# EA02-027 FORD 8/5/03 LETTER TO ODI

APPENDIX A

5 BOXES BOX 5 OF 5

**PART 1 OF 4** 

Die adhesive inspection of p-89 sensor - SRL microscope lab

Start: End:

Mon 9/30/2002 9:30 AM Mon 9/30/2002 10:30 AM Tentative

Show Time As:

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendees:

Akolkar, Shrikant (S.V.); Freeland, Mark (M.); Maurer, James (J.B.)

Review the DPFE Interface ckt.

SRL/ECC 2AG06

Start End

Tue 10/8/2002 10:00 AM Tue 10/8/2002 12:00 PM

Show Time As:

Tentative

Recurrence:

(none)

**Moeting Status:** 

Not yet responded

Required Attendese: Optional Attendese:

Alles, Sheren (S.A.); Kotwicki, Allen (A.J.) Freeland, Mark (M.)

HI AL

Hope we could get-together tomorrow to review and decide on exactly what we need to have.

Thanks

Regards

-Sheran

Bublect:

Discussion on protection cities

Location:

Mark's office

Start: End: Thu 9/12/2002 9:30 AM Thu 9/12/2002 11:00 AM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendees:

Allea, Sheran (S.A.); Kotwicki, Allen (A.J.); Freeland, Mark (M.)

Importance:

High

Helio Al, Mark

I received some of the Internals of the ASIC (clear print), Maybe we should go through it as there is the usual clamp on the Vout, which helps in the overshoot issue.

As discussed yesterday, we will also be putting together a prototype for testing.

Regards

-Sheran

Return Parts Analysis Mark's Desk

Start End:

Mon 3/11/2002 12:00 PM Mon 3/11/2002 1:00 PM Tentative

Show Time As:

Recurrence:

(none)

Moeting Status:

Not yet responded

Required Attendess:

Awad, Mahmoud (M.I.); Freeland, Mark (M.); Salhieh, Loay (L.)

Subject:

Stu Evens DPFE Repeat Repairs

Location:

**POEE D138** 

Start: End: Thu 8/22/2002 10:00 AM Thu 8/22/2002 11:00 AM

Show Time As:

Tentative

Recurrence:

(name)

Meeting Status:

Not yet responded

Required Attendees:

Bansek, Catherine (C.K.); Akins, Mary (M.); Gates, Freeman (F.C.); Johnson, Joe (J.H.); Freeland, Mark (M.); Vroman, Dennis (D.A.); Duclos, Jeffrey (J.A.); Ogozały, Jim (J.C.);

Maurer, James (J.B.)

--- Informational--

Findings at Stu Evans 4.0t. 2002 Moutaineer with DPFE replacement

Kaviloo Fallure Analysis Sci Lab

Start: End:

Thu 4/25/2002 1:00 PM Thu 4/25/2002 4:00 PM Tentative

Show Time As:

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendees:

Bansek, Catherine (C.K.); Verner, Carol (C.J.); Freeland, Mark (M.)

Subject:

Part review - 9J460

Location:

6SC / Warranty Parts return center - see attachment wipromap

Start: End: Tue 6/18/2002 11:00 AM Tue 6/18/2002 12:00 PM

Show Time As:

Tentative

Recurrence:

(none)

**Meeting Status:** 

Not yet responded

Required Attendees:

Berry, Joseph (J.P.); Freeland, Mark (M.); Maurer, James (J.B.); Akine, Mary (M.)

Good morning Mark,

We will be reviewing approximately 25 EGR sensors. Any questions or concerns, please call me.

Thenks





Review Instructions.doc orcmap.pot 9177502-93

E29

TECH COMMENTS 3519 42.KOEO,PASS,P0401.KOER,PASS. WARR, 481. VERIFY CONCERN. 12650D,DX1,D45,D81,D84. CODES QA,DD, REPROGRAM PROCESSOF EEC - (QUICK TEST) - DIAGNOSIS OUT OF RANGE 14299 PFE SENSOR(9,1480)-42 WDS DIAG/P0401/DCL DISPLAY-PASS/ROAD TEST &RECORD/PFE INTER TOO LOW/PINIPT TEST/REPL PFE SENS LEAK AT REAR AXLE SEAL, INSPECTED REAR AXLE FOUND RIGHT SIDE REAR AXLE BRING, LOSE IN AXLE, BRING, BORRE OUT OF ROUND REP EEC - (QUICK TEST) - DIAGNOSIS LOW VOLTAGE EEC - (QUICK TEST) - DIAGNOSIS PFE SENSOR 31 CC42 126500.2 DX1.1 D80.1 D81.5 D45.3 D9.3 1.5HR, EEC TEST P0401 DCL DISPLAY AND MONITOR PID DATA PINPOINT TEST AND REPLAC EEC - (QUICK TEST) - DIAGNOSIS CK ENGINE LIGHT ON EEC TEST, CODES P0401 P0402, PERFORM DCL DISPLAY PERFORMED RECORDER MONITOR TEST, DPFE RESPONDS TO COMMANDS BUT ST/ TECH VERIFIED CONCERN-PULLED CODE P0401-TECH TRACED SYSTEM -FOUND DPFE REFERENCE OUT OF RANGE-REPLACE. TECH REPLA TECH INSPECTED AND VERIFIED CONCERN, REMOVED AND REPLACED DPFE SENSOR, ALL OK AT THIS TIME PERFORM WIDS TESTS ON VEH REPLACE DPFE AND RETEST WDS, PINPOINT TEST, REPLACE OPFE SENSOR-OPEN, RETEST 1 EEC TEST FOUND CODE P0401 RAN DCL DISPLAY AND RECORD PINPOIN TEST FOUND BAD DPFE REPLACED CLEARED CODES AND ROAD EEC - (QUICK TEST) - DIAGNOSIS SENSOR EEC TEST P0401 RECORDER MONITOR DPFE READING .08V PINPOINT ETS TREPLACE DPFE SENSOR RETEST P1000 CHECK EEC. TEST AND REPLACE DPFE SENSOR 9814 SYSTEM CHECK OUT PERFORM INSPECTION VERIFY CONC ERN PERFORM EEC TEST PO401 IN MEMORY AND HARD FAULT PERFORM

6086 C. 42 W PERFORM EEC TEST PO401 MIL LIGHT ON PERFORM FUIEL PRESSURE TEST 30 PSI NGS MONITOR ROAD TEST OPFE .9 VOLTS 9537 CASUAL PART NO. 9J480 COND. CODE 42 NGS START UP DIAG. PERFORMED EEC V DIAG KOEO- P1111 CONT-P0401 KOER-P1408. PER WDS KOEO PASS MEM P0401 WDS DATA LOGGER ROAD TEST MONITOR AND RECORD DIFFE STAYS HIGH WITH EGR ON OR OFF PINIPOINT 13509 9,1460 CC 42 12650D 2,D45 3,D60 1,D9 2,MT15807,DX1 .1 EEC DIAGNOSIS- YKOEO P1111 KOEC B1681,P0401 KOE R P1408 PID DISPLA\* CONDITION CODE 42 NGS CONNECTED EEC TESTED KOEO CONTINEMORY CODE P-0401 PID MONITOR TESTED DPFE SENSOR VOLTAGE AT 6831 W DIAG. EEC SYSTEM CODE P1000-P0401,P1000 CHECK DCL AND ALL SENSORS READING NORMALLY, CLEAR CODE AND ROAD TEST \ 8849 CC 42 WARR MIL LIGHT ON EEC TEST KOED PASS MEMORY PO401 CLEAR CODE KOER P1000 ROAD TEST DCL. DISPLAY TO MONITOR-REPLACED DPFE SENSOR

25674 42 126500,DX1,D9,D45,D80,D81 1.5 8978-EEC TEST SYSTEM CODE P0401 HOOK UP NGS AND MONITOR SYSTEM DPFE AT 4.7 VOLTS P TECH VERIFIED, PERFORMED PINPOINT TESTS, FOUND FAULTY DPFE SENSOR, REPLACED SENSOR, TESTED, ALL OK

EEC - (QUICK TEST) - DIAGNOSIS PFE

1 DIAGNOSED ELECTRONIC ENGINE CONTROL SYSTEM. DIAGNOSTIC CODES P1408 P0401 PERFORMED PINPOINT TESTS ON EGR SYSTEM 14432 CK ENGINE LIGHT ON, EEC TEST KOEG CODE PO401 PID MONITOR &RECORD , FOUND DPFE SENSOR OUT OF RANGE 1.8 VOLTS. REI 19541 PFE SENSOR(9J480)-42 WDS DIAG/P0401-402/DCL DISPLAY-PASS/ROAD TERECORD/PFE INTER TOO HIGH & TOO LOW/PINPT TEST/RPI

EEC - (QUICK TEST) - DIAGNOSIS DPFE SENSOR

EEC - (QUICK TEST) - DIAGNOSIS

	PA_CODE		PART_		NAME	ENG_NUM			
	04820	954-972-7200		BJ460AC	SENSOR ASY	YF1E9J460AD			
•	05643	<b>659-271-444</b> 0		9J460AC	SENSOR ASY	YF1E9J460AD	•		
	02760	313-584-2250		9J480AC	SENSOR ASY	YF1E9J460AD			
	05414	714-832-3322		9J480AC	SENSOR ASY	YF1E9J480AD			
	00034	410-265-0200		9J480AC	SENSOR ASY	YF1E9J460AD			
	00529	770-984-9801		9.1480AC	SENSOR ASY	YF1E8J460AD			
	01472	938-758-7781		9J480AC	SENSOR ASY	YF1E9J460AD			
	00929	664-585-3600	YF1Z	8J480AC	SENSOR ASY	YF168J460AD			
	08990	617-770-0070	YF1Z	9J460AC	SENSOR ASY	YF1E9J480AD			
	07851	850-366-5744		9J480AC	SENSOR ASY	YF1E9J460AD			
	06558	206-454-2454	YF1Z	9J460AC	SENSOR ASY	YF1E8J460AD			
	01013	773-776-7600	YF1Z	9J480AC	SENSOR ASY	YF1E9J460AD			
	02349	304-825-0431	YF1Z	BJ480AC	SENSOR ASY	YF1 <b>E8J480AD</b>			
	00996	919-487-1881		9J460AC	SENSOR ASY	YF1E9J460AD			
	01305	215-945-8000	YF1Z	9J480AC	SENSOR ASY	YF1E9J460AD			
	04920	305-234-2007	YF1Z	9J460AC	SENSOR ABY	YF1E9J480AD			
	05928	682-327-3673	YF1Z	5J480AC	SENSOR ASY	YF1E9J460AD			
	04924	407-851-1764		9J480AC	SENSOR ASY	YF1E8J460AD			
	02490	214-361-8100	YF1Z	BJ480AC	SENSOR ASY	YF1E9J480AD			
	04511	713-932-5065	YF1Z	9J480AC	SENSOR ASY	YF1E9J480AD			
	00193	706-885-2168	YF1Z	9J460AC	SENSOR ASY	YF1E9J460AD	•		
	04511	713-932-5065	YF1Z	9J480AC	SENSOR ASY	YF1E9J460AD			
	09801	989-631-0040		9J460AC	SENSOR ASY	YF1E9J480AD			
	02801		YF1Z	9J480AC	SENSOR ASY	YF1E9J460AD			
	02490	214-381-8100	YF1Z	9J460AC	SENSOR ASY	YF1E9J480AD			
	09480	800-728-4117	YF1Z	9J480AC	SENSOR ASY	YF1E9J460AD			
	05539	909-822-4401	YF1Z	BJ480AC	SENSOR ASY	YF1E9J480AD			
	01906	513-248-1402	YF1Z	BJ460AC	SENSOR ASY	YF1E8J480AD			
	00460	770-393-1773	YF1Z	9J480AC	SENSOR ASY	YF1E9J480AD			
	01221	609-388-3100		BJ460AC	SENSOR ASY	YF1E9J480AD			
	02490	214-381-8100		9,1480AC	SENSOR ASY	YF1E9J460AD			
	02780	313-584-2250		9J400AC	SENSOR ASY	YF1E9J460AD			
··-	07757	707-421-3380		9J460AC	SENSOR ASY	YF1E9J480AD			
<b>9</b>	02694	248-843-7500		BJ460AC	SENSOR ASY	YF1E9J460AD			
	03817	518-581-1030		9J480AC	SENSOR ASY	YF1E9J480AD			
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Warranty Parts Return Center-6 Sigma Bldg 15090 North Commerce Drive Dearborn, Mi 48120



Subject: WPRC Part Pilot Program

# Objective:

Majority of WPRC pilot review will be concentrating on component analysis
relating to customer concern and tech comments. If you plan to bench test any
parts, please let us know prior to review.

### Outcome:

- Confirmation of problem statement [if possible]
- Agreed timing for testing [one week]
- If testing doesn't identify root cause. 8D timing plan will be initiated by team
- Ford D&R Engineer to ensure completion of assignments
- · Identify if additional parts are required
- Follow up reviews will be scheduled at this time [if required]

## Note:

- D&R Ford Engineer are encouraged invite additional team members
- · Warranty parts status to be reviewed at the PST meeting on a rotational basis

dpfe project mark'e cube 1517 eri

\$tert: End:

Thu 8/1/2002 3:00 PM Thu 8/1/2002 4:00 PM Tentative

Show Time As:

Recumence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Bryant, Bruce (B.D.); Freeland, Mark (M.)

we'll discuss the recent decisions re dpfe warrantees/root cause analysis & impact on Mark's work

From: Sent: To: Subject:

Bryent, Bruce (B.D.) Wednesday, May 29, 2002 6:69 AM Freeland, Mark (M.) Accepted: Kaylico dPF& Sensor 6 Sigma Project

Discuss DPFE sensor project 1517 SRL - Mark's cube

Start: End:

Thu 5/16/2002 1:00 PM Thu 5/16/2002 2:00 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Bryant, Bruce (B.D.); Freeland, Mark (M.)

We'll discuss the project scope, timing, intended deliverables, affected organizations, additional support requirements, and anything else that comes up:

Updated: EESE support of FRL BB projects

ocation: Crockett's desk - #5, 2A108

Start: End: Fri 8/14/2002 3:00 PM Fri 8/14/2002 4:00 PM

Show Time As:

Tentative

Recurrence:

(enon)

Mooting Status:

Not yet responded

Required Attendess:

Crockett, Dante (D.K.); Bryant, Bruce (B.D.); Freeland, Mark (M.)

# RESCHEDULED TO TO MARK FREELAND'S UNAVAILABILITY ON 6/10

Goal:

To discuss FRL needs for support from EESE blackbeits on powertrain-related projects

if there is a better meeting location to look at vehicles or equipment, please let me know.

Updated: EESE support of FRL B8 projects Crockett's deek - #5, 2A106

Start: End:

Fri 6/14/2002 \$:00 PM Fri 6/14/2002 4:00 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendees:

Crockett, Dante (D.K.); Bryant, Bruce (B.D.); Freetand, Mark (M.)

RESCHEDULED TO TO MARK FREELAND'S UNAVAILABILITY ON 6/10

Goat:

To discuss FRL needs for support from EESE blackbelts on powertrain-related projects

If there is a better meeting location to look at vehicles or equipment, please let me know.

Updated: EESE support of FRL BB projects

Crockett's desk - #5, 2A106

8tert End:

Frt 6/14/2002 3:00 PM Fri 6/14/2002 4:00 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendees:

Crockett, Dente (D.K.); Bryent, Bruce (B.D.); Freeland, Mark (M.)

### RESCHEDULED TO TO MARK FREELAND'S UNAVAILABILITY ON 6/10

### Goal:

To discuss FRL needs for support from EESE blackbelts on powertrain-related projects

If there is a batter meeting location to look at vehicles or equipment, please let me know.

1:1 W/GCD & Mark Freeland GCD's Office, 3622/SRL

Start: End:

Fri 11/8/2002 1:00 PM Fri 11/8/2002 2:00 PM Tentative

Show Time As:

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Davis, George (G.C.); Freeland, Mark (M.)

From:

Tesaedri, Tina (T.M.) on behalf of Davis, George (G.C.) Friday, September 20, 2002 10:35 AM

Sent:

To:

Ca:

Koszewnik, John (J.J.) Freeland, Mark (M.); Wedlow, Janice (J.K.) Declined: DPFE Redesign

Subject:

George Davis will not be available at this time due to a conflicting (mandatory) meeting called by his Director, Graham Hoare, at the same time. If George needs to be present, please check his Outlook calendar and reschedule. Thank you.

DPFE

J. Koszewnik's Office, POEE

Start: End

Thu 8/22/2002 11:40 AM Thu 8/22/2002 12:30 PM Tentative

Show Time Ae:

Requirence:

(enon)

Meeting Status:

Not yet responded

Required Attendees:

Davis, George (G.C.); Koszawnik, John (J.J.); Freeland, Mark (M.)

Subject:

Updated: GCD August Department Meeting

Location:

C/R 1127, SRL

Start: €nd:

Wed 8/21/2002 4:00 PM Wed 8/21/2002 5:00 PM

Show Time As:

Tentetive

Recurrence:

(nane)

Meeting Status:

Not yet responded

Reguland Attendess:

Davis, George (G.C.); SRL Conf Room 1127 (50); Alger, Terry (T.F.); Batteh, John; Bfobaum, Erica (E.); Bowles, Paul (P.D.); Chottiner, Jeffrey (J.E.); Chyo, Timothy (T.); Coulson, Gary (G.); Curtis, Eric; Dai, Wen (W.); Davis, George; Fan, Li (L.); Freetand, Maric, Fujii, Yuji; Gentile, Peter (P.H.); Han, Alien (Zhiyu); Hilditch, Jim (J.A.); Iyer, Claudia; Iyer, Vijay (V.); Jennings, Mark; Kenney, Tom; Kumar, Bhogineni (B.S.); Lee, Seung-Hoon (S.); Lee, Soduk Seminings, Institute (C.E.); Lee, Society, Lee, Seminings, Institute (C.E.); Lee, Society, James (J.R.); Makkapati, Satheesh (S.); McCallum, James (J.W.); McGee, Jeff (J.M.); Munoz, Ruben (R.H.); Neal, Pamela (P.H.); Newman, Charles (C.E.); Pletron, Greg; Puchaleky, Christopher; Ramanathan, Kartik (K.); Rogers, Matt; Rollinger, John; Schroder, Michael (M.); Scaepaneki, Jeffry (J.G.); Shen, Henry (Hubden); Smith, Richard (R.L.); Sorab, Jagadish (J.); Styron, Josh; Tessadri, Tina (T.M.); Tiler, Michael (M.M.); Tobler, Bill; VanDarWege, Bred (B.A.); Washington, Dormell; Watson, Alian (A.R.); Weaver, Corey (C.E.); Westrate, Barbara (B.L.); Wooldridge, Steven (S.T.); Xu, Zheng (Z.); Yang, Jialin; Yi, James; Zheng, Jeony (J.); Zhang, Jialin; Yi, James; Zheng, Jeony (J.); Zhang, Jialin; Yi, James;

Optional Attendess:

Zheng, Jenny (J.); Zhang, John X.; Zubeck, Michael (M.W.) Kumer, Bhogheni (B.S.); Blobaum, Erica (E.); Fujii, Yuji (Y.); Weever, Corey (C.E.);

Weshington II, Donnell (D.M.); Pietron, Greg (G.M.); Tobler, Bill (W.E.); Tiller, Michael (M.M.); Lee, Soduk (S.); Yang, Jistin (J.); Neal, Pamela (P.H.); Lelby, James (J.R.); Kenney, Tom

(T.E.); Lee, Seung-Hoon (S.); Bowles, Paul (P.D.); Curtis, Eric (E.W.)

importance:

High

NOTE: MEETING TIME BEING CHANGED (FROM 3:00-4:00) DUE TO A CONFLICT IN GEORGE'S SCHEDULE TODAY.

FULL-SIZE MARBLE CAKE & COFFEE ORDERED ON 8/6 FOR TOM KENNEY'S 15-YEAR ANNIV.

NOTE: VIJAY IYER WILL GIVE A 15-20 MINUTE PRESENTATION OF HIS PROJECT WORK.

From: Sent: To: Subject:

Drews, Andy (A.R.) Wadnesday, March 20, 2002 2:57 PM Freeland, Mark (M.) Accepted: Kavilico TM dPFE Sensor UPAD Root Cause Investigation.

EGR Project SRL Conf Room 1529 (10)

Start: End:

Fri 6/14/2002 1:00 PM Fri 6/14/2002 2:00 PM

Show Time As:

Tentative

Recurrence:

(enon)

Meeting Status:

Not yet responded

Required Attendees:

Duffy, Paul (P.E.); Freeland, Mark (M.); Alles, Sheran (S.A.); Makki, Award (A.); O'Neell, Jim (J.D.); SRL Conf Room 1529 (10)

Importance:

High

SORRY FOR THE LATE NOTICE.

Canceled: 3.0L U204 Phantom stall meeting

TEE CR#1

Start: End:

Thu 11/7/2002 2:00 PM Thu 11/7/2002 3:00 PM

Show Time As:

Free

Recurrence:

Recurrence Pattern:

every Thursday from 2:00 PM to 3:00 PM

Meeting Status:

Not yet responded

Required Attendess:

Aftoonien, Don (D.J.); Sauer, Scott (S.C.); Bhojwani, Kamel (K.); Blackburn, Thomas (T.J.); Bogerna, John (P.); Cary Powell (E-mail); Chick, John (J.); Chih, Ming-Niu (M.N.); Chin, Darrel (D.); Corbett, Sandra (S.M.); Dalbo, Bob (R.J.); De Pena, Juan (J.E.); Diez, Timothy (T.P.); Duvall, Allen (A.W.); Fascetti, Bob (R.J.); Fournelle, Gilbert (G.); Freeland, Mark (M.); Glies, Stuart (S.); Goldheia, Renukii (R.V.); Goodwin, William (W.R.); Grewal, Bill (B.S.); Grimes, Jaff (J.R.); Hansen, George (G.C.); Herr, George (G.J.); Hofman, Michael (M.V.); Holmes, Jeffrey (J.R.); Hoshino, Jun (J.); Ichikawa, Jiyunichiro (J.); Jensen, Ted (T.E.); Jones, Andy; Jordan, Donald (D.E.); Kanei, Shinji (S.); Khan, Naveed; Kosko, Jeff (J.R.); Lewler, Dave (D.A.); Le, Ozung (D.H.); Limtieco, Sleven (S.); Linde, Peter (P.A.); Liu, Jane (J.); Marck, Edmond (E.C.); Mariance, Tom (T.E.); Matesa, John (J.); Maurer, James (J.B.); Mazzella, Gary (G.R.); McCerthy, Fran (F.); Mcdonald, John; McGee, Brett (B.L.); Mooney, Larry (L.); Moorhouse, Scott (S.R.); Morgan, Torniko (T.T.); Morlshima, Shigeki (S.); Nakano, Hideki (H.); Nematoliahi, Sonya (S.); Nikolai, bernie; Noteboom, Jim (J.E.); Ortman, James (J.W.); Powers, Ken (K.W.); Price, Martin (M.); Raquepau, Alden (A.P.); Rothweller, Daniel (D.); Sheh, Kiren (K.C.); Shiralahi, Mesaru (M.); Stilgenbeuer, Jeffrey (J.R.); Suarez, Rhae (R.); Takasawa, Keth (K.D.); Taloubo, Hirolchi (H.); Veenatra, Tim (T.W.); Wakenell, Ray (R.A.);

Wettach, Bill (B.); Williams, Les (LHW.)

Optional Attendess:

Hofman, Michael (M.V.); Nakano, Hideki (H.); Lawler, Dave (D.A.); Grimes, Jeff (J.R.); Price,

Martin (M.): Moorhouse, Scott (S.R.): Hoshino, Jun (J.): Blackburn, Thomas (T.J.)

Importance:

Hilah

This meeting is cancelled due to a U204 test trip. The next meeting will be held at the regular scheduled time on 11/14/02 at 2:00pm

Meeting agenda and meeting minutes will be send separately on a weekly basis.

toll free:

1-886-227-7015

Ford net:

954-1206

International: 1-630-693-6145

Updated: 3.0L U204 Phantom stall meeting

TÉE CR#4

Start End:

Thu 10/24/2002 2:00 PM Thu 10/24/2002 3:00 PM

Show Time As:

Tentative

Recurrence:

Weekly

Recurrence Pattern:

every Thursday from 2:00 PM to 3:00 PM

Mosting Status:

Not yet responded

Required Attendoos:

Fournelle, Gilbert (G.); Altoonien, Don (D.J.); Beuer, Scott (S.C.); Bholweni, Kernal (K.); Blackburn, Thomas (T.J.); Bogerne, John (P.); Cary Powell (E-mell); Chick, John (J.); Chih. Ming-Niu (M.N.); Chin, Damel (D.); Corbett, Sandra (S.M.); Delbo, Bob (R.J.); De Pene, Juan (J.E.); Diez, Timothy (T.P.); Duvell, Allen (A.W.); Fascetti, Bob (R.J.); Fournelle, Gilbert (G.); Freeland, Mark (M.); Glies, Stuart (S.); Gokhale, Renuke (R.V.); Goodwin, William (W.R.); Grewal, Bill (B.S.); Grimes, Jeff (J.R.); Hansen, George (G.C.); Herr, George (G.J.); Hofman, Michael (M.V.); Holmes, Jeffrey (J.R.); Hoshino, Jun (J.); Ichikawa, Jivunichiro (J.); Jensen. Ted (T.E.); Jones, Andy, Jordan, Donald (D.E.); Kanei, Shinii (S.); Khan, Neveed; Kosko, Jeff (J.R.); Kwon, Soon (S.K.); Lewier, Dave (D.A.); Le, Dzung (D.H.); Limiteco, Steven (S.); Linde. Peter (P.A.); Liu, Jane (J.); Marck, Edmond (E.C.); Marianos, Tom (T.E.); Matesa, John (J.); Maurer, James (J.B.); Mazzella, Gary (G.R.); Modonald, John; McGee, Brett (B.L.); Mooney, Lerry (L.); Moorhouse, Scott (S.R.); Morgan, Torniko (T.T.); Morishime, Shigeki (S.); Nakeno, Hideki (H.); Nemetolishi, Sonya (S.); Nikolai, bernie; Noteboom, Jim (J.E.); Ortman, James (J.W.); Powers, Ken (K.W.); Price, Martin (M.); Requepeu, Alden (A.P.); Rothweller, Daniel (D.); Shah, Kiran (K.C.); Shiraishi, Masaru (M.); Stilgenbauer, Jeffrey (J.R.); Suarez, Rhee (R.); Takasawa, Kelth (K.D.); Takubo, Hirolchi (H.); Veenetra, Tim (T.W.); Wakenell, Ray (R.A.); Wettach, Bill (B.); Williams, Les (LHW.)

Optional Attendess:

Hofman, Michael (M.V.)

I made a mistake in the previous meeting notice (it was one continuous meeting instead of a weekly 1 hour meeting). Sorry for the inconvenience.

Meeting agenda and meeting minutes will be send separately on a weekly basis.

toll free:

1-866-227-7015

Ford net:

954-1208

International: 1-630-693-6145

Updated: 3.0L U204 Phentom stall meeting

TEE CR#1

**Start:** End:

Thu 10/24/2002 2:00 PM Thu 10/24/2002 3:00 PM

Show Time As:

**Tentative** 

Recurrence:

Weekly

Recurrence Pattern:

every Thursday from 2:00 PM to 3:00 PM

Meeting Status:

Not yet responded

Regulard Attendess:

Fournelle, Cilbert (G.); Altoonian, Don (D.J.); Bauer, Scott (S.C.); Bhojwani, Kamal (K.); Bisckburn, Thomas (T.J.); Bogema, John (P.); Cary Powel (E-mail); Chick, John (J.); Chih, Ming-Niu (M.N.); Chin, Darrel (D.); Corbett, Sandra (S.M.); Dalbo, Bob (R.J.); De Pena, Juan (J.E.); Disz, Timothy (T.P.); Duvali, Alien (A.W.); Fascetti, Sob (R.J.); Fournelle, Glibert (G.); Freeland, Mark (M.); Olles, Stuart (S.); Gokhale, Renuka (R.V.); Goodwin, William (W.R.); Grewal, Bill (B.S.); Grimes, Jeff (J.R.); Hansen, George (G.C.); Herr, George (G.J.); Hofman, Michael (M.V.); Holmes, Jeffrey (J.R.); Hoshino, Jun (J.); Iohikawa, Jiyunichiro (J.); Jensen, Ted (T.E.); Jones, Andy; Jordan, Donald (D.E.); Kanal, Shinji (S.); Khan, Naveed; Kosko, Jeff (J.R.); Kwon, Soon (S.K.); Lewler, Dave (D.A.); Le, Dzung (D.H.); Limiteco, Steven (S.); Unde, Peter (P.A.); Liu, Jane (J.); Marck, Edmond (E.C.); Merlance, Tom (T.E.); Metesa, John (J.); Maurer, James (J.B.); Mazzella, Gery (G.FL); Mcdonald, John; McGee, Brett (B.L.); Mooney, Larry (L.); Moornouse, Scott (S.R.); Morgen, Torniko (T.T.); Mortehima, Shigeki (S.); Nakano, Hideki (H.); Nametoliahi, Sonya (S.); Nikolei, bernie; Noteboom, Jim (J.E.); Ortman, James (J.W.); Powers, Ken (K.W.); Price, Martin (M.); Raquepeu, Alden (A.P.); Rothweller, Daniel (D.); Shah, Kiran (K.C.); Shiralshi, Masaru (M.); Stilgenbauer, Jeffrey (J.R.); Suaraz, Rhae (R.); Takasawa, Ketth (K.D.); Tekubo, Hirolchi (H.); Veenstra, Tim (T.W.); Wakenell, Ray

(R.A.); Wettach, Bill (B.); Williams, Lee (LHW.)

Optional Attendees:

Hofman, Michael (M.V.)

I made a mistake in the previous meeting notice (it was one continuous meeting instead of a weekly 1 hour meeting). Somy for the inconvenience.

Meeting agends and meeting minutes will be send separately on a weekly basis.

toll free:

1-886-227-7015

Ford net:

954-1206

International: 1-830-693-6145

Updated; 8.0L U204 Phantom stall meeting

TEE CR#1

Start End:

Thu 10/24/2002 2:00 PM Thu 10/24/2002 3:00 PM

Show Time As:

Tentative

Recurrence:

Weekly

Recurrence Pattern:

every Thursday from 2:00 PM to 3:00 PM

Meeting Status:

Not yet responded

Reguland Attendens:

Fournelle, Gilbert (G.); Altoonian, Don (D.J.); Bauer, Scott (S.C.); Bhojwani, Kamel (K.); Blackburn, Thomas (T.J.); Bogerna, John (P.); Cary Powell (E-mail); Chick, John (J.); Chih. Ming-Niu (M.N.); Chin, Derrei (D.); Corbett, Sandra (S.M.); Dalbo, Bob (R.J.); De Pena, Juan (J.E.); Diez, Timothy (T.P.); Duvell, Allen (A.W.); Fascetti, Bob (R.J.); Fournelle, Gilbert (G.); Freeland, Mark (M.); Gles, Stuart (S.); Gokhale, Renuka (R.V.); Goodwin, William (W.R.); Grawal, Bill (B.S.); Grimes, Jeff (J.R.); Hansen, George (G.C.); Herr, George (G.J.); Hofman, Michael (M.V.); Holmes, Jeffrey (J.R.); Hoehino, Jun (J.); Ichikawa, Jiyunkihiro (J.); Jensen, Ted (T.E.); Jones, Andy, Jordan, Donald (D.E.); Kanal, Shinji (S.); Khan, Naveed; Kosko, Jeff (J.R.); Kwon, Soon (S.K.); Lewier, Dave (D.A.); Le, Dzung (D.H.); Umiteco, Steven (S.); Linde, Peter (P.A.); Liu, Jene (J.); Marck, Edmond (E.C.); Mariance, Tom (T.E.); Matesa, John (J.); Maurer, James (J.B.); Mazzella, Gary (G.R.); Mcdonald, John; McGee, Brett (B.L.); Mooney, Larry (L.); Moorhouse, Scott (S.R.); Morgan, Tomiko (T.T.); Morishima, Shigeki (S.); Nakano, Hideki (H.); Nemetollahi, Sonya (S.); Nikolai, bernie; Noteboom, Jim (J.E.); Ortman, James (J.W.); Powers, Ken (K.W.); Price, Martin (M.); Requepsu, Alden (A.P.); Rothweller, Daniel (D.); Shen, Kren (K.C.); Shiralehi, Meseru (M.); Stilgenbeuer, Jeffrey (J.R.); Suarez, Rhae (R.); Takasawa, Kalih (K.D.); Takubo, Hirokhi (H.); Vaanstra, Tim (T.W.); Wakeneli, Ray (R.A.); Wettach, Bill (B.); Williams, Les (LHW.)

Optional Attendess:

Hofman, Michael (M.V.)

I made a mistake in the previous meeting notice (it was one continuous meeting instead of a weekly 1 hour meeting). Somy for the inconvenience.

Meeting agenda and meeting minutes will be send separately on a weekly basis.

toll free:

1-866-227-7015

Ford net:

954-1206

International: 1-630-693-6145

U204 phantom stall meeting

TEE CR-1

Start: End:

Thu 9/6/2002 2:00 PM Thu 9/6/2002 3:00 PM

Show Time As:

Tentative

Recurrence:

Recurrence Pattern:

Weekly

every Thursday from 2:00 PM to 3:00 PM

Wetlach, Bill (B.); Williams, Les (LHW.)

Meeting Status:

Not yet responded

Required Attendees:

Fournelle, Gilbert (G.); Altoonian, Don (D.J.); Bauer, Scott (S.C.); Bhojwani, Kamai (K.); Blackburn, Thomas (T.J.); Bogems, John (P.); Cary Powell (E-mail); Chick, John (J.); Chih, Ming-Niu (M.N.); Chin, Darrel (D.); Corbett, Sandra (S.M.); Dalbo, Bob (R.J.); De Pena, Juan (J.E.); Diez, Timothy (T.P.); Duvali, Allen (A.W.); Fascetti, Bob (R.J.); Fournelle, Gitbert (G.); Freeland, Mark (N.); Gles, Stuart (S.); Gokhale, Renuka (R.V.); Goodwin, William (W.R.); Grewel, Bill (B.S.); Grimes, Jeff (J.R.); Hansen, George (G.C.); Herr, George (G.J.); Hofmen, Michael (M.V.); Holmes, Jeffrey (J.R.); Hoshino, Jun (J.); Ichikews, Jlyunichiro (J.); Jensen, Ted (T.E.); Jones, Andy; Jordan, Donald (D.E.); Kanal, Shinji (8.); Khan, Naveed; Kosko, Jeff (J.R.); Kwon, Soon (8.K.); Lawler, David (D.A.); Le, Dzung (D.H.); Limitaco, Steven (S.); Linde, Peter (P.A.); Liu, Jene (J.); Merck, Edmond (E.C.); Metese, John (J.); Maurer, James (J.B.); Mazzella, Gary (G.R.); Mcdonald, John; McGee, Brett (B.L.); Mooney, Larry (L.); Moorhouse, Scott (S.R.); Morgan, Torniko (T.T.); Morlahima, Shigaki (S.); Nematoliahi, Sonya (S.); Nikolal, bernie; Noteboorn, Jim (J.E.); Ortman, James (J.W.); Powers, Ken (K.W.); Price, Martin (M.); Raquepau, Alden (A.P.); Rothweller, Daniel (D.); Sanders, Muriel (M.S.); Shah, Kiran (K.C.); Shiraishi, Masaru (M.); Stilgenbauer, Jeffrey (J.R.); Suarez, Rhae (R.); Tekasawa, Kelth (K.D.); Takubo, Hirokchi (H.); Vesnatra, Tim (T.W.); Wakeneli, Ray (R.A.);

toli free:

1-888-227-7015

Ford net:

954-1206

International: 1-630-693-6145

pass code: 8402370#

From: Sent:

To:

Subject:

Freeland, Mark (M.)
Monday, January 06, 2003 8:51 AM
Plaud, Zakta (Z.)
Accepted: 2001-2002 Ford Escape 3.0L V6 Engine Stalling Requester Scott Bauer x49788

Zalda.

Could you let me know where ESE FPS 500 EAST is & I will be there.

Thanks

Mark Freeland

From: Sent: To: Subject:

Freeland, Merk (M.)
Monday, October 07, 2002 5:17 PM
King, Sandra (S.M.)
Accepted: Audio Conf. Cell Mig. w/Kaviico-Piesse see cell-in numbers below

From; Sent: To: Subject:

Freeland, Mark (M.) Wednesday, October 02, 2002 1:06 PM O'Neell, Jim (J.D.) Accepted: DPFE circuit changes

From: Sent: To:

**Bubject** 

Freeland, Mark (M.) Tuesday, October 01, 2002 8:26 PM Fournelle, Gilbert (G.) Accepted: 3.0L U204 Phantom stall meeting

Prom: Gent: To: Subject:

Freetand, Mark (M.) Tuesday, October 01, 2002 8:24 PM Koszewnik, John (J.J.) Accepted: Updated: Mig w/M. Freetend

From: Sent: To:

Freeland, Mark (M.) Monday, September 30, 2002 1:17 PM Plaud, Zelda (Z.) Accepted: Focus Stalling

Subject

Can you tell me where Ray's office is?

Thanks

Mark Freeland

From: Sent To:

Subject:

Freetand, Mark (M.) Monday, September 30, 2002 1:16 PM Plaud, Zelda (Z.) Acceptad: Focus Stalling

Freeland, Mark (M.) Thursday, September 26, 2002 9:36 AM Koszewnik, John (J.J.) Accepted: Updated: Mtg w/M. Freeland

Freeland, Mark (M.) Wednesday, September 18, 2002 9:35 AM Koszawnik, John (J.J.) Accepted: Update Mig.

Freeland, Mark (M.) Wednesday, September 11, 2002 12:10 PM Koszewnik, John (J.J.) Accepted: DPFE Redesign

From: Sent:

To:

Subject:

Freeland, Mark (M.)
Friday, September 06, 2002 1:32 PM
Vondale, James (J.P.)
Accepted: Updated: Mountaineer Rear Windows Opening White Driving

Thank you for the new date. I will be there

Subject: Location:

dPFE Redealgn SRL Rm 1517

Start: End:

Mon 9/9/2002 10:00 AM Mon 9/9/2002 12:00 PM Tentative

Show Time As:

Recurrence:

(enon)

Meeting Status:

Not yet responded

Required Attendees: Optional Attendees:

Freeland, Mark (M.); Alles, Sheran (S.A.); Kotwicki, Allen (A.J.) McCoy, James (J.D.)

From:

Sent:

Freeland, Mark (M.) Thursday, September 05, 2002 5:13 PM

To:

Vondale, James (J.P.)

Subject:

Declined: Updated: Mountaineer Rear Windows Opening While Driving

## Shella,

I am sorry, but I will be out of the office from 1:00 pm 9/12 through close of business 9/17. I will on a plane traveling back from Nevada at the time you have rescheduled.

Can you propose any other alternative.

Thanks

Freeland, Mark (M.) Tuesday, September 03, 2002 3:23 PM Vondale, James (J.P.) Accepted: Mountaineer Reer Windows Opening White Orlving

From: Sent: To:

Subject:

Freeland, Mark (M.) Thureday, August 29, 2002 5:30 PM Maurer, James (J.B.) Accepted: 14D review

Freeland, Merk (M.) Wedneedey, August 28, 2002 12:11 PM Koszewnik, John (J.J.) Accepted: Stalls Polential Root Cause

Freeland, Mark (M.) Mondey, August 26, 2002 9:42 AM, Koszewnik, John (J.J.) Accepted: 1:1 w/Mark Freeland

Subject: dPFE vehicle & Lab work with Sheren

Start: End: Mon 8/26/2002 9:15 AM Mon 8/26/2002 5:00 PM

Tentative Show Time As:

Dally Recurrence:

Recurrence Pattern: every day from 9:15 AM to 5:00 PM

Meeting Status: Not yet responded

Required Attendoes: Optional Attendees: Freeland, Mark (M.); Alles, Sheran (S.A.) McCoy, James (J.D.)

Freetand, Mark (M.) Wednesday, August 21, 2002 11:33 AM Davis, George (G.C.) Accepted: DPFE

Subject: dPFE with John Koszewnik, his meeting room, see separate small from John

Start: Tue 8/20/2002 2:00 PM End: Tue 8/20/2002 3:00 PM

Show Time As: Tentative

Recurrence: (none)

Meeting Statue: Not yet responded

Required Attendees: Freeland, Mark (M.)
Optional Attendees: Davis, George (G.C.)

From:

Sent:

To;

Subject

Freeland, Mark (M.)
Monday, August 19, 2002 3:52 PM
Nuno, Elena (E.S.)
Accepted: Updated: Discuss V Engine's Desires Regarding 6 Sigma Support on the Kaviloo
dPFE Issue Meeting with Mark Freeland, JimO'Neell, Bruce Bryant, Dave Arnos & Jeff Helms.

Subject: Location:

Keviico dPFE Alfa desk

Start: End: Tue 8/20/2002 3:00 PM Tue 8/20/2002 5:00 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Freeland, Mark (M.); Kotwicki, Allan (A.J.); Gates, Freeman (F.C.)

Freeman, I tried to call you to discuss, but you were busy, please call me when you get a chance. Thanks

Freeland, Mark (M.) Monday, August 19, 2002 1:04 PM Bansek, Catherine (C.K.) Accepted: Stu Evans DPFE Repeat Repairs

Subjects

Data needed to redesign the Kavilco dPFE input/output filter

Location:

SRL Rm 1517

Start: End: Fri 8/16/2002 10:00 AM Fri 8/16/2002 11:00 AM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendees:

Freeland, Mark (M.); McCoy, James (J.D.); Afee, Sheran (S.A.)

We will continue again in the afternoon as needed.

Jim, I hope you can make it, if not Sheran and I will start and hopefully catch up with you in the afternoon.

From:

Sent:

To:

Subject:

Freeland, Mark (M.)
Friday, August 09, 2002 5:48 PM
Nuno, Elena (E.S.)
Accepted: Discuss V Engine's Desires Regarding 6 Sigma Support on the Kaviko dPFE Issue
Meeting with Mark Freeland, JimO'Neall, Bruce Bryant, Dave Arnos & Jeff Heims.

From; Bent: To:

8ubject

Freeland, Mark (M.)
Tuesday, August 06, 2002 12:04 PM
Nuno, Elena (E.S.)
Accepted: Kavilco DPFE Project Disangagement Meeting w/ Mark Freeland, Jeff Heims, Dave
Amos & Bruce Bryant

Freeland, Mark (M.) Monday, August 05, 2002 12:12 PM Poma, Arry (A.) Accepted: Voltage measurementaduring coll charging

Freeland, Mark (M.)
Thursday, August 01, 2002 11:54 AM
Bryant, Bruce (B.D.)
Accepted: dpfe project

Subject:

FRL Disengagement from dPFE project

Location:

Jeff's office

Start: End: Thu 8/1/2002 2:30 PM Thu 8/1/2002 3:00 PM

Show Time As:

Tentativa

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendese:

Freeland, Mark (M.); Helme, Jeffrey (J.H.)

Jeff,

Can I have a discussion with you regarding Disengagement this afternoon before I meet with Bruce at 3:00 pm.

Themks

From:

Sent

To:

Subject:

Freeland, Mark (M.) Monday, July 06, 2002 3:29 PM McCarty, BH (W.D.) Accepted: FW: Kavilco dPFE and earvice supply

## BM.

I will try to participate as much as possible, but I will be in the process of trying top get three young girls up and out to the YMCA at the time!

Mark

From: Sent: To:

Subject

Freeland, Mark (M.)
Mondey, July 68, 2002 3:27 PM
Rossi, Roberto (R.A.)
Accepted: Updated: Review Electrical Paper to Se Presented at Thursday, July 11th DPFE
Meeting

From: Sent

Freeland, Mark (M.) Fridey, July 06, 2002 9:05 AM Poma, Amy (A.) Declined: Issues Resolution

To: Subject:

Amy I will be on vacation.

Regards Mark

From:

Sent:

Freeland, Merk (M.) Friday, July 05, 2002 9:01 AM Rosel, Roberto (R.A.)

To:

8ubject:

Declined: Review Electrical Paper to Be Presented at Thursday, July 11th DPFE Meeting

## Roberto.

During the summer my three young children live with me, as such I can not be in Dearborn before 9:00 am at the earliest. 9:15am is safer for a meeting.

I would be happy to meet with you and Ray but not at 8:00 am. Where is his office?

From: Sent: To:

Subject

Freelend, Mark (M.)
Friday, June 28, 2002 2:54 PM
Maurer, James (J.B.)
Accepted: Tueeday, Thursday meeting, and EESE strategy

From: Sent:

Freeland, Mark (M.) Wednesday, June 26, 2002 12:27 PM Hangas, Jon (.) Accepted: Latest Kaviico results

To: Subject:

Freeland, Mark (M.) Monday, June 17, 2002 6:08 PM Jones, Chris (C.E.) Declined: Updated: EGR Project

From:

Freeland, Mark (M.)

Sent:

Monday, June 17, 2002 6:07 PM

To:

Berry, Joseph (J.P.)

Subject:

Accepted: Part review - 9J460

Joseph,

I am not sure that I know you. Do I?

Please fill me in on some of the background as to why you have called this meeting. I will attend this meeting, but frankly I need to stop going to new meetings and get on with working on the dPFE Issue. I am down to <20% effective work time, due to the number of meetings people are calling.

Regards Mark Freeland

Freeland, Mark (M.) Monday, June 17, 2002 5:52 PM McCarty, Bill (W.D.) Accepted: Kavilco dPFE Sensor status

Freeland, Mark (M.) Friday, June 14, 2002 11:20 AM Jones, Chris (C.E.) Accepted: EGR Project

Freeland, Mark (M.)
Friday, June 14, 2002 11:12 AM
Crockett, Dante (D.K.)
Accepted: Updated: EESE support of FRL BB projects

Freeland, Mark (M.) Friday, June 14, 2002 10:38 AM Jones, Chris (C.E.) Accepted: EGR Project

Freeland, Mark (M.) Friday, June 14, 2002 10:37 AM Duffy, Paul (P.E.) Accepted: Canceled: EGR Project

Freeland, Mark (M.) Monday, June 03, 2002 6:09 PM Plante, Paul (P.Q.) Accepted: FRL Presentation-Sensor

Subject:

Testing for Al Hydroxide

Start End:

Mon 6/3/2002 10:15 AM Mon 6/3/2002 11:15 AM Tentative

Show Time As:

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Freeland, Mark (M.); Uy, Dairene (D.)

Dairene, can you come to my office, as I have parts & Pictures here. Thanks

Kaviloo dPFE Sensor 6 Sigma Project

Graham Hoare's office

Sturt: End:

Fri 5/31/2002 8:30 AM Fri 5/31/2002 9:30 AM

Show Time As:

Tentative

Recurrence:

(none)

**Moeting Status:** 

Not yet responded

Required Attendess:

Freeland, Mark (M.); Hoare, Graham (G.); Bryant, Bruce (B.D.)

Meeting scheduled per Bruce Bryant's request

Subject:

Preparation for dPFE trip to Analytical Solutions

Location:

SRL Conf Room 1347 (10)

Start: End:

Fri 5/17/2002 1:30 PM Fri 5/17/2002 4:00 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

'Freeland, Mark (M.); Mauner, James (J.S.); Carter, Roecce (R.O.); Hangas, Jon (.); Ed Sickafus (E-mail); Gates, Freeman (F.C.) Simier, Steven (S.K.); Uy, Dairene (D.) SRL Conf Room 1347 (10)

Optional Attendess:

Resources:

To update Ed with all new information from FRL and Powertrain

Freefand, Mark (M.) Tuesday, May 14, 2002 4:56 PM Bryent, Bruce (B.D.) Accepted: Discuss DPFE sensor project

From: Sent: To:

Subject:

Freeland, Merk (M.) Monday, May 13, 2002 12:33 PM Nuno, Elena (E.S.) Accepted: Need to discuss Mark Freeland's project on dPFE sensor

Selection of dPFEs for the outside tab

SRL Conf Room 2643 (12)

Start:

Mon 5/13/2002 10:30 AM Mon 5/13/2002 1:00 PM

End: Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendoss:

Fredland, Mark (M.); Maurer, James (J.B.); Gates, Freeman (F.C.); Plante, Paul (P.G.)

Jon, Shri and Carol are already here. See you at 10:30

Review inspection/electrical test results & Selection of dPFE sensors for the outside lab

SRL Conf Room 1529 (10)

Start: End:

Fri 5/10/2002 3:00 PM Fri 5/10/2002 4:30 PM

Show Time As:

Tentalive

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess: Optional Attendees:

Freeland, Mark (M.); Jenda, Jon (J.M.); Akolkar, Shrikant (S.V.); Verner, Carol (C.J.) Maurer, James (J.B.); Plante, Paul (P.G.); Gales, Freeman (F.C.); Hanges, Jon (.) SRL Conf Room 1529 (10)

Resources:

Freeland, Mark (M.) Friday, May 03, 2002 1:47 PM Sanders, Muriel (M.S.) Declined: Updated: U204 Phantom Stell Meeting

Lab testing dPFE sensors for Latch Up SRL 1517

Start: End:

Mon 4/29/2002 12:30 PM Tue 4/30/2002 5:30 AM

Show Time As:

Tentative

Recurrence:

(enan)

Meeting Status:

Not yet responded

Required Attendess:

Frestand, Mark (M.); Plante, Paul (P.G.); Gates, Freeman (F.C.); Maurer, James (J.B.)

Freeiend, Merk (M.) Tuesday, April 23, 2002 6:08 PM Maurer, James (J.B.) Accepted: Finelize information for Analytical Solutions

Outside Lab discussion SRL Conf Room 1347 (10)

Start: End:

Wed 4/24/2002 2:00 PM Wed 4/24/2002 4:00 PM Tentetive

Show Time As:

Recurrence:

(none)

Meeting Status: .

Not yet responded

Required Attendees:

Freeland, Mark (M.); Plante, Paul (P.G.) SRL Conf Room 1347 (10)

Resources:

From:

Sent

To:

Subject:

Freeland, Mark (M.) Wednesday, April 10, 2002 1:47 PM Plaud, Zakia (Z.) Accepted: PE02-040 Focue Stalling - Kick-off Meeting

Zaida,

Could you please send me directions, I am not sure where FPS is.

Thenks

Mark Freeland

Freeland, Mark (M.) Wednesday, April 10, 2002 1:46 PM Plaud, Zeida (Z.) Accepted: PE02-040 Focus Stalling - Kick-off Meeting

Kevilco dPFE UPAD research SRL Corri Room 1347 (10)

Start: End: Tue 4/9/2002 11:00 AM Tue 4/9/2002 12:30 PM

Show Time As:

Tentative

Recurrence:

(none)

Mosting Status:

Not yet responded

Required Attendese:

Freeland, Mark (M.); Hanges, Jon (.); Simko, Steven (S.J.) SRL Conf Room 1347 (10)

Resources: SRL Conf Room 1347 (10

Freeland, Mark (M.) Monday, April 08, 2002 8:58 AM Panaretos, Christine (C.M.) Declined: Updated: Electrical Wiring Testing for Kavilco dPFE Sensor

Freeland, Mark (M.) Monday, April 08, 2002 8:56 AM Panaretos, Christine (C.M.) Accepted: Updated: Electrical Wiring Testing for Kavlico dPFE Sensor

Kaylico TM dPFE Sensor UPAD Root Cause Investigation

8RL Rm. 1133

Start End: Fri 3/22/2002 9:00 AM Fri 3/22/2002 12:46 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendees:

Freeland, Mark (M.); Hangas, Jon (.); Striko, Steven (S.J.); Uy, Dalrene (D.); Potter, Timothy (T.J.); Harris, Stephen (S.J.); Carter, Roecce (R.O.); Holubka, Joe (J.W.); Drews, Andy (A.R.); Visser, Jaco (J.H.); Sottis, Richard (R.E.); Donlon, William (W.T.); Bauer, Devid (D.R.); Stephen, Craig (C.H.); Zanini-Fisher, Margherita (M.); Gates, Freeman (F.C.); Maurer, James

(J.B.); Gonzalez, Lebzy (L.); Ed Sickafue (E-mail)

Optional Attendese:

Heims, Jeffrey (J.H.); Hase, Kenneth (K.C.); Plante, Paul (P.G.); Akina, Mary (M.); O'Neell,

Jim (J.D.)

You're participation is requested to learn about this high warranty issue, and to solicit you're assistance and technical expertise in getting to the root cause of "Unprotected Area Damage".

Some key team members will also be required to work with Dr. Ed Sicksfus during the afternoon.

Kaylico TM dPFE Sensor UPAD Root Cause Investigation

8RL Rm. 1133

Start: End:

Fri 3/22/2002 9:00 AM Fri 3/22/2002 12:45 PM

Show Time As:

**Tentative** 

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendese:

Freeland, Mark (M.); Hangas, Jon (.); Simko, Steven (S.J.); Uy, Dairene (D.); Potter, Timothy (T.J.); Harris, Stephen (S.J.); Carter, Rosoce (R.O.); Holubka, Joe (J.W.); Drews, Andy (A.R.); Visser, Jeco (J.H.); Sottis, Richard (R.E.); Donion, William (W.T.); Bauer, Devid (D.R.); Stephen, Craig (C.H.); Zanini-Fisher, Margharita (M.); Geles, Freeman (F.C.); Meurer, James (J.B.); Gonzalez, Lebzy (L.); Ed Sickafus (E-meil)
Helmer, Johnson (J.H.); Hass, Kermeth (K.C.); Plante, Paul (P.G.); Akins, Mary (M.); O'Noell,

Optional Attendees:

Jm (J.D.)

You're participation is requested to learn about this high warranty leave, and to solicit you're assistance and technical expertise in getting to the root cause of "Unprotected Area Damage".

Some key team members will also be required to work with Dr. Ed Sickatha during the afternoon.

Freeland, Mark (M.) Monday, March 18, 2002 12:17 PM Senders, Muniel (M.S.) Declined: U204 Phantom Stall Meeting

Fresland, Mark (M.) Monday, March 18, 2002 10:11 AM Koszewnik, John (J.J.) Accepted: DPFE EGR Sensor Pre-Review (for 3/25 Tech Review)

Freeland, Mark (M.) Tuesday, March 12, 2002 4:33 PM Panaretos, Christine (C.M.) Accepted: Canceled: Kavilco D.P.F.E. Sensor Technical Offsite #2

Meeting with Kavilco to review SRL work on UPAD

SRIL Rm. T.B.D.

Start: End:

Wed 3/13/2002 9:00 AM Wed 3/13/2002 1:00 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Freeland, Mark (M.); Hangas, Jon (.); Simko, Steven (S.J.); Uy, Dairene (D.); Plants, Paul (P.G.); Gaiss, Freeman (F.C.)

Freeland, Mark (M.) Thureday, March 07, 2002 11:42 AM Awad, Mahmoud (M.I.) Accepted: Return Parts Analysis

Freeignd, Mark (M.) Tueeday, March 05, 2002 9:39 AM Williams, Les (LHW.) Accepted: Updated: Update: U204 Phentom Stall Meeting

FW: EDP OPFE Bench Test

POEE Cafeteria

Stert: End:

Fri 5/31/2002 10:00 AM Fri 5/31/2002 11:00 AM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Gates, Freeman (F.C.); Freeland, Mark (ML)

-Original Appointment----

Front Sonb

Tọi

Getes, Freeman (F.C.)
Wednesday, New 29, 2062 11:11 AM
Getes, Freeman (F.C.); Getes, Freeman (F.C.); Kobricki, Alam (A.J.); Maurer, James (J.B.); Momp, Kerl (K.R.)
EDP OPPE Bench Test
Phiday, Ney 31, 2002 10:00 AM-11:00 AM (GMT-05:00) Eastern Time (US & Canada).
POEE Calleberla

Latest Kevilco results

2433

Start: End:

Wed 6/26/2002 1:00 PM Wed 6/26/2002 2:00 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendocs:

Hangas, Jon (.); Carter, Roscoe (R.O.); Freeland, Mark (M.); Uy, Dairene (D.); Simko, Steven (S.J.); Kaberline, Steven (S.L.); SRL Conf Room 2433 (30)

Mark requested this meeting so everyone could discuss their latest results and plans for future research.

Hangas, Jon (.) Thursday, May 16, 2002 11:55 AM Freetand, Mark (M.) Tentative: Preparation for dPFE trip to Analytical Solutions

Not unless you invite Steve Simko. Who is Steve Simler? Jon

Kaviloo follow up discussion

SRL 3483

Start: End: Fri 3/22/2002 2:00 PM Fri 3/22/2002 5:00 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Henges; Jon (.); SRL Conf Room 3433 (20); Freeland, Mark (M.); Stephan, Craig (C.H.); Carter, Roscoe (R.O.); Donlon, William (W.T.); Drews, Andy (A.R.); Vieser, Jaco (J.H.); Soltis, Richard (R.E.); Simko, Steven (S.J.); Holubka, Joe (J.W.); Zenini-Fisher, Margherita (M.); Gonzafez, Lebzy (L.); Narula, Challanya (C.K.); Potter, Timothy (T.J.); Uy, Dairene (D.)

Discussion with Ed Sickafus

Herrie, Stephen (S.J.) Wednesday, Merch 20, 2002 3:01 PM Freeland, Mark (M.) Declined: Kawlico "IM dPFE Sensor UPAD Root Cause Investigation

FW: Kavioo dPFE Sensor FPC-B #35 Exec Conf. Rm

Start: End:

Thu 6/6/2002 4:00 PM Thu 6/8/2002 5:30 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Hoare, Graham (G.); Plants, Paul (P.G.)

Paul,

Could you please join me for this meeting with my Director.

## Thank you

-Original Appointment----

From:

Sunt:

Tor

Mickel, Lori (L.L.) On Behalf Of Houre, Graham (G.) Friday, May 31, 2002 10:48 AM Houre, Graham (G.); FPCB executive (35); Freeland, Mark (M.); Bryant, Bruce (B.D.)

Subjects

Wittens

Updated: Kavico dPFE Sensor Thursday, June 06, 2002 4:00 PM-5:30 PM (GMT-05:00) Eastern Tince (US & Canada). FPC-B #35 Exec Conf Rm

FW: Kavico dPFE Sensor FPC-B #35 Exec Conf Rm

Start: End:

Thu 6/6/2002 4:00 PM Thu 8/8/2002 5:30 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Statue:

Not yet responded

Required Attendees:

Hoare, Graham (G.); Plante, Paul (P.G.)

Paul,

Could you please join me for this meeting with my Director.

Thank you

—Original Appointment-

Frenci

Sent: To:

Mickel, Lori (LLL) On Behalf Of Hoare, Graham (G.) Friday, May 31, 2002 10:48 AN Hoare, Graham (G.); FPCB executive (35); Freeland, Mark (M.); Bryont, Bruce (B.D.)

Suidects

When

Updated: Kaviko dPPE Sensor Thursday, June 06, 2002 4:00 PH-5:30 PM (GHT-05:00) Eastern Time (US & Caredo).

FFC-B #35 Elec Conf Rm

Bublect Location:

FW: Kevilco dPFE Sensor FPC-B #35 Exec Conf Rm

Start: ≅nd:

Thu 6/6/2002 4:00 PM Thu 6/6/2002 5:30 PM

Show Time As:

Tentative

Recurrence:

(anona)

Moeting Status:

Not yet responded

Required Attendoos:

Hoere, Grehem (G.); Plante, Paul (P.G.)

Paul,

Could you please join me for this meeting with my Director.

## Thank you

-Original Appointment-

Promi

Middel, Lori (L.L.) On Behalf Of Hoere, Graham (G.)

Sent

Тог

Friday, May 31, 2002 10:48 AM
Hoars, Graham (G.); FPCB executive (35); Freeland, Mark (M.); Bryent, Bruce (B.D.)
Updated: Kavico dPPE Sensor
Thursday, June 06, 2002 4:00 PM-5:30 PM (GMT-05:00) Eastern Time (US & Caracle).

Bulgect

When

FPC-B #35 Bloc Conf Rm

Micket, Lori (L.L.) on behalf of Houre, Graham (G.) Tuesday, May 28, 2002 5:19 PM Freeland, Mark (M.) Accepted: Kavilco dPFE Sensor 6 Sigma Project

From: Sent: To:

Subject:

Mark -- Graham requested to have this meeting.

ER02-027-0 8500

Updated: EGR Project SRL Conf Room 1529 (10)

Start: End:

Mon 6/17/2002 10:00 AM Mon 6/17/2002 11:00 AM

Show Time As:

Tentative

Recurrence:

(none)

**Neeting Statue:** 

Not yet responded

Required Attendess:

Jones, Chris (C.E.); Duffy, Paul (P.E.); Freeland, Mark (M.); Allee, Sheran (S.A.); Meldd, Assad (A.); O'Neall, Jim (J.D.); SRL Conf Room 1529 (10)

Updated: EGR Project SRL Conf Room 1529 (10)

Start: End:

Mon 6/17/2002 10:00 AM Mon 6/17/2002 11:00 AM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Statue:

Not yet responded

Required Attendess:

Jones, Chris (C.E.); Duffy, Paul (P.E.); Freeland, Mark (M.); Alles, Sheran (S.A.); Makki, Assad (A.); O'Neall, Jim (J.D.); SRL Com Room 1629 (10)

Canceled: EGR Project SRL CR 1529

Location:

Start: End:

Mon 6/17/2002 10:30 AM Mon 6/17/2002 12:00 PM

Show Time As:

Free

Recurrence:

(none)

Meeting Status;

Not yet responded

Required Attendees:

Jones, Chris (C.E.); Freeland, Mark (M.); SRL Conf Room 1529 (10); Duffy, Paul (P.E.); Alles, Sheran (S.A.); Makki, Asaad (A.); O'Neell, Jim (J.D.) Bryant, Bruce (B.D.)

Optional Attendess:

importance:

High

Meeting has been rescheduled for Friday

Canceled: EGR Project SRL CR 1529

Location:

Start: End:

Mon 8/17/2002 10:30 AM Mon 6/17/2002 12:00 PM

Show Time As:

Free

Recurrence:

(none)

Meeting Statue:

Not yet responded

Required Attendess:

Jones, Chris (C.E.); Freeland, Mark (M.); SRL Conf Room 1629 (10); Duffy, Paul (P.E.); Alles, Sheran (S.A.); Makki, Asaad (A.); O'Neall, Jim (J.D.) Bryant, Bruce (B.D.)

Optional Attendess:

importance:

High

Meeting has been rescheduled for Friday

Canceled: EGR Project

SRL CR 1529

Start: End:

Mon 6/17/2002 10:30 AM Mon 6/17/2002 12:00 PM

Show Time As:

Free

Recurrence:

(none)

**Mooting Status:** 

Not yet responded

Required Attendees:

Jones, Chris (C.E.); Freeland, Mark (M.); SRL Conf Room 1529 (10); Duffy, Paul (P.E.); Alice, Sheran (S.A.); Makki, Assad (A.); O'Neall, Jim (J.D.)

Optional Attendess:

Bryant, Bruce (B.D.)

importance:

Hiigh

Meeting has been rescheduled for Friday

Updated: EGR Project SRL Conf Room 1529 (10)

Start: End:

Mon 6/17/2002 10:00 AM Mon 8/17/2002 11:00 AM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Jones, Chris (C.E.); Duffy, Paul (P.E.); Freeland, Mark (M.); Alies, Sharan (S.A.); Makki, Assad (A.); O'Neall, Jim (J.D.); SRL Conf Room 1529 (10)

Audio Conf. Call Mtg. w/Kavilco-Please see call-in numbers below

JDOs Ofc

Start £nd:

Fri 10/11/2002 11:30 AM Fri 10/11/2002 12:30 PM

Show Time As:

Tentative

Recurrence:

(none)

Meating Status:

Not yet responded

Required Attendess:

King, Sandra (S.M.); Alles, Sheran (S.A.); Awad, Mehmoud (M.I.); Freeland, Mark (M.); Gates, Freeman (F.C.); Maurer, James (J.B.); McCoy, James (J.D.); O'Neali, Jim (J.D.); Kyong Park (E-mail); Verner, Carol (C.J.)

This meeting was requested by Jim O'Neall - MOVs For Transient Voltage Testing

Dearborn, MI time: 11:30 a.m. Moorpark, CA time: 8:30 a.m.

Dial In Number:

1-866-274-3059

Pass code number:

861-1088#

Internal Ford Number:

954-1148

Kavilco TM dPFE Sensor w/M. Freeland

John's office

Start: End: Thu 12/12/2002 10:30 AM Thu 12/12/2002 11:00 AM

Show Time As:

Tentativa

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Koszewnik, John (J.J.); Freeland, Mark (M.)

dPFE Bench Testing JJK's office

Start: End:

Mon 11/18/2002 4:30 PM Mon 11/18/2002 5:00 PM Tentative

Show Time As:

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendese:

Koszewnik, John (J.J.); Freeland, Mark (M.)

Transient Voltage Test Results

JJK's office

Stert: End: Thu 10/31/2002 2:00 PM Thu 10/31/2002 2:30 PM

Show Time As:

Tentetive

Recurrence:

(none)

**Meeting Status:** 

Not yet responded

Required Attendees:

Koszewnik, John (J.J.); Freeland, Mark (M.); Davis, George (G.C.)

Updated: Mtg w/M. Freeland

JJK's afc

Stort: End:

Wed 10/2/2002 10:00 AM Wed 10/2/2002 10:30 AM

Show Time As:

Tentative

Recurrence:

(enon)

Meeting Status:

Not yet responded

Required Attendess: Optional Attendess:

Knezewnik, John (J.J.); Freeland, Mark (M.) Davis, George (G.C.)

Updated: Mtg w/M. Freeland JJK's ofc

Start: End:

Wed 10/2/2002 10:00 AM Wed 10/2/2002 10:30 AM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Statue:

Not yet responded

Required Attendess: Optional Attendess:

Koazawnik, John (J.J.); Freeland, Mark (M.) Davis, George (G.C.)

Updated: Mtg w/M. Freeland

JJK's ofc

Start: End:

Wed 10/2/2002 10:00 AM Wed 10/2/2002 10:30 AM

Show Time As:

Tentetive

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess: Optional Attendess:

Koazewnik, John (J.J.); Freeland, Mark (M.) Davis, George (G.C.)

Updated: Mtg w/M. Freeland J3Cs ofc

Start: End:

Wed 10/2/2002 10:00 AM Wed 10/2/2002 10:30 AM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendees: Optional Attendees:

Koszewnik, John (J.J.); Freeland, Mark (M.) Davis, George (G.C.)

Updated: Mtg w/M. Freeland

Start: End:

Wed 10/2/2002 10:00 AM Wed 10/2/2002 10:30 AM Tentative

Show Time Ac:

Recurrence:

(nane)

Meeting Status:

Not yet responded

Required Attendees: Optional Attendees:

Koezewnik, John (J.J.); Freeland, Mark (M.) Davis, George (G.C.)

DPFE Redesign

Location:

John Koszewnik's office

Start: End:

Mon 9/23/2002 1:00 PM Mon 9/23/2002 2:00 PM

Show Time As:

Tentative

Recurrence:

(none)

**Meeting Status:** 

Not yet responded

Required Attendess: Optional Attendess:

Koszawnik, John (J.J.); Freeland, Mark (M.) Davis, George (G.C.)

FW: Stells Potential Root Cause

Location:

John Konzawnik Conference Room POEE AA140

Start: End:

Fri 8/30/2002 4:00 PM Fri 8/30/2002 5:00 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Koazewnik, John (J.J.)

Optional Attendess:

Davis, George (G.C.)

George, this is the meeting we discussed this morning.

-Original Appointment-

Froem

Senti

To:

Porosky, Sue (S.E.) On Behalf Of Koszewnik, John (J.I.) Wedneaday, August 28, 2002 10:04 AM Koszewnik, John (J.J.); Wolfe, Brien (B.C.); Aulier, Jim (J.E.); Samerdách, Raul (R.J.); Freeland, Mark (M.)

Subject:

Stalls Potential Root Cause

When:

Friday, August 30, 2002 4:00 PM-5:00 PM (GNT-05:00) Eastern Time (US & Canada).

Where:

John Koszewnik Conference Room PCIES AA140

FW: State Potential Root Cause

Location:

John Koszewnik Conference Room POEE AA140

Start: End:

Fri 6/30/2002 4:00 PM Fri 6/30/2002 5:00 PM

Bhow Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendees:

Koszewnik, John (J.J.)

Optional Attendess:

Davis, George (G.C.)

George, this is the meeting we discussed this morning.

-Original Appointment----

Prom:

Porcelly, Sue (S.E.) On Behalf Of Kaszennik, John (1.3.)

Sent

Wednesday, August 28, 2002 10:04 AM

To:

Koszewnik, John (J.J.); Wolfe, Bitan (B.C.); Auller, Jim (J.E.); Samardzich, Raul (R.J.); Preciend, Merk (M.)

**Pubject:** When:

Stalls Potential Root Cruse

Friday, August 30, 2002 4:00 PM-5:00 PM (GMT-05:00) Eastern Time (US & Ceneda).

Where

John Koszewnik Conference Room POEE AA140

1:1 wilderk Freeland John Koszewnik's Office

Sturt: End:

Mon 8/26/2002 12:00 PM Mon 8/26/2002 1:00 PM Tentative

Show Time As:

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendees:

Koszewnik, John (J.J.); Freeland, Mark (M.)

DPFE EGR Sensor Pre-Review (for 8/25 Tech Review)

J. Koszewnik's Conf. Rm. (AA140, POEE)

Start: End:

Fri 3/22/2002 1:00 PM Fri 3/22/2002 2:00 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendece:

Koszewnik, John (J.J.); O'Neell, Jim (J.D.); Maurer, James (J.B.); Getes, Freeman (F.C.); Freeland, Mark (M.); Plante, Paul (P.G.); Koszewnik, John (J.J.)

14D review

Jim Maurer's Office

Start: End:

Tue 9/3/2002 2:30 PM Tue 9/3/2002 4:30 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Maurer, James (J.B.); Plante, Paul (P.G.); Gates, Freeman (F.C.); Freeland, Mark (M.)

Review 14D before Tech review on Thursday

Tuesday, Thursday meeting, and EESE strategy Jim Maurer's Office

Start: End:

Mon 7/1/2002 1:00 PM Mon 7/1/2002 2:00 PM Tentative

Show Time As:

Recurrence:

(enon)

Meeting Status:

Not yet responded

Required Attendees:

Maurer, James (J.B.); Freeland, Mark (M.); Plants, Paul (P.G.)

Finalize information for Analytical Solutions

Location:

Room 1347, SRL

Start: End:

Wed 4/24/2002 2:00 PM Wed 4/24/2002 4:00 PM

Show Time As:

Tentetive

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Maurer, James (J.B.); Gates, Freeman (F.C.); Freeland, Mark (M.); Plante, Paul (P.G.)

Agende:

Paperwork to send to analytical solutions Selection of parts - do the parts Mark has selected so far meet the criteria desired Workplan for analytical solutions Tentative trip dates Anything else of improtence Mark - please invite Ed Sikefus

1:1 w/ Mark Freeland and Jeff Heims Jeffe Office

Start: End:

Wed 10/16/2002 10:00 AM Wed 10/16/2002 10:30 AM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendees:

Nuno, Elena (E.S.); Freeland, Mark (M.); Helms, Jeffrey (J.H.)

Updated: Six Sigma Update Meeting with Mark Freeland, Marsha Samus, James McBride,

Dang Liu and Jeff Heims, E. Nuno Contact, ext. 28121

Location:

CR 3243

Start: End: Wed 10/2/2002 1:00 PM Wed 10/2/2002 2:00 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Nuno, Elena (E.S.); Helme, Jeffrey (J.H.); Freeland, Mark (M.); Samue, Marsha (M.A.);

McBride, James (J.R.); Llu, Dang (D.R.); SRL Conf Room 3243 (10)

9/25/02 Update: Please be advised this meeting is being rescheduled from 9:00am to 10:00am to 1:00pm to 2:00pm. NOTE new CR is 3243.

Updated: Six Sigma Update Meeting with Mark Freeland, Marsha Samus, James McBride,

Dang Liu and Jeff Helms, E. Nuno Contact, ext. 23121

Location:

CR 3243

Start: End:

Wed 10/2/2002 1:00 PM Wed 10/2/2002 2:00 PM

Show Time As:

Tentative.

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Nuno, Elena (E.S.); Heime, Jeffrey (J.H.); Fraeland, Mark (M.); Samue, Marsha (M.A.); McBride, James (J.R.); Liu, Dang (D.R.); SRL Conf Room 3243 (10)

9/25/02 Update: Please be advised this meeting is being rescheduled from 9:00am to 10:00am to 1:00pm to 2:00pm. NOTE new CR is 3243.

Updated: Discuss V Engine's Desires Regarding 6 Sigma Support on the Kavilco dPFE Issue

Morting with Mark Freeland, JimO'Neali, Bruce Bryant, Dave Ames & Jeff Helms.

Location:

PDC Conf Rm 1V-F75

Stert: End: Tue 8/20/2002 10:00 AM Tue 8/20/2002 10:30 AM

Show Time As:

Tentative

Recurrence:

(none)

**Meeting Statue:** 

Not yet responded

Required Attendees:

Nuno, Elena (E.S.); Freeland, Mark (M.); O'Neall, Jim (J.D.); Bryant, Bruce (B.D.); Amos,

David (D.E.); Heims, Jeffrey (J.H.); PDC Conf Rm 1V-F75 (10)

# 8/19/02 UPDATE:

Meeting time only being changed from 9:30am to 10:00am TO 10:00am to 10:30am. Sorry for the short notice, but Jeff Heims was just informed that he <u>must</u> attend a meeting offsite and that meeting time conflicted with this meeting.

Updated: Discuss V Engine's Desires Regarding 6 Sigma Support on the Kavilco dPFE Issue

Meeting with Mark Freeland, JimO'Neall, Bruce Bryant, Dave Arnoe & Jeff Heims.

Location:

PDC Con! Rm 1V-F75

Stert: End:

Tue 8/20/2002 10:00 AM Tue 8/20/2002 10:30 AM

Show Time As:

Tentative

Recurrence:

(RONe)

Meeting Status:

Not yet responded

Required Attendees:

Nuno, Elena (E.S.); Freeland, Mark (M.); O'Neall, Jim (J.D.); Bryant, Bruce (B.D.); Amos, David (D.E.); Heims, Jeffrey (J.H.); PDC Conf Rm 1V-F75 (10)

### 8/19/02 UPDATE:

Meeting time only being changed from 9:30am to 10:00am TO 10:00am to 10:30am. Sorry for the short notice, but Jeff Heims was just informed that he must attend a meeting offsite and that meeting time conflicted with this meeting.

Kavico DPFE Project Disengagement Meeting w/ Mark Freeland, Jeff Heims, Dave Arnos &

Bruce Bryant

Location:

Dave Arnos' Office, Room 2V-A03, PDC

Start: End: Wed 8/7/2002 3:30 PM Wed 8/7/2002 4:30 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendees:

Nuno, Elena (E.S.); Amos, David (D.E.); Bryant, Bruce (B.D.); Freeland, Mark (M.); Helms,

Jeffrey (J.H.)

1:1 w/ Jeff Helms & Mark Freeland Jeffe Office

Start End:

Thu 7/11/2002 3:15 PM Thu 7/11/2002 3:45 PM

Show Time As:

Tentative

Recurrence:

(none)

Mooting Status:

Not yet responded

Required Attendess:

Nano, Elena (E.S.); Freeland, Mark (M.); Helms, Jeffrey (J.H.)

**Bubject:** 

Updated: Need to discuss Merk Freeland's project on dPFE sensor

Start: End:

Tue 6/14/2002 3:30 PM Tue 5/14/2002 4:00 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendees:

Nuno, Elena (E.S.); Gearhart, Chris (C.); Freeland, Mark (M.); Amos, David (D.E.); Helms, Jeffrey (J.H.); SRL Conf Room 2243 (10); Plante, Paul (P.G.)

### UPDATE:

Meeting being rescheduled from Monday, May 20th @ 2:00pm to Tuesday, May 14th at 3:30pm. Chris, we understand that you are not available to attend this meeting tomorrow. This notice being sent to you as an ΈΥÌ.

Updated: Need to discuss Mark Freeland's project on dPFE sensor

Stert: End: Tue 5/14/2002 3:30 PM Tue 5/14/2002 4:00 PM

Show Time As:

**Tentative** 

Recurrence:

(none)

Meeting Statue:

Not yet responded

Required Attendess:

Nuno, Elena (E.S.); Gearhart, Chris (C.); Freeland, Mark (M.); Amos, David (D.E.); Helms,

Jeffrey (J.H.); SRL Conf Room 2243 (10); Plante, Paul (P.G.)

## UPDATE:

Meeting being rescheduled from Monday, May 20th @ 2:00pm to Tuesday, May 14th at 3:30pm. Chris, we understand that you are not available to attend this meeting tomorrow. This notice being sent to you as an FYI.

Updated: Need to discuss Mark Freeland's project on dPFE sensor

Start: End: Tue 5/14/2002 3:30 PM Tue 5/14/2002 4:00 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendaes:

Nuno, Elena (E.S.); Gearhart, Chris (C.); Freeland, Mark (M.); Amos, David (D.E.); Helms,

Jeffrey (J.H.); SRL Conf Room 2248 (10); Plante, Paul (P.G.)

## UPDATE:

Meeting being rescheduled from Monday, May 20th @ 2:00pm to Tuesday, May 14th at 3:30pm. Chris, we understand that you are not available to attend this meeting tomorrow. This notice being sent to you as an FYI.

Updated: Kavilco Meeting, E. Nuno Contact, 23121

Start: End:

Thu 4/16/2002 9:00 AM Thu 4/16/2002 11:00 AM Tentative

Show Time As:

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Nuno, Elena (E.S.); Freeland, Mark (M.); Hengas, Jon (.)

Kevilco Meeting E. Nuno Contact ext. 23121

Sturt

Thu 4/18/2002 11:00 AM Thu 4/18/2002 12:00 PM

End: Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Nuno, Elena (E.S.); SRL Conf Room 2151 (20); Henges, Jon (.); Freeland, Mark (M.)

Powertrain VRT - All Hende Meeting

WSAP - Chart Room

Start: End: Wed 5/1/2002 9:30 AM Wed 5/1/2002 11:00 AM

Show Time As:

Tentetive

Recuirence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Oboza, Doran (D.); Agarwai, Apoorva (A.); Banke, Nermine (N.B.); Coryea, Kevin (K.W.); Cvetkovski, Peter (P.); Davenport, Marty (M.F.); Deegan, Mike (M.D.); Falls, Stephen (S.W.); Fashina, Ayodeji (A.); Fodera, Michael (M.J.); Foust - Smith, Susan (S.L.); Freeland, Mark (M.); Glannamore, Armand (A.A.); Glimour, Bradly (B.A.); Ivaniezyn, Teri (T.E.); Madrid, David (D.R.); Matt Morin; Morton, Michael (M.F.); Motley, Lesia (L.M.); Norman, Ingrid (I.); Odum, ike (I.C.); Prater, Joseph (J.A.); Rezaee, John (J.H.); Selleck, Beth (B.); Steams, Pemm (P.V.); Toble, Bruce (B.J.); Trombetta, Christopher (C.B.); Whang, Sonjae (S.); Winekoff, Bryan (B.D.); Zubeck, Michael (M.W.); Acuff Jr., Melvin (M.); Ahmed, Kamat (K.); Ajulufoh, Bart (B.O.); Anderson, Johnny (J.D.); Arszulowicz, Ken (K.J.); August, Dan (D.); Baum, Joe (J.M.); Bostner, Derryle (D.R.); Brien Johnson; Brockette, Ronald (R.K.); Broski, Jemes (J.W.); Brown, Merk (M.D.); Cempbell, Aindree (A.M.); Cempbell, Donald (D.C.); Caruso, Barry (B.); Cassisa, William (W.C.); Castiemen, William (W.G.); Centilive, James (J.C.); Cervantes, Eduardo (E.J.); Chris Campbell; Clachanowski, Mark (M.S.); Clugston, Shane (S.A.); Coate, Richard (R.M.); Colairugilo, Vince (V.E.); Cox, Tom (T.T.); D'Agostino, Antonio (A.); Davis, Jerry (J.W.); Debbie Paliani; Dhaliwal, Dave (B.S.); Duneska, Dannis (D.R.); Eggert, Daniel (D.C.); Fike, Berbera (B.G.); Florence, Jeremy (J.D.); Fluker, Jernes (J.A.); Francisco Fernandez (E-mail); Franklin, Taj (T.); Gamble, Craig (C.R.); Gazdecki, Timothy (T.A.); Gerke, David (D.W.); Glies, Anthony (A.T.); Glimer, David (D.C.); Giordano, Mike (M.A.); Goulet, Michele (M.A.); Grace, John (J.E.); Graham, Robert (S.); Granados, Rodolfo (R.); Groom, Reginald (R.); Gucclardo, Steve (S.P.); Hegde, Damoder (D.M.); Helmstadter, Donald (D.G.); Hettle, Bruce (B.W.); Holloway, Scott (J.S.); Hopkins, Harry (H.S.); J. Sowards; Jehehen, John; Johnson, Gary (G.A.); Jordan, Frances (F.J.); King, Steve (S.J.); Kinnie, Brian (B.W.); Kircell, lein (I.G.); Kline, Denise (D.M.); Koch, Thomas (T.P.); Kunde, Olaf (O.); Lardizabal, Sergio (S.); Lizotte, Brian (B.W.); Lorius, Brett (B.R.); MecDonald, George (G.F.); Madej Jr., Stan (S.P.); Mejzoub, Malek (Z.); Mersac, Lance (L.D.); Matthews, Gary (G.); Matyelewicz, Edwin (E.J.); McCowin, Enoch (E.G.); Minore, Bob (R.S.); Miller, Melinda (M.S.); Mitchell; Carole (C.A.); Morabito, Mike (M.P.); Moses, Edwin (E.D.); Nemeth, Steve (S.L.); O'Connor, Jim (James W.); Patel, Praful (P.J.); Plasencia, David (D.B.); Post-barnes, Donna. (D.F.); Popensa, Michael (M.J.); Putela, Ananth (A.); Purvis, Bruce; Remey, George (G.); Reichenbech, Roneld (R.W.); Rollin, Anthony (A.D.); Rossman, Michael (M.D.); Samimy, Bahman (Benny.); Sanda, Roger (R.P.); Schneider, Jeff; Sheridan, Richard (R.D.); Shopp. Jemes (J.J.); Singley, Rogers (R.W.); Smith, David (D.A.); Smith, Tennille (T.C.); Souliers, James (J.K.); Spaniak, Terrence (T.E.); Stevenson, Ethel (E.E.); Stojov, Tony (T.); Stump, Steven (S.M.); Sturgeon, Bill (W.); Swick, Curt (C.); Szczepaniak, Gerard (G.); Taraszkiewicz, Alexande (A.S.); Tedone, Damian (D.J.); Thomas, Kan (K.C.); Toroslan, David (D.A.); Touroo, Lyle (L.W.); Tucker, Shanise (S.M.); Tyrell, Larry (L.J.); Vangavolu, Sreedhar (S.); Vinogradov, Alex (A.); Walker, Cheryl (C.); Waleh, Gerald (G.); Washington, Eric (E.D.); Wegrzyn, Michael (M.J.); Wepler, Ron (R.J.); White, Christopher (C.); Whiteley, Christine (C.); Wistr, Joseph (J.M.); Wilkins, Robert (R.M.); Williams, Anthony (A.J.); Williams, Elizabeth (E.P.); Williams, Michael (M.T.); Williams, Robert (R.L.); Willis, Deon (D.G.); Zigler, Brad (B.T.)

Powertrain VRT Champion, Gary Johnson requested an All Hands Meeting for the powertrain team. If you are part of the Powertrain VRT, your attendance or that of a representative is required. The subject of the meeting will be the PQR Agenda for 5/1/02.

Canceled: Powertrain All Hende Meeting - postponed until 5/1/02

Wayne Assembly Chart Room

Start: End: Wed 4/24/2002 10:00 AM Wed 4/24/2002 11:30 AM

Show Time As:

Free

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Oboza, Doran (D.); Agarwai, Apoorva (A.); Banka, Nermine (N.B.); Coryea, Kevin (K.W.); Cvetkovski, Peter (P.); Davenport, Marty (M.F.); Deegan, Mike (M.D.); Falls, Stephen (S.W.); Fashina, Ayodeji (A.); Foders, Michael (M.J.); Foust - Smith, Susan (S.L.); Freeland, Mark (M.); Giennamore, Armand (A.A.); Gilmour, Bradly (B.A.); Gwozdek, Tom (T.M.); Ivaniszyn, Teri (T.E.); Madrid, Devid (D.R.); Matt Morin; Morton, Michael (M.F.); Motley, Lesia (L.M.); Normen, Ingrid (I.); Odum, Ike (I.C.); Preter, Joseph (J.A.); Rezase, John (J.H.); Selleck, Beth (B.); Steems, Permin (P.V.); Toble, Bruce (B.J.); Trombetta, Christopher (C.B.); Whang, Sonjae (S.); Whekoff, Bryan (B.D.); Zubeck, Michael (M.W.); Acuff Jr., Metvin (M.); Ahmed, Karnel (K.); Ajulufoh, Bert (B.O.); Anderson, Johnny (J.D.); Arszulowicz, Ken (K.J.); August, Den (D.); Beum, Joe (J.M.); Sostner, Derryle (D.R.); Brian Johnson; Brockette, Ronald (R.K.); Brookl, James (J.W.); Brown, Mark (M.D.); Cempbell, Aindrea (A.M.); Campbell, Donald (D.C.); Caruso, Barry (B.); Cassise, William (W.C.); Castisman, William (W.G.); Centilvre, James (J.C.); Cervantes, Eduardo (E.J.); Chris Campbell, Clechanowski, Mark (M.S.); Clugston, Shane (S.A.); Coats, Richard (R.M.); Colatrugilo, Vince (V.E.); Cox, Tom (T.T.); D'Agostino, Antonio (A.); Davis, Jerry (J.W.); Debbie Pallant; Dheliwet, Dave (B.S.); Duneske, Dennis (D.R.); Eggert, Deniel (D.C.); Fike, Berbare (B.G.); Florence, Jeremy (J.D.); Fluker, James (J.A.); Francisco Fernandez (E-mail); Franklin, Taj (T.); Gamble, Craig (C.R.); Gazdecki, Timothy (T.A.); Gerke, David (D.W.); Gles, Anthony (A.T.); Glimar, David (D.C.); Glordano, Mike (M.A.); Goulet, Michele (M.A.); Grace, John (J.E.); Graham, Robert (S.); Granades, Rodolfo (R.); Groom, Reginald (R.); Gucciardo, Steve (S.P.); Hegde, Damoder (D.M.); Helmatadter, Donald (D.G.); Hettis, Bruce (B.W.); Holloway, Scott (J.S.); Hopkins, Harry (H.S.); J. Sowerde; Jahehan, John; Johnson, Gary (G.A.); Jordan, Frances (F.J.); King, Stave (S.J.); Kinnia, Brian (B.W.); Kircall, Isin (I.G.); Kline, Denise (D.M.); Koch, Thomas (T.P.); Kunde, Olaf (O.); Lardizabel, Sergio (S.); Lizotte, Brien (B.W.); Lorius, Brett (B.R.); MacDonald, George (G.F.); Madel Jr., Stan (S.P.); Majzoub, Malek (Z.); Marazo, Lance (L.D.); Matthews, Gary (G.); Matyslewicz, Edwin (E.J.); McCowin, Enoch (E.G.); Milhors, Bob (R.S.); Miller, Melinda (M.S.); Mitchell, Carole (C.A.); Morabito, Mike (M.P.); Moses, Edwin (E.D.); Nemeth, Steve (S.L.); O'Connor, Jim (James W.); Patel, Praful (P.J.); Planencia, David (D.B.); Post-bames, Donna (D.F.); Popenas, Michael (M.J.); Pullela, Ananth (A.); Purvis, Bruce; Ramey, George (G.); Reicherbach, Ronald (R.W.); Rollin, Anthony (A.D.); Roesman, Michael (M.D.); Samirny, Bahman (Benny.); Sends, Roger (R.P.); Schneider, Jeff, Sheridan, Richard (R.D.); Shopp, James (J.J.); Singley, Rogers (R.W.); Smith, David (D.A.); Smith, Tennitie (T.C.); Soulliere, James (J.K.); Spaniak, Terrence (T.E.); Stevenson, Ethel (E.E.); Stojov, Tony (T.); Slump, Sleven (S.M.); Sturgeon, Bill (W.); Swick, Curt (C.); Szczepaniak, Gerard (G.); Taraszkiowicz, Alexande (A.S.); Tedone, Damian (D.J.); Thomae, Ken (K.C.); Torosian, Devid (D.A.); Tourgo, Lyle (L.W.); Tucker, Shanles (S.M.); Tyrell, Larry (L.J.); Vangavolu, Sreadher (S.); Vinogradov, Alex (A.); Walker, Cheryl (C.); Walsh, Geraki (G.); Washington, Eric (E.D.); Wegrzyn, Michael (M.J.); Wapler, Ron (R.J.); White, Christopher (C.); Whiteley, Christine (C.); Wietr, Joseph (J.M.); Wilkins, Robert (R.M.); Williams, Anthony (A.J.); Williams, Elizabeth (E.P.); Williams, Michael (M.T.); Williams, Robert (R.L.); Willia, Deon (D.G.); Zigler,

Optional Attendess:

Florence, Jeremy (J.D.); Trombetta, Christopher (C.S.); Steams, Pamm (P.V.); Deegan, Mike. (M.D.); Kunde, Olaf (O.); Eggert, Daniel (D.C.); Tedone, Damian (D.J.); Gucciardo, Stave (S.P.); Tobia, Bruce (B.J.); Baum, Joe (J.M.); Coletrugilo, Vince (V.E.); Gwozdek, Tom (T.M.); Foust - Smith, Susan (S.L.); Rezaee, John (J.H.); D'Agoetino, Antonio (A.)

importance:

High

New Powertrain VRT Champion, Gary Johnson has requested an all hands meeting for this coming Wednesday (4/24/02). All team members are required to attend or send a representative. Those on the PQR 1

agenda should be prepared to discuse those topics.

Conceled: Powertrain All Hands Meeting - postponed until 5/1/02

Wayne Assembly Chart Room

Start: End: Wed 4/24/2002 10:00 AM Wed 4/24/2002 11:30 AM

Show Time As:

Free

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Oboza, Doran (D.); Agarwal, Apourva (A.); Banke, Nermine (N.B.); Coryea, Kevin (K.W.); Ovetkovski, Peter (P.); Devenport, Marty (M.F.); Deegan, Mike (M.D.); Falls, Stephen (S.W.); Fashins, Ayodeji (A.); Foders, Michael (M.J.); Fount - Smith, Susun (S.L.); Freeland, Mark (M.); Glannamore, Armend (A.A.); Glimour, Bradly (B.A.); Gwozdek, Tom (T.M.); Ivaniszyn, Teri (T.E.); Madrid, David (D.R.); Matt Morin; Morton, Michael (M.F.); Motiey, Lesia (L.M.); Norman, Ingrid (I.); Odum, Ike (I.C.); Prater, Joseph (J.A.); Rezese, John (J.H.); Selleck, Beth (B.); Steems, Pamm (P.V.); Toble, Bruce (B.J.); Trombetta, Christopher (C.B.); Whang, Sonjae (S.); Winekoff, Bryan (B.D.); Zubeck, Michael (M.W.); Acuff Jr., Metvin (M.); Ahmed, Kamai (K.); Alutufoh, Bart (B.O.); Anderson, Johnny (J.D.); Arazulovicz, Ken (K.J.); August, Dan (D.); Baum, Joe (J.M.); Boetner, Derryle (D.R.); Brien Johnson; Brockette, Ronald (R.K.); Broekl, James (J.W.); Brown, Mark (M.D.); Campbell, Aindree (A.M.); Campbell, Donald (D.C.); Caruso, Barry (B.); Caasisa, William (W.C.); Castleman, William (W.G.); Centiture, James (J.C.); Cervantes, Eduardo (E.J.); Chris Campbell; Clechanowski, Mark (M.S.); Clugation, Shane (S.A.); Coate, Richard (R.M.); Colatrugilo, Vince (V.E.); Cox, Tom (T.T.); D'Agortino, Antonio (A.); Davis, Jerry (J.W.); Debbie Paliani; Dhallwal, Deve (B.S.); Duneske, Dennie (D.R.); Eggert, Deniel (D.C.); Fike, Barbara (B.G.); Florence, Jeremy (J.D.); Fluker, James (J.A.); Francisco Fernandez (E-mail); Franklin, Taj (T.); Gamble, Craig (C.R.); Gezdecki, Timothy (T.A.); Gerke, David (D.W.); Glies, Anthony (A.T.); Glimer, David (D.C.); Glordano, Mike (M.A.); Goulet, Michele (M.A.); Grace, John (J.E.); Graham, Robert (S.); Granados, Rodolfo (R.); Groom, Reginald (R.); Gucclardo, Steve (S.P.); Hegde, Damodar (D.M.); Helmetadter, Donald (D.G.); Hettle, Bruce (B.W.); Holloway, Scott (J.S.); Hopkins, Harry (H.S.); J. Sowards; Jahshan, John; Johnson, Gary (G.A.); Jordan, Francee (F.J.); King, Steve (S.J.); Kinnie, Brian (B.W.); Kircali, Iain (I.G.); Kline, Denise (D.M.); Koch, Thomas (T.P.); Kunde, Olef (O.); Lardizabal, Sergio (S.); Lizotte, Brian (B.W.); Loriue, Brett (B.R.); MacDonald, George (G.F.); Madel Jr., Stan (S.P.); Majzoub, Malek (Z.); Manac, Lence (L.D.); Metthews, Gary (G.); Metyelewicz, Edwin (E.J.); McCowin, Enoch (E.G.); Mihors, Bob (R.S.); Miller, Melinda (M.S.); Mitchell, Carole (C.A.); Morabito, Mike (M.P.); Moses, Edwin (E.D.) Nemeth, Steve (S.L.); O'Connor, Jim (James W.); Petel, Preful (P.J.); Plasencia, David (D.B.); Poet-barnes, Donna (D.F.); Popenae, Michael (M.J.); Pullela, Ananth (A.); Purvia, Bruce; Ramey, George (G.); Reichenbech, Ronald (R.W.); Rollin, Anthony (A.D.); Rossman, Michael (M.D.); Semimy, Behman (Benny.); Sende, Roger (R.P.); Sohnelder, Jeff; Sheridan, Richard (R.D.); Shopp, James (J.J.); Singley, Rogers (R.W.); Smith, David (D.A.); Smith, Tennille (T.C.); Soulitare, James (J.K.); Spaniak, Terrence (T.E.); Stevenson, Ethel (E.E.); Stojov, Tony (T.); Stump, Steven (S.M.); Sturgeon, Bill (W.); Swick, Curt (C.); Szczepaniek, Gerard (G.); Tereszkiewicz, Alexande (A.S.); Tedone, Demian (D.J.); Thomas, Ken (K.C.); Teresian, David (D.A.); Tourco, Lyle (L.W.); Tucker, Shenise (S.M.); Tyrell, Larry (L.J.); Vangavolu, Sreedhar (S.); Vanogradov, Alex (A.); Walker, Cheryl (C.); Walsh, Gerald (G.); Washington, Eric (E.D.); Wegrzyn, Michael (M.J.); Wepler, Ron (R.J.); White, Christopher (C.); Whiteley, Christine (C.); Watr, Joseph (J.M.); Wilkins, Robert (R.M.); Williams, Anthony (A.J.); Williams, Elizabeth (E.P.); Williams, Michael (M.T.); Williams, Robert (R.L.); Willis, Deon (D.G.); Zigler,

Optional Attendess:

Florence, Jeremy (J.D.); Trombetta, Christopher (C.B.); Steams, Pamm (P.V.); Deegan, Mike (M.D.); Kunde, Olaf (O.); Eggert, Daniel (D.C.); Tedone, Damien (D.J.); Gucciardo, Steve (S.P.); Toble, Bruce (B.J.); Baum, Joe (J.M.); Colatrugilo, Vince (V.E.); Gwozdek, Tom (T.M.); Foust - Smith, Susan (S.L.); Rezsee, John (J.H.); D'Agostino, Antonio (A.)

Importance:

High

New Powertrain VRT Champion, Gary Johnson has requested an all hands meeting for this coming Wednesday (4/24/02). All team members are required to attend or send a representative. Those on the PQR

agenda should be prepared to discuss those topics.

DPFE circuit changes Jim O'Neal's office

Start: End:

Thu 10/3/2002 11:00 AM Thu 10/3/2002 12:30 PM

Show Time As:

Tentative

Recurrence:

(none)

**Meeting Status:** 

Not yet responded

Required Attendess:

O'Neell, Jim (J.D.); Allee, Sheran (S.A.); Freeland, Mark (M.); Verner, Carol (C.J.); Getse, Freeman (F.C.)

Moved meeting up by 1/2 hour for Jim O'Neall's schedule.

FW: Kavico dPFE Sensor Core Team Meeting

POEE Di188 (War Room in FMEI Dept.)

Start: End; Tue 5/7/2002 1:00 PM Tue 5/7/2002 2:00 PM

Show Time As:

Tentative

Recurrence:

Weekly

Recurrence Pattern:

every Tuesday from 1:00 PM to 2:30 PM

Moeting Status:

Not yet responded

Required Attendess:

Panaretos, Christine (C.M.); Carter, Roecce (R.O.)

Prom:

Paneretos, Christine (C.M.)

Sunt

Wednesday, December 19, 2001 10:03 AM

Tot

Pararetos, Christine (C.M.); Aldre, Hary (M.); Award, Mahmoud (N.I.); 'Ayers, Don'; Precland, Mark (M.); Gates, Freeman (F.C.); Owens, Karen (K.E.); Pentaretos, Christine (C.M.); Plante, Peul (P.G.); Schleding, Kurt (K.J.); Smythe, Joseph (J.M.); Verner, Carot

(CJ.)

Subjects

Kaviko dPFE Sensor Core Team Neeting

When

Tuesday, May 07, 2002 1:00 PM-2:00 PM (GMT-05:00) Eastern Time (US & Canada).

Where

POSE DILBS (Way Room in FHEI Dept.)

These are the ongoing meetings for the Kavilco TM dPFE sensor. The Tuesday meetings will last 1.5 hours. We will have a teleconference with Kavilco and any other team members who are unable to attend but still want to participate. The telephone number to the conference room and passcode will be sent in another notice.

DPFE Sensor State lesue Review

DI-196 (FMEI War Room)

Start: End:

Thu 5/2/2002 1:00 PM Thu 5/2/2002 3:00 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Regulred Attendees:

Panaretos, Christine (C.M.); "Jehshen@visteon.com"; Schleding, Kurt (K.J.); Awad, Mahmoud (M.I.); Plante, Paul (P.G.); Getss, Freeman (F.C.); Freeland, Mark (M.); Maurer, James (J.B.); Perry, Brien (B.J.); 'apoma2@visteon.com'

Team, we need 2 hours to discuss this subject. The only time all are available is 5/2 during our normal team. meeting. All are required to have a meaningful discussion. BRING ALL DATA ASSOCIATED WITH STALLS FOR DISCUSSION, Filmeles are better than paper to save copies.

1) Overview to set agenda. Brainstorm data and issues from V Engine, PCSE, and Quality Office.

Review data from each attendee and discuss with team.

Establish:

A) Can stalls theoretically happen?

B) What happens when a stall occurs?

C) What is the rate of stall compared to overall sensor warranty.

D) What compoents affect stalls (i.e. sensor, PCM, etc.)

Consense on stall issues. Establish statement for 14D.

Next steps.

Subject

Acide/concentrations and Test Vehicles

Location:

POEE-D138 (15)

Start: End: Wed 5/1/2002 11:00 AM Wed 5/1/2002 12:30 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Regulred Attendees:

Panaretos, Christine (C.M.); Maurer, James (J.B.); Gates, Freeman (F.C.); Freeland, Mark (M.); Plante, Paul (P.G.); McCoy Jr., Joe (J.); 'bdavies@ksvilco.com'; 'kperk@kaviico.com'

Please plan on attending a follow up meeting to the April 30 lasues meeting to discuss Acids and Test Vehicles.

J. McCoy only required to attend for the Test Vehicle dicussion which will be from 12:00-12:30.

I apologize for any inconvenience for this was the only 1.5 hr. time block available on everyone's schedule for tomorrow.

I will advise Kyong Park and Brady Davies date and time.

Updated: Electrical Wiring Testing for Kevilco dPFE Sensor

POEE FAO video POECB072

Start: End:

Mon 4/8/2002 2:00 PM Mon 4/8/2002 3:30 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Paneretos, Christine (C.M.); POEE FAO video POECB072; Hermann, Thomas (T.J.); Alles, Sheren (S.A.); Rossi, Roberto (R.A.); Freetand, Mark (M.); Maurer, James (J.B.); Plante, Paul (P.G.); Gates, Freeman (F.C.); 'dayers@kavilco.com'; 'bdavis@kavilco.com';

kperk@kevico.com; O'Neali, Jim (J.D.)

This is a separate meeting to discuss Electrical Wiring Testing for the dPFE sensor. This will be a teleconference with Kavilco. You may use the same connection number used for the team meetings.

If you have any questions, please contact me.

Chris Panaretos (313) 24-89337 cpanaret@ford.com

Updated: Electrical Wiring Testing for Kavilco dPFE Sensor

POEE FAO video POECB072

Start: End:

Mon 4/8/2002 2:00 PM Mon 4/8/2002 3:30 PM

Show Time As:

Tentutive

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Panarelos, Christine (C.M.); POEE FAQ video POECB072; Hermann, Thomas (T.J.); Alles, Sheran (S.A.); Rosel, Roberto (R.A.); Freeland, Mark (M.); Maurer, James (J.B.); Plante, Peul (P.G.); Gates, Freeman (F.C.); 'dayera@kavlico.com'; 'bdavles@kavlico.com';

kpark@kavilco.com; O'Neall, Jim (J.D.)

This is a separate meeting to discuss Electrical Wiring Testing for the dPFE sensor. This will be a teleconference with Kavilco. You may use the same connection number used for the team meetings.

If you have any questions, please contact me.

Chris Panaretos (313) 24-89337 cpanaret@ford.com

FW: FRL Presentation-Sensor

Paul Office

8tart: End:

Tue 6/4/2002 2:30 PM Tue 6/4/2002 3:00 PM

Show Time As:

Tentative

Recurrence:

(none)

Mooting Status:

Not yet responded

Required Attendees:

Plante, Paul (P.G.); Bryant, Bruce (B.D.)

-Original Appointment-

Freen

Senti

Planta, Paul (P.G.) Monday, June 03, 2002 5:34 PM

To:

Plante, Paul (P.G.); Maurer, James (J.B.); Freeland, Mark (M.); Plante, Paul (P.G.)
FRI. Presentation-Sensor
Tuesday, June 04, 2002 2:30 PH-3:00 PM (GMT-05:00) Eastern Time (US & Canada).
Paul Office

Subject: When:

Where

Discuss FRL Directors level meeting on Mark's Black Bett project.

Subject

FW: FRL Presentation-Sensor

Location:

Paul Office

Start: End:

Tue 6/4/2002 2:30 PM Tue 6/4/2002 3:00 PM

Show Time As:

Tentetive

Recurrence:

(none)

Moating Status:

Not yet responded

Required Attendees:

Plento, Paul (P.G.); Bryant, Bruce (B.D.)

-Original Appaintment-

From

Sent:

Plente, Paul (P.G.) Monday, June 03, 2002 5:54 PM Plante, Paul (P.G.); Maurer, James (J.B.); Fraeland, Mark (ML); Plante, Paul (P.G.)

Subjects

FRL Presentation-Sensor

When:

Tuesday, June 04, 2002 2:30 PM-3:00 PM (GMT-05:00) Eastern Time (US & Canada). Paul Office

Discuss FRL Directors level meeting on Mark's Black Belt project.

Subject:

DPFE Sensor Vehicle Issues Meeting

Location:

POEE, E103A (Piler L10)

Start: End:

Mon 6/13/2002 1:00 PM Mon 5/13/2002 3:00 PM

Show Time As:

Tontetive

Recurrence:

(none)

Meeting Statue:

Not yet responded

Required Attendess:

Freeland, Mark (M.); Jenda, Jon (J.M.); Gates, Freeman (F.C.); Pome, Amy (A.); Plante, Paul (P.G.); Verner, Carol (C.J.); Awad, Mahmoud (M.I.); Rossi, Roberto (R.A.); McCoy, James (J.D.); Maurer, James (J.B.); "jahshan@visteon.com"; Alles, Shenan (S.A.)

This meeting is mandatory to all attendees for conducting working group business. Please clear your calenders to attend. The first meeting will review objectives. Please read attachments in advance. Bring (12) copies of your issues to present and discuss. This CR is located in the center rear of the POEE building, by pillar L10.



vabbssue\_doc

# DPFE Sensor Vehicle Issues Meeting

Overview/Objectives: To present, discuss and concense on vehicle issues affecting the failure of the DPFE sensor. Decisions must be reached that lead to (Is-Is Not) root cause for each issue discussed. If a decision is NOT attainable with the data given, then assignments to a specific leader will be set and a due date given, or the issue will be deleted from consideration. All issues will be discussed to the teams satisfaction. This team will attempt to concentrate our efforts for issue resolution, prioritize workload, and distribute issues to responsible people. This will be a working group, weekly, Monday meeting with brief report outs at the 14D Tuesday/Thursday meetings. Jim McCoy is the leader for procuring (5) sets of vehicle instrumentation to be used on (4) buy back vehicles, and others as available.

Team Leaders: P. Plante (facilitator), Jon Janda (leader), and Amy Poma (issues tracking PMA)

Attendees: See meeting notice. Attendance is mandatory to conduct business,

Location: B103A, PORE, Monday, 1:00-3:00 PM (Center Rear of POEE in 14 Engine area)

## Agenda:

- 1) P. Plante Objectives overview and team comments.
- M. Awad Issues from AWS
  - A) AWS Stack Chart w/ Vehicle and Sensor documented changes overlay (5 target)
  - B) Repeat repairs plots and analysis
  - C) Pareto of 21 vehicles failure rate
  - D) Other
- 3) Mark Freeland issues
- 4) Other Team Members

P. Plante 5/9/02 Pgp/vehisaue.doc From: Sent

To:

Subject:

Plante, Paul (P.G.)
Tuesday, March 12, 2002 10:18 AM
Freeland, Mark (M.); Gates, Freeman (F.C.)
Accepted: Meeting with Kaviico to review SRL work on UPAD

I have a John Koszewnik review 9-11:00 AM Wed. Part of it is DPFE overview. Lets discuss at Tuesday 1:00 PM meet. Freeman should be at Kos review also?

Focus Stalling Ray's Office

Start End:

Tue 10/1/2002 1:00 PM Tue 10/1/2002 2:00 PM Tentative

Show Time As:

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Plaud, Zakła (Z.); Souchock, Peter (P.D.); Renouf, Joe (J.H.); Nevi, Ray (R.A.); Freeland, Mark (M.) Plaud, Zakła (Z.)

Optional Attendess:

Voltage measurementsduring collicherging POEE, FMEI dept or DI-196 near piller G-17

Start: End:

Tue 6/6/2002 1:00 PM Tue 8/6/2002 2:30 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Poma, Arny (A.); Freeland, Mark (M.); McCoy, James (J.D.); Alles, Sheran (S.A.); Maurer, James (J.B.); **Jahehan@visteon.com**¹

Jim Maurer has requested your attendance at the above referenced meeting for Tuesday, August 6th. Please advise if you are unable to attend.

Mark Freeland-Per Jim's request, please bring your vehicle so the team can look at it. Thanks.

Updated: Kaviloo dPFE Sensor Core Team Meeting

POEE DI-196 (War Room in FMEI Dept.)

Start: End: Tue 7/9/2002 1:00 PM Tue 7/9/2002 2:30 PM

Show Time As:

**Tentative** 

Recurrence:

Weekly

Recurrence Pattern:

every Tuesday from 1:00 PM to 2:30 PM

Meeting Status:

Not yet responded

Required Attendoes:

Poma, Amy (A.); Akine, Mary (M.); Alles, Sheran (S.A.); Awed, Mehrmoud (M.I.); Ayers, Don; Freetend, Mark (M.); Getes, Freeman (F.C.); Maurer, James (J.B.); McCarty, Bill (W.D.); Nielsen, Christian (C.A.); O'Neell, Jim (J.D.); Park, kyong; Perry, Brian (B.J.); Plante, Paul (P.G.); Poma, Amy; Reddy, Srikanth; Rossi, Roberto (R.A.); Shore, John (J.)

Optional Attendese:

Akins, Mary (M.); Plante, Psul (P.G.); Rossi, Roberto (R.A.); Maurer, James (J.B.); White-

Johnson, Patrice (P.)

This is a continuation of our regular Tuesday meeting from May 28 through the rest of the year. Please accept in order to be noted on your calendars. Thanks,

CANCELLATION OF JULY 1, 2002 leasues Resolution mtg.

POEE E108A pillar L-10

Start End:

Mon 7/1/2002 1:00 PM Mon 7/1/2002 3:00 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Pome, Amy (A.); Akins, Mary (M.); Alfee, Sheran (S.A.); Awad, Mahmoud (M.I.); Freeland, Mark (M.); Gates, Freeman (F.C.); Jende, Jon (J.M.); John Jahahan (E-mail); Meurer, James (J.B.); McCoy, James (J.D.); Plante, Paul (P.G.); Pome, Amy (A.); Reddy, Srikenth; Rossi, Roberto (R.A.); Verner, Carol (C.J.)

Due to the vacation days during the 4th of July holiday week, the July 1 meeting is cancelled. We will resume on July 8.

Updated: Kavico dPFE Sensor Core Team Meeting

POEE DI 196 (War Room in FMEI Dept.)

Start End:

Thu 5/30/2002 1:00 PM Thu 5/30/2002 3:00 PM

Show Time As:

Tentative

Recurrence:

Weekly

Recurrence Pattern:

every Thursday from 1:00 PM to 3:00 PM

Maeting Status:

Not yet responded

Required Attendees:

Aldns, Mary (M.); Alles, Sheran (S.A.); Awad, Mehmoud (M.I.); Ayers, Don; Freeland, Merk (M.); Getse, Freeman (F.C.); Meurer, James (J.B.); McCarty, Bill (W.D.); Nielsen, Christian (C.A.); O'Neall, Jim (J.D.); Park, kyong; Perry, Brian (B.J.); Plante, Paul (P.G.); Poma, Amy (A.); Rossi, Roberto (R.A.); Shors, John (J.); White-Johnson, Patrice (P.) Plante, Paul (P.G.); Akins, Mary (M.); Rossi, Roberto (R.A.); Meurer, James (J.B.); White-

Optional Attendess:

Johnson, Patrice (P.)

This is a continuation of our regularly scheduled Thursday meetings from 1:00-3:00 p.m. from May 30 through the rest of the year. Please accept so that your calendars can be noted. Thanks.

Kaviko dPFE Sensor Core Team Meeting POEE DI 198 (War Room in FMEI Dept.)

Start: End:

Thu 5/30/2002 1:00 PM Thu 6/30/2002 3:00 PM

Show Time As:

Tentative

Recurrence:

Weekly

Recurrence Pattern:

every Thursday from 1:00 PM to 3:00 PM

Moeting Status:

Not yet responded

Required Attendese:

Akins, Mary (M.); Alies, Sheran (S.A.); Awad, Mahmoud (M.i.); Ayers, Don; Freeland, Mark (M.); Gates, Freeman (F.C.); Meurer, James (J.B.); McCarty, Bill (W.D.); Nielsen, Christian (C.A.); O'Neall, Jim (J.D.); Perry, Brian (B.J.); Plante, Paul (P.G.); Poma, Amy (A.); Rossi, Roberto (R.A.); Shore, John (J.); White-Johnson, Patrice (P.)

This is a confinuation of our regularly scheduled Thursday meetings from 1:00-3:00 p.m. from May 30 through the rest of the year. Please accept so that your calendars can be noted. Thanks.

Kevilco dPFE Sensor Core Team Meeting POEE DI-196 (War Room In FMEI Dept.)

Start: End:

Tue 5/28/2002 1:00 PM Tue 5/28/2002 2:30 PM

Show Time As:

**Tentative** 

Recurrence:

Weekly

Recurrence Pattern:

every Tuesday from 1:00 PM to 2:30 PM

Moeting Status:

Not yet responded

Required Attendess:

Akins, Mary (M.); Alies, Sheran (S.A.); Awad, Mahmoud (M.I.); Ayers, Don; Freeland, Mark (M.); Gates, Freeman (F.C.); Maurer, James (J.B.); McCarty, Bill (W.D.); Nielsen, Christian (G.A.); O'Neall, Jim (J.D.); Perry, Brian (B.J.); Plante, Paul (P.G.); Porne, Amy (A.); Rosel, Roberto (R.A.); Shore, John (J.); White-johnson, Patrice (P.)

This is a continuation of our regular Tuesday meeting from May 28 through the rest of the year. Please accept in order to be noted on your calendars. Thanks,

issues Resolution POEE E103A-pillar L10

Start: End: Mon 6/3/2002 1:00 PM Mon 6/3/2002 3:00 PM

Show Time As:

Tentative

Recurrence:

Weekly

Recurrence Pattern:

every Monday from 1:00 PM to 3:00 PM

Meeting Status:

Not yet responded

Required Attendese:

Akine, Mary (M.); Allee, Sheran (S.A.); Awad, Mahmoud (M.I.); Freeland, Mark (M.); Gates, Freeman (F.C.); Janda, Jon (J.M.); John Jahshan (E-mail); Maurer, Jemes (J.B.); McCoy, James (J.D.); Plante, Paul (P.G.); Poma, Amy (A.); Rosal, Roberto (R.A.); Verner, Carol (C.J.)

This is just a formal meeting notice of Paul Plante's previously schedule recourring Monday meeting from 1-3:00 p.m. so it can automatically be placed on your Outlook calendars.

Thanks.

Updated: Review Electrical Paper to Be Presented at Thursday, July 11th DPFE Meeting

Ray's Office 13B074

Start End:

Thu 7/11/2002 10:30 AM Thu 7/11/2002 11:30 AM

Show Time As:

Tentative

Recurrence:

(none)

Mooting Status:

Not yet responded

Required Attendess: Optional Attendess:

Rossi, Roberto (R.A.); Bzyrnek, Raymond (R.); Freeland, Mark (M.) Allee, Sheran (S.A.); Hermann, Thomas (T.J.)

Updated: Review Electrical Paper to Be Presented at Thursday, July 11th DPFE Meeting Ray's Office 13B074

Start: End:

Thu 7/11/2002 10:30 AM Thu 7/11/2002 11:30 AM Tentative

Show Time As:

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Atlandace: Optional Atlandace:

Rossi, Roberto (R.A.); Bzymek, Raymond (R.); Freeland, Mark (M.) Alles, Sheran (S.A.); Hermann, Thomas (T.J.)

Updated: U204 Phantom Stall Meeting

TEE Conf. Rm. 2

Start: End: Thu 3/21/2002 2:00 PM Thu 3/21/2002 3:00 PM

Show Time As:

Tentative

Recurrence:

Weekly

Recurrence Pattern:

every Thursday from 2:00 PM to 3:00 PM

Meeting Status:

Not yet responded

Required Attendees:

Senders, Muriel (M.S.); Altoonian, Don (D.J.); Beuer, Scott (S.C.); Bhojweni, Kemel (K.); Blackburn, Thomas (T.J.); Bogema, John (P.); Cary Powell; Chick, John (J.); Chih, Ming-Niu-(M.N.); Chin, Darret (D.); Corbett, Sandre (S.M.); Dalbo, Bob (R.J.); Dan Roftweller, De Pena, Juan (J.E.); Diez, Timothy (T.P.); Duvall, Alien (A.W.); Fascetti, Bob (R.J.); Fournelle, Gilbert (G.); Freeland, Mark (M.); Gles, Stuart (S.); Gokhale, Renuka (R.V.); Goodwin, William (W.R.); Grewal, Bill (B.S.); Grimes, Jeff (J.R.); Hansen, George (G.C.); Harr, George (G.J.); Hofman, Michael (M.V.); Holmes, Jeffrey (J.R.); Hoshino, Jun (J.); Ichikawa, Jiyunichiro (J.); Jensen, Ted (T.E.); John McDonald; Jones, Andy; Jorden, Donald (D.E.); Kanel, Shinji (S.); King, Robert (R.F.); Kosko, Jeff (J.R.); Kwon, Soon (S.K.); Le, Dzung (D.H.); Limtlaco, Steven (S.); Linde, Peter (P.A.); Liu, Jane (J.); Mendziuk, Roger (R.S.); Merck, Edmond (E.C.); Matesa, John (J.); Maurer, James (J.B.); Mazzella, Gary (G.R.); McGee, Brett (B.L.); Mooney, Larry (L.); Moorhouse, Scott (S.R.); Morgen, Torn; Morlehlms, Shigeld (S.); Neveed Khan; Nematolishi, Sonya (S.); Nikolal, Bernie; Noteboom, Jim (J.E.); Ortman, James (J.W.); Powers, Ken (K.W.); Price, Martin (M.); Requepau, Aklen (A.P.); Sanders, Murief (M.S.); Shah, Kiran (K.C.); Shiralahi, Masaru (M.); Stilgenbauer, Jeffrey (J.R.); Suarez, Rhee (R.); Takasawa, Kelih (K.D.); Takubo, Hirokhi (H.); Vesnstra, Tim (T.W.); Wakeneli, Ray (R.A.); Wettach, BE (B.); Williams, Les (LHW.); Young, Lem (.)

I extended the meeting notice a couple of more weeks. All other information remains the same.

Dial in: 1-877-870-3529 or Fordnet: 9-1-954-1144 International Participants # 1 (630) 693-1704

Pasacode: 7673538#

Updated: U204 Phantom Stall Meeting

TEE Conf. Rm. 2

Stert End:

Thu 3/21/2002 2:00 PM Thu 3/21/2002 3:00 PM

Show Time As:

Tentative

Recurrence:

Recurrence Pattern:

every Thursday from 2:00 PM to 3:00 PM

Moeting Status:

Not yet responded

Required Attendess:

Sanders, Muriel (M.S.); Attoonian, Don (D.J.); Bauer, Scott (S.C.); Bhojwani, Kamat (K.); Blackburn, Thomas (T.J.); Bogems, John (P.); Cary Powell; Chick, John (J.); Chih, Ming-Niu (M.N.); Chin, Darrel (D.); Corbett, Sandra (S.M.); Dalbo, Bob (R.J.); Den Rothweller, De Pena. Juan (J.E.); Diaz, Timothy (T.P.); Duvall, Aflen (A.W.); Fascetti, Bob (R.J.); Fournelle, Oilbert (G.); Freeland, Mark (M.); Glee, Stuart (S.); Gokhale, Renuka (R.V.); Goodwin, William (W.R.); Grewal, Bill (B.S.); Grimes, Jeff (J.R.); Hansen, George (G.C.); Herr, George (G.J.); Hofman, Michael (M.V.); Holmes, Jeffrey (J.R.); Hoshino, Jun (J.); Johlkawa, Jyonichiro (J.); Jensen, Ted (T.E.); John McDoneid; Jones, Andy; Jordan, Donaid (D.E.); Kanai, Shinii (S.); King, Robert (R.F.); Koeko, Jeff (J.R.); Kwon, Soon (S.K.); Le, Dzung (D.H.); Limitaco, Steven (S.); Linde, Peter (P.A.); Liu, Jane (J.); Mandziuk, Roger (R.S.); Marck, Edmond (E.C.); Matesa, John (J.); Maurer, James (J.B.); Mazzella, Gary (G.R.); McGee, Brett (B.L.); Mooney, Larry (L.); Moorhouse, Scott (S.R.); Morgan, Tom; Morlehima, Shigeki (S.); Naveed Khan; Namatolishi, Sonya (S.); Nikolai, Bernie; Noteboom, Jim (J.E.); Orlman, James (J.W.); Powers, Ken (K.W.); Price, Martin (M.); Requepeu, Alden (A.P.); Sanders, Muriel (M.S.); Sheh, Kiran (K.C.); Shiraishi, Mesaru (M.); Stilgenbauer, Jeffrey (J.R.); Suerez, Rhee (R.); Tekssaws, Keith (K.D.); Takubo, Hirolchi (H.); Veenstra, Tim (T.W.); Wakenell, Ray (R.A.); Wettach, Bill (B.); Williams, Les (LHW.); Young, Lem (.)

I extended the meeting notice a couple of more weeks. All other information remains the same,

Diai in: 1-877-870-3529 or Fordnet: 9-1-954-1144 International Participants # 1 (630) 693-1704

Passoode: 7673538#

Updated: U204 Phantom Stall Meeting

TEE Conf. Rm. 2

Start: End: Thu 3/21/2002 2:00 PM Thu 3/21/2002 3:00 PM

Show Time As:

Tentative

Recurrence:

Weekty

Recurrence Pattern:

every Thursday from 2:00 PM to 3:00 PM

Meeting Status:

Not yet responded

Required Attendess:

Senders, Muriel (M.S.); Altoonian, Don (D.J.); Bauer, Scott (S.C.); Bhojwani, Kamel (K.); Blackburn, Thomas (T.J.); Bogema, John (P.); Cary Powel; Chick, John (J.); Chih, Ming-Niu (M.N.); Chin, Derrei (D.); Corbett, Sandra (S.M.); Dato, Bob (R.J.); Dan Rothweller, De Pena, Juan (J.E.); Diez, Timothy (T.P.); Duvali, Alien (A.W.); Fascetti, Bob (R.J.); Fournelle, Gilbert (G.); Freetand, Mark (M.); Giles, Stuart (S.); Gokhale, Renuka (R.V.); Goodwin, Wittiam (W.R.); Grewal, Bill (B.S.); Grimes, Jeff (J.R.); Hansen, George (G.C.); Herr, George (G.J.); Hofman, Michael (M.V.); Holmes, Jeffrey (J.R.); Hoshino, Jun (J.); Ichikawa, Jiyunichiro (J.); Jensen, Ted (T.E.); John McDonald; Jones, Andy; Jordan, Donald (D.E.); Kanal, Shiril (S.); King, Robert (R.F.); Kosko, Jeff (J.R.); Kwon, Soon (S.K.); Le, Dzung (D.H.); Limitaco, Steven (S.); Linde, Peter (P.A.); Liu, Jane (J.); Mandziuk, Roger (R.S.); Marck, Edmond (E.C.); Matesa, John (J.); Maurer, James (J.B.); Mazzelia, Gary (G.R.); McGee, Brett (B.L.); Mooney, Larry (L.); Moorhouse, Scott (S.R.); Morgan, Torn; Morlehima, Shigaki (S.); Naveed Khan; Nametolishi, Sonya (S.); Nikolai, Bernie; Noteboom, Jim (J.E.); Ortman, James (J.W.); Powers, Ken (K.W.); Price, Martin (M.); Raquepau, Alden (A.P.); Senders, Muriel (M.S.); Shah, Kiran (K.C.); Shiralahi, Masaru (M.); Stilgenbeuer, Jeffrey (J.R.); Suarez, Rhae (R.); Takasawa, Kelth (K.D.); Takubo, Hirolchi (H.); Veenatra, Tim (T.W.); Wekenell, Ray (R.A.); Wettach, Bill (B.); Williams, Les (LHW.); Yeung, Lem (.)

I extended the meeting notice a couple of more weeks. All other information remains the same.

Dial in: 1-877-870-3529 or Fordnet: 9-1-954-1144 International Participants # 1 (630) 693-1704

Passcods: 7673538#

Subject:

Kaviico Meeting

Start: End:

Wed 3/13/2002 1:00 PM Wed 3/13/2002 4:00 PM Tentsitive

Show Time As:

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Simko, Steven (S.J.); Freeland, Mark (M.); SRL Conf Room 2151 (20)

Simko, Steven (S.J.) Tuesday, Merch 12, 2002 9:32 AM Freeland, Mark (M.) Accepted: Meeting with Kavilco to review SRL work on UPAD

SRL Conf Room 1347 (10) Monday, April 08, 2002 5:14 PM Freeland, Mark (M.) Accepted: Kavilco dPFE UPAD research

Conference room is available. Meeting accepted.

Uy, Dairene (D.) Friday, May 31, 2002 5:04 PM Freeland, Mark (M.) Accepted: Testing for Al Hydroxide

sure, I'll come down to your office.

Uy, Dairene (D.) Wednesday, March 20, 2002 2:67 PM Freeland, Mark (M.) Accepted: Kavilco TM dPFE Sensor UPAD Root Cause Investigation

Updated: Mountaineer Rear Windows Opening While Driving

Feirlane Plaza South, 4th floor, Jim Vondele's office

Start: End: Tue 9/24/2002 4:00 PM Tue 9/24/2002 5:00 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendoce: Optional Attendoce: Sweeney, Stephanie (S.L.); Freeland, Mark (M.); Kleinke, Darrell (D.K.); Exell, Jeffrey (J.R.)

es: Presed, Priya (P.)

#### RESCHEDULED FROM 9/17 AT 4:00PM

is driving a 2002 My Mountaineer. While driving the vehicle, the rear window has unlatched itself (he heard the solenoid activate) and the door ajar indicator on the dash came on. Moments later, the door lock solenoids all activated. He believes this has happened numerous times as he has found the rear glass open at the end of a drive when he was certain it was closed at the beginning of the drive.

This meeting is to discuss the incident and determine if there are other reports of similar incidents.

Updated: Mountaineer Rear Windows Opening While Driving

Fairlane Plaza South, 4th floor, Jim Vondale's office

Start: End: Tue 9/17/2002 4:00 PM Tue 9/17/2002 5:00 PM

Show Time As:

Tentative

Recurrence:

(enon)

Meeting Status:

Not yet responded

Required Attendees: Optional Attendees:

Sweeney, Stephanie (S.L.); Freeland, Mark (M.); Kleinke, Darrell (D.K.); Exell, Jeffrey (J.R.)

Presed, Priye (P.)

### RESCHEDULED FROM 9/10 AT 11:00AM

is driving a 2002 MY Mountaineer. While driving the vehicle, the rear window has unlatched itself (he heard the solenoid activate) and the door ajar indicator on the dash came on. Moments later, the door lock solenoids all activated. He believes this has happened numerous times as he has found the rear glass open at the end of a drive when he was certain it was closed at the beginning of the drive.

This meeting is to discuss the incident and determine if there are other reports of similar incidents.

Mountaineer Rear Windows Opening While Driving Fairlane Plaza South, 4th floor, Jim Vondale's office

Stert: End: Tue 9/10/2002 11:00 AM Tue 9/10/2002 12:00 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendese: Optional Attendese:

Sweeney, Stephanie (S.L.); Freeland, Mark (M.); Kleinke, Derrell (D.K.); Exell, Jeffrey (J.R.)

nal Attendess: Presed, Priye (P.)

(he heard the solenoid activate) and the door ajar indicator on the desh came on. Moments later, the door lock solenoids all activated. He believes this has happened numerous times as he has found the rear glass open at the end of a drive when he was certain it was closed at the beginning of the drive.

This meeting is to discuss the incident and determine if there are other reports of similar incidents.

Canceled: Update: U204 Phantom Stall Meeting

TEE COnference Rm 2

Start: End: Thu 3/21/2002 2:00 PM Thu 3/21/2002 3:00 PM

Show Time As:

Free

Recurrence:

Weekly

Recurrence Pattern:

every Thursday from 2:00 PM to 3:00 PM

Meeting Status:

Not yet responded

Required Attendees:

Altoonian, Don (D.J.); Amenda, Harry (H.F.); Badgley, Joel (J.K.); Bauer, Scott (S.C.); Bhokeni, Kemel (K.); Blackhum, Thomas (T.J.); Bookeni, John (P.); Care Powell, Chick

Subject Location: Updated: Update: U204 Phantom Stall Meeting

TEE COnference Rm 2

Start: End: Thu: 1/17/2002 2:00 PM Thu: 1/17/2002 3:00 PM

Show Time As:

Tentative

Recurrence:

Weekly

Recurrence Pattern:

every Thursday from 2:00 PM to 3:00 PM

Meeting Status:

Not yet responded

Required Attendess:

Altoonlan, Oon (D.J.); Amenda, Harry (H.F.); Badgley, Joel (J.K.); Bauer, Scott (S.C.); Bholwani, Kamai (K.); Blackburn, Thomas (T.J.); Bogeme, John (P.); Cary Powell; Chick, John (J.); Chih, Ming-Nkı (M.N.); Chin, Darrel (D.); Corbett, Sendra (B.M.); Dalbo, Bob (R.J.); De Pena, Juan (J.E.); Diez, Timothy (T.P.); Fascetti, Bob (R.J.); Fournelle, Gibert (G.); Freeland, Mark (M.); Glies, Stuart (S.); Gokhale, Ranuka (R.V.); Hensen, George (G.C.); Herr, George (G.J.); Hofman, Michael (M.V.); Holmes, Jeffrey (J.R.); Ichikawa, Jiyunichiro (J.); Jansen, Ted (T.E.); John McDonald (E-mail); Jones, Andy, Jordon, Donald (D.E.); Kanal, Shinji (S.); King, Robert (R.F.); Kicetermann, Eric (E.); Koeko, Jeff (J.R.); Kwon, Soon (S.K.); Limitaco, Steven (S.); Linde, Peter (P.A.); Liu, Jane (J.); Luehveen, Eric (E.A.); Marck, Edmond (E.C.); Matesa, John (J.); Meurer, Jernes (J.B.); Mazzella, Gary (G.R.); Mooney, Larry (L..); Moorhouse, Scott (S.R.); Morgan, Torn; Mortshkna, Shigeki (S.); Neveed Khan; Nematoliahi, Sonya (S.); Nikolai, Bernie; Noteboom, Jim (J.E.); Ortman, James (J.W.); Powell, Cary; Powers, Ken (K.W.); Price, Martin (M.); Requepau, Alden (A.P.); Rothweller, Daniel (D.); Sanders, Muriel (M.S.); Shah, Kiran (K.C.); Shiralahi, Masaru (M.); Stilgenbauer, Jeffrey (J.R.); Suarez, Rhee (R.); Sullivan, Jamie (J.P.); Takasawa, Kelth (K.D.); Takubo, Hirolchi (H.); Vecchio, Anne Marie (A.); Wakenell, Ray (R.A.); Wettach, Bill (B.); Williams, Les

(LHW.); Williamson, David (D.E.); Yeung, Lem (.)

Optional Attendees:

Kicstermann, Eric (E.); Williameon, David (D.E.)

Dial in: 1-866-250-3175 or Fordnet: 9-1-954-1163 ... International Participants # 1 (630) 827-6733

Passcode: 7354080#

8stgma@ford.com

Sent:

Thursday, August 29, 2002 3:10 AM

To: Subject: mfreels1@ford.com; mherdie@ford.com; pmiller@ford.com 6-Sigma Project 5120 -Ready to Evaluate for Sustainment

Important message on 6-Sigma Project 51201

Project 5120 has been closed for 180 days. Please take the necessary actions to determine if this project is sustained. Before the Black Belt, Mark Freeland can request the approval for OK to End, the Financial Analyst, Pamela Miller will need to check if the project financials reflect the actuals and make any necessary adjustments. The Financial Analyst is then required to click the SEND EMAIL on the financial screen to alert the Black Belt the project is ready to be sub

mitted for OK to End.

IMPORTANT: The request for OK to End needs to be submitted within 60 days of when this email was sent otherwise the project status will automatically change to End-Unsustained.

Front:

Adams, Jim (J.A.)

Sent:

Monday, November 25, 2002 10:08 AM

To:

Power, Jemes (J.H.)

Co:

Saloke, George (G.S.); Freeland, Mark (M.); Beuer, David (D.R.)

Subject

electrical noise from ignition system

## Helo James.

i work in the Materials Science Department at FRI, in a group that focuses on durability and reliability issues. Recently, members of my group had a discussion with Mark Freeland in which he mentioned there may be a problem with electrical noise from the ignition system, exectfically the spark plugs. I would like to discuss this further with you to see what help we might be able to offer you in terms of experimental testing and/or materials analysis such as SEM. I will be out of the office after today until 12-03-02, so perhaps we can get together next week for ½ hour to discuss this further.

# Regards,

Jim Adams X40832

Adams, Jkn (J.A.)

Sent.

Monday, November 25, 2002 8:45 AM

To: Subject: Freeland, Mark (M.) RE: AWS Reports page

# Merk,

Thanks for talking with George and I on Friday and providing the web sites.

I found the correct VIN for my Focus (1FAFP36362W219335) and it was produced on 02-18-02, so it should have the replacement do switch. However, the two cases where the instrument readings went out on my Focus suggest that there may be other problems that could be generated by excessive electrical noise.

Regards,

Jim

Prom: Akins, Mary (M.) Sent Fridey, May 31, 2002 2:01 PM To: 'Park, Kyong' Freeland, Mark (M.) Cer Subject RE: Wafer Carcasses Returned to Kavilco The carcesses shipped via FedEx today with a delivery date of Tuesday, June 4, 2002. Mary Akina ----Original Message----From: Fark, Kyong [mailto: KPark@kavlico.com] Sent: Wednesday, May 29, 2002 12:15 PM To: Freeland, Mark (M.); Kyong Park (H-mail); Robert Weikal (H-mail); Akins, Mary (M.) Cc: Brady Davies (E-mail); Maurer, James (J.B.); Plante, Paul (P.G.); Gates, Freeman (F.C.); Hangas, Jon (.); Tackman, Bruce . Subject: RE: Wafer Carcapses Returned to Kavlico Mark, Thank you. I will acknowledge receiving tham to you when they arrive here. Kyong > ~~~~Original Message~~~~ > From: Freeland, Mark (M.) [SMTP:mfreelal@ford.com] > Sent: Wednesday, May 29, 2002 8:43 AM > To: Kyong Fark (E-mail); Robert Weikal (E-mail); Akins, Mary (M.) > Cc: Brady Davies (B-mail); Maurer, James (J.B.); Plante, Paul (F.G.); > Gates, Preeman (F.C.); Hangas, Jon (.) > Subject: Wafer Carcasses Returned to Kavlico > Kyong, > Fer you're request, and in accordance with the terms of our > confidentiality agreement, I am returning all of the wafer Carcasses which > I have in my possession to Kavlico. > The attached spreadsheet contains the inventory of the material I had in > my possession and the wafer carcasses which I am returning. There is one > wafer, no. 2033925, which is unaccounted for. I have not been able to > locate this wafer. When I do I will return it also. > Please note that there are also 13 loose die on various mounts also > included in the package. > The material will be delivered to Mary Akins this afternoon, and she will > ship it back to Bob Weikal's attention at Moorpark. > If you wish the material to be received by an alternate designee, then > please let Mary know. I have specified Bob, as he is the official conduit > for all confidential material, per the agreement. > Thank you for the opportunity to study the material which I have had since > January this year.

```
> Regards
> Mark Freeland <<Wafers Returned to Kavlico 20020529.xls>>
> 6-Sigma Black Belt
> Regime Research Department
> Ford Research Laboratory
> P.O. Box 2053
> ND 2629 - BRL - Room 1517
> Dearborn, MI 48121-2053 USA
> email: mfreelal@ford.com
> Tel.: (313) 594-7645
> << File: Wafers Returned to Kavlico 20020529.xls >>
```

Akins, Mary (N.)

Sent:

Monday, April 22, 2002 10:41 AM

To:

Freeland, Mark (M.)

Subject

RE: Parts for the outside lab

## Merk,

I should be able to have them tomorrow, Tuesday, at 9:00am. Do you care what vehicle they came off? Most of what we pulled from WPRC will be Escape and Focus.

### Mary

--- Original Message

**From:** 

Freeland, Nark (M.)

Sent

Friday, April 19, 2002 6:52 PM Altins, Mary (M.)

Τœ

œ

Maurer, James (J.B.); Gates, Freeman (F.C.) Parts for the outside lab

Subjects

## Mary,

Of all the parts I currently have, only one is from a vehicle built in 9/2000 time frame.

Could you please get me about 50 WPRC parts which were from 8/2000 - 10/2000 sensor MOM. Could you let me know when you could reasonably have them?

#### Thanks

## Regards

#### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

Akine, Mary (M.)

Sent

Tuesday, April 02, 2002 3:15 PM

To:

Don Ayers (E-mail); Terri Swearingen (E-mail); Randy Ray (E-mail); Gary Casey (E-mail);

Bansek, Cetherine (C.K.); Freetand, Mark (M.); Verner, Carol (C.J.); Johnson, Joe (J.H.);

Ogozety, Jim (J.C.); Getes, Freeman (F.C.) UPDATED NEW AREA CODE

Subject:

Importance:

High

Joe, I think you were the only person I was unable to recall this message from. The new area code should be (586) 942-9606. I'm dyslexici

## Mary

Original Message

Progra

Senta

Akins, Mery (ML) Tuesday, April 02, 2002 3:05 PM

To:

œ

Don Ayers (E-mell); Tent Sweetingen (E-mell); Rendy Rey (E-mell); Gary Cater (E-mell) Barrest, Catherine (C.K.); Freetind, Herk (M.); Verner, Carol (C.J.); Johnson, Joe (J.H.); Ogossiy, Jim (J.C.) MY CELL PHONE HAS A NEW AREA CODE

Importunces

High

"NOTICE"FY!"

My cell phone has a new area code: (856) 942-9606.

Mary Akins

Sent:

To:

Akins, Mery (M.)
Tuesday, April 02, 2002 3:05 PM
Don Ayers (E-mail); Temi Swearingen (E-mail); Randy Ray (E-mail); Gary Casey (E-mail)
Bansak, Catherine (C.K.); Freeland, Mark (M.); Verner, Carol (C.J.); Johnson, Joe (J.H.);
Ogozały, Jim (J.C.)
MY CELL PHONE HAS A NEW AREA CODE

Ca:

Subject:

Importance:

High

\*\*NOTICE\*\*FY!\*\*

My cell phone has a new area code: (856) 942-9606.

Mary Akins

Akins, Mary (M.)

Sent:

Tuesday, March 26, 2002 11:07 AM

To:

Freeband, Mark (M.)

Sublect

RE: Old Style DPFE Seneors

Thanks, I emailed him a response already.

---- Original Message-

Prom:

Freeland, Mark (M.)

Šeritz

Tuesday, March 26, 2002 10:50 AM

Tos

Akins, Mary (M.).

PW: Old Style DPFE Sensors

Mary, the original request from George.

Merk

--Original Message

Property

MacDaneld, George (G.F.)

Senti Tes

Monday, March 25, 2002 4:18 PM

Ca

Freeland, Mark (M.)

Suhjeda

Florence, Jeremy (J.D.) RE: Old Style DPFE Seneors

Mark.

We need to get about 50 DPFE's (old style) for repairs. What is the best way to get them? Can you help?

# George F. MacDonald

Wayne Stamping & Assembly Plant - Powertrain Resident Engineer

Phone: 734-48-70196 Mablie: 734-730-6174

Textpager: 313-796-7969 mailto:3137957969@alphapege.airtouch.com

gmacdona@ford.com

----Original Message

Franci

Florence, Jeremy (1.D.)

Senty.

Monday, March 25, 2002 11:44 AM

Tes Subject MacDonald, George (G.F.) Old Style DPPE Sensors

George -

in today for evaluation of a check engine light on As you know I had a Ford employee ( a 2001 Focus built in March of '01 with 10,000 miles on it. The root cause was the DPFE sensor. Can we find a way to get spare parts of the old design here so we can fix Ford employee's cars that come directly to us with this issue? I know you said you thought you had a contact that could get these parts for us. Hind sight 20/20, we should have saved some off of the line before discontinuation. Also, if you think we can get some can you give me an estimate so I can call the back and let him know we will be able to fix his car for him. and that he doesn't have to take it to a dealership.

Regards,

# Joveny Hovence

mailtorifloren3@ford.com

Wayne Stamping & Assembly Plent - PVT

idia Quality VFG40 Team Leader & Six Sigme Black Belt Candidate

Phone: 734-84-15795

Textpager: 313-851-0071

mailto:3138510071@alphanese.sirtouch.com

BR02-027-0 8037

Akina, Mary (M.)

Sent

To:

Cc:

Tuesday, Merch 19, 2002 12:20 PM Freeland, Merk (M.) Barry Bugel (E-mail); Gary Besson (E-mail) Review of Kavico TM-DP Sensor

Subject:

# Mark,

Kavilco gives you approval to review the Kavilco TM-DP sensor issues with Dr. Ed Sickefus, ex-Ford employee. It is understood that you will be reviewing Kavilco confidential information as covered by the confidentiality agreement of

April 15, 2001, assignment #2336 between Kaylico and Ford.

Regards, Mary Akins

Ford phone: (313) 248-1989 Ford fax: (313) 845-3169

makins@ford.com makinwork@aol.com

Cell Phone/Messages: (810) 942-9606

Kavlico phone: (248) 263-8757

Subject: Location:

Die adhesive inspection of p-99 seneor SRL microecope lab

Start: End:

Mon 9/30/2002 9:30 AM Mon 9/30/2002 10:30 AM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Akolkar, Shrikant (S.V.); Freeland, Mark (M.); Maurer, James (J.B.)

Akolkar, Shrikant (S.V.)

Sent

Thursday, July 18, 2002 12:38 PM

To:

McCoy, James (J.D.); Duncan, Jack (J.L.)

Ca:

Maurer, James (J.B.); Gates, Freeman (F.C.); Freeland, Mark (M.); Plante, Paul (P.G.);

Sturzenegger, Larry (L.W.); O'Neel, Jim (J.D.)

**Subject:** 

Scope Installation for Green Focus Focus 568B856

I drove the vehicle to MPG on 7/15/02 from POER. We had brand new Zartink die sensor thermocoupled in tubes & on top. The engine check light came on after about 30 miles just before entering M53. The vehicle wasn't accelerating smooth after that though it was running ok at 70 mph on freeway & could be easily started after shut off. We hooked up star tester at MPG & found that the code was P0402-Excess EGR Flow.

Jim, I just spoke with Jack Ducan of MPG & he will receive you at MPG on Mon AM for scope installation to monitor the trigger events of the sensor. I hope Jack can use same for recording the voltages & current during chassis roll cycling test. Pl. call him if you need to other wise, he will expect you there on Mon. I won't be going there on Mon as Jack will need few more days to get vehicle prepped for chassis roll cycling test. Also, pl. talk to Freeman Gates before you go. He wants to check if any more cyclic details of the exhaust pressure pulsations can be recorded on that vehicle. The pressure transducers before & after the orifice are already installed on the vehicle.

With Regards,

SHRIkant Akolkar

sakolkar@ford.com Ph:(313) 594-1908 Fax::(313) 390-1229 Ford Motor Co. POBE AQ077 P.O.Box 2053 MD#36 Dearborn MI 48124 U.S.A.

Akolkar, Shrikarit (9.V.)

Sent:

Tuesday, July 09, 2002 6:51 PM

To:

Cc: Subject: Maurer, James (J.B.); Janda, Jon (J.M.); Stump, Steven (S.M.) Gates, Freeman (F.C.); Freeland, Mark (M.); Zuiczyk, Steve (S.B.); Plants, Paul (P.G.) 2001MY 4.6,4.2L EN/FN, 2.0L Zetec Focus EGR Mapping & Calibration data Analysis

Steve Zulczyk was very helpful in pulling mapping data from the Ford intranet. I sorted that data & plotted various ways. After a few meetings with Steve & Freeman Gates with the processed data, it was decided that the mapping data will not help much to determine the differences in environment for Kavlico DPFE sensor. We need to compare actual EGR calibration data points.

I was suggested to approach Steve Stump for 2001MY 2.0L zetec EGR calibration table. Steve, can you help us by providing this data & also suggest 4.6L & 4.2L contacts or request them to provide similar data. We intend to compare exhaust temp, pressure (at flange), % EGR, speed, load(torque, EEC) calibration data points. I need to use the same data for forthcoming MPG & dyno tests. The same sensor is used in all vehicles but warranty numbers are different.

I am one of the members of a large team headed by Jim Maurer to resolve this concern & develop good sensor keylife test so that we can detect customer concern during DV/PV stages.

With Regards,

SHRikant Akolkar sakolkar@ford.com Ph:(313) 594-1908 Fax::(313) 390-1229 Ford Motor Co. PORE AQ077 P.O.Box 2053 MD#36 Dearborn MI 48124 U.S.A.

Akolkar, Shrikant (8.V.)

Sont:

Thursday, June 13, 2002 12:48 PM

To:

Maurer, James (J.B.); Gatee, Freeman (F.C.); Freeland, Mark (M.)

Cc:

Verner, Carol (C.J.)

Subject:

FW: DPFE failure at MPG

Jlm.

Do you want me or Carol Verner to follow-up this failure?

#### -- Original Measage

Promi

Duncan, Jack (J.L.)

Senti

Wednesday, June 12, 2002 8:10 AM

Tos Subjects Abolear, Shricant (S.V.) PW: DPFE failure at MPG

Shri.

John Rosalt will send the part to Freeman today.

The vehicle, 578W635, has been sent to Dearborn. Contact Michelle Lu x85839 if you want to see the vehicle. This vehicle went through R357, R315, and R312-Structural tests, with the DPFE fallure occurring during R312.

Jack Duncan

jduncan1@ford.com

MI Proving Ground

74240 Fisher Rd

(586) 75-28563 (w)

Romeo, MI 48065

(586) 75-28683 (f)

#### -Original Message

Promi

Bernett, Rues (RL)

**Bank** 

Wednesday, June 12, 2002 7:32 AM

Tor

Duncary, Jack (J.L.)

RE: DPPE failure at MPG **Bubject**:

Contact John Rossit (JROSSIT) at 8-5963. The DPFE sensor in question was sent to Dearborn for evaluation.

#### Original Massage

Pronu

Duncen, Jack (J.L.)

**Cont**:

Wednesday, June 12, 2002 5:24 AM Barnett, Ross (R.)

To:

Subjects

PW: DPFE fellow at MPG

## Can you provide this info? Thanks!

Jack Duncan

jduncanl@ford.com

MI Proving Ground

74240 Fisher Rd ·

(586) 75-28563 (w)

Romeo, MI 48065

(586) 75-28683 (f)

## -Original Heatage-

Fron:

Akolkar, Shrikant (S.V.)

تاست

Tuesday, June 11, 2002 4:59 PM

Duncan, Jack (J.L.)

Ċ:

Gates, Freeman (F.C.); Maurer, James (LB.); Freeland, Mark (M.)

RE: DPFE feiture at MPG

E802-627-6 6874

# Jack.

Freeman wants to discuss this failure at weekly Thure, meeting with Kevlico. Can you pl. email the date code which is punched between the tubes & the any additional test(hours/miles etc)/vehicle info including the veh VIN#. Also, Can you pl. send the sensor either to Freeman Gates or myself or the responsible test/system's engineer from whom we get the sensor. We may want to monitor the eleinput-output of the sensor but it may take some time before we finalize on it. How many miles/hours are remaining for the completion of this test. Thanks.

--- Original Message

Frank: Sent

Duncan, Jack (J.L.)

Monday, June 10, 2002 8:07 AM

Akolar, Striant (S.V.)

Subject:

DIFFE feature at MPG

Shri, just this morning a 2002 Focus running the R312 Structural Trailer Tow procedure came in with the Check Engine light on. Codes P1401 (DPFE circuit high) and P1408 (EGR out of self-test range). Vehicle odometer 16659 miles. Apparently the DPFE code occurred three times during the night.

Would you and/or anyone associated with the DPFE team want to see this vehicle prior to repair? Please let me know ASAP. Thanks!

Jack Duncan jduncanl@ford.com MI Proving Ground 74240 Fisher Rd (586) 75-28563 (w) Romeo, MI 48065 (586) 75-28683 (f)

Akolker, Shrikant (S.V.)

Sent

Tuesday, June 11, 2002 4:59 PM

To:

Duncen, Jack (J.L.)

Co:

Gates, Freeman (F.C.); Maurer, James (J.B.); Freeland, Mark (M.)

Bubject:

RE: OPFE fallure at MPG

## Jack.

Freeman wants to discuss this failure at weekly Thurs, meeting with Kevlico, Carr you pil email the date code which is punched between the tubes & the any additional test(hours/miles etc)/vehicle info including the veh ViN#. Also, Can you pl. send the sensor either to Freeman Gates or myself or the responsible test/system's engineer from whom we get the sensor. We may want to monitor the ele. input-output of the sensor but it may take some time before we finalize on it. How many miles/hours are remaining for the completion of this test. Thanks.

-Original Message

Promi.

Duncan, Jack (J.L.)

Sent

Monday, June 10, 2002 8:07 AM

Alcolicar, Shrikant (S.V.)

Tor Subjects

DIFFE failure at MPG

Shri, just this morning a 2002 Focus running the R312 Structural Trailer Tow procedure came in with the Check Engine light on. Codes P1401 (DPFE circuit high) and P1408 (EGR out of self-test range). Vehicle adometer 16659 miles. Apparently the DPFE code occurred three times during the night.

Would you and/or anyone associated with the DPFE team want to see this vehicle prior to repair? Please let me know ASAP. Thanks!

Jack Duncan MI Proving Ground

jduncanl@ford.com

74240 Fisher Rd Romeo, MI 48065

(586) 75-28563 (w) (586) 75-28683 (f)

Akolkar, Shrikant (S.V.)

Sent

Monday, June 10, 2002 1:03 PM

To:

Duncen, Jack (J.L.)

Co: Subject: Maurer, James (J.B.); Gates, Freeman (F.C.); Freeland, Merk (M.)

RE: DPFE failure at MPG

## Jim.

I requested Jack during our phone conversation this morning to save the failed DPFE sensor. In future, if we begin monitoring all failed/completed parts from current tests at MPG, APG, Dyno etc we may learn about DPFE quality much earlier than in customer's hands. I am trying to get parts from dyno tests. This failure implies that we may not need any special test for DPFE except for acceleration tests.

I think it would be a good idea to monitor the electrical input-output of the sensor in this vehicle for remaining test period. Do you want Jim McCoy to undertake it? Pl. let me or Jack know about it. Thanks.

- Original Message -

Promi

Duncan, Jack (J.L.)

Sent:

Monday, June 10, 2002 8:07 AM

Tei Subjects Alcolor, Shrikant (S.V.)
DPTE fellunt at MPG

Shri, just this morning a 2002 Focus running the R312 Structurel Trailer Tow procedure came in with the Check Engine light on. Codes P1401 (DPFE circuit high) and P1408 (EGR out of self-test range). Vehicle odometer 16659 miles. Apparently the DPFE code occurred three times during the night.

Would you and/or anyone associated with the DPFE team want to see this vehicle prior to repair? Please let me know ASAP. Thanket

Jack Duncan | jduncan1@ford.com MI Proving Ground | 74240 Fisher Rd | (586) 75-28563 (w) Romeo, MI 48065 | (586) 75-28683 (f)

Akolker, Shrikant (S.V.)

Sent:

Friday, May 17, 2002 9:32 AM

To:

Freeland, Mark (M.)

Subject

RE: Parts data for Analytical Solutions

### Mark.

You forgot to attach. Pl. resend it.

-Original Massage

Freeland, Mark (M.)

From: Sentz

Thursday, May 16, 2002 9:36 PM

To:

Č

Kyong Park (E-mail); Brady Davies (E-mail); Maurer, James (J.B.); Gabes, Freeman (F.C.) Flame, Paul (P.G.); Akoškar, Smikant (S.V.); Janda, Jon (J.M.); Verner, Carol (C.J.); Danes, Adam (A.V.)

Subjects

Parts data for Analytical Solutions

Attached is an updated data file for the Analytical Solutions parts.

Jon and Shri re-examined each part and updated the data to insure that they had all been examined consistently and with their most recent knowledge at hand.

Please dispose of older versions of this file.

Copies of the photographs will be distributed on CD and hard copy when we get to NM.

## Regards

# Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

Akolkar, Shrikant (S.V.)

Sent To: Friday, May 03, 2002 1:14 PM

To: Gc: Janda, Jon (J.M.) Freeland, Mark (M.)

**Bublect:** 

RE:

Jon.

It's not a is/is Not at all. I had meeting with Jim Maurer & got my name scratched out it for Key life test that needs to be developed. I suggest you talk to Jim.

We are on agenda for Tue for verbal findings report of past 2 weeks for falled sensor microscope observations & whether to continue same.

---Original Message

From

Janda, Jon (J.M.)

Senta To: Friday, May 03, 2002 11:52 AM

Akoker, Shrikant (S.V.)

Subjects

Shrl,

I'm out sick.

We need to discuss who's going to lead the IS/IsNot chart follow up per Paul Plante's request.

Thank You, \_jon\_Janda

V-Engine Engineering - Ford

2V - V8 Certified Black Belt

Ph: 313-24-82589 Pgr. 313-795-5869

E-mail: JJANDA@ford.com

Fax: 313-84-50613

From: Sent: Al Giombetti [exchmelk@ford.com] Wednesday, March 27, 2002 10:55 AM

To: Subject:

All U.S. Employees 2002 Quality Care Advertising Launch

I'm pleased to announce the debut of a new Quality Care advertising campaign that will begin April 1. The communications will feature real desiership technicians and a message about our expertise and skill in caring for our customers' needs. These TV spots and the other elements of the campaign will tell the story of dedicated dealer service personnel and will feature price pointed service offerings on oil changes, batteries, tires, and more.

I'd ask all of you to take a look, and also to ACT. We all need to get the word out to our friends, family and neighbors about the great job our people do at Ford, Lincoln and Mercury dealerships all across the country. There skriply is no better alternative for our customers than Quality Care Auto Service. We can help the cause by apreading the word and making sure we visit the dealer for service ourselves.

i invite you to login to www.qcdealer.com <a href="http://www.qcdealer.com/">http://www.qcdealer.com/</a> and then click on the link below - you'll be able to see the new Quality Care advertising, learn more about the new campaign and download Quality Care wallpaper for your computer.

<a href="http://qcdealer.dealerconnection.com/2002qcadcampaign/2002ad\_campaign.html">http://qcdealer.dealerconnection.com/2002qcadcampaign/2002ad\_campaign.html</a>

For business reasons, not all Ford employees have external Internet proxy access. If you receive a proxy authentication error, this means that you have not been granted access through the Ford firewall for this link. You will need to take a note of this URL and try it at home or another location outside of the Ford firewall.

Thank you in advance for your support.

Executive Director - N.A.

Ford Customer Service Division

Sent:

Alles, Sheren (S.A.) Monday, October 21, 2002 12:41 PM Freeland, Mark (M.)

To:

Hi Mark,

Just got your page, unfortunately I have another very important mtg at 1pm. However, I will call you after your mtg for any updates.

Regards -Sheran

From: Sent:

To:

Alles, Sheran (S.A.) Monday, Oolober 21, 2002 9:24 AM Freeland, Mark (M.); Kotwicki, Allan (A.J.)

Subject:

iaam beck

HI Mark, Al

Sorry for the short absence and subsequent allence, I am now back after a very successful root cause analysis of the launch issue. Hope our problem was this straight-forward if

Regards -Sheran

Sent To:

Aftes, Sheran (S.A.) Tuesday, October 15, 2002 5:59 PM Freeland, Mark (M.); Kotwicki, Allan (A.J.) out of office

Subject:

HI Mark,

I am on my way to kentucky (KTP) on a launch issue, will be out for a day or two.

Regards -Sheren

Alles, Sheren (S.A.)

Sent

Monday, October 14, 2002 11:15 AM Freetand, Mark (M.)

To: Freeland, Mark (N

**Subject**:

Re: Latchup due to die attach

# HI Mark,

Al and I had a discussion this morning. We have basically concentrated our efforts on latchup induced from the outside. Nothing has been considered on latchup generated internally due to leakage, etc. Please take a look at this paper, it is a good starting point (I think I had mentioned this to you before regarding Ag-die attach), will discuss when I come over.

Regards -Sheran

latchup\_dieettach.p

# New Latchup Mechanism in Complementary Bipolar Power ICs Triggered by Backside Die Attach Glue

J.A. van der Pol<sup>a</sup>, J-P.F. Huijser<sup>b</sup>, R.B.H. Basten<sup>b</sup>

" Waferfob AN, <sup>1</sup> Communer Systems Nijmegen, Email: Jacob.vanderPol@nym.sc.phHips.com Philips Sentconductors, Gerstweg 2, 6534AE Nijmegen, The Netherlands

#### Abetraci

It is shown that in complementary bipolar power ICs into an be caused by a thyristor farmed by the V-PNP power translator at the frontside of the die and a Ag-filled glue die attach at the backside of the die (used to provide a good thermal contact between the dis and the Cu-hasteink. The thyristor is triggered by estimation of the V-PNP power translators or by forward blasting the bickelde diode between Ag-filled give and p-type allicon. The effect is strongly temperature dependent. It can be eliminated by either leaving the beckelde floating or by applying beckelde metallization. Consequences for intelum qualification testing are discussed.

#### 1. Introduction

Latchup [1] is a known reliability risk in complementary bipolar power processes (featuring both vertical-FNP and vertical-NFN power translators) as thyristors are intrinsically present in these technologles, see fig. 1 and 2. Furthermore complementary bipolar processes are more susceptible to latelup than CMOS processes as the presence of n- and ptype buried layous provents the use of p'epi/p" low ohmic (= 0.01 Ocm) bulk epitexial substrates. The thyristom are located at the frontside (top side) of the die, see fig. 1 and 2, and can be triggered by currents injected by both external spikes as well as by asturation of internal bipolar teangistoes. Note that in hauth suturnetive application environments these injection currents can be well over 1 A. Generally many design and inyout measures are taken to prevent latchup from occurring like the use of guardrings, limitstion of hipoter translator asturation currents and by grounding the substrate as good as possible. Because of the above, latch-up testing is a routine part of product qualification programs for complementary bipolar power ICs as e.g. required by the Automotive Electronic Council (ABC).

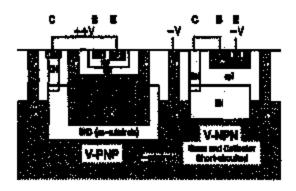


Fig. 1: Schematic view of a cross section of the complementary bipolar IC showing the V-PNP and V-NPN translator.

Bipolar power ICs are often packaged in Single-In-Line (SIL) power packages where the low-doped p-substrate is attached to a copper (Cu)-heatriak by a silver (Ag)-filled opoxy glue to achieve low thermal redshapes values. In the application the Cu heatsink is generally contacted to the ground potential (just as the p' substrate).

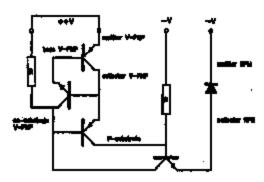


Fig. 2: Schematic view of an electrical scheme showing connections in fig. 1 between the various bipolar transistors forming a thyristor at the topolde of the die.

In this paper we will show that this packaging method gives rise to a new letchup failure mechanism where latchup is not induced by triggering one of the known thyristens at the top side of the die but by triggering of an unexpectedly present parasitic thyrister located between the frontside and the (n-type), Ag-filled ghte contacting the backside of the die, see fig. 3. The phenomenon will be described in more detail in the paper and options for its elimination will be presented. Consequences for qualification testing will be discussed.

### Occurrence of a parasitic thyrister between frontaide and backvide of the die

The power ICs in our study are febricated in a 2 µm double metal complementary hipoter process featuring both V-NPN and V-PNP power transators. The transistors are build in a 10 μm thick, 2 Ωcm ntype eni layer on top of a 375 µm thick 4 (Joyn psubstrate. Isolation between different n'epi islands is achieved by deep-P//buried-P (DP//BP) junction isolation. The base of the V-PNP transistor is formed by a N<sub>eed</sub> (NW) diffusion in the n'-epi layer and the transiator isolated from the prosbetrate by a deep huried-N (BND) diffusion, see fig. 3. The bipolar gains he of the active V-PNP transistor T1 formed by the SP-(NW//n'-epi)-BP diffusions, the parasitic V-PNP translator T3 formed by the BP-BND-p substrate and the parasitic V-NPN transistor T2 formed by the (NW//n-spi)-BP-BND diffusions, see fig. 4, typically equal 60, 120 and 11 respectively at 25°C. At the end of the process all n-doped diffusion layers are

removed from the backside of the die by a wet silicon etch using a SEZ spin etcher. The purpose of this is to eliminate unwanted pn-diodes that may be the source of misority carrier (electron) injection when the substrate potential is lifted e.g. due to saturation events of the V-PNP power translator. These injected electrons may disturb the proper functioning of the circuit.

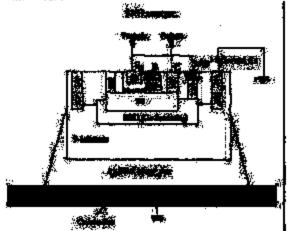


Fig. 3: Schematic view of a cross section of the complementary bipolar IC showing the V-PNP translator as well as the Cu-houtsink and Agfilled epuxy glue.

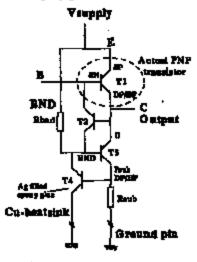


Fig. 4: Electrical achieves thowing connections between the paramitic hipolar transistors, Cubeatsink and Ag-filled epoxy glue that together form the thyristor between frontride and backside of the die.

The KS are subsequently packaged in a SIL-power package. Here the p' substrate backaide is attached to a Cu-hosteink by an openy glue containing Ag-fillers to achieve low thermal resistance values, see fig. 3 and 5.





Fig. 5: SEM cross section showing a) the backeide of the die, the 6μm thick silver filled epoxy gine layer and the copper heetsink and b) in more detail the backeide die - epoxy give interface.

Unfurturately, it appears that this packaging method results in the formation of a diode between the n-type Ag-filled epoxy give layer and the low doped p substrate, see fig. 4 and 6. Note that diode does not behave like a real Ag-Si Schottky diode. Pig. 6 shows that the diode forward voltage is >0.7V. Given the berrier height for an Ag to p-type silicon metal-semiconductor contact of 0.54 eV at 23°C [2], a good Ag-Si(p-type) Schottky diode should exhibit a much lower forward voltage than observed here. Furthermore, we find that the n-type

Ag-filled glue layer also can act as the emitter of a parasitic NPN translator (T4 in fig. 4) between the frontside and backside of the die where the the p substrate acts as the base and the deep buried-N (BND) isolation of the V-PNP translator as collector. see fig. 4. Fig. 6 shows the bipolar gain of this transistor as a function of the emitter current for a small test structure. Dospite the very thick base (= 375 μm), the NPN gain be ranges from 10<sup>4</sup> to 10<sup>4</sup> at 25°C. Note that the be acales with the collector area; in real circuits he values up to 0.5 have been observed. Note that both the diode and the NPN characteristics are not well controlled as these are influenced by many parameters as e.g. the surface roughness of the backside of the silicon die, the thickness of native oxide layers on the silinon backride, the electron minority carrier lifetime in the p' substrate, the thicksees of the epoxy give, the distribution and concertration of Ag-fillers in the epoxy glue. As a result, a large spread is observed in both the diode I(V) ourves, see fig. 6, as well as the NPN current gain (ba) characteristics, see fig. 7, depending on the specific process flow. The fact that the NPN gain in fig. 7 increases with injected current is characteristic for metal-semiconductor junctions where the ratio of minority injection (electrons in this case) increases with current due to the cubuncement of the driftfield component, which becomes much larger than the diffusion current [2].

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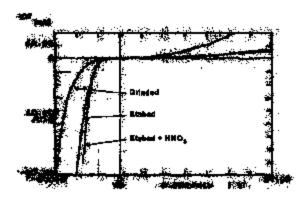


Fig. 6: I(V) characteristics at 25°C of the backeide diode formed by the Ag-filled epoxy glue layer and the low doped p-substrate for three different treatments of the backeide of the wafer, a) grinded backeide, b) wet etched backeide and o) so b) but with an HNO<sub>2</sub> treatment resulting in a thicker native oxide layer on the wafer backeide.

As shown in fig. 4, the pensitic NPN transistor T4 forms in combination with the V-PNP transistor T1 a thyristor between the frontside and the backside of the die. As the persitic V-PNP has high gain, the thyristor loop gain is larger than 1 and thus latchup can occur.

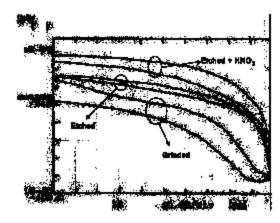


Fig. 7: Gain of the perasitic NFN translator formed by the Ag-filled epoxy gian layer at the backside (emitter), p' substrate (base) and BNDlayer at the frontside (collector) as a function of the backside emitter current for the same treatments of the water backside as in fig. 6 (Vbm=0V, Vecinia=5V, T=25°C).

#### 3. Latchup trigger mechanism

#### 3.1 Backride current injection

One way to trigger the thyristor is by forcing the Cu-heatsink to a negative voltage and time forward biasing the backside diode T4 and injecting electrons into the substrate. In table 1 typical trigger currents are shown for a typical product in this technology.

## 3.2 Saturation of V-PNP transistors

In a real automotive application, the thyristor can be triggered by severe asturation of the V-PNP power transistors. This occurs regularly during e.g. an engine start event of a car where the supply voltage can drop as low as 6V. In this case a large hole current is injected into the low doped p substrate resulting in a significant lifting of the substrate potential. Consequently, the backwide diode T4 is forward

biased and electrons are injected into the substrate and collected by the BND-layer, see fig. 3 and 4. This causes a voltage drop across R<sub>SMD</sub> which forces parasitic PNP translator T3 to switch on. A current now flows from the emitter of the V-PNP power translator T1 to the substrate via T3, causing a voltage drop across R<sub>mb</sub>. When this voltage exceed the forward voltage of the backside diode, the parasitic NPN translator T4 may remain conducting even when the V-PNP saturation event is over. Parasitic NPN translator T2 then starts to operate in reverse and as a result the collector current of T4 will start to drive translator T1 and a thyristor is being build-up.

Backvide treatment Si wafer	Die attach	H <sub>a</sub> NPN T4	Backeide latchop trig- ger carrent
Etched	Ag-filled epoxy	0.8-10 <sup>-3</sup>	120 mA
Etched+ HNO3	Ag-filled epoxy	3-7-103	60 шА
Grinded	Ag-filled operty	0.3- 3-10 <sup>-3</sup>	130 mA
Etched	TVNVAg backride metallization	3-10-4	>3 A

Table 1: Gain of the parasitic NPN T4 and latchup trigger current at 25°C for a typical product in case of injection from the backside diode for various treatments of the wafer backside as is fig. 6 and for various die attach materials.

The thyristor turns-on when the injected electron. current from the backside diode Indiana, exceeds a certain trigger value I<sub>ste</sub> while the back-tab is at OV. The effect is strongly temperature dependent, see fig. 8, as both the saturation current of the V-PNP power transistors and the substrate registivity increase with temperature resulting in an increased substrate potential lifting. In combination with the drop in backside diode forward voltage with temperature, this results in a strong increase of the current I\_\_\_\_\_ injected by the backside diode. When it exceeds the latchup trigger current les latchup will occur. Note that Ing decreases with temperature due to the increase of the gain of the bipolars and the drop of diode forward voltages with temperature. Fig. 8 shows that for our typical product latchup will occur for T>105°.

# Eligibetion of the backride triggered intchup mechanism.

There exist several possibilities to prevent the above described latchup mechanism. The first is to discounset the Cu-hestaink from the ground potential thereby forcing the emitter of T4 to be floating. This can be achieved by either leaving the external hestaink to which the Cu-hestaink is attached floating or by placing a thin electrically isolating sheet between them. This is a very robust solution but care must be taken not to detocate the flactual impedance characteristics. The second is to use an isolating epoxy glue instead of a give containing Ag-fillers.

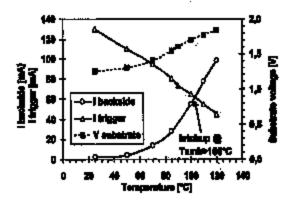
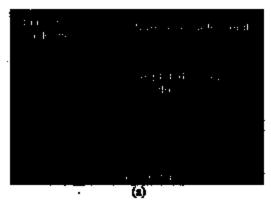


Fig. 8; Backnide injection related latchup trigger current I<sub>cts</sub> (triangles), substants potential lifting (squares) and resulting backnide diode injection current I<sub>totalde</sub> (crosses) as a function of temperature for the case of a typical panduot during a V-FNP saturation event at V<sub>motot</sub> = 7V; at T>105°C current I<sub>totalde</sub> > I<sub>cts</sub> and latchup will occur.

Again thermal impedance characteristics will determine the feasibility of this solution. The third option is to lower the realstivity of the p' substrate, thereby reducing both the substrate potential lifting in case of asturation as well as the bipolar gain of the perastice NPN translator T4. If the loop gains remains <1 no letching will occur, it is however difficult to prove that this a 100% robust solution up to 150°C for all designs at all application conditions. The final solution is to apply a Ti-Ni-Ag backside metallization to the low doped p-type wafer backside, see fig. 9. The Ti-Si interface forms a kind of a Schotfky diode with a barrier height of 0.61 eV

[2]. The corresponding I(V) characteristics are shown in fig. 10 and it can be clearly seen that the diode forward voltage is reduced to about 0.3V. Purthermore, as the Schottky diode is a majority carrier device [2], the TiNiAg backelde metallization decreases the bipolar gain of the parasitic NPN transistor T4 by more than a factor 100, see table 1. This is probably caused by a strongly reduced emitter efficiency in the case of the backside metal. As a result, the thyristor loop gain is effectively reduced to much lower than I thus preventing the occurrence of Isichop. Purthermore the backwide metallization also strongly reduces the substrate resistance Rest. Table 1 shows indeed that no latchup is observed up to backride injection currents exceeding 3A.



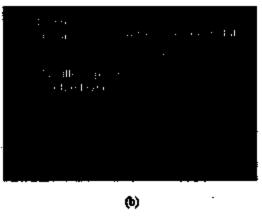


Fig. 9: SEM cross section showing a) the backride of the die, the 100nm thick TINIAg hackride metallization, the 10µm thick silver filled epoxy glue layer and the copper heatrink and b) in more detail the backride die - TINIAg interface.

### 5. Impact en inteliop qualification testing

Our results clearly suggest that a number of improvements are required for the letchup test procedure of (medium) power ICs. Firstly we recommend that during the standard latchup test procedure the backride of the die (or any leadifuger that makes electrical contacted to the dieped as in the case of certain medium power packages) must be contacted to ground potential. Secondly we recommend also a measurement of the latchup trigger current while injecting from the backride diods at maximum application temperature. The trigger current pass/fail criteria for this case are subject of discussion but probably should be >500mA.

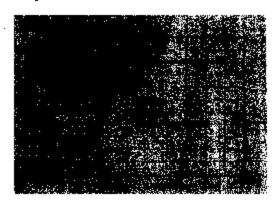


Fig. 10: I(V) characteristics at 25°C of the backside diode formed by a) the TiNiAg backside metal and the low doped p-substrate and b) the Ag-filled epoxy give layer and the low doped p-substrate. In both cases the backside was wet exched.

#### 6. Concludore

A new latchup fulfure mechanism in complementary bipolar power Ka has been described. Latchup is caused by a fryrister constituted by the V-PNP power transister at the frontside of the die and a parasitic NPN transister between the frontside and the backside of the die. The emitter of this NPN transister is formed by the Ag fillers in the die attach give at the backside of the die, its base by the p substrate and its collector by fite n-type BND isolation of the V-PNP transister. The tryrister is triggered by saturation of the V-PNP power transisters or by forward binning the backside diode between Ag-filled give and p-type silican. The effect is strongly tempe-

rature dependent. It can be climinated by either leaving the backnide flooting, thus aliminating the parasitic NPN, or by applying backside metallization which strongly reduces the bipolar gain of the parasitic NPN.

Consequences for latchup qualification testing are that during the standard latchup test procedure the backarde of the die (or any leadinger that makes electrical contacted to the disped as in the case of certain medium power packages) must be contacted to ground potential. This is currently not prescribed in the existing latchup test specifications. Furthermore it would make sease to an additional test where the latchup trigger current is measured while injecting from the backaide diode (all at maximum application temperature).

#### 7. References

- R.R. Troutmen, Tatchup in CMOS technology', Kluwer Academic Publishers, Boston, (1986)
- [2] S.M. Sze, Physics of Semiconductor devices', 2nd edition, John Wiley & Sons, New York, (1981)

Subject Location:

Review the DPFE interface ckt

SRLÆCC 2AG06

Start: End:

Tue 10/6/2002 10:00 AM Tue 10/8/2002 12:00 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendees:

Alles, Sheran (S.A.); Kotwicki, Allan (A.J.) Freeland, Mark (M.)

Optional Attendees:

HIAI.

Hope we could get-together tomorrow to review and decide on exactly what we need to have.

Thanks

Regards -Sheran

Subject:

Discussion on protection ckts

Location:

Mark's office

Start: End: Thu 9/12/2002 9:30 AM Thu 9/12/2002 11:00 AM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Atlandace:

Alles, Sheren (S.A.); Kotwicki, Allen (A.J.); Freeland, Mark (M.)

importance:

High

# Helio Al, Mark

I received some of the internals of the ASIC (clear print). Maybe we should go through it as there is the usual clamp on the Yout, which helps in the overshoot issue.

As discussed yesterday, we will also be putting together a prototype for testing.

Regards -Sheran

Allee, Sheran (S.A.)

Sent:

Friday, August 23, 2002 7:32 AM

To: Subject: Freeland, Mark (M.)

FW: TMDP Samples - No Gel on Hybrid

#### Hello Mark,

As discussed yesterday, let's meet monday. I have cleared up the morning for our continued robustness review. It was a long but successful day at Delphi yesterday, so hopefully no "job stoppers" will show up on monday. Would like to see the latest ideas from your discussions with Al. Once the "no-gel" sensors reach us, we could do some scoping to confirm.

### Thanks -Sheran

----Original Message-----From: O'Neall, Jim (J.D.)

Sent: Thursday, August 22, 2002 2:22 PM

To: Alles, Sheran (S.A.); Gates, Freeman (F.C.); Maurer, James (J.B.)

Subject: FW: TMDP Samples - No Gel on Rybrid

Info - will forward to you Sheran when they arrive.

J. D. O'Neall Manager, Fuel Metering, Emissions, and Ignition Dept V-Engine Engineering, Ford Motor Company joneall@ford.com, 313-322-6839

----Original Message-----

From: Tackman, Karen [mailto:KTackman@kavlico.com]

Sent: Wednesday, August 21, 2002 6:41 PM

To: joneall@ford.com

Cc: Park, Kyong

Subject: TMOP Samples - No Gel on Hybrid

We have shipped today ten special samples per your request via Fed Ex.

Sincerely,

Karen Tackman Administrative Assistant for Kyong Park Vice President, Research & Development

Sent:

Alles, Sheran (S.A.) Mondey, August 12, 2002 7:21 AM

To:

Freeland, Mark (M.)

# Hello Mark,

Got your message, which sounded interesting, high voltage on Vref ? I will be out in Austin, TX leaving this afternoon until wednesday afternoon, and will not be able to attend today's 1pm meeting. Jim may like to see the trace, but I will take a look on my return. Thanks again for keeping me informed of any abnormalities.

Regards -Sheran

Allee, Sheran (S.A.)

Sent:

Friday, May 17, 2002 7:86 AM

To:

Freeland, Mark (M.); Rossi, Roberto (R.A.)

Subject:

RE: Pick up the buy back focus

### Mark.

Today is not good for me as I have a whole day test in the AuditLeb with an outside supplier.

Rob, how is your schedule today, could you pick up the vehicle. The current Amp and probes are with Ron after cal. Also previously we had a loop on Viref, maybe this is the best place to monitor the current as it is Inside the vehicle, your thoughts.....

### Regarde

-Sheran

--Original Message

Fromi

Precional, Mark (PL) Thursday, May 16, 2002 9:50 PM

To:

Alles, Sheran (S.A.); Rosel, Roberto (R.A.)

Č

Plants, Paul (P.G.)

Subject

Pick up the buy back focus

I'm still waiting for you to pick up the buy back focue!

### Regards

### Mark Freeland

6-Sigma Black Bolt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Deerborn, MI 48121-2053 USA email: mfreels1@ford.com Tel.: (313) 594-7645

Affec, Sheran (S.A.)

Sent:

Tuesday, April 16, 2002 9:50 AM

To:

Freetand, Mark (M.); Potter, Timofhy (T.J.)

Cc:

McCoy, James (J.D.); Gates, Freeman (F.C.); Meurer, James (J.B.); Plante, Paul (P.G.);

Mozurkewich, George (G.); Rossi, Roberto (R.A.)

**Subject** 

RE: Buy Back Focus

HI Tim.

The Auto-Focus is with me. I just pulled it from the Bidg 5 garage to the parking lot. Whenever you need it give me a page and I will bring it over or you may stop by as I am in ECC Bidg which is next to SRL.

### Regards

-Sheran

-----Original Message

Front

Freetand, Mark (NL)

Sent

Tuesday, April 16, 2002 9:14 AM

Tor

Potter, Timothy (T.J.)

Ca

Alies, Sheren (S.A.); McCoy, James (J.D.); Gales, Freeman (F.C.); Maurer, James (J.B.); Plants, Paul (P.G.); Mozurlewitch, George

(G.); Rossi, Roberto (R.A.)

Subject

Buy Book Focus

Tim.

Could you please obtain the two buy back Focuses, Sheran has the Auto and Jim McCoy has the stick shift. Please install our instrumentation package into the Auto, (using a the second current pickup and gray box if you like, so as not to tear out everything from the stick shift, but use our good scope in the Auto).

Then, once you are satisfied that the instrumentation is functioning correctly, install the EEC V (PCM) test number SRL185 that was removed from the Alan Ford customer vehicle with the short circuit sensor in the Auto.

I will give you the test sensor (8/2000 warranty return) and reference sensor (Post 1/7/2002 V Translent Improved) for the vehicle when you collect the PCM from me.

We will drive that PCM for a while to see if there are any unusual transient voltages on the Vrefiline.

Thenke

Regards

Mark Freeland

6-Sigma Black Belt Engine Research Department Pord Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com

Tel: (313) 594-7645

Alles, Sheren (S.A.)

Sent

Friday, April 12, 2002 3:55 PM

To: Subject Rossi, Roberto (R.A.); Freeland, Mark (M.)

RE: PCM Date Code from Focus Buy-Back

Hi Mark,

The VIN# 3FAFP313X1R108133 (2 Dr Focux ZX3)

Regards -Sheran

-Original Message

From

Rossil, Roberto (R.A.)

Sent:

Friday, April 12, 2002 8:51 AM

To: Ċœ

Presiand, Mark (M.) Alies, Sheran (S.A.)

RE: PCM Data Code from Focus Buy-Back

Mark,

This PCM was on the automatic. I do not have the VIN.

Sheran,

Can you get the VIN, the vehicle is in the Building 5 garage.

Thanks,

Robert Rossi

Electrical/Electronic Systems Campaign Prevention Specialist

North American Car Lifestyle Vehicles

Phone/Fax: 84-51438

—Ortginal Message-

Promi

Freeland, Mark (ML)

Sent:

Thursday, April 11, 2002 7:56 PM

To:

Rossi, Roberto (R.A.)

RE: PCM Date Code from Focus Buy-Back

Roberto, is this the one from the stick shift or the automatic vehicle? or better still, what is the VIN number of the vehicle it came off.

Thanks

Regards

Mark Preciand

6-Sigma Black Belt

Engine Research Department

Ford Research Laboratory

P.O. Box 2053

MD 2629 - SRL - Room 1517

Dearborn, MI 48121-2053 USA

email: mfreelal@ford.com

Tel.: (313) 594-7645

ENG2-927-0 9735

:

--Original Nessego

Serie.

Rossi, Roberto (R.A.) Tuesday, April 09, 2002 3:45 PM Freeland, Mark (M.) Maurer, Jeanes (1.8.) PCM Date Code from Focus Buy-Back Co

### Mark.

I'do not know how to read the date codes from the module but here is what is printed on the tabel.

Part Number: 1S4F-12A650-ADF

LMGB5FCMX8TT

0H16C

Robert Rossi Electrical/Electronic Systems Campaign Prevention Specialist North American Car Lifestyle Vehicles Phone/Fax: 84-61436

Sent:

Ales, Sheran (S.A.) Tuesday, March 19, 2002 5:27 AM

To: Bubject: Freeland, Mark (M.) Re: \*okf DPFE sensors

### Hi Mark,

Sorry I was out of the office on another BiFuel F150 (gasoline/natural gas) stall/stumble/hesitation issue, but now I am back having successfully found the problem and feeling good [] so now could test the "old" sensors as we discussed at offsite. Please give me a page.

Regards Sheran.

From: Sent

amexpl [amexusa@mindepring.com] Monday, June 10, 2002 2:18 PM

To: **Bublect:**  mfreela1@ford.com American Express Itinarary

ITINERARY

PAGE NO. 1

PMR: 1P-2LRAGS

FREELAND/MARK-FORD MOTOR CO PSGR 1-313-5947645 BTKT EMAIL

NAME : FREELAND/MARK

ACCOUNT NO. CUSTOMER NO. DATE 5100 000037438 0000601850 10JUN02

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SEAT 11-B \*\*RESERVED\*\*

FREELAND/MARK

A SU 09JUN LV DENVER 800P UNITED 1285M OK

919P DSTOP 737 AR BURBANK

UA CONFO \*KJTHDO

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1 NIGHT STAY

PERSONS INCLUDED IN RATE-1 CORPORATE ID-N0002690

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AR DENVER 935A 08TOP 737

UA CONFO \*XJTHDQ

SEAT 11-E \*\*RESERVED\*\*

Freeland/Mark

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HAVE A PLEASANT TRIP

From: Sent To: Subject Andrew Draws (edraws@ford.com)
Monday, March 25, 2002 5:34 PM
Mark Freeland (MFREELA1)
Infrared Microscopy



Mark,

Great minds think alike! The link below should take you to the IBM Analytical Services page where they describe precisely what we talked about this afternoon. Its funny, because they talk about looking through the silicon to examine the alumium to gold bonds and to look for corrosion! I'm trying to determine whether we can do this here in our optical lab (it looks relatively easy if we can get rid of the visible output from the lamp and remove any IR absorbers in the beam path.

Check it out.

http://www-3.ibm.com/chips/services/asg/capabilities/asweb23.html

Andy Draws

5

- Select a country

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Infrared Microscopy

### **Microelectronics**

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### Applications

- Optical inspection through silicon die, allowing inspection of aluminum-gold bond quality, metal conductor corrosion, die cracks, and chip outs
- Near field IR imaging of LEDs and semiconductor lasers (electroluminescence), including intensity profiles

### Description of Technique

This microscope has an IR Vidicon camera with sensitivity from 400 nm to 1800 nm (vis/IR) in place of the eyepieces. The video signal from the camera is fed into a signal processor and enhanced as required.

The microscope has two light sources — a 100 W halogen lamp and a 250 W high performance lamp. Both are suitable for work in the near infrared spectrum.

Infrared light easily passes through silicon (if not heavily doped) and is reflected by the object on the opposite surface (e.g., aluminum). Since the bulk of the material in semiconductors is silicon, this allows imaging through the device backside for internal and top surface anomalies (such as chip-outs) and features (such as metal lines). The microscope is also an emission profile imager, which allows the examination of the pattern of IR light being emitted by laser diodes. This is key information for determining the failure mechanism in laser diodes.

### Instrument Model(s)

- Reichert Infrapol (Reichert, Vienna, Austria)
  - o 100 Watt Halogen light source
  - o 250 Watt high performance light source
  - Objectives: 4X, 10X, 20X, 50X, 100X (plus 50X long working distance)
  - Magnification range: 32X to 2000X
  - o Camera: vidicon tube type; IR sensitive to 1800 mm

### Television borizontal resolution: 450 lines

### Sample Information

Any lightly doped silicon-based semiconductor, as well as any other device that emits in the IR region, can be inspected under the IR microscope.

Inspection through the backside requires a surface that is relatively smooth. The top surface of an encapsulated device can remain intact so that surface anomalies (e.g., aluminum corrosion or bond ped intermetallics) are not disturbed.

### Information Obtained

The processed / unprocessed image is displayed on a monitor. A hard copy of the displayed image can also be produced. Evidence of Au-Al bond quality can be imaged through the die backside along with detection of corroded conductor lines, die cracks, and chip-outs.

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Cent:

To: Subject Antone, Jennifer (M.) Thursday, October 08, 2002 1:59 PM Freeland, Mark (M.) check engine light project

Mark, I appreciate you taking the time to explain your project to me this morning. As it turns out, I think we're going to stay away from discussing any engine-related projects with the media at this time. Thanks again for your help.

Regards, Jennifer Antone Consumer Driven 6-Sigma Communications 1-313-337-2613 Jantone@ford.com

Assiage, Jane (J.M.)

Sent

Tuesday, June 04, 2002 2:55 PM

Te:

Bryant, Bruce (B.D.)

Cc:

Bell, Donna (D.L.); Crockett, Dante (D.K.); Freeland, Mark (M.); Amoe, David (D.E.); Geerhart,

Chris (C.)

Subject:

RE: 6 Sigma support from EESE

#### Вписе.

Please contact Donna Bell (my EESE Dedicated Project Champion) and Dante Crockett (my EESE Certified BB Project Scoper). You need to discuss the project opportunities with them and they will be able to determine most appropriate support plan. If you need my input along the way, let me know,

Jane M. Aselage 6-Sigma Deployment Director Global Core Engineering Bklg #4, 1AK14, MD4007 (313) 594-1974 (Phone) (313) 32-29862 (Fax) (313) 851-4980 (Pager)

#### -Original Message

Fronti

Bryant, Bruce (B.D.)

Sent

Tuesday, June 04, 2002 2:02 PM

Tel

Assinge, Jame (J.M.)

œ

Presiond, Mark (M.); Amos, Savid (D.E.); Geartest, Chris (C.)

Subjects

6 Sigma support from EESE

#### Jene:

I am a Master Blackbelt in the Ford Research Laboratory. We met briefly last year when you came to speak as a 6 Sigma Executive at a greenbolt class that Chris Gearhart and I were teaching for NAC at the Huron Training Center, I have a request that I would normally make to another master blackbelt, but I'm not sure which MBBs service the EESE department, so I'm contacting you,

I would like to request blackbelt support from EESE with some projects that one of our FRL blackbelts, Mark Freeland, is working on, related to the Kaviico dPFE sensor fallure problems that many of our vehicles are experiencing. Currently, Mark is working on project #5228, "EGR DPFE Sensor Shorts Out PCM Viref" and # 7163, "EGR TM dPFE Sensor Unprotected Area Damage."

For background information, these projects are operating in support of a 14D team being run from PTO by Jim. Maurer's group, which is responsible for the Kavilco dPFE sensor. Team members from EESE include Roberto Rossi, Sheran Alles, and Tom Hermann, They can provide more information on the problem.

Mark's efforts started as a project whose scope initially appeared to be reasonable in size, but ballooned to 4 projects in Mark's area (the two mentioned above, plus #5120 which was closed, and #3818 which was cancelled), plue other blackbelt projects in Jim Maurer's group. The two projects on which Mark is working would benefit from assistance from additional blackbelts, as the scope and associated workload remains enormous, and we would like to resolve these issues in a timely fashion.

We are looking in various areas, including FRL, for more blackbeits and greenbeits to add to the project, and since there appears to be a "systems" component to the problem, i.e., all vehicles lines which use the sensor are affected but at vestly different rates, we thought some of the blackbelts in the EESE area would like to contribute. If you would like to support these projects, please identify one or more blackbelts from EESE, with whom Mark and I could meet to discuss the details of the project.

Thanks for your consideration.

Conficily, Bross Report, Maryants Floridaem, 801-521-50-96750 Un Sigma Marter Woodshall, Pard Research Laboratory

Assenmacher, Mike (M.W.)

Sent:

Wednesday, August 28, 2002 7:42 AM Freeland, Mark (M.); Short, Mike (M.E.)

To:

Kotwicki, Allen (A.J.)

Cc: Subject

RE: EEC V Engine Simulator

Yes, I do. Let me clear it through my supervisor. I'll get back with you today.

Mike Assenmacher massenma@ford.com Voice: 313-594-1714 FAX: 313-845-2568

-Origina) Mastage-

Press

Freeland, Mark (M.)

**B**ent

Tuesday, August 27, 2002 5:55 PM

Ta:

Assenmether, Mike (N.W.); Short, Mike (N.E.)

Ča Subject Kotwicki, Allan (A.J.) PW: EBC V Engine Simulator

Mike and Mike

Do you by any chance still have one of the Hickok vehicle simulators available? If so I would be interested in obtaining one.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

-Original Measage

Prom: Sort

Szyabowski, Stove (S.J.)

Tuesday, August 27, 2002 10:47 AM

**Subjects** 

Presiand, Mark (M.) RE: EEC V Engine Simulator

Mark.

I suggest you contact Mike Assenmecher or Mike Short over at FPC A building. As of a few weeks ago, they had several Hickok vehicle simulators they were trying to find homes for.

## Steve Szwabowski

x81090

---- Orloinal Measage

Freeze Bents

Freeland, Mark (M.)

Tea

Tuesday, August 27, 2002 9:57 AM

Subject:

Szyrabowski, Steve (S.J.)

EEC V Engine Simulator

### Steve,

I am working with Al Kotwicki on the dPFE issue. Al is on vacation today, but we talked by phone. He suggested that we should get our hands on an EEC V engine simulator to help with our bench work.

He told me that you may be able to help get us one. Could you let me know if you could help.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

Ausherman, Julie (J.S.)

Sent:

Thursday, May 02, 2002 10:27 AM

To:

Certer, Roscoe (R.O.)

Cc: Subject: Wallace, Anna (A.); Freeland, Mark (M.); Austerman, Julie (J.S.) RE: Work Task Number for Central Labe charged to Dept #J071

I have created work task number AJ71A for use with Polymer Characterization. WHMS/WORQ's will be updated this weekend.

If you have any questions or problems, please don't hesitate to call.

Best Regards. Julie Ausherman Financial Analyst Ford Research Laboratory Phone: 313-390-7392 Fax: 318-845-7807

#### Original Message

Promi

Certer, Roscos (R.O.)

Sent

Transday, April 25, 2002 10:24 AM

Tœ œ Ausherman, Julie (1.S.)

Wellace, Arms (A.); Freeland, Mark (M.)

Subjects

Work Task Number for Central Labs charged to Dept #3071.

### Julie,

Please forward the Work task number for the work at Central labs on to Anna Wallace at the above email address as soon as it is available. This is for the Polymer Characterization of the delta PFE sensors (four units total). Thankell

Rasdoc "ROC" Cartar Romi Rososmik Lab

Physical and Environmental Sciences Department Laboreant Science and ATF Analysis Group Labor

Awad, June (J.A.)

Sent:

Tuesday, June 04, 2002 3:51 PM

To:

Freeland, Mark (M.)

Subject:

RE: Need some warranty data in presentation form

I believe this was sent to me in error - I am the Ford Credit Regional Manager in Boston

### <W:\Z22|DRV\pictures\waving flag.gif>

### Regards,

June A. Awad Boston Regional Manager 508 357-8606 fax 508 357-6610 cell 508 612-8554

Original Message

Franti

Presiand, Merk (M.)

**Sent** Tot

Tuesday, June 04, 2002 11:23 AM Avest, June (J.A.)

Ca

Plante, Paul (P.G.); Maurer, James (J.S.); Getes, Freeman (F.C.)

Bulgleck

Need some warranty data in presentation form

### Mahmoud.

Could you please make me the following graphs in a format suitable for presentation to a director, I will need the graphs by close of business tomorrow.

### For 2.0L Zetec Focus only:

- (Second repair count/First repair count) v's Month of vehicle production (for 8/2000 through 1/2002)
- Perado of top 10 components (i.e. Causal Part) for D21 symptom for vehicles manufactured 9/2000.
- Perado of top 10 components (i.e. Causal Part) for D02 symptom for vehicles manufactured 9/2000

Please include the raw data as well as the charts.

If this request needs clarification let's talk at the 1:00 today.

Thanks

Regards

### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com

Tel.: (313) 594-7645

E982-827-G 8788

Awad, Mahmoud (M.I.)

Sent

Thursday, November 14, 2002 2:07 PM

To: Subject: Freeland, Mark (M.) RE: Monthly Repair Rate

--- Original Massage---

Front

Prestand, Mark (M.)

Seets

Thursday, November 14, 2002 12:35 PM

Tos

Avrad, Nahmoud (N.Z.)

Ca

Maurer, James (J.H.); Gates, Freeman (F.C.)

Sublects

Monthly Repair Rate

### Mahmoud,

Thanks for the data you gave me yesterday. I have plotted it below.

I have a question, I think the data is missing the original part number from the 2000 MY Taurus Sable, thus there are no repairs shown from 8/1999 through 10/2000. I would like to get the data included, as there may be a cyclical pattern developing which would be important to know about.

Take a look at the 2000 MY line on the chart, notice the two summer humps?

<< OLE Object: Microsoft Excel Chart >>

### Regards

### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com Tel.: (313) 594-7645

Sent:

Awad, Mahmoud (M.I.) Friday, October 11, 2002 12:46 PM Freeland, Mark (M.)

To:

**Bublect** 

Loay's File

Mark,

Just a reminder! would you send me the latest file that you got from Loay please.

Thanks

**Boot Regards Mahmoud Awad** 

Reliability implementation Engineer
PASS Department Support
Prione: (313) 24-83869
e-mail: mewad@ford.com

Awad, Mahmoud (M.I.)

Sent

Friday, June 07, 2002 9:34 AM

To:

Freeland, Mark (M.)

Subject

RE: Assign. 02-68 2001 DPFE's

### Mark.

AWS server is down for updates for today, I'll do it next week.

Thanks Mahmoud

### -Original Message

Frem

Freeland, Mark (M.)

Sant

Friday, June 07, 2002 8:18 AM

Ter

Maurer, James (J.S.); Getse, Freeman (F.C.); Awad, Mahmoud (M.L.) Plants, Paul (P.G.); Janda, Jon (J.M.); McCoy, James (J.D.) PW: Acaign. 02-58 2001 DPPE's

œ

Subjects

### Mahmoud.

Please check out the vehicle history for the F-150 Staller below and circulate to the team.

I will report on the dPFE sensor when it arrives.

Thanks

### Regards

### Mark Freeland

6-Siema Black Belt

Engine Research Department

Ford Research Laboratory

P.O. Box 2053

MD 2629 - SRL - Room 1517

Dearborn, MI 48121-2053 USA

email: mfreela1@ford.com

Tel.: (313) 594-7645

### -Original Massage

From:

Sont:

Lovelece, Merte (M.E.) Friday, June 07, 2002 7:43 AM

To:

Freeland, Mark (M.)

Subjects

PW: Audian, 02-58 2001 DPFE's

#### -Original Message

Fram:

Hayduk, Merk (M.S.)

Samb

Thursday, June 05, 2002 10:49 PM Lovelace, Maria (M.E.)

Ta: œ

**Butylect:** 

Heyduk, Mark (M.S.) Amign. 02-58 2001 OPFEs

Maria, below are two CQIS reports I wrote for this assignment which was issued today. O days to first findili

I found one DPFE with a date code after the date code on the assign, and one DPFE which caused a vehicle stall (which also had a date code after the date on the assign.).

The parts are being shipped to Mark Freeland per the assign.

ER62-827-G 1978

### Thanks.

CSOI002 COIS Indicator Summary 06/06/02 22:43:13 1 of 2 Rpt#: 2FFG2001 COD Rpt: 06/06/2002 Odom: 14,642 M Rvwd: File: Polder: Images: 0 Print Smy/Disp Detail(P/D); Vehicle: 2001 F150 4X2,REGCAB ,STYSD 1FTRF17W81EC64157 Bld: 07/25/2001 Engine: 4.6L ROM B Calb: 1F516M0N Trans: 4R70W Axle: 3800F3.55L A/C: Dealer Id: 07467 WOLTZ & WIND FORD INC Pl#: (412) 279-4551 State: Founeylvania City: Heidelberg Orig/Caller: MARK HAYDUK Symptom: 6 07 5 93 DRVABL, STALL/QUITS, ACCELERATION, ALL ENGINE TEMP St: CCRG/BPRC: Rvwd: Dr. Addi Sym: Fig: Caus. Comp: SENSOR ASY ECR PR VL - RPL Condition Code: 08 Region Code: 44 Region Name: Pittsburgh - 44 CONCER CUST. STATES: FROM A DRAD STOP THE ENGINE IS STALLING. ENGINE MIRRING BADLY. REPAIR. \* TECH. FOUND CODES P0401 AND P1408 (DPFE CODES), TECH. REPLACED THE DIFFE TO CORRECT THE CONCERN, DIFFE DATE CODE ON PART IS: 2D03B. PART SHIPPED TO MARK FREELAND PER ECI ASSIGN, 02-58. VEHICLE WAS PREVIOUSLY IN FOR A DPFE CONCERN ON 4-19-02 @ 13,997 ML AT WHICH TIME A NEW DPFE WAS INSTALLED TO CORRECT THAT CONCERN. MARK HAYDUK - PITTSBURGH FQE - 724-822-4342 CSQI002 CQIS Indicator Summary 06/06/02 22:43:53 --> 2 of 2 Rat#: 2FFG2002 COD Rpt: 06/06/2002 Odon: 4,336 M Rvwd: File: Folder: Images: 0 Print Smy/Disc Detail(P/D): Volicle: 2002 WINDSTAR,4X2 ,WAGON 2FMZA514X2BB02602 Bld: 02/11/2002 Engine: 3.8L EFI F Calb; 2A31ZC0A Trans; 4F50N Axle: FWD 3.56 A/C; YES Dealer Lt: 07467 WOLTZ & WIND FORD INC Ph#: (412) 279-4551 State: Pennsylvania City: Heidelberg Orig/Caller: MARK HAYDUK Symptom: 6 98 2 00 DRVABLINDICATOR, CHECK ENGINE OTHER-CODE NA Addi Sym: St: CCRG/EPRC: Rvwd: Dt: Fix: Caus. Comp: SENSOR ANY EOR PR VL - RPL Condition Code: 08 Region Code: 44 Region Name: Pittsburgh - 44

CONCER CUST. STATES: CHECK ENGINE LIGHT IS ON ALL THE TIME. REPAIR \* TECH FOUND CODE P0401 PRESENT (INSUFFICIENT EGR FLOW).

- TECH REPLACED THE DPFE WHICH CORRECTED THE CONCERN.
- DPFB REMOVED HAS DATE CODE OF 2A25B.
- DPFE SENT TO MARK FREELAND PER ECI ASSIGN, 02-58.
- \* MARK HAYDUK PITTSBURGH FQB 724-822-4342

## Mark Hayduk

Field Quality Engineer Global Concern Definition

Ph: 724-941-6670 Cell: 724-622-4342 Fax: 724-941-5154

Awad, Mahmoud (M.L.)

Sent:

Wednesday, June 05, 2002 1:11 PM

To: Subject Freeland, Mark (M.)

RE: Focus RR

### Mark.

Yes, it's only for 9/00 only. Keep in mind that the ranking was based on number of claims reported so far,i.e. regardless of Time in service.

### Mahmoud

---Original Message

Front:

Preciand, Mark (N.)

Senb

Wednesday, June 05, 2002 12:23 PM

Tor

Awad Mahmoud (MLI)

RE: Focus RR

### Mahmoud.

I think this is exactly what I was after. Just to confirm one point, is the D02 and D21 causal part data only for vehicles manufactured in September 2000? If the answer is yea, then I am happy.

Thank you very much for doing the work.

### Regards

#### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com Tel.: (313) 594-7645

### -Original Message

From:

Awad, Mahmoud (N.L.)

Sent

Wednesday, June 05, 2002 11:13 AM

Tie

Fredand, Mark (ML); Plants, Paul (P.G.); Maurer, James (J.S.)

Sabject

FOCUS RR

Thanks for the info. Enclosed is the data that you asked for. Please let me know if you have any questions. I'll be out tomorrow for the whole day (department meeting), so if you need anything please let me know today. Paul and Jim.

If you don't have any comments or recommendations, I'm going to carry out the same analysis on the 4 platforms selected next week after the new cutoff date.

### Best Regards Mahmoud Awad

Reliability implementation Engineer << File: Mark 06 03 02.zip >>

FMEI Department Support Phone: (313) 24-83869

ER82-827-0 1878

o-mail: mawad@ford.com

Awad, Mahmoud (M.I.)

Sent:

Wednesday, June 05, 2002 6:33 AM

To:

Freeland, Mark (M.)

Subject

V-transfent

### Mark,

I had been asked by many folks in the quality department the question "what it takes to letch up the DPFE", I remember that you put a table on this where you compare Kavtico old sensor, Kavtico new sensor after adding the resistor, and Motorola sensor. I really appreciate it if you can send that to me. Another thing, does Motorola sensor has a similar die structure "that is susceptible to latch" as Kavtico.

### Thanks in advance

Best Regards Mahmoud Awad Reliability implementation Engineer FMEI Department Support Phone: (313) 24-83869 e-mail: mawad@ford.com

Awad, Mahmoud (M.I.)

Sent:

Wednesday, June 05, 2002 8:28 AM

To:

Freeland, Mark (M.)

Subject

RE: Need some warranty data in presentation form

That's what is called "sixth sense"...actually Paul Plante forward your message to me yesterday.

### Mahmoud

—Original Message From: R

Freeland, Mark (M.)

Sent

Tuesday, June 04, 2002 4:41 PM

To:

Arred, Mehmoud (M.I.)

Subject

PW: Need some warranty date in presentation forta

### Mahmoud.

I don't know how you knew what I wanted, as I sent it to the incorrect email address!, But I'm glad someone else spotted my error.

Sorry.

Regards

### Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

--- Ortotral Massage----

Proun:

Awad, June (J.A.)

Serie

Tuesday, June 04, 2002 3:51 PM

Tes

Freeland, Mark (M.)

Subjects

RE Need some warrenty data in presentation form

I believe this was sent to me in error — I am the Ford Credit Regional Manager in Boston

### <W:\Z22iDRV\pictures\waving.flaq.clt>

### Regards,

June A. Awad Boston Regional Manager 508 357-6606 fax 508 357-6610 cell 508 612-8554

—Original Message—

HOUN

Presiand, Mark (M.)

Sent

Tuesday, June 04, 2002 11:23 AM

ER62-027-G 1986

Tœ Cz= Amed, Jame (I.A.)

Planta, Paul (P.C.); Maurer, James (J.B.); Gates, Preeman (F.C.)

o-Subject Need some warranty data in presentation form

#### Mahmoud.

Could you please make me the following graphs in a format suitable for presentation to a director, i will need the graphs by close of business tomorrow.

### For 2.0L Zetec Focus only:

- (Second repair count/First repair count) v's Month of vehicle production (for 6/2000 through 1/2002)
- 2) Perado of top 10 components (i.e. Causal Part) for D21 symptom for vehicles manufactured 9/2000
- Peredo of top 10 components (i.e. Causal Part) for D02 symptom for vehicles manufactured 9/2000.
   Please include the raw data as well as the charts.

If this request needs clarification let's talk at the 1:00 today.

Thanks

Regards

Mark Preciand

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MID 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreetal@ford.com

Tel.: (313) 594-7645

Awed, Mahmoud (M.i.)

Sent:

Friday, May 03, 2002 11:55 AM

To: Subject Freeland, Mark (ML) RE: Focus Information

Mark,

This is a falled sensor coming from August 2001 MOP and got over 11000 miles on it...this is for the outside lab. The part is with Mar now. Mahmoud

### ---- Original Massage

From:

Galanto, Chris (C.R.) Priday, May 03, 2002 9:08 AM

Subject:

Awad, Matemousi (M.L.) PW: Focus Information

### Mahmoud,

Here is the vehicle information for the PVT engineer at Wixom who has had a problem with his Focus. I do not know the mileage, but he could get it to you pretty quickly.

I have a part from Mary Akins that I will given hi m next week. His dealer said they were on back order and it might take a number of weeks. We can change it in the parking lot here at EEE, and get the team the part. I think if the team wanted to take his vehicle for a period of time for evaluation, he'd be happy to help.

### Chris

Christopher R. Galante cgalante@ford.com

Feed

(313) 337-3813

**Phone:** (313) 845-6067 Pager: (313) 795-2807

V-Engine Engineering - Ford Motor Co.

-Original Message

From: Sents

Subjects

Johnson, Roger (R.) Prickly, May 93, 2002 7:34 AM

Galanta, Chris (C.R.) Focus Information

Chris.

I got the Information from my Focus ZX3:

VIN:

3FAFP31321R244403

Engine information:

1G-779-BA

002002105 7/30/01 CHEP

Let me know if you need anything else. Otherwise, I will be by sometime next week, probably Monday. Thanks again for the help.

Regards, Roger Johnson Wixom Assembly Plant PVT Phone: (248) 34-45889

Awad, Mahmoud (M.I.)

Sent:

Monday, April 29, 2002 12:57 PM

To:

Gates, Freeman (F.C.); Freeland, Mark (M.)

**Bublect:** 

FW: Overplot Kaylico and Ford Changes on Stack Chart

### Guys,

I know that u are busy, I really appreciate it if you have some time this week.

Thanks Mahmoud

### ----Ortoinat Message---

From

Plante, Paul (P.G.)

Sect:

Morday, April 29, 2002 12:12 PM

TOI

Awad, Mahmoud (NLL)

Subjects

RE: Overplot Keylico and Ford Changes on Stack Chart

IU remember the Kavilco response which is why asked. Can you get Mark and Freeman 1-1 this week and pin down their response please. Let Me know if you need help, or when your done and ready to discuss. Thanks.

#### --- Original Message---

From: Sent Arrad, Mahmoud (M.I.)

Tou

Monday, April 29, 2002 11:18 AM

101

Plente, Paul (P.G.)

Subject:

RE: Overplot Kaylico and Ford Changes on Stack Chart

#### Paul.

As you know, I did distribute a list of these changes to Kavilco and FORD key members. I did get the response from Park and Bradey and still waiting for Freeland and Gates response.

### Thanks

Mahmoud

### ---- Original Message----

From:

Plante, Paul (P.G.)

Sent

Monday, April 29, 2002 10:34 AM

Te:

Awad, Mahmoud (M.L.)

Subject

Overplot Kaviico and Ford Changes on Stack Chart

Do you have this finished? Are we ready to sort out the key issues w/ Kavilco and Ford Engineers? Can we review Tuesday morning?

### Paul Plante

V Engine Campaign Prevention Specialist

POEE Building, Drop 20, Cube BG049, Pillar D5

Tele. 313-84-54138; Fax 39-02513

Text Pager: 734-298-1905

E Mail: pplante@ford.cm (CDS ID PPLANTE)

Subject: Location:

Return Parts Analysis Mark's Desk

Start: End: Man 3/11/2002 12:00 PM Man 3/11/2002 1:00 PM Tentative

Show Time As:

Recurrence:

(none)

**Moeting Status:** 

Not yet responded

Required Attendess:

Awad, Mahmoud (M.I.); Freeland, Mark (M.); Salhieh, Loay (L.)

Awad, Mehmoud (M.I.)

Sent

Thursday, March 07, 2002 9:41 AM

To:

Freeland, Mark (M.)

Subject:

RE: Functional Characteristics

### Mark.

I'm tied up with another meeting after our today's meeting. How about Monday morning, in the mean time we'll do something with the data and show it to you on Monday.

Thanks Mahmoud

----Original Message

From:

Gent

Freciand, Mark (M.) Thursday, March 07, 2002 9:35 AM

Таг

Amed, Mehmoud (NLL); Saihith, Loay (L.) RE: Punctional Characteristics

### Mehmoud & Loay,

### How about 3:30 this afternoon?

I have to leave our 14 D mtg to go to the Escape Stalls Mtg from 2 - 3 at another bldg. But I could come back after that. Tomorrow I have no time available, as I have to do my own work (Auger and SEM analysis of parts).

### Regards

### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

Awad, Mahmoud (M.I.)

Sent

Thursday, March 07, 2002 9:21 AM

To:

Subject

Freeland, Mark (M.) RE: Functional Characteristics

### Mark.

 It looks that Loay is almost done with his analysis. We need to sit and decide what questions we need to answer based on the data results.

### Thanks

### Mahmoud

### --- Original Meessage

From:

Freeland, Mark (M.)

Sent Tei

Thursday, March 07, 2002 9:18 AM

Selfrien, Lony (I...) Arrad, Mahmoud (M.L.)

Subjects

**PW: Punctional Characteristics** 

### Loay,

If they have no test data then they have not tested them yet, so I would say to use TBD as the Functional Description.

### Thanks

### Mark

### -- Original Message-

From:

Seithiah, Loay (L.)

Sent:

Thursday, Merch 07, 2002 8:42 AM

Time **Guirfects**  Predend, Mark (M.) **Functional Characteristics** 

There are some records that have no functional characteristics: I called it zero. Should I leave it as that or change it to something else. Advice.

Best Regards, Loay Saihleh Ph.317-4818

ER02-027-0 2000

From: Sent: Ayers, Don [DAyers@ksvico.com] Friday, September 20, 2002 6:13 PM

To:

Freeland, Mark (M.)

Subject:

RE: FYI

I'll have it faxed to you, probably on Monday. It will be quite lengthy, FYI.

#### Don

-----Original Message----

From: Freeland, Mark (M.) [mailto:mfreelal@ford.com]

Sent: Friday, September 20, 2002 2:20 PM

To: Ayers, Don Subject: RE: FYI

Thank you for the info Don,

Yes, please fax me the articles, my fax number is (313) 621-0646.

### Regards

### Mark Freeland

> 6-Sigma Black Helt

> Engine Research Department

> Ford Research Laboratory

> P.O. Box 2053

> MD 2629 - SRL - Room 1517

> Dearborn, MI 48121-2053 USA

email: mfreelal@ford.com

Tel.:

(313) 594-7645

----- Original Message-----

From: Ayers, Don [mailto:DAyers@kavlico.com] Sent: Friday, September 20, 2002 2:34 PM

To: Mark Freeland (E-mail)

Subject: FYI

#### Hi Mark -

Long time no see/speak. I hope all is going well with you.

- I just wanted to make you aware of two things. You may already know these and I'm assuming you are still working on transients.
- 1. We are starting to embark on a series of failure analysis meetings on ESM with Ford/Siemens participation. Joe Grandas (in EGR Engineering) had some questions pertaining to voltage transients. We suggested he discuss these with you to understand the testing and results you've observed. If he hasn't called you, you may want to give him a call as time permits.
- 2. Finally, I came across an interesting document on vehicle transients. You may want to obtain a copy. It is ISO 7637-1, title is "Road Vehicles Electrical disturbance by conduction and coupling Part 1: Passenger cars and

light commercial vehicles with nominal 12V supply voltage - Electrical transient conduction along supply lines only.

3. Really this is finally, there's a Part 3 to the above which addresses "Electrical transient transmission by capacitive and inductive coupling via lines other than supply lines".

If you want, I can fax these to you.

Take care. Don From: Sent: Ayers, Don [DAyers@kevico.com] Friday, September 20, 2002 2:34 PM

To:

Mark Freeland (E-mail)

Subject:

FΥI

H1 Mark -

Long time no see/speak. I hope all is going well with you.

- I just wanted to make you aware of two things. You may already know these and I'm assuming you are still working on transients.
- 1. We are starting to embark on a series of failure analysis meetings on ESM with Ford/Siemens participation. Joe Grandas (in EGR Engineering) had some questions pertaining to voltage transients. We suggested he discuss these with you to understand the testing and results you've observed. If he hasn't called you, you may want to give him a call as time permits.
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- 3. Really this is finally, there's a Part 3 to the above which addresses "Electrical transient transmission by capacitive and inductive coupling via lines other than supply lines".

If you want, I can fax these to you.

Take care, Don

Azad, ANM (A.)

Sent

Wednesday, May 29, 2002 3:52 PM

To: Subject Freeland, Mark (M.) Warrenty Part Return Status

# Mark,

Sorry for late response...

Pis plan to attend on next Friday's PST meeting or send someone else.

You have to explain your Warranty Improvement Plan.

By tomorrow 10am pls send the name who will be in that meeting. We have to make the Final Agenda by 11am.

Pis note that, we took it out from last PST meeting agenda-But I can not show any excuse to Explorer Chief Engineer in next meeting.

Thanks.

ANM Azad

Phone:49870

# -- Orkstnei Messesce

From:

Freeland, Mark (M.)

طميو

Tuesday, May 28, 2002 12:24 PM

Azed, ANM (A.)

Subjects

RE: Warrenty Part Return Status

I have been out of the office since 5/17/2002, I assume you have the information you need already.

#### Regards

#### Mark Freeland

6-Sigma Black Belt

Engine Research Department

Ford Research Laboratory

P.O. Box 2053

MD 2629 - SRL - Room 1517

Dearborn, MI 48121-2053 USA

email: mfreela1@ford.com

Tel.: (313) 594-7645

#### ----Original Measage

Province Tee

Azad, ANM (A.)

Sent:

Monday, May 20, 2002 4:10 PM

Crawley, Ian (LA.); Prestand, Mark (M.); Naurer, James (J.S.)

Warranty Part Return Status

Can any one fill cut the following Items of attached file for <u>U152 EGR Sensors (9J460)?</u> It looks Dennis Vromen is in Vacation-but I need this information for PST meeting on May 24.

- D. Vroman filled out some items but its incomplete.
- Supplier Contact person Name
- Pareto of Returned Parts(Like How many broken, Leak or Bent)
- 3. Warranty Trend Chart: CPU & R/1000 Chart.
- 4. Containment Action(if there is any),
- 5 Root cause Analysis/Assessment
- << File: Warranty Part Return Assessment.xls >>

Thanks.

# ANM Azad U152/Quality Reliability

-- Original Message-

Province

ATRIC, ANM (A.)

Sent: To: Monday, May 20, 2002 3:54 PM

Vroman, Dennis (D.A.)

Marranty Part Return Status

<< File: Warranty Part Return Assessment xis >>

Thanks. ANM Azad U152/Quality Reliability

Ple fill out the attached form for U152 EGR Sensors (9J460) to review the plans to improve warranty in next PST meeting.

Thannka

ANM Azad U152/Quality Reliability

Chassis -

(7) U152 Canister Vent Valves (9F945) reviewed on 4/15/02 by A. Yeadon and Frank Robinson.

(Visteon)

(22) U152 Alternators (10300) reviewed on 4/14/02 by Marion Lee and Todd Anabacher

Powertrain - (Visteon)

(10) U152 MainTransmission Control Assy (7A100) reviewed on 3/27/02 by Zhou Guochou

(6) U152 EGR Sensors (9J460) reviewed on 3/28/02 by Dennis Vroman and Mark

#### Freeland

---- Original Massage----

Proes:

Fukuda, Nell (N.P.)

Şents

Wadnesday, May 15, 2002 5:34 PM

Te:

Azad, ANM (A.)

Ca

Hilborn, Theresa (T.O.); Reiners, Donna (D.L.); Khan, Asad (A.)

Aubjects PW: Warranty Port Return Status

ANM.

pis contact the suppliers and D&R mentioned below. You may need to follow up with Donna and/or PMT leaders to get the right names. I would like each of these parts reviewed at the May 24 PST meeting. See Asad to get them on the agenda. The purpose of this review is to insure that suppliers have plans to improve warranty. The D&R and supplier should work together to fill in the one pager attached. This should not take much effort to complete. If they need help putting warranty, ask Asad to help, thx

AZBO, ANM (A.)

Sent

Wedneeday, May 22, 2002 9:15 AM

To:

Maurer, James (J.B.); Vromen, Dennis (D.A.) Freeland, Mark (ML)

Cc:

Subject:

Warrenty Part Return Status: EGR Sensors (9,1460)

Pis fill out the attached incomplete form and return by noon today. We have to include this in Explorer Quality PST meeting agenda.

Pis also let me know who will present <u>ESR Sensors (9.7460)</u> Warranty Improvement plan in Explorer Quality PST meeting on May 24.

(Explorer Quality PST meeting:May 24, Time:11:30am-12:00 noon, Place: PDC 2D-M10/2D-M12).

Thanks.

ANM Azad

U152/Quality Reliability



Wantenty Part Return Assessmen...

—Original Message-

from Sent:

Freeland, Mark (M.) Thursday, May 16, 2002 1:07 PN

T≱ı

Azad, ANM (A.); Vroman, Dennis (D.A.); Maurer, James (J.B.)

œ

Plante, Paul (P.G.)

Subject:

RE: Warranty Part Return Status

Jim,

This one is for you.

Regards

Mark Freeland

6-Sigma Black Belt

Engine Research Department

Ford Research Laboratory

P.O. Box 2053

MD 2629 - SRL - Room 1517

Dearborn, MI 48121-2053 USA

email: mfreels1@ford.com

Tel.: (313) 594-7645

-Original Message From

Azad, ANN (A.)

Senti

Thursday, May 16, 2002 12:11 PM

To:

Freeland, Mark (M.); Woman, Dannis (D.A.)

Werrenty Port Return Status

Pis fill out the attached form for U152 EGR Sensors (9J460) to review the plans to improve warranty in next PST meeting.

Thannka

ANM Azad

U152/Quality Reliability

E982-827-G 2144

# File: Warranty Part Return Assessment.xls >>

Chassis - (7) U152 Canister Vent Valves (9F945) reviewed on 4/15/02 by A. Yeadon and Frank Robinson (Visteon)

Powertrain - (22) U152 Alternators (10300) reviewed on 4/14/02 by Marion Lee and Todd Ansbacher (Visteon)

(10) U152 MainTransmission Control Assy (7A100) reviewed on 3/27/02 by Zhou Guochou (6) U152 EGR Sensors (9J460) reviewed on 3/28/02 by Dennis Vroman and Mark

#### Freeland

---- Original Message----

Presto Fulcada, Nell (N.P.)

Bents Wednesday, May 15, 2002 5:34 PH

Ter Azed, ANM (A.)

Co: Hilborn, Therese (T.O.); Reiners, Donne (D.L.); Khen, Asad (A.)

Subject: Per: Warrenty Part Return Status

#### ANM.

pis contact the suppliers and D&R mentioned below. You may need to follow up with Donna and/or PMT leaders to get the right names. I would like each of these parts reviewed at the May 24 PST meeting. See Asad to get them on the agenda. The purpose of this review is to insure that suppliers have plans to improve warranty. The D&R and supplier should work together to fill in the one pager attached. This should not take much effort to complete. If they need help putting warranty, ask Asad to help. thx

#### WARRANTY PART RETURN ASSESSMENT

and the second section of the second section of the second section of the second second section of the second section of the second sec

Supplier Kerlico DFFE Sensor Part Description: EER flow sensor Part Number: 11.58-93433-AB PST Review Date: Supplier Contect: DdR:

1. Parete of Returned Paris:

2. Warranty Trans Charte:

3. Containment Actions

4. Root Game Analysis/Assessment:

5 Action Pleas Next Stees:

Kavilco sensor (1LDE-9J433-AB) replaced with Motorolo sensor (2L3E-9J433-BA) Sensor change occurred May 3, 2002 at KSP. U/P207 change over scheduled for June 17, 2002.

F082-827-6 2148

Azed, ANM (A.)

Sent

Monday, May 20, 2002 4:10 PM

To:

Crawley, Ian (I.A.); Freeland, Mark (M.); Maurer, James (J.B.)

Subject:

Warrenty Part Return Status

Can any one fill out the following items of attached file for <u>U152 EGR Sensors (9J460)?</u> It looks Dennis Vroman is in Vacation-but I need this information for PST meeting on May 24. D. Vroman filled out some Items but its incomplete.

- 1.Supplier Contact person Name
- 2. Pareto of Returned Parts(Like How many broken, Leak or Bent)
- 3. Warranty Trend Chart: CPU & R/1000 Chart,
- Containment Action(if there is any),
- 5 Root cause Analysis/Assessment



Return Assessmen...

Thanks. ANM Azad U152/Quality Reliability

Original Messes

Azad, ANN (A.)

Monday, May 20, 2002 3:54 PM

Vromen, Densk (D.A.)

Warranty Part Return Status



Warranty Part Robert Assessmen...

Thanks. ANM Azad U152/Quality Reliability

Pis fill out the attached form for U152 EGR Sensors (9J460) to review the plans to improve warranty in next. PST meeting.

Thannks

ANM Azad U152/Quality Reliability

J152 Canleter Vent Valves (9F945) reviewed on 4/15/02 by A. Yeadon and Frank Robinson (Vieteon)

(22) U152 Alternators (10300) reviewed on 4/14/02 by Marion Lee and Todd Ansbacher Powertrain -(Visteon)

(10) U152 MainTransmission Control Assy (7A100) reviewed on 3/27/02 by Zhou Guochou U152 EGR Sensors (9,7460) reviewed on 3/28/02 by Dennis Vroman and Mark

#### Freeland

--- Original Message

Frem:

Fukuda, Nell (N.P.)

Sent

Wednesday, May 15, 2002 5:34 PM Asad, ANM (A.)

Tọc

Hilborn, Thorese (T.O.); Reiners, Donna (D.L.); Khan, Asad (A.) PW: Warranty Port Return Status

## ANM.

pis contact the suppliers and D&R mentioned below. You may need to follow up with Donna and/or PMT leaders to get the right names. I would like each of these parts reviewed at the May 24 PST meeting. See Ased to get them on the agenda. The purpose of this review is to insure that suppliers have plans to improve warranty. The D&R and supplier should work together to fill in the one pager attached. This should not take much effort to complete. If they need help pulling warranty, ask Asad to help, thx.

## WARRANTY PART RETURN ASSESSMENT

Supplier: Kavilco DPPE Senter Port Description: ESR flow sensor Port Number: 11.5E-9.7483-AB PST Review Date: Supplier Contect; DAR:

	of Returns	

2. Warrahiv Trans Charle:

- 3. Containment Action:
- 4. Port Come Analysis/Assessment:

# 5 Action Plan/Next Steps:

Kartice sensor (ILSE-9J483-AB) replaced with Motorcia sensor ( 2L3E-9J493-BA) Sensor change occurred May 3, 2002 at KEP. U/P207 change over scheduled for June 17, 2002.

E902-627-0 2149

# WARRANTY PART RETURN ASSESSMENT

Supplier Kertico DPTE Senter
Port Description: ESR flow sensor
Port Number 2.5E-9,7433-AB

PST Review Date: Supplier Contact: D&R:

1. Fereto ef Raturned Fertu

2. Wernanty Transi Charte!

5. Containment Actions

4. Reet Game Analysis/Assessment:

5 Action Floo/Next State!

Karlics sensor (ILSE-9J433-AB) replaced with Materia sensor ( 2LSE-9J433-BA) Sensor change occurred May 3, 2002 at KEP. U/P207 change over scheduled for June 17, 2002.

ER62-827-6 2168

Azad, ANM (A.)

Sent

Thursday, May 16, 2002 12:11 PM

To:

Freeland, Mark (M.); Vroman, Dennie (D.A.)

Subject:

Warranty Part Return Status

Pls fill out the ettached form for U152 EGR Seneors (9J460) to review the plans to improve warranty in next PST meeting.
Thannies

ANM Azad U152/Quality Reliability



Warrenty Pert Roturn Assessmen...

Chassis -

(7) U152 Canlater Vent Valves (9F945) reviewed on 4/15/02 by A. Yeadon and Frank Robinson.

(Visieon)

(22) U152 Alternators (10300) reviewed on 4/14/02 by Marlon Lee and Todd Ansbacher

Powertrain -(Visteon)

(10) U162 MainTransmission Control Assy (7A100) reviewed on 3/27/02 by Zhou Guochou

(6) U152 EGR Sensors (93460) reviewed on 3/28/02 by Dennis Vromon and Mark

# Freeland

----Original Message----

From

Pukuda, Nell (N.P.)

Sont:

Wednesday, Nay 15, 2002 5:34 PM

Te:

Azad, ANN (A.)

Con

Hilborn, Theresa (T.O.); Reiners, Donna (D.L.); Khen, Asad (A.)

Guitrlach

PW: Warranty Part Return Status

#### ANM,

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# WARRANTY PART RETURN ASSESSMENT

PST Review Date: Supplier Contact: D&R:

Suppliers fort Description: fort Number:			
--	--	--	--

1. Pareto of Referred Paris:

2. Warrenty Trend Chartel

3. Containment Action:

4. Root Cours Analysis/Assessment:

5 Action Plan/Next Stens:

EARZ-827-0 2152

Baleczak III, Stan (S.)

Sent: To:

Tuesday, September 24, 2002 1:16 PM Swick, Curt (C.); Freeland, Mark (M.)

Subject:

RE: Focus Grounds

#### Curt

As far as I know, ground wiring did not change from 2001 to 2002.

Stan Baleczak

Ford Motor Company

C170 N.A. Focus 2003.5/2004.5 EDS Engineer

phone: 313-206-4351 pager: 734-798-2680 e-mail: sbelecz1@ford.com

Michigen Tech '88

-Original Message From:

Swick, Curt (C.)

Tuesday, September 24, 2002 12:49 PM

Tοι

Preciond, Mark (M.) Baleczak III, Stan (S.)

œ Subject

RE: Focus Grounds

I do not believe any grounds changed for the pcm. stan am I right????

-Original Message-

Torp!

Freeland, Mark (M.)

Stants

Friday, August 23, 2002 11:49 AM

Subjects

Swick, Curt (C.) PW: Focus Grounds

Curt,

Can you help me out here, Do you know the details of ground wiring changes for the PCM for the 2.0L Zetec Focus from 2001 to 2002 MY? Thanks

# Regards

#### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

# Original Message

From

Georadek, Thomas (T.M.)

in the

Priday, August 23, 2002 6:53 AM

Subjects

Preciand, Mark (M.) RE: Focus Grounds

Yes I remember you!

If any changes were made, it was to relocate the underhood grounds on a verticle piece of sheet metal and/or combine them. I haven't been involved in Focus in 8 months, so you need to talk to Curt Swick, electrical PMT leader who may be aware of any wiring related changes going from '01 to '02.

# Tom Gwozdek

EESS-NAC Quality / Business Pleaning Leider, Curtified Black Bulk 343-24-87872

--- Original Message

Prom:

Freetend, Mark (M.)

Sent

Thursday, August 22, 2002 2:30 PM

Te:

Gwordek, Thomas (T.M.)

Bubjects

Focus Grounds

Tom.

Remember me? The guy working on the dPFE, we both gave a presentation to JN at WAP.

Can you fill me in on the details of the changes which were made to the PCM grounding system on the 2.ot. Zetec Focus at the model year change over from 2001 to 2002?

Please call me when you can to discuss.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

Subject: Location:

Stu Evans DPFE Repeat Repairs

POEE D138

Start End:

Thu 6/22/2002 10:00 AM Thu 8/22/2002 11:00 AM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Beneek, Catherine (C.K.); Akins, Mary (M.); Gates, Freeman (F.C.); Johnson, Joe (J.H.); Freeland, Mark (M.); Vroman, Dennis (D.A.); Duclos, Jeffrey (J.A.); Ogozaly, Jim (J.C.); Meurer, Jemes (J.S.)

-informational-

Findings at Stu Evans 4.0L 2002 Moutaineer with OPFE replacement

Sent:

Bansak, Catherine (C.K.) Friday, August 16, 2002 1:47 PM

To:

Freeland, Mark (M.)

Let's go. Are we riding together?? Call.page me. I'm ready.

Catherine Bansak mailto: cbansak2@ford.com <mailto:cbansak2@ford.com>

Product Design Engineer, EGR Systems

FMEI Dept, V-Engine Engineering

Ford Motor Company

Phone: (313) 323-8101; Fax: (313) 390-4084 POEE MD 69; Column G-15; Cube CQ170

Text Page: 3137965245@alphapage.airtouch.com <mailto:3137965245@alphapage.airtouch.com>

<7xmi:namespace prefix = o ns = "um:schemas-microsoft-com:office:office" />

Bansek, Catherine (C.K.)

Sent:

Friday, August 16, 2002 1:30 PM

To:

Akine, Mary (M.); Ogozety, Jim (J.C.); Gates, Freeman (F.C.); Johnson, Joe (J.H.); Freeland,

Mark (M.); Vroman, Dennis (D.A.); Duclos, Jeffrey (J.A.)

Subject:

RE: Info on Stu Evens vehicle with multiple Kavilco replacement

I have contacted Brian Maher, Service Manager at Stu Evans. Het him know that someone from engineering would be out there Monday morning.

They are open at 7:00am.

He has replaced the sensor three times. The first sensor was sent back through the warranty system, the second and third sensors are both full of water. Brian is holding these sensors for us to cick up on Monday. Aug 29th.

Since this vehicle is available to us, should investigate. Where should this vehicle be tested? At the dealership or at POEE? What testing would be done?

I have a 10am to 11am meeting Monday morning that I must attend. I can go before or after that time. Else, someone can head over there and work on it. Let me know.

-Original Message

Process

Ductos, Jeffrey (J.A.)

Conb

Thursday, August 15, 2002 3:26 PM

Vroman, Dernils (D.A.); Bensek, Catherine (C.K.)

Info on Stu Evens, rehicle with multiple Kavikto replacement

Dennis/Catherine.

CQIS report on the vehicle we discussed. The service manager is Brain Maher at (734) 458-1902 direct. Please contact Brian before the visit. Thanks!

Rpt#: 2HOD7008 NHL

Rpt: 08/15/2002 Odom: 13.273 M

Rvwd: File: Folder:

Images: 0 Print Smy/Disp Detail(P/D):

Vehicle: 2002 MOUNTAINEER 4X4.4DR MPV 4M2ZU86E12UJ05732 Bid: 02/27/2001

Engine: 4.0L SOHC Caib: 1U51AF0A Trans: 5R56W

Axie: 3200F3,55C A/C: YES

Dealer Id: 13926 Stu Evans L-M, Garden City, In Ph#: (313) 425-4300

State: Michigan

City: Garden City Orig/Caller: BRIAN MAHER

Symptom: 6.98 2.98 DRVABL, INDICATOR, CHECK ENGINE, NOT LISTED

Addi Sym: P0401, REPEAT CONCERN St: CCRG/E

PRC: Rvwd: Dt:

Engineering:

Fbc Caus, Comp:

Condition Code:

Hotiliner: AKNOLL

Phone: 313 317-9375 Regn Cd: 48 Detroit - 48 Phone:

TAR:

DIr Contact: PHONE NUMBER

Phone: 734 425-4300 Title Cde: SM

REPAIR SERVICE MANAGER STATES THE VEHICLE HAS A REPEAT PO401, TECH HAS REPLACED THE OPFE WITH THE REVISED 2F1Z DPFE AND 20 MILES LATTER THE

DPFE HAS CAUSED A REPEAT PO401 AND IS CONTAMINATED WITH WATER.

TECH CAN DRIVE VEHICLE FOR A SHORT DISTANCE AND WILL AGAIN CONTAMINATE

THE DPFE WITH WATER.

RECOMM ADVISED TECH THAT I WOULD CONTACT ENGINEERING FOR FURTHER INFORMATION. SHOULD VERIFY THE EXHAUST SYSTEM AND AWAIT A CALL BACK.

ADD-ON 08/16/2002 02:44PM ALEXANDER KNOLL M88 - FCSD - TECH SVC HOTLINE CONTACTED SERVICE MANAGER BACK AND EXPLAINED TO HIM THAT ENGINEERING WILL VISIT THE DEALER TOMMOROW (8/16/02).

# JEFF DUCLOS

4.0L SOHC ENGINE SYSTEMS - CURRENT AND PAST PH: (813) 24-89567 Text PAGER: ( EMAIL: JDUCLOS@FORD.COM P.O.E.E. MD 2 FAX: (813) 390-2513 Text Pager: (313) 796-3640 P.O.E.E. MD 20 CUSE CE043

Bensek, Catherine (C.K.)

Sent

Thursday, August 15, 2002 4:15 PM

To:

Freeland, Mark (M.)

Ċa:

Gates, Freeman (F.C.); McCoy, James (J.D.); Alles, Sheran (S.A.); Maurer, James (J.B.);

Johnson, Joe (J.H.); Vroman, Dennis (D.A.); Dacks, Jeffrey (J.A.)

**Subject** 

RE: Info on Stu Evens vahicle with multiple Kavilco replacement

Let's achedule a time to visit the dealership.

Ortotral Message

Freeland, Mark (M.)

Fromi

Thursday, August 15, 2002 4:10 PM

Tos

Bensek, Catherine (CJL)

œ

Gates, Presmen (F.C.); McCoy, James (J.D.); Alies, Sheran (S.A.); Maurer, James (J.B.)

Subject:

RE: Info on Stu Evens vehicle with multiple Kavilco replacement.

Cathy.

First, I have that CD for you, I did it on Monday, but have not been in you're building since.

#### Second.

Yes, it would be good to look at the vehicle. Also, I would like to get the spark plugs, the colls (all labeled with which cylinder they came from) and the PCM removed and sent to me for testing. Any thoughts?

#### Regards

#### Mark Freeland

6-Sigma Black Bolt

Bagine Research Department

Ford Research Laboratory

P.O. Box 2053

MD 2629 - SRL - Room 1517

Dearborn, MI 48121-2053 USA

email: mfreelal@ford.com

Tel.: (313) 594-7645

#### -Original Message

Prom:

Bansek, Catherine (C.K.)

Benti

Thursday, August 15, 2002 4:04 PM

To:

Freeland, Mark (M.); Gates, Preeman (F.C.); Maurer, James (J.B.)

Ca

Vromen, Dennis (D.A.)

Subjects

PW: Info on Stu Evens vehicle with multiple Kavilco replacement.

I believe it might be worth our while to take a look at this vehicle. It's just in Garden City.

# Any thoughte?

#### Original Message

From:

Dudos, Jeffrey (LA.)

Sent

Thursday, August 15, 2002 3:25 PM

Ta:

Vroman, Dennis (D.A.); Bansek, Catherine (C.K.)

Gubject:

Info on Stu Evens vehicle with multiple Kavilco replacement.

# Dennia/Catherine,

CQIS report on the vehicle we discussed. The service manager is Brain Maher at (734) 458-1902 direct. Please contact Brian before the visit. Thanksi

**ENG2-827-0 2182** 

Rpt#: 2HOD7006 NHL

Rpt: 08/15/2002 Odom: 13,273 M

Rvwd: File: \_ Folder: \_

Images: 0 Print Smy/Disp Detail(P/D):

Vehicle: 2002 MQUNTAINEER 4X4,4DR ,MPV 4M2ZU86E12UJ05732 8id: 02/27/2001 Engine: 4.0L SOHC Calb: 1U51AF0A Trans: 5R55W Axie: 3200F3.55C A/C: YES

Dealer Id: 13928 Stu Evans L-M, Garden City, In Ph#: (313) 425-4300

State: Michigan City: Garden City Orlg/Caller: BRIAN MAHER

Symptom: 6 98 2 98 DRVABL, INDICATOR, CHECK ENGINE, NOT LISTED Addi Sym: P0401, REPEAT CONCERN

St CCRG/EPRC: \_ Rvwd: Dt:

Fix: Caus. Como:

Condition Code:

Hotilner: AKNOLL Phone: 313 317-9375 Regn Cd: 48 Detroit - 48

Engineering:

Phone:

TAR:

Dir Contact: PHONE NUMBER

Phone: 734 425-4300 Title Cde: SM

REPAIR SERVICE MANAGER STATES THE VEHICLE HAS A REPEAT PO401. TECH HAS REPLACED THE OPFE WITH THE REVISED 2F1Z DPFE AND 20 MILES LATER THE

DPFE HAS CAUSED A REPEAT PO401 AND IS CONTAMINATED WITH WATER.

TECH CAN DRIVE VEHICLE FOR A SHORT DISTANCE AND WILL AGAIN CONTAMINATE THE DPFE WITH WATER,

RECOMM ADVISED TECH THAT I WOULD CONTACT ENGINEERING FOR FURTHER INFORMATION.

SHOULD VERIFY THE EXHAUST SYSTEM AND AWAIT A CALL BACK.

ADD-ON 08/15/2002 02:44PM ALEXANDER KNOLL MSS - FCSD - TECH SVC HOTLINE CONTACTED SERVICE MANAGER BACK AND EXPLAINED TO HIM THAT ENGINEERING WILL VISIT THE DEALER TOMMOROW (8/16/02)

# JEFF DUCLOS

4.OL, SOHÇ ENGINE SYSTEMS - CURRENT AND PAST

PH: (313) 24-89567 EMAIL: JDUCLOS@FORD.COM

Text Pager: (313) 796-3640 P.O.E.E. MD 20 CUBE CE043

FAX: (313) 390-2513

Bansek, Catherine (C.K.)

Sant

Thursday, August 15, 2002 4:04 PM

To:

Freeland, Mark (M.); Gates, Freeman (F.C.); Maurer, James (J.B.)

Cc:

Vroman, Dennis (D.A.)

Subject:

FW: Info on Stu Evens vehicle with multiple Kavilco replacement

I believe it might be worth our while to take a look at this vehicle. the just in Garden City.

# Any thoughts?

----Original Message Promi

Duckos, Jeffrey (J.A.)

Thursday, August 15, 2002 3:26 PM

Tel

Vroman, Dannis (D.A.); Bansek, Ostherine (C.K.)

Info on Stu Evens vehicle with multiple Kayloo replacement

#### Dennis/Catherine.

CQIS report on the vehicle we discussed. The service manager is Brain Maher at (734) 458-1902 direct. Please contact Brian before the visit. Thanks!

Rot#: 2HOD7008 NHL

Rpt: 08/15/2002 Odom: 13,273 M

Rvwd: File: \_ Folder:

Images: 0 Print Smy/Diap Detail(P/D):

Vehicle: 2002 MOUNTAINEER 4X4,40R ,MPV 4M2ZU86E12UJ05732 Bid: 02/27/2001

Engine: 4.0L SOHC Calb: 1U51AF0A Trans: 5R55W

Axie: 3200F3.55C A/C: YES

Dealer Id: 13928 Stu Evans L-M, Garden City, In Ph#: (313) 425-4300

State: Michigan City: Garden City

Orlg/Caller: BRIAN MAHER

Symptom: 8 98 2 98 DRVABL, INDICATOR, CHECK ENGINE, NOT LISTED Addi Sym: P0401, REPEAT CONCERN

St: CCRG/EPRC: Rvwd: Dt:

Fix: Caus. Comp:

Condition Code:

Hotliner: AKNOLL

Phone: 313 317-9375 Regn Cd; 48 Detroit - 48

Engineering:

Phone: TAR:

Dir Contact PHONE NUMBER

Phone: 734 425-4300 Title Cde: SM

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#### JEFF Duclos

4.0L SOHC ENGINE SYSTEMS - CURRENT AND PAST

PH: (313) 24-89567

Text PAGER: (913) 796-3640

EMAIL: JDUCLOS@FORD.COM

P.O.E.E. MD 20 CUBE CE043

Fax: (313) 390-2513

Subject Location:

Kaviico Failure Analysis Sci Lab

Start End:

Thu 4/25/2002 1:00 PM Thu 4/25/2002 4:00 PM Tentative

Show Time As:

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendoes:

Bansak, Catherina (C.K.); Verner, Carol (C.J.); Freeland, Mark (M.)

Baneck, Catherine (C.K.)

Sent:

Wednesday, April 24, 2002 7:39 PM

To: Cc: Freeland, Mark (M.) Verner, Carol (C.J.)

Subject

RE: Testing sensors

I will be at SRL Thursday afternoon to measure voltage. If you are there great, if you are not, please leave the sensors in a box marked so I know where to start.

Carol and I seem to move pretty quickly through them.

Carol, let me know if you can meet me there in Tim's lab for voltage checking.

Thunke,

-Original Message

Promi

Freeland, Mark (M.)

Sent

Tuesday, April 23, 2002 6:46 PM

Te: Ĉа Bernek, Catherine (CJC) Vener, Card (C.J.)

Subjects

RE: Teeting sensors

Looks like Thursday is the next day for testing. I have parts when either of you can test them.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt

Engine Research Department

Ford Research Laboratory

P.O. Box 2053

MD 2629 - SRL - Room 1517

Dearborn, MI 48121-2053 USA

email: mfreelal@ford.com

Tel.: (313) 594-7645

-Original Message-

From: Secto

Bansek, Catherine (C.K.)

Tes

Tuesday, April 23, 2002 11:27 AM

œ

Freeland, Merk (M.)

Verner, Carol (C.J.)

Subject:

RE: Testing sensors

i plan on attending a supplier off-site at Auburn Hits all day.

I can start Thursday afternoon.

If something changes with the off-site, I will come over Wednesday.

Tim's Lab is the voltage check, correct?

--- Original Message

Proes:

Freeland, Mark (M.)

Seemby .

Tuesday, April 23, 2082 10:06 AM

ŦŒ Č۵

Bensek, Catherine (C.K.)

Subject

Vernor, Carol (C.J.) Testing servors

Kathy,

I will have about 75 sensors later today which need testing in Tim's lab before we crack them open. Carol is in training until Thursday, so would you be available tomorrow morning to start testing them?

#### Thanks

# Regards

#### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreelal@ford.com Tel.: (313) 594-7645

---- Original Message-

Promi

Plante, Paul (P.G.)

Tor

Tuesday, April 23, 2002 9:32 AM Freeland, Mark (M.); Verner, Carol (C.J.)

Subject:

I have field return sensors from Field Qluality Engineers (Rick Williamson) at my desk. I will bring to 1:00 PM meeting today. If you want earlier call or page me, or pick up-they are in my office in box on my round table.

Paul Plante V Engine Campaign Prevention Specialist POEE Building, Drop 20, Cube BG049, Pillar D6 Tele, 313-84-54138; Fax 39-02513 Text Pager: 734-298-1905

E Mail: pplante@ford.cm (CDS ID PPLANTE)

Bansek, Catherine (C.K.)

Sent:

Tuesday, April 23, 2002 11:27 AM

To:

Freeland, Mark (M.) Verner, Carol (C.J.)

Cc: Subject

RE: Testing sensors

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-Original Message

Frema

Freeland, Mark (M.)

Sant:

Tuesday, April 23, 2002 10:05 AM

Tei

Bansek, Catherine (C.K.) Verner, Carol (C.J.)

علبج إرشاد

Testing surpors

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Thanks

#### Regards

#### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

-Original Message

Protes

Plante, Paul (P.G.)

To:

Tuesday, April 23, 2002 9:32 AM Preciand, Mark (M.); Verner, Carol (C.J.)

Sk**ibjec**ta

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## Paul Plante

V Engine Campaign Prevention Specialist POEE Building, Drop 20, Cube BG049, Pillar D5 Tele. 313-84-54138; Fax 39-02513

Text Pager: 734-296-1905

E Mail: pplante@ford.cm (CDS ID PPLANTE)

Bensek, Catherine (C.K.)

Sent: To: Monday, April 22, 2002 4:16 PM

To: Co: Freeland, Mark (M.); Verner, Carol (C.J.) Gates, Freeman (F.C.); Johnson, Joe (J.H.)

Sublect:

Keviico Fallure Anglysis

My Tuesdays are full of meetings, but I've got time Wed and Thursday afternoon if you want to schedule some "voltage checking" or "microscope looking time for me.

Let me if you need me know so I can plan some time for it.

Catherine Bansek mailto: chansek2@ford.com <mailto:chansek2@ford.com>

Product Design Engineer, EGR Systems

FMEI Dept, V-Engine Engineering

Ford Motor Company

Phone: (313) 323-8101; Fax: (313) 390-4084 POEE MD 69; Column G-15; Cube CQ170

Text Page: 3137965245@alphapage.airtouch.com <mailto:3137965245@alphapage.airtouch.com>

<?xml:nameapace prefix = o ns = "um:schemas-microsoft-com:office:office" />

Bell, Ryen (R.M.)

Sent:

Thursday, April 11, 2002 12:49 PM

To:

Freeland, Mark (M.)

Subject

RE: Wayne Power train Containment Matrix / POR Presentations On April 17th

## Thank you

Ryan Bell (rbell2) uter Black Bell Magter track gas.
Wayne Stamping and Assembly Operations
Ph. (784)467-8876 Fax. (784)467-8882 Ppr. (734)797-8582



Bell, Ryun (R.M.) vcf

#### Ortoinal Measson

Proper

Predand, Mark (M.)

داننده

Thursday, April 11, 2002 12:43 PM Sell, Ryan (R.M.)

RE: Wayne Power train Containment Matrix / PQR Presentations On April 17th

#### Ryan.

I understand where you are coming from, however I just have too many meetings to go to and can not commit to coming to any regular meetings, otherwise I will not get any work done. I will try and attend next weeks meeting.

# Regards

#### Mark Freeland

6-Sigma Black Belt Bugine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

#### --- Original Massage

Fromi

Ball, Ryan (RLML)

Sent

Wednesday, April 10, 2002 4:10 PM

Pashina, Ayodes (A.); Selleck, Beth (B.); Morton, Michael (M.F.); Trombetta, Christopher (C.B.); Creskovald, Peter (P.); Coryea, Kevin (K.W.); Geosziek, Yom (T.M.); Agerwal, Apoorva (A.); Tobis, Bruce (B.J.); Rezaee, John (J.M.); Predand, Mark (M.);

Sitvactive, Shivhari (S.P.)

Ball, Ryan (R.M.); MacDonald, George (G.F.); Dhellwel, Deve (8.S.)

PW: Winyne Power train Containment Matrix / PQR Presentations On April 17th

#### Team,

I would like to know which of you are working on a Powertrain Project and which are not. It is totally unacceptable to not attend the PT VRT meeting if you are working on a 6 sigma project at Wayne. Please let me know if you are getting this in error.

Thank you,

Ryan Beil (risel2) Measter Black Beilt Wayne Stamping and Assembly Operations

Ph. (734)467-6676 Fax. (734)467-8882 Pgr. (734)797-6562

<< File: Bell, Ryan (R.M.).vcf >>

---- Original Message-

Fromz

Srivastava, Shivhari (S.P.)

Sent

Wednesday, April 10, 2002 3:59 PM

Tot

Fashina, Ayodeji (A.); Selieck, Beth (B.); Morton, Michael (N.F.); Trombelta, Christopher (C.B.); Cvelicoeld, Peter (P.); Coryea, Kevin (K.W.); Gwozdek, Tom (T.M.); Agerwel, Apoorva (A.); Tobia, Bruce (B.I.); Rezzee, John (J.H.); Preciand, Mark (M.);

Srivestava, Shivhari (S.P.)

Ccz Subjecti Ditaliwal, Dave (B.S.); Bell, Ryan (R.M.); MacDonald, George (G.F.)
Wayne Power train Containment Matrix / PQR Presentations On April 17th

Team.

If you are working on Focus PT issues then mark your calendar for this meeting. Your presence is very crucial for the success of the team.

WHAT:

Wayne Power train Containment Matrix / PQR Presentations - by G. MacDonald

WHEN:

PT VRT Meeting, 11 - 12 Noon (Presentation From 11:30AM), 04/17/02

WHERE:

Wayne Mayerick Conference Room

#### Note:

We postponed this presentation for next week because only 2 BB's came to attend this meeting. Let us fill the room next week to show our support. Ryan, pl. support the PT VRT and request all PT BB's to attend this meeting.

Thanks

Shivhari Srivastava Body & Chassis Black Belt, G.C.E. (Consumer Driven 6-Sigma) ph. 313-322-5392 / pg. 313-795-8141 Full Name: Last Name:

Bell, Ryan (R.M.)

First Name:

Sell Ryen Black Belt

Job Title: Department: Company:

02190030 - Body Area VO - Vehicle Operations

Business Address:

North Body WAYNE, MI 48184

Businese: Business 2: Home: Mobile:

4878876 1-734-4678676 1-248-5394853 07976562

E-mail:

rbell2@ford.com

Bell, Ryan (R.M.)

الله المرابعة المرابع المصيفة في أن عن منطقة فيها من " المطاعة في الطبقة من الطبقي الأولوبي المرابع والمرابع والمرابع والمرابع والمرابع المرابع والمرابع والم

Sent:

Wednesday, April 10, 2002 4:10 PM

To:

Fashina, Ayodeji (A.); Seleck, Beth (B.); Morton, Michael (M.F.); Trombetta, Christopher (C.B.); Cvetkovski, Peter (P.); Coryee, Kevin (K.W.); Gwozdek, Tom (T.M.); Agarwal, Apoorva (A.); Tobis, Bruce (B.J.); Rezaee, John (J.H.); Freeland, Mark (M.); Srivestava, Shivheri (S.P.)

the interpretable to the experience of the control of the control

Bell, Ryan (R.M.); MacConald, George (G.F.); Dhaliwal, Dave (B.S.)

Go: Subject:

FW: Wayne Power train Containment Matrix / PGR Presentations On April 17th

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# Thank you,

Ryen Bell (ribell2) Muster Black Belt Wayne Stemping and Assembly Operations Ph. (784)467-6678 Fax. (734)467-6682 Pgr. (734)797-8562



Bell, Ryan (R.M.).vcf

#### ----Original Massage----

Frenc:

Srivastavá, Shivhari (S.P.)

Sept: Ter Wednesday, April 10, 2002 3:59 PM

Reshina, Ayodeji (A.); Selleck, Beth (B.); Morton, Michael (M.F.); Trombetta, Christopher (C.B.); Ovetkovski, Peter (P.); Curyea,

Kevin (K.W.); Gwozdek, Tom (T.M.); Agerwal, Apoorve (A.); Tobis, Bruce (B.J.); Rezeee, John (J.H.); Freeland, Mark (M.);

Srivastave, Shivhari (S.P.)

Cer Suitriect: Dhaliwal, Dave (B.S.); Beil, Ryan (R.M.); MacDonald, George (G.F.) Wayne Power train Containment Matrix / PQR Presentations On April 17th

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#### Thanks

Shivheri Srivastave Body & Chassis Black Belt, G.C.E. (Consumer Driven 6-Sigma)

EAS2-827-6 2268

Full Name: Last Name:

First Name:

Job Title:

Department: Company:

Beil, Ryan (R.M.) Beil Ryan Black Belt 02190030 - Body Area VO - Vehicle Operations

Business Address:

North Body WAYNE, MI 48184

Business: Business 2;

4878876 1-734-4676876 1-246-5394653 07978562

Home: Mobile:

E-mail:

rbell2@ford.com

From: Sent Bill Ford [exchmal@ford.com] Monday, August 12, 2002 5:50 PM

To: Subject: All Ford Employees

Note on Certifying Financials

Today, Allan Gilmour and I signed certifications of our financial statements.

I wanted to take this opportunity to reiterate to you that Ford Motor Company will never compromise its integrity, whether in its financial reporting, our business practices or in the products and services we provide to our customers.

Honesty and ethical behavior have been bedrock values of Ford for nearly 100 years. You can be proud of that and secure in the knowledge that I and the rest of your management team will passionately guard our company's good name.

Thanks for all your hard work and unrelenting dedication. With your help, we will ensure that Ford continues to be recognized around the world as a good and trusted company that respects its customers and investors.

A copy of the certification news release follows.

# FORD ANNOUNCES FILING OF CEO, CFO CERTIFICATION STATEMENTS WITH SEC

DEARBORN, Mich., August 12 - Ford Motor Company [NYSE: F] today has filed with the Securities and Exchange Commission (SEC) its quarterly report on Form 10-Q for the quarter ended June 30, 2002. The report contains the certifications with respect to the 10-Q Report that our Chairman and CEO, Bill Ford, and our Vice Chairman and Chief Financial Officer, Allan Gilmour, are required to provide pursuant to the Sarbanes-Oxley Act of 2002.

Messrs. Ford and Gilmour also have submitted to the SEC their swom statements with respect to the company's 2002 Proxy Statement, Annual Report on Form 10-K for the year ended December 31, 2001 and subsequently filed periodic reports required pursuant to the SEC's order issued June 27, 2002.

"Honesty and ethical behavior have been bedrock values of Ford for nearly 100 years and we do not compromise the integrity of our financial reporting, our business practices or the products and services we provide to our customers," said Bill Ford, chairman and CEO.

###

Sent

Brackett, Tom (T.P.) Wednesday, March 20, 2002 12:03 PM Freeland, Mark (M.) Sheun's Home Phone

To:

Subject:

HI Mark,

Jon said you need Shaun's phone #. I hope Shaun dosen't get mad, and please don't call in the morning! (734) 769-3708

Sincerely,

Tom Breckett Vehicle Electronics & Systems 62-14071

Scientific Research Lab.

tbrecket@ford.com

Sent: To:

Brogley, Martin (M.A.) Monday, July 01, 2002 9:00 AM Freeland, Mark (M.)

Subject:

lest car

Mark,

Any word on driving a test car? I will be on vacation July 13, to July 29, so I will not be available to help you

Give me a call if you hear anything.

Martin

Bryant, Bruce (B.D.)

Sent:

Monday, November 04, 2002-10:56 AM

To:

Hamilton, Tom (T.C.)

Çe:

Freeland, Mark (M.)

Subject:

RE: Orders for Engineering Parts: Mazda Tribute PCMs

Okay, thanks. I'll direct him to Rose.

Mark - Rose's e-mail is MGOSSMAN.

Cordially,

Bruce Bryant, 6 Sigma Master Blackbelt, Ford Research Laboratory bbryant2@ford.com 001-313-390-6750

----Original Message----

From: Hamilton, Tom (T.C.)

Sent: Monday, November 04, 2002 10:16 AM

To: Eryant, Bruce (B.D.)

Subject: RE: Orders for Engineering Parts: Mazda Tribute PCMs

Rose Gossman has some experience with GPIRS. I don't, Tom

----Original Message----

From: Bryant, Bruce (B.D.)

Sent: Sunday, November 03, 2002 1:42 PM

To: Freeland, Mark (M.) Co: Hamilton, Tom (T.C.)

Subject: RE: Orders for Engineering Parts: Mazda Tribute PCMs

Mark - I don't know, but Tom Hamilton should know - I'm coing him.

#### Bruce

----Original Message----

From: Freeland, Mark (M.)

Sent: Friday, November 01, 2002 10:06 AM To: Bryant, Bruce (B.D.); Jensen, Ted (T.E.)

Cc: Verner, Carol (C.J.)

Subject: FW: Orders for Engineering Parts: Mazda Tribute PCMs

Importance: High

Bruce of Ted,

Do you know if we use the GPIRS system to order parts here at SRL, if so can you point me to someone who has access and knows how to do it.

Thanks

Regards

Mark Freeland

> 6-Sigma Black Belt

EA62-827-6 2225

- > Engine Research Department > Ford Research Laboratory > P.O. Box 2053 > MD 2629 - SRL - Room 1517 > Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645
- ----Original Message-----From: Verner, Carol (C.J.)

Sent: Friday, November 01, 2002 9:33 AM

To: Freeland, Mark (M.)

Subject: FW: Orders for Engineering Parts: Mazda Tribute PCMs

Importance: High

#### Mark,

Do you know if Sci-Lab uses the GPIRS system to order parts. POEngineEngineering does not use GPIRS. North Penn will not ship the PCMs unless the order is in GPIRS. I am thinking that if SCILAB uses GPIRS then I will try to find out if you may order them and uses our department number.

#### Carol

----Original Message----From: O'Neall, Jim (J.D.)

Sent: Wednesday, October 30, 2002 4:53 PM

To: Verner, Carol (C.J.) Cc: Maurer, James (J.B.)

Subject: FW: Orders for Engineering Parts: Mazda Tribute PCMs

Importance: High

Go for it. If you don't know how to execute a GPIRS order please call Joe Rey.

#### J. D. O'Neall

Manager, Fuel Metering, Emissions, and Ignition Dept V-Engine Engineering, Ford Motor Company joneall@ford.com, 313-322-6839

----Original Message----

From: Rey, Joseph (J.A.) [mailto:jreyl@visteon.com]

Sent: Wednesday, October 30, 2002 3:21 PM

To: 'O'Neall, Jim'

Subject: FW: Orders for Engineering Parts: Marda Tribute PCMs

Importance: High

#### Jim,

I'm sorry to hear that Carol has had such difficulty getting this orders processed. If Carol resubmits the order as a GPIRS order then North Penn will ship within 48 hours of receiving this order. See note below from Alan Trilling at North Penn. If you need any additional assistance don't besitate to call.

Thanke.

> Joe Rey Sales Manager Powertrain Blectronics Visteon Corporation Phone: 313-755-5295

Fax: 313-755-8075 Cell: 313-378-1817

----Original Message---From: Trilling, Alan (A.S.)

Sent: Wednesday, October 30, 2002 7:03 AM

To: Rey, Joseph (J.A.); Dean, Brock (B.G.); D'Arcy, William (W.)

Cc: Ridgway, Robert (R.W.); Fad, Richard (R.M.)

Subject: RE: Orders for Engineering Parts: Mazda Tribute PCMs

### Joe:

I recommend that Jim place a GPIRS order, in which NPEF could fill within 48 hours of receipt.

Regarde,

Alan 8. Trilling

Visteon - North Penn Electronics Facility, LLC

Material Planning Specialist

Phone #: (610) 584-7942 Fax #: (610) 584-7145

E-Mail: ATRILLINGVISTEON.COM

----Original Message----

From: O'Neall, Jim (J.D.) [mailto:joneall@ford.com]

Sent: Friday, October 25, 2002 7:16 AM

To: 'cweed@visteon.com'

Co: Verner, Carol (C.J.); Maurer, James (J.B.)

Subject: FW: Orders for Engineering Parts: Mazda Tribute FCMs

Craig - we could sure use your help on this one to forward it to the right Visteon contact. We need a specific PCM that we have been trying to order out of North Penn for months. This PCM is needed for a Mazda Tribute, a buy back vehicle. This vehicle is parked and until we get the PCM, it cannot be auctioned off. You can see from the string of notes below some of the details including the part number. Any help that you can provide would be appreciated. For a contact on our side please contact Carol Verner. Thanks.

J. D. O'Neall

Manager, Fuel Metering, Emissions, and Ignition Dept V-Engine Engineering, Ford Motor Company joneall@ford.com, 313-322-6839

> ----Original Message----

> From: Verner, Carol (C.J.)

> Sent: Tuesday, October 22, 2002 1:40 PM

> To: O'Neall, Jim (J.D.)

> Subject: FW: Orders for Engineering Parts: Mazda Tribute PCMs

> Jim,

```
> I spoke with Jim Simpson this morning and he said that we cannot use the FAB
account to allow Ford of Taiwan to purchase a PCM for a buyback Mazda Tribute to
replace the one sent to Mark Freeland. Jim recommended I ask you to send a note
to Powertrain Purchasing Manager for assistance to get Visteon (North Penn) to
ship the modules. The original RPS # 200200913 was placed back around the May
1.2002 time frame. The buyer and I were not successful getting Visteon to ship so
Kristen asked for assistance from her supervisor Tom Kotz prior to his
retirement. As of this afternoon, the CMMS parts inventory system still shows
that the modules have not been shipped. Taiwan is waiting for the replacement
PCM in order to repair the vehicle for auction.
> Regards,
> Carol
  ----Original Message-----
          Kotz, Tom (T.S.)
> From:
          Mednesday, June 19, 2002 10:57 AM
> Sent:
> To: 'atrillingvisteon.com'
> Cc: Bullock, Kristen (K.); Verner, Carol (C.J.)
> Subject: Orders for Engineering Parts
> Alan.
> I have tried to reach you without success. I did receive your voice mail
message to contact Joe Ray and have left several messages for him without
success. I am told that you have an issue with the ZZ part numbers and are
unwilling to ship our requirements because you do not have a print showing the ZZ
part number.
> Below is a screen copy of a bulletin on the CMMS bulletin board dated 10/25/01
titled "PTO PrototypeSuppliers: Reminders/Hints" - it is republished
approximately every 6 months - that instructs all suppliers how to handle the ZZ
in the fourth position of the part number.
> Powertrain has been using CMMS for ordering prototype parts for nearly 3 years
now and this is not a problem for our other suppliers. In fact, all of the other
Visteon locations that supply prototypes, including Rawsonville and El Jarudo, do
not seem to have any issue with this.
> May I politely request that you please ship us our requirements in line withh
your releases?
> This includes ;
                           YBLA-12A650-AA-ZZ
                                                 1 PC.
                218A-12A650-AD-ZZ
                                      2 PC.
                2L8A-12A650-CD-ZZ
                                      1 PC.
> If you have any questions or do not agree with these instructions, it is very
important that you contact me immediately.
   CMMSAHOA
                        BULLETIN BOARD TOPIC DETAIL
                                                                 06/19/02
10:30:27
                                                                    LOCATION CMMS
  TOPIC: PTO PROTOTYPE SUPPLIERS: REMINDERS/HINTS
                                                        Delete Date: 11/24/03
 Func Cat: DDL Func Cat Desc: Direct Data Link for Suppliers
> Change Request/Problem Report Number: ____
                                                   Sponsoring Organization:
 Updated By: SCHERER, RON
                                                   Phone: (313) 32-36811
      Narrative
```

5. Releases for part numbers with 'ZZ' in the fourth position (control code) part number field are to be treated exactly as the Prefix-Base-Suffix part, including prints, purchase order, etc. These parts are ordered by Engineering and the 'ZZ' allows unique ship directions to suppliers, as well as internal inventory control.

> Tom Kots > Supervisor Powertrain PFM > Suite 500 > Fairlane Plaza North > Telephone (313) 206-4421 - Fax (313) 594-1337 > Mail to: tkotzeford.com

> >

>

>

> > >

Bryant, Bruce (B.D.)

Sent:

Sunday, November 03, 2002 1:42 PM

To: Cc:

Freeland, Mark (M.) Hamilton, Tom (Y.C.)

Subject:

RE: Orders for Engineering Parts: Mazda Tribute PCMs

Mark - I don't know, but Ton Hamilton should know - I'm coing him.

### Bruce

----Original Message----

From: Freeland, Mark (M.)

Sant: Friday, November 01, 2002 10:06 AM

To: Bryant, Bruce (B.D.); Jensen, Ted (T.E.)

Cc: Vermer, Carol (C.J.)

Subject: FW: Orders for Engineering Parts: Mazda Tribute PCMs

Importance: High

# Bruce ot Ted,

Do you know if we use the GPIRS system to order parts here at SRL, if so can you point me to acmeone who has access and knows how to do it.

### Thanks

# Regards

### Mark Freeland

- > 6-Sigma Black Belt
- > Engine Research Department
- > Ford Research Laboratory
- > P.O. Box 2053
- > MD 2629 SRL Room 1517
- > Dearborn, MI 48121-2053 USA

email: mfreelal@ford.com

Tel.: (313) 594-7645

----Original Message----From: Verner, Carol (C.J.)

Sent: Friday, November 01, 2002 9:33 AM

To: Freeland, Mark (M.)

Subject: FW: Orders for Engineering Parts: Mazda Tribute PCMs

Importance: High

### Mark,

Do you know if Sci-Lab uses the GPIRS system to order parts. POEngineEngineering does not use GPIRS. North Penn will not ship the PCMs unless the order is in GPIRS. I am thinking that if SCILAB uses GPIRS then I will try to find out if you may order them and uses our department number.

### Carol

----Original Message----From: O'Neall, Jim (J.D.)

Sent: Wednesday, October 30, 2002 4:53 PM

To: Verner, Carol (C.J.) Co: Maurer, James (J.B.)

Subject: FW: Orders for Engineering Parts: Mazda Tribute PCMs

Importance: High

Go for it. If you don't know how to execute a GPIRS order please call Joe Rey.

J. D. O'Neall Manager, Fuel Metering, Emissions, and Ignition Dept V-Engine Engineering, Ford Motor Company joneall@ford.com, 313-322-6839

----Original Message----

From: Rey, Joseph (J.A.) [mailto:jrey1@visteon.com]

Sent: Wednesday, October 30, 2002 3:21 PM

To: 'O'Neall, Jim'

Subject: FW: Orders for Engineering Parts: Masda Tribute PCMs

Importance: High

Jim,

I'm sorry to hear that Carol has had such difficulty getting this orders processed. If Carol resubmits the order as a GPIRS order then North Penn will ship within 48 hours of receiving this order. See note below from Alan Trilling at North Penn. If you need any additional assistance don't hesitate to call.

Thanks,

> Joe Rey Sales Manager Powertrain Electronics Visteon Corporation Phone: 313-755-5295 Fax: 313-755-8075 Call: 313-378-1817

----Original Message----

From: Trilling, Alan (A.S.)

Sent: Nednesday, October 30, 2002 7:03 AM

To: Rey, Joseph (J.A.); Dean, Breck (B.G.); D'Arcy, William (W.)

Cc: Ridgway, Robert (R.W.); Fad, Richard (R.M.)

Subject: RE: Orders for Engineering Parts: Mazda Tribute PCMs

Joes

I recommend that Jim place a GPIRS order, in which NPEF could fill within 48 hours of receipt.

Regards,

Alan S. Trilling

EA62-627-G 2232

```
Visteon - North Penn Electronics Facility, LLC
Material Planning Specialist
Phone #: (610) 584-7942
Fax #: (610) 584-7145
E-Mail: ATRILLINGVISTEON.COM
----Original Message-----
From: O'Neall, Jim (J.D.) [mailto:joncall@ford.com]
Sent: Friday, October 25, 2002 7:16 AM
To: 'cweed@visteon.com'
Cc: Verner, Carol (C.J.); Maurer, James (J.B.)
Subject: FW: Orders for Engineering Parts: Mazda Tribute PCMs
Craig - we could sure use your help on this one to forward it to the right
Visteon contact. We need a specific PCM that we have been trying to order out of
North Penn for months. This PCM is needed for a Mazda Tribute, a buy back
vehicle. This vehicle is parked and until we get the PCM, it cannot be auctioned
off. You can see from the string of notes below some of the details including the
part number. Any help that you can provide would be appreciated. For a contact on
our side please contact Carol Verner. Thanks.
J. D. O'Neal1
Manager, Fuel Metering, Emissions, and Ignition Dept
V-Engine Engineering, Ford Motor Company
joneall@ford.com, 313-322-6839
 -----Original Message----
> From:
           Verner, Carol (C.J.)
           Tuesday, October 22, 2002 1:40 FM
> Sent:
> To: O'Neall, Jim (J.D.)
> Subject: FW: Orders for Engineering Parts: Mazda Tribute PCMs
> Jim,
> I spoke with Jim Simpson this morning and he said that we cannot use the FAB
account to allow Ford of Taiwan to purchase a PCM for a buyback Mazda Tribute to
replace the one sent to Mark Freeland. Jim recommended I ask you to send a note
to Fowertrain Purchasing Manager for assistance to get Visteon (North Penn) to
ship the modules. The original RPS # 200200913 was placed back around the May
1.2002 time frame. The buyer and I were not successful getting Visteon to ship so
Kristen asked for assistance from her supervisor Tom Kotz prior to his
retirement. As of this afternoon, the CMMS parts inventory system still shows
that the modules have not been shipped. Taiwan is waiting for the replacement
PCM in order to repair the vehicle for auction.
> Regards,
> Carol
> ----Original Message----
          Kotz, Tom (T.S.)
> From:
           Wednesday, June 19, 2002 10:57 AM
> Sent:
> To: 'atrillingvisteon.com'
> Cc: Bullock, Kristen (K.); Verner, Carol (C.J.)
> Subject: Orders for Engineering Parts
> Alan,
> I have tried to reach you without success. I did receive your voice mail
message to contact Jos Ray and have left several messages for him without
```

```
success. I am told that you have an issue with the ZZ part numbers and are
unwilling to ship our requirements because you do not have a print showing the ZZ
part number.
> Below is a screen copy of a bulletin on the CMMS bulletin board dated 10/25/01
titled "PTO PrototypeSuppliers: Reminders/Hints" - it is republished
approximately every 6 months - that instructs all suppliers how to handle the ZZ
in the fourth position of the part number.
> Powertrain has been using CMMS for ordering prototype parts for nearly 3 years
now and this is not a problem for our other suppliers. In fact, all of the other
Visteon locations that supply prototypes, including Rawsonville and El Jarudo, do
not seem to have any issue with this.
> May I politely request that you please ship us our requirements in line witth
your releases?
> This includes ;
                           Y8LA-12A650-AA-ZZ
                                                 1 PC.
                2L8A-12A650-AD-ZZ 2 PC.
>
                2L8A-12A650-CD-ZZ
                                      1 PC.
> If you have any questions or do not agree with these instructions, it is very
important that you contact me immediately.
  CMMSAHOA
                       BULLETIN BOARD TOPIC DETAIL
                                                                 06/19/02
10:30:27
                                                                    LOCATION CMMS
 TOPIC: PTO PROTOTYPE SUPPLIERS: REMINDERS/HINTS
                                                        Delete Date: 11/24/03
> Func Cat: DDL Func Cat Desc: Direct Data Link for Suppliers
> Change Request/Problem Report Number: _____
                                                   Sponsoring Organization:
> Updated By: SCHERER, ROW
                                                   Phone: (313) 32-36811
>
     Narrativa
>
>
>
      5. Releases for part numbers with 'ZZ' in the fourth position (control
>
>
>
          code) part number field are to be treated exactly as the Prefix-Base-
          Suffix part, including prints, purchase order, etc. These parts are
>
          ordered by Engineering and the 'ZZ' allows unique ship directions to
>
          suppliers, as well as internal inventory control.
>
>
>
>
> Tom Kotz
> Supervisor Powertrain PPM
> Suite 500
> Fairlane Plaza North
> Telephone (313) 206-4421 - Fax (313) 594-1337
> Mail to: tkotz@ford.com
>
```

Bryant, Bruce (B.D.)

Sent:

Monday, October 14, 2002 9:13 AM

To:

Freeland, Mark (M.)

Bubject:

RE: dPFE Filter Test Results to date

Thanks for the info.

### Cordially,

Bruce Bryant, & Sigma Master Blackbelt, Ford Research Laboratory bbryant2fQford.com 001-313-390-6750

# ----Original Message----

(Troins

Preciand, Mark (M.)

**Gent**:

Thursday, October 10, 2002 8:35 PM Koszewnik, John (J.J.); O'Neall, Jim (J.D.)

To: O≃

Davis, George (G.C.); Mourer, James (J.B.); Gabes, Freeman (F.C.); Verner, Carol (C.J.); Alles, Sheran (S.A.); Kotwicki, Allan (A.J.);

Bryant, Bruce (B.D.); McCoy, James (J.D.)

Subjects

dPFE Filter Test Results to date

John.

The attached workbook summarizes the testing that I have conducted to date on the proposed filter design. Rev. 1.5.

I have tested back to back 2001 MY dPFE, the current production dPFE, and two copies of the Rev 1.5 filter (one with the original MOV and the other with Kaviico's proposed silicon drop in replacement).

I do not have the multi point vehicle failure mode test data nor the ESD test data yet. For the tests that I have conducted to date the Rev. 1.5 filter is "builet proof". I have catastrophically failed a number of the 2001 MY and current production devices, but have not yet to observe any degradation in either of the two parts which are protected with the Rev. 1.5 filter.

I have also attached the complete set of results with raw data for the SCR Latch Threshold Statistics, which compares the 2001 MY, the current production Dalsa die parts and the ESM. The data set also includes the die level latch threshold for the 2001 MY die.

<< File: Filter Rev 1\_5 Test Results.xis >> << File: SCR Latch Threshold Statistics.rtf >>

### Regards

### Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreels1@ford.com
Tel.: (313) 594-7645

Sent:

Bryant, Bruce (B.D.) Thursday, October 10, 2002 7:52 PM Freeland, Mark (M.)

To:

Subject

update

# Mark:

It looks like I won't be able to track you down any time soon. Could you please give me a brief overview of what you're working on and how long you plan to do it? Thanks.

# Cordially,

Bruce Bryant, 6 Sigma Master Blackbelt, Ford Research Laboratory bbryant2@ford.com 001-313-390-6750

Bryant, Bruce (B.D.)

Sent

Friday, September 20, 2002 6:14 PM

To: Co; Freeland, Mark (M.) Wel, Kuang (K.C.)

**Bublect:** 

service procedure changes

# Mark

Kuang Wei, another FRL BB, and I are wondering how to get a service fix/procedure change implemented. He has a project at Wixom for which he has a fix, but we'd also like to get the fix into the dealers' hands.

Specifically, a plastic tether on the (+) lead from the starter can point in one of two directions when it is installed. In one orientation, there's no problem, but in the other, it blocks a drain hole and causes water to build up and come in contact with the passenger compartment air filter, causing musty oder and defogging problems. We'd like to get two procedure changes in place at the dealer—one to show them how to correctly orient the tether when replacing a starter, and the other to have them correct the tether position when customers complain of musty odor.

Since you've had substantial dealings with dealers in the course of your dPFE sensor projects, we were wondering if you could direct us in getting these service policy changes instantiated.

### Cordially,

Bruce Bryant, 6 Sigma Master Blackbelt, Ford Research Laboratory bbryant2@ford.com 001-313-390-6750

Bryant, Bruce (B.D.)

Sent:

Friday, August 30, 2002 5:41 PM

To:

Freetand, Mark (M.)

Subject

RE: 6-Sigma Project 5120 -Ready to Evaluate for Sustainment

Go shead and squeeze a meeting into my calendar.

Cordially,

Bruce Bryant, 6 Sigma Master Blackbelt, Ford Research Laboratory bbryant2@ford.com 001-313-390-6750

----Original Message---From: Freeland, Mark (M.)

Sent: Thursday, August 29, 2002 5:39 PM

To: Bryant, Bruce (B.D.) Co: Miller, Pamela (P.M.)

Subject: FW: 6-Sigma Project 5120 -Ready to Evaluate for Sustainment

# Bruce & Pamela

We need to get together to discuss financials for projects #5120, 5228 and 7163, this is face to face stuff, don't think we can cover with emails. When would be good for you? I will manage to squeeze it in some how.

# Regards

# Mark Freeland

- > 6-Sigma Black Belt
- > Engine Research Department
- > Ford Research Laboratory
- > P.O. Box 2053
- > MD 2629 SRL Room 1517
- > Dearborn, MI 48121-2053 USA

email: mfreelal@ford.com Tel.: (313) 594-7645

-----Original Message-----From: Miller, Pamela (P.M.)

Sent: Thursday, August 29, 2002 7:58 AM

To: Freeland, Mark (M.)

Subject: FW: 6-Sigma Project 5120 -Ready to Evaluate for Sustainment

## Mark,

Do you have any documentation to support the financial savings projected for this project??? I need your concurrence in PTS that the anticipated savings have been achieved and sustained so that we can submit this project for "OK to End" status. Thanks!!!

Pamela Miller Global Product Development Finance (313)32-30871 / Fax: (313)24-86680

PRE2-827-G 2248

----Criginal Message-----

From: 6sigma@ford.com [mailto:6sigma@ford.com]

Sent: Thursday, August 29, 2002 3:10 AM

To: mfreelal@ford.com; mhardie@ford.com; pmiller@ford.com

Subject: 6-Sigma Project 5120 -Ready to Evaluate for Sustainment

Important message on 6-Sigma Project 51201

Project 5120 has been closed for 180 days. Please take the necessary actions to determine if this project is sustained. Before the Black Belt, Mark Freeland can request the approval for OK to End, the Financial Analyst, Pamela Miller will need to check if the project financials reflect the actuals and make any necessary adjustments. The Financial Analyst is then required to click the SEND EMAIL on the financial screen to alert the Black Belt the project is ready to be sub mitted for OK to End.

this email was sent otherwise the project status will automatically change to

IMPORTANT! The request for OK to End needs to be submitted within 60 days of when

End-Unsustained.

Bryant, Bruce (B.D.)

Sent:

Thursday, August 22, 2002 6:50 PM

To:

Freeland, Mark (M.)

Subject:

RE: your meeting with j. Keenick

I'm out tomorrow, too late today, will CU next week.

# Cordinity,

Bruce Bryant, & Sigma Master Blackbelt, Ford Research Laboratory bbrycmt2@ford.com 001-313-390-6750

From:

---Original Message Freeland, Hark (M.)

Žent:

Thursday, August 22, 2002 5:28 PM

Bryant, Bruce (8.D.)

RE: your meeting with J. Koanick

Had three so far, come see me and I will fill you in.

# Regards

### Mark Freeland

6-Sigma Black Belt Ragine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Deerborn, MI 48121-2053 USA email: mfreels1@ford.com Tel: (313) 594-7645

-Original Massage

Fronts

Sent:

Bryant, Bruce (B.D.) Thursday, August 22, 2002 5:58 PM

Tos

Fredand, Mark (M.)

Subjects

RE: your meeting with j. Kounick

Well, how did it go?

# Cordially,

Bruce Bryant, & Sigma Master Blackbelt, Ford Research Laboratory bbryant2@ford.com 001-313-390-6750

-Original Message-

Proper

Freeland, Mark (M.)

**Dent** 

Tuesday, August 20, 2002 1:07 PM

Styant, Bruce (B.D.)

**Bubject**:

RE: your meeting with j. Kounick

Thanks for you're thoughts. Will let you know how it goes.

# Regards

Mark Preciand

6-Sigma Black Belt

E082-827-G 2242

Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreelal@ford.com Tel.: (313) 594-7645

--Original Massage

Front

Brysint, Bruce (B.D.)

Sent

Tuesday, August 20, 2002 12:27 PM

To:

Subject:

Freeland, Mark (M.) your meeting with j. Koenick

Just a thought, Mark-If Mr. Kosnick (sp?) does give you the heave-ho from the Kavlico sensor 6 Sigma work, try to get him to tell your

1) why your support is no longer needed/welcome, and

2) who is going to be continuing the investigation, and if they want the return parts.

Good luck. Bruce

Bryant, Bruce (B.D.)

Sant

Thursday, August 22, 2002 5:58 PM

To:

Freeland, Mark (M.)

Subject:

RE: your meeting with j. Kosnick

Well, how did it go?

# Cordially,

Bruce Bryant, ó Sigma Master Blackbelt, Ford Research Laboratory bbryant2@ford.com 001-313-390-6750

# Original Nessage

Promi

Procland, Mark (N.)

<u>Sant</u>:

Tuesday, August 20, 2002 1:07 PM

To:

Bryant, Bruce (B.D.)

Seldeck

RE: your meeting with j. Kosnick

Thanks for you're thoughts. Will let you know how it goes.

# Regards

### Mark Precland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com Tel.: (313) 594-7645

# ---- Original Measurge

Promi

Bryant, Bruce (B.D.)

Şent:

Tuesday, August 20, 2002 12:27 PM

Toq

Freeland, Mark (M.)

Subject

your meeting with j. Kosnick

Just a thought, Mark–if Mr. Kosnick (sp?) does give you the heave-ho from the Kavlico sensor 6 Sigms work, try to get him to tell you:

- why your support is no longer needed/welcome, and
- who is going to be continuing the investigation, and if they want the return parts.

### Good luck.

Bruce

er Madirisally Peral Research Lash

Sent:

Bryant, Bruce (B.D.) Tuesday, August 20, 2002 12:27 PM

To:

Subject:

Freeland, Mark (M.) your meeting with J. Kosnick

Just a thought, Mark-If Mr. Kosnick (sp?) does give you the heave-ho from the Kavlico sensor 6 Sigma work, try to get him to tell you:

- 1) why your support is no longer needed/welcome, and
- who is going to be continuing the investigation, and if they want the return parts.

Good luck, Bruce

Breve Bryant, bisynalaffordaun, 401-213-90-06750 Six Sigma Marter Blackball, Ford Research Leberat

Subject: Location:

dpře project mark's cube 1517 ari

Start: End:

Thu 8/1/2002 3:00 PM Thu 8/1/2002 4:00 PM Tentative

Show Time As:

Recurrence:

(enon)

Meeting Status:

Not yet responded

Required Attendese:

Bryant, Bruce (B.D.); Freeland, Mark (M.)

we'll discuss the recent decisions re-dofe warrantees/root cause analysis & Impact on Mark's work

Sent:

Bryant, Bruce (B.D.) Wednesday, July 31, 2002 2:51 PM

To: Subject:

Freeland, Mark (M.) project 5228

Mark:

We're cleaning up the PTS and also checking on the status of projects that are more than a year old. Your project, #5228, is one of those projects, and of course I know your main work is with the 14D team, but we also need to figure out how to characterize your work within the 6 Sigms framework. I'd like to get together with you some time soon to discuss your progress with the dofe work. When would you be available?

Fir Myrne Marter Blackball, Ford Bassard: Laborate

Bryant, Bruce (B.D.)

Sent

Tuesday, July 09, 2002 5:08 PM

To:

Freeland, Mark (M.)

Subject:

RE: progress on dPFE work

Unfortunately I am hideously overcommitted on Thursday afternoon, but please let me know what comes out of the meeting, and also, how did your trip to Kaviico go?

Let me know when the Chiefs' meeting is.

### ¢ombally,

Brum Bryant, blayent2Pford.com, 001-513-50-04750 32x Signer Martin Direction, Ford Research Laborate

-Original Message-

From

Freeland, Merk (M.)

Sont

Tuesday, July 09, 2002 12:15 PM

Subject:

Bryant, Bruce (B.D.) RE: progress on dPFE work

Bruce.

The Chief Engineers meeting is likely to be while I am on vacation! I would suggest you join us for the prep meeting for this which will be at 1:00 pm on Thursday over at POEE. As you might like to attend the Chief's meeting.

Call me and let me know if you can attend. Thanks

### Regards

### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA omail: mfreels1@ford.com Tel.: (313) 594-7645

-Original Message-

Franı

Bryant, Bruce (B.D.)

Sent:

Monday, July 01, 2002 10:01 AM

Tet Subjects Preeland, Merk (NL) progress on dPFE work

Mark:

How are things going? I haven't heard anything from you lately on the dPFE work, so I was wondering how it's going, and if there's anything with which you could use my assistance. As I recall, we left off a couple weeks ago with Paul Duffy agreeing to try to free up resources at EESE for help. Did anything come of that? Also, has Graham Hoare been to the V6 Directors' meetings?

The last I heard on the subject from EESE is when Dante told me that Rob Rossi and Sheran Alies are testing some vehicles for transients but don't believe that transients of sufficient energy as to invoke the latch mode

could happen. M forward you the note if you'd like.

Cardially, Drum Bryank, hibryant 2014 - Loom, 401-213-20

Bryant, Bruce (B.D.)

Sent:

Monday, July 01, 2002 3:54 PM

To: Subject: Freeland, Mark (M.) RE: progress on dPFE work

okay, sounds good, have a good trip.

Sin Stome Heater Manipully Your Street he bee

Production:

Frederic, Mark (M.)

Sent

Monday, July 01, 2002 3:53 PM

Tat

Bryant, Bruce (B.D.)

كميارشين

RE: progress on dPFE work

Bruce.

Leaving for airport in 10 mins, to go to Kavilco, Please call me after 4:00 pm on my cell (248) 842-1080 & I will give you an update.

# Regards

### Mark Freeland

6-Sigma Black Belt · Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

--Original Message:

From:

Bryant, Bruca (B.D.)

Senta

Monday, July 01, 2002 10:01 AM Freeland, Mark (M.)

Subjects

progress on dPFE work

# Mark:

How are things going? I haven't heard anything from you lately on the dPFE work, so I was wondering how it's going, and if there's anything with which you could use my essistance. As I recall, we left off a couple weeks ago with Paul Duffy agreeing to try to free up resources at EESE for help. Did anything come of that? Also, has Graham Hoere been to the V6 Directors' meetings?

The last liheard on the subject from EESE is when Dante told me that Rob Rossi and Sheran Alice are testing some vehicles for transients but don't believe that transients of sufficient energy as to invoke the latch mode could happen, i'll forward you the note if you'd like.

d, binyant#flord.com, 001-252-35-96555 He Mama Master Bladeball, Ford Research Laboratory

Sent:

Bryunt, Bruce (B.D.) Monday, July 01, 2002 10:01 AM

To: Subject: Freeland, Mark (M.) progress on dPFE work

### Mark:

How are things going? I haven't heard anything from you lately on the dPFE work, so I was wondering how it's going, and if there's anything with which you could use my assistance. As I recall, we left off a couple weeks ago, with Paul Duffy agreeing to try to free up resources at EESE for help. Did anything come of that? Also, has Graham Hoars been to the V6 Directors' meetings?

The leat I heard on the subject from EESE is when Dante told me that Rob Rossi and Sheran Alies are testing some vehicles for transferts but don't believe that transferts of sufficient energy as to invoke the latch mode could happen. I'll forward you the note if you'd like.

en Musier Musichelt, Ford Besourch Labora

Bryant, Bruce (B.D.)

Sent

Tuesday, June 25, 2002 1:03 PM

To:

Freeland, Mark (M.)

Cc; Subject: Thakur, Arunima (A.)
FW: Ground transients and cesspool of current

Mark:

This was intended for you.

Arumina:

We'll see what we can find. Sounds like an issue for Body Electrical, I have a friend who either works there now or used to work there.

### والمتنصة

Bruen Bryant, bisyemigPford,com, 901-109-00-94780 Sa Sigma Hinter Moddydb, Yard Bastensk ("Sassebary

--- Original Nessage---

**HEIGHT** 

Thekur, Arunima (A.)

Senti

Tuestiny, June 25, 2002 11:06 AM

To: Ce Bryant, Bruce (B.D.); McNorton, Michael (M.C.)

Freeman, Mark (ML)

**Subject:** 

Ground transferts and cesspool of current

Dear Bruce.

We had met at Dante's desk the other day about Mark Freeman's project on DPFE sensor and related issues. Since then I have been involved with the Super Duty (Tough Truck) starter failures on the field. For some strange reason the Junction box, which has several fuses gets a spike and blows up.

I was trying to find out who would be a resident expert on grounding/ transient currents that float in the ceaspool that is the chassis of our vehicles and things that could affect a splike ..... Do you or Mark know of a SRL expert? or an RVT expert (I realize that you have some reservations about RVT at EESE).

Any leads would be great. Mike Mc Norton (Supervisor, EE systems, Tough Trucks) and I are looking for clues.

Theriks

### Armina Thabur

Consumer Driven Stx Sigma Black Sett (Candidate)

Building: AVT-5/2G103, attrakur@ford.com, Ph:313-317-7244 EESE, Global Core Engineering.

Bryant, Bruce (B.D.)

Sent

Thursday, June 13, 2002 3:46 PM

To:

Thakur, Arunima (A.)

Cc:

Freeland, Mark (M.); Crockett, Dente (D.K.)

Subject:

RE: BB help from EESE

For some background on the project, I recommend that you look at Mark Freeland's dPFE sensor-related projects on the PTS. He's MFREELA1. In particular, you may wish to examine the attachment "Warranty data for all applications at 3 MIS" on project 5228 to get a feel for the "systems" aspect of the issue, and the attachment "Initial Report on UPAD inspection" on project 7163 to help understand some of what's happening on the more microscopic level.

Mark's projects have mainly focused on understanding the problem and protecting the sensor from damage. and the direction that we're now going is to look at possible issues with the electrical environment which may be contributing to the problem.

Brace Beyent, bheyants@ford.com, 001-271-59-00750 Ha Hysia Master Workhill, Ford Beregrah Laboratory

Original Message

From:

Thekur, Arunima (A.)

Semb

Thursday, June 13, 2002 12:27 PM

To:

Bryant, Bruce (B.D.)

Bubject:

be help from EESE

### Dear Bruce.

I have invited myself to the meeting tomorrow from 2:30 to 3:30 at Dante's desk, I look forward to meeting you there. Is there any background research I could read up on tonight, that may help me? I have secure ID, so feel free to send any attachments via e-mail, even if it is later in the day.

# Armina Shakur

Consumer Driven Stx Sigma Black Belt (Candidate) Building: AVT-5/2G103, ethalour@ford.com, Ph;313-317-7244 EESE, Globel Core Engineering.

Bryant, Bruce (B.D.)

Sont:

Thursday, June 06, 2002 10:19 AM

Ta;

Freetand, Mark (M.)

Subject

RE: Updated: EESÉ support of FRL 8B projects

couldn't hurt, why don't you invite him?

### Cardinlle.

Bruse Beyont, birpants Flordisses, 001-525-09-00750 the Hymn Huster Blogistall, Ford Mesoards Luberators

---Original Massage Prem: Fr

Freeland, Mark (M.)

Sent

Thursday, June 06, 2002 10:15 AM

To:

Bryant, Bruce (B.D.)

Subject

FW: Updated: EESE support of FRL 88 projects

Bruce.

Should Dante be invited to this afternoon's meeting?

Recards

# Mark Freeland

6-Sigma Black Belt
Regime Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

---- Original Massage ----

Froms

Crockett, Dante (D.K.)

Sent

Thursday, June 06, 2002 6:21 AM

Tor

Freeland, Mark (M.)

Subject:

RE: Updated: EESE support of FRL 88 projects

I would prefer to meet with you and Bruce Bryant to start to gauge how my activity, EESE 6-sigma, can assist you. Keith Frazier and Tom Hermann sit close to me so if we need their input, we can still get it.

### --- Oxiginal Appointment----

From: Sants Fredand, Mark (M.)

Tor

Wednesday, June 05, 2002 4:54 PM

200

Crockett, Dente (D.K.)

**Gubject**:

Accepted: Updated: EESE support of FRL BB projects

Wheni

Friday, June 14, 2002 2:30 PM-3:30 PM (GMT-05:00) Eastern Time (US & Canada).

Where

Crockett's desk - #5, 2A106

# Thanks.

Should we also invite the EESE people who are currently involved?

A new name has just been added to the EESE participants, Keith Frazier, who I first met on Monday this week. Also Torn Hermann, Sheran Alles and Roberto Rosal have been involved.

Bryant, Bruce (B.D.)

Bent:

Tuesday, June 04, 2002 2:02 PM

To:

Assisge, Jane (J.M.)

Co: Sublect: Freeland, Mark (M.); Arnoe, David (D.E.); Geerhart, Chris (C.)

6 Storms support from EESE

### Jane:

I am a Master Blackbelt in the Ford Research Laboratory. We met briefly lest year when you came to speak as a 6 Sigma Executive at a greenbelt class that Chris Geartiant and I were teaching for NAC at the Huron Training Center. I have a request that I would normally make to another master blackbelt, but I'm not sure which MBBs service the EESE department, so I'm contacting you.

I would like to request blackbelt support from EESE with some projects that one of our FRL blackbelts, Mark Freetand, is working on, related to the Kavilco dPFE sensor failure problems that many of our vehicles are experiencing. Currently, Mark is working on project #5228, "EGR DPFE Sensor Shorts Out PCM Vref" and #7163, "EGR TM dPFE Sensor Unprotected Area Damage."

For background information, these projects are operating in support of a 14D team being run from PTO by Jim Maurer's group, which is responsible for the Kavilco dPFE sensor. Team members from EESE include Roberto Rossi, Sheran Ailes, and Tom Hermann. They can provide more information on the problem.

Mark's efforts started as a project whose scope initially appeared to be reasonable in size, but ballooned to 4 projects in Mark's area (the two mentioned above, plus #6120 which was closed, and #3618 which was cancelled), plus other blackbelt projects in Jim Maurer's group. The two projects on which Mark is working would benefit from assistance from additional blackbelts, as the scope and associated workload remains enormous, and we would like to resolve these issues in a timely fashion.

We are looking in various areas, including FRL, for more blackbeits and greenbeits to add to the project, and since there appears to be a "systems" component to the problem, i.e., all vehicles lines which use the sensor are affected but at vasily different rates, we thought some of the blackbeits in the EESE area would like to contribute. If you would like to support these projects, please identify one or more blackbeits from EESE, with whom Mark and I could meet to discuss the details of the project.

Thanks for your consideration.

Comileio.

Bruse Brysel, hisyestaPierd.com, 001-628-59-00750 Sky Myrne Master Migdingly, Peril Research Leberghery

Bryant, Bruce (B.D.)

Sent:

Monday, June 03, 2002 6:42 PM

To:

Freeland, Mark (M.)

Subject:

6 Sigma support for dPFE sensor projects

Mark - Here's what I want to write to Jane Aselage, the DO for PD, under which EESE resides. Please comment.

### Jane:

I am a Master Blackbelt in the Ford Research Laboratory. We met briefly last year when you came to speak as a 6 Sigma Executive at a greenbelt class that Chris Gearhart and I were teaching for NAC at the Huron Training Center. I have a request that I would normally make to another master blackbelt, but I'm not sure which MBBs service the EESE department, so I'm contacting you.

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Thanks for your consideration.

desire.

Bruen Bryank, bisrpank SPford.com, 001-58-50-04750 Shi Sigma Master Bioddell, Ford Percent Laboratory From: Sent: To: Subject:

Bryant, Bruce (B.D.) Wednesday, May 29, 2002 8:59 AM Freeland, Mark (M.) Accepted: Kavilco dPFE Sensor 6 Sigma Project

Bryant, Bruce (B.D.)

Sent: To: Wednesday, May 22, 2002 6:64 PM

: Freeland, Mark (M.)

Subject:

project update with Graham Hoare

### Mark:

Sorry for this intrusion, but your project is getting some more attention here in the lab. Please set up a meeting with you and me and Graham Hoars in his office for some time next week for an hour, just to get him up to speed.

Also, just as a followup from our previous meeting, please think about what additional resources / help you can use in pushing forward the current phase of your project, and let me know. Thanks in advance.

### Bruce

Subject: Location: Discuss DPFE sensor project 1517 SRL - Mark's cube

Start: End: Thu 5/16/2002 1:00 PM Thu 5/16/2002 2:00 PM

Show Time Au:

Tentsilve

Reguirence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Bryant, Bruce (B.D.); Freeland, Mark (M.)

We'll discuss the project scope, timing, intended deliverables, affected organizations, additional support requirements, and anything else that comes up.

Burtzendahi, Shanen (S.M.)

<u>Sent</u>

Friday, May 31, 2002 11:11 AM

To:

Freeland, Mark (M.); Kirldens, Vijiths (V.); Gibson, Alex (A.O.); Ellott, Adrian (A.N.); Liu, Dang (D.R.); MoBride, James (J.R.); Cole, Charles (C.C.); Nasser, Ahmad (A.M.); Gearhart, Chris (C.); Zubeck, Michael (M.W.); Giannamore, Armand (A.A.); Amori, Richard (R.); DeMurry,

Thomas (T.L.)

Ğe:

Dodge, Barbera (B.A.); Nuno, Elena (E.S.)

Bubject

Six Sigma Presentation Schedule

Please note that some of the presentations have been moved to different dates. If you do not have a title listed for your presentation, please send it to ma in an email.



2002FRL Stx Sigma Reviews and ...

# Thanksi

# Shanan Bunzendahl

Administrative Assistant to Carl Johnson Manufacturing Systems Department Phone: (313) 33-78518

Phone: (313) 33-7851 Pax: (313) 39-00514

"Without a struggle, there can be no progress."

- Frederick Douglass

# Six Sigma Presentations for FRL Management Meetings

| Meeting Name | Meeting Date              | Six Sigma Topic   | Presenter             |
|--------------|---------------------------|---|-----------------------|
| OCM          | 01/23/2002                |   | None                  |
| ОСМ          | 02/06/2002<br>10:15-Noon  |   | Ed League             |
| OCM          | 02/15/2002<br>9:45-11:30  | Ford Credit Customer Satisfaction   | Kuang Wel             |
| OCM          | 02/27/2002<br>10:30-Noon  | LS Wheel Bearing Concerns   | Apoorva Agarwal       |
| MM           | 2/28/02<br>8:00–9:30am    | Improve loose/poor fit on LS weatherstrip                                 | Sankar<br>Subraminiam |
|              |                           |   |                       |
| MM           | 3/28/02<br>8:00-9:30am    | Escape HEV Battery Project  | Bruce Bryant          |
| OCM          | 04/09/2002<br>9:30-10:45  | DFSS Optimization of the cyclone V6 for Translent Response                | Eric Curtis           |
|              |                           |   |                       |
| OCM          | 05/08/2002                | Lincoln LS Door Latching  | Mark<br>Ciechanowski  |
|              |                           |   |                       |
| ОСМ          | 6/7/2002<br>10:00am-12pm  | Kavlico TM dPFE Sensor Unprotected Area Damage                            | Mark Freeland         |
| ММ           | 6/13/02<br>8:30-10:00am   | Interference Indicator Tape   | Vijitha Kirldena      |
| ОСМ          | 6/18/2002<br>9:00-11:00am | Sansor-Based Tire Pressure Monitoring DFSS                                | Alex Gibson           |
| OCM          | 6/24/2002                 | C170 Front End Dimensional Capability                                     | Adrian Elliott        |
| OCM          | 7/10/2002                 | LS decklid hard to open/close, and INOP due to latch/striker misalignment | D. Ron Liu            |

File: 2002FRL Stx Sigma Reviews and MM's.doc Author: C. Nagi

# Six Sigma Presentations for FRL Management Meetings

| ММ   | 7/19/02<br>8:00-9:30am  |                                    | Jim McBride         |
|------|-------------------------|------------------------------------|---------------------|
| ОСМ  | 7/24/2002               |                                    | Chuck Cole          |
| ОСМ  | 8/7/2002                |                                    | Ahmad, Nasser       |
| ММ   | 8/15/02<br>8:00-9:30am  | Lincoln LS Initiative Update       | Chris Gearhart      |
| OCM  | 8/21/2002               | LS Oil Filter Leaks                | Mike Zubeck         |
| OCM  | 9/4/2002                |                                    | Armed<br>Giannamore |
| OCM  | 9/18/2002               | Think Neighbor Pushrod Quality     | Rick Amori          |
| MM . | 9/19/02<br>8:00-9:30am  | F Series Exhaust Systems Fit & NVH | Tom Demury          |
| OCM  | 10/2/2002               |                                    |                     |
| OCM  | 10/16/2002              |                                    |                     |
| MM   | 10/17/02<br>8:00-9:30em |                                    |                     |
| OCM  | 10/28/2002              |                                    | 1                   |
| ОСМ  | 11/14/2002              |                                    |                     |
| MM   | 11/21/02<br>8:00-9:30am |                                    |                     |
| ОСМ  | 11/27/2002              |                                    |                     |
| OCM  | 12/9/2002               |                                    |                     |
| ММ   | 12/13/02<br>8:00-9:30am |                                    |                     |

Note: Carl Johnson and the other FRL Six Sigma Champions will fill in the remaining topics and presenters in this table.

File: 2002FRL Six Sigma Reviews and MM's.doc

Author: C. Nagi

Carter, Roscoe (R.O.)

Sent:

Tuesday, October 08, 2002 2:21 PM

To: Gc: Maurer, James (J.B.) Helme, Jeffrey (J.H.)

Subject

RE: Protective Gel in DPFE

Jim,

I am not aware of meterial other than the one chosen and that only because of the present contact with this fluoro-eitcone polymer. This is a truly corrosive and high temperature environment. I would suggest you contact Jeff Heims, Manager of Material Science Department, for others who might know about such materials. Stable inorganic gels come to mind but I don't know who is working on such materials either here, commercially or in academe. I wish you good hunting!

Rosero "ROC" Carter
Fort Research Lab
Physical and Environmental Sciences Department
Labricant Science and ATF Analysis Group Leader

----Original Message---

Proun!

Maurer, James (J.B.)

Sent

Tuesday, October 09, 2002 12:25 PM

To: Guitject: Carter, Roscoe (R.O.) Protective Gel in DPFE

The gel that you analyzed previously for the DPFE team was considered as the bast available for protecting the sensor IC from exhaust by Kaviko. My management is questioning us as to whether a better alternative exists.

Do you know of any other people in research (university or another gal manufacturer) who might know of the types of gel commercially available that would be suitable for this application? We would need a flexible gel that would allow the pressure signal to get in, but would keep exhaust gas constituents out.

Regards,

Jin Mauror

James B. Maurer V-Engine 6-Sigma Team Leader Fuel Metering Dept. V Engine Engineering Phone (313) 390-3672, Fax (313) 390-4084 Text Page: (313) 795-5219

Final: Imauren@Ford.com

From: Sent: To: Subject:

Carter, Roscoe (R.O.)
Friday, June 14, 2002 11:07 AM
Freeland, Mark (M.)
Something from ROC -XIPO Technology - CarbonConX™Jrimi



XIPO Technology CarbonConX8.#...
Have read and think about connector issues. ROC



Select a Technology

Enter Search Criteria

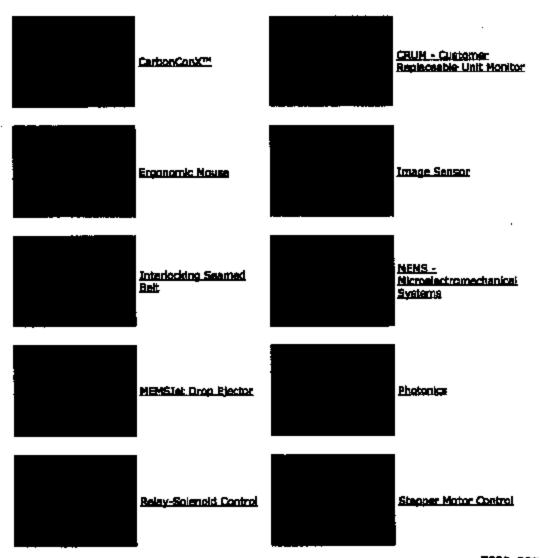
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5002-027-0 2269

from:

Carter, Roscoe (R.O.)

Sent:

Monday, May 20, 2002 8:49 AM

To:

Ca:

Freeland, Mark (M.) Simko, Staven (S.J.); Hangas, Jon (.)

Subject:

What is happening to the Al?

# Mark,

I hope you are checking your e-mail . Steve S. and I chatted briefly after we left you and the group on Fri. We have kloked around and looked up a number of possible scenarios for the Al metal in the tracks and where it might have gotten off to. We etill do not have story that makes any sense to us even given the chemistry of gel or adhesive break down. (AlBr3 or All3 would vaporize but not AlF3.) Votatile compounds with Aliare hard to come by and the only residues we see are coides. Soluble compounds are more abundant but even then we think some form of residual would likely be present, and none has been found. We are not comfortable with any feeling I may have left that the Al lose can be explained away with the information at hand, ROC

Certer, Roscos (R.O.)

Sent:

Thursday, May 02, 2002 11:38 AM

To:

Ausherman, Julie (J.S.)

Če:

Wallace, Anna (A.); Freeland, Mark (M.)

Subject:

RE: Work Task Number for Central Labs charged to Dept #J071

This is the work task # to be used in piace of XMY30 on LAB # 20889 and 20871. Thanks for your assistance one and all. ROCarter

-Original Massago

From

Ausherman, Julie (J.S.)

Sent

Thursday, May 02, 2002 10:27 AM

Tet

Carter, Roscoe (R.O.)

Ca

Wallace, Anna (A.); Freeland, Mark (M.); Ausherman, Julie (J.S.) RE: Work Tesk Number for Central Labs charged to Dept #3071

Subject I have created work task number AJ71A for use with Polymer Characterization. WHMS/WORQ's will be

If you have any questions or problems, please don't heeltate to call.

Best Regards,

Julie Ausherman

updated this weekend.

Financial Analyst

Ford Research Laboratory

Phone: 313-390-7392 Pax: 318-845-7807

#### -Original Message

Prome

Sent

Carter, Roscoa (R.O.) Thursday, April 25, 2002 10:24 AM

Ter

Œ

Ausherman, Julie (J.S.) Wallace, Arvis (A.); Freeland, Mark (M.)

Subjects

Work Task Number for Central Labs charged to Dept #3071

Julia.

Please forward the Work task number for the work at Central labs on to Anne Wallace at the above emall address as econ as it is available. This is for the Polymer Characterization of the delta PFE sensors (four units total). Thanksli

Rescoe "ROC" Carter

Ford Romands Lab

Physical and Environmental Sciences Department

Entricent Science and ATF Analysis Group Leader

Prom:

Sent:

Certer, Roscoe (R.O.) Thursday, April 25, 2002 10:24 AM

To:

Aucherman, Julie (J.S.)

Co:

Subject

Wallace, Anna (A.): Freeland, Mark (M.)
Work Teek Number for Central Labs charged to Dept #3071

## Julie,

Please forward the Work task number for the work at Central labs on to Anna Wallace at the above email address as soon as it is available. This is for the Polymer Characterization of the delta PFE sensors (four units total). Thankall

Roscoe "ROC" Carter Ford Rasperch Lab

Physical and Environmental Sciences Department Labricant Science and ATF Analysis Group Lander Prom:

Crawley, Ian (I.A.)

Sent:

Wednesday, December 04, 2002 8:51 AM

To:

Freeland, Mark (M.); Gates, Freeman (F.C.); Maurer, James (J.B.); McCoy, James (J.D.)

Cc:

Kotwicki, Allen (A.J.); Alles, Sheren (S.A.); O'Neell, Jim (J.D.); Williamson, Richard (E.);

Jefford, Bob (R.D.)

Subject:

RE: DPFE Sensor stalls

Chances are this part has the recistor, based on a production date 29-JUL-2002. You can tell by the part number if the realstor was incorporated or not. The latest part number is 3W7E-9Y456-B3C. We have a Town Car in our department to evaluate this part, once it is returned.

Thank you,

San Crowby **EGR Systems** FMEI Dept.

Phone: 313-390-5576 Fex: 313-390-4084

email: iorawley@ford.com text pager: 313-796-7261 or

3137957261@aiphapage.airtouch.com V-Engine Engineering - Ford Motor Co.

-Original Measage

Froms

Freeland, Mark (H.)

Gends

Tuesday, December 03, 2002 6:36 PM

Ter

Gates, Freeman (F.C.); Mauser, James (J.B.); McCoy, James (J.D.)

Cei

Kobyldd, Allen (A.1.); Alles, Sheren (S.A.); O'Neell, Jim (J.D.); Crawley, Ian (L.A.); Williamson, Richard (E.); Jafford, Bob (R.D.)

PW: DPFE Sensor stalls **Subdects** 

Info from Rick Williamson

Freeman.

How does one ascertain from part number or other markings if a specific ESM module was manufactured before or after the 10 ohm resistor was incorporated, or did the 10 ohms go in before Job 1?

#### Regards

Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com

Tel.: (313) 594-7645

-Original Message

Program of the last of the las

Williamson, Richard (E.)

Sont Tei

Tuesday, December 03, 2002 3:28 PM

**Subjects** 

Fredand, Mark (NL) RE: DPFE Sensor stalls

EAR2-827-G 2283

Merk.

I personnally talked to the shop foreman. He was assigned the vahicle after the first tech couldn't fix it. He stated that he let the vehicle idle in his stall and eventually the vehicle would stall. He would try to start it and the vehicle would not start and there was no check engine light on the dash. He would unplug the DPFE and cycle the key, the MiL would be on and the vehicle would start. He repeated this twice and then replaced the part. He has promised to ship me the part and I will bring it to you. If I haven't recieved the part by the end of the week I will call him back. Rick

-Original Message

Fronti

Freeland, Mark (M.)

Sent Tel

Tuesday, December 03, 2002 10:33 AM

Gabes, Freeman (F.C.); Meurer, Jemes (J.B.); McCoy, James (J.D.)

Č۵

Subfact

Kobridé, Alien (A.I.); Alies, Sheran (S.A.); Ö'licell, Jim (J.D.); Créviley, Isn (J.A.); Williamson, Richard (E.); Jefford, Bob (R.D.)

RE: DPPE Sensor stalls

For info:

I just looked up the vehicle in AWS. It was also in for stalls on 9/9/02 and had the ignition colls replaced, the PCM replaces and one injector replaced on that visit.

Tech. Comments: EXSTENCIVE TIME R R TRIM PANLES TO OPEN AND INSPECT WIRRING HARNESS.REPLACE ALL EIGHT COIL PACKS PER HOTLINE.

Customer Comments: CUSTOMER STATES VECH WANTS TO STALL OUT AT STOPS

### Regards

## Mark Freeland

6-Sigma Black Belt Bugine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com Tel.: (313) 594-7645

-Original Message

Framu

Gates, Freezism (F.C.)

Cant

Tuesday, December 03, 2002 10:29 AM

Tœ

Freeland, Mark (M.); Hourer, James (J.B.); McCoy, James (J.D.)

Сa

Kotwicki, Alian (A.J.); Alias, Sheran (S.A.); O'Heali, Jim (J.D.); Crawley, Ian (J.A.); Williamson, Richard (E.); Jefford, Rob (R.D.)

Subject

This vehicle will have the ESM. This sounds like it may even be an EVR concern i.e. vacuum on EGR valve continually. We have seen this on some EVR applications if the filter is not installed correctly or contamination exists on the disc (internal to EVR). We have seen this at least 1 time this year, When you disconnect the DPFE, you also disconnect, EVR and MAP sensor through the common connector.

Thanks Mark/Richard.

Anyway the answer is YES , we want the part !

---Original Message

Freeni

Presiand, Mark (H.)

Tuesday, December 03, 2002 10:14 AM

ER62-627-0 2264

Tei Če:

Gates, Preemen (F.C.); Maurer, James (J.B.); NcCoy, James (J.D.) Kobwicki, Allan (A.J.); Alles, Sheran (S.A.); O'Neali, Jim (J.D.)

Bubject

PW: DPPE Sensor state

Impertiseous

High

Freeman, Jim & Jim,

Please read the attached from Rick Williamson of ECt. I will ask Rick to obtain the part if he can.

### A couple of questions:

- Which dPFE sensor will this vehicle have, Kavilco TM, Motorola Dash Mount or Siemens (Kavilco) ECM?
- 2) What current draw does it take to shut down a 2003 MY Town Car?

## Regards

## Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

Cridinal Message

Prom:

Williamson, Richard (巴)

Sent

Wednesday, November 27, 2002 7:57 AM

Tor Subjects Freeland, Merk (ML) DATE Service state

**Imperispose** 

HI Mark,

How have you been?

Are you etill interested in the OPFE sensor?

I have a CQIS report that you might be interested in:

C8Q1002

CQIS Indicator Summary

11/27/02 07:50:39

**#=>** 

Rpt#: 2KTAC415 EDSR -or- Q 200200039171 Rpt: 11/21/2002 Odom:

Rvwd: File:\_Folder:

Attchmnts: 0 Print Smy/Disp Detail(P/D):

Vehicle: 2003 TOWN CAR, EXEC

.SEDAN

1LNHM81W73Y626638 Bid: 07/29/2002

1 of

3.439 M

1

Engine: 4.6L ROM B Celb:

Trans:

Axie: A/C:

Dealer Id: 08910 Columbia Ford Lincoln-Mercury Ph#: (860) 228-2888 State: Connecticut City: Columbia

Orlo/Caller: PAUL DANIELUK

Symptom: 6 07 6 93 DRVABL, STALL/QUITS, AT CRUISE, ALL, ENGINE TEMP

Addi Svm:

St: CCRG/EPRC: S Rvwd: A Dt: 11/25/2002

Fix: Y Caus. Comp: EGR ASSEMBLY

— RPL Condition Code:

Region Code: 11 Region Name: Boston -11

CONCER VEHICLE STALLS WHILE DRIVING SOMETIMES, SOMETIMES IT RESTARTS AND SOMETIMES IT WON'T CRANK AFTER IT STALLS.

TECH/C NGS SELF TEST NO CODES, WHEN CAR WON'T CRANK YOU LOSE COMMUNICATION WITH PCM, THEFT LIGHT DOES NOT PROVE OUT WHEN KEY IS TURNED ON, UNPLUGGED DPFE AND CONCERN IS CORRECTED, REPLACED SHORTED DPFE ERG VALVE ASSEMBLY AND RETEST.

I am going to try and get the part back, let me know if you would like it ......

Take care,

RICK WILLIAMSON
Product Concern Analyst
Enhanced Concern Identification
313-248-6348
rwlll110@ford.com

Bubject: Location:

Updated: EESE support of FRL BB projects Crocket's deak - #5, 2A108

Start: End:

Fri 6/14/2002 3:00 PM Fri 6/14/2002 4:00 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Crockett, Dants (D.K.); Bryant, Bruce (B.D.); Freeland, Mark (M.)

RESCHEDULED TO TO MARK FREELAND'S UNAVAILABILITY ON 8/10

Goel:

To discuss FRL needs for support from EESE blackbelts on powertrain-related projects

If there is a better meeting location to look at vahicles or equipment, please let me know.

Crockett, Danta (D.K.)

Sent

Thursday, June 08, 2002 6:21 AM

To:

Freeland, Mark (M.)

Subject:

RE: Updated: EESE support of FRL 88 projects

I would prefer to meet with you and Bruce Bryant to start to gauge how my activity, EESE 6-sigma, can assist you. Keith Frazier and Tom Hermann sit close to me so if we need their input, we can still get it.

Promi

Presiend, Mark (H.)

Sent:

Wednesday, June 05, 2002 4:54 PM

To: Sabject: Crackett, Dante (O.K.) Accepted: Updated: EBSE support of FRL 88 projects

Whens

Friday, June 14, 2002 2:30 PM-3:30 PM (GMT-05:00) Eastern Time (US & Canada).

Where

Crockett's desk - #5, 2A106

# Thanks.

Should we also invite the EESE people who are currently involved?

A new name has just been added to the EESE participants, Keith Frazier, who i first met on Monday this week. Also Tom Hermann, Sheran Alles and Roberto Rosel have been involved. Subject:

Updated: EESE support of FRL 88 projects

Location:

Crockett's deek - #5, 2A108

Start: End: Fri 6/14/2002 3:00 PM Fri 6/14/2002 4:00 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Regulred Attendess:

Crockett, Dante (D.K.); Bryant, Bruce (B.D.); Freeland, Mark (M.)

# RESCHEDULED TO TO MARK FREELAND'S UNAVAILABILITY ON 6/10

Goal:

To discuss FRL needs for support from EESE blackbelts on powertrain-related projects

If there is a better meeting location to look at vehicles or equipment, please let me know.

Subject: Location:

Updated: EESE support of FRL 88 projects Crockett's deak - #5, 2A106

Start End:

Fri 6/14/2002 3:00 PM Fri 6/14/2002 4:00 PM

Show Time As:

Tentative

Recurrence:

(enon)

Meeting Status:

Not yet responded

Regulred Attendees:

Crockett, Danta (D.K.); Bryant, Bruce (B.D.); Freeland, Mark (M.)

## RESCHEDULED TO TO MARK FREELAND'S UNAVAILABILITY ON 6/10.

#### Goel:

To discuss FRL needs for support from EESE blackbelts on powertrain-related projects

If there is a better meeting location to look at vehicles or equipment, please let me know.

Sent:

Curtle, Eric (E.W.) Friday, November 22, 2002 2:34 PM

To:

Freeland, Mark (M.)

Subject

dPFE project summary slides

Importance:

High

Follow Up Flag:

Follow up

Due By:

Friday, November 22, 2002 3:00 PM

Flag Status:

Flagged

# Mark.

Just a reminder that I need the dPFE summery slides as soon as you can get them to me.

Thanks.

Eric

## Ryands.

Sois W. Bentle, Phi.D. Sr. Technical Specialist, 6-Sigma Black Belt Group Leader - Transient Engine Simulation Powertrain Research Department Ford Motor Company ocurtis@ford.com (313) 32-23694 / PAX (313) 32-31875

<sup>&</sup>quot;You'll miss 190% of all shots you dan't take" - Wayne Gretzsky

Fram:

Sent To:

Curtis, Eric (E.W.) Tuesday, November 19, 2002 5:06 PM

Freeland, Mark (M.)

Subject:

Work for VEE (John Koszewnik Review)

# Mark.

George Davis asked me to put together a summary presentation on work our Department is doing (has done). for VEE.

I know your 6-Sigma project on the Escape dPFE is important to Koszewnik and I would like to include a couple summary slides from your protect. Could you get me a couple slides ASAP (or give me the 6-Sigma. project number if the presentations are available on the web site)

Thanke,

Eric

#### Braid.

Bris W. Could. PLD. Sr. Technical Specialist, 6-Sigma Black Belt Group Leader - Transient Engine Simulation Powertrain Research Department Ford Motor Company ecurtis@ford.com (313) 32-23694 / FAX (313) 32-31875

"You'll miss 100% of all shots you don't take" - Wayne Gretzsky

D'Agostino, Antonio (A.)

Sent

Friday, May 31, 2002 4:39 PM

To:

"kjuric@lear.com"; "ffemandaz@lear.com"

Cc:

Oboze, Doran (D.); Rossi, Roberto (R.A.); Meurer, James (J.B.); Plante, Paul (P.G.); McCoy,

Jernes (J.D.); Getes, Freeman (F.C.); Freetand, Mark (M.)

Subject:

RE: 2.0L Zatec Focus C90 Connector

#### Gentlemen.

is the current Delphi connector used on any other Fords that you know of?

### Beet Regards,

Antonia D'Agostins

PVT Electrical Engineer

Wayne Stamping and Assembly Plant

Phone: 784.467.0485 FAX: 784.467.0489 Pager: 784.297.1786

Text Page: 7842971765@pager.elrtouplu.com

"There is a difference between concentrating on winning and thinking in terms of not losing."

#### --- Original Mesusos----

Promi

Freeland, Mark (M.)

Servi: To: Priday, May 31, 2002 1:42 PM

To: Ce D'Agostino, Antonio (A.)

Co Oboza, Doran (D.); 'litjuric@lear.com'; Tfernandes@lear.com'; Rossi, Roberto (R.A.); Maurer, James (J.B.); Plente, Paul (P.G.); McCoy, James (J.D.); Gates, Freeman (F.C.)

RE: 2.0L Zatec Focus C90 Connector

**Subject:** Tony,

It is possible that the C90 issue may be connected with the dPFE issue, and the dPFE is used on a total of 21 vehicle/engine combinations. So I am interested in knowing what other vehicles/engines use the same connector.

Perhaps the supplier of the harness or the tier two supplier of the connector could tell us what applications we have their connector released only

# Regards

#### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517

MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreelsl@ford.com

Tel.: (313) 594-7645

### -- Original Message--

From: Sent: D'Agostino, Antonio (A.) Friday, May 31, 2002 1:09 PM

Tos Cos Preciand, Mark (M.)

Obest, Doran (D.); "kijurio@lear.com"; "ffemandes@lear.com"

Subject

RE: 2.0L Zetec Focus C90 Connector

ER62-627-G 2327

## Mark.

The engine/vehicle combinations are:

Any wegon/sedan/3-dr/5-dr C170 with Zetec engine. I haven't seen any data that indicates that the issue is specific to menual or automatic transmission.

### Lubo/Paco.

Can either of you speak to why some, <u>but not all</u> of the non gold plated pins in this connector are greased with terminal grease?

# Beet Regards,

Antonia D'Agastina

**PVT Electrical Engineer** 

Wayne Stamping and Assembly Plant. Phone: 734.467.0485

Phone: 734,467,0485 FAX: 734,467,0488 Pager: 784,297,1785

Text Page: 7842971785@pager.airtouch.com

"There is a difference between concentrating on wirming and thinking in terms of not loating."

#### --- Original Message ---

Fromu.

Oboze, Domin (O.)

Sent

Priday, May 31, 2002 8:42 AM D'Agostino, Antonio (A.)

Te: Subjecti

PW: 2.0L Zetec Focus C90 Connector

#### 

Libita

Precland, Mark (M.)

**Berit**z

Thursday, May 30, 2002 4:18 PM

Te: Ce Oboza, Doran (D.)

Aread, Matericaud (M.J.); Maurer, James (J.B.); McCoy, James (J.D.); Gates, Freeman (F.C.); Rossi, Roberto (R.A.); Plante, Paul

Subjects

(P.G.) 2.OL Zebsc Focus C90 Connector

Doran,

Could you please forward this to A. D'Agostino, as I can not locate him in the CDS look up.

# Thanks

Could you please provide me with a list of all applications (Engine/Vehicle Combinations) which use the same connector as has been causing all the trouble on the 2.0L Zetec Focus. I assume that there are probably saveral users of both sides of this connector.

#### Another question.

Why are some, but not all of the non gold plated pins in this connector greases with terminal grease?

## Thanka

Rouards

Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory

E982-827-G 2328

P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com Tel.: (313) 594-7645

D'Agostino, Antonio (A.)

Sent

Friday, May 31, 2002 1:09 PM

To:

Freeland, Mark (M.)

Cc:

Oboza, Doran (D.); 'k@urlc@lear.com'; 'ffemendez@lear.com'

Subject:

RE: 2.0L Zetec Focus C90 Connector

#### Mark.

The engine/vehicle combinations are:

Any wagon/sedan/3-dr/5-dr C170 with Zetec engine. I haven't seen any data that indicates that the issue is specific to manual or automatic transmission.

### Lubo/Paco.

Can either of you speak to why some, <u>but not all</u> of the non gold plated pins in this connector are greased with terminal grease?

### **Best Regards**,

Antonio D'Agostino

PVT Electrical Engineer

Wayne Stamping and Assembly Plant

Phone: 784.487.0485 FAX: 784.487.0489 Pager: 784.297,1785

Text Page: 7342971785@pager.sirtouch.com

"There is a difference between concentrating on whysing and thinking in terms of not losing."

#### ---- Original Message----

Profes

Oboza, Doran (D.)

Sent

Feldery, May 31, 2002 8:42 AM

Ter

D'Agnetino, Antonio (A.)

Subject

PW: 2.0L Zetec Pocus C90 Connector

## 

frun:

Presiend, Mark (M.)

Sent

Thursday, May 30, 2002 4:18 PM

Te: Ce: Oboza, Doren (D.)

---

Awad, Mahmoud (M.L.); Maurer, James (J.E.); McCoy, James (J.D.); Gates, Freeman (F.C.); Rosel, Roberto (R.A.); Plante, Paul

(P.G.)

Subject

2.01. Zetec Focus C90 Connector

Doran,

Could you please forward this to A. D'Agostino, as I can not locate him in the CDS look up.

#### Thanks:

Could you please provide me with a list of all applications (Engine/Vahicle Combinations) which use the same connector as has been causing all the trouble on the 2.0t. Zetec Focus. I assume that there are probably several users of both sides of this connector.

#### Another question.

Why are some, but not all of the non gold plated pins in this connector greases with terminal grease?

# Thenke

# Regards

# Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Sent:

To:

Dalbo, Bob (R.J.)

Wednesday, August 28, 2002 4:40 PM

Fournelle, Gilbert (G.); Altoonian, Don (D.J.); Bauer, Scott (S.C.); Bholweni, Kamal (K.); Blackburn, Thomas (T.J.); Bogema, John (P.); Carry Powell (E-mail); Chick, John (J.); Chih, Ming-Niu (M.N.); Chin, Darrel (D.); Corbett, Sandra (S.M.); De Pena, Juan (J.E.); Diez, Timothy (T.P.); Duvali, Allen (A.W.); Fascetti, Sob (R.J.); Freeland, Mark (M.); Giles, Stuart (S.); Gokhale, Renuka (R.V.); Goodwin, William (W.R.); Grewal, Bill (B.S.); Grimes, Jeffrey (J.R.); Hansen, George (G.C.); Herr, George (G.J.); Hofman, Michael (M.V.); Holmes, Jeffrey (J.R.); Hoshino, Jun (J.); Ichikawa, Jiyunichiro (J.); Jensen, Ted (T.E.); 'Jones, Andy'; Jordan, Donald (D.E.); Kanal, Shinji (S.); 'Khan, Naveed'; King, Robert (R.F.); Kosko, Jeff (J.R.); Kwon, Soon (S.K.); Le, Dzung (D.H.); Limiteco, Steven (S.); Linde, Peter (P.A.); Liu, Jane (J.); Marck, Edmond (E.C.); Matesa, John (J.); Maurer, James (J.B.); Mazzella, Gary (G.R.); 'Mcdonald, John'; MoGee, Brett (B.L.); Mooney, Larry (L.); Moorhouse, Soott (S.R.); Morgan, Tomiko (T.T.); Mortshima, Shigeki (S.); Nematolishi, Sonya (S.); 'Nikolal, bemis'; Noteboom, Jim (J.E.); Oriman, James (J.W.); Powers, Ken (K.W.); Price, Martin (M.); Raquepeu, Alden (A.P.); Rothweller, Daniel (D.); Sanciers, Muriel (M.S.); Shah, Kiran (K.C.); Shiralshi, Masaru (M.); Stigenbauer, Jeffrey (J.R.); Suarez, Rhae (R.); Takasawa, Keltin (K.D.); Tekubo, Hirolchi (H.); Veenstra, Tim (T.W.); Wakenell, Rsy (R.A.); Wettech, Bill (B.); Williams, Lee (LHW.) RE: 2:00 PM stall meeting

Subject:

Thursday's (8/29) stall meeting will be cancelled to focus on the R11 calibrations' production trial.

# Bob Dalbo

9.0L Calibration Supervisor Outfitiers Calibration, NAT

Phone: (313) 24-84947 Fax: (313) 32-31788 Pager: (313) 795-2859 Email: rdalbo@ford.com

#### 

From:

Fournelle, Gilbert (G.)

Thursday, August 22, 2002 10:02 AM

Sent: To:

Altonian, Don (D.J.); Bauer, Scott (S.C.); Bhojwani, Kamal (K.); Blackburn, Thomas (T.J.); Bogama, John (P.); Cary Powell (E-mail); Chick, John (J.); Chih, Ming-Nitu (M.N.); Chin, Darrel (D.); Corbett, Sandra (S.M.); Daibo, Bobr (R.J.); De Pena, Aran (J.E.); Diez, Timothy (T.P.); Duvall, Allen (A.W.); Feachti, Bob (R.J.); Fournalle, Gibert (G.); Frasland, Mark (M.); Gles, Stuart (S.); Gokhale, Renuka (R.V.); Goodwin, William (W.R.); Grewal, Bill (B.S.); Grimes, Jeff (J.R.); Hansen, George (G.C.); Herr, George (G.J.); Hofman, Michael (M.V.); Holmes, Jeffrey (J.R.); Hoshino, Jun (J.); Ichilawa, Jiyunichiro (J.); Jansen, Ted (T.E.); Jones, Andy; Jordan, Donald (D.E.); Karas, Shirtl (S.); Khan, Naveed; King, Robert (R.F.); Kosto, Jeff (J.R.); Kwon, Soon (S.K.); La, Doung (D.H.); Limitaco, Steven (S.); Linde, Peter (P.A.); Liu, Jane (J.); Marce, Etmond (E.C.); Mostess, John (J.); Maurer, James (J.B.); Nazzelle, Gery (G.R.); McGes, Brett (B.L.); Mooney, Larry (L.); Moorhouse, Scott (S.R.); Morgan, Tomiko (T.T.); Narishima, Shigeld (S.); Narrestolishi, Sonye (S.); Mitolal, bernie; Notation, Jim (J.R.); Orbinet, James (J.W.); Powers, Kon (K.W.); Price, Martin (M.); Raquepau, Alden (A.P.); Rothweller, Deniel (D.); Sanders, Muriel (M.S.); Shah, Kiran (K.C.); Shirakin, Massaru (M.); Veenstra, Tim (T.W.); Welsonell, Ray (R.A.); Weltach, Bill (B.); Williams, Lee (LHW.)

Subjects

2:00 PM stall meeting

There will be no stall meeting at 2:00 pm today. The next meeting will be scheduled next week Thursday at 2:00pm. I will send the updated call in info and a meeting notice as soon as it is available.

Sincerely.

# Gilbert Fournelle

V8 U204 Calibration Engineering 1AE27 Truck Engine Engineering (TEE) Phone:(313)3904968 Fax:(313)3231786 From:
Sent:
Vednesday, June 19, 2002 5:40 PM
To:
Altocrian, Don (D.J.); Moorhouse, Scott (S.R.); Kanai, Shinji (S.)
Cc: Freeland, Mark (M.); Sanders, Muriel (M.S.)
Subject: RE: One example of Engine quit

Dom/Scott,

Thanks.

If you folks work on Kanai's truck for him, please send any take-off parts to Muriel.

Bob Dalbo 3.0L Calibration Supervisor Outfitters Calibration, NAT Phone: (313) 24-84947 Fax: (313) 32-31786 Pager: (313) 795-2859 Email: rdalboeford.com

----Original Message---From: Freeland, Mark (N.)
Sent: Wednesday, Jume 19, 2002 11:40 AM
To: Dalbo, Bob (R.J.)
Subject: RE: One example of Engine quit

Bob,

I don't want to get in the middle to mess things up, but if they suspect the dPFE is causal part, then could you please get it back for me to test. Thanks

# Regards

#### Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA email: mfreelal@ford.com
Tel.: (313) 594-7645

From: Dalbo, Bob (R.J.)
Sent: Wednesday, June 19, 2002 10:58 AM
To: Kanai, Shinji (S.); Sanders, Muriel (M.S.); Altoonian, Don (D.J.);
Aynessazian, Kam (K.); 'Badgley, Joel (J.K.)'; Bauer, Scott (S.C.);
Bhojwani, Kamal (K.); Blackburn, Thomas (T.J.); Bogema, John (P.); 'Cary
Powell'; Chick, John (J.); Chih, Ming-Niu (M.N.); Chin, Darrel (D.);
Corbett, Sandra (S.M.); Dalbo, Bob (R.J.); Rothweiler, Daniel (D.); De
Pena, Juan (J.E.); Diez, Timothy (T.P.); Fascetti, Bob (R.J.);
Fournelle, Gilbert (G.); Freeland, Mark (M.); Giles, Stuart (S.);
Gokhale, Renuka (R.V.); Grewal, Bill (B.S.); Grimes, Jeff (J.R.);
Hansen, George (G.C.); Herr, George (G.J.); Hofman, Michael (M.V.);
Holmes, Jeffrey (J.R.); Ichikawa, Jiyunichiro (J.); Jensen, Ted (T.E.);

'John McDonald'; 'Jones, Andy'; Jordan, Donald (D.E.); Kanai, Shinji (S.); King, Robert (R.F.); Kosko, Jeff (J.R.); Kwon, Scon (S.K.); Limtiaco, Steven (S.); Linde, Peter (P.A.); Liu, Jane (J.); Mandziuk, Roger (R.S.); Marck, Edmond (E.C.); Matesa, John (J.); Maurer, James (J.B.); Mazzella, Gary (G.R.); Mooney, Larry (L.); Moorhouse, Scott (S.R.); 'Morgan, Tom'; Morishima, Shigeki (S.); 'Naveed Khan'; Mematollahi, Sonya (S.); 'Wikolai, Bernie'; Noteboom, Jim (J.E.); Ortman, James (J.W.); Powers, Ken (K.W.); Price, Martin (M.); Raquepau, Alden (A.P.); Shah, Kiran (K.C.); Shiraishi, Masaru (M.); Stilgenbauer, Jeffrey (J.R.); Suarez, Rhae (R.); Takasawa, Keith (K.D.); Takubo, Hiroichi (H.); Veenstra, Tim (T.W.); Wakenell, Ray (R.A.); Wettach, Bill (B.); Williams, Les (LHW.); Yeung, Lem (.)

#### Kanai-san,

This is the exact problem we have been working on. If your dealer services your vehicle per the TSB and ISM we have released, we believe your issue should be resolved.

Mr. Limitaco, Can you please help ensure Kanai-san's vehicle is properly serviced?

Bob Dalbo 3.0L Calibration Supervisor Outfitters Calibration, NAT

Phone: (313) 24-84947 Fax: (313) 32-31786 Pager: (313) 795-2859 Email: rdalbo@ford.com

----Original Message-----From: Shinji Kanai [mailto:kanai.sh@sv.mazda.co.jp] Sent: Wednesday, June 19, 2002 10:05 AM To: 'Sanders, Muriel (M.S.)'; 'Altocnian, Don (D.J.)'; 'Aynessazian, Kam (K.); 'Badgley, Joel (J.K.); 'Bauer, Scott (S.C.); 'Bhojwani, Kamal (K.) '; 'Blackburn, Thomas (T.J.) '; 'Bogema, John (P.) '; 'Cary Powell'; 'Chick, John (J.)'; 'Chih, Ming-Niu (M.N.)'; 'Chin, Darrel (D.)'; 'Corbett, Sandra (S.M.)'; 'Dalbo, Bob (R.J.)'; 'Dan Rothweiler'; 'De Pena, Juan (J.E.); 'Diez, Timothy (T.P.)'; 'Fascetti, Bob (R.J.)'; 'Fournelle, Gilbert (G.)', 'Freeland, Mark (M.)', 'Giles, Stuart (S.)', 'Gokhale, Renuka (R.V.)'; 'Grewal, Bill (B.S.)'; 'Grimes, Jeff (J.R.)'; 'Hansen, George (G.C.)'; 'Herr, George (G.J.)'; 'Hofman, Michael (M.V.)'; 'Holmes, Jeffrey (J.R.)'; 'Ichikawa, Jiyunichiro (J.)'; 'Jensen, Ted (T.E.)'; 'John McDonald'; 'Jones, Andy'; 'Jordan, Donald (D.E.)'; 'Kanai, Shinji (S.)'; 'King, Robert (R.F.)'; 'Kosko, Jeff (J.R.)'; 'Kwon, Soon (S.K.)'; 'Limtiaco, Steven (S.)'; 'Linde, Peter (P.A.); 'Liu, Jane (J.)'; 'Mandziuk, Roger (R.S.)'; 'Marck, Edmond (E.C.)'; 'Matesa, John (J.)'; 'Maurer, James (J.B.)'; 'Mazzella, Gary (G.R.)'; 'Mooney, Larry (L.)'; 'Moorhouse, Scott (S.R.)'; 'Morgan, Tom'; 'Morishima, Shigeki (S.)'; 'Naveed Khan'; 'Nematollahi, Sonya (S.)'; 'Nikolai, Bernie'; 'Noteboom, Jim (J.E.)'; 'Ortman, James (J.W.)'; 'Powers, Ken (K.W.)'; 'Price, Martin (M.)'; 'Raquepau, Alden (A.P.)'; 'Shah, Kiran (K.C.)'; 'Shiraishi, Masaru (M.)'; 'Stilgenbauer, Jeffrey (J.R.); 'Suarez, Rhae (R.)'; 'Takasawa, Keith (K.D.)'; 'Takubo, Hiroichi (H.)'; 'Veenstra, Tim (T.W.)'; 'Wakanell, Ray (R.A.)'; 'Wattach, Bill (B.)', 'Williams, Les (LHW.)', 'Yeung, Lem (.)' Subject: One example of Engine quit

BP62-627-G 2344

4F2YU08172KM28336 Build 12/11/2001, Retail 1/11/2002 Mileage: 7360 miles Event: 6/18/2002

After 25 minutes Freeway driving, I exited and stopped traffic signal. About 30 sec. later I started moving to left turn and stopped at traffic signal again about 50m later.

About 30 sec. later I started moving 20m and right turn.

Then I gave throttle accelerating vehicle up to 35 MPH - 40MPH at slight up hill about 200m.

Then road switched down hill, I released throttle. Usually vehicle slight increase speed up to 45MPH about 200m.

I applied throttle gently after changing road up hill. Few seconds later I realized that vehicle kept down speed and three warning lamp illuminated about 40MFH.

I did not calm enough.

I turned key to start position, but engine did not start because shifter was stayed D range.

I cycled key OFF and ON again, all warning lamp illuminated about 25MFH.

I applied brake to reduce speed and turned vehicle to left.

I shifted N range and cranked. Small gear noise (starter engagement?) was heard but Engine started normally about 10 MPH.

I remember engine rpm dropped twice on this vehicle during last 6 month. Possibly engine rpm drop might happen more than two, but I recognized twice. One is same location same direction, another one was opposite direction almost same location.

No ECM like building or equipment near there, as far as I know. This is my first V6-4WD model. Previous Tribute was I4-4WD.

I will bring this vehicle to dealer for usual scheduled (7,500 miles) maintenance this week.

I will ask dealer to reflash PCM calibration and continue to monitor.

If you have any question or comment, please feel free to contact to me.

Shinji Kanai Manager, Tribute Plant QA Mazda North American Operations

Ford Kansas City Assembly Plant
Plant Vehicle Team
8121 N.E. Hwy. 69, Claycome, MO 64119 USA
Tel: 816-459-1623/ Fax: -1726/ e-mail: kansi.sh@sv.mazda.co.jp
Local Text Pager: 9135677156@alphapage.airtouch.com

From: Sent: To:

Dalbo, Bob (R.J.)

Wednesday, June 19, 2002 10:58 AM

Kanai, Shinji (S.); Sanders, Muriel (M.S.); Altoonian, Don (D.J.); Aynessazian, Kam (K.); Bedgley, Joel (J.K.); Bauer, Scott (S.C.); Bhojwani, Kamai (K.); Bleckburn, Thomas (T.J.); Bogema, John (P.); 'Cary Powell'; Chick, John (J.); Chih, Ming-Niu (M.N.); Chin, Darrel (D.); Corbett, Sandra (S.M.); Dalbo, Bob (R.J.); Rolliweller, Daniel (D.); De Pene, Juan (J.E.); Diez, Timothy (T.P.); Fascetti, Bob (R.J.); Fournelle, Gilbert (G.); Freeland, Mark (M.); Giles, Stuart (S.); Gokhale, Renuka (R.V.); Grewal, Bill (B.S.); Grimes, Jeff (J.R.); Hansen, George (G.C.); Herr, George (G.J.); Holman, Michael (M.V.); Holmes, Jeffrey (J.R.); Ichikawa, Jiyunichiro (J.); Jensen, Ted (T.E.); 'John McDonald', 'Jones, Andy'; Jordan, Donald (D.E.); Kanai, Shinji (S.); King, Robert (R.F.); Kosko, Jeff (J.R.); Kwon, Soon (S.K.); Limtlaco, Steven (S.); Linde, Peter (P.A.); Llu, Jane (J.); Mandzkuk, Roger (R.S.); Marck, Edmond (E.C.); Metesa, John (J.); Maurer, James (J.B.); Mazzella, Gary (G.R.); Mooney, Larry (L.); Moorhouse, Scott (S.R.); 'Morgan, Tom'; Morishima, Shigaki (S.); 'Naveed Khan'; Nematolishi, Sonya (S.); 'Nikolai, Bernie'; Noteboom, Jim (J.E.); Ortman, James (J.W.); Powers, Ken (K.W.); Price, Martin (M.); Requepeu, Alden (A.P.); Sheh, Kiran (K.C.); Shiraishi, Masaru (M.); Stilgenbauer, Jeffrey (J.R.); Suarez, Rhee (R.); Takasewa, Kelth (K.D.); Takubo, Hirokhi (H.); Veenstra, Tim (T.W.); Wakenell, Rey (R.A.); Weltech, Bill (B.); Williams, Les (LHW.); Yeung, Lem (.) RE: One example of Engine quit.

Bubject:

Kanai-san,

This is the exact problem we have been working on. If your dealer services your vehicle per the TSB and ISM we have released, we believe your issue should be resolved.

Mr. Limtiaco,

Can you please help ensure Kanai-san's vehicle is properly serviced?

Bob Dalbo

3.01 Calibration Supervisor Outfitters Calibration, NAT

(313) 24-84947 Fex: (313) 32-31786 Phone (313) 795-2859 Email: rdalbo@ford.com

----Original Message-----

From: Shinji Kanai [mailto:kanai.sh@ev.mazda.co.jp]

Sent: Wednesday, June 19, 2002 10:05 AM

To: 'Sanders, Muriel (M.S.)'; 'Altoonian, Don (D.J.)'; 'Aynessazian, Kam (K.)'; 'Badgley, Joel (J.K.)'; 'Bauer, Scott (S.C.)'; 'Bhojwani, Kamal (K.); 'Blackburn, Thomas (T.J.)'; 'Bogema, John (P.)'; 'Cary Powell'; 'Chick, John (J.)', 'Chih, Ming-Niu (M.N.)', 'Chin, Darrel (D.)', 'Corbett, Sandra (S.M.)', 'Dalbo, Bob (R.J.)', 'Dan Rothweiler', 'De Pana, Juan (J.E.)', 'Dies, Timothy (T.P.)', 'Fascatti, Bob (R.J.)', 'Fournelle, Gilbert (G.)'; 'Freeland, Mark (M.)'; 'Giles, Stuart (S.)'; 'Gokhale, Renuka (R.V.)'; 'Grewal, Bill (B.S.)'; 'Grimes, Jeff (J.R.)'; 'Hansen, George (G.C.)'; 'Herr, George (G.J.)'; 'Hofman, Michael (M.V.)'; 'Holmes, Jeffrey (J.R.)'; 'Ichikawa, Jiyunichiro (J.)'; 'Jensen, Ted (T.E.)'; 'John McDonald'; 'Jones, Andy'; 'Jordan, Donald (D.E.)'; 'Kanai, Shinji (S.)'; 'King, Robert (R.F.)'; 'Kosko, Jeff (J.R.)'; 'Kwon, Soon (S.K.)'; 'Limtiaco, Steven (S.)'; 'Linde, Peter (P.A.)'; 'Liu, Jane (J.)'; 'Mandziuk, Roger (R.S.)'; 'Marck, Edmond (E.C.); 'Matesa, John (J.)'; 'Maurer, James (J.B.)'; 'Mazzella, Gary (G.R.)'; 'Mooney, Larry (L.)'; 'Moorhouse, Scott (S.R.)'; 'Morgan, Tom'; 'Morishima, Shigeki (S.)'; 'Naveed Khan'; 'Nematollahi, Sonya (S.)'; 'Nikolai, Bernie', 'Noteboom, Jim (J.B.)'; 'Ortman, James (J.W.)'; 'Powers, Ken (K.W.)'; 'Price, Martin (N.)'; 'Raquepau, Alden (A.P.)'; 'Shah, Kiran (K.C.)'; 'Shiraishi, Masaru (M.)'; 'Stilgenbauer, Jeffrey

(J.R.); 'Suarez, Rhae (R.)'; 'Takasawa, Keith (K.D.)'; 'Takubo, Hiroichi (H.)'; 'Veenstra, Tim (T.W.)'; 'Wakenell, Ray (R.A.)'; 'Wettach, Bill (B.)'; 'Williams, Les (LHW.)'; 'Yeung, Lem (.)' Subject: One example of Engine quit

My lease vehicle 2002MY Tribute experienced engine quit last night.

After 25 minutes Freeway driving, I exited and stopped traffic signal.

About 30 sec. later I started moving to left turn and stopped at traffic signal again about 50m later.

About 30 sec. later I started moving 20m and right turn.

Then I gave throttle accelerating vehicle up to 35 MPH - 40MPH at slight up hill about 200m.

Then road switched down hill, I released throttle. Usually vehicle slight increase speed up to 45MPH about 200m.

I applied throttle gently after changing road up hill. Few seconds later I realized that vehicle kept down speed and three warning lamp illuminated about 40MPH.

I did not calm enough.

I turned key to start position, but engine did not start because shifter was stayed D range.

I cycled key OFF and ON again, all warning lamp illuminated about 25MPH.

I applied brake to reduce speed and turned vehicle to left.

I shifted N range and cranked. Small gear noise (starter engagement ?) was heard but Engine started normally about 10 MPH.

I remember engine rpm dropped twice on this vehicle during last 6 month. Possibly engine rpm drop might happen more than two, but I recognized twice. One is same location same direction, another one was opposite direction almost same location.

No ECM like building or equipment near there, as far as I know. This is my first V6-4WD model. Previous Tribute was I4-4WD.

I will bring this vehicle to dealer for usual scheduled (7,500 miles) maintenance this week.

I will ask dealer to reflash PCM calibration and continue to monitor.

If you have any question or domment, please feel free to contact to me.

Shinji Kanai Manager, Tribute Plant QA Mazda North American Operations

Ford Kansas City Assembly Plant
Plant Vehicle Team
8121 N.E. Rwy. 69, Claycomo, MO 64119 USA
Tel: 816-459-1623/ Fax: -1726/ e-mail: kanai.sh@av.mazda.co.jp
Local Text Pager: 9135677156@alphapage.airtouch.com

Sent:

Daibo, Bob (R.J.) Monday, April 22, 2002 5:49 PM Freeiand, Mark (M.) Temperature Sensitivity

To: Bubject:

How does temperature affect the Kaviico DPFE sensor's noise sensitivity?

Bob Dalbo

3.0L Calibration Supervisor
Outfittere Calibration, NAT
Phone: (313) 24-84947 Fac: (313) 32-31766
Pager: (313) 795-2859 Email: rdelbo@ford.com

Dan Rothweiler (DRothwei@mazdausa.com)

Sent:

Wednesday, March 13, 2002 5:23 PM

To:

Traciand, Mark (M.)

8ubject:

RE: DPFE sensor evaluation

Mark, I got the sensors out today. Here is the Fedex tracking number.

4233 5566 B639

Take care,

Daniel H. Rothweiler Mazda North American Operations Fixed Operations Technical Specialist Office: 732-868-2135

Fax: 2

214-442-5222

Cellular: 732-547-8578

----Original Message----

From: Freeland, Mark (M.) [mailto:mfreelal@ford.com]

Sent: Tuesday, March 12, 2002 4:30 PM

To: Rothweiler, Daniel (D.)

Subject: RE: DPFE sensor evaluation

Dan,

My shipping address is:

SRL Room 1517/MD 2629 2101 Village Road Dearborn, MI 48121-2053

and the mail address is:

- > Engine Research Department
- > Ford Research Laboratory
- > P.O. Box 2053
- > MD 2629 BRL Room 1517
- > Dearborn, MI 48121-2053 USA

Please let me know when you ship the parts so I can bug our receiving dock!

Thanks

Mark Freeland

email: mfreelal@ford.com Tel.: (313) 594-7645

Dan Rothweller [DRothwel@mazdeuse.com]

Sent

Tuesday, March 12, 2002 1:28 PM

To:

'Freeland, Mark (M.)'

Subject:

RE: DPFÉ sensor evaluation

Mark, I need an address to send the components to. I have another sensor from a 2002 Tribute that I will send with the other 4.

Daniel H. Rothweiler Mazda North American Operations Fixed Operations Technical Specialist

Office: 732-868-2135 Fax: 214-442-5222 Cellular: 732-547-8578

----Original Message----

From: Freeland, Mark (M.) [mailto:mfreelal@ford.com]

Sent: Friday, March 08, 2002 5:10 PM

To: Rothweiler, Daniel (D.)

Cc: Limtiaco, Steven (S.); Altoonian, Don (D.J.)

Subject: FW: DPFE sensor evaluation

Dan,

Great news. Can you get the 4 sensors to me?

Is there a dealer report as well as the hot line info that you can also get, with the customer's comments and the tech comments (like we can get from the AWS system)?

Thanks

Mark Freeland

----Original Message----

From: Dan Rothweiler [mailto:DRothwei@mazdausa.com]

Sent: Friday, March 08, 2002 3:24 PM

To: 'Freeland, Mark (M.)'

Cc: Steven Limtiaco; 'Don Altoonian'

Subject: DPFE sensor evaluation

Mark, I received today 4 DPFE's from 2 different Tributes from New Hampshire.

2 of them are off of Customer Accetta VIN # 4F2CU081X1KM06730. They are the most recent 2 replacements of 4 total. Copies of the RO's are included with the parts.

Here is the text from the hotline file.

S20CCM1 HOTLINE RECORD (REVIEW1) 03/08/02

12:10:42

P296 NOEP137

Hotline Ref No.: 0250034 Status: SG SUGGRSTED Customer Contacts: 2

PQI Ref No....: Caller: MANNY Time Zone: ET

Job Code.....: D331 TECHNICIAN Branded..: N

Logation.....: 51516 TULLEY MAZDA Phone: 603 888 - 0550 Ext:

VIN...... 4F2CU081X1KM06730 MDL/YR: TRX ES A /01 Prod Dt:

09/11/00

Repair Mileage.: 23858 Cust: ACCETTA, JUNE In Srvc:

10/24/00

Hotline Subject: 1/10 BK MIL ON P-0401

Category Code..: F FUEL AND EMISSION

Symptom Codes..: 620 DOES NOT TURN OFF/WA 640 IMPROFER OPERATION

Condition Codes: 401 DTC 402 DTC

Symptom Freq...: C CONSTANT C CONSTANT

Did you duplicate symptoms?: Y (Y or N) Number of Repair Attempts: 3

Describe Symptoms and Conditions:

MIL ON P-0401

S20CDM1 HOTLINE RECORD (REVIEW2) 03/08/02

12:12:57

P296 NOEP137

Hotline Ref No.: 0250034 Status: SG SUGGESTED MDL/YR: TRX ES A /01

PQI Ref No....: Caller: MANNY

Location.....: 51516 TULLEY MAZDA Phone: 603 888 - 0550 Ext:

Hotline Subject: 1/10 BK MIL CM P-0401

RI No for prior repair attempts:

Describe attempted repairs.....

THIS THE THIRD TIME BACK WITH THIS CODE, REPAIR SEEMS TO BE EFFECTIVE FOR

FOUR MONTHS. WATER WAS FOUND INSIDE SENSOR.

RI Ref No Suggested Repairs Try Rff

0003529 P0401/P0402 - MIL ON DUE TO DPFE SENSORS

ERG2-027-0 2366

820CBM1

HOTLINE RECORD (REVIEWS)

03/08/02

12:13:2B

P296

NORP137

Hotline Ref No.: 0250034 Status: SG SUGGESTED MDL/YR: TRX ES A /01

PQI Ref No....;

Caller: MANNY

Location....: 52516 TULLEY MAZDA

Phone: 603 888 - 0550 Ext:

Hotline Subject: 1/10 BK MIL ON P-0401

Other suggested repairs:

REPLACE DPFE SENSOR.

Callback Date.....

Entered By: KULP

01/10/02

Last Rev By: KULP

01/10/02

The 2nd set of 2 is off of snother Tribute customer Hammond that had 2 DPFE replacements. VIN # 4F2CU081X1KM42319. This Tribute we don't have any hotline information on but the RO's are included as well.

I need an address to send these parts to you so if you can get it to me soon I will ship them to you.

Thanka,

Daniel H. Rothweiler
Masda North American Operations
Fixed Operations Technical Specialist
Office: 732-868-2135
Fax: 214-442-5222

Cellular: 732-547-8578

Dan Rottweiler [DRothwei@mazdausa.com]

Sent

Friday, March 08, 2002 \$:24 PM

To:

'Freeland, Mark (M.)'

Ce:

Steven Limitaco; "Don Altoonian"

Subject:

DPFE aensor evaluation

Mark, I received today 4 DPFE's from 2 different Tributes from New Hampshire.

2 of them are off of Customer Accetta VIN # 4F2CU081X1KM05730. They are the most recent 2 replacements of 4 total. Copies of the RO's are included with the parts.

Here is the text from the hotline file.

S20CCM1

HOTLINE RECORD (REVIEW1)

03/08/02

12:10:42

P296

NOSP137

Hotline Ref No.: 0250034 Status: SG SUGGRETED

Customer Contacts: 2

PQI Ref No....:

Caller: MANNY

Time Zone: ET

Job Code..... D331

TECHNICIAN

Branded ... N

Location....: 51516 TULLEY MAZDA

Phone: 603 888 - 0550 Ext:

VIN...... 4F2CU081X1KM06730 MDL/YR: TRX ES A /01 Prod Dt:

09/11/00

Repair Mileage.: 23858 Cust: ACCETTA, JUNE

In Srvc:

10/24/00

Hotline Subject: 1/10 BK MIL ON P-0401

Category Code..: F

FUEL AND ENISSION

Symptom Codes..: 620 DORS NOT TURN OFF/WA

640 IMPROPER OPERATION

Condition Codes: 401 DTC

402 DTC

Symptom Freq...: C

CONSTANT

C CONSTANT

Did you duplicate symptoms?: Y (Y or N) Number of Repair Attempts: 3

Describe Symptoms and Conditions:

MIL ON P-0401

S20CDM1

HOTLINE RECORD (REVIEW2)

03/08/02

12:12:57

P296

NOEP137

Hotline Ref No.: 0250034 Status: SG SUGGESTED

MDL/YR: TRX ES A /01

POI Ref No....:

Caller: MANNY

Location.....: 51516 TULLEY MAZDA Phone: 603 888 - 0550 Ext:

Hotline Subject: 1/10 BK MIL ON P-0401

RI No for prior repair attempts:

Describe attempted repairs ....:

THIS THE THIRD TIME BACK WITH THIS CODE, REPAIR SEEMS TO BE EFFECTIVE FOR

FOUR MONTHS. WATER WAS FOUND INSIDE SENSOR.

RI Ref No Suggested Repairs

Try Eff

0003529 P0401/F0402 - MIL ON DUE TO DFFE SENSORS

#20CEM1

HOTLINE RECORD (REVIEW3)

03/08/02

12:13:28

P296

NOEP137

Hotline Ref No.: 0250034 Status: SG SUGGESTED MDL/YR: TRX ES A /01

POI Ref No....:

Caller: MANNY

Location....: 51516 TULLEY MAZDA

Phone: 603 888 - 0550 Ext:

Hotline Subject: 1/10 BK MIL ON P-0401

Other suggested repairs:

REPLACE DPFE SENSOR.

Callback Date....:

Entered By: KULP

01/10/02

Last Rev By: KULP

01/10/02

The 2nd set of 2 is off of another Tribute customer Hammond that had 2 DPFE replacements. VIN # 4F2CU081X1KM42319. This Tribute we don't have any hotline information on but the RO's are included as well.

I need an address to send these parts to you so if you can get it to me soon I will ship them to you.

Thanks,

Daniel H. Rothweiler Mazda North American Operations Fixed Operations Technical Specialist

Office: 732-868-2135 Fax: 214-442-5222 Cellular: 732-547-8578

ENG2-827-0 2372

Dan Rothweiler [DRothwei@mazdeuss.com]

Thursday, February 28, 2002 9:33 AM

Sent To:

'Mark Freeland'

Subject:

FW: dir. 51616; customer: June Accette; recurring DPFE sensor fallure

Here is the request. Please don't forward this.

#### Danny

----Original Message----Marianne Merola

Sent: Wednesday, February 27, 2002 5:58 PM

To: Dan Rothweiler Dana Rafuse Caı

dlr: 51516; customer: June Accetta; recurring DFFE sensor Subject:

failure

RE: 4F2CU081X1KM06730, '01 Tribute, DFFE sensor failure (4x's); dealer:

51516

Danny,

I spoke to you about this customer's Tribute a little while ago and the recurring problem w/ the MIL and the DPFE sensor which was already replaced 4x's. I declined her lemon law claim the first time based on the fact that the statute reads \* must continue to exist" and at the time of her letter (1/22/02) the vehicle was repaired. Well, the part may have failed again. The customer just called me and told me that her MIL is on again, and she just knows it has to be the same problem (DPFE sensor). I know that we cannot be sure until it is diagnosed, but it is likely that this is the same problem again since she is not having any drivability concerns. The customer is going to take the vehicle back to Tulley Mazda. She is requesting I repurchase her vehicle and I advised her that I am declining this request and would like to have Mazda involved, compensate her w/ a MEPP but she doesn't want to accept this, and wants a repurchase. She already stated that she is going to file for arbitration. So, I was hoping you would follow up with the dealer on this inspection when the customer brings the vehicle in and ensure that they are careful and list all the freeze frame data and trouble codes on the r/o, and that no repair attempt is made if it is umnecessary. Please let me know what you find out. If you need the r/o's I can fax them to you for your review. Thanks,

Marianne Mercla 949-727-6275

81022M1

OPEN CUSTOMER CONTACT UPDATE

02/27/02

14:44:52

D341

#### MAINTENANCE

CRPC323

File #..: 799566 - 1 Source: 6 VIN....: 4F2CU081X1KM06730

Brand....:

Mdl/Yr.: TRX / 01 Mileage: 25000 Dlvry Dt: 10/24/00 Trnam: A

Opn.Recall:

Last No. : R/TO.... First Nm:

Midl Nm.:

Address1:

Adr2:

City....: CHELMSFORD

State...: MA

Zip:

Home Ph.:

Work Ph.:

Oth Ph.:

Resp Dlr:

Gdwill: N Srv Agrant..:

Ralv Dir: 51516 TULLEY MAZDA

1) Typ: 1 Rea: 1B Cat: P

CC: 97

 Typ: Rea: Cat:

DSA...: Y Assigned Rgn: NE R/A: N

CC:

Typ:

Reas Cat: CC:

4) Typ:

Rea:

Cat:

CC:

CUST LETTER INDICATING THAT HAS HAD PRBLM REPAIRED W/ VACUUM SWITCH 4X'S

HE IS TIRED OF THIS. STS THAT IT IS REPAIRED BUT IS WORRIED ABOUT IT HAPPENIN

AGAIN. FEELS THIS PRELM WARRANTS THE USE OF PURSUING LEMON LAW, BUT WOULD

FER NOT TO USE L/L AND USE OTHER OPTIONS INSTEAD. REQ HELP W/ CORRECTING PRBL

М

Region: MA 01/25/0

Opened by: CRPC323 Opened Dt: 01/25/02 Closed Dt:

ER62-027-0 2378

From: Sent:

To:

Subject:

Danes, Adam (A.V.) Wednesday, May 15, 2002 9:21 AM Freeland, Mark (M.) Out of Office AutoReply: Vin Numbers from RO numbers

Adam Danes is on vacation 5/15/02. Please textpage me with urgent issues.

Fram: Sent: To: Davies, Brady [BDavies@kevilco.com] Thursday, August 15, 2002 7:05 PM

Adhen Akay (E-mail); Alen Parkinson (E-mail); Anders Skaar (E-mail); Andrei Shket (E-mail); Art McKiniay (E-mail); Bill Ford (E-mail); Carole Barron (E-mail); David Burne (E-mail); David Anthony (E-mail); David Black (E-mail); David York (E-mail); Ernest Lifferth (E-mail); Fred Schambeck (E-mail); Gary Casey (E-mail); Jeffrey Niven (E-mail); Jim Smith (E-mail); Lerry Howell (E-mail); Lee Matech (E-mail); Margherita Chang (E-mail); Mark Boyeel (E-mail); Merk Freeland (E-mail); Mark Vorwaller (E-mail); Mary Samoff (E-mail); Peter Hennessy (E-mail); Peter Seealnk (E-mail); Ralph Hayee (E-mail); Robert Mehaleo (E-mail); Stephen Walsh (E-mail); Ted Clesielaki (E-mail); W. Edward Red (E-mail); William Eaton (E-mail); Zaki Saleh (E-mail);

mall)

**Bubject:** 

Brady's New Contact Information

My new work email address is:

bdavies@aluminamicro.com

My new work phone will be:

(360) 734-8220.

Let me know if I can be of service.

Brady

Brady Davies
Director, MEMS Technology
Kavlico Corporation
14501 Los Angeles Avenue
Moorpark, CA 93021
Voice: (805) 523-2000 x2441
Fax: (805) 523-7125
bdavies@kavlico.com
www.kavlico.com

From: Davies, Brady [BDavies@keviloo.com]
Sent: Friday, May 17, 2002 5:11 PM
To: Freeland, Mark (M.)
Subject: RE: Parts data for Analytical Solutions

### I recieved no attachment.

```
> ----Original Message----
          Precland, Mark (M.) [SMTP:mfreelal@ford.com]
> From:
> Sent:
          Thursday, May 16, 2002 6:36 FM
> To: Kyong Park (E-mail); Brady Davies (E-mail); Maurer, James (J.S.);
> Gates, Freeman (F.C.)
> Cc: Plante, Paul (P.G.); Akolkar, Shrikant (S.V.); Janda, Jon (J.M.);
> Verner, Carol (C.J.); Dames, Adam (A.V.)
> Subject: Parts data for Analytical Solutions
> Attached is an updated data file for the Analytical Solutions parts.
> Jon and Shri re-examined each part and updated the data to insure that
> they had all been examined consistently and with their most recent
> knowledge at hand.
> Please dispose of older versions of this file.
> Copies of the photographs will be distributed on CD and hard copy when we
> get to NM.
> Regards
> Mark Freeland
> > 6-Sigma Black Belt
> > Engine Research Department
> > Ford Research Laboratory
> > P.O. Box 2053
> > MD 2629 - SRL - Room 1517
> > Dearborn, MI 48121-2053 USA
> email: mfreelal@ford.com
> Tel.:
           (313) 594-7645
```

```
Thursday, May 16, 2002 7:10 FM
Sent:
To:
                   Freeland, Mark (M.)
Co:
                   Park, Kyong
                   RE: FREELAND, MARK
Subject:
Eyong and I can pick you up and then take you to dinner if thats okay.
> ----Original Message-----
> From:
           Freeland, Mark (M.) [SMTP:mfreelal@ford.com]
> Sent:
           Thursday, May 16, 2002 3:39 PM
> To: Ed Sickafus (E-mail); Kyong Park (E-mail); Erady Davies (E-mail);
> Maurer, James (J.B.); Gates, Freeman (F.C.)
> Subject: FW: FREELAND, MARK
> This is my itinerary for Sunday, different from Freeman's because by the
> time I tried to book NW the price had gone up another $500! So I booked a
> cheaper option with American.
> So, can someone pick me up at the airport, if not I will taxi to the
> hotel.
> Thanks
> Regards
> Mark Freeland
> > 6-Sigma Black Belt
> > Engine Research Department
> > Ford Research Laboratory
> > P.O. Box 2053
> > MD 2629 - SRL - Room 1517
> > Dearborn, MI 48121-2053 USA
> email: mfreelal@ford.com
           (313) 594-7645
> Tel.:
> ----Original Message----
> From: PNR-american express [mailto:pnr-notification@itn.net]
> Sent: Thursday, May 16, 2002 6:32 FM
> Subject: FREELAND, MARK
    TRAVEL BOOKING CONFIRMATION
> Your company's Travel Department has requested this Message be sent each
> time you book travel for company business. If you wish to change that
> Arrangement please dontact your Travel Department.
> ******************************
> **
> CRB Record Locator # 2MV6E4
> Airline Record Locator #1 AA-GRVLOK
```

Device, Brady [BDavies@kaviko.com]

From:

```
**************
> **
   Name(s) of people traveling:
>
   Passenger #1: MARK FREELAND
>
   Meal: standard
> Fare Details: DTT AA X/DFW AA ABQ 286.51AA X/STL AA DTT 282.32USD568.83
> AA ZEDTNDFWABOSTL XT10.00AY15.00XF DTW4.5DFW3ABO3 STL4.5
    Baggage Allowance: 2 pieces
3
>
 .>
> **
    ITINERARY
>
    Flight/Equip.: American Airlines 1863 Fokker 100
     Depart: Detroit(DTW)/Sunday May 19 1:13 pm
Arrive: Dallas/Ft Worth(DFW)/Sunday May 19 3:09 pm
>
>
              non-stop Miles:987 Seats Requested: 17A
     Stops:
>
      Class:
              Coach
>
>
   Flight/Equip.: American Airlines 2055 McDonnell Douglas MD-80
>
      Depart: Dallas/Ft Worth(DFW)/Sunday May 19 4:07 pm
>
      Arrive: Albuquerque (ABQ) /Sunday May 19 5:07 pm
>
      Stops:
              non-stop Miles:569 Seats Requested: 27F
>
      Class:
              Coach
>
>
    Flight/Equip.: American Airlines 2810 Operated by: Twa McDonnell Douglas
>
> MD-80
     Depart: Albuquerque(ABQ)/Tuesday May 21 8:45 am
Arrive: St Louis(STL)/Tuesday May 21 12:01 pm
>
>
      Stops:
              non-stop Miles:934 Seats Requested: 27F
>
      Clage:
              Coach
>
    Flight/Equip.: American Airlines 2616 Operated by: Twa McDonnell Douglas
>
> MD-80
      Depart: St Louis(STL)/Tuesday May 21 1:15 pm
>
      Arrive: Detroit (DTW) / Tuesday May 21 3:55 pm
>
              non-stop Miles:440 Seats Requested: 17A
      Stops:
>
      Class:
              Coach
>
      Total Airfare (including taxes)
                                     648.50 648.50
   Flight asgments must be ticketed by close of business on May 19.
>
>
>
>
>
        >
>
    AGENCY INFORMATION
>
    Agency: American Express
>
           Dearborn, MI
>
      ******************
    BILLING INFORMATION
```

Name: Mark Freeland
Address: 2101 Village Road
Mail Stop: SRL Room 1517/MD 2629
Dearborn, MT 48121-2053
Country: USA
Day Phone: 1-313-5947645
Email: MFREELA1@ford.com

PAYMENT INFORMATION
Visa Number: ON FILE
Expires: ON FILE
SPECIAL REQUESTS

\*\*

HAVE A GREAT TRIP!

From: Sent: To:

Davies, Brady [BDevise@kaviico.com] Wednesday, March 06, 2002 7:19 PM Freeland, Mark (M.)

Bubject:

RE: Aluminum etch teete

There is also a mil spec Al etch we utilize.

```
> ----Original Message----
          Freeland, Mark (M.) [SMTP:mfreelal@ford.com]
> From:
          Wednesday, March 06, 2002 5:20 AM
> To: 'Davies, Brady'
> Subject: RE: Aluminum etch tests
> Thanks Brady.
> Will wait for the results.
```

> In the literature I also found a 1:1 aqueous solution of HF referred to as an Al Etch. I am sure you knew that already, just I didn't.

Thanks

> Mark

From: Sent: Davies, Brady [BDavies@kayiloo.com] Wednesday, March 08, 2002, 12;17 AM

To: Subject: Mark Freetand (E-mail) Aluminum etch teats

Mark,

Scott is currently performing the hydrogen peroxide and piranha etch tests on Aluminum.

Brady

\*\*\*\*\*\*

Brady Davies Director, MEMS Technology Kavlico Corporation, A Solectron Company 14501 Los Angeles Avenue Noorpark, CA 93021

Voice: (805) 523-2000 ext. 2441

Fax: (805) 523-7125 B-Mail: bdavies@kavlico.com Website: www.kavlico.com

\*\*\*\*\*\*\*\*\*\*\*\*\*\*

From: Sent Davice, Bredy [BDavice@kavilco.com] Tuesday, March 05, 2002 11:48 PM

To:

Mark Freeland (E-mell)

Cc:

Park, Kyong; Heliker, Grant; Miler, Mark; Ray, Rendy; Ayens, Don; Termsehiro, Terry; Lee,

Steven; McDaniel, Scott

Subject:

Six Sigma Expert

Grant Heliker has been assigned to be the Kavlico point-of-contact with Mark Freeland for coordination of data and experiments regarding TMDP sensor field reliability.

Grant is now a trained Six Sigma Expert at Kavlico and is in the best position to work closely with Mark to assist in the various activities related to leading six sigma projects and work to measure, set goals, improve, ... as related to the six sigma methodology.

Grant has agreed that this is a good assignment and R&D will continue to provide technical support and perform appropriate tests and data gathering functions as necessary. Grant will coordinate our efforts so that the communication is reliable, consistent, and accurate. He recieved this assignment sometime ago and has been providing data and samples to Mark.

# Brady

\*\*\*\*\*\*\*\*\*\*\*\*\*

Brady Davies Director, MEMS Technology Ravlico Corporation, A Solectron Company 14501 Los Angeles Avenue

Moorpark, CA 93021

Voice: (805) 523-2000 ext. 2441

Fax: (805) 523-7125 R-Mail: bdavies@kavlico.com Website: www.kavlico.com

Subject: Location:

1:1 W/GCD & Mark Freeland GCD's Office, 3822/8RL

Start: End:

Fri 11/8/2002 1:00 PM Fri 11/8/2002 2:00 PM Tentetive

Show Time As:

Recurrence:

(none)

Mosting Status:

Not yet responded

Required Attendess:

Davie, George (G.C.); Freeland, Mark (M.)

Davis, George (G.C.)

Sent:

Friday, November 01, 2002 3:55 PM

To:

Freeland, Mark (M.)

Subject:

RE: dPFE - recommended engineer to review layout

sorry I missed the meeting yesterday. I was on vacation and got fied up. I see no problem to continue working on this project for a while. How much time is involved? I would like to get your update as well. Thanks.

-Original Message

**Front** 

Freeland, Mark (M.)

Senta

Friday, November 01, 2002 3:44 PM

Davis, George (G.C.)

Subjects

PW: dPFE - recommended engineer to review layout

### George.

I met with John yesterday as arranged. I have a package I gave him (final recommendation on circuit and supporting data) which I would like to review with you when you have time. He asked if I was still available to continue work, I said I was available to continue as long as it's OK with you. He has a special "test" he wants conducted.

# Regarda

### Mark Freeland

6-Sigma Black Belt Bugine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels i@ford.com Tel.: (313) 594-7645

-Original Message-

Provins

Freeland, Mark (M.)

Serib

Friday, November 01, 2002 3:25 PM

Te: Co.

Koszewnik, John (J.J.)

Bubject

Hermann, Thorses (T.J.) dPFE - recommended engineer to review layout

John,

I met with the EMC supervisor (Tom Hermann) this afternoon to get his recommendations on the testing we discussed yesterday.

I also asked him to recommend the best engineer we have to discuss design layout guidelines and to review Kavico's layout. He recommended Jarek Tracz (tracz@ford.com).

I would suggest we get Jarek together with Kavilco's designer before they start the layout.

### Regards

# Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreelal@ford.com Tel.: (313) 594-7645

Davis, George (G.C.)

Sent:

Friday, November 01, 2002 3:55 PM

To:

Freeland, Mark (M.)

Subject:

RE: dPFE - recommended engineer to review tayout

# Mark.

sorry I missed the meeting yesterday. I was on vacation and got tied up. I see no problem to continue working on this project for a white. How much time is involved? I would like to get your update as well. Thanks.

### ----Original Message--

Prom:

Freeland, Nark (M.)

Senta

Friday, November 01, 2002 3:44 PM

Te:

Davis, George (G.C.)

Subject

PW: dPFR - recommended angineer to review layout

### George,

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# Regarda

# Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

# ----Original Message ----

Progni

Freeland, Mark (M.)

Peril:

Friday, November 01, 2002 3:25 PM

Te: Ca Koszewnik, John (J.J.)

Gubjecta

Harmann, Thomas (T.1.) GPPE - recommended engineer to review layout

### John,

I met with the EMC supervisor (Tom Hermann) this afternoon to get his recommendations on the testing we discussed yesterday.

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I would suggest we get Jarek together with Kavilco's designer before they start the layout.

### Regards

### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com Tel.: (313) 594-7645

Davis, George (G.C.)

Sent:

Friday, November 01, 2002 3:55 PM

To:

Freeland, Mark (M.)

**Bublect**:

RE: dPFE - recommended engineer to review layout

### Mark,

sorry I missed the meeting yesterday. I was on vacation and got tied up. I see no problem to continue working on this project for a while. How much time is involved? I would like to get your update as well. Thanks

---- Original Message ---

From

Freeland, Mark (M.)

Sents

Friday, November 01, 2002 3:44 PM

Tot

Davis, George (G.C.)

Subjects

PAY: dPPE - recommended engineer to review layout

# George,

I met with John yesterday as arranged. I have a package I gave him (final recommendation on circuit and supporting data) which I would like to review with you when you have time. He asked if I was still available to continue work, I said I was available to continue as long as it's OK with you. He has a special "test" he wants conducted.

# Regards

### Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

### ----Original Massage-----

From:

Presiend, Mark (M.)

Sent

Friday, November 01, 2002 3:25 PM

Tel

Koszewnik, John (J.J.)

Co: Subjects Hermann, Thomas (T.I.) dPFE - recommended angineer to review layout

# John,

I met with the EMC supervisor (Tom Hermann) this afternoon to get his recommendations on the testing we discussed yesterday.

I also asked him to recommend the best engineer we have to discuss design leyout guidelines and to review Kavilco's leyout. He recommended Jarek Tracz (jtracz@ford.com).

I would suggest we get Jarek together with Kavilco's designer before they start the layout.

# Regards

### Mark Freeland

6-Sigma Black Belt
Brigine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

Tessadri, Tina (T.M.) on behalf of Davis, George (G.C.) Friday, September 20, 2002 10:36 AM Koszewnik, John (J.J.) Freeland, Mark (M.); Wedlow, Jamice (J.K.) Declined: DPFE Redealgn

Sent:

To:

Cc:

**Subject:** 

George Davis will not be available at this time due to a conflicting (mandatory) meeting called by his Director, Graham Hoars, at the same time. If George needs to be present, please check his Outlook calendar and reschedule. Thank you.

Subject Location:

J. Koszewnik's Office, POEE

Start: End:

Thu 8/22/2002 11:40 AM Thu 8/22/2002 12:30 PM Tentative

Show Time As:

Recurrence:

(enon)

Meeting Status:

Not yet responded

Required Attendess:

Davis, George (G.C.); Koszewnik, John (J.J.); Freeland, Mark (M.)

Subject: Location: Undsted: GCD August Department Meeting

C/R 1127, SRL

Start: End:

Wed 8/21/2002 4:00 PM Wed 8/21/2002 5:00 PM

Show Time As:

Tentative

Requirence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Davis, George (G.C.); SRL Conf Room 1127 (60); Alger, Terry (T.F.); Betten, John; Blobeum, Erica (E.); Bowles, Paul (P.D.); Chottiner, Jaffrey (J.E.); Chyo, Timothy (T.); Coulson, Gary (G.); Curtis, Eric; Dal, Wen (W.); Davis, George; Fan, Ll (L.); Freeland, Mark; Fujll, Yuji; Gentile, Peter (P.H.); Hen, Allen (Zhiyu); Hilditch, Jim (J.A.); Iyer, Cleudia; Iyer, Vitay (V.); Jennings, Mark; Kenney, Tom; Kumar, Bhogineni (B.S.); Lee, Seung-Hoon (S.); Lee, Soduk (S.); Leiby, James (J.R.); Makkapatt, Satheesh (S.); McCallum, James (J.W.); McGee, Jeff (J.M.); Munoz, Ruben (R.H.); Neel, Pamela (P.H.); Newman, Charles (C.E.); Pietron, Greg; Puchaleky, Christopher; Ramanethan, Kertik (K.); Rogers, Mett; Rollinger, John; Schroder, Michael (M.); Scapenald, Jeffry (J.G.); Shen, Henry (Hukdan); Smith, Richard (R.L.); Sorab, Jagadish (J.); Styron, Joeh; Tessadri, Tina (T.M.); Tiller, Michael (M.M.); Tobler, Bill; VanDerWege, Brad (B.A.); Washington, Donnell; Watson, Alian (A.R.); Weaver, Corey (C.E.);

Westrate, Barbara (B.L.); Wooldridge, Steven (S.T.); Xu, Zhong (Z.); Yang, Jielin; Yi, James;

Zhang, Jenny (J.); Zhang, John X.; Zubeck, Michael (M.W.)

Optional Attendess:

Kumer, Shogineni (B.S.); Biobaum, Erica (E.); Fujii, Yuji (Y.); Weaver, Corey (C.E.); Washington II, Donnell (D.M.); Pietron, Greg (G.M.); Tobler, Bill (W.E.); Tiller, Michael (M.M.); Lee, Soduk (S.); Yang, Jialin (J.); Neal, Pamela (P.H.); Lelby, James (J.R.); Kenney, Tom

(T.E.); Lee, Seung-Hoon (S.); Bowles, Paul (P.D.); Curtis, Eric (E.W.)

importance:

High

NOTE: MEETING TIME BEING CHANGED (FROM 3:00-4:00) DUE TO A CONFLICT IN GEORGE'S SCHEDULE TODAY.

FULL-SIZE MARBLE CAKE & COFFEE ORDERED ON 8/6 FOR TOM KENNEY'S 15-YEAR ANNIV.

NOTE: VIJAY IYER WILL GIVE A 15-20 MINUTE PRESENTATION OF HIS PROJECT WORK.

DeSpirt, Margaret (M.M.)

Sent:

Thursday, May 16, 2002 2:11 PM

To:

Gates, Freeman (F.C.); Freeland, Mark (M.); Maurer, James (J.B.); Self, Daryl (D.G.); Marchuck, Ted (T.J.); O'Neell, Jim (J.D.); Foster Jr., Elmer (E.S.); Basmell, Joseph (J.F.); Desal, Narendra (N.); Sears, Renée (R.T.); Day, Doug (D.E.) King, Sendra (S.M.); Bernes, Keunita (K.D.); Ritter, Paulette (P.); Wullaert, Michael (M.G.);

Cc:

Koch, Otto (O.A.)

**Bublect:** 

FW: Domestic Trip Approval

The trips listed below have been approved by John Koszewnik:

| Name           | Dates   | Destination   |            |
|----------------|---------|---------------|------------|
| Daryl Self     | 6/26-27 | Birmingham, A | <u>L</u>   |
| Ted Marchuck   | 6/26-27 | Birmingham, A | ļ          |
| Jim O'Neall    | 6/11-12 | Newport News  | , Virginia |
| Walt Jasiolek  |         | <b>"</b> "    |            |
| Elmer Foster   |         |               | ]          |
| Joe Basmaji    |         | II .          | ]          |
| Norendra Desal |         | ч             |            |
|                |         |               |            |
| Renee Sears    | 6/3-6/5 | Hartford, CT  |            |
| Doug Day       | 6/3-6/5 | Waco, TX      | ]          |
| Freeman Gates  | 5/19-21 | Albuquerque,  | NM         |
| Mark Freeland  | 5/19-21 | #             |            |
| Jim Maurer     | 5/19-21 | •             | ]          |
| Ed Sickafus    | 5/19-21 | п             | ]          |

# Margaret DoSphil

Engineering Information Coordinator Program Administration POEE Bldg., Cube #CO078, Mail Drop #72 Phone: (813) 59-41552 Fax: (813) 89-02814 Dhallwal, Dave (B.S.)

Friday, May 24, 2002 3:41 PM

Oboza, Doran (D.); Agerwai, Apoorva (A.); Banke, Nermine (N.B.); Coryee, Kevin (K.W.); Cvetkovski, Peter (P.); Devenport, Marty (M.F.); Deegan, Mike (M.D.); Fals, Stephen (S.W.); Fashina, Ayodeji (A.); Fodera, Michael (M.J.); Foust - Smith, Susan (S.L.); Prestand, Mark (M.); Glannamore, Armend (A.A.); Glimour, Bradly (B.A.); Ivaniazyn, Teri (T.E.); Kalamdani, Rajecy (R.S.); Madrid, Devid (D.R.); 'Melt Morin'; Morton, Michael (M.F.); Motley, Lesia (L.M.); Norman, Ingrid (I.); Odum, Ika (I.C.); Prater, Joseph (J.A.); Rezaes, John (J.H.); Sellack, Beth (B.); Steame, Pamm (P.V.); Tedone, Demian (D.J.); Tobis, Bruce (B.J.); Trombetta, Christopher (C.B.); Whang, Sonjae (S.); Winekoff, Bryan (B.D.); Zubeck, Michael (M.W.); Acuff Jr., Melvin (M.); Ahmed, Kemel (K.); Ajutufoh, Bert (B.O.); Anderson, Johnny (J.D.); Arazulowicz, Ken (K.J.); August, Den (D.); Beum, Joe (J.M.); Bednerek, Mark (M.P.); Boeiner, Derryle (D.R.); 'Brian Johnson'; Brookette, Ronald (R.K.); Broaki, James (J.W.); Brown, Mark (M.D.); Campbell, Aindrea (A.M.); Campbell, Donald (D.C.); Caruso, Barry (B.); Cassiae, William (W.C.); Castleman, William (W.G.); Centilvre, James (J.C.); Cervantes, Eduardo (E.J.); "Chris Campbell"; Clechanowski, Mark (M.S.); Clugaton, Sharte (S.A.); Coate, Richard (R.M.); Colatrugilo, Vinos (V.E.); Cox, Tom (T.T.); D'Agostino, Antonio (A.); Davis, Jerry (J.W.); 'Debbie Pallani'; Dunaska, Dennis (D.R.); Dyson, Simon (S.C.); Eggert, Daniel (D.C.); Fike, Barbara (B.G.); FJORDAN2 was deleted 20020508; Piorance, Jeremy (J.D.); Ptuker, James (J.A.); Fowikee, Michael (M.S.); Francieco Fernandez (E-mail); Franklin, Taj (T.); Gamble, Creig (C.R.); Gezdecki, Timothy (T.A.); Gerke, David (D.W.); Glies, Anthony (A.T.); Gilmer, David (D.C.); Giordano, Mike (M.A.); Goulet, Michele (M.A.); Grace, John (J.E.); Graham, Robert (8.); Granados, Rodolfo (R.); Groom, Reginald (R.); Gucciardo, Steve (8.P.); Hegde, Damodar (D.M.); Helmstadler, Donald (D.G.); Hettle, Bruce (B.W.); Holloway, Scott (J.S.); Hopkins, Harry (H.S.); 'J. Sowarda'; 'Jahahan, John'; Johnson, Gary (G.A.); King, Steve (B.J.); Kinnie, Brian (B.W.); Kircell, Isin (I.G.); Kline, Denies (D.M.); Koch, Thomas (T.P.); Kunde, Olef (O.); Lardizabai, Sergio (S.); Lizotte, Brian (B.W.); Lorius, Brett (B.R.); Lubo Djuric'; MacDonald, George (G.F.); Madel Jr., Stan (S.P.); Majzoub, Malek (Z.); Mareac, Lance (L.D.); Matthewe, Gery (G.); Malyslewicz, Edwin (E.J.); McCowin, Enoch (E.G.); Mihora, Bob (R.S.); Mitchell, Garole (C.A.); Morabito, Mike (M.P.); Moses, Edwin (E.D.); Nemeth, Steve (8.L.); O'Connor, Jim (Jernes W.); Petel, Preful (P.J.); Pissencia, David (D.B.); Post-barnes, Donna (D.F.); Popenes, Michael (M.J.); Pullela, Ananth (A.); 'Purvis, Bruce'; Ramey, George (G.); Reichenbech, Ronald (R.W.); Rollin, Anthony (A.D.); Rossman, Michael (M.D.); Samkny, Bahman (Banny.); Sanda, Roger (R.P.); "Schnalder, Jeff; Shardan, Richard (R.D.); Shopp, James (J.J.); Singley, Rogers (R.W.); Smith, Devid (D.A.); Smith, Termille (T.C.); Soullers, James (J.K.); Spanisk, Terrence (T.E.); Stevenson, Ethel (E.E.); Stojov, Tony (T.); Stump, Steven (S.M.); Sturgeon, Sill (W.); Swlok, Curt (C.); Szczepaniak, Gerard (G.); Taraszkiewicz, Alexande (A.S.); Thomas, Ken (K.C.); Torcelan, David (D.A.); Tourco, Lyle (L.W.); Tucker, Shanlee (S.M.); Tyrell, Larry (L.J.); Vangavolu, Sreedhar (S.); Vinogradov, Alex (A.); Walker, Cheryl (C.); Walsh, Gersid (G.); Washington, Eric (E.D.); Wagrzyn, Michael (M.J.); Wepler, Ron (R.J.); White, Christopher (C.); Whiteley, Christine (C.); Wistr, Joseph (J.M.); Wilkins, Robert (R.M.); Williams, Anthony (A.J.); Williams, Elizabeth (E.P.); Williams, Michael (M.T.); Williams, Robert (R.L.); Wille, Deon (D.G.); Zigler, Bred (B.T.) RE: Powertrain PQR Meeting Minutes - 5/22/02

Subject

CONGRATs to powertrain team.

TGWs for powertrain for Dec 01 came out 179 vs. 322 and 325 for Oct and Nov 01 respectively.

Working together makes a difference.

-- Original Meesage---

Fromu

Oboza, Doren (D.)

Sent

Tet

Fridey, May 24, 2002 3:34 PM
Agarwal, Apoprva (A.); Banke, Normine (N.B.); Coryea, Kavin (K.W.); Ovelkoveld, Peter (P.); Cavenport, Marty (M.F.); Deegan, Miles (M.D.); Palls, Stephen (S.W.); Peshina, Ayodeji (A.); Fodern, Michael (M.D.); Pount - Smith, Susan (S.L.); Presland, Mark (M.D.); Giavamore, Armand (A.A.); Gimour, Bradly (B.A.); Ivaniszyn, Terl (T.E.); Katemdani, Rajeav (R.S.); Macirid, Devid (D.R.); Nelt: Morter, Morten, Michael (M.F.); Motley, Leain (L.M.); Norman, Ingrid (L.); Odum, Die (T.C.); Parier, Joseph (J.A.); Rezese, John (J.H.); Selleck, Beth (B.); Stehms, Permin (P.V.); Tectore, Demitin (D.I.); Tottis, Bruce (B.J.); Trombetta, Christopher (C.B.); Wheng, Sonjiee (S.); Whetsoff, Bryen (B.D.); Zubeck, Michael (M.W.); Acuff Jr., Mehin (M.); Ahaned, Kamal (K.); Ajukuthi, Sart (B.O.); Anderson, Johnny (J.D.); Aristovicz, Kan (K.J.); August, Den (D.); Beum, Joe (J.M.); Bedannek, Mark (M.P.); Bostner, Derryle (D.R.); Brian Johnson; Brockette, Squald (R.K.); Broald, James (J.W.); Brown, Mark (M.D.); Campbell, Aindree (A.M.); Campbell,

Donald (D.C.); Caruso, Berry (B.); Casalas, William (W.C.); Castleman, William (W.G.); Cartifvee, James (J.C.); Carventes, Educado (E.L.); Ciria Campbell; Clechanovald, Mark (M.S.); Cugaton, Share (S.A.); Coste, Richard (R.M.); Colatrugilo, Vince (V.E.); Cox, Torn (T.T.); D'Agostino, Antonio (A.); Devis, Jerry (J.W.); Debtis Pallant; Dhalled, Dave (B.S.); Dursales, Dennis (D.R.); Dyson, Simon (S.C.); Eggert, Daniel (D.C.); Pilo, Berbare (B.G.); FloreDAN2 was deleted 20020509; Florence, Jeremy (J.D.); Fluter, Jerope (J.A.); Rowline, Michael (M.S.); Prancisco Fernandez (E-mail); Frankin, Toj (T.); Garchie, Craig (C.R.); Gastiacid, Timothy (T.A.); Geric, Devid (D.W.); Gles, Anthony (A.T.); Gilmer, Devid (D.C.); Giordano, Mile (M.A.); Goulet, Michael (M.A.); Grace, John (J.E.); Graham, Robert (S.); Granados, Rodolfo (R.); Groom, Reginald (R.); Giordano, Mile (M.A.); Goulet, Michael (M.A.); Grace, John (J.E.); Graham, Robert (S.); Hottle, Bruce (B.W.); Holoway, Scott (J.S.); Mopisis, Harry (H.S.); J. Sover (S.); Harge, Brian (B.W.); Kircal, Jian (J.G.); Mopisis, Harry (H.S.); J. Sover (S.); Kirnle, Olifo (D.); Kirnle, Gille (J.S.); Miles, Garce (D.A.); Kirnle, Garce (D.A.); Matthews, Gary (G.); Matyalewicz, Edwin (E.A.); McCowin, Enoch (E.G.); Mitora, Bob (R.S.); Mitchell, Carole (C.A.); Morabito, Mita (R.P.); Moses, Edwin (E.D.); Normeth, Steve (S.L.); O'Connor, Jim (James W.); Petal, Praful (P.J.); Planenda, David (D.B.); Post-bernes, Donna (D.R.); Popenas, Michael (M.J.); Relian, Ansanth (A.); Purvis, Bruce; Ramey, George (G.); Retcharbach, Ronald (R.W.); Relian, Anthony (A.D.); Rosaman, Michael (M.D.); Sarrimy, Bahrana (Berny.); Sanda, Roger (R.P.); Schneiter, Jeff; Sheridan, Richard (R.D.); Shopp, James (J.J.); Singley, Rogers (R.W.); Schip, David (D.A.); Shopp, Christian (C.); Village, Christopher (C.); Wellans, Anthony (A.J.); Williams, Elembeth (C.P.); Williams, Michael (M.J.); Williams, Anthony (A.J

Subjects

<< File: Meeting Minutes (05\_22\_02).doc >> << File: Future Agendes.doc >>

# Doran Oboza

Powertrain Quality Analyst - Wayne Assembly Plant Phone - 784-487-0804 Pager - 784-295-5439 email - doboza1@ford.com

Dhailwal, Dave (B.S.)

Sent:

Thureday, April 11, 2002 3:54 PM

To:

Freeland, Mark (M.)

Ca:

Bell, Ryan (R.M.); MacDonald, George (G.F.)

Subject:

RE: Wayne Power train Containment Matrix / PQR Presentations On April 17th

Mark, its OK if you cannot attend. We are out of tube mounted DPFE sensor at Wayne,

We are going to use new release tube mounted DPFE sensor only for service.

-Original Message-

Proces Sents

Bell, Ryan (R.M.)

Thursday, April 11, 2002 12:50 PM

Subjects

MacDonald, George (G.F.); Dhallwal, Deve (B.S.)

PW: Wayne Power train Containment Matrix / PQR Prepentations On April 17th

M

Ryan Bell (rbell2) Master Black Belt

Wayne Stamping and Assembly Operations

Ph. (734)467-8876 Fex. (734)467-6882 Pgr. (734)797-8562

<< File: Bell, Ryan (R.M.).vcf >>

-Original Message

From

Freeland, Mark (M.)

Sent:

Thursday, April 11, 2002 12:43 PM

Tes

Bell Ryan (R.M.)

**Subject**:

RE: Wayne Power train Containment Matrix / PQR Proggntations On April 17th

Ryan,

I understand where you are coming from, however I just have too many meetings to go to and can not commit to coming to any regular meetings, otherwise I will not get any work done! I will try and attend next weeks meeting.

### Regards

### Mark Freeland

6-Sigma Black Belt

Engine Research Department Ford Research Laboratory

P.O. Box 2053

MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA

email: mfreela1@ford.com Tel.: (313) 594-7645

-Original Message

From

Boll, Ryen (R.M.)

Sent

Wednesday, April 10, 2002 4:10 PM

Ťei

Fashing, Ayodell (A.); Selleck, Beth (B.); Morion, Nichael (M.F.); Trombetta, Christopher (C.B.); Ovettovski, Peter (P.); Coryea, Kevin (K.W.); Gwoodek, Tom (T.M.); Agerwal, Apoorve (A.); Tobie, Bruce (B.J.); Rezsee, John (J.H.); Freeland, Mark (H.);

Streetwa, Shivhari (S.P.)

Bell, Ryan (R.N.); MacDonald, George (G.F.); Dhallwal, Dave (B.S.)

Subjects

PVI: Wayne Power train Containment Hatrix / PQR Presentations On April 17th.

# Team.

I would like to know which of you are working on a Powertrain Project and which are not. It is totally unacceptable to not attend the PT VRT meeting if you are working on a 6 sigma project at Wayne. Please let me know if you are getting this in error.

Thank you,

Ryan Bell (rbell2) Master Black Belt Wayne Stamping and Assembly Operations Ph. (734)467-8876 Fax. (734)467-8882 Pgr. (734)797-8582

<< File: Bell, Ryan (R.M.).vcf >>

---- Original Message

Freens

Streetwe, Shirhari (S.P.)

Seri:

Wednesday, April 10, 2002 3:59 PM

To:

Rashina, Ayodeji (A.); Salinck, Bath (B.); Morton, Michael (M.F.); Trombetta, Christopher (C.B.); Castkavski, Peter (P.); Caryes,

Kevin (K.W.); Geozdak, Tom (T.M.); Agenval, Apoprva (A.); Tobis, Bruce (B.J.); Rezaes, John (J.H.); Freeland, Mark (M.);

Sitvastava, Shivhari (9.P.)

Cq <del>Gulglac</del>b Dhajiwal, Dave (B.S.); Bell, Ryen (R.M.); MacDonald, George (G.F.)

Wayne Power train Containment Matrix / PQR Presentations On April 17th

# Team.

If you are working on Focus PT issues then mark your calendar for this meeting. Your presence is very crucial for the success of the team.

WHAT:

Wayne Power train Containment Matrix / PQR Presentations - by G. MacDonald

WHEN:

PT VRT Meeting, 11 - 12 Noon (Presentation From 11:30AM), 04/17/02.

WHERE:

Wayne Maverick Conference Room

### Note:

We postponed this presentation for next week because only 2 BB's came to attend this meeting. Let us fill the room next week to show our support. Ryan, pl. support the PT VRT and request all PT BB's to attend this meeting.

Thanks

### Shivhari Srivesteve

Body & Chassis Black Bett, G.C.E. (Consumer Driven 6-Sigma) ph. 313-322-5392 / pg. 313-795-8141

**Bent** 

To:

Dioniei, Anthony (A.J.) Friday, July 28, 2002 5:43 PM Lovelace, Maria (M.E.); Freeland, Mark (M.)

Cc:

Dioniel, Anthony (A.J.)

Bublect:

Assignment # 02-58 - CQIS # 2GXCT001 - Part Being Returned

A DPFE sensor is being returned directly to Mr. Freeland per Assignment # 02-58 instructions. Part should arrive on Monday (7/29/02). Part being shipped by Airborne Express - airbil # 8749208174. Copy of related CQIS report (# 2GXCT001) is attached to this note and a copy is inside box with part being returned.



Tony Dionisi Ford Motor Company Enhanced Concern Identification Denver Field Quality Engineer

Office: 303-346-4788 Cell: 303-921-2517 Fex: 303-346-4798 adionial@ford.com

CSQ1002

COIS Indicator Summary

07/24/02 18:34:01

1 of 1

Rps#: 2GXCT001 CQD

Rpt: 07/24/2002 Odom: 4,955 M

Rvwd: File: Folder: Images: 0 Print Smy/Disp Detail(P/D): Volicie: 2002 ESCAPE 4X4,XLT ,WAGON 1FMYU041X2EC20002 Bid: 01/29/2002

Engine: 3.0L DUR Cuib: 2M11A30A Trans: CD4B B Axle: 3800F2.73L A/C: YB6

Douber Id: 03188 Burt's Arapahoe Ford, Inc. Ph#: (303) 643-9000 State: Colorado City: Englewood Orig/Caller: TONY DIONISI

Symptoms 6 07 7 00 DRVABL, STALL/QUITS, DECELERATION, OTHER-CODE NA.

Addi Sym:

St: CCRG/EPRC: S Rvwd: Dt: 07/24/2002

Phy: Cama. Comp: SENSOR ASY EGR PR.VL

- RPL Condition Code:

Region Code: 56 Region Name: Denver - 56

CONCERN: CUSTOMER STATES WHILE ON DECEL DOWN HILL VEHICLE STALLED LIKE A SWITCH TURNED OFF - VEHICLE RESTARTED RIGHT AWAY.

REPAIR: TECHNICIAN CHECKED OUT UNIT AND NOTED THE FOLLOWING:

 TECHNICIAN WAS UNABLE TO DUPLICATE CONCERN. NO CODES PRESENT. FOLLOWED DIRECTIONS FROM TSB - COULD NOT IDENTIFY ANY CONCERN. CONTACTED HOTLINE - RECOMMENDED THAT LATEST LEVEL PARTS FOR IAC, MAF, DPFE SENSOR, ETC. BE INSTALLED ON UNIT. TECHNICIAN INSTALLED LATEST LEVEL PARTS. UNIT RETURNED TO CUSTOMER.

- DPFE SENSOR DATE CODE ON ONE REMOVED/REPLACED: 2A14C WHITE PAINT DOT BY DATE CODE.
- VEHICLE HISTORY PER AWS: NOTHING IN THIS AREA.
- REFERENCE FORD ECI ASSIGNMENT # 02-58 DPFE SENSOR WILL BE RETURNED TO M. FREELAND FOR REVIEW.
- CONTACT DENVER FOE (A. DIONISI 303-921-2517) FOR ADDITIONAL INFO

Dionial, Anthony (A.J.)

Sent:

Tuesday, June 18, 2002 8:30 AM

To: Co: Freeland, Mark (M.) Dienial, Anthony (A.J.)

Subject:

RE: Parts for Asalgnment # 02-58 Being Returned

Mark, attached are copies of CQIS reports (I tried to Include any AWS history that was related in report). Also, parts are tagged and include VIN # on tag and CQIS report #.



CQIS # 2FMICO01\_doc



CQIS # 2F14B0002.doc



CQIS # 2FMIO003.doc

CLOUR

Freeland, Mark (M.)

Sents

Monday, June 17, 2002 6:11 PM

Тог

Diorisi, Anthony (A.J.) Lovelace, Maria (M.E.)

Ce: Subjects

RE: Parts for Assignment # 02-58 Being Returned

Thank you Tony,

Could you please let me have the VIN numbers for the three vehicles, so that I can look up the vehicle service histories in AWS. Also, where/how do I look up the CQIS reports on line. Thanks

# Regards

### Mark Freeland

6-Sigma Black Belt
Regine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com

----Originai Message-----

Tel.: (313) 594-7645

Promi

Diorital, Anthony (A.J.)

Sents

Monday, June 17, 2002 9:47 AM

TOI

Preciand, Mark (M.)

œ\_\_\_\_

Lovelace, Maria (M.E.); Oloniel, Anthony (A.I.) Perts for Assignment # 02-58 Being Returned

Mark, you should be receiving three DPFE sensors today - shipped Airborne Express - airbill # 4358965063. Related to ECI Assignment # 02-58.

CQIS reports involved for these three sensors are: 2FMiO001, 2FMiO002, 2FMiO003.

Tony Dionisi
Ford Motor Company
Enhanced Concern Identification

**E982-827-**G 2428

Deriver Field Quality Engineer Office: 303-346-4788 Cell: 303-921-2517 Fax: 303-346-4798 adionisi@ford.com

Rps#: 2FMIO001 CQD

Rpt: 06/13/2002 Odom: 15,756 M

Rvwd: File: Folder:

Images: 0 Print Smy/Disp Detail(P/D):

Vehicle: 2001 TAURUS, SE SVG , SEDAN 1FAFP55U51A286461 BM: 06/25/2001

lof 1

Rugine: 3.0L BF1 Calb; 1DiD1280A Truns; AX4S Axie: FWD 3.77 A/C: YES Douler id: 45246 HERTZ RAC - DENVER Ptst: (303) 342-3854

State: Colorado City: Denver

Ode/Caller: TONY DIONISI

Symptom: 6 98 2 00 DRVABL\_INDICATOR\_CHECK ENGINE, OTHER-CODE NA

Addi Sym

St: CCRG/EFRC: Rvwd: Dt:

Phy: Caus. Comp: SHNBOR ASY BOR PR VI.

- RPL Condition Code:

Region Code: OC Region Name: Remail - CC

CONCERN: CHECK ENGINE LIGHT ON.

REPAIR: TECHNICIAN AT HERTZ RAC CHECKED OUT UNIT AND NOTED THE POLLOWING:

- \* CHECK ENGINE LIGHT ON CODE P0401 PRESENT (BGR NOT ENOUGH FLOW).
- \* ORDERED AND INSTALLED NEW DPFE SENSOR RETESTED CONCERN RESOLVED.
- DPFE SENSOR REMOVED/REPLACED DATE CODE: 2C21B
- \* VEHICLE HISTORY PER AWS; PER AWS; DPFE SENSOR WAS REPLACED ON 3-29-02 AT 15,756 MILES AND THEN AGAIN AT 15,929 MILES ON 4-9-02. PER HERTZ REPAIR ORDER, AT 15,756 MILES (3-29-02) DPFE SENSOR WAS ORDERED AND REPLACED ON 4-10-02. IN ORDER FOR THE REPLACED SENSOR. BEING RETURNED TO BE A 2002 CALENDAR BUILT SENSOR, HERTZ MUST HAVE REPLACED SENSOR ON 3-29-02 AND AGAIN ON 4-10-02.
- \*RBF. FCSD BCI ASSIGNMENT # 02-58 PART WILL BE RETURNED TO MARK. FREELAND PER ASSIGNMENT DIRECTIONS.
- CONTACT DENVER FQE (A. DIONISI 303-921-2517) FOR ADDITIONAL. INFORMATION.

1 of 1

Rp#: 2FMH0002 COD

Rpt: 06/13/2002, Odom: 228 M

Rywd: File: Folder:

Imagos: 0 Print Smy/Disp Dotail(P/D):

Vehicle: 2002 EXPLORER 4X4, XLT , MPV 1FMZU73E82ZC24168 Bld: 04/10/2002

Engine: 4.0L SOHC Calb: 2U51AF0A Trans: 5R55S Axle: 3200F3.55C A/C: YES

Dealer Id: 03294 O'MEARA FORD CENTER INC

Ph#: (303) 254-5020

State: Colorado City: Northglenn Orlg/Caller: TONY DIONISI

Symptom: 6 98 2 00 DRVABL INDICATOR CHECK ENGINE OTHER CODE NA

Addi Sym:

St CCRG/BPRC: Rvwd: Dt:

Pix: Caus. Comp.: SENSOR ASY EGR PR VL

- RPL Condition Code:

Region Code: 56 Region Name: Denver - 56

CONCERN: CUSTOMER STATES CHECK ENGINE LIGHT IS ON.

REPAIR: TECHNICIAN CHECKED OUT UNIT AND NOTED THE FOLLOWING:

- VERIFIED CHECK ENGINE LIGHT ON CODE P1400 PRESENT.
- MONITORED PIDS DURING ROAD TEST, DIFFE SENSOR CHECK OUT OF SPEC.
- \* REPLACED DPFE SENSOR RETESTED UNIT CONCERN RESOLVED.
- DPFE SENSOR REMOVED/REPLACED DATE CODE: 2808B
- VEHICLE HISTORY PER AWS: NONE IN THIS AREA.
- \* REF. FCSD ECI ASSIGNMENT #02-58 PART WILL BE RETURNED TO MARK FREELAND PER ASSIGNMENT DIRECTIONS.
- CONTACT DENVER FQE (A. DIONISI 303-921-2517) FOR ADDITIONAL INFORMATION.

CSOI002 COIS Indicator Summery 06/18/02 08:21:50 1 of 1 \_ Ret#: 2FMIO003 CQD Rpt: 06/13/2002 Odom: 24,588 M Rywd: File: Folder: Images: 0 Print Smy/Disp Detail(P/D): Vehicle: 2001 FOCUS,ZX3 ,COUPB 3FAFP31381R119440 Bld: 09/21/2000 Rnoine: 2.0L ZTECH Calb: 1AK1AZ0A Trans: FN 48PD Axie: FWD 3.904 A/C: YES Dealer Id: 03294 O'MEARA FORD CENTER INC Ph#: (303) 254-5020 State: Colorado City: Northgleon Orig/Callor: TONY DIONISI Symptom: 6 14 0 00 DRVABL LOSS OF POWER OTHER-CODE NA OTHER-CODE NA

Addi Sym: St: CCRG/EPRC: S Rywd: A Dt: 06/13/2002

Fix: Caus. Como: SENSOR ASY EGR PR VL - RPL Condition Code:

Region Code: 56 Region Name: Deaver - 56

CONCERN: VEHICLE LOST ALL POWER - WHEN DRIVING HEARD LOUD POP AND DIED.
REPAIR: TECHNICIAN CHECKED OUT UNIT AND NOTED THE FOLLOWING:

- \* VERIFIED NO START/NO CRANK CONCERN DURING INITIAL CHECK OF UNIT. USING NGS UNABLE TO COMMUNICATE WITH PCM OR REC MODULES.
  - \* FOLLOWED SYMPTOM CHART DIAGNOSTICS (PERFORMED U1262 DIAGNOSTICS) NO FAULTS FOUND. DISCONNECTED DPFE SENSOR VEHICLE STARTED.
  - \* REPLACED DPFE SENSOR RETESTED UNIT NO MIL OR DTC'S SET. CONCERN RESOLVED, DATE CODE OF DPFE SENSOR REMOVED/REPLACED: 0/08C
  - VEHICLE HISTORY PER AWS: NONE IN THIS AREA.
  - \* REF. FCSD ECI ASSIGNMENT # 02-58 PART WILL BE RETURNED TO MARK FREELAND PER ASSIGNMENT DIRECTION.
  - \* CONTACT DENVER FQB (A. DIONISI 303-921-2517) FOR ADDITIONAL INFORMATION.

Sent:

Otonial, Anthony (A.J.) Monday, June 17, 2002 9:47 AM Freeland, Mark (M.)

To:

Ca: Subject: Lovelace, Maria (M.E.); Dioniel, Anthony (A.J.) Parts for Assignment # 02-68 Being Returned

Mark, you should be receiving three DPFE sensors today - shipped Airbome Express - airbiil # 4358965063. Related to ECI Assignment # 02-58.

CQIS reports involved for these three sensors are: 2FMIO001, 2FMIO002, 2FMIO003.

Tony Dionial Ford Motor Company Enhanced Concern Identification Denver Field Quality Engineer Offica: 303-346-4768

Cell: 303-821-2517 Fax: 303-346-4798 adionisi@ford.com

Domka, John (J.J.)

Bent:

Tuesday, July 80, 2002 5:12 PM

To:

Freeland, Mark (M.)

**Subject:** 

RE: Assignment # 58 - Suspect DPFE Sensor

This could be a replacement that never made it out of the dealership after being installed. So I was told!!!!!

-Ortginal Message-

From:

Prestand, Mark (M.)

Serie

Tuesday, July 30, 2002 5:10 PM

Tei

Domka, John (J.J.)

RE: Assignment # 58 - Suspect OPFE Sensor

Thanks John,

Just got the one from Bill Brown Ford, Interesting, just manufactured on 6/5/2002i

# Regards

# Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com Tel.: (313) 594-7645

### -Original Massage-

(LOSE)

Domka, John (3.3.)

Sent

Tuesday, July 30, 2002 4:59 PM

To:

Fredand, Mark (NL)

Subsects

RE: Assignment # 58 - Suspect DPFE Sersor

Found another todayl 2E10B BD.

-Original Massage-

Promi

Freeland, Nork (NL)

Sent

Tuesday, July 30, 2002 4:58 PM

Tor

Subjects

Domka, John (J.J.) R.E. Aasignment # 58 - Suspect DPFE Sexeur

# Thank you John,

I have a bunch of parts which arrived while I was on vacation, so it will take a few days to getting round to looking at them all. I will issue a summary on my findings in due course.

### Rogards

# Mark Precland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517

EA62-627-0 2425

Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

---- Original Message----

Progra

Domke, John (J.J.)

Sent

Friday, July 19, 2002 6:44 PM Lovelace, Maria (M.E.)

Tœ

œ

Resiand, Mark (M.)

Subject:

Assignment # 58 - Suspect DPFE Sensor

I'll bring the DPFE in Monday morning.

**CSQI002** 

CQIS Indicator Summary

07/19/02 18:40:38

Rot#: 2GSBC003 CQD

Rpt: 07/19/2002 Odom: 19,603 M

Images: 0 Print Smy/Disp Detail(P/D):

Rvwd: File: Folder: Vehicle: 2002 WINDSTAR,4X2 ,WAGON

2FMZA51462BA97267 Bid: 02/07/2002

Engine: 3.8L EFI F Calb: 2A31ZC0A Trans: 4F50N

Axia: FWD 3.58 A/C: YES

Dealer Id: 45307 BUDGET RAC - ROMULUS

1 of

State: Michigan City: Romulus Symptom: 6 98 2 00 DRVABL, INDICATOR, CHECK ENGINE, OTHER-CODE NA

Orlg/Caller: JOHN DOMKA

St: CCRG/EPRC: Rvwd: Dt: Addi Svm:

Fix: Caus. Comp: SENSOR ASY EGR PR VL

- RPL Condition Code: H5

Region Code: CC Region Name: Rental - CC

CONCER CHECK ENGINE LIGHT ON

REPAIR ANALYSIS DETERMINED THE DPFE SENSOR WAS SUSPECT. DPFE CHANGED, ISSUE

CORRECTED. SUSPECT DPFE GIVEN TO MARK FREELAND.

DPFE BUILD DATE 2A25B

MICHIGAN FOE - JOHN DOMKA

313-433-7910

F1 Help

F3 Exit F4 Last Crnts F5 Add Crnts F6 Add Fldr F9 Ind Corr F10 Next Rpt F11 Prev Rpt F12 Return

F7 Bkwd F8 Fwd 10018-BOTTOM OF DATA

LPENJBD

Thanks,

John J. Domha

Field Quality Engineer

Enhanced Concern Identification

Ford Customer Service Division

domka@ford.com

Phone 313-433-7910

FAX 734-475-9110

Domka, John (J.J.)

Sent:

Tuesday, July 30, 2002 4:59 PM

To:

Freeland, Mark (M.)

Subject:

RE: Assignment # 68 - Suspect DPFE Sensor

Found enother todayl 2E10B BD.

# ----- Original Measage

Freeland, Mark (M.)

Sent:

Tuesday, July 30, 2002 4:58 PM

Domke, John (J.J.)

Bulblect

RE: Assignment # 58 - Suspect DIFFE Sensor

Thank you John,

I have a bunch of parts which arrived while I was on vacation, so it will take a few days to getting round to looking at them all. I will issue a summary on my findings in due course.

# Regards

### Mark Freeland

6-Sigma Black Belt Bugine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

# -Original Message

From:

Domks, John (JJ.)

Bent:

Pidny, July 19, 2002 6:44 PM

Tea

Lovelace, Marta (M.E.)

œ

Prestand, Mark (NL)

Addignment # 58 - Suspect DPPE Sensor

I'll bring the DPFE in Monday morning.

**CSQ1002** 

CQIS Indicator Summary

07/19/02 18:40:36

==>

Rot#: 2G8BC003 CQD

Rot: 07/19/2002 Odom: 19,603 M

Rvwd: File: \_ Folder:

Images: 0 Print Smy/Disp Detail(P/D):

2FMZA51462BA97267 Bkd: 02/07/2002

1 of

Vehicle: 2002 WINDSTAR,4X2 Engine: 3.81, EFI F Calb: 2A31ZC0A Trans: 4F50N

Axie: FWD 3.56 A/C: YES

Dealer Id: 45307

**BUDGET RAC - ROMULUS** 

.WAGON

Ph#:

State: Michigan City: Romulus Orig/Caller: JOHN DOMKA

Symptom: 6 98 2 00 DRYABL, INDICATOR, CHECK ENGINE, OTHER-CODE NA

Addi Sym:

St: CCRG/EPRC: \_ Rvwd: Dt

Fix: Caus. Comp: SENSOR ASY EGR PR VL RPL Condition Code: H5

Region Code: CC Region Name: Rental - CC

# CONCER CHECK ENGINE LIGHT ON

REPAIR ANALYSIS DETERMINED THE DPFE SENSOR WAS SUSPECT. DPFE CHANGED, ISSUE

CORRECTED. SUSPECT DPFE GIVEN TO MARK FREELAND. DPFE BUILD DATE 2A25B MICHIGAN FQE - JOHN DOMKA 313-433-7910

F1 Help F3 Exit F4 Last Crits F5 Add Crits F6 Add Fidir F7 Bkwd F8 Fwd F9 Ind Corr F10 Next Rpt F11 Prev Rpt F12 Return 10018-BOTTOM OF DATA LPENJBD

Thanks,

July J. Danks

Field Quality Engineer Enhanced Concern Identification Ford Customer Service Division

Jdomka@ford.com Phone 313-433-7910 FAX 734-475-9110

Domka, John (J.J.)

Sent:

Friday, July 19, 2002 6:44 PM

To:

Lovelece, Marie (M.E.)

Ca: **Subject**  Freeland, Mark (M.) Assignment # 58 - Suspect DPFE Sensor

ril bring the OPFE in Monday morning.

CSOKXX

CQIS Indicator Summery

07/19/02 18:40:36

Rot#: 2GSBC003 CQD

Rpt 07/19/2002 Odom; 19,603 M

Rvwd: File: \_ Folder:

images: 0 Print Smy/Disp Detail(P/D):

Vehicle: 2002 WINDSTAR,4X2 ,WAGON Engine: 3.8L EFI F Calb: 2A31ZC0A Trans: 4F50N

2FMZA51462BA97267 Bld; 02/07/2002 Axte: FWD 3.58 A/C: YES

Dealer Id: 45307 BUDGET RAC - ROMULUS

1 of 1

Ph#:

State: Michigan City: Romutus

Orlg/Caller: JOHN DOMKA Symptom: 6 98 2 00 DRVABL INDICATOR CHECK ENGINE, OTHER-CODE NA

Addi Svm:

St: CCRG/EPRC: Rvwd: Dt

Fb: Caus. Comp: SENSOR ASY EGR PR VL

RPL Condition Code: H5

Region Code: CC Region Name: Rental - CC

CONCER CHECK ENGINE LIGHT ON

REPAIR ANALYSIS DETERMINED THE DPFE SENSOR WAS SUSPECT. DPFE CHANGED, ISSUE

CORRECTED. SUSPECT DPFE GIVEN TO MARK FREELAND.

DPFE BUILD DATE 2A25B

MICHIGAN FQE - JOHN DOMKA

313-433-7910

F1 Help

F3 Exit F4 Last Cmts F5 Add Cmts F6 Add Fldt

F7 Bkwd F8 Fwd F9 Ind Corr F10 Next Rpt F11 Prev Rpt F12 Return

10018-BOTTOM OF DATA

LPENJBD

Thanks.

John J. Domba

Field Quality Engineer Enhanced Concern Identification Ford Customer Service Division

jdomka@ford.com Phone 313-433-7910 FAX 734-475-9110

Sent: To:

Domka, John (J.J.) Tuesday, July 16, 2002 4:56 PM Freeland, Mark (M.)

Just curious what the latest is on the DPFE issue? Are there plans to do a Field Service Action/ONP & etc? Will we be using the same supplier for the update? Any timing at this point in time?

Thanks.

John J. Domha

Fleid Quality Engineer Enhanced Concern Identification Ford Customer Service Division

|domka@ford.com Phone 313-433-7910 FAX 734-475-9110 Prom:

لبلل) Domka, John (البلل)

Sent:

Wednesday, July 10, 2002 9:56 PM

Ta: Bublect: Freeland, Mark (M.) RE: aseignment 02-55

### OK

-- Original Massage Promi

Sents

Freeland, Mark (M.) Wadnesday, July 10, 2002 2:35 FM

Subject

Domica, John (J.J.) RE: assignment 02-58

John.

Sorry for the delay, still trying to get caught up.

I am interested in the parts which are diagnosed by the deater as root cause, irregardless of whether they still work after they are removed from the vehicle, in other words don't filter out "TNI's".

#### Thanks

### Regards

### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

#### -Original Measurge

Fronts

Domka, John (J.J.)

Seet:

Wednesday, June 05, 2002 9:41 PM

Tor 0 Subjects Presidenti, Mark (M.) Lovelace, Meria (M.E.) FW: easignment 02-58

Are we looking for falled DPFE's ? Assignment does not state falled or anylitili. I'm aure you want falled, but want to be sure!!!!!

## -Original Message

Présitio

Lovelece, Meria (M.E.) Wednesday, June 05, 2002 10:11 AM

Christoff II, Doneld (D.A.); Colemani, Archony (A.); Cox, Devid (D.M.); Dioniel, Anthony (A.J.); Domine, John (J.J.); Harwhack, Dan (D.W.); Haydul, Mark (M.S.); Hecker, Thomas (T.P.); Howe, Brian (B.T.); Ireland, Harry K.; Kaltz, Gordie (G.); Hyers, Dan (D.P.); Pealer, Tom (T.H.); Sormann, Lynn (R.L.); Trower, Ron (R.D.)

Subjects

azaturment 02-56

# << File: req02-58,xls >>

# Maria E. Lovelace - FQE Llaison

Enhanced Concern Identification - FCSD 500 Town Center, Suite 300 Cube 25 500 Town Center Drive

BR82-827-0 2432

Deerborn, Michigen 48126 313-323-6561/800-521-4450

Domke, John (J.J.)

Sent

Tuesday, June 25, 2002 4:57 PM

To: Cc: Subject:

Lovelace, Maria (M.E.) Freeland, Mark (M.) Assignment # 58

Falled DPFE - 2002 Build Date

CSQ1002

CQIS Indicator Summary

08/25/02 16:53:38

**--->** 

Rot#: 2FYLT001 CQD

Rot: 08/25/2002 Odom: 3,072 M

Rvwd: File: Folder:

Images: 0 Print Smy/Disp Detail(P/D);

Vehicle: 2002 ESCAPE 4X4,XLT WAGON

1FMCU04132KC81002 Bid: 03/14/2002

Engine: 3.0L DUR Calb: 2M11A30A Trans: CD4E E Axie: 3800F2,73L A/C: YES

Dealer Id: 03003 BILL BROWN FORD INC

Ph#: (734) 421-7116

Symptom: 6 98 2 00 DRVABL, INDICATOR, CHECK ENGINE, OTHER-CODE NA

State: Michigan City: Livonia

Orlg/Celler: JOHN DOMKA

Addi Svm:

St: CCRG/EPRC: Rvwd: Dt:

Fix: Caua. Comp: SENSOR ABY EGR PR VL

RPL Condition Code: H5

1 of

Region Code: 48 Region Name: Detroit - 48

CONCER CHECK ENGINE LIGHT ON

REPAIR CODE P0402 - EXHAUST GAS RECIRCULATION (EGR) FLOW EXCESSIVE DETECTED - STUCK OPEN AT IDLE, REPLACE EGR VALVÉ, DID NOT CORRECT ISSUE, REPLACE DPFE, ISSUE CORRECTED. DPFE BUILD DATE - 28268 SUSPECT DPFE WILL BE FORWARDED TO M. LOVELAGE

MICHIGAN FOE - JOHN DOMKA

313-433-7910

ADD-ON 06/25/2002 04:32PM JOHN DOMKA

CQ - CD&A - CQD - FQE

SUSPECT DPFE TO MARK FREELAND

F1 Help F3 Exit F4 Last Cmts F5 Add Cmts F6 Add Fldr F7 Blowd F8 Fwd F9 Ind Corr F10 Next Rpt F11 Prev Rpt F12 Return 10016-BOTTOM OF DATA LPENJBD

Thanks.

John J. Domba

Field Quality Engineer Enhanced Concern Identification Ford Customer Service Division

jdomka@ford.com Phone 313-433-7910 FAX 734-475-9110

Domka, John (J.J.)

Sent:

Thursday, June 13, 2002 7:18 PM

To:

Freeland, Mark (M.)

Subject

RE: Assignment #58 - Falled DPFE- Tow in

No, I agree with your assessment. This is what I thought originally, that's why I put in my CQIS report that there were prior repairs. I got the response I was hoping for on your original note. Thankstill

-Original Normage

Promi

Freeland, Mark (M.)

Sonk

Trursday, June 13, 2002 7:11 PM

Ted

Domka, John (3.3.)

Buildeck

RE: Addignment #58 - Falled DPFE- Tow In

John,

If you think my assessment is correct, i.e. it was probably not installed correctly or only partially pushed onto the tubes., then correct I do not want this one, as it will not help solve the big lesue causing the majority of the

If you think my assessment is not correct, then please call me to discuss.

Thanks all the same, and do let me know if you come across others which cause the stall or have the date code past 2A07B (1/7/2002).

### Regards

#### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Deerborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

-Original Message

From:

Domica, John (1.3.)

Senb

Thursday, June 13, 2002 7:06 PM

To: œ

Freeland, Mark (M.)

Lovelace, Maria (M.P.)

Suirisch

RE: Assignment #S8 - Falled DPFE- Tow In

So I take it you don't want the DPFE???????

Front

Preciand, Mark (M.)

Sent

Thursday, June 13, 2002 12:34 PM

Tat

Lovelece, Maria (M.E.); Domka, John (1.J.)

œ

Maurer, James (J.B.); Planto, Paul (P.G.); Janda, Jon (J.M.); Frazier, Kelth (R.K.); Rossi, Roberto (R.A.)

Subjects

RE: Assignment #58 - Falled DPPE- Tow In

John & Maria,

I suspect this one was due to the dPFE having been previously removed and then reinstalled without pushing the tubes on properly, or using a lubricant on the tubes. We have seen this before coming from B & A, when they used soop to lubricate the tubes, to aid assembly.

I checked the vehicle history and found that the dPFE was replaced in February, and the vehicle had been

back several times for intermittent and steady Check Engine lights, which were eventually blamed on a faulty ignition coil at the end of May.

Kelth & Roberto.

Could a faulty ignition coll cause excessive V Transients on Vref that could impact the dPFE?

### Rogarda

### Mark Procland

6-Sigma Black Belt **Engine Research Department** Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreelal@ford.com Tel.: (313) 594-7645

-Original Hearings-

Promi

Lovelace, Meria (M.E.)

Thursday, June 13, 2002 11:24 AM

Bublecti

Preciard, Mark (M.)

PW: Amigrament #56 - Palled DPPE- Tow In

--- Original Massage-

Promi

Domks, John (11.)

Sent:

Wednesday, June 12, 2002 11:22 AM

Тог

Buildedt

Lovelace, Maria (M.E.) Applyment #58 - Palled DPFE-Tow In

CSQI002

CQIS Indicator Summary

08/12/02 11:18:53

-->

Rottl: 2FEA5001 CQD

Rpt: 06/05/2002 Odom: 14,433 M

Rywd: File: \_ Folder:

images: 2 Print Smy/Disp Detail(P/D):

Vehicle: 2001 TAURUS, SE COMF, SEDAN

1FAFP58891G272542 Bid: 07/25/2001

1 of

Engine: 3.0L EFI M Calls: 1DD14N0A Trans; AX4N

Axle: FWD 3.98 A/C: YE8

Dealer id: 02750 Avia Ford inc

Ph#: (800) 358-2778

Orlg/Caller: JOHN DOMKA

State: Michigan City: Southfield

Symptom: 6 03 0 00 DRVABL.CRANKS/NO STAR,OTHER-CODE NA,OTHER-CODE NA

Addi Sym:

St: CCRG/EPRC: 8 Rvwd: A Dt: 08/08/2002

Fb: Caus. Comp: SENSOR ASY EGR PR VL

- RPL Condition Code: H5

Region Code: 48 Region Name: Detroit - 48

CONCER NO START

REPAIR NO CODES, ANALYSIS DETERMINED THERE WAS NO VOLTAGE REFERENCE. PINPOINT DETERMINED OPEN CIRCUIT IN DPFE CIRCUIT. DPFE MELTED.

DEALER DID WORK ON VEHICLE PREVIOUS WEEK FOR A MISS COMPLAINT

REPLACED FAILED OPFE - ISSUE CORRECTED

SUSPECT DPFE WILL BE GIVEN TO M. LOVELACE WITHIN 7 DAYS UNLESS OTHER

WISE NOTIFIED.

PICTURE ATTACHED MICHIGAN FQE - JOHN DOMKA 313-433-7910

ADD-ON 08/12/2002 11:17AM JOHN DOMKA CQ - CD&A - CQD - FQE

UNABLE TO READ DPFE BUILD DATE INFO DUE TO DPFE DAMAGE/MELTING

ER62-627-G 2436

### CONDITION

F1 Help F3 Exit F4 Last Crits F5 Add Crits F6 Add Fldr F7 Bkwd F8 Fwd F9 Ind Corr F10 Next Rpt F11 Prev Rpt F12 Return 10018-BOTTOM OF DATA LPENJBD

<< File: 2FEA5001.a.JPG >> << File: 2FEA5001.b.JPG >> Thanks,

John J. Daub

Field Quality Engineer Enhanced Concern Identification Ford Customer Service Division

jdomke@ford.com Phone 313-433-7910 FAX 734-475-9110

Domka, John (J.J.)

Sent

Thursday, June 13, 2002 7:06 PM

To: Car Freeland, Mark (M.) Lovelsos, Maria (M.E.)

**Bublect**:

RE: Assignment #58 - Falled DPFE- Tow in

## So I take it you dont want the DPFE???????

--- Original Message--

Promis

Fredend, Mark (M.)

Senio

Thursday, June 13, 2002 12:34 PM

Toı

Lovelece, Marie (M.E.); Dornka, John (J.J.)

Cc

Maurer, James (J.B.); Plante, Paul (P.G.); Janda, Jon (J.M.); Frazier, Keith (R.K.); Rossi, Roberto (R.A.)

Subject

RE: Assignment #58 - Falled DPRE- Tow In

## John & Maria.

I suspect this one was due to the dPFE having been previously removed and then reinstalled without pushing the tubes on properly, or using a lubricant on the tubes. We have seen this before coming from B & A, when they used soap to lubricate the tubes, to aid assembly.

I checked the vehicle history and found that the dPFE was replaced in February, and the vehicle had been back several times for intermittent and steady Check Engine lights, which were eventually blamed on a faulty ignition coil at the end of May.

### Keith & Roberto.

Could a faulty ignition coil cause excessive V Translents on Vref that could impact the dPFE?

### Regards

### Mark Freeland

6-Sigma Black Belt Regime Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreelal@ford.com

Tel.: (313) 594-7645

---- Original Message----

Prom:

Lovelace, Maria (M.E.)

Senta

Thursday, June 13, 2002 11:24 AM

To:

Freeland, Mark (M.)

Bubjects

PW: Assignment #58 - Pelled DPFE- Tow In

--- Original Message---

Prom4

Domka, John (J.J.)

Sent

Wednesday, June 12, 2002 11:22 AM

To:

Lovelace, Marie (M.E.)

Bubject

Assignment #58 - Falled DAFE- Tow In

CSQ1002

CQIS Indicator Summary

08/12/02 11:18:53

1 of

Rot#: 2FEA6001 CQD

Rpt: 06/05/2002 Odom: 14,433 M

ER02-027-G 2438

Rvwd: File: \_Folder: \_\_\_\_\_ Images: 2 Print Smy/Disp Detail(P/D): \_ Vehicle: 2001 TAURUS,SE COMF,SEDAN 1FAFP56S91G272542 Bid: 07/25/2001 Engine: 3.0L EFI M Calb: 1DD14N0A Trans: AX4N Axie: FWD 3.98 A/C: YES

Dealer Id: 02750 Avis Ford Inc Ph#: (800) 358-2778 State: Michigan City: Southfield Orig/Caller: JOHN DOMKA

Symptom: 8 03 0 00 DRVABLICRANKS/NO STAR, OTHER-CODE NA, OTHER-CODE NA

Addi Sym: St: CCRG/EPRC: S Rvwd: A Dt: 06/06/2002

Fix: Caus. Comp: SENSOR ASY EQR PR VL RPL Condition Code: H5

Region Code: 48 Region Name: Detroit - 48

### CONCER NO START

CONDITION

REPAIR NO CODES. ANALYSIS DETERMINED THERE WAS NO VOLTAGE REFERENCE. PINPOINT DETERMINED OPEN CIRCUIT IN DPFE CIRCUIT. DPFE MELTED. DEALER DID WORK ON VEHICLE PREVIOUS WEEK FOR A MISS COMPLAINT REPLACED FAILED OPFE - ISSUE CORRECTED SUSPECT DPFE WILL BE GIVEN TO M. LOVELACE WITHIN 7 DAYS UNLESS OTHER. WISE NOTIFIED. PICTURE ATTACHED MICHIGAN FQE - JOHN DOMKA 313-433-7910 ADD-ON `06/12/2002 11:17AM JOHN DOMKA CQ - CD&A - CQD - FQE UNABLE TO READ DPFE BUILD DATE INFO DUE TO DPFE DAMAGE/MELTING

F4 Last Cmts F5 Add Cmts F6 Add Fldr F1 Help F3 Exit F7 Blowd F8 Fwd F9 Ind Corr F10 Next Rpt F11 Prev Rpt F12 Return 10018-BOTTOM OF DATA LPENJBD

<< File: 2FEA5001.a.JPG >> << File: 2FEA5001.b.JPG >> Thanks.

Jaka J. Danks

Field Quality Engineer Enhanced Concern Identification Ford Customer Service Division

Idomka@ford.com Phone 313-433-7910 FAX 734-475-9110

Domke, John (J.J.)

Sent:

Wednesday, June 06, 2002 9:41 PM

To:

Freeland, Mark (M.) Lovelace, Meria (M.E.)

Cc: Subject

FW: assignment 02-68

Are we looking for failed DPFE's ? Assignment does not state failed or anyi!!!!! I'm sure you want failed, but I want to be sure!!!!!!

----- Original Message-

**Frons:** 

Lovelace, Meria (M.E.)

Senta

Wednesday, June 05, 2002 10:11 AM

Tat

Christoff II, Donald (D.A.); Colarosel, Anthony (A.); Cox, David (D.M.); Dionial, Anthony (A.J.); Donale, John (J.J.); Hennneck, Den (D.W.); Heyduk, Mark (M.S.); Hecker, Thomas (T.P.); Howe, Brian (B.T.); Ireland, Harry K.; Keltz, Gordie (G.); Nyers, Dan (D.P.);

Peder, Tom (T.H.); Sorensen, Lynn (R.L.); Trower, Ron (R.D.)

Subject:

assignment 02-58

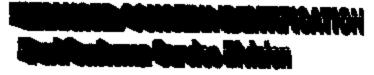


# Maria E. Lovelace - FQE Liaison

Enhanced Concern Identification - FCSD 500 Town Center, Suite 300 Cube 25 500 Town Center Drive Dearborn, Michigan 48126 313-323-6561/800-521-4450

# FQE Assignment Form

| What specific safe<br>VIN and all releven<br>Tag all parts with p<br>Tell Maria how man   |   |   |                        |
|---|---|---|------------------------|
| What specific info<br>VIN and all releves<br>Tog all parts with p<br>Tell Maria how mon<br>Ship party to Ford<br>Scientific Research<br>2101 Village Road<br>Dearborn, Mr. 4812 | reaction are you requesting t data is work order, tech's communite, extinuit information so that, if necessary, part can be to y DPFEs you send back.  tion that will insure your assignment is a success Abotor Colegony - Mark Freeland Lebortory |   |                        |
| What specific info<br>VIN and all releves<br>Tog all parts with p<br>Tell Maria how mon<br>Ship party to Ford<br>Scientific Research<br>2101 Village Road<br>Dearborn, Mr. 4812 | reaction are you requesting t data is work order, tech's communite, extinuit information so that, if necessary, part can be to y DPFEs you send back.  tion that will insure your assignment is a success Abotor Colegony - Mark Freeland Lebortory |   |                        |
| What specific info<br>VIN and all releves<br>Tog all parts with p<br>Tell Maria how mon<br>Ship party to Ford<br>Scientific Research<br>2101 Village Road<br>Dearborn, Mr. 4812 | reaction are you requesting t data is work order, tech's communite, extinuit information so that, if necessary, part can be to y DPFEs you send back.  tion that will insure your assignment is a success Abotor Colegony - Mark Freeland Lebortory |   |                        |
| What specific safe VIN and all releves Tog all parts with p Tell Maria how mon Any other before Ship parts to Ford Scientific Research  | resation are you requesting t data is work arder, tech's communits, extinent information so that, if necessary, part can be to y DPPEs you send back.  tion that will insure your assignment is a seccess Mater Campany - Mark Freeland             |   |                        |
| What specific safe VIN and all releves Tag all parts with p Tall Maria how man Any other informa  | resation are you requesting t data is work arder, tech's communits, extinent information so that, if necessary, part can be to y DPPEs you send back.  tion that will insure your assignment is a seccess Mater Campany - Mark Freeland             |   |                        |
| What specific safe<br>VIN and all releven<br>Tag all parts with p<br>Tall Maria how man   | resation are you requesting t data is work order, tech's communits, entitlent information so that, if necessary, part can be to y DPFEs you send back.  tion that will insure your applyment is a success   |   |                        |
| What specific safe<br>VIN and all releves<br>Tag all parts with p   | rmation are you requesting<br>t data is work order, tech's communits,<br>entitlest information so that, if necessary, part can be to  |   |                        |
| What specific safe<br>VIN and all releves<br>Tag all parts with p   | rmation are you requesting<br>t data is work order, tech's communits,<br>entitlest information so that, if necessary, part can be to  |   |                        |
| What specific safe<br>VIN and all releves<br>Tag all parts with p   | rmation are you requesting<br>t data is work order, tech's communits,<br>entitlest information so that, if necessary, part can be to  |   |                        |
| What specific info  | rmation are you requesting<br>t data is work order, tech's communits.   |   |                        |
| What specific info  | reation are you requesting  | cleats of date                          |                        |
|   |   | relate of date                          |                        |
| Problem 2: anyTUB   | E MOUNT dPFE sensor that coursed stall or tow in - regar  | dest of date                            |                        |
| next two numbers:   | date; last Letter = shift   |   |                        |
|   | BE MOUNT OPPE sensor of ter build date 24078 (Janua   | ry 7, 2002) 1st number = M(Y; second le | ritur = Month          |
| Problem descriptio  | <u> </u>  |   |                        |
|   | •   |   | Marida<br>K            |
| DUE DATE  | 6-Aug-02  | Lynn Sorensen Ron Trower                | Texes Plorido          |
| Empil address   | MPREELA1  | Tom Peeler                              |                        |
| Phone number  | 313-594-7645  | Dan Myers                               | Town                   |
| Engineer's name   | Mark Presiand   | Gordie Kaltz                            | California             |
| I WILL THE CO.  |   | FIGHTY TITERATE                         | California.            |
| Torque spezs<br>Teleronces  |   | Horry Ireland                           | Nevoda                 |
| checked   |   | Tom Hacker Brian Howe                   | Minnesota              |
| # of units to be  |   |   |                        |
| Port aumber   | 9J460 after build date:2AD7B  | Mark Hayduk                             | Permo.                 |
| Mileage range   |   | Dan Hammack                             | Taxas                  |
| Vehicle IIne  | All w/"tube mount" DPFE - 9J460   | John Domka                              | Michigan               |
|   | 2001  | Tany Dionisi                            | Colorado               |
|   |   | Dave Cox                                | Taxas                  |
|   | •   |   | Çq. <del>Gerages</del> |
| DATE (BBUED:<br>Model Year  | 6-Jun-02  | Don Christoff Tany Colorossi            | Flerida                |



Assignment No.

#02-58

Dosdall, James (J.M.)

Bent:

Friday, June 14, 2002 12:34 PM

To:

Freeland, Mark (M.)

Subject:

FW: I have a P401 code in my own Focusi

## Thought you might be interested

-Original Message

From:

Zanini-Pisher, Mergherita (M.)

Senti

Priday, June 14, 2002 12:23 PM

Tol

Rachedi, Shane (5.H.); Bardelski, Devki (D.); Kado, Mark (S.) James, John (J.V.); Doadall, James (J.M.); Merko, Ken (K.A.)

Subject:

I have a P401 code in my own Focust

I just turned on a MILL My first ever: what an excitement I it is the usual EGR insufficient flow code (P410) that we have seen so many warranty returns about. I understand that the FOCUS is especially bad because the sensor is sensitive to noise in the wiring system and either latches up or can even create a short that fries the PCM. Interesting enough, yesterday driving back home, I thought the vehicle was misfiring. Now, EGR does effect combustion stability, so it can be interesting to take a look at the vehicle behavior.

Would you like to give me a VDR? I could try to retrofft the i3000 from the Explorer, but I could capture the problem a lot faster with your system. I would like first to take a baseline, then erase the code, then drive around to set the DTC and then set the Mil. Or please suggest other procedures. I have a good idea of when the EGR monitor runs from the previous work done on the rolls. Pis let me know.

## Mergherita

## Maraherita Zanini

Advanced Diagnostics Powertrain Controls R&D Dept SRL - MD2036 - Rm 3011-Y

Phone: 313-337-1097 Fax: 313-248-5167

Toukhanian, Christopher (.) on behalf of Drbn Pool Lot, QMP (.)

Sent:

Tuesday, September 10, 2002 2:03 PM

To:

Woods, Dennis (D.G.); Koszewnik, John (J.J.)

Cc:

Freeland, Mark (M.); McCoy, James (J.D.); King, Sandra (S.M.); O'Neall, Jim (J.D.)

Subject:

RE: Pool Vehicle

Thank you. Come see us here, we can supply you with a vehicle.

## Thanks Chris

-Original Massage

Promi

Woods, Dennis (D.G.)

Senta

Tuesday, September 10, 2002 2:02 PM

Tοι Œ

Drin Pool Lot, QMP (.); Kossewsk, John (J.J.) Freekind, Mark (M.); McCoy, James (J.D.); King, Sandra (S.M.); O'Neall, Jim (J.D.)

**Quidects** 

RE: Pool Vehide

I approve this request. Thanks.

Recards,

Dannis G. Ulaads

Superintendent

RSE Vehicle Service Center

Ofc: 313-32-20323, Fax:313-24-82051

"Customer is the Key"

-- Original Message

Front

Toukherien, Christopher (.) On Behalf Of Dribn Pool Lot, QMP (.)

Sent:

Tuesday, September 10, 2002 1:59 PM

Тон

Koszewnik, John (J.J.)

Con

Freeland, Mark (M.); McCoy, James (I.D.); King, Sandra (S.M.); O'Neall, Jim (I.D.); Woods, Dannia (D.G.)

Subjects

RE: Pool Vehicle

You will have to ask Dennis Woods to approve before we can supply you with a replacement. Usually, we can only provide a pool vehicle for a management lease vehicle that is being repaired, not evaluated by an engineering dept.

### Thanks Chris

---- Original Massage

Promi

Koszewnik, John (J.J.)

Sent:

Tuesday, September 10, 2002 1:54 PM

T≢ı

Orbin Pool Lot, QMP (.)

C=

Fracturel, Mark (M.); McCoy, James (J.D.); King, Sandra (S.M.); O'Neal, Jim (J.D.)

By copy of this note, I'm approving Mark Freeland's use of a pool car for the period shown below. Thanks in advance.

John Kassannik

EA62-627-G 2443

Chief Engineer V-Engine Engineering Ph. 32-28973 Fx. 24-86067

]koezewn@ford.com

-Original Heasture

From: Sonis

O'Need, Jim (J.D.)

Tot

Tuesday, September 10, 2002 1:12 PM Koustwrik, John (J.J.); King, Sendre (S.M.) Fredsind, Mark (M.); NcCoy, Jernes (J.D.)

œ

Bublect

PW: Pool Veltice

John - Please forward the below note to Dbnpool@ford.com this afternoon. Thanks. Sandre - can you follow up with John's admin (I think her name is Jan) to make sure this happens.

I approve Mark Freeland's use of a pool car white his lease car is being evaluated for Delta PFE EGR eensor issues. He will need a pool car from Sept 11th at 2PM to Sept 13th at 4PM. Thanks

J. D. O'Neall

Manager, Fuel Metering, Emissions, and Ignition Dept V-Engine Engineering, Ford Motor Company ioneali@ford.com. 313-322-8839

---- Original Message

From

Madu Ed (E.T.)

Şeniy.

Tuesday, September 10, 2002 9:27 AM

Tei

McCoy, James (J.D.)

Œ

O'Meel, Jim (J.D.); Freeland, Mark (PL)

**Bultilect**:

RE: Pool Vehicle

Yes, with LL4 approval. Send to Dbrippol@ford.com.

----- Original Message

Progra

McCoy, James (J.D.)

Sents To:

Tuesday, September 10, 2002 9:26 AM Mack, Ed (E.T.)

-...-

Œ

O'Ness, Jim (J.D.); Freeland, Mark (M.)

Bublects

FW: Pod. Vehide

Ed, Can you provide an answer our question listed below?

Thanks, Jim.

Regards,

Jim McCov

Fuel Metering, Bruissions & Ignition Systems Engineering

Hardware Control Interface Group

V-Engine Engineering

POEE - MD#69 - Rm. D142 - Cube DF186

Phone (313) 33-79690 / Fax (313) 39-04084

E-Mail: jmccoyl@ford.com

Original Massage

التاقيع

Tokarczyk, Jim (J.J.)

Sect

Tuesday, September 10, 2002 9:02 AM

Tos

McCoy, James (J.D.)

Subjecti

RE: Pool Venida

Need to contact Ed Mack in Vehicle Programs (he controls the pool vehicles).

Thank You Jim Tokarczyk Product Development Vehicle Control phone x78943, fex 28311 **QMP 408** Vehicle Services WES Site: http://www.dearborn.ford.com/tppb/PPPBV/VehicleControl/vehiclecontrol.html

-Original Message

Fremi

McCoy, James (J.D.)

Bent

Tuesday, September 10, 2002 9:00 AM Tokarczyk, Jim (J.J.)

Ties ~

Bubbects

O'Neal, Jim (J.D.); Freehard, Mark (M.)

Pool Vehicle

Jm,

We are currently working on a warranty issue and have a vehicle which is exhibiting concerns and needs to be Investigated. The vehicle we need to test is a lease vehicle that belongs to an employee, Mark Freeland, here at Ford. Mark has volunteered his vehicle for testing which will take about a week.

Would it be possible to provide a pool vehicle for Mark's use while we test his vehicle? Could you let me know If this is something we can do?

Thanks Jim.

Regards. Jim McCov

Fuel Metering, Emissions & Ignition Systems Engineering Hardware Control Interface Group V-Engine Engineering POEE - MD#69 - Rm. D142 - Cube DF186 Phone (313) 33-79690 / Fax (313) 39-04084 B-Mail: jmocoyl@ford.com

Toukhantan, Christopher (.) on behalf of Ortin Pool. Lot, QMP (.)

Sent:

Tuseday, September 10, 2002 1:59 PM

To:

Koszewnik, John (J.J.)

Cc:

Freeland, Mark (N.); McCoy, James (J.D.); King, Sandra (S.M.); O'Neell, Jim (J.D.); Woods,

Dennis (D.G.)

Subject

RE: Pool Vehicle

You will have to ask Dennis Woods to approve before we can supply you with a replacement. Usually, we can only provide a pool vehicle for a management lease vehicle that is being repaired, not evaluated by an engineering dept.

### Thanks Chris

-Original Measage

Frons Sent

Koszewnik, John (J.J.)

TOI

Tuesday, September 10, 2002 1:54 PM

Drbn Pool Lot, QMP (.)

Ca

Freeland, Mark (M.); McCoy, James (J.D.); King, Sandra (S.M.); O'Neal, Jim (J.D.)

Subjects

RE: Pool Vehicle

By copy of this note, I'm approving Mark Freeland's use of a pool car for the period shown below. Thanks in advance.

# John Kooganuk

Chief Engineer V-Engine Engineering Ph. 32-28973 Fx. 24-88087 |koszewn@ford.com

-Original Measage

Promi

O'Neal, Jim (J.D.)

**Sent**: Tea

Tuesday, September 10, 2002 1:12 PM Koszewnik, John (J.J.); King, Sendra (S.M.)

œ Bubjects Freeland, Merk (M.); McCoy, James (J.D.) PW: Pool Vehicle

John - Please forward the below note to Dbripcol@ford.com this afternoon. Thanks. Sandra - can you follow up with John's admin (I think her name is Jan) to make sure this happens.

I approve Mark Freeland's use of a pool car while his lease car is being evaluated for Deita PFE EGR seneor issues. He will need a pool car from Sept 11th at 2PM to Sept 13th at 4PM. Thanks

## J. D. O'Neall

Manager, Fuel Metering, Emissions, and Ignition Dept V-Engine Engineering, Ford Motor Company joneall@ford.com, 313-322-6839

---- Original Message

From:

Mack, 84 (E.T.)

See to

Tuesday, September 10, 2002 9:27 AH

Te: œ

McCoy, James (J.D.)

**Subject** 

O'Neell, Jim (J.D.); Freeland, Mark (M.)

RE: Pool Vehicle

E982-827-0 2448

## Yes, with LL4 approval. Send to Obnpcol@ford.com

-- Original Measage----

Prom: McCoy, James (J.D.)

Sent: Tuesday, September 10, 2002 9:26 AM

To: Mack, Ed (E.T.)

Cti O'Neell, Jim (J.D.); Freeland, Mark (M.)

Subjects FW: Pool Vehicle

Ed, Can you provide an answer our question listed below?

Thanks, Jim.

Rogarda,

Jim McCoy

Fuel Metering, Emissions & Ignition Systems Engineering

Hardware Control Interface Group

V-Engine Engineering

POBE - MD#69 - Rm. D142 - Cube DF186

Phone (313) 33-79690 / Fax (313) 39-04084

E-Mail: jmccoy1@ford.com

---Original Message-

Premi: Tokarczyk, Jim (1.1.)

Sunt: Tuesday, September 10, 2002 9:02 AM

To: McCoy, James (J.D.) Subject: RE: Pool Vehicle

Need to contact Ed Mack in Vehicle Programs (he controls the pool vehicles).

Thank You

Jim Tokarczyk

Product Development Vehicle Control

phone x78943, fax 23311

**QMP 408** 

Vehicle Services WEB Biter

http://www.dearborn.ford.com/itppb/PPBV/VehicleControl/vehiclecontrol.html

----Original Message-----

Proce:

McCoy, James (1.0.)

Gent:

Tuesday, September 10, 2002 9:00 AM

To:

Tolcarczyk, Jim (3.3.)

Con Con O'Neel, Jim (J.D.); Freeland, Mark (M.)

Bublects

Pool Vehicle

Jim.

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Would it be possible to provide a pool vehicle for Mark's use while we test his vehicle? Could you let me know if this is something we can do?

## Thanks Jim.

Regards,
Jim McCoy
Fuel Metering, Emissions & Ignition Systems Engineering
Hardware Control Interface Group
V-Engine Engineering
POEE - MD#69 - Rm. D142 - Cube DF186
Phone (313) 33-79690 / Fax (313) 39-04084
E-Mail; jmcooy1@ford.com

Front:

Drewe, Andy (A.R.)

Bent:

Wednesday, March 27, 2002 2:17 PM

To: Subject: Freeland, Mark (M.) RE: Infrared Microscope

If this doesn't work out, I have found a vendor for a NIR camera (see http://www.indigosystems.com/alphanir.html). I have no idea at this point how much it might cost. There are some pictures in their literature from Ford showing a growing flame front in an internal combustion engine (presumably the optical engine) so a useful camera may be in house...

## Andy

---- Original Mess

Froms

Sent

Presignd, Mark (M.) Wadnastay, March 27, 2002 2:09 PM

TO طهاؤشك Drewe, Andy (A.R.) RE: Infrared Microscope

Thenks Andy

I appreciate you following up on this.

Jon will have all my sample parts if you are successful.

Regards

Mark Freeland

Draws, Andy (A.R.)

Sent:

Wednesday, March 27, 2002 1:51 PM

To: Cœ

Parsone, Mike (M.H.) Freelend, Mark (M.)

Subject

Infrared Microecope

### Mika.

I am working with Mark Freeland on a Stx Sigma project involving a MEMS EGR pressure sensor problem and one idea was to inspect the allicon sensor dies with a IR microscope to check the integrity of the metallization. Several people I have talked to remembered an IR microscope that was used for just this purpose from the days of the IC lab, and that it went to FMI. Unfortunately, no one seems to know what happened to it after it went to FMI, but Roc Carter thought that it came back here to SRL or possibly to Vistson, I asked George Salokas if he remembered what the manufacturer was, or anything else about it and he thought that it was a Leitz. That was very interesting to me, because there is a Leitz video microscope in storage at Frisbes that came from Mick Crockford in the metrology lab. When I asked him about it, he said that it was some sort of donation that they didn't know what to do with, and eventually, they sent it to Friebee. According to what I've been able to gisen, the microscope would've gone to FMI in about 1993, and the Leitz went to Frisbee in 1996, so there is some chance that this is the IR microscope. Would you recognize it if we went to Friebee or if I had It brought here? Do you remember if it was in fact a Leitz?

Anything that you remember would be helpful. If you're willing and able, we could go to Frisbee tomorrow if you thought you might recognize it. Otherwise, I will have it brought to SRL next week and either rescue it or tresh it at that time.

Thanks for your help.

Andy

Andrew R. Drews, Ph.D. Advanced X-Bay Analysis Ford Research Laboratory Subject Location:

EGR Project

SRL Conf Room 1529 (10)

Start: End:

Fri 6/14/2002 1:00 PM Fri 6/14/2002 2:00 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess:

Duffy, Paul (P.E.); Freelend, Mark (M.); Allee, Sheran (S.A.); Makid, Assad (A.); O'Neall, Jim (J.D.); 8RL Conf Room 1529 (10)

importance:

High

SORRY FOR THE LATE NOTICE.

Duncen, Jack (J.L.)

Sent

Wednesday, October 30, 2002 10:12 AM

Te:

Freeland, Mark (M.); McCoy, James (J.D.); Maurer, James (J.B.); Gales, Freeman (F.C.)

Ċc: Bubject: Verner, Carol (C.J.) RE: MPG Foous Teating

VIN 1FAFP36361W115569 Installation date 17-Sept-2002 Installation adometer 33417 Removal data 23-Oct-2002 Removal odometer 46882

Jack Duncan

jduncanl@ford.com

MI Proving Ground 74240 Fisher Rd

Romeo, MI 48065

(586) 75-28563 (w)

(586) 75-28683 (f)

-Original Message

From:

Precland, Mark (M.)

Sents

Wednesday, October 30, 2002 9:59 AM

Tos

NcCoy, James (J.D.); Meurer, James (J.B.); Gates, Freem≥n (F.C.)

œ

Duncan, Jack (J.L.); Verner, Carol (C.J.)

Subject:

RE: MPG Focus Testing

Carol Verner and I examined the M6 sensor which failed on this vehicle yesterday.

The observed symptoms were:

The output was saturated low.

The power to ground impedance was unstable.

The ref. die has a dark discoloration of the gold on the Vro, the Hoos and the Hneg bond pads.

The HI die had a large bubble (about 90% of the die area) at the interface between the surface of the die and the potting gel, this is consistent with the die having passed a lerge current for a short period of time.

I understand that the cecilicecope never triggered, but I have to report that I believe that this part experienced a short duration, high current event.

The unstable fref data form the data logger may be a algrificant clue and should be looked at again.

Jack,

Can you give me the VIN number, the ODO and date at which the M6 part was installed and the ODO and date at the time it was removed, for my records.

Thanke

Regards

Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053

MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com

Tel.: (313) 594-7645

### 

Fronts

McCoy, James (J.D.)

Bents

Thursday, October 24, 2002 1:53 PM

Tei

Maurer, James (J.E.); Freeland, Mark (MJ); Gates, Preeman (F.C.)

Ca

Duncan, Jack (J.L.) MPG Focus Testing

Subjects

<< File: m6cyc4551.xls >>

Data sent by Jack Duncan on the Focus from MPG.

Chart shows VREF, DPFE out, and VREF current with reference to the DPFE failure.

Regards, Jim McCoy

Fuel Metering, Emissions & Ignition Systems Engineering

Hardware Control Interface Group

V-Engine Engineering

POBE - MD#69 - Rm. D142 - Cube DF186

Phone (313) 33-79690 / Fax (313) 39-04084

E-Mail: jmccoy1@ford.com

Bubject: Location: Technical Review: 2001-2001 MY Multiple Vehicle lines - Kavilco TM dPFE Sensor (01Y34)

PDC 2C-B18

Start: End: Fri 9/13/2002 2:30 PM Fri 9/13/2002 3:00 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendese:

Ecall, R (R.); Kotzewnik, John (J.J.); Plente, Paul (P.G.); Guya, Philip (P.R.); Shedden, Leo (L.K.); Diford, Donald (D.A.); Ashburn, Paul (P.J.); Meguire, Philip (P.M.); Kuzak, Derrick (D.M.); Patel, Praful (P.J.); McNeel, Burton (B.E.); Gibert, Ben (B.A.); Claudeplerre, Dele (D.E.); von Foerster, Steve (8.); Kemmerer, Al (Allan R.); Renucci, Mike (M.P.); Osborne. William (W.H.); Vieinteiner, Rendei (R.H.); Himes, Bob (R.S.); Pachego, Susan (S.M.); O'Neall, Jim (J.D.); Schleding, Kurt (K.J.); Freeland, Mark (M.); Gates, Freeman (F.C.); Ward, Larry (L.J.); McCarty, Bill (W.D.); Rosel, Roberto (R.A.); Klarr, Jerry (G.T.); Zhou, Jianhua (J.); Meurer, Jemes (J.B.); Williamson, Richard (E.); Bzymek, Raymond (R.); Beck, Mike (M.C.); O'Neell, Jim (J.D.); Gates, Freeman (F.C.); Awad, Mahmoud (M.I.); Klarr, Jerry (G.T.); Freeland, Mark (M.); Witkowski, Paul (P.C.); Bauer, Scott (S.C.); Maurer, James (J.S.); McCerty, Bill (W.D.); Williamson, Richard (E.); Amin, Mike (M.J.); Bedges, Robert (R.S.); Balint, Gary (G.S.); Barnes, Timothy (T.); Behnke, Deve (D.P.); Bejune, Daniel (D.C.); Biskup, Robert (R.T.); Blackburn, Thomas (T.J.); Blamon, Brian (B.M.); Brown, Robert (R.D.); Brush, Tera (T.); Carliele, Shewn (S.K.); Carr, Richard (R.T.); Carver, Norman (N.B.); Castieberry, Brett (B.A.); Charlick, Peter (P.C.); Cheff, Arny (A.B.); Christenson, Kris (K.S.); Clegio, David (D.V.); Clayton, Chris (C.N.); Clemens, Roger (R.D.); Conrad, Jernes (J.A.); Cueler, Joseph (J.M.); D. Jones; Dain, Marcus (M.); Deering-Thornton, Zandr (Z.F.); Diangelo, Deborah (D.A.); Dierker Jr., Joseph (J.B.); Diveksruni, Ramena (R.); Douglaas, Jim (J.B.); Drever II, Donald (D.C.); Elsenhauer, Gary (G.D.); Ervin, Chandra (C.E.); Eum, James (J.S.); Falshes, Tom (T.M.); Faulk, William (W.R.); Flaherty, Pat (P.T.); Fomin Sr., George (G.J.); Foster, Tom (T.E.); Fritischen, Steven (S.E.); Froehlich, Jose (J.); Garrett, Dave (D.M.); Gaunt, Frank (F.); Gills, Jeffrey (J.L.); Goering, Kimberty (K.L.); Grandas, Joseph (J.M.); Herner, Rachel (R.E.); Hilding, Robert (R.J.); Hirtzel, Rich (R.J.); Hopkine II, Harry (H.S.); Jeeger, Sharon (S.A.); Jacter, Daniel (D.C.); Jendrusch, Tom (T.D.); JIAFRATE was deleted 20020810; Johnson, Jim (J.S.); Johnson, Warren (W.K.); Jones, David (D.W.); Judge, Burinder (S.S.); Kaercher, Don (D.F.); Kean, David (D.J.); Khan, Mohammad (M.); King, Michalia (M.); Kintrea, Kenna (K.); Kirachke, Kevin (K.E.); Kiser, Kurt (K.W.); Lebeck, Ron (R.V.); Lee, William (W.E.); Leese, Alvin (A.); Lewis, Cody (C.B.); Ligon, Frank (F.M.); Liu, Jene (J.); Lizotis, Brian (B.W.); Logel, Jay (J.D.); Lorenz, Gary (G.L.); Luhra, David (D.A.); Lyalk, Kavin (K.M.); Maeroff, Bruce (B.J.); Marck, Edmond (E.C.); Mardell, Mitch (M.P.); Martin, Jerree (J.F.); Masura, Gordon (G.P.); Matsul, Staven (S.N.); McClenaghan, Dean (D.C.); McInemay, John (J.T.); Mercler, Julie (J.A.); Merideth, Marcus (M.E.); Mezzadri, Robert (R.J.); Mimikos, Marcy (M.A.); Minekemi, Aklo (A.); Muter, Dorsen (D.J.); Necewicz, Roy (R.A.); Nekeno, Hideki (H.); Nakano, Hiroko (H.); Near, Rayman (R.M.); Nevi, Ray (R.A.); Niesen, Todd (T.); Nowka, Erich (E.J.); Nunez, Dolores (D.); Offerle, Timothy (T.G.); Oldfield, James (J.H.); Oewalt, Greg (G.G.); Page, Greg (G.G.); Park, David (D.G.); Patel, Sharat (B.C.); Patel, Sharat (B.J.); Patel, Rasik (R.N.); Patien, Mike (L.M.); Pendrick, Jeffrey (J.W.); Phalifer, Robert (R.J.); Raquepeu, Alden (A.P.); Rogers, Mike (M.C.); Sarnas, Bob (R.); Schmidt, Norm (N.G.); Schramek, Joseph (J.E.); Schwertzenberger, Sendy (S.); Shipp, Terri (T.L.); Shore, John (J.); Smith, Jana (J.L.); Souchock, Peter (P.D.); Stando, Michael (M.J.); Starling, William (W.H.); Steele, David (D.T.); Stawart, Greg (J.); Storves, Bill (W.K.); Swanty, Rainer (R.); Sweensy, Stephanie (S.L.); Szainy, Michael (M.A.); Tejak, Terry (T.E.); Tokaraky, Michael (M.); Trout, Brooke (BLT.); Trujilo, Thomas (T.G.); Upahew-Gibson, Andrea (A.D.); Van Gilder, Jim (J.); Vegh, Paul (P.F.); Villamuel, Nemesio (N.); Voelker, Martin (M.C.); Vondele, Jemes (J.P.); Waxer, Donald (D.D.); Westenberg, Journe (J.L.); White, Dougles (D.B.); Williams, Trevor (T.G.); Willush, Kevin (K.); Woodring, Chris (C.A.); Zane, Jim (J.E.); Zelenick, Jeffrey (J.M.); Zychowicz, Julie (J.A.); Adyama Fumihiko; Kenai, Shinji (S.)

Issue: 2001-2001 MY Multiple Vehicle lines - Kavilco TM dPFE Sensor (01Y34)

Dial-in Number: FordNet: 1-877-870-3431 1-954-1143

International & toll no.

1-830-893-1703

Pasacode:

8000488#

Potential Supplier involvement: Yes

Subject: Location: Technical Review: 2001-2001 MY Multiple Vehicle lines - Kavilco TM diPFE Sensor (01Y34)

PDC 1B-A40

Start: End: Thu 9/5/2002 11:30 AM Thu 9/5/2002 12:15 PM

Show Time As:

Tentative

Recurrence:

(hone)

Meeting Status:

Not yet responded

Required Attendees:

Ecell, R (R.); Kozzewnik, John (J.J.); Plante, Peul (P.G.); Guya, Philip (P.R.); Sheddan, Leo (L.K.); Ufford, Donald (D.A.); Ashburn, Paul (P.J.); Maguire, Philip (P.M.); Kuzek, Darrick (D.M.); Patel, Praful (P.J.); McNeal, Burton (B.E.); Gibert, Ben (B.A.); Claudepierre, Date (D.E.); von Foerster, Steve (S.); Kammerer, Al (Allan R.); Renucci, Mike (M.P.); Osbome, William (W.H.); Visintainer, Randel (R.H.); Himes, Bob (R.S.); Pacheco, Susan (S.M.); O'Neal, Jim (J.D.); Schleding, Kurt (K.J.); Freeland, Mark (M.); Gates, Freeman (F.C.); Werd, Larry (L.J.); McCarty, Bill (W.D.); Rossi, Roberto (R.A.); Klarr, Jerry (G.T.); Zhou, Jisnhus (J.); Maurer, James (J.B.); Williamson, Richard (E.); Bzymak, Raymond (R.); Beck, Mike (M.C.); Amin, Mike (M.J.); Badges, Robert (R.S.); Balint, Gary (G.S.); Barnes, Timothy (T.); Behrike, Dave (D.P.); Bejune, Daniel (D.C.); Blekup, Robert (R.T.); Blackburn, Thomas (T.J.); Blenton, Brian (B.M.); Brandt, Andrew (A.D.); Brown, Robert (R.D.); Brush, Tara (T.); Carlisle, Shawn (S.K.); Carr, Richard (R.T.); Carver, Norman (N.B.); Castleberry, Brett (B.A.); Charlick, Peter (P.C.); Cheff, Arny (A.B.); Christensen, Kris (K.S.); Clegio, Devid (D.V.); Clayton, Chris (C.N.); Clemens, Roger (R.D.); Conred, James (J.A.); Custer, Joseph (J.M.); D. Jones; Dein, Marcus (M.); Deering-Thornton, Zandr (Z.F.); Diangelo, Deborah (D.A.); Dierker Jr., Joseph (J.B.); Olvakaruni, Ramana (R.); Douglase, Jim (J.B.); Drever II, Donald (D.C.); Elsenhauer, Gary (G.D.); Ervin, Chandra (C.E.); Eurn, James (J.S.); Falahee, Torn (T.M.); Faulk, William (W.R.); Fisherty, Pat (P.T.); Fornin Sr., George (G.J.); Foster, Tom (T.E.); Fritschen, Steven (S.E.); Froehilch, Jose (J.); Garrett, Dave (D.M.); Gaunt, Frank (F.); Gilds, Jeffrey (J.L.); Goering, Kimberty (K.L.); Grandse, Joseph (J.M.); Hefner, Rachel (R.E.); Hilding, Robert (R.J.); Hirtzel, Rich (R.J.); Hopkins, Harry (H.S.); Jaeger, Sharon (S.A.); Jaeter, Daniel (D.C.); Jendrusch, Torn (T.D.); JIAFRATE was deleted 20020810; Johnson, Jim (J.S.); Johnson, Warren (W.K.); Jones, David (D.W.); Judge, Surinder (S.S.); Keercher, Don (D.F.); Kean, David (D.J.); Khen, Mohemmad (M.); King, Michelle (M.); Kintrea, Kenna (K.); Kirschke, Kevin (K.E.); Kleer, Kurt (K.W.); Lebeck, Ron (R.V.); Lee, William (W.E.); Leese, Alvin (A.); Lewis, Cody (C.B.); Ligon, Frank (F.M.); Liu, Jane (J.); Lizotte, Brian (B.W.); Logel, Jay (J.D.); Lorenz, Gary (G.L.); Luhra, David (D.A.); Lysik, Kevin (K.M.); Maeroff, Bruce (B.J.); Marck, Edmond (E.C.); Mardell, Mitch (M.P.); Martin, Jerree (J.F.); Masura, Gordon (G.P.); Matsul, Steven (S.N.); McClenaghan, Dean (D.C.); Mchemey, John (J.T.); Mercler, Julie (J.A.); Merideth, Marcue (M.E.); Mezzadri, Robert (R.J.); Mimikos, Marcy (M.A.); Minakemi, Akio (A.); Muter, Dorsen (D.J.); Nacewicz, Roy (R.A.); Nakano, Hidaki (H.); Nakano, Hiroko (H.); Nasr, Raymen (R.M.); Nevi, Ray (R.A.); Nissen, Todd (T.); Nowka, Erich (E.J.); Nunez, Dolores (D.); Offerie, Timothy (T.G.); Oldfield, James (J.H.); Oewalt, Greg (G.G.); Page, Greg (G.G.); Park, David (D.G.); Patel, Bharet (B.C.); Patel, Bharet (B.J.); Patel, Reek (R.N.); Patten, Mike (L.M.); Pendrick, Jeffrey (J.W.); Phelifer, Robert (R.J.); Raquepau, Alden (A.P.); Rogers, Mike (M.C.); Samas, Bob (R.); Schmidt, Norm (N.G.); Schramek, Joseph (J.E.); Schwartzenberger, Sandy (S.); Shipp, Terri (T.L.); Shore, John (J.); Smith, Jana (J.L.); Souchock, Peter (P.D.); Stando, Michael (M.J.); Starling, William (W.H.); Steele, David (D.T.); Stewari, Greg (J.); Storves, Bill (W.K.); Swamy, Rainer (R.); Sweeney, Stephanie (S.L.); Szaley, Michael (M.A.); Tajak, Teny (T.E.); Tokaraky, Michael (M.); Trout, Brooks (BLT.); Trujillo, Thomas (T.G.); Upshew-Gibson, Andres (A.D.); Van Gilder, Jim (J.); Vegh, Paul (P.F.); Vert, Nancy (N.B.); Villarruel, Nemecio (N.); Voetker, Martin (M.C.); Vondele, James (J.P.); Waxar, Donald (D.D.); Westenberg, Joanne (J.L.); White, Dougles (D.B.); Williams, Trevor (T.G.); Wilush, Kevin (K.); Witkowski, Paul (P.C.); Woodring, Chris (C.A.); Zane, Jim (J.E.); Zelenick, Jeffrey (J.M.); Zychowicz, Julia (J.A.)

(F. Ligon or K. Goering representing VS&P)

issue; 2001-2001 MY Multiple Vehicle Ijnee - Kavilco TM dPFE Sensor (01Y34)

Dial-in Number: 1-877-870-3431 FordNet: 1-954-1143 International & toll no. 1-630-693-1703 Passcode: 8606163#

Potential Supplier involvement: Yes

From: Sent To:

Ed Skokefus [ntelleck@ic.net] Fridey, June 21, 2002 2:03 PM

Freeland, Mark (M.)

RE: Status Subject:

Mark, we seem to be out of phase w/ travels. Mary Sue and I leave in the am for Machu Pichu. Be back in 9 days. Hope your 1,500 drive went well. Ed

-----Original Message----

From: Freeland, Mark (M.) [mailto:mfreelal@ford.com]

Sent: Friday, June 21, 2002 12:56 PM

To: Ed Sickafus (E-mail), Hangas, Jon (.); Uy, Dairens (D.); Simko,

Steven (S.J.); Carter, Roscoe (R.C.)

Subject: FW: Status

The latest report from AS is attached for you're info. I will discuss with you next week when I return from a 1,500 mile test drive (of a sensor running in the latched state) vs. a control not latched.

### Regards

#### Mark Freeland

> 6-Sigma Black Belt

> Engine Research Department

- > Ford Research Laboratory
- > P.O. Box 2053
- > MD 2629 SRL Room 1517
- > Dearborn, MI 48121-2053 USA

email: mfreelal@ford.com

(313) 594-7645 Tel.:

----Original Message----

From: Park, Kyong [mailto:KPark@kavlico.com]

Sent: Friday, June 21, 2002 11:31 AM

To: mfreelal@ford.com; pplante@ford.com; jmaurer@ford.com;

apoma2@ford.com; fgates@ford.com; Akins, Mary; Davies, Brady; Tackman,

Bruce; Ayers, Don; Ray, Randy

Subject: FW: Status

The attachment was dropped from the first transmission.

> --~--Original Message-----

> From: Mike Strizich [SMTP:mstriz@anslyticalsol.com]

Thursday, June 20, 2002 6:08 PM > Sent:

- > To: 'Park, Kyong'
- > Subject: RE: Status
- > Mr. Park.
- > Here is the second attempt at sending the letter. Hope you receive ok.
- > Regards,
- > Nike

> ----Original Message-----

```
> From: Park, Eyong (mailto:EPark@kavlico.com)
> Sent: Thursday, June 20, 2002 1:17 PM
> To: mstrix@analyticalsol.com
> Cc: mfreelal@ford.com; Davies, Brady
> Subject: Status
>
> Dear Mike,
>
> I wonder whether you have sent me any report about the issues we discussed over the phone.
> Please, let me know. We are looking forward to hearing from you.
> Thanks.
> Kyong
> <<corresion notes.doc>>
```

Ed Sicketus [ntelleck@ic.net]

Sent:

Wednesday, May 22, 2002 7:58 PM

To: Mark Freeland

Cc;

Freeman Gates; James B. Maurer

Mark: I'm assuming that two types of thin-film sandwiches occur on the Kavlico device: Si3N4/Au/SiO2/SiO2/Ti-W/Si-epi and Si3N4/Au/SiO2/Al/SiO2/Ti-W/Si-epi. My notes aren't sufficiently complete and I have not been given a detailed cross-section of the device to know for sure. Can you confirm this, or correct it? If two oxide depositions are done, as I show, are they identical?

From: Sent:

Ed Sickafus inteleck@ic.netj Wednesday, May 16, 2002 5:36 PM Mark Freeland call phone

To: Subject

Mark: My cellphone # (313) 318-3299. Use it last, because I don't often have it on. But the next two days I will. Ed.

From: Sent: To: Ed Sickefus Intelleck@ic.net[ Thursday, April 25, 2002 3:45 PM

0:

Mark Freeland; James Meurer; Paul Plante

Subject: Set-Wed contacts

I leave Saturday (4/27/02) for St. Louis and return next Wednesday (5/1/02). Sunday pm, Monday and Tuesday day time, I'll be attending the TRIZCON2002 conference at the Adams Mark Hotel (tel: (314)-241-7400). Messages can be directed to the conference registration desk. Evenings I'll be staying at my sister's in NW St. Louis County: Ms Vi Roussin, (314) 921-5511.

Eđ

From: Sent: Ed Sickefus [ntelleck@ic.net]

Wednesday, May 22, 2002 7:58 PM Mark Freeland

To: Cc:

Preeman Gates; James B. Maurer

Mark: I'm assuming that two types of thin-film sandwiches occur on the Kavlico device: 8i3N4/Au/SiO2/SiO2/Ti-W/Si-epi and Si3N4/Au/SiO2/Al/SiO2/Ti-W/Si-epi. My notes aren't sufficiently complete and I have not been given a detailed cross-section of the device to know for sure. Can you confirm this, or correct it? If two oxide depositions are done, as I show, are they identical?

From: Sent: To:

Subject:

Ed Sickefus (ntelleck@lc.net) Wednesday, May 15, 2002 5:38 PM Mark Freeland cell phone

Mark: My cellphone # (313) 318-3299. Use it last, because I don't often have it on. But the next two days I will. Rd.

From: Sent: Ed Sickefue (ntelleck@ic.net) Thursday, April 25, 2002 3:45 PM

To:

Mark Precland; James Meurer, Paul Plante

Subject: Set-Wed contacts

I leave Saturday (4/27/02) for St. Louis and return next Wednesday (5/1/02). Sunday pm, Monday and Tuesday day time, I'll be attending the TRIZCON2002 conference at the Adams Mark Hotel (tel: (314)-241-7400). Messages can be directed to the conference registration desk. Evenings I'll be staying at my sister's in NW St. Louis County: Ms Vi Roussin, (314) 921-5511.

Ed

From: Sent: To: Ed Sickefus [ntelleck@lc.net] Thursday, April 11, 2002 9:10 AM

To: Subject:

Mark Freeland telephone job??

### 4/11/02

Mark, been thinking more about the telephoning job. While doable, it seems to me to be rather expensive to have me making phone calls. Where I see more justifiable use of my expertise would be in planning and interpreting independent lab work/results.

I don't know how far along you and your colleagues are on planning independent lab studies, but let me simply suggest that up front detailed planning can make a big difference in final results. Usually, by the time lab results are returned it is too late to order new work and one has to make do with what is available. Also, timing of receipt of results is at best iffy (and probably can't be changed).

In any case, a matrix of tests should be worked up with each test belonging to a well defined hypothesis, with preplanned criteria for precision of measurement, with preplanned ideas of what the results mean (at least the difference in "high" vs. "low" results), and with specific ideas of the measurements to be made. Typically, in firefights there is insufficient time to pull off a well defined designed experiment. But if there is, one or more should be well designed. If time permits, the matrix of hypotheses and associated tests should be independently reviewed.

Another feature is to rate the proposed tests according to their individual definitiveness. Then by doing the most definitive ones first, if one is lucky, others might be cancelled or changed midstream. This isn't quite simple as it may look at first because another issue is complexity and time needed to do the more definitive tests.

My perception, at the moment, is that finding root causes for the missing Al film would be a first goal. Then demonstration of device malfunction when there is missing Al film (probably a more difficult experiment) would be the clincher. This perception may be a bit naive due to my limited information.

Εđ

From: Sent: Ed Sickefus (ntelleck@ic.net) Mondey, March 25, 2002 4:47 PM

To: Subject Freeland, Mark (M.) RE: resend

Sorry for the late-in-the-day response, Mark, been tied up on income tax business.

Yes, that's my opinion. A bit can be said at this point about the implications of observations made this far supporting the plausible root cause of unintentionally etched Al.

Now what to do; i.e., what to do w/ me? If a fleshed-out report along the lines of the 2nd mailing DRAFT is useful, I'll be glad to spend some time filling it out on my own ('bout a 1/2 day's work). Or I could come in, and you and I could spend an hour or so together completing the outline and establishing practical and impractical recommendations to make (I have some ideas on what's practical in postmortem investigation of thin film devices. This comes from FMI experience and years ago assignment to investigate a German supplier of photo cells to Ford.) I would then finish the report. If a report like I'm suggesting would not really be used, then I think I should close the book, and send in my invoice for work done.

What fits your needs and those of your customer?

----Original Message----

From: Freeland, Mark (M.) [mailto:mfreelai@ford.com]

Sent: Monday, March 25, 2002 10:30 AM

To: 'Ed Sickafus' Subject: RE: resend

All the best, Ed.

Thank you Ed,

I did receive the second send.

I think from you're notes you are of the same opinion as I am. That is that the most plausible reason for the missing Al is from unintended etching in process, but that we should also explore the possibility of a reaction with the potting gel.

Thank you again for coming in at short notice last Friday.

Best Regards

Mark Freeland

Sent

El-sayed, Welld (W.) Monday, May 20, 2002 12:21 PM

To: Čc:

Frederid, Mark (M.) El-eayed, Walld (W.)

Subject

8is-Sigme Project

Mark, My name is Walld EL-Sayed and I am the new Blackbalt candidate for PTO/STA working for T.J. Bonfield.

I am in the training program and I was introduced to Kavtico by Patrice Johnson-White (FORD STA )and their corrosion warranty problems last week where I made a trip to their facility in california. Your name was brought up and the reason for my e-mail is two fold:

1) Are you working on this project as part of your certification for 6-Sigma?

2) If the answer is "NO" to the above, I would like to sit down with you and review product and supplier history with you.

Thanks for all your help. welld

My Number: 39-02595 Myceli: (313) 598-9084

Elwell, Fred (F.)

Sent:

Wednesday, September 04, 2002 4:03 PM

To:

Freeland, Mark (M.)

Co:

McCoy, James (J.D.); Power, James (J.H.)

Subject:

RE: Sperk plug resistance checks

### Mark,

We will be visiting Essex Engine plant tomorrow morning. If you can leave the vehicle here on Friday, I should be able to measure the plugs sometime during the day.

----Original Message

**CHAPTE** 

Freeland, Mark (ML)

Bentı

Tuesday, September 03, 2002 12:38 PM

To:

Elwell, Fred (F.) McCoy, James (J.D.)

Ca Subjects

FW: Spark plug resistance checks

### Fred.

When would be a good time for you to check out the plugs on the Mountaineer? If you would like I could come over to you're garage tomorrow morning or afternoon. If it will only take an hour I will stay with you, or if a lot longer then I can leave the vahicle with you and borrow wheels from Jim McCoy.

Thanke

Regards

Mark Preeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

----Original Magazga---

From:

Ewell, Fred (F.)

Seet:

Trussley, August 29, 2002 2:15 PM

Tot -

Presiand, Mark (N.) Power, James (J.H.)

Subjects

Spark plug resistance checks

I was unable to pry Jim McCoy away from the vehicle long enough to get the plugs removed and checked for resistance. Please make arrangements with Jim Power and/or me next week after the labor day holiday. Have a good weekend.

Elwell, Fred (F.)

Sent:

Thursday, August 29, 2002 2:15 PM Freeland, Mark (M.)

To: Ċc:

Power, James (J.H.)

Subject.

Spark plug resistance checks

I was unable to pry Jim McCoy away from the vehicle long enough to get the plugs removed and checked for recistance. Please make arrangements with Jim Power and/or me next week after the labor day holiday. Heve a good weekend.

From: Sent: E-mail center [email:center@inductor.com] Thursday, September 28, 2002 12:57 PM

To: Subject: Mark Freeland E-Mail Eng Kit Confirmation

Inductors Inc. 5 Technology Drive, Irvine, CA 92618 Phone: 800-533-8295 Fax: 949-623-1401 www.inductor.com

09/25/02

Mark Freeland Ford Motor Company 2101 Village Road, SRL Rm. 1517 Dearborn, MI 48121

Dear Mark:

Congratulations on taking advantage of our limited time offer of FREE engineering kits. You should be receiving the kits you requested via ups in the next couple of days. Please don't hesitate to call me for any of your inductor needs

Sincerely,

Clay Boxley Sales Representative

Firu, John (J.J.)

Bent:

Manday, April 22, 2002 10:18 AM

To:

Lawler, John (J.J.)

Ce:

Tueckmentel, Lutz (R.); Freeland, Mark (M.); Rossi, Roberto (R.A.); O'Nesil, Jim (J.D.); Jusiolek, Walt (W.J.); Gutse, Freeman (F.C.); Meurer, James (J.B.); Powers, Marty (M.L.)

Subject

RE: CUSTOMER REQUIRE BUY-BACK VEHICLE

This is the latest status of the 2001 Focus buyback at Alan Ford of Biografield Hills, Mi.

This morning, April 22nd. Marty Powers (department vehicle coordinator) and myself turned in the approved PSR (Proccurement & Service Request) to the Vehicle Control Department at the QMP Building.

The personnel in the Vehicle Control Department will assign a vehicle control number for the Focus. After this is completed, they will contact Marty Powers.

### ---- Original Massage

Proditi

Levder, John (1,1.)

**Şeni**y

Friday, April 19, 2002 4:25 PM

Tex Cos Mru, John (J.J.)

Subjects

Tueckmentel, Lutz (R.) RE: CLISTOMER REQUIRE BUY-BACK VEHICLE

John, It appears Lutz is handling. Please advise if my assistance is required.

### ---- Original Message---

Prom:

Fire, John (J.J.)

**Gent**z

Priciny, April 19, 2002 1:22 PM Piru, John (J.J.); Tunckmental, Lutz (R.)

To: Cc:

Official, Jim (J.D.); Janiolek, Walt (W.J.); Gates, Freeman (P.C.); Meurer, James (J.E.); Freeland, Mark (M.); Rossi, Roberto (R.A.);

Lawler, John (J.J.)

Subject:

RE: CLISTOMER REQUIRE BLY-BACK VEHICLE

Hi Lutz - Below is the information of the Focus vehicle our department would like to purchase per our discussion on the phone this morning.

2001 Focus Station Wagon Vin #: 1FAFP36381W116569

Engine Size: 2.0L VTEC

Owner's name of the Vehicle: Venkat Lake Phone Number: ( H ) 248 626-3321 (W) 248 853-4771

Dealership: Alan Ford

1845 S. Telegraph Rd. Skomfield Hills, Ml. 48320

(248) 333-3000

Please note that I am in the process of completing a PSR ( Procurement & Service Request ) form to initiate the transaction as instructed by Chrissy Downey, of DST Industries. Chrissy's phone number is: ( 734 ) 941-0300 x335.

The program used to buyback this vehicle is called: RAV (Reacquired Vehicle Operations).

---Original Massage-

Premi Pru, John (1.3.)

Sent

Friday, April 19, 2002 8:55 AM

Te: Subjects Tunckmental, Lutz (R.) PW: CUSTOMER REQUIRE BUY-BACK VEHICLE EAR2-827-0 2518

Good morning Lutz - Could you please give me a phone call as soon as possible ( asap ).

My name is John Firu, phone number: ( 313 ) 59-41227

I work with Powertrain Engineering in the POEE Bidg. In Dearborn, Mi.

I left you a phone message this morning for you to get back with ma. The message is in regards in our buying back a 2001 Focus vehicle from a customer who's vehicle stalled at 70 mph and could not restart the vehicle.

The vehicle was taken into service at Allen Ford, in Bloomfield Hills, Michigan.

Please note additional information will be exchanged when you call me. Thank you i!!!

----- Original Message

Frami

Piru, John (J.J.)

**Sent:** 

Pitchey, April 19, 2002 8:08 AM
O'Neal, Jim (J.D.); Jesiolek, Welt (W.J.); Gebis, Presince (F.C.); Maurer, James (J.B.); Fresiend, Mark (M.); Rossi, Roberto (R.A.)
CUSTOMER REQUIRE BUY-BACK VEHICLE

Subjects

This is the latest status in our requirement to buy-back a 2001 Focus vehicle from customer Venkat Laks.

The vehicle was in for service at Allen Ford, in Bicomfield Hills, Mi.

For us to buy-back the vehicle from the customer we have to work with the dealership's Customer Service Manager Representative. The name of the representative is: Lutz Tuezakmantal.

This morning ( made a phone call to Mr. Tuezakmentel ( 313 ) 621-7592, but this phone number is out of service: I am now following up with the dealership Allen Ford in obtaining the correct phone number of Mr. Tuezakmentei.

Fire, John (J.J.)

8ent

Friday, April 19, 2002 1:22 PM

To:

Firu, John (J.J.); Tueckmantel, Lutz (R.)

Ca:

O'Neall, Jim (J.D.); Jaclolek, Welt (W.J.); Gates, Freeman (F.C.); Maurer, James (J.B.);

Freeland, Mark (M.); Rossi, Roberto (R.A.); Lawier, John (J.J.)

Subject:

RE; CUSTOMER REQUIRE BUY-BACK VEHICLE

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Owner's name of the Vehicle: Venkat Laks Phone Number: ( H ) 248 626-3321 (W) 248 853-4771

Dealership: Alan Ford

1845 S. Telegraph Rd. Bloomfield Hills, Ml. 48320

( 248 ) 333-3000

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The program used to buyback this vehicle is called: RAV (Reacquired Vehicle Operations).

-Original Message

Front

Piru, John (J.J.)

Sent

Friday, April 19, 2002 8:55 AM

Toı Subject:

Tueckmantel, Lutz (R.) PW: CUSTOMER REQUIRE BUY-BACK VEHICLE

Good morning Lutz - Could you please give me a phone call as soon as possible ( asap ).

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The vehicle was taken into service at Allen Ford, in Bloomfield Hills, Michigan.

Please note additional information will be exchanged when you call me. Thank you IIII

--Origina: Measage-

From:

Fire, John (J.J.)

Seats

Friday, April 19, 2002 8:08 AM

Tod Subjects O'Neal, 1lm (J.D.); Jasiolek, Walt (W.L.); Getes, Fraeman (P.C.); Maurer, James (J.E.); Freekind, Mark (M.); Rosel, Roberto (R.A.)

CUSTOMER REQUIRE BUY-BACK VEHICLE

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The vehicle was in for service at Allen Ford, in Bloomfield Hills, Mi.

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Manager Representative. The name of the representative is: Lutz Tuezakmentel.

This morning I made a phone call to Mr. Tuezakmantel (313) 821-7592, but this phone number is out of service. I am now following up with the dealership Allen Ford in obtaining the correct phone number of Mr. Tuezakmantel.

Firu, John (J.J.)

Sent:

Friday, April 19, 2002 8:08 AM

To:

O'Neall, Jim (J.D.); Jaskiek, Welt (W.J.); Gates, Freeman (F.C.); Meurer, Jemes (J.B.); Freeland, Mark (M.); Rosel, Roberto (R.A.)

Subject:

CUSTOMER REQUIRE BUY-BACK VEHICLE

This is the latest status in our requirement to buy-back a 2001 Focus vehicle from customer Venkat Laks.

The vehicle was in for service at Alien Ford, in Biografield Hills, Mil.

For us to buy-back the vehicle from the customer we have to work with the dealership's Customer Service Manager Representative. The name of the representative is: Lutz Tuezakmentel.

This morning I made a phone call to Mr. Tuezakmantel ( 313 ) 621-7692, but this phone number is out of service. I am now following up with the dealership Alien Ford in obtaining the correct phone number of Mr. Tuezekmentel.

Cenceled; 3.0L U204 Pheniom stati meeting

TEE CR#1

Stort End:

Thu 11/7/2002 2:00 PM Thu 11/7/2002 3:00 PM

Show Time As:

Free

Requirence:

Weekly

Recurrence Pattern:

every Thursday from 2:00 PM to 3:00 PM

Moeting Status:

Not yet responded

Required Attendess:

Fournelle, Gifbert (G.); Altoonian, Don (D.J.); Beuer, Soott (S.C.); Bhojward, Karnel (K.); Blackburn, Thomas (T.J.); Bogema, John (P.); Cary Powell (E-mail); Chick, John (J.); Chih, Ming-Niu (M.N.); Chin, Darrel (D.); Corbett, Sandra (S.M.); Dalbo, Bob (R.J.); De Pena, Juan (J.E.); Diez, Timothy (T.P.); Duvell, Allen (A.W.); Fascetti, Bob (R.J.); Fournelle, Gilbert (G.); Freeland, Mark (M.); Glas, Stuart (8.); Goldhele, Renuka (R.V.); Goodwin, William (W.R.); Grewel, Bit (B.S.); Grimes, Jeff (J.R.); Hansen, George (G.C.); Herr, George (G.J.); Hofman, Michael (M.V.); Holmes, Jeffrey (J.R.); Hoshiro, Jun (J.); Idhikawa, Jlyunichiro (J.); Jeneen, Ted (T.E.); Jones, Andy; Jordan, Donald (D.E.); Kenal, Shinii (S.); Khan, Naveed; Kosko, Jeff (J.R.); Lawler, Dave (D.A.); Le, Dzung (D.H.); Limitaco, Steven (S.); Lindo, Peter (P.A.); Liu, Jane (J.); Marck, Edmond (E.C.); Marlanca, Tom (T.E.); Matesa, John (J.); Maurer, James (J.B.); Mezzeke, Gary (G.R.); McCerthy, Fran (F.); Mcdonald, John; McGee, Brett (B.L.); Mooney, Larry (L.); Moorhouse, Soott (S.R.); Morgen, Tomiko (T.T.); Morishims, Shigaki (S.); Makano, Hideki (H.); Nemetolishi, Sonya (S.); Nikolai, bernie; Noteboom, Jim (J.E.); Ortman, James (J.W.); Powers, Ken (K.W.); Price, Martin (M.); Raquepau, Alden (A.P.); Rothweiler, Daniel (D.); Shah, Kiren (K.C.); Shireishi, Masaru (M.); Stilgenbauer, Jeffrey (J.R.); Suarez, Rhae (R.); Takesawa, Keith (K.D.); Takubo, Hirolchi (H.); Veenstra, Tim (T.W.); Wakeneli, Ray (R.A.); Weltach, BM (B.); Williams, Les (LHW.)

Optional Attendees:

Holman, Michael (M.V.); Nakano, Hideki (H.); Lawler, Dave (D.A.); Grimes, Jeff (J.R.); Price,

Martin (M.); Moorhouse, Scott (S.R.); Hoshino, Jun (J.); Blackburn, Thomas (T.J.)

Importance:

High

This meeting is cancelled due to a U204 test trip. The next meeting will be held at the regular scheduled time on 11/14/02 at 2:00pm

Meeting agende and meeting minutes will be send separately on a weekly basis.

toli free:

1-888-227-7015

Ford net:

954-1208

International: 1-630-893-6145

Updated: 3.0L U204 Phantom etail meeting

TÉE CR#1

Start: End:

Thu 10/24/2002 2:00 PM Thu 10/24/2002 3:00 PM

Show Time As:

Tentetive

Recurrence:

Recurrence Pattern:

Weekly

every Thursday from 2:00 PM to 3:00 PM

Meeting Status:

Not yet responded

Required Attendess:

Fournelle, Gilbert (G.); Altoonien, Don (D.J.); Bauer, Scott (S.C.); Bholwani, Kamai (K.); Blackburn, Thomas (T.J.); Bogema, John (P.); Cary Powell (E-mail); Chick, John (J.); Chih, Ming-Niu (M.N.); Chin, Darrei (D.); Corbett, Sandra (S.M.); Dalbo, Blob (R.J.); De Pena, Juan (J.E.); Diez, Timothy (T.P.); Duvell, Allen (A.W.); Fescetti, Bob (R.J.); Fournelle, Gilbert (G.); Freeland, Mark (M.); Glice, Stuart (S.); Golthale, Renuka (R.V.); Goodwin, William (W.R.); Grewel, Bill (8.8.); Grimes, Jeff (J.R.); Hansen, George (G.C.); Herr, George (G.J.); Hofman, Michael (M.V.); Hotmes, Jeffrey (J.R.); Hoshino, Jun (J.); Ichikawa, Jiyunichiro (J.); Jensen, Ted (T.E.); Jones, Andy; Jordan, Donald (D.E.); Kanal, Shinji (S.); Khan, Naveed; Koeko, Jeff (J.R.); Kwon, Soon (S.K.); Lawler, Dave (D.A.); Le, Ozung (D.H.); Limilaco, Steven (S.); Linde, Peter (P.A.); Liu, Jane (J.); Marck, Edmond (E.C.); Marlance, Tom (T.E.); Matess, John (J.); Maurer, James (J.B.); Mezzella, Gary (G.R.); Modonald, John; McGee, Brett (B.L.); Mooney, Larry (L.); Moorhouse, Scott (S.R.); Morgan, Tomiko (T.T.); Morishima, Shigeki (S.); Nakano, Hideki (H.); Nematoliahi, Sonya (S.); Nikolai, bamie; Noteboom, Jim (J.E.); Ortman, James (J.W.); Powers, Ken (K.W.); Price, Martin (M.); Raquepau, Alden (A.P.); Rothweller, Deniel (D.); Shah, Kiran (K.C.); Shiralahi, Masaru (M.); Stilgenbauer, Jeffrey (J.R.); Suarez, Rhae (R.); Takasawa, Kelth (K.D.); Takubo, Hiroichi (H.); Veenstra, Tim (T.W.); Wakeneli, Ray (R.A.); Wettech, Bill (B.); Williams, Les (LHW.)

Holman, Michael (M.V.)

Optional Attendess:

I made a mistake in the previous meeting notice (it was one continuous meeting instead of a weekly 1 hour meeting). Sorry for the inconvenience.

Meeting agenda and meeting minutes will be send separately on a weekly basis.

toll free:

1-866-227-7015

Ford net:

954-1208

International: 1-630-693-6145

Updated: 3.0L U204 Phentom stall meeting

TEE CR#1

Start: End:

Thu 10/24/2002 2:00 PM Thu 10/24/2002 3:00 PM

Show Time As:

Tentative

Recultrence:

Weekty

Recurrence Pattern:

every Thursday from 2:00 PM to 3:00 PM

Meeting Status:

Not yet responded

Required Attendese:

Fournelle, Gilbert (G.); Altoonian, Don (D.J.); Bauer, Scott (S.C.); Bhojwani, Kamai (K.); Blackburn, Thomas (T.J.); Bogerna, John (P.); Cary Powes (E-mail); Chick, John (J.); Chih, Ming-Niu (M.N.); Chin, Darrei (D.); Corbett, Sandra (S.M.); Delbo, Bob (R.J.); De Pena, Juan (J.E.); Diez, Timothy (T.P.); Duvell, Allen (A.W.); Fascetti, Bob (R.J.); Fournelle, Gitbert (G.); Freeland, Mark (M.); Glee, Stuart (S.); Gokhale, Renuka (R.V.); Goodwin, William (W.R.); Grewal, Bit (B.S.); Grimes, Jeff (J.R.); Hansen, George (G.C.); Herr, George (G.J.); Hofman, Michael (M.V.); Holmes, Jeffrey (J.R.); Hoshino, Jun (J.); Ichikawa, Jiyunichiro (J.); Jensen, Ted (T.E.); Jones, Arxly, Jordan, Donald (D.E.); Kanai, Shinji (S.); Khan, Neveed; Kosko, Jeff (J.R.); Kwon, Soon (S.K.); Lewier, Dirve (D.A.); Le, Dzung (D.H.); Limitaco, Steven (S.); Linde, Peter (P.A.); Llu, Jane (J.); Marck, Edmond (E.C.); Martanoe, Torn (T.E.); Metesa, John (J.); Maurer, Jemes (J.B.); Mazzella, Gary (G.R.); Modonald, John; McGee, Brett (B.L.); Mooney, Larry (L..); Moorhouse, Scott (S.R.); Morgan, Tomiko (T.T.); Morishima, Shigeki (S.); Nakano, Hideki (H.); Nematoliahi, Sonya (S.); Nikolai, bernie; Noteboom, Jim (J.E.); Ortman, James (J.W.); Powers, Ken (K.W.); Price, Martin (M.); Requepeu, Alden (A.P.); Rothweiler, Daniel (D.); Shah, Kiran (K.C.); Shinsishi, Masaru (M.); Stilgenbauer, Jeffrey (J.R.); Suarez, Rhae (R.); Takasawa, Kath (K.D.); Takubo, Hirokhi (H.); Veenstra, Tim (T.W.); Wakeneli, Ray (R.A.); Wettach, Bill (B.); Williame, Les (LHW.)

Optional Attendess:

Hofman, Michael (M.V.)

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Meeting agends and meeting minutes will be send separately on a weekly basis.

tali free:

1-886-227-7015

Ford net:

954-1208

International: 1-630-693-6145

From: Sent: To: Foumelle, Gilbert (G.)

Wednesday, October 16, 2002 11:06 AM

Altonian, Don (D.J.); Bauer, Scott (S.C.); Bhojwani, Kamai (K.); Blackburn, Thomas (T.J.); Bogema, John (P.); Cary Powell (E-meil); Chick, John (J.); Chih, Ming-Nu (M.N.); Chin, Derrei (D.); Corbett, Sandra (S.M.); Dalto, Bob (R.J.); De Pena, Juan (J.E.); Diez, Timothy (T.P.); Duvell, Allen (A.W.); Fascetti, Bob (R.J.); Fournelle, Gibert (G.); Freeland, Mark (M.); Glies, Stuert (S.); Gokheie, Renuka (R.V.); Goodwin, William (W.R.); Grewal, Bill (B.S.); Grimes, Jeff (J.R.); Hansen, George (G.C.); Herr, George (G.J.); Hofman, Michael (M.V.); Holmes, Jeffrey (J.R.); Hoelino, Jun (J.); Ichikawa, Jiyunlohiro (J.); Jensen, Ted (T.E.); Jones, Andy; Jordan, Donald (D.E.); Kanai, Shinji (S.); Khan, Naveed; Koeko, Jeff (J.R.); Kwon, Soon (B.K.); Lawler, Deve (D.A.); Le, Dzung (D.H.); Limitaco, Barven (S.); Linde, Peter (P.A.); Liu, Jane (J.); Marck, Edmand (E.C.); Marienos, Tom (T.E.); Matses, John (J.); Maurer, James (J.S.); Mazzelle, Gery (G.R.); Modonald, John; McGee, Brett (B.L.); Mooney, Lerry (L.); Moorhouse, Soott (B.R.); Morgan, Tomiko (T.T.); Morfehima, Shigeki (S.); Nakano, Hideki (H.); Nematofahi, Sonya (S.); Nikolai, bernie; Noteboom, Jim (J.E.); Ortman, James (J.W.); Powers, Ken (K.W.); Price, Martin (M.); Raquepsu, Alden (A.P.); Rothweller, Deniel (D.); Shah, Kiran (K.C.); Shiralehi, Mesanu (M.); Stigenbauer, Jeffrey (J.R.); Suerez, Rhee (R.); Takasawa, Kelth (K.D.); Takaso, Hirolchi (H.); Veenstra, Tim (T.W.); Wekenell, Ray (R.A.);

Subject:

Wettech, Bill (B.); Williams, Les (LHW.)
Phantom stall meeting for 10/17/02 cancelled

The phantom stall meeting is cancelled for tomorrow 10/17/02 due to the fact that the calibration group is on a hot weather test trip. Meeting notices will be sent out next week for future stall meetings.

Regards,

Gilbert Fournelle

V6 U204 Calibration Engineering 1AE27 Truck Engine Engineering (TEE) Phone:(313)3904968 Fax:(313)3231788

Updated: 3.0L U204 Phantom staff meeting

TEE CR#1

Start End:

Thu 10/24/2002 2:00 PM Thu 10/24/2002 3:00 PM

Show Time As:

Tentetive

Recurrence:

Weekly

Recurrence Pattern:

every Thursday from 2:00 PM to 3:00 PM

Moeting Status:

Not yet reaponded

Required Attendess:

Fournelle, Gibert (G.); Altoonish, Den (D.J.); Beuer, Scott (S.C.); Bhojweni, Kamel (K.); Blackburn, Thomas (T.J.); Bogama, John (P.); Cary Powell (E-mail); Chick, John (J.); Chin, Ming-Nu (M.N.); Chin, Darrel (D.); Corbett, Sendre (S.M.); Dalbo, Bob (R.J.); De Pena, Juan (J.E.); Diez, Timothy (T.P.); Duvell, Allen (A.W.); Fascetti, Bob (R.J.); Fournelle, Gilbert (G.); Freeland, Mark (M.); Glies, Stuart (S.); Gokhale, Renuka (R.V.); Goodwin, William (W.R.); Grewel, Bill (B.S.); Grimes, Jeff (J.R.); Hersen, George (G.C.); Herr, George (G.J.); Holmen, Michael (M.V.); Holmes, Jeffrey (J.R.); Hoshino, Jun (J.); Ichikawa, Jlyunichiro (J.); Jensen, Ted (T.E.); Jones, Andy; Jordan, Donald (D.E.); Kanal, Shinji (S.); Khan, Naveed; Koako, Jeff (J.R.); Kwon, Soon (S.K.); Lewler, Deve (D.A.); Le, Dzung (D.H.); Limiteco, Steven (S.); Linde, Peter (P.A.); Liu, Jane (J.); Marck, Edmond (E.C.); Marianos, Tom (T.E.); Matesa, John (J.); Maurer, James (J.B.); Mazzella, Gery (G.R.); Modonald, John; MoGee, Brett (B.L.); Mooney, Larry (L.); Moorhouse, Scott (S.R.); Morgan, Tomko (T.T.); Mortahima, Shigaki (S.); Nekano, Hideki (H.); Nematoliahi, Sonya (S.); Nikolai, bernie; Noteboom, Jim (J.E.); Ortman, James (J.W.); Powers, Ken (K.W.); Price, Martin (M.); Raquepau, Alden (A.P.); Rothweller, Daniel (D.); Shah, Kiran (K.C.); Shkulehi, Mesaru (M.); Stilgenbauer, Jeffrey (J.R.); Suerez, Rheo (R.); Takasews, Keth (K.D.); Takubo, Hirokhi (H.); Veenetra, Tim (T.W.); Wakenell, Ray (R.A.); Wettach, Bill (B.); Williams, Lee (LHW.)

Optional Attendees:

Hofman, Michael (M.V.)

I made a mistake in the previous meeting notice (it was one continuous imeeting instead of a weekly 1 hour meeting). Sorry for the inconvenience.

Meeting agends and meeting minutes will be send separately on a weekly basis.

toli free:

1-866-227-7015

Ford net:

954-1208

International: 1-830-693-6145

U204 phantom stall meeting

TEE CR-1

Start: End:

Thu 9/5/2002 2:00 PM Thu 8/5/2002 3:00 PM

Show Time As:

Tentative

Requirence:

Weekty

Recurrence Pattern:

every Thursday from 2:00 PM to 3:00 PM

Meeting Status:

Not yet responded

Required Attendess:

Fournelle, Glibert (G.); Altoonian, Don (D.J.); Beuer, Scott (S.C.); Bhojwani, Karnal (K.); Blackburn, Thomas (T.J.); Bogema, John (P.); Cary Powell (E-mail); Chick, John (J.); Chih, Ming-Nu (M.N.); Chin, Damei (D.); Corbett, Sandra (S.M.); Daiho, Bob (R.J.); De Pena, Juan (J.E.); Diez, Timothy (T.P.); Duvell, Allen (A.W.); Fescetti, Bob (R.J.); Fournelle, Gilbert (G.); Freeland, Mark (M.); Gles, Stuart (S.); Gokhale, Renuka (R.V.); Goodwin, William (W.R.); Grewal, Bill (B.S.); Grimes, Jeff (J.R.); Hansen, George (G.C.); Herr, George (G.J.); Hofman, Michael (M.V.); Holmes, Jeffrey (J.R.); Hoshino, Jun (J.); Ichikewa, Jiyunichiro (J.); Jensen, Ted (T.E.); Jones, Andy, Jordan, Donald (D.E.); Kanel, Shinji (S.); Khan, Navaed; Kosko, Jeff (J.R.); Kwon, Soon (S.K.); Lawler, David (D.A.); Le, Dzung (D.H.); Limitaco, Steven (S.); Linde, Peter (P.A.); Liu, Jane (J.); Marck, Edmond (E.C.); Matesa, John (J.); Maurer, James (J.B.); Mazzella, Gary (G.R.); Modonald, John; MoGee, Brett (B.L.); Mooney, Larry (L.); Moorhouse, Soot (S.R.); Morgen, Torniko (T.T.); Morishima, Shigeki (S.); Nematoliahi, Sonya (S.); Nikolai, bernie; Notaboorn, Jim (J.E.); Ortman, James (J.W.); Powers, Ken (K.W.); Price, Martin (M.); Requepau, Alden (A.P.); Rothweller, Daniel (D.); Sanders, Muriel (M.S.); Shah, Kiran (K.C.); Shiraishi, Masaru (M.); Stilgenbauer, Jeffrey (J.R.); Suerez, Rhae (R.); Takasawa, Kelth (K.D.); Takubo, Hirolchi (H.); Veenstra, Tim (T.W.); Wekenell, Ray (R.A.);

Wettech, Bill (B.); Williams, Les (LHW.)

toli free:

1-866-227-7015

Ford net

954-1208

International: 1-830-893-6145

pass code: 8402370#

From: Sent

Fount - Smith, Susan (S.L.) Tuesday, May 14, 2002 9:29 AM

To:

ij

Frazier, Kelth (R.K.) Freeland, Mark (M.); Janda, Jon (J.M.); Alles, Sheran (S.A.)

Cc: Subject:

RE: BB Project 7323

Hi Keith, this is about a loose connection on the alternator not the battery is the characterization of this situation (as I described below) equivalent to the "load dump" (loose connection at the battery b+)?

\* \* \* \* \* \*

Sincerely, Susan Smith

Black Belt Candidate - EESE/REVT 313-59-44796 sfoust@ford.com cds : Foust - Smith, Susan

----Original Message-----From: Frazier, Keith (R.K.)

Sent: Sunday, May 12, 2002 1:43 PM

To: Foust - Smith, Susan (S.L.); Janda, Jon (J.M.); Alles, Sheran (S.A.)

Co: Freeland, Mark (M.) Subject: RE: BB Project 7323

A loose connection on battery will in most cases result in just a simple drop out. However, depending on load conditions, the intermittence will result in a positive transient which is often called load dump. In most cases the transient is about 1-2 volts over nominal battery, but can get has high as 70 volts under extream conditions. The frequency of these events are not known, but they will happen. That is why all EE components are designed to survive this transient. If the an EE component is powered from a regulated supply from another module (i.e. PCN), you will not see this transient. Instead, it will be a simple voltage drop out.

The affects of contact arcing can result in high voltage transients, but the pulse times are about 2 orders of magnitude shorter in duration. Again, if the RE component is powered from a regulated supply. The transients will not be seen.

Regards, R. Keith Frazier Staff Technical Specialist (EMC)

----Original Message----From: Foust - Smith, Susan (S.L.)

To: Janda, Jon (J.M.); Alles, Sheran (S.A.)

Co: Freeland, Mark (M.); Frazier, Keith (R.K.); Frazier, Keith (R.K.)

Sent: 5/10/02 1:42 PM

Subject: RE: BB Project 7323

Hi Jon,

There are transients voltages that the components in the electrical system sees. Please see Jarry Minfield or Keith Frazier (tech. specialist) about these voltages to which the electrical components are to be designed to withstand. The cross-threading/loose (not fully seated eyelet (constant or intermittent)) nut that holds the eyelet on the stud of the Alternator (B+ connection) would only last a limit amount of time before aroing would heat it up so much that it would melt the B+ stud on the alternator (aka BBT). Characterization of arc frequency is not known; that is, if we have an eyelet that is intermittently going back and forth on the stud, aroing will occur when the eyelet pulls away or gets near the base of the stud (the stud is on the alternator). The frequency of this is not known - dependent on vibration of the vehicle I would image and orientation of the eyelet on the stud. Could it continuously are if the eyelet is at the right position all the time - I would think so. Would get a frequency or continuous high voltage.

Also, I have AWS data showing vahicle data - some of which are burnt B+ studs. Do you want?

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Sincerely, Susan Smith Black Belt Candidate - EESE/RSVT 313-59-44796 sfoust@ford.com cds : Foust - Smith, Susan > ----Original Message---->From: Janda, Jon (J.M.) >Sent: Friday, May 10, 2002 1:06 PM >To: Foust - Smith, Susan (8.L.) >Cc: Freeland, Mark (M.) >Subject: BB Project 7323 >I'm interested in your Project on the Focus 'B' post connection. We're >working on the DPFE failure and found voltage spikes & transients (way >or may not be related to this). Did you have a time period this was happening? Do you know what the voltage variations were? Any identifying characteristics of a loose connection (other >than the obvious)? Any related component failures (EEC, Sensors...)? Any good general back ground info.? >We may give you a follow up call for more specific details. > Thank You, Jon Janda >V-Engine Engineering - Ford >2V - V6 Certified Black Belt

```
> Ph: 313-24-82589
                    Pgr: 313-795-5869
> B-mail: JJANDA@ford.com
> Fax: 313-84-50613
> ----Original Message----
>From:
          Holt, Jon (J.)
          Thursday, April 25, 2002 2:45 PM
>Sent:
>To: Janda, Jon (J.M.)
>Subject: RE: BB Project
>JON, the project number is 7323. The BB's name is Susan Foust.
>Let me know if you need anything else.
>Jon H. Holt
>Consumer Driven Six Sigma Black Belt (Candidate)
>Electrical Electronic Systems Engineering
>Phone: (313)248-1238, Fax: (313)323-2923, JHOLT@Ford.com
>"You must become the change you wish to see in the world." - Gandhi
> ----Original Message----
           Janda, Jon (J.M.)
>From:
           Thursday, April 25, 2002 2:41 FM
>8ent:
>To: Holt, Jon (J.)
>Subject: BB Project
»John,
>Can you get me more info on the BB project we talked about this morning
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> Thank You,
    Jon Janda
>V-Engine Engineering - Ford
>2V - V6 Certified Black Belt
> Ph: 313-24-82589
                    Pgr: 313-795-5869
> E-mail: JJANDAsford.com
> Fax: 313-84-50613
```

From: Bent: Foust - Smith, Susan (S.L.) Friday, May 10, 2002 1:42 PM

To:

Jenda, Jon (J.M.); Alles, Sheran (S.A.)

Co:

Freeland, Mark (M.); Frazier, Keth (R.K.); Frazier, Keth (R.K.)

Subject:

RE: BB Project 7323

HI Jon,

There are transients voltages that the components in the electrical system sees. Please see Jerry Minfield or Keith Frazier (tech. specialist) about these voltages to which the electrical components are to be designed to withstand. The cross-threeding/loose (not fully seated eyelet (conetant or intermittent)) nut that holds the eyelet on the stud of the Alternator (B+ connection) would only lest a limit amount of time before aroing would heat it up so much that it would melt the B+ stud on the alternator (ake BBT). Characterization of arc frequency is not known; that is, if we have an eyelet that is intermittently going back and forth on the stud, aroing will occur when the eyelet pulls away or gets near the base of the stud (the stud is on the alternator). The frequency of this is not known - dependent on vibration of the vehicle I would image and orientation of the eyelet on the stud. Could it continuously arc if the eyelet is at the right position all the time - I would think so. Would get a frequency or continuous high voltage.

Also, I have AWS data showing vehicle data - some of which are burnt 8+ studs. Do you want?

Another thought is grounding. If you have bed or intermittent ground at the battery (battery is not grounded) then the battery is taken out of the circuit. My understanding is that the battery services as an aborber of some of these larger voltages. Now the electrical components would see more servers voltages. What do you think Sheran?

8ua

Sincerely,

Sacar Smith

# Black Beit Candidate - EESE/R&VT

313-59-44796 sfoust@ford.com ods:Poust-Smith, Busan

---Original Message--

Promi

Janda, Jon (J.M.)

Senta

Friday, May 10, 2002 1:06 PM

Tec

Fount - Smith, Susan (S.L.)

Ċ

Freeland, Hark (M.)

Subjects

**BB Project 7323** 

### Susan.

I'm interseted in your Project on the Focus 'B' post connection. We're working on the DPFE failure and found voltage apikes & transients (may or may not be related to this).

Did you have a time period this was happening?

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We may give you a follow up call for more specific details.

Thank You, jou janda V-Engine Engineering - Ford

2V - Ve Certified Black Belt

Ph: 313-24-82589 Pgr. 313-795-5869

E-mail: JJANDA@ford.com

Fax: 313-84-50613

----Original Message

From 4

Holt, Jon (3.)

Benti

Thursday, April 25, 2002 2:45 PM

Tot

Jenda, Jon (ILM.)

RE: 86 Project Subject:

JON, the project number is 7323. The BB's name is Susan Foust.

Let me know if you need anything sise.

Jon H. Hott Consumer Driven Skr Sigma Stack Bell (Cendidate)
Electrical Electronic Systems Engineering
Phone: (313)248-1238, Fact (813)323-2923, JHOLT@Ford.com

"You must become the change you wish to see in the world." - Gandhi

-Original Message

Fronti

Janda, Jon (J.M.)

Sent

Thursday, April 25, 2002 2:41 PM Holt, Jon (J.)

Tos

**B**ubject:

### Jöhn.

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Thank You,

Jon Janda

V-Engine Engineering - Ford

2V - V6 Certified Black Belt

Ph: 313-24-82589 Pgr. 313-795-5869

E-mail: JJANDA@ford.com

Fax: 313-84-50813

From: Sent; Frazier, Keith (R.K.)

ent: Thursday, September 06, 2002 8:29 AM

To: Subject: Freeland, Mark (M.) Another DPFE question

I have yet another question about this part. Is there any evidence that failures are related to the pressure that the part is operating in. In the current EMC test plan, all tests are performed at room ambient pressure. My gut tells me that the test conditions should be changed such that a nominal ambient pressure typical in the vehicle be used. Regulated air pumps could be used without affecting testing.

Katth Freder

Frazier, Keith (R.K.)

8ent:

Sunday, May 12, 2002 1:43 PM

To:

Foust - Smith, Susan (6.L.); Jande, Jon (J.M.); Allee, Sheren (8.A.)

Ce: Subject:

Freeland, Mark (M.) RE: 88 Project 7323

A loose connection on battery will in most cases result in just a simple drop out. However, depending on load conditions, the intermittence will result in a positive transient which is often called load dump. In most cases the transient is about 1-2 volts over nominal battery, but can get has high as 70 volts under axtream conditions. The frequency of these events are not known, but they will happen. That is why all EE components are designed to survive this transient. If the an KE component is powered from a regulated supply from another module (i.e. PCM), you will not see this transient. Instead, it will be a simple voltage drop out.

The affects of contact arcing can result in high voltage transients, but the pulse times are about 2 orders of magnitude shorter in duration. Again, if the HE component is powered from a regulated supply. The transients will not be seen.

Regards. R. Keith Frazier Staff Technical Specialist (EMC)

----Original Message----

From: Foust - Smith, Susan (S.L.)

To: Janda, Jon (J.M.), Alles, Sheran (S.A.)

Cc: Freeland, Mark (M.); Frazier, Keith (R.K.); Frazier, Keith (R.K.)

Sent: 5/10/02 1:42 PM

Subject: RE: BB Project 7323

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Sugan Smith
Black Belt Candidate - EESE/REVT
313-59-44796
sfoust@ford.com
cds : Foust - Smith, Susan
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           Friday, May 10, 2002 1:06 PM
>To: Foust - Smith, Susan (S.L.)
>Co: Freeland, Mark (M.)
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> Ph: 313-24-82589 Pgr: 313-795-5869
> R-mail: JJANDA@ford.com
> Fax: 313-84-50613
```

Frazier, Keith (R.K.)

Sent

Sunday, May 12, 2002 1:43 PM

Ta:

Fourt - Smith, Susen (S.L.); Junda, Jon (J.M.); Alles, Sheren (S.A.)

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Co: Freeland, Mark (M.); Frazier, Keith (R.K.); Frazier, Keith (R.K.)
Sent: 5/10/02 1:42 PM
Subject: RB: BB Project 7323

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>

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>2V - V6 Certified Black Belt
> Ph: 313-24-82589 Pgr: 313-795-5869
> E-mail: JJANDA@ford.com
> Fax: 313-84-50613
```

Freeland, Mark (M.)

Sent:

Wednesday, January 08, 2003 9:15 AM

To:

Oboze, Doran (D.)

Subject

RE: New PQR Timing - 1:00PM

## Doran.

Please take me off you're distribution list as I am now transitioning out of working on the Kavilco TM dPFE issue and also from 6 Sigma.

As a close out action we have provided V Engine/Kavilco with a redesign of the sensor's RF Filter circuits which could be used for service after it has been DV and PV tested. Jim Maurer is in charge of this effort, and all questions regarding implementation, timing etc. should be directed to him.

Thank you for you're support during the course of my 8 Sigma projects.

I will be moving to Engine research.

Regards

Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

----Original Message

FreeM Gent:

Oboza, Doran (D.)

Te:

Wednesday, January 08, 2003 7:28 AM

Agarwal, Apocrva (A.); Coryea, Kevin (K.W.); Cretkoveki, Puter (P.); Deegan, Mike (M.D.); Fashina, Ayodeji (A.); Foust - Smith, Susan (S.L.); Freeland, Mark (M.); Glamnemore, Armand (A.A.); Ivanissyn, Terl (T.E.); Kelandeni, Rajaev (R.S.); Matt Morin; Morton, Michael (M.F.); Notiey, Leele (L.M.); Musinch, David (D.S.); Norman, Ingrid (L.); Odurn, Ilce (L.C.); Prefer, Joseph (J.A.); Razzee, John (J.H.); Steleck, Beth (B.); Steams, Permin (P.V.); Tedons, Damian (D.J.); Tobis, Bruce (B.J.); Trombetta, Christopher (C.B.); Winekoff, Bryan (B.D.); Zubeck, Michael (M.W.); Abbas, Jehad (J.F.); Acuff Jr., Mehin (M.); Ahmed, Karnal (K.); Anderson, Johnny (J.D.); Arseniowicz, Ken (K.J.); August, Den (D.); Bells, Don (D.W.); Baum, Joe (J.M.); Bedramik, Mark (M.P.); Bell, Anthony (A.J.); Soatner, Derryle (D.R.); Brian Johnson; Brockette, Ronald (R.K.); Brosid, James (J.W.); Brown, Merk (M.D.); Campbell, Aindrea (A.M.); Campbell, Donald (D.C.); Caruso, Barry (B.); Castiumen, William (W.S.); Centilive, Jemes (J.C.); Cervantes, Eduardo (E.I.); Chris Campbell; Clugston, Stene (S.A.); Coste, Richard (R.M.); Coletruglio, Vince (V.E.); Cox, Tom (T.T.); D'Agustino, Antonio (A.); Davis, Jerry (J.W.); Dissilval, Davis (B.S.); Doon, Brandon (B.A.); Duneske, Dennis (D.R.); Dye, Anne (A.); Fite, Berbara (B.G.); Fluker, James (J.A.); Fowlkes, Michael (M.S.); Francisco Fernandez (B-mail); Franklin, Tej (T.); Gamble, Craig (C.R.); Gezdedd, Timothy (T.A.); Gee, Starling; Gideon, Kevin (K.); Glies, Anthony (A.T.); Gitner, David (D.C.); Giordano, Miles (M.A.); Goulet, Michele (M.A.); Grace, John (J.E.); Granados, Rodolfo (R.); Gucdardo, Stave (S.P.); Hewkins Jr., Cahin (C.H.); Hegde, Demoder (D.M.); Helmstadter, Donald (D.G.); Hettle, Bruce (B.W.); Holkoway, Scott (J.S.); Hopkins II., Harry (H.S.); 1 Sowerts; Ishahan, John; Jeff Palmer; King, Stave (S.J.); Kimie, Brian (B.W.); Kirosi, Isin (L.G.); Kline, Denise (D.M.); Koch, Thomas (T.P.); Kurde, Olaf (O.); Landisabel, Sergio (S.); Linta McDonald, Lisotte, Brian (B.W.); Lubo Djuric; MacDonald, George (G.P.); Madel Jr., Stan (S.P.); Mansec, Lance (L.D.); Metthews, Gury (S.); Mathewitz, Ethni (E.J.); McCowin, Broch (E.G.); Mihora, Bob (R.S.); Mitchell, Carole (C.A.); Morabito, Mike (M.P.); Nemeth, Stave (S.L.); Nguyen, Thion (T.M.); O'Connor, Jim (Mansecole, David (F.B.); Assat James (R.S.); Mansecole, David (F.B.); Mansecole, David (F.B (James W.); Plasencia, Devid (D.B.); Post-barnes, Donna (D.F.); Popa, Colin (C.M.); Popenas, Michael (M.J.); Pullela, Ananth (A.); Purvis, Bruza; Ramey, George (G.); Raichenbach, Ron (R.W.); Rossman, Michael (M.D.); Sanda, Roger (R.P.); Sheridan, Richard (R.D.); Shopp, James (J.I.); Sidelko, John (J.W.); Singley, Rogans (R.W.); Smith, David (D.A.); Smith, Tennillo (T.C.); Sopko, Gary (G.M.); Soulkers, James (J.K.); Spaniak, Terrence (T.E.); Stevenson, Ethel (E.E.); Skrjov, Tony (T.); Stump, Steven (S.M.); Swick, Curt (C.); Sykora, Andrew (A.D.); Szczepeniak, Gerard (G.); Taraszkiewicz, Alexanda (A.S.); Thoraiae, Ken (K.C.); Toroslan, David (D.A.); Touron, Lyle (L.W.); Tucker, Shanker (S.M.); Vangavoks, Sreedher (.); Vinogradov, Alex (A.); Walker, Cheryl (C.); With, Gerald (G.); Weshington, Eric (E.D.); Wegrzyn, Michael (M.J.); Wepler, Ron (R.J.); Werner, Barbera (B.R.); White, Christopher (C.); Watr, Joseph (J.M.); Wedmayer, Robert (R.L.); Williams, Anthony (A.J.); Williams, Elzabeth (E.P.); Williams, Robert (R.L.); Williams, Ro Deon (D.G.)

طعورنان Importance New PQR Timing - 1:00FM

High

PQR timing has changed, STARTING TODAY.

Powertrain PQR now starts at 1:00 PM on Wednesdays.

The VRT meeting will follow the PQR.

PVT was informed of this change yesterday evening so I apologize for the late notice.

Thanks,

# Doran Oboza

Powertrain Quality Analyst - Wayne Assembly Plant Phone - 734-487-0604 Pager - 734-296-5439 email - doboza1@ford.com

Freeland, Mark (M.)

Sent

Monday, Jenuary 08, 2008 12:40 PM

To:

Zanini-Fisher, Margherita (M.)

**Subject** 

RE: DPFE recal

Hi Margherita,

Happy new year to you also.

No, the company has not issued any receil notices on the dPFE sensor. Nor have they issued any general special service buletin at this time. I believe that they are extending the warranty however.

I am moving office on Thursday to room 3622, still in the old pad 1517 until then. Please stop by if you want to discuss dPFE further.

# Regards

### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com Tel.: (313) 594-7645

---- Original Meas

Fromt Sentz

Zenini-Haher, Margheritz (M.)

Tot

Thursday, January 02, 2003 1:58 PM Presiend, Nuric (M.)

Sublects

DPFE HICK

Hello Merk.

# Happy new year!

I believe you have moved from the first to the second or third floor, but I do not know where. I was looking for Information on whether a recall was ever issued for the Kaviico DPFE and/or whether the dealers were told to just replace sensors manufactured before a certain date when doing other service on vehicle lines with a high percentage of faulty sensors.

I just got a draft report from a colleague I have worked with tast year on the MAS project who has done a statistical analysis to demonstrate how snapshots of 50-60 secs of vehicle data (EGRVR and DPFE, mainly). can be automatically analyzed to identify a faulty sensor. Although the data were collected because of last year Mobile Assets Systems Project, I see that Dava calls this piece of work a "8-sigma" project. Arryway. nothing urgent, but I thought I may just try to see you and catch up with some late news.

Regards.

Margherita Zanini

Advanced Diagnostics

Powertrein Controls R&D Dept SRL - MD2036 - Rm 3011-Y Phone: 313-337-1097 Fax: 313-248-5167

Sent:

To:

Bubject:

Freeland, Mark (M.)
Monday, January 06, 2003 8:51 AM
Plaud, Zaida (Z.)
Accepted: 2001-2002 Ford Escape 3.0L V6 Engine Stalling Requester Scott Bauer x49786

Zalda,

Could you let me know where ESE FPS 500 EAST is & I will be there.

Thanks

Mark Freeland

Freeland, Mark (M.)

Sent:

Monday, November 04, 2002 6:26 PM

To:

Davis, George (G.C.)

**Subject:** 

RE: dPFE - recommended engineer to review leyout

OK George. I will try and get with you on Wednesday and give you an update.

### Thenks

### Regards

## Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com Tel.: (313) 594-7645

### -Original Massage

<u>Franti</u>

Pents, George (G.C.)

Sent

Friday, November 01, 2002 3:55 PM

Tas

Freeland, Mark (M.)

**Bublect**:

RE: dPFE - recommended engineer to review beyout

sorry I missed the meeting yesterday. I was on vacation and got tied up. I see no problem to continue working on this project for a while. How much time is involved? I would like to get your update as wall. Thanks.

### -Original Messag

Franti

Prestand, Mark (M.)

Senta

Riday, November 01, 2002 3:44 PM

Tel

Davis, George (G.C.)

Bubjects

PN: dPFE - recommended angineer to review layout

## George,

I met with John yesterday as arranged. I have a package I gave him (final recommendation on circuit and supporting data) which I would like to review with you when you have time. He asked if I was still available to continue work, I said I was available to continue as long as it's OK with you. He has a special "test" he wants conducted.

### Regards

# Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com

TeL: (313) 594-7645

--- Original Message

From:

Freeland, Mark (N.)

Šenis

Friday, November 01, 2002 3:25 PM

Tor

Kogzawysk, John (13.)

Subjects

Hermann, Thomas (T.J.) dPFE - recommended angineer to review layout

John,

I met with the EMC supervisor (Tom Hermann) this afternoon to get his recommendations on the testing we discussed yesterday.

I also asked him to recommend the best engineer we have to discuss design layout guidelines and to review Kayligo's layout. He recommended Jarek Tracz (tracz@ford.com).

I would suggest we get Jarek together with Kavlico's designer before they start the layout.

# Regards

# Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com Tel.: (313) 594-7645

From: Sent:

Freeland, Mark (M.)

Monday, November 04, 2002 6:08 PM

To:

Kotwicki, Allan (A.J.)

Subject:

RE: filter20.pdf

Thanks Al, Got it.

# Regards

# Mark Freeland

6-Sigma Black Belt Brigine Research Department Ford Research Laboratory P.O. Box 2053 MID 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreelal@ford.com Tel.: (313) 594-7645

-Original Message-

Promi

Kotwicki, Allen (A.J.) Monday, November 04, 2002 4:57 PM Preciand, Mark (M.)

Tol

Subjecti

filter 20.pdf

the file is in the share drive at /alishare/akotwick

# Thanks in advance for your help,

Allan J. Kotwicki 313-59-41277 313-337-5639 FAX ekotwick@ford.com MD 3619 SRL

Freeland, Mark (M.)

Sent:

Monday, November 04, 2002 6:04 PM

To:

O'Nosti, Jkn (J.D.); Maurer, James (J.B.); Getes, Freeman (F.C.)

Bubject:

FW: dPFE - recommended engineer to review layout

Contact information for substrate layout person.

## Regards

## Mark Precland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreelal@ford.com Tel.: (313) 594-7645

### -Original Message

From:

Koszewnik, John (3.1.)

Senta

Sunday, November 03, 2002 6:18 PM

Тон

Freeland, Mark (M.)

Bubjects

RE: dPFE - recommended engineer to review layout

Mark.

Thanks for the info. I'll see what we can do when I meet with Kaviico later this week.

# John Kasyeereik

Chief Engineer V-Engine Engineering Ph. 32-28973 Fx. 39-09870 Jkoazewn@ford.com

# -Criginal Message

From:

Freeland, Mark (M.)

Senb

Friday, November 01, 2002 3:25 PM

To:

Koszewnik, John (J.J.)

Cc: Subject: Hermann, Thomas (TJL) dPFE - recommended engineer to review leyout

John,

I met with the EMC supervisor (Tom Hermann) this afternoon to get his recommendations on the testing we discussed yesterday.

I also asked him to recommend the best engineer we have to discuss design layout guidelines and to review Kavilco's tayout. He recommended Jarek Tracz (ftracz@ford.com).

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# Regards

# Mark Freeland

6-Sigms Black Belt Bugine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com

Tel.: (313) 594-7645

Freetand, Mark (M.)

Sent:

Monday, November 04, 2002 4:33 PM

Kotwicki, Allan (A.J.) To:

Subject:

Final Circuit needs to be made into a pdf, please



Al, could you please make me a pdf from this .ps file, will call you with details.

Thanks

Regarda

Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Deerborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

From

Freeland, Mark (M.)

Sent

Friday, November 01, 2002 3:44 PM

To:

Davis, George (G.C.)

Subject:

FW: dPFE - recommended engineer to review layout

## George,

I met with John yesterday as arranged. I have a package I gave him (final recommendation on circuit and supporting data) which I would like to review with you when you have time. He asked if I was still available to continue work, I said I was available to continue as long as it's OK with you. He has a special "test" he wants conducted.

### Regards

#### Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreeial@ford.com
Tel.: (313) 594-7645

#### --- Original Massace

Promi

Freeland, Mark (N.)

Serie .

Friday, November 01, 2002 3:25 PM

Te: Ca Koszewnik, John (J.J.) Hermann, Thomas (T.J.)

Subjects

dPFE - recommended engineer to review layout

## John,

I met with the EMC supervisor (Tom Hermann) this afternoon to get his recommendations on the testing we discussed yesterday.

I also asked him to recommend the best engineer we have to discuss design layout guidelines and to review Kavilco's layout. He recommended Jarek Tracz (jtracz@ford.com).

I would suggest we get Jarek together with Kavilco's designer before they start the layout.

### Regarda

#### Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

Freeland, Mark (M.)

Sent:

Friday, November 01, 2002 3:26 PM

To:

Koezewnik, John (J.J.)

Cc:

Hermann, Thomas (T.J.)

**Subject**:

dPFE - recommended engineer to review layout

John,

I met with the EMC aupervisor (Tom Hermann) this afternoon to get his recommendations on the testing we discussed yeaterday.

I also asked him to recommend the best engineer we have to discuss design layout guidelines and to review Kavilco's layout. He recommended Jarek Tracz (itracz@ford.com).

I would suggest we get Jarek together with Kaviico's designer before they start the layout.

## Regards

## Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com Tel.: (313) 594-7645

Freetand, Mark (M.)

Sent

Friday, November 01, 2002 11:00 AM

Te:

Gale, Allan (A.R.)

Subject:

RE: Focus

#### Allen.

Do you know what month the vehicle it came out of was manufactured, so I can look at the warranty data for the month to se if it is worth pursuing. (I have a lot on my plate and need to avoid too many diversions unless they are good strong leads).

## Thanks

## Regards

#### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Rosearch Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA

email: mfreels1@ford.com Tel.: (313) 594-7645

# ---- Original Message-

France

Gale, Allen (A.R.)

والمحدث Tes

Wadnesday, October 30, 2002 5:08 PM

Freeland, Nark (M.)

Bublecti

PW: Poous

This is what we have. Any help?

#### ---- Original Massage-

Frem:

Jaura, Arun (A.K.)

Sent

Wednesday, October 30, 2002 4:04 PM

Tet Ces

Gale, Allan (A.R.)

Subjects

BUTTOWN, Neil (N.R.) RE: FOOLE

Alian: We do not have a 09/2000 engine, but have one that was built in 2000. Call Nell at 58743.

#### -Original Messag

Fronti

Gale, Allan (A.R.)

Sents

Wednesday, October 30, 2002 3:21 PM

Ťοι

Jaura, Arum (A.K.)

Arun, I have an FRL colleague that is looking for Zetec engines from Focuses built in Sept 2000. Do any of our engines fit that bill or do you know of any?

#### Ailan R. Gala

Sr. Technical Specialist-Electric Drives

VE8

Tel: (313)390-4639 Fax: (313)390-2267

Freeland, Mark (M.)

Sent:

Friday, November 01, 2002 10:02 AM

To:

Gearhart, Chris (C.)

Cc:

Bryant, Bruce (B.D.); Helms, Jeffrey (J.H.)

**Bublect:** 

RE: Off Program

#### Chris.

I am still working full time on my dPFE projects. I will advise when I should become inactive.

## Regards

## Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

### --- Original Message----

From

Geathert, Chris (C.)

Sent

Friday, November 01, 2002 9:49 AM

Tet

Freeland, Mark (M.); Denn, Michael (M.E.)

Subject: Off Program

# Mark and Mike.

I assume both of you have moved into your next assignments. I would like to have your status in the PTS switched to inactive. Is this a correct assessment, or are you still considered full time Black Belts by your home organization?

Chris Gearhart Six Sigma Master Black Belt Ford Research Laboratory (313)-390-5709

Sent:

Freeland, Mark (M.) Wednesday, October 30, 2002 10:19 AM

To: **Subject**  Duncan, Jack (J.L.) RE: MPG Focus Teeting

Jack, Thanks for the prompt response.

## Regards

Mark Preeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreelal@ford.com Tel.; (313) 594-7645

Freeland, Mark (M.)

Sent: Te: Monday, October 21, 2002 4:53 PM Alles, Sheran (S.A.); Kotwicki, Allan (A.J.)

**Bubject:** 

Check out this alte.

http://www.component.tdk.com/emc.asp

Al & Sheran,

Kyong Park suggested we check out what TDK have to offer in the way of band pass filters. Would you look at what they have and let me know if there is anything which may be of assistance, ore should we stick with what we are currently doing?

Thanks

Regards

Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreelal@ford.com Tel.: (313) 594-7645

Bent:

Freeland, Mark (M.) Friday, October 18, 2002 4:27 PM Kotwicki, Allan (A.J.)

To: Subject:

Request for pdf servics.

Al, could you convert the file I sent with the last message and return it to me. Thanks

## Regards

Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreeial@ford.com Tel.: (313) 594-7645

Freeland, Mark (M.)

Bent:

Friday, October 18, 2002 4:23 PM

To:

O'Neell, Jim (J.D.); Mourer, James (J.B.); Allee, Sheren (S.A.); Kotwicki, Allen (A.J.); Galee,

Freeman (F.C.); McCoy, James (J.D.)

**Bubject**:

Filter Rev 1.7 drawing

Attached is a modified version of the filter design based on today's meeting with Kaviico. It is a poscript print file, so hopefully you can print it off.

I would appreciate you're thoughts on the changes.



Filter17.ps

## Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

Freeland, Mark (M.)

Sent

Friday, October 16, 2002 11:21 AM

To:

Maurer, James (J.S.)

Subject:

**RE: Prototypes** 

#### JIm.

I'll be there. Consider it done, it will bring two bread boards for you. However, I do not have enough "clamps", do you have access to a machine shop to make small hardware? We will discuss when I get over there.

### Rogards

#### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

#### ---Original Message---

Promit

Maurer, James (J.B.)

Sents

Friday, October 18, 2002 10:41 AM

Te: Subjects Preciand, Mark (M.) RE: Prototypes

#### Mark.

We are going to have a conference call with Kavilco at 12:30 today in Jim O'Neall's office. There is no meeting notice to forward, so consider this to be the notice.

I am interested in the sensor response with temperature changes and at the various pressures with the new circuit, but we probably want sensors trimmed by Kavlico for that data as well.

A breadboard or 2 might be valuable for putting on a couple of vehicles just to drive and make sure nothing happens.

# Regards,

# Jin Maine

James B. Maurer

V-Engine 6-Sigma Team Leader

Fuel Metering Dept. V Engine Engineering

Phone (313) 390-3672, Fax (313) 390-4064

Text Page: (313) 795-5219 Email: jmaurer@Ford.com

#### --- Original Message --

Frons

Freeland, Mark (M.)

Sent

Friday, October 18, 2002 9:49 AM

To: Subjects Maurer, James (J.B.) RE: Prototypes

Jim.

EM62-627-6 3526

is there a conference call with Kevilco which I should attend? If so, what time and where are you grouping.

Also. There may be some development verification tests which could be done with bread boarded parts, for example, the OBD II crew might want to test for power up time. We certainly do need Kavilco lay outs and proper parts, but if there is anything we can accomplish with SRL parts, then we could possibly catch a foc-pa or two before Kavilco get too far down the road. Let me know if there are any tests you might recommend, and who should conduct them. To date, not much testing has been done other than what I have personally undertaken.

**Thanks** 

Rounrus

Mark Freeland

6-Sigma Black Belt **Engine Research Department** Ford Research Laboratory P.O. Box 2053 MID 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com Tel.: (313) 594-7645

Original Message

From:

Neuror, James (J.B.)

Benti

Friday, October 18, 2002 9:37 AM

Freeland, Mark (M.)

Buitriects

RE: Prototypes

#### Mark.

We are expecting some feedback today from Kavilco on the changes that were proposed for the circuit. I would prefer to get their comments and discuss them before we made any prototypes. Also, I think we should have Kavijco make them with their preferred board layout, since capacitor placement will effect noise filtering, and the leyout may affect the EMC results.

I hope Kaylico can get us some timing for representative parts today also.

### Regarda.

# Gias Masson

James B. Maurer V-Engine 6-Sigma Team Leader Fuel Metaring Dept. V Engine Engineering Phone (313) 390-3872, Fax (313) 390-4084 Text Page: (313) 795-5219 Email: imaurer@Ford.com

#### -----Original Message

Frant

Fredend, Mark (M.)

Sent:

Friday, October 18, 2002 9:31 AM

Tot œ

Kotwicki, Aflen (A.J.); Meurer, James (J.B.) Ales, Sheran (S.A.); McCoy, James (J.D.)

Bublech

Prototypes

AJ.

What was the name of the individual you said could make surface mount mode to the substrates. I think it is time to try and fabricate some parts which are not breadboards.

Currently we have available 4 Rev 1.5 breadboard parts with the AVX TVS, and 1 Rev 1.5 with the Diodes Incorporated TBZ.

No one has asked for prototypes yet, except for Jim McCoy, but I know that eventually they will.

Jim.

Do you have a need for any prototypes?

# Regards

Mark Preeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreels1@ford.com
Tel.: (313) 594-7645

Freeland, Merk (M.)

Sent:

Friday, October 18, 2002 9:49 AM

Ta:

Maurer, James (J.B.)

Subject:

RE: Prototypes

JIM,

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Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

#### --- Original Message --

From

Meurer, James (J.S.)

Benta

Friday, October 18, 2002 9:37 AM

Subjects

Freeland, Mark (M.) RE: Probobyces

## Merk.

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#### Regards,

Gen Marror

James B. Maurer
V-Engine 6-Sigma Team Leader
Fuel Metering Dept. V Engine Engineering
Phone (313) 390-3672, Fax (313) 390-4084
Text Page: (313) 705-5219

Text Page: (313) 795-5219 Email: [maurer@Ford.com

----Original Message---

From:

Freeland, Mark (M.)

ERE2-027-0 3631

Senta Te: Č۵

Friday, October 18, 2002 9:31 AM

Kobwicki, Allen (A.J.); Meurer, James (J.B.) Alles, Sheren (S.A.); McCoy, James (J.D.)

طهوارشو

Prototypes

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Regards

Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com

Tel.: (313) 594-7645

Freeland, Mark (M.)

Serit:

To:

Friday, October 18, 2002 9:43 AM Kotwicki, Alian (A.J.); Alias, Sharan (S.A.); McCoy, James (J.D.); Stotiz, Thomas (T.J.)

Cc:

Gatee, Freeman (F.C.); Maurer, James (J.B.)

**Subject** 

Vref Load Impedance, One lasue with Rev 1.5

There appears to be a generic system specification which covers loads on the Vref/Signal Return, which calls

Load Impedance (Include normal and maximum load. Include load capacitance where possible.): Maximum total Impedance 33.3 ohms and 10 uF.

I have asked Freeman to investigate this.

But, it seams to me that we may not be able to use the proposed 10 uF Tant, capacitor in the service dPFE design. Perhaps we need to start working with 6.8 uF as the next standard value down.

Freeman is already looking into this, but if any one know who manages the load budget for the Vref (and bVref for PTEC) this might save him some leg work? Then we can get the correct people to check out the actual Vref loads on all 21 vehicle applications affected.

Any thoughts would be appreciated.

## Regards

Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel,: (313) 594-7645

Sent:

To: Cc: Freeland, Mark (M.) Friday, October 18, 2002 9:31 AM Kotwicki, Allan (A.J.); Maurer, James (J.B.) Allee, Sheran (S.A.); McCoy, James (J.D.)

Subject:

Prototypes

## AI.

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Jim,

Do you have a need for any prototypes?

## Regards

Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL, - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

Freeland, Mark (M.)

Sent:

Thursday, October 17, 2002 12:14 PM

To: Subject:

McCoy, James (J.D.) RE: DPFE date code

Thanks Jim,

Correct August 27th 2001.

Regards

## Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreelal@ford.com Tel.: (313) 594-7645

## -Original Message

Frants

Sont

McCoy, James (J.D.) Thursday, October 17, 2002 11:27 AM Freeland, Mark (M.)

Tos

**Subject** DPFE deta code

Mark, Sorry for the delay. Date code of "01 Tribute DPFE is 1H27B (August 27, 2001?)

# Regards, Jim McCoy

Fuel Metering, Emissions & Ignition Systems Engineering Hardware Control Interface Group V-Bugine Engineering PORE - MD#69 - Rm. D142 - Cube DF186 Phone (313) 33-79690 / Fax (313) 39-04084

E-Mail: jmccoyl@ford.com

Freeland, Mark (M.)

Sent:

Thursday, October 17, 2002 11:33 AM

To:

Maurer, James (J.B.)

Subject:

RE: SRL Involvement in analysis of DPFE failures

#### Jim

in addition to the names mentioned already:

Steve Simko did at the Auger analysis on the parts that we worked with.

Ed Sickefus as he le a FRL retiree.

Please send me a copy of the presentation when it is available, so that I can share it with my management

Thenks

## Regards

### Mark Precland

6-Sigma Black Belt
Regine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreels1@ford.com
Tel.: (313) 594-7645

#### ----- Original Massage---

From:

Maurer, James (J.B.)

Sent

Thursday, October 17, 2002 11:16 AM

To:

Freeland, Mark (M.)

Subjects

SRL Involvement in analysis of DPFE failures

#### Mark.

Some members of our senior management team are not aware of all the efforts that SRL has made in behalf of the analysis of warranty returns and test parts. I want to make a slide for a presentation tomorrow that would list the people who have been involved. The names I have are you (of course), Jon Hanges, Tim Potter, Roscoe Carter, Dairene Uy, Al Kotwicki, and Lebzy Gonzales. I am sure there are more. Do you have any other names?

#### Regards,

## Gen Macron

James B. Maurer V-Engine 6-Sigma Team Leader Fuel Metering Dept. V Engine Engineering Phone (313) 390-3872, Fax (313) 390-4084

Text Page: (313) 795-5219 Email: imeurer@Ford.com Prom:

Freeland, Mark (M.)

Bent:

Tuesday, October 15, 2002 9:19 AM Jensen, Ted (T.E.)

To: Cc: Subject:

Limitaço, Steven (S.) Spark Plugs from Tributes

Ted.

Just to let you know that I followed up with Steve on Friday evening. He has committed to get me 10 sets of pluge with matching dPFE from randomly selected vehicles, within two weeks.

I will keep you posted on what I find from the returned components when I get them.

## Regarda

# Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Desrborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

From: **Bent**:

Freeland, Mark (M.) Thursday, October 10, 2002 8:41 PM Kotwicki, Allan (A.J.) RE: .pdf To:

Subject:

Thanks Al

Regarda

Mark Freeland

6-Sigma Black Belt Bogine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

Freeland, Mark (ML)

Sent:

Wednesday, October 09, 2002 10:29 AM Kotwicki, Alian (A.J.)

To:

Cc: Subject: Allee, Cheran (S.A.) Die impedance data

AI.

Does the attached data answer the question you asked me on Monday Evening?

What is the V vs I for the sensor?



Die impedance.xis

The attached data was taken without the 10 ohm Vref line resistor. with the reference die disabled (no current draw from supply) and

Regards

Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfrecla1@ford.com Tel.: (313) 594-7645

Freeland, Mark (M.)

Sent:

Wednesday, October 09, 2002 9:56 AM

To:

McCoy, James (J.D.)

Subject:

RE: Access to PDC00024 MPG Date

Jim,

So I see!

Rogarda

Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

#### -Original Message

From

McCoy, James (J.D.)

Te:

Tuesday, October 08, 2002 1:55 PN Freeland, Mark (M.); Ales, Sheren (S.A.)

Bubjects

PW: Access to PDC00024 MPG Date

## Regards,

# Jim McCov

Fuel Metering, Emissions & Ignition Systems Engineering Hardware Control Interface Group V-Engine Engineering POEE - MD#69 - Rm. D142 - Cube DF186 Phone (313) 33-79690 / Fax (313) 39-04084 E-Mail: jmccoyl@ford.com

----Original Message

Fromi

Diez, Timothy (T.P.)

Canb

Tuesday, October 08, 2002 10:32 AM Kern, Bob (R.S.); NoCoy, James (J.D.) RE: Access to PDC00024 NPG Data

Publicate

Jim,

The 2001 Focus was engineered in Europe. The 2001 Escape was engineered by Mazda in Japan. I have data for neither vehicle.

Sincerely, Timothy Diez

Cross Vehicle EMC Technology Applications

313-32-39927, Fex: 313-322-1892

e-mail: tdfez@ford.com

-Original Message

From:

Kern, Bob (R.S.)

Sents

Tuesday, October 08, 2002 9:55 AM

Ты

McCoy, James (1.0.)

0

Diez, Timothy (T.P.); Colline, Bruco (B.R.); Bogustanski, Larry (L.J.)

Subject:

RE: Accesse to PDC00024 MPG Data

Jlm,

There are no 2001 vehicles in the pdc00024/proj/mpgrpt/ directory. We don't keep reports for more than 1 yr here at EMC.

For the specific 2001 vehicle/engine family data you are looking for check with:

Focus & Escape—Tim Diez x-39927

Explorer--Bruce Collins x-24552

F-Series--Larry Bogusiawski x-53296.

Tim/Brucs/Larry – if you don't have the data, and you can tell me what vehicle #(s) that we tested with

the engine family Jim is looking for, maybe I can cross-reference the TestNet order number (Mboxxxx) to find the raw J551 data

on the hard drive at the RFI site computer. Thanks for your assistance.

-Original Message

Promi

McCoy, James (11).)

Seate

Tuesday, October 08, 2002 9:12 AM

Te:

Kern, Bob (R.S.) NoCoy, James (J.D.)

Subject

PW: Access to PDC00024 MPG Date

Bob, sorry to bug you again. Would it be possible to get J551 plots of the following vehicles? I struck out with EESE. Let me know. Thanks, Jlm.

2001 2.0L Zetec Focus

2001 3.0L DOHC Escape

2001 4.0L Explorer

2001 4.2L F-Series

## Regards,

# Jim McCoy

Fuel Metering, Emissions & Ignition Systems Engineering

Hardware Control Interface Group

V-Engine Ragmeering

POEE - MD#69 - Rm. D142 - Cube DF186

Phone (313) 33-79690 / Fax (313) 39-04084

E-Meil: jmccoy1@ford.com

Original Message

Promi

Frazier, Keith (R.K.)

Sant

Monday, October 07, 2002 10:18 AM

McCoy, Jenses (J.D.)

Subject

RE: Access to PDCD0024 MPG Data

I will not be able to help you on this one. I would spend more time trying to figure out what to do than it would take to drive to MPG and physically review the deta. I suggest you ask Bob to forward the relavent data to you via normal email.

# Regards, R. Katth Freder

Staff Technical Specialist (EMC) Cross Vehicle EMC Technology & Applications Electrical Electronic Systems Engineering, RVT

Phone: 313-322-3150 email: kfrazie1@ford.com

Original Measure

Promi

McCoy, James (J.D.)

Sont

Monday, October 07, 2002 8:41 AM

Tox

Frazier, Kelth (R.K.)

PW: Access to POCXXXX4 MPG Data

Keith, I see Tom is out until the 11th. Any chance you can help me out gaining access? I need to complete all my work by Friday.

# Regarda,

# Jim McCoy

Fuel Metering, Emissions & Ignition Systems Engineering

Hardware Control Interface Group

V-Rugino Bugineering

POEB - MD#69 - Rm. D142 - Cube DF186

Phone (313) 33-79690 / Fax (313) 39-04084

B-Mail: jmccoy1@ford.com

#### -- Original Massage

Promi

McCoy, James (J.D.)

Sent:

Monday, October 07, 2002 8:39 AM

Toc

Hermann, Thomas (T.J.) Alice, Sharan (S.A.); Preciand, Mark (M.); Maurer, James (J.B.); O'Neoli, Jiw (J.D.)

Ca

Access to PDC00024 MPG Data

Hi Tom.

I am investigating an issue across multiple vehicle lines and need to compare BBRE plots for the 2001 MY, i spoke to Bob Kern about reviewing the J551 traces and he suggested it would be easier to view them on line and print out what I needed. I agree it would save a lot of time. Would it be possible to get access to the PDC00024 server and the MPGRPT directory?

Thanka Tom.

Regards.

# Jim McCov

Fuel Metering, Emissions & Ignition Systems Engineering

Hardware Control Interface Group

V-Engine Engineering

POEE - MD#69 - Rm. D142 - Cube DF186

Phone (313) 33-79690 / Fax (313) 39-04084

B-Mail; imocoy1@ford.com

Freeland, Mark (M.)

Bent: To:

Wednesday, October 09, 2002 9:52 AM Carter, Roscoe (R.O.) RE: Protective Gel in DPFE

Bubject:

# ROC

Thanks for the FYI on the gel hunters.

# Regards

Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com Tel.: (313) 594-7645

From: Sent:

To:

Subject:

Freeland, Mark (M.) Monday, October 07, 2002 5:17 PM King, Sandra (S.M.) Accepted: Audio Conf. Call Mtg. w/Kavlico-Please see call-in numbers below

Freetand, Mark (M.)

Sent

Friday, October 04, 2002 1:27 PM

To: Subject Akolkar, Shrikant (S.V.) RE: Falled part from Rough

Shri.

Thanks for the feedback. I appreciate being kept in the loop.

Regards

Mark Procland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com Tel.: (313) 594-7645

---- Original Message----

Frank

Altokar, Shrikant (5.V.)

Senti

Thursday, October 03, 2002 10:27 AM

Tes Ces Frueland, Mark (M.)
Verner, Carol (C.J.); Maurer, James (J.B.); Gates, Freeman (F.C.); Berste, Anita (A.); Robinson, John (J.W.)

Subjects

RE: Failed part from Roush

Thanks Mark for digging into the database.

That makes one fact clear that we haven't seen any fallure yet at Roush or MPG after running 100 to 200 cycles (~hours) in tests. But I feel we should continue up to 500 cycles on few sensors. I have some ideas to make test more severs. Jim, do you want me to set up meeting to review the test results so far & discuss the test severity issue?

----Original Message----

Prone

Frederick, Mark (M.)

Sent

Wednesday, October 02, 2002 1:39 PM

Тог

Akallan, Shrikant (S.V.)

Cet

Verner, Carol (C.J.); Mauror, James (J.B.)

الله أوليك

Falled part from Rough

'SMI,

The part you showed me in the lab today which has the RML number 8798-011 inscribed on the case was a Lima Engine Plant Warranty Return which was logged into Kavilco's data base on 4/25/2001. It was working when it was tested at Kavilco then.

I guess it had an intermittent fault before you put it onto the test, so not surprisingly it has shown up as a failure.

Regards

Mark Preeland

6-Sigma Black Belt

Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreelal@ford.com Tel.: (313) 594-7645

Freeland, Mark (M.)

Sent:

Friday, October 04, 2002 1:25 PM

To;

McCoy, James (J.D.)

Cc:

Ales, Sheran (S.A.); Kotwicki, Allan (A.J.)

Subject

FW: Updated Powertrain PQR Agenda for 10/9/02

## For info.

From Wayne Assembly Plant PVT. They are adding Ignition Coils to their weekly agenda.

Also the C90 connector is still a big issue for them, (Vref & Sig Return for the TPS, Injector wiring all go through C90).

### Regards

## Mark Freeland

6-Sigma Black Belt Brome Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

#### --- Original Message

Prom: Sent

Oboza, Doran (D.)

Tes

Friday, October 04, 2002 8:11 AM

Newmen, Kevin (K.); Shepherd, Leroy (L.O.); Agenwel, Apocrys (A.); Banke, Hermine (N.B.); Coryee, Kevin (K.W.); Cvetkovski, Peter (P.); Deeger, Mike (M.D.); Felle, Suphen (S.W.); Feshina, Ayodeli (A.); Fodera, Michael (M.J.); Fount - Smith, Susen (S.L.); Freeland, Mark (M.); Glannamore, Armand (A.A.); Braniszyn, Terl (T.E.); Kalamdani, Rajeev (R.S.); Matt Morin; Morton, Michael (M.F.); Motley, Leafe (LPL); Norman, Ingrid (I.); Odum, Ika (LC.); Prater, Joseph (J.A.); Rezace, John (J.H.); Seliock, Beth (B.); Stearns, Perren (P.V.); Tedone, Demien (D.J.); Tobis, Bruce (B.J.); Trombetta, Christopher (C.B.); Wineloff, Bryan (B.D.); Zubeck, Michael (M.W.); Abbas, Jehad (J.F.); Acuff Jr., Mahlin (M.); Ahmed, Karnal (K.); Alukabh, Bart (B.O.); Anderson, Johany (J.D.); Anszulowicz, Ken (K.1.); August, Can (D.); Balls, Don (D.W.); Baum, Joe (J.M.); Bednarek, Mark (M.P.); Boatner, Derryle (D.R.); Brian Johnson; Brocketta, Ronald (R.K.); Broski, James (J.W.); Brown, Mark (M.D.); Campbell, Aindres (A.M.); Campbell, Donald (D.C.); Caruso, Barry (B.); Castleman, William (W.G.); Cartifyre, James (J.C.); Carventee, Eduardo (E.J.); Cirris Campbell; Clechenowski, Mark (M.S.); Clugston, Shane (S.A.); Custe, Richard (R.M.); Colatrugilo, Vincs (V.E.); Cox, Tom (T.T.); D'Agostino, Amanio (A.); Davis, Jerry (J.W.); Debbie Pelant; Dhelhrel, Deve (B.S.); Dunesie, Dennis (D.R.); Dyson, Simon (S.C.); Pice, Barbara (B.G.); Plorence, Jeremy (J.D.); Fluier, Jernes (J.A.); Powites, Michael (M.S.); Prencisco Pernendez (E-mell); Prenkin, Tid (T.); Gemble, Craig (C.R.); Gazdecki, Timothy (T.A.); Gae, Starling; Gerke, Devid (D.W.); Giles, Anthony (A.T.); Gilmer, Devid (D.C.); Gardeno, Miles (M.A.); Goulet, Michael (M.A.); Grecs, John (J.E.); Grenados, Rodolfo (R.); Groom, Reginald (R.); Guccianto, Shave (S.P.); Hegde, Demoder (D.M.); Helmstedter, Donald (D.G.); Hettle, Gruce (B.W.); Holloway, Scott (J.S.); Hopkins II, Harry (H.S.); 1. Sowards; Jahahan, John; Jeff Palmer; King, Stave (5.1.); Kinnia, Brian (B.W.); Kincell, Jein (I.G.); Küne, Danies (D.M.); Koch, Thomas (T.P.); Kunde, Olaf (O.); Landizabal, Sergio (S.); Lizzite, Brian (B.W.); Longwell, Christine (C.); Loriue, Brett (B.R.); Lubo Djuric; MacDonald, George (G.F.); Madel In., Stan (S.P.); Marsec, Lance (L.D.); Metthews, Gary (G.); Matyslewicz, Edwin (E.J.); McCowin, Ernoch (R.G.); Mihora, Bob (R.S.); Mitchell, Carole (C.A.); Morabito, Mike (M.P.); Moses, Edwin (E.D.); Nemain, Stave (S.L.); Nguyen, Thien (T.M.); O'Comor, Jim (James W.); Patel, Prafid (P.J.); Pleasantis, David (D.B.); Post-barnes, Donne (D.F.) Pops, Colin (C.M.); Popense, Michael (M.L.); Pulleis, Anenth (A.); Purvix, Bruce; Ramey, George (G.); Reichenbech, Ronald (R.W.); Roseman, Michael (P.D.); Samirry, Behmen (Ben.); Sands, Roger (R.P.); Sheridan, Richard (R.D.); Shopp, James (J.J.); Singley, Rogers (R.W.); Smith, Devid (D.A.); Smith, Termille (T.C.); Soullane, James (J.K.); Spanial, Termince (T.E.); Staverson, Bihel (E.E.); Stojov, Tony (T.); Stump, Serven (S.M.); Swick, Ourt (C.); Sykora, Andrew (A.D.); Sezeperkek, Gerard (G.); Teraszidewicz, Alexande (A.S.); Thomas, Ken (K.C.); Torosten, David (D.A.); Tourno, Lyle (L.W.); Tucker, Shanise (S.N.); Vangavolu, Sreedher (.); Vinogradov, Alex (A.); Weiter, Charyl (C.); Weish, Gerald (G.); Washington, Eric (E.D.); Wegrzyn, Michael (M.I.); Wepler, Ron (R.I.); Werner, Barbero (B.R.); White, Christopher (C.); Weltr, Joseph (J.M.); Westrayer, Robert (R.I.); Williams, Anthony (A.I.); Williams, Elzabeth (E.P.); Williams, Richael (M.T.); Williams, Robert (R.I..); Williams, Doon (D.G.) Updated Powertrain PQR Agenda for 10/9/02.

Subjects

ignition Coli was mistakeniy left off the previous agenda.

Freeland, Mark (M.)

Sent:

Thursday, October 03, 2002 3:24 PM

To: Subject: Antone, Jennifer (M.)
RE: check engine light project.

Jermifer.

Thanks for the feedback, wise choice I think.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

---- Original Message----

Fromi

Antone, Jerrifler (M.)

Sent

Thursday, October 03, 2002 1:59 PM

To:

Presiend, Mark (AL) check ungine light project

Mark, I appreciate you taking the time to explain your project to me this morning. As it turns out, I think we're going to stay away from discussing any engine-related projects with the media at this time. Thanks again for your help.

Regards,
Jennifer Antone
Consumer Driven 6-Sigma Communications
1-313-337-2613
Jantone@ford.com

Freeland, Mark (M.)

Sent:

Wednesday, October 02, 2002 1:39 PM

To:

Akolkar, Shrikant (S.V.)

Co:

Verner, Carol (C.J.); Maurer, James (J.B.)

Subject:

Falled part from Roush

## Shri.

The part you showed me in the lab today which has the RML number 8798-011 inscribed on the case was a Lima Engine Plant Warranty Return which was logged into Kaviico's data base on 4/25/2001. It was working when it was tested at Kavico then.

I guess it had an intermittent fault before you put it onto the test, so not surprisingly it has shown up as a falkure.

### Regards

### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com Tel.: (313) 594-7645

From: Sent: To: Subject:

Freeland, Mark (M.) Wednesday, October 02, 2002 1:06 PM O'Neall, Jim (J.D.) Accepted: DPFE circuit changes

From: Sent: To: Subject:

Freeland, Mark (M.) Tuesday, October 01, 2002 8:26 PM Fournelle, Glibert (G.) Accepted: 3.0L U204 Phantom stall meeting

Sent: To: Subject:

Freeland, Mark (M.) Tueeday, October 01, 2002 8:24 PM Koszewnik, John (J.J.) Accepted: Updated: Mig w/M. Freeland

Freeland, Mark (M.)

Sent:

Monday, September 30, 2002 3:26 PM

Toi Subject Kotwicki, Alien (A.J.) RE: filter15.pdf

Thanks Al.

Will use .ps next time, sorry for the inconvenience.

Regards

Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

## ---- Original Message----

Froms

Kotwicki, Aflen (A.J.)

Senta

Morziay, September 90, 2002 3:21 PM Freeland, Mark (M.)

Tot

Subjects

filter15.pdf

<< File: Filter15.pdf >>

next time, change the extension to .ps so that I can do it without fiddling about ... Thanks in advance for your help,

Alian J. Kotwicki 59-41277 akotwick@ford.com MD 3619 SRL

Freeland, Mark (M.)

Sent:

To: Cc: Monday, September 30, 2002 2:36 PM Kotwicki, Allan (A.J.) Allee, Sheran (S.A.)

Subject:

Letest deelgn thoughts

AI,

Can you please pdf this one and send it back to me, and also copy Sheran, so that he has a hard copy.



Thanks

Regards

Mark Precland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: zufreela1@ford.com

Tel.: (313) 594-7645

Freeland, Mark (M.)

Sent:

Monday, September 30, 2002 2:35 PM

To: Subject Plaud, Zalda (Z.) RE: Focus Stelling

· Thanks.

I will see you at 1:00 tornorrow.

Regards

Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com Tel.: (313) 594-7645

### ----Original Massage

From:

Placed, Zakia (Z.)

Sent

Monday, September 30, 2002 2:27 PM

Tei

Freeland, Mark (M.) RE: Focus Stating

The building name is Fairfane Plaza South. (FPS). The pink building next to the Ritz Cariton Hotel and across Fairlane Plaza Mail. It is on Hubbard (service drive) and Southfield. There are two towers, FPS faces the Hyatt Hotel. The suits is 500. You can give me a call from the lobby so I can let you in. My number is 20528. Any other question please let me know. Thanks,

#### -Original Appointment---

Franci **j**erb

Presiand, Mark (M.)

Tot

Mondey, September 30, 2002 1:17 PM Plaud, Zeich (Z.)

واعمار شاق

Whent

Accepted: Focus Stalling Tuesday, October 01, 2002 1:00 PH-2:00 PH (GHT-05:00) Eastern Time (US & Canada).

Can you tell me where Ray's office is?

Thanks

Mark Freeland

From: Sent: To: Freeland, Mark (M.) Monday, September 30, 2002 1:29 PM Kotwicki, Alian (A.J.)

Subject: Drawing



### Regards

### Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

Sent To:

Freeland, Mark (M.) Monday, September 30, 2002 1:17 PM Pleud, Zaida (Z.) Accepted: Focus Stalling

Subject:

Can you tell me where Ray's office is?

Thanks

Mark Freeland

From: Sent: To: Subject:

Freeland, Mark (M.) Monday, September 30, 2002 1:16 PM Plaud, Zaida (Z.) Accepted: Focus Stalling

Freeland, Mark (M.)

Senta

Thursday, September 26, 2002 1:49 PM

To:

'E-mail center'

Subject:

RE: E-Mail Eng Kit Confirmation

Thank you.

I appreciate you're help and fast response.

#### Regards

### Mark Freeland

> 6-Sigma Black Belt

> Engine Research Department

> Ford Research Laboratory

> P.O. Box 2053

> MD 2629 - SRL - Room 1517

> Dearborn, MI 48121-2053 USA

email: mfreelal@ford.com Tel.:

(313) 594-7645

----Original Message----

From: E-mail center [mailto:emailcenter@inductor.com]

Sent: Thursday, September 26, 2002 12:57 PM

To: Mark Freeland

Subject: E-Mail Eng Kit Confirmation

Inductors Inc. 5 Technology Drive, livine, CA 92618 Phone: 800-533-8295 Fax: 949-623-1401 www.inductor.com

09/26/02

Mark Freeland Ford Motor Company 2101 Village Road, SRL Rm. 1517 Dearborn, MI 48121

### Dear Mark:

Congratulations on taking advantage of our limited time offer of FREE engineering kits. You should be receiving the kits you requested via ups in the next couple of days. Please don't hesitate to call me for any of your inductor needs

Sincerely,

Clay Boxley Sales Representative From: Sent: To: Subject:

Freeland, Mark (M.) Thursday, September 28, 2002 9:36 AM Koszewnik, John (J.J.) Accepted: Updated: Mtg w/M. Freeland

Freeland, Mark (M.)

Sent:

Thursday, September 26, 2002 9:35 AM

To:

Koszewnik, John (J.J.)

Subject:

RE: Updated: Mtg w/M. Freeland

John.

9:30 works for me, Thanks

Recentda

Mark Freeland

6-Sigma Black Belt **Bugine Research Department** Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

-- Original Message---

Promi

Wedlow, Janica (J.K.) On Behalf Of Koszewnik, John (J.J.)

Thursday, September 26, 2002 9:34 AM Freeland, Mark (M.)

Tạ:

RE: Updated: Mig w/M. Freeland

Mark, I changed it to 9:30 on 10/2.

Thanks.

Jen

-----Original Appointment-

From

Freeland, Mark (M.)

Sent

Tox

Trursday, September 26, 2002 9;25 AM Wedlow, Janics (J.K.); Porosky, Sue (S.E.); Novek, Michele (N.) Declined: Updahad: Mig. w/M. Freeland

<u>Dailect</u>

Whent

Wednesday, October 02, 2002 5:30 PM-6:00 PM (GMT-05:00) Eastern Time (US & Canada).

Where

UK a oft

Can we make it a different time please, as I have to pick up my children in Farmington Hills by 6:00 pm on Wednesday.

Thanks

Mark Freeland

Fram:

Freeland, Mark (M.)

Sent:

Wednesday, September 25, 2002 4:43 PM

To:

Kotwicki, Alfan (A.J.)

**Subject:** 

RE: lonizing radiation effect on Ford Power train electronics from new US Customs Vehicle

and Cargo Inspection System

### AI.

The sensor is assembled in Moorpark, CA.

The die used to be built in Long Island NY and in CA with loads of trips back and forth.

The new supplier of the die is in Canada.

The finished sensor is shipped to US, Europe & Asia before use. Some come back from Europe on engines for domestic applications (4.0L Explorer is an example of this).

#### Regards

#### Mark Freeland

6-Siema Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreelal@ford.com

Tel.: (313) 594-7645

#### ---Original Message

Persons

Kotwicki, Allen (A.J.)

Gents

Tuesday, September 24, 2002 2:51 PM Koneda, Philip (P.T.); Prestand, Merk (M.)

Ты œ

Kotwicki, Allen (A.1.)

PA't lonking rediction effect on Ford Power brain electronics from new US Quatoms Vehicle and Cargo Inspection System

An interesting result of 9/11. Phil: I think Roy imputes magic powers to me, believing I have some influence around here. Mark: where are the DPFE sensors manufactured, how are they shipped into the US?

### Thanks in advance for your help,

Allen J. Kotwicki 59-41277 akobyick@ford.com MD 3819 SRL

#### -Original Message

Frans

Sont

Dolley, Roy (R.) Tuesday, September 24, 2002 1:19 PM

Tot

Kotwicki, Allen (A.1.)

Dolley, Roy (R.)

Subjects

lonking radiation effect on Pord Power train electronics from new US Customs Vehicle and Cargo Inspection System

I have detected a possible problem from the US Government's implementation of a Vehicle and Cargo

Inspection System after the 9-11 problem last fall. I have asked Motorola to do the preliminary investigation. I will need your help if they find a problem as I believe they will. I have attached a Presentation that I gave my aupervisor. Please provide comment on the approach and information. Thanks, Looking forward to possibly working with you again

Roy Dolley FSS Decision Maker PEAD/Dept. T321 313-5942497 Fex 313-390-3830 POEE Bidg. Mall Drop 75 Cube AW049

<< File: VACIS.ppt >>

Freeland, Mark (M.)

Sent

Tuesday, September 24, 2002 12:23 PM

To: Subject:

McCoy, James (J.D.) RE: MPG Focus

### Great

### Regards

#### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA omail: mfreela1@ford.com Tel.: (313) 594-7645

#### -Original Message-

Francis

McCoy, James (J.D.)

Contract To:

Tuesday, September 24, 2002 12:23 PM Freeland, Mark (M.)

Subject

PW: MPG Focus

You should have the data scon.

### Regards,

## Jim McCoy

Fuel Metering, Emissions & Ignition Systems Engineering Hardware Control Interface Group V-Engine Engineering POEE - MD#69 - Rm. D142 - Cube DF186 Phone (313) 33-79690 / Fax (313) 39-04084 E-Mail: jmccoyl@ford.com

#### -Original Message-

Frem

Duncar, Jack (J.L.)

Sent

Tuestay, September 24, 2002 11:04 AM

Ter

McCoy, James (J.D.)

Subject

RE: MPG FOOLE

### Jim, no problemi

| Jack Duncan       | jduncanl@ford.com |
|-------------------|-------------------|
| MI Proving Ground |                   |
| 74240 Fisher Rd   | (586) 75-28563 (w |
| Romeo, MI 48065   | (586) 75-28683 (f |

#### -Original Message

From

MCODy, James (J.D.)

Sent

Tuesday, September 24, 2002 9:41 AM Duncan, Jack (J.L.)

Tes

œ

Meurer, James (J.S.); Freeland, Mark (M.)

ER62-627-6 4426

### Subjects

MPG Focus

Jack, Can you have the tech pull the plugs from the Focus, after an overnight soak, and measure and record the static resistance of each plug. Put the plugs back in the same cylinders when complete. Send the results to Mark Freeland. Thanks, Jim.

Regards,

Jim McCoy

Fuel Metering, Emissions & Ignition Systems Engineering Hardware Control Interface Group V-Engine Engineering PORE - MD#69 - Rm. D142 - Cube DF186 Phone (313) 33-79690 / Fax (313) 39-04084 E-Mail: jmccoyl@ford.com

Freeland, Mark (M.)

Sent: To:

Tueeday, September 24, 2002 12:21 PM

Subject:

McCoy, James (J.D.) RE: MPG Focus

Thanks Jim.

Regards

#### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com Tel.: (313) 594-7645

#### -Original Message

Pronts

McCoy, James (1.D.)

Sent: To:

Tuestiny, September 24, 2002 9:41 AM Duncan, Jack (J.L.)

Haurer, James (J.B.); Presiend, Mark (H.)

**Subjects** 

MPG Pools

Jack, Can you have the tech pull the plugs from the Focus, after an overnight scak, and measure and record the static resistance of each plug. Put the pluge back in the same cylinders when complete. Send the results to Mark Freeland, Thanks, Jim.

### Rogarda,

# Jim McCoy

Fuel Metering, Émissions & Ignition Systems Engineering Hardware Control Interface Group V-Engine Engineering POER - MD#69 - Rm. D142 - Cube DF186 Phone (313) 33-79690 / Fax (313) 39-04084 E-Mail: jmoocyl@ford.com

Freeland, Mark (M.)

Sent:

Tuesday, September 24, 2002 9:31 AM

To: Co: Koszewnik, John (J.J.) Davis, George (G.C.)

**Subject**:

RE: Latch protection for DPFE

#### Thanks John.

I have requested a sampling of 30 ESM's from Freeman Gates to perform translent susceptibility testing on.

Yesterday afternoon I tested 20 parts for the internal (die level) threshold voltage. (I plan on at least 30 for the statistic). Then I will follow up with a larger sample for the external threshold voltage statistic, as we discussed yesterday.

I will feed you the results by email as I complete each group.

## Regards

#### Mark Procland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.; (313) 594-7645

#### 

Promi: Sent: Koszewnik, John (J.J.)

To:

Monday, September 23, 2002 7:00 PM

ic: Subjects Procland, Mark (MJ)
PW: Latch protection for DPFC

### Mark,

As promised, I ran out the question we discussed in my office today.

I'll let you know if Jim provides me any additional feedback to my note below.

Thanks for our meeting. See you sometime early next weak.

# John Koopatrath

Chief Engineer
V-Engine Engineering
Ph. 32-28973
Fx. 24-86067
[koszewn@ford.com

----Original Message----

(Lowis

Koszewnik, John (2.3.)

Senio

Monday, September 23, 2002 6:59 PM

Tei

O'Nord, Jim (J.D.)

EAR2-027-0 4029

Subject:

RE: Labely protection for DPFE

Jim,

Noted and understood. Thanks for running this out for me.

My takeaway is that the ESM has the same overvoltage protection on Vref and Vout as the tube-mounted DPFE sensor.... no better, no worse.

Hence, we cannot say that the improved field performance of the ESM (versus tube-mounted DPFE) results from reduced sensitivity to latch-ups.

The remaining hypothesis for its improved field performance is that it sees less corrosive exhaust constituents due to being downstream of the EGR valve.

Let me know if I'm incorrect in the above. Thanks again for running this put.

## John Korgemeth

Chief Engineer V-Engine Engineering Ph. 32-28973 Fx. 24-88067 ikoszewn@ford.com

-Original Message-

Fromit

ONex1, Im (1.0.)

Senb

Monday, September 23, 2002 5:58 PM Kassewrik, John (JJ.)

Tot

Ċm

Maurer, James (18.); Gates, Pregnan (F.C.)

Subjects

Latch protection for DPFE

John - the latch protection you see in the schematics you had in hand this PM are for tube mount. The ESM did implement a similar effort right after Job 1 (implemented around May of this year at the same time we implemented the Dalsa die and the Microlyne gold eputtering) except the test data dictated the use of a Zener diode. So both have the protection. Freeman can give you more specifics if you need it or call me at home at 734-667-2966 or cell - 734-748-7781.

### J. D. O'Neall

Manager, Fuel Metering, Emissions, and Ignition Dept. V-Engine Engineering, Ford Motor Company Joneall@ford.com, 313-322-6839

Freeland, Mark (M.)

Sent:

Tueeday, September 24, 2002 9:25 AM

To: Subject: Getes, Freeman (F.C.) Latch Susceptibility Teeting

### Freeman.

I have additional data from testing 20 + more dPFE's without the Z1 (MOV) which I would like to share with you in person. When would you like to get together?

### Also.

John Koszewnick has asked me to take a look at the ESM to see how it compares in terms of it's robustness to Transient Voltages.

Can you provide me with a sampling of say 30 current production ESM's for similar testing. I will also need the current circuit diagram and component layout for the boards.

#### Thanks

#### Regards

#### Mark Freetand

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

Freeland, Mark (M.)

Sent: To: Friday, September 20, 2002 6:22 PM

To: Subject: 'Ayers, Don' RE: FYi

Thanks Don, I appreciate it.

#### Regards

#### Mark Freeland

- > 6-Sigma Black Belt
- > Engine Research Department
- > Ford Research Laboratory
- > P.O. Box 2053
- > MD 2629 SRL Room 1517
- > Dearborn, MI 48121-2053 USA

email: mfreelal@ford.com
Tel.: (313) 594-7645

•

----Original Message----

From: Ayers, Don [mailto:DAyers@kavlico.com]

Sent: Friday, September 20, 2002 6:13 PM

To: Freeland, Mark (M.)

Subject: RE: FYI

I'll have it faxed to you, probably on Monday. It will be quite lengthy, FYI.

### Don

----Original Message----

From: Freeland, Mark (M.) [mailto:mfreelal@ford.com]

Sent: Friday, September 20, 2002 2:20 PM

To: Ayer#, Don Subject: RE: FYI

Thank you for the info Don,

Yes, please fax me the articles, my fax number is (313) 621-0646.

### Regards

### Mark Freeland

- > 6-Sigma Black Belt
- > Engine Research Department
- > Ford Research Laboratory
- > P.O. Box 2053
- > MD 2629 SRL Room 1517
- > Dearborn, MI 48121-2053 USA

email: mfreelal@ford.com

Tel.: (313) 594-7645

----Original Massage---From: Ayers, Don (mailto:DAyers@kavlico.com)
Sent: Friday, September 20, 2002 2:34 PM

To: Mark Freeland (E-mail)

Subject: FYI

Hi Mark -

Long time no see/speak. I hope all is going well with you.

I just wanted to make you aware of two things. You may already know these and I'm assuming you are still working on transients.

- 1. We are starting to embark on a series of failure analysis meetings on RSM with Ford/Sismens participation. Jos Grandas (in EGR Engineering) had some questions pertaining to voltage transients. We suggested he discuss these with you to understand the testing and results you've observed. If he hasn't called you, you may want to give him a call as time permits.
- 2. Finally, I came across an interesting document on vehicle transients. You may want to obtain a copy. It is ISO 7637-1, title is "Road Vehicles Electrical disturbance by conduction and coupling Part 1: Passenger cars and light commercial vehicles with nominal 12V supply voltage Electrical transient conduction along supply lines only.
- 3. Really this is finally, there's a Part 3 to the above which addresses "Electrical transient transmission by capacitive and inductive coupling via lines other than supply lines".

If you want, I can fax these to you.

Take care. Don

Freeland, Mark (M.)

Sent To: Friday, September 20, 2002 5:20 PM

To: Subject: 'Ayers, Don' RE: FYI

Thank you for the info Don,

Yes, please fax me the articles, my fax number is (313) 621-0646.

### Regards

#### Mark Freeland

> 6-Sigma Black Belt

> Engine Research Department

- > Ford Research Laboratory
- > P.O. Box 2053
- > MD 2629 SRL Room 1517
- > Dearborn, NI 48121-2053 USA

email: mfreelal@ford.com

Tel.: (313) 594-7645

----Original Message----

From: Ayers, Don [mailto:DAyers@kavlico.com] Sent: Friday, September 20, 2002 2:34 PM

To: Mark Freeland (E-mail)

Subject: FYI

Hi Mark -

Long time no see/speak. I hope all is going well with you.

- I just wanted to make you aware of two things. You may already know these and I'm assuming you are still working on transients.
- 1. We are starting to embark on a series of failure analysis meetings on EEM with Ford/Siemens participation. Joe Grandas (in EGR Engineering) had some questions pertaining to voltage transients. We suggested he discuss these with you to understand the testing and results you've observed. If he hasn't called you, you may want to give him a call as time permits.
- 2. Finally, I came across an interesting document on vehicle transients. You may want to obtain a copy. It is ISO 7637-1, title is "Road Vehicles Blectrical disturbance by conduction and coupling Part 1: Passenger cars and light commercial vehicles with nominal 12V supply voltage Blectrical transient conduction along supply lines only.
- 3. Really this is finally, there's a Part 3 to the above which addresses "Electrical transient transmission by capacitive and inductive coupling via lines other than supply lines".

If you want, I can fax these to you.

Take care.

Don

Freeland, Mark (M.)

Sent:

Friday, September 20, 2002 5:04 PM

To:

Grandas, Joseph (J.M.)

**Subject** 

FW: FY

Jœ,

Please call me at the number below, so that I can share my learning's with you.

Thanks

Regards

#### Mark Freeland

> 6-Sigma Black Belt

- > Engine Research Department
- > Ford Research Laboratory
- > P.O. Box 2053
- > MD 2629 SRL Room 1517
- > Dearborn, MI 48121-2053 USA

email: mfreelal@ford.com Tel.: (313) 594-7645

----Original Message----

From: Ayers, Don (mailto:DAyers@kavlico.com) Sent: Friday, September 20, 2002 2:34 PM

To: Mark Freeland (E-mail)

Subject: FYI

Hi Mark -

Long time no see/speak. I hope all is going well with you.

- I just wanted to make you aware of two things. You may already know these and I'm assuming you are still working on transients.
- 1. We are starting to embark on a series of failure analysis meetings on ESM with Ford/Siemens participation. Joe Grandas (in EGR Engineering) had some questions pertaining to voltage transients. We suggested he discuss these with you to understand the testing and results you've observed. If he hasn't called you, you may want to give him a call as time permits.
- 2. Finally, I came across an interesting document on vehicle transients. You may want to obtain a copy. It is ISO 7637-1, title is "Road Vehicles Electrical disturbance by conduction and coupling Part 1: Passenger cars and light commercial vehicles with nominal 12V supply voltage Electrical transient conduction along supply lines only.
- 3. Really this is finally, there's a Part 3 to the above which addresses "Bledtrical transient transmission by capacitive and inductive occupling via lines other than supply lines".

If you want, I can fax these to you.

Take care. Don

Freeland, Mark (M.)

Sent:

Friday, September 20, 2002 10:20 AM

To: Subject: Verner, Carol (C.J.) RE: Windstar Sensor #99

#### Carol.

I understand that this is not a warranty return part, but I still want to know about the vehicle's history. Can you please contact the fleet manager and ask him/her about this vehicle, has it had any other aliments, like running rich, HEGO problems, Fuel problems, ignition problems, drive symptoms, etc. I think we need to know why the sensor had the excessive sooty deposit in both ports. Any intelligence you can gather on the vehicle may be valuable.

Also, can you contact Kavilco and ask them for their test data for this part. I can not test slope, they probably have the data for this already.

### Regards

#### Mark Precland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearburn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

--- Original Message---

Promis

.Verner, Carol (C.I.)

Seels

Friday, September 20, 2002 10:10 AM O'Meal, Jim (J.D.)

Ta: Ca

Freeland, Mark (M.)

Subject:

RE: Windstar Sensor #99

Mark.

#### See comments in blue below.

--- Original Message ---

From:

O'Neel, Jim (J.D.)

Sent

Thursday, September 19, 2002 3:12 PM

Tei Cc: Verner, Carol (C.J.) Fraeland, Mark (M.)

**Subjects** 

FW: Windster Sensor #99

Please provide the info requested by Mark. This is one of two sensors that falled (low I believe) from the Veges fleet that you inspected shipped back by Kyong.

## J. D. O'Neall

Manager, Fuel Metering, Emissions, and ignition Dept.
V-Engine Engineering, Ford Motor Company
Joneali@ford.com. 313-322-6639

From:

Freeland, Mark (M.)

E062-827-0 4605

Tos

Thursday, September 19, 2002 3:07 PM

O'Neal, Jim (J.D.) Akofkar, Shrikant (S.V.) **Subjects** Windstar Server #99

Jim.

Please forward me all info you have regarding the sensor Shri brought me to test this afternoon. I would like to make sure the document i send you is clear and concise.

Can you provide the following: Sensor #99 is not a warranty return. It was a parlyane coated sensor placed on a 3.8L Windstar belonging to a taxi cab fleet in Las Vegas. NV so there are no PCM codes to have for reference. Vo readings were made with 5V power supply and digital multimeter. Sensor was removed from vehicle and allowed to cool for thr in s/c room. At time of measurement room temp was 23 degrees C. No Check Engine Light was observed.

VIN #: I can provide this next week. The Fleet Engineer who I work with is out of the office until Monday.

Mileage accumulated on the sensor. 22,624 miles.

Date the sensor was removed. Date installed: 5/26/02, Initial Vo = 1.033 v. Date removed: 9/8/02. Vo = 0.520 v. Both dies responsive.

Were there any stored codes in the PCM, all codes are of interest, not just the dPFE codes? N/A. Not a warranty return sensor.

What is the full repair history for this vehicle from the date the sensor was installed until the date it was removed? I suspect that the engine has a misfire history, of some sort. N/A. Not a warranty return sensor. Do we have Kavilco's parametric test data for the part. Not sure. Kavilco may have performed some persmetric test before removing the ports and sending the sensor to us for futher analysis.

#### Thanka

#### Regards

Mark Precland

6-Sigma Black Belt Brigino Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Deerborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

Freeland, Mark (M.)

Sent:

Thursday, September 19, 2002 3:07 PM

To: Cc: **Subject**  O'Neell, Jim (J.D.) Akolkar, Shrikant (S.V.) Windster Seneor #98

Jim,

Please forward me all info you have regarding the sensor Shri brought me to test this afternoon. I would like to make aure the document I send you is clear and concise.

Can you provide the following:

#### VIN#

Mileage accumulated on the sensor.

Date the sensor was removed.

Were there any stored codes in the PCM, all codes are of interest, not just the dPFE codes? What is the full repair history for this vehicle from the date the sensor was installed until the date it was removed? I suspect that the angine has a misfire history, of some sort. Do we have Kavilco's parametric test data for the part.

#### Thanks

### Regards

#### Mark Freeland

6-Sigma Black Belt **Engine Research Department** Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Degreen, MI 48121-2053 USA umail: mfrechi@ford.com Tel.: (313) 594-7645

From: Sent: To: Subject:

Freeland, Mark (M.) Wednesday, September 18, 2002 9:35 AM Koszewnik, John (J.J.) Accepted: Updale Mtg.

Sent:

Freeland, Mark (M.) Thursday, September 12, 2002 11:44 AM

To:

McCoy, James (J.D.)

Subject:

Fouled plugs

Jim,

Got a Blues Clue,

What does the ignition noise on the Vref look like when you have a fouled plug? Can you try it and see, (but not on the Mountaineer as I want to be able to drive it on Tuesday night).

The Mustang has a good number of low mileage failures for the months that it had the fuel/plug fouling issue (10/2001 - 12/2001)

Sheran will discuss further with you later today.

Regards

Mark Freeland

6-Signa Black Bolt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

From; Sent: To: Subject:

Freeland, Mark (M.) Wednesday, September 11, 2002 12:10 PM Koszawnik, John (J.J.) Accepted: DPFE Redesign

Freeland, Mark (M.)

Sent:

**Subject**:

Tuesday, September 10, 2002 2:59 PM

To:

O'Neell, Jim (J.D.) RE: Pool Vehicle

Jim,

Thanks, Jim McCoy has the mountaineer and I have a pool car.

### Regards

#### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreelal@ford.com Tel.: (313) 594-7645

#### -Original Memage

From

O'Neal, Jim (J.D.)

Bent:

Tuesday, September 10, 2002 1:12 PM

Тен Ċa

Kommunik, John (J.J.); King, Sandra (S.M.) Freeland, Mark (N.); McCoy, James (J.D.)

FW: Pool Vehicle

John - Please forward the below note to Donpool@ford.com this afternoon. Thanks. Sandra - can you follow up with John's admin (I think her name is Jan) to make sure this happens.

I approve Mark Freeland's use of a pool car while his lease car is being evaluated for Delta PFE EGR. sensor issues. He will need a pool car from Sept 11th at 2PM to Sept 13th at 4PM. Thanks

### J. D. O'Neall

Menager, Fuel Metering, Emissions, and Ignition Dept V-Engine Engineering, Ford Motor Company joneall@ford.com, 313-322-6839

#### -Original Massage

Proper

Meck, Ed (E.T.)

Tuesday, September 10, 2002 9:27 AM

Tos

McCoy, James (J.D.)

O'Nool, Jim (J.D.); Presiand, Mark (M.)

œ Subjects

RE: Pool Vehicle

Yes, with LL4 approval. Send to Dbnpool@ford.com

#### -Original Message

Freezi

McCoy, James (J.D.)

Sent

Tuesday, September 10, 2002 9:26 AM

To:

Mack, Ed (E.T.)

O'Neal, Jim (J.D.); Presland, Mark (M.)

Bubjects

PW: Pool Vehicle

Ed, Can you provide an answer our question listed below?

Thanks, Jim.

Regards,

## Jim McCoy

Fuel Matering, Emissions & Ignition Systems Engineering

Hardware Control Interface Group

V-Engine Programming

PORE - MD#69 - Rm, D142 - Cube DF186 Phone (313) 33-79690 / Fax (313) 39-04084

B-Mail: imcceyl@ford.com

-Original Message

Frons:

Tokarczyk, Jira (J.1.)

Sent

Tuesday, September 10, 2002 9:02 AM

Тω

McCoy, James (1.0.)

ubject:

RE: Pool Vehicle

Need to contact Ed Mack in Vehicle Programs (he controls the pool vehicles).

Thank You

## Jim Tokarczyk

Product Development Vehicle Control phone x76943, fax 23311

**QMP 408** 

Vahiois Services WEB Sites

http://www.dearborn.ford.com/topb/PPPBV/VehicleControl/vehiclecontrol.html

-- Cirtainal Measeas-

Promi

McCoy, James (J.D.)

Tuesday, September 10, 2002 9:00 AM

Ter

Tolorczyk, Jim (J.1.)

Ces

O'Neell, Jim (J.D.); Freeland, Mark (M.)

Subjects

Pod Vehicle

Jim.

We are currently working on a warranty issue and have a vehicle which is exhibiting concerns and needs to be investigated. The vehicle we need to test is a lease vehicle that belongs to an employee, Mark Freeland, here at Ford. Mark has volunteered his vehicle for testing which will take about a week.

Would it be possible to provide a pool vehicle for Mark's use while we test his vehicle? Could you let me know If this is something we can do?

Thanks Jim.

Rogards,

# Jim McCov

Fuel Metering, Émissions & Ignition Systems Engineering

Hardware Control Interface Group

V-Engine Engineering

POER - MD#69 - Rm, D142 - Cube DF186 Phone (313) 33-79690 / Fax (313) 39-04084

B-Mail: imocovi@ford.com

Freeland, Mark (M.)

Sent:

Tuesday, September 10, 2002 11:56 AM

To:

Hangas, Jon (.)

Subject:

FW: Spark plug resistance checks

### Spark plug person

### Regards

#### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com Tel.: (313) 594-7645

#### ---- Original Messago ---

From: Ewel, Fred (F.)

Senta

Wednesday, September 04, 2002 4:03 PM

To: Freeland, Mark (ML)

Ca

McCoy, James (J.D.); Power, Jemes (J.H.)

Sabjects

RE: Sperk plug resistence checks

#### Mark,

We will be visiting Essex Engine plant tomorrow morning. If you can leave the vehicle here on Friday, I should be able to measure the plugs sometime during the day.

#### ----Original Message----

Fram: Sent: Freeland, Mark (M.)

Tet Swell, Fred

i in r

Tuesday, September 03, 2002 12:38 PM Elwal, Fred (F.)

Œ

McCoy, James (1.D.)

Subject

FW: Spark plug resistance checks

#### Fred.

When would be a good time for you to check out the plugs on the Mountaineer? If you would like I could come over to you're garage tomorrow morning or afternoon. If it will only take an hour I will stay with you, or if a lot longer than I can leave the vehicle with you and borrow wheels from Jim McCoy.

#### Thanks

### Regards

#### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreelal@ford.com Tel.: (313) 594-7645

----Original Massage-

Ewell, Fred (F.) Freen

Thursday, August 29, 2002 2:15 PM Presiend, Merk (M.) Power, James (J.H.) Sperk plug resistance checks Sents Te: Bubject

I was unable to pry Jim McCoy away from the vehicle long enough to get the plugs removed and checked for resistance. Please make arrangements with Jim Power and/or me next week after the labor day holiday. Have a good weekend.

Freetand, Mark (M.)

Sent:

Monday, September 09, 2002 1:23 PM

To:

Power, Jernes (J.H.)

Subject

RE: 16L Spark Plug Low Resistance Issue

Jim.

Thank you for the info. Yes, endemic!

#### Regards

#### Mark Freeland

> 6-Sigma Black Belt

- > Engine Research Department
- > Ford Research Laboratory
- > P.O. Box 2053
- > MD 2629 SRL Room 1517
- > Dearborn, MI 48121-2053 USA

email: mfreelsl@ford.com

Tel.:

(313) 594-7645

---- Original Message-----From: Power, James (J.H.)

Sent: Monday, September 09, 2002 9:10 AM

To: Freeland, Mark (M.)

Subject: FW: 16L Spark Plug Low Resistance Issue

read the attachment, seems the problem is fairly endemic.

----Original Message----

From: Goodwin, William (W.R.)

Sent: Friday, September 06, 2002 1:24 PM

To: Power, James (J.H.)

Subject: FW: 16L Spark Plug Low Resistance Issue

### Regards,

Bill Goodwin

Product Design Engineer, Ignition Systems V Engine Engineering, Ford Motor Company

Tel: 313 337-9579 Fax: 313 390-4084

email: wgcodwin@ford.com

textpage mailto:3137960571@alphapage.airtouch.com

----Original Message----

From: Below, Matthew [mailto:matthew.below@honeywell.com]

Sent: Friday, September 06, 2002 8:19 AM

To: 'Goodwin, William (W.R.)'; 'Pletta, Shari'

Cc: Elwell, Fred (F.); Weston, Eden J

Subject: RE: 16L Spark Plug Low Resistance Issue

----Original Message----

Prom: Goodwin, William (W.R.) [mailto:wgoodwin@ford.com] Sent: Wednesday, September 04, 2002 12:43 PM To: Eden Weston (E-mail); Matt Below (E-mail)

Co: Blwell, Fred (F.)

Subject: FW: 16L Spark Plug Low Resistance Issue

Importance: High

I have a specific request to supply an updated SD. When could you provide an update?

Regards,

Bill Goodwin Product Design Engineer, Ignition Systems V Engine Engineering, Ford Motor Company Tel: 313 337-9579 Fex: 313 390-40 Fax: 313 390-4084 email: wgoodwin@ford.com textpage mailto:3137960571@alphapage.airtouch.com From: Sent: To:

Subject:

Freetend, Mark (M.) Friday, September 08, 2002 1:32 PM Vondale, James (J.P.) Accepted: Updated: Mountaineer Rear Windows Opening White Oriving

Thank you for the new date. I will be there

Subject: Location: dPFE Redesign SRL Rm 1617

Stert: End: Mon 9/9/2002 10:00 AM Mon 9/9/2002 12:00 PM

Show Time As:

Tentative

Recurrence:

(none)

Meeting Status:

Not yet responded

Required Attendess: Optional Attendess:

Freeiand, Mark (M.); Allea, Sheran (S.A.); Kotwicki, Allan (A.J.) McCoy, James (J.D.)

Optional Attendess: McCoy, James (J.D.

Sent:

Freeland, Mark (M.) Thursday, September 06, 2002 5:13 PM

To:

Vondale, James (J.P.)

Subject:

Declined: Updated: Mountaineer Rear Windows Opening While Driving

## Shella,

I am sorry, but I will be out of the office from 1:00 pm 9/12 through close of business 9/17. I will on a plane traveling back from Nevada at the time you have rescheduled.

Can you propose any other alternative.

Thanks

Freeland, Mark (M.)

Sent

Thursday, September 05, 2002 3:54 PM

To:

McCoy, James (J.D.)

Subject:

RE: Spark plug reeletance checks

I'm all set for transport, Fred has the mountaineer in the N garage ready for tomorrow morning. Thanks

### Regards

#### Mark Freeland

6-Sigma Black Belt **Bugine Research Department** Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com-Tel: (313) 594-7645

#### -Original Message

From:

McCoy, James (J.D.)

Sents

Thursday, September 05, 2002 £2:08 PM

Tot

Presiand, Mark (ML)

Subjects

RE: Spark plug resistance checks

Mark, Sorry but Dennis has the vehicle this evening.

### Regards,

## Jim McCoy

Fuel Metering, Emissions & Ignition Systems Engineering Hardware Control Interface Group V-Engine Engineering POEE - MD#69 - Rm. D142 - Cube DF186 Phone (313) 33-79690 / Fax (313) 39-04084 B-Mail: jmccoyl@ford.com

#### -Original Measage-

Fromi

Freeland, Mark (N.)

Sents

Thursday, September 05, 2002 11:19 AM

Tex

McCoy, James (J.D.)

Bubject:

PW: Spark plug resistance checks

Jim, can you let me drive the Tribute tonight?

Thanks

#### Regards

Mark Freeland

6-Sigma Black Belt

Engine Research Department

Ford Research Laboratory

P.O. Box 2053

MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA

email: mfreela1@ford.com Tel.: (313) 594-7645

--- Original Message--

From:

Freedand, Mark (%)

Sants

Thursday, September 05, 2002 11:18 AM

Ton

Ewell, Fred (F.)

**Subject**:

RE: Spark plug restatance checks

Fred.

I would like to leave it tonight, so that the plugs soak overnight before being measured.

Jim, can you let me drive the Tribute tonight?

Thanks

Regards

Mark Preeland

6-Sigma Black Belt

Engine Research Department

Ford Research Laboratory

P.O. Box 2053

MD 2629 - SRL - Room 1517

Dearborn, MI 48121-2053 USA

email: mfreels1@ford.com

Tel.: (313) 594-7645

--- Original Message

**From:** 

Swell, Fred (F.)

**Benk** 

Wednesday, September 04, 2002 4:03 PM

Tol

Freeland, Mark (M.)

Ca

McCoy, James (1.D.); Power, James (1.H.)

Bubjects

RE: Spark plug restatance checks

### Mark,

We will be visiting Essex Engine plant tomorrow morning. If you can leave the vehicle here on Friday, I should be able to measure the plugs sometime during the day.

Promu

Predard, Mark (M.)

Seri:

Tuesday, September 03, 2002 12:38 PM

To: Co: Elwell, Fred (P.) McCoy, James (J.D.)

Bubject:

FW: Spark plug resistence checks

Fred,

When would be a good time for you to check out the plugs on the Mountaineer? If you would like I could come over to you're garage tomorrow morning or afternoon. If it will only take an hour I will stay with you, or if a lot longer then I can leave the vehicle with you and borrow wheels from Jim McCoy.

Thanks

Rogards

ER62-627-0 4736

#### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Leberatory P.O. Box 2053 MD 2629 - SRL - Room 1517 Deerborn, MI 48121-2053 USA email: mfreels1@ford.com Tel.: (313) 594-7645

### ----Crigital Message

Property

Ewel, Fred (F.)

Sent

Thursday, August 29, 2002 2:15 PM Freeland, Mark (M.)

Tai

Subjects

Power, James (J.H.) Sperk plug resistance checks

I was unable to pry Jim McCoy away from the vehicle long enough to get the plugs removed and checked for resistance. Please make arrangements with Jim Power and/or me next week after the labor day holiday. Have a good weekend.

Freeland, Mark (M.)

Sent

Thursday, September 05, 2002 2:38 PM

To: Co: McCoy, James (J.D.) Brogley, Martin (M.A.)

Subject:

RE: Spark plug restatunce checks

### Jim.

I forgot to tell you that the SRL employee who does 100 + per day is still interested in helping out drive the dPFE test vehicles. His name is Martin Brogley. Just let Martin know directly if you wish him to drive for you. He is real sharp, so a 5 min lesson on how to recall set up and save files on the ecope is all the instruction he will need.

### Regards

#### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com Tel.: (313) 594-7645

#### -Original Message

Promi

McCoy, James (J.D.)

Seriz

Thursday, September 05, 2002 12:08 PM Freeland, Mark (M.)

Subjects

RE: Spark plug resistance checks

Mark, Sorry but Dennie has the vehicle this evening.

### Regards,

# Jim McCoy

Fuel Metering, Emissions & Ignition Systems Engineering Hardware Control Interface Group V-Rugine Engineering POBE - MD#69 - Rm. D142 - Cube DF186 Phone (313) 33-79690 / Fax (313) 39-04084 E-Mail: mccoy1@ford.com

### ---- Original Message

From:

Presidenti, Mark (M.)

Bents

Thursday, Saptamber 05, 2002 11:19 A4

Tei

McCoy, James (J.D.)

PW: Spark plug resistance checks

Jim, can you let me drive the Tribute tonight?

#### Thanks

#### Regards

#### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517

Dearborn, MI 48121-2053 USA email: mfreels1@ford.com

Tel.: (313) 594-7645

### -Original Message

Promi

Freedand, Mark (M.)

Ewell, Fred (F.)

Sent

Thursday, September 05, 2002 11:18 AM

Tec Bubbects

RE: Spark plug resistance checks

Fred.

I would like to leave it tonight, so that the plugs soak overnight before being measured.

Jim, can you let me drive the Tribute tonight?

Thenks

#### Regards

### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreelal@ford.com Tel.: (313) 594-7645

## ----Original Message

Promi

Elvell, Fred (F.)

تاسعگ

Wednesday, September 04, 2002 4:03 PM

Toi

Preciand, Mark (M.)

McCoy, James (J.D.); Power, Jernes (J.H.)

Skitzjecki

RE: Spark plug resistance checis:

We will be visiting Essex Engine plant tomorrow morning. If you can leave the vehicle here on Friday, I should be able to measure the pluge cometime during the day.

#### -Original Mountge

Freezi

Fredenci, Mark (M.)

Tuesday, September 03, 2002 12:38 PM

Tos

Swell, Fred (F.)

Subject

McCoy, James (J.D.) PW: Spark plug redstance checks

#### Fred.

When would be a good time for you to check out the plugs on the Mountaineer? If you would like I could come over to you're garage tomorrow morning or afternoon. If it will only take an hour I will stay with you, or if a lot longer then I can leave the vehicle with you and borrow wheels from Jim McCoy.

#### Thenks

### Regards

### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel.: (313) 594-7645

### -Original Message-

From:

Ewell, Fred (F.)

Sents

Thursday, August 29, 2002 2:15 PM Freeland, Mark (M.)

Tos œ

Power, Jernes (J.H.)

Spark plug resistance chades

I was unable to pry Jim McCoy away from the vehicle long enough to get the plugs removed and checked for resistance. Please make arrangements with Jim Power and/or me next week after the labor day holiday. Have a good weekend.

Freeland, Mark (M.)

Bent: To:

Thursday, September 05, 2002 11:19 AM

Subject:

McCoy, James (J.D.) FW: Spark plug resistance checks

Jim, can you let me drive the Tribute tonight?

Thanks

### Regards

#### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com Tel.: (313) 594-7645

### -Original Measage-

**Franc**i

Preciand, Mark (M.)

Contr

Thursday, September 05, 2002 11:18 AM

To:

Ewell, Fred (F.)

**Cublect:** 

RE: Sperk plug resistance checks

### Fred.

I would like to leave it tonight, so that the plugs soak overnight before being measured.

Jim, can you let me drive the Tribute tonight?

Thanks

Regards

#### Mark Freeland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreels1@ford.com Tel.: (313) 594-7645

### -Original Message

From:

Ewell, Fred (F.)

Seut

Wednesday, September 04, 2002 4:03 PM Preciand, Mark (M.)

Tor

NcCoy, James (J.D.); Power, James (J.H.)

RE: Spark plug resistance checks

#### Mark.

We will be visiting Essex Engine plant tomorrow morning. If you can leave the vehicle here on Friday, I should be able to measure the plugs sometime during the day.

#### -Original Miserage

**From:** 

Freeland, Mark (ML)

Sent

Tuesday, September 03, 2002 12:38 PM

Tα

Elwell, Fred (F.) MoCoy, James (J.D.)

ول والأطباق

FW: Spark plug resistance chacks

#### Fred.

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### Thanks

#### Regards

### Mark Procland

6-Sigma Black Belt Engine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA emsil: mfreels1@ford.com Tel.: (313) 594-7645

### -Original Message-

From

Ewel, Fred (F.)

وانفو

Thursday, August 29, 2002 2:15 PM

ĈŒ.

Freeland, Mark (M.)

Power, James (J.H.)

**Bublect**:

Sport plug resistance chacks

I was unable to pry Jim McCoy away from the vehicle long enough to get the plugs removed and checked for resistance. Please make arrangements with Jim Power and/or me next week after the labor day holiday. Have a good weekend.

Freetand, Mark (M.)

Senć

Thursday, September 05, 2002 11:18 AM

To:

Elwell, Fred (F.)

**Subject**:

RE: Spark plug resistence checks

#### Fred.

I would like to leave it tonight, so that the plugs soak overnight before being measured.

Jim, can you let me drive the Tribute tonight?

Thanks

Regards

Mark Freeland

6-Sigma Black Belt

Engine Research Department

Ford Research Laboratory

P.O. Box 2053

MD 2629 - SRL - Room 1517

Dearborn, MI 48121-2053 USA

email: mfreels1@ford.com

Tel.: (313) 594-7645

### -Original Message

Front

Ewall, Fred (F.)

Sent

Wednesday, September 64, 2002 4:03 PM Freetend, Mark (M.)

Tei

Сa

McCoy, James (J.D.); Power, James (J.H.)

Subjects

RE: Sperk plug resistance checks

We will be visiting Essex Engine plant tomorrow morning. If you can leave the vehicle here on Friday, I should be able to measure the pluge sometime during the day.

#### ---Original Message-

Profes

Sont To:

Freeland, Mark (ML) Tuesday, September 03, 2002 12:39 PM

Bwell, Red (F.) McCoy, James (J.D.)

**Saddeo**ti

FW: Sperk plug resistance checks

### Fred.

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Thanka

Regards

Mark Freeland

6-Sigma Black Belt

PRE2-027-0 4744

Ragine Research Department Ford Research Laboratory P.O. Box 2053 MD 2629 - SRL - Room 1517 Dearborn, MI 48121-2053 USA email: mfreela1@ford.com Tel: (313) 594-7645

-Original Massage

Fracti

Ewell, Red (F.)

Sents

Thursday, August 29, 2002 2:15 PM Freetand, Mark (M.) Poner, James (J.H.) Spark plug resistance checks

Tex

Bubject

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