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SOIL MECHANICS SURVEY FOR

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			3		١.	8		DESCRIPTION		Number of Blows per 30 Cm Penetration	Geological Strate	Metthod of Sample	Specific Gravity Water Content (%)	Uni Weght (tm3)		•	- 53 t ▲ i	r de n Veisla	šc1 nt (%)		THE STATE OF	faction (*) Conesion (kg/cm²,
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3 SE	-							dense to very dense; having some amount of	115					1							-	
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10 SEPTEMBER 1997 10 SEPTEMBER 1997 10 Statum 10 Statum 10 Statum 10 Statum		_	Ě		9	ğ	1	DESCRIPTION		Nombe nO Ce seq			Geological Strata	8	Specific Gravey	o He	ğ	9		A last			internal	Cohesion (kg/cm²)
10 SEPTEMBER 1997		oja O	Ę	Depth(m)	Soil Profile	Classification	ر 2 لا ا			10 20			ğ	8	Š	P P	We	d Ratio,	1.			۰۱	2 8	9
10 SEPTEMBER 1997 2	}	ğ	B	Š	8	3	ó] `	10 20			3	ž	<i>₽</i>	\$	5	Dio/	0 4	ο εο -	120	160	\$3	8
10 SEPTEMBER 1997 2	4					SW		0.00 - 0.55 m;	ľ						:									
10 SEPTEMBER 1997 3 SEPTEMBER 1997 5 5 6 8 4 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	1		ļ	0.55		 	-	SILTY SAND, containing some amount of plant						鬥	e'			- ;	1			!	1	
10 SEPTEMBER 1997	1			ŀ				// rooks, gravels; light brown, // loose, fine to coarse	١,			3030	!			-						Ш	ĺ	
10 SEPTEMBER 1997	1							grained, well graded.	Н						:									
10 SEPTEMBER 1997	1					ML		Cravels diameter up to 1.50 cm.	İΙ			1 :	ļ			İ	·							
10 SEPTEMBER 1997	2							0.55 - 2.50 m:	2			33/30]	i
10 SEPTEMBER 1997 C C G G B L G G C C C C C C C C C C C C C C C C C	1			2 50				CLAYEY SILT, containing some plant roots, occationally pravets.	П	1 1/				8				1						1
10 SEPTEMBER 1997 3 SEPTEMBER 1997 5 5 6 6 8 2 6 9 5 5 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7	1							brown with white, yellow, and black spotted, very still,	11	1				7										
10 SEPTEMBER 1897	'-				<u> </u>			moderately to low plasticity.	3	/ I		11/30		950			:					H		
10 SEPTEMBER 1897	1							\	1	M												H		
10 SEPTEMBER 1897	. 1							2 50 - 5.40 m; SANDY-SILTY CLAY, dark	$ \ $,		/	:									
10 SEPTEMBER 1897	' -					CH		brown, stiff high plasticity,	4			19/30		3										
10 SEPTEMBER 1897	1							become light brown to yellowish brown, wet, in																
16 SEPTEMBER 1997	. Ì			1				5.00 m depth				1		I		-		.						
10 SEPTEMBER 1997 21 11 6 6 8 1 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	'†				: <u>`</u>				5			14/33												1
10 SEPTEMBER 1997	1			5 43										巖										1
10 SEPTEMBER 1997	.]				··			5.40 - 8.55 m; SILTY SAND, yellowish	Н			15/30		И								\parallel		
16 SEPTEMBER 1997	-							grey, fine to medium	6	- 1	Į į	1		3				Ì						
16 SEPTEMBER 1997	}							grained, medium to very dense, moderately to poorly				6472			.									
10 SEPTEMBER 1937	, {	Ì				se		graded; containing little amount of gravels, with							.							11		[
10 SEPTEMBER 1937	1							diameter up to 3.00 cm.	ľ				В		-									
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10 SEPTEMBER 1997	1			& 55_		-		0.55 40.50]			İ						
10 SEPTEMBER 1897	1	-			.6			8.55 - 10.60 m; GRAVELY SAND, grey,	9		lá	37/30						ļ				Ш		
10 SEPTEMBER 1897	1]					-	medium to very coarse grained, very dense, we'll			1		1		1									
10 SEPTEMBER 1897	1	١		·			-	graded, Gravels diameter			1	.			.			ĺ						1
10 SEPTEMBER 15	4							υρ to 5.00 cm.	10			4530	}				-	ļ						
10 SEPTEMBER 15	1	Ì		1969							11			XI			. [ĺ						
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2	1	į		13	::::::			SILTY SAND, grey, very	11	1		1760		H		ì						Π	1	
2	1	į		1	: <u>-</u> -			fine to fine grained, medium dense, poorly						Ŵ.	2.712	et 630	1.778	1 234	29	40 69				
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SOIL MECHANICS SURVEY FOR Pf. Geo ACE
In. Pajajaran po. 125
BANDUNG, INDONESIA THE DETAILED DESIGN OF FLOOD CONTROL,
URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT **BORING LOG** IN SEMARANG IN THE REPUBLIC OF INDONESIA Bore Hole : 58-3 Sheet 2 of 2 Location : SIMONGAN WEIR, Left bank : 21 - 8 - 1937 to 24 - 8 - 1937 Ground Water Level (GWL) meter Borng Depth 15 to m. + 8 634 meter Coordinate
Angle
Drilling Machine Onited by : Yata Azis 15 00 ਜਵਾਲ Bearing : KOKÉN DE-2L Rudy Multanto Logged by Supervisor CLASSIFICATION AND DESCRIPTION OF MATERIAL 12 13 14 15 16 17 18 19 Standard Penetration Test Atterberg Limits Method of Sampling 3 Angle viterial (%) 201 021 08 £ N - Value Number of Blows per 30 Cm Penetration · Present (%) Geological Strata Specific Grawity Content Describes
A Contine (4) DESCRIPTION Und Weight Claufoston Void Ratio, ر ا Se Se 0 10 20 30 40 50 15 SEPTEMBER 1997 14.55 - 16.00 m: SAND, grey, very dense, medium very coarse grained, well graded, moist. SW 16.00 - 18.20 m: SILTY CLAY, dark brown, F 17 very stiff, high plasticity, moist, CH 5 50 1754 18:20 - 18:77 m: SILTY SAND, brownish grey, fine to medium grained, medium dense, 12 SEPTEMBER 1997 poorly to medium graded. SP 18.77 - 19.00 m: SANDY CLAY, brownish grey, stiff, high plasticity, moist. 13 (0) CH SP 19.00 - 20.00 m: 20 00 SAND, grey, dense, coarse to very coarse grained, poorly graded, most. BOTTOM OF HOLE 23

29

SOIL MECHANICS SURVEY FOR Pf. Geo ACE Jin. Pejajaran no. 125 BANDUNG, INDONESIA THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA **BORING LOG** | Bore Hole | : 58 - 4 | Sheet | : 1 | Location | : SIMONGAN WEIR | Boring Depth: | 20 00 | meter | Elevation | : - 1 565 | meter | Ground Water Level (GWL): Coordinate 8 - 9 - 1997 to 12 - 9 - 1997 Drifed by : Yelia Azis Legged by Supervisor KOKEN OE-2L : Rudy Mulranto CLASSIFICATION AND DESCRIPTION OF MATERIAL 12 Standard Penetration 13 14 15 16 20 Strength Test Atterberg Limits Test Metthed of Samping Water Content (%) · Paretre (s) 7/pe Angle internal Inclina (*) Cohesion (Kp/cm²) N - Value Geological Strata Specific Gravity Number of Blows per 30 Cm Penetration Britishou A Contine (a) DESCRIPTION Cashcallon Unit Weight Sol! Profile Depto H Stratum 7 Void Retio, γ Σ Scale 20 30 40 50 49 ŧο 120 0.00 - 3.50 m; GRAVEL (relaining wall). 2 9 SEPTEMBER 1997 3.50 - 5.90 m; SILTY CLAY, reddish brown, high plasticky, still, 550 5 90 - 11.40 m; 590-11.40 m: SILTY SAND, light brown with white speckling, ven fine to medium grained, poorly graded, medium dense to dense, having some amount of gravels with diameter up to 200 cm. 1 70 10 SEPTEMBER 1997 11.40 - 15.00 m: SANDY SILT, light brown to brown, medium to low plasticity, firm to stiff, moist to wet; having some amount of GRAVELS with diameter up to 5.00 cm.

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11/9 - 1997

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oca	s on	epth	SI	IONO	ANW	EIR			Coordinate · · · ·	meter .	у.	<u> </u>		Date Onte	dh		8 - 9 - 1991 Ya'u Azis	to 12.9.	1597			
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	re H ce!ç		: \$1		St.	cet VVCI	:1	01 5	Ground Water Level (GVVL)	me!e		BLIC	OF I	NDO	NES	IA_	Dete			<u></u>	· · · · ·	-		. • •		_
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			Stratum Thickey			9	8		DESCRIPTION	1	Numbe	Value of Biov		Geological Strata	Metthod of Sampling	Specific Gravity	Water Content (%)	Unit Weight (Vm3)			(Pa	stine (4) stine	.	1,		(Ko/cm)
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1		}			- 1	.2.	SW		graded, very dense, gravels with diameter up to						Ô			ļ							İ	
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2.3 Laboratory Test

(1) Purpose

The laboratory test is subjected to determine the physical and mechanical properties of soil sample.

(2) Method

The laboratory test for soil sample followed the standard method of ASTM as can be seen below:

Table 2.2 STANDARD METHOD AND VOLUME OF LABORATORY TESTING

Item	Standard Method	Volume
Soil Samples		
Gradation Analysis	ASTM D422	200
Moisture Content	ASTM D4959	200
Specific Gravity	ASTM D854	200
Liquid and Plastic Limits	ASTM D431	200
Density	USBR 5370	200
One dimensional consolidation	ASTM D2435	25
Triaxial compression UU	ASTM D2850	59

(3) Result

The result of laboratory tests in detail is presented in Appendix 2.

2.3.1 Engineering Geology

(i) Simongan Weir

(1) General

The Core drilling at this area consists of 6 (six) hole of 20 m each depth, they are SB - 1 to SB - 6.

The aim of the survey at this area is to determine the foundation layer and its soil mechanical properties. The result is presented in form of geological cross section along the weir axis (refer to Fig. 2.5 and 2.6)

(2) Soil Types and Overburden

Based on the core drilling result, the soil layer at the Simongan weir site consists of Riverbed deposit (Rd), Embankment fill (B), Fine coarse Sand (As) and Very soft Clay (Ac).

- Embankment (B) consists of earthfill and it is found at the left and right wings of Simongan weir. The thickness of this layer is about 6 m.
- Riverbed Deposit (Rd) consists of sand and gravel, dense to very dense, having SPT N value of 20 to more than 50. This riverbed deposit is found at the borehole SB 2, Sb 4, SB 5 and SB 6.
- The Fine grain Sand (As) consists of fine medium grain sand and intercalated with clay and silt, loose to very dense. This layer was found at the boreholes SB 1, SB 2 and SB 3, lying beneath the embankment or riverbed deposit. The thickness of this layer varies from 8.5 m to 10 m.
- Clay and Sandy Clay (Ac) is lying beneath As layer. It is gray, consisting of clay and sandy clay, soft to medium stiff clay with SPT N value range of 11 to 20.
 This layer was found at the boreholes SB 1, SB 2 and SB 3 at the elevation of approximately -10 m.
- Intercalation of Volcanic and Sedimentary rocks are considered as the base rock at this area. It is fractured, poor RQD and very weak rock.

(3) Foundation Layer

According to the result of core drilling, it is suggested to footing the foundation of weir at base rock, due to the covered soil which, in general, has low consistency and SPT N value less than 30. Bored pile can be considered as alternative foundation.

(ii) West Floodway

(1) General

The Core drilling at this area consist of 52 bore holes, with total depth of 824 m. They are RB - 1 to RB - 52.

The aim the survey at this area is to determine the foundation layer and its soil mechanical properties in relation with design of various structures along this floodway canal alignment. The result is presented in form of geological cross section along the West Floodway. (refer to Fig.2.3)

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(2) Soil Types and Soil Mechanical Properties

(a) Left Bank

Based on the result of core drilling, the soil layer along the left bank of west floodway canal can be classified as follows:

Bore holes RB - 1 to RB - 19

The soil profile along this section, from the surface to bottom is as follows:

- Embankment (B) consists of earth fill. The thickness of this layer varies from 2 to 3 m.
- Very soft clay (Ac) with lenses of fine to middle grained Sand (As). This layer was found beneath the Embankment (B), up to 18 m depth.

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The very soft clay (Ae) is gray, consisting of clay and sandy clay, containing shell, very soft with average of SPT N value of 5.

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- The lenses (As) layer consists of fine to medium grain sand and it is intercalated with clay and silt, loose with average SPT N value of 6. The thickness of this lenses is about 1 m to 3 m.
- Hard clay (Dc) layer with lenses of Gravelly SAND (Ds) lies beneath Ac layer up to the bottom of the hole.

The hard clay is dark brown and the surface part is characterized by oxidation, containing coral limestone. The average SPT N value of this layer is 25.

- The Gravelly SAND (Ds) consists of fine to coarse grain sand with small amount of gravel. The SPT N value of this lenses is more than of 50.

Bore holes RB - 21 to RB - 27

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The soil profile along this section can be described as follows: (from the surface to the bottom).

- Embankment (B) consists of earth fill, partly found along this section with maximum thickness of 1 m.
- Very soft Clay (Ac) alternates with As of fine to meddle grained Sand (As) was found beneath the Embankment (B) with thickness varies from 1 m to 12 m.

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The very soft clay (Ac) is gray, consisting of clay and sandy clay, containing shell, very soft with average N SPT of 6

Fine to medium grain SAND (As) layer lies beneath the Ac layer, consisting of fine to medium grain sand and intercalated with clay and silt. The thickness of this layer is varies from 1 to 8 m.

Interfingering between Hard Clay (Dc) and Sedimentary rock (Da) was found in the bottom part of the boreholes. This layer was found at the depth of 1 m (RB - 27) and 19 m (RB - 21).

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The hard Clay is dark brown, the surface part is characterized by oxidation, containing coral limestone. The SPT N value of this layer varies from 16 to more than 50.

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The sedimentary rock, consisting of alternation of conglomerate, sandstone, mudstone, with SPT N value more than 50.

kata dalah berajak dalah terbah dalah dalah dalah beraja berajaran

Bore holes RB - 29 to RB - 39

The soil profile along this section can be described as follows: (from surface to the bottom).

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- Embankment (B) consists of earth fill, locally was found in this section with thickness ranges from 2 m to 3 m.

- Very soft Clay (Ac) was found beneath the Embankment (B), with thickness of about 4 m.
 - The very soft clay (Ac) is gray, consisting of clay and sandy clay, containing shell, very soft with average N SPT of 7.
- The lenses As layer, as lenses, lies in between of Ac and Da layers, consisting of fine to medium grain sand, and intercalated with clay and silt, medium dense with SPT N value of 20. The maximum thickness of lenses is 4 m.
- The bottom part of boreholes is Sedimentary Rock (Da) with a lenses of Hard Clay layer (Dc). This layer was found at the depth of 1 m (RB 39) and 8 m (RB 33). Standard penetration test performing in this layer gives the SPT N value of 13 to more than 50, with average of 35.

Bore holes RB - 41 to RB - 49

The soil profile along this section in general can be describe as follows:

- Embankment fill (B) and Riverbed deposit (Rd) were found at the bore holes RB 47 and RB 49. They overlies the Ac layer. Beneath the Ac layer is usually Da layer, except at the borehole RB 45 which contains lenses of As.
- Embankment (B) consists of earthfill, found in the upper part of borehole Rb 47, with thickness of 3.5 m. This layer has the average of SPT N value of 19.
- Riverbed Deposit (Rd) consists of sand and clay and very soft. It was found at the borehole RB 49 at depth of 0 1.40 m.
- Very soft Clay (Ac) was found beneath the Embankment (B) or Riverbed deposit (Rd), consisting of clay and sandy clay, medium stiff with average of N SPT value of 15. The thickness of this layer varies from to 4 m.
- The lenses As layer, as lenses, lies in between Ac and Da layers and found at the borehole RB 45. It consists of fine to medium grain sand, and intercalated with clay and silt. The maximum thickness of lenses is 1 m.

- The bottom part of boreholes is Sedimentary Rock (Da), having SPT N value of 39 to more than 50, with average SPT N value is more than 50.

(b) Right Bank

Based on the result of core drilling, the soil layer along the right bank of west floodway canal can be classified as follows:

Bore holes RB - 2 to RB - 20

The soil profile along this section in general can be described as follow:

- Embankment fill (B) with 1 in thick was found at the uppermost of the boreholes. The Ac layer with As lenses lies beneath the B layer. The bottom part of the boreholes is dominated by Dc layer.
- Embankment (B) consists of earthfill, and found in the upper part of boreholes with average thickness of 1 m.
- Very soft Clay (Ac) was found beneath the Embankment (B), consisting of clay and sandy clay, very sof with average of N SPT of 3 except in the borehole RB 16 (14.55 15.00 m) and RB 10 (3.55 4.00 m) which give the SPT N value of 18 and 26, respectively. The thickness of this layer, including As lenses, varies from 8 m to 19 m.

The lenses As layer, as lenses in the Ac layer, consists of fine to medium grained Sand, and intercalated with clay and silt. The thickness of the As lenses varies from 1 m to 4 m.

At the bottom of the boreholes is alternation of Hard Clay (Dc), Coarse grained Sand (Ds), and Gravelly Clay (Dg). This layer was found at the depth of 14 m (RB - 14) and 20 m (RB - 6).

Bore holes RB - 22 to RB - 38

The soil profile along this section, in the upper part, is alternation between Very soft Clay (Ac) and Fine grain Sand (As) layers with embankment (B) which locally covered this layer. The thickness of the Ac and As layer varies from 10 to 14 m.

In the lower part of the boreholes Rb - 22 to Rb - 26 is Hard Clay (Dc) whereas Rb - 28 to Rb - 36 is Sedimentary Rock (Da). The Standard Penetration Test conducted at this layer gives the SPT N value of 15 to 50 with average of 35.

Bore holes RB - 40 to RB - 50

The soil profile along this section, from the surface to the bottom, consists of embankment fill (B), Very soft Clay (Ac), and Sedimentary Rock (Da).

- Embankment (B) was found at the boreholes RB 42, RB 46, RB 48 and RB 50 from the surface into 2 m to 4 m depth. This layer has SPT N value of 8 to 50 with average of about 20.
- Very soft Clay (Ac), in general, was found beneath the Embankment (B), except in the borehole RB 40 and RB 44 which is directly found from the surface. It consists of clay and sandy clay, soft with average N SPT of 12. The thickness of this layer varies from 1.5 to 3.5 m.
- Sedimentary Rock (Da) is composed of alternation of conglomerate, sandstone, and mudstone. This layer lies beneath the Embankment (B) and Very soft Clay (Ac). The Standard Penetration Test performing at this layer gives the SPT N value ranges of 29 to more than 50 with average more than 50.

2.3.2 Conclusion

- The project area geologically belongs to Damar Foundation and alluvium deposit.

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- Alluvium deposit is sedimented as river, lake, swamp or coastal, deposit. Each type of deposit is physically and mechanically varied.
- According to the lithological sequence, floodway area is geologically assumed to be a flood plain area.

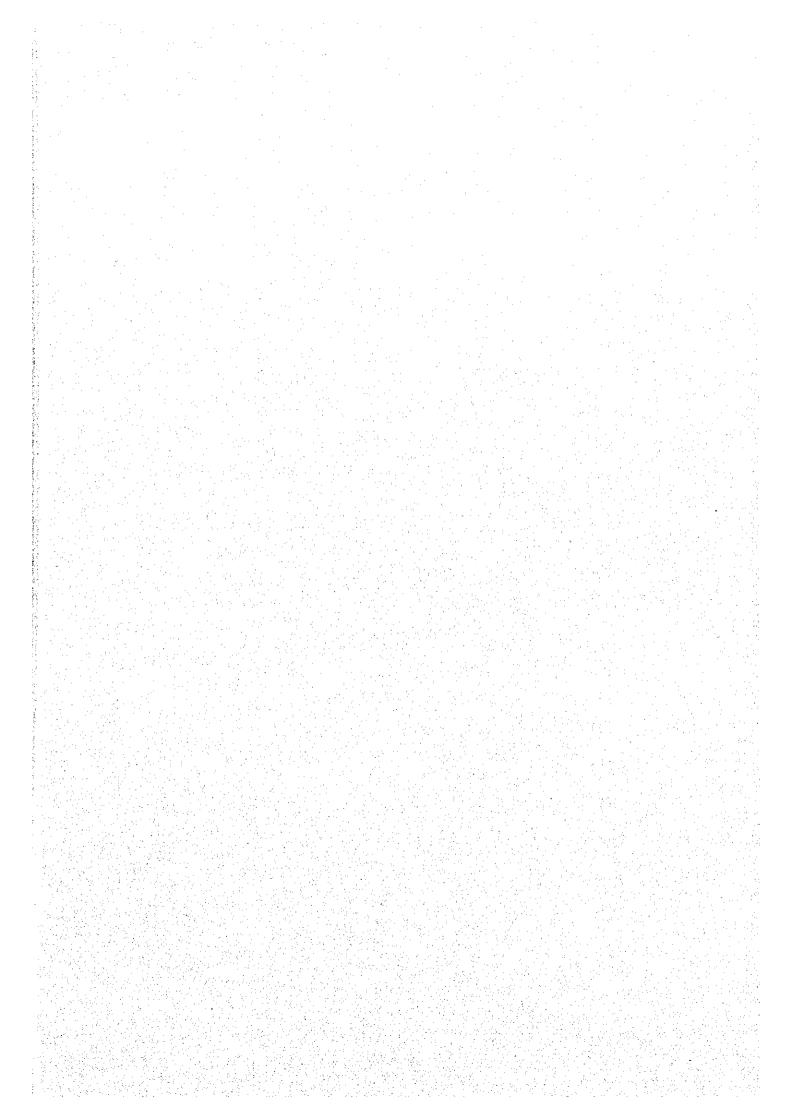


Table 2.2 (1/4) SUMMARY OF LABORATORY TEST (STANDARD PENETRATION TEST SAMPLES)

						Halfredon, Stronger, and Dang Spiller	PHYSIC	CAL PRO	PERTIE	5	· · · · · · · · · · · · · · · · · · ·		37 		USCS			MEC	CHANICA	L PROPE	RTIES			GEOLOGICAL	SPT
		}		1		<u> </u>		G	RAIN SI	ZE (%)		COL	NSISTEN	CY		U	<u></u> S	SHEARING T		GIH U		CONSOL	IDATION ERTIES	STRATE	<u> </u>
LOCATION	SOREHOLE No.	TEST DEPTH	Gs	Wn	γn	\$r_	e	GRAVEL >4. 75mm	SAND 4. 75-0. 075mm	S1LT 0. 075-0. 002mm	CLAY <0.002mm	LL	PL	PI	SO/L CLASSIFICATION	С	φ	С	φ	С,	φ'	Pc	Cc	SYMBOL	N VALUE
	-	(m)		(%)	(g/cm3)	(%)	_					(%)	(%)	(%)		(kg/cm2)	(°)	(kg/cm2)	(°)	(kg/cm2)	(°)	(kg/cm2)	_		
	RB - 1	7.50 - 8.00 12.50 - 13.00		40. 36		<u> </u>			36.00					24. 78	CH									Ac	3
	RB - 2	12. 50 - 13. 00 3. 50 - 4. 00	2. 64 2. 79		·		<u> </u>	3. 60 -	9. 70	21. 58		124. 92	39. 44 _	85. 48	CH SM >	 		 	 	-	ļ			Ac	6
	NO 2	12. 50 - 13. 00		95. 42		 						124. 04	37. 0 4	87 00	CH			 -	 		 	· · · · · · ·	<u> </u>	As	3
	RB - 3	4. 50 - 5. 00	2.78					_	1. 40	61. 81		101.60			CH			 	 -	 	-	 		Ac Ac	1 0
		14. 50 15. 00	2. 71	83. 32		İ		÷-	1. 90			109. 37			CH			 			ļ	-		Ac	6
	RB - 4	3. 50 - 4. 00		48. 13				. –		56. 80					СН				<u> </u>					Ac	Ö
	nn r	6.50 - 7.00		60. 08					6. 80		29. 81				CH CH CH									Ac	3
1	RB - 5	4. 50 - 5. 00 18. 50 - 19. 00		49. 11 88. 00		_			13. 10 6. 60		19. 57				CH	 		ļ				·		Ac	0
		22. 50 - 23. 00			1.5652543	5/3/3/55	25368		1 0.00		33. 19	113. 16 90. 99		81. 14 63. 40	CH CH				nakylenia	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	 		gjelger ers	Ac	/ / / / / / / / / / / / / / / / / / /
	RB - 6	3.50 - 4.00		47. 82	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	38 34 10011 (Kg)*	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5. 00	25 20				23. 56		CH	1002.0.218085			rajuljah bala	100, 2, 50, 50 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	priekvyhi vy	. (Bard 2 a Pal)		Dc Ac	293 8
		9. 50 - 10. 00	2 62	90. 47				-	0.80			130. 28			CH CH			<u> </u>			 	-		Ac	3
	ļ	16.50 - 17.00		43. 59					3.40	64. 68	31. 92	117. 97	27. 38		l CH									Ac	6
	RB - 7	3. 50 - 4. 00		67. 24		<u> </u>		· -			17. 77		25. 52		СН									Ac	3
	RB - 8	14.50 - 15.00	2. 64			ļ ·		<u> </u>				104. 33			СН	 			 					Ac	4
I I	KD ~ 0	2. 50 - 3. 00 5. 50 - 6. 00		56. 52 59. 29				-			34. 88 20. 64				CH	 		 				·.		Ac	4
	RB - 9	4.50 - 5.00		71. 58				<u> </u>				70. 74 102. 93			CH CH	-		 			-	<u> </u>		Ac	3
		19.50 - 20.00		46. 48				58 4 %.	1.60		38.37				CH)(1446) 	0.345.050	i de la de la composición del composición de la composición de la composición de la composición de la composición de la composición de la composición de la composición de la composición de la composición de la composición de la composición de la composición de la composición de la composición de la	37 (27 13 km) 37 (27 13 km)	merkatu		16 (4 G A	Ac Dc	13
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	RB - 10			52. 65					3. 20	53. 78	43. 02	96. 91		77. 01	СН	1	272		-					Ac	26
шеот	RB - 11			82. 45					4. 30	62. 52	33. 18	96. 82	29. 63	67. 19	СН		1	Ve - 2		17.1				Ac	1
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FLOODWAY	RB - 12			67. 77				1. 90	14. 50		26. 03	86. 49 74. 00		60.96	CH								2000	Dc	51
LEGODIM	I NO IE	14. 50 - 15. 00	2.66			 	١.	_	6, 60	64 31	20.73	101. 11	28 66	48. 14 72. 46	CH CH					;		-		Ac Ac	3
	RB - 13		2. 66			 			7. 60	63. 30	29.10	120. 71		91. 73	CH					 	 		-	Ac	3
		6. 50 - 7. 00		74.93		100			3.00	66. 90	30.10	116. 15	32. 70	83. 44	СН				<u> </u>	7 10	100			Ac	3
	RB - 14	2 50 - 3.00							3.90	57. 54	38. 56	122. 91	25. 45	97. 46	СН		. A.							Ac	7
	DD 1F	14.50 - 15.00				 	10.00	-	3. 30	61. 57	35. 13	104. 25	25. 00	79. 25	CH			- :						Ac	6
1	RB - 15	3.50 ~ 4.00 14.50 - 15.00	2. D/	49. 66	50-3889	20000000		 	33.5U	60.0/	5. 43	116. 91	33. 52	83.39	(CH)	12. 13. 14. 15. 15. 15. 15. 15. 15. 15. 15. 15. 15	10000000000000000000000000000000000000	201902	15 S. 15 S.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			<u> </u>	As	3
	RB - 16	4. 50 - 5. 00	2.75	82. 83	100000000000000000000000000000000000000		- <u>5000000000000000000000000000000000000</u>	<u>-</u>	7 10	50 20	32 70	82. 13 96. 23	22 02	62 20	CH CH					(p. 30), 25, 81			Hillian et 1	Dc Ac	24
		14. 50 - 15. 00							7. 40	59. 28	33. 32	81. 97	25 50	56 47	CH							-		Ac Ac	18
	RB - 17	3. 50 - 4. 00	2. 54	79. 60	1.0			· –	<u> 13. 40</u>	59. 55	26. 15	100.85	38.69	62.16	CH				 -		 	 	<u> </u>	Ac	3
		5. 50 - 6. 00		52. 77			3.50	,	23.20	61. 22	15.58	69. 71	28. 49	41. 22	CH		32.2.3							Ac	4
		16.50 - 17.00	2, 55	35. 56				#\$ `	33.50	55. 88	10.62	54.98	28 07	26. 91	CH									0.s	52
	RB - 18	27. 50 - 28. 00 3. 50 - 4. 00		42, 46 50, 96		<u> </u>	100000	18,0 7 ,866	5. <u>90</u>	64.71	28/39	74.80	31.33	43.48	CH						15200		\$465	Dc .	40
	VD 10	5. 50 - 6. 00		60. 92		1	3.5 Sec.		34. UU g kn	67 41	11.42	74. 49	23. 43	51. 06	CH,		N 4, 7	<u> </u>	<u> </u>	2 121	_	-	-	<u>As</u>	3 3
		17. 50 - 18. 00		40. 67					6 10	57 57	36 33	57. 19 123. 62	40 8E	33. 21	CH CH				A STATE OF					Ac De	52
	RB - 19	4. 50 - 5. 00		46. 65		 		_	12. 90	55. 33	31. 77	83. 42	27 47	55 94	CH	F 4 6 7 8 8 8 8 8		1 - 20 × 21 ± 51 <u>- 1</u>	100 (0 (1) (1) (0) (1) (1) (1) (1)	20.000	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	. Line en tor (Edic	Ac	7	
		8. 50 - 9. 00	2.71	46. 64		***,,,,,	r Allery,	· _	46, 40	<u> 49, 68</u>	3.92	54.39	42. 03	12.36	<0H⊃	-				: ::				As	13
		14.50 - 15.00		58. 26				: -	9.30	<u> 63. 81</u>	<u> 26</u> . 89	80. 54	42. 58	37. 96	OH		1 1		12 1	<u> </u>				Ac	19
	RB - 20			48. 24	2 1 2 2	 			17.00	<u>59.</u> 15	23. 85	76. 07	22. 99	53. 08	СН		10 10							Ac	6
		6. 50 - 7. 00 12. 50 - 13. 00	<u> </u>	46. 77	11.	 	1	· -	18. 50	<u>63. 05</u>	8. 45	37. 02	23. 04	13. 99	CL		1 12 1	1		<u> </u>		* *,		Ac	3
	RB - 21			41. 28		 		· –	12. IU 52 20	1 00. 98 1 00. 98	26. 92	73. 79	30. 52	43. 27	CH CH					1	 	_		Ac	3
	I WO EI	7-00 0-00	I <u>C- V4</u>	1 71. 60		<u> </u>	<u> </u>	ļi	J J J C U	T 49. 08	<u>j 3.71</u>	45. 19	21-13	Z4. U/	(SC)	IJ	<u> </u>				L	.L	اـــــا	As	3

Table 2.2 (2/4) SUMMARY OF LABORATORY TEST (STANDARD PENETRATION TEST SAMPLES)

		<u> </u>	,				PHYSI	CAL PRO	PERTIE	S		2000-00-00-00-00-00-00-00-00-00-00-00-00			USCS			MEC	HANICA	L PROPE	RTIES	Leonos	INTERIO	GEOLOGICAL	S.P.T
					Γ			G	RAIN SI	ZE (%)		CO	ISTSTER	ĊY		U	U .	SHEARING		U U	······································		IDATION ERTIES	STRATE	
LOCATION	BOREHOLE No.	TEST DEPTH	Gs	₩n	γn	\$r	е	GRAVEL >4. 75mm	SAND 4. 75-0. 075mm	S1LT . 075-0.002mm	CLAY <0.002mm	LL	PL	PI	SOIL CLASSIFICATION	С	φ	С	φ	c,	φ,	Pc	Сс	SYMBOL	N VALU
		(m)		(%)	(g/cm3)	(%)	_		,			(%)	(%)	(%)		(kg/cm2)	(°)	(kg/cm2)	(°)	(kg/cm2)	(°)	(kg/cm2)	-		
		6. 50 - 7. 00						-			19. 78													Ac	6
		13. 50 - 14. 00 18. 50 - 19. 00		60. 30 40. 59		2752 trip		-			19. 20 26. 89		34. 36	49. 33 46. 41	CH CH		Table Section	e e e e e e e e e e e e e e e e e e e	i Times s		A			As	11
	RB - 22	2.50 - 3.00					10,1176-7	 - -			15. 15	71. 89	27. 85	44. 05	-CH	737 535 7 7		100000000000000000000000000000000000000			1001.00	1 8 E 3 S - 1		Dc Ao	30 3
		6. 50 - 7. 00						-	11. 10	58. 13	30. 77	86. 36	27. 68	58. 69	CH		:			1				Ac	$\frac{3}{3}$
		12.50 - 13.00 16.50 - 17.00					1 11.4 NSP8074194			62. 25 65. 55	28. 65 31. 55	79. 59	32. 34	47. 25 68. 27	CH							100		Ac	3
WEST	RB - 23	6. 50 - 7. 00		41. 81	100000000000000000000000000000000000000	alang o	20/2/20			50. 03				23. 98	CH ∢CL	5043559	[## 458.303					<u> </u>	162.5 GW	Dc As	29 11
		9. 50 - 10. 00		43. 89			1.00		47. 60	47. 10	5. 30	50. 51	22.86	27. 65	СН									As	
FLOODWAY	RB - 24	11, 50 = 12, 00 2, 50 = 3, 00			102 5 12				12. 90	69.00	18.10	67, <u>50</u>	28.05	39. 45	CH		3000					1,7,800	2-8.48	Dc	67
	NO 24	12. 50 - 13. 00				20000	10.V21.34		72 80	25. 40	33. 31 1. 80	13. 53	25. UU 	48. 53 	CH SM	100000		10000	Kalaban (2000 BURC	2.07812525.0	100000	Ac Do	11 34
	RB - 25	2.50 - 3.00	2. 57	44.06		2000 0 00000 000		-	7.70	61. 13	31. 17	102. 05	25. 71	76. 34	СН	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2				1 2 1 2 2	, daine	North College	Programme Company	Ds Ac	10
	00 00	12. 50 - 13. 00		44. 46				2 1 2	4.40	60.66	34.94	76. 89	26. 76	50. 13	CH		38.20							Dc	16
	RB - 26	4. 50 - 5. 00 14. 50 - 15. 00		68. 17 55. 58		9.80 X.5	60. 8 555555		1.80	62 22	38. 25	112. 64	27. 50	85. 14 52. 16	СН		 - 575.0538-3501	5.0 0.10 0000.0	Particular Agents		1 X 11 X 12 X 12 X 12 X 12 X 12 X 12 X	20,404, 20,000	- 1 to	Ac	13
	RB - 27	7.50 8.00		36/12				ETTER	W3/20	15.70	0.00		7.3. 41	32.10	CH									Dc Oa	44
* 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		11.50 + 12.00	2.74	45/47					74 20	25 80	0.00				2 7 2 7									Oa Oa	506 508
14 - 4	RB - 28 RB - 51							4210		53/92		60/87			CH									Oa.	50 4
	KO - 31	13.50 - 14.00 16.50 - 17.00		41. 55 51. 23			2000		10. 20 6. 50				25. 39 27. 60	55. 46 71. 55	CH . CH .						0.000,000,00			Dc Dc	45
100		24. 50 - 25. 00	2.68	29.05				1.70	12.60	61. 04	24.66	101.15	19.17	81. 96	CL		33335 34 40366 3		800808080 3080880	2007		813814.0		Dc Dc	26 43
·	RB - 52								8. 60	69.82	21. 58	74.43	31.52	42.91	CH es	14.89%	2002564			20,75	3000X 30	1000	A. 855	Dc	40
	RB - 29	2. 50 - 3. 00 9. 50 - 10. 00						1	20.90	60 09	20. 62 29. 32	64. 83	23. 74	41. 08	CH CH		14 - 1			<u> </u>	1 1	* .	*	Ac	6
	RB - 30	3. 50 - 4. 00							11. 30	59. 51	29. 19	84. 49	24 73	59. 77	CH	 								Ac Ac	7 23
	<u></u>	9. 50 - 10. 00		55.11				-	8. 80	63. 37	27. 83	82. 04	26. 52	55. 52	CH		:							Ac	8
. :	RB - 31	2. 50 - 3. 00 8. 50 - 9.00	2. 53	36. 56					23. 00	61.34	15.66		26.63	52. 28	omani wasanim.				ummm			, viviani i i i i i i i i i i i i i i i i i i		Ac	10
		11 50 + 12 00	2003 2008	9K 87				177	KQ 45	10 83 21 45	1 Ub 1 87				S.W									Da Da	46 50
	RB - 32	10.50 + 11.00	2.78	25 57					82/20	17 66	0.14				Sil									Oa Da	24
GARANG	00 33	12/50///13/00							42/10	53/29	4.61	62/66	21/18	41/48	CH									Da	60
RIVER	RB - 33		2. 63 2. 86	51. 58		220		4. 70	77.60	58. 02	27. 08 0. 32	72. 83		47. 04 -	CH	1			n Marks.	1 1 1 1		1 - 1		Ac	3
KI TEK			2.77					7. 10			30. 89		26 49		⟨SM⟩ CH	2000000	1000 C.S.			18.8850.807	3.528.00			As Dc	20 13
	RB - 34		2.79			e de la		5. 70	59. 50	31. 03	3. 77	37. 65	21.70	15, 95	/SC>	10000000			A 1					As	7
	RB - 35		2.69 2.74					- ////5//X8	8. 80	61.41	19.79	88.06	25.75	62. 31	CH '					www.				Dc	15
	I KU UU		275					71. 24	68 65	5 5 f	0.00	14 14	30.43	44 31	CH S-P									Da Oa	8 504
	RB - 36	3.50 - 4.00	2. 83	19. 46	20,442			-	75. 60	22. 57	1.83		<i></i>		/SW									As	5
	00 27		2/86					41/95	/43//35	12/86	1/84				SM									9	//////#8
	RB - 37	3.50 - 4.00 9.50 - 10.00		40. 33				3/30	12. 10	59. 18 26/56	28. 72 ///////	80. 59	26. 58 <i>WYKII</i> W	54. 01	CH									Ac On	10
	RB - 38	4. 50 - 5. 00	2. 65	62. 91	- Att 1 - 14			-	2. 80	63. 14	34. 06	99 qa	29 60	18 92 70. 29	ST CH									Ac	6
		8.50 - 9.00	2. 78	49. 51	5 7. 1	3	3.	-	22. 80	62.57	14.63	41. 14	21. 99	19. 15	CL			11.11		17 E A	5		3 43 4	Ac	5
	RB - 39 RB - 40	<u>9.50 + 10.00</u> 2.50 - 3.00							50/30	47/92	178	33 85	22/39	/AI	SC									On Marie Control	
	AD - 40	2. 50 - 3. 00 9.50	2. 79	20.01				48/17	42. 00	48. 12 10.91	9.88 1.81		21. 21	42. 25	CH CM									Ac On	11 ////52
	RB - 41			35 54							19 45		an na	34 56										Oa	9¢ 66

Table 2.2 (3/4) SUMMARY OF LABORATORY TEST (STANDARD PENETRATION TEST SAMPLES)

LOCATION TEST DEPTIL GS Wn Yn Sr e				PHYSICAL PROPERTIES												USCS	MECHANICAL PROPERTIES GEOLOGICAL SHEARING STRENGTH CONSOLIDATION STRATE									S. P. T
The control of the						T			GRAIN SIZE (%)			CONSISTENCY				UI	J	LAKING					CONSOLIDATION STRATE			
S	LOCATION	uı	TEST DEPTH							nm	E					NO.				<u></u>	Ĭ		1			
S		HOL.		Ce	Wn	200	ر ا		Smm Smm	ND 075r	LT . 002	АҮ 32mm		nt	0.1	I. ICAT										
S		SORE		. 03	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	/ ".	31	е	82 X	S.4 75-0.	S: 175-(20.0	LL	rL .	PI	SS 15	6	Φ	[φ	C.	φ'	Pc	Cc	SYMBOL	N VALUE
S					.*						Ö					CLAS			·							
RB - 42 3.50 - 4.00 2.55 28.42		·		- ************************************			(%)		an ardamin	ינ ים המומונים	יחייה וומרים:	2000	********				(kg/cm2)	(°)	(kg/cm2)	(°)	(kg/cm2)	(°)	(kg/cm2)	_		
RR - 43		DD _ 42		2 5 5 C	20 42				CHECK CHECK	24/10	<u>82/54</u>	11256	<u>\$58%40</u>	<u> 28/57</u>											Da	63
AC 18 AC				2. 33	20.42				1. 60		59. Ub	21. 74	61. 94	23. 67			ļ									21
GARANG RB - 44		KD 49	2. 30 3. 00 ///////////////////////////////////							19. ZU 22.58228783	58. 1 <i>1</i> <i>WEZWER</i>	22.03	04. 33	70.81	43. 52	LH TITITITI KRITITI		ממונטונטונט	7777777777	maiaaaaaa						18
GARANG RE - 44					77				2 60	10 0U	01/06 16/00					L CH										86
RIVER RB - 45	GARANG	RB - 44							2270			777747														
RB - 46					28 50	i						S Q Z		70 64	K1 20											(1)(1)(1)
RB - 46	RIVER	RB - 45								28. 20																12
RB - 46 1.50 - 2.00 2.56 40.60 - 11.60 66.97 21.43 66.35 21.43 44.92 CH B 8 8 8 8 8 8 8 8 8		and the second							ATOTA	39/53	N201A	0000				William Cal										
RB - 46 1.50 - 2.00 2.56 40.60 - 11.60 66.97 21.43 66.35 21.43 44.92 CH B 8 8 8 8 8 8 8 8 8					13 81				67, 58	31 75	0 68	0.00				ĈΡ										SH.
RB - 47		RB - 46					1, 1	4.14	1 -							СН		.,				<i>raaanaan</i>		munuums.		8
RB - 48 2.50 - 3.00 2.67 24.36 43.67 52.13 4.20 0.00 - - - SP		DD 47														СН					Ī				В	
RB - 48 2.50 - 3.00 2.67 24.36 43.67 52.13 4.20 0.00 - - - SP		KB - 41							4. 30							CH	· ·	- '							В	24
RB - 49 3 50 4 00 2 78 33 35 35 38 41 40 53 29 1 51 48 75 22 34 26 41 CL RB - 49 3 50 4 00 2 72 14 06 63 09 31 78 5 13 0 00 69 550 60 2 63 27 84 620 45 90 47 25 0 65 37 48 21 88 15 61 50 8 15 61 50		DR - 40							10 67	30. 30			61. 30	30. 18	31. 12	CH CH		- 14 <u>- 14 </u>		1.4				4.7		15
RB - 49		บ 40			24. 30 //22//22								7777 WHY P.	7/3/8/7/8/7	- //88////	SP	<i>1101111111111111111111111111111111111</i>			מונומות מונים	vananna va	an managar	mmman	manan		50<
RB - 50 1. 50 - 2. 00 2. 67 27 34 6. 0 48. 94 9. 36 58. 73 22. 58 36. 15 CH		RB - 49											46 (5)	<u> (4,5% SA</u>	20/A1										,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
RB - 50 1. 50 - 2. 00 2. 67 43. 80					27/84								27 40)1 go	15.61	U#										
10000000000000000000000000000000000000		RB - 50	1. 50 2. 00	2. 67									58 73	22 58	36 15											
L VIII-SEESEN VIII-SEESEN VAN VAN VAN VAN VAN VAN VAN VAN VAN VA		1. 1	2.50 + 2.85	2 66	//37//VA				/55/74	34/70	#9 /56					W(XP									AC	3 500

Table 2.2 (4/4) SUMMARY OF LABORATORY TEST (UNDISTURBED SAMPLES OF WEST FLOODWAY / SIMONGAN WEIR)

			PHYSICAL PROPERTIES											USCS	-	LIFA	5-1-A				-				
		:]		FRIGICAL PROFERITES										0363		2	MEC HEARING	HANICAL	. PROPE	KITES	CONSOL		GEOLOGICAL STRATE	S. P. T	
						I		GR	AIN SI	ZE (%)		CO	ISTSTEN	CY	 	Ul	IJ		Cl				ERTIES	JIKAIE	
LOCATION		SAMPLING							Ē	E					SOIL CLASSIFICATION									*	
	BOREHOLE No.	DEPTH					. [긆턭	D 7.5mm	S1LT 075-0.002mm	· E				ΞX						·				
	() ()		Gs	Wn	γn	Sr	e	GRAVEL >4. 75mm	SAND 75-0. 07	걸	CLAY <0.002mm	LL.	PL	PI	1100	C	φ	C	φ	c'	φ,	- Pc	Сс	SYMBOL	N VALUE
·	BOR							9.4	75-	975	Ö			1	I SSI				·		·	, ,		O'IIIDOL	
									4	o					ਤੇ				- [
		(m)	-	(%)	(g/cm3)	(%)						(%)	(%)	(%)	4 4	(kg/cm2)	(°)	(kg/cm2)	(°)	(kg/cm?)	(°)	(kg/cm2)	_		
	RB - 1	10.00 - 10.70		74. 56		100. 00	1. 97		1. 70	54.90			35. 80		CH	-		0.19	2. 00	0.19	3. 47	-	-	Ac	3
	RB - 2	9.00 - 9.70	2. 63	70. 31	1.57		1. 86		6. 40			104. 33		73. 95	CH				-	-		0. 35	0. 62	Ac	0
	RB - 3 RB - 4	10.00 - 10.50 10.00 - 10.70	2. 76 2. 78	61. 65 80. 01	1. 50 1. 53		1. 99 2. 26		11.70	62. 25		114. 53			CH_	0. 02	1. 21		-	<u> </u>	- :			Ac	3
	RB - 5	7. 00 - 7. 50	2. 71	77. 15	1. 55		2. 10		2. 00 4. 50			110. 18 112. 84	26. 80 34. 38		CH CH	0. 05	1. 61				-	- 10	0.71	Ac	3
		13. 00 - 13. 50			1. 58		1.96		5. 30				28. 10		CH	0.03	1. 28					0. 42	0. 71	Ac Ac	0
	RB - 6	7. 00 - 7. 70	2. 60		1. 54		1. 90	-	7. 30	62. 07			36. 36		ČH	-	-	 				0. 32	0. 66	Ac	3
		13. 00 - 13. 70					1. 84	-	6. 20	65. 44	28. 36	105. 88	36. 24		СН	-	· -	0. 23	9. 99	0. 24	12. 39	- 0.02	- 0. 00	Ac	6
	RB - 7	10.00 - 10.70					2. 45	- :	0.60						СН	0. 05	4. 71							Ac	2
	RB - 8 RB - 9	10.00 - 10.70 7.00 - 7.45	2.72	72.66			2.05					111. 12			CH	0. 02	1. 67	-				-	_	Ac	3
	KD - 9	7. 00 - 7. 45 13. 00 - 13. 50				100.00 98.51	1. 86 2. 02		3. 20	69.33	24. 97	06 02	27. 22 32. 74	53. 15 64. 09	CH	- 0.00		<u> </u>	-	=	·	0. 42	0. 57	Ac	3
	RB - 10	10.00 - 10.70	2. 76	78. 05	1. 53		2. 21		3. <u>20</u> 9 <u>4</u> 0			119.84		83. 84	CH CH	0. 05 0. 02	1. 88 1. 17	-			_			Ac	<u> </u>
	RB - 11	7.00 - 7.70	2. 55	88. 69		100.00	2 18		2. 70				36. 26		CH	- U. UZ	- 1. 17			 _		0. 30	0. 69	Ac Ac	3
		13. 00 - 13. 70	2. 75	57. 82	1. 62	94. 41	1. 68	~	13. 70		19. 78			64. 27	CH	0.04	2. 47	_				~	U. U3	Ac	1
	RB - 12	10.00 - 10.70	2. 66	-		100. 00	2. 56	_	2. 10			105. 49		73.14	СН	0. 01	1. 43	-	- 1		-	-	-	Ac	3
WEST	RB - 13	10.00 - 10.45		77. 74		100.00	2.04		3.60			114. 79		80. 96	СН	0. 12	5. 84		_ = _			-	. –	Ac	4
FLOODWAY	RB - 14 RB - 15	10.00 - 10.70 10.00 - 10.70	2. 56				1. 69		4. 30			102. 66		70. 20	CH		-				-	0.84	0.71	Ac	1
FLOODIN	RB - 16	10.00 - 10.70 10.00 - 10.70	2. 64 2. 74			100. 00 100. 00	1. 82 2. 11		3. 20			107. 78 102. 48		80. 44	CH	0. 10			· -		-	-	- :	Ac	2
	RB - 17	7. 60 - 8. 00	2. 70				1. 43		13. 70		21. 43			74. 28 41. 22	CH CH	0. 04	2. 19	- '				0. 76	- 0. 43	Ac	3
		10.60 - 10.10	2. 72			100.00	2 10			61. 12			34.00	62. 21	CH			0. 20	7. 21	0. 20	8. 24	0.10	U. 43 -	Ac Ac	2
	RB - 18	7. 00 - 7. 60	2. 60	63. 68		100.00	1. 66	- :		62. 95			32. 57		CH	· - :		0. 05	13. 51		25. 08			Ac	3
	25 44	10.00 - 10.60	2. 54			100. 00	1. 70	-	5. 30			96. 90	35. 75	61. 15	СН	·		0. 28	12. 65		22. 92	-	-	Ac	3
	RB - 19 RB - 20	10.00 - 10.55		58. 48			1. 58		14.60					59. 07	СН		-	0.06	12. 42	0.08			_	Ac	7
	RB - 21	10.00 - 10.60 9.00 - 9.50	2. 73	60. 54 66. 85			1. 73 1. 84	~	14. 20		29. 21 30. 18			50. 07	CH			0. 13	6. 02	0. 13		-	- :.	Ac	3
	RB - 22	9.00 - 9.60		53. 85			1. 54		27. 70					43. 23 48. 45	CH CH			0.06	7. 85	0.11	10. 27		:	Ac	3
	RB - 24	6.00 - 6.70	2. 63	39. 59		93. 24						49 64	25. 93	23 71	SC			0.19	12. 53 6. 33	0. 27	17. 62 9. 83		_	Ac As	3 4
	RB - 25	9.00 - 9.50	2.76	36. 38	1.81	93. 23	1.08	-	18.50	46. 59	34.91	68 18	28. 65	39.53	CH CH	NAME:			21.54		30.78			Dc Dc	16
	RB - 28		2,64	42.72	W/JT	99/49	1/13		20 60	56 32	23.08	48 43	26 64	21/216		0.08	7.43							Ŭa .	50///
	DD C1	<u>8 00 + 8 60</u>	267	37/98		98/33	<u>/////////////////////////////////////</u>		<u> </u>	60/21	38	40 68	3/2)	17.A7	C:L	0/18	2/89					///20	0/17	Da .	42
	RB - 51	4. 00 - 4. 70 7. 10 - 7. 65	2. 58	04. 39	1.5/	97. 43	1. 70		15. 40	67. 42	17. 18	90. 26	26. 34	63. 92		0. 01	1. 16	- 1	-	<u> </u>	:	-	- :	Ac	1 3800
	RB - 52	3.00 - 3.60							4. 38 17 90	60 15	32. U4	67 22	29. 89 26. 44	69. 27	CH	0.06	2 04	_		<u> </u>	-	0. 61	0. 59	Ac Ac	0
		7.00 - 7.60	2. 66	89. 26	1. 49	99. 83	2. 38	· - 1	17, 90	63.52	18 58	85 44	38. 27	40. 10 47 17	CH CH	0. 06 0. 01					'			B Ac	5 3
		11.00 - 11.60	2. 75	64. 54	1.61	97. 50	1. 82		7. 40	60.97	31. 63	92. 72	28. 81	63. 91	CH	0. 01	2.7	1	· -					Ac	2
	SB - 1	14 55 - 15 15	2. 74	36.04	1.86	98. 60	1.00	4. - , 1	57. 80	29. 02	13. 18	49. 78	22. 17	27. 61	SC >	- 0.01		0. 21	17. 01	0. 20	28.86	- 1 -		As	11
		16. 15 - 16. 75	2. 56	49.64	1. 72				<u>2</u> 3. 60	59. 29	17. 11	61. 65	15. 36	36. 30	CH	:	-				-	0. 58	0.38	Ac	11
	SB - 2	17. 70 - 18. 30	2. 66	45. 32	1.77	100.00			38. 20	47. 66	<u> </u>	58. 44	16. 29	32. 15	СН		-		17. 83		31. 14	-		Ac	14
SIMONGAN	30 - Z	8. 55 - 9. 15 11. 40 - 12. 00	2.08	142.88	1 70	1100.00	1.10		45. 40	31.13 CC 00	15. 27	54 96	25. 14	29. 82	СН		- :	0.14	17. 37		26.87	1 02	- 0.44	Ac	6
- J UNIONUAN		13. 60 - 14. 20	2 53	49 00		100.00			13. 3U	63 00	34 CU	02 95	26. 29 40. 83	30.00	CH MH	. -	- 		20. 99	- 0. 21	30. 34	1. 23	0. 44	Ac	12
WEIR	SB - 3	11. 00 - 11. 55	2.71	46. 60	1. 78	100. 00	1. 24		15. 10	48 85	36.05	68 70	29. 07	30 62	CH ✓			U. 23	20. 99	<u> </u>	3U. 34	1. 40	4.4	Dc As	20 17
		13. 00 - 13. 55	2. 78	42. 76	1. 85	100.00	1. 15		43. 10	41.81	15. 09	58.48	28. 09	30 37	CH *			0.30	15. 74		21. 45		- 0.31	As	26
	- A.E.	17. 00 - 17. 55	2. 73	37. 69	1.77	91. 40	1 13	7 - (3. 20	65.80	31.00	76. 91	30. 36	46. 55	CH			: ,- :			- 10	0. 93		Ac	19
010190	SB - 5	4/50//5/10				91/40			4/60	264 212	31,28	63 60	21.6H	35/92	EH3	0/45							0/40	V. VIIIIIA	20///
GARANG RIVER	RB - 29 RB - 30			36. 86		98. 33	0. 98		<u>3. 90</u>	<u>60, 50</u>	35. 60	88. 45	25. 00	63. 45	ОН		15. 73	7 - 1	· :	· -	-			Ac	14
KIYEK	עט אַע	4.30 4.30	2.10	1 40.70	1.02	100.00	1.21		0. (0	00.52	<i>32. 18</i>	83. 97	26. 09	57.88	СН	0.15	23. 13	3 = 3			:	-		Ac	8

