

BORING LOG

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	11BC-02-01	2003	6	13

BORING NO. 1 Approx. @ Sta. 421+56 ft. Elev. Top of Hole 100± MSL							BORING NO. 2 Approx. @ Sta. 484+81 ft. Elev. Top of Hole 91± MSL								
DEPTH (Feet)	Sample	Graphic	Core Recovery %	RQD %	Penetr. Resist. blows/ft	DESCRIPTION OF MATERIALS	REMARKS (Drilling water loss, depth of weathering, etc., if significant)	DEPTH (Feet)	Sample	Graphic	Core Recovery %	RQD %	Penetr. Resist. blows/ft	DESCRIPTION OF MATERIALS	REMARKS (Drilling water loss, depth of weathering, etc., if significant)
0 -						3-Inches ASPHALTIC CONCRETE pavement	Groundwater level not encountered	0 -						2-Inches ASPHALTIC CONCRETE pavement	Groundwater level not encountered
			48	28	10/.0' Ref.	Grayish brown SILTY BASALTIC GRAVEL, dense, damp					67	52		Gray SILTY BASALTIC GRAVEL with cobbles and sand, very dense	
5 -			100	100	10/.0' Ref.	Gray highly vesicular BASALT, moderately fractured, moderately weathered, medium hard rock (basalt formation)			5 -		100	100	10/.0' Ref.	Gray vugular BASALT, slightly fractured, slightly weathered, hard rock (basalt formation)	
10 -			100	90		grades with traces of reddish gray, severely fractured, seams		10 -			57	40			
15 -			100	100				15 -			43	12	20	Grades to reddish gray, BASALT FRAGMENTS (clinker)	
20 -			100	100		Gray vesicular BASALT, moderately fractured, moderately weathered, medium hard (basalt formation)		20 -			100	82	40/.3' Ref.	Grades to reddish gray highly vesicular BASALT, closely fractured, moderately weathered, medium hard (basalt formation)	
25 -						Boring terminated at 26 feet		25 -			93	85			
30 -								30 -						Boring terminated at 31 feet	
35 -								35 -							

Note: Boring locations are at the same location as the proposed drywells.

BORING LOG LEGEND

UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)

MAJOR DIVISIONS			USCS		TYPICAL DESCRIPTIONS
COARSE-GRAINED SOILS	GRAVELS	CLEAN GRAVELS		GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
		LESS THAN 5% FINES		GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES		GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
	SANDS	CLEAN SANDS		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		LESS THAN 5% FINES		SP	POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
MORE THAN 50% OF MATERIAL RETAINED ON NO. 200 SIEVE	50% OR MORE OF COARSE FRACTION PASSING THROUGH NO. 4 SIEVE	SANDS WITH FINES		SM	SILTY SANDS, SAND-SILT MIXTURES
		MORE THAN 12% FINES		SC	CLAYEY SANDS, SAND-CLAY MIXTURES
FINE-GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT 50 OR MORE		MH	INORGANIC SILT, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
50% OR MORE OF MATERIAL PASSING THROUGH NO. 200 SIEVE				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

LEGEND

	2-INCH O.D. STANDARD PENETRATION TEST	LL	LIQUID LIMIT
	3-INCH O.D. MODIFIED CALIFORNIA SAMPLE	PI	PLASTICITY INDEX
	SHELBY TUBE SAMPLE	TV	TORVANE SHEAR (tsf)
	GRAB SAMPLE	PEN	POCKET PENETROMETER (tsf)
	CORE SAMPLE	W	WATER LEVEL OBSERVED IN BORING

ORIGINAL PLAN	DATE
DESIGNED BY	
DRAWN BY	
CHECKED BY	
APPROVED BY	

BORING LOG

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**BORING LOG**  
MAMALAHOA HIGHWAY  
Miscellaneous Drainage Improvements  
Vicinity of Hookena  
Project No.: 11BC-02-01  
Scale: As Noted  
Date: Feb, 2002  
SHEET No. 1 OF 1 SHEETS