

MOBILE SOURCE CERTIFICATION AND COMPLIANCE FEE PAYMENT FORM FOR ON-ROAD APPLICATIONS ONLY

CARB USE ONLY

Invoice Name	MSF251270
Invoice Date	Jun 03, 2026

COMPANY INFORMATION

Company Name	General Motors
Address	3300 General Motors Rd
City	Milford
State	Michigan
Zip	48380
Country	United States
Contact Name	Kimber Sinacola
Contact Telephone Number	2482966200
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CARB Customer Number	CCAM000033

APPLICATION INFORMATION

Payment Row Number	Product Description or File Name	Model Year/Calendar Year	Unique Application Identifier: Test Group, Engine Family, Trailer Family, Vehicle Family, ZEP Family, if applicable (ID listed in payment row must match the unique identifier given to the certification application)	Category Type	Fee Type	Amount
1	VGMXT05.3330_APPIPT1	Model Year 2027	VGMXT05.3330	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 50,309.00
2	VGMXT06.2375_APPIPT1	Model Year 2027	VGMXT06.2375	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 50,309.00
3	VGMXT06.2376_APPIPT1	Model Year 2027	VGMXT06.2376	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 50,309.00
4	VGMXT00.0005_APPIPT1	Model Year 2027	VGMXT00.0005	Light-duty vehicle test group and medium-duty vehicle test group	Zero-Emission	\$ 12,577.00
5	VGMXT03.0355_APPIPT1	Model Year 2027	VGMXT03.0355	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 50,309.00
6	VGMXT05.7330_APPIPT1	Model Year 2027	VGMXT05.7330	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 50,309.00
7	VGMXT06.6330_APPIPT1	Model Year 2027	VGMXT06.6330	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 50,309.00
8	VGMXT02.7101_APPIPT1	Model Year 2027	VGMXT02.7101	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 50,309.00
9	VGMXT02.0400_APPIPT1	Model Year 2027	VGMXT02.0400	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 50,309.00

APPLICATION FOR CERTIFICATION

2027 MODEL YEAR

Durability Group:	VGMXGPGNNB59
Test Group:	VGMXT02.7101
Summary Sheet No:	NA
Durability Group Description:	Four Stroke, Otto Cycle, Gasoline Fueled, DFI, Ceramic Monolith Pd/Rh Catalyst
Durability Vehicle:	NA - Aged Components
OBD Group:	VGMXOBDG03B
Test Group Description:	2.7L L4
Applicable Standards:	California TRUCK Federal LDT3 Bin30/California LDT3 SULEV30
Carlines Covered by Evaporative Family:	2.7L GMC CANYON 2WD GMC CANYON 4WD GMC CANYON AT4X 4WD GMC CANYON AT4X AEV 4WD Chevrolet COLORADO 2WD Chevrolet COLORADO 4WD Chevrolet COLORADO ZR2 4WD Chevrolet COLORADO ZR2 BISON 4WD VGMXR016340A
Vehicles Tested:	27VVZ41509
For Questions, Contact:	B. Doak (248-444-1506)

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(Included in Initial Application)

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Part 2

(Included in Final Application)

Section 86.1844(e)(1)	Part Numbers
Section 86.1844(e)(2)	Basic Calibration Information
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Section 86.1844(e)(6)	Gasoline to Ethanol Emissions Conversion Ratio (Flex Fuel Only)

TEST VEHICLE DESCRIPTION

	<u>Durability Vehicle Selection - NA</u>	<u>Emission-Data Vehicle Selection</u>
Test Group		VGMXT02.7101
Evaporative Family		VGMXR016340A
Displacement – Liters		2.7
Engine Code		4
Emission Control System		
Exhaust		DFI/WR-HO2S/HO2S/ TWC/TC/CAC
Evap		C/CCP/IC
Model		14H43+ULV
Transmission Type/Code		A8/5
Shift Schedule		NA
(LVW) Test Weight – Lbs		5500
GVWR		6350
Dyno Horsepower/Type		NA
Roadload HP		24.7
Final Drive		3.42
N/V Ratio – rpm/mph		22.3
Tires		LT315/70R17(GDY)
Vehicle/EPA Config No./GM Config No.		
FTP & HWFE		27VVZ41509/00/000
SFTP		27VVZ41509/00/000
20° CO		27VVZ41509/00/000

NOTE: Road speed fan used on all test cycles. For complete vehicle information, see vehicle information submitted in VERIFY database.

Data Vehicle Selection Justification – Highest TWC, highest RLHP, highest N/V ratio.

2027 EMISSION STANDARDS

BIN30 (LDT3)

TEST GROUP NAME: VGMXT02.7101

EVAPORATIVE FAMILY NAME(S): VGMXR016340A

CERTIFICATION & IN-USE STANDARDS

LOW AND HIGH ALTITUDE:

	FTP TEST						
	Low Altitude NMOG+NOx	High Altitude NMOG+NOx	CO	HCHO	PM	CH4	N2O
120K STD	NA	NA	NA	NA	NA	0.030	0.010
150k STD	0.030	0.050	1.0	0.004	0.003	NA	NA

	HWY TEST		20 °F TEST	
	Low Altitude NMOG+NOx	High Altitude NMOG+NOx	CO	NMHC
50K STD	NA	NA	12.5	NA
120K STD	NA	NA	NA	0.5
150k STD	0.030	0.050	NA	NA

SFTP - LOW ALTITUDE:

	US06 PM	COMPOSITE* ¹ NMOG+NOx	COMPOSITE* ¹ CO
150K STD	0.006	0.030	4.2

*1 The calculation used for the composite results for NMOG+NOx, CO and PM = 35%FTP + 28%US06 + 37%SC03

86.1844(d)(7)-

2027 EMISSION STANDARDS

LEV3 SULEV30 (LDT2>6000 GVW)

TEST GROUP NAME: VGMXT02.7101

EVAPORATIVE FAMILY NAME(S): VGMXR016340A

CERTIFICATION STANDARDS

	<u>FTP TEST</u>				<u>HWY TEST</u>	<u>20 °F TEST</u>
	<u>NMOG+NOx</u>	<u>CO</u>	<u>HCHO</u>	<u>PM</u>	<u>NMOG+NOx</u>	<u>CO</u>
50K STD	NA	NA	NA	NA	NA	12.5
150K STD (Low)	0.030	1.0	0.004	0.001	0.030	NA
150K STD (High)	0.050	1.0	0.004	0.001	0.050	

SFTP - LOW ALTITUDE:

	<u>US06 PM</u>	<u>COMPOSITE*¹ NMOG+NOx</u>	<u>COMPOSITE*¹ CO</u>
150K STD	0.006	0.050	4.2

50 °F TEST:

	<u>NMOG+NOx</u>	<u>CO</u>	<u>HCHO</u>
4K E10 STD	0.060	1.0	0.008

IN-USE STANDARDS

	<u>FTP TEST</u>				<u>HWY TEST</u>	<u>20 °F TEST</u>
	<u>NMOG+NOx</u>	<u>CO</u>	<u>HCHO</u>	<u>PM</u>	<u>NMOG+NOx</u>	<u>CO</u>
50K STD	NA	NA	NA	NA	NA	12.5
150K STD (Low)	0.030	1.0	0.004	0.002	0.030	NA
150K STD (High)	0.050	1.0	0.004	0.002	0.050	

SFTP - LOW ALTITUDE:

	<u>US06 PM</u>	<u>COMPOSITE*¹ NMOG+NOx</u>	<u>COMPOSITE*¹ CO</u>
150K STD	0.003	0.030	4.2

Note: Standards apply at Low and High Altitudes unless otherwise noted.

86.1844(d)(7)-

Litmus Test

Test Group	Test Vehicle #	Config #	Vehicle Run #(s)	City				Highway				Minimum Required Calculation	Status
				5-Cycle Derived	5-Cycle Calc	Threshold	Result	5-Cycle Derived	5-Cycle Calc	Threshold	Result		
VGMXT02.7101	27VVZ41509	000	4,5,EPA1,EPA2,EPA3	15.5764	15	15	Pass	17.8483	14.4	17	Fail	3 Cycle (City, Highway, US06)	OFFICIAL

Close

Certification Summary Information Report

Manufacturer	General Motors LLC	Manufacturer Code	GMX
Test Group	VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A
Certificate Number	--	CARB Executive Order #	--
Certificate Issue Date	--	Certificate Revision Date	--
Certificate Effective Date	--	Conditional Certificate	--
CSI Revision #	--	CSI Submission/Revision Date	09/14/2026 08:33:41 AM
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
Gasoline	Spark Ignition Direct fuel injection	No

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	LDT3
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	VGMXGPGNNB59	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	10/19/2026	CAP2000 Conditional Certificate?	N/A
Independent Commercial Importer?	--	Alternative Fuel Converter Certificate?	--
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	VGMXT02.7101
Test Group OBD Compliance Level	Full - no deficiencies	Number of Test Group OBD Deficiencies	0
OBD Deficiencies Comments	--		
Mfr Test Group Comments	L4B (2.7L) FST/MST (T1xx/31xx) BIN30/SULEV30		
Mfr Exhaust / Evap Standards Comments	--		

Certification Summary Information Report

Test Group	VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A
Evaporative/Refueling Family Information			
Evaporative Summary Information Type	New	Submission/Correction Date	08/19/2026 01:00:14 PM
Integrated ORVR?	Yes	Fuel(s)	Gasoline
Multiple Fuel Storage	--		
Bladder Fuel Tank?	No		
Fuel Tank Material	Plastic	Fuel Tank Material Description	Multi-layer with HDPE and EVOH
Fill Pipe Seal Type	Liquid seal		
Air Intake System Vapor Storage Device?	Yes	Air Intake System Vapor Storage Device Description	HCA
Fuel System Vapor Storage Canister?	Yes	Other Vapor Storage	--
Fuel System Vapor Storage Canister(s) Total Working Capacity (grams)	163	Number of Primary Canisters	1
Number of Bleed Canisters	0	Bleed Canister Total Working Capacity (grams)	--
Mfr Evaporative/Refueling Family Comments	--		
Leak Family Details			
Leak Family Indicator	Yes		
Canister Bleed Test Indicator	Yes	Applicability of Evaporative Canister Bleed Test	50 State
Evaporative Canister Bleed Test Comments	--		
CARB Fuel Only (Rig) Test Indicator	No	Applicability of CARB Fuel Only (Rig) Test	--
CARB Fuel Only (Rig) Test Comments	--		
Leak Family Name	Applicability of Leak Family Requirements	Leak Family Standard (inches)	Leak Family Description
VGMXR016340A-LK1	50 State	0.02	--

Certification Summary Information Report

Test Group		VGMXT02.7101		Evaporative/Refueling Family		VGMXR016340A	
Models Covered by this Certificate							
Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	- # of Gears	Trans - Lockup
General Motors LLC	3 - Chevrolet	985 - COLORADO ZR2 4WD	California + CAA Section 177 states	4-Wheel Drive	Automatic	8	Yes
General Motors LLC	3 - Chevrolet	992 - COLORADO ZR2 BISON 4WD	California + CAA Section 177 states	4-Wheel Drive	Automatic	8	Yes
General Motors LLC	3 - Chevrolet	965 - COLORADO 4WD	Federal	4-Wheel Drive	Automatic	8	Yes
General Motors LLC	4 - GMC	936 - CANYON 2WD	California + CAA Section 177 states	2-Wheel Drive, Rear	Automatic	8	Yes
General Motors LLC	4 - GMC	982 - CANYON AT4X AEV 4WD	California + CAA Section 177 states	4-Wheel Drive	Automatic	8	Yes
General Motors LLC	4 - GMC	973 - CANYON AT4X 4WD	Federal	4-Wheel Drive	Automatic	8	Yes
General Motors LLC	3 - Chevrolet	985 - COLORADO ZR2 4WD	Federal	4-Wheel Drive	Automatic	8	Yes
General Motors LLC	3 - Chevrolet	965 - COLORADO 4WD	California + CAA Section 177 states	4-Wheel Drive	Automatic	8	Yes
General Motors LLC	4 - GMC	973 - CANYON AT4X 4WD	California + CAA Section 177 states	4-Wheel Drive	Automatic	8	Yes
General Motors LLC	4 - GMC	936 - CANYON 2WD	Federal	2-Wheel Drive, Rear	Automatic	8	Yes
General Motors LLC	4 - GMC	937 - CANYON 4WD	California + CAA Section 177 states	4-Wheel Drive	Automatic	8	Yes
General Motors LLC	4 - GMC	937 - CANYON 4WD	Federal	4-Wheel Drive	Automatic	8	Yes
General Motors LLC	3 - Chevrolet	964 - COLORADO 2WD	California + CAA Section 177 states	2-Wheel Drive, Rear	Automatic	8	Yes
General Motors LLC	3 - Chevrolet	992 - COLORADO ZR2 BISON 4WD	Federal	4-Wheel Drive	Automatic	8	Yes
General Motors LLC	3 - Chevrolet	964 - COLORADO 2WD	Federal	2-Wheel Drive, Rear	Automatic	8	Yes
General Motors LLC	4 - GMC	982 - CANYON AT4X AEV 4WD	Federal	4-Wheel Drive	Automatic	8	Yes
Engine Description							
Hybrid Type		--		Hybrid Description		--	
Engine Type		4-Stroke Spark 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		4		Mechanically Variable Compression Ratio Indicator		N	

Certification Summary Information Report

Test Group		VGMXT02.7101		Evaporative/Refueling Family		VGMXR016340A					
After Treatment Device(s) (ATD)											
ATD Number		ATD Type		ATD Precious Metal		Substrate Material		Substrate Construction			
1		Three-way catalyst		Platinum + Rhodium		Ceramic		Monolith			
Mfr After Treatment Device (ATD) Comments											
		--									
Direct Ozone Reduction (DOR) Device		Not Equipped									
Mfr Emission Control Device Comments		--									
Engine Configuration Number 1											
Engine Displacement (liters)		2.7		Engine Rated Horsepower		310					
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)		Mechanical									
Cylinder Deactivation		Yes									
Cylinder Deactivation Description		Active Fuel Management									
Variable Valve Timing		Yes									
Variable Valve Timing System Description		Cam Phaser									
Variable Valve Lift?		Yes									
Variable Valve Lift System Description		High,Low,Zero(Cylinder Deactivation)									
Number of Knock Sensors		1		Number of Air/Fuel Sensors		2					
Air/Fuel Sensor # 1 Type		Heated oxygen		Air/Fuel Sensor # 1 Description		--					
Air/Fuel Sensor # 2 Type		Heated oxygen		Air/Fuel Sensor # 2 Description		--					
Mfr Air/Fuel Sensor Comments		--									
Exhaust Gas Recirculation		No		Cooled Exhaust Gas Recirculation		No					
EGR Type		--		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		AFM and Stop/Start									
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
Gasoline		VGMX91006850	VGMX91006848	VGMX10094584	VGMX10094585	VGMX91006849	--	15.1	--	17.2	--

Test Group	VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A
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Emission Data Vehicle Information

Vehicle ID / Configuration	27PEB21226 / 0	Manufacturer Vehicle Configuration Number	0
Original Test Group Name	PGMXT02.7100	Original Evaporative/Refueling Family	PGMXR016340A
Original Test Vehicle Model Year	2023		

Vehicle Model

Represented Test Vehicle Make	CHEVROLET	Represented Test Vehicle Model	COLORADO 2WD
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Leak Family Details

Leak Family Identifier	LK1	Leak Family Name	PGMXR016340A-LK1
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Drive Sources and Fuel System Details

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

Hybrid Indicator	No	Multiple Fuel Combustion	--
Multiple Fuel Storage	--	Rechargeable Energy Storage System Indicator	--
Fuel Cell Indicator	--	Rechargeable Energy Storage System, if 'Other'	--
Rechargeable Energy Storage System	--		
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	3	Rated Horsepower	310
Displacement (liters)	2.7		
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	2-Wheel Drive, Rear
Shift Indicator Light Usage	Not equipped	Aged Emission Components	150,000 (mi)
Curb Weight (lbs)	4397	Equivalent Test Weight (pounds)	4750
GVWR (lbs)	6050	N/V Ratio	25.6
Axle Ratio	3.42		
Transmission Type	Automatic	# of Transmission Gears	8
Transmission Lockup	Yes	Creeper Gear	No

Dynamometer Coefficients:

Target Coefficients			Set Coefficients			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients	
Coefficient Category	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	
City/Highway/Evap	27.93	0.3871	0.03153	14.82	-0.0021	0.03324	16.8

Emission Control Device Comments

31xx L3B: &RWL

Certification Summary Information Report

Test Group	VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A						
Manufacturer Test Vehicle Comments	--								
Test #	PGMX10077782	Test Procedure	34 - Federal fuel 3-day evap						
Exhaust Test # for this Evap Test	PGMX10077778	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)						
Test Date	11/01/2022	Fuel	Gasoline						
Fuel Batch ID	--	Fuel Calibration Number	--						
Vehicle Class	N/A	DF Type	Mfr. Determined						
Verify Test Lab ID	Compliance and Certification								
E10 Evaporative Test Measurement Method	Actual Total Hydrocarbon Equivalent Measurement (with speciation)								
Test Start Odometer Reading	4393	Odometer Units	M						
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--						
State of Charge Delta	No								
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	No						
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>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</td> <td>0.3187</td> <td>--</td> </tr> </tbody> </table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.3187	--
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)							
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.3187	--							
Manufacturer Test Comments	4K EVF3 TEST								
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail	
Fed	150,000 miles	Federal Tier 3 Evap	HC-TOTAL-EQUIV	0.3187	0.0000	0.319	0.400	Pass	
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.3187	0.0000	0.319	0.400	Pass	

Certification Summary Information Report

Test Group	VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A
Test #	PGMX91005298	Test Procedure	23 - 2-day evap
Exhaust Test # for this Evap Test	PGMX91005295	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	12/15/2022	Fuel	Gasoline
Fuel Batch ID	28637	Fuel Calibration Number	1
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	--		
E10 Evaporative Test Measurement Method	Actual FID w/o Speciation (EPA Only)		
Test Start Odometer Reading	4602.1	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	No

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.306787	--

Manufacturer Test Comments

Hot_Soak_HC_(g) = 0.093360, Diurnal (gHC) = 0.213427

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Evap	HC-TOTAL-EQUIV	0.3068	0.0000	0.307	0.400	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.3068	0.0000	0.307	0.400	Pass

Certification Summary Information Report

Test Group	VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A						
Test #	PGMX10077780	Test Procedure	24 - Federal fuel refueling test (ORVR)						
Exhaust Test # for this Evap Test	PGMX10077778	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)						
Test Date	09/07/2022	Fuel	Gasoline						
Fuel Batch ID	--	Fuel Calibration Number	--						
Vehicle Class	N/A	DF Type	Mfr. Determined						
Verify Test Lab ID	Compliance and Certification								
E10 Evaporative Test Measurement Method	Actual Total Hydrocarbon Equivalent Measurement (with speciation)								
Test Start Odometer Reading	4166	Odometer Units	M						
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--						
State of Charge Delta	No								
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	No						
Test Results									
<table border="1"> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated FE Equivalent Value (miles per gallon)</th> </tr> <tr> <td>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</td> <td>0.0505</td> <td>--</td> </tr> </table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.0505	--
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)							
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.0505	--							
Manufacturer Test Comments 4K ORVR TEST									
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail	
Fed	150,000 miles	Federal Tier 3 Evap	HC-TOTAL-EQUIV	0.050	0.000	0.05	0.20	Pass	
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.050	0.000	0.05	0.20	Pass	

Certification Summary Information Report

Test Group	VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A						
Test #	PGMX10077781	Test Procedure	32 - Federal Fuel Running Loss						
Exhaust Test # for this Evap Test	PGMX10077778	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)						
Test Date	11/01/2022	Fuel	Gasoline						
Fuel Batch ID	--	Fuel Calibration Number	--						
Vehicle Class	N/A	DF Type	Mfr. Determined						
Verify Test Lab ID	Compliance and Certification								
E10 Evaporative Test Measurement Method	Actual Total Hydrocarbon Equivalent Measurement (with speciation)								
Test Start Odometer Reading	4393	Odometer Units	M						
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--						
State of Charge Delta	No								
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	No						
Test Results									
<table border="1"> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated FE Equivalent Value (miles per gallon)</th> </tr> <tr> <td>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</td> <td>0.00023</td> <td>--</td> </tr> </table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.00023	--
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)							
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.00023	--							
Manufacturer Test Comments									
4K EVFR TEST									
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail	
Fed	150,000 miles	Federal Tier 3 Evap	HC-TOTAL-EQUIV	0.000	0	0.00	0.05	Pass	
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.000	0	0.00	0.05	Pass	

Certification Summary Information Report

Test Group	VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A						
Test #	PGMX10077777	Test Procedure	65 - Evap Canister Bleed Test						
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)						
Test Date	08/23/2022	Fuel	Gasoline						
Fuel Batch ID	--	Fuel Calibration Number	--						
Vehicle Class	N/A	DF Type	Mfr. Determined						
Verify Test Lab ID	Compliance and Certification								
E10 Evaporative Test Measurement Method	Actual Total Hydrocarbon Equivalent Measurement (with speciation)								
Test Start Odometer Reading	4042	Odometer Units	M						
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--						
State of Charge Delta	No								
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	No						
Test Results									
<table border="1"> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated FE Equivalent Value (miles per gallon)</th> </tr> <tr> <td>HC-TOTAL (Total Hydrocarbon)</td> <td>0.0042</td> <td>--</td> </tr> </table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	HC-TOTAL (Total Hydrocarbon)	0.0042	--
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)							
HC-TOTAL (Total Hydrocarbon)	0.0042	--							
Manufacturer Test Comments 150K CBLD TEST									
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail	
Fed	150,000 miles	Federal Tier 3 Evap	HC-TOTAL	0.0042	0.000	0.004	0.020	Pass	
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC-TOTAL	0.0042	0	0.004	0.020	Pass	

Certification Summary Information Report

Test Group	VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A						
Emission Data Vehicle Information									
Vehicle ID / Configuration	27VVZ41509 / 0	Manufacturer Vehicle Configuration Number	0						
Original Test Group Name	VGMXT02.7101	Original Evaporative/Refueling Family	VGMXR016340A						
Original Test Vehicle Model Year	2027								
Vehicle Model									
Represented Test Vehicle Make	CHEVROLET	Represented Test Vehicle Model	COLORADO ZR2 BISON 4WD						
Leak Family Details									
Leak Family Identifier	LK1	Leak Family Name	VGMXR016340A-LK1						
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>Gasoline</td></tr> </table>	Drive Source and Fuel#	Drive Source	Fuel	1	Combustion Engine	Gasoline		
Drive Source and Fuel#	Drive Source	Fuel							
1	Combustion Engine	Gasoline							
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	3	Rated Horsepower	310						
Displacement (liters)	2.7								
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	4-Wheel Drive						
Shift Indicator Light Usage	Not equipped	Aged Emission Components	150,000 (mi)						
Curb Weight (lbs)	5278	Equivalent Test Weight (pounds)	5500						
GVWR (lbs)	6350	N/V Ratio	22.3						
Axle Ratio	3.42								
Transmission Type	Automatic	# of Transmission Gears	8						
Transmission Lockup	Yes	Creep Gear	No						

Certification Summary Information Report

Test Group		VGMXT02.7101			Evaporative/Refueling Family		VGMXR016340A	
Dynamometer Coefficients:								
Target Coefficients				Set Coefficients			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients	
Coefficient Category	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)		
City/Highway/Evap	49.94	0.557	0.04307	-14.64	0.1545	0.04179	24.7	
Cold CO	54.93	0.6127	0.04738	-20.97	-0.2505	0.0483	N/A	
US06	49.94	0.557	0.04307	-14.64	0.1545	0.04179	N/A	
Emission Control Device Comments		31xx L4B: &F46						
Manufacturer Test Vehicle Comments		ADDED 250 LBS BALLAST TO REAR AXLE. TIRE PRESSURE REDUCED FROM RECOMMENDED 41 PSI TO 36 PSI TO PREVENT WHEEL SLIP. ALL TESTS WERE RUN WITH ROAD SPEED FAN, VEHICLE TESTED IN 2WD MODE ON AWD DYNO.						

Certification Summary Information Report

Test Group	VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A																																	
Test #	VGMX10094585	Test Procedure	11 - Cold CO																																	
Exhaust Test # for this Evap Test	--	Test Fuel Type	28 - Cold CO E10 Regular Gasoline (Tier 3)																																	
Test Date	05/24/2026	Fuel	Gasoline																																	
Fuel Batch ID	000334	Fuel Calibration Number	9456																																	
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined																																	
Verify Test Lab ID	Compliance and Certification																																			
E10 Evaporative Test Measurement Method	--																																			
Test Start Odometer Reading	4647	Odometer Units	M																																	
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--																																	
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>0.018161</td> <td>--</td> </tr> <tr> <td>CO (Carbon Monoxide)</td> <td>0.791414</td> <td>--</td> </tr> <tr> <td>DT-ASCR (Drive Trace Absolute Speed Change Rating)</td> <td>-0.45278</td> <td>--</td> </tr> <tr> <td>DT-EER (Drive Trace Energy Economy Rating)</td> <td>-0.400685</td> <td>--</td> </tr> <tr> <td>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</td> <td>-1.06346</td> <td>--</td> </tr> <tr> <td>MFR FE (Manufacturer Fuel Economy)</td> <td>16.9</td> <td>16.9</td> </tr> <tr> <td>NOX (Nitrogen Oxide)</td> <td>0.027291</td> <td>--</td> </tr> <tr> <td>HC-NM (Non-methane Hydrocarbon)</td> <td>0.047613</td> <td>--</td> </tr> <tr> <td>NMOG (Non-methane organic gases)</td> <td>0.052387</td> <td>--</td> </tr> <tr> <td>HC-TOTAL (Total Hydrocarbon)</td> <td>0.064722</td> <td>--</td> </tr> </tbody> </table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	METHANE (CH4 - Methane)	0.018161	--	CO (Carbon Monoxide)	0.791414	--	DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.45278	--	DT-EER (Drive Trace Energy Economy Rating)	-0.400685	--	DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-1.06346	--	MFR FE (Manufacturer Fuel Economy)	16.9	16.9	NOX (Nitrogen Oxide)	0.027291	--	HC-NM (Non-methane Hydrocarbon)	0.047613	--	NMOG (Non-methane organic gases)	0.052387	--	HC-TOTAL (Total Hydrocarbon)	0.064722	--
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Test Result Name	Unrounded Test Result	Verify Calculated CO2																																		
Carbon dioxide	509.544	--																																		
Manufacturer Test Comments	150K COLD TEST																																			

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Certification Summary Information Report

Test Group	VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A																														
Test #	VGMX10094586	Test Procedure	52 - Fed. fuel 50 F exh.																														
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)																														
Test Date	06/17/2026	Fuel	Gasoline																														
Fuel Batch ID	000329	Fuel Calibration Number	9451																														
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined																														
Verify Test Lab ID	Compliance and Certification																																
E10 Evaporative Test Measurement Method	--																																
Test Start Odometer Reading	4874	Odometer Units	M																														
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--																														
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																																	
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Test Result Name	Unrounded Test Result	Verify Calculated CO2																															
Carbon dioxide	447.648	--																															
Manufacturer Test Comments	150K 50 DEG TEST																																

Certification Summary Information Report

Test Group		VGMXT02.7101				Evaporative/Refueling Family				VGMXR016340A		
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
CA	4,000 miles	California LEV-III SULEV30	CO	0.20	1	--	--	--	--	0.2	1.0	Pass
CA	4,000 miles	California LEV-III SULEV30	NMOG	0.0082	1	--	--	--	--	0.008	99.999	Pass
CA	4,000 miles	California LEV-III SULEV30	NMOG+NOX	0.0205	1	--	--	--	--	0.020	0.060	Pass
CA	4,000 miles	California LEV-III SULEV30	NOX	0.0123	1	--	--	--	--	0.012	99.999	Pass

Certification Summary Information Report

Test Group	VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A
Test #	VGMX91006850	Test Procedure	21 - Federal fuel 2-day exhaust (w/can load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	07/09/2026	Fuel	Gasoline
Fuel Batch ID	43732	Fuel Calibration Number	2
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	--		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4960	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes
Test Results			

Certification Summary Information Report

Test Group	VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	
ACT-DISTANCE (Actual Distance Driven (miles))	11.0150471	--	
ACT-DISTANCE BAG 1 (Bag 1 Actual Distance)	3.5853118	--	
CO2 BAG 1 (Bag 1 Carbon Dioxide)	474.4217687	--	
CO BAG 1 (Bag 1 Carbon Monoxide)	1.3989582	--	
FE BAG 1 (Bag 1 Fuel Economy)	999	--	
CH4 BAG 1 (Bag 1 Methane)	0.0200504	--	
NMOG BAG 1 (Bag 1 Non-methane organic gases)	0.034048	--	
HC-TOTAL BAG 1 (Bag 1 Total Hydrocarbon)	0.0501965	--	
ACT-DISTANCE BAG 2 (Bag 2 Actual Distance)	3.8493945	--	
CO2 BAG 2 (Bag 2 Carbon Dioxide)	445.0785673	--	
CO BAG 2 (Bag 2 Carbon Monoxide)	0	--	
FE BAG 2 (Bag 2 Fuel Economy)	999	--	
CH4 BAG 2 (Bag 2 Methane)	0.0043175	--	
NMOG BAG 2 (Bag 2 Non-methane organic gases)	0.0006838	--	
HC-TOTAL BAG 2 (Bag 2 Total Hydrocarbon)	0.0047539	--	
ACT-DISTANCE BAG 3 (Bag 3 Actual Distance)	3.5803402	--	
CO2 BAG 3 (Bag 3 Carbon Dioxide)	441.0739079	--	
CO BAG 3 (Bag 3 Carbon Monoxide)	0.0163437	--	
FE BAG 3 (Bag 3 Fuel Economy)	999	--	
CH4 BAG 3 (Bag 3 Methane)	0.0087097	--	
NMOG BAG 3 (Bag 3 Non-methane organic gases)	0.0001768	--	
HC-TOTAL BAG 3 (Bag 3 Total Hydrocarbon)	0.0085303	--	
METHANE (CH4 - Methane)	0.0087864	--	
CO (Carbon Monoxide)	0.2945816	--	
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.8136813	--	
DT-EER (Drive Trace Energy Economy Rating)	0.0129704	--	
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	1.2283701	--	
MFR FE (Manufacturer Fuel Economy)	999	--	
NOX (Nitrogen Oxide)	0.0116324	--	
HC-NM (Non-methane Hydrocarbon)	0.0067789	--	
NMOG (Non-methane organic gases)	0.0074443	--	

Certification Summary Information Report

Test Group		VGMXT02.7101			Evaporative/Refueling Family				VGMXR016340A			
		PM (Particulate Matter)		0.0002986		--						
		HC-TOTAL (Total Hydrocarbon)		0.0152143		--						
		Test Result Name		Unrounded Test Result		Verify Calculated CREE/OPT-CREE						
		Carbon-Related Exhaust Emissions		9999.9999999		450						
		Test Result Name		Unrounded Test Result		Verify Calculated CO2						
		Carbon dioxide		450.0633011		--						
Manufacturer Test Comments		Unrounded Result for the following test results were modified by Verify: FE BAG 3, FE BAG 1, FE BAG 2, MFR 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 30	CREE	450	1	--	--	0	--	450	--	--
Fed	150,000 miles	Federal Tier 3 Bin 30	CO	0.29	1	--	--	--	--	0.3	1.0	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	CO-COMP	0.50	1	--	--	--	--	0.5	4.2	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	NMOG	0.0074	1	--	--	--	--	0.007	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	NMOG+NOX	0.0190	1	--	--	--	--	0.019	0.030	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	NMOG+NOX-COMP	0.0119	1	--	--	--	--	0.012	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	NOX	0.0116	1	--	--	--	--	0.012	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	PM	0.0003	1	--	--	--	--	0.000	0.003	Pass
CA	150,000 miles	California LEV-III SULEV30	CO	0.29	1	--	--	--	--	0.3	1.0	Pass
CA	150,000 miles	California LEV-III SULEV30	CO-COMP	0.50	1	--	--	--	--	0.5	4.2	Pass
CA	150,000 miles	California LEV-III SULEV30	NMOG	0.0074	1	--	--	--	--	0.007	99.999	Pass
CA	150,000 miles	California LEV-III SULEV30	NMOG+NOX	0.0190	1	--	--	--	--	0.019	0.030	Pass
CA	150,000 miles	California LEV-III SULEV30	NMOG+NOX-COMP	0.0119	1	--	--	--	--	0.012	0.050	Pass
CA	150,000 miles	California LEV-III SULEV30	NOX	0.0116	1	--	--	--	--	0.012	99.999	Pass
CA	150,000 miles	California LEV-III SULEV30	PM	0.0003	1	--	--	--	--	0.000	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		VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A
Test #	VGMX91006852		Test Procedure	2 - CVS 75 and later (w/o can. load)
Exhaust Test # for this Evap Test	--		Test Fuel Type	61 - Tier 2 Cert Gasoline
Test Date	07/16/2026		Fuel	Gasoline
Fuel Batch ID	29351		Fuel Calibration Number	1
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)		DF Type	Mfr. Determined
Verify Test Lab ID	--			
E10 Evaporative Test Measurement Method	--			
Test Start Odometer Reading	5023		Odometer Units	M
4WD Test Dyno	Yes		Diesel Adjustment Factor Usage	--
State of Charge Delta	--			
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)		Road Speed Fan Usage	Yes
Test Results				

Certification Summary Information Report

Test Group	VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	
ACT-DISTANCE (Actual Distance Driven (miles))	11.0106975	--	
ACT-DISTANCE BAG 1 (Bag 1 Actual Distance)	3.5809622	--	
CO2 BAG 1 (Bag 1 Carbon Dioxide)	478.2743451	--	
CO BAG 1 (Bag 1 Carbon Monoxide)	1.911925	--	
FE BAG 1 (Bag 1 Fuel Economy)	18.5104494	--	
CH4 BAG 1 (Bag 1 Methane)	0.0191292	--	
NMOG BAG 1 (Bag 1 Non-methane organic gases)	0.0487541	--	
HC-TOTAL BAG 1 (Bag 1 Total Hydrocarbon)	0.0652441	--	
ACT-DISTANCE BAG 2 (Bag 2 Actual Distance)	3.848152	--	
CO2 BAG 2 (Bag 2 Carbon Dioxide)	444.8558341	--	
CO BAG 2 (Bag 2 Carbon Monoxide)	0.0290902	--	
FE BAG 2 (Bag 2 Fuel Economy)	20.032045	--	
CH4 BAG 2 (Bag 2 Methane)	0.0037479	--	
NMOG BAG 2 (Bag 2 Non-methane organic gases)	0.0001062	--	
HC-TOTAL BAG 2 (Bag 2 Total Hydrocarbon)	0.0037003	--	
ACT-DISTANCE BAG 3 (Bag 3 Actual Distance)	3.5815829	--	
CO2 BAG 3 (Bag 3 Carbon Dioxide)	439.3546135	--	
CO BAG 3 (Bag 3 Carbon Monoxide)	0.019944	--	
FE BAG 3 (Bag 3 Fuel Economy)	20.2829366	--	
CH4 BAG 3 (Bag 3 Methane)	0.0079598	--	
NMOG BAG 3 (Bag 3 Non-methane organic gases)	0	--	
HC-TOTAL BAG 3 (Bag 3 Total Hydrocarbon)	0.0075293	--	
METHANE (CH4 - Methane)	0.0080933	--	
CO (Carbon Monoxide)	0.4168275	--	
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.7860668	--	
DT-EER (Drive Trace Energy Economy Rating)	0.050232	--	
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.7668707	--	
MFR FE (Manufacturer Fuel Economy)	19.7625056	--	
NOX (Nitrogen Oxide)	0.0087968	--	
HC-NM (Non-methane Hydrocarbon)	0.0097694	--	
NMOG (Non-methane organic gases)	0.0101601	--	

Certification Summary Information Report

Test Group		VGMXT02.7101				Evaporative/Refueling Family				VGMXR016340A		
		HC-TOTAL (Total Hydrocarbon)		0.0175084		--						
		Test Result Name		Unrounded Test Result		Verify Calculated CREE/OPT-CREE						
		Carbon-Related Exhaust Emissions		9999.9999999		451						
		Test Result Name		Unrounded Test Result		Verify Calculated CO2						
		Carbon dioxide		450.2707939		--						
Manufacturer Test Comments		--										
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 30	CO	0.42	--	--	--	--	--	0.4	1.0	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	NMOG	0.0102	--	--	--	--	--	0.010	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	NMOG+NOX	0.0190	--	--	--	--	--	0.019	0.030	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	NOX	0.0088	--	--	--	--	--	0.009	99.999	Pass
CA	150,000 miles	California LEV-III SULEV30	CO	0.42	--	--	--	--	--	0.4	1.0	Pass
CA	150,000 miles	California LEV-III SULEV30	NMOG	0.0102	--	--	--	--	--	0.010	99.999	Pass
CA	150,000 miles	California LEV-III SULEV30	NMOG+NOX	0.0190	--	--	--	--	--	0.019	0.030	Pass
CA	150,000 miles	California LEV-III SULEV30	NOX	0.0088	--	--	--	--	--	0.009	99.999	Pass

Certification Summary Information Report

Test Group	VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A
Test #	VGMX91006849	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	07/09/2026	Fuel	Gasoline
Fuel Batch ID	43732	Fuel Calibration Number	2
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	--		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4971	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
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)	
ACT-DISTANCE (Actual Distance Driven (miles))	10.2445456	--	
METHANE (CH4 - Methane)	0.0041483	--	
CO (Carbon Monoxide)	0.140602	--	
DT-ASCR (Drive Trace Absolute Speed Change Rating)	7.566081	--	
DT-EER (Drive Trace Energy Economy Rating)	0.3016342	--	
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	9.836572	--	
MFR FE (Manufacturer Fuel Economy)	24.5238249	--	
NOX (Nitrogen Oxide)	0.001799	--	
HC-NM (Non-methane Hydrocarbon)	0.0004745	--	
NMOG (Non-methane organic gases)	0.0004887	--	
HC-TOTAL (Total Hydrocarbon)	0.0044571	--	
Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE	
Carbon-Related Exhaust Emissions	9999.9999999	355	
Test Result Name	Unrounded Test Result	Verify Calculated CO2	
Carbon dioxide	354.5636534	--	
Manufacturer Test Comments	--		

Certification Summary Information Report

Test Group		VGMXT02.7101			Evaporative/Refueling Family					VGMXR016340A		
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 30	CREE	355	1	--	--	0	--	355	--	--
Fed	150,000 miles	Federal Tier 3 Bin 30	NMOG	0.0005	1	1.03	--	--	--	0.000	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	NMOG+NOX	0.0023	1	--	--	--	--	0.002	0.030	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	NOX	0.0018	1	--	--	--	--	0.002	99.999	Pass
CA	150,000 miles	California LEV-III SULEV30	NMOG	0.0005	1	1.03	--	--	--	0.000	99.999	Pass
CA	150,000 miles	California LEV-III SULEV30	NMOG+NOX	0.0023	1	--	--	--	--	0.002	0.030	Pass
CA	150,000 miles	California LEV-III SULEV30	NOX	0.0018	1	--	--	--	--	0.002	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	VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A
Test #	VGMX91006854	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	61 - Tier 2 Cert Gasoline
Test Date	07/16/2026	Fuel	Gasoline
Fuel Batch ID	29351	Fuel Calibration Number	1
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	--		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	5035	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
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)
ACT-DISTANCE (Actual Distance Driven (miles))	10.2389564	--
METHANE (CH4 - Methane)	0.0057563	--
CO (Carbon Monoxide)	0.1676219	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	5.241704	--
DT-EER (Drive Trace Energy Economy Rating)	-0.0121033	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	6.8901796	--
MFR FE (Manufacturer Fuel Economy)	24.8930366	--
NOX (Nitrogen Oxide)	0.0019117	--
HC-NM (Non-methane Hydrocarbon)	0.0007337	--
NMOG (Non-methane organic gases)	0.0007631	--
HC-TOTAL (Total Hydrocarbon)	0.0062601	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	9999.9999999	358

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	357.7494464	--

Manufacturer Test Comments --

Certification Summary Information Report

Test Group		VGMXT02.7101			Evaporative/Refueling Family					VGMXR016340A		
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 30	CREE	358	1	--	--	0	--	358	--	--
Fed	150,000 miles	Federal Tier 3 Bin 30	NMOG	0.0008	1	1.03	--	--	--	0.001	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	NMOG+NOX	0.0027	1	--	--	--	--	0.003	0.030	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	NOX	0.0019	1	--	--	--	--	0.002	99.999	Pass
CA	150,000 miles	California LEV-III SULEV30	NMOG	0.0008	1	1.03	--	--	--	0.001	99.999	Pass
CA	150,000 miles	California LEV-III SULEV30	NMOG+NOX	0.0027	1	--	--	--	--	0.003	0.030	Pass
CA	150,000 miles	California LEV-III SULEV30	NOX	0.0019	1	--	--	--	--	0.002	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	VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A
Test #	VGMX91006876	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	61 - Tier 2 Cert Gasoline
Test Date	07/30/2026	Fuel	Gasoline
Fuel Batch ID	29351	Fuel Calibration Number	1
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	--		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	5087	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
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)
ACT-DISTANCE (Actual Distance Driven (miles))	10.2408186	--
METHANE (CH4 - Methane)	0.005365	--
CO (Carbon Monoxide)	0.1616856	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	3.917576	--
DT-EER (Drive Trace Energy Economy Rating)	-0.2079674	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	5.262002	--
MFR FE (Manufacturer Fuel Economy)	25.2246844	--
NOX (Nitrogen Oxide)	0.0017412	--
HC-NM (Non-methane Hydrocarbon)	0.0008454	--
NMOG (Non-methane organic gases)	0.0008792	--
HC-TOTAL (Total Hydrocarbon)	0.0059961	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	9999.9999999	353

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	353.0523184	--

Manufacturer Test Comments --

Certification Summary Information Report

Test Group		VGMXT02.7101				Evaporative/Refueling Family				VGMXR016340A		
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 30	CREE	353	1	--	--	0	--	353	--	--
Fed	150,000 miles	Federal Tier 3 Bin 30	NMOG	0.0009	1	1.03	--	--	--	0.001	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	NMOG+NOX	0.0026	1	--	--	--	--	0.003	0.030	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	NOX	0.0017	1	--	--	--	--	0.002	99.999	Pass
CA	150,000 miles	California LEV-III SULEV30	NMOG	0.0009	1	1.03	--	--	--	0.001	99.999	Pass
CA	150,000 miles	California LEV-III SULEV30	NMOG+NOX	0.0026	1	--	--	--	--	0.003	0.030	Pass
CA	150,000 miles	California LEV-III SULEV30	NOX	0.0017	1	--	--	--	--	0.002	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	VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A
Test #	VGMX91006848	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	07/09/2026	Fuel	Gasoline
Fuel Batch ID	43732	Fuel Calibration Number	2
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	--		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4992	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes
Test Results			

Certification Summary Information Report

Test Group	VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A																																																																																	
	<table><tr><th>Test Result Name</th><th>Unrounded Test Result</th><th>Verify Calculated FE Equivalent Value (miles per gallon)</th></tr><tr><td>ACT-DISTANCE (Actual Distance Driven (miles))</td><td>7.99829</td><td>--</td></tr><tr><td>ACT-DISTANCE BAG 1 (Bag 1 Actual Distance)</td><td>1.7733934</td><td>--</td></tr><tr><td>CO2 BAG 1 (Bag 1 Carbon Dioxide)</td><td>829.8862362</td><td>--</td></tr><tr><td>CO BAG 1 (Bag 1 Carbon Monoxide)</td><td>0.8866621</td><td>--</td></tr><tr><td>FE BAG 1 (Bag 1 Fuel Economy)</td><td>999</td><td>--</td></tr><tr><td>CH4 BAG 1 (Bag 1 Methane)</td><td>0.0047804</td><td>--</td></tr><tr><td>NMOG BAG 1 (Bag 1 Non-methane organic gases)</td><td>0.0015779</td><td>--</td></tr><tr><td>HC-TOTAL BAG 1 (Bag 1 Total Hydrocarbon)</td><td>0.0061214</td><td>--</td></tr><tr><td>ACT-DISTANCE BAG 2 (Bag 2 Actual Distance)</td><td>6.2248966</td><td>--</td></tr><tr><td>CO2 BAG 2 (Bag 2 Carbon Dioxide)</td><td>579.2253399</td><td>--</td></tr><tr><td>CO BAG 2 (Bag 2 Carbon Monoxide)</td><td>1.3513112</td><td>--</td></tr><tr><td>FE BAG 2 (Bag 2 Fuel Economy)</td><td>999</td><td>--</td></tr><tr><td>CH4 BAG 2 (Bag 2 Methane)</td><td>0.0027171</td><td>--</td></tr><tr><td>NMOG BAG 2 (Bag 2 Non-methane organic gases)</td><td>0.0006505</td><td>--</td></tr><tr><td>HC-TOTAL BAG 2 (Bag 2 Total Hydrocarbon)</td><td>0.0032401</td><td>--</td></tr><tr><td>METHANE (CH4 - Methane)</td><td>0.0031746</td><td>--</td></tr><tr><td>CO (Carbon Monoxide)</td><td>1.2482884</td><td>--</td></tr><tr><td>DT-ASCR (Drive Trace Absolute Speed Change Rating)</td><td>-0.1931965</td><td>--</td></tr><tr><td>DT-EER (Drive Trace Energy Economy Rating)</td><td>-0.9175734</td><td>--</td></tr><tr><td>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</td><td>0.4182728</td><td>--</td></tr><tr><td>MFR FE (Manufacturer Fuel Economy)</td><td>999</td><td>--</td></tr><tr><td>NOX (Nitrogen Oxide)</td><td>0.0036742</td><td>--</td></tr><tr><td>HC-NM (Non-methane Hydrocarbon)</td><td>0.0008312</td><td>--</td></tr><tr><td>NMOG (Non-methane organic gases)</td><td>0.0008561</td><td>--</td></tr><tr><td>PM (Particulate Matter)</td><td>0.000486</td><td>--</td></tr><tr><td>HC-TOTAL (Total Hydrocarbon)</td><td>0.003879</td><td>--</td></tr></table>	Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	ACT-DISTANCE (Actual Distance Driven (miles))	7.99829	--	ACT-DISTANCE BAG 1 (Bag 1 Actual Distance)	1.7733934	--	CO2 BAG 1 (Bag 1 Carbon Dioxide)	829.8862362	--	CO BAG 1 (Bag 1 Carbon Monoxide)	0.8866621	--	FE BAG 1 (Bag 1 Fuel Economy)	999	--	CH4 BAG 1 (Bag 1 Methane)	0.0047804	--	NMOG BAG 1 (Bag 1 Non-methane organic gases)	0.0015779	--	HC-TOTAL BAG 1 (Bag 1 Total Hydrocarbon)	0.0061214	--	ACT-DISTANCE BAG 2 (Bag 2 Actual Distance)	6.2248966	--	CO2 BAG 2 (Bag 2 Carbon Dioxide)	579.2253399	--	CO BAG 2 (Bag 2 Carbon Monoxide)	1.3513112	--	FE BAG 2 (Bag 2 Fuel Economy)	999	--	CH4 BAG 2 (Bag 2 Methane)	0.0027171	--	NMOG BAG 2 (Bag 2 Non-methane organic gases)	0.0006505	--	HC-TOTAL BAG 2 (Bag 2 Total Hydrocarbon)	0.0032401	--	METHANE (CH4 - Methane)	0.0031746	--	CO (Carbon Monoxide)	1.2482884	--	DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.1931965	--	DT-EER (Drive Trace Energy Economy Rating)	-0.9175734	--	DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.4182728	--	MFR FE (Manufacturer Fuel Economy)	999	--	NOX (Nitrogen Oxide)	0.0036742	--	HC-NM (Non-methane Hydrocarbon)	0.0008312	--	NMOG (Non-methane organic gases)	0.0008561	--	PM (Particulate Matter)	0.000486	--	HC-TOTAL (Total Hydrocarbon)	0.003879	--		
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	PM (Particulate Matter)	0.000486	--																																																																																	
	HC-TOTAL (Total Hydrocarbon)	0.003879	--																																																																																	
		<table><tr><th>Test Result Name</th><th>Unrounded Test Result</th><th>Verify Calculated CO2</th></tr><tr><td>Carbon dioxide</td><td>634.8022807</td><td>--</td></tr></table>	Test Result Name	Unrounded Test Result	Verify Calculated CO2	Carbon dioxide	634.8022807	--																																																																												
	Test Result Name	Unrounded Test Result	Verify Calculated CO2																																																																																	
	Carbon dioxide	634.8022807	--																																																																																	
	Manufacturer Test Comments	Unrounded Result for the following test results were modified by Verify: MFR FE, FE BAG 1, FE BAG 2																																																																																		

Certification Summary Information Report

Test Group		VGMXT02.7101				Evaporative/Refueling Family				VGMXR016340A		
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 30	CO	1.25	1	--	--	--	--	1.2	99.9	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	NMOG	0.0009	1	1.03	--	--	--	0.001	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	NMOG+NOX	0.0046	1	--	--	--	--	0.005	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	NOX	0.0037	1	--	--	--	--	0.004	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	PM	0.0005	1	--	--	--	--	0.000	0.006	Pass
CA	150,000 miles	California LEV-III SULEV30	CO	1.25	1	--	--	--	--	1.2	99.9	Pass
CA	150,000 miles	California LEV-III SULEV30	NMOG	0.0009	1	1.03	--	--	--	0.001	99.999	Pass
CA	150,000 miles	California LEV-III SULEV30	NMOG+NOX	0.0046	1	--	--	--	--	0.005	99.999	Pass
CA	150,000 miles	California LEV-III SULEV30	NOX	0.0037	1	--	--	--	--	0.004	99.999	Pass
CA	150,000 miles	California LEV-III SULEV30	PM	0.0005	1	--	--	--	--	0.000	0.006	Pass

Certification Summary Information Report

Test Group	VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A
Test #	VGMX91006873	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	61 - Tier 2 Cert Gasoline
Test Date	07/30/2026	Fuel	Gasoline
Fuel Batch ID	29351	Fuel Calibration Number	1
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	--		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	5108	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes
Test Results			

Certification Summary Information Report

Test Group	VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A																																																																														
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Certification Summary Information Report

Test Group		VGMXT02.7101				Evaporative/Refueling Family				VGMXR016340A		
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 30	CO	7.11	1	--	--	--	--	7.1	99.9	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	NMOG	0.0002	1	1.03	--	--	--	0.000	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	NMOG+NOX	0.0032	1	--	--	--	--	0.003	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	NOX	0.0030	1	--	--	--	--	0.003	99.999	Pass
CA	150,000 miles	California LEV-III SULEV30	CO	7.11	1	--	--	--	--	7.1	99.9	Pass
CA	150,000 miles	California LEV-III SULEV30	NMOG	0.0002	1	1.03	--	--	--	0.000	99.999	Pass
CA	150,000 miles	California LEV-III SULEV30	NMOG+NOX	0.0032	1	--	--	--	--	0.003	99.999	Pass
CA	150,000 miles	California LEV-III SULEV30	NOX	0.0030	1	--	--	--	--	0.003	99.999	Pass

Certification Summary Information Report

Test Group	VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A																																	
Test #	VGMX10094584	Test Procedure	95 - SC03																																	
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)																																	
Test Date	05/21/2026	Fuel	Gasoline																																	
Fuel Batch ID	000329	Fuel Calibration Number	9451																																	
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined																																	
Verify Test Lab ID	Compliance and Certification																																			
E10 Evaporative Test Measurement Method	--																																			
Test Start Odometer Reading	4618	Odometer Units	M																																	
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--																																	
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																																				
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Certification Summary Information Report

Test Group		VGMXT02.7101				Evaporative/Refueling Family				VGMXR016340A		
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 30	CO	0.13	1	--	--	--	--	0.1	99.9	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	NMOG	0.0030	1	1.03	--	--	--	0.003	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	NMOG+NOX	0.0108	1	--	--	--	--	0.011	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	NOX	0.0078	1	--	--	--	--	0.008	99.999	Pass
CA	150,000 miles	California LEV-III SULEV30	CO	0.13	1	--	--	--	--	0.1	99.9	Pass
CA	150,000 miles	California LEV-III SULEV30	NMOG	0.0030	1	1.03	--	--	--	0.003	99.999	Pass
CA	150,000 miles	California LEV-III SULEV30	NMOG+NOX	0.0108	1	--	--	--	--	0.011	99.999	Pass
CA	150,000 miles	California LEV-III SULEV30	NOX	0.0078	1	--	--	--	--	0.008	99.999	Pass

Certification Summary Information Report

Test Group	VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A
Fuel Properties			
Fuel Batch ID	29351	Fuel Calibration Number	1
Test Fuel Type	61 - Tier 2 Cert Gasoline	Fuel Batch Calibration Date	05/03/2023
Fuel Batch Calibration Effective Date	05/03/2023	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	0.742
Fuel Ethanol Volume Percent (%)	--	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	18439
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.867	Weight Fraction CO2	--
Fuel Batch ID	000329	Fuel Calibration Number	9451
Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	03/30/2026
Fuel Batch Calibration Effective Date	03/30/2026	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	0.749
Fuel Ethanol Volume Percent (%)	9.9	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17800
Fuel Net Heat of Combustion (E10) (MJ/kg)	41.404	Fuel Carbon Mass Fraction (E10)	0.827
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.827	Weight Fraction CO2	--
Fuel Batch ID	43732	Fuel Calibration Number	2
Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	06/13/2025
Fuel Batch Calibration Effective Date	06/13/2025	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	0.749
Fuel Ethanol Volume Percent (%)	9.6	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17885
Fuel Net Heat of Combustion (E10) (MJ/kg)	41.37	Fuel Carbon Mass Fraction (E10)	0.83
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.828	Weight Fraction CO2	--
Fuel Batch ID	28637	Fuel Calibration Number	1
Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	08/26/2021
Fuel Batch Calibration Effective Date	08/26/2021	Fuel Batch Calibration Ineffective Date	--

Certification Summary Information Report

Test Group		VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A
Carbon Weight Fraction NMHC	--		Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--		Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--		Fuel Specific Gravity	0.75
Fuel Ethanol Volume Percent (%)	9.6		Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17894
Fuel Net Heat of Combustion (E10) (MJ/kg)	--		Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.825		Weight Fraction CO2	--
Fuel Batch ID	000334		Fuel Calibration Number	9456
Test Fuel Type	28 - Cold CO E10 Regular Gasoline (Tier 3)		Fuel Batch Calibration Date	04/23/2026
Fuel Batch Calibration Effective Date	04/23/2026		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	0.741
Fuel Ethanol Volume Percent (%)	9.8		Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17804
Fuel Net Heat of Combustion (E10) (MJ/kg)	41.413		Fuel Carbon Mass Fraction (E10)	0.826
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.826		Weight Fraction CO2	--

Certification Summary Information Report

Test Group		VGMXT02.7101			Evaporative/Refueling Family			VGMXR016340A	
Consolidated List of Standards									
Exhaust Standards									
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)			Standard Level			California LEV-III SULEV30	
Fuel		Gasoline			Test Procedure			Federal fuel 2-day exhaust (w/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	--	--	--	--	--	1.0
150,000 miles	CO-COMP	--	1	--	--	--	--	--	4.2
150,000 miles	NMOG	--	1	--	--	--	--	--	99.999
150,000 miles	NMOG+NOX	--	1	--	--	--	1	--	0.030
150,000 miles	NMOG+NOX-COMP	--	1	--	--	--	--	--	0.050
150,000 miles	NOX	--	1	--	--	--	--	--	99.999
150,000 miles	PM	--	1	--	--	--	--	--	0.001
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)			Standard Level			California LEV-III SULEV30	
Fuel		Gasoline			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	--	--	--	--	--	99.9
150,000 miles	NMOG	--	1	1.03	--	--	--	--	99.999
150,000 miles	NMOG+NOX	--	1	--	--	--	1	--	99.999
150,000 miles	NOX	--	1	--	--	--	--	--	99.999
150,000 miles	PM	--	1	--	--	--	--	--	0.006

Certification Summary Information Report

Test Group	VGMXT02.7101			Evaporative/Refueling Family			VGMXR016340A		
Cert Region	Federal			Cert/In-Use Code			Cert		
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 30		
Fuel	Gasoline			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	--	--	--	--	--	99.9
150,000 miles	NMOG	--	1	1.03	--	--	--	--	99.999
150,000 miles	NMOG+NOX	--	1	--	--	--	1	--	99.999
150,000 miles	NOX	--	1	--	--	--	--	--	99.999
150,000 miles	PM	--	1	--	--	--	--	--	0.006

Cert Region	Federal			Cert/In-Use Code			Cert		
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 30		
Fuel	Gasoline			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	--	--	--	--	--	99.9
150,000 miles	NMOG	--	1	1.03	--	--	--	--	99.999
150,000 miles	NMOG+NOX	--	1	--	--	--	1	--	99.999
150,000 miles	NOX	--	1	--	--	--	--	--	99.999

Cert Region	California + CAA Section 177 states			Cert/In-Use Code			Cert		
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)			Standard Level			California LEV-III SULEV30		
Fuel	Gasoline			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
150,000 miles	NMOG	--	--	--	--	--	--	--	99.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.030
150,000 miles	NOX	--	--	--	--	--	--	--	99.999
150,000 miles	PM	--	--	--	--	--	--	--	0.001

Certification Summary Information Report

Test Group		VGMXT02.7101			Evaporative/Refueling Family			VGMXR016340A	
Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 30	
Fuel		Gasoline			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	999.999
150,000 miles	NMOG	--	1	1.03	--	--	--	--	99.999
150,000 miles	NMOG+NOX	--	1	--	--	--	1	--	0.030
150,000 miles	NOX	--	1	--	--	--	--	--	99.999

Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 30	
Fuel		Gasoline			Test Procedure			Federal fuel 2-day exhaust (w/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	999.999
150,000 miles	CO	--	1	--	--	--	--	--	1.0
150,000 miles	CO-COMP	--	1	--	--	--	--	--	4.2
150,000 miles	NMOG	--	1	--	--	--	--	--	99.999
150,000 miles	NMOG+NOX	--	1	--	--	--	1	--	0.030
150,000 miles	NMOG+NOX-COMP	--	1	--	--	--	--	--	0.050
150,000 miles	NOX	--	1	--	--	--	--	--	99.999
150,000 miles	PM	--	1	--	--	--	--	--	0.003

Certification Summary Information Report

Test Group		VGMXT02.7101			Evaporative/Refueling Family			VGMXR016340A	
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)			Standard Level			California LEV-III SULEV30	
Fuel		Gasoline			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	--	--	--	--	--	99.9
150,000 miles	NMOG	--	1	1.03	--	--	--	--	99.999
150,000 miles	NMOG+NOX	--	1	--	--	--	1	--	99.999
150,000 miles	NOX	--	1	--	--	--	--	--	99.999

Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)			Standard Level			California LEV-III SULEV30	
Fuel		Gasoline			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	1.03	--	--	--	--	99.999
150,000 miles	NMOG+NOX	--	1	--	--	--	1	--	0.030
150,000 miles	NOX	--	1	--	--	--	--	--	99.999

Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)			Standard Level			California LEV-III SULEV30	
Fuel		Gasoline			Test Procedure			Cold CO	
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	--	1	--	--	--	--	--	12.5

Certification Summary Information Report

Test Group		VGMXT02.7101			Evaporative/Refueling Family			VGMXR016340A	
Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 30	
Fuel		Gasoline			Test Procedure			Cold CO	
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	--	1	--	--	--	--	--	12.5
120,000 miles	HC-NM	--	1	--	--	--	--	--	0.5

Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)			Standard Level			California LEV-III SULEV30	
Fuel		Gasoline			Test Procedure			Fed. fuel 50 F exh.	
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	--	1	--	--	--	--	--	1.0
4,000 miles	NMOG	--	1	--	--	--	--	--	99.999
4,000 miles	NMOG+NOX	--	1	--	--	--	1	--	0.060
4,000 miles	NOX	--	1	--	--	--	--	--	99.999

Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 30	
Fuel		Gasoline			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
150,000 miles	NMOG	--	--	--	--	--	--	--	99.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.030
150,000 miles	NOX	--	--	--	--	--	--	--	99.999
150,000 miles	PM	--	--	--	--	--	--	--	0.001

Evaporative/Refueling Standards

Certification Summary Information Report

Test Group		VGMXT02.7101		Evaporative/Refueling Family		VGMXR016340A	
Evaporative/Refueling Family		VGMXR016340A		Cert Region		California + CAA Section 177 states	
Cert/In-Use Code		Cert		Standard Level		California LEV-III Zero Evap (Option 2)	
Test Procedure		Evap Canister Bleed Test					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL	--	0.020	0		
Evaporative/Refueling Family		VGMXR016340A		Cert Region		California + CAA Section 177 states	
Cert/In-Use Code		Cert		Standard Level		California LEV-III Zero Evap (Option 2)	
Test Procedure		Federal Fuel Running Loss					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.05	0		
Evaporative/Refueling Family		VGMXR016340A		Cert Region		California + CAA Section 177 states	
Cert/In-Use Code		Cert		Standard Level		California LEV-III Zero Evap (Option 2)	
Test Procedure		Federal fuel refueling test (ORVR)					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.20	0.000		
Evaporative/Refueling Family		VGMXR016340A		Cert Region		California + CAA Section 177 states	
Cert/In-Use Code		Cert		Standard Level		California LEV-III Zero Evap (Option 2)	
Test Procedure		2-day evap					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.400	0.0000		
Evaporative/Refueling Family		VGMXR016340A		Cert Region		Federal	
Cert/In-Use Code		Cert		Standard Level		Federal Tier 3 Evap	
Test Procedure		Federal fuel refueling test (ORVR)					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.20	0.000		

Certification Summary Information Report

Test Group		VGMXT02.7101		Evaporative/Refueling Family		VGMXR016340A	
Evaporative/Refueling Family		VGMXR016340A		Cert Region		California + CAA Section 177 states	
Cert/In-Use Code		Cert		Standard Level		California LEV-III Zero Evap (Option 2)	
Test Procedure		Federal fuel 3-day evap					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.400	0.0000		
Evaporative/Refueling Family		VGMXR016340A		Cert Region		Federal	
Cert/In-Use Code		Cert		Standard Level		Federal Tier 3 Evap	
Test Procedure		Evap Canister Bleed Test					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL	--	0.020	0.000		
Evaporative/Refueling Family		VGMXR016340A		Cert Region		Federal	
Cert/In-Use Code		Cert		Standard Level		Federal Tier 3 Evap	
Test Procedure		Federal Fuel Running Loss					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.05	0		
Evaporative/Refueling Family		VGMXR016340A		Cert Region		Federal	
Cert/In-Use Code		Cert		Standard Level		Federal Tier 3 Evap	
Test Procedure		Federal fuel 3-day evap					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.400	0.0000		
Evaporative/Refueling Family		VGMXR016340A		Cert Region		Federal	
Cert/In-Use Code		Cert		Standard Level		Federal Tier 3 Evap	
Test Procedure		2-day evap					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.400	0.0000		

Certification Summary Information Report

Test Group		VGMXT02.7101	Evaporative/Refueling Family	VGMXR016340A
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		VGMXT02.7101	Evaporative/Refueling Family		VGMXR016340A
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	

Certification Summary Information Report

Test Group		VGMXT02.7101	Evaporative/Refueling Family		VGMXR016340A
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		VGMXT02.7101	Evaporative/Refueling Family		VGMXR016340A
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	

FLEXIBLE OR ALTERNATE FUELS

There are no flexible or alternate fuels certified for this test group.

Engine Code Information

Base Engine Code	2	3
EC Derivatives		
Test Group	VGMXT02.7101	VGMXT02.7101
Durability Group	VGMXGPGNNB59	VGMXGPGNNB59
Engine RPO	L4B	L4B
Disp, liters	2.7	2.7
Trans RPO	MFC	MFC
Trans Type	A8	A8
Product Code	--	--
Emission RPO	NLB	NLB
Emissions Category	SULEV30/BIN30	SULEV30/BIN30
Vehicle Type	TRUCK	TRUCK
Regulatory Agencies	C	C
Sales Area	FA/CA	FA/CA
Design Altitude	Both	Both
A/C Equipped	Yes	Yes
Driver Select Device	Normal, Tow/Haul, Snow/Offroad, Terrain & Stop/Start Disable	Normal, Tow/Haul, Snow/Offroad, Baja, Terrain & Stop/Start Disable
Police Only	No	No
Horsepower @ RPM	310@5600	310@5600
Torque @ RPM	387.2/430@3000	387.2/430@3000
Emission Ctrl Sys	DFI/WR-HO2S/HO2S/TWC/TC/CAC	DFI/WR-HO2S/HO2S/TWC/TC/CAC
TapUp/TapDown	No	No
Active Fuel Management	Standard AFM	Standard AFM
Description	31xx L4B: &RWL	31xx L4B: &F46

Vehicle Parameters - Certificate Coverage

Durability Group VGMXGPGNNB59
TestGroup VGMXT02.7101

EC Eng RPO Disp										Evap Family		Evap Code		Model		Car Line		Trans Type/Code		Final Drive Ratio		GVWR		Tire		N/V		Loose Weight Veh/DA		TWC Meth		TWC		TLHP		F0		F1		F2		RLHP RPO		Drv Sys Note	
2	L4B	2.7	VGMXR016340A	100	14C43	COLORADO 2WD	A8/3	3.42	6050	255/65R17 ALS GDY	25.6	4657/2104	LVW	4750	16.2	25.89	0.3525	0.03121	&2LT&WNS	RD	--																								
2	L4B	2.7	VGMXR016340A	100	14C43	COLORADO 2WD	A8/3	3.42	6050	255/65R17 ALS GDY	25.6	4657/2104	LVW	4750	16.2	25.89	0.3525	0.03121	&2WT&WNS	RD	--																								
2	L4B	2.7	VGMXR016340A	100	14C43	COLORADO 2WD	A8/3	3.42	6050	265/60R18 AL2 GDY	25.3	4657/2104	LVW	4750	17.3	31.96	0.3712	0.03170	&2WT&WNS	RD	--																								
2	L4B	2.7	VGMXR016340A	100	T4C43	CANYON 2WD	A8/3	3.42	6100	265/65R18 AT GDY	24.2	4754/2157	LVW	4750	18.3	27.82	0.3685	0.03639	&2VL&WNS	RD	--																								
3	L4B	2.7	VGMXR016340A	100	14C43+F46	COLORADO 4WD	A8/4	3.42	6250	255/65R17 ALS GDY	25.6	4995/2220	LVW	5000	18.0	33.04	0.5559	0.02958	&NP0&4LT&WNS-Z2I/ZR2	4D	--																								
3	L4B	2.7	VGMXR016340A	100	14C43+F46	COLORADO 4WD	A8/4	3.42	6250	255/65R17 ALS GDY	25.6	4995/2220	LVW	5000	18.0	33.04	0.5559	0.02958	&NP0&4WT&WNS-Z2I/ZR2	4D	--																								
3	L4B	2.7	VGMXR016340A	100	14C43+F46	COLORADO 4WD	A8/4	3.42	6250	265/60R18 AL2 GDY	25.3	4995/2220	LVW	5000	19.1	39.43	0.5756	0.03008	&NP0&4WT&WNS-Z2I/ZR2	4D	--																								
3	L4B	2.7	VGMXR016340A	100	14E43+F46	COLORADO 4WD	A8/4	3.42	6250	265/65R18 AT GDY	24.2	4995/2220	LVW	5000	20.3	35.04	0.5727	0.03537	&NQH&0TR&WNS&Z2I-ULV	4D	--																								
3	L4B	2.7	VGMXR016340A	100	14E43+F46	COLORADO 4WD	A8/4	3.42	6250	275/50R22 ALS BRI	23.5	4995/2220	LVW	5000	20.2	35.25	0.4802	0.03683	&NQH&0TR&WNS&Z2I-ACO	4D	--																								
3	L4B	2.7	VGMXR016340A	100	14E43+F46	COLORADO 4WD	A8/4	3.42	6250	275/60R20 AT BRI	23.2	4995/2220	LVW	5000	20.6	35.26	0.5897	0.03604	&NQH&0TR&WNS&Z2I-ULV	4D	--																								
3	L4B	2.7	VGMXR016340A	100	14E43+F46	COLORADO 4WD	A8/4	3.42	6250	LT275/65R18 OOR GDY	23.8	5007/2214	LVW	5000	21.4	39.88	0.6061	0.03600	&NQH&0TR&WNS&Z2I-ULV	4D	--																								
3	L4B	2.7	VGMXR016340A	100	14G43+F46	COLORADO 4WD	A8/4	3.42	6250	255/55R20 AT BRI	24.6	4995/2220	LVW	5000	19.1	37.89	0.5782	0.03068	&NQH&4Z7&WNS-Z2I/ZR2	4D	--																								
3	L4B	2.7	VGMXR016340A	100	14G43+F46	COLORADO 4WD	A8/4	3.42	6250	265/65R18 AT GDY	24.2	4995/2220	LVW	5000	19.0	35.04	0.5727	0.03139	&NQH&4Z7&WNS-Z2I/ZR2	4D	--																								
3	L4B	2.7	VGMXR016340A	100	14H43+ULV	COLORADO ZR2 BISON 4WD	A8/5	3.42	6350	LT315/70R17 OOR GDY	22.3	5578/2536	LVW	5500	24.7	49.94	0.5570	0.04307	&NQH&4ZR&WNS	4D	--																								
3	L4B	2.7	VGMXR016340A	100	14H43+ZR2	COLORADO ZR2 4WD	A8/5	3.42	6250	LT285/70R17 OOR GDY	23.4	5267/2368	LVW	5250	23.8	46.53	0.5962	0.04094	&NQH&4ZR&WNS-ULV	4D	--																								
3	L4B	2.7	VGMXR016340A	100	T4C43+F46	CANYON 4WD	A8/4	3.42	6250	265/65R18 AT GDY	24.2	5088/2298	LVW	5000	20.2	35.04	0.5727	0.03503	&NP0&4VL&WNS&Z2I-XEV/XEW	4D	--																								
3	L4B	2.7	VGMXR016340A	100	T4C43+F46	CANYON 4WD	A8/4	3.42	6250	275/50R22 ALS BRI	23.5	5088/2298	LVW	5000	20.1	35.25	0.4802	0.03664	&NP0&4VL&WNS&Z2I-ACO	4D	--																								
3	L4B	2.7	VGMXR016340A	100	T4C43+F46	CANYON 4WD	A8/4	3.42	6250	275/60R20 AT BRI	23.2	5088/2298	LVW	5000	20.5	35.26	0.5897	0.03569	&NP0&4VL&WNS&Z2I-XEV/XEW	4D	--																								
3	L4B	2.7	VGMXR016340A	100	T4E43+F46	CANYON 4WD	A8/4	3.42	6250	265/65R18 AT GDY	24.2	5088/2298	LVW	5000	20.2	35.04	0.5727	0.03503	&NQH&4SG&WNS&Z2I-XEV/XEW	4D	--																								
3	L4B	2.7	VGMXR016340A	100	T4E43+F46	CANYON 4WD	A8/4	3.42	6250	275/60R20 AT BRI	23.2	5088/2298	LVW	5000	20.5	35.26	0.5897	0.03569	&NQH&4SG&WNS&Z2I-XEV/XEW	4D	--																								
3	L4B	2.7	VGMXR016340A	100	T4E43+F46	CANYON 4WD	A8/4	3.42	6250	LT275/65R18 OOR GDY	23.8	5088/2298	LVW	5000	21.2	39.88	0.6061	0.03564	&NQH&4SG&WNS&Z2I-XEV/XEW	4D	--																								
3	L4B	2.7	VGMXR016340A	100	T4E43+XEV	CANYON AT4X AEW 4WD	A8/5	3.42	6350	LT315/70R17 OOR GDY	22.3	5563/2509	LVW	5500	24.3	49.94	0.5570	0.04165	&NQH&4TX&WNS	4D	--																								
3	L4B	2.7	VGMXR016340A	100	T4E43+XEW	CANYON AT4X 4WD	A8/5	3.42	6250	LT285/70R17 OOR GDY	23.4	5240/2355	LVW	5250	23.5	46.53	0.5962	0.03989	&NQH&4TX&WNS-XEV	4D	--																								
3	L4B	2.7	VGMXR016340A	100	T4F43+F46	CANYON 4WD	A8/4	3.42	6250	275/60R20 AT BRI	23.2	5088/2298	LVW	5000	20.5	35.26	0.5897	0.03569	&NQH&5SB&WNS&Z2I-XEV/XEW	4D	--																								
3	L4B	2.7	VGMXR016340A	100	T4N43+XEW	CANYON AT4X 4WD	A8/5	3.42	6250	LT285/70R17 OOR GDY	23.4	5240/2355	LVW	5250	23.5	46.53	0.5962	0.03989	&NQH&4TX&WNS-XEV	4D	--																								

GM elects to test at the next higher test weight class where applicable (reference 40CFR86.1831-01(b)(3)).

TRANSMISSION INFORMATION

Test Group ID	VGMXT02.7101	VGMXT02.7101	VGMXT02.7101
Transmission Code	3	4	5
Transmission RPO	MFC	MFC	MFC
Transmission Type	A8	A8	A8
Drive Gear Ratios	4.56,2.97,2.08,1.69,1.27,1,0.85,0.65	4.56,2.97,2.08,1.69,1.27,1,0.85,0.65	4.56,2.97,2.08,1.69,1.27,1,0.85,0.65
Chain Drive Ratio	N/A	N/A	N/A
Shift Calibrations	Computer Controlled	Computer Controlled	Computer Controlled
Torque Converter Diameter	260	260	260
Torque Converter Stall Torque Ratio	1.76	1.76	1.76
Torque Converter Lockup RPM'S	Computer Controlled	Computer Controlled	Computer Controlled
Torque Converter Stall Torque Speed	1850 @ 150	1850 @ 150	1850 @ 150
Multimode Feature - # of Modes	3	4	5
Shift Indicator Light	No	No	No
Description	31xx L4B RWL	31xx L4B F46	31xx L4B F46 (Baja)
TapUp/TapDown	No	No	No

SPECIAL TEST INSTRUCTIONS

DRIVER SELECTABLE MODES

Tow/Haul Mode:

Some vehicles are equipped with a trailer tow switch. To select the trailer tow mode, depress the trailer tow switch. The trailer tow light on the instrument panel cluster will illuminate. To go back to the normal operation, press the switch again. The indicator light on the instrument cluster will go out. Upon an engine restart, the trailer tow switch must be reactivated to enter the trailer tow mode.

Tap Shift (Manual Shift) Mode:

To select Tap Shift mode on automatic transmission vehicles (if equipped), move the gear shift lever to the manual mode position. Some vehicles require the additional step of pressing either "+" or "-" on the shifter to engage Tap Shift mode. Please refer to the Owner's Manual for vehicle specific instructions. To go back to normal automatic mode, move the gear shift lever to "D".

Other Modes:

Some vehicles are equipped with additional driver selectable modes. These vehicles are equipped with either additional gear shifter positions or a mode selection switch to engage each mode. Please refer to the Owner's Manual for specific instructions on how to engage each mode.

OTHER

Drive Trace Tolerances:

The driver must attempt to follow the target schedule as closely as possible. Instantaneous speeds must stay within the following tolerances. The upper limit is 2.0 mph higher than the highest point on the trace within 1.0 s of the given point in time. The lower limit is 2.0 mph lower than the lowest point on the trace within 1.0 s of the given time.

Emission Test Vehicle Cooling Requirements:

For the federal test procedure at 75°, 50° and 20°, and a highway fuel economy test, a fixed speed fan that has a nominal capacity of 5300 cfm must be used. The fan must be placed within 12 inches of the front of the vehicle and centered on the vehicle's grill. For the US06 test, a fixed speed fan that has a nominal capacity of 15000 cfm must be used. The fan must be placed within 24 inches of the front of the vehicle and centered on the vehicle's grill. For the SC03 test, a road speed fan that has a nominal capacity of 95000 cfm at 60 mph must be used. The fan must be placed on the floor between 24 and 36 inches from the front of the vehicle.

EPA does allow additional cooling, and a road speed fan can be used on any test. The certification vehicle in this test group used a road speed fan on the SC03, as required by the regulations, and on the following tests: FTP 75°, FTP 50° FTP 20°, Hwy and US06. Use "Prime One" road speed fan at center of grill and a height of 550mm from center of fan to ground or use SC03 road speed fan.

SPECIAL TEST INSTRUCTIONS (CONT.)

Canister Loading:

Most General Motors vehicles have a service port for the evaporative system. For vehicles that are not equipped with a service port, an evap service access port tool must be utilized. The evap service access port tool should be installed between the purge solenoid and the purge line from the evap canister. Purging and loading of the evaporative emissions canister must be done through this service port or service port tool. The service port and service port tool consist of a Schrader valve which is in series with the purge line. It can be identified by its green cap.

Fuel System Leak Test Procedure:

For evaporative emission families that are certified to Tier 3 and LEV 3 evaporative emission requirements, a fuel system leak test may need to be conducted. To conduct this testing, the outlet of the canister should be sealed. The fuel system is then pressurized by applying nitrogen through the service port. Service port details are outlined in the canister loading instructions.

Evaporative Emissions Testing:

For evaporative emissions testing conducted with test fuels that contain ethanol, General Motors utilizes a photo acoustic infrared analyzer to measure evaporative emissions.

Four-Wheel and All-Wheel Drive Vehicles:

Please contact General Motors Compliance and Certification organization for instructions on how to disable the four-wheel and all-wheel drive systems.

Traction Control and Anti-Lock Braking System (ABS):

Most General Motors vehicles come equipped with an electronic traction control system and an ABS system. During dynamometer testing, these systems will detect the difference in wheel speed between the front and rear wheels, and attempt to correct it by activating ABS and changing engine operation. Therefore, before emissions testing, the systems must be disabled. The system on these vehicles cannot be disabled by removing the underhood ABS fuse. Vehicles in this test group must be put in "Dyno Mode" using a service tool connected to the ALDL to disable Traction Control/ABS. Please contact General Motors Compliance and Certification organization for instructions.

Automatic Headlight Systems:

Headlight must be turned off before each emissions or fuel economy test. Please refer to the owner's manual for the location of the switch that controls the headlights.

Parking Brake:

All front wheel drive vehicles must have the parking brake set prior to any dynamometer emission testing.

Tire Pressure and Ballast:

Some vehicles in this test group may require additional ballast and reduction of tire pressure to prevent wheel slip. Please add ballast and change the tire pressure prior to emissions testing, according to the list below. For engine code 1 testing performed with reduced tire pressure of 32psi. For engine codes 2 testing performed with reduced tire pressure of 38psi. For engine codes 3&4 testing performed with reduced tire pressure of 36psi For all engine codes add 250lbs of ballast to rear axle.

ENGINE STARTING INSTRUCTIONS

Warm or Cold Engine

For vehicles using a key, do not press down on the accelerator pedal. With your foot off the pedal, crank the engine by turning the ignition key to "Start". Release the key when the engine starts.

For vehicles using a push button start, the keyless access transmitter must be inside the vehicle for the ignition to work. To start the vehicle, do the following: With your foot on the brake pedal, press the START button located on the instrument panel. When the engine begins cranking, let go of the button and the engine cranks automatically until it starts.

Reference Owner's Manual for complete starting instructions.

SHIFT SCHEDULES - NA

Trans Code	Shift Schedule				Recommended Shift Speeds (mph)									
	FTP	Hwy	SC03	US06	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	

NA – Not Applicable



August 17, 2026

VP065

Mr. D. Cullen
U.S. Environmental Protection Agency
Office of Transportation & Air Quality
Certification & Compliance Division
2000 Traverwood
Ann Arbor, MI 48105

Dear Mr. Cullen:

Subject: Request for Certificate of Conformity - General Motors 2027 Test Group/
Evaporative Families VGMXT02.7101/VGMXR016340A

General Motors requests that the EPA issue certificates of conformity for the subject test group/evaporative family. GM requests the EPA review this application promptly to expedite final approval of the certificates of conformity for the subject test group. Attached to this request is the Part 1 Application.

GM requests that the EPA treat the information contained in this Part 1 Application, or information subsequently submitted for inclusion in this application, as confidential business information under 40 C.F.R. Part 2, Subpart B, and 5 U.S.C. § 552. The EPA's General Counsel made a class determination that information contained in applications for certification is entitled to confidential treatment (see Class Determination 1-13). As such, GM requests that the information described in each Table of the Class Determination be accorded confidential treatment in accordance with the time periods specified.

GM attests that the test group complies with all applicable regulations contained in 40 C.F.R. Parts 85 and 86, and the applicable California Amendments of the EPA regulations it has incorporated, and Title 13 of the California Code of Regulations.

Please review this information as soon as possible and call if you should have any questions regarding this request for certificates of conformity.

Sincerely,

B. Doak

B. Doak
Total Certification Engineer
Compliance & Certification

BD/ks

general motors

GM Proving Ground / Compliance & Certification / M/C 483-331-500 / 3300 GM Rd. / Milford, MI 48380-3726



August 20, 2026

VP066

Ms. Robin U. Lang, Chief
Emissions Certification and Compliance Division
California Air Resources Board
4001 Iowa Avenue
Riverside, CA 92507

Dear Ms. Lang:

Subject: Request for Executive Order - General Motors 2027 Test Group/Evaporative Family
VGMXT02.7101/VGMXR016340A

General Motors requests that CARB issue an executive order for the subject test group. GM requests that the CARB treat the information contained in this Part 1 Application, or information subsequently submitted for inclusion in this application, as confidential business information pursuant to the California Public Records Act and Sections 91000-91022 of Title 17 of the California Code of Regulations. The information is confidential and sensitive GM business information that constitutes trade secrets and commercial or financial information within the meaning of Section 6254.7 of the California Public Records Act, is entitled to confidential treatment, and will cause substantial competitive harm to GM if released. In the event that CARB does not agree with our position regarding confidential treatment of this information or is considering the public release of this confidential, trade secret, and commercial or financial information, or receives a request for disclosure of the information, we request that you first provide notice to me and we request the opportunity to discuss the material and the need to maintain the confidentiality of this information with you or the CARB General Counsel before any decision is made regarding its release. GM requests that the information be accorded confidential treatment indefinitely.

GM attests that the test group complies with all applicable regulations contained in 40 C.F.R. Parts 85 and 86, and the applicable California Amendments of the EPA regulations that CARB has incorporated and Title 13 of the California Code of Regulations.

GM recognizes that on June 12, 2025, a Congressional Review Act resolution came into effect disapproving the waiver that EPA had issued to CARB granting it authority to enforce the LEV IV regulation, which would have previously controlled for this executive order. In response to CARB's emergency request to temporarily reinstate the agency's LEV III regulations, EPA advised CARB that "...even if a preexisting regulation previously obtained a waiver, such waiver is no longer extant if the regulation became ineffective at any time, whether through the passage of time, repeal, or by any other means." On October 2, 2025, the California Office of Administrative Law approved CARB's emergency amendment intended to temporarily reinstate the agency's LEV III regulations. On March 26, 2026, OAL approved CARB's 90-day extension of its emergency amendment through July 1, 2026. In requesting an executive order consistent with the temporary emergency amendment, GM is not taking a position with respect to the validity or enforceability of any CARB requirements that may have been subject to Congressional Review Act resolutions or for which an EPA waiver of preemption has become ineffective.

general motors

GM Proving Ground / Compliance & Certification / M/C 483-331-500 / 3300 GM Rd. / Milford, MI 48380-3726

The EPA certificate of conformity for this test group will be forwarded to you when it becomes available.

Based upon our review prior to submitting the application for certification and to the best of our current information and belief, the GM vehicles described in this request for executive order do not employ defeat devices, and do not use alternative maps or AECDs that have not been declared, nor does our emission control system include strategies that link transmission controls (input or output) to these AECDs. In addition, we do not use control strategies that would trigger different transmission behavior when driven on an official emission test compared to when driven on the road under the same conditions. We are submitting this statement to you in good faith. If, in the future, we identify any new relevant information, we will notify CARB in a timely fashion.

Please review this information as soon as possible and call if you have any questions regarding this request for an executive order.

Sincerely,

B. Doak

B. Doak
Total Certification Engineer
Compliance & Certification

BD/ks

EMISSION DATA RATIOS (GASOLINE)

	<u>Data Ratios</u>
NMHC (G/MI) *1	NA
NMOG (G/MI) *2	NA
HCHO (G/MI) *4	NA
NMOG:NMHC *2 (E0 TIER2)	1.04
NMOG:NMHC *3 (E10 LEV3)	1.10 (Cold Start Tests)
NMOG:NMHC *3 (E10 LEV3)	1.03 (Hot Start Tests)
NMOG:NMHC *5 (E10 TIER3)	See Below
NMOG:NMHC *6 (E10 TIER3)	1.03 (Hot Start Tests)
HCHO:NMHC *2	NA

*1 NMHC includes methane response factor.

*2 Effective with the 2004 model year, both EPA and CARB have, through regulatory change, established an industry 1.04 NMHC to NMOG factor which can be used for cert testing for all gasoline tests (does not apply to alcohol fuels).

*3 Effective with LEV3 regulations, 1.10 NMHC to NMOG factor (cold start tests) and 1.03 NMHC to NMOG factor (hot start tests) can be used for cert testing for all gasoline tests (does not apply to alcohol fuels).

*4 HCHO requirements will now be met by a compliance statement for both EPA and CARB (does not apply to alcohol fuels).

*5 Effective with TIER3 regulations, the NMHC to NMOG conversion ratio for cold start tests is a calculation based 1066.635 which is represented by the following:

$$e_{\text{NMOGcomp}} = e_{\text{NMHCcomp}} * (1.0302 + (0.0071 * VP_{\text{EtOH}})) \quad \{\text{Eq. 1066.635-3}\}$$

*6 Effective with TIER3 regulations, 1.03 NMHC to NMOG factor (hot start tests) can be used for certification testing for all gasoline tests (does not apply to alcohol fuels).

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VEHICLE EMISSION CONTROL INFORMATION



**GENERAL
MOTORS
LLC**

Conforms to Regulations: 2027

U.S. EPA class / stds: LDT / BIN30

California class / stds: LDT / SULEV30

Group: VGMXT02.7101 2.7L

Evap: VGMXR016340A

TC/CAC/DFI/WR-HO2S/TWC/HO2S, CA OBD: II

Fuel: Gasoline

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Date: 2607

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VEHICLE EMISSION CONTROL INFORMATION



**GENERAL
MOTORS
LLC**

Conforms to Regulations: 2027

U.S. EPA class / stds: LDT / BIN30

California class / stds: LDT / SULEV30

Group: VGMXT02.7101 2.7L

Evap: VGMXR016340A

TC/CAC/DFI/WR-HO2S/TWC/HO2S, CA OBD: II

Fuel: Gasoline

74MY2027L4BNLBWNS

Date: 2607