



EUROPEAN COMMISSION
JOINT RESEARCH CENTRE

Interim Report for AA DG-GROW/JRC

No. SI2.730104 - Task 5.1

Date of Approval	December 20, 2016
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Abstract	<p>This document is the final draft¹ version of the vehicle emissions test report for the Ford Fiesta Gasoline (Euro 6, Vehicle technical details in the report, JRC ID FD007)</p> <p>The report contains the vehicle emissions results on various test cycles, in the laboratory and on the road.</p>
Disclaimer	<p>The information and views set out in this document are a property of the Joint Research Centre (JRC). They are of preliminary nature and were not fully screened and processed according to the JRC quality and publication rules. Neither the Commission nor any person acting on the Commission's behalf may be held responsible for the use which may be made of the information contained therein.</p>

¹ PN emissions results still under QC/AC scrutiny

Vehicle Test Report - Ford Fiesta FD007

December 20, 2016

A. Vehicle details

Table 1: Vehicle specification

Vehicle Make:	FORD
Vehicle Type:	FIESTA
Vehicle Class:	M1
Vehicle Identification Number:	FD007
Model Year:	2015
Vehicle Identification Number:	WF0DXXGAKDFY03062
Emissions Standard:	EURO6
Transmission Type:	Manual
Number of Gears:	5
Odometer Reading:	88
Engine Capacity in cm3:	998
Engine Family:	GDI
Engine Type:	GASOLINE
Emissions Control Technologies:	NA
Nominal Fuel Tank Capacity:	NA
Tyre Type:	CONTINENTAL
Tyre Dimensions:	195/55 R15 85H
N° Homologation	e2 * 2001/116 * 0069 * 20



Figure 1: Vehicle tested

B. Tests conducted

Table 2: Laboratory tests conducted

Type	Repeats
Standard NEDC According to ECE R83	2
NEDC - Hot vehicle	2
WLTP High Road Load - Cold Vehicle	4
WLTP High Road Load - Hot Vehicle	3

Table 3: On-road tests conducted

Type	Repeats
RDE Route 1 (Esperia)	1
RDE Route 2 (Labienna)	2
RDE Route 3 (Sacromonte)	2
RDE Route 4 (Milano)	2

Generic test protocol: Version 10/08/2016

Application by the JRC: Version 10/08/2016

C. Laboratory Emissions Results

- Average results for the repeated tests

Table 4: Average laboratory emissions. HRL stands for High Road Load.

Type	NOx [mg/km]	HC [mg/km]	CO [mg/km]	CO2 [g/km]	PN [E+9/km]
NEDC Cold	7.309	48.64	294.7	113.9	1777
NEDC Hot	17.94	8.412	137.3	107.2	747.6
WLTP HRL Cold	31.4	45.03	541.1	124.5	2495
WLTP HRL Hot	46.3	13.17	288.6	125.9	1559

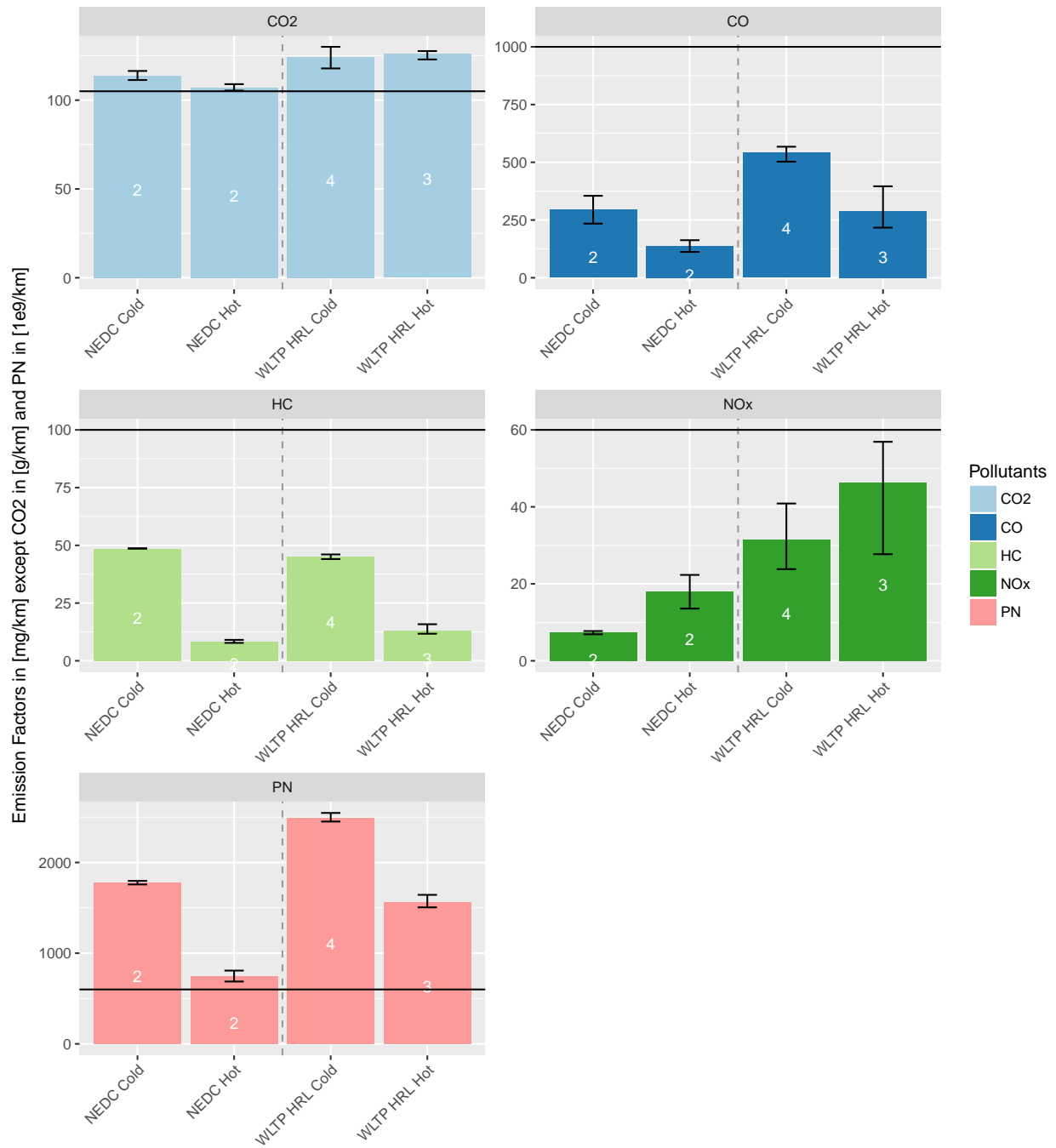


Figure 2: Emissions measured during laboratory tests. Error bars stand for min and max values. Numbers in the bars stand for the number of test. The horizontal line displayed on the CO₂ panel stands for the declared CO₂ emission factor displayed in the type approval certificate of the vehicle (105 g/km). The horizontal lines displayed on the CO, HC, NO_x and PN panels stand for the CO, THC, NO_x and PN standards for Euro 6 (1000, 100, 60 mg/km and 6x10¹¹ #/km respectively).

D. PEMS Emissions Results

- Final results for the entire route and not processed according to the RDE rules yet

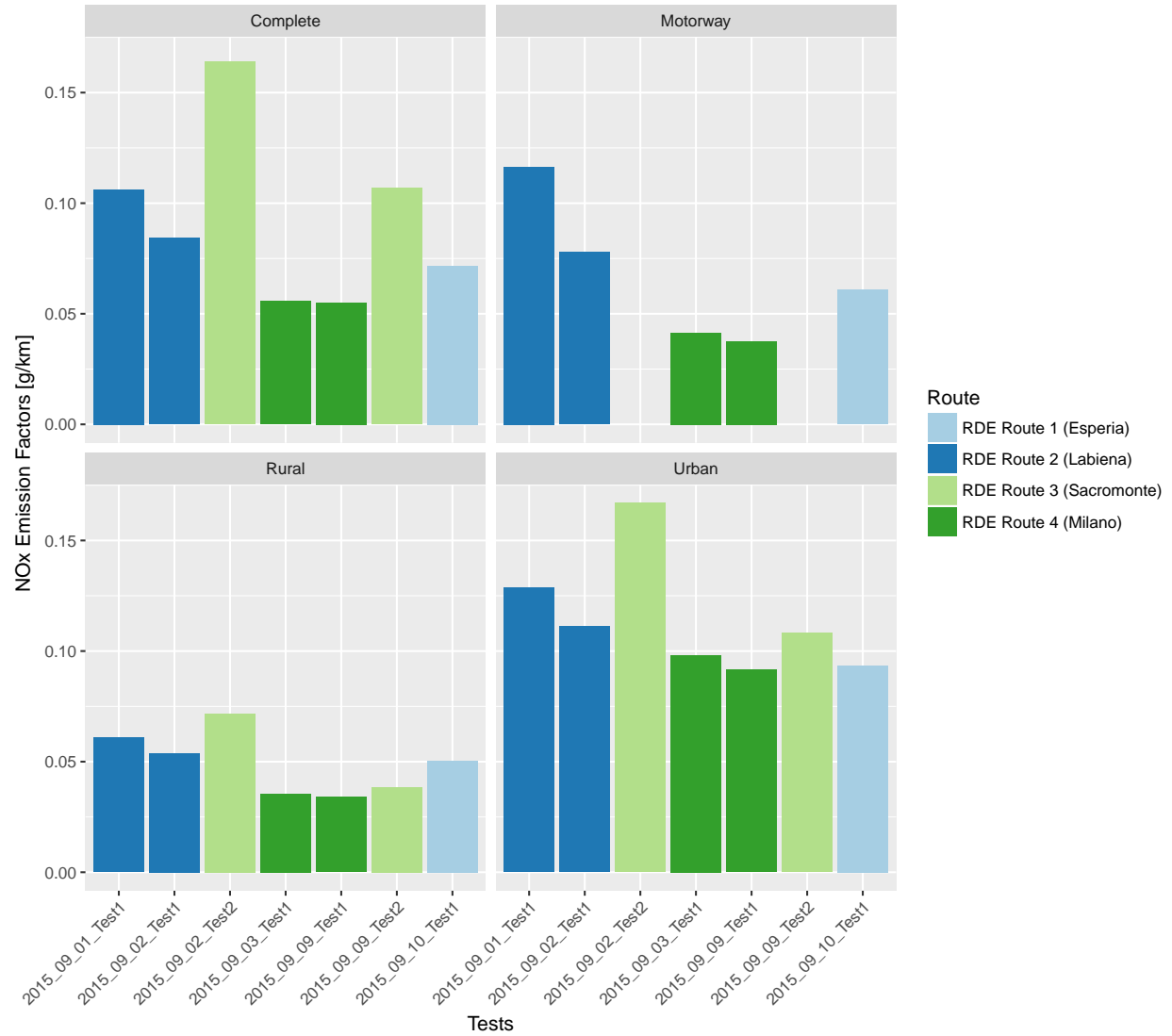


Figure 3: Emissions measured during on-road tests. The complete panel displays the overall NO_x emissions obtained during the complete routes. The Urban, Rural and Motorway panels display the detailed NO_x emissions over the different phases of the routes.

E. Comparison of Laboratory and PEMS results

Table 5: Average laboratory and PEMS emissions. CO₂ diff. stands for the relative difference between the CO₂ measured and the declared CO₂ emission

Type	Repeats	NOx [mg/km]	CO ₂ [g/km]	CO ₂ diff. [%]
NEDC Cold	2	7.309	113.9	8.452
NEDC Hot	2	17.94	107.2	2.087
WLTP HRL Cold	4	31.4	124.5	18.53
WLTP HRL Hot	3	46.3	125.9	19.93
RDE Route 1 (Esperia)	1	71.73	127	20.94
RDE Route 2 (Labienna)	2	95.25	168	60.02
RDE Route 3 (Sacromonte)	2	135.4	162.6	54.84
RDE Route 4 (Milano)	2	55.35	155.3	47.87

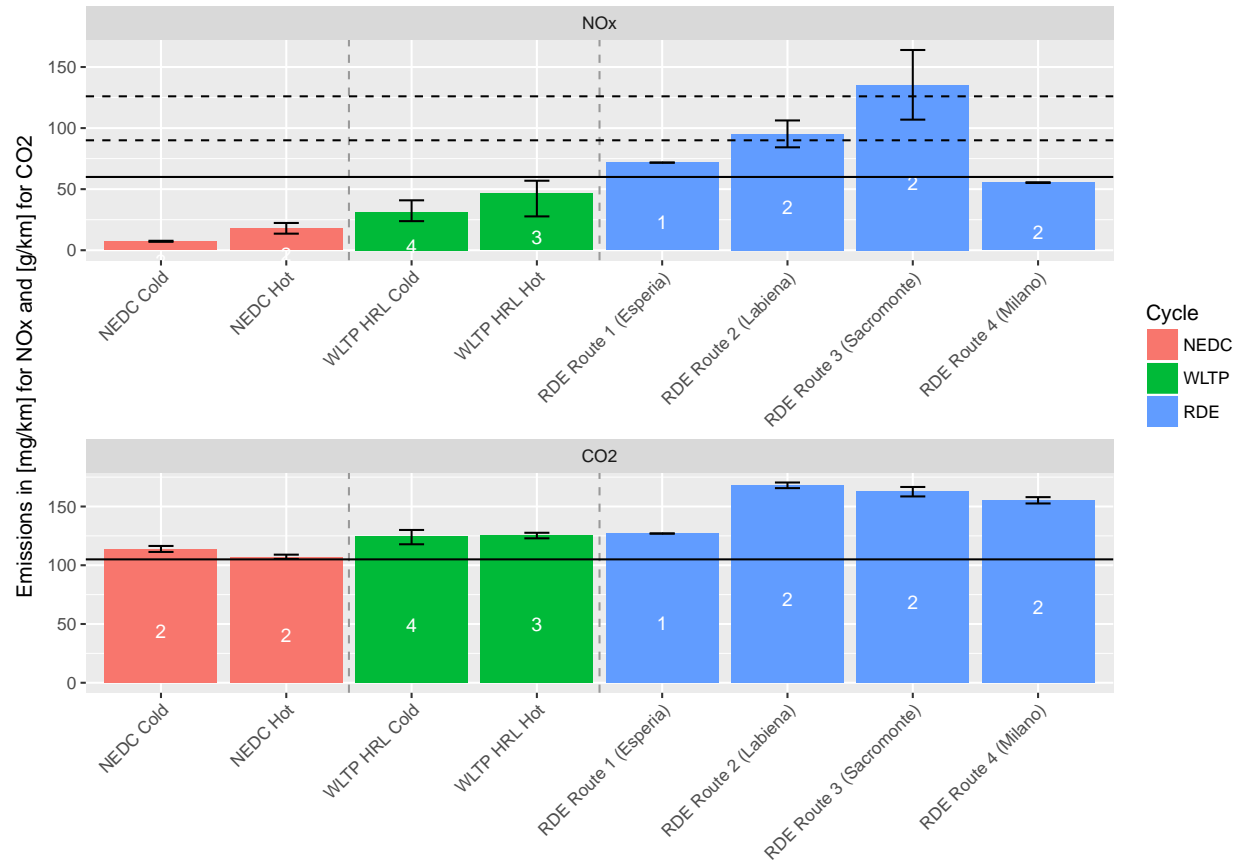


Figure 4: Emissions measured during laboratory and on-road tests. Error bars stand for min and max values. Numbers in the bars stand for the number of test. On the top panel, the horizontal line stands for the NO_x standard for Euro 6 (60 mg/km). The blue and red dashed lines stand for the Euro 6 NO_x limits including the 1.5 and 2.1 conformity factors respectively. On the bottom panel, the horizontal line stands for the declared CO₂ emission factor displayed in the type approval certificate of the vehicle (105 g/km).