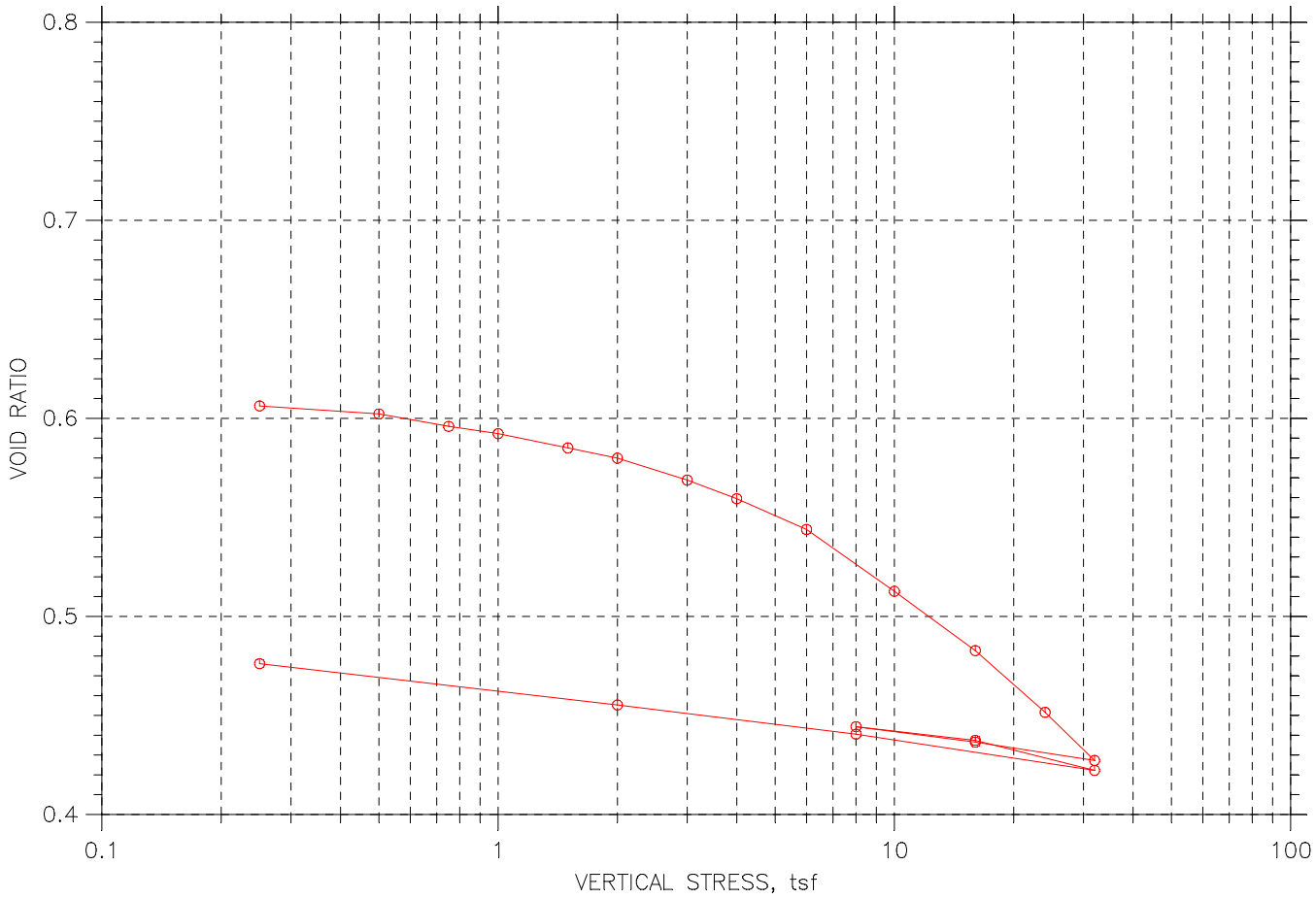
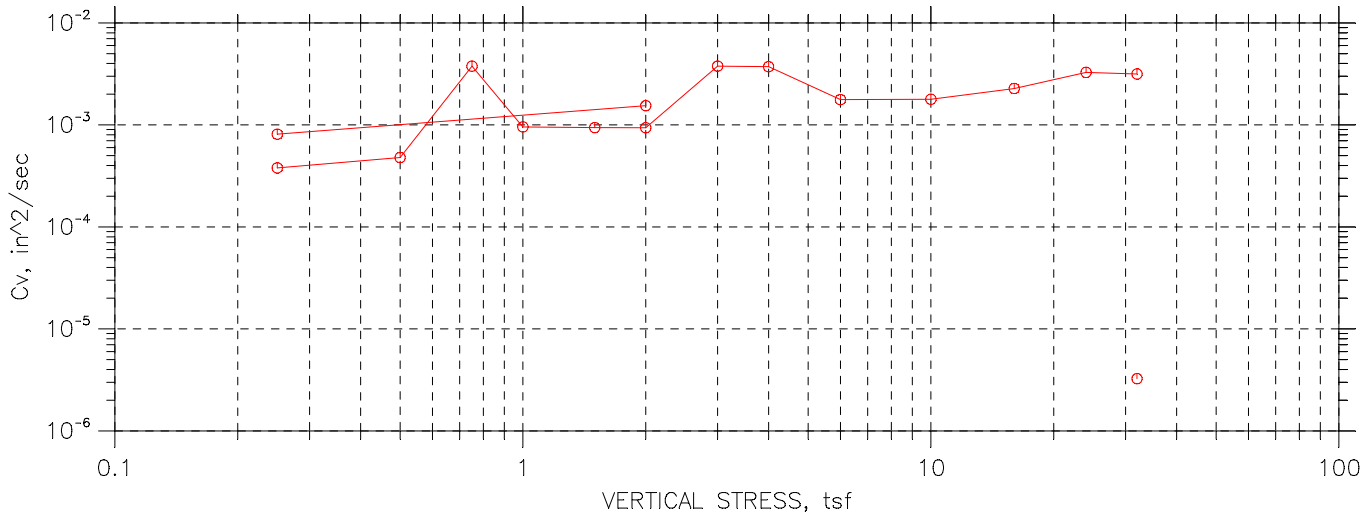
CONSOLIDATION TEST DATA

SUMMARY REPORT





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-205B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-3	Test Date: 3/19/09	Depth: 20.5'-21.0'
Test No.: 5742205BS3C	Sample Type: 3" OST	Elevation: +734.8
Description: CLAYEY SILT, TRACE FINE SAND - LIGHT BROWN (CL-ML)		
Remarks: Pc = 3.70 tsf Cc = 0.183 Ccr = 0.023 TEST PERFORMED AS PER ASTM D 2435		

Fri, 29-MAY-2009 16:19:20

CONSOLIDATION TEST DATA

Project: KINGSTON COAL TVA
Boring No.: 09-205B
Sample No.: OST-3
Test No.: 5742205BS3C

Location: TN
Tested By: JDW
Test Date: 3/19/09
Sample Type: 3" OST

Project No.: 60095742
Checked By: WPQ
Depth: 20.5'-21.0'
Elevation: +734.8

Soil Description: CLAYEY SILT, TRACE FINE SAND - LIGHT BROWN (CL-ML)
Remarks: Pc = 3.70 tsf Cc = 0.183 Ccr = 0.023 TEST PERFORMED AS PER ASTM D 2435

Measured Specific Gravity: 2.71
Initial Void Ratio: 0.61
Final Void Ratio: 0.48

Liquid Limit: 23
Plastic Limit: 16
Plasticity Index: 7

Initial Height: 0.75 in
Specimen Diameter: 2.50 in

	Before Consolidation		After Consolidation	
	Trimmings	Specimen+Ring	Specimen+Ring	Trimmings
Container ID	122	RING	RING	X-9
Wt. Container + Wet Soil, gm	129.09	199.74	197.15	164.61
Wt. Container + Dry Soil, gm	112.07	179.01	179.01	146.45
Wt. Container, gm	25.2	77.27	77.27	44.63
Wt. Dry Soil, gm	86.87	101.74	101.74	101.82
Water Content, %	19.59	20.38	17.84	17.84
Void Ratio	---	0.61	0.48	---
Degree of Saturation, %	---	90.99	101.51	---
Dry Unit Weight, pcf	---	105.27	114.61	---

CONSOLIDATION TEST DATA

Project: KINGSTON COAL TVA
Boring No.: 09-205B
Sample No.: OST-3
Test No.: 5742205BS3C

Location: TN
Tested By: JDW
Test Date: 3/19/09
Sample Type: 3" OST

Project No.: 60095742
Checked By: WPQ
Depth: 20.5'-21.0'
Elevation: +734.8

Soil Description: CLAYEY SILT, TRACE FINE SAND - LIGHT BROWN (CL-ML)
Remarks: Pc = 3.70 tsf Cc = 0.183 Ccr = 0.023 TEST PERFORMED AS PER ASTM D 2435

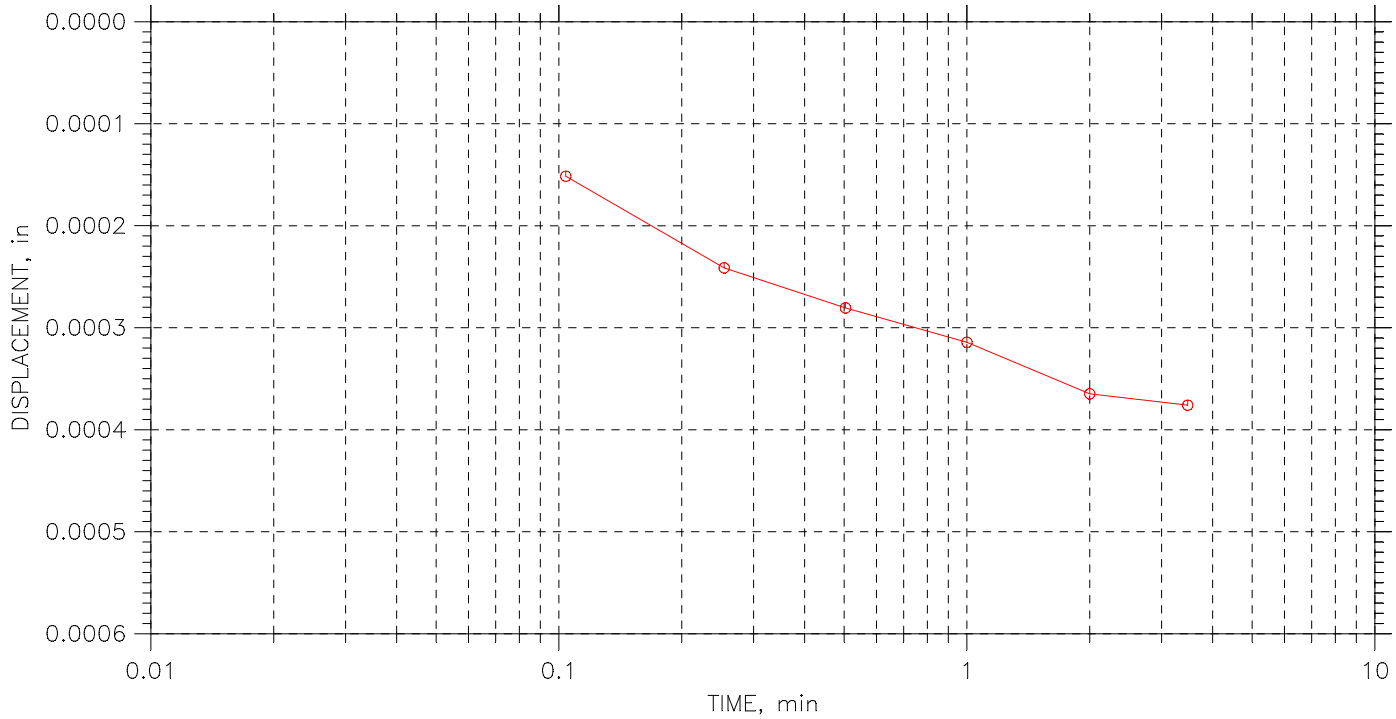
	Applied Stress tsf	Final Displacement in	Void Ratio	Strain at End %	T50 Fitting Sq.Rt. min	T50 Fitting Log min	Coefficient of Consolidation Sq.Rt. in^2/sec	Coefficient of Consolidation Log in^2/sec	Coefficient of Consolidation Ave. in^2/sec
1	0.25	0.000376	0.606	0.05	1.2	0.0	3.79e-004	0.00e+000	3.79e-004
2	0.5	0.002256	0.602	0.30	1.0	0.0	4.78e-004	0.00e+000	4.78e-004
3	0.75	0.005185	0.596	0.69	0.1	0.0	3.76e-003	0.00e+000	3.76e-003
4	1	0.006886	0.592	0.92	0.5	0.0	9.56e-004	0.00e+000	9.56e-004
5	1.5	0.01026	0.585	1.37	0.5	0.3	9.42e-004	1.47e-003	1.15e-003
6	2	0.01268	0.580	1.69	0.5	0.2	9.38e-004	2.29e-003	1.33e-003
7	3	0.01783	0.569	2.38	0.1	0.0	3.77e-003	0.00e+000	3.77e-003
8	4	0.02223	0.559	2.96	0.1	0.0	3.72e-003	0.00e+000	3.72e-003
9	6	0.02946	0.544	3.93	0.2	13.5	1.77e-003	3.19e-005	6.27e-005
10	10	0.04405	0.513	5.87	0.2	0.0	1.78e-003	0.00e+000	1.78e-003
11	16	0.05802	0.483	7.74	0.2	119.7	2.28e-003	3.36e-006	6.70e-006
12	24	0.07257	0.452	9.68	0.1	0.0	3.28e-003	0.00e+000	3.28e-003
13	32	0.0839	0.427	11.19	0.1	119.8	3.15e-003	3.10e-006	6.19e-006
14	16	0.0796	0.436	10.61	0.0	0.0	0.00e+000	0.00e+000	0.00e+000
15	8	0.07594	0.444	10.13	0.0	0.0	0.00e+000	0.00e+000	0.00e+000
16	16	0.07917	0.437	10.56	0.0	0.0	0.00e+000	0.00e+000	0.00e+000
17	32	0.08623	0.422	11.50	112.5	0.0	3.26e-006	0.00e+000	3.26e-006
18	8	0.0777	0.441	10.36	0.0	0.0	0.00e+000	0.00e+000	0.00e+000
19	2	0.07083	0.455	9.44	0.2	0.1	1.55e-003	3.00e-003	2.04e-003
20	0.25	0.06109	0.476	8.15	0.5	0.4	8.10e-004	9.49e-004	8.74e-004

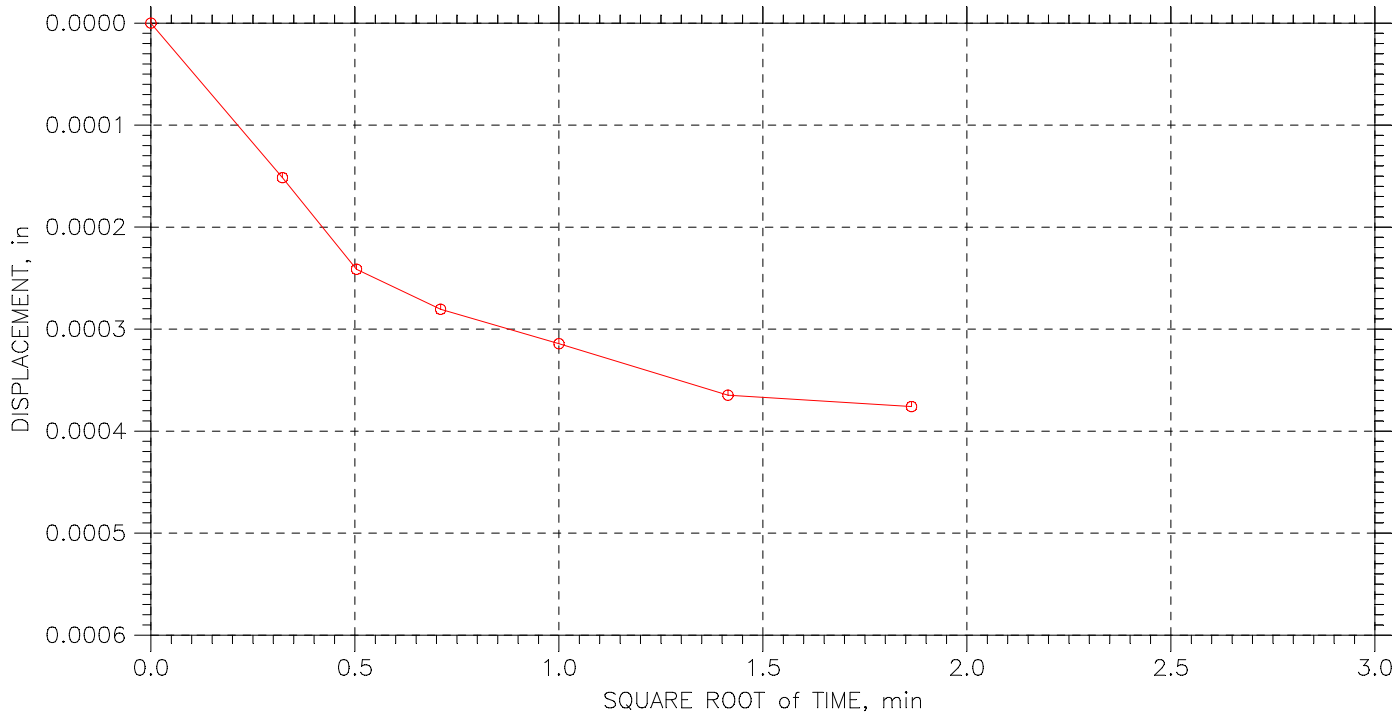
CONSOLIDATION TEST DATA

TIME CURVES

Step: 1 of 20

Stress: 0.25 tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-205B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-3	Test Date: 3/19/09	Depth: 20.5'-21.0'
Test No.: 5742205BS3C	Sample Type: 3" OST	Elevation: +734.8
Description: CLAYEY SILT, TRACE FINE SAND - LIGHT BROWN (CL-ML)		
Remarks: Pc = 3.70 tsf Cc = 0.183 Ccr = 0.023 TEST PERFORMED AS PER ASTM D 2435		

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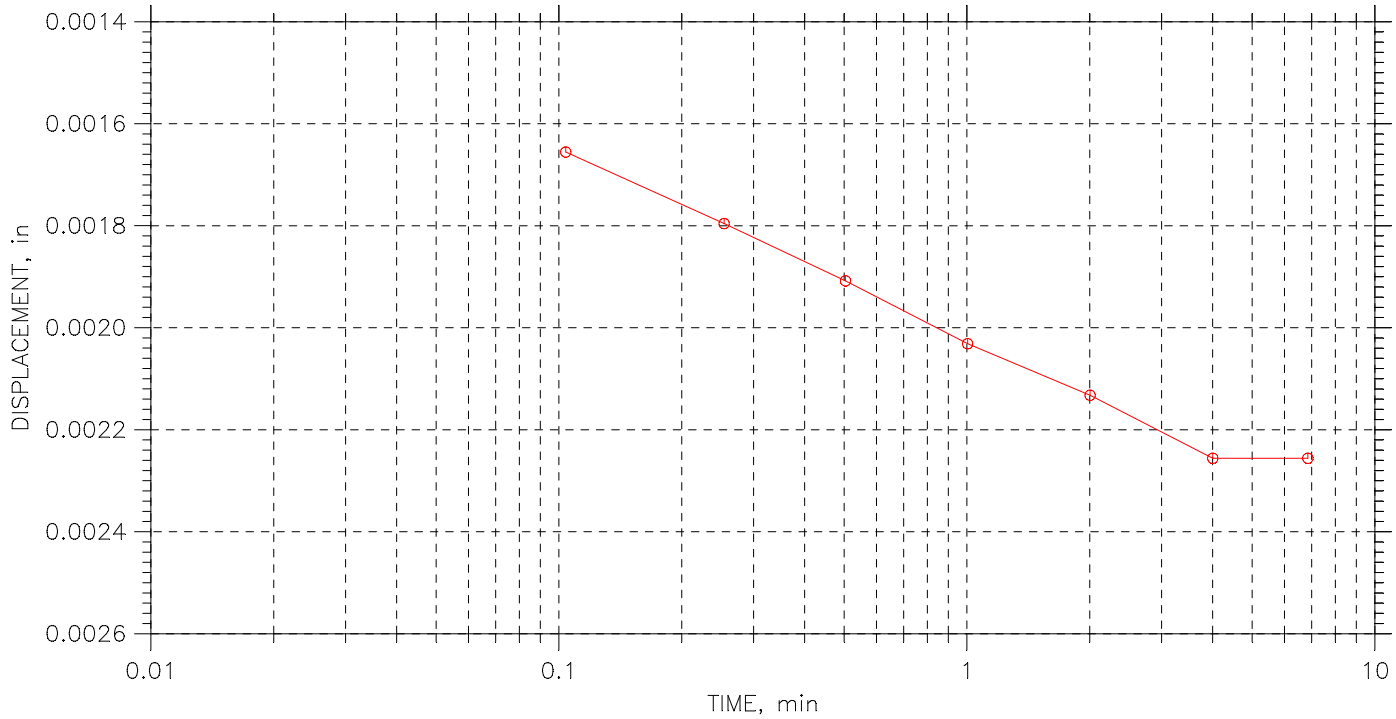
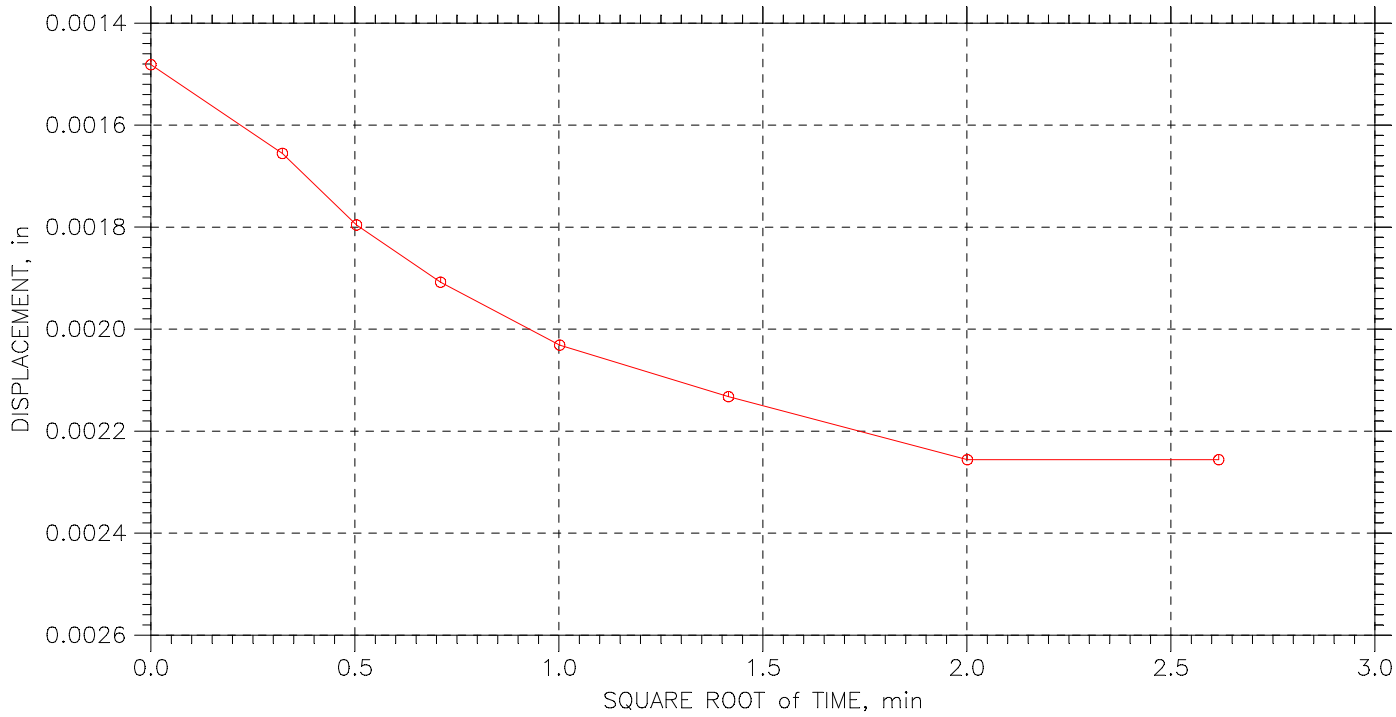
CONSOLIDATION TEST DATA

TIME CURVES

Step: 2 of 20

Stress: 0.5 tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-205B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-3	Test Date: 3/19/09	Depth: 20.5'-21.0'
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Description: CLAYEY SILT, TRACE FINE SAND - LIGHT BROWN (CL-ML)		
Remarks: Pc = 3.70 tsf Cc = 0.183 Ccr = 0.023 TEST PERFORMED AS PER ASTM D 2435		

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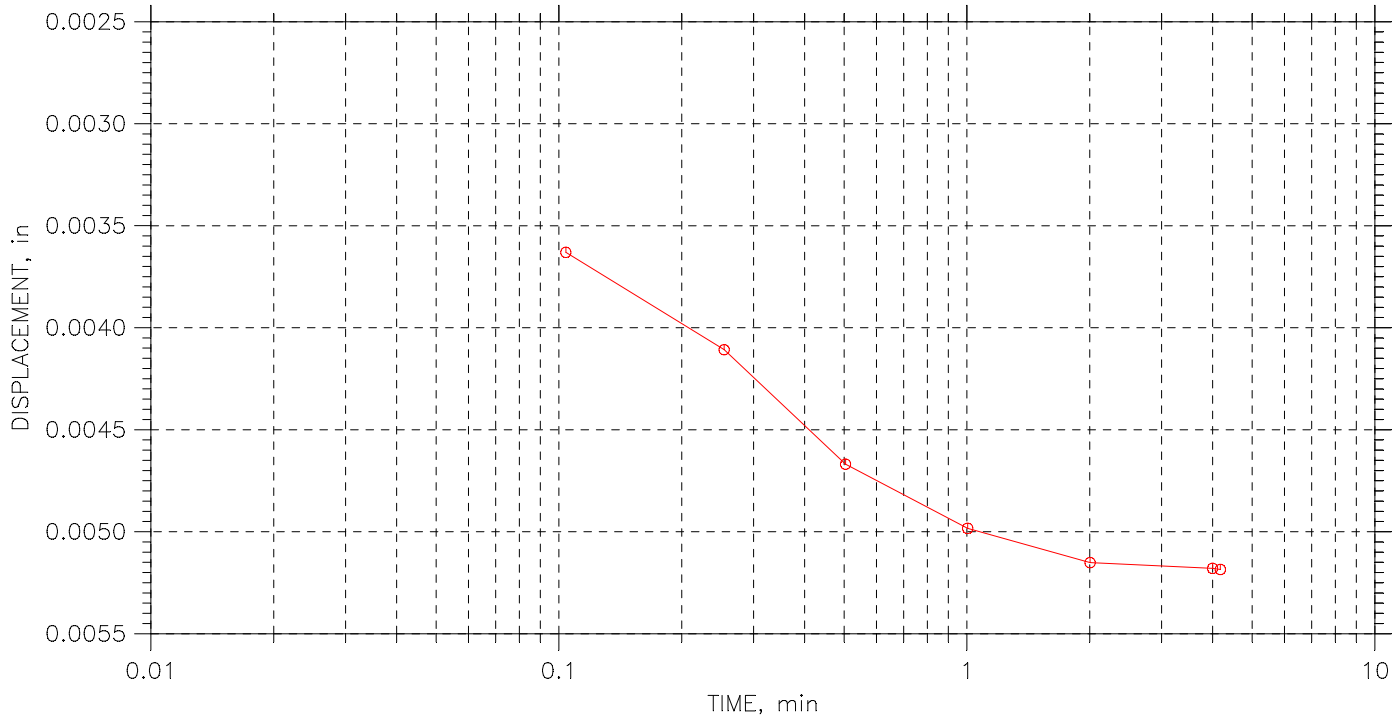
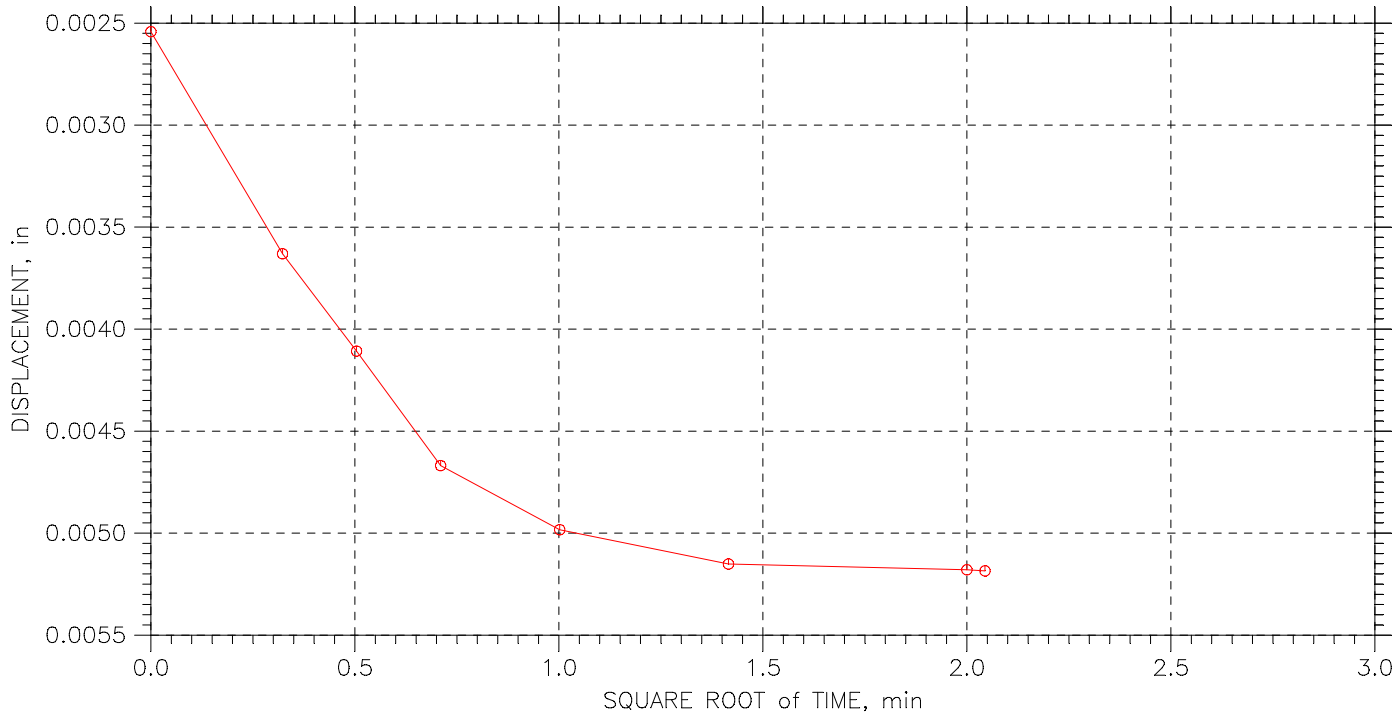
CONSOLIDATION TEST DATA

TIME CURVES

Step: 3 of 20

Stress: 0.75 tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-205B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-3	Test Date: 3/19/09	Depth: 20.5'-21.0'
Test No.: 5742205BS3C	Sample Type: 3" OST	Elevation: +734.8
Description: CLAYEY SILT, TRACE FINE SAND - LIGHT BROWN (CL-ML)		
Remarks: Pc = 3.70 tsf Cc = 0.183 Ccr = 0.023 TEST PERFORMED AS PER ASTM D 2435		

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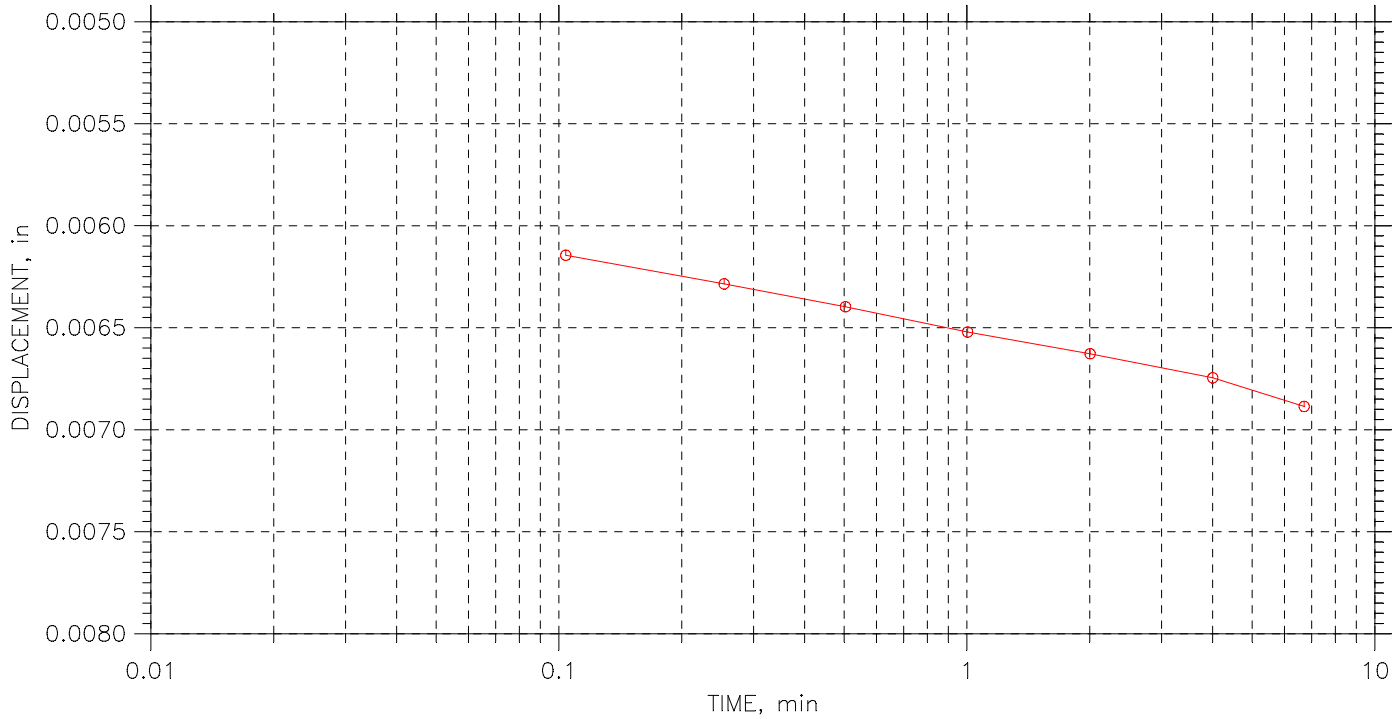
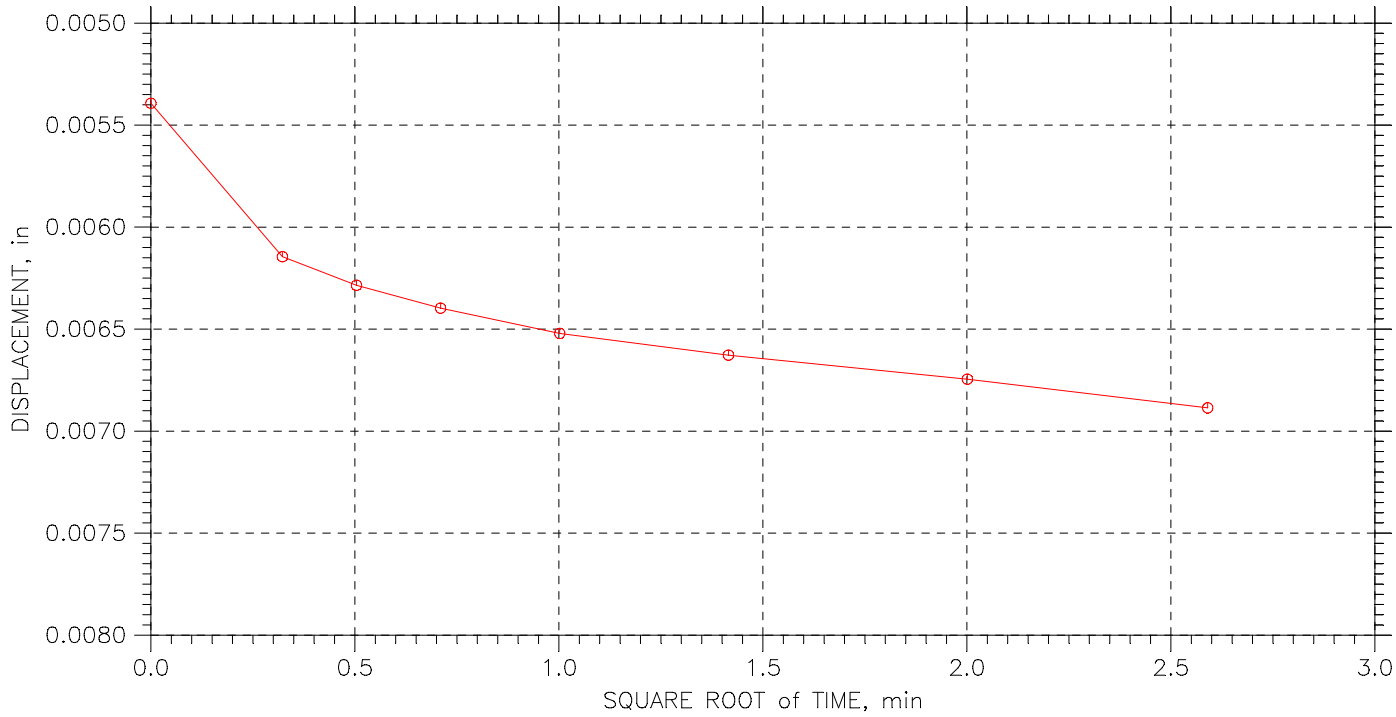
CONSOLIDATION TEST DATA

TIME CURVES

Step: 4 of 20

Stress: 1. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-205B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-3	Test Date: 3/19/09	Depth: 20.5'-21.0'
Test No.: 5742205BS3C	Sample Type: 3" OST	Elevation: +734.8
Description: CLAYEY SILT, TRACE FINE SAND - LIGHT BROWN (CL-ML)		
Remarks: Pc = 3.70 tsf Cc = 0.183 Ccr = 0.023 TEST PERFORMED AS PER ASTM D 2435		

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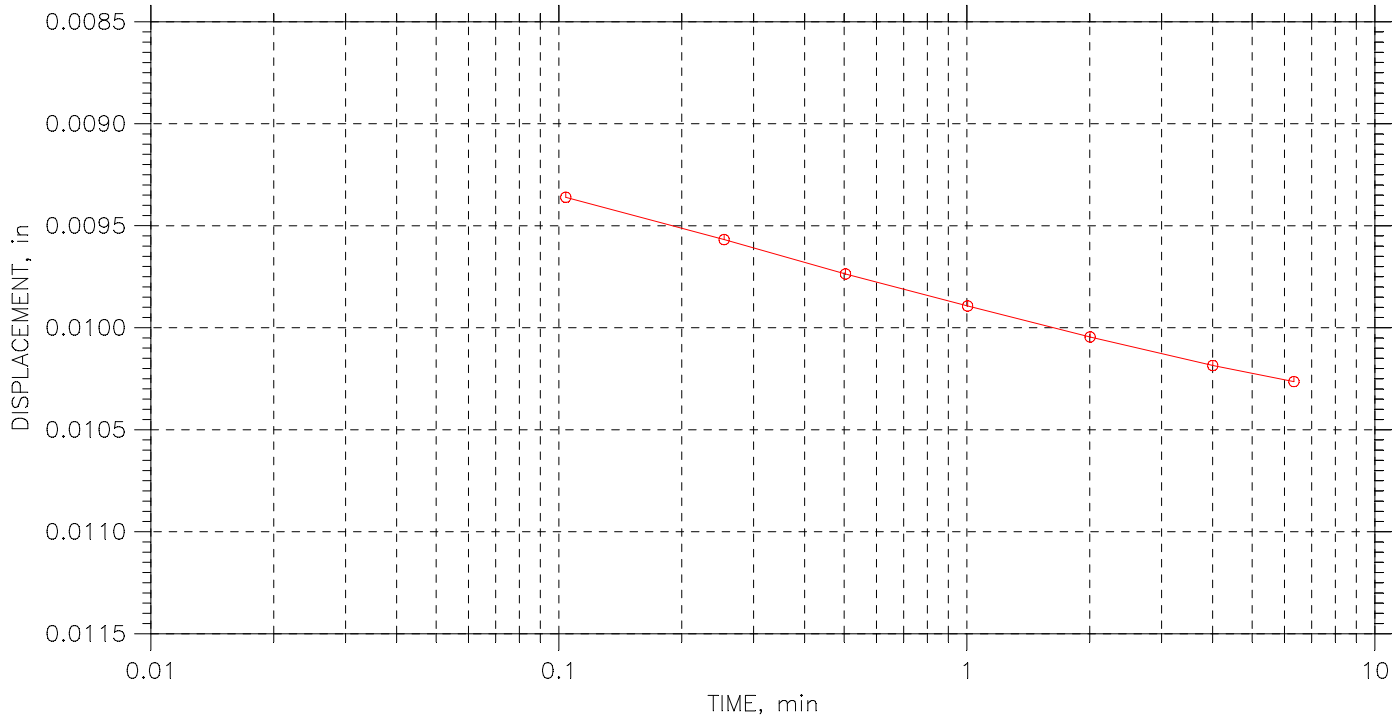
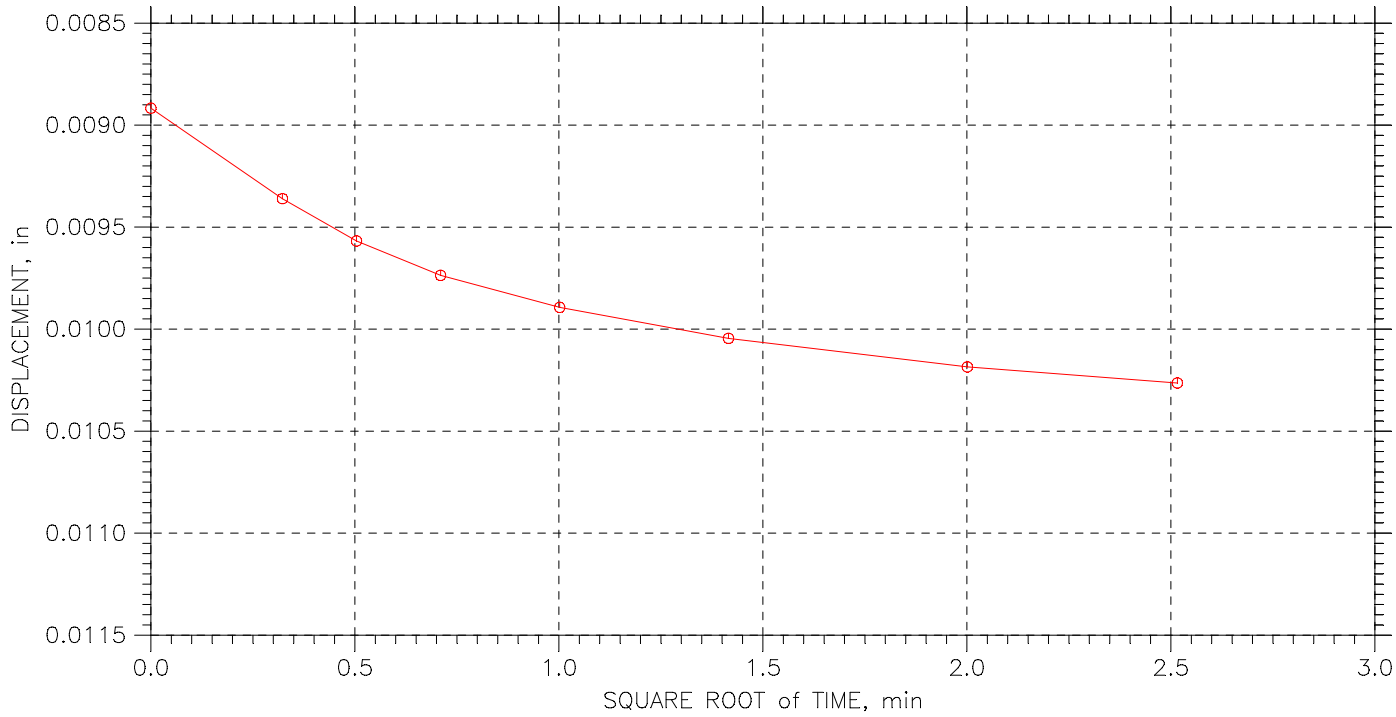
CONSOLIDATION TEST DATA

TIME CURVES

Step: 5 of 20

Stress: 1.5 tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-205B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-3	Test Date: 3/19/09	Depth: 20.5'-21.0'
Test No.: 5742205BS3C	Sample Type: 3" OST	Elevation: +734.8
Description: CLAYEY SILT, TRACE FINE SAND - LIGHT BROWN (CL-ML)		
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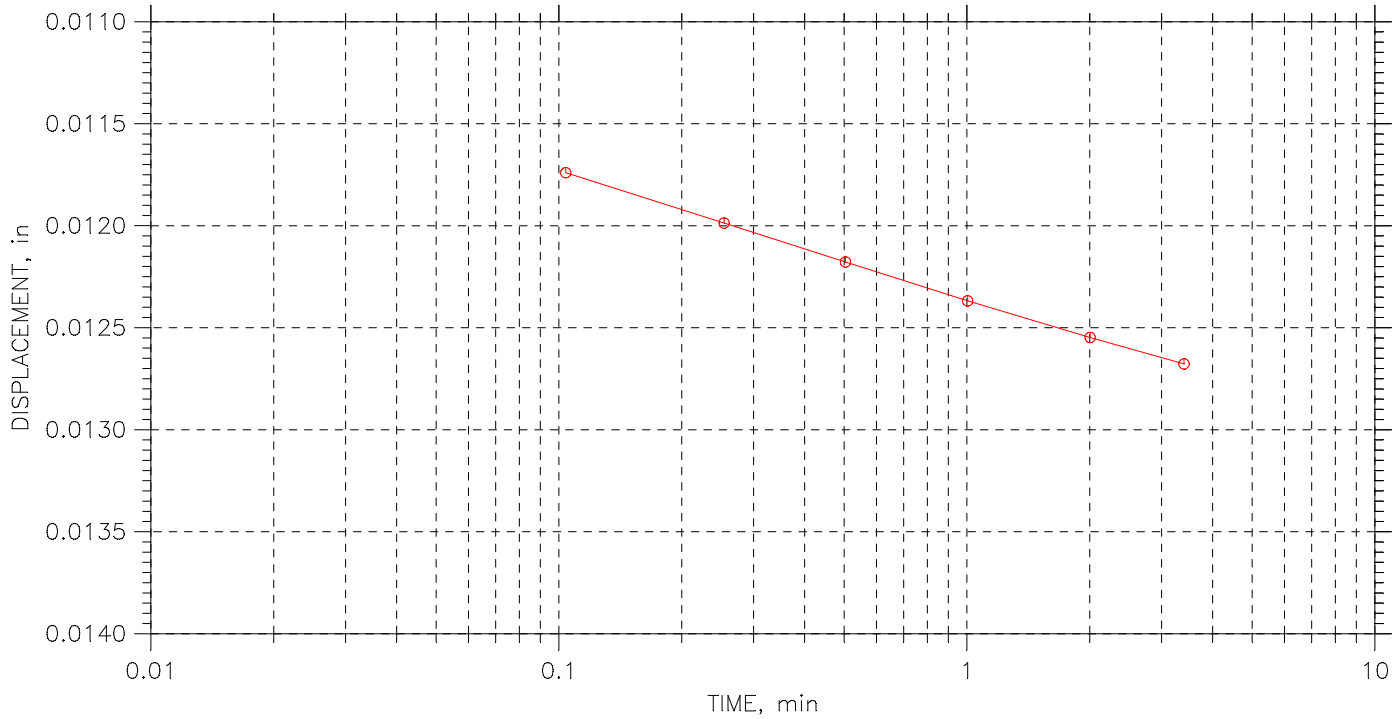
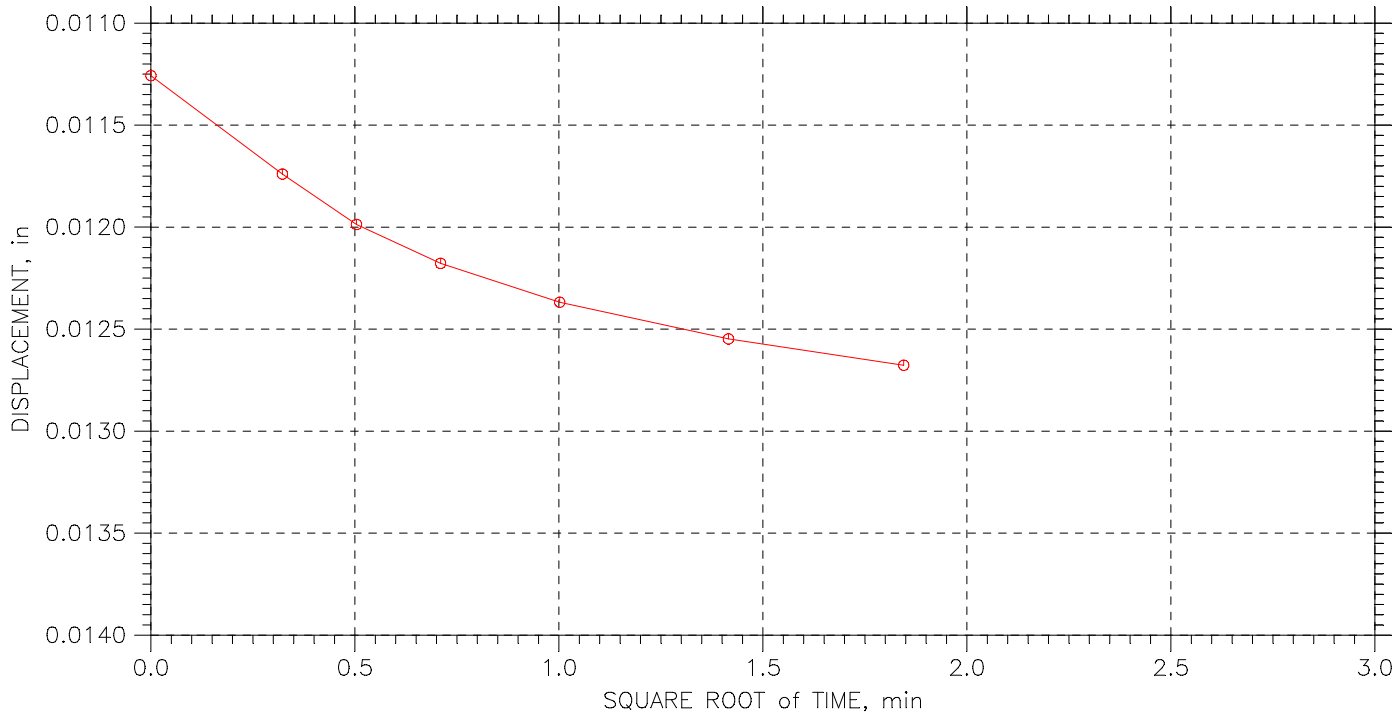
CONSOLIDATION TEST DATA

TIME CURVES

Step: 6 of 20

Stress: 2. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-205B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-3	Test Date: 3/19/09	Depth: 20.5'-21.0'
Test No.: 5742205BS3C	Sample Type: 3" OST	Elevation: +734.8
Description: CLAYEY SILT, TRACE FINE SAND - LIGHT BROWN (CL-ML)		
Remarks: Pc = 3.70 tsf Cc = 0.183 Ccr = 0.023 TEST PERFORMED AS PER ASTM D 2435		

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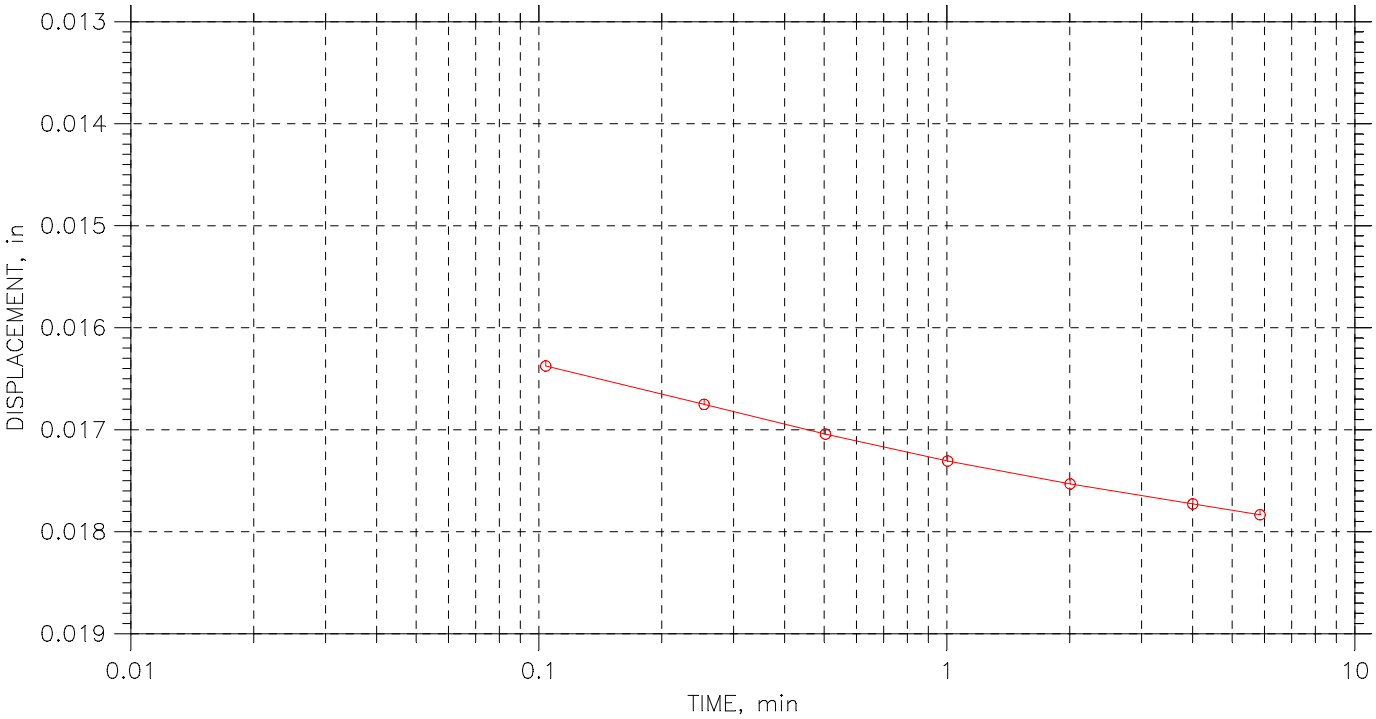
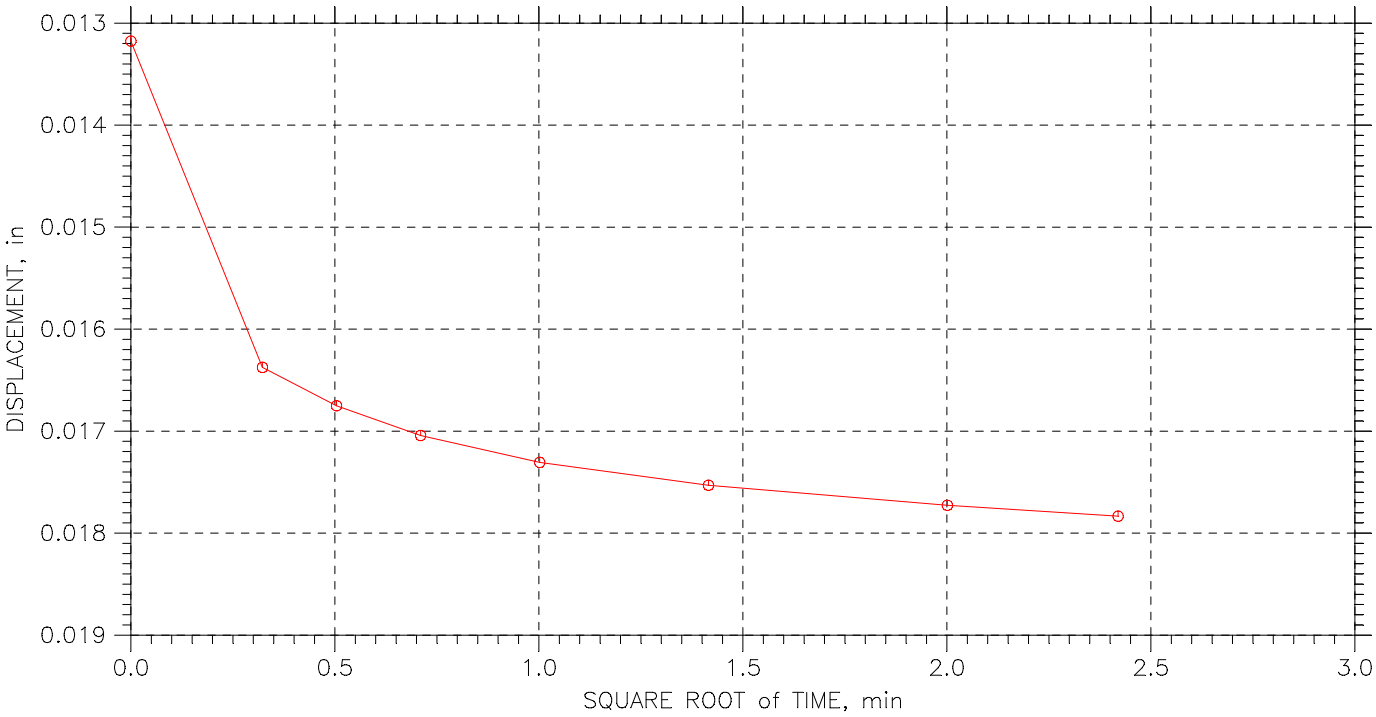
CONSOLIDATION TEST DATA

TIME CURVES

Step: 7 of 20

Stress: 3. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-205B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-3	Test Date: 3/19/09	Depth: 20.5'-21.0'
Test No.: 5742205BS3C	Sample Type: 3" OST	Elevation: +734.8
Description: CLAYEY SILT, TRACE FINE SAND - LIGHT BROWN (CL-ML)		
Remarks: Pc = 3.70 tsf Cc = 0.183 Ccr = 0.023 TEST PERFORMED AS PER ASTM D 2435		

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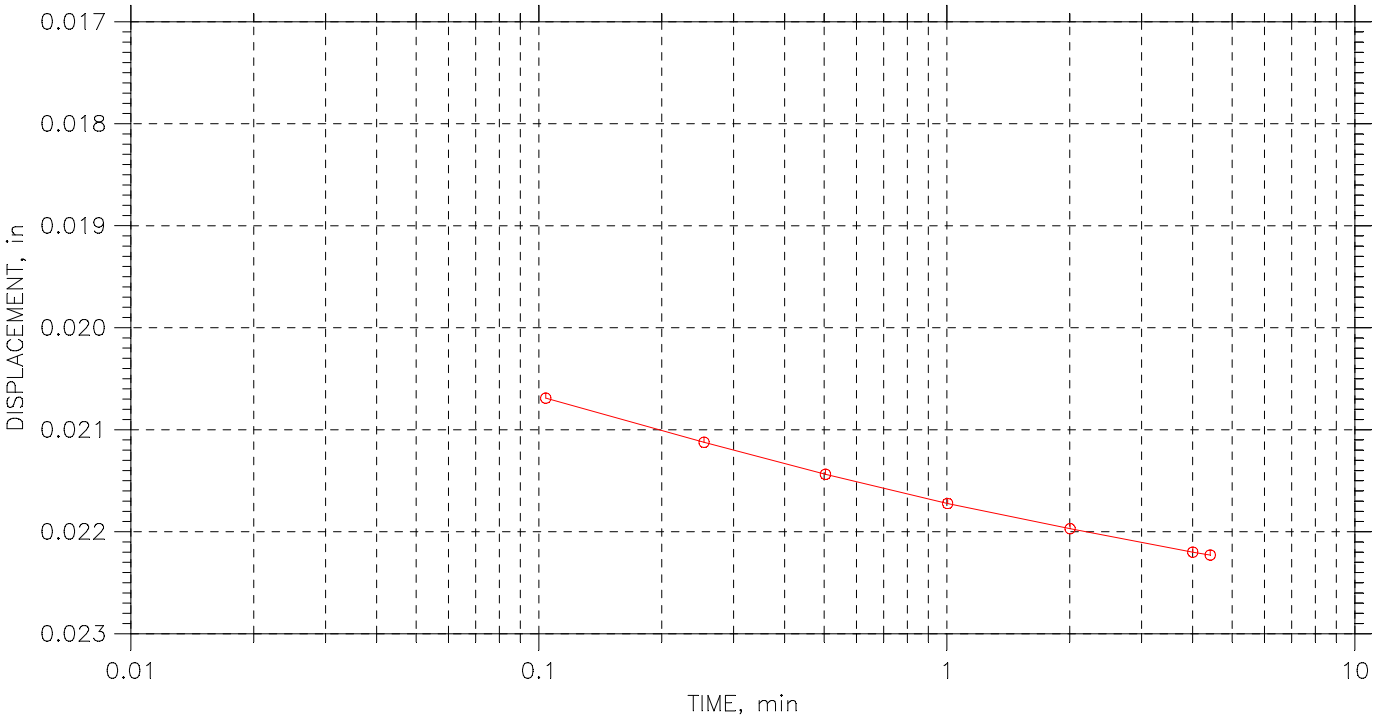
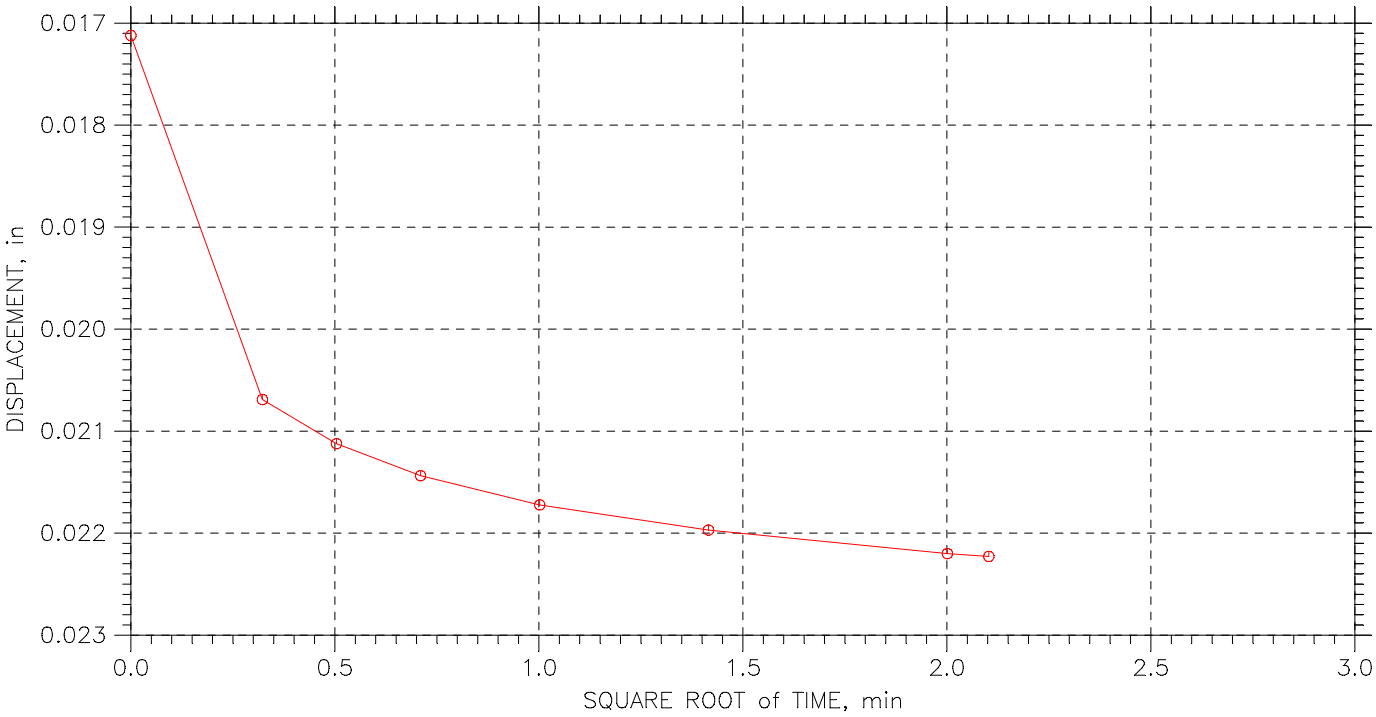
CONSOLIDATION TEST DATA

TIME CURVES

Step: 8 of 20

Stress: 4. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-205B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-3	Test Date: 3/19/09	Depth: 20.5'-21.0'
Test No.: 5742205BS3C	Sample Type: 3" OST	Elevation: +734.8
Description: CLAYEY SILT, TRACE FINE SAND - LIGHT BROWN (CL-ML)		
Remarks: Pc = 3.70 tsf Cc = 0.183 Ccr = 0.023 TEST PERFORMED AS PER ASTM D 2435		

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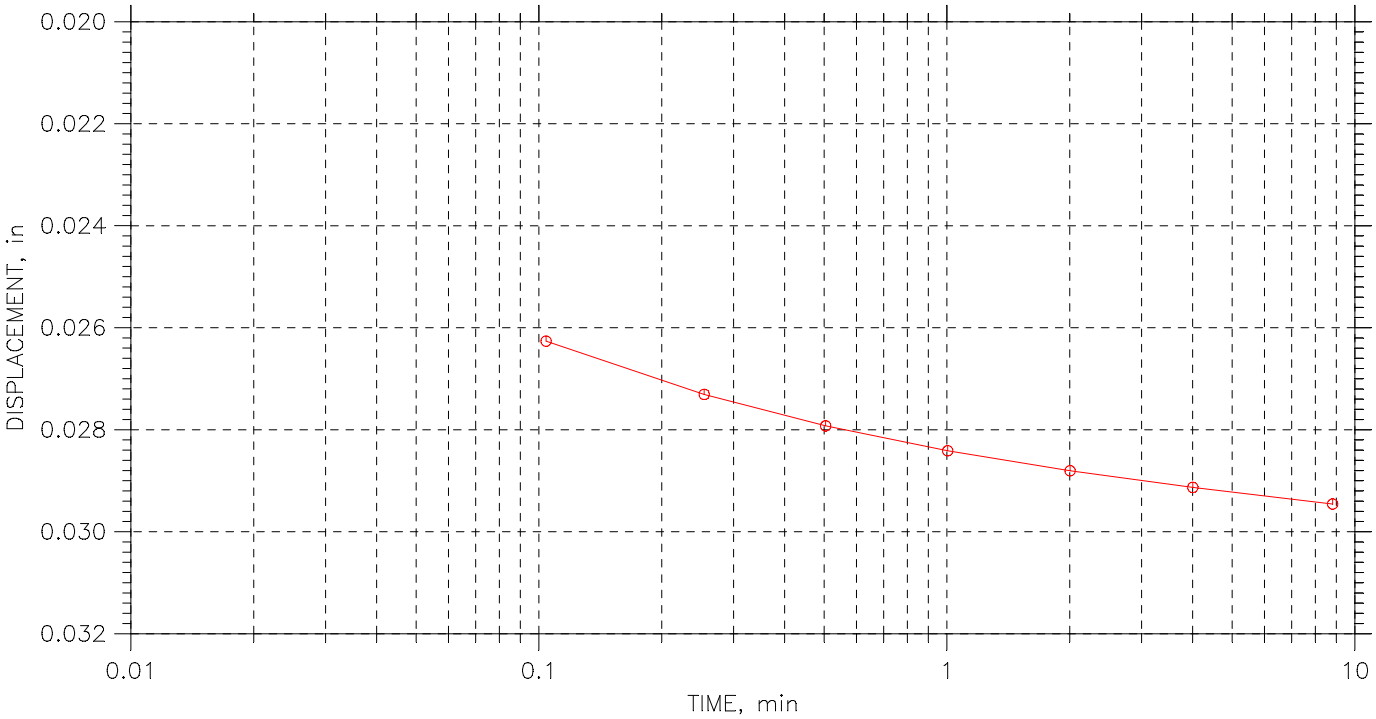
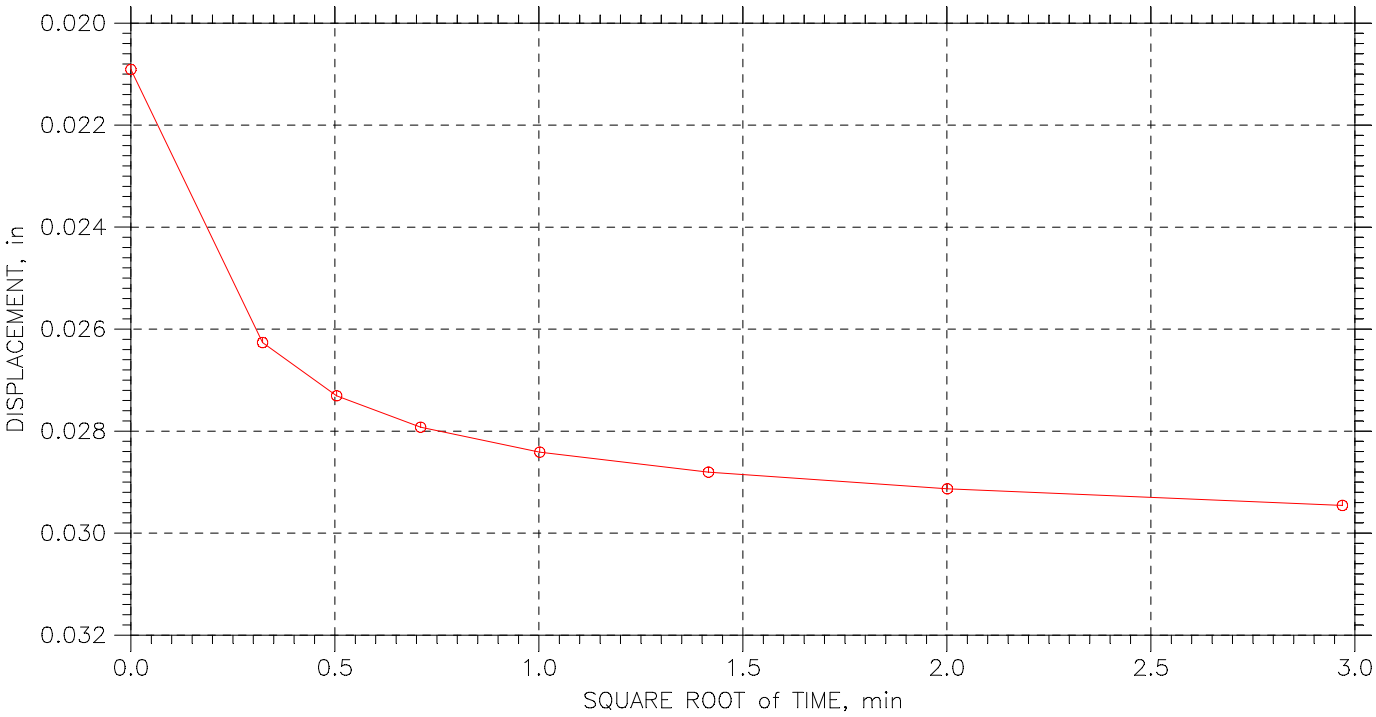
CONSOLIDATION TEST DATA

TIME CURVES

Step: 9 of 20

Stress: 6. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-205B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-3	Test Date: 3/19/09	Depth: 20.5'-21.0'
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Description: CLAYEY SILT, TRACE FINE SAND - LIGHT BROWN (CL-ML)		
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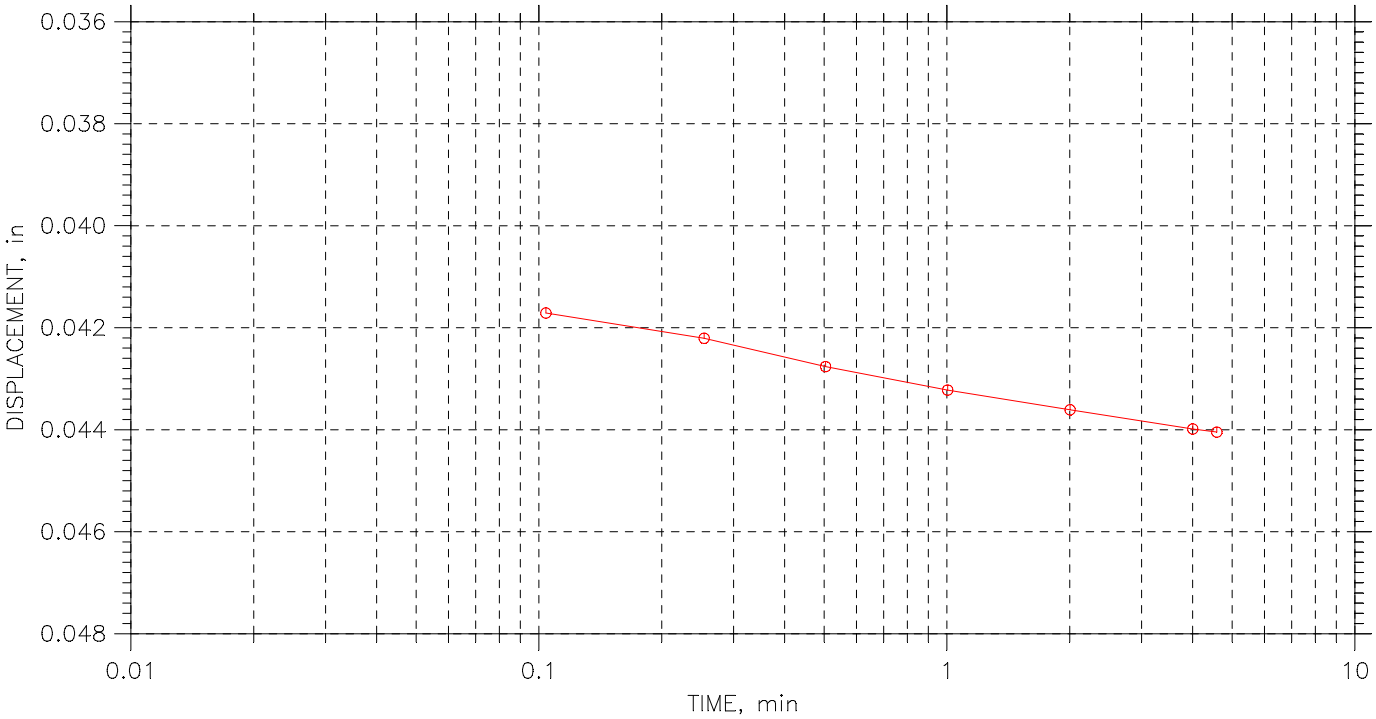
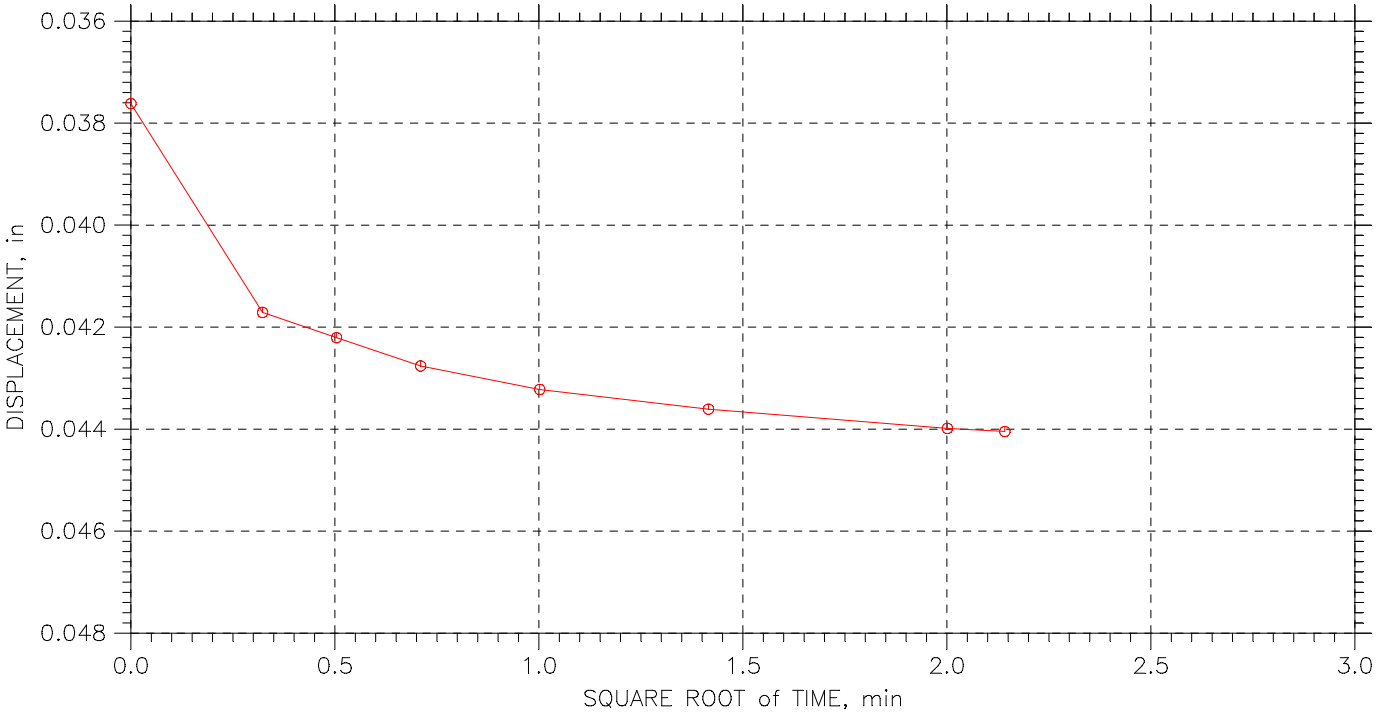
CONSOLIDATION TEST DATA

TIME CURVES

Step: 10 of 20

Stress: 10. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-205B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-3	Test Date: 3/19/09	Depth: 20.5'-21.0'
Test No.: 5742205BS3C	Sample Type: 3" OST	Elevation: +734.8
Description: CLAYEY SILT, TRACE FINE SAND - LIGHT BROWN (CL-ML)		
Remarks: Pc = 3.70 tsf Cc = 0.183 Ccr = 0.023 TEST PERFORMED AS PER ASTM D 2435		

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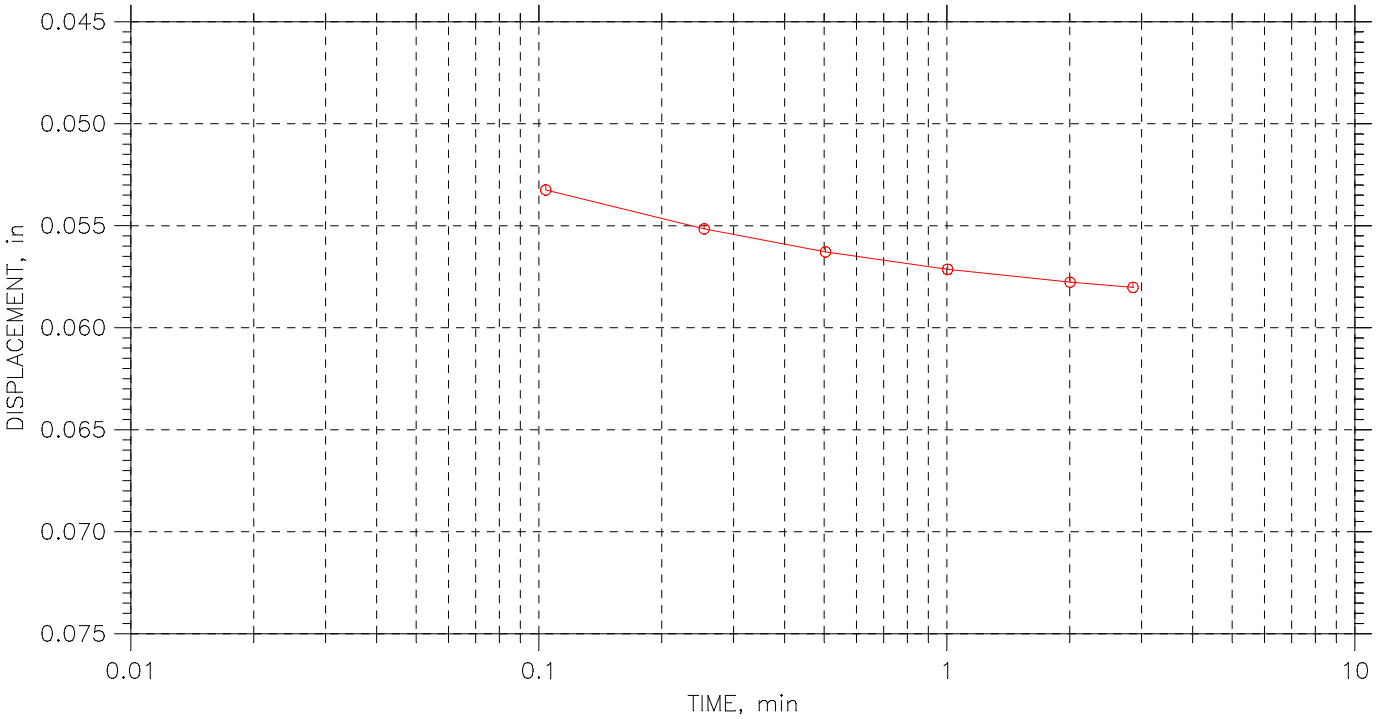
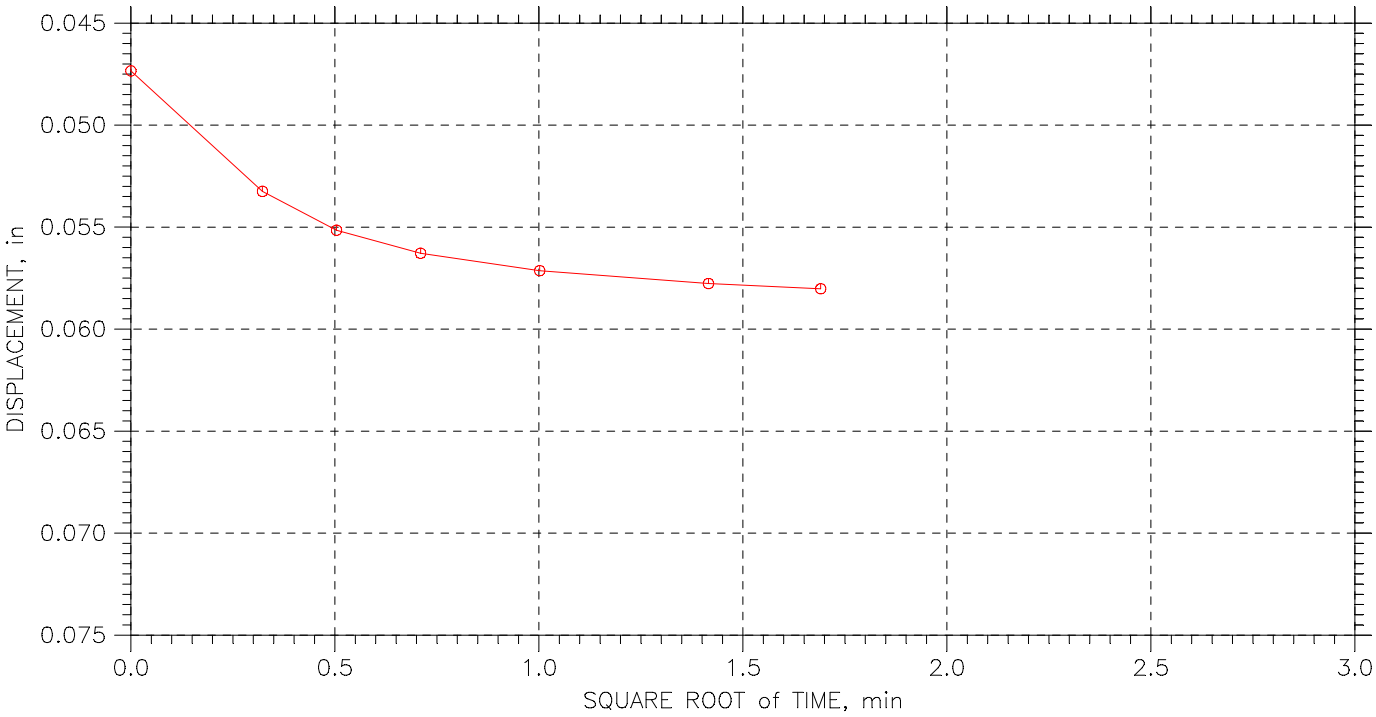
CONSOLIDATION TEST DATA

TIME CURVES

Step: 11 of 20

Stress: 16. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-205B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-3	Test Date: 3/19/09	Depth: 20.5'-21.0'
Test No.: 5742205BS3C	Sample Type: 3" OST	Elevation: +734.8
Description: CLAYEY SILT, TRACE FINE SAND - LIGHT BROWN (CL-ML)		
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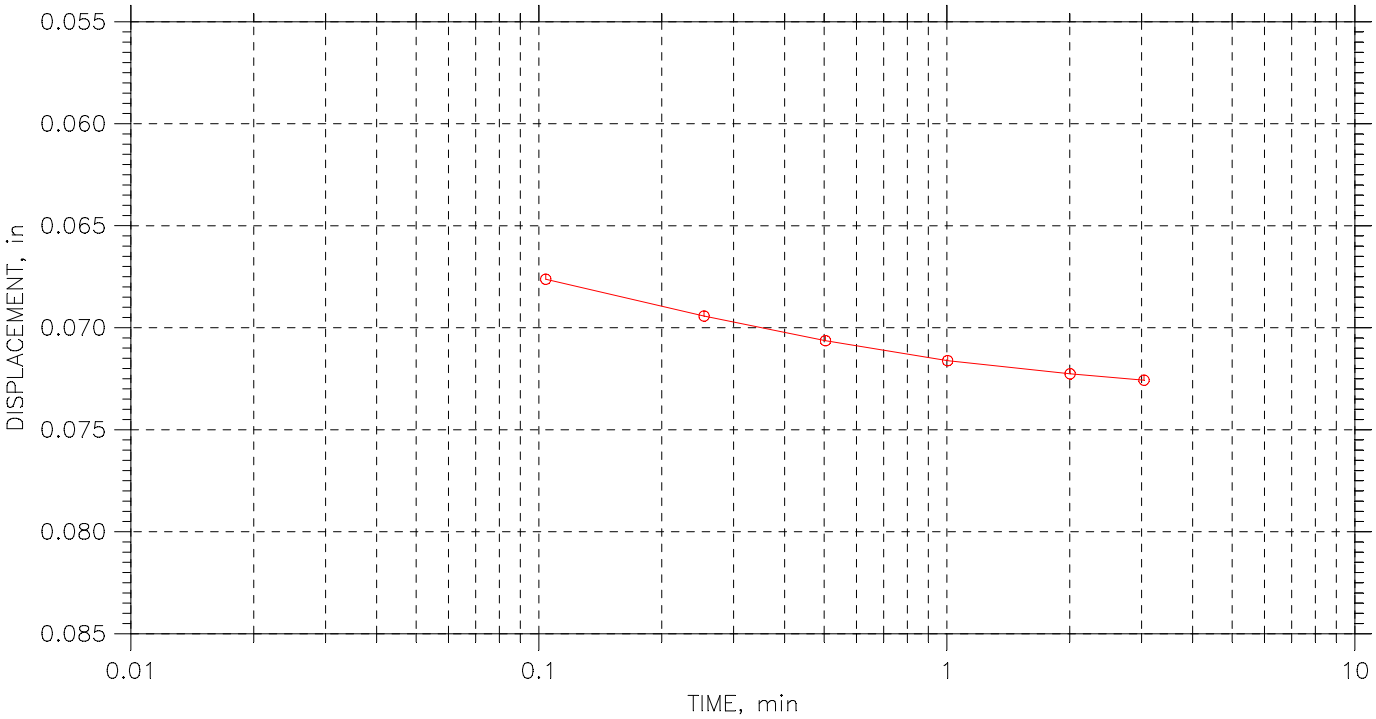
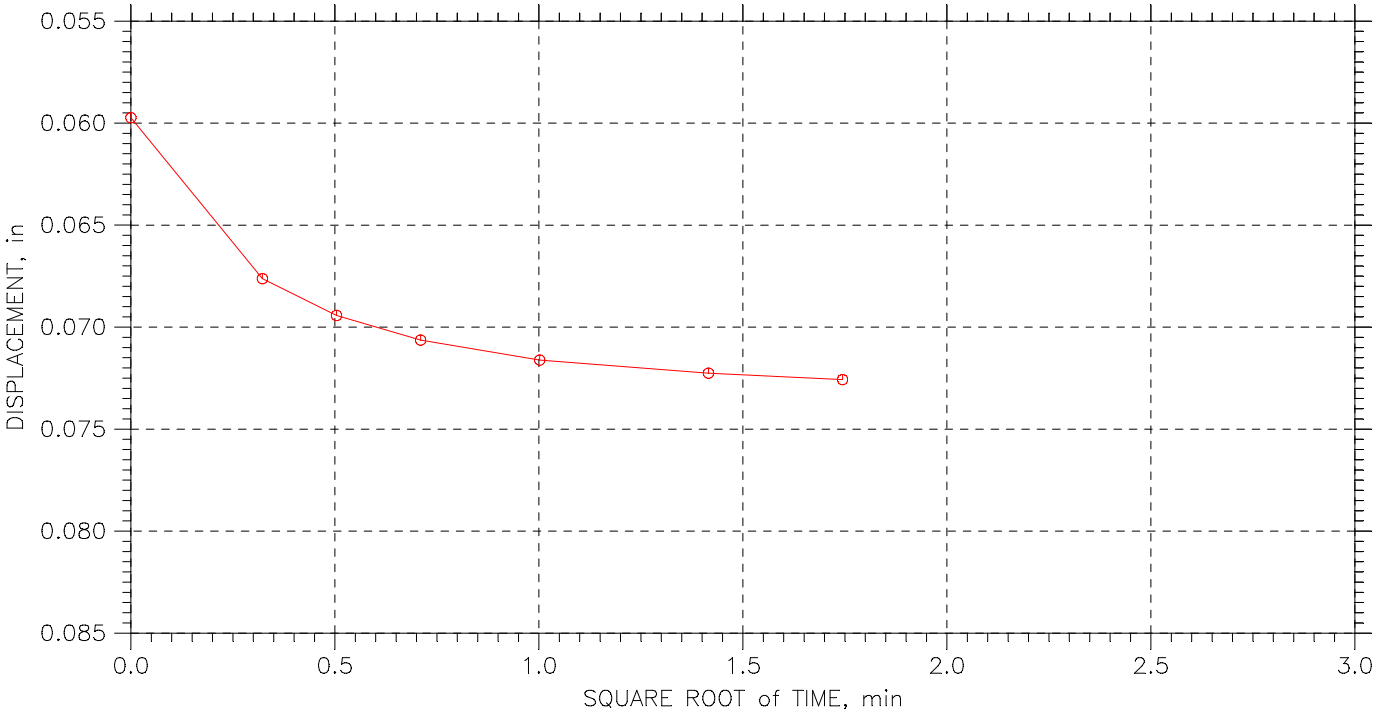
CONSOLIDATION TEST DATA

TIME CURVES

Step: 12 of 20

Stress: 24. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-205B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-3	Test Date: 3/19/09	Depth: 20.5'-21.0'
Test No.: 5742205BS3C	Sample Type: 3" OST	Elevation: +734.8
Description: CLAYEY SILT, TRACE FINE SAND - LIGHT BROWN (CL-ML)		
Remarks: Pc = 3.70 tsf Cc = 0.183 Ccr = 0.023 TEST PERFORMED AS PER ASTM D 2435		

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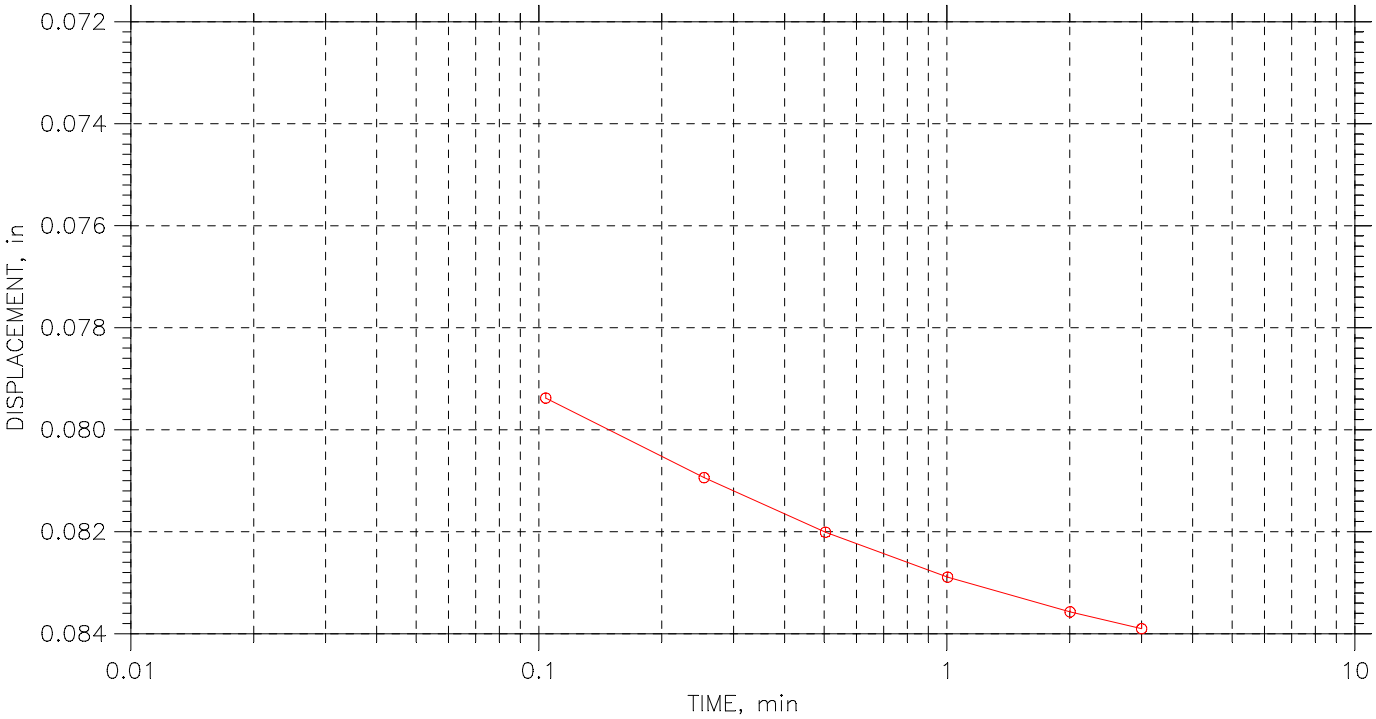
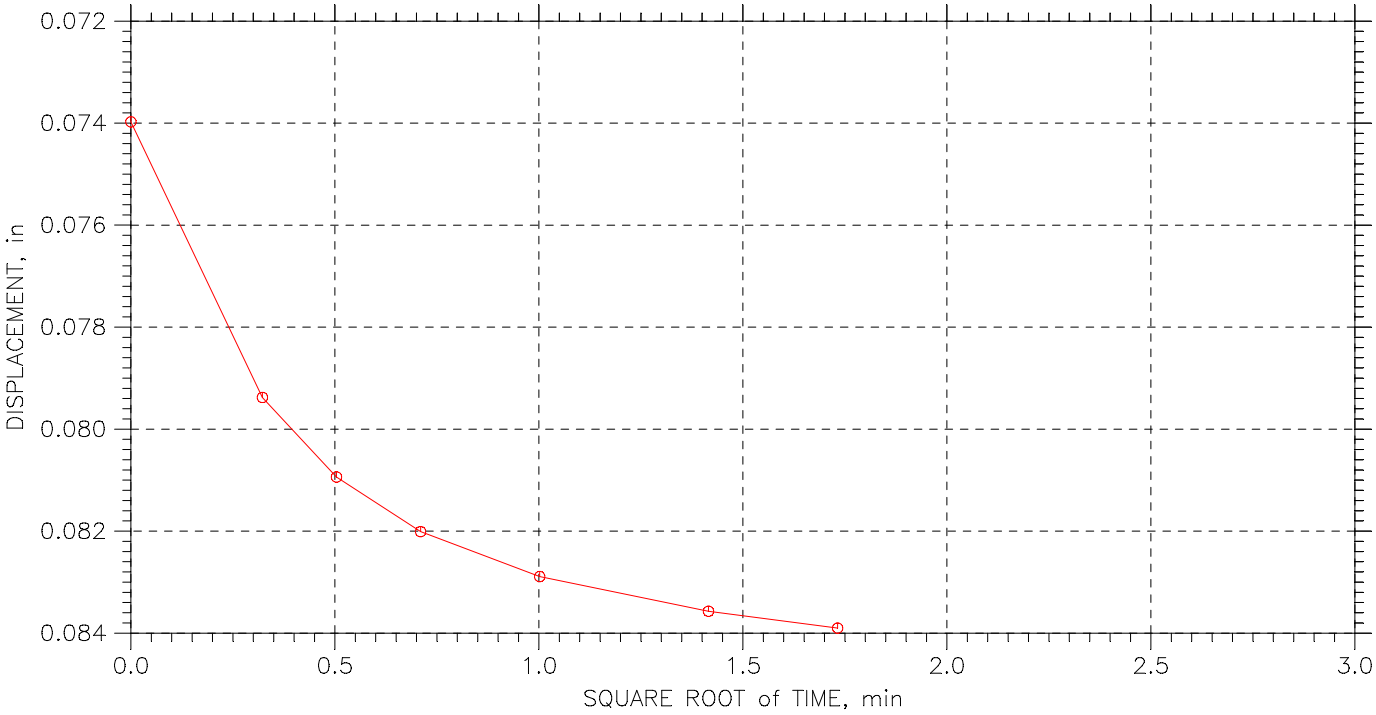
CONSOLIDATION TEST DATA

TIME CURVES

Step: 13 of 20

Stress: 32. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-205B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-3	Test Date: 3/19/09	Depth: 20.5'-21.0'
Test No.: 5742205BS3C	Sample Type: 3" OST	Elevation: +734.8
Description: CLAYEY SILT, TRACE FINE SAND - LIGHT BROWN (CL-ML)		
Remarks: Pc = 3.70 tsf Cc = 0.183 Ccr = 0.023 TEST PERFORMED AS PER ASTM D 2435		

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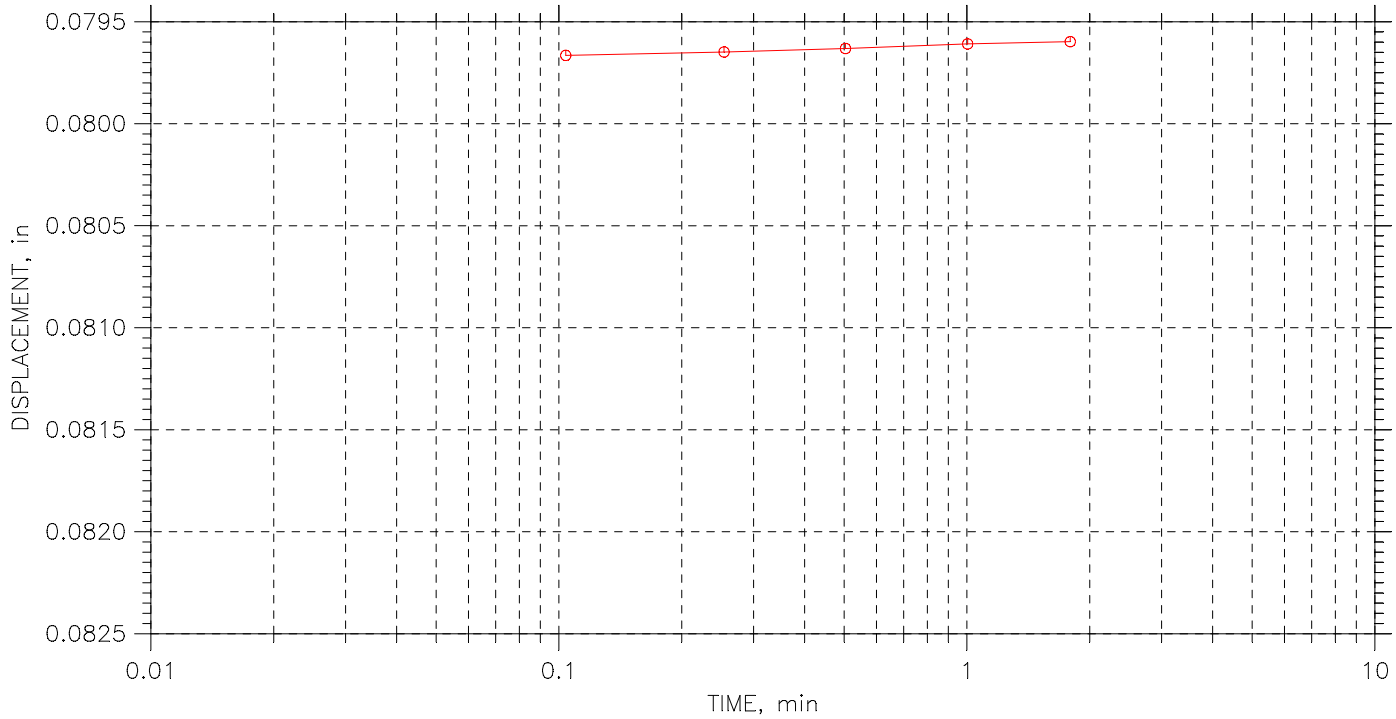
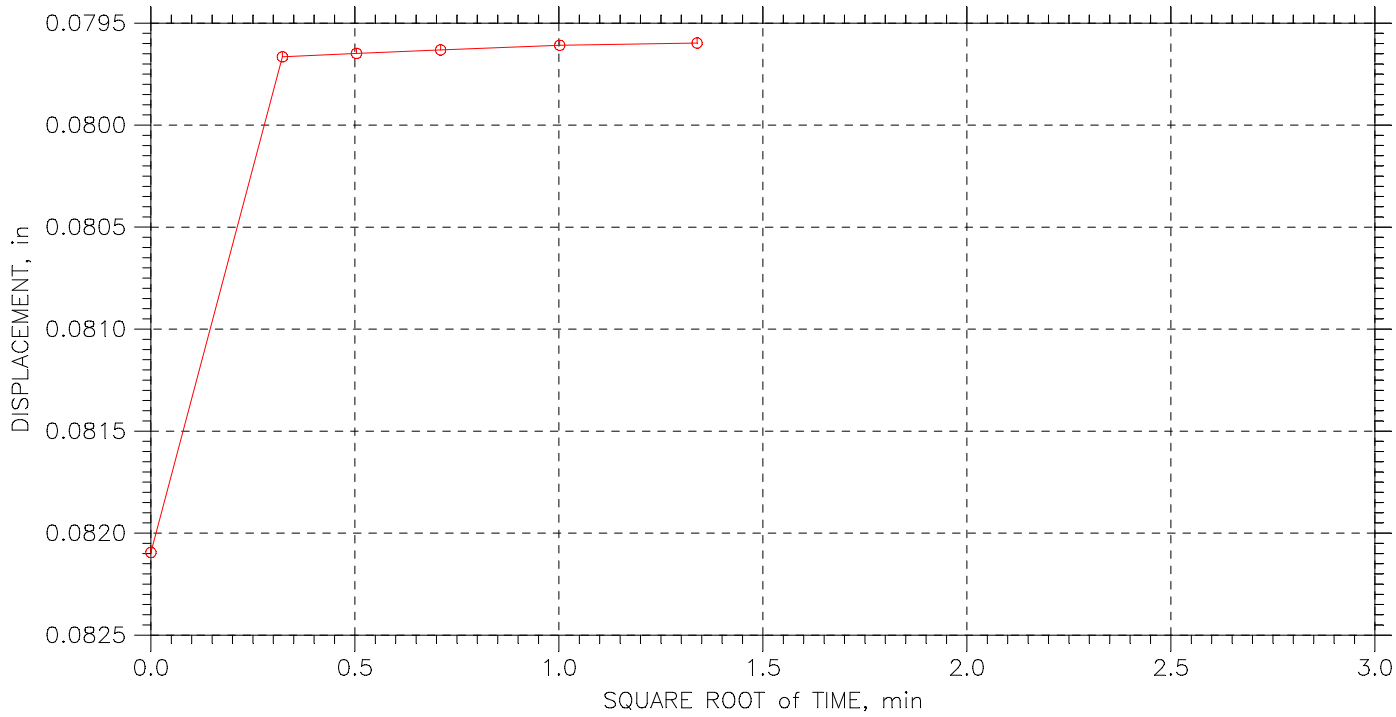
CONSOLIDATION TEST DATA

TIME CURVES

Step: 14 of 20

Stress: 16. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-205B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-3	Test Date: 3/19/09	Depth: 20.5'-21.0'
Test No.: 5742205BS3C	Sample Type: 3" OST	Elevation: +734.8
Description: CLAYEY SILT, TRACE FINE SAND - LIGHT BROWN (CL-ML)		
Remarks: Pc = 3.70 tsf Cc = 0.183 Ccr = 0.023 TEST PERFORMED AS PER ASTM D 2435		

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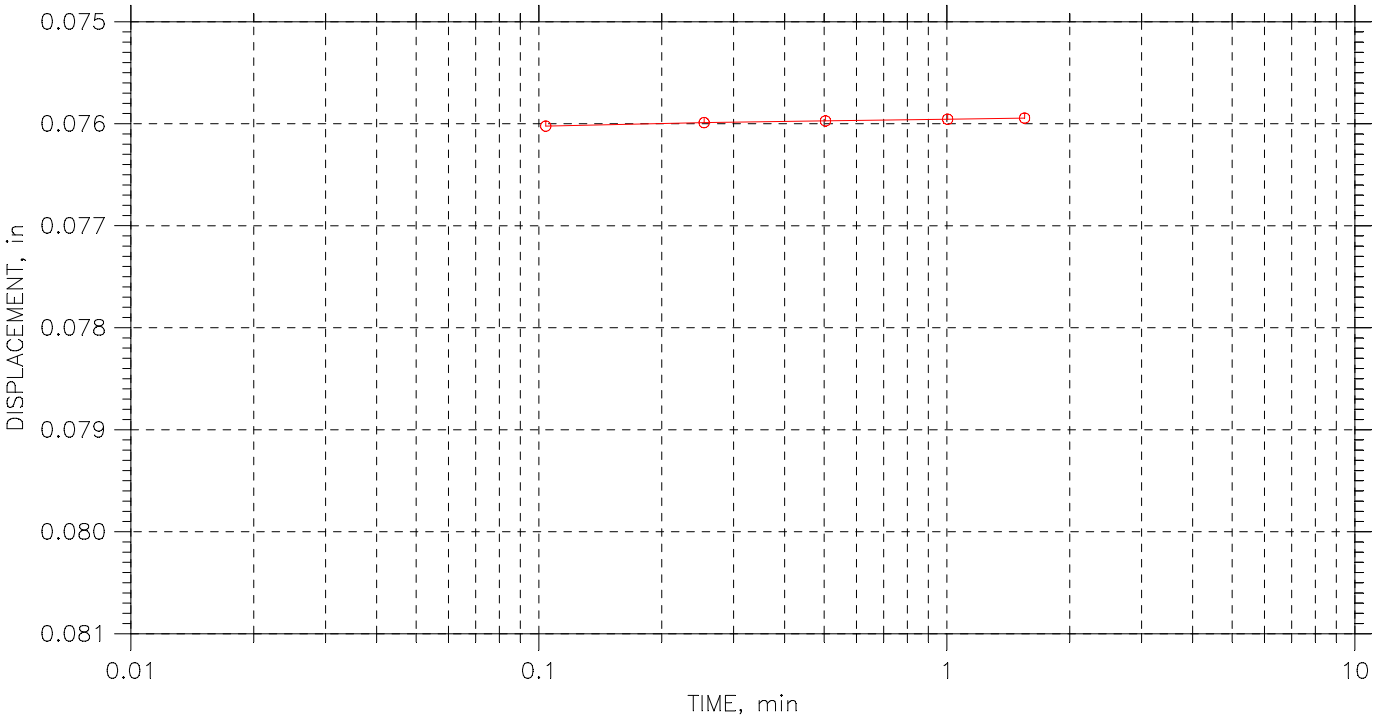
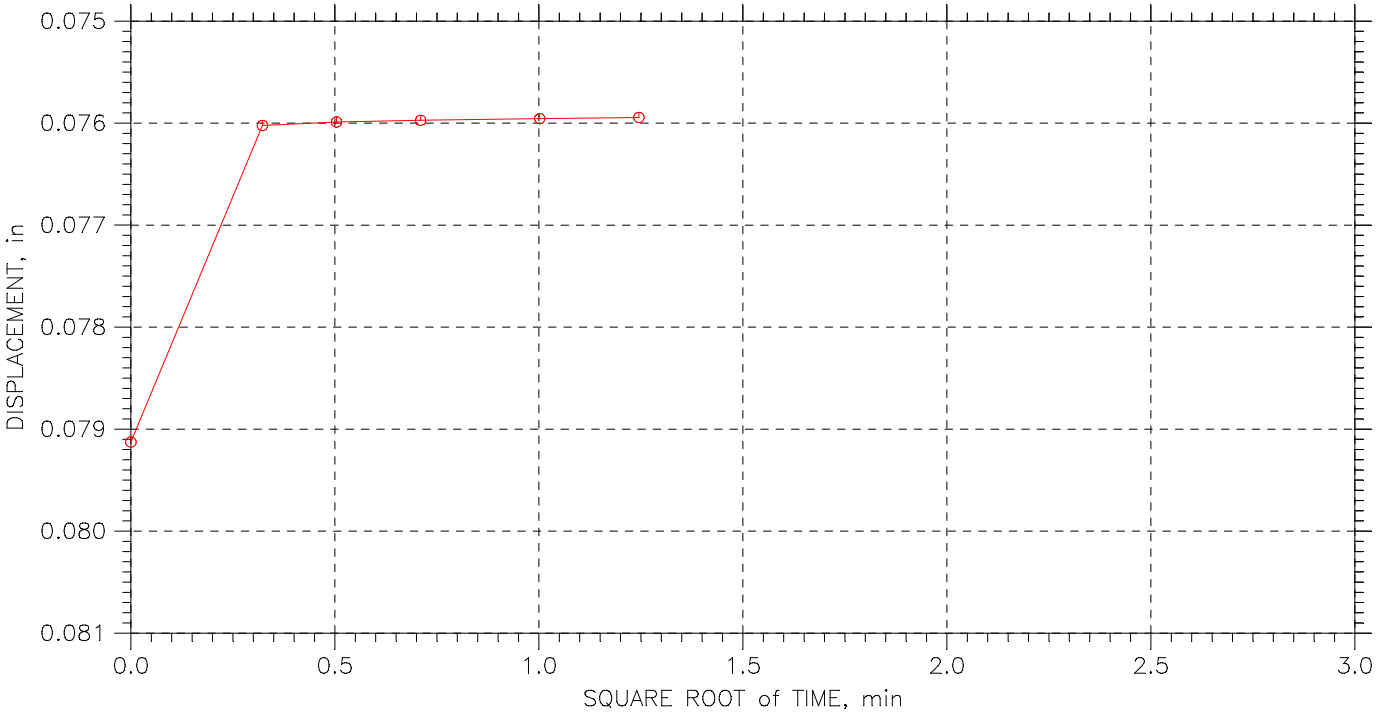
CONSOLIDATION TEST DATA

TIME CURVES

Step: 15 of 20

Stress: 8. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-205B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-3	Test Date: 3/19/09	Depth: 20.5'-21.0'
Test No.: 5742205BS3C	Sample Type: 3" OST	Elevation: +734.8
Description: CLAYEY SILT, TRACE FINE SAND - LIGHT BROWN (CL-ML)		
Remarks: Pc = 3.70 tsf Cc = 0.183 Ccr = 0.023 TEST PERFORMED AS PER ASTM D 2435		

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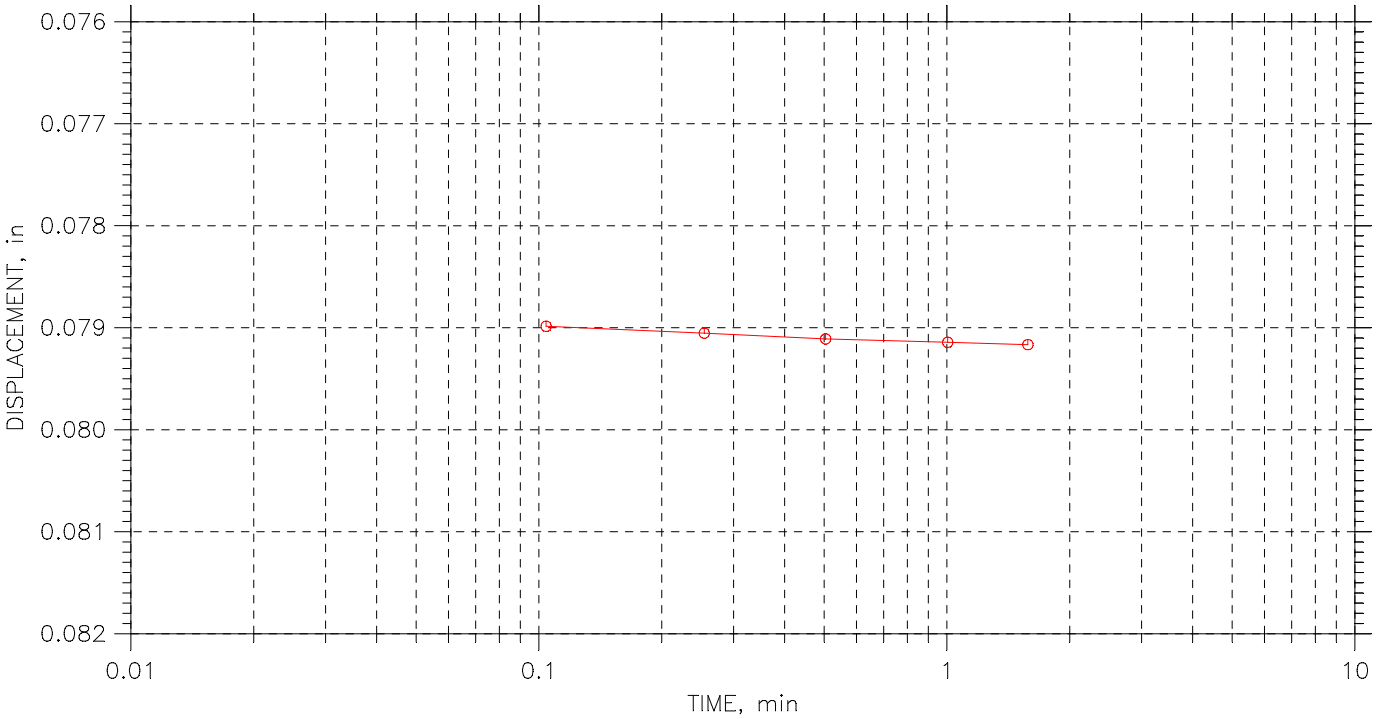
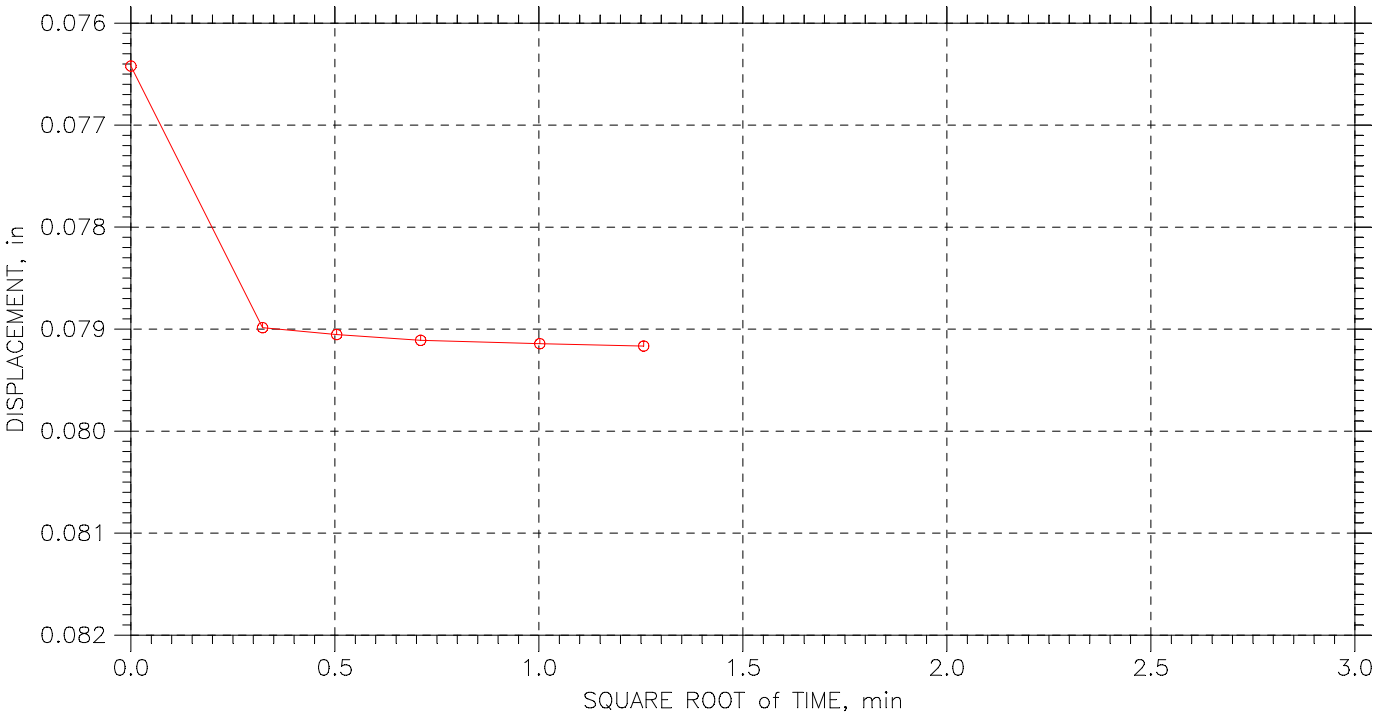
CONSOLIDATION TEST DATA

TIME CURVES

Step: 16 of 20

Stress: 16. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-205B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-3	Test Date: 3/19/09	Depth: 20.5'-21.0'
Test No.: 5742205BS3C	Sample Type: 3" OST	Elevation: +734.8
Description: CLAYEY SILT, TRACE FINE SAND - LIGHT BROWN (CL-ML)		
Remarks: Pc = 3.70 tsf Cc = 0.183 Ccr = 0.023 TEST PERFORMED AS PER ASTM D 2435		

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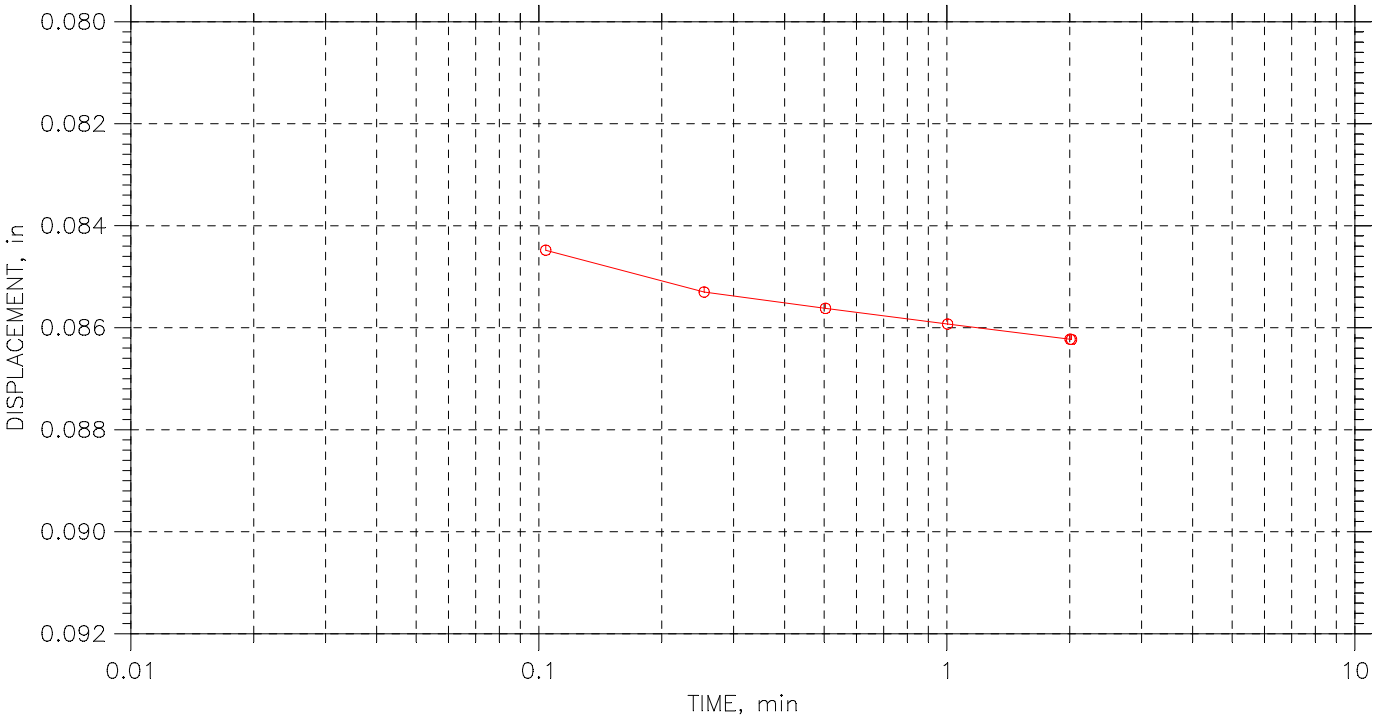
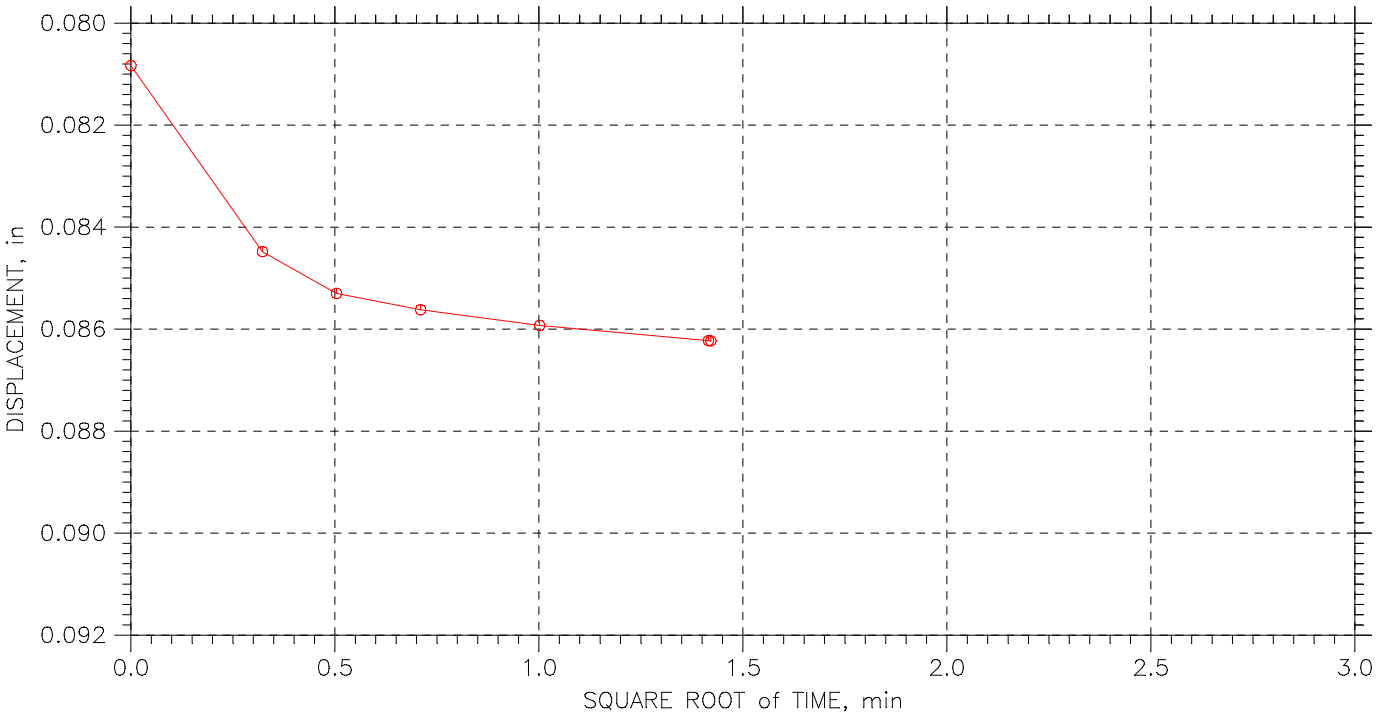
CONSOLIDATION TEST DATA

TIME CURVES

Step: 17 of 20

Stress: 32. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-205B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-3	Test Date: 3/19/09	Depth: 20.5'-21.0'
Test No.: 5742205BS3C	Sample Type: 3" OST	Elevation: +734.8
Description: CLAYEY SILT, TRACE FINE SAND - LIGHT BROWN (CL-ML)		
Remarks: Pc = 3.70 tsf Cc = 0.183 Ccr = 0.023 TEST PERFORMED AS PER ASTM D 2435		

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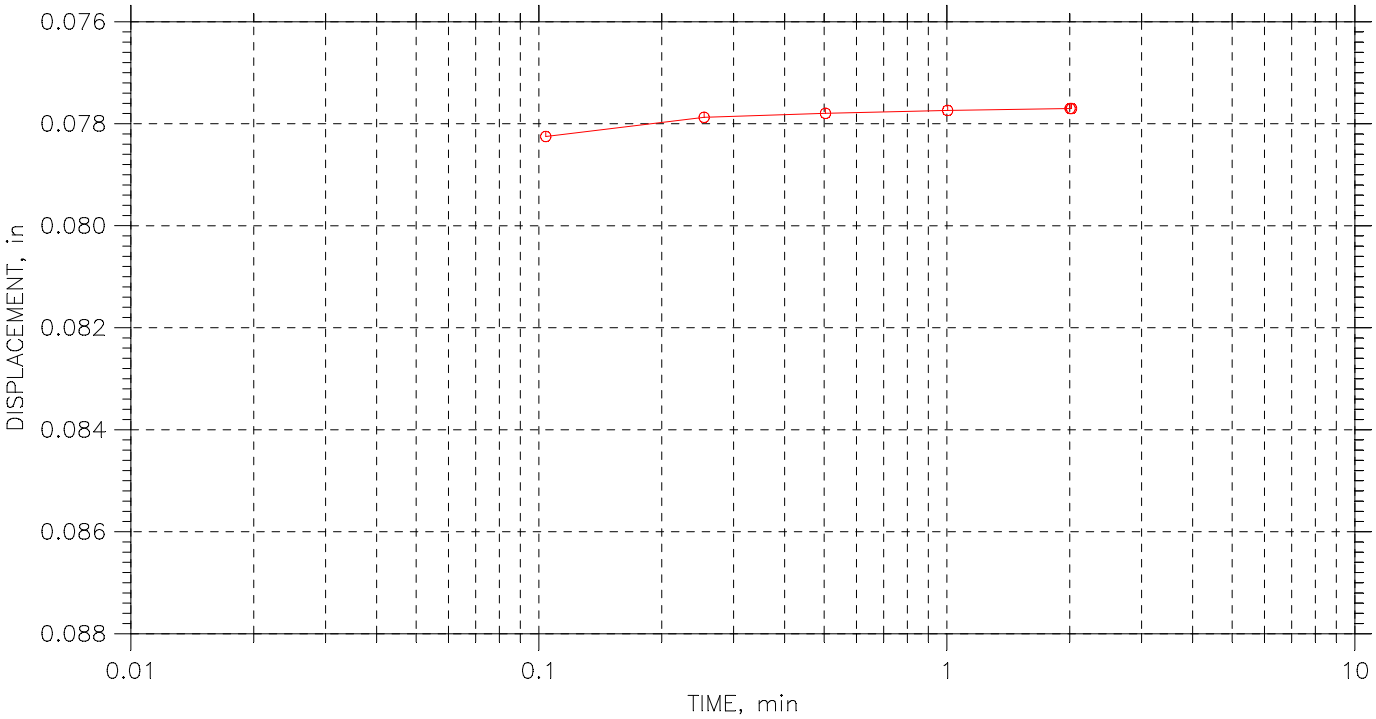
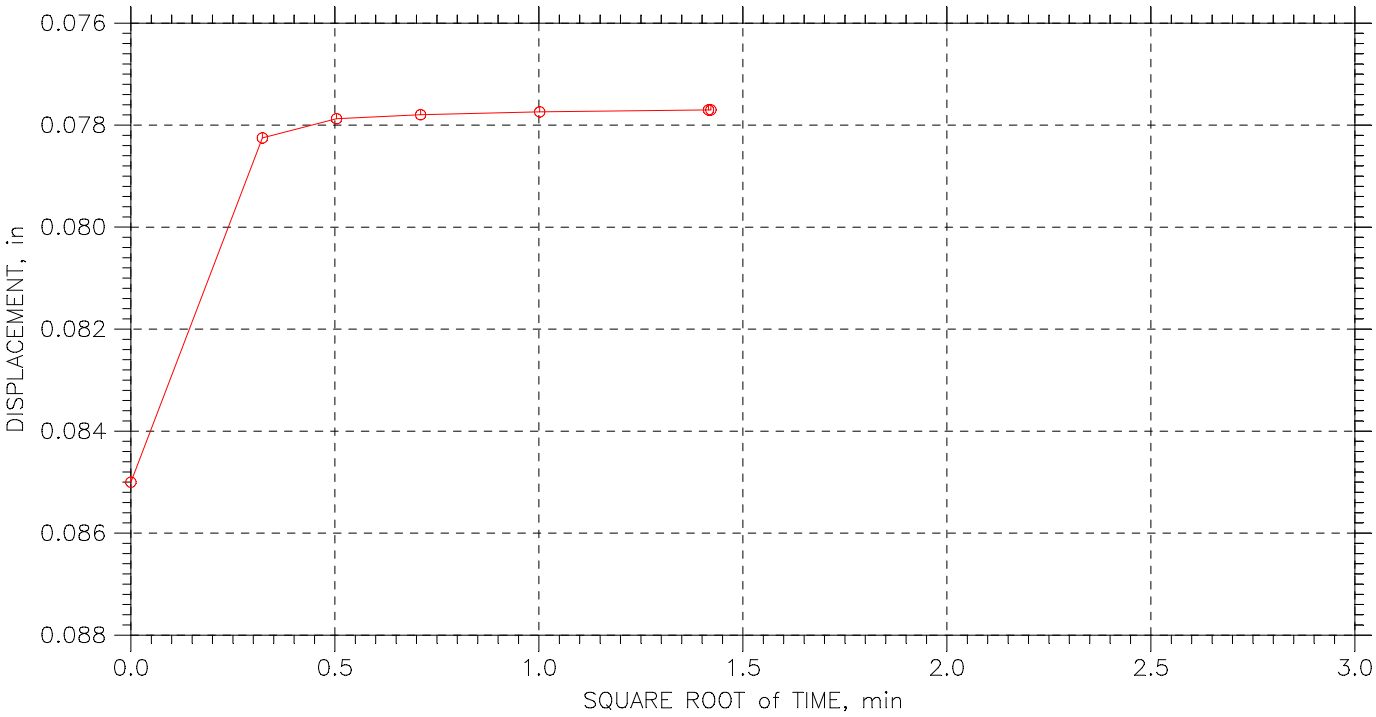
CONSOLIDATION TEST DATA

TIME CURVES

Step: 18 of 20

Stress: 8. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-205B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-3	Test Date: 3/19/09	Depth: 20.5'-21.0'
Test No.: 5742205BS3C	Sample Type: 3" OST	Elevation: +734.8
Description: CLAYEY SILT, TRACE FINE SAND - LIGHT BROWN (CL-ML)		
Remarks: Pc = 3.70 tsf Cc = 0.183 Ccr = 0.023 TEST PERFORMED AS PER ASTM D 2435		

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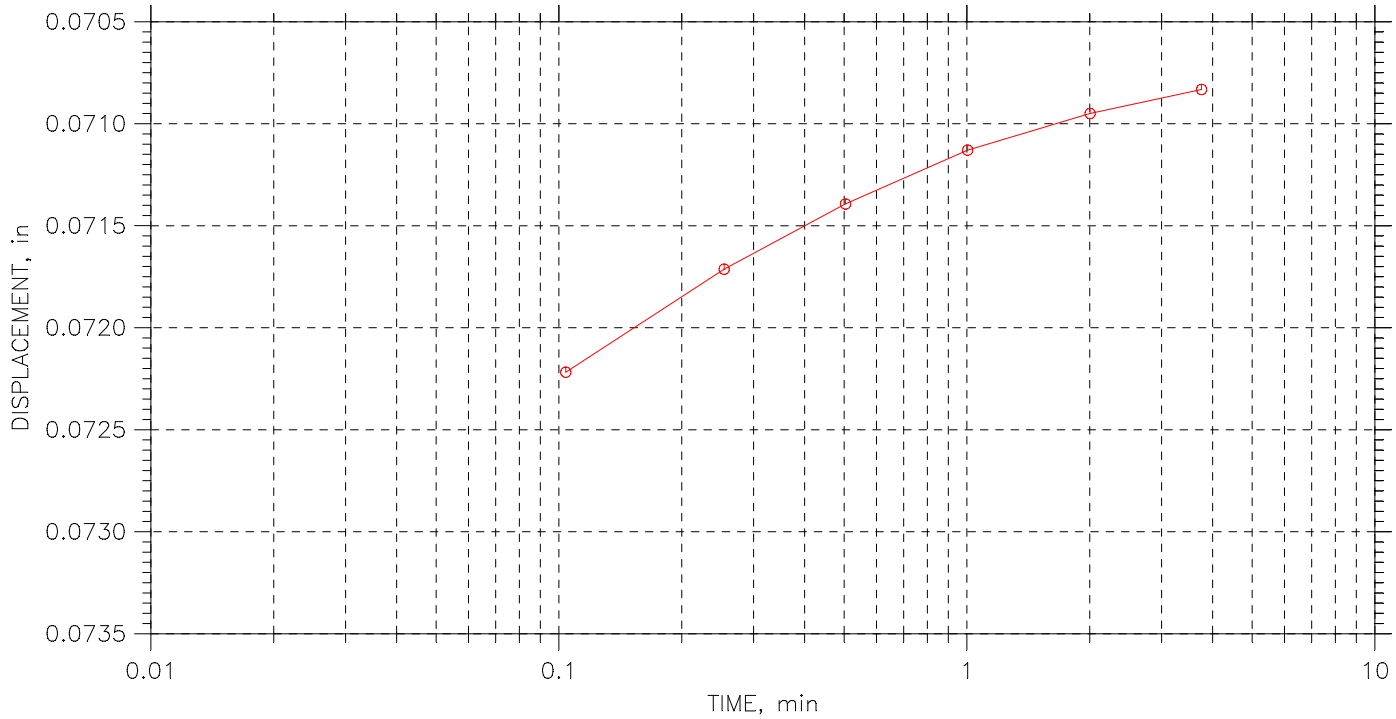
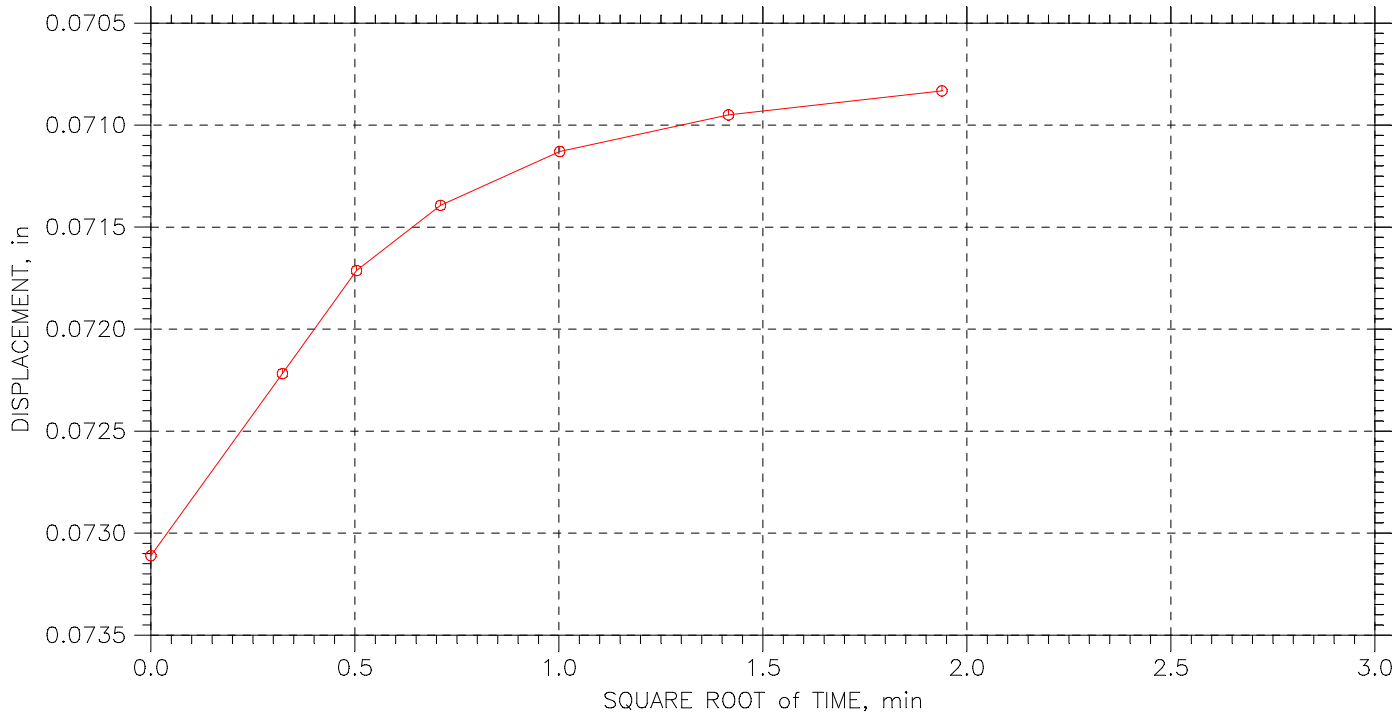
CONSOLIDATION TEST DATA

TIME CURVES

Step: 19 of 20

Stress: 2. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-205B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-3	Test Date: 3/19/09	Depth: 20.5'-21.0'
Test No.: 5742205BS3C	Sample Type: 3" OST	Elevation: +734.8
Description: CLAYEY SILT, TRACE FINE SAND - LIGHT BROWN (CL-ML)		
Remarks: Pc = 3.70 tsf Cc = 0.183 Ccr = 0.023 TEST PERFORMED AS PER ASTM D 2435		

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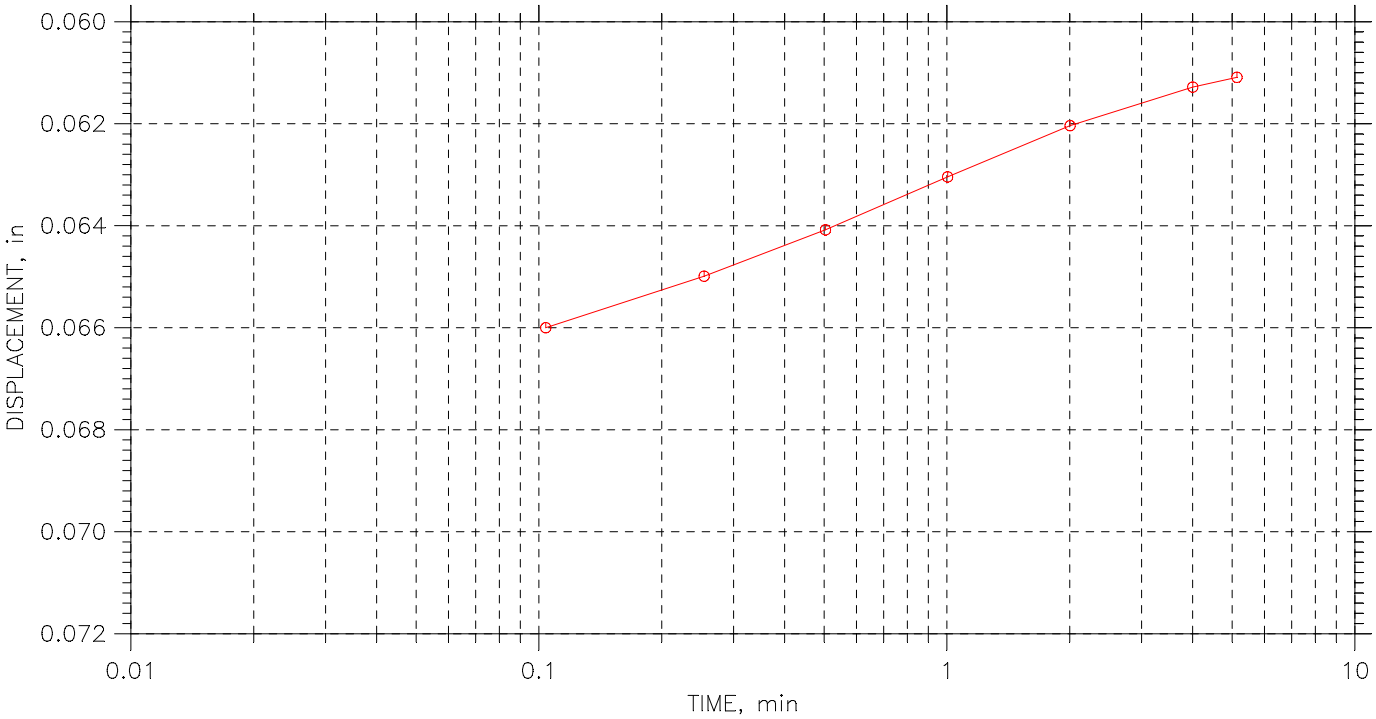
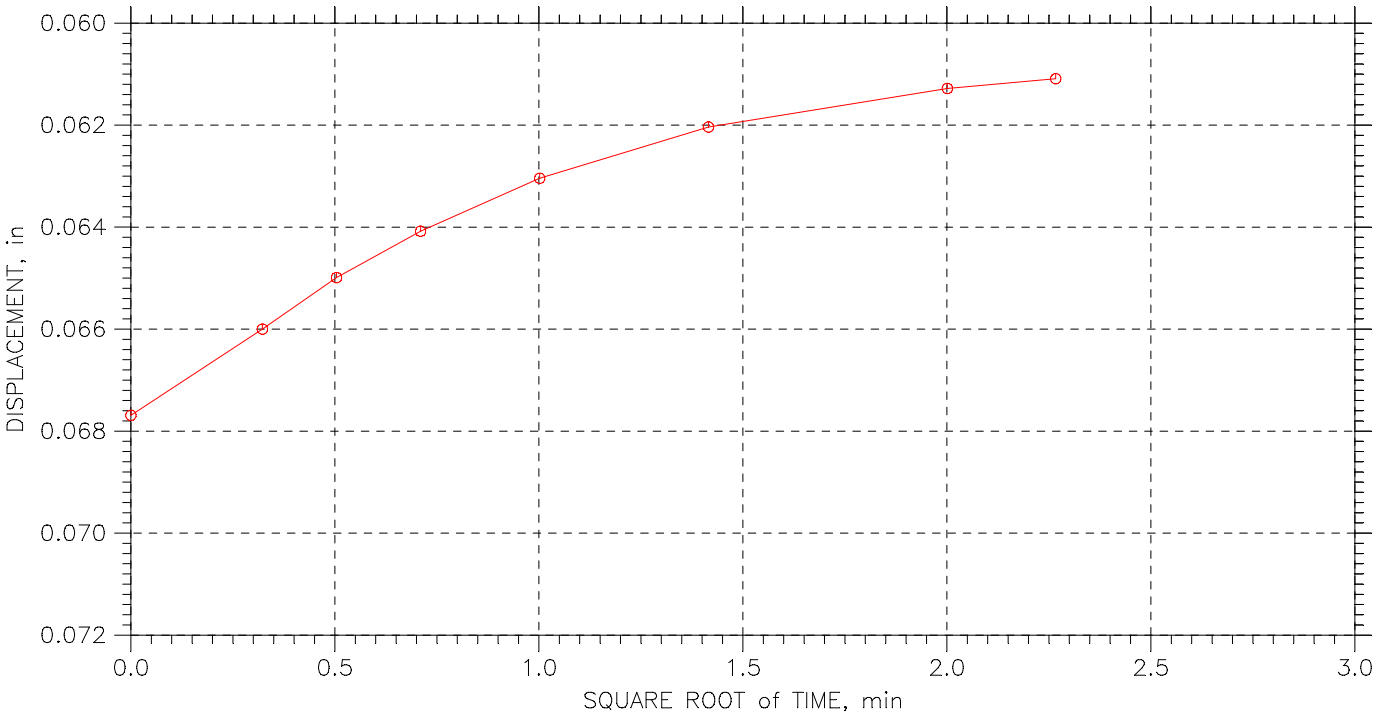
CONSOLIDATION TEST DATA

TIME CURVES

Step: 20 of 20

Stress: 0.25 tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-205B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-3	Test Date: 3/19/09	Depth: 20.5'-21.0'
Test No.: 5742205BS3C	Sample Type: 3" OST	Elevation: +734.8
Description: CLAYEY SILT, TRACE FINE SAND - LIGHT BROWN (CL-ML)		
Remarks: Pc = 3.70 tsf Cc = 0.183 Ccr = 0.023 TEST PERFORMED AS PER ASTM D 2435		

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