

Certification Summary Information Report

Manufacturer	Toyota Motor Corporation	Manufacturer Code	TYX
Test Group	VTYXT02.4E4A	Evaporative/Refueling Family	VTYXR0170J62
Certificate Number	VTYXT02.4E4A-001	CARB Executive Order #	--
Certificate Issue Date	02/10/2026	Certificate Revision Date	--
Certificate Effective Date	02/10/2026	Conditional Certificate	No
CSI Revision #	--	CSI Submission/Revision Date	01/06/2026 01:29:06 AM
Model Year	2027		

Certification Summary Information Report

Test Group	VTYXT02.4E4A	Evaporative/Refueling Family	VTYXR0170J62
Test Group Information			
CSI Type	New	Running Change Reference Number	--
GHG Exempt Status	Not Exempt		
Drive Sources and Fuel(s)			
Drive Source #1:	Electric Motor		
	Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator
	Electricity	--	No
Drive Source #2:	Combustion Engine		
	Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator
	Gasoline	Spark Ignition direct & ported injection	No
Hybrid Indicator	Yes		
Multiple Fuel Storage	--	Rechargeable Energy Storage System Indicator	Yes
Multiple Fuel Combustion	--	Off-board Charge Capable Indicator	No
Fuel Cell Indicator	No	EPA Vehicle Class	LDT4
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	VTYXHHGNNB2J	Durability Group Equivalency Factor	0.9
Reduced Fee Test Group	No	Certification Region Code(s)	FA, CA
Complies with HD GHG 2b/3 regulations?	No		
Introduction into Commerce Date	03/01/2026	CAP2000 Conditional Certificate?	No
Independent Commercial Importer?	No	Alternative Fuel Converter Certificate?	No
SFTP Federal Composite Compliance Identifier	Tier 3	SFTP Tier 2 Composite CO Option	No
SFTP LEV-III Composite Compliance Indicator	Yes		
OBD Compliance Type	CARB	OBD Demonstration Vehicle Test Group	VTYXT02.4H3A
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	VTYXT02.4E4A		Evaporative/Refueling Family	VTYXR0170J62			
Evaporative/Refueling Family Information							
Evaporative Summary Information Type	New	Submission/Correction Date	01/06/2026 01:20:14 AM				
Integrated ORVR?	No	Fuel(s)	Gasoline, Electricity				
Multiple Fuel Storage	Fuels Stored Together						
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)	170	Number of Primary Canisters	1				
Number of Bleed Canisters	0	Bleed Canister Total Working Capacity (grams)	--				
Mfr Evaporative/Refueling Family Comments	--						
Leak Family Details							
Leak Family Indicator	No						
Canister Bleed Test Indicator	No	Applicability of Evaporative Canister Bleed Test	--				
Evaporative Canister Bleed Test Comments	--						
CARB Fuel Only (Rig) Test Indicator	No	Applicability of CARB Fuel Only (Rig) Test	--				
CARB Fuel Only (Rig) Test Comments	--						
Models Covered by this Certificate							
Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	- # of Gears	Trans - Lockup
Toyota Motor Corporation	1 - TOYOTA	120 - LAND CRUISER	Federal	4-Wheel Drive	Semi-Automatic	8	Yes
Toyota Motor Corporation	1 - TOYOTA	120 - LAND CRUISER	California + CAA Section 177 states	4-Wheel Drive	Semi-Automatic	8	Yes
Engine Description							
Hybrid Type	IC Engine/Electric Motor			Hybrid Description	--		
Engine Type	4-Stroke Spark Ignition			Mfr Engine Description	--		
Engine Block Arrangement	Inline			Mfr Engine Block Arrangement Description	--		
Camless Valvetrain Indicator	No			Oil Viscosity/Classification	0W-20		
Number of Cylinders/Rotors	4			Mechanically Variable Compression Ratio Indicator	N		

Certification Summary Information Report

Test Group	VTYXT02.4E4A	Evaporative/Refueling Family	VTYXR0170J62								
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								
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)	2.4	Engine Rated Horsepower	278								
Number of Inlet Valves Per Cylinder	2	Number of Exhaust Valves Per Cylinder	2								
Air Aspiration Method	Turbocharged	Number of Air Aspiration Devices	1								
Air Aspiration Device Configuration	Single	Charge Air Cooler Type	Air								
Air Aspiration Drive Method(s)	Mechanical										
Cylinder Deactivation	No										
Cylinder Deactivation Description	--										
Variable Valve Timing	Yes										
Variable Valve Timing System Description	Intake and exhaust										
Variable Valve Lift?	No										
Variable Valve Lift System Description	--										
Number of Knock Sensors	1	Number of Air/Fuel Sensors	2								
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	--								
Mfr Air/Fuel Sensor Comments	--										
Exhaust Gas Recirculation	No	Cooled Exhaust Gas Recirculation	No								
EGR Type	--	Exhaust Gas Recirculation Description if 'Other'	--								
Closed Loop Air Injection System	No										
Air Injection Type	Not Applicable	Air Injection Type if 'Other'	--								
Mfr Engine Configuration Comments	--										
Official Test Numbers											
Test Group	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
Electricity	RTYX10082630	RTYX10082630	RTYX10082648	RTYX10082655	RTYX10082645	RTYX10082653	--	--	--	--	--
Gasoline	RTYX10082630	RTYX10082630	RTYX10082648	RTYX10082655	RTYX10082645	RTYX10082653	999.9	228.2	999.9	286.1	--

Certification Summary Information Report

Test Group	VTYXT02.4E4A		Evaporative/Refueling Family	VTYXR0170J62
SFTP LEV-III Official Test Numbers				
Test Group Fuel	FTP	US06	SC03	
Gasoline	RTYX10082630	RTYX10082648	RTYX10082655	
Electricity	RTYX10082630	RTYX10082648	RTYX10082655	
Hybrid Electric Vehicle And Fuel Cell Information				
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if Other	--	
Battery Type	NiMH	Number of Battery Packs	1	
Total Voltage of Battery Packs	288	Battery Energy Capacity	6.5	
Battery Specific Energy	33	Battery Charger Type	On-Board	
Number of Capacitors	--	Capacitor Rating (In Farads)	--	
Mfr Capacitor Comments	--			
Hydraulic System Description	--			
Regenerative Braking Type	Electrical Regen Brake			
Regenerative Braking Source	Both	Driver Controlled Regenerative Braking	No	
Mfr Regenerative Braking Description	--			
Drive Motor(s)/Generator(s)	1			
Motor/Generator Type 1	AC SYNCHRONOUS	Rated Motor/Generator Power	36	
Mfr Fuel Cell Description	--			
Fuel Cell On-Board H2 Storage Capacity (kg)	--	Usable H2 Fill Capacity (kg)	--	
Mfr Hybrid Electric/ Electric Vehicle Comments	--			

Certification Summary Information Report

Test Group		VTYXT02.4E4A			Evaporative/Refueling Family			VTYXR0170J62
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	38.862	0.51435	0.030549	20.136	-0.22075	0.03602	18.8	
Cold CO	42.748	0.56579	0.033604	20.987	-0.1238	0.035281	N/A	
US06	38.716	0.51312	0.030985	20.005	-0.15547	0.036037	N/A	
Emission Control Device Comments	--							
Manufacturer Test Vehicle Comments	Drive mode is SPORT. Conducted City, Hwy, SC03 and Cold tests.							

Certification Summary Information Report

Test Group	VTYXT02.4E4A	Evaporative/Refueling Family	VTYXR0170J62
Test #	RTYX10082630	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	09/12/2023	Fuel	Gasoline
Fuel Batch ID	2E3-02	Fuel Calibration Number	3
Vehicle Class	LDT2 (LVW 3751-5750, GVW 0-6000), LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	Toyota Motor Corporation		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4061	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)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	0	--
FE BAG 1 (Bag 1 Fuel Economy)	999	999
CO2 BAG 2 (Bag 2 Carbon Dioxide)	0	--
FE BAG 2 (Bag 2 Fuel Economy)	999	999
CO2 BAG 3 (Bag 3 Carbon Dioxide)	0	--
FE BAG 3 (Bag 3 Fuel Economy)	999	999
CO2 BAG 4 (Bag 4 Carbon Dioxide)	0	--
FE BAG 4 (Bag 4 Fuel Economy)	999	999
METHANE (CH4 - Methane)	0.0038666	--
CO (Carbon Monoxide)	0.3444846	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.71	--
DT-EER (Drive Trace Energy Economy Rating)	0.33	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.9	--
MFR FE (Manufacturer Fuel Economy)	999	999
NOX (Nitrogen Oxide)	0.0015559	--
N2O (Nitrous Oxide)	0.0002756	--
HC-NM (Non-methane Hydrocarbon)	0.0081016	--
NMOG (Non-methane organic gases)	0.0089215	--
PM (Particulate Matter)	0.0004959	--
HC-TOTAL (Total Hydrocarbon)	0.011447	--

Certification Summary Information Report

Test Group	VTYXT02.4E4A	Evaporative/Refueling Family	VTYXR0170J62
-------------------	--------------	-------------------------------------	--------------

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

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	0	--

Manufacturer Test Comments NMOG = HC-NM x 1.1012

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	0.34	--	--	--	0.02	--	0.4	1.7	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	CO-COMP	0.31	--	--	--	0.02	--	0.3	4.2	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	CREE	999	--	--	--	0.041	--	999	--	--
Fed	150,000 miles	Federal Tier 3 Bin 50	METHANE	0.0039	--	--	--	0.0113	--	0.015	0.030	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	N2O	0.0003	--	--	--	0.0008	--	0.001	0.010	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0.0089	1	1.1	--	0.0107	--	0.02	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.0105	1	1.1	--	--	--	0.028	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX-COMP	0.031	1	1.03	--	0.0173	--	0.031	0.060	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.0016	--	--	--	0.0066	--	0.008	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	0.34	--	--	--	0.02	--	0.4	1.7	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG	0.0089	1	1.1	--	0.0107	--	0.02	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG+NOX	0.0105	1	1.1	--	--	--	0.028	0.050	Pass
CA	150,000 miles	California LEV-IV ULEV50	NOX	0.0016	--	--	--	0.0066	--	0.008	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	VTYXT02.4E4A	Evaporative/Refueling Family	VTYXR0170J62
Test #	RTYX10082645	Test Procedure	11 - Cold CO
Exhaust Test # for this Evap Test	--	Test Fuel Type	29 - Cold CO E10 Premium Gasoline (Tier 3)
Test Date	08/29/2023	Fuel	Gasoline
Fuel Batch ID	2M0A01	Fuel Calibration Number	30
Vehicle Class	LDT2 (LVW 3751-5750, GVW 0-6000), LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	Toyota Motor Corporation		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	3916	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)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	0	--
FE BAG 1 (Bag 1 Fuel Economy)	999	999
CO2 BAG 2 (Bag 2 Carbon Dioxide)	0	--
FE BAG 2 (Bag 2 Fuel Economy)	999	999
CO2 BAG 3 (Bag 3 Carbon Dioxide)	0	--
FE BAG 3 (Bag 3 Fuel Economy)	999	999
CO2 BAG 4 (Bag 4 Carbon Dioxide)	0	--
METHANE (CH4 - Methane)	0.0172953	--
CO (Carbon Monoxide)	0.6750893	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.84	--
DT-EER (Drive Trace Energy Economy Rating)	0.11	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.97	--
MFR FE (Manufacturer Fuel Economy)	999	999
NOX (Nitrogen Oxide)	0.0051244	--
N2O (Nitrous Oxide)	0.0169541	--
HC-NM (Non-methane Hydrocarbon)	0.0982057	--
HC-TOTAL (Total Hydrocarbon)	0.1154194	--

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

Certification Summary Information Report

Test Group	VTYXT02.4E4A	Evaporative/Refueling Family	VTYXR0170J62
-------------------	--------------	-------------------------------------	--------------

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	0	--

Manufacturer Test Comments --

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	0.68	--	--	--	0	--	0.7	12.5	Pass
Fed	120,000 miles	Federal Tier 3 Bin 50	HC-NM	0.1	--	--	--	0.01	--	0.1	0.5	Pass
CA	50,000 miles	California LEV-IV ULEV50	CO	0.68	--	--	--	0	--	0.7	12.5	Pass

Certification Summary Information Report

Test Group	VTYXT02.4E4A	Evaporative/Refueling Family	VTYXR0170J62
Test #	RTYX10082653	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	09/08/2023	Fuel	Gasoline
Fuel Batch ID	2E3-02	Fuel Calibration Number	3
Vehicle Class	LDT2 (LVW 3751-5750, GVW 0-6000), LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	Toyota Motor Corporation		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4017	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)	0.0021727	--
CO (Carbon Monoxide)	0.1180902	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.11	--
DT-EER (Drive Trace Energy Economy Rating)	0.02	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.14	--
MFR FE (Manufacturer Fuel Economy)	999	999
NOX (Nitrogen Oxide)	0.0057808	--
N2O (Nitrous Oxide)	0.0006654	--
HC-NM (Non-methane Hydrocarbon)	0.0004778	--
NMOG (Non-methane organic gases)	0.0004921	--
HC-TOTAL (Total Hydrocarbon)	0.0024777	--

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

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	0	--

Manufacturer Test Comments

NMOG = HC-NM x 1.03

Certification Summary Information Report

Test Group		VTYXT02.4E4A				Evaporative/Refueling Family				VTYXR0170J62		
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Bin 50	CREE	999	--	--	--	0.041	--	999	--	--
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0.0005	1	1.03	--	0.0107	--	0.011	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.0063	1	1.03	--	--	--	0.024	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.0058	--	--	--	0.0066	--	0.012	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG	0.0005	1	1.03	--	0.0107	--	0.011	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG+NOX	0.0063	1	1.03	--	--	--	0.024	0.050	Pass
CA	150,000 miles	California LEV-IV ULEV50	NOX	0.0058	--	--	--	0.0066	--	0.012	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	VTYXT02.4E4A	Evaporative/Refueling Family	VTYXR0170J62
Test #	RTYX10082655	Test Procedure	95 - SC03
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/29/2023	Fuel	Gasoline
Fuel Batch ID	2E3-02	Fuel Calibration Number	2
Vehicle Class	LDT2 (LVW 3751-5750, GVW 0-6000)	DF Type	Mfr. Determined
Verify Test Lab ID	Toyota Motor Corporation		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	3946	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)	0.0028858	--
CO (Carbon Monoxide)	0.0851862	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.08	--
DT-EER (Drive Trace Energy Economy Rating)	0.27	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.3	--
MFR FE (Manufacturer Fuel Economy)	999	999
NOX (Nitrogen Oxide)	0.0136605	--
N2O (Nitrous Oxide)	0.0122678	--
HC-NM (Non-methane Hydrocarbon)	0.0041259	--
NMOG (Non-methane organic gases)	0.0042497	--
HC-TOTAL (Total Hydrocarbon)	0.0072344	--

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	0	--

Manufacturer Test Comments

NMOG = HC-NM x 1.03

Certification Summary Information Report

Test Group		VTYXT02.4E4A				Evaporative/Refueling Family				VTYXR0170J62		
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	0.09	--	--	--	0.02	--	0.1	1.7	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG	0.0042	1	1.1	--	0.0107	--	0.015	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG+NOX	0.0179	--	--	--	--	--	0.035	0.050	Pass
CA	150,000 miles	California LEV-IV ULEV50	NOX	0.0137	--	--	--	0.0066	--	0.02	999.999	Pass

Certification Summary Information Report

Test Group		VTYXT02.4E4A			Evaporative/Refueling Family			VTYXR0170J62
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	38.862	0.51435	0.030549	20.136	-0.22075	0.03602	18.8	
US06	38.716	0.51312	0.030985	20.005	-0.15547	0.036037	N/A	
Emission Control Device Comments	--							
Manufacturer Test Vehicle Comments	Drive mode is SPORT. Conducted US06 test only.							

Certification Summary Information Report

Test Group	VTYXT02.4E4A	Evaporative/Refueling Family	VTYXR0170J62
Test #	RTYX10082648	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	09/13/2023	Fuel	Gasoline
Fuel Batch ID	2F3-03	Fuel Calibration Number	1
Vehicle Class	LDT2 (LVW 3751-5750, GVW 0-6000), LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	Toyota Motor Corporation		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4092	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)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	0	--
FE BAG 1 (Bag 1 Fuel Economy)	999	999
CO2 BAG 2 (Bag 2 Carbon Dioxide)	0	--
FE BAG 2 (Bag 2 Fuel Economy)	999	999
METHANE (CH4 - Methane)	0.0026564	--
CO (Carbon Monoxide)	0.492356	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-1.67	--
DT-EER (Drive Trace Energy Economy Rating)	-0.23	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-3.28	--
MFR FE (Manufacturer Fuel Economy)	999	999
NOX (Nitrogen Oxide)	0.0067734	--
N2O (Nitrous Oxide)	0.0009077	--
HC-NM (Non-methane Hydrocarbon)	0.0051329	--
NMOG (Non-methane organic gases)	0.0052869	--
PM (Particulate Matter)	0.0009942	--
HC-TOTAL (Total Hydrocarbon)	0.007578	--

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

Certification Summary Information Report

Test Group	VTYXT02.4E4A	Evaporative/Refueling Family	VTYXR0170J62
-------------------	--------------	-------------------------------------	--------------

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	0	--

Manufacturer Test Comments NMOG = HC-NM x 1.03

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	0.001	--	--	--	0	--	0.001	0.006	Pass
CA	150,000 miles	California LEV-IV ULEV50	CO	0.49	--	--	--	0.02	--	0.5	9.6	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG	0.0053	1	1.1	--	0.0107	--	0.016	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	NMOG+NOX	0.0121	--	--	--	--	--	0.029	0.060	Pass
CA	150,000 miles	California LEV-IV ULEV50	NOX	0.0068	--	--	--	0.0066	--	0.013	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV50	PM	0.001	--	--	--	0	--	0.001	0.006	Pass

Certification Summary Information Report

Test Group		VTYXT02.4E4A			Evaporative/Refueling Family			VTYXR0170J62
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	43.574	0.46205	0.033732	18.443	0.0265	0.03617	20.1	
US06	43.095	0.46541	0.034803	99.999	9.99999	9.999999	N/A	
Emission Control Device Comments	--							
Manufacturer Test Vehicle Comments	Drive mode is SPORT S+. US06 set value is dummy.							

Certification Summary Information Report

Test Group	VTYXT02.4E4A	Evaporative/Refueling Family	VTYXR0170J62
Test #	RTYX10084963	Test Procedure	23 - 2-day evap
Exhaust Test # for this Evap Test	RTYX10084962	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	02/20/2023	Fuel	Gasoline
Fuel Batch ID	243R01	Fuel Calibration Number	1
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	Toyota Motor Engineering & Manufacturing North America, Inc. 2		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	3952	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes	Road Speed Fan Usage	Yes
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	0	--
FE BAG 1 (Bag 1 Fuel Economy)	999	999
CO2 BAG 2 (Bag 2 Carbon Dioxide)	0	--
FE BAG 2 (Bag 2 Fuel Economy)	999	999
CO2 BAG 3 (Bag 3 Carbon Dioxide)	0	--
FE BAG 3 (Bag 3 Fuel Economy)	999	999
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.3575	--

Manufacturer Test Comments HSL=0.0280, 1ST DBL=0.3295, 2ND DBL=0.3115, 1ST DBL IS ADDED KEY OFF MONITOR LOSS(0.0010 GRAM)

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	0.3575	0	0.358	0.5	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.3575	0	0.358	0.5	Pass

Certification Summary Information Report

Test Group	VTYXT02.4E4A	Evaporative/Refueling Family	VTYXR0170J62
Test #	RTYX10085261	Test Procedure	34 - Federal fuel 3-day evap
Exhaust Test # for this Evap Test	RTYX10085252	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	03/19/2023	Fuel	Gasoline
Fuel Batch ID	243R02	Fuel Calibration Number	1
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	Toyota Motor Engineering & Manufacturing North America, Inc. 2		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4129	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes	Road Speed Fan Usage	Yes
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	0	--
FE BAG 1 (Bag 1 Fuel Economy)	999	999
CO2 BAG 2 (Bag 2 Carbon Dioxide)	0	--
FE BAG 2 (Bag 2 Fuel Economy)	999	999
CO2 BAG 3 (Bag 3 Carbon Dioxide)	0	--
FE BAG 3 (Bag 3 Fuel Economy)	999	999
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.1713	--

Manufacturer Test Comments HSL=0.0443, 1ST DBL=0.1270, 2ND DBL=0.0971, 3RD DBL=0.0990, 1ST DBL IS ADDED KEY OFF MONITOR LOSS(0.0010GRAM)

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	0.1713	0	0.171	0.5	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.1713	0	0.171	0.5	Pass

Certification Summary Information Report

Test Group	VTYXT02.4E4A	Evaporative/Refueling Family	VTYXR0170J62									
Emission Data Vehicle Information												
Vehicle ID / Configuration	25-TN2H / 0	Manufacturer Vehicle Configuration Number	0									
Original Test Group Name	STYXT02.4H3J	Original Evaporative/Refueling Family	STYXR0170J92									
Original Test Vehicle Model Year	2025											
Vehicle Model												
Represented Test Vehicle Make	TOYOTA	Represented Test Vehicle Model	4RUNNER 4WD									
Leak Family Details												
Leak Family Identifier	--	Leak Family Name	--									
Drive Sources and Fuel System Details												
<table border="1"> <thead> <tr> <th>Drive Source and Fuel#</th> <th>Drive Source</th> <th>Fuel</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Electric Motor</td> <td>Electricity</td> </tr> <tr> <td>2</td> <td>Combustion Engine</td> <td>Gasoline</td> </tr> </tbody> </table>				Drive Source and Fuel#	Drive Source	Fuel	1	Electric Motor	Electricity	2	Combustion Engine	Gasoline
Drive Source and Fuel#	Drive Source	Fuel										
1	Electric Motor	Electricity										
2	Combustion Engine	Gasoline										
Hybrid Indicator	Yes											
Multiple Fuel Storage	--	Multiple Fuel Combustion	--									
Fuel Cell Indicator	No	Rechargeable Energy Storage System Indicator	Yes									
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if 'Other'	--									
Off-board charge Capable Indicator	No											
Odometer Correction -- Initial	9	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	278									
Displacement (liters)	2.393											
Air Aspiration Method	Turbocharged	Air Aspiration Method, if 'Other'										
Number of Air Aspiration Devices	1	Air Aspiration Device Configuration	Single									
Charge Air Cooler Type	Air	Drive Mode While Testing	2-Wheel Drive, Rear									
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)									
Curb Weight (lbs)	5310	Equivalent Test Weight (pounds)	5500									
GVWR (lbs)	6505	N/V Ratio	25.2									
Axle Ratio	3.58											
Transmission Type	Automatic	# of Transmission Gears	8									
Transmission Lockup	Yes	Creep Gear	No									

Certification Summary Information Report

Test Group	VTYXT02.4E4A	Evaporative/Refueling Family	VTYXR0170J62
-------------------	--------------	-------------------------------------	--------------

Dynamometer Coefficients:

Coefficient Category	Target Coefficients			Set Coefficients			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	
City/Highway/Evap	38.511	0.43185	0.032231	99.999	9.99999	9.999999	18.8
US06	38.35	0.43109	0.032685	99.999	9.99999	9.999999	N/A

Emission Control Device Comments

--

Manufacturer Test Vehicle Comments

Drive mode is SPORT S+. ORVR test only. RL set value is dummy.

Certification Summary Information Report

Test Group	VTYXT02.4E4A	Evaporative/Refueling Family	VTYXR0170J62
Fuel Properties			
Fuel Batch ID	2E3-02	Fuel Calibration Number	3
Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	05/13/2023
Fuel Batch Calibration Effective Date	09/01/2023	Fuel Batch Calibration Ineffective Date	09/30/2023
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.739
Fuel Ethanol Volume Percent (%)	10	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17811
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.825	Weight Fraction CO2	--
Fuel Batch ID	2M0A01	Fuel Calibration Number	30
Test Fuel Type	29 - Cold CO E10 Premium Gasoline (Tier 3)	Fuel Batch Calibration Date	12/24/2020
Fuel Batch Calibration Effective Date	08/01/2023	Fuel Batch Calibration Ineffective Date	08/31/2023
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.736
Fuel Ethanol Volume Percent (%)	9.6	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17867
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.825	Weight Fraction CO2	--
Fuel Batch ID	2D3A01	Fuel Calibration Number	8
Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	04/19/2023
Fuel Batch Calibration Effective Date	03/01/2024	Fuel Batch Calibration Ineffective Date	03/31/2023
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.739
Fuel Ethanol Volume Percent (%)	9.6	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17859
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.825	Weight Fraction CO2	--
Fuel Batch ID	2F3-03	Fuel Calibration Number	1
Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	06/01/2023
Fuel Batch Calibration Effective Date	09/13/2023	Fuel Batch Calibration Ineffective Date	09/30/2023

Certification Summary Information Report

Test Group	VTYXT02.4E4A	Evaporative/Refueling Family	VTYXR0170J62
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)	17832
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	2E3-02	Fuel Calibration Number	2
Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	05/13/2023
Fuel Batch Calibration Effective Date	08/01/2023	Fuel Batch Calibration Ineffective Date	08/31/2023
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.739
Fuel Ethanol Volume Percent (%)	10	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17811
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.825	Weight Fraction CO2	--
Fuel Batch ID	243R02	Fuel Calibration Number	1
Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	02/16/2024
Fuel Batch Calibration Effective Date	02/21/2024	Fuel Batch Calibration Ineffective Date	02/21/2025
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.753
Fuel Ethanol Volume Percent (%)	10	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	18488
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.829	Weight Fraction CO2	--
Fuel Batch ID	243R01	Fuel Calibration Number	1
Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	12/11/2023
Fuel Batch Calibration Effective Date	02/12/2024	Fuel Batch Calibration Ineffective Date	02/12/2025
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.752
Fuel Ethanol Volume Percent (%)	9.8	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	18512

Certification Summary Information Report

Test Group	VTYXT02.4E4A	Evaporative/Refueling Family	VTYXR0170J62
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.827	Weight Fraction CO2	--

Certification Summary Information Report

Test Group	VTYXT02.4E4A	Evaporative/Refueling Family	VTYXR0170J62
-------------------	--------------	-------------------------------------	--------------

Consolidated List of Standards

Exhaust Standards

Cert Region	Federal	Cert/In-Use Code	Cert
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	Standard Level	Federal Tier 3 Bin 50
Fuel	Gasoline	Test Procedure	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	--	--	--	--	--	--	0.02	1.7
150,000 miles	CO-COMP	--	--	--	--	--	--	0.02	4.2
150,000 miles	CREE	--	--	--	--	--	--	0.041	999.999
150,000 miles	HCHO	--	--	--	--	--	--	--	0.004
150,000 miles	METHANE	--	--	--	--	--	--	0.0113	0.030
150,000 miles	N2O	--	--	--	--	--	--	0.0008	0.010
150,000 miles	NMOG	--	1	1.1	--	--	--	0.0107	999.999
150,000 miles	NMOG+NOX	--	1	1.1	--	--	--	0.0173	0.050
150,000 miles	NMOG+NOX-COMP	--	1	1.03	--	--	--	0.0173	0.060
150,000 miles	NOX	--	--	--	--	--	--	0.0066	999.999
150,000 miles	PM	--	--	--	--	--	--	0	0.003

Cert Region	California + CAA Section 177 states	Cert/In-Use Code	Cert
Vehicle Class	LDT2 (LVW 3751-5750, GVW 0-6000)	Standard Level	California LEV-IV ULEV50
Fuel	Gasoline	Test Procedure	US06

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	--	--	--	0.02	9.6
150,000 miles	NMOG	--	1	1.1	--	--	--	0.0107	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0.0173	0.060
150,000 miles	NOX	--	--	--	--	--	--	0.0066	999.999
150,000 miles	PM	--	--	--	--	--	--	0	0.006

Certification Summary Information Report

Test Group		VTYXT02.4E4A			Evaporative/Refueling Family			VTYXR0170J62		
Cert Region		Federal			Cert/In-Use Code			Cert		
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 50		
Fuel		Gasoline			Test Procedure			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	

Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert		
Vehicle Class		LDT2 (LVW 3751-5750, GVW 0-6000)			Standard Level			California LEV-IV ULEV50		
Fuel		Gasoline			Test Procedure			SC03		
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std	
150,000 miles	CO	--	--	--	--	--	--	0.02	1.7	
150,000 miles	NMOG	--	1	1.1	--	--	--	0.0107	999.999	
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0.0173	0.050	
150,000 miles	NOX	--	--	--	--	--	--	0.0066	999.999	

Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert		
Vehicle Class		LDT2 (LVW 3751-5750, GVW 0-6000)			Standard Level			California LEV-IV ULEV50		
Fuel		Gasoline			Test Procedure			Cold CO		
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std	
50,000 miles	CO	--	--	--	--	--	--	0	12.5	

Certification Summary Information Report

Test Group		VTYXT02.4E4A			Evaporative/Refueling Family			VTYXR0170J62	
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDT2 (LVW 3751-5750, GVW 0-6000)			Standard Level			California LEV-IV ULEV50	
Fuel		Gasoline			Test Procedure			Federal fuel 2-day exhaust (w/can load)	
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	--	--	--	0.02	1.7
150,000 miles	HCHO	--	--	--	--	--	--	--	0.004
150,000 miles	NMOG	--	1	1.1	--	--	--	0.0107	999.999
150,000 miles	NMOG+NOX	--	1	1.1	--	--	--	0.0173	0.050
150,000 miles	NOX	--	--	--	--	--	--	0.0066	999.999
150,000 miles	PM	--	--	--	--	--	--	0	0.003

Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 50	
Fuel		Gasoline			Test Procedure			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	--	--	--	--	--	--	0.041	999.999
150,000 miles	NMOG	--	1	1.03	--	--	--	0.0107	999.999
150,000 miles	NMOG+NOX	--	1	1.03	--	--	--	0.0173	0.050
150,000 miles	NOX	--	--	--	--	--	--	0.0066	999.999

Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDT2 (LVW 3751-5750, GVW 0-6000)			Standard Level			California LEV-IV ULEV50	
Fuel		Gasoline			Test Procedure			CA fuel 50 Deg(F) exhaust test	
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
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

Certification Summary Information Report

Test Group	VTYXT02.4E4A	Evaporative/Refueling Family	VTYXR0170J62
Cert Region	California + CAA Section 177 states	Cert/In-Use Code	Cert
Vehicle Class	LDT2 (LVW 3751-5750, GVW 0-6000)	Standard Level	California LEV-IV ULEV50
Fuel	Gasoline	Test Procedure	HWFE

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	NMOG	--	1	1.03	--	--	--	0.0107	999.999
150,000 miles	NMOG+NOX	--	1	1.03	--	--	--	0.0173	0.050
150,000 miles	NOX	--	--	--	--	--	--	0.0066	999.999

Cert Region	Federal	Cert/In-Use Code	Cert
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	Standard Level	Federal Tier 3 Bin 50
Fuel	Gasoline	Test Procedure	Cold CO

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
50,000 miles	CO	--	--	--	--	--	--	0	12.5
120,000 miles	HC-NM	--	--	--	--	--	--	0.01	0.5

Evaporative/Refueling Standards

Evaporative/Refueling Family	VTYXR0170J62	Cert Region	Federal
Cert/In-Use Code	Cert	Standard Level	Federal Tier 3 Evap
Test Procedure	Federal fuel 3-day evap		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.500	0

Evaporative/Refueling Family	VTYXR0170J62	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	--

Certification Summary Information Report

Test Group	VTYXT02.4E4A	Evaporative/Refueling Family	VTYXR0170J62		
Evaporative/Refueling Family	VTYXR0170J62	Cert Region	California + CAA Section 177 states		
Cert/In-Use Code	Cert	Standard Level	California LEV-III 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	VTYXR0170J62	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	VTYXR0170J62	Cert Region	Federal		
Cert/In-Use Code	Cert	Standard Level	Federal Tier 3 Evap		
Test Procedure	2-day evap				
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.500	0
Evaporative/Refueling Family	VTYXR0170J62	Cert Region	California + CAA Section 177 states		
Cert/In-Use Code	Cert	Standard Level	California LEV-III 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	--	0.500	0
Evaporative/Refueling Family	VTYXR0170J62	Cert Region	California + CAA Section 177 states		
Cert/In-Use Code	Cert	Standard Level	California LEV-III 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	--	0.500	0

Certification Summary Information Report

Test Group		VTYXT02.4E4A		Evaporative/Refueling Family		VTYXR0170J62	
Evaporative/Refueling Family		VTYXR0170J62		Cert Region		California + CAA Section 177 states California LEV-III Zero Evap (Option 2)	
Cert/In-Use Code		Cert		Standard Level			
Test Procedure		Federal Fuel Running Loss					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.01	0		
Evaporative/Refueling Family		VTYXR0170J62		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		

Certification Summary Information Report

Test Group	VTYXT02.4E4A	Evaporative/Refueling Family	VTYXR0170J62
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	VTYXT02.4E4A	Evaporative/Refueling Family	VTYXR0170J62
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		VTYXT02.4E4A	Evaporative/Refueling Family		VTYXR0170J62
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	