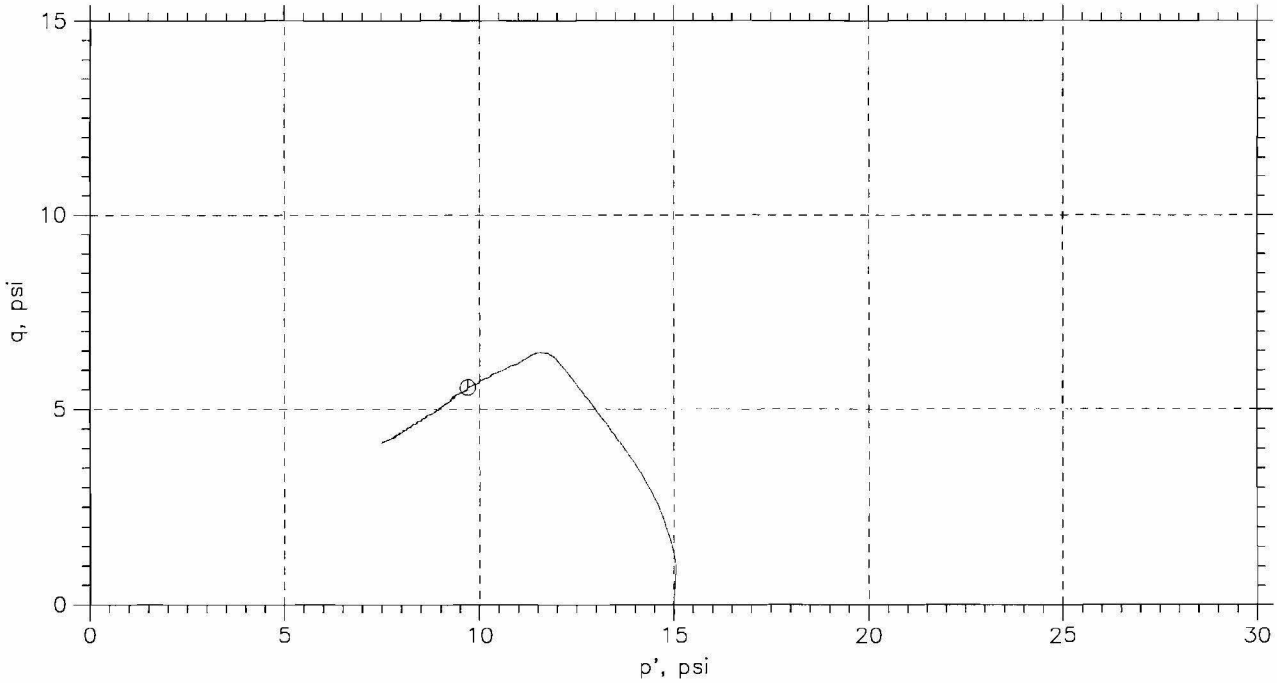
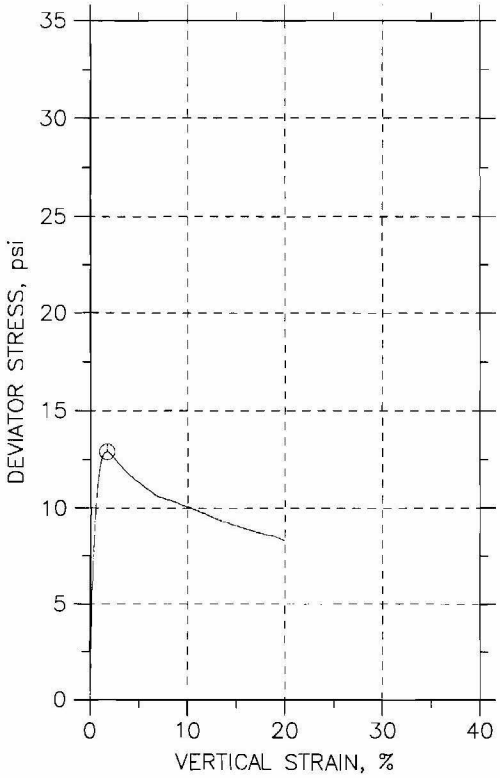
CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767





Symbol		⦶			
Sample No.		---			
Test No.		CU-1-1			
Depth		23-25 ft			
Initial	Diameter, in	2.87			
	Height, in	6.05			
	Water Content, %	43.0			
	Dry Density, pcf	79.45			
	Saturation, %	101.8			
	Void Ratio	1.16			
Before Shear	Water Content, %	32.8			
	Dry Density, pcf	90.26			
	Saturation*, %	100.0			
	Void Ratio	0.902			
	Back Press., psi	94.01			
Ver. Eff. Cons. Stress, psi		14.99			
Shear Strength, psi		6.455			
Strain at Failure, %		1.67			
Strain Rate, %/min		0.008			
B-Value		0.96			
Estimated Specific Gravity		2.75			
Liquid Limit		---			
Plastic Limit		---			

GeoTesting express

Project: No. 064006

Location: Windham, ME

Project No.: GTX-7278

Boring No.: B-114

Sample Type: tube

Description: Moist, gray clay with traces of sand

Remarks: System F

VIL_RESP01819

Phase calculations based on start and end of test.

* Saturation is set to 100% for phase calculations.

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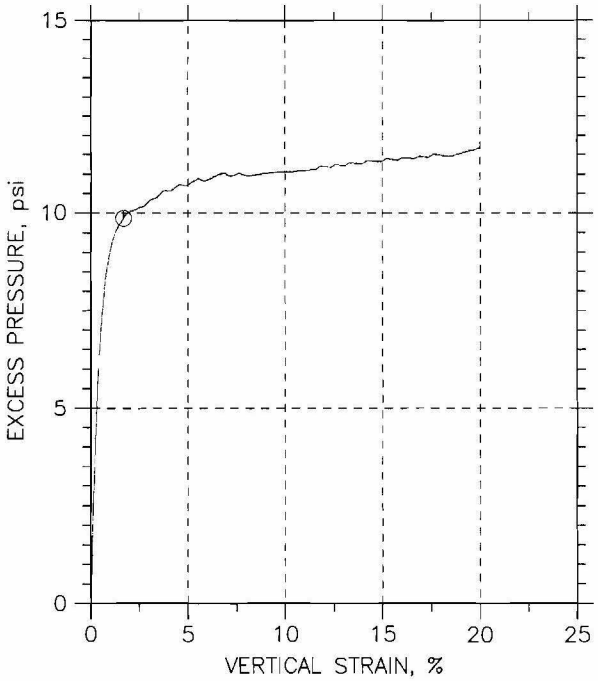
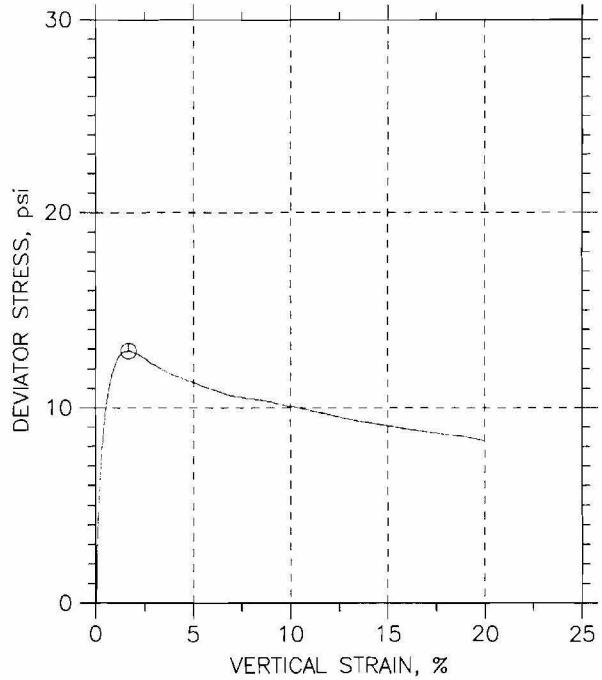
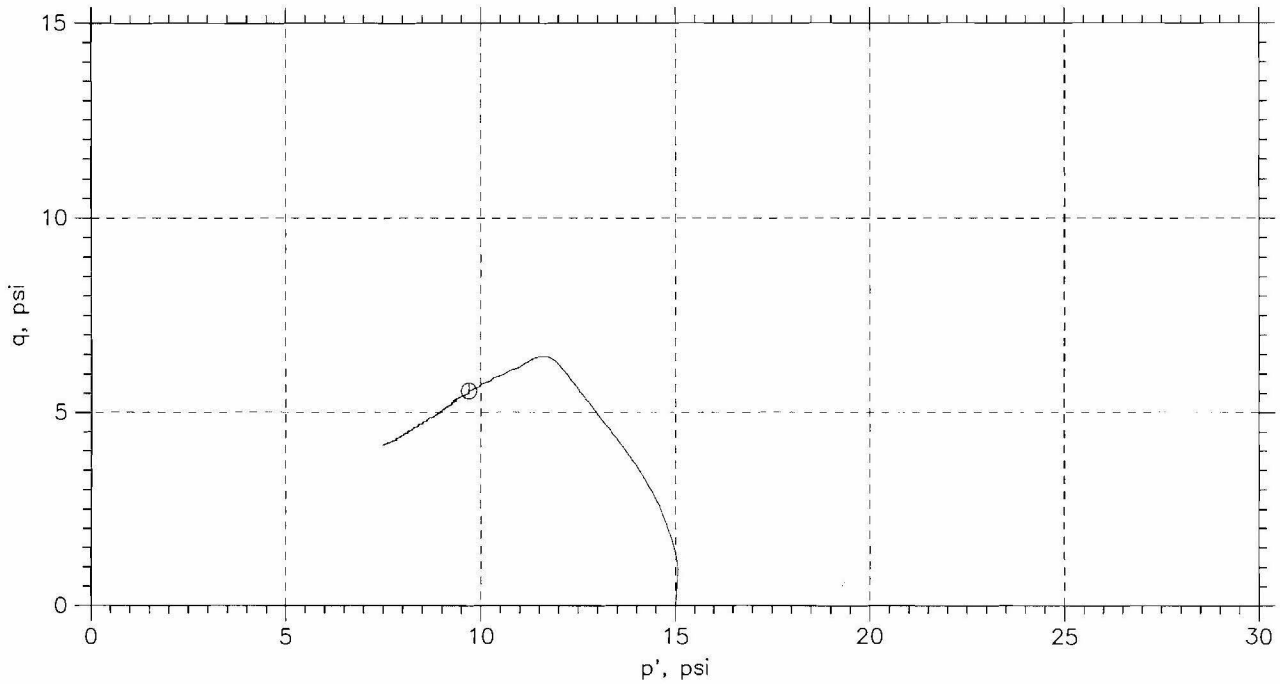
CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767







	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
⊙	---	CU-1-1	23-25 ft	yf	02/09/07	jdt		7278-CU1-1.dat

GeoTesting express

Project: No. 064006	Location: Windham, ME	Project No.: GTX-7278
Boring No.: B-114	Sample Type: tube	
Description: Moist, gray clay with traces of sand		
Remarks: System F		

VIL_RESP01820

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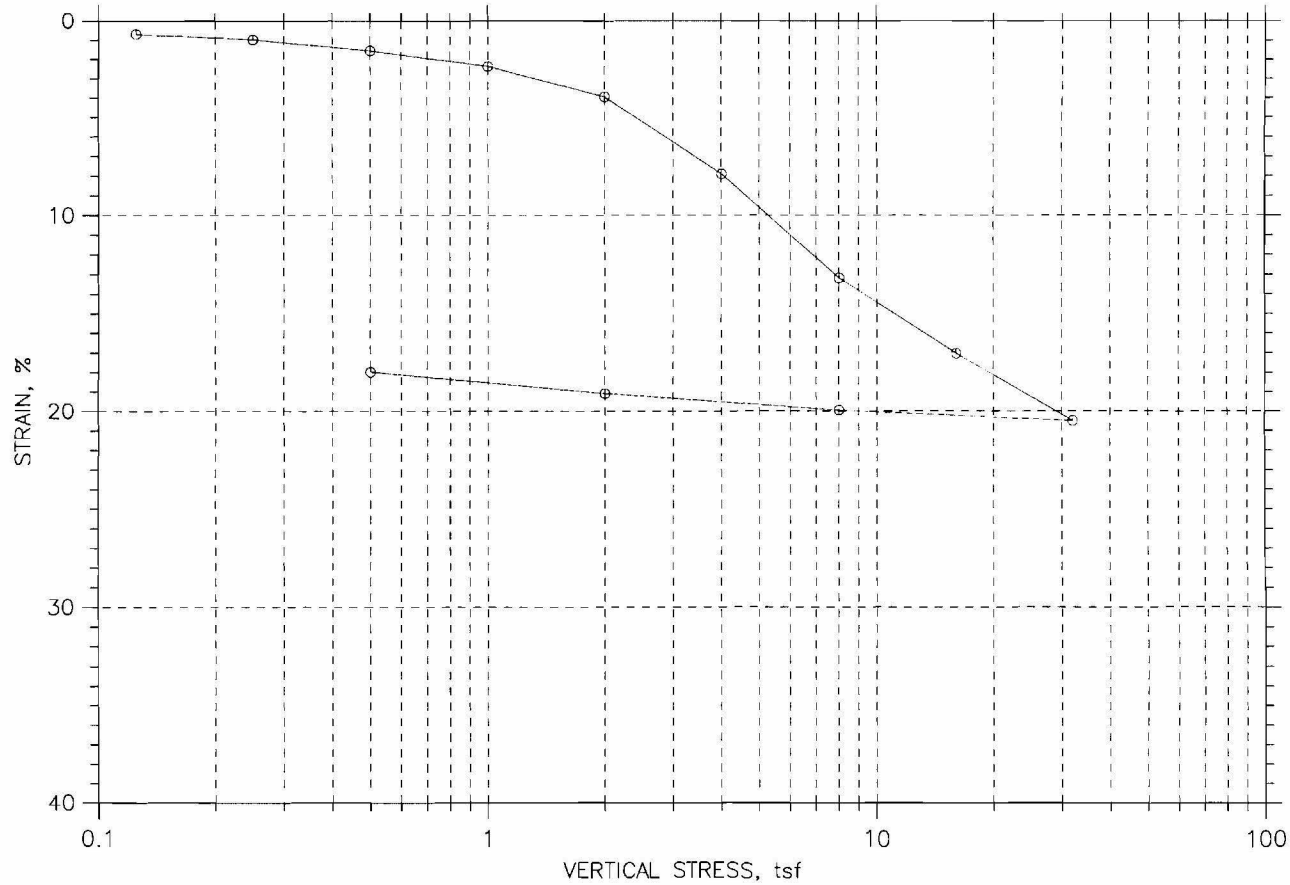
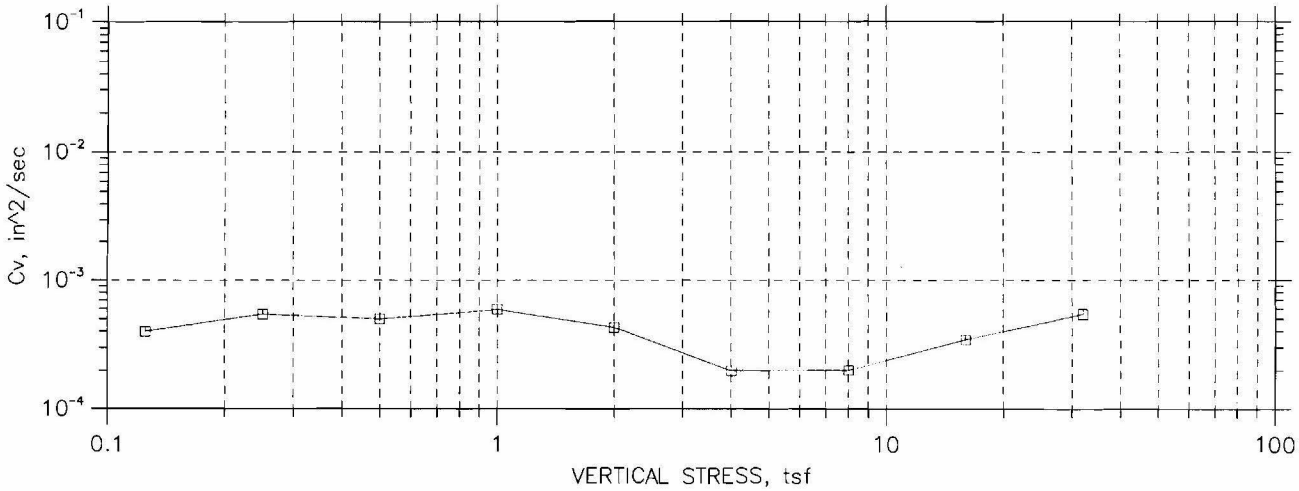
CONSOLIDATION TEST DATA

SUMMARY REPORT





GeoTesting express	Project: No. 064006	Location: Windham, ME	Project No.: GTX-7278
	Boring No.: B-114	Tested By: md	Checked By: jdt
	Sample No.: ---	Test Date: 02/06/07	Depth: 23-25 ft
	Test No.: C-1	Sample Type: Tube	Elevation: ---
	Description: Moist, gray clay with traces of sand		
	Remarks: System G		

VIL_RESP01821

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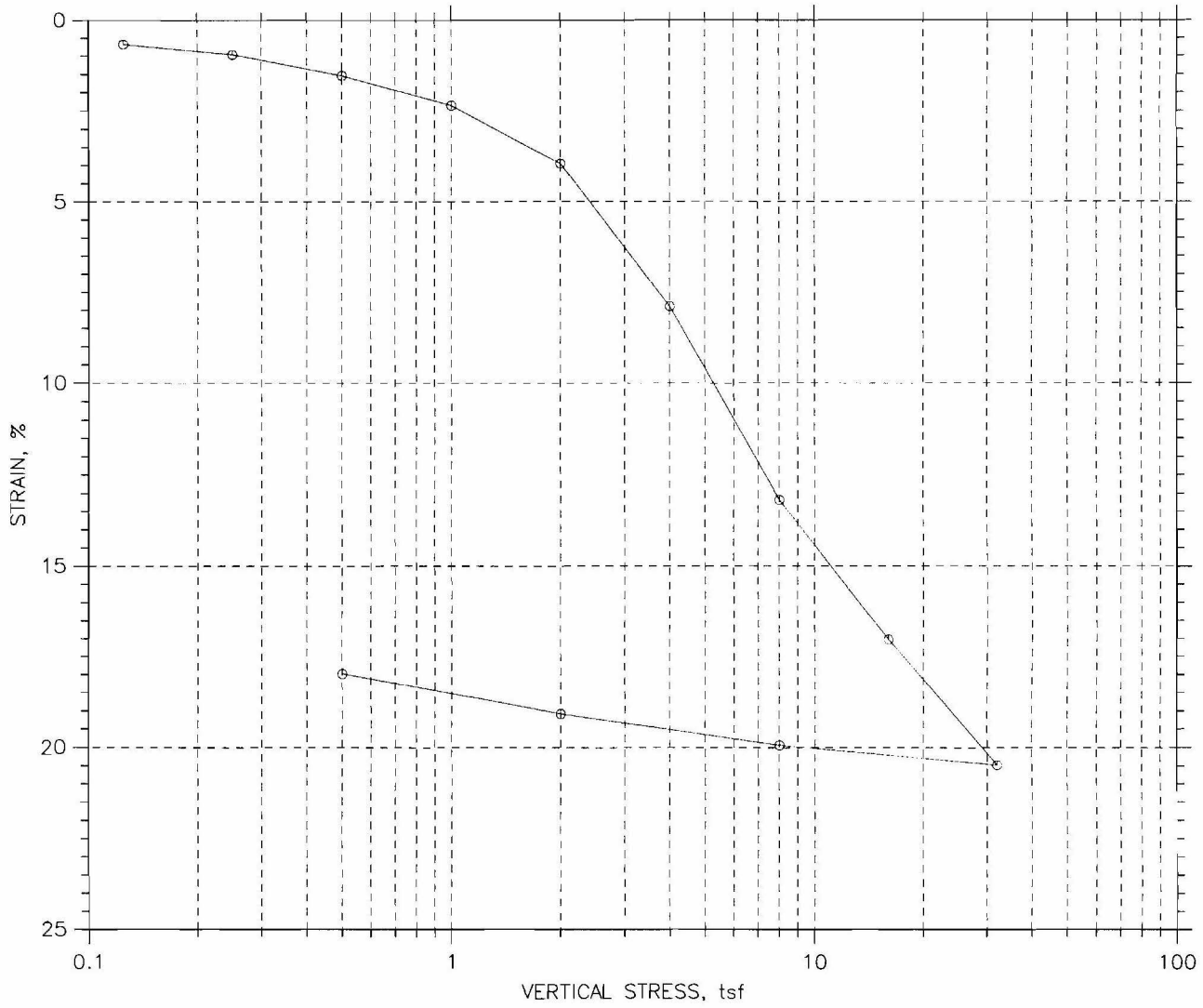
CONSOLIDATION TEST DATA

SUMMARY REPORT



					Before Test	After Test
Overburden Pressure: ---				Water Content, %	32.16	20.20
Preconsolidation Pressure: ---				Dry Unit Weight, pcf	90.86	110.8
Compression Index: ---				Saturation, %	98.80	100.00
Diameter: 2.5 in		Height: 1 in		Void Ratio	0.90	0.56
LL: ---	PL: ---	PI: ---	GS: 2.77			

GeoTesting express	Project: No. 064006	Location: Windham, ME	Project No.: GTX-7278
	Boring No.: B-114	Tested By: md	Checked By: jdt
	Sample No.: ---	Test Date: 02/06/07	Depth: 23-25 ft
	Test No.: C-1	Sample Type: Tube	Elevation: ---
	Description: Moist, gray clay with traces of sand		
	Remarks: System G		

VIL_RESP01822

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GeoTesting express

CONSOLIDATION TEST DATA

Project: No. 064006
Boring No.: B-114
Sample No.: ---
Test No.: C-1

Location: Windham, ME
Tested By: md
Test Date: 02/06/07
Sample Type: Tube

Project No.: GTX-7278
Checked By: jdt
Depth: 23-25 ft
Elevation: ---

Soil Description: Moist, gray clay with traces of sand
Remarks: System G

Estimated Specific Gravity: 2.77
Initial Void Ratio: 0.90
Final Void Ratio: 0.56

Liquid Limit: ---
Plastic Limit: ---
Plasticity Index: ---

Initial Height: 1.00 in
Specimen Diameter: 2.50 in

	Before Consolidation		After Consolidation	
	Trimmings	Specimen+Ring	Specimen+Ring	Trimmings
Container ID	Horn Frogs	RING		
Wt. Container + Wet Soil, gm	297.48	371.13	357.13	148.78
Wt. Container + Dry Soil, gm	217.65	333.48	333.48	125.16
Wt. Container, gm	8.04	216.41	216.41	8.24
Wt. Dry Soil, gm	209.61	117.07	117.07	116.92
Water Content, %	38.09	32.16	20.20	20.20
Void Ratio	---	0.90	0.56	---
Degree of Saturation, %	---	98.80	100.00	---
Dry Unit Weight, pcf	---	90.856	110.76	---

Note: Specific Gravity and Void Ratios are calculated assuming the degree of saturation equals 100% at the end of the test. Therefore, values may not represent actual values for the specimen.

GeoTesting express

CONSOLIDATION TEST DATA

Project: No. 064006
Boring No.: B-114
Sample No.: ---
Test No.: C-1

Location: Windham, ME
Tested By: md
Test Date: 02/06/07
Sample Type: Tube

Project No.: GTX-7278
Checked By: jdt
Depth: 23-25 ft
Elevation: ---

Soil Description: Moist, gray clay with traces of sand
Remarks: System G

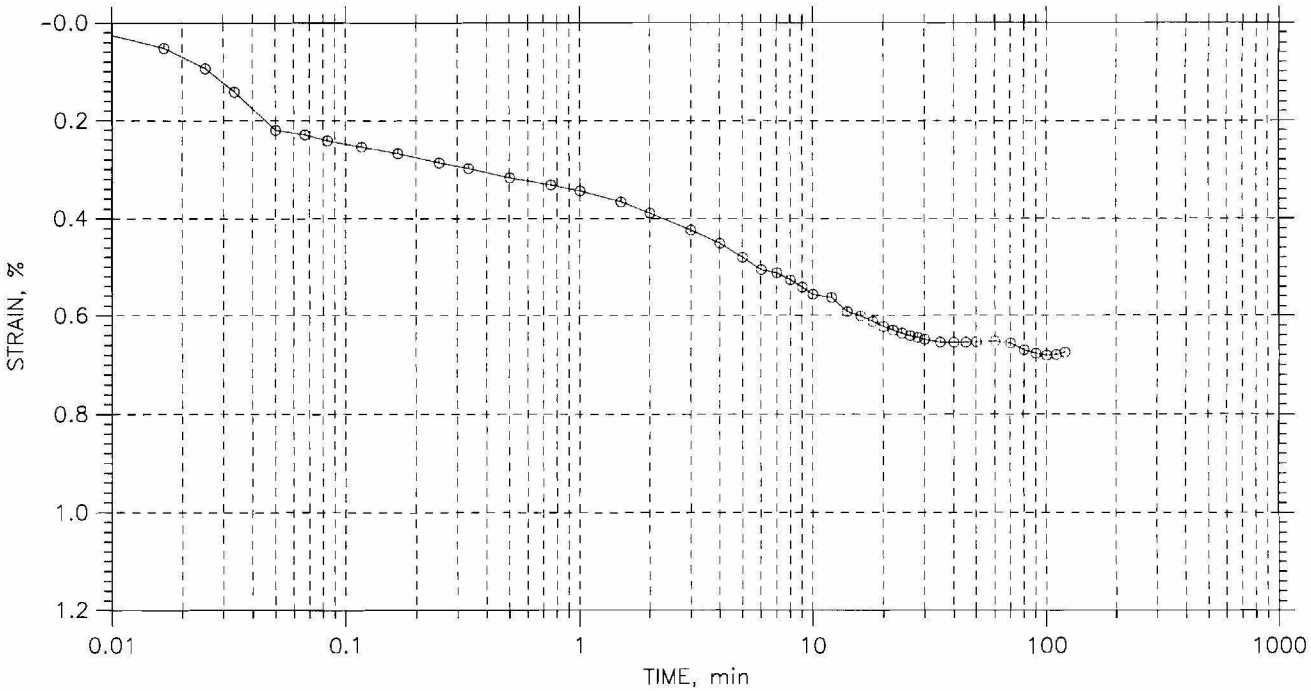
	Applied Stress tsf	Final Displacement in	Void Ratio	Strain at End %	T50 Fitting Sq.Rt. min	T50 Fitting Log min	Coefficient of Consolidation Sq.Rt. in^2/sec	Coefficient of Consolidation Log in^2/sec	Coefficient of Consolidation Ave. in^2/sec
1	0.125	0.006742	0.887	0.67	2.0	0.0	4.01e-004	0.00e+000	4.01e-004
2	0.25	0.00964	0.882	0.96	1.4	1.6	5.94e-004	5.01e-004	5.44e-004
3	0.5	0.0154	0.871	1.54	1.5	1.7	5.18e-004	4.85e-004	5.01e-004
4	1	0.02362	0.855	2.36	1.1	1.6	7.14e-004	5.09e-004	5.94e-004
5	2	0.03952	0.825	3.95	1.8	1.8	4.38e-004	4.22e-004	4.30e-004
6	4	0.07889	0.750	7.89	3.6	3.7	2.03e-004	1.95e-004	1.99e-004
7	8	0.1318	0.650	13.18	3.2	3.4	2.07e-004	1.96e-004	2.01e-004
8	16	0.1703	0.577	17.03	1.4	2.0	4.25e-004	2.91e-004	3.45e-004
9	32	0.2048	0.511	20.48	0.9	1.1	6.02e-004	4.96e-004	5.44e-004
10	8	0.1994	0.521	19.94	0.0	0.0	6.63e-002	0.00e+000	6.63e-002
11	2	0.1909	0.538	19.09	0.4	0.0	1.20e-003	0.00e+000	1.20e-003
12	0.5	0.1797	0.559	17.97	3.5	3.9	1.57e-004	1.39e-004	1.47e-004

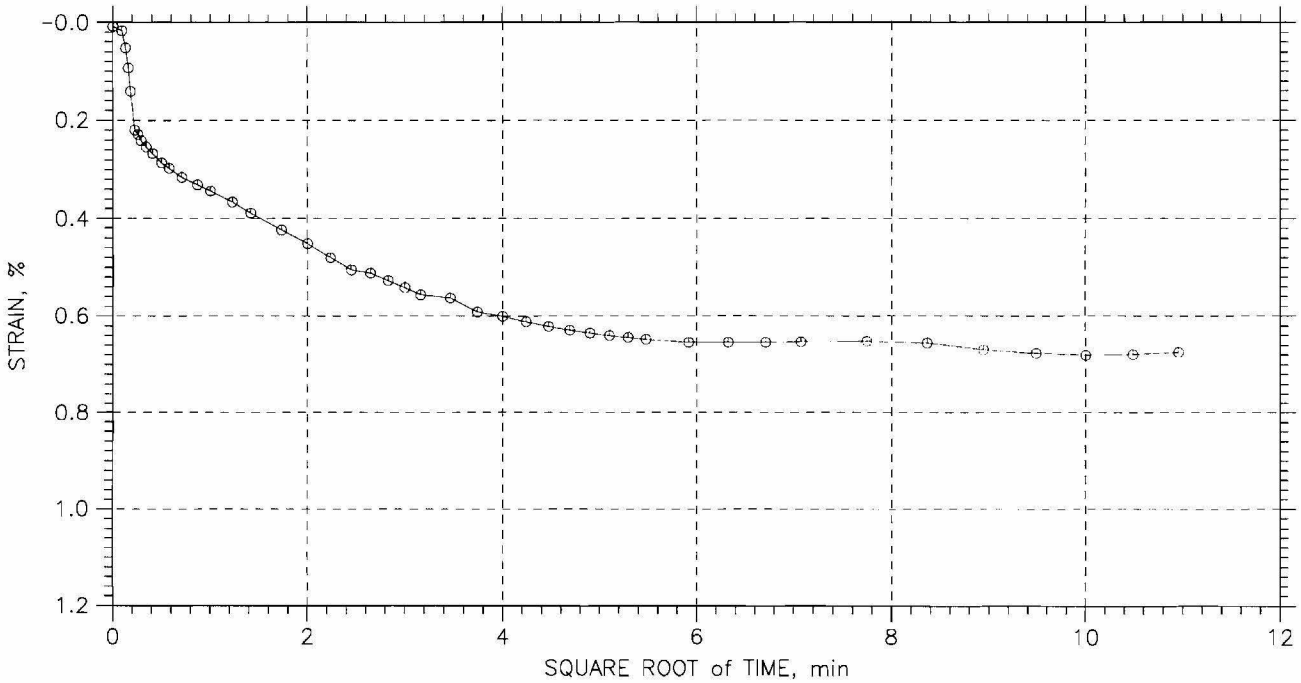
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 1 of 12

Stress: 0.125 tsf





GeoTesting express	Project: No. 064006	Location: Windham, ME	Project No.: GTX-7278
	Boring No.: B-114	Tested By: md	Checked By: jdt
	Sample No.: ---	Test Date: 02/06/07	Depth: 23-25 ft
	Test No.: C-1	Sample Type: Tube	Elevation: ---
	Description: Moist, gray clay with traces of sand		
	Remarks: System G		

VIL_RESP01825

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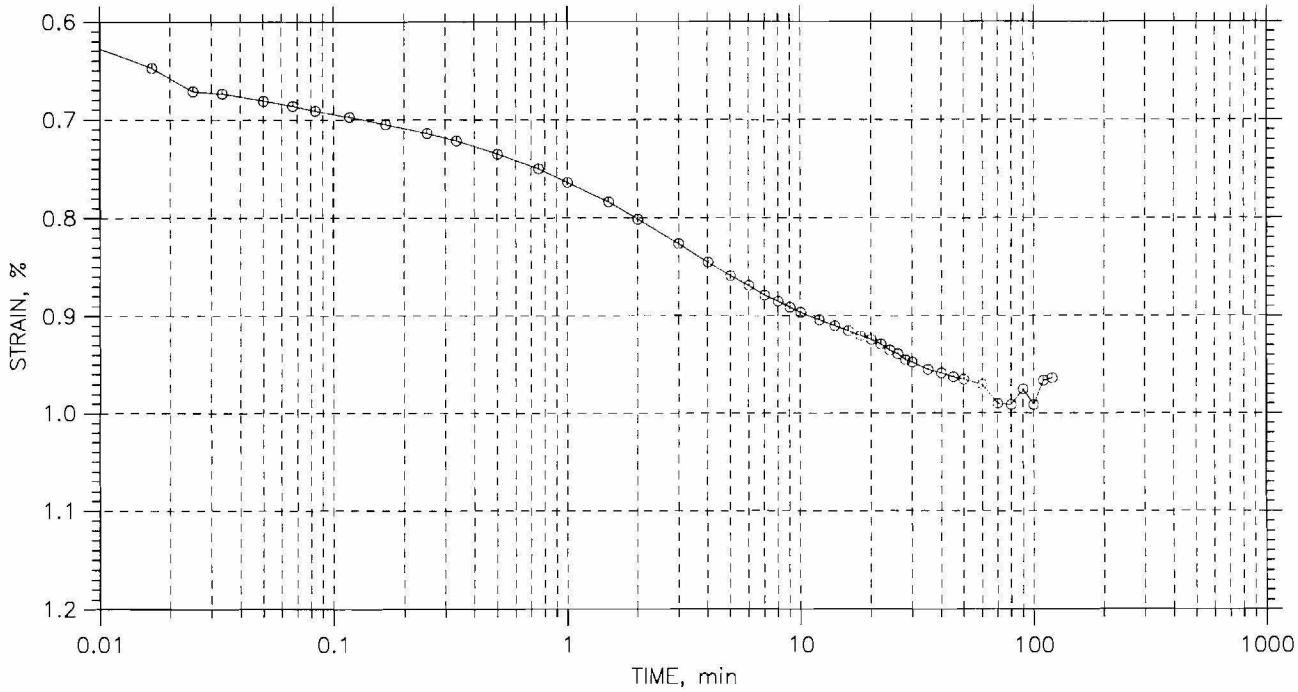
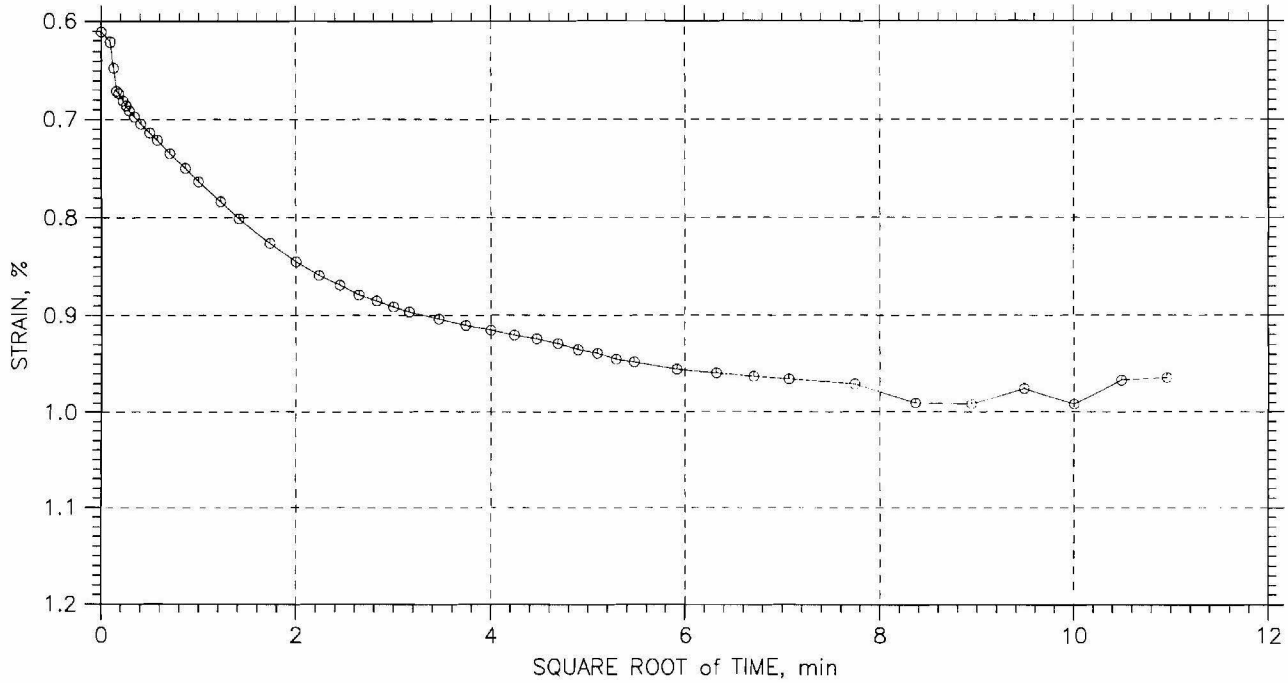
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 2 of 12

Stress: 0.25 tsf





GeoTesting express	Project: No. 064006	Location: Windham, ME	Project No.: GTX-7278
	Boring No.: B-114	Tested By: md	Checked By: jdt
	Sample No.: ---	Test Date: 02/06/07	Depth: 23-25 ft
	Test No.: C-1	Sample Type: Tube	Elevation: ---
	Description: Moist, gray clay with traces of sand		
	Remarks: System G		

VIL_RESP01826

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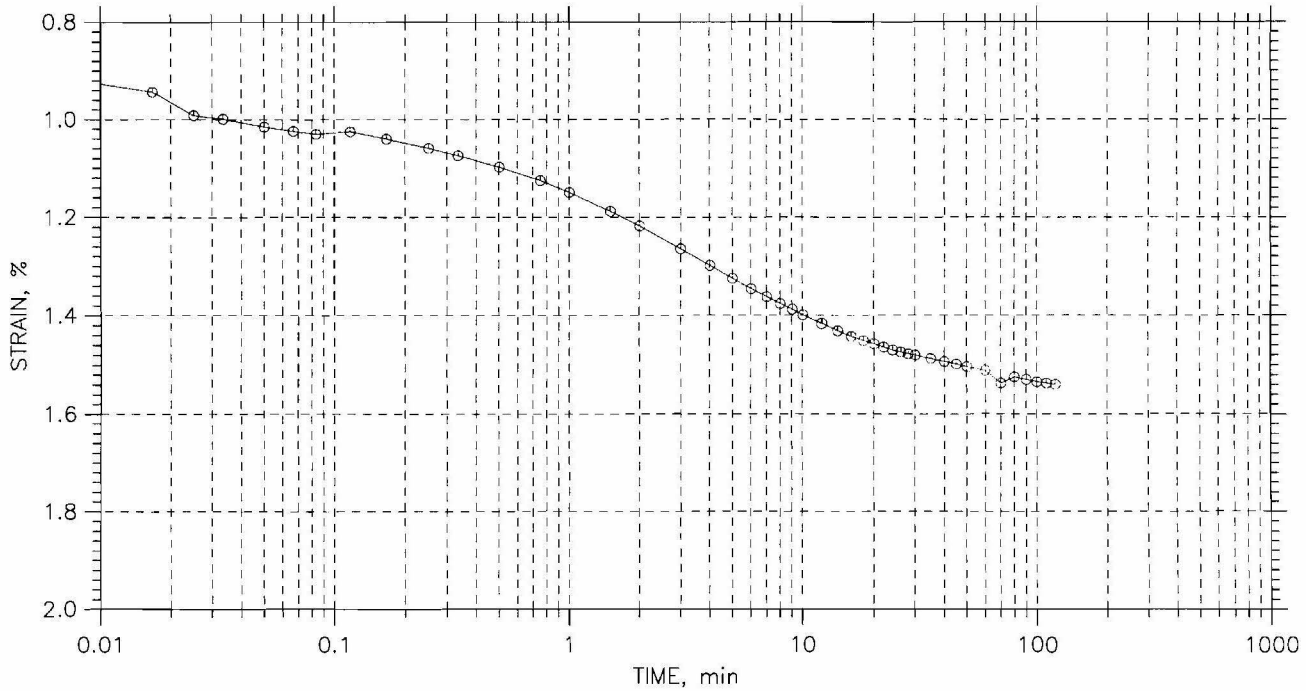
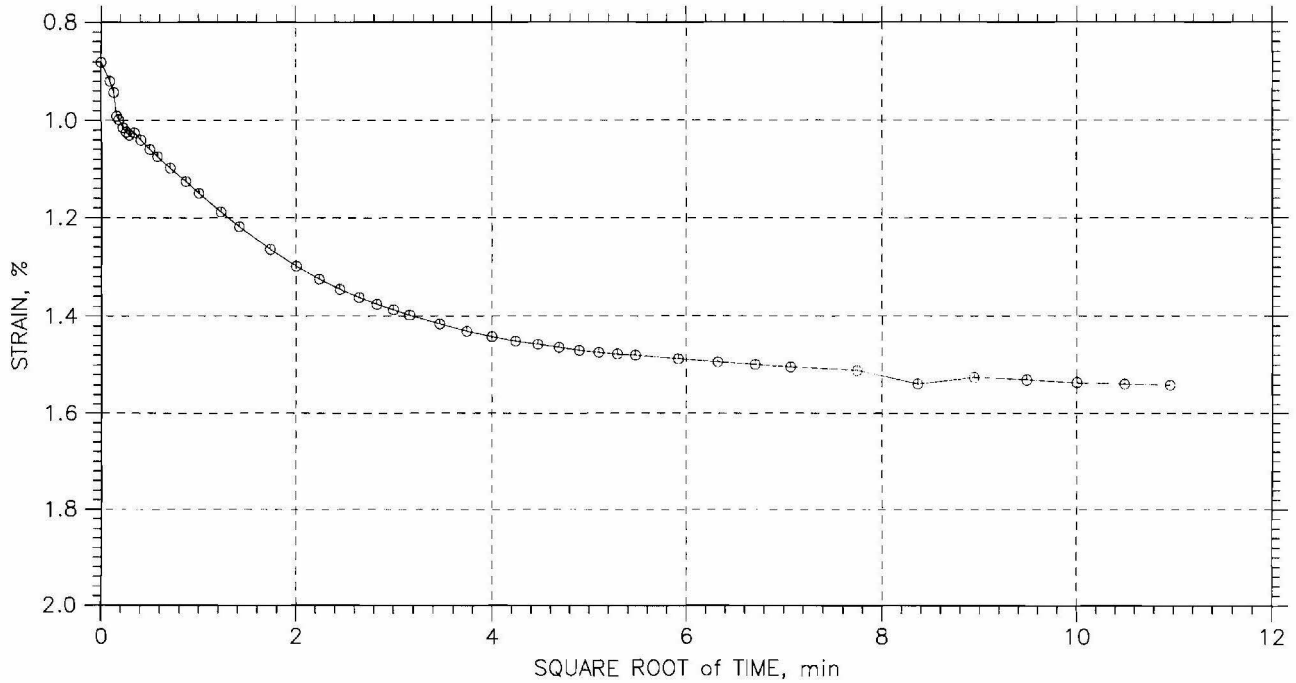
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 3 of 12

Stress: 0.5 tsf





GeoTesting express	Project: No. 064006	Location: Windham, ME	Project No.: GTX-7278
	Boring No.: B-114	Tested By: md	Checked By: jdt
	Sample No.: ---	Test Date: 02/06/07	Depth: 23-25 ft
	Test No.: C-1	Sample Type: Tube	Elevation: ---
	Description: Moist, gray clay with traces of sand		
	Remarks: System G		

VIL_RESP01827

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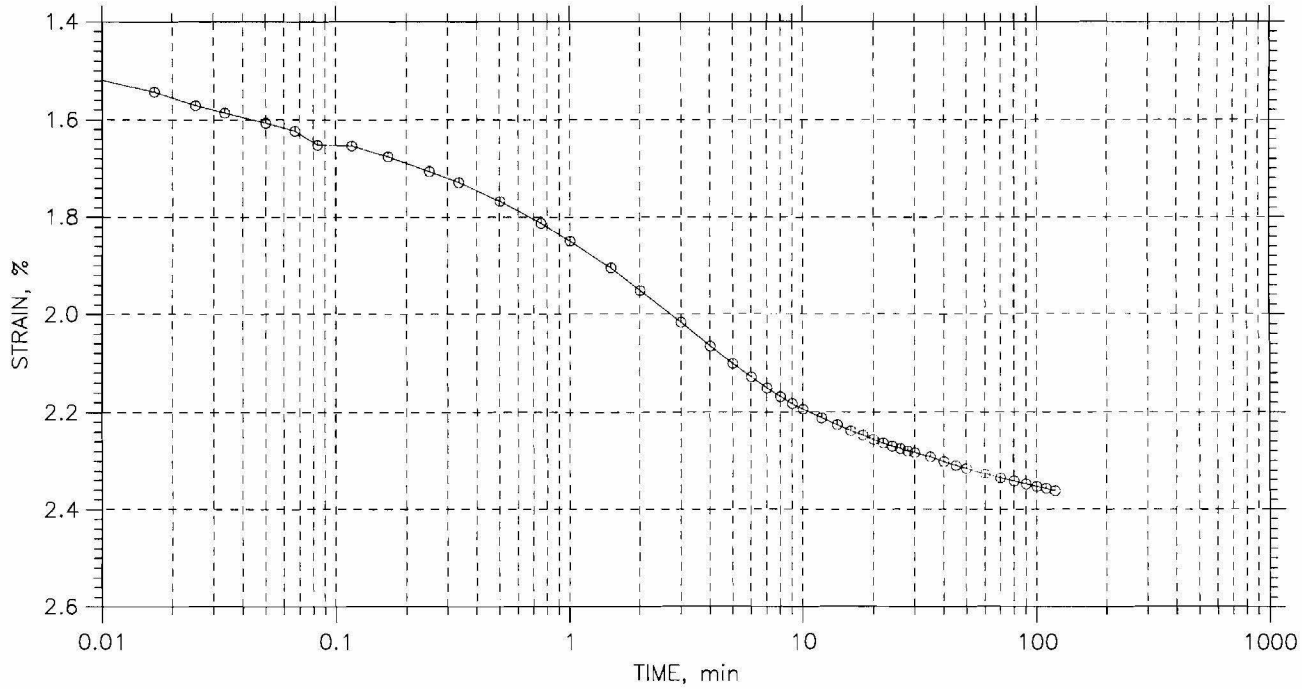
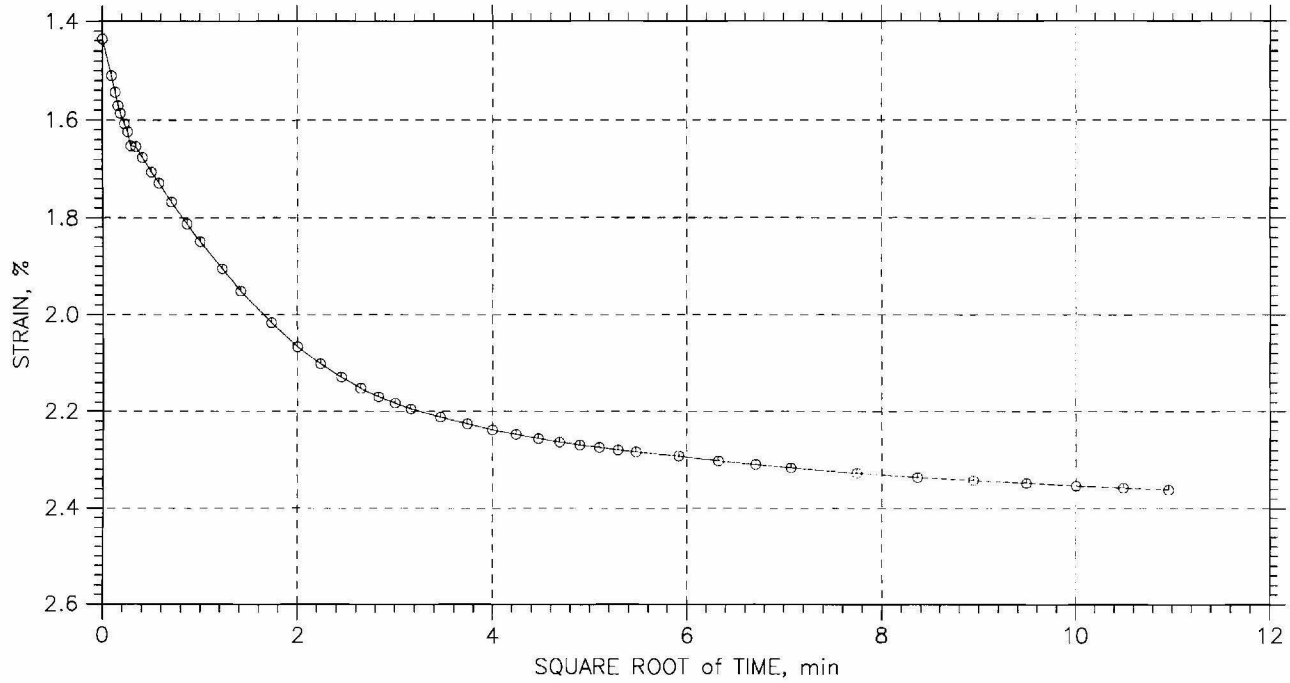
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 4 of 12

Stress: 1. tsf





GeoTesting express	Project: No. 064006	Location: Windham, ME	Project No.: GTX-7278
	Boring No.: B-114	Tested By: md	Checked By: jdt
	Sample No.: ---	Test Date: 02/06/07	Depth: 23-25 ft
	Test No.: C-1	Sample Type: Tube	Elevation: ---
	Description: Moist, gray clay with traces of sand		
	Remarks: System G		

VIL_RESP01828

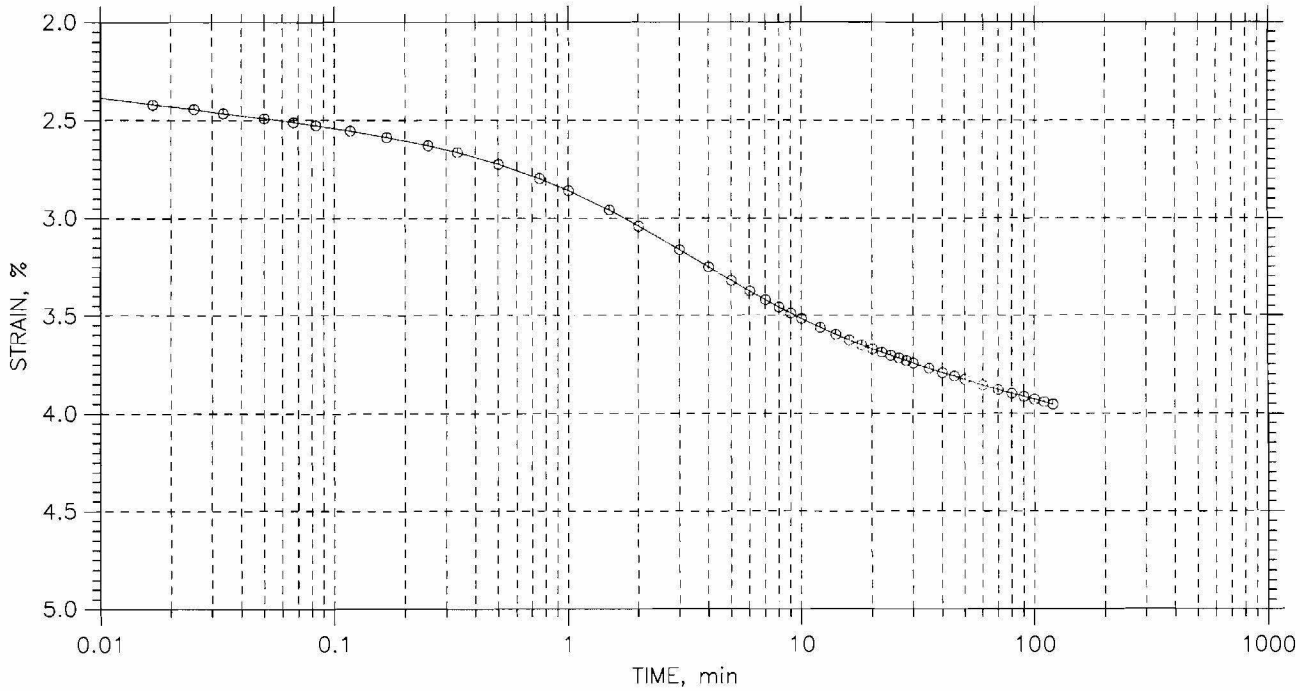
Wed, 14-FEB-2007 13:47:06

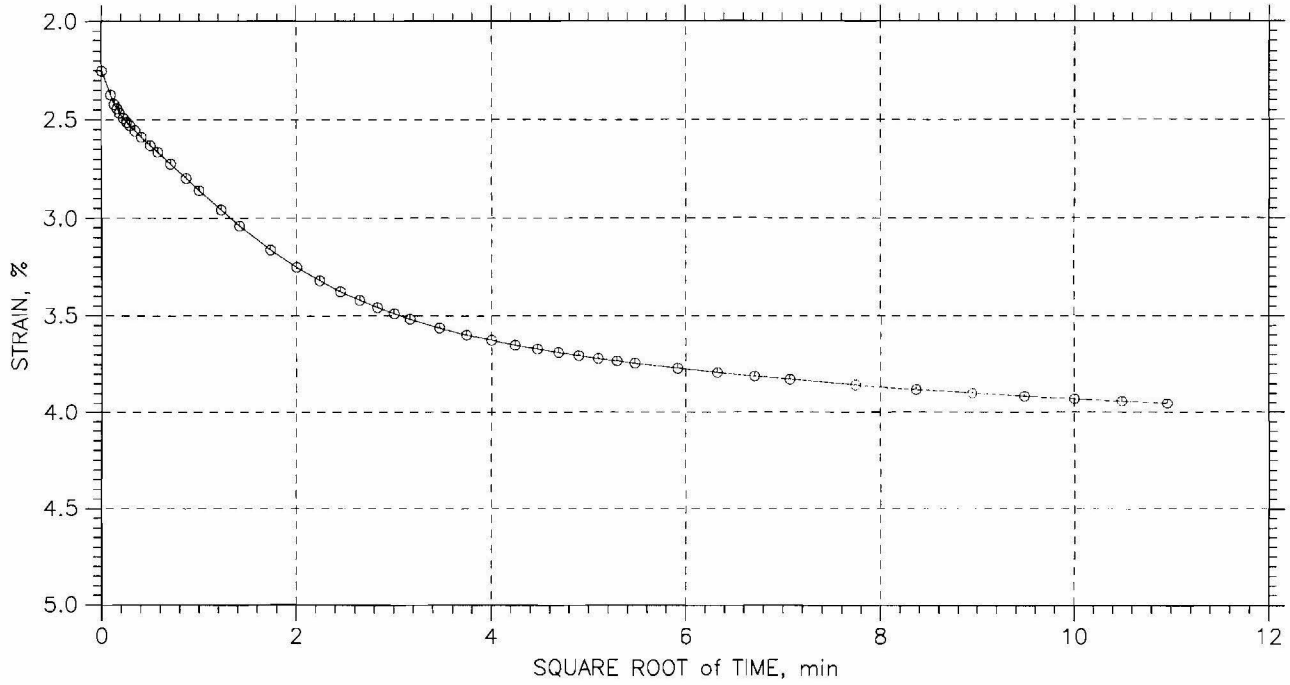
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 5 of 12

Stress: 2. tsf





GeoTesting express	Project: No. 064006	Location: Windham, ME	Project No.: GTX-7278
	Boring No.: B-114	Tested By: md	Checked By: jdt
	Sample No.: ---	Test Date: 02/06/07	Depth: 23-25 ft
	Test No.: C-1	Sample Type: Tube	Elevation: ---
	Description: Moist, gray clay with traces of sand		
	Remarks: System G		

VIL_RESP01829

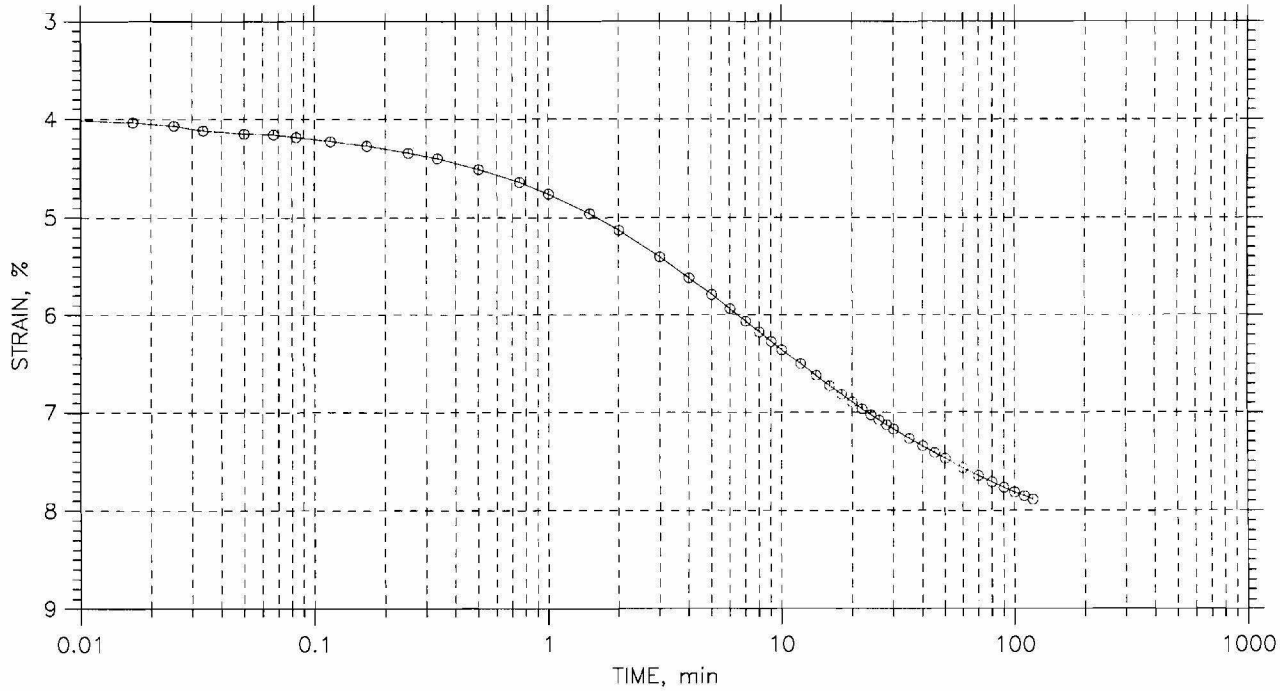
Wed, 14-FEB-2007 13:47:06

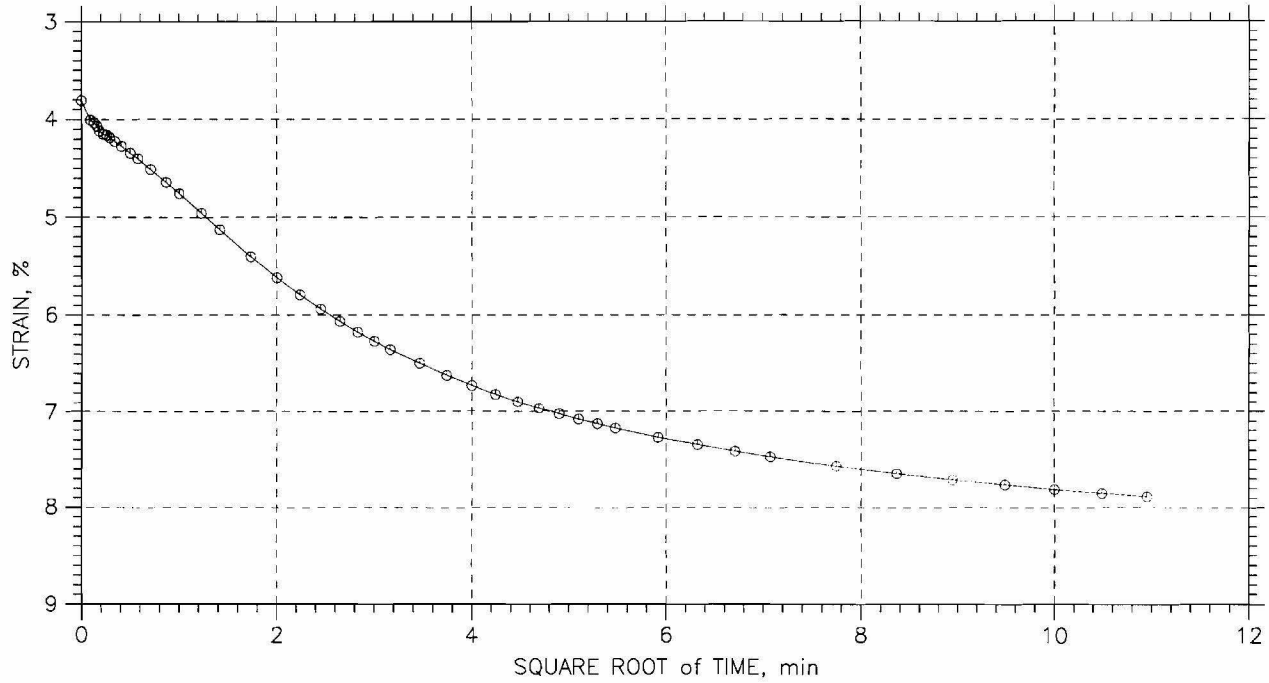
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 6 of 12

Stress: 4. tsf





GeoTesting express	Project: No. 064006	Location: Windham, ME	Project No.: GTX-7278
	Boring No.: B-114	Tested By: md	Checked By: jdt
	Sample No.: ---	Test Date: 02/06/07	Depth: 23-25 ft
	Test No.: C-1	Sample Type: Tube	Elevation: ---
	Description: Moist, gray clay with traces of sand		
	Remarks: System G		

VIL_RESP01830

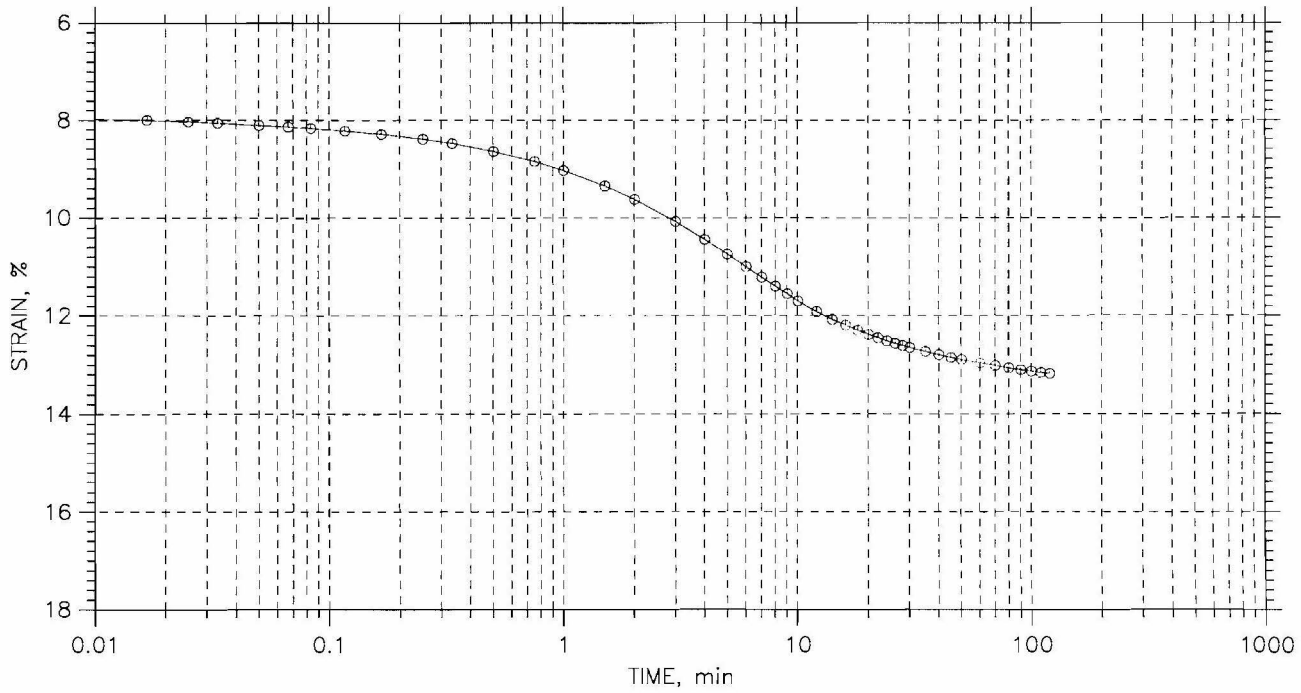
Wed, 14-FEB-2007 13:47:06

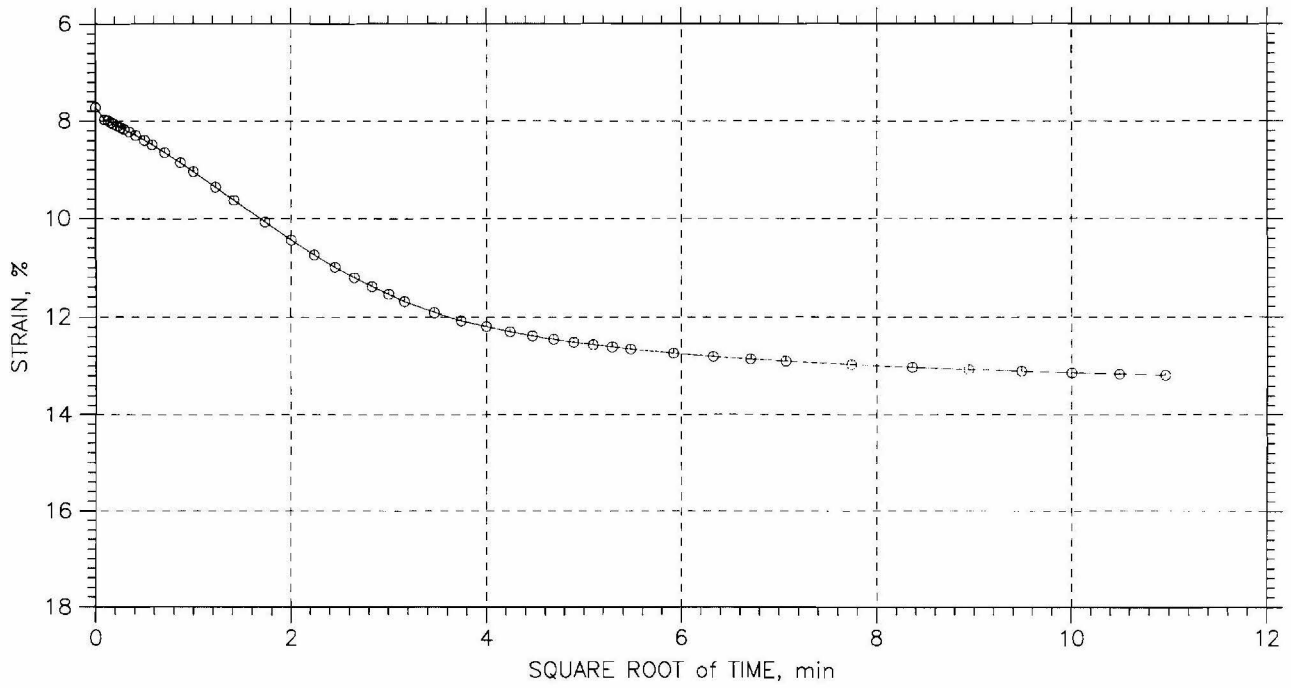
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 7 of 12

Stress: 8. tsf





GeoTesting express	Project: No. 064006	Location: Windham, ME	Project No.: GTX-7278
	Boring No.: B-114	Tested By: md	Checked By: jdt
	Sample No.: ---	Test Date: 02/06/07	Depth: 23-25 ft
	Test No.: C-1	Sample Type: Tube	Elevation: ---
	Description: Moist, gray clay with traces of sand		
	Remarks: System G		

VIL_RESP01831

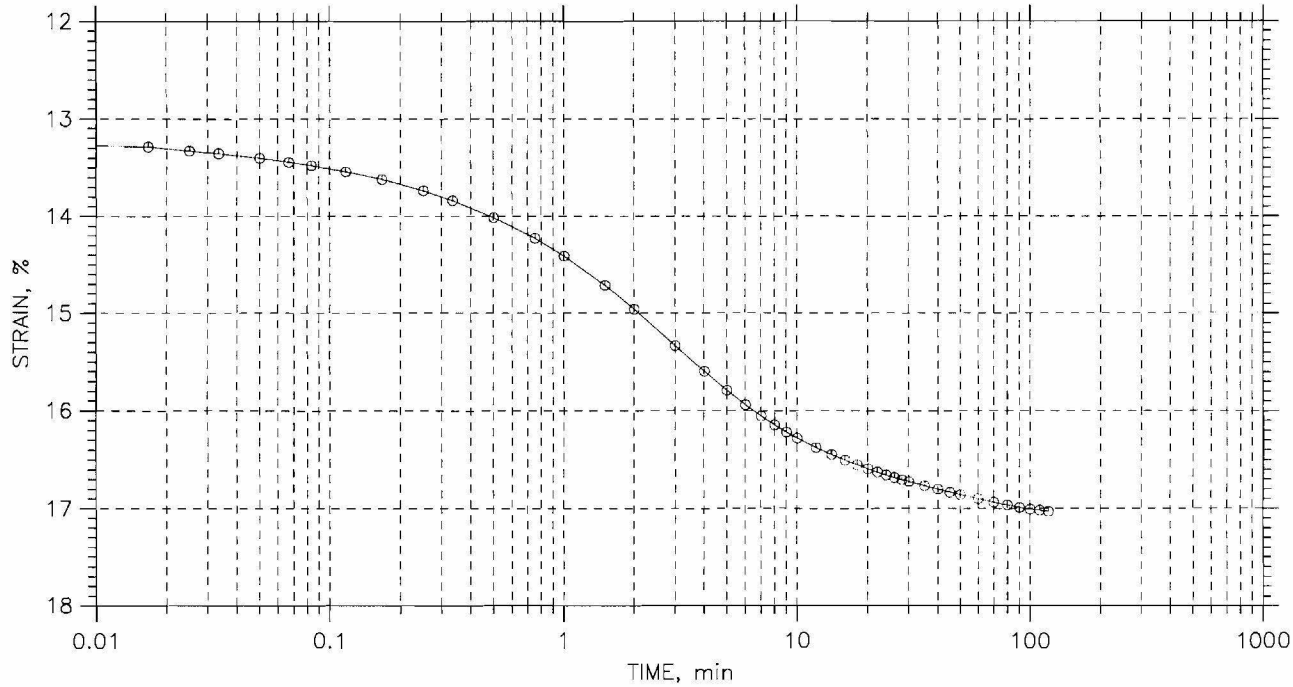
Wed, 14-FEB-2007 13:47:06

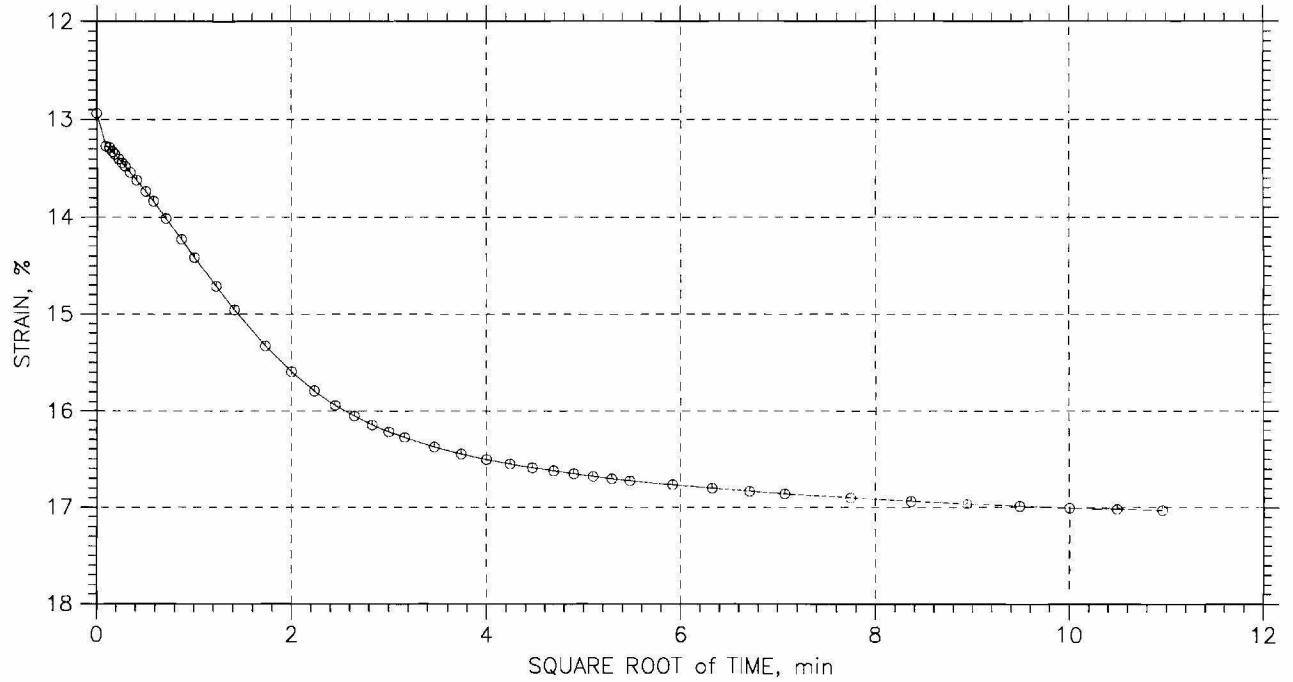
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 8 of 12

Stress: 16. tsf





GeoTesting express	Project: No. 064006	Location: Windham, ME	Project No.: GTX-7278
	Boring No.: B-114	Tested By: md	Checked By: jdt
	Sample No.: ---	Test Date: 02/06/07	Depth: 23-25 ft
	Test No.: C-1	Sample Type: Tube	Elevation: ---
	Description: Moist, gray clay with traces of sand		
	Remarks: System G		

VIL_RESP01832

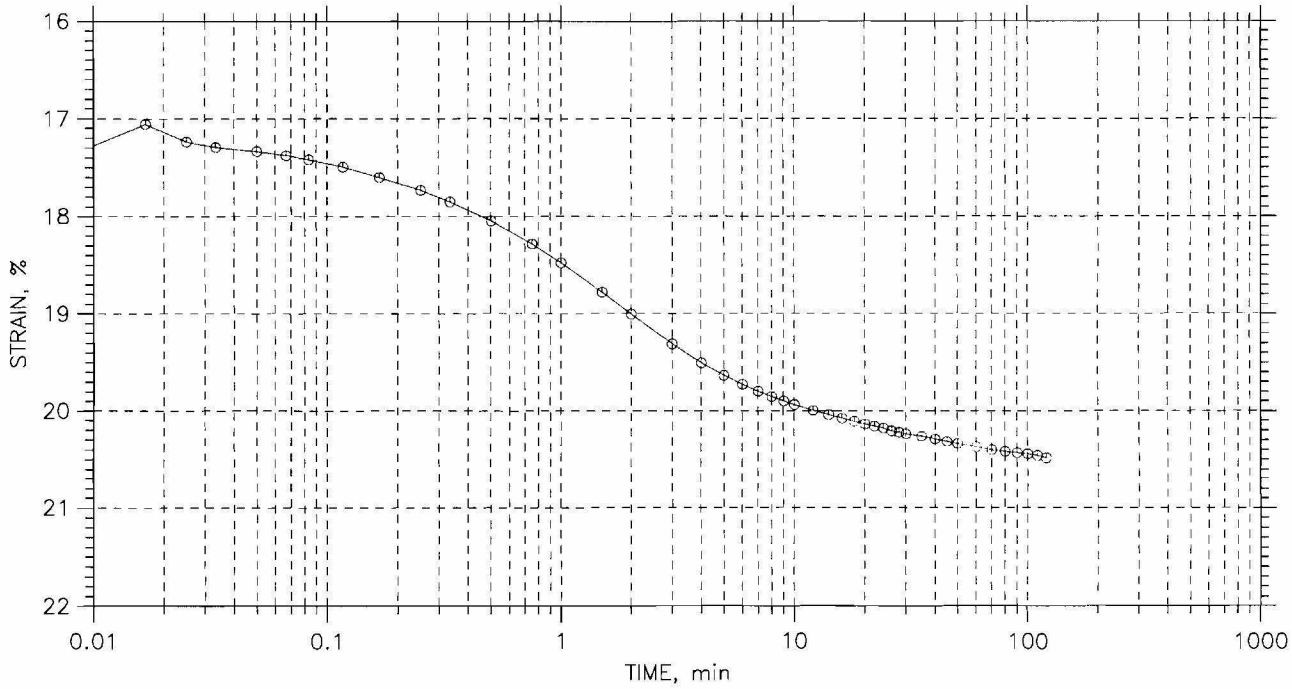
Wed, 14-FEB-2007 13:47:06

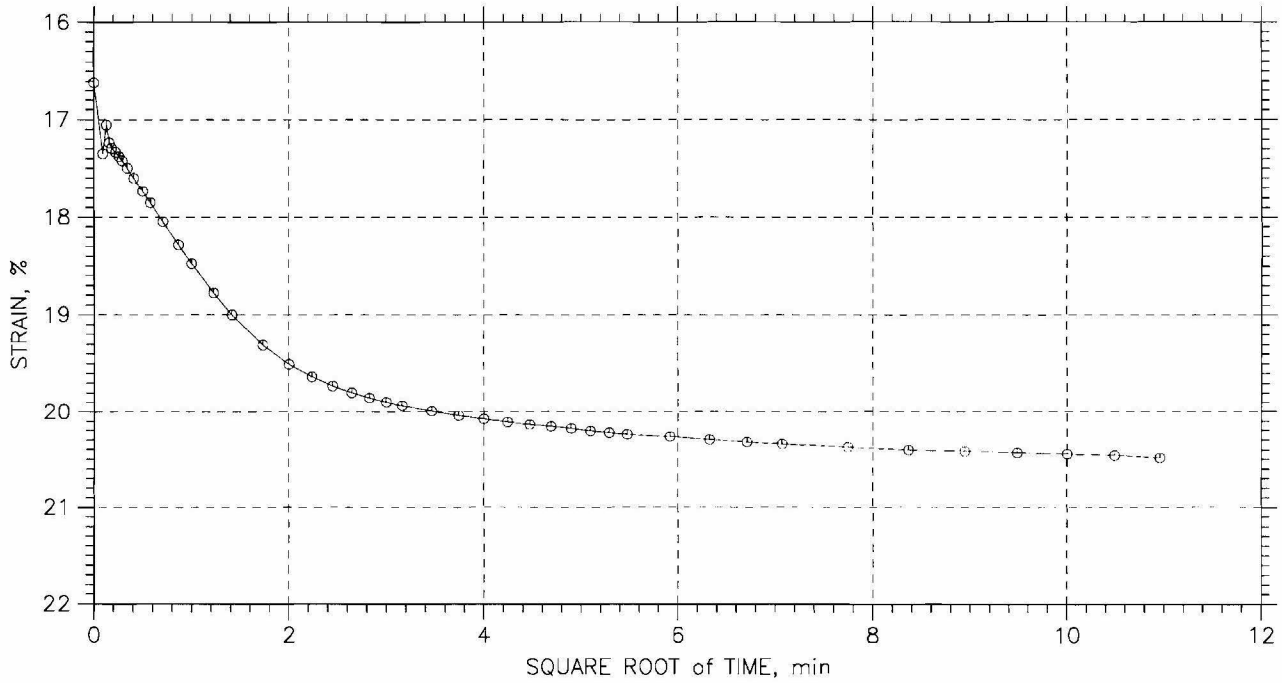
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 9 of 12

Stress: 32. tsf





GeoTesting express	Project: No. 064006	Location: Windham, ME	Project No.: GTX-7278
	Boring No.: B-114	Tested By: md	Checked By: jdt
	Sample No.: ---	Test Date: 02/06/07	Depth: 23-25 ft
	Test No.: C-1	Sample Type: Tube	Elevation: ---
	Description: Moist, gray clay with traces of sand		
	Remarks: System G		

VIL_RESP01833

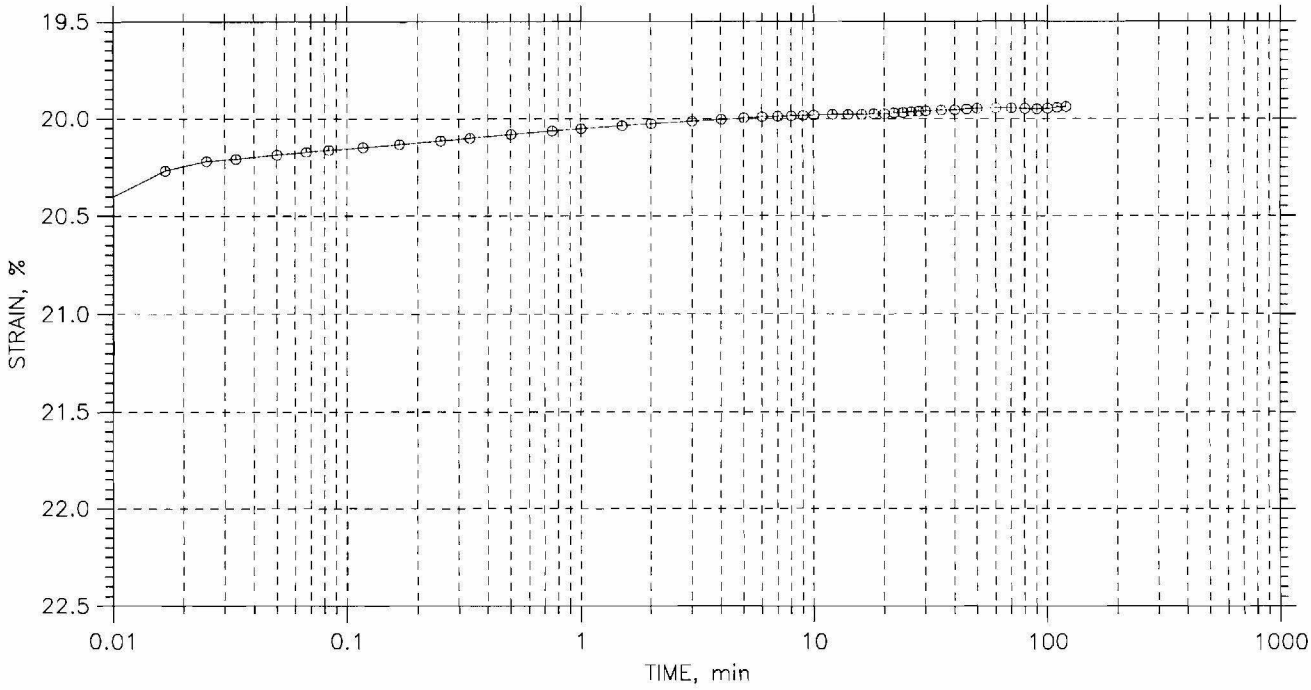
Wed, 14-FEB-2007 13:47:06

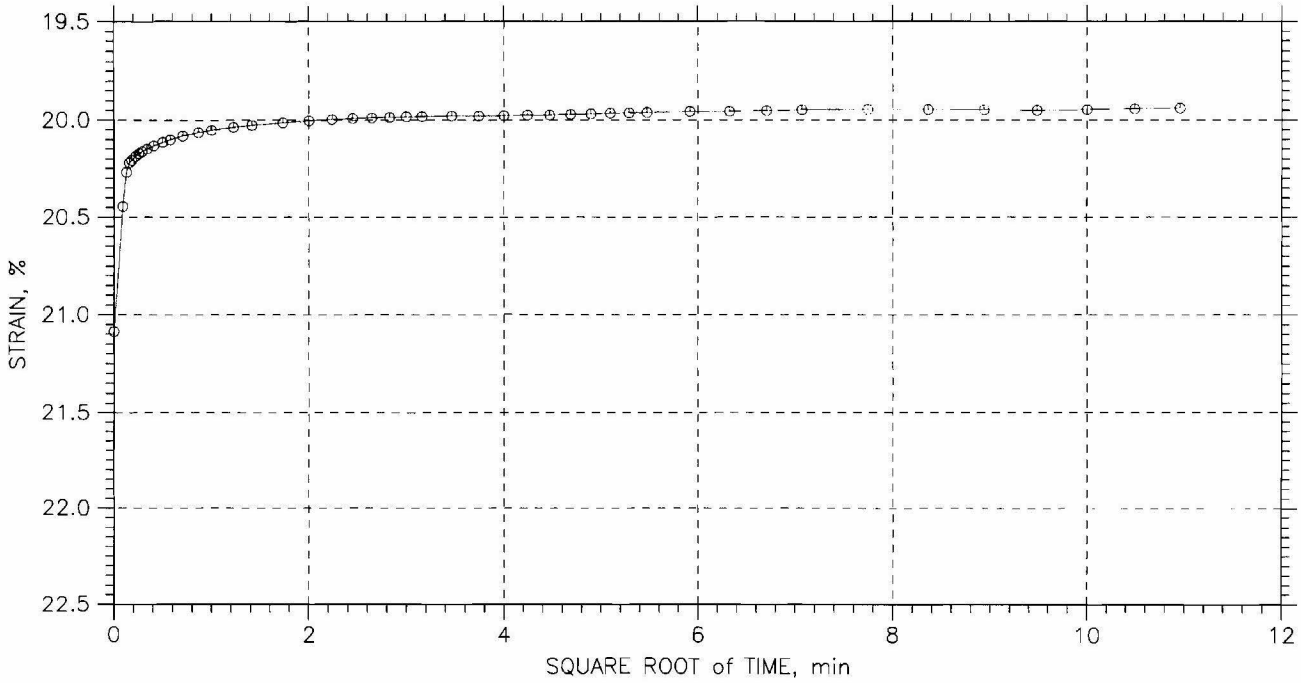
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 10 of 12

Stress: 8. tsf





GeoTesting express	Project: No. 064006	Location: Windham, ME	Project No.: GTX-7278
	Boring No.: B-114	Tested By: md	Checked By: jdt
	Sample No.: ---	Test Date: 02/06/07	Depth: 23-25 ft
	Test No.: C-1	Sample Type: Tube	Elevation: ---
	Description: Moist, gray clay with traces of sand		
	Remarks: System G		

VIL_RESP01834

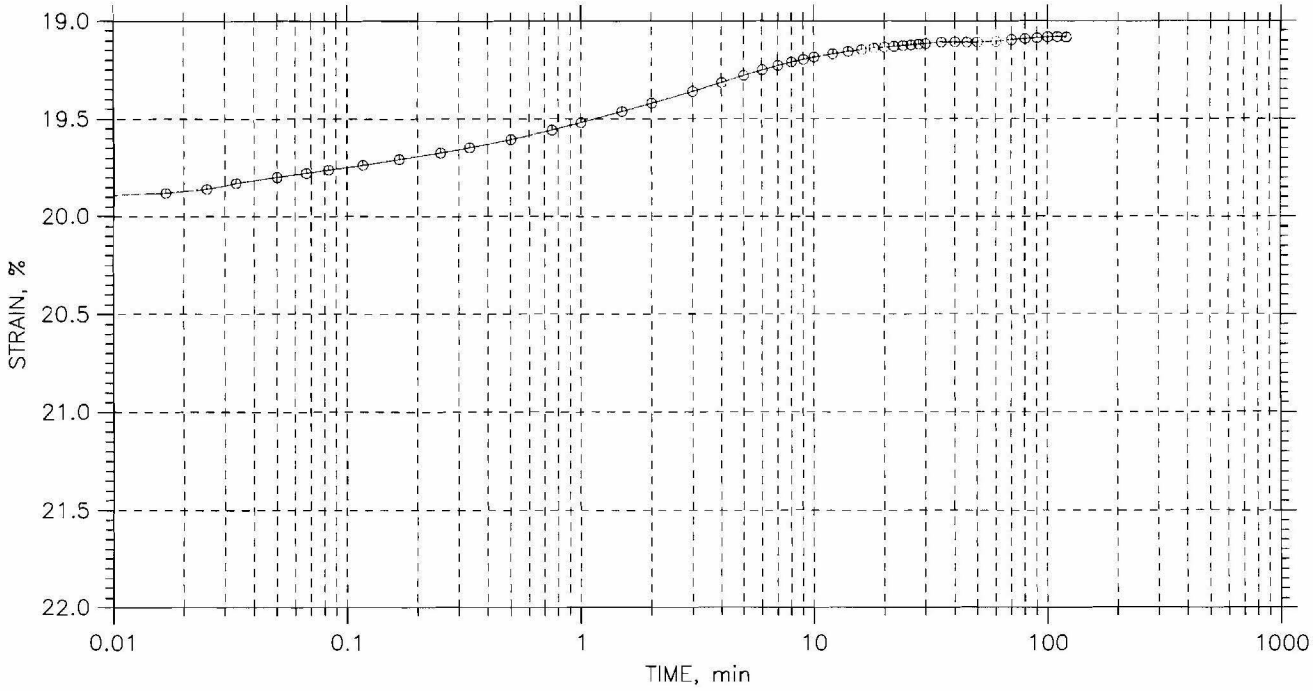
Wed, 14-FEB-2007 13:47:06

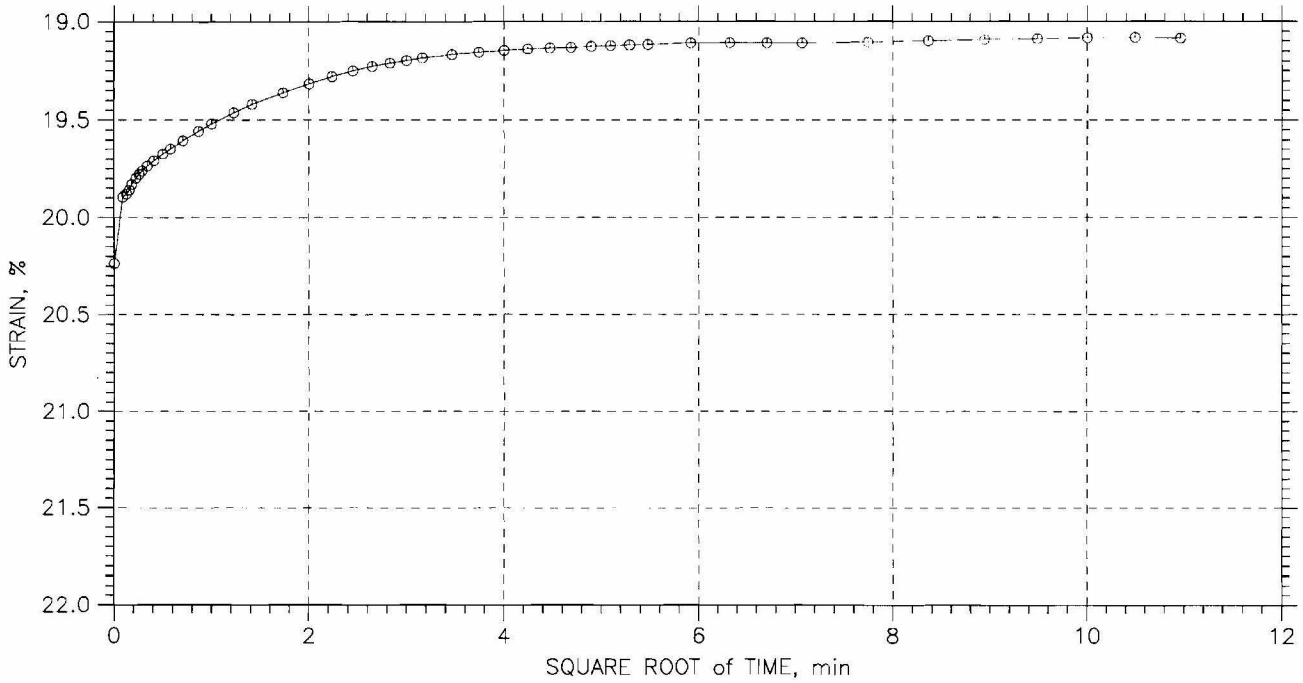
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 11 of 12

Stress: 2. tsf





GeoTesting express	Project: No. 064006	Location: Windham, ME	Project No.: GTX-7278
	Boring No.: B-114	Tested By: md	Checked By: jdt
	Sample No.: ---	Test Date: 02/06/07	Depth: 23-25 ft
	Test No.: C-1	Sample Type: Tube	Elevation: ---
	Description: Moist, gray clay with traces of sand		
	Remarks: System G		

VIL_RESP01835

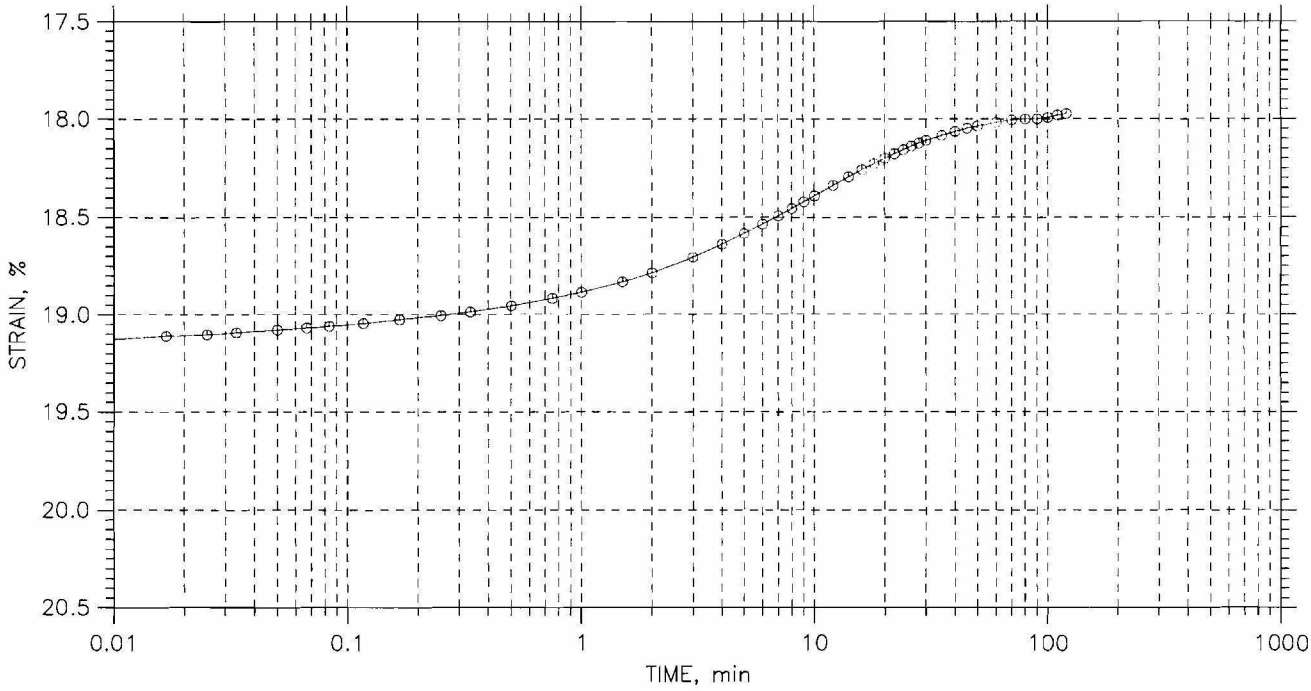
Wed, 14-FEB-2007 13:47:06

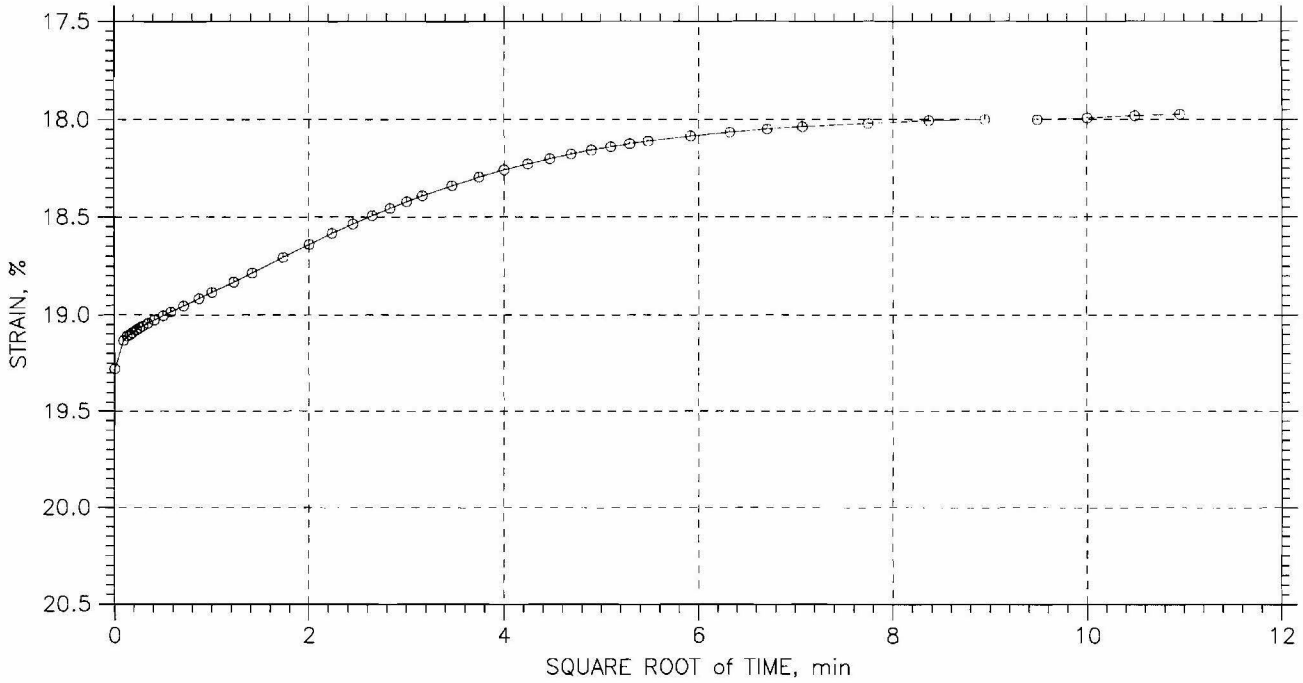
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 12 of 12

Stress: 0.5 tsf





GeoTesting express	Project: No. 064006	Location: Windham, ME	Project No.: GTX-7278
	Boring No.: B-114	Tested By: md	Checked By: jdt
	Sample No.: ---	Test Date: 02/06/07	Depth: 23-25 ft
	Test No.: C-1	Sample Type: Tube	Elevation: ---
	Description: Moist, gray clay with traces of sand		
	Remarks: System G		

VIL_RESP01836

Wed, 14-FEB-2007 13:47:06

CHAIN OF CUSTODY

#2064353
$200 / 1 month

GeoTesting Express, Inc.
1145 Massachusetts Avenue
Boxborough, MA 01719
(978) 635-0424 Fax (978) 635-0266

Company Name: OAK ENGINEERS
Address: BADGER'S WHARF, NEWBURYPORT, MA 01950
Contact: WENDELL SHEDD
Phone Number: 978-465-9877
Fax Number: 978-465-2986
Project Name: 064006
Project Location: WENDHAM, ME

Sample Type: 1. Soil (circled) 2. Geosynthetic 3. Rock 4. Concrete 5. Other
Container Type: 1. Bucket 2. Bag 3. Jar 4. Tube (circled) 5. Roll

Analysis: CU TEST W/ PORE PRESSURE MEASUREMENTS D4767 CONSOLIDATION TEST W/ 1 CYCLE LOAD-UNLOAD 350

Sample Identification	Container Size	Container Type	Sampling Date	Sampling Time	Sample Type	CU TEST W/ PORE PRESSURE MEASUREMENTS	D4767 CONSOLIDATION TEST W/ 1 CYCLE LOAD-UNLOAD 350					Comments
B114 23'-25'			1/22	11:00 AM	SOIL	X	X					~~20~~ 15 PSI CONFINING PRESSURE

Relinquished By: Wendell Shedd III	Date: 2/1/07 Time: 10:00am	Received By:	Date: 2/1/07 Time: 1100
Relinquished By:	Date: Time:	Received By:	Date: 2/1/07 Time: 12:00
Relinquished By:	Date: Time:	Received By:	Date: Time:
SHIPPED VIA:			

Special Instructions
Rush _____ number of days____
Standard _____ 10 days

VIL_RESP01837

GeoTesting express

a subsidiary of GeoTemp Corporation

WARRANTY and LIABILITY

GeoTesting Express (GTX) warrants that all tests it performs are run in general accordance with the specified test procedures and accepted industry practice. GTX will correct or repeat any test that does not comply with this warranty. GTX has no specific knowledge as to conditioning, origin, sampling procedure or intended use of the material.

GTX may report engineering parameters that require us to interpret the test data. Such parameters are determined using accepted engineering procedures. However, GTX does not warrant that these parameters accurately reflect the true engineering properties of the *in situ* material. Responsibility for interpretation and use of the test data and these parameters for engineering and/or construction purposes rests solely with the user and not with GTX or any of its employees.

GTX's liability will be limited to correcting or repeating a test which fails our warranty. GTX's liability for damages to the Purchaser of testing services for any cause whatsoever shall be limited to the amount GTX received for the testing services. GTX will not be liable for any damages, or for any lost benefits or other consequential damages resulting from the use of these test results, even if GTX has been advised of the possibility of such damages. GTX will not be responsible for any liability of the Purchaser to any third party.

Commonly Used Symbols

A	pore pressure parameter for $\Delta\sigma_1 - \Delta\sigma_3$
B	pore pressure parameter for $\Delta\sigma_3$
CIU	isotropically consolidated undrained triaxial shear test
CR	compression ratio for one dimensional consolidation
C_c	coefficient of curvature, $(D_{30})^2 / (D_{10} \times D_{60})$
C_u	coefficient of uniformity, D_{60}/D_{10}
C_c	compression index for one dimensional consolidation
C_α	coefficient of secondary compression
c_v	coefficient of consolidation
c	cohesion intercept for total stresses
c'	cohesion intercept for effective stresses
D	diameter of specimen
D_{10}	diameter at which 10% of soil is finer
D_{15}	diameter at which 15% of soil is finer
D_{30}	diameter at which 30% of soil is finer
D_{50}	diameter at which 50% of soil is finer
D_{60}	diameter at which 60% of soil is finer
D_{85}	diameter at which 85% of soil is finer
d_{50}	displacement for 50% consolidation
d_{90}	displacement for 90% consolidation
d_{100}	displacement for 100% consolidation
E	Young's modulus
e	void ratio
e_c	void ratio after consolidation
e_o	initial void ratio
G	shear modulus
G_s	specific gravity of soil particles
H	height of specimen
PI	plasticity index
i	gradient
K_o	lateral stress ratio for one dimensional strain
k	permeability
LI	Liquidity Index
m_v	coefficient of volume change
n	porosity
PI	plasticity index
P_c	preconsolidation pressure
p	$(\sigma_1 + \sigma_3) / 2$, $(\sigma_v + \sigma_h) / 2$
p'	$(\sigma'_1 + \sigma'_3) / 2$, $(\sigma'_v + \sigma'_h) / 2$
p'_c	p' at consolidation
Q	quantity of flow
q	$(\sigma_1 - \sigma_3) / 2$
q_f	q at failure
q_o, q_i	initial q
q_c	q at consolidation
S	degree of saturation
SL	shrinkage limit
s_u	undrained shear strength
T	time factor for consolidation
T	temperature
t	time
U, UC	unconfined compression test
UU, Q	unconsolidated undrained triaxial test
u_a	pore gas pressure
u_e	excess pore water pressure
u, u_w	pore water pressure
V	total volume
V_g	volume of gas
V_s	volume of solids
V_v	volume of voids
V_w	volume of water
V_o	initial volume
v	velocity
W	total weight
W_s	weight of solids
W_w	weight of water
w	water content
w_c	water content at consolidation
w_f	final water content
w_l	liquid limit
w_n	natural water content
w_p	plastic limit
w_s	shrinkage limit
w_o, w_i	initial water content
α	slope of q_f versus p_f
α'	slope of q_f versus p_f'
γ_t	total unit weight
γ_d	dry unit weight
γ_s	unit weight of solids
γ_w	unit weight of water
ε	strain
ε_{vol}	volume strain
ε_h, ε_v	horizontal strain, vertical strain
μ	Poisson's ratio, also viscosity
σ	normal stress
σ'	effective normal stress
σ_c, σ'_c	consolidation stress in isotropic stress system
σ_h, σ'_h	horizontal normal stress
σ_v, σ'_v	vertical normal stress
σ_1	major principal stress
σ_2	intermediate principal stress
σ_3	minor principal stress
τ	shear stress
φ	friction angle based on total stresses
φ'	friction angle based on effective stresses
φ'_r	residual friction angle
φ_{ult}	φ for ultimate strength

VIL_RESP01838

July 5, 2007

Mr. Brooks More, AICP
Director of Planning
Town of Windham
8 School Street
Windham, ME 04062

Subject: Village at Little Falls
Stormwater Management, Traffic and General Engineering Peer Review

Dear Brooks,

As requested by your office, Gorrill-Palmer Consulting Engineers Inc. has conducted a peer review of the stormwater management, traffic and general civil engineering design aspects of the above referenced project. Our review has focused on:

- Whether the project appears to conform to standard engineering practice, and any revisions which may be desirable.
- Whether the project appears to conform to the requirements of the Town of Windham Zoning, Subdivision and Surface Water Protection Ordinances, and any revisions which may be desirable.

Information provided to Gorrill-Palmer Consulting Engineers Inc., as prepared by Northeast Civil Solutions, Inc. (NCS) includes:

- Preliminary Subdivision Application & Final Site Plan Application, Village at Little Falls, June 2007
- Village at Little Falls Plan Set, stamped "Preliminary Review 6-1-07"
- Subdivision/Site Plan Pre-Application, dated March 2007

Gorrill-Palmer's review of the application materials was limited to stormwater management, general engineering and traffic elements. Gorrill-Palmer's review specifically excluded the Voluntary Response Action Plan (VRAP), geotechnical report, condominium documents (except as related to site and stormwater management system maintenance), and Conditional Letter of Map Revision based on Fill (CLOMR-F). Gorrill-Palmer did not conduct a detailed review of water and sewer plans and details because we understand that Portland Water District (PWD) will review and approve the water and sewer plans.

Conformance to Standard Engineering Practice

The analysis conducted by NCS utilized the methodology outlined in "Urban Hydrology for Small Watersheds, Technical Release 55 (TR55), USDA, Soil Conservation Service for calculation of watershed area, curve number, and time of concentration. NCS utilized the HydroCAD Stormwater Modeling Program, which is based upon the routing methodology contained within Technical Release No. 20, USDA, Soil Conservation Service. The use of these programs is in keeping with the standard engineering practices within the State of Maine.

Stormwater Management Plan Review

Gorrill-Palmer reviewed the stormwater management report and plans and spot-checked the calculations. We present the following comments for your consideration and response as appropriate:

General Comments:

1. Since the development includes more than 3.0 acres of impervious area, it requires a Site Location of Development Act (SLDA) permit from the Maine DEP. The project is subject to the MDEP Stormwater Management Law (effective November 2005) and is required to meet Basic Standards and General Standards as defined in the Law. We understand that MDEP has agreed with the applicant that the MDEP Flooding Standard is not applicable to this project, due to direct discharge of stormwater to the Presumpscot River and the presumption of no significant impact on peak flows downstream of the site. Stormwater detention facilities to control peak rates of runoff from the development are therefore not required. Gorrill-Palmer has not reviewed the project for conformance to the MDEP Stormwater Management Law, nor for conformance with SLDA requirements.
2. The development proposes to use an underground detention and soil filter (StormTech) system and bioretention cells to provide water quality treatment required by MDEP Stormwater Law standards.

Stormwater Management Report:

3. Appendix B - The stormwater report shows an offsite drainage area of +/- 6.3 acres that presently drains into an existing culvert under the railroad tracks and flows across the property to the Presumpscot River. This drainage area includes High Street, several houses and open areas. This area appears to measure approximately 7.5 acres from the map provided in the report. The size of this drainage area should be confirmed using 1"=2000' scale USGS topographic maps.
4. Appendix I – The maintenance contract with Clean Harbors should specify that all components of the proposed stormwater management system will be maintained in accordance with the maintenance plan approved by the Maine DEP. The contract should also specify that the StormTech detention/filter system will be maintained in accordance with the Manufacturer's recommended maintenance plan.
5. Appendix L – The condominium association documents, Article 8, Section 8.2, should specify that Portland Water District will maintain the sewage pump station and sewer system, if that is the intent of the applicant.
6. Appendix L – Provisions i thru vi relating to stormwater management system maintenance should be revised to include maintenance of bioretention cells and maintenance of the StormTech detention/filter system in accordance with the manufacturer's recommended maintenance plan.

Exhibit 14, Conformance with Town Site Plan Requirements

7. Section F on page 2 states that "stormwater will be detained onsite in order to reduce stormwater discharge to rates less than predevelopment flows." A similar statement also appears on page 1 of Exhibit 18, Community Facilities Impact. These statements should be revised to indicate that increased site runoff is not anticipated to increase peak flow rates in the Presumpscot River.

Underground Detention/Filter System:

8. Gorrill-Palmer did not conduct a detailed review of the detention/filter system design. We assume that NCS will coordinate design details with the StormTech manufacturer's representative and that MDEP will review the design for conformance with MDEP Stormwater Law Standards.

9. The plans show the offsite area noted in the comment #3 draining into the proposed storm drainage system for the development, and flowing into the proposed detention/filter system. The stormwater calculations indicate that sizing of the detention/filter system is based on the proposed impervious and landscaped areas within the development, not including the offsite area. The applicant should request MDEP to confirm that the detention/filter system is appropriately sized to handle both onsite and offsite runoff as proposed.
10. Depending on MDEP confirmation of the detention/filter system sizing as noted in the previous comment, NCS may need to consider either bypassing the offsite flows around the system, or other modifications to the proposed design.
11. If the offsite drainage area is directed to the detention/filter system as designed, the plans should include sediment pretreatment measures for this offsite flow.
12. The plans appear to use catch basins with 3-foot deep sumps and hoods for sediment pretreatment of stormwater flows to the detention/filter system. NCS should provide sediment volume calculations based on MDEP requirements and confirm that adequate sediment storage volume is provided.

Plan Set Review

General Comments:

13. Notes referring to the Depot Street reconstruction plans should be added to each of the Grading and Drainage Plan, Site Plan, and Utility Plan sheets bordering Depot Street. Limits of construction, pavement sawcut locations, grading, utilities, drainage systems and other construction should be coordinated with the Depot Street Improvement plans. If the Depot Street Improvement Project may be constructed under a separate contract, the plans should contain specific information and notes to coordinate Depot Street construction with onsite construction.
14. Plans should include trench cap details conforming to Town and MDOT requirements for all proposed utility construction within Route 202 and Depot Street.

Sheet 2 of 38, Existing Conditions Plan:

15. The plan should be stamped by a surveyor licensed in Maine.
16. Abutting properties across Depot Street and the railroad ROW should be shown on this plan and the preliminary subdivision plan.

Sheet 3 of 38, Preliminary Subdivision Plan:

17. All State and Federal permits applicable to the project should be noted on the subdivision plan.
18. A note referring to the Conditional Letter of Map Amendment based on Fill (CLOMR-F), as approved by FEMA, should be included on the plan.
19. The source of the boundary survey should be clearly noted on the plan.
20. Note 20 should be revised when the Phase II archaeological survey has been completed.
21. The plan shows a "proposed 20' grading easement" within the existing railroad tracks on the east side of the project. The applicant should provide documentation that this easement has been approved by MDOT, and the Railroad if applicable.
22. Gorrill-Palmer assumes that a condominium plat plan suitable for recording at the Cumberland County Registry of Deeds will be submitted with the final subdivision application.