

Certification Summary Information Report

Manufacturer	Volkswagen Group of America, Inc.	Manufacturer Code	VGA
Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Certificate Number	VVGAT03.0NAQ-013	CARB Executive Order #	--
Certificate Issue Date	05/14/2026	Certificate Revision Date	--
Certificate Effective Date	05/14/2026	Conditional Certificate	No
CSI Revision #	--	CSI Submission/Revision Date	04/30/2026 04:12:07 PM
Model Year	2027		

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Group Information			
CSI Type	New	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 fuel injection	No
Hybrid Indicator	Yes		
Multiple Fuel Storage	--	Rechargeable Energy Storage System Indicator	No
Multiple Fuel Combustion	--	Off-board Charge Capable Indicator	Yes
Fuel Cell Indicator	No	EPA Vehicle Class	LDT4
Federal Clean Fuel Vehicle	No	Federal Clean Fuel Vehicle Standard	--
Federal Clean Fuel Vehicle ILEV	No	California Partial Zero Emissions Vehicle Indicator	--
Durability Group Name	VVGAHHGVNNAQ	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	06/08/2026	CAP2000 Conditional Certificate?	No
Independent Commercial Importer?	No	Alternative Fuel Converter Certificate?	No
SFTP Federal Composite Compliance Identifier	Tier 3	SFTP Tier 2 Composite CO Option	No
SFTP LEV-III Composite Compliance Indicator	Yes		
OBD Compliance Type	CARB	OBD Demonstration Vehicle Test Group	VVGAT03.0NAQ
Test Group OBD Compliance Level	Partial - with deficiencies	Number of Test Group OBD Deficiencies	1
OBD Deficiencies Comments	Bentley Bentayga V6 PHEV (VVGAT03.0NAQ): SAE J1979-2 Implementation Deficiency, ref E-26-032, communicated to CARB 25th August 2022		
Mfr Test Group Comments	--		
Mfr Exhaust / Evap Standards Comments	--		

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Evaporative/Refueling Family Information

Evaporative Summary Information Type	New	Submission/Correction Date	04/30/2026 11:37:36 AM
Integrated ORVR?	No	Fuel(s)	Electricity, Gasoline
Multiple Fuel Storage	Fuels Stored Separately		
Bladder Fuel Tank?	No		
Fuel Tank Material	Metal	Fuel Tank Material Description	--
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)	155	Number of Primary Canisters	1
Number of Bleed Canisters	0	Bleed Canister Total Working Capacity (grams)	--
Mfr Evaporative/Refueling Family Comments	Evap system for Bentayga PHEV		

Leak Family Details

Leak Family Indicator	Yes		
Canister Bleed Test Indicator	No	Applicability of Evaporative Canister Bleed Test	--
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
VVGAR0155NCV-001	50 State	0.02	--

Models Covered by this Certificate

Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	- # of Gears	Trans - Lockup
Volkswagen Group of America, Inc.	3 - Bentley	32 - Bentayga Hybrid	Federal	All Wheel Drive	Semi-Automatic	8	Yes
Volkswagen Group of America, Inc.	3 - Bentley	32 - Bentayga Hybrid	California + CAA Section 177 states	All Wheel Drive	Semi-Automatic	8	Yes

Engine Description

Hybrid Type	IC Engine/Electric Motor	Hybrid Description	--
Engine Type	4-Stroke Spark Ignition	Mfr Engine Description	--
Engine Block Arrangement	V-shaped engine	Mfr Engine Block Arrangement Description	--
Camless Valvetrain Indicator	No	Oil Viscosity/Classification	0W30 VW50200 / VW50400
Number of Cylinders/Rotors	6	Mechanically Variable Compression Ratio Indicator	N

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Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
After Treatment Device(s) (ATD)			
ATD Number	ATD Type	ATD Precious Metal	Substrate Material
1	Three-way catalyst	Palladium + Rhodium	Ceramic
Substrate Construction			
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)	3.0	Engine Rated Horsepower	456
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	The variable valve timing is a substantial engine feature for reducing engine out emissions, optimizing full load performance, optimizing fuel consumption, Reducing engine roughness, Adjust the inlet and outlet camshaft position continuously between retard and advanced position.		
Variable Valve Lift?	No		
Variable Valve Lift System Description	--		
Number of Knock Sensors	2	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	No		
Air Injection Type	Not Applicable	Air Injection Type if 'Other'	--
Mfr Engine Configuration Comments	Applies to DCBE + EALD var: 0		

Official Test Numbers										
Test Group						EPA City	EPA City	EPA	EPA	CREE
Fuel	FTP	US06	SC03	Cold CO	Highway	Litmus	Litmus	Highway	Highway	Weighting
						Value	Threshold	Value	Threshold	Factor
Gasoline	RVGA10082840	RVGA10082842	RVGA10082838	RVGA10082843	RVGA10082841	13.4	228.2	27.6	286.1	--
Electricity	RVGA10082840	RVGA10082842	RVGA10082838	RVGA10082843	RVGA10082841	--	--	--	--	--

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Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Official Charge Depleting Test Numbers			
Test Group Fuel	UDDS	Highway	
Electricity	RVGA10082847	RVGA10082848	
Gasoline	RVGA10082847	RVGA10082848	
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	374	Battery Energy Capacity	48.2
Battery Specific Energy	137	Battery Charger Type	Both
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	Yes
Mfr Regenerative Braking Description	--		
Drive Motor(s)/Generator(s)	1		
Motor/Generator Type 1	AC Induction	Rated Motor/Generator Power	100
Mfr Fuel Cell Description	--		
Fuel Cell On-Board H2 Storage Capacity (kg)	--	Usable H2 Fill Capacity (kg)	--
Mfr Hybrid Electric/ Electric Vehicle Comments	--		

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV									
Emission Data Vehicle Information												
Vehicle ID / Configuration	BY636/2_28881 / 0	Manufacturer Vehicle Configuration Number	0									
Original Test Group Name	MVGAT03.0NAQ	Original Evaporative/Refueling Family	MVGAR0155NCV									
Original Test Vehicle Model Year	2021											
Vehicle Model												
Represented Test Vehicle Make	BENTLEY	Represented Test Vehicle Model	Bentayga									
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>Combustion Engine</td> <td>Gasoline</td> </tr> <tr> <td>2</td> <td>Electric Motor</td> <td>Electricity</td> </tr> </tbody> </table>				Drive Source and Fuel#	Drive Source	Fuel	1	Combustion Engine	Gasoline	2	Electric Motor	Electricity
Drive Source and Fuel#	Drive Source	Fuel										
1	Combustion Engine	Gasoline										
2	Electric Motor	Electricity										
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	Yes											
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	DCB	Rated Horsepower	335									
Displacement (liters)	2.995											
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)	5844	Equivalent Test Weight (pounds)	6000									
GVWR (lbs)	--	N/V Ratio	23.6									
Axle Ratio	3.2											
Transmission Type	Automatic	# of Transmission Gears	8									
Transmission Lockup	Yes	Creeper Gear	No									

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
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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	58.45	0.4554	0.024793	-4.496	0.28974	0.023717	19.1
Cold CO	64.295	0.50094	0.027273	-4.946	0.31871	0.026088	N/A
US06	58.45	0.4554	0.024793	-4.496	0.28974	0.023717	N/A

Emission Control Device Comments

DFI/TC/2CAC/TWC/WR-HO2S/HO2S

Manufacturer Test Vehicle Comments

MY 2020 BENTLEY Bentayga Hybrid tested as Bentayga SUV with Semi-Automatic 8 speed - ETW: 6000 Default test Mode: Bentley, cylinder deac. on unless noted in test comment Bentayga tested as a Bentayga 5 dr. SUV - ETW: 6000

Test #	MVGA10067709	Test Procedure	23 - 2-day evap
Exhaust Test # for this Evap Test	MVGA10067707	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/21/2020	Fuel	Gasoline
Fuel Batch ID	IF2603	Fuel Calibration Number	2540
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	AUDI AG Neckarsulm		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4388	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-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.175	--

Manufacturer Test Comments

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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	0.175	0.003	0.178	0.5	Pass
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.175	0.003	0.178	0.5	Pass

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test #	MVGA10067711	Test Procedure	32 - Federal Fuel Running Loss
Exhaust Test # for this Evap Test	MVGA10067708	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/14/2020	Fuel	Gasoline
Fuel Batch ID	IF2603	Fuel Calibration Number	2540
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	AUDI AG Neckarsulm		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4352	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-EQUIV (Total Hydrocarbon equivalent - Evap only)	0	--

Manufacturer Test Comments --

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	0	0	0.05	Pass
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC-TOTAL-EQUIV	0	0	0	0.05	Pass

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test #	MVGA10067712	Test Procedure	24 - Federal fuel refueling test (ORVR)
Exhaust Test # for this Evap Test	MVGA10067707	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/27/2020	Fuel	N/A
Fuel Batch ID	IF2603	Fuel Calibration Number	2540
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	AUDI AG Neckarsulm		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4403	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 (Hydrocarbon for Running Loss and ORVR)	0.012	--

Manufacturer Test Comments --

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Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV									
Emission Data Vehicle Information												
Vehicle ID / Configuration	BY636040272 / 0	Manufacturer Vehicle Configuration Number	0									
Original Test Group Name	RVGAT03.0NAQ	Original Evaporative/Refueling Family	RVGAR0155NCV									
Original Test Vehicle Model Year	2024											
Vehicle Model												
Represented Test Vehicle Make	BENTLEY	Represented Test Vehicle Model	Bentayga									
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>Combustion Engine</td> <td>Gasoline</td> </tr> <tr> <td>2</td> <td>Electric Motor</td> <td>Electricity</td> </tr> </tbody> </table>				Drive Source and Fuel#	Drive Source	Fuel	1	Combustion Engine	Gasoline	2	Electric Motor	Electricity
Drive Source and Fuel#	Drive Source	Fuel										
1	Combustion Engine	Gasoline										
2	Electric Motor	Electricity										
Hybrid Indicator	Yes											
Multiple Fuel Storage	--	Multiple Fuel Combustion	--									
Fuel Cell Indicator	Yes	Rechargeable Energy Storage System Indicator	Yes									
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if 'Other'	--									
Off-board charge Capable Indicator	Yes											
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	DCBE+EALD	Rated Horsepower	456									
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)	5696	Equivalent Test Weight (pounds)	6000									
GVWR (lbs)	7165	N/V Ratio	23.1									
Axle Ratio	3.2											
Transmission Type	Automatic	# of Transmission Gears	8									
Transmission Lockup	Yes	Creeper Gear	No									

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
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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	46.27	0.5289	0.02583	-3.65	0.2226	0.02611	18.3
Cold CO	50.9	0.5818	0.02841	50.9	0.5818	0.02841	N/A
US06	46.27	0.5289	0.02583	-3.65	0.2226	0.02611	N/A

Emission Control Device Comments

DFI/TC/2CAC/TWC/WR-HO2S/HO2S

Manufacturer Test Vehicle Comments

MY 2020 BENTLEY Bentayga Hybrid tested as Bentayga SUV with Semi-Automatic 8 speed - ETW: 6000 Default test Mode: Bentley, Worst case EDV mode Sport Bentayga tested as a Bentayga 5 dr. SUV - ETW:

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Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test #	RVGA10082839	Test Procedure	52 - Fed. fuel 50 F exh.
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/10/2023	Fuel	Gasoline
Fuel Batch ID	TC0019	Fuel Calibration Number	1
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	EPA Assigned
Verify Test Lab ID	Volkswagen Test Center Oxnard		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4381	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)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	583.9191	--
FE BAG 1 (Bag 1 Fuel Economy)	14.7384	14.7384
CO2 BAG 2 (Bag 2 Carbon Dioxide)	552.0453	--
FE BAG 2 (Bag 2 Fuel Economy)	15.631	15.631
CO2 BAG 3 (Bag 3 Carbon Dioxide)	484.5483	--
FE BAG 3 (Bag 3 Fuel Economy)	17.7961	17.7961
METHANE (CH4 - Methane)	0.0027	--
CO (Carbon Monoxide)	0.2452	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.092	--
DT-EER (Drive Trace Energy Economy Rating)	-0.3646	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.3964	--
MFR FE (Manufacturer Fuel Economy)	16	16
NOX (Nitrogen Oxide)	0.0146	--
N2O (Nitrous Oxide)	0.0002	--
HC-NM (Non-methane Hydrocarbon)	0.0164	--
NMOG (Non-methane organic gases)	0.0181	--
PM (Particulate Matter)	0.0013	--
HC-TOTAL (Total Hydrocarbon)	0.019	--

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Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
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Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	540	--

Manufacturer Test Comments Sport mode 4k FED. FUEL 50'F FTP - Tested as BENTLEY Bentayga SUV 5 dr. EDV - ETW:

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-IV ULEV125	CO	0.25	--	--	--	--	--	0.2	2.1	Pass
CA	4,000 miles	California LEV-IV ULEV125	NMOG	0.0181	--	1.1012	--	--	--	0.018	99.999	Pass
CA	4,000 miles	California LEV-IV ULEV125	NMOG+NOX	0.0327	--	--	--	--	--	0.033	0.250	Pass
CA	4,000 miles	California LEV-IV ULEV125	NOX	0.0146	--	--	--	--	--	0.015	99.999	Pass

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Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test #	RVGA10082840	Test Procedure	21 - Federal fuel 2-day exhaust (w/can load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/15/2023	Fuel	Gasoline
Fuel Batch ID	TC0019	Fuel Calibration Number	1
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	EPA Assigned
Verify Test Lab ID	Volkswagen Test Center Oxnard		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4513	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

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	699.3399	--
FE BAG 1 (Bag 1 Fuel Economy)	12.309	12.309
CO2 BAG 2 (Bag 2 Carbon Dioxide)	674.4363	--
FE BAG 2 (Bag 2 Fuel Economy)	12.7908	12.7908
CO2 BAG 3 (Bag 3 Carbon Dioxide)	575.8031	--
FE BAG 3 (Bag 3 Fuel Economy)	14.9721	14.9721
CO2 BAG 4 (Bag 4 Carbon Dioxide)	523.2764	--
FE BAG 4 (Bag 4 Fuel Economy)	16.4896	16.4896
METHANE (CH4 - Methane)	0.0026	--
CO (Carbon Monoxide)	0.3409	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.1319	--
DT-EER (Drive Trace Energy Economy Rating)	-0.2798	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.1192	--
MFR FE (Manufacturer Fuel Economy)	14.2	14.2
NOX (Nitrogen Oxide)	0.0172	--
N2O (Nitrous Oxide)	0.0003	--
HC-NM (Non-methane Hydrocarbon)	0.0118	--
NMOG (Non-methane organic gases)	0.013	--
PM (Particulate Matter)	0.0014	--
HC-TOTAL (Total Hydrocarbon)	0.0143	--

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Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
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Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	609	999
Optional Carbon-Related Exhaust Emissions	609	999

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	608	--

Manufacturer Test Comments Sport mode 4k FED. FUEL FTP - Tested as BENTLEY Bentayga SUV 5 dr. EDV - ETW:

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 125	CREE	999	--	--	--	0.64	--	1000	--	--
Fed	120,000 miles	Federal Tier 3 Bin 125	METHANE	0.0026	--	--	--	0.0069	--	0.01	0.030	Pass
Fed	120,000 miles	Federal Tier 3 Bin 125	N2O	0.0003	--	--	--	0.0028	--	0.003	0.010	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	CO	0.34	--	--	--	0.38	--	0.7	2.1	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	CO-COMP	0.77	--	--	--	--	--	0.8	4.2	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NMOG	0.013	--	1.1012	--	0.0149	--	0.028	99.000	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NMOG+NOX	0.0302	--	--	--	--	--	0.057	0.125	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NMOG+NOX-COMP	0.0482	--	--	--	--	--	0.048	0.110	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NOX	0.0172	--	--	--	0.0115	--	0.029	99.000	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	PM	0.0014	--	--	--	0	--	0.001	0.003	Pass
CA	150,000 miles	California LEV-IV ULEV125	CO	0.34	--	--	--	0.38	--	0.7	2.1	Pass
CA	150,000 miles	California LEV-IV ULEV125	NMOG	0.013	--	1.1012	--	0.0149	--	0.028	99.999	Pass
CA	150,000 miles	California LEV-IV ULEV125	NMOG+NOX	0.0302	--	--	--	--	--	0.057	0.125	Pass
CA	150,000 miles	California LEV-IV ULEV125	NOX	0.0172	--	--	--	0.0115	--	0.029	99.999	Pass
CA	150,000 miles	California LEV-IV ULEV125	PM	0.0014	--	--	--	0	--	0.001	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	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test #	RVGA10082843	Test Procedure	11 - Cold CO
Exhaust Test # for this Evap Test	--	Test Fuel Type	29 - Cold CO E10 Premium Gasoline (Tier 3)
Test Date	09/01/2023	Fuel	Gasoline
Fuel Batch ID	TC0012	Fuel Calibration Number	2
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	EPA Assigned
Verify Test Lab ID	Volkswagen Test Center Oxnard		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	5020	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)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	776.1498	--
FE BAG 1 (Bag 1 Fuel Economy)	11.0542	11.0542
CO2 BAG 2 (Bag 2 Carbon Dioxide)	751.991	--
FE BAG 2 (Bag 2 Fuel Economy)	11.4729	11.4729
CO2 BAG 3 (Bag 3 Carbon Dioxide)	604.9893	--
FE BAG 3 (Bag 3 Fuel Economy)	14.2494	14.2494
METHANE (CH4 - Methane)	0.0064	--
CO (Carbon Monoxide)	0.644	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	1.9992	--
DT-EER (Drive Trace Energy Economy Rating)	0.7233	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	3.4133	--
MFR FE (Manufacturer Fuel Economy)	12	12
NOX (Nitrogen Oxide)	0.0208	--
N2O (Nitrous Oxide)	0.0003	--
HC-NM (Non-methane Hydrocarbon)	0.052	--
NMOG (Non-methane organic gases)	0.0572	--
HC-TOTAL (Total Hydrocarbon)	0.0582	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	717	--

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
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Manufacturer Test Comments Sport mode 4k Cold-CO - Tested as BENTLEY Bentayga SUV 5 dr. EDV - ETW:

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	50,000 miles	Federal Tier 3 Bin 125	CO	0.64	--	--	--	0.38	--	1	12.5	Pass
Fed	120,000 miles	Federal Tier 3 Bin 125	HC-NM	0.05	--	--	--	0.0149	--	0.1	0.5	Pass
CA	50,000 miles	California LEV-IV ULEV125	CO	0.64	--	--	--	0.38	--	1	12.5	Pass

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test #	RVGA10083267	Test Procedure	21 - Federal fuel 2-day exhaust (w/can load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	61 - Tier 2 Cert Gasoline
Test Date	11/02/2023	Fuel	Gasoline
Fuel Batch ID	TC0033	Fuel Calibration Number	1
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	EPA Assigned
Verify Test Lab ID	Volkswagen Test Center Oxnard		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	5166	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			

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
	Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
	CO2 BAG 1 (Bag 1 Carbon Dioxide)	471.6118	--
	FE BAG 1 (Bag 1 Fuel Economy)	18.8362	18.8362
	CO2 BAG 2 (Bag 2 Carbon Dioxide)	315.0898	--
	FE BAG 2 (Bag 2 Fuel Economy)	28.3084	28.3084
	CO2 BAG 3 (Bag 3 Carbon Dioxide)	412.5667	--
	FE BAG 3 (Bag 3 Fuel Economy)	21.5785	21.5785
	CO2 BAG 4 (Bag 4 Carbon Dioxide)	300.3957	--
	FE BAG 4 (Bag 4 Fuel Economy)	29.67	29.67
	METHANE (CH4 - Methane)	0.0029	--
	CO (Carbon Monoxide)	0.4521	--
	DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.3506	--
	DT-EER (Drive Trace Energy Economy Rating)	-1.0582	--
	DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.1765	--
	MFR FE (Manufacturer Fuel Economy)	24.1	24.1
	NOX (Nitrogen Oxide)	0.0126	--
	N2O (Nitrous Oxide)	0.0005	--
	HC-NM (Non-methane Hydrocarbon)	0.0172	--
	NMOG (Non-methane organic gases)	0.0177	--
	PM (Particulate Matter)	0.0014	--
	HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03)	0.0298	--
	HC-TOTAL (Total Hydrocarbon)	0.02	--
	Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
	Carbon-Related Exhaust Emissions	371	371
	Test Result Name	Unrounded Test Result	Verify Calculated CO2
	Carbon dioxide	370	--
Manufacturer Test Comments	Bentley Mode 4k FED. FUEL FTP - Tested as BENTLEY Bentayga SUV 5 dr. EDV - ETW:		

Certification Summary Information Report

Test Group		VVGAT03.0NAQ				Evaporative/Refueling Family				VVGAR0155NCV		
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 125	CREE	371	--	--	--	0.64	--	372	--	--
Fed	120,000 miles	Federal Tier 3 Bin 125	METHANE	0.0029	--	--	--	0.0069	--	0.01	0.030	Pass
Fed	120,000 miles	Federal Tier 3 Bin 125	N2O	0.0005	--	--	--	0.0028	--	0.003	0.010	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	CO	0.45	--	--	--	0.38	--	0.8	2.1	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NMOG	0.0177	--	1.1012	--	0.0149	--	0.033	99.000	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NMOG+NOX	0.0303	--	--	--	--	--	0.057	0.125	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NOX	0.0126	--	--	--	0.0115	--	0.024	99.000	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	PM	0.0014	--	--	--	0	--	0.001	0.003	Pass
CA	150,000 miles	California LEV-IV ULEV125	CO	0.45	--	--	--	0.38	--	0.8	2.1	Pass
CA	150,000 miles	California LEV-IV ULEV125	NMOG	0.0177	--	1.1012	--	0.0149	--	0.033	99.999	Pass
CA	150,000 miles	California LEV-IV ULEV125	NMOG+NOX	0.0303	--	--	--	--	--	0.057	0.125	Pass
CA	150,000 miles	California LEV-IV ULEV125	NOX	0.0126	--	--	--	0.0115	--	0.024	99.999	Pass
CA	150,000 miles	California LEV-IV ULEV125	PM	0.0014	--	--	--	0	--	0.001	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	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test #	RVGA10082841	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/15/2023	Fuel	Gasoline
Fuel Batch ID	TC0019	Fuel Calibration Number	1
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	EPA Assigned
Verify Test Lab ID	Volkswagen Test Center Oxnard		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4528	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

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.0011	--
CO (Carbon Monoxide)	0.0917	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.6206	--
DT-EER (Drive Trace Energy Economy Rating)	0.1341	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.9033	--
MFR FE (Manufacturer Fuel Economy)	27.6	27.6
NOX (Nitrogen Oxide)	0.0027	--
N2O (Nitrous Oxide)	0	--
HC-NM (Non-methane Hydrocarbon)	0.0006	--
NMOG (Non-methane organic gases)	0.0006	--
PM (Particulate Matter)	0.0001	--
HC-TOTAL (Total Hydrocarbon)	0.0017	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	312	999
Optional Carbon-Related Exhaust Emissions	312	999

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	312	--

Manufacturer Test Comments

Sport mode 4k HWFET - Tested as BENTLEY Bentayga SUV 5 dr. EDV - ETW:

Certification Summary Information Report

Test Group		VVGAT03.0NAQ				Evaporative/Refueling Family				VVGAR0155NCV		
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 125	CREE	999	--	--	--	0.64	--	1000	--	--
Fed	150,000 miles	Federal Tier 3 Bin 125	NMOG	0.0006	--	1.03	--	0.0149	--	0.016	99.000	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NMOG+NOX	0.0033	--	--	--	--	--	0.03	0.125	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NOX	0.0027	--	--	--	0.0115	--	0.014	99.000	Pass
CA	150,000 miles	California LEV-IV ULEV125	NMOG	0.0006	--	1.03	--	0.0149	--	0.016	99.999	Pass
CA	150,000 miles	California LEV-IV ULEV125	NMOG+NOX	0.0033	--	--	--	--	--	0.03	0.125	Pass
CA	150,000 miles	California LEV-IV ULEV125	NOX	0.0027	--	--	--	0.0115	--	0.0142	99.9990	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	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test #	RVGA10083268	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	61 - Tier 2 Cert Gasoline
Test Date	11/02/2023	Fuel	Gasoline
Fuel Batch ID	TC0033	Fuel Calibration Number	1
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	EPA Assigned
Verify Test Lab ID	Volkswagen Test Center Oxnard		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	5182	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)	0.0015	--
CO (Carbon Monoxide)	0.288	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	3.4242	--
DT-EER (Drive Trace Energy Economy Rating)	-0.3668	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	4.1254	--
MFR FE (Manufacturer Fuel Economy)	31.6	31.6
NOX (Nitrogen Oxide)	0.0018	--
N2O (Nitrous Oxide)	0.0001	--
HC-NM (Non-methane Hydrocarbon)	0.0028	--
NMOG (Non-methane organic gases)	0.0029	--
PM (Particulate Matter)	0.0007	--
HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03)	0.0046	--
HC-TOTAL (Total Hydrocarbon)	0.0043	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	282	282

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	282	--

Manufacturer Test Comments Bentley Mode 4k HWFET - Tested as BENTLEY Bentayga SUV 5 dr. EDV - ETW:

Certification Summary Information Report

Test Group		VVGAT03.0NAQ				Evaporative/Refueling Family				VVGAR0155NCV		
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 125	CREE	282	--	--	--	0.64	--	283	--	--
Fed	150,000 miles	Federal Tier 3 Bin 125	NMOG	0.0029	--	1.03	--	0.0149	--	0.018	99.000	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NMOG+NOX	0.0047	--	--	--	--	--	0.031	0.125	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NOX	0.0018	--	--	--	0.0115	--	0.013	99.000	Pass
CA	150,000 miles	California LEV-IV ULEV125	NMOG	0.0029	--	1.03	--	0.0149	--	0.018	99.999	Pass
CA	150,000 miles	California LEV-IV ULEV125	NMOG+NOX	0.0047	--	--	--	--	--	0.031	0.125	Pass
CA	150,000 miles	California LEV-IV ULEV125	NOX	0.0018	--	--	--	0.0115	--	0.0133	99.9990	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	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test #	RVGA10082842	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/15/2023	Fuel	Gasoline
Fuel Batch ID	TC0019	Fuel Calibration Number	1
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	EPA Assigned
Verify Test Lab ID	Volkswagen Test Center Oxnard		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4551	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

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	698.5154	--
FE BAG 1 (Bag 1 Fuel Economy)	12.3164	12.3164
CO2 BAG 2 (Bag 2 Carbon Dioxide)	381.9305	--
FE BAG 2 (Bag 2 Fuel Economy)	22.543	22.543
METHANE (CH4 - Methane)	0.0098	--
CO (Carbon Monoxide)	0.6823	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-1.7738	--
DT-EER (Drive Trace Energy Economy Rating)	-1.7229	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-3.0177	--
MFR FE (Manufacturer Fuel Economy)	19	19
NOX (Nitrogen Oxide)	0.0084	--
N2O (Nitrous Oxide)	0.0002	--
HC-NM (Non-methane Hydrocarbon)	0.016	--
NMOG (Non-methane organic gases)	0.0165	--
PM (Particulate Matter)	0.0011	--
HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03)	0.0244	--
HC-TOTAL (Total Hydrocarbon)	0.0257	--

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
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Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	452	--

Manufacturer Test Comments Sport mode 4k US06 - Tested as BENTLEY Bentayga SUV 5 dr. EDV - ETW:

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 125	CO	0.68	--	--	--	0.38	--	1.1	99.9	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NMOG	0.0165	--	1.03	--	0.0149	--	0.031	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NOX	0.0084	--	--	--	0.0115	--	0.02	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	PM	0.0011	--	--	--	0	--	0.001	0.006	Pass
CA	150,000 miles	California LEV-IV ULEV125	CO	0.68	--	--	--	0.38	--	1.1	9.6	Pass
CA	150,000 miles	California LEV-IV ULEV125	NMOG	0.0165	--	1.03	--	0.0149	--	0.031	99.999	Pass
CA	150,000 miles	California LEV-IV ULEV125	NMOG+NOX	0.0249	--	--	--	--	--	0.051	0.150	Pass
CA	150,000 miles	California LEV-IV ULEV125	NOX	0.0084	--	--	--	0.0115	--	0.02	99.999	Pass
CA	150,000 miles	California LEV-IV ULEV125	PM	0.0011	--	--	--	0	--	0.001	0.006	Pass

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test #	RVGA10082838	Test Procedure	95 - SC03
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/08/2023	Fuel	Gasoline
Fuel Batch ID	TC0019	Fuel Calibration Number	1
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	EPA Assigned
Verify Test Lab ID	Volkswagen Test Center Oxnard		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4366	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

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.0006	--
CO (Carbon Monoxide)	0.2292	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.8456	--
DT-EER (Drive Trace Energy Economy Rating)	-0.0714	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	1.1462	--
MFR FE (Manufacturer Fuel Economy)	12.8	12.8
NOX (Nitrogen Oxide)	0.0104	--
N2O (Nitrous Oxide)	0.0001	--
HC-NM (Non-methane Hydrocarbon)	0.0012	--
NMOG (Non-methane organic gases)	0.0012	--
PM (Particulate Matter)	0.0012	--
HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03)	0.0116	--
HC-TOTAL (Total Hydrocarbon)	0.0017	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	674	--

Manufacturer Test Comments

Sport mode 4k SC03 - Tested as BENTLEY Bentayga SUV 5 dr. EDV - ETW:

Certification Summary Information Report

Test Group		VVGAT03.0NAQ				Evaporative/Refueling Family				VVGAR0155NCV		
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 125	CO	0.23	--	--	--	0.38	--	0.6	99.9	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NMOG	0.0012	--	1.03	--	0.0149	--	0.016	99.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NOX	0.0104	--	--	--	0.0115	--	0.022	99.999	Pass
CA	150,000 miles	California LEV-IV ULEV125	CO	0.23	--	--	--	0.38	--	0.6	2.1	Pass
CA	150,000 miles	California LEV-IV ULEV125	NMOG	0.0012	--	1.03	--	0.014	--	0.015	99.999	Pass
CA	150,000 miles	California LEV-IV ULEV125	NMOG+NOX	0.0116	--	--	--	--	--	0.037	0.125	Pass
CA	150,000 miles	California LEV-IV ULEV125	NOX	0.0104	--	--	--	0.011	--	0.021	99.999	Pass

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test #	RVGA10083265	Test Procedure	81 - Charge Depleting UDDS
Exhaust Test # for this Evap Test	--	Test Fuel Type	61 - Tier 2 Cert Gasoline
Test Date	11/03/2023	Fuel	N/A
Fuel Batch ID	TC0033	Fuel Calibration Number	1
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	Volkswagen Test Center Oxnard		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	5205	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
PHEV/EV Charge Depleting Test Information			
Recharge Event Voltage	239	Recharge Event Energy (kiloWatt-hours)	17.7
Charge Depleting Range (Calculated miles)	37.25	Charge Depleting Range (Actual miles)	32.57
Charge Depleting Range Highway (Calculated miles)	--	Derived 5-Cycle Coefficient Model Year	2017
All Electric Range Unadjusted (miles)	31.31	Equivalent All Electric Range (miles)	34.35
Number of Charge Depleting Bags/Phases Conducted	7	Transition Bag/Phase Number	5
Charge Depleting Bag/Phase #1			

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	7.43		
Average System Voltage	411.8		
CH4 - Methane	0		
Carbon Monoxide	0		
Carbon dioxide	0.47		
Carbon-Related Exhaust Emissions	0		
Drive Trace Absolute Speed Change Rating	-0.76		
Drive Trace Energy Economy Rating	-1.682		
Drive Trace Inertia Work Ratio Rating	-0.785		
Integrated Amp-hours	8.41		
Manufacturer Fuel Economy	0		
Nitrogen Oxide	0		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	82.5		
System Start State of Charge Watt-hours	100		
Total Hydrocarbon	0		

Charge Depleting Bag/Phase #2

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	7.45		
Average System Voltage	392.24		
CH4 - Methane	0		
Carbon Monoxide	0		
Carbon dioxide	0.35		
Carbon-Related Exhaust Emissions	0		
Drive Trace Absolute Speed Change Rating	-0.01		
Drive Trace Energy Economy Rating	-1.164		
Drive Trace Inertia Work Ratio Rating	0.481		
Integrated Amp-hours	16.73		
Manufacturer Fuel Economy	0		
Nitrogen Oxide	0		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	65.2		
System Start State of Charge Watt-hours	82.5		
Total Hydrocarbon	0		

Charge Depleting Bag/Phase #3

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	7.44		
Average System Voltage	376.6		
CH4 - Methane	0		
Carbon Monoxide	0		
Carbon dioxide	0.26		
Carbon-Related Exhaust Emissions	0		
Drive Trace Absolute Speed Change Rating	-1.07		
Drive Trace Energy Economy Rating	-2.096		
Drive Trace Inertia Work Ratio Rating	-1.781		
Integrated Amp-hours	25.33		
Manufacturer Fuel Economy	0		
Nitrogen Oxide	0		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	47.2		
System Start State of Charge Watt-hours	65.1		
Total Hydrocarbon	0		

Charge Depleting Bag/Phase #4

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	7.44		
Average System Voltage	368.56		
CH4 - Methane	0		
Carbon Monoxide	0		
Carbon dioxide	0.12		
Carbon-Related Exhaust Emissions	0		
Drive Trace Absolute Speed Change Rating	-0.7		
Drive Trace Energy Economy Rating	-2.157		
Drive Trace Inertia Work Ratio Rating	-0.89		
Integrated Amp-hours	34.13		
Manufacturer Fuel Economy	0		
Nitrogen Oxide	0		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	28.9		
System Start State of Charge Watt-hours	47.2		
Total Hydrocarbon	0		

Charge Depleting Bag/Phase #5

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	7.43		
Average System Voltage	364.62		
CH4 - Methane	0.01		
Carbon Monoxide	0.43		
Carbon dioxide	246.9		
Carbon-Related Exhaust Emissions	248		
Drive Trace Absolute Speed Change Rating	-0.3		
Drive Trace Energy Economy Rating	-1.118		
Drive Trace Inertia Work Ratio Rating	-0.126		
Integrated Amp-hours	37.45		
Manufacturer Fuel Economy	36.02		
Nitrogen Oxide	0.02		
Non-methane Hydrocarbon	0.03		
Non-methane organic gases	0.030906		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	22		
System Start State of Charge Watt-hours	28.9		
Total Hydrocarbon	0.03		

Charge Depleting Bag/Phase #6

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	7.44		
Average System Voltage	365.94		
CH4 - Methane	0		
Carbon Monoxide	0.3		
Carbon dioxide	347.19		
Carbon-Related Exhaust Emissions	348		
Drive Trace Absolute Speed Change Rating	-0.27		
Drive Trace Energy Economy Rating	-1.048		
Drive Trace Inertia Work Ratio Rating	-0.297		
Integrated Amp-hours	37.54		
Manufacturer Fuel Economy	25.66		
Nitrogen Oxide	0.01		
Non-methane Hydrocarbon	0.03		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	21.8		
System Start State of Charge Watt-hours	21.8		
Total Hydrocarbon	0		

Charge Depleting Bag/Phase #7

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	7.44		
Average System Voltage	365.46		
CH4 - Methane	0		
Carbon Monoxide	0.47		
Carbon dioxide	354.56		
Carbon-Related Exhaust Emissions	355		
Drive Trace Absolute Speed Change Rating	-0.21		
Drive Trace Energy Economy Rating	-1.004		
Drive Trace Inertia Work Ratio Rating	0.098		
Integrated Amp-hours	37.44		
Manufacturer Fuel Economy	25.11		
Nitrogen Oxide	0.01		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	22		
System Start State of Charge Watt-hours	21.6		
Total Hydrocarbon	0.01		
Manufacturer Test Comments	Bentley Mode 4k HWFET - Tested as BENTLEY Bentayga SUV 5 dr. EDV - ETW:		

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test #	RVGA10083266	Test Procedure	84 - Charge Depleting Highway
Exhaust Test # for this Evap Test	--	Test Fuel Type	61 - Tier 2 Cert Gasoline
Test Date	11/04/2023	Fuel	N/A
Fuel Batch ID	TC0033	Fuel Calibration Number	1
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	Volkswagen Test Center Oxnard		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	5258	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
PHEV/EV Charge Depleting Test Information			
Recharge Event Voltage	237.2	Recharge Event Energy (kiloWatt-hours)	16.8
Charge Depleting Range (Calculated miles)	51.28	Charge Depleting Range (Actual miles)	40.51
Charge Depleting Range Highway (Calculated miles)	--	Derived 5-Cycle Coefficient Model Year	2017
All Electric Range Unadjusted (miles)	35.6	Equivalent All Electric Range (miles)	44.46
Number of Charge Depleting Bags/Phases Conducted	7	Transition Bag/Phase Number	5
Charge Depleting Bag/Phase #1			

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	10.26		
Average System Voltage	405.15		
CH4 - Methane	0		
Carbon Monoxide	0		
Carbon dioxide	0.06		
Carbon-Related Exhaust Emissions	0		
Drive Trace Absolute Speed Change Rating	-6.09		
Drive Trace Energy Economy Rating	-0.814		
Drive Trace Inertia Work Ratio Rating	-7.509		
Integrated Amp-hours	10.78		
Manufacturer Fuel Economy	0		
Nitrogen Oxide	0		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	77.5		
System Start State of Charge Watt-hours	100		
Total Hydrocarbon	0		

Charge Depleting Bag/Phase #2

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	10.28		
Average System Voltage	381.7		
CH4 - Methane	0		
Carbon Monoxide	0		
Carbon dioxide	0.06		
Carbon-Related Exhaust Emissions	0		
Drive Trace Absolute Speed Change Rating	-1.79		
Drive Trace Energy Economy Rating	-0.675		
Drive Trace Inertia Work Ratio Rating	-2.205		
Integrated Amp-hours	21.26		
Manufacturer Fuel Economy	0		
Nitrogen Oxide	0		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	55.7		
System Start State of Charge Watt-hours	77.5		
Total Hydrocarbon	0		

Charge Depleting Bag/Phase #3

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	10.28		
Average System Voltage	366.3		
CH4 - Methane	0		
Carbon Monoxide	0		
Carbon dioxide	0.06		
Carbon-Related Exhaust Emissions	0		
Drive Trace Absolute Speed Change Rating	-0.29		
Drive Trace Energy Economy Rating	-0.205		
Drive Trace Inertia Work Ratio Rating	0.152		
Integrated Amp-hours	32.06		
Manufacturer Fuel Economy	0		
Nitrogen Oxide	0		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	33.2		
System Start State of Charge Watt-hours	55.7		
Total Hydrocarbon	0		

Charge Depleting Bag/Phase #4

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	10.26		
Average System Voltage	360.71		
CH4 - Methane	0		
Carbon Monoxide	0.25		
Carbon dioxide	154.78		
Carbon-Related Exhaust Emissions	155		
Drive Trace Absolute Speed Change Rating	-5.53		
Drive Trace Energy Economy Rating	-0.73		
Drive Trace Inertia Work Ratio Rating	-6.707		
Integrated Amp-hours	37.61		
Manufacturer Fuel Economy	57.47		
Nitrogen Oxide	0.01		
Non-methane Hydrocarbon	0.02		
Non-methane organic gases	0.0206		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	21.6		
System Start State of Charge Watt-hours	21.6		
Total Hydrocarbon	0.02		

Charge Depleting Bag/Phase #5

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	10.26		
Average System Voltage	365.98		
CH4 - Methane	0		
Carbon Monoxide	0.19		
Carbon dioxide	294.54		
Carbon-Related Exhaust Emissions	295		
Drive Trace Absolute Speed Change Rating	-0.68		
Drive Trace Energy Economy Rating	-0.663		
Drive Trace Inertia Work Ratio Rating	-0.724		
Integrated Amp-hours	37.4		
Manufacturer Fuel Economy	30.26		
Nitrogen Oxide	0		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	22.1		
System Start State of Charge Watt-hours	21.4		
Total Hydrocarbon	0		

Charge Depleting Bag/Phase #6

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	10.27		
Average System Voltage	366.33		
CH4 - Methane	0		
Carbon Monoxide	0.23		
Carbon dioxide	283.81		
Carbon-Related Exhaust Emissions	284		
Drive Trace Absolute Speed Change Rating	-1.52		
Drive Trace Energy Economy Rating	-0.366		
Drive Trace Inertia Work Ratio Rating	-1.52		
Integrated Amp-hours	37.28		
Manufacturer Fuel Economy	31.4		
Nitrogen Oxide	0		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	22.3		
System Start State of Charge Watt-hours	22.1		
Total Hydrocarbon	0		

Charge Depleting Bag/Phase #7

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	10.26		
Average System Voltage	366.04		
CH4 - Methane	0		
Carbon Monoxide	0.27		
Carbon dioxide	281.11		
Carbon-Related Exhaust Emissions	282		
Drive Trace Absolute Speed Change Rating	-1.64		
Drive Trace Energy Economy Rating	-0.682		
Drive Trace Inertia Work Ratio Rating	-1.655		
Integrated Amp-hours	37.33		
Manufacturer Fuel Economy	31.69		
Nitrogen Oxide	0		
Non-methane Hydrocarbon	0.01		
Non-methane organic gases	0.0103		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	22.2		
System Start State of Charge Watt-hours	22.3		
Total Hydrocarbon	0.01		
Manufacturer Test Comments	Bentley Mode 4k HWFET - Tested as BENTLEY Bentayga SUV 5 dr. EDV - ETW:		

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV									
Emission Data Vehicle Information												
Vehicle ID / Configuration	BY636040272 / 1	Manufacturer Vehicle Configuration Number	1									
Original Test Group Name	RVGAT03.0NAQ	Original Evaporative/Refueling Family	RVGAR0155NCV									
Original Test Vehicle Model Year	2024											
Vehicle Model												
Represented Test Vehicle Make	BENTLEY	Represented Test Vehicle Model	Bentayga									
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>Combustion Engine</td> <td>Gasoline</td> </tr> <tr> <td>2</td> <td>Electric Motor</td> <td>Electricity</td> </tr> </tbody> </table>			Drive Source and Fuel#	Drive Source	Fuel	1	Combustion Engine	Gasoline	2	Electric Motor	Electricity
Drive Source and Fuel#	Drive Source	Fuel										
1	Combustion Engine	Gasoline										
2	Electric Motor	Electricity										
Hybrid Indicator	Yes											
Multiple Fuel Storage	--	Multiple Fuel Combustion	--									
Fuel Cell Indicator	Yes	Rechargeable Energy Storage System Indicator	Yes									
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if 'Other'	--									
Off-board charge Capable Indicator	Yes											
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	DCBE+EALD	Rated Horsepower	456									
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)	5696	Equivalent Test Weight (pounds)	6000									
GVWR (lbs)	7165	N/V Ratio	23.1									
Axle Ratio	3.2											
Transmission Type	Automatic	# of Transmission Gears	8									
Transmission Lockup	Yes	Creeper Gear	No									

Certification Summary Information Report

Test Group		VVGAT03.0NAQ			Evaporative/Refueling Family			VVGAR0155NCV
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	46.27	0.5289	0.02502	-2.55	0.1614	0.02583	18	
Cold CO	50.9	0.5818	0.02752	50.9	0.5818	0.02752	N/A	
US06	46.27	0.5289	0.02502	-2.55	0.1614	0.02583	N/A	
Emission Control Device Comments	DFI/TC/2CAC/TWC/WR-HO2S/HO2S							
Manufacturer Test Vehicle Comments	MY 2020 BENTLEY Bentayga Hybrid tested as Bentayga SUV with Semi-Automatic 8 speed - ETW: 6000 Default test Mode: Bentley Bentayga tested as a Bentayga 5 dr. SUV - ETW:							

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test #	RVGA10082847	Test Procedure	81 - Charge Depleting UDDS
Exhaust Test # for this Evap Test	--	Test Fuel Type	61 - Tier 2 Cert Gasoline
Test Date	08/25/2023	Fuel	N/A
Fuel Batch ID	TC0033	Fuel Calibration Number	1
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	Volkswagen Test Center Oxnard		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4801	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
PHEV/EV Charge Depleting Test Information			
Recharge Event Voltage	242	Recharge Event Energy (kiloWatt-hours)	17.4
Charge Depleting Range (Calculated miles)	44.7	Charge Depleting Range (Actual miles)	36.76
Charge Depleting Range Highway (Calculated miles)	--	Derived 5-Cycle Coefficient Model Year	2017
All Electric Range Unadjusted (miles)	33.73	Equivalent All Electric Range (miles)	39.33
Number of Charge Depleting Bags/Phases Conducted	7	Transition Bag/Phase Number	5
Charge Depleting Bag/Phase #1			

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	7.44		
Average System Voltage	411.96		
CH4 - Methane	0		
Carbon Monoxide	0		
Carbon dioxide	0.63		
Carbon-Related Exhaust Emissions	0		
Drive Trace Absolute Speed Change Rating	-2.11		
Drive Trace Energy Economy Rating	-2.133		
Drive Trace Inertia Work Ratio Rating	-3.52		
Integrated Amp-hours	8.37		
Manufacturer Fuel Economy	0		
Nitrogen Oxide	0		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	8.37		
System Start State of Charge Watt-hours	0		
Total Hydrocarbon	0		

Charge Depleting Bag/Phase #2

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	7.47		
Average System Voltage	393.22		
CH4 - Methane	0		
Carbon Monoxide	0		
Carbon dioxide	0.46		
Carbon-Related Exhaust Emissions	0		
Drive Trace Absolute Speed Change Rating	-1.77		
Drive Trace Energy Economy Rating	-2.166		
Drive Trace Inertia Work Ratio Rating	-2.663		
Integrated Amp-hours	16.44		
Manufacturer Fuel Economy	0		
Nitrogen Oxide	0		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	16.44		
System Start State of Charge Watt-hours	8.37		
Total Hydrocarbon	0		

Charge Depleting Bag/Phase #3

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	7.45		
Average System Voltage	377.16		
CH4 - Methane	0		
Carbon Monoxide	0		
Carbon dioxide	0.37		
Carbon-Related Exhaust Emissions	0		
Drive Trace Absolute Speed Change Rating	-0.94		
Drive Trace Energy Economy Rating	-1.828		
Drive Trace Inertia Work Ratio Rating	-1.333		
Integrated Amp-hours	24.84		
Manufacturer Fuel Economy	0		
Nitrogen Oxide	0		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	24.84		
System Start State of Charge Watt-hours	16.44		
Total Hydrocarbon	0		

Charge Depleting Bag/Phase #4

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	7.44		
Average System Voltage	368.54		
CH4 - Methane	0		
Carbon Monoxide	0		
Carbon dioxide	0.12		
Carbon-Related Exhaust Emissions	0		
Drive Trace Absolute Speed Change Rating	-0.39		
Drive Trace Energy Economy Rating	-1.585		
Drive Trace Inertia Work Ratio Rating	-0.476		
Integrated Amp-hours	33.36		
Manufacturer Fuel Economy	0		
Nitrogen Oxide	0		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	33.36		
System Start State of Charge Watt-hours	24.84		
Total Hydrocarbon	0		

Charge Depleting Bag/Phase #5

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	7.43		
Average System Voltage	361.8		
CH4 - Methane	0		
Carbon Monoxide	0.24		
Carbon dioxide	157.56		
Carbon-Related Exhaust Emissions	158		
Drive Trace Absolute Speed Change Rating	0.03		
Drive Trace Energy Economy Rating	-0.955		
Drive Trace Inertia Work Ratio Rating	0.262		
Integrated Amp-hours	39.01		
Manufacturer Fuel Economy	56.45		
Nitrogen Oxide	0.02		
Non-methane Hydrocarbon	0.03		
Non-methane organic gases	0.03		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	39.01		
System Start State of Charge Watt-hours	33.36		
Total Hydrocarbon	0.03		

Charge Depleting Bag/Phase #6

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	7.45		
Average System Voltage	374		
CH4 - Methane	0		
Carbon Monoxide	0.49		
Carbon dioxide	351.99		
Carbon-Related Exhaust Emissions	353		
Drive Trace Absolute Speed Change Rating	-0.6		
Drive Trace Energy Economy Rating	-0.952		
Drive Trace Inertia Work Ratio Rating	-0.581		
Integrated Amp-hours	39.01		
Manufacturer Fuel Economy	25.29		
Nitrogen Oxide	0.01		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	38.74		
System Start State of Charge Watt-hours	39.01		
Total Hydrocarbon	0		

Charge Depleting Bag/Phase #7

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	7.47		
Average System Voltage	363.94		
CH4 - Methane	0		
Carbon Monoxide	0.58		
Carbon dioxide	336.79		
Carbon-Related Exhaust Emissions	338		
Drive Trace Absolute Speed Change Rating	-0.14		
Drive Trace Energy Economy Rating	-1.343		
Drive Trace Inertia Work Ratio Rating	-0.079		
Integrated Amp-hours	38.81		
Manufacturer Fuel Economy	26.42		
Nitrogen Oxide	0		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	38.81		
System Start State of Charge Watt-hours	38.74		
Total Hydrocarbon	0.01		
Manufacturer Test Comments	Bentley mode Charge Depleting UDDS - Tested as BENTLEY Bentayga SUV 5 dr. FEDV - ETW:		

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test #	RVGA10082848	Test Procedure	84 - Charge Depleting Highway
Exhaust Test # for this Evap Test	--	Test Fuel Type	61 - Tier 2 Cert Gasoline
Test Date	08/26/2023	Fuel	N/A
Fuel Batch ID	TC0033	Fuel Calibration Number	1
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	Volkswagen Test Center Oxnard		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4857	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
PHEV/EV Charge Depleting Test Information			
Recharge Event Voltage	238.8	Recharge Event Energy (kiloWatt-hours)	17.1
Charge Depleting Range (Calculated miles)	51.28	Charge Depleting Range (Actual miles)	40.29
Charge Depleting Range Highway (Calculated miles)	--	Derived 5-Cycle Coefficient Model Year	2017
All Electric Range Unadjusted (miles)	38.1	Equivalent All Electric Range (miles)	44.97
Number of Charge Depleting Bags/Phases Conducted	7	Transition Bag/Phase Number	4
Charge Depleting Bag/Phase #1			

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	10.27		
Average System Voltage	405.78		
CH4 - Methane	0		
Carbon Monoxide	0		
Carbon dioxide	0.06		
Carbon-Related Exhaust Emissions	0		
Drive Trace Absolute Speed Change Rating	-3.09		
Drive Trace Energy Economy Rating	-0.489		
Drive Trace Inertia Work Ratio Rating	-3.854		
Integrated Amp-hours	10.38		
Manufacturer Fuel Economy	0		
Nitrogen Oxide	0		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	10.38		
System Start State of Charge Watt-hours	0		
Total Hydrocarbon	0		

Charge Depleting Bag/Phase #2

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	10.25		
Average System Voltage	383.16		
CH4 - Methane	0		
Carbon Monoxide	0		
Carbon dioxide	0.07		
Carbon-Related Exhaust Emissions	0		
Drive Trace Absolute Speed Change Rating	-3.48		
Drive Trace Energy Economy Rating	-0.826		
Drive Trace Inertia Work Ratio Rating	-4.235		
Integrated Amp-hours	20.37		
Manufacturer Fuel Economy	0		
Nitrogen Oxide	0		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	20.37		
System Start State of Charge Watt-hours	10.38		
Total Hydrocarbon	0		

Charge Depleting Bag/Phase #3

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	10.26		
Average System Voltage	367.89		
CH4 - Methane	0		
Carbon Monoxide	0		
Carbon dioxide	0.08		
Carbon-Related Exhaust Emissions	0		
Drive Trace Absolute Speed Change Rating	-5.6		
Drive Trace Energy Economy Rating	-0.611		
Drive Trace Inertia Work Ratio Rating	-6.822		
Integrated Amp-hours	30.67		
Manufacturer Fuel Economy	0		
Nitrogen Oxide	0		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	30.67		
System Start State of Charge Watt-hours	20.37		
Total Hydrocarbon	0		

Charge Depleting Bag/Phase #4

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	10.27		
Average System Voltage	358.18		
CH4 - Methane	0		
Carbon Monoxide	0.23		
Carbon dioxide	76.81		
Carbon-Related Exhaust Emissions	77		
Drive Trace Absolute Speed Change Rating	-3.86		
Drive Trace Energy Economy Rating	-0.451		
Drive Trace Inertia Work Ratio Rating	-4.52		
Integrated Amp-hours	39		
Manufacturer Fuel Economy	115.5		
Nitrogen Oxide	0.01		
Non-methane Hydrocarbon	0.02		
Non-methane organic gases	0.02		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	39		
System Start State of Charge Watt-hours	30.67		
Total Hydrocarbon	0.02		

Charge Depleting Bag/Phase #5

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	10.27		
Average System Voltage	363.79		
CH4 - Methane	0		
Carbon Monoxide	0.27		
Carbon dioxide	302.38		
Carbon-Related Exhaust Emissions	302		
Drive Trace Absolute Speed Change Rating	-1.41		
Drive Trace Energy Economy Rating	-0.172		
Drive Trace Inertia Work Ratio Rating	-1.538		
Integrated Amp-hours	38.47		
Manufacturer Fuel Economy	29.46		
Nitrogen Oxide	0		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	38.47		
System Start State of Charge Watt-hours	39		
Total Hydrocarbon	0		

Charge Depleting Bag/Phase #6

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	10.28		
Average System Voltage	364.07		
CH4 - Methane	0		
Carbon Monoxide	0.21		
Carbon dioxide	273.71		
Carbon-Related Exhaust Emissions	274		
Drive Trace Absolute Speed Change Rating	-1.8		
Drive Trace Energy Economy Rating	-0.502		
Drive Trace Inertia Work Ratio Rating	-1.965		
Integrated Amp-hours	38.33		
Manufacturer Fuel Economy	32.56		
Nitrogen Oxide	0		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	38.33		
System Start State of Charge Watt-hours	38.47		
Total Hydrocarbon	0		

Charge Depleting Bag/Phase #7

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Test Result/Emission Name	Unrounded Test Result		
Actual Distance Driven (miles)	10.28		
Average System Voltage	364.42		
CH4 - Methane	0		
Carbon Monoxide	0.23		
Carbon dioxide	272.95		
Carbon-Related Exhaust Emissions	273		
Drive Trace Absolute Speed Change Rating	-1.79		
Drive Trace Energy Economy Rating	-0.132		
Drive Trace Inertia Work Ratio Rating	-2.038		
Integrated Amp-hours	38.19		
Manufacturer Fuel Economy	32.64		
Nitrogen Oxide	0		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	38.19		
System Start State of Charge Watt-hours	38.33		
Total Hydrocarbon	0.01		
Manufacturer Test Comments	Bentley mode Charge Depleting HWY - Tested as BENTLEY Bentayga SUV 5 dr. FEDV - ETW:		

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Fuel Properties			
Fuel Batch ID	IF2603	Fuel Calibration Number	2540
Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	06/29/2020
Fuel Batch Calibration Effective Date	07/27/2020	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	0.753
Fuel Ethanol Volume Percent (%)	9.8	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17642
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.832	Weight Fraction CO2	--
Fuel Batch ID	TC0019	Fuel Calibration Number	1
Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	08/24/2021
Fuel Batch Calibration Effective Date	08/24/2021	Fuel Batch Calibration Ineffective Date	08/24/2022
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.748
Fuel Ethanol Volume Percent (%)	10	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	18000
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	TC0033	Fuel Calibration Number	1
Test Fuel Type	61 - Tier 2 Cert Gasoline	Fuel Batch Calibration Date	07/06/2023
Fuel Batch Calibration Effective Date	07/06/2023	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	0.743
Fuel Ethanol Volume Percent (%)	--	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	18425
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	TC0012	Fuel Calibration Number	2
Test Fuel Type	29 - Cold CO E10 Premium Gasoline (Tier 3)	Fuel Batch Calibration Date	10/29/2020
Fuel Batch Calibration Effective Date	08/10/2023	Fuel Batch Calibration Ineffective Date	--
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.742
Fuel Ethanol Volume Percent (%)	9.9	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17943
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	--

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
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Consolidated List of Standards

Exhaust Standards

Cert Region	California + CAA Section 177 states LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	Cert/In-Use Code	Both
Vehicle Class		Standard Level	California LEV-IV ULEV125
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	--	--	--	--	--	--	0.38	2.1
150,000 miles	NMOG	--	--	1.03	--	--	--	0.014	99.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.125
150,000 miles	NOX	--	--	--	--	--	--	0.011	99.999

Cert Region	California + CAA Section 177 states LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	Cert/In-Use Code	Both
Vehicle Class		Standard Level	California LEV-IV ULEV125
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	--	--	--	--	--	--	0.38	9.6
150,000 miles	NMOG	--	--	1.03	--	--	--	0.0149	99.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.150
150,000 miles	NOX	--	--	--	--	--	--	0.0115	99.999
150,000 miles	PM	--	--	--	--	--	--	0	0.006

Cert Region	Federal LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	Cert/In-Use Code	Both
Vehicle Class		Standard Level	Federal Tier 3 Bin 125
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	--	--	--	--	--	--	0.38	12.5
120,000 miles	HC-NM	--	--	--	--	--	--	0.0149	0.5

Certification Summary Information Report

Test Group		VVGAT03.0NAQ			Evaporative/Refueling Family			VVGAR0155NCV		
Cert Region		Federal			Cert/In-Use Code			Both		
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 125		
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	--	--	--	--	--	--	0.64	999	
120,000 miles	METHANE	--	--	--	--	--	--	0.0069	0.030	
120,000 miles	N2O	--	--	--	--	--	--	0.0028	0.010	
150,000 miles	CO	--	--	--	--	--	--	0.38	2.1	
150,000 miles	CO-COMP	--	--	--	--	--	--	--	4.2	
150,000 miles	NMOG	--	--	1.1012	--	--	--	0.0149	99.000	
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.125	
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	--	0.110	
150,000 miles	NOX	--	--	--	--	--	--	0.0115	99.000	
150,000 miles	PM	--	--	--	--	--	--	0	0.003	

Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Both		
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			California LEV-IV ULEV125		
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	--	--	--	--	--	--	0.38	2.1	
150,000 miles	NMOG	--	--	1.1012	--	--	--	0.0149	99.999	
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.125	
150,000 miles	NOX	--	--	--	--	--	--	0.0115	99.999	
150,000 miles	PM	--	--	--	--	--	--	0	0.003	

Certification Summary Information Report

Test Group		VVGAT03.0NAQ			Evaporative/Refueling Family			VVGAR0155NCV		
Cert Region		Federal			Cert/In-Use Code			Both		
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 125		
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	--	--	--	--	--	--	0.38	99.9	
150,000 miles	NMOG	--	--	1.03	--	--	--	0.0149	99.999	
150,000 miles	NOX	--	--	--	--	--	--	0.0115	99.999	

Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Both		
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			California LEV-IV ULEV125		
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	--	--	--	--	--	--	0.38	12.5	

Cert Region		Federal			Cert/In-Use Code			Both		
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 125		
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	--	--	--	--	--	--	0.38	99.9	
150,000 miles	NMOG	--	--	1.03	--	--	--	0.0149	99.999	
150,000 miles	NOX	--	--	--	--	--	--	0.0115	99.999	
150,000 miles	PM	--	--	--	--	--	--	0	0.006	

Certification Summary Information Report

Test Group		VVGAT03.0NAQ			Evaporative/Refueling Family			VVGAR0155NCV	
Cert Region		Federal			Cert/In-Use Code			Both	
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 125	
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	--	--	--	--	--	--	0.64	999
150,000 miles	NMOG	--	--	1.03	--	--	--	0.0149	99.000
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.125
150,000 miles	NOX	--	--	--	--	--	--	0.0115	99.000

Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Both	
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			California LEV-IV ULEV125	
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	--	--	1.03	--	--	--	0.0149	99.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.125
150,000 miles	NOX	--	--	--	--	--	--	0.0115	99.9990

Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Both	
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			California LEV-IV ULEV125	
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	--	--	--	--	--	--	--	2.1
4,000 miles	NMOG	--	--	1.1012	--	--	--	--	99.999
4,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.250
4,000 miles	NOX	--	--	--	--	--	--	--	99.999

Evaporative/Refueling Standards

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV		
Evaporative/Refueling Family	VVGAR0155NCV	Cert Region	Federal		
Cert/In-Use Code	Both	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	--	0.050	0
Evaporative/Refueling Family	VVGAR0155NCV	Cert Region	California + CAA Section 177 states California LEV-IV Zero Evap (Option 2)		
Cert/In-Use Code	Both	Standard Level			
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	0.0067
Evaporative/Refueling Family	VVGAR0155NCV	Cert Region	California + CAA Section 177 states California LEV-IV Zero Evap (Option 2)		
Cert/In-Use Code	Both	Standard Level			
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	VVGAR0155NCV	Cert Region	Federal		
Cert/In-Use Code	Both	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	0.005
Evaporative/Refueling Family	VVGAR0155NCV	Cert Region	Federal		
Cert/In-Use Code	Both	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	0.0067

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV		
Evaporative/Refueling Family	VVGAR0155NCV	Cert Region	Federal		
Cert/In-Use Code	Both	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	0.003
Evaporative/Refueling Family	VVGAR0155NCV	Cert Region	California + CAA Section 177 states California LEV-IV Zero Evap (Option 2)		
Cert/In-Use Code	Both	Standard Level			
Test Procedure	2-day evap				
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.500	0.003
Evaporative/Refueling Family	VVGAR0155NCV	Cert Region	California + CAA Section 177 states California LEV-IV Zero Evap (Option 2)		
Cert/In-Use Code	Both	Standard Level			
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	0.005

Certification Summary Information Report

Test Group	VVGAT03.0NAQ	Evaporative/Refueling Family	VVGAR0155NCV
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

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

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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	

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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	