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1. Correspondence and Communications

1.1 Mailing information

Corporate name and address to appear on Certificates of Conformity/Executive Orders

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1.2 Responsible official

Names and title of persons authorized to communicate with EPA and CARB

Toyota Motor North America, Inc.

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Tom Stricker --- Group Vice President, Regulatory Affairs and Environmental Sustainability

Brian Schneidewind --- Vice President, Powertrain Design

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(*: Primary Certification Contact & **: Primary Cert Test Contact)

2. Durability Group Description

2.1 Grouping statistics of durability groups

.01 Durability Group Name	VTYXHHGNNB27	VTYXHHGNNE28	VTYXHHGNNB2J
.02 Combustion Cycle	Otto Cycle	Otto Cycle	Otto Cycle
.03 Engine Type	4 stroke	4 stroke	4 stroke
.04 Fuel Used	Hybrid Electric	Hybrid Electric	Hybrid Electric
.05 Basic Fuel Metering System	(Piston)	(Piston)	(Piston)
.06 Catalyst Construction	Gasoline	Gasoline	Gasoline
.07 Precious Metals in Catalyst	Confidential Information		
.08 Range of Catalyst Grouping Statistics (g/l)			
.09 Catalyst Code	3-IIZ61+3-IIr5	3-IIZ61+3-IIr5	3-IIr9+3-IIs1

2.2 Catalytic converter/Adsorber information

Confidential Information

2.3 Structure of catalyst / adsorber code

Confidential Information

3. Evaporative/Refueling Family Description

Evap. Family	Test Group	Carline	Type of vapor storage device	Basic canister design									Vapor hose material
				Working capacity (gram)		Size (cc)		Number / Method of connection	Geometry	Construction	Material	Fuel system	
				Main	Sub	Main	Sub						
VTYXR0120J42	VTYXV02.0V2W	PRIUS PHEV	Canister	120	/	2670	/	1/-	Box	Closed bottom	Charcoal	Port and Direct fuel injection	Plastic
VTYXR0130J42	VTYXV02.0V2B	PRIUS	Canister	130	/	2670	/	1/-	Box	Closed bottom	Charcoal	Port and Direct fuel injection	Plastic
		PRIUS AWD	Canister	130	/	2670	/	1/-	Box	Closed bottom	Charcoal	Port and Direct fuel injection	Plastic
		PRIUS AWD XLE/LTD	Canister	130	/	2670	/	1/-	Box	Closed bottom	Charcoal	Port and Direct fuel injection	Plastic
		PRIUS XLE/LTD	Canister	130	/	2670	/	1/-	Box	Closed bottom	Charcoal	Port and Direct fuel injection	Plastic
VTYXR0170J62	VTYXT02.4E4A	LAND CRUISER	Canister	170	/	2915	/	1/-	Box	Closed bottom	Charcoal	Port and Direct fuel injection	Plastic

3. Evaporative/Refueling Family Description

Evap. Family	Test Group	Carline	Fuel tank Material	Type of refueling emission control system	Vapor control system	Fill pipe seal mechanism	Purge control system	Carbon filter in the air cleaner box	Key-off monitor system
VTYXR0120J42	VTYXV02.0V2W	PRIUS PHEV	Plastic	Non-Integrated	Fuel vapor-containment valve	Liquid seal	Purge control valve	YES	YES*1
VTYXR0130J42	VTYXV02.0V2B	PRIUS	Plastic	Non-Integrated	Fuel vapor-containment valve				
		PRIUS AWD	Plastic	Non-Integrated	Fuel vapor-containment valve				
		PRIUS AWD XLE/LTD	Plastic	Non-Integrated	Fuel vapor-containment valve				
		PRIUS XLE/LTD	Plastic	Non-Integrated	Fuel vapor-containment valve				
VTYXR0170J62	VTYXT02.4E4A	LAND CRUISER	Plastic	Non-Integrated	Fuel vapor-containment valve				

* 1) 2DBL/3DBL result calculation in case adopting key-off monitor system.

According to the agreement with EPA and CARB at the meeting in March 2003 for CPM/CPP, evaporative emissions by key-off monitor is added to the first day of diurnal test of both 2DBL and 3DBL. It is because that the key-off monitor may work out of DBL test.

4. **Durability Procedure Description**

4.1 Exhaust durability test procedure

Confidential Information

4.2 Durability Showing
Confidential Information

4.3 Evap/refueling durability test procedure
Confidential Information

4.4 Exhaust emission deterioration factors

Durability Group	Useful Life	FTP/SFTP					FTP	HWY		GHG							DF Type	Veh. ID. NO.	Conf NO.	Note
		NMOG	CO	NOx	NMOG +NOx	PM*	HCHO	NOx	NMOG +NOx	THC	CH4	N2O	CH3OH	C2H5OH	H3C2HO	CREE				
VTYXHHGNNB27	50K 120K 150K	TBD															Additive	27D-MW1H	00	
VTYXHHGNNE28	50K 120K 150K																Additive	27D-MW1H	00	
VTYXHHGNNB2J	50k 120k 150k	- 0.0085 0.0107	0.00 - 0.02	- - 0.0066	- - 0.0173	- - 0.0000	- - -	- - -	- - 0.0173	- - 0.021	- - 0.0113	- - 0.0008	- - -	- - -	- - -	- - 0.041	Additive	24D-TH1H	00	

*: Since PM deterioration have not been seen in the actual vehicle durability evaluation of applicable or similar model, we consider the same bench durability procedure as the other pollutants to be appropriate.

4.4 Exhaust emission deterioration factors
Durability data

Vehicle ID	Conf	Test Date	Test Point Mile	MFR Test ID#	Test Fuel	Test Type	THC	NMHC	NMOG	NOX	CO	HCHO	PM	CO2	CH4	N2O
27D-MW1H	00	TBD														
27D-MW1H	00															
27D-MW1H	00															
27D-MW1H	00															
27D-MW1H	00															
27D-MW1H	00															
24D-TH1H	00	2023/06/16	4000	24D-TH1H4KN1	GASOLINE-TIER3 E10 PREM	FTP	0.013	0.0091	0.0100	0.0012	0.38	-	0.0006	391	0.0044	0.0003
24D-TH1H	00	2023/06/28	4000	24D-TH1H4KN2	GASOLINE-TIER3 E10 PREM	FTP	0.010	0.0071	0.0079	0.0022	0.33	-	0.0016	393	0.0037	0.0002
24D-TH1H	00	2023/06/30	4000	24D-TH1H4KN3	GASOLINE-TIER3 E10 PREM	FTP	0.013	0.0090	0.0099	0.0019	0.33	-	0.0006	395	0.0042	0.0004
24D-TH1H	00	2023/10/03	150000	24D-TH1H150KN1	GASOLINE-TIER3 E10 PREM	FTP	0.030	0.0168	0.0185	0.0066	0.37	-	0.0007	386	0.0140	0.0011
24D-TH1H	00	2023/10/04	150000	24D-TH1H150KN2	GASOLINE-TIER3 E10 PREM	FTP	0.036	0.0215	0.0237	0.0098	0.41	-	0.0006	388	0.0157	0.0011
24D-TH1H	00	2023/10/05	150000	24D-TH1H150KN3	GASOLINE-TIER3 E10 PREM	FTP	0.032	0.0162	0.0179	0.0087	0.33	-	0.0006	387	0.0164	0.0011

4.5 Evap/refueling emission deterioration factors

Aged Components are adopted to EDV for all evaporative/refueling families.

4.6 Equivalency factor

Durability Group	Model	Test Group	Equivalency factor
VTYXHHGNNB27	PRIUS, PRIUS AWD	VTYXV02.0V2B	TBD*2
VTYXHHGNNE28	PRIUS PHEV	VTYXV02.0V2W	TBD*2
VTYXHHGNNB2J	LAND CRUISER	VTYXT02.4E4A	0.91*2

Note *1: U02/SRC

Note *2: 9LAP/SRC

5. **Test Group Description**

Please refer to each test group file.

6. **Test Vehicle Description**

Please refer to each test group file.

7. **Test Results**

Please refer to each test group file.

8. Emission testing waiver statements

8.1 Statement of Compliance

TOYOTA MOTOR CORPORATION states that:

- A Pursuant to 40CFR§86.1810-17(a)(1), Toyota states;
Any element of design, system or emission control device installed on or incorporated in our new motor vehicles or new motor vehicle engines, for the purpose of complying with standards prescribed under section 202 of the Clean Air Act, will not, to the best of our information and belief, cause the emission into the ambient air of pollutants in the operation of its motor vehicles or motor vehicle engines which cause or contribute to an unreasonable risk to public health or welfare except as specifically permitted by the standards prescribed under section 202 of the Clean Air Act. We further state that any element of design, system or emission control device installed on or incorporated in our new motor vehicles or new motor vehicle engines, for the purpose of complying with standards prescribed under section 202 of the Clean Air Act, will not, to the best of our information and belief, cause or contribute to an unreasonable risk to public safety.

"The term pollutant means:

- a. Diesel particulates
- b. Nickel
- c. MMT combustion products
- d. Ammonia
- e. Sulfates
- f. Hydrogen sulfide
- g. Hydrogen cyanide
- h. Ruthenium combustion products
- i. Nitrosamines

or any other pollutant which we have identified which can reasonably be expected to be emitted from these vehicles."

- B Pursuant to 40CFR§86.1810-17(a)(2), Toyota states;
Such system will not, in its operation, function or malfunction, result in any unsafe condition endangering the motor vehicle, its occupants, or persons or property in close proximity to the vehicle, except under the following reasonably foreseeable conditions of malfunction, abuse or misuse of the vehicle equipped with catalytic converter:
- (1) Certain engine malfunctions caused by vehicle abuse, misuse, tampering or significant failure to perform essential maintenance, particularly involving the electrical (or electronic), fuel injection or ignition system, must result in large amounts of unburned fuel reaching the catalytic converter, which could cause the converter to overheat. Such malfunction will cause engine misfires, noticeable loss of performance or other unusual operating conditions.
In this event, occupants are cautioned in the Owner's Manual to discontinue operation of the vehicle and have the vehicle serviced.

8.1 Statement of Compliance

- (2) Parking or stopping the vehicle at the place where flammable materials, such as dry grass, waste paper or rags may come in contact with the exhaust system, may ignite such materials.
A caution against such parking and stopping is given in the Owner's Manual.
- (3) Pushing or towing the vehicle to start the engine, running out of fuel so as to cause intermittent fuel supply to engine or coasting with the ignition key off could cause the catalytic converter to overheat.
Cautions against such events are contained in the Owner's Manual.
- (4) Under the conditions described in B (1), (2) and (3) above, disregard of these cautions could result in damage to the converter, to the vehicle or to the property in close proximity to the vehicle.

C. Pursuant to 40CFR§86.1810-17(b), Toyota states;

Such system will provide safe vehicle driveability characteristics within the physically adjustable range of each adjustable parameter.

In our opinion, based on engineering tests and judgments, Toyota Vehicles meet the requirements of applicable emission regulations and will not represent a risk to motor vehicle safety.

D. Pursuant to 40CFR§86.1809-12(d)(2)(ii), Toyota states;

The applicable test group complies with CFR §86.1811-17 (g)(1) in regards to defeat devices for CO emissions at intermediate cold temperatures since the CO emissions at these intermediate points can be considered less than the line connecting the cold CO limit at 25°F and the FTP limit at 68°F. This is because the cold temperature CO emissions are determined by the temperature of the engine coolant when the engine is started and the amount of fuel enrichment. Generally, the colder the engine coolant temperature, the richer the air/fuel ratio and the greater the amount of fuel enrichment.

Therefore, the amount of CO emissions are greater for colder coolant temperatures since the amount of injected fuel is greater and the time between engine start and the activation of the air/fuel ratio feedback is longer;

The applicable test group complies with CFR §86.1811-17 (g)(2) in regards to defeat devices for NMHC emissions at intermediate cold temperatures since the NMHC emissions at these intermediate points can be considered less than the line connecting the NMHC FEL pass limit (e.g. 0.3499 g/mi for a 0.3 g/mi FEL) applicable at 20 °F and the Tier 3 NMOG standard to which the vehicle was certified at 68 °F. This is because the cold temperature NMHC emissions are determined by the temperature of the engine coolant when the engine is started and the amount of fuel enrichment. Generally, the colder the engine coolant temperature, the richer the air/fuel ratio and the greater the amount of fuel enrichment.

Therefore, the amount of NMHC emissions are greater for colder coolant temperatures since the amount of injected fuel is greater and the time between engine start and the activation of the air/fuel ratio feedback is longer.

E. Pursuant to 40CFR§86.1603(b), Toyota has determined that the vehicles within this test group are exempted from the requirements of submitting altitude performance adjustment instructions. All of vehicles within this test group have oxygen sensors which maintain a stoichiometric air-fuel ratio at all altitude conditions.

8.1 Statement of Compliance

- F. The vehicles and engines with respect to which data are being submitted, are in all material respects as described in the Application for Certification, have been tested in accordance with the applicable test procedures utilizing the fuels and equipment described in the Application; these vehicles and engines meet the requirements of such tests and on the basis of such tests, they conform to the requirements of the regulations.
- G. Pursuant to 40CFR §86.1844-01 (d)(16), Toyota has conducted an engineering analysis of the complete exhaust system to ensure that the exhaust system has been designed: (A) to facilitate leak-free assembly, installation and operation for the full useful life of the vehicles; and (B) to facilitate that such repairs as might be necessary on a properly maintained and used vehicle can be performed in such a manner as to maintain leak-free operation, using tools commonly available in a motor vehicle dealership or independent repair shop for the full useful life of the vehicle.
- H. Based on Toyota's good engineering judgement, all the vehicle described in this Application for Certification comply with all applicable intermediate and full useful life standards.
- I. Pursuant to 40CFR§86.1818-12(a)(2), and 86.1865-12(h)(3), for vehicles that comply with the cold temperature NMHC standards, and the CO₂, N₂O, and CH₄ exhaust emission standards, Toyota states that common calibration approaches and auxiliary emission control device (AECD) at low altitude for all light-duty vehicles and light-duty trucks are utilized at high altitude.
- J. Toyota has a responsibility to make sure that an emission control system will not cause or contribute to an unreasonable risk to public health, welfare or safety in its operation or function under sections 202(a)(4) and 206(a)(3) of the Clean Air Act.
- K. Toyota states, based on Toyota's good engineering judgment and available information, that the emission control devices on our vehicles or engines are durable and are designed and will be manufactured to operate properly and in compliance with all applicable requirements for the full useful life (or allowable maintenance interval) of the vehicles or engines.
- L. For previously certified or current carryover ORVR systems, pursuant to EPA Guidance CCD-05-03 Toyota states that no substantial changes have been made from the previously certified system.
- M. For Tier 3/LEV IV compliant vehicles, pursuant to 40 CFR §86.1811-17(d)(1), Toyota states that the air to fuel ratio is not be richer at any time than the leanest air to fuel mixture required to obtain maximum torque (lean best torque), plus a tolerance of four percent over the US06 cycle, except the additional enrichment needed to protect the engine or emissions control hardware.

8.1 Statement of Compliance

- N. For plug-in hybrid electric vehicles (PHEV), Toyota states that the vehicles remain in compliance with the emission standards during the charge depletion and charge sustaining transition modes.
- O. Pursuant to 40 CFR §86.1844-01(d)(9)(iv), Toyota states that diagnostic system is adequate for the performance warranty test described in 40 CFR Part85, subpart W.
- P. Based on CARB’s questions, Toyota states as follows,
- The test and production vehicles have no defeat device.
 - All AECDs have been declared and described in the application.
 - The test and production vehicles do not have alternate maps.
 - The transmission is the part of AECD for greenhouse gas, but, not for criteria pollutants. Criteria emission spikes that might occur due to different transmission shifting or control is converted by the warmed-up catalyst. Please refer to the Section 11.1 “AECD Descriptions” for detailed information about purpose, entry/exit conditions, actuations, and justifications.
 - The transmission behaves and performs on a dynamometer the same as while on road, except for differences described in the Section 12.1.3.1 “Disabled control/features list”.
- Q. Pursuant to 40CFR §86.129-94(d)(6), Toyota states that the fuel tank pressure of Toyota’s non-integrated system, a kind of pressurized system, does not vent the vapor to the atmosphere upon fuel cap removal at least as same level as conventional fuel tank. Because the fuel cap cannot be removed until the tank pressure goes down enough less than the 10 inches based on Toyota design policy.
- R. Using good engineering judgement, Toyota declares that we do not have adjustable parameters.
- S. For LEV IV Partial Soak exhaust emission standards applicable vehicles, pursuant to 13 CCR § 1961.4(d)(2)(B)1, Toyota states that the vehicles meet the Partial Soak exhaust emission standards for the full useful life of the vehicle when operated at low altitude and tested in accordance with the “California 2026 and Subsequent Model Year Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles.”
- T. Pursuant to 40CFR §86.1807-01, Toyota states that the label cannot be removed without destroying or defacing the label, and is not affixed to any equipment which is easily detached from such vehicle.

8.1 Statement of Compliance

AA. An engineering analysis for A/C system that use an improved condenser and oil separator

2. Greenhouse Gas (GHG) Compliance

2b. GHG Confirmation Items

GHG Implementation Air Conditioning Efficiency Credits

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Background

Toyota proposed our approach to EPA regarding menu based credits for Improved Condenser / Oil Separator on April 14, 2011

At the meeting, EPA and Toyota agreed the following:

(1) Improved Condenser

COP should be annualized based on the amount of time vehicles are driven at various speeds and temperatures in the U.S. → *Demonstrate > 10% improvement*

(2) Oil Separator

Oil Circulation Ratio (OCR) should be verified on A/C system bench for all series of compressors that have an Oil Separator → *Demonstrate oil circulation rates < 50% baseline*

Toyota conducted evaluations for these two items accordingly.

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8.1 Statement of Compliance

Results for (1) Improved Condenser				
Vehicle Name	COP (annualized)			Remark
	present (Sub Cool)	previous (Baseline)	improvement	
Camry	2.54	2.14	+18.3%	The largest selling vehicle
Yaris	2.41	2.13	+13.5%	The smallest sized vehicle (worst case)

COP's of the present condenser systems are *improved by more than 10% compared with previous condenser systems.*

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Results for (2) Oil Separator				
Compressor		Oil Circulation Rate % (compared with Baseline)		
Specification	Type	I45 (900rpm)	M45 (2500rpm)	
<u>Without</u> Oil Separator (Baseline)	10S17C	6.2	6.5	
<u>With</u> Oil Separator	10SR series	2.1 (34%)	3.1 (48%)	
	TS series	1.2 (19%)	2.6 (40%)	
	SES series	0.2 (3%)	0.6 (9%)	
	ES series	0.3 (5%)	1.2 (18%)	

All types of Oil Circulation Rate for Compressor *with Oil Separator* are less than 50% of Baseline Compressor.

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8.1 Statement of Compliance

Conclusion

Based on the evaluation results, Toyota confirmed that the COP improvement and Oil Circulation Rate meet the requirements set forth in the Greenhouse Gas Final Rule.

As a result, Toyota is eligible for the following:

- (1) Improved condenser credit of 1.1g/mile for vehicles equipped with a "Sub Cool Condenser" and,
- (2) Oil separator credit of 0.6g/mile for vehicles equipped with a compressor utilizing an "Oil Separator"

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8.2 Emission Testing Waiver Statement

TOYOTA MOTOR CORPORATION states that:

- A. Pursuant to 40 CFR §86.1829-15(C), based on the engineering judgement, all vehicles in these test groups comply with applicable standards.
- B. Pursuant to VPCD-97-01, we attest, based on the engineering evaluation, the city and highway fuel economy test result differences between comparing 91 RON operation and 96 RON operation is within 3%, and there are no emissions increases (beyond normal test variability) using 91 RON fuel when tested on the FTP (or SFTP as applicable).
- C. Pursuant to 40 CFR §86.1829-15(d)(4), Toyota states that all gasoline vehicles comply with the applicable formaldehyde (HCHO) emissions standards based on our good engineering judgment.
- D. Pursuant to 40 CFR §86.1829-15(e)(6), we have conducted 2DBL Evap testing and, based on the engineering evaluation, all vehicles in this Evap group comply with the emission standards at 2DBL Evap.
- E. Pursuant to 40 CFR §86.1829-15(e)(5), Toyota states that, the vehicles certified to the refueling emission standards inherently comply with the fuel dispensing spitback standard based on our good engineering evaluation.
- F. For electric vehicles and fuel cell vehicles, pursuant to 40 CFR §86.1829-15(f), the vehicles comply with all the testing requirements of Part 86, subpart S.
- G. For Tier 4/Interim Tier 4/LEV IV evaporative emission compliant test groups not selected for demonstration of the OBD system pursuant to 40 CFR §86.1806-17(b)(1)(vi), Toyota states that the vehicle meet leak-detection requirements based on previous OBD tests, development tests or other appropriate information.
- H. Pursuant to 40 CFR §86.1829-15(e)(4), Toyota states that, the vehicles meeting the Tier 4/Interim Tier 4/LEV IV evaporative leak standard comply with the leak standard in §86.1813 based on our good engineering evaluation.
- I. For LEV IV compliant vehicles and the vehicles complying with applicable PM standards after the minimum number of PM tests have been conducted, pursuant to Part I, section G.3.4 in California 2026 and Subsequent Model year Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles, Toyota states that all Passenger Cars and light-duty trucks comply with the particulate emission standards based on our good engineering evaluation.

9. **OBD System Description**

Confidential Information

10. Description of Alternate-fueled Vehicles

Dedicated alternate fuel vehicles

In 2027MY Toyota introduces Electric vehicle and Fuel cell vehicle.

11. AECD Descriptions

11.1 AECD and EI-AECD Descriptions
Confidential Information

11.2 SFTP / Lean Best Torque (LBT) Air fuel Ratio Information
Confidential Information

12. Descriptions of Vehicles Covered by Certificate and Test Parameters

12.1 Vehicle parameters

(i) Preparation

Manual transmission

Shift into neutral and hold down the clutch pedal until the engine starts.

Automatic transmission

Depress the brake pedal until driving off.

Put the gear selector in "P" or "N" range.

(ii) Engine start

In case of key type

Turn the “key” to start position

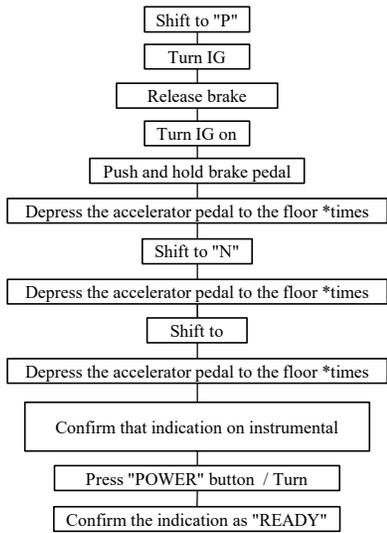
In case of push button type

Be equipped with “key” and push the “START STOP BUTTON” (=engine switch)

12.1.1 Preparation for Toyota tests on the 2WD/4WD dynamo with customer's vehicle (for HEV and PHEV)

Drive	System start by	Engine start at cold start	Engine start at hot start	Indication when system ready	2WD dynamo				4WD dynamo			
					How to set "Special Mode"	Indication on instrumental panel	(see *1) How to set "Special Mode"	Indication on instrumental panel	(see *1) How to set "Special Mode"	Indication on instrumental panel	(see *1) How to set "Special Mode"	Indication on instrumental panel
FF,FR	Power Button or Rotary	No	No	READY	See *1	CDY-2	See *1	CDY-2E	-	-	-	-
4WD	Power Button or Rotary	No	No	READY	See *1	CDY-2	See *1	CDY-2E	See *1	CDY-4	See *1	CDY-4E

*1) How to set "Special Mode" on the dynamo.



*2) 2times for road load investigation and setting for 2WD dynamo, 3times for driving for 2WD dynamo

12.1.3 Disabled controls/features list

Controls/Features(If applicable)	Purpose	Disabled/Altered
VSC(Vehicle Stability Control)	For stable vehicle running on CDY	Disabled
TRC(Traction Control)	For stable vehicle running on CDY	Disabled
BDO/SS (Braking force Distribution control for Optimum vehicle attitude/Smooth Stop)	For appropriate regeneration system working on CDY	Altered. The wheel speed value is used for operation judgement instead of the acceleration value.
4WD Disconnect Control	For stable vehicle running on 2WD CDY.	Altered on 2WD CDY. 1.Rear driving power is cut. 2.The request of engine torque down is forbidden.
	----- For stable 4WD disconnect system working on 4WD CDY.	Altered on 4WD CDY The signal of slip and the slope judgment is ignored so that a test vehicle keeps disconnect state.
Full-time 4WD / GR-FOUR	For stable 4WD disconnect system working on 4WD CDY.	Altered on 2WD CDY. 1.Rear driving power is cut. 2.The request of engine torque down is forbidden.
PDRM/PTM Control (Powertrain Driver Model/Power Train Manager Control)	For stable vehicle running on CDY	Altered. (e.g.) ABS failure signal is masked to prevent from being shifted to "fail-safe" mode.
Battery Charging Control	For stable Charging Control system working on CDY	Altered. 1. The condition to start refresh charging is invalidated. 2. Set the appropriate SOC value before the beginning of test.
PCS(Pre Collision System)	For stable vehicle running on CDY	Disabled (and the optical axis learning result is ignored)
ICS(Intelligent Clearance Sonar)	For stable vehicle running on CDY	Disabled
AT(Automatic Transmission)	For stable AT working on CDY	Altered. ABS failure signal is masked to prevent from being shifted to "fail-safe" mode.
CVT(Continuously Variable Transmission)	For stable CVT working on CDY	Altered. (e.g.) ABS failure signal is masked to prevent from being shifted to "fail-safe" mode.
TVD(Torque Vectoring Differential)	For stable vehicle running on CDY	Disabled
S&S(Start & Stop)	For stable S&S system working on CDY	Altered. 1.The judgement criteria to detect road surface and gradient is altered. 2.The failure signal of wheel speed sensor is masked. 3.The wheel speed signal is substituted for max wheel speed among all usual wheels that normally operate. 4.The information related to ABS and RSA (Road Sign Assist) is masked. 5.(For conventional vehicle and 1M-HV) The information related to engine hood is masked. 6.The signal of center differential lock system is masked.
Regeneration Brake Control	For stable regeneration system working on CDY	Altered the condition for recovery of regeneration function to make regeneration function stably work on 2WD chassis dynamometer.
Driver's Mind D range Control	For appropriately working D range control	Disabled.
Hybrid 4WD Control	For stable Hybrid 4WD system on CDY(for 2WD)	Altered. 1. Driving force to rear wheels is not supplied. 2. Regeneration of rear wheels is disabled.
Slip Suppression Control for Hybrid Vehicle	For stable Hybrid system working	Disabled
Vehicle Height Control System (for keeping the vehicle height constant when passengers and/or luggage are changed in a parked vehicle)	For stable vehicle running on CDY and stable S&S system working on CDY	For 4-wheel suspension control: Altered. 1. This system is deactivated 2. S&S system ignores activation signal of this system For rear 2-wheel suspension control: Altered. The vehicle height check frequency is set to the value as driving condition.
Rr Shutdown System	For appropriately working Rr shutdown system	Altered. ABS/VSC/TRC failure signal is masked to prevent from being shifted to "fail-safe" mode.
Automatic P range shifting	For stable vehicle running on CDY	Disabled
Ambient Temperature Sensor	For appropriately working ambient temperature sensor	Altered. The actual measured value is used.
Predictive EV Drive(Adaptive Area)	For stable Hybrid system working on CDY	Disabled
Emergency Driving Stop System	For stable vehicle running on CDY	Disabled

*CDY: Chassis Dynamometer.

12.2 Test Parameters

1) Manual transmission

(a) Idling

Idle modes shall be run with transmission in gear and with clutch disengaged (except first idle).

(b) Acceleration

Acceleration modes shall be run in accordance with the upshift speeds on the Table in section 12.3.

(c) Deceleration

Deceleration modes shall be run with the clutch engaged and without shifting the gear from the previous mode.

For those modes which decelerate to zero, the clutch shall be depressed when the speed drops below 15 mph.

(d) Downshifting

The vehicle shall be shifted down during the transient from the speed less than the downshift speed on the Table in section 12.3 to the acceleration mode.

2) Automatic transmission

All test conditions shall be run with the transmission in "Drive".

Idle modes shall be run with the transmission in "Drive" and the wheels braked (except first idle).

1) Shift point for FTP

No	Acceleration up-shift speed				Special up-shift time(sec.)-Gears						Down shift time(sec.)-Gears			
	1-2	2-3	3-4	4-5	time	shift	time	shift	time	shift	time	shift	time	shift
129	-	-	-	-	24.6	1-2	538.0	4-5	1111.5	2-3	39.0	3-2		
					28.4	2-3	571.1	1-2	1119.0	3-4	54.1	3-2		
					44.9	2-3	575.0	2-3	1171.5	1-2	120.2	5-0		
					56.6	2-3	649.0	1-2	1174.2	2-3	327.2	6-0		
					78.0	3-4	653.7	2-3	1201.2	1-2	391.9	5-0		
					86.7	4-5	659.0	3-4	1212.3	2-3	424.1	5-0		
					167.6	1-2	698.5	1-2	1268.7	1-2	499.5	6-0		
					171.5	2-3	702.0	2-3	1271.8	2-3	547.5	5-0		
					198.6	3-4	713.5	3-4	1277.0	3-4	615.4	3-0		
					202.0	4-5	731.3	1-2	1296.0	4-5	673.8	4-0		
					220.0	5-6	735.6	2-3	1340.7	1-2	720.0	4-0		
					349.8	1-2	742.0	3-4	1345.5	2-3	758.0	5-0		
					352.6	2-3	745.0	4-5	1398.6	1-2	823.1	5-4		
					360.5	3-4	769.2	1-2			841.0	4-3		
					365.0	4-5	773.5	2-3			951.6	5-0		
					405.3	1-2	780.0	3-4			1017.8	4-0		
					408.0	2-3	783.0	4-5			1081.0	4-0		
					414.0	3-4	851.0	3-4			1147.5	4-0		
					417.0	4-5	854.0	4-5			1181.6	3-0		
					450.1	1-2	962.5	1-2			1236.3	3-0		
					452.8	2-3	966.3	2-3			1308.0	5-0		
					457.9	3-4	974.0	3-4			1361.4	3-0		
					461.0	4-5	1055.9	1-2						
					516.7	1-2	1059.3	2-3						
					522.0	2-3	1068.0	3-4						
					528.0	3-4	1106.1	1-2						

2) Shift point for HWY

No.	Acceleration up-shift speed							Cruising up-shift speed							Down shift time(sec.)-Gears			
	1-2	2-3	3-4	4-5	5-6	6-7	7-8	1-2	2-3	3-4	4-5	5-6	6-7	7-8				
HW5	15	25	40	45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
HW6	15	25	40	45	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
0093	15	25	40	45	50	55	60	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
0096	13	22	31	40	48	N/A	N/A	7	14	25	34	41	N/A	N/A	49; 5-4	142; 6-5	215; 6-5	296; 6-3
0101	13	24	33	41	47	N/A	N/A	8	14	25	34	41	N/A	N/A	297; 6-3			
0130	10	19	31	40	47	N/A	N/A	6	15	23	26	40	N/A	N/A	297; 6-3			
0132	15	25	40	45	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
0136	15	25	40	45	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
0140	14.4	26.2	37.6	43	49.8	N/A	N/A	9	17	30	40	49	N/A	N/A	142; 6-5	297; 6-3	922; 6-5	1077; 6-3

2) Shift point for HWY

No	Acceleration up-shift speed				Special up-shift time(sec.)-Gears		Down shift time(sec.)-Gears	
	1-2	2-3	3-4	4-5	time	shift	time	shift
0130	-	-	-	-	5.7	1-2	297.0	6-3
					8.7	2-3	756.8	6-0
					17.6	3-4		
					22.0	4-5		
					57.0	5-6		
					300.0	3-4		
					304.0	4-5		
					307.0	5-6		

12.3 Shift schedules

3) Shift point for US06 mode

No.	Acceleration up-shift speed							Cruising up-shift speed							Down shift Gears					
	1-2	2-3	3-4	4-5	5-6	6-7	7-8	1-2	2-3	3-4	4-5	5-6	6-7	7-8						
0062	15	25	40	45	N/A	N/A	N/A	15	25	40	45	N/A	N/A	N/A	514;3-2	530;3-1	546;3-1			
0063	15	25	40	45	50	N/A	N/A	15	25	40	45	50	N/A	N/A	514;3-2	530;3-1	546;3-1			
0066	22	36	43	57	66	N/A	N/A	16	27	37	50	57	N/A	N/A	81;5-4	185;5-4	514;2-1	530;2-1	546;2-1	
0094	15	25	40	45	50	55	60	15	25	40	45	50	55	60	514;3-2	530;3-1	546;3-1			
0097	21	40	50	70	85	N/A	N/A	15	26	39	56	73	N/A	N/A	82;5-4	188;5-4	348;6-5	514;2-1	530;2-1	546;2-1
0099	25	33	45	60	75	N/A	N/A	25	38	45	60	64.3	N/A	N/A	514;2-1	530;2-1	546;2-1			
0134	15	25	40	45	50	N/A	N/A	15	25	40	45	50	N/A	N/A	514;3-2	530;3-1	546;3-1			
0138	15	25	40	45	50	N/A	N/A	15	25	40	45	50	N/A	N/A	514;3-2	530;3-1	546;3-1			
0142	14.4	26.2	37.6	43	49.8	N/A	N/A	9	17	30	40	49	N/A	N/A	82;6-5	514;3-2	530;3-1	546;3-1		

3) Shift point for US06 mode

No	Acceleration up-shift speed				Special up-shift time(sec.)-Gears				Down shift time(sec.)-Gears	
	1-2	2-3	3-4	4-5	time	shift	time	shift	time	shift
0128	-	-	-	-	11.2	1-2	519.3	2-3	81.3	7-5
					14.2	2-3	533.7	1-2	280.4	7-6
					20.1	3-4	536.7	2-3		
					51.1	1-2	549.0	1-2		
					54.1	2-3	552.0	2-3		
					57.8	3-4	570.4	1-2		
					60.8	4-5	573.4	2-3		
					63.8	5-6	576.4	3-4		
					66.8	6-7				
					94.3	5-6				
					137.9	1-2				
					141.6	2-3				
					143.9	3-4				
					146.9	4-5				
					149.9	5-6				
					156.3	6-7				
					333.3	6-7				
503.9	1-2									
506.9	2-3									
516.9	1-2									

4) Shift point for SC03 mode

No.	Acceleration up-shift speed					Cruising up-shift speed					Down shift time(sec.)-Gears		
	1-2	2-3	3-4	4-5	5-6	1-2	2-3	3-4	4-5	5-6			
0052	15	25	40	45	N/A	N/A	N/A	N/A	N/A	N/A	121;3-2		
0054	15	25	40	45	50	15	25	40	45	N/A	121;3-2		
0056	15	25	40	45	N/A	15	25	40	45	N/A	121;3-2		
0100	15	25	40	45	50	15	25	40	45	50	121;3-2		
0133	15	25	40	45	50	15	25	40	45	50	121;3-2		
0137	15	25	40	45	50	15	25	40	45	50	121;3-2		
0141	14.4	26.2	37.6	43	49.8	9	17	30	40	49	432;4-3		

12.3 Shift schedules

4) Shift point for SC03 mode

No	Acceleration up-shift speed				Special up-shift time(sec.)-Gears		Down shift time(sec.)-Gears	
	1-2	2-3	3-4	4-5	time	shift	time	shift
0127	-	-	-	-	42.2	1-2	-	-
					70.6	1-2	-	-
					88.7	1-2	-	-
					92.3	2-3	-	-
					124.5	1-2	-	-
					127.9	2-3	-	-
					209.8	1-2	-	-
					213.5	2-3	-	-
					221.9	3-4	-	-
					284.4	1-2	-	-
					287.4	2-3	-	-
					293.0	3-4	-	-
					302.7	4-5	-	-
					312.3	5-6	-	-
					373.6	1-2	-	-
378.1	2-3	-	-					
550.5	1-2	-	-					

12.3 Shift schedules

Applicable Test Group

Test Group	Model	TM	Low-altitude		High-altitude		Highway	SC03	US06
			FTP	Cold CO /NMHC	FTP	Cold CO			
VTYXT02.4E4A	LAND CRUISER	S8	0092	0092	0092	0092	0093	0054	0094

12.4 Dynamometer loading information
FTP, SFTP and Cold CO testing

Carline	Vehicle Model	Eng. Code	Eng. Disp.	T/M Code	GVWR (lbs)	Curb Weight (lbs)	LVW (lbs)	ETW (lbs)	Axle Ratio	N/V	Tire*1	Tire Mfr.	CDT	RLHP at 50 mph	Target Coeff for FTP & SFTP F(lbf)=a+bv+cv ² (v: mph)			Target Coeff for 20F F(lbf)=a+bv+cv ² (v: mph)			Determination Method
															a	b	c	a	b	c	
															PRIUS	MXWH60L-AHXEBA	02	2.0	PB10-A	4145	
PRIUS AWD	MXWH65L-AHXEBA	01	2.0	PB10-B	4275	3225	3525	3500	3.39	24.8	195/60R17 AS	ALL	24.05	9.0	21.026	0.24130	0.013694	23.129	0.26543	0.015063	*3
PRIUS AWD XLE/LTD	MXWH65L-AHXGBA	01	2.0	PB10-B	4275	3310	3610	3625	3.39	24.1	195/50R19 AS	ALL	22.39	10.0	27.354	0.24709	0.014067	30.089	0.27180	0.015474	*3
PRIUS AWD XLE/LTD	MXWH65L-AHXHBA	01	2.0	PB10-B	4275	3360	3660	3625	3.39	24.1	195/50R19 AS	ALL	22.49	9.9	27.366	0.24633	0.013950	30.103	0.27096	0.015345	*3
PRIUS XLE/LTD	MXWH60L-AHXGBA	02	2.0	PB10-A	4145	3180	3480	3500	3.39	24.1	195/50R19 AS	ALL	22.48	9.6	21.748	0.28185	0.014468	23.923	0.31004	0.015915	*3
PRIUS XLE/LTD	MXWH60L-AHXHBA	02	2.0	PB10-A	4145	3230	3530	3500	3.39	24.1	195/50R19 AS	ALL	22.60	9.6	21.770	0.28109	0.014323	23.947	0.30920	0.015755	*3
PRIUS PHEV	MXWH61L-AHXGBA	01	2.0	PB12-A	4475	3545	3845	3875	3.61	21.7	195/50R19 AS	ALL	23.17	10.3	22.892	0.39705	0.013840	25.181	0.43676	0.015224	*3
PRIUS PHEV	MXWH61L-AHXHBA	01	2.0	PB12-A	4475	3595	3895	3875	3.61	21.7	195/50R19 AS	ALL	23.17	10.3	22.894	0.39705	0.013840	25.183	0.43676	0.015224	*3
PRIUS PHEV SE	MXWH61L-AHXEBA	01	2.0	PB12-A	4475	3465	3765	3750	3.61	22.4	195/60R17 AS	ALL	25.09	9.2	16.368	0.39918	0.013118	18.005	0.43910	0.014430	*3
LAND CRUISER	TJH250L-GNZAZA	01	2.4	L580F-B	6835	5450	5750	5500	3.58	25.2	265/60R20 AS	ALL	18.05	18.8	38.862	0.51435	0.030549	42.748	0.56579	0.033604	*3
LAND CRUISER	TJH250L-GNZAZA*6	01	2.4	L580F-B	6835	5450	5750	5500	3.58	25.2	265/60R20 AS	ALL	17.94	18.9	38.716	0.51312	0.030985	-	-	-	*3
LAND CRUISER	TJH250L-GNZAZA	01	2.4	L580F-B	6835	5450	5750	5500	3.58	25.2	265/60R20 AS#2	ALL	18.05	18.8	38.862	0.51435	0.030549	42.748	0.56579	0.033604	*3
LAND CRUISER	TJH250L-GNZAZA*6	01	2.4	L580F-B	6835	5450	5750	5500	3.58	25.2	265/60R20 AS#2	ALL	17.94	18.9	38.716	0.51312	0.030985	-	-	-	*3
LAND CRUISER	TJH250L-GNZAZA	01	2.4	L580F-B	6835	5450	5750	5500	3.58	25.1	265/70R18 AS	ALL	18.28	18.6	37.495	0.50734	0.030526	41.245	0.55807	0.033579	*3
LAND CRUISER	TJH250L-GNZAZA*6	01	2.4	L580F-B	6835	5450	5750	5500	3.58	25.1	265/70R18 AS	ALL	18.17	18.7	37.360	0.50618	0.030927	-	-	-	*3
LAND CRUISER	TJH250L-GNZAZA	01	2.4	L580F-B	6725	5360	5660	5500	3.58	26.0	245/70R18 AS	ALL	18.36	18.5	38.988	0.54893	0.028849	42.887	0.60382	0.031734	*3
LAND CRUISER	TJH250L-GNZAZA*6	01	2.4	L580F-B	6725	5360	5660	5500	3.58	26.0	245/70R18 AS	ALL	18.24	18.6	38.842	0.54770	0.029286	-	-	-	*3
LAND CRUISER	TJH250L-GNZAZA	01	2.4	L580F-B	6725	5360	5660	5500	3.58	26.0	245/70R18 AS#2	ALL	18.36	18.5	38.988	0.54893	0.028849	42.887	0.60382	0.031734	*3
LAND CRUISER	TJH250L-GNZAZA*6	01	2.4	L580F-B	6725	5360	5660	5500	3.58	26.0	245/70R18 AS#2	ALL	18.24	18.6	38.842	0.54770	0.029286	-	-	-	*3
LAND CRUISER	TJH250L-GNZAZA	01	2.4	L580F-B	6725	5360	5660	5500	3.58	25.1	265/70R18 AS	ALL	18.27	18.6	37.498	0.50719	0.030549	41.248	0.55791	0.033604	*3
LAND CRUISER	TJH250L-GNZAZA*6	01	2.4	L580F-B	6725	5360	5660	5500	3.58	25.1	265/70R18 AS	ALL	18.16	18.7	37.360	0.50607	0.030956	-	-	-	*3

Note *1: AS/AS#2: All-season tire
SM/SM#2: Summer-season tire
RF: Run-flat tire
OFF: Off-road tire
RF-AS: Run-flat all-season tire
RF-SM: Run-flat summer tire
F/D: F SPORT design
*2: Calculated
*3: Measured
*4: For Normal and Eco mode
*5: For Sport mode
*6: For US06 test (Grille shutter fully open)

12.5 Method used to determine the road load forces other than SAE procedure J2263

Confidential Information

13. **Projected Sales and Compliance Plans**

Confidential Information

14. Request for Certificate

Please refer to the each test group file.

15. Other Information

15.1 Fee filing form

Please refer to the each test group file.

16. **Confidential Information**

Confidential Information

17. California ARB Information

17.1 Statement of Compliance

General statement

The production vehicles which are subject to registration or sale in the state of California will be, in all material respects, substantially the same in construction as the test vehicles which are certified by the California Air Resources Board, and will meet all the applicable vehicle emission standards which are set forth by the California Air Resources Board in accordance with Section 43101 of the Health and Safety Code.

Driveability Statement

In accordance with "California Exhaust Emission Standards and Test Procedures for 1988 And Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles, 11.e." as amended August 5,1999, Toyota certifies that its production vehicles covered by the certificate for the applicable model year have driveability and performance characteristics which satisfy the manufacturer's specific driveability and performance requirements. This statement is based on driveability data and other evidence showing compliance with the manufacturer's in-house performance criteria which, we believe, assures elimination of one of the major causes of wide-spread tampering with the emission control systems.

Durability Warranty Statement

In accordance with "California Exhaust Emission Standards & Test Procedures for 2015 and Subsequent MY PC, LDT, and MDV" F.4.1, "California Evaporative Emission Standards & Test Procedures for 2001 & Subsequent Model Motor Vehicles" PART II.2 and "California Refueling Emission Standards & Test Procedures for 2001 & Subsequent Model Motor Vehicles" G, Toyota states, based on our good engineering judgment and available information, that the exhaust, evaporative and refueling emission control devices on our vehicles or engines are durable and are designed and will be manufactured to operate properly and in compliance with all applicable requirements for the full useful life (or allowable maintenance interval) of the vehicles or engines.

California Environmental Performance Labels

Toyota will use Federal Fuel Economy and Environment Labels in lieu of California Environmental Performance Labels.

PHEV canister purge capability requirement

Toyota plug-in hybrid vehicles (PHEV) and hybrid electric vehicles (HEV) equip non-integrated refueling canister-only system having enough purge by consumed 85% fuel according to CA Evap Test Procedures II A.5.4.2.1.

17.2 High-Altitude Test Requirements

Demonstration for fuel injected engines

Fuel injection system which consists of electronic fuel injection and closed loop are using an air flow sensor to sense the air mass flow. Therefore, they can control the air-fuel ratio stoichiometrically to comply with California and Federal emission standards and to ensure vehicle driveability at high altitude.

17.3 Compliance with fuel fill pipe specifications

Statement

The fill pipes and openings for the models covered by this application are in compliance with the requirements specified by the Air Resources Board's "Specifications for Fill Pipes and Openings of 2015 and Subsequent Model Motor Vehicle Fuel Tanks" amended May 31, 2019, and are not obstructed in any manner by bumpers, body parts, body trims or accessories that are either factory or dealer installed.

Bench Leak Rate Specification

The fill pipes for the models covered by this application are in compliance with the maximum allowable bench leak rate requirements specified by the Air Resources Board's "Specifications for Fill Pipes and Openings of 2015 and Subsequent Model Motor Vehicle Fuel Tanks" amended May 31, 2019

CARB APPLICATION FORM FOR COMPLIANCE WITH THE FILL PIPE REQUIREMENTS**Manufacturer** TOYOTA**Model Year**

2027

Terms and symbols used below are the same as those defined in "Specifications for Fill Pipes and Openings of 2015 and Subsequent Motor Vehicle Fuel Tanks", amended May 31, 2019 (CARB Fill Pipe Spec.) (Refer to ISO-13331-1995[E] as adopted June 1,1995)

	<u>General Specification</u>	<u>ARB Specification</u>	<u>ISO-13331 Reference or Noted Otherwise</u>	<u>Manufacturer Specification¹</u>	
1	Angle α in degrees	$-10^\circ < \alpha < 20^\circ$	2.8 & 3.4/Fig 2a & 3a	-4°	
2	Spill Prevention in degrees (angle btwn. centerline of test spout in resting position and the horiz. plane)	30° (MIN)	3.5	40°	
3	Test nozzle penetration of restrictor	2.25 cm or 22.5 mm(MIN)	3.4	3.5	cm
4	Angle β in degrees	none	2.9/Fig 2b & 3b	-2°	
Fill Pipe Specification					
1	Fill Pipe face surface in TIR	0.025 cm or 0.25 mm(MAX)	3.1/Fig 1	0.025	cm
2a	Fill Pipe face outside diameter: unless meets criteria in 2b. Below	5.75 cm or 57.5 mm(MAX) ⁴	3.1/Fig 1	5.98±0.03	cm
		5.20 cm or 52.0 mm(MIN)	3.1/Fig 1		
2b	Fill Pipe face outside diameter: criteria: new fill pipe head design starting MY 2024	5.79 cm or 57.9 mm(MAX)	3.1/Fig 1	-	
		5.20 cm or 52.0 mm(MIN)	CARB Fill Pipe Spec.		
3	Internal locking lip in degrees of the inside circumference degrees extending each side of ref. plane	100° (MIN)	3.2/Fig 2 and 3	345°	
		35° (MIN) LS ² each side RS ²	3.2/Fig 2 and 3	296°	
			3.2/Fig 2 and 3	35°	
4	Height of lip measured from fill pipe inside wall: or height of lip measured from fill pipe outside wall for outside diameters between 5.20 and 5.75 cm.	0.25 cm or 2.5 mm(MIN)	3.2	0.26	cm
		0.85 cm or 8.5 mm(MIN)	3.2	N/A	
5a	Depth of lip (D) in centimeters: unless meets criteria in 5b. Below	$0.4 < D < 1.3$	3.2	1.2 thru 1.3	cm
5b	Depth of lip (D) in centimeters: criteria: new fill pipe head design starting MY 2024	$0.4 < D < 1.1$	CARB Fill Pipe Spec.	-	
Offset					
	Offset A	none	3.3.1/Fig 5 shown as "f"	0.33cm	
	Offset B	none	3.3.1/Fig 5 shown as "g"	-0.08cm	
6a	Fill Pipe Face Clearance (Axial): unless meets criteria in 6b. Below	0.25 cm or 2.5 mm (MIN)	Fig 5 shown as "2.5"	Yes	
6b	Fill Pipe Face Clearance (Axial): criteria: new fill pipe head design starting MY 2024	40 degrees out to 12 mm depth	CARB Fill Pipe Spec.	-	
7a	Fill Pipe Face Clearance (Radial): unless meets criteria in 7b below	≥ 40 mm	Fig 5 shown as "R40"	Yes	
7b	Fill Pipe Face Clearance (Radial): criteria: new fill pipe head design starting MY 2024	≥ 43 mm	CARB Fill Pipe Spec.	-	
8	Fill Pipe Face Inside Diameter	49.8 mm(MAX)	Fig 1	46.7	mm
9	Bench Leak Test: Phase in schedule in CARB Fill Pipe Spec.	2.5 L/Min (MAX) at 500 Pa Vacuum		Yes	
10	Capped or Capless			Capped	
11	Seal (Mechanical or Liquid)			Liquid	
12	Disruption in the Fill Pipe Face			N	
13	ORVR Design (I / NI / NIRCO / NO) ³			NIRCO	
14	Type (Threaded or Bayonet)		Fig 1	Threaded	
15	Usage of Design (Models or Evaporative Family(s))			PRIUS PRIUS AWD	
16	Total vehicle model year sales			Please refer section 17 phase-in page.	
17	New or C/O			C/O	
18	Reference number for C/O model			23MY PRIUS	

¹ dimension should include adverse tolerance condition² LS = Left side of reference plane, RS = Right side of reference plane³ ORVR Design : Integrated (I)/Non-Integrated(NI)/Non-Integrated Refueling Canister Only (NIRCO)/Non-ORVR(NO)⁴ Max value stated in J1114 of SAE standard

CARB APPLICATION FORM FOR COMPLIANCE WITH THE FILL PIPE REQUIREMENTS**Manufacturer** TOYOTA**Model Year**

2027

Terms and symbols used below are the same as those defined in "Specifications for Fill Pipes and Openings of 2015 and Subsequent Motor Vehicle Fuel Tanks", amended May 31, 2019 (CARB Fill Pipe Spec.) (Refer to ISO-13331-1995[E] as adopted June 1, 1995)

	<u>General Specification</u>	<u>ARB Specification</u>	<u>ISO-13331 Reference or Noted Otherwise</u>	<u>Manufacturer Specification¹</u>	
1	Angle α in degrees	$-10^\circ < \alpha < 20^\circ$	2.8 & 3.4/Fig 2a & 3a	-2°	
2	Spill Prevention in degrees (angle btwn. centerline of test spout in resting position and the horiz. plane)	30° (MIN)	3.5	42°	
3	Test nozzle penetration of restrictor	2.25 cm or 22.5 mm(MIN)	3.4	3.5	cm
4	Angle β in degrees	none	2.9/Fig 2b & 3b	1°	
Fill Pipe Specification					
1	Fill Pipe face surface in TIR	0.025 cm or 0.25 mm(MAX)	3.1/Fig 1	0.025	cm
2a	Fill Pipe face outside diameter: unless meets criteria in 2b. Below	5.75 cm or 57.5 mm(MAX) ⁴	3.1/Fig 1	6.00±0.05	cm
		5.20 cm or 52.0 mm(MIN)	3.1/Fig 1		
2b	Fill Pipe face outside diameter: criteria: new fill pipe head design starting MY 2024	5.79 cm or 57.9 mm(MAX)	3.1/Fig 1	-	
		5.20 cm or 52.0 mm(MIN)	CARB Fill Pipe Spec.		
3	Internal locking lip in degrees of the inside circumference	100° (MIN)	3.2/Fig 2 and 3	320°	
	degrees extending each side of ref. plane	35° (MIN) LS ²	3.2/Fig 2 and 3	271°	
		each side RS ²	3.2/Fig 2 and 3	35°	
4	Height of lip measured from fill pipe inside wall; or	0.25 cm or 2.5 mm(MIN)	3.2	0.28	cm
	height of lip measured from fill pipe outside wall for outside diameters between 5.20 and 5.75 cm.	0.85 cm or 8.5 mm(MIN)	3.2	N/A	
5a	Depth of lip (D) in centimeters: unless meets criteria in 5b. Below	$0.4 < D < 1.3$	3.2	1.2 thru 1.3	cm
5b	Depth of lip (D) in centimeters: criteria: new fill pipe head design starting MY 2024	$0.4 < D < 1.1$	CARB Fill Pipe Spec.	-	
Offset					
	Offset A	none	3.3.1/Fig 5 shown as "f"	0.26cm	
	Offset B	none	3.3.1/Fig 5 shown as "g"	0.04cm	
6a	Fill Pipe Face Clearance (Axial): unless meets criteria in 6b. Below	0.25 cm or 2.5 mm (MIN)	Fig 5 shown as "2.5"	Yes	
6b	Fill Pipe Face Clearance (Axial): criteria: new fill pipe head design starting MY 2024	40 degrees out to 12 mm depth	CARB Fill Pipe Spec.	-	
7a	Fill Pipe Face Clearance (Radial): unless meets criteria in 7b below	≥ 40 mm	Fig 5 shown as "R40"	Yes	
7b	Fill Pipe Face Clearance (Radial): criteria: new fill pipe head design starting MY 2024	≥ 43 mm	CARB Fill Pipe Spec.	-	
8	Fill Pipe Face Inside Diameter	49.8 mm(MAX)	Fig 1	47.1	mm
9	Bench Leak Test: Phase in schedule in CARB Fill Pipe Spec.	2.5 L/Min (MAX) at 500 Pa Vacuum		Yes	
10	Capped or Capless			Capped	
11	Seal (Mechanical or Liquid)			Liquid	
12	Disruption in the Fill Pipe Face			N	
13	ORVR Design (I / NI / NIRCO / NO) ³			NIRCO	
14	Type (Threaded or Bayonet)		Fig 1	Threaded	
15	Usage of Design (Models or Evaporative Family(s))			PRIUS PHEV	
16	Total vehicle model year sales			Please refer section 17 phase-in page.	
17	New or C/O			C/O	
18	Reference number for C/O model			20MY LC 500	

¹ dimension should include adverse tolerance condition² LS = Left side of reference plane, RS = Right side of reference plane³ ORVR Design : Integrated (I)/Non-Integrated(NI)/Non-Integrated Refueling Canister Only (NIRCO)/Non-ORVR(NO)⁴ Max value stated in J1114 of SAE standard

CARB APPLICATION FORM FOR COMPLIANCE WITH THE FILL PIPE REQUIREMENTS

Manufacturer TOYOTA

Model Year

2027

Terms and symbols used below are the same as those defined in "Specifications for Fill Pipes and Openings of 2015 and Subsequent

<u>General Specification</u>		<u>ARB Specification</u>	<u>ISO-13331 Reference or Noted Otherwise</u>	<u>Manufacturer Specification¹</u>	
1	Angle α in degrees	-10° < α < 20°	2.8 & 3.4/Fig 2a & 3a	-4°	
2	Spill Prevention in degrees (angle btwn. centerline of test spout in resting position and the horiz. plane)	30° (MIN)	3.5	34°	
3	Test nozzle penetration of restrictor	2.25 cm or 22.5 mm(MIN)	3.4	3.5	cm
4	Angle β in degrees	none	2.9/Fig 2b & 3b	-2°	
Fill Pipe Specification					
1	Fill Pipe face surface in TIR	0.025 cm or 0.25 mm(MAX)	3.1/Fig 1	0.025	cm
2a	Fill Pipe face outside diameter: unless meets criteria in 2b. Below	5.75 cm or 57.5 mm(MAX) ⁴	3.1/Fig 1	5.98±0.03	cm
		5.20 cm or 52.0 mm(MIN)	3.1/Fig 1		
2b	Fill Pipe face outside diameter: criteria: new fill pipe head design starting MY 2024	5.79 cm or 57.9 mm(MAX)	3.1/Fig 1	-	
		5.20 cm or 52.0 mm(MIN)	CARB Fill Pipe Spec.		
3	Internal locking lip in degrees of the inside circumference	100° (MIN)	3.2/Fig 2 and 3	345°	
	degrees extending each side of ref. plane	35° (MIN) LS ² each side RS ²	3.2/Fig 2 and 3	296°	
			3.2/Fig 2 and 3	35°	
4	Height of lip measured from fill pipe inside wall; or	0.25 cm or 2.5 mm(MIN)	3.2	0.26	cm
	height of lip measured from fill pipe outside wall for outside diameters between 5.20 and 5.75 cm.				
5a	Depth of lip (D) in centimeters: unless meets criteria in 5b. Below	0.4 < D < 1.3	3.2	1.2 thru 1.3	cm
5b	Depth of lip (D) in centimeters: criteria: new fill pipe head design starting MY 2024	0.4 < D < 1.1	CARB Fill Pipe Spec.	-	
Offset					
	Offset A	none	3.3.1/Fig 5 shown as "f"	0.33cm	
	Offset B	none	3.3.1/Fig 5 shown as "g"	-0.08cm	
6a	Fill Pipe Face Clearance (Axial): unless meets criteria in 6b. Below	0.25 cm or 2.5 mm (MIN)	Fig 5 shown as "2.5"	Yes	
6b	Fill Pipe Face Clearance (Axial): criteria: new fill pipe head design starting MY 2024	40 degrees out to 12 mm depth	CARB Fill Pipe Spec.	-	
7a	Fill Pipe Face Clearance (Radial): unless meets criteria in 7b below	≥ 40 mm	Fig 5 shown as "R40"	Yes	
7b	Fill Pipe Face Clearance (Radial): criteria: new fill pipe head design starting MY 2024	≥ 43 mm	CARB Fill Pipe Spec.	-	
8	Fill Pipe Face Inside Diameter	49.8 mm(MAX)	Fig 1	41.5	mm
9	Bench Leak Test: Phase in schedule in CARB Fill Pipe Spec.	2.5 L/Min (MAX) at 500 Pa Vacuum		Yes	
10	Capped or Capless			Capped	
11	Seal (Mechanical or Liquid)			Liquid	
12	Disruption in the Fill Pipe Face			N	
13	ORVR Design (I / NI / NIRCO / NO) ³			NIRCO	
14	Type (Threaded or Bayonet)		Fig 1	Threaded	
15	Usage of Design (Models or Evaporative Family(s))			LAND CRUISER	
16	Total vehicle model year sales			Please refer section 17 phase-in page	
17	New or C/O			C/O	
18	Reference number for C/O model			23MY LX 600	

¹ dimension should include adverse tolerance condition

² LS = Left side of reference plane, RS = Right side of reference plane

³ ORVR Design : Integrated (I)/Non-Integrated(NI)/Non-Integrated Refueling Canister Only (NIRCO)/Non-ORVR(NO)

⁴ Max value stated in J1114 of SAE standard

17.4 Compliance with the location requirement of the vent tube opening in the fill pipe
Not applicable

17.5 Supplemental information and data for compliance with the enhanced evaporative requirements for California

17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0170J62.

[Test vehicle]

Model name : LAND CRUISER
Data is representative for : LAND CRUISER

[Test procedure] : CARB method

[Test conditions]

Date : 03/20/2023
Ambient air temperature (at initiation) : 107.8 °F
Ambient air temperature (at completion) : 110.1 °F
Track surface temperature (at initiation) : 148.6 °F
Track surface temperature (at completion) : 151.2 °F
Wind speed : N/A
Test fuel RVP : 7.0 PSI
Driving cycles : LA#4+NYCC+NYCC+LA#4
Percent cloud cover : N/A

[Test conditions]

Date : 03/21/2023
Ambient air temperature (at initiation) : 107.8 °F
Ambient air temperature (at completion) : 108.9 °F
Track surface temperature (at initiation) : 148.8 °F
Track surface temperature (at completion) : 151.2 °F
Wind speed : N/A
Test fuel RVP : 7.0 PSI
Driving cycles : LA#4+NYCC+NYCC+LA#4
Percent cloud cover : N/A

Note : Fuel tank temperature profiles in this section are averaged with these two profiles in accordance with 40CFR §86.129-94(d)(1)

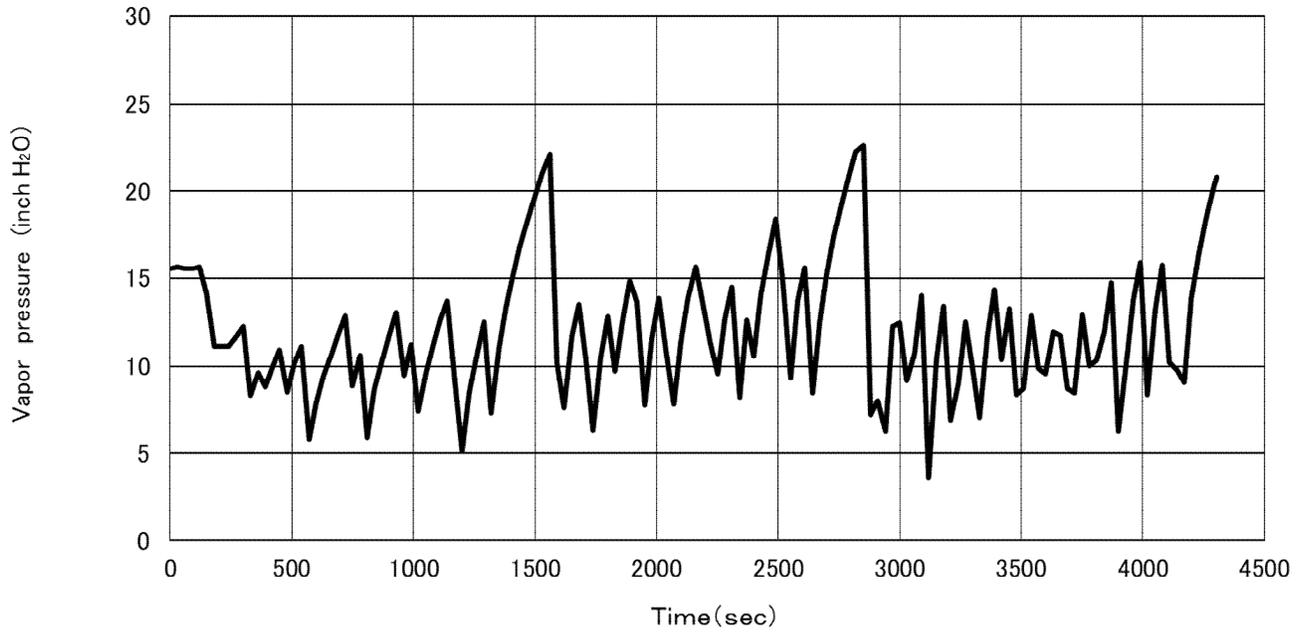
17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0170J62.
Measured temperature and pressure profiles

- (a) Measured average fuel temperature
 This profile is raw data and not corrected actually.

Time(sec.)	Liquid('F)	Time(sec.)	Liquid('F)	Time(sec.)	Liquid('F)	Time(sec.)	Liquid('F)
0	106.0	1200	111.0	2400	118.8	3600	126.0
30	106.2	1230	111.2	2430	118.8	3630	126.1
60	106.2	1260	111.4	2460	118.6	3660	126.3
90	106.2	1290	111.4	2490	118.4	3690	126.5
120	106.5	1320	112.1	2520	118.8	3720	126.7
150	106.5	1350	111.4	2550	118.9	3750	126.7
180	106.5	1380	112.1	2580	119.1	3780	126.9
210	106.7	1410	111.6	2610	119.5	3810	127.0
240	106.9	1440	111.4	2640	119.7	3840	127.2
270	107.1	1470	111.2	2670	120.0	3870	126.7
300	107.2	1500	111.2	2700	119.7	3900	127.4
330	107.2	1530	111.4	2730	119.5	3930	127.2
360	107.2	1560	111.9	2760	119.7	3960	127.6
390	107.6	1590	112.3	2790	119.8	3990	127.2
420	107.4	1620	112.8	2820	120.2	4020	127.4
450	107.2	1650	113.2	2850	120.6	4050	127.9
480	107.6	1680	113.7	2880	121.1	4080	127.6
510	107.8	1710	113.9	2910	121.5	4110	128.1
540	107.8	1740	114.3	2940	121.8	4140	128.1
570	107.6	1770	114.3	2970	121.6	4170	128.1
600	107.8	1800	114.8	3000	122.2	4200	127.9
630	108.1	1830	114.8	3030	122.4	4230	127.9
660	107.6	1860	114.4	3060	122.4	4260	127.6
690	108.3	1890	114.4	3090	122.9	4290	128.7
720	108.3	1920	114.8	3120	123.1	4304	128.7
750	108.7	1950	115.2	3150	123.4		
780	108.7	1980	115.0	3180	123.4		
810	109.2	2010	115.3	3210	123.8		
840	109.4	2040	115.9	3240	123.8		
870	109.6	2070	116.2	3270	123.6		
900	109.9	2100	115.9	3300	124.3		
930	110.1	2130	115.7	3330	124.3		
960	110.3	2160	116.2	3360	124.5		
990	110.5	2190	116.6	3390	124.3		
1020	110.7	2220	117.0	3420	124.9		
1050	110.1	2250	117.3	3450	124.7		
1080	110.5	2280	117.7	3480	124.9		
1110	110.7	2310	118.0	3510	124.7		
1140	111.0	2340	118.4	3540	125.2		
1170	110.8	2370	118.2	3570	125.6		

17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0170J62.

(b) Measured vapor space pressure profile



17.5 Supplemental information and data for compliance with the enhanced evaporative requirements for California

17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0170J62.

[Test vehicle]

Model name : LAND CRUISER
Data is representative for : LAND CRUISER

[Test procedure] : EPA method

[Test conditions]

Date : 03/20/2023
Ambient air temperature (at initiation) : 96.4 °F
Ambient air temperature (at completion) : 100.2 °F
Track surface temperature (at initiation) : 130.8 °F
Track surface temperature (at completion) : 132.6 °F
Wind speed : N/A
Test fuel RVP : 9.0 PSI
Driving cycles : LA#4+NYCC+NYCC+LA#4
Percent cloud cover : N/A

[Test conditions]

Date : 03/21/2023
Ambient air temperature (at initiation) : 99.0 °F
Ambient air temperature (at completion) : 97.9 °F
Track surface temperature (at initiation) : 131.4 °F
Track surface temperature (at completion) : 132.3 °F
Wind speed : N/A
Test fuel RVP : 9.0 PSI
Driving cycles : LA#4+NYCC+NYCC+LA#4
Percent cloud cover : N/A

Note : Fuel tank temperature profiles in this section are averaged with these two profiles in accordance with 40CFR §86.129-94(d)(1)

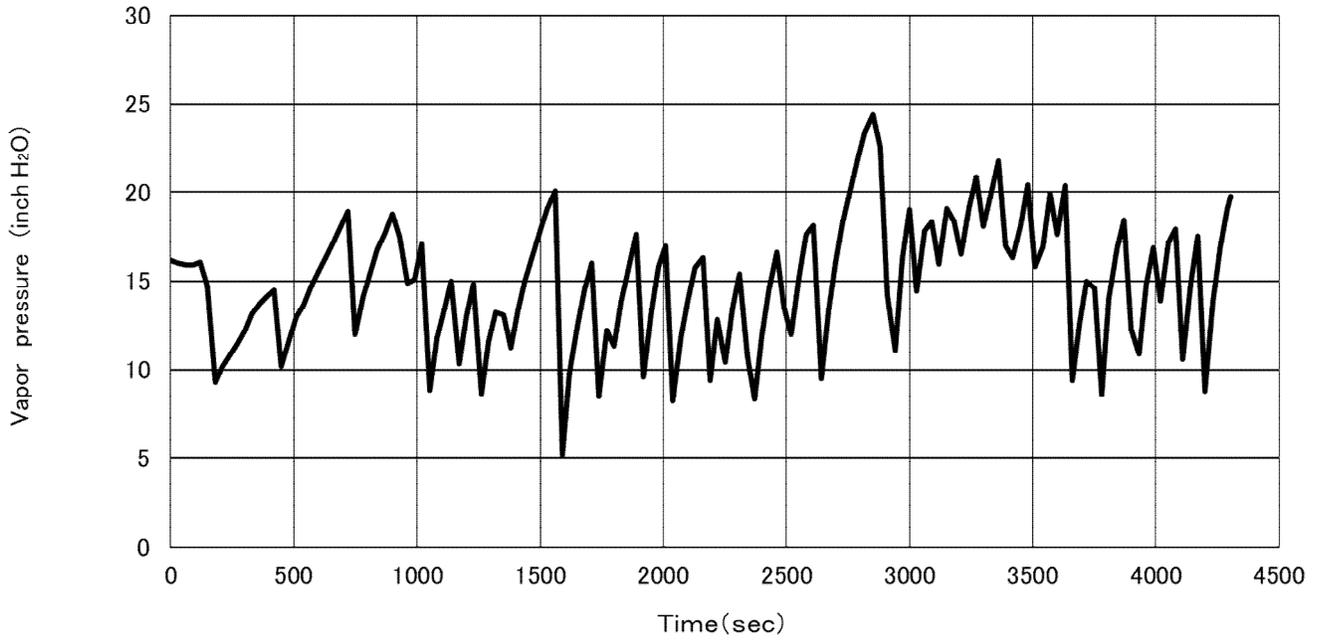
17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0170J62.
Measured temperature and pressure profiles

- (a) Measured average fuel temperature
 This profile is raw data and not corrected actually.

Time(sec.)	Liquid(°F)	Time(sec.)	Liquid(°F)	Time(sec.)	Liquid(°F)	Time(sec.)	Liquid(°F)
0	95.5	1200	100.6	2400	107.6	3600	115.5
30	95.5	1230	100.8	2430	107.6	3630	115.7
60	95.5	1260	101.1	2460	107.2	3660	115.9
90	95.9	1290	101.1	2490	107.1	3690	116.1
120	95.9	1320	101.8	2520	107.6	3720	116.2
150	95.9	1350	101.1	2550	107.8	3750	116.4
180	95.9	1380	101.7	2580	107.6	3780	116.4
210	96.1	1410	101.1	2610	108.1	3810	116.8
240	96.3	1440	101.1	2640	108.1	3840	116.8
270	96.4	1470	101.1	2670	108.7	3870	116.1
300	96.4	1500	101.1	2700	108.5	3900	116.8
330	96.6	1530	101.3	2730	108.5	3930	116.8
360	96.4	1560	101.7	2760	108.5	3960	117.1
390	96.6	1590	102.0	2790	108.7	3990	116.8
420	96.8	1620	102.4	2820	108.9	4020	116.8
450	96.6	1650	102.6	2850	109.4	4050	117.3
480	97.0	1680	103.1	2880	110.1	4080	117.1
510	97.3	1710	103.3	2910	110.5	4110	117.7
540	97.3	1740	103.8	2940	110.8	4140	117.3
570	97.2	1770	103.5	2970	110.7	4170	117.5
600	97.5	1800	104.0	3000	111.2	4200	117.1
630	97.9	1830	103.8	3030	111.7	4230	117.1
660	97.2	1860	103.6	3060	111.9	4260	116.8
690	97.9	1890	103.5	3090	112.3	4290	118.0
720	97.9	1920	104.0	3120	112.5	4304	118.0
750	98.4	1950	104.2	3150	112.8		
780	98.4	1980	104.0	3180	112.8		
810	99.0	2010	104.5	3210	113.4		
840	99.0	2040	104.5	3240	113.5		
870	99.1	2070	104.9	3270	113.0		
900	99.5	2100	104.9	3300	113.7		
930	99.5	2130	104.9	3330	113.7		
960	99.9	2160	105.3	3360	114.1		
990	100.0	2190	105.3	3390	113.7		
1020	100.2	2220	105.8	3420	114.4		
1050	99.7	2250	106.2	3450	114.1		
1080	100.0	2280	106.7	3480	114.4		
1110	100.4	2310	106.9	3510	114.3		
1140	100.8	2340	107.2	3540	115.0		
1170	100.6	2370	107.1	3570	115.3		

17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0170J62.

(b) Measured vapor space pressure profile



17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0170J62.

Evaporative emission test log

Vehicle Description

	Evaporative / Refueling emission vehicle
Test group	: RTYXT02.4P34
Vehicle ID	: 24-TN2H
Rep. car/truck line	: TACOMA HYBRID
Rep. vehicle model	: TZNH47L-PRVSZA
Displacement	: 146.0 CID
Transmission	: L580F-A
Test weight	: 5,500 lbs.
Road load	: 20.1 HP
Evap. code	: TN2L

Test results

Test procedure : EPA's procedure

3-day diurnal sequence test results

Running loss	:	0.000	(g/mile)
Hot soak loss	:	0.0443	(g/test)
3DBL	1st day	: 0.1270*1	(g/test)
	2nd day	: 0.0971	(g/test)
	3rd day	: 0.0990	(g/test)

2-day diurnal sequence test results

Hot soak loss	:	0.0280	(g/test)
2DBL	1st day	: 0.3295*1	(g/test)
	2nd day	: 0.3115	(g/test)

Refueling sequence test results

Refueling emission	:	0.006	(g/gal)
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*1: 1st DBL is added key off monitor loss (0.0010 gram).

17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0170J62.

Evaporative emission test log

Vehicle Description

	Evaporative emission vehicle	Refueling emission vehicle
Test group	: RTYXT02.4P34	STYXT02.4H3J
Vehicle ID	: 24-TN2H	25-TN2H
Rep. car/truck line	: TACOMA HYBRID	4RUNNER
Rep. vehicle model	: TZNH47L-PRVSZA	TZNH55L-GKVSZA
Displacement	: 146.0 CID	146.0 CID
Transmission	: L580F-A	L580F-C
Test weight	: 5,500 lbs.	5,500 lbs.
Road load	: 20.1 HP	18.8 HP
Evap. code	: TN2L	TN1T

Test results

Test procedure : EPA's procedure

3-day diurnal sequence test results

Running loss	:	0.000	(g/mile)
Hot soak loss	:	0.0443	(g/test)
3DBL	1st day	: 0.1270*1	(g/test)
	2nd day	: 0.0971	(g/test)
	3rd day	: 0.0990	(g/test)

2-day diurnal sequence test results

Hot soak loss	:	0.0280	(g/test)
2DBL	1st day	: 0.3295*1	(g/test)
	2nd day	: 0.3115	(g/test)

Refueling sequence test results

Refueling emission	:	0.030	(g/gal)
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*1: 1st DBL is added key off monitor loss (0.0010 gram).

17.5 Supplemental information and data for compliance with the enhanced evaporative requirements for California

17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0130J42.

[Test vehicle]

Model name : PRIUS
Data is representative for : PRIUS

[Test procedure] : CARB method

[Test conditions]

Date : 11/04/2025
Ambient air temperature (at initiation) : 106.5 °F
Ambient air temperature (at completion) : 113.5 °F
Track surface temperature (at initiation) : 151.9 °F
Track surface temperature (at completion) : 149.9 °F
Wind speed : N/A
Test fuel RVP : 7.0 PSI
Driving cycles : LA#4+NYCC+NYCC+LA#4
Percent cloud cover : N/A

[Test conditions]

Date : 11/05/2025
Ambient air temperature (at initiation) : 107.4°F
Ambient air temperature (at completion) : 112.8°F
Track surface temperature (at initiation) : 152.1 °F
Track surface temperature (at completion) : 149.9 °F
Wind speed : N/A
Test fuel RVP : 7.0 PSI
Driving cycles : LA#4+NYCC+NYCC+LA#4
Percent cloud cover : N/A

Note: Fuel tank temperature profiles in this section are averaged with these two profiles in accordance with 40CFR §86.129-94(d)(1).

17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0130J42.

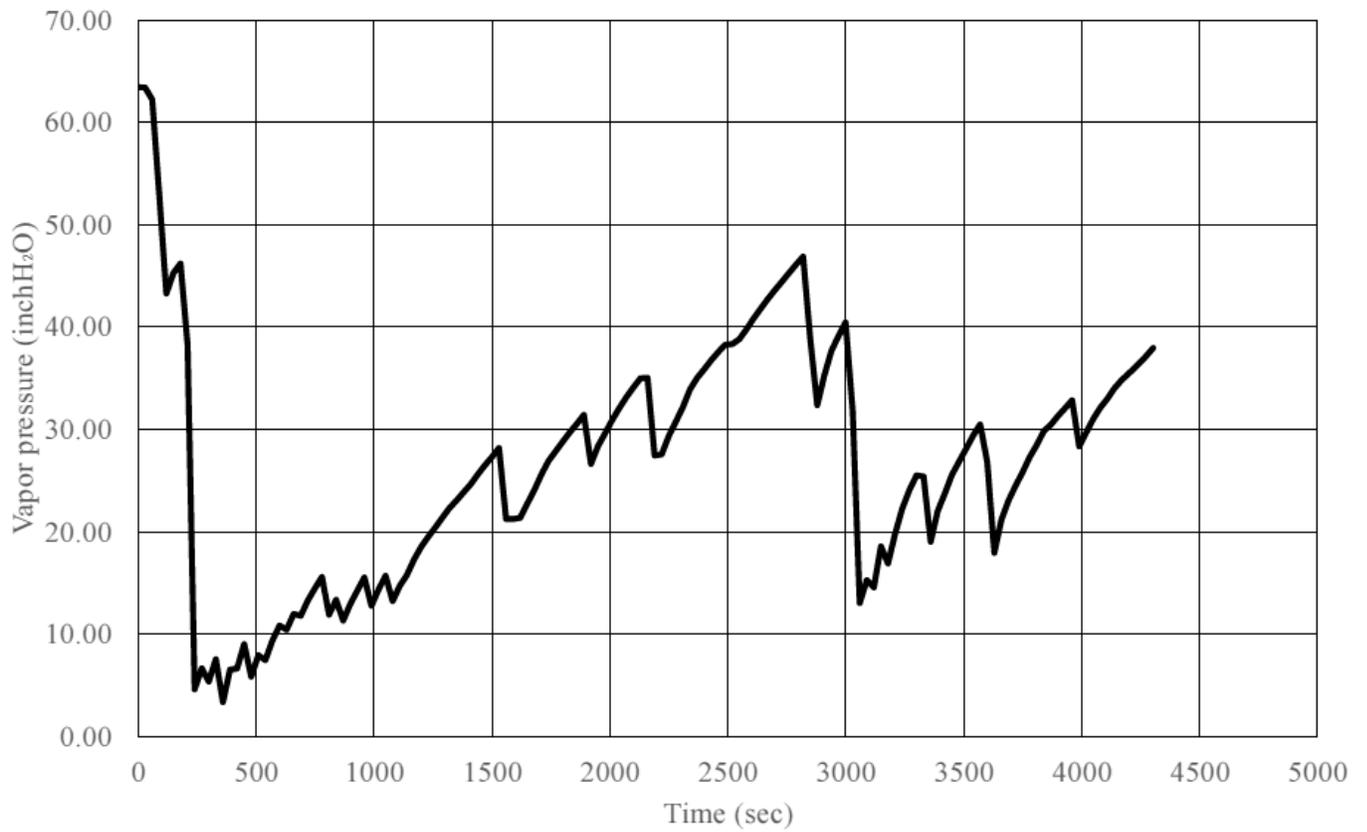
Measured temperature and pressure profiles

- (a) Measured average fuel temperature
This profile is raw data and not corrected actually.

Time(sec.)	Liquid(F)	Time(sec.)	Liquid(F)	Time(sec.)	Liquid(F)	Time(sec.)	Liquid(F)
0	106.2	1200	109.6	2400	114.8	3600	120.0
30	106.2	1230	109.8	2430	115.0	3630	120.0
60	106.3	1260	109.9	2460	115.2	3660	120.0
90	106.4	1290	110.1	2490	115.2	3690	120.2
120	106.3	1320	110.1	2520	115.5	3720	120.4
150	106.7	1350	110.3	2550	115.7	3750	120.4
180	106.7	1380	110.3	2580	115.9	3780	120.4
210	106.7	1410	110.5	2610	115.9	3810	120.6
240	106.9	1440	110.7	2640	115.9	3840	120.7
270	106.9	1470	110.7	2670	116.2	3870	120.9
300	107.1	1500	110.8	2700	116.2	3900	120.9
330	107.1	1530	110.8	2730	116.2	3930	120.9
360	107.2	1560	111.0	2760	116.4	3960	121.1
390	107.2	1590	111.2	2790	116.4	3990	121.1
420	107.2	1620	111.4	2820	116.6	4020	121.3
450	107.4	1650	111.4	2850	116.8	4050	121.5
480	107.4	1680	111.6	2880	117.0	4080	121.3
510	107.6	1710	111.6	2910	117.0	4110	121.5
540	107.8	1740	111.7	2940	117.1	4140	121.5
570	107.8	1770	111.9	2970	117.3	4170	121.6
600	107.8	1800	112.1	3000	117.5	4200	121.8
630	108.0	1830	112.3	3030	117.7	4230	122.0
660	108.0	1860	112.5	3060	117.9	4260	122.2
690	108.0	1890	112.5	3090	118.0	4290	122.0
720	108.1	1920	112.6	3120	118.2	4304	122.0
750	108.3	1950	112.6	3150	118.2		
780	108.5	1980	113.0	3180	118.2		
810	108.5	2010	113.0	3210	118.4		
840	108.5	2040	113.2	3240	118.6		
870	108.7	2070	113.4	3270	118.8		
900	108.7	2100	113.5	3300	118.9		
930	108.9	2130	113.5	3330	118.9		
960	109.0	2160	113.7	3360	119.3		
990	109.0	2190	113.7	3390	119.3		
1020	109.2	2220	113.7	3420	119.3		
1050	109.4	2250	114.1	3450	119.5		
1080	109.4	2280	114.3	3480	119.5		
1110	109.6	2310	114.4	3510	119.7		
1140	109.6	2340	114.6	3540	119.7		
1170	109.8	2370	114.8	3570	120.0		

17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0130J42.

(b) Measured vapor space pressure profile



17.5 Supplemental information and data for compliance with the enhanced evaporative requirements for California

17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0130J42.

[Test vehicle]

Model name : PRIUS
Data is representative for : PRIUS

[Test procedure] : EPA method

[Test conditions]

Date : 11/04/2025
Ambient air temperature (at initiation) : 97.5 °F
Ambient air temperature (at completion) : 101.3 °F
Track surface temperature (at initiation) : 143.1 °F
Track surface temperature (at completion) : 140.9 °F
Wind speed : N/A
Test fuel RVP : 9.0 PSI
Driving cycles : LA#4+NYCC+NYCC+LA#4
Percent cloud cover : N/A

[Test conditions]

Date : 11/05/2025
Ambient air temperature (at initiation) : 97.3 °F
Ambient air temperature (at completion) : 103.3 °F
Track surface temperature (at initiation) : 143.1 °F
Track surface temperature (at completion) : 141.1 °F
Wind speed : N/A
Test fuel RVP : 9.0 PSI
Driving cycles : LA#4+NYCC+NYCC+LA#4
Percent cloud cover : N/A

Note: Fuel tank temperature profiles in this section are averaged with these two profiles in accordance with 40CFR §86.129-94(d)(1).

17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0130J42.

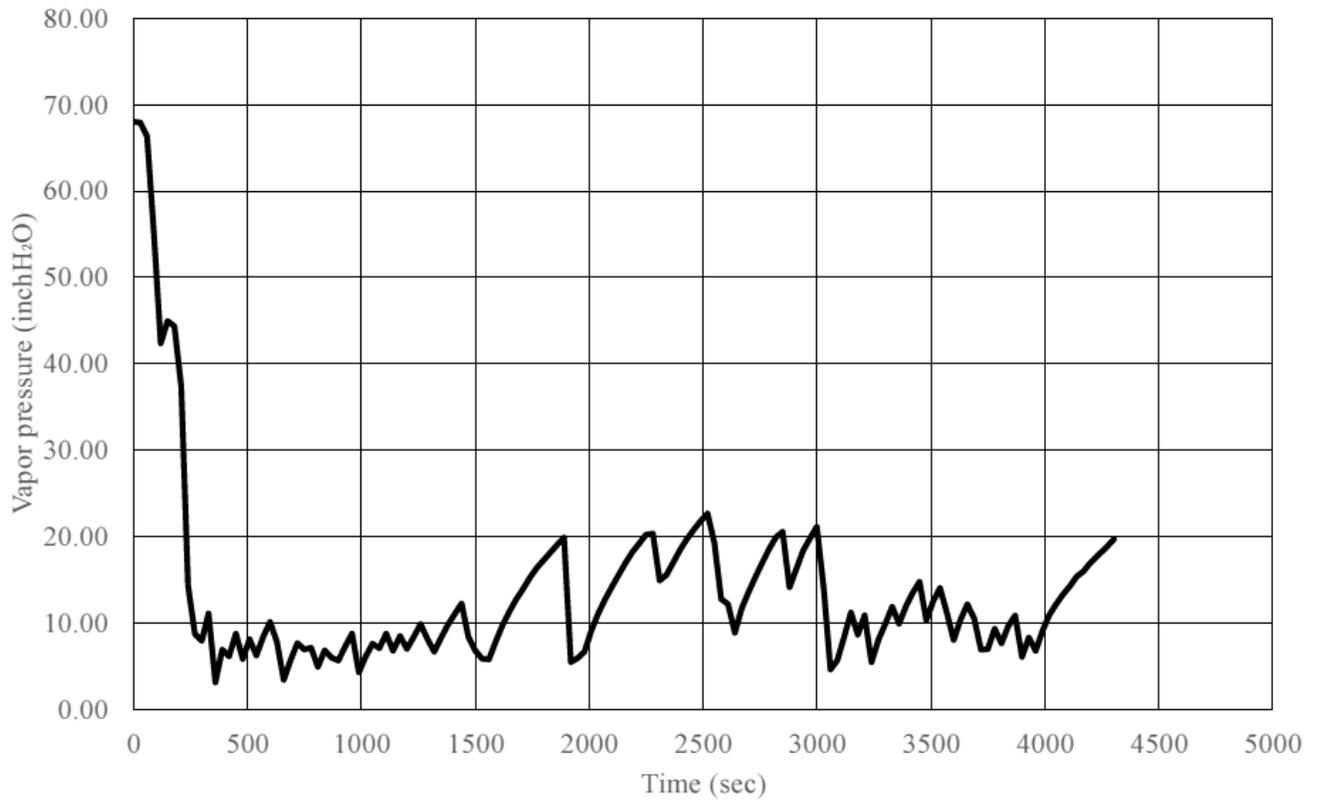
Measured temperature and pressure profiles

- (a) Measured average fuel temperature
This profile is raw data and not corrected actually.

Time(sec.)	Liquid(F)	Time(sec.)	Liquid(F)	Time(sec.)	Liquid(F)	Time(sec.)	Liquid(F)
0	96.6	1200	100.0	2400	105.3	3600	110.5
30	96.5	1230	100.0	2430	105.4	3630	110.8
60	96.6	1260	100.4	2460	105.6	3660	110.8
90	96.6	1290	100.4	2490	105.6	3690	110.8
120	96.8	1320	100.6	2520	105.8	3720	111.0
150	96.8	1350	100.6	2550	106.0	3750	111.0
180	96.8	1380	100.8	2580	106.2	3780	111.2
210	97.0	1410	100.8	2610	106.3	3810	111.2
240	97.2	1440	100.9	2640	106.5	3840	111.4
270	97.3	1470	100.9	2670	106.7	3870	111.4
300	97.3	1500	101.1	2700	106.7	3900	111.6
330	97.5	1530	101.3	2730	106.9	3930	111.6
360	97.3	1560	101.3	2760	106.9	3960	111.7
390	97.5	1590	101.5	2790	107.1	3990	111.7
420	97.7	1620	101.5	2820	107.2	4020	111.7
450	97.7	1650	101.7	2850	107.4	4050	111.9
480	97.9	1680	101.8	2880	107.4	4080	112.3
510	97.9	1710	102.0	2910	107.6	4110	112.3
540	98.1	1740	102.2	2940	107.8	4140	112.5
570	98.1	1770	102.4	2970	108.0	4170	112.5
600	98.1	1800	102.4	3000	108.0	4200	112.5
630	98.2	1830	102.6	3030	108.1	4230	112.6
660	98.2	1860	102.9	3060	108.3	4260	112.6
690	98.4	1890	102.7	3090	108.7	4290	112.8
720	98.4	1920	102.9	3120	108.7	4304	113.0
750	98.4	1950	103.1	3150	108.9		
780	98.6	1980	103.3	3180	108.9		
810	98.8	2010	103.5	3210	109.0		
840	98.8	2040	103.5	3240	109.4		
870	99.0	2070	103.6	3270	109.4		
900	99.1	2100	103.6	3300	109.8		
930	99.1	2130	103.8	3330	109.8		
960	99.1	2160	104.0	3360	109.8		
990	99.3	2190	104.0	3390	109.8		
1020	99.5	2220	104.4	3420	109.9		
1050	99.5	2250	104.4	3450	110.1		
1080	99.7	2280	104.5	3480	110.1		
1110	99.9	2310	104.7	3510	110.3		
1140	99.9	2340	104.9	3540	110.3		
1170	100.0	2370	105.1	3570	110.5		

17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0130J42.

(b) Measured vapor space pressure profile



17.5 Supplemental information and data for compliance with the enhanced evaporative requirements for California

17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0130J42.

[Test vehicle]

Model name : PRIUS AWD
Data is representative for : PRIUS AWD

[Test procedure] : CARB method

[Test conditions]

Date : 11/01/2025
Ambient air temperature (at initiation) : 106.0 °F
Ambient air temperature (at completion) : 115.2 °F
Track surface temperature (at initiation) : 151.9 °F
Track surface temperature (at completion) : 150.1 °F
Wind speed : N/A
Test fuel RVP : 7.0 PSI
Driving cycles : LA#4+NYCC+NYCC+LA#4
Percent cloud cover : N/A

[Test conditions]

Date : 11/02/2025
Ambient air temperature (at initiation) : 106.5°F
Ambient air temperature (at completion) : 111.6°F
Track surface temperature (at initiation) : 151.9 °F
Track surface temperature (at completion) : 150.1 °F
Wind speed : N/A
Test fuel RVP : 7.0 PSI
Driving cycles : LA#4+NYCC+NYCC+LA#4
Percent cloud cover : N/A

Note: Fuel tank temperature profiles in this section are averaged with these two profiles in accordance with 40CFR §86.129-94(d)(1).

17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0130J42.

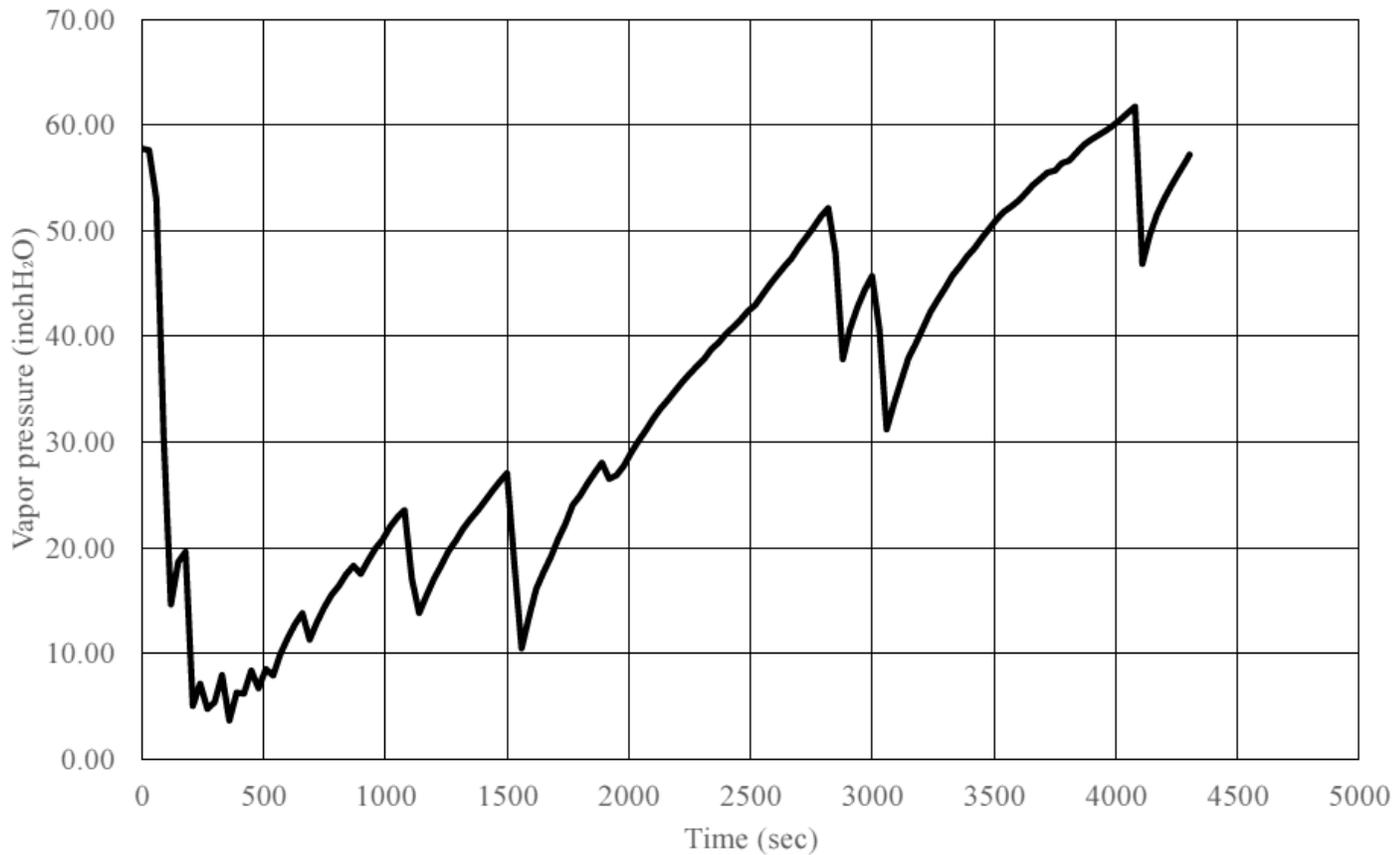
Measured temperature and pressure profiles

- (a) Measured average fuel temperature
This profile is raw data and not corrected actually.

Time(sec.)	Liquid(°F)	Time(sec.)	Liquid(°F)	Time(sec.)	Liquid(°F)	Time(sec.)	Liquid(°F)
0	106.2	1200	109.0	2400	114.6	3600	120.7
30	105.9	1230	109.2	2430	114.8	3630	120.9
60	105.7	1260	109.4	2460	115.0	3660	121.1
90	105.6	1290	109.6	2490	115.2	3690	121.1
120	105.6	1320	109.6	2520	115.2	3720	121.3
150	105.6	1350	109.6	2550	115.5	3750	121.3
180	105.6	1380	109.8	2580	115.7	3780	121.3
210	105.6	1410	109.9	2610	115.9	3810	121.5
240	105.6	1440	109.9	2640	115.9	3840	121.6
270	105.8	1470	109.9	2670	116.2	3870	121.8
300	105.8	1500	110.3	2700	116.4	3900	121.8
330	106.0	1530	110.5	2730	116.4	3930	122.0
360	106.2	1560	110.5	2760	116.6	3960	122.0
390	106.2	1590	110.7	2790	116.8	3990	122.4
420	106.3	1620	111.0	2820	117.0	4020	122.2
450	106.3	1650	111.0	2850	117.0	4050	122.4
480	106.5	1680	111.0	2880	117.0	4080	122.4
510	106.3	1710	111.0	2910	117.3	4110	122.5
540	106.5	1740	111.2	2940	117.5	4140	122.5
570	106.7	1770	111.6	2970	117.7	4170	122.7
600	106.7	1800	111.6	3000	117.9	4200	123.1
630	106.9	1830	111.6	3030	118.0	4230	123.1
660	107.1	1860	111.9	3060	118.0	4260	123.3
690	107.1	1890	111.9	3090	118.2	4290	123.3
720	107.2	1920	112.1	3120	118.6	4304	123.3
750	107.4	1950	112.5	3150	118.8		
780	107.4	1980	112.6	3180	118.8		
810	107.6	2010	112.6	3210	119.1		
840	107.6	2040	112.6	3240	119.1		
870	107.8	2070	113.0	3270	119.3		
900	108.0	2100	113.2	3300	119.5		
930	107.8	2130	113.4	3330	119.7		
960	108.0	2160	113.4	3360	119.5		
990	108.3	2190	113.5	3390	119.8		
1020	108.3	2220	113.7	3420	120.0		
1050	108.7	2250	113.9	3450	120.0		
1080	108.7	2280	114.1	3480	120.2		
1110	108.9	2310	114.1	3510	120.4		
1140	108.9	2340	114.4	3540	120.4		
1170	109.0	2370	114.4	3570	120.6		

17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0130J42.

(b) Measured vapor space pressure profile



17.5 Supplemental information and data for compliance with the enhanced evaporative requirements for California

17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0130J42.

[Test vehicle]

Model name : PRIUS AWD
Data is representative for : PRIUS AWD

[Test procedure] : EPA method

[Test conditions]

Date : 11/01/2025
Ambient air temperature (at initiation) : 97.9 °F
Ambient air temperature (at completion) : 103.8 °F
Track surface temperature (at initiation) : 143.4 °F
Track surface temperature (at completion) : 141.1 °F
Wind speed : N/A
Test fuel RVP : 9.0 PSI
Driving cycles : LA#4+NYCC+NYCC+LA#4
Percent cloud cover : N/A

[Test conditions]

Date : 11/02/2025
Ambient air temperature (at initiation) : 97.5 °F
Ambient air temperature (at completion) : 103.5 °F
Track surface temperature (at initiation) : 143.2 °F
Track surface temperature (at completion) : 141.1 °F
Wind speed : N/A
Test fuel RVP : 9.0 PSI
Driving cycles : LA#4+NYCC+NYCC+LA#4
Percent cloud cover : N/A

Note: Fuel tank temperature profiles in this section are averaged with these two profiles in accordance with 40CFR §86.129-94(d)(1).

17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0130J42.

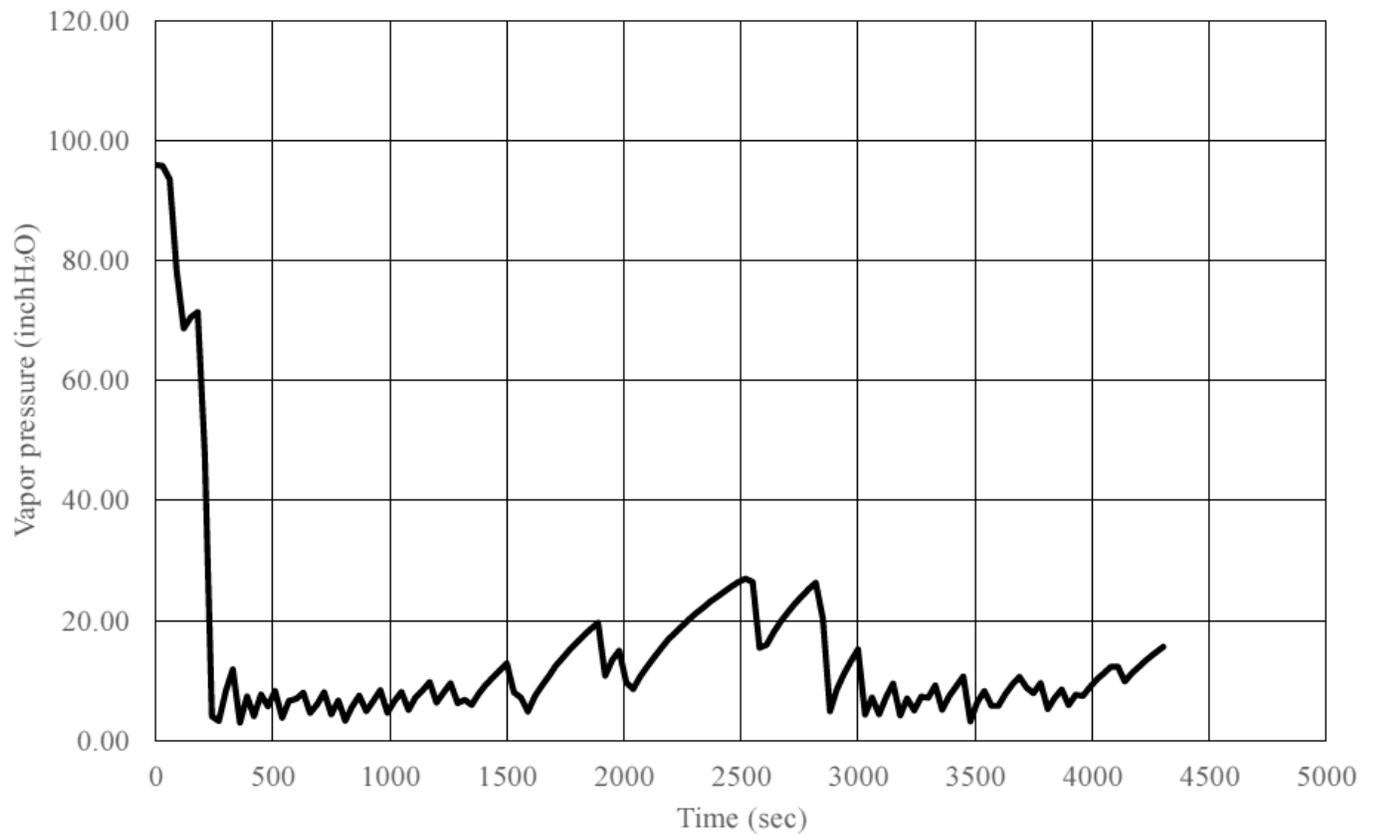
Measured temperature and pressure profiles

- (a) Measured average fuel temperature
This profile is raw data and not corrected actually.

Time(sec.)	Liquid(F)	Time(sec.)	Liquid(F)	Time(sec.)	Liquid(F)	Time(sec.)	Liquid(F)
0	96.3	1200	99.5	2400	104.0	3600	109.4
30	96.2	1230	99.7	2430	104.2	3630	109.4
60	96.2	1260	99.7	2460	104.4	3660	109.6
90	96.1	1290	99.9	2490	104.4	3690	109.8
120	96.1	1320	99.9	2520	104.7	3720	109.8
150	96.1	1350	99.9	2550	105.1	3750	109.9
180	96.3	1380	100.0	2580	104.9	3780	109.9
210	96.3	1410	100.2	2610	105.1	3810	110.1
240	96.3	1440	100.2	2640	105.3	3840	110.1
270	96.3	1470	100.4	2670	105.3	3870	110.3
300	96.3	1500	100.4	2700	105.4	3900	110.3
330	96.4	1530	100.6	2730	105.6	3930	110.7
360	96.6	1560	100.6	2760	105.8	3960	110.7
390	96.6	1590	100.8	2790	106.0	3990	110.7
420	96.8	1620	100.9	2820	106.0	4020	110.8
450	96.8	1650	101.1	2850	106.0	4050	111.0
480	97.0	1680	101.1	2880	106.3	4080	111.2
510	97.0	1710	101.1	2910	106.5	4110	111.2
540	97.2	1740	101.5	2940	106.7	4140	111.4
570	97.3	1770	101.5	2970	106.9	4170	111.4
600	97.3	1800	101.7	3000	106.7	4200	111.6
630	97.5	1830	101.7	3030	107.1	4230	111.6
660	97.5	1860	101.8	3060	107.2	4260	111.6
690	97.7	1890	102.0	3090	107.4	4290	111.7
720	97.7	1920	102.0	3120	107.8	4304	111.7
750	97.9	1950	102.2	3150	107.8		
780	98.1	1980	102.2	3180	107.8		
810	98.2	2010	102.4	3210	108.1		
840	98.1	2040	102.6	3240	108.1		
870	98.2	2070	102.6	3270	108.3		
900	98.4	2100	102.9	3300	108.3		
930	98.4	2130	102.9	3330	108.3		
960	98.6	2160	102.9	3360	108.7		
990	98.8	2190	103.1	3390	108.5		
1020	99.0	2220	103.3	3420	108.7		
1050	99.0	2250	103.3	3450	108.9		
1080	99.1	2280	103.5	3480	108.9		
1110	99.1	2310	103.6	3510	109.2		
1140	99.3	2340	103.8	3540	109.0		
1170	99.5	2370	104.0	3570	109.2		

17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0130J42.

(b) Measured vapor space pressure profile



17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0130J42.

Evaporative emission test log

Vehicle Description

	Evaporative emission vehicle	Refueling emission vehicle
Test group	: PTYXV01.8P33	HTYXV01.8P35
Vehicle ID	: 23-ZE2H	17-ZW3H
Rep. car/truck line	: COROLLA HYBRID AWD	PRIUS PRIME
Rep. vehicle model	: ZWE215L-AEXSBA	ZVW52L-AHXEBA
Displacement	: 109.7 CID	109.7 CID
Transmission	: PA10-B	P610
Test weight	: 3,625 lbs.	3,625 lbs.
Road load	: 11.4 HP	9.3 HP
Evap. code	: ZE1F	ZW2F

Test results

Test procedure : CARB's procedure

3-day diurnal sequence test results

Running loss	:	0.004	(g/mile)
Hot soak loss	:	0.0319	(g/test)
3DBL	1st day	: 0.1289*1	(g/test)
	2nd day	: 0.1066	(g/test)
	3rd day	: 0.0938	(g/test)

2-day diurnal sequence test results

Hot soak loss	:	0.0150	(g/mile)
2DBL	1st day	: 0.1617*1	(g/test)
	2nd day	: 0.1190	(g/test)

Refueling sequence test results

Refueling emission : 0.001 (g/gal)

*1: DBL is added key off monitor loss (0.0018 gram).

17.5 Supplemental information and data for compliance with the enhanced evaporative requirements for California

17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0120J42.

[Test vehicle]

Model name : PRIUS PHEV
Data is representative for : PRIUS PHEV

[Test procedure] : CARB method

[Test conditions]

Date : 12/12/2025
Ambient air temperature (at initiation) : 106.3 °F
Ambient air temperature (at completion) : 113.7 °F
Track surface temperature (at initiation) : 149.0 °F
Track surface temperature (at completion) : 149.9 °F
Wind speed : N/A
Test fuel RVP : 7.0 PSI
Driving cycles : LA#4+NYCC+NYCC+LA#4
Percent cloud cover : N/A

[Test conditions]

Date : 12/13/2025
Ambient air temperature (at initiation) : 107.1°F
Ambient air temperature (at completion) : 109.6°F
Track surface temperature (at initiation) : 149.0 °F
Track surface temperature (at completion) : 149.9 °F
Wind speed : N/A
Test fuel RVP : 7.0 PSI
Driving cycles : LA#4+NYCC+NYCC+LA#4
Percent cloud cover : N/A

Note: Fuel tank temperature profiles in this section are averaged with these two profiles in accordance with 40CFR §86.129-94(d)(1).

17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0120J42.

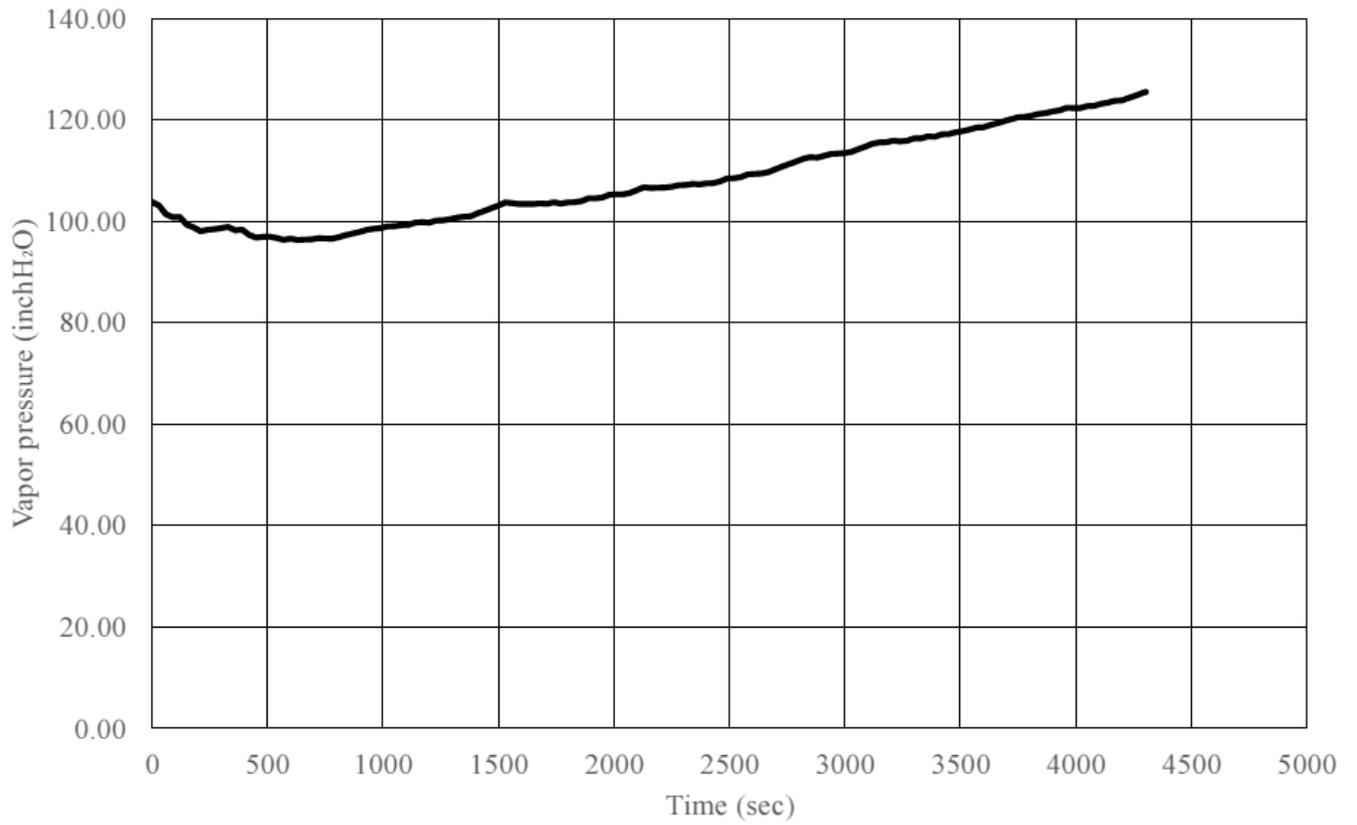
Measured temperature and pressure profiles

- (a) Measured average fuel temperature
This profile is raw data and not corrected actually.

Time(sec.)	Liquid(F)	Time(sec.)	Liquid(F)	Time(sec.)	Liquid(F)	Time(sec.)	Liquid(F)
0	95.2	1200	95.7	2400	96.8	3600	97.9
30	95.3	1230	95.5	2430	97.0	3630	97.9
60	94.6	1260	95.7	2460	96.8	3660	98.1
90	94.3	1290	95.5	2490	97.0	3690	98.1
120	94.5	1320	95.7	2520	97.2	3720	98.1
150	94.6	1350	95.7	2550	97.2	3750	98.1
180	94.6	1380	95.7	2580	97.3	3780	98.1
210	94.3	1410	95.9	2610	97.2	3810	98.2
240	94.1	1440	96.1	2640	97.2	3840	98.2
270	94.3	1470	96.1	2670	97.2	3870	98.2
300	94.5	1500	96.3	2700	97.3	3900	98.4
330	94.8	1530	96.3	2730	97.3	3930	98.4
360	94.8	1560	96.3	2760	97.3	3960	98.4
390	94.8	1590	96.3	2790	97.3	3990	98.4
420	94.8	1620	96.3	2820	97.5	4020	98.4
450	94.6	1650	96.3	2850	97.5	4050	98.6
480	94.6	1680	96.3	2880	97.2	4080	98.6
510	95.0	1710	96.3	2910	97.0	4110	98.6
540	94.8	1740	96.1	2940	97.2	4140	98.6
570	94.8	1770	96.3	2970	97.2	4170	98.8
600	94.8	1800	96.3	3000	97.3	4200	98.8
630	95.0	1830	96.4	3030	97.2	4230	98.8
660	94.8	1860	96.3	3060	97.0	4260	98.8
690	95.0	1890	96.3	3090	96.8	4290	99.0
720	95.0	1920	96.6	3120	97.0	4304	99.0
750	95.2	1950	96.4	3150	97.3		
780	95.2	1980	96.4	3180	97.3		
810	95.0	2010	96.4	3210	97.5		
840	95.0	2040	96.6	3240	97.5		
870	95.2	2070	96.6	3270	97.7		
900	95.2	2100	96.6	3300	97.5		
930	95.2	2130	96.8	3330	97.7		
960	95.4	2160	97.0	3360	97.5		
990	95.4	2190	96.8	3390	97.9		
1020	95.4	2220	96.8	3420	97.9		
1050	95.5	2250	96.8	3450	97.9		
1080	95.5	2280	96.8	3480	97.9		
1110	95.5	2310	96.8	3510	98.1		
1140	95.5	2340	96.6	3540	98.1		
1170	95.7	2370	96.8	3570	97.9		

17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0120J42.

(b) Measured vapor space pressure profile



17.5 Supplemental information and data for compliance with the enhanced evaporative requirements for California

17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0120J42.

[Test vehicle]

Model name : PRIUS PHEV
Data is representative for : PRIUS PHEV

[Test procedure] : EPA method

[Test conditions]

Date : 12/11/2025
Ambient air temperature (at initiation) : 98.8 °F
Ambient air temperature (at completion) : 101.1 °F
Track surface temperature (at initiation) : 140.2 °F
Track surface temperature (at completion) : 141.1 °F
Wind speed : N/A
Test fuel RVP : 9.0 PSI
Driving cycles : LA#4+NYCC+NYCC+LA#4
Percent cloud cover : N/A

[Test conditions]

Date : 12/12/2025
Ambient air temperature (at initiation) : 96.4 °F
Ambient air temperature (at completion) : 99.3 °F
Track surface temperature (at initiation) : 140.0 °F
Track surface temperature (at completion) : 141.1 °F
Wind speed : N/A
Test fuel RVP : 9.0 PSI
Driving cycles : LA#4+NYCC+NYCC+LA#4
Percent cloud cover : N/A

Note: Fuel tank temperature profiles in this section are averaged with these two profiles in accordance with 40CFR §86.129-94(d)(1).

17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0120J42.

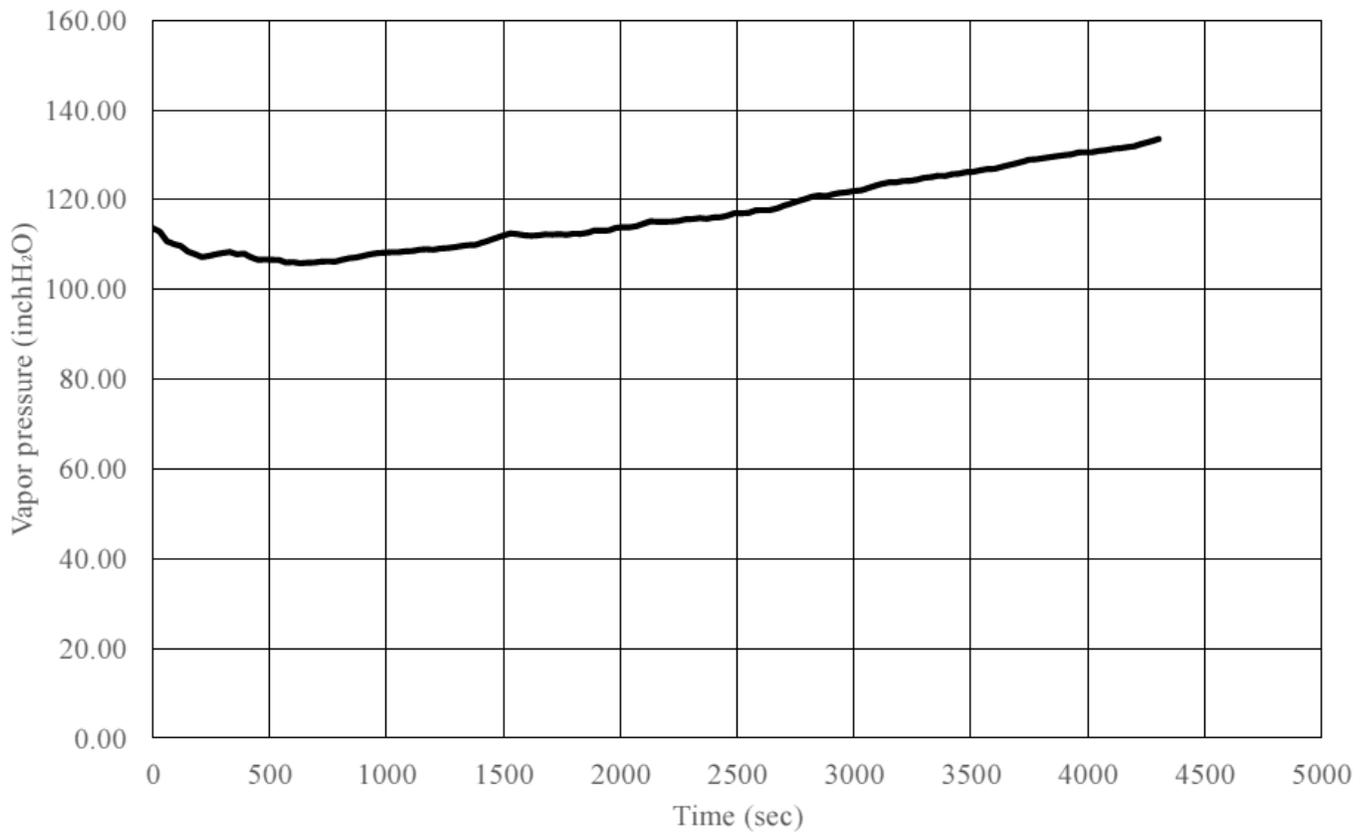
Measured temperature and pressure profiles

- (a) Measured average fuel temperature
This profile is raw data and not corrected actually.

Time(sec.)	Liquid(F)	Time(sec.)	Liquid(F)	Time(sec.)	Liquid(F)	Time(sec.)	Liquid(F)
0	85.3	1200	86.2	2400	86.9	3600	88.0
30	85.2	1230	86.2	2430	86.7	3630	88.0
60	84.7	1260	86.4	2460	86.9	3660	88.0
90	84.4	1290	86.2	2490	86.9	3690	88.0
120	84.6	1320	86.4	2520	87.1	3720	88.2
150	84.9	1350	86.4	2550	87.1	3750	88.2
180	84.9	1380	86.4	2580	87.3	3780	88.3
210	84.6	1410	86.4	2610	87.4	3810	88.3
240	84.4	1440	86.4	2640	87.3	3840	88.3
270	84.7	1470	86.7	2670	87.1	3870	88.3
300	84.6	1500	86.7	2700	87.3	3900	88.5
330	85.1	1530	86.7	2730	87.4	3930	88.5
360	85.3	1560	86.9	2760	87.4	3960	88.3
390	85.1	1590	86.7	2790	87.6	3990	88.5
420	85.1	1620	86.7	2820	87.6	4020	88.5
450	85.1	1650	86.5	2850	87.6	4050	88.5
480	85.3	1680	86.5	2880	87.3	4080	88.7
510	85.3	1710	86.7	2910	86.9	4110	88.7
540	85.3	1740	86.5	2940	87.1	4140	88.7
570	85.5	1770	86.7	2970	87.3	4170	88.7
600	85.6	1800	86.5	3000	87.4	4200	88.9
630	85.6	1830	86.5	3030	87.1	4230	88.9
660	85.8	1860	86.5	3060	86.9	4260	89.1
690	85.8	1890	86.7	3090	87.1	4290	89.2
720	85.8	1920	86.9	3120	87.3	4304	89.2
750	85.6	1950	86.9	3150	87.8		
780	85.8	1980	86.9	3180	87.6		
810	85.5	2010	86.9	3210	87.6		
840	85.6	2040	86.9	3240	88.0		
870	85.8	2070	86.7	3270	87.8		
900	85.6	2100	86.9	3300	87.6		
930	85.8	2130	86.9	3330	87.6		
960	86.0	2160	87.1	3360	87.6		
990	85.8	2190	87.1	3390	87.8		
1020	85.8	2220	87.1	3420	88.0		
1050	85.8	2250	87.1	3450	88.0		
1080	86.2	2280	86.9	3480	88.0		
1110	86.0	2310	86.9	3510	88.0		
1140	86.0	2340	86.9	3540	88.0		
1170	86.0	2370	86.9	3570	88.0		

17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0120J42.

(b) Measured vapor space pressure profile



17.5.1 Fuel tank temperature profile (FTTP) and pressure profile for VTYXR0120J42.

Evaporative emission test log

Vehicle Description

Evaporative/ Refueling emission vehicle
Test group : PTYXR0120J72
Vehicle ID : 23-MX2H
Rep. car/truck line : PRIUS PRIME
Rep. vehicle model : MXWH61L-AHXGBA
Displacement : 121.3 CID
Transmission : PB12-A
Test weight : 3,545 lbs.
Road load : 10.3 HP
Evap. code : MW2F

Test results

Test procedure : CARB's procedure

3-day diurnal sequence test results

Running loss : 0.002 (g/mile)
Hot soak loss : 0.0265 (g/test)
3DBL 1st day : 0.1528*1 (g/test)
2nd day : 0.1184 (g/test)
3rd day : 0.1126 (g/test)

2-day diurnal sequence test results

Hot soak loss : 0.0110 (g/mile)
2DBL 1st day : 0.1830 *1 (g/test)
2nd day : 0.1884 (g/test)

Refueling sequence test results

Refueling emission : 0.007 (g/gal)

*1: 1st DBL is added key off monitor loss (0.0222 gram).

17.6 New unique or changed emission control technology

New, unique or changed Exhaust, Evaporative/Refueling emission control technology or parts in Toyota 2027 MY is shown below

New, unique or changed emission control technology

Test group	New, unique or changed emission control technology
Not applicable	-

17.7 Service literature

Toyota will make available service bulletins, service manual and Fed World electronically.

Toyota is going to issue California ARB the service account which allows Carb to access Toyota Vehicle all serviceable parts information as stated in CCR section 1969 (l)(1)(C).

17.8 Emission Control Information Labels.

Please refer to the test group file

17.9 Reserved

17.10 Identification of AB71-Qualified Vehicles (Mail-Out #MSO-2000-04)

No vehicles qualified for the 2027MY.

17.11 Supplemental Data Sheet and Certification Review Sheet

Please refer to the each test group file.

17.12 Test group and Evaporative family sales for California

Confidential Information

17.13 California Phase-in Compliance

Confidential Information

17.14 Compliance with OBD-II Phase-in Requirements

Confidential Information

17.15 ZEV and HEV information

Confidential Information

17.16 Warranty information

Please refer to CBI file.

18. Information on Service of Process

Please refer to Section 1.