

HARTMAN & ASSOCIATES, INC.

engineers, hydrogeologists, surveyors & management consultants
A Tetra Tech Company

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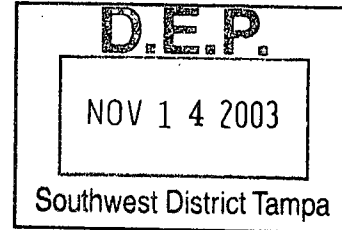
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November 13, 2003

HAI #99.0331.007
Task 5
File 13.2

Via UPS Overnight

Mr. Kim Ford, P.E.
Florida Department of Environmental Protection
Southwest District
3804 Coconut Palm Drive
Tampa, FL 33619



**Subject: Cell 1 and Landfill Site Certification Addendum
Enterprise Recycling & Disposal Facility
Angelo's Aggregate Materials, Ltd.
FDEP Permit Nos. 177982-001-SC, 177982-002-SO
Pasco County, Florida**

Dear Mr. Ford:

Hartman and Associates, Inc. (HAI) is writing on behalf of Angelo's Aggregate Materials Ltd. (Angelo's), in response to preliminary review comments provided by the Department to Craig Bryan during a telephone conversation on October 22, 2003 regarding the above-referenced Certification application dated October 8, 2003. For your convenience, we have provided your comments (in bold typeface) for each of our responses.

Cell 1 Certification Report

- 1. Borings in narrative refer to elevations from surface to depth below land surface and should be referenced to the National Geodetic Vertical Datum (NGVD).**

Response: All future references to boring elevations in the narrative of the Certification Report will be referenced to NGVD. The boring logs for AS-1 through AS-47 describe the depth from surface of each boring in NGVD. The stratigraphic columns for B-15 through B-34 and SSA-1 through SSA-37 illustrate the depth from surface of each boring in ft below land surface, but clearly indicate the elevation at the surface of each boring in NGVD.

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2. Generally speaking, there are still issues with limerock in Cell 1.

Response: Angelo's and HAI have over excavated all identified limestone areas and patched these areas with clay per the CQA Plan; see Section 3 of the report. In addition, solid stem auger borings were completed through the limestone areas and confirmed these areas as limestone surface lenses underlain by clay and not connected to the limestone aquifer.

3. The borings in the sandy area of Cell 16 should not be more than 50 ft apart from each other.

Response: The borings in the sandy area of Cell 16 vary from 35 ft to 115 ft from each other. HAI Geologists are confident that sufficient data was collected within the sandy area to accurately delineate the occurrence of non-confining material at the surface of Cell 16 and to clearly delineate the occurrence of confining unit material within the entire area of Cell 16. FDEP Geologists did not stipulate that borings in areas where non-confining material existed at the surface needed to be located at least 50 ft apart. In fact, the permit's CQA plan only calls for one boring for permeability testing and three boring for thickness of confining unit material per cell, and no discussion of pond area certification. The data collected from Cells 15 and 16 provide reasonable assurance of a confining layer below the temporary pond. Water level observations in the temporary pond show very little percolation, a direct test of the confinement.

HAI Geologists have completed a dilution calculation that shows the concentration of typical Class III leachate contaminant parameters that will reach the temporary pond (Cells 15 and 16) and the resulting concentration of these parameters. This dilution calculation predicts that only iron would exceed the FDEP groundwater quality criteria in Cells 15 and 16 the potential of this exceeded parameter to reach the Floridan aquifer to be non-existent to minimal. The dilution calculation has been included in Appendix A.

4. The following boring intervals standard sieve analysis results did not meet the minimum 31% fines criteria for confining unit material: AS-42, SSA-20, SSA-13, SSA-17, and AS-10. Why were these results not addressed in the certification report?

Response: The sieve analysis results for the above boring intervals were either excluded in the criteria evaluation because the boring location was excavated and replaced with confining unit material, or because a deeper interval was analyzed and resulted in a passing result of 31% fines. Specifically, AS-10 and AS-42 were located in sandy areas that were excavated and replaced with confining unit material. SSA-13 was located on the entrance/exit ramp to Cell 1 and is located outside the cell area to be certified at this time. SSA-17 was located on the western slope and is not intended to be certified at this time. The sample from boring SSA-20, collected from a depth of 5'-10' BLS, resulted in

28.4% fines passing. A sample from boring SSA-20, collected from a depth of 20'-23' was submitted for standard grain size analysis. This sample resulted in 63.7% material passing. The results of this sieve and additional sieves that were not available at the time of the Certification Report submittal are included in Appendix B.

As verification, each boring interval that was submitted for grain size analysis was confirmed as confining unit material with at least 31% fines passing. Any intervals that did not meet the minimum of 31% fines passing, were either identified as non-confining material (silty-sand, limestone marl, or limestone) in the boring logs, located in areas not specified for certification as areas to place waste, or had boring intervals below the failed interval that passed the minimum criteria for confining unit lithology.

5. Were check sieves conducted on all clays?

Response: Yes, check sieves were completed, all are confining layer samples or specified by the Department and HAI's CQA Plan.

6. Describe how clayey sand was defined during the geological assessment at this site.

Response: For the purposes of our geological assessment of the Enterprise Recycling & Disposal Facility, clayey sand was defined as confining unit material that met the minimum permit permeability specification of 1.0×10^{-6} cm/sec. Using our permeability vs. grain size correlation, we determined that a minimum of 31% material passing the 200-mesh sieve would be expected to meet the permit permeability specification. Field assessments of sample lithology were completed by HAI Geologists using ASTM Methods D 2487-93 Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System) and D 2488-93 Standard Practice for Description and Identification of Soils (Visual-Manual Procedure). Sample lithology descriptions were completed in the field without knowledge of laboratory grain size analysis and therefore should not be expected to match laboratory guidelines for clayey sand. Once the laboratory results were received, the boring locations were identified as areas with confining or non-confining unit material. The locations with non-confining unit material were excavated and patched with confining unit material, or additional samples were submitted to the laboratory for grain size analysis, which identified confining unit material below the original sieve interval.

7. The locations of the corner posts that define the area of waste disposal on the floor of Cell 1 were not included on all the maps submitted in the Certification Report.

Response: The locations of the corner posts that define the area of waste disposal on the floor of Cell 1 were included in Appendix D, the signed and sealed survey from Foresight Surveyors, Inc. These locations have been included to Figures 1, and 38.

8. What is the status of the modifications to the Environmental Resource Permit (ERP)?

Response: A letter modification to the ERP was most recently submitted to the FDEP on September 26, 2003. David G. Smith, P.E. responded to HAI with a request for an individual permit modification to the original ERP on October 29, 2003. HAI responded to David G. Smith, P.E. on November 13, 2003 with the individual permit modification to the original ERP, describing the modifications to the stormwater ponds at the Enterprise Recycling and Disposal Facility, including the required \$700 fee. We expect approval of the ERP modification within 30 days. A certification for the current stormwater management

Landfill Site Certification

The original Cell 1 Certification submittal, dated October 8, 2003, described the activities involved in preparing Cell 1 for certification and waste acceptance. This included extensive field investigation by HAI's Geologists and laboratory confirmation of soil characteristics to define the confining layer of the cell and the current temporary pond area. All encountered limestone or sandy areas were excavated from Cell 1 and clay tie-ins were constructed in their place. HAI is confident that the original certification submittal, along with the additional information contained in this addendum, provides reasonable assurance that the site is acceptable for landfill operations.

The original certification also discussed several items that were in need of completion before the site could be fully certified for operation. The following describes these items and how they have been or will be addressed prior to operation.

A swale was to be designed and constructed in the west portion of Cell 1 to convey stormwater to the temporary pond and away from waste. This swale has been constructed and was approved by HAI's civil engineering department. A survey of the swale, provided by Foresight Surveyors, is included in Appendix C.

Construction of the perimeter fence is nearly complete. During a conversation between Craig Bryan of Angelo's, and Susan Pelz of the Department, it was agreed that barbed wire fencing could be used in place of 6-foot chain link fencing for portions of the perimeter. Construction of the fence is expected to be completed by Wednesday, November 19, 2003.

Angelo's will have the required signs completed by Wednesday, November 19, 2003. The scale house, scales, and entrance gate are in place. The maintenance/storage facility is not intended for use at this time. The facility is expected to be used in the future and will be constructed once it is needed. A secured container will be available for temporary

Mr. Kim Ford, P.E.
November 13, 2003
Page 5

storage of items such as batteries, paint, chemicals, thermostats, or similar items that are inadvertently accepted.

The video camera for the scale location will be installed in approximately two weeks, or approximately Wednesday, November 26, 2003.

Angelo's has prepared a perimeter path around the property, approximately 20-feet in width. Maintenance will be on an as needed basis.

Ample containers for inadvertently accepted unauthorized wastes and any recyclable materials can be obtained within a 48-hour notice of the Department's site inspection, and will be on-site prior to waste acceptance.

The financial assurance calculations provided to the Department, dated September 30, 2003, have been approved.


An updated water level table has been included in Appendix D.


Angelo's is requesting a certification inspection for Wednesday, November 26, 2003.

We trust this Certification Addendum will satisfy the Department's requirements. Please call us if you have any questions regarding this submittal.

Very truly yours,

Hartman & Associates, Inc.


Miguel A. Garcia
Project Hydrogeologist


Jennifer L. Deal, P.E.
Project Engineer

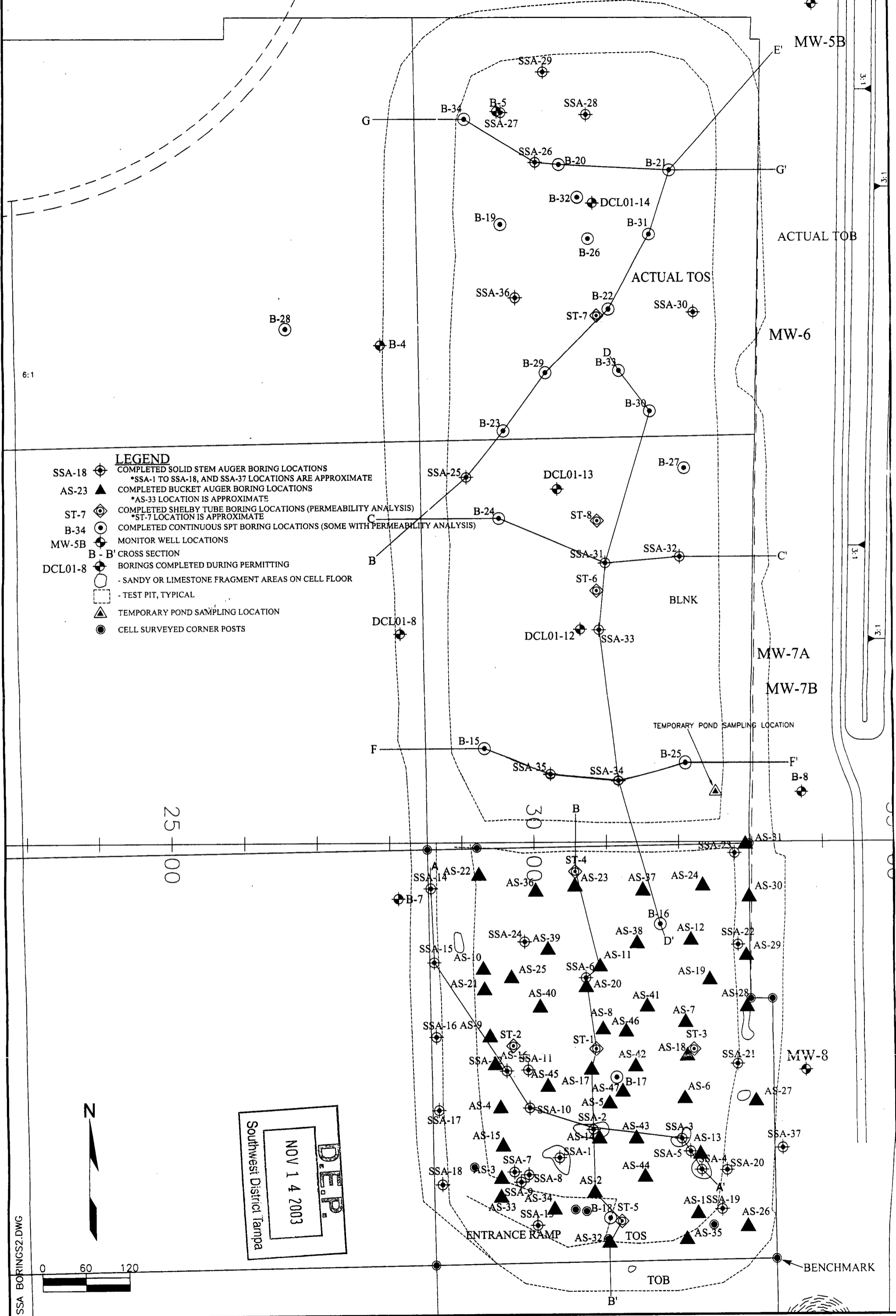


N/hydro/mgarcia/solid waste/angelo's/enterprise/certresponsesford.doc

Attachments

Cc: James E. Golden, P.G.
Dominic Iafrate, Angelo's
Craig Bryan, Angelo's

FIGURES



SSA BORINGS2.DWG



DEP.
NOV 14 2003
Southwest District Tampa

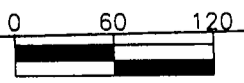
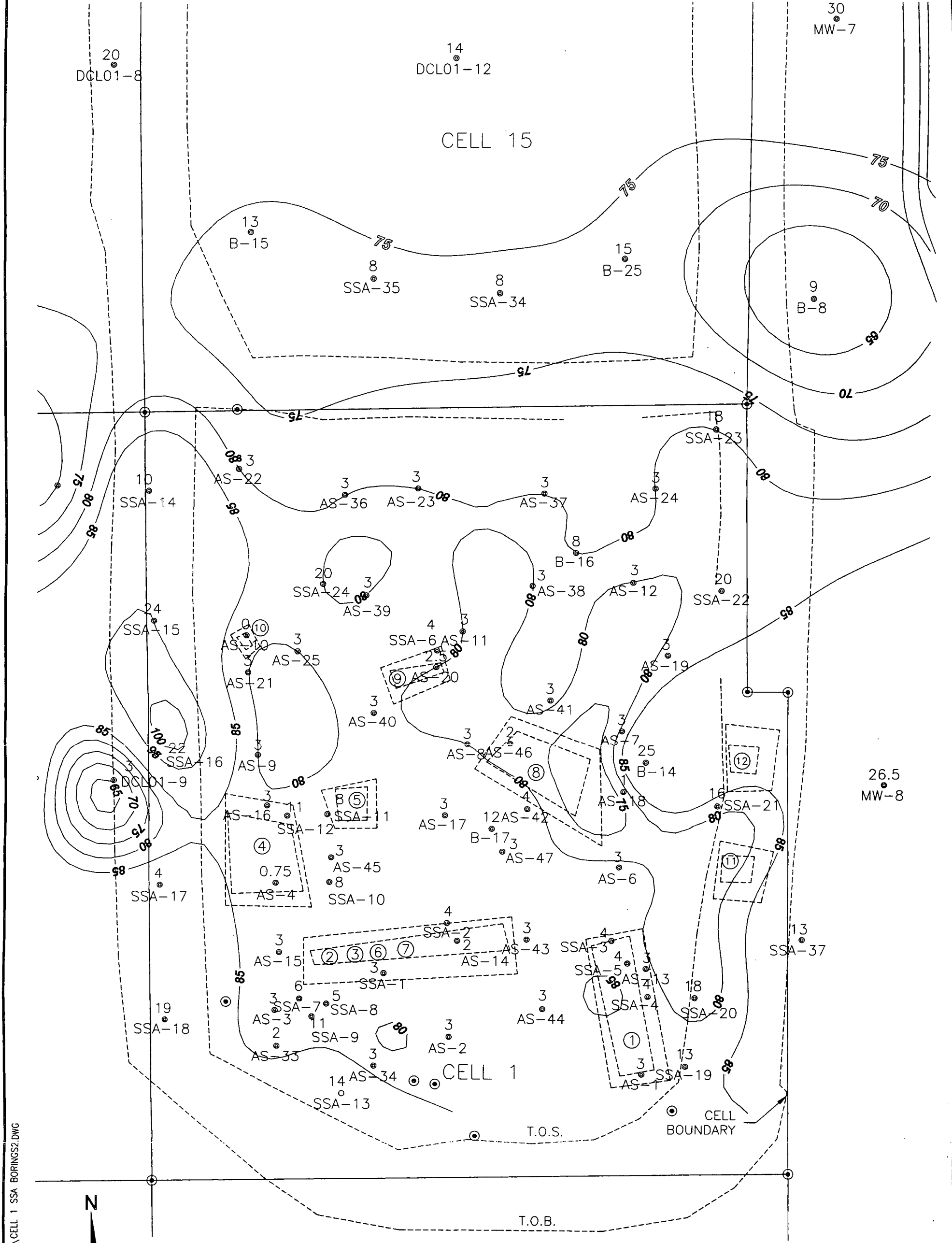


FIGURE 1

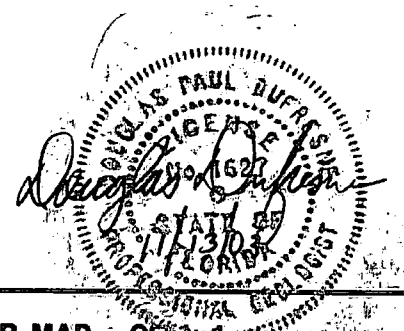


HARTMAN & ASSOCIATES, INC.
engineers, hydrogeologists, surveyors & management consultants
201 EAST PINE STREET - SUITE 1000 - ORLANDO, FL 32801
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**BORING AND PERMEABILITY TEST LOCATIONS
ENTERPRISE RECYCLING DISPOSAL FACILITY
DADE CITY, FLORIDA**



- LEGEND:**
- 7.5 B-18 BORING W/ THICKNESS OF CONFINING LAYER, FT.
 - ⑤ TEST PIT, TYPICAL / LIMESTONE OVER EXCAVATION AREA W/ PIT NUMBER
 - 80 — CONFINING LAYER CONTOUR, FT., NGVD
 - ⊙ CELL SURVEYED CORNER POSTS



N:\CAD\DWG\1999\99-331.01\Models\CELL 1 SSA BORINGS2.DWG

Plotted: Nov 13, 2003 - 1:14pm by MGARCIA

FIGURE 38



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CONFINING LAYER CONTOUR MAP - CELL 15
ENTERPRISE RECYCLING & DISPOSAL FACILITY
DADE CITY, FLORIDA

APPENDIX A

MEMORANDUM

TO: Jennifer L. Deal, PE

FROM: W. Bruce Lafrenz, PG



DATE: November 11, 2003

RE: **Enterprise Recycling and Disposal Facility**
Estimated effluent concentration – temporary pond in cell 15/16

The attached table presents predicted concentrations for Class III landfill leachate that may discharge into the pond at Cells 15/16. We calculated the concentration entering the pond as a mass balance by assuming that all rain falling on Cell 1 percolated into the waste and generated leachate. We further assumed that the concentrations of contaminants in the leachate equaled those listed in the Draft Updated Class III Leachate Tables, and that the concentrations in rain and overland flow not contacting the waste were nil. The equation is shown on the attached table. After algebraic reduction, it simplifies to:

$$C_D = (C_L * A_{c1}) / (A_{c1} + A_{of+R})$$

where C_D is the concentration in the pond (assuming the pond is empty at the start of inflow), C_L is the concentration of the leachate, A_{c1} is the area of Cell 1 and A_{of+R} is the area of Cells 15 and 16 and their watershed.

Based on this calculation, the only parameter expected to exceed the FDEP water quality standards in the pond at Cells 15 and 16 is iron. Iron naturally occurs in concentrations above 0.3 mg/L in the unconfined surficial aquifer. Iron forms a nearly insoluble oxide in water that is in equilibrium with atmospheric oxygen. Any iron present in the discharge to the ponds should precipitate as an oxide and remain on the bottom of the pond.

**PREDICTED CONCENTRATION OF POTENTIAL POLLUTANTS
ENTERPRISE RECYCLING AND DISPOSAL FACILITY
DADE CITY, FLORIDA**

Parameters	Average Leachate			FDEP Standard	² Diluted Concentration to Pond (C _D)
	¹ Concentration (C _L)	Units	No. of Landfill Exceedances		
Chloride	305.33	mg/L	4	250.0	29.97
Iron	3.58	mg/L	4	0.3	0.35
Sodium	194.25	mg/L	4	160.0	19.07
TDS	2,024.22	mg/L	4	500.0	198.68
Antimony	16.79	μg/L	3	6.0	1.65
Manganese	171.77	μg/L	3	50.0	16.86
Thallium	9.61	μg/L	2	2.0	0.94
1,2-Dichloroethane	2.00	μg/L	1	3.0	0.20
Benzene	2.83	μg/L	4	1.0	0.28
Isopropylbenzene	1.00	μg/L	2	(0.8)	0.10
Methylene chloride	2.81	μg/L	2	5.0	0.28
Naphthalene	8.66	μg/L	4	(6.8)	0.85
p-Cresol	147.33	μg/L	1	(35)	14.46
Phenols	46.26	μg/L	4	(10)	4.54
Trichloroethene	6.13	μg/L	1	3.0	0.60
Vinyl Chloride	3.71	μg/L	2	1.0	0.36

¹Source: Draft Updated Class III Leachate Tables. FDEP July 20, 2001

²**BOLD** type indicates possible exceedance

EQUATIONS:

$$C_D = (C_L * A_{c1} * R + C_b * A_{of} * R) / ((A_{c1} + A_{of+R}) * R)$$

$$= (C_L * A_{c1} * R + 0) / ((A_{c1} + A_{of+R}) * R)$$

$$C_D = (C_L * A_{c1}) / (A_{c1} + A_{of+R})$$

ASSUMPTIONS and GIVEN:

C_b = 0 mg/L or μg/L

A_{c1} = 277,913 ft²

A_{c15/16} = 532,739 ft²

A_{of} = 2,020,748 ft²

A_{of+R} = 2,553,487 ft²

WHERE:

- C_D = Calculated diluted concentration of potential pollutants
- C_L = Average leachate concentration of potential pollutants
- C_b = Background concentration of potential pollutants (assume to be nil)
- C_{RA} = concentration of potential pollutants in rain (assume to be nil)
- A_{c1} = Area of Cell 1
- A_{of} = Surface area (watershed) that contributes stormwater overland flow (runoff) to the pond in cells 15 & 16
- A_{of+R} = Surface area (watershed+pond surface) that contributes stormwater (and direct rainfall) to cell 15/16
- R = Rainfall

APPENDIX B

Project: **ENTERPRISE ROAD LANDFILL**

Job Number: **99-331.007-T4**

Sheet 1 of 4

Manager: **MIGUEL GARCIA**

Client: **HARTMAN & ASSOCIATES**

Project Description: _____

Location: **FL**

Elevation Datum: _____

Borehole Depth Elev.	Specimen Description				Water Content	Organic Content	ASTM Class	K ft/day	Sieve Analysis				
	LL	PL	PI	No 200					No 4	No 10	No 40	No 60	No 100
B-26 0.0				15.4	17.7				78.2	77.8	72.9	60.3	24.3
P1/3L 0.0				56.8	30.1		1.3E-04						
P1L1 0.0				40.6	20.7		2.3E-04						
P1L2 0.0				75.3	45.9		5.0E-05						
SSA-20 0.0				63.7	32.3			100.0	100.0	99.1	96.1	79.8	
SSA-26 0.0				50.1	30.9			99.8	99.4	97.9	94.8	83.4	
ST-1 0.5				39.9	22.4			100.0	99.8	98.8	92.9	63.1	
ST-1 1.6				38.9	20.4			100.0	100.0	99.2	95.3	64.6	
ST-1 2.0				40.3	14.9		6.8E-05						
ST-1 2.5				39.7	20.2			100.0	100.0	99.7	94.8	64.1	
ST-10 4.0				53.8	30.1			100.0	100.0	99.8	96.2	75.3	
ST-10 5.0				39.4	22.7			100.0	100.0	99.8	96.3	73.4	
ST-10 6.0				63.2	36.6			100.0	100.0	99.9	98.0	89.7	
ST-11 4.0				55.9	30.9			100.0	100.0	99.4	95.5	74.5	
ST-11 5.0				68.5	40.5			100.0	100.0	97.8	95.3	84.3	
ST-11 6.0				66.8	37.4			100.0	99.9	99.4	96.7	83.2	
ST-12 4.0				47.1	30.7			100.0	100.0	99.6	97.2	85.6	
ST-12 5.0				34.6	27.8			95.6	92.0	87.1	82.6	66.9	
ST-12 6.0				47.6	34.4			100.0	99.9	97.7	94.3	79.0	

**UNIVERSAL
ENGINEERING
SCIENCES**

Summary of Material Properties

Space for logo (!fXXXX)

Borehole Depth Elev.	Specimen Description				Water Content	Organic Content	ASTM Class	K ft/day	Sieve Analysis				
	LL	PL	PI	No 200					No 4	No 10	No 40	No 60	No 100
ST-12A 4.0				33.9	26.0				99.8	99.6	99.0	96.6	87.3
ST-12A 5.0				36.2	25.4				100.0	100.0	99.7	98.9	95.7
ST-12A 6.0				41.7	26.8				99.4	98.6	96.2	95.2	92.4
ST-13 8.0				52.1	43.9				96.7	92.5	86.0	83.1	76.6
ST-13 9.0				56.7	34.6				100.0	99.9	99.5	97.9	89.8
ST-13 10.0				52.4	33.9			1.4E-03	100.0	100.0	99.9	97.9	84.0
ST-14 4.0				34.7	39.4				80.7	69.0	63.0	60.9	55.0
ST-14 5.0				55.5	38.2				100.0	100.0	99.7	97.4	87.6
ST-14 6.0				52.3	29.9			1.9E-04	100.0	100.0	99.9	96.7	75.9
ST-16 8.0				38.8	30.1				99.8	99.0	96.6	90.0	63.0
ST-16 9.0				40.8	32.8				100.0	100.0	98.8	93.1	68.2
ST-16 10.0				42.8	41.9			5.5E-04	99.4	98.7	96.0	87.8	64.3
ST-17 2.0				32.3	18.2				100.0	100.0	97.8	89.9	60.3
ST-17 3.0				25.4	14.9				100.0	99.8	95.1	82.0	50.2
ST-17 4.0				38.8	21.5			2.0E-04	100.0	100.0	98.7	93.2	67.0
ST-18 2.0				62.5	32.9				99.7	98.8	95.4	91.4	77.2
ST-18 3.0				51.0	30.3				89.3	83.7	77.2	73.9	62.0
ST-18 4.0				61.2	32.7				91.8	91.0	88.8	86.0	74.1
ST-2 0.5				56.7	29.0				100.0	100.0	99.8	97.0	78.5
ST-2 1.6				55.7	28.3				100.0	100.0	99.8	96.8	76.1
ST-2 2.0				57.6	23.8			2.3E-05					
ST-2 2.5				61.3	30.9				100.0	100.0	100.0	97.1	80.0

UNIVERSAL ENGINEERING SCIENCES	Summary of Material Properties	Space for logo (IfXXXX)
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Borehole Depth Elev.	Specimen Description				Water Content	Organic Content	ASTM Class	K ft/day	Sieve Analysis				
	LL	PL	PI	No 200					No 4	No 10	No 40	No 60	No 100
ST-20 2.0				55.1	32.4				98.9	97.9	95.5	91.4	71.5
ST-20 3.0				32.3	27.1				79.9	74.1	60.7	54.7	42.8
ST-20 4.0				42.0	28.8				85.1	79.7	68.1	61.9	51.3
ST-21 32.0				36.5	27.5				100.0	100.0	99.8	95.2	65.6
ST-21 33.0				34.5	27.3				100.0	100.0	99.6	94.4	64.3
ST-21 34.0				33.1	24.7			2.1E-03	100.0	100.0	99.4	94.0	64.6
ST-3 0.5				42.7	25.6				100.0	100.0	99.6	94.9	66.6
ST-3 1.6				40.8	23.7				100.0	100.0	99.9	95.3	68.3
ST-3 2.0				45.8	23.6			3-6E-05					
ST-3 2.5				40.9	26.0				100.0	100.0	100.0	97.7	81.9
ST-4 0.5				62.3	33.6				100.0	100.0	99.0	96.7	81.3
ST-4 1.6				67.1	34.0				100.0	100.0	99.6	98.0	84.7
ST-4 2.0				69.0	29.6			7.5E-06					
ST-4 2.5				70.9	36.6				100.0	100.0	99.8	98.6	86.7
ST-5 0.5				45.4	31.2				98.7	98.0	94.8	86.2	62.9
ST-5 1.6				66.5	45.3				100.0	99.8	99.2	97.1	82.9
ST-5 2.0				58.7	37.1			4.1E-05					
ST-5 2.5				55.4	36.5				95.2	92.2	89.0	85.9	71.5
ST-6 0.5				56.6	35.5				100.0	99.7	99.3	95.9	75.9
ST-6 1.6				42.7	33.2				75.1	72.0	67.5	64.3	52.3
ST-6 2.0				46.1	28.6			1.0E-04					
ST-6 2.5				46.6	30.3				81.8	78.0	71.9	68.1	57.6

UNIVERSAL ENGINEERING SCIENCES	Summary of Material Properties	Space for logo (!fXXXX)
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Borehole Depth Elev.	Specimen Description				Water Content	Organic Content	ASTM Class	K ft/day	Sieve Analysis				
	LL	PL	PI	No 200					No 4	No 10	No 40	No 60	No 100
ST-7 0.5				17.8	15.1				100.0	100.0	97.6	82.7	40.8
ST-7 1.6				15.9	16.1				100.0	100.0	97.8	83.4	40.4
ST-7 2.0				15.7	16.4			2.7E-02					
ST-7 2.5				17.9	14.8				100.0	100.0	97.7	84.2	41.5
ST-8 0.5				37.1	25.3				100.0	99.8	97.9	88.7	58.4
ST-8 1.6				56.5	30.9				100.0	100.0	99.8	96.8	76.4
ST-8 2.0				52.8	29.9			1.5E-04					
ST-8 2.5				49.6	29.8				100.0	99.7	99.3	95.0	69.5
ST-9 1.0				31.9	26.8				97.8	96.0	93.4	86.5	59.2
ST-9 2.0				35.6	27.6				98.9	97.0	94.4	88.7	63.8
ST-9 3.0				35.7	30.0				97.1	94.2	90.6	85.1	62.1
ST-9 4.0				65.9	39.1				100.0	100.0	99.9	97.7	82.7
ST-9 5.0				65.0	34.9				100.0	100.0	100.0	97.4	82.2
ST-9 6.0				77.1	34.3				100.0	100.0	100.0	98.3	88.1

UNIVERSAL ENGINEERING SCIENCES	Summary of Material Properties	Space for logo (IfXXXX)
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**REPORT ON
 TRIAXIAL PERMEABILITY
 AND PERCENT PASSING NO. 200 SIEVE
 (ASTM D-5084 and ASTM C-117)
 (AASHTO T-11)**

Client: *Richardson Engineering*

Project: *Enbridge Line 3*

Soil Description: *Clayey Sand*

Location: *Site 100*

Date Tested: *10/10/17*

Tested By: *Abigail L. Bass*

Date Sampled: *10/10/17*

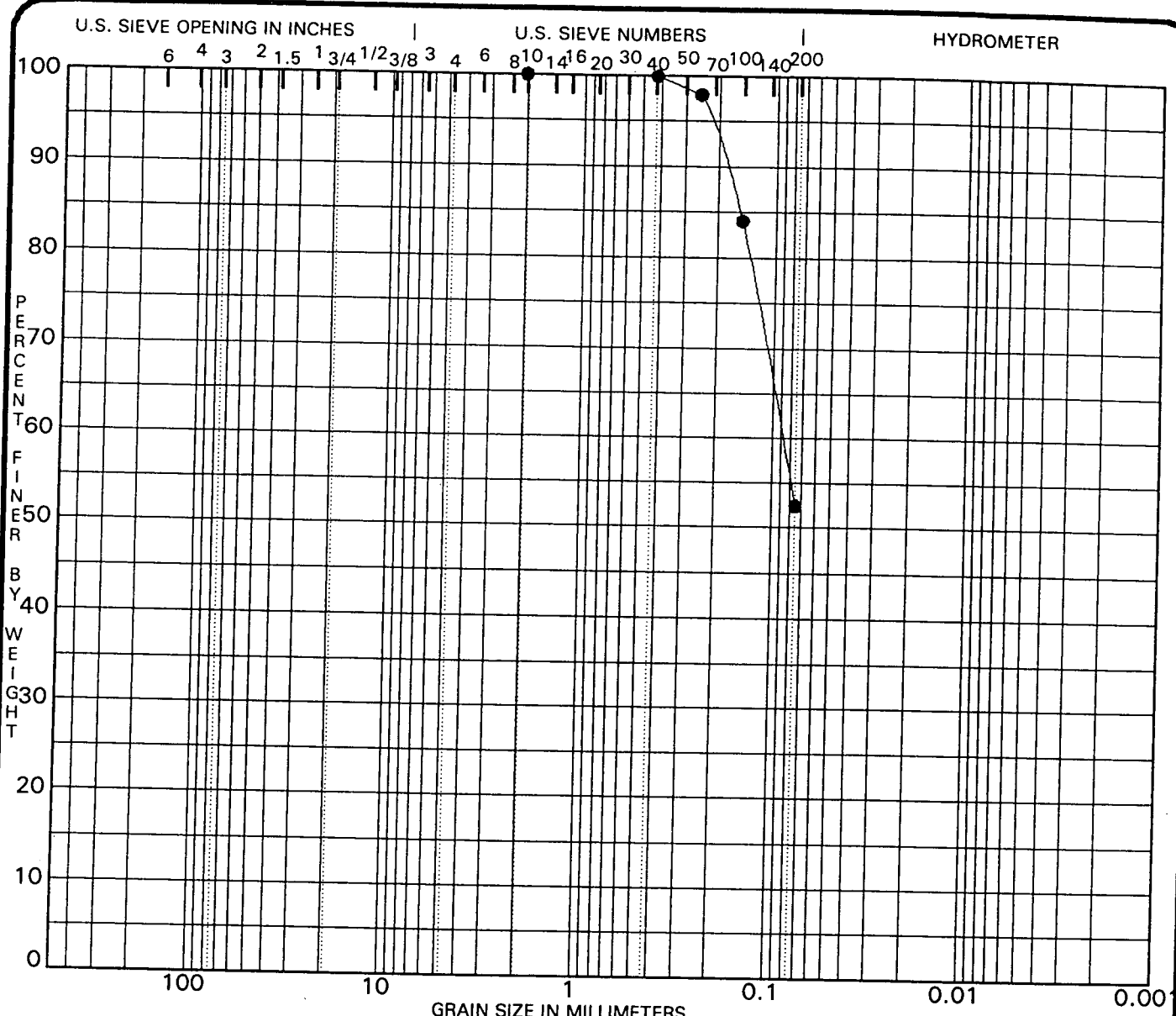
Sampled By: *AB*

TEST RESULTS

Moisture Content (%)	Percent Passing No. 200 Sieve	Dry Unit Weight (Pcf)	Permeability	
			K (cm/s)	K ft/day
<i>33.9</i>	<i>100</i>	<i>117</i>	<i>4.9E-17</i>	<i>1.5E-17</i>

Attention: No follow

REMARKS:



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-13 10.0		34					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-13 10.0	2.00	0.09			0.0	47.6	52.4	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 9/25/03

GRADATION CURVES
 UNIVERSAL ENGINEERING SCIENCES
 ORLANDO, FLORIDA

03/11

11/11/11
11/11/11

REPORT ON
TRIAxIAL PERMEABILITY
AND PERCENT PASSING NO. 200 SIEVE
(ASTM D-5084 and ASTM C-117)
(AASHTO T-11)

Client: Hartman and Associates

Project: Enterprise Road, 10400

Soil Description: orange to tan sandy clay

Location: ST-14 200-4

Date Tested: 9/1/05

Tested By: [Signature]

Date Sampled: 05

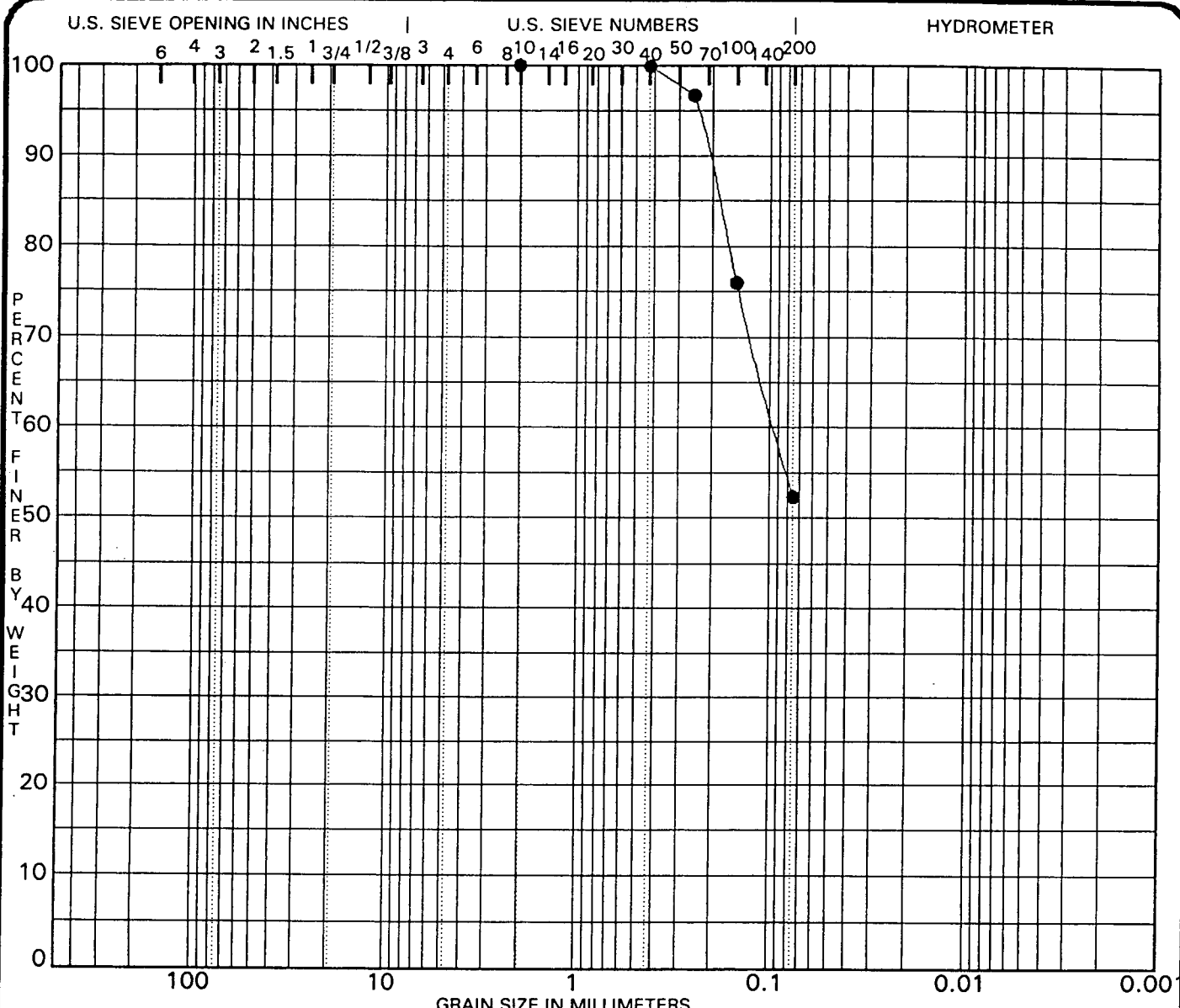
Sampled By: client

TEST RESULTS

Moisture Content (%)	Percent Passing No. 200 Sieve	Dry Unit Weight (Pcf)	Permeability	
			K (cm/s)	K ft/day
27.7	52.3	90.4	6.7E-10	1.7E-08

Attention: [Signature]

REMARKS: For informational purposes only



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification					MC%	LL	PL	PI	Cc	Cu
● ST-14 6.0						30					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-14 6.0	2.00	0.09			0.0	47.7	52.3	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 9/26/03

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Attention: Mr. Golden

**REPORT ON
 TRIAXIAL PERMEABILITY
 AND PERCENT PASSING NO. 200 SIEVE
 (ASTM D-5084 and ASTM C-117)
 (AASHTO T-11)**

Client: *Proctor & Associates Inc.*

Project: *...*

Soil Description: *...*

Location: *SP 16610*

Date Tested: *9-14-93*

Tested By: *...*

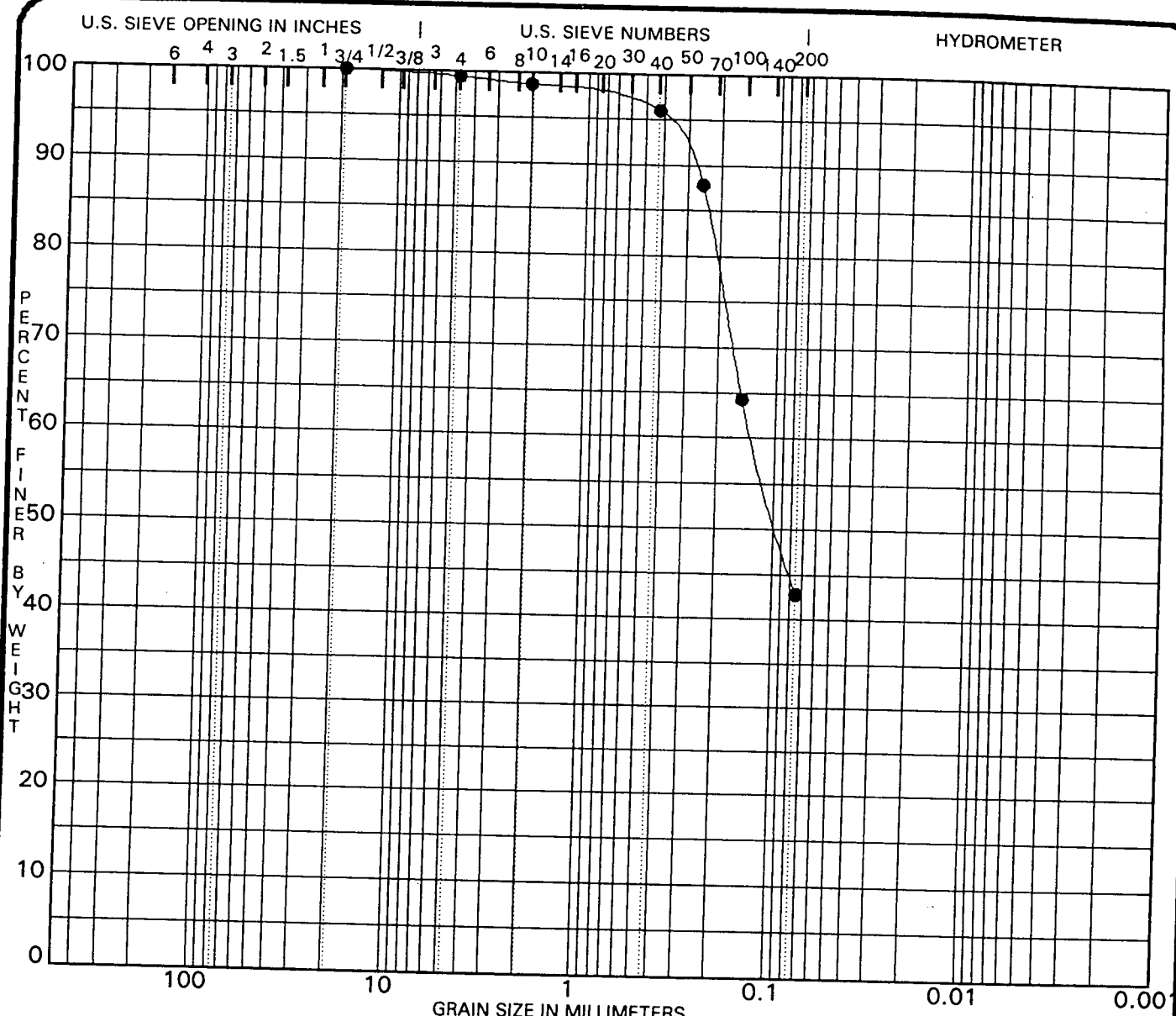
Date Sampled: *nls*

Sampled By: *client*

TEST RESULTS

Moisture Content (%)	Percent Passing No. 200 Sieve	Dry Unit Weight (Pcf)	Permeability	
			K (cm/s)	K (ft/day)
<i>41.0</i>	<i>49.7</i>	<i>114.7</i>	<i>1.9 E - 27</i>	<i>5.5 E - 04</i>

REMARKS: *...*



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-16 10.0		42					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-16 10.0	19.00	0.13			0.6	56.6	42.8	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 9/25/03

GRADATION CURVES
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 ORLANDO, FLORIDA

61074

REPORT ON
TRIAXIAL PERMEABILITY
AND PERCENT PASSING NO. 200 SIEVE
(ASTM D-5084 and ASTM C-117)
(AASHTO T-11)

Client: Hartman and Associates

Project: Enterprise Blvd

Soil Description: Orange silt/clay

Location: ST-17 @ 24"

Date Tested: 4-30-03

Tested By: Greg Kemp

Date Sampled: n/s

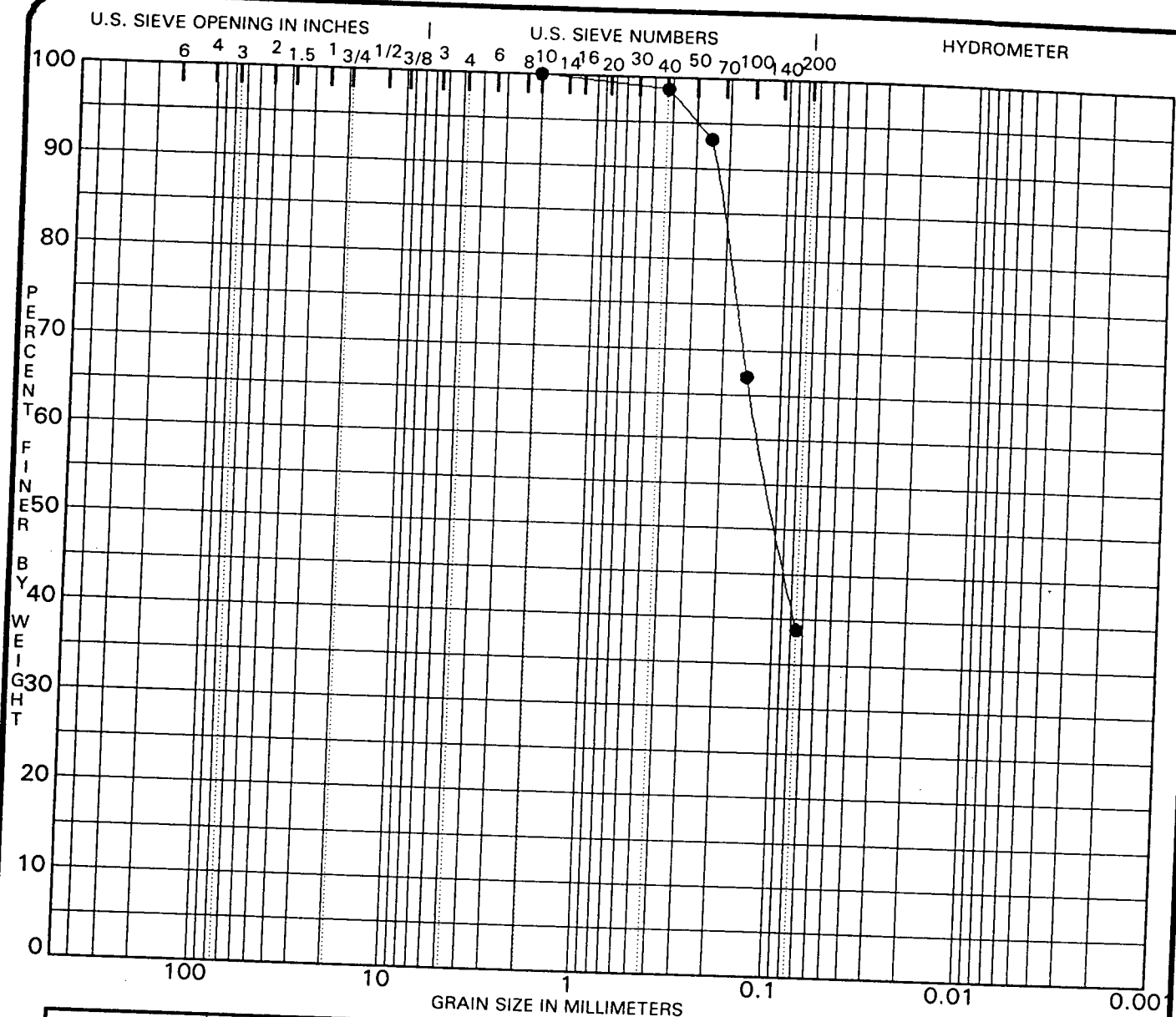
Sampled By: n/s

TEST RESULTS

Moisture Content (%)	Percent Passing No. 200 Sieve	Dry Unit Weight (Pcf)	Permeability	
			K (cm/s)	K (ft/day)
21.5	39.7	110	1.7e-11	2.0e-10

Attention: Mr. Steve [unclear]

REMARKS: For info...



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-17 4.0		21					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-17 4.0	2.00	0.13			0.0	61.2	38.8	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 9/30/03

GRADATION CURVES
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19411
 10/10/11
 10/10/11

REPORT ON
 TRIAXIAL PERMEABILITY
 AND PERCENT PASSING NO. 200 SIEVE
 (ASTM D-5084 and ASTM C-117)
 (AASHTO T-11)

Client: HSH/...

Project: ...

Soil Description: ...

Location: ST 21032-34

Date Tested: 7-30-13

Tested By: S. Kemp

Date Sampled: n/s

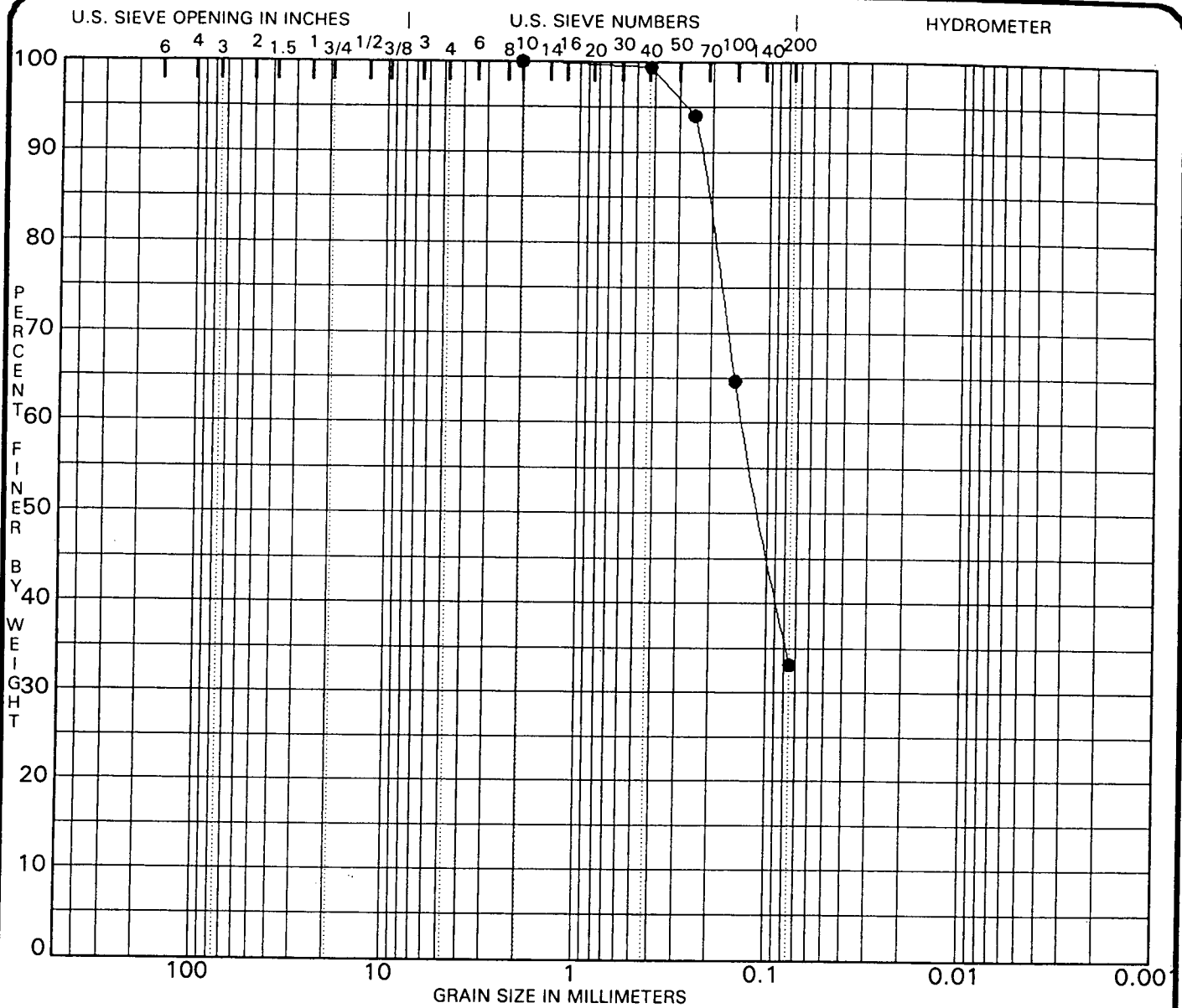
Sampled By: client

TEST RESULTS

Moisture Content (%)	Percent Passing No. 200 Sieve	Dry Unit Weight (Pcf)	Permeability	
			K (cm/s)	K ft/day
24.7	33.1	94.4	7.5E-02	2.1E-05

Attention: The following information is provided

REMARKS: For information only



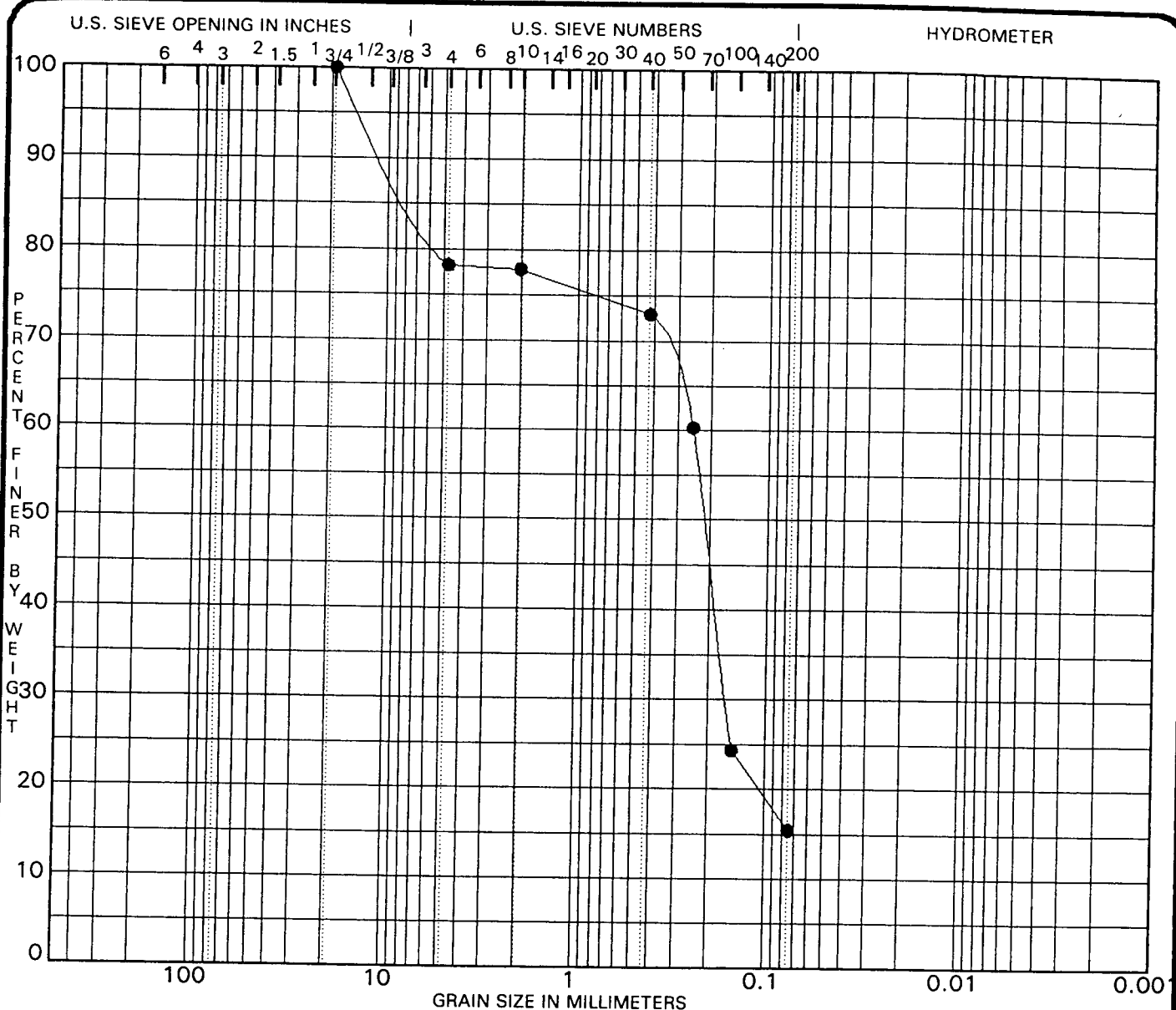
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-21 34.0		25					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-21 34.0	2.00	0.14			0.0	66.9	33.1	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 9/30/03

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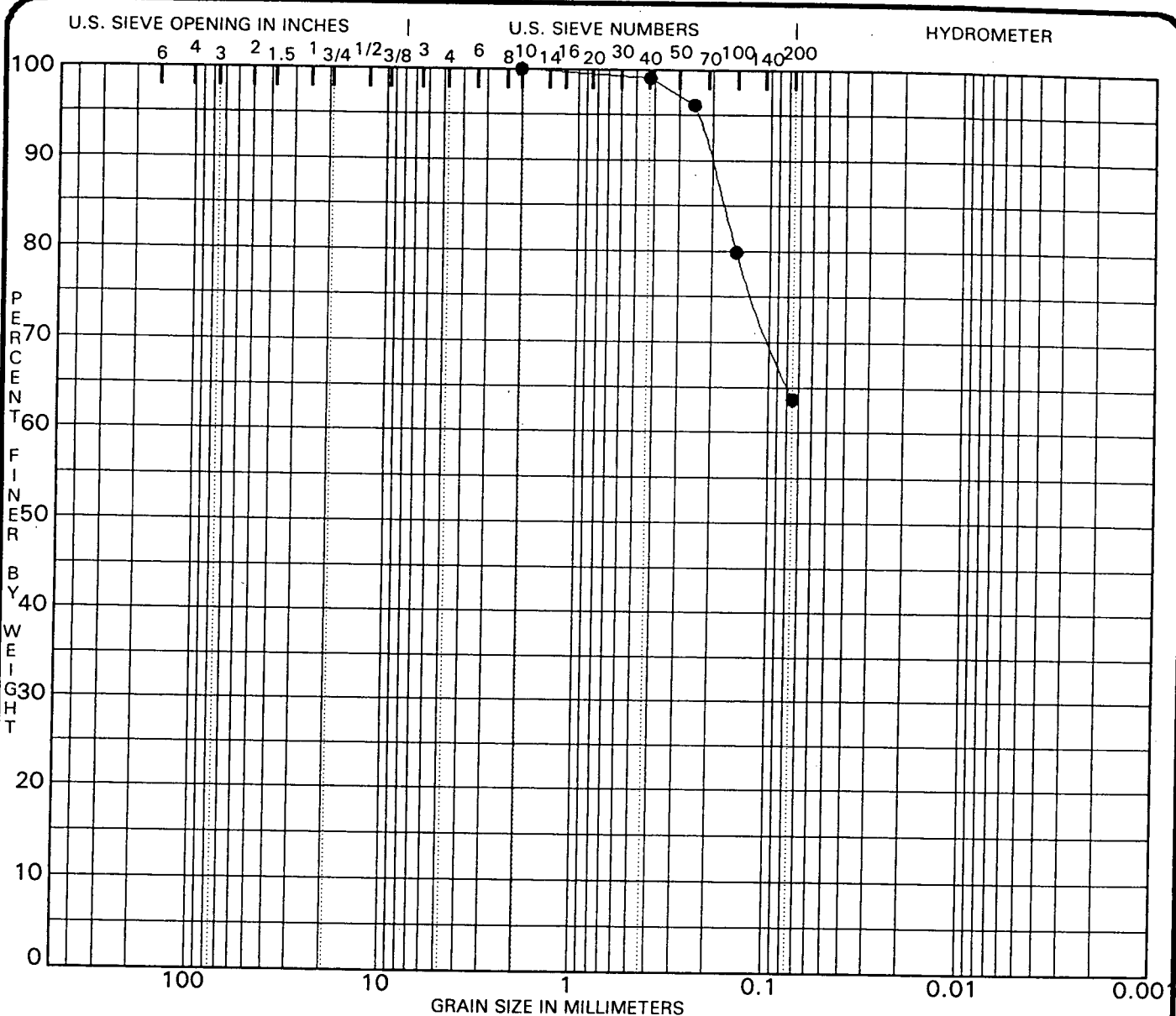
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● B-26 0.0		18					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-26 0.0	19.00	0.25	0.163		21.8	62.8	15.4	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 10/10/03

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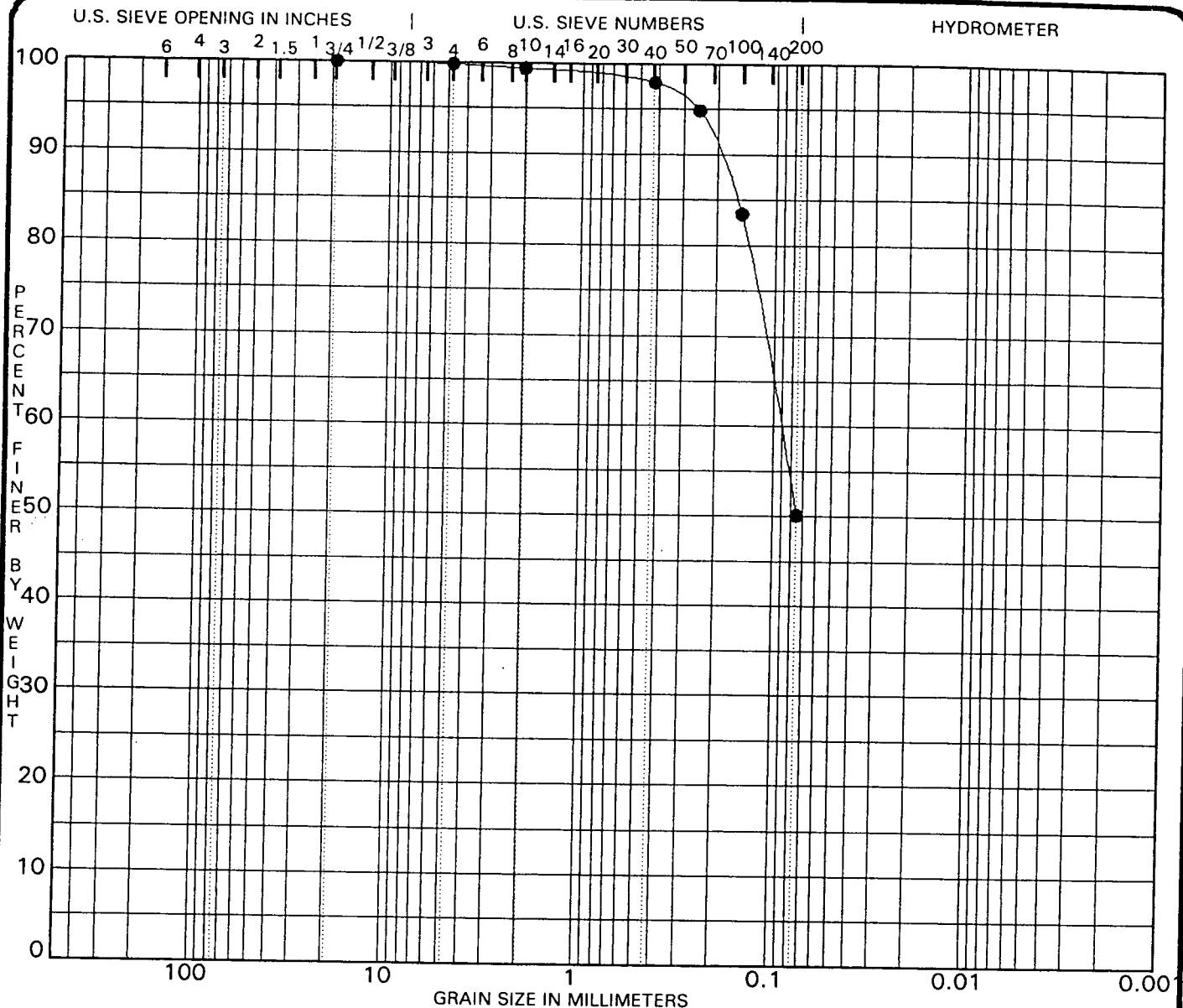
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification		MC%	LL	PL	PI	Cc	Cu
● SSA-20 0.0			32					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● SSA-20 0.0	2.00				0.0	36.3	63.7	

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 DATE 10/10/03

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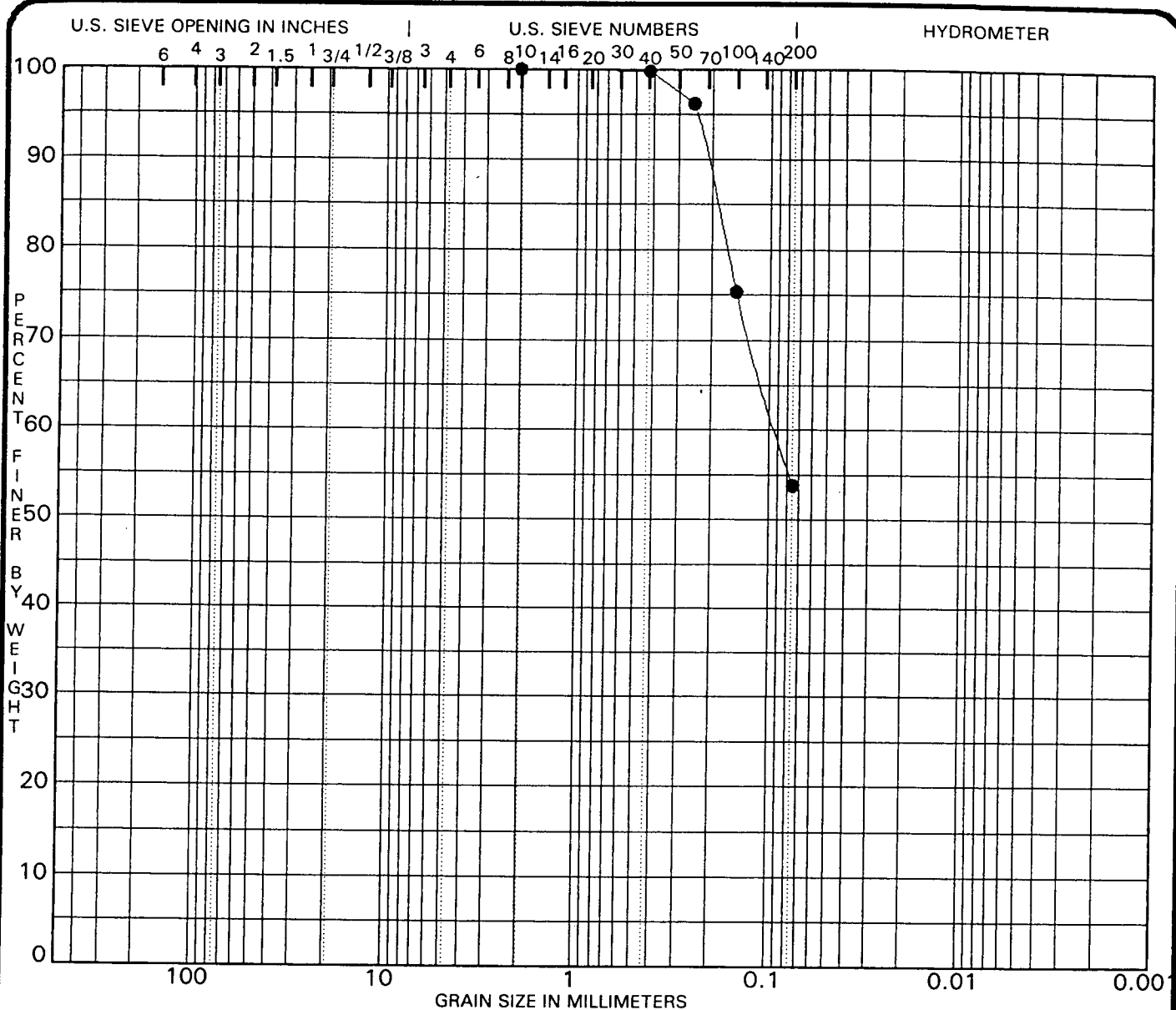


COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification				MC%	LL	PL	PI	Cc	Cu
● SSA-26	0.0					31					
Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay			
● SSA-26 0.0	19.00	0.09			0.2	49.7	50.1				

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 10/10/03

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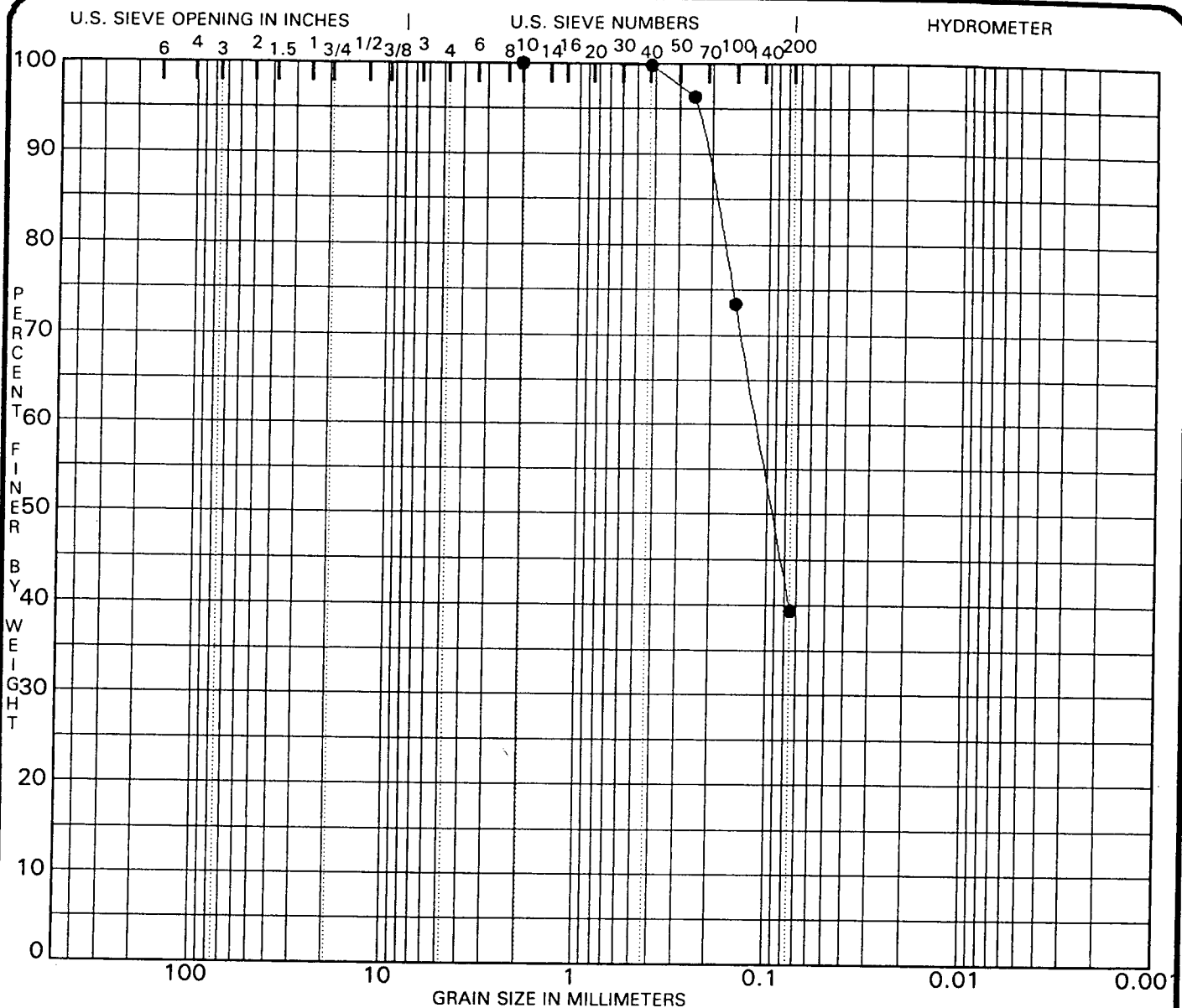
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-10 4.0		30					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-10 4.0	2.00	0.09			0.0	46.2	53.8	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 10/10/03

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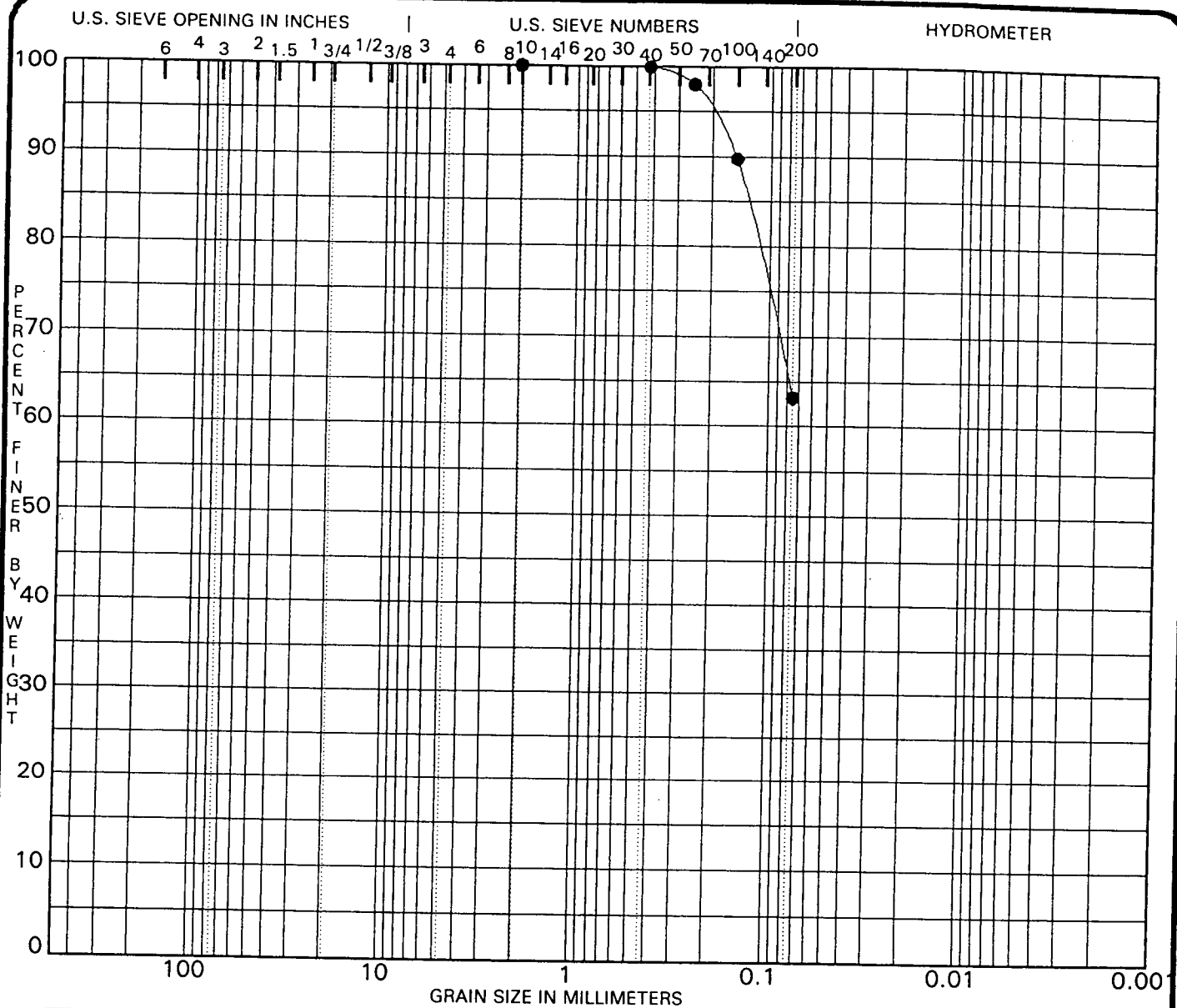
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification					MC%	LL	PL	PI	Cc	Cu
● ST-10 5.0						23					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-10 5.0	2.00	0.11			0.0	60.6	39.4	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 10/10/03

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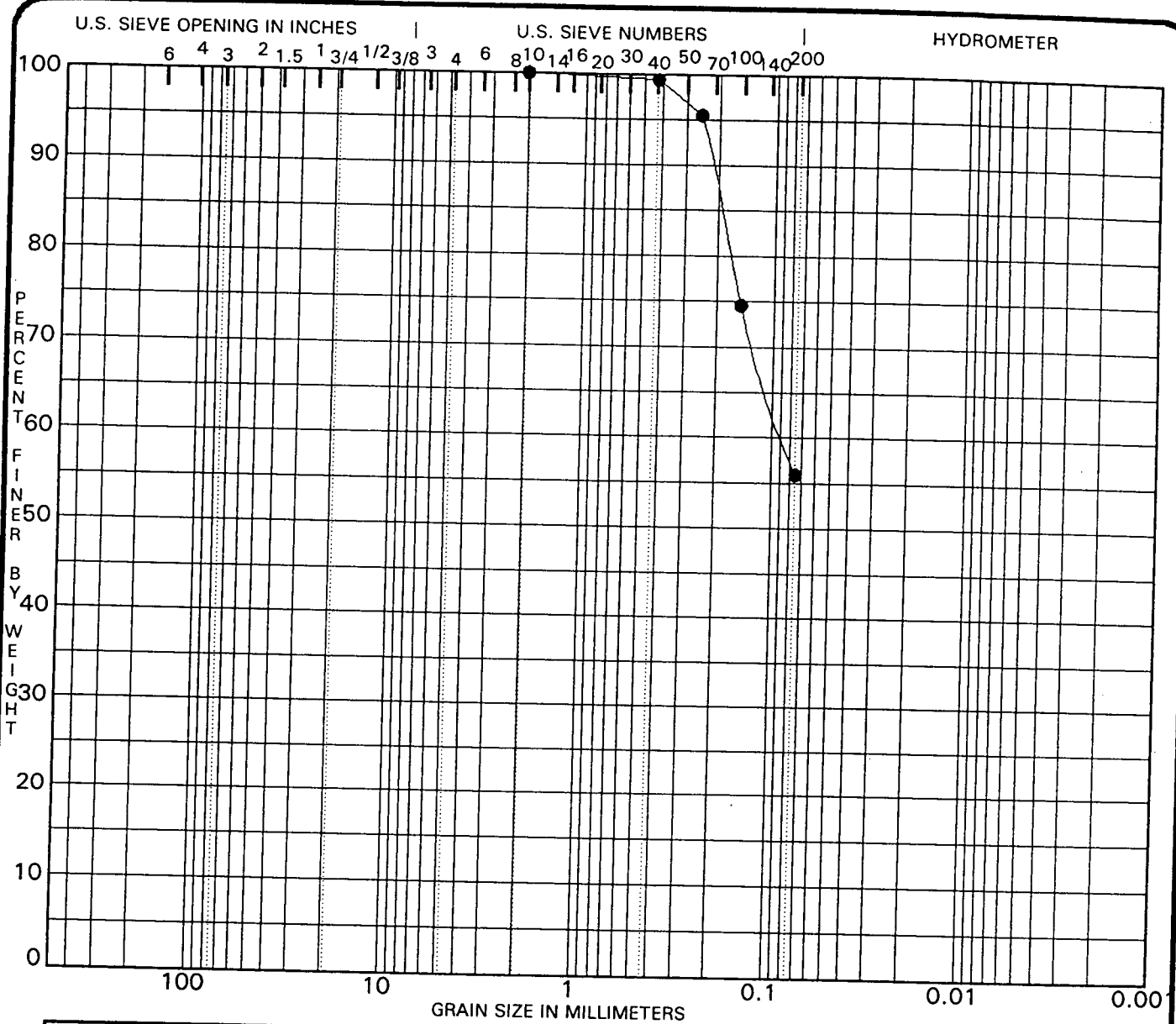
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification					MC%	LL	PL	PI	Cc	Cu
● ST-10 6.0						37					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-10 6.0	2.00				0.0	36.8	63.2	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 10/10/03

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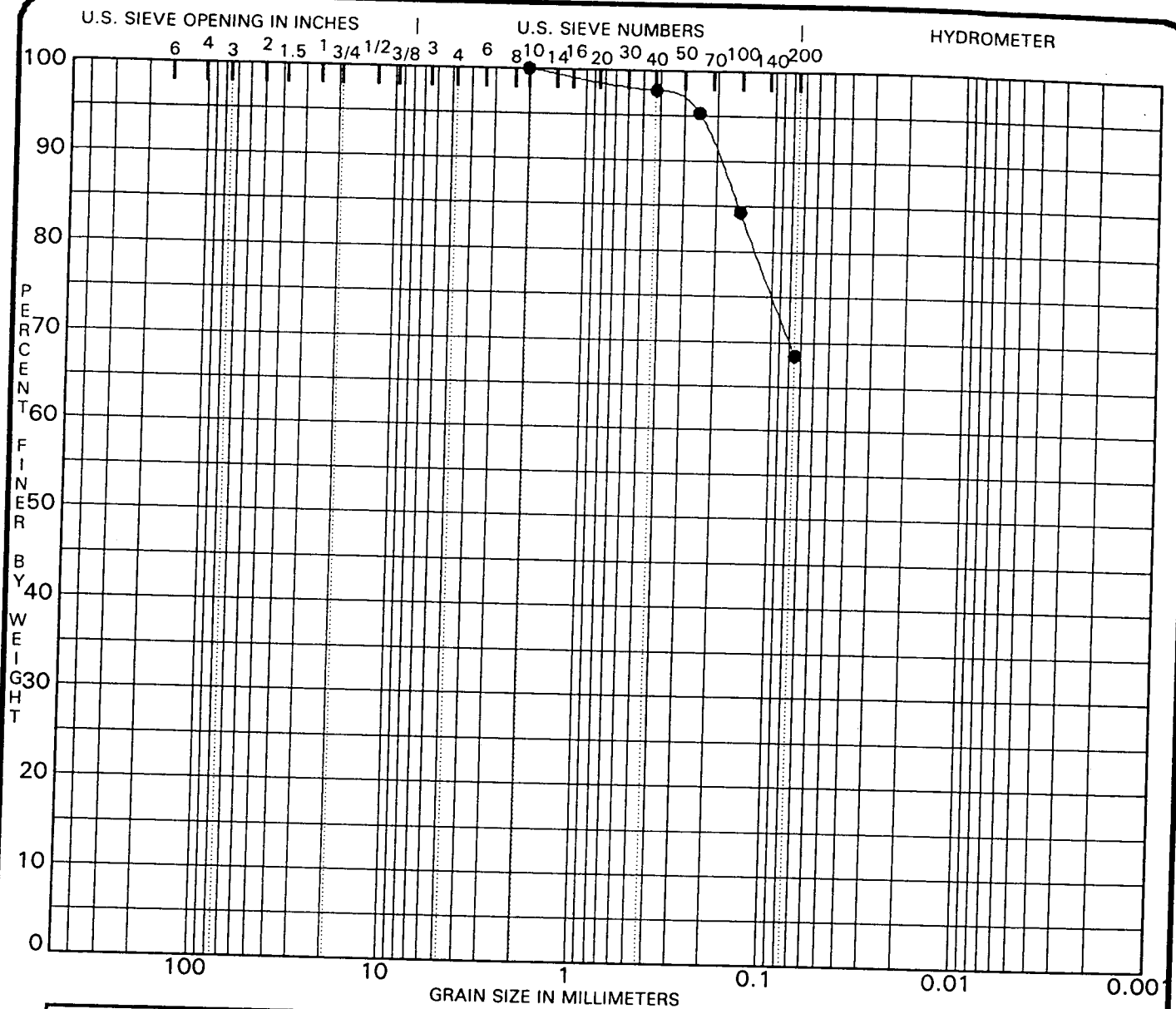


COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu	
● ST-11 4.0		31						
Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-11 4.0	2.00	0.09			0.0	44.1	55.9	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 10/10/03

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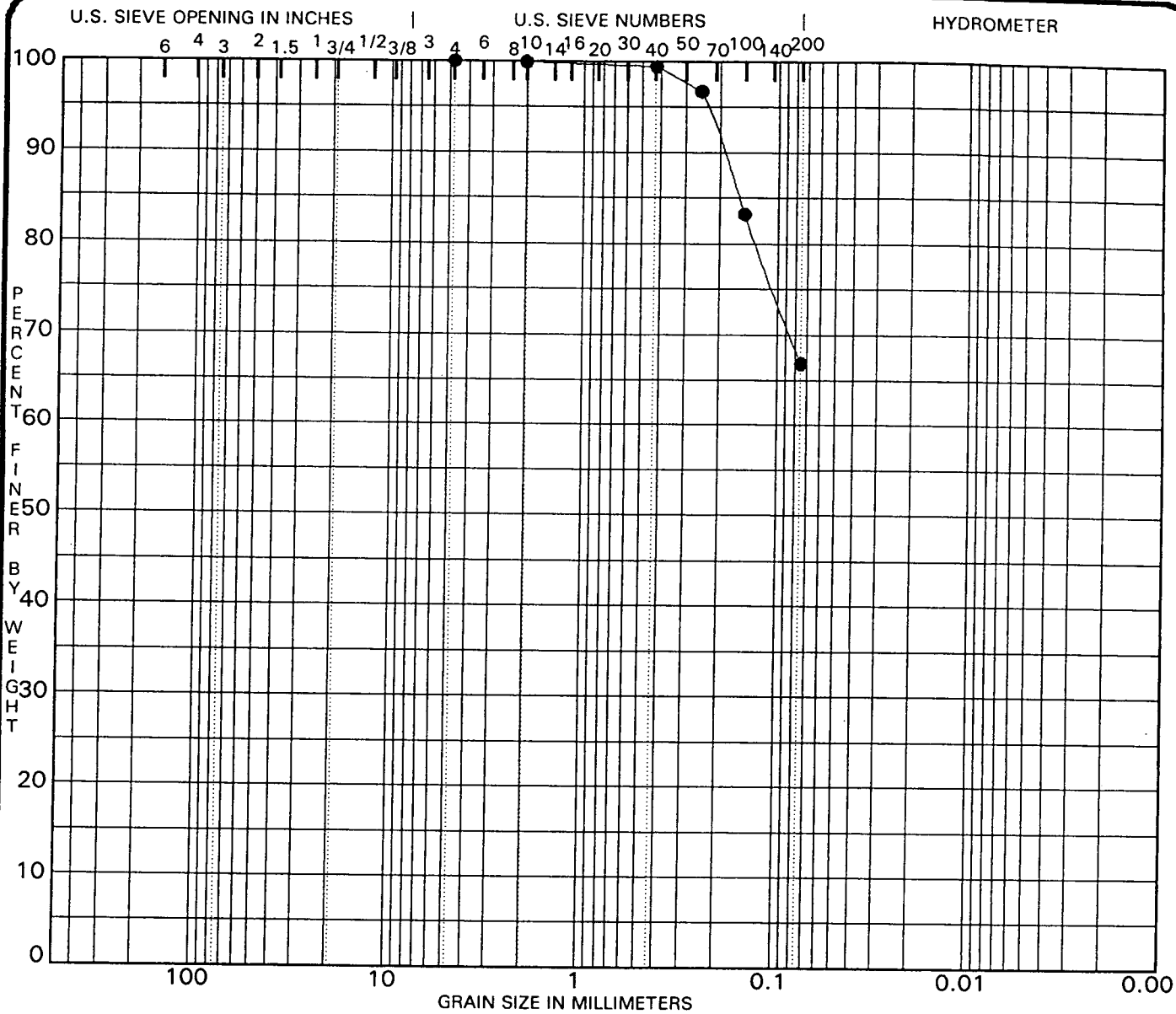
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-11 5.0		40					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-11 5.0	2.00				0.0	31.5	68.5	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 10/10/03

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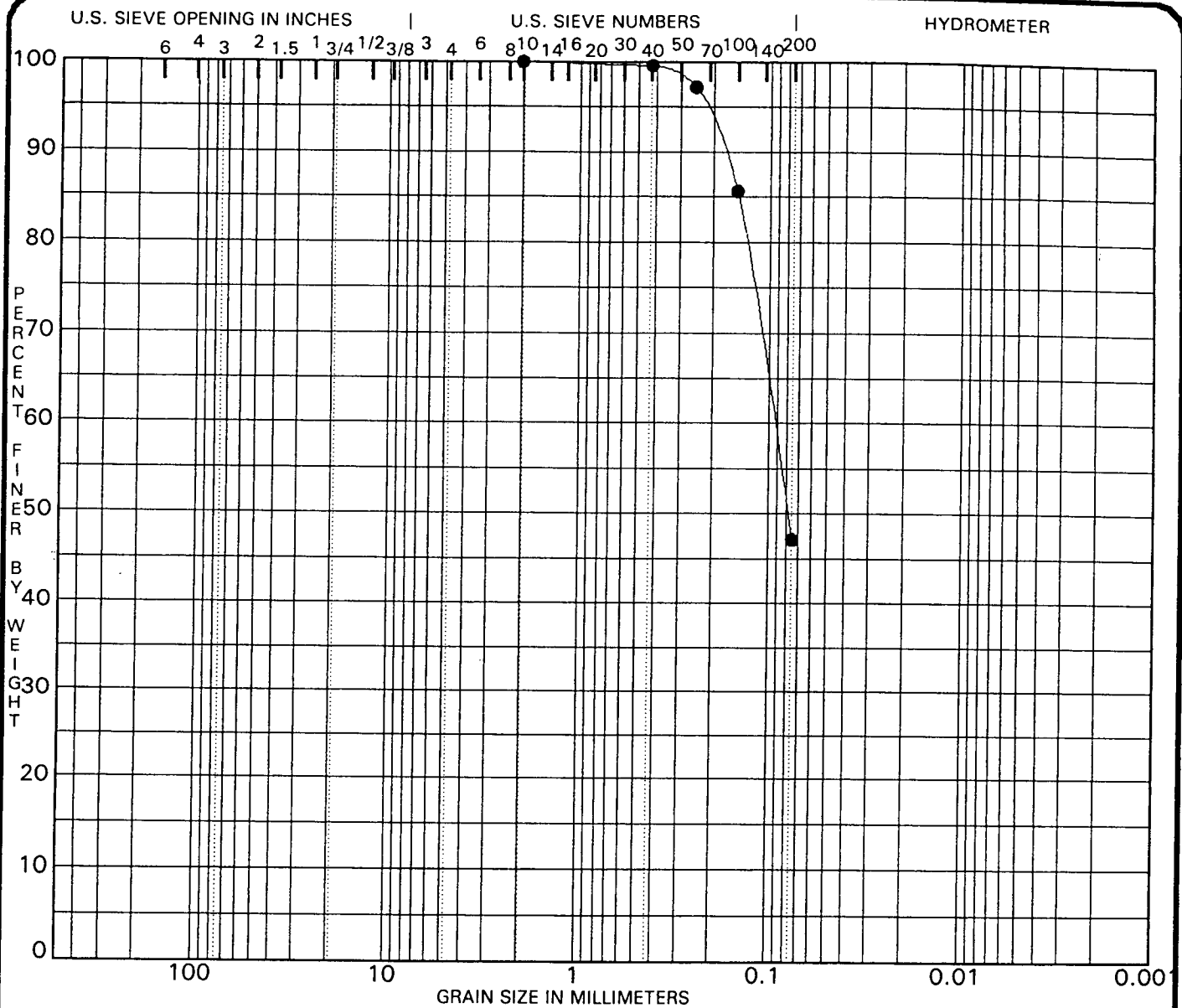
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-11 6.0		37					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-11 6.0	4.75				0.0	33.2	66.8	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 10/10/03

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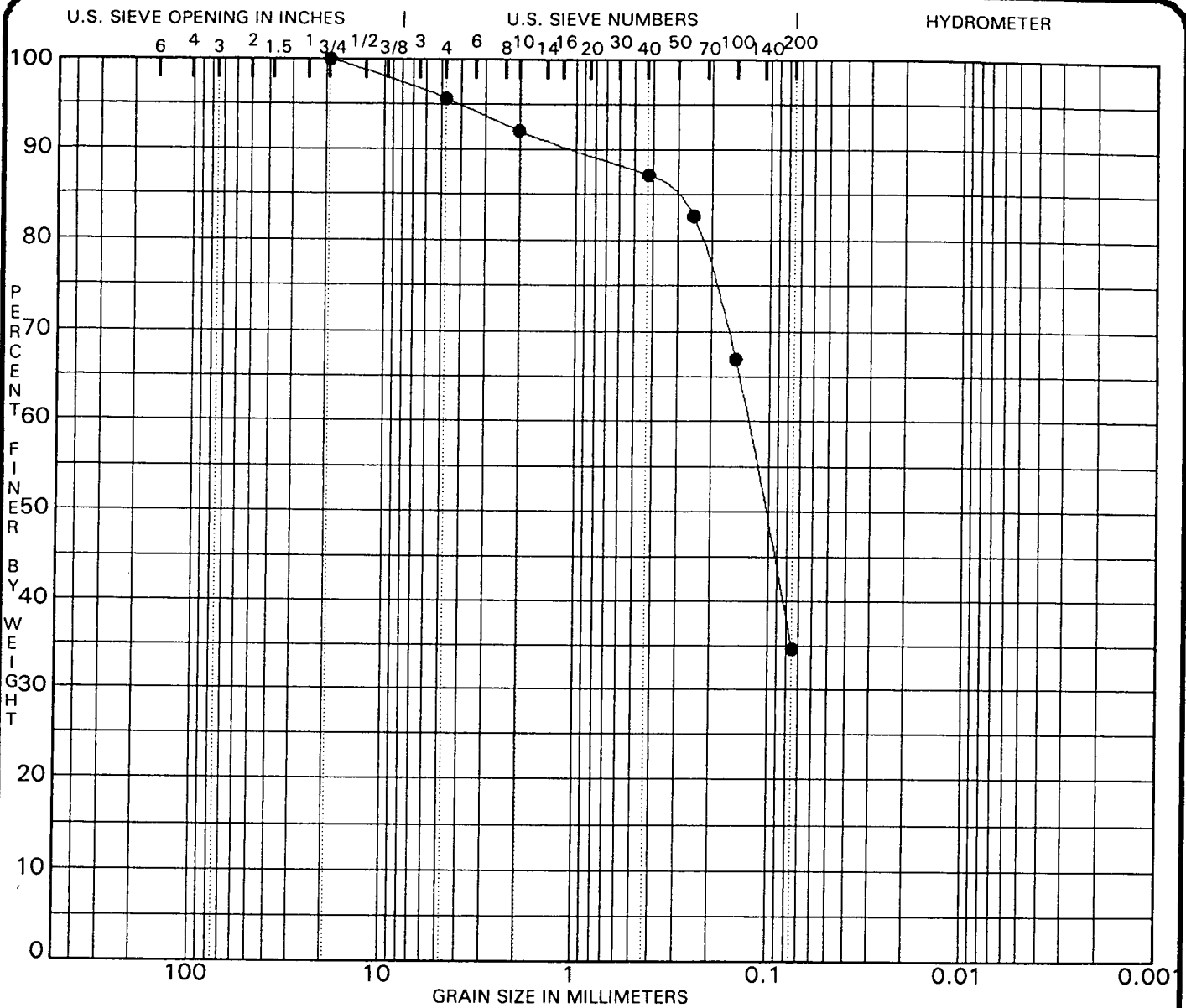
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-12 4.0		31					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-12 4.0	2.00	0.09			0.0	52.9	47.1	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 10/10/03

GRADATION CURVES
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 ORLANDO, FLORIDA



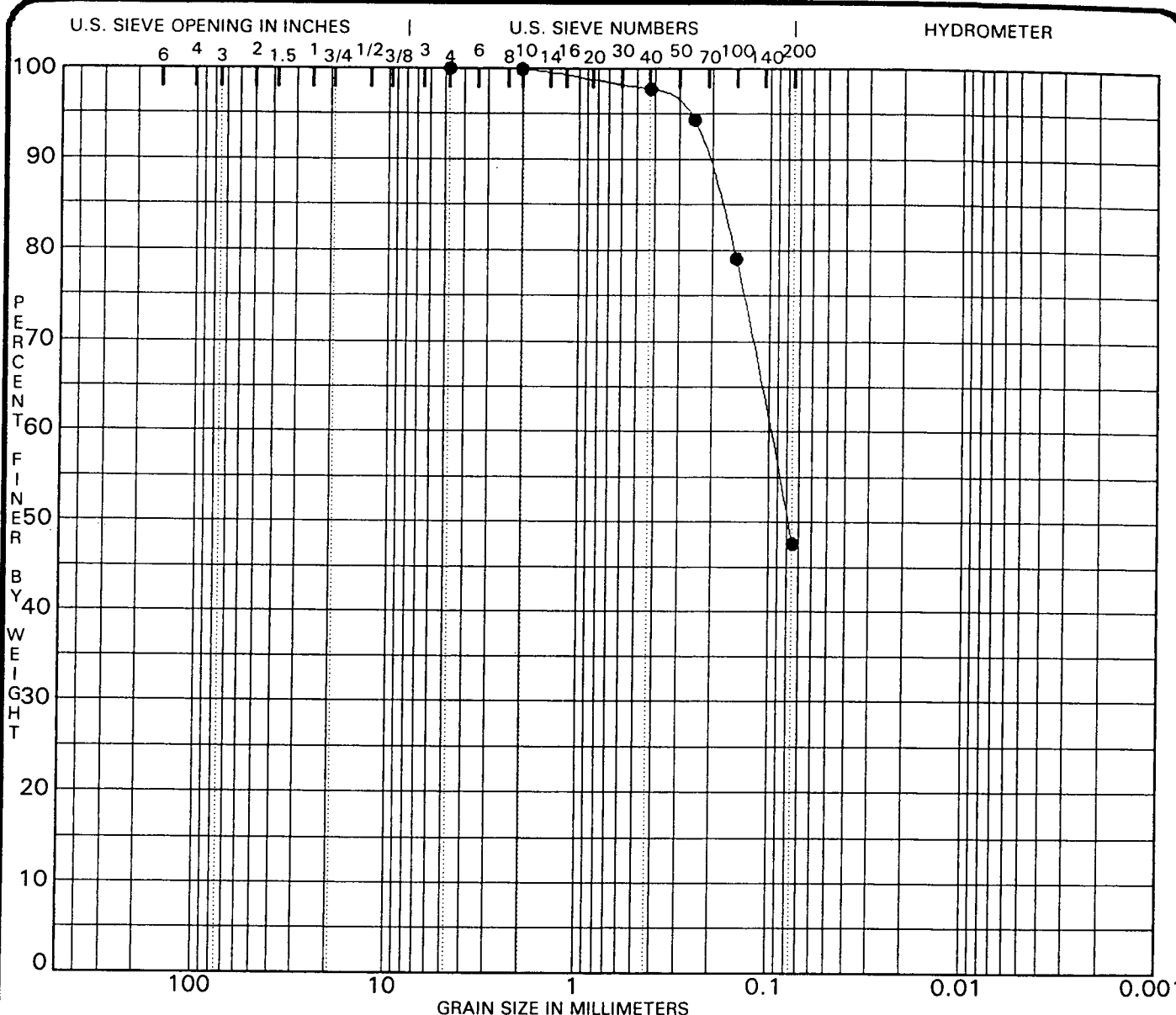
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-12 5.0		28					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-12 5.0	19.00	0.13			4.4	61.0	34.6	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 10/10/03

GRADATION CURVES
 UNIVERSAL ENGINEERING SCIENCES
 ORLANDO, FLORIDA



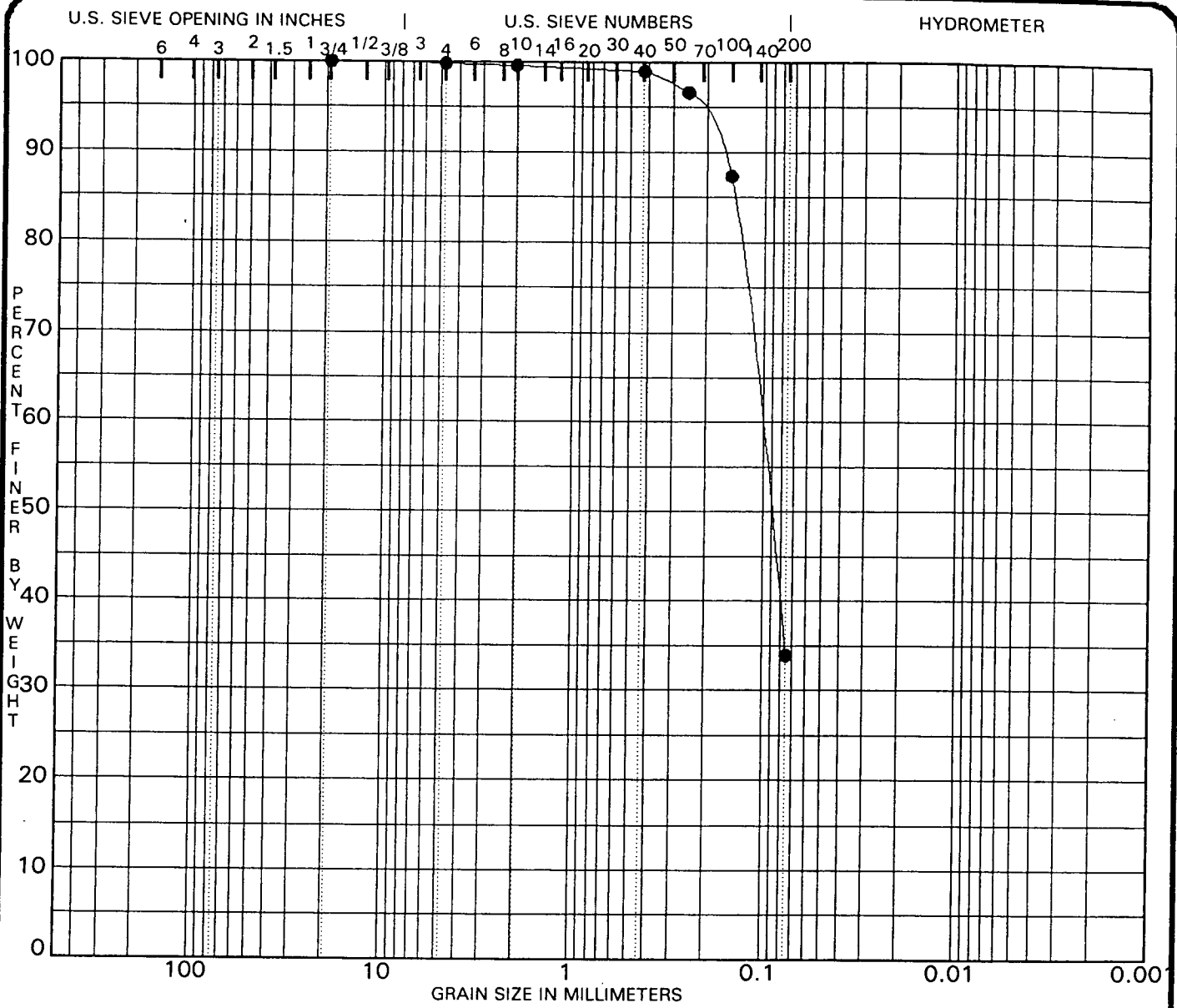
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-12 6.0		34					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-12 6.0	4.75	0.10			0.0	52.4	47.6	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 10/10/03

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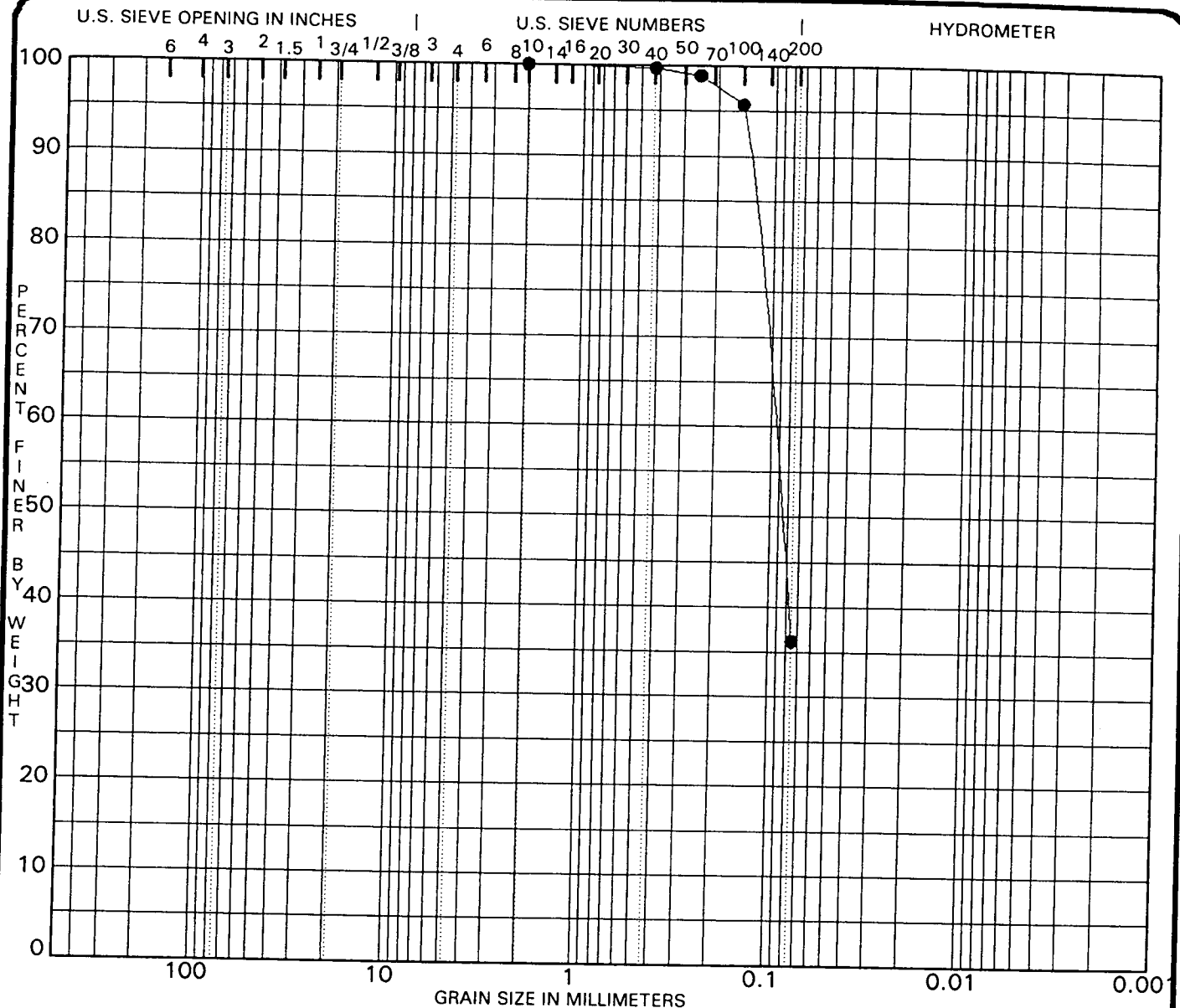
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-12A 4.0		26					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-12A 4.0	19.00	0.11			0.2	65.9	33.9	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 10/10/03

GRADATION CURVES
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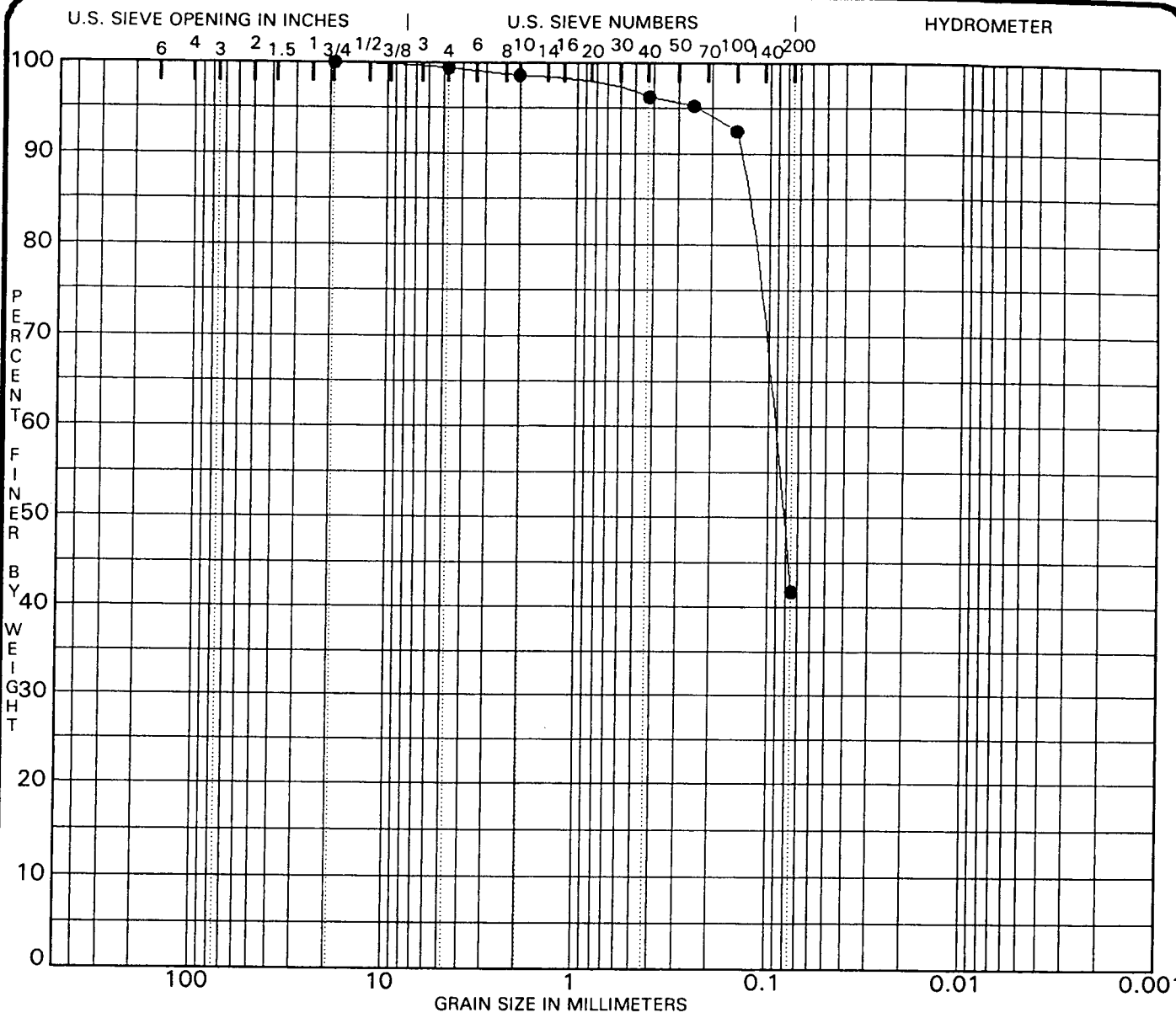
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-12A 5.0		25					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-12A 5.0	2.00	0.10			0.0	63.8	36.2	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 10/10/03

GRADATION CURVES
 UNIVERSAL ENGINEERING SCIENCES
 ORLANDO, FLORIDA



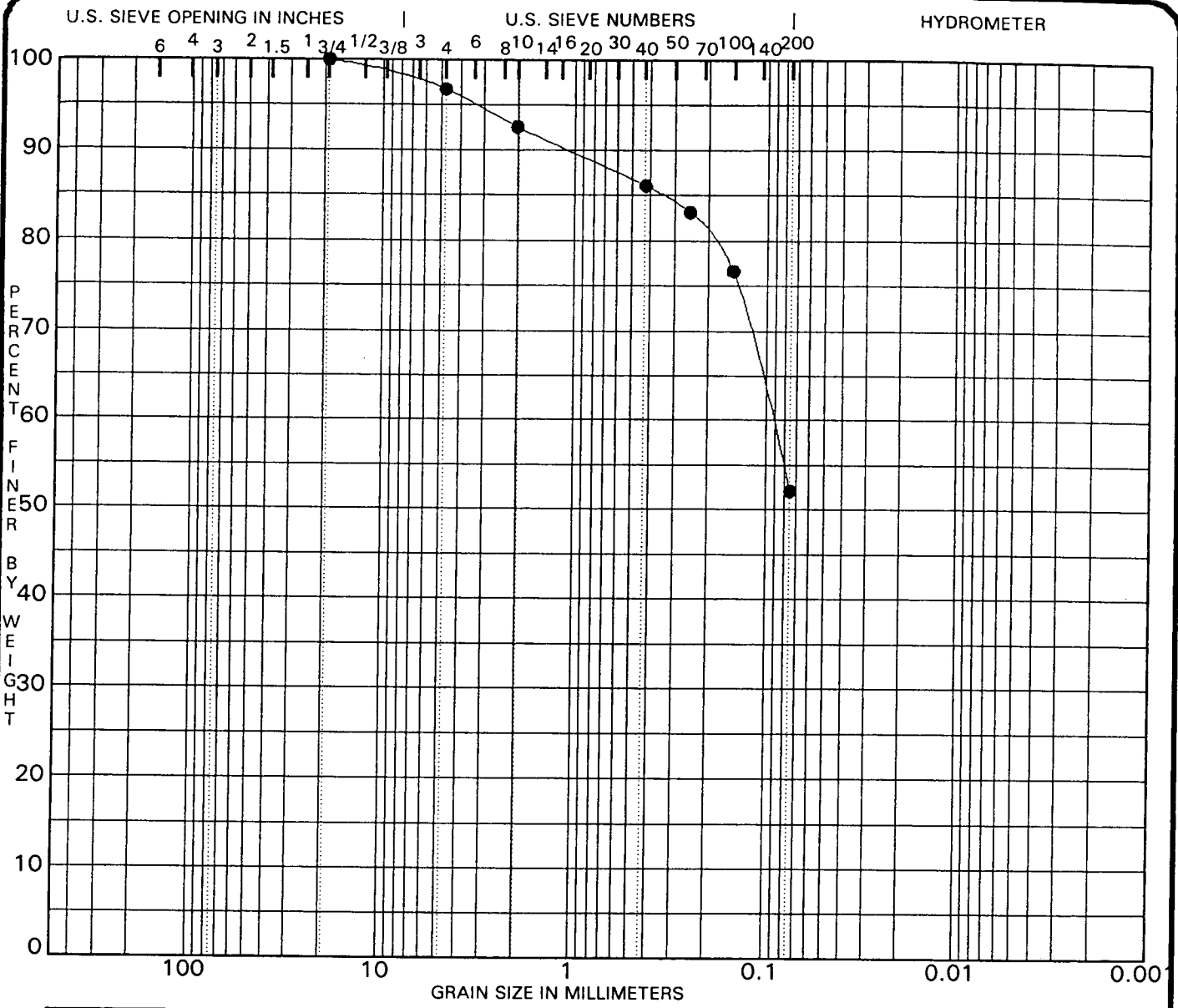
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-12A 6.0		27					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-12A 6.0	19.00	0.10			0.6	57.7	41.7	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 10/10/03

GRADATION CURVES
 UNIVERSAL ENGINEERING SCIENCES
 ORLANDO, FLORIDA



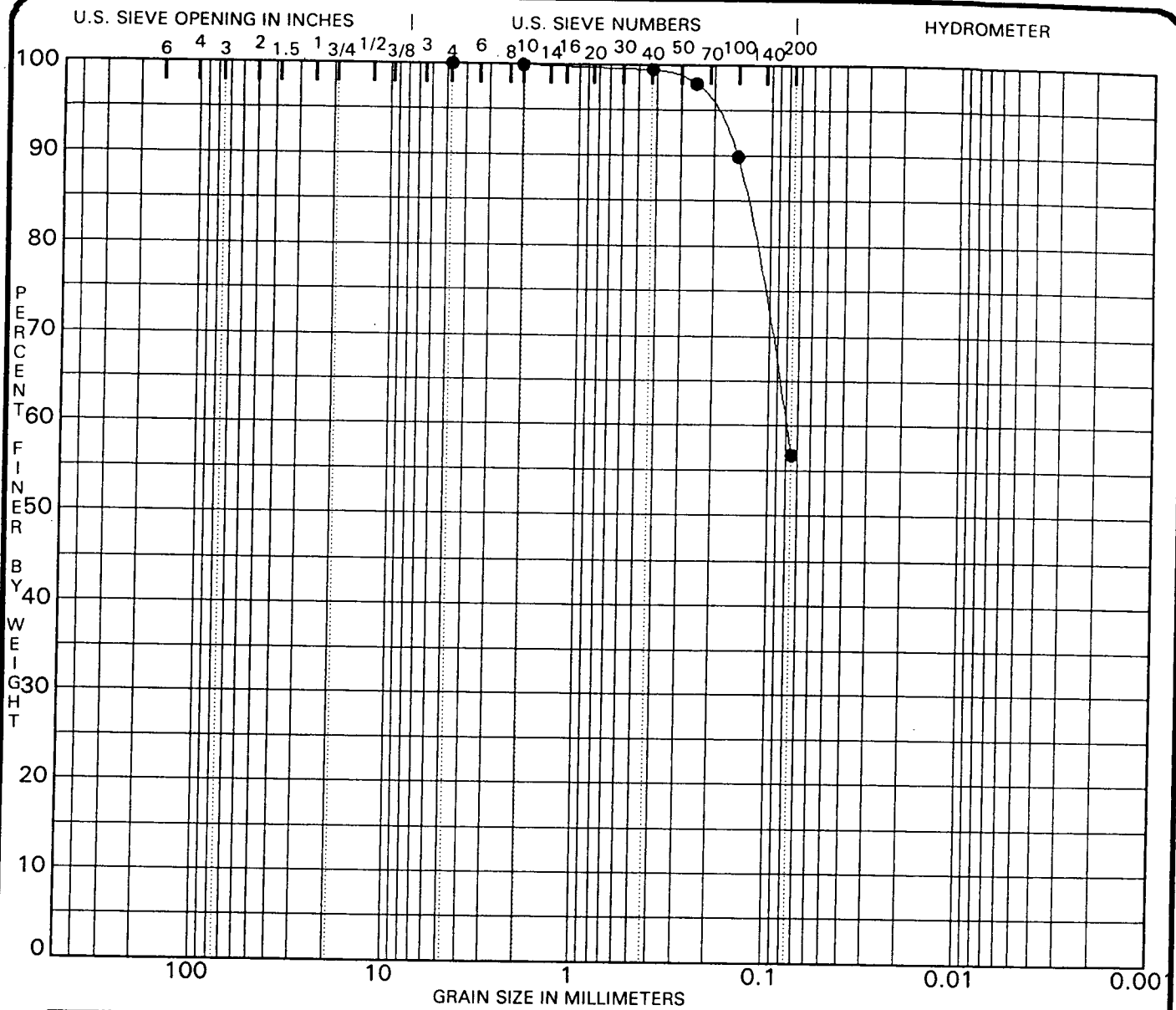
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-13 8.0		44					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-13 8.0	19.00	0.09			3.3	44.6	52.1	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 10/10/03

GRADATION CURVES
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 ORLANDO, FLORIDA



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

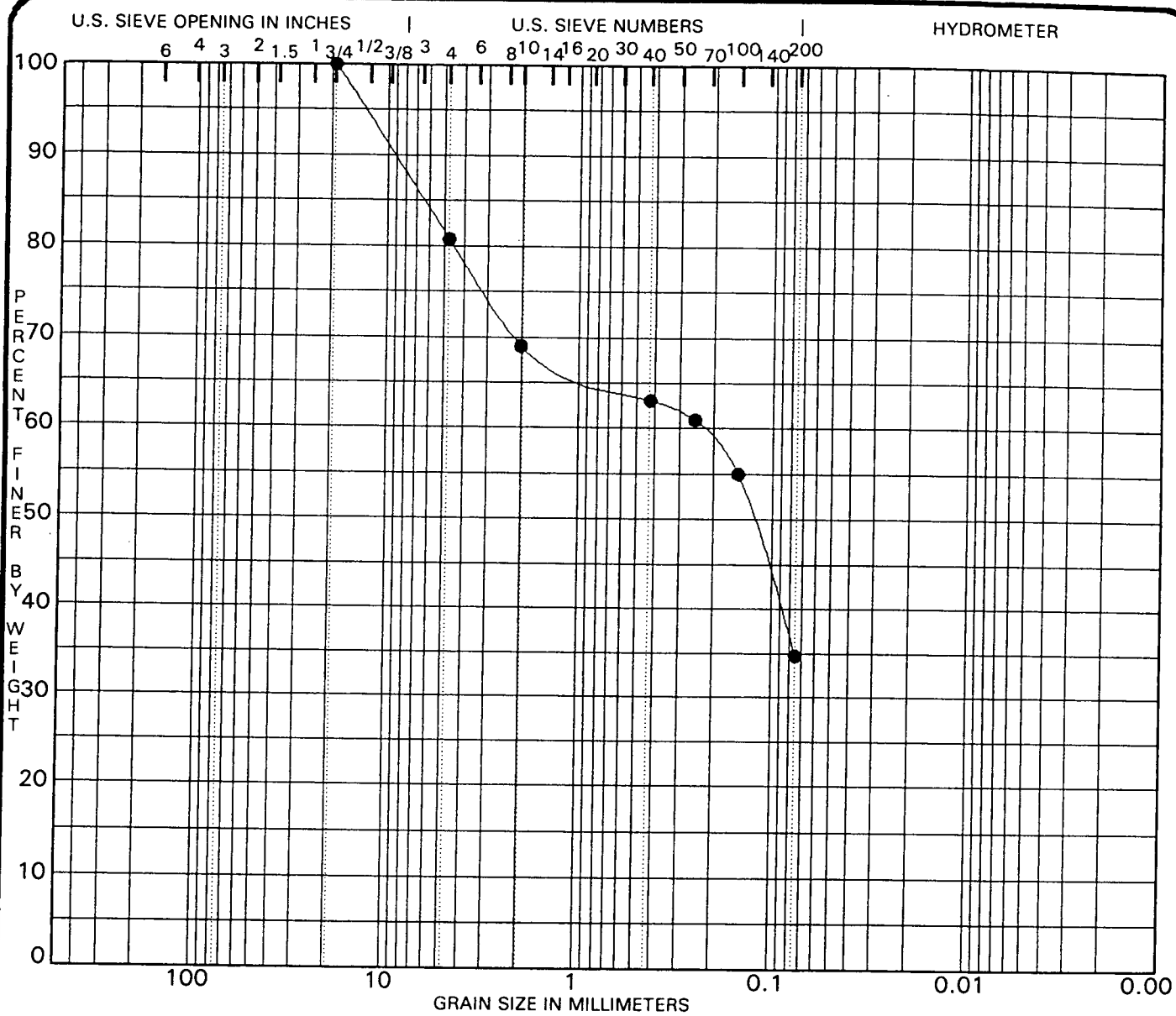
Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-13 9.0		35					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-13 9.0	4.75	0.08			0.0	43.3	56.7	

PROJECT ENTERPRISE ROAD LANDFILL - FL

JOB NO. 99-331.007-T4
DATE 10/10/03

GRADATION CURVES
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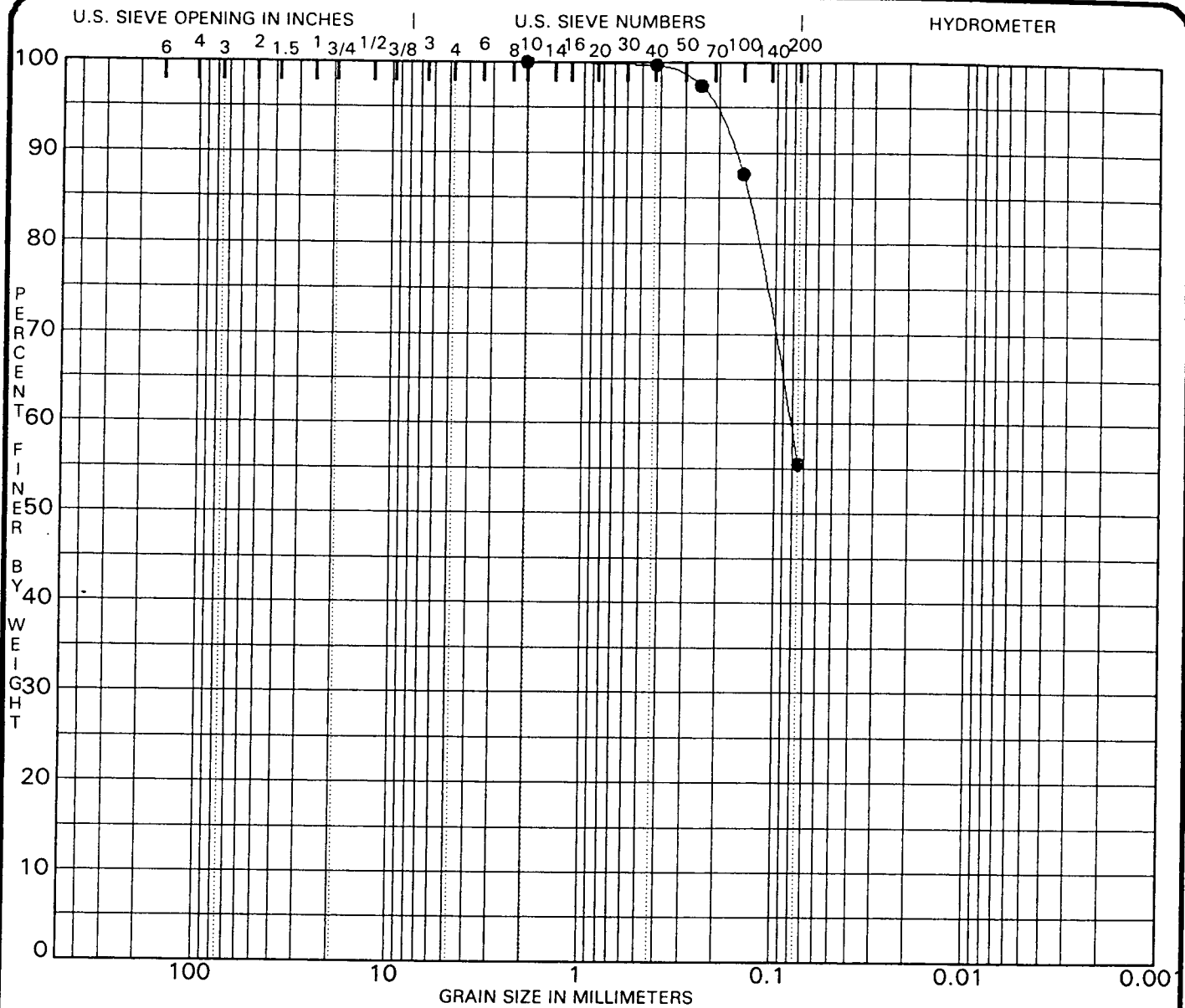
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-14 4.0		39					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-14 4.0	19.00	0.23			19.3	46.0	34.7	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 10/10/03

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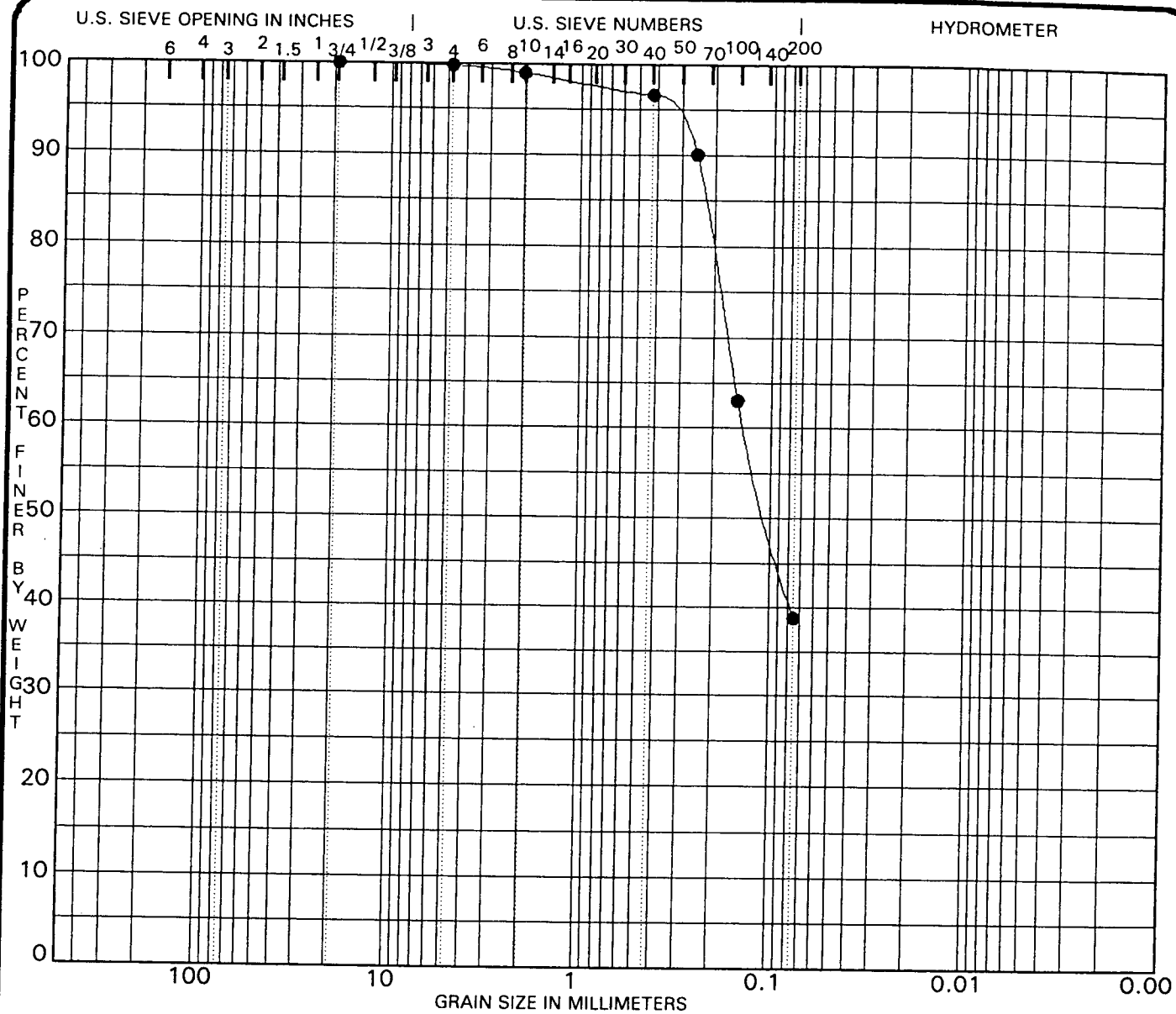
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-14 5.0		38					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-14 5.0	2.00	0.08			0.0	44.5	55.5	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 10/10/03

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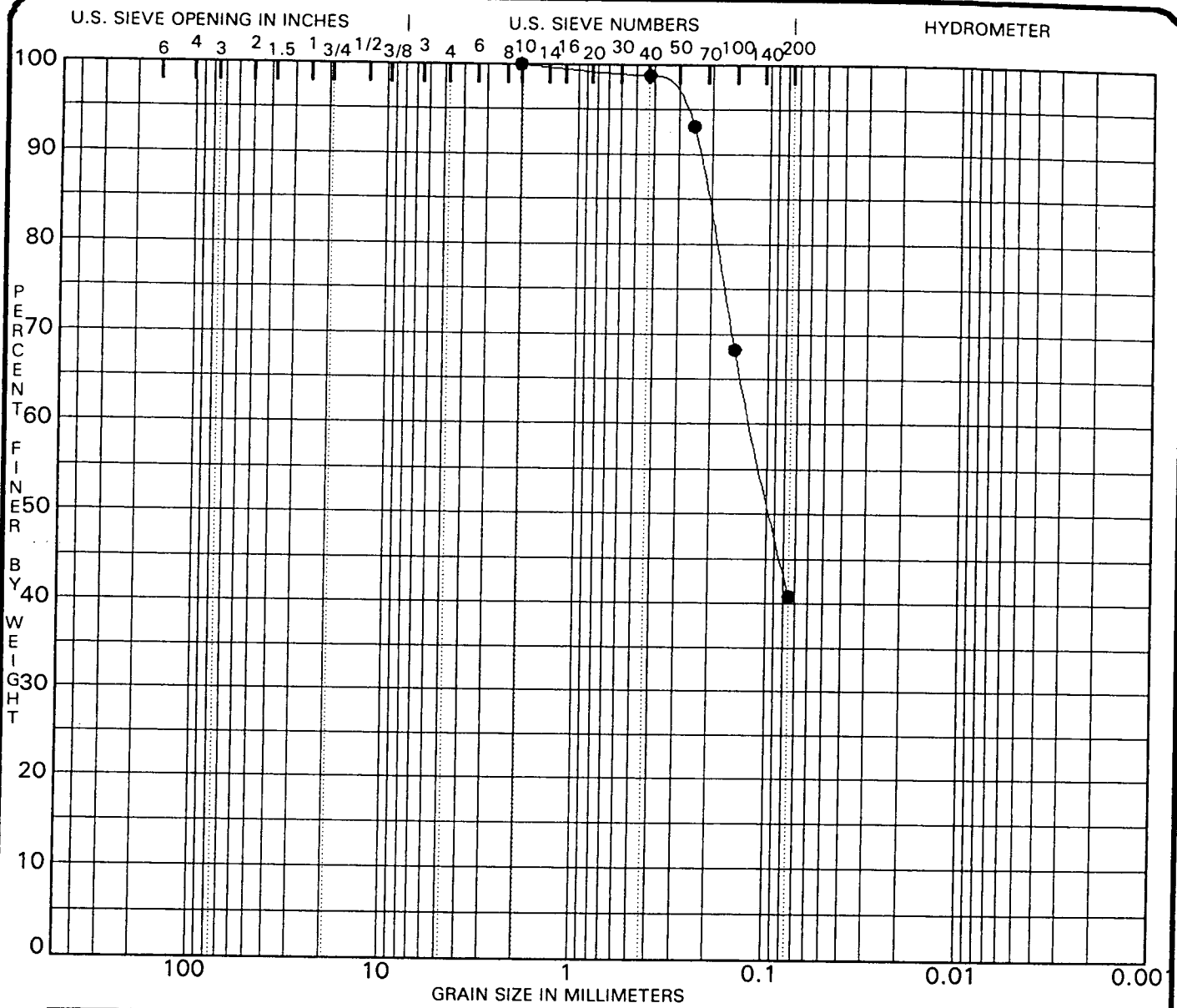
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-16 8.0		30					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-16 8.0	19.00	0.14			0.2	61.0	38.8	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 10/10/03

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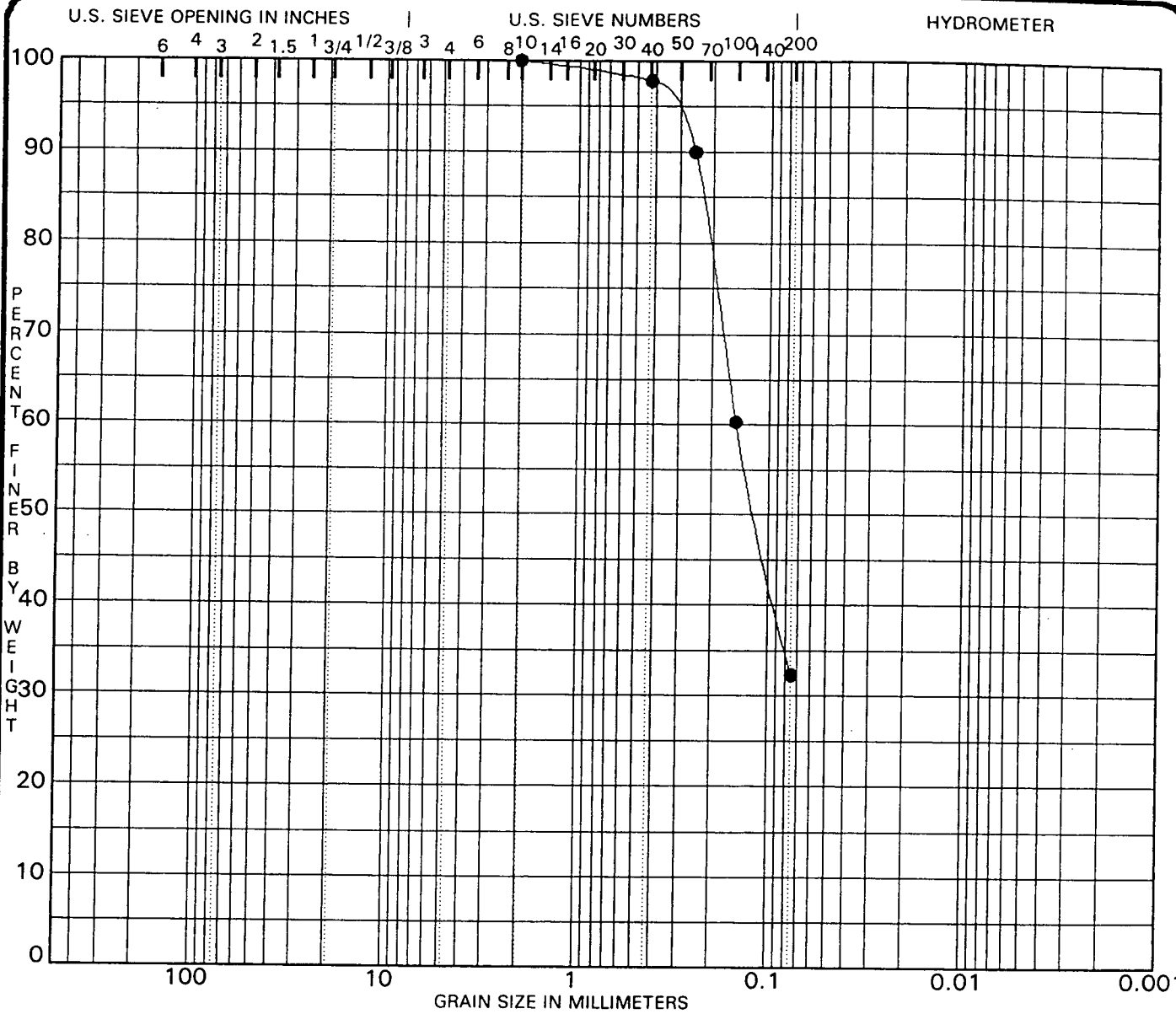
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification					MC%	LL	PL	PI	Cc	Cu
● ST-16 9.0						33					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-16 9.0	2.00	0.12			0.0	59.2	40.8	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 10/10/03

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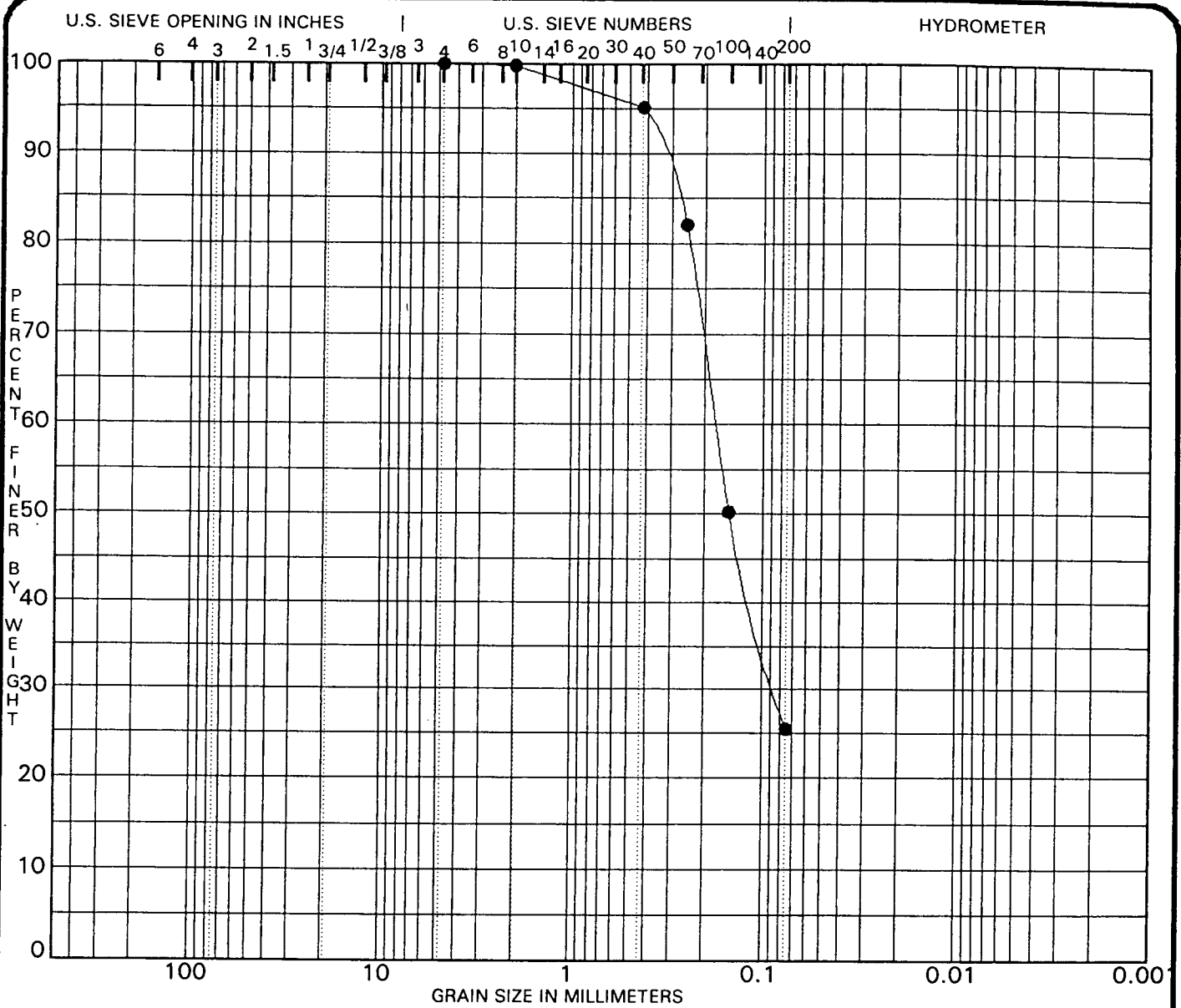
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-17 2.0		18					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-17 2.0	2.00	0.15			0.0	67.7	32.3	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 10/10/03

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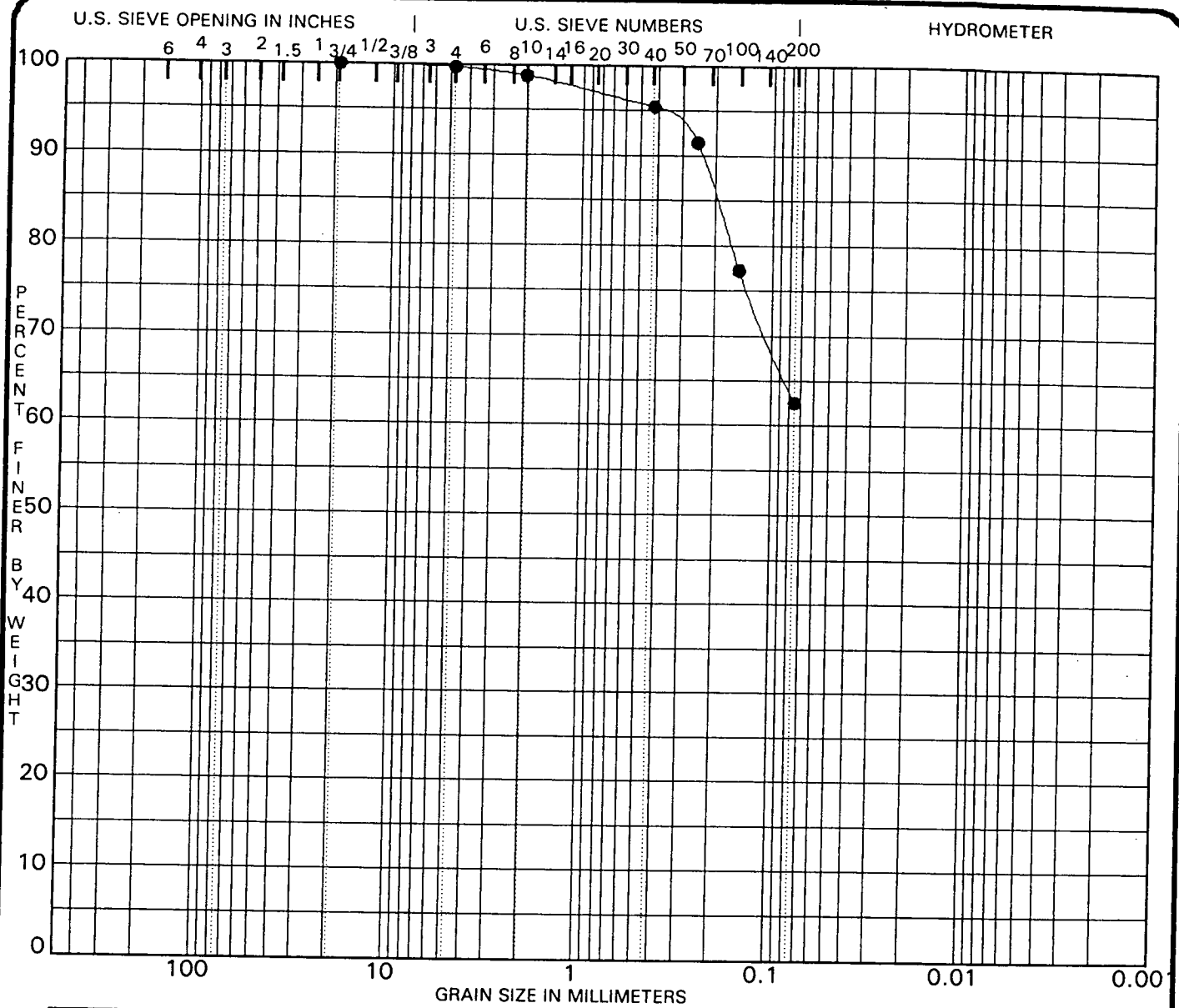
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-17 3.0		15					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-17 3.0	4.75	0.18	0.085		0.0	74.6	25.4	

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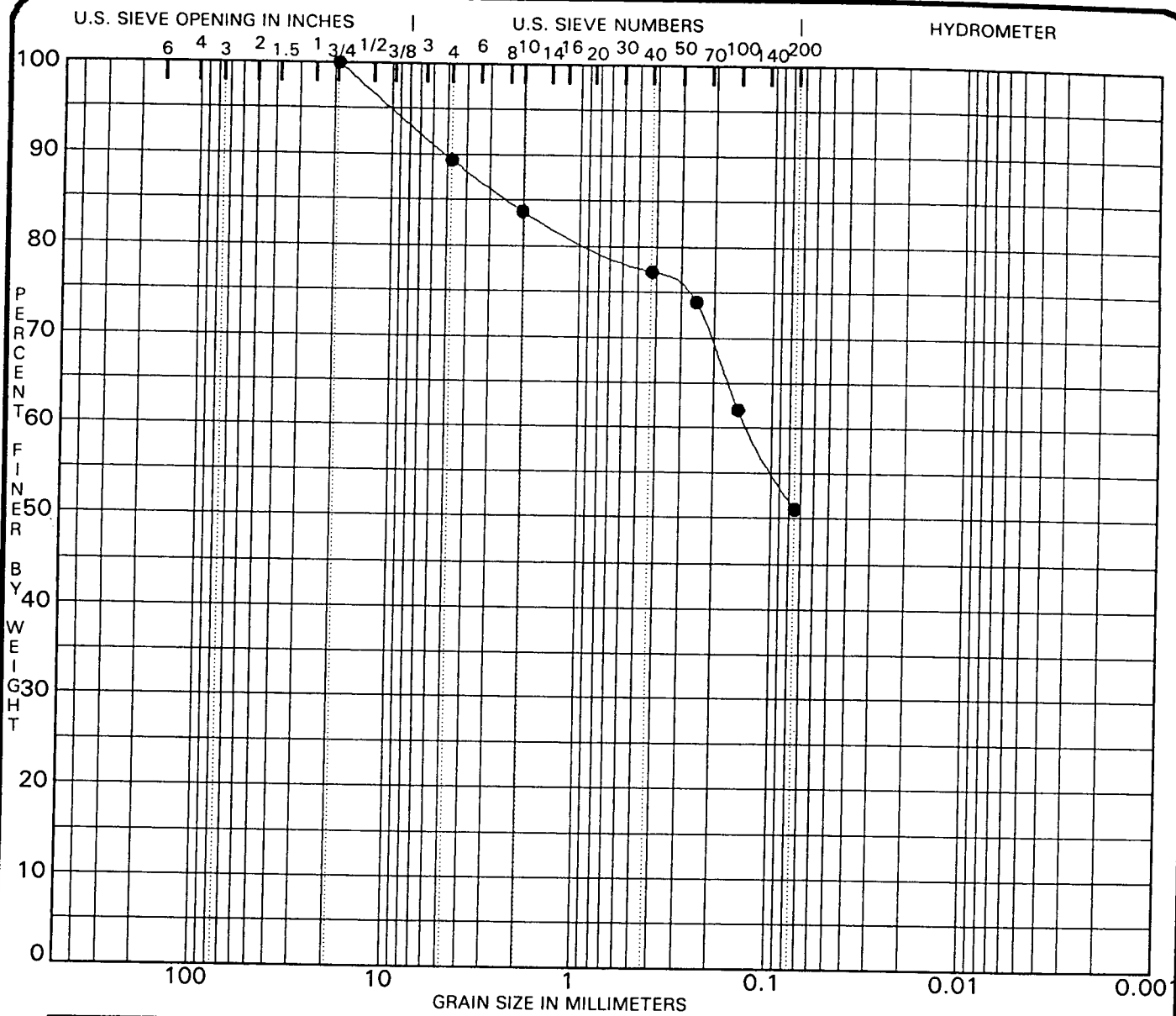
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-18 2.0		33					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-18 2.0	19.00				0.3	37.2	62.5	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
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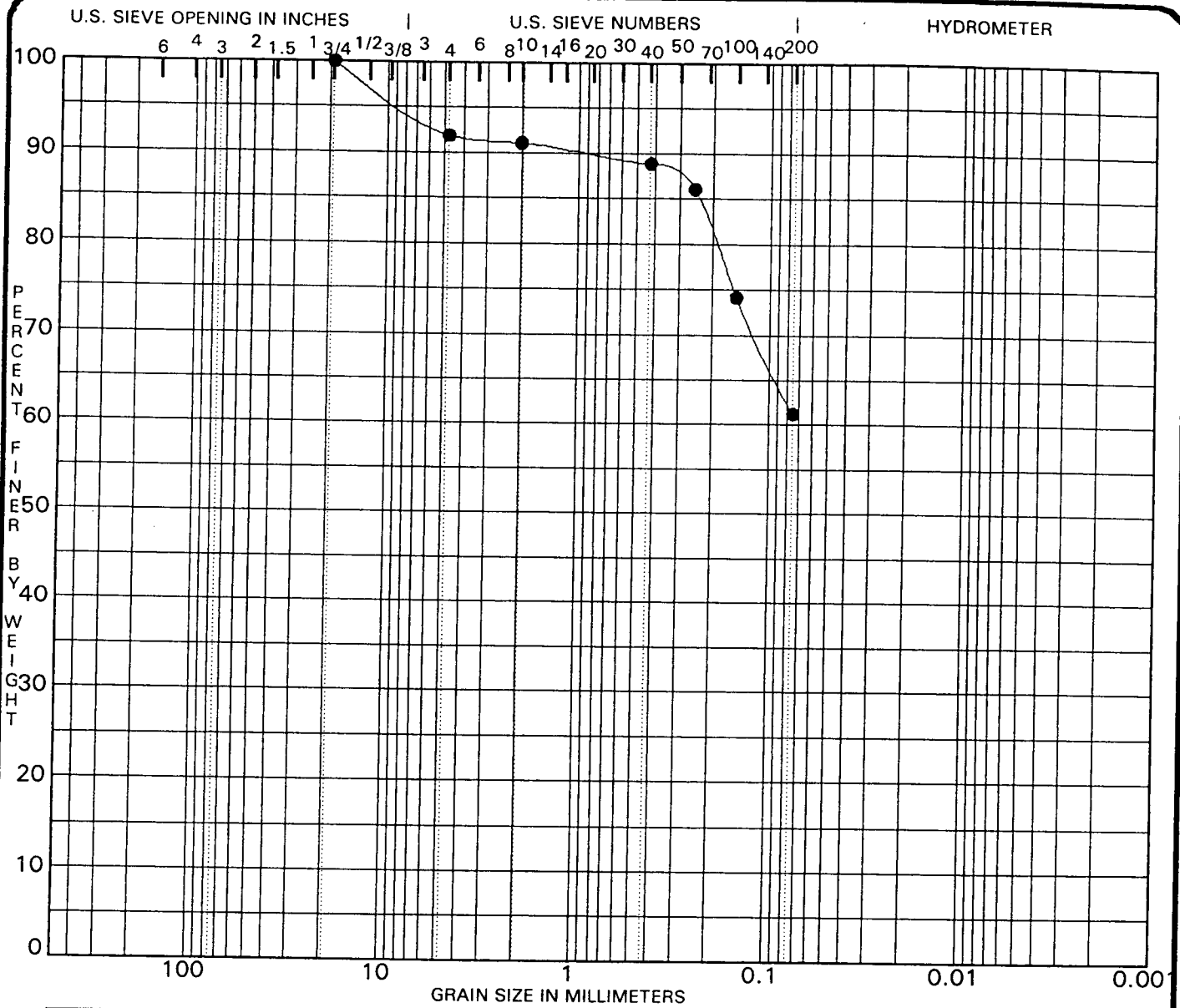
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-18 3.0		30					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-18 3.0	19.00	0.13			10.7	38.3	51.0	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
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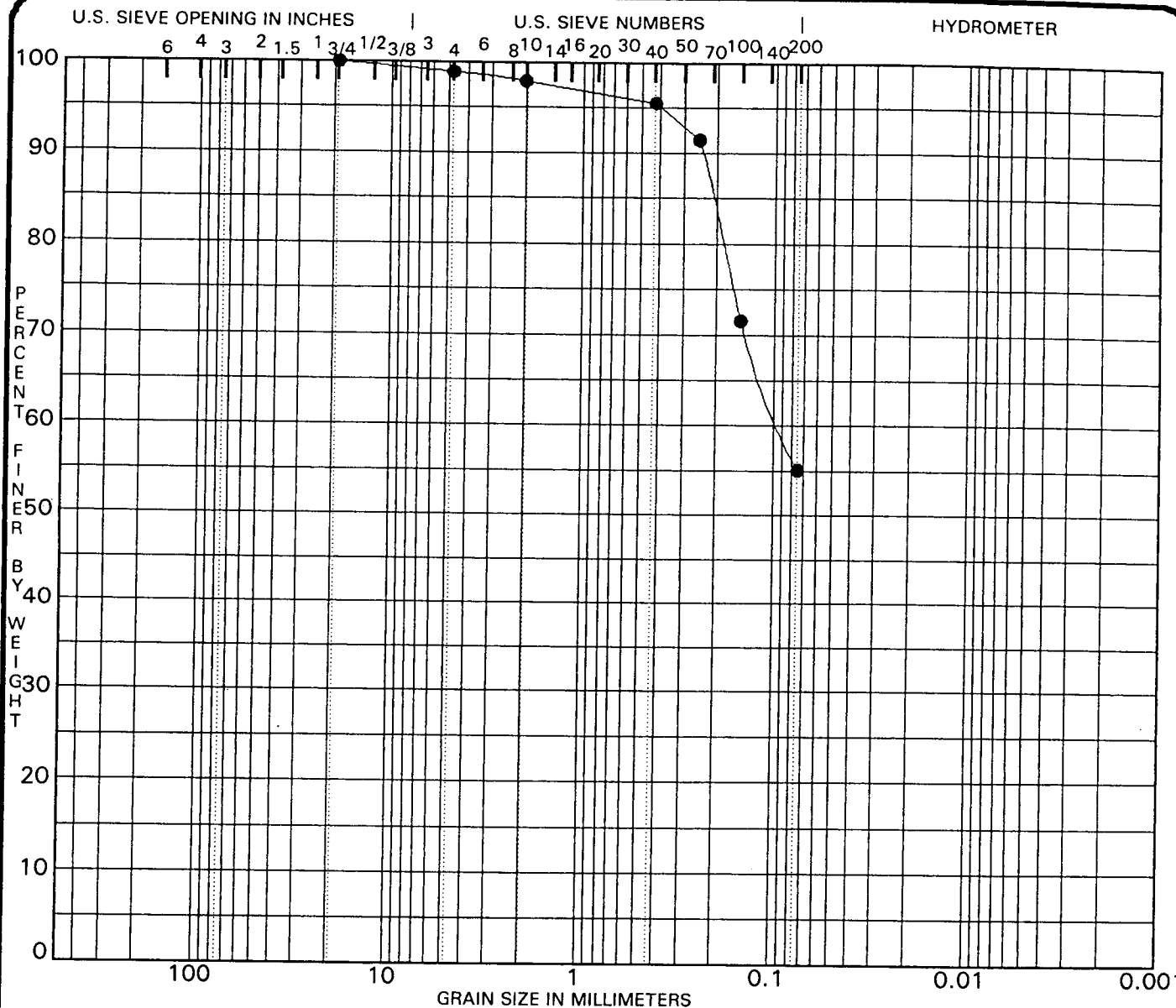
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-18 4.0		33					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-18 4.0	19.00				8.2	30.6	61.2	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 10/10/03

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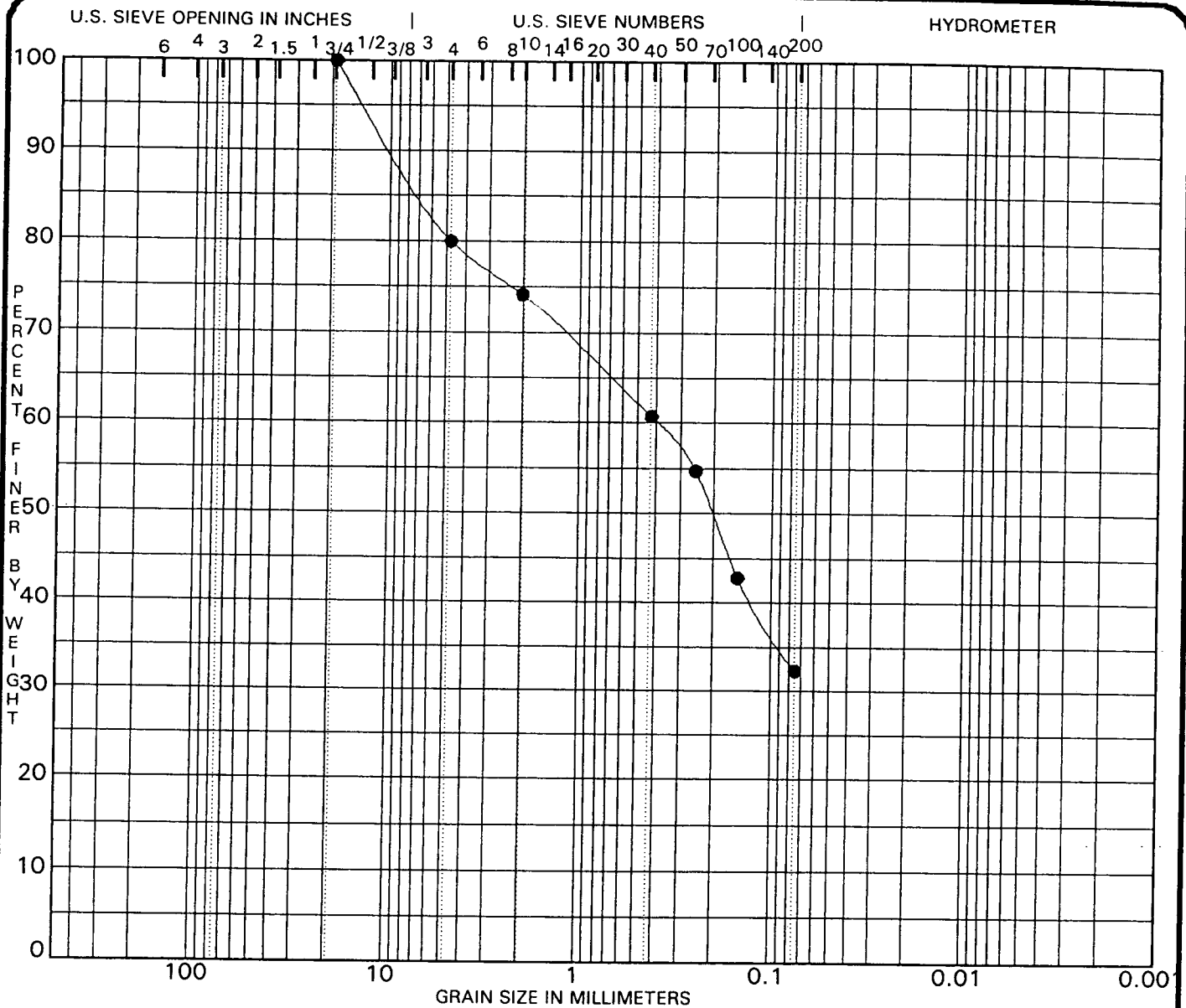
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-20 2.0		32					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-20 2.0	19.00	0.09			1.1	43.8	55.1	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
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COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

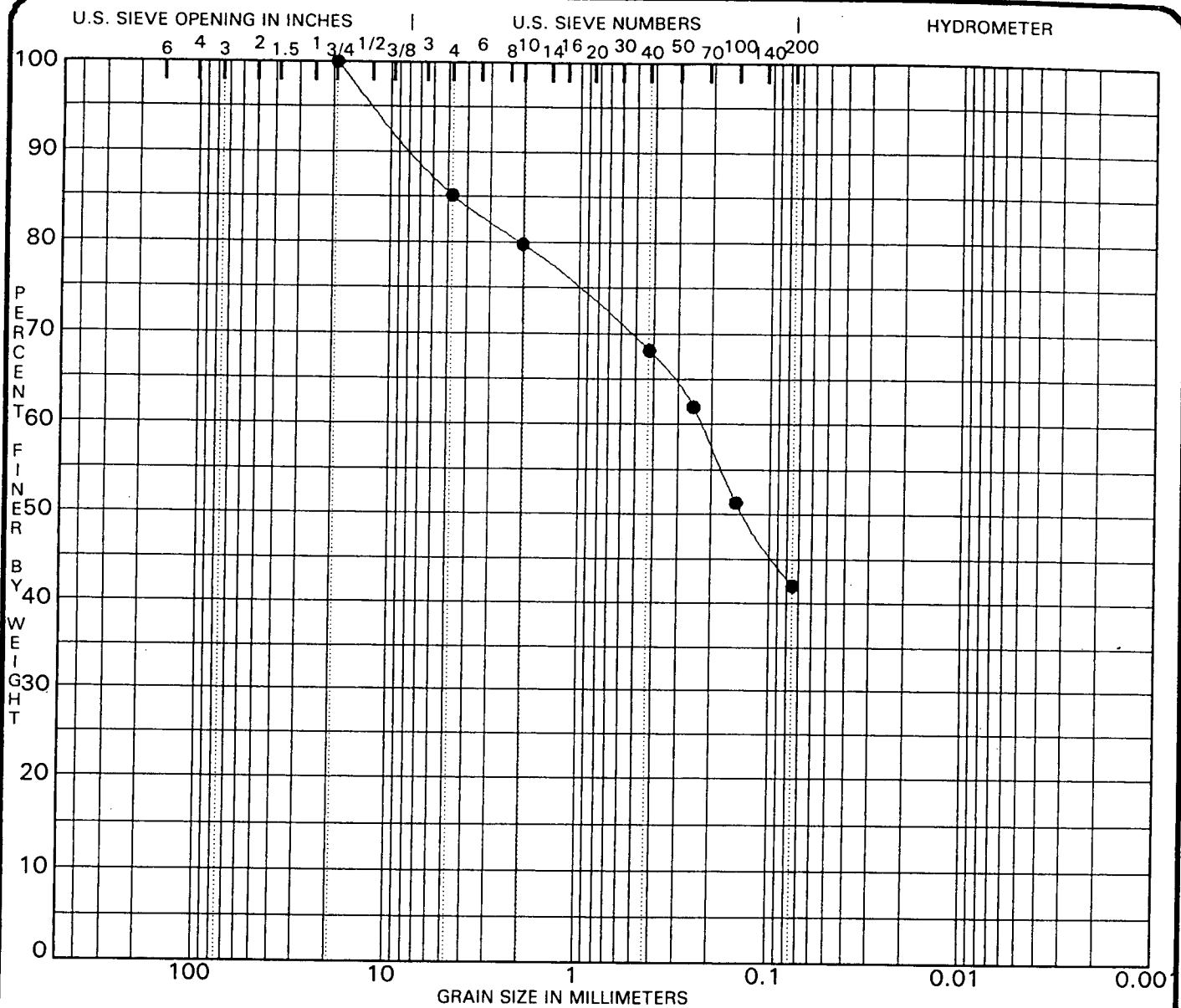
Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-20 3.0		27					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-20 3.0	19.00	0.40			20.1	47.6	32.3	

PROJECT ENTERPRISE ROAD LANDFILL - FL

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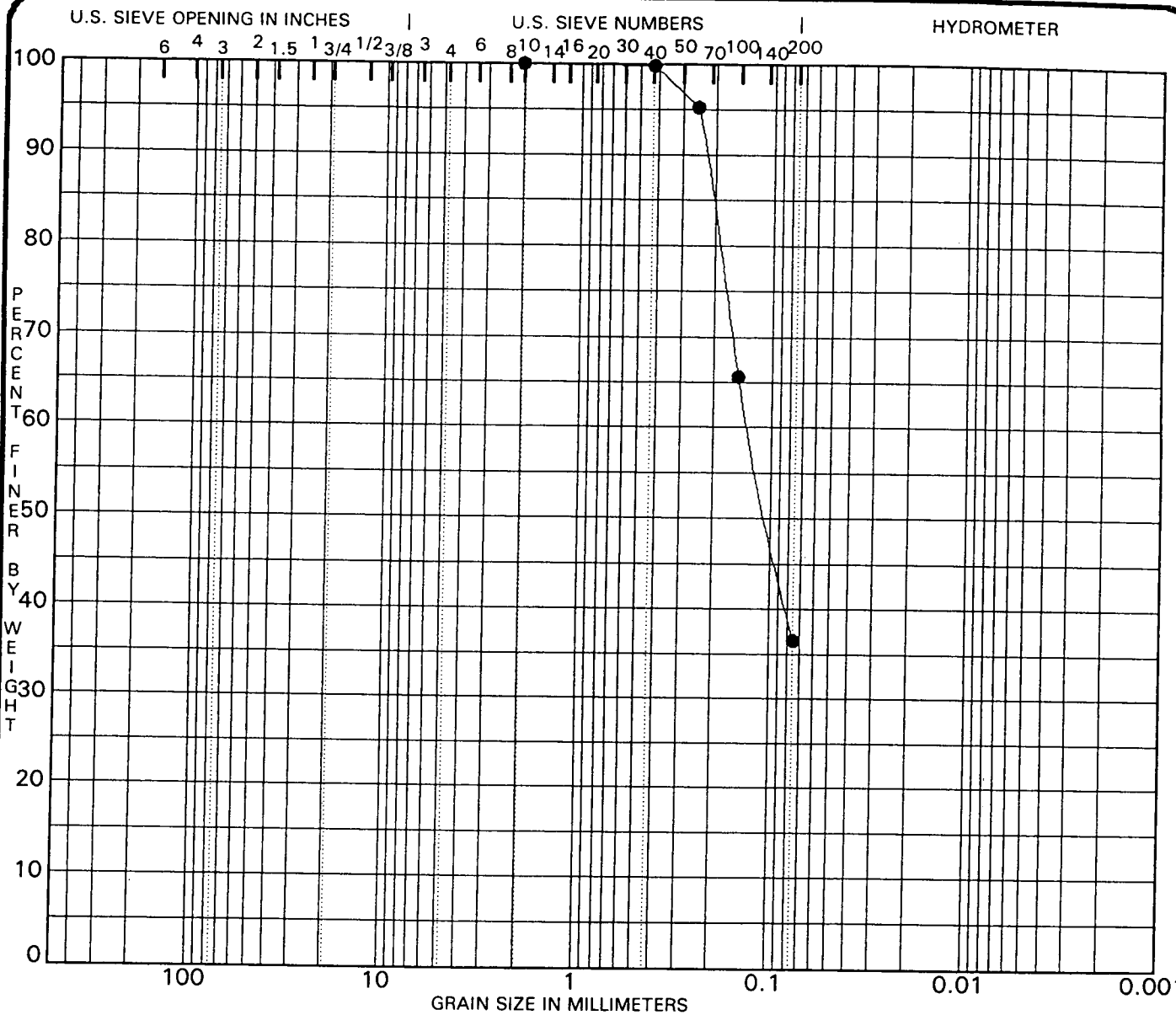
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-20 4.0		29					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-20 4.0	19.00	0.23			14.9	43.1	42.0	

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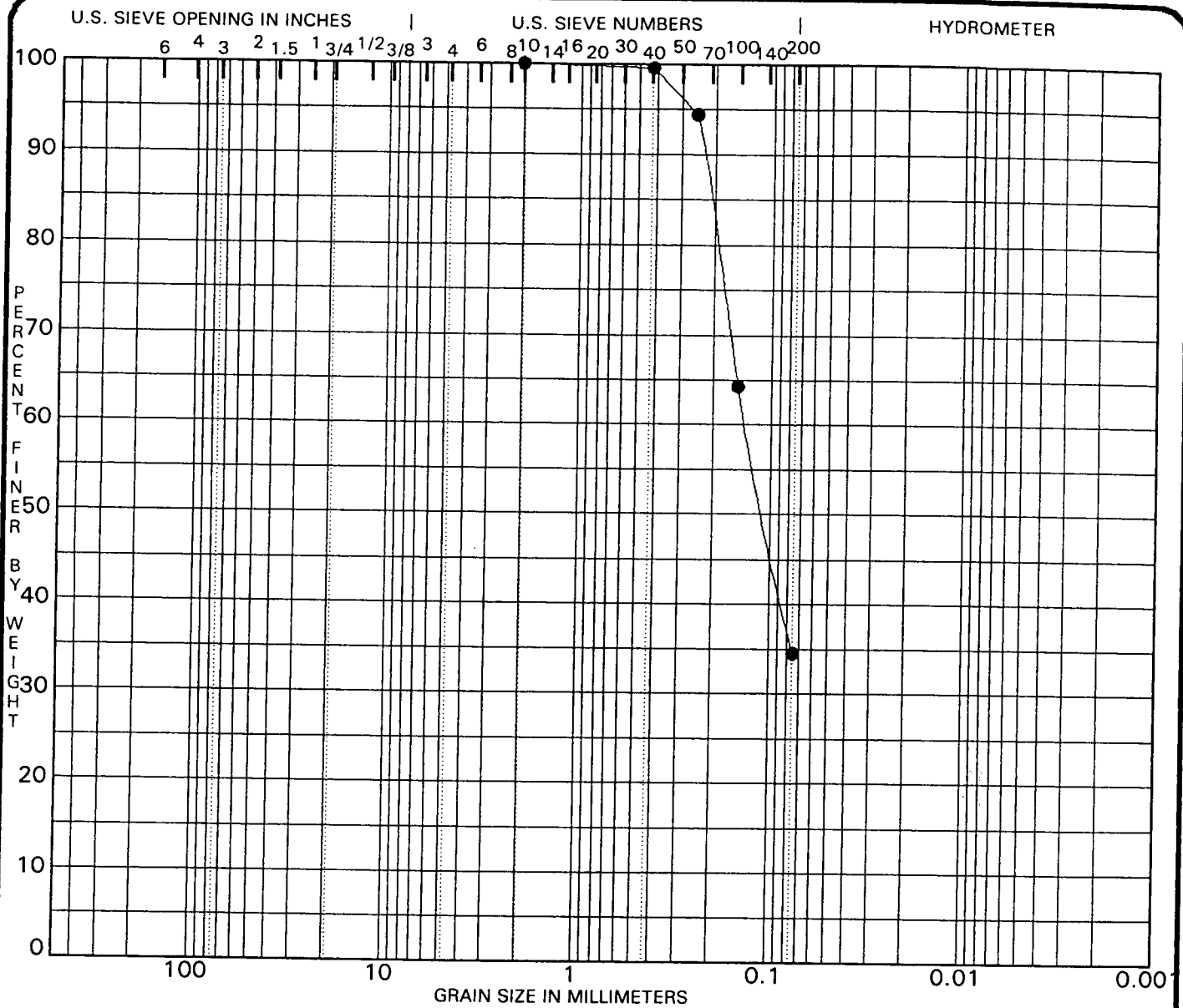


COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification					MC%	LL	PL	PI	Cc	Cu
● ST-21 32.0						27					
Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay			
● ST-21 32.0	2.00	0.13			0.0	63.5	36.5				

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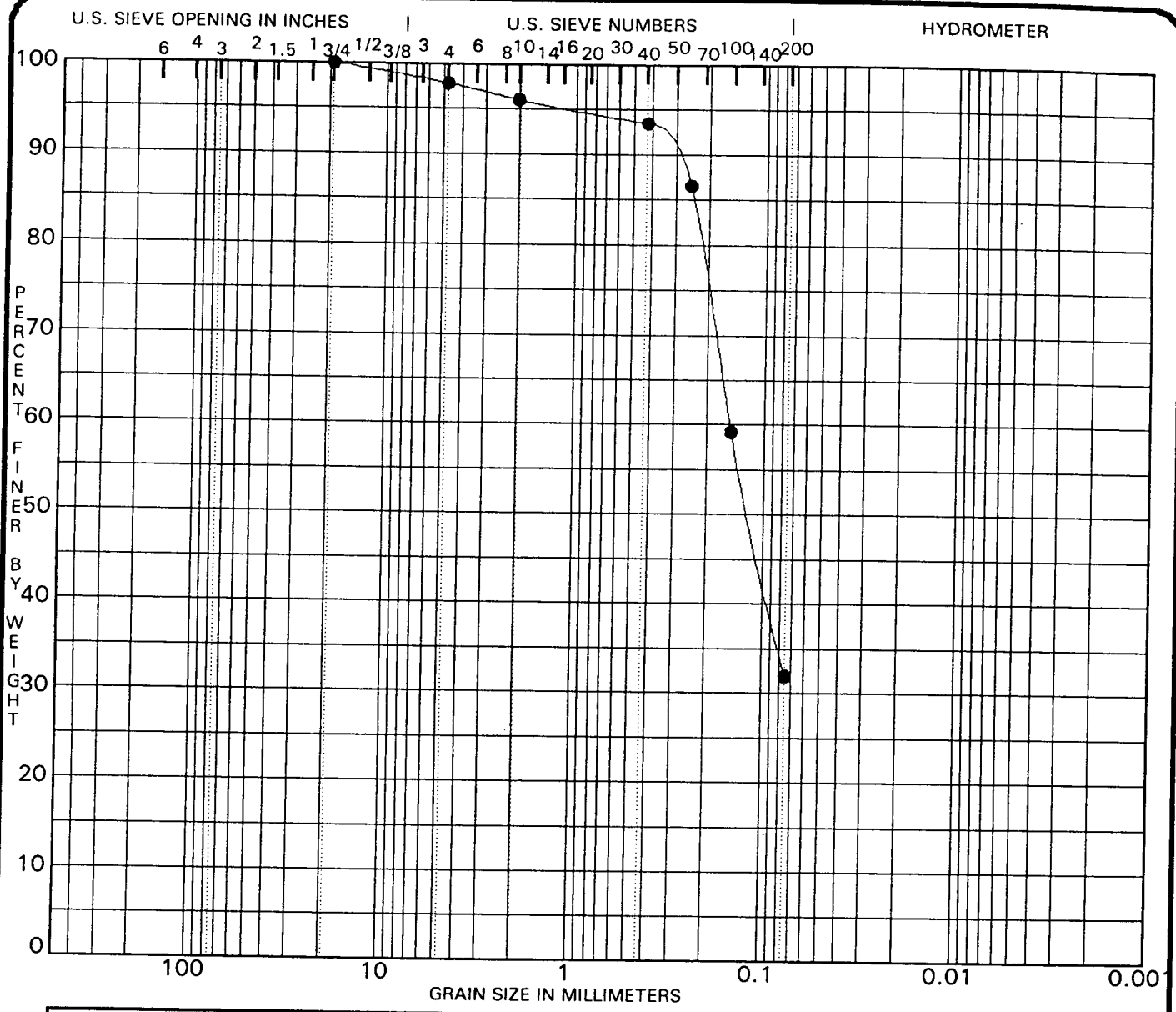


COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification				MC%	LL	PL	PI	Cc	Cu
●	ST-21 33.0					27					
Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
●	ST-21 33.0	2.00	0.14			0.0	65.5	34.5			

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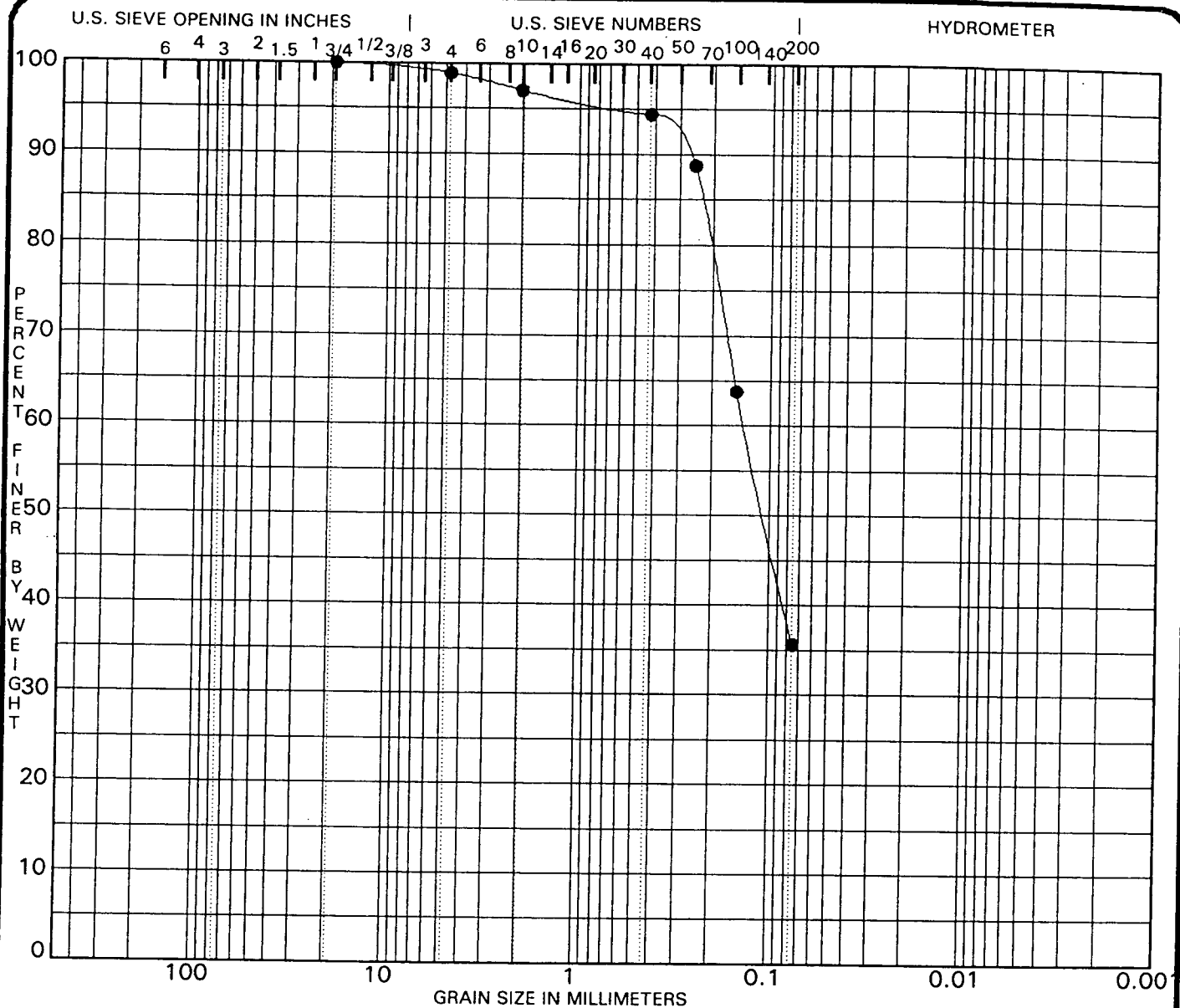


COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification				MC%	LL	PL	PI	Cc	Cu
●	ST-9 1.0					27					
Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
●	ST-9 1.0	19.00	0.15			2.2	65.9	31.9			

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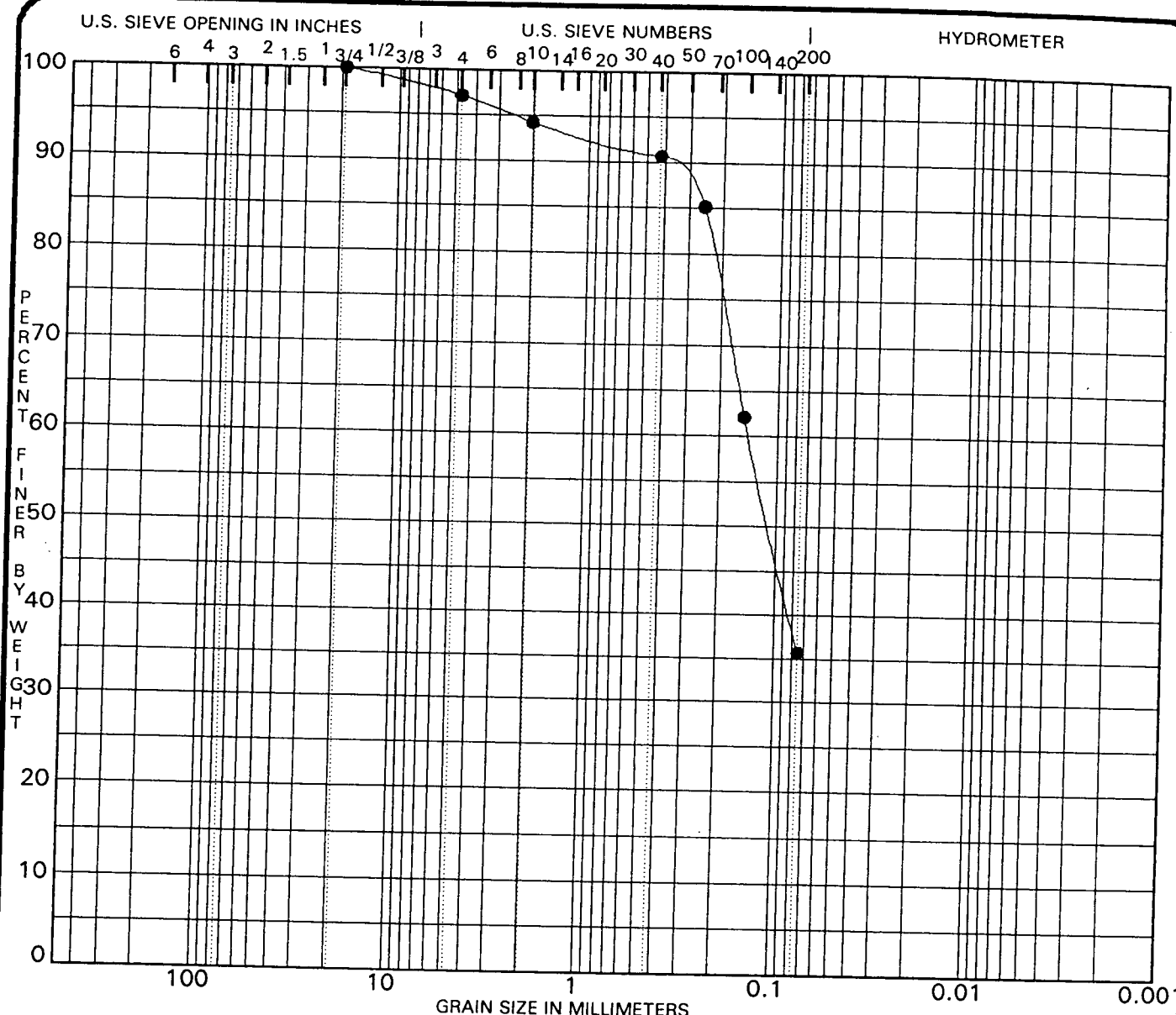
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-9 2.0		28					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-9 2.0	19.00	0.14			1.1	63.3	35.6	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
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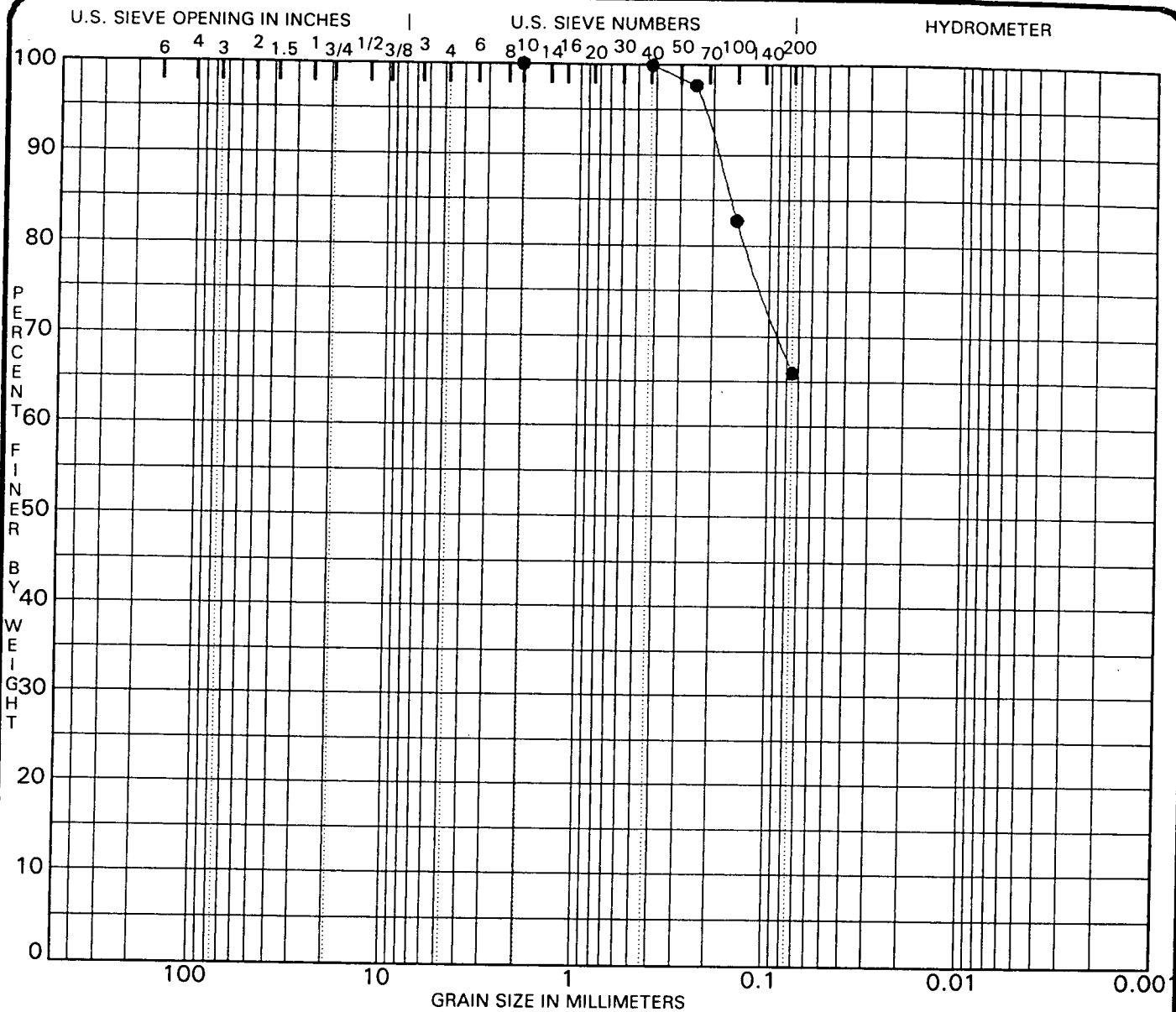
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification				MC%	LL	PL	PI	Cc	Cu
●	ST-9 3.0					30					

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	ST-9 3.0	19.00	0.14			2.9	61.4	35.7	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 10/10/03

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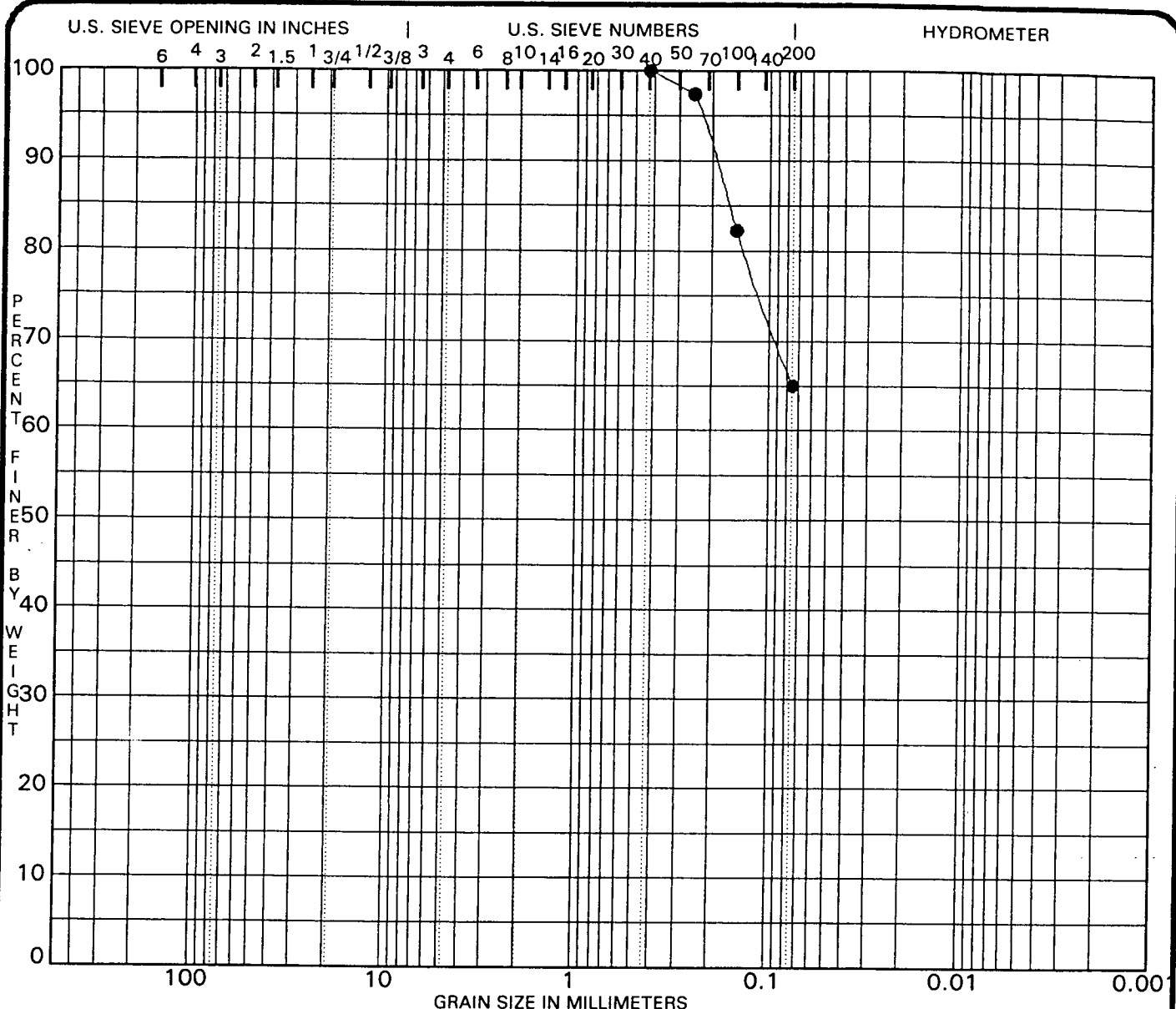


COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification					MC%	LL	PL	PI	Cc	Cu
● ST-9 4.0						39					
Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay			
● ST-9 4.0	2.00				0.0	34.1	65.9				

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
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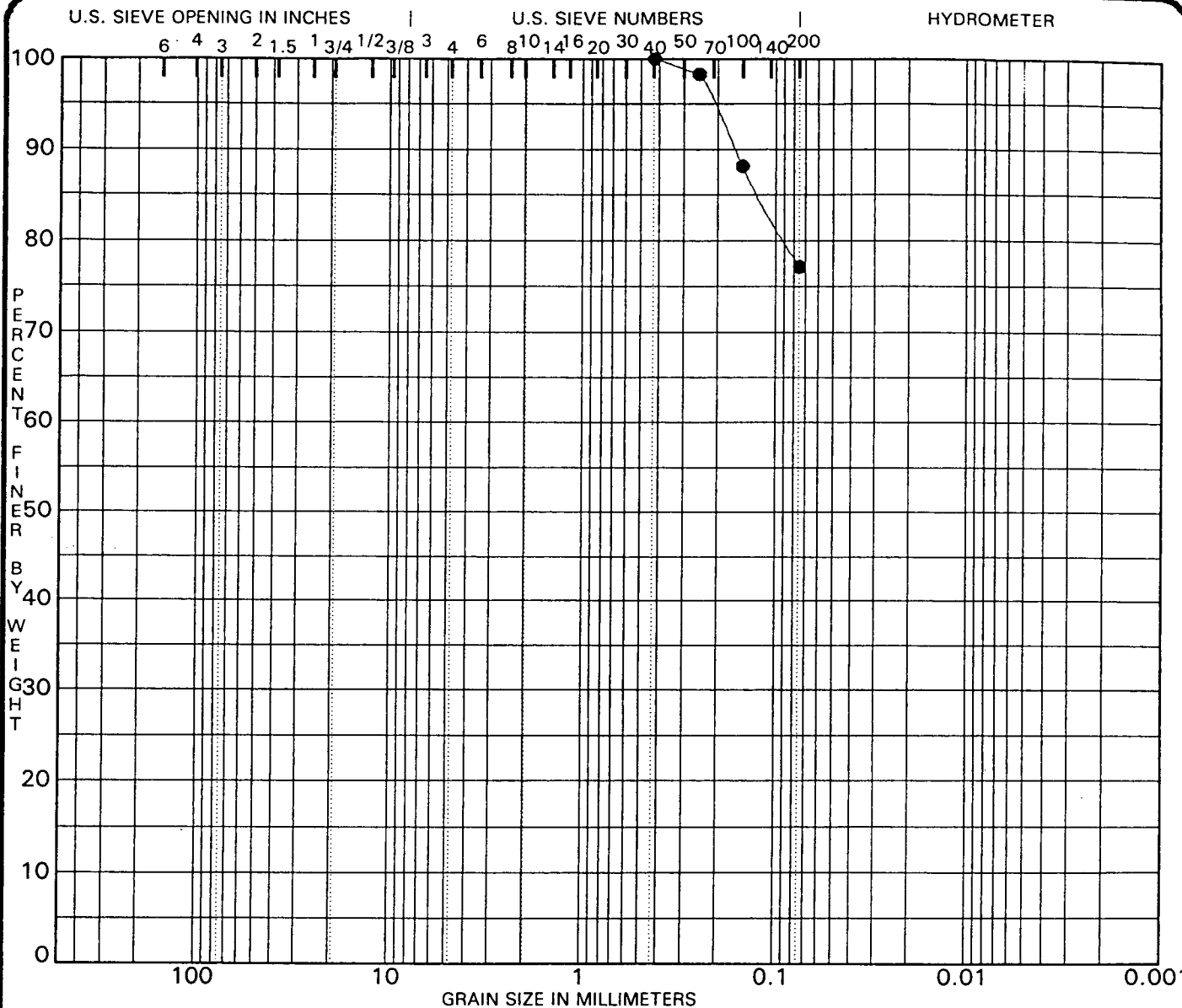
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-9 5.0		35					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-9 5.0	0.43				0.0	35.0	65.0	

PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
 DATE 10/10/03

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COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● ST-9 6.0		34					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● ST-9 6.0	0.43				0.0	22.9	77.1	

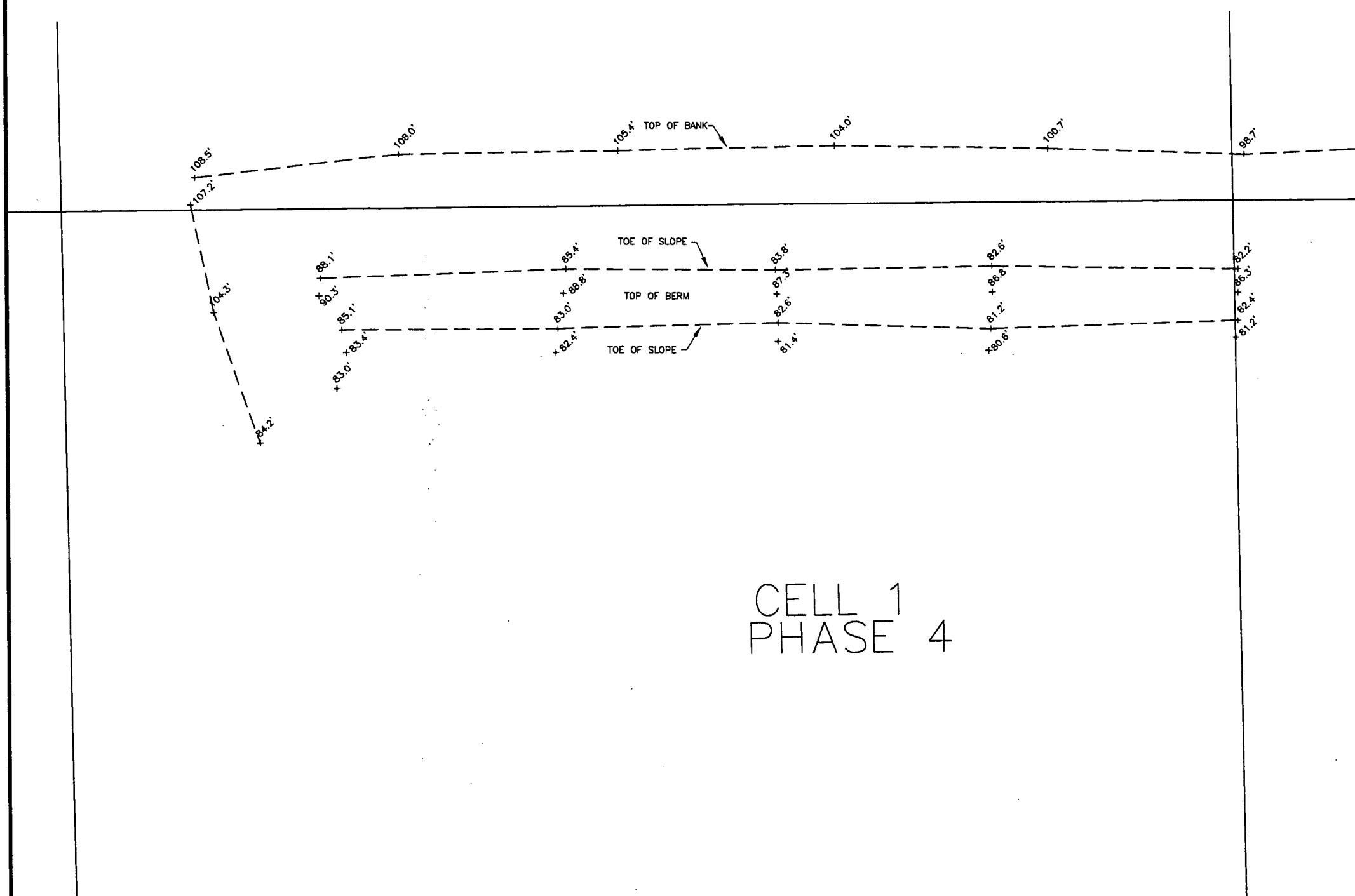
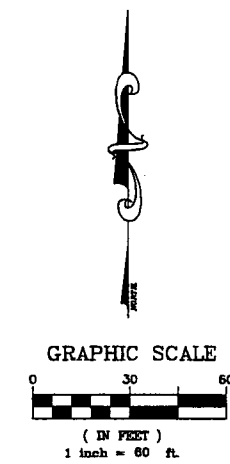
PROJECT ENTERPRISE ROAD LANDFILL - FL JOB NO. 99-331.007-T4
DATE 10/10/03

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ORLANDO, FLORIDA

APPENDIX C

ASBUILT SURVEY
 WEST BERM CELL 1
 ENTERPRISE RD RECYCLING CENTER

SECTION 8, TOWNSHIP 25 SOUTH, RANGE 22 EAST
 PASCO COUNTY, FLORIDA

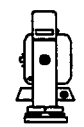


CELL 1
 PHASE 4

NOTES:

1. THIS IS NOT A BOUNDARY SURVEY
2. Underground utilities and improvements were not located as part of this survey are not shown hereon. Subject property may contain additional public and/or private underground utilities not readily identifiable by visible above-ground appurtenances.
3. This survey drawing was prepared for the exclusive use of the party or parties CERTIFIED TO below for the express purpose stated hereon and/or contained in the contract between Foresight Surveyors, Inc. and the client for this project. Copying, distributing, and/or using this drawing, in whole or in part for any purpose other than originally intended without written consent from Foresight Surveyors, Inc. is strictly prohibited, and renders the surveyors certification, signature, and seal NULL AND VOID. Any questions concerning the content or purpose of this drawing should be directed to Foresight Surveyors, Inc.
4. Elevations shown hereon are based on the Construction Plans for the Enterprise Recycling Disposal Facility and Enterprise Road. Bench Mark used is a nail and disk in a power pole station 115+74.55 58.36 LT. Elevation = 114.02'.

(Subject to any notes and notations listed or labeled hereon)
 This survey is not valid without the signature and original raised seal of a Florida licensed surveyor and mapper LB 5776

 FORESIGHT SURVEYORS, INC.		
773 PROVIDENCE BOULEVARD BROOKSWILE, FLORIDA 34601 PH. (352) 797-6306 FAX (352) 797-6308		
FILE	CERTIFIED AS SURVEYOR	SCALE 1" = 60'
DRAWN ADM	<i>[Signature]</i>	FIELD DATE 11-07-03
CHECKED	<i>[Signature]</i>	PROJECT # 22324
A. DANIEL MILLER, P.S.M. Florida Surveyor License No. 6294		

APPENDIX D

**GROUNDWATER AND TEMPORARY POND ELEVATIONS
ENTERPRISE RECYCLING AND DISPOSAL FACILITY
DADE CITY, FLORIDA**

Location	TOC Elevation, ft NGVD	June 30, 2003		July 8, 2003		July 17, 2003		August 4, 2003	
		Depth to Water, ft BTOC	Water Level, ft NGVD	Depth to Water, ft BTOC	Water Level, ft NGVD	Depth to Water, ft BTOC	Water Level, ft NGVD	Depth to Water, ft BTOC	Water Level, ft NGVD
MW-1	116.71	41.93	74.78	41.12	75.59	40.25	76.46	39.45	77.26
MW-1B	174.48	100.05	74.43	99.30	75.18	99.02	75.46	98.53	75.95
MW-5A*	86.74	5.69	81.05	7.58	79.16	7.53	79.21	7.63	79.11
MW-5B	85.70	11.37	74.33	10.65	75.05	10.36	75.34	9.86	75.84
MW-6	88.65	13.96	74.69	13.23	75.42	17.16	71.49	12.62	76.03
MW-7A	92.46	17.04	75.42	16.41	76.05	16.64	75.82	16.16	76.30
MW-7B	93.24	18.87	74.37	18.16	75.08	17.87	75.37	17.35	75.89
MW-8*	100.10	18.97	81.13	19.19	80.91	21.93	78.17	22.40	77.70
MW-9	108.00	Dry	-	Dry	-	Dry	-	Dry	-
MW-10*	111.62	30.40	81.22	25.56	86.06	33.02	78.60	33.76	77.86
MW-11	104.45	-	-	-	-	-	-	-	-
P-2**	98.73	22.31	74.52	21.51	75.32	21.27	75.56	22.43	76.30
P-4***	85.83	6.69	77.86	8.48	76.07	8.17	76.38	7.82	76.73
P-5	94.56	NM	-	19.45	75.11	19.16	75.40	AB	-
P-6	94.16	19.63	74.53	18.98	75.18	18.73	75.43	18.23	75.93
P-8	133.94	61.10	72.84	60.34	73.60	60.05	73.89	59.55	74.39
P-10	132.60	58.28	74.32	57.55	75.05	57.25	75.35	56.77	75.83
P-11	150.76	46.39	104.37	45.40	105.36	44.35	106.41	43.33	107.43
P-13	112.91	37.70	75.21	36.94	75.97	36.14	76.77	AB	-
TP			76.93		76.51		76.12		76.00
Rain Gauge	(inches)								
TP - Temporary Pond									
TOC - top of casing									
BTOC - below top of casing									
NM - not measured (unable to be located in field on that date)									
AB - abandoned									
* Considered perched water table									
** Piezometer reinstalled, old TOC elevation 96.83, new TOC elevation 98.73									
*** Piezometer reinstalled, old TOC elevation 84.55, new TOC elevation 85.83									
Bold indicates standing water on land surface									

**GROUNDWATER AND TEMPORARY POND ELEVATIONS
ENTERPRISE RECYCLING AND DISPOSAL FACILITY
DADE CITY, FLORIDA**

Location	TOC	Depth to Water, ft BTOC	Water Level, ft NGVD	Depth to Water, ft BTOC	Water Level, ft NGVD	Depth to Water, ft BTOC	Water Level, ft NGVD	Depth to Water, ft BTOC	Water Level, ft NGVD
	Elevation, ft NGVD								
		August 11, 2003	August 11, 2003	August 19, 2003	August 19, 2003	August 25, 2003	August 25, 2003	September 2, 2003	September 2, 2003
MW-1	116.71	39.35	77.36	39.17	77.54	38.99	77.72	38.66	78.05
MW-1B	174.48	98.30	76.18	98.08	76.40	97.72	76.76	97.41	77.07
MW-5A*	86.74	6.70	80.04	6.07	80.67	2.61	84.13	4.22	82.52
MW-5B	85.70	9.57	76.13	9.41	76.29	9.06	76.64	8.74	76.96
MW-6	88.65	12.17	76.48	12.10	76.55	11.56	77.09	11.44	77.21
MW-7A	92.46	15.33	77.13	15.49	76.97	14.63	77.83	14.69	77.77
MW-7B	93.24	17.09	76.15	16.92	76.32	16.58	76.66	16.25	76.99
MW-8*	100.10	20.59	79.51	21.45	78.65	19.81	80.29	21.10	79.00
MW-9	108.00	Dry	-	Dry	-	Dry	-	Dry	-
MW-10*	111.62	33.89	77.73	32.90	78.72	32.69	78.93	32.08	79.54
MW-11	104.45	-	-	27.20	77.25	26.98	77.47	26.65	77.80
P-2**	98.73	22.23	76.50	20.31	78.42	20.10	78.63	20.12	78.61
P-4***	85.83	7.29	77.26	6.43	78.12	3.48	81.07	3.46	81.09
P-5	94.56	AB	-	AB	-	AB	-	AB	-
P-6	94.16	17.95	76.21	17.79	76.37	17.42	76.74	17.11	77.05
P-8	133.94	59.29	74.65	59.11	74.83	58.05	75.89	58.43	75.51
P-10	132.60	56.50	76.10	56.31	76.29	55.97	76.63	55.64	76.96
P-11	150.76	43.30	107.46	43.11	107.65	42.93	107.83	42.65	108.11
P-13	112.91	AB	-	AB	-	AB	-	AB	-
TP			76.44		75.78		76.18		76.87
Rain Gauge (inches)			3.48		0.15		3.70		1.10
TP - Temporary Pond									
TOC - top of casing									
BTOC - below top of casing									
NM - not measured (unable to									
AB - abandoned									
* Considered perched water table									
** Piezometer reinstalled, old									
*** Piezometer reinstalled, old									
Bold indicates standing water									

**GROUNDWATER AND TEMPORARY POND ELEVATIONS
ENTERPRISE RECYCLING AND DISPOSAL FACILITY
DADE CITY, FLORIDA**

Location	TOC	Depth to Water, ft BTOC	Water Level, ft NGVD	Depth to Water, ft BTOC	Water Level, ft NGVD	Depth to Water, ft BTOC	Water Level, ft NGVD
	Elevation, ft NGVD						
		September 9, 2003	September 9, 2003	September 15, 2003	September 15, 2003	September 23, 2003	September 23, 2003
MW-1	116.71	38.38	78.33	38.17	78.54	37.89	78.82
MW-1B	174.48	97.27	77.21	97.13	77.35	97.09	77.39
MW-5A*	86.74	5.43	81.31	2.89	83.85	5.32	81.42
MW-5B	85.70	8.62	77.08	8.45	77.25	8.45	77.25
MW-6	88.65	11.35	77.30	11.29	77.36	11.14	77.51
MW-7A	92.46	14.58	77.88	14.34	78.12	14.51	77.95
MW-7B	93.24	16.12	77.12	15.97	77.27	15.95	77.29
MW-8*	100.10	21.46	78.64	20.66	79.44	20.75	79.35
MW-9	108.00	Dry	-	Dry	-	Dry	-
MW-10*	111.62	32.66	78.96	32.75	78.87	32.46	79.16
MW-11	104.45	26.48	77.97	26.33	78.12	26.16	78.29
P-2**	98.73	20.36	78.37	20.18	78.55	20.36	78.37
P-4***	85.83	4.48	80.07	2.66	81.89	4.22	80.33
P-5	94.56	AB	-	AB	-	AB	-
P-6	94.16	17.00	77.16	16.86	77.30	16.82	77.34
P-8	133.94	58.31	75.63	58.15	75.79	58.12	75.82
P-10	132.60	55.51	77.09	55.36	77.24	55.34	77.26
P-11	150.76	42.47	108.29	42.31	108.45	42.17	108.59
P-13	112.91	AB	-	AB	-	AB	-
TP			77.13		77.46		77.35
Rain Gauge (inches)			1.70		3.60		0.15
TP - Temporary Pond							
TOC - top of casing							
BTOC - below top of casing							
NM - not measured (unable to							
AB - abandoned							
* Considered perched water table							
** Piezometer reinstalled, old							
*** Piezometer reinstalled, of							
Bold indicates standing water							

**GROUNDWATER AND TEMPORARY POND ELEVATIONS
ENTERPRISE RECYCLING AND DISPOSAL FACILITY
DADE CITY, FLORIDA**

Location	TOC Elevation, ft NGVD	Depth to Water, ft	Water Level, ft	Depth to Water, ft	Water Level, ft	Depth to Water, ft	Water Level, ft	Depth to Water, ft	Water Level, ft
		BTOC	NGVD	ft BTOC	NGVD	ft BTOC	NGVD	ft BTOC	NGVD
		October 2, 2003	October 2, 2003	October 7, 2003	October 7, 2003	October 14, 2003	October 14, 2003	October 21, 2003	October 21, 2003
MW-1	116.71	37.72	78.99	37.66	79.05	37.75	78.96	38.02	78.69
MW-1B	174.48	97.32	77.16	97.53	76.95	97.83	76.65	98.19	76.29
MW-5A*	86.74	6.41	80.33	6.77	79.97	6.84	79.90	7.44	79.30
MW-5B	85.70	8.65	77.05	8.89	76.81	9.14	76.56	9.50	76.20
MW-6	88.65	11.39	77.26	11.62	77.03	11.98	76.67	12.35	76.30
MW-7A	92.46	14.97	77.49	15.30	77.16	15.64	76.82	16.08	76.38
MW-7B	93.24	16.16	77.08	16.40	76.84	16.65	76.59	17.02	76.22
MW-8*	100.10	21.58	78.52	21.93	78.17	22.74	77.36	23.37	76.73
MW-9	108.00	Dry	-	Dry	-	Dry	-	Dry	-
MW-10*	111.62	33.20	78.42	33.69	77.93	34.24	77.38	34.79	76.83
MW-11	104.45	26.60	77.85	26.85	77.60	27.23	77.22	27.55	76.90
P-2**	98.73	20.85	77.88	21.13	77.60	21.55	77.18	22.04	76.69
P-4***	85.83	5.04	79.51	5.49	79.06	5.62	78.93	6.20	78.35
P-5	94.56	AB	-	AB	-	AB	-	AB	-
P-6	94.16	17.04	77.12	17.28	76.88	17.55	76.61	17.92	76.24
P-8	133.94	58.35	75.59	58.58	75.36	58.85	75.09	59.20	74.74
P-10	132.60	55.55	77.05	55.77	76.83	56.05	76.55	56.42	76.18
P-11	150.76	42.21	108.55	42.31	108.45	42.48	108.28	42.80	107.96
P-13	112.91	AB	-	AB	-	AB	-	AB	-
TP			77.32		77.20		77.14		76.89
Rain Gauge	(inches)		1.02		0.00		1.20		0.00
TP - Temporary Pond									
TOC - top of casing									
BTOC - below top of casing									
NM - not measured (unable to									
AB - abandoned									
* Considered perched water table									
** Piezometer reinstalled, old									
*** Piezometer reinstalled, old									
Bold indicates standing water									

**GROUNDWATER AND TEMPORARY POND ELEVATIONS
ENTERPRISE RECYCLING AND DISPOSAL FACILITY
DADE CITY, FLORIDA**

Location	TOC Elevation, ft NGVD	Depth to Water,	Water Level, ft	Depth to Water,	Water Level, ft
		ft BTOC	NGVD	ft BTOC	NGVD
		October 30, 2003	October 30, 2003	November 5, 2003	November 5, 2003
MW-1	116.71	38.39	78.32	38.44	78.27
MW-1B	174.48	98.74	75.74	98.86	75.62
MW-5A*	86.74	7.85	78.89	8.02	78.72
MW-5B	85.70	10.06	75.64	10.19	75.51
MW-6	88.65	12.89	75.76	13.03	75.62
MW-7A	92.46	16.68	75.78	16.81	75.65
MW-7B	93.24	17.57	75.67	17.73	75.51
MW-8*	100.10	24.04	76.06	24.13	75.97
MW-9	108.00	Dry	-	Dry	-
MW-10*	111.62	35.57	76.05	35.79	75.83
MW-11	104.45	28.09	76.36	28.25	76.20
P-2**	98.73	22.67	76.06	22.82	75.91
P-4***	85.83	7.95	77.88	8.12	77.71
P-5	94.56	AB	-	AB	-
P-6	94.16	18.48	75.68	18.63	75.53
P-8	133.94	59.77	74.17	59.89	74.05
P-10	132.60	56.96	75.64	57.08	75.52
P-11	150.76	43.32	107.44	43.42	107.34
P-13	112.91	AB	-	AB	-
TP			76.67		76.43
Rain Gauge (inches)			0.70		0.00
TP - Temporary Pond					
TOC - top of casing					
BTOC - below top of casing					
NM - not measured (unable to					
AB - abandoned					
* Considered perched water t					
** Piezometer reinstalled, old					
*** Piezometer reinstalled, ol					
Bold indicates standing water					

Response: The locations of the corner posts that define the area of waste disposal on the floor of Cell 1 were included in Appendix D, the signed and sealed survey from Foresight Surveyors, Inc. These locations have been included to Figures 1, and 38.

8. What is the status of the modifications to the Environmental Resource Permit (ERP)?

Response: A letter modification to the ERP was most recently submitted to the FDEP on September 26, 2003. David G. Smith, P.E. responded to HAI with a request for an individual permit modification to the original ERP on October 29, 2003. HAI responded to David G. Smith, P.E. on November 13, 2003 with the individual permit modification to the original ERP, describing the modifications to the stormwater ponds at the Enterprise Recycling and Disposal Facility, including the required \$700 fee. We expect approval of the ERP modification within 30 days. A certification for the current stormwater management

Landfill Site Certification

The original Cell 1 Certification submittal, dated October 8, 2003, described the activities involved in preparing Cell 1 for certification and waste acceptance. This included extensive field investigation by HAI's Geologists and laboratory confirmation of soil characteristics to define the confining layer of the cell and the current temporary pond area. All encountered limestone or sandy areas were excavated from Cell 1 and clay tie-ins were constructed in their place. HAI is confident that the original certification submittal, along with the additional information contained in this addendum, provides reasonable assurance that the site is acceptable for landfill operations.

The original certification also discussed several items that were in need of completion before the site could be fully certified for operation. The following describes these items and how they have been or will be addressed prior to operation.

Construction of the perimeter fence is nearly complete. During a conversation between Craig Bryan of Angelo's, and Susan Pelz of the Department,