INFORMATION HANDOUT

For Contract No. 06-0Q7504

06-Fre-33-16.7/22.7

Identified by
Project ID 0613000251

MATERIALS INFORMATION

Existing Pavement Information

Memorandum

Flex your power!
Be energy efficient!

To: FRANK GONZALEZ, Chief
Maintenance Design

Date: November 19, 2013

File: 06-Fre-33-PM 16.7/22.7
EA: 06-0Q7501
Project No: 0613000251

Attention: Jose Victor Echeveste

From: TED MOORADIAN, Chief
District Materials Engineer
Materials Engineering Branch – Fresno
Central Region Construction Deflection Testing

Subject: Materials Information Handout

This is in response to your request for a Materials Information Handout (MIH) for the rehabilitation project in Fresno County on State Route 33 from Los Gatos Creek Overflow Bridge to 0.8 mile north of Palmer Avenue. The project includes cold-in-place recycling (CIR), cold planing, digging out and replacing localized failed structural section and sub-base material areas with an equivalent depth of hot mix asphalt (HMA), base and sub-base then cap with 0.15 foot of HMA. The Materials Engineering Branch has conducted a pavement investigation and obtained pavement cores on November 7, 2013 for the referenced project.

The results of the pavement investigation are summarized in the attached Materials Information Handout. If you have any questions regarding the Materials Information Handout, please call me at 488-4148 or Ahmad Shokrpoor at 488-4119.

MATERIALS INFORMATION HANDOUT

Contract Number
06-0Q7504

Project No.
0613000251

06-Fer-33
PM 16.7 / 22.7

Cold In-Place Recycling
Hot Mix Asphalt

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Summary of Investigations

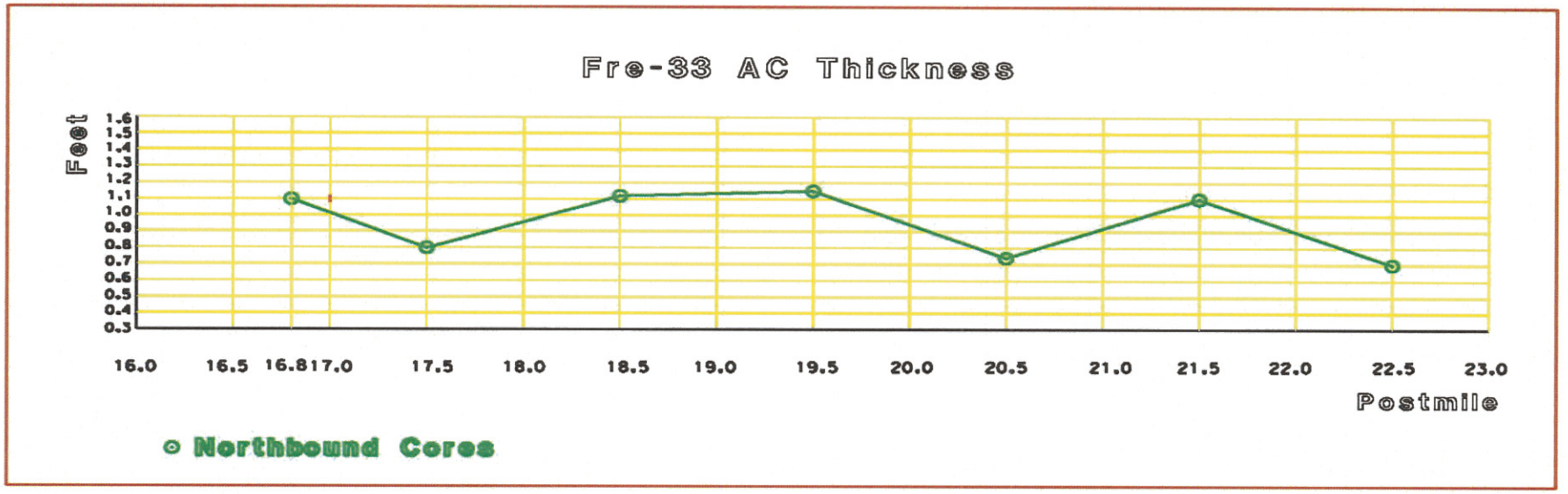
Pavement investigations and coring were conducted on November 7, 2013 on Route 33 from PM 16.7 to PM 22.7 for a cold-in-place recycling project.

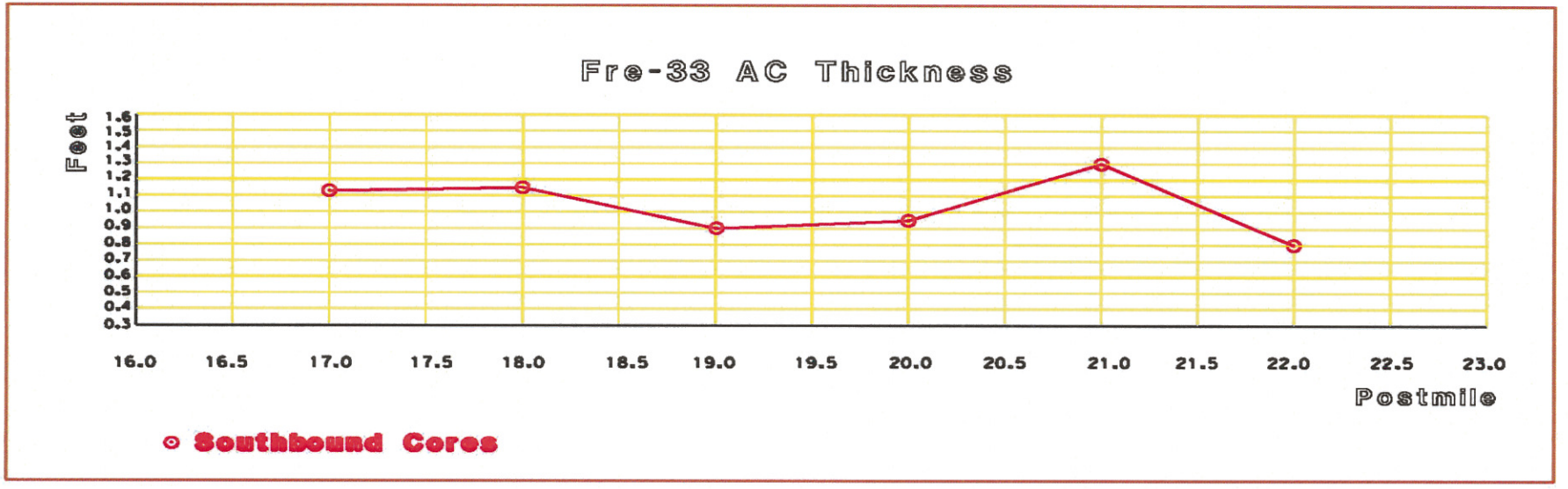
The typical existing structural section consists of dense graded hot mix asphalt (HMA) over Aggregate Base (AB). The pavement surface is HMA. A total of 13 cores were taken. Seven cores were obtained in the northbound direction and another six cores in the southbound direction. Cores indicated a depth of HMA ranging from 0.70 foot to 1.30 foot. The majority of the core samples taken were intact. The base materials are AB for all cores except core numbers three and six where HMA was placed over Portland Cement Concrete (PCC) and placed on Original Ground (OG), as shown in the attached photos, (pages 6 and 9). Generally, core samples taken were not uniform in appearance. Some core samples show signs of failure at a depth of 0.80 foot, some cracked vertically, refer to core photos, (pages 4-16).

The existing HMA appears to have some type A or B Alligator cracking failures, transverse and longitudinal cracking were also observed. It was noticed during the field survey, that there was a chip seal overlay placed on the entire paved surface. There is occasional alligator cracking that was observed within the project limits as well.

Any reliance placed by the contractor on this information shall be at their own risk and they shall undertake their own separate testing program to determine the materials present and conditions prevailing at the time of construction for obtaining the pavement mix design.

HMA LOCATION AND THICKNESS GRAPHS





STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION — Sheet _1_ of _1_

Division of Engineering Services

Materials Engineering and Testing Services

District-County Route-PM/PM: Fer-33_PM 16.7-22.7

Expense Authorization (EA): EA_06-0Q7504

DeflcTrack Number:

LOG OF MAINLINE CORE HOLES

Core Rig Operator: A,Shokrpoor/ S. Singh — Date of Coring: Nov 7,2013 — No. of Cores: 13

Deflection Test Operator: — Date of Deflection Test:

Test Section	Core Hole Location (PM, Lane No., Direction)	Layer 1 (Seal Coat?)	Layer 2 (Struct. Sect.)	Layer 3 (Struct. Sect.)	Layer 4 (Struct. Sect.)	Layer 5 (Base Matrl)	Total Core Thickness	Remarks
1	Fre-33 NORTHBOND LANE 1 - PM 16.80	Chip Seal	1.10'-DGAC			Aggregate Base	1.10	The Core was taken at PM 16.8 lane,1of 2. The tolal core was 1.10' in thicness.The top layer was chip seal and the rest of the core was DGAC,core was Delaminated @ 0.40' and 0.60' from the top.
2	Fre-33 SOUTHTHBOND LANE 1 - PM 17.00	Chip Seal	1.13'-DGAC			Aggregate Base	1.13	The Core was taken at PM 17.00 Southbound . The tolal core was 1.13' in thicness.The top layer was chip seal and the rest of the core was DGAC,core was Delaminated @ 0.40' and 0.60'
3	Fre-33 NORTHBOND LANE - PM 17.50	Chip Seal	0.80'-DGAC		0.60-PCC	Original Ground	1.40	The Core was taken at PM 17.50 Northbound . The tolal core was 1.40' in thicnessThe top layer was chip seal 0.77' was DGAC,The bottem 0.58' was PCC . The base materials wasOriginal
4	Fre-33 SOUTHTHBOND LANE 1 - PM 18.00	Chip Seal	1.15-DGAC			Aggregate Base	1.15	The Core was taken at PM 18.00 Southbound . The tolal core was 1.15' in thicness.The top layer was chip seal and the rest of the core was DGAC,core was Delaminated @ 0.73'
5	Fre-33 NORTHBOND LANE - PM 18.50	Chip Seal	1.12-DGAC			Aggregate Base	1.12	The Core was taken at PM 18.00 Southbound . The tolal core was 1.15' in thicness.The top layer was chip seal and the rest of the core was DGAC,core was Delaminated @ 0.73'
6	Fre-33 SOUTHTHBOND LANE 1 - PM 19.00	Chip Seal	0.90-DGAC		0.61-PCC	Original Ground	1.41	The Core was taken at PM 19.00 Northbound . The tolal core was 1.41' in thicness.The top layer was chip seal 0.090' was DGAC,The bottem 0.61' was PCC . The base materials
7	Fre-33 NORTHBOND LANE - PM 19.50	Chip Seal	1.15-DGAC			Aggregate Base	1.15	The Core was taken at PM 19.50 Southbound . The tolal core was 1.15' in thicness.The top layer was chip seal and the rest of the core was DGAC,core was Delaminated @ 0.80'
8	Fre-33 SOUTHTHBOND LANE 1 - PM 20.00	Chip Seal	0.95-DGAC			Aggregate Base	0.95	The Core was taken at PM 20.0 Southbound . The tolal core was 0.95' in thickness.The top layer was chip seal and the rest of the core was DGAC,core was Delaminated @ 0.38'
9	Fre-33 NORTHBOND LANE - PM 20.50	Chip Seal	0.74-DGAC			Aggregate Base	0.74	The Core was taken at PM 20.50 Northbound . The tolal core was 0.95' in thickness.The top layer was chip seal and the rest of the core was DGAC,core was intact. The base
10	Fre-33 SOUTHTHBOND LANE 1 - PM 21.00	Chip Seal	1.30'-DGAC			Aggregate Base	1.30'	The Core was taken at PM 21.00 Southbound . The tolal core was 1.30' in thicness.The top layer was chip seal and the rest of the core was DGAC,core was Delaminated @ 0.38'
11	Fre-33 NORTHBOND LANE - PM 21.50	Chip Seal	1.10'-DGAC			Aggregate Base	1.10	The Core was taken at PM 21.5 . The tolal core was 1.10' in thicness.The top layer was chip seal and the rest of the core was DGAC,core was Delaminated @ 0.77' and
12	Fre-33 SOUTHTHBOND LANE 1 - PM 22.00	Chip Seal	0.80'-DGAC			Aggregate Base	0.80	The Core was taken at PM 22.00 Southbound . The tolal core was 0.80' in thickness.The top layer was chip seal and the rest of the
13	Fre-33 NORTHBOND LANE - PM 22.50	Chip Seal	0.70-DGAC			Aggregate Base	0.70	The Core was taken at PM 22.50 Southbound . The tolal core was 0.70' in thickness.The top layer was chip seal and the rest of the

Core Log Prepared: A, Shokrpoor-11/13/2013

(Name and Date)

Pavement Condition Core Photos

DEPARTMENT OF TRANSPORTATION
CENTRAL REGION CONSTRUCTION
MATERIALS ENGINEERING AND DEFLECTION TESTING

Fre-33_EA-06-0Q7501 PM R16.7-22.7

Core -1-NB Mainline -PM 16.80

Pavement Condition Picture

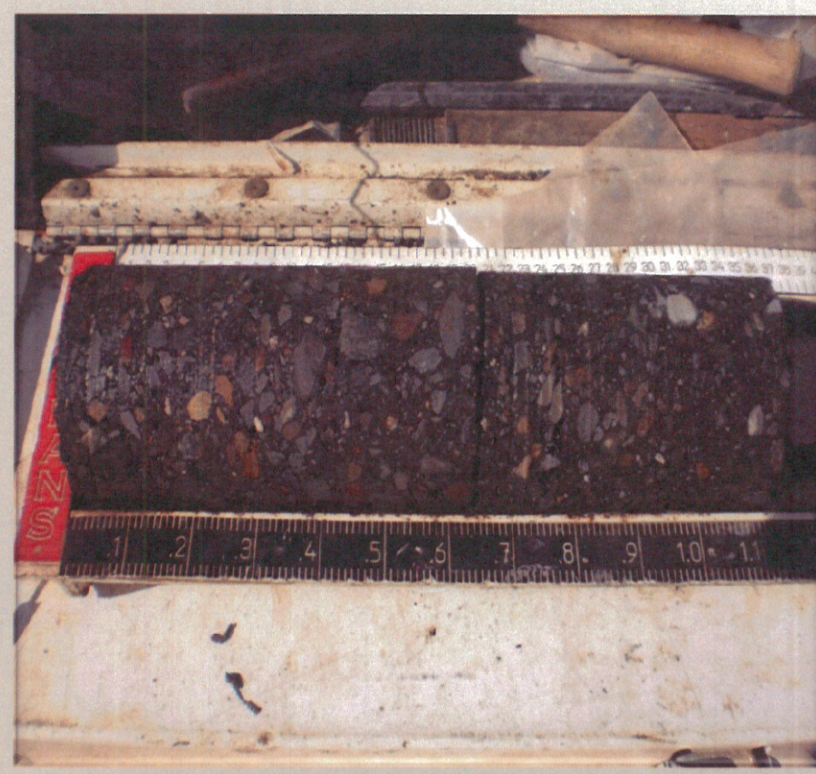
Core Condition Picture

Fre-33_EA-06-0Q7501 PM R16.7-22.7

Core -2-SB Mainline -PM 17.00

Pavement Condition Picture

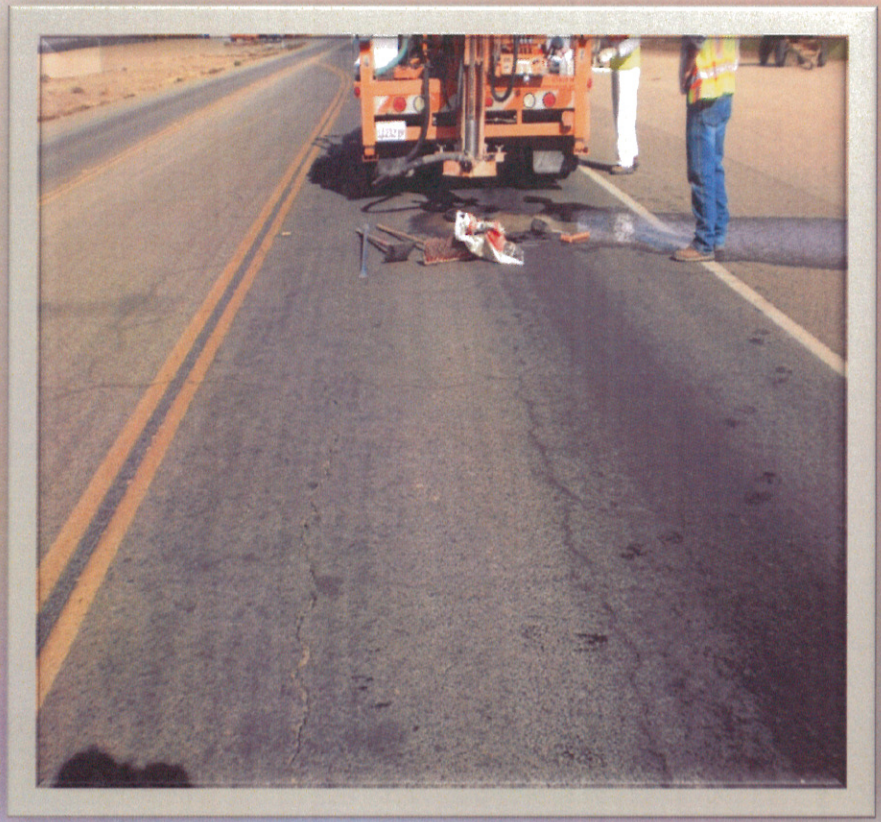
Core Condition Picture



Fre-33_EA-06-0Q7501 PM R16.7-22.7

Core -3-NB Mainline -PM 17.50

Pavement Condition Picture

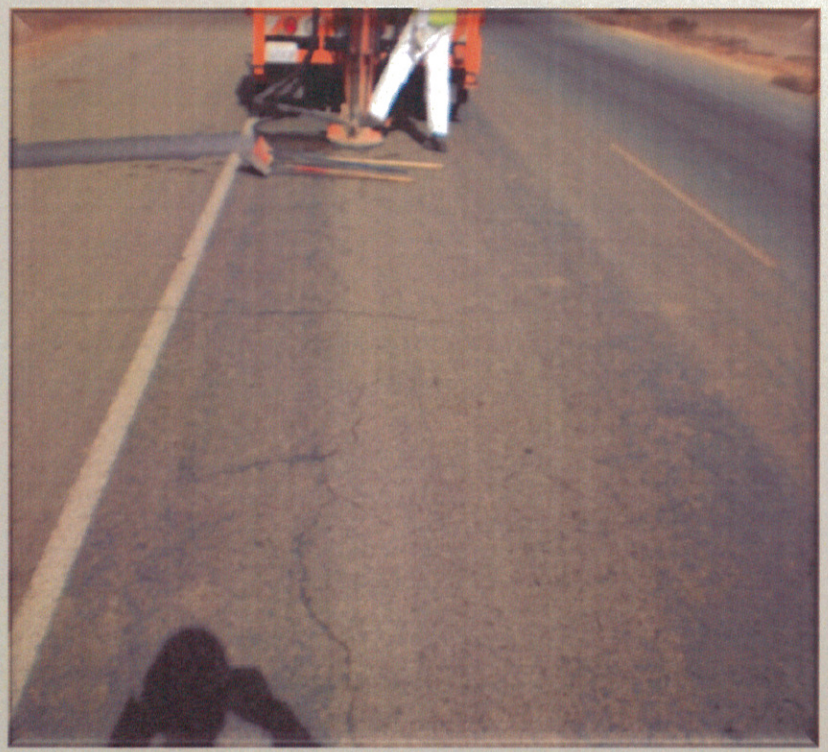


Core Condition Picture

Fre-33_EA-06-0Q7501 PM R16.7-22.7

Core -4-SB Mainline -PM 18.00

Pavement Condition Picture



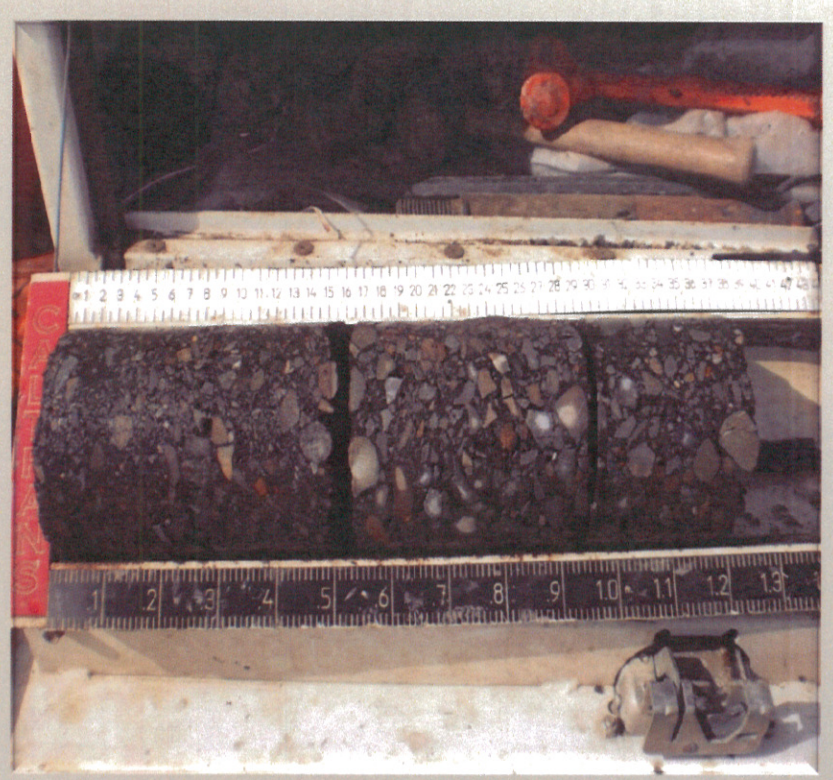
Core Condition Picture

Fre-33_EA-06-0Q7501 PM R16.7-22.7

Core -5-NB Mainline -PM 18.50

Pavement Condition Picture

Core Condition Picture



Fre-33_EA-06-0Q7501 PM R16.7-22.7

Core -6-SB Mainline -PM 19.00

Pavement Condition Picture

Core Condition Picture

Fre-33_EA-06-0Q7501 PM R16.7-22.7

Core -7-NB Mainline -PM 19.50

Pavement Condition Picture

Core Condition Picture

Fre-33_EA-06-0Q7501 PM R16.7-22.7

Core -8-SB Mainline -PM 20.00

Pavement Condition Picture

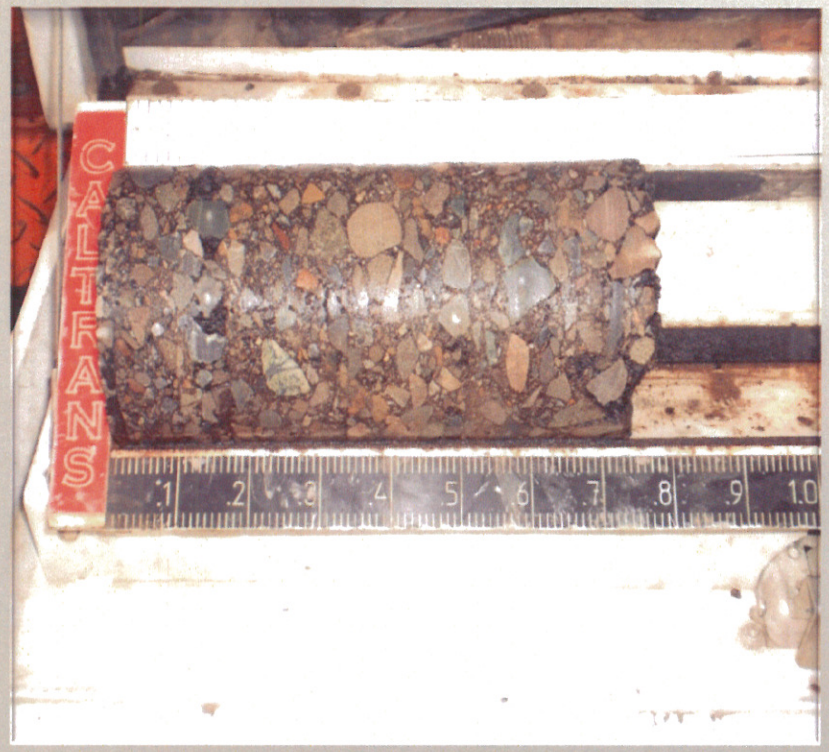
Core Condition Picture

Fre-33_EA-06-0Q7501 PM R16.7-22.7

Core -9-NB Mainline -PM 20.50

Pavement Condition Picture

Core Condition Picture



Fre-33_EA-06-0Q7501 PM R16.7-22.7

Core -10-SB Mainline -PM 21.00

Pavement Condition Picture

Core Condition Picture

Fre-33_EA-06-0Q7501 PM R16.7-22.7

Core -11-NB Mainline -PM 21.50

Pavement Condition Picture

Core Condition Picture

Fre-33_EA-06-0Q7501 PM R16.7-22.7

Core -12-SB Mainline -PM 22.00

Pavement Condition Picture

Core Condition Picture

Fre-33_EA-06-0Q7501 PM R16.7-22.7

Core -13-NB Mainline -PM 22.50

Pavement Condition Picture

Core Condition Picture

Fre-33_EA-06-0Q7501 PM R16.7-22.7

FOR ALL CORE INFORMATION,PLEASE CHECK THE ATTACHED CORE LOG

Fre-33_PM R16.7/22.7 Mainline
EA-06-0Q7504
Project No. 0613000251 November 19/2013