Sheet1

Recharge Test Data Record

Core Boring Number CB-RS-XX-3

Date Of Test 11-12-99

Test Performed by Nathan Bryan / Kwabena Ofori-Awuah

Ground Water Level 3' 11.5"

Casing Size 3-in

Casing Depth 90 ft. bgs

Hole Diameter at point of test 3.5/8"

				A	B		C	D	E	F
From Depth Elevation	To Depth Elevation	Time Start	Time Stop	Total Time	Depth to Ground Water before test	Depth to Ground Water after test	Stickup above Ground	Total Head	Total Water Injected	Gallons Per Minute
Feet (bgs)	Feet (bgs)	Min	Min	Min	Feet (bgs)	Feet (bgs)	Feet	Feet B+C	Gal	GPM E/A
90.0	95.0	0	5.0	5.0	3'11.5"	3'11.5"	5.0	8'11.5"	685	13.7

NOTES: 1. Record water take with the water maintained at the top of casing.
2. Water depth must be measured immediately before the recharge test.
3. Water depth shall be recorded after test, and noted if changed.
4. Typical test time is 5 minutes.

Note: The recharge test was in accordance w/ CESF delivery order dated 29 October 1999. See note @ bottom of order.

ENC-4

NOV 12 1999 11:08 FR LAW-MIAMI 305 826 1759 TO RSRESTOS P.06/06

Hole No. CB-RS-XX-3

DRILLING LOG	DIVISION SAD	INSTALLATION Jacksonville District	SHEET 1 OF 4 SHEETS
1. PROJECT North Lake Belt Impoundment Area		10. SIZE AND TYPE OF BIT 2 3/8" bit - 3" casing	
2. LOCATION (Coordinates or station) C-9 Canal (1.5 mile from US 27)		11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	
3. DRILLING AGENCY U.S. Drilling		12. MANUFACTURER'S DESIGNATION OF DRILL CME-55 Truck Mounted	
4. HOLE NO. (Refer to plan and specimen index) CB-RS-XX-3		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 11	UNDISTURBED 0
5. NAME OF DRILLER J.C. Moffett		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER 3' 0"	
7. THICKNESS OF OVERBURDEN 22 ft		16. DATE HOLE: STARTED 11-10-99	COMPLETED 11-11-99
8. DEPTH DRILLED INTO ROCK 23 ft (see log)		17. ELEVATION TOP OF HOLE	
9. TOTAL DEPTH OF HOLE 95 ft		18. TOTAL CORE RECOVERY FOR BORING 61	
		19. SIGNATURE OF INSPECTOR [signature]	

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	1.5		LIMESTONE, incompetent moderately hard to hard, porous REC = 17"/28 RQD = 0			Casing 0-1 - 0.05" 1-2 - 0.05" 2-3 - 0.05" 3-4 - 0.05" 4-5 - 0.05" 5' of 3" ø casing installed. 5-6 - 2.30" 6-7 - 2.25" 7-8 - 2.31" 8-9 - 2.23" 8' of 3" ø casing installed. 9-10 - 2.22" 10-11 - 0.15" 11-12 - 16.12" 12-13 - 1.55" 12' of 3" ø casing installed. 13-14 - 0.02" 14-15 - 0.02" 15-16 - 0.02" 16-17 - 0.02" 17-18 - 0.02" 18' of 3" ø casing installed. 18-19 - 0.04" 19-20 - 0.04" 20-21 - 0.04"
	2.0					
	4.5					
	6.0		REC = 30"/63 RQD = 0 moderately hard to hard, porous, dark brown organic clay invoids between 5'-7' bgs. (≈ 4"-6") competent.			
	7.5					
	9.0		REC = 32"/67 RQD = 0 moderately hard to hard, competent, slightly porous.			
	10.5					
	12.0		SILT, light grey, sandy, med to coarse limestone fragments (4")			
	13.5		LIMESTONE, moderately hard to hard, incompetent, sand filled solution holes between 15.5'-17.5' bgs. (white silty sand ≈ 4") REC = 22"/37 RQD = 0			
	15.0					
	16.5					
	18.0		SILT, dark grey, clayey (4")			
	19.5		LIMESTONE, hard to very hard, porous. REC = 13"/22 RQD = 9"/15			
	21.0		(continued)			

Circulation lost @ 1.0' bgs. Casing installed to prevent water loss.

Boring caved 1-ft between 8'-9' bgs.

Possible rock wedged @ bit.

DRILLING LOG (Cont Sheet)

Hole No. CB-RS-XX-3

Project: North Lake Belt Impoundment Area

Location: Jacksonville District

Sheet 3 of 4 sheets

Elevation	Depth	Legend	Classification of materials (Description)	% Core recovery	Box or sample no.	Remarks (Drilling time, water loss, depth of weathering, etc., if significant)
	48.0		LIMESTONE REC=28/47% RQD=6/10%			48-49 - 0.04" 49-50 - 2.38" 50-51 - 2.42" 51-52 - 0.04" 52-53 - 0.21" 48' of 3" casing installed.
	49.5					
	51.0					
	52.5					
	54.0		REC = 38"/63 RQD= 10"/16 competent, porous			53-54 - 0.12" 54-55 - 0.36" 55-56 - 0.09" 56-57 - 0.10" 57-58 - 0.59" 53' of 3" casing installed.
	55.5					
	57.0					
	58.5		REC= 20"/33 RQD= 0% incompetent, porous			58-59 - 0.14" 59-60 - 0.18" 60-61 - 0.06" 61-62 - 0.13" 62-63 - 0.09" 58' of 3" casing installed.
	60.0					
	61.5					
	63.0					
	64.5		REC= 41"/68 RQD= 12"/20 few sand filled solution holes, grey-silty.			63-64 - 0.03" 64-65 - 0.25" 65-66 - 1.43" 66-67 - 1.15" 67-68 - 3.30" 63' of 3" casing installed
	66.0					
	67.5					
	69.0		REC= 41"/68 RQD= 22"/37 competent, porous			68-69 - 0.58" 69-70 - 1.13" 70-71 - 1.44" 71-72 - 0.18" 72-73 - 0.15" 68' of 3" casing installed.
	70.5					
	72.0					
	73.5		SAND, no recovery, probable same as 78'-79.5'. grave size limestone fragments recovered. REC= 3"/5 RQD= 0			73-74 - 0.06" 74-75 - 0.10" 75-76 - 0.10" 76-77 - 0.16"
	75.0					
	76.5					

48.0 — still loosing circulation

49.5

51.0

52.5 — 11-11-99

54.0

55.5

57.0

58.5

60.0

61.5

63.0

64.5

66.0

67.5

69.0

70.5

72.0

73.5 — coring, no actual recovery of sand. washed from core barrel. (73'-78')

75.0

76.5

ENG FORM 1836-A

Project: N. Lake Belt Impoundment Area

Hole No. CB-RS-XX-3

DRILLING LOG (Cont Sheet)

Hole No. CB-RS-XX-3

N. Lake Belt Impoundment Area | Jacksonville District | Sheet 4 of 4

Elevation	Depth	Classification of Materials	% Core Recovery	Sample No.	Remarks	Blow counts
	77.0	- see previous description			77-78 = 0.09"	77.0
	78.5	SAND, white, grey, some silt, gravel size limestone fragments (SM).	18"/100	1		78.5
	80.0		18"/100	2		80.0
	81.5		18"/100	3		81.5
	83.0		18"/100	4		83.0
	84.5	Transition zone from sand to silt.	18"/100	5		84.5
	86.0		18"/100	6	last 2" of spoon was SILT.	86.0
	87.5	SILT, little fine to medium sand. Dark grey, clayey	18"/100	7		87.5
	89.0	SILT, grey, sandy - medium to coarse.	17"/94	8		89.0
	90.5	SILT, trace medium to coarse sand, clayey, grey.	18"/100	9	Recharge Test from 90'-95' bgs.	90.5
	92.0		18"/100	10		92.0
	93.5		18"/100	11	2-ft spoon from 93'-95'	93.5
	95.0	Boring Terminated @ 95' bgs.				95.0

Note: Boring offset ≈ 10-ft from original location due to track rig being vandalized. Possible metal objects in hole.

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N. Lake Belt Impoundment Area | CB-RS-XX-3