

## Certification Summary Information Report

<b>Manufacturer</b>	McLaren Automotive Limited	<b>Manufacturer Code</b>	MLN
<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14
<b>Certificate Number</b>	VMLNV04.0M14-001	<b>CARB Executive Order #</b>	--
<b>Certificate Issue Date</b>	03/13/2026	<b>Certificate Revision Date</b>	--
<b>Certificate Effective Date</b>	03/13/2026	<b>Conditional Certificate</b>	No
<b>CSI Revision #</b>	--	<b>CSI Submission/Revision Date</b>	03/02/2026 12:08:41 PM
<b>Model Year</b>	2027		

  

<b>Test Group Information</b>			
<b>CSI Type</b>	Update for Correction	<b>Running Change Reference Number</b>	--
<b>GHG Exempt Status</b>	Not Exempt		
<b>Drive Sources and Fuel(s)</b>			
<b>Drive Source #1:</b>	Combustion Engine		
	<b>Fuel</b>	<b>Basic Fuel Metering System</b>	<b>Lean Burn Strategy Indicator</b>
	Gasoline	Multipoint/sequential fuel injection	No

  

<b>Hybrid Indicator</b>	No		
<b>Multiple Fuel Storage</b>	--	<b>Rechargeable Energy Storage System Indicator</b>	No
<b>Multiple Fuel Combustion</b>	--	<b>Off-board Charge Capable Indicator</b>	--
<b>Fuel Cell Indicator</b>	No	<b>EPA Vehicle Class</b>	LDV
<b>Federal Clean Fuel Vehicle</b>	No	<b>Federal Clean Fuel Vehicle Standard</b>	--
<b>Federal Clean Fuel Vehicle ILEV</b>	No	<b>California Partial Zero Emissions Vehicle Indicator</b>	No
<b>Durability Group Name</b>	VMLNGPGNN003	<b>Durability Group Equivalency Factor</b>	1.0
<b>Reduced Fee Test Group</b>	No	<b>Certification Region Code(s)</b>	FA, CA
<b>Complies with HD GHG 2b/3 regulations?</b>	No		
<b>Introduction into Commerce Date</b>	04/01/2026	<b>CAP2000 Conditional Certificate?</b>	No
<b>Independent Commercial Importer?</b>	No	<b>Alternative Fuel Converter Certificate?</b>	No
<b>SFTP Federal Composite Compliance Identifier</b>	Tier 3	<b>SFTP Tier 2 Composite CO Option</b>	No
<b>SFTP LEV-III Composite Compliance Indicator</b>	No		
<b>OBD Compliance Type</b>	CARB	<b>OBD Demonstration Vehicle Test Group</b>	VMLNV04.0M14
<b>Test Group OBD Compliance Level</b>	Partial - with deficiencies and penalty	<b>Number of Test Group OBD Deficiencies</b>	3
<b>OBD Deficiencies Comments</b>	Full details available in California ARB approval letter E-26-004. Two deficiencies carried over (engine start-stop monitoring and PCV system monitoring), one new deficiency (J1979-2 implementation).		
<b>Mfr Test Group Comments</b>	--		
<b>Mfr Exhaust / Evap Standards Comments</b>	--		

**Certification Summary Information Report**

<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14
<b>Evaporative/Refueling Family Information</b>			
<b>Evaporative Summary Information Type</b>	New	<b>Submission/Correction Date</b>	11/26/2025 09:36:35 AM
<b>Integrated ORVR?</b>	Yes	<b>Fuel(s)</b>	Gasoline
<b>Multiple Fuel Storage</b>	--		
<b>Bladder Fuel Tank?</b>	No		
<b>Fuel Tank Material</b>	Metal	<b>Fuel Tank Material Description</b>	Aluminium
<b>Fill Pipe Seal Type</b>	Mechanical seal		
<b>Air Intake System Vapor Storage Device?</b>	No	<b>Air Intake System Vapor Storage Device Description</b>	N/A
<b>Fuel System Vapor Storage Canister?</b>	Yes	<b>Other Vapor Storage</b>	N/A
<b>Fuel System Vapor Storage Canister(s) Total Working Capacity (grams)</b>	164	<b>Number of Primary Canisters</b>	1
<b>Number of Bleed Canisters</b>	0	<b>Bleed Canister Total Working Capacity (grams)</b>	0
<b>Mfr Evaporative/Refueling Family Comments</b>	Vehicle is fitted with a single carbon canister with three chambers and additional scrubber filter. Total canister volume of 3231 ml, with a rated EPA capacity of 163.8g		
<b>Leak Family Details</b>			
<b>Leak Family Indicator</b>	Yes		
<b>Canister Bleed Test Indicator</b>	Yes	<b>Applicability of Evaporative Canister Bleed Test</b>	50 State
<b>Evaporative Canister Bleed Test Comments</b>	Bleed test performed with fuel system only.		
<b>CARB Fuel Only (Rig) Test Indicator</b>	No	<b>Applicability of CARB Fuel Only (Rig) Test</b>	--
<b>CARB Fuel Only (Rig) Test Comments</b>	--		
<b>Leak Family Name</b>	<b>Applicability of Leak Family Requirements</b>	<b>Leak Family Standard (inches)</b>	<b>Leak Family Description</b>
VMLNR0164M14-L14	50 State	0.02	Leak Family test data waived under CFR & 86.1829-15 Section (e) Part (4).

## Certification Summary Information Report

Test Group		VMLNV04.0M14		Evaporative/Refueling Family		VMLNR0164M14	
<b>Models Covered by this Certificate</b>							
Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	- # of Gears	Trans - Lockup
McLaren Automotive Limited	2 - McLaren	147 - 750S Spider	Federal	2-Wheel Drive, Rear	Automated Manual-Selectable (e.g. Automated Manual with paddles)	7	Yes
McLaren Automotive Limited	2 - McLaren	146 - 750S Coupe	Federal	2-Wheel Drive, Rear	Automated Manual-Selectable (e.g. Automated Manual with paddles)	7	Yes
McLaren Automotive Limited	2 - McLaren	146 - 750S Coupe	California + CAA Section 177 states	2-Wheel Drive, Rear	Automated Manual-Selectable (e.g. Automated Manual with paddles)	7	Yes
McLaren Automotive Limited	2 - McLaren	148 - 750S Coupe Le Mans	Federal	2-Wheel Drive, Rear	Automated Manual	7	Yes
McLaren Automotive Limited	2 - McLaren	147 - 750S Spider	California + CAA Section 177 states	2-Wheel Drive, Rear	Automated Manual-Selectable (e.g. Automated Manual with paddles)	7	Yes
McLaren Automotive Limited	2 - McLaren	148 - 750S Coupe Le Mans	California + CAA Section 177 states	2-Wheel Drive, Rear	Automated Manual	7	Yes
<b>Engine Description</b>							
<b>Hybrid Type</b>	--			<b>Hybrid Description</b>	--		
<b>Engine Type</b>	4-Stroke Spark Ignition			<b>Mfr Engine Description</b>	--		
<b>Engine Block Arrangement</b>	V-shaped engine			<b>Mfr Engine Block Arrangement Description</b>	--		
<b>Camless Valvetrain Indicator</b>	No			<b>Oil Viscosity/Classification</b>	0W40		
<b>Number of Cylinders/Rotors</b>	8			<b>Mechanically Variable Compression Ratio Indicator</b>	N		
<b>After Treatment Device(s) (ATD)</b>							
ATD Number	ATD Type	ATD Precious Metal	Substrate Material	Substrate Construction			
1	Three-way catalyst	Palladium + Rhodium	Metal	Monolith			
2	Three-way catalyst	Palladium + Rhodium	Metal	Monolith			
3	Three-way catalyst	Palladium + Rhodium	Metal	Monolith			
4	Three-way catalyst	Palladium + Rhodium	Metal	Monolith			
<b>Mfr After Treatment Device (ATD) Comments</b>	1 starter and 1 secondary catalyst per bank, total 4.						
<b>Direct Ozone Reduction (DOR) Device</b>	Not Equipped						
<b>Mfr Emission Control Device Comments</b>	--						

### Certification Summary Information Report

<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14							
<b>Engine Configuration Number 1</b>										
<b>Engine Displacement (liters)</b>	4.0	<b>Engine Rated Horsepower</b>	740							
<b>Number of Inlet Valves Per Cylinder</b>	2	<b>Number of Exhaust Valves Per Cylinder</b>	2							
<b>Air Aspiration Method</b>	Turbocharged	<b>Number of Air Aspiration Devices</b>	2							
<b>Air Aspiration Device Configuration</b>	Parallel	<b>Charge Air Cooler Type</b>	Liquid							
<b>Air Aspiration Drive Method(s)</b>	Mechanical									
<b>Cylinder Deactivation</b>	No									
<b>Cylinder Deactivation Description</b>	--									
<b>Variable Valve Timing</b>	Yes									
<b>Variable Valve Timing System Description</b>	Variable Inlet Valve Timing by camshaft rotation offset.									
<b>Variable Valve Lift?</b>	No									
<b>Variable Valve Lift System Description</b>	--									
<b>Number of Knock Sensors</b>	4	<b>Number of Air/Fuel Sensors</b>	4							
<b>Air/Fuel Sensor # 1 Type</b>	Heated oxygen	<b>Air/Fuel Sensor # 1 Description</b>	--							
<b>Air/Fuel Sensor # 2 Type</b>	Heated oxygen	<b>Air/Fuel Sensor # 2 Description</b>	--							
<b>Air/Fuel Sensor # 3 Type</b>	Heated oxygen	<b>Air/Fuel Sensor # 3 Description</b>	--							
<b>Air/Fuel Sensor # 4 Type</b>	Heated oxygen	<b>Air/Fuel Sensor # 4 Description</b>	--							
<b>Mfr Air/Fuel Sensor Comments</b>	--									
<b>Exhaust Gas Recirculation</b>	No	<b>Cooled Exhaust Gas Recirculation</b>	No							
<b>EGR Type</b>	--	<b>Exhaust Gas Recirculation Description if 'Other'</b>	--							
<b>Closed Loop Air Injection System</b>	--									
<b>Air Injection Type</b>	Secondary Air Injection	<b>Air Injection Type if 'Other'</b>	--							
<b>Mfr Engine Configuration Comments</b>	--									
<b>Official Test Numbers</b>										
<b>Test Group Fuel</b>	<b>FTP</b>	<b>US06</b>	<b>SC03</b>	<b>Cold CO</b>	<b>Highway</b>	<b>EPA City Litmus Value</b>	<b>EPA City Litmus Threshold</b>	<b>EPA Highway Litmus Value</b>	<b>EPA Highway Litmus Threshold</b>	<b>CREE Weighting Factor</b>
Gasoline	KMLN10070875	KMLN10070892	KMLN10070886	KMLN10080999	KMLN10070876	17	228.2	24.1	286.1	--
<b>SFTP LEV-III Official Test Numbers</b>										
<b>Test Group Fuel</b>	<b>FTP</b>	<b>US06</b>	<b>SC03</b>							
Gasoline	KMLN10070875	KMLN10070892	KMLN10070886							



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Test Group		VMLNV04.0M14			Evaporative/Refueling Family			VMLNR0164M14
<b>Dynamometer Coefficients:</b>								
		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	52.7	1.2295	0.0129	28.28	0.6617	0.0167	19.5	
Cold CO	58	1.3524	0.0142	26.3	0.6599	0.0181	N/A	
US06	52.7	1.2295	0.0129	28.28	0.6617	0.0167	N/A	
Emission Control Device Comments	--							
Manufacturer Test Vehicle Comments	Config #3 - 765LT Spider - Sport Powertrain Mode							

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<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14
<b>Test #</b>	<b>KMLN10070875</b>	<b>Test Procedure</b>	<b>21 - Federal fuel 2-day exhaust (w/can load)</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
<b>Test Date</b>	01/21/2021	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	HF2603	<b>Fuel Calibration Number</b>	2537
<b>Vehicle Class</b>	LDV/Passenger Car	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Applus IDIADA Group		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	8639	<b>Odometer Units</b>	K
<b>4WD Test Dyno</b>	No	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	--		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
<b>CO2 BAG 1 (Bag 1 Carbon Dioxide)</b>	551.436	--
<b>FE BAG 1 (Bag 1 Fuel Economy)</b>	15.92	15.92
<b>CO2 BAG 2 (Bag 2 Carbon Dioxide)</b>	495.733	--
<b>FE BAG 2 (Bag 2 Fuel Economy)</b>	17.82	17.82
<b>CO2 BAG 3 (Bag 3 Carbon Dioxide)</b>	432.365	--
<b>FE BAG 3 (Bag 3 Fuel Economy)</b>	20.42	20.42
<b>METHANE (CH4 - Methane)</b>	0.008947	--
<b>CO (Carbon Monoxide)</b>	0.439802	--
<b>DT-ASCR (Drive Trace Absolute Speed Change Rating)</b>	1.2	--
<b>DT-EER (Drive Trace Energy Economy Rating)</b>	0.29	--
<b>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</b>	2.03	--
<b>HCHO (Formaldehyde)</b>	0.0006	--
<b>MFR FE (Manufacturer Fuel Economy)</b>	18	18
<b>NOX (Nitrogen Oxide)</b>	0.022474	--
<b>N2O (Nitrous Oxide)</b>	0.0009	--
<b>HC-NM (Non-methane Hydrocarbon)</b>	0.045341	--
<b>NMOG (Non-methane organic gases)</b>	0.049833	--
<b>HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03)</b>	0.067814	--
<b>HC-TOTAL (Total Hydrocarbon)</b>	0.054288	--

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<b>Test Group</b>	VMLNV04.0M14	Evaporative/Refueling Family	VMLNR0164M14
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<b>Test Result Name</b>	<b>Unrounded Test Result</b>	<b>Verify Calculated CREE/OPT-CREE</b>
Carbon-Related Exhaust Emissions	490.755	999

<b>Test Result Name</b>	<b>Unrounded Test Result</b>	<b>Verify Calculated CO2</b>
Carbon dioxide	489.875	--

**Manufacturer Test Comments**

FE in miles per gallon. All emissions results in grams per mile. Config #3: 765LT Sport Powertrain Mode.

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	0.44	--	--	--	0.38	--	0.8	2.1	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	CO-COMP	0.71	--	--	--	0.38	--	0.7	4.2	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	CREE	999	--	--	--	0	--	999	--	--
Fed	150,000 miles	Federal Tier 3 Bin 125	METHANE	0.0089	--	--	--	0.0069	--	0.016	0.030	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	N2O	0.0009	--	--	--	0.0028	--	0.004	0.010	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NMOG	0.0498	--	1.1	--	0.0149	--	0.065	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NMOG+NOX	0.0723	--	--	--	--	--	0.099	0.125	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NMOG+NOX-COMP	0.0742	--	--	--	0	--	0.074	0.090	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NOX	0.0225	--	--	--	0.0115	--	0.034	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV125	CO	0.44	--	--	--	0.38	--	0.8	2.1	Pass
CA	150,000 miles	California LEV-IV ULEV125	METHANE	0.0089	--	--	--	0.0069	--	0.016	0.030	Pass
CA	150,000 miles	California LEV-IV ULEV125	N2O	0.0009	--	--	--	0.0028	--	0.004	0.010	Pass
CA	150,000 miles	California LEV-IV ULEV125	NMOG	0.04983	--	1.1	--	0.0149	--	0.0647	999.9999	Pass
CA	150,000 miles	California LEV-IV ULEV125	NMOG+NOX	0.0723	--	--	--	--	--	0.099	0.125	Pass
CA	150,000 miles	California LEV-IV ULEV125	NOX	0.02247	--	--	--	0.0115	--	0.034	999.9999	Pass

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

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<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14
<b>Test #</b>	<b>KMLN10070876</b>	<b>Test Procedure</b>	<b>3 - HWFE</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
<b>Test Date</b>	01/14/2021	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	HF2603	<b>Fuel Calibration Number</b>	2537
<b>Vehicle Class</b>	LDV/Passenger Car	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Applus IDIADA Group		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	8504	<b>Odometer Units</b>	K
<b>4WD Test Dyno</b>	No	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	--		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

**Test Results**

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
<b>METHANE (CH4 - Methane)</b>	0.004569	--
<b>CO (Carbon Monoxide)</b>	0.048385	--
<b>DT-ASCR (Drive Trace Absolute Speed Change Rating)</b>	2.05	--
<b>DT-EER (Drive Trace Energy Economy Rating)</b>	-0.37	--
<b>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</b>	3.04	--
<b>MFR FE (Manufacturer Fuel Economy)</b>	24.32	24.32
<b>NOX (Nitrogen Oxide)</b>	0.003748	--
<b>HC-NM (Non-methane Hydrocarbon)</b>	0.012079	--
<b>NMOG (Non-methane organic gases)</b>	0.012441	--
<b>HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03)</b>	0.015827	--
<b>HC-TOTAL (Total Hydrocarbon)</b>	0.016648	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
<b>Carbon-Related Exhaust Emissions</b>	363.326	999

Test Result Name	Unrounded Test Result	Verify Calculated CO2
<b>Carbon dioxide</b>	363.2	--

**Manufacturer Test Comments**                      FE in miles per gallon. All emissions results in grams per mile. Config #3: 765LT Sport Powertrain Mode.

## Certification Summary Information Report

Test Group		VMLNV04.0M14				Evaporative/Refueling Family				VMLNR0164M14		
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	CREE	999	--	--	--	0	--	999	--	--
Fed	150,000 miles	Federal Tier 3 Bin 125	NMOG	0.0124	--	1.1	--	0.0149	--	0.027	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NMOG+NOX	0.0161	--	--	--	--	--	0.042	0.125	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NOX	0.0037	--	--	--	0.0115	--	0.015	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV125	NMOG	0.01244	--	1.1	--	0.0149	--	0.0273	999.9999	Pass
CA	150,000 miles	California LEV-IV ULEV125	NMOG+NOX	0.01619	--	--	--	--	--	0.043	0.125	Pass
CA	150,000 miles	California LEV-IV ULEV125	NOX	0.00375	--	--	--	0.0115	--	0.0152	999.9999	Pass

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

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<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14
<b>Test #</b>	<b>KMLN10070892</b>	<b>Test Procedure</b>	<b>90 - US06</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
<b>Test Date</b>	01/14/2021	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	HF2603	<b>Fuel Calibration Number</b>	2537
<b>Vehicle Class</b>	LDV/Passenger Car	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Applus IDIADA Group		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	8538	<b>Odometer Units</b>	K
<b>4WD Test Dyno</b>	No	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	--		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	606.228	--
FE BAG 1 (Bag 1 Fuel Economy)	14.56	14.56
CO2 BAG 2 (Bag 2 Carbon Dioxide)	440.23	--
FE BAG 2 (Bag 2 Fuel Economy)	20.02	20.02
METHANE (CH4 - Methane)	0.017031	--
CO (Carbon Monoxide)	0.405524	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-1.48	--
DT-EER (Drive Trace Energy Economy Rating)	-1.48	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-1.34	--
MFR FE (Manufacturer Fuel Economy)	18.49	18.49
NOX (Nitrogen Oxide)	0.015492	--
HC-NM (Non-methane Hydrocarbon)	0.056032	--
NMOG (Non-methane organic gases)	0.057713	--
HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03)	0.071524	--
HC-TOTAL (Total Hydrocarbon)	0.073063	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	476.861	--

## Manufacturer Test Comments

FE in miles per gallon. All emissions results in grams per mile. Config #3: 765LT Sport Powertrain Mode.

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Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Bin 125	CO	0.40552	--	--	--	0.38	--	0.7855	999.9999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NMOG	0.05771	--	1.1	--	0.0149	--	0.0726	999.9999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NOX	0.01549	--	--	--	0.0115	--	0.027	999.9999	Pass
CA	150,000 miles	California LEV-IV ULEV125	CO	0.41	--	--	--	0.38	--	0.8	9.6	Pass
CA	150,000 miles	California LEV-IV ULEV125	NMOG	0.05771	--	1.1	--	0.0149	--	0.0726	999.9999	Pass
CA	150,000 miles	California LEV-IV ULEV125	NMOG+NOX	0.0732	--	--	--	--	--	0.1	0.125	Pass
CA	150,000 miles	California LEV-IV ULEV125	NOX	0.01549	--	--	--	0.0115	--	0.027	999.9999	Pass

## Certification Summary Information Report

<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14
<b>Test #</b>	<b>KMLN10070886</b>	<b>Test Procedure</b>	<b>95 - SC03</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
<b>Test Date</b>	05/05/2021	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	HF2603	<b>Fuel Calibration Number</b>	2537
<b>Vehicle Class</b>	LDV/Passenger Car	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Applus IDIADA Group		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	8873	<b>Odometer Units</b>	K
<b>4WD Test Dyno</b>	No	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	--		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.003141	--
CO (Carbon Monoxide)	0.162091	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-2.89	--
DT-EER (Drive Trace Energy Economy Rating)	-1.71	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-1.69	--
MFR FE (Manufacturer Fuel Economy)	13.79	13.79
NOX (Nitrogen Oxide)	0.00385	--
HC-NM (Non-methane Hydrocarbon)	0.001676	--
NMOG (Non-methane organic gases)	0.001726	--
HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03)	0.005526	--
HC-TOTAL (Total Hydrocarbon)	0.004816	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	640.547	--

## Manufacturer Test Comments

FE in miles per gallon. All emissions results in grams per mile. Config #3: 765LT Sport Powertrain Mode.

## Certification Summary Information Report

Test Group		VMLNV04.0M14				Evaporative/Refueling Family				VMLNR0164M14		
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	0.16209	--	--	--	0.38	--	0.5421	999.9999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NMOG	0.00173	--	1.1	--	0.0149	--	0.0166	999.9999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NOX	0.00385	--	--	--	0.0115	--	0.0154	999.9999	Pass
CA	150,000 miles	California LEV-IV ULEV125	CO	0.16	--	--	--	0.38	--	0.5	2.1	Pass
CA	150,000 miles	California LEV-IV ULEV125	NMOG	0.00173	--	1.1	--	0.0149	--	0.0166	999.9999	Pass
CA	150,000 miles	California LEV-IV ULEV125	NMOG+NOX	0.00558	--	--	--	--	--	0.032	0.125	Pass
CA	150,000 miles	California LEV-IV ULEV125	NOX	0.00385	--	--	--	0.0115	--	0.0154	999.9999	Pass

### Certification Summary Information Report

<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14						
<b>Emission Data Vehicle Information</b>									
<b>Vehicle ID / Configuration</b>	SBM14AAA8HW990014 / 4	<b>Manufacturer Vehicle Configuration Number</b>	0						
<b>Original Test Group Name</b>	KMLNV04.0M14	<b>Original Evaporative/Refueling Family</b>	KMLNR0164M14						
<b>Original Test Vehicle Model Year</b>	2019								
<b>Vehicle Model</b>									
<b>Represented Test Vehicle Make</b>	McLaren	<b>Represented Test Vehicle Model</b>	765LT Spider						
<b>Leak Family Details</b>									
<b>Leak Family Identifier</b>	--	<b>Leak Family Name</b>	--						
<b>Drive Sources and Fuel System Details</b>									
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">Drive Source and Fuel#</th> <th style="width: 33%;">Drive Source</th> <th style="width: 33%;">Fuel</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">Combustion Engine</td> <td style="text-align: center;">Gasoline</td> </tr> </tbody> </table>				Drive Source and Fuel#	Drive Source	Fuel	1	Combustion Engine	Gasoline
Drive Source and Fuel#	Drive Source	Fuel							
1	Combustion Engine	Gasoline							
<b>Hybrid Indicator</b>	No								
<b>Multiple Fuel Storage</b>	--	<b>Multiple Fuel Combustion</b>	--						
<b>Fuel Cell Indicator</b>	--	<b>Rechargeable Energy Storage System Indicator</b>	--						
<b>Rechargeable Energy Storage System</b>	--	<b>Rechargeable Energy Storage System, if 'Other'</b>	--						
<b>Off-board charge Capable Indicator</b>	--								
<b>Odometer Correction -- Initial</b>	0	<b>Odometer Correction Factor</b>	1						
<b>Odometer Correction Sign</b>	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor								
<b>Odometer Correction Units</b>	Miles								
<b>Engine Code</b>	40JBAK	<b>Rated Horsepower</b>	755						
<b>Displacement (liters)</b>	3.994								
<b>Air Aspiration Method</b>	Turbocharged	<b>Air Aspiration Method, if 'Other'</b>							
<b>Number of Air Aspiration Devices</b>	2	<b>Air Aspiration Device Configuration</b>	Parallel						
<b>Charge Air Cooler Type</b>	Liquid	<b>Drive Mode While Testing</b>	2-Wheel Drive, Rear						
<b>Shift Indicator Light Usage</b>	Not equipped	<b>Aged Emission Components</b>	4,000 (mi)						
<b>Curb Weight (lbs)</b>	3217	<b>Equivalent Test Weight (pounds)</b>	3625						
<b>GVWR (lbs)</b>	3870	<b>N/V Ratio</b>	30.8						
<b>Axle Ratio</b>	3.73								
<b>Transmission Type</b>	Automatic	<b># of Transmission Gears</b>	7						
<b>Transmission Lockup</b>	No	<b>Creeper Gear</b>	No						
<b>Dynamometer Coefficients:</b>									
<b>Target Coefficients</b>			<b>Set Coefficients</b>						
<b>Coefficient Category</b>	<b>A (lbf)</b>	<b>B (lbf/mph)</b>	<b>C (lbf/mph**2)</b>						
<b>City/Highway/Evap</b>	41.81	1.0174	0.0121						
	12.43	0.602	0.0121						
			<b>EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients</b>						
			16.4						
<b>Emission Control Device Comments</b>	--								

### Certification Summary Information Report

Test Group	VMLNV04.0M14	Evaporative/Refueling Family	VMLNR0164M14
<b>Manufacturer Test Vehicle Comments</b>	Config #4 - 765LT Spider PT, 720S Spider Road Load (Evap worse case) - Sport Powertrain Mode		

## Certification Summary Information Report

<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14
<b>Test #</b>	<b>JMLN10080948</b>	<b>Test Procedure</b>	<b>35 - California fuel 3-day exhaust</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	47 - CARB LEV3 E10 Premium Gasoline
<b>Test Date</b>	11/22/2022	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	44869	<b>Fuel Calibration Number</b>	2455
<b>Vehicle Class</b>	LDV/Passenger Car	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Applus IDIADA Group		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	10571	<b>Odometer Units</b>	K
<b>4WD Test Dyno</b>	No	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	569.313	--
FE BAG 1 (Bag 1 Fuel Economy)	15.18	15.18
CO2 BAG 2 (Bag 2 Carbon Dioxide)	488.607	--
FE BAG 2 (Bag 2 Fuel Economy)	17.84	17.84
CO2 BAG 3 (Bag 3 Carbon Dioxide)	423.012	--
FE BAG 3 (Bag 3 Fuel Economy)	20.59	20.59
METHANE (CH4 - Methane)	0.010052	--
CO (Carbon Monoxide)	0.585456	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.59	--
DT-EER (Drive Trace Energy Economy Rating)	0.22	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.97	--
MFR FE (Manufacturer Fuel Economy)	17.85	17.85
NOX (Nitrogen Oxide)	0.024299	--
HC-NM (Non-methane Hydrocarbon)	0.041907	--
NMOG (Non-methane organic gases)	0.046014	--
HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03)	0.066206	--
HC-TOTAL (Total Hydrocarbon)	0.051959	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	488.378	999

### Certification Summary Information Report

<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14
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<b>Test Result Name</b>	<b>Unrounded Test Result</b>	<b>Verify Calculated CO2</b>
Carbon dioxide	487.29	--

**Manufacturer Test Comments**                      FE in miles per gallon. All emissions results in grams per mile. Config #0: Sport Powertrain Mode. FTP75 Evaporative ORVR.

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	0.59	--	--	--	0.38	--	1	2.1	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	CREE	999	--	--	--	0	--	999	--	--
Fed	150,000 miles	Federal Tier 3 Bin 125	METHANE	0.0101	--	--	--	0.0069	--	0.017	0.030	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NMOG	0.046	--	1.1	--	0.0149	--	0.061	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NMOG+NOX	0.0703	--	--	--	--	--	0.097	0.125	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	NOX	0.0243	--	--	--	0.0115	--	0.036	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV125	CO	0.59	--	--	--	0.38	--	1	2.1	Pass
CA	150,000 miles	California LEV-IV ULEV125	CREE	999	--	--	--	0	--	999	--	--
CA	150,000 miles	California LEV-IV ULEV125	METHANE	0.0101	--	--	--	0.0069	--	0.017	0.030	Pass
CA	150,000 miles	California LEV-IV ULEV125	NMOG	0.046	--	1.1	--	0.0149	--	0.061	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV125	NMOG+NOX	0.0703	--	--	--	--	--	0.097	0.125	Pass
CA	150,000 miles	California LEV-IV ULEV125	NOX	0.0243	--	--	--	0.0115	--	0.036	999.999	Pass

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

## Certification Summary Information Report

<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14
<b>Test #</b>	<b>KMLN10070960</b>	<b>Test Procedure</b>	<b>35 - California fuel 3-day exhaust</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	47 - CARB LEV3 E10 Premium Gasoline
<b>Test Date</b>	07/27/2021	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	IJ2303	<b>Fuel Calibration Number</b>	849
<b>Vehicle Class</b>	LDV/Passenger Car	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Applus IDIADA Group		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	9322	<b>Odometer Units</b>	K
<b>4WD Test Dyno</b>	No	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	540.674	--
FE BAG 1 (Bag 1 Fuel Economy)	16.02	16.02
CO2 BAG 2 (Bag 2 Carbon Dioxide)	478.535	--
FE BAG 2 (Bag 2 Fuel Economy)	18.23	18.23
CO2 BAG 3 (Bag 3 Carbon Dioxide)	415.921	--
FE BAG 3 (Bag 3 Fuel Economy)	20.96	20.96
METHANE (CH4 - Methane)	0.01223	--
CO (Carbon Monoxide)	0.477124	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-2.96	--
DT-EER (Drive Trace Energy Economy Rating)	-1.75	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-3.39	--
MFR FE (Manufacturer Fuel Economy)	18.36	18.36
NOX (Nitrogen Oxide)	0.0177	--
HC-NM (Non-methane Hydrocarbon)	0.031095	--
NMOG (Non-methane organic gases)	0.034153	--
HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03)	0.048795	--
HC-TOTAL (Total Hydrocarbon)	0.043325	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	475.082	999

## Certification Summary Information Report

Test Group		VMLNV04.0M14			Evaporative/Refueling Family				VMLNR0164M14									
		<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>474.236</td> <td>--</td> </tr> </tbody> </table>			Test Result Name	Unrounded Test Result	Verify Calculated CO2	Carbon dioxide	474.236	--								
Test Result Name	Unrounded Test Result	Verify Calculated CO2																
Carbon dioxide	474.236	--																
<b>Manufacturer Test Comments</b>		FE in miles per gallon. All emissions results in grams per mile. Config #4: Sport Powertrain Mode. FTP75 Evaporative 3DD.																
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	0.48	--	--	--	0.38	--	0.9	2.1	Pass						
Fed	150,000 miles	Federal Tier 3 Bin 125	CREE	999	--	--	--	0	--	999	--	--						
Fed	150,000 miles	Federal Tier 3 Bin 125	METHANE	0.0122	--	--	--	0.0069	--	0.019	0.030	Pass						
Fed	150,000 miles	Federal Tier 3 Bin 125	NMOG	0.0342	--	1.1	--	0.0149	--	0.049	999.999	Pass						
Fed	150,000 miles	Federal Tier 3 Bin 125	NMOG+NOX	0.0519	--	--	--	--	--	0.078	0.125	Pass						
Fed	150,000 miles	Federal Tier 3 Bin 125	NOX	0.0177	--	--	--	0.0115	--	0.029	999.999	Pass						
CA	150,000 miles	California LEV-IV ULEV125	CO	0.48	--	--	--	0.38	--	0.9	2.1	Pass						
CA	150,000 miles	California LEV-IV ULEV125	CREE	999	--	--	--	0	--	999	--	--						
CA	150,000 miles	California LEV-IV ULEV125	METHANE	0.0122	--	--	--	0.0069	--	0.019	0.030	Pass						
CA	150,000 miles	California LEV-IV ULEV125	NMOG	0.0342	--	1.1	--	0.0149	--	0.049	999.999	Pass						
CA	150,000 miles	California LEV-IV ULEV125	NMOG+NOX	0.0519	--	--	--	--	--	0.078	0.125	Pass						
CA	150,000 miles	California LEV-IV ULEV125	NOX	0.0177	--	--	--	0.0115	--	0.029	999.999	Pass						
<b>NOTE: For Non-charge depleting tests, the Rounded Result for CREE/OPT-CREE Emission names are Verify-calculated values.</b>																		

## Certification Summary Information Report

<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14
<b>Test #</b>	<b>KMLN10080951</b>	<b>Test Procedure</b>	<b>25 - California fuel 2-day exhaust (w/can load)</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	47 - CARB LEV3 E10 Premium Gasoline
<b>Test Date</b>	06/03/2022	<b>Fuel</b>	N/A
<b>Fuel Batch ID</b>	44869	<b>Fuel Calibration Number</b>	2455
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Applus IDIADA Group		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	10055	<b>Odometer Units</b>	K
<b>4WD Test Dyno</b>	No	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	0	--
FE BAG 1 (Bag 1 Fuel Economy)	0	0
CO2 BAG 2 (Bag 2 Carbon Dioxide)	0	--
FE BAG 2 (Bag 2 Fuel Economy)	0	0
CO2 BAG 3 (Bag 3 Carbon Dioxide)	0	--
FE BAG 3 (Bag 3 Fuel Economy)	0	0
METHANE (CH4 - Methane)	0	--
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0	--
DT-EER (Drive Trace Energy Economy Rating)	0	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0	--
MFR FE (Manufacturer Fuel Economy)	0	0
NOX (Nitrogen Oxide)	0	--
HC-NM (Non-methane Hydrocarbon)	0	--
NMOG (Non-methane organic gases)	0	--
HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03)	0	--
HC-TOTAL (Total Hydrocarbon)	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	999

### Certification Summary Information Report

<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14
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Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	0	--

**Manufacturer Test Comments**      Emissions not sampled. Config #4: Sport Powertrain Mode. FTP75 Evaporative 2DD.

<b>Test #</b>	<b>KMLN10070962</b>	<b>Test Procedure</b>	<b>38 - CA fuel 3-day evap.</b>
<b>Exhaust Test # for this Evap Test</b>	KMLN10070960	<b>Test Fuel Type</b>	47 - CARB LEV3 E10 Premium Gasoline
<b>Test Date</b>	07/27/2021	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	IJ2303	<b>Fuel Calibration Number</b>	849
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Applus IDIADA Group		
<b>E10 Evaporative Test Measurement Method</b>	Calculated (1.08 x FID Total Hydrocarbons)		
<b>Test Start Odometer Reading</b>	9322	<b>Odometer Units</b>	K
<b>4WD Test Dyno</b>	No	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

**Test Results**

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
<b>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</b>	0.257	--

**Manufacturer Test Comments**      3-day diurnal emission result in grams.

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	0.257	0.0021	0.259	0.275	Pass
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.257	0.0021	0.259	0.275	Pass

### Certification Summary Information Report

<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14
<b>Test #</b>	<b>KMLN10080952</b>	<b>Test Procedure</b>	<b>27 - California fuel 2-day evap</b>
<b>Exhaust Test # for this Evap Test</b>	KMLN10080951	<b>Test Fuel Type</b>	47 - CARB LEV3 E10 Premium Gasoline
<b>Test Date</b>	06/03/2022	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	44869	<b>Fuel Calibration Number</b>	2455
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Applus IDIADA Group		
<b>E10 Evaporative Test Measurement Method</b>	Calculated (1.08 x FID Total Hydrocarbons)		
<b>Test Start Odometer Reading</b>	10066	<b>Odometer Units</b>	K
<b>4WD Test Dyno</b>	No	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes	<b>Road Speed Fan Usage</b>	Yes
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)		

**Test Results**

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
<b>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</b>	0.235	--

**Manufacturer Test Comments**                      2-day diurnal emission result in grams.

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	0.235	0	0.235	0.275	Pass
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.235	0	0.235	0.275	Pass

### Certification Summary Information Report

<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14
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<b>Test #</b>	<b>KMLN10070963</b>	<b>Test Procedure</b>	<b>37 - California Fuel Running Loss</b>
<b>Exhaust Test # for this Evap Test</b>	KMLN10070960	<b>Test Fuel Type</b>	47 - CARB LEV3 E10 Premium Gasoline
<b>Test Date</b>	07/27/2021	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	IJ2303	<b>Fuel Calibration Number</b>	849
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Applus IDIADA Group		
<b>E10 Evaporative Test Measurement Method</b>	Calculated (1.08 x FID Total Hydrocarbons)		
<b>Test Start Odometer Reading</b>	9322	<b>Odometer Units</b>	K
<b>4WD Test Dyno</b>	No	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

**Test Results**

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
<b>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</b>	0.0001	--

**Manufacturer Test Comments**                      Emission result in grams per mile.

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

<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14
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<b>Test #</b>	<b>KMLN10080949</b>	<b>Test Procedure</b>	<b>24 - Federal fuel refueling test (ORVR)</b>
<b>Exhaust Test # for this Evap Test</b>	JMLN10080948	<b>Test Fuel Type</b>	47 - CARB LEV3 E10 Premium Gasoline
<b>Test Date</b>	11/22/2022	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	44869	<b>Fuel Calibration Number</b>	2455
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Applus IDIADA Group		
<b>E10 Evaporative Test Measurement Method</b>	Calculated (1.08 x FID Total Hydrocarbons)		
<b>Test Start Odometer Reading</b>	10501	<b>Odometer Units</b>	K
<b>4WD Test Dyno</b>	No	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes	<b>Road Speed Fan Usage</b>	Yes
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)		

**Test Results**

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
<b>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</b>	0.03	--

**Manufacturer Test Comments**                      ORVR Refuelling emissions result in g/dispensed gal

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	0.03	0.006	0	0.2	Pass
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.03	0.006	0	0.2	Pass

## Certification Summary Information Report

Test Group	VMLNV04.0M14	Evaporative/Refueling Family	VMLNR0164M14						
<b>Emission Data Vehicle Information</b>									
Vehicle ID / Configuration	SBM14AAA8HW990014 / 5	Manufacturer Vehicle Configuration Number	0						
Original Test Group Name	KMLNV04.0M14	Original Evaporative/Refueling Family	KMLNR0164M14						
Original Test Vehicle Model Year	2019								
<b>Vehicle Model</b>									
Represented Test Vehicle Make	McLaren	Represented Test Vehicle Model	750S Spider						
<b>Leak Family Details</b>									
Leak Family Identifier	--	Leak Family Name	--						
<b>Drive Sources and Fuel System Details</b>									
	<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> </tbody> </table>			Drive Source and Fuel#	Drive Source	Fuel	1	Combustion Engine	Gasoline
Drive Source and Fuel#	Drive Source	Fuel							
1	Combustion Engine	Gasoline							
Hybrid Indicator	No								
Multiple Fuel Storage	--	Multiple Fuel Combustion	--						
Fuel Cell Indicator	--	Rechargeable Energy Storage System Indicator	--						
Rechargeable Energy Storage System	--	Rechargeable Energy Storage System, if 'Other'	--						
Off-board charge Capable Indicator	--								
Odometer Correction -- Initial	4448	Odometer Correction Factor	1						
Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor								
Odometer Correction Units	Kilometers								
Engine Code	40JBAK	Rated Horsepower	740						
Displacement (liters)	3.994								
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	2-Wheel Drive, Rear						
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)						
Curb Weight (lbs)	3170	Equivalent Test Weight (pounds)	3500						
GVWR (lbs)	3813	N/V Ratio	30.8						
Axle Ratio	3.73								
Transmission Type	Automatic	# of Transmission Gears	7						
Transmission Lockup	No	Creeper Gear	No						

## Certification Summary Information Report

Test Group		VMLNV04.0M14			Evaporative/Refueling Family			VMLNR0164M14
<b>Dynamometer Coefficients:</b>								
		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	42.71	0.8177	0.0171	17.42	0.3589	0.0188	16.8	
Cold CO	46.99	0.8994	0.0188	13.02	0.2174	0.0225	N/A	
US06	42.71	0.8177	0.0171	17.42	0.3589	0.0188	N/A	
Emission Control Device Comments	--							
Manufacturer Test Vehicle Comments	Config #5 - 750S Spider - Sport Powertrain Mode							

### Certification Summary Information Report

<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14
<b>Test #</b>	<b>KMLN10080999</b>	<b>Test Procedure</b>	<b>11 - Cold CO</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	29 - Cold CO E10 Premium Gasoline (Tier 3)
<b>Test Date</b>	06/01/2023	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	41064	<b>Fuel Calibration Number</b>	2940
<b>Vehicle Class</b>	LDV/Passenger Car	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Applus IDIADA Group		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	11751	<b>Odometer Units</b>	K
<b>4WD Test Dyno</b>	No	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	--		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

**Test Results**

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
<b>CO2 BAG 1 (Bag 1 Carbon Dioxide)</b>	656.323	--
<b>FE BAG 1 (Bag 1 Fuel Economy)</b>	12.99	12.99
<b>CO2 BAG 2 (Bag 2 Carbon Dioxide)</b>	607.575	--
<b>FE BAG 2 (Bag 2 Fuel Economy)</b>	14.29	14.29
<b>CO2 BAG 3 (Bag 3 Carbon Dioxide)</b>	463.378	--
<b>FE BAG 3 (Bag 3 Fuel Economy)</b>	18.73	18.73
<b>METHANE (CH4 - Methane)</b>	0.029485	--
<b>CO (Carbon Monoxide)</b>	0.940339	--
<b>DT-ASCR (Drive Trace Absolute Speed Change Rating)</b>	-9.1	--
<b>DT-EER (Drive Trace Energy Economy Rating)</b>	-4.76	--
<b>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</b>	-13.29	--
<b>MFR FE (Manufacturer Fuel Economy)</b>	14.96	14.96
<b>NOX (Nitrogen Oxide)</b>	0.048946	--
<b>HC-NM (Non-methane Hydrocarbon)</b>	0.331065	--
<b>NMOG (Non-methane organic gases)</b>	0.364545	--
<b>HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03)</b>	0.380011	--
<b>HC-TOTAL (Total Hydrocarbon)</b>	0.360549	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
<b>Carbon dioxide</b>	577.891	--

## Certification Summary Information Report

Test Group		VMLNV04.0M14			Evaporative/Refueling Family				VMLNR0164M14			
<b>Manufacturer Test Comments</b>		FE in miles per gallon. All emissions results in grams per mile. Config #5: 750S Spider Sport Powertrain Mode.										
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	0.94	--	--	--	0.38	--	1.3	10.0	Pass
Fed	150,000 miles	Federal Tier 3 Bin 125	HC-NM	0.33	--	--	--	0.0149	--	0.3	0.3	Pass
CA	150,000 miles	California LEV-IV ULEV125	CO	0.94	--	--	--	0.38	--	1.3	10.0	Pass

### Certification Summary Information Report

<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14
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**Emission Data Vehicle Information**

<b>Vehicle ID / Configuration</b>	SBM14DCA3MW005868 / 0	<b>Manufacturer Vehicle Configuration Number</b>	0
<b>Original Test Group Name</b>	NMLNV04.0M14	<b>Original Evaporative/Refueling Family</b>	NMLNR0164M14
<b>Original Test Vehicle Model Year</b>	2022		
<b>Vehicle Model</b>			
<b>Represented Test Vehicle Make</b>	McLaren	<b>Represented Test Vehicle Model</b>	720S Spider

**Leak Family Details**

<b>Leak Family Identifier</b>	--	<b>Leak Family Name</b>	--
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**Drive Sources and Fuel System Details**

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

<b>Hybrid Indicator</b>	No	<b>Multiple Fuel Combustion</b>	--
<b>Multiple Fuel Storage</b>	--	<b>Rechargeable Energy Storage System Indicator</b>	--
<b>Fuel Cell Indicator</b>	--	<b>Rechargeable Energy Storage System, if 'Other'</b>	--
<b>Rechargeable Energy Storage System</b>	--		
<b>Off-board charge Capable Indicator</b>	--		
<b>Odometer Correction -- Initial</b>	0	<b>Odometer Correction Factor</b>	1
<b>Odometer Correction Sign</b>	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor		
<b>Odometer Correction Units</b>	Miles		
<b>Engine Code</b>	40JBAG	<b>Rated Horsepower</b>	710
<b>Displacement (liters)</b>	3.994		
<b>Air Aspiration Method</b>	Turbocharged	<b>Air Aspiration Method, if 'Other'</b>	
<b>Number of Air Aspiration Devices</b>	2	<b>Air Aspiration Device Configuration</b>	Parallel
<b>Charge Air Cooler Type</b>	Liquid	<b>Drive Mode While Testing</b>	2-Wheel Drive, Rear
<b>Shift Indicator Light Usage</b>	Not equipped	<b>Aged Emission Components</b>	4,000 (mi)
<b>Curb Weight (lbs)</b>	3217	<b>Equivalent Test Weight (pounds)</b>	3625
<b>GVWR (lbs)</b>	3870	<b>N/V Ratio</b>	28.9
<b>Axle Ratio</b>	3.31		
<b>Transmission Type</b>	Automatic	<b># of Transmission Gears</b>	7
<b>Transmission Lockup</b>	No	<b>Creeper Gear</b>	No

**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)	
<b>City/Highway/Evap</b>	47.53	0.8238	0.0151	21.4	0.4729	0.0152	16.9

**Emission Control Device Comments**      --

### Certification Summary Information Report

<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14
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**Manufacturer Test Vehicle Comments**      Config #0 - 720S Spider - Sport Powertrain Mode

<b>Test #</b>	NMLN10070954	<b>Test Procedure</b>	<b>65 - Evap Canister Bleed Test</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	47 - CARB LEV3 E10 Premium Gasoline
<b>Test Date</b>	06/30/2021	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	IJ2303	<b>Fuel Calibration Number</b>	849
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Applus IDIADA Group		
<b>E10 Evaporative Test Measurement Method</b>	Calculated (1.08 x FID Total Hydrocarbons)		
<b>Test Start Odometer Reading</b>	0	<b>Odometer Units</b>	K
<b>4WD Test Dyno</b>	No	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	--		
<b>Drive Cycle Speed Tolerance Criteria</b>	--	<b>Road Speed Fan Usage</b>	--

**Test Results**

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value
<b>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</b>	0.0077	--

**Manufacturer Test Comments**      Rig test performed. Result in g.

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	0.008	0	0.01	0.02	Pass
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.008	0	0.01	0.02	Pass

## Certification Summary Information Report

Test Group	VMLNV04.0M14	Evaporative/Refueling Family	VMLNR0164M14						
<b>Emission Data Vehicle Information</b>									
Vehicle ID / Configuration	SBM14FCA9JW990104 / 0	Manufacturer Vehicle Configuration Number	0						
Original Test Group Name	MMLNV04.0M14	Original Evaporative/Refueling Family	MMLNR0164M14						
Original Test Vehicle Model Year	2021								
<b>Vehicle Model</b>									
Represented Test Vehicle Make	McLaren	Represented Test Vehicle Model	765LT Coupe						
<b>Leak Family Details</b>									
Leak Family Identifier	--	Leak Family Name	--						
<b>Drive Sources and Fuel System Details</b>									
	<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> </tbody> </table>			Drive Source and Fuel#	Drive Source	Fuel	1	Combustion Engine	Gasoline
Drive Source and Fuel#	Drive Source	Fuel							
1	Combustion Engine	Gasoline							
Hybrid Indicator	No								
Multiple Fuel Storage	--	Multiple Fuel Combustion	--						
Fuel Cell Indicator	--	Rechargeable Energy Storage System Indicator	--						
Rechargeable Energy Storage System	--	Rechargeable Energy Storage System, if 'Other'	--						
Off-board charge Capable Indicator	--								
Odometer Correction -- Initial	17854	Odometer Correction Factor	1						
Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor								
Odometer Correction Units	Kilometers								
Engine Code	40JBAR	Rated Horsepower	755						
Displacement (liters)	3.994								
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	2-Wheel Drive, Rear						
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)						
Curb Weight (lbs)	2952	Equivalent Test Weight (pounds)	3500						
GVWR (lbs)	3459	N/V Ratio	30.8						
Axle Ratio	3.73								
Transmission Type	Automated Manual	# of Transmission Gears	7						
Transmission Lockup	No	Creeper Gear	No						

### Certification Summary Information Report

<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14
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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)	
<b>City/Highway/Evap</b>	52.7	1.2295	0.0129	26.19	0.5141	0.0179	19.5
<b>Cold CO</b>	58	1.3524	0.0142	23.6	0.6006	0.0186	N/A
<b>US06</b>	52.7	1.2295	0.0129	26.19	0.5141	0.0179	N/A

**Emission Control Device Comments**

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**Manufacturer Test Vehicle Comments**

Config #1 - Sport Powertrain Mode

## Certification Summary Information Report

<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14
<b>Test #</b>	<b>MMLN10066302</b>	<b>Test Procedure</b>	<b>51 - CA fuel 50 Deg(F) exhaust test</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	47 - CARB LEV3 E10 Premium Gasoline
<b>Test Date</b>	08/06/2020	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	HE1303	<b>Fuel Calibration Number</b>	3367
<b>Vehicle Class</b>	LDV/Passenger Car	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Applus IDIADA Group		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	21663	<b>Odometer Units</b>	K
<b>4WD Test Dyno</b>	No	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	--		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	604.024	--
FE BAG 1 (Bag 1 Fuel Economy)	14.24	14.24
CO2 BAG 2 (Bag 2 Carbon Dioxide)	525.289	--
FE BAG 2 (Bag 2 Fuel Economy)	16.59	16.59
CO2 BAG 3 (Bag 3 Carbon Dioxide)	443.022	--
FE BAG 3 (Bag 3 Fuel Economy)	19.66	19.66
METHANE (CH4 - Methane)	0.017282	--
CO (Carbon Monoxide)	0.910399	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.26	--
DT-EER (Drive Trace Energy Economy Rating)	-0.02	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.73	--
HCHO (Formaldehyde)	0.0012	--
MFR FE (Manufacturer Fuel Economy)	16.73	16.73
NOX (Nitrogen Oxide)	0.026702	--
HC-NM (Non-methane Hydrocarbon)	0.09211	--
NMOG (Non-methane organic gases)	0.101432	--
HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03)	0.118812	--
HC-TOTAL (Total Hydrocarbon)	0.109392	--

## Certification Summary Information Report

Test Group		VMLNV04.0M14			Evaporative/Refueling Family				VMLNR0164M14			
		Test Result Name		Unrounded Test Result			Verify Calculated CO2					
		Carbon dioxide		518.974			--					
<b>Manufacturer Test Comments</b>		FE in miles per gallon. All emissions results in grams per mile. Config #1: Sport Powertrain Mode.										
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	0.91	--	--	--	0	--	0.9	2.1	Pass
CA	4,000 miles	California LEV-IV ULEV125	HCHO	0.0012	--	--	--	0	--	0.001	0.016	Pass
CA	4,000 miles	California LEV-IV ULEV125	NMOG	0.10143	--	1.1	--	0	--	0.1014	999.9999	Pass
CA	4,000 miles	California LEV-IV ULEV125	NMOG+NOX	0.12813	--	--	--	--	--	0.128	0.250	Pass
CA	4,000 miles	California LEV-IV ULEV125	NOX	0.0267	--	--	--	0	--	0.0267	999.9999	Pass

## Certification Summary Information Report

Test Group	VMLNV04.0M14	Evaporative/Refueling Family	VMLNR0164M14
<b>Fuel Properties</b>			
<b>Fuel Batch ID</b>	<b>IJ2303</b>	<b>Fuel Calibration Number</b>	<b>849</b>
<b>Test Fuel Type</b>	47 - CARB LEV3 E10 Premium Gasoline	<b>Fuel Batch Calibration Date</b>	10/21/2020
<b>Fuel Batch Calibration Effective Date</b>	11/23/2020	<b>Fuel Batch Calibration Ineffective Date</b>	--
<b>Carbon Weight Fraction NMHC</b>	--	<b>Carbon Weight Fraction HC</b>	--
<b>Exhaust Carbon Weight Fraction</b>	--	<b>Fuel Methanol Volume Fraction</b>	--
<b>Fuel Density (grams/cubic ft)</b>	--	<b>Fuel Specific Gravity</b>	0.748
<b>Fuel Ethanol Volume Percent (%)</b>	9.6	<b>Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)</b>	17810
<b>Fuel Net Heat of Combustion (E10) (MJ/kg)</b>	--	<b>Fuel Carbon Mass Fraction (E10)</b>	--
<b>Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)</b>	0.836	<b>Weight Fraction CO2</b>	--
<b>Fuel Batch ID</b>	<b>HF2603</b>	<b>Fuel Calibration Number</b>	<b>2537</b>
<b>Test Fuel Type</b>	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	<b>Fuel Batch Calibration Date</b>	07/18/2019
<b>Fuel Batch Calibration Effective Date</b>	09/24/2019	<b>Fuel Batch Calibration Ineffective Date</b>	--
<b>Carbon Weight Fraction NMHC</b>	--	<b>Carbon Weight Fraction HC</b>	--
<b>Exhaust Carbon Weight Fraction</b>	--	<b>Fuel Methanol Volume Fraction</b>	--
<b>Fuel Density (grams/cubic ft)</b>	--	<b>Fuel Specific Gravity</b>	0.753
<b>Fuel Ethanol Volume Percent (%)</b>	9.7	<b>Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)</b>	17308
<b>Fuel Net Heat of Combustion (E10) (MJ/kg)</b>	--	<b>Fuel Carbon Mass Fraction (E10)</b>	--
<b>Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)</b>	0.823	<b>Weight Fraction CO2</b>	--
<b>Fuel Batch ID</b>	<b>HE1303</b>	<b>Fuel Calibration Number</b>	<b>3367</b>
<b>Test Fuel Type</b>	47 - CARB LEV3 E10 Premium Gasoline	<b>Fuel Batch Calibration Date</b>	05/13/2019
<b>Fuel Batch Calibration Effective Date</b>	10/01/2019	<b>Fuel Batch Calibration Ineffective Date</b>	--
<b>Carbon Weight Fraction NMHC</b>	--	<b>Carbon Weight Fraction HC</b>	--
<b>Exhaust Carbon Weight Fraction</b>	--	<b>Fuel Methanol Volume Fraction</b>	--
<b>Fuel Density (grams/cubic ft)</b>	--	<b>Fuel Specific Gravity</b>	0.748
<b>Fuel Ethanol Volume Percent (%)</b>	10	<b>Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)</b>	17788
<b>Fuel Net Heat of Combustion (E10) (MJ/kg)</b>	--	<b>Fuel Carbon Mass Fraction (E10)</b>	--
<b>Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)</b>	0.827	<b>Weight Fraction CO2</b>	--
<b>Fuel Batch ID</b>	<b>41064</b>	<b>Fuel Calibration Number</b>	<b>2940</b>
<b>Test Fuel Type</b>	29 - Cold CO E10 Premium Gasoline (Tier 3)	<b>Fuel Batch Calibration Date</b>	05/11/2021
<b>Fuel Batch Calibration Effective Date</b>	05/18/2021	<b>Fuel Batch Calibration Ineffective Date</b>	--
<b>Carbon Weight Fraction NMHC</b>	--	<b>Carbon Weight Fraction HC</b>	--
<b>Exhaust Carbon Weight Fraction</b>	--	<b>Fuel Methanol Volume Fraction</b>	--

## Certification Summary Information Report

Test Group	VMLNV04.0M14	Evaporative/Refueling Family	VMLNR0164M14
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.745
Fuel Ethanol Volume Percent (%)	10	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17803
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.834	Weight Fraction CO2	--
<b>Fuel Batch ID</b>	<b>44869</b>	<b>Fuel Calibration Number</b>	<b>2455</b>
Test Fuel Type	47 - CARB LEV3 E10 Premium Gasoline	Fuel Batch Calibration Date	08/31/2021
Fuel Batch Calibration Effective Date	08/08/2022	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	0.748
Fuel Ethanol Volume Percent (%)	9.6	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17829
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.835	Weight Fraction CO2	--

### Certification Summary Information Report

<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14
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#### Consolidated List of Standards

**Exhaust Standards**

<b>Cert Region</b>	Federal	<b>Cert/In-Use Code</b>	Cert
<b>Vehicle Class</b>	LDV/Passenger Car	<b>Standard Level</b>	Federal Tier 3 Bin 125
<b>Fuel</b>	Gasoline	<b>Test Procedure</b>	California fuel 3-day exhaust

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	--	--	--	0.38	2.1
150,000 miles	CO-COMP	--	--	--	--	--	--	0	4.2
150,000 miles	CREE	--	--	--	--	--	--	0	999.999
150,000 miles	METHANE	--	--	--	--	--	--	0.0069	0.030
150,000 miles	N2O	--	--	--	--	--	--	0.0028	0.010
150,000 miles	NMOG	--	--	1.1	--	--	--	0.0149	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0	0.125
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	0	0.090
150,000 miles	NOX	--	--	--	--	--	--	0.0115	999.999

<b>Cert Region</b>	California + CAA Section 177 states	<b>Cert/In-Use Code</b>	Cert
<b>Vehicle Class</b>	LDV/Passenger Car	<b>Standard Level</b>	California LEV-IV ULEV125
<b>Fuel</b>	Gasoline	<b>Test Procedure</b>	California fuel 3-day exhaust

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	--	--	--	0.38	2.1
150,000 miles	CREE	--	--	--	--	--	--	0	999.999
150,000 miles	METHANE	--	--	--	--	--	--	0.0069	0.030
150,000 miles	N2O	--	--	--	--	--	--	0.0028	0.010
150,000 miles	NMOG	--	--	1.1	--	--	--	0.0149	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0	0.125
150,000 miles	NOX	--	--	--	--	--	--	0.0115	999.999

### Certification Summary Information Report

<b>Test Group</b>		VMLNV04.0M14			<b>Evaporative/Refueling Family</b>			VMLNR0164M14		
<b>Cert Region</b>		Federal			<b>Cert/In-Use Code</b>			Cert		
<b>Vehicle Class</b>		LDV/Passenger Car			<b>Standard Level</b>			Federal Tier 3 Bin 125		
<b>Fuel</b>		Gasoline			<b>Test Procedure</b>			US06		
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>	
150,000 miles	CO	--	--	--	--	--	--	0.38	999.9999	
150,000 miles	NMOG	--	--	1.1	--	--	--	0.0149	999.9999	
150,000 miles	NOX	--	--	--	--	--	--	0.0115	999.9999	

<b>Cert Region</b>		California + CAA Section 177 states			<b>Cert/In-Use Code</b>			Cert		
<b>Vehicle Class</b>		LDV/Passenger Car			<b>Standard Level</b>			California LEV-IV ULEV125		
<b>Fuel</b>		Gasoline			<b>Test Procedure</b>			Cold CO		
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>	
150,000 miles	CO	--	--	--	--	--	--	0.38	10.0	

<b>Cert Region</b>		California + CAA Section 177 states			<b>Cert/In-Use Code</b>			Cert		
<b>Vehicle Class</b>		LDV/Passenger Car			<b>Standard Level</b>			California LEV-IV ULEV125		
<b>Fuel</b>		Gasoline			<b>Test Procedure</b>			CA fuel 50 Deg(F) exhaust test		
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>	
4,000 miles	CO	--	--	--	--	--	--	0	2.1	
4,000 miles	HCHO	--	--	--	--	--	--	0	0.016	
4,000 miles	NMOG	--	--	1.1	--	--	--	0	999.9999	
4,000 miles	NMOG+NOX	--	--	--	--	--	--	0	0.250	
4,000 miles	NOX	--	--	--	--	--	--	0	999.9999	

### Certification Summary Information Report

<b>Test Group</b>		VMLNV04.0M14			<b>Evaporative/Refueling Family</b>			VMLNR0164M14		
<b>Cert Region</b>		California + CAA Section 177 states			<b>Cert/In-Use Code</b>			Cert		
<b>Vehicle Class</b>		LDV/Passenger Car			<b>Standard Level</b>			California LEV-IV ULEV125		
<b>Fuel</b>		Gasoline			<b>Test Procedure</b>			US06		
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>	
150,000 miles	CO	--	--	--	--	--	--	0.38	9.6	
150,000 miles	NMOG	--	--	1.1	--	--	--	0.0149	999.9999	
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0	0.125	
150,000 miles	NOX	--	--	--	--	--	--	0.0115	999.9999	

<b>Cert Region</b>		Federal			<b>Cert/In-Use Code</b>			Cert		
<b>Vehicle Class</b>		LDV/Passenger Car			<b>Standard Level</b>			Federal Tier 3 Bin 125		
<b>Fuel</b>		Gasoline			<b>Test Procedure</b>			HWFE		
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>	
150,000 miles	CREE	--	--	--	--	--	--	0	999.999	
150,000 miles	NMOG	--	--	1.1	--	--	--	0.0149	999.999	
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0	0.125	
150,000 miles	NOX	--	--	--	--	--	--	0.0115	999.999	

<b>Cert Region</b>		California + CAA Section 177 states			<b>Cert/In-Use Code</b>			Cert		
<b>Vehicle Class</b>		LDV/Passenger Car			<b>Standard Level</b>			California LEV-IV ULEV125		
<b>Fuel</b>		Gasoline			<b>Test Procedure</b>			HWFE		
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>	
150,000 miles	NMOG	--	--	1.1	--	--	--	0.0149	999.9999	
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.125	
150,000 miles	NOX	--	--	--	--	--	--	0.0115	999.9999	

### Certification Summary Information Report

<b>Test Group</b>		VMLNV04.0M14			<b>Evaporative/Refueling Family</b>			VMLNR0164M14		
<b>Cert Region</b>		Federal			<b>Cert/In-Use Code</b>			Cert		
<b>Vehicle Class</b>		LDV/Passenger Car			<b>Standard Level</b>			Federal Tier 3 Bin 125		
<b>Fuel</b>		Gasoline			<b>Test Procedure</b>			SC03		
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>	
150,000 miles	CO	--	--	--	--	--	--	0.38	999.9999	
150,000 miles	NMOG	--	--	1.1	--	--	--	0.0149	999.9999	
150,000 miles	NOX	--	--	--	--	--	--	0.0115	999.9999	

<b>Cert Region</b>		Federal			<b>Cert/In-Use Code</b>			Cert		
<b>Vehicle Class</b>		LDV/Passenger Car			<b>Standard Level</b>			Federal Tier 3 Bin 125		
<b>Fuel</b>		Gasoline			<b>Test Procedure</b>			Federal fuel 2-day exhaust (w/can load)		
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>	
150,000 miles	CO	--	--	--	--	--	--	0.38	2.1	
150,000 miles	CO-COMP	--	--	--	--	--	--	0.38	4.2	
150,000 miles	CREE	--	--	--	--	--	--	0	999.999	
150,000 miles	METHANE	--	--	--	--	--	--	0.0069	0.030	
150,000 miles	N2O	--	--	--	--	--	--	0.0028	0.010	
150,000 miles	NMOG	--	--	1.1	--	--	--	0.0149	999.999	
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0	0.125	
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	0	0.090	
150,000 miles	NOX	--	--	--	--	--	--	0.0115	999.999	

### Certification Summary Information Report

<b>Test Group</b>		VMLNV04.0M14			<b>Evaporative/Refueling Family</b>			VMLNR0164M14		
<b>Cert Region</b>		California + CAA Section 177 states			<b>Cert/In-Use Code</b>			Cert		
<b>Vehicle Class</b>		LDV/Passenger Car			<b>Standard Level</b>			California LEV-IV ULEV125		
<b>Fuel</b>		Gasoline			<b>Test Procedure</b>			Federal fuel 2-day exhaust (w/can load)		
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>	
150,000 miles	CO	--	--	--	--	--	--	0.38	2.1	
150,000 miles	METHANE	--	--	--	--	--	--	0.0069	0.030	
150,000 miles	N2O	--	--	--	--	--	--	0.0028	0.010	
150,000 miles	NMOG	--	--	1.1	--	--	--	0.0149	999.9999	
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0	0.125	
150,000 miles	NOX	--	--	--	--	--	--	0.0115	999.9999	

<b>Cert Region</b>		California + CAA Section 177 states			<b>Cert/In-Use Code</b>			Cert		
<b>Vehicle Class</b>		LDV/Passenger Car			<b>Standard Level</b>			California LEV-IV ULEV125		
<b>Fuel</b>		Gasoline			<b>Test Procedure</b>			SC03		
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>	
150,000 miles	CO	--	--	--	--	--	--	0.38	2.1	
150,000 miles	NMOG	--	--	1.1	--	--	--	0.0149	999.9999	
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0	0.125	
150,000 miles	NOX	--	--	--	--	--	--	0.0115	999.9999	

<b>Cert Region</b>		Federal			<b>Cert/In-Use Code</b>			Cert		
<b>Vehicle Class</b>		LDV/Passenger Car			<b>Standard Level</b>			Federal Tier 3 Bin 125		
<b>Fuel</b>		Gasoline			<b>Test Procedure</b>			Cold CO		
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>	
150,000 miles	CO	--	--	--	--	--	--	0.38	10.0	
150,000 miles	HC-NM	--	--	--	--	--	--	0.0149	0.3	

**Evaporative/Refueling Standards**

## Certification Summary Information Report

<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14		
<b>Evaporative/Refueling Family</b>	VMLNR0164M14	<b>Cert Region</b>	California + CAA Section 177 states California LEV-IV Zero Evap (Option 2)		
<b>Cert/In-Use Code</b>	Cert	<b>Standard Level</b>			
<b>Test Procedure</b>	California fuel 2-day evap				
<b>Fuel</b>	<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>Std</b>	<b>Add DF</b>
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.275	0
<b>Evaporative/Refueling Family</b>	VMLNR0164M14	<b>Cert Region</b>	Federal		
<b>Cert/In-Use Code</b>	Cert	<b>Standard Level</b>	Federal Tier 3 Evap		
<b>Test Procedure</b>	Evap Canister Bleed Test				
<b>Fuel</b>	<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>Std</b>	<b>Add DF</b>
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.02	0
<b>Evaporative/Refueling Family</b>	VMLNR0164M14	<b>Cert Region</b>	Federal		
<b>Cert/In-Use Code</b>	Cert	<b>Standard Level</b>	Federal Tier 3 Evap		
<b>Test Procedure</b>	California Fuel Running Loss				
<b>Fuel</b>	<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>Std</b>	<b>Add DF</b>
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.05	0
<b>Evaporative/Refueling Family</b>	VMLNR0164M14	<b>Cert Region</b>	Federal		
<b>Cert/In-Use Code</b>	Cert	<b>Standard Level</b>	Federal Tier 3 Evap		
<b>Test Procedure</b>	CA fuel 3-day evap.				
<b>Fuel</b>	<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>Std</b>	<b>Add DF</b>
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.275	0.0021
<b>Evaporative/Refueling Family</b>	VMLNR0164M14	<b>Cert Region</b>	California + CAA Section 177 states California LEV-IV Zero Evap (Option 2)		
<b>Cert/In-Use Code</b>	Cert	<b>Standard Level</b>			
<b>Test Procedure</b>	Leak Test - Port Near Canister				
<b>Fuel</b>	<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>Std</b>	<b>Add DF</b>
Gasoline	150,000 miles	LEAK-DIA	--	0.02	0

## Certification Summary Information Report

<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14		
<b>Evaporative/Refueling Family</b>	VMLNR0164M14	<b>Cert Region</b>	California + CAA Section 177 states California LEV-IV Zero Evap (Option 2)		
<b>Cert/In-Use Code</b>	Cert	<b>Standard Level</b>			
<b>Test Procedure</b>	CA fuel 3-day evap.				
<b>Fuel</b>	<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>Std</b>	<b>Add DF</b>
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.275	0.0021
<b>Evaporative/Refueling Family</b>	VMLNR0164M14	<b>Cert Region</b>	California + CAA Section 177 states California LEV-IV Zero Evap (Option 2)		
<b>Cert/In-Use Code</b>	Cert	<b>Standard Level</b>			
<b>Test Procedure</b>	California Fuel Running Loss				
<b>Fuel</b>	<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>Std</b>	<b>Add DF</b>
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.05	0
<b>Evaporative/Refueling Family</b>	VMLNR0164M14	<b>Cert Region</b>	California + CAA Section 177 states California LEV-IV Zero Evap (Option 2)		
<b>Cert/In-Use Code</b>	Cert	<b>Standard Level</b>			
<b>Test Procedure</b>	Evap Canister Bleed Test				
<b>Fuel</b>	<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>Std</b>	<b>Add DF</b>
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.02	0
<b>Evaporative/Refueling Family</b>	VMLNR0164M14	<b>Cert Region</b>	Federal Federal Tier 3 Evap		
<b>Cert/In-Use Code</b>	Cert	<b>Standard Level</b>			
<b>Test Procedure</b>	Spitback				
<b>Fuel</b>	<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>Std</b>	<b>Add DF</b>
Gasoline	150,000 miles	SPITBACK	--	1.0	0
<b>Evaporative/Refueling Family</b>	VMLNR0164M14	<b>Cert Region</b>	Federal Federal Tier 3 Evap		
<b>Cert/In-Use Code</b>	Cert	<b>Standard Level</b>			
<b>Test Procedure</b>	California fuel 2-day evap				
<b>Fuel</b>	<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>Std</b>	<b>Add DF</b>
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.275	0

### Certification Summary Information Report

<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14		
<b>Evaporative/Refueling Family</b>	VMLNR0164M14	<b>Cert Region</b>	California + CAA Section 177 states California LEV-IV Zero Evap (Option 2)		
<b>Cert/In-Use Code</b>	Cert	<b>Standard Level</b>			
<b>Test Procedure</b>	Spitback				
<b>Fuel</b>	<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>Std</b>	<b>Add DF</b>
Gasoline	150,000 miles	SPITBACK	--	1.0	0
<b>Evaporative/Refueling Family</b>	VMLNR0164M14	<b>Cert Region</b>	Federal		
<b>Cert/In-Use Code</b>	Cert	<b>Standard Level</b>	Federal Tier 3 Evap		
<b>Test Procedure</b>	Leak Test - Port Near Canister				
<b>Fuel</b>	<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>Std</b>	<b>Add DF</b>
Gasoline	150,000 miles	LEAK-DIA	--	0.02	0
<b>Evaporative/Refueling Family</b>	VMLNR0164M14	<b>Cert Region</b>	California + CAA Section 177 states California LEV-IV Zero Evap (Option 2)		
<b>Cert/In-Use Code</b>	Cert	<b>Standard Level</b>			
<b>Test Procedure</b>	Federal fuel refueling test (ORVR)				
<b>Fuel</b>	<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>Std</b>	<b>Add DF</b>
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.2	0.006
<b>Evaporative/Refueling Family</b>	VMLNR0164M14	<b>Cert Region</b>	Federal		
<b>Cert/In-Use Code</b>	Cert	<b>Standard Level</b>	Federal Tier 3 Evap		
<b>Test Procedure</b>	Federal fuel refueling test (ORVR)				
<b>Fuel</b>	<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>Std</b>	<b>Add DF</b>
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.2	0.006

## Certification Summary Information Report

Test Group	VMLNV04.0M14	Evaporative/Refueling Family	VMLNR0164M14
<b>Glossary</b>			
<b>Useful Life</b>			
4	4,000 miles	120	120,000 miles
50	50,000 miles	150	150,000 miles
100	100,000 miles		
<b>Emission Name</b>			
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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Test Group		VMLNV04.0M14	Evaporative/Refueling Family		VMLNR0164M14
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	
<b>Certification Region</b>					
CA	California + CAA Section 177 states		FA	Federal	
<b>Exhaust Emission Standard Level</b>					
B1	Federal Tier 2 Bin 1		HDV2B340	Federal Tier 3 HD Class 2b Transitional Bin 340	
B2	Federal Tier 2 Bin 2		HDV2B250	Federal Tier 3 HD Class 2b Bin 250	
B3	Federal Tier 2 Bin 3		HDV2B200	Federal Tier 3 HD Class 2b Bin 200	
B4	Federal Tier 2 Bin 4		HDV2B170	Federal Tier 3 HD Class 2b Bin 170	
B5	Federal Tier 2 Bin 5		HDV2B150	Federal Tier 3 HD Class 2b Bin 150	
B6	Federal Tier 2 Bin 6		HDV2B0	Federal Tier 3 HD Class 2b Bin 0	
B7	Federal Tier 2 Bin 7		HDV3B630	Federal Tier 3 HD Class 3 Transitional Bin 630	
B8	Federal Tier 2 Bin 8		HDV3B570	Federal Tier 3 HD Class 3 Transitional Bin 570	
B9	Federal Tier 2 Bin 9		HDV3B400	Federal Tier 3 HD Class 3 Bin 400	
B10	Federal Tier 2 Bin 10		HDV3B270	Federal Tier 3 HD Class 3 Bin 270	
B11	Federal Tier 2 Bin 11		HDV3B230	Federal Tier 3 HD Class 3 Bin 230	
HDV1	HDV1 (Federal HD chassis Class 2b GVW 8501-10000)		HDV3B200	Federal Tier 3 HD Class 3 Bin 200	
HDV2	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)		HDV3B0	Federal Tier 3 HD Class 3 Bin 0	
L2	California LEV-II LEV		L4SULEV100	California LEV-IV SULEV100	
L2OP	California LEV-II LEV Optional		L4SULEV125	California LEV-IV SULEV125	
U2	California LEV-II ULEV		L4SULEV15	California LEV-IV SULEV15	
S2	California LEV-II SULEV		L4SULEV150	California LEV-IV SULEV150	
ZEV	California ZEV		L4SULEV170	California LEV-IV SULEV170	
OT	Other		L4SULEV175	California LEV-IV SULEV175	
T1	Federal Tier 1		L4SULEV20	California LEV-IV SULEV20	
PZEV	California PZEV		L4SULEV200	California LEV-IV SULEV200	
L2LEV160	California LEV-II LEV160		L4SULEV230	California LEV-IV SULEV230	
L2ULEV125	California LEV-II ULEV125		L4SULEV25	California LEV-IV SULEV25	
L2SULEV30	California LEV-II SULEV30		L4SULEV30	California LEV-IV SULEV30	
L2LEV395	California LEV-II LEV395		L4SULEV75	California LEV-IV SULEV75	

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Test Group		VMLNV04.0M14	Evaporative/Refueling Family	VMLNR0164M14
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			
<b>Transmission Type Code</b>				
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)	
<b>Drive System Code</b>				
4	4-Wheel Drive	P	Part-time 4-Wheel Drive	

**Certification Summary Information Report**

<b>Test Group</b>	VMLNV04.0M14	<b>Evaporative/Refueling Family</b>	VMLNR0164M14
F	2-Wheel Drive, Front	A	All Wheel Drive
R	2-Wheel Drive, Rear		
<b>Additional Terms and Acronyms</b>			
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