APPENDIX-4(1/3)

Result of Physical and Chemical Analysis for Bottom Material Table 4-1

(Coastal Survey at Bumi Anyar)

Location	Water	Bottom	Mechanica.	·	Composition (%)	(%) uc	Specific	Water	Total	
Name	$\begin{array}{c} \operatorname{Depth} \\ (m) \end{array}$	Name	Clay	Silt	Sand	Gravel	Gravity	Content (%)	Sulfide (mg/g)	Sampling Device
A M - 12	+ 0.9	S M	15.0	27.1	5 7.9	0.0	2.717	47.87	0.09	Hand
A M - 6	+ 0.8	÷ S	1. 5	19.4	79.1	0.0	2.637	I	< 0.01	Hand
A M - 4	+ 0.4	ۍ ک	5 0	17.5	8 0. 5	0.0	2692			Hand
AM Seabed	( I	W	58.0	4 0.6	1. 4	0.0	2.707	114.43	0.17	
104 0.65m Seabed	xx 	M	63.0	3 7 2 3 7	4.5	0.0	2717	113.80	0.09	Piston Corer

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APPENDIX-4(2/3)

Result of Physical and Chemical Analysis for Bottom Material Table 4-2

(Coastal Survey at Takisung)

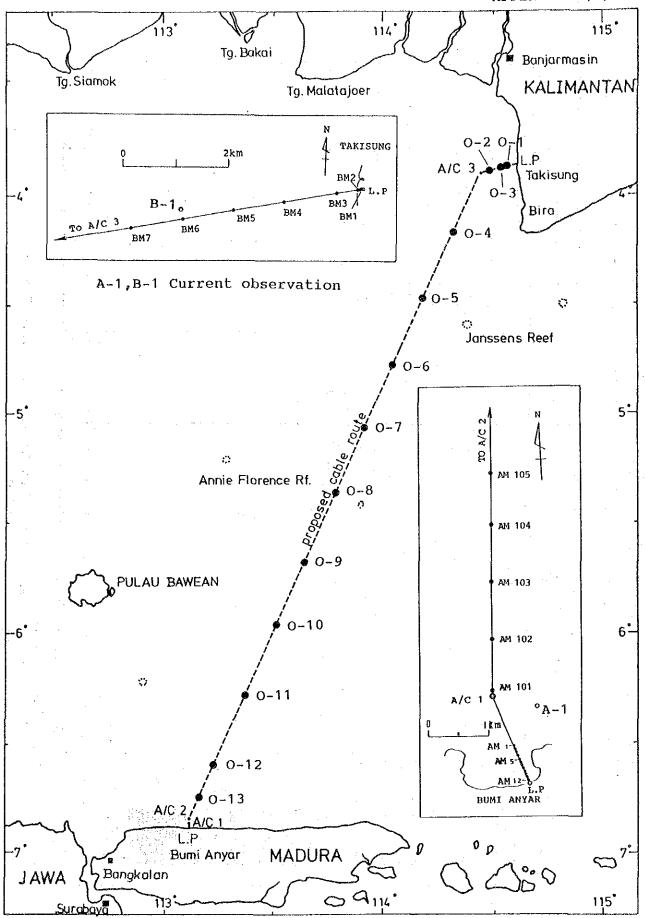
Location	Water	Bottom	Me cha	Mechanical Composition (%)	mpositi (	on (%)	Specific	Water	Total	
Name	$\operatorname{Depth}_{(m)}$	Material Name	Clay	Silt	Sand	Gravel	Gravity	Content (%)	Sulfide (mg/g)	Sampiing Device
B M - 1	+ 7.	Ø	0. 5	2.1	94.2	3. 2	2.710	1		Hand
B M - 4	3. G	М	65.0	3 0. 1	4.9.	0.0	2744	207.47	0.09	Grab Sampler
B M - 7	7.4	M S	4 5. 5	220	3 2 O	0.5	2.769	145.80	0.07	Grab Sampler

APPENDIX-4(3/3)

Device Corer Corer Corer Corer Corer Samp1ing Piston Piston Piston Piston Piston. Total Sulfide (**B**/Bu) 04 06  $\begin{array}{c} 0 \\ 2 \end{array}$ ۲۹ ۲۹ 01 1 2 က က ø 0.1 0.1 0 3 ö Ö Q Ċ ó Ö ö Ö Water Content 4 8 64 04 00 22 41 œ ŝ 124.10 ∽ B S 00 ⊷ 71. 0 4 4 4 24 141.105 ൻ 2 N ŝ ົດ 2 -<del>، سر</del> ÷-1 r-t . Specific 20 4 ø o **\$**} ന 4 0 ŝ Gravity 2744 2 2 ന 71 71 11 7.8 4 5 5 ۲-۲.--∽ থ ର୍ଷ **N** 2 N N N ાં N urvey Gravel 0 0 0 S) ß 0 0  $\circ$ 0 r-- $(\mathcal{B})$ õ ് 0 Ö Ö ó ೆ o. റ 0 'n Composition (Ocean ഗ S 4 ເດ Sand н 0 4 4 r-f 67. 4 ൾ ÷ ÷ ന് Ť \$ Ś റാ ω က H Silt 0 ŝ 2 თ 0 ---9 0 i, ۲H Mechanical 41. 20. o. ശ ന് യ് o യ് ð ഥ 2 2 N 2 က ----Ч r-i 0 Clay 0 S 0 0 ю C (O ŝ ю 7 6. 20 .0 9 7 2. 0 8 76. ന് 4 ø <del>о</del>; ---1 ur: ທີ ŝ Bottom Material X М Ø ⊠ Z ≥ Μ M  $\mathbf{\Sigma}$ М Name Ø М ß Wa ter Depth ) L 21.6 6.1 44 ശ õ ¢١ Ģ 5 0.65 m below Seabed Seabed Seabed Seabed Seabed Seabed Location Name 13 Ę 0 01 ഗ ~ Q 0 S 0 ~ 0 ~ \_

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APPENDIX-5(1/7)



LOCATION MAP FOR OCEANOGRAPHIC STATION

APPENDIX-5(2/7)

Data Sheet for Sampling and Deep Sea Photographing Table 5-1

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Coastal survey at Offshore Bumi Anyar, including On-land survey

			<b></b>	r	······································	
					1	
AM-1	Feb.9	6°53.32' 113°06.98'	0.2	Н	Coral	
AM-2	Feb.9	6°53.35'	+0.2	н	Coral	Grab Sampler
AM-3	Feb.9	6°53.37" 113°07.01"	+0 <b>.</b> 3	н	sand with c ripple & coral -	። ሆ
AM-4	Feb. 9	6°53.41 <sup>1</sup>	+0.4	12	fine Sand with ripple & Coral	Vibro Corer, Hand
AM-5	Feb.9	6°53.43' 113°07.03'	+0-1	н	fine Sand with ripple	с, V: н:
AM-6	Feb.9	6°53.46'	+0.8	н	fine Sand with ripple	<ul> <li>Sampling Device</li> <li>Piston Core</li> <li>Dredger,</li> </ul>
Location Item	Measuring or Sampling Date	<pre>Position (Lat.:S) (Long.:E)</pre>	Water Depth (m)	Sampling Device	Bottom Material Soft Rock Soft Rock Sand Sand Silt Clay Mud Peep Sea Photo No.	* Sampli P : D :

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APPENDIX-5(3/7)

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Data Sheet for Sampling and Deep Sea Photographing Table 5-2

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Coastal survey at Offshore Bumi Anyar, including On-land survey

Location or g Date		2M-11	С Г К				
g or ng Date	AM-12	1 1 - 1.757		AM-9	AM – 8	AM-7	
	Feb.9	Feb.9	Feb.9	Feb.9	Feb.9	Feb.9	
Position (Lat.:S) 6 53. (Long.:E) 113°07.	64 6°53.62 11 113°07.10	6°53.58	6°53.57 113°07.08	6°53.53 113°07.07	6°53.51 113°07.06	6°53.48 113°07.05	
Water Depth (m) +3.5	6.0+	+0.8	+1.0	6.0+	8 <b>.</b> 0 +	+0 • 8	
Sampling Device	H						
Bottom Material medium Sand Soft Rock Well Sand Well Soft Rock Well sortin Silt Silt Clay Mud Clay Mud Shell Shell Core Length(cm)	middy Sand Poor sorting	muddy Sand with ripple	medium Sand with ripple	Sand	fine Sand with ripple	fine Sand with ripple	
Deep Sea Photo No.				1	1	1	

\* Sampling Device
P : Piston Corer, V : Vibro Corer, G : Grab Sampler
D : Dredger, H : Hand

APPENDIX-5(4/7)

Coastal survey at Offshore Bumi Anyar, including On-land survey Data Sheet for Sampling and Deep Sea Photographing Table 5-3

						,
AM-105	Feb.11	6°51.02' 113°06.90'	1-8.2	Н	Muđ with Shell Fragment Viscosity	Grab Sampler
AM-104	Feb.11	6°51.43' 113°06.88'	15.8	đ	Muđ	U U
AM-103	Feb.11	6°51.92 113°06.85	13.2	Ъ	Mud 1 5 4	Vibro Corer Hand
 AM-102	Feb.11	113°06.83	10.2	Ъ	Mud 4 8	 ≻ ⊞
AM-101	Feb.10	6°52.83 113°06.82	8.0	д	Mud 110	Sampling Device P : Piston Corer D : Dredger,
Location Item	Measuring or Sampling Date	<pre>Position (Lat.:S) (Long.:E)</pre>	Water Depth (m)	Sampling Device	Bottom Material & Bottom Material & Soft Rock Gravel Sand Sand Silt Clay Mud Shell Core Length(cm) Deep Sea Photo No.	* Samplir P : D :

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APPENDIX-5(5/7)

Data Sheet for Sampling and Deep Sea Photographing Table 5-4

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Coastal survey at Offshore Takisung, including On-land survey

BM-7	Feb.17	3°53.01° 14°34.31°	1	U	sandy Mud very soft bad sorting		
BM-6	Feb.17	3°52.81 114°34.85	6.4	U U	sandy Mud with Shell Fragment very soft bad sorting		
BM-5	Feb.17	3°52.70' 114°35.37'	5 -2	U	Mud with Shell Fragment very soft	. [	<u></u> н.:
 BM-4	Feb.17	3°52.59' 114°35.91'	3.6	Ⴊ	Mud with Shell Fragment very soft		Grab Sampler
 BM-3	Feb.17	3°52.48' 114°36.44'	1 4	U	Mud very soft sorting		 ტ
BM-2	Feb.15	3°52.44" 114°36.68"	6.0+	н	coase Sand with small Pebble, Fragment Fragment		Vibro Corer, Hand
BM-1	Fèb.15	3°52.43 114°36.70	+1.4	H	medium Sand		corer, V : , H :
ស ដ	Feb.15	3°52.43 114°36.71	-2°-0		Sand with plants		Sampling Device P : Piston Co D : Dredger,
Item Location	Measuring or Sampling Date	<pre>Position (Lat.:S) (Long.:E)</pre>	Water Depth (m)	Sampling Device	Bottom Material Soft Rock Soft Rock Sand Sand Silt Clay Mud Poe e e o Fragment	Deep Sea Photo No.	* Samo G

APPENDIX-5(6/7)

Data Sheet for Sampling and Deep Sea Photographing Table 5-5

Ocean survey between Bumi Anyar and Takisung

}******			r	1		1
 9-0	Feb.19	4°46.551 114°02.931	32.	<u></u> ቢ	muddy Bandy Bandy Mud Mud Mud 93	ŕ
0-5	Feb.18	4°28.75'	26.1	Ľ.	<pre>Muddy Sand massive Mud Mud is mixed all over all over 136</pre>	2
0-4	Feb.18	4°10.50'	37.	Δι	Band Sand Soft Rock (esti- mation) 87	-1
V-1-	Feb.18	3°53.481 114°33.00'1	10.7	V	Soft Rock (esti- mation) Alter- s. & C. 320	
 0-3	Feb.18	3°53.48' 114°33.00'	10.7	քե	End G. of Sand Sand Stone Diameter of G. is about 3 - 4 cm.	-
0-2	Feb.18	3°53.96' 114°29.23'	21.6	Ωı	Muđ muđđy Sand 98	•
0-1	Feb.17	3°53.14' 114°33.32'	8°6	ρı	sandy Mud - Mud - Sand Gravel is Sand Sand Iower most Mud is not soft. 42	
Item Location	Measuring or Sampling Date	<pre>Position (Lat.:S) (Long.:E)</pre>	Water Depth (m)	Sampling Device	<pre>m Material Soft Rock Soft Rock Sand Sand Clay Mud Mud Shell Shell Clay Clay Clay Clay Clay Clay Clay Cl</pre>	Deep Sea Photo No.

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\* Sampling Device P : Piston Corer, V : Vibro Corer, G : Grab Sampler D : Dredger, H : Hand

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APPENDIX-5(7/7)

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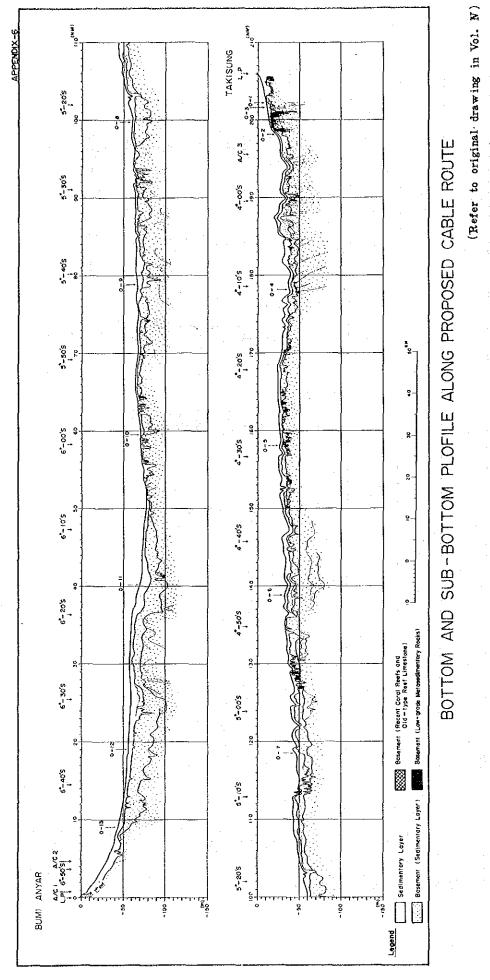
Data Sheet for Sampling and Deep Sea Photographing Table 5-6

Ocean survey between Bumi Anyar and Takisung

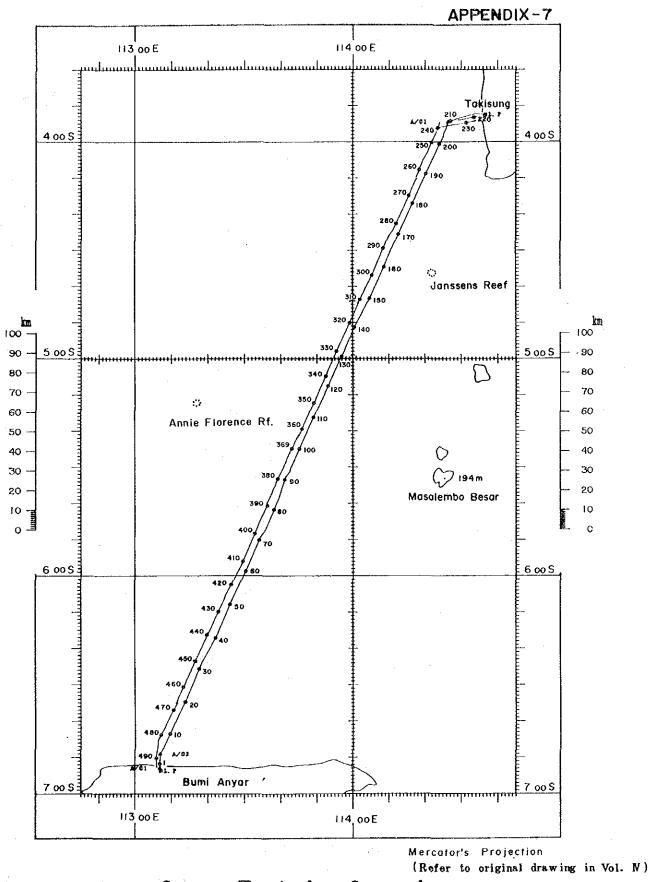
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	•					
0-13	Feb.20	6°45.06' 13°08.85'	44.	βц	Muđ sanđy Muđ Sand 151	10
0-12	Feb.20	6°35.90' 113°13.00'	56.	Ċ,	Muđ sandy Muđ 128	5
0-11	Feb.20	6°16.66'	70.	ρı	massive Muđ 140	00
0-10	Feb.19	5°58.92' 13°30.21'	70.	д	Randy Sand Mud Mud 112	2
6-0	Feb 19	5°41.10' 13°38.00'	65.	ф	dy Mud di sive Mud sive Mud s of part. ndicate viscosity.	9
α - Ο	Feb.19	5°22.08' 113°46.45'	59.	р.	Muday Ruda Mud Mud Patch of clay is mixed at lower part. Clay indicate strong viscos	<u>ب</u>
2-0	Feb.19	5°04.76'	45.	Ω4	myddy Mud Mud Mud 124	4
Location	Measuring or Sampling Date	<pre>Position (Lat.:S)   (Long.:E)</pre>	Water Depth (m)	Sampling Device	Bottom Material Soft Rock Soft Rock Sand Sand Sand Clay Mud Shell Shell Shell	Deep Sea Photo No.

V : Vibro Corer, G : Grab Sampler H : Hand \* Sampling Device
P : Piston Corer,
D : Dredger,



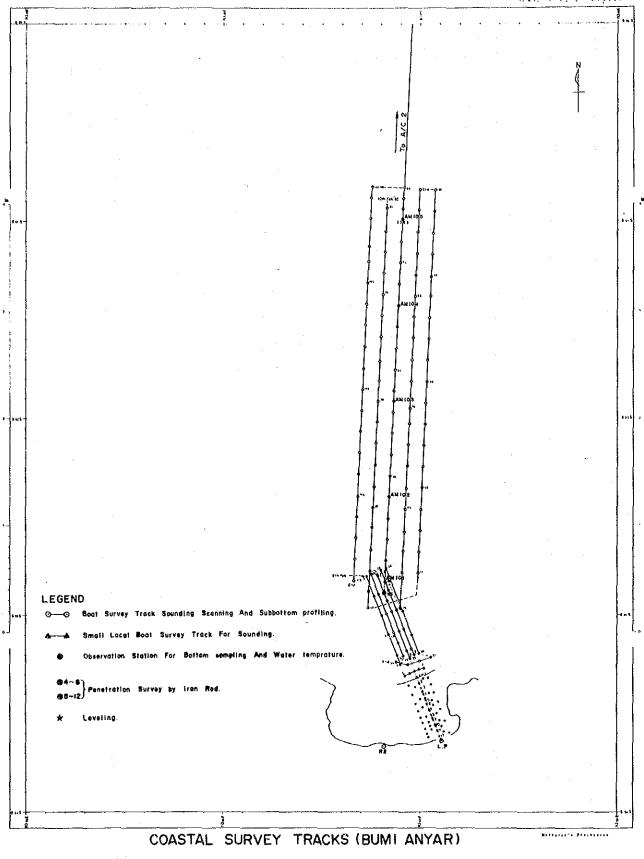
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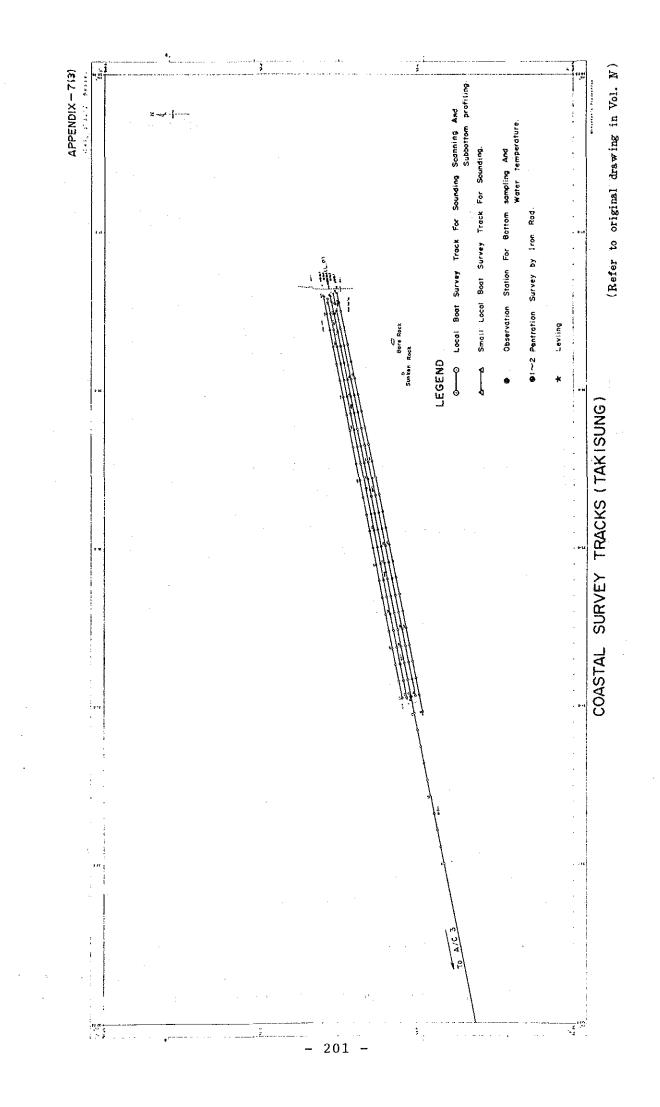
Survey Track for Ocean Area

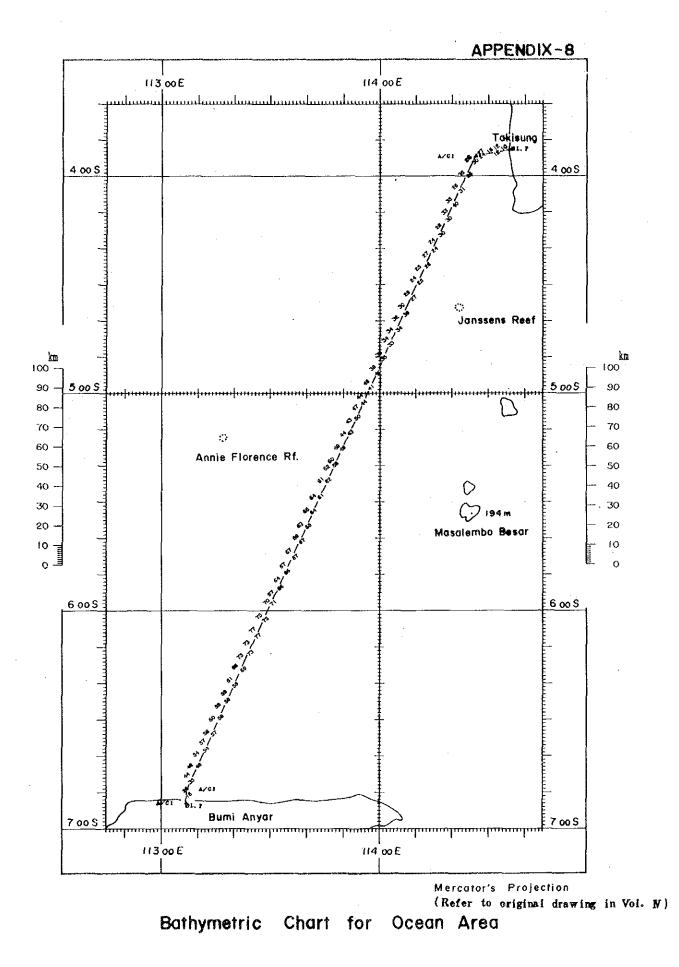


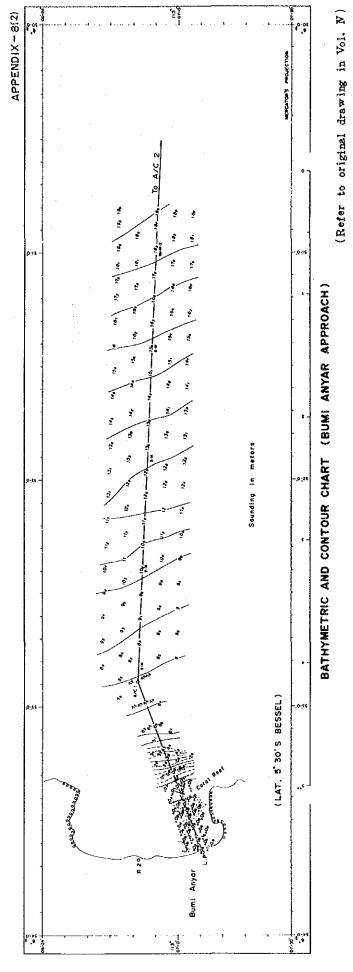
GAL 15. C BUDDE



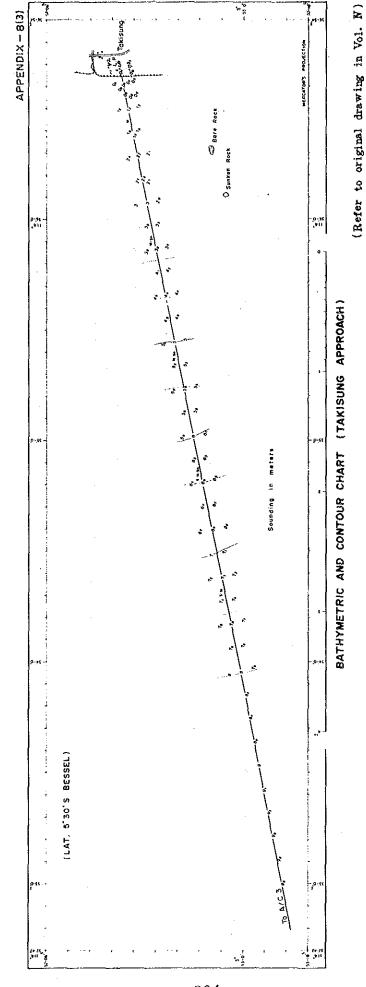
<sup>(</sup>Refer to original drawing in Vol. N)







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#### Appendix 9. Undersea Photographs

To fully understand and grasp the conditions of sea bottom on the cable route, photographing is done at ten points using a deep sea camera. On the onshore, photographing was to be conducted by a diver, but it had to be abandoned because of extremely turbid sea water.

A list of photographs is given in Table 9-1, photos in Photos No. 01 to No. 10, and the photographing points in Appendix 5.

Photo No.	Point	Water Depth (m)	Bottom	Sea Bottom Condition
1	0-4	37	Muddy sand	Totally covered with muddy sand.
2	05	26.1	Muđdy sanđ	Totally covered with muddy sand.
3	0-6	32	Muddy sand	Totally covered with muddy sand.
4	0-7	45	Muddy sand	Totally covered with muddy sand.
5	0-8	59	Muđdy sand	Totally covered with muddy sand.
6	0-9	65		Water on the upper layer of sea bottom is so turbid that no photos of the sea bottom have been obtained. Sampling results indicate the bottom is of muddy nature.
7	0-10	70	Muddy sand	Totally covered with muddy sand. Holes which appeared to be an inhabitation tube for sea-bottom creatures are scattered here and there.
8	0-11	70		The water on the upper layer of sea bottom is so turbid that no photos of the sea bottom could be obtained. Sampling results indicate that the bottom is of muddy nature.
9	0-12	56		Same as above.
10	0-13	44		Same as above.

Table 9-1 Conditions of Undersea Photographing

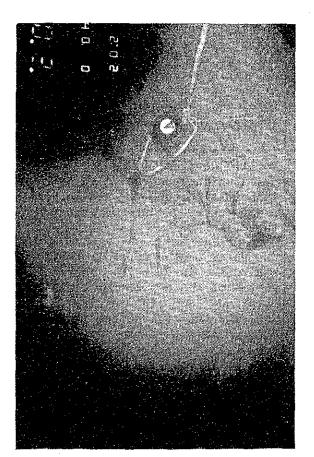


Photo No. 1 (Loc.o-4)

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Muddy Sand Muddy sand covers in all over.

Photo No. 2 (Loc.o-5) Muddy Sand Muddy sand covers in all over.

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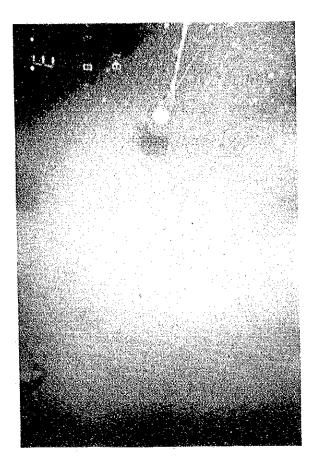


Photo No. 3 (Loc.o-6)

Muddy Sand

Muddy sand covers in all over.

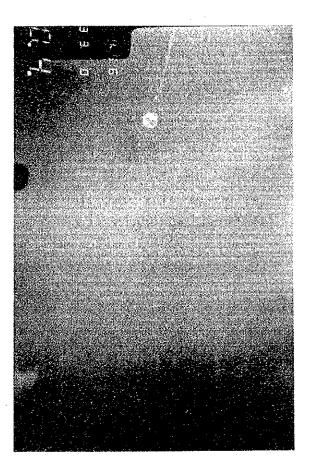


Photo No. 4 (Loc.o-7) Muddy Sand

Muddy sand covers in all over.

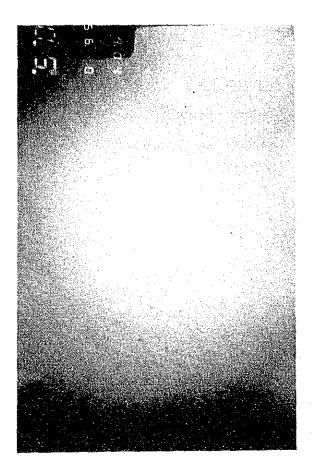
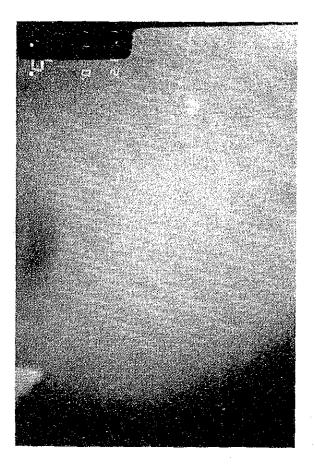


Photo No. 5 (Loc.o-8) Muddy Sand Muddy sand covers in all over.

\*



# Photo No. 6 (Loc.o-9)

No seabed information obt -ained due to very turbid sea water at right above seabed. According to bot -tom sampling, bottom mat -erial was Mud.

an music destruction of the contract of them the n se a la company de la com New York A Providence of the Second

Photo No. 7 (Loc.o-10)

#### Muddy Sand

Muddy sand covers in all over. Small burrows of benthos which can be esti -mated tubes spreads in some places.

Photo No. 8 (Loc.o-11)

No seabed information obt -ained due to very turbid sea water at right above seabed. According to bot -tom sampling, material was Mud.

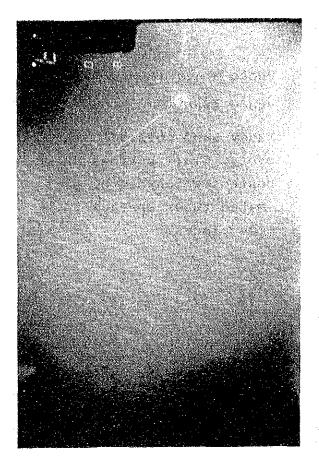


Photo No. 9 (Loc.o-12)

No seabed information obt -ained due to very turbid sea water at right above seabed. According to bot tom sampling, material was Mud.

Photo No. 10 (Loc.o-13)

No seabed information obt -ained due to very turbid sea water at right above seabed. According to bot -tom sampling, material was Mud. Appendix 10. Results of Side Scanning

# Table 10 - 1 ~ 2 Coastal Survey at Bumi Anyar

Table <u>10 - 3%11</u> Ocean Survey Table <u>10 - 12</u> Coastal Survey at Takisung

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#### Table 10-1 Result of Side Scanning in Coastal Survey

# (At Bumi Anyar, survey line No. 3)

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Fix No.	Distance From L.P (N.M)	Recorded Information
19	0.4	
		The record which is estimated to be coral was obtained out of fix No. 19. Many wavy patterns <sup>*1</sup>
17	0.6	
		Almost no information
A/C 1	0.8	

#### Remarks

\*1: The water was so shallow that waves were recorded .

It is estimated that the seafloor is almost flat and smooth as a whole.

#### Table 10-2 Result of Side Scanning in Coastal Survey

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#### (At Bumi Anyar, survey line No. 3)

	- -	
Fix No.	Distance From L.P (N.M)	Recorded Information
A/C 1	0.8	
		*1 Almost no information
80	0.9	
	· · · ·	Many wavy patterns <sup>*2</sup>
87	1.6	Dark tone band (width: about 20 m, the direction of elongation: E-W)* <sup>3</sup>
		Several wavy patterns *2
90	1.9	
		Almost no information <sup>*1</sup>
97	2.7	
	-	Several dark tone bands (width: about 50 m, the direction of elongation: $E-W$ )* <sup>4</sup>
99	2.9	ì

#### Remarks

- \*1: It is estimated that the seafloor is almost flat and smooth.
- \*2: The water is so shallow that waves were recorded.

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- \*3: According to the sounding record, the relative steep slope of the seabed affected this record.
- \*4: According to the sounding record, the gentle relief affected this record.

Fix	From L.P.		Dimple	
No.	Distance (N.M)	Density (Nos/km <sup>2</sup> )	Description	Others
1	2.0			
		0		Dark tone band*1
2	3.0			
		0		Almost no information* <sup>2</sup>
A/C 2	4.7			
	<u> </u>	0		Almost no information*2
8	8.9			
		5	<pre>Shape: Circle, ellipse, rectangle and irregular shape Size : Several tens of meters in length and width or in diameter Relative height: several tens of centimeters in the rough (hereinafter referred to as dimple of type A)</pre>	
15	15,6			
		3	Туре А	
23	23.4			
<u>.</u>		1	Туре А	
26	26.3			
		• • 7 •	Туре А	
27	27.2			
		0		Almost no information*2
43	42.8			

Table 10-3 Result of Side Scanning in Ocean Survey

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(to be continued)

Table 10-3	Result of	Side	Scanning	in Ocean	Survey	(to be c	ont'd)

Fix	From L.P.	From L.P. Dimple		Others
No.	Distance	Density	Description	Others
		3	Most dimples have irregular shape* <sup>3</sup> . The scale and the relative height are same as type A (hereinafter referred to as dimple of <u>type B</u> )	
50	49.8			

#### Remarks

\*1 : This is affected by the gentle relief according to the sounding record.

\*2 : It is estimated that the seafloor is almost flat and smooth.

\*3 : This dimple makes an irregular shape from the result that several dimples gather.

Fix	Distance	<b></b>	Dimple	Others	
No.	01000000	Density Description			
50	49.8				
		9	Туре В		
57	56.8				
			No record*1		
59 & Sur- roun dings	58.8		Gathering of rice-shaped dimples which are 10-20M in size*2 The gathering area is about 150x150M in size. (hereinafter referred to as dimple of <u>type C</u> )		
		8	Туре В		
61 & Sur- roun dings	60.8		Type C There are two gathering areas. Both of these are about 200 x 200 M in size.		
		8	Туре В		
67	66.3				
		0		Almost no information*3	
69	68.2				
		7	Туре В		
74	72.8				
		0		Almost no information* <sup>3</sup>	
75	73.7				
••••••••••••••••••••••••••••••••••••••		5	Туре В		
77	75.7			,,	

### Table 10-4 Result of Side Scanning in Ocean Survey

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(to be continued)

Table 10-4 Result of Side Scanning in Ocean Survey (to be cont'd)

#### Remarks

- \*1: Because some drifting substances caught on the tow-fish, tow-fish are withdrawn on board.
- \*2: According to the sounding record, the gathering area exists in the large scale depression.
- \*3: It is estimated that the seafloor is almost flat and smooth.

Fix	Distance		Dimple	Others	
No.	No.	DISCANCE	Density	Description	000000
77	75.7		· · · · · · · · · · · · · · · · · · ·		
		16	Туре В		
80	78.5				
<u> </u>		34	Туре В		
82	80.4				
*		16	Туре В		
87	84.7				
<b>.</b>			No Record*1		
90	87.1				
<b>.</b>	· · ·	20	Туре В		
102	98.4				

# Table 10-5 Result of Side Scanning in Ocean Survey

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#### Remarks

\*1 : Because some fishing implements caught on the tow-fish, tow-fish was withdrawn on board,

Table 10-6	Result	of	Side	Scanning	in	Ocean Survey

Fix	Distance		Dimple	Others	
No.	Distance	Density	Density Description		
102	98.4				
			Many rice-shaped dimples which are about 5 x 5 M in size gathering in the dark tone band mentioned right. (hereinafter referred to as dimple of type C')	Dark tone band*1 Those bands are 100 ∿ 1000 m in width.	
105	101.3	,			
-		17	Type B Many dimples of type C' gathering in the dark tone band mentioned right.	Between fix No. 110 and No. 111 dark tone band (about 80 M in width) was recorded.	
118	113.8				
		26	Туре В		
123	118.2				
		14	Type B Between fix No. 126 and No. 127, Many dimples of type C' gathering in the ellipse-shaped area (about 120 x 130 M in size).		
128	122.7				
		5	Туре В		
132	126.3				
		16	Туре В		
136	129.9				

Remarks

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\*1 : These dark tone bands have close relationship with topographic undulations, the wave length of which is about 300-500 M, according to the sounding record.

Fix	Distance		Dimple	Others
No.	DISCANCE	Density	Description	
136	129.9			
		5	Туре В	
140	133.4	· · · · · · · · · · · · · · · · · · ·		
	-	· · · · · · · · · · · · · · · · · · ·	Few dimples were recorded.	· · · · · · · · · · · · · · · · · · ·
143	136.0			
		11	Туре В	
144	136.8		Many dimples of type C' gathering in the small area (about 350 x 80 M in size).	- - -
		0		Dark tone band* <sup>1</sup>
145	137.8		Many dimples of type C' gather in the small area (about 400 x 800 M in size).	
			Few dimples were recorded.	
147	139.5			
		4	Туре В	
154	146.2			
		0		Dark tone band*1 (about 1 km in width)
155	147.1			
		-34	Туре В	
156	148.1		-	

# Table 10-7 Result of Side Scanning in Ocean Survey

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#### Remarks

\*1 : This dark tone band indicates convex topograpy, according to the sounding record.

Fix	Distance	Dimple		Others
No.	Distance	Density	Description	ULIEI S
156	148.1			
		9	Туре В	
158	149.9			
		1. N	Few dimples were recorded.	Recording tone is dark as a whole <sup>*1</sup>
161	152.8			
		0		Recording tone is alternation of dark tone and light tone.
163	154.9			
-		0		Striped pattern*2 Direction of arrangement: N-S Pitch: 30-50 M Recording tone is dark as a whole*1
165	156.7	• •	· · ·	
<u></u>		3	Туре В	
167	158.7			
		19	Туре В	
168	159.7			
		2	Туре В	
169	160.6			
		13	Туре В	
170	161.6			

# Table 10-8 Result of Side Scanning in Ocean Survey

Remarks

\*1 : It seems that dark tone indicates the distribution of coarser sediments, such as sandy sediments.

\*2 : It seems that this striped pattern shows sand wave. According to the shadows of record, the height of sand wave should be several tens centimeters.

Fix	Distance		Dimple	Others
No.	Distance	Density	Description	
170	161.6			
•		2	Туре В	
174	165.5			
· · · · · · · · · · · · · · · · · · ·			Many dimples of type C' gather in the dark tone area mentioned at right.	Dark tone band shape is showed in the following figure.
175	166.4			- 00 m .
		4	Туре В	
177	168.3			
		20	The dimples in this area are larger than those in the other area. Shape: Ellipse Size : Max. more than 100 M Relative height: Max. more than 1 M Direction of arrangement: NNE-SWS (hereinafter referred to as dimple of type D)	
180	171.0		· · · · · · · · · · · · · · · · · · ·	
		8	Туре В	· · · ·
181	171.9			· · · · · · · · · · · · · · · · · · ·

# Table 10-9 Result of Side Scanning in Ocean Survey

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Remarks

Fix			Dimple	· · · · · · ·
No.	Distance -	Density	Description	Others
181	171.9			
•		16	Type D The direction of the arrangement is N-S.	
182	172.8	·		
:		32	Туре В	
185	175.5			
		26 <sup>°</sup>	Туре В	
191	180.9			
		45	Туре В	
195	184.5			
		. 20	Туре В	
197	186.3		· · · · · · · · · · · · · · · · · · ·	
 - -		23	Туре В	Recording tone is dark as a whole* <sup>1</sup>
199	188.1	· · ·		
		59	Туре В	
200	189.1			

# Table 10-10 Result of Side Scanning in Ocean Survey

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Remarks

\*1 : It seems that dark tone indicates the distribution of coarser sediments, such as sandy sediments.

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'Fix	Distance	Dimp	le	Others				
No.	Distance	Density	Description					
200	189.1			•				
· · ·		38	Туре В					
205	193.0			Spotted pattern (Dark tone*1 and light tone)				
		8	Туре В	Spotted pattern (Dark tone* <sup>1</sup> and light tone)				
206	193.8							
		14	Туре В					
A/C 3	195.6							
<u> </u>		14	Туре В					
209	195.7							
		0		Almost no information*2				
213	198.9							
		0		The small areas of dark tone*1 were recorded in places				
215	200,8							
		0		Almost no information*2				
218	203.3							

# Table 10-11 Result of Side Scanning in Ocean Survey

#### Remarks

- \*1 : It seems that dark tone indicates the distribution of coarser sediments, such as sandy sediments.
  \*2 : It is estimated that the seafloor is almost flat and smooth.

## Table 10-12 Result of Side Scanning in Coastal Survey

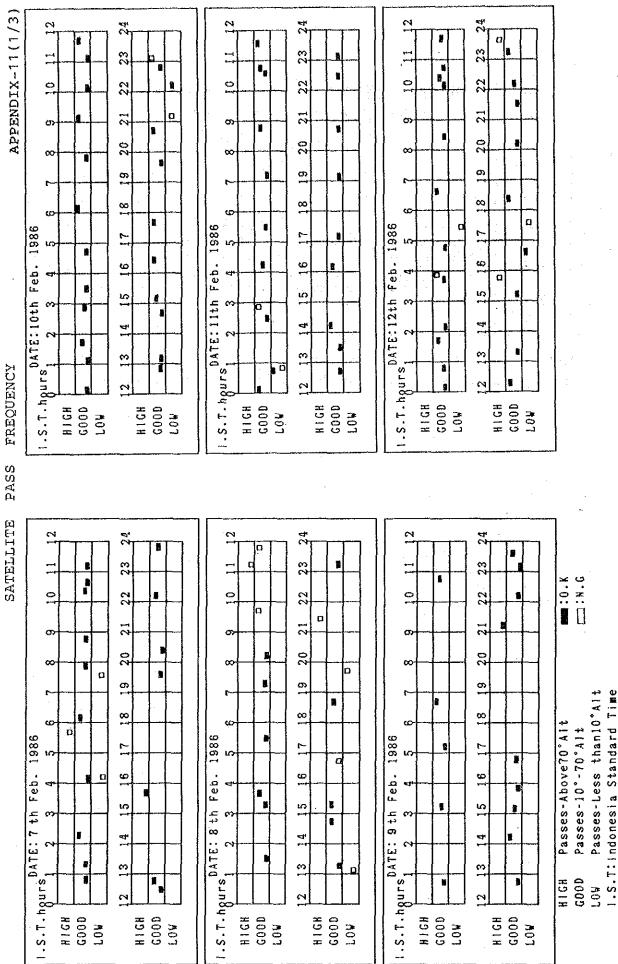
## (At Takisung, Survey line No. 3)

the first second second

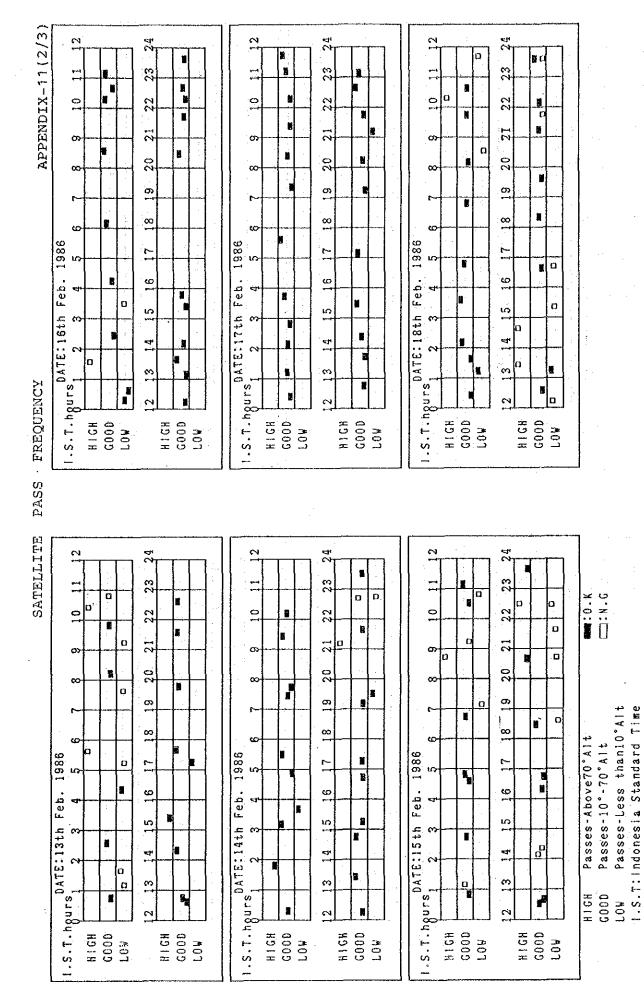
Fix No.	Distance From L.P	Recorded Information
34	202.2	
		Almost no information Wavy patterns and dark tone bands were recorded at here and there, but those were recorded caused by waves and wakes and were not true information from the seafloor.
1	205.6	

### Remarks

It is estimated as a whole that the seafloor is flat and smooth.

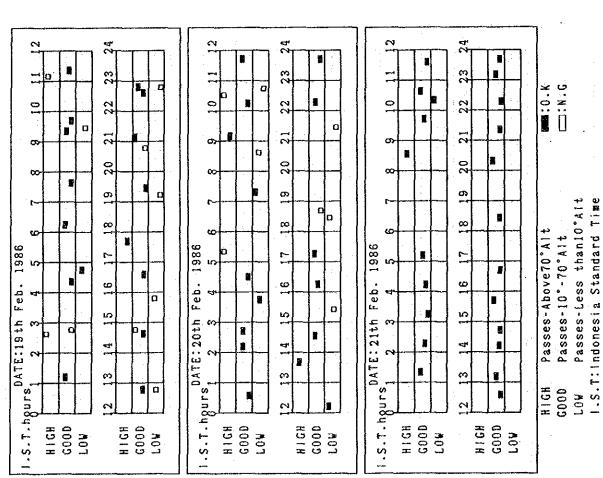


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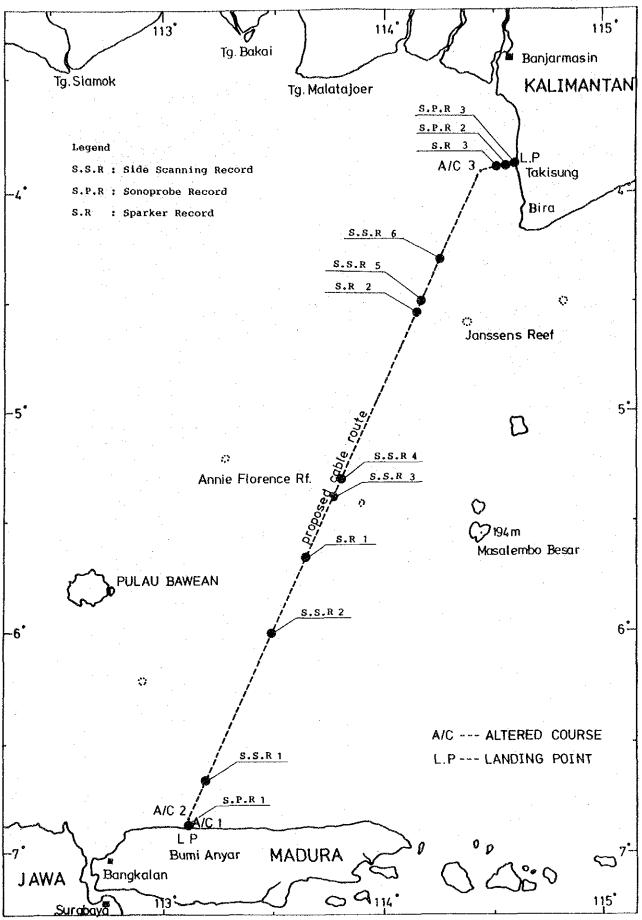
- 227 -

PASS SATELLITE



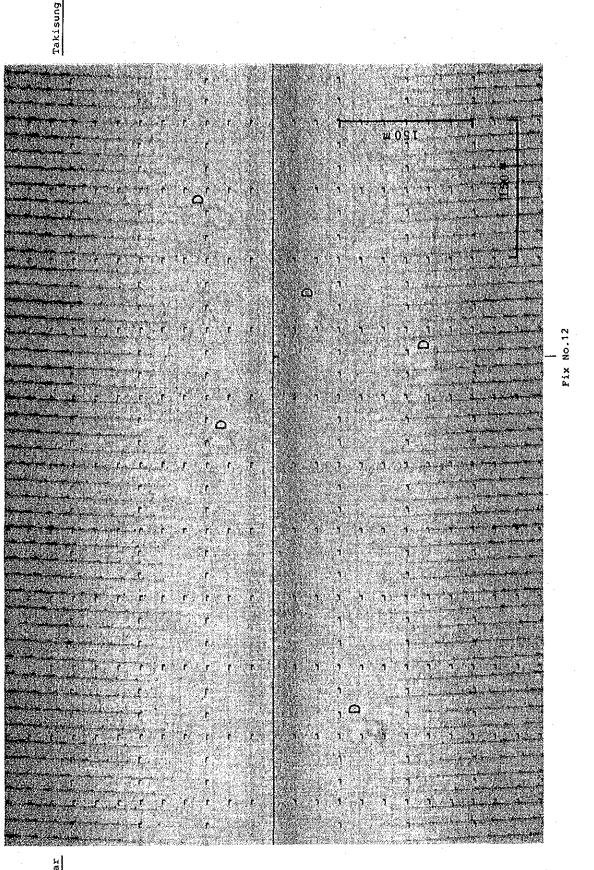
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Location Map for Record of Side Scanning, Sonoprobe and Sparker

APPENDIX-12(1/6)



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Type

Dimples of

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Side Scanning Record

Bumi Anyar

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APPENDIX-12(2/6)

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Dimples of Type C

Side Scanning Record 2

Bumi Anyar

APPENDIX-12(3/6)

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Dimples of Type C'

Side Scanning Record 3

APPENDIX-12(4/6)

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Side Scanning Record

- 233 -

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Sand Waves

Side Scanning Record

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APPENDIX-12(6/6)

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Dimples of Type D

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