

Certification Summary Information Report

Manufacturer	BMW	Manufacturer Code	BMX
Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
Certificate Number	VBMXT03.0B58-004	CARB Executive Order #	--
Certificate Issue Date	01/30/2026	Certificate Revision Date	--
Certificate Effective Date	01/30/2026	Conditional Certificate	No
CSI Revision #	--	CSI Submission/Revision Date	01/19/2026 09:18:24 AM
Model Year	2027		

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
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:	Electric Motor		
	Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator
	Electricity	--	--
Drive Source #2:	Combustion Engine		
	Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator
	Gasoline	Spark Ignition direct & ported injection	No
Hybrid Indicator	Yes		
Multiple Fuel Storage	--	Rechargeable Energy Storage System Indicator	Yes
Multiple Fuel Combustion	--	Off-board Charge Capable Indicator	No
Fuel Cell Indicator	No	EPA Vehicle Class	LDT4, LDT3
Federal Clean Fuel Vehicle	No	Federal Clean Fuel Vehicle Standard	--
Federal Clean Fuel Vehicle ILEV	No	California Partial Zero Emissions Vehicle Indicator	--
Durability Group Name	VBMXHHGVNV41	Durability Group Equivalency Factor	1
Reduced Fee Test Group	No	Certification Region Code(s)	FA
Complies with HD GHG 2b/3 regulations?	No		
Introduction into Commerce Date	04/01/2026	CAP2000 Conditional Certificate?	No
Independent Commercial Importer?	No	Alternative Fuel Converter Certificate?	No
SFTP Federal Composite Compliance Identifier	Tier 3	SFTP Tier 2 Composite CO Option	--
SFTP LEV-III Composite Compliance Indicator	No		
OBD Compliance Type	CARB	OBD Demonstration Vehicle Test Group	VBMXT03.0B58
Test Group OBD Compliance Level	Full - no deficiencies	Number of Test Group OBD Deficiencies	0
OBD Deficiencies Comments	E-25-316		
Mfr Test Group Comments	--		
Mfr Exhaust / Evap Standards Comments	--		

Certification Summary Information Report

Test Group	VBMXT03.0B58		Evaporative/Refueling Family	VBMXR0180G0X			
Evaporative/Refueling Family Information							
Evaporative Summary Information Type	New	Submission/Correction Date	01/08/2026 08:14:14 AM				
Integrated ORVR?	Yes	Fuel(s)	Gasoline				
Multiple Fuel Storage	--						
Bladder Fuel Tank?	No						
Fuel Tank Material	Plastic	Fuel Tank Material Description	HDPE				
Fill Pipe Seal Type	Liquid seal						
Air Intake System Vapor Storage Device?	No	Air Intake System Vapor Storage Device Description	--				
Fuel System Vapor Storage Canister?	Yes	Other Vapor Storage	--				
Fuel System Vapor Storage Canister(s) Total Working Capacity (grams)	180	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	No						
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	--						
Models Covered by this Certificate							
Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	- # of Gears	Trans - Lockup
BMW	1 - BMW	384 - X7 xDrive40i	Federal	All Wheel Drive	Semi-Automatic	8	Yes
BMW	1 - BMW	314 - X6 xDrive40i	Federal	All Wheel Drive	Semi-Automatic	8	Yes
Engine Description							
Hybrid Type	IC Engine/Electric Motor		Hybrid Description	Fuel Economy Guide Category MHEV (Mild Hybrid Electric Vehicle)			
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	0W-12			
Number of Cylinders/Rotors	6		Mechanically Variable Compression Ratio Indicator	N			
After Treatment Device(s) (ATD)							
ATD Number	ATD Type	ATD Precious Metal	Substrate Material	Substrate Construction			
1	Three-way catalyst	Palladium + Rhodium	Ceramic	Monolith			
Mfr After Treatment Device (ATD) Comments	--						
Direct Ozone Reduction (DOR) Device	Not Equipped						
Mfr Emission Control Device Comments	--						

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
Engine Configuration Number 1			
Engine Displacement (liters)	3.0	Engine Rated Horsepower	375
Number of Inlet Valves Per Cylinder	2	Number of Exhaust Valves Per Cylinder	2
Air Aspiration Method	Turbocharged	Number of Air Aspiration Devices	1
Air Aspiration Device Configuration	Single	Charge Air Cooler Type	Air
Air Aspiration Drive Method(s)	Mechanical		
Cylinder Deactivation	No		
Cylinder Deactivation Description	--		
Variable Valve Timing	Yes		
Variable Valve Timing System Description	Variable Valve Timing at inlet and outlet valves		
Variable Valve Lift?	Yes		
Variable Valve Lift System Description	Variable Valve Lift at inlet valves and two settings at outlet valves		
Number of Knock Sensors	2	Number of Air/Fuel Sensors	2
Air/Fuel Sensor # 1 Type	Air fuel	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	No		
Air Injection Type	--	Air Injection Type if 'Other'	--
Mfr Engine Configuration Comments	--		

Official Test Numbers

Test Group	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
Electricity	--	--	--	--	--	--	--	--	--	--
Gasoline	TBMX10088528	TBMX10088530	TBMX10088531	TBMX10088533	TBMX10088529	17	228.2	26.8	286.1	--

SFTP LEV-III Official Test Numbers

Test Group Fuel	FTP	US06	SC03
Gasoline	TBMX10088528	TBMX10088530	TBMX10088531
Gasoline	TBMX91006279	TBMX91006277	TBMX10088531

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
Hybrid Electric Vehicle And Fuel Cell Information			
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if Other	--
Battery Type	Lithium Ion	Number of Battery Packs	1
Total Voltage of Battery Packs	44	Battery Energy Capacity	10
Battery Specific Energy	38	Battery Charger Type	On-Board
Number of Capacitors	--	Capacitor Rating (In Farads)	--
Mfr Capacitor Comments	--		
Hydraulic System Description	--		
Regenerative Braking Type	Electrical Regen Brake		
Regenerative Braking Source	Both	Driver Controlled Regenerative Braking	No
Mfr Regenerative Braking Description	--		
Drive Motor(s)/Generator(s)	1		
Motor/Generator Type 1	PMSM	Rated Motor/Generator Power	9
Mfr Fuel Cell Description	--		
Fuel Cell On-Board H2 Storage Capacity (kg)	--	Usable H2 Fill Capacity (kg)	--
Mfr Hybrid Electric/ Electric Vehicle Comments	Starter Generator Engine with 48V Technology; Motor/Generator Type: permanent magnet synchronous machine (PMSM)		

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X									
Emission Data Vehicle Information												
Vehicle ID / Configuration	9K06067 / 0	Manufacturer Vehicle Configuration Number	0									
Original Test Group Name	PBMXJ03.0B58	Original Evaporative/Refueling Family	PBMXR0180G0X									
Original Test Vehicle Model Year	2023											
Vehicle Model												
Represented Test Vehicle Make	BMW	Represented Test Vehicle Model	X7 xDrive40i									
Leak Family Details												
Leak Family Identifier	--	Leak Family Name	--									
Drive Sources and Fuel System Details												
<table border="1"> <thead> <tr> <th>Drive Source and Fuel#</th> <th>Drive Source</th> <th>Fuel</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Electric Motor</td> <td>Electricity</td> </tr> <tr> <td>2</td> <td>Combustion Engine</td> <td>Gasoline</td> </tr> </tbody> </table>				Drive Source and Fuel#	Drive Source	Fuel	1	Electric Motor	Electricity	2	Combustion Engine	Gasoline
Drive Source and Fuel#	Drive Source	Fuel										
1	Electric Motor	Electricity										
2	Combustion Engine	Gasoline										
Hybrid Indicator	Yes											
Multiple Fuel Storage	--	Multiple Fuel Combustion	--									
Fuel Cell Indicator	No	Rechargeable Energy Storage System Indicator	Yes									
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if 'Other'	--									
Off-board charge Capable Indicator	No											
Odometer Correction -- Initial	0	Odometer Correction Factor	1									
Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor											
Odometer Correction Units	Miles											
Engine Code	B58B30M2G07X	Rated Horsepower	375									
Displacement (liters)	3											
Air Aspiration Method	Turbocharged	Air Aspiration Method, if 'Other'										
Number of Air Aspiration Devices	1	Air Aspiration Device Configuration	Single									
Charge Air Cooler Type	Air	Drive Mode While Testing	All Wheel Drive									
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)									
Curb Weight (lbs)	5717	Equivalent Test Weight (pounds)	6000									
GVWR (lbs)	7088	N/V Ratio	26.1									
Axle Ratio	3.63											
Transmission Type	Semi-Automatic	# of Transmission Gears	8									
Transmission Lockup	Yes	Creep Gear	No									

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
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Dynamometer Coefficients:

Coefficient Category	Target Coefficients			Set Coefficients			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	
City/Highway/Evap	74.1	0.009	0.03114	18.8	0.269	0.02563	20.3
Cold CO	0	0	0	0	0	0	N/A
US06	74.1	0.009	0.03114	18.8	0.269	0.02563	N/A

Emission Control Device Comments --
Manufacturer Test Vehicle Comments EVAP EDV X7 xDrive40i, AT, MY23

Test #	PBMX10075015	Test Procedure	23 - 2-day evap
Exhaust Test # for this Evap Test	PBMX10075013	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	04/06/2022	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	26
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	3289	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
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)
HC-TOTAL (Total Hydrocarbon)	0.346585	--
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.374312	--

Manufacturer Test Comments EVAP EDV - 2Day, X7 xDrive40i

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	0.3743	0	0.374	0.5	Pass

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
Test #	PBMX10075024	Test Procedure	34 - Federal fuel 3-day evap
Exhaust Test # for this Evap Test	PBMX10075014	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	04/12/2022	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	26
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	3318	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes	Road Speed Fan Usage	Yes
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
HC-TOTAL (Total Hydrocarbon)	0.293832	--
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.317339	--

Manufacturer Test Comments EVAP EDV - 3Day, X7 xDrive40i, MY23

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	0.3173	0	0.317	0.5	Pass

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
Test #	PBMX10075152	Test Procedure	32 - Federal Fuel Running Loss
Exhaust Test # for this Evap Test	PBMX10075014	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	04/12/2022	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	26
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	3318	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
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)
HC (Hydrocarbon for Running Loss and ORVR)	0.018749	--
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.020249	--

Manufacturer Test Comments EVAP EDV - RL, X7 xDrive40i, MY23

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	0.02	0	0.02	0.05	Pass

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
Test #	PBMX10075154	Test Procedure	24 - Federal fuel refueling test (ORVR)
Exhaust Test # for this Evap Test	PBMX10075153	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	04/28/2022	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	26
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	3376	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
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)
HC (Hydrocarbon for Running Loss and ORVR)	0.03772	--

Manufacturer Test Comments EVAP EDV, ORVR, X7 xDrive40i, MY23

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	0.038	0	0.04	0.2	Pass

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
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Test #	PBMX10075449	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	02/23/2022	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	26
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	0	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
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)
HC-TOTAL (Total Hydrocarbon)	0.01174	--
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.012679	--

Manufacturer Test Comments EVAP EDV, Bleed Test, X7 xDrive40i, MY23, – tested with a stick car

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	0.0127	0	0.013	0.02	Pass

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
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Test #	PBMX10075385	Test Procedure	67 - Leak Test - Port Near Canister
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	05/04/2022	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	26
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	3422	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
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
LEAK-DIA (Effective Leak Diameter (inches))	0	--

Manufacturer Test Comments EDV Evap Leak Test X7 xDrive40i, MY23

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	LEAK-DIA	0	0	0	0.02	Pass

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X									
Emission Data Vehicle Information												
Vehicle ID / Configuration	9W42304 / 0	Manufacturer Vehicle Configuration Number	0									
Original Test Group Name	TBMXJ03.0B58	Original Evaporative/Refueling Family	TBMXR0180G0X									
Original Test Vehicle Model Year	2026											
Vehicle Model												
Represented Test Vehicle Make	BMW	Represented Test Vehicle Model	X7 xDrive40i									
Leak Family Details												
Leak Family Identifier	--	Leak Family Name	--									
Drive Sources and Fuel System Details												
<table border="1"> <thead> <tr> <th>Drive Source and Fuel#</th> <th>Drive Source</th> <th>Fuel</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Electric Motor</td> <td>Electricity</td> </tr> <tr> <td>2</td> <td>Combustion Engine</td> <td>Gasoline</td> </tr> </tbody> </table>				Drive Source and Fuel#	Drive Source	Fuel	1	Electric Motor	Electricity	2	Combustion Engine	Gasoline
Drive Source and Fuel#	Drive Source	Fuel										
1	Electric Motor	Electricity										
2	Combustion Engine	Gasoline										
Hybrid Indicator	Yes											
Multiple Fuel Storage	--	Multiple Fuel Combustion	--									
Fuel Cell Indicator	No	Rechargeable Energy Storage System Indicator	Yes									
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if 'Other'	--									
Off-board charge Capable Indicator	No											
Odometer Correction -- Initial	0	Odometer Correction Factor	1									
Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor											
Odometer Correction Units	Miles											
Engine Code	B58B30M2G07X	Rated Horsepower	375									
Displacement (liters)	3											
Air Aspiration Method	Turbocharged	Air Aspiration Method, if 'Other'										
Number of Air Aspiration Devices	1	Air Aspiration Device Configuration	Single									
Charge Air Cooler Type	Air	Drive Mode While Testing	All Wheel Drive									
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)									
Curb Weight (lbs)	5452	Equivalent Test Weight (pounds)	6000									
GVWR (lbs)	7088	N/V Ratio	26.3									
Axle Ratio	3.63											
Transmission Type	Semi-Automatic	# of Transmission Gears	8									
Transmission Lockup	Yes	Creep Gear	No									

Certification Summary Information Report

Test Group		VBMXT03.0B58			Evaporative/Refueling Family			VBMXR0180G0X
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	73	0.005	0.03115	22.6	0.149	0.02748	20.2	
Cold CO	80.3	0.006	0.03426	14.8	0.05	0.02921	N/A	
US06	73	0.005	0.03115	22.6	0.149	0.02748	N/A	
Emission Control Device Comments	--							
Manufacturer Test Vehicle Comments	vi_9W42304_00_EDV_X7 xDrive40i_A_ETW-6000_RG20_Sport_S							

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
Test #	TBMX10088528	Test Procedure	31 - Federal fuel 3-day exhaust
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	11/05/2024	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	43
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4334	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	516.8493	--
FE BAG 1 (Bag 1 Fuel Economy)	16.7	16.7
CO2 BAG 2 (Bag 2 Carbon Dioxide)	499.0936	--
FE BAG 2 (Bag 2 Fuel Economy)	17.3	17.3
CO2 BAG 3 (Bag 3 Carbon Dioxide)	435.6657	--
FE BAG 3 (Bag 3 Fuel Economy)	19.8	19.8
CO2 BAG 4 (Bag 4 Carbon Dioxide)	485.4242	--
FE BAG 4 (Bag 4 Fuel Economy)	17.8	17.8
METHANE (CH4 - Methane)	0.00116	--
CO (Carbon Monoxide)	0.037	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	1.587	--
DT-EER (Drive Trace Energy Economy Rating)	0.767	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	2.348	--
MFR FE (Manufacturer Fuel Economy)	18	18
NOX (Nitrogen Oxide)	0.00947	--
N2O (Nitrous Oxide)	0.00093	--
HC-NM (Non-methane Hydrocarbon)	0.00546	--
NMOG (Non-methane organic gases)	0.006	--
PM (Particulate Matter)	0.000172	--
HC-TOTAL (Total Hydrocarbon)	0.00659	--

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
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Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	481	999

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	481.3105	--

Manufacturer Test Comments 01_FTP_9W42304_00_EDV_X7 xDrive40i_A_ETW-6000_RG20_Sport_S

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	Other	CREE	999	--	--	--	0.1	--	999	--	--
Fed	120,000 miles	Other	METHANE	0.0012	--	--	--	0.001	--	0.002	0.030	Pass
Fed	120,000 miles	Other	N2O	0.0009	--	--	--	0.0002	--	0.001	0.010	Pass
Fed	150,000 miles	Other	CO	0.04	--	--	--	0.06	--	0.1	1.0	Pass
Fed	150,000 miles	Other	CO-COMP	0.11	--	--	--	--	--	0.1	4.2	Pass
Fed	150,000 miles	Other	NMOG	0.006	--	1.1	--	0.004	--	0.01	999.999	Pass
Fed	150,000 miles	Other	NMOG+NOX	0.0155	--	--	--	--	--	0.023	0.030	Pass
Fed	150,000 miles	Other	NMOG+NOX-COMP	0.0223	--	--	--	--	--	0.022	0.050	Pass
Fed	150,000 miles	Other	NOX	0.0095	--	--	--	0.0036	--	0.013	999.999	Pass
Fed	150,000 miles	Other	PM	0.0002	--	--	--	0	--	0	0.003	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	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
Test #	TBMX10088533	Test Procedure	11 - Cold CO
Exhaust Test # for this Evap Test	--	Test Fuel Type	28 - Cold CO E10 Regular Gasoline (Tier 3)
Test Date	10/19/2024	Fuel	Gasoline
Fuel Batch ID	COE10	Fuel Calibration Number	56
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	3901	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	636.7189	--
FE BAG 1 (Bag 1 Fuel Economy)	13.5	13.5
CO2 BAG 2 (Bag 2 Carbon Dioxide)	548.918	--
FE BAG 2 (Bag 2 Fuel Economy)	15.7	15.7
CO2 BAG 3 (Bag 3 Carbon Dioxide)	474.6962	--
FE BAG 3 (Bag 3 Fuel Economy)	18.1	18.1
METHANE (CH4 - Methane)	0.00231	--
CO (Carbon Monoxide)	0.1773	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-5.157	--
DT-EER (Drive Trace Energy Economy Rating)	-3.108	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-6.943	--
MFR FE (Manufacturer Fuel Economy)	15.8	15.8
HC-NM (Non-methane Hydrocarbon)	0.01132	--
HC-TOTAL (Total Hydrocarbon)	0.01332	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	546.7268	--

Manufacturer Test Comments

06_FTPCOLD_9W42304_00_EDV_X7 xDrive40i_A_ETW-6000_RG20_Sport_S

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
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Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	50,000 miles	Other	CO	0.18	--	--	--	0.02	--	0.2	12.5	Pass
Fed	120,000 miles	Other	HC-NM	0.01	--	--	--	0	--	0	0.5	Pass

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
Test #	TBMX91006279	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	03/19/2025	Fuel	Gasoline
Fuel Batch ID	28637	Fuel Calibration Number	1
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	--		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	2833	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	507.6806946	--
FE BAG 1 (Bag 1 Fuel Economy)	999	--
CO2 BAG 2 (Bag 2 Carbon Dioxide)	494.6069946	--
FE BAG 2 (Bag 2 Fuel Economy)	999	--
CO2 BAG 3 (Bag 3 Carbon Dioxide)	436.4819641	--
FE BAG 3 (Bag 3 Fuel Economy)	999	--
CO2 BAG 4 (Bag 4 Carbon Dioxide)	487.4719543	--
FE BAG 4 (Bag 4 Fuel Economy)	999	--
METHANE (CH4 - Methane)	0.0007293	--
CO (Carbon Monoxide)	0.0927769	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.2013969	--
DT-EER (Drive Trace Energy Economy Rating)	-0.4815952	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.4534163	--
MFR FE (Manufacturer Fuel Economy)	999	--
NOX (Nitrogen Oxide)	0.0050421	--
N2O (Nitrous Oxide)	0.0008622	--
HC-NM (Non-methane Hydrocarbon)	0.006123	--
NMOG (Non-methane organic gases)	0.0067253	--
PM (Particulate Matter)	0.000181	--
HC-TOTAL (Total Hydrocarbon)	0.0068358	--

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
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Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	9999.9999999	999

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	479.2510376	--

Manufacturer Test Comments None Unrounded Result for the following test results were modified by Verify: MFR FE, FE BAG 1, FE BAG 4, FE BAG 2, FE BAG 3

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	Other	CREE	999	--	--	--	0.1	--	999	--	--
Fed	120,000 miles	Other	N2O	0.0009	--	--	--	0.0002	--	0.001	0.010	Pass
Fed	150,000 miles	Other	CO	0.09	--	--	--	0.06	--	0.2	1.0	Pass
Fed	150,000 miles	Other	METHANE	0.0007	--	--	--	0.001	--	0.002	0.030	Pass
Fed	150,000 miles	Other	NMOG	0.0067	--	1.1	--	0.004	--	0.011	999.999	Pass
Fed	150,000 miles	Other	NMOG+NOX	0.0117	--	--	--	--	--	0.019	0.030	Pass
Fed	150,000 miles	Other	NOX	0.005	--	--	--	0.0036	--	0.009	999.999	Pass
Fed	150,000 miles	Other	PM	0.0002	--	--	--	0	--	0	0.003	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	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
Test #	TBMX10088529	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	11/05/2024	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	43
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4358	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.00216	--
CO (Carbon Monoxide)	0.067	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	3.129	--
DT-EER (Drive Trace Energy Economy Rating)	0.175	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	4.215	--
MFR FE (Manufacturer Fuel Economy)	27.3	27.3
NOX (Nitrogen Oxide)	0.00279	--
HC-NM (Non-methane Hydrocarbon)	0.00408	--
NMOG (Non-methane organic gases)	0.0042	--
HC-TOTAL (Total Hydrocarbon)	0.0062	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	317	999

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	317.3319	--

Manufacturer Test Comments

02_HWFET_9W42304_00_EDV_X7 xDrive40i_A_ETW-6000_RG20_Sport_S

Certification Summary Information Report

Test Group		VBMXT03.0B58				Evaporative/Refueling Family				VBMXR0180G0X		
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	Other	CREE	999	--	--	--	0.1	--	999	--	--
Fed	150,000 miles	Other	NMOG	0.0042	--	1.03	--	0.004	--	0.008	999.999	Pass
Fed	150,000 miles	Other	NMOG+NOX	0.007	--	--	--	--	--	0.015	0.030	Pass
Fed	150,000 miles	Other	NOX	0.0028	--	--	--	0.0036	--	0.006	999.999	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	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
Test #	TBMX91006275	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	03/19/2025	Fuel	Gasoline
Fuel Batch ID	28637	Fuel Calibration Number	1
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	--		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	2848	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.0004918	--
CO (Carbon Monoxide)	0.023795	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	1.3367	--
DT-EER (Drive Trace Energy Economy Rating)	0.1238713	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	1.863278	--
MFR FE (Manufacturer Fuel Economy)	27.132555	--
NOX (Nitrogen Oxide)	0.0013018	--
N2O (Nitrous Oxide)	0	--
HC-NM (Non-methane Hydrocarbon)	0.0010988	--
NMOG (Non-methane organic gases)	0.0011318	--
HC-TOTAL (Total Hydrocarbon)	0.0015795	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	9999.9999999	999

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	319.5579834	--

Manufacturer Test Comments None

Certification Summary Information Report

Test Group		VBMXT03.0B58				Evaporative/Refueling Family				VBMXR0180G0X		
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	Other	CREE	999	--	--	--	0.1	--	999	--	--
Fed	150,000 miles	Other	NMOG	0.0011	--	1.03	--	0.004	--	0.005	999.999	Pass
Fed	150,000 miles	Other	NMOG+NOX	0.0024	--	--	--	--	--	0.01	0.030	Pass
Fed	150,000 miles	Other	NOX	0.0013	--	--	--	0.0036	--	0.005	999.999	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	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
Test #	TBMX10088530	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	10/23/2024	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	43
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4035	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	708.9008	--
FE BAG 1 (Bag 1 Fuel Economy)	12.2	12.2
CO2 BAG 2 (Bag 2 Carbon Dioxide)	393.1758	--
FE BAG 2 (Bag 2 Fuel Economy)	22	22
METHANE (CH4 - Methane)	0.00107	--
CO (Carbon Monoxide)	0.1079	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-1.947	--
DT-EER (Drive Trace Energy Economy Rating)	-1.13	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-3.445	--
MFR FE (Manufacturer Fuel Economy)	18.7	18.7
NOX (Nitrogen Oxide)	0.01202	--
HC-NM (Non-methane Hydrocarbon)	0.00158	--
NMOG (Non-methane organic gases)	0.00163	--
PM (Particulate Matter)	0.00147	--
HC-TOTAL (Total Hydrocarbon)	0.00262	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	463.0937	--

Manufacturer Test Comments

03_US06_9W42304_00_EDV_X7 xDrive40i_A_ETW-6000_RG20_Sport_S

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
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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	Other	CO	0.11	--	--	--	0.06	--	0.2	999.9	Pass
Fed	150,000 miles	Other	NMOG	0.0016	--	1.03	--	0.004	--	0.006	999.999	Pass
Fed	150,000 miles	Other	NOX	0.012	--	--	--	0.0036	--	0.016	999.999	Pass
Fed	150,000 miles	Other	PM	0.0015	--	--	--	0	--	0.002	0.006	Pass

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
Test #	TBMX91006277	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	03/19/2025	Fuel	Gasoline
Fuel Batch ID	28637	Fuel Calibration Number	1
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	--		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	2869	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	705.6348267	--
FE BAG 1 (Bag 1 Fuel Economy)	999	--
CO2 BAG 2 (Bag 2 Carbon Dioxide)	400.7881165	--
FE BAG 2 (Bag 2 Fuel Economy)	999	--
METHANE (CH4 - Methane)	0.0012237	--
CO (Carbon Monoxide)	0.1025631	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.0451686	--
DT-EER (Drive Trace Energy Economy Rating)	-0.908031	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.5936595	--
MFR FE (Manufacturer Fuel Economy)	999	--
NOX (Nitrogen Oxide)	0.0098495	--
N2O (Nitrous Oxide)	0.0000039	--
HC-NM (Non-methane Hydrocarbon)	0.0035576	--
NMOG (Non-methane organic gases)	0.0036643	--
PM (Particulate Matter)	0.0003965	--
HC-TOTAL (Total Hydrocarbon)	0.0047536	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	468.4714966	--

Manufacturer Test Comments

None Unrounded Result for the following test results were modified by Verify: FE BAG 1, MFR FE, FE BAG 2

Certification Summary Information Report

Test Group		VBMXT03.0B58				Evaporative/Refueling Family				VBMXR0180G0X		
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	Other	CO	0.1	--	--	--	0.06	--	0.2	999.9	Pass
Fed	150,000 miles	Other	NMOG	0.0037	--	1.03	--	0.004	--	0.008	999.999	Pass
Fed	150,000 miles	Other	NOX	0.0098	--	--	--	0.0036	--	0.013	999.999	Pass
Fed	150,000 miles	Other	PM	0.0004	--	--	--	0	--	0	0.006	Pass

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
Test #	TBMX10088531	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	10/21/2024	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	43
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	3919	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.00022	--
CO (Carbon Monoxide)	0.0154	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	1.733	--
DT-EER (Drive Trace Energy Economy Rating)	1.039	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	2.063	--
MFR FE (Manufacturer Fuel Economy)	14	14
NOX (Nitrogen Oxide)	0.01462	--
HC-NM (Non-methane Hydrocarbon)	0.00019	--
NMOG (Non-methane organic gases)	0.0002	--
HC-TOTAL (Total Hydrocarbon)	0.00041	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	615.783	--

Manufacturer Test Comments 04_SC03_9W42304_00_EDV_X7 xDrive40i_A_ETW-6000_RG20_Sport_S

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	Other	CO	0.02	--	--	--	0.06	--	0.1	999.9	Pass
Fed	150,000 miles	Other	NMOG	0.0002	--	1.03	--	0.004	--	0.004	999.999	Pass
Fed	150,000 miles	Other	NOX	0.0146	--	--	--	0.0036	--	0.018	999.999	Pass

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X									
Emission Data Vehicle Information												
Vehicle ID / Configuration	9W42304 / 2	Manufacturer Vehicle Configuration Number	0									
Original Test Group Name	TBMXJ03.0B58	Original Evaporative/Refueling Family	TBMXR0180G0X									
Original Test Vehicle Model Year	2026											
Vehicle Model												
Represented Test Vehicle Make	BMW	Represented Test Vehicle Model	X7 xDrive40i									
Leak Family Details												
Leak Family Identifier	--	Leak Family Name	--									
Drive Sources and Fuel System Details												
<table border="1"> <thead> <tr> <th>Drive Source and Fuel#</th> <th>Drive Source</th> <th>Fuel</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Electric Motor</td> <td>Electricity</td> </tr> <tr> <td>2</td> <td>Combustion Engine</td> <td>Gasoline</td> </tr> </tbody> </table>				Drive Source and Fuel#	Drive Source	Fuel	1	Electric Motor	Electricity	2	Combustion Engine	Gasoline
Drive Source and Fuel#	Drive Source	Fuel										
1	Electric Motor	Electricity										
2	Combustion Engine	Gasoline										
Hybrid Indicator	Yes											
Multiple Fuel Storage	--	Multiple Fuel Combustion	--									
Fuel Cell Indicator	No	Rechargeable Energy Storage System Indicator	Yes									
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if 'Other'	--									
Off-board charge Capable Indicator	No											
Odometer Correction -- Initial	0	Odometer Correction Factor	1									
Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor											
Odometer Correction Units	Miles											
Engine Code	B58B30M2G07X	Rated Horsepower	375									
Displacement (liters)	3											
Air Aspiration Method	Turbocharged	Air Aspiration Method, if 'Other'										
Number of Air Aspiration Devices	1	Air Aspiration Device Configuration	Single									
Charge Air Cooler Type	Air	Drive Mode While Testing	All Wheel Drive									
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)									
Curb Weight (lbs)	5452	Equivalent Test Weight (pounds)	6000									
GVWR (lbs)	7088	N/V Ratio	26.3									
Axle Ratio	3.63											
Transmission Type	Semi-Automatic	# of Transmission Gears	8									
Transmission Lockup	Yes	Creeper Gear	No									

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
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Dynamometer Coefficients:

Coefficient Category	Target Coefficients			Set Coefficients			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	
City/Highway/Evap	73	0.005	0.03115	26.1	0.162	0.02723	20.2
US06	73	0.005	0.03115	26.1	0.162	0.02723	N/A

Emission Control Device Comments

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Manufacturer Test Vehicle Comments

vi_9W42304_02_FEDV_X7 xDrive40i_A_ETW-6000_RG22_default mode_D

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
Test #	TBMX10088535	Test Procedure	31 - Federal fuel 3-day exhaust
Exhaust Test # for this Evap Test	--	Test Fuel Type	61 - Tier 2 Cert Gasoline
Test Date	10/29/2024	Fuel	Gasoline
Fuel Batch ID	T2/E0	Fuel Calibration Number	54
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4151	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	410.7466	--
FE BAG 1 (Bag 1 Fuel Economy)	21.2	21.2
CO2 BAG 2 (Bag 2 Carbon Dioxide)	340.9647	--
FE BAG 2 (Bag 2 Fuel Economy)	25.6	25.6
CO2 BAG 3 (Bag 3 Carbon Dioxide)	342.9849	--
FE BAG 3 (Bag 3 Fuel Economy)	25.5	25.5
CO2 BAG 4 (Bag 4 Carbon Dioxide)	325.6428	--
FE BAG 4 (Bag 4 Fuel Economy)	26.8	26.8
METHANE (CH4 - Methane)	0.00178	--
CO (Carbon Monoxide)	0.2483	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-1.491	--
DT-EER (Drive Trace Energy Economy Rating)	-1.373	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-2.3	--
MFR FE (Manufacturer Fuel Economy)	24.9	24.9
NOX (Nitrogen Oxide)	0.00054	--
N2O (Nitrous Oxide)	0.0005	--
HC-NM (Non-methane Hydrocarbon)	0.00837	--
NMOG (Non-methane organic gases)	0.0087	--
HC-TOTAL (Total Hydrocarbon)	0.0101	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	351	351

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
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Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	351.4769	--

Manufacturer Test Comments 01_FTP_9W42304_02_FEDV_X7 xDrive40i_A_ETW-6000_RG22_default mode_D

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	Other	CREE	351	--	--	--	0.1	--	351	--	--
Fed	120,000 miles	Other	METHANE	0.0018	--	--	--	0.001	--	0.003	0.030	Pass
Fed	120,000 miles	Other	N2O	0.0005	--	--	--	0.0002	--	0.001	0.010	Pass
Fed	150,000 miles	Other	CO	0.25	--	--	--	0.06	--	0.3	1.0	Pass
Fed	150,000 miles	Other	NMOG	0.0087	--	1.1	--	0.004	--	0.013	999.999	Pass
Fed	150,000 miles	Other	NMOG+NOX	0.0092	--	--	--	--	--	0.017	0.030	Pass
Fed	150,000 miles	Other	NOX	0.0005	--	--	--	0.0036	--	0.004	999.999	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	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
Test #	TBMX10088537	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	61 - Tier 2 Cert Gasoline
Test Date	10/29/2024	Fuel	Gasoline
Fuel Batch ID	T2/E0	Fuel Calibration Number	54
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4175	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.00108	--
CO (Carbon Monoxide)	0.1362	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.075	--
DT-EER (Drive Trace Energy Economy Rating)	-0.752	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.108	--
MFR FE (Manufacturer Fuel Economy)	31.7	31.7
NOX (Nitrogen Oxide)	0.0003	--
HC-NM (Non-methane Hydrocarbon)	0.00142	--
NMOG (Non-methane organic gases)	0.00146	--
HC-TOTAL (Total Hydrocarbon)	0.00247	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	275	275

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	274.558	--

Manufacturer Test Comments 02_HWFET_9W42304_02_FEDV_X7 xDrive40i_A_ETW-6000_RG22_default mode_D

Certification Summary Information Report

Test Group		VBMXT03.0B58				Evaporative/Refueling Family				VBMXR0180G0X		
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	Other	CREE	275	--	--	--	0.1	--	275	--	--
Fed	150,000 miles	Other	NMOG	0.0015	--	1.03	--	0.004	--	0.006	999.999	Pass
Fed	150,000 miles	Other	NMOG+NOX	0.0018	--	--	--	--	--	0.009	0.030	Pass
Fed	150,000 miles	Other	NOX	0.0003	--	--	--	0.0036	--	0.004	999.999	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	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
Fuel Properties			
Fuel Batch ID	T10/87	Fuel Calibration Number	26
Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	10/21/2021
Fuel Batch Calibration Effective Date	11/04/2021	Fuel Batch Calibration Ineffective Date	--
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	0.825	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.745
Fuel Ethanol Volume Percent (%)	9.4	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	18229
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	T10/87	Fuel Calibration Number	43
Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	11/27/2023
Fuel Batch Calibration Effective Date	02/27/2024	Fuel Batch Calibration Ineffective Date	--
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	0.827	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.746
Fuel Ethanol Volume Percent (%)	9.8	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17962
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.827	Weight Fraction CO2	--
Fuel Batch ID	COE10	Fuel Calibration Number	56
Test Fuel Type	28 - Cold CO E10 Regular Gasoline (Tier 3)	Fuel Batch Calibration Date	05/17/2024
Fuel Batch Calibration Effective Date	07/30/2024	Fuel Batch Calibration Ineffective Date	--
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	0.826	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.744
Fuel Ethanol Volume Percent (%)	9.8	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	18001
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.826	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	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
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	T2/E0	Fuel Calibration Number	54
Test Fuel Type	61 - Tier 2 Cert Gasoline	Fuel Batch Calibration Date	05/14/2024
Fuel Batch Calibration Effective Date	05/06/2024	Fuel Batch Calibration Ineffective Date	--
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	0.861	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.736
Fuel Ethanol Volume Percent (%)	--	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	18736
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.861	Weight Fraction CO2	--

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
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Consolidated List of Standards

Exhaust Standards

Cert Region	Federal	Cert/In-Use Code	Cert
Vehicle Class	LDV/Passenger Car	Standard Level	Other
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	--	--	--	--	--	--	0.1	999
120,000 miles	N2O	--	--	--	--	--	--	0.0002	0.010
150,000 miles	CO	--	--	--	--	--	--	0.06	1.0
150,000 miles	CO-COMP	--	--	--	--	--	--	--	4.2
150,000 miles	HCHO	--	--	--	--	--	--	--	0.004
150,000 miles	METHANE	--	--	--	--	--	--	0.001	0.030
150,000 miles	NMOG	--	--	1.1	--	--	--	0.004	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.030
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	--	0.050
150,000 miles	NOX	--	--	--	--	--	--	0.0036	999.999
150,000 miles	PM	--	--	--	--	--	--	0	0.003

Cert Region	Federal	Cert/In-Use Code	Cert
Vehicle Class	LDV/Passenger Car	Standard Level	Other
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	--	--	--	--	--	--	0.02	12.5
120,000 miles	HC-NM	--	--	--	--	--	--	0	0.5

Certification Summary Information Report

Test Group	VBMXT03.0B58			Evaporative/Refueling Family			VBMXR0180G0X		
Cert Region	Federal			Cert/In-Use Code			Cert		
Vehicle Class	LDV/Passenger Car			Standard Level			Other		
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	--	--	--	--	--	--	0.06	999.9
150,000 miles	NMOG	--	--	1.03	--	--	--	0.004	999.999
150,000 miles	NOX	--	--	--	--	--	--	0.0036	999.999

Cert Region	Federal			Cert/In-Use Code			Cert		
Vehicle Class	LDV/Passenger Car			Standard Level			Other		
Fuel	Gasoline			Test Procedure			Federal fuel 3-day exhaust		
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	--	--	--	--	--	--	0.1	999
120,000 miles	METHANE	--	--	--	--	--	--	0.001	0.030
120,000 miles	N2O	--	--	--	--	--	--	0.0002	0.010
150,000 miles	CO	--	--	--	--	--	--	0.06	1.0
150,000 miles	CO-COMP	--	--	--	--	--	--	--	4.2
150,000 miles	HCHO	--	--	--	--	--	--	--	0.004
150,000 miles	NMOG	--	--	1.1	--	--	--	0.004	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.030
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	--	0.050
150,000 miles	NOX	--	--	--	--	--	--	0.0036	999.999
150,000 miles	PM	--	--	--	--	--	--	0	0.003

Cert Region	Federal			Cert/In-Use Code			Cert		
Vehicle Class	LDV/Passenger Car			Standard Level			Other		
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	--	--	--	--	--	--	0.06	999.9
150,000 miles	NMOG	--	--	1.03	--	--	--	0.004	999.999
150,000 miles	NOX	--	--	--	--	--	--	0.0036	999.999
150,000 miles	PM	--	--	--	--	--	--	0	0.006

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
Cert Region	Federal	Cert/In-Use Code	Cert
Vehicle Class	LDV/Passenger Car	Standard Level	Other
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	--	--	--	--	--	--	0.1	999.999
150,000 miles	NMOG	--	--	1.03	--	--	--	0.004	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0	0.030
150,000 miles	NOX	--	--	--	--	--	--	0.0036	999.999

Evaporative/Refueling Standards

Evaporative/Refueling Family	VBMXR0180G0X	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	--	0.20	0

Evaporative/Refueling Family	VBMXR0180G0X	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	VBMXR0180G0X	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	--	0.500	0

Evaporative/Refueling Family	VBMXR0180G0X	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-EQUIV	--	0.020	0

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X		
Evaporative/Refueling Family	VBMXR0180G0X	Cert Region	Federal		
Cert/In-Use Code	Cert	Standard Level	Federal Tier 3 Evap		
Test Procedure	Leak Test - Port Near Canister				
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	LEAK-DIA	--	0.02	0
Evaporative/Refueling Family	VBMXR0180G0X	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	--	0.500	0

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
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	AS-VOLT	Average System Voltage
CO	Carbon Monoxide	CO2 BAG 1	Bag 1 Carbon Dioxide
CO2	Carbon dioxide	CO2 BAG 2	Bag 2 Carbon Dioxide
CREE	Carbon-Related Exhaust Emissions	CO2 BAG 3	Bag 3 Carbon Dioxide
OPT-CREE	Optional Carbon-Related Exhaust Emissions	CO2 BAG 4	Bag 4 Carbon Dioxide
NOX	Nitrogen Oxide	NMOG+NOX	Non-methane organic gases plus Nitrogen Oxides
PM	Particulate Matter	NMOG+NOX-COMP	SFTP Composite Non-methane Organic Gases + Nitrogen Oxides
PM-COMP	SFTP Composite Particulate Matter	DT-IWRR	Drive Trace Inertia Work Ratio Rating
HC-NM	Non-methane Hydrocarbon	DT-ASCR	Drive Trace Absolute Speed Change Rating
OMHCE	Organic material Hydrocarbon Equivalent	DT-EER	Drive Trace Energy Economy Rating
OMNMHCE	Organic material non-methane HC equivalent	COMB-CREE	Combined Carbon-Related Exhaust Emissions
NMOG	Non-methane organic gases	COMB-OPT-CREE	Combined Optional Carbon-Related Exhaust Emissions
HCHO	Formaldehyde	HC-TOTAL-EQUIV	Total Hydrocarbon equivalent - Evap only
H3C2HO	Acetaldehyde	METHANE-COMB	Combined CH4 for HD 2b/3 vehicles only
HC-NM+NOX	SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03	N2O-COMB	Combined Nitrous Oxide for HD 2b/3 vehicles only
HC-NM+NOX-COMP	SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides	LEAK-DIA	Effective Leak Diameter (inches)
CO-COMP	SFTP Composite Carbon Monoxide	LEAK-GAS CAP	Gas Cap Leakage (cc/min)
ETHANOL	C2H5OH - Ethanol	CO2-COMB	Combined Carbon Dioxide for HD 2b/3 Vehicles Only
FE BAG 1	Bag 1 Fuel Economy	KW-HRS	Integrated DC KW-HRS
FE BAG 2	Bag 2 Fuel Economy	CH4 BAG 1	Bag 1 Methane
FE BAG 3	Bag 3 Fuel Economy	CH4 BAG 2	Bag 2 Methane
FE BAG 4	Bag 4 Fuel Economy	CH4 BAG 3	Bag 3 Methane
MFR FE	Manufacturer Fuel Economy	CH4 BAG 4	Bag 4 Methane
HC	Hydrocarbon for Running Loss and ORVR	CO BAG 1	Bag 1 Carbon Monoxide
METHANE	CH4 - Methane	CO BAG 2	Bag 2 Carbon Monoxide
METHANOL	CH3OH - Methanol	CO BAG 3	Bag 3 Carbon Monoxide
N2O	Nitrous Oxide	CO BAG 4	Bag 4 Carbon Monoxide
SPITBACK	Spitback Hydrocarbon in grams	NMOG BAG 1	Bag 1 Non-methane organic gases
AMP-HRS	Integrated Amp-hours	NMOG BAG 2	Bag 2 Non-methane organic gases
START-SOC	System Start State of Charge Watt-hours	NMOG BAG 3	Bag 3 Non-methane organic gases
END-SOC	System End State of Charge Watt-hours	NMOG BAG 4	Bag 4 Non-methane organic gases
ACT-DISTANCE	Actual Distance Driven (miles)		
Certification Region			

Certification Summary Information Report

Test Group	VBMXT03.0B58	Evaporative/Refueling Family		VBMXR0180G0X
CA	California + CAA Section 177 states	FA	Federal	
Exhaust Emission Standard Level				
B1	Federal Tier 2 Bin 1	T3B160	Federal Tier 3 Bin 160	
B2	Federal Tier 2 Bin 2	T3B125	Federal Tier 3 Bin 125	
B3	Federal Tier 2 Bin 3	T3B110	Federal Tier 3 Transitional Bin 110	
B4	Federal Tier 2 Bin 4	T3B85	Federal Tier 3 Transitional Bin 85	
B5	Federal Tier 2 Bin 5	T3SULEV30	Federal Tier 3 Transitional LEV-II SULEV30 Carryover	
B6	Federal Tier 2 Bin 6	T3B70	Federal Tier 3 Bin 70	
B7	Federal Tier 2 Bin 7	T3B50	Federal Tier 3 Bin 50	
B8	Federal Tier 2 Bin 8	T3B30	Federal Tier 3 Bin 30	
B9	Federal Tier 2 Bin 9	T3B20	Federal Tier 3 Bin 20	
B10	Federal Tier 2 Bin 10	T3B0	Federal Tier 3 Bin 0	
B11	Federal Tier 2 Bin 11	HDV2B395	Federal Tier 3 HD Class 2b Transitional Bin 395	
HDV1	HDV1 (Federal HD chassis Class 2b GVW 8501-10000)	HDV2B340	Federal Tier 3 HD Class 2b Transitional Bin 340	
HDV2	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)	HDV2B250	Federal Tier 3 HD Class 2b Bin 250	
L2	California LEV-II LEV	HDV2B200	Federal Tier 3 HD Class 2b Bin 200	
L2OP	California LEV-II LEV Optional	HDV2B170	Federal Tier 3 HD Class 2b Bin 170	
U2	California LEV-II ULEV	HDV2B150	Federal Tier 3 HD Class 2b Bin 150	
S2	California LEV-II SULEV	HDV2B0	Federal Tier 3 HD Class 2b Bin 0	
ZEV	California ZEV	HDV3B630	Federal Tier 3 HD Class 3 Transitional Bin 630	
OT	Other	HDV3B570	Federal Tier 3 HD Class 3 Transitional Bin 570	
T1	Federal Tier 1	HDV3B400	Federal Tier 3 HD Class 3 Bin 400	
PZEV	California PZEV	HDV3B270	Federal Tier 3 HD Class 3 Bin 270	
L2LEV160	California LEV-II LEV160	HDV3B230	Federal Tier 3 HD Class 3 Bin 230	
L2ULEV125	California LEV-II ULEV125	HDV3B200	Federal Tier 3 HD Class 3 Bin 200	
L2SULEV30	California LEV-II SULEV30	HDV3B0	Federal Tier 3 HD Class 3 Bin 0	
L2LEV395	California LEV-II LEV395	L4SULEV100	California LEV-IV SULEV100	
L2ULEV340	California LEV-II ULEV340	L4SULEV125	California LEV-IV SULEV125	
L2LEV630	California LEV-II LEV630	L4SULEV15	California LEV-IV SULEV15	
L2ULEV570	California LEV-II ULEV570	L4SULEV150	California LEV-IV SULEV150	
L3LEV160	California LEV-III LEV160	L4SULEV170	California LEV-IV SULEV170	
L3ULEV125	California LEV-III ULEV125	L4SULEV175	California LEV-IV SULEV175	
L3ULEV70	California LEV-III ULEV70	L4SULEV20	California LEV-IV SULEV20	
L3ULEV50	California LEV-III ULEV50	L4SULEV200	California LEV-IV SULEV200	
L3SULEV30	California LEV-III SULEV30	L4SULEV230	California LEV-IV SULEV230	
L3SULEV20	California LEV-III SULEV20	L4SULEV25	California LEV-IV SULEV25	
L3LEV395	California LEV-III LEV395	L4SULEV30	California LEV-IV SULEV30	
L3ULEV340	California LEV-III ULEV340	L4SULEV75	California LEV-IV SULEV75	
L3ULEV250	California LEV-III ULEV250	L4SULEV85	California LEV-IV SULEV85	
L3ULEV200	California LEV-III ULEV200	L4ULEV125	California LEV-IV ULEV125	

Certification Summary Information Report

Test Group		VBMXT03.0B58	Evaporative/Refueling Family	VBMXR0180G0X
L3SULEV170	California LEV-III SULEV170		L4ULEV200	California LEV-IV ULEV200
L3SULEV150	California LEV-III SULEV150		L4ULEV250	California LEV-IV ULEV250
L3LEV630	California LEV-III LEV630		L4ULEV270	California LEV-IV ULEV270
L3ULEV570	California LEV-III ULEV570		L4ULEV40	California LEV-IV ULEV40
L3ULEV400	California LEV-III ULEV400		L4ULEV400	California LEV-IV ULEV400
L3ULEV270	California LEV-III ULEV270		L4ULEV50	California LEV-IV ULEV50
L3SULEV230	California LEV-III SULEV230		L4ULEV60	California LEV-IV ULEV60
L3SULEV200	California LEV-III SULEV200		L4ULEV70	California LEV-IV ULEV70
Transmission Type Code				
AMS	Automated Manual- Selectable (e.g. Automated Manual with paddles)	M	Manual	
A	Automatic	OT	Other	
AM	Automated Manual	SA	Semi-Automatic	
CVT	Continuously Variable	SCV	Selectable Continuously Variable (e.g. CVT with paddles)	
Drive System Code				
4	4-Wheel Drive	P	Part-time 4-Wheel Drive	
F	2-Wheel Drive, Front	A	All Wheel Drive	
R	2-Wheel Drive, Rear			
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	