

Certification Summary Information Report

Manufacturer	General Motors LLC	Manufacturer Code	GMX
Test Group	VGMXT03.0355	Evaporative/Refueling Family	--
Certificate Number	VGMXT03.0355-019	CARB Executive Order #	--
Certificate Issue Date	07/15/2026	Certificate Revision Date	--
Certificate Effective Date	07/15/2026	Conditional Certificate	No
CSI Revision #	--	CSI Submission/Revision Date	06/24/2026 01:53:34 PM
Model Year	2027		

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	VGMXDPDNNE88	Durability Group Equivalency Factor	1
Reduced Fee Test Group	No	Certification Region Code(s)	FA, CA
Complies with HD GHG 2b/3 regulations?	No		
Introduction into Commerce Date	10/12/2026	CAP2000 Conditional Certificate?	No
Independent Commercial Importer?	No	Alternative Fuel Converter Certificate?	No
SFTP Federal Composite Compliance Identifier	Tier 3	SFTP Tier 2 Composite CO Option	No
SFTP LEV-III Composite Compliance Indicator	No		
OBD Compliance Type	CARB	OBD Demonstration Vehicle Test Group	VGMXT03.0355
Test Group OBD Compliance Level	Full - no deficiencies	Number of Test Group OBD Deficiencies	0
OBD Deficiencies Comments	--		
Mfr Test Group Comments	MY27 LZ0 SUV and LPDU		
Mfr Exhaust / Evap Standards Comments	--		

Certification Summary Information Report

Test Group	VGMXT03.0355			Evaporative/Refueling Family		--	
Models Covered by this Certificate							
Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	- # of Gears	Trans - Lockup
General Motors LLC	4 - GMC	55 - YUKON XL 2WD	California + CAA Section 177 states	2-Wheel Drive, Rear	Automatic	10	Yes
General Motors LLC	4 - GMC	34 - YUKON 2WD	California + CAA Section 177 states	2-Wheel Drive, Rear	Automatic	10	Yes
General Motors LLC	4 - GMC	971 - SIERRA 4WD AT4X	California + CAA Section 177 states	4-Wheel Drive	Automatic	10	Yes
General Motors LLC	3 - Chevrolet	82 - SUBURBAN 4WD	Federal	4-Wheel Drive	Automatic	10	Yes
General Motors LLC	4 - GMC	65 - YUKON 4WD	Federal	4-Wheel Drive	Automatic	10	Yes
General Motors LLC	4 - GMC	63 - YUKON XL 4WD	Federal	4-Wheel Drive	Automatic	10	Yes
General Motors LLC	3 - Chevrolet	986 - SILVERADO 2WD	Federal	2-Wheel Drive, Rear	Automatic	10	Yes
General Motors LLC	4 - GMC	947 - SIERRA 4WD	California + CAA Section 177 states	4-Wheel Drive	Automatic	10	Yes
General Motors LLC	3 - Chevrolet	5 - SILVERADO 4WD ZR2	California + CAA Section 177 states	4-Wheel Drive	Automatic	10	Yes
General Motors LLC	3 - Chevrolet	986 - SILVERADO 2WD	California + CAA Section 177 states	2-Wheel Drive, Rear	Automatic	10	Yes
General Motors LLC	4 - GMC	63 - YUKON XL 4WD	California + CAA Section 177 states	4-Wheel Drive	Automatic	10	Yes
General Motors LLC	3 - Chevrolet	987 - SILVERADO 4WD	California + CAA Section 177 states	4-Wheel Drive	Automatic	10	Yes
General Motors LLC	3 - Chevrolet	6 - SILVERADO 4WD MUD TERRAIN TIRES	Federal	4-Wheel Drive	Automatic	10	Yes
General Motors LLC	4 - GMC	34 - YUKON 2WD	Federal	2-Wheel Drive, Rear	Automatic	10	Yes
General Motors LLC	3 - Chevrolet	77 - TAHOE 4WD	California + CAA Section 177 states	4-Wheel Drive	Automatic	10	Yes
General Motors LLC	4 - GMC	970 - SIERRA 4WD MUD TERRAIN TIRES	California + CAA Section 177 states	4-Wheel Drive	Automatic	10	Yes
General Motors LLC	3 - Chevrolet	24 - TAHOE 2WD	Federal	2-Wheel Drive, Rear	Automatic	10	Yes
General Motors LLC	3 - Chevrolet	987 - SILVERADO 4WD	Federal	4-Wheel Drive	Automatic	10	Yes
General Motors LLC	3 - Chevrolet	6 - SILVERADO 4WD MUD TERRAIN TIRES	California + CAA Section 177 states	4-Wheel Drive	Automatic	10	Yes
General Motors LLC	4 - GMC	947 - SIERRA 4WD	Federal	4-Wheel Drive	Automatic	10	Yes
General Motors LLC	4 - GMC	946 - SIERRA 2WD	California + CAA Section 177 states	2-Wheel Drive, Rear	Automatic	10	Yes
General Motors LLC	3 - Chevrolet	24 - TAHOE 2WD	California + CAA Section 177 states	2-Wheel Drive, Rear	Automatic	10	Yes
General Motors LLC	4 - GMC	65 - YUKON 4WD	California + CAA Section 177 states	4-Wheel Drive	Automatic	10	Yes

Certification Summary Information Report

Test Group		VGMXT03.0355	Evaporative/Refueling Family		--		
General Motors LLC	4 - GMC	970 - SIERRA 4WD MUD TERRAIN TIRES	Federal	4-Wheel Drive	Automatic	10	Yes
General Motors LLC	3 - Chevrolet	66 - SUBURBAN 2WD	California + CAA Section 177 states	2-Wheel Drive, Rear	Automatic	10	Yes
General Motors LLC	3 - Chevrolet	5 - SILVERADO 4WD ZR2	Federal	4-Wheel Drive	Automatic	10	Yes
General Motors LLC	3 - Chevrolet	66 - SUBURBAN 2WD	Federal	2-Wheel Drive, Rear	Automatic	10	Yes
General Motors LLC	3 - Chevrolet	82 - SUBURBAN 4WD	California + CAA Section 177 states	4-Wheel Drive	Automatic	10	Yes
General Motors LLC	3 - Chevrolet	77 - TAHOE 4WD	Federal	4-Wheel Drive	Automatic	10	Yes
General Motors LLC	4 - GMC	55 - YUKON XL 2WD	Federal	2-Wheel Drive, Rear	Automatic	10	Yes
General Motors LLC	4 - GMC	946 - SIERRA 2WD	Federal	2-Wheel Drive, Rear	Automatic	10	Yes
General Motors LLC	4 - GMC	971 - SIERRA 4WD AT4X	Federal	4-Wheel Drive	Automatic	10	Yes

Engine Description

Hybrid Type

--

Hybrid Description

--

Engine Type

4-Stroke Compression Ignition

Mfr Engine Description

--

Engine Block Arrangement

Inline

Mfr Engine Block Arrangement Description

--

Camless Valvetrain Indicator

No

Oil Viscosity/Classification

0W20

Number of Cylinders/Rotors

6

Mechanically Variable Compression Ratio Indicator

N

After Treatment Device(s) (ATD)

ATD Number	ATD Type	ATD Precious Metal	Substrate Material	Substrate Construction
1	Diesel Particulate Filter	CU_ZEOLITE	Ceramic	Monolith
2	Selective Catalytic Reduction	CU_ZEOLITE	Ceramic	Monolith
3	Selective Catalytic Reduction	CU_ZEOLITE	Ceramic	Monolith
4	Oxidation catalyst	Platinum + Palladium	Ceramic	Monolith
5	Oxidation catalyst	Platinum	Ceramic	Monolith

Mfr After Treatment Device (ATD)

Comments

--

Direct Ozone Reduction (DOR) Device

Not Equipped

Mfr Emission Control Device Comments

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Certification Summary Information Report

Test Group		VGMXT03.0355				Evaporative/Refueling Family		--															
Engine Configuration Number 1																							
Engine Displacement (liters)		3.0				Engine Rated Horsepower		305															
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		Liquid															
Air Aspiration Drive Method(s)		Hydraulic																					
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		0				Number of Air/Fuel Sensors		3															
Air/Fuel Sensor # 1 Type		Nitrogen oxide				Air/Fuel Sensor # 1 Description		--															
Air/Fuel Sensor # 2 Type		Nitrogen oxide				Air/Fuel Sensor # 2 Description		--															
Air/Fuel Sensor # 3 Type		Nitrogen oxide				Air/Fuel Sensor # 3 Description		--															
Mfr Air/Fuel Sensor Comments		--																					
Exhaust Gas Recirculation		Yes				Cooled Exhaust Gas Recirculation		Yes															
EGR Type		Electronic/Electric				Exhaust Gas Recirculation Description if 'Other'		--															
Closed Loop Air Injection System		--																					
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		SGMX10087923		SGMX10087925		SGMX10087926		SGMX10087927		SGMX10087924		19.2		18.8		22.1		23		--			

Certification Summary Information Report

Test Group	VGMXT03.0355	Evaporative/Refueling Family	--						
Emission Data Vehicle Information									
Vehicle ID / Configuration	30KLSVT496 / 0	Manufacturer Vehicle Configuration Number	1						
Original Test Group Name	SGMXT03.0353	Original Evaporative/Refueling Family	--						
Original Test Vehicle Model Year	2025								
Vehicle Model									
Represented Test Vehicle Make	CHEVROLET	Represented Test Vehicle Model	SUBURBAN 4WD						
Leak Family Details									
Leak Family Identifier	LK1	Leak Family Name	--						
Drive Sources and Fuel System Details									
	<table border="1"> <tr> <th>Drive Source and Fuel#</th><th>Drive Source</th><th>Fuel</th></tr> <tr> <td>1</td><td>Combustion Engine</td><td>Diesel</td></tr> </table>	Drive Source and Fuel#	Drive Source	Fuel	1	Combustion Engine	Diesel		
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	0	Odometer Correction Factor	1						
Odometer Correction Sign	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles								
Odometer Correction Units	Miles								
Engine Code	1	Rated Horsepower	305						
Displacement (liters)	3								
Air Aspiration Method	Turbocharged	Air Aspiration Method, if 'Other'							
Number of Air Aspiration Devices	1	Air Aspiration Device Configuration	Single						
Charge Air Cooler Type	Liquid	Drive Mode While Testing	All Wheel Drive						
Shift Indicator Light Usage	Not equipped	Aged Emission Components	150,000 (mi)						
Curb Weight (lbs)	6271	Equivalent Test Weight (pounds)	6500						
GVWR (lbs)	7700	N/V Ratio	21.6						
Axle Ratio	3.23								
Transmission Type	Automatic	# of Transmission Gears	10						
Transmission Lockup	Yes	Creep Gear	No						

Certification Summary Information Report

Test Group		VGMXT03.0355			Evaporative/Refueling Family		--	
Dynamometer Coefficients:								
Target Coefficients				Set Coefficients				
Coefficient Category	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients	
City/Highway/Evap	45.16	0.7546	0.0327	-16.51	0.6234	0.02891	22	
Cold CO	49.68	0.8301	0.03597	-33.29	0.4359	0.02778	N/A	
US06	45.16	0.7546	0.0327	-16.51	0.6234	0.02891	N/A	
Emission Control Device Comments		T1 SUV LZ0						
Manufacturer Test Vehicle Comments		T1 SUV 150K EDV, TOW HAUL MODE, TEST IN 2WD MODE ON 4WD DYNO, RECOMMENDED TIRE PRESSURE 35 SET TO 32 FOR TRACTION DURING TESTING, 250LB BALLAST ADDED TO VEHICLE						

Certification Summary Information Report

Test Group	VGMXT03.0355	Evaporative/Refueling Family	--
Test #	SGMX10087923	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	08/30/2024	Fuel	Diesel
Fuel Batch ID	000400	Fuel Calibration Number	9398
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Aged components installed In the emission data vehicle
Verify Test Lab ID	Compliance and Certification		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4094	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	U
State of Charge Delta	No		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	458.648	--
FE BAG 1 (Bag 1 Fuel Economy)	22.1	22.1
CO2 BAG 2 (Bag 2 Carbon Dioxide)	397.444	--
FE BAG 2 (Bag 2 Fuel Economy)	25.6	25.6
CO2 BAG 3 (Bag 3 Carbon Dioxide)	404.604	--
FE BAG 3 (Bag 3 Fuel Economy)	25.1	25.1
METHANE (CH4 - Methane)	0.00803	--
CO (Carbon Monoxide)	0.066189	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.391957	--
DT-EER (Drive Trace Energy Economy Rating)	-0.31875	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.837509	--
MFR FE (Manufacturer Fuel Economy)	24.7	24.7
NOX (Nitrogen Oxide)	0.028193	--
N2O (Nitrous Oxide)	0.049165	--
HC-NM (Non-methane Hydrocarbon)	0.026095	--
NMOG (Non-methane organic gases)	0.026095	--
PM (Particulate Matter)	0.00007	--
HC-TOTAL (Total Hydrocarbon)	0.03364	--

Certification Summary Information Report

Test Group		VGMXT03.0355				Evaporative/Refueling Family				--		
		Test Result Name		Unrounded Test Result		Verify Calculated CREE/OPT-CREE						
		Carbon-Related Exhaust Emissions		412		412						
		Test Result Name		Unrounded Test Result		Verify Calculated CO2						
		Carbon dioxide		412.099		--						
Manufacturer Test Comments		150K EMIS TEST										
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	120,000 miles	Federal Tier 3 Bin 70	CREE	412	1	--	0 UP	0	--	412	--	--
Fed	150,000 miles	Federal Tier 3 Bin 70	CO	0.07	1	--	0 UP	--	--	0.1	1.7	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	CO-COMP	0.16	1	--	0 UP	--	--	0.2	4.2	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG	0.0261	1	--	0.0005 UP	--	--	0.027	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG+NOX	0.0543	1	--	0 UP	--	--	0.061	0.070	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG+NOX-COMP	0.0501	1	--	0 UP	--	--	0.05	0.080	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NOX	0.0282	1	--	0.0065 UP	--	--	0.035	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	PM	0.0001	1	--	0.0003 UP	--	--	0	0.003	Pass
CA	150,000 miles	California LEV-III ULEV70	CO	0.07	1	--	0 UP	--	--	0.1	1.7	Pass
CA	150,000 miles	California LEV-III ULEV70	CO-COMP	0.16	1	--	0 UP	--	--	0.2	4.2	Pass
CA	150,000 miles	California LEV-III ULEV70	NMOG	0.0261	1	--	0.0005 UP	--	--	0.027	99.999	Pass
CA	150,000 miles	California LEV-III ULEV70	NMOG+NOX	0.0543	1	--	0 UP	--	--	0.061	0.070	Pass
CA	150,000 miles	California LEV-III ULEV70	NMOG+NOX-COMP	0.0501	1	--	0 UP	--	--	0.05	0.080	Pass
CA	150,000 miles	California LEV-III ULEV70	NOX	0.0282	1	--	0.0065 UP	--	--	0.035	99.999	Pass
CA	150,000 miles	California LEV-III ULEV70	PM	0.0001	1	--	0.0003 UP	--	--	0	0.001	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	VGMXT03.0355	Evaporative/Refueling Family	--
Test #	SGMX10087927	Test Procedure	11 - Cold CO
Exhaust Test # for this Evap Test	--	Test Fuel Type	19 - Federal Cert Diesel 7-15 PPM Sulfur
Test Date	09/06/2024	Fuel	N/A
Fuel Batch ID	000400	Fuel Calibration Number	9398
Vehicle Class	N/A	DF Type	Aged components installed In the emission data vehicle
Verify Test Lab ID	Compliance and Certification		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4179	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	U
State of Charge Delta	No		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes
Test Results			
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	
CO2 BAG 1 (Bag 1 Carbon Dioxide)	553.596	--	
FE BAG 1 (Bag 1 Fuel Economy)	18.3	18.3	
CO2 BAG 2 (Bag 2 Carbon Dioxide)	442.679	--	
FE BAG 2 (Bag 2 Fuel Economy)	23	23	
CO2 BAG 3 (Bag 3 Carbon Dioxide)	422.857	--	
FE BAG 3 (Bag 3 Fuel Economy)	24	24	
METHANE (CH4 - Methane)	0.007194	--	
CO (Carbon Monoxide)	0.345815	--	
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.807119	--	
DT-EER (Drive Trace Energy Economy Rating)	0.373331	--	
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.973691	--	
MFR FE (Manufacturer Fuel Economy)	22.1	22.1	
NOX (Nitrogen Oxide)	0.109304	--	
HC-NM (Non-methane Hydrocarbon)	0.080159	--	
NMOG (Non-methane organic gases)	0.080159	--	
HC-TOTAL (Total Hydrocarbon)	0.086986	--	
Test Result Name	Unrounded Test Result	Verify Calculated CO2	
Carbon dioxide	460.248	--	
Manufacturer Test Comments	150K COLD TEST		

Certification Summary Information Report

Test Group	VGMXT03.0355	Evaporative/Refueling Family	--																																				
Test #	SGMX10087924	Test Procedure	3 - HWFE																																				
Exhaust Test # for this Evap Test	--	Test Fuel Type	19 - Federal Cert Diesel 7-15 PPM Sulfur																																				
Test Date	08/30/2024	Fuel	Diesel																																				
Fuel Batch ID	000400	Fuel Calibration Number	9398																																				
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Aged components installed In the emission data vehicle																																				
Verify Test Lab ID	Compliance and Certification																																						
E10 Evaporative Test Measurement Method	--																																						
Test Start Odometer Reading	4105	Odometer Units	M																																				
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	U																																				
State of Charge Delta	No																																						
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes																																				
Test Results																																							
<table border="1"> <thead> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated FE Equivalent Value (miles per gallon)</th> </tr> </thead> <tbody> <tr> <td>METHANE (CH4 - Methane)</td> <td>0.002644</td> <td>--</td> </tr> <tr> <td>CO (Carbon Monoxide)</td> <td>0.011876</td> <td>--</td> </tr> <tr> <td>DT-ASCR (Drive Trace Absolute Speed Change Rating)</td> <td>3.55758</td> <td>--</td> </tr> <tr> <td>DT-EER (Drive Trace Energy Economy Rating)</td> <td>-0.144601</td> <td>--</td> </tr> <tr> <td>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</td> <td>4.48148</td> <td>--</td> </tr> <tr> <td>MFR FE (Manufacturer Fuel Economy)</td> <td>33.9</td> <td>33.9</td> </tr> <tr> <td>NOX (Nitrogen Oxide)</td> <td>0.014595</td> <td>--</td> </tr> <tr> <td>N2O (Nitrous Oxide)</td> <td>0.039342</td> <td>--</td> </tr> <tr> <td>HC-NM (Non-methane Hydrocarbon)</td> <td>0.008164</td> <td>--</td> </tr> <tr> <td>NMOG (Non-methane organic gases)</td> <td>0.008164</td> <td>--</td> </tr> <tr> <td>HC-TOTAL (Total Hydrocarbon)</td> <td>0.010646</td> <td>--</td> </tr> </tbody> </table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	METHANE (CH4 - Methane)	0.002644	--	CO (Carbon Monoxide)	0.011876	--	DT-ASCR (Drive Trace Absolute Speed Change Rating)	3.55758	--	DT-EER (Drive Trace Energy Economy Rating)	-0.144601	--	DT-IWRR (Drive Trace Inertia Work Ratio Rating)	4.48148	--	MFR FE (Manufacturer Fuel Economy)	33.9	33.9	NOX (Nitrogen Oxide)	0.014595	--	N2O (Nitrous Oxide)	0.039342	--	HC-NM (Non-methane Hydrocarbon)	0.008164	--	NMOG (Non-methane organic gases)	0.008164	--	HC-TOTAL (Total Hydrocarbon)	0.010646	--
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Test Result Name	Unrounded Test Result	Verify Calculated CO2																																					
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Manufacturer Test Comments	150K HWFE TEST																																						

Certification Summary Information Report

Test Group		VGMXT03.0355			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	120,000 miles	Federal Tier 3 Bin 70	CREE	300	1	--	0 UP	0	--	300	--	--
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG	0.0082	1	--	0.0005 UP	--	--	0.009	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG+NOX	0.0228	1	--	0 UP	--	--	0.03	0.070	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NOX	0.0146	1	--	0.0065 UP	--	--	0.021	99.999	Pass
CA	150,000 miles	California LEV-III ULEV70	NMOG	0.0082	1	--	0.0005 UP	--	--	0.009	99.999	Pass
CA	150,000 miles	California LEV-III ULEV70	NMOG+NOX	0.0228	1	--	0 UP	--	--	0.03	0.070	Pass
CA	150,000 miles	California LEV-III ULEV70	NOX	0.0146	1	--	0.0065 UP	--	--	0.021	99.999	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	VGMXT03.0355	Evaporative/Refueling Family	--
Test #	SGMX10087925	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	19 - Federal Cert Diesel 7-15 PPM Sulfur
Test Date	08/30/2024	Fuel	Diesel
Fuel Batch ID	000400	Fuel Calibration Number	9398
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Aged components installed In the emission data vehicle
Verify Test Lab ID	Compliance and Certification		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4127	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	U
State of Charge Delta	No		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes
Test Results			
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	
CO2 BAG 1 (Bag 1 Carbon Dioxide)	734.389	--	
FE BAG 1 (Bag 1 Fuel Economy)	13.9	13.9	
CO2 BAG 2 (Bag 2 Carbon Dioxide)	432.654	--	
FE BAG 2 (Bag 2 Fuel Economy)	23.5	23.5	
METHANE (CH4 - Methane)	0.002387	--	
CO (Carbon Monoxide)	0.407813	--	
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.229512	--	
DT-EER (Drive Trace Energy Economy Rating)	0.117208	--	
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.399109	--	
MFR FE (Manufacturer Fuel Economy)	20.3	20.3	
NOX (Nitrogen Oxide)	0.036486	--	
HC-NM (Non-methane Hydrocarbon)	0.014708	--	
NMOG (Non-methane organic gases)	0.014708	--	
PM (Particulate Matter)	0.000298	--	
HC-TOTAL (Total Hydrocarbon)	0.016923	--	
Test Result Name	Unrounded Test Result	Verify Calculated CO2	
Carbon dioxide	500.682	--	
Manufacturer Test Comments	150K US06 TEST		

Certification Summary Information Report

Test Group		VGMXT03.0355				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	150,000 miles	Federal Tier 3 Bin 70	CO	0.41	1	--	0 UP	--	--	0.4	99.9	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG	0.0147	1	--	0.0005 UP	--	--	0.015	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG+NOX	0.0512	1	--	0 UP	--	--	0.058	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NOX	0.0365	1	--	0.0065 UP	--	--	0.043	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	PM	0.0003	1	--	0.0003 UP	--	--	0.001	0.006	Pass
CA	150,000 miles	California LEV-III ULEV70	CO	0.41	1	--	0 UP	--	--	0.4	99.9	Pass
CA	150,000 miles	California LEV-III ULEV70	NMOG	0.0147	1	--	0.0005 UP	--	--	0.015	99.999	Pass
CA	150,000 miles	California LEV-III ULEV70	NMOG+NOX	0.0512	1	--	0 UP	--	--	0.058	99.999	Pass
CA	150,000 miles	California LEV-III ULEV70	NOX	0.0365	1	--	0.0065 UP	--	--	0.043	99.999	Pass
CA	150,000 miles	California LEV-III ULEV70	PM	0.0003	1	--	0.0003 UP	--	--	0.001	0.006	Pass

Certification Summary Information Report

Test Group	VGMXT03.0355	Evaporative/Refueling Family	--
Test #	SGMX10087926	Test Procedure	95 - SC03
Exhaust Test # for this Evap Test	--	Test Fuel Type	19 - Federal Cert Diesel 7-15 PPM Sulfur
Test Date	09/02/2024	Fuel	Diesel
Fuel Batch ID	000400	Fuel Calibration Number	9398
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Aged components installed In the emission data vehicle
Verify Test Lab ID	Compliance and Certification		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4143	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	U
State of Charge Delta	No		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.007333	--
CO (Carbon Monoxide)	0.055858	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-1.69116	--
DT-EER (Drive Trace Energy Economy Rating)	-0.797597	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-2.10201	--
MFR FE (Manufacturer Fuel Economy)	18.2	18.2
NOX (Nitrogen Oxide)	0.001535	--
HC-NM (Non-methane Hydrocarbon)	0.04372	--
NMOG (Non-methane organic gases)	0.04372	--
HC-TOTAL (Total Hydrocarbon)	0.050698	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	559.139	--

Manufacturer Test Comments

150K SC03 TEST

Certification Summary Information Report

Test Group		VGMXT03.0355				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	150,000 miles	Federal Tier 3 Bin 70	CO	0.06	1	--	0 UP	--	--	0.1	99.9	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG	0.0437	1	--	0.0005 UP	--	--	0.044	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG+NOX	0.0452	1	--	0 UP	--	--	0.052	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NOX	0.0015	1	--	0.0065 UP	--	--	0.008	99.999	Pass
CA	150,000 miles	California LEV-III ULEV70	CO	0.06	1	--	0 UP	--	--	0.1	99.9	Pass
CA	150,000 miles	California LEV-III ULEV70	NMOG	0.0437	1	--	0.0005 UP	--	--	0.044	99.999	Pass
CA	150,000 miles	California LEV-III ULEV70	NMOG+NOX	0.0452	1	--	0 UP	--	--	0.052	99.999	Pass
CA	150,000 miles	California LEV-III ULEV70	NOX	0.0015	1	--	0.0065 UP	--	--	0.008	99.999	Pass

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Certification Summary Information Report

Test Group	VGMXT03.0355	Evaporative/Refueling Family	--
Test #	SGMX10087928	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	09/11/2024	Fuel	Diesel
Fuel Batch ID	000400	Fuel Calibration Number	9398
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Aged components installed In the emission data vehicle
Verify Test Lab ID	Compliance and Certification		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4229	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	U
State of Charge Delta	No		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	472.423	--
FE BAG 1 (Bag 1 Fuel Economy)	21.5	21.5
CO2 BAG 2 (Bag 2 Carbon Dioxide)	400.668	--
FE BAG 2 (Bag 2 Fuel Economy)	25.4	25.4
CO2 BAG 3 (Bag 3 Carbon Dioxide)	406.009	--
FE BAG 3 (Bag 3 Fuel Economy)	25.1	25.1
METHANE (CH4 - Methane)	0.007052	--
CO (Carbon Monoxide)	0.077866	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.770443	--
DT-EER (Drive Trace Energy Economy Rating)	0.094911	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	1.25856	--
MFR FE (Manufacturer Fuel Economy)	24.4	24.4
NOX (Nitrogen Oxide)	0.027927	--
N2O (Nitrous Oxide)	0.048982	--
HC-NM (Non-methane Hydrocarbon)	0.013883	--
NMOG (Non-methane organic gases)	0.013883	--
PM (Particulate Matter)	0.000089	--
HC-TOTAL (Total Hydrocarbon)	0.020577	--

Certification Summary Information Report

Test Group		VGMXT03.0355		Evaporative/Refueling Family		--						
		Test Result Name		Unrounded Test Result		Verify Calculated CREE/OPT-CREE						
		Carbon-Related Exhaust Emissions		417		417						
		Test Result Name		Unrounded Test Result		Verify Calculated CO2						
		Carbon dioxide		416.988		--						
Manufacturer Test Comments		150K EMIS TEST FOR FE										
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	120,000 miles	Federal Tier 3 Bin 70	CREE	417	1	--	0 UP	0	--	417	--	--
Fed	150,000 miles	Federal Tier 3 Bin 70	CO	0.08	1	--	0 UP	--	--	0.1	1.7	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG	0.0139	1	--	0.0005 UP	--	--	0.014	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG+NOX	0.0418	1	--	0 UP	--	--	0.049	0.070	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NOX	0.0279	1	--	0.0065 UP	--	--	0.034	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	PM	0.0001	1	--	0.0003 UP	--	--	0	0.003	Pass
CA	150,000 miles	California LEV-III ULEV70	CO	0.08	1	--	0 UP	--	--	0.1	1.7	Pass
CA	150,000 miles	California LEV-III ULEV70	NMOG	0.0139	1	--	0.0005 UP	--	--	0.014	99.999	Pass
CA	150,000 miles	California LEV-III ULEV70	NMOG+NOX	0.0418	1	--	0 UP	--	--	0.049	0.070	Pass
CA	150,000 miles	California LEV-III ULEV70	NOX	0.0279	1	--	0.0065 UP	--	--	0.034	99.999	Pass
CA	150,000 miles	California LEV-III ULEV70	PM	0.0001	1	--	0.0003 UP	--	--	0	0.001	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	VGMXT03.0355	Evaporative/Refueling Family	--																																				
Test #	SGMX10087929	Test Procedure	3 - HWFE																																				
Exhaust Test # for this Evap Test	--	Test Fuel Type	19 - Federal Cert Diesel 7-15 PPM Sulfur																																				
Test Date	09/11/2024	Fuel	Diesel																																				
Fuel Batch ID	000400	Fuel Calibration Number	9398																																				
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Aged components installed In the emission data vehicle																																				
Verify Test Lab ID	Compliance and Certification																																						
E10 Evaporative Test Measurement Method	--																																						
Test Start Odometer Reading	4240	Odometer Units	M																																				
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	U																																				
State of Charge Delta	No																																						
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes																																				
Test Results																																							
<table border="1"> <thead> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated FE Equivalent Value (miles per gallon)</th> </tr> </thead> <tbody> <tr> <td>METHANE (CH4 - Methane)</td> <td>0.002228</td> <td>--</td> </tr> <tr> <td>CO (Carbon Monoxide)</td> <td>0.016999</td> <td>--</td> </tr> <tr> <td>DT-ASCR (Drive Trace Absolute Speed Change Rating)</td> <td>1.35834</td> <td>--</td> </tr> <tr> <td>DT-EER (Drive Trace Energy Economy Rating)</td> <td>-0.222573</td> <td>--</td> </tr> <tr> <td>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</td> <td>2.18524</td> <td>--</td> </tr> <tr> <td>MFR FE (Manufacturer Fuel Economy)</td> <td>33.7</td> <td>33.7</td> </tr> <tr> <td>NOX (Nitrogen Oxide)</td> <td>0.013924</td> <td>--</td> </tr> <tr> <td>N2O (Nitrous Oxide)</td> <td>0.03493</td> <td>--</td> </tr> <tr> <td>HC-NM (Non-methane Hydrocarbon)</td> <td>0.004801</td> <td>--</td> </tr> <tr> <td>NMOG (Non-methane organic gases)</td> <td>0.004801</td> <td>--</td> </tr> <tr> <td>HC-TOTAL (Total Hydrocarbon)</td> <td>0.006911</td> <td>--</td> </tr> </tbody> </table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	METHANE (CH4 - Methane)	0.002228	--	CO (Carbon Monoxide)	0.016999	--	DT-ASCR (Drive Trace Absolute Speed Change Rating)	1.35834	--	DT-EER (Drive Trace Energy Economy Rating)	-0.222573	--	DT-IWRR (Drive Trace Inertia Work Ratio Rating)	2.18524	--	MFR FE (Manufacturer Fuel Economy)	33.7	33.7	NOX (Nitrogen Oxide)	0.013924	--	N2O (Nitrous Oxide)	0.03493	--	HC-NM (Non-methane Hydrocarbon)	0.004801	--	NMOG (Non-methane organic gases)	0.004801	--	HC-TOTAL (Total Hydrocarbon)	0.006911	--
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Carbon dioxide	301.513	--																																					
Manufacturer Test Comments	150K HWFE TEST FOR FE																																						

Certification Summary Information Report

Test Group		VGMXT03.0355			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	120,000 miles	Federal Tier 3 Bin 70	CREE	302	1	--	0 UP	0	--	302	--	--
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG	0.0048	1	--	0.0005 UP	--	--	0.005	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG+NOX	0.0187	1	--	0 UP	--	--	0.026	0.070	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NOX	0.0139	1	--	0.0065 UP	--	--	0.02	99.999	Pass
CA	150,000 miles	California LEV-III ULEV70	NMOG	0.0048	1	--	0.0005 UP	--	--	0.005	99.999	Pass
CA	150,000 miles	California LEV-III ULEV70	NMOG+NOX	0.0187	1	--	0 UP	--	--	0.026	0.070	Pass
CA	150,000 miles	California LEV-III ULEV70	NOX	0.0139	1	--	0.0065 UP	--	--	0.02	99.999	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	VGMXT03.0355	Evaporative/Refueling Family	--
Test #	SGMX10087930	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	19 - Federal Cert Diesel 7-15 PPM Sulfur
Test Date	09/11/2024	Fuel	Diesel
Fuel Batch ID	000400	Fuel Calibration Number	9398
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Aged components installed In the emission data vehicle
Verify Test Lab ID	Compliance and Certification		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4262	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	U
State of Charge Delta	No		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes
Test Results			
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	
CO2 BAG 1 (Bag 1 Carbon Dioxide)	725.694	--	
FE BAG 1 (Bag 1 Fuel Economy)	14	14	
CO2 BAG 2 (Bag 2 Carbon Dioxide)	432.506	--	
FE BAG 2 (Bag 2 Fuel Economy)	23.4	23.4	
METHANE (CH4 - Methane)	0.0022	--	
CO (Carbon Monoxide)	0.640773	--	
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-1.45153	--	
DT-EER (Drive Trace Energy Economy Rating)	-0.703605	--	
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-2.72708	--	
MFR FE (Manufacturer Fuel Economy)	20.4	20.4	
NOX (Nitrogen Oxide)	0.042685	--	
HC-NM (Non-methane Hydrocarbon)	0.008429	--	
NMOG (Non-methane organic gases)	0.008429	--	
PM (Particulate Matter)	0.000284	--	
HC-TOTAL (Total Hydrocarbon)	0.010499	--	
Test Result Name	Unrounded Test Result	Verify Calculated CO2	
Carbon dioxide	498.109	--	
Manufacturer Test Comments	150K US06 TEST FOR FE		

Certification Summary Information Report

Test Group		VGMXT03.0355				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	150,000 miles	Federal Tier 3 Bin 70	CO	0.64	1	--	0 UP	--	--	0.6	99.9	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG	0.0084	1	--	0.0005 UP	--	--	0.009	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG+NOX	0.0511	1	--	0 UP	--	--	0.058	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NOX	0.0427	1	--	0.0065 UP	--	--	0.049	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	PM	0.0003	1	--	0.0003 UP	--	--	0.001	0.006	Pass
CA	150,000 miles	California LEV-III ULEV70	CO	0.64	1	--	0 UP	--	--	0.6	99.9	Pass
CA	150,000 miles	California LEV-III ULEV70	NMOG	0.0084	1	--	0.0005 UP	--	--	0.009	99.999	Pass
CA	150,000 miles	California LEV-III ULEV70	NMOG+NOX	0.0511	1	--	0 UP	--	--	0.058	99.999	Pass
CA	150,000 miles	California LEV-III ULEV70	NOX	0.0427	1	--	0.0065 UP	--	--	0.049	99.999	Pass
CA	150,000 miles	California LEV-III ULEV70	PM	0.0003	1	--	0.0003 UP	--	--	0.001	0.006	Pass

Fuel Properties												
Fuel Batch ID			000400				Fuel Calibration Number			9398		
Test Fuel Type			19 - Federal Cert Diesel 7-15 PPM Sulfur				Fuel Batch Calibration Date			05/07/2024		
Fuel Batch Calibration Effective Date			05/07/2024				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			0.851		
Fuel Ethanol Volume Percent (%)			--				Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)			18423		
Fuel Net Heat of Combustion (E10) (MJ/kg)			--				Fuel Carbon Mass Fraction (E10)			--		
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)			0.869				Weight Fraction CO2			--		

Certification Summary Information Report

Test Group		VGMXT03.0355			Evaporative/Refueling Family			--	
Consolidated List of Standards									
Exhaust Standards									
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			California LEV-III ULEV70	
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
150,000 miles	CO	--	1	--	0	0	--	--	99.9
150,000 miles	NMOG	--	1	--	0.0005	-0.0215	--	--	99.999
150,000 miles	NMOG+NOX	--	1	--	0	0	1	--	99.999
150,000 miles	NOX	--	1	--	0.0065	-0.2739	--	--	99.999
150,000 miles	PM	--	1	--	0.0003	-0.0129	--	--	0.006
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			California LEV-III ULEV70	
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
150,000 miles	CO	--	1	--	0	0	--	--	99.9
150,000 miles	NMOG	--	1	--	0.0005	-0.0215	--	--	99.999
150,000 miles	NMOG+NOX	--	1	--	0	0	1	--	99.999
150,000 miles	NOX	--	1	--	0.0065	-0.2739	--	--	99.999

Certification Summary Information Report

Test Group		VGMXT03.0355			Evaporative/Refueling Family			--	
Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 70	
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
120,000 miles	CREE	--	1	--	0	0	--	0	999.999
150,000 miles	CO	--	1	--	0	0	--	--	1.7
150,000 miles	CO-COMP	--	1	--	0	0	--	--	4.2
150,000 miles	NMOG	--	1	--	0.0005	-0.0215	--	--	99.999
150,000 miles	NMOG+NOX	--	1	--	0	0	1	--	0.070
150,000 miles	NMOG+NOX-COMP	--	1	--	0	0	--	--	0.080
150,000 miles	NOX	--	1	--	0.0065	-0.2739	--	--	99.999
150,000 miles	PM	--	1	--	0.0003	-0.0129	--	--	0.003

Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 70	
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
150,000 miles	CO	--	1	--	0	0	--	--	99.9
150,000 miles	NMOG	--	1	--	0.0005	-0.0215	--	--	99.999
150,000 miles	NMOG+NOX	--	1	--	0	0	1	--	99.999
150,000 miles	NOX	--	1	--	0.0065	-0.2739	--	--	99.999

Certification Summary Information Report

Test Group		VGMXT03.0355			Evaporative/Refueling Family			--	
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			California LEV-III ULEV70	
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
150,000 miles	CO	--	1	--	0	0	--	--	1.7
150,000 miles	CO-COMP	--	1	--	0	0	--	--	4.2
150,000 miles	NMOG	--	1	--	0.0005	-0.0215	--	--	99.999
150,000 miles	NMOG+NOX	--	1	--	0	0	1	--	0.070
150,000 miles	NMOG+NOX-COMP	--	1	--	0	0	--	--	0.080
150,000 miles	NOX	--	1	--	0.0065	-0.2739	--	--	99.999
150,000 miles	PM	--	1	--	0.0003	-0.0129	--	--	0.001
Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 70	
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
120,000 miles	CREE	--	1	--	0	0	--	0	999.999
150,000 miles	NMOG	--	1	--	0.0005	-0.0215	--	--	99.999
150,000 miles	NMOG+NOX	--	1	--	0	0	1	--	0.070
150,000 miles	NOX	--	1	--	0.0065	-0.2739	--	--	99.999
Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 70	
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
150,000 miles	CO	--	1	--	0	0	--	--	99.9
150,000 miles	NMOG	--	1	--	0.0005	-0.0215	--	--	99.999
150,000 miles	NMOG+NOX	--	1	--	0	0	1	--	99.999
150,000 miles	NOX	--	1	--	0.0065	-0.2739	--	--	99.999
150,000 miles	PM	--	1	--	0.0003	-0.0129	--	--	0.006

Certification Summary Information Report

Test Group	VGMXT03.0355				Evaporative/Refueling Family		--		
Cert Region	California + CAA Section 177 states				Cert/In-Use Code		Cert		
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)				Standard Level		California LEV-III ULEV70		
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
150,000 miles	NMOG	--	1	--	0.0005	-0.0215	--	--	99.999
150,000 miles	NMOG+NOX	--	1	--	0	0	1	--	0.070
150,000 miles	NOX	--	1	--	0.0065	-0.2739	--	--	99.999

Certification Summary Information Report

Test Group		VGMXT03.0355	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		COMB-CREE	Combined Carbon-Related Exhaust Emissions	
CO	Carbon Monoxide		COMB-OPT-CREE	Combined Optional Carbon-Related Exhaust Emissions	
CO2	Carbon dioxide		HC-TOTAL-EQUIV	Total Hydrocarbon equivalent - Evap only	
CREE	Carbon-Related Exhaust Emissions		METHANE-COMB	Combined CH4 for HD 2b/3 vehicles only	
OPT-CREE	Optional Carbon-Related Exhaust Emissions		N2O-COMB	Combined Nitrous Oxide for HD 2b/3 vehicles only	
NOX	Nitrogen Oxide		LEAK-DIA	Effective Leak Diameter (inches)	
PM	Particulate Matter		LEAK-GAS CAP	Gas Cap Leakage (cc/min)	
PM-COMP	SFTP Composite Particulate Matter		CO2-COMB	Combined Carbon Dioxide for HD 2b/3 Vehicles Only	
HC-NM	Non-methane Hydrocarbon		KW-HRS	Integrated DC KW-HRS	
OMHCE	Organic material Hydrocarbon Equivalent		CH4 BAG 1	Bag 1 Methane	
OMNMHCE	Organic material non-methane HC equivalent		CH4 BAG 2	Bag 2 Methane	
NMOG	Non-methane organic gases		CH4 BAG 3	Bag 3 Methane	
HCHO	Formaldehyde		CH4 BAG 4	Bag 4 Methane	
H3C2HO	Acetaldehyde		CO BAG 1	Bag 1 Carbon Monoxide	
HC-NM+NOX	SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03		CO BAG 2	Bag 2 Carbon Monoxide	
HC-NM+NOX-COMP	SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides		CO BAG 3	Bag 3 Carbon Monoxide	
CO-COMP	SFTP Composite Carbon Monoxide		CO BAG 4	Bag 4 Carbon Monoxide	
ETHANOL	C2H5OH - Ethanol		NMOG BAG 1	Bag 1 Non-methane organic gases	
FE BAG 1	Bag 1 Fuel Economy		NMOG BAG 2	Bag 2 Non-methane organic gases	
FE BAG 2	Bag 2 Fuel Economy		NMOG BAG 3	Bag 3 Non-methane organic gases	
FE BAG 3	Bag 3 Fuel Economy		NMOG BAG 4	Bag 4 Non-methane organic gases	
FE BAG 4	Bag 4 Fuel Economy		ACT-DISTANCE BAG 1	Bag 1 Actual Distance	
MFR FE	Manufacturer Fuel Economy		ACT-DISTANCE BAG 2	Bag 2 Actual Distance	
HC	Hydrocarbon for Running Loss and ORVR		ACT-DISTANCE BAG 3	Bag 3 Actual Distance	
METHANE	CH4 - Methane		ACT-DISTANCE BAG 4	Bag 4 Actual Distance	
METHANOL	CH3OH - Methanol		HC-TOTAL BAG 1	Bag 1 Total Hydrocarbon	
N2O	Nitrous Oxide		HC-TOTAL BAG 2	Bag 2 Total Hydrocarbon	
SPITBACK	Spitback Hydrocarbon in grams		HC-TOTAL BAG 3	Bag 3 Total Hydrocarbon	
AMP-HRS	Integrated Amp-hours		HC-TOTAL BAG 4	Bag 4 Total Hydrocarbon	
START-SOC	System Start State of Charge Watt-hours		WATT-HRS BAG 1	Bag 1 Watt Hours	
END-SOC	System End State of Charge Watt-hours		WATT-HRS BAG 2	Bag 2 Watt Hours	

Certification Summary Information Report

Test Group		VGMXT03.0355	Evaporative/Refueling Family		--
ACT-DISTANCE	Actual Distance Driven (miles)		WATT-HRS BAG 3	Bag 3 Watt Hours	
AS-VOLT	Average System Voltage		WATT-HRS BAG 4	Bag 4 Watt Hours	
CO2 BAG 1	Bag 1 Carbon Dioxide		WATT-HRS	Watt Hours	
CO2 BAG 2	Bag 2 Carbon Dioxide		HC-NM BAG 1	Bag 1 Non-methane Hydrocarbon	
CO2 BAG 3	Bag 3 Carbon Dioxide		HC-NM BAG 2	Bag 2 Non-methane Hydrocarbon	
CO2 BAG 4	Bag 4 Carbon Dioxide		HC-NM BAG 3	Bag 3 Non-methane Hydrocarbon	
NMOG+NOX	Non-methane organic gases plus Nitrogen Oxides		HC-NM BAG 4	Bag 4 Non-methane Hydrocarbon	
NMOG+NOX-COMP	SFTP Composite Non-methane Organic Gases + Nitrogen Oxides		N2O BAG 1	Bag 1 Nitrous Oxide	
DT-IWRR	Drive Trace Inertia Work Ratio Rating		N2O BAG 2	Bag 2 Nitrous Oxide	
DT-ASCR	Drive Trace Absolute Speed Change Rating		N2O BAG 3	Bag 3 Nitrous Oxide	
DT-EER	Drive Trace Energy Economy Rating		N2O BAG 4	Bag 4 Nitrous Oxide	
Certification Region					
CA	California + CAA Section 177 states		FA	Federal	
Exhaust Emission Standard Level					
B1	Federal Tier 2 Bin 1		HDV2B340	Federal Tier 3 HD Class 2b Transitional Bin 340	
B2	Federal Tier 2 Bin 2		HDV2B250	Federal Tier 3 HD Class 2b Bin 250	
B3	Federal Tier 2 Bin 3		HDV2B200	Federal Tier 3 HD Class 2b Bin 200	
B4	Federal Tier 2 Bin 4		HDV2B170	Federal Tier 3 HD Class 2b Bin 170	
B5	Federal Tier 2 Bin 5		HDV2B150	Federal Tier 3 HD Class 2b Bin 150	
B6	Federal Tier 2 Bin 6		HDV2B0	Federal Tier 3 HD Class 2b Bin 0	
B7	Federal Tier 2 Bin 7		HDV3B630	Federal Tier 3 HD Class 3 Transitional Bin 630	
B8	Federal Tier 2 Bin 8		HDV3B570	Federal Tier 3 HD Class 3 Transitional Bin 570	
B9	Federal Tier 2 Bin 9		HDV3B400	Federal Tier 3 HD Class 3 Bin 400	
B10	Federal Tier 2 Bin 10		HDV3B270	Federal Tier 3 HD Class 3 Bin 270	
B11	Federal Tier 2 Bin 11		HDV3B230	Federal Tier 3 HD Class 3 Bin 230	
HDV1	HDV1 (Federal HD chassis Class 2b GVW 8501-10000)		HDV3B200	Federal Tier 3 HD Class 3 Bin 200	
HDV2	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)		HDV3B0	Federal Tier 3 HD Class 3 Bin 0	
L2	California LEV-II LEV		L4SULEV100	California LEV-IV SULEV100	
L2OP	California LEV-II LEV Optional		L4SULEV125	California LEV-IV SULEV125	
U2	California LEV-II ULEV		L4SULEV15	California LEV-IV SULEV15	
S2	California LEV-II SULEV		L4SULEV150	California LEV-IV SULEV150	
ZEV	California ZEV		L4SULEV170	California LEV-IV SULEV170	
OT	Other		L4SULEV175	California LEV-IV SULEV175	
T1	Federal Tier 1		L4SULEV20	California LEV-IV SULEV20	
PZEV	California PZEV		L4SULEV200	California LEV-IV SULEV200	
L2LEV160	California LEV-II LEV160		L4SULEV230	California LEV-IV SULEV230	
L2ULEV125	California LEV-II ULEV125		L4SULEV25	California LEV-IV SULEV25	
L2SULEV30	California LEV-II SULEV30		L4SULEV30	California LEV-IV SULEV30	
L2LEV395	California LEV-II LEV395		L4SULEV75	California LEV-IV SULEV75	

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Test Group		VGMXT03.0355	Evaporative/Refueling Family		--
L2ULEV340	California LEV-II ULEV340		L4SULEV85	California LEV-IV SULEV85	
L2LEV630	California LEV-II LEV630		L4ULEV125	California LEV-IV ULEV125	
L2ULEV570	California LEV-II ULEV570		L4ULEV200	California LEV-IV ULEV200	
L3LEV160	California LEV-III LEV160		L4ULEV250	California LEV-IV ULEV250	
L3ULEV125	California LEV-III ULEV125		L4ULEV270	California LEV-IV ULEV270	
L3ULEV70	California LEV-III ULEV70		L4ULEV40	California LEV-IV ULEV40	
L3ULEV50	California LEV-III ULEV50		L4ULEV400	California LEV-IV ULEV400	
L3SULEV30	California LEV-III SULEV30		L4ULEV50	California LEV-IV ULEV50	
L3SULEV20	California LEV-III SULEV20		L4ULEV60	California LEV-IV ULEV60	
L3LEV395	California LEV-III LEV395		L4ULEV70	California LEV-IV ULEV70	
L3ULEV340	California LEV-III ULEV340		T4B170	Federal Tier 4 MDV Bin 170	
L3ULEV250	California LEV-III ULEV250		T4B150	Federal Tier 4 MDV Bin 150	
L3ULEV200	California LEV-III ULEV200		T4B125	Federal Tier 4 MDV Bin 125	
L3SULEV170	California LEV-III SULEV170		T4B100	Federal Tier 4 MDV Bin 100	
L3SULEV150	California LEV-III SULEV150		T4B85	Federal Tier 4 MDV Bin 85	
L3LEV630	California LEV-III LEV630		T4B75	Federal Tier 4 MDV Bin 75	
L3ULEV570	California LEV-III ULEV570		T4B70	Federal Tier 4 Bin 70	
L3ULEV400	California LEV-III ULEV400		T4B65	Federal Tier 4 Bin 65	
L3ULEV270	California LEV-III ULEV270		T4B60	Federal Tier 4 Bin 60	
L3SULEV230	California LEV-III SULEV230		T4B55	Federal Tier 4 Bin 55	
L3SULEV200	California LEV-III SULEV200		T4B50	Federal Tier 4 Bin 50	
T3B160	Federal Tier 3 Bin 160		T4B45	Federal Tier 4 Bin 45	
T3B125	Federal Tier 3 Bin 125		T4B40	Federal Tier 4 Bin 40	
T3B110	Federal Tier 3 Transitional Bin 110		T4B35	Federal Tier 4 Bin 35	
T3B85	Federal Tier 3 Transitional Bin 85		T4B30	Federal Tier 4 Bin 30	
T3SULEV30	Federal Tier 3 Transitional LEV-II SULEV30 Carryover		T4B25	Federal Tier 4 Bin 25	
T3B70	Federal Tier 3 Bin 70		T4B20	Federal Tier 4 Bin 20	
T3B50	Federal Tier 3 Bin 50		T4B15	Federal Tier 4 Bin 15	
T3B30	Federal Tier 3 Bin 30		T4B10	Federal Tier 4 Bin 10	
T3B20	Federal Tier 3 Bin 20		T4B5	Federal Tier 4 Bin 5	
T3B0	Federal Tier 3 Bin 0		T4B0	Federal Tier 4 Bin 0	
HDV2B395	Federal Tier 3 HD Class 2b Transitional Bin 395				
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		

Certification Summary Information Report

Test Group		VGMXT03.0355	Evaporative/Refueling Family		--
F	2-Wheel Drive, Front		A	All Wheel Drive	
R	2-Wheel Drive, Rear				
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	