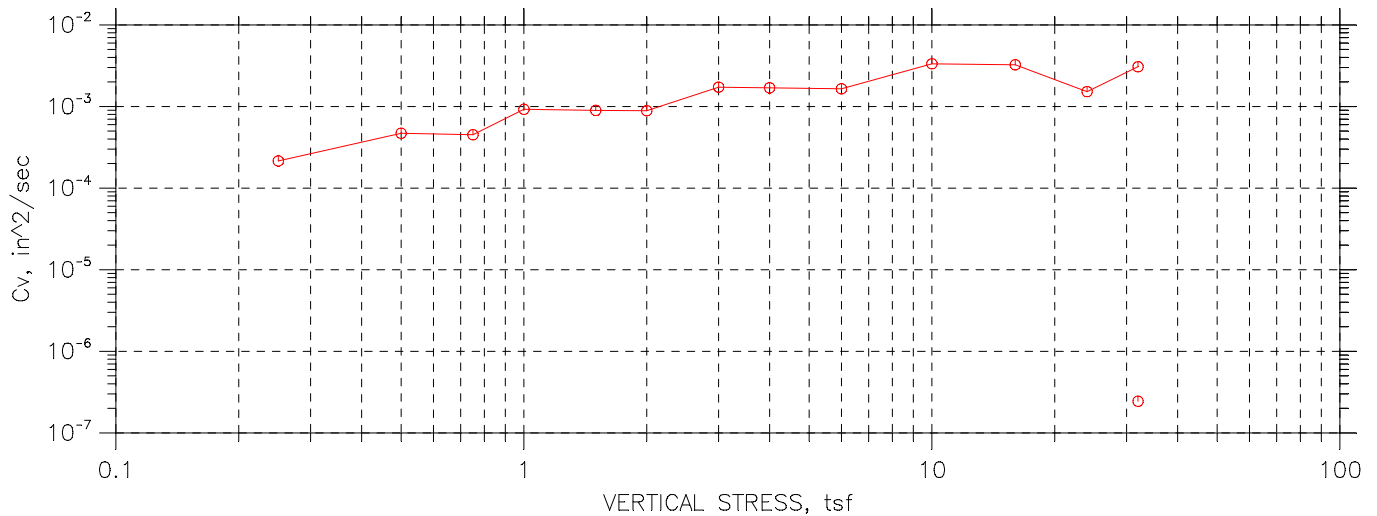
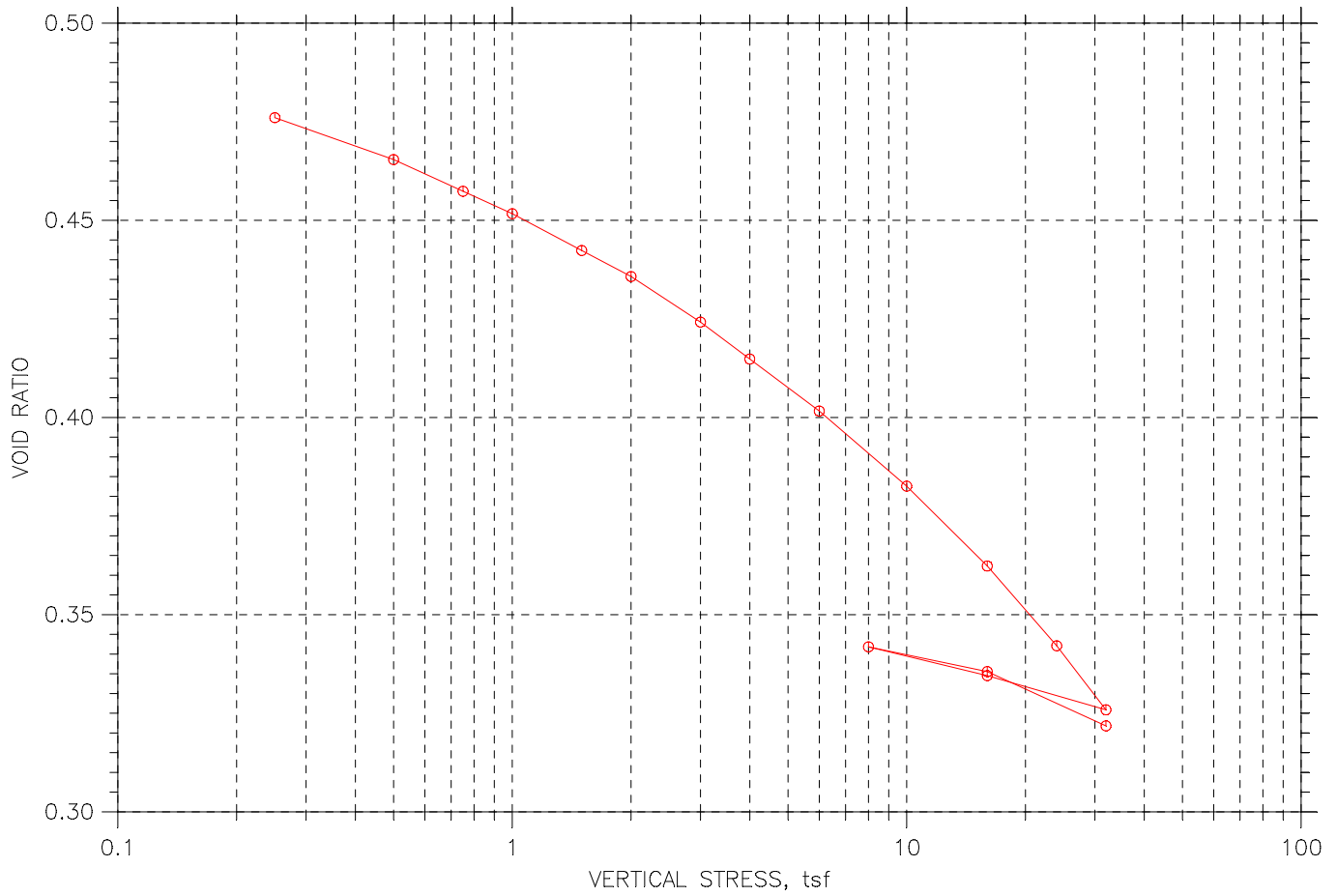


# CONSOLIDATION TEST DATA

## SUMMARY REPORT



Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-404B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-5	Test Date: 3/09/09	Depth: 45.0'-45.5
Test No.: 5742404BS5C	Sample Type: 3" OST	Elevation: +718.6
Description: CLAYEY SILT, SOME F-C SAND - GRAY (CL-ML)		
Remarks: $P_c = 3.00$ tsf $C_c = 0.123$ $C_{cr} = 0.020$ TEST PERFORMED AS PER   ASTM D 2435		

CONSOLIDATION TEST DATA

Project: KINGSTON COAL TVA  
 Boring No.: 09-404B  
 Sample No.: OST-5  
 Test No.: 5742404BS5C

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

Project No.: 60095742  
 Checked By: WPQ  
 Depth: 45.0' -45.5  
 Elevation: +718.6

Soil Description: CLAYEY SILT, SOME F-C SAND - GRAY (CL-ML)

Remarks: Pc = 3.00 tsf Cc = 0.123 Ccr = 0.020 TEST PERFORMED AS PER ASTM D 2435

Measured Specific Gravity: 2.67  
 Initial Void Ratio: 0.51  
 Final Void Ratio: 0.32

Liquid Limit: 21  
 Plastic Limit: 17  
 Plasticity Index: 4

Initial Height: 0.75 in  
 Specimen Diameter: 2.50 in

Container ID	Before Consolidation		After Consolidation	
	Trimmings	Specimen+Ring	Specimen+Ring	Trimmings
	X-14	RING	RING	RING
Wt. Container + Wet Soil, gm	247.67	203.3	196.77	196.77
Wt. Container + Dry Soil, gm	215.68	181.11	181.11	181.11
Wt. Container, gm	44.77	74.44	74.44	74.44
Wt. Dry Soil, gm	170.91	106.67	106.67	106.67
Water Content, %	18.72	20.80	14.68	14.68
Void Ratio	---	0.51	0.32	---
Degree of Saturation, %	---	108.89	121.81	---
Dry Unit Weight, pcf	---	110.38	126.1	---

CONSOLIDATION TEST DATA

Project: KINGSTON COAL TVA  
 Boring No.: 09-404B  
 Sample No.: OST-5  
 Test No.: 5742404BS5C

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

Project No.: 60095742  
 Checked By: WPQ  
 Depth: 45.0' -45.5  
 Elevation: +718.6

Soil Description: CLAYEY SILT, SOME F-C SAND - GRAY (CL-ML)

Remarks: Pc = 3.00 tsf Cc = 0.123 Ccr = 0.020 TEST PERFORMED AS PER ASTM D 2435

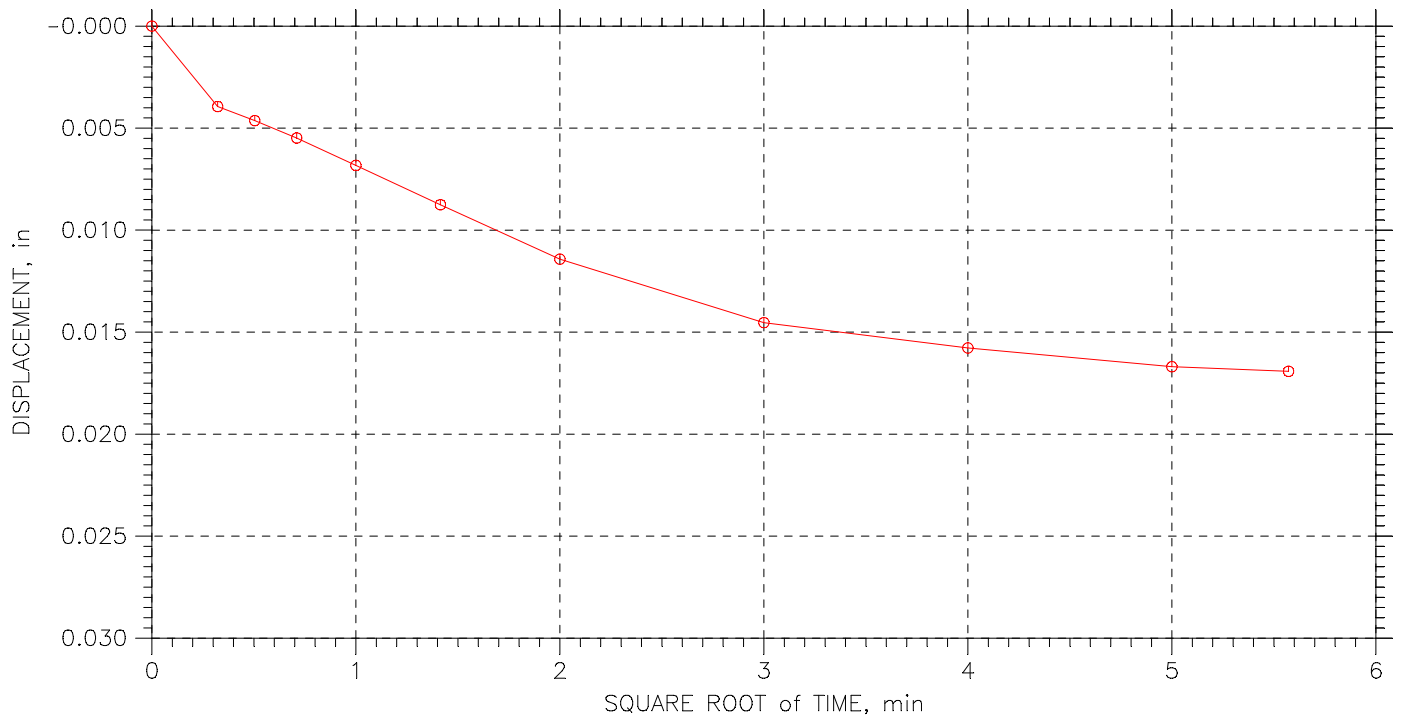
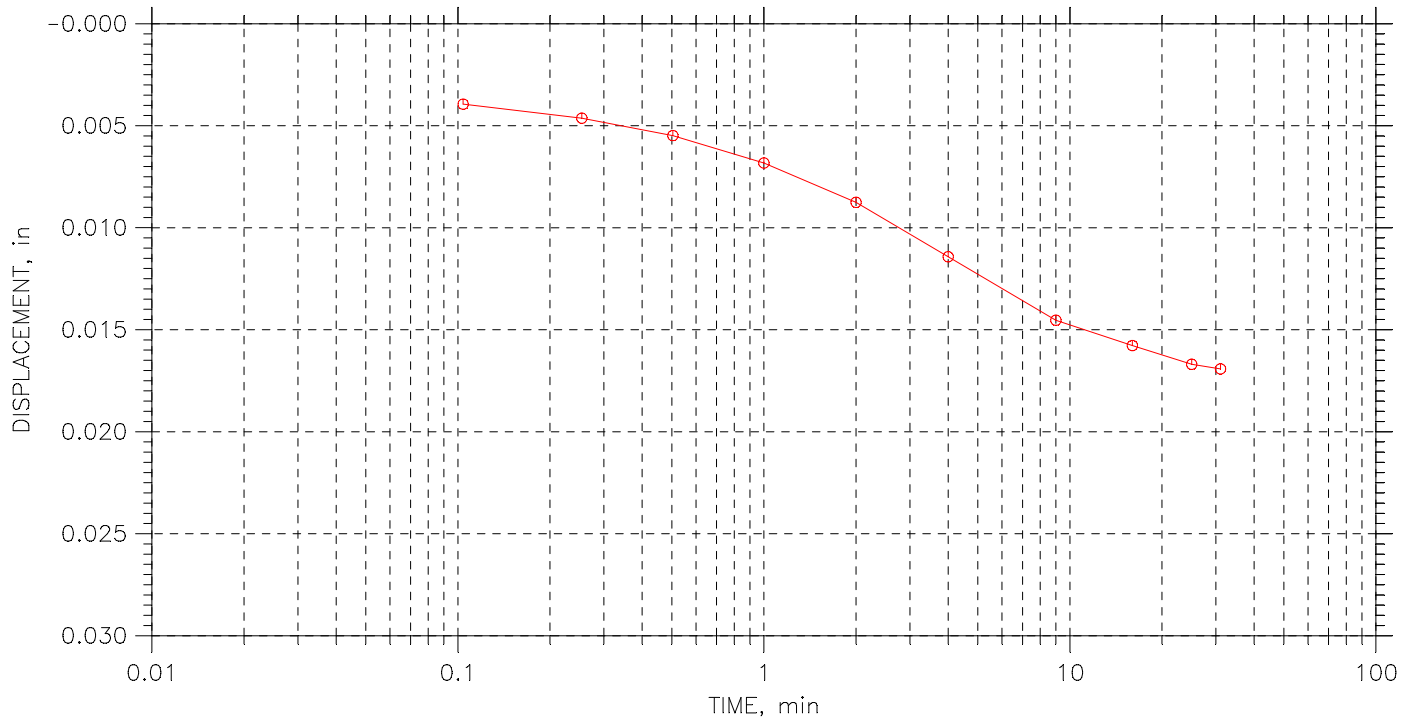
	Applied Stress tsf	Final Displacement in	Void Ratio	Strain at End %	T50 Fitting		Coefficient of Consolidation		
					Sq.Rt. min	Log min	Sq.Rt. in <sup>2</sup> /sec	Log in <sup>2</sup> /sec	Ave. in <sup>2</sup> /sec
1	0.25	0.01692	0.476	2.26	2.1	1.6	2.15e-004	2.80e-004	2.43e-004
2	0.5	0.02219	0.465	2.96	0.9	0.0	4.69e-004	0.00e+000	4.69e-004
3	0.75	0.02618	0.457	3.49	1.0	0.3	4.51e-004	1.39e-003	6.81e-004
4	1	0.02901	0.452	3.87	0.5	0.5	9.24e-004	8.12e-004	8.65e-004
5	1.5	0.03365	0.442	4.49	0.5	0.0	8.96e-004	0.00e+000	8.96e-004
6	2	0.03693	0.436	4.92	0.5	0.0	8.88e-004	0.00e+000	8.88e-004
7	3	0.04267	0.424	5.69	0.2	0.2	1.73e-003	1.85e-003	1.79e-003
8	4	0.04731	0.415	6.31	0.2	0.0	1.70e-003	0.00e+000	1.70e-003
9	6	0.05387	0.402	7.18	0.2	0.1	1.65e-003	3.67e-003	2.27e-003
10	10	0.06333	0.383	8.44	0.1	5.4	3.34e-003	7.27e-005	1.42e-004
11	16	0.07338	0.362	9.78	0.1	15.4	3.25e-003	2.48e-005	4.91e-005
12	24	0.08343	0.342	11.12	0.2	0.0	1.52e-003	0.00e+000	1.52e-003
13	32	0.09149	0.326	12.20	0.1	15.0	3.07e-003	2.41e-005	4.78e-005
14	16	0.08718	0.335	11.62	0.0	0.0	0.00e+000	0.00e+000	0.00e+000
15	8	0.08356	0.342	11.14	0.0	0.0	0.00e+000	0.00e+000	0.00e+000
16	16	0.08669	0.336	11.56	0.0	0.0	0.00e+000	0.00e+000	0.00e+000
17	32	0.09352	0.322	12.47	1465.5	0.0	2.44e-007	0.00e+000	2.44e-007

# CONSOLIDATION TEST DATA

TIME CURVES

Step: 1 of 17

Stress: 0.25 tsf



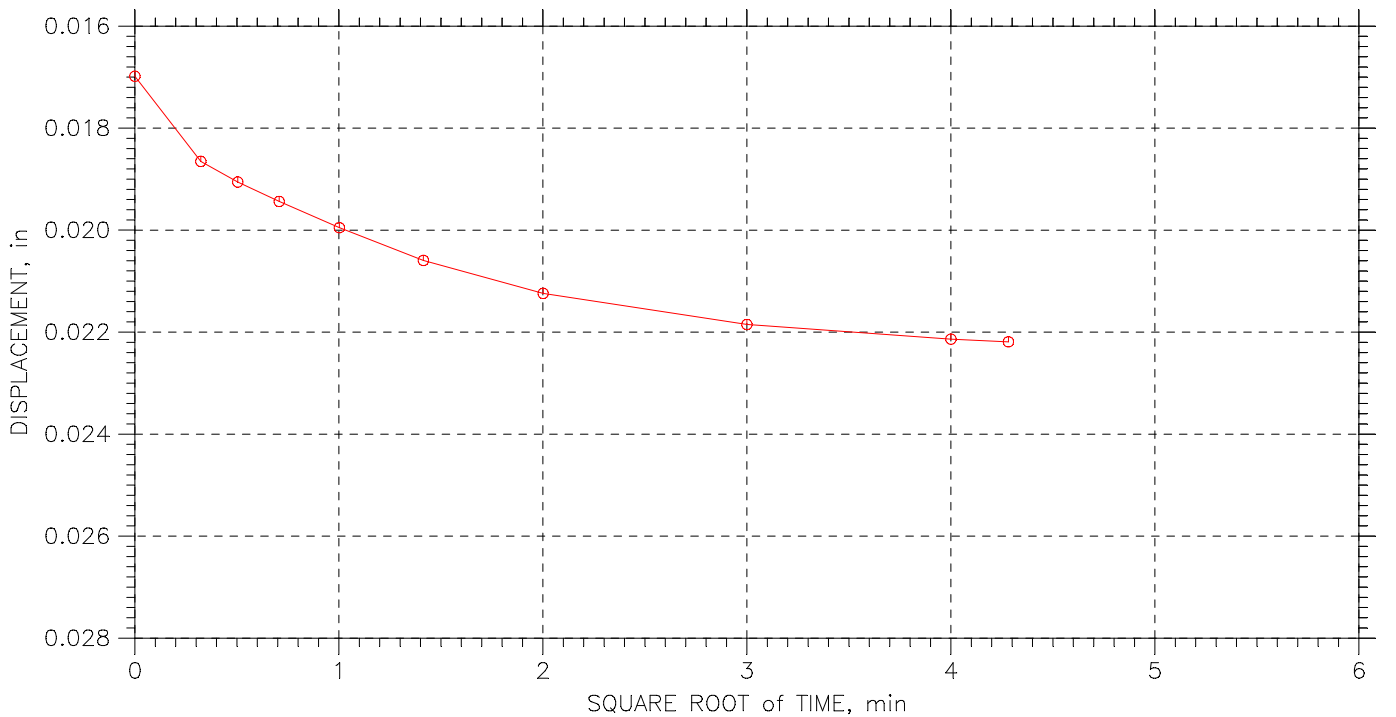
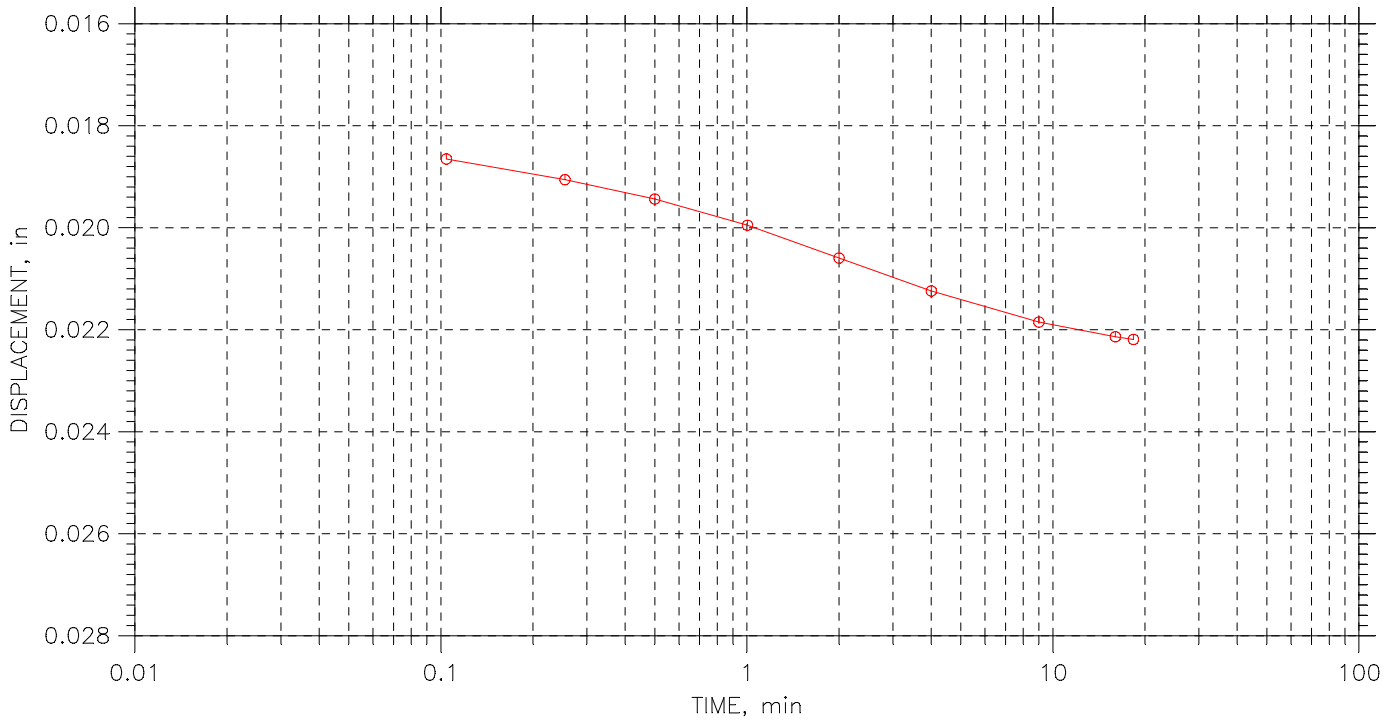
Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-404B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-5	Test Date: 3/09/09	Depth: 45.0'-45.5
Test No.: 5742404BS5C	Sample Type: 3" OST	Elevation: +718.6
Description: CLAYEY SILT, SOME F-C SAND - GRAY (CL-ML)		
Remarks: Pc = 3.00 tsf   Cc = 0.123   Ccr = 0.020   TEST PERFORMED AS PER   ASTM D 2435		

# CONSOLIDATION TEST DATA

TIME CURVES

Step: 2 of 17

Stress: 0.5 tsf



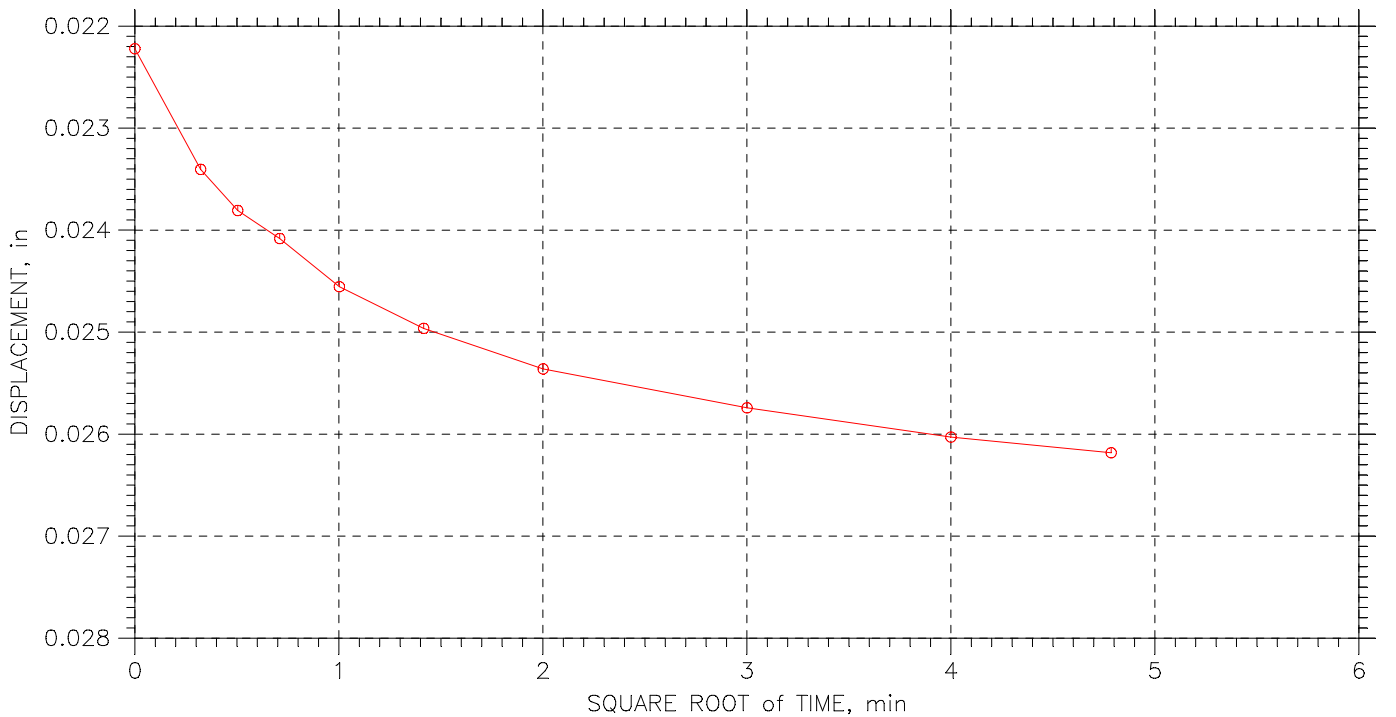
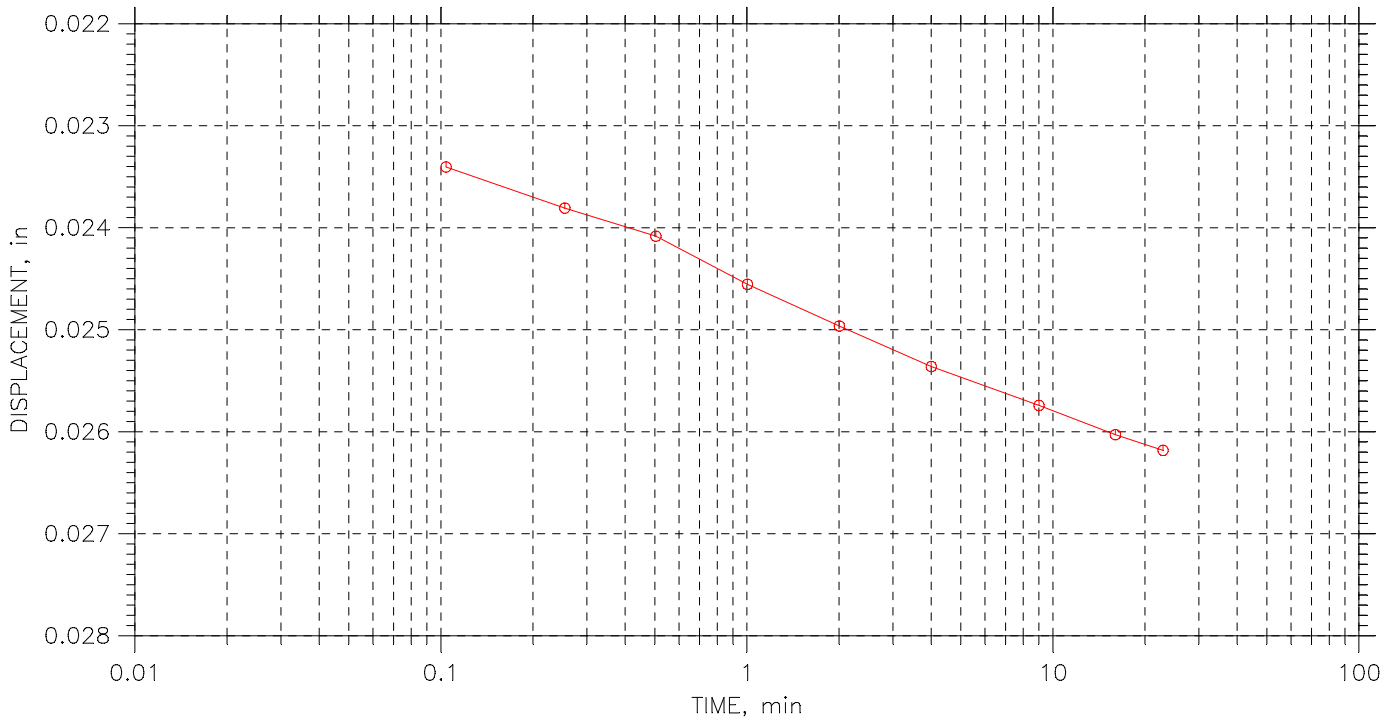
Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-404B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-5	Test Date: 3/09/09	Depth: 45.0'-45.5
Test No.: 5742404BS5C	Sample Type: 3" OST	Elevation: +718.6
Description: CLAYEY SILT, SOME F-C SAND - GRAY (CL-ML)		
Remarks: Pc = 3.00 tsf Cc = 0.123 Ccr = 0.020 TEST PERFORMED AS PER ASTM D 2435		

# CONSOLIDATION TEST DATA

TIME CURVES

Step: 3 of 17

Stress: 0.75 tsf



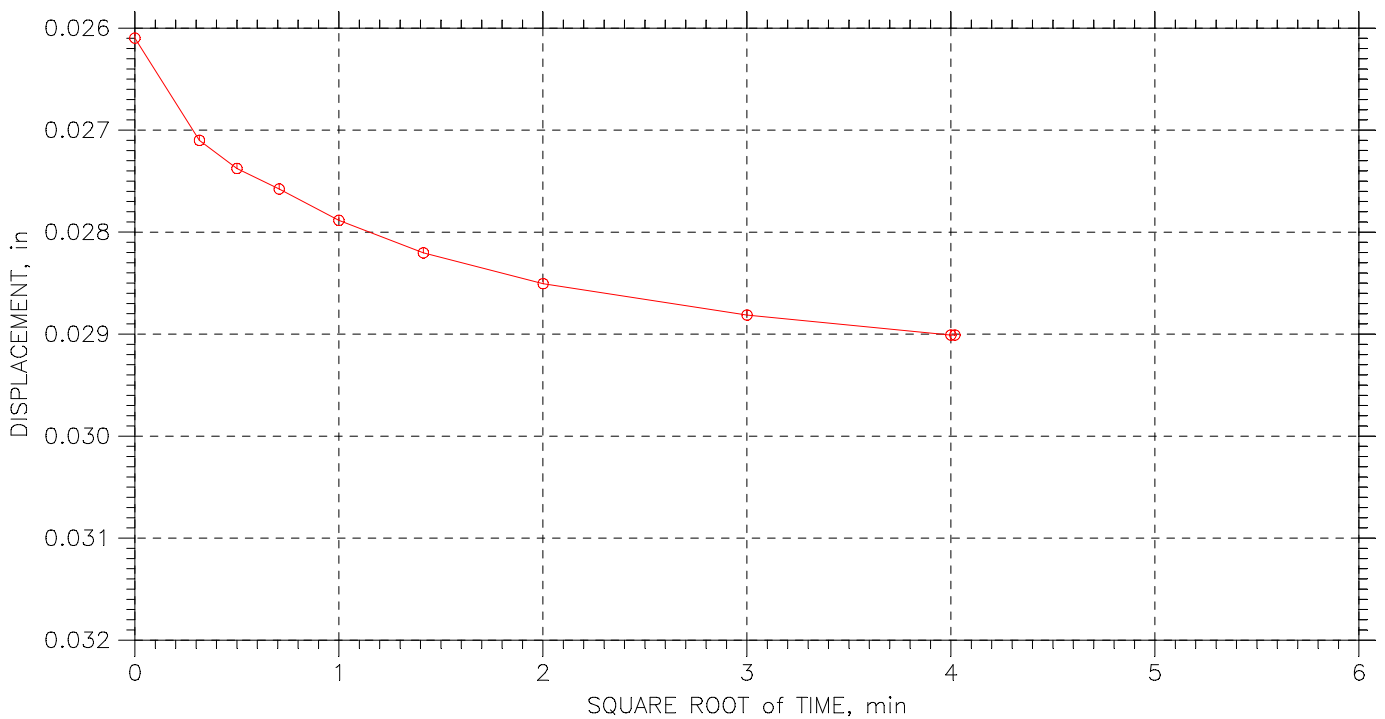
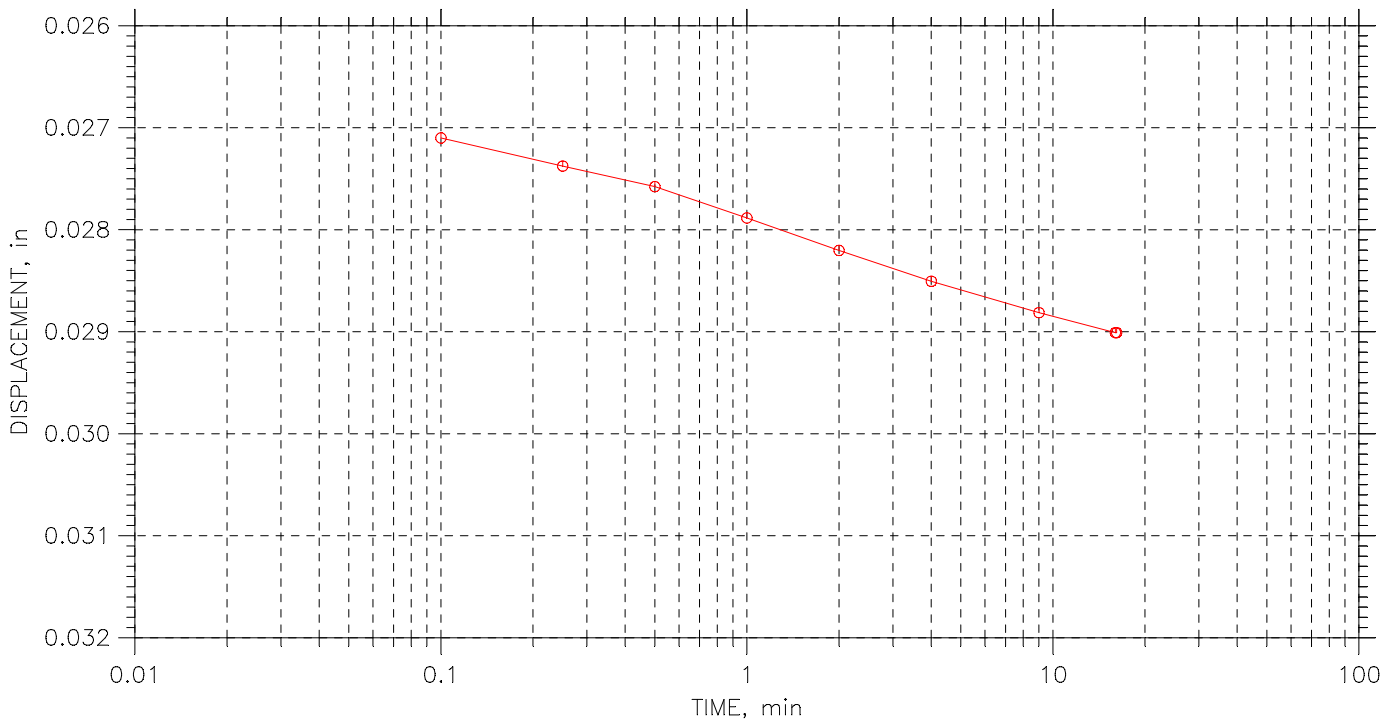
Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-404B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-5	Test Date: 3/09/09	Depth: 45.0'-45.5
Test No.: 5742404BS5C	Sample Type: 3" OST	Elevation: +718.6
Description: CLAYEY SILT, SOME F-C SAND - GRAY (CL-ML)		
Remarks: Pc = 3.00 tsf   Cc = 0.123   Ccr = 0.020   TEST PERFORMED AS PER   ASTM D 2435		

# CONSOLIDATION TEST DATA

TIME CURVES

Step: 4 of 17

Stress: 1. tsf



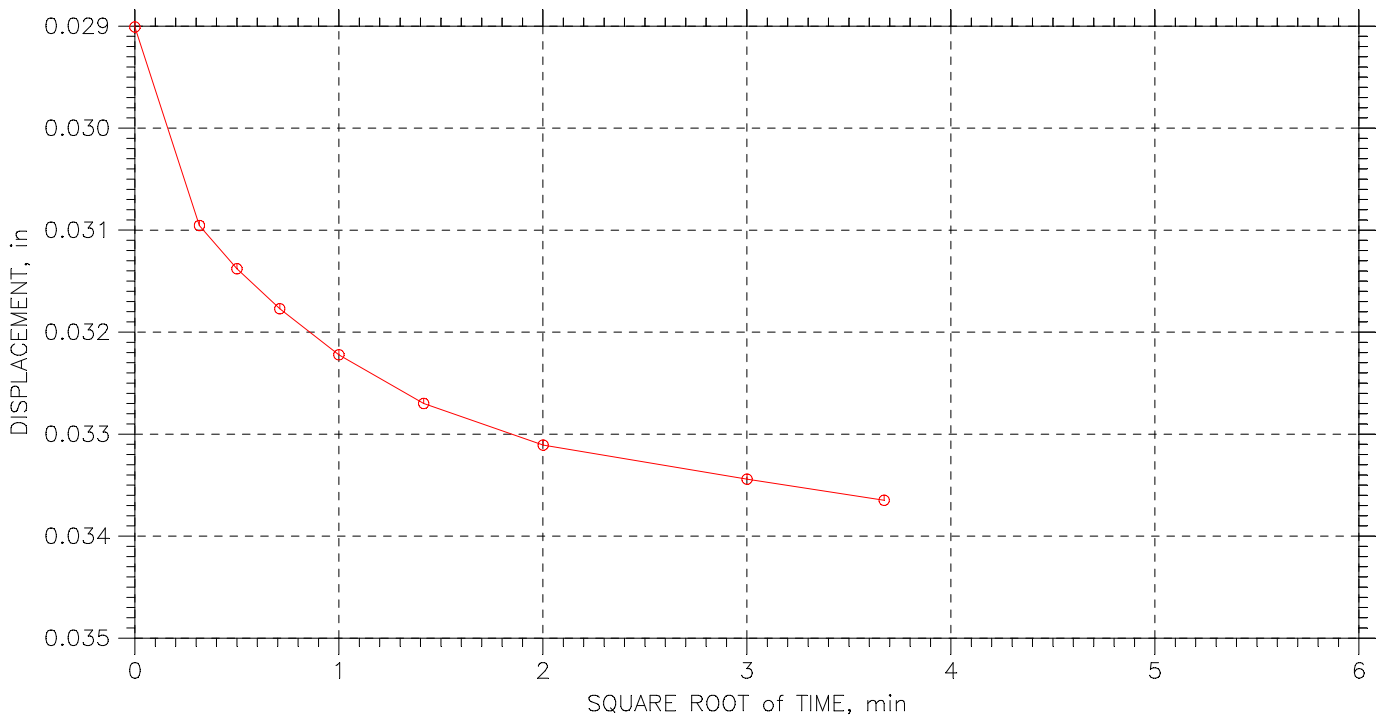
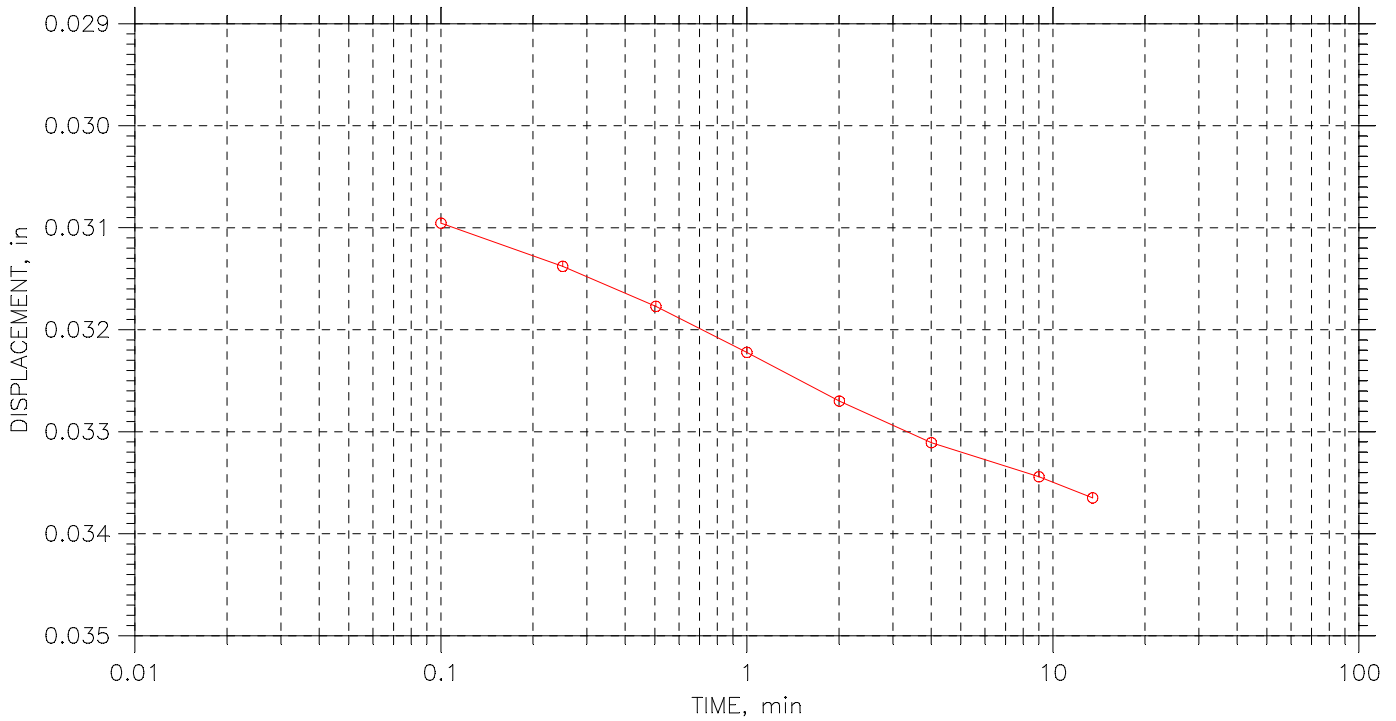
Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-404B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-5	Test Date: 3/09/09	Depth: 45.0'-45.5
Test No.: 5742404BS5C	Sample Type: 3" OST	Elevation: +718.6
Description: CLAYEY SILT, SOME F-C SAND - GRAY (CL-ML)		
Remarks: Pc = 3.00 tsf   Cc = 0.123   Ccr = 0.020   TEST PERFORMED AS PER   ASTM D 2435		

# CONSOLIDATION TEST DATA

TIME CURVES

Step: 5 of 17

Stress: 1.5 tsf



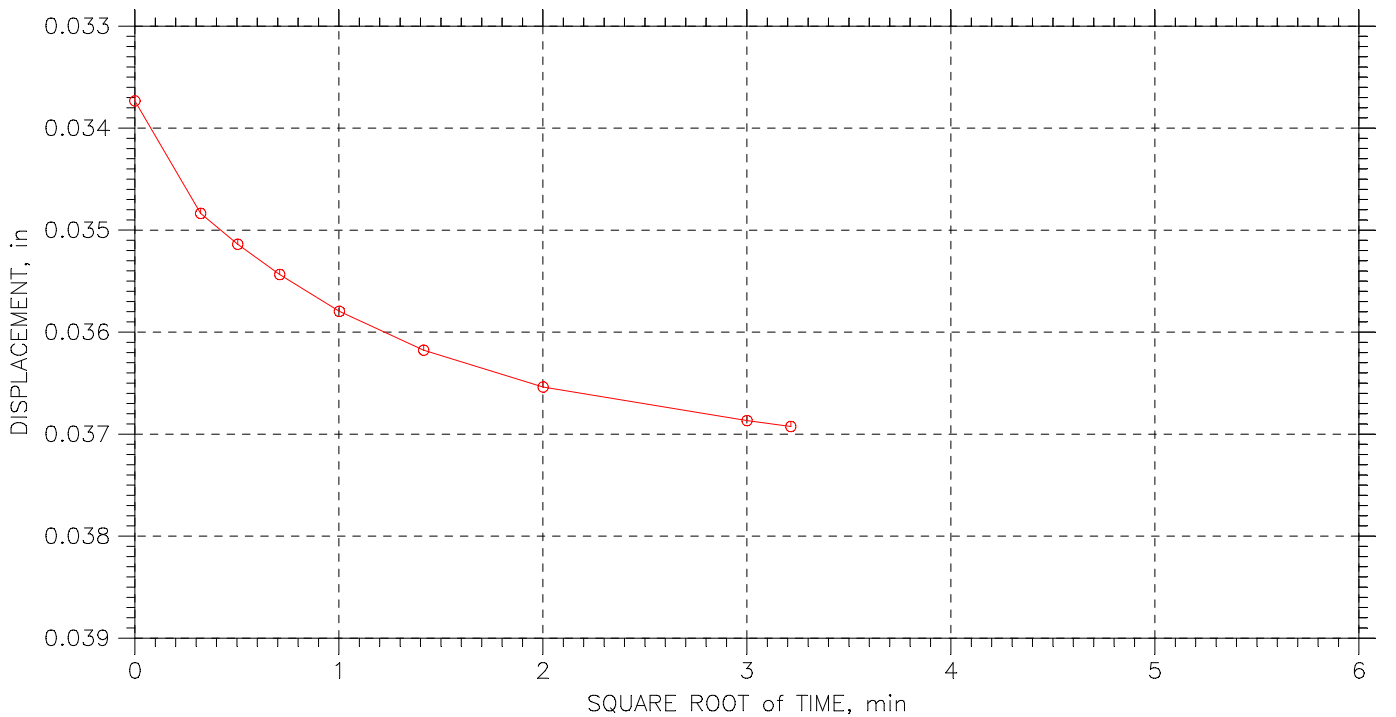
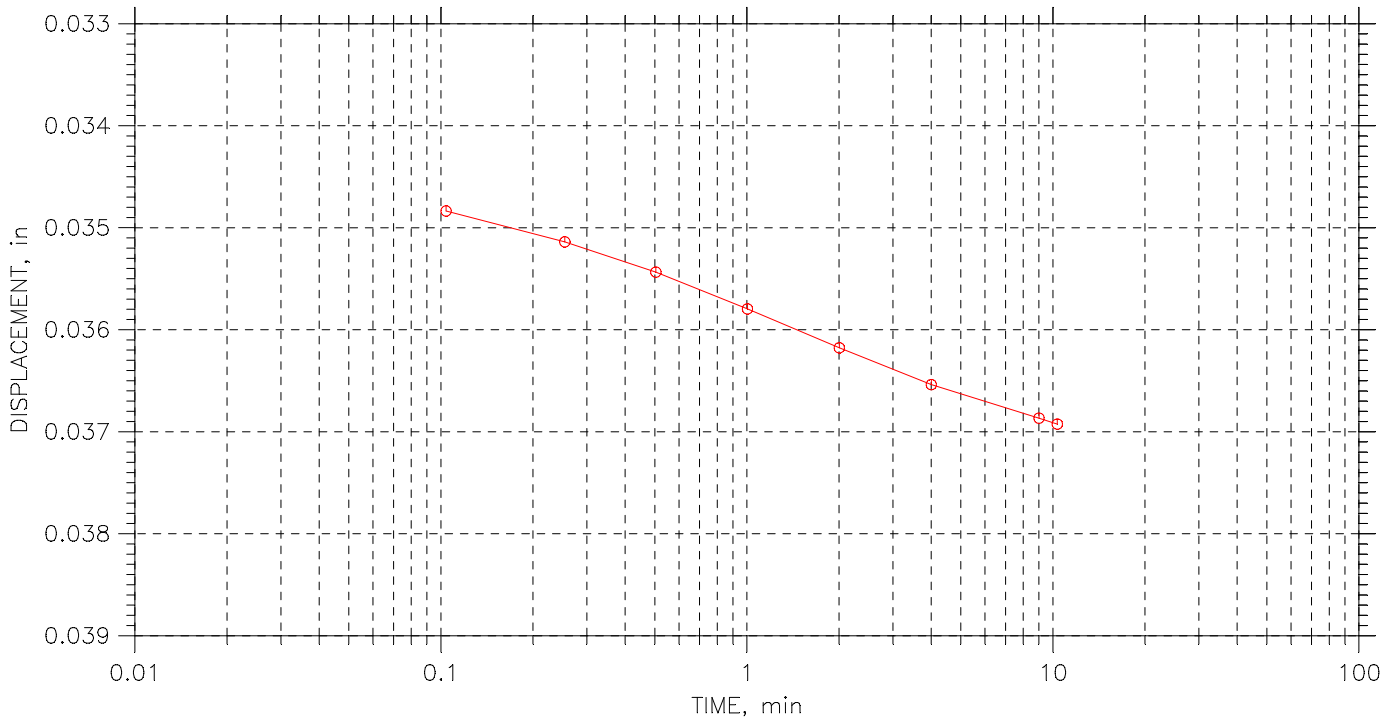
Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-404B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-5	Test Date: 3/09/09	Depth: 45.0'-45.5
Test No.: 5742404BS5C	Sample Type: 3" OST	Elevation: +718.6
Description: CLAYEY SILT, SOME F-C SAND - GRAY (CL-ML)		
Remarks: Pc = 3.00 tsf   Cc = 0.123   Ccr = 0.020   TEST PERFORMED AS PER   ASTM D 2435		

# CONSOLIDATION TEST DATA

TIME CURVES

Step: 6 of 17

Stress: 2. tsf



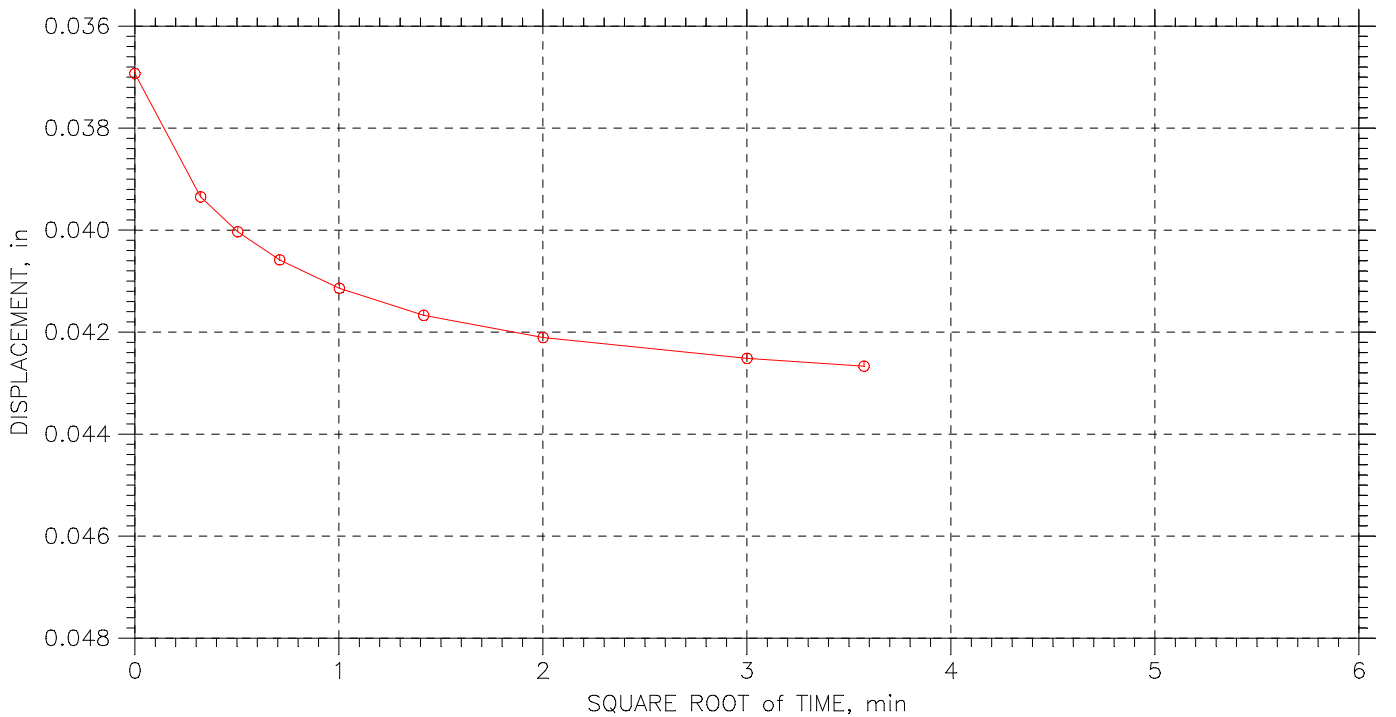
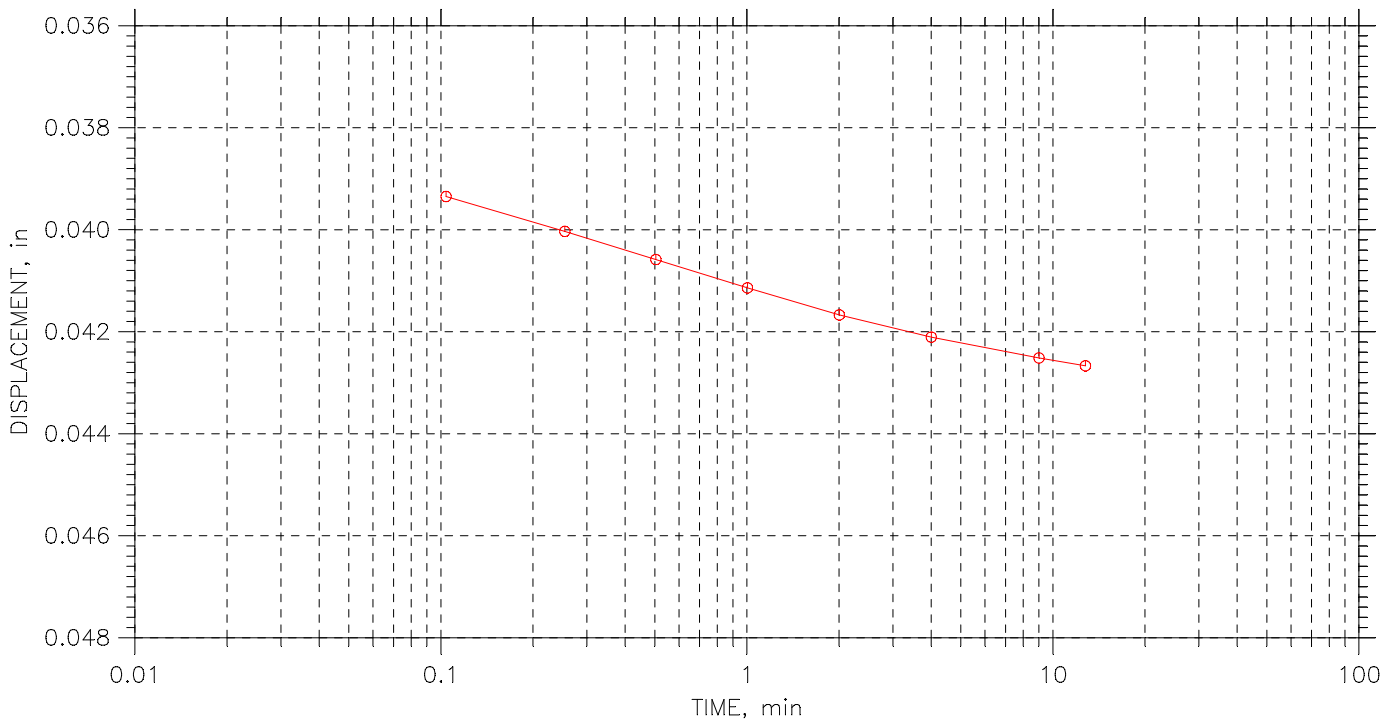
Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-404B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-5	Test Date: 3/09/09	Depth: 45.0'-45.5
Test No.: 5742404BS5C	Sample Type: 3" OST	Elevation: +718.6
Description: CLAYEY SILT, SOME F-C SAND - GRAY (CL-ML)		
Remarks: Pc = 3.00 tsf Cc = 0.123 Ccr = 0.020 TEST PERFORMED AS PER ASTM D 2435		

# CONSOLIDATION TEST DATA

TIME CURVES

Step: 7 of 17

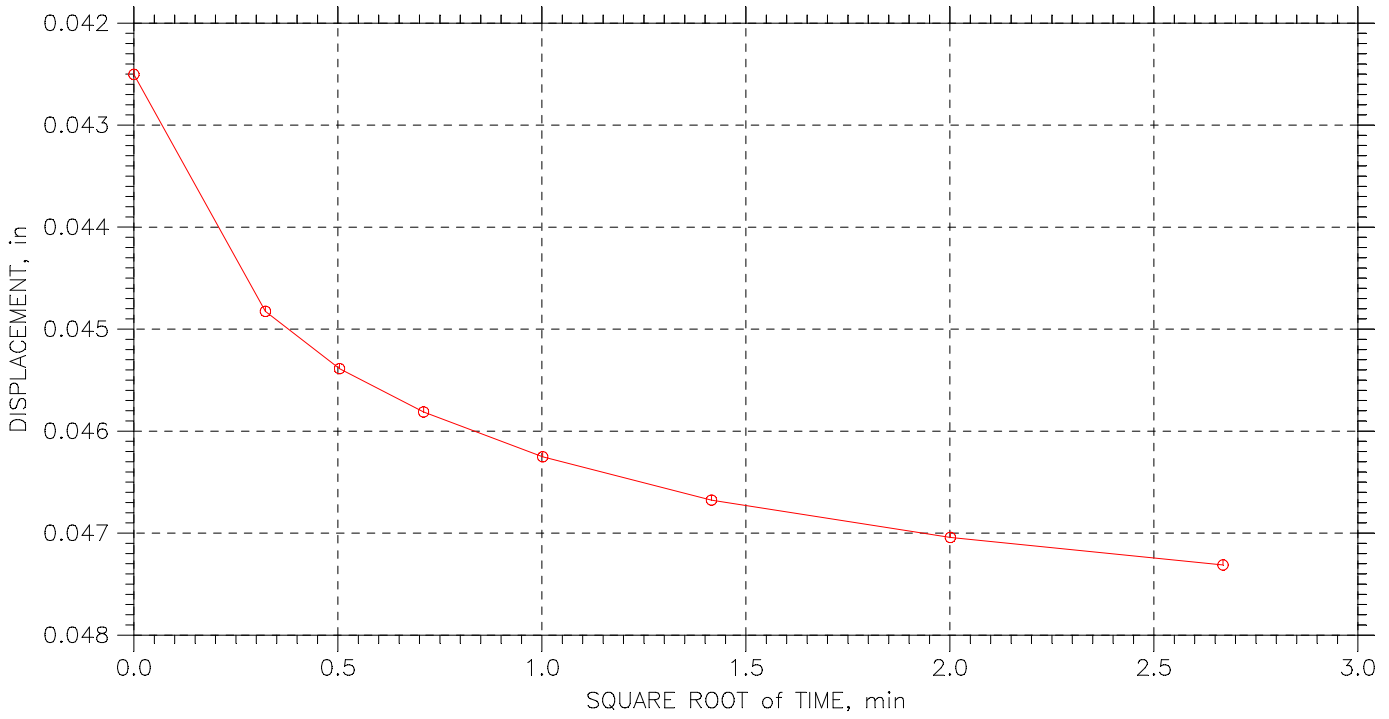
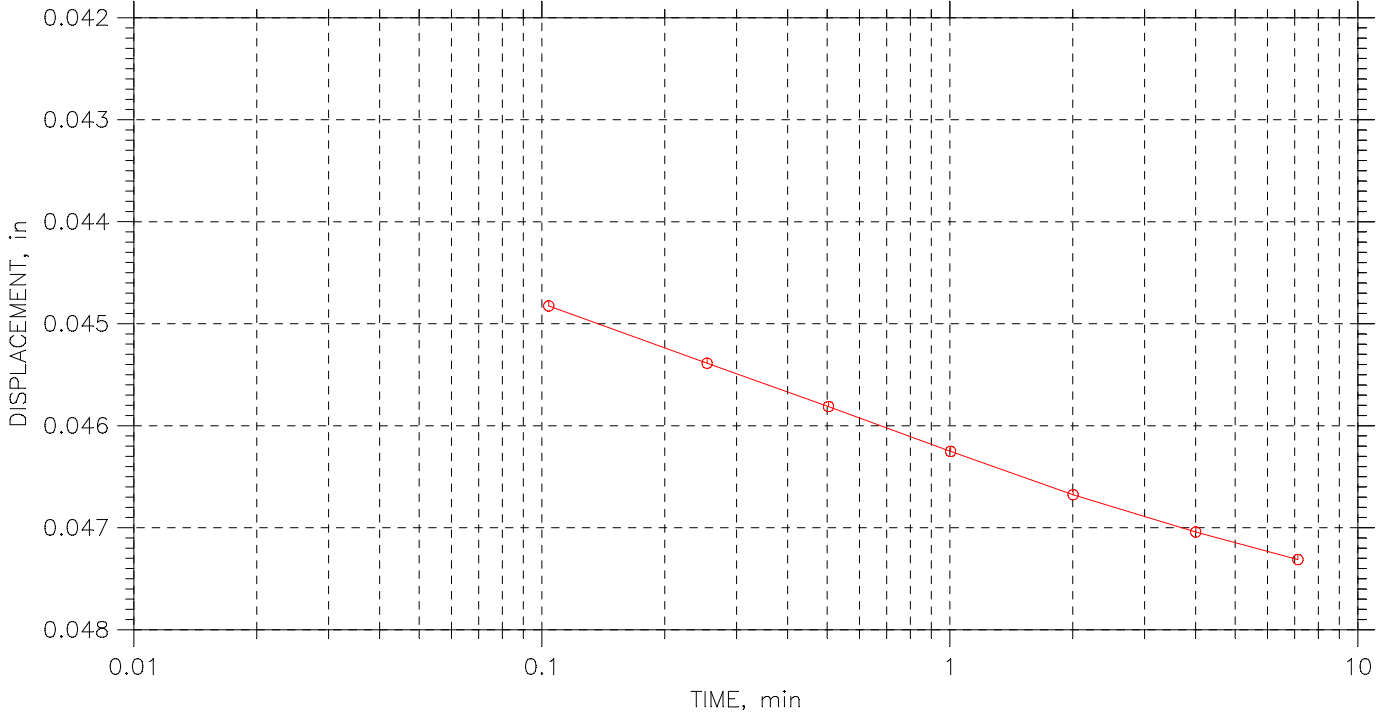
Stress: 3. tsf



Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-404B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-5	Test Date: 3/09/09	Depth: 45.0'-45.5
Test No.: 5742404BS5C	Sample Type: 3" OST	Elevation: +718.6
Description: CLAYEY SILT, SOME F-C SAND - GRAY (CL-ML)		
Remarks: Pc = 3.00 tsf   Cc = 0.123   Ccr = 0.020   TEST PERFORMED AS PER   ASTM D 2435		

# CONSOLIDATION TEST DATA

TIME CURVES  
Step: 8 of 17  
Stress: 4. tsf



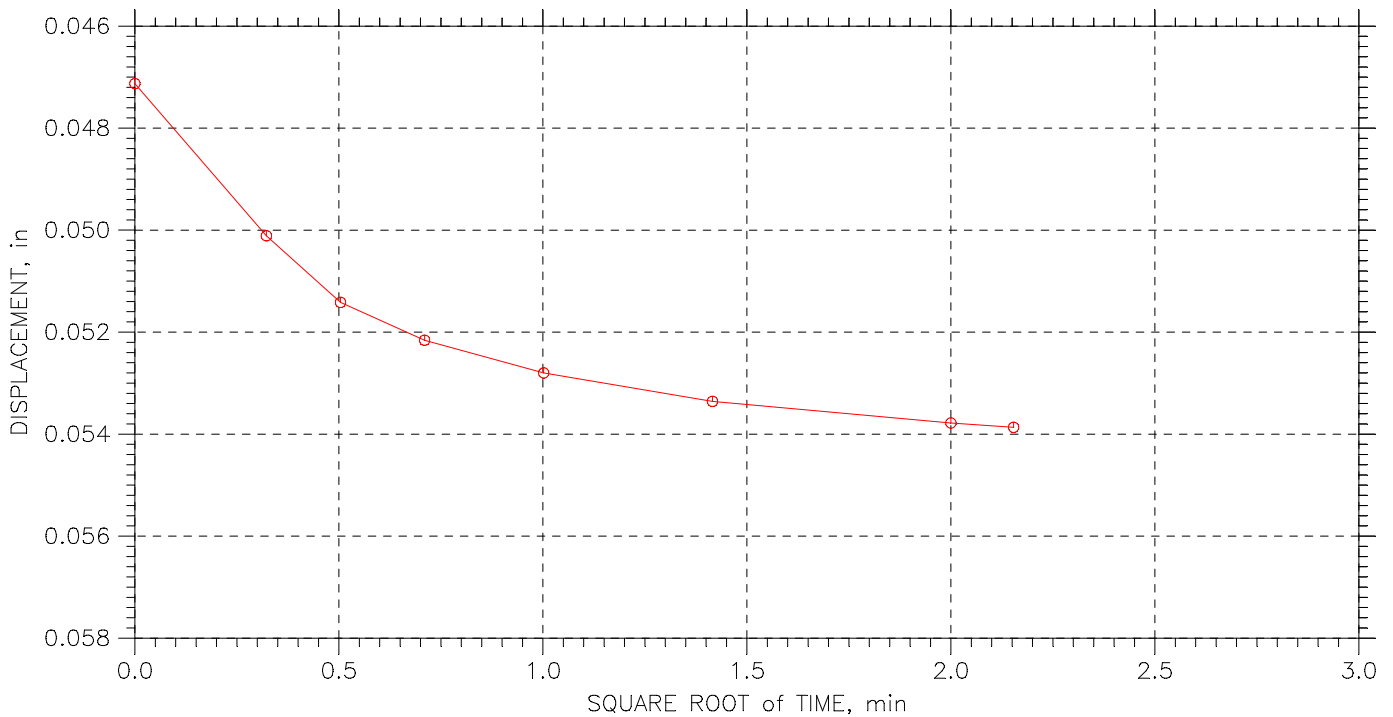
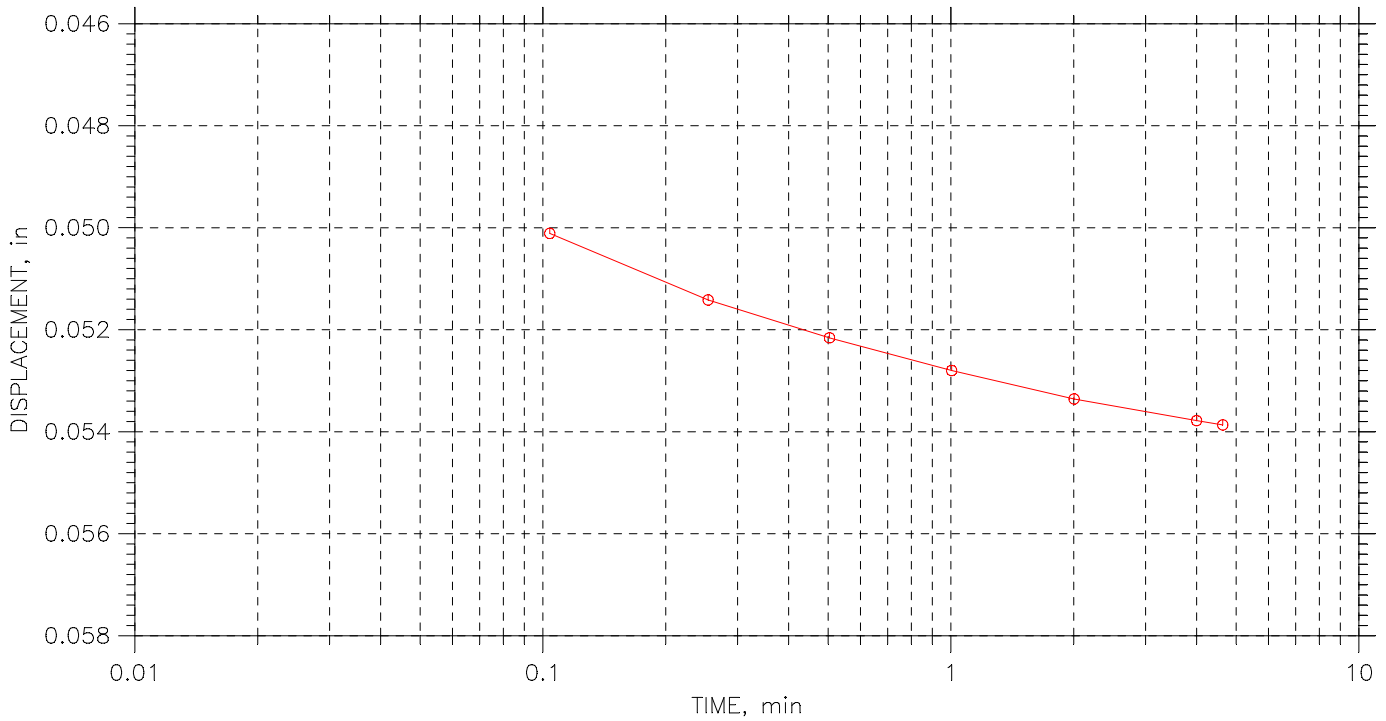
Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-404B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-5	Test Date: 3/09/09	Depth: 45.0'-45.5
Test No.: 5742404BS5C	Sample Type: 3" OST	Elevation: +718.6
Description: CLAYEY SILT, SOME F-C SAND - GRAY (CL-ML)		
Remarks: Pc = 3.00 tsf   Cc = 0.123   Ccr = 0.020   TEST PERFORMED AS PER   ASTM D 2435		

# CONSOLIDATION TEST DATA

TIME CURVES

Step: 9 of 17

Stress: 6. tsf



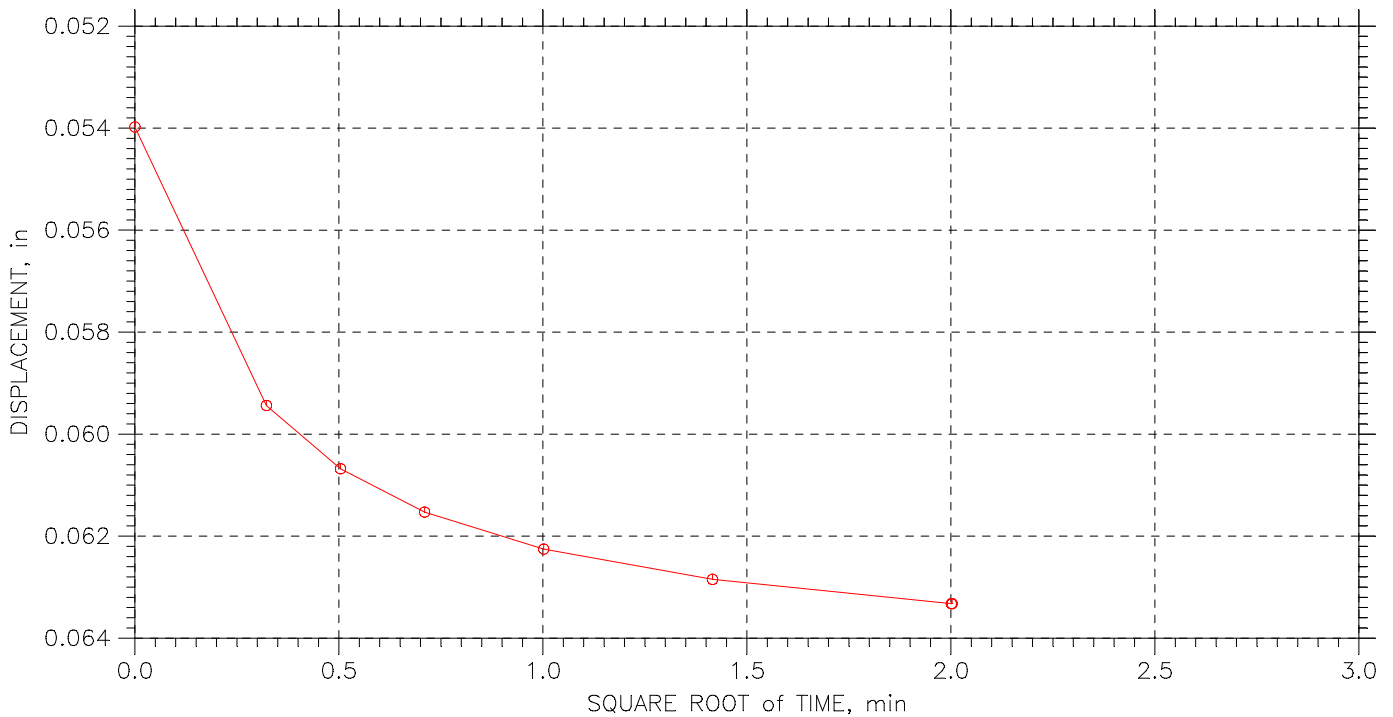
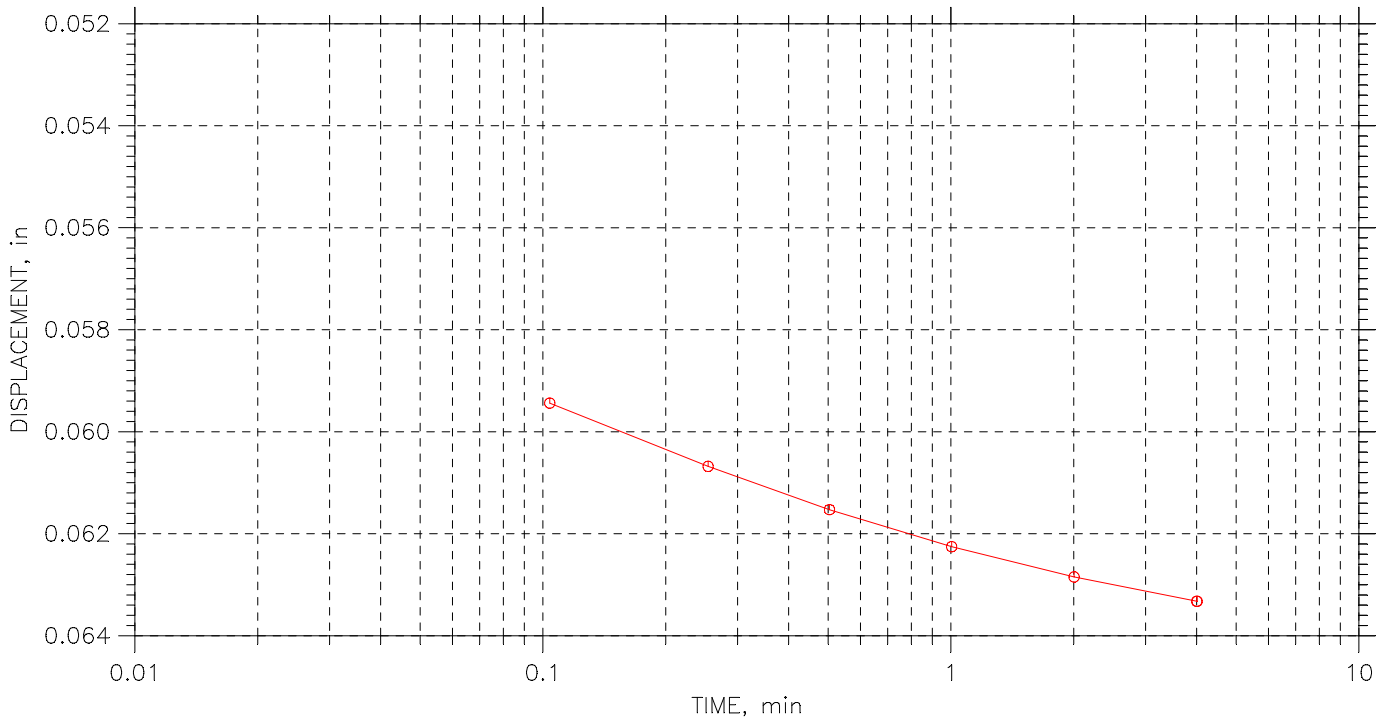
Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-404B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-5	Test Date: 3/09/09	Depth: 45.0'-45.5
Test No.: 5742404BS5C	Sample Type: 3" OST	Elevation: +718.6
Description: CLAYEY SILT, SOME F-C SAND - GRAY (CL-ML)		
Remarks: Pc = 3.00 tsf   Cc = 0.123   Ccr = 0.020   TEST PERFORMED AS PER   ASTM D 2435		

# CONSOLIDATION TEST DATA

TIME CURVES

Step: 10 of 17

Stress: 10. tsf



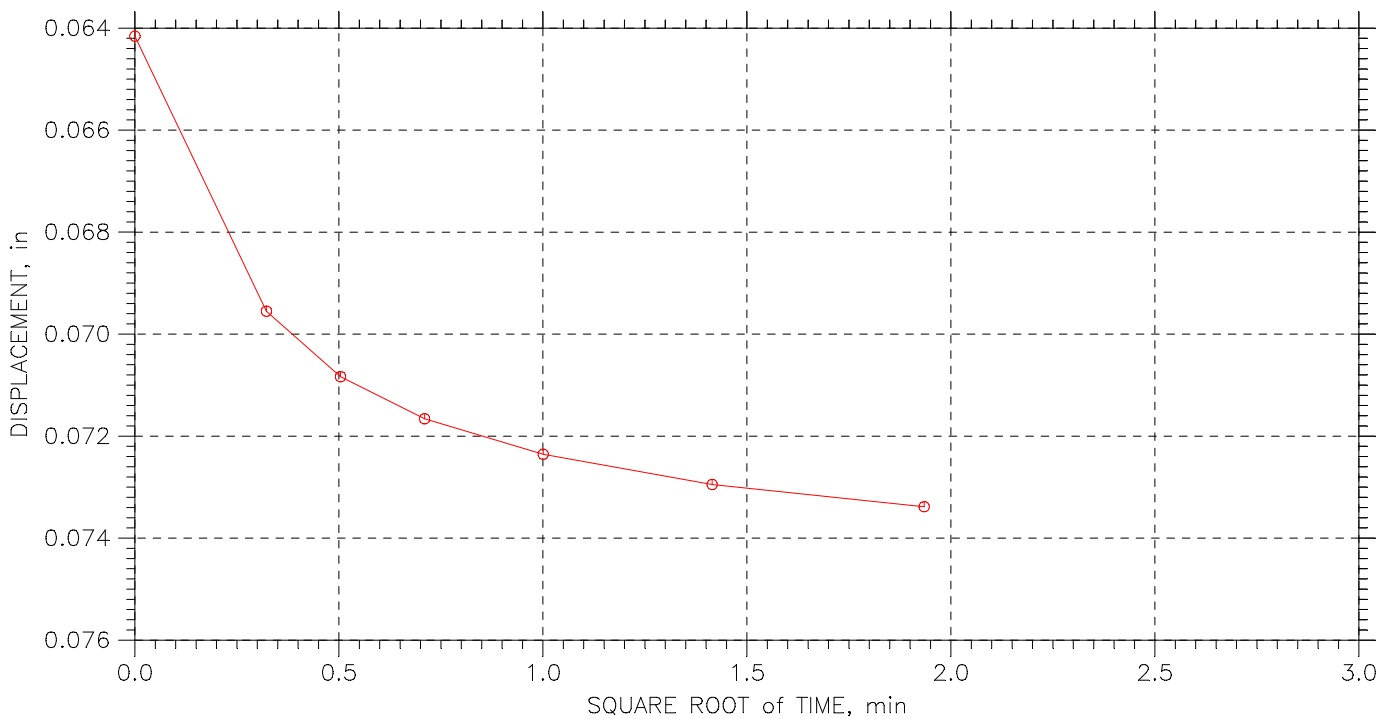
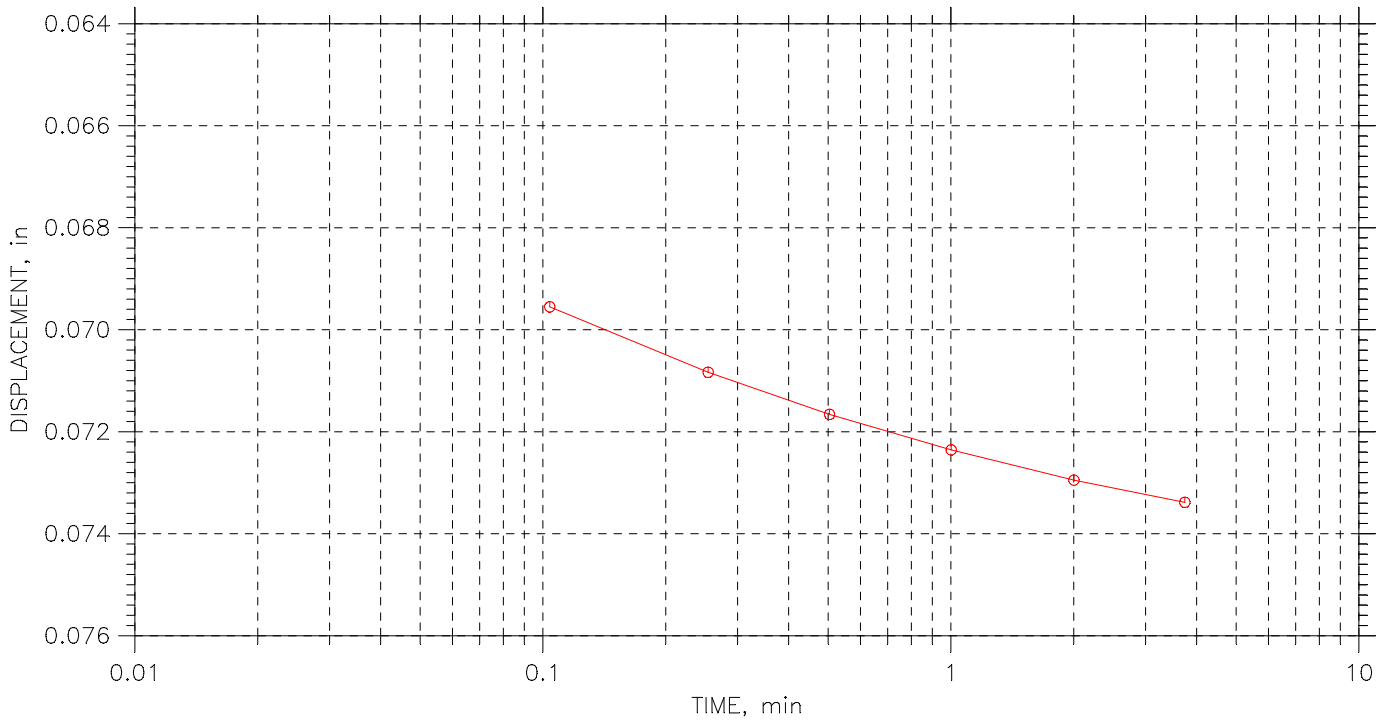
Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-404B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-5	Test Date: 3/09/09	Depth: 45.0'-45.5
Test No.: 5742404BS5C	Sample Type: 3" OST	Elevation: +718.6
Description: CLAYEY SILT, SOME F-C SAND - GRAY (CL-ML)		
Remarks: Pc = 3.00 tsf Cc = 0.123 Ccr = 0.020 TEST PERFORMED AS PER ASTM D 2435		

# CONSOLIDATION TEST DATA

TIME CURVES

Step: 11 of 17

Stress: 16. tsf



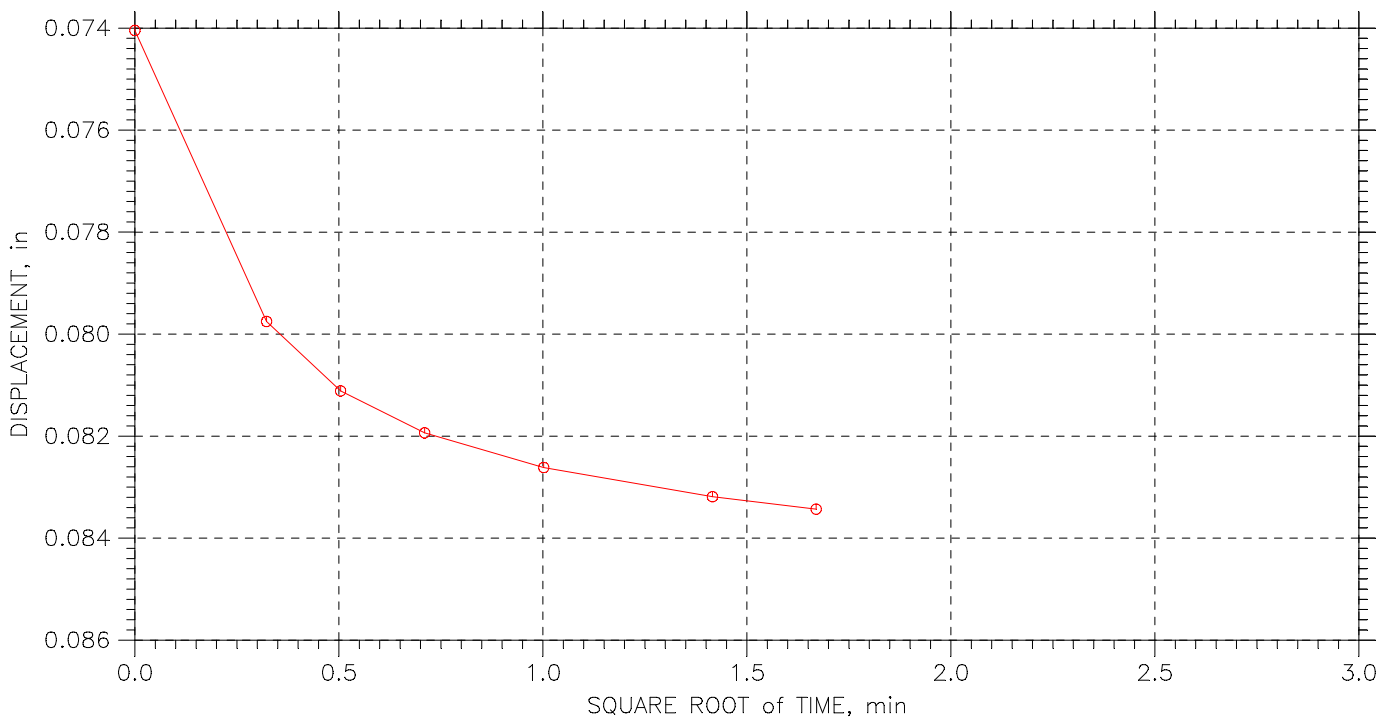
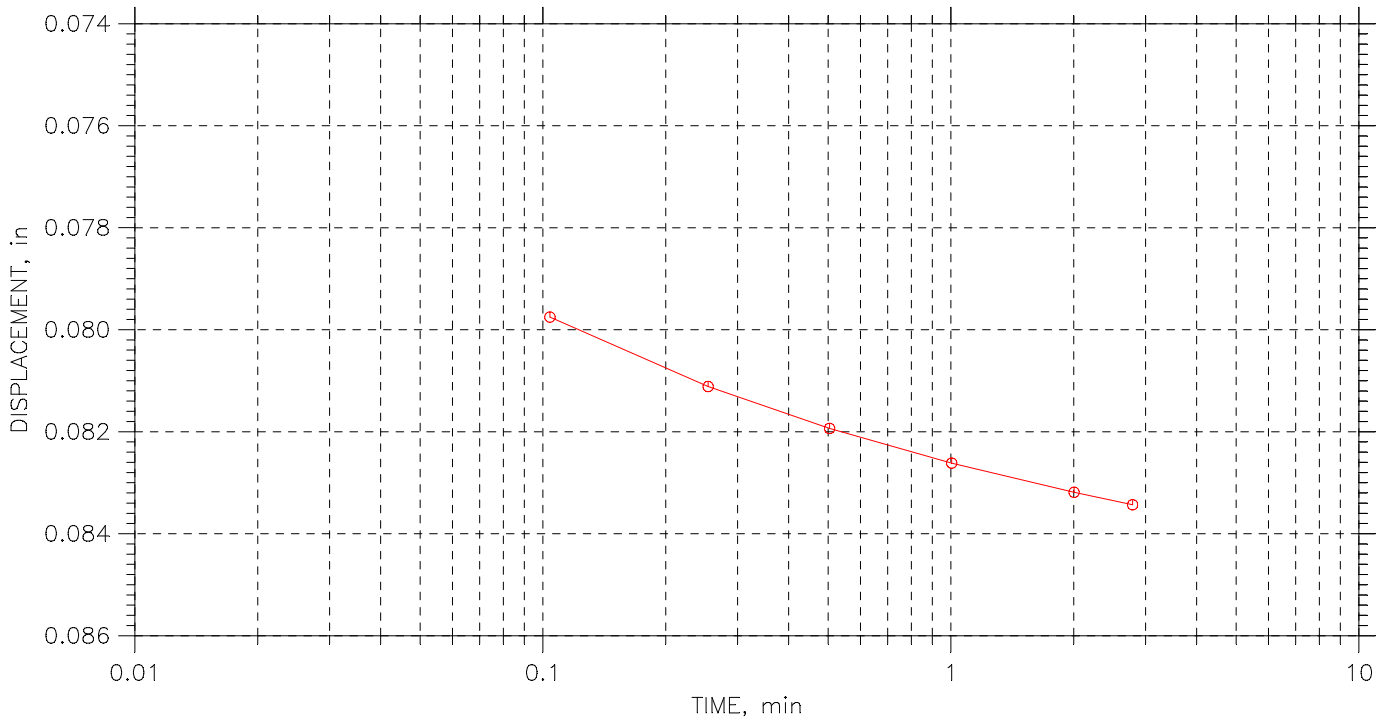
Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-404B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-5	Test Date: 3/09/09	Depth: 45.0'-45.5
Test No.: 5742404BS5C	Sample Type: 3" OST	Elevation: +718.6
Description: CLAYEY SILT, SOME F-C SAND - GRAY (CL-ML)		
Remarks: Pc = 3.00 tsf   Cc = 0.123   Ccr = 0.020   TEST PERFORMED AS PER   ASTM D 2435		

# CONSOLIDATION TEST DATA

TIME CURVES

Step: 12 of 17

Stress: 24. tsf



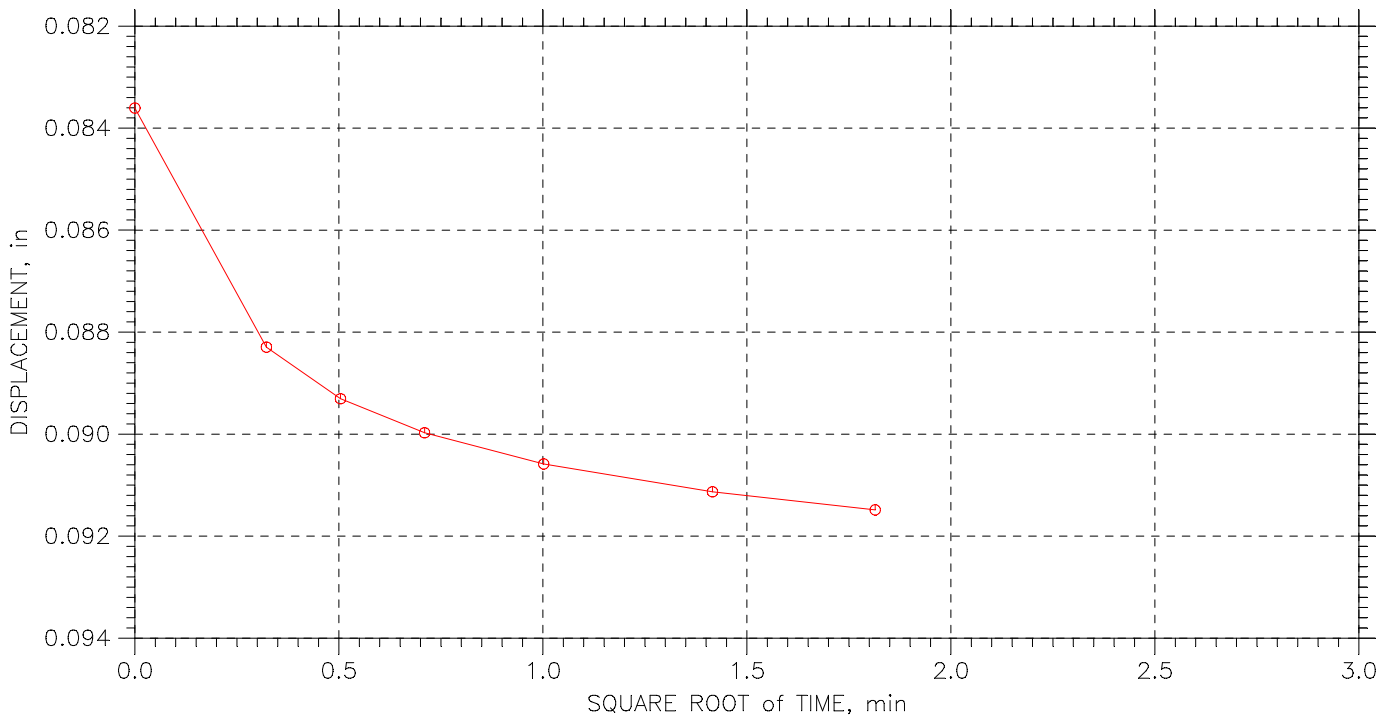
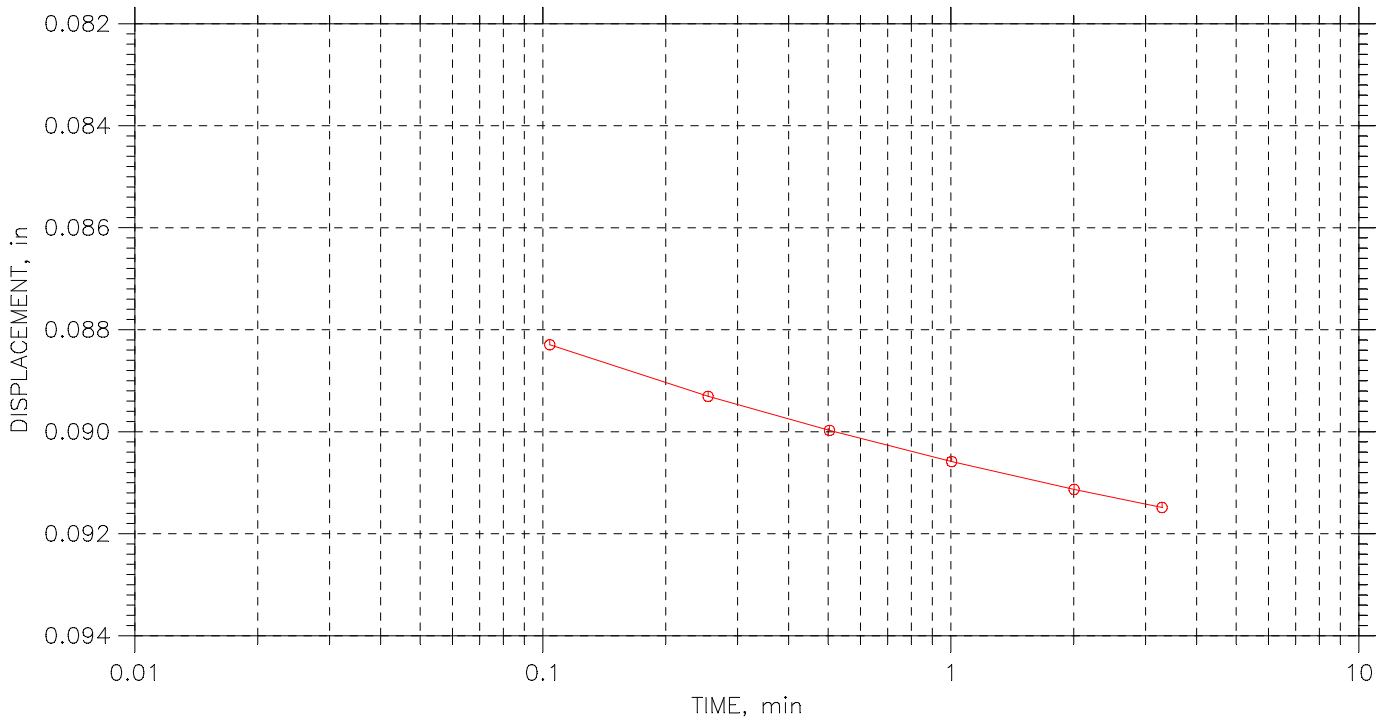
Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-404B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-5	Test Date: 3/09/09	Depth: 45.0'-45.5
Test No.: 5742404BS5C	Sample Type: 3" OST	Elevation: +718.6
Description: CLAYEY SILT, SOME F-C SAND - GRAY (CL-ML)		
Remarks: Pc = 3.00 tsf   Cc = 0.123   Ccr = 0.020   TEST PERFORMED AS PER   ASTM D 2435		

# CONSOLIDATION TEST DATA

TIME CURVES

Step: 13 of 17

Stress: 32. tsf



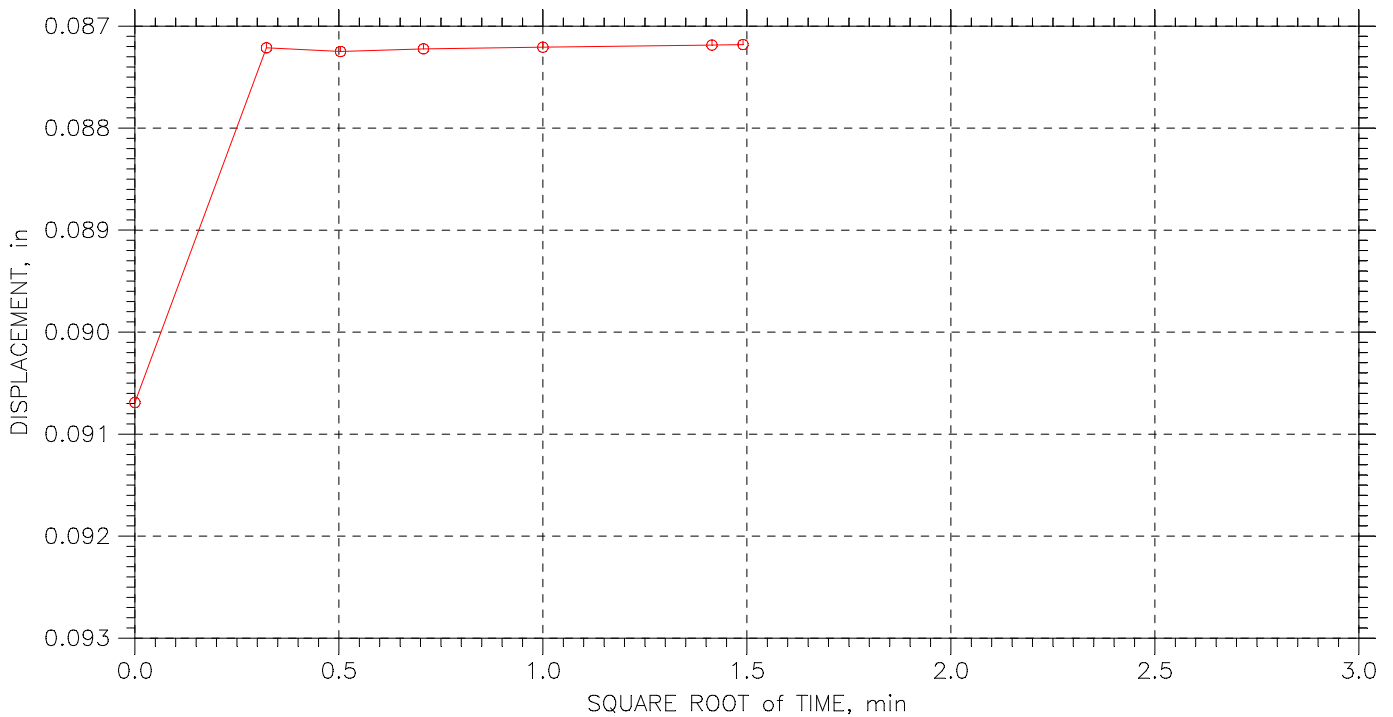
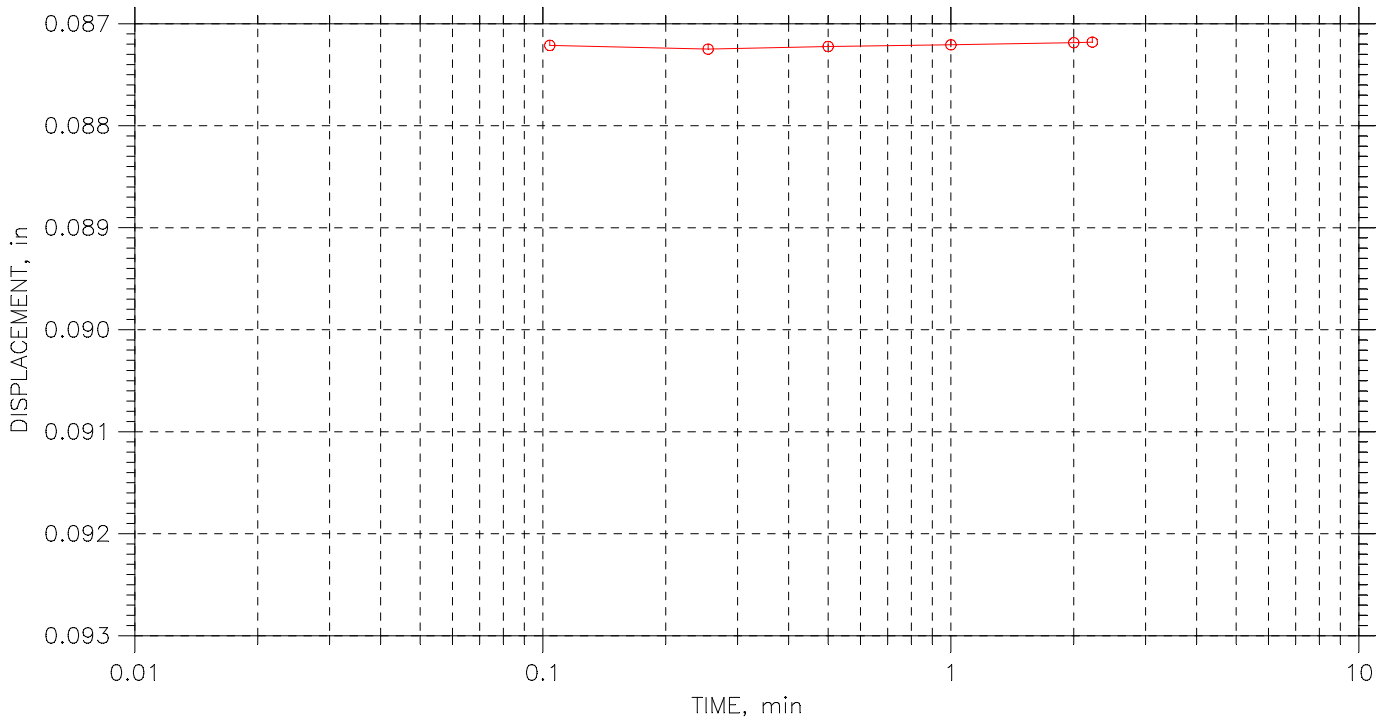
Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-404B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-5	Test Date: 3/09/09	Depth: 45.0'-45.5
Test No.: 5742404BS5C	Sample Type: 3" OST	Elevation: +718.6
Description: CLAYEY SILT, SOME F-C SAND - GRAY (CL-ML)		
Remarks: Pc = 3.00 tsf   Cc = 0.123   Ccr = 0.020   TEST PERFORMED AS PER   ASTM D 2435		

# CONSOLIDATION TEST DATA

TIME CURVES

Step: 14 of 17

Stress: 16. tsf



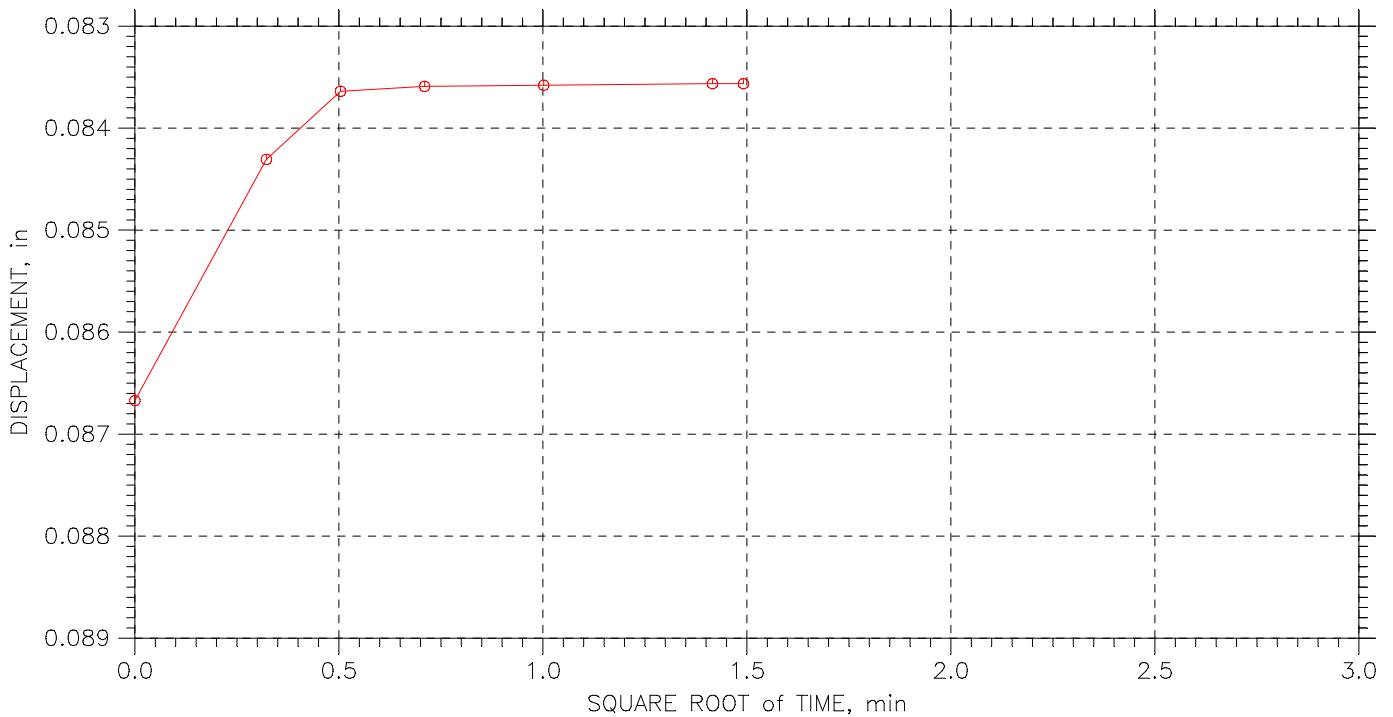
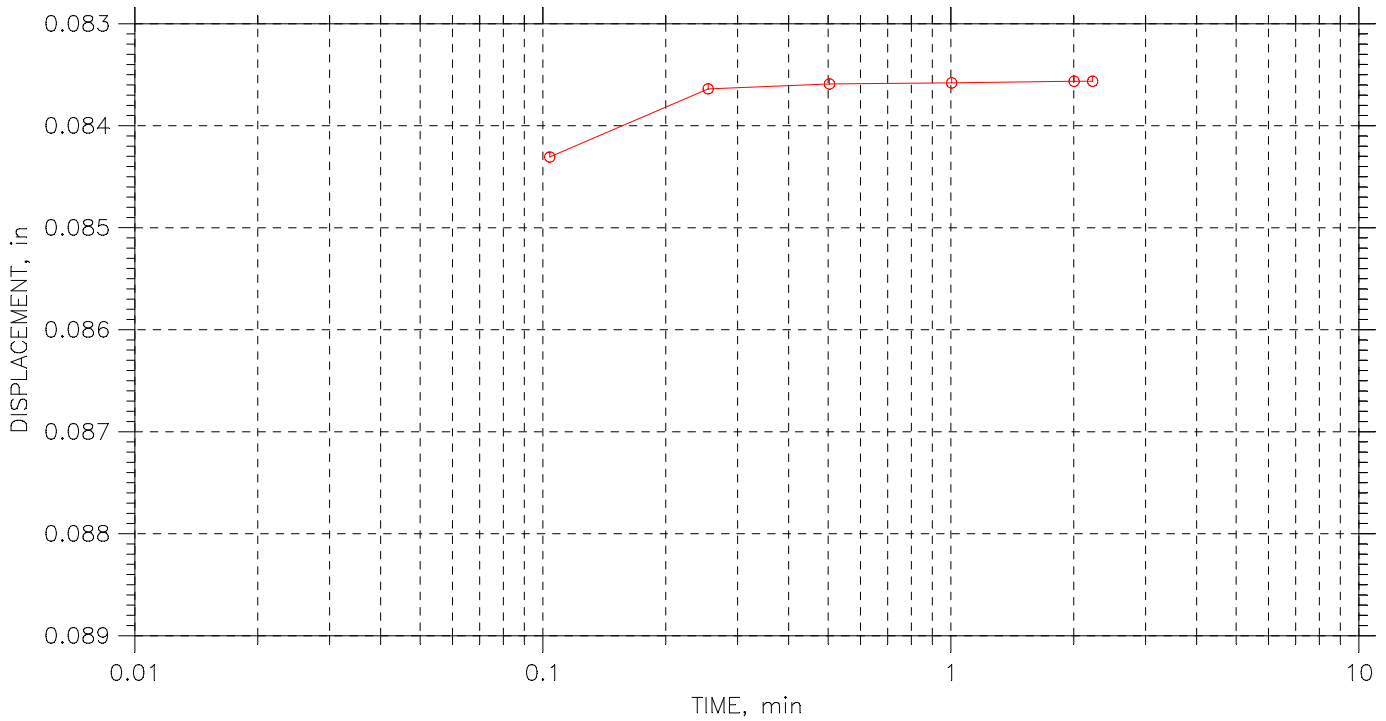
Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-404B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-5	Test Date: 3/09/09	Depth: 45.0'-45.5
Test No.: 5742404BS5C	Sample Type: 3" OST	Elevation: +718.6
Description: CLAYEY SILT, SOME F-C SAND - GRAY (CL-ML)		
Remarks: Pc = 3.00 tsf Cc = 0.123 Ccr = 0.020 TEST PERFORMED AS PER ASTM D 2435		

# CONSOLIDATION TEST DATA

TIME CURVES

Step: 15 of 17

Stress: 8. tsf



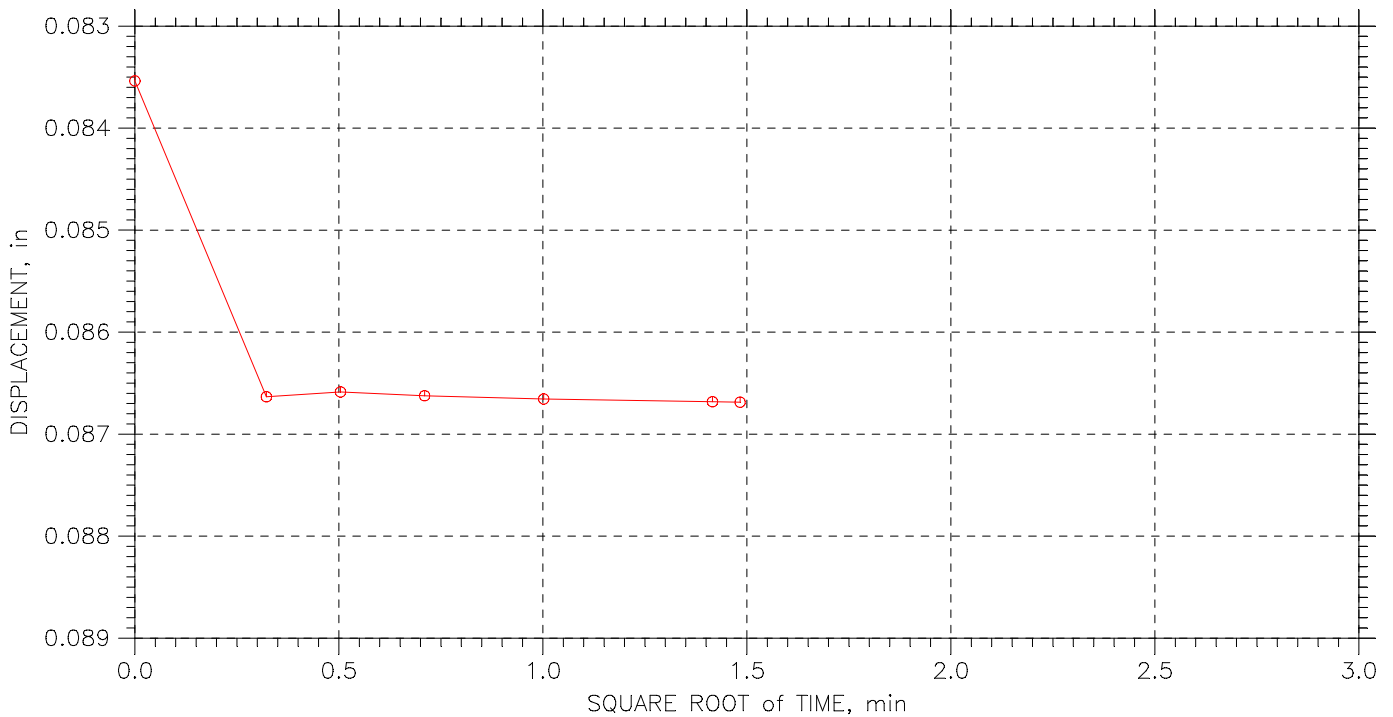
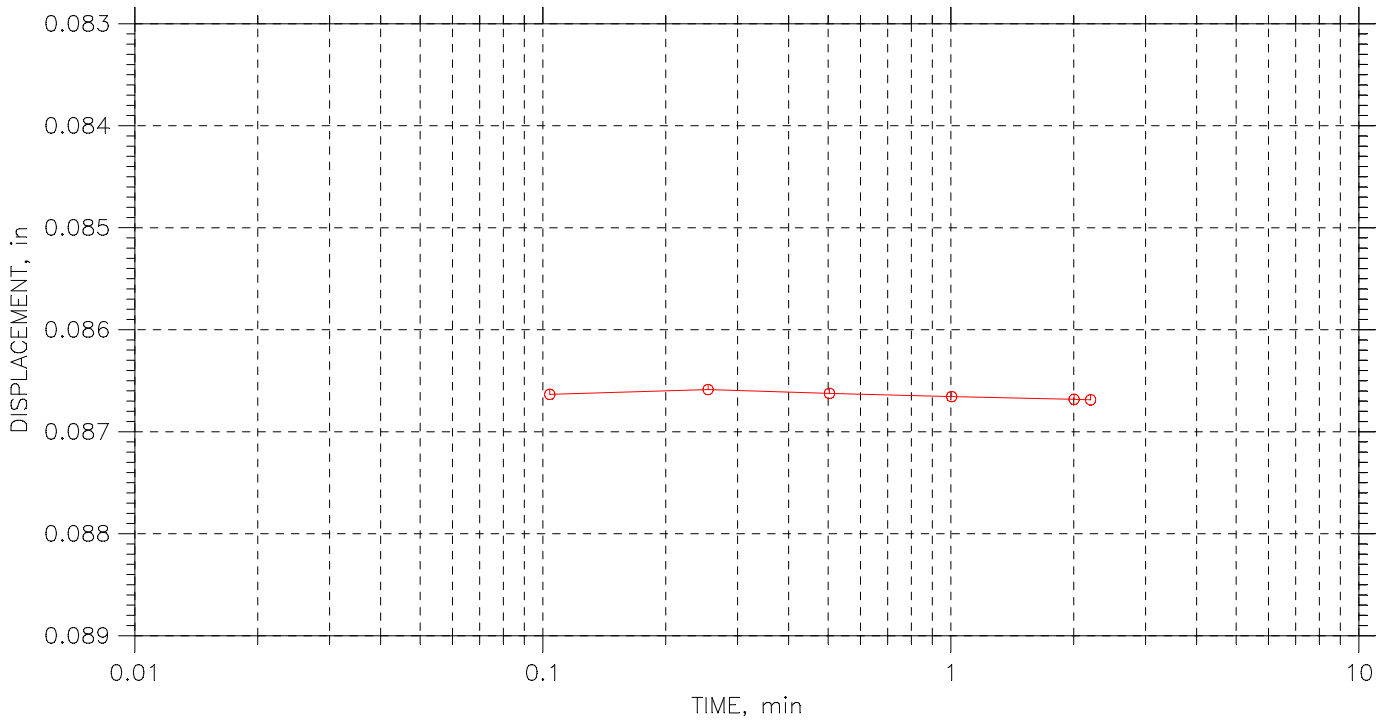
Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-404B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-5	Test Date: 3/09/09	Depth: 45.0'-45.5
Test No.: 5742404BS5C	Sample Type: 3" OST	Elevation: +718.6
Description: CLAYEY SILT, SOME F-C SAND - GRAY (CL-ML)		
Remarks: Pc = 3.00 tsf   Cc = 0.123   Ccr = 0.020   TEST PERFORMED AS PER   ASTM D 2435		

# CONSOLIDATION TEST DATA

TIME CURVES

Step: 16 of 17

Stress: 16. tsf



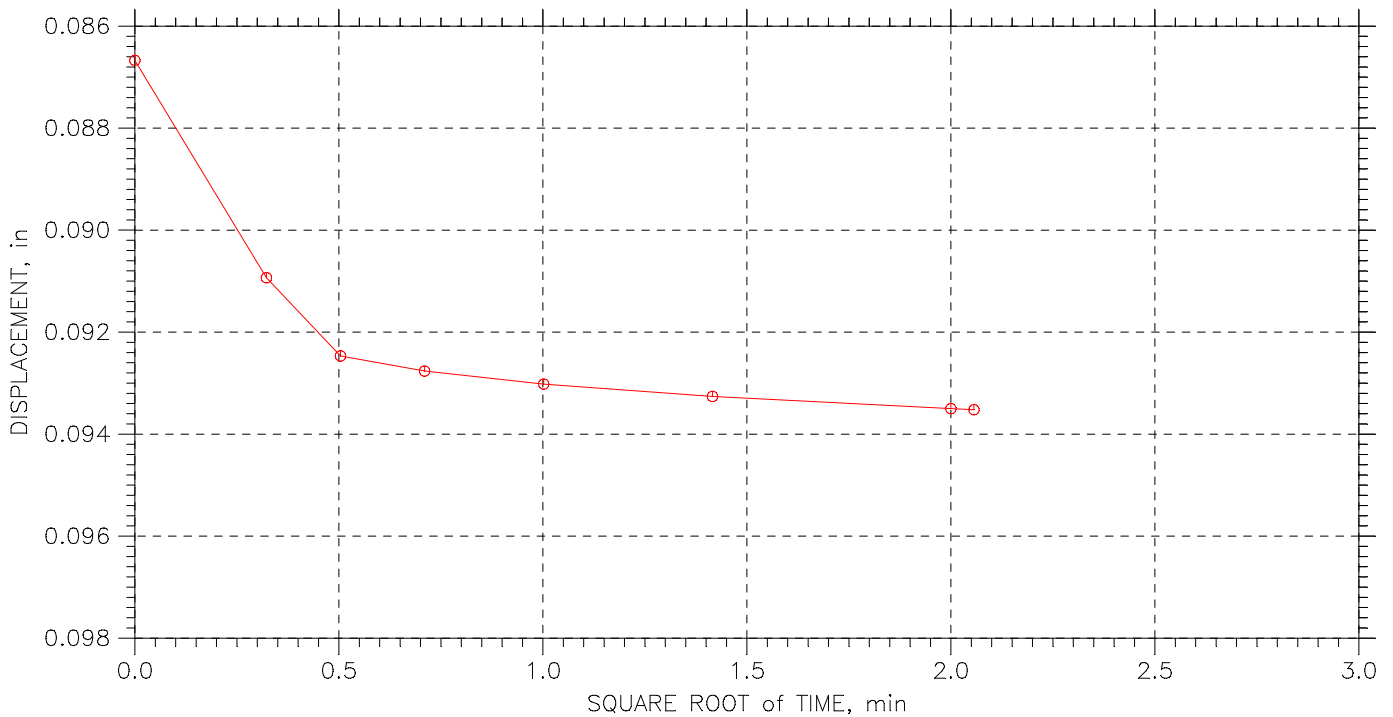
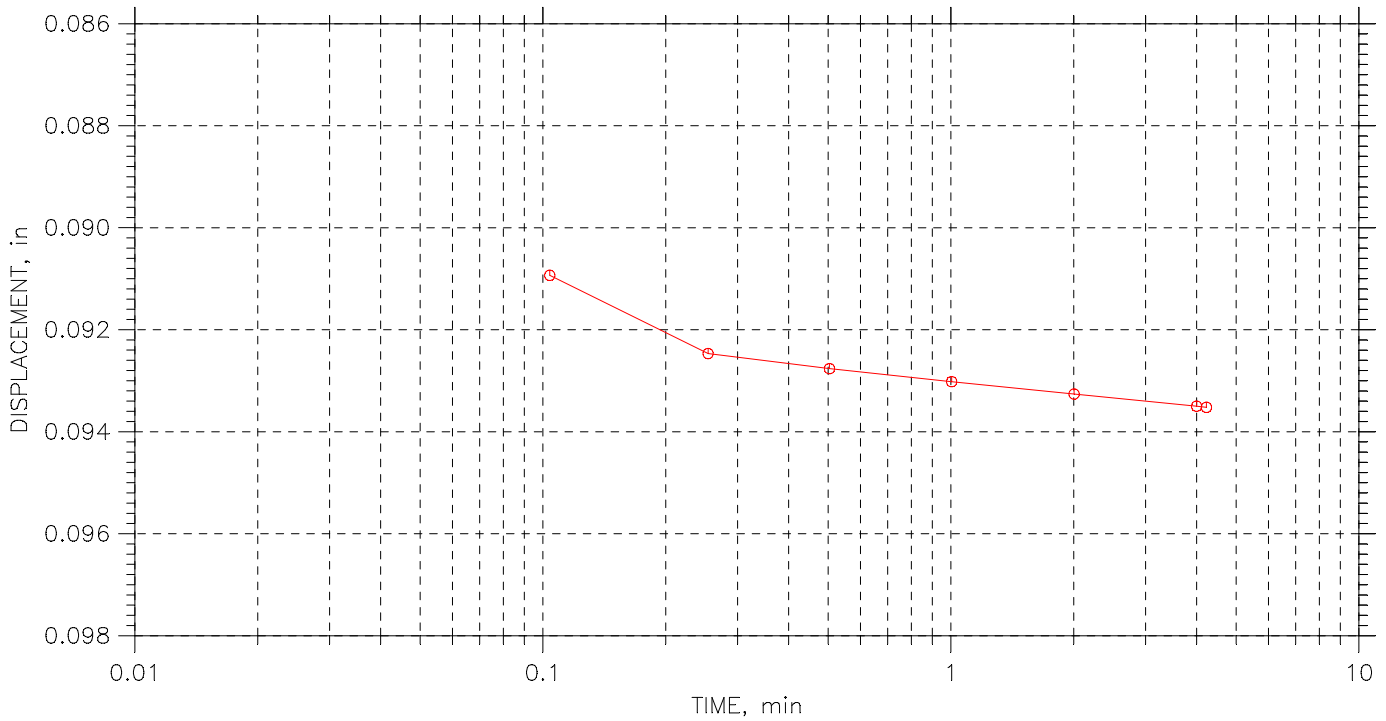
Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-404B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-5	Test Date: 3/09/09	Depth: 45.0'-45.5
Test No.: 5742404BS5C	Sample Type: 3" OST	Elevation: +718.6
Description: CLAYEY SILT, SOME F-C SAND - GRAY (CL-ML)		
Remarks: Pc = 3.00 tsf Cc = 0.123 Ccr = 0.020 TEST PERFORMED AS PER ASTM D 2435		

# CONSOLIDATION TEST DATA

TIME CURVES

Step: 17 of 17

Stress: 32. tsf



Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-404B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-5	Test Date: 3/09/09	Depth: 45.0'-45.5
Test No.: 5742404BS5C	Sample Type: 3" OST	Elevation: +718.6
Description: CLAYEY SILT, SOME F-C SAND - GRAY (CL-ML)		
Remarks: Pc = 3.00 tsf   Cc = 0.123   Ccr = 0.020   TEST PERFORMED AS PER   ASTM D 2435		