Data for Natural Condition Survey Report

for

The Study

on

Maintenance Dredging

in Access Channel of Banjarmasin Port

i n

The Republic of Indonesia

·[Vol. 4/9 2. Monthly Survey] 2.3 Bottom Materal



March 1990

Japan International Cooperation Agency

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	Martina in para de la caracteria que

国際協力事業団 20844

Sampling Date during River Discharge Survey

	Stage(S	St.)						Date	
lst	stage(F-1, (F-4,		F-3)					Sep. Sep.	1988 1988
2 nd	stage(F-1,	F-2,	F-3,	F-4,	F-5)	:	19th	Nov.	1988
3rd	stage(F-1,	F-2,	F-3,	F-4,	F-5)	:	6th	Dec.	1988
4th	stage(F-1,	F-2,	F-3,	F-4,	F-5)	:	7th	Jan.	1989
5th	stage(F-1,	F-2,	F-3,	F-4.	F-5)	:	9th	Feb.	1989
6th	stage(F-1,	F-2,	F-3,	F-4,	F-5)	:	23th	March	1989
7th	stage(F-1,	F-2,	F-3,	F-4,	F-5)	:	26 th	April	1989
8th	stage(F-1,	F-2,	F-3,	F-4,	F-5)	:	25 th	May	1989
9th	stage(F-1,	F-2,	F-3,	F-4,	F-5)	:	20th	June	1989
10th	stage(F-1,	F-2,	F-3,	F-4,	F-5)	:	14th	July	1989
11th	stage(F-1,	F-2,	F-3,	F-4,	F-5)	:	30th	July	1989
12th	stage(F-1,	F-2,	F-3,	F-4,	F-5)	:	13th	Aug.	1989

Sampling Date during Saline Wedge Survey

```
Stage(St. )
                                   Date
1st stage(B,D,F,H)
                            ; 12th Oct.
                                         1988
                            ; 15th Oct.
         (A,C,E,G)
                                         1988
2nd stage(D,F,I,J)
                            ; 11th Nov.
                                         1988
          (A,B,C,E)
                            ; 16th Nov.
                                         1988
3rd stage(D,F,I,J)
                            ; 11th Dec.
                                          1988
          (A,B,C,E)
                            ; 14th Dec.
                                         1988
4th stage(D,F,I,J)
                            ; 29th Dec.
                                          1988
          (A,B,C,E)
                            ; 3th Jan. 1989
5th stage(D,F,I,J)
                            ; 31th Jan. - 1th Feb.
                                                    1989
         (A,B,C,E)
                            ; 6th Feb. 1989
6th stage(D,F,1,J)
                            ; 16th -17th March 1989
          (A,B,C,E)
                             ; 20th March 1989
7th stage(A,B,C,E)
                             ; 30th Apr.
                                          1989
          (D,F,I,J)
                             ; 13th May
                                          1989
8th stage[D,F,I(E),J(E)]
                           ; 7th May
                                          1989
          [A(E),B(E),C(E),E]; 11th June
                                          1989
                             ; 24th June
9th stage[A(E),C(E),E,G]
                                          1989
          [B(E),D,F,H]
                             ; 28th June
                                          1989
10th stage(A,C,E,G)
                               8th July
                                          1989
                            ; 10th July
          (B,D,F,H)
                                          1989
11th stage[A(E),C(E),E,G]
                            ; 22th July
                                          1989
          [B(E),D,F,H]
                             ; 26th July
                                          1989
12th stage(A,C,E,G)
                               6th Aug.
                                          1989
          (B,D,F,H)
                            ; 10th Aug.
                                          1989
```

Table 2.3-1 (1)~(60) Soil Test (Sampled During Discharge Survey)

Table 2. 3-1 (1) RESULTS OF SOIL TEST

The Study on Maintenance Dredging in The Access Chann Name of Survey : of Banjarmasin Fort. Survey Item : Bottom Material of Monthly Survey Testing Date : October 8, 1988 1st Stage (Sampled on 23rd Sep.at St. F-1,F-2,F-3 and Sampled on 24th Sep.1988 at St.F-4 and F-5.) Sample No. : F-I Depth Characteristics of Grain Distribution Gravel (more than 2000 \(\bullet \) m) % 7.80 Sand (74 - 2000 pm) 7. * Silt (5 - 74 km) 7. : 56.60 Clay (less than 5 km) 35.60 : Diameter of Maximum Grain mm : 0.84 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc': Diameter of 50 % D50 0.0092 mm Diameter of 25 % D25 mm : 0.0032 Diameter of 75 % D75 mm* 0.0378 Sorting So 0.29 : 1.43 Skewness Sk 2 Specific Gravity Gs : Natural Water Content Wn % : 160.1 ACCUPATION OF THE PROPERTY OF Li % : 12.33 Ianition Loss المنا عرب بينا بينا جنو هنا بين بين بين بين على بين المنا على المن Shear Strength (In-situ Vane Test) kgf/cm2 : 0.009 Notes From In-situ Observation Soil Name : M U D Soil Color Whitish brown : : Soft

From Soil Test : Clayey SILT trace sand

Others

Table 2, 3-1 (2) RESULTS OF SOIL TEST

The Study on Maintenance Dredging in The Access Chann Name of Survey : of Banjarmasin Port. Survey Item : Bottom Material of Monthly Survey Testing Date : October 8, 1988 1st Stage (Sampled on 23rd Sep. at St. F-1, F-2, F-3 and Sampled on 24th Sep. 1988 at St.F-4 and F-5.) مساح وجود المساح Sample No. : F-2 Depth Characteristics of Grain Distribution Gravel (more than 2000 \rangle m) % : --Sand (74 - 2000 \rangle m) % : 13.50 Silt (5 - 74 \(\mu \text{m} \) 7. 48.30 38.20 Clay (less than 5 µm) 7. Diameter of Maximum Grain mm : 0.42 Coeficient of Uniformity Uc. Coeficient of Curving Rate Uc': 0.0084 D50 D25 Diameter of 50 % mm : Diameter of 25 % 0.0025 mm : Diameter of 75 % D75 0.0322 mm : So : 0.28 Sorting Sk 1.14 Skewness : Specific Gravity Gs : Natural Water Content Wn % : 164.6 الله الأحد الله المداعة المداع Li % : 11.99 Ignition Loss AND THE PROPERTY OF THE PROPER Shear Strength (In-situ Vane Test) kgf/cm2 : 0.012 Notes From In-situ Observation : MUD

Soil Name

Soil Color

: Greenish black

Others

: No SAND

From Soil Test : SILT and CLAY with some sand

Table 2. 3-1 (3) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in The Access Chan:

of Banjarmasin Port.

Survey Item : Bottom Material of Monthly Survey

Testing Date : October 8, 1988

1st Stage (Sampled on 23rd Sep.at St. F-1,F-2,F-3 and Sampled on 24th Sep.1988 at St.F-4 and F-5.)

Sample No. : F-3
Depth :

			حجن منط کلی پیپر بشده دین و بیش کنی و
Characteristics	of Gra	in Distri	bution

Diameter of Maximum Grain mm : 0.84

Coeficient of Uniformity Uc : - Coeficient of Curving Rate Uc' : -

Diameter of 50 % D50 mm : 0.0126 Diameter of 25 % D25 mm : 0.0029 Diameter of 75 % D75 mm : 0.0851

Sorting So : 0.18 Skewness Sk : 1.55

Specific Gravity Gs : 2.68

Natural Water Content Wn % : 121.4

Ignition Loss Li % : 11.42

Shear Strength (In-situ Vane Test) kgf/cm2 : 0.012

Notes

From In-situ Observation

Soil Name : SAND (Coarse) MUD Soil Color : Brown Greenish black

Others : Surface (5 cm)

From Soil Test : Sandy clayey SILT

Table 2. 3-1 (4) RESULTS OF SOIL TEST

The Study on Maintenance Dredging in The Access Chann Name of Survey : of Banjarmasin Port. Survey Item Bottom Material of Monthly Survey Testing Date : October 8, 1988 1st Stage (Sampled on 23rd Sep.at St. F-1, F-2, F-3 and Sampled on 24th Sep. 1988 at St. F-4 and F-5.) Sample No. : F-4 Depth Characteristics of Grain Distribution Gravel (more than 2000 µm) % % : 100.00 % : -Sand (74 - 2000 \mum) Silt (5 - 74 \unbegreen \unbegreen m) Clay (less than 5 µm) : 7. Diameter of Maximum Grain mm : 0.84 Coeficient of Uniformity Uc : Coeficient of Curving Rate Uc' Diameter of 50 % D50 Diameter of 25 % D25 Diameter of 75 % D75 mm : . 0.1580 0.093 : 0.073 ጠጠ mm 0.2020 ; Sorting So 0.68 Sk : Skewness 0.75 Specific Gravity Gs : 2.72 Natural Water Content . Wn % : 37.5 Ignition Loss Li % : 2.55 Shear Strength (In-situ Vane Test) kgf/cm2 : 0.009 Notes From In-situ Observation Soil Name : muddy SAND Soil Color Others : Soft

From Soil Test : Fine SAND

Table 2. 3-1 (5) RESULTS OF SOIL TEST

The Study on Maintenance Dredging in The Access Chang Name of Survey :

of Banjarmasin Port.

Survey Item : Bottom Material of Monthly Survey

Testing Date : October 8, 1988

1st Stage (Sampled on 23rd Sep.at St. F-1,F-2,F-3 and Sampled on 24th Sep.1988 at St.F-4 and F-5.)

Sample No. : Depth

Characteristics of Grain Distribution

Gravel (more than 2000 µm) %

F-5

: % (m4 000 % : % : Sand (74 - 2000 μm) Silt (5 - 74 μm) 19.50 49.30 Clay (less than 5 km) 31.20

Diameter of Maximum Grain mm 0.42

Coeficient of Uniformity Uc : Coeficient of Curving Rate Uc'

Diameter of 50 % D50 Diameter of 25 % D25 Diameter of 75 % D75 mm : 0.0142 mm : 0.0038 0.0610 ពា៣ ៖

0.25 Sorting පිත : Skewness Sk : 1.15

Specific Gravity Natural Water Content Wn % : 94.7 Li % : 8.71 Ignition Loss

Shear Strength (In-situ Vane Test) kgf/cm2 : 0.008

Notes

From In-situ Observation

Soil Name : CLAY with sand grain

Soil Color

: Brown grey

Others

: Surface (2 cm) very soft

From Soil Test : Clayey SILT with some sand

Table 2, 3-1 (6) RESULTS OF SOIL TEST

Mame of Survey: The Study on Maintenance Dredging in -

The Access Channel of Banjarmasin Port.

Survey Item : Bottom Material (Discharge stat.) of

Monthly Survey

Testing Date : December 7 - 14, 1988

2nd Stage (Sampled on 19th Nov. 1988)

Sample No. Depth	e Fi-t					
Characterist	ics of Grain Distribu	tion		r- 1,100 B 101 P1	10 grad from 1646 and 1640 from 1656 of 165 Eye State (1616 172) if 16	
	Gravel (more than	2000 µm)	%	ŧ	w. -	
	Sand (74 - 2000 μm		%	7	2.92	
	Silt (5 - 74 µm)	%	1	44,58	
	Clay (less than 5	μm)	7,	er B	52.50	
	Diameter of Maximu	ım Grain	നമ	:	4.76	
	Coeficient of Unif	ormity	Uc	1		<u>.</u>
	Coeficient of Curv	ing Rate	Uc'	ī	, 	
	Diameter of 50 %	D50	ការព	;	0.0042	
	Diameter of 25 %	D25	mm	:		
	Diameter of 75 $\%$	D75	រាក	:	0.015	
	Sorting	÷	Sp	;		
	Skewness	•	Sk	7		
Specific Or	avity	64	i	.7 7	29 E 25 20 a 33 E	· ·
Natural Wate	er Content	Man	%	ā	140.05	
Ignition Lo			%	ă,	12,53	
Shear Stren	gth (In-situ Vane Tes					
Nates	ers a still may - na selm dijid turis di Na med Haus Make auth auth a dan eild a uite auch eile bheis gudd mas Mille f	THE MAN THE REAL PROPERTY COUNTY COUN	ng birnin aprab ni ab n ngy n n	,	n an mar fragel in gag the yang over expension and expension and the community and	
•	From In-situ Obse					
	Soil Name					
	Goil Color	: Brow				
	0.1				inside)	
	Others				s very thin	
		(\$\delta\)	rface)			

From Scil Test - 3 GILT and OLAY brace sand

Table 2.3-1 (7) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in -The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Discharge stat.) of Monthly Survey Testing Date : December 7 - 14, 1988 2nd Stage (Sampled on 19th Nov. 1988) Sample No. : F-2 Depth Characteristics of Grain Distribution Gravel (nore than 2000 μm) % : Sand $(74 - 2000 \mu m)$ % : Silt $(5 - 74 \mu m)$ % : 9.42 54.58 7. Clay (less than 5 µm) 36.00 : Diameter of Maximum Grain mm : 2.00 Coeficient of Uniformity Uc : Coeficient of Curving Rate Uc' : Diameter of 50 % D50 Diameter of 25 % D25 Diameter of 75 % D75 mm : 0.020 0.002 0.047 mm : Sorting ទី០ ៖ 0.21 0.24 Skewness $\Xi \mathbb{R}$ 3 Specific Gravity 1 2.59 Natural Water Content Wn % : 99.89 A second Ignition Loss Li % : 10.20 AND ROLL WITH THE PROPERTY OF Chear Strength (In-situ Vane Test) kgf/cm2 : 0.012 m point and great of the control of Notes From In-situ Observation Soil Name : M U 0 Gdil Color : Brown (surface) 🦠 Dark grey (inside) Others

From Soil Test | Clayey SILT with some sand

Table 2. 3-1 (8) RESULTS OF SOIL TEST

The Study on Maintenance Dredging in -Name of Survey : The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Discharge stat.) of Monthly Survey Testing Date : December 7 - 14, 1989 2nd Stage (Sampled on 19th Nov.1988) AT I SANS AND LINES AND THE TOTAL THE SANS AND THE SANS A t* F-3 Sample No. Danth A painted the part with a part with a part of the contract of the part of the part of the contract of the part of Characteristics of Grain Distribution % ; % ; Oravel (more than 2000 µm) % Sand (74 - 2000 pm) Silt ($5-74 \mu m$) Clay (less than $5 \mu m$) 38.50 7. Diameter of Maximum Grain mm : Coeficient of Uniformity Uc ŕ Coeficient of Curving Rate Uc' Diameter of 50 % D50 Diameter of 25 % D25 Diameter of 75 % D75 an : mm 0.028 mm Sa : Sorting Sk Skewness Specific Gravity ព្រះ pell galled to a tigger services. And described personal and galled galled and galled Wm % : 166.02 Natural Water Content 2. Migdan prime approximation of the contract Li X : 12,56 10. Applicable part of the state of the stat Shear Strength (In-situ Vane Test) kgf/cm2 1 0.012 . Notas From In-situ Observation Soil Mame : M U D s Sray Scil Color

9

Others

a Very Boft

From Soil Test : SILT and CLAY with some sand

Table 2, 3-1 (9) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in The Access Channel of Banjarmasin Fort.

Survey Item : Bottom Material (Discharge stat.) of Monthly Survey

Testing Date : December 7 - 14, 1988

2nd Stage (Sampled on 19th Nov.1988)

Sample No. Depth	5	•				·			
Characteristi						, _, m.r -mm. r n. r		50 min : many print of the 11/01 print to you y the 21/0 ¹¹ Prints but	
					000 pm)	7.	ŧ.	Brims	
	Sand	d (74 -	- 2000	(m)	•	7.	:	88.50	
		t (5 ·				%	2	11.50	
	Clay	y (les	s than	1 5 M	n) (7.	2		
	Di.aa	neter :	of Max	kimum	Grain	កា៣	ţ	2.00	
	Coe	ficien	t of l	Jnifo	rmity	Uc	n *		
					ng Rate		ï	Print	
	Dia	neter	of 50	7,	D50	(O:D	:	0.15	
	Dia	neter	บร์ 25	7.	D25	_{មិរ} ៣	Ľ,	0.13	
	Dla	meter	of 75	% .	D75	ጠጠ		0.18	
	Sor	ting		•		80	t	0.85	
		MITESS				Sk		1.04	
Specific Grav	vity				Gs		ä	2.64	, ,,,,,, M <i>(*1</i> 2 d
Natural Wate	r Cont	ent	•		Wn	%	3	54.28	
Ignition Los	=							5.87	**** **** **** **** *
Shear Streng					kgf/c	n2	* d	0.012	
Notees	Mire Wick has y god 6 rap d ham	out this pursue this at						, a con a se muito a per principales (1997), in the same, in self-fifth	
		an Xm≕s			ation				
	Sai	l Name			# MU	D			
	Soi	1 Cola	er"	•	: MU				
	Oth	0景作品			: Ver	y ≘oft	:		

From Boil Test; . Fine SAND with some silt

Table 2, 3-1 (10) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in -

The Access Channel of Banjarmasin Port.

Survey Item : Bottom Material (Discharge stat.) of

Monthly Survey

Testing Date : December 7 - 14, 1988

2nd Stage (Sampled on 19th Nov.1988)

Bample No. Depth	# F-5					
Characteristi	cs of Grain Distri	.bution		*		
	Gravel (more tha	•		3 4		
	Sand (74 - 2000		7.	Ä	19.00	
	Silt (5 - 74		%	2	37.00	
	Clay (less than	o pem)	%	•	44.00	
	Diameter of Maxi	imum Grain	mm	n n	2.00	
	Coeficient of U:	niformity	Uc:	u n	-	
	Coeficient of Cu			ä	. We-d	
	Diameter of 50 t	% D50	mm	:	0.008	
	Diameter of 25 :	% D25	mm'			
	Diameter of 75 :	% D75	ពាកា	3	0.045	
	Sorting		පිත	b 2		
	Skewness		Sk	ţ		
Specific Grav	vity	6)\$		i	2,59	
Natural Wate		14n	7,	3	101.41	
Ignition Los		<u>L</u> i	%	\$	9.84	
	th (In-situ Vane T					
Notes	7-04 f bis 494 t 19 2-74 beer diest telb ang 400 day 2014 vol 4-11 7-14 6-15 912 and	and the second and they yelve energy and belot annually	Man was 1999 Mills State S		and which make their real place from their grade state their sec	
	From In-situ Ob					
		: MED		JD		
	Scil Color	; 0 r	•			
	Others	: Ver	у яот	r.		

From Soil Test : Silty CLAY with some sand

Table 2. 3-1 (II) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item : Bottom Material (Discharge Station)

of Monthly Survey.

Testing Date : January 10 - 18, 1989.

3rd Stage (Sampled on 6th Dec. 1988)

Sample No. Depth	: F-1					
Characterist:	ics of Grain Distribut			turn gird trop 2005 mgs, tr	ال هنام الحجود المساورين ومناه والمام المساورة المساورة المساورة المساورة المساورة المساورة المساورة المساورة	
	Gravel (more than :	2000 um)	7.	:		
	Sand (74 - 2000 um)		%		0.96	
	Silt (5 - 74 um			:	44.72	
	Clay (less than 5 (rw)	/ .	:	54.52	
	Diameter of Maximum	n Grain	mm	:	٠, =	
	Coeficient of Unifo	ormity	Uc	:		
	Coeficient of Curv	ing Rate	e Uc'	:		
	Diameter of 50 %	D5Ø	mm)	:	0.004	
	Diameter of 25 %		mm	-		
	Diameter of 75 %		መጠ	:	0.012	
	Sorting		So	٠.		
	Skewness		Sk	• ;	· ·	
Specific Gra		Gs	m4 470 h4 44 144 141	 :	2.536	
Natural Wate	r Content	₩n	- 74		146.59	
Ignition Los		Li	/	:	12.55	
	th (In-situ Vane Test) kgf/cr	n2	:	0.014	
Notes	چىنى چىلىك كارى خاندۇ چىرىد كارى چىنى كىلى چىنى كىرى چىنى كېرى كاندۇ كىلىك كاندۇ كاندۇ كارى كەنچى چىندۇ. چىنى چىلىك كارى خاندۇ كىرىدۇ كارى چىنىدۇ كىرى كىرى كىلىدى كىرى كىرى كىرى كىرى كىرى كارى كارى كار		<u>س وحد وب</u> ر. 25, حدد 15, احد	d 200 Hee 1-0 eng		
	From In-situ Obser	vation				
	Soil Name		MEDIUM	UUM		
	Soil Color	: !	Brey			
•	Others	: '	Very Sc	oft		

Form Soil Test : CLAY and SILT

Table 2. 3-1 (12) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Fort.

Survey Item : Bottom Material (Discharge Station)

of Monthly Survey.

Testing Date : January 10 - 18, 1989.

3rd Stage (Sampled on 6th Dec. 1988)

Sample No. Depth	:				
Characteristics	s of Grain Distributi		, many 1866 2014 1874, 2014, mags 1894, Ale	per eu	ه همد بيده وميد فما مياه الس بيد هي الما وي ست
	Gravel (more than 20	100 um)	%	•	0.04
	Sand (74 - 2000 um)	_	7.	:	17.96
	Silt $(5 - 74 \text{ um})$,	%	:	34.50
	Clay (less than 5 un	n)	%	:	47.50
	Diameter of Maximum	Grain	ការា	:	~
	Coeficient of Unifor	rmity	ນດ	:	y ce
	Coeficient of Curvi	ng Rate	e Uc'		
	Diameter of 50 %	D5Ø	mm	:	0.0045
		D25	ጠጠ	ï	~~
	Diameter of 75 %	175	ww	;	0.062
	Sorting		So	:	· —
	Skewness		Sk	1	**•
Specific Gravi	ty	Gs			2.581
Natural Water		Ыn	%	1	134.29
Ignition Loss		Li	7.		
· · · · · · · · · · · · · · · · · · ·	(In-situ Vane Test)	kgf/c	πZ		0.007
Notes	هجين <u>است. جيمار چيپ هي</u> ي ميان ڪري فيدن _ڪ يون است کافر سڪ <u>ڪيو هجي سندن ميرن ميرن مين امام امام محمد</u>	ه ۱۹۹۵ کا ۱۹۹۰ کست ۱۹۹۵ کیبنا کست		***************************************	44 tres tres 144 cms unto 144 cms 144 cms
•	From In-situ Observ	ation			
	Soil Name	:	–		
	Soil Color		Brown (s Grey (in		
	Others		Very Sof		,
	Form Soil Test	:	Silty CL	ΔΥ ει	ith some sand
	i di iii dana i dasc	•	warey we	raji 979.	Y CU 35000 5000

Table 2. 3-1 (13) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Fort.

Survey Item

: Bottom Material (Discharge Station)

of Monthly Survey.

Testing Date : January 10 - 18, 1989.

3rd Stage (Sampled on 6th Dec. 1988)

Sample No. Depth	•				
Characteristic	s of Grain Distribut:				· · · · · · · · · · · · · · · · · · ·
	Gravel (more than 20	300 um)	7.	:	_
	Sand (74 - 2000 um)		%		16.00
	Silt (5 - 74 um)		7.	:	42.00
	Clay (less than 5 w	n)	%	:	42.00
	Diameter of Maximum	Grain	mm	:	
	Coeficient of Unifo	rmity	Uc	:	- ·
	Coeficient of Curvi			:	-
	Diameter of 50 %	D50	mm	:	0.0072
	Diameter of 25 %		. mm	•	
	Diameter of 75 %		mm	:	0.054
	Sorting		So		
	Skewness		Sk	:	<u></u>
Specific Grave	ity	Gs		:	2.567
Natural Water		Wn	. %	:	121.12
Ignition Loss					10.06
	h (In-situ Vane Test)	kgf/c			0.015
Notes			ه پیشت کیو پینید کست کارین نوین پینید کنوب پایا		
	From In-situ Observ	ation			•
	Soil Name	: 1	чир		•
	Soil Color	2 1	Dark Grey		·
	Others	•			

Others

Form Soil Test : CLAY and SILT with some sand

Table 2. $3-1~(\mathrm{M})$ RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item : Bottom Material (Discharge Station)

of Monthly Survey.

Testing Date : January 10 - 18, 1989.

3rd Stage (Sampled on 6th Dec. 1988)

Sample No. Depth	: F-4				
:haracteristic	s of Grain Distributi	on			
	Gravel (more than 20			:	-
	Sand (74 - 2000 um)		7.	ī	59.00
	Silt (5 - 74 um)		%	:	27.00
	Clay (less than 5 um	1)	%	:	14.00
	Diameter of Maximum	Grain	តាកា	:	e merce
	Coeficient of Unifor	mity	Uc	:	5.83
	Coeficient of Curvi		∍ N¢,	:	1.90
	Diameter of 50 %	D50	mm	:	0.09
		D25	mm	;	0.049
		D75	m m	:	0.13
	Sorting		So	:	0.61
	Skewness		Sk	:	0.79
Specific Grav	ity	Gs		;	2,617
Natural Water		₩n	7.	:	91.12
Ignition Loss	·	Li	7.		
Shear Strengt	h (In-situ Vane Test)	kgf/c	m2	:	0.027
Notes					
	From In-situ Observ		•		
	Soil Name		FINE SA SILTY C		
	Sail Color	:	Yellowi Dark gr	sh bro	
	Others	:		- /	
*	Form Soil Test	:			ith some clay

Table 2. 3-1 (15) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Fort.

Survey Item

: Bottom Material (Discharge Station)

of Monthly Survey.

Testing Date : January 10 - 18, 1989.

3rd Stage (Sampled on 6th Dec. 1988)

Sample No. Depth	: F-5			· Trans allele lange grape gr	15 Mar Carp (164 Am 174 Mar Carp (164 Am 174 Mar Mar) No. 1
Characteristic	s of Grain Distribut: Gravel (more than 20 Sand (74 - 2000 um) Silt (5 - 74 um) Clay (less than 5 um	000 um)	% % % %	:	13.10 32.40 54.50
	Diameter of Maximum	Grain	mm	:	
	Coeficient of Unifor Coeficient of Curvir		Uc' Uc'	:	<u>-</u>
	Diameter of 50 % Diameter of 25 % Diameter of 75 %	D25	ന്നൻ നൻ നൻ	:	0.003 - 0.41
	Sorting Skewness		So Sk	:	-
Specific Gravi		Gs		;	2.597
Natural Water		Иn	7,	:	78.01
Ignition Loss	•	Li	%	:	9.71
	(In-situ Vane Test)	kaf/cm	2	:	
Notes	From In-situ Observ Soil Name Soil Color Others	ation : M : G	U D rey ery Soft	······································	

Table 2.3-1(16) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Discharge stat.)

of Monthly Survey

Testing Date : January 23 - 31, 1989

4th Stage (Sampled on 7th Jan. 1989)

Sample No. Depth	: F~ :			
Characterist	ics of Grain Distribution		-: u-: u-: u-: u-: u-:	الطائب ومهان وسيد الهوم منظ ومثل المثان الكون وسند الكون وسائل الروب الك
	Gravel (more than 2000	um) %	:	
	Sand (74 - 2000 um)	%	:	2.00
	Silt (5 - 74 um)	%	:	44.0
	Clay (less than 5 um)	%	:	54.0
	Diameter of Maximum Gra	in mm	;	2.00
	Coeficient of Uniformit	y Uc	3	·
	Coeficient of Curving R	tate Uc'	•	
	Diameter of 50 % D50	mm (0.0042
*	Diameter of 25 % D25	mm i	:	-
	Diameter of 75 % D75	mm i	:	0.013
	Sorting	So	1	-
	Skewness	Sk	:	et la
Specific Gra		يس بالله ليست هجات بالمد حاجر بلنك حجين اللكاد مين	· · · · · · · · · · · · · · · · · · ·	2.550
Natural Wate	r Content Wn	<u>,</u>	1	140.70

Notes

Ignition Loss

From In-situ Observation

Shear Strength (In-situ Vane Test) kgf/cm2

Soil Name : SILT

Soil Color Brownish Grey :

Others

Form Soil Test : CLAY and SILT trace sand

Li % : 15.43

: 0.024

Table 2.3-1 (17) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in The Access Channel of Banjarmasin Fort.

Survey Item : Bottom Material (Discharge stat.)

of Monthly Survey

Testing Date : January 23 - 31, 1989

4th Stage (Sampled on 7th Jan. 1989)

Sample No. Depth	: F-2 ·				
Characteristi	cs of Grain Distributi		tion of the fact wine #200 for 1 for 1 for		ر عود شنگ هیره میشه هیره پایت اینیه میشه هدی در اینیه میشه
	Gravel (more than 20	(mir 00	7.	:	
	Sand (74 – 2000 um)		%	:	8.00
	Silt (5 - 74 um)		7.	:	38.00
	Clay (less than 5 wm	1)	%	:	54.00
	Diameter of Maximum	Grain	መመ	:	2.00
	Caeficient of Unifor	mity	Uc	•	
	Coeficient of Curvir			:	
	Diameter of 50 %	D5Ø	៣៣	:	0.003
	Diameter of 25 %		mm	:	→ ·
	Diameter of 75 %	D75	វាតា	:	0.026
	Sorting		Sa	;	
	Skewness		Sk	:	-
Specific Grav	/ity	0s	•		2.581
Natural Water	· ·	Wn	7.	ï	112.71
Ignition Loss		Li	%		10.38
Shear Strengt	ch (In-situ Vane Test)	kgf/cm	n 2	:	0.014
Notes	. سنة هنده هنده بدون ويدن ويدن فيما فقات منوا فقيل منون فيدن به المن فيدن ويون ويون بدون ويد فيدن فيدن ويد				
	From In-situ Observ	ation			
	Soil Name	: 5	BILT		•
	Scil Color	: E	Brownish	Grey	•
	Others	: .			

Form Soil Test : CLAY and SILT trace sand

Table 2, 3-1 (18) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item : Bottom Material (Discharge stat.)

of Monthly Survey

Testing Date : January 23 - 31, 1989

4th Stage (Sampled on 7th Jan. 1989)

Bample No. Depth	: T-3				
 Characteristi	cs of Grain Distributi	ion			
	Gravel (more than 20	จดด ศพ)	7. 7.	:	 5.50
	Sand (74 - 2000 um) Silt (5 - 74 um)		% %		40.50
	Clay (less than 5 w	m)		:	54.00
	Diameter of Maximum	Grain	mm	2	0.84
	Caeficient of Unifo	rmity	ŲС		
	Coeficient of Curvi	ng Rate	e Uc'	;	- -
	Diameter of 50 %	D5Ø	mm	:	0.0039
•	Diameter of 25 %		ጠጠ	:	****
	Diameter of 75 %	D75	យាយ	:	0.018
	Sorting		So	:	
	Skewness		Sk	:	an-a
Specific Gra	· · · · · · · · · · · · · · · · · · ·	Gs		•	2.570
Natural Wate	r Content	Ыn	7.		
Ignition Los		Li	/.		14.80
Shear Streng	th (In-situ Vane Test)) kgf/⊂	m2	:	0.039
Notes	هنده چاک همی ۱۳۱۹ دمی و ۱۳۱۹ بیست ۱۳۱۹ هفت کتاب ساح به بازی بیشتر به بازی بیشتر ۱۳۱۹ بیشتر ۱۳۱۹ بیشتر بیشتر بی				المناه ومناه المناه
	From In-situ Observ	vation			
	Soil Name	:	CLAY		
	Soil Color	•	Brown (•
			Grey (i	nside)

: Brown silt is very thin Others

(surface)

CLAY and SILT trace sand Form Soil Test ;

Table 2.3-1(49) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port.

Survey Item : Bottom Material (Discharge stat.)

of Monthly Survey

Testing Date : January 23 - 31, 1989

4th Stage (Sampled on 7th Jan. 1989)

Sample No. Depth	: F-4 :				
Characteristic	s of Grain Distributi	.on		. 444 pag age age a	
	Gravel (more than 20)00 um)	%	:	0.02
	Sand (74 - 2000 um)		7.	:	95.18
	Silt (5 - 74 um)			:	4.80
	Clay (less than 5 wm	a)	%	ī	<u></u>
	Diameter of Maximum	Grain	ការា	:	4.76
	Coeficient of Unifor	mity	Uc	:	1.00
	Coeficient of Curvi			*	1.6
	Diameter of 50 %	D5Ø	mm	:	0.18
	Diameter of 25 %	D25	mm	ŧ	0.15
	Diameter of 75 %	D75	mm	:	0.17
	Sorting		So	:	0.94
	Skewness		Sk	:	0.79
Specific Gravi		Gs	·		2.621
Natural Water	Content	Wm	. %	:	
Ignition Loss			7		
Shear Strength	(In-situ Vane Test)				0.015
Notes	التام الناق كون مست خاتم بينى نوب مست كو يوبيا خلفة نوب النيز ويرب جنت دكرة الني سن كور يست د				· · · · · · · · · · · · · · · · · · ·
•	From In-situ Observ	ation			4
•	Soil Name	: 1	MEDIUM SA	ND	
	Soil Color	: \	/ellowish	Brown	n .
	Others	;		7	

Form Soil Test : Fine SAND trace silt, fine gravel

fine gravel

Table 2. 3-1 (20) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Fort.

Survey Item

: Bottom Material (Discharge stat.)

of Monthly Survey

Testing Date : January 23 - 31, 1989

4th Stage (Sampled on 7th Jan. 1989)

Sample No. Depth	: F-5			
Characterist:	ics of Grain Distribution	من و من الله الله الله الله الله الله الله الل		100 -100 gr 40 ann 1000 green quan quan quan quan quan quan quan qua
	Gravel (more than 2000) ևտ) %	*	-
	Sand (74 - 2000 um)	%	:	6.00
	Silt (5 - 74 um)	7.	:	44.0
	Clay (less than 5 um)	%	:	50.0
	Diameter of Maximum Gr	ain mm	:	2.00
	Coeficient of Uniform:	ty Uc	*	
	Coeficient of Curving	Rate Uc'	Ş	· •
•	Diameter of 50 % D	mm ©ē	:	0.0055
	Diameter of 25 % D:	25 mm.	:	
	Diameter of 75 % D	75 mm		0.032
	Sorting	Sa	;	
	Skewness	Sk	:	
Specific Gra	•		<u></u> ;	2.587
Natural Wate	r Content W	7 %	;	98.76

Specific Gravity	Gs		:	2.587
Natural Water Content	Wn	7.	:	98.76
Ignition Loss	Li	%	;	10.78
Shear Strength (In-situ Vane Test)	kgf/cm	2 -	;	0.017
موسل کی در اور این ویش کی است کی در است کی بیش شدن کیش کیش کیش کیش کی کی کی در باش میں میں میں کی در این کی در				

Notes

From In-situ Observation

CLAY SILT Soil Name :

Soil Color 5 Grey

Silt is very thin (surface) Others :

Form Soil Test : CLAY and SILT trace sand

Table 2, 3-1 (21) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Port.

Survey Item : Bottom Material (Discharge Station)

of Monthly Survey

Testing Date : March 23 - 30. 1989

5th Stage (Sampled on 9th Feb. 1989)

Sample No. Depth	: F-1			
Characteristi	cs of Grain Distribution			
	Gravel (more than 2000 Um)	8	:	0.12
	Sand (74 - 2000 Um)	8	:	1.08
	Silt (5 - 74 Um)	8	:	38.80
	Clay (less than 5 Um)	ક્ર	;	60.00
	Diameter of Maximum Grain	យ្យ	:	4.760
	Coeficient of Uniformity	ŬС	:	
	Coeficient of Curving Rate	UC'	;	- -
	Diameter of 50 % (D 50)	mm	•	0.0030
	Diameter of 25 % (D 25)	mm	•	
	Diameter of 75 % (D 75)	m m	:	0.0100
	Sorting	So		
	Skewness	Sk	:	
Specific Grav	vity Gs		. :	2.59
Natural Water	Content Wn	8	:	134.08
Ignition Loss	s Li	8	:	12.15
Shear Strengt	th (In-situ Vane Test) kg	f/cm2	:	0.031
NOTES				· · · · · · · · · · · · · · · · · · ·

NOTES

From In-situ Observation Soil Name : Silt

Soil Color : Brownish Grey (Surface)

Grey (Inside)

Others

From Soil Test

: SILT and CLAY

Table 2. 3-1 (22) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Port.

Survey Item : Bottom Material (Discharge Station)

of Monthly Survey

Testing Date : March 23 - 30. 1989

5th Stage (Sampled on 9th Feb. 1989)

Sample No. Depth	: f-2 :			·	
Characteristic	s of Grain Distribution		~		~
Cuaracteriatio	Gravel (more than 2000 Um	١	95		0.02
	Sand (74 - 2000 Um)	,	ક	•	7.42
	Silt (5 - 74 Um)		8	:	38.56
	Clay (less than 5 Um)		ક્ર	:	54.00
	Diameter of Maximum Grain		mm	:	4.760
	Coeficient of Uniformity		Uc	•	
	Coeficient of Curving Rat	е	Uc'	:	
	Diameter of 50 % (D 50)		mm	:	0.0038
	Diameter of 25 % (D 25)		mm	:	
	Diameter of 75 % (D 75)		mm	:	0.0220
	Sorting		So	:	
	Skewness		Sk	:	
Specific Gravity		Gs		:	2.62
Natural Water	Content	Wn	9	:	113.01
Ignition Loss		Li	g	:	9.50
Shear Strengt	h (In-situ Vane Test)	kgf,	/cm2	:	0.014

NOTES

From In-situ Observation Soil Name : Soft Silt

Soil Color : Brownish Grey

Others :

From Soil Test

: CLAY and SILT

Table 2. 3-1 (23) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Port.

Survey Item : Bottom Material (Discharge Station)

of Monthly Survey

Testing Date : March 23 - 30. 1989

5th Stage (Sampled on 9th Feb. 1989)

Sample No.	: F~3	

Dambre	140 *	•	مہ		
Depth		:			

Characteristics of Grain Distribution Gravel (more than 2000 Um)	¥	:	
Sand (74 - 2000 Um)	g _g	:	3.54
Silt (5 - 74 Um)	ę	:	46.46
Clay (less than 5 Um)	8	:	50.00
Diameter of Maximum Grain	mm	:	2.000
Coeficient of Uniformity	Uс	:	
Coeficient of Curving Rate	ຸ່ນເ່	:	

Diameter Diameter Diameter	of.	25	ક્ર	(D	50) 25) 75)	mm mm	:	0.0050 0.0180
Sorting Skewness						So Sk	:	

Specific Gravity	Gs	:	2.64
Natural Water Content	Wn %	;	132.65
Ignition Loss	Li %	:	11.48
Shear Strength (In-situ Vane Test)	kgf/cm2	:	0.026

NOTES

From In-situ Observation Soil Name : Clay

Soil Color : Brownish Grey

Others :

From Soil Test

: SILT and CLAY trace Sand

Table 2. 3-1 (24) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Port.

Survey Item : Bottom Material (Discharge Station)

of Monthly Survey

Testing Date : March 23 - 30. 1989

5th Stage (Sampled on 9th Feb. 1989)

Sample No. Depth	: F-4 :				
Characteristics of Grain Distribution Gravel (more than 2000 Um)			8	:	
	Sand (74 - 2000 Um)		8	:	47.96
	Silt (5 - 74 Um)		ક	:	39.84
	Clay (less than 5 Um)		B	:	12.20
	Diameter of Maximum Grain		m m	:	2.000
	Coeficient of Uniformity		Uc .	:	50.00
	Coeficient of Curving Rate		Uc'	:	10.50
	Diameter of 50 % (D 50)		mm	:	0.0850
	Diameter of 25 % (D 25)		mm	:	0.0400
	Diameter of 75 % (D 75)		mm	:	0.1300
	Sorting		So	:	0.55
	Skewness		Sk	:	0.72
Specific Gra	vity	Gs		:	2.69
Natural Wate	r Content V	- Wn	· 8	:	87.80

NOTES

From In-situ Observation

Soil Name : Clayey Silt (Surface)

Fine Sand (Inside)

Soil Color

: Grey (Surface)
Grey and Brown (Inside)

Shear Strength (In-situ Vane Test) kgf/cm2 : 0.020

Others

From Soil Test

Ignition Loss

: SILT and FINE SAND with some Clay

Li % : 6.59

Table 2. 3-1 (25) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Port.

Survey Item : Bottom Material (Discharge Station)

of Monthly Survey

Testing Date : March 23 - 30. 1989

5th Stage (Sampled on 9th Feb. 1989)

Sample No. Depth	: F-5 . :			
Characteristics of Grain Distribution Gravel (more than 2000 Um)		%	*	~-
	Sand (74 - 2000 Um)	8	:	23.06
	Silt (5 - 74 Um)	용	:	46.44
	Clay (less than 5 Um)	육	:	30.50
	Diameter of Maximum Grain	m m	:	2.000
	Coeficient of Uniformity	Üс	:	- →
	Coeficient of Curving Rate	Uc'	;	
	Diameter of 50 % (D 50)	mm	:	0.0220
•	Diameter of 25 % (D 25)	mm	•	0.0033
	Diameter of 75 % (D 75)	mm	=	0.0650
	Sorting	So	;	0.23
	Skewness	Sk	:	0.44
Specific Gra	vity Gs		:	2.67
Natural Wate	r Content Wr		:	98.94

Shear Strength (In-situ Vane Test) kgf/cm2 : 0.020

Li % : 8.85

NOTES

From In-situ Observation

Soil Name : Silt with little Sand Grain

Soil Color : Brown Silt is very thin (Surface)

Dark Grey (Inside)

Others

From Soil Test

Ignition Loss

: Sandy Clayey SILT

Table 2. 3-1 (26) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Fort.

Survey Item : B o t t o m M a t e r i a 1 (Discharge Station)

of Monthly Survey

Testing Date : March. 1989

6th Stage (Sampled on 23rd Mar. 1989)

Sample No. Depth	: F-}				
Characteristic	s of Grain Distribution		·		·
	Gravel (more than 2000 Um))	7.	:	0.06
	Sand (74 - 2000 Um)		7.	:	5.86
	Silt (5 - 74 Um)		7.	:	44.08
	Clay (less than 5 Um)		%	:	50.00
	Diameter of Maximum Grain		mm	:	4.760
	Coeficient of Uniformity		Uc	ŧ	
	Coeficient of Curving Rate	₽	Uc '	:	
	Diameter of 50 % (D 50)		ጠጠ	:	0.0050
	Diameter of 25 % (D 25)		mm	:	
	Diameter of 75 % (D 75)		mm	:	0.0200
	Sorting		So	:	
	Skewness		Sk	:	
Specific Gravity		Gs			2.54
Natural Water Content					144.66
Ignition Loss		Li	%.	:	13.65
Shear Strength	(In-situ Vane Test)	kgf.	/cm2	:	0.020

NOTES

From In-situ Observation
Soil Name : S i l t

Soil Color : Brownish Grey

Others

From Soil Test

: SILT and CLAY trace Sand

Table 2. 3-1 (27) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Port.

Survey Item : Bottom Material (Discharge Station)

of Monthly Survey

Testing Date : March. 1989

6th Stage (Sampled on 23rd Mar. 1989)

: F-2			
s of Grain Distribution			
Gravel (more than 2000 Um)	7.	:	
Sand (74 ~ 2000 lm)	7		15.25
		•	34.75
Clay (less than 5 Um)	ž	;	50.00
Diameter of Maximum Grain	mm	:	2.000
Coeficient of Uniformity	υc	2	
Coeficient of Curving Rate		-	
Diameter of 50 % (D 50)	шm		0.0050
Diameter of 25 % (D 25)	mm	;	
Diameter of 75 % (D 75)	mm	:	0.0450
Sorting	So	:	
Skewness	Sk	:	
Specific Gravity Gs		:	2.61
Content Wn	%	;	118.58
Li	%	:	11.01
		:	0.015
	cs of Grain Distribution Gravel (more than 2000 Um) Sand (74 - 2000 Um) Silt (5 - 74 Um) Clay (less than 5 Um) Diameter of Maximum Grain Coeficient of Uniformity Coeficient of Curving Rate Diameter of 50 % (D 50) Diameter of 25 % (D 25) Diameter of 75 % (D 75) Sorting Skewness ity Gs Content Wn	cs of Grain Distribution Gravel (more than 2000 Um) % Sand (74 - 2000 Um) % Silt (5 - 74 Um) % Clay (less than 5 Um) % Diameter of Maximum Grain mm Coeficient of Uniformity Uc Coeficient of Curving Rate Uc Diameter of 50 % (D 50) mm Diameter of 25 % (D 25) mm Diameter of 75 % (D 75) mm Sorting Sorting Skewness Sk ity Gs Content Wn % Li %	cs of Grain Distribution Gravel (more than 2000 Um) % : Sand (74 - 2000 Um) % ; Silt (5 - 74 Um) % ; Clay (less than 5 Um) % ; Diameter of Maximum Grain mm ; Coeficient of Uniformity Uc ; Coeficient of Curving Rate Uc ; Diameter of 50 % (D 50) mm ; Diameter of 75 % (D 25) mm ; Diameter of 75 % (D 75) mm ; Sorting So ; Skewness Sk ; ity Gs ;

NOTES

From In-situ Observation

Soil Name : Silt with Fine Sand Grain

Soil Color : Brownish Grey

Others :

From Soil Test

: Silty CLAY - some Sand

Table 2.3-1 (28) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Port.

Survey Item : Bottom Material (Discharge Station)

of Monthly Survey

Testing Date : March. 1989

6th Stage (Sampled on 23rd Mar. 1989)

Sample No. Depth	: F-3 :			
Characteristic	s of Grain Distribution			
	Gravel (more than 2000 Um)	7.	:	0.21
	Sand (74 - 2000 Um)	7.	:	20.34
	Silt (5 - 74 Um)	7.	:	39.45
	Clay (less than 5 Um)	7.	:	40.00
•	Diameter of Maximum Grain	mm	:	4.760
	Coeficient of Uniformity	Иc	:	
	Coeficient of Curving Rate	U⊂'	*	
	Diameter of 50 % (D 50)	መጠ	:	0.0100
	Diameter of 25 % (D 25)	mm		
	Diameter of 75 % (D 75)	mm	*	0.0750
	Sorting	So		
	Skewness	Sk	2	
Specific Gravity			;	2.66
Natural Water		7.		81.76
Ignition Loss			;	9.19
	(In-situ Vane Test) kç	;f/cm2	;	0.038

NOTES

From In-situ Observation

Soil Name : S a n d (Surface)

Clay (Inside)

Soil Color : Yellowish Brown (Surface)

Dark Grey (Inside)

Others

From Soil Test

: CLAY and SILT - some Sand

Table 2.3-1(2)) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Port.

Survey Item : Bottom Material (Discharge Station)

of Monthly Survey

Testing Date : March. 1989

6th Stage (Sampled on 23rd Mar. 1989)

Sample No. Depth	; F-4 :			
Characteristi	lcs of Grain Distribution	, متم پينو بسبا سيب بس نة حيب سسة حم		
	Gravel (more than 2000 Um)	7.	:	Ø.13
	Sand (74 - 2000 Um)	7.	:	99.87
	Silt (5 - 74 Um)	7.	:	
	Clay (less than 5 Um)	%	:	
	Diameter of Maximum Grain	ጠጠ	:	4.760
	Coeficient of Uniformity	Иc	:	1.38
	Coeficient of Curving Rate	Uc'	:	1.41
·	Diameter of 50 % (D 50)	mm		0.1800
	Diameter of 25 % (D 25)	mm	:	0.1300
	Diameter of 75 % (D 75)	mm	:	0.2000
	Sorting	So	:	0.81
	Skewness	Sk	:	0.81
Specific Grav		5	:	2.68
Natural Water		n %	:	69.82
Ignition Los		i %		6.40
	th (In-situ Vane Test) k			0.010
NOTES	ست جدر سے جدر ہے۔ بہت باہم کان جون سبر سے جدر سے بند کینے کان کی کہ اس کے باہم بھی ہے۔	·		

NOTES

From In-situ Observation

Soil Name : Fine Sand (Surface)

Sand with Mineral Organic (Inside)

Soil Color : Yellowish Brown

Others :

From Soil Test

: FINE SAND

Table 2.3-1(30) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Port.

Survey Item : B o t t o m M a t e r i a 1 (Discharge Station)

of Monthly Survey

Testing Date : March. 1989

6th Stage (Sampled on 23rd Mar. 1989)

Sample No. Depth	: F-5 :			
Characteristi	cs of Grain Distribution			
	Gravel (more than 2000 Um)	%	:	0.11
	Sand (74 - 2000 Um)	%	:	25.86
	Silt (5 - 74 Um)	7.	:	38.03
	Clay (less than 5 Um)	%	1	36.00
	Diameter of Maximum Grain	mm	:	4.760
	Coeficient of Uniformity	Uc	:	
	Coeficient of Curving Rate	Π¢,	1	*****
	Diameter of 50 % (D 50)	mm	:	0.0300
	Diameter of 25 % (D 25)	መመ	:	0.0022
•	Diameter of 75 % (D 75)	mm	:	0.0900
	Sorting	So	:	0.16
	Skewness			0.22
Specific Gravity G			:	2.48
Natural Water		7.	:	75.61
Ignition Los				9.56
Shear Streng	th (In-situ Vane Test) kg			
NOTES	ومن بينه ومار بينه جسم حمد حمد همه همه ينه بينه فيه منه منه منه بين بني هيه الله الرد الله الرد الله			

NOTES

From In-situ Observation

Soil Name : Soft Silt (Surface)

Alternation of Silt and Clay (Inside)

Soil Color : Greyesh Brown (Surface)

Grey (Inside)

Others :

From Soil Test

: Sandy SILT and CLAY

Table 2. 3-1 (31) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Discharge stat.) of Monthly Survey Testing Date : June, 1989 7th Stage (Sampled on 26th Apr. 1989) Sample No. : F-1 Depth : ** - 10 -Characteristics of Grain Distribution Gravel (more than 2000 um) % Sand (74 - 2000 um) % 0.80 : Silt (5 -- 74 um) 7. . 43.20 Clay (less than 5 um) 7. : 56.00 Diameter of Maximum Grain mm 2.00 Coeficient of Uniformity Uc . Coeficient of Curving Rate Uc' : Diameter of 50 % D50 ហាហា # 0.0034 Diameter of 25 % D25 mm Diameter of 75 % 0.013 D75 mm : Sorting So Skewness Sk Specific Gravity : 2.58 Gs Natural Water Content Wn % : 122.13 Ignition Loss Li % : 12.62 المناسب المراس ا Shear Strength (In-situ Vane Test) kgf/cm2 : 0.031

From In-situ Observation

Soil Name

: Soft Silt (Surface)

Silt (Inside)

Soil Color

: Brown (Surface)

Grey (Inside)

Others

Notes

: With little mineral organic

(Inside)

Form Soil Test : CLAY and SILT

Table 2. 3-1 (32) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Discharge stat.) of

Monthly Survey

Testing Date : June, 1987

7th Stage (Sampled on 26th Apr. 1989)

Sample No. Depth	: F-2					
Characteristics	s of Grain Distributi	.on				* **** **** **** **** **** ***
	Gravel (more than 20		%	:	· <u>-</u>	
	Sand (74 - 2000 um)		7.	:	6.31	
	Silt $(5-74 um)$		%	:	41.69	
	Clay (less than 5 um	1)	%	ŧ	52.00	
	Diameter of Maximum	Grain	, mm	:	2.00	
	Coeficient of Unifor	mitv	Uc	:		
	Coeficient of Euryin		Uc'	2		
	Diameter of 50 %	D50	លាកា	_	CA CACAAT	
•		D25	ww min	:	0.0043	
	Diameter of 75 %		<u>መ</u> መ	:	0.02	
	Sorting		C-			
	Skewness		50 5k	:		
ور ورود المراجع المراج	ن ويور بسنا منظ بين منط فيور جدم من بسنا يعني ويدم رفط ويده فعظ ابري بيدا مداد 100 منا اساد		·	-		
Specific Gravit	ty	Gs		:		
Natural Water 6		Wп		1	128.20	
Ignition Loss		L.i	% ·	:	12.71	
	(In-situ Vane Test)				0.024	
Notes	طمة فيهم إيهوا كنفت وبيب شمير عبدو ومنا غيرة حداد خاط كالك تحيم حدد غلك وجد غيان كندار جودر غ	نجت يابان لينه هيك للبيم يوين كان		· ·		
	From In-situ Observa	ation				
	Soll Name	: Sof	ft Silt w	≀ith	Fine Sand	Grain
					with Fine	Sand
	(D-11 (D-1		ain (Insi			
	Soil Color				(Surface)	
•	Others		ownish Gr	LeA	(Inside)	
		•				
	Form Soil Test	: CLA	AY and S)	ĹŢ		
*						

Table 2. 3-1 (33) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Discharge stat.) of

Monthly Survey

Testing Date : June, 1989

7th Stage (Sampled on 26th Apr. 1989)

Sample No. Depth	: F-3 :				
Characteristic	s of Grain Distribution				
	Gravel (more than 2000 um) %	:	_	
	Sand (74 - 2000 um)	/-	:	0.60	
	Silt (5 - 74 um)	7.	:	35.40	
	Clay (less than 5 um)	7-	:	64.00	
	Diameter of Maximum Grain	mm	:	2.00	
	Coeficient of Uniformity	Uc	:	****	
	Coeficient of Curving Rat	e N⊂ʻ	:		
	Diameter of 50 % D50	យយ	:	0.0025	
	Diameter of 25 % D25	ጠጠ	:		
	Diameter of 75 % D75	መጠ	:	0.0073	
	Sorting	පිප	:	_	
	Skewness	Sk	:	-	

Specific Gravity	Gs	:	2.62
Natural Water Content	Wn %	•	97.88
Ignition Loss	Li %	:	11.71
Shear Strength (In-situ Vane Test)	kgf/cm2	:	0.056

Notes

From In-situ Observation

Soil Name : Clay Massive

Soil Color

: Grey

Others

Form Soil Test : CLAY and SILT

Table 2. 3-1 (31) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Discharge stat.) of

Monthly Survey

Testing Date : June, 1989

7th Stage (Sampled on 26th Apr. 1989)

Sample No. Depth	: F-4 :		سر لعنت فيدو بربط شفاو سطة ۱۳۹۵		
Characteristic	s of Grain Distribution)n		۔ سنے پیسہ میں بینے جینے سے بینت ہیں۔ ۔۔۔ بینت اللہ اللہ اللہ اللہ اللہ اللہ اللہ الل	
	Gravel (more than 200	DØ um) %	2	0.04	
	Sand (74 ~ 2000 um)	7.	:	85.35	
	Silt (5 - 74 um)	7.	:	14.61	
	Clay (less than 5 um)	7.	:	~	
	Diameter of Maximum (Brain mm	:	4.76	
	Coeficient of Uniform	mity Uc	:	•	
	Coeficient of Curving	g Rate Ucʻ	:	~-	
		mm 02C	:	0.17	
	Diameter of 25 % 1	025 mm	:	0.12	
	Diameter of 75 %	O75 mm	1	0.185	
	Sorting	So	:	0.81	
	Skewness	Sk	•	0.77	
Specific Grav:	ity	 3s	*	2.66	 — .

Notes

Ionition Loss

From In-situ Observation

Soil Name : Fine Sand

Natural Water Content Wn % : 52.28

Shear Strength (In-situ Vane Test) kgf/cm2 : 0.024

Li % : 2.39

Soil Color : Brown

Others

Form Soil Test : Fine SAND

Table 2.3-1 (35) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Discharge stat.) of

Monthly Survey

Testing Date : June, 1989

7th Stage (Sampled on 26th Apr. 1989)

Sample No. Depth	:					
Characterist:	ics of Grain Distribut	ion				
	Gravel (more than 2					
	Sand (74 - 2000 um)		7.		14.22 43.78	
	Silt (5 - 74 um)		%	:	42.00	
	Clay (less than 5 u	rw)	%	•	42.00	
	Diameter of Maximum	Grain	mm	:	2.00	
	Coeficient of Unifo	ormity	Uc	:		
	Coeficient of Curvi	ng Rate	∍ Ucʻ	:	Progra	
	Diameter of 50 %	D50	វាមា	:	0.12	
	Diameter of 25 %	D25	mm	:		
		D75		:	0.05	
	Sorting		So	:		
	Skewness	•	Sk	:	-	
	vity			:	2.60	·
Natural Wate	ar Content	Wn	7.	:	107.35	
Innition Los	55	Li	7.	:	9.11	
	th (In-situ Vane Test) kaf/c	.m2	:	0.020	
Notes	From In-situ Obser Soil Name	vation	.1t			

Soil Name

Soil Color : Brownish Grey

Others

Form Soil Test : CLAY and SILT with some sand

RESULTS OF SOIL TEST Table 2. 3-1 (36)

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Discharge Station)

of Monthly Survey.

Testing Date : July 6-13, 1989

8th Stage (Sampled on 25th May. 1989)

Sample No. Depth	: F→ } :			
Characterist:	ics of Grain Distribution			
	Gravel (more than 2000 um)	7.	:	***
	Sand (74 - 2000 um) -	7.	:	0.31
	Silt (5 - 74 um)	7.	:	35.69
	Clay (less than 5 um)	7.	:	64.00
	Diameter of Maximum Grain	mm	:	2.00
	Coeficient of Uniformity	Uc	:	-
	Coeficient of Curving Rate	Uc'	:	
	Diameter of 50 % D50	mm .	¥	0.0025
	Diameter of 25 % D25	mm	:	***
	Diameter of 75 % D75	៣៣	‡	0.0084
•	Sorting	So	:	
	Skewness	Sk	:	
Specific Gra			**************************************	2.58
	the second secon			4 Kg Z - 1979

Specific Gravity		65 		:	2.58	-
Natural Water Content			%			
Ignition Loss	4 812 312 317 314 31		#/ /s			
Shear Strength (In-situ Vane				*	0.012	_
Die 6 bied bem farm dem debt man man die f der Pell nam ante gege geft die er tift gem winn bebe nurg gete gent gent gent auch date da						

Notes

From In-situ Observation Soil Name : Silt

Soil Color : Greyesh Brown

Others

Form Soil Test : SILT and CLAY trace sand

Table 2. 3-1 (37) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Fort.

Survey Item

: Bottom Material (Discharge Station)

of Monthly Survey.

Testing Date

: July 6-13, 1989

8th Stage (Sampled on 25th May.1989)

Sample No. Depth	:					
Characteristics	s of Grain Distributi Gravel (more than 20 Sand (74 - 2000 um) Silt (5 - 74 um) Clay (less than 5 um	on 00 um)		:	0.37 41.63 58.00	•
	Diameter of Maximum	Grain	mm	:	2.00	
	Coeficient of Unifor Coeficient of Curvir		Uc′ Uc′	:	 	
	Diameter of 50 % Diameter of 25 % Diameter of 75 %	D5Ø D25 D75	ល់ ហំព លំក	:	0.0036 - 0.0105	
	Sorting Skewness		So Sk	:		
	ty					
Natural Water		Wn	7.	:	157.63	
Tanition loss		1 i	7.		8.05	
Shear Strength	(In-situ Vane Test)	kgf/cm	2	:	0.019	
Notes	From In-situ Observa Soil Name Soil Color Others Form Soil Test	ation : Alte : — Gr - Br : Mine	ernatio ey (Fi ownish eral Or	n of S ne San Grey ganic	ilt and Fine d) (Silt)	

Table 2. 3-1 (38) RESULTS OF SOIL TEST

Mame of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Discharge Station)

of Monthly Survey.

Testing Date

: July 6-13, 1989

8th Stage (Sampled on 25th May. 1989)

Sample No. Depth	:				701 DEL Com por 1001 DEL DEL CON PTE POR LAM SER ANN POR DES SINA L
Characteristic	s of Grain Distribution		** ### ### ### ### ### #### ###	d	ma man hay, ang p ⁱ sa man unan dud man tum man man man man mga ana bisa g
	Gravel (more than 200	0 ատ)	7.	:	0.18
	Sand (74 - 2000 um)		/	:	23.21
	Silt (5 - 74 um)		7.	:	35.61
	Clay (less than 5 um)		γ .	:	41.00
	Diameter of Maximum G	rain	mm	:	4.76
	Coeficient of Uniform	ity	Uc		
	Coeficient of Curving		Uc'	:	-
	_				
		50	mm	:	0.0118
	Diameter of 25 % D		mm	:	
	Diameter of 75 % D	75	វាជា	:	0.091
	Sorting		So		
	Skewness		Sk	:	· -
Specific Grav		is			2.64
Natural Water	Content W	ln.	7.	1	81.63
Ignition Loss		.i.	%		5.58
	h (In-sity Vane Test) k			;	Ø.307
Notes		·			عدد جون بست شدن نست دربت وجيه است است وين پورو پوره وين ست ناست داشت شاه .

From In-situ Observation

Soil Name : Clay (massive)

Soil Color

: Grey

Others

Form Soil Test : SILT and CLAY trace sand

Table 2. 3-1 (39) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Discharge Station)

of Monthly Survey.

Testing Date : July 6-13, 1989

8th Stage (Sampled on 25th May.1989)

Sample No. Depth	: F-4				**** **** **** **** **** **** **** **** ****	
Characterist	ics of Grain Distribut	ion	4 +	·		
	Gravel (more than 2	000 um)	%	:		
	Sand (74 - 2000 um)		7.	:	95.59	
	Silt (5 - 74 um)		7.	E	4.41	
	Clay (less than 5 u	m)	%	:	a	
	Diameter of Maximum	Grain	. mm	:	2.0	
	Coeficient of Unifo	rmity	Uc	:	1.75	
	Coeficient of Curvi				1.75	
	Diameter of 50 %	nsa	mm		0.194	
	Diameter of 25 %		, uuu MM	:	O 104	
•	Diameter of 75 %		mm	:	0.184 0.1942	
	2 2 (a) 12 (C) (2) 7 (a) 74	D7 C	HIII		W. 1772	
	Sorting		So	:	0.97	
	Skewness	٠	Sk	:	0.95	
Specific Gra		Gs		:	2.73	
Natural Wate	r Content	Wn	%	:	30.71	
Ignition Los		Li	۳.	:	0.81	
Shear Streng	th (In-situ Vane Test)	kgf/c	m2	3	0.043	
Notes	r Pet hall t all must man east d'un Jone duct pap map gibl 2000 dess mai ann 2015 pape ess gibt 2000 de			**		
	From In-situ Observ	/ation				
	Soil Name Soil Color	: Med	ium San Wn	d (Ver	ry light)	
	Others	;				

Form Soil Test : Fine SAND trace silt

Table 2, 3-1 (40) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Itam : Bottom Material (Discharge Station) of Monthly Survey. Testing Date : July 6-13, 1989 8th Stage (Sampled on 25th May. 1989) Sample No. : F-5 Depth Characteristics of Grain Distribution Gravel (more than 2000 um) % : Sand (74 - 2000 um) 7. : 6.67 7. Silt (5 - 74 um) : 39.33 Clay (less than 5 um) 7. 54.00 : Diameter of Maximum Grain mm : 2.00 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' Diameter of 50 % D50 0.0032 ជាលា : Diameter of 25 % D25 mm Diameter of 75 % 0.024 D75 មាយ Sorting So Sk Skewness Specific Gravity Gs : 2.59 Mn % Natural Water Content : 123.96 Li % : 9.36 Ignition Loss Shear Strength (In-situ Vane Test) kgf/cm2 : 0.009 Notes From In-situ Observation Soil Name : Silt is Very Thin (Surface) Silt (Inside) Soil Color : Brown (Surface) Grey (Inside) Others Form Soil Test : SILT and CLAY trace sand

Table 2. 3-1 (41) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Discharge Station)

of Monthly Survey

Testing Date : August 7-12, 1989

9th Stage (Sampled on 20th June 1989)

	کے پیپار سے کیک کام ہے۔ دیا دیا دیا ایک ایک ایک ایک ایک ایک ایک ایک ایک ا				
Sample No. Depth	:				
Characteristic	s of Grain Distribution				
01101 00 001 13010	Gravel (more than 200		7.		0.21
	Sand (74 - 2000 um)	DE GINI	7.	-	0.55
	Silt (5 - 74 um)		7.		35.24
	Clay (less than 5 um)			:	64.00
	Diameter of Maximum (Grain	ώw	:	9.52
	Coeficient of Uniform	nity	Uc	:	~
	Coeficient of Curving	g Rate	Uc'	:	
	Diameter of 50 % I		mm	:	0.0025
	Diameter of 25 % I	D25	mm	:	·
	Diameter of 75 % I	D75	mm	:	0.0084
	Sorting		So	:	-
	Skewness		Sk	•	
Specific Gravi	ty	Gs		:	2.61
Natural Water	Content	Mu	%	:	155.74
Shear Strength	ı (In-situ Vane Test) !	kgf/cm:	2	:	0.022
	·				

Notes

From In-situ Observation

Soil Name : Course Silt
Soil Color : Brownish Grey

Others

Form Soil Test : SILT and CLAY trace sand

Table 2, 3-1 (42) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Discharge Station)

of Monthly Survey

Testing Date : August 7-12, 1989

9th Stage (Sampled on 20th June 1989)

Sample No. Depth	: F-Z				
Characteristic	s of Grain Distributi	on			
	Gravel (more than 20		%	:	-
	Sand (74 - 2000 um)		%	:	12.44
	Silt (5 - 74 um)		7.	:	41.56
	Clay (less than 5 un	n)	7.	:	46.00
	Diameter of Maximum	Grain	mm	:	2.00
	Coeficient of Unifor	mity	Uc	:	_
	Coeficient of Curvir			:	
	Diameter of 50 %	D50	መጠ		0.007
	Diameter of 25 %	D25	៣៣	:	
	Diameter of 25 % Diameter of 75 %	D75	መጠ	:	0.033
	Sorting		So	:	_
	Skewness		Sk	:	
Specific Gravi	ty	Gs		•	2 66
Natural Water	Content	Wn	%		117 MA
Idnition Laca		1 2	**		
	n (In-situ Vane Test)	kgf/cm	2	:	0.022
Notes	From In-situ Observa Soil Name Soil Color Others	ation : Cour	se Silt.	with	Fine Sand Grain

Form Soil Test : SILT and CLAY some sand

Table 2. 3-1 (43) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. : Bottom Material (Discharge Station) Survey Item of Monthly Survey

Testing Date : August 7-12, 1989

Sample No. Depth	: F-3 :				
Characteristic	s of Grain Distribution	1			
	Gravel (more than 2000	2 ստ) %	:	0.01	
	Sand (74 – 2000 um)	7.	:	13.58	
	Silt (5 - 74 um)	%	: .	39.41	
	Clay (less than 5 um)	%	:	47.00	
	Diameter of Maximum G	rain mm	:	4.76	
	Coeficient of Uniform	ity Uc .	:		
	Coeficient of Curving	Rate Uc'	:		
	Diameter of 50 % D	50 mm	;	0.0062	
·	Diameter of 25 % D	25 mm	. :		
	Diameter of 75 % D	75 mm	:	0.031	
	Sarting	So	:		
	Skewness	Sk	:	-	

Specific Gravity	Gs	:	2.62
Natural Water Content	Wn %	:	154.06
Ignition Loss	Li %	:	13.77
Shear Strength (In-situ Vane Test)	kgf/cm2	:	0.022

Notes

From In-situ Observation

: Sand (Surface) Soil Name

Silty Clay (Inside)
: Brown (Surface) Soil Color . Grey (Inside)

: With mineral organic (Inside) Others

Form Soil Test : SILT and CLAY some sand

Table 2. 3-1 (4) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Discharge Station)

of Monthly Survey

Testing Date : August 7-12, 1989

9th Stage (Sampled on 20th June 1989)

Sample No. Depth	: F-4 :				
Characterist	ics of Grain Distribution	n		~ ~~ ~~ ~~ ~~	والمراجع المراجع
	Gravel (more than 200	0 um)	7.	:	0.35
	Sand (74 - 2000 um)		7.	:	86.71
	Silt (5 - 74 um)		7.	;	12.94
	Clay (less than 5 um)		7.	2	~
	Diameter of Maximum G	rain	mm	:	4.76
	Coeficient of Uniform	ity	Uc		
	Coeficient of Curving		Uc'	:	
	Diameter of 50 % D	50	mm	:	0.139
	Diameter of 25 % D	25	mm	:	0.106
	Diameter of 75 % D	75	mm	. :	0.140
	Sorting		So	:	0.87
	Skewness		Sk	:	0.77
					عدد عدد بعدد الله المدا الله المدا الله المدا الله الله الله الله الله الله الله ال
Specific Gra	vity G) S		:	2.71
)n	%	*	68.53
Ignition Los				_	4.88
	th (In-situ Vane Test) k				
Notes				**** **** *** *** ***	ے عصد است جسے جینا اِست جب

From In-situ Observation

Soil Name : Sand, very light

Soil Color

: Brown

Others

: With Little Mineral Organic

Form Soil Test : Fine SAND, some silt

RESULTS OF SOIL TEST Table 2. 3-1 (45)

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port.

: Bottom Material (Discharge Station) Survey Item

of Monthly Survey

: August 7-12, 1989 Testing Date

9th Stage (Sampled on 20th June 1989)

Sample No. Depth	: F-5					
Characteristics	of Grain Distributi					
	Gravel (more than 20		7.	•	0.10	
	Sand (74 - 2000 um)		7.	:	14.36	
	Silt (5 - 74 um)		%	2	39.54	
	Clay (less than 5 un	1)	%	=	46.00	
	Diameter of Maximum	Grain	mm		4.76	
	Coeficient of Unifor	rmity	Uc	2		
	Coeficient of Curvin	-	U⊂'	:	_	
	Diameter of 50 %	D50	ጠጠ	:	0.007	
•	Diameter of 25 %	D25	mm	:	-	•
	Diameter of 75 %	D75	mm	:	0.044	
	Sorting		So	2	·	
	Skewness		Sk	:	-	
Specific Gravi	ty	Gs	<u> </u>		2.69	
Natural Water	Content	Wn	7.	:	103.51	
Ignition Loss		Li .	%	1	7.37	
	(In-situ Vane Test)				0.022	
Notes	في الله والله والله الله الله الله الله ال					
	From In-situ Observ				· ·	
	Soil Name				Band Grain	
	Soil Color				Burface)	
	Others	Grey :	/ (Insi	a 6)		
		-		٠.		
	Form Soil Test	: SIL	T and C	LAY so	ome sand	

Table 2. 3-1 (46) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Discharge Station)

of Monthly Survey

Testing Date : August 11-15, 1989

10th Stage (Sampled on 14th July 1989)

:					
s of Grain Distribut Gravel (more than 2 Sand (74 - 2000 um) Silt (5 - 74 um) Clay (less than 5 u	ion 000 um) m)	% % % %	:	- 8.28 31.72 60.00	
		Uc '	: :		
		መመ መጠ	:	0.002 - 0.015	
Sorting Skewness		Sp Sk	# # #	. - ·	
ltv	Gs		:	2.64	
Content	Wn	%	:	108.77	
	Li				
ı (In-situ Vane Test)	kgf/cm				
From In-situ Observ	vation : Mud Silt : Brow	(Surfa with n (Sur	ce) Fine S face)		•
	s of Grain Distribut Gravel (more than 2 Sand (74 - 2000 um) Silt (5 - 74 um) Clay (less than 5 u Diameter of Maximum Coeficient of Unifo Coeficient of Curvi Diameter of 50 % Diameter of 25 % Diameter of 75 % Sorting Skewness Ity Content (In-situ Vane Test) From In-situ Observ Soil Name	s of Grain Distribution Gravel (more than 2000 um) Sand (74 - 2000 um) Silt (5 - 74 um) Clay (less than 5 um) Diameter of Maximum Grain Coeficient of Uniformity Coeficient of Curving Rate Diameter of 50 % D50 Diameter of 25 % D25 Diameter of 75 % D75 Sorting Skewness Ly Gs Content Wn Li (In-situ Vane Test) kgf/cm From In-situ Observation Soil Name Mud Silt	s of Grain Distribution Gravel (more than 2000 um) % Sand (74 - 2000 um) % Silt (5 - 74 um) % Clay (less than 5 um) % Diameter of Maximum Grain mm Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' Diameter of 50 % D50 mm Diameter of 25 % D25 mm Diameter of 75 % D75 mm Sorting So Skewness Sk Content Wn % Li % (In-situ Vane Test) kgf/cm2 From In-situ Observation Soil Name : Mud (Surface Silt with)	s of Grain Distribution Gravel (more than 2000 um) % : Sand (74 - 2000 um) % : Silt (5 - 74 um) % : Clay (less than 5 um) % : Diameter of Maximum Grain mm : Coeficient of Uniformity Uc : Coeficient of Curving Rate Uc' : Diameter of 50 % D50 mm : Diameter of 25 % D25 mm : Diameter of 75 % D75 mm : Sorting So : Skewness Sk : Li % : Content Wn % : Li % : The (In-situ Vane Test) kgf/cm2 : From In-situ Observation Soil Name : Mud (Surface) Silt with Fine S	: s of Grain Distribution Gravel (more than 2000 um) % : - Sand (74 - 2000 um) % : 8.28 Silt (5 - 74 um) % : 31.72 Clay (less than 5 um) % : 60.00 Diameter of Maximum Grain mm : 2.00 Coeficient of Uniformity Uc : - Coeficient of Curving Rate Uc' : - Diameter of 50 % D50 mm : 0.002 Diameter of 25 % D25 mm : - Diameter of 75 % D75 mm : 0.015 Sorting So : - Skewness Sk : - Li % : 8.51 (In-situ Vane Test) kgf/cm2 : 0.027 From In-situ Observation Soil Name : Mud (Surface) Silt with Fine Sand (Inside)

Form Soil Test : Silty CLAY trace sand

Table 2. 3-1 (47) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Discharge Station)

of Monthly Survey

Testing Date : August 11-15, 1989

10th Stage (Sampled on 14th JUly 1989)

Sample No. Depth	: F-2 :				
Characterist:	ics of Grain Distribu	tion			
	Gravel (more than :		%	:	0.08
	Sand (74 - 2000 um)	7.	:	94.35
	Silt (5 - 74 um)	7.	:	5.57
	Clay (less than 5 m	ւտ)	%	:	
	Diameter of Maximum	m Grain	mm	:	4.76
	Coeficient of Unif	ormity	U⊂	:	1.60
	Coeficient of Cury	ing Kate	Uc'	.:	1.22
	Diameter of 50 %	D5Ø	mm	;	0.141
	Diameter of 25 %	D25	mm	: .	0.134
	Diameter of 75 %	D75	mm	:	Ø.2102
	Sorting	· · ·	So	:	0.80
	Skewness		Sk	:	1.42
Specific Gra	vity	 Gs		:	2.70
Natural Wate	r Content	Wn	%		52.70
Ignition Los	5	Li	7,	:	3.05

Notes

From In-situ Observation Soil Name : Silt

: Brownish Grey Sail Color

Shear Strength (In-situ Vane Test) kgf/cm2 : 0.010

Others

Form Soil Test : Fine SAND trace silt

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Table 2. 3-1 (48) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Discharge Station)

of Monthly Survey

Testing Date : August 11-15, 1989

10th Stage (Sampled on 14th JUly 1989)

Sample No. Depth	:			
Characteristic	s of Grain Distribution			ي هيد بود منه هند چيب رسه رسه نشا نين يي روي بند بند د د
	Gravel (more than 2000	um) %	:	
	Sand (74 - 2000 um)	%	:	11.54
	Silt (5 - 74 um)	7.	:	28.46
	Clay (less than 5 um)	7.	:	40.00
•	Diameter of Maximum Gra	in mm	:	2.00
	Coeficient of Uniformit	y Uc	:	
	Coeficient of Curving R	ate Ucʻ	:	
	Diameter of 50 % D50	иw		0.0028
	Diameter of 25 % D25	mm	:	
	Diameter of 75 % D75	mm	:	0.0210
	Sorting	So		←
	Skewness	Sk	:	
Specific Gravi	•		1.	2.66
Natural Water	Content Wn	%	:	103.35
Ignition Loss		7,		10.77
Shear Strength	(In-situ Vane Test) kgf		·—	

Notes

From In-situ Observation

Soil Name : Clay with little sand

Soil Color

: Brownish Grey

Others

: Soil sample is not enough

to be measured by Vane Test.

Form Soil Test

: Silty CLAY trace sand

Table 2. 3-1 (49) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

: Bottom Material (Discharge Station) Survey Item

of Monthly Survey

Testing Date : August 11-15, 1989

10th Stage (Sampled on 14th July 1989)

وسكار فونيا ومثلة ومناه فالمار فالمار المارة ومينا وهوي ومثور سناة ويريا	عين الله الله الله الله الله الله الله الل				
Sample No. Depth	: F-4 :				
Characteristic	s of Grain Distribution	ì			
	Gravel (more than 2000	ð um) %	:	0.04	
	Sand (74 - 2000 um)	7.	:	18.01	
	Silt (5 - 74 um)	7.	:	37.95	
	Clay (less than 5 um)	7.	:	44.00	
	Diameter of Maximum G	rain mm	2	4.76	
	Coeficient of Uniform	ity Uc	:	-	
	Coeficient of Curving	Rate Ucʻ	1		
	Diameter of 50 % D	mm 02	:	0.0079	
	Diameter of 25 % Diameter	25 - თთ	:	-	
	Diameter of 75 % D	75 mm		0.043	
	Sorting	So	:	_	
	Skewness	Sk	:		

Specific Gravity	Gs		:	2.61
Natural Water Content	Wn	7.	;	127.29
Ignition Loss	Li	7.	:	7.81
Shear Strength (In-situ Vane Test)	kgf/cm	12	:	0.017

Notes

From In-situ Observation

Soil Name : Medium Sand Soil Color : Brownish Grey

Others

Form Soil Test : SILT and CLAY

Table 2. 3-1 (51) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Discharge Station)

of Monthly Survey

Testing Date : August 11-15, 1989

10th Stage (Sampled on 14th July 1989)

Sample No. Depth	: F-5				
Characteristi	cs of Grain Distribution				
	Gravel (more than 2000 c	ım) %	:		
	Sand (74 - 2000 um)	%	*	· 0.39	
	Silt (5 - 74 um)	%	:	29.61	
	Clay (less than 5 um)	%	:	70.00	
	Diameter of Maximum Grai	in mm	:	2.00	
	Coeficient of Uniformity	/ Uc	:		
	Coeficient of Curving R	ate Uc'	:		
	Diameter of 50 % D50	mm	•	<u>-</u>	
	Diameter of 25 % D25	መመ	:	- -	
	Diameter of 75 % D75	МШ	:	0.0066	
	Sorting	So		<u></u>	
	Skewness	Sk	•	inst	
Specific Grav	ity Gs		· — — — · · · · · · · · · · · · · · · ·	2.60	
Natural Water		7.		123.94	······································
Ignition Loss		%	:	12.63	
Shear Strengt	h (In-situ Vane Test) kgf	 /cm2	:	0.017	

From In-situ Observation

Spil Name : Silty clay with Fine Sand

Soil Color

: Brownish Grey

Others

Form Soil Test : Silty CLAY trace sand

Table 2. 3-1 (51) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item : Bottom Material (Discharge Station)

of Monthly Survey

Testing Date : August 24-30, 1989

11th Stage (Sampled on 30th July 1989)

Sample No. Depth	2					
Characteristic	s of Grain Distributi		· · · · · · · · · · · · · · · · · · ·		بسيد ششته شوين بيوس بسبب جانون ويشي انسان الطبي ويسيد منظات الساني د	
	Gravel (more than 20	100 um)	7.	:		
	Sand (74 - 2000 um)		7.	:	Ø.56	
	Silt (5 - 74 um)		7.	:	33.44	
	Clay (less than 5 um	1)	%	:	66.00	
	Diameter of Maximum	Grain	mm	:	0.42	
	Coeficient of Unifor	mity	Uc	:	· ·	
	Coeficient of Curvir	ng Rate	∪⊏'	:	-	
	Diameter of 50 %	D5Ø	mm	:	0.0017	
	Diameter of 25 %	D25	mm	:	-	
	Diameter of 75 %	D75	መመ	:	0.0091	
	Sorting		Sø	:		
	Skewness		Sk	:	- .	
Specific Grav:	ity	 Gs			2.74	
Natural Water		Wn	7.		207.24	
Ignition Loss					14.22	
	h (In-situ Vane Test)				0.005	

From In-situ Observation

Soil Name : Mud
Soil Color : BrownsGrey

Others

Form Soil Test : Silty CLAY trace sand

Table 2. 3-1 (52) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item : Bottom Material (Discharge Station)

of Monthly Survey

Testing Date : August 24-30, 1989

11th Stage (Sampled on 30th July 1989)

Sample No. Depth	: F-2 :	·			
Characteristic	s of Grain Distributi	ion			مهد همد جمع بالدو همه همه به بالدو بالدو المنظ
	Gravel (more than 20	000 um)	7.	:	
•	Sand (74 - 2000 um)		%	:	46.16
	Silt (5 - 74 um)		7.	:	38.84
	Clay (less than 5 un	n)	%	1	15.00
	Diameter of Maximum	Grain	ww	:	2.00
	Coeficient of Unifor	rmity	Uc	:	****
	Coeficient of Curvi	ng Rate	Uc'	:	-
	Diameter of 50 %	D5Ø	mm	. :	0.071
	Diameter of 25 %	D25	mm	:	0.025
	Diameter of 75 %	D75	mm	.:.	0.095
	Sorting		So	1	0.51
	Skewness		Sk	:	0.47
Specific Grav	ity	 Gs		:	2.55
Natural Water	Content	Mu	7.		62.62
Ignition Loss	بالله على الله الله الله الله الله الله الله ال	Li	7.		6.70

Notes

From In-situ Observation

Soil Name : Fine Sand with little Mud

Soil Color : Brownish Grey

Others

Shear Strength (In-situ Vane Test) kgf/cm2

Form Soil Test : SILT and Fine SAND, some clay

Table 2. 3-1 (S3) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Discharge Station)

of Monthly Survey

Testing Date : August 24-30, 1989

11th Stage (Sampled on 30th July 1989)

Sample No. Depth	:				
Characterist.	ics of Grain Distribution				
	Gravel (more than 2000	um) %	:	-	
	Sand (74 - 2000 um)	%	:	22.90	
	Silt (5 - 74 um)	7.	:	45.10	
	Clay (less than 5 um)	7.	:	32.00	
•	Diameter of Maximum Gr	ain mm	:	2.00	
	Coeficient of Uniformi	ty Uc	:		
	Coeficient of Curving		· •	-	
	Diameter of 50 % D5	mm Ø		0.02	
	Diameter of 25 % D2		_	0.003	
	Diameter of 75 % D7			0.071	
	Sorting	So		0.21	
	Skewness		:	0.53	
	من برد	· -	·		
Specific Gra	vity Gs		:	2.59	
Natural Wate	r Content Wn		:	143.27	
Ignition Los			# #	11.32	——————————————————————————————————————
Shear Streng	th (In-situ Vane Test) kg	f/cm2		0.020	
Notes	است والله الله الله الله الله الله الله الل				

Notes

From In-situ Observation

Soil Name : Silty Clay Soil Color : Dark Grey

Others

Form Soil Test : Clayey SILT, some Sand

Table 2.3-1 (54) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Discharge Station)

of Monthly Survey

Testing Date : August 24-30, 1989

11th Stage (Sampled on 30th July 1989)

Sample No. Depth						
Characterist	ics of Grain Distributi		T1 777 778 778 127 178 778			
	Gravel (more than 20	100 um)	%	:	_	
	Sand (74 – 2000 um)		7.	:	90.50	
	Silt (5 - 74 um)		/	:	9.50	
	Clay (less than 5 un	n)	%	:	-	
	Diameter of Maximum	Grain	mm	:	2.00	
	Coeficient of Unifor	rmity	Uc	:	2.74	
	Coeficient of Curvi	ng Rate	U⊂'	:	1.14	
	Diameter of 50 %	D50	mm	:	0.189	
•	Diameter of 25 %	D25	mm		0.128	
	Diameter of 75 %		mm	:	Ø.257	
	Sorting		So		0.71	
	Skewness		Sk	•	0.92	
Specific Gra	vity	Gs		:	2.69	
Natural Wate		Wm.	7.		45.92	
Ignition Los						
Shear Streng	th (In-situ Vane Test)	kgf/cm	2	:	0.014	
Notes						
	From In-situ Observ	ation				
	Soil Name	: Fine	Sand	with]	little Mud	
	Soil Color	: Brow				
	Others	:				

Form Soil Test

: Fine SAND trace silt

Table 2.3-1 (55) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Discharge Station)

of Monthly Survey

Testing Date : August 24-30, 1989

11th Stage (Sampled on 30th July 1989)

Sample No. Depth	: F-5		·		to (m. 170 m) and (m.
Characterist	cs of Grain Distribut	ion	·		ر شون جان هید شده است این و شد بیش این جان بیش
	Gravel (more than 20	000 um)	7.	:	
	Sand (74 – 2000 um)		7.	:	16.11
	Silt (5 - 74 um)		%	:	38.89
	Clay (less than 5 u	m)	%	:	45.00
	Diameter of Maximum	Grain	mm	:	2.00
	Coeficient of Unifor	rmity	Uc		-
	Coeficient of Curvi	ng Rate	Πc ,	:	
	Diameter of 50 %	D5Ø	យយ		0.0084
	Diameter of 25 %		mm	:	
	Diameter of 75 %	D75	mm	:	0.054
	Sorting		So	:	
	Skewness '		Sk	:	. -
	و بعد فوق عمر همو جمع کي پنج فقط عمر فقط عمر عليه عمر			· 	
Specific Grav	vity	Gs		:	2.65
Natural Water		Wn	%	:	91.37
Ignition Los					
Shear Streng	th (In-situ Vane Test)	kgf/cm	2	:	0.015
Notes	ے کہ انگلی کی کہ جب کی کہنے کی کہ				

From In-situ Observation Soil Name : Mud Soil Color : Brown

Others

Form Soil Test : SILT and CLAY, some sand

Table 2, 3-1 (56) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

Survey Item : Bottom Material (Discharge Station) of Monthly Survey Testing Date : September 4-9, 1989 12th Stage (Sampled on 13th Aug. 1989) Sample No. : F-1 Depth : Characteristics of Grain Distribution Gravel (more than 2000 um) % Sand (74 - 2000 um) % 0.78 % Silt (5 - 74 um) 41.22 % Clay (less than 5 um) 58.00 Diameter of Maximum Grain mm 2.00 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' Diameter of 50 % D5Ø 0.0036 mm Diameter of 25 % D25 mm Diameter of 75 % D75 0.011 mm Sorting So Skewness Sk

The Access Channel of Banjarmasin Port.

و پستر چہرے بھت چست بھی ہوں کہ مسل کی دائم دیجہ لگھ وہیں ہیں کہا جب جاتے ہوں جاتے ہیں دیگر کے انہوں کی جاتے ہی			
Specific Gravity	Gs	:	2.60
Natural Water Content	Wn %	:	151.58
Ignition Loss	Li %	:	12.18
Shear Strength (In-situ Vane Test)	kgf/cm2	1	0.013

Notes

From In-situ Observation

Soil Name

: Fine Sand (Surface)

Clay with Fine Sand (Inside)

Soil Color

: Brown (Surface)

Brownish Grey (Inside)

Others

Form Soil Test

: CLAY and SILT trace sand

Table 2. 3-1 (57) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item : Bottom Material (Discharge Station)

of Monthly Survey

Testing Date : September 4-7, 1989

12th Stage (Sampled on 13th Aug. 1989)

Sample No. Depth	: F-2				
Characterist:	ics of Grain Distribut	 .ion			
	Gravel (more than 2		%	:	-
	Sand (74 - 2000 um)		%	:	19.23
	Silt (5 - 74 um)		%	:	45.77
	Clay (less than 5 u	.m)	7	:	35.00
	Diameter of Maximum	Grain -	mm	:	2.00
	Coeficient of Unifo	rmity	Uc		-
	Coeficient of Curvi	ng Rate	ηc.	:	_
	Diameter of 50 %		mm	:	0.017
•	Diameter of 25 %		ጠጠ	:	0.0029
	Diameter of 75 %	D75	mm	:	0.063
	Sorting		So	•	0.21
	Skewness		Sk	2 '	0.63
Specific Gra	vity	Gs		:	2.63
Natural Wate					114.41
Ignition Los		Li	7.	:	8.57
	th (In-situ Vane Test)				
Notes	شيئ جدور المثال الناس وحد الله الناس المثال الناس وعدا الناس وعدا الناس وعدا الناس وعدا الناس وعدا الناس وعدا				ر بسته هيئة اللين فسك فعلم بست ايري هيئة هناك هيئن إنفاد 1950 وسنة
	From In-situ Observ	/ation			
	Soil Name	: Fine			
	Soil Color	: Brow	n (Sur	face)	Sand (Inside)
	Others	1		, , , ,	

: Clayey SILT, some sand

Form Soil Test

Table 2. 3-1 (58) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Discharge Station)

of Monthly Survey

Testing Date : September 4-7, 1989

12th Stage (Sampled on 13th Aug. 1989)

Sample No. Depth	: F~3 :					
Characteristi	cs of Grain Distribution	 1	·			
	Gravel (more than 200	2) Lim)	%	:		-
	Sand (74 – 2000 um)		7.	:	83.18	
	Silt (5 - 74 um)			:	16.82	
	Clay (less than 5 um)		7.	5	-	
	Diameter of Maximum G	rain	mm	:	2.00	
	Coeficient of Uniform	ity	Uc	;		
	Coeficient of Curving		Uc'	:	-	
	Diameter of 50 % D	50	mm m	:	0.235	
	Diameter of 25 % D	25	mm	=	0.096	
e.	Diameter of 75 % D	75	mm	*	0.341	
	Sorting		So	:	Ø.53	
÷	Skewness		Sk	;	Ø.59	
Specific Gray	/ity G	=		***********	2.67	
Natural Water		п	7.	•	71.82	
Ignition Los					7.65	
	th (In-situ Vane Test) k					
Notes	ب هنده جهور بنده جهر بسد همار بين دين بدي بين بين المدين بين ومن حديد في وهد حدو في ومن الهو بينا الم	· —	-,,,		7 440 ton 240 and 440 and 140 a	
	From In-situ Observat	ion				
	Soil Name : Fine Sand (Surface) Silt (Inside)					
	Soil Color :	Brow				
		Dark	Grey	(Insic	le)	•
	Others :					

59

Form Soil Test

: Fine SAND, some Silt

Table 2, 3-1 (59) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Discharge Station)

of Monthly Survey

: September 4-9, 1989 Testing Date

12th Stage (Sampled on 13th, Aug. 1989)

Sample No. Depth	: F-4 :			
Characteristic	s of Grain Distribution			
	Gravel (more than 2000	um) %	:	Ø.Ø6
	Sand (74 – 2000 um)	7.	-	87.58
	Silt (5 - 74 um)			12.36
	Clay (less than 5 um)	7.	:	-
	Diameter of Maximum Gr	ain mm	n :	4.76
	Coeficient of Uniformi	ty Uc	:	-
	Coeficient of Curving	Rate Ud	= ' :	-
	Diameter of 50 % D5	nm Ø	n :	0.151
•	Diameter of 25 % DZ	25 mm	n · :	0.097
	Diameter of 75 % D7	75 mm	n :	0.199
	Sorting	Sa	o :	0.70
	Skewness	SI	*	0.85
	ity Gs			2.65
Natural Water		n %	:	93.19
Ignition Loss	•			7.59
Shear Strengt	h (In-situ Vane Test) kç			
Notes	ه به الله الله الله الله الله الله الله			ر يبيد عليه جنهن سند هند وانه يانه عليه عليه عليه عليه عليه المانه عليه المانه المانه المانه المانه المانه الم
	From In-situ Observat:	ion		
	Soil Name :	Fine S	and (Surf	acel

: Fine Sand (Surface)

Medium Sand (Inside)

Soil Color

: Brown (Surface)

Brownish Grey (Inside)

Others

: with little organic fragment

Form Soil Test : Fine SAND, some silt

Table 2. 3-1 (0)) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Discharge Station)

of Monthly Survey

Testing Date : September 4-9, 1989

12th Stage (Sampled on 13th Aug.1989).

Sample No.	: F~5					
Depth	:					
Characteristic	s of Grain Distributi	ion			شن سات شده الشد بردن شند شند البقد بدير سند شدر بندر بين بيد بيد بيد بدير بندر	
	Gravel (more than 20		%	:	بني	
	Sand (74 - 2000 um)		%	:	11.20	
	Silt (5 - 74 um)		/ .	:	49.80	
	Clay (less than 5 un	n)	%	:	39.00	
	Diameter of Maximum	Grain	៣៣	:	2.00	
	Coeficient of Unifor		Uc	:		
	Coeficient of Curvi	ng Rate	Uc'	:	-	
	Diameter of 50 %	D50	mm	:	0.0104	
	Diameter of 25 %	D25	mm	:	0.0017	
	Diameter of 75 %	D75	mm	:	0.0384	
	Sorting		So	:	0.21	
	Skewness		Sk	7	0.60	
Specific Gravi	ty	Gs	**** *** *** *** **** **** ****	:	2.62	
Natural Water		เม่า	%	•	114.12	
Ignition Loss		Li	%	:	9.27	
	(In-situ Vane Test)		2		0.015	
Notes					ا الله الله الله الله الله الله الله ال	
	From In-situ Observ	ation				
	Soil Name	: Fine	Sand (Surfa	(ce)	
			Silt with Fine Sand Grain(Ins			
	Soil Color	: Brow	n (Surf	ace)		
	Others		mish Gr	.eA (1	inside)	
•	OCHELD	:				
	Form Soil Test	: SILT	and CL	.ΑΥ, <u>s</u>	ome sand	

Table 2.3-2 (1)~(96) Soil Test (Sampled During Saline Wedge Survey)

Table 2. 3-2 (1) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in -The Access Channel of Banjarmasin Port. Survey Item . Bottom Material (Saline Wedge) of Monthly Survey November 21 - 24, 1988 Testing Date : 1st Stage (Sampled on 12th Oct.at St.B.D.F.II and Sampled on 15th Oct.1988 at St.A,C,E,G.) Sample No. : A Depth 2 Any and the specific Characteristics of Grain Distribution Gravel (more than 2000 µm) % Sand $(74 - 2000 \, \mu \, \text{m})$ % : 16.6 Silt $(5 - 74 \, \mu \, \text{m})$ % : 41.6 % : 7. Clay (less than 5 +m) : Diameter of Maximum Grain mm : 9.52 Coeficient of Uniformity Uc : Coeficient of Curving Rate Uc' : -Diameter of 50 % D50 Diameter of 25 % D25 Diameter of 75 % D75 mm : 0.0076 mm : 0.0024 0.034 Sorting So : 0.27 Skeuness Sk : 1.41 Gs : 2.62 Specific Gravity Wn % : 107.1 Natural Water Content Li % : 12.26 Ignition Loss Shear Strength (In-situ Vane Test) kgf/cm2 : 0.005 Notes From In-situ Observation Soil Name : FINE SAND

Soil Color

: Black grey

Others

: Soft

From Soil Test : SILT and CLAY with some sand

trace gravel

Table 2. 3-2 (2) RESULTS OF SOIL TEST

The Study on Maintenance Dredging in -Name of Survey : The Access Channel of Banjarmasin Fort. Survey Item : Bottom Material (Saline Wedge) of Monthly Survey Testing Date : November 21 - 24, 1988 1st Stage (Sampled on 12th Oct.at St.B,D,F,H and Sampled on 15th Oct.1988 at St.A,C,E,G.) Sample Mo. : ${\mathbb B}$ Depth . : Characteristics of Grain Distribution Gravel (more than 2000 µm) % 1.0 7. Sand (74 - 2000 µm) 23.6 Silt (5 - 74 \mum) % : 46.4 7. Clay (less than 5 μ m) : 27.0 Diameter of Maximum Grain mm : 9.52 Coeficient of Uniformity Uc : Coeficient of Curving Rate Uc' Diameter of 50 % D50 mm : 0.027 Diameter of 25 % D25 0.0037 mm : Diameter of 75 % D75 0.075 mm : 0.22 Sorting So : Skewness Sk : 0.38 Specific Gravity 0s 2.67 یت شدند افره ویین بیتر باد و سای و یک پیش شدند فلاخ روب پیشد اداره ویسر سند شدند ویتر دیان ساله داده آمید که دست در است در افراد Natural Water Content Wn % : 158.1 Ignition Loss Li % : 10.7 Shear Strength (In-situ Vane Test) kgf/cm2 : 0.005 Notes From In-situ Observation Soil Name : MUD and SAND Soil Color : Yellowish brown : Soft Others From Spil Test : Sandy clayey SILT trace gravel

Table 2. 3-2 (3) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in - . The Access Channel of Banjarmasin Port,

Survey Item : Bottom Material (Saline Wedge) of Monthly Survey

Testing Date : November 21 - 24, 1988

lst Stage (Sampled on 12th Oct.at St.B,D,F,H and Sampled on 15th Oct.1988 at St.A,C,E,G.)

Sample No. Depth	: C				
Characteristic	s of Grain Distribut	ion		to how man .	وية النظام (من النظام) النظام (من النظام) (من النظ
	Gravel (more than 20	000 µ m)	7.	2	0.8
	Sand (74 - 2000 µm)	•	7.	#	2.2
	Silt ($5-74 \mu m$)		% %	1	49.6
	Clay (less than 5 μ	m)	7.	2	47.4
	Diamater of Maximum	Grain	ጠጠ	:	9.52
	Coeficient of Unifo	rmity	Uc	:	
	Coeficient of Curvi	ng Rate	Uc′	1	-
	Diameter of 50 %	D50	ការាំ	4	0.0055
	Diameter of 25 %	D25	៣៣		0.0028
•	Diameter of 75 %		mm		0.014
	Sorting		So		0.45
	Skewness				1.30
Specific Gray	i.tv	Gs		 3	2.55
The first same many district many prints are presented by the profit which have a					
Natural Water	Content	Wri			
Ignition Loss		Li			
_	h (In-situ Vane Test)	kgf/cm2	3	:	0.005
Notes	ر و دوسور و دوسور کی دوسور در دوسور در دوسور کی دوسور کی دوسور در دوسور دوسور کی دوسور کی دوسور کی دوسور کی دو	o y rom delug m 25 years sedi E slave quaef del	*************		ية ومن ومني بطيق ولاية يعنى بيناه المنظم المنظم ويني ويادة القطاع الأول والمنظم والمنظم المنظم المنظوم

From In-situ Observation

Soil Name : M U D
Soil Color : Brownish grey

Others

: Soft

From Soil Test : CLAY and SILT trace sand and gravel

Table 2. 3-2 (4) RESULTS OF SOIL TEST

The Study on Maintenance Dredging in -Name of Survey : The Access Channel of Banjarmasin Port. Bottom Material (Saline Wedge) of Monthly Survey Survey Item : Testing Date : November 21 - 24, 1988 1st Stage (Sampled on 12th Oct.at St.B, D, F, H and Sampled on 15th Oct.1988 at St.A,C,E,G.) Sample No. : D Depth ä Characteristics of Grain Distribution Gravel (more than 2000 µm) % Sand (74 - 2000 µm) Silt (5 - 74 µm) 7. 12.6 2 7. : 53.0 % Clay (less than 5 µm) 34.0 Ħ Diameter of Maximum Grain mm : 4.76 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc': Diameter of 50 % Diameter of 25 % Diameter of 75 % D50 mm 0.012 ä D25 D75 mm : 0.0035 mm 0.036 Sorting 9 So 0.31 Skewness Sk 0.88 Specific Gravity Gs 2.61 Natural Water Content ₩n % : 122.2 A his designated from 1 was the first than the first that the great discount to the first than t Li % : 10,87 Ignition Loss 11 This has been seen as a second of the sec Shear Strength (In-situ Vane Test) kgf/cm2 : 0.017 THE SECOND CONTROL OF THE PROPERTY OF THE PROP Notes From In-situ Observation Soil Name : M U D Soil Color : Greenish grey

From Soil Test : Clayey SILT with some sand

Others

Table 2. 3-2 (5) RESULTS OF SOIL TEST

Name of Survey :

Survey Item: : Bottom Material (Saline Wedge) of Monthly Survey Testing Date : November 21 - 24, 1988 1st Stage (Sampled on 12th Oct.at St.B,D,F,H and Sampled on 15th Oct.1988 at St.A,C,E,G.) : E Sample No. Depth Characteristics of Grain Distribution % : % : % : Gravel (more than 2000 µm) % 1.6 12.6 Sand (74 - 2000 µm) Silt (5 - 74 µm) 49.8 Clay (less than 5 μ m) 7, 7 36.0 Diameter of Maximum Grain mm ŧ 7.52 Coeficient of Uniformity Uc : Coeficient of Curving Rate Uc' Diameter of 50 % D50 Diameter of 25 % D25 Diameter of 75 % D75 mm : 0.010 ന്ന 0.0028 : 0.022 mm Sa Sorting : 0.36 Skewness Sk 0.62 Specific Gravity 65

The Study on Maintenance Dredging in -- The Access Channel of Banjarmasin Fort.

Notes

Natural Water Content

Ionition Loss

From In-situ Observation Soil Name : SILT

AND SENSO OF THE PROPERTY OF T

Shear Strength (In-situ Vane Test) kgf/cm2 : 0.011

Scil Color : Brownish grey

Mit data lagged to the separate separat

Others

From Soil Test : SILT and CLAY with some same

Wn % : 180.3

Li % : 13.57

Table 2, 3-2 (6) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in -The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge) of Monthly Survey Testing Date : November 21 - 24, 1988 1st Stage (Sampled on 12th Oct.at St.B,D,F,H and Sampled on 15th Oct.1988 at St.A,C,E,G.) Sample No. : F Deoth Characteristics of Grain Distribution s of Grain Distribucion.

Gravel (more than 2000 μm) % :

Sand (74 - 2000 μm) % :

Cit (5 - 74 μm) % : 0.257.8 42.0 Clay (less than $5 \mu m$) 7. Diameter of Maximum Grain mm : 4.76 Coeficient of Uniformity Uc : Coeficient of Curving Rate Uc' : 29.85 Diameter of 50 % D50 0.11Diameter of 25 % D25 0.032 ពាកា : Diameter of 75 % D75 0.30 * mm Sorting So: 0.33 Skewness Sk 0.79many to a for a part that a part of the control of Specific Gravity Os : 2.67 Natural Water Content Wn % : 88.9 Li % : 8.36 Ignition Loss Shear Strangth (In-situ Vana Test) kgf/cm2 : 0.017 Nates From In-situ Observation Soil Mame : SAND MUDDY SAND Soil Color : Yellowish brown grey black Others From Soil Test : SILT and CLAY trace sand. gravel

Table 2, 3-2 (7) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in -The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge) of Monthly Survey Testing Date : November 21 - 24, 1988 1st Stage (Sampled on 12th Oct.at St.B,D,F,H and Sampled on 15th Oct.1988 at St.A.C.E.G.) Sample No. : G Depth h The state of the s Characteristics of Grain Distribution Gravel (more than 2000 \mum) % : 0.2 Sand (74 - 2000 \mum) % : 96.8 Silt (5 - 74 \mum) % : 3.0 Clay (less than 5 km) 7. Diameter of Maximum Grain mm : 4.76 Coeficient of Uniformity Uc : Coeficient of Curving Rate Uc' : Coeficient of Uniformity Uc Diameter of 50 % D50 mm : 0.36 Diameter of 25 % D25 mm : 0.25 Diameter of 75 % D75 mm 0.50 So : 0.71 Sortina Skewness Sk 0.94 Specific Gravity Gs : 2.72 Wn % i 29,1 Natural Water Content Li % : 1,10 Ignition Loss Shear Strength (In-situ Vane Test) kgf/cm2 : 0.008 100 Mark 100 Notes From In-situ Observation Soil Name : MEDIUM SAND Spil Color Yellowish brown Others From Soil Test : Sandy SILT trace clay

Table 2. 3-2 (8) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in -The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge) of Monthly Survey Testing Date : November 21 - 24, 1988 1st Stage (Sampled on 12th Oct.at St.B,D,F,H and Sampled on 15th Oct. 1988 at St.A, C, E, G.) Sample No. : H Depth Characteristics of Grain Distribution Fravel (more than 2000 μ m) % : 0.4 Sand (74 - 2000 μ m) % : 24.6 Silt ($5 - 74 \mu m$) 1. Clay (less than 5 µm) 7. Diameter of Maximum Grain mm : 4.75 Coeficient of Uniformity Uc : Coeficient of Curving Rate Uc' : Diameter of 50 % D50 Diameter of 25 % D25 Diameter of 75 % D75 mm : 0.018 mm : 0.003 mm : 0.075 Sorting So : 0.20 : 0.59 Skewness Sk the base and shall be the many data by the state and shall be the state of the stat Specific Gravity Gs : 2.66 to be a second of the second o Natural Water Content Wn % : 92.9 they are put and the companied of the companied and the companied are put and the companied are Ignition Loss Li % : 8.96 way any distribution that the time of time of the time of time of the time of Shear Strength (In-situ Vane Test) kgf/cm2 : 0.017 Notes From In-situ Observation Soil Name : CLAY SAND Scil Calor : Graenish grey Others 2

From Soil Test : Sandy CLAY and SILT

Table 2. 3-2 (9) RESULTS OF SOIL TEST

The Study on Maintenance Dredging in -Name of Survey : The Access Channel of Banjarmasin Port. Bottom Material (Saline Wedge stat.) of Survey Itam : Monthly Survey Testing Date : December 7 - 10, 1988 2nd Stage (Sampled on 11th Nov.at St.D,F,1,J and Sampled on 16th Nov.1988 at St.A,B,C,E.) gif y 1 mg hill have the mark to make the mark the mark to make the mark t Sample No. : 1. Depth Characteristics of Grain Distribution Gravel (more than 2000 μm) % : Sand (74 - 2000 μm) % : Silt (5 - 74 μm) % : Clay (less than 5 μm) % : 0,05 16.94 48.20 34.80 Diameter of Maximum Grain mm : 4.76 Coeficient of Uniformity Uc : Coeficient of Curving Rate Uc' : D50 Diameter of 50 % mm s 0.019 D25 mm : Diameter of 25 % Diameter of 75 % D75 0.055 នានា ៖ Sorting Sa : Skewnees Sk : Gs Specific Gravity Wn % : 156,61 Natural Water Content Li % : Ignition Loss Shear Strength (In-situ Vane Test) kof/cm2 : 0,005 Notes From In-situ Observation Soil Name : M U D : Brown Spil Color Others : Very soft, black wooden fragment is very rich From Suil Test : Sandy SILT and clay

Table 2. 3-2 (10) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in -The Access Channel of Banjarmasin Port. Survey Item Bottom Material (Saline Wedge stat.) of Monthly Survey Testing Date : December 7 - 10, 1988 2nd Stage (Sampled on 11th Nov. at St.D, F, I, J and Sampled on 16th Nov. 1988 at St. A, B, C, E.) Sample No. : B Depth ì. Characteristics of Grain Distribution Gravel (more than 2000 μ m) % : Sand (74 - 2000 μ m) % : Silt (5 - 74 μ m) % 0.20 : 27.97 Silt (5 - 74 µm) % 48.83 : Clay (less than 5 µm) ", 23.00 ¥. Diameter of Maximum Grain mm : 4.76 Coeficient of Uniformity Uc : Coeficient of Curving Rate Uc' : Diameter of 50 % D50 mm · a 0.042 D25 D75 Diameter of 25 % Diameter of 75 % វាជា 0.0065 ៣៣ 0.08 Sorting So t. Skewness Sk : 6s : 2.56 Specific Gravity ADDRESS OF THE PROPERTY OF THE Natural Water Content Wn % : 119.12 The section of the se Li % : 10.18 Idnition Lows AND THE RESIDENCE OF THE PROPERTY OF THE PROPE Shear Strength (In-situ Vane Test) kgf/cm2 : 0.024 Notes From In-situ Observation Soil Name : M U D : Brown (surface) Soul Color Brown to grey (layer) Others : Wood fragment From Soil Test : Sandy clayey SILT trace grave;

Table 2. 3-2 (11) RESULTS OF SOIL TEST

The Study on Maintenance Dredging in -Name of Survey : The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge stat.) of Monthly Survey December 7 - 10, 1988 Testing Date : 2nd Stage (Sampled on 11th Nov.at St.D,F,I,J and Sampled on 16th Nov. 1988 at St. A, B, C, E.) Sample No. : 5 Depth Characteristics of Grain Distribution : of Grain Discribation.
Gravel (more than 2000 μm) % : 0.40
Sand (74 ~ 2000 μm) % : 16.60
Silt (5 - 74 μm) % : 39.50 7. Clay (less than 5 μm) 43.50 Diameter of Maximum Grain mm : 4.76 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' : Diameter of 50 % D50 mm : Diameter of 25 % D25 mm : ភាភា : 0.009 Diameter of 75 % D75 កភា ៖ 0.053 Somtina Sa : Skewness Sk Specific Gravity Ge : 2.56 Wn % : 158.20 Natural Water Content Li % : 14.43 Ignition Loss Shear Strength (In-situ Vane Test) kgf/cm2 : 0.007 Notes From In-situ Observation Soil Name : M U D
Soil Color : Brownish grey Others From Soil Test : BILT and CLAY with some sand

Table 2.3-2 (12) RESULTS OF SOIL TEST

takes and or grief draw grang help a speak graph grave is not up to graph a may begin to and grave graph graph graph and

Name of Survey : . The Study on Maintenance Dredging in -The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge stat.) of Monthly Survey Testing Date : December 7 - 10, 1988 2nd Stage (Sampled on 11th Nov. at St.D, F, I, J and Sampled on 16th Nov. 1988 at St. A, B, C, E.) Sample No. : D Depth Characteristics of Grain Distribution Gravel (more than $2000 \, \mu$ m) % : 0.30 Sand (74 - 2000 μ m) % : 71.70 Silt (5 - 74 μ m) % : 20.00 Clay (less than 5 µm) . % : 8.00 Diameter of Maximum Grain mm : 4.76 Coeficient of Uniformity Uc 8.75 Coeficient of Curving Rate Uc': 4,46 Diameter of 50 % D50 : 0.075 ៣៣ Diameter of 25 % D25 Diameter of 75 % D75 យយ 0.070 10 កាមា : 0.130 Sprting So : 0.73 Skewness Sk Ħ 1.01 Specific Gravity Gs : Natural Water Content Wn % : 103.95 Ignition Loss Li % : 14.55 Shear Strength (In-situ Vana Test) kgf/cm2 : 0.015 THE STATE COLD AND ST Notes From In-situ Observation : M U D : : Brown (surface) Scil Name Soil Color Black (inside) Others From Soil Test : Silty fine SAND trace clay

Table 2. 3-2 (13) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in -The Access Channel of Banjarmasin Fort. : Bottom Material (Saline Wedge stat.) of Survey Item Monthly Survey Testing Date : December 7 - 10, 1988 2nd Stage (Sampled on 11th Nov. at St.D, F, I, J and Sampled on 16th Nov.1988 at St.A,B,C,E.) Sample No. : E ä Depth Characteristics of Grain Distribution Gravel (more than 2000 μ m) % : Sand (74 - 2000 μ m) % : Silt (5 - 74 μ m) % : Clay (less than 5 μ m) % : 33.70 58.50 Diameter of Maximum Grain mm : 2.00 Coeficient of Uniformity Uc : Coeficient of Curving Rate Uc' : Diameter of 50 % D50 mm : 0.0026 Diameter of 25 % D25 mm : — Diameter of 75 % D75 mm : 0.015 Sa Sorting ; Sk Skewness 6s : 2.52 Specific Gravity the company of the control of the co Wm % : 205.45 Natural Water Content Li % : Ignition Loss CONTROL OF THE CONTRO Shear Strength (In-situ Vane Test) kgf/cm2 : 0.016 Notes From In-situ Observation Soil Name : M U D Soil Color : Brown (surface) Black (invide) Others From Soil Test : Silty CLAY with some sand

Table 2. 3-2 (M) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in -The Access Channel of Banjarmasin Port. Survey Item Bottom Material (Saline Wedge stat.) of K Monthly Survey Testing Date : December 7 - 10, 1988 2nd Stage (Sampled on 11th Nov. at St.D,F,I,J and Sampled on 16th Nov. 1988 at St.A, B, C, E.) Sample No. : F Danth ņ. Characteristics of Grain Distribution % : % : more than 2000 μm) % المراقة Sand $(74 - 2000 \mu m)$ Silt $(5 - 74 \mu m)$ Clay (less than $5 \mu m)$ 60.00 27.50 7. : 12,50 Diameter of Maximum Grain mm : 2.00 Coeficient of Curving Rate Uc's Coeficient of Uniformity Uc 41.8 16.6 Diameter of 50 % Diameter of 25 % Diameter of 75 % D30 D25 mm 0.082: มชอ กก D75 กก = 0.047 0.125 ៥មា ៖ Sorting So : 0.61Skewness Sk 0.87 Specific Gravity G≡ Natural Water Content Wn % : 98.32 Ignition Loss -Li % : 9.45 Shear Strength (In-situ Vane Test) kgf/cm2 : 0.013 Notes From In-situ Observation Soil Name a MUD Soil Color : Brown (surface) Black (inside) Others : Brown mud very thin (surface) From Soil Test : Silty fine SAND with some clay .

Table 2. 3-2 (15) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item Bottom Material (Saline Wedge stat.) of Monthly Survey Testing Date : December 7 - 10, 1988 2nd Stage (Sampled on 11th Nov.at St.D,F,1,J and Sampled on 16th Nov. 1988 at St. A. B. C. E.) Sample No. : Depth ź. Characteristics of Grain Distribution Gravel (more than 2000 μm) % : Sand (74 - 2000 μm) % : Silt (5 - 74 μm) % : 0.1529.30 44.15 Clay (less than 5 µm) % 26.40 : Diameter of Maximum Grain mm : 4.76 Comficient of Uniformity Uc Coeficient of Curving Rate Uc' : Diameter of 50 % D50 ៣៣ ៖ 0.040 មាយ : Diameter of 25 % D25 Diameter of 75 % D75 0.078 ന്നു Sorting 50 : 0.23 Skewness Sk: 0.20Specific Oravity Natural Water Content Wn % : 118.30 Li % : 11.89 Ignition Loss Shear Strength (In-situ Vane Test) kgf/cm2 : 0.026 Notes From In-situ Observation Scil Name · MUD Spil Color : Brown (sunface) Black (inside) Others : Brown mud very thin (surface) From Spil Test : Sandy clayey SILT

Table 2.3-2(16) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in -The Access Channel of Banjarmasin Port. Survey Item Bottom Material (Saline Wedge stat.) of Monthly Survey Testing Date : December 7 - 10, 1988 2nd Stage (Sampled on 11th Nov.at St.D,F,I,J and Sampled on 16th Nov.1988 at St.A,B,C,E.) and Fill with an article and article and article and article and article artic Sample No. : Dapth ü Characteristics of Grain Distribution of Grain Distribution.

Gravel (more than 2000 μm) % :

Sand (74 - 2000 μm) % :

Cit (5 - 74 μm) % : 10.85 43,15 Clay (less than 5 μ m) 7. 46.00 * Diameter of Maximum Grain mm : 0.84Coeficient of Uniformity Uc ñ Coeficient of Curving Rate Uc' : Diameter of 50 % D50 mm : 0.007 Diameter of 25 % D25 mm : ---Diameter of 75 % D75 mm : 0.032 Sorting -Sa : Skewness Sk : To be in your manual to be made and some part of the manual and the source in the control of the Specific Gravity Gs : 2.51 THE CALL AND ADDRESS OF THE PROPERTY OF THE PR Natural Water Content Wo % : 165.69 t and the part of Li % : 16.09 Ignition Loss 100 1 Shear Strength (In-situ Vane Test) kgf/cm2 : 0.015 Notes From In-situ Observation Soil Name : M U D Soil Color : Brown (surface) Black (inside) : Many wood fragment Others From Soil Test : SILT and CLAY with some sand

Table 2. 3-2 (17) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Salinity Wedge Station) of Monthly Survey. Testing Date : January 10 - 18, 1989. 3rd Stage (Sampled on 11th Dec. at St.D, F, I, J and Sampled on 14th Dec. 1988 at St. A, B, C, E.) Sample No. : A Depth : : Characteristics of Grain Distribution

 Gravel (more than 2000 um) %
 :

 Sand (74 - 2000 um)
 %

 Silt (5 - 74 um)
 %

 Clay (less than 5 um)
 %

 16 40.06 50.00 Diameter of Maximum Grain mm : Coeficient of Uniformity UC : Coeficient of Curving Rate Uc' : Diameter of 50 % D50 Diameter of 25 % D25 Diameter of 75 % D75 mm : 0.0048 mm ; mm : 0.34 Sorting ອິດ Skewness Sk Specific Gravity Gs Min to the part and the state of the part and the part and the state of the part and the state of the part and the part an Natural Water Content Wn % : 81.38 Li % Ignition Loss Shear Strength (In-situ Vane Test) kgf/cm2 0.027 Notes From In-situ Observation Soil Name Silt (Surface) CLAY (inside : . Soil Color Brown (surface) Grey (inside) Others Form Soil Test : CLAY and SILT trace sand

Table 2.3-2(18) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Salinity Wedge Station)

of Monthly Survey.

Testing Date : January 10 - 18, 1989.

3rd Stage (Sampled on 11th Dec. at St.D.F.1.J and Sampled on 14th Dec. 1988 at St.A, B, C, E.)

Bample No. Depth	: B :			
Characteristic	s of Grain Distribution	76 h-) yar wa (-) yar (
	Gravel (more than 2000 um)	7.	:	0.02
	Sand (74 - 2000 um)	%	- 1	7.96
	Silt (5 - 74 um)	7.	=	44
	Clay (less than 5 um)	%	:	48.00
	Diameter of Maximum Grain	៣៣	#	 ,
	Coeficient of Uniformity	Uc	:	
	Coeficient of Curving Rate	Uc!	:	
	Diameter of 50 % D50	mm	:	0.040
	Diameter of 25 % D25	mm	=	***
	Diameter of 75 % D75	mm	ţ	0.025
	Sorting	So	:	
	Skewness	Sk	:	

Specific Gravity	Gs			2.535	-
Natural Water Content	Wn	%		207.48	
Ignition Loss	Li	%	:	14.80	
Shear Strength (In-situ Vane Test)	kgf/c	m2	*	0.002	
h landa and					

Notes

From In-situ Observation

Soil Name : SILT Soil Color ÷ Brown

Others Very soft

Form Soil Test CLAY and SILT trace sand . :

Table 2. 3-2 (19) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in The Access Channel of Banjarmasin Fort. Survey Item : Bottom Material (Salinity Wedge Station) of Monthly Survey. Testing Date : January 10 - 18, 1989. 3rd Stage (Sampled on 11th Dec. at St.D, F, 1, J and Sampled on 14th Dec.1988 at St.A,B,C,E.) Sample No. : C Depth Characteristics of Grain Distribution Gravel (more than 2000 um) % 0.48 Sand (74 - 2000 um) % Silt (5 - 74 um) % 27.02 : 38.50 : Clay (less than 5 um) 7. : 34.00 Diameter of Maximum Grain mm Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' Diameter of 50 % D5Ø . . mm Q.0296 Diameter of 25 % Diameter of 75 % D25 : mm 0.0023 D75 m m 0.085 : Sorting Sø 0.16 Skewness Sk Specific Gravity Gs Natural Water Content Wn % : 189.47 Ignition Loss Li % Shear Strength (In-situ Vane Test) kgf/cm2 : 0.012 Notes

From In-situ Observation

Soil Name SANDY SILT ; Soil Color 2 Brownish Grey

Others

Form Soil Test : Sandy SILT sand CLAY

Table 2, 3-2 (20) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port.

Survey Item : Bottom Material (Salinity Wedge Station)

of Monthly Survey.

Testing Date : January 10 - 18, 1989.

3rd Stage (Sampled on 11th Dec. at St.D, F, I, J and Sampled on 14th Dec. 1988 at St.A, B, C, E.)

Sample No. Depth	: D				
	ics of Grain Distributi				
	Gravel (more than 20	100 um)	7.		ଡ.ଜଃଚ
•	Sand (74 - 2000 um)		/.	\$	51.92
	Silt (5 - 74 um)		/.	:	30.00
	Clay (less than 5 um	1)	%	:	18.00
	Diameter of Maximum	Grain	mm	:	-
	Coeficient of Unifor	mity	Uc	*	7.5
	Coeficient of Curvin		Uc'	:	2.31
	Diameter of 50 %	D5Ø	mm	:	0.072
	Diameter of 25 %		mm		0.031
	Diameter of 75 %		mm	:	0.12
	Sorting		So	:	0.51
	Skewness		Sk	•	0.72
Specific Gra	vity		-		
Natural Wate	r Content	Wn	/	:	85.95
T		1 2	.,		~ ~ . .
Shear Streng	th (In-situ Vane Test)	kgf/cm2	2	:	0.020
Notes	ے کوڑا چھے پیپ جبت کیتے ہے۔ بھی جینؤ شکم نکرے کریں سے نشبہ کیاں کیے کریا پیپار آبادا کیا بھی جینز پہید				ور نهید ایشند هیدر کستان کاپس مشند جهین هیدا خسسه کاپیز بدید کند.
	From In-situ Observa	ation	•		•
	Soil Name				D GRAIN
	Soil Color		lack (9 rown (9		Yellowish
	Others	:			

Form Soil Test Clayey SILT trace sand

Table 2. 3-2 (21) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in The Access Channel of Banjarmasin Fort. : Bottom Material (Salinity Wedge Station) Survey Item of Monthly Survey. : January 10 - 18, 1989. Testing Date 3rd Stage (Sampled on 11th Dec. at St.D,F,1,J and Sampled on 14th Dec.1988 at St.A.B,C,E.) Sample No. : E Depth Characteristics of Grain Distribution Sravel (more than 2000 um) % :
Sand (74 - 2000 um) % :
Silt (5 - 74 um) % :
Clay (less than 5 um) % : 0.02 14.98 33,00 52.00 Diameter of Maximum Grain mm : Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' : Diameter of 50 % D50 Diameter of 25 % D25 Diameter of 75 % D75 : 0.0048mm: mm 0.51 mm So Sorting Skewness SI: Specific Gravity 65 4 2.547 Natural Water Content Wn % : 165.42 Ignition Loss Li % : 12.48 Shear Strength (In-situ Vane Test) kgf/cm2 : 0.010 Notes From In-situ Observation Soil Name : SILT WITH SAND GRAIN Soil Color Orey (surface) Black (inside) Others

Form Soil Test : Silty CLAY with some sand

Table 2. 3-2 (22) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Salinity Wedge Station) of Monthly Survey. Testing Date : January 10 - 18, 1989. 3rd Stage (Sampled on 11th Dec.at St.D, F, I, J and Sampled on 14th Dec.1988 at St.A,B,C,E.) Sample No. : F Depth Characteristics of Grain Distribution Gravel (more than 2000 um) % Sand (74 - 2000 um) % 4.00 z Silt (5 - 74 um) % 40.00, 1 Clay (less than 5 um) 7. 56.00 : Diameter of Maximum Grain mm Coeficient of Uniformity Uc Coeficient of Curving Rate Uc Diameter of 50 % D50 : ៣៣ 0.0034 Diameter of 25 % D25 Diameter of 75 % D75 : ៣៣ mm : 0.0145 Sorting So = Skewness SI. Specific Gravity Gs : 2.567 مت وجود المراجب المراج Natural Water Content Wn % : 102.55 Ignition Loss Li % : 10.93 Shear Strength (In-situ Vane Test) kgf/cm2 : 0.049 Notes From In-situ Observation Soil Name 3 CLAY Soil Color : Grey (inside) Brown (surface) Others

:

CLAY and SILT trace sand

Form Soil Test

Table 2. 3-2 (23) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Salinity Wedge Station) of Monthly Survey. Testing Date : January 10 - 18, 1989. 3rd Stage (Sampled on 11th Dec. at St.D.F.I.J and Sampled on 14th Dec.1988 at St.A,B,C,E.) Sample No. : I Depth : Characteristics of Grain Distribution Sravel (more than 2000 um) % Sand (74 - 2000 um) % Silt (5 - 74 um) % : 9.00 • 40.00 Clay (less than 5 um) /. 51.00 Diameter of Maximum Grain mm Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' Diameter of 50 % D50 Diameter of 25 % D25 Diameter of 75 % D75 mm 0.8045 mm mm 0.31 Sc : Sorting Skewness S_{K} Specific Gravity Gs : 2.527 The formation is a second of the second of t Wm % : 137.00 Natural Water Content To and proper parties are the control of the contro Li % : 12.87 Shear Strength (In-situ Vane Test) kgf/cm2 : 0.005

From In-situ Observation

Soil Name : SILT
Soil Color : Brown
Others : Soft

Form Soil Test : CLAY and SILT trace sand

Table 2. 3-2 (24) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Salinity Wedge Station)

of Monthly Survey.

Testing Date : January 10 - 18, 1989.

3rd Stage (Sampled on 11th Dec.at St.D,F,I,J and Sampled on 14th Dec.1988 at St.A,B,C,E.)

Sample No Depth	•	: J							
Character	istics					** nd* *** mnd *** n			
		Gravel (m	ore t	han 20	000 um)	%	:	0.80	
		Sand (74				%	:	36.20	
		Silt (5				%	:	50.00	
		Clay (les	ss than	ក 5 ធា	n)	7.	:	13.00	
		Diameter	of Ma	ximum	Grain	mm	:	_	
		Coeficier	t of	Unifo	rmity	Uc	:	5.83	
		Coeficier						1.07	
		Diameter	of 50	%	D5Ø	anm .	:	Ø.055	
		Diameter				mm		0.018	
		Diameter				mm	:	0.104	
		Sorting				So	:	0.42	
•		Skewness				Sk	;		
Specific	 Oravit			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				2.556	
					_				
Natural W		Content						145.55	
Ignition	Loss							14.78	
		(In-situ	Vane	Test)				0.003	
Notes		* \$77. TAB PROFESSOR POST OFFICE AND			ر پست شنار برود کیب ۱۹۹۵ برده انتظا				

Notes

From In-situ Observation

Soil Name :

Soil Color Brown (surface) .

Black (inside)

Others

Very soft. Many wood fragment.

Form Soil Test : Sandy SILT with some clay

SILT

Table 2. 3-2 (25) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. : Bottom Material (Saline Wedge stat.) Survey Item of Monthly Survey Testing Date : January 23 - 31, 1989 4th Stage (Sampled on 29th Dec. 1988 at St. D. F. I. J and Sampled on 3rd Jan. 1989 at St. A. B. C. E.) Sample No. : A Depth : Characteristics of Grain Distribution Gravel (more than 2000 um) % 0.02 Sand (74 - 2000 um) % Silt (5 - 74 um) % 15.98 : : Clay (less than 5 um) 7 38.0 : Diameter of Maximum Grain mm 4.76 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' : Diameter of 50 % D50 Diameter of 25 % D25 Diameter of 75 % D75 ពាកា 0.016 វាវា : 0.001 ៣៣ Sorting Sa 0.13 5 Sk Skewness 0.23 Specific Gravity Gs Wn % : 123.22 Natural Water Content Li % Ignition Loss Shear Strength (In-situ Vane Test) kgf/cm2 : 0.009 Notes From In-situ Observation. Soil Name : MEDIUM SILT Soil Color Brownish Grey Others Form Soil Test: : CLAY and SILT with some sand

Table 2. 3-2 (26) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. : Bottom Material (Saline Wedge stat.) Survey Item of Monthly Survey : January 23 - 31, 1989 Testing Date 4th Stage (Sampled on 29th Dec. 1988 at St.D, F, I, J and Sampled on 3rd Jan. 1989 at St. A, B, C, E.) Sample No. : B Depth * This cape with this cape of the large per th Characteristics of Grain Distribution

 Gravel (more than 2000 um) %
 :

 Sand (74 - 2000 um)
 %
 :
 2.0

 Silt (5 - 74 um)
 %
 :
 31.0

 Clay (less than 5 um)
 %
 :
 67.0

 67.Ø Diameter of Maximum Grain mm : 2.00 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' : Diameter of 50 % D50 Diameter of 25 % D25 Diameter of 75 % D75 វាពា 1 0.0018 មាយ : 0.0074 2 ហាយា So Sorting # . Sk Skewness Gs 2.521 Specific Gravity TOP GOT CASE THAT AND THAT CASE THA Wn % : 154.90 Natural Water Content Li % : 15.74 Ignition Loss Shear Strength (In-situ Vane Test) kgf/cm2 : 0.009 Notes From In-situ Observation Soil Name : SILT Soil Color : Brown (Surface) Dark Grey (inside) Others Brown silt is very thin : (surface)

:

Form Soil Test

Silty CLAY trace sand

Table 2. 3-2 (\mathcal{Z}) RESULTS OF SOIL TEST ------

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge stat.) of Monthly Survey Testing Date : January 23 - 31, 1989 4th Stage (Sampled on 29th Dec. 1988 at St.D.F.1.J and Sampled on 3rd Jan. 1989 at St. A, B, C, E.) Sample No. : C Depth Characteristics of Grain Distribution 0.10 44.70 30,50 24,50 Diameter of Maximum Grain mm 4.76 Coeficient of Curving Rate Uc': Coeficient of Uniformity Uc Diameter of 50 % D50 mm :
Diameter of 25 % D25 mm :
Diameter of 75 % D75 mm : 0.06 0.0055 0.12 9o : Sk : Sorting. 0.21 Skewness 0.18 Specific Gravity ©s Wn % : 142.24 Natural Water Content Li % : 9.75 Ignition Loss Shear Strength (In-situ Vane Test) kgf/cm2 : 0.009 Notes From In-situ Observation Soil Name : SANDY SILT Soil Color Brown (Surface)

Grey Silt (inside)

Brown sandy silt (surface)

Clayey silty SAND trace fine

89

Others

Form Soil Test

:

5

gravel

Table 2. 3-2 (28) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. : Bottom Material (Saline Wedge stat.) Survey Item of Monthly Survey Testing Date : January 23 - 31, 1989 4th Stage (Sampled on 29th Dec. 1988 at St.D, F, I, J and Sampled on 3rd Jan. 1989 at St. A.B.C.E.) Sample No. : D Depth ; Characteristics of Grain Distribution Gravel (more than 2000 um) % Sand (74 - 2000 um) % 34.86 • Silt (5 - 74 um) % . 39.00 Clay (less than 5 um) % 26.00 Diameter of Maximum Grain mm : 4.76 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' Diameter of 50 % D50 mm : 0.042 Diameter of 25 % D25 0.004 ጠጠ ; Diameter of 75 % D75 mm 0.10 : 0.20 Sorting So : Skewness Sk : 0.23 Os Specific Gravity high capture and the capture a Wn % : 151.00 Natural Water Content Li % : 12.80 Ignition Loss مريت المرين أرست المرين Shear Strength (In-situ Vane Test) kgf/cm2 : 0.022 Notes From In-situ Observation Soil Name : SANDY SILT Soil Color. Black (Silt) : Brown (Sand)

: Many wood fragment

: Clayey sandy SILT

Others.

Form Soil Test

Table 2. 3-2 (29) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

: Bottom Material (Saline Wedge stat.) Survey Item of Monthly Survey : January 23 - 31, 1989 Testing Date 4th Stage (Sampled on 29th Dec.1988 at St.D.F.1.J and Sampled on 3rd Jan.1989 at St.A.B.C.E.) Sample No. : E Depth Characteristics of Grain Distribution 2.0 : 36.0 62.0 Diameter of Maximum Grain mm : 2.00 Coeficient of Curving Rate Uc': Diameter of 50 % D50 Diameter of 25 % D25 Diameter of 75 % D75 mm : 0.0022 mm : -0.011 mm So : Sorting Skewness Sk Specific Gravity G≅ Natural Water Content Wn % : 91.16 Li % : 14.16 Ignition Loss Shear Strength (In-situ Vane Test) kgf/cm2 : 0.009 Notes From In-situ Observation Soil Name : SILTY CLAY Soil Color : Grey Others : CLAY and SILT trace sand Form Soil Test

Table 2. 3-2 (30) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge stat.) of Monthly Survey Testing Date : January 23 - 31, 1989 4th Stage (Sampled on 29th Dec. 1988 at St.D, F, I, J and Sampled on 3rd Jan. 1989 at St.A.B.C.E.) Sample No. : F Depth Characteristics of Grain Distribution Gravel (more than 2000 um) % : 2.00 : 38.00 : 60.00 Sand (74 - 2000 um) %
Silt (5 - 74 um) %
'Clay (less than 5 um) % Diameter of Maximum Grain mm : 2.00 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' 2 D5Ø Diameter of 50 % : : mm 0.0027 Diameter of 25 % D25 Diameter of 75 % D75 ጠጠ mm 0.015 Sortina . . So Skewness Sk التي يست الدور الحق والله وال Specific Gravity Gs : 2.590 Wn % : 117.72 Natural Water Content ملي يست لسنة تعلق نصب أنتها علين أنتان المراح المرا Ignition Loss Li % : 12.15 Shear Strength (In-situ Vane Test) kgf/cm2 : 0.044 Notes From In-situ Observation Soil Name : SOFT CLAY
Soil Color : Grey
Others : Silt brown is very thin Form Soil Test : CLAY and SILT trace sand

Table 2. 3-3 (31) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Fort. Survey Item : Bottom Material (Saline Wedge stat.) of Monthly Survey Testing Date : January 23 - 31, 1989 4th Stage (Sampled on 29th Dec. 1988 at St.D, F, I, J and Sampled on 3rd Jan.1989 at St.A,B,C,E.) Sample No. : I Depth Characteristics of Grain Distribution Gravel (more than 2000 um) % 0.22 % Sand (74 - 2000 um) 17,04 Silt (5 - 74 um) % % Clay (less than 5 um) % . . 44.24 38.50 Diameter of Maximum Grain mm : 9.52 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' Diameter of 50 % D50 Diameter of 25 % D25 : 0.012 mm ៣៣ Diameter of 75 % D75 mm 0.054 Sorting So 2 Skewness Sk Specific Gravity Gs : 2.468 ر. بعد يجد بيسا منه فديد سنة 1-م 192 يعد يعد يون بيشا يهيد دنما ونت (19 سم يون سنة يون ننده يدية فاين بدنة 185 سنة Wn % : Natural Water Content 147.52 Li % Ignition Loss Shear Strength (In-situ Vane Test) kgf/cm2 : 0.007 Notes From In-situ Observation Soil Name : SILT WITH SAND GREY Soil Color Grey Brown Others Many wood fragment Form Soil Test : CLAY trace sand with some SILT

Table 2. 3-3 (32) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port. : Bottom Material (Saline Wedge stat.) Survey Item of Monthly Survey Testing Date : January 23 - 31, 1989 4th Stage (Sampled on 29th Dec. 1988 at St.D,F,I,J and Sampled on 3rd Jan. 1989 at St. A, B, C, E.) Sample No. ; J Depth Characteristics of Grain Distribution Gravel (more than 2000 um) % Sand (74 - 2000 um) % 0.68 23.94 . : Silt (5 - 74 um) / 41.38 : Clay (less than 5 um) % . : 34.00 Diameter of Maximum Grain mm 9.52 Coeficient of Uniformity Uc. Coeficient of Curving Rate Uc' : Diameter of 50 % D50 0.028ന്ന : Diameter of 25 % D25 វាព Diameter of 75 % D75 0.08 mmSa Sorting : Sk Skewness Gs Specific Gravity 2.447 ه الله المن وقد وود بينها بعد بين يبدر هذه عليه وجل عند وجه بينا من عليه وجه الحلا المن عليه وجه الما المن عليه وجه بينا بمن بعد المن المن عليه Wn % : 144.77 Natural Water Content وبدوحة جوزانت مدرات فرواوية سارون ميارت ويوافي المراوية والمراوة والمراوة والمراوة والمراوة والمراوة Li % Ignition Loss : Shear Strøngth (In-situ Vane Test) kgf/cm2 0.048 : 40 pt 10 pt Notes From In-situ Observation Soil Name COARSE SILT WITH SAND GRAIN : Brown (Surface) Soil Color Grey (inside) Others : Many wood fragment Form Soil Test : Silty CLAY trace sand

Table 2. 3-3(33)RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Saline Wedge Station)

of Monthly Survey

Testing Date : March 23-30. 1989

5th Stage (Sampled on 31st Jan.-1st Feb. at St.D,F,I,J and

Samp	led on 6th Feb.1989 at St.A	,В,С,	E.)		
Sample No. Depth	: A				, a, , a
Characteristics	s of Grain Distribution	· 			
	Gravel (more than 2000 Um)		ક્ર	:	0.02
	Sand (74 - 2000 Um)		¥	:	2.54
	Silt (5 - 74 Um)		ક્ર	:	37.44
	Clay (less than 5 Um)		ક્ર	:	60.00
	Diameter of Maximum Grain		mm	:	4.760
	Coeficient of Uniformity		Uс	:	
	Coeficient of Curving Rate	?	Uc'	:	
	Diameter of 50 % (D 50)		m m	:	0.0030
	Diameter of 25 % (D 25)	•	mm ·	:	.
	Diameter of 75 % (D 75)		mm	:	0.0150
	Sorting		So	:	-
	Skewness		Sk	:	
Specific Gravi	ty	Gs		:	2.64
Natural Water	Content	Wn	8	:	155.42

Shear Strength (In-situ Vane Test) kgf/cm2 : 0.007

Li % : 13.47

NOTES

From In-situ Observation Soil Name : Silt

Soil Color : Greyesh Brown

Others

Ignition Loss

From Soil Test

: Silt and Clay trace Sand

Table 2. 3-3 (34) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Port.

: Bottom Material (Saline Wedge Station) Survey Item

of Monthly Survey

: March 23 - 30. 1989 Testing Date

5th Stage (Sampled on 31st Jan.-1st Reb

	ed on 31st Jan1st Feb ed on 6th Feb.1989 at			and	
Sample No. : Depth :	В				
Characteristics	of Grain Distribution	1			
C	Gravel (more than 2000) Um)	ક	:	0.22
	Sand (74 - 2000 Um)		8	:	28.34
	Silt (5 - 74 Um)		율	:	45.24
	Clay (less than 5 Um)		8	:	26.20
I	Diameter of Maximum G	cain	mm	:	4.760
(Coeficient of Uniform	ity	Üc	:	
(Coeficient of Curving	Rate	Uc'	:	
	Diameter of 50 % (D		mm	:	0.0460
I	Diameter of 25 % (D	25)	mm	:	0.0045
•	Diameter of 75 % (D	75)	m m	:	0.0850
;	Sorting		So	:	0.23
	Skewness		Sk	: ´	0.18
Specific Gravity	y	Gs		:	2.68
Natural Water C	ontent	Wn	8	:	122.78

Specific Gravity	Gs	:	2.68
Natural Water Content	Wn %	:	122.78
Ignition Loss	Li %	:	9.69
Shear Strength (In-situ Vane Test)	kgf/cm2	:	0.009
#			

From In-situ Observation

: Sandy Silt. Silt (Surface) Fine Sand (Inside) Soil Name

: Brownish Grey (Surface) Soil Color

Grey (Inside)

Others

From Soil Test

: Sandy Clayey SILT

Table 2. 3-3 (35) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Port.

Survey Item : Bottom Material (Saline Wedge Station)

of Monthly Survey

Testing Date : March 23 - 30. 1989

5th Stage (Sampled on 31st Jan.-1st Feb. at St.D,F,I,J and

Sampled on 6th Feb. 1989 at St.A,B,C,E.)

	~ —				
Sample No.	: C				
Depth	:				
Characteristi	cs of Grain Distribution				
	Gravel (more than 2000 Um)		ક્ર	:	0.50
	Sand (74 - 2000 Um)		ક્ર	:	5.90
	Silt (5 ~ 74 Um)		8	:	39.10
	Clay (less than 5 Um)		ક	:	54.50
	Diameter of Maximum Grain		mm	:	9.520
	Coeficient of Uniformity		Uc	:	~-
	Coeficient of Curving Rate	?	υc'	:	
	Diameter of 50 % (D 50)		mm	:	0.0048
	Diameter of 25 % (D 25)		mm	:	
	Diameter of 75 % (D 75)		mm	:	0.0180
•	Sorting		So	:	
	Skewness		Sk	:	
Specific Grav	ity	Gs		:	2.55
Natural Water	Content	۷'n	 %	:	274.00
Ignition Loss		Li	୫ ·	:	21.08
Shear Strengt	h (In-situ Vane Test)	kgf,	/cm2	:	0.003

NOTES

From In-situ Observation Soil Name : Silt

Soil Color : Brownish Grey

Others : Many Wood Fragment

From Soil Test

: SILT and CLAY

Table 2. 3-3 (36) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Port.

Survey Item : Bottom Material (Saline Wedge Station)

of Monthly Survey

Testing Date : March 23 - 30. 1989

5th Stage (Sampled on 31st Jan.-1st Feb. at St.D,F,1,J and

Sampled on 6th Feb. 1989 at St. A. B. C. E.

Sample No. Depth	: D					
Characteristic	s of Grain Distribut	ion				
	Gravel (more than 2)	ક	:	0.06
	Sand (74 - 2000 Um)			%	:	40.60
	Silt (5 - 74 Um)			8	:	44.54
	Clay (less than 5 U	m)		%	:	14.80
	Diameter of Maximum	Grain		m m	:	4.760
	Coeficient of Unifo	rmity		Uc	:	27.30
	Coeficient of Curvi		e .	Uc'	:	4.16
	Diameter of 50 %	(D 50)		mm	:	0.0700
	Diameter of 25 %		•	m m	:	0.0120
	Diameter of 75 %			m m	:	0.1180
	Sorting			So		0.32
	Skewness			Sk		0.29
Specific Gravi	ty		Gs		:	2.60
Natural Water	Content		Wn	 ፄ	:	124.05
Ignition Loss			Li		:	13.82
Shear Strength	(In-situ Vane Test)	. — — — —	kgf/d	 cm2	:	0.024
Nompo						

NOTES

From In-situ Observation

Soil Name : Silt with Sand Grain

Soil Color : Black (Silt)

Yellowish Brown (Sand)

Others :

From Soil Test

: SILT and FINE SAND

Table 2. 3-3 (37) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Port.

Survey Item : Bottom Material (Saline Wedge Station)

of Monthly Survey

Testing Date : March 23 - 30. 1989

5th Stage (Sampled on 31st Jan.-1st Feb. at St.D,F,1,J and Sampled on 5th Feb.1989 at St.A,B,C,E.)

quipe	red on oth reb. 1989 at St.	л, ы, C	, L.)		
Sample No. Depth	: E				
Characteristic	s of Grain Distribution				
character 13c1c	Gravel (more than 2000 Um)	8		0.12
*	Sand (74 - 2000 Um)	′	eg E	:	7.54
	Silt (5 - 74 Um)		₹ *	•	38.34
	Clay (less than 5 Um)		8	:	54.00
	Diameter of Maximum Grain		mm	:	4.760
	Coeficient of Uniformity		Uc	:	-
	Coeficient of Curving Rat	e	Uc'	:	
	Diameter of 50 % (D 50)		mm	:	0.0040
	Diameter of 25 % (D 25)		mm	:	
•	Diameter of 75 % (D 75)	·	mm	:	0.0180
	Sorting		So	:	
<u> </u>	Skewness		Sk	:	
Specific Gravi	ty	Gs		:	2.58
Natural Water	Content	Wn	8	:	151.26
Ignition Loss		Li	8	:	14.64

NOTES

From In-situ Observation Soil Name : Clay

Soil Color : Brownish Grey

Others

From Soil Test

: SILT and CLAY trace Fine Sand

Shear Strength (In-situ Vane Test) kgf/cm2 : 0.055

Table 2. 3-3 (38) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Port.

Survey Item : Bottom Material (Saline Wedge Station)

of Monthly Survey

Testing Date : March 23 - 30. 1989

5th Stage (Sampled on 31st Jan.-1st Feb. at St.D.F.I.J and

Sampled on 6th Feb.1989 at St.A,B,C,E.)

Sample No. : F
Depth :

Characteristics of Grain Distribution Gravel (more than 200			ૠ	:	
Sand (74 - 2000 Um)			8	:	3.50
Silt (5 - 74 Um)			B	:	27.00
Clay (less than 5 Um))		ક	:	69.50
Diameter of Maximum (Grain		mm	:	2.000
Coeficient of Uniform	nity		UС	:	
Coeficient of Curving	g Rate		Uc'	:	- -
Diameter of 50 % (I	50)		mm	:	0.0010
Diameter of 25 % ()			mm	:	
Diameter of 75 % ()				:	0.0078
Sorting	. •		So	:	
Skewness			Sk	:	
Specific Gravity	(Gs		:	2.63
Natural Water Content		Wn	8	:	124.96
Ignition Loss		 Li	~~~~~	:	12.52
Shear Strength (In-situ Vane Test)		kgf/	cm2		0.017

NOTES

From In-situ Observation

Soil Name : Clay

Soil Color : Brown (Surface)

Grey (Inside)

Others :

From Soil Test

: Silty CLAY

Table 2. 3-3 (39) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Port.

: Bottom Material (Saline Wedge Station) Survey Item

of Monthly Survey

Testing Date : March 23 - 30. 1989

5th Stage (Sampled on 31st Jan.-1st Feb. at St.D,F,I,J and

Samp	led on 6th Feb. 1989 at St.	.Λ,Β,C,E.)		
Sample No. Depth	: I			
Characteristics	s of Grain Distribution			
	Gravel (more than 2000 Un	m) %	:	0.38
	Sand (74 - 2000 Um)	· %	:	19.40
	Silt (5 - 74 Um)	g.	:	41.32
	Clay (less than 5 Um)	8	:	38.90
	Diameter of Maximum Grain	n mm	;	4.760
·	Coeficient of Uniformity	ŬС	:	
	Coeficient of Curving Ra	te Uc'	:	
	Diameter of 50 % (D 50) mm	:	0.0130
	Diameter of 25 % (D 25) mm	:	0.0012
	Diameter of 75 % (D 75) mm	:	0.0650
4	Sorting	So	:	0.14
	Skewness	Sk	:	0.46
Specific Gravi	ty	Gs	;	2.56

Natural Water Content	Wn %		
Ignition Loss	Lì %		
Shear Strength (In-situ Vane Test)	kgf/cm2		0.014

NOTES

From In-situ Observation

Soil Name : Soft Mud with Fine Sand Grain

Soil Color : Brownish Grey

Others :

From Soil Test

: CLAY and SILT

Table 2. 3-3 (40) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Port.

Survey Item : Bottom Material (Saline Wedge Station)

of Monthly Survey

Testing Date : March 23 - 30. 1989

5th Stage (Sampled on 31st Jan.-1st Feb. at St.D,F,I,J and Sampled on 6th Feb. 1989 at St.A,B,C,E.)

Sampled on 6th Feb. 1989 at St.A,B,C,E.)				
Sample No. Depth	: J			
Characteristic	s of Grain Distribution			
,	Gravel (more than 2000 Um)) %	:	0.06
	Sand (74 - 2000 Um)	e E	:	10.94
	Silt (5 - 74 Um)	8	:	36.80
	Clay (less than 5 Um)	95	;	52.20
	Diameter of Maximum Grain	mm	:	4.760
	Coeficient of Uniformity	Uс	:	
	Coeficient of Curving Rate	e Uc'	:	
	Diameter of 50 % (D 50)	mm	:	0.0040
	Diameter of 25 % (D 25)	វាពា	:	
	Diameter of 75 % (D 75)	mm	:	0.0220
	Sorting	So	:	
	Skewness	Sk	:	
Specific Gravi	.ty	Gs	:	2.59

Specific Gravity	Gs	:	2.59
Natural Water Content	Wn %	:	155.03
Ignition Loss	Lì %	:	15.58
Shear Strength (In-situ Vane Test)	kgf/cm2	:	0.017

NOTES

From In-situ Observation

Soil Name : Clayey Silt

Soil Color : Brown is very thin (Surface)

Dark Grey (Inside)

Others

From Soil Test

: SILT and CLAY with some Sand

Table 2. 3-2 (41) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Port.

Survey Item : Bottom Material (Saline Wedge Station)

of Monthly Survey

Testing Date : M a y . 1989

6th Stage (Sampled on 16th-17th Mar.at St.D,F,I,J and Sampled on 20th Mar.1989 at St.A,B,C,E.)

Sample No. Depth	: A :				
Characteristic	s of Grain Distribution Gravel (more than 2000 Um)	· · · · · · · · · · · · · · · · · · ·	7.	*	*
	Sand (74 - 2000 Um)		7.	:	5.72
	Silt (5 - 74 Um)		/-	:	48.28
	Clay (less than 5 Um)		7.		46.00
	Diameter of Maximum Grain		mm	2	2.000
	Coeficient of Uniformity		Uc	ı	
	Coeficient of Curving Rate	2	Uc'	:	
•	Diameter of 50 % (D 50)		mm	:	0.0045
	Diameter of 25 % (D 25)		mm		
	Diameter of 75 % (D 75)		mm	•	0.0250
	Sorting		So	:	***
	Skewness		Sk	:	
Specific Oravi	ty	Gs		:	2.57
Natural Water					192.67
Ignition Loss		L-5.			15.18
	(In-situ Vane Test)		 /cm2	:	0.006

NOTES

From In-situ Observation

Soil Name : S i l t (very soft)

Soil Color : Greyesh Brown

Others

From Soil Test

: SILT and CLAY trace Sand

Table 2. 3-2 (42) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Fort.

Survey Item : B o t t o m M a t e r i a l (Saline Wedge Station)

of Monthly Survey

Testing Date : M a y . 1989

Sth Stage (Sampled on 16th-17th Mar.at St.D.F.I.J and Sampled on 20th Mar.1989 at St.A.B.C.E.)

Sample No. Depth	: B				
Characterist:	lcs of Grain Distribution				
	Gravel (more than 2000	Um)	%	:	0.22
	Sand (74 - 2000 Um)		%	:	4.24
	Silt (5 - 74 Um)		7.	2	35.54
	Clay (less than 5 Um)		%	:	60.00
	Diameter of Maximum Gr	ain	mm	:	4.760
	Coeficient of Uniformi	ty	ນຕ	:	
	Coeficient of Curving	•	Ucʻ	:	
	Diameter of 50 % (D	50)	mm	:	0.0030
	Diameter of 25 % (D	25)	mm	:	
	Diameter of 75 % (D	75)	មាយ	:	0.0130
	Sorting		So	:	
	Skewness		Sk	:	 =-
Specific Gra	vity	Gs		:	2.60
Natural Wate	r Content	Wn	~ %	:	233.18
Ignition Los	<u> </u>	Li	 %	:	16.47

NOTES

From In-situ Observation

Soil Name : S i l t (very soft)

Soil Color : Greyesh Brown

Others

From Soil Test

: SILT and CLAY

Shear Strength (In-situ Vane Test) kgf/cm2 : 0.004

Table 2. 3-2 (43) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Fort.

Survey Item : Bottom Material (Saline Wedge Station)

of Monthly Survey

Testing Date : M a y . 1989

6th Stage (Sampled on 16th-17th Mar.at St.D,F,1,J and Sampled on 20th Mar.1989 at St.A,B,C,E.)

Sample No. Depth	: C			
Characteristi	lcs of Grain Distribution		الله ديون الله جيون دي	
•	Gravel (more than 2000 Um)	7-	:	0.31
	Sand (74 - 2000 Um)	7-	=	13.20
	Silt (5 - 74 Um)	%	:	38.49
	Clay (less than 5 Um)	%	ţ	48.00
	Diameter of Maximum Grain	ww	:	4.760
	Coeficient of Uniformity	Uc	:	
	Coeficient of Curving Rate	Uc'	:	
	Diameter of 50 % (D 50)	mm	:	0.0055
	Diameter of 25 % (D 25)	mm	:	
	Diameter of 75 % (D 75)	mm	:	0.0340
	Sorting	So	:	
	Skewness	Sk	:	
Specific Grav		_	:	2.55
Natural Wate	r Content	Wn %		
Ignition Los		Li %		
	th (In-situ Vane Test)		:	0.009
NOTES	يين يسير بينة علي سنة فيها فين فيند في بينة عليه إنن ومع نفته بعن منته بعيدً أناية بدأة فيدر فنته ليسة 400 100 100 100			

NOTES

From In-situ Observation

Soil Name : Silt with little Sand Grain

Soil Color : Greyesh Brown

Others

From Soil Test

: SILT and CLAY with some Sand

Table 2. 3-2 (44) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Fort.

Survey Item : Bottom Material (Saline Wedge Station)

of Monthly Survey

Testing Date : May. 1989

6th Stage (Sampled on 16th-17th Mar.at St.D.F.I.J and Sampled on 20th Mar.1989 at St.A.B.C.E.)

5.01	mpled on 20th Mar. 1989 at St.A.B.			سے س
Sample No. Depth	: D			
Characteristi	ics of Grain Distribution			
	Gravel (more than 2000 Um)	%	:	0.39
	Sand (74 - 2000 Um)	%	:	16.24
	Silt (5 - 74 Um)	· %	:	35.37
	Clay (less than 5 Um)	7.	:	48.00
	Diameter of Maximum Grain	ጠጠ	:	9.520
	Coeficient of Uniformity	Uc	3	
	Coeficient of Curving Rate	Uc΄	:	
•	Diameter of 50 % (D 50)	mm	:	Ø.Ø06Ø
	Diameter of 25 % (D 25)	mm	:	
	Diameter of 75 % (D 75)	шш	:	Ø . Ø 6 Ø Ø
	Sorting	So	:	
	Skewness	Sk	:	
Specific Gra	·		:	2.53
Natural Wate		%	:	116.98
Ignition Los				12.95

NOTES

From In-situ Observation

Soil Name : C l a y (massive)

Shear Strength (In-situ Vane Test) kgf/cm2

Soil Color : Grey

Others :

From Soil Test

: SILT and CLAY with some Sand

: 0.043

Table 2. 3-2 (45) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Port.

Survey Item : Bottom Material (Saline Wedge Station)

of Monthly Survey

Testing Date : M a y . 1989

6th Stage (Sampled on 16th-17th Mar.at St.D,F,1,J and Sampled on 20th Mar. 1989 at St.A.B.C.E.)

Sample No. Depth	: E				
Characteristic	s of Grain Distribution				
	Gravel (more than 2000 Um))	%	:	0.09
	Sand (74 - 2000 Um)		7.	:	53.40
	Silt (5 - 74 Um)		7.	:	34.51
	Clay (less than 5 Um)		7.	:	12.00
	Diameter of Maximum Grain		mm	:	4.760
	Coeficient of Uniformity		Uc	:	26.00
	Coeficient of Curving Rate	₽	ηc.	:	11.00
	Diameter of 50 % (D 50)		mm	ŧ	0.1040
	Diameter of 25 % (D 25)		mm	:	0.0500
	Diameter of 75 % (D 75)		mm	:	
	Sorting		So	2	0.58
	Skewness		Sk	:	0.69
Specific Gravi	ty	Gs		:	2.57
Natural Water		WП			137.62
Ignition Loss			7.		
Shear Strength	(In-situ Vane Test)	kgf.	/cm2.	:	0.024

NOTES

From In-situ Observation

Soil Name : Clayey Silt (Surface)

Sand (Inside)

Soil Color

: Dark Grey (Surface) Yellowish Brown (Inside)

Others

From Soil Test

: Silty FINE SAND with some Clay

Table 2. 3-2 (46) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Port.

Survey Item : B o t t o m M a t e r i a l (Saline Wedge Station)

of Monthly Survey

Testing Date : May. 1989

6th Stage (Sampled on 16th-17th Mar.at St.D.F,I,J and Sampled on 20th Mar.1989 at St.A,B,C,E.)

Sample No. : F
Depth :

Characteristic	s of Grain Distribu					
	Gravel (more than	2000 Um)		%	:	
	Sand (74 - 2000 Um)		%	:	16.99
	Silt (5 - 74 Um)			7.	:	33.01
	Clay (less than 5	Um)		7.	:	50.00
	Diameter of Maximu	m Grain		ጠጠ	:	2.000
	Coeficient of Unif	ormity		U⊏	:	
	Coeficient of Curv	ing Rate	₽	Uc'	:	
4	Diameter of 50 %	(D 50)		mm	:	0.0050
	Diameter of 25 %	(D 25)		mm	:	
	Diameter of 75 %	(D 75)		mm .	:	Ø.Ø60Ø
	Sorting			So	:	
	Skewness	•		Sk	:	
Specific Gravity		Gs		<u> </u>	2.55	
Natural Water	Content	· ==	Wn	7.		111.02

Natural Water Content	Wn %	:	111.02
Ignition Loss	Li %	;	9.91
Shear Strength (In-situ Vane Test)	kgf/cm2	:	0.032

NOTES

From In-situ Observation

Soil Name : Silty Clay

Soil Color : Grey and Dark Grey

Others :

From Soil Test

: Silty CLAY - some Sand

Table 2. 3-2 (47) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access

Channel of Banjarmasin Port.

Survey Item : B o t t o m M a t e r i a l (Saline Wedge Station)

of Monthly Survey

Testing Date : May. 1989

6th Stage (Sampled on 16th-17th Mar.at St.D,F,I,J and Sampled on 20th Mar.1989 at St.A.B.C.E.)

Sample No. Depth	: I :			
Characteristi	cs of Grain Distribution Grayel (more than 2000 Um)	%	:	
	Sand (74 - 2000 Um)	7.		26.65
	Silt (5 - 74 Um)	7.	:	39.35
	Clay (less than 5 Um)	· %	:	34.00
:	Diameter of Maximum Grain	mm	:	2.000
	Coeficient of Uniformity	Uc	:	·
	Coeficient of Curving Rate	Uc'	:	
	Diameter of 50 % (D 50)	mm	:	0.0360
•	Diameter of 25 % (D 25)	mm	:	0.0022
	Diameter of 75 % (D 75)	mm	:	0.0850
	Sorting	So	:	0.16
•	Skewness	Sk	:	0.14
Specific Grav		 5	1	2.55
Natural Water	Content W		:	152.02

NOTES

Ignition Loss

From In-situ Observation

Soil Name : Very soft Silt (Surface)

Firm Silt with Fine Sand Grain (Inside)

Li %

kgf/cm2 :

14.91

0.043

Soil Color : Brown (Surface)

Shear Strength (In-situ Vane Test)

Grey (Inside)

Others : With Mineral Organic (Inside)

From Soil Test

: Clayey Sandy SILT

Table 2. 3-2 (48) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in The Access
Channel of Banjarmasin Fort.

Survey Item: Bottom Material (Saline Wedge Station)

of Monthly Survey

Testing Date : M a y . 1989

6th Stage (Sampled on 16th-17th Mar. at St.D.F.I.J and Sampled on 20th Mar. 1989 at St.A.B.C.E.)

Sample No. Depth	; J :			
Characteristic	Characteristics of Grain Distribution		·	
•	Gravel (more than 2000 Um)	7.	:	Ø.18
	Sand (74 - 2000 Um)	7.	:	12.60
	Silt (5 - 74 Um)	7.	2	32.22
	Clay (less than 5 Um)	%	:	55.00
	Diameter of Maximum Grain	mm	:	. 4.760
	Coeficient of Uniformity	Uc		
	Coeficient of Curving Rate	υc '	:	
	Diameter of 50 % (D 50)	mm		0.0038
	Diameter of 25 % (D 25)		:	
	Diameter of 75 % (D 75)	mm	:	0.0400
	Sorting	So	:	
	Skewness	Sk		
Specific Gravi				2.58
Natural Water				246.39
Ignition Loss	L	i %	;	17.24
	ı (In-situ Vane Test) k	 gf/cm2	:	0.005

NOTES

From In-situ Observation

Soil Name : S i l t (very soft)

Soil Color : Greyesh Brown

Others :

From Soil Test

: Silty CLAY with some Sand

Table 2. 3-2 (49) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item : Bottom Material (Saline Wedge stat.) of

Monthly Survey

Testing Date : June, 1989

7th Stage (Sampled on 30th Apr.at St.A,B,C,E and Sampled on 13th May 1989 at St.D,F,I,J.)

Sample No. Depth	: A :			
Characteristi	cs of Grain Distributio	ח		
	Gravel (more than 200 Sand (74 - 2000 um) Silt (5 - 74 um)	10 um) %	:	0.03
	Sand (74 – 2000 um)	7.	:	8.40
	Silt (5 - 74 um)	7/	:	59.57
	Clay (less than 5 um)	7.	:	32.00
	Diameter of Maximum G	rain m	nm :	4.76
	Coeficient of Uniform	nity L	J⊂ :	_
	Coeficient of Curving	Rate L	jc, :	
	Diameter of 50 % D)50 n	non :	0.014
	Diameter of 25 % D		ma and	0.003
	Diameter of 75 % D)75 n	: mm	0.031
	Sorting	5	30 :	0.31
· ·	Skewness	8	3k :	0.47
Specific Gra	vity G	35	:	2.59
Natural Wate		۷m ک	% :	105.30
Ignition Los		_i	% :	13.68
	th (In-situ Vane Test) k	<gf cm2<="" td=""><td>:</td><td>0.027</td></gf>	:	0.027
Notes	سد هند وجو چند بند بن وجو جو جو جو ندو جو جود کا			
	From In-situ Observat	tion		
	Soil Name :		Mud (Sur (Inside)	
	Soil Color :		n (Surfac	
	المساوية		-	(Inside)
	uma a s	J. 1 WY1		(THETHE)

Others :

Form Soil Test : Clayey SILT

Table 2. 3-2 (50) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item : Bottom Material (Saline Wedge stat.) of .

Monthly Survey

Testing Date : June, 1989

7th Stage (Sampled on 30th Apr.at St.A.B.C.E and Sampled on 13th May 1989 at St D.F.I.J.)

Sample No. Depth					
	ics of Grain Distribut	ion			
	Gravel (more than 2	000 um) 7	/_	;	0.01
	Sand (74 ~ 2000 um)	7	7.	;	2.67
	Silt (5 ~ 74 um)		%		33.32
	Clay (less than 5 w	m) :	%	:	64.00
	Diameter of Maximum	Grain (ជាធា	. :	4.76
	Coeficient of Unifo	rmity (Uc	:	-
	Coeficient of Curvi		Uc.	:	
	Diameter of 50 %	D5Ø	mm .		0.0018
	Diameter of 25 %		mm	;	-
	Diameter of 75 %		mm	•	Ø.ØØ7
	Sorting		සිං	:	
	Skewness		Sk .	:	,
Specific Gra		Gs		:	2.54
Natural Wate	er Content	Wm	7.	:	195.91
Ignition Los	33	Li			15.21
Charac Charac	th (In-situ Vane Test	\ Vaf/cm2	2	<u></u>	ପ. ପଦ୍ର
Notes .	From In-situ Obser	vation			

Soil Name : Silty very soft
Soil Color : Greyesh Brown

Others

Form Soil Test : Silty CLAY

Table 2. 3-2 (51) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in
The Access Channel of Banjarmasin Fort.

Survey Item : Bottom Material (Saline Wedge stat.) of

Monthly Survey

Testing Date : June, 1989

7th Stage (Sampled on 30th Apr.at St.A,B,C,E and Sampled on 13th May 1989 at St.D,F,I,J.)

Sample No. : C Depth ... --- --- --- --- ---Characteristics of Grain Distribution Gravel (more than 2000 um) % % Sand (74 - 2000 um) : 6.67 Silt (5 - 74 um) 7. 44.53 : % Clay (less than 5 um) : 48.00 : Diameter of Maximum Grain mm 4.76 Coeficient of Uniformity UC Coeficient of Curving Rate Uc' : Diameter of 50 % D50 Diameter of 25 % D25 Diameter of 75 % D75 ; 0.0054 mm : mm ŧ 0.02 mm So Sorting Sk Skewness : 2.56 Specific Gravity Gs Wn % : 194.33 Natural Water Content

Notes

Ignition Loss

From In-situ Observation

Soil Name : Silt

Soil Color : Greyesh Brown

Others :

Shear Strength (In-situ Vane Test) kgf/cm2

Form Soil Test : CLAY and SILT trace sand

Li % : 15.16

: 0.016

Table 2. 3-2 (52) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Saline Wedge stat.) of

- 1971 Lian, July 2006 first, 1972 State (1972) The State

Monthly Survey

Testing Date : June, 1989

7th Stage (Sampled on 30th Apr. at St. A, B, C, E and Sampled on 13th May 1989 at St.D,F,[,J.)

Sample No. Depth	; D				:	
Characterist	ics of Grain Distribut	 :ion				
	Gravel (more than 2		%	:	0.04	
	Sand (74 - 2000 um)			:	41.28	
	Silt (5 - 74 um)		7.	:	40.68	
	Clay (less than 5 L	ım)	%.	:	18.00	
	Diameter of Maximum	Grain	៣៣	•	4.76	
	Coeficient of Unifo	ormity	Uc			
	Coeficient of Curvi	ng Rate	Uc′	:		
	Diameter of 50 %	D50	ww	:	0.075	
	Diameter of 25 %		mm	:	0.013	
	Diameter of 75 %		mm	:	0.105	
	Sorting		So	:	0.35	
. •	Skewness		Sk			
Specific Gra		 Gs			2.64	
						
	r Content					
Ignition Los	•				8.64	
	th (In-situ Vane Test)					
Notes	that many many from paris son, during from 1991 state units 1914 bills have filled grow, which water disks ways, w	<u> </u>			. بيبن چني بيند يس نست کي بيند دود سه ۱۹۸۶	·- ·- ·- ·- ·- ·- ·- ·
	· From Toweith Observ	ention.				

From In-situ Observation

Soil Name : Clayey Silt Soil Color : Dark Grey

Soil Color

Others

Form Soil Test

: SILT and Fine SAND with some

clay

Table 2. 3-2 (53) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Saline Wedge stat.) of

Monthly Survey

Testing Date : June, 1989

7th Stage (Sampled on 30th Apr.at St.A,B,C,E and Sampled on 13th May 1989 at St D.F. I.J.)

Sample No. : E Depth Characteristics of Grain Distribution : Gravel (more than 2000 um) % : 0.01 Sand (74 - 2000 um) % : 4.32 Silt (5 - 74 um) % : 31.67 Clay (less than 5 um) % : 64.00 0.01 Diameter of Maximum Grain mm : 4.76 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' mm : 0.0018 Diameter of 50 % D50 Diameter of 25 % Diameter of 75 % D25 : mm --mm D75 : 0.0105 So Sorting . : Skewness Sk • Specific Gravity Gs : 2.57

Natural Water Content Wn % : 177.58

Shear Strength (In-situ Vane Test) kgf/cm2 : 0.018

Notes

Ignition Loss

From In-situ Observation

Soil Name : Silty Clay

Soil Color

: Dark Grey

Others

Form Soil Test : CLAY and SILT

Li % : 14.25

Table 2. 3-2 (5) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge stat.) of Monthly Survey Testing Date : June, 1989 7th Stage (Sampled on 30th Apr. at St. A, B, C, E and Sampled on 13th May 1989 at St.D,F,I,J.) Sample No. : F Depth Characteristics of Grain Distribution Gravel (more than 2000 um) % Sand (74 - 2000 um) % 2.92 : 7. : % : Silt (5 - 74 um) : 39.08 Clay (less than 5 um) 58.00 Diameter of Maximum Grain mm : 2.00 Coeficient of Uniformity UC : Coeficient of Curving Rate Uc' Diameter of 50 % D5Ø mm E 0.0031 Diameter of 25 % D25 ET) ET) Diameter of 75 % D75 0.0108 mm Sorting So Skewness Sk Specific Gravity Gs : 2.59 Natural Water Content Wn % : 117.92 TO 15 Ignition Loss Li % : 11.81 Shear Strength (In-situ Vane Test) kgf/cm2 : 0.034 Notes From In-situ Observation Soil Name : Silty (Surface) Clay (Inside) Soil Color : Brown (Surface) Dark Grey (Inside) Others Form Soil Test : CLAY and SILT

Table 2. 3-2 (55) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge stat.) of Monthly Survey Testing Date : June, 1989 7th Stage (Sampled on 30th Apr.at St.A,B,C,E and Sampled on 13th May 1989 at St.D,F,I,J.) Sample No. : I Depth Characteristics of Grain Distribution Gravel (more than 2000 um) % 0.04 Sand (74 - 2000 um) % : 19.07 Silt (5 - 74 um) 7. 7. : 40.89 Clay (less than 5 um) : 40.00 Diameter of Maximum Grain mm : 4.76 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' Diameter of 50 % D5Ø mm 0.0104 Diameter of 25 % D25 ៣៣ : 0.0013 Diameter of 75 % D75 ഗ്രത : 0.0405 Ø.15 Sorting So Skewness Sk : 0.73Specific Gravity निह 2.60 Wn % : 116.03 Natural Water Content Ignition Loss Li % : 14.33 The contract of the contract o Shear Strength (In-situ Vane Test) kgf/cm2 : 0.051

From In-situ Observation

Soil Name

: Sandy Silt (Surface)

Silt (Inside)

Soil Color

: Brown (Surface)

Dark Grey (Inside)

Others

Notes

Form Soil Test : CLAY and SILT

Table 2. 3-2 (%) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Saline Wedge stat.) of

Monthly Survey

Testing Date : June, 1989

7th Stage (Sampled on 30th Apr.at St.A,B,C,E and Sampled on 13th May 1989 at St D,F,I,J.)

Sample No. Depth	: J :				
	s of Grain Distribution Gravel (more than 2000 um Sand (74 - 2000 um)) %	:	0.01	
	Silt (5 - 74 um) Clay (less than 5 um)	7. 7. 7.	:	5.40 34.59 60.00	
	Diameter of Maximum Grain	നന്ദ്ര ।	:	4.76	
	Coeficient of Uniformity Coeficient of Curving Rat	Uc' :e Uc'	:	<u>-</u>	
	Diameter of 50 % D50 Diameter of 25 % D25 Diameter of 75 % D75	កាកា កាកា កាកា	:	0.0028 - 0.012	
	Sorting Skewness	So Sk	:		
Specific Grav	ity Gs			2.58	
Natural Water	Content	%	:	158.85	, , ,
Ignition Loss	Li	%	:		
	h (In-situ Vane Test) kgf/(:m2	3	0.010	
Notes	وه الله الله الله الله الله الله الله ال				. ~~ ~~ .

From In-situ Observation

Soil Name : Mud (Surface) Mud with little

mineral organic (Inside)

Soil Color

: Brown (Surface)

Brownish Grey (Inside)

Others

Form Soil Test : Silty CLAY

Table 2. 3-2 (57) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. : Bottom Material (Saline Wedge Station) Survey Item of Monthly Survey. Testing Date : August 4-9, 1989 8th Stage (Sampled on 7th May at St.D,F,1(E),J(E) and Sampled on 11th June 1989 at $St.\Lambda(E)$, B(E), C(E), E.) Sample No. : A Depth : Depth . Characteristics of Grain Distribution Gravel (more than 2000 um) % Sand (74 - 2000 um) % Silt (5 - 74 um) % 9.36 . : : 32.64 . 1 Clay (less than 5 um) /. 58.00 Diameter of Maximum Grain mm 5 0.84 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' Diameter of 50 % D50 Diameter of 25 % D25 Diameter of 75 % D75 . mm 0.0019 mm mm 0.0224 Sorting Sa * Skewness Sk : 2.62 Specific Gravity ចទ Natural Water Content Wn Z : 117.01 Li % Ignition Loss Shear Strength (In-situ Vane Test) kgf/cm2 : 0.034 Notes From In-situ Observation Soil Name : Soft Silt (Surface) Silt (Inside) Soil Color : Brown (Surface) Grey and Dark Grey (Inside) Others

Form Soil Test : Silty CLAY trace sand

Table 2. 3-2 (58) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge Station) of Monthly Survey. Testing Date : August 4-9, 1989 8th Stage (Sampled on 7th May at St.D,F,1(E),J(E) and Sampled on 11th June 1989 at St.A(E), B(E), C(E), E.) Sample No. : B Characteristics of Grain Distribution Gravel (more than 2000 um) % 0.01 Sand (74 - 2000 um) % 45.95 : Silt (5 - 74 um) 7. 40.04 • Clay (less than 5 um) % 14.00 Diameter of Maximum Grain mm 4.76 Coeficient of Uniformity Uc 55.1 : Coeficient of Curving Rate Uc' Diameter of 50 % D50 Diameter of 25 % D75 Diameter of 75 % D75 0.799 mm : មេឃ : 0.023 mm 0.125: Sorting 80 0.43 Skewness Sk Specific Gravity Gs : 2.66 Natural Water Content Wn % 95.31 Ignition Loss Li % 8.29 3 Shear Strength (In-situ Vane Test) kgf/cm2 Notes From In-situ Observation Soil Name : Alternation of Fine Sand and Silt Soil Color : Dark Grey and Brown (Fine Sand) Grey (Silt) Others

Form Soil Test : SILT and fine SAND with some clay

Table 2. 3-2 (9) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge Station) of Monthly Survey. : August 4-9, 1989 Testing Date 8th Stage (Sampled on 7th May at St.D.F.1(E), J(E) and Sampled on 11th June 1989 at St.A(E),B(E),C(E),E.) Sample No. : C Depth 2 Characteristics of Grain Distribution Gravel (more than 2000 um) % Sand (74 - 2000 um) 7. * 6.37 27.62 66.00 Silt (5 - 74 um) 7. : 7. Clay (less than 5 wm) : Diameter of Maximum Grain mm : 4.76 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' : Diameter of 50 % D50 mm Diameter of 25 % D25 mm Diameter of 75 % D75 mm Sorting So Skewness SI: 69 : 2.59 Specific Gravity THE END THE SIZE THE Natural Water Content Wn % : 188.03 Ignition Loss Li % : 14.71 Shear Strength (In-situ Vane Test) kgf/cm2 : Ø.018 Notes From In-situ Observation Soil Name : Silt is very Thin (Surface) Silt (Inside) Soil Color : Brown (Surface) Dark Grey (Inside) Others : Little Mineral Organic Form Soil Test : Silty CLAY trace sand

Table 2. 3-2 (60) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Fort. Survey Item : Bottom Material (Saline Wedge Station) of Monthly Survey. Testing Date : August 4-9, 1989 8th Stage (Sampled on 7th May at St.D,F,I(E),J(E) and Sampled on 11th June 1989 at St.A(E), B(E), C(E), E.) Sample No. : D Depth : Characteristics of Grain Distribution Gravel (more than 2000 um) % Sand (74 - 2000 um) % Silt (5 - 74 um) 7. 25.15 Clay (less than 5 um) 7. 69.00 Diameter of Maximum Grain mm 4.76 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' Diameter of 50 % D50 ത്ത Diameter of 25 % D25 ៣៣ : Diameter of 75 % D75 ന്ന • 0.0086 Sorting So Skewness Sk Specific Gravity Fig. : 2.61 Natural Water Content Wn % : 163.12 time fact that they have been shown from the same to the same from the s Ignition Loss Li % : 14.03 Shear Strength (In-situ Vane Test) kgf/cm2 : 0.032 Notes From In-situ Observation Soil Name : Soft Silt (Surface) Clay massive (Inside) Soil Color : Brown (Surface) Black and Grey (Inside) Others : Mineral Organic Form Soil Test : Silty CLAY trace sand

Table 2.3-2 (61) RESULTS OF SOIL. TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge Station) of Monthly Survey. Testing Date : August 4-9, 1989 8th Stage (Sampled on 7th May at St.D,F,I(E),J(E) and Sampled on 11th June 1989 at SLA(E), B(E), C(E), E.) Sample No. : E Depth £ Characteristics of Grain Distribution Gravel (more than 2000 um) % : Sand (74 - 2000 um) % ". ". ". Silt (5 - 74 um) 39.74 Clay (less than 5 um) % 52.00 Diameter of Maximum Grain -mm 9.52 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' Diameter of 50 % D50 : mm 0.0042 Diameter of 25 % D25 mm Diameter of 75 % D75 mm 0.021 Sorting So : Skewness Sk Specific Gravity Gs : 2.62 frift call that the test data have gast to the test and have gast to the test and have gast to the test and a second or the test and th Natural Water Content Wn % : 166.70 Ignition Loss Li % : 12.21 Shear Strength (In-situ Vane Test) kgf/cm2 : 0.024 Notes From In-situ Observation Soil Name : Silty is Very Thin (Surface) Silty (Inside) Soil Color : Brown (Surface) Dark Grey (Inside) Others ·: Mineral organic Form Soil Test : SILT and CLAY trace sand and

gravel

Table 2. 3-2 (62) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port, Survey Item : Bottom Material (Saline Wedge Station) of Monthly Survey. Testing Date : August 4-9, 1989 8th Stage (Sampled on 7th May at St.D,F,I(E),J(E) and Sampled on 11th June 1989 at $St.\Lambda(E)$, B(E), C(E), E.) Sample No. : F Depth Characteristics of Grain Distribution Gravel (more than 2000 um) % Sand (74 - 2000 um) % Silt (5 - 74 um) % Clay (less than 5 um) % : 97.05 2.95 Diameter of Maximum Grain mm 2.00 Coeficient of Uniformity Uc * 1.6 Coeficient of Curving Rate Uc' 1.2 Diameter of 50 % 2 D50 mm 0.224 Diameter of 25 % Diameter of 75 % D25 mm 0.203 D75 ពាហ 0.348 Sorting So **3** · 0.76 Skewness Sk Specific Gravity Gs Natural Water Content Wn % : 31.66 141 - Ignition Loss Li % : 1.16 Shear Strength (In-situ Vane Test) kgf/cm2 : 0.024 Notes From In-situ Observation Soil Name : Sand (Very Light) Soil Color : Greyesh Brown Others

Form Soil Test : SAND trace silt

Table 2. 3-2 (63) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. : Bottom Material (Saline Wedge Station) Survey Item of Monthly Survey. Testing Date : August 4-9, 1989 8th Stage (Sampled on 7th May at St.D, F, 1(E), J(E) and Sampled on 11th June 1989 at St.A(E), B(E), C(E), E.) 3 I Sample No. Depth Characteristics of Grain Distribution Gravel (more than 2000 um) % = Sand (74 - 2000 um) % 12.84 : Silt (5 - 74 um) 7. 37.16 : 7. Clay (less than 5 um) 50.00 : 2.00 Diameter of Maximum Grain mm : Coeficient of Uniformity Uc Coeficient of Curving Rate Uc'

 Diameter of 50 %
 D50

 Diameter of 25 %
 D25

 Diameter of 75 %
 D75

 0.0054 mm • നന 0.031 ពាល Sorting පිට Skewness Sk Specific Gravity Gs : 2.61 Win % Natural Water Content : 152.44 Li % 12.05 2 Ignition Loss Shear Strength (In-situ Vane Test) kgf/cm2 : 0.034 Notes From In-situ Observation Soil Name : Silt Sail Calar : Brownish Black Others

Form Soil Test

: SlLT and CLAY with some sand

Table 2. 3-2 (64) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge Station) of Monthly Survey. Testing Date : August 4-9, 1989 8th Stage (Sampled on 7th May at St.D,F,1(E),J(E) and Sampled on 11th June 1989 at $St.\Lambda(E)$, B(E), C(E), E.) Sample No. : J Depth Characteristics of Grain Distribution Gravel (more than 2000 um) % Sand (74 - 2000 um) % % % Silt (5 - 74 um) % 7.39 40.61 : 7. Clay (less than 5 um) : 52.00 Diameter of Maximum Grain mm : 2.00 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' Diameter of 50 % D50 Diameter of 25 % D25 Diameter of 75 % D75 mm : 0.0044 rnm 2 D75 នាធា 0.019 Sorting Sa : Skewness Sk Specific Gravity Ga 2.57 Natural Water Content Wn % : 183.96 Ignition Loss Li, % : 13.51 Shear Strength (In-situ Vane Test) kgf/cm2 : 0.024 Notes From In-situ Observation Soil Name : Clayey Silt with Fine sand Soil Color : Grey (Clayey Silt) Brownish Grey (Fine Sand) Others : Mineral organic Form Soil Test

: SILT and CLAY trace sand

Table 2. 3-2 (65) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Saline Wedge Station)

of Monthly Survey

Testing Date : August 7-11, 1989

9th Stage (Sampled on 24th June at St.A(E),C(E),E,G and Sampled on 28th June 1989 at St.B(E),D,F,H.)

			,.,.,.,	,	
Sample No. Depth	: A	· · · · · · · · · · · · · · · · · · ·		*****	
Characteristic	s of Grain Distributi		سند المنط المنط بعدالة المنظ المنط المنط المنط	~	
	Gravel (more than 20		7	:	0.05
	Sand (74 - 2000 um)		7,	:	6.29
	Silt (5 - 74 um)		/ <u>.</u>	:	37.66
	Clay (less than 5 un	u)	%	:	56.00
	Diameter of Maximum	Grain	mm	:	4.76
	Coeficient of Unifor	rmity	Uc .	:	
	Coeficient of Curvi	ng Rate	Uc'	:	
	Diameter of 50 %		mm	:	0.0031
	Diameter of 25 %		ឃឃ	:	***
	Diameter of 75 %	D75	៣៣	. 3	0.018
	Sorting		So	:	
•	Skewness		Sk	:	1000
	ty				
Natural Water		Mo	7		130 70
Ignition Loss		Li	7.	•	10.32
Shear Strength	(In-situ Vane Test)	kgf/cm	2	:	0.012
Notes	a ayan ayan gara 1966 ka an anda ayan gara ayan awan ara' ayan asan bas 1 day a asan aya 1 dada aya 1 dada ay		Bris 6 pp 11 pp 2 to 40 mins may being 1	.,	وه الله الله الله الله الله الله الله ال
	From In-situ Observ Soil Name	vation : Silt, Very Soft (Surface) Course Silt (Inside) : Yellowish Grey (Surface)			
	···· 				
	Soil Color			-	•
	Soil Color	: Yell		rey ((Surface)

Form Soil Test : SILT and CLAY trace sand

Table 2. 3-2 (66) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge Station) of Monthly Survey Testing Date : August 7-11, 1989 9th Stage (Sampled on 24th June at St.A(E), C(E), E, G and Sampled on 28th June 1989 at St.B(E),D,F,H.) principles when the fact that the fact that we have a principle and the principle an Sample No. : B Depth Characteristics of Grain Distribution Gravel (more than 2000 um) % Sand (74 - 2000 um) % % 2 21.25 Silt (5 - 74 um) : 33.75 Clay (less than 5 um) % 45.00 Diameter of Maximum Grain mm 2.00 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' Diameter of 50 % Diameter of 25 % Diameter of 75 % D5Ø ជាធា 0.0091 7 D25 មាយ 1 D75 mm 0.0720 So Sorting : Skewness Sk Specific Gravity G 😘 was pill diet may bet best gar gray that gar gray that their here their many that diet gar their many their here their their gar their many their here their their gar their many their their gar their many their their their their gar their many their th Natural Water Content Wn % : 126.82 AND ADDRESS OF THE PART AND PA Ignition Loss Li % : 11.59 Mile and the september the control of the control o Shear Strength (In-situ Vane Test) kgf/cm2 : 0.032 and special from head to make the manager of the times per special and the property of the special part of Notes From In-situ Observation Soil Name : Fine Sand (Surface) Silt with Fine Sand Grain(Inside) Soil Color : Brown (Surface) Black (Silt/Inside) Dark Grey (Fine Sand/Inside) Others Form Soil Test : Silty Sandy CLAY

Table 2. 3-2 (67) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge Station) of Monthly Survey Testing Date : August 7-11, 1989 9th Stage (Sampled on 24th June at St. A(E), C(E), E, G and Sampled on 28th JUne 1989 at St.B(E),D,F,H.) Sample No. : C Depth : Characteristics of Grain Distribution Gravel (more than 2000 um) % Sand (74 - 2000 um) % 2.74 Silt (5 - 74 um) % Clay (less than 5 um) 7. 62.00 Diameter of Maximum Grain mm 2.00 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' Diameter of 50 % D50' mm **:** -0.0028 Diameter of 25 % D25 mm . Diameter of 75 % D75 mm : 0.0095 - Sorting So Skewness Sk Specific Gravity Gs To your day may make that the long pass take 3 and gape make 3 and gape make 3 and gape make 3 and gape make make any make and make any make and and a long a long and a long a long and a long a long and a long and a long and a long a long and a long a long and a long and a long a long and a long a long and a long a lo Natural Water Content Wn % : 161.13 This was ago for and and ago for any and any ago for any and and ago for any and a sure any and a sure any and a sure any and any any and any any and any any any any Ignition Loss Li % : 15.43 Shear Strength (In-situ Vane Test) kgf/cm2 : 0.018 may to proper thank the control of t Notes From In-situ Observation Scil Name : Mud is Very Thin (Surface) Mud (Inside) Soil Color : Brown (Surface) Dark Grey (Inside) Others : With Little Wood Fragment(Inside) Form Soil Test : SILT and CLAY trace sand

Table 2. 3-2 (8) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Saline Wedge Station)

of Monthly Survey

Testing Date

: August 7-11, 1989

9th Stage (Sampled on 24th June at St.A(E),C(E),E,G and Sampled on 28th June 1989 at St.B(E),D,F,II.)

Sample No. : D

Depth :

Characteristics of Grain Distribution

Gravel (more than 2000 um) % : 0.03
Sand (74 - 2000 um) % : 87.55
Silt (5 - 74 um) % : 12.42
Clay (less than 5 um) % : -

Diameter of Maximum Grain mm : 4.76

Coeficient of Uniformity Uc : - Coeficient of Curving Rate Uc' : -

Diameter of 50 % D50 mm : 0.1600 Diameter of 25 % D25 mm : 0.116 Diameter of 75 % D75 mm : 0.1670

Sorting So : 0.83 Skewness Sk : 0.76

Specific Gravity Gs : 2.73

Natural Water Content Wn % : 49.88

Ignition Loss Li % : 2.64

Shear Strength (In-situ Vane Test) kgf/cm2 : 0.014

Notes

From In-situ Observation

Soil Name : Fine Sand Soil Color : Brown

Others

...

Form Soil Test : Fine SAND with some silt

Table 2. 3-2 ($\mathfrak O$) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge Station) of Monthly Survey Testing Date : August 7-11, 1989 9th Stage (Sampled on 24th June at St.A(E),C(E),E,G and Sampled on 28th June 1989 at St.B(E), D, F, H.) Sample No. : E Depth Characteristics of Grain Distribution Gravel (more than 2000 um) % : 0.03
Sand (74 - 2000 um) % : 84.62
Silt (5 - 74 um) % : 15.35
Clay (less than 5 um) % : -Diameter of Maximum Grain mm : 4.76 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' Diameter of 50 % D50 Diameter of 25 % D25 : 0.1500 : 0.11 mm mm Diameter of 75 % D75 0.1600 mm So : 0.83 Sk : 0.78 Sorting Skewness Specific Gravity Gs : 2.71 Wn % : 54.75 Natural Water Content Li % : 4.15 Ignition Loss Shear Strength (In-situ Vane Test) kgf/cm2 : 0.024 بوقو هنده المدارة والمدارة المدارة المدارة والمدارة والمد Notes From In-situ Observation Soil Name : Fine Sand, Light (Surface) Soft Clay (Inside) Soil Color : Brown (Surface) Grey (Inside) Others Form Soil Test : Fine SAND, some silt

Table 2, 3-2 (70) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. : Bottom Material (Saline Wedge Station) Survey Item of Monthly Survey : August 7-11, 1989 Testing Date 9th Stage (Sampled on 24th June at St.A(E),C(E),E,G and Sampled on 28th June 1989 at St.B(E), D, F, H.) Sample No. : F Depth Characteristics of Grain Distribution Gravel (more than 2000 um) % Sand (74 - 2000 um) 7. 3.87 : Silt (5 - 74 um) % 40.13 . 7. Clay (less than 5 um) : 56.00 2.00 Diameter of Maximum Grain mm : Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' Diameter of 50 % D50 : 0.0038 Diameter of 50 % D50 Diameter of 25 % D25 Diameter of 75 % D75 mm mm 0.0136 mm Sorting So Skewness Sk Gs 1 2.68 Specific Gravity Wn % : 112.80 Natural Water Content Li % : 11.02 Ignition Loss Shear Strength (In-situ Vane Test) kgf/cm2 : 0.004 Notes From In-situ Observation : Silt is Very Thin (Surface) Spil Name Clayey Silt (Inside) : Brown (Surface) Sail Color Grey and Dark Grey (Inside) Others

Form Soil Test

: SILT and CLAY trace sand

Table 2. 3-2 (71) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Fort. Survey Item : Bottom Material (Saline Wedge Station) of Monthly Survey Testing Date : August 7-11, 1989 9th Stage (Sampled on 24th June at St.A(E),C(E),E,G and Sampled on 28th June 1989 at St.B(E),D,F,H.) TO COLUMN TO SERVICE AND ADDRESS AND ADDRE : G Sample No. Depth Characteristics of Grain Distribution Gravel (more than 2000 um) % Sand (74 - 2000 um) Silt (5 - 74 um) % 10.59 % 40.41 Clay (less than 5 um) 7. 49.00 Diameter of Maximum Grain mm 2.00 Coeficient of Uniformity ນc Coeficient of Curving Rate Uc' Diameter of 50 % D50 ៣៣ 0.0053 Diameter of 25 % D25 mm Diameter of 75 % D75 ភាកា 0.025 Sorting So Skewness Sk Specific Gravity ه هجار بندة جس شدة جس مين نصف جس هي ثبت خون بست ندو پست هذه وست هذه وست هذه وست هذه وست هذه وست هذه وست هي وست نشاح ميد وست نشاح نمود وست نشاح نمود بست تحديد وست نشاح نمود وست تحديد وست Natural Water Content Wn % : 132.73 Ignition Loss Li % : 8.19 Shear Strength (In-situ Vane Test) kgf/cm2 : 0.026 Notes From In-situ Observation Soil Name : Clayey Silt, with Little Fine Sand Soil Color : Brownish Grey (clayey silt) Brown (Fine Sand) Others Form Soil Test : SILT and CLAY trace sand

Table 2. 3-2 (72) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Saline Wedge Station)

of Monthly Survey

Testing Date : August 7-11, 1989

9th Stage (Sampled on 24th June at St.A(E), C(E), E, G and Sampled on 28th June 1989 at St.B(E), D.F.H.)

Sample No. Depth	: H			
Characteristi	lcs of Grain Distributio	n		
	Gravel (more than 200	Ø um) %	:	_
	Sand (74 - 2000 um)	%	ž.	47.86
	Silt (5 - 74 um)	%	;	38.14
	Clay (less than 5 um)	%		14.00
	Diameter of Maximum G	irain mm	:	2.00
	Coeficient of Uniform	nity Uc	:	96.0
	Coeficient of Curving		•	22.0
	Diameter of 50 % I)5Ø mm	:	0.0850
	Diameter of 25 %		:	0.034
	Diameter of 75 %)75 mm	•	0.1050
	Sorting	So	:	Ø.57
¥	Skewness	Sk	;	0.49
چېن بېنگ کېده چېن پېښتا کا چې پرېد است کېد کېده کېد				
Specific Gra	vity	3s		2.70
Natural Wate	r Content	√n %	:	73.09

Notes

From In-situ Observation

Soil Name : Silty Fine Sand
Soil Color : Brownish Grey Soil Color : Brownish Grey

Shear Strength (In-situ Vane Test) kgf/cm2 : 0.026

Others

Ignition Loss

Form Soil Test : SILT and SAND, some clay

Li % : 5.52

Table 2. 3-2 (73) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge Station) of Monthly Survey Testing Date : August 11-12, 1989 10th Stage (Sampled on 8th July at St.A,C,E,G and Sampled on 10th JUly 1989 at St.B,D,F,N.) والمن المناول Sample No. : A Depth عبير بنت بدن وجن هيچ -مار چيپ نسک چيپ سک پيس سيءَ خيس بست جبي بنت پاس چيپ ختم بنت جيب جيب بنت بيت جي سنڌ جي م Characteristics of Grain Distribution Gravel (more than 2000 um) % Sand (74 - 2000 um) % 0.98 Silt (5 - 74 um) 7. 34.02 Clay (less than 5 um) % 65.00 Diameter of Maximum Grain mm Coeficient of Uniformity υc Coeficient of Curving Rate Uc' D5Ø Diameter of 50 % Diameter of 25 % D25 mm Diameter of 75 % D75 mm . : 0.0108 Sorting So : Skewness Sk Specific Gravity Gs : 2.56 Natural Water Content Wn % : 201.10 Ignition Loss Li % : 13.92 Shear Strength (In-situ Vane Test) kgf/cm2 : 0.005 From In-situ Observation Soil Name : Mud (Surface) Silt (Inside) Soil Color : Brown (Surface) Grey (Inside) Others

Form Soil Test : Silty CLAY trace sand

Table 2. 3-2 (74) RESULTS OF SOIL TEST

Name of Survey: The Study on Maintenance Dredging in
The Access Channel of Banjarmasin Fort.

Survey Item: Bottom Material (Saline Wedge Station)
of Monthly Survey

, , , ,

Testing Date

10th Stage (Sampled on 8th July at St.A,C,E,G and Sampled on 10th July 1989 at St.B,D,F,H.)

: August 11-12, 1989

Characteristics of Grain Distribution	· ••• ••• ••• ••• ••• ••• ••• •••		ب وهاه ميشو بيدن هوي وسال الله ويش هنده ادبية عبدة ادبية وبينة عبد المدونية
Gravel (more than 2000 um)	%	:	
Sand (74 - 2000 um)	%	:	87.84
Silt (5-74 um)	7	:	12.16
Clay (less than 5 um)	%	;	-
Diameter of Maximum Grain	.mm	:	2.0
Coeficient of Uniformity	Uc	•	·
Coeficient of Curving Rate	a Nc.		-
Diameter of 50 % D50	шш	:	0.104
Diameter of 25 % D25	mm	:	0.101
Diameter of 75 % D75	mm	: .	0.138
Sorting	So	:	0.86
Skewness	Sk .	:	1.29
Specific Gravity Gs			2.64
Natural Water Content Wn			
Ignition Loss Li	%	;	5.26
Shear Strength (In-situ Vane Test) kgf/co	n2	:	0.017

From In-situ Observation

Soil Name : Fine Sand Soil Color : Brown

Others :

Form Soil Test : Fine SAND some silt

Table 2. 3-2 (75) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Saline Wedge Station)

of Monthly Survey

Testing Date : August 11-12, 1989

10th Stage (Sampled on 8th JUly at St.A,C,E,G and Sampled on 10th July 1989 at St.B,D,F,II.)

Sample No. : C Depth : Characteristics of Grain Distribution Gravel (more than 2000 um) % Sand (74 - 2000 um) % 3.38 : Silt (5 - 74 um) 7. : 38.62 Clay (less than 5 um) 7. : 58.00 Diameter of Maximum Grain mm 2.0 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' Diameter of 50 % D50 ጠጠ : 0.0027 Diameter of 25 % D25 . : mm Diameter of 75 % D75 mm 0.015 Sorting So Skewness Sk

Specific Gravity	Gs		:	2.65	
Natural Water Content	Wn	%	:	168.11	
Ignition Loss	Li	7.	:	14.42	
Shear Strength (In-situ Vane Test)	kgf/c	m2	:	0.036	

Notes

From In-situ Observation

Soil Name : Clayey Silt

Soil Color

: Brownish Grey

Others

Form Soil Test : SILT and CLAY trace sand

Table 2. 3-2 (76) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Saline Wedge Station)

of Monthly Survey

Testing Date : August 11-15, 1989

10th Stage (Sampled on 8th July at St.A,C,E,G and Sampled on 10th JUly 1989 at St.B,D,F,II.)

Sample No. Depth	:				
Characterist:	ics of Grain Distribution			بردر زنده عیبی _خ ند. هفته همه ۱۰۰۰ و نده همه همه همه همه است.	
	Gravel (more than 2000 u	lm) %	:	0.40	
	Sand (74 – 2000 um)	%	:	9.16	
	Silt (5 - 74 um)	7.	:	33.44	
	Clay (less than 5 um)	%	:	57.00	
	Diameter of Maximum Gra	in mm	:	4.76	
	Coeficient of Uniformity	/ Uc	:		
	Coeficient of Curving Ra		:	-	
	Diameter of 50 % D50	mm	:	0.0031	
	Diameter of 25 % D25	mm	:		•
	Diameter of 75 % D75	mm	:	0.029	
	Sorting	So	:	· 	
	Skewness	Sk	:	·	
Specific Gra	vity Gs		 :	2.67	
Natural Wate	r Content Wn	• • •	:	124.38	
Ignition Los		%		12.95	
Shear Streng	th (In-situ Vane Test) kgf.	/cm2	1	0.051	
Notes				الله جين ميد هند عند عند عند عند عند عند عند عند عند ع	

From In-situ Observation

Soil Name : Silty Clay

Soil Color : Grey

Others :

Form Soil Test : Silty CLAY trace sand

Table 2, 3-2 (77) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Saline Wedge Station)

of Monthly Survey

Testing Date : August 11-15, 1989

10th Stage (Sampled on 8th July at St.A,C,E,G and Sampled on 10th July 1989 at St.B,D,F,H.)

Sample No. Depth	: E					
Characteristi	cs of Grain Distributio				*** *** *** *** *** *** *** *** ***	·,
	Gravel (more than 200	10) um)	7.	:		
	Sand (74 – 2000 um)		7.	:	6.46	
	Silt (5 - 74 um)		7.	:	39.54	
	Clay (less than 5 um)		%	:	54.00	
	Diameter of Maximum G	Brain	mm	:	2.00	
	Coeficient of Uniform	nity	Uc	:	_	
• •	Coeficient of Curving		U⊏′	:	- ·	
	Diameter of 50 % p	50	mm		0.004	
	Diameter of 25 % Diameter)25	mm	:		•
	Diameter of 75 % D		mm	:	0.017	
	Sorting	•	So		_	
	Skewness		Sk	:	-	
Specific Grav		35			2,58	
Natural Water		чn	7.	:	181.31	
Ignition Loss	5 L	_i	%	:	1.20	
Shear Strengt	th (In-situ Vane Test) k	<qf td="" ⊏m2<=""><td>2</td><td>:</td><td>0.014</td><td></td></qf>	2	:	0.014	
Notes	From In-situ Observat				بر الله الله الله الله الله الله الله الل	***

From In-situ Observation

Soil Name

: Soft Mud (Surface)

Silt (Inside)

Soil Color

: Brown (Surface) Grey (Inside)

Others

Form Soil Test

: SILT and CLAY trace sand

Table 2. 3-2 (78) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Saline Wedge Station)

of Monthly Survey

Testing Date : August 11-15, 1989

10th Stage (Sampled on 8th JUly at St.A,C,E,G and

Sample No. Depth						
	ics of Grain Distributi	øn.				
	Gravel (more than 20	00 um) %	*		
	Sand (74 - 2000 um)		%	:	16.36	
	Silt (5 - 74 um)		7.	ī	35.64	
	Clay (less than 5 um	.)	7.	:	48.00	
	Diameter of Maximum	Grain	₹ mm	:	2.00	
	Coeficient of Unifor	mity	Uc	•	~	
	Coeficient of Curvin	g Rat	e Uc'	:	-	
	Diameter of 50 %	D5Ø	መመ	:	0.0057	
	Diameter of 25 %	D25	mm		_	
	Diameter of 50 % Diameter of 25 % Diameter of 75 %	D75	mm	:	0.046	
	Sorting		So	:		
	Skewness		Sk	:	-	
 Specific Gra	vitv				2.61	
Natural Wate	r Content	Wn	%	*	146.91	
Shear Strend	th (In-situ Vane Test)	kqf/c	m2	•	0.020	
Notes	حديد الدين باخير بينية عديد ينها عديد الدين بيناء عديد الدين بيناء الدين الدين الدين الدين الدين الدين الدين ا 	~ 414 A-4 -A-4 4-4				~
	From In-situ Observa	ation				
	Soil Name			-		
			y (Insi			
	Soil Color	: Bro	wn (Sur	face)		

Grey (Inside)

Others

Form Soil Test

: SILT and CLAY some sand

Table 2, 3-2 (79) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Saline Wedge Station)

of Monthly Survey

Testing Date : August 11-15, 1989

10th Stage (Sampled on 8th July at St.A.C.E.G and Sampled on 10th JUly 1989 at St.B.D.F.H.)

	-						
Sample No. Depth	: G						الدور والمراجع المراجع
Characteristic	s of Grain						هو هجه بنده ليسه هيم هجي هڪ هذه يست هيي بسي بينڌ بنڌ احد
	Gravel (m				%	:	0.38
	Sand (74				%	3	95.70
	Silt (5	- 74	ւտ)		7.	:	3.92
	Clay (les	s than	า 5 แก	n)	%	:	
	Diameter	of Max	*imum	Grain	mm	:	4.76
	Coeficier	it of l	Jnifor	mity	U⊏	:	3.6
	Coeficier	it of 1	Curvir	ng Rate	Uc'	:	1.0
	Diameter	of 50	%	D50	mm	;	Ø.380
	Diameter	of 25	%	D25	mm	;	0.216
	Diameter	of 75	%	D75	mm	:	0.600
	Sorting				So	:	0.40
	Skewness	1			Sk	:	0.90
							21
Specific Grav				Gs		;	2.73
Natural Water				Wn			32.42
Ignition Loss				Li	%	;	14.32
Shear Strengt							
							وجور هشد پسند بسند جاره بحدي پسند پيرو نوپي جاره اسال بدن به

Notes

From In-situ Observation

Soil Color

Soil Name : Medium Sand : Brownish Grey

Others

Form Soil Test : SAND trace silt

Table 2. 3-2 (80) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item

: Bottom Material (Saline Wedge Station)

of Monthly Survey

Testing Date : August 11-15, 1989

10th Stage (Sampled on 8th July at St.A,C,E,G and Sampled on 10th July 1989 at St.B,D,F,H.)

63 m 3 m - hilm					
Sample No. Depth	: H :				
Characteristic	s of Grain Distribution			والمراجعة المستقد المس	
	Grave] (more than 2000 us	n) %	:		
	Sand (74 – 2000 um)	γ.	:	23.62	
	Silt (5 74 um)	7.	:	40.38	
	Clay (less than 5 um)	%	:	36.00	
	Diameter of Maximum Grain	n mm	:	2.00	
	Coeficient of Uniformity	Uc	:	***	
	Coeficient of Curving Ra		:	_	
	Diameter of 50 % D50	mm		0.021	
	Diameter of 25 % D25	mm	:	0.0017	-
	Diameter of 75 % D75	шш	:	0.076	
	Sorting	So	:	0.15	
	Skewness	Sk	•	0.29	
Specific Gravi	ty Gs			2.63	
Natural Water	Content Wn			 90.31	
Ignition Loss	Li	7.	······	10.13	

Notes

From In-situ Observation Soil Name : Silt Soil Color : Grey Others

Shear Strength (In-situ Vane Test) kgf/cm2 : 0.029

Form Soil Test : Sandy SILT and CLAY

Table 2. 3-2 (81) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Fort. : Bottom Material (Saline Wedge Station) Survey Item of Monthly Survey Testing Date : August 24-29, 1989 11th Stage (Sampled on 22nd July at St. $\Lambda(E)$, C(E) , E , G and Sampled on 26th July 1989 at St.B(E), D.F.H.) Sample No. : A Depth Characteristics of Grain Distribution Gravel (more than 2000 um) % :
Sand (74 - 2000 um) % :
Silt (5 - 74 um) % :
Clay (less than 5 um) % : 7.54 44.46 48.0 Diameter of Maximum Grain mm : 2.00 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' : **0**.0059 D5Ø D25 Diameter of 50 % mm Diameter of 25 % mm Diameter of 75 % D75 mm 0.0299 Sorting So Skewness Sk Specific Gravity Gs : 2.59 Natural Water Content Wn % : 129.77 Ignition Loss Li % : 10.05 Shear Strength (In-situ Vane Test) kgf/cm2 : 0.011 Notes From In-situ Observation Soil Name : Mud (Surface) Clay with Fine Sand (Inside) : Brown (Surface) Soil Color Brownish Grey (Inside) Others

Form Soil Test

: SILT and CLAY trace sand

Table 2.3-2(82) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge Station) of Monthly Survey Testing Date : August 24-29, 1989 11th Stage (Sampled on 22nd July at St.A(E),C(E),E,G and Sampled on 26th July 1989 at St.B(E),D,F,H.) Sample No. : B Depth : Characteristics of Grain Distribution GraveI (more than 2000 um) % Sand (74 - 2000 um) % 0.02 52.48 Silt (5 - 74 um) 7. : 39.50 Clay (less than 5 um) 7 8.00 Diameter of Maximum Grain mm : 4.76 Coeficient of Uniformity Uc : 13.3 Coeficient of Curving Rate Uc' : 4.3 Diameter of 50 % D50 mm Diameter of 25 % D25 mm Diameter of 75 % D75 mm ភាព : 0.086 1 0.045 : 0.121So : 0.61 Sorting Skewness Sk : 0.74 Specific Gravity Gs Natural Water Content Wn % : 91.50 Ignition Loss Li % 7.17 Shear Strength (In-situ Vane Test) kgf/cm2 : 0.017 Notes From In-situ Observation Soil Name : Mud (Surface) Clay (Inside) Soil Color : Brown (Surface) Brownish Grey (Inside) Others

: SILT and fine SAND trace Clay

Table 2. 3-2 (83) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Fort. Survey Item : Bottom Material (Saline Wedge Station) of Monthly Survey Testing Date : August 24-29, 1989 11th Stage (Sampled on 22nd July at St.A(E),C(E),E,G and Sampled on 26th July 1989 at St.B(E),D,F,II.) Sample No. : C Depth : Characteristics of Grain Distribution Gravel (more than 2000 um) % 0.08 Sand (74 - 2000 um) Silt (5 - 74 um) % : % : % : 3.36 32.56 Clay (less than 5 um) 64.00 Diameter of Maximum Grain mm : 4.76 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' Diameter of 50 % D50 mm : 0.0026 Diameter of 25 % D25 mm Diameter of 75 % D75 mm 0.0095 Sorting So Skewness Sk Specific Gravity 0s : 2.56 Natural Water Content Wn % : 188.60 Ignition Loss Li % 11.89 Shear Strength (In-situ Vane Test) kgf/cm2 0.014 Notes From In-situ Observation Soil Name : Mud (Surface) Clay (Inside)
: Grey (Surface) Soil Color Dark Grey (Inside) Others

: Silty CLAY trace sand

Table 2. 3-2 (M) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge Station) of Monthly Survey Testing Date : August 24-29, 1989 11th Stage (Sampled on 22nd July at St.A(E), C(E), E, G and Sampled on 26th July 1989 at St.B(E),D,F,H.) *** The course of the course o Sample No. : D Depth . : Characteristics of Grain Distribution Gravel (more than 2000 um) % Sand (74 - 2000 um) % 5.09 Silt (5 - 74 um) /-40.91 Clay (less than 5 um) / Diameter of Maximum Grain mm 2.00 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc': D5Ø Diameter of 50 % መጠ : 0.0041 Diameter of 25 % D25 Diameter of 75 % D75 mm : mm : 0.0205 Sorting , So : Skewness $\mathbf{S}\mathbf{k}$: Specific Gravity Gs : 2.57 Natural Water Content Wn % : 147.40 ر المراجع Li % : 12.92 Ignition Loss Shear Strength (In-situ Vane Test) kgf/cm2 : 0.034 Notes From In-situ Observation Soil Name : Fine Sand (Surface) Clay (Inside) Soil Color : Brown (Surface) Grey (Inside) Others

: SILT and CLAY trace sand

Table 2.3-2(%) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. : Bottom Material (Saline Wedge Station) Survey Item of Monthly Survey Testing Date : August 24-29, 1989 11th Stage (Sampled on 22nd July at St.A(E),C(E),E,G and Sampled on 26th July 1989 at St.B(E), D, F, H.) Sample No. : E Depth سو پيوا نجة انجه اسم شده شد بيدا پيدا وين و پيدا نظام پيدا نجار وينها سرو وين پيڪ اندو وين بيدا اندو دين پيدا اندو دين پيدا سا Characteristics of Grain Distribution Gravel (more than 2000 um) % 0.04 Sand (74 - 2000 um) % 87.97 : Silt (5 - 74 um) 7. : 11.99 Clay (less than 5 um) /. Diameter of Maximum Grain mm 4.76 Coeficient of Uniformity Ųс Coeficient of Curving Rate Uc' Diameter of 50 % D5Ø mm 0.13 Diameter of 25 % D25 mm 0.11 Diameter of 75 % D75 mm 0.14 Sorting So : 0.87 Skewness Sk 0.91 Specific Gravity Gs 2.68 : Natural Water Content Wn % : 74.70 Ignition Loss Li % : 5.58 Shear Strength (In-situ Vane Test) kgf/cm2 : 0.027 و المراح Notes From In-situ Observation Soil Name : Fine Sand (Surface) Clayey Fine Sand (Inside) Soil Color : Grey (Surface) Dark Grey (Inside) Others

: Fine SAND with some Silt

Table 2. 3-2 (%) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Fort.

Survey Item

: Bottom Material (Saline Wedge Station)

of Monthly Survey

:

Testing Date : August 24-29, 1989

11th Stage (Sampled on 22nd July at St. $\Lambda(E)$, C(E), E, G and Sampled on 26th July 1989 at St. B(E), D, F, H.)

Sample No. : F Depth

Characteristics of Grain Distribution	-		
Gravel (more than 2000 u	um) %	:	
Sand (74 - 2000 um)	7.	:	7.65
Silt (5 - 74 um)	7.	:	38.34
en a la en la			

Clay (less than 5 um) % 54.00 Diameter of Maximum Grain mm 2.00 :

Coeficient of Uniformity Uc Coeficient of Curving Rate Uc'

Diameter of 50 % D50 mm 0.0034 Diameter of 25 % D25 mm Diameter of 75 % D75 ពាគា 0.022

Sorting So Skewness Sk

Specific Gravity	Gs	:	2.65
Natural Water Content	Wn %	1	99.45
Ignition Loss	Li %	:	10.37
Shear Strength (In-situ Vane Test)	kgf/cm2	:	0.014

Notes

From In-situ Observation

Soil Name : Clayey Silt

Soil Color : Grey

Others

Form Soil Test : SILT and CLAY trace sand

Table 2. 3-2 (87) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge Station) of Monthly Survey Testing Date : August 24-29, 1989 11th Stage (Sampled on 22nd July at St.A(E), C(E), E, G and Sampled on 26th July 1989 at St.B(E), D, F, H.) Sample No. : G Depth Characteristics of Grain Distribution Gravel (more than 2000 um) % 0.42 Sand (74 - 2000 um) 7. 83.56 : Silt (5 - 74 um) 7. : 16.02 Clay (less than 5 um) 7. Diameter of Maximum Grain mm 4.76 : Coeficient of Uniformity Uc • Coeficient of Curving Rate Uc' Diameter of 50 % Diameter of 25 % D50 0.20 mm : D25 mm 0.124 : Diameter of 75 % D75 mm 0.25 Sorting So 0.70 : Skewness Sk : 0.78 Specific Gravity Gs Natural Water Content Wn % : 47.90 ے بہت ووں سے جس نے مرد میں سے اللہ والے وہر جب وہے ہے۔ اس اس بنان ہیں ہوت جب نام میں وہ اس اس اللہ اللہ اللہ ا Ignition Loss 7. L.i. Shear Strength (In-situ Vane Test) kgf/cm2 0.034 Notes From In-situ Observation Soil Name : Clayey silt, with little Fine Sand Soil Color : Brownish Grey Others

: Fine SAND, some silt

Table 2. 3-2 (83) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge Station) of Monthly Survey Testing Date : August 24-29, 1989 11th Stage (Sampled on 22nd July at St.A(E),C(E),E,G and Sampled on 26th July 1989 at St.B(E),D,F,H.) Sample No. : H Depth Characteristics of Grain Distribution Gravel (more than 2000 um) % Sand (74 - 2000 um) % Silt (5 - 74 um) % 37.93 Clay (less than 5 um) 7. 14.00 Diameter of Maximum Grain mm 2.00 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' Diameter of 50 % D50 Diameter of 25 % D25 Diameter of 75 % D75 0.085 : mm 0.032 mm mm 0.12 Sorting So : 0.52 Skewness 0.53 Sk Specific Gravity Gs Wn % : 41.27 Natural Water Content Li % : 8.49 Ignition Loss Shear Strength (In-situ Vane Test) kgf/cm2 : 0.051 Notes From In-situ Observation Soil Name : Mud (Surface) Fine Sand, with little clay(Inside) Soil Color : Brown (Surface) Brownish Grey (Inside) Others

: SILT and fine SAND trace clay

Table 2. 3-2 (&9) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Fort. Survey Item : Bottom Material (Saline Wedge Station) of Monthly Survey Testing Date : September 4-11, 1989 12th Stage (Sampled on 6th Aug.at St.A,C,E,G and Sampled on 10th Aug. 1989 at St.B.D.F.H.) Sample No. : A Depth Characteristics of Grain Distribution Gravel (more than 2000 um) % 0.03 Sand (74 - 2000 um) % Silt (5 - 74 um) % 8.48 : 33.49 Clay (less than 5 um) 7. : 58.00 Diameter of Maximum Grain mm 4.76 Coeficient of Uniformity Uc : Coeficient of Curving Rate Uc' Diameter of 50 % D5Ø mm : 0.0031 Diameter of 25 % D25 mm Diameter of 75 % D75 ጠጠ 0.024 Sorting So Skewness Sk Specific Gravity Gs : 2.63 Natural Water Content Wn % : 145.94 Ignition Loss Li % : 12.84 Shear Strength (In-situ Vane Test) kgf/cm2 Notes From In-situ Observation Soil Name : Mud (Surface) Clay (Inside) Soil Color : Brown (Surface) Dark Grey (Inside) Others

Form Soil Test : Silty CLAY, trace sand

Table 2. 3-2 (90) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge Station) of Monthly Survey Testing Date : September 4-11, 1989 12th Stage (Sampled on 6th Aug. at St.A, C, E, G and Sampled on 10th Aug. 1989 at St.B, D, F, H.) Sample No. : B Depth Characteristics of Grain Distribution Gravel (more than 2000 um) % Sand (74 - 2000 um) 1.21 Silt (5 - 74 um) 7. 29.79 Clay (less than 5 um) % 1 69.00 Diameter of Maximum Grain mm 0.84 Coeficient of Uniformity Uc : Coeficient of Curving Rate Uc' Diameter of 50 % D5Ø mm 0.0013 Diameter of 25 % D25 ៣៣ Diameter of 75 % D75 0.0083 mm Sorting So Skewness Sk Specific Gravity Gs 2.57 Wn % : 198.89 Natural Water Content Li % Ignition Loss 16.86 Shear Strength (In-situ Vane Test) kgf/cm2 : 0.014 Notes From In-situ Observation : Mud (Surface) Soil Name Silt (Inside) Soil Color : Brown (Surface) Dark Grey (Inside) Others

Form Soil Test : Silty CLAY trace sand

Table 2. 3-2 (91) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge Station) of Monthly Survey Testing Date : September 4-11, 1989 12th Stage (Sampled on 6th Aug. at St. A, C, E, G and Sampled on 10th Aug. 1989 at St.B.D.F.H.) Sample No. : C Depth Characteristics of Grain Distribution Gravel (more than 2000 um) % Sand (74 - 2000 um) % Silt (5 - 74 um) % · : % % 27.69 Clay (less than 5 um) : 63.00 Diameter of Maximum Grain mm : Coeficient of Uniformity Uc : Coeficient of Curving Rate Uc' Diameter of 50 % D50 mm : 0.0021 Diameter of 25 % D25 Diameter of 75 % D75 mm : mm 0.022 : Sorting So : Skewness Sk Specific Gravity Gs Natural Water Content Wn % : 178.75 Ignition Loss Li % : 20.38 Shear Strength (In-situ Vane Test) kgf/cm2 : 0.019 Notes From In-situ Observation Soil Name : Mud (Surface) Silt, with Fine Sand (Inside) Soil Color : Brown (Surface) Grey (Inside) Others Form Soil Test : Silty CLAY trace sand

Table 2. 3-2 (92) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge Station) of Monthly Survey Testing Date : September 4-11, 1989 12th Stage (Sampled on 6th Aug.at St.A,C,E,G and Sampled on 10th Aug. 1989 at St.B.D.F.H.) : D Depth Characteristics of Grain Distribution Gravel (more than 2000 um) % 0.05 Sand (74 - 2000 um) % 8.45 : Silt (5 - 74 um) 7. 33.50 Clay (less than 5 µm) 7. : 58.00 Diameter of Maximum Grain mm : 4.76 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' Diameter of 50 % D5Ø mm : Diameter of 25 % D25 Diameter of 75 % D75 D25 mm : mm 0.017 Sorting So Skewness Sk Specific Gravity Gs : 2.66 Natural Water Content Wn % : 111.05 Ignition Loss Li % 11.53 Shear Strength (In-situ Vane Test) kgf/cm2 : 0.051 Notes From In-situ Observation Soil Name : Mud (Surface) Clay, with Fine Sand Grain (Inside) Soil Color : Brown (Surface) Grey (Inside) Others Form Soil Test : Silty CLAY trace sand

Table 2, 3-2 (93) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge Station) of Monthly Survey Testing Date : September 4-11, 1989 12th Stage (Sampled on 6th Aug.at St.A,C,E,G and Sampled on 10th Aug.1989 at St.B,D,F,II.) Sample No. : E Depth Characteristics of Grain Distribution Gravel (more than 2000 um) % Sand (74 - 2000 um) %
Silt (5 - 74 um) %
Clay (less than 5 um) % : 2.41 36.59 61.00 Diameter of Maximum Grain mm : 2.00 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' : Diameter of 50 % D50 mm : 0.0031 Diameter of 25 % D25 Diameter of 75 % D75 mm 0.011 mm Sorting So Skewness Sk Specific Gravity Gs 2.55 بي المنا الم Natural Water Content Wn % : 206.52 Ignition Loss Li % : 14.79 24 The State Shear Strength (In-situ Vane Test) kgf/cm2 : 0.016 Notes From In-situ Observation Soil Name : Muddy Sand (Surface) Clay (Inside) Soil Color : Brown (Surface) Dark Grey (Inside) Others

: SILT and CLAY trace sand

Table 2.3-2(94) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in The Access Channel of Banjarmasin Port. Survey Item : Bottom Material (Saline Wedge Station) of Monthly Survey Testing Date : September 4-11, 1989 12th Stage (Sampled on 6th Aug. at St.A,C,E,G and Sampled on 10th Aug. 1989 at St.B.D.F.H.) Cont and some with the south the sou Sample No. : F Depth : Characteristics of Grain Distribution 84.58 Silt (5 - 74 um) /. : 15.24 Clay (less than 5 um) % : Diameter of Maximum Grain mm : 4.76 Coeficient of Uniformity Uc Coeficient of Curving Rate Uc' : Diameter of 50 % D50 Diameter of 25 % D25 Diameter of 75 % D75 mm 0.338 0.141 : mm : mm : 0.42 0.58 So Sorting : Skewness Sk : Specific Gravity G⇒ : 2.74 Wn % : 45.74 Natural Water Content ہے۔ انجاز جس انجاز کی Ignition Loss Li % : 2.34 Shear Strength (In-situ Vane Test) kgf/cm2 : 0.015 Notes From In-situ Observation Soil Name : Medium Sand and Fine Sand(Surface) Clay (Inside) Soil Color : Brown (Surface) Grey (Inside) Others

: SAND some silt

Table 2.3-2 (95) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item : Bottom Material (Saline Wedge Station)

of Monthly Survey

Testing Date : September 4-11, 1987

12th Stage (Sampled on 6th Aug.at St.A,C,E,G and Sampled on 10th Aug.1989 at St.B,D,F,H.)

Sample No. Depth	: G :			The first with two data (and then your date ever data cuty state	
Characteristi	cs of Grain Distribution			كالما وسيد كالما سيده كالما يبيد السائل يونيا للما لابيد للماه للمان المان المان المان المان المان المان المان	
	Gravel (more than 2000 u	m) %	:	0.12	
	Sand (74 - 2000 um)	%	:	85.10	
	Silt (5 - 74 um)	%	:	14.78	
	Clay (less than 5 um)	%	:	-	
	Diameter of Maximum Grai	п м м	:	4.76	
	Coeficient of Uniformity	Uc	:	<u>.</u>	
	Coeficient of Curving Ra		:		
	Diameter of 50 % D50	መጠ	:	0.295	
	Diameter of 25 % D25	mm	:	0.13	
	Diameter of 75 % D75	mm		0.41	
	Sorting	So	•	0.56	
·	Skewness	Sk	:	0.61	
Specific Gra			. 	2.73	
Natural Wate	r Content Wn	7.	-	46.13	
Ignition Los	5 Li	%	. — —	2.82	
Shear Streng	th (In-situ Vane Test) kgf/	 ′⊂m2	:	Ø.Ø24	

Notes

From In-situ Observation

Soil Name : Medium Sand Soil Color : Brownish Grey

Others

Form Soil Test : Fine SAND, some silt

Table 2. 3-2 (%) RESULTS OF SOIL TEST

Name of Survey : The Study on Maintenance Dredging in

The Access Channel of Banjarmasin Port.

Survey Item : Bottom Material (Saline Wedge Station)

of Monthly Survey

Testing Date : September 4-11, 1989

12th Stage (Sampled on 6th Aug.at St.A,C,E,G and Sampled on 10th Aug. 1989 at St. B, D, F, H.)

Sample No. : H

Depth

Skewness

Characteristics	s of Grain Distributi	.อก			
	Gravel (more than 20	100 um)	7.	:	
	Sand (74 - 2000 um)		%	:	7.22
	Silt $(5-74 \text{ um})$		%	1 .	39.78
	Clay (less than 5 un	1)	%	‡	53.00
	Diameter of Maximum	Grain	mm _.	:	2.00
	Coeficient of Unifor	mity	Uc	:	
	Coeficient of Curvir	ng Rate	Π⊂ ,	:	-
	Diameter of 50 %	D5Ø	mm	:	0.0041
	Diameter of 25 %	D25	mm	5	- .
	Diameter of 75 %	D75	mm	:	0.021
	Sorting		So	:	-

Specific Gravity	Gs	: ·	2.66
Natural Water Content	Wn %	:	111.37
Ignition Loss	Li %	:	11.64
Shear Strength (In-situ Vane Test)	kgf/cm2	;	0.027

SI:

Notes

From In-situ Observation Soil Name : Silt Soil Color : Grey

Others

Form Soil Test : SILT and CLAY trace sand

Table 2.3-3 (1)~(60) Grain Size Test with Size Cumulative Curve (Sampled During Discharge Survey)

Hydrameter Sieve d'a company of the	···	rvey m) finor%	No. (m SIZO bx 50.8 38.1 25.4 19.1 9.52 4.76 2.00 0.84 0.42	rinor%	4.76 — 2 mm 2 2 — 0.42 nm 2 0.42 — 0.074 nm 2 0.074—0.005 mm 2	No (tn ~	y m d by Na Na m	
Hydrameter Sieve	50.8 38.1 25.4 19.1 9.52 4.76 2.00 0.84 0.42 0.25 0.105	•••••••	S Z O BE 50.8 38.1 25.4 19.1 9.52 4.76 2.00 0.84 0.42	(inor%	Depth Grain > 4.76 mm 2 $4.76 - 2$ mm 2 $2 - 0.42$ nm 2 $0.42 - 0.074$ nm 3 $0.074 - 0.005$ nm 3	Ha (m ~)66 66 66 66 66 66 66 6	Na	
Hydrameter Sieve	50.8 38.1 25.4 19.1 9.52 4.76 2.00 0.84 0.42 0.25 0.105	•••••••	S Z O BE 50.8 38.1 25.4 19.1 9.52 4.76 2.00 0.84 0.42	finer%	Depth Grain > 4.76 mm 2 $4.76 - 2$ mm 2 $2 - 0.42$ nm 2 $0.42 - 0.074$ nm 3 $0.074 - 0.005$ nm 3	(m ~		
Hydrameter Sieve	50.8 38.1 25.4 19.1 9.52 4.76 2.00 0.84 0.42 0.25 0.105	•••••••	S Z O BE 50.8 38.1 25.4 19.1 9.52 4.76 2.00 0.84 0.42	[Inor%	Depth Grain > 4.76 mm 2 $4.76 - 2$ mm 2 $2 - 0.42$ nm 2 $0.42 - 0.074$ nm 3 $0.074 - 0.005$ nm 3	(m ~		
Hydrameter Sieve	50.8 38.1 25.4 19.1 9.52 4.76 2.00 0.84 0.42 0.25 0.105	finor%	50.8 38.1 25.4 19.1 9.52 4.76 2.00 0.84 0.42	finor%	4.76 — 2 mm 2 2 — 0.42 mm 2 0.42 ~ 0.074 mm 2 0.074 mm 2 0.074 mm 2 0.005 mm 2 0.005 mm	26		
Hydrameter Sieve	38.1 25.4 19.1 9.52 4.76 2.00 0.84 0.42 0.25 0.105		38.1 25.4 19.1 9.52 4.76 2.00 0.84 .0.42		$2 \sim 0.42 \text{ nm}$ 2 $0.42 \sim 0.074 \text{ nm}$ 3 $0.074 \sim 0.005 \text{ nm}$ 3 $< 0.005 \text{ nm}$ 5	26		
Hydrameter Sieve	25.4 19.1 9.52 4.76 2.00 0.84 0.42 0.25 0.105		25.4 19.1 9.52 4.76 2.00 0.84 0.42		0.42 ~ 0.074 nm 0.074~0.005 mm < 0.005 mm	26 26 26		
Hydrameter Sieve	19.1 9.52 4.76 2.00 0.84 0.42 0.25 0.105		19.1 9.52 4.76 2.00 0.84 0.42		0.074~0.005 mm \$	%	.,	
Hydrameter Sieve	4.76 2.00 0.84 0.42 0.25 0.105		9.52 4.76 2.00 0.84 .0.42		< 0.005 mm	%	······	************
Hydrameter Sieve	4.76 2.00 0.84 0.42 0.25 0.105		2.00 0.84 0.42		*****************		I I	
Hydrameter	0.84 0.42 0.25 0.105		0.84			70 I		
Hydrameter	0.42 0.25 0.105		0.42		Passing 2000 μ	%		************
E-CUML	0.25 0.105			T	Passing 420 //			
E-CUML	0.105		0.25		Passing 74 /			*****************
E-CUML		****************	0.105					
E-CUML			0.074		Maximumarainm			
E-CUML		***************************************			D 60 mm			***************
E-CUML		·····		<u> </u>	D 30 mm			
E-CUML					D 10 mm			
E-CUML		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			Coef. Uniformity U.			
E-CUML			·····	ļ	Cocf. Curving Rate U.			
E-CUML	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	***************************************		}	Specific Gravity ^G			
				}	Dispersion Calalyzer			***************************************
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	Clay	<u> </u>	Silt		ne Sand Coarse Sand	fincGrave1	Gravel	
0 001		Ų.005		0.074	0.42	2.0 €,76	•	7:
mark								
	·				,160	•		

JIS A 1204

粒 結 土 度 試 験 0) 果

報告用紙

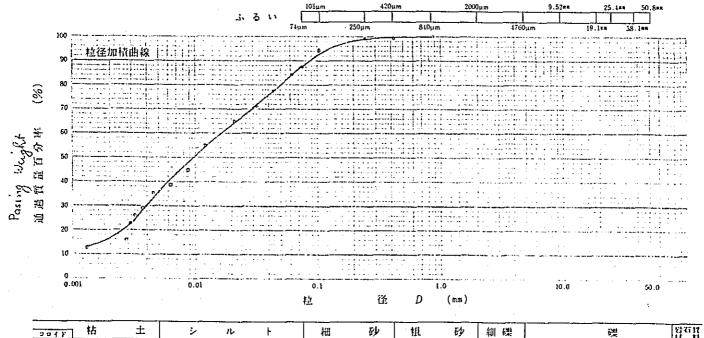
調査名・調査地点 :...

試験年月日 08 年 〇ピン月 1988日

1st Stage (Sampled on 23rd Sep. at St. F-1, F-2, F-3 and Sampled on 24th Sep. 1988 at St. F-4 and F-5.) 試験者

試料品号	Na Ds s	t Fl	No.	
深 さ	(m	— m)	(m	~ m)
	粒径mm	質量百分率 %	粒径 mm	货量百分率 %
	50.8		50.8	
	38.1		38.1	
	25.4		25.4	
る	19.1		19.1	
	9.52		9.52	
\ `	4.76		4.76	
分	2.00		2.00	
,,	0.84	100	0.84	
17	0.42	99.8	0.42	
	0.25	99.4	0.25	<u> </u>
	0.105	94.8	0.105	
	0.074	97.8	0.074	
	0,0614	84.36		
比	0,0442	77.87		
K	0,0318	71.39		
浮	0,0204	64.90		
v	0,0121	55.16		
i	0,0088	45.42		
ž	0,0063	38,94		
,	0,0031	25,96		
	0,0136	12,98	1	1

拡	料:	Ti-	1} -	Nα		No.	••••••
深			č	(m ~	m.)	(m ~	
.76mm以	.上の	位子	%				
明碳分〔	4.76	} ~	2 mm)%				1
几砂分(2 -	0 . 4	2 mm)%	0,50	}	***************************************	***************************************
田砂分(0.42-	-0.0	74mm)%	7,30			1
ルト分(0.074	~0.0	05an)%			}	
占土分 ^性 (0.00	5mm J	፲ ፑ)%				***************************************
. ,,,,	イド分(0.001	ne以下) %	,	*************	• • • • • • • • • • • • • • • • • • • •	••••••
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"Clayer SILT trace sard

D75 = 0.0378 D50 = 0.0092 D25 = 0.0032

0.12

2.0

0.071

土 度 験 0 粒 試 結 果

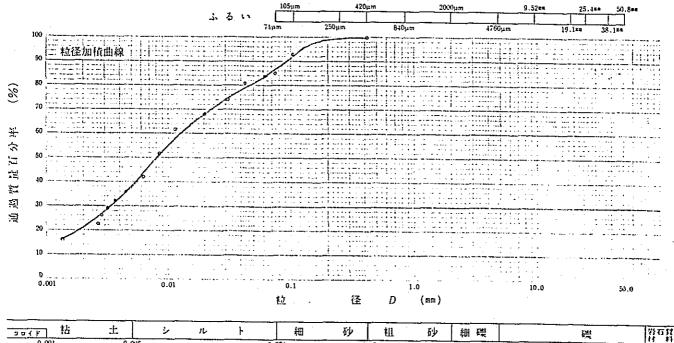
報告用紙

調査名・調査地点

試験年月日 02 年 Oct 月 1988日

1st Stage (Sampled on 23rd Sep. at St. F-1, F-2, F-3 and 試 験 者 Sampled on 24th Sep. 1988 at St.F-4 and F-5.)

科雷号	No. DS 5t	. 12	No.		試 料 番 号	No.	No
* #	(m	- m)	(m	— m)	深 さ	(m~ m)	(m ~ m
	粒 径 mm	質量百分率 %	粒 径 ㎜	質量百分率 %	4.76mm以上の粒子 %		
	50.8		50.8		細檗分 (4.76~2mm)%		
٠٤٠	38.1		38.1		粗砂分 (2 -0.42mm)%		
	25.4		25.4		細砂分(0.42~0.074mm)%	13.50	
ろ	19.1	 	19.1		シルト分(0.074~0.005㎜)%	48.30	
	9.52	•••••	9.52		粘土分 ^{性(} 0.005㎜以下)%		
f,	4.76		4.76		コロイド分(0.001=2以下) %		
分	2.00		2.00		2000μmふるい適過貨量百分率 %		•
	0.84		0.84		420µmふるい通過質量百分率 %	100	
H	0.42	100	0.42		74µmふるい通過質量百分率 %	***************************************	
	0.25	99.4	0.25		14hma 6 1 10 12 16 16 17 17 17 17 17 17 17 17 17 17 17 17 17	07	-
	0.105 0.074	93.6	0.105		JT. 1. 14 47		<u> </u>
		85.0	0.074		最大粒径 mm		
	0, 4372	80.93			60 % 粒径 ㎜	00130	
比	0,0101	74.45 67.98			30 % 粒径 ㎜	00C 34O	***************************************
M	0,0119	61. 50			10 % 粒径 mm	,	
泽	0,0086	51.79			均等係数U。		
U	0,0062	42,08	·····		曲率係数Ud		
1	0,0032	29.13			土粒子の比重 G.	2.60	
j	0,00 26	શ્ય. ૯૯		***************************************	使用した分散剤		
	c,∞ 13,	16, 19	**************************************				



100.0 0.074 0.42

SILT and CLAY with some sand

D75 = 0.0322 D50 = 0 co84

Day = 0 0025

3. 6. 60

度 試 粒 験 土 結 果

報告用紙

調査名・調査地点

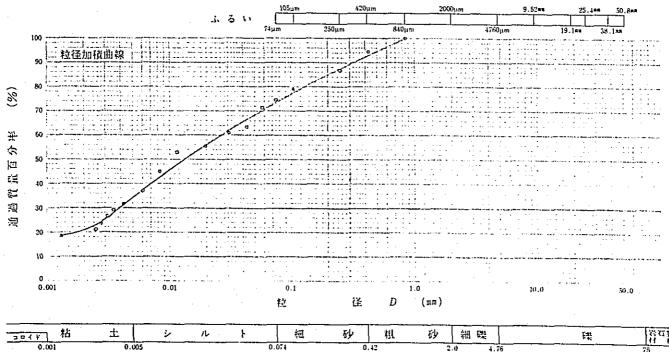
年 0년 月 1988日 試験年月日 08

1st Stage (Sampled on 23rd Sep. at St. F-1,F-2,F-3 and Sampled on 24th Sep.1988 at St.F-4 and F-5.) 試 験 者

試料番号		F3	Nα	
探さ	(m	— m)	(m	~ m)
ı	粒径㎜	賃最百分率 %	粒径 ㎜	貸量百分率 %
:	50.8		50.8	
-?·	38.1		38.1	
	25.4		25.4	
る	19.1		19.1	
	9.52		9.52	
Ļì	4.76		4.76	
	2.00		2.00	
त्र ि	0.84	100	0.84	
(+)	0.42	94.33	0.42	
•	0.25	87.16	0.25	
	0.105	79.33	0.105	
	0.074	74.83	0.074	
	0,0430	63.55		}
比	0, 0307	60.91	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
M	0,0197	55,61		
浮	0,0115	52.96		
7.5	0,0083	45,02		
- 1	0,0060	37,07		
_	0,0043	31.78		
j	0,0031	26.48		
	0,0013	18.54		

試 料 番 号	No	No.
深 さ	(m~ m)	(m - m)
4.76mm以上の粒子 %		
細檗分 (4.76~ 2 mm)%		
粗砂分 (2 ~0.42mm)%	1.30	
細砂分 (0.42~0.074mm)%		
シルト分 (0.074~0.005㎜)%	· · · · · · · · · · · · · · · · · · ·	
粘土分 ^性 (0.005mm以下)%		
コロイド分(0,001=4以下) %	6	***************************************
2000mmふるい通過貨量百分率 %	6	
420µmふるい通過質量百分率 9	94,3	
74µmふるい通過賃量百分率 9	••••••••	

段 大 粒 径 mm	-	
60 % 粒 径 mm	0,0265	***************************************
30 % 粒 径 ㎜	0,00395	•••
10 % 粒 径 ㎜		•••••••••••••••••••••••••••••••••••••••
均等係数U。		
曲率係数U:	•••••••••••••••••••••••••••••••••••••••	
土粒子の比重 G.	2,68	
使用した分散剤		
4		



sundy eloyey SILT

D75 = 0.0851

Dが = 0.c1に Das = 0.cc29 注) コロイド分を含む

0.42

度 土 粒 試 験 果 結 0

報告用紙

調査名・調査地点 _______

試験年月日 08 年 Oct 月 1988 日

1st Stage (Sampled on 23rd Sep. at St. F-1,F-2,F-3 and

201F	- 档 :	土 シ	ル	ト 細	砂	†	砂	·] ;	御檗		皪	對石 材
		· ·		粒	怪	D)				
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100		T:		74µm	250µm		10µm		4760µm		19.100 38.10	##
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	 		<u> </u>		60 %	******	**********		0,0175			
	0.074	3.81	0.074		*************	•••••	径 mm	·				
	0.105	33.6	0.105									
17	0.25	94.0	0.25		74µm.3.31			%				********
11	0.42	99,6	0.42		420µm.i. 5	7些近小	【量百分率	%	************			••••••
分	2.00 0.84	100	2.00 0.84	<u> </u>	2000μm Ֆ Հ	い通過	以最百分率	%				
Ļì	4.76	·····	4.76	 	20	1 F 37(1	D.001mg以下	1%				
LS	9.52		9.52		粘土分性(0.00	5mm以下)%	F		***************************************	
る	19.1		19.1		シルト分(0.074	~0.005mm)%	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		1	
	25.4	*******************************	25.4		細砂分(0.42~	-0.074mm)%	98.6			1
٠,٠	38.1		38.1		粗砂分(1.40			
	50.8	Kill D J 7 79	50.8	30.00 - 70	細碟分(• • • • • • • • • • • • • •)%	•			1
		質量百分率 %		货量百分半 %	4.76mml)	<u></u> トの‡		%	1	<u></u>	<u> </u>	
2	Na DS St (m		No.	~ m)	試 深	料:	雅 号 さ	(√u m ~	m)	No. (m ~	π
*4.7% *F	inan va at		I ISO		Z4s							

Djs = c.2020 P50 = 0.1530 D25 = 0.093 注) コロイド分を含む

土 度 試 粒 験 果 0) 結

報告用紙

調査名・調査地点

試験年月日 08 年 Oct 月 1988 日

1st Stage (Sampled on 23rd Sep. at St. F-1,F-2,F-3 and 試験者

2 2 4 ¥ 0.0) †## 	0.005		1 41 41 41	<u> 野</u> 0.43	†IL	砂	利 課 0 4.76	·····		75
	1 格	土 シ	<i>1</i> V	L 4m	ZI.	an .	zi.	4m tu		Tip!	104.7
			:	杜	径	D I	.o (mm)		10.0		50.0
0 0.0	001	0.0)		0.1			0	; .			
10		7 7 7 2 4 4 7 7 7 7 7 7 7 7 7 7 7 7 7 7	<u> </u>								
20				1		* * * * * * * * * * * * * * * * * * *					
50 50 50 50 50 50 50 50 50 50 50 50 50 5		/								***************************************	
1		/									***
40			7	900 977 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							
50											
. 60			/	* 1 *********							
70											
3											
. 80											
90	二 粒径加铁曲										
100				,74µm	250µm	m4018		4760µ	m	19.124 38.1	I
	•		ふる		420µm		2000		9.524	25.4==	50.8em
·	0,0014	16,11	<u> </u>	<u></u>				<u> </u>	, , , , , , , , , , , , , , , , , , ,	<u> </u>	
	0,0032	21,48	ļ	ļ		に分散剤		·	**********	ļ	
う	0,0062	32, 22				の比重		2,62	·····	ļ	
ì	0,0087	37,59	ļ		***********	係数	• • • • • • • • • • • • • •	ļ			
υ υ	0,0119	48, 32			*************	係数	• • • • • • • • • • • • • • • • • • • •	ļ	···········		***********
业 浮	0,0201	56, 38			***************************************			·····	•••••	}	•••
比 亚	0,0312	61.75	}		30 %	粒 径		0,0047		····	***********
i.	0,0435	75, 17 67, 12			***********	粒径		0,0270	······································	\	•••••
	0.074	80.17	0.074		***************************************	<i></i>	**********				
	0.105	90,44	0.105		最 大	44 3X				<u> </u>	
	0.25	99.67	0.25		14µm-n-0,1	aest(MEi)	分串 %	80,2		ļ	*********
17	0.42	100	0.42		420µm.i. ծ ւ 74µm.i. ծ ւ վ		***********	••••••	************		************
क्रि	0.84		0.84		2000μm.i.δ.				***************************************	ļ	
_	2.00		2.00		************	ド分(0.001	***********		****************	ļ	,,,,,,,,,,,,,
\$1	4.76	***************************************	4.76			· · · · · · · · · · · · · · · · · · ·	•••••		*****************		
	9.52	******************	9.52		シルト分(の 粘土分 ^性 ((1 005mml	·[K 10/	1	*************	ļ	
ಕ	19.1	***************************************	19.1		**********			····	1		1
.j.	38.1 25.4		38.1 25.4		粗砂分 (2 細砂分 (0			1			1
l	50.8		50.8	 				,	}		
		質量百分率 %		1(配目分半 %	細碟分(4			},			
	(m		\	- nı)	4.76㎜以_			m ~		(m ~	
~	II	~ m)	t	~)	深	計 張	4	No	\	No.	

975 · 0.0610 D50 · 0.0142 D25 · 0.0038 注) コロイド分を含む

Table 2. 3-3 (6) JIS. 土 結·果 1報告用紙 1204 の粒度 試 験 調查名·調查地点 BOTTOM MATERIAL (Discharge Stat.) 試験年月日 1938 年 12 月 15 STAT. F-1 試 験 者 ANDY AFANDY 2nd Stage (Sampled on 19th Nov. 1988) 试料番号。 Ħ *1 . ₹ Ϋ́ 深 粒 径 🚥 質量百分率 % 粒 径 賃量百分率 % 4.76㎜以上の粒子 In It 細環分 (4.76~ 2 mm)% 50.8 50.8 粗砂分 (2~0.42mm)% 38.1 38.1 0.1025,4 25.4 細砂分 (0.42-0.074mm)% 2.82 19.1 19.1 3 シルト分 (0.074~0.005mm)% 9.52 9.52 粘土分性 (0.005■■以下)% 52.50 Ļ١ 4.76 4.76 コロイド分(0.001m以下) % 2.00 2.00 99.90 分 2000mmふるい通過質量百分率 % 99,90 0.84 0.84 99,86 420µmふるい通過資量百分率 % 99.82 0.42 0.42 99.82 17 . 74µmふるい通過質量百分率 0.25 0.25 99,06 <u>99.78</u> 0.105 0.105 99,54 0.074 0.074 · 根 大 粒 径 na. 99.06 0.0378 92.7 60 % 粒 径 0.0075 0.0275 86.5 % 粒 径 比 0.0176 80,4 U 10 % 拉 径 阿四 0.0108 65.9 汐 59.8 0.0078 U 曲串係数以 55.6. 0.0056 Ţ 土粒子の比重 G. 49.5. 0.0040 i 使用した分散剤 0.0029 45.3 0.0012 ふるい 19.1M 粒径加積曲線 \$ ķΞ Ù. ¥ Æ, 0.001 0.1 (Am) . 粒 D 径 世五世 粗 璪 201F 쩄 0.001 0.074 0.42 偏考 D 75= 0.015 SILT and CLAY trace sand D 50 = 0.042

D 25 = -

結:果 の粒度 試

報告用紙

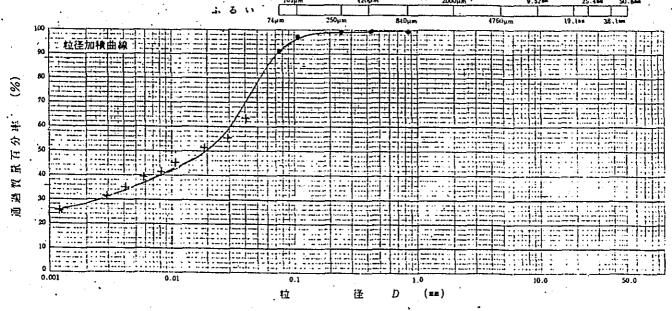
調查名·調查地点 BOTTOM MATERIAL (Discharge Statt)

試験年月日 1988 年 12 月 15 日

STAT. F-2 2nd Stage (Sampled on 19th Nov.1988)

試 験 者 ANDY APANDY

	, 		<u> </u>		· · · · · · · · · · · · · · · · · · ·
試料番号	No.		No	••••••	試料番号 Na Na
深 さ	(· .∵ m	~ . m)	(m	~ m)	深 さ (<u>m- m)(m- m</u>)
	粒 径.mm	質量百分率 %	粒 径 🚥	育量百分率 %	4.76mm以上の粒子 %
,	50.8		50.8		細噪分 (4.76~2 mm)%
ı.h.	38.1		38.1		机砂分 (2~0.42 mm)% 0.06
•	25,4		25.4 ;		細砂分 (0.42~0.074=m)% 9.36
る	. 19.1 .		19.1		シルト分 (0.074~0.005==)% 5.4.58
.•	9.52		9,52		枯土分 ^性 (0.005mm以下)% 36.
44	4.76	,	.4.76		
	2.00	100	2.00	f	□P41F9(0.00 =UT)% 26
क्र	0.84	99.98	0.84		2000年間上 多小通路質量百年年 % 100
	0.42	99.94	0.42		420μm ふるい通過収量百分甲 % 99.94
17 •	0.25	1	0.25		74μm ふるい通過代量百分率 % 90,58
	0.105	99.88	0.105		393.49
٠.	0.074	97.42		·····	
<u> </u>	 	90.58	0.074		***************************************
	0.0409	62.8			60 % 粒 径 🚥 0.03
比	0.0299	55.5			30 % 粒 径 === 0.0026
A ·	0.0191	51.8			10 % 粒 往 🛍
浮	0.0113	44.3	,		均 等 係 数 U _c
v	0.0081	40.6			***************************************
	0.0057	3 8.8	,		曲
	0.0041	35,1			土粒子の比重 G. 2.59
j	0.0029	31.4		1	使用した分散剤
	0.0012	25.9			
		,		105	170.10 11 700.00 A 500.00 TO 100.00



			<u> </u>											
	.t.	, :	_	JL.	l.	£sp	むし	‡ []	₽Þ	細噪		,	Dn	ឌភដ
2041								111	17	44H ™AK	[•	F.40	₹ 5 ₩
0.001	0.00	35 .			0.	074	٥.	42	2	.0	.76			75
<u> </u>				_ •				•						

備考 Clayey SILT with some sand

D 75 = 0.047

D 50 = 0.020

D 25 = 0.002

JIS A の・粒・ 試 験 結 果 1204 報告用紙 BOTTOM MATERIAL (Discharge Stat.) 調査名・調査地点 試験年月日 1988 年 12 月 15 STAT. F-3 試 験 者 NNDY AFANDY 2nd Stage (Sampled on 19th Nov. 1988) 試料番号 No. 料番 号 4.76㎜以上の粒子 低量百分率 % 拉径咖 粒 径 皿 賃量百分率 % 細膜分 (4.76~ 2 mm)% 50.8 50.8 組砂分 (2 -.0.42 mm)% 38.1 38.1 ÷ 細砂分 (0.42-0.074mm)% 25.4 25.4 8.:90 3 19.1 19.1 シルト分 (0.074~0.005==)% 38.5.. 9.52 9.52 粘土分^件(0.005mm以下)% 52.56 Ļì 4,76 コロイド分(0.00)=以下) % 2.00 2.00 2000μmふるい通過賃貸百分率 % ·分 0.84 0.84 99.98 420μmふるい適過質量百分率 % 99.96 0.42 0.42 99.96 17 74μmふるい通過賃貸百分半 91,06 0.25 0.25 99.92 0.105 0.105 95.94 0.074 0.074 **执** 大 粒 径 91.06 0.0385 76.2 0.0095 60 % 粒 径 0.0275 74ء 比 0.0176 70.6 10% 粒 径 W 65.1 0.0104 浮 均等一係数 57.6 0.0076 U 曲甲係数 0.0055 52.0 1 土粒子の比重 G. 48.3 0.0039 44.6 0.0028 40.9 0.0012 拉径加積曲線 % * 今 阳 謡 2 虱 径 岩石質 砂 0.001 D 75 = 0.028SILT and CLAY with some sand D 50 = 0.004D 25 = -注)コロイド分を含む

Table 2, 3-3 (9) JIS. ·A 験 度 1204 の.粒. 試 報告用紙 調查名·調查地点 BOTTOM MATERIAL (Discharge Stat.) 試験年月日 1988 年 12 月 15 STAT. F-4 試 験 者 ANDY APANDY 2nd Stage (Sampled on 19th Nov. 1988) 以科索牙 籽 帮 粒 径 ㎜ 货量百分率 % 4.76mm以上の粒子 粒 径 ㎜ 質量百分率 % 細檗分 (4.76~ 2 mm)% 50.8 50.8 38.1 祖砂分 (2~0.42mm)% 38.1 25.4 25.4 細砂分 (0.42~0.074mm)% 85.5 19.1 ŏ 19.1 シルト分 (0.074~0.005==)% 9.52 -9.52 钻土分^进(0.005mm以下)% 4.76 4.76 コロイド分(0.001**以下) % 2.00 2.00 分 2000µmふるい通過質量百分率 % 0.84 0.84 99.98 420µmふるい通過質量百分率 % 0.42 99.84 99.84 0.42 17 74mmぶるい透過質量百分率 0.25 0.25 89,88 11..54. 0.105 0.105 17.58 0.074 11.52 0.074 **杜 大 粒 径 m** 60 % 粒径 1810 0.16 比 30 % 粒径 🔤 0.14 ĸ 10.% 粒 径 in a 浮 均等一係数Ue U 曲平係数Ud Ì 土粒子の比重 G. ÷ 使用した分散剤 ĭ 张百分 \geq Ð 0.1 粒 逢 D (m#) 细票 0.074

備考 Fine SAND with some silt

D 75 = 0.18

D 50 = 0.15

D 25 = 0.13

JIS A 1204

粒 度 炷 験 結 果

報告用紙

注)コロイド分を含む

調査名・調査地点 BOTTOM MATERIAL (Discharge Stat.)

試験年月日 1988 年 12 月 15 日

STAT. F-5
2nd Stage (Sampled on 19th Nov.1988)

試 験 者...ANDY..A.PANDY.

	No		Na	·	斌	料番	중	Na		Na	
., , *	(m	~ m)	(m	— m)	深	₹† 1ir	₹ ĕ	(m~		(m~	
·	\$5 . 2Z	質量百分率 %	44 (R -		4.76mml	トの幼子	7 %			3	
		以至日77年70	ļ	以底日ガヰ・20			2 25)%				٠.
	50.8		50.8	•			· · · · · · · · · · · · · · · · · · ·			ļ	··········
	38.1		38.1				42mm)%			}	•
	25.4		25.4	·····	************		074==)%	18.96	<i>.</i> 		
る	19.1	*	19.1				.005**)%	37.0			
	9.52	·	9.52		粘土分 ^{tt}	0.005==	以下)%	44			· · · · · · · · · · · · · · · · · · ·
ن ا	4.76	······	4.76	•)1 = 以下)%				······································
分	2.00	100	2.00			**********	百分平 %				·· ·· ······
,,	0.84	99.98	0.84	***************************************			百分半 %	1		·····	
l)	0.42	99.96	0.42		*************	• • • • • • • • • • • • • • • • • • • •		99,96			
1	0.25	99.80	0.25	•	74µm ÷ 6 ·	通過質量百	i 分半 %	82,12			*********
,	0.105	96.24	0.105			<u>.·</u>					
	0.074	82.12	0.074		最 大	拉位	K mm .				
	0.0399	620			60 %	粒色	ž jeus	0.034			*********
比	0.0286	58.1			************	粒色	******	0.0018			••••
IL.	0.0183	56.9			************	拉毛		0.0018	:		••••••••••
浮	0.0107	53.6			**********		*********			<u> </u>	
v v	0,0077	50.3			***********	係 #	*********				••••••
-	.0,0055	45.7		***************************************	曲珠	孫	<u>ሂ</u> ሀ/			\ :	
ŀ	.0.0040	40.2		***************************************	土粒	子の比別	K G.	2.59			
i	8500.0	33.5			使用し	た分散が	11		*************		**********
	0.0012	26.8			*************		*************	1		***************	
٠,-		•	,	105µm	420µ		2000	<u> </u>	9.52	25.4⊶ • 54	
		•	2 Jr		250µm	840µ		476Jµm			j -
, io							n 	4100µm	ا <u> ۱۰۹۰ - احاره ۱</u>	9.1⊶ 38.1⊷	् जिल्लान
90	粒径加積曲	M I III									
			7							1-1-	
80				==1711							
1										— I i l	J-,i.;; ;;
70											
Ī				Z							
70 50											
Ī											
80											
50 50											
60 50											
50 50											
70 50 50 - 40 30											
50 50 40											
50 50 40 30	01	0.01							10.0		0.0
50 50 40 30 20	01	, 0.01		0.1	在	D	O (BE)		10.0		0.0
50 50 40 30 20 0.0	·			. 粒		D	(mm)		10.0		
50 50 -40 30 20	枯 5	/ 0.01 E :	n.		(Z.	D .		\$0 ₽₩ 4.76	10.0	理	0.0

D 25 = -

Table 2. 3-3 (11) JIS A の粒度 駁 1204 試 結 果 報告用紙 調査名・調査地点 BOTTOM MATERIAL (DISCHARGE STAT.) 試験年月日 1989 年 1 . 月 13 STAT. F - 1 試 퉟 者 ANDI AFANDI 3rd Stage (Sampled on 6th Dec. 1988) 试料指号 批料准 4 Nu ż 14. <u>m</u>) 負量百分率 % 粒 往 mm 4.76㎜以上の粒子 粒径响 货量百分形 % 細噪分 (4.76-2 mm)% 50.8 50.8 38.1 组砂分 (2~0.42mm)% 38.1 $\Omega_{\bullet}\Omega_{\bullet}$ 25,4 25.4細砂分 (0.42~0.074mm)% 0.74 19.1 3 19.1 シルト分 (0.074-0.00500)% 44.72 9.52 9.52 指土分^{在(0.005mm以下)%} 54.52 4.76 4.76 コロイド分(0.001以以下) % 34.9 2.00 2.00 100 分 2000μmふるい延告質量百分率 % 100 0.84 99.98 0.84 420µmふるい通過投資百分率 % 0.42 99.96 0.42 99.96 tt . 74μmふるい通過質量百分率 99.22 0.25 99.92 0.25 0.105 99.64 0.105 0.074 0.074 99.22 · 禄 大 粒 径 mm 94.9 0.0371 60 % 粒 径 mm 0.0270 92.3 比 30 % 拉 径 mm 0.0176 82.6 瓜 10 % 粒 從 mm 0.0107 70.2 17 均等係数U。 63.9 0.0077 v 曲串係数U 0.0056 55.7 1 土粒子の比重 G. 0.0040 49.6 ì 使用した分散剤 0.0029 43.3 0.0012 35.1/ 拉径加積曲線 ¢ TI. 展 往 D (mm) ,粒

. CLAY and SILT

D 25 = ----

14016. 2. 5-3 (12)

JIS A 1204 土 の 粒 度 試 験 結 果

報告用紙

調查名·調查地点 BOTTOM MATERIAL (DISCHARGE STAT.)

試験年月日<u>1989</u>年<u>1</u>月<u>13</u>

STAT. F - Z

3rd Stage (Sampled on 6th Dec. 1988)

式科番号	No.										
155 米)	*********		Na.		定	料货	サ	Nu		Nα	
कें ट	(m	- m)	(m	— m)	(A)		2	('m ~	m)	(m ~	m
1	粒後㎜	質量百分率 %	粒從咖	質量百分半 %	4.76 mm)	以上の粒	F %	100			
ł	50.8		50.8	 	細環分	(4.76~	2 mm)%				
	38.1	,	38.1		***********		42 mm)%			h	********
.i. ·	25.4	·····	25.4		2851.0	/ n . 42 n	.074mm)%	0.12		}	
3	19.1	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,								} <u>-</u>	
3		·····	19.1	•	シルト分	(0.074~0	0.005==)%	34.5		 	
	9.52 4.76		9.52	1	粘土分	(0.005m	□以下)%	47.5			
	• • • • • • • • • • • • • • • • • • • •	1.00	4.76 2.00		• p1	□1 ዮ分(0.0	01=以下1%	32.9			
∌	2.00	99.96			2000µm-i	るい遊送賃	复百分半 %	99 96	,		• .
,	0.84	99-92	0.84		420µm.2. &	い過去収量	បាទម %	00 24			·
i)	0.42	99.84	0.42			世身改造い					
· I	0.25	99.76	0.25		iahma, a	· ALCIA A	1114- 70	82,76			
ŗ	0.105	94.66	0.105							<u> </u>	·
<u> </u>	0.074	82-76	0.074		・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・	大 拉 i	圣 mm				
	0.0399	62.4	ļ		60 9	省 拉 i	圣 nn	0.038			
比	0.0285	60.8			30 9	6 粒 i	≩ mm	**************			
ш	0.0183	57.4			************	6 粒:]		1	
i 7	0.0107	54.0		<u></u>	***********		• • • • • • • • • • • • • • • • • • • •		•••••		
υ	0.0077	50.7				等低。				······	
	0.0055	45.6		,		平 係			•••••	ļ	
	0.0039	42.2			土粒	子の比	M.G.	<u> </u>	·		
う	0.0028	37.1			使用 (した分散:	Ħ				
	0.0011	32.1									•••••••
				105µm'	420	µ m	7000,	.tn. ·	9.5%	25.4=9 5	فعق د
•	•		s	74µm	250µm	840µ		47tmJum]
100 E	-1-1-1-1-1-1-1	<u> </u>		11111-1 4 11131-1-4		स्टब्स् सम्बद्धाः		 सम्बक्तासम्बद्धाः		19.1== 38.1= 	enterene.
90	二 粒径加长的	級									
<u> </u>											
§. 80 E											
70											
: 60 E											
*											
.50											
¥ 40 ₽						initia thu					
로 30 된 30											
≦) 30 E							11-1-1-1-1				
ີ 20 [
10											
o.c			!=:- - - - - 	0,1	+ [:]:+]]]]]] []		1.0		HULF F		<u>₩</u>
				. 粒	径	D	(nn)			•	
		<u> </u>	<u> </u>	•	·	,	· .	•	<u> </u>		
20(1)	枯:	ヒ ĺ シ	ル	ト 細	· Gy	机	砂	粗牌		Drift .	राज स

Silty CLAY with some sand

D 75 = 0.062

D 50 = 0.0065 D 25 = ---

JIS A 1204

上の 粒 度 試 験 結 果

報告用紙

調查名·調查地点 BOTTOM MATERIAL (DISCHARGE SATAT.)

試験年月日 1969 年 1 月 13 日

STAT. F - 3

3rd Stage (Sampled on 6th Dec. 1988)

試 验 者 AUDI AFANDI

اخ ا	Na ·		No	********	XX 科 称 ' 5 ·	No	Nu	,
	(m	— m)	(m	— m)	, ill. 8	(ni - m)[(m-	. m
	粒. 径 mm	質量百分率 %	粒径mm	役员百分率 %	4.76㎜以上の粒子 %			
}	50.8		50.8		細除分 (4.76-2 mm)%			
. :	38.1	}	38.1		机砂分 (2 ~0.42mm)%		·	
	25 . 4		25.4		細砂分 (0.42-0.074mm)%			
3	19 1		19.1		シルト分 (0.074~0.005mm)%	4		·
	. 9.52		9.52		指土分 ^{fr} (0.005mm以下)%		.,	
35 J	4.76		4.76	•	ţ	***************************************		
į.	2.00	100	2.00		コロイドか(0.001=02下) %			
9	0.84	99.72	0.84	**************	2000μmふるい通過行量百分半 %			. '
17 -	0.42	98.88	0.42		420µm ふるい通過貸量百分率 %	99.88		
17	0.25	98.04	0.25	-,=<==,==,	74μmぶるい連過質量百分単 %	83.24	************************	
ſ	0.105	92,20	0.105		***************************************	***************************************	·	********
. }	0.074	83.24	0.074	***************	· 放 大 粒 径 mm ·	 	 	<u> </u>
	0.0399	62.8			60 % 粒 锉 mm	0.000		
北	0.0286	59.5	******************			0.032		
Ti.	0.0183	57.7			***************************************			
浮	0.0108	52.6		,1**,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	***************************************			
"	0.0078	47.6			均等係数U。			,
· .	0.0056	42.5			曲 平 係 数 Ui			
. [0.0040	37.3			土粒子の比重 G.			
, (0.0029	32.2			使用した分散制		(*********
. [0.0012	25.5	***************************************			***************************************	1	•••••••
								<u> </u>
				105µm	420pm 2000	hum g 57mm	25 120 5110	
	•		ئە ش		420µm 2000		25,4** 543.8	••
100			& & 		420μm 2000 250μm 840μm	9.52mm 476/µm	25,4mm 513,8 19.1mm 36,1mm	177TLUU
100	拉径加桥曲	# H H H H H H H H H H H H H H H H H H H						
8 · 8	拉连加桥曲	# HI	÷ 5					
8 · 8	拉径加桥曲	## H H H H H H H H H H H H H H H H H H	.h 3					
\$ · \$	拉達加林曲	## H	.i. 3					
90 · 80 · 1	拉连加桥曲	級 	.i. 3					
90 L 80 L 70 L 60 L	拉径加快曲	## H H H H H H H H H H H H H H H H H H	.i. 3					
90 - 10 - 10 - 10 - 10 - 10 - 10 - 10 - 1	拉连加桥曲		3					
50 B0 70 GU 50 H0	拉连加桥曲		.i. 3					
90 80 70 60 50	拉连加州曲		.i. 3					
90 80 70 60 60 60 60 60 60 60 60 60 60 60 60 60	拉達加林曲		3					
90 80 11 50 50 12	拉连加桥曲		÷ 5					
90 80 70 60 50	拉连加州曲		÷ 5					
90 80 70 60 50 10 10 10 10 10 10 10 10 10 10 10 10 10	拉连加林曲		3	71 pm	250µm PAOµne			
90 HO	拉连加桥曲	\$2		71 pm	250µm PAOµm			
90 10 10 10 10 10 10 10 10 10 10 10 10 10	拉连加林曲			71 pm	250µm PAOµne		19. In 38. In a	
90 80 70 60 50 10 10 10 10 10 10 10 10 10 10 10 10 10	枯土	·	.i. 5	71 pm	250µm PAOµm		19. In 38. In a	

D 25 = -

土 の 粒 度 試 験 結 果

報告用紙

調查名·調查地点 BOTTOM MATERIAL (DISCHARGE STAT.)

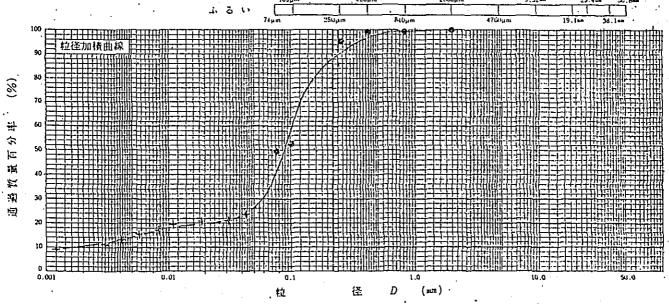
試験年月日 1989 年 1 月 13 日

STAT. F - 4

試 験 者 ANDI AFANDI

3rd Stage (Sampled on 6th Dec. 1988)

(料番号 た さ	Na m	- : m)	Na m	~ m)	と 非 は だってい まり	No. (m - m)	Ku (m – m
	粒 径 *mm	質量百分率 %	粒 径 śm	预量百分率 %	4.76㎜以上の粒子 %		
	50.8	· · ·	50.8		細環分 (4.76-2mm)%		
	. 38.i		38.1		. 粗砂分 (2~0.42mm)%	1.16	
	25:4		25.4		組砂分 (0.42~0,074m) %	57.84	
る ;	19.1		19.1] .	シルト分(0.074~0.005==)%	27.0	
j	. 9.52 .	,	9.52	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	粘土分 ^E (0.005mm以下)%	14	*
b 1	4.76		4.76	-	コロイト分(0.001=以下)%	· · · · · · · · · · · · · · · · · · ·	
分	2.00	100	2.00		2000min 3、通過賃益百分年 %		
"	0.84	99.86	0.84		420µmよるい過過質量質分率 %		
1+	0.42	98.84	0.42	ļ	74μmよるい延過気量百分率 %		
	0.25	95.66	0.25		(4km - 5 - 12 - 13 1 1 1 1 7 - 70	48.52	***************************************
•	0.105	52.34	0.105				<u> </u>
	0.074	48,52	0.074	ļ	最大粒径 mm		
,	0.0436	22.6			60 % 粒 链 mm	0.105	
北.	0.0311	21.5			30 % 粒径 ㎜	0.060	
111	0.0197	20.6	ļ		10 % 粒 径 mm	0.018	
浮	0.0114	19.6			均等係数U。	5.83	
U	0.0082	17.6	ļ		曲平係数Ui	1,90	
Ł	0.0058	15.7		ļ·	土粒子の比重 G.		
う	0.0042	13.7			使用した分散制	***************************************	
	0.0030	11.7			12/11 6/2/21 12/19		,
	0.0012	08.3	<u> </u>	1		1	<u> </u>



		·				<u></u>	
201F 16	土・シ	16	F 和	砂加	砂糊碟	D#	指有領 日 科
0.001	U.005		0.074	0.42	2.0 1.7	16	75
		•	•			•	

備考

Silty SAND with some clay

D 75 = 0.13

D.50 = 0.09

D 25 = 0.049

の 粒 験 試 結 果

報告用紙.

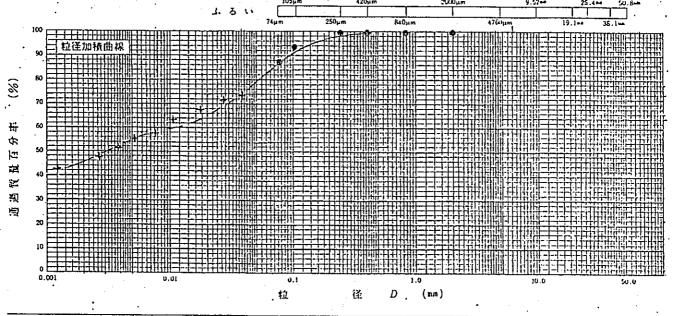
調查名·調查地点 BOTTOM MATERIAL (DISCHARGE STAT.)
STAT. F - 5

試験年月日 1989 年 1 月 13 日

試 験 岩 ANDY APANDY

3rd	Stage	(Sampled	on	6th	Dec.	1988)

試料番号 深 さ	No. (m m)		Na) (m ~ m)		試料番号			No.		Na. (m – m)			
													粒 径 mm
	50.8		50.8		和標子) (1.76	- 2	πn)%				
-3-	38.1		38.1		粗砂:	h (2 ~ (. 42	mm)%	0.06			
	25.4		25.4		細砂:	H ((.42~	U.07	4 mm)%	13.04		·	
3 ·	.19.1		19.1 -	•	シルト	分 ((0.074	-0.00)5 ==)%	32.40	******************		
	9.52		9.52		粘土	3 ^{tt.} (0.00	ism II	下)%			1	
į,	4.76		4.76	•		:	• • • • • • • • •	******	以下)%				
分	2.00	100	2.00	ļ	2000ur	<u>,</u> ,,,,,,	• • • • • • •	• • • • • • •	94 %	- <i>-</i>	••••••		
	0.84	99.98	0.84				••••••	• • • • • • • •	क्रे म ः %	4			
17	0.42	99.94	0.42		*******	• • • • • •	• • • • • • • •	• • • • • • •	华 %		·····		•
	0.25	99.86	0.25				1915 7	11 12 27	4 70	86.90	······		······
•	0.105	93.52	0.165							<u> </u>			· ·
	. 0.074	86.90	0.074		粒	大	粒	径	mm			-	
	0.0377	73.7			60	%	粒	径	mm	0.01	1	·	<i>.</i>
比 瓜	0.0270	70-3			30	%	粒	逄	ពភា	İ	•		•
	0.0175	66.7	·	ļi.	10	%	粒	径	៣#		***************************************		***************************************
评 .	9.0103	61.5			均	寄	係	妆	U.		•••••	**	
v	0.0073	57.9			tti	141	係		 112			·······	••••••
£	0.0053	54.4		ļ	******		- の <u>}</u>	•••••					•••••••••••••••••••••••••••••••••••••••
٠ -	0.0038	50.9	·		*******	••••••	た分	•••••					***************************************
•	0.0027	47.4	ļ		190	71 L	72 TI	K.FI)			••••••	· 	•••••••
	0.0012	42.1		· .								1	



細噪 砂 0.001 0.005

Silty CLAY with some sand

D75 = 0.41

D 50 = 0.003

D 25 = ---

報告用紙

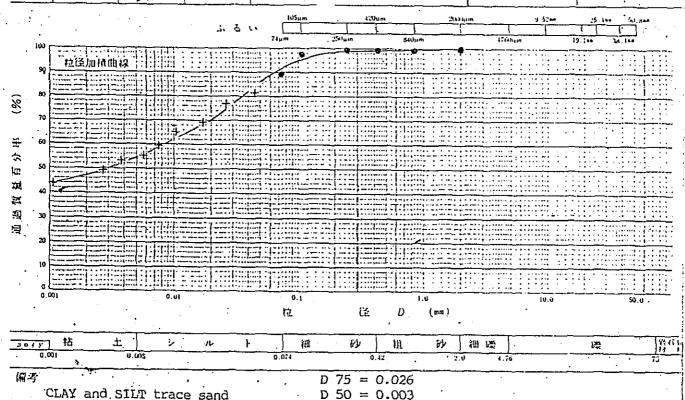
調准名·調查地点 BOTTOM MATERIAL (Discharge Stat:).
STAT. F-)

試験年月日 1989 年 1 月 31 I

4th Stage (Sampled on 7th Jan. 1989)

科拼号	Να		Na		試 料 带	5	Na		Na	
	(m	- m)	(m	m)	深	<u>.</u>	(m -	m)(m	ı —
		预量百分率 %	14 1% mm	抗强压分4.%	4.76mm以上の拉子	%			1	1 .
:		UNELNA: 0	<u> </u>	KIELI JUL- O	細躁分(4.76~ 2					······································
	50.8		50.8		**************************					
	38.1		38.1	ļ	机砂分 (2~0.4)	• • • • • • • • • • • • • • • • • • • •	0.06		ļ	
,	. 25.4		25.4		細砂分 (0.42-0.0	4mm) %	1.94			
る .	19.1	,	19.1		シルト分(0.074-0.0	05=n 1%5	44.0			
·.	9.52	,	9.52		松上沙 ^连 (0.005mm)	下)%	54.0	••••••		
	4.76		4.76		100.00€1 } a =	•••••	34.4		··· [··········	
:	2.00	100	2.00	1	*************************	••••••				
分	0.84	99.98	0.84		2000μmよるい通過資産	***********				
	0.42	99.34	0.42		420年前ふるい通過貨品百	11 00	99,94	•		
H		1	0.25		74mmぶるい通過質量質が				ļ.	•
•	0.25	99.90	0.105		*			*************		
	0.105	99.74	4		・	mm ·			 	
	. 0.074	99.34	0.074	 	***********************	***********				
	0.0365	95.2	1		60 % 拉 径	mm.	0.007			
比	0:0263	91.2		.}	30 % 拉 准	no '			1	•
11	0.0175	79.0	.] .		10 % 粒 译	mm				
i7	0.0101	68.9	<u> </u>		均等保数	12.				
	0.0076	62.8		1	**********************	• • • • • • • • • • • • • • • • • • • •		••••••		
C	0.0055	54.7			曲平係数			,	•••••	
Ţ	0.0040	48.6.	•		、土粒子の比重	G.	<u> </u>	••••••		
	1 (/ = (/ (/ *) (/)									
'n	p				使用した分散剤				;	
j	0.0028	42.6 34.4	۵. ۵		420µm	2000	stem 47°ckhen	y 52ו	25.4a	* "Zu casi - - -
?	0.0028	42.6 34.4	1. 3	_ 	420µm	2000				
100	0.0028	42.6 34.4	. 3		420µm	2000				
90	0.0028	42.6 34.4	. 3		420µm	20.00				
90	0.0028	42.6 34.4			420µm	2000				
90 80 70	0.0028	42.6 34.4	3		420µm	2030				
90 80 70	0.0028	42.6 34.4			420µm	2000				
90 80 70	0.0028	42.6 34.4			420µm	2000				
90 80 70	0.0028	42.6 34.4	. 3		420µm	2000				
90 80 70	0.0028	42.6 34.4			420µm	2033				
90 80 70	0.0028	42.6 34.4	. 3		420µm	2000				
90 80 70	0.0028	42.6 34.4	. 3		420µm	2000				
90 80 70 60 50 40 1	0.0028 0.0012 粒径加州加 中	42.6 34.4	. 3		420µm	20.0				
90 80 70 60 50 40	0.0028 0.0012 粒径加州加 中	42.6 34.4	. 3		420µm	20.31				
90 80 70 60 50 40 20	0.0028 0.0012 拉達加州加 	42.6 34.4		T-Fum	420µm 840µm					Tid , ton
90 80 70 60 50 40 20 10	0.0028 0.0012 t2(\$)mHdl	42.6 34.4			420µm					
90 80 70 60 50 40 20 10	0.0028 0.0012	42.6 34.4		rtum O.1	420µm BtUµm BtUµm	(max)	17chur		19 120	736, tan
90 80 70 60 50 40 20 10 0	0.0028 0.0012	42.6 34.4		raum On 1	420µm Batlum	d	17chur			Tid , ton
90 80 70 50 50 10 0.	0.0028 0.0012 拉译加柏朗 	42.6 34.4		7 tum	420µm Billum	(ma)	加 南 17chur	10.0	19 124	3d. ₁ tan
90 80 70 60 50 40 20 10	0.0028 0.0012 拉達加林朗 	42.6 34.4	n n	7 tum	420µm Billum	(ma)	######################################	75 = (10 12 Peg 20 . 013	3d. ₁ tan
90 80 70 60 50 40 20 10 0	0.0028 0.0012 拉達加林朗 	42.6 34.4	n n	7 tum	420µm Billum	(ma)	176hur	75 = (50 = (19 124	50.0 .

Table 2.3-3(17) JIS A 1204 粒 度 試験 果 一報告用紙 結 調查名·調查地点 BOTTOM MATERIAL (Discharge Stat.)..... 試験年月日 1929 年 1 月 31 日 STAT. F-2T ARDY ATARDY 4th Stage (Sampled on 7th Jan. 1989) 試科器号 No 試 料 ŋ Nu 沐 4.760回以上の粒子 粒、径 🚥 凭最石分率 % 粒 逄 背最石分率 % 細堤分 (4.76~2 m)% 50.8 50.8 38.1 机砂分(2-0.42mm)% 38.1 0.06 25.4 25.4 細砂分 (0.42-0.074mm)% 7.94 5 19.1 19.1 シルト分(ロ.074-0.00500140 38.0 9.52 9.52 粘土分"(0.005㎜以下)% 54.0 4.76 4:76 コロイド分(0.001m以下) % 44.0 2.00 2.00 ...100. 分 2000μmふるい通過質量質分率 % 100 0.84 99.98 0.84 420µmふるい通過貿易百分半 % 99:94 0.4299.94 0.42 1† 単位国景井匹飯のよるLung57 0.25 0.25 99.86 0.105 97.78 0.105 大粒 径·mm 0.074 89.22 0.074 ΝĹ 0.0366 81.1 60 % 粒隆 🗪 0.0085 0.0263 77.5 比 % 粒 谜 咖 68.5 0.0174 II 10 % 粒 ៥ 🗥 64.9 0.0102 7 U 曲事係数化 0.0053 55.9 52.2 土 粒子の比重 ぴ 0.0038 i 48.7 使用した分散剤 0.0027 0.0011 43.2



D 25 = ---

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(社)土質工学会 [不許頂页]

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IS ·	A 120	4	土	の粒!	度 試 験 結	果	報告	用、紙
[[[]	調查地点。	BOTTOM I		Discharge	Stat.) 試験	年月日 1989	华 1 月	31
i. th S	tage (Sam		7th Jan.	1989) -	, A.	喷 者 ANDY /	\ PA NDY	·
			•					
科番号	Na	- m)	No.	— m)	試 料 缶 号 深 さ	No.	No.	
		資量百分平%			·	(m -	_m) {m	
	50.8	HMH774 70	拉径 咖	预量百分率 %	細環分 (4.76 - 2 mm)9		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
<u>.</u>	38.1		38.1		机砂分 (2 ~ 0 . 42 mm)?	0.02		
-	25.4		25.4		細砂分 (0.42-0.074m#)%			1
õ	19.1 :		19.1		シルト分 (0.074~0.0050m)%	6 40.5		
,,	9.52		9.52		指土分 ^E (0.005mm以下)。	v · 54 . 0		
	4.76 2.00		4.76		20(1分(0.00]=以下) %	34.9		
分	0.84	100	0.84		2000年 ふるい通過17 最近分半 %			***************************************
· . ·	0.42	99,98	0.42		420mmよらい通過日末百分半 9			
	0.25	99.92	0.25		74μmふるい通過質量行分率 の	97.46		
	0.105	98.80 97.46	0.105		·	·		
	0.0378	85.5	0.074	 	60%粒径咖	. 0.007	•••••	
比	0.0272	81.5			30 % 拉 径 咖	0.007		
重'.	0.0176	75.6			10 % 粒 径 咖			
i7-	0.0105	67.6			均等係数U。			
U	0.0076	61.6	 		曲串係数U	•••••••••••••••••••••••••••••••••••••••		
. r .	0.0054 0.0039	57.6 51.7:	 		· 土粒子の比重 C.			
i	0.0028	45.8	ļ		使用した分散剤			
	0.0012	35.8	ļ	,				<u>.</u>
<i>:</i>				105µm	120im 20	Xhim 9.53	25 404	51) Kee
100 j-	· .	· 		71µm	,250um 840um	4760um	19.1•• 1d	. [==
80	:: 粒径加抗曲	والمراجعة والمراجعة والمراجعة				\$ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
. 80								
			#1	EEHH				
1°1.						# mm 1 # mb		
- 60	****************	#/: :::::::::::::::::::::::::::::::::::				# # # # # # # # # # # # # # # # # # #		
56		-H				1		1.1.1.1.1.1
40					man job n au gran jomen i be de l'ang i rename i man para jelle i prande galacter ag i mename i man para jelle i prande i de para jelle i me i me i si	# ** * * * * * * * * * * * * * * * * *	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<u> </u>
50 50 40 1 30						******************		
20								
10								
						10 A 1 2 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4		
0.0	พเ	0.01		o.t 拉	在 D (mm)	10	υ	50.0 -
9 (F)	格:	± >	n	上 祖	砂 机 砂	 	i K	'?'
0,0	oi V	0.035		0.674		2.0 4.76		. is
篇考 .	CLAY and	SILT tra	ce sand	•	D 75 = 0.018 D 50 = 0.0039 D 25 =	· ·	生】コロイド分	
				•				ر بابات

贩 JIS A 1204 粒.度 抗 果 ·報告用紙 BOTTOM MATERIAL (Discharge Stat.)
STAT. F - 4 試験年月日<u>1989</u>年 1 月·31 日 試 験 者 ANDY ATAMDY 4th Stage (Sampled on 7th Jan. 1989) 以与各种以 带,身 ž4 拉径咖 4.76㎜以上の粒子 货量百分率 % 拉径咖 胃量百分率 % 細環分 (4.76-2 mm)% 50.8 50.8 0.02 38.1 祖砂分 (2~0.42mm)% 38.1 0.40 細砂分 (0.42-0.074mm)% 25.4 25.4 94.78 19.1 19.1 ኔ . シルト分(0.071~0.005==)% 4.8 9.52 9.52 抬土分¹(0.005mm以下)% 4.76 4.76 コロイト分(0.001=以下) % 2.00 2.00 99,98 2000年mふるい過路賃益買分半 % 1 ..0.84 0.84 99.90 420gmふるい通過質量質分化。?。 99.58 0.42 0.42 99.58 1+ 74mmふるい通過賃業百分半 0.25 0.25 95.60 0.105 6.46 0.105 0.074 版大粒径 mm 0.074 % 拉径 0.16 30 % 拉 径 比. 0.16 A T 0.10 评 均等係及U。 1.00 U 曲半係数以 1 土粒子の比重 G. j 便用した分散剤 * 年 ø 焐. 4.1 D 稏 0.001 0.674 D.75 = 0.17D 50 = 0.18Fine SAND trace silt, fine gravel D 25 = 0.15 正/50イド分を含む 179(社)土質工学会 [不許頂製] 253

Table 2. 3-3 (20) "報告用紙 粒.度 斌 览 JIS · A 1204 果 BOTTOM MATERIAL (Discharge Stat.) 調査名・調査地点 試験年月日 1989, 年 1 月 31 日 STAT. F - 5 者 ANDY APANDY 4th Stage (Sampled on 7th Jan. 1989) 以科番号 No... No. 科品 4.76mm以上の粒子 拉往咖 粒径mm 賃量百分率 % 賃量百分串% 細尺分 (4.76~2 mm)% 50.8 50.8 机砂分 (2 ~ 0.42 mm)% 38.1 38.1 0.04 25.4 25'.4 細砂分 (0.42~0.074mm)% 5.96 19.1 19.1 る・ シルト分 (0.074~0.605==1%) 44.0 9.52 9.52 抬土分^在(0.005mm以下)% 50.0 4.76 . 4.76 □□イド分(0,001m以下) 0 40.9 .2.00 2.00 .1ΩΩ.. 分. 2000μmふるい通過質量百分半 % 100.0 ~0.84 0.84 <u>99,98</u> 99.96 420μmふるい通過貨量有分率。 0.42 0.42 99.96 74μmふるい通過質量百分率 91.34 0.25 0.2599..92. 0.105 0.105 97.22 大 拉 径 mm 0.074 91.34 0.074 81.2 0.0370 60 % 粒 径 mm 0.015 71.9 0.0273 比。 % 拉怪 62.7 0.0180 A 10 % 粒 径 57.2 0.0106 j7 均等係数U。 0.0077 51.6 ŗ, 曲串係数以 49.8 0.0054 土粒子の比重 G. 48.0 ೧.೦೦38 使用した分散剤 44.4 0.0027 0.0011 41.5 ÷ 4 畑 迵 ίΈ D (mail 拉

72 (1) 拈 쐔 细点 ŀ 111

CLAY and SILT trace sand

D75 = 0.032D 50 = 0.0055

D 25 = ____ 供)コロイド分を含む

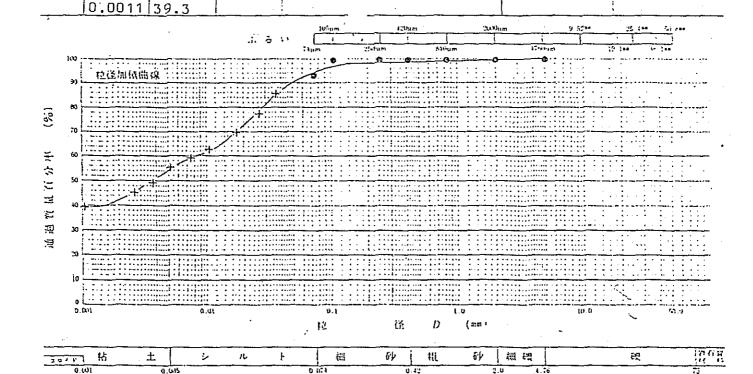
JIS 度 土 の・粒 活 験 結 果 Α 1204 報告用紙 調査名・調査地点 BOTTOM MATERIAL SURVEY. 試験年月日 3 年 29 月 89 日 STAT. F-1(Discharge Stat.) 者 ANDY APANDI 5th Stage (Sampled on 9th Feb. 1989) 试科番号 No. Ę, 深 深 4.76==以上の粒子 賃貸百分率 % 拉径皿 拉 径 賃量百分率 % 細躁分 (4.76~2mm)% 50.8 50.8 0.12 扭砂分 (2-0.42mm)% 38.1 38.1 0.14 ÷ 25.4 25.4 細砂分 (0.42-0.074 mm)% 0.94 õ 19.1 19.1 シルトラ (0.074-0.005001% 38.80 9.52 9.52 拈土分⁽¹⁾ (0.005mm以下)% 60 . 4.76 100 4.76 20 (FS(0.001eet) F) % 40.0 2.00 2.00 99.88 分 2000年からい通過貨量買分率 % 99.88 0.84 0.84 99.80 420μmふるい通過貿量百分率 % 99.74 0.42 99.74 0.42 11 74mmよるい通過質量質分半 98.80 0.25 0.25 99.70 0.105 0.105 99.16 0.074 0.074 报 大 拉 径 mm 198.80 0.0355 95.8 % 粒径 mm 0.0262 87.8 30 % 拉蓬 🚥 比 0.0169 81.9 11 10 % 拉径 ㎜ 0.0100 75.8 挦 等係数U。 0.0072 69.9 C 曲 平 係 数 UZ 0.0053 61.9 ٤ 土粒子の比重 G 0.0038 53.9 i 使用した分散剤 0.0027 49.9 0.0011 40.0 17(e)un -0 二粒径加核曲線 % 4 ļ. ᆑ \cong -2 拉 徑 D (nn) 枮 土 扫 y砂 細環 30 (Y 0.074 信号 D 75 = 0.01SILT and CLAY D 50 = 0.003 注) コロイド分を合む

181

(社)土質工学会 [不許取]

253

Table 2. 3-3 (22) 度 試 馻 結 果 報告用紙 JIS A 土 粒 1204 調查名·調查地点 BOTTOM MATERIAL SURVEY 試験年月日 3 年 29 月 89 日 STAT. F-2 (Discharge Stat.) 訊 験 者 ANDY APANDI 5th Stage (Sampled on 9th Feb. 1989) 試科番号 No. 33 17. پد 竹葉百分井 % 4.76回申以上の粒子 拉 径 咖 货品百分半% 拉连咖啡 細暗分 (4.76-2 mm)% 0.02 50.8 50.8 根砂分 (2 - 0.42mm)% 38.1 38.1 0.06 ٠;, 25.4 25.4 細砂分 (0.42-0.074==)69 7.36 シルト分(0.054~0.005==100 ō 19.1 19.1 38.56 9.52 抬上分⁽¹⁾ (0.005mm以下)% 9.52 ١, 4.76 4.76 100 2日(中分(0,001e=11下) 20 99,98 2.00 2.00 2000am.i. e い過過程量百分率 分 0.84 99.96 0.84 420μmよるい通路質量質分半 99.92 0.42 99.92 0.42 !† 計を行展行送他いるい。 連載行列行送他の表示のは 0.25 0.2599.86 0.105 0.105 98.86 最大粒花咖 0.074 92.56 0.074 60 °o 拉 诺 mm 0.0366 84.2 0:0268 76.7 30 ° 64 68 比 0.0175 69.2 10 % 核 後 ㎜ 11 0.0104 61.7 浮 均等係数比



曲事係数以

土枝子の比重 G

使用した分散剤

102

D:75= 0.022 D 50= 0.0038

注)コロイド分を含む

CLAY and SILT.

17. 7.

0.0075 58.0

0.0053 54.2

0.0038|48.6

D.DD27 44.8

Ç,

Table 2. 3-3 (23) 度 擂 結 果 土 0) 粒 験 報告用紙 JIS 1204 Α 試験年月日 3 年 29 月 89′ 日 調查名、調查地点 _____BOTTOM MATERIAL SURVEY.... STAT. F-3 (Discharge Stat.) 联 者 ANDY APANDI 5th Stage (Sampled on 9th Feb. 1989) 式科番号 No. 7 ĕ 滦 4.76回以上の粒子 货量百分毕 % 拉径咖 凭量百分半 % 細膜分 (4.76~2 mm)% 50.8 50.8 机砂分 (2~0.42mm)% 38.1 38.1 0.06 ÷ 細砂分 (0.42~0.074mm)% 25.4 25.4 3.48 3 19.1 19.1 シルト分 (0.074~0.005==)% 46.46 9.52 9.52 枯土分^E(0.005mm以下)% 50 4.76 Li 4.76 コロイド分(0.001==以下)% 32.0 2.00 2.00 100 2000μmふるい通路質量符分中 % 100 47 0.84 0.84 99.98 420gmふるい通過作品百分半 % 99.94 0.42 0.42 99,94 17 Tipmぶるい通過賃貸買分車 96.46 0.25 0.25 99.90 0.105 0.105 98.26 0.074 最大粒径咖 0.074 96.46 0.0364 84.4 60 % 粒 僅 mm 0.008 0.0262 81.1 00 挺 13. it 0.0171 73.4 %拉隆 N 0.0102 65.6 5 均等原数U。 0.0074 59.9 S 曲 平 係 数 v_{i} 0.0054 50.2 土粒子の比重 6. 0.0039 42.5 使用した分散剤 0.0028 40.6 0.0011 32.8 二粒径加值曲線 \$ 抑 D (mm) Œ. 拉. i) 0.074 0.001 0.005 0.42 2.0 0.75 = 0.018D 50 = 0.005

(社)土質工学会 不连及犯 253

SILT and CLAY trace Sand

注)コロイド分を合む

JIS A 1204

果 土. 廋 試 粒 験 結 0

報告用紙

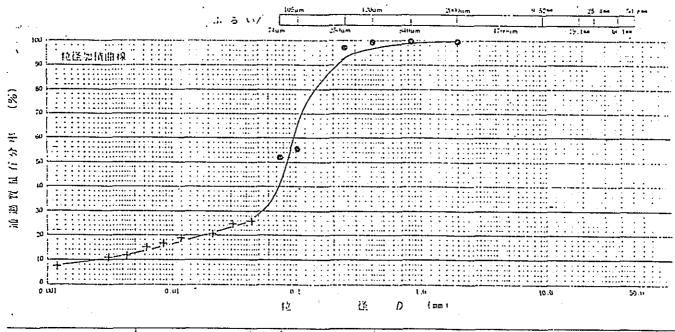
調查名·調查地点 BOTTOM MATERIAL SURVEY STAT. F-4 (Discharge Stat.)

試験年月日 3 年 29 月 89 日

者 ANDY APANDI

_	<u>5 է հ</u>	Stage	(Sampled	oπ	9th	Feb.1989)
					1	

試料指号 译 差		- m)	No. m	- m)	
	拉径响	机最直分率 %	拉 径 ㎜	机氰亚分半 %	4.76回以上の粒子 %
	50.8		50.8		柳碑分 (4.76~2 mm)?6
4.	38.1		38.1		· 机砂分 12 -0.42mm 1% 0.10
	25.4	,	25.4		細砂分 (0.42~0.074cm)% 47.86
õ	19.1		19.1		シルラ分(0.054~0.005==1%。 39.84
	9.52		9.52		指土 9 ⁵⁵ (0.005mml以下 1%)12:2
	4.76		4.76		
分	2.00	100	2.00	<u></u>	
75	0.84	99.92	0.84		100
:+	0.42	99.90	0.42		120um.i.a.ubett411941 % 99.90
	0.25	96.46	0.25		74um 3:: 66tr 4ft v + °0 52.04
	0.105	54.56	0.105		
•	0.074	52.04	0.074	İ	最大 粒 花 mm
	0.0445	25,7			60 % 经 作 ㎜ 0.12
壯	0,0315	24.7			30 % to is no 0.55
गर	0.023		<u> </u>		10.% to iii ma 0.0024
17-	0.0120	18.5		1	
., ე	0.0085	16.4			30,
	0.0061	74.4			曲 半 係 数 07 10.5
 	α.0044	11.3	ļ 		- L 拉子の比重 C. 2.69
7	0.0031	10.3			便用した分散剤
	0.0012	7.2	<u> </u>	<u> </u>	
-				104um	Libbury Status U.Sharing U.Sharing



祖禮 30 (F 0.115 0.674

SILT-and FINE SAND with some Clay

D 75 = 0.13D 50 = 0.085

D 25 = 0.04

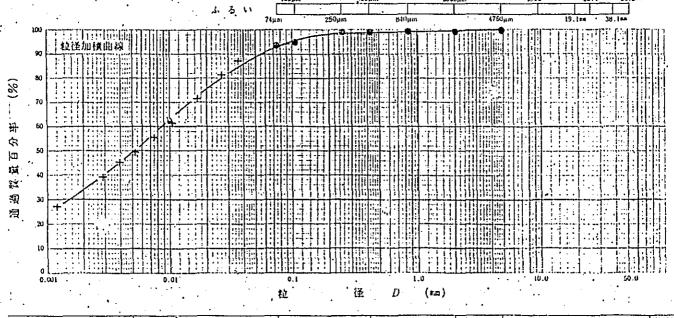
JIS Α 1204 粒 层 0) 쑲 験 結 果 報告用紙 調查名·調查地点 BOTTOM MATERIAL SURVEY 試験年月日 3 年 29 月 89 日 STAT. F-5 (Discharge Stat.) 者 ANDY APANDI 5th Stage (Sampled on 9th Feb. 1989) 试料雷号 Na 試 料 番 泛 ë 賃貸百分率 % 粒·径 mm 我就在分半 % 4.76㎜以上の粒子 翻碟分 (4.76~2mm)% 50.8 50.8 38.1 租砂分 (2-0.42mm)% 38.1 ٠;٠ 0.06 25.4 25.4 細砂分 (0.42~0.074cm)% 23.00 ō 19.1 19.1 シルト分 (0.074~0.005=0)% 46.44 9.52 9.52 钻土分^{E(} 0.005mm以下)% 30.5 . 4.76 4.76 コロイド分(0.001=12下) % 13.9 2.00 100 2.00 分 2000年mふるい通過質量百分半 % 0.84 0.84 99.98 420mmふるい通過質量質分半 🥠 0.42 0.42 99.94 99.94 :+ 74gmふるい通過質量百分半。 0.25 0.25 99.84 76.94 0.105 94.74 0.105 0.074 76.94 0.074 最大 拉 径 mm 57.0 0.0387 60 % 拉 选 mm 0.042.... 0.0280 52.3 比 0.0181 47.7 K 0.0107 43.1 įĮ. 均等保数U。 0.0077 37.0 U 曲串係数UZ 0.0056 30.8 Ŀ 土粒子の比重 G. 0.0040 26.2 i 使用した分散剤 0.0029 21.6 0.0012 13.9 二位径加桥曲線 % 今 Ξ 크 摄 拉 逧 (mm) 占 细谱 765 떝 D 75 = 0.065Sandy Clayey SILT 0.50 = 0.022D 25 = D.0033 住) コロイド分を含む 185(社)土質工学会 不許反驳 253

調查名·調查地点 BOTTOM MATERIAL SURVEY STAT. F/ (Discharge Stat.)

5 年 30 月 1989日

6th Stage (Sampled on 23rd Mar. 1989)

	<u>. 4</u>	<u> </u>											
人科番号 そ さ	Na m	~ m)	Nα 'm	. ·	i.		1 1	<u>.</u> 4		Na .	m)	Nu ('. m ~	
-		賃貸買分率 %			4.76=		·のも		%	· · · · · · · · · · · · · · · · · · ·		\$	1
	.50.8		50.8		柳绿分	(4	.76	~ 2	nn)%	0.06	•		
.h	38.1		38.1	*	机砂分	(2	~ 0	. 4 2	mm)%	027	•		
	25.4	, ,	25.4	 	組砂分	(0.	42~	d.07	400)%	5,59	,		<u> </u>
	19.1		19.1						5=4)%	44.08			
	9.52		9.52		粘土角	μŧ (ο	.005	no L	下)%	50 .			
•	2.00	100	4.76 2.00		;	201	F∌(0	.001	UT)%	26.9			
分	0.84	99.94 99.86	0.84	,	2000µm	191	通路	(L Zi	ን ዛ %	99,94			
	0.42	99.67	0.42		420µm.i	6611	通過打	量值	學 %	99.67			• • • • • • • • • • • • • • • • • • • •
(†	0.25	99.21	0.25		74µm.1.	ō vi	通用	色的	华 %	94.08	· :		
	0.105	95.09	0.105				.`		•			<u></u>	
	0.074	94.08	0.074		,		粒	往	min				
·	.00372.	B6., A			60	%	拉	逄	K.M	0.0085			·
比	.0027.0.	BD6				******	粒	• • • • • • •		0.0015	.,, ,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
瓜	0.0178.	71.0	<u> </u>		10	%	粒	迕	2015 	ļ			
拌	0.0107	61.4			均	等	係	故	υ,		· .		·
Ú	0.0077	55.6 51.8					保	• • • • • • •				\	
1.	0.0040	4421					юH		G.	2.54	• • • • • • • • • • • • • • • • • • • •	· .	
, ,	0.0029	38.4			使用	打し/	こうとは	久利	······				
•	0.0012	26.9			· <u>:</u> · ·	<u>.</u>	· · · · ·			<u> </u>	· ·	<u> </u>	
	•			105µm		120µm			2000	rm,	9.52**	25.4™	50.8mm



SILT and CLAY trace Sand

D 75! = 0.02 D 50 = 0.005

の、粒・皮

報告用紙

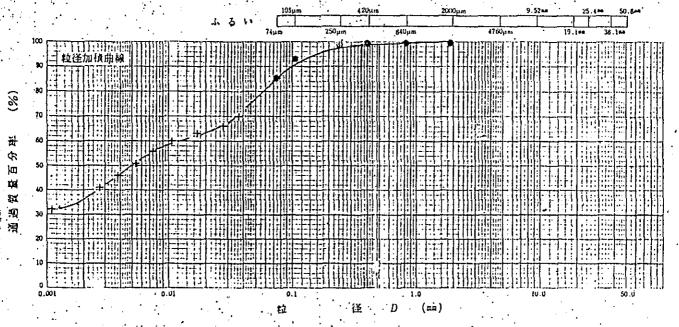
地点 BOTTOM MATERIAL SURVEY... STAT. F - 2 (Discharge Stat.)
(Sampled on 23rd Mar.1989)

.30 J.1989 II

Andy / Endang.....

*	· ·	•	<u> </u>		<u> </u>
	試料番号	No	•	Na	
	深 さ	(m	~ m)	(m	∸ m)
,		拉 径 ㎜	質量百分率 %	讨 径 ma	質量百分串%
	• • •	50.8		• '50.8	
į		38.1		38.1	. '
1		25.4		25.4	
1	8	19.1		19.1	
1		9.52		9.52,	
ļ	. W	. 4,76		4.76	
	<u> </u>	2.00	104.00	2.00	
1	21	0.84	99.89	: 0.84	
1	<i>(</i>):	0.42	99.69	0.42	,
		0.25	99.44	0.25	
;		0.105	92.66	0.105	
		0,074	84.75	0.074	
•		0.0379	70.2	• 	<u> </u>
	· 比:·	0.0273	66.7		-
	M i - ·	0.0175	633	·	
	i# . *	0,0103	60.0		
•	. 0	0,0073	56.5	***************************************	
•		0.0053	51:.4		
	-	0.0038	46.2		
ć,			41.1		
		0.0011	32.5	•	

			•	
試料番号深さ	No.		Nu	
	<u></u>	m)	(" " -	
4.76中以上の粒子 %			,* ,	
細噪分 (4.76~2㎜)%	-			
粗砂分 (2~0.42mm)%	0.31			
細砂分 (0.42~0.074mm)%	1.4 . 94			
シルト分 (0.074-0.005㎜)%	34.75	4		
档土分性(0.005㎜以下)%	50			
204 FH(0.00)e=UF) %	32.5	***************************************		
2000年前よるい通道賃貸百分半 %	100:		•	**************
% 非化百量价值值164mu081	99.69			
74μmよるい通過質量百分率 %	.84.75.	· • · · · · · · · · · · · · · · · · · ·		
	•			. •
放大粒径 um		, •		
60%粒准咖	0.012			
30 % 粒 往 mm		-		
. 10 % 粒 從 🚥 .				
均等係数Ue			٠.	
曲 平 係 数 Uè	-			1
.土粒子の比重 G.	2.61		ļ	
使用した分散剤				
		•.		
· · · · · · · · · · · · · · · · · · ·				



組織

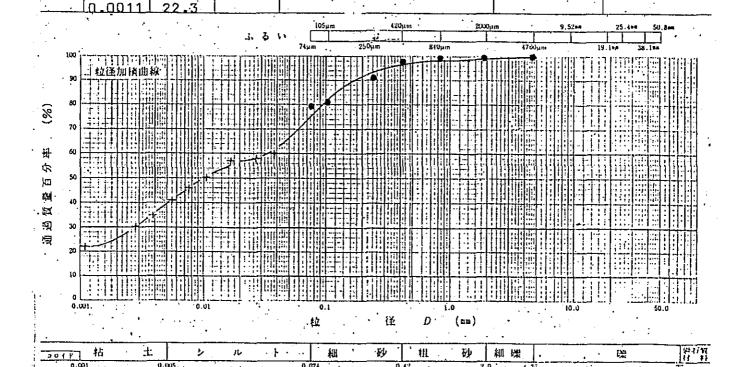
D 75 \(\delta\) 0.045

Silty CLAY, some Sand

D 50 = 0.005

,(社)土質工学会 不再展图

Table 2. 3-3 (28) JIS 1204 米力· 度 荋 報告用紙 閱查名·調查地点BOTTOM、MATERIAL、SURVEY...... 試験年月日 · 5 作 30 月 1989日 STAT. F - 3 (Discharge Stat.) 験 者 ANDY 7 ENDANG 6th Stage (Sampled on 23rd Mar. 1989) 試料番号 試料带步 汉 泽 4.76㎜以上の粒子 拉 径 加 货量百分率 % 排 径 ㎜ 質量百分串 % 和嗓分 (4.76~ 2 mm)% 50.8 50.8 <u>:0.21</u> 粗砂分 (2~0.42mm)% 38.1 38.1 2.85 25.4 相砂分 (0.42-0.074mm)% 25.4 17.49 19.1 19.1 シルト分 (0.074-0.0050m)% 39.45 9.52 9.52 七十分^世(0.005mm以下)% 4.76 4.76 コロイド分(0.001m以下) % 2.00 2.00 99.79 2000年四小るい油造代目自分半 % 99.79 0.84 0.84 99.48 420µmふるい通過質量百分率 % 96,94 0.42 0.42 96.94 # .. ឱμmよるい通過質量百分率。 0.25 0.2579.45 90.53 0.105 80.12 0.105 0.074 0.074 **秋大粒径** mm 79.45 0..0383 60 %·粒·径。mm 60.4... 58.8 0.0273 30 % 粒 往 mm 0.0028 0.0174 57.2 10 % 粒 径 mm 50.9 0..0.10.2 iŦ 均等係数U。



曲 华 係 数 以

土粒子の比重 G.

使用した分散剤

CLAY and SILT, some Sand

46.1

41.3

35.0

30.4.2.

0...007.5

0..0054

0.0039

.0.20.28

0.75 = 0.0750.50 = 0.01

Table 2. 3-3 (29) JIS A 1204 報告用紙 BOTTOM MATERIAL SURVEY 試験年月日 5 年 30 月1989 日 STAT. F - 4 (Discharge Stat.) 者 Andy / Endang 6th Stage (Sampled on 23rd Mar. 1989) 試料費号 No.... 4.76㎜以上の粒子 粒 径 咖 質量百分率 % 柱 径 双量百分串 % 細碟分 (4.76~2mm)% 50.8 `50.8 粗砂分 (2-0.42mm)% Ļ. 38.1 38.1 0.06 25.4 25:4 細砂分 (0.42~0.074mm)% 19,1 19.1 シルト分 (0.074~0.005==)% 9.52 9.52 枯土分⁴(0.005mm以下)% 4.76 4.76 100 コロイド分(0.00111以下) % 2.00 2,00 99,87 2000年出るい通過賃貸付分半% .0.84 0,84 99:69 420µmよるい通過質量百分率 % 99.44 0:42 0.43 99.44 17 74μmふるい通過質量百分串 0.25 89.25 0.25 0.105 0.105 22.15 0.074 0.074 及大粒径 mm 5.63 60 % 拉 径 mm 比: 30 % 粒 逐 🚥 IL. 10 % 粒 筐 咖 17 均。等係数U。 曲 华係数U 土粒子の比重 Ga 使用した分散剤 사 4 Œ 巾 M Đ, D (mm) 똩 相 噪 D 75 = D.2 Fine SAND D 50 = 0.180.25 = 0.13注)コロイド分を含む。 (社)土質工学会 [不許複製] 253

報告用紙 試 結 JIS . 粒 贬 魞 12040 BOTTOM MATERIAL SURVEY 試験年月日. - 5 年30 月 1989日 調査名・調査地点 STAT. F. - 5 (Discharge Stat.). 者 Andy / Endang 6th Stage (Sampled on 23rd Mar. 1989) 試料器号 ılr 深 4.76回以上の位子 惯量百分率 % 复量百分串 % 植蓬 粒 径 mm 細碟分:1.76~ 2 mm)% 0.11 50.8 50.8 祖砂分 (2~0.42mm)% 0.78 38.1 38.1 ĥ: 組砂分 (0.42~0.074mm)% 25.4 25.4 25.08 シルト分 (0.074~0.005==)% 19.1 ð 19.1 38.03. 指土分^E(0.005mm以下)% 9.52 9.52 4.76 4.76 /1.Qa コロイド分(0.0010以下)% 2.00 2.00 99.89 . 2000pmふとい過過質量百分率 % 分. 0.84 0.84 99.71 420mmよるい動造質量百分率 % 99.11 0.42 99,11 0.42 17. 74μmふるい遊遊賞量百分半 0.25 0.25 98,13 0:105 0.105 *a6.06* 放 大 粒 径 咖 0.074 0.074 74.03 60 % 粒 径 🚥 0.0390 53.43. 0.055. 0.0032 48.9 0.0281 % 粒 從 比。 47.4 0.0179 m : 11. % ĒV. 44.4 0.0105 評 均等係数U。 41.5 0.0975曲串係数Ud 37.0 0.0054 土粒子の比重 32.6 0,0039 Ŧ 使用した分散剤 28.2 0,0028 .0011 20.8 壯 æ 加 . TE ĸ :12 坶 谹 D (mm) , W Į. 砂 細噪 ۲. 細 · ± 201F + 0.001 0.12 0.75 = 0.090.50 = 0.03Sandy SILT and CLAY D 25 = 0.0022注) コロイド分を含む (社)土賀工学会 不再及到 .i90

土 の 粒 度 試 験 結 果

報告用紙

調查名·調查是以 BOTTOM MATERIAL (Discharge Stat.)

試験年月11 6 年 26 月 1989 日

STAT. F-| 7th Stage (Sampled on 26th Apr.1989)

記 % 者 ANDY / ENDANG

	tage (Sampled on			-
科雷号	Na	Na	X 料 需 号 No.	Bu
ž.				me- m) (m - m
		-\ <u></u>	1.76mm以上の長子 %	
	粒 径 咖 宜量的分半等	5 株 译 mm 负量百分率 88	***************************************	
	50.8	`50.8	網螺分 (4.76 - 2 mm)%	
i,	38.1	38.1	担砂分(2 ~ 0 . 4 2 mm)%	0.09
A1	25 .4	25.4		0.71
Z	.19.1	19.1	1.	
•	9.52	9.52	it)	3 . 2
٧,	}	4.76	枯止疗 0.005mm 以下)% 5	б.,
	4.76			8.1
Ð,	1.00	2.00	2000mm. 6 い過程作品作分半 % 10	n l
•	0.81 99.92	0.84		No. No.
(†	0.42 99.91	0.42		9.91
•	0.25 99.90	0.25	74μmふるい通過質量百分率 % 9	9.20
	0.105 99.76	0.105		
	0.074 99.20	I F	最大粒径 am	
	0.035596.2.		60 % th 1% mm c	10062
			70 H +4 75 mm	1
比			30 % 松 径 mm	
M	0.0169 82.2		10 % 1/2 1/2 mm	
iF	0.0.103702		均价保险U。	
v	0.00746421.		曲 序 係 数 Ue	
ı	0.0054582		土粒子の比重 G.	2,58
i	0.0039 50.1		***************************************	51.2.9
•	00028461:		使用した分散剤	
	0.0011 38.1			
100		3. 3 to [105µm]	420jun 2000jun 250jun 810jun	9.52ss 25.4ss 50.8ss 476khm 19.1ss 36.1ss
(2) : 1 · 1 · 1 · 1 · 1 · 1 · 1 · 1 · 1 · 1	粒径加強曲線			
0.	001 1 9.	ut t t t	.idi	Alathadel I feit er er er er er er er er er er er er er
10 (F				『現 既 賞
	.brit 0.005	0.1674	U.42 2.0	4.10 75
削む	CLAY and SILT	•	275 = 0,0	
			D50 = 010	
		•	<u> </u>	(株) コロイド分を含む

JIS 1204 Ą

加 験。 度 結果 粒 O)

報告用紙

調查名·調查地点 BOTTOM MATERIAL (Discharge Stat.). STAT. F - 3

試験年月日 6 年 26 月 1989 日

試 験 者 ANDY / ENDANG......

7th Stage (Sampled on 26th Apr. 1989)

科雷马	Να		Na			 [带步	No.		No.	
ти <i>у</i> З.	(m	~ nı)	(m	- m) iï		m 3	(10,54	ın)	(m ~	m
	* 22	61 13.77 23 Nr. W/	14 (É mm	NO 15 77 (5 At 0	4.76m	以上の	松子 %				
		1(夏日万字 70	<u> </u>	11-0(11-37-4)	,		G — 2 mm)%				-
	50.8	,	`50.8	.,,,							∤
.i.	38.1		38.1	······································			(),42 mm)%	U • U J		***************************************	
	25.4	بم	25.4		細砂分	(0,42	~U.U74mm)%i	.0.57.	ļ.,,.,,,,,,,,		<u> </u>
3	19.1	********	19.1		••		~0.005≇¤) <u>"</u> ∂	1.22.5			
	9.52		9.52		相比分	0.00	5㎜以下)%	64			
11	4.76	*****	4.76	· · · · · · · · · · · · · · · · · · ·		コロイド分	(T.Klee(10.0)		***************************************		*************
Δ	2.00	<u>ነ</u> በር	2.00		i. 2018)um	 ふみい前段	数量百分率 %	ľ			
9)	0.84	99,98	0.84					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
(†	0.42	99.97	0.42	,		*** *******	ustiva %		·····		
''	0.25	99.96	0.25		74 µm.i.	るい通過質	量自分率 %	99,40			
	0.105	99.66	0.105								
	- 0.074	99.40	0.074		松	火 粒	徐 呵呵				
	0.0355	96.4			60	% N	径 mm	0.004	2.		
	0.0254	94.4					ik nin		·		
_	0.0163	90.4		1	*********	% ¥£	••••••		••••••		
	0.0097	82.4				*********					
i7-	0.007.1	74.3	.).,,			*****	数 U.				
U	00052	66.3					₩ U.'				·····
-	00038	583			··· ::::::::::::::::::::::::::::::::::	1.1.0	It Ni G.	2,62	****************		
う	1	502			使用	儿た分	故利	·			
	00027	36.2							.,		
	0.0011		.1			20µп	2000		9.52**	25. (pa	50.8=
	•		ふる	·							
100 (**(****)****************		74pm 	250µm	* • • • • • • • • • • • • • • • • • • •	840 կա Համասի 1-1-1-1 Գ	4760μπ 1771.11.11111.1.	a Eddarfar og till	19.1== 38.1 TT:TT:TT:TT	ea Cout eta (atua
	*拉径加桶曲	44									
90											
80		++++1/7	 						h H H 🚞		
70											<u> </u>
1		1/111									1111
											1111
50											
e i											1:1:11
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30	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1										
₹ 20											
- 1											
10						TIT			THE		71111
٥			<u>: [:]</u> : [· Halli					HHH LE	· !	
Q. C	201	0.01		0.1 粒	ŧ:	£ D	0.1 (am)		tu.u		50.0
				7.12	L						******
	枯:	t: >	ル	h #	田 おり	111	£√	組織		课	\mathcal{U}

前号 CLAY and SILT

D75 = 0,0073 Dso = 0,0025

JIS A 1204 土 の 粒 度 試 験 結 果

報告用紙

注1 コロイド分を含む

調查名·調查地点 BOTTOM MATERIAL (Discharge Stat.). STAT. F - Z

試験年月11 6 年 26 月 1989 日

試 験 者ANDY .../..ENDANG.....

7th Stage (Sampled on 26th Apr. 1989)

番号	Na		Na		試打器	Ω.	Nu		No.	
	(m	- in)	1	m)	海、	さ	(m ~	տ)	(111 ~	m
		·		<u> </u>			· · · · · · · · · · · · · · · · · · ·			
	拉径咖	質量百分率 %	粒径 mm	質量百分生 %	4.76mm以上の位					
	50.8		50.8		組織分(4.76~	- 2 mm)%				
	38.1		38.1		組砂分(2~0.	42mm)%	0.02			
	25.4		25.4	/*	細砂分 (0.42-0	.074mm)%	6.29			•
5	19.1		19.1		シルト分(0.074~)		<u>,</u>	**********		*********
	. 9.52		9.52		#1.1.58 ¹ \ 0.005m				·	
•	4.76	,	4.76	······		***********				
			2.00		⊃ ∪ (F3)(0,0	лыд F) %	.37.9		,	
}	2.00	1.00			2000年からない前告官	量有分半多	100			
	0.84	99.99	0.84		420µmぶるい通過官員	መንተ %			./	
†	. `0.42	99.98.	0.42	ļ	74pmぶらい通過質量					
	0.25	99.96	0.25				93.69		, ,	
	0.105	9.8 8.7	0.105			·		· · · · — — — — — — — — — — — — — — — —		
	0.074	93.69	0.074	<u> </u>	並 大 拉	· • • • • • • • • • • • • • • • • • • •				
_	003.66.	8.5 . 2			60 % Hz	注 mm	0,0084			
t.	0.0266	79.5			30 % 12	ik mm			-	
ít.	.0.4.0.17.4.	72.0			10 % 1%		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			
7 .	0.40.104	64.4	<u> </u>		均等係		1			********
<i>.</i>	0.0075	58,7						******	······································	
Ł	0.0054	4			曲水係		·····	· · · · · · · · · · · · · · · · · · ·	-{	• • • • • • • • • • • • • • • • • • • •
	.0.0039	t		Ì	土粒子の比		2,57			
)	0.0028	1			使用した分散	剂	<u> </u>	******	<u> </u>	
	0.0011	1	1							
	·			[Մ5րտ	420µm	2000	udb .	9,5200	25.4** 54) . 824
			.i. &			·]
ıω	r i ganar e	mana a a a a		74µm 1674 (1717), k 1676 (1717)	250µm 810	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	4760µm	ierri i i	19.1ee 36.1ee	, 1717! 1
90	粒径加质用	B線								
~										
ью			+++++							
70			11_{24}							
				144411			443.4			
લ										t:::::
50	: . : ! ! ! ! : !			4-4-14-14-14-1-1		14 - 1 - 1				1-1-1-1
40	+								1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
30										
•										
20										
10			* * * * * * * * * * * * * * * * * * * *							 -
0			<u>. </u>	' H. H.						[
0.0	out ,	0.0	ı	9.1	:X /)	1.0		lu.b	<u>•</u>	v. u
				拉	if. D	(mm)				
	桁	i: 2	ル	上 組	DV \$IL	(i)	組織		i di	Ţ,
(F	001	U.(U.5		0 074	0.42	2	ـ 11, ـ ميب			1 ¹
Z;	CI 4:1 -	md SILT				D-7-	= 0,02			
7)	chay a	MM SILI	•	•		-				
						250	=01004	7		

身 流 験 結 果 JIS の粒 報告用紙 1204 1 Α 調查名·調查地点 BOTTOM MATERIAL (Pischarge Stat.).
STAT. F - 4 試 験 在 ANDY 在 ENDANG 7th Stage (Sampled on 26th Apr. 1989) 战科群身 135 江 ž 4.76mm以上の位子 真量百分率 % H ik mm the if was 細腺分 (4.76~2㎜)% 50.8 50.8 ...0.04 相砂分 (2 ~ 0.42mm)% 38.1 38.1 0,30 25.4 25.4 和低少分 (0.42~0.074mm)% 85:05 19.1 19.1 19-61 シルト分 (0.074~0.0050m)% 9.52 9.52 据土分^几(0.005mm以下)% 4.4 4.76 4.76 コロイド分(0.001=5以下) % 2.00 2.00 99.96 2000年 ふるい通過質量百分率 % 分 99,96 0.84 0.8499.82 420mmふるい通海貿易百分半 突 99.66 0.42 0.4299.66. 1† 74junふるい過過質量百分率 0.250.2593..35 0.105 0.105 16.55 0.074 0.074 大 粒 往 mm 60 % 校 往 咖 % 拉 径 mm 比 Ж 10 % 税 17 均等係数U。 U 曲串係数以 长粒子の比重 G. 使用した分散剤 粒径加铁曲線 % 井 尔 æ lά 缸 Ą ίř D (mm) 乜 ĦĻ ŀ 2011 D75 = 0,185 備书 fine SAND Ds0 - 0.17 D25 , 0,12 注)コロイド分を含む

Table 2, 3-3 (35) JIS 廋 販 <u>-t-</u> 粒 加 結 果 報告用紙 1204 調查名·調查地点 BOTTOM MATERIAL (Discharge Stat.). 試験年月日 6 年 26 月 19891 STAT. F - 5 者.....ANDY. /.. ENDANG........ 7th Stage (Sampled on 26th Apr: 1989) 試料番号 No 打器 1) 4.76mm以上の粒子 粒径咖 質量百分半 % **‡∆** (} mm 質量百分率 % 翻碟分 (4.76-2 mm)% 50:8 50.8 祖砂分 (2~0.42mm)% 38.1 38.1 0.0.2 組砂分 (0.42~0.074mm)% 25.4 25.4 14.20. 19.1 る 19.1 シルト分 (0.074~0.005㎜)% 43.78 9.52 9.52 北上沙门 (0.005mm1大下)% ١, 4.76 4.76 コロイド分(0.00108以下) % 31.2 2.00 2.00 2000μmふるい海温度最高分半 % 分 90 0.84 0.84 99.99 420μmネラい通過貿易行分率。劣 99.98... 0.420.42 99.,98 17 74cmよるい面海質量百分率 0.25 0.25 85.78..... .9.9..8.6 0.105 0.105 9.6.46 0.074 0.074 旋 火 椪 电 🖦 85.78 7.1.1. % 拉径 mm 0.0379 6.2.4 0.0280.%、粒径咖 儿 0.0184. 53.8 TL. 10 校 注 ma 50.3 0..0.108.. LY: 故Ue 46.8 0.0077. 山串係数U 0..00.5.5. A.3. A. 土粒子の比重 G. 0..0039.4.1.6. 使用した分散剤 0.0028. 38.2 0.0011 31.2 粒径加積曲線 8 끍 尔 H. 넊 1 割

玆

ű.

D

關方 CLAY and SILT with some sand.

D75 = 0,05

Ds0 = 0,012

(mm)

D25 = -

JIS A 1204

土の粒度試験結果

報告用紙

調查名,調查地点 BOTTOM MATERIAL SURVEY STAT. F-1 (Discharge Stat.)

試験年月日 7 年 13 月 1989 日

D 50 = 0.0025

注) コロイド分を含む

8th Stage (Sampled on 25th May. 1989)

料業品	No Sta.F	_ 	No.		試料	1 番 号		No. Sta.	F	Na	<u> </u>
는	(m	~ m)	(m	~ m)	深	r 1/1 7/ さ		(m~		(m~	m
	粒径 mm	質量百分率 %	粒径mm	賃量百分率 %	4.76㎜以上	の粒子	%				
	50.8		50.8	7.2	細碟分(4	.76 ~ 2	mm)%	***************************************	İ		
ئہ	38.1		38.1		組砂分(2			0,02			
٠,	25.4		25.4		細砂分(0.		******	0.29		······································	
3	19.1	***************************************	19.1		シルト分 (0.	, ,	********			l 	
	9.52		9.52		粘土分性(0	005mm LT	下 1%	35 • 69.			
**	4.76	(*************************************	4.76		********	F分(0.001am)	******	64			
,	2.00	100	2.00	***************************************		• • • • • • • • • • • • • • • •	*********	46.8	·····		
分	0.84	99;99	0.84		2000µm.i. 3 to			100			
it	0.42	99:98	0.42		420µmふるい			99.98	***********		·····
•,	0.25	99.90	0.25		74µmふるい通	過質量百分	* %	99,69			
	0.105	99.84	0.105								
	0.074	99.69	0.074		最 大	粒径	10 m		-		
	0.0361	97.7			60 %	粒 径	TD TD	0.09H	2		
比	0.0260	93,6			30 %	粒 径	 MM		E		*************
M	0,0168	89,5			************	粒径					•
浮	0.0101	79•4			************						
v	0.0074	71.2			均等	175 R.L.	••••••				
ì	0.0053	65.1		.]	曲率				·····		
	0.0038	59-0				の比重	G.	2.58			
う	0.0028	1			使用した	:分散剤		ļ			
	0.0011	46.8						L			
	•		, ,	105µm	420µm		2000)	ım	9.52**	25.4za 5	id). Ban
100			.s. 2	74µm	250 µm	840µm		4760յլո	<u> </u>	19.1m 35.1=	_ ■ ,
100	拉径加積曲	140	لريا							William Property of the Control of t	
93	- TEIEMAINEIL	177	+/:		. 17	- 1,- 1,- 1,- 1,- 1,- 1,- 1,- 1,- 1,- 1,					111111
80			<u> </u>	***************************************							
70				T							
!											
. 60		+			*** * * * * * * * * * * * * * * * * *	<u> </u>		المستعملة والمستعملة			
50	·			<u> </u>		111111	<u> </u>	<u> </u>		والمنافقية والموا	
50	4								•	. :	
(10			e' *!								
30		·									
20											
10			. ,								
10		***									***************************************
	001	0.0	· · · · · · · · · · · · · · · · · · ·	0.1		1.0			10.0		50.0
۵ 0,				拉	往		(am)				J.1,0
	1 枯 :	± ;	ル	ト 細	6 4	粗	砂	組織			答7 材

SILT and CLAY trace sand

JIS 1204 A

土 粒 度 試 験 結 果

報告用紙

調查名·調查地点 BOTTOM MATERIAL SURVAL BTAT'S Z. Discharge Stat.)

試験年月日 7 年 13 月 1989 日

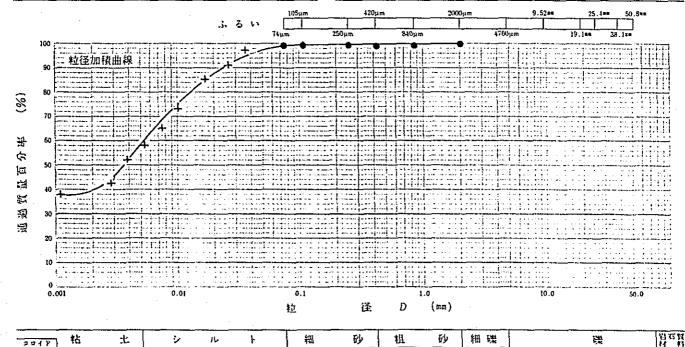
試 験 者 ANDY / ENDANG

8th Stage	(Sampled on	25 lh	May.1989)

試料番号	No Sta.F	2 * ·	Na	
深 さ	(m	m)	(m	— m)
	粒 径 ㎜	質量百分率 %	拉径mm	賃量百分率 %
	50.8		50.8	
.3.	38.1		38.1	
	25.4		25.4	
る	19.1		19.1	
	9.52		9.52	
L)	4.76	<u> </u>	4.76	
٠,	2.00	100	2.00	
分	0.84	99,99	0.84	<u> </u>
()	0.42	99,97	0.42	
•	0.25	99.93	0.25	
	0.105	99.87	0.105	
	0.074	99.63	0.074	
	0.0361	97.6	.,	
比	0.0263	91.5		· · · · · · · · · · · · · · · · · · ·
M	0.0171	85.4		
浮	.0.0104.	73.2		
v	0.0075	65.0		.
ı	.0.0054.	58.9		
j	0.0039	52.9	ļ	
,	0.0028	42.7		
	0.0011	38.7	<u> </u>	

試料番号	No. Sta.F.*	No.
深 き	(m ~ m)	(m-m)
4.76㎜以上の粒子 %		
細環分 (4.76-2mm)%		
粗砂分 (2-0.42mm)%	0.03	
細砂分 (0.42~0.074㎜)%	0.34	
シルト分 (0.074~0.005㎜)%	41.63	
粘土分 ^性 (0.005mm以下)%	.58	
コロイド分(0.00]an以下) %	38.7	
2000μmふるい通過貿量百分率 %	100	
420μmふるい通過質量百分率 %	ĭ	
74μmふるい通過質量百分率 %		

最大 粒 径 mm		
60 % 粒 径 mm	0.0053	
30 % 粒 径 ㎜		
10 % 粒径 ㎜		
均等係数U。	***************************************	
曲率係数Ud		
土粒子の比瓜 G.	2.58	***************************************
使用した分散剤	***************************************	
4:54557447044704470470470470470470470470470470		
	<u> </u>	



備考

SILP and CLAY trace sand

D. 75 = 0.0105

D 50 = 0.0036

JIS A 1204

土 の 粒 度 試 験 結 果

報告用紙

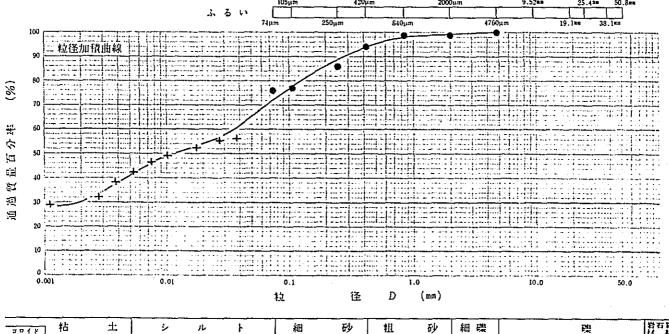
調查名·調查地点 BOTTOM MATERIAL SURVEY STAT. F-3 (Distharge)

試験年月日 7 年 13 月 1989 日

8th Stage (Sampled on 25th May. 1989)

試 験 者 ANDY / ENDANG

试科番号	No Sta.F	3	No.		扰	料省	F +	}	No Sta	F ₂	No.	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
₹ き	(m	— m)	(m	— <u>m)</u>	深		2	<u> </u>	(m)	(m	~ m
	粒 径 咖	凭保百分率 %	粒径咖	質量百分率 %	4.76㎜以	上のキ	好	%			ļ 	
	50.8		50.8		細碟分(4.76	~ 2	mm)%	0.18			
-in	38.1	***************************************	38.1		粗砂分(2 ~ 0	. 42	2 mm)%	5,10			
	25.4		25.4		細砂分(0.42~	0.07	4mm)%				
る	19.1	************	19.1		シルト分(0.074-	-0.00)5mm)%	35.61			
	9.52	****************	9.52		粘土分 ^性 (0.005	on L	下)%	41			
t i	4.76	100	4.76		,	••••••	******	以下)%	29.1			*****************
分	2.00	99.82	2.00		2000µm i 3				99.82		ļ	
~	0.84	99,32	0.84		420µm ե ծ ն				1			*****************
i)	0.42	94.72	0.42		74µm 3. 3 W	,			94.7.2.		·····	
	0.25	86,55	0.25	}	14 hrui 20 20 20		M 11 //		76.61		. }	
	0.105	77.13	0.105	ļ			47		<u> </u>	 	 	
	0.074	76.61	0.074	ļ	设 大	•••••		• • • • • • • • • • • • • • • • • • • •			<u>.</u>	
	.0.0387	56.7			60 %	• • • • • • • • • •	• • • • • • • •		0.937		ļ	
比	0.027.6	55.2			30 %	********			0.002			
M	0.0177	52.1	,	<u> </u>	10 %	粒	径	mm.				
浮	0.0103	49.1	}	†····	均等	係	数	U.	<u> </u>		<u> </u>	
v	0.0074	46.0 42.9	······		曲母	係	数	$U_{c'}$	(
1	0.0038	38.3	·····		土粒:	子のよ	ŁΜ	G	2.64			.*
ŕ	0.0028	32.2			使用し	た分	 改剂					
	0.0011	29.1	*		*************	******	••••••	**********		*************		*****************
	<u></u>	<u> </u>	 _	105µm	420µ	m		20001	<u>т. </u>	9,5200	25.42=	50.8==
			ふる		250um		l0um		4760µn			



備考

コロイド 0.001

SILT and CLAY trace sand

D 75 = 0.091D 50 = 0.0118

注) コロイド分を含む

0.42

2.0

0.074

Table 2. 3-3(39)JIS 度 試 Α 1204 土 粒 贆 果 0 結 報告用紙 調查名·調查地点 BOTTOM MATERIAL SURVEY STAT. F-4 (Discherge) 試験年月日 7 年 13 月1989 日 験 者 ANDY / ENDANG 8th Stage (Sampled on 25th May. 1989) 試料番号 No Sta.F4 № Sta.F3 ä 深 4.76mm以上の粒子 粒 径 mm 質量百分率 % 粒径mm 货量百分率 % 細碟分 (4.76~2mm)% 50.8 50.8 粗砂分 (2~0.42mm)% 38.1 38.1 0.13 25.4 25.4 細砂分 (0.42~0.074mm)% 95,46 19.1 19.1 る シルト分 (0.074~0.005mm)% 9.52 9.52 粘土分^柱(0.005mm以下)% 4.76 4.76 コロイド分(0.00100以下) % 2.00 2.00 分 2000μmふるい通過質量百分率 % 0.84 0.84 .99.-97 420µmふるい通過質量百分率 % 99.87 0.42 0.4299.87 17 74µmふるい通過質量百分率 0.25 0.25 91.19 0.105 0.105 5.69 大 粒 径 0.074 0.074 60 % 粒径 mm 比 % 粒 径 Ш 10 % 粒 0.12 等係数U。 浮 U 曲率係数Ud ļ 土粒子の比重 G. ij 使用した分散剤 4760µm 100 8 똢 4 įΞ Ħ 圝 捒 0.1 1.0 10.0 淫 D 粒 (mm) 細碟 221Y 0.001 0.42 備考 D.75 = 0.1942D 50 = 0.1940 Fine SAND trace silt

D. 2至1958年184年含化

JIS Α 1204

度 試 果 土 粒 験 結 0)

報告用紙

調査名・調査地点... BOTTOM MATERIAL SURVEY

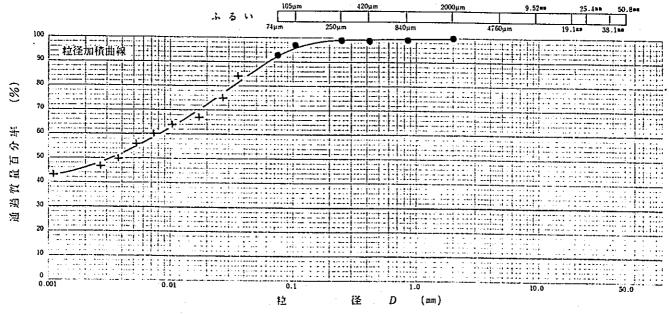
試験年月日 7 年 13 月 1989 日

STAT. F-5 (Discharge)

試 験 者 ANDY / ENDANG

8th Stage (Sampled on 25th May. 1989)

	号 Na Sta.F		No.	~ m)	試 深	料		号さ	No Sta		No.	
	粒 径 咖	質量百分率 %	粒径㎜	質量百分率 %	4.76mmJ	1 E Ø		%	(m ~		m ~	T
	50.8	民国日77年 70		八八日ガギ 76	細碟分						}	
	38.1		50.8		粗砂分						ļ	
4,	25.4		38.1		**********	*******	******	• • • • • • • • • • • • • • • • • • • •	0,04		ļ	
3	19.1		25.4		細砂分				6.63			
0			19.1		シルト分				39.433	•••••		
65	9.52		9.52		粘土分柱	(0.00)5mm L)	下)%	54			
	4.76		4.76		כ	ባ / ሥ分	(0.001=	以下)%	43-4	***************	1	
分	2.00	100	2.00		2000µm-հ	るい通道	机模	分半 %	100	**************	-	
	0.84	99.98	0.84		420μπ ∴ ₹	い通過	舒展百	分率 %		***************************************	}	
(†	0.42	99.96	0.42		74µm.i. 5	•••••			<i>9.</i> 4.7.0.		}	
	0.25	99.•88	0.25	 		- AUAU F		70	93,33	***************************************		
	0.105	97.•42	0.105						· · · · · · · · · · · · · · · · · · ·			-
 _	0.074	93.33	0.074		投っ	••••		mm,		***************************************		••••••
	0.0366	84.9	••••••		60 9	6 粒	径	pm 	0.008			
比	0.0270	7.5.•5	***************************************		30 9	6 粒	径	mm				
Æ	0.0177	67.•9			10 9	6 粒	径	mm		*****************	1	*************
浮	0.0104	64.1	***************************************	ļ	均:	笋 係	数	U.			·	
U	0.0074	60.4		 .	1#1 2	区 係	粉	11.	···	****************	·	************
£	0.0053	56.6		ļ	土粒				······	•••••		••••••••
う	0.20038	50.9	·		使用し	*******			2.59		ļ	
	0.0027	472			1笑形(以利	•••••••				•••••
	0.0011	43.4		<u> </u>					<u> </u>			
				105µm	120	im		2000μ	ım_	9.52==	25.4**	50.8**



١ 細 砂 粗 細噪 0.005

SILT and CLAY trace sand

D 75 = 0.024D 50 = 0.0032

注) コロイド分を含む

備考

JIS A 1204

土の粒度試験結果

報告用紙

調查名·調查地点 BOTTOM MATERIAL SURVEY STAT: F-1(Discharge Stat.)

9th Stage (Sampled on 20th June 1989)

試 験 者 Andy & Endang

F号.	No St.F/	No.		試料番号	No St.F	Na
2	(m- m) (m -		深さ	(m ~ m)	(m - m
	粒 径 咖 質量百分率 9	á 粒 径 mm	質量百分率 %	4.76mm以上の粒子	%	
ŀ	50.8	50.8		細碟分(4.76~ 2m	lm)%	
ŀ	38.1	38.1	***************************************	粗砂分 (2~0.42m	m)% D.D.6	
}	25.4	25.4		細砂分 (0.42~0.074)		
ŀ	19.1	19.1	***************************************	シルト分 (0.074~0.005)	Q.a.&#l,	}
ţ	9.52	9.52		粘土分 ^性 (0.005mm以]	- Soul Park & L.Z	
-	4.76	4.76	***************************************	10 上 フロイド分(0.00]sat)		
	2.00 100	2.00	**************			
Ì	0.84 99.9		•••••••	2000μmふるい通過賃量百分		-
	0.42 99.9		*********************	420μmふるい通過質量百分		
Ì	0.25 99.8	t l	***************************************	74μmふるい通過賃量百分年	% 91.72	.,
	0.105 98.1					
	0.074 91.7	I .		敢 大 粒 径	om ;	
_	0.0360 82.6			60 % 粒 径	mm 0.0054	
;	0.0259 78.9	1	******	30 % 粒 径	min	
(0.0166 75.3			10 % 粒 径	м ш -	
	0.0098 71.6			均等保数	Ue	
	0.0072 62.0			曲率係数		
t	0.0051 58.7			土粒子の比重		
	0.0037 55.3			*******************************	2.04	
	0.0026 51.4	1		使用した分散剤		
	0.0011 47.7	<u> </u>	<u></u>			
		.i. 2	105µm	420µm	2000μm 9.52±=	25.4== 50.8==
100		~. · ·	74µm	250µm 840µm	4760µm	19.1au 38.1au
90						
80		1-1-				
70		+/+				
60		alternation and a service for the				
50	+					100 m 100 m
40						
			1-			
30			1		**************************************	
20	The second secon					
20			******			ر قرار از از از از از از از از از از از از از
10			******* * *	er grang sam en beging		
		, ,				

備考

拈

Silty CLAY trace Sand

D 75 = 0.015

糊噪

D 50 = 0.002

注) コロイド分を含む

碟

JIS A 1204

土 の 粒 度 試 験 結 果

報告用紙

調查名·調查地点 LEOTTOM MATERIAL SURVEY

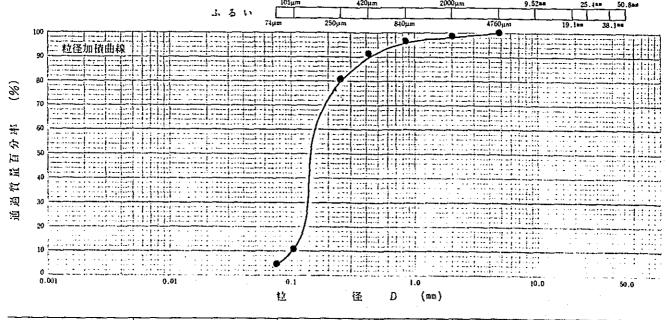
STAT. F-2 (Discharge Stat.)

9th Stage (Sampled on 20th June 1989)

- 試験年月日 8 年 15 月 1989 日

試 験 者 Andy & Endang

	No St F2		No.		試	料	ī	· -5	<u> </u>	No. 51	E 1	No.	
深 さ	(m	— m)	(m	~ m)	深				<u> </u>	(m -		(m_	- m
	粒 径 mm	質量百分率 %	粒 径 mm	質量百分率 %	4.76mm]	以上	の粒	子	%				
	50.8		50.8		細噪分	(4.	76	~ 2	. mm)%	0.08			
بن،	38.1		38.1		粗砂分	(2	~ 0	4 2	2 mm)%				
	25.4		25.4		細砂分	(0.	12-	0.07	4mm)%		l .		
3	19.1		19.1		シルト分	(0.0)74~	-0.00)5 00)%				,l
	9.52	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	9.52		粘土分性	ţο.	005	ոտՄ	下)%	, <u>al</u> 48.al,6			······································
4.5	4.76	100	4.76		2	u { }	· / 3 (0	.001a	以下)%				**************
分	2.00	99.92			2000 μm	るい	 通過3	i Re	分串 %	חת מי	•••••••••••••••••••••••••••••••••••••••		************
	0.84	97.91	***************************************		420µm.i.			•••••	*********	222.		·	*************
17	0.42	92-57	1		74 μm.i. δ	*****	•••••					·······	***********
	0.25	81.79	· · · · · · · · · · · · · · · · · · ·		1-1	· · 103 a				55	?	······	
ļ	0.105	11.29								ļ		ļ	
	0.074	*5.57	0.074		设:	大 	粒	往	ana.	ļ			
					60 9	%	粒	径	mm	0.16		<u></u>	
比					30 5	%	粒	径	mm	0.18		<u> </u>	
M			}	}	10	%	粒	径	mm	0.10			***************************************
浮					均:	等	係	数	Ue	1.6			
r	71.	# · · p		}	曲	筚	係	数	U.	1,22	······································		***********
1					土粒	子。	っけ	M.	G.	2.70	****************	1	*************
i	ļ				使用	した	 分間	·······		}		1	
	ļ	3 / .			************			•••••		}		·····	
	<u> </u>	L		l						<u> </u>			



 PP (F) 粘 土
 シルト
 細砂
 粗砂
 細碟
 機管行列

 0.001
 0.005
 0.071
 0.42
 2.0
 4.76
 75

 個者

Fine SAND trace Silt

D 75 = 0.2102 D 50 = 0.141 D 25 = 0.134

JIS Α 1204 土 度 0 粒 試 験 結 果 報告用紙 調査名・調査地点 BOTTOM MATERIAL SURVEY
STAT. F-3 (Discharge Stat.) 試験年月日 年 15 月1989 日 者 Andy & Endang 9th Stage (Sampled on 20th June 1989) 試料番号 No. St. E.3 No St.F.Z 柒 深 m~ m) 粒 径 ㎜ 質量百分率 % 4.76mm以上の粒子 % 粒 径 预量百分率 % 細噪分 (4.76~2mm)% 50.8 50.8 38.1 祖砂分 (2 ~0.42㎜)% 38.1 ٠. 2.05 25.4 25.4 細砂分 (0.42~0.074㎜)% 9. 48 る 19.1 19.1 シルト分 (0.074~0.005mm)% 28.45 9.52 9.52 粘土分^柱(0.005mm以下)% Ļì 60. 4.76 4.76 コロイド分(0,00100以下) % 2.00 2.00 分 2000μmふるい通過質量百分率 % 0.84 0.84 100 99.84 420µmふるい通過質量百分率 % 0.42 0.42 97.94 97.96 11 74μmふるい通過質量百分率 0.25 0.25 92.48 88.45 0.105 0.105 69, 20 0.074 0.074 **最大粒径** m 88.46 77.9 0.036460 % 粒径 mm 74.3 0.0262比 % 粒径 mm 0.0168 70.8 Ш 10 % 粒径 ប្រកិច្ចិន 67.3 17 均等係数U。 53.7 0.0071 v 曲率係数以 58:4 0.0051土粒子の比重 G 0.0037 53.1 使用した分散剤 0.0026 47.8 0.0011 40.7 粒径加積曲線 % 꽢 4 Ьī ᆵ K aŋ 0.1 10.0 50.0 粒 똩 D (mm) 枮 土 細 扣 2 □ (F 0.001 細蝶 D75 = 0.021Silt CLAY trace Sand D 50 = 0.0028注) コロイド分を含む

Table 2, 3-3 (44) 度 //言 結 JIS +粒 験 果 Α 1204 0 報告用紙 調查名·調查地点 ____EOTTOM MATERIAL SURVEY _____ 試験年月日 8 年 15 月 1959 日 STAT. F-4 (Discharge Stat.) 者......Andy & Endang...... 9th Stage (Sampled on 20th June 1989) 试料番号 No. 5.1. F.4. 纾 No. St.F3 Νo 烒 番 深 % 4.76mm以上の粒子 粒 径 質量百分率 % 粒径咖 質量百分率 % 細碟分(4.76~2mm)% 50.8 50.8 .D.:D4 租砂分 (2 ~0.42㎜)% 38.1 38.1 0.08 ٠i٠ 25.4 細砂分 (0.42~0.074mm)% 25.4 17.93 19.1 る 19.1 シルト分 (0.074~0.005mm)% 57.95 9.52 9.52 粘土分^性(0.005mm以下)% 4.76 4.76 コロイド分(0.001=0以下)% 2.00 2.00 99.26 2000µmふるい通過賃貸百分率 % 分 99.96 0.84 0.84 99.90 420µmふるい通過質量百分率 % 0.42 0.42 99.88 17 74µmふるい通過質量百分率 0.25 0.25 99:84 0.105 0.105 98:45 砓 大 粒 径 ㎜ 0.074 0.074 84.95 66.2 % 粒 径 0.0383 62.9 .Q..Q27.5 % 粒 径 30 Ra比 58'.0 0.0178 10 % 粒 径 111 53:0 0.0.03 **;**9. 等 係 数 U. 0.0076 49.7 U 曲率係数Ud .D...D0.54 45 A. 土粒子の比重 0.0039 43.1 使用した分散剤 38.1 0.0028 0.0011 33.1 % 꽖 4 畑 ĽΞ ŭ 珂 0.01 50.0 粒 径 D (mm)

 コロイド
 枯
 土
 シ
 ル
 ト
 細
 砂
 組
 砂
 細
 機
 質石質 1/4 射

 0.001
 0.005
 0.074
 0.42
 2.0
 4.76
 75

ਅ*≺*; SILT and CLAY D 75 = 0.043 D 50 = 0.0099

JIS A 1204

土の粒度試験結果

報告用紙

調查名·調查地点 BOTTOM MATERIAL SURVEY.

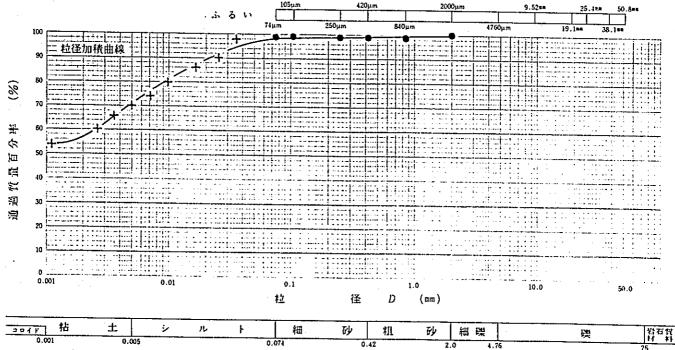
STAT. F-5 (Discharge Stat.)

試験年月日 8 年 15 月 1989日

9th Stage (Sampled on 20th June 1989)

試 験 者 ____Andy & Endang ____

試科品号 深 さ	No St F/1		Na.		斌	料		导	No. S.A.	F.4	Na	
	· · · · · · · · · · · · · · · · · · ·	······	<u>, m</u>		深			<u>さ</u>	(m ~	nı)	(m ~	m)
	粒径mm	質量百分率 %	粒径咖	賃量百分率 %	4.76mm以	上の	拉子	%				
	50.8		50.8		細碟分(4.76	3 ~ 2	2 mm)%				
-3,	38.1		38.1		粗砂分(2 ~	0.42	2 mm)%	טב.ם		***************************************	***************************************
	25.4		25.4		細砂分(0.42-	-0.07	74mm)%	B.35	1	·····	
る	19.1		19.1		シルト分(•••••••		.l
	9.52		9.52		粘土分性				6.2.8.4[••		
41	4.76		4.76		!	*******	******	*********	Jf. U	*********	ļ	
	2.00	100	2.00		**************		******	以下)%				
分	0.84	99.07	0.84		2000µm Հ. Հ				1.1.00	**************		
17	0.42	99.95	0.42	***************************************	420µm ≟ Ծ			**********	99.9	<u> </u>		
.,	0.25	99.33	0.25		74µm.3.3 t	通過行	量百分	串 %	99.6			
	0.105	99.87	0.105							•		
	0.074	99-61	0.074		最 大	: 粒	径	mm				
	0.0351	98.6			60 %	粒	径	pim	0,00			*************
比	0.0259	90.6			30 %	粒	径	m.m			·····	***************************************
M	0.0166	86.6			10 %		******			***************	}	•
浮	0.0098	80.5			均等	•••••	数	11		*************		
υ	0.0074	74.5								••••		
ı	0.0051	70.5			曲耳		******			••••••	ļ,	
j	0.0036	68.5	***************************************		土粒	*******		G.	2.60			
,	0.0026	1601.41			使用し	た分割						
	0.0011	54:4										*****************
	•			105µm	420µ	PI.		2000μ	+	9.52==	25.422	50.8==
				v 1			Τ.				T	



備考 Silty CLAY trace Sand

D 75 = 0.0066

JIS A 1204

土の粒度試験結果

報告用紙

調查名·調查地点 TBOTTOM MATERIAL SURVEY

試験年月日 8 年 12 月 1989日

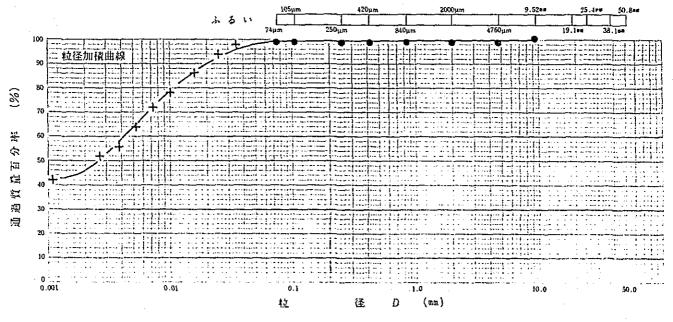
STAT. F-1(Discharge Stat.) 10th Stage (Sampled on 14th July 1989)

試料番号	No St.F	.,	No.	.,
探さ	(m	— m)	m	— m)
	粒径㎜	賃益百分率 %	拉径咖	質量百分率 %
	50.8		50.8	
.3.	38.1		38.1	
	25,4		25.4	
る	19,1		19.1	
	9.52	100	9.52	
Ļ1	4.76	99,82	4.76	
^	2.00	99.79	2.00	
分	0.84	99.73	0.84	
()	0.42	99.72	0.42	
·	0.25	99.70	0.25	
	0.105	99.48	0.105	
	0.074	99.24	0.074	
	0.0351	98.3		
壯	0.0254	94.3		
M	0.0166	86.3		
评	0.0100	78.2		<u> </u>
υ	0.0072	72.2		
£	0.0052	64,2		
ì	0.0038	56.2		<u> </u>
7	0.0027	52.2		<u> </u>
	0.0011	42.1	<u> </u>	<u> </u>

<u></u>		
試科番号	No	No
深 さ	(m ~ m)	(m ~ m)
4.76㎜以上の粒子 %	0.18	
細噪分 (4.76~2mm)%	0.03	
粗砂分 (2~0.42㎜)%	0,07	
細砂分 (0.42~0.074mm)%	0.48	
シルト分 (0.074-0.005==)%	35.24	
粘土分 ^{性(} 0.005mm以下)%	64	************************
コロイド分(0.001=8以下) %	42.1	
2000μmふるい通過質量百分率 %	99.74	
420mmふるい通過質量百分率 %	L	
***************************************	99.24	
***************************************	35 + Z4	
表 大 粒 径 mm		· · · · · · · · · · · · · · · · · · ·

60 % 粒 径 ㎜	0.0042	
30 % 粒径 ㎜		
10 % 粒径 ㎜		***************************************
均等係数U。		
曲率係数Ud		
土粒子の比重 G.	2.61	
使用した分散剤		1

		1



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SILT and CLAY trace Sand

D 75 = 0.0084 D 50 = 0.0025 注) コロイド分を含む JIS A 1204

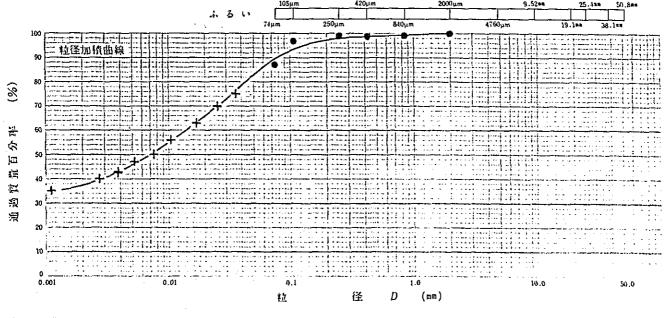
度 結 果 試 験 土 粒

報告用紙

調查名·調查地点 BOTTOM MATERIAL SURVEY STAT. F-Z. (Discharge Stat.) 10th Stage (Sampled on 14th July 1989)

試 験 者 Andy / Endang

	Na StiF	<u>}</u>	Nα		短		否	号	- {	Na		No.		
深さ	(m	~ m)	(m	— m)	深			<u>ځ</u>	_	(m~	m)	(m ~	m
	粒径mm	賃量百分率 %	粒径咖	質量百分率 %	4.76mm				6			ļ 		1
	50.8		50.8		細媒分		•••••		۱۱			<u> </u>		
÷	38.1		38.1		粗砂分	(2	~0,	42 mm)	%	0.05				
	25.4		25.4		細砂分	(0.4	2~0	.074 mm)	%	12.39				
る	19.1	*************	19.1	.,	シルト分	(0.0	74~().005mm)	%	41.55 45			••••••	***************
	9.52		9.52	.,	粘土分	(ο.	005m	m以下)	%	ፈና	*		•••••	***************
ķ٦	4.76	******************	4.76							36.1	****************	†·····	*******	
分	2.00	100	2.00	<u></u>	2000µm.∔								*******	
	0.84	99,96								90,95	***************************************	······		
iż	0.42	99.95	,		74µm & 8	い通道	9代最	 百分串	 %	89.56	***************************************	·····	•••••	
	0.25	99.93	0.25 0.105							<i>⊙</i> .≅.¥.⊅ <i>Ω</i>		}	••••••	
	0.103	97.75 87.56	·		13	-k·	ŧt :	径 mm				╁┈		
	0.0366		0.074	 			· • • • • • • •	连 mm		0.014	••••••	·	•••••	
11.	0.0266	1			********			径 mm	••••	0.014	•••••••••	·		****************
比	0.0174	63.1			********		• • • • • • •	连 mm						/
II 浮	0,0103	1		,							••••••••		••••••	
H r U	0.0075	1				*****	******	数 U.					•••••	*************
Ŧ.	0.0053	,			********			数 U.					•••••	•••••
-	0.0038	1 '			**********			II G.		2.66		· -		
う	0.0027	40.3			使用	した	分散	剂 			•••••	<u> </u>		
	0.0011	35.1								<u> </u>		<u> </u>		
			ふる	105µm	42	0μm		2	000,	<u>, m</u>	9.5200	25	,429	50.8**



シ ŀν 粗 びシ 細碟 拈 土 12 ŀ 碶 備考 D75 = 0.033

D 50 = 0.007

SILT and CLAY trace Sand

JIS A 1204

粒 度 試 験 結 果 土 0

報告用紙

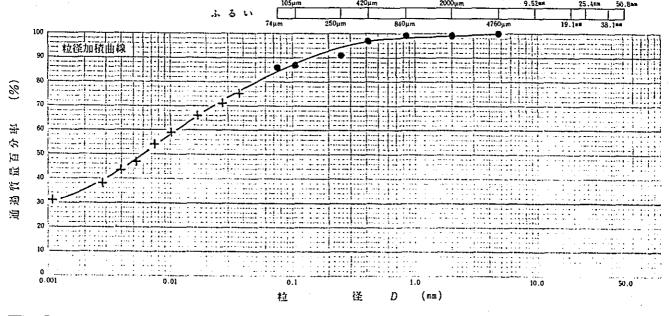
調查名·調查地点 BOTTOM MATERIAL SURVEY > STAT. F-3 (Discharge Stat.)

試験年月日 8 年 12 月1969 日

10th Stage (Sampled on 14th JUly 1989)

試 験 者 Andy / Endang

	No Stil 3		Na		試	料:	群 4	导	No.	********	Na	
深 さ	(m	~ m)	(m	<u> </u>	深		:	<u></u>	(m ~	n)	(m ~	m.
	粒径咖	賃量百分率 %	粒 径 mm	質量百分率 %	4.76mml	以上の!	位子	%				
	50.8		50.8		細碟分	(4.76	3~ 2	2 mm)%	0.01			7
.i.	38.1	*******************	38.1	***************************************	粗砂分	(2 ~	0.42	2 mm)%	2-65			
	25.4	***************************************	25.4		細砂分	(0.42-	-0.07	74mm)%				1
る	19.1		19.1		シルト分	(0.074	~0.00)5==)%				
	9.52	******************	9.52		枯土分柱	t 0.00	5mm ()	下)%				***
4 3	4.76	100	4.76		*****	• • • • • • • • • •	******	UT)%			-	
分	2.00	99.99	****************				******		99,99			***************
~	0.84	99.59	·····						97.34			*************
17	0.42	97.34			7.1 cm 2. 3.	L . A . B 49	いるの	# 70	86,41			
	0.25	91.26			74HII 21 O		AL 11 //		86 41	********	ļ	***************************************
	0.105	87 -68	} <			1 41						
	0.074	86.41	0.074		*********	大 粒		 CMM			······································	
	0.0372				*********	% 粒		• • • • • • • • • • • • • • • • • • • •	0.0116	 		
比	0.0268				30 9	% 粒	径	mm	0.0010) 		****************
M	0.0174	*****************			10 9	% 粒	径	mm				
浮	0.0104	•		ļ	均	ទ 係	数	Ue				
v	0.0075				Щ 1	枢 係	数	U?		*************		
1	0.0054			ļ	土粒	子の」	七瓜	G.	2.62			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
i	0.0039	1			使用	した分	 敗剤	•		***************	1	***********
;	0.0020	1		ļ Ī	***************************************	*********	•••••	******	} 	*************	·}	
****	[0 +00.1]	J 143	L	<u></u>					 -		<u> </u>	
÷	•		ふる	105µm	420	μм		2000,	ım.	9.52##	25.4tm	50.8**



钔 砂 細 噗 コロイド 0.001 0.005 0.074 0.12 備考

SILT and CLAY some Sand

253

D.75 = 0.0310

D 50 = 0.0062

Table 2. 3-3 (49) JIS 試 Α 1204 度 土 0 粒 驗 結 果 報告用紙 BOTTOM MATERIAL SURVEY 調査名・調査地点 試験年月日 a 年 12 月1989 日 STAT. F-4 (Discharge Stat.) 者 Andy / Endang 10th Stage (Sampled on 14th July 1989) 試料番号 No. 5论 五名 試 料 岙 탕 ä 質量百分率 % 4.76㎜以上の粒子 % 粒径咖 粒 径 mm 質量百分率 % 細礫分 (4.76~2 mm)% 50.8 50.8 0.35 粗砂分 (2-0.42mm)% 38.1 38.1 -1.25 25.4 25.4 細砂分 (0.42~0.074mm)% 85.46 3 19.1 19.1 シルト分 (0.074~0.005==)% 9.52 9.52 粘土分^性(0.005mm以下)% Ų, 4.76 4.76 コロイド分(0.00)皿以下) % 2.00 2.00 99.65 分 2000μπふるい通過質量百分率 % 99.65 0.84 0.84 99.16 420µmふるい通過質量百分率 98,40 0.42 0.42 99,40 17 74μmよるい通過賃量百分率 12.94 0.25 0.25 96.82 0.105 0.105 24.93 0.074 0.074 収 大粒径 mm 17.94 % 粒 0.140 % 0.180 比 粒 徑 N % 粒 径 10 j9. 採 Uc U 曲率係数Ud ŀ 土粒子の比重 ż 使用した分散剤 % 꽖 ¢ മ 巨 栏 捯 0.001 0.01 0.1 50.0 径 D (mm)

備考

fine SAND, some Silt

D 75 = 0.140

쯙

細 碟

粗

岩石 計 料

D 50 = 0.139 D 25 = 0.106 注) コロイド分を含む

細

0.07

JIS Α 1204

度 숦 験 土 粒 結 果

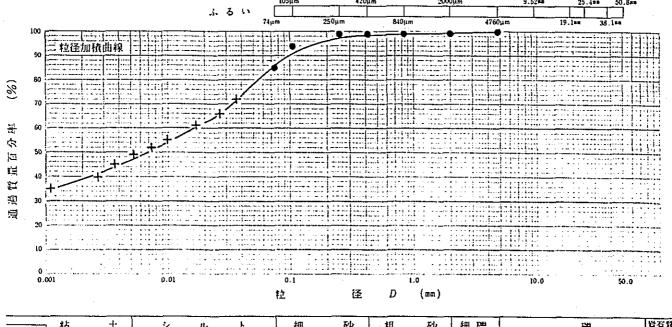
報告用紙

m)

調査名・調査地点 BOTTOM MATERIAL SURVEY STAT. F-5 (Discharge Stat.) 10th Stage (Sampled on 14th July 1989)

試 験 者 Andy / Endang.....

			·						,			
	№S#, 775		No.		俎	料		号	No		No.	
深さ	(m	~	(m	~ m)	深			<u>ਦ</u>	(m.~	m)	(m	<u>-</u>
	粒 径 ㎜	質量百分率 %	粒 径 mm	賃量百分率 %	4.76mm]							
	50.8		50.8		細碟分	(4.	76~	2 mm)%	0.10	······································		
45	38.1		38.1						0.61	ļ	 	
	25.4		25.4		細砂分	(0.4	2~0.0	74nn)%	13,75			
る	19.1		19.1		シルト分	(0.07	4~0.0)96 ma	39,54			
4	9.52		9.52		粘土分性	₹ o.c	05mm	 ኒ下)%	46			
41	4.76	100	4.76		3	ሀ ብ የተ	7(0.001	=以下)%	35.6	***************		
分	2.00	99,90	2.00						9.9. 90			
	0.84	99,32	0.84						99.29	*************	†	
(†	0.42	99,29	0.42							•		
·	0.25	99.24	0.25	·	74µm ->- 3	い通過	1(量白:	7年 %	85,54	••••	ļ	
	0.105	94.99	0.105							·		
	0.074	85.54	0.074		段 :	大 相	立 径	mm	<u> </u>			
	0.0360	72.9			60	% ¥	立径	四門	0.016	5		
比	0.0265	65.1			30	% *	立 径	mm				••••
110	0.0171	61.0			10	% \$	立 径	mm		*************	1	
浮	0.0101	55.9			均	等(系 数	U _c		************	*************	
v	0.0072	52.5			曲	率	系数	Uť		***************		••••
ı	0.0052	1	······		*********		*******	G,	2 66	***************************************	·····	••••
ì	0.6037	1	ļ				 计放剂		2.69		·····	
	0.0027	1			(2-71)		7 13 713		·		·····	••••
	0.0011	35.6	<u> </u>	1					1		1	
				105.cm	420	N—		2000		0 50		



枮 ۲ 細 砂 Щ 砂 細噪 ル 20() 0.001 0.005 0.074

備考

SILT and CLAY some Sand

P 75 = 0.044D 50 = 0.007

JIS A 1204

土の粒度試験結果

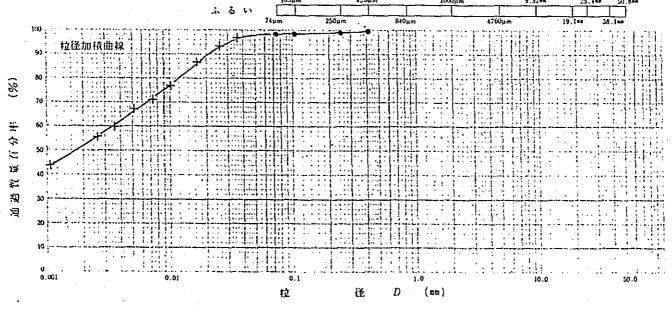
報告用紙

調查名·調查地点 BOTTOM MATERIAL SURVEY STAT.F-1 (Discharge Stat.)

試験年月日 - 8 年 29 月1989 日

11th Stage (Sampled on 30th July 1989)

広科番号 深 さ	No St.F.1.	m)	Ka m	~ · m)	試深	料 品	ا خ		Na (m ~	m)	Na (m -	in)
	粒後咖啡	有量百分串 %	拉径咖	質量百分率 %	4.76mm以	上の粒	.·7	%				
	50.8		50.8		細碟分(4.76	~ 2	mm)%				
۵.	38.1		38.1		粗砂分(2 ~ 0	. 42	mm)%				
	25.4	********	25.4		細砂分(0.42~	0.074	(nn)%	0.56	ļ		1 -
る	19.1	****************	19.1		シルト分(0.074-	0,00	500)%	33 AA	1.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	9.52		9.52	<u> </u>	- - - - - - - -	0.005	皿以	下 1%	cċ	**************	1	*************
11	4.76		4.76		20	(1 } (1 }	.001==	UT)%	44.7	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		·····
分	2.00		2.00		ىنىنىنىنىنىنىنىنىنىنىنىنىنىنىنىنىنىنىن	い通過	t ii Ti	9¥ %	[H.H.A.A.J	***************	1	
	0.84		0.84	ļ	420µm.j. 8	. 通過日	最高分)#I %	400		-	
(†	0.42	100	0.42						99.44	••••••		
	0.105	99,94	1						99.44			
	0.074	99,76 99,44	0.074		—————————————————————————————————————	* \$\frac{1}{2}	14	mm.	<u> </u>			
	0.0361	97.4	0.074	 		粒		*********			······································	· · · · · · · · · · · · · · · · · · ·
lt.	0.0260	93.4	·}······		30 %	*****	,,	******	lo	3.4	·	
ır.	0.0169	78.3			10 %							• • • • • • • • • • • • • • • • • • • •
.91. 17.	0.0102	77.1					• • • • • •					
t)	0.0074	71.1			均等	******	• • • • • • • • • • • • • • • • • • • •	••••••				
1	0.0053	67.0			出 4	******		• • • • • • • • • • •	ļ			
 i	0.0038	60,9	ļ		土粒	••••••	•••••		2.74			
,	0.0027	56.9	.]		使用し	,た分	汉剂	••••••		************		
	0.0011	44.7	<u> </u>	<u> </u>					<u> </u>			
	•		ప రె	105µm	4200	m		2000	μm	9.52**	25.14	50.8**



	 											
3017 16	土	÷	10	<u>+</u>	細	₽)	粗	シ	細百	*	理	발전및
100.0	0.005			0.	074	Q.	42	2	.0	4.7	6	75

備考

Silty CLAY trace Sand

D 75 = 0.0091

D 50 = 0.0017

JIS 1204

度 結 果 粒 試 験 土

報告用紙

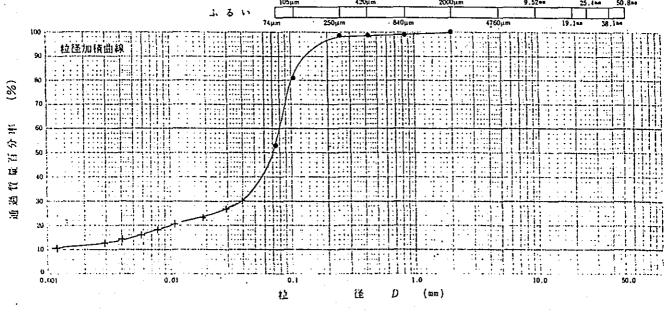
調査名·調査地点<u>BOTTOM MATERIAL SURVEY</u> STAT.F-2 (Discharge Stat.)

試験任日日

11th Stage (Sampled on 30th July 1989)

机次十八	³ □8	30		₽.
試 験	者 An	dy & En	dang	

人科番号	Na St.F.2		Nα		九	. #1	ď	5	-	Na	******	Na	,,,,
î e	(m	~ m)	(m	~ m)	· 译			ż		(m ~	m)	(m ~	<u>m</u>
	ti ik om	套量百分率 %	机缸缸	質量百分率 %	4.76mm	以上	の転	. 7	%				}
	50.8		50.8		組織分	(4	. 76	- 2	ann)%				
٠.	38.1		38.1		组砂分	(2	- 0	. 42	mm)%	0.13			
	25.4		25.4		細砂分	(0.	42~	0.07	4mm)%		l		`]
8	19.1		19.1		シルト分	(0.	074~	0.00	5×=)%				
	9.52		9.52		粘土分	±ξ o	.005	咖以	下)%	15	****************	1	
L1	4.76	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	4.76		:-	•••••	•••••	******	••••••		• • • • • • • • • • • • • • • • • • • •	·	**********
5)	2.00	1.00	2.00						分串 %			·	**************
)1	0.84	.99. 95	0.84							.100 99.87			************
(†	0.42	99,87	0.42		74µm.h					1			,
	0.25	99.66	0.25		74µm.				4· 70	53.84	•••••••		
	0.105	81.96	0.105				·			<u> </u>		<u> </u>	
· · · · · · · · · · · · · · · · · · ·	0.074	53.84	0.074		*********	大							
	00410	288	······		60	%	粒		nm 	00.8	3		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
JŁ	0.0295	26.7			30	%	粒	径	atan	00.	j	·	
M	0.0190	23.5			10	%	粒	径	mm _.			. \	
17.	00.1.1.1	21.3			均	荪	倸	数	U.		***************************************	•	•••••••••••••••••••••••••••••••••••••••
v	00080	18.1			曲	Ħ2.	倸	数	U?		***************************************		
ż	0.0057	16.0	·		土;	粒子	の l	ŁЩ	G.	2 5	5	***************************************	**************
i	0.0041	13.9		···	使月	罪し /	:分	改剂	*****	2.4.5,	J	•	
	0.0029	11.7 9.6					•••••	•••••			***************************************		••••••
	0.0012	1 7.0	<u> </u>							<u> </u>			
			ふる	105μm		420µm			2000		9,52**	25,414	50.8**
100			·	74µm	250µm	,	8	10μm		4760,	rm	19.1- 38.	Jan January Institute



t.t.	-4-	ر:	ル	4	細	£/b	铒	₽₽	柳噪	[St	肾石質
30 () 113					144	*/	12%	•/	110 -		१४ ३६
0.001	0.005			Ö,	074	0	42	2.	.0 4.7	16	75
				<u>/</u>					*		

SILT and Fine SAND, some Clay

75 = 0.095 50 = 0.071 25 = 0.025 班) コロイド分を含む 000

備考

JIS A 1204

度 弒 結 果 土 粒 験 0

報告用紙

調查名·調查地点 BOTTOM MATERIAL SURVEY

STAT.F-3 (Discharge Stat.)

11th Stage (Sampled on 30th July 1989)

試験年月日 8 年 30 月 1989 日 試 験 者 Andy & Endang

Mst.	F.3		N	ia.	,.,	••••		•••••			* 1	Ti-	당	No				No.			
(m	~	m) (m	~	•••••	m)		茶			č	<u> [</u>	m ~		m)	(m —		m
15 17	aa	# # # # # #	%	13	¥ mm	19 %	11 分出	: %	4.	76ma	以上	の粒	7- %			T^{-}		-			
		7(25 (3 7) 1)				-			 EHR	进 介	(4.	76~	- 2 mm)%	¦····	**********	1		·····	*******		
	••••••			••••••	*********		•••••	······	*****			******		ተ…				}	••••••	•••	•••••
	•••••			•••••	*********			•••••							1.98	.		ļ			
	•••••			******				• • • • • • • • • • • • • • • • • • • •	##	沙分	(0,4	12-0	.074mm)96	2.0	9.92	l		ļ			•••••
	*******			******				•••••	>r	レト分	0.0))74~().005as)%	4!	5, 10			<u> </u>	•••••		
*********				*****	*******				枯	土分	₹o.	005¤	ո以下)%	13:	2			1			
4.	76			4	.76		•			3	□ / }	分 (0.0	201ma以下) %	1	P 7					*********	••••
2.	00	100					*****	•••••	200							 1)	•••••	*********	· · · · ·
0.	84	99.0	0.2	0	. 84						I 1 1 1 1		5 TAU: 0		i i i i i i i i i i i i i i i i i i i			······	•••••	• • • • • • • • • • • • • • • • • • • •	•••••
0.	42 .	98.	0.2	C	.42										8.02						•••••
0.	25			(. 25	7			741	ım 3. ç	い道)	西賀 敦	百分串 %	<u> </u>	<mark>. 1.0 م</mark>				*******	,,,,,,	•••••
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				(.074		••••••			段	人 .	拉	往 mm								_
				···		1				60	%	拉	径 man	1	П ПА	 i 2				********	••••
1					• • • • • • • • • • • • • • • • • • • •	```	•••••	••••••	•	•••••	******	*****	•••••							•••••	•••••
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1				******	•••••		•••••	•••••			•••••	,			•••••				•••••		
1				••••	•			••••••							• • • • • • • • • • • • • • • • • • • •					• • • • • • • • • • • • • • • • • • • •	
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			4 \$74				74µm	·· • ·	250	ım		810	μm	•	4760	um regioni		19.100	38.1		1.3
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				1		<u>. l. l</u>								i '		!;					
.001			0.01				1			ŧ	É	D					0,01			0.02	
		γ			. <u></u>		· '														1114
つ 枯		土.	ン		ル	<u> </u>	0.0		H	砂	0.42	粗	_G	2.0		76			碟		75
		0.005																			
.001		0,005															75	= 0	.071		
.001	ave	y SIL	т.	so	me 5	an.			···································		-					D D	50	≕ 0	.071 .02 .003		_
	校 後	19.1 9.52 4.76 2.00 0.84 0.42 0.25 0.105 0.074 0.0389 0.0280 0.0184 0.0108 0.0108 0.0108 0.0078 0.0078 0.0078	T	T	T	m m m m m m 50.8 50.8 38.1 38.1 25.4 25.4 19.1 19.1 19.1 9.52 9.52 4.76 4.76 2.60 10.0 2.60 0.84 99.02 0.84 0.42 98.02 0.42 0.25 96.80 0.25 0.105 89.10 0.105 0.074 77.10 0.074 0.0389 59.2 0.0280 56.1 0.0184 48.3 0.0108 43.6 0.0078 39.0 0.0029 24.9 0.0029 24.9 0.0012 18.7 3.2 3.2 3.3 3.		T	T	T	The man	The image of t	1	1	12 後 mm	12 後 mm	12 注 man	12 12 13 14 15 15 15 15 15 15 15	(m - m) (m - m) 深	12	12 性

Table 2. 3-3 (54) JIS 1204 土 度 쑲 Α 粒 0 験 結 果 報告用紙 調査名・調査地点 BOTTOM MATERIAL SURVEY..... 試験年月日 年 月 STAT.F-4 (Discharge Stat.) 試験 11th Stage (Sampled on 30th July 1989) 試料番号 No. FA 試料番 質量百分率 % 4.76mm以上の粒子 粒 径 粒 径 mm 質量百分率 % 細碟分 (4.76~2mm)% 50.8 50.8 38.1 粗砂分 (2~0.42mm)% 38.1 2,8 j, 25.4 25.4 細砂分 (0.42~0.074㎜)% <u>87. 7</u> z 19.1 19.1 シルト分 (0.074~0.005==)% 9.52 9.52 粘土分柱(0.005mm以下)% Ļì 4.76 4.76 コロイド分(0.001mx以下)% 2.00 2.00 分 2000μmふるい通過質量百分率 % 0.84 0.84 99,8 420μmふるい通過質量百分率 % 0.42 0.42 97.2 17 74µmふるい通過賃配百分率 0.25 95,1 0.25 0.105 0.105 14.0 0.074 9.5 0.074 段 大 粒 径 60 % 粒径 mm 0,219 北 30 % 粒 径 0,141 III 10 % 粒 径 泸 均等係数U。 2.74 U 曲华係数Ud 1,14. Ţ 土粒子の比重 G. 2,69 ì 使用した分散剤 꾶 \$ H 띜 7 捯 0.001 0.00 0.1 粒 径 (mm) 2017 档 ŀ 砂 細 磔 fine SAND trace silt. D75 x 0,257 D50 x 0, 189

D25 = 0,128

JIS Α 1204

粒 廋 炷 土 験 結 果

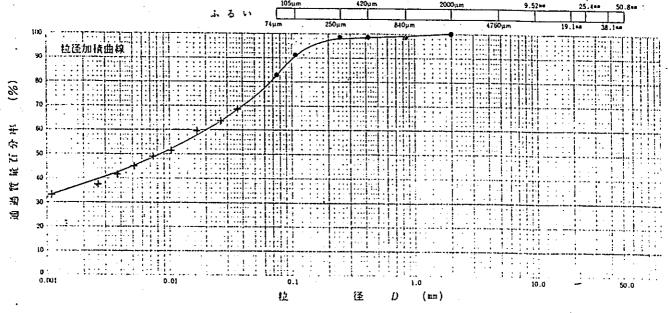
報告用紙

調查名·調查地点 BOTTOM MATERIAL SURVEY

STAT.F-5 (Discharge Stat.) 11th Stage (Sampled on 30th July 1989)

試 験 者....Andy & Endang....

以科番号 20	9. S.t. F.5.							
深 き (•••••	Na	*******	試 料 番	l}	Na	No.
	n -	- m)	(m	— m)	添	ż	(m ~ m)	(m ~ m)
‡.	拉 谜 mm	抗量百分半 %	拉径咖	質量百分率 %	4.76㎜以上の粒-			
	50.8		50.8		組環分(4.76~	2 mm)%		,
يا.	38.1		38.1	***************************************	担砂分 (2~0.	42mm)%	0.08	
	25.4		25.4		細砂分 (0.42-0.	.074==)%	16.03	
<u>ه</u>	19.1		19.1		シルト分(0.074~0	.005=0)%	38.89	
·	9.52		9.52		指土分 ^进 0.005m		[
	4.76		4.76		コロイド分(0.0		1.3.8	
<i>5</i> } ⋅	2.00	.100	2.00		2000μm よるい通過質	***********	- Mar. R. H	
"	0.84	99,98	0.84		************************		I U.U	
17	0.42	99.92	0.42		420µmふるい通過質量			
	0.25	99.72	0.25		74μmふるい通過技量で	59# %	83.89	
	0.105	97.01	0.105				<u> </u>	
	0.074	83.89	0.074		及 大 粒 (<u>¥</u> mm		
ļç	0.0373	68.8			60 % 粒 8	圣 mm	Ω.021	
It [0.0270	63.8			30 % 粒 1	€ no		***************************************
nt C	0.0174	60.4			10 % 粒 1	圣 mm		
ig - C	0.0104	52.0			均等係	 B/ 11.		
U C	0.0075	48.7			曲华係	**************		
, 4	0.0053	45.3			土粒子の比			
7	0,0038	42,0			***************************************		2.65	•
ָרָ <u>וְרֵ</u>	0.0027	38.6			使用した分散	M		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	0.0011	33.6				·	1 × 4	



枯 土 ル ŀ 砂 細 碟 30()

SILT and CLAY, some Sand

D75 = 0.054D 50 = 0.0084注) コロイド分を含む

關考

JIS Α 1204

度 験 . 試 土 粒 結 果 0)

報告用紙

試験年月日 9 年 9 月1989 日

12th Stage (Sampled on 13th Aug.1989)

				•
÷:Þ	¥2:	#	n n	
al/	7×	163	Andy.A	 .

D. 03552 92.2 60 % 粒 径 mm 0.0054 10 % 粒 径 mm 0.00169 83.2 10 % 粒 径 mm 0.00100 76.1 10 % 粒 径 mm 0.0073 68.1 10 % 粒 び / 0.0053 60.2 土 粒子の比似 G, 2.60 0.0038 52.1 10 % 粒 化	Ċ			}		私 大	拉 径	85				
D.0362 92.2 60 % 粒 達 wm D.0054 D.0253 86.2 30 % 粒 達 wm D.0169 83.2 10 % 粒 達 mm D.0073 68.1 均 等係 数 U. D.0073 68.1 均 等係 数 U. D.0073 68.1 均 等係 数 U. D.0053 60.2 土粒子の比類 G. 2.60 D.0038 52.1 仅用した分散制 D.0011 32.1	17 .	0.25	99.94 99.88	0.25		74μmニるい通	进货量百分 8	¥ %	99.22			******
世 0.0263 86.2 30 % 粒径 mm		0.074		0.074								**********
照 0.0169 83.2 10 % 粒径 mm						60 %	粒 径	hat.	0.0054			,
100						30 %	粒 径	6 00				
D.0073 68.1					<u> </u>	10 %	粒 径	to nt				********
世 係 数 Us' 10.0053 60.2 土 拉子の比重 G, 2.60 0.0038 52.1 使用した分散剤 0.0011 32.1 使用した分散剤 0.0011 32.1 が	63. I			************		均等	保 数	U.				************
100	U.	0.0073	68.1] 			,				ļ	• • • • • • • • • • • • • • • • • • • •
7	· .	0.0053	60.2			**************	••••••	******				*******
0.0028 44.1		0.0038	52.1	<u> </u>]	.,		G,	2.60			
100 11						使用した	分散剂	,	<u> </u>			
160 24 pm 25 Opm 840pm 47 Opm 19.1 as 36.1 m 160 25 opm 840pm 47 Opm 19.1 as 36.1 m 26 opm 19.1 as 36.1 m 27 opm 19.1 as 36.1 m 28 opm 19.1 as 36.1 m 29 opm 19.1 as 36.1 m 20 opm 19.1 as 36.1 m 20 opm 19.1 as 36.1 m 20 opm 19.1 as 36.1 m 20 opm 19.1 as 36.1 m 20 opm 19.1 as 36.1 m 20 opm 19.1 as 36.1 m 21 opm 19.1 as 36.1 m 22 opm 19.1 as 36.1 m 23 opm 19.1 as 36.1 m 24 opm 19.1 as 36.1 m 25 opm 19.1 as 36.1 m 26 opm 19.1 as 36.1 m 27 opm 19.1 as 36.1 m 28 opm 19.1 as 36.1 m 29 opm 19.1 as 36.1 m 20 opm 19.1 as 36.1 m		0.0011										
160 校译加積曲線 50 50 50 50 50 50 50 50			•	•		420sim		2(Y.).	on 9.	52m	25.4m S	.ess
160 粒径加铁曲線 50 50 50 50 50 50 50 50 50 50		,		S		25:Oum	840µm		4760µm	Г.,	9.124 36.12]
	190			* * *								FULL
	90	粒泽加桥曲	線::									
				/-Ť:		h i		•			2007 317	
	, se		+/	/T			÷	• • • •				
	70 .							· · · · · · · · · · · · · · · · · · ·		. 1 		
	. :		7					. :			1	
	- 60		ーナ::::- -									
	<u>S</u> so :		; /	إلىن بالمناب ا		بنكسة بالما	11.					11
	Ε :											
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10							1000		1 1 1 1 1 1 1 1 1		4::-4::	1.1
		4-11-11	11111				1					
			4:1111							,		
	i	, , , , , , , , , , , , , , , , , , , ,										
	Q	*		· · ·			1					
-1.1 0.0 0.0 50.0			0.01	*	พ.t	•	1.0	. •		0.0		0.0
粒 径 D (ma)					粒	谨	D (m m.)				
		枯 土	· >	n þ	細	61/	组	<i>5</i> ½	組礎		<u>·</u>	14 81:
	-	· · · · · · · · · · · · · · · · · · ·	1 .			·	An	=			·	

備考

CLAY and SILT trace Sand.

D 75 = 0.011

D 50 = 0.0036

JIS ·A 1204

土 粒 度 試験 結 果 の

報告用紙

調査名・調査地点 BOTTOM MATERIAL SURVEY STAT. F-2 (Discharge Stat.)

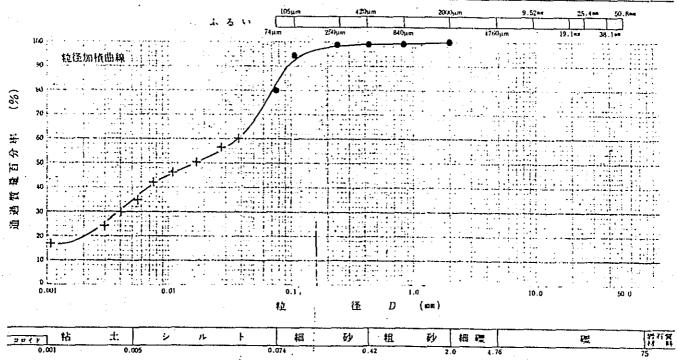
試験年月日 9 年 9 月 1989 日

12th Stage (Sampled on 13th Aug.1989)

試 教 者 Andy A

試料番号	No St.F2		Na	
深色	(m	~ m)	(m	~ m)
	粒径咖	質量百分率 %	粒径皿	質量百分率 %
	50.8		50.8	
ند	. 38.1		38.1	
	25.4		25.4	
る	19.1		19.1	
	9.52		9.52	
4.	4.76		4.76	
分	2.00	100	2.00	
20	. 0.84	99.98	0.84	
17	0.42	99.94	0.42	
	0.25	99.82	0.25	
	0.105	94.68	0.105	
	0.074	80,77	0.074	
	0.0383	61.4	ļ	
比	0.0277	56.5	 	
Æ	0.0179	51.7		
评.	0.0106	45.8	<u></u>	
v	0.0076	42.0		
1	0.0055	35.5] 	
ż	0.0040	30.7		
,	0.0029	24.2		
	0.0011	17.8		<u> </u>

試料番号	Na	Na
深 さ	(m - m)	(m ~ m)
4.76mm以上の粒子 %		
組礎分(4.76~2㎜)%		
祖砂分 (2 -0.42㎝)%	0.06	
細砂分 (0.42~0.074==)%	19.17	
シルト分 (0.074~0.005=*)%	45.77	
粘土分 ^性 (0.005mm以下)%	35	
2011\$(0,001=UT)%	17.8	
2000年mよるい通過質量百分中 %	100	
420mm - 5 い透過質量百分率 %	99.94	
·74μmふるい通過質量百分率 %	80.77	
	00.11	
最大粒径 mm		<u> </u>
60 % 拉径 咖	0.038	
30 % 粒径 🚥	0.0039	
10 % 粒 径 ㎜		
均等係数U。		
曲 率 係 数 Ui		
土粒子の比斯 G.	2.63	
使用した分散剤		
*,***********************************		1 1
		<u> </u>



Clayey SILT, some Sand.

D 75 = 0.063 D 50 = 0.017 D 25 = 0.0029 注) コロイド分を含む

備考

JIS Ä 1204

験 結 果 土 粒 度 試 0)

報告用紙

調査名・調査地点 BOTTOM MATERIAL SURVEY STAT. F-3 (Discharge Stat.)

試験年月日 日 年 9 月 89 日

12th Stage (Sampled on 13th Aug. 1989)

試 験 者 Amdy.A

	Nu St.	F.3			Na	•••••		•••		料都	_	Na	•••••••	No.	············
ē ,	<u>(</u>	m	~	m)	<u>(</u>	m	~	<u>n.)</u>	漆	, _	<u>ਵ</u>	(m	~ m) (, m
	粒 径	東瓜	货量百分	¥ %	拉.	i≹ no	質量百分半	% 4.7	6四以_	上の粒	3子 9	6	1	1.	1
ŀ			-		50				豊分 (4	1.76	~ 2 nm)9	6	•••	-	1
}	50.8	• • • • • • • •			*******	*******			•		.42 mm)%	······································	_		
- }	38.1	••••••	ļ		38	*********	ļ)h.e.a.	T .	}	.∤
-	25.4				.25	******		,		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.074==)9		2		.1
	19.1	•••••			19	*********					0.005**)9		2		
	9.5	2			*******	.52		档:	上分气	0.005	㎜以下)タ	6]	ž.
	4.7	6	ļ		4	.76			30	(F S (0	.001==UT) °	6			
	2.0	0	100		2	.00	ļ	200)µm -> 5 1	・過去	美百分 年 9	อ์เกก		1	•
- [0.8	4	99.0	08	0	.84		*****						-	• • • • • • • • • • • • • • • • • • • •
- (0.4	2 '	B6.	54	0	.42	<u> </u>		••••	*******	量百分率 9				
ſ	0.2	5	51.9		0	.25		74μ	m J. S to j	地名贝瓦	(自分平)	16.8	2		
ĺ	0.1	05	28.	92	0	. 105									
	0.0	74	16.		0	.074	1		段 大	粒	径 mm				
\dashv			1	_ -			 		io %	粒	径 om	0.2	79	···	
			1		••••••	••••••			30 %	•••••	************	0.1			••••
ł	 			•••••					• • • • • • • • • • • • • • • • • • • •						
. }		•••••	· 	•••••	······	• • • • • • • • • • • • • • • • • • • •	·				径 咖		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
}			· ·····	•••••	}	•••••••					数 U。				
ł		·-· ·· ·		· • • • • • • • • • • • • • • • • • • •	}				曲。毕	係	数 Ui				
ŀ	·	******	·{······	•••••	ļ	• • • • • • • • • • • • • • • • • • • •			土粒子	f の អ	in G.	2.6	7		
- 1			·		ļ				使用し	た分散	· 翻		*************		***************
}			.}		}	.,						···	••••••••••••••••••••••••••••••••••••••		
99) 80 70 60 71 60 720 740 740 740 740 740 740 740 740 740 74	粒径 加														
0 : 0.nc	枯		±:	0.01	n e		±2 → ±2		径	D 11 2	t.o (un)	組 環	10.0	PQ	59.0
	71 .	•	0 0/5				0.074		0.4	<u> </u>		4,1		· 0 P/4	- (3
0 00			•										D 50 =	0.341 0.235	
0 00	Fir	те 5	SAND, s	SOME	e Si	ļt.					•		D 25 =	: 0.096 コロイド分	を含む
ř.	Fir			25	∋ Si 	it.		218				 ,	D 25 = 注)	: 0.096 <u>コロイド分</u>	を含む

JIS Α 1204 土 0 粒 度 試 験 結 果 報告用紙 調査名・調査地点 BOTTOM MATERIAL SURVEY STAT. F-4 (Discharge Stat.) 試験年月日 9 年 9 月 89 日 者 Andy A 12th Stage (Sampled on 13th Aug. 1989) 成料番号 No.St.F4 *1 ņ 深 m -m) m — 粒 径 4.76mm以上の粒子 賃量百分率 % 粒 径 質量百分率 % 細膜分 (4.76~ 2 mm)% 50.8 50.8 0.06 租砂分 (2~0.42㎜)% 38.1 38.1 0.16 25.4 25.4 細砂分 (0.42~0.074 = ≥)% 87,42 19.1 ・る 19.1 シルト分 (0.074-0.005輪)% 12.36 9.52 9.52 粘土分性(0.005mm以下)% 4.76 4.76 QQ. コロイド分(0,001m以下) % 2.00 2.00 99,94 分 2000μmふるい通過質量百分率 % 99.94 0.84 0.84 99.88 420µmふるい通過質量百分率 % 99.78 0.42 99.78 0.42 († 74μmふるい通過賃貸百分率 0.25 12.36 0.25 86.32 0.105 31.92 0.105 0.074 12.36 0.074 较 大 粒 径 me % 粒 径 60 0.165 比 0.107 30 % 粒径 咖 K 10 % 粒径 7. 12) 征 採 数U。 U 曲华係数U į 2.65 土粒子の比重 G. i 使用した分散剤 (40µm 拉径加積曲線 % ¥. 4 m ø Ħ -3 4 往 D (sa) 权 土: 100.001 ル ۱ W 砂 组 細環 備考 D 75 = 0.199 D 50 = 0.151 D 25 = 0.097 Fine SAND, some Silt. 注) コロイド分を含む

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JIS Α 1204

差 度 試 験 土 0) 粒 果

報告用紙

調查名·調查地点 BOTTOM MATERIAL SURVEY.....

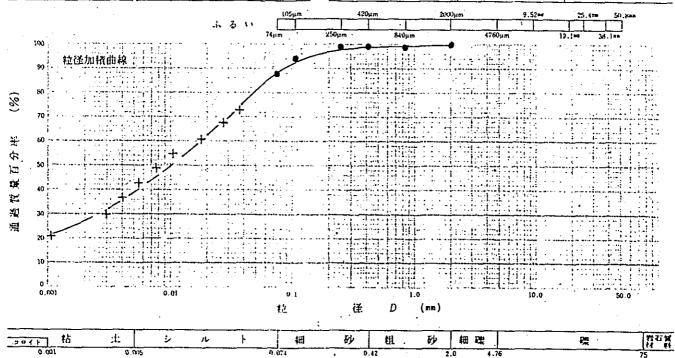
STAT. F-5 (Discharge Stat.)

試験年月日 9 年 9 月 89 日 試験者__Andy.A____

12th Stage (Sampled on 13th Aug.1989)

試料番号 Na St.F5						Na					
深 さ	((m - m)						(m~ m.)			
	粒	往	מומו	N K	ħ.	分學	%	粒	往	p m	質量百分半 %
	5	50.8						50.8			
盂	38.1							38.1			
	25.4						25.4				
3	19.1							19.1			
	9.52						9.52				
11		4.76		<u> </u>		·•		4.76			
∌		2.00	}	100)				2.00)	
,,		0.84		9.	J.,	.9.6	5	ļ	0.84	!	,
17		0.42		9	9.,	92	2	ļ	0.42	?	
		0.25	,	9	9	82	<u>?</u>		0.25		ļ
		0.10	5	94	ŧ.,	56	ā		0.10)5	
	<u> </u>	0.07	4	88	3	80)	<u> </u>	0.07	74	<u> </u>
	0.0	<u> </u>	9	7.	3	Б.		ļ		*****	
比	0	7.2.7	5	6.0	Ĵ.,	.1.	.,	,		,. 	
Т	Q	3.18	0	6.	1	0.					
浮	0.0	0.0106		55.6				<i></i> -			
U	0.1	0.0077		48 • 4							
ż.		0.0055		43 ×0		ļ			ļ -		
j	0.	004	Ö]3	7	•7.	. .			:	
•	0.1	002	9	31	ij,	-5					
	0.	001	1	2	1	<u>. 5</u>					<u> </u>

試料番号	Na	Na		
深 さ	(m ~ m)	(m ~ m)		
4.76㎜以上の粒子 %				
秵礫分(4.76~2㎜)%				
粗砂分 (2~0.42㎜)%	0.08			
細砂分 (0.42~0.074==)%	11.12			
シルト分 (0.074~0.005==)%	49.80			
粘土分性(0.005㎜以下)%	39			
コロイド分(0.001=以下) %	21.5			
2000μmふるい通過質量百分率 %	100	***************************************		
420μmふるい通過質量百分率 %	99.92			
74μmふるい通過質量百分率 %	88 .80			
段 大 粒 径 ㎜				
60 % 粒径 ㎜	0.017			
30 % 粒径 📭	0.0026			
10 % 粒 径 ㎜				
均等係数Ue				
曲 率 係 数 Ué				
土粒子の比重 C.	.2.62			
使用した分散剤・				
				



備考

SILT and CLAY, some Sand.

D 75 = 0.0384 D 50 = 0.0104 D 25 = 0.0017 住) コロイド分を含む