2008 CANADIAN ASPHALT EXCHANGE PROGRAM
(Asphalt Cement Portion)
Schedule of Testing and Handling of Test Materials

The package of materials for the testing of a 150-200A asphalt cement contains three replicate samples of two litres each. Each of the tests specified should be performed on each replicate sample.

Report the results of a single determination only, not the average of two or more except in cases where an average is called for in the method. Each specified test should be made on the three replicates by the same operator. However, it is not necessary that all tests listed be done by the same operator.

Return your completed data collection forms to:

Magdy Beshara, P.Eng.
Testing Standards Engineer
Saskatchewan Ministry of Highways & Infrastructure
Engineering Standards Branch
1610 Park Street
Regina, Saskatchewan
S4N 2G1

Samples have been prepared and shipped by Imperial Oil of Sarnia, Ontario. If you have any questions with respect to the samples, please contact:

Mary Gale
Imperial Oil, Research Department
453 Christina Street South
P.O. Box 3022
Sarnia, Ontario
N7T 8C8
Phone: (519) 339-4831
Fax: (519) 339-4436
mary.j.gale@esso.ca

Questions or comments with respect to the Schedule of Testing and Handling of Test Materials or the Data Collection and Submission Form should be directed to:

Magdy Beshara, P.Eng.
Testing Standards Engineer
Saskatchewan Ministry of Highways & Infrastructure
Engineering Standards Branch
1610 Park Street
Regina, Saskatchewan
S4N 2G1
Phone: (306) 787-4922
Fax: (306) 787-4582
mbeshara@highways.gov.sk.ca

2008 CANADIAN ASPHALT EXCHANGE PROGRAM
(Asphalt Cement Portion)
Schedule of Testing and Handling of Test Materials

Directions for the individual tests on each of the three replicates of the asphalt cement samples.

The following tests shall be performed:

Original Materials

1. Penetration of Bituminous Materials - ASTM D5

   Report to the nearest whole unit the average of three penetrations at 25° C, 100 g, 5 s, whose values do not differ more than the amount given in ASTM D5.

2. Penetration of Bituminous Materials - ASTM Method D5

   Report to the nearest whole unit the average of three penetrations at 4° C, 100 g, 5 s, whose values do not differ more than the amount given in ASTM D5.

3. Solubility of Bituminous Materials in Organic Solvents - ASTM Method D2042

   Report the percentage of material soluble in trichloroethylene to the nearest 0.01%.

4. Specific Gravity of Semi-Solid Bituminous Materials - ASTM Method D70

   Determine the specific gravity at 25° C relative to water at 25° C. Report the results to the nearest 0.001 gravity unit.

5. Kinematic Viscosity of Asphalts - ASTM Method D2170

   Report to the nearest whole unit the kinematic viscosity at 135° C, mm^2/s.

6. Absolute Viscosity of Asphalts - ASTM Method D2171

   Report to the nearest 0.1 unit the absolute viscosity at 60° C, 300 mm Hg vacuum, Pa·s.

Tests After Thin Film Oven Test

7. Thin Film Oven Test - ASTM Method D1754

   Weigh the sample and container to the nearest milligram. Report the average loss or gain of the material in the two containers. Record the barometric pressure on the day the testing is done in kPa.

8. Penetration of the Residue - ASTM Method D5

   Report to the nearest whole unit the average of three penetrations at 25° C, 100 g, 5 s, whose values do not differ by more than the amount given in method D5.

9. Penetration of the Residue - ASTM Method D5

   Report to the nearest whole unit the average of three penetrations at 4° C, 100 g, 5 s, whose values do not differ by more than the amount given in ASTM D5.

10. Retained Penetration After T.F.O. Test - ASTM Method D5

    Report as percent of the original penetration (at 25° C) to the nearest percent.

11. Kinematic Viscosity of the Residue - ASTM Method D2170

    Report to the nearest whole unit the kinematic viscosity at 135° C, mm^2/s.

12. Absolute Viscosity of the Residue - ASTM Method D2171

    Report to the nearest 0.1 unit the absolute viscosity of the residue at 60° C, 300 mm Hg vacuum Pa·s.

OPTIONAL TESTING

The Rolling Thin Film Oven Test is optional.

Tests After Rolling Thin Film Oven Test

13. Rolling Thin Film Oven Test - ASTM Method D2872

    Weigh the sample and container to the nearest milligram. Report the average loss or gain of the material in the two containers. Record the barometric pressure on the day the testing is done in kPa.

14. Penetration of the Residue - ASTM Method D5

    Report to the nearest whole unit the average of three penetrations at 25° C, 100 g, 5 s, whose values do not differ by more than the amount given in method D5.

15. Penetration of the Residue - ASTM Method D5

    Report to the nearest whole unit the average of three penetrations at 4° C, 100 g, 5 s, whose values do not differ by more than the amount given in ASTM D5.

16. Retained Penetration After R.T.F.O. Test - ASTM Method D5

    Report as percent of the original penetration (at 25° C) to the nearest percent.

17. Kinematic Viscosity of the Residue - ASTM Method D2170

    Report to the nearest whole unit the kinematic viscosity at 135° C, mm^2/s.

18. Absolute Viscosity of the Residue - ASTM Method D2171

    Report to the nearest 0.1 unit the absolute viscosity of the residue at 60° C, 300 mm Hg vacuum, Pa·s.

2008 CANADIAN ASPHALT EXCHANGE PROGRAM
(Asphalt Cement Portion)
Data Collection and Submission Forms

A. PARTICIPANT DOCUMENTATION

Agency/Company _____

_____

Address _____

_____

_____

_____

Contact Person _____

Telephone No. _____

Fax No. _____

E-mail Address _____

B. SAMPLE DOCUMENTATION

Date Samples Received _____

Date Testing Commenced _____

Dated Testing Completed _____

C. PARTICIPANT COMMENTS

Please provide any comments which may be of value to this or future exchanges:

_____

_____

_____

_____

_____

_____

_____

D. TEST RESULTS

ASPHALT CEMENT 150 - 200A

Replicate Number				Test No.
Penetration at 25°C (dmm) (Report to the nearest whole unit)				1
Penetration at 4°C (dmm) (Report to the nearest whole unit)				2
Solubility in Trichloroethylene, % (Report to the nearest 0.01%)				3
Specific Gravity 25/25°C (Report to the nearest 0.001)				4
Kinematic Viscosity at 135°C, (mm^2/sec) (Report to the nearest whole unit)				5
Tube Type				
Size Number				
Fill Time				
Absolute Viscosity at 60°C, (Pa·s) (Report to the nearest 0.1 Pa·s)				6
Tube Type				
Size Number				
Fill Time (1)				
Fill Time (2)				

Agency / Company Name:

2008 CANADIAN ASPHALT EXCHANGE PROGRAM
(Asphalt Cement Portion)
Data Collection and Submission Forms

ASPHALT CEMENT 150 - 200A

Replicate Number				Test No.
Thin Film Oven Test				
Thin Film Oven Test (Report Loss or Gain by Circling Appropriate Response)	**Loss Gain**	**Loss Gain**	**Loss Gain**	7
Loss on Heating (Report to the nearest 0.001%)				7
Penetration of Residue at 25°C (dmm) (Report to the nearest unit)				8
Penetration of Residue at 4°C (dmm) (Report to the nearest unit)				9
Percent of Original Penetration (at 25°C) (Report to the nearest %)				10
Kinematic Viscosity of Residue at 135°C, (mm^2/sec) (Report to the nearest whole unit)				11
Tube Type				
Size Number				
Fill Time				
Absolute Viscosity of Residue at 60°C (Pa·s) (Report to the nearest 0.1 Pa·s)				12
Tube Type				
Size Number				
Fill Time (1)				
Fill Time (2)				
Barometric Pressure on the day T.F.O.T. was done, (kPa) (Report to the nearest kPa)				7

Agency / Company Name:

2008 CANADIAN ASPHALT EXCHANGE PROGRAM
(Asphalt Cement Portion)
Data Collection and Submission Forms

ASPHALT CEMENT 150 - 200A				
Replicate Number				Test No.
Rolling Thin Film Oven Test				
Rolling Thin Film Oven Test (Report Loss or Gain by Circling Appropriate Response)	**Loss Gain**	**Loss Gain**	**Loss Gain**	13
Loss on Heating (Report to the nearest 0.001%)				13
Penetration of Residue at 25°C (dmm) (Report to the nearest unit)				14
Penetration of Residue at 4°C (dmm) (Report to the nearest unit)				15
Percent of Original Penetration (at 25°C) (Report to the nearest %)				16
Kinematic Viscosity of Residue at 135°C (mm^2/sec) (Report to the nearest whole unit)				17
Tube Type				
Size Number				
Fill Time				
Absolute Viscosity of Residue at 60°C (Pa·s) (Report to the nearest 0.1 Pa·s)				18
Tube Type				
Size Number				
Fill Time (1)				
Fill Time (2)				
Barometric Pressure on the day R.T.F.O.T. was done, (kPa) (Report to the nearest kPa)				13
Agency / Company Name:				