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Committee D02 on PETROLEUM PRODUCTS AND LUBRICANTS

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Reply to:

Scott Parke
ASTM Test Monitoring Center
6555 Penn Avenue
Pittsburgh, PA 15206

May 31, 2001

To: The Data Communications Committee

Enclosed are the combined minutes of the Data Communications Committee and Electronic Data Transmission Methods Subcommittee meetings held in San Antonio, TX, on April 26, 2001.

Scott Parke
Secretary, DCC

Attachments

MEETING MINUTES

DATA COMMUNICATIONS COMMITTEE and
ELECTRONIC DATA TRANSMISSION METHODS SUBCOMMITTEE

HELD APRIL 26, 2001
HOMEWOOD SUITES HOTEL, SAN ANTONIO, TEXAS

The Electronic Data Transmission Methods Subcommittee (EDTM) and Data Communications Committee (DCC) meeting were held consecutively on the same day. The DCC secretary agreed to serve as secretary for the EDTM subcommittee. The minutes of the proceedings for both meetings are combined in this single document.

9:00 EDTM CALL TO ORDER

EDTM Chairman Dave Hood called the meeting to order at 9:00. The agenda is shown as EDTM attachment 1; the attendance list is EDTM attachment 2. The minutes of the most recent EDTM conference call were approved without alteration.

9:05 EDTM OBJECTIVES

Dave Hood reviewed the objectives of the EDTM (EDTM attachment 3). He briefly reviewed the industry needs that brought EDTM into being (specifically, the need to replace X.400 as a transmission protocol) and presented a timeline of the work that has been done to date.

Two candidates to replace X.400 have been identified: Secure FTP and Secure Socket Layer (SSL).

9:16 SECURE FTP

Maryse Shull presented the results of preliminary testing of secure FTP that took place between Ethyl and PerkinElmer (EDTM attachment 4). Maryse described the implementation of secure FTP and highlighted its pros and cons. Simplicity and cost were the major factors in favor of secure FTP.

John White pointed out that the term "secure FTP" is something of a misnomer. User ID and password are passed between sender and recipient as plain-text; only the data is encrypted or "secure". This allows for the possibility of intercept by a third party. While the encrypted data may remain secure, the third party could use the user ID and password maliciously. Dave Hood reminded the panel that while this vulnerability *does* exist, the point of secure FTP was to provide an expedient and simple solution, not necessarily the *most* secure one.

Several technical questions arose. Will European labs be able to use the same encryption as the North American labs? Yes, the U.S. has lifted the export restrictions that had been in place for 128 bit encryption. How would key exchange be handled? Key exchange could be handled either directly between trading partners (sender and receiver) as was done in the Ethyl/PerkinElmer testing or a key

exchange server could be set up.

9:36 SECURE SOCKET LAYER (SSL)

Dave Hood described how Secure Socket Layer (SSL) might be implemented and reported on Chevron Oronite's experimentation to date (EDTM attachment 5). SSL will require more work to implement than secure FTP; however, many companies are already heading in that direction with other projects. Dave was told that the cost estimate for the SSL demo for this meeting was six days (which was estimated to cost less than $5,000). Dave said that Chevron Oronite was working on a "white paper" containing more details and would make that document available to the panel when it was completed.

10:03 SSL DEMO

Mike Kahn presented an SSL-enabled demo website set up by Chevron Oronite to transfer test data. The site featured locations for uploading and downloading test results and requires a user ID and password to access.

John White noted that all interaction with the demo website was manual and asked if automation was possible and what sort of effort it might involve (on the part of both sender and receiver). Dave Hood replied that he has been told by his IT department that automation would not require a high level of "scripting" expertise; the previously-mentioned "white paper" will contain examples. Mike and Dave were asked about what type of certificates would be used. They felt that Chevron Oronite would recommend Verisign.

Some discussion of functional acknowledgement took place. The debate centered around whether the acknowledgement should be "pushed" by the receiver back to the sender or should the sender be required to query the receiver. Final resolution of this issue was left for later in development but the consensus seemed to be that having the receiver push acknowledgement to the sender was the preferred approach.

10:40 STANDARDIZATION ISSUES

When the new transmission protocol is introduced, all sending and receiving parties will, of course, have to standardize on certain conventions. The panel brain-stormed, debated, and refined the requirements or desirable features of several of these including file naming, automation, and directory structures (EDTM attachment 6).

11:00 NEXT STEPS

The panel discussed what steps need to be taken next (EDTM attachment 7). A choice between PGP-encrypted FTP (heretofore referred to as secure FTP) and https (SSL) will have to be made. At the close of this discussion, the panel was heavily favoring https. However, the final decision was put off until the representatives could investigate the implications of this meeting's discussions more thoroughly within their respective companies.

Chevron Oronite's "white paper" on https will have to be reviewed by all. Chevron Oronite received a first draft of the "white paper" the week of May 21st and has sent it back to their internal SSL developers for clarifications, additional examples and information in specific areas. They hope to

receive a draft for distribution to EDTM by the end of May.

Thus far, Chevron Oronite has conducted its https experiments exclusively with Mark Griffin at Southwest Research. The panel indicated that expanding the testing to other labs and additive companies would be a prudent step before making a final commitment.

Bill Mahoney asked about the prospects for encrypted FTP. While still not completely ruling out encrypted FTP, the panel chose to keep the focus of its energies right now on https. Sally Lloyd expressed reluctance to continue testing/development of encrypted FTP if it looked unlikely to lead to anything. The panel was sympathetic to Sally's position but felt that it would at least be worthwhile to continue investigating key servers.

11:35 CONFERENCE CALL

Dave Hood will schedule a conference call approximately 4 weeks after the distribution of Chevron Oronite's "white paper". This call will resolve some of the issues raised in this meeting as well as those that arise from the publication of the "white paper". He will also discuss the development of the Chevron Oronite SSL site.

The chairman adjourned the meeting at 11:35.

12:38 DCC CALL TO ORDER

DCC chairman Frank Farber reviewed the agenda, membership list, and action items from the October 19, 2000 meeting. The agenda is shown as DCC attachment 1; the membership list is DCC attachment 2; the attendance was the same as the earlier EDTM meeting and is shown as EDTM attachment 2.

12:40 EXTENDED LENGTH/NON-STANDARD TESTS

At the October 19 meeting, Mark Griffin was asked to create a proposal for ETRTM rules for dealing with extended length or non-standard tests. Mark delivered a presentation describing the industry's need for a more ordered, better defined way of handling such tests (DCC attachment 3).

Mark explained that the need for additional, non-standard (not defined by test procedure) data fields comes about frequently and is currently handled in an ad hoc, client-by-client fashion. Frank Farber questioned whether these requests for additional data would not be more properly handled by the surveillance panels. They have jurisdiction over the data dictionaries and report forms and are willing to add any fields that the users find necessary. Mark acknowledged that this would be the *desired* approach. He continued, however, that in many cases clients consider the additional data requested to be proprietary (proprietary not just in the data itself but also in the mere fact that they are even requesting it).

Mark requested that the DCC recognize that this is indeed a problem in need of solving and made a motion to that effect. The motion was approved 8-0-0.

The panel made a tentative stab at devising some conventions for naming any additional fields but, after a lengthy discussion, realized that such an undertaking was going to be a more involved process than time permitted. At Frank Farber's request, Mark Griffin agreed to chair a task force to develop

rules that might be incorporated into the ETRTM.

13:32 JETFORM REPLACEMENT

Frank Farber presented the findings of TMC's preliminary investigation into the use of Adobe Acrobat as a possible replacement for JetForm (DCC attachment 4). Frank pointed out that Acrobat seems to provide all the functionality that we have been using from JetForm at a much more economical cost. In addition, Acrobat provides several other major benefits that we don't currently get from JetForm (such as greatly simplified form creation and the ability to provide web viewable and printable forms). The panel had several questions but responded quite favorably overall. Frank was encouraged to continue the investigation.

13:43 M11EGR DATA DICTIONARY AND REPORT FORM STATUS

Sally Lloyd reported that M11EGR data dictionary and report form construction is complete and beta test has concluded. Sally moved that v20010328 be accepted and implemented in 30 days. The motion was approved 8-0-0.

13:49 1Q DATA DICTIONARY AND REPORT FORM STATUS

Mark Griffin presented the details of the 1Q beta testing. He also discussed some lessons learned during the 1Q beta testing (DCC attachment 5).

14:00 BETA TEAM LEADER REPORTS

Considering the level of experience that the panel now has in developing data dictionaries, Frank Farber queried the panel as to whether or not the beta testing reports still need to be as extensive as they historically have been. Mark Griffin proposed streamlining the beta testing reports by reducing them to a presentation of highlights and eliminating the timeline reporting. All agreed.

14:04 BETA TESTING PRIORITIES

The panel chose to make the L10 and two-cycle report packages the next priorities for development. Chris Richtberg agreed to lead L10 beta testing once TMC makes the changes that he mailed to Jeff Clark (TMC engineer responsible for L10). Frank Farber agreed to beta test the two-cycle tests.

14:07 REPORT FORM/DATA DICTIONARY STATUS

Frank Farber briefly reviewed the status of the various report packages (DCC attachment 6). There were no comments of note.

14:12 TMC TELECOM SUMMARY

Frank Farber reviewed the summary of test data transmitted via telecom to TMC shown in DCC attachment 7. He pointed out that crankcase testing is now nearly completely telecommed. He expressed the TMC's desire to see an increase in the level of telecomming of bench tests and indicated that the imposition of a fax surcharge (as was done in crankcase) is not beyond consideration.

14:15 ETRTM REVIEW

Frank Farber reviewed the ETRTM - available on the web at:
ftp://tmc.astm.cmri.cmu.edu/docs/Data_Communications_Committee/Electronic_Test_Report_Transmission_Specification/
Several revisions were suggested.

The ETRTM requires that field descriptions in the data dictionary be unique. It was pointed out that in some cases, the field descriptions are unique only with the units appended to them (appending units to the descriptions has been standard practice from the beginning of DCC). Frank Farber agreed that TMC would cease automatic appending of units to all field descriptions.

Jody Fromer pointed out that there have been instances recently where a field name that has been dropped from a data dictionary has been later re-added for a different use (description). This violates ETRTM rules. Frank Farber promised that TMC would redouble its efforts to prevent future occurrences.

Mark Griffin proposed that rule 2.2 of ETRTM be changed to permit sending incomplete data files. After some discussion of potential problems that this may cause, Mark withdrew the proposal to allow the panel members to investigate the impact to their systems of receiving partial files.

14:54 DCC OBJECTIVES

Frank Farber presented for review a schedule of objectives for the panel (DCC attachment 8). See the attachment for the revisions made.

15:03 NEW BUSINESS

Frank Farber reported to the panel that at a recent Technical Guidance Committee (TGC) meeting, the TMC was asked to post its web data in Microsoft Excel format rather than the comma-separated ASCII format presently used. Many of the various lab and producer representatives had comments on that plan. None of them were favorable. Most expressed their intention to discuss this with their TGC representative.

Frank also reiterated the TMC's interest in continuing its investigation into the use of Adobe Acrobat in place of JetForm. Again, the panel expressed a reciprocal interest in a report of the results.

15:14 NEXT MEETING AND ADJOURNMENT

The next meeting is tentatively scheduled for the week of October 15, 2001 in Pittsburgh, PA. The secretary collected $48 per attendee for meeting room and lunch charges and the meeting was adjourned at 15:14.

ACTION ITEMS

TMC	1) Change data dictionary programming to end automatic appending of units column to description column. 2) Continue investigating Adobe Acrobat as a JetForm replacement.

Mark Griffin	1) Form a task force to devise conventions to govern data reporting for extended length and non-standard tests.

Attachment	1
Page	1/1
Reference	EDTM

ASTM Data Communication Committee

Electronic Data Transmission Methods
HTTPs Sub-Committee Meeting Agenda

Meeting Date: April 26, 2001 **Time: 9:00am - 11:30am**

Expected Meeting Attendees: David Hood, Frank Farber, Mark Griffin, Bill Mahoney, Sally Lloyd, Mike Kahn, Jody Fromer, Francisco Gonzalez, Mike Kahn, Maryse Shull, Dan Walker, Lika Barnabishvili.

Meeting Objectives: The primary objective is to review status of the Chevron Oronite SSL web site and the Ethyl/PerkinElmer Secure ftp prototype project and demonstrate current planned processes. The intent is to provide enough detail for each solution to take back to their respective companies and determine which path they prefer to pursue. The secondary objective is to select a date and method for making a final recommendation.

Note: This is a subcommittee of the DCC therefore we are only making a recommendation. That group will vote on the solution for a EDTM Standard for the ASTM.

Time	Topic & Leader(s)	Desired Outcome or Understanding
9:00 AM	Introductions & Confirmation of Meeting Scribe **All**	Confirm all attendees.
9:05 AM	Review/Adjust Agenda **D.Hood**	Insure all topics are represented with adequate time. Add items not previously identified.
9:10 AM	Review and Approve Minutes from last meeting **All**	Insure all participants agree with contents of last Conference Call Meeting notes (3/21/2001)
9:10 AM	Where we are & how we got here **D.Hood**	All agree on where we are in the process to make recommendations to the DCC. 1. Confirm Participants 2. Agree on a Scope 3. Identify Method Requirements 4. Identify Potential Solutions 5. Data Gathering 6. Analysis of Methods 7. Present Summary to Subcommittee Make Recommendations(s) to Data Communication's Committee
9:40 AM	Secure ftp process **Maryse Shull & Sally Lloyd**	Understand how the secure ftp process might work within our current industry data transmission model.
10:00 AM	SSL Web Demonstration* **D.Hood, M.Kahn, and M.Griffin**	Demonstrate how an additive company, or data consumer web site might look and feel; identifying areas where standardization might help create a standard web site view from a labs perspective. *-this is entirely dependent on analog phone line availability in the meeting facility.
10:45 AM	Open Discussion **All**	Allow time for open discussion. Note: I don't pretend to know all there is to know about SSL but Mike and I will answer all we can. (D.Hood)
11:00 AM	Set a date to vote for an EDTM recommendation for the DCC **All**	Determine when and how to conduct vote for recommendation.
11:20 AM	Determine Next Steps **All**	Review and confirm Action Items and determine next Steps required to meeting objectives.
11:30 AM	Adjourn **All**	

DCC Meeting #27 Attendance List (April 26, 2001 San Antonio, TX)

Name	Company	Address	Telephone Fax Email	Present
Michael Burke	ExxonMobil	P.O. Box 480 Paulsboro, NJ 08066-0480	609-224-2441 609-224-3611	
Graham Fisher	Oronite Chevron	Chevron Chemical SA 79 RucArotole France	0146393639 GRLF@chevron.com	
Frank Farber	ASTM Test Monitoring Center	6555 Penn Avenue Pittsburgh, PA 15206	412-365-1030 412-365-1047 fmf@tmc.astm.cmri.cmu.edu	
Jody Fromer	Lubrizol Corporation	29400 Lakeland Blvd Wickliffe, OH 44092	440-943-1200 x5172 440-943-7215 jjf@lubrizol.com	
Mark Griffin	Southwest Research Institute	6220 Culebra Road San Antonio, TX 78228	210-522-3502 210- mgriffin@swri.edu	
Francisco Gonzalez	Registration Systems, Inc. / ERC	4139 Gardendale Suite 205 San Antonio, TX 78229	210-545-1889 210-341-4038 cisco@txdirect.net	
Renee Hauserman	Infineum USA LP	P. O. Box 735 Linden, NJ 0703	(908) 474-3139 Renee.Hauserman@Infineum.com	
David Hood	Chevron ~~Chemical Company~~ Oronite ~~Global~~ Technology	100 Chevron Way Richmond, CA 94802-0627	510-242-3345 510-242-2106 daho@chevron.com	
Michael Kahn	Chevron ~~Chemical Company~~ Oronite ~~Global~~ Technology	100 Chevron Way Richmond, CA 94802-0627	510-242-2717 510- 242-2106 mjka@chevron.com	MK
Sally Lloyd	PerkinElmer Automotive Research	5404 Bandera Road San Antonio, TX 78238	210-523-4611 210-523-4633 Sally_Lloyd@PerkinElmer.com	S Lloyd

Attachment 2
Page 1/3
Reference EDTM/DCC

DCC Meeting #27 Attendance List (April 26, 2001 San Antonio, TX)

Name	Company	Address	Telephone Fax Email	Present
Scott Parke	ASTM Test Monitoring Center	6555 Penn Avenue Pittsburgh, PA 15206	412-365-1036 412-365-1047 sdp@tmc.astm.cmri.cmu.edu	
Maryse Shull	Ethyl Corporation	500 Spring Street Richmond, VA 23218	804-788-5280 804-788-6358 maryse_shull@ethyl,com	
Don Silver	Valvoline Inc	P.O. Box 391 Ashland, KY 41114	606-329-5809 606-329-5155 dwsilver@ashland.com	
Mark Slepsky	Lubrizol Corporation	29400 Lakeland Blvd Wickliffe, OH 44092	440-943-1200 Ext 2801 440- 943-9041 mgs@lubrizol.com	
John White	Southwest Research Institute	6220 Culebra Road San Antonio, TX 78228	210-522-2434 210- jwwhite@swri.edu	

Attachment 2
Page 2/3
Reference ESTM/DCC

DCC Guest Attendance List

Name	Company	Address	Phone Fax Email	Include on Mailing List?
Lika Barnabishvili	Infineum LP	1900 E Linden Ave, Linden, NJ 07036	(908) 474 2261	Yes
John Beck	Registration Systems, Inc.	5903 Rosebay Forest Pl Midlothian, VA 23112	804 739-9536 Phone EFax	yes
Valerie Harper	Lubrizol Corp.	29400 Lakeland Blvd Wickliffe, Oh. 44092	440- 347-5857	yes
Christopher Richtberg	SWRI	6220 Culebra Rd. San Antonio, Tx 78238	(210) 522-3343 crichtberg@swri.edu	YES
RALPH GRACE	IMPERIAL OIL	453 CHRISTINA ST. S. SARNIA ONT. Box 3022 N7T8C8	519-339-2449 519-339-5866 ralph.t.grace@esso.com	YES

Attachment 2
Page 3/3
Reference EDRW/DCC

ASTM: Data Communications Committee (DCC)

Electronic Data Transmission Methods (EDTM)

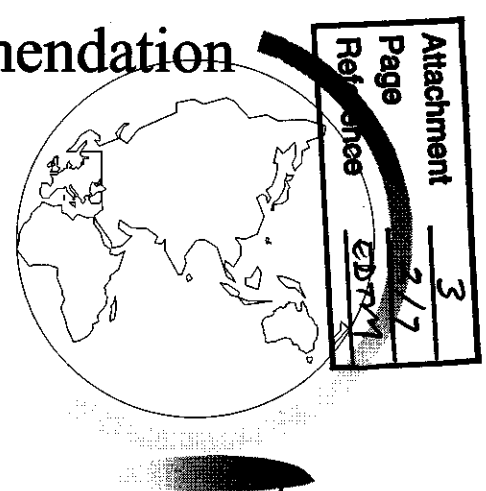
April 26, 2001

San Antonio, Texas

Attachment 3
Page 1/7
Reference EDTM

DCC: EDTM Subcommittee
Desired Outcome

- Reaffirm Subcommittee's Objectives
- Review Process Path and Timeline
- Gain Technical Understanding of Recommended Solutions
- Agree on Method and Date for Making Recommendation to DCC



DCC: EDTM Subcommittee

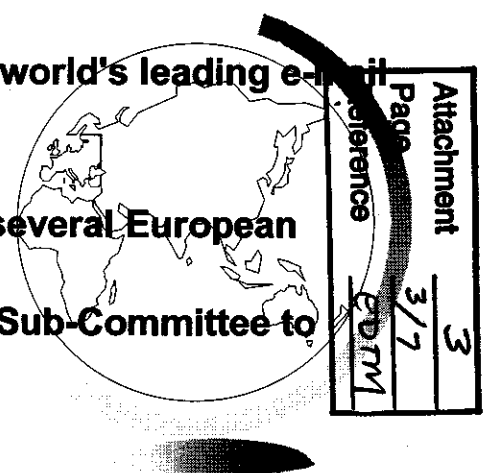
Scope

As part of the Electronic Test Report Transmission Model (ETRTM) the ASTM Data Communications Committee (DCC) has specified two transmission protocols. The two protocols are X.400 and Internet FTP. Of the two, X.400 protocol is preferred method for proprietary data, for the following reasons:

- **Secure – Documents managed by secure systems**
- **Traceable – Misrouted mail can be tracked down**
- **Receipts readily available**
- **Sender certified by originating e-mail carrier**
- **Known path – Only handled by responsible commercial e-mail firms**
- **Fast – X.400 standards require 95% of mail delivered within 45 minutes**

However, the use of X.400 on a global scale is expected to decline over the next five years for reasons such as:

- **The rising use of the Internet and the World Wide Web Standards**
- **The minimal resources being invested in X.400 product development by the world's leading e-mail software vendors**
- **The lower cost of Internet e-mail**
- **Most notably to electronic test report transmission trading partners, is that several European industry members do not have access to X.400 providers.**
- **As a result, the DCC has formed the Electronic Data Transmission Methods Sub-Committee to investigate a suitable replacement protocol for X.400.**

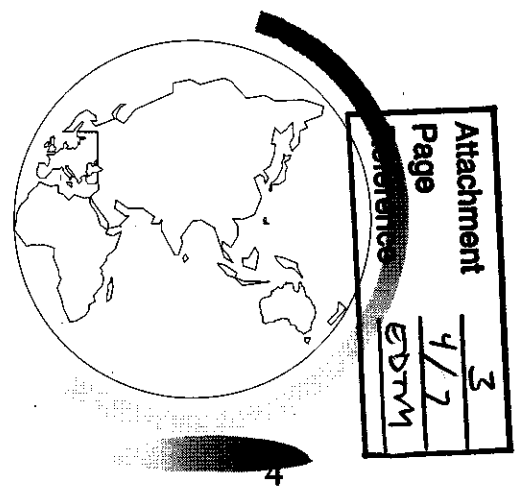


Attachment 3
Page 3/7
Reference EDTM

DCC: EDTM Subcommittee

ASTM: DCC Subcommittee Process Path

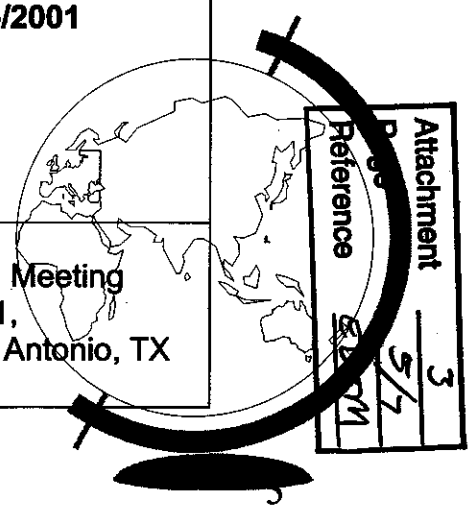
1. **Confirm Participants**
2. **Agree on Scope**
3. **Identify Method Requirements, Include EEG Requirements**
4. **Identify Potential Solutions, Create Short List**
5. **Data Gathering**
6. **Analysis of Methods vs. Requirements Matrix**
7. **Present Summary to Subcommittee**
8. Make Recommendations(s) to Data Communication's Committee



DCC: EDTM Subcommittee

Projected Subcommittee Timeline

Project Milestone	Date Required
Each company will provide short list of solutions to Subcommittee Chairman with what and why each solution should be considered. This will enble DH to provide EEG with some detail of potential solutions Note: additional items may be submitted, that were not on the original list.	11/30/2000
D.Hood will give this presentation to the EEG, Dec 6th to offer European labs and companies the opportunity to provide their input for potential solutions (short list).	12/6/2000
D.Hood will submit compiled list to sub-committee.	**12/14/2000**
Next Teleconference Review Solution List Review and adjust selection process Determine how to utilize Matrix vs. Solutions List Next Steps	**1/25/2001**
Make Recommendation to DCC	April Meeting 2001, San Antonio, TX

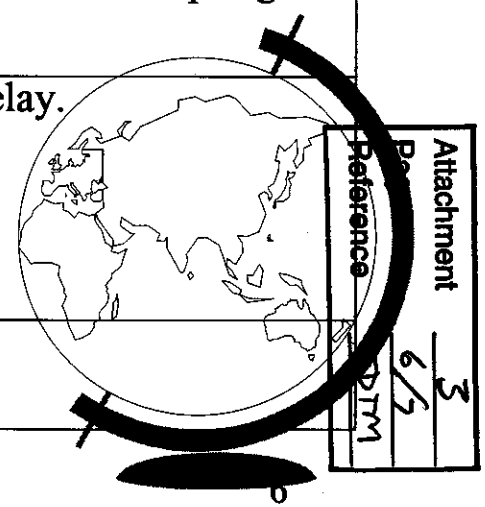


Attachment 3
Reference

DCC: EDTM Subcommittee

Actual Subcommittee Timeline

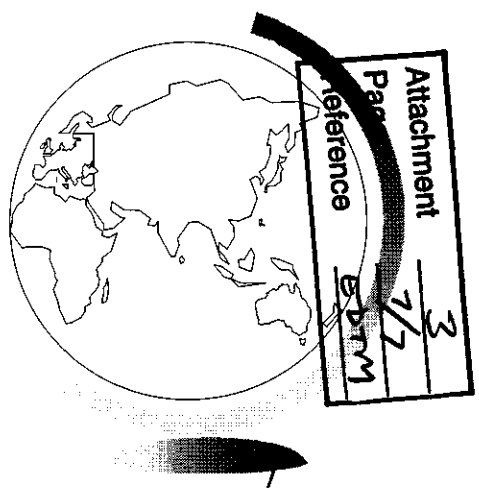
Milestone	Date	Note
Call for Participation	7/17/2000	Via email
Agree on Scope & Process Path	9/13/2000	Conference Call
Identify Solution Requirements	10/18/2000	Conference Call and EDTM Meeting in Richmond, VA
Identify Potential Solutions	11/30/2000	Not all participating companies provided input.
Present Short list and initial analysis to ATC EEG	12/6/2000	D.Hood presented short list with analysis to EEG. B. Mahony presented same solution with alternate implementation for ATC.
Solution Short List Confirmed and Prototype Teams formed	1/25/2001	Plan to prototype SSL and Secure ftp to enable EDTM SC to make recommendation at Spring DCC
Chevron Oronite informed EDTM SC that SSL would be prepared to demo SSL site at DCC meeting. Secure ftp is on schedule	3/21/2001	Shift in timeline due to this delay.
Demo's and final steps determined	4/26/2001	



DCC: EDTM Subcommittee

Solution Team Reports

- Secure FTP
- SSL Web Demo



April 26, 2001

Encrypted FTP Beta Test Process

Attachment	4
Page	1/7
Reference	EDTM

Two FTP locations were established for the two participating labs. The encryption software selected for this beta test was Network Associates' PGP. The elements evaluated in this process were time and effort for system set-up, ease of use, end-to-end security, multi-platform support, maintenance and administrative effort and cost.

Encrypted and unencrypted versions of a file were exchanged between the labs for comparison and evaluation of the above.

Encrypted FTP
-Cost of PGP

Attachment	4
Page	2/7
Reference	EDTM

Cost of encryption software:

PGP Corporate Desktop Suite Perpetual License.
Unlimited Term License with 1yr connect – phone support.

Price: **390.00**
Support Price: **28.08**
Total Price: **418.08**

Encrypted FTP
-About PGP

Attachment	4
Page	3/7
Reference	EDTM

All PGP encryption products are minimum 128 bit strong encryption, world wide. The products do not contain an unknown or undocumented message or key recovery method (usually called backdoor). The only way to recover the encrypted messages is to know and use the applicable key. The alternative, testing all possible keys, is practically an impossible task to accomplish even when using all computing power in the world.

PGP Corporate Desktop 7.0.3 is a complete, end-to-end security solution for the distributed work environment. PGP Corporate Desktop includes such tools at PGPmail for e-mail privacy, PGPfile/PGPdisk to protect data on the desktop/laptop, PGPfire - Distributed Firewall and Intrusion Dectection to protect the remote broad-band user from hackers, PGP VPN Client for securing remote user access, as well as PGP Keyserver and various management tools to provide the enterprise management needed in today's corporate environment. This complete package gives an organization all the tools necessary to implement a complete security solution for remote or local users to ensure company assets and data are kept private. Package includes CD-ROM with PGP Corporate Desktop 7.0.3 (Win 9x/NT/2000), PGP Keyserver 7.0.1 (NT/Solaris)

Encrypted FTP
-About PGP cont...

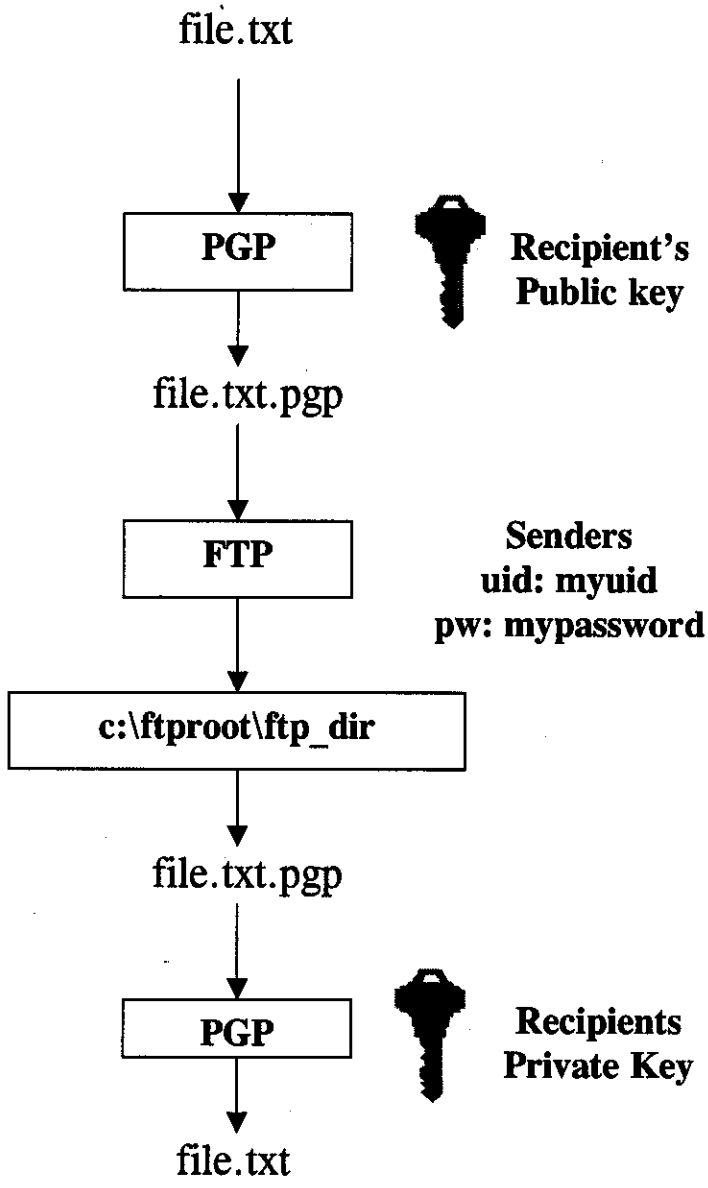
Attachment	4
Page	4/7
Reference	EDTM

System Requirements:
To install PGP on a Windows-based system, you must have: Intel Pentium 166 MHz processor or better Windows 95B (OSR2), Windows 98/98SE, Windows Millenium, Windows NT 4.0 with Service Pack 4/5/6/6a, Windows 2000, Windows 2000 with Service Pack 1 32 MB RAM (Windows 95/98 systems) 64 MB RAM (Windows NT/2000 systems) 32 MB hard disk space (can be less depending on features deployed to end users) A compatible LAN/WAN/dialup network adapter .

To install PGP on a Macintosh-based system, you must have: Power-PC based Macintosh system running MacOS 8.6.1 or 9.x 32 MB RAM 10 MB hard disk space .

Encrypted FTP
-Process cont.....

Attachment	4
Page	5/7
Reference	EDTM



Encrypted FTP
-Pro's & Con's

Attachment 4
Page 6/7
Reference EDTM

Pro's

- Secure end-to-end data transition.
- Very reasonably priced.
- Seamless fit to existing systems.
- Minimal coding to automate.
- Availability worldwide.
- Multi-platform support operating systems & hardware.
- Function on existing links across lab & customer sites.
- Low maintenance & administration.

Con's

- Requires direct & continuous connection to the Internet.
- Software specific solution.

Encrypted FTP Summary

Attachment	4
Page	7/7
Reference	EDTM

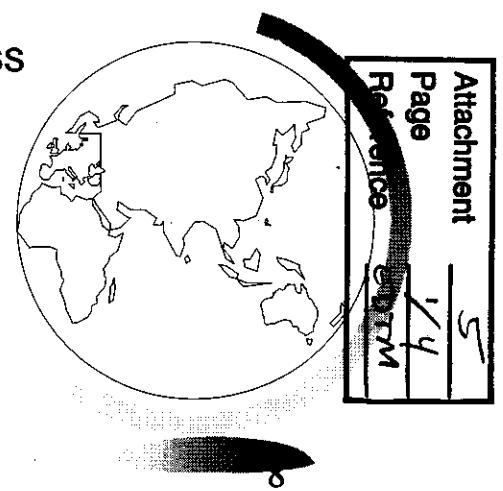
Low cost solution, some complexity with regard to administration and assumption of continuous Internet connection. Consideration however, must be given to how long this technology has been in use and its foreseeable lifetime when considering direction of information technology versus return for investment.

DCC: EDTM Subcommittee

SSL Team Reports: Scope

- Demonstration Model
  - Directory Structure to Include file stores for Last Day, Week, and Month (per previous documentation). The movement of files does not necessarily have to be functional for this Phase, but the directory structure should be visible during the demo.
    - Userid Password (Authentication process)
    - Data Transfer Utility Functional.
    - Confirmation of file movement either as a file transfer to lab, or as you demo'd on Wed. 3/28.
    - Suggested initial file naming convention will be:
    - **SRDTA032801165423**.txt

    - SR = 2 character ACC/ATC Company Code
    - **DTA** = File type DTA= Data, FAC= Functional Acknowledgement, etc.
    - **032801165423** = Data Time of transmission, or creation. DDMMYYHHMMSS
      - * - Initially set up 3 lab directories named as follows:
        - SR – For Southwest Research Institute
        - EG – For Perkin-Elmer (Note: Company Name changed form EG&G)
        - OL – For Chevron Oronite Technology, Rotterdam

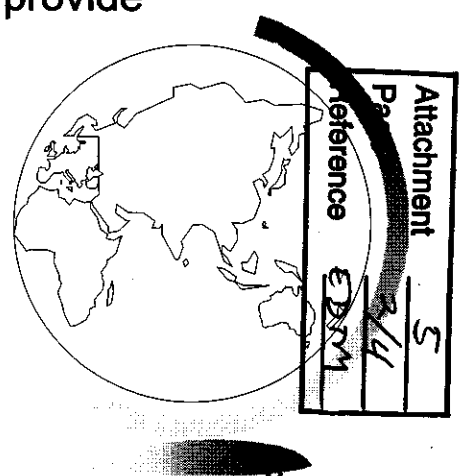


DCC: EDTM Subcommittee

SSL Team Reports: Scope, continued

- Resource/Cost Estimate of Demo
  - Demonstration of HTTPs model for ASTM meeting on April 26th

- White Paper
  - Application Definitions
  - Include scripting samples for lab automation (time permitting)
  - Where we have selected tools or specific applications, please provide alternates, and/or the comment "optional" where it is relevant.



DCC: EDTM Subcommittee

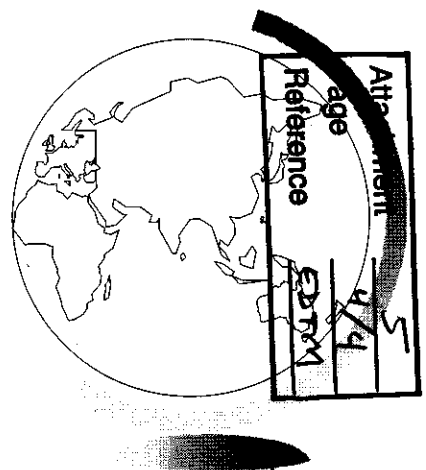
Discussion

Attachment 5
Page 3/4
Reference EDTM

DCC: EDTM Subcommittee

- Set Date & Method for recommending solution to DCC

- Next Steps



ATCH # 6

Attachment 6
Page VI
Reference EDTM

STANDARDIZATION ISSUES

- FILENAMES (FLAT TEXT FILE)
  - TIME & DATE (TIMEZONE) YYMMDD?
  - UNIQUE
  - DATA TYPE (TEST, FA, STATUS)
  - COMPANY NAME

FORMAT OF SORT ORDER

- AUTOMATION
  - CONNECTION / LOGIN / AUTHENTICATION (SECURE)
  - FILE TRANSFER → LOGOUT
  - FA
- DIRECTORY STRUCTURE
  - IN BOX / OUT BOX ONLY?

ALL LAB NAME IN DIRECTORY STRUCT.

- SAME VIEW FROM LAB PERSPECTIVE?

Next Steps

Attachment	7
Page	VI
Reference	EDTM

- sftp (SSH) or https:
- Review white paper 4 weeks
- Resolve issues ID'd today & from white paper
- [redacted] TESTING AMONGST >1 Additive Company & CAB

ftp-pgp - Key server

→ Conference Call early June

- resolve issues from 4/26 [redacted]
- ID issues from White paper
- Review [redacted] - create SSL site

Data Communications Meeting
April 26, 2001
At the Conclusion of EDTM – 5:00 pm
Homewood Suites Riverwalk
San Antonio, TX

Attachment	1
Page	1/1
Reference	DCC

1. Call to Order – Agenda Review
2. Membership Changes
3. Approval of October 19, 2000 meeting minutes
4. Review Action Items From Last Meeting

ACTION ITEMS

TMC	1) Update ETRTM with changes made this meeting. 2) Obtain "surveillance panel-approved" versions of the TC2 and TC3 report packages.
EDTM sub-panel	1) Recommend a replacement data transmission method to X.400.
Mark Griffin	1) Provide [illegible] with a copy of Southwest Research's M-11 EGR report package. 2) Create proposed ETRTM rules for dealing with extended length tests for inclusion as a new section (5.0).
All	1) Investigate/recommend possible replacement for dotForm. 2) Investigate implications of XML for discussion at the next meeting. TABLE

5. Data Dictionary Construction Status
   - M11EGR – Sally Lloyd – APPROVED / 30 days – 2 WEEKS
   - 19 – MARK GRIFFIN

   Priority of next test areas – L10
   Report Forms/Data Dictionary Memos/IL's
   TMC Telecom Test Summary
   ETRTM Review

6. EDTM Subcommittee Report – David Hood
7. Review Scope & Objectives
8. [illegible] IIF [illegible]
9. [illegible]/Adjournment

NEXT OCTOBER ~ WEEK 15

Attachment	2
Page	1/1
Reference	DCC

DCC Member List

Voting Members	
Scott Parke	TMC
~~Michael Burk~~	ExxonMobil
Mark Slepsky	Lubrizol
Mark Griffin	Southwest Research Institute
LIKA BARNABISHVILI	Infineum
Maryse Shull	Ethyl Petroleum Additives
Mike Kahn	Chevron Chemical Company
Sally Lloyd	PerkinElmer Automotive Research
~~Don Silver~~	Valvoline Inc.
Ralph Grace	Imperial Oil Inc.
Non-Voting Members	
Frank Farber	TMC
Jody Frommer	Lubrizol
David Hood	Chevron Chemical Company
CHRIS RICHTBERG	
John Beck	RSI/ERC
John White	Southwest Research Institute

Attachment 3
Page 1/2
Reference DCC
26 April, 2001

Closing the EDT Gap

Preface

To date the task of implementing an EDT solution between trading partners has involved examining the hard copy test report and mapping test results located on every report page with data fields located in a data comm transmit file. This method of data definition has been driven by client generated requests received by the labs to include all of the data being reported in a test in an EDT file. Since the formation of the ASTM Data Comm Task Force (DCTF), and later the DCC, the focus has been refined (reduced) to review of only the official test report packet maintained by the ASTM Test Monitoring Center (TMC).

The current set of data dictionaries maintained by the TMC account for all of the data fields for a given test report as determined by the test procedure. While this approach satisfies the needs of reference test reporting, including the EDT file creation / transmission, it falls short of providing a complete solution for candidate (non-reference) test reporting. The labs and their clients must still develop additional definitions for data found on report pages (forms) which comprise the complete report packet. These additional fields will satisfy the need for reporting extended length test results, additional oil analysis data, ACC conformance data, additional rating and/or measurement results, etc. Basically, any data field not covered by the official test report / procedure.

The practice of working independent of the DCC for data definition to augment TMC developed report packets creates the potential for duplicate work among labs and their clients, who are working to achieve a common goal. The worst case being the creation of dissimilar definitions for the same data.

Proposal

Since most of the trading partners involved with the additional definitions also maintains a DCC presence, it makes sense for the DCC to adopt a standard solution that all trading partners can use.

Resolution

The DCC developed Electronic Test Report Transmission Model (ETRTM) provides a well defined protocol for data dictionary development and flat file transmissions. In order to maintain a standard among trading partners, the creation of any additional data definitions should adhere to the ETRTM. In fact, additional rules for the ETRTM would be required.

Attachment 3
Page 2/2
Reference DCC
~~26 April, 2001~~

Closing the EDT Gap

To make this proposal feasible, there are some key issues to resolve.

- **Acceptance by DCC.** For the proposal of developing new rules for the ETRTM to handle additional (non-~~TMC~~ UNDEFINED BY PROCEDURE defined) data.
- **Administrator assignment**. To perform the role that the TMC currently provides for the standard report packet. To include maintenance for beta and production releases of dictionary and forms.
- **Repository selection.** For the storage and retrieval of additional definitions by trading partners.
- **Collection procedure**. To obtain consensus on which additional field definitions are required. Should allow a provision for excluding client sensitive data (where applicable).
- **Coordination method**. To coordinate additional mnemonics with existing standard report packet mnemonic definitions. This is crucial if the additional data will be transmitted in the same EDT file.
- **Version control**. Need to determine how the link with the standard report definitions will be managed. i.e. Use common version?
- **Composite vs. Supplemental dicitonary**. Will the additional fields be maintained in a separate dictionary, or will they be appended to the standard dictionary (composite)?
- **Other Issues?**

Next Steps

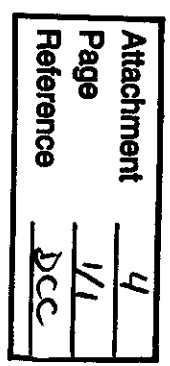
The DCC acceptance issue should be resolved first.

If proposal is accepted, then the resolution of the remaining issues by sub-committee is needed. The ETRTM rules to handle additional data definitions will need to be drafted (also by sub-committee?) and voted for approval by the DCC.

Next, a target set of additional fields (e.g. extended test length data) should be selected for a current test type and the data definitions should be collected and beta tested.

Jetform Replacement

- TMC is investigating Adobe Acrobat
  - Form design can be done with MS Word or other common packages
  - Save form design as pdf
  - In Acrobat assign cell names and store within pdf
  - Create fdf file with data
  - Use Acrobat Reader to merge pdf and fdf



1Q Beta Testing Epilogue

Attachment	5
Page	1/1
Reference	DCC

Changes

Listed below is a break-down by form number of items submitted for feedback or proposed changes during beta testing. The items are detailed in the beta testing notes. This shows in which forms the affected fields are located.

Form	Items	Fields	Report Page Modifications
2	4	17	0
3	6	1	9
5	2	2	0
6a	2	8	0
7	2	13	1
9	1	1	0
13	1	2	0

Wish list

Based on the premise that we learn from the beta testing effort and make adjustments to the process, below is a list of items that would be nice to have in place before the data dictionary beta testing effort is begun.

1. Need to create a Test Hours mnemonic (i.e. TST_Hxxx) to be defined for hourly repeating field groups.

2. Need to create non-repeating fields for data being defined for "New", non-used, oil samples.

3. Need to avoid creating non-hourly repeating field names with 'Hxxx' suffix (use 'Rxxx' instead).

Note: These are items that have been recurrent during the beta testing of new test types (dictionaries).

Amendment for ETRTM rules document

The text for field descriptions, excluding the units of measurement '(...)' text, shall be unique within a data dictionary,

ATTACHMENT 6

Attachment	6
Page	1/5
Reference	DCC

Report Forms/Data Dictionary Status

	Test Type	Report Layout Status	Data Dictionary Status	Report Package Status	Industry Effective Date	Information Letter/ Memo	Current Dictionary Version	Date of DCC approval for use with electronic Transmission
			Gasoline Tests					
1	IIIE	Approved	Approved		19940114	94-1	19940413	19940201
					19940414	94-89	19940413	19940413
					19951129	95-1	19950725	19950725
					19960628	96-1	19960221	19960124
					19980331	98-1	19980202	19980202
				In production	19980331	98-1	19980403	19980202
2	VE	Approved	Approved		19941101	94-3	19940713	
					19950501	95-2	19950208	19950501
					19950901	95-5	19950530	19950530
					19961001	96-2	19960726	19960726
					19970310	97-2	19970130	19970109
				In production	19971124	97-5	19970902	19970902
3	L38	Approved	Approved		19951201	21	19950816	19950803
					19960201	22	19951002	19951002
					19960515	23	19960326	19960326
					19970404	25	19970129	19961024
				In production	20000315	30	19990621	19991123
4	IID	Approved	Approved	In production	19960415	96-1	19960206	19960213
5	VIA	Approved	Approved		19951101	95-1	19950818	19950818
					19960315	96-1	19960112	19960112
					19960916	96-3	19960612	19960612
					19970402	97-1	19970225	19970124
					19980409	98-1	19971215	19971215
					19990208	99-1	19981006	Editorial
				In production	19991112	99-3	19990729	19990729
6	VG	Approved	Approved				19980708	19980708
							19980820	19980820
					19990503	99-56	19990412	19990412
					19991025	99-154	19990827	19991015
					20000215	00-1	20000112	20000127
					20000802	00-2	20000713	20000629
					20001101	00-3	20000831	20000914
				In production	20010206	01-1	20001214	20001222
7	IIIF	Approved	Approved				19981008	
							19981221	19981221
					19990401	99-30	19990301	19990301
					20000713	00-103	20000629	20000706
					20001113	00-137	20001011	20001006
				In production	20010201	01-013	20010115	20010125
8	IVA	Approved	Approved			98-161	19980625	19980625
						98-185	19980804	19980804
					19990216	99-5	19981201	19981201
					19991015	99-142	19990716	19990716
				In production	20000801	00-2	20000126	20000519
9	IVD	Completed	Completed				19971117	
10	VIB	Approved	Approved				19980810	19980810
						99-44	19990303	19990303

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Reference DCC

Report Forms/Data Dictionary Status

	Test Type	Report Layout Status	Data Dictionary Status	Report Package Status	Industry Effective Date	Information Letter/ Memo	Current Dictionary Version	Date of DCC approval for use with electronic Transmission
					19990430	99-82	19990427	19990427
					19990924	99-1	19990625	19990625
					20000901	00-3	20000626	20000714
				In production	20010301	01-009	20010105	20010116
11	VIII	Approved	Approved			98-156	19980609	19980609
						98-180	19980805	19980805
					19990416	99-1	19980820	19980820
				In production	20000710	00-1	20000128	20000511
			Diesel Tests					
12	T8	Approved	Approved		19940727	94-1	19940615	19940301
					19950603	95-1	19950321	19950321
					19960815	96-1	19960122	19960122
					19971001	97-1	19970702	19970630
					19980316	98-1	19980122	19980122
					19980803	98-2	19980702	19980702
					19980928	98-3	19980818	19980818
					19980928	98-3	19980902	19980818
				In production	19990129	98-5	19981027	19981027
13	1MPC	Approved	Approved		19950926	95-1	19950607	19950607
					19980430	98-2	19980203	19980203
				In production	19981109	98-4	19980922	19980922
14	6V92	Approved	Approved		19940119	94-1	19940119	
					19990301	99-1	19981208	19981208
				In production	19990601	99-2	19990414	19990414
15	RFWT	Approved	Approved		19940901	94-1	19940503	
					19950903	95-1	19950606	19960606
					19960701	96-1	19960326	19960326
				In production	19961201	96-2	19960828	19960828
16	1K/1N	Approved	Approved		19960731	96-1	19960808	19960816
					19960923	96-2	19960913	19960913
					19980828	98-2	19980701	19980701
				In production	19981111	98-3	19980923	19980923
17	M11	Approved	Approved		19971006	97-178	19970725	19970721
					19980202	97-258	19971113	19971113
					19980202	98-25	19980129	19980129
					19980731	98-1	19980604	19980604
				In production	19990709	99-1	19981110	19981110
18	M11EGR	Approved			asap		20010111	
							20010328	
19	1P	Approved	Approved				19970923	19970923
							19971015	19971015
					19971024	97-224	19971024	19971024
					19980601	98-51	19980302	19971223
				In production	19981102	98-1	19980921	19980921
20	1Q	Approved	Beta Testing	Approved	20010207	01-016	20010122	20010207
21	T9	Approved	Approved		19971013	97-183	19970822	19970822
					19980202	97-257	19971106	19971106

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Reference DCC

Report Forms/Data Dictionary Status

	Test Type	Report Layout Status	Data Dictionary Status	Report Package Status	Industry Effective Date	Information Letter/ Memo	Current Dictionary Version	Date of DCC approval for use with electronic Transmission
					19980803	98-1	19980601	19980601
					19981026	98-2	19980804	19980804
				In production	19990323	99-1	19981110	19981110
22	T10	Approved	Approved	In production	20010103	01-002	20010102	20001???
23	EOAT	Approved	Approved	In production	19991101	99-1	19990803	19990803
			Gear Tests					
24	L60	Approved	Approved		19941120	IL-5	19941012	19950216
				In production	19950918	IL-6	19950710	19950710
25	L42	Approved	Approved		19940903	IL-4	19940707	
					19950823	IL-5	19950721	
					19960715	96-1	19960607	19960111
					19970317	97-1	19970305	19970305
				In production	19980302	98-1	19971211	19971125
26	L33	Approved	Approved		19941020	IL-3	19940909	
					19950819	IL-4	19950509	
					19960506	96-2	19960329	19960212
					19970602	97-1	19970411	19970331
					19970602	97-3	19970609	19970609
				In production	19980303	98-1	19971218	19971218
27	L37	Approved	Approved		19940829	IL-5	19940707	
					19950819	IL- 6	19950424	
					19960603	96-3	19960425	19960410
							19970902	19970902
							19971124	19971104
					19980309	98-1	19971223	19971223
					19980310	98-3	19980203	19980203
					19980901	98-4	19980605	19980605
				In production	19981116	98-5	19980908	19980908
28	L601	Approved	Approved				19950201	19950216
							19950705	19950705
					19951115	95-1	19950912	19950912
					19960531	96-3	19960408	19950912
					19970530	97-1	19970411	19970411
					19970829	97-2	19970611	19970611
					19971107	97-3	19970902	19970902
					19981123	98-3	19980914	19980914
				In production	20000427	00-1	20000126	?
29	HTCT	Approved	Approved				19940809	
					19970324	97-1	19970128	19961104
					19980209	98-1	19971117	19971117
				In production	19980727	98-2	19980605	19980605
30	GST	Approved	Approved	Ready for Beta Testing			19980319	
			Bench Tests					
31	CBT	Approved	Approved		19961101	96-1	19960408	19960214

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Reference	DCC

Report Forms/Data Dictionary Status

	Test Type	Report Layout Status	Data Dictionary Status	Report Package Status	Industry Effective Date	Information Letter/ Memo	Current Dictionary Version	Date of DCC approval for use with electronic Transmission
					19990129	98-3	19981102	19981102
				In production	20010315	01-1	20010118	20010206
32	HTCBT	Approved	Approved		19980306	98-146	19980306	19980306
					19990122	98-256	19981120	19981120
				In production	20010201	01-01	20010117	20010123
33	OSCT	Approved	Approved				19940216	
							19960301	
					19971201	97-3	19970917	19970528
				In production	19980817	98-1	19980122	19980122
34	GI	Approved	Approved				19960403	
				In production	19970315	97-20	19970128	19961203
35	TEOST	Approved	Approved				19960221	
				In production	19970330	97-38	19970128	19970128
36	VGC	Approved	Approved				19960423	
				In production	19970614	97-87	19970416	19970416
37	FOAM	Approved	Approved				19960502	
							19980128	
				In production	19980422	98-67	19980306	19980306
38	EVLO	Approved	Approved				19960403	
					19980123	97-270	19971107	19971107
					19980720	98-145	19980311	19980311
				In production	19990119	98-275	19981215	19981215
39	MTEOS	Approved	Approved		19980817		19980803	19980803
							19980820	19980820
				In production	20001120	00-142	20001013	20001013
					20010208	00-185	20001208	20001211
40	BRT	Approved	Approved	In production	20000308	00-014	20000120	20000127
41	EOFT	Approved	Approved	In production	20000804	00-116	20000713	20000803
42	EOWT	Approved	Approved	In production	20000804	00-117	20000720	20000803
43	D6417	Approved	Approved	In production	20001102	00-132	20000928	20000922
44	D5800	Approved	Approved	In production	20001107	00-133	20000926	20000928
45	D6082	Approved	Approved	Inproduction	20001109	00-136	20001002	20000930

Two Cycle Tests

43	TC1	Complete	Complete					
44	TC2	Complete	Complete					
45	TC3	Complete	Complete					
	HDR	Header Data Dictionary used for Flat File Transmission					19931221	19931221
	ACK	Acknowledgement Message Dictionary					19980129	

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Reference	DCC

Report Forms/Data Dictionary Status

Test Type	Report Layout Status	Data Dictionary Status	Report Package Status	Industry Effective Date	Information Letter/ Memo	Current Dictionary Version	Date of DCC approval for use with electronic Transmission

SP = Surveillance Panel
TF = Task Force (Test Type is under development and not considered an approved procedure)

Last Updated: **20010424**

Attachment	7
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Reference	DCC

Reference Oil Test Transmission Summary
20001001 to 20010401

Group	Test Type	Reported Tests		
		# Transmitted via ETRTM	Total	% Transmitted via ETRTM
Bench Tests	BRT	112	114	98
	CBT	34	34	100
	EOFT	36	82	44
	EOWT	135	412	33
	D5800	16	41	39
	D6082	19	20	95
	GI	26	39	67
	HTCBT	127	127	100
	MTEOS	18	55	33
	TEOST	8	8	100
	VGC	12	13	92
Diesel Tests	1K1N	9	9	100
	1MPC	14	14	100
	1P	1	1	100
	6V92	0	2	0
	EOAT	1	1	100
	L10	0	8	0
	M11	6	6	100
	RFWT	0	0	N/A
	T8	12	12	100
Gasoline Tests	IID	0	0	N/A
	IIIE	2	2	100
	IIIF	63	64	98
	IVA	56	57	98
	L38	5	5	100
	VE	7	7	100
	VG	31	31	100
	VIA	2	2	100
	VIB	140	142	99
	VIII	12	12	100
Gear Tests	HTCT	9	9	100
	L33	49	49	100
	L37	12	12	100
	L42	120	120	100
	L601	66	66	100
	OSCT	4	98	4
	OSCTM	0	0	N/A
Two-Cycle Tests	TC1	0	18	0
	TC2	0	1	0
	TC3	0	0	0
Totals		1202	1754	69

/docs/data_communications_committee/tmc_transmissions/P20001001_to_20010401

Data Communications Committee Objectives

Stabilization of Data Dictionaries – High Priority				
Test Area	Beta Team Leader		Status	Expected Completion Date
	SR	EG		
T10		1	Pending Beta Testing	10-2000
1Q	2		Pending Beta Testing	10-2000
M11-EGR		3	Pending TMC Development	11-2000
L10				12-2000
TC1/TC2/TC3				6-2001

Attachment 8
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Reference DCC

Attachment	8
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Reference	DCC

Medium – Low Priority	Address Date
Electronic Data Transmission Methods	10-2001
Digitized Photographs	04-2002
Electronic Test Scheduling	12-2002
Extended Test Length Project	10-2001
Digitized Signatures	12-2002

Attachment 8
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Reference DCC