

Certification Summary Information Report

Manufacturer	Toyota Motor Corporation	Manufacturer Code	TYX
Test Group	TTYXV03.5E4A	Evaporative/Refueling Family	TTYXR0165P42
Certificate Number	TTYXV03.5E4A-044	CARB Executive Order #	--
Certificate Issue Date	10/23/2025	Certificate Revision Date	--
Certificate Effective Date	10/23/2025	Conditional Certificate	No
CSI Revision #	--	CSI Submission/Revision Date	10/17/2025 01:18:53 AM
Model Year	2026		

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 & ported injection	No

Hybrid Indicator	No		
Multiple Fuel Storage	--	Rechargeable Energy Storage System Indicator	--
Multiple Fuel Combustion	--	Off-board Charge Capable Indicator	--
Fuel Cell Indicator	--	EPA Vehicle Class	LDV
Federal Clean Fuel Vehicle	No	Federal Clean Fuel Vehicle Standard	--
Federal Clean Fuel Vehicle ILEV	No	California Partial Zero Emissions Vehicle Indicator	No
Durability Group Name	TTYXGPGNN62S	Durability Group Equivalency Factor	1.0
Reduced Fee Test Group	No	Certification Region Code(s)	FA, CA
Complies with HD GHG 2b/3 regulations?	No		
Introduction into Commerce Date	12/01/2025	CAP2000 Conditional Certificate?	No
Independent Commercial Importer?	No	Alternative Fuel Converter Certificate?	No
SFTP Federal Composite Compliance Identifier	Tier 3	SFTP Tier 2 Composite CO Option	No
SFTP LEV-III Composite Compliance Indicator	Yes		
OBD Compliance Type	CARB	OBD Demonstration Vehicle Test Group	TTYXV02.0E4A
Test Group OBD Compliance Level	Full - no deficiencies	Number of Test Group OBD Deficiencies	0
OBD Deficiencies Comments	--		
Mfr Test Group Comments	--		
Mfr Exhaust / Evap Standards Comments	--		

Certification Summary Information Report

Test Group	TTYXV03.5E4A	Evaporative/Refueling Family	TTYXR0165P42				
Evaporative/Refueling Family Information							
Evaporative Summary Information Type	New	Submission/Correction Date	10/14/2025 05:25:12 AM				
Integrated ORVR?	Yes	Fuel(s)	Gasoline				
Multiple Fuel Storage	--						
Bladder Fuel Tank?	No						
Fuel Tank Material	Plastic	Fuel Tank Material Description	EVOH				
Fill Pipe Seal Type	Liquid seal						
Air Intake System Vapor Storage Device?	No	Air Intake System Vapor Storage Device Description	--				
Fuel System Vapor Storage Canister?	Yes	Other Vapor Storage	--				
Fuel System Vapor Storage Canister(s) Total Working Capacity (grams)	165	Number of Primary Canisters	1				
Number of Bleed Canisters	1	Bleed Canister Total Working Capacity (grams)	2				
Mfr Evaporative/Refueling Family Comments	--						
Leak Family Details							
Leak Family Indicator	No						
Canister Bleed Test Indicator	Yes	Applicability of Evaporative Canister Bleed Test	50 State				
Evaporative Canister Bleed Test Comments	--						
CARB Fuel Only (Rig) Test Indicator	No	Applicability of CARB Fuel Only (Rig) Test	--				
CARB Fuel Only (Rig) Test Comments	--						
Models Covered by this Certificate							
Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	- # of Gears	Trans - Lockup
Toyota Motor Corporation	2 - LEXUS	75 - IS 350	Federal	2-Wheel Drive, Rear	Semi-Automatic	8	Yes
Toyota Motor Corporation	2 - LEXUS	77 - IS 350 AWD	Federal	All Wheel Drive	Semi-Automatic	6	Yes
Toyota Motor Corporation	2 - LEXUS	75 - IS 350	California + CAA Section 177 states	2-Wheel Drive, Rear	Semi-Automatic	8	Yes
Toyota Motor Corporation	2 - LEXUS	77 - IS 350 AWD	California + CAA Section 177 states	All Wheel Drive	Semi-Automatic	6	Yes
Engine Description							
Hybrid Type	--	Hybrid Description	--				
Engine Type	4-Stroke Spark Ignition	Mfr Engine Description	--				
Engine Block Arrangement	V-shaped engine	Mfr Engine Block Arrangement Description	--				
Camless Valvetrain Indicator	No	Oil Viscosity/Classification	0W-20				
Number of Cylinders/Rotors	6	Mechanically Variable Compression Ratio Indicator	N				

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Test Group	TTYXV03.5E4A	Evaporative/Refueling Family	TTYXR0165P42
After Treatment Device(s) (ATD)			
ATD Number	ATD Type	ATD Precious Metal	Substrate Material
1	Three-way catalyst	Palladium + Rhodium	Ceramic
2	Three-way catalyst	Platinum + Rhodium	Ceramic
3	Three-way catalyst	Palladium + Rhodium	Ceramic
4	Three-way catalyst	Platinum + Rhodium	Ceramic
Mfr After Treatment Device (ATD) Comments			
--			
Direct Ozone Reduction (DOR) Device			
Not Equipped			
Mfr Emission Control Device Comments			
--			
Engine Configuration Number 1			
Engine Displacement (liters)	3.5	Engine Rated Horsepower	232
Number of Inlet Valves Per Cylinder	2	Number of Exhaust Valves Per Cylinder	2
Air Aspiration Method	Naturally Aspirated	Number of Air Aspiration Devices	--
Air Aspiration Device Configuration	--	Charge Air Cooler Type	N/A
Air Aspiration Drive Method(s)	--		
Cylinder Deactivation	No		
Cylinder Deactivation Description	--		
Variable Valve Timing	Yes		
Variable Valve Timing System Description	Intake and exhaust		
Variable Valve Lift?	No		
Variable Valve Lift System Description	--		
Number of Knock Sensors	2	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 air fuel	Air/Fuel Sensor # 3 Description	--
Air/Fuel Sensor # 4 Type	Heated air fuel	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	--		

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Test Group		TTYXV03.5E4A				Evaporative/Refueling Family			TTYXR0165P42		
Official Test Numbers											
Test Group Fuel		FTP	US06	SC03	Cold CO	Highway	EPA City Litmus Value	EPA City Litmus Threshold	EPA Highway Litmus Value	EPA Highway Litmus Threshold	CREE Weighting Factor
Gasoline		TTYX10092189	TTYX10092190	TTYX10092188	TTYX10092191	TTYX10092186	105.2	18.1	98	24.6	--
SFTP LEV-III Official Test Numbers											
Test Group Fuel		FTP		US06			SC03				
Gasoline		TTYX10092189		TTYX10092190			TTYX10092188				

Test Group	TTYXV03.5E4A	Evaporative/Refueling Family	TTYXR0165P42
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Emission Data Vehicle Information

Vehicle ID / Configuration	21-AC1A / 0	Manufacturer Vehicle Configuration Number	0
Original Test Group Name	MTYXV02.0M5A	Original Evaporative/Refueling Family	MTYXR0165P72
Original Test Vehicle Model Year	2021		

Vehicle Model

Represented Test Vehicle Make	LEXUS	Represented Test Vehicle Model	IS 300
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Leak Family Details

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

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

Hybrid Indicator	No		
Multiple Fuel 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	23	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	01	Rated Horsepower	241
Displacement (liters)	1.998		
Air Aspiration Method	Turbocharged	Air Aspiration Method, if 'Other'	
Number of Air Aspiration Devices	1	Air Aspiration Device Configuration	Single
Charge Air Cooler Type	Liquid	Drive Mode While Testing	2-Wheel Drive, Rear
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)
Curb Weight (lbs)	3805	Equivalent Test Weight (pounds)	4000
GVWR (lbs)	--	N/V Ratio	28.1
Axle Ratio	3.13		
Transmission Type	Automatic	# of Transmission Gears	8
Transmission Lockup	Yes	Creeper Gear	No

Dynamometer Coefficients:

Target Coefficients			Set Coefficients			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients	
Coefficient Category	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	
City/Highway/Evap	46.067	0.05903	0.019101	27.248	-0.14197	0.019817	12.9
US06	46.067	0.05903	0.019101	27.248	-0.14197	0.019817	N/A

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Test Group	TTYXV03.5E4A	Evaporative/Refueling Family	TTYXR0165P42						
Emission Control Device Comments	--								
Manufacturer Test Vehicle Comments	Actual vehicle model is RC 300. Drive mode is SPORTS. Extra ballast of 441lbs(200kg) added to the rear axle to prevent slipping for the test. This is not included in the VI test weights.								
Test #	MTYX10064702	Test Procedure	34 - Federal fuel 3-day evap						
Exhaust Test # for this Evap Test	MTYX10064694	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)						
Test Date	04/17/2020	Fuel	Gasoline						
Fuel Batch ID	1H9-01	Fuel Calibration Number	6						
Vehicle Class	N/A	DF Type	Mfr. Determined						
Verify Test Lab ID	Toyota Motor Corporation								
E10 Evaporative Test Measurement Method	Actual Total Hydrocarbon Equivalent Measurement (with speciation)								
Test Start Odometer Reading	3849	Odometer Units	M						
4WD Test Dyno	No	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	No						
Test Results									
<table border="1"> <thead> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated FE Equivalent Value (miles per gallon)</th> </tr> </thead> <tbody> <tr> <td>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</td> <td>0.2705161</td> <td>--</td> </tr> </tbody> </table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.2705161	--
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)							
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.2705161	--							
Manufacturer Test Comments									
HSL=0.0692, 1ST DBL=0.2013, 2ND DBL=0.1731, 3RD DBL=0.1346, 1ST DBL IS ADDED KEY OFF MONITOR LOSS(0.0004GRAM)									
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	0.2705	0	0.27	0.3	Pass	
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.2705	0	0.27	0.3	Pass	

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Test Group	TTYXV03.5E4A	Evaporative/Refueling Family	TTYXR0165P42						
Test #	MTYX10064705	Test Procedure	24 - Federal fuel refueling test (ORVR)						
Exhaust Test # for this Evap Test	MTYX10064704	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)						
Test Date	04/22/2020	Fuel	Gasoline						
Fuel Batch ID	1H9-01	Fuel Calibration Number	6						
Vehicle Class	N/A	DF Type	Mfr. Determined						
Verify Test Lab ID	Toyota Motor Corporation								
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)								
Test Start Odometer Reading	3885	Odometer Units	M						
4WD Test Dyno	No	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	No						
Test Results									
<table border="1"> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated FE Equivalent Value (miles per gallon)</th> </tr> <tr> <td>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</td> <td>0.0052895</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)	0.0052895	--
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)							
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.0052895	--							
Manufacturer Test Comments --									
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail	
Fed	150,000 miles	Federal Tier 3 Evap	HC-TOTAL-EQUIV	0.005	0	0	0.2	Pass	
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.005	0	0	0.2	Pass	

Certification Summary Information Report

Test Group	TTYXV03.5E4A	Evaporative/Refueling Family	TTYXR0165P42
Test #	MTYX10064706	Test Procedure	32 - Federal Fuel Running Loss
Exhaust Test # for this Evap Test	MTYX10064694	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	04/16/2020	Fuel	Gasoline
Fuel Batch ID	1H9-01	Fuel Calibration Number	6
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	Toyota Motor Corporation		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	3885	Odometer Units	M
4WD Test Dyno	No	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	No

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.0000187	--

Manufacturer Test Comments --

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Evap	HC-TOTAL-EQUIV	0	0	0	0.05	Pass
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC-TOTAL-EQUIV	0	0	0	0.01	Pass

Certification Summary Information Report

Test Group	TTYXV03.5E4A	Evaporative/Refueling Family	TTYXR0165P42						
Test #	MTYX10065255	Test Procedure	65 - Evap Canister Bleed Test						
Exhaust Test # for this Evap Test	--	Test Fuel Type	47 - CARB LEV3 E10 Premium Gasoline						
Test Date	04/17/2020	Fuel	Gasoline						
Fuel Batch ID	--	Fuel Calibration Number	--						
Vehicle Class	N/A	DF Type	Mfr. Determined						
Verify Test Lab ID	Toyota Motor Corporation								
E10 Evaporative Test Measurement Method	--								
Test Start Odometer Reading	3849	Odometer Units	M						
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--						
State of Charge Delta	--								
Drive Cycle Speed Tolerance Criteria	--	Road Speed Fan Usage	--						
Test Results									
<table><tr><td>Test Result Name</td><td>Unrounded Test Result</td><td>Verify Calculated FE Equivalent Value</td></tr><tr><td>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</td><td>0.005508</td><td>--</td></tr></table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value	HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.005508	--
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value							
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.005508	--							
Manufacturer Test Comments									
--									
Certification									
Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail	
Fed	150,000 miles	Federal Tier 3 Evap	HC-TOTAL-EQUIV	0.0055	0	0.006	0.02	Pass	
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.0055	0	0.006	0.02	Pass	

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Test Group	TTYXV03.5E4A	Evaporative/Refueling Family	TTYXR0165P42					
Emission Data Vehicle Information								
Vehicle ID / Configuration	26-GE1A / 0	Manufacturer Vehicle Configuration Number	0					
Original Test Group Name	TTYXV03.5E4A	Original Evaporative/Refueling Family	TTYXR0165P42					
Original Test Vehicle Model Year	2026							
Vehicle Model								
Represented Test Vehicle Make	LEXUS	Represented Test Vehicle Model	IS 350 AWD					
Leak Family Details								
Leak Family Identifier	--	Leak Family Name	--					
Drive Sources and Fuel System Details								
	<table border="1"> <thead> <tr> <th>Drive Source and Fuel#</th> <th>Drive Source</th> <th>Fuel</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Combustion Engine</td> <td>Gasoline</td> </tr> </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	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	01	Rated Horsepower	232					
Displacement (liters)	3.456							
Air Aspiration Method	Naturally Aspirated	Air Aspiration Method, if 'Other'						
Number of Air Aspiration Devices	--	Air Aspiration Device Configuration	--					
Charge Air Cooler Type	N/A	Drive Mode While Testing	2-Wheel Drive, Rear					
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)					
Curb Weight (lbs)	3980	Equivalent Test Weight (pounds)	4250					
GVWR (lbs)	--	N/V Ratio	28.9					
Axle Ratio	3.77							
Transmission Type	Automatic	# of Transmission Gears	6					
Transmission Lockup	Yes	Creep Gear	No					

Certification Summary Information Report

Test Group		TTYXV03.5E4A			Evaporative/Refueling Family		TTYXR0165P42	
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	51.029	0.18104	0.018583	25.514	0.03621	0.018583	14.2	
Cold CO	56.131	0.19914	0.020441	29.094	-0.15369	0.021619	N/A	
US06	51.029	0.18104	0.018583	25.514	0.03621	0.018583	N/A	
Emission Control Device Comments		--						
Manufacturer Test Vehicle Comments		T/M mode is NORMAL.						

Certification Summary Information Report

Test Group	TTYXV03.5E4A	Evaporative/Refueling Family	TTYXR0165P42
Test #	TTYX10092189	Test Procedure	21 - Federal fuel 2-day exhaust (w/can load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	07/11/2025	Fuel	Gasoline
Fuel Batch ID	2J3A12	Fuel Calibration Number	14
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	Toyota Motor Corporation		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	3845	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes
Test Results			

Certification Summary Information Report

Test Group	TTYXV03.5E4A	Evaporative/Refueling Family	TTYXR0165P42	
	Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	
	CO2 BAG 1 (Bag 1 Carbon Dioxide)	394.8437645	--	
	CO BAG 1 (Bag 1 Carbon Monoxide)	0.2422783	--	
	FE BAG 1 (Bag 1 Fuel Economy)	999	999	
	CH4 BAG 1 (Bag 1 Methane)	0.0070152	--	
	NMOG BAG 1 (Bag 1 Non-methane organic gases)	0.0324966	--	
	CO2 BAG 2 (Bag 2 Carbon Dioxide)	374.9988226	--	
	CO BAG 2 (Bag 2 Carbon Monoxide)	0	--	
	FE BAG 2 (Bag 2 Fuel Economy)	999	999	
	CH4 BAG 2 (Bag 2 Methane)	0.0018393	--	
	NMOG BAG 2 (Bag 2 Non-methane organic gases)	0	--	
	CO2 BAG 3 (Bag 3 Carbon Dioxide)	328.9511363	--	
	CO BAG 3 (Bag 3 Carbon Monoxide)	0.084788	--	
	FE BAG 3 (Bag 3 Fuel Economy)	999	999	
	CH4 BAG 3 (Bag 3 Methane)	0.0042014	--	
	NMOG BAG 3 (Bag 3 Non-methane organic gases)	0.0014011	--	
	METHANE (CH4 - Methane)	0.0035601	--	
	CO (Carbon Monoxide)	0.0734725	--	
	DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.41	--	
	DT-EER (Drive Trace Energy Economy Rating)	-0.13	--	
	DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.81	--	
	MFR FE (Manufacturer Fuel Economy)	999	999	
	NOX (Nitrogen Oxide)	0.0039214	--	
	N2O (Nitrous Oxide)	0.0003359	--	
	HC-NM (Non-methane Hydrocarbon)	0.0064663	--	
	NMOG (Non-methane organic gases)	0.0071207	--	
	PM (Particulate Matter)	0.0005195	--	
	HC-TOTAL (Total Hydrocarbon)	0.0097521	--	
	Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE	
	Carbon-Related Exhaust Emissions	0	366	
	Test Result Name	Unrounded Test Result	Verify Calculated CO2	
Carbon dioxide	366.4655576	--		
Manufacturer Test Comments				
NMOG = HC-NM x 1.1012				

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Test Group		TTYXV03.5E4A			Evaporative/Refueling Family					TTYXR0165P42		
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	0.07	--	--	--	0.07	--	0.1	1.7	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	CO-COMP	0.18	--	--	--	0.07	--	0.2	4.2	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	CREE	366	--	--	--	0.078	--	366	--	--
Fed	150,000 miles	Federal Tier 3 Bin 50	METHANE	0.0036	--	--	--	0.0068	--	0.01	0.030	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	N2O	0.0003	--	--	--	0.0006	--	0.001	0.010	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0.0071	1	1.1	--	0.0016	--	0.009	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.011	1	1.1	--	--	--	0.013	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX-COMP	0.0102	1	1.03	--	0.0018	--	0.01	0.080	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.0039	--	--	--	0.0002	--	0.004	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	0.07	--	--	--	0.07	--	0.1	1.7	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG	0.0071	1	1.1	--	0.0016	--	0.009	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG+NOX	0.011	1	1.1	--	--	--	0.013	0.050	Pass
CA	150,000 miles	California LEV-IV ULEV50	NOX	0.0039	--	--	--	0.0002	--	0.004	999.999	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	TTYXV03.5E4A	Evaporative/Refueling Family	TTYXR0165P42
Test #	TTYX10092191	Test Procedure	11 - Cold CO
Exhaust Test # for this Evap Test	--	Test Fuel Type	29 - Cold CO E10 Premium Gasoline (Tier 3)
Test Date	07/17/2025	Fuel	Gasoline
Fuel Batch ID	2M0A01	Fuel Calibration Number	53
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	Toyota Motor Corporation		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	3933	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes
Test Results			

Certification Summary Information Report

Test Group	TTYXV03.5E4A	Evaporative/Refueling Family	TTYXR0165P42																																																																																
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Certification Summary Information Report

Test Group		TTYXV03.5E4A				Evaporative/Refueling Family				TTYXR0165P42		
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	50,000 miles	Federal Tier 3 Bin 50	CO	0.69	--	--	--	0.03	--	0.7	10.0	Pass
Fed	120,000 miles	Federal Tier 3 Bin 50	HC-NM	0.05	--	--	--	0	--	0	0.4	Pass
CA	50,000 miles	California LEV-IV ULEV50	CO	0.69	--	--	--	0.03	--	0.7	10.0	Pass

Certification Summary Information Report

Test Group	TTYXV03.5E4A	Evaporative/Refueling Family	TTYXR0165P42
Test #	TTYX10092471	Test Procedure	51 - CA fuel 50 Deg(F) exhaust test
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	09/03/2025	Fuel	Gasoline
Fuel Batch ID	2A5-11	Fuel Calibration Number	1
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	Toyota Motor Corporation		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4044	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes
Test Results			

Certification Summary Information Report

Test Group	TTYXV03.5E4A	Evaporative/Refueling Family	TTYXR0165P42																																																																																
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Certification Summary Information Report

Test Group		TTYXV03.5E4A				Evaporative/Refueling Family				TTYXR0165P42		
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 ULEV50	CO	0.19	--	--	--	--	--	0.2	1.7	Pass
CA	4,000 miles	California LEV-IV ULEV50	NMOG	0.0121	1	1.1	--	--	--	0.012	999.999	Pass
CA	4,000 miles	California LEV-IV ULEV50	NMOG+NOX	0.0187	1	1.1	--	--	--	0.019	0.100	Pass
CA	4,000 miles	California LEV-IV ULEV50	NOX	0.0066	--	--	--	--	--	0.007	999.999	Pass

Certification Summary Information Report

Test Group	TTYXV03.5E4A	Evaporative/Refueling Family	TTYXR0165P42
Test #	TTYX10092489	Test Procedure	49 - Quick-Driveway (QD)
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	07/15/2025	Fuel	Gasoline
Fuel Batch ID	2J3A12	Fuel Calibration Number	14
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	Toyota Motor Corporation		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	3900	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes
Test Results			

Certification Summary Information Report

Test Group	TTYXV03.5E4A	Evaporative/Refueling Family	TTYXR0165P42																																																																																
	<table><tr><th>Test Result Name</th><th>Unrounded Test Result</th><th>Verify Calculated FE Equivalent Value (miles per gallon)</th></tr><tr><td>CO2 BAG 1 (Bag 1 Carbon Dioxide)</td><td>393.0428475</td><td>--</td></tr><tr><td>CO BAG 1 (Bag 1 Carbon Monoxide)</td><td>0.2902186</td><td>--</td></tr><tr><td>FE BAG 1 (Bag 1 Fuel Economy)</td><td>999</td><td>999</td></tr><tr><td>CH4 BAG 1 (Bag 1 Methane)</td><td>0.0076634</td><td>--</td></tr><tr><td>NMOG BAG 1 (Bag 1 Non-methane organic gases)</td><td>0.0378379</td><td>--</td></tr><tr><td>CO2 BAG 2 (Bag 2 Carbon Dioxide)</td><td>374.9988226</td><td>--</td></tr><tr><td>CO BAG 2 (Bag 2 Carbon Monoxide)</td><td>0</td><td>--</td></tr><tr><td>FE BAG 2 (Bag 2 Fuel Economy)</td><td>999</td><td>999</td></tr><tr><td>CH4 BAG 2 (Bag 2 Methane)</td><td>0.0018393</td><td>--</td></tr><tr><td>NMOG BAG 2 (Bag 2 Non-methane organic gases)</td><td>0</td><td>--</td></tr><tr><td>CO2 BAG 3 (Bag 3 Carbon Dioxide)</td><td>328.9511363</td><td>--</td></tr><tr><td>CO BAG 3 (Bag 3 Carbon Monoxide)</td><td>0.084788</td><td>--</td></tr><tr><td>FE BAG 3 (Bag 3 Fuel Economy)</td><td>999</td><td>999</td></tr><tr><td>CH4 BAG 3 (Bag 3 Methane)</td><td>0.0042014</td><td>--</td></tr><tr><td>NMOG BAG 3 (Bag 3 Non-methane organic gases)</td><td>0.0014011</td><td>--</td></tr><tr><td>METHANE (CH4 - Methane)</td><td>0.0036944</td><td>--</td></tr><tr><td>CO (Carbon Monoxide)</td><td>0.0834036</td><td>--</td></tr><tr><td>DT-ASCR (Drive Trace Absolute Speed Change Rating)</td><td>0.49</td><td>--</td></tr><tr><td>DT-EER (Drive Trace Energy Economy Rating)</td><td>-0.08</td><td>--</td></tr><tr><td>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</td><td>0.96</td><td>--</td></tr><tr><td>MFR FE (Manufacturer Fuel Economy)</td><td>999</td><td>999</td></tr><tr><td>NOX (Nitrogen Oxide)</td><td>0.0030007</td><td>--</td></tr><tr><td>N2O (Nitrous Oxide)</td><td>0.000353</td><td>--</td></tr><tr><td>HC-NM (Non-methane Hydrocarbon)</td><td>0.0074689</td><td>--</td></tr><tr><td>NMOG (Non-methane organic gases)</td><td>0.0082248</td><td>--</td></tr><tr><td>HC-TOTAL (Total Hydrocarbon)</td><td>0.0108817</td><td>--</td></tr></table>	Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	CO2 BAG 1 (Bag 1 Carbon Dioxide)	393.0428475	--	CO BAG 1 (Bag 1 Carbon Monoxide)	0.2902186	--	FE BAG 1 (Bag 1 Fuel Economy)	999	999	CH4 BAG 1 (Bag 1 Methane)	0.0076634	--	NMOG BAG 1 (Bag 1 Non-methane organic gases)	0.0378379	--	CO2 BAG 2 (Bag 2 Carbon Dioxide)	374.9988226	--	CO BAG 2 (Bag 2 Carbon Monoxide)	0	--	FE BAG 2 (Bag 2 Fuel Economy)	999	999	CH4 BAG 2 (Bag 2 Methane)	0.0018393	--	NMOG BAG 2 (Bag 2 Non-methane organic gases)	0	--	CO2 BAG 3 (Bag 3 Carbon Dioxide)	328.9511363	--	CO BAG 3 (Bag 3 Carbon Monoxide)	0.084788	--	FE BAG 3 (Bag 3 Fuel Economy)	999	999	CH4 BAG 3 (Bag 3 Methane)	0.0042014	--	NMOG BAG 3 (Bag 3 Non-methane organic gases)	0.0014011	--	METHANE (CH4 - Methane)	0.0036944	--	CO (Carbon Monoxide)	0.0834036	--	DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.49	--	DT-EER (Drive Trace Energy Economy Rating)	-0.08	--	DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.96	--	MFR FE (Manufacturer Fuel Economy)	999	999	NOX (Nitrogen Oxide)	0.0030007	--	N2O (Nitrous Oxide)	0.000353	--	HC-NM (Non-methane Hydrocarbon)	0.0074689	--	NMOG (Non-methane organic gases)	0.0082248	--	HC-TOTAL (Total Hydrocarbon)	0.0108817	--	
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Certification Summary Information Report

Test Group		TTYXV03.5E4A				Evaporative/Refueling Family				TTYXR0165P42		
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	0.0082	1	1.1	--	0.0016	--	0.01	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG+NOX	0.0112	1	1.1	--	--	--	0.013	0.062	Pass
CA	150,000 miles	California LEV-IV ULEV50	NOX	0.003	--	--	--	0.0002	--	0.003	999.999	Pass

Certification Summary Information Report

Test Group	TTYXV03.5E4A	Evaporative/Refueling Family	TTYXR0165P42
Test #	TTYX10092186	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	07/11/2025	Fuel	Gasoline
Fuel Batch ID	2J3A12	Fuel Calibration Number	14
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	Toyota Motor Corporation		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	3856	Odometer Units	M
4WD Test Dyno	No	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)	0.0013114	--
CO (Carbon Monoxide)	0.0067984	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.68	--
DT-EER (Drive Trace Energy Economy Rating)	-0.12	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.75	--
MFR FE (Manufacturer Fuel Economy)	999	999
NOX (Nitrogen Oxide)	0.0003116	--
N2O (Nitrous Oxide)	0.000068	--
HC-NM (Non-methane Hydrocarbon)	0	--
NMOG (Non-methane organic gases)	0	--
HC-TOTAL (Total Hydrocarbon)	0.0012281	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	238

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	237.5872929	--

Manufacturer Test Comments NMOG = HC-NM x 1.03

Certification Summary Information Report

Test Group		TTYXV03.5E4A				Evaporative/Refueling Family				TTYXR0165P42		
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	238	--	--	--	0.078	--	238	--	--
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0	1	1.03	--	0.0016	--	0.002	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.0003	1	1.03	--	--	--	0.002	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.0003	--	--	--	0.0002	--	0	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG	0	1	1.03	--	0.0016	--	0.002	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG+NOX	0.0003	1	1.03	--	--	--	0.002	0.050	Pass
CA	150,000 miles	California LEV-IV ULEV50	NOX	0.0003	--	--	--	0.0002	--	0	999.999	Pass

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

Certification Summary Information Report

Test Group	TTYXV03.5E4A	Evaporative/Refueling Family	TTYXR0165P42
Test #	TTYX10092190	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	07/11/2025	Fuel	Gasoline
Fuel Batch ID	2J3A12	Fuel Calibration Number	14
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	Toyota Motor Corporation		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	3876	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes
Test Results			

Certification Summary Information Report

Test Group	TTYXV03.5E4A	Evaporative/Refueling Family	TTYXR0165P42																																																																					
	<table><tr><th>Test Result Name</th><th>Unrounded Test Result</th><th>Verify Calculated FE Equivalent Value (miles per gallon)</th></tr><tr><td>CO2 BAG 1 (Bag 1 Carbon Dioxide)</td><td>540.3391586</td><td>--</td></tr><tr><td>CO BAG 1 (Bag 1 Carbon Monoxide)</td><td>0.0308288</td><td>--</td></tr><tr><td>FE BAG 1 (Bag 1 Fuel Economy)</td><td>999</td><td>999</td></tr><tr><td>CH4 BAG 1 (Bag 1 Methane)</td><td>0.005314</td><td>--</td></tr><tr><td>NMOG BAG 1 (Bag 1 Non-methane organic gases)</td><td>0.0086959</td><td>--</td></tr><tr><td>CO2 BAG 2 (Bag 2 Carbon Dioxide)</td><td>300.6319988</td><td>--</td></tr><tr><td>CO BAG 2 (Bag 2 Carbon Monoxide)</td><td>0.0669869</td><td>--</td></tr><tr><td>FE BAG 2 (Bag 2 Fuel Economy)</td><td>999</td><td>999</td></tr><tr><td>CH4 BAG 2 (Bag 2 Methane)</td><td>0.0017098</td><td>--</td></tr><tr><td>NMOG BAG 2 (Bag 2 Non-methane organic gases)</td><td>0.0024091</td><td>--</td></tr><tr><td>METHANE (CH4 - Methane)</td><td>0.0025088</td><td>--</td></tr><tr><td>CO (Carbon Monoxide)</td><td>0.0589712</td><td>--</td></tr><tr><td>DT-ASCR (Drive Trace Absolute Speed Change Rating)</td><td>0.08</td><td>--</td></tr><tr><td>DT-EER (Drive Trace Energy Economy Rating)</td><td>-0.89</td><td>--</td></tr><tr><td>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</td><td>0.44</td><td>--</td></tr><tr><td>MFR FE (Manufacturer Fuel Economy)</td><td>999</td><td>999</td></tr><tr><td>NOX (Nitrogen Oxide)</td><td>0.0036671</td><td>--</td></tr><tr><td>N2O (Nitrous Oxide)</td><td>0.0008569</td><td>--</td></tr><tr><td>HC-NM (Non-methane Hydrocarbon)</td><td>0.0034533</td><td>--</td></tr><tr><td>NMOG (Non-methane organic gases)</td><td>0.0035569</td><td>--</td></tr><tr><td>PM (Particulate Matter)</td><td>0.0003848</td><td>--</td></tr><tr><td>HC-TOTAL (Total Hydrocarbon)</td><td>0.0058258</td><td>--</td></tr></table>	Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	CO2 BAG 1 (Bag 1 Carbon Dioxide)	540.3391586	--	CO BAG 1 (Bag 1 Carbon Monoxide)	0.0308288	--	FE BAG 1 (Bag 1 Fuel Economy)	999	999	CH4 BAG 1 (Bag 1 Methane)	0.005314	--	NMOG BAG 1 (Bag 1 Non-methane organic gases)	0.0086959	--	CO2 BAG 2 (Bag 2 Carbon Dioxide)	300.6319988	--	CO BAG 2 (Bag 2 Carbon Monoxide)	0.0669869	--	FE BAG 2 (Bag 2 Fuel Economy)	999	999	CH4 BAG 2 (Bag 2 Methane)	0.0017098	--	NMOG BAG 2 (Bag 2 Non-methane organic gases)	0.0024091	--	METHANE (CH4 - Methane)	0.0025088	--	CO (Carbon Monoxide)	0.0589712	--	DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.08	--	DT-EER (Drive Trace Energy Economy Rating)	-0.89	--	DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.44	--	MFR FE (Manufacturer Fuel Economy)	999	999	NOX (Nitrogen Oxide)	0.0036671	--	N2O (Nitrous Oxide)	0.0008569	--	HC-NM (Non-methane Hydrocarbon)	0.0034533	--	NMOG (Non-methane organic gases)	0.0035569	--	PM (Particulate Matter)	0.0003848	--	HC-TOTAL (Total Hydrocarbon)	0.0058258	--		
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Certification Summary Information Report

Test Group		TTYXV03.5E4A				Evaporative/Refueling Family				TTYXR0165P42		
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	PM	0.0004	--	--	--	0	--	0	0.006	Pass
CA	150,000 miles	California LEV-IV ULEV50	CO	0.06	--	--	--	0.07	--	0.1	9.6	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG	0.0036	1	1.03	--	0.0016	--	0.005	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG+NOX	0.0073	1	1.03	--	--	--	0.009	0.050	Pass
CA	150,000 miles	California LEV-IV ULEV50	NOX	0.0037	--	--	--	0.0002	--	0.004	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	PM	0.0004	--	--	--	0	--	0	0.006	Pass

Certification Summary Information Report

Test Group	TTYXV03.5E4A	Evaporative/Refueling Family	TTYXR0165P42
Test #	TTYX10092188	Test Procedure	95 - SC03
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	07/21/2025	Fuel	Gasoline
Fuel Batch ID	2J3A12	Fuel Calibration Number	14
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	Toyota Motor Corporation		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	3965	Odometer Units	M
4WD Test Dyno	No	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)	0.0069387	--
CO (Carbon Monoxide)	0.1948568	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	2.88	--
DT-EER (Drive Trace Energy Economy Rating)	0.84	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	3.41	--
MFR FE (Manufacturer Fuel Economy)	999	999
NOX (Nitrogen Oxide)	0.0028919	--
N2O (Nitrous Oxide)	0.0009242	--
HC-NM (Non-methane Hydrocarbon)	0.0038432	--
NMOG (Non-methane organic gases)	0.0039585	--
HC-TOTAL (Total Hydrocarbon)	0.010495	--

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

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	467.3166377	--

Manufacturer Test Comments NMOG = HC-NM x 1.03

Certification Summary Information Report

Test Group		TTYXV03.5E4A				Evaporative/Refueling Family				TTYXR0165P42		
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	CO	0.19	--	--	--	0.07	--	0.3	1.7	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG	0.004	1	1.03	--	0.0016	--	0.006	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG+NOX	0.0069	1	1.03	--	--	--	0.009	0.050	Pass
CA	150,000 miles	California LEV-IV ULEV50	NOX	0.0029	--	--	--	0.0002	--	0.003	999.999	Pass

Certification Summary Information Report

Test Group	TTYXV03.5E4A	Evaporative/Refueling Family	TTYXR0165P42
Fuel Properties			
Fuel Batch ID	1H9-01	Fuel Calibration Number	6
Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	08/09/2019
Fuel Batch Calibration Effective Date	04/01/2020	Fuel Batch Calibration Ineffective Date	04/30/2020
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 (%)	9.8	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17838
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	2J3A12	Fuel Calibration Number	14
Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	07/31/2025
Fuel Batch Calibration Effective Date	07/01/2025	Fuel Batch Calibration Ineffective Date	09/29/2023
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 (%)	9.8	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	--
Fuel Net Heat of Combustion (E10) (MJ/kg)	41.568	Fuel Carbon Mass Fraction (E10)	0.825
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	--	Weight Fraction CO2	--
Fuel Batch ID	2A5-11	Fuel Calibration Number	1
Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	01/24/2025
Fuel Batch Calibration Effective Date	09/01/2025	Fuel Batch Calibration Ineffective Date	09/30/2025
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.739
Fuel Ethanol Volume Percent (%)	9.8	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	--
Fuel Net Heat of Combustion (E10) (MJ/kg)	41.53	Fuel Carbon Mass Fraction (E10)	0.825
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	--	Weight Fraction CO2	--
Fuel Batch ID	2M0A01	Fuel Calibration Number	53
Test Fuel Type	29 - Cold CO E10 Premium Gasoline (Tier 3)	Fuel Batch Calibration Date	07/31/2025
Fuel Batch Calibration Effective Date	07/01/2025	Fuel Batch Calibration Ineffective Date	12/24/2020

Certification Summary Information Report

Test Group	TTYXV03.5E4A	Evaporative/Refueling Family	TTYXR0165P42
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.736
Fuel Ethanol Volume Percent (%)	9.6	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	--
Fuel Net Heat of Combustion (E10) (MJ/kg)	41.582	Fuel Carbon Mass Fraction (E10)	0.825
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	--	Weight Fraction CO2	--

Certification Summary Information Report

Test Group		TTYXV03.5E4A			Evaporative/Refueling Family			TTYXR0165P42	
Consolidated List of Standards									
Exhaust Standards									
Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			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
50,000 miles	CO	--	--	--	--	--	--	0.03	10.0
120,000 miles	HC-NM	--	--	--	--	--	--	0	0.4
Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			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	--	--	--	--	--	--	0.07	1.7
150,000 miles	CO-COMP	--	--	--	--	--	--	0.07	4.2
150,000 miles	CREE	--	--	--	--	--	--	0.078	999.999
150,000 miles	HCHO	--	--	--	--	--	--	--	0.004
150,000 miles	METHANE	--	--	--	--	--	--	0.0068	0.030
150,000 miles	N2O	--	--	--	--	--	--	0.0006	0.010
150,000 miles	NMOG	--	1	1.1	--	--	--	0.0016	999.999
150,000 miles	NMOG+NOX	--	1	1.1	--	--	--	0.0018	0.050
150,000 miles	NMOG+NOX-COMP	--	1	1.03	--	--	--	0.0018	0.080
150,000 miles	NOX	--	--	--	--	--	--	0.0002	999.999
150,000 miles	PM	--	--	--	--	--	--	0	0.003

Certification Summary Information Report

Test Group		TTYXV03.5E4A			Evaporative/Refueling Family			TTYXR0165P42	
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			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	--	--	--	--	--	--	0.07	9.6
150,000 miles	NMOG	--	1	1.03	--	--	--	0.0016	999.999
150,000 miles	NMOG+NOX	--	1	1.03	--	--	--	0.0018	0.050
150,000 miles	NOX	--	--	--	--	--	--	0.0002	999.999
150,000 miles	PM	--	--	--	--	--	--	0	0.006
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			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	--	--	--	--	--	--	0.07	1.7
150,000 miles	HCHO	--	--	--	--	--	--	--	0.004
150,000 miles	NMOG	--	1	1.1	--	--	--	0.0016	999.999
150,000 miles	NMOG+NOX	--	1	1.1	--	--	--	0.0018	0.050
150,000 miles	NOX	--	--	--	--	--	--	0.0002	999.999
150,000 miles	PM	--	--	--	--	--	--	0	0.003
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			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
50,000 miles	CO	--	--	--	--	--	--	0.03	10.0

Certification Summary Information Report

Test Group		TTYXV03.5E4A			Evaporative/Refueling Family			TTYXR0165P42	
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			Standard Level			California LEV-IV ULEV50	
Fuel		Gasoline			Test Procedure			Quick-Driveway (QD)	
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	1.1	--	--	--	0.0016	999.999
150,000 miles	NMOG+NOX	--	1	1.1	--	--	--	0.0018	0.062
150,000 miles	NOX	--	--	--	--	--	--	0.0002	999.999
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			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
4,000 miles	CO	--	--	--	--	--	--	--	1.7
4,000 miles	HCHO	--	--	--	--	--	--	--	0.016
4,000 miles	NMOG	--	1	1.1	--	--	--	--	999.999
4,000 miles	NMOG+NOX	--	1	1.1	--	--	1	--	0.100
4,000 miles	NOX	--	--	--	--	--	--	--	999.999
Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			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	--	--	--	--	--	--	0.078	999.999
150,000 miles	NMOG	--	1	1.03	--	--	--	0.0016	999.999
150,000 miles	NMOG+NOX	--	1	1.03	--	--	--	0.0018	0.050
150,000 miles	NOX	--	--	--	--	--	--	0.0002	999.999

Certification Summary Information Report

Test Group	TTYXV03.5E4A				Evaporative/Refueling Family			TTYXR0165P42	
Cert Region	California + CAA Section 177 states				Cert/In-Use Code			Cert	
Vehicle Class	LDV/Passenger Car				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	1.03	--	--	--	0.0016	999.999
150,000 miles	NMOG+NOX	--	1	1.03	--	--	--	0.0018	0.050
150,000 miles	NOX	--	--	--	--	--	--	0.0002	999.999

Cert Region	California + CAA Section 177 states				Cert/In-Use Code			Cert	
Vehicle Class	LDV/Passenger Car				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	--	--	--	--	--	--	0.07	1.7
150,000 miles	NMOG	--	1	1.03	--	--	--	0.0016	999.999
150,000 miles	NMOG+NOX	--	1	1.03	--	--	--	0.0018	0.050
150,000 miles	NOX	--	--	--	--	--	--	0.0002	999.999

Cert Region	Federal				Cert/In-Use Code			Cert	
Vehicle Class	LDV/Passenger Car				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	PM	--	--	--	--	--	--	0	0.006

Evaporative/Refueling Standards

Evaporative/Refueling Family	TTYXR0165P42				Cert Region				
Cert/In-Use Code	Cert				Standard Level				
Test Procedure	Federal Fuel Running Loss				California + CAA Section 177 states California LEV-IV Zero Evap (Option 2)				
Fuel	Useful Life	Emission Name	Rounded Result			Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--			0.01	0		

Certification Summary Information Report

Test Group		TTYXV03.5E4A	Evaporative/Refueling Family		TTYXR0165P42
Evaporative/Refueling Family		TTYXR0165P42	Cert Region		California + CAA Section 177 states
Cert/In-Use Code		Cert	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-EQUIV	--	0.020	0
Evaporative/Refueling Family		TTYXR0165P42	Cert Region		California + CAA Section 177 states
Cert/In-Use Code		Cert	Standard Level		California LEV-IV Zero Evap (Option 2)
Test Procedure		Federal fuel refueling test (ORVR)			
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.20	0
Evaporative/Refueling Family		TTYXR0165P42	Cert Region		Federal
Cert/In-Use Code		Cert	Standard Level		Federal Tier 3 Evap
Test Procedure		Federal fuel refueling test (ORVR)			
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.20	0
Evaporative/Refueling Family		TTYXR0165P42	Cert Region		Federal
Cert/In-Use Code		Cert	Standard Level		Federal Tier 3 Evap
Test Procedure		Federal Fuel Running Loss			
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.05	0
Evaporative/Refueling Family		TTYXR0165P42	Cert Region		California + CAA Section 177 states
Cert/In-Use Code		Cert	Standard Level		California LEV-IV Zero Evap (Option 2)
Test Procedure		2-day evap			
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.300	0

Certification Summary Information Report

Test Group		TTYXV03.5E4A		Evaporative/Refueling Family		TTYXR0165P42	
Evaporative/Refueling Family		TTYXR0165P42		Cert Region		California + CAA Section 177 states	
Cert/In-Use Code		Cert		Standard Level		California LEV-IV Zero Evap (Option 2)	
Test Procedure		Federal fuel 3-day evap					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.300	0		
Evaporative/Refueling Family		TTYXR0165P42		Cert Region		Federal	
Cert/In-Use Code		Cert		Standard Level		Federal Tier 3 Evap	
Test Procedure		Federal fuel 3-day evap					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.300	0		
Evaporative/Refueling Family		TTYXR0165P42		Cert Region		Federal	
Cert/In-Use Code		Cert		Standard Level		Federal Tier 3 Evap	
Test Procedure		Spitback					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	4,000 miles	SPITBACK	--	1.0	--		
Evaporative/Refueling Family		TTYXR0165P42		Cert Region		Federal	
Cert/In-Use Code		Cert		Standard Level		Federal Tier 3 Evap	
Test Procedure		Evap Canister Bleed Test					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.020	0		
Evaporative/Refueling Family		TTYXR0165P42		Cert Region		Federal	
Cert/In-Use Code		Cert		Standard Level		Federal Tier 3 Evap	
Test Procedure		2-day evap					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.300	0		

Certification Summary Information Report

Test Group		TTYXV03.5E4A	Evaporative/Refueling Family		TTYXR0165P42
Glossary					
Useful Life					
4	4,000 miles		120	120,000 miles	
50	50,000 miles		150	150,000 miles	
100	100,000 miles				
Emission Name					
HC-TOTAL	Total Hydrocarbon		AS-VOLT	Average System Voltage	
CO	Carbon Monoxide		CO2 BAG 1	Bag 1 Carbon Dioxide	
CO2	Carbon dioxide		CO2 BAG 2	Bag 2 Carbon Dioxide	
CREE	Carbon-Related Exhaust Emissions		CO2 BAG 3	Bag 3 Carbon Dioxide	
OPT-CREE	Optional Carbon-Related Exhaust Emissions		CO2 BAG 4	Bag 4 Carbon Dioxide	
NOX	Nitrogen Oxide		NMOG+NOX	Non-methane organic gases plus Nitrogen Oxides	
PM	Particulate Matter		NMOG+NOX-COMP	SFTP Composite Non-methane Organic Gases + Nitrogen Oxides	
PM-COMP	SFTP Composite Particulate Matter		DT-IWRR	Drive Trace Inertia Work Ratio Rating	
HC-NM	Non-methane Hydrocarbon		DT-ASCR	Drive Trace Absolute Speed Change Rating	
OMHCE	Organic material Hydrocarbon Equivalent		DT-EER	Drive Trace Energy Economy Rating	
OMNMHCE	Organic material non-methane HC equivalent		COMB-CREE	Combined Carbon-Related Exhaust Emissions	
NMOG	Non-methane organic gases		COMB-OPT-CREE	Combined Optional Carbon-Related Exhaust Emissions	
HCHO	Formaldehyde		HC-TOTAL-EQUIV	Total Hydrocarbon equivalent - Evap only	
H3C2HO	Acetaldehyde		METHANE-COMB	Combined CH4 for HD 2b/3 vehicles only	
HC-NM+NOX	SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03		N2O-COMB	Combined Nitrous Oxide for HD 2b/3 vehicles only	
HC-NM+NOX-COMP	SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides		LEAK-DIA	Effective Leak Diameter (inches)	
CO-COMP	SFTP Composite Carbon Monoxide		LEAK-GAS CAP	Gas Cap Leakage (cc/min)	
ETHANOL	C2H5OH - Ethanol		CO2-COMB	Combined Carbon Dioxide for HD 2b/3 Vehicles Only	
FE BAG 1	Bag 1 Fuel Economy		KW-HRS	Integrated DC KW-HRS	
FE BAG 2	Bag 2 Fuel Economy		CH4 BAG 1	Bag 1 Methane	
FE BAG 3	Bag 3 Fuel Economy		CH4 BAG 2	Bag 2 Methane	
FE BAG 4	Bag 4 Fuel Economy		CH4 BAG 3	Bag 3 Methane	
MFR FE	Manufacturer Fuel Economy		CH4 BAG 4	Bag 4 Methane	
HC	Hydrocarbon for Running Loss and ORVR		CO BAG 1	Bag 1 Carbon Monoxide	
METHANE	CH4 - Methane		CO BAG 2	Bag 2 Carbon Monoxide	
METHANOL	CH3OH - Methanol		CO BAG 3	Bag 3 Carbon Monoxide	
N2O	Nitrous Oxide		CO BAG 4	Bag 4 Carbon Monoxide	
SPITBACK	Spitback Hydrocarbon in grams		NMOG BAG 1	Bag 1 Non-methane organic gases	
AMP-HRS	Integrated Amp-hours		NMOG BAG 2	Bag 2 Non-methane organic gases	
START-SOC	System Start State of Charge Watt-hours		NMOG BAG 3	Bag 3 Non-methane organic gases	
END-SOC	System End State of Charge Watt-hours		NMOG BAG 4	Bag 4 Non-methane organic gases	
ACT-DISTANCE	Actual Distance Driven (miles)				
Certification Region					

Certification Summary Information Report

Test Group		TTYXV03.5E4A		Evaporative/Refueling Family		TTYXR0165P42	
CA	California + CAA Section 177 states	FA	Federal				
Exhaust Emission Standard Level							
B1	Federal Tier 2 Bin 1	T3B160	Federal Tier 3 Bin 160				
B2	Federal Tier 2 Bin 2	T3B125	Federal Tier 3 Bin 125				
B3	Federal Tier 2 Bin 3	T3B110	Federal Tier 3 Transitional Bin 110				
B4	Federal Tier 2 Bin 4	T3B85	Federal Tier 3 Transitional Bin 85				
B5	Federal Tier 2 Bin 5	T3SULEV30	Federal Tier 3 Transitional LEV-II SULEV30 Carryover				
B6	Federal Tier 2 Bin 6	T3B70	Federal Tier 3 Bin 70				
B7	Federal Tier 2 Bin 7	T3B50	Federal Tier 3 Bin 50				
B8	Federal Tier 2 Bin 8	T3B30	Federal Tier 3 Bin 30				
B9	Federal Tier 2 Bin 9	T3B20	Federal Tier 3 Bin 20				
B10	Federal Tier 2 Bin 10	T3B0	Federal Tier 3 Bin 0				
B11	Federal Tier 2 Bin 11	HDV2B395	Federal Tier 3 HD Class 2b Transitional Bin 395				
HDV1	HDV1 (Federal HD chassis Class 2b GVW 8501-10000)	HDV2B340	Federal Tier 3 HD Class 2b Transitional Bin 340				
HDV2	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)	HDV2B250	Federal Tier 3 HD Class 2b Bin 250				
L2	California LEV-II LEV	HDV2B200	Federal Tier 3 HD Class 2b Bin 200				
L2OP	California LEV-II LEV Optional	HDV2B170	Federal Tier 3 HD Class 2b Bin 170				
U2	California LEV-II ULEV	HDV2B150	Federal Tier 3 HD Class 2b Bin 150				
S2	California LEV-II SULEV	HDV2B0	Federal Tier 3 HD Class 2b Bin 0				
ZEV	California ZEV	HDV3B630	Federal Tier 3 HD Class 3 Transitional Bin 630				
OT	Other	HDV3B570	Federal Tier 3 HD Class 3 Transitional Bin 570				
T1	Federal Tier 1	HDV3B400	Federal Tier 3 HD Class 3 Bin 400				
PZEV	California PZEV	HDV3B270	Federal Tier 3 HD Class 3 Bin 270				
L2LEV160	California LEV-II LEV160	HDV3B230	Federal Tier 3 HD Class 3 Bin 230				
L2ULEV125	California LEV-II ULEV125	HDV3B200	Federal Tier 3 HD Class 3 Bin 200				
L2SULEV30	California LEV-II SULEV30	HDV3B0	Federal Tier 3 HD Class 3 Bin 0				
L2LEV395	California LEV-II LEV395	L4SULEV100	California LEV-IV SULEV100				
L2ULEV340	California LEV-II ULEV340	L4SULEV125	California LEV-IV SULEV125				
L2LEV630	California LEV-II LEV630	L4SULEV15	California LEV-IV SULEV15				
L2ULEV570	California LEV-II ULEV570	L4SULEV150	California LEV-IV SULEV150				
L3LEV160	California LEV-III LEV160	L4SULEV170	California LEV-IV SULEV170				
L3ULEV125	California LEV-III ULEV125	L4SULEV175	California LEV-IV SULEV175				
L3ULEV70	California LEV-III ULEV70	L4SULEV20	California LEV-IV SULEV20				
L3ULEV50	California LEV-III ULEV50	L4SULEV200	California LEV-IV SULEV200				
L3SULEV30	California LEV-III SULEV30	L4SULEV230	California LEV-IV SULEV230				
L3SULEV20	California LEV-III SULEV20	L4SULEV25	California LEV-IV SULEV25				
L3LEV395	California LEV-III LEV395	L4SULEV30	California LEV-IV SULEV30				
L3ULEV340	California LEV-III ULEV340	L4SULEV75	California LEV-IV SULEV75				
L3ULEV250	California LEV-III ULEV250	L4SULEV85	California LEV-IV SULEV85				
L3ULEV200	California LEV-III ULEV200	L4ULEV125	California LEV-IV ULEV125				

Certification Summary Information Report

Test Group		TTYXV03.5E4A	Evaporative/Refueling Family		TTYXR0165P42
L3SULEV170	California LEV-III SULEV170		L4ULEV200	California LEV-IV ULEV200	
L3SULEV150	California LEV-III SULEV150		L4ULEV250	California LEV-IV ULEV250	
L3LEV630	California LEV-III LEV630		L4ULEV270	California LEV-IV ULEV270	
L3ULEV570	California LEV-III ULEV570		L4ULEV40	California LEV-IV ULEV40	
L3ULEV400	California LEV-III ULEV400		L4ULEV400	California LEV-IV ULEV400	
L3ULEV270	California LEV-III ULEV270		L4ULEV50	California LEV-IV ULEV50	
L3SULEV230	California LEV-III SULEV230		L4ULEV60	California LEV-IV ULEV60	
L3SULEV200	California LEV-III SULEV200		L4ULEV70	California LEV-IV ULEV70	
Transmission Type Code					
AMS	Automated Manual- Selectable (e.g. Automated Manual with paddles)	M	Manual		
A	Automatic	OT	Other		
AM	Automated Manual	SA	Semi-Automatic		
CVT	Continuously Variable	SCV	Selectable Continuously Variable (e.g. CVT with paddles)		
Drive System Code					
4	4-Wheel Drive	P	Part-time 4-Wheel Drive		
F	2-Wheel Drive, Front	A	All Wheel Drive		
R	2-Wheel Drive, Rear				
Additional Terms and Acronyms					
AFC	Alternative Fuel Converter	ICI	Independent Commercial Importer		
CSI	Certificate Summary Information	ORVR	Onboard Refueling Vapor Recovery		
DF	Deterioration Factor	SIL	Shift Indicator Light		
Evap	Evaporation, Evaporative	Trans	Transmission		