

Ardaman & Associates, Inc.

Geotechnical, Environmental and
Materials Consultants

November 13, 2007

File No. 07-6585

Revised November 27, 2007

Black & Veatch Corporation
1101 Lamar Avenue
Overland Park, Kansas 66211

Attention: Mr. Stanley Armbruster

Subject: Double Ring Infiltration Test Results
6075 Old Tampa Highway
Cane Island Power Park
Davenport, Polk County, Florida

Dear Mr. Armbruster:

As requested, Ardaman & Associates, Inc., has conducted three double ring infiltration (DRI) tests at locations designated by Black & Veatch as I-1, I-2 and I-3. All of these locations were previously excavated with a backhoe by others at the site as directed by Black & Veatch. The tests were performed in the respective excavations.

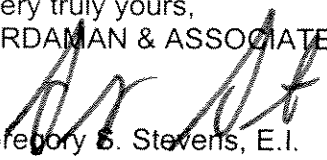
The double-ring infiltration tests were conducted in general accordance with ASTM D-3385 procedure, "Infiltration Rate of Soils in Field Using Double-Ring Infiltrometer".

The double-ring infiltration tests consisted of driving two open cylinders, one inside the other, into the ground at the test locations approximately 4 to 6 inches below the excavated ground surface. The rings were partially filled with water until a constant water level was achieved. A measurement of time versus water volumes added to the rings to maintain a constant water level was then recorded. The tests were monitored for 120 minutes. The test results are attached.

We note that a 3-inch diameter hand auger boring was performed from original ground surface adjacent to each DRI excavation. Depths referred to on the attached results are depths from original ground surface. The soil description is based on visual observation only.

We are pleased to be of assistance to you on this phase of the project. When we may be of further service to you or should you have any question, please contact us.

Very truly yours,
ARDAMAN & ASSOCIATES, INC.


Gregory S. Stevens, E.I.
Assistant Project Engineer

 11-27-07
Charles H. Cunningham, P.E.
Division Manager
Florida Registration No. 38189

GSS/CHC/ksb/nfm
07-6585 DRI rev ltr.wpd (2007 Geo)



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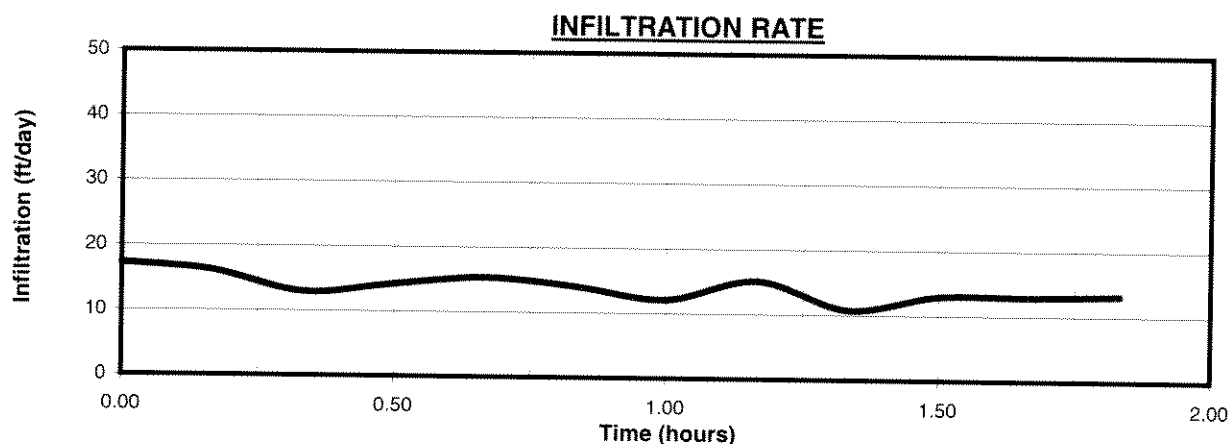
DOUBLE-RING INFILTRATION TEST RESULTS

(ASTM STANDARD D-3385)

Project Name: Black & Veatch Corporation
Project Location: Cane Island Power Park
Project Number: 07-6585
Outer Ring Diameter: 24-inches
Inner Ring Diameter: 12-inches

Test Date: 11/16/2007
Test Location: I-1
Test Depth: At excavated ground surface
Test Duration: 120 minutes
Test Head: 4-inches

INFILTRATION RATE: 13 feet per day



SUBSURFACE SOIL DATA

Depth (ft.)			BORING DATA
From	-	To	
0.0	-	1.0	Brown fine sand (SP)
1.0	-	5.0	Light Gray fine sand (SP)
	-		
	-		
	-		
	-		
	-		

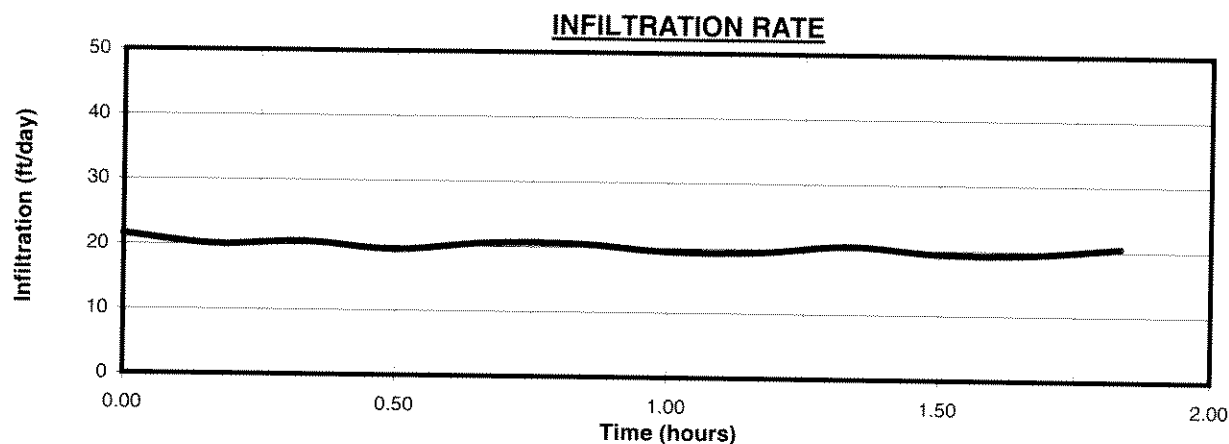
Groundwater level was encountered at a depth of 4.5 feet from the adjacent original grade at the time the test was conducted.

TEST PROCEDURES:

The double-ring infiltration test was performed in general accordance with procedures outlined in the ASTM Standard D-3385. Two 18-inch high concentric rings were placed on a prepared test surface and driven into the ground 4 to 6-inches. The inner ring used in the test had an inside diameter of approximately 12-inches, while the outer ring had an inside diameter of approximately 24-inches. The test was performed by filling both rings with water to a height of 12 inches. A head of 3 to 6-inches is then maintained in both rings, and the amount of water required to maintain the head in the inner ring was recorded.

**ARDAMAN & ASSOCIATES, INC.**Geotechnical, Environmental and
Materials Consultants**DOUBLE-RING INFILTRATION
TEST RESULTS**

(ASTM STANDARD D-3385)

Project Name: Black & Veatch CorporationProject Location: Cane Island Power ParkProject Number: 07-6585Outer Ring Diameter: 24-inchesInner Ring Diameter: 12-inchesTest Date: 11/9/2007Test Location: I-2Test Depth: At excavated ground surfaceTest Duration: 120 minutesTest Head: 4-inchesINFILTRATION RATE: 20 feet per day**SUBSURFACE SOIL DATA**

Depth (ft.)			BORING DATA
From	-	To	
0.0	-	5.0	Light Gray fine sand (SP)
	-		
	-		
	-		
	-		
	-		
	-		

Groundwater level was not encountered within the upper 5 feet at the time of the test was conducted.

TEST PROCEDURES:

The double-ring infiltration test was performed in general accordance with procedures outlined in the ASTM Standard D-3385. Two 18-inch high concentric rings were placed on a prepared test surface and driven into the ground 4 to 6-inches. The inner ring used in the test had an inside diameter of approximately 12-inches, while the outer ring had an inside diameter of approximately 24-inches. The test was performed by filling both rings with water to a height of 12 inches. A head of 3 to 6-inches is then maintained in both rings, and the amount of water required to maintain the head in the inner ring was recorded.



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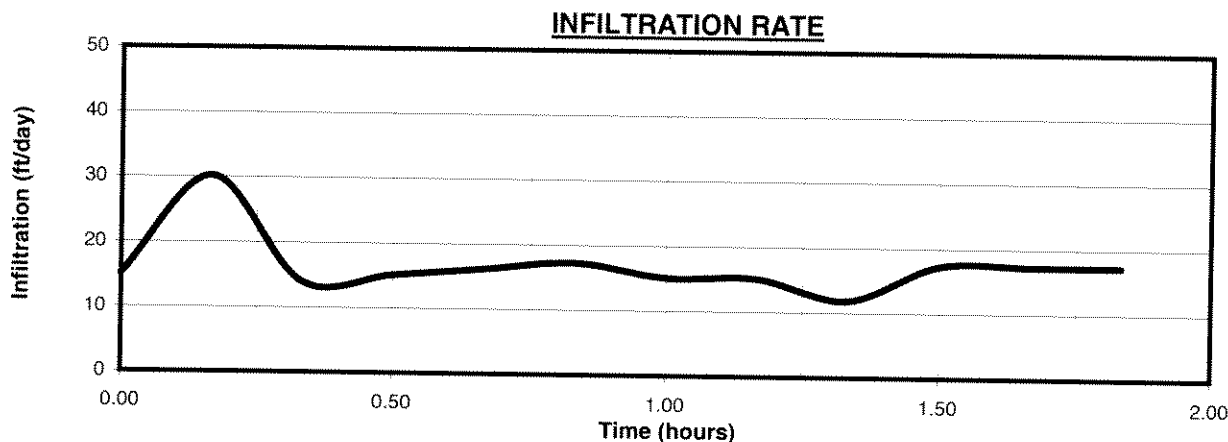
DOUBLE-RING INFILTRATION TEST RESULTS

(ASTM STANDARD D-3385)

Project Name: Black & Veatch Corporation
Project Location: Cane Island Power Park
Project Number: 07-6585
Outer Ring Diameter: 24-inches
Inner Ring Diameter: 12-inches

Test Date: 11/9/2007
Test Location: I-3
Test Depth: At excavated ground surface
Test Duration: 120 minutes
Test Head: 4-inches

INFILTRATION RATE: 17 feet per day



SUBSURFACE SOIL DATA

Depth (ft.)			BORING DATA
From	-	To	
0.0	-	5.0	Light Gray fine sand (SP)
	-		
	-		
	-		
	-		
	-		
	-		

Groundwater level was not encountered within the upper 5 feet at the time of the test was conducted.

TEST PROCEDURES:

The double-ring infiltration test was performed in general accordance with procedures outlined in the ASTM Standard D-3385. Two 18-inch high concentric rings were placed on a prepared test surface and driven into the ground 4 to 6-inches. The inner ring used in the test had an inside diameter of approximately 12-inches, while the outer ring had an inside diameter of approximately 24-inches. The test was performed by filling both rings with water to a height of 12 inches. A head of 3 to 6-inches is then maintained in both rings, and the amount of water required to maintain the head in the inner ring was recorded.