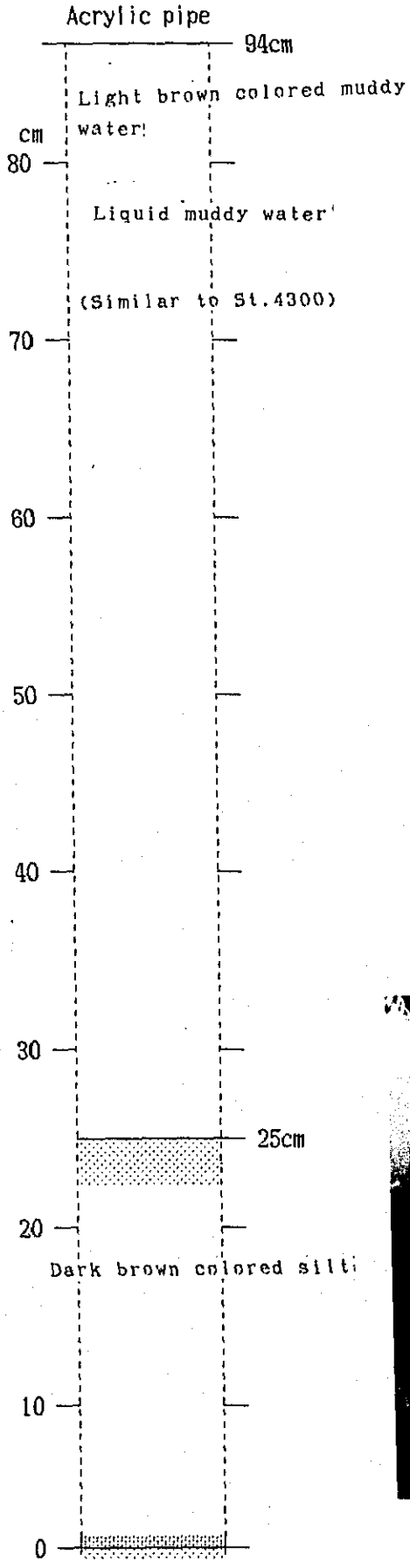
SB.1-19

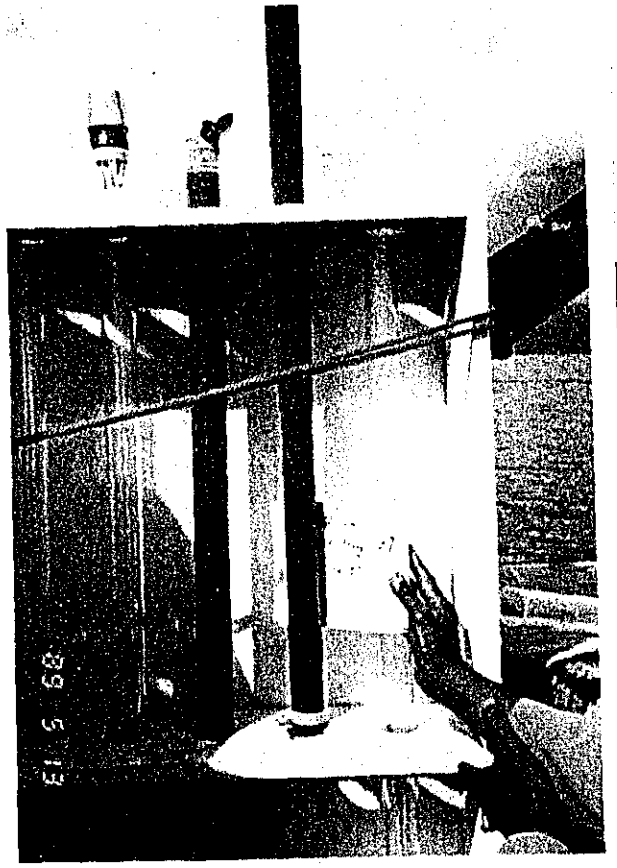
132

luid mud in container

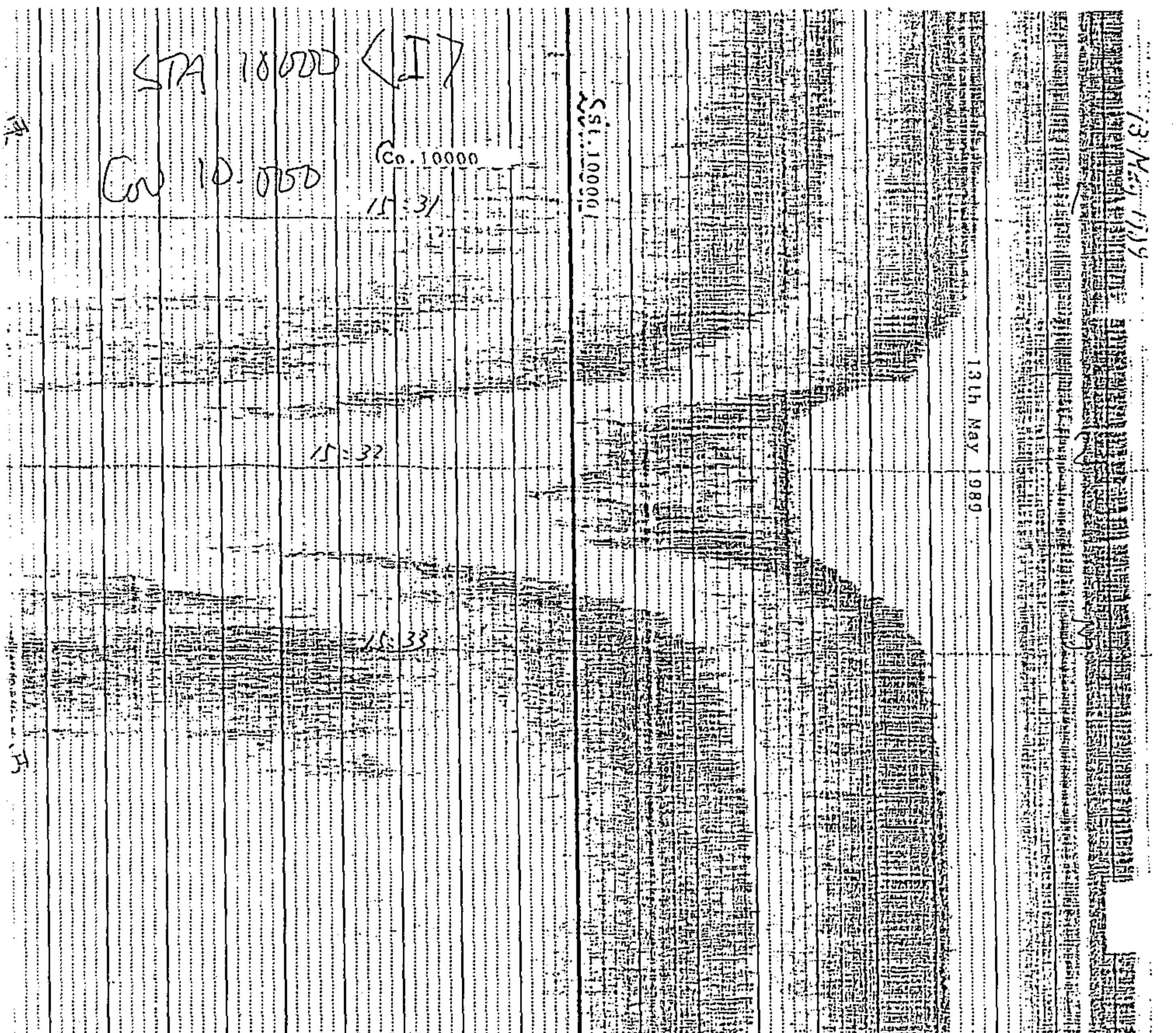
133

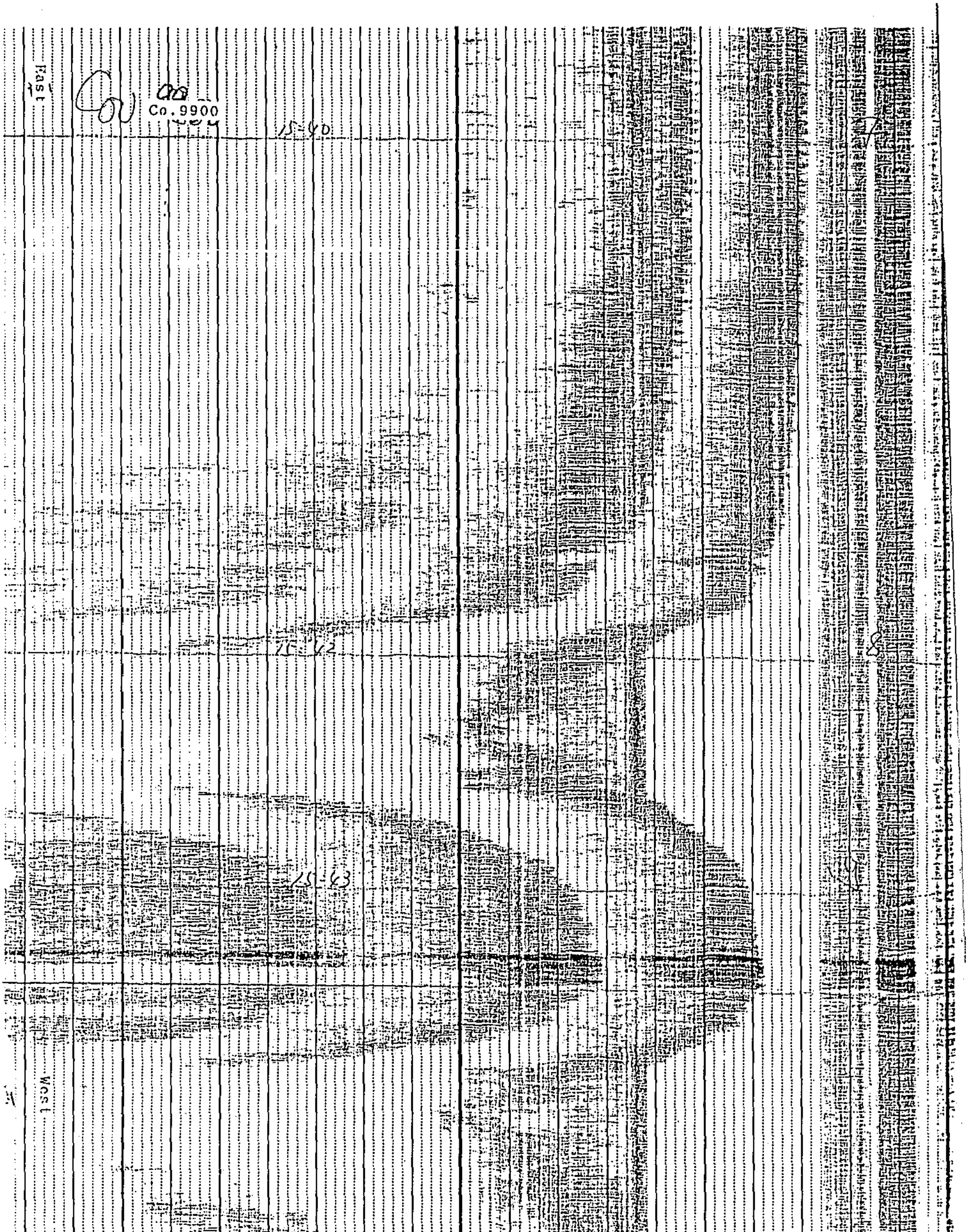
St.7000 (near St.B)　　Date : 13th May 1989,　　Sampling time : 14:36





St.10000(In Access Channel)


STA 10000 (I)
Co 10.000
Co.10000
15:31
CSL.10000
13 May 1989
13th May 1989
15:32
15:33
Co 9950
Co.9950
15:35
Point I
15:36
136
SB.1-24



137

Point 1
Seabed obtained by 210kHz(Depth:6.2m)
Seabed obtained by lead(Depth:8.2m)
SB.1-26
138

Seabed obtained by 210kHz(Depth:6.0m)

Seabed obtained by lead(Depth:8.2m)

2.2m

16 11

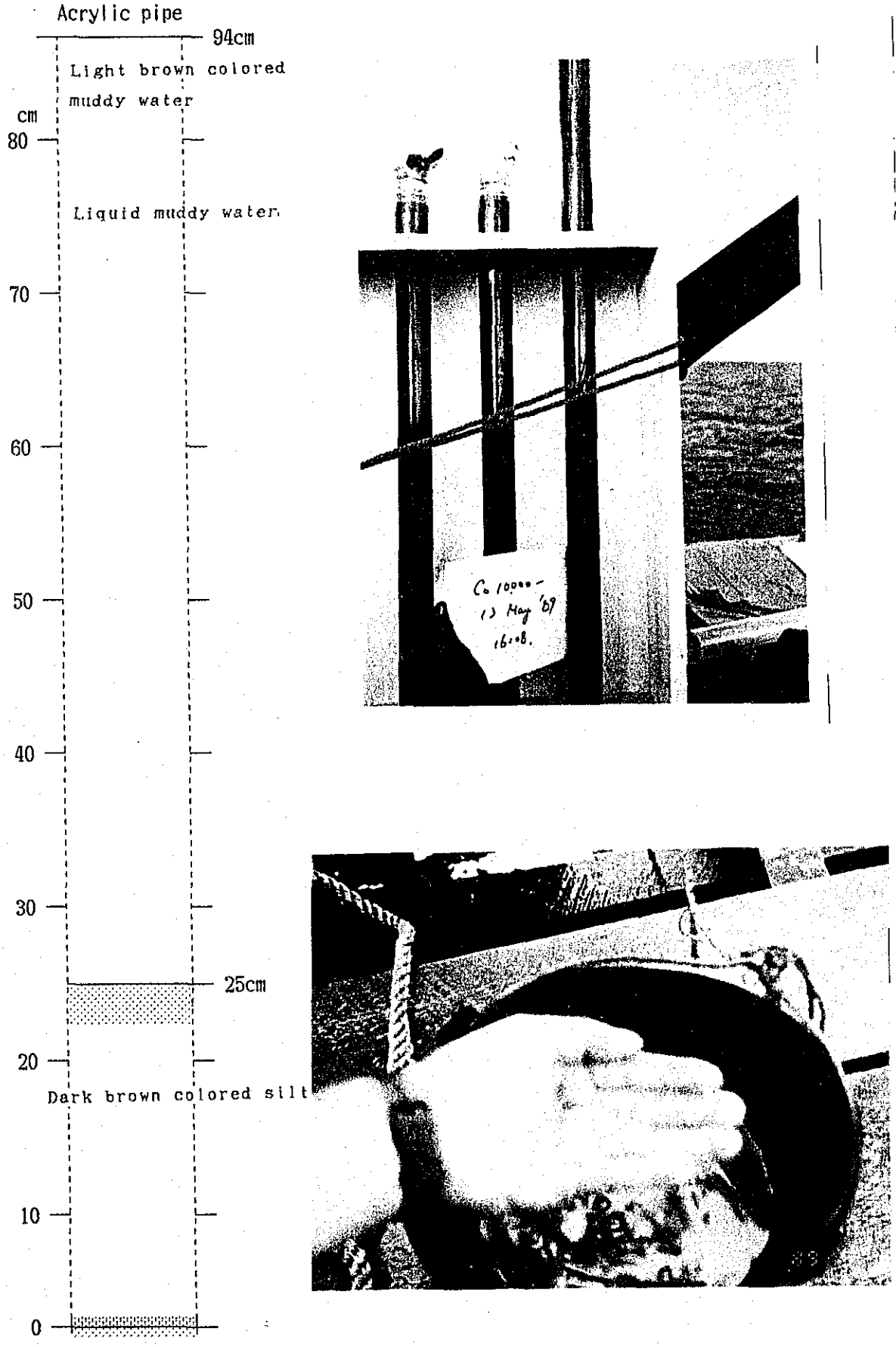
St.10000 Finished

STA 10 000 FINISHED

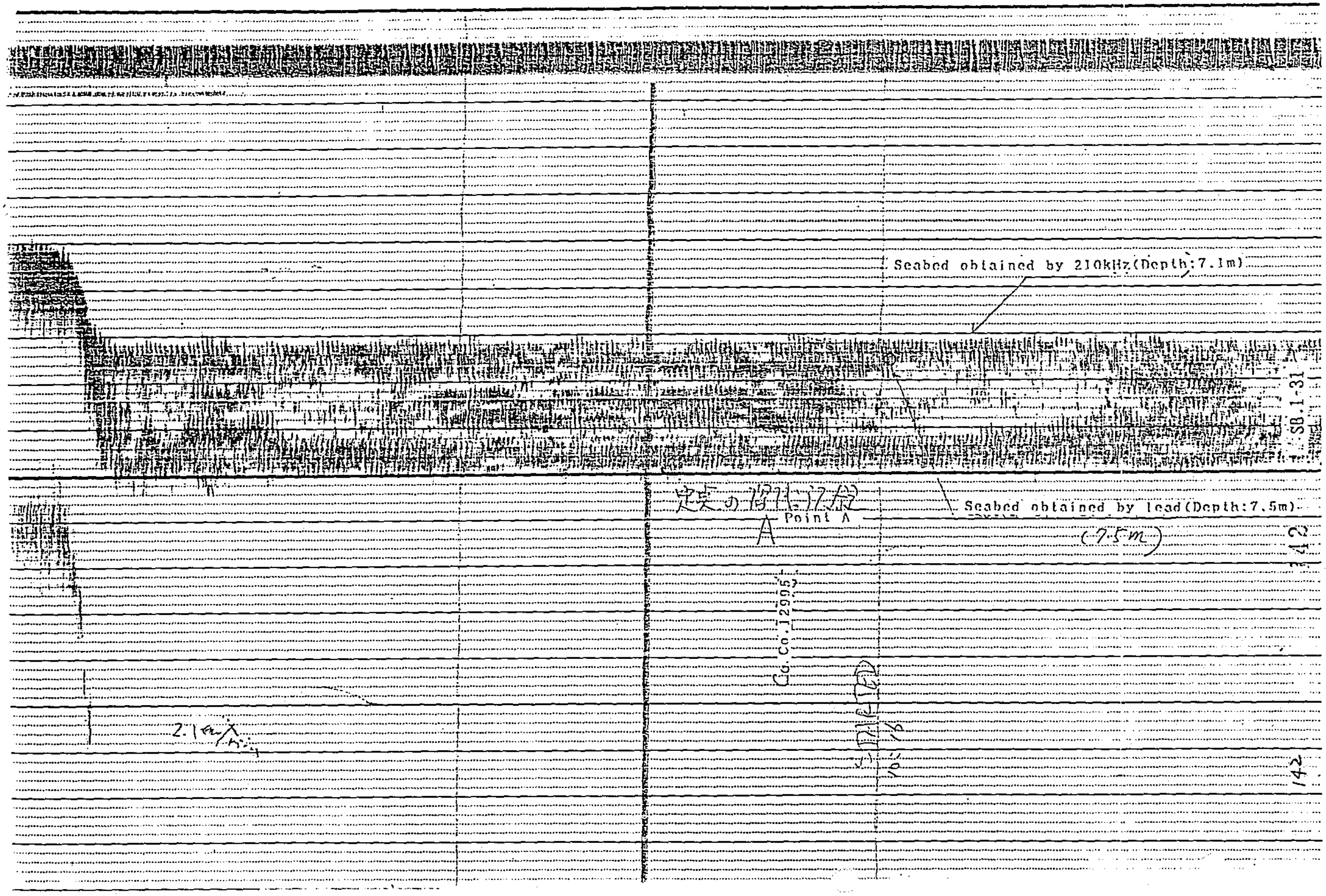
139

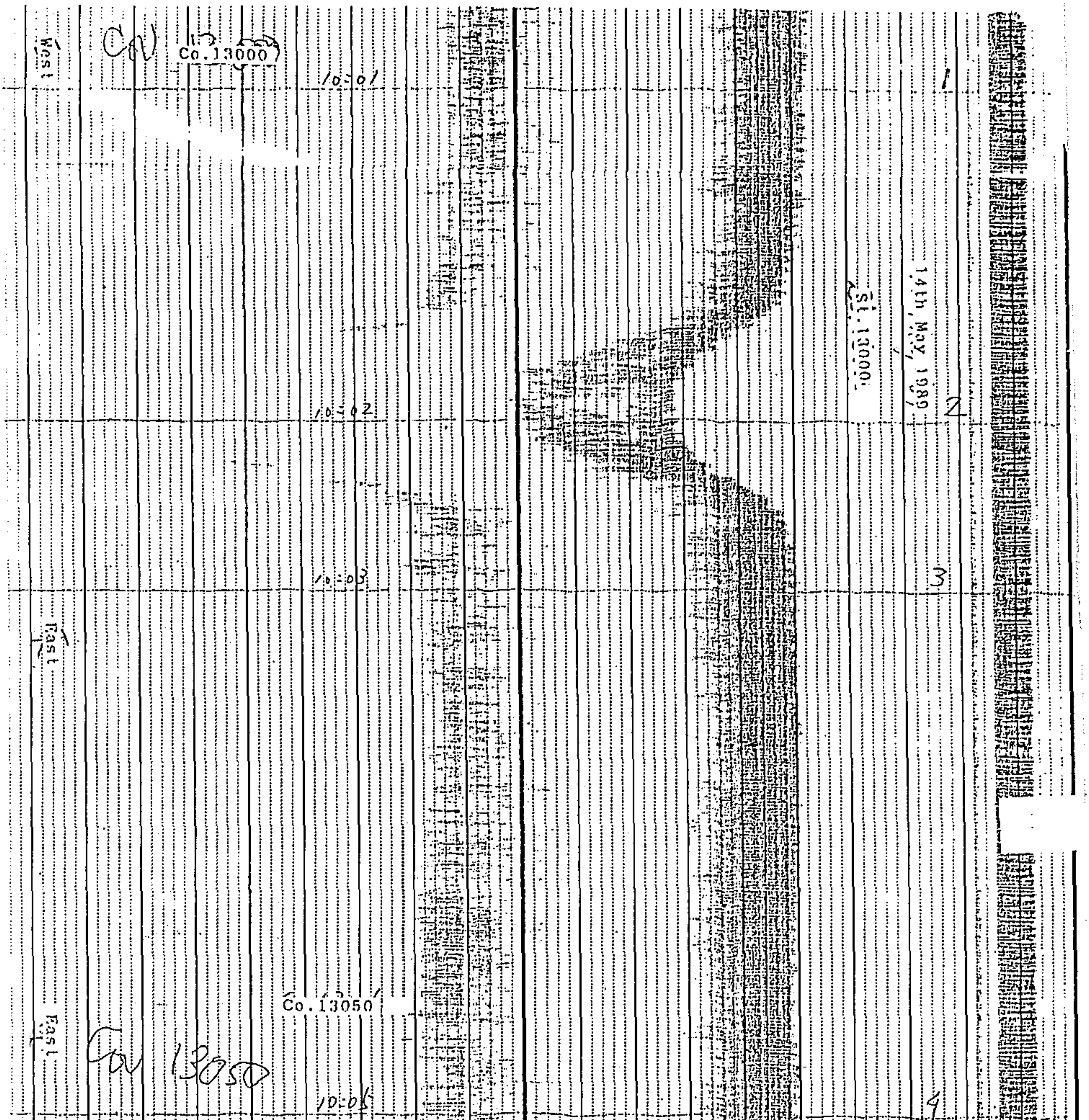
139 SB.1-27

St.10000(near St.I)　　Date : 13th May 1989,　　Sampling time : 16:00



St.13000 (In Access Channel)


Seabed obtained by 210kHz(Depth:7.1m)
Seabed obtained by lead(Depth:7.5m)
(7.5m)
Point A
A
Co.Co.12995
SB.1-31
142


Co.13000
10:01
10:02
10:03
Co.13050
10:06
West
East
East
West
14th May 1989
St.13000
SB.1-32

SB:1-33

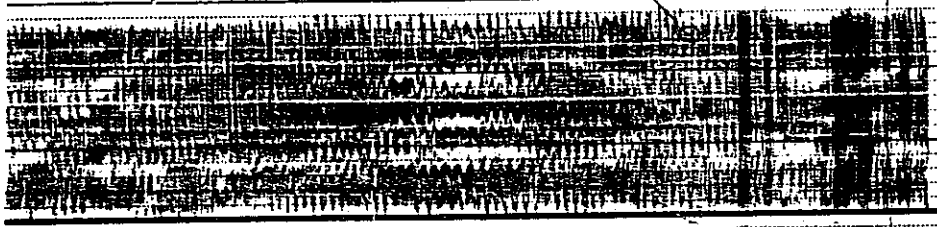
Seabed obtained by 210kHz(Depth:7.2m)

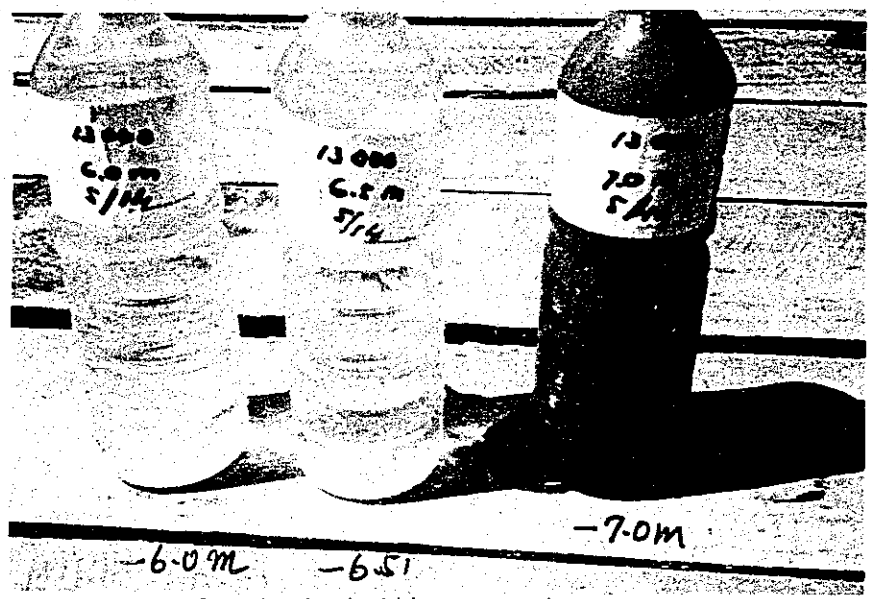
Seabed obtained by lead(depth:7.5m)

Sampling layer:-6.0m

Sampling layer:-6.5m

sampling layer:-7.0m



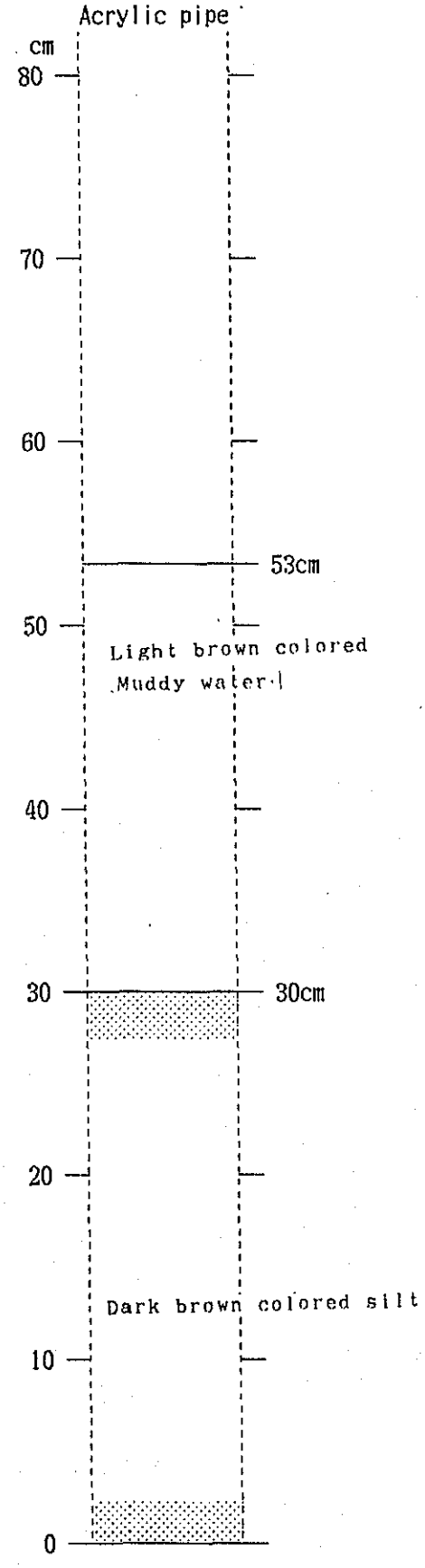


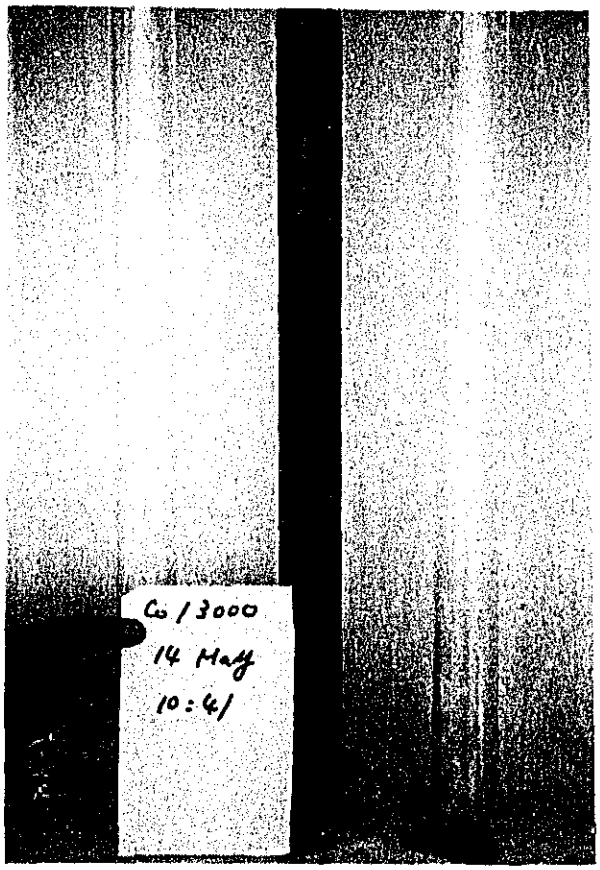
Sample in bottle every layer

SB.1-34 145

145

St.13000 (near St.A) Date : 14th May 1989, Sampling time : 10:42





St.14800(In Access Channel)

14th May 1989

St. 14800

Co. 14800

11:09

11:09

14:10

West

East

West

Co. 14850

11-18

11-19

11-20

East

Co. 14900

Co. 14900

11-21

11-22

149

Co 14900

11-21 Co. 14900

11-22

11-23

Co 14800

150

SB.1-40

150

定点の採水記録

Seabed obtained by 210kHz(Depth:9.0m)

Seabed obtained by lead(Depth:9.0m)

(9.0m)

Seabed obtained by 210kHz(Depth:9.2m)

Seabed obtained by lead(Depth:9.2m)

(9.2m)

Sampling layer:-8.0m

Sampling layer:-8.5m

sampling layer:-9.0m

Co. 14800 -

Co. 14800 Start

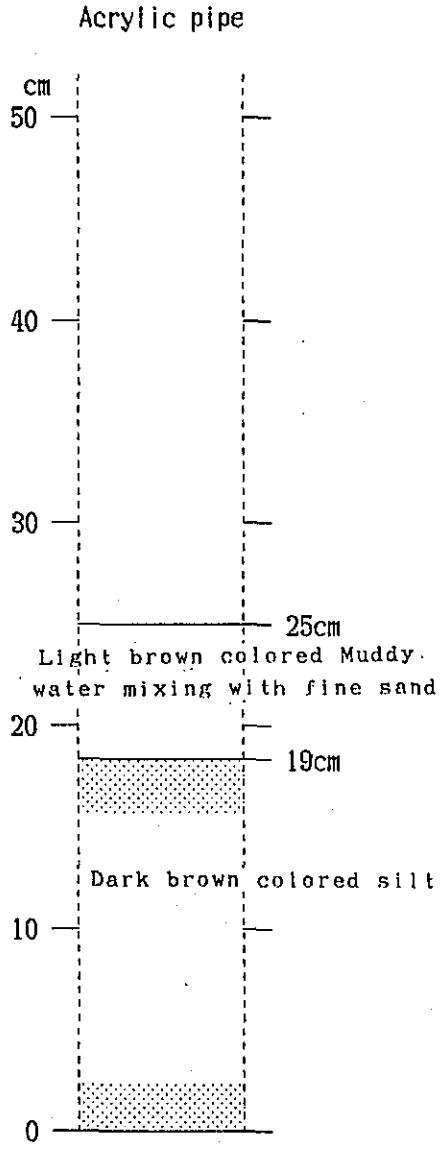
11:31

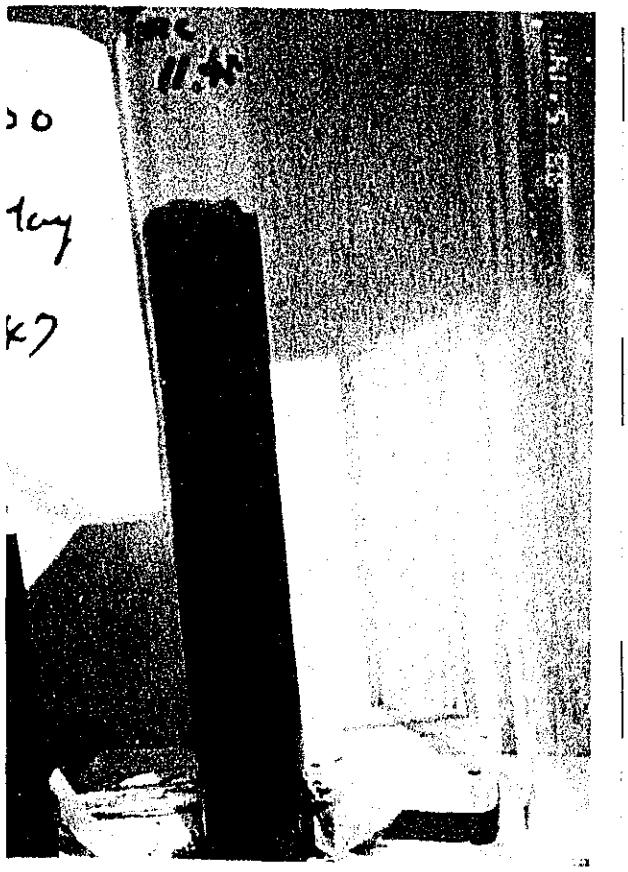
Co.14800

11:55 FINISHED

151

St.14800 (near Co.500 for Echo Sounding) Date : 14th May 1989 Sampling time : 11:52

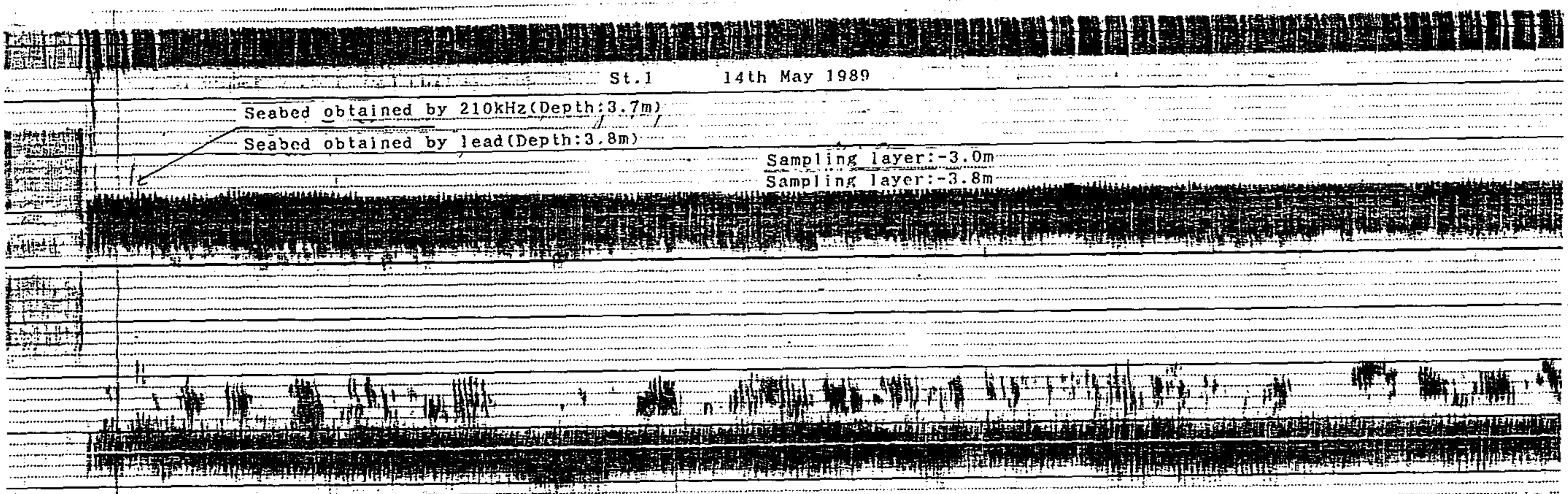




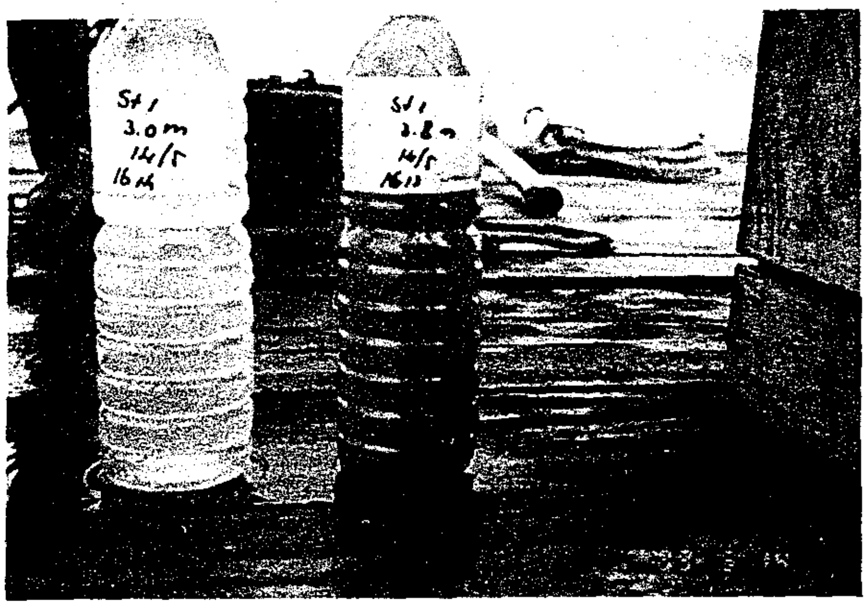
Sample in tube

152

St.1 (West side of Access Channel)


St.1 14th May 1989
Seabed obtained by 210kHz(Depth:3.7m)
Seabed obtained by lead(Depth:3.8m)
Sampling layer:-3.0m
Sampling layer:-3.8m

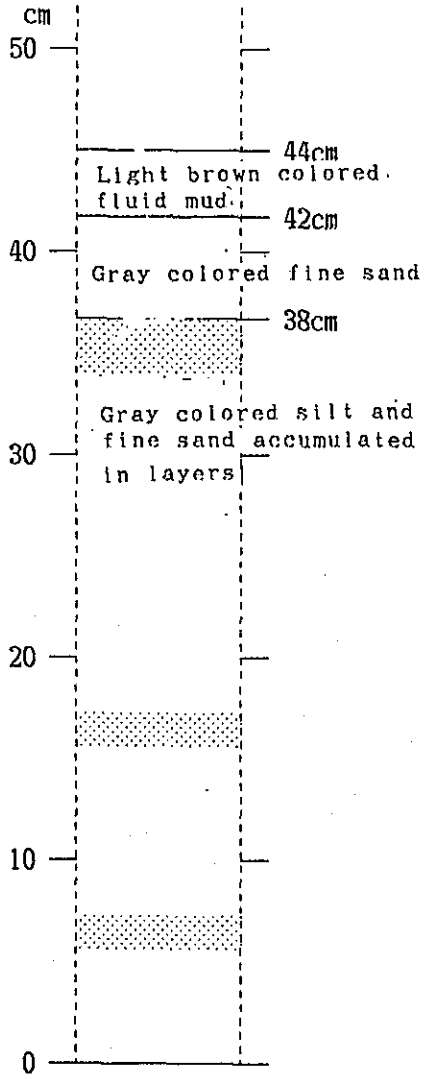
St.1

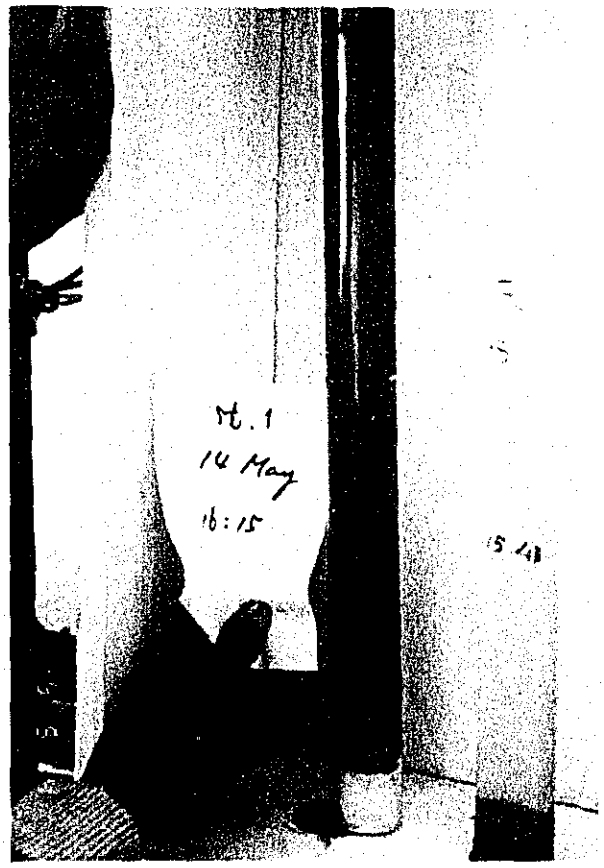

St1
3.0m
14/5
16h
St1
3.8m
14/5

Seabed obtained by 210kHz(Depth:3.7m)
Seabed obtained by lead(Depth:3.8m)

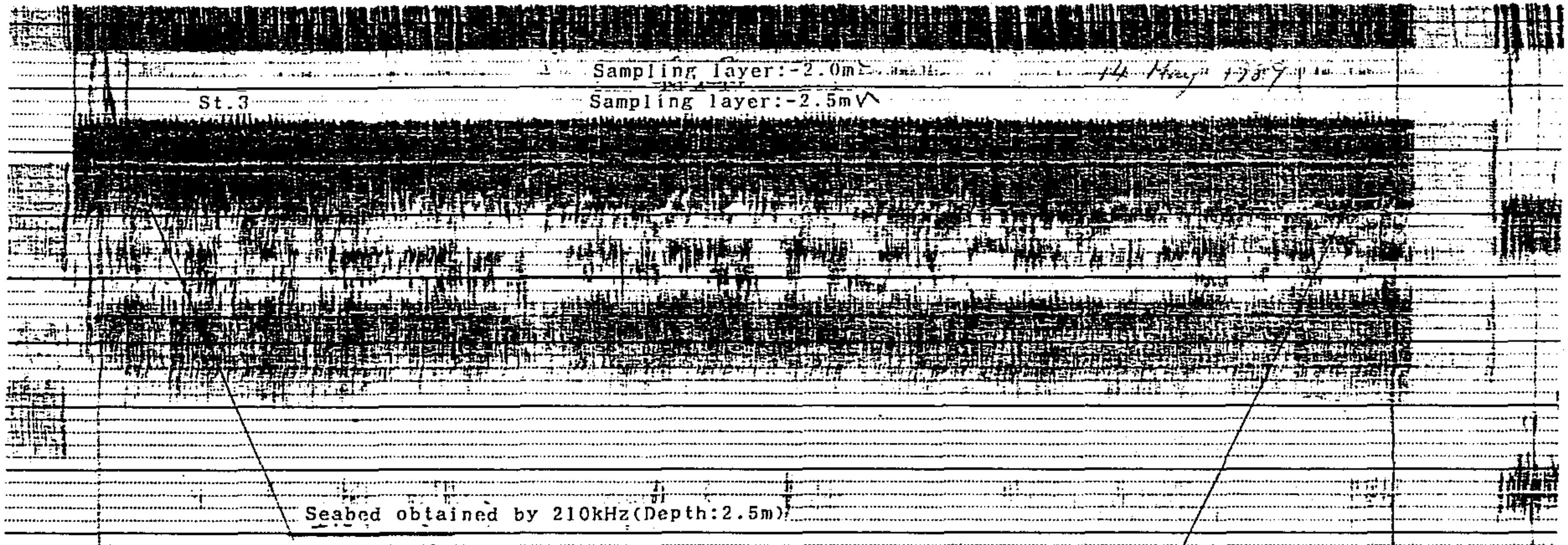
St.1 Date : 14th May 1989 Sampling time : 16:15

Acrylic pipe





St.3(West side of Access Channel)



St.3

15:35 STN 3 STARTED

15:45 STN 3 FINISHED

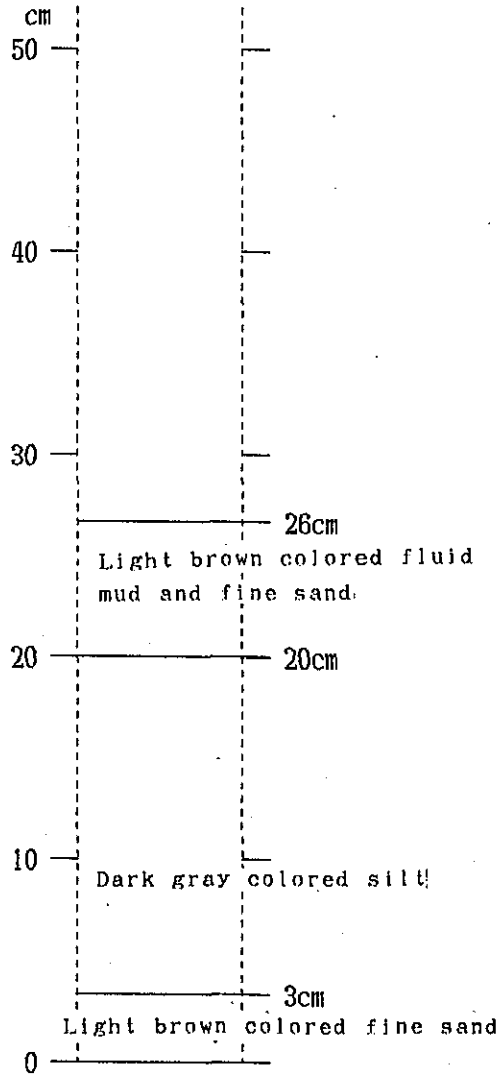
St.1

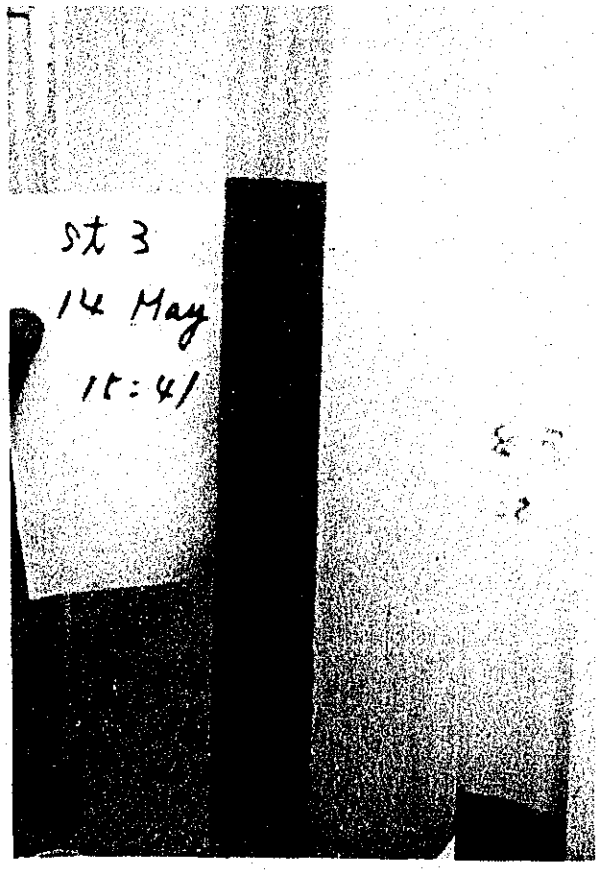
SB.1:49

Sample in bottle

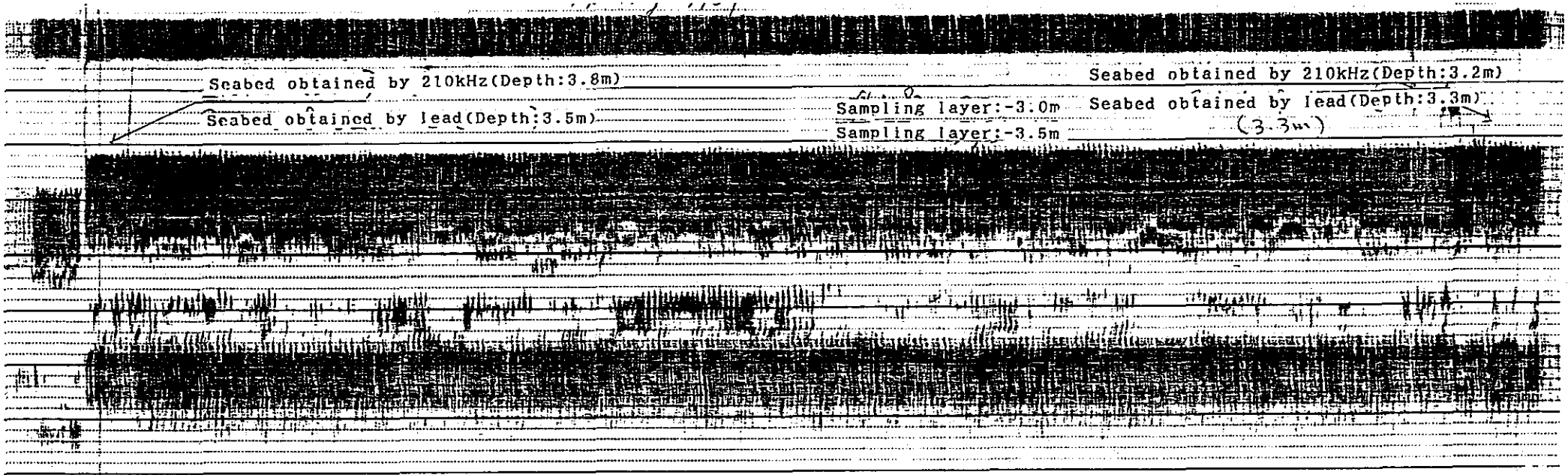
St.3 Date : 14th May 1989 Sampling time : 15:41

Acrylic pipe





St.5 (West side of Access Channel)



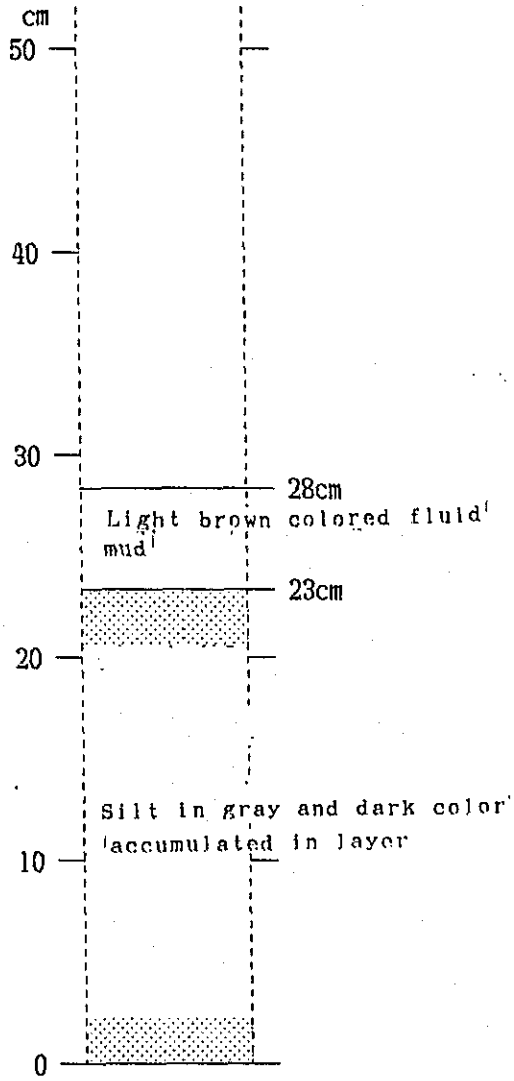
St.5

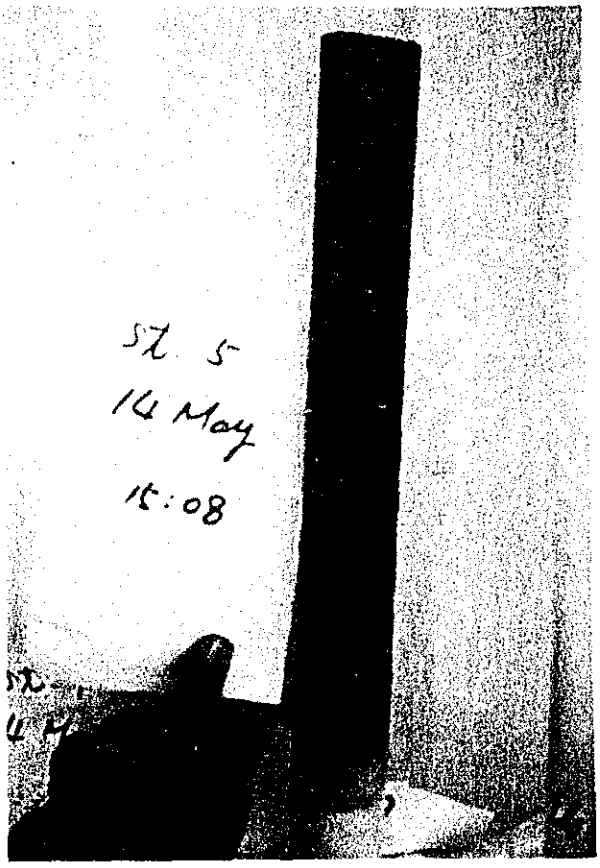
St.5 14th May 1989

Sample in bottle

St.5 Date : 14th May 1989 Sampling time : 15:03

Acrylic pipe





Sample in tube

St.7 (West side of Access Channel)

St.7 14th May 1989

Seabed obtained by 210kHz(Depth:3.8m)

Seabed obtained by lead(Depth:4.0m)

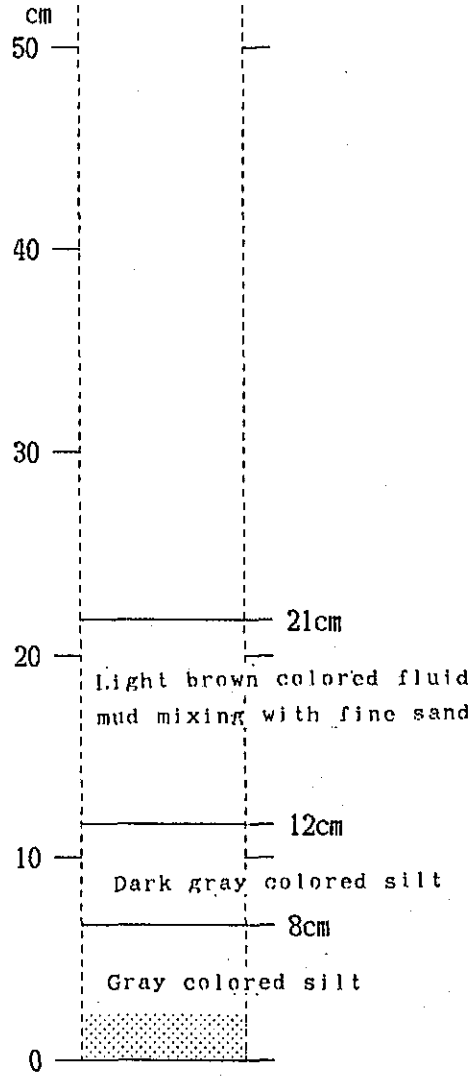
Sampling layer:-3.5m

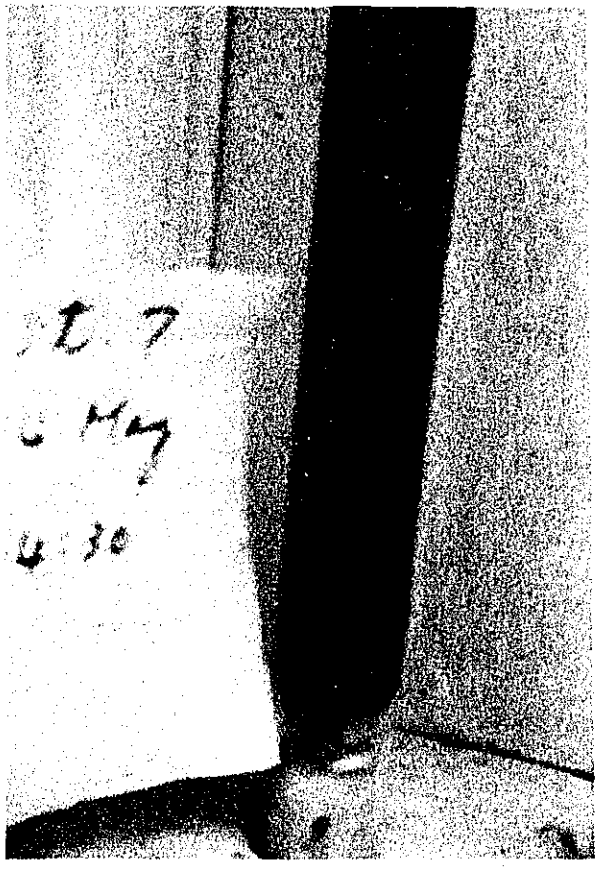
Sampling layer:-4.0m

Sample in bottle

St.7 Date : 14th May 1989 Sampling time : 14:30

Acrylic pipe





Sample in tube

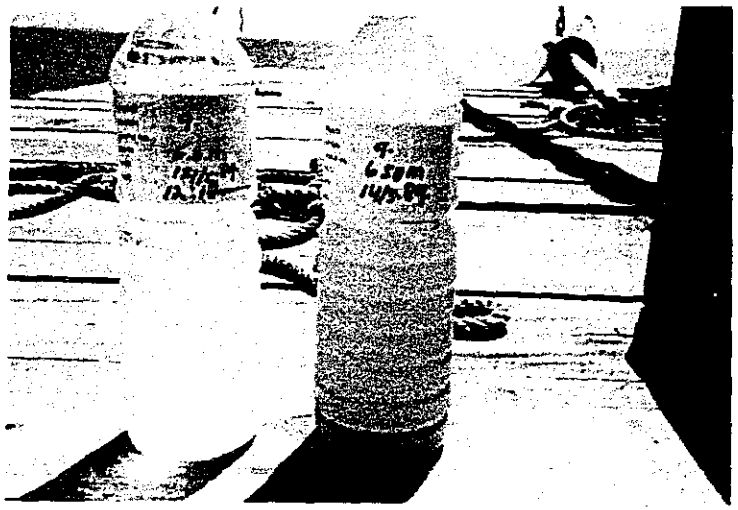
St.9 (west side of Access Channel)

St.9 14th May 1989

Seabed obtained by 210kHz(Depth:6.4m)

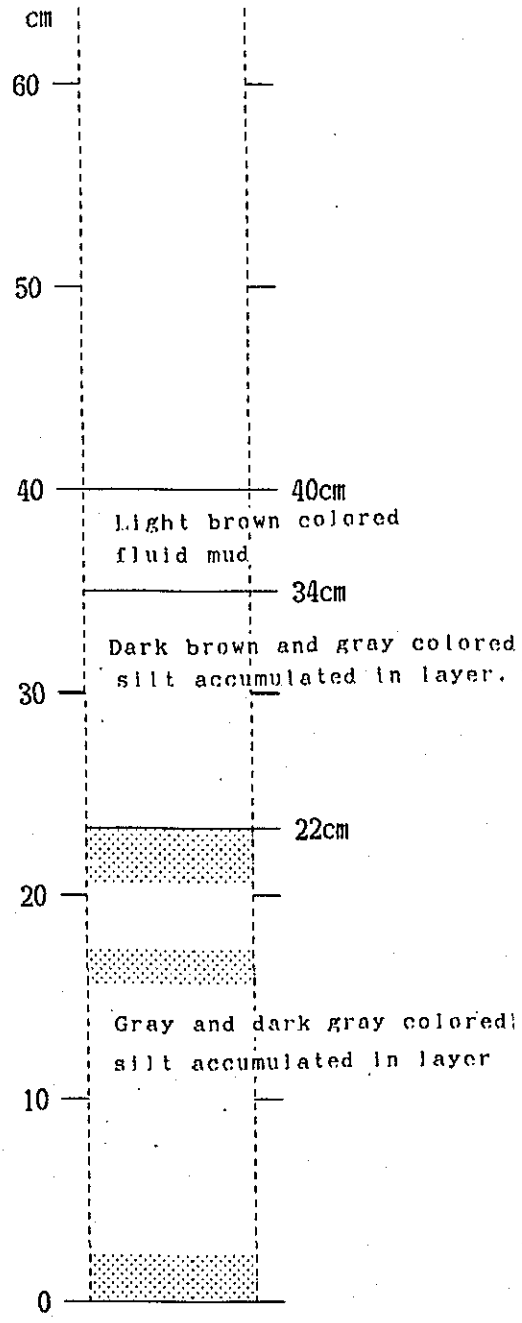
Seabed obtained by lead(Depth:6.5m)

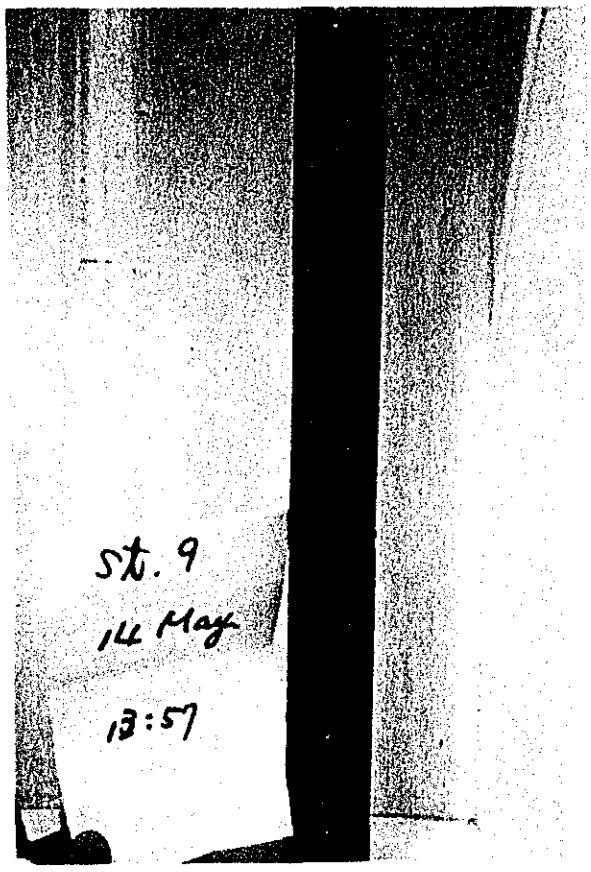
St.9



St.9 Date : 14th May 1989 Sampling time : 13:57

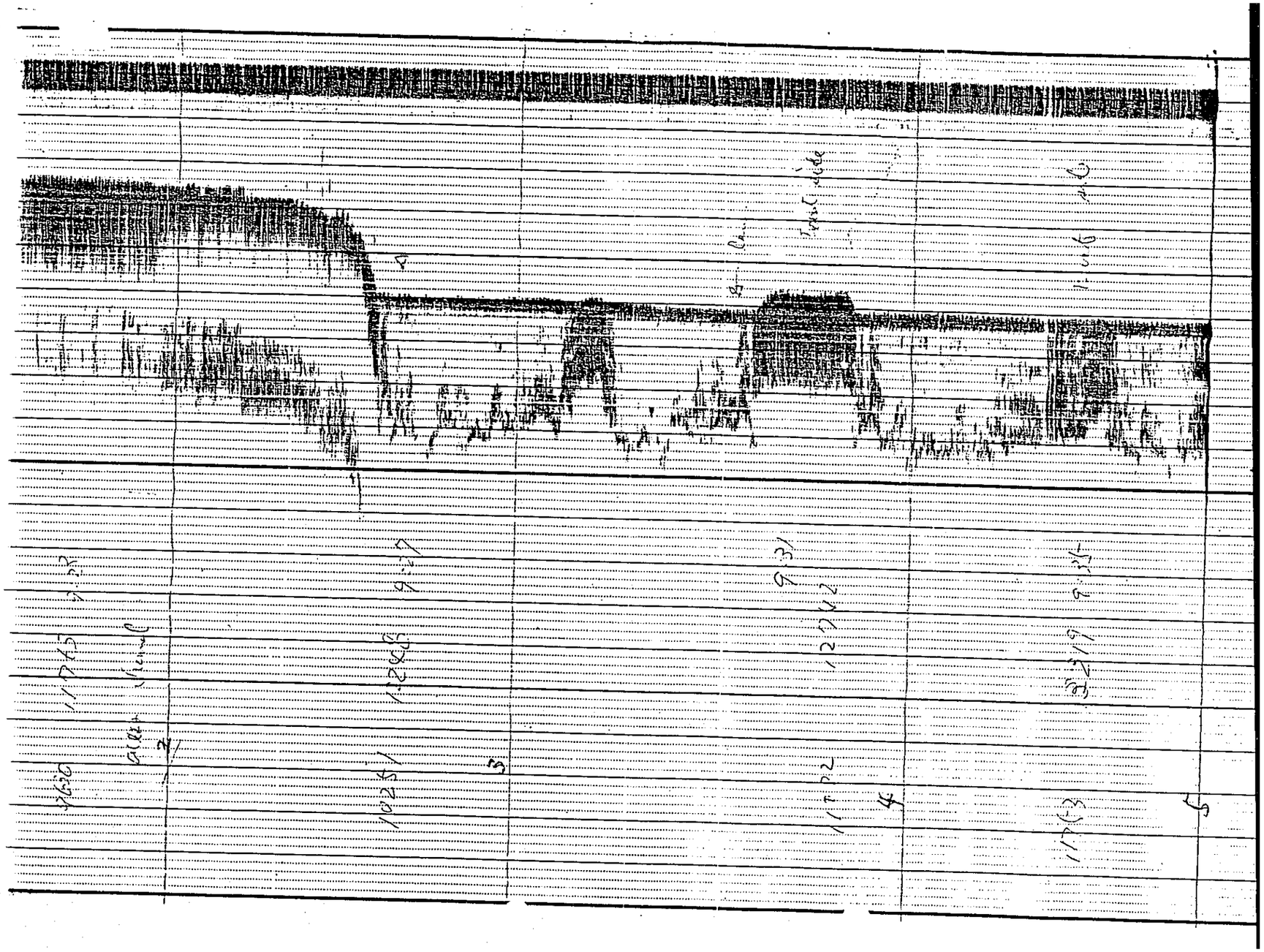
Acrylic pipe

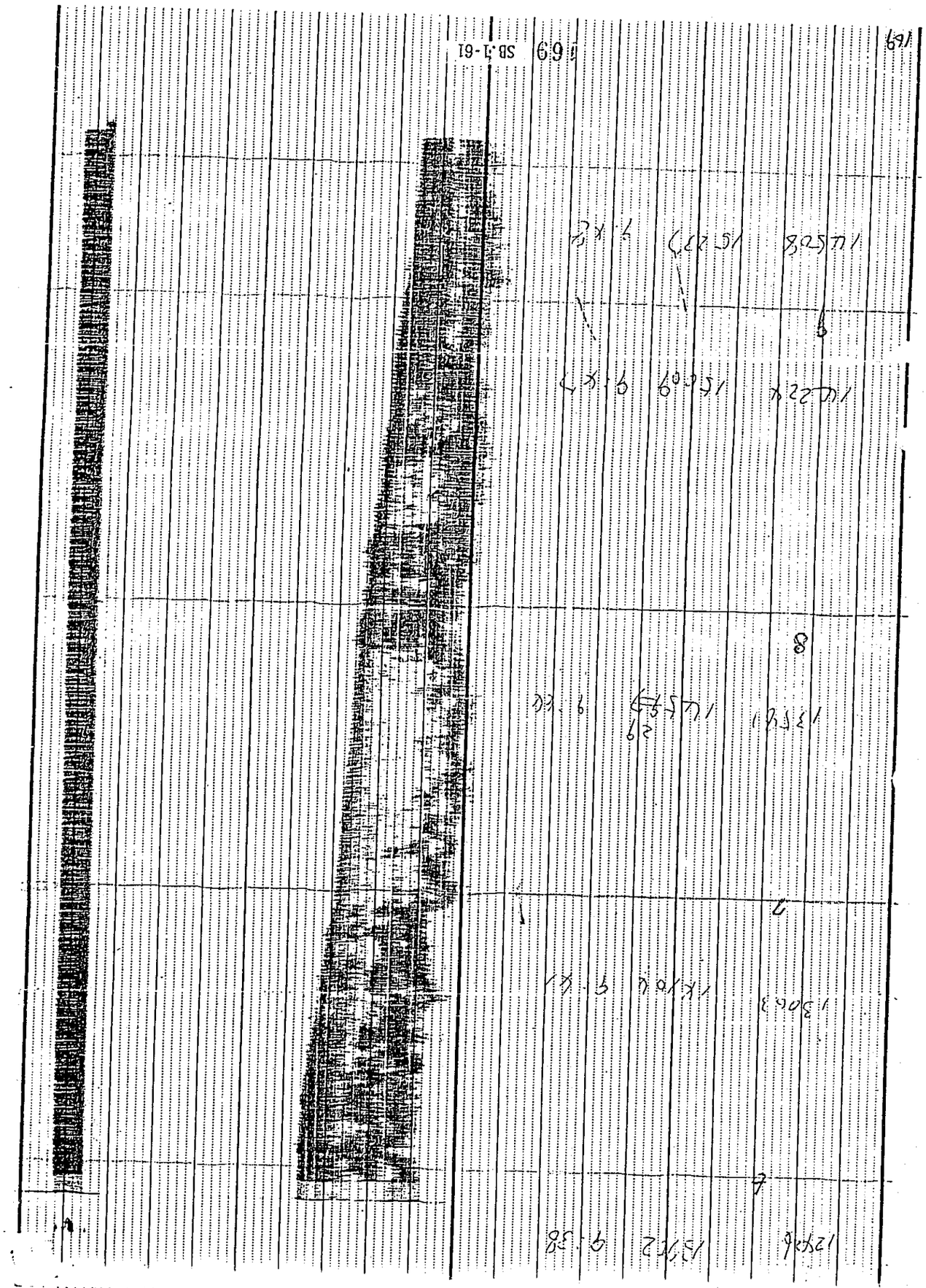




14th May 1989

Longitudinal Profile of Access Channel
by Echo Sounding in Seabed Level Survey



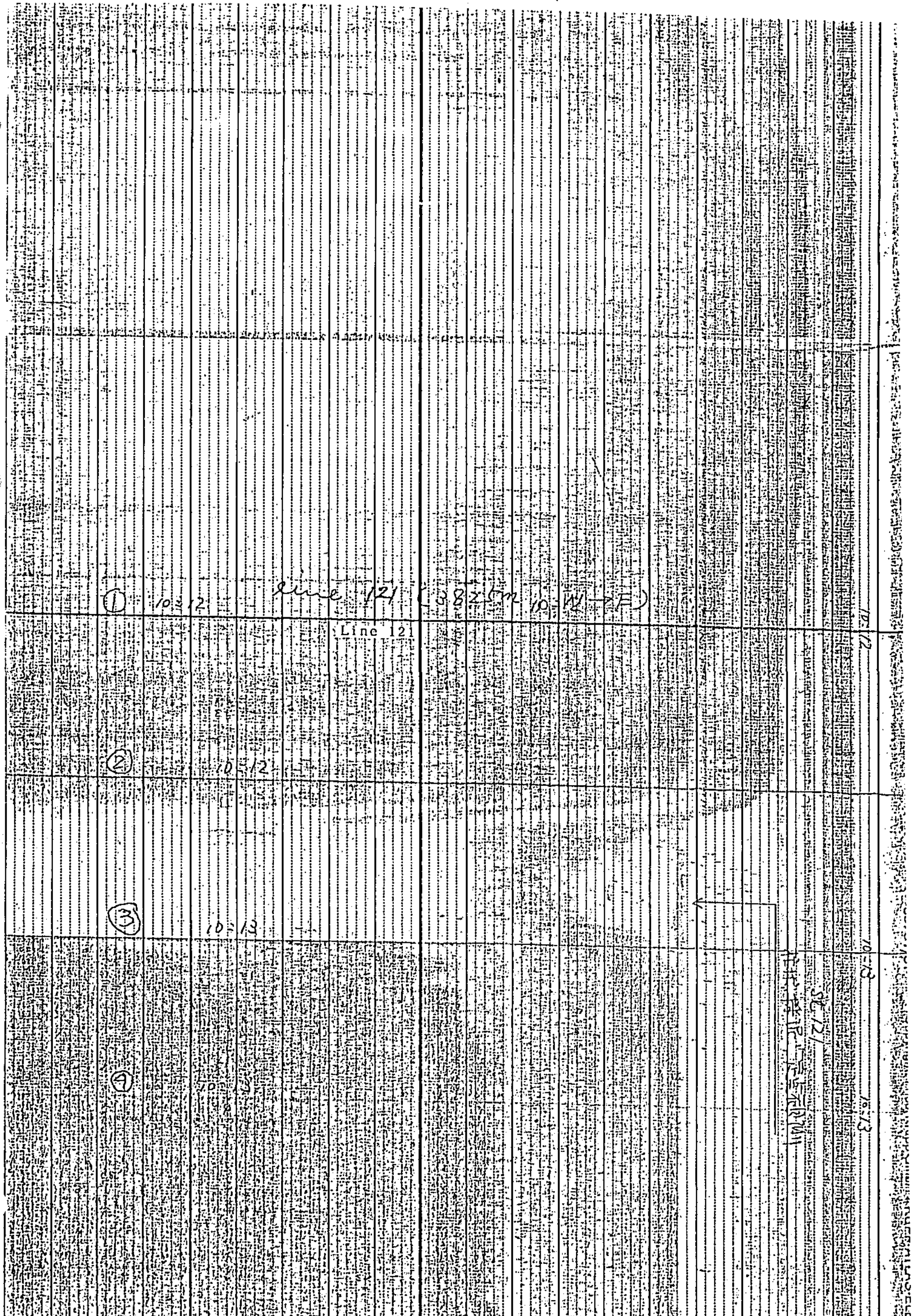


Phot for Seabed Level Survey II

(Including Record of Echo Sounding)

Surveyed on :1st and 2nd June 1989

170



Line 121
10-12
10-13

Line 122 (3850m E→W)

Line 123 (3875m W→E)

Line 122

Line 123

10=47

St.121 — Core sampling and observation started.

St.121 コア採泥開始

Seabed obtainedby 210kHz

Sampling layer:-4.0m

Sampling layer:-4.5m

Sampling layer:-5.0m

Sampling layer:-5.5m

Seabed obtained by 210kHz(Depth:4.8m)

210kc の海底 (4.8m)

Seabed obtained by lead(Depth:7.1m)

Seabed obtained by 33kHz

Boundary surface was disturbed due to a tug boat passing just before observation started.

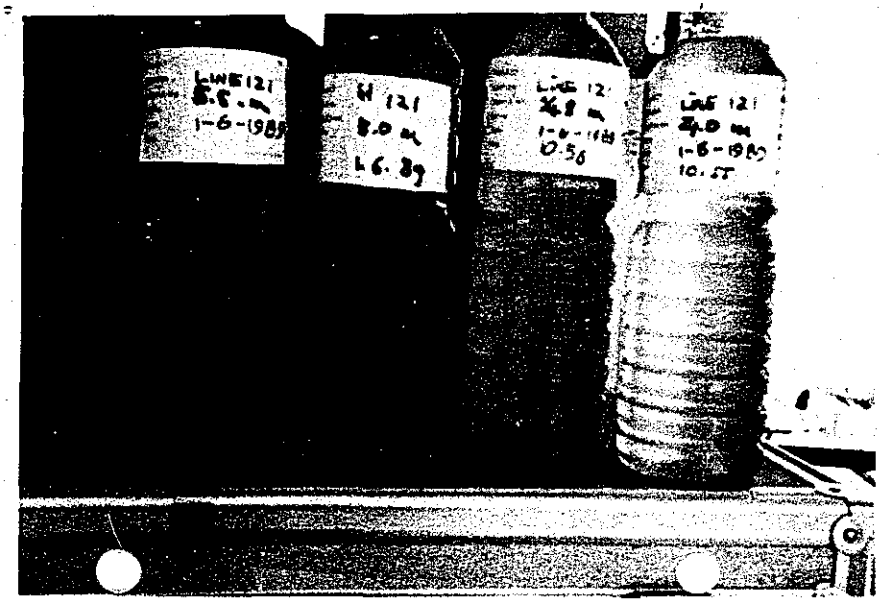
観測開始前に タグボートが通過したため

210kc の境界面が乱れた Echo-Sounder に

記録がよく出ない

10=46

Lead line



11:17

St.121

Seabed obtained by 210kHz(Depth:4.7m)

Sampling layer:-6.0m

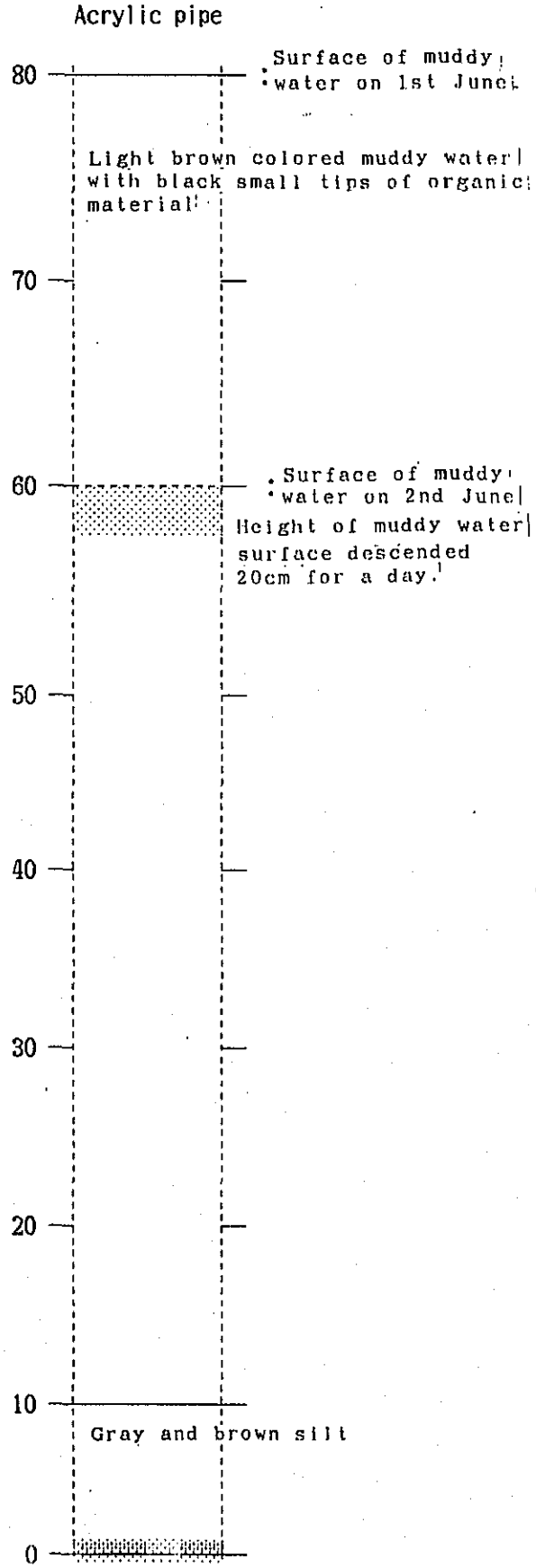
Seabed obtained by 33kHz

Seabed obtained by lead(Depth:7.4m) 7.4m 11:17

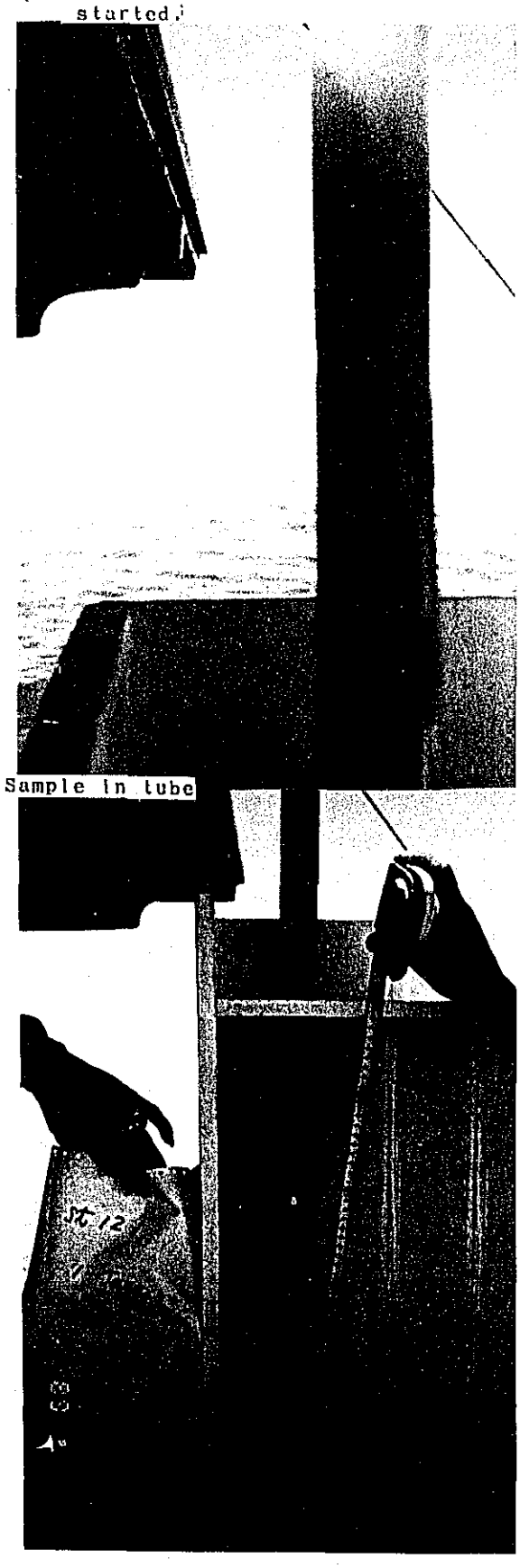
採水後 画面下6m

Muddy water checking on hand

St.121	Date : 1th JUNE 1989	Sampling time : 11:20-11:28 (Depth : 7.1m)

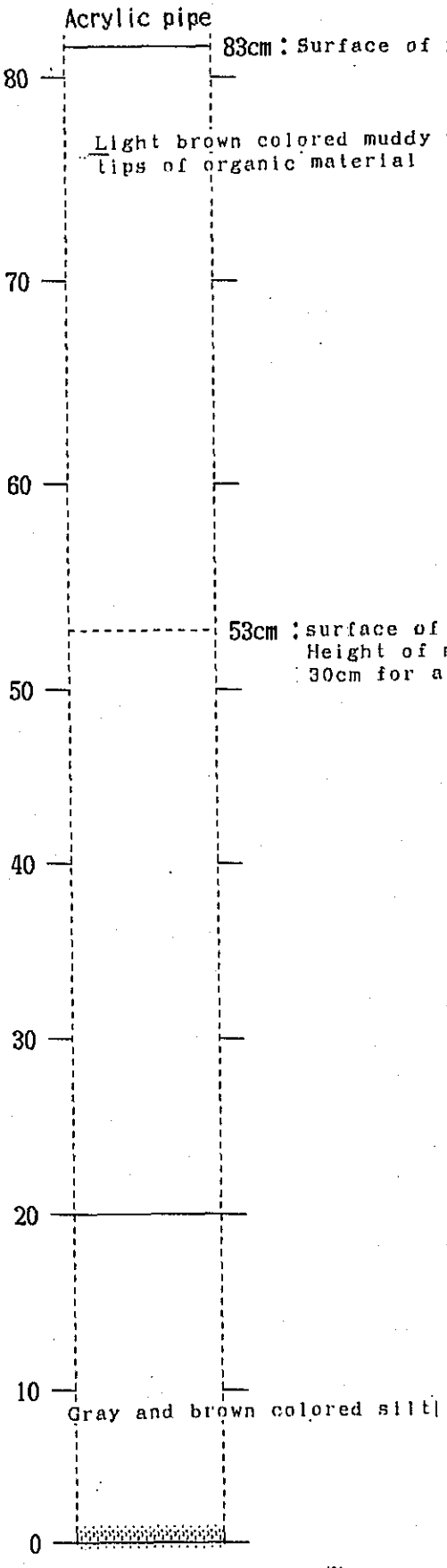


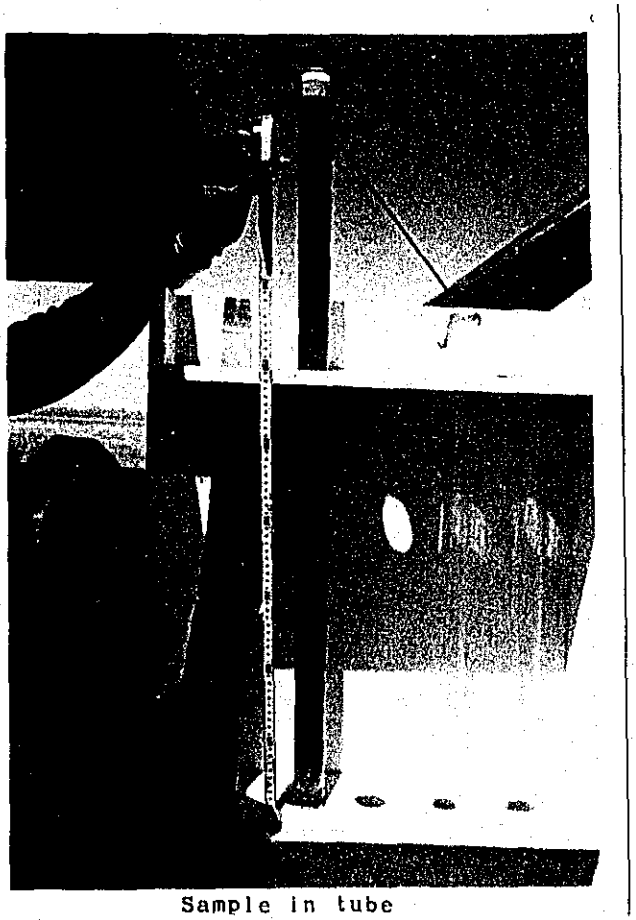
* Condition during observation
Sounding record taken by 210kHz was rather no clear due to a tug boat passed just before observation started.



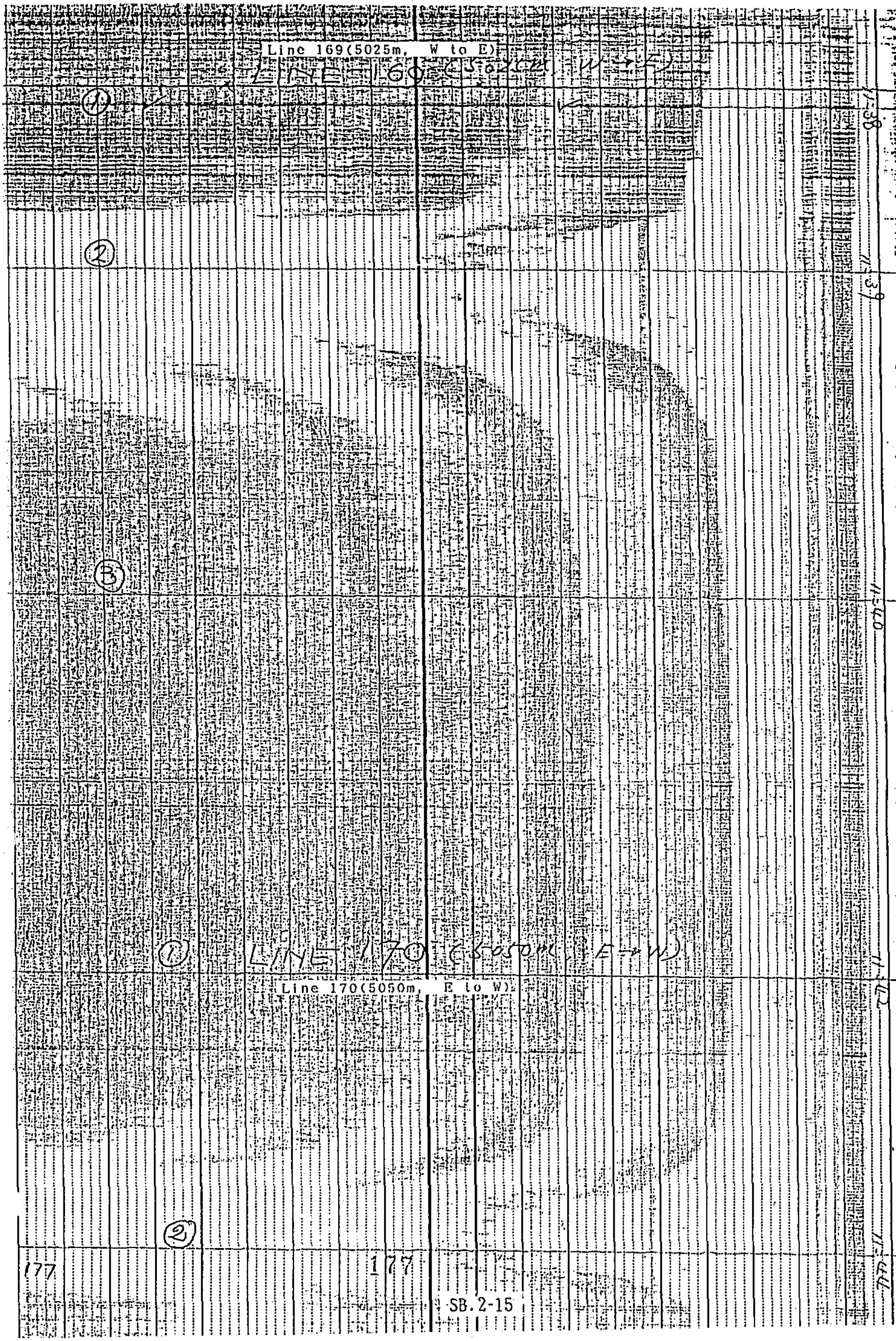
175

St.171	Date : 1th JUNE 1989	Sampling time : 12:54-13:02 (Depth : 7.5m)





Sample in tube


Line 169(5025m, W to E)
①
②
③
①
LINE 170 (5050m, E→W)
Line 170(5050m, E to W)
②
177
177
11:38
11:39
11:40
11:42
11:44

SB.2-15

Line 170(5050m, E to W)

Line 171(5075m, W to E)

Line 171(5075m, W to E)

St.171 Core sampling and observation point

179

St.171

Seabed obtained by 210kHz(Depth:5.2m)

Seabed obtained by 33kHz

Sampling layer

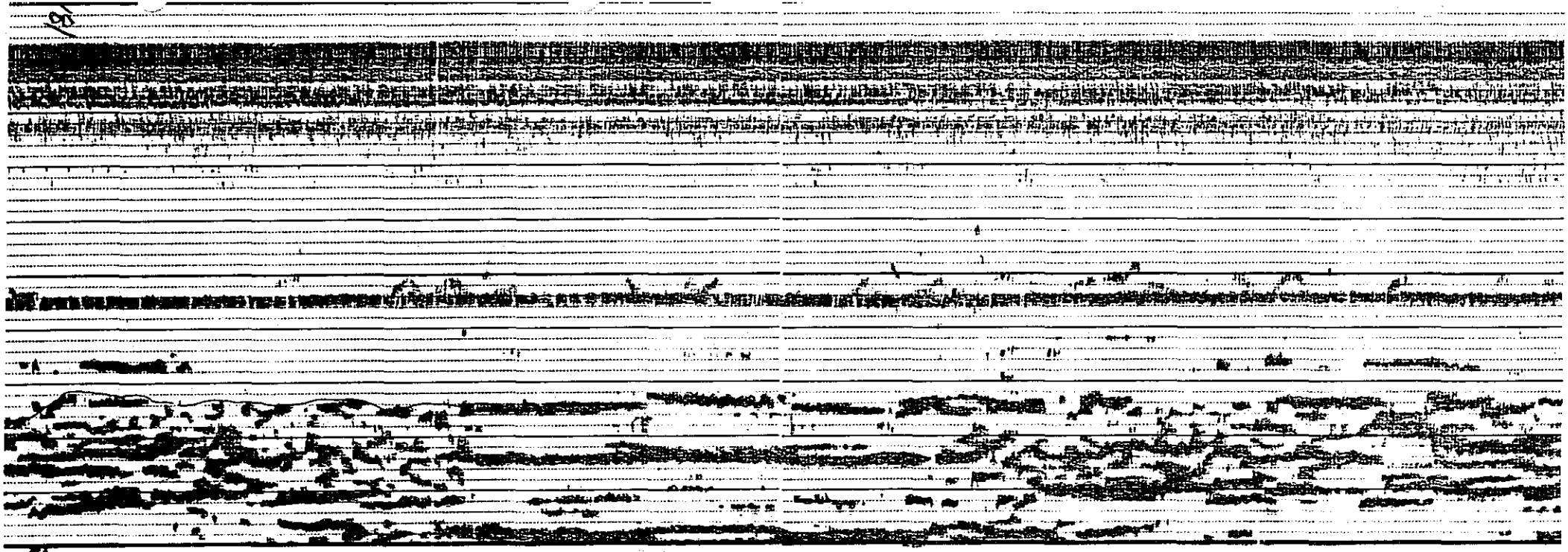
-4.0m

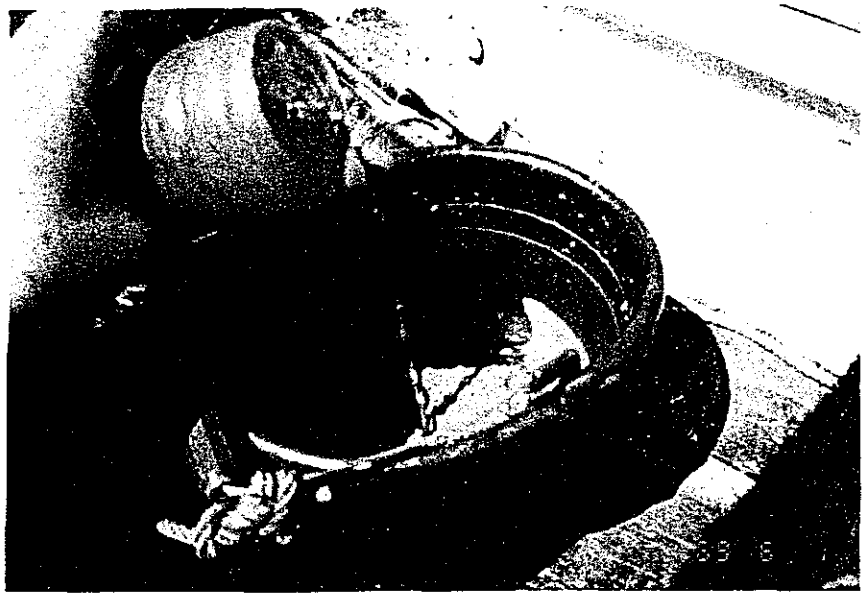
-5.0m

-5.5m

-6.0m

Seabed obtained by lead(Depth:7.5m)





Condition of fluid mud sampled at 6.5 m under seasurface

12=54

Seabed obtained by 210kHz(Depth:5.2m)

St.171

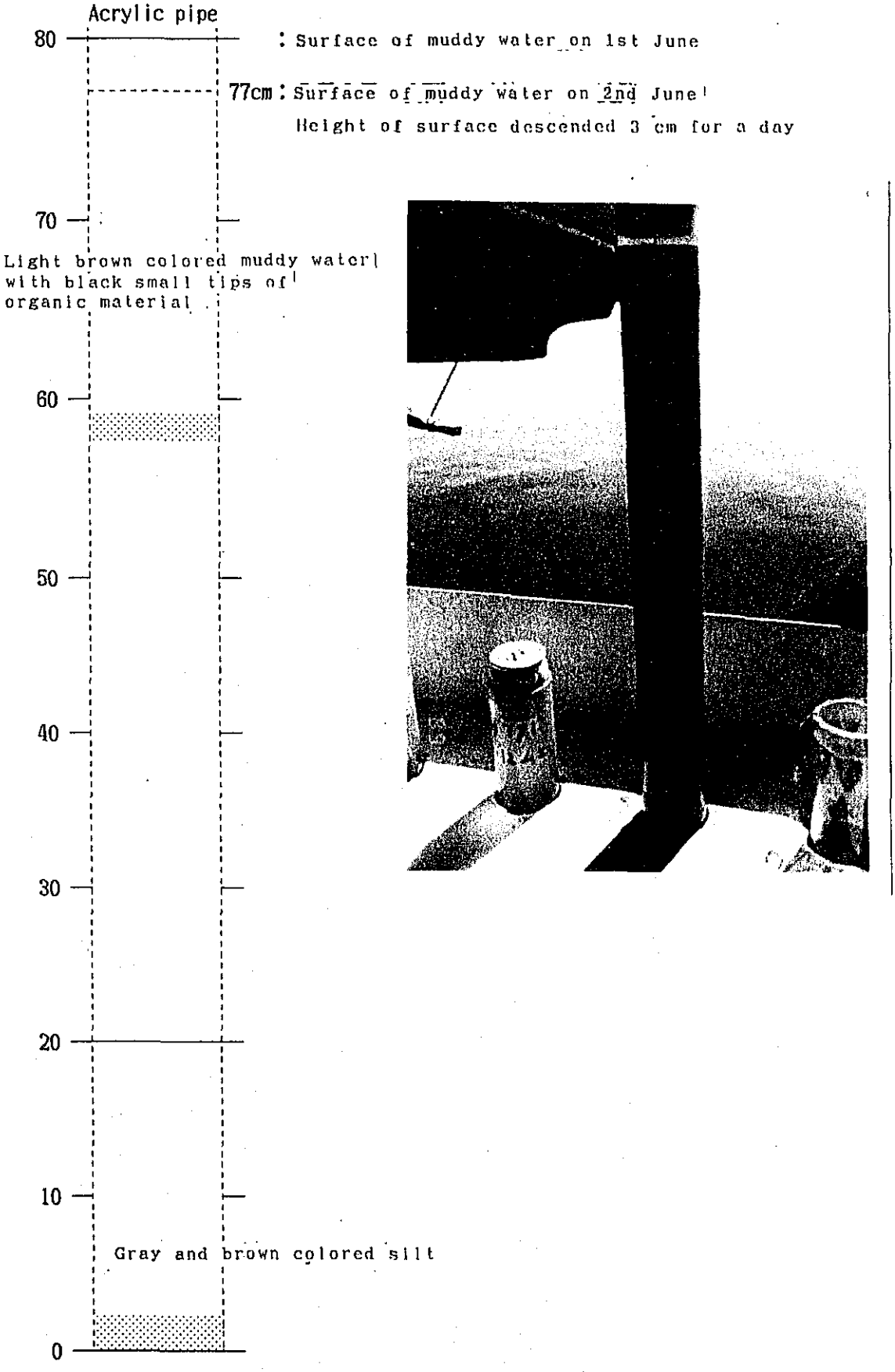
Seabed obtained by 33kHz

Seabed obtained by lead(depth:8.6m)

海面下6.5mの底泥

12=54

St.220	Date : 1th JUNE 1989	Sampling time : 13:53-13:55 (Depth : 8.5m)



Line 219(G275m, W to E)

Line 220(G300m, E to W)

Line 220(6300m, E to W)

LINE NO.

Core sampling and observation point

St.220

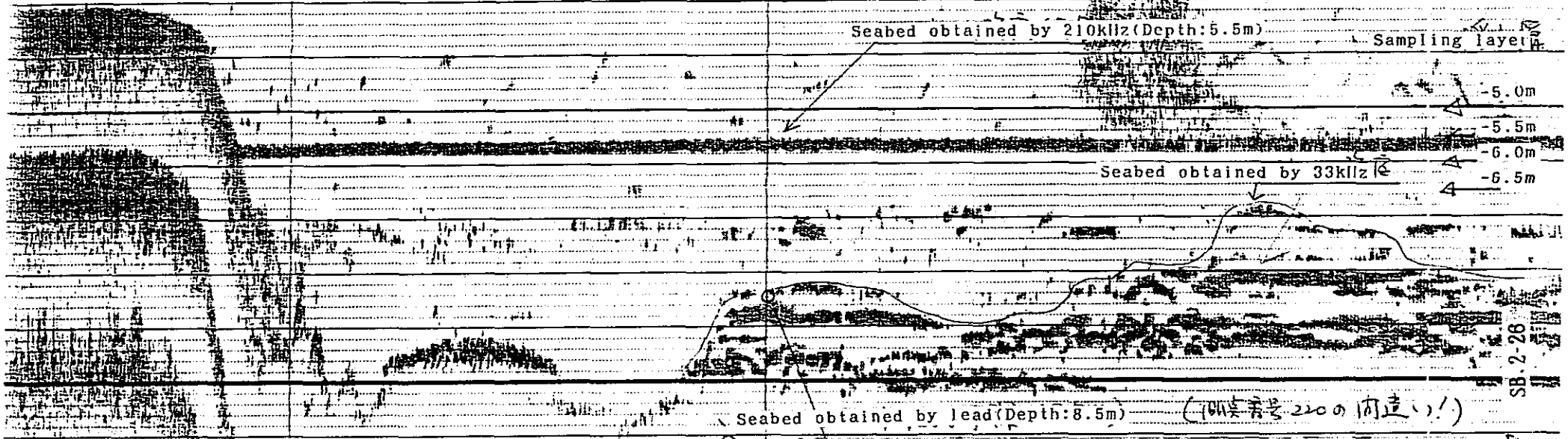
Line 221(6325m, W to E)

221(G325m, W to E)

SB: 2-25

13:29

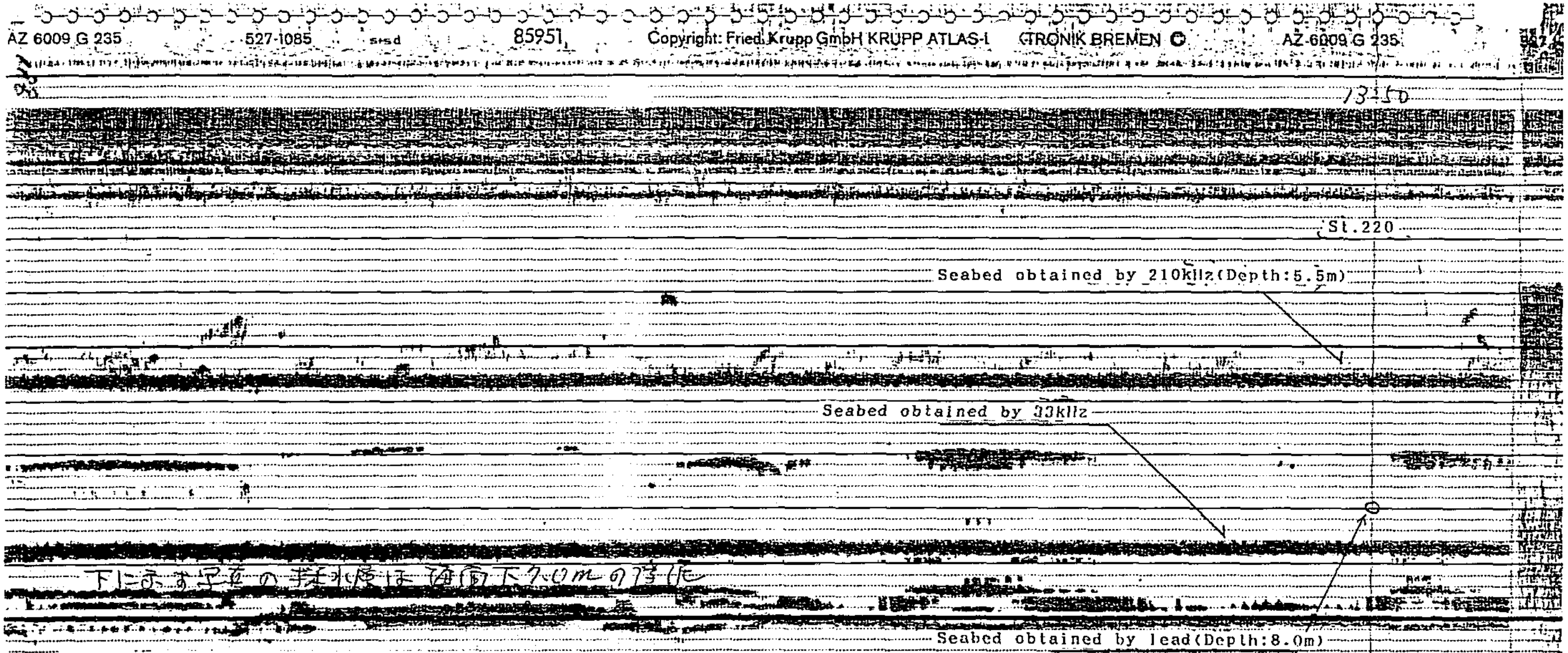
St.220

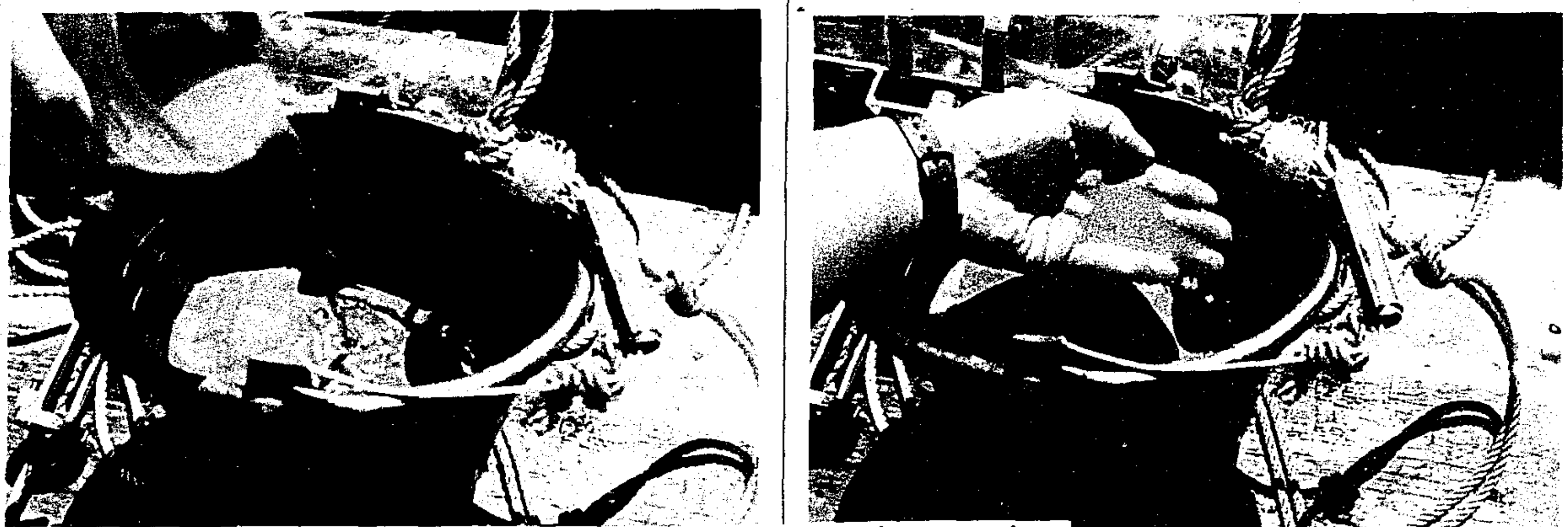


Jam. 13 29

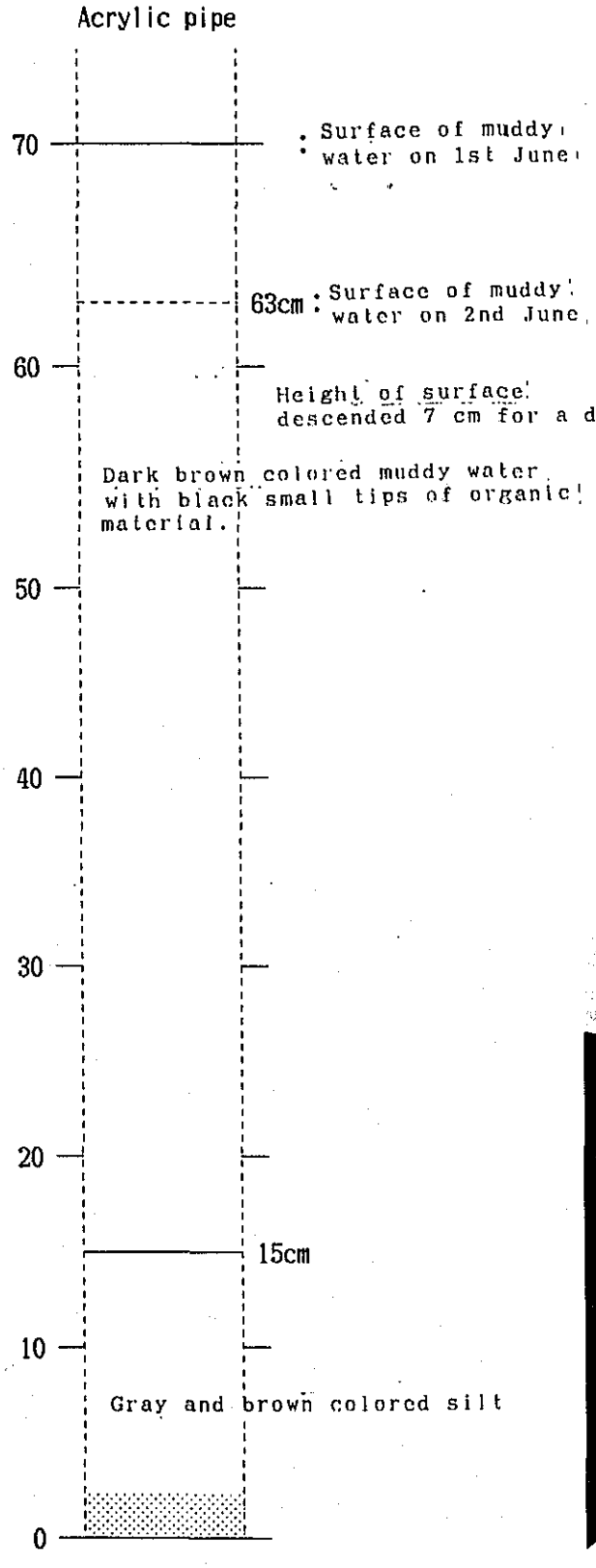
St.No. on label was wrong(Corrected St. 220)

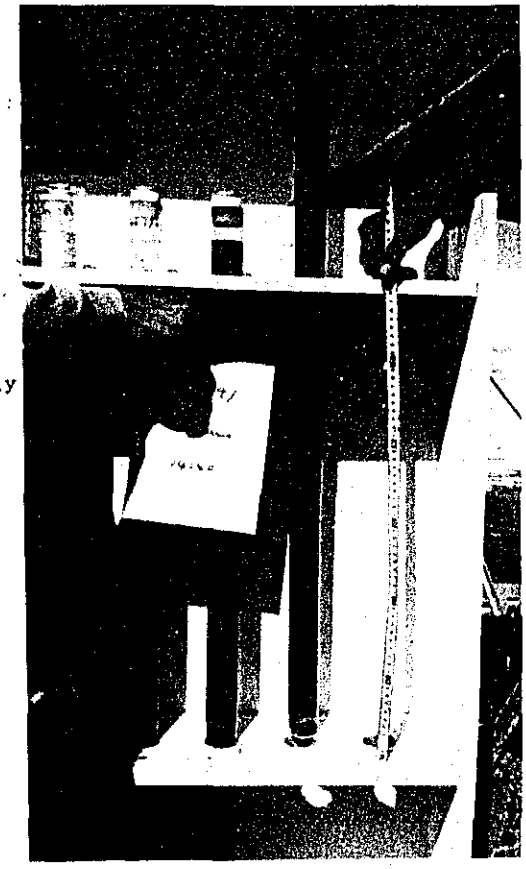
187


AZ 6009 G 235
527-1085
85951
Copyright: Fried. Krupp GmbH KRUPP ATLAS-ELEKTRONIK BREMEN ©
AZ 6009 G 235
13:50
St.220
Seabed obtained by 210kHz(Depth:5.5m)
Seabed obtained by 33kHz
下に示す写真の採水底は海面下7.0mの深さ
Seabed obtained by lead(Depth:8.0m)



St.291	Date : 1th JUNE 1989	Sampling time : 14:40-14:44 (Depth : 8.0m)





AZ.6009 G 235 527-1085 used 8595]/61

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14:13 14:14 14:22

St.291

Seabed obtained by 210kHz(depth:6.0m)

Seabed obtained by 33kHz

Line 291(8075m, W to E)

SS2-27

seabed obtained by lead(depth:8.0m)

Jan 14 '27

(2) (3)

14-22

St.291

St.291

seabed obtained by 210kHz(Depth:6.0m)

Seabed obtained by 33kHz

5.5m
6.0m
6.5m
7.0m

GS.2-28

Seabed obtained by lead(Depth:8.0m)

Jan. 14.22'

St.291

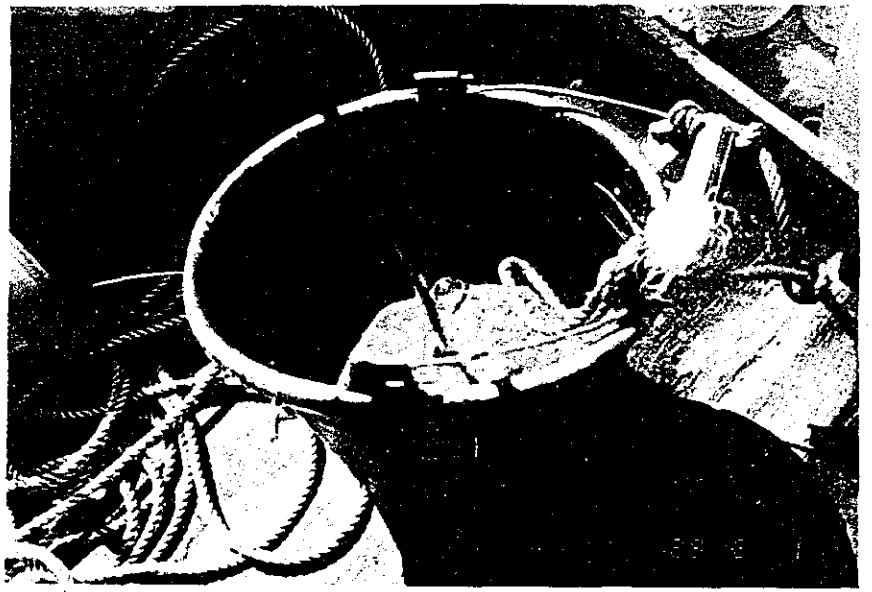
210kHz の海底 (5.9m)

Seabed obtained by 210kHz(Depth:5.9m)

Seabed obtained by 33kHz

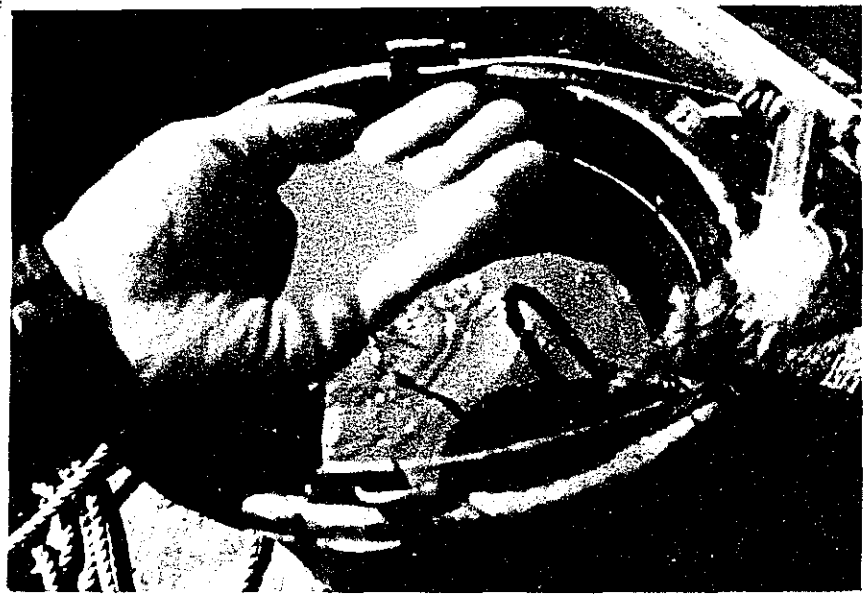
Seabed obtained by lead(Depth:7.5m)

写真の採泥は
海面下 7.5m



GS.2-29

Fluid mud shown in photo was sampled at 7.5m under seasurface.



Line 289(8025m, W to E)

Line 290(8050m, E to W)

Line 291(8075m, W to E)

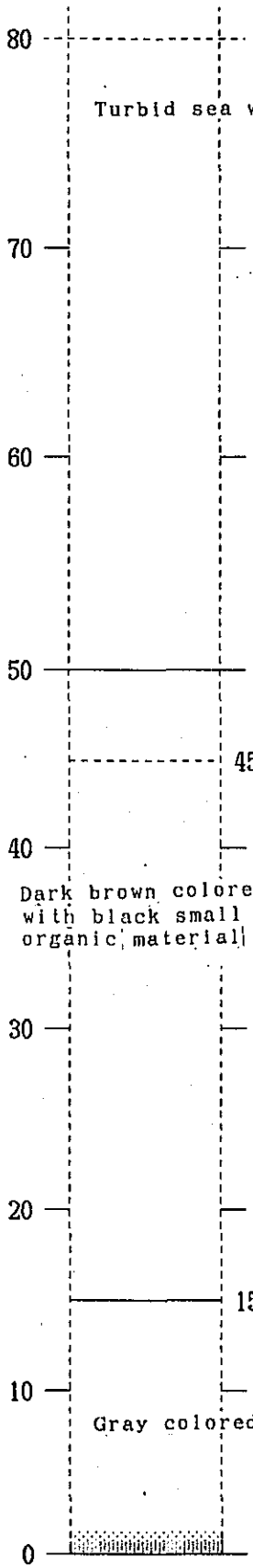
193

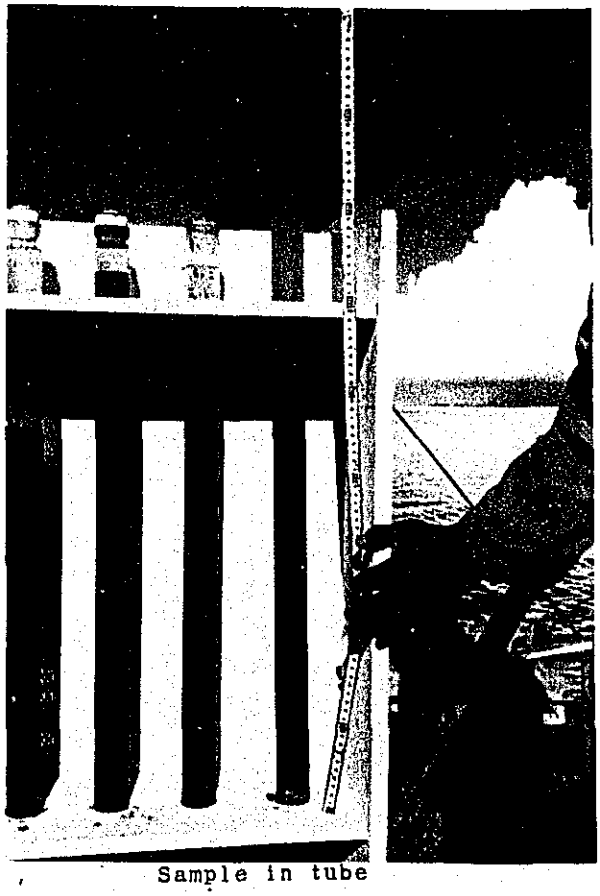
193

St.341	Date : 1th JUNE 1989	Sampling time : 14:52-15:50 (Depth: 6.5m)

Acrylic pipe

*Condition during observation
Boundary surface of muddy water obtained by 210kHz disappeared due to disturbance by Dredger "JAWA" under dredging work.





Sample in tube

Line 339 (9275m, W to E)

Line 340 (9300m, E to W)

Line 341 (9325m, W to E)

195

LINE 340 (9300m, E to W)

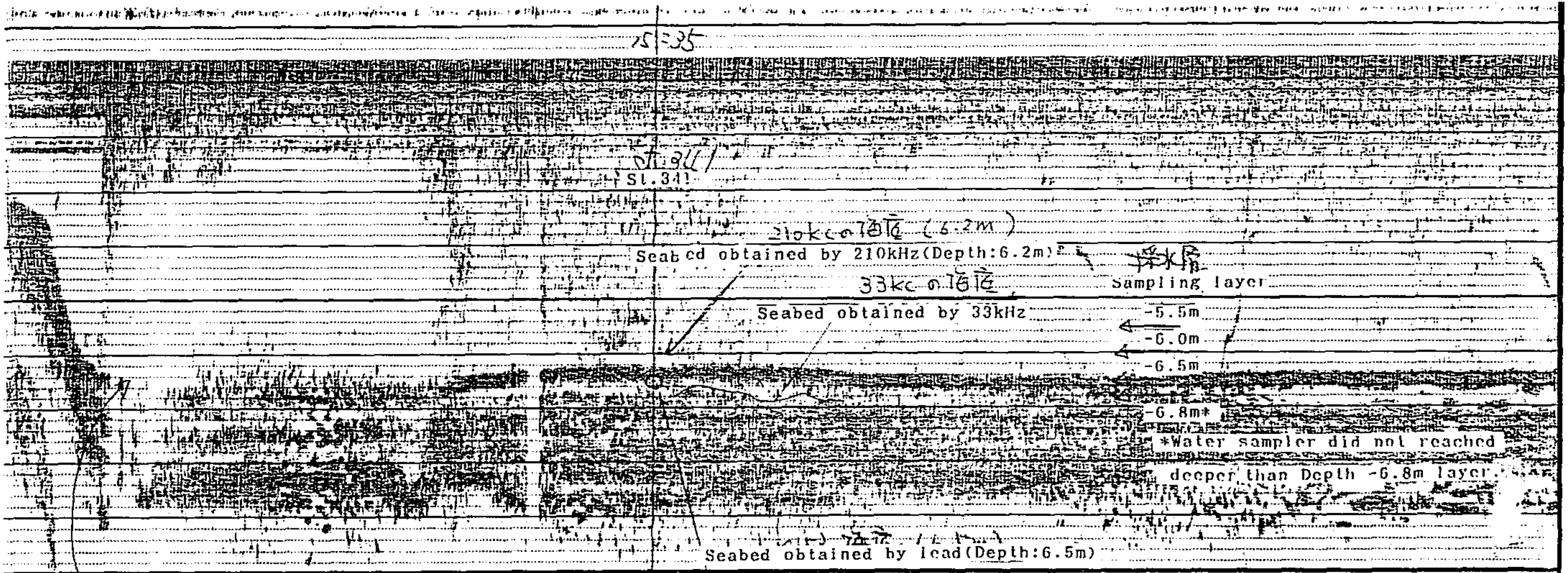
Line 340 (9300m, E to W)

LINE 341 (9325m, W to E)

Line 341 (9325m, W to E)

Core sampling and observation point

St.341



Boundary surface disappeared due to Dredger "JAWA" passed.

"JAWA" 通過したため
210kcの境界面が消滅。

JAN 15:34

Sample in b tle every layer

注:採水器は
海面下6.8m迄で
しかとどかない。

St. 341

Seabed obtained by 210kHz (Depth: 6.1m)

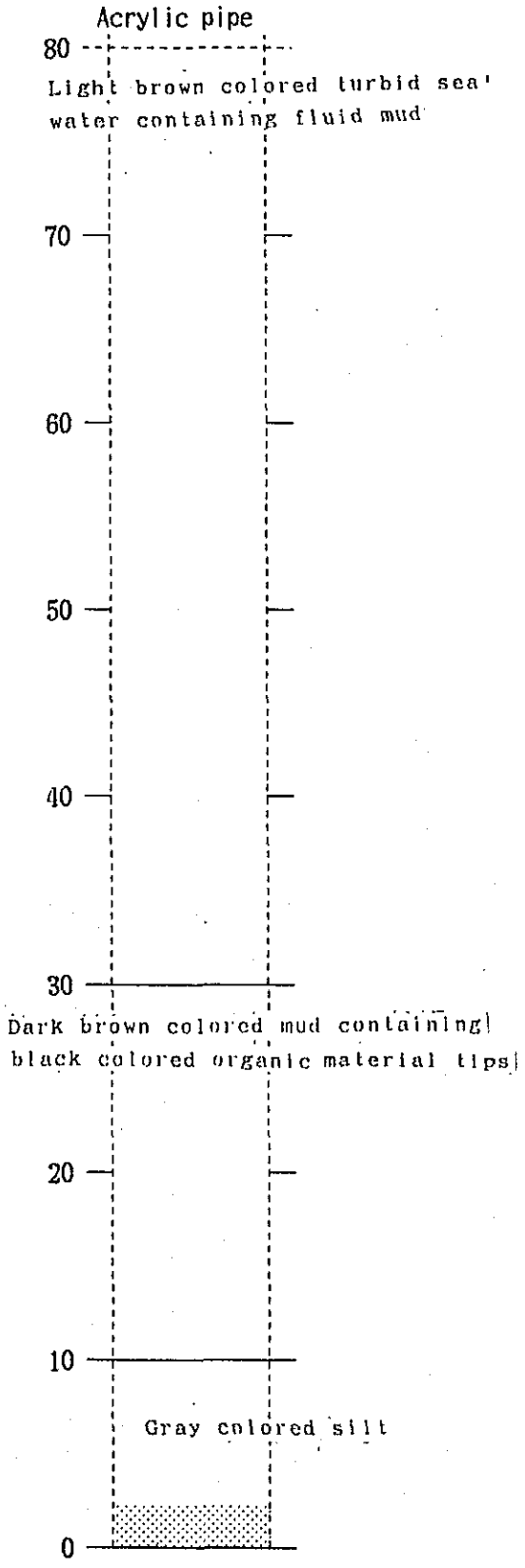
Seabed obtained by 33kHz

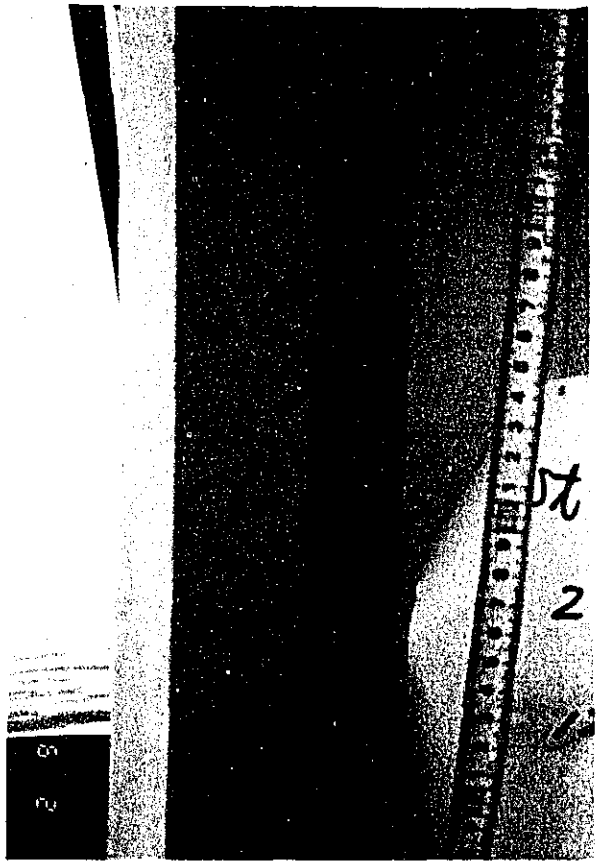
Seabed obtained by lead (Depth: 6.7m)

Jun. 15 49

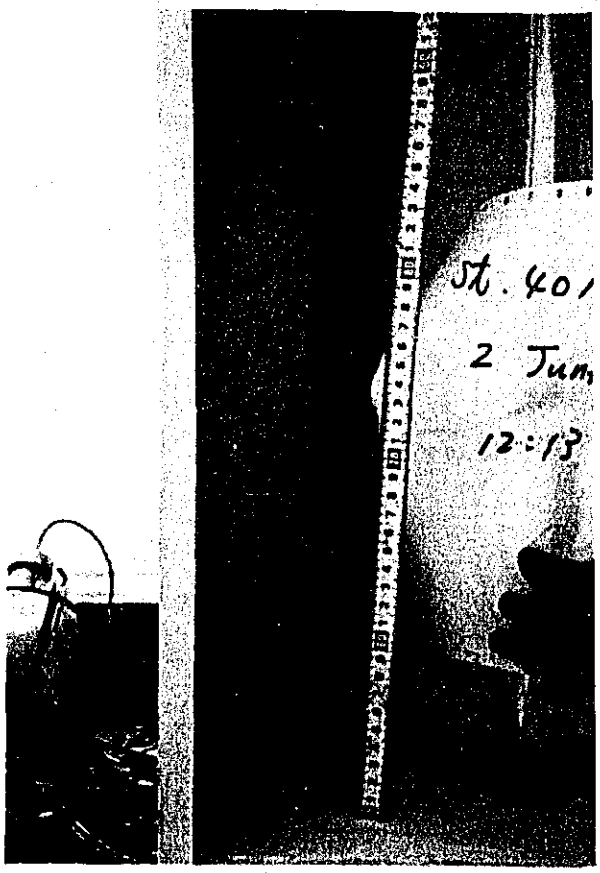
198

St.401	Date : 2th JUNE 1989	Sampling time : 10:18-12:15 (Depth : 8.3m)





Sample in tube



Line 339(10775m, W to E)

LINE 339 (10775m W→E)

Line 400(10800m, E to W)

LINE 400 (10800m E→W)

Line 401(10825m, W to E)

LINE 401 (10825m W→E)

200

SB.2-38

LINE 401 (10825m, W to E)

Line 401(10825m, W to E)

St.401

210KCの海底 (8.0m)

Seabed obtained by 210kHz(Depth:8.0m)

Sampling layer

-6.5m

-7.0m

-7.5m

-8.0m

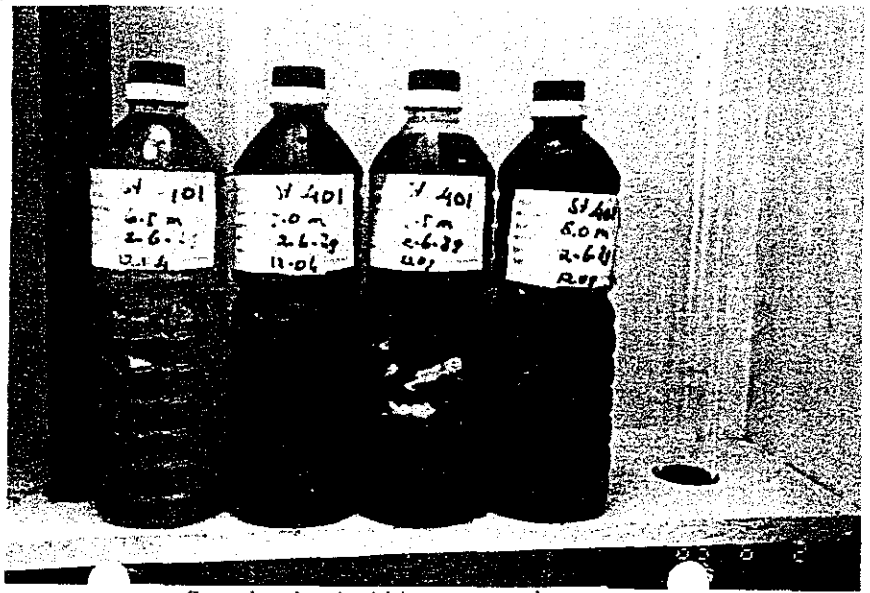
SB.2-40 2002

Seabed obtained by 33kHz(depth:8.3m)

33KCの海底 (8.3m)

Seabed obtained by lead(Depth:8.3m)

レッドによる海底 (8.3m)



Sample in bottle every layer.

203

SB.2-41

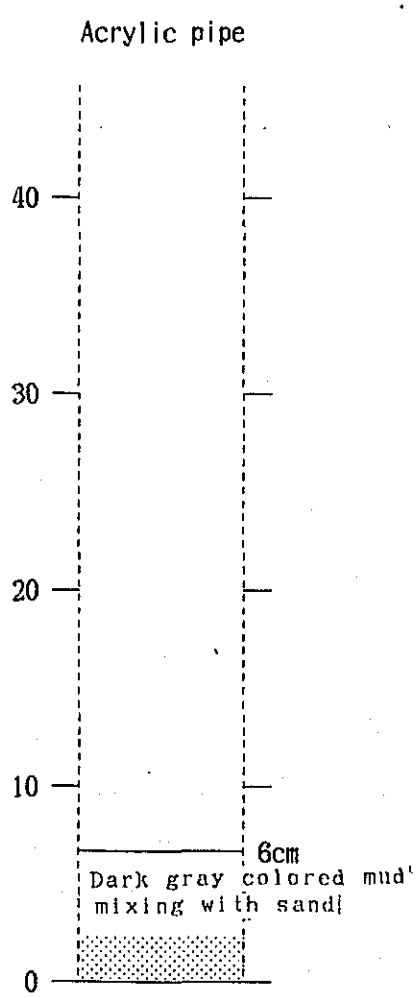
Seabed obtained by 210kHz(depth:7.4m)

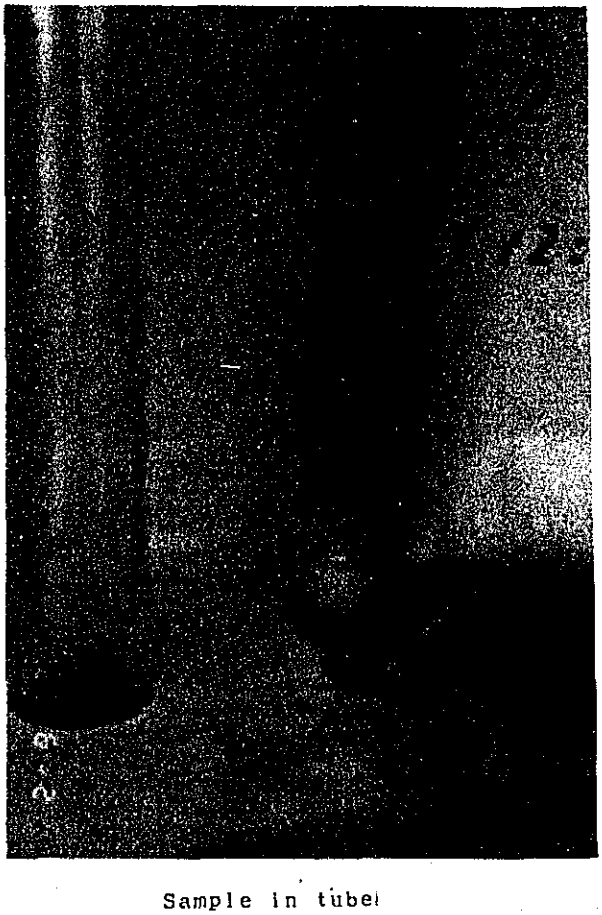
Seabed obtained by 33kHz

Seabed obtained by lead(8.9m)

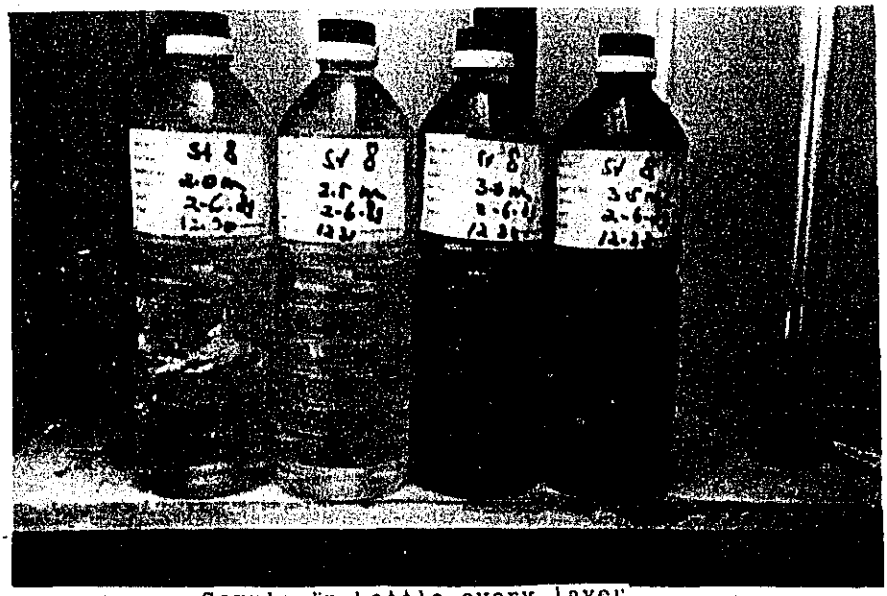
St.401

St.8	Date : 2th JUNE 1989	Sampling time : 12:26-12:40 (Depth : 3.5m)



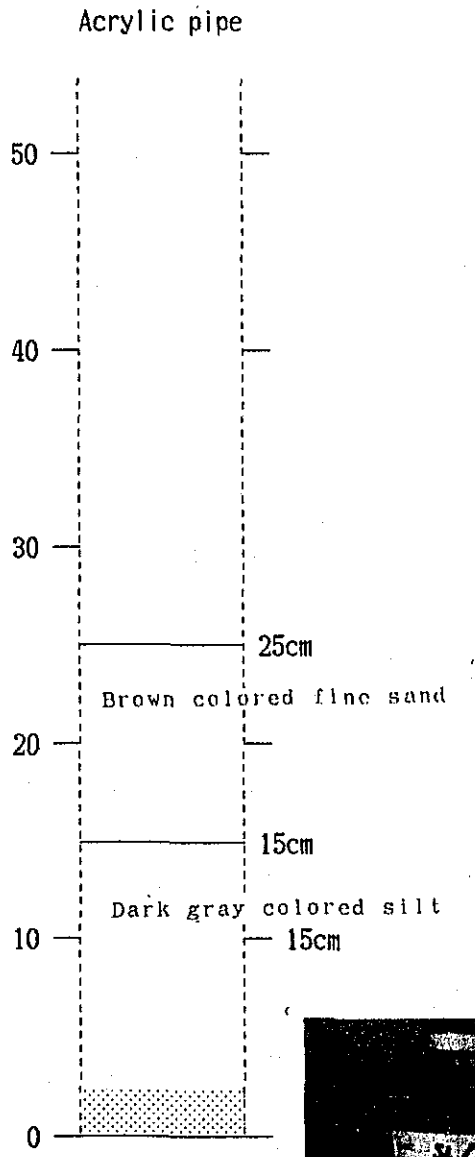


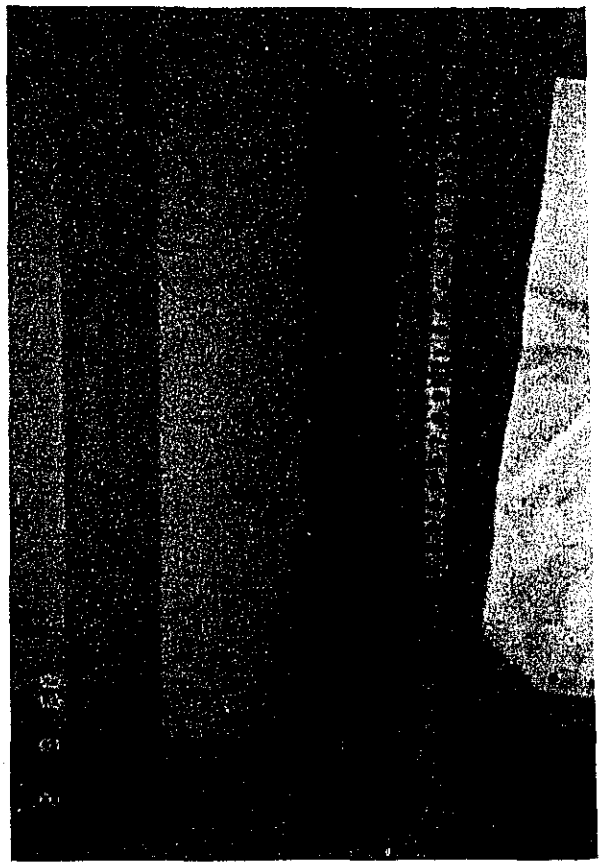
Sample in tube



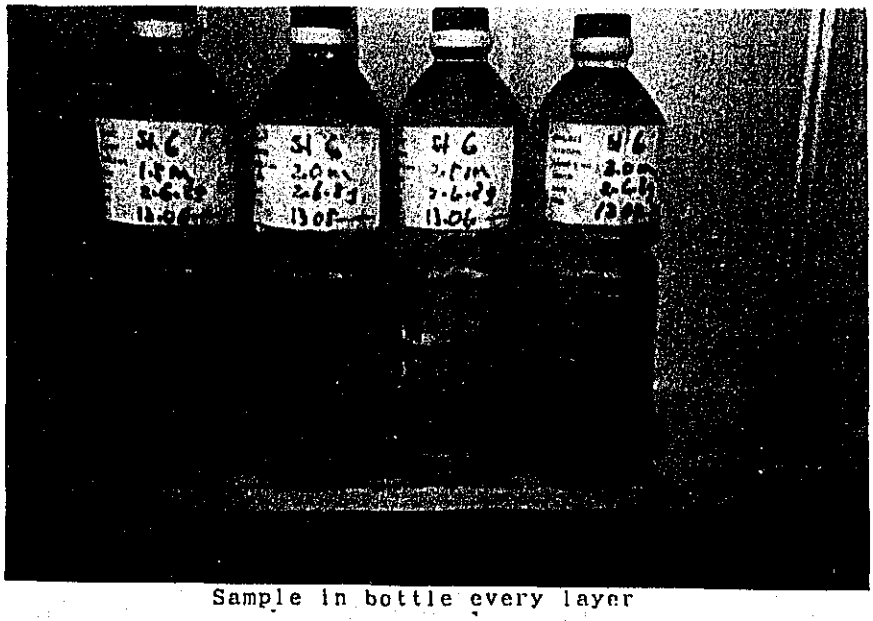
Sample in bottle every layer

St.6	Date : 2th JUNE 1989	Sampling time : 13:03-13:19 (Depth : 3.2m)





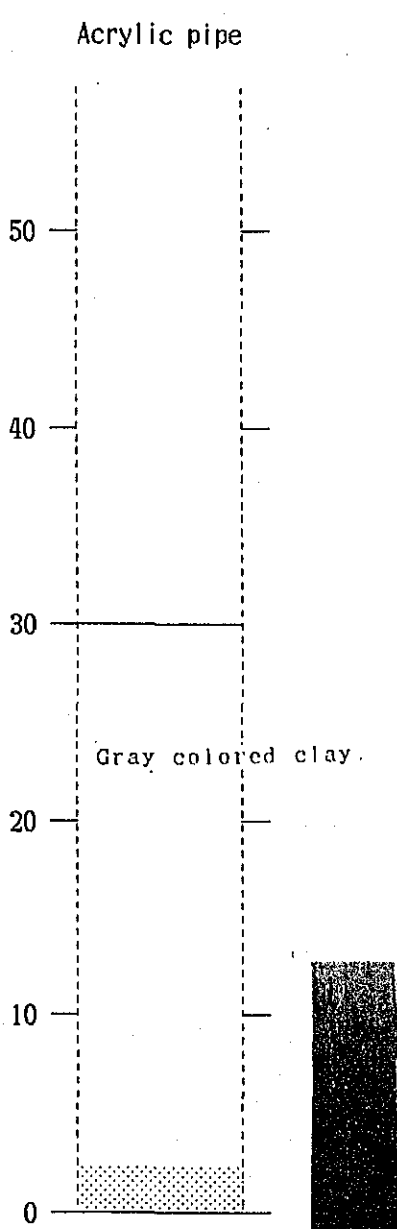
Sample in tube

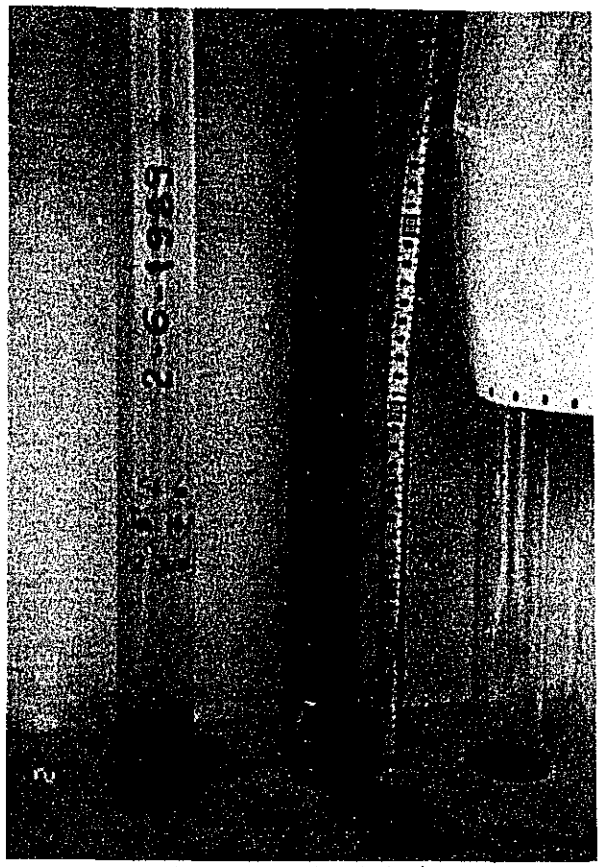


Sample in bottle every layer

205

St.4	Date : 2th JUNE 1989	Sampling time : 13:26-13:52 (Depth : 4.6m)

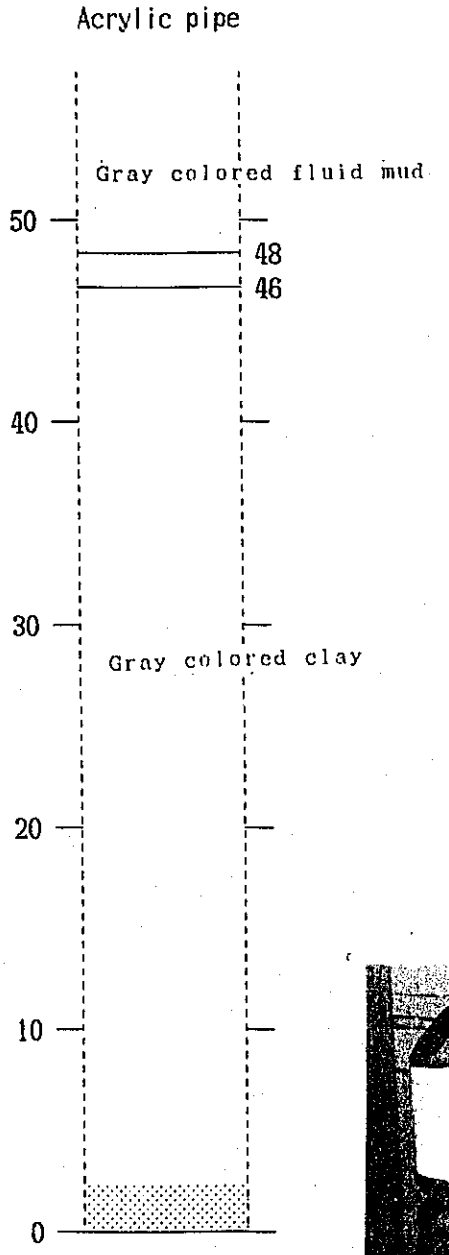


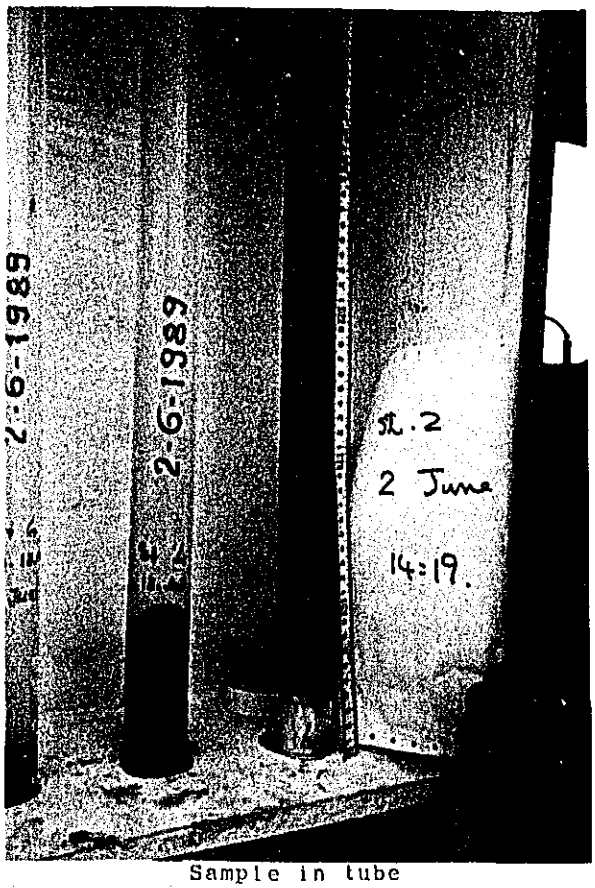


Sample in tube

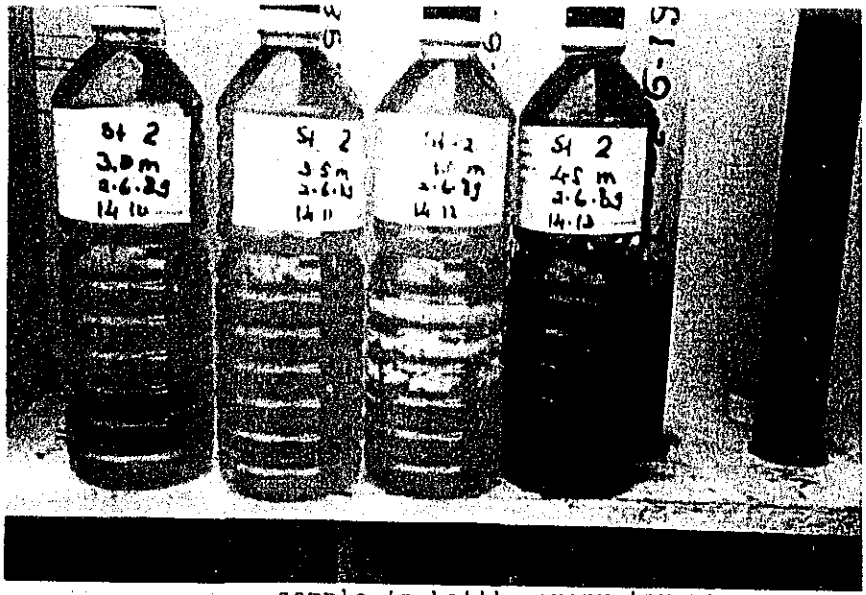
Sample in bottle every layer

St.2	Date : 2th JUNE 1989	Sampling time : 14:09-14:23 (Depth : 4.7m)





Sample in tube



SB.2-45 (sample in bottle every layer)

207