

Certification Summary Information Report

Manufacturer	Jaguar Land Rover Limited	Manufacturer Code	JLX
Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B
Certificate Number	VJLXT04.4GTH-004	CARB Executive Order #	--
Certificate Issue Date	05/06/2026	Certificate Revision Date	--
Certificate Effective Date	05/06/2026	Conditional Certificate	No
CSI Revision #	--	CSI Submission/Revision Date	04/02/2026 02:39:15 AM
Model Year	2027		

Certification Summary Information Report

Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B
-------------------	--------------	-------------------------------------	--------------

Test Group Information

CSI Type	New	Running Change Reference Number	--
GHG Exempt Status	Not Exempt		

Drive Sources and Fuel(s)

Drive Source #1: Combustion Engine

Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator
Gasoline	Spark Ignition Direct fuel injection	No

Drive Source #2: Electric Motor

Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator
Electricity	--	--

Hybrid Indicator	Yes		
Multiple Fuel Storage	--	Rechargeable Energy Storage System Indicator	No
Multiple Fuel Combustion	--	Off-board Charge Capable Indicator	No
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	Yes
Durability Group Name	VJLXGPGNNGTG	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	09/14/2026	CAP2000 Conditional Certificate?	No
Independent Commercial Importer?	No	Alternative Fuel Converter Certificate?	No
SFTP Federal Composite Compliance Identifier	Not Applicable	SFTP Tier 2 Composite CO Option	No
SFTP LEV-III Composite Compliance Indicator	No		
OBD Compliance Type	CARB	OBD Demonstration Vehicle Test Group	VJLXT04.4GTH
Test Group OBD Compliance Level	Partial - with deficiencies	Number of Test Group OBD Deficiencies	1
OBD Deficiencies Comments	--		
Mfr Test Group Comments	--		
Mfr Exhaust / Evap Standards Comments	--		

Certification Summary Information Report

Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B				
Evaporative/Refueling Family Information							
Evaporative Summary Information Type	New	Submission/Correction Date	03/11/2026 06:54:22 AM				
Integrated ORVR?	Yes	Fuel(s)	Gasoline				
Multiple Fuel Storage	--						
Bladder Fuel Tank?	No						
Fuel Tank Material	Plastic	Fuel Tank Material Description	Multi-barrier HDPE				
Fill Pipe Seal Type	Liquid seal						
Air Intake System Vapor Storage Device?	No	Air Intake System Vapor Storage Device Description	CVVL				
Fuel System Vapor Storage Canister?	Yes	Other Vapor Storage	--				
Fuel System Vapor Storage Canister(s) Total Working Capacity (grams)	175	Number of Primary Canisters	1				
Number of Bleed Canisters	1	Bleed Canister Total Working Capacity (grams)	5				
Mfr Evaporative/Refueling Family Comments	175g single canister Tier 3 HLDT / LEV3 HLDT Option 2 (500mg Whole-vehicle + Canister Bleed).						
Leak Family Details							
Leak Family Indicator	Yes						
Canister Bleed Test Indicator	Yes	Applicability of Evaporative Canister Bleed Test	50 State				
Evaporative Canister Bleed Test Comments	--						
CARB Fuel Only (Rig) Test Indicator	No	Applicability of CARB Fuel Only (Rig) Test	--				
CARB Fuel Only (Rig) Test Comments	--						
Leak Family Name	Applicability of Leak Family Requirements	Leak Family Standard (inches)	Leak Family Description				
VJLXR0175P1B-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
Jaguar Land Rover Limited	2 - Land Rover	300 - Defender 110 MHEV	Federal	4-Wheel Drive	Semi-Automatic	8	Yes
Jaguar Land Rover Limited	2 - Land Rover	300 - Defender 110 MHEV	California + CAA Section 177 states	4-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	Jaguar Land Rover AJ20P6 3.0L I6 Gasoline direct Injection.		
Engine Block Arrangement	V-shaped engine			Mfr Engine Block Arrangement Description	--		
Camless Valvetrain Indicator	No			Oil Viscosity/Classification	0W20		
Number of Cylinders/Rotors	8			Mechanically Variable Compression Ratio Indicator	N		

Certification Summary Information Report

Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B							
After Treatment Device(s) (ATD)										
ATD Number	ATD Type	ATD Precious Metal	Substrate Material	Substrate Construction						
1	Three-way catalyst	Palladium + Rhodium	Ceramic	Monolith						
Mfr After Treatment Device (ATD) Comments										
--										
Direct Ozone Reduction (DOR) Device										
Not Equipped										
Mfr Emission Control Device Comments										
--										
Engine Configuration Number 1										
Engine Displacement (liters)	4.4	Engine Rated Horsepower	625							
Number of Inlet Valves Per Cylinder	2	Number of Exhaust Valves Per Cylinder	2							
Air Aspiration Method	Turbocharged	Number of Air Aspiration Devices	2							
Air Aspiration Device Configuration	Parallel	Charge Air Cooler Type	Liquid							
Air Aspiration Drive Method(s)	Mechanical									
Cylinder Deactivation	No									
Cylinder Deactivation Description	--									
Variable Valve Timing	Yes									
Variable Valve Timing System Description	Inlet and Exhaust Camshaft Phasing controlled by Engine Management System									
Variable Valve Lift?	No									
Variable Valve Lift System Description	--									
Number of Knock Sensors	4	Number of Air/Fuel Sensors	4							
Air/Fuel Sensor # 1 Type	Heated air fuel	Air/Fuel Sensor # 1 Description	--							
Air/Fuel Sensor # 2 Type	Heated air fuel	Air/Fuel Sensor # 2 Description	--							
Air/Fuel Sensor # 3 Type	Heated oxygen	Air/Fuel Sensor # 3 Description	--							
Air/Fuel Sensor # 4 Type	Heated oxygen	Air/Fuel Sensor # 4 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	--									
Official Test Numbers										
Test Group	FTP	US06	SC03	Cold CO	Highway	EPA City Litmus Value	EPA City Litmus Threshold	EPA Highway Litmus Value	EPA Highway Litmus Threshold	CREE Weighting Factor
Electricity	--	--	--	--	--	--	--	--	--	--
Gasoline	SJLX10090874	SJLX10090876	SJLX10090877	SJLX10090878	SJLX10090875	12.4	228.2	19.7	286.1	--

Certification Summary Information Report

Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B
-------------------	--------------	-------------------------------------	--------------

SFTP LEV-III Official Test Numbers

Test Group Fuel	FTP	US06	SC03
Electricity	--	--	--
Gasoline	SJLX10090874	SJLX10090876	SJLX10090877

Official Charge Depleting Test Numbers

Test Group Fuel	UDDS	Highway
Electricity	--	--

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	48	Battery Energy Capacity	8
Battery Specific Energy	370	Battery Charger Type	On-Board
Number of Capacitors	--	Capacitor Rating (In Farads)	--
Mfr Capacitor Comments	--		
Hydraulic System Description	--		
Regenerative Braking Type	Electrical Regen Brake		
Regenerative Braking Source	Both	Driver Controlled Regenerative Braking	No
Mfr Regenerative Braking Description	--		
Drive Motor(s)/Generator(s)	1		
Motor/Generator Type 1	AC Induction	Rated Motor/Generator Power	22
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	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B
-------------------	--------------	-------------------------------------	--------------

Emission Data Vehicle Information

Vehicle ID / Configuration	3ESTT048 / 1	Manufacturer Vehicle Configuration Number	1
Original Test Group Name	SJLXT04.4GTH	Original Evaporative/Refueling Family	SJLXR0175P1B
Original Test Vehicle Model Year	2025		

Vehicle Model

Represented Test Vehicle Make	LAND ROVER	Represented Test Vehicle Model	Defender 110 MHEV
--------------------------------------	------------	---------------------------------------	-------------------

Leak Family Details

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

Drive Sources and Fuel System Details

Drive Source and Fuel#	Drive Source	Fuel
1	Electric Motor	Electricity
2	Combustion Engine	Gasoline

Hybrid Indicator	Yes		
Multiple Fuel Storage	--	Multiple Fuel Combustion	--
Fuel Cell Indicator	No	Rechargeable Energy Storage System Indicator	Yes
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if 'Other'	--
Off-board charge Capable Indicator	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	4.4NC11-24	Rated Horsepower	625
Displacement (liters)	4.4		
Air Aspiration Method	Turbocharged	Air Aspiration Method, if 'Other'	
Number of Air Aspiration Devices	2	Air Aspiration Device Configuration	Parallel
Charge Air Cooler Type	Liquid	Drive Mode While Testing	4-Wheel Drive
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)
Curb Weight (lbs)	5925	Equivalent Test Weight (pounds)	6500
GVWR (lbs)	7120	N/V Ratio	31.4
Axle Ratio	4.54		
Transmission Type	Semi-Automatic	# of Transmission Gears	8
Transmission Lockup	Yes	Creeper Gear	No

Page 7 of 48 CSI Submission/Revision Date: 04/02/2026 02:39:15 AM

Certification Summary Information Report

Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B
Test #	SJLX10090874	Test Procedure	25 - California fuel 2-day exhaust (w/can load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	46 - CARB LEV3 E10 Regular Gasoline
Test Date	12/20/2024	Fuel	Gasoline
Fuel Batch ID	242405	Fuel Calibration Number	9134
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	Jaguar Land Rover Limited		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	5181	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	722.7926	--
FE BAG 1 (Bag 1 Fuel Economy)	11.87	11.87
CO2 BAG 2 (Bag 2 Carbon Dioxide)	696.67	--
FE BAG 2 (Bag 2 Fuel Economy)	12.356	12.356
CO2 BAG 3 (Bag 3 Carbon Dioxide)	605.8702	--
FE BAG 3 (Bag 3 Fuel Economy)	14.16	14.16
CO2 BAG 4 (Bag 4 Carbon Dioxide)	687.9109	--
FE BAG 4 (Bag 4 Fuel Economy)	12.519	12.519
METHANE (CH4 - Methane)	0.0045	--
CO (Carbon Monoxide)	1.133	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-49.926	--
DT-EER (Drive Trace Energy Economy Rating)	0.281	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.015	--
MFR FE (Manufacturer Fuel Economy)	12.743	12.743
NOX (Nitrogen Oxide)	0.0173	--
N2O (Nitrous Oxide)	0.0011	--
HC-NM (Non-methane Hydrocarbon)	0.0118	--
NMOG (Non-methane organic gases)	0.0129	--
PM (Particulate Matter)	0.0004	--
HC-TOTAL (Total Hydrocarbon)	0.0157	--

Certification Summary Information Report

Test Group		VJLXT04.4GTH			Evaporative/Refueling Family				VJLXR0175P1B			
		Test Result Name		Unrounded Test Result		Verify Calculated CREE/OPT-CREE						
		Carbon-Related Exhaust Emissions		675		999						
		Test Result Name		Unrounded Test Result		Verify Calculated CO2						
		Carbon dioxide		674.5502		--						
Manufacturer Test Comments		Defender 110 EDV. 2XUDDS MFR Test No. CDC5 2024-12-20 03. 275/60R20 Goodyear Duratrac Tires. FUL test.										
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	120,000 miles	Federal Tier 3 Bin 50	CREE	999	--	--	--	0	--	999	--	--
Fed	120,000 miles	Federal Tier 3 Bin 50	METHANE	0.0045	--	--	--	0	--	0.004	0.030	Pass
Fed	120,000 miles	Federal Tier 3 Bin 50	N2O	0.0011	--	--	--	0	--	0.001	0.010	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	CO	1.13	--	--	--	0	--	1.1	1.7	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0.0129	--	1.1	--	0	--	0.013	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.0302	--	--	--	--	--	0.03	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.0173	--	--	--	0	--	0.017	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	PM	0.0004	--	--	--	0	--	0	0.003	Pass
CA	150,000 miles	California LEV-IV ULEV50	CO	1.13	--	--	--	0	--	1.1	1.7	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG	0.0129	--	1.1	--	0	--	0.013	99.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG+NOX	0.0302	--	--	--	--	--	0.03	0.050	Pass
CA	150,000 miles	California LEV-IV ULEV50	NOX	0.0173	--	--	--	0	--	0.017	99.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	PM	0.0004	--	--	--	0	--	0	0.003	Pass
NOTE: For Non-charge depleting tests, the Rounded Result for CREE/OPT-CREE Emission names are Verify-calculated values.												

Certification Summary Information Report

Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B
Test #	SJLX10090878	Test Procedure	11 - Cold CO
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	05/08/2025	Fuel	Gasoline
Fuel Batch ID	242739	Fuel Calibration Number	9764
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	Jaguar Land Rover Limited		
E10 Evaporative Test Measurement Method	--	Odometer Units	M
Test Start Odometer Reading	5461	Diesel Adjustment Factor Usage	--
4WD Test Dyno	Yes		
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes
Test Results			
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	
CO2 BAG 1 (Bag 1 Carbon Dioxide)	870.6077	--	
FE BAG 1 (Bag 1 Fuel Economy)	9.908	9.908	
CO2 BAG 2 (Bag 2 Carbon Dioxide)	751.4535	--	
FE BAG 2 (Bag 2 Fuel Economy)	11.525	11.525	
CO2 BAG 3 (Bag 3 Carbon Dioxide)	659.2893	--	
FE BAG 3 (Bag 3 Fuel Economy)	13.139	13.139	
CO (Carbon Monoxide)	1.0063	--	
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-1.26	--	
DT-EER (Drive Trace Energy Economy Rating)	-1.077	--	
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-2.111	--	
MFR FE (Manufacturer Fuel Economy)	11.5239	11.5239	
NOX (Nitrogen Oxide)	0.0314	--	
HC-NM (Non-methane Hydrocarbon)	0.0436	--	
NMOG (Non-methane organic gases)	0.048	--	
HC-TOTAL (Total Hydrocarbon)	0.0503	--	
Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE	
Carbon-Related Exhaust Emissions	751	--	
Test Result Name	Unrounded Test Result	Verify Calculated CO2	
Carbon dioxide	750.8462	--	

Certification Summary Information Report

Test Group		VJLXT04.4GTH				Evaporative/Refueling Family				VJLXR0175P1B		
Manufacturer Test Comments		Defender 110 EDV. MFR Test no CDC3 2025-05-08 02. 275/60R20 Goodyear Duratrac Tires. FUL test.										
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Bin 50	CO	1.01	--	--	--	0	--	1	12.5	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	HC-NM	0.04	--	--	--	0	--	0	0.5	Pass
CA	150,000 miles	California LEV-IV ULEV50	CO	1.01	--	--	--	0	--	1	12.5	Pass

Certification Summary Information Report

Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B
Test #	SJLX10090879	Test Procedure	51 - CA fuel 50 Deg(F) exhaust test
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	04/30/2025	Fuel	Gasoline
Fuel Batch ID	242739	Fuel Calibration Number	9764
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	Jaguar Land Rover Limited		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	5406	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes
Test Results			
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	
CO2 BAG 1 (Bag 1 Carbon Dioxide)	778.1038	--	
FE BAG 1 (Bag 1 Fuel Economy)	11.114	11.114	
CO2 BAG 2 (Bag 2 Carbon Dioxide)	717.5836	--	
FE BAG 2 (Bag 2 Fuel Economy)	12.068	12.068	
CO2 BAG 3 (Bag 3 Carbon Dioxide)	636.9697	--	
FE BAG 3 (Bag 3 Fuel Economy)	13.577	13.577	
METHANE (CH4 - Methane)	0.0047	--	
CO (Carbon Monoxide)	0.942	--	
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.19	--	
DT-EER (Drive Trace Energy Economy Rating)	0.04	--	
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.52	--	
MFR FE (Manufacturer Fuel Economy)	12.223	12.223	
NOX (Nitrogen Oxide)	0.0188	--	
HC-NM (Non-methane Hydrocarbon)	0.0118	--	
NMOG (Non-methane organic gases)	0.013	--	
PM (Particulate Matter)	0	--	
HC-TOTAL (Total Hydrocarbon)	0.0155	--	
Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE	
Carbon-Related Exhaust Emissions	708	--	

Certification Summary Information Report

Test Group		VJLXT04.4GTH				Evaporative/Refueling Family				VJLXR0175P1B		
		Test Result Name		Unrounded Test Result			Verify Calculated CO2					
		Carbon dioxide		707.9879			--					
Manufacturer Test Comments		Defender 110 EDV. FTP50 MFR Test No. CDC6 2025-04-30 05. 275/60R20 Goodyear Duratrac Tires. FUL test.										
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
CA	150,000 miles	California LEV-IV ULEV50	NMOG	0.013	--	1.1	--	0	--	0.013	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG+NOX	0.0318	--	--	--	--	--	0.03	0.10	Pass
CA	150,000 miles	California LEV-IV ULEV50	NOX	0.0188	--	--	--	0	--	0.019	999.999	Pass

Certification Summary Information Report

Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B																																				
Test #	SJLX10090875	Test Procedure	3 - HWFE																																				
Exhaust Test # for this Evap Test	--	Test Fuel Type	46 - CARB LEV3 E10 Regular Gasoline																																				
Test Date	12/20/2024	Fuel	Gasoline																																				
Fuel Batch ID	242405	Fuel Calibration Number	9134																																				
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined																																				
Verify Test Lab ID	Jaguar Land Rover Limited																																						
E10 Evaporative Test Measurement Method	--	Odometer Units	M																																				
Test Start Odometer Reading	5196	Diesel Adjustment Factor Usage	--																																				
4WD Test Dyno	Yes																																						
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																																							
<table border="1"> <thead> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated FE Equivalent Value (miles per gallon)</th> </tr> </thead> <tbody> <tr> <td>METHANE (CH4 - Methane)</td> <td>0.0034</td> <td>--</td> </tr> <tr> <td>CO (Carbon Monoxide)</td> <td>0.227</td> <td>--</td> </tr> <tr> <td>DT-ASCR (Drive Trace Absolute Speed Change Rating)</td> <td>3.43</td> <td>--</td> </tr> <tr> <td>DT-EER (Drive Trace Energy Economy Rating)</td> <td>0.611</td> <td>--</td> </tr> <tr> <td>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</td> <td>4.221</td> <td>--</td> </tr> <tr> <td>MFR FE (Manufacturer Fuel Economy)</td> <td>19.169</td> <td>19.169</td> </tr> <tr> <td>NOX (Nitrogen Oxide)</td> <td>0.0189</td> <td>--</td> </tr> <tr> <td>N2O (Nitrous Oxide)</td> <td>0.0029</td> <td>--</td> </tr> <tr> <td>HC-NM (Non-methane Hydrocarbon)</td> <td>0</td> <td>--</td> </tr> <tr> <td>NMOG (Non-methane organic gases)</td> <td>0</td> <td>--</td> </tr> <tr> <td>HC-TOTAL (Total Hydrocarbon)</td> <td>0.0028</td> <td>--</td> </tr> </tbody> </table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	METHANE (CH4 - Methane)	0.0034	--	CO (Carbon Monoxide)	0.227	--	DT-ASCR (Drive Trace Absolute Speed Change Rating)	3.43	--	DT-EER (Drive Trace Energy Economy Rating)	0.611	--	DT-IWRR (Drive Trace Inertia Work Ratio Rating)	4.221	--	MFR FE (Manufacturer Fuel Economy)	19.169	19.169	NOX (Nitrogen Oxide)	0.0189	--	N2O (Nitrous Oxide)	0.0029	--	HC-NM (Non-methane Hydrocarbon)	0	--	NMOG (Non-methane organic gases)	0	--	HC-TOTAL (Total Hydrocarbon)	0.0028	--
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)																																					
METHANE (CH4 - Methane)	0.0034	--																																					
CO (Carbon Monoxide)	0.227	--																																					
DT-ASCR (Drive Trace Absolute Speed Change Rating)	3.43	--																																					
DT-EER (Drive Trace Energy Economy Rating)	0.611	--																																					
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	4.221	--																																					
MFR FE (Manufacturer Fuel Economy)	19.169	19.169																																					
NOX (Nitrogen Oxide)	0.0189	--																																					
N2O (Nitrous Oxide)	0.0029	--																																					
HC-NM (Non-methane Hydrocarbon)	0	--																																					
NMOG (Non-methane organic gases)	0	--																																					
HC-TOTAL (Total Hydrocarbon)	0.0028	--																																					
<table border="1"> <thead> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated CREE/OPT-CREE</th> </tr> </thead> <tbody> <tr> <td>Carbon-Related Exhaust Emissions</td> <td>449</td> <td>999</td> </tr> </tbody> </table>				Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE	Carbon-Related Exhaust Emissions	449	999																														
Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE																																					
Carbon-Related Exhaust Emissions	449	999																																					
<table border="1"> <thead> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated CO2</th> </tr> </thead> <tbody> <tr> <td>Carbon dioxide</td> <td>449.2754</td> <td>--</td> </tr> </tbody> </table>				Test Result Name	Unrounded Test Result	Verify Calculated CO2	Carbon dioxide	449.2754	--																														
Test Result Name	Unrounded Test Result	Verify Calculated CO2																																					
Carbon dioxide	449.2754	--																																					
Manufacturer Test Comments	Defender 110 EDV. HWY MFR Test No. CDC5 2024-12-20 04. 275/60R20 Goodyear Duratrac Tires. FUL test.																																						

Certification Summary Information Report

Test Group		VJLXT04.4GTH			Evaporative/Refueling Family					VJLXR0175P1B		
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 50	CREE	999	--	--	--	0	--	999	--	--
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0	--	1.03	--	0	--	0	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.0189	--	--	--	--	--	0.019	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.0189	--	--	--	0	--	0.019	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG	0	--	1.03	--	0	--	0	99.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG+NOX	0.0189	--	--	--	--	--	0.019	0.050	Pass
CA	150,000 miles	California LEV-IV ULEV50	NOX	0.0189	--	--	--	0	--	0.019	99.999	Pass

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

Certification Summary Information Report

Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B
Test #	SJLX10090876	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	46 - CARB LEV3 E10 Regular Gasoline
Test Date	12/20/2024	Fuel	Gasoline
Fuel Batch ID	242405	Fuel Calibration Number	9134
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	Jaguar Land Rover Limited		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	5217	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	880.9795	--
FE BAG 1 (Bag 1 Fuel Economy)	9.751	9.751
CO2 BAG 2 (Bag 2 Carbon Dioxide)	533.8016	--
FE BAG 2 (Bag 2 Fuel Economy)	16.121	16.121
CO (Carbon Monoxide)	0.8191	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.052	--
DT-EER (Drive Trace Energy Economy Rating)	-0.09	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.619	--
MFR FE (Manufacturer Fuel Economy)	14.081	14.081
NOX (Nitrogen Oxide)	0.039	--
HC-NM (Non-methane Hydrocarbon)	0.0049	--
NMOG (Non-methane organic gases)	0.005	--
PM (Particulate Matter)	0.0014	--
HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03)	0.0439	--
HC-TOTAL (Total Hydrocarbon)	0.0104	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	610.797	--

Manufacturer Test Comments

Defender 110 EDV. US06 MFR Test No. CDC5 2024-12-20 05. 275/60R20 Goodyear Duratrac Tires. FUL test.

Certification Summary Information Report

Test Group		VJLXT04.4GTH			Evaporative/Refueling Family					VJLXR0175P1B		
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 50	CO	0.82	--	--	--	0	--	0.8	9.6	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0.005	--	1.03	--	0	--	0.005	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.044	--	--	--	--	--	0.044	0.120	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.039	--	--	--	0	--	0.039	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	PM	0.0014	--	--	--	0	--	0.001	0.006	Pass
CA	150,000 miles	California LEV-IV ULEV50	CO	0.82	--	--	--	0	--	0.8	9.6	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG	0.005	--	1.03	--	0	--	0.005	99.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG+NOX	0.044	--	--	--	--	--	0.044	0.060	Pass
CA	150,000 miles	California LEV-IV ULEV50	NOX	0.039	--	--	--	0	--	0.039	99.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	PM	0.0014	--	--	--	0	--	0.001	0.006	Pass

Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B
Test #	SJLX10090877	Test Procedure	95 - SC03
Exhaust Test # for this Evap Test	--	Test Fuel Type	46 - CARB LEV3 E10 Regular Gasoline
Test Date	12/20/2024	Fuel	Gasoline
Fuel Batch ID	242405	Fuel Calibration Number	9134
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	Jaguar Land Rover Limited		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	5263	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)
CO (Carbon Monoxide)	0.7853	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.532	--
DT-EER (Drive Trace Energy Economy Rating)	0.976	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	1.076	--
MFR FE (Manufacturer Fuel Economy)	11.478	11.478
NOX (Nitrogen Oxide)	0.0077	--
HC-NM (Non-methane Hydrocarbon)	0	--
NMOG (Non-methane organic gases)	0	--
HC-TOTAL (Total Hydrocarbon)	0.0048	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	749.6424	--

Manufacturer Test Comments

Defender 110 EDV. SC03 MFR Test No. CDC5 2024-12-20 10. 275/60R20 Goodyear Duratrac Tires. FUL test.

Certification Summary Information Report

Test Group		VJLXT04.4GTH				Evaporative/Refueling Family				VJLXR0175P1B		
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 50	CO	0.79	--	--	--	0	--	0.8	3.2	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0	--	1.03	--	0	--	0	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.0077	--	--	--	--	--	0.008	0.070	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.0077	--	--	--	0	--	0.008	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	CO	0.79	--	--	--	0	--	0.8	1.7	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG	0	--	1.03	--	0	--	0	99.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG+NOX	0.0077	--	--	--	--	--	0.008	0.050	Pass
CA	150,000 miles	California LEV-IV ULEV50	NOX	0.0077	--	--	--	0	--	0.008	99.999	Pass

Certification Summary Information Report

Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B									
Emission Data Vehicle Information												
Vehicle ID / Configuration	3ESTT049 / 2	Manufacturer Vehicle Configuration Number	2									
Original Test Group Name	SJLXT04.4GTH	Original Evaporative/Refueling Family	SJLXR0175P1B									
Original Test Vehicle Model Year	2025											
Vehicle Model												
Represented Test Vehicle Make	LAND ROVER	Represented Test Vehicle Model	Defender 110 MHEV									
Leak Family Details												
Leak Family Identifier	--	Leak Family Name	--									
Drive Sources and Fuel System Details												
	<table border="1"> <thead> <tr> <th>Drive Source and Fuel#</th><th>Drive Source</th><th>Fuel</th></tr> </thead> <tbody> <tr> <td>1</td><td>Electric Motor</td><td>Electricity</td></tr> <tr> <td>2</td><td>Combustion Engine</td><td>Gasoline</td></tr> </tbody> </table>	Drive Source and Fuel#	Drive Source	Fuel	1	Electric Motor	Electricity	2	Combustion Engine	Gasoline		
Drive Source and Fuel#	Drive Source	Fuel										
1	Electric Motor	Electricity										
2	Combustion Engine	Gasoline										
Hybrid Indicator	Yes											
Multiple Fuel Storage	--	Multiple Fuel Combustion	--									
Fuel Cell Indicator	No	Rechargeable Energy Storage System Indicator	Yes									
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if 'Other'	--									
Off-board charge Capable Indicator	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	4.4NC11-24	Rated Horsepower	625									
Displacement (liters)	4.4											
Air Aspiration Method	Turbocharged	Air Aspiration Method, if 'Other'										
Number of Air Aspiration Devices	2	Air Aspiration Device Configuration	Parallel									
Charge Air Cooler Type	Liquid	Drive Mode While Testing	4-Wheel Drive									
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)									
Curb Weight (lbs)	5990	Equivalent Test Weight (pounds)	6500									
GVWR (lbs)	7120	N/V Ratio	31.4									
Axle Ratio	4.54											
Transmission Type	Semi-Automatic	# of Transmission Gears	8									
Transmission Lockup	Yes	Creeper Gear	No									

Certification Summary Information Report

Test Group		VJLXT04.4GTH			Evaporative/Refueling Family		VJLXR0175P1B	
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	85.63	0.0257	0.0412	34.54	-0.27015	0.041718	25.3	
Cold CO	94.193	0.02827	0.04532	34.54	-0.27015	0.041718	N/A	
US06	85.63	0.0257	0.0412	34.54	-0.27015	0.041718	N/A	
Emission Control Device Comments		--						
Manufacturer Test Vehicle Comments		Defender 110 NC11 4.4 V8 Turbocharged MHEV. EDV. Goodyear Duratrac 275/60R20 Tires.						

Certification Summary Information Report

Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B
Test #	SJLX10088650	Test Procedure	25 - California fuel 2-day exhaust (w/can load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	61 - Tier 2 Cert Gasoline
Test Date	08/29/2024	Fuel	Gasoline
Fuel Batch ID	63623	Fuel Calibration Number	4091
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	Jaguar Land Rover Limited		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	6075	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	694.4345	--
FE BAG 1 (Bag 1 Fuel Economy)	12.719	12.719
CO2 BAG 2 (Bag 2 Carbon Dioxide)	703.8612	--
FE BAG 2 (Bag 2 Fuel Economy)	12.598	12.598
CO2 BAG 3 (Bag 3 Carbon Dioxide)	644.7738	--
FE BAG 3 (Bag 3 Fuel Economy)	13.734	13.734
CO2 BAG 4 (Bag 4 Carbon Dioxide)	707.13	--
FE BAG 4 (Bag 4 Fuel Economy)	12.544	12.544
METHANE (CH4 - Methane)	0.0027	--
CO (Carbon Monoxide)	0.8898	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-50.396	--
DT-EER (Drive Trace Energy Economy Rating)	-0.283	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.998	--
MFR FE (Manufacturer Fuel Economy)	12.899	12.899
NOX (Nitrogen Oxide)	0.0113	--
N2O (Nitrous Oxide)	0.0006	--
HC-NM (Non-methane Hydrocarbon)	0.0186	--
NMOG (Non-methane organic gases)	0.0191	--
PM (Particulate Matter)	0.0005	--
HC-TOTAL (Total Hydrocarbon)	0.02	--

Certification Summary Information Report

Test Group		VJLXT04.4GTH			Evaporative/Refueling Family				VJLXR0175P1B			
		Test Result Name		Unrounded Test Result		Verify Calculated CREE/OPT-CREE						
		Carbon-Related Exhaust Emissions		687		688						
		Test Result Name		Unrounded Test Result		Verify Calculated CO2						
		Carbon dioxide		686.6679		--						
Manufacturer Test Comments		Defender 110 MHEV EDV E0. 2xUDDS Test No. CDC5 2024-09-05 06. 275/60R20 Goodyear Duratrac Tires.										
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 50	CREE	688	--	--	--	0	--	688	--	--
Fed	120,000 miles	Federal Tier 3 Bin 50	METHANE	0.0027	--	--	--	0	--	0.003	0.030	Pass
Fed	120,000 miles	Federal Tier 3 Bin 50	N2O	0.0006	--	--	--	0	--	0.001	0.010	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	CO	0.89	--	--	--	0	--	0.9	1.7	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0.0191	--	1.1	--	0	--	0.019	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.0304	--	--	--	--	--	0.03	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.0113	--	--	--	0	--	0.011	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	PM	0.0005	--	--	--	0	--	0	0.003	Pass
CA	150,000 miles	California LEV-IV ULEV50	CO	0.89	--	--	--	0	--	0.9	1.7	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG	0.0191	--	1.1	--	0	--	0.019	99.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG+NOX	0.0304	--	--	--	--	--	0.03	0.050	Pass
CA	150,000 miles	California LEV-IV ULEV50	NOX	0.0113	--	--	--	0	--	0.011	99.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	PM	0.0005	--	--	--	0	--	0	0.003	Pass
NOTE: For Non-charge depleting tests, the Rounded Result for CREE/OPT-CREE Emission names are Verify-calculated values.												

Certification Summary Information Report

Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B
Test #	SJLX10088651	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	61 - Tier 2 Cert Gasoline
Test Date	09/23/2024	Fuel	Gasoline
Fuel Batch ID	63623	Fuel Calibration Number	4091
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	Jaguar Land Rover Limited		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	6120	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)	0.0204	--	
CO (Carbon Monoxide)	1.2982	--	
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.427	--	
DT-EER (Drive Trace Energy Economy Rating)	0.272	--	
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.49	--	
MFR FE (Manufacturer Fuel Economy)	18.647	18.647	
NOX (Nitrogen Oxide)	0.0013	--	
N2O (Nitrous Oxide)	0.0002	--	
HC-NM (Non-methane Hydrocarbon)	0.0287	--	
NMOG (Non-methane organic gases)	0.0295	--	
HC-TOTAL (Total Hydrocarbon)	0.0487	--	
Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE	
Carbon-Related Exhaust Emissions	474	476	
Test Result Name	Unrounded Test Result	Verify Calculated CO2	
Carbon dioxide	473.8271	--	
Manufacturer Test Comments	Defender 110 MHEV EDV E0. HWY Test No. CDC5 2024-09-05 07. 275/60R20 Goodyear Duratrac Tires.		

Certification Summary Information Report

Test Group		VJLXT04.4GTH				Evaporative/Refueling Family				VJLXR0175P1B		
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 50	CREE	476	--	--	--	0	--	476	--	--
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0.0295	--	1.03	--	0	--	0.03	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.0308	--	--	--	--	--	0.031	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.0013	--	--	--	0	--	0.001	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG	0.0295	--	1.03	--	0	--	0.03	99.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG+NOX	0.0308	--	--	--	--	--	0.031	0.050	Pass
CA	150,000 miles	California LEV-IV ULEV50	NOX	0.0013	--	--	--	0	--	0.001	99.999	Pass

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

Certification Summary Information Report

Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B
Test #	SJLX10089451	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	46 - CARB LEV3 E10 Regular Gasoline
Test Date	09/03/2024	Fuel	Gasoline
Fuel Batch ID	241255	Fuel Calibration Number	8079
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	Jaguar Land Rover Limited		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	5699	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	936.5933	--
FE BAG 1 (Bag 1 Fuel Economy)	9.163	9.163
CO2 BAG 2 (Bag 2 Carbon Dioxide)	574.4851	--
FE BAG 2 (Bag 2 Fuel Economy)	14.916	14.916
CO (Carbon Monoxide)	1.5623	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-1.271	--
DT-EER (Drive Trace Energy Economy Rating)	-0.366	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-2.685	--
MFR FE (Manufacturer Fuel Economy)	13.095	13.095
NOX (Nitrogen Oxide)	0.0076	--
HC-NM (Non-methane Hydrocarbon)	0.0126	--
NMOG (Non-methane organic gases)	0.013	--
PM (Particulate Matter)	0.0021	--
HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03)	0.0202	--
HC-TOTAL (Total Hydrocarbon)	0.0268	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	654.7016	--

Manufacturer Test Comments

Defender 110 EDV. US06 MFR Confirmatory Test Test No. CDC5 2024-09-03 12. 275/60R20 Goodyear Duratrac Tires.

Certification Summary Information Report

Test Group		VJLXT04.4GTH			Evaporative/Refueling Family					VJLXR0175P1B		
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 50	CO	1.56	--	--	--	0	--	1.6	9.6	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0.013	--	1.03	--	0	--	0.013	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.0206	--	--	--	--	--	0.021	0.120	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.0076	--	--	--	0	--	0.008	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	PM	0.0021	--	--	--	0	--	0.002	0.006	Pass
CA	150,000 miles	California LEV-IV ULEV50	CO	1.56	--	--	--	0	--	1.6	9.6	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG	0.013	--	1.03	--	0	--	0.013	99.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG+NOX	0.0206	--	--	--	--	--	0.021	0.060	Pass
CA	150,000 miles	California LEV-IV ULEV50	NOX	0.0076	--	--	--	0	--	0.008	99.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	PM	0.0021	--	--	--	0	--	0.002	0.006	Pass

Certification Summary Information Report

Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B						
Emission Data Vehicle Information									
Vehicle ID / Configuration	3KMVP032 / 0	Manufacturer Vehicle Configuration Number	0						
Original Test Group Name	NJLXT04.4GTE	Original Evaporative/Refueling Family	NJLXR0175P1B						
Original Test Vehicle Model Year	2022								
Vehicle Model									
Represented Test Vehicle Make	LAND ROVER	Represented Test Vehicle Model	New Range Rover						
Leak Family Details									
Leak Family Identifier	--	Leak Family Name	--						
Drive Sources and Fuel System Details									
	<table border="1"> <tr> <th>Drive Source and Fuel#</th><th>Drive Source</th><th>Fuel</th></tr> <tr> <td>1</td><td>Combustion Engine</td><td>Gasoline</td></tr> </table>	Drive Source and Fuel#	Drive Source	Fuel	1	Combustion Engine	Gasoline		
Drive Source and Fuel#	Drive Source	Fuel							
1	Combustion Engine	Gasoline							
Hybrid Indicator	No								
Multiple Fuel Storage	--	Multiple Fuel Combustion	--						
Fuel Cell Indicator	No	Rechargeable Energy Storage System Indicator	No						
Rechargeable Energy Storage System	--	Rechargeable Energy Storage System, if 'Other'	--						
Off-board charge Capable Indicator	--								
Odometer Correction -- Initial	0	Odometer Correction Factor	1						
Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor								
Odometer Correction Units	Miles								
Engine Code	4.4NC10-22	Rated Horsepower	530						
Displacement (liters)	4.4								
Air Aspiration Method	Turbocharged	Air Aspiration Method, if 'Other'							
Number of Air Aspiration Devices	2	Air Aspiration Device Configuration	Parallel						
Charge Air Cooler Type	Liquid	Drive Mode While Testing	4-Wheel Drive						
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)						
Curb Weight (lbs)	5705	Equivalent Test Weight (pounds)	6000						
GVWR (lbs)	7385	N/V Ratio	22.9						
Axle Ratio	3.31								
Transmission Type	Semi-Automatic	# of Transmission Gears	8						
Transmission Lockup	Yes	Creep Gear	No						

Certification Summary Information Report

Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B
-------------------	--------------	-------------------------------------	--------------

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	46.948	-0.11133	0.03423	50.874	-0.11143	0.034206	16.9
Cold CO	51.643	-0.12246	0.037653	50.874	-0.11143	0.034206	N/A
US06	46.948	-0.11133	0.03423	50.874	-0.11143	0.034206	N/A

Emission Control Device Comments --

Manufacturer Test Vehicle Comments New Range Rover NC10 4.4 V8 Turbocharged LWB. 285/45R22 Tires. Evaps EDV.

Test #	NJLX10072639	Test Procedure	38 - CA fuel 3-day evap.
Exhaust Test # for this Evap Test	NJLX10072627	Test Fuel Type	47 - CARB LEV3 E10 Premium Gasoline
Test Date	04/26/2021	Fuel	Gasoline
Fuel Batch ID	35047	Fuel Calibration Number	6681
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	Jaguar Land Rover Limited		
E10 Evaporative Test Measurement Method	Actual Total Hydrocarbon Equivalent Measurement (with speciation)		
Test Start Odometer Reading	4812	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	--

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
HC-TOTAL (Total Hydrocarbon)	0.297	--
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.297	--

Manufacturer Test Comments SET A 4K results 3D + HS (3 day using highest of the three values). New Range Rover 4.4L V8 TC.

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Evap	HC-TOTAL	0.297	0	0.297	0.5	Pass
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.297	0	0.297	0.5	Pass

Certification Summary Information Report

Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B									
Test #	NJLX10072640	Test Procedure	38 - CA fuel 3-day evap.									
Exhaust Test # for this Evap Test	NJLX10072638	Test Fuel Type	47 - CARB LEV3 E10 Premium									
Test Date	05/05/2021	Fuel	Gasoline									
Fuel Batch ID	35047	Fuel Calibration Number	6681									
Vehicle Class	N/A	DF Type	Mfr. Determined									
Verify Test Lab ID	Jaguar Land Rover Limited											
E10 Evaporative Test Measurement Method	Actual Total Hydrocarbon Equivalent Measurement (with speciation)											
Test Start Odometer Reading	4864	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	--									
Test Results												
<table border="1"> <thead> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated FE Equivalent Value (miles per gallon)</th> </tr> </thead> <tbody> <tr> <td>HC-TOTAL (Total Hydrocarbon)</td> <td>0.322</td> <td>--</td> </tr> <tr> <td>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</td> <td>0.322</td> <td>--</td> </tr> </tbody> </table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	HC-TOTAL (Total Hydrocarbon)	0.322	--	HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.322	--
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)										
HC-TOTAL (Total Hydrocarbon)	0.322	--										
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.322	--										
Manufacturer Test Comments												
SET B 4K results 3D + HS (3 day using highest of the three values). New Range Rover 4.4L V8 TC.												
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail				
Fed	150,000 miles	Federal Tier 3 Evap	HC-TOTAL	0.322	0	0.322	0.5	Pass				
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.322	0	0.322	0.5	Pass				

Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B						
Test #	NJLX10072654	Test Procedure	37 - California Fuel Running Loss						
Exhaust Test # for this Evap Test	NJLX10072627	Test Fuel Type	47 - CARB LEV3 E10 Premium Gasoline						
Test Date	04/26/2021	Fuel	Gasoline						
Fuel Batch ID	35047	Fuel Calibration Number	6681						
Vehicle Class	N/A	DF Type	Mfr. Determined						
Verify Test Lab ID	Jaguar Land Rover Limited								
E10 Evaporative Test Measurement Method	Actual Total Hydrocarbon Equivalent Measurement (with speciation)								
Test Start Odometer Reading	4812	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	--						
Test Results									
<table><tr><td>Test Result Name</td><td>Unrounded Test Result</td><td>Verify Calculated FE Equivalent Value (miles per gallon)</td></tr><tr><td>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</td><td>0.000508</td><td>--</td></tr></table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.000508	--
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)							
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.000508	--							
Manufacturer Test Comments									
Running loss test for 4k SET A. New Range Rover 4.4L V9 TC.									
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail	
Fed	120,000 miles	Federal Tier 3 Evap	HC-TOTAL-EQUIV	0.001	0	0	0.01	Pass	
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.001	0	0	0.01	Pass	

Certification Summary Information Report

Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B						
Test #	NJLX10072655	Test Procedure	24 - Federal fuel refueling test (ORVR)						
Exhaust Test # for this Evap Test	NJLX10072627	Test Fuel Type	47 - CARB LEV3 E10 Premium Gasoline						
Test Date	05/29/2021	Fuel	Gasoline						
Fuel Batch ID	35047	Fuel Calibration Number	6681						
Vehicle Class	N/A	DF Type	Mfr. Determined						
Verify Test Lab ID	Jaguar Land Rover Limited								
E10 Evaporative Test Measurement Method	Actual Total Hydrocarbon Equivalent Measurement (with speciation)								
Test Start Odometer Reading	4812	Odometer Units	M						
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--						
State of Charge Delta	Yes								
Drive Cycle Speed Tolerance Criteria	--	Road Speed Fan Usage	--						
Test Results									
<table border="1"> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated FE Equivalent Value (miles per gallon)</th> </tr> <tr> <td>HC (Hydrocarbon for Running Loss and ORVR)</td> <td>0.073</td> <td>--</td> </tr> </table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	HC (Hydrocarbon for Running Loss and ORVR)	0.073	--
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)							
HC (Hydrocarbon for Running Loss and ORVR)	0.073	--							
Manufacturer Test Comments									
ORVR TEST FOR 4K SET A. New Range Rover 4.4L V8 TC.									
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail	
Fed	120,000 miles	Federal Tier 3 Evap	HC	0.073	0	0.07	0.2	Pass	
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC	0.073	0	0.07	0.2	Pass	

Certification Summary Information Report

Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B						
Test #	NJLX10072656	Test Procedure	37 - California Fuel Running Loss						
Exhaust Test # for this Evap Test	NJLX10072638	Test Fuel Type	47 - CARB LEV3 E10 Premium Gasoline						
Test Date	05/05/2021	Fuel	Gasoline						
Fuel Batch ID	35047	Fuel Calibration Number	6681						
Vehicle Class	N/A	DF Type	Mfr. Determined						
Verify Test Lab ID	Jaguar Land Rover Limited								
E10 Evaporative Test Measurement Method	Actual Total Hydrocarbon Equivalent Measurement (with speciation)								
Test Start Odometer Reading	4847	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	--						
Test Results									
<table border="1"> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated FE Equivalent Value (miles per gallon)</th> </tr> <tr> <td>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</td> <td>0.000524</td> <td>--</td> </tr> </table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.000524	--
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)							
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.000524	--							
Manufacturer Test Comments									
Running loss test for 4k SET B. New Range Rover 4.4L V9 TC.									
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail	
Fed	120,000 miles	Federal Tier 3 Evap	HC-TOTAL-EQUIV	0.001	0	0	0.01	Pass	
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.001	0	0	0.01	Pass	

Certification Summary Information Report

Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B						
Test #	NJLX10072657	Test Procedure	24 - Federal fuel refueling test (ORVR)						
Exhaust Test # for this Evap Test	NJLX10072638	Test Fuel Type	47 - CARB LEV3 E10 Premium Gasoline						
Test Date	06/04/2021	Fuel	Gasoline						
Fuel Batch ID	35047	Fuel Calibration Number	6681						
Vehicle Class	N/A	DF Type	Mfr. Determined						
Verify Test Lab ID	Jaguar Land Rover Limited								
E10 Evaporative Test Measurement Method	Actual Total Hydrocarbon Equivalent Measurement (with speciation)								
Test Start Odometer Reading	4864	Odometer Units	M						
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--						
State of Charge Delta	Yes								
Drive Cycle Speed Tolerance Criteria	--	Road Speed Fan Usage	--						
Test Results									
<table border="1"> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated FE Equivalent Value (miles per gallon)</th> </tr> <tr> <td>HC (Hydrocarbon for Running Loss and ORVR)</td> <td>0.004</td> <td>--</td> </tr> </table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	HC (Hydrocarbon for Running Loss and ORVR)	0.004	--
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)							
HC (Hydrocarbon for Running Loss and ORVR)	0.004	--							
Manufacturer Test Comments									
ORVR TEST FOR 4K SET B. New Range Rover 4.4L V8 TC.									
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail	
Fed	120,000 miles	Federal Tier 3 Evap	HC	0.004	0	0	0.2	Pass	
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC	0.004	0	0	0.2	Pass	

Certification Summary Information Report

Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B						
Test #	NJLX10073373	Test Procedure	65 - Evap Canister Bleed Test						
Exhaust Test # for this Evap Test	--	Test Fuel Type	47 - CARB LEV3 E10 Premium Gasoline						
Test Date	04/20/2018	Fuel	Gasoline						
Fuel Batch ID	35047	Fuel Calibration Number	6681						
Vehicle Class	N/A	DF Type	Mfr. Determined						
Verify Test Lab ID	Jaguar Land Rover Limited								
E10 Evaporative Test Measurement Method	Actual Total Hydrocarbon Equivalent Measurement (with speciation)								
Test Start Odometer Reading	4812	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	--						
Test Results									
<table border="1"> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated FE Equivalent Value (miles per gallon)</th> </tr> <tr> <td>HC-TOTAL (Total Hydrocarbon)</td> <td>0.0109</td> <td>--</td> </tr> </table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	HC-TOTAL (Total Hydrocarbon)	0.0109	--
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)							
HC-TOTAL (Total Hydrocarbon)	0.0109	--							
Manufacturer Test Comments									
Test attached to original evap EDV to process in EV-CIS, but actual test is rig based and carried out by canister manufacturer.									
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail	
Fed	150,000 miles	Federal Tier 3 Evap	HC-TOTAL	0.0109	0	0.011	0.02	Pass	
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC-TOTAL	0.0109	0	0.011	0.02	Pass	

Certification Summary Information Report

Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B
Fuel Properties			
Fuel Batch ID	242739	Fuel Calibration Number	9764
Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	03/26/2024
Fuel Batch Calibration Effective Date	04/01/2025	Fuel Batch Calibration Ineffective Date	04/01/2030
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 (%)	9.6	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17811
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.826	Weight Fraction CO2	--
Fuel Batch ID	35047	Fuel Calibration Number	6681
Test Fuel Type	47 - CARB LEV3 E10 Premium Gasoline	Fuel Batch Calibration Date	09/25/2020
Fuel Batch Calibration Effective Date	09/25/2020	Fuel Batch Calibration Ineffective Date	09/25/2024
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.738
Fuel Ethanol Volume Percent (%)	9.7	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	18040
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.829	Weight Fraction CO2	--
Fuel Batch ID	63623	Fuel Calibration Number	4091
Test Fuel Type	61 - Tier 2 Cert Gasoline	Fuel Batch Calibration Date	07/22/2024
Fuel Batch Calibration Effective Date	07/22/2024	Fuel Batch Calibration Ineffective Date	04/03/2029
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.732
Fuel Ethanol Volume Percent (%)	--	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	18536
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.871	Weight Fraction CO2	--
Fuel Batch ID	242405	Fuel Calibration Number	9134
Test Fuel Type	46 - CARB LEV3 E10 Regular Gasoline	Fuel Batch Calibration Date	11/06/2024
Fuel Batch Calibration Effective Date	11/06/2024	Fuel Batch Calibration Ineffective Date	11/06/2029
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--

Certification Summary Information Report

Test Group	VJLXT04.4GTH	Evaporative/Refueling Family	VJLXR0175P1B
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.744
Fuel Ethanol Volume Percent (%)	9.5	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17981
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	241255	Fuel Calibration Number	8079
Test Fuel Type	46 - CARB LEV3 E10 Regular Gasoline	Fuel Batch Calibration Date	04/04/2024
Fuel Batch Calibration Effective Date	04/04/2024	Fuel Batch Calibration Ineffective Date	04/04/2029
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.745
Fuel Ethanol Volume Percent (%)	9.6	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	18039
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	--

Certification Summary Information Report

Test Group		VJLXT04.4GTH			Evaporative/Refueling Family			VJLXR0175P1B	
Consolidated List of Standards									
Exhaust Standards									
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Both	
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			California LEV-IV ULEV50	
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	--	--	--	--	--	--	0.74	1.7
150,000 miles	N2O	--	--	--	--	--	--	0.0003	0.010
150,000 miles	NMOG	--	--	1.04	--	--	--	0.0022	99.999
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0.0082	0.050
150,000 miles	NOX	--	--	--	--	--	--	0.006	99.999
150,000 miles	PM	--	--	--	--	--	--	0	0.003
Cert Region		Federal			Cert/In-Use Code			Both	
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 50	
Fuel		Gasoline			Test Procedure			California 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	999.999
120,000 miles	METHANE	--	--	--	--	--	--	0	0.030
120,000 miles	N2O	--	--	--	--	--	--	0	0.010
150,000 miles	CO	--	--	--	--	--	--	0	1.7
150,000 miles	NMOG	--	--	1.1	--	--	--	0	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0	0.050
150,000 miles	NOX	--	--	--	--	--	--	0	999.999
150,000 miles	PM	--	--	--	--	--	--	0	0.003

Certification Summary Information Report

Test Group	VJLXT04.4GTH				Evaporative/Refueling Family			VJLXR0175P1B	
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 ULEV50	
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	99.999
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0	0.050
150,000 miles	NOX	--	--	--	--	--	--	0	99.999

Cert Region	Federal				Cert/In-Use Code			Both	
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)				Standard Level			Federal Tier 3 Bin 50	
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	CREE	--	--	--	--	--	--	0	999.999
150,000 miles	NMOG	--	--	1.03	--	--	--	0	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0	0.050
150,000 miles	NOX	--	--	--	--	--	--	0	999.999

Cert Region	Federal				Cert/In-Use Code			Both	
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)				Standard Level			Federal Tier 3 Bin 50	
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	9.6
150,000 miles	NMOG	--	--	1.03	--	--	--	0	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0	0.120
150,000 miles	NOX	--	--	--	--	--	--	0	999.999
150,000 miles	PM	--	--	--	--	--	--	0	0.006

Certification Summary Information Report

Test Group		VJLXT04.4GTH			Evaporative/Refueling Family			VJLXR0175P1B	
Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 50	
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	3.2
150,000 miles	NMOG	--	--	1.03	--	--	--	0	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0	0.070
150,000 miles	NOX	--	--	--	--	--	--	0	999.999
Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 50	
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
150,000 miles	CO	--	--	--	--	--	--	0	12.5
150,000 miles	HC-NM	--	--	--	--	--	--	0	0.5
Cert Region		Federal			Cert/In-Use Code			Both	
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 50	
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	--	--	--	--	--	--	0.74	1.7
150,000 miles	CREE	--	--	--	--	--	--	0	999.999
150,000 miles	METHANE	--	--	--	--	--	--	0.0009	0.030
150,000 miles	N2O	--	--	--	--	--	--	0.0003	0.010
150,000 miles	NMOG	--	--	1.04	--	--	--	0.0022	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0.0082	0.050
150,000 miles	NOX	--	--	--	--	--	--	0.006	999.999
150,000 miles	PM	--	--	--	--	--	--	0	0.003

Certification Summary Information Report

Test Group	VJLXT04.4GTH				Evaporative/Refueling Family			VJLXR0175P1B	
Cert Region	California + CAA Section 177 states				Cert/In-Use Code			Cert	
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)				Standard Level			California LEV-IV ULEV50	
Fuel	Gasoline				Test Procedure			CA fuel 50 Deg(F) exhaust test	
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	NMOG	--	--	1.1	--	--	--	0	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0	0.10
150,000 miles	NOX	--	--	--	--	--	--	0	999.999

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 ULEV50	
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	9.6
150,000 miles	NMOG	--	--	1.03	--	--	--	0	99.999
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0	0.060
150,000 miles	NOX	--	--	--	--	--	--	0	99.999
150,000 miles	PM	--	--	--	--	--	--	0	0.006

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 ULEV50	
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	1.7
150,000 miles	NMOG	--	--	1.03	--	--	--	0	99.999
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0	0.050
150,000 miles	NOX	--	--	--	--	--	--	0	99.999

Certification Summary Information Report

Test Group	VJLXT04.4GTH			Evaporative/Refueling Family			VJLXR0175P1B		
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 ULEV50		
Fuel	Gasoline			Test Procedure			California 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	1.7
150,000 miles	NMOG	--	--	1.1	--	--	--	0	99.999
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0	0.050
150,000 miles	NOX	--	--	--	--	--	--	0	99.999
150,000 miles	PM	--	--	--	--	--	--	0	0.003

Cert Region	California + CAA Section 177 states			Cert/In-Use Code			Cert		
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			California LEV-IV ULEV50		
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
150,000 miles	CO	--	--	--	--	--	--	0	12.5

Evaporative/Refueling Standards

Evaporative/Refueling Family	VJLXR0175P1B		Cert Region	California + CAA Section 177 states		
Cert/In-Use Code	Both		Standard Level	California LEV-IV Zero Evap (Option 2)		
Test Procedure	Evap Canister Bleed Test					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF	
Gasoline	150,000 miles	HC-TOTAL	--	0.020	0	

Evaporative/Refueling Family		VJLXR0175P1B		Cert Region		Federal	
Cert/In-Use Code		Both		Standard Level		Federal Tier 3 Evap	
Test Procedure		Evap Canister Bleed Test					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL	--	0.020	0		

Certification Summary Information Report

Test Group		VJLXT04.4GTH		Evaporative/Refueling Family		VJLXR0175P1B	
Evaporative/Refueling Family		VJLXR0175P1B		Cert Region		California + CAA Section 177 states	
Cert/In-Use Code		Both		Standard Level		California LEV-IV Zero Evap (Option 2)	
Test Procedure		Federal fuel refueling test (ORVR)					
Fuel		Useful Life		Emission Name		Rounded Result	
Gasoline		150,000 miles		HC		0.20	
Evaporative/Refueling Family		VJLXR0175P1B		Cert Region		Federal	
Cert/In-Use Code		Cert		Standard Level		Federal Tier 3 Evap	
Test Procedure		California Fuel Running Loss					
Fuel		Useful Life		Emission Name		Rounded Result	
Gasoline		120,000 miles		HC-TOTAL-EQUIV		0.01	
Evaporative/Refueling Family		VJLXR0175P1B		Cert Region		Federal	
Cert/In-Use Code		Cert		Standard Level		Federal Tier 3 Evap	
Test Procedure		CA fuel 3-day evap.					
Fuel		Useful Life		Emission Name		Rounded Result	
Gasoline		150,000 miles		HC-TOTAL		0.500	
Evaporative/Refueling Family		VJLXR0175P1B		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	
Gasoline		120,000 miles		HC		0.20	
Evaporative/Refueling Family		VJLXR0175P1B		Cert Region		California + CAA Section 177 states	
Cert/In-Use Code		Cert		Standard Level		California LEV-IV Zero Evap (Option 2)	
Test Procedure		California Fuel Running Loss					
Fuel		Useful Life		Emission Name		Rounded Result	
Gasoline		150,000 miles		HC-TOTAL-EQUIV		0.01	

Certification Summary Information Report

Test Group		VJLXT04.4GTH		Evaporative/Refueling Family		VJLXR0175P1B	
Evaporative/Refueling Family		VJLXR0175P1B		Cert Region		California + CAA Section 177 states	
Cert/In-Use Code		Cert		Standard Level		California LEV-IV Zero Evap (Option 2)	
Test Procedure		CA fuel 3-day evap.					
Fuel		Useful Life		Emission Name		Rounded Result	
Std		Add DF					
Gasoline		150,000 miles		HC-TOTAL-EQUIV		--	
0.500				0			

Certification Summary Information Report

Test Group		VJLXT04.4GTH	Evaporative/Refueling Family		VJLXR0175P1B
Glossary					
Useful Life					
4	4,000 miles		120	120,000 miles	
50	50,000 miles		150	150,000 miles	
100	100,000 miles				
Emission Name					
HC-TOTAL	Total Hydrocarbon		COMB-CREE	Combined Carbon-Related Exhaust Emissions	
CO	Carbon Monoxide		COMB-OPT-CREE	Combined Optional Carbon-Related Exhaust Emissions	
CO2	Carbon dioxide		HC-TOTAL-EQUIV	Total Hydrocarbon equivalent - Evap only	
CREE	Carbon-Related Exhaust Emissions		METHANE-COMB	Combined CH4 for HD 2b/3 vehicles only	
OPT-CREE	Optional Carbon-Related Exhaust Emissions		N2O-COMB	Combined Nitrous Oxide for HD 2b/3 vehicles only	
NOX	Nitrogen Oxide		LEAK-DIA	Effective Leak Diameter (inches)	
PM	Particulate Matter		LEAK-GAS CAP	Gas Cap Leakage (cc/min)	
PM-COMP	SFTP Composite Particulate Matter		CO2-COMB	Combined Carbon Dioxide for HD 2b/3 Vehicles Only	
HC-NM	Non-methane Hydrocarbon		KW-HRS	Integrated DC KW-HRS	
OMHCE	Organic material Hydrocarbon Equivalent		CH4 BAG 1	Bag 1 Methane	
OMNMHCE	Organic material non-methane HC equivalent		CH4 BAG 2	Bag 2 Methane	
NMOG	Non-methane organic gases		CH4 BAG 3	Bag 3 Methane	
HCHO	Formaldehyde		CH4 BAG 4	Bag 4 Methane	
H3C2HO	Acetaldehyde		CO BAG 1	Bag 1 Carbon Monoxide	
HC-NM+NOX	SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03		CO BAG 2	Bag 2 Carbon Monoxide	
HC-NM+NOX-COMP	SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides		CO BAG 3	Bag 3 Carbon Monoxide	
CO-COMP	SFTP Composite Carbon Monoxide		CO BAG 4	Bag 4 Carbon Monoxide	
ETHANOL	C2H5OH - Ethanol		NMOG BAG 1	Bag 1 Non-methane organic gases	
FE BAG 1	Bag 1 Fuel Economy		NMOG BAG 2	Bag 2 Non-methane organic gases	
FE BAG 2	Bag 2 Fuel Economy		NMOG BAG 3	Bag 3 Non-methane organic gases	
FE BAG 3	Bag 3 Fuel Economy		NMOG BAG 4	Bag 4 Non-methane organic gases	
FE BAG 4	Bag 4 Fuel Economy		ACT-DISTANCE BAG 1	Bag 1 Actual Distance	
MFR FE	Manufacturer Fuel Economy		ACT-DISTANCE BAG 2	Bag 2 Actual Distance	
HC	Hydrocarbon for Running Loss and ORVR		ACT-DISTANCE BAG 3	Bag 3 Actual Distance	
METHANE	CH4 - Methane		ACT-DISTANCE BAG 4	Bag 4 Actual Distance	
METHANOL	CH3OH - Methanol		HC-TOTAL BAG 1	Bag 1 Total Hydrocarbon	
N2O	Nitrous Oxide		HC-TOTAL BAG 2	Bag 2 Total Hydrocarbon	
SPITBACK	Spitback Hydrocarbon in grams		HC-TOTAL BAG 3	Bag 3 Total Hydrocarbon	
AMP-HRS	Integrated Amp-hours		HC-TOTAL BAG 4	Bag 4 Total Hydrocarbon	
START-SOC	System Start State of Charge Watt-hours		WATT-HRS BAG 1	Bag 1 Watt Hours	
END-SOC	System End State of Charge Watt-hours		WATT-HRS BAG 2	Bag 2 Watt Hours	

Certification Summary Information Report

Test Group		VJLXT04.4GTH	Evaporative/Refueling Family		VJLXR0175P1B
ACT-DISTANCE	Actual Distance Driven (miles)		WATT-HRS BAG 3	Bag 3 Watt Hours	
AS-VOLT	Average System Voltage		WATT-HRS BAG 4	Bag 4 Watt Hours	
CO2 BAG 1	Bag 1 Carbon Dioxide		WATT-HRS	Watt Hours	
CO2 BAG 2	Bag 2 Carbon Dioxide		HC-NM BAG 1	Bag 1 Non-methane Hydrocarbon	
CO2 BAG 3	Bag 3 Carbon Dioxide		HC-NM BAG 2	Bag 2 Non-methane Hydrocarbon	
CO2 BAG 4	Bag 4 Carbon Dioxide		HC-NM BAG 3	Bag 3 Non-methane Hydrocarbon	
NMOG+NOX	Non-methane organic gases plus Nitrogen Oxides		HC-NM BAG 4	Bag 4 Non-methane Hydrocarbon	
NMOG+NOX-COMP	SFTP Composite Non-methane Organic Gases + Nitrogen Oxides		N2O BAG 1	Bag 1 Nitrous Oxide	
DT-IWRR	Drive Trace Inertia Work Ratio Rating		N2O BAG 2	Bag 2 Nitrous Oxide	
DT-ASCR	Drive Trace Absolute Speed Change Rating		N2O BAG 3	Bag 3 Nitrous Oxide	
DT-EER	Drive Trace Energy Economy Rating		N2O BAG 4	Bag 4 Nitrous Oxide	
Certification Region					
CA	California + CAA Section 177 states		FA	Federal	
Exhaust Emission Standard Level					
B1	Federal Tier 2 Bin 1		HDV2B340	Federal Tier 3 HD Class 2b Transitional Bin 340	
B2	Federal Tier 2 Bin 2		HDV2B250	Federal Tier 3 HD Class 2b Bin 250	
B3	Federal Tier 2 Bin 3		HDV2B200	Federal Tier 3 HD Class 2b Bin 200	
B4	Federal Tier 2 Bin 4		HDV2B170	Federal Tier 3 HD Class 2b Bin 170	
B5	Federal Tier 2 Bin 5		HDV2B150	Federal Tier 3 HD Class 2b Bin 150	
B6	Federal Tier 2 Bin 6		HDV2B0	Federal Tier 3 HD Class 2b Bin 0	
B7	Federal Tier 2 Bin 7		HDV3B630	Federal Tier 3 HD Class 3 Transitional Bin 630	
B8	Federal Tier 2 Bin 8		HDV3B570	Federal Tier 3 HD Class 3 Transitional Bin 570	
B9	Federal Tier 2 Bin 9		HDV3B400	Federal Tier 3 HD Class 3 Bin 400	
B10	Federal Tier 2 Bin 10		HDV3B270	Federal Tier 3 HD Class 3 Bin 270	
B11	Federal Tier 2 Bin 11		HDV3B230	Federal Tier 3 HD Class 3 Bin 230	
HDV1	HDV1 (Federal HD chassis Class 2b GVW 8501-10000)		HDV3B200	Federal Tier 3 HD Class 3 Bin 200	
HDV2	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)		HDV3B0	Federal Tier 3 HD Class 3 Bin 0	
L2	California LEV-II LEV		L4SULEV100	California LEV-IV SULEV100	
L2OP	California LEV-II LEV Optional		L4SULEV125	California LEV-IV SULEV125	
U2	California LEV-II ULEV		L4SULEV15	California LEV-IV SULEV15	
S2	California LEV-II SULEV		L4SULEV150	California LEV-IV SULEV150	
ZEV	California ZEV		L4SULEV170	California LEV-IV SULEV170	
OT	Other		L4SULEV175	California LEV-IV SULEV175	
T1	Federal Tier 1		L4SULEV20	California LEV-IV SULEV20	
PZEV	California PZEV		L4SULEV200	California LEV-IV SULEV200	
L2LEV160	California LEV-II LEV160		L4SULEV230	California LEV-IV SULEV230	
L2ULEV125	California LEV-II ULEV125		L4SULEV25	California LEV-IV SULEV25	
L2SULEV30	California LEV-II SULEV30		L4SULEV30	California LEV-IV SULEV30	
L2LEV395	California LEV-II LEV395		L4SULEV75	California LEV-IV SULEV75	

Certification Summary Information Report

Test Group		VJLXT04.4GTH	Evaporative/Refueling Family		VJLXR0175P1B
L2ULEV340	California LEV-II ULEV340		L4SULEV85	California LEV-IV SULEV85	
L2LEV630	California LEV-II LEV630		L4ULEV125	California LEV-IV ULEV125	
L2ULEV570	California LEV-II ULEV570		L4ULEV200	California LEV-IV ULEV200	
L3LEV160	California LEV-III LEV160		L4ULEV250	California LEV-IV ULEV250	
L3ULEV125	California LEV-III ULEV125		L4ULEV270	California LEV-IV ULEV270	
L3ULEV70	California LEV-III ULEV70		L4ULEV40	California LEV-IV ULEV40	
L3ULEV50	California LEV-III ULEV50		L4ULEV400	California LEV-IV ULEV400	
L3SULEV30	California LEV-III SULEV30		L4ULEV50	California LEV-IV ULEV50	
L3SULEV20	California LEV-III SULEV20		L4ULEV60	California LEV-IV ULEV60	
L3LEV395	California LEV-III LEV395		L4ULEV70	California LEV-IV ULEV70	
L3ULEV340	California LEV-III ULEV340		T4B170	Federal Tier 4 MDV Bin 170	
L3ULEV250	California LEV-III ULEV250		T4B150	Federal Tier 4 MDV Bin 150	
L3ULEV200	California LEV-III ULEV200		T4B125	Federal Tier 4 MDV Bin 125	
L3SULEV170	California LEV-III SULEV170		T4B100	Federal Tier 4 MDV Bin 100	
L3SULEV150	California LEV-III SULEV150		T4B85	Federal Tier 4 MDV Bin 85	
L3LEV630	California LEV-III LEV630		T4B75	Federal Tier 4 MDV Bin 75	
L3ULEV570	California LEV-III ULEV570		T4B70	Federal Tier 4 Bin 70	
L3ULEV400	California LEV-III ULEV400		T4B65	Federal Tier 4 Bin 65	
L3ULEV270	California LEV-III ULEV270		T4B60	Federal Tier 4 Bin 60	
L3SULEV230	California LEV-III SULEV230		T4B55	Federal Tier 4 Bin 55	
L3SULEV200	California LEV-III SULEV200		T4B50	Federal Tier 4 Bin 50	
T3B160	Federal Tier 3 Bin 160		T4B45	Federal Tier 4 Bin 45	
T3B125	Federal Tier 3 Bin 125		T4B40	Federal Tier 4 Bin 40	
T3B110	Federal Tier 3 Transitional Bin 110		T4B35	Federal Tier 4 Bin 35	
T3B85	Federal Tier 3 Transitional Bin 85		T4B30	Federal Tier 4 Bin 30	
T3SULEV30	Federal Tier 3 Transitional LEV-II SULEV30 Carryover		T4B25	Federal Tier 4 Bin 25	
T3B70	Federal Tier 3 Bin 70		T4B20	Federal Tier 4 Bin 20	
T3B50	Federal Tier 3 Bin 50		T4B15	Federal Tier 4 Bin 15	
T3B30	Federal Tier 3 Bin 30		T4B10	Federal Tier 4 Bin 10	
T3B20	Federal Tier 3 Bin 20		T4B5	Federal Tier 4 Bin 5	
T3B0	Federal Tier 3 Bin 0		T4B0	Federal Tier 4 Bin 0	
HDV2B395	Federal Tier 3 HD Class 2b Transitional Bin 395				
Transmission Type Code					
AMS	Automated Manual- Selectable (e.g. Automated Manual with paddles)	M	Manual		
A	Automatic	OT	Other		
AM	Automated Manual	SA	Semi-Automatic		
CVT	Continuously Variable	SCV	Selectable Continuously Variable (e.g. CVT with paddles)		
Drive System Code					
4	4-Wheel Drive	P	Part-time 4-Wheel Drive		

Certification Summary Information Report

Test Group		VJLXT04.4GTH	Evaporative/Refueling Family		VJLXR0175P1B
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	