



2014 Odor Project

Team:

Aftertreatment system – John Shanahan:

Mira Bumbaroska, Marcus Fried

Vehicle Integration – Larry Kummer:

Lokesh Setti, Brent Rajaniemi, Harish Thiruvengadam

ATS Exhaust: Greg Johnson

Jeff Sloss

March 6, 2015

EA17-002 000001 TR



3.5L Explorer Exhaust Odor Mitigation Project

Sep 24, 2013

Update: November 25th, 2013

WOT Power Enrichment

Additional Odor Testing

Back up slides

2. In-cabin CO vs. In-cabin Odor Ranking



Police Utility Findings in Athol PD, MA

Harish Thiruvengadam

VI Attribute
08/7/17

EA17-002 000051 TR

Slide 1 (of 10)

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Police Utility Findings in Auburn PD, MA

Harish Thiruvengadam, Casey Dietrich(cal), Kerry Havener(exh),
James Tomaso(FCSD)



Austin PD PIU findings summary

VI Attribute
10/9/17

EA17-002 000120 TR

Slide 1 (of 4)



Police Utility Findings in Bolton PD, MA

Harish Thiruvengadam

VI Attribute
08/7/17

EA17-002 000124 TR

Slide 1 (of 10)



Fountain Colorado Summary

VI Attribute
08/16/17

EA17-002 000128 TR

Slide 1 (of 11)

Indianapolis Police Explorer 1FM5K8AR7FG

Investigation Date: July 26 2017

Powertrain PVT: Richard Young

Air Leakage PVT: Spencer Urso



Nassau County NY

Vehicle Engineering
08/20/17

Privileged and Confidential

EA17-002 000152 TR

VIN [REDACTED] (continued)



Privileged and confidential

Nassau County CO monitor





Task Force U502 Repair Report



10/27

2016 PIU U502 - Metro Ford of Madison, WI

EA17-002 000160 TR



PIU Butyl sealant findings

VI Attribute
8/8/17

EA17-002 000166 TR

Slide 1 (of 10)





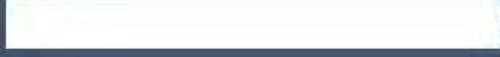




Police Utility Findings in MSP



VEHICLE #1



VEHICLE #2



Vehicle at arrival 1FM5K8AR5DG





Police Interceptor Utility Task Force

DRAFT

18 July 2017

EMV 002 000187 TR



Task Force Setup

on



Task Force Work Plan

on



On-site Visit Plan

on

Wave 1: 7/19-7/21

- Park City KS

Wave 2: week of 7/24

- Austin upfitter
- Austin dealer

Wave 3: week of 7/31

- California Highway Patrol
- LA PD
- Phoenix AZ

Team Members:

Randy Freiburger
Brent Rajaniemi
David Gillies
Andrew Little
Mike Collareno
FCSD local field rep



BACKUP/DATA



Released Technical Service Bulletins

Vehicle Integration

- 2011 - 2015MY Exhaust Odor
[tsb16-0166.pdf](#)
- 2016 – 2017MY Exhaust Odor
[tsb17-0044.pdf](#)

EA17-002 000200 TR



EXPLORER EXHAUST ODOR





NHTSA BRIEFING

UPDATE

10/20/2017

LEAK PATH INVESTIGATION AND CO MONITOR CALIBRATION





NHTSA BRIEFING

UPDATE

10/17/2017

FORD/NHTSA JOINT TESTING AT TRC





NHTSA BRIEFING

9/27/2017



BACKGROUND

- Police Interceptor Utility FSA

Article #17B25

<http://www.fordtechservice.dealerconnection.com>

- Training Video (insert link)

http://www.fordservicecontent.com/Ford_Content/videos/fsa/POLICE_LEAK_REPAIR_v4_HD_720.mp4



BACKUP





PIU Findings in Harris County, Texas

8/3/17

Customer contact: Joe Scott – Deputy, Grant County Sheriff's Department
Ford local contact: Kris McCall – FCSD Fleet Zone Manager

VI Attribute

EA17-002 000259 TR

Slide 1 (of 14)



Vehicle 1 as received (contd.)





Vehicle 1 as received (contd.)

_____n



EA17-002.000262 TR



PIU Findings in Grant County, Arkansas

VI Attribute
8/7/17

EA17-002 000264 TR

Slide 1 (of 14)



Vehicle 1 as received (contd.)



EA17-002 000266 TR



Vehicle 2 as received (contd.)





Vehicle 2 as received (contd.)

_____ n





Vehicle 2 as received (contd.)





Vehicle 2 as received (contd.)



EA17-002 000273 TR



Vehicle 2 repairs (contd.)



EA17-002-000275-TR



Vehicle 2 repairs (contd.)



EA17-002.000276 TR



U502 – Exhaust Y-Pipe Washington State Police Return

Analyses of dimple dent on Y-pipe
Potential root causes

PTI Exhaust CAE

Calvin Young

EA17-062-000295 TR

Examples of Jack-stands

Figure 12. Sample jack-stands



EA17-002.000331 TR



U502 Police Buyback Evaluations

VI Attribute
07/19/17

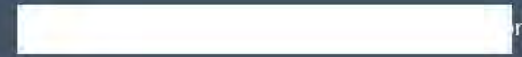
EA17-002 000519 TR

Slide 1 (of 29)



Evaluations (cont)





Backup

Regards,

Art Gariepy

Vehicle Integration Attribute Supervisor

PDC 2C-E56

313-805-0523



Police Utility Findings in WSP

Dealer Info:
VANCOUVER AUTO GROUP
6801 NE 40th ST Vancouver WA98661
Dale
360-992-7323

Team:
Harish Thiru (VI)
Eric Cowan (FSM)
07/31/18 – 8/3/18

EA17-002 000562 TR



BACK UP



U502 Police Buyback Evaluations

VI Attribute
05/31/17

EA17-002 000573 TR

Slide 1 (of 23)



Police Utility Findings in WSP

Team:

Harish Thiru (VI)

Randy Freiburger(SVE)

Eric Cowan (FSM)

11/17/17

EA17-002 000601 TR



Police Interceptor Utility Task Force

DRAFT

20 July 2017

EMV 7062 000609 TR



BACKUP/DATA



Released Technical Service Bulletins

- 2011 - 2015MY Exhaust Odor
[tsb16-0166.pdf](#)
- 2016 – 2017MY Exhaust Odor
[tsb17-0044.pdf](#)



PIU Findings in Grant County, Arkansas

VI Attribute
8/7/17

EA17-002 000633 TR

Slide 1 (of 14)



Vehicle 1 as received (contd.)



EA17-002 000635 TR



Vehicle 2 as received (contd.)





Vehicle 2 as received (contd.)





Vehicle 2 as received (contd.)





Vehicle 2 as received (contd.)



EA17-002 000642 TR



Vehicle 2 repairs (contd.)





Vehicle 2 repairs (contd.)





PIU Findings in Grant County, Arkansas

VI Attribute
8/7/17

EA17-002 000647 TR

Slide 1 (of 14)



Vehicle 1 as received (contd.)



EA17-002 000649 TR



Vehicle 2 as received (contd.)





Vehicle 2 as received (contd.)





Vehicle 2 as received (contd.)





Vehicle 2 as received (contd.)



EA17-002 000656 TR



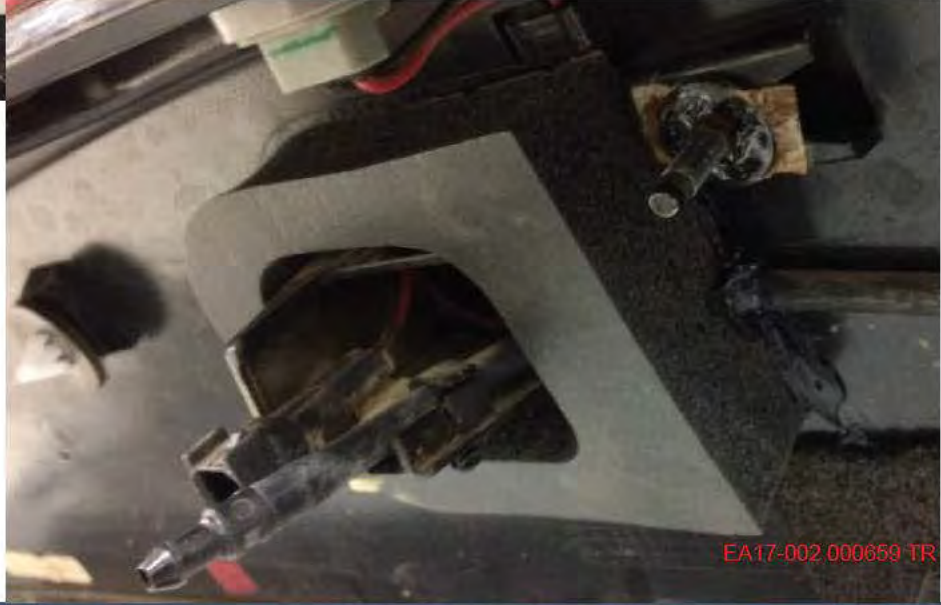
Vehicle 2 repairs (contd.)



EA17-002-000658 TR



Vehicle 2 repairs (contd.)



EA17-002.000659 TR



Fountain Colorado Unit Data

VI Attribute
08/15/17

EA17-002 000671 TR

Slide 1 (of 4)



Backup



Drive Route

The screenshot displays a Google Maps interface in a web browser. The browser's address bar shows a secure connection. The map is centered on Fort Carson, Colorado, with a route highlighted in yellow leading to Bluestem Prairie. The route information in the sidebar indicates a travel time of 22 minutes and a distance of 18.7 miles via I-25 S. The sidebar also includes a 'Send directions to your phone' option and a 'DETAILS' link. The map interface includes a 'Sign in' button in the top right, a compass and 3D view controls in the bottom right, and a taskbar at the bottom of the screen with the Windows logo, search bar, and various application icons. The system clock shows 12:07 AM on 8/16/2017.

Route	Time	Distance
via I-25 S	22 min	18.7 miles
22 min without traffic		

EA17-002 000676 TR



Fountain Colorado Summary

VI Attribute
08/16/17

EA17-002 000677 TR

Slide 1 (of 11)



Austin Unit Checklist

VI Attribute
08/14/17

EA17-002 000689 TR

Slide 1 (of 3)



Police Interceptor Utility Task Force

DRAFT

2017 July 2017
EPA 17-062 000703 TR



BACKUP/DATA



Released Technical Service Bulletins

- 2011 - 2015MY Exhaust Odor
[tsb16-0166.pdf](#)
- 2016 – 2017MY Exhaust Odor
[tsb17-0044.pdf](#)



State College PA

Vehicle Engineering
02/13/18

EA17-002 000728 TR

Slide 1 (of 6)



Backup



16MY - 1FM5K8AR6GG [REDACTED]



EA17,002 000735 TR



Police Utility Findings Washington State Police

Team:

Harish Thiru (VI)

Randy Freiburger(SVE)

Eric Cowan (FSM)

11/17/17

EA17-002 000736 TR



PIU findings in Osceola county PD, Kissimmee, FL

Harish Thiruvengadam 2/28/18 – 3/1/18

Dealer: Mullinax Ford of Kissimmee
1810 East Bronson Hwy.
Kissimmee, FL 34744
407-846-6000

P&A Code 08226
SM: Greg Barton
FSE: Matt Hill (MHILL178)
Customer: Osceola County, FL
Fleet Manager: John Holl EA17-002 000746 TR
Phone: 407-709-2013

VI Attribute
03/1/18



Police Utility Findings in Vermont State PD

Harish Thiruvengadam(VE), Michael Collareno(exhaust), Dan Mazurek(Fleet sales)
2/13 to 2/15

**Saw cracks but no codes, no high ppm levels. No p-codes? in any of the 3
Meet with mary, devries.
10ppm had ground strikes**



Summary of Flood Ford Visit

VI Attribute
02/09/18

EA17-002 000757 TR

Slide 1 (of 6)



Summary of State College Visit

VI Attribute
02/13/18

EA17-002 000763 TR

Slide 1 (of 6)



Summary of SD Visit

VI Attribute
02/16/18

EA17-002 000769 TR

Slide 1 (of 6)



State College PA

Vehicle Engineering
02/13/18

EA17-002 000773 TR

Slide 1 (of 8)



Backup

7/23/2019

EA17-002 001038 TR

7/23/2019

EA17-002 001050 TR

autopilot®

CO₂ / TEMP / RH
MONITOR DATA LOGGER



CO₂ RANGE 0-5000ppm

RH RANGE 10-95%

TEMP RANGE 32-122°F (0-50°C)



HIGH



TARGET



LOW

Too High/Low when F



CO₂
TEMP
RH



1 MIN
1 HOUR
1 DAY
1 WEEK



ME



HO

2-CH. GAS SE

autopilot®

CO₂ / TEMP / RH
MONITOR DATA LOGGER

TARGET ZONE



CO₂ RANGE 0-5000ppm RH RANGE 10-95%
TEMP RANGE 32-122°F (0-50°C)



HIGH

TARGET

LOW

Too High/Low when



CO₂
TEMP
RH



1 MIN
1 HO
1 DA
1 WE



ME



HO

2-CH. GAS S

autopilot

MONITOR



TARGET
LOW

Too High/Low when Flashing

▲

CO₂
TEMP
RH

▼

1 MIN
1 HOUR
1 DAY
1 WEEK

☰

MENU

ENTER

HOLD H

CO₂ RANGE 0-5000ppm
TEMP RANGE 32-122°F (0-50°C)
RH RANGE 10-95%

2-CH. GAS SENSORS

Oil Change
Required



OK

040717.9mi

autopilot[®] CO₂ / TEMP / RH
MONITOR DATA LOGGER



13 10 CO₂
PPM

29% RH 82.2 TEMP
°F

CO₂ RANGE 0-5000ppm RH RANGE 10-95%
TEMP RANGE 32-122°F (0-50°C)

CO₂ LE

HI
TA
LO

Too High/Low

▲

▼

☰

ENTER

3-CH GAS

Oil Change
Required



OK

040717.9mi

autopilot[®] CO₂ / TEMP / RH
MONITOR DATA LOGGER



CO₂ RANGE 0-5000ppm RH RANGE 10-95%
TEMP RANGE 32-122°F (0-50°C)

CO₂ LEVEL

- HIGH
- TARGET
- LOW

Too High/Low when Flashing

- CO₂
- TEMP
- RH
- 1 MIN
- 1 HOUR
- 1 DAY
- 1 WEEK
- MENU
- ENTER - HOLD HOME

2-CH. GAS SENSOR



PIU TASK FORCE BRIEFING UPDATE

9/12



SUPPORTING MATERIAL





Austin PD Police Interceptor Utility

Vehicle Engineering

DRAFT



BACKUP





PIU TASK FORCE BRIEFING UPDATE

9/7



SUPPORTING MATERIAL





PIU TASK FORCE BRIEFING UPDATE POST GLM



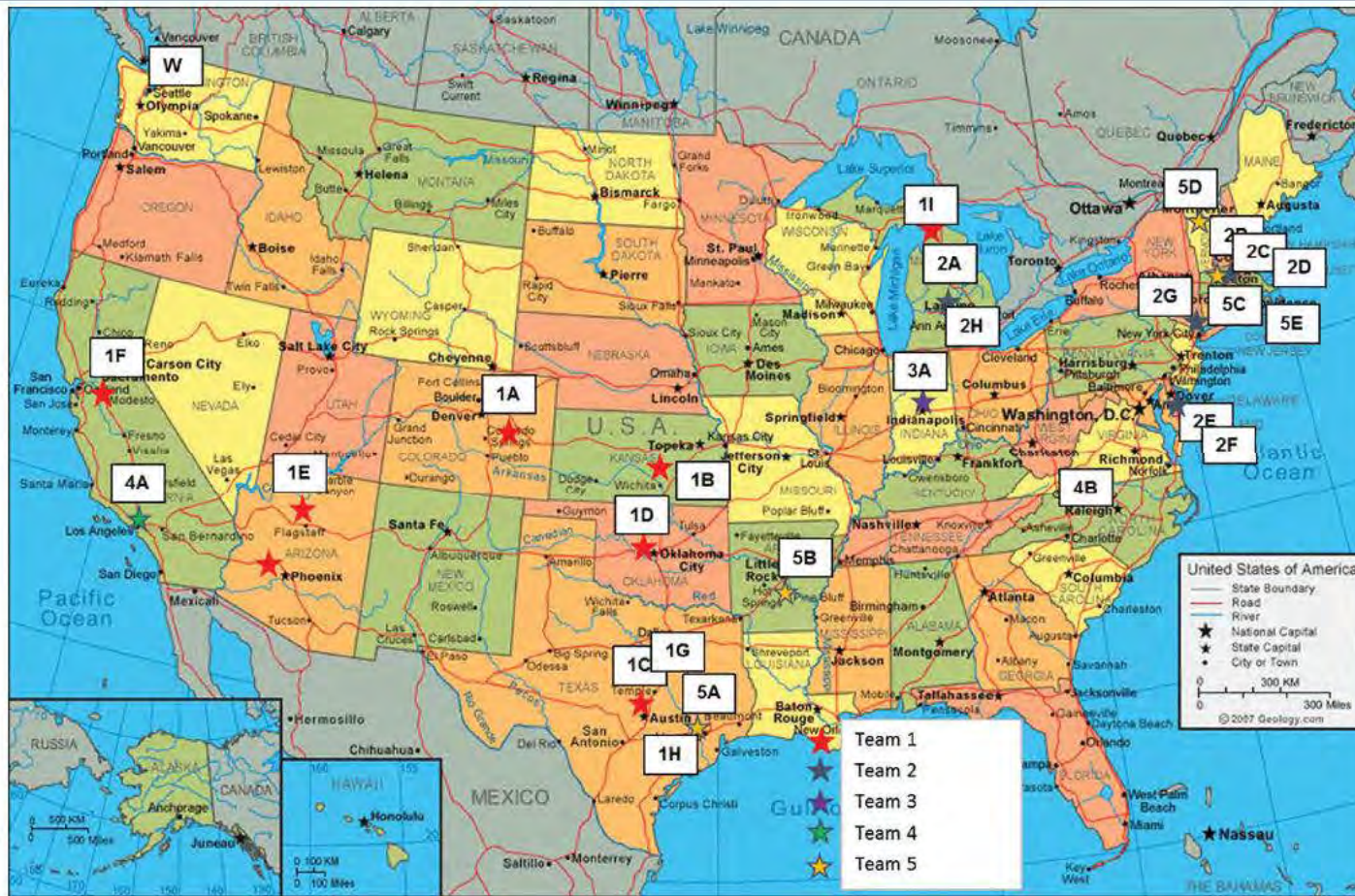
CO BENCHMARKING



WHAT WE HAVE FOUND



WHERE WE HAVE BEEN



PORTABLE CO DETECTOR



PORTABLE CO DETECTORS 101 PROPER USE AND CARE



SUPPORTING MATERIAL





Police Utility Findings in Park City Unit

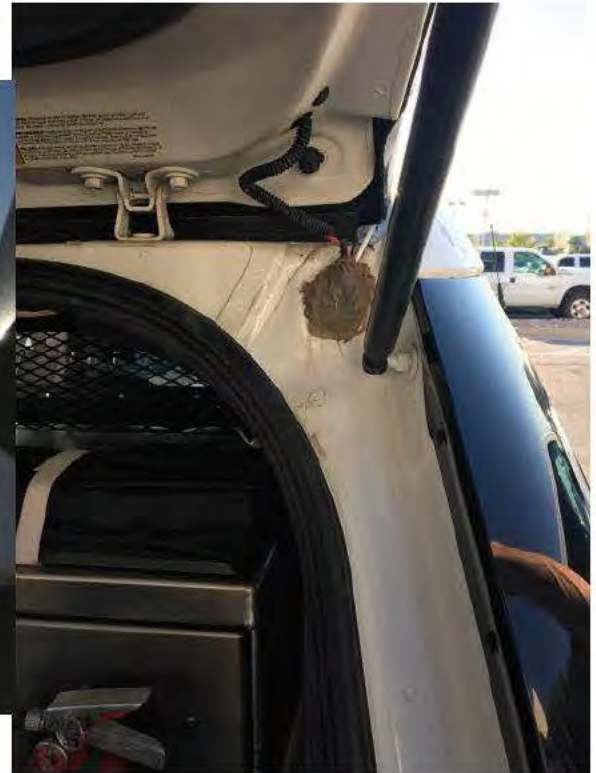
VI Attribute
07/20/17



Vehicle at arrival



Vehicle at arrival(cont)



Vehicle at arrival(cont)





PIU Findings in Grant County, Arkansas

VI Attribute
8/7/17



Police Utility Findings in MSP

VI Attribute
08/1/17



Police Utility Findings in Flagstaff

VI Attribute
07/31/17



2013 – 2015MY 3.7L TiVCT LAPD Manicat Police Returns

Michael Collareno

June 30, 2017

Vehicle at arrival(cont)





2013 – 2015 MY Manicat Package



2013 TASE Manicat Signoff Data – Police Application

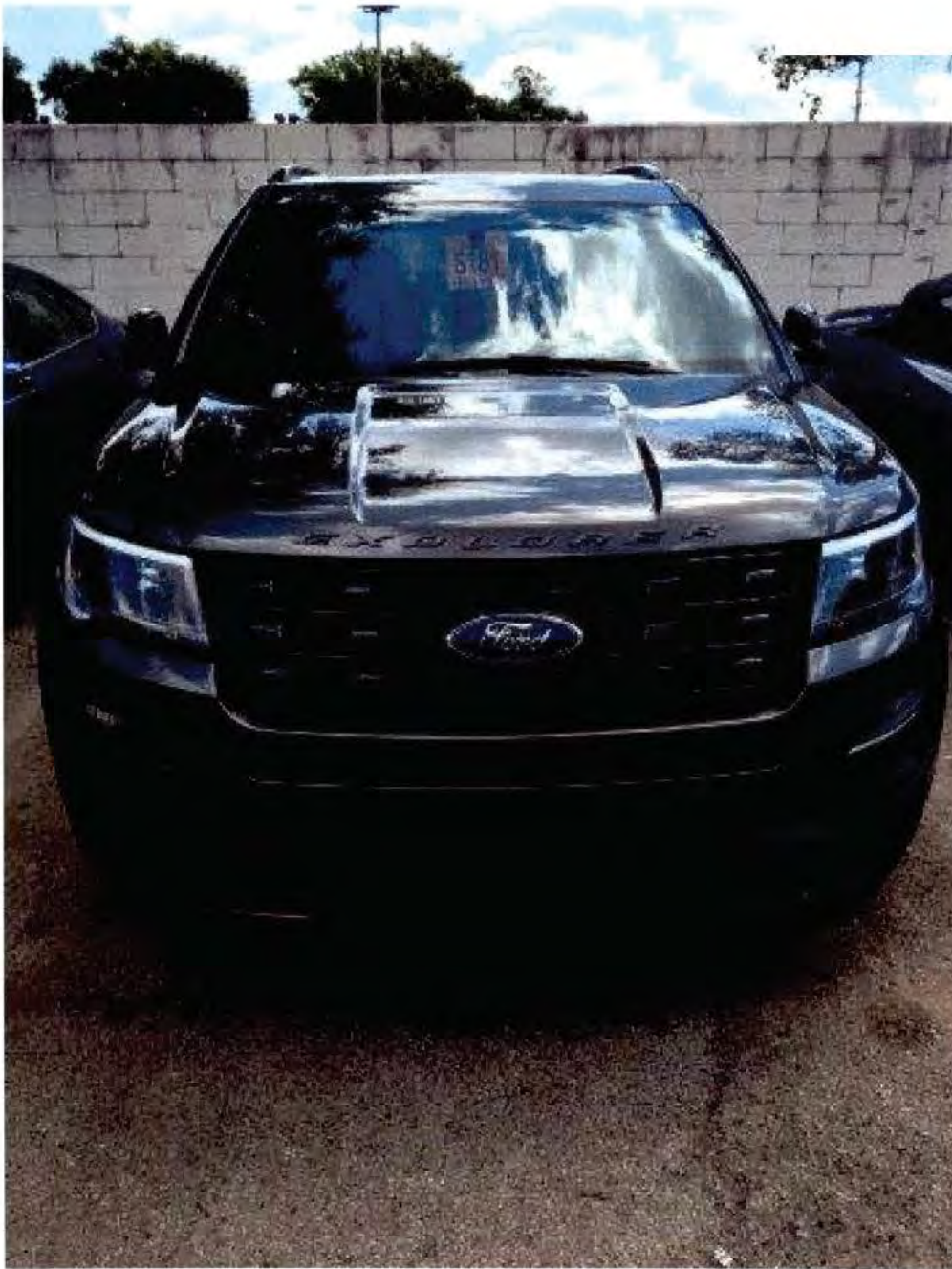


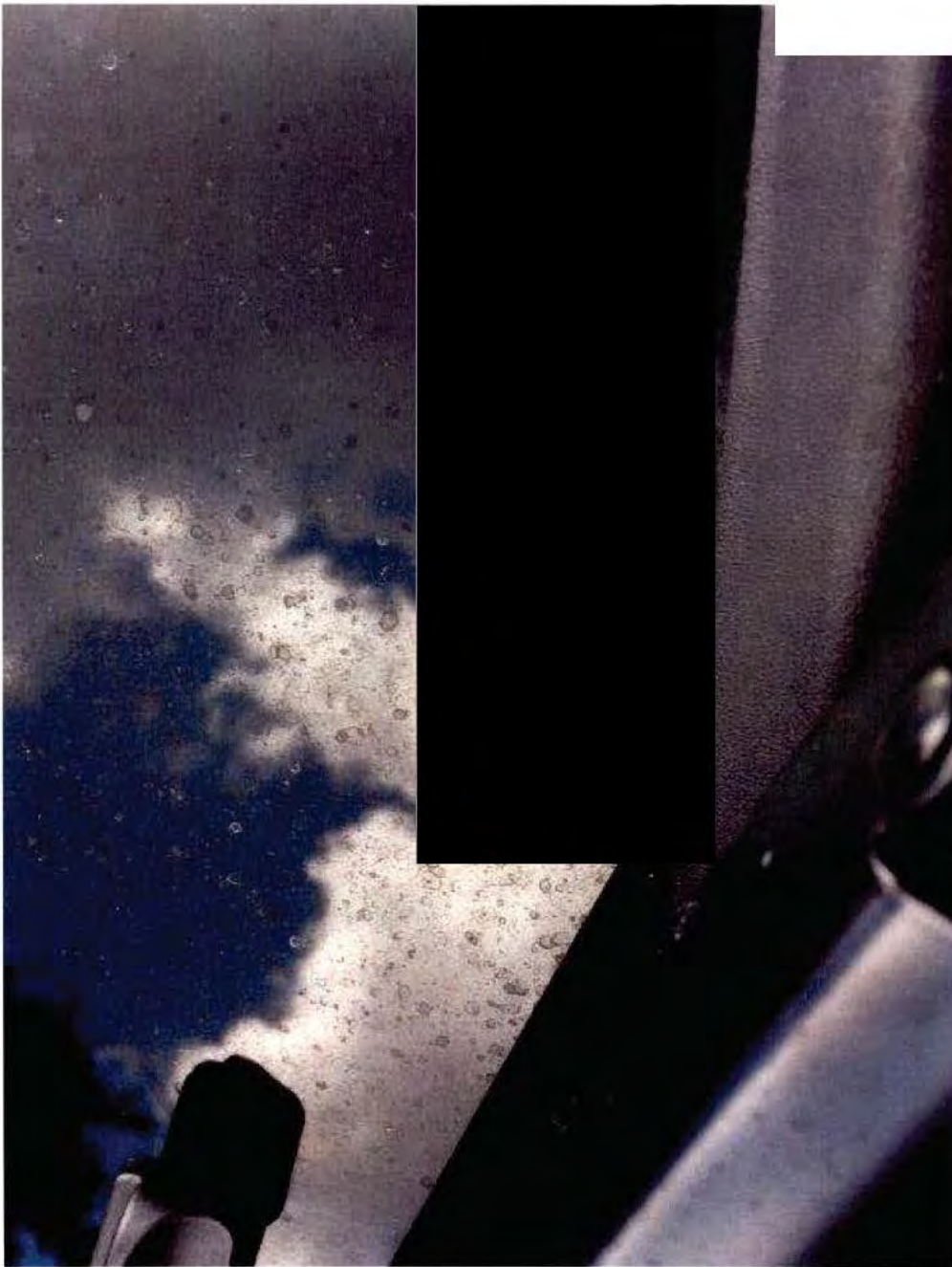
2016/2017MY Manicat Design

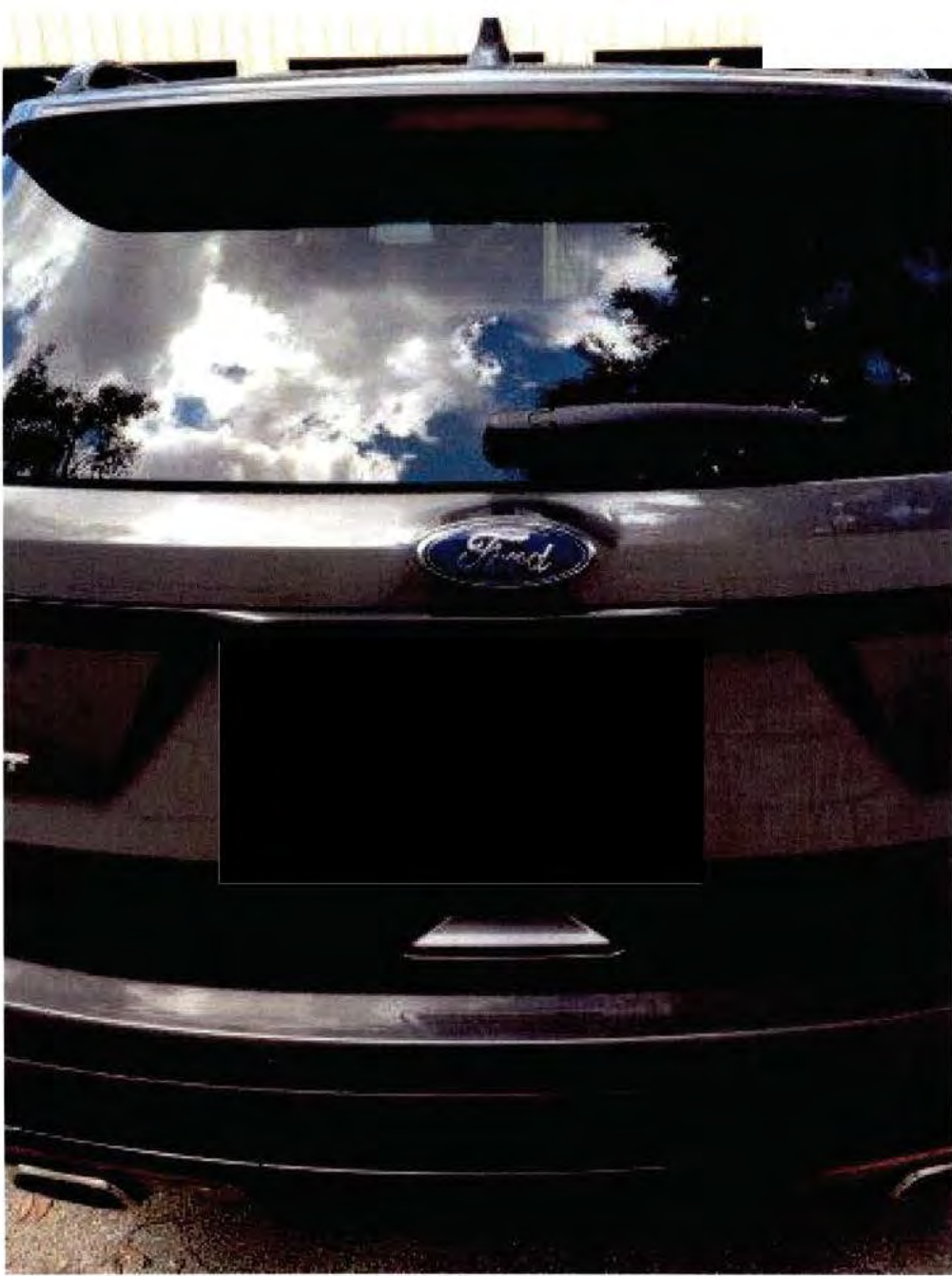


2016 / 2017 Manicat Mixer















Select Option

All CMDTCs

Pass - ABS

Pass - ACM

Pass - APIM

Pass - ATCM

Pass - C-CM

Pass - DACM-C

Pass - ODM

Pass - DSM

Pass - DSP

Pass - FCIM-B

Pass - GPSM

Pass - GWM

Pass - HSWM



Engine KOER ODDTCs

Pass - PCM

Engine KOER CMDTCs

Pass - PCM

Select item for more in

