Mercedes-Benz

Application for Certification – Part 1
2016 Model Year

Specific Sections

Test Group
GMBXT03.0U2A

Durability Group:	GMBXDPDNNPP3
Evaporative Family:	N/A
EPA Summary Sheet No.:	CSI-GMBXT03.0U2A
Durability Group Description:	Diesel Cycle - Four Stroke - water cooled – Piston-diesel – direct injection Pt Oxidation Catalyst (OC) Diesel Particulate Filter (DPF) Selective Catalytic Reduction Catalyst (SCRC)
Test Group Description(s):	3.0 L V6
Applicable Standards:	Federal State: T2 BIN 5 - LTD4 California: LEV II (ULEV)
OBD Group Name:	CR_B
Vehicle(s) Covered:	GL 350 BLUETEC 4MATIC GLE 350 d 4MATIC GLE 350 d 4MATIC (coupe)
Vehicles Tested:	Exhaust: X166DE30TC 4x4 – Z3029-1 Evap: N/A

EPA Response Requested By:
Brian FitzGerald, Phone: (734) 997-2002

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Revisions:

Issue Date / Revision Date	Affected Pages	Description of Changes
Apr-17-15	all	Initial Version
Jun-30-15	p.14	Statement added to AAF table
Jun-06-16	p.14 & CSI	Updated AAF to reflect MY15 C/O data

S-01: Correspondence

(refer to S-01 in common section for a complete list of contacts)

Ashim Manchanda
Manager, Government Liaison, CARB
Resp.: CARB Liaison
Phone: 310.547.6033, Fax: 310.518.3060
e-mail: ashim.manchanda@daimler.com

John Lipa
Manager, Government Liaison, EPA
Resp.: EPA Liaison
Phone: 734.997.2032, Fax: 734.995.1342
e-mail: John.Lipa@Daimler.com

S-02: Durability Group Description

Please refer to the common application for certification.

S-03: Evaporative/Refueling Family Description

ORVR Testing Waiver per CFR § 86.1810-01 (k) + (m)
Due to the low vapor pressure of diesel fuel and the vehicle tank temperatures, hydrocarbon vapor concentrations are low and the vehicle meets the 0.20 grams/gallon refueling emission standard without a control system.

S-04: Durability Procedure Description

Please refer to the common application for certification.

S-05: Test Group Description

The summary sheet numbers are provided on the cover page of this application. The Test Group Description is provided in section 2 of the common application as part of the durability group description.

S-06: Test Vehicle Description

vehicle use	car number	vehicle type	engine displ. [cm^3]	engine code	transm.	ETW [lbs]	exhaust emission control system
EDV-Ex	X166-Z3029-1	X166DE30TC	2987	OM642D30TC	L-7	6000	DFI/TC/CAC/EGR/EGRC/OC/DPF/SCRC/NOXS(2)/WR-HO2S/PMS
DDV-Ex	L906-1056	L906-1056-L906DE30TC (4,53to)	2987	OM642D30TC	L-7	8500	DFI/TC/CAC/EGR/EGRC/OC/DPF/SCRC/NOXS(2)/WR-HO2S

The following test data for MY2016 is a carry-over from MY2015:

MY15 TG exhaust:	FMBXT03.0U2A	c/o to MY16 TG exhaust:	GMBXT03.0U2A
MY15 DG exhaust:	FMBXDPDNNPP2	c/o to MY16 DG exhaust:	GMBXDPDNNPP3

Test parameters can be taken from the Verify Summary sheets in section S-07.
Certified Models

Test Group	Model Name	Veh. Code	curb weight [lbs]	GVW [lbs]	LVW [lbs]	ALVW [lbs]	EPA car class
GMBXT03.0U2A	GLE 350 d 4MATIC (coupe)	C292DE30TC 4x4	5388	6393	5688	5891	T2/BIN 5 LDT 4 - ULEV II LDT 2
	GLE 350 d 4MATIC	W166DE30TC 4x4	5281	6504	5581	5893	
	GL 350 BLUETEC 4MATIC	X166DE30TC 4x4	5719	7165	6019	6442	

VI sheet Exhaust EDV

Verify Processing Report

Verify Processing Report

Total Datasets Submitted: 1
Accepted Datasets: 1
Rejected Datasets: 0

The original datasets are listed below. In addition, any information generated by the Verify system is also included. For any rejected datasets, the reason(s) the dataset was rejected is provided below in the Transaction Report for that particular dataset.

Test Vehicle Information Submission

Test Vehicle Information Details

Information Process Code : N
EPA Manufacturer Code : MBX
Vehicle Identification Text : X166DE30TC-Z3029-1
Vehicle Configuration Number : 0

Vehicle Configuration Details

Vehicle Description Details

Manufacturer Vehicle Configuration Number : 0
Test Group Name : DMBXT03.0U2C
Model Year : 2013
Actual Test Vehicle Make Text : Mercedes-Benz
Actual Test Vehicle Model Text : GL 350 BLUETEC 4MATIC

Drive Source Details

Drive Source Identifier : C
Fuel Identifier : D

Test Drive Code : R
Shift Indicator Light Usage Identifier : 1
Aged Component Usage Identifier : 4

Odometer Correction Details

Correction Initial Value : 184
Correction Factor Value : 0.9856
Correction Sign Identifier : -
Correction Units Code : M

Engine Code Text : OM642-30
Engine Rated Horsepower Value : 240
Engine Displacement Value : 2.987

Air Aspiration Details

Air Aspiration Method Identifier : TC
Air Aspiration Device Count : 1
Air Aspiration Configuration Identifier : N

Charge Air Cooler Identifier : A

Verify Processing Report

Vehicle Specifications Details

Curb Weight Value : 5717
Equivalent Test Weight Value : 6000
Gross Vehicle Weight Rating Value : 7165
NV Ratio Value : 28.8
Axle Ratio Value : 3.46

Transmission Specifications Details

Light Duty Transmission Type Identifier : A
Transmission Lockup Indicator : Y
Transmission Creeper Gear Indicator : N
Transmission Gear Count : 7

Target Set Coefficient Details

Test Procedure Dynamometer Coefficients Category : US06
Target CoefficientA Value : 67.959
Target CoefficientB Value : 0.75331
Target CoefficientC Value : 0.022853
Set CoefficientA Value : 39.836
Set CoefficientB Value : 0.06136
Set CoefficientC Value : 0.029631

Target Set Coefficient Details

Test Procedure Dynamometer Coefficients Category : Cold-CO
Target CoefficientA Value : 75.51
Target CoefficientB Value : 0.83701
Target CoefficientC Value : 0.025393
Set CoefficientA Value : 44.692
Set CoefficientB Value : -0.0879
Set CoefficientC Value : 0.033573

Target Set Coefficient Details

Test Procedure Dynamometer Coefficients Category : C-H-E
Target CoefficientA Value : 67.959
Target CoefficientB Value : 0.75331
Target CoefficientC Value : 0.022853
Set CoefficientA Value : 39.836
Set CoefficientB Value : 0.06136
Set CoefficientC Value : 0.029631

Manufacturer Comment Text : 295/40 R21 (PIR)

EPA Generated Test Vehicle Details

Original Receipt Date : 20120731
Hybrid Vehicle Indicator : N
Adjusted Loaded Vehicle Weight Value : 6441

Verify Processing Report

Loaded Vehicle Weight Value : 6017
Total Road Load Horsepower Value : 21.7

Transaction Status Details

Transaction Status Identifier : ACCEPTED

S-07: Test Results

Link to CSI

	Designation	EVAP Family	Date
1	Certification Summary Information Report	N/A	30/06/2015

S-08: Statements

Please refer to the common application for certification.

S-09: OBD-System Information

The OBD approval is listed in specific section 14.

S-10: Alternate Fuel (if applicable)

This test group does not cover flexible or dedicated alternate fuel vehicles.

S-11: List of AECD

Please refer to S-16 for a detailed description of AECDs including functional explanations.
AECD located at the end of document

Link to AECD

S-12: Identification and Description of certified vehicles

The identification and description of all vehicles covered by the certificate is given
- in section 02 (common) for exhaust purposes
- in section 03 (common) for evaporative/refuelling families

All appropriate test parameters necessary to conduct an official certification exhaust or evaporative emission test are provided in sections 07 or 17.

S-13: Projected US vehicle sales

Please refer to the common application for certification.

S-14: Request for Certificate

S-14-01: Request for Certificate

Mercedes-Benz requests that EPA issues a certificate of conformity and that ARB issues an executive order for the test group listed on the cover page of this application.

The applicable test results are listed in section 07. The test group complies with all applicable regulations contained within 40 CFR Part 86. The application is current as of this date.

Klaus Land

Note: Compliance statements are listed in the common section 08.

S-14-02: OBD approval

For OBD approval see confidential section (S-16)

S-14-03: Fee filing form

EPA

U.S. Environmental Protection Agency
Motor Vehicle and Engine Compliance Program
On-Highway Fee Filing Form
For Certification Applications Received In Calendar Year 2015

Manufacturer Name Mercedes-Benz USA, LLC

Address One Mercedes Drive

City/State/Zip Code/Country Montvale, NJ 07645

On-Highway Certification Request Type (check one)

- [x] LDV/LDT/MDPV/HDV (Chassis cert) FEDERAL ($26,741)
- [ ] LDV/LDT/MDPV/HDV (Chassis cert) CAL-ONLY ($14,193)
- [ ] HDE (Engine Dyno cert) FEDERAL ($47,664)
- [ ] HDV EVAP-ONLY ($563)
- [ ] HDE CALIF-ONLY ($563)
- [ ] MOTORCYCLE ($1,852)
- [ ] LD/MDPV/HDV ICI ($76,399)

EPA standard family or test group: G M B X T 0 3 . 0 U 2 A

Amount paid (U.S. Funds Only): $ 26,741.00

Enter the check number, or the statement "WIRE" or "ACH": WIRE

Reduced Fee Section (40 CFR §1027.120)

Reduced fee calculation (minimum initial payment $750): Total number of vehicles/units covered:___
Aggregate retail sales price of the vehicles/units: $ _____ x 1% = $ _____
Check box if an Independent Commercial Importer: [ ] List the VIN of imported vehicles/engines below:

Company Representative: R-Thomas Brunner Signature: R Thomas Brunner

Title: Dept.Manager, VCA Phone/Fax: 201.573.2622 / Date: 01 / 05 / 2015

E-mail Address: r-thomas.brunner@mbusa.com

Submission of payments and forms:
(1) Online: **Forms** may be found and submitted with or without **payments** online at www.Pay.gov.
(2) By mail: For check payments only, send **checks** and this **form** to:

Environmental Protection Agency
Motor Vehicle and Engine Compliance Program
P.O. Box 979032
St. Louis, MO 63197-9000

(3) Transmit offline Wire **payments** to the New York Federal Reserve Bank. (See Instructions, p.2)
(4) Transmit offline ACH **payments** to the Federal Reserve Bank of Cleveland. (Instructions, p.2)
(5) **Forms** not submitted under (1) and (2) above can be sent as email attachments to Fees@epa.gov.
Forms and payments sent in ways other than the above may be delayed or ineffective. See the Instructions for sending checks and forms by private mail service (e.g., Federal Express).

The public reporting and recordkeeping burden for this collection of information is estimated to average 18 minutes per response. Send comments on EPA's need for this information, the accuracy of the provided burden estimate, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques, to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed Form 3520-29 to this address.

This form approved under OMB control number 2060-0545 until October 31, 2016. EPA Form 3520-29 (revised 10-2013).

S-14-04: Approval Letters low ash oil

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
2565 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105-2498

OFFICE OF
AIR AND RADIATION

September 27, 2005

RECEIVED
OCT 07 2005
R. R. MODLIN

Mr. Reginald Modlin
Director, Environmental and Energy Planning
DaimlerChrysler Corporation
800 Chrysler Drive
Auburn Hills, MI 48326-2757
CIMS 482-00-71

Mr. Modlin,

Thank you for your August 30, 2005 letter regarding DaimlerChrysler's desire to use low ash content engine oil to certify your clean light-duty diesel vehicles. As you correctly noted in your letter, EPA Guidance Documents CCD-01-12 (Use of GF-3 Engine Oil in Test Vehicles) and CCD-04-07 (Use of GF-4 Engine Oil in Certification and Fuel Economy Test Vehicles) are the basis for how EPA determines how to deal with unique engine oils with respect to certification and fuel economy testing.

EPA agrees that the use of low ash content engine oil (0.8%) will be beneficial to allowing new advanced particulate filter systems to meet their full potential for performing over the full useful life of the vehicles. Our primary concern with manufacturer's request to certify with unique engine oils is that these oils be readily available to consumers. We realize that the number of light-duty diesel vehicles in the U.S. is low and that the demand for clean light-duty diesel engine oil is also low and that it will be initially difficult to establish widespread distribution of low ash oil.

The plan proposed by DaimlerChrysler for the use and certification of low ash content engine oil, which includes the availability of the low ash engine oil at the 4,300 DaimlerChrysler dealerships in the U.S., the investigation of the potential for making the engine oil available through automotive aftermarket retail chains (Auto Zone, NAPA, etc.) through DaimlerChrysler's MOPAR aftermarket organization, and the continued work with oil manufacturers to market the oil through their outlets and promote the use of the oil at "quick oil change" facilities, appears to be reasonable. Therefore, we are approving DaimlerChrylser's plan to use low ash content engine oil for the certification of light-duty diesel vehicles.

Printed on Recycled Paper

Please let me know if you any additional questions. You can contact me at 734-214-4286.

Sincerely,

Linc Wehrly
Compliance and Innovative Strategies Division
Office of Transportation and Air Quality

S-15: HEV-specific data (if applicable)

No Hybrid Electric Vehicles (HEV) are part of this test group.

Included Attachments

1. Certification Summary Information Report (CSI)

Certification Summary Information Report

Manufacturer	Mercedes Benz	**Manufacturer Code**	MBX
Test Group	GMBXT03.0U2A	**Evaporative/Refueling Family**	--
Certificate Number	--	**CARB Executive Order #**	--
Certificate Issue Date	--	**Certificate Revision Date**	--
Certificate Effective Date	--	**Conditional Certificate**	--
CSI Revision #	--	**CSI Submission/Revision Date**	06/08/2016 06:00:30 AM
Model Year	2016		

Test Group Information

CSI Type	Update for Correction	**Running Change Reference Number**	--
GHG Exempt Status	Not Exempt		

Drive Sources and Fuel(s)

Drive Source #1: Combustion Engine

Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator
Diesel	Common Rail Direct Diesel Injection	--

Hybrid Indicator	No		
Multiple Fuel Storage	--	**Rechargeable Energy Storage System Indicator**	--
Multiple Fuel Combustion	--	**Off-board Charge Capable Indicator**	--
Fuel Cell Indicator	--	**EPA Vehicle Class**	LDT4
Federal Clean Fuel Vehicle	No	**Federal Clean Fuel Vehicle Standard**	--
Federal Clean Fuel Vehicle ILEV	No	**California Partial Zero Emissions Vehicle Indicator**	No
Durability Group Name	GMBXDPDNNPP3	**Durability Group Equivalency Factor**	1.0
Reduced Fee Test Group	No	**Certification Region Code(s)**	FA, CA
Complies with HD GHG 2b/3 regulations?	No		
Introduction into Commerce Date	07/07/2015	**CAP2000 Conditional Certificate?**	N/A
Independent Commercial Importer?	--	**Alternative Fuel Converter Certificate?**	--
SFTP Federal Composite Compliance Identifier	Tier 2	**SFTP Tier 2 Composite CO Option**	No
SFTP LEV-III Composite Compliance Indicator	No		
OBD Compliance Type	CARB	**OBD Demonstration Vehicle Test Group**	EMBXT03.0U2A
Test Group OBD Compliance Level	Partial - with deficiencies	**Number of Test Group OBD Deficiencies**	2
OBD Deficiencies Comments	--		
Mfr Test Group Comments	Updates to AAF		
Mfr Exhaust / Evap Standards Comments	--		

Certification Summary Information Report

Test Group	GMBXT03.0U2A	**Evaporative/Refueling Family**	--

Models Covered by this Certificate

Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	- # of Gears	Trans - Lockup
Mercedes Benz	1 - Mercedes-Benz	403 - GLE 350 d 4MATIC	Federal	4-Wheel Drive	Automatic	9	Yes
Mercedes Benz	1 - Mercedes-Benz	403 - GLE 350 d 4MATIC	California + CAA Section 177 states	4-Wheel Drive	Automatic	9	Yes
Mercedes Benz	1 - Mercedes-Benz	422 - GL 350 BLUETEC 4MATIC	California + CAA Section 177 states	4-Wheel Drive	Automatic	7	Yes
Mercedes Benz	1 - Mercedes-Benz	422 - GL 350 BLUETEC 4MATIC	Federal	4-Wheel Drive	Automatic	7	Yes
Mercedes Benz	1 - Mercedes-Benz	404 - GLE 350 d 4MATIC (coupe)	Federal	4-Wheel Drive	Automatic	9	Yes
Mercedes Benz	1 - Mercedes-Benz	404 - GLE 350 d 4MATIC (coupe)	California + CAA Section 177 states	4-Wheel Drive	Automatic	9	Yes

Engine Description

Hybrid Type	--	**Hybrid Description**	--
Engine Type	4-Stroke Compression Ignition	**Mfr Engine Description**	--
Engine Block Arrangement	V-shaped engine	**Mfr Engine Block Arrangement Description**	--
Camless Valvetrain Indicator	No	**Oil Viscosity/Classification**	0W-30
Number of Cylinders/Rotors	6		

After Treatment Device(s) (ATD)

ATD Number	ATD Type	ATD Precious Metal	Substrate Material	Substrate Construction
1	Oxidation catalyst	Platinum	Ceramic	Monolith
2	Diesel Particulate Filter	Platinum + Paladium	Ceramic	Monolith
3	Selective Catalytic Reduction	no precious metal / ferric oxide	Ceramic	Monolith

Mfr After Treatment Device (ATD) Comments	--
Direct Ozone Reduction (DOR) Device	Not Equipped
Mfr Emission Control Device Comments	--

Certification Summary Information Report

Test Group	GMBXT03.0U2A	**Evaporative/Refueling Family**	--

Engine Configuration Number 1

Engine Displacement (liters)	3.0	**Engine Rated Horsepower**	240
Number of Inlet Valves Per Cylinder	2	**Number of Exhaust Valves Per Cylinder**	2
Air Aspiration Method	Turbocharged	**Number of Air Aspiration Devices**	1
Air Aspiration Device Configuration	Single	**Charge Air Cooler Type**	Air
Cylinder Deactivation	No		
Cylinder Deactivation Description	--		
Variable Valve Timing	No		
Variable Valve Timing System Description	--		
Variable Valve Lift?	No		
Variable Valve Lift System Description	--		
Number of Knock Sensors	2	**Number of Air/Fuel Sensors**	1
Air/Fuel Sensor # 1 Type	Heated oxygen	**Air/Fuel Sensor # 1 Description**	--
Mfr Air/Fuel Sensor Comments	--		
Exhaust Gas Recirculation	Yes	**Cooled Exhaust Gas Recirculation**	Yes
EGR Type	Variable Valve Timing Control	**Exhaust Gas Recirculation Description if 'Other'**	--
Closed Loop Air Injection System	No		
Air Injection Type	Not Applicable	**Air Injection Type if 'Other'**	--
Mfr Engine Configuration Comments	--		

Official Test Numbers

Test Group Fuel	FTP	US06	SC03	Cold CO	Highway	EPA City Litmus Value	EPA City Litmus Threshold	EPA Highway Litmus Value	EPA Highway Litmus Threshold	CREE Weighting Factor
Diesel	DMBX10021924	DMBX10021926	DMBX10021937	DMBX10021938	DMBX10021925	17.2	16.8	22.3	21.9	--

Certification Summary Information Report

Test Group	GMBXT03.0U2A	**Evaporative/Refueling Family**	--

Emission Data Vehicle Information

Vehicle ID / Configuration	X166DE30TC-Z3029-1 / 0	**Manufacturer Vehicle Configuration Number**	0
Original Test Group Name	DMBXT03.0U2C	**Original Evaporative/Refueling Family**	--
Original Test Vehicle Model Year	2013		

Vehicle Model

Represented Test Vehicle Make	Mercedes-Benz	**Represented Test Vehicle Model**	GL 350 BLUETEC 4MATIC

Leak Family Details

Leak Family Identifier	--	**Leak Family Name**	--

Drive Sources and Fuel System Details

Drive Source and Fuel#	Drive Source	Fuel
1	Combustion Engine	Diesel

Hybrid Indicator	No		
Multiple Fuel Storage	--	**Multiple Fuel Combustion**	--
Fuel Cell Indicator	--	**Rechargeable Energy Storage System Indicator**	--
Rechargeable Energy Storage System	--	**Rechargeable Energy Storage System, if 'Other'**	--
Off-board charge Capable Indicator	--		
Odometer Correction -- Initial	184	**Odometer Correction Factor**	0.9856
Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor		
Odometer Correction Units	Miles		
Engine Code	OM642-30	**Rated Horsepower**	240
Displacement (liters)	2.987		
Air Aspiration Method	Turbocharged	**Air Aspiration Method, if 'Other'**	
Number of Air Aspiration Devices	1	**Air Aspiration Device Configuration**	Single
Charge Air Cooler Type	Air	**Drive Mode While Testing**	2-Wheel Drive, Rear
Shift Indicator Light Usage	Not eqipped	**Aged Emission Components**	4,000 (mi)
Curb Weight (lbs)	5717	**Equivalent Test Weight (pounds)**	6000
GVWR (lbs)	7165	**N/V Ratio**	28.8
Axle Ratio	3.46		
Transmission Type	Automatic	**# of Transmission Gears**	7
Transmission Lockup	Yes	**Creeper Gear**	No

Certification Summary Information Report

Test Group	GMBXT03.0U2A	Evaporative/Refueling Family	--

Dynamometer Coefficients:

Coefficient Category	Target Coefficients A (lbf)	Target Coefficients B (lbf/mph)	Target Coefficients C (lbf/mph**2)	Set Coefficients A (lbf)	Set Coefficients B (lbf/mph)	Set Coefficients C (lbf/mph**2)	EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
City/Highway/Evap	67.959	0.75331	0.022853	39.836	0.06136	0.029631	21.7
Cold CO	75.51	0.83701	0.025393	44.692	-0.0879	0.033573	N/A
US06	67.959	0.75331	0.022853	39.836	0.06136	0.029631	N/A

Emission Control Device Comments --

Manufacturer Test Vehicle Comments 295/40 R21 (PIR)

Certification Summary Information Report

Test Group	GMBXT03.0U2A	**Evaporative/Refueling Family**	--

Test #	**DMBX10021924**	**Test Procedure**	**2 - CVS 75 and later (w/o can. load)**
Exhaust Test # for this Evap Test	--	**Test Fuel Type**	19 - Federal Cert Diesel 7-15 PPM Sulfur
Test Date	07/25/2012	**Fuel**	Diesel
Fuel Batch ID	U13D01	**Fuel Calibration Number**	1
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**DF Type**	Mfr. Determined
Verify Test Lab ID	Ann Arbor Technology Center		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4506	**Odometer Units**	M
4WD Test Dyno	No	**Diesel Adjustment Factor Usage**	U
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	**Road Speed Fan Usage**	No

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	527.55	--
FE BAG 1 (Bag 1 Fuel Economy)	19.23	19.23
CO2 BAG 2 (Bag 2 Carbon Dioxide)	453.03	--
FE BAG 2 (Bag 2 Fuel Economy)	22.46	22.46
CO2 BAG 3 (Bag 3 Carbon Dioxide)	436.43	--
FE BAG 3 (Bag 3 Fuel Economy)	23.31	23.31
METHANE (CH4 - Methane)	0.02424	--
CO (Carbon Monoxide)	0.1768	--
HCHO (Formaldehyde)	0.0002532	--
MFR FE (Manufacturer Fuel Economy)	21.92	21.92
NOX (Nitrogen Oxide)	0.02584	--
N2O (Nitrous Oxide)	0.01	--
HC-NM (Non-methane Hydrocarbon)	0.01407	--
NMOG (Non-methane organic gas (California))	0.01407	--
PM (Particulate Matter)	0.00209	--
HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03)	0.03991	--
HC-TOTAL (Total Hydrocarbon)	0.03672	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	464.3	464

Certification Summary Information Report

Test Group	GMBXT03.0U2A	Evaporative/Refueling Family	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	463.93	--

Manufacturer Test Comments 295/40 R21 (PIR) Note: Optional use of alternative N2O and/or CH4 --> CFR-86-1818-12 (f)(3) (FEL N2O = 0.045 g/mi (data entered in Verify TG sheet) Update NMHC = NMOG

Certification Summary Information Report

Test Group GMBXT03.0U2A **Evaporative/Refueling Family** --

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NMHC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	50,000 miles	Federal Tier 2 Bin 5	CO	0.18	--	--	0.0047 UP	0.02	--	0.2	3.4	Pass
Fed	50,000 miles	Federal Tier 2 Bin 5	HCHO	0.0003	--	--	0.00001 UP	0.0	--	0.000	0.015	Pass
Fed	50,000 miles	Federal Tier 2 Bin 5	NMOG	0.0141	--	1.00	0.0006 UP	0.001	--	0.016	0.075	Pass
Fed	50,000 miles	Federal Tier 2 Bin 5	NOX	0.026	--	--	0.003 UP	0.0	--	0.03	0.05	Pass
Fed	50,000 miles	Federal Tier 2 Bin 5	PM	0.002	--	--	0.0012 UP	0.0	--	0.00	0.01	Pass
Fed	120,000 miles	Federal Tier 2 Bin 5	CO	0.18	--	--	0.0047 UP	0.04	--	0.2	4.2	Pass
Fed	120,000 miles	Federal Tier 2 Bin 5	CREE	464	--	--	0.0053 UP	0.034	--	464	--	--
Fed	120,000 miles	Federal Tier 2 Bin 5	HC-NM+NOX-COMP	0.154	--	--	0.0036 UP	0.001	--	0.15	1.41	Pass
Fed	120,000 miles	Federal Tier 2 Bin 5	HCHO	0.0003	--	--	0.00001 UP	0.0	--	0.000	0.018	Pass
Fed	120,000 miles	Federal Tier 2 Bin 5	N2O	0.0100	--	--	0.000 UP	0.0	--	0.010	0.045	Pass
Fed	120,000 miles	Federal Tier 2 Bin 5	NMOG	0.0141	--	1.00	0.0006 UP	0.002	--	0.017	0.090	Pass
Fed	120,000 miles	Federal Tier 2 Bin 5	NOX	0.026	--	--	0.003 UP	0.0	--	0.03	0.07	Pass
Fed	120,000 miles	Federal Tier 2 Bin 5	PM	0.002	--	--	0.0012 UP	0.0	--	0.00	0.01	Pass
Fed	120,000 miles	Federal Tier 2 Bin 5	PM-COMP	0.004	--	--	0.0000 UP	0.0	--	0.00	0.08	Pass
CA	50,000 miles	California LEV-II ULEV	CO	0.18	--	--	0.0047 UP	0.02	--	0.2	1.7	Pass
CA	50,000 miles	California LEV-II ULEV	HCHO	0.0003	--	--	0.00001 UP	0.0	--	0.000	0.008	Pass
CA	50,000 miles	California LEV-II ULEV	NMOG	0.0141	--	1.00	0.0006 UP	0.001	--	0.016	0.040	Pass
CA	50,000 miles	California LEV-II ULEV	NOX	0.026	--	--	0.003 UP	0.0	--	0.03	0.05	Pass
CA	120,000 miles	California LEV-II ULEV	CO	0.18	--	--	0.0047 UP	0.04	--	0.2	2.1	Pass
CA	120,000 miles	California LEV-II ULEV	CREE	464	--	--	0.0053 UP	0.034	--	464	--	--
CA	120,000 miles	California LEV-II ULEV	HCHO	0.0003	--	--	0.00001 UP	0.0	--	0.000	0.011	Pass
CA	120,000 miles	California LEV-II ULEV	N2O	0.0100	--	--	0.000 UP	0.0	--	0.010	0.045	Pass

Certification Summary Information Report

Test Group	GMBXT03.0U2A	Evaporative/Refueling Family	--

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NMHC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
CA	120,000 miles	California LEV-II ULEV	NMOG	0.0141	--	1.00	0.0006 UP	0.0024	--	0.017	0.055	Pass
CA	120,000 miles	California LEV-II ULEV	NOX	0.026	--	--	0.003 UP	0.0	--	0.03	0.07	Pass
CA	120,000 miles	California LEV-II ULEV	PM	0.002	--	--	0.0012 UP	0.0	--	0.00	0.01	Pass

NOTE: For Non-charge depleting tests, the Rounded Result for CREE/OPT-CREE Emission names are Verify-calculated values.

Certification Summary Information Report

Test Group	GMBXT03.0U2A	**Evaporative/Refueling Family**	--

Test #	**DMBX10021938**	**Test Procedure**	**11 - Cold CO**
Exhaust Test # for this Evap Test	--	**Test Fuel Type**	19 - Federal Cert Diesel 7-15 PPM Sulfur
Test Date	07/30/2012	**Fuel**	N/A
Fuel Batch ID	D12I03	**Fuel Calibration Number**	1
Vehicle Class	N/A	**DF Type**	Mfr. Determined
Verify Test Lab ID	Ann Arbor Technology Center		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4581	**Odometer Units**	M
4WD Test Dyno	No	**Diesel Adjustment Factor Usage**	U
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	--	**Road Speed Fan Usage**	--

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	655	--
FE BAG 1 (Bag 1 Fuel Economy)	15.43	15.43
CO2 BAG 2 (Bag 2 Carbon Dioxide)	565.68	--
FE BAG 2 (Bag 2 Fuel Economy)	17.99	17.99
CO2 BAG 3 (Bag 3 Carbon Dioxide)	486.36	--
FE BAG 3 (Bag 3 Fuel Economy)	20.92	20.92
CO (Carbon Monoxide)	0.5798	--
MFR FE (Manufacturer Fuel Economy)	18.06	18.06
HC-NM (Non-methane Hydrocarbon)	0.02024	--
HC-TOTAL (Total Hydrocarbon)	0.03211	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	562.41	--

Manufacturer Test Comments 295/40 R21 (PIR)

Certification Summary Information Report

Test Group	GMBXT03.0U2A	**Evaporative/Refueling Family**	--

Test #	**DMBX10021925**	**Test Procedure**	**3 - HWFE**
Exhaust Test # for this Evap Test	--	**Test Fuel Type**	19 - Federal Cert Diesel 7-15 PPM Sulfur
Test Date	07/25/2012	**Fuel**	Diesel
Fuel Batch ID	U13D01	**Fuel Calibration Number**	1
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**DF Type**	Mfr. Determined
Verify Test Lab ID	Ann Arbor Technology Center		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4517	**Odometer Units**	M
4WD Test Dyno	No	**Diesel Adjustment Factor Usage**	U
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	--	**Road Speed Fan Usage**	--

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.00271	--
CO (Carbon Monoxide)	0.0362	--
MFR FE (Manufacturer Fuel Economy)	32.1	32.1
NOX (Nitrogen Oxide)	0.03955	--
N2O (Nitrous Oxide)	0.01	--
HC-NM (Non-methane Hydrocarbon)	0	--
PM (Particulate Matter)	0.00312	--
HC-TOTAL (Total Hydrocarbon)	0.00225	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	316.9	317

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	316.98	--

Manufacturer Test Comments 295/40 R21 (PIR) Note: Using Optional use of alternative N2O and/or CH4 --> CFR-1818-12 (f)(3) (FEL N2O = 0.045 g/mi (data entered in Verify TG sheet)

Certification Summary Information Report

Test Group	GMBXT03.0U2A	Evaporative/Refueling Family	--

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	50,000 miles	Federal Tier 2 Bin 5	NOX	0.040	--	--	0.003 UP	0.0	--	0.04	0.07	Pass
Fed	100,000 miles	Federal Tier 2 Bin 5	CREE	317	--	--	0.0053 UP	0.034	--	317	--	--
Fed	120,000 miles	Federal Tier 2 Bin 5	N2O	0.0100	--	--	0.000 UP	0.0	--	0.010	0.045	Pass
Fed	120,000 miles	Federal Tier 2 Bin 5	NOX	0.040	--	--	0.003 UP	0.0	--	0.04	0.09	Pass
CA	50,000 miles	California LEV-II ULEV	NOX	0.040	--	--	0.003 UP	0.0	--	0.04	0.07	Pass
CA	120,000 miles	California LEV-II ULEV	CREE	317	--	--	0.0053 UP	0.034	--	317	--	--
CA	120,000 miles	California LEV-II ULEV	N2O	0.0100	--	--	0.000 UP	0.0	--	0.010	0.045	Pass
CA	120,000 miles	California LEV-II ULEV	NOX	0.040	--	--	0.003 UP	0.0	--	0.04	0.09	Pass

NOTE: For Non-charge depleting tests, the Rounded Result for CREE/OPT-CREE Emission names are Verify-calculated values.

Certification Summary Information Report

Test Group	GMBXT03.0U2A	**Evaporative/Refueling Family**	--

Test #	**DMBX10021926**	**Test Procedure**	**90 - US06**
Exhaust Test # for this Evap Test	--	**Test Fuel Type**	19 - Federal Cert Diesel 7-15 PPM Sulfur
Test Date	07/25/2012	**Fuel**	Diesel
Fuel Batch ID	U13D01	**Fuel Calibration Number**	1
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**DF Type**	Mfr. Determined
Verify Test Lab ID	Ann Arbor Technology Center		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4541	**Odometer Units**	M
4WD Test Dyno	No	**Diesel Adjustment Factor Usage**	U
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	--	**Road Speed Fan Usage**	--

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	735.56	--
FE BAG 1 (Bag 1 Fuel Economy)	13.83	13.83
CO2 BAG 2 (Bag 2 Carbon Dioxide)	424.64	--
FE BAG 2 (Bag 2 Fuel Economy)	23.96	23.96
CO (Carbon Monoxide)	0.0344	--
MFR FE (Manufacturer Fuel Economy)	20.6	20.6
NOX (Nitrogen Oxide)	0.40797	--
HC-NM (Non-methane Hydrocarbon)	0	--
PM (Particulate Matter)	0.00901	--
HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03)	0.40797	--
HC-TOTAL (Total Hydrocarbon)	0.00225	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	493.93	--

Manufacturer Test Comments 295/40 R21 (PIR)

Certification Summary Information Report

Test Group	GMBXT03.0U2A	Evaporative/Refueling Family	--

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	4,000 miles	Federal Tier 2 Bin 5	CO	0.03	--	--	0.0047 UP	--	--	0.0	11.8	Pass
Fed	4,000 miles	Federal Tier 2 Bin 5	HC-NM+NOX	0.41	--	--	0.0036 UP	--	--	0.4	0.6	Pass
Fed	120,000 miles	Federal Tier 2 Bin 5	CO	0.03	--	--	0.0047 UP	0.04	--	0.1	19.3	Pass
CA	4,000 miles	California LEV-II ULEV	CO	0.03	--	--	0.0047 UP	--	--	0.0	11.8	Pass
CA	4,000 miles	California LEV-II ULEV	HC-NM+NOX	0.408	--	--	0.0036 UP	--	--	0.41	0.60	Pass

Certification Summary Information Report

Test Group	GMBXT03.0U2A	**Evaporative/Refueling Family**	--

Test #	**DMBX10021937**	**Test Procedure**	**95 - SC03**
Exhaust Test # for this Evap Test	--	**Test Fuel Type**	19 - Federal Cert Diesel 7-15 PPM Sulfur
Test Date	07/27/2012	**Fuel**	Diesel
Fuel Batch ID	U13D01	**Fuel Calibration Number**	1
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**DF Type**	Mfr. Determined
Verify Test Lab ID	Ann Arbor Technology Center		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4566	**Odometer Units**	M
4WD Test Dyno	No	**Diesel Adjustment Factor Usage**	U
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	--	**Road Speed Fan Usage**	--

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO (Carbon Monoxide)	0.0114	--
MFR FE (Manufacturer Fuel Economy)	17.86	17.86
NOX (Nitrogen Oxide)	0.06389	--
HC-NM (Non-methane Hydrocarbon)	0	--
PM (Particulate Matter)	0.00274	--
HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03)	0.06389	--
HC-TOTAL (Total Hydrocarbon)	0.01116	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	569.62	--

Manufacturer Test Comments 295/40 R21 (PIR)

Certification Summary Information Report

Test Group	GMBXT03.0U2A	Evaporative/Refueling Family	--

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	4,000 miles	Federal Tier 2 Bin 5	CO	0.01	--	--	0.0047 UP	--	--	0.0	4.0	Pass
Fed	4,000 miles	Federal Tier 2 Bin 5	HC-NM+NOX	0.064	--	--	0.0036 UP	--	--	0.07	0.44	Pass
Fed	120,000 miles	Federal Tier 2 Bin 5	CO	0.01	--	--	0.0047 UP	0.04	--	0.1	6.4	Pass
CA	4,000 miles	California LEV-II ULEV	CO	0.01	--	--	0.0047 UP	--	--	0.0	4.0	Pass
CA	4,000 miles	California LEV-II ULEV	HC-NM+NOX	0.064	--	--	0.0036 UP	--	--	0.07	0.44	Pass

Fuel Properties

Fuel Batch ID	**U13D01**	**Fuel Calibration Number**	**1**
Test Fuel Type	19 - Federal Cert Diesel 7-15 PPM Sulfur	**Fuel Batch Calibration Date**	09/21/2010
Fuel Batch Calibration Effective Date	05/07/2012	**Fuel Batch Calibration Ineffective Date**	--
Carbon Weight Fraction NMHC	--	**Carbon Weight Fraction HC**	--
Exhaust Carbon Weight Fraction	--	**Fuel Methanol Volume Fraction**	--
Fuel Density (grams/cubic ft)	--	**Fuel Specific Gravity**	0.856
Fuel Net Heating Value (BTU / lb)	18338	**Fuel Blend Carbon Weight Fraction**	0.871
Weight Fraction CO2	--		

Fuel Batch ID	**D12I03**	**Fuel Calibration Number**	**1**
Test Fuel Type	61 - Tier 2 Cert Gasoline	**Fuel Batch Calibration Date**	12/01/2011
Fuel Batch Calibration Effective Date	02/17/2012	**Fuel Batch Calibration Ineffective Date**	--
Carbon Weight Fraction NMHC	--	**Carbon Weight Fraction HC**	--
Exhaust Carbon Weight Fraction	--	**Fuel Methanol Volume Fraction**	--
Fuel Density (grams/cubic ft)	--	**Fuel Specific Gravity**	0.74
Fuel Net Heating Value (BTU / lb)	18448	**Fuel Blend Carbon Weight Fraction**	0.866
Weight Fraction CO2	--		

Certification Summary Information Report

Test Group	GMBXT03.0U2A	**Evaporative/Refueling Family**	--

Consolidated List of Standards

Exhaust Standards

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	California LEV-II ULEV
Fuel	Diesel	**Test Procedure**	SC03

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
4,000 miles	CO	--	--	--	0.0047	0	--	--	4.0
4,000 miles	HC-NM+NOX	--	--	--	0.0036	0	--	--	0.44

Cert Region	Federal	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	Federal Tier 2 Bin 5
Fuel	Diesel	**Test Procedure**	CVS 75 and later (w/o can. load)

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
50,000 miles	CO	--	--	--	0.0047	0	--	0.02	3.4
50,000 miles	HCHO	--	--	--	0.00001	0	--	0.0	0.015
50,000 miles	NMOG	--	--	1.00	0.0006	0	--	0.001	0.075
50,000 miles	NOX	--	--	--	0.003	0	--	0.0	0.05
50,000 miles	PM	--	--	--	0.0012	0	--	0.0	0.01
120,000 miles	CO	--	--	--	0.0047	0	--	0.04	4.2
120,000 miles	CREE	--	--	--	0.0053	0	--	0.034	999
120,000 miles	HC-NM+NOX-COMP	--	--	--	0.0036	0	--	0.001	1.41
120,000 miles	HCHO	--	--	--	0.00001	0	--	0.0	0.018
120,000 miles	N2O	--	--	--	0.000	0	--	0.0	0.045
120,000 miles	NMOG	--	--	1.00	0.0006	0	--	0.002	0.090
120,000 miles	NOX	--	--	--	0.003	0	--	0.0	0.07
120,000 miles	PM	--	--	--	0.0012	0	--	0.0	0.01
120,000 miles	PM-COMP	--	--	--	0.0000	0	--	0.0	0.08

Certification Summary Information Report

Test Group	GMBXT03.0U2A	**Evaporative/Refueling Family**	--

Cert Region	Federal	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	Federal Tier 2 Bin 5
Fuel	Diesel	**Test Procedure**	HWFE

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
50,000 miles	NOX	--	--	--	0.003	0	--	0.0	0.07
100,000 miles	CREE	--	--	--	0.0053	0	--	0.034	999
120,000 miles	N2O	--	--	--	0.000	0	--	0.0	0.045
120,000 miles	NOX	--	--	--	0.003	0	--	0.0	0.09

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	California LEV-II ULEV
Fuel	Diesel	**Test Procedure**	CVS 75 and later (w/o can. load)

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
50,000 miles	CO	--	--	--	0.0047	0	--	0.02	1.7
50,000 miles	HCHO	--	--	--	0.00001	0	--	0.0	0.008
50,000 miles	NMOG	--	--	1.00	0.0006	0	--	0.001	0.040
50,000 miles	NOX	--	--	--	0.003	0	--	0.0	0.05
120,000 miles	CO	--	--	--	0.0047	0	--	0.04	2.1
120,000 miles	CREE	--	--	--	0.0053	0	--	0.034	999
120,000 miles	HCHO	--	--	--	0.00001	0	--	0.0	0.011
120,000 miles	N2O	--	--	--	0.000	0	--	0.0	0.045
120,000 miles	NMOG	--	--	1.00	0.0006	0	--	0.0024	0.055
120,000 miles	NOX	--	--	--	0.003	0	--	0.0	0.07
120,000 miles	PM	--	--	--	0.0012	0	--	0.0	0.01

Certification Summary Information Report

Test Group	GMBXT03.0U2A	**Evaporative/Refueling Family**	--

Cert Region	Federal	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	Federal Tier 2 Bin 5
Fuel	Diesel	**Test Procedure**	SC03

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
4,000 miles	CO	--	--	--	0.0047	0	--	--	4.0
4,000 miles	HC-NM+NOX	--	--	--	0.0036	0	--	--	0.44
120,000 miles	CO	--	--	--	0.0047	0	--	0.04	6.4
120,000 miles	PM-COMP	--	--	--	0.0012	0	--	0.0	0.08

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	California LEV-II ULEV
Fuel	Diesel	**Test Procedure**	HWFE

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
50,000 miles	NOX	--	--	--	0.003	0	--	0.0	0.07
120,000 miles	CREE	--	--	--	0.0053	0	--	0.034	999
120,000 miles	N2O	--	--	--	0.000	0	--	0.0	0.045
120,000 miles	NOX	--	--	--	0.003	0	--	0.0	0.09

Cert Region	Federal	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	Federal Tier 2 Bin 5
Fuel	Diesel	**Test Procedure**	US06

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
4,000 miles	CO	--	--	--	0.0047	0	--	--	11.8
4,000 miles	HC-NM+NOX	--	--	--	0.0036	0	--	--	0.6
120,000 miles	CO	--	--	--	0.0047	0	--	0.04	19.3
120,000 miles	PM-COMP	--	--	--	0.0012	0	--	0.0	0.08

Certification Summary Information Report

Test Group	GMBXT03.0U2A	**Evaporative/Refueling Family**	--
Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	California LEV-II ULEV
Fuel	Diesel	**Test Procedure**	US06

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
4,000 miles	CO	--	--	--	0.0047	0	--	--	11.8
4,000 miles	HC-NM+NOX	--	--	--	0.0036	0	--	--	0.60

Certification Summary Information Report

Test Group	GMBXT03.0U2A	Evaporative/Refueling Family	--

Glossary

Useful Life

4	4,000 miles	120	120,000 miles
50	50,000 miles	150	150,000 miles
100	100,000 miles		

Emission Name

HC-TOTAL	Total Hydrocarbon	METHANOL	CH3OH - Methanol
CO	Carbon Monoxide	N2O	Nitrous Oxide
CO2	Carbon dioxide	SPITBACK	Spitback Hydrocarbon in grams
CREE	Carbon-Related Exhaust Emissions	AMP-HRS	Integrated Amp-hours
OPT-CREE	Optional Carbon-Related Exhaust Emissions	START-SOC	System Start State of Charge Watt-hours
NOX	Nitrogen Oxide	END-SOC	System End State of Charge Watt-hours
PM	Particulate Matter	ACT-DISTANCE	Actual Distance Driven (miles)
PM-COMP	SFTP Composite Particulate Matter	AS-VOLT	Average System Voltage
HC-NM	Non-methane Hydrocarbon	CO2 BAG 1	Bag 1 Carbon Dioxide
OMHCE	Organic material Hydrocarbon Equivalent	CO2 BAG 2	Bag 2 Carbon Dioxide
OMNMHCE	Organic material non-methane HC equivalent	CO2 BAG 3	Bag 3 Carbon Dioxide
NMOG	Non-methane organic gas (California)	CO2 BAG 4	Bag 4 Carbon Dioxide
HCHO	Formaldehyde	NMOG+NOX	Non-methane organic gases plus Nitrogen Oxides
H3C2HO	Acetaldehyde	NMOG+NOX-COMP	SFTP Composite Non-methane Organic Gases + Nitrogen Oxides
HC-NM+NOX	SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03	DT-IWRR	Drive Trace Inertia Work Ratio Rating
HC-NM+NOX-COMP	SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides	DT-ASCR	Drive Trace Absolute Speed Change Rating
CO-COMP	SFTP Composite Carbon Monoxide	DT-EER	Drive Trace Energy Economy Rating
ETHANOL	C2H5OH - Ethanol	COMB-CREE	Combined Carbon-Related Exhaust Emissions
FE BAG 1	Bag 1 Fuel Economy	COMB-OPT-CREE	Combined Optional Carbon-Related Exhaust Emissions
FE BAG 2	Bag 2 Fuel Economy	HC-TOTAL-EQUIV	Total Hydrocarbon equivalent - Evap only
FE BAG 3	Bag 3 Fuel Economy	METHANE-COMB	Combined CH4 for HD 2b/3 vehicles only
FE BAG 4	Bag 4 Fuel Economy	N2O-COMB	Combined Nitrous Oxide for HD 2b/3 vehicles only
MFR FE	Manufacturer Fuel Economy	LEAK-DIA	Effective Leak Diameter (inches)
HC	Hydrocarbon for Running Loss and ORVR	LEAK-GAS CAP	Gas Cap Leakage (cc/min)
METHANE	CH4 - Methane		

Certification Region

CA	California + CAA Section 177 states	FA	Federal

Exhaust Emission Standard Level

B1	Federal Tier 2 Bin 1	L3ULEV340	California LEV-III ULEV340
B2	Federal Tier 2 Bin 2	L3ULEV250	California LEV-III ULEV250
B3	Federal Tier 2 Bin 3	L3ULEV200	California LEV-III ULEV200
B4	Federal Tier 2 Bin 4	L3SULEV170	California LEV-III SULEV170
B5	Federal Tier 2 Bin 5	L3SULEV150	California LEV-III SULEV150

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B6	Federal Tier 2 Bin 6	L3LEV630	California LEV-III LEV630
B7	Federal Tier 2 Bin 7	L3ULEV570	California LEV-III ULEV570
B8	Federal Tier 2 Bin 8	L3ULEV400	California LEV-III ULEV400
B9	Federal Tier 2 Bin 9	L3ULEV270	California LEV-III ULEV270
B10	Federal Tier 2 Bin 10	L3SULEV230	California LEV-III SULEV230
B11	Federal Tier 2 Bin 11	L3SULEV200	California LEV-III SULEV200
HDV1	HDV1 (Federal HD chassis Class 2b GVW 8501-10000)	T3B160	Federal Tier 3 Bin 160
HDV2	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)	T3B125	Federal Tier 3 Bin 125
L2	California LEV-II LEV	T3B110	Federal Tier 3 Transitional Bin 110
L2OP	California LEV-II LEV Optional	T3B85	Federal Tier 3 Transitional Bin 85
U2	California LEV-II ULEV	T3SULEV30	Federal Tier 3 Transitional LEV-II SULEV30 Carryover
S2	California LEV-II SULEV	T3B70	Federal Tier 3 Bin 70
ZEV	California ZEV	T3B50	Federal Tier 3 Bin 50
OT	Other	T3B30	Federal Tier 3 Bin 30
T1	Federal Tier 1	T3B20	Federal Tier 3 Bin 20
PZEV	California PZEV	T3B0	Federal Tier 3 Bin 0
L2LEV160	California LEV-II LEV160	HDV2B395	Federal Tier 3 HD Class 2b Transitional Bin 395
L2ULEV125	California LEV-II ULEV125	HDV2B340	Federal Tier 3 HD Class 2b Transitional Bin 340
L2SULEV30	California LEV-II SULEV30	HDV2B250	Federal Tier 3 HD Class 2b Bin 250
L2LEV395	California LEV-II LEV395	HDV2B200	Federal Tier 3 HD Class 2b Bin 200
L2ULEV340	California LEV-II ULEV340	HDV2B170	Federal Tier 3 HD Class 2b Bin 170
L2LEV630	California LEV-II LEV630	HDV2B150	Federal Tier 3 HD Class 2b Bin 150
L2ULEV570	California LEV-II ULEV570	HDV2B0	Federal Tier 3 HD Class 2b Bin 0
L3LEV160	California LEV-III LEV160	HDV3B630	Federal Tier 3 HD Class 3 Transitional Bin 630
L3ULEV125	California LEV-III ULEV125	HDV3B570	Federal Tier 3 HD Class 3 Transitional Bin 570
L3ULEV70	California LEV-III ULEV70	HDV3B400	Federal Tier 3 HD Class 3 Bin 400
L3ULEV50	California LEV-III ULEV50	HDV3B270	Federal Tier 3 HD Class 3 Bin 270
L3SULEV30	California LEV-III SULEV30	HDV3B230	Federal Tier 3 HD Class 3 Bin 230
L3SULEV20	California LEV-III SULEV20	HDV3B200	Federal Tier 3 HD Class 3 Bin 200
L3LEV395	California LEV-III LEV395	HDV3B0	Federal Tier 3 HD Class 3 Bin 0

Transmission Type Code			
AMS	Automated Manual- Selectable (e.g. Automated Manual with paddles)	M	Manual
A	Automatic	OT	Other
AM	Automated Manual	SA	Semi-Automatic
CVT	Continuously Variable	SCV	Selectable Continuously Variable (e.g. CVT with paddles)

Drive System Code			
4	4-Wheel Drive	P	Part-time 4-Wheel Drive
F	2-Wheel Drive, Front	A	All Wheel Drive
R	2-Wheel Drive, Rear		

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Additional Terms and Acronyms

AFC	Alternative Fuel Converter	ICI	Independent Commercial Importer
CSI	Certificate Summary Information	ORVR	Onboard Refueling Vapor Recovery
DF	Deterioration Factor	SIL	Shift Indicator Light
Evap	Evaporation, Evaporative	Trans	Transmission