M. Photograph of the Site

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Appendix M - Photograph at the site

- CONTENTS -

		Page
In Lautoka	Lautoka City	
	At the King's Wharf	. 1
	Loading the materials	2
	Surveyors employed	. 2
	Under heavy damages	2
	Place of Industrial wate water	. 3
	Under-water investigation	, 4
	Soil investigation	, 4
	Existing office and ice plant	. 5
	Ice plant	. 5
	Situation of ice sale	6
	A middleman tansports fish	. 7
	Weight measurement at the Municipal Market	. 8
In Suva	"Road-side market" in Suva	. 9
	"The floating market"	. 10
	Sales of shell in market	. 12
	Fish sales in market	, 12
In Lami	21, 28 Footer Fishing Boat	. 13
	Ice box and fishing boat	. 14
	Insite workshop	
	Ice box producing by F.D	. 15
	National Market Authority's (NMA)	. 15
	Cold storage of N.M.A	. 16
	Band-saw in N.M.A	, 16
		1 7
IN Ba	Road site market	
	Temporary berth in Ba River	. í/

4		
•		
		Page
	In Navua	Existing ice plant
		Ice sales 18
	In Sigatoka	Existing ice plant
ŧ		Installation of freezer 19
•		
	In Wainibokasi	Ice plant 20
		Inside ice storage 20
i		



Photo 1-1 Western Division Office (Fisheries Division) and Lautoka City

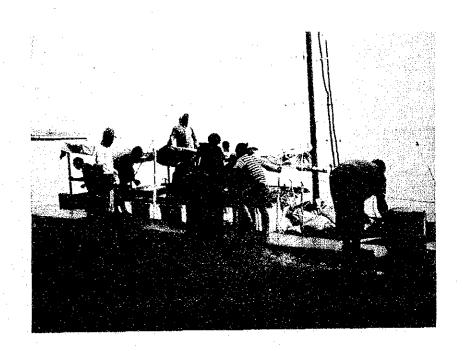


Photo 1-2 Cutter Boat at the King's Wharf (Project Site)

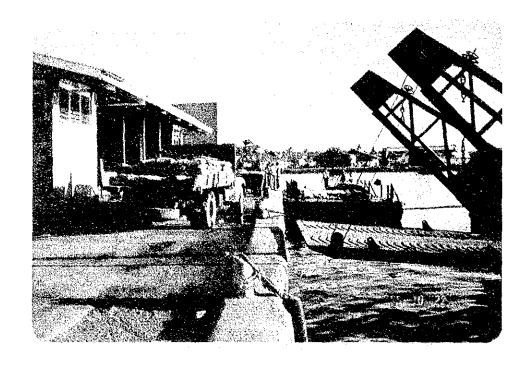


Photo 2-1 Loading the materials on the barge to remote islands (King's Wharf)



Photo 2-2 Surveyors employed by the Study Team (King's Wharf)

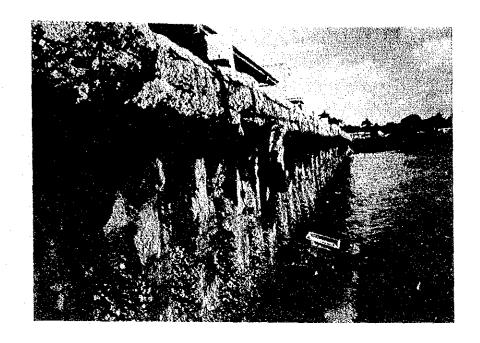


Photo 3-1 Present Condition of Steel Sheetpile Wall (King's Wharf) under heavy damages



Photo 3-2 Effluent of industrial waste water at the south coast to King's Wharf

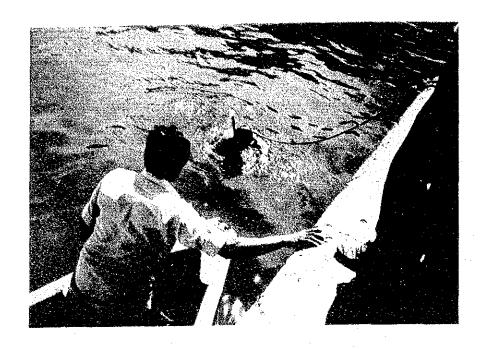
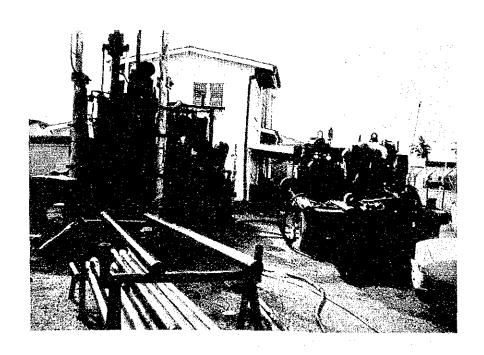


Photo 4-1 Under-water investigation by a diver employed by the Study Team



4-2 Geotechnical Investigation at the site by a local company employed by the Study Team

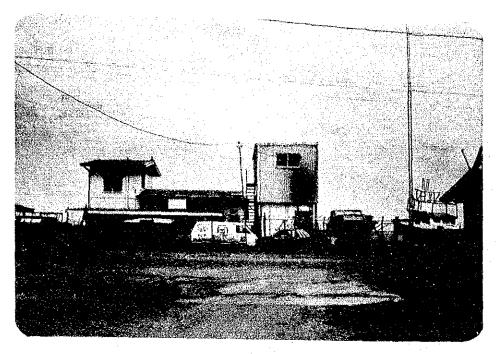


Photo 5-1 Existing office and ice plant at King's Wharf

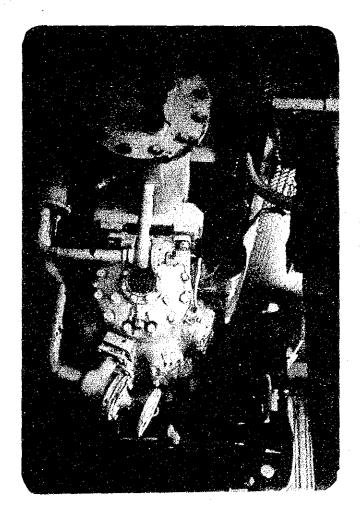


Photo 5-2 Ice plant at King's Wharf



Photo 6-1 Ice stuffing into sacks by fisherman (King's Wharf)



Photo 6-2 Ice stuffing by fishermen (King's Wharf)



Photo 7-1 Weight measurement of ice by an officer of Fisheries Division (King's Wharf)



Photo 7-2 Amiddleman transports fish buying from fisherman to the Lautoka Municipal Market



Photo 8-1 Weight measurement at the Municipal Market in Lautoka City

PHOTOGRAPH IN SUVA



Photo 9-1 "Road-side market" in Suva City



Photo 9-2 Trading fish between fishermer

Photo 9-2 Trading fish between fishermen and consumers in Suva City



Photo 10-1 Type of fish at "the floating market" Suva City

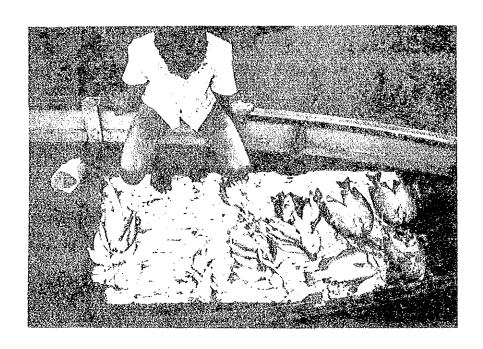


Photo 10-2 Typical fish sales on the boat, making groups of fish in 2-3 kg.

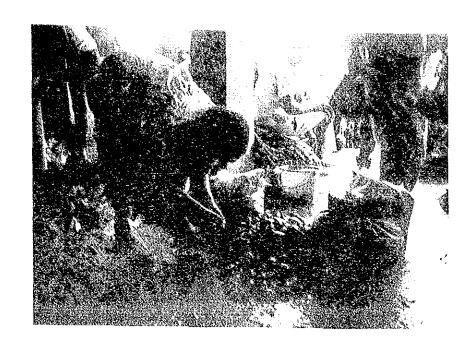


Photo 11-1 Sales of shell on the walkway of Suva Municipal Market

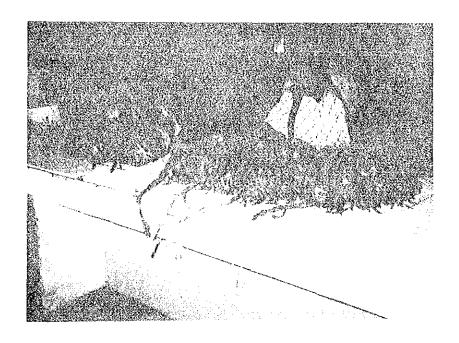


Photo 11-2 Sales of Crustacrea in the Suva Municipal Market



Photo 12-1 Fish sales in the Suva Municipal Market

PHOTOGRAPH IN LAMI



Photo 13-1 28 Footer Fishing Boat, Design by F.A.D

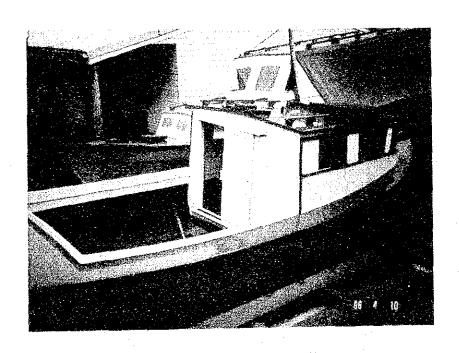


Photo 13-1 21 Footer Fishing Boat, Design by F.A.D

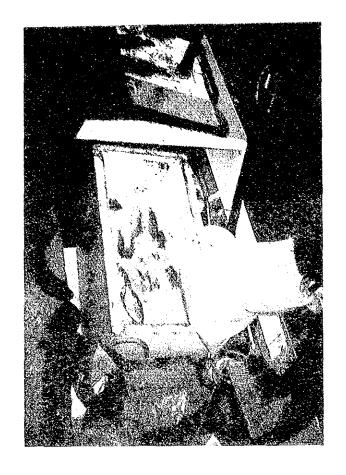


Photo 14-1 Ice boax and catches on the fishing boat

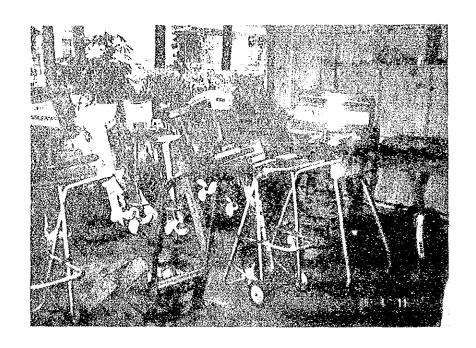
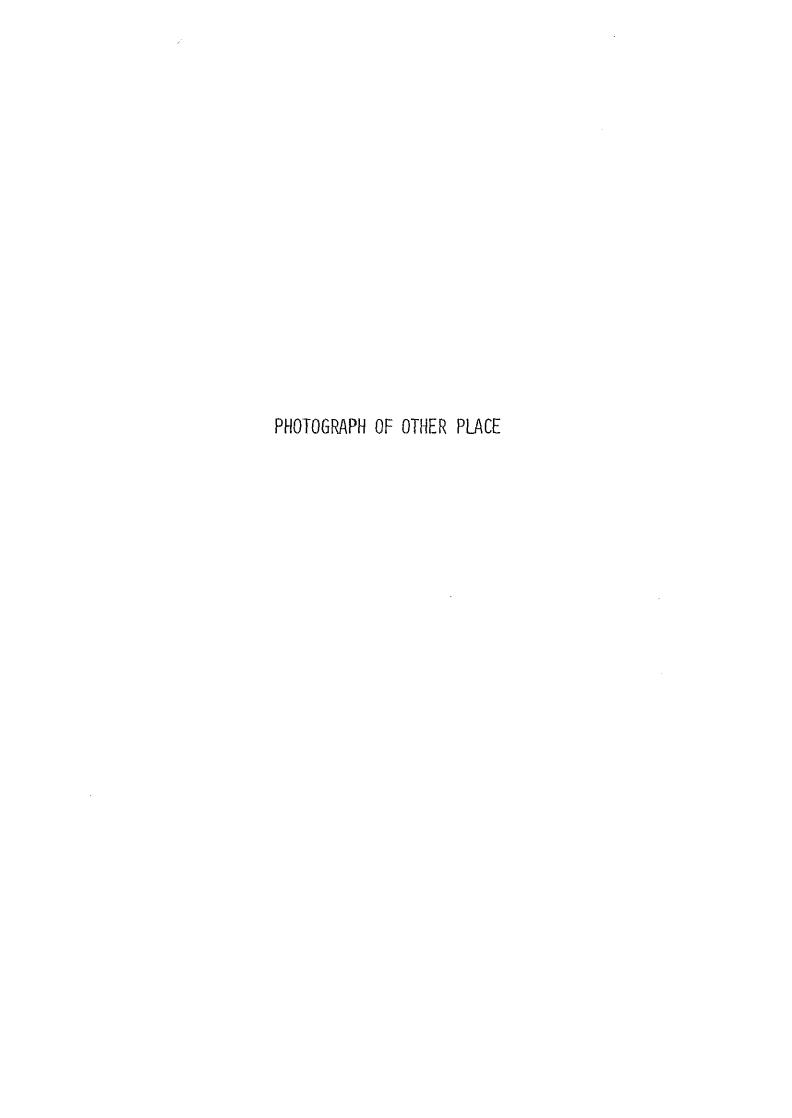


Photo 14-1 Workshop for boat's engines in Lami



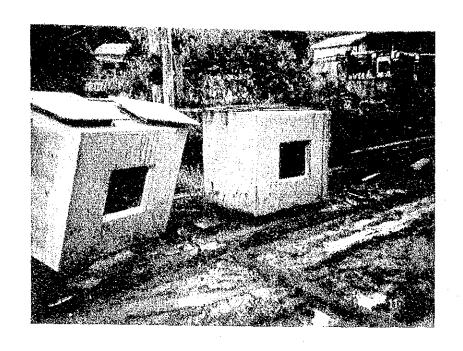


Photo 15-1 Ice boax producing by Fishereis Division (F.\$300.-)

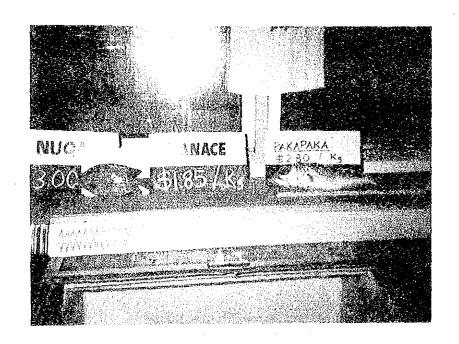


Photo 15-2 National Market Authority's Market (NMA) - 1



Photo 16-1 Cold storage of N.M.A

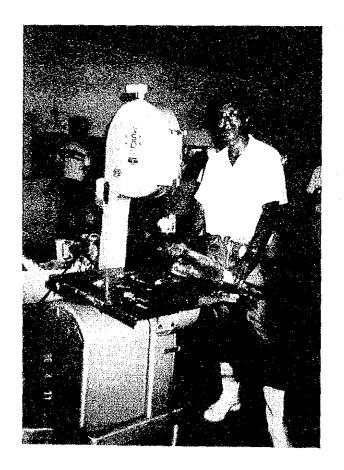


Photo 16-2 Band-saw in N.M.A



Photo 17-1 "Road Site Market" on the way to Ba from Lautoka

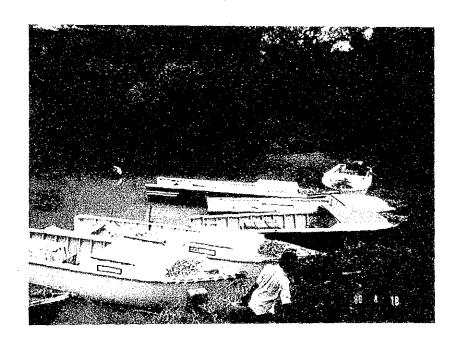


Photo 17-2 Fishing boats and temporary berth in Ba River

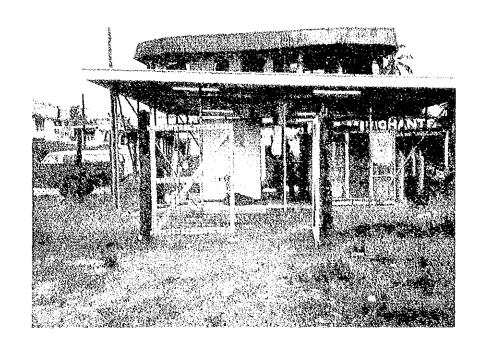


Photo 18-1 Existing ice plant at Navua

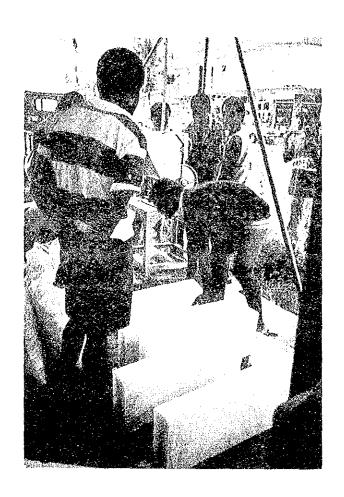


Photo 18-2 Ice sales at Navua plant

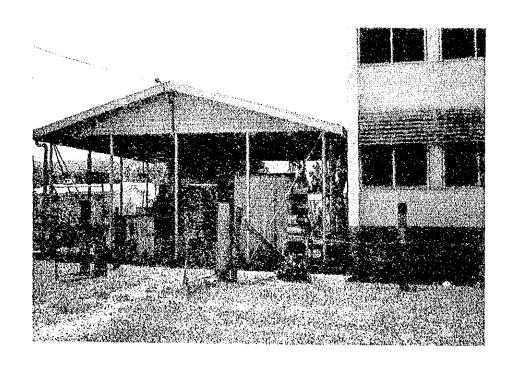


Photo 19-1 Ice plant at Sigatoka

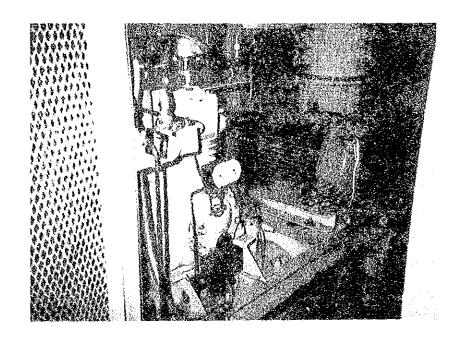


Photo 19-2 Ice plant at Sigatoka



Photo 20-1 Ice plant at Wainibokasi

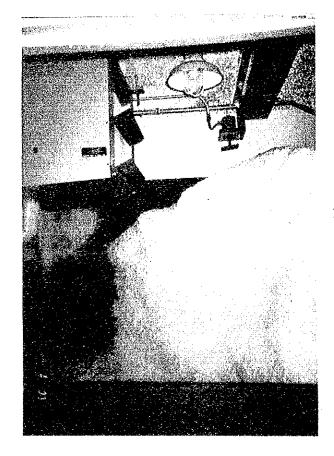
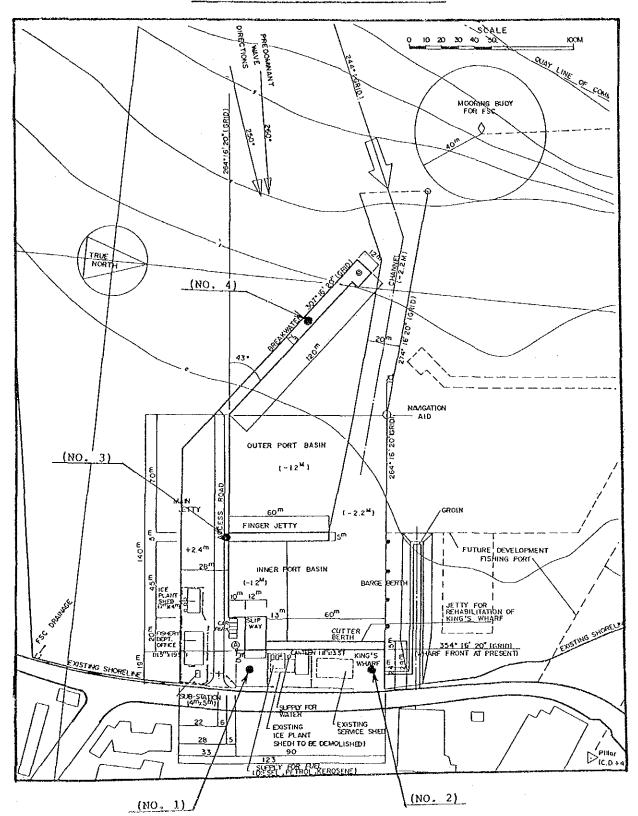


Photo 20-2 Ice storage at Wainibokasi plant (plate type)

APPENDIX N SOIL INVESTIGATION

SITE OF SOIL INVESTIGATION

. The first property of the state of the state of x_i and x_i and x_i and x_i and x_i and x_i and x_i



OCATION SEE SITE PERMITTERS PRACE ELEVATION DATION CLUMATION VICOTICAL AROUNTH				В	ORE	: H	OL	E	No.	1			FIGURE 24 SHEET LOFFL
CLINATION VICATION AND VICATION DATE 24	14.	2/5/8	inn	JECT.	FIST	BRIC	<u>.</u> .	vaa	GE.	179	ro.	124	
STRAFIGRAPHY	CHAPMIC COC	OEPTH OEPTH	Starte Trai	Q Q	044	MIGHAL TO CONTINUE TO CONTINUE		1,4551C1TT	- P			People (KI	
BASE GRAVEL.				T									ļ
CLAYEY SILT.													
Red, brown, grey Some room frogments. (firm)		- 2	ر می	5		<u>5</u> -5	67	29	12·a	85-0			2.75
CLAYRY SILT. Grey (V-solf)		- 4	30	2 1	***************************************	70:5	79	34	17.0	96.5			2.68
Slightly sondy (fine sand) Slightly organic		_											
Shell, earal forgoments			TO 3	, 4 , 4		50·4 47·4				32-6			
matrix of suty clay Grey (loose)		- 8	50 3	5 7									
SANDY SUT.		/0	ro c	1_	1-12	56-0				67.0			2.41
Clayey Occasional shell & corol from (firm)	Ś.	-	\$P	1 -		7, 3							
SANDY CLAY. Silly Brown, grey)	- 12	70 E	9 15		60·5 72/·0	1 .	35	14.5	61-7	ц	94.9	2.68
(Residual) . Brown .		14	SP 11	0 /0									
SILTY CLAY (Stiff) Sandy (Extremely Weathers 100R	(- 14	70 L	2	0.97	61·0	917	58	19.0	80.7	и	110	2.65
(v·st/ff)		· m	501	2 24	_	6 6∙,5							
		18	10 13	3 v 3 3		<2·5 5 <u>8</u> ·5	1	60	21.5	844	U	780	
WATER LEVELS RECORDED A Countle of Secrets Tragent AT START & A	leit	ing	BH.	vz)		<u> </u>	L	HIL		57 4 &	-		1.15 m

COCATION SITES SITES PLANS SURFACE ELEVATION	DATION					ВС	RE	Н	OL.	E	No.	1			FIGURE.
OMILE TYPE MINORICE RIG	PE 3140	4 -	1/5/8	Par	vec	' /	1511	ERIE	5 0	UNA	RF		yre		HEET 2 OF 2
STARTICARPILY			CLIVN, OEFTA	37.	771	31.343, 325 318 147.CE (mm)	DE MAITTENANTS	MATURAL MOSTURE ("E) CONTENT	(LA	\$17.0	194	LATA	5.46	нцін сача	SPECIFIC GRAVITY
SANDY SUT. (Y	r. stiff)			500	3	/7		65.5							
clayey (si	14")		•	rol	6		1-16	51.0	59	15	5.5	53./	и	176	2.61
Brown (He (15x1)cmiy wa rac	ottsered		- 72	१८									u	594	2.69
	v. stiff)		- 24	50		_		46.0							
			- 2L	50	5	\$		5 v ·o							
			- 2g	50	79	31		68-1							
<u>CLAYEY SILT</u> Slightly sandy !	भिवृत्व)		30	SP.	20	39		65-3	94	43	17.0	874			
			- 32	50	2/ 5	"		<u>65-0</u>		-				-	
			34	30	(2)	16/	(h 150	545 ~~ ;	25	1200	150+	71:0			2.69
Highly weathered sith Malerately - Sightly weather END or BORING - 3:	ed 1980	y	- 3L	8	23 7			95.8 1" 12			 				
That is is in the second	-		· - - · ·												
	, , , , , , , , , , , , , , , , , , ,	}													
	·*		-									٠			
	and the second second second		601	DFF		550	CIAT								الدحية المستويدين فياه مستويد ويستويد

OCATION SET SET PERM UNFACE ELEVATION DATAM ALMUUM							: H							FIGURE 2013 CHEET I OF 22
ACCUMATION VERNEAL MAIL 2	15 -	4/5/8	,,,,	D 1((1	FISH	e qui	ςü	IHA	SE.	LAL	110	<u> </u>	
STRATICRAPHT	SELPANC LOS	17.07 1430 1430	BOAT BURNES	100 100	8.243/300) 2014/66(4.4)	24.5 m 11.5-30	MATURAL MOSTURE (7.4) CONTENT	CF W.	** ASTICITE				PERSONAL STATE PERSONAL STATE	SPECIFIC GRAVITY.
BASIE GRAVIEL.	T	Γ	Ī					<u> </u>						
SILTY CLAY. Brown. (Soft-film) Some rock fragments]						
SILTY CLAY:		- 2	50	;	2		64.7	87.0	52.0	18-5	70.0			
Sandy (Some peot) 		70	Z	İ	11.02	62-1	88.0	4//	17	77.4	ч	7.4	2.70
(v.soli - soli) Brown grey		4	50	3	2		7-11	63	44	n	95.0			
(1011)		- 6	70 55		3	0.94	80·0 66·0	1	48	16	93.0	u.	10-1	2.75
		- 8	30	6	3		66.2	87	49	<u>n∙s</u>	98.0			2 · 68
		-	70	7		0.94	76.0	93	5y	/5	75 ∙¢	ч	25.7	2.75
Shells., Sand, coral fragenting a matrix of sitty clay (Y. loose)	nts	10	50	8	3	:	52-5	58	32	8.0	51.6	}		2· 95
SANOY SILT. Clayey Grey (Soft-firm) Occas ional shell fragments		- 12	70 SP		4		57-5 61-7	i I	33	10	62-c	U	8-8	2.67
CLAVEY SICT. (firm)		- /4	Se	<i>"</i>	6		5 3-5							
Brown, grey		} 	FO.	 '3		0.79	81.0	83	27	24	16.9	и	36.7	2.69
Extremely weathered rock (Stiff)		- 16	50	/3	9									
Brown, (y. stiff)		- 18	50	14	3/		52-8	85	42	14.5	95·8			2.65
WATER LEYEL RECORDER	<u></u>	20- AT E		,	a:	 Bo	RV.	<u> </u>			35	m ·		

DAIL TAPE MINORILL RIG DATE 245 - 415180 PROJECT FISHERIUS WHARF , LAUFOKA.	OFFACE ELEVATION DATING CLINATION VISREICAL ARMUTH			-		Q(ハイじ	: H	UL		INO.	4		 TOURE HEET 2, OF 2
######################################		5 -	4/5/8		>> \$ (1 /=/	151113	RUIS	ц	HA	?/ :		945	
Cenyery ster. Brown. Extremely unathered rock. (4. strtf) - 24 - 24 - 25 - 28 - 30	STRATIGRAPHY	בה, שוהינהם	CEPTH	JANE TANES		2374666	2. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	MATURAL MOSTURE (76- CONTENT	<u> </u>	. 1				
South 1. 15 15 15 15 15 15 15 15				امی	15	35		51:3						
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			- 22	50	16	3.2		50.0	93	42				
(hard) - 28	rock.		- 24	50	17	26		52.7						
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	(hard)		76	SP	18	38		640						
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			- 28	SP	19	3.5		54.0						
3y y y y y y y y y y			30	Sø.	20	>50	 	60.0						2.58
36 5023 >50 430 74 3 170 2.69			- 52	5/1	2/	34		72.0						
SA23 >50 43-0174 3-17-0 1 - 3-07			34	50.	22	41		67.0						
			- 3 c	SP	23	>50 (23	 /150	130	74	3J_ / 100	17.0 mm)	 		2.69
38 5P29 >50 480 (21/150mm: 27/110mm)			38	50	- 1		1	1.	1	1100	, , , ,	} 		
(23/150 pm; 25/80 pm)		<u>_</u>	40-	50	15	> <u>50</u> (23				180				 !

the first property of the first section of the sect

	SEE SITE PLAN ATION From seabed: le				- [- [٠.	B	ORE	: Н	Öl.	E	No	3				IRE: 2A
DRILL TYPE	VERTICAL HINDRILL RIG	AZINUTH DATE8/8	t o	5/8/86	- - P	ROJE	CT F	SHERT	ES VII.	ARF -	l aute	OK A				SHEE	T OF
	STRATICRAPHY		CRAPHIC LOG	ELEV'N DEPTH	SAMPLE TYPE	DISTORACE CONTRACTOR	BLOWS /300 DISTANCE (mm)	DRY (MO/m)	NATURAL (%)		PLASTICITY SONI		ALAC S FINES	21 05 TYPE OF TEST	LETH DAT CARRUETE SuitePal UitePal Jillegre	TRIS	OTHER
D	ILTY CLAY ark brown lightly Sandy	(v. so(t)		2	SP	1	1		69.5	91	49	19	86.(
		(5oft)		4	SP	2	3	1	71.0) 4 .	; ; ;; 57 .		i _ 78				
		(Soft)		- 6	SP	3	3		77.5	91	46	22	93		ì.		
co	and, shell and oral fragments ity	(V. loose)		8	si	4	3		46.0		<u> </u>		.26.Q				
_	LTY CLAY			-10	SP	5	4		60.0	65	; ;31	.12	: <u>ı</u>				
		(Firm)	 	12	SP	6.	7		73,5	119	68	{1	82 _				
Li	AYEY SILT ght brown tremely weethered :	rock (V. stiff)		-14 -14 	SP	7	14		69.0	98.	: 40	22	94				
			-	- 16	SP	8	25		∑9,Q	8 <u>8</u>	i ! 	18	.82 <u>.</u>				
				- 18 - 1	SP	9	24		63.5	89	37	18	94				:
	Water levels (from	seabed) - High Low]_			<u> </u>	~	_	_	İ	:		-		

GOLDER ASSOCIATES

SEE SITE PLAN SURFACE FLEVATION From seabed level DATUM	. 4 1	_		R)RE	H	ΔI		MA	<u> </u>			CIOUDE	
HICLIPATION VERTICAL AZINOTH											(con) _)	FIGURE:	OF
DAILL TYPE HINDRILL RIG DATE		PRO				IES I						l		
STŘATIGRAPHY	ELEVIN , DEPTH'	SAMPLE TYPE	D'STURBÉO	DISTANCE (mm)	DENSITY MOUNT	MATURAL MOSTURE (%) CONTERT		PLASTICITY S	LINEAR SHEWCAGE 7			NGTH DAIA PARAMETER Su,[LPa] C,[LPa] Ø,[degree	₹ 5	R
CLAYEY SILT Light brown Extremely.weathered rock (V. Stiff)	72	SP SP				75.5	105			ļ.——				
(Hard)	- 24	SP				38.5		33	11 -					
(V. stiff). CLAYEY'SILT (Hard)	- 26	SP 1	13 2	8		76.5	111	57	20	98		· .		
Dark grey Extremely weathered rock	28	SP 1	14	33		64.5	P1	46	13	70				
CLAYEY SILT (Hard) Light brown	-30	SP 1	5 >	50		58.0.	88 ·	30	16	78				
Extremely weathered rock	-32	SP	16 4	.4		54.0	71	 23 	13	89		•		
rîn en	-34 -36	SP 1	7	32		57.0			18.	70				
BASALTIC ROCK Blacky grey Beds of basaltcand basaltic Bandstons	38	Core (902 Recov) 8		37		63.5	I n s û l S a m û I Î l b Î l	:	ent or	94				
Moderately weathered End to Borehole - 40.3m Under levels (from scabed) - High -	40.0-	POCA Co						: 		L		-		
Low -												· · · · · · · · · · · · · · · · · · ·		

SURFACE ELEVATION From Beabed level DATUM INCLINATION VERTICAL AZIMUTH					B	ORE	ΞΗ	OL	E.	No	4			FIGURE 28
							CT FISHERIES WHARF - LAUTOKA							SHEET OF
STŘAYIGRAPHY	GRAPHIC LOG	ELEV'N DEPTH metres	SAMPLE TYPE	Secret DST.	BLOWS / 300 DISTANCE (mm)	DRY DEMSITY (MQ/m)	MATURAL MOSTURE (%) CONTENT		PLASTICITY INDEX	SHRINGAGE 2 ST	% FINES		NGTH DATA PARAMETER SULLED C.(14Pa) B.(14guer	15
CLAY SILT Dark brown Sandy (V. soft)		2	SP				68.0	96	50	20	75			
(Soft)		-4	SP	2	3		60.0	80 ₁ .	36.	.12.	75		-	
SILTY CLAY Dark brown (Soft) Slightly sandy		-6	SP	3	3		71.0	54	43	16.	79		: • .	
Sand, shell and coral fragments Silty (V. loose)		l-8	SP	4	4		77.0			· · · · · ·	34_		<u>.</u>	
CLAYEY SILT Grey Sandy		-10	SP	5	4		51.0	Insu Samo Iami	[ic]	enc er	53		!	
Some shell fragments (V. loöse, soft)		-12	SP	6	3		60.0	74	37	12	25			
SILTY CLAY Dark grey (Soft)		14	SP.	7_	3		80.5	116	73	14	90		-	langer of the language of the
Some Organics (Firm)		16 	SP	8	7		65.0	 80	39	16	64			
CLAYEY SILT Light brown Extremely weathered (V. Stiff) rock		- 18	SP	9	20		69.0	110_	- 53	23	72_			
Mater levels (from scaled) - High - Lev -			L _	<u> </u>		L	L	l	<u> </u>	<u> </u>	<u></u>	l		1

URFACE ELEVATION ORILL TYPE	VERTICAL HINDRILL RIG	DATUM AZIMUTH DATE + 10			` -				: H				4	(co	or.)	FIGUŖ SHEET	
مير مي يود 1946 ماده استحداد استود ما شد در دور مي باده ۱۹۸۶ مود داد مي داد است	MINORIEG KIG	DATE 1/8	to	5/8/86·	12	1863			S WIIA				-				
-	STŘATIGRAPHY	·	GRAPHIC LOG	ELEVW , DEPTH *	SAMPLE TYPE	SAMPLE UST.	BLOWS/300 DISTANCE Imm	DENSITY (Mg/m)	MOUSTURE 1% CONTENT		PLASTICITY INDEX	CINCAR S	(602 2003		HGTH DATA PARAMETER SULLEO C, (LPO) C, (LPO) B, (Legree)	is	THER
	Y SILT brown			F	ee.	10	_22_		74.0.	:							
	mely weathered rock			f	}			<u>.</u>									
		(v. Stiff)		-22	5 P	11	28		ó1.0	94 `	45)	17	71				
				-24	5P	12	35		40.5								
		(Hard)			-		-33	 				i :			,		
				-26	SP.	13	32		60.5	100	48	25	69				
				-28	SP	44	29		52.0								
Some	rock fragments noted	ſ		-30			.27		71.0	93	39 1		69		1		
		(V. stiff)			-21	113	41		F		i				ē		
ROCK Black Highl	y weathered	(Dense)		-32	5P	16	35					· :					
Gray	Y SILT brown mely weathered rock	(V. sciff)		-34	 SP	17	28_		64.0	105	: ! -62	25	95				
		(Hard)		36	SP	18	32		<u>61.5</u> .								
		llard)		-38 -	SP	12	40		49.0	95.	40.	22	·				
Hate	er levels (from seab	ed) – High Low			l				<u> </u>		<u> </u>	L. <u>-</u>	1				

LOCATION SEE SITE PLAN SURFACE ELEVATION Prom scabed level DATUM INCLINATION VERTICAL ASMUTH	i.	**	- - -				E H				4	(0	cont.)	FIGURE 28 SHEET OF
DRILL TYPE HINDRILL RIG DATE 1/8	to	5/8/86	1	,,,,,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			IES N							
STRATIGRAPHY	CRAPHIC LOG	ELEY'N , DEPTH	SAMPLE TYPE	Sammet Cost, Co.	BLOWS/300' DISTANCE (mm)	DRY DEKSITY (MQ/m)	MATURAL MOISTURE (%) CONTENT	Crouid Crain	PLASTICITY SELECT	SHRINKAGE	9, FINES 1 NG 200)		NGTH DATA FARAMETER Su. (12Pa) C. (12Pa) B. (14equen	S
CLAYEY SILT (V. stiff)		}	si	20	16		65						1	
BASALTIC SANDSTONE Grey Extremely veathered with highly weathered fock ITAGS. BASALTIC ROCK Black, grey		42		 !	22 >50		43							
Beds of basalt and basaltic sandstone Hoderately weathered		- 44	Core Recovery								!			
	_	46	2,005											
End of Borehole - 46.2 metre	-]										i		
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Uniam lavala (from snabed) - Highr	_ {									I				
Low														
The first man wastranger of the control of the cont		GOI	DE F	- A	SSO	CIATE	s				~~			