100 Barr Harbor Drive ■ PO Box C700 ■ West Conshohocken, PA 19428-2959
Telephone: 610-832-9500 ■ Fax: 610-832-9555 ■ e-mail: service@astm.org ■ Website: www.astm.org

Committee D02 on PETROLEUM PRODUCTS AND LUBRICANTS

Chairman: W. JAMES BOVER, ExxonMobil Biomedical Sciences Inc, 1545 Route 22 East, PO Box 971, Annandale, NJ 08801-0971, (908) 730-1048, FAX: 908-730-1197, EMail: wjbover@erenj.com
First Vice Chairman: KENNETH O. HENDERSON, Cannon Instrument Co, PO Box 16, State College, PA 16804, (814) 353-8000, Ext: 0265, FAX: 814-353-8007, EMail: kenohenderson@worldnet.att.net
Second Vice Chairman: SALVATORE J. RAND, 221 Flamingo Drive, Fort Myers, FL 33908, (941) 481-4729, FAX: 941-481-4729
Secretary: MICHAEL A. COLLIER, Petroleum Analyzer Co LP, PO Box 206, Wilmington, IL 60481, (815) 458-0216, FAX: 815-458-0217, EMail: macvarlen@aol.com
Assistant Secretary: JANET L. LANE, ExxonMobil Research and Engineering, 600 Billingsport Rd, PO Box 480, Paulsboro, NJ 08066-0480, (856) 224-3302, FAX: 856-224-3616, EMail: janet_l_lane@email.mobil.com
Staff Manager: DAVID R. BRADLEY, (610) 832-9681, EMail: dbradley@astm.org

Originally Issued: June 20, 2006

Reply to: Frank Farber
ASTM Test Monitoring Center
6555 Penn Avenue
Pittsburgh, PA 15206
Phone: 412-365-1030
Fax: 412-365-1047
Email: fmf@astmtmc.cmu.edu

Unapproved Minutes of the June 6, 2006 Sequence III Surveillance Panel Meeting held in San Antonio, TX

The meeting was called to order at 1:00 pm by Chairman Bill Nahumck. A membership list was circulated for members & guests to sign in. It's shown in Attachment 1.

Agenda Review

Bill Buscher is Action & Motion recorder.

The Agenda was accepted as shown on Attachment 2.

Sequence III Meeting Minutes
June 6, 2006
San Antonio, TX

Membership Changes

Hanna Murray via the chair requested removal from mailing list.

Meeting Minute Status

The November 8, 2005 meeting minutes were approved by the surveillance panel without changes or corrections.

Review of Action Items from Last Meeting

No formal review.

IIIF/IIIG TMC Test Status

The complete TMC reports are posted to the TMC website.

Sequence IIIG			
Parameter	Δ/s	Average Δ, in Reported Units	Direction
PVIS	*-1.254*	-42.9 %	*Mild*
WPD	*-0.959*	-0.45 Merits	*Severe*
ALCW	0.043	-0.89 μm	On Target

Sequence IIIF			
Parameter	Δ /s	Average Δ, in Reported Units	Direction
PVIS	*0.701*	*79.5% VI*	*Mild*
APV	0.095	0.02 Merits	On Target
WPD	*0.883*	*0.19 Merits*	*Mild*
PV60	*-1.084*	*-49.6% VI*	*Mild*

When Δ/s is in **RED Italiac** the shift is significant!

RSI Report

Reports have been previously emailed to panel members and posted to the RSI website.

Sequence III Meeting Minutes
June 6, 2006
San Antonio, TX

Fuel Supplier Report

Bob Rumford presented the latest fuel batch analysis summaries (Attachment 3). Bob noted that min/max specifications have been added to the analysis summaries. No fuel problems were noted this six-month period. Labs did not send any samples to be analyzed by Haltermann this report period (there is a quarterly requirement). Labs are to send emails to Jim Carter designating a lab contact to receive fuel analysis results. The listed Reid Vapor Pressure ASTM D method may not be correct. It was noted that other ASTM D test methods may need revised on the analysis sheet. Monica Beyer and Pat Lang were to investigate and report back to the panel. Rich Grundza and Charlie Leverett are to determine a reporting format for fuel analysis data transmission to the TMC.

IIIG/IIIF CPD Reports

GM Motorsports

Sid Clark reported that 6 con rods were rejected because of the big end being out of round (.0004 – .0008) after cracking. GM replaced the con rods. Engine block inventory is currently low, 8 blocks are at GM Motorsports that have been marked for lab distribution. The engine build out survey results have been submitted, GM and OHT are planning for the build-out. The current count is 1400 – 1900 tests thru 2010. GM will warehouse unfinished casting and machine on an as needed basis. OHT will house finished parts. Build-out phasing will start the end of this year at Plant 36.

OHT

Jason Bowden presented the OHT report (Attachment 4). Laboratories are not requesting camshaft batch codes from OHT after completing reference oil tests again. The TMC data base does not have camshaft batch code for numerous tests. Laboratories were requested to back populate their records.

O&H Report

Torque Wrench:
The new torque wrench is available. Ingersoll Rand offers training in New Jersey and will train a tech for $150. The technology of this wrench is different from the old wrench and is much shorter in length requiring a greater force. Intertek had Ingersoll Rand training in-house and is currently using the wrench. Pat Lang will be the point man for feedback from the labs on the use of the wrench.

Unified Engine Build (UEB) Summary:
Pat Lang presented a summary of the UEB (Attachment 5).
Sid Clark was to go back and talk with a GM fastener engineer about reusing bolts and oiling of threads for the main bearing cap bolts.

Pat Lang motioned to approve all recommendations for the Sequence IIIF/G procedures and engine build manuals, effective with the next scheduled reference test at each lab. The motioned passed.

Also, it was decided that UEB results are to be included in minutes for documentation purposes and that a separate UEB folder be created on the TMC website to house all pertinent documentation.

A short review of BC-6 rings was presented by Rich Grundza (Attachment 6 – UEB results included). The conclusions are:

- WPD marginally closer to target.
- PVIS also marginally closer to target.
- ACLW on average milder
- ACLW precision more variable
- WPD precision may have improved

GF5 Test Development Report

The chairman presented Attachment 7. The 2006-2007 3.6L LY7 CTS engine has been selected. Slave work has started at Intertek.

Review of the reference oil supply for IIIH development was discussed. The current inventories of existing reference oils are shown below:

Oil	TMC Inventory, in gallons	TMC Inventory, in tests (4 gal/test)	Laboratory Inventory, in tests	Estimated life
434	175	43	8	~ 4 years
435	261	65	6	~ 5 years
438	701	175	9	~10 years

The TMC was requested to estimate a reblend quantity of 434 for IIIH test development.

Rater Calibration

Frank Farber presented the results of the April light-duty rater workshop (Attachment 8).

Sequence III Meeting Minutes
June 6, 2006
San Antonio, TX

Status of IIIG Standard

An E-ballot will be sent out by the Chair for the panel to vote on the IIIG Standard draft with a close of 6/16/06.

EF 411 Update

Mark Mosher noted that ExxonMobil EF-411 will be available to the industry for the foreseeable future. No supply problems are anticipated.

Scope & Objectives

See Attachment 9.

Ben Weber announced that after 7 years of dedicated service Bill Nahumck's is stepping down as Chairman. Dave Glaenzer will be taking over as chair. Monica Beyer will be Vice-Chairperson.

The meeting was adjourned at 4:10 pm.

Motions and Action Items As Recorded at the Meeting by Bill Buscher

1. Action Item – Verify that all ASTM analysis methods for test fuel analysis specified by the Sequence IIIG test procedure match all ASTM analysis methods indicated on Haltermann's test fuel certificate of analysis. If discrepancies are found, then the test procedure will be modified to match Haltermann's certificate of analysis.

2. Action Item – Labs will solicit training for the ETW-E180 torque wrench from their local Ingersoll-Rand representative.

3. Action Item – Sid Clark will ask the GM fastener engineer if labs should continue to use oil on the threads of "used" main cap bolts during engine assembly for honing.

4. Motion – Accept all recommendations included in Pat Lang's UEB report and modify the Sequence IIIF and IIIG test procedures and engine assembly manual accordingly. These recommendations will be included in revision 7 of the engine assembly manual. Effective with the next scheduled reference test at each lab.
   Pat Lang / Sid Clark / 10 For 0 Against 1 Waive

5. Action Item – TMC to post all UEB data and information on their website in a format as per the guidance of the surveillance panel chairman.

6. Motion – All Sequence IIIG surveillance panel members to review the May 19, 2006 version of the Sequence IIIG test procedure and to vote for approval of the test procedure by June 16, 2006.
   Pat Lang / Bill Nahumck / Passed unanimously

7. Action Item – Review the quantity of current Sequence IIIG reference oils that will be needed for Sequence IIIH test development and provide estimates to the oil suppliers for potential reblends. Also review the need to include any new oils in the Sequence IIIH development. Provide estimates to oil suppliers by July 1, 2006.

8. Action Item – TMC to send out the format for reporting fuel analysis to the participating labs.

ASTM SEQUENCE III LIST

June 6, 2006 San Antonio, Texas

NAME / ADDRESS	PHONE / FAX / E-MAIL		SIGNATURE
Ed Altman Afton Chemical Corporation P.O. Box 2158 Richmond, VA 23218-2158 USA	804-788-5279 804-788-6358 ed.altman@aftonchemical.com	☑ IIIF SURV PANEL ☑ IIIF MAILING LIST ☑ O&H SUBPANEL ☑ O&H Mailing List	Present
Monica Beyer The Lubrizol Corporation 29400 Lakeland Boulevard Wickliffe, OH 44092 USA	440-347-2006 440-347-4096 mbey@lubrizol.com	☐ IIIF SURV PANEL ☑ IIIF MAILING LIST ☑ O&H SUBPANEL ☐ O&H Mailing List	Present
Jason Bowden OH Technologies, Inc. 9300 Progress Parkway P.O. Box 5039 Mentor, OH 44061-5039 USA	440-354-7007 440-354-7080 jhbowden@ohtech.com	☐ IIIF SURV PANEL ☑ IIIF MAILING LIST ☐ O&H SUBPANEL ☑ O&H Mailing List	Present
Dwight H. Bowden OH Technologies, Inc. 9300 Progress Parkway P.O. Box 5039 Mentor, OH 44061-5039 USA	440-354-7007 440-354-7080 dhbowden@ohtech.com	☑ IIIF SURV PANEL ☐ IIIF MAILING LIST ☑ O&H SUBPANEL ☐ O&H Mailing List	Present
Donald Bryant The Lubrizol Corporation 28400 Lakeland Boulevard Wickliffe, OH 44092 USA	440-347-2159 440-943-9004 debr@lubrizol.com	☐ IIIF SURV PANEL ☑ IIIF MAILING LIST ☐ O&H SUBPANEL ☑ O&H Mailing List	Present

ASTM SEQUENCE III LIST

June 6, 2006 San Antonio, Texas

NAME / ADDRESS	PHONE / FAX / E-MAIL		SIGNATURE
Don Burnett ChevronPhillips Chemical Compan Chevron Tower 1301 McKinney Street Suite 2130 Houston, TX 77010-3030 USA	713-289-4859 713-289-4865 burnede@cpchem.com	☐ IIIF SURV PANEL ☑ IIIF MAILING LIST ☐ O&H SUBPANEL ☐ O&H Mailing List	Present
James Carter Haltermann Products 3520 Okemos Rd. Suite #6-176 Okemos, MI USA	517-347-3021 517-347-1024 JECarter@dow.com	☑ IIIF SURV PANEL ☐ IIIF MAILING LIST ☐ O&H SUBPANEL ☐ O&H Mailing List	Present
Timothy L. Caudill Ashland Oil Inc. 22nd & Front Streets Ashland, KY 41101 USA	606-329-~~5708~~ 1960 x5708 606-329-~~3009~~ 1044 tlcaudill@ashland.com	☑ IIIF SURV PANEL ☐ IIIF MAILING LIST ☑ O&H SUBPANEL ☐ O&H Mailing List	Present Tim Caudill
Sid Clark GM Powertrain General Motors Corporation MC - 483-730-322 823 Joslyn Rd. Pontiac, MI 48340-2920 USA	248-857-9959 sidney.l.clark@gm.com Test Sponsor Rep	☑ IIIF SURV PANEL ☐ IIIF MAILING LIST ☑ O&H SUBPANEL ☐ O&H Mailing List	Present Sid.
Johnny M De La Zerda ~~PerkinElmer~~ Automotive Research, 5404 Bandera Road San Antonio, TX 78238 USA → Intertek	210-523-4621 210-523-4607 johnny.delazerda@~~perkinelmer~~.com Intertek	☐ IIIF SURV PANEL ☑ IIIF MAILING LIST ☑ O&H SUBPANEL ☐ O&H Mailing List	Present

ASTM SEQUENCE III LIST

June 6, 2006 San Antonio, Texas

NAME / ADDRESS	PHONE / FAX / E-MAIL		SIGNATURE
Frank Farber ASTM Test Monitoring Center 6555 Penn Avenue Pittsburgh, PA 15206 USA	412-365-1030 412-365-1047 fmf@astmtmc.cmu.edu	☐ IIIF SURV PANEL ☑ IIIF MAILING LIST ☐ O&H SUBPANEL ☐ O&H Mailing List	Present
Gordon R. Farnsworth Infineum RR # 5 Box 211 Montrose, PA 18801 USA	570-934-2776 570-934-0141 gordon.farnsworth@infineum.com	☐ IIIF SURV PANEL ☑ IIIF MAILING LIST ☐ O&H SUBPANEL ☑ O&H Mailing List	Present
Dennis Florkowski DaimlerChrysler 800 Chrysler Road CIMS 482-00-13 Auburn Hills, MI 48236-2757 USA	248-576-7477 248-576-7490 df11@daimlerchrysler.com	☑ IIIF SURV PANEL ☐ IIIF MAILING LIST ☐ O&H SUBPANEL ☐ O&H Mailing List	Present
Joe Franklin PerkinElmer Automotive Research, 5404 Bandera Road San Antonio, TX 78238 USA	210-523-4671 210-523-4607 joe.franklin@perkinelmer.com Sub-Committee D02.B Chair	☐ IIIF SURV PANEL ☑ IIIF MAILING LIST ☐ O&H SUBPANEL ☐ O&H Mailing List	Present
David L. Glaenzer Afton Chemical Corporation 500 Spring Street P.O. Box 2158 Richmond, VA 23218-2158 USA	804-788-5214 804-788-6358 dave.glaenzer@aftonchemical.com	☐ IIIF SURV PANEL ☑ IIIF MAILING LIST ☐ O&H SUBPANEL ☑ O&H Mailing List	Present

Attachment 1
Attachment 1

ASTM SEQUENCE III LIST

June 6, 2006 San Antonio, Texas

NAME / ADDRESS	PHONE / FAX / E-MAIL		SIGNATURE
Irwin L. Goldblatt Castrol Americas 240 Centennial Avenue Piscataway, NJ 08854-3910 USA	732-980-3606 973-686-4224 irwin.goldblatt@cnacm.com	☐ IIIF SURV PANEL ☑ IIIF MAILING LIST ☐ O&H SUBPANEL ☐ O&H Mailing List	Present
Richard Grundza ASTM Test Monitoring Center 6555 Penn Avenue Pittsburgh, PA 15206 USA	412-365-1031 412-365-1047 reg@astmtmc.cmu.cdu	☑ IIIF SURV PANEL ☐ IIIF MAILING LIST ☑ O&H SUBPANEL ☐ O&H Mailing List	Present
Larry Hamilton The Lubrizol Corporation 29400 Lakeland Boulevard Wickliffe, OH 44092 USA	440-347-2326 440-347-4096 idha@lubrizol.com	☐ IIIF SURV PANEL ☐ IIIF MAILING LIST ☑ O&H SUBPANEL ☐ O&H Mailing List	Present
Clayton Knight Test Engineering, Inc. 12718 Cimarron Path San Antonio, TX 78249-3423 USA	210-690-1958 210-690-1959 cknight@tei-net.com	☑ IIIF SURV PANEL ☐ IIIF MAILING LIST ☐ O&H SUBPANEL ☐ O&H Mailing List	Present
Brian Kundinger Kundinger Controls 1771 Harmon Road Auburn Hills, MI 48326 USA	248-391-6100 248-391-6900 bkundinger@kundnger.com	☑ IIIF SURV PANEL ☐ IIIF MAILING LIST ☑ O&H SUBPANEL ☐ O&H Mailing List	Present

ASTM SEQUENCE III LIST

June 6, 2006 San Antonio, Texas

NAME / ADDRESS	PHONE / FAX / E-MAIL		SIGNATURE
Patrick Lai Imperial Oil Limited 453 Christina Street Research Department P.O. Box 3022 Sarnia, Ontario N7T7MI CANADA	519-339-5611 519-339-5866 patrick.k.lai@esso.ca	☐ IIIF SURV PANEL ☑ IIIF MAILING LIST ☐ O&H SUBPANEL ☐ O&H Mailing List	Present
Patrick Lang Southwest Research Institute 6220 Culebra Road P.O. Box 28510 San Antonio, TX 78228 USA	210-522-2820 210-684-7523 plang@swri.edu O&H Subpanel Chairman	☑ IIIF SURV PANEL ☐ IIIF MAILING LIST ☑ O&H SUBPANEL ☐ O&H Mailing List	Present
Charlie Leverett ~~PerkinElmer Automotive Research,~~ 5404 Bandera Road San Antonio, TX 78238 USA Intertek	210-647-9422 210-523-4607 charlie.leverett@~~perkinelmer~~.com intertek	☑ IIIF SURV PANEL ☐ IIIF MAILING LIST ☑ O&H SUBPANEL ☐ O&H Mailing List	Present
Bill Mahoney Registration Systems, Inc. 4139 Gardendale Suite 205 San Antonio, TX 78229 USA	706 343-1911 b.mahoney@regsysinc.com	☐ IIIF SURV PANEL ☑ IIIF MAILING LIST ☐ O&H SUBPANEL ☐ O&H Mailing List	Present
Josephine G. Martinez Chevron Oronite Company LLC 100 Chevron Way Richmond, CA 94802 USA	510-242-5563 510-242-3173 jogm@chevrontexaco.com	☐ IIIF SURV PANEL ☑ IIIF MAILING LIST ☐ O&H SUBPANEL ☐ O&H Mailing List	Present

ASTM SEQUENCE III LIST

June 6, 2006 San Antonio, Texas

NAME / ADDRESS	PHONE / FAX / E-MAIL		SIGNATURE
Chris J. May Imperial Oil Products and Chemcial 453 S. Christina Street P.O. Box 3022 Sarnia, Ontario N7T8C8 CANADA	519-339-2827 chris.j.may@esso.ca	☐ IIIF SURV PANEL ☑ IIIF MAILING LIST ☐ O&H SUBPANEL ☑ O&H Mailing List	Present
Timothy Miranda Castrol Technology Center 240 Centennial Avenue Piscataway, NJ USA	732-980-3634 973-686-4039 Timothy.Miranda@Castrol.com	☑ IIIF SURV PANEL ☐ IIIF MAILING LIST ☑ O&H SUBPANEL ☐ O&H Mailing List	Present
Mark Mosher ExxonMobil Technology Company Billingsport Road Paulsboro, NJ 08066 USA	856-224-2132 856-224-3628 mark.r.mosher@exxonmobil.com	☑ IIIF SURV PANEL ☐ IIIF MAILING LIST ☑ O&H SUBPANEL ☐ O&H Mailing List	Present
William M. Nahumck The Lubrizol Corporation 29400 Lakeland Boulevard Wickliffe, OH 44092 USA	440-347-2596 440-347-4096 wmn@lubrizol.com Surveillance Panel Chair	☑ IIIF SURV PANEL ☐ IIIF MAILING LIST ☑ O&H SUBPANEL ☐ O&H Mailing List	Present
Robert Olree GM Powertrain General Motors Corporation MC - 483-730-322 823 Joslyn Rd. Pontiac, MI 48090-9055 USA	248-857-9989 robert.olree@gm.com	☐ IIIF SURV PANEL ☑ IIIF MAILING LIST ☐ O&H SUBPANEL ☑ O&H Mailing List	Present

ASTM SEQUENCE III LIST

June 6, 2006 San Antonio, Texas

NAME / ADDRESS	PHONE / FAX / E-MAIL		SIGNATURE
Michael J. Riley Ford Motor Company 21500 Oakwood Blvd. POEE Building, MD44 Cube DN-159 Dearborn, MI 48121-2053 USA	313-390-3059 313-845-3169 mriley2@ford.com	☑ IIIF SURV PANEL ☐ IIIF MAILING LIST ☑ O&H SUBPANEL ☐ O&H Mailing List	Present
Andrew Ritchie Infineum 1900 East Linden Avenue P.O.Box 735 Linden, NJ 07036 USA	908-474-2097 Andrew.Ritchie@Infineum.com	☑ IIIF SURV PANEL ☐ IIIF MAILING LIST ☑ O&H SUBPANEL ☐ O&H Mailing List	Present AR
Robert H. Rumford Specified Fuels & Chemicals, LLC 1201South Sheldon Road Channelview, TX 77530-0429 USA	281-457-2768 281-457-1469 rhrumford@specified1.com	☐ IIIF SURV PANEL ☑ IIIF MAILING LIST ☐ O&H SUBPANEL ☐ O&H Mailing List	Present
Jim Rutherford Chevron Oronite Company LLC 100 Chevron Way Richmond, CA 94802 USA	510-242-3410 510-242-3173 jaru@chevrontexaco.com	☐ IIIF SURV PANEL ☑ IIIF MAILING LIST ☐ O&H SUBPANEL ☐ O&H Mailing List	Present
Philip R. Scinto The Lubrizol Corporation 29400 Lakeland Boulevard Wickliffe, OH 44092 USA	440-347-2161 440-347-9031 prs@lubrizol.com	☐ IIIF SURV PANEL ☑ IIIF MAILING LIST ☐ O&H SUBPANEL ☐ O&H Mailing List	Present

ASTM SEQUENCE III LIST

June 6, 2006 San Antonio, Texas

NAME / ADDRESS	PHONE / FAX / E-MAIL		SIGNATURE
Thomas Smith Valvoline P.O. Box 14000 Lexington, KY 40512-1400 USA	859-357-2766 859-357-7084 trsmith@ashland.com PCEOCP Chair	☐ IIIF SURV PANEL ☑ IIIF MAILING LIST ☐ O&H SUBPANEL ☐ O&H Mailing List	Present
Mark Sutherland Chevron Oronite Company LLC 4502 Centerview Drive Suite 210 San Antonio, TX 78228 USA	210-731-5621 210-731-5699 msut@chevrontexaco.com	☑ IIIF SURV PANEL ☐ IIIF MAILING LIST ☑ O&H SUBPANEL ☐ O&H Mailing List	Present
Ben O. Weber Southwest Research Institute 6220 Culebra Road P.O. Box 28510 San Antonio, TX 78228 USA	210-522-5911 210-684-7530 bweber@swri.edu Sub-Committee D02.B01 Chair	☐ IIIF SURV PANEL ☑ IIIF MAILING LIST ☐ O&H SUBPANEL ☐ O&H Mailing List	Present

SEQUENCE III SURVEILLANCE PANEL MEETING
GUEST LIST

June 6, 2006

Attachment 1

San Antonio, Texas

NAME/ADDRESS	PHONE/FAX/EMAIL	SIGNATURE
ADAM BOWDEN OH TECHNOLOGIES, INC. 9300 PROGRESS PARKWAY MENTOR, OH 44060	440.354.7007 440.354.7030 (F) adbowden@ohtech.com	
Doyle Boese 1900 E. Linden Ave Linden, NJ 07036	908-474-3176 doyle.boese@infineum.com	
WILLIAM A BUSCHER III SWRI	210-522-6802 210-684-7523 wbuscher@swri.edu	

Attachment 2

AGENDA
SEQUENCE III SURVEILLANCE PANEL MEETING

Southwest Research Institute, San Antonio, Texas
June 6, 2006
1:00 PM to 5:00 PM

1. **APPOINTMENT OF RECORDER OF ACTIONS/MOTIONS**
2. **AGENDA REVIEW**
3. **MEMBERSHIP CHANGES**
4. **APPROVAL OF THE MINUTES FROM THE NOVEMBER 2006 MEETING**
5. **REVIEW OF ACTION ITEMS FROM THE LAST MEETING**

TMC TEST SEMIANNUAL REPORT HIGHLIGHTS – Rich Grundza
SEQUENCE IIIF – D6984
SEQUENCE IIIG
SEQUENCE IIIGA

RSI SEMIANNUAL REPORT– Bill Mahoney
SEQUENCE IIIF – D6984
SEQUENCE IIIG/IIIGA

SEQUENCE III FUEL SUPPLIER REPORT – James Carter

SEQUENCE III CPD SUPPLIER REPORTS
1. OHT
2. GM MOTORSPORTS
   a. Lab survey of need projects a build out need of 1400-1900 tests thru 2010

SEQUENCE III O&H REPORTS– Pat Lang
Torque Wrench Update
O&H Activity Review – UEB Review

SEQUENCE IIIG ISSUES
1. **Current Severity concerns**

OLD BUSINESS
1. **Status of IIIG Standard – Pat Lang/Ben Weber**

NEW BUSINESS
1. **IIIH Test Development Status – Sid Clark**
2. **Status of EF-411 – Mark Mosher**
3. **Rater Calibration – Frank Farber**
4. **Format for Fuel Analysis and proper tests to be used.**

REVIEW OF SCOPE & OBJECTIVES – Bill Nahumck

ADJOURNMENT

Attachment 3

PRODUCT: **EEE Unleaded Gasoline**

PRODUCT CODE: **HF003**

Batch No.:	UE1121LS01	UD2621LS10	UD0621LS10	UC1021LS10	UB0821LS01	
TMO No.:	MTS	MTS	MTS	MTS	MTS	
Tank No.:	2012	2014	2012	2014	2014	
Analysis Date:	5/23/2006	4/28/2006	4/11/2006	3/24/2006	2/21/2006	
Shipment Date:						

TEST	METHOD	UNITS	HALTERMANN Specs			RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
			MIN	TARGET	MAX					
Distillation - IBP	ASTM D86	°F	75		95	90	85	85	91	82
5%		°F				119	110	111	120	109
10%		°F	120		135	134	125	125	133	123
20%		°F				158	147	147	153	144
30%		°F				181	172	172	176	167
40%		°F				202	202	201	202	196
50%		°F	200		230	216	222	221	221	218
60%		°F				227	234	233	233	230
70%		°F				238	246	245	245	243
80%		°F				259	267	267	266	264
90%		°F	305		325	317	322	322	322	321
95%		°F				335	340	339	339	338
Distillation - EP		°F			415	396	399	407	406	398
Recovery		vol %		Report		97.1	96.6	97.3	97.8	97.2
Residue		vol %		Report		1.0	1.0	1.0	1.0	1.0
Loss		vol %		Report		1.9	2.4	1.7	1.2	1.8
Gravity	ASTM D4052	°API	58.7		61.2	59.5	58.9	59.3	59.1	59.5
Density	ASTM D4052	kg/l	0.734		0.744	0.741	0.743	0.742	0.742	0.741
Reid Vapor Pressure	ASTM D5191	psi	8.7		9.2	9.1	9.1	9.1	8.9	9.2
Carbon	ASTM D3343	wt fraction		Report		0.8651	0.8658	0.8650	0.8644	0.8644
Carbon	ASTM E191	wt fraction		Report		0.8673	0.8612	0.8642	0.8654	0.8669
Hydrogen	ASTM E191	wt fraction		Report		0.1306	0.1332	0.1330	0.1314	0.1312
Hydrogen/Carbon ratio	ASTM E191	mole/mole		Report		1.795	1.843	1.834	1.810	1.804
Oxygen	ASTM D4815	wt %			0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Sulfur	ASTM D5453	ppm	3		15	8	4	5	4	4
Lead	ASTM D3237	g/gal			0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phosphorous	ASTM D3231	g/gal			0.005	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Composition, aromatics	ASTM D1319	vol %	26.0		32.5	29.0	29.6	28.6	27.6	27.5
Composition, olefins	ASTM D1319	vol %			10.0	0.4	0.3	0.6	0.4	0.4
Composition, saturates	ASTM D1319	vol %		Report		70.6	70.1	70.8	72.0	72.1
Particulate matter	ASTM D5452	mg/l			1	0.6	0.6	0.6	0.7	0.6
Oxidation Stability	ASTM D525	minutes	240			>1000	>1000	>1000	>1000	>1000
Copper Corrosion	ASTM D130				1	1	1	1	1	1
Gum content, washed	ASTM D381	mg/100mls			5	<1	<1	<1	<1	<1
Fuel Economy Numerator/C Densit	ASTM E191		2401		2441	2433	2432	2428	2435	2431
C Factor	ASTM E191			Report		1.0068	0.9986	1.0018	1.0053	1.0060
Research Octane Number	ASTM D2699		96.0			97.2	97.0	96.5	96.8	97.0
Motor Octane Number	ASTM D2700			Report		88.2	88.0	87.7	88.0	88.0
Sensitivity			7.5			9.0	9.0	8.8	8.8	9.0
Net Heating Value, btu/lb	ASTM D3338	btu/lb		Report		18479	18464	18483	18498	18497
Net Heating Value, btu/lb	ASTM D240	btu/lb		Report		18374	18447	18431	18378	18386
Color	VISUAL	1.75 ptb		Red		Red	Red	Red	Red	Red

APPROVED BY: _____ ANALYST HD JM/HD JM/HD JM/HD JM/HD

Note: 6-6-2006 no lab samples received for testing.

Attachment 3

PRODUCT: **EEE Unleaded Gasoline**

PRODUCT CODE: **HF003**

Batch No.:	UA1021LS01	TL2821LS01
TMO No.:	MTS	MTS
Tank No.:	2012	2014
Analysis Date:	1/27/2006	1/12/2006
Shipment Date:		

TEST	METHOD	UNITS	HALTERMANN Specs			RESULTS	RESULTS
			MIN	TARGET	MAX		
Distillation - IBP	ASTM D86	°F	75		95	83	87
5%		°F				113	115
10%		°F	120		135	125	128
20%		°F				144	149
30%		°F				167	173
40%		°F				195	200
50%		°F	200		230	218	220
60%		°F				229	230
70%		°F				241	239
80%		°F				260	256
90%		°F	305		325	315	312
95%		°F				335	335
Distillation - EP		°F			415	392	392
Recovery		vol %		Report		98.1	97.9
Residue		vol %		Report		1.0	1.0
Loss		vol %		Report		0.9	1.1
Gravity	ASTM D4052	°API	58.7		61.2	59.0	59.0
Density	ASTM D4052	kg/l	0.734		0.744	0.743	0.743
Reid Vapor Pressure	ASTM D5191	psi	8.7		9.2	9.0	9.2
Carbon	ASTM D3343	wt fraction		Report		0.8684	0.8657
Carbon	ASTM E191	wt fraction		Report		0.8610	0.8597
Hydrogen	ASTM E191	wt fraction		Report		0.1322	0.1348
Hydrogen/Carbon ratio	ASTM E191	mole/mole		Report		1.843	1.869
Oxygen	ASTM D4815	wt %			0.05	<0.05	<0.05
Sulfur	ASTM D5453	ppm	3		15	5	3
Lead	ASTM D3237	g/gal			0.01	<0.01	<0.01
Phosphorous	ASTM D3231	g/gal			0.005	<0.0008	<0.0008
Composition, aromatics	ASTM D1319	vol %	26.0		32.5	28.8	29.2
Composition, olefins	ASTM D1319	vol %			10.0	0.6	0.6
Composition, saturates	ASTM D1319	vol %		Report		70.6	70.2
Particulate matter	ASTM D5452	mg/l			1	0.5	0.6
Oxidation Stability	ASTM D525	minutes	240			>1000	>1000
Copper Corrosion	ASTM D130				1	1	1
Gum content, washed	ASTM D381	mg/100mls			5	<1	<1
Fuel Economy Numerator/C Densit	ASTM E191		2401		2441	2433	2426
C Factor	ASTM E191			Report		0.9963	0.9983
Research Octane Number	ASTM D2699		96.0			97.2	97.9
Motor Octane Number	ASTM D2700			Report		88.2	88.8
Sensitivity			7.5			9.0	9.1
Net Heating Value, btu/lb	ASTM D3338	btu/lb		Report		18469	18465
Net Heating Value, btu/lb	ASTM D240	btu/lb		Report		18507	18399
Color	VISUAL	1.75 ptb		Red		Red	Red

APPROVED BY: _____ ANALYST JM/HD JM/HD

Note: 6-6-2006 no lab samples received for testing.

PRODUCT: **EEE Unleaded Gasoline**

PRODUCT CODE: **HF003**

Batch No.:	UA1021LS01	TL2821LS01
TMO No.:	MTS	MTS
Tank No.:	2012	2014
Analysis Date:	1/27/2006	1/12/2006
Shipment Date:		

TEST	METHOD	UNITS	HALTERMANN Specs			RESULTS	RESULTS
			MIN	TARGET	MAX		
Distillation - IBP	ASTM D86	°F	75		95	83	87
5%		°F				113	115
10%		°F	120		135	125	128
20%		°F				144	149
30%		°F				167	173
40%		°F				195	200
50%		°F	200		230	218	220
60%		°F				229	230
70%		°F				241	239
80%		°F				260	256
90%		°F	305		325	315	312
95%		°F				335	335
Distillation - EP		°F			415	392	392
Recovery		vol %		Report		98.1	97.9
Residue		vol %		Report		1.0	1.0
Loss		vol %		Report		0.9	1.1
Gravity	ASTM D4052	°API	58.7		61.2	59.0	59.0
Density	ASTM D4052	kg/l	0.734		0.744	0.743	0.743
Reid Vapor Pressure	ASTM D5191	psi	8.7		9.2	9.0	9.2
Carbon	ASTM D3343	wt fraction		Report		0.8684	0.8657
Carbon	ASTM E191	wt fraction		Report		0.8610	0.8597
Hydrogen	ASTM E191	wt fraction		Report		0.1322	0.1348
Hydrogen/Carbon ratio	ASTM E191	mole/mole		Report		1.843	1.869
Oxygen	ASTM D4815	wt %			0.05	<0.05	<0.05
Sulfur	ASTM D5453	ppm	3		15	5	3
Lead	ASTM D3237	g/gal			0.01	<0.01	<0.01
Phosphorous	ASTM D3231	g/gal			0.005	<0.0008	<0.0008
Composition, aromatics	ASTM D1319	vol %	26.0		32.5	28.8	29.2
Composition, olefins	ASTM D1319	vol %			10.0	0.6	0.6
Composition, saturates	ASTM D1319	vol %		Report		70.6	70.2
Particulate matter	ASTM D5452	mg/l			1	0.5	0.6
Oxidation Stability	ASTM D525	minutes	240			>1000	>1000
Copper Corrosion	ASTM D130				1	1	1
Gum content, washed	ASTM D381	mg/100mls			5	<1	<1
Fuel Economy Numerator/C Densit	ASTM E191		2401		2441	2433	2426
C Factor	ASTM E191			Report		0.9963	0.9983
Research Octane Number	ASTM D2699		96.0			97.2	97.9
Motor Octane Number	ASTM D2700			Report		88.2	88.8
Sensitivity			7.5			9.0	9.1
Net Heating Value, btu/lb	ASTM D3338	btu/lb		Report		18469	18465
Net Heating Value, btu/lb	ASTM D240	btu/lb		Report		18507	18399
Color	VISUAL	1.75 ptb		Red		Red	Red

APPROVED BY: _____ ANALYST JM/HD JM/HD

Note: 6-6-2006 no lab samples received for testing.

Attachment 4

CENTRAL PARTS DISTRIBUTOR REPORT
OH Technologies, Inc.

Sequence III Surveillance Panel Meeting
SwRi, San Antonio, TX
June 6, 2006

1.) Rejections from 11/04/05 to 6/02/06:

ITEM	DESCRIPTION	REASON REJECTED	QTY	REPLACED (Y/N)	DATE REPLACED
OHT3F-008-8	CAMSHAFT, SPECIAL TEST, IIIG	POINTED LOBE	1	YES	12/20/2005
OHT3F-008-8	CAMSHAFT, SPECIAL TEST, IIIG	INTERFERENCE FIT (OUT FOR INSPECTION)	1	YES	5/5/2006
OHT3F-008-6	CAMSHAFT, SPECIAL TEST, IIIF	NICKED LOBE	1	YES	12/13/2005
OHT3F-008-6	CAMSHAFT, SPECIAL TEST, IIIF	GRIND FLAW ON LOBE	1	YES	12/13/2005
OHT3F-008-6	CAMSHAFT, SPECIAL TEST, IIIF	RUST	2	YES	2/13/2006
OHT3F-011-2	THRUST PLATE	CRACKED	1	YES	1/12/2006
OHT3F-029-3	LIFTER, TEST, ACI W/ FLAT	VISUAL DEFECTS	13	YES	12/13/2005
OHT3F-030-2	OIL COOLER	CORROSION	3	YES	11/22/2005
3F042-02	MAIN BRG	FLASHING THICKNESS	1	YES	4/26/2006

2.) Technical Memos Issued

None

3.) Batch Code Changes

IIIF	Batch Code	Date Introduced
Grade 12 Piston	BC 19	3/24/06
Grade 34 Piston	BC 19	3/02/06
Grade 56 Piston	BC 19	4/14/06
Cam Bearing	BC 12	5/25/06
Camshaft	PC 12	3/14/06
Seal Intake Valve	BC 2 & 3	12/22/05 & 5/25/06
Seal Exhaust Valve	BC 2	12/22/05

IIIG	Batch Code	Date Introduced
Grade 12 Piston	BC 19	1/26/06
Grade 34 Piston	BC 19	3/14/06
Grade 56 Piston	BC 19	3/31/06
Cam Bearing	BC 12	5/16/06
Camshaft	PC 12	5/05/06
Seal Intake Valve	BC 2 & 3	12/22/05 & 5/25/06
Seal Exhaust Valve	BC 2	12/22/05
Valve Spring	BC 5	3/31/06

SEQUENCE III UNIFIED ENGINE BUILD Attachment 5

The following procedural enhancements are recommended as a result of the UEB conducted February 6 through 10, 2006 at San Antonio labs:

1) Connecting Rod Cleaning

Connecting rods are to be cleaned as follows:

A) Soak the connecting rod in degreasing solvent for two hours.
B) Spray rod with a 50/50 mix of degreasing solvent and EF-411.

2) Piston Cleaning

Add to the current piston cleaning procedure that after the piston is cleaned with degreasing solvent and air dried, it should be wiped with a lint-free cloth.

3) Cylinder Head Cleaning

The IIIG Procedure Draft and engine assembly manual are not consistent regarding the cylinder head cleaning procedure. One stated that the automatic parts washer should be used and the other stated to solvent clean and spray with 50/50 mix. The automatic parts washer is not required to be used for cylinder head cleaning. As a result, the draft should be revised to state that if the automatic parts washer is not used, the final step of the cleaning process needs to be a spray down of the head with a 50/50 mix of degreasing solvent and EF-411.

4) Push Rods

Pushrods should be wiped down with a lint-free cloth prior to installation into the engine.

5) Paint

The paint dots that are on the valve springs, cylinder heads and in the crankcase area of the engine block should not be removed. It is still required to remove the paint marking on the face of the piston rings.

6) Engine Front Cover

a) Only allow the front cover to be used for six tests

b) Add text stating that the front covers should be deburred and slag removed as necessary. This will make the draft consistent with what labs are doing.

7) Main Caps

a) Main cap bolts that a new engine block comes with must be discarded and new bolts installed. This will make the procedure consistent with what is already being done for runs 2 through 6.

b) No longer allow main caps to be set into position using a mallet. This can sometimes cause the cap to bind if it is not done properly.

c) Do not modify the threads on the main cap bolts, i.e., do not remove the phosphate coating. Do not oil the threads on a new bolt.

8) Rocker Arm Retainer

Replace the rocker arm retainer after six tests.

9) Camshaft Thrust Plate

Camshaft thrust plate bolts should be replaced with new ones every test.

10) Fastener Thread Sealer

Teflon tape is not to be used on any fasteners in the engine.

11) Pre-lubrication of Test Cam

a) The engine assembly manual needs to be consistent with the draft procedure in stating that the remainder of the 4-oz of test oil that is not consumed during the pre-lube procedure should be poured down the lifter valley.

b) The draft procedure states that during camshaft installation, the cam journals and the lobes should be coated with TEST oil as per IIIG Information Letter 03-4. The assembly manual needs to be updated to reflect this change.

c) There was some confusion on whether or not it is required by procedure to start a test within 24-hours of lubricating the camshaft and lifters with test oil. This is NOT currently required by the procedure.

12) Crankshaft Endplay

A discrepancy was observed in the crankshaft endplay specification between the draft and the assembly manual. Based on the service manual the correct range should be 0.076 mm – 0.279 mm. The assembly manual needs to be corrected.

13) Honing

Add text to the honing procedure to state that the engine block must be allowed to cool to room temperature after being removed from the parts washer before honing is started. In addition, text should be added requiring that the block be allowed to cool 10 to 15 minutes before final size determination prior to brush honing. This will allow for better precision in bore size.

14) Piston Ring Gaps

Piston ring gap should be checked in the cylinder bore as stated in the draft. The engine assembly manual should be revised to state this requirement. A reminder to labs that ring gaps should also be checked in the ring standards to confirm that the supplier is gapping them properly.

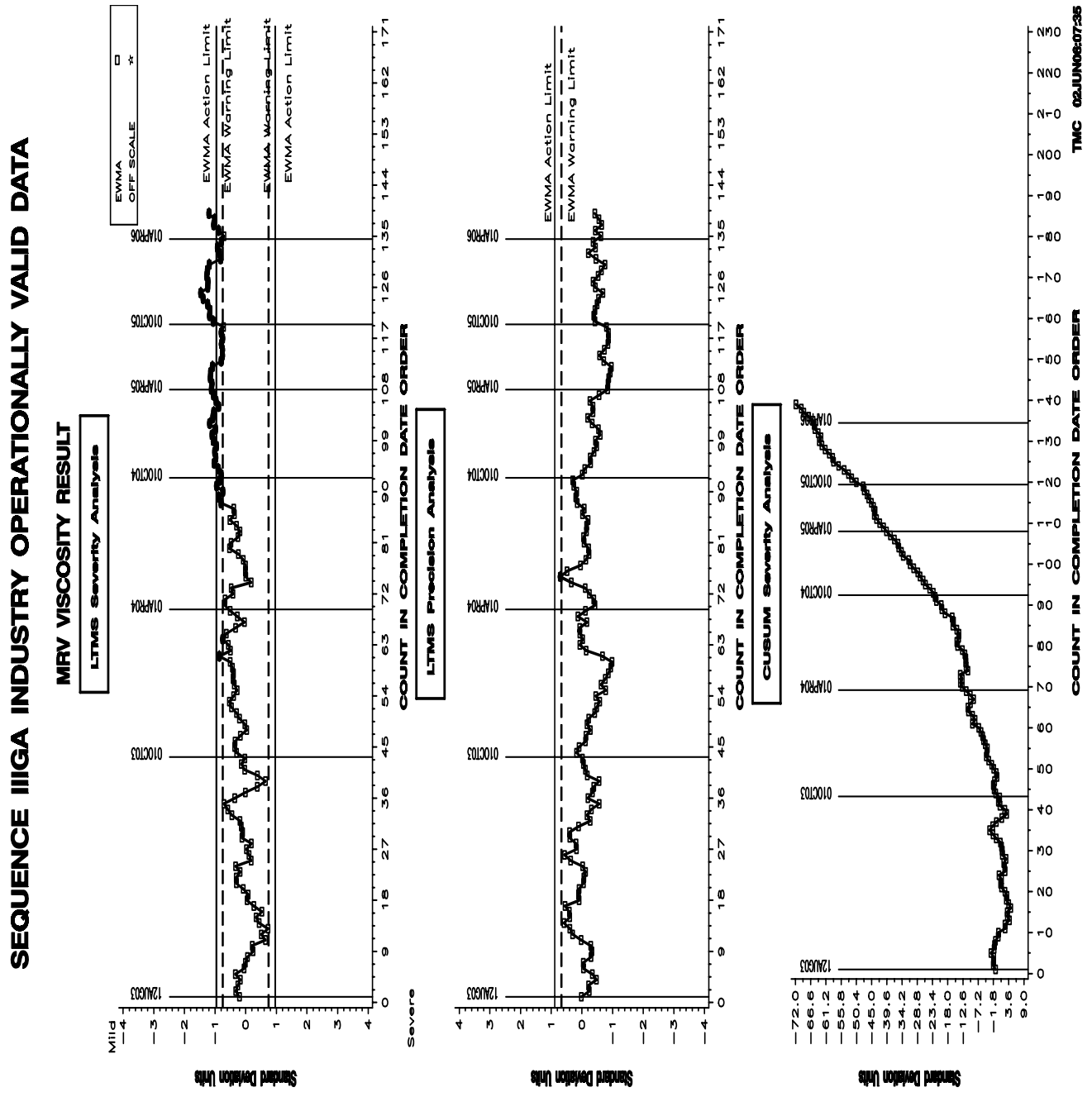
Sequence IIIG Update

June 6, 2006

Attachment 6

IIIG/A

- Severity continues to trend mild
- Precision in control

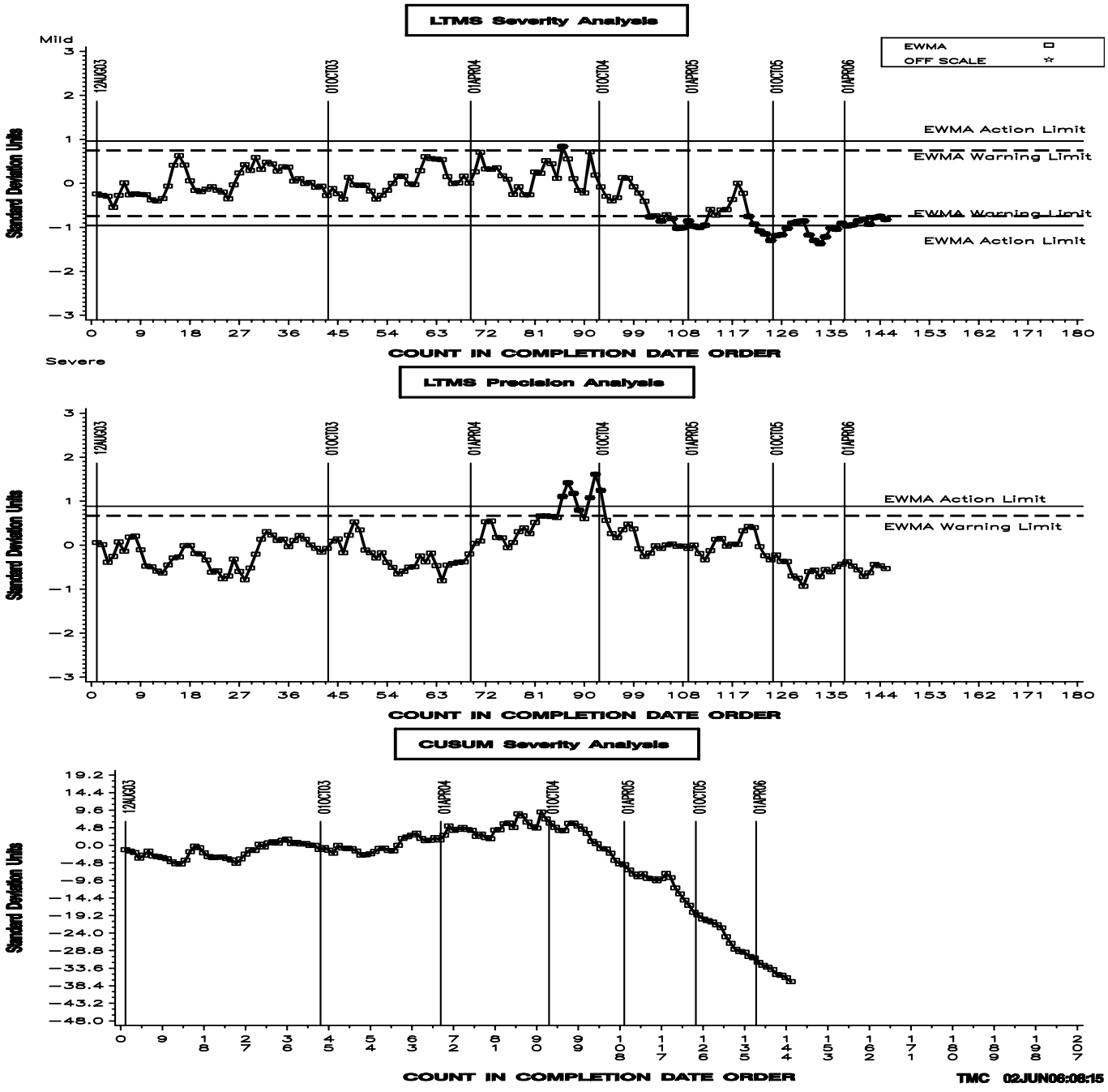

SEQUENCE IIIGA INDUSTRY OPERATIONALLY VALID DATA
MRV VISCOSITY RESULT
LTMS Severity Analysis
EWMA
OFF SCALE
EWMA Action Limit
EWMA Warning Limit
EWMA Warning Limit
EWMA Action Limit
Mild
Severe
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
12AUG03
01OCT03
01APR04
01OCT04
01APR05
01OCT05
01APR06
LTMS Precision Analysis
EWMA Action Limit
EWMA Warning Limit
CUSUM Severity Analysis
TMC 02JUN06:07:35

IIIG

- Calibration per start rate has improved and is highest since inception of test.
- Lost and rejected test rates at or below historical levels.
- WPD remains severe, while PVIS is mild.
- ACLW in precision alarm

SEQUENCE IIIG INDUSTRY OPERATIONALLY VALID DATA

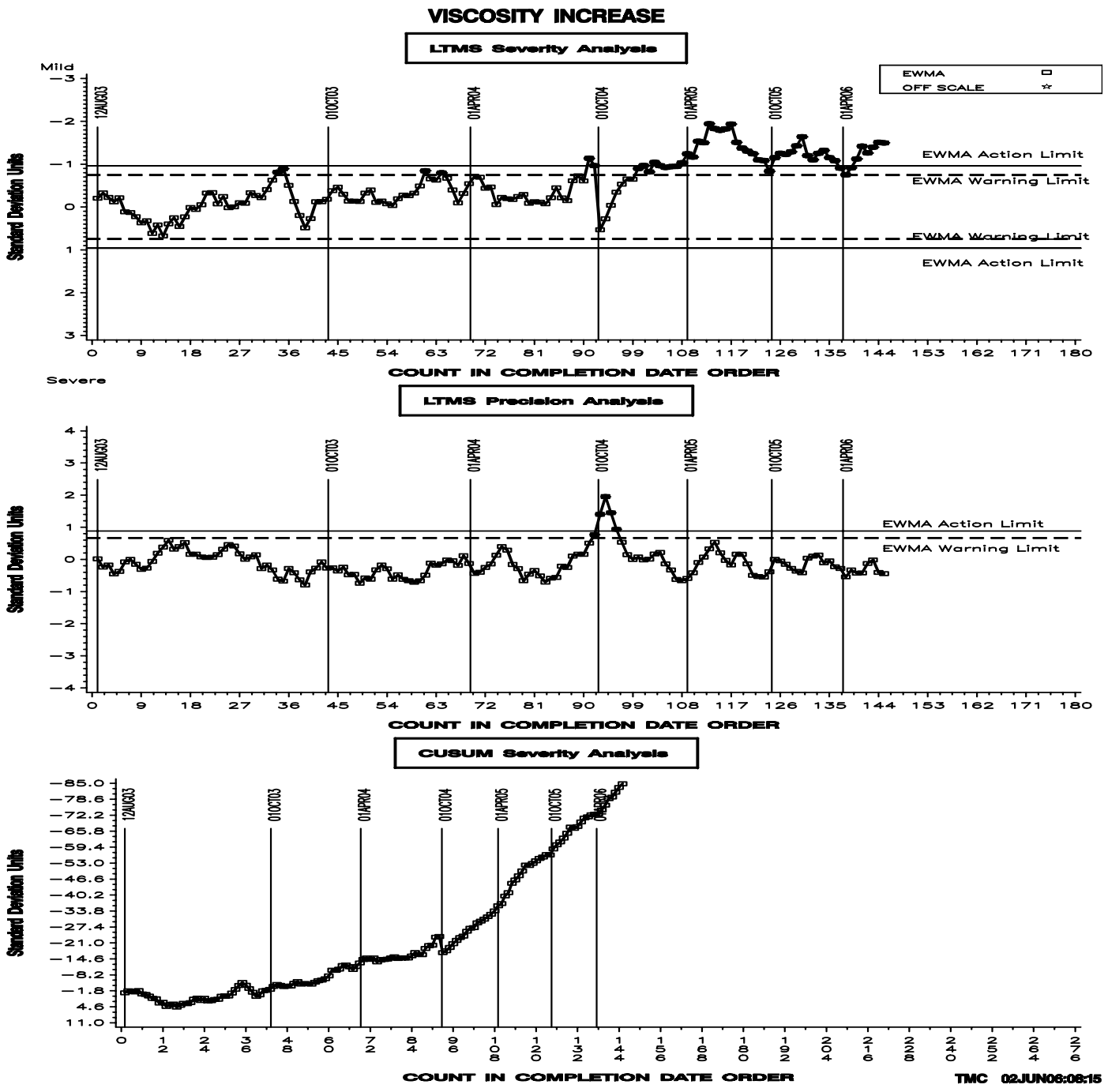
AVERAGE WEIGHTED PISTON DEPOSITS



Attachment 6

SEQUENCE IIIG INDUSTRY OPERATIONALLY VALID DATA

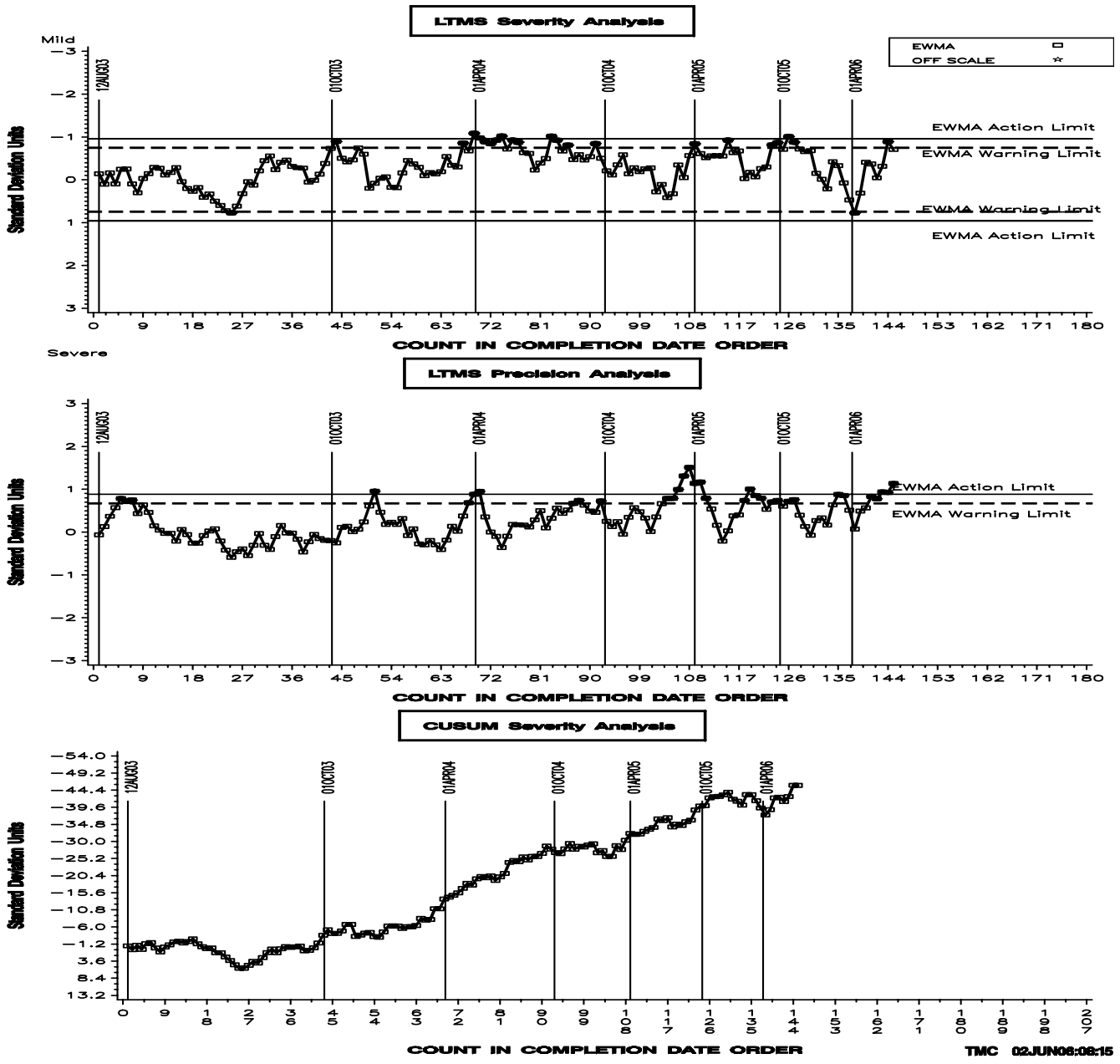
VISCOSITY INCREASE



Attachment 6

SEQUENCE IIIG INDUSTRY OPERATIONALLY VALID DATA

AVERAGE CAM + LIFTER WEAR



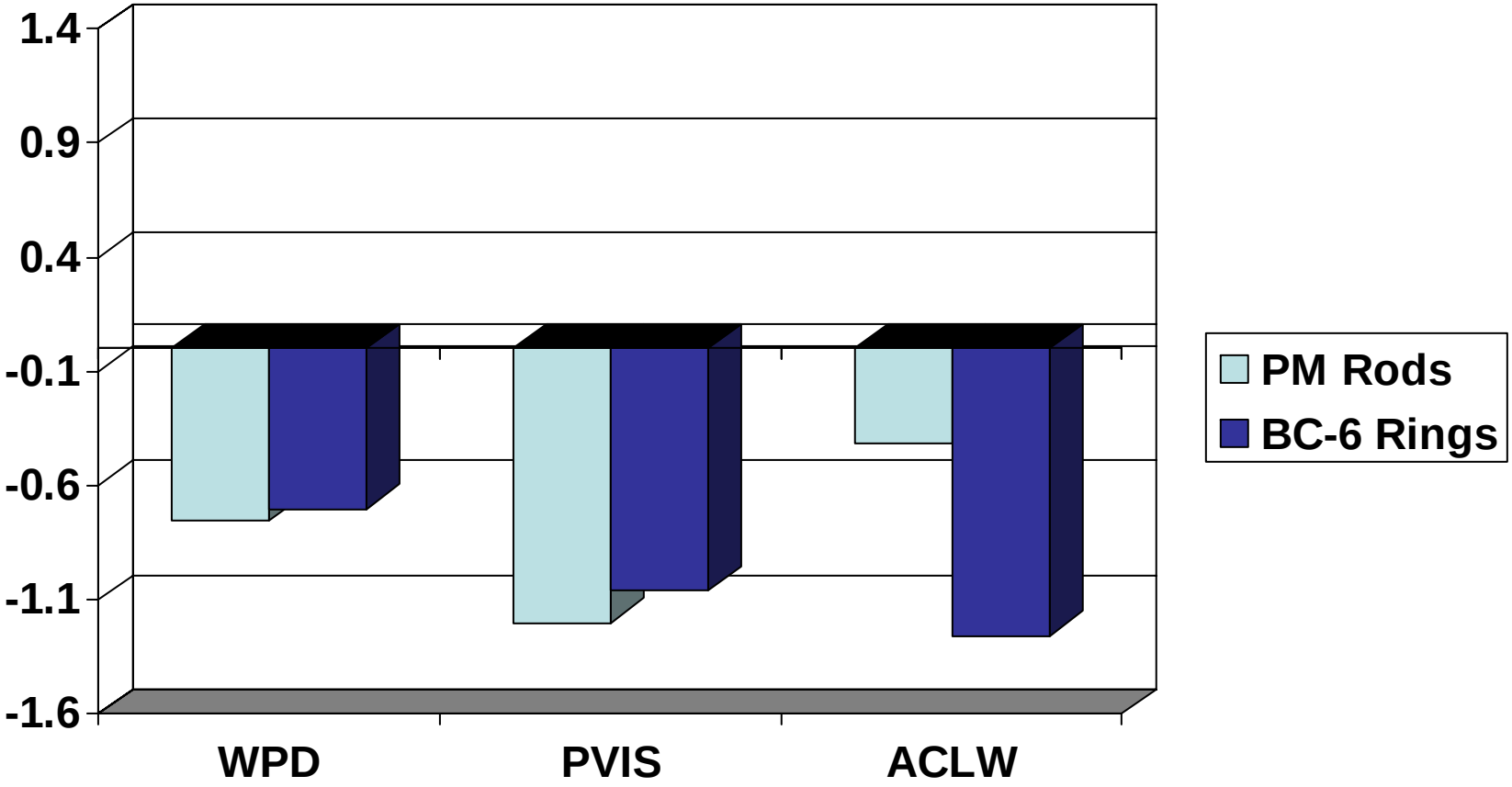
Attachment 6

BC-6 Rings Versus Historic PM Results

- WPD marginally closer to target.
- PVIS also marginally closer to target.
- ACLW on average milder
- ACLW precision more variable
- WPD precision may have improved

Attachment 6

Comparison of Average Δ/s for PVIS, ACLW and WPD for BC-6 Rings versus Historical PM Rods



Attachment 6

UEB Results

LAB	LTMSAPP	IND	VAL	DATE	PVIS	WPD	OILCON	ACLW	ABLOBY	BLOCKSN	CAMSN	RINGCODE	COMMENT
G	3	434	AG	20060218	110.3	3.9	4.24	38	21.8	1A5081	RH-0143	6	
A	1	434	LG	20060220	245.9	3.74	4.55	68.9	22	1A5086	RH0119	BC-6	SCRATCHED CYLINDER
D	1	434	AG	20060226	69.5	4.74	3.75	37.2	19	1A5080	RH0104	6	
E	1	434	AG	20060227	71.3	4.04	3.08	3.5	23.9	1A5085		BC-6	
B	1	434	AG	20060227	73.1	4.76	4.05	40.9	19.5	6029	RH0102	6	
F	1	434	AG	20060228	132.9	4.06	4.29	4	21.2	A5084-	UEB-2	6	
A	1	434	AG	20060320	83.3	4.2	3.38	40.6	20.7	1A5083	RH0179	BC-6	

Attachment 6

Sequence IIIH Update

Presented

June 6, 2006

Attachment 7

Engine Selection

- 2006-7 Cadillac CTS
- 3.6L LY7
  - 255hp @ 6200rpm
  - 252 lb ft @ 3100prm

Cadillac CTS

3.6L V6 VVT
2006 3.6L V-6 VVT (LY7) RWD

Attachment 7

Development Status

What Are We Running?

- Currently running a slave engine at Intertek
  - Mapping control variables
    - Speed
    - Torque
    - Temperature
  - System Design – GM, OHT, Intertek, SwRI
    - Engine mounting
    - External oil system
    - Induction system
    - Exhaust system
    - Engine controls

Attachment 7

Development Status

Additional Hardware under development

- Engine mounts*
- Flywheel and adapter plates*
- Exhaust manifolds (water cooled)
- External oil system
- Engine crankcase breathing system
- Honing deck plates
- Special test components*
  - Pistons
  - Ring Pack
  - Bearings

* Carry over to VID

Attachment 7

April 2-6, 2006

Light Duty Rating Workshop - Sequence III

	Number of Parts Rated	-1 < yi ≤ 1	-2 < yi ≤ 2	-3 < yi ≤ 3	>3	Yi STD	Group
Adams, Pat	14	74.1%	96.4%	100.0%	0.0%	0.89	White
Avis, Steve	14	83.0%	98.2%	99.1%	0.9%	0.81	Red
Borland, Robert	14	58.0%	85.7%	92.0%	8.0%	1.38	Yellow
Cales, Jonathon	14	76.8%	98.2%	100.0%	0.0%	0.83	White
Caproni, David	14	79.5%	97.3%	100.0%	0.0%	0.79	White
Castillo, George	14	87.5%	100.0%	100.0%	0.0%	0.63	Blue
Cole, Steve	14	62.5%	94.6%	98.2%	1.8%	1.13	White
Foecking, Brian	14	88.4%	100.0%	100.0%	0.0%	0.64	Blue
Garcia, Orlando	14	82.1%	95.5%	100.0%	0.0%	0.84	Red
Hills, Barry	14	69.6%	96.4%	100.0%	0.0%	0.94	White
Kobrinetz, Jack	14	86.6%	100.0%	100.0%	0.0%	0.71	Blue
Lopez, Frank	14	84.8%	100.0%	100.0%	0.0%	0.68	Red
Lowsky, John	14	45.5%	80.4%	92.9%	7.1%	1.65	Yellow
Pansza, Mike	14	62.5%	94.6%	100.0%	0.0%	1.07	White
Pawczuk, Greg	14	64.3%	90.2%	99.1%	0.9%	1.22	Yellow
Radonich, Pete	14	90.2%	100.0%	100.0%	0.0%	0.59	Blue
Ramirez, Robert	14	75.9%	97.3%	100.0%	0.0%	0.85	White
Rodriguez, Jesse	14	90.2%	97.3%	99.1%	0.9%	0.69	Red
Sanchez, Art	14	67.9%	92.9%	99.1%	0.9%	1.04	White
Seiz, Ray	14	46.4%	87.5%	100.0%	0.0%	1.32	Yellow
Tschirhart, Garland	14	73.2%	96.4%	100.0%	0.0%	0.88	White
Viera, Ralph	14	57.1%	92.0%	98.2%	1.8%	1.11	Yellow
Yanchar, Paul	14	91.1%	100.0%	100.0%	0.0%	0.54	Blue

	Minimum Number of Parts Rated	Minimum Yi's within 1 STD of mean	Minimum Yi's within 2 STD of mean	Maximum Overall Yi STD	Group Total	
White	6	60%	90%	1.20	9	39%
Red	6	80%	95%	0.85	4	17%
Blue	6	85%	98%	0.75	5	22%
Yellow	-	-	-	-	5	22%

THE ASTM SEQUENCE III SURVEILLANCE PANEL

SCOPE & OBJECTIVES

SCOPE

The Sequence III Surveillance Panel is responsible for the surveillance and continual improvement of the Sequence IIIF and IIIFHD test documented in ASTM Standard D6984-05 as update by the Information Letter System. The Sequence III Surveillance Panel is also responsible for the surveillance and continual improvement of the new Sequence IIIG and IIIGA tests which will be documented as an ASTM Standard DNNNN-XX and updated by the Information Letter System. Data on test precision and laboratory versus field correlation will be solicited and evaluated at least every six (6) months for Sequence III test procedures. The Surveillance Panel is to provide continual improvement of rating techniques, test operation, test monitoring and test validation through communication with the Test Sponsor, ASTM Test Monitoring Center, Operations and Hardware Subpanel, the Central Parts Distributor, fuel supplier, ASTM B0.01 Passenger Car Engine Oil Classification Panel, ASTM Light Duty Rating Task Force, ASTM Committee B0.01, ACC Monitoring Agency and CRC Motor Rating Methods Group. Actions to improve the process will be recommended when appropriate based on input to the Surveillance Panel from one or more of the previously stated groups. Develop updated test procedures when necessary and review the correlation with previous test procedures. This process will provide the best possible Sequence III Type Test Procedure for evaluating automotive lubricant performance with respect to the lubricant's ability to prevent oil thickening, varnish formation, oil consumption and engine wear.

OBJECTIVES		**TARGET DATE**
1.	**Prepare the IIIG Test Method for elevation to ASTM Standard**	**June 2006**
2.	**Issue the IIIG Test Method for ballot to ASTM for approval as a Standard**	**July 2006**
3.	~~**Develop a Sequence III rater calibration proposal**~~	~~**May 2006**~~
4.	~~**Complete PVIS and WPD Severity Investigation by the O&H Subpanel**~~	~~**December 2006**~~
5.	~~**Evaluate piston rings from new supplier**~~	~~**May 2006**~~
6.	**Develop a plan to secure test components for Sequence IIIF/IIIG thru 2010**	**November 2006**
7.	**Review reference oil supplies for Sequence IIIF/G and IIIH development**	**July 2006**

William M. Nahumck, Chairman
Sequence IIIF Surveillance Panel

Updated June 6, 2006
San Antonio, Texas