

# NSAI Annual In Service Conformity (ISC) Report of its finalised ISC investigations for 2023

#### 1. <u>Analysis of legal requirements:</u>

The analysis of legal requirements is according to Annex II of Commission Regulation (EU) 2017/1151 as amended by ((EU) 2020/49).

This Annex contains ISC obligations for both the Granting Type-Approval Authority (GTAA) and the vehicle manufacturer.

The ISC obligations for the emission GTAA applies on a rolling annual basis, with reporting of ISC results by 31 March each year, of the preceding year's finalised ISC investigations.

In case some ISC investigations of the GTAA from the previous year are still open by that date, they shall be reported as soon as the investigations are finalised.

Under Commission Regulation (EU) 2017/1151 as amended by ((EU) 2020/49), the commencement year for ISC investigations by GTAAs is 2020, investigating vehicles approved and in use from 1 January 2019; in accordance with the rules and criteria established for vehicle selection and ISC testing.

This report is NSAI's fourth annual ISC investigations report.



#### 2. <u>ISC process steps:</u>

The ISC process steps are as defined in item 2 of Part B to Annex II of Commission Regulation (EU) 2017/1151 as amended by ((EU) 2020/49). There are five steps involved and the GTAA has overall responsibility for three of these steps and combined responsibility with the vehicle manufacturer for two of these steps. There are also, other actors involved in the ISC process. Other actors may perform any number of ISC test each year. This information shall be collected by the GTAA when deciding which ISC families to test in a particular year. The GTAA must also make available, the results of annual ISC tests on the European Commission's electronic platform.

The ISC process steps are as follows:

ISC Steps	Main Responsibility	Other Actors
Step 1: Information gathering and Risk Assessment	GTAA	Type-Approval Authority, Technical Service, European Commission, third parties
Step 2: ISC Testing	GTAA, Vehicle Manufacturer	Type-Approval Authority, Technical Service, European Commission, third parties
Step 3: Compliance Assessment	GTAA + Vehicle Manufacturer	-
Step 4: Remedial Measures	GTAA + Vehicle Manufacturer	-
Step 5: Reporting	GTAA	Type-Approval Authority, Technical Service, European Commission, third parties



#### 3. <u>Annual Report Format:</u>

The Annual Report format follows the prescribed format contained within Appendix 4 to the ISC Annex of Commission Regulation (EU) 2017/1151 as amended by ((EU) 2020/49).

ISC Period	Manufacturer
2023	BMW

#### A. Quick overview and main conclusions:

#### Quick overview:

- 1. Following the established rules prescribing the numbers of vehicle ISC families to be selected for ISC testing, NSAI selected two ISC families consisting of three vehicles per family.
- 2. In total fourteen vehicle tests were carried out on six vehicles.
- 3. All vehicles were subjected to the WLTP Type 1 test and RDE test in accordance with the established ISC requirements for testing.
- 4. One vehicle from each ISC family was subjected to an additional RDE hot test.
- 5. All ISC tests for all selected ISC families were carried out in the period between 03.08.2023 and 29.11.2023.
- 6. All ISC testing was carried out by the ISO17025 and ISO17020 accredited laboratory, DEKRA Automobil GmbH.



#### **Main Conclusions:**

- All vehicles passed the WLTP Type 1 tests and RDE tests.
- Both vehicles subjected to an additional RDE hot test passed this additional test.
- No mild, intermediate or extreme outliers were detected in either sample.
- No remedial measures were detected.
- As per the established ISC rules, as all selected vehicles passed all ISC tests and with no detection of the need to apply remedial measures, NSAI closed both Statistical Folders on 19<sup>th</sup> January 2024.

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#### B. ISC activities performed by BMW in the previous year:

As per the ISC established rules for vehicle manufacturers, BMW performed its vehicle manufacturer ISC activities.

#### (1) Information gathering by the manufacturer:

BMW uses an external service provider to select and test vehicles for ISC compliance.

For 2023 the external service provider was Fa. FAKT GmbH.

BMW has no involvement in the selection and testing of its vehicles for ISC compliance.

To assist the external service provider in its vehicle selections, BMW sends the external service provider two information files as follows:

- 1. ISC Planning file. This file is structured to provide the following information:
  - o ISC family identifier.
  - o Series.
  - Model.
  - Engine code.
  - o Type code.
  - Steering.
  - o Transmission.
  - o Vehicle category.
  - o Drivetrain.
  - Emission standard.
  - Options code.
  - Type SOP date.
  - o Fuel.
  - Combustion process.
  - Method of aspiration.
  - Cylinder block configuration.
  - Type of catalytic action.



- Exhaust after-treatment system.
- Particulate trap.
- Exhaust gas recirculation.
- Engine cylinder capacity.
- o Approval type.
- Type-approval number.
- Sales per type.
- o Sales per In Use Family.
- 2. Dealer Stock List file. This file is structured to provide the following information:
  - o VIN.
  - Production date.
  - First registration date.
  - o Type Code.
  - o Dealer.
  - > Fuel.
  - o Power.
  - o Kilometre.
  - Model.
  - o Derived.
  - Emission standard.
  - Status.
  - o Options code.

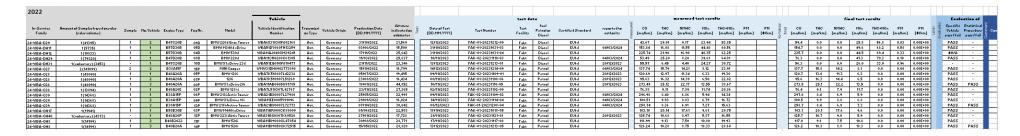
The external service provider uses this information as part of their selection criteria for BMW vehicles for ISC compliance testing.



(2) ISC testing (including planning and selection of families tested, and final results of tests):

The following tables are extracts from the full set of tables, which detail the planned and selected ISC families and their final ISC test results.

#### Production Year 2022:





#### Production Year 2021:

							Tabicla I							test data			measured test results	final tart rareltr	Evaluation of
In-Service	Amount of Sampler bared on raler		No.			Medel	Vohicle Identification	Transmiss	Vohiclo Origin	Production Date	dirtance indicated an	To Date of Test	Test Number	Test Petrolog	Cortified Standard	reported to	S CO THE NMHE NON THE-NON PM PN	TO THE NMHE NON THE-NON PM PN #	Specific Statistical Statistic
Family	(raler valume)	Sample	Vohicle	Engino Typo	Fæq Mr.	Medel	Number	on Type	Yehicle Uriqin	[DD.MM.YYYY]	adameter	P [DD.MM.YYYY]	Lest Humber	Facility Diszel	Certified Standard	authority	[mqfkm] [mqfkm] [mqfkm] [mqfkm] [mqfkm] [mqfkm] [\$fkm]	🗧 [mqfkm] [mqfkm] [mqfkm] [mqfkm] [mqfkm] [mqfkm] [\$fkm] 🖔	pazz/fail pazz/fail
24-WBA-D22	1(36303)	1	1	B37015A	30D	BMW 1164	WBA7M710707K00095	Man.	Germany	20/08/2021	74,929	13/12/2023	FAK-01-20231213-04	Fakt Diarel	EU6-d	T	70.33 37.26 8.41 50.40 87.66	72.4 0.0 0.0 51.2 89.2 0.02 0.00E+00	PASS ·
24-WBA-D29	1(82351)	1	1	B47C20B	09D	BMW X1zDrive 204	WBA71AD0305T86943	Aut.	Germany	06/05/2021	24,673	10/02/2023	FAK-01-20230210-15	Fakt Dierel	EU64	15/02/2023	32.54 36.55 10.27 19.66 56.21	48.3 0.0 0.0 21.5 59.2 0.03 0.00E+00	PASS -
24-WBA-D29	1(82351)		2	B47C20B	08D	BMW 1204 x Drive	WBA7N510007J95847		Germany	16/08/2021	22,132	10/02/2023	FAK-01-20230210-08	Fakt Dierel	EU64	15/02/2023	19.56 27.88 6.77 17.66 45.54	37.5 0.0 0.0 19.6 49.1 0.04 0.00E+00	PASS -
24-WBA-D29	1(82351)	-1	3	B47C20B	10D	BMWX1xDrive 20d	WBA31AE0805U30741		Germany	24/09/2021	36,912	10/02/2023	FAK-01-20230210-10	Fakt Dierel	EU6-8	15/02/2023	40.83 35.72 7.89 23.89 59.61	58.8 0.0 0.0 25.8 63.1 0.04 0.00E+00	PASS PASS
24-WBA-D31			1	B47C20B	20D	BMW 2184 Active Tourer			Germany	22/10/2021	27,017	25/05/2023	FAK-01-20230525-07		EU64	13/09/2023	62.58 8.52 6.44 23.83 32.35		
24-WBA-DH11	1(11002)		1	B57D30B	17D	BMW M3404 x Drive	WBA51DY040FL11245 WBA51AJ010CH70715		Germany	05/03/2021	19,999	25/05/2023	FAK-01-20230525-05	Fakt Diarel	EU6-d	13/09/2023	140.44 16.58 11.65 31.96 48.54 192.10 20.97 16.11 40.92 61.89	141.3 0.0 0.0 37.1 56.1 0.58 0.00E+00	PASS
24-WBA-DH11	1(11002)	1	3	B57D30B B57D30B	27D	BMW 5404 xDrive BMW 7404 xDrive	WBA51AJ010CH70715 WBA7D21030CJ34087		Germany	12/07/2021	53,735 59,438	11/09/2023 01/08/2023	FAK-02-20230911-11 FAK-02-20230801-03	Fakt Dierel	EU64	13/09/2023	182.10 20.97 16.11 40.92 61.89 184.91 22.34 16.93 39.42 61.77	102.1 0.0 0.0 45.1 69.0 0.33 0.00E+00 184.9 0.0 0.0 43.6 68.9 0.33 0.00E+00	PASS - PASS PASS
24-WBA-DH11 24-WBA-DH12	1(11002)		1	B57D30B	13D	RMW3304	WBA6M91000FL62485		Germany	30/06/2021	18.763	25/04/2023	FAK-02-20230001-03		EUSA	04/03/2024	185.81 20.97 14.53 da.do 65.37	186,7 0.0 0.0 49.5 73.0 0.58 0.002+00	PASS -
24-WBA-DH12	1(19210)	- 1	2	B57D30B	25D	BMW330D xDrive	WBA6N51060FL36527		Germany	29/04/2021	76,409	11/08/2023	FAK-02-20230811-01	Fakt Dierel	E064	04/03/2024	189.39 20.81 15.90 44.58 65.39	190.3 0.0 0.0 49.7 73.0 0.58 0.002+00	PASS
24-WBA-DH13	1(19210)		1	B57D30B	19D	BMW 87 x Drive 404	WRATR410109G41599		Gormany	15/03/2021	54,082	24/05/2023	FAK-02-20230524-09	Fakt Dierel	EU64	20/12/2023	128.20 17.78 9.74 25.14 42.93	128.8 0.0 0.0 27.8 47.5 0.60 0.00€+00	PASS -
24-WBA-DH13	1(0922)		2	B57D30B	28D	RMW X3 M404	WBAU275050N086284		Germany	16/02/2021	69.101	20/10/2023	FAK-01-20231020-02	Fakt Dierel	EU64	20/12/2023	160.97 21.59 14.10 38.38 59.97	161.3 0.0 0.0 41.6 65.6 0.36 0.00E+00	PASS
24-WBA-DH13	1(8922)		3	B57D30B	24D	BMW X5 xDrive 40D	WBATH410109G38121		Germany	12/03/2021	29,427	03/08/2023	FAK-01-20230803-12	Fakt Dierel	EU64	20/12/2023	92.42 11.38 6.13 29.57 40.95	92.7 0.0 0.0 32.8 46.6 0.36 0.00E+00	PASS PASS
24-WBA-DH14	1(25526)			B57D30B	06D	BMW X5 304	WBAJU810509J14641		Germany	06/08/2021	25,889	27/01/2023	FAK-02-20230127-04		EU6-8	13/09/2023	180.35 17.53 14.16 35.03 52.56	180.7 0.0 0.0 38.2 58.2 0.36 0.00E+00	PASS -
24-WBA-DH14	1(25526)	1	2	B57D30B	14D	BMW X5 x Drive 304	WBAJU810609K39082	Aut.	Germany	10/11/2021	19,008	21/04/2023	FAK-01-20230421-01	Fakt Diorel	EU6-4	13/09/2023	193.09 10.44 8.88 34.54 44.98	193.4 0.0 0.0 37.8 50.6 0.36 0.00E+00	PASS -
24-WBA-DH14	1(25526)	1	3	B57D30B	15D	BMW 85 304	WBAJU810609J52783	Aut.	Germany	04/09/2021	29,239	25/04/2023	FAK-02-20230425-02	Fakt Dierel	EU6-d	13/09/2023	198.71 22.98 16.33 35.42 58.40	199.0 0.0 0.0 38.6 64.0 0.36 0.00E+00	PASS PASS
24-WBA-DH29	2 (119571)	2	1	B47D20B	03D	BMW3204xDrive	WBA31DY000FL67187	Aut.	Germany	08/07/2021	17,364	24/01/2023	FAK-02-20230124-05	Fakt Dierel	EU64	12/04/2023	45.21 20.10 2.81 24.07 44.17	68.0 0.0 0.0 25.8 49.7 0.10 0.00E+00	PASS -
24-WBA-DH29	2 (119571)	2	2	B47D20B	02D	BMW X3 xDrive 204	WBA35BG020N090638	Aut.	Germany	12/03/2021	21,119	18/01/2023	FAK-01-20230118-02	Fakt Dierel	EU6-8	10/04/2023	68.90 31.57 10.52 19.53 51.10	91.7 0.0 0.0 21.3 56.6 0.10 0.00E+00	PASS -
24-WBA-DH29	2 (119571)	2	3	B48D20B	05D	BMW 5204 x Drive	WBA51BN050CH92359	Aut.	Germany	26/08/2021	28,447	01/02/2023	FAK-01-20230201-05	Fakt Dierel	EU64	12/04/2023	129.16 34.56 12.39 23.21 57.76	151.9 0.0 0.0 24.9 63.3 0.10 0.00E+00	PASS PASS
24-WBA-DH29	2 (119571)	2	2	B47D20B	12D	BMW X3 xDrive 204	WBA31BG0509H87096		Aurtria	16/07/2021	22,306	24/02/2023	FAK-01-20230224-01	Fakt Diorel	EU64	12/04/2023	70.19 35.81 11.40 23.12 58.93	93.0 0.0 0.0 24.8 64.4 0.10 0.00E+00	PASS -
24-WBA-DH29	2 (119571)	2	3	B47D20B	11D	BMW X3 xDrive 204	WBA35BG030N116079		Aurtria	23/07/2021	29,565	23/02/2023	FAK-02-20230223-01	Fakt Dierel	EU6-d	12/04/2023	108.82 40.90 13.25 26.09 66.99	131.6 0.0 0.0 27.8 72.5 0.10 0.00E+00	PASS PASS
24-WBA-027		3		B38A15F	05P	MINI Comper	WMW31DH0502R83863		Germany	11/11/2021	18,521	18/01/2023	FAK-01-20230118-04	Fakt Potral	EU64	30/01/2023	221.37 12.27 11.24 6.73 19.00	221.4 12.3 11.2 6.7 0.0 0.00 0.00E+00	PASS -
24-WBA-027	3 (203062)		2	B38A15F	06P	MINI Cooper	WMW31DK0002R10747		Germany	10/06/2021	21,019	18/01/2023	FAK-01-20230118-05	Fakt Petral	EU6-d	30/01/2023	159.87 14.63 13.57 7.46 22.09	159.9 14.6 13.6 7.5 0.0 0.00 0.00E+00	PASS -
24-WBA-027		3		B38A15M1	01P	BMW X2 18i	WBAYH110205T15405		Germany	26/01/2021	19,352	13/01/2023	FAK-02-20230113-01	Fakt Petral		30/01/2023	229.40 17.56 15.84 10.10 27.65	229.4 17.6 15.8 10.1 0.0 0.00 0.00E+00	PASS PASS
24-WBA-027	3 (203062)	3	- 1	B38A15F	13P	MINI Cooper	WMW31DH0802R77930		Germany	12.22.2021	16,905	08/02/2023	FAK-01-20230208-09	Fakt Petral	EU64	13/09/2023	156.70 15.67 13.83 7.27 22.94	156.7 15.7 13.8 7.3 0.0 0.00 0.00E+00	PASS -
24-WBA-027				B38A15F	24P	BMW 118i	WBA7K310205T21143		Germany	01/02/2021	39,066	26/04/2023	FAK-02-20230426-02	Fakt Petral	EU6-d	13/09/2023	179.80 16.41 14.73 9.08 25.49	179.8 16.4 14.7 9.1 0.0 0.00 0.00E+00	PASS PASS
24-WBA-027		3	3	B38A15F B48A20B	28P	BMW 118i MINI John Copper Works	WBA7K310805T21097 WMW71DH0302R95835		Germany	30/01/2021	32,966 17,990	04/08/2023 27/01/2023	FAK-02-20230804-01 FAK-02-20230127-07	Fakt Petral	EU64	13/09/2023	169.85 16.51 14.97 10.73 27.24 224.81 12.89 10.31 3.45 16.34	169.0 16.5 15.0 10.7 0.0 0.00 0.00E+00 224.8 12.9 10.3 3.4 0.0 0.00 0.00E+00	PASS PASS PASS
24-WBA-028	1(63819)	1	2	B48A20E	33P	MINI Cooper Works	WMW/1DH0302R95835		Germany	29/11/2021	38,917	19/09/2023	FAK-02-20230127-07	Fakt Potral	E064	13/11/2023	121,53 12,22 10,44 10,21 22,43	121.5 12.2 10.4 10.2 0.0 0.00 0.00E+00	PASS
24-WBA-028 24-WBA-028	1(63819)		3	B48A20A	33P	BMW 120i	WBA7K510707K11818		Germany	01/10/2021	36,185	01/09/2023	FAK-02-20230901-04	Fakt Petral	EU64	13/11/2023	208.22 17.21 15.42 8.65 25.86	208.2 17.2 15.4 8.7 0.0 0.00 0.00€+00	PASS PASS
24-WBA-029	1(10418)		1	B58B30A	97P	BMW M240i xDrive	WBA2N310907J83073		Germany	01/07/2021	16,298	19/01/2023	FAK-01-20230119-01	Fakt Petral	EU64	30/01/2023	177.29 15.56 12.55 7.17 22.73	177.3 15.6 12.6 7.2 0.0 0.00 0.00€+00	PASS ·
24-WBA-029	1(74122)	1	1	B48B20A	02P	BMW320i	WBA6K31080FM22614		Germany	19/11/2021	20.075	17/01/2023	FAK-02-20230117-03	Fakt Petral	EU64	30/01/2023	215.34 22.31 10.01 0.25 30.55	215.3 22.3 18.8 8.2 0.0 0.00 0.00E+00	PASS
24-WBA-030	1(74132)		2	B48B20B	03P	BMW330i	WBA6K51050FM03532		Germany	08/10/2021	29,627	18/01/2023	FAK-02-20230118-10	Fakt Petral	EU64	30/01/2023	227.89 18.25 15.35 12.79 31.04	227.9 18.3 15.3 12.8 0.0 0.00 0.00E+00	PASS
24-WBA-030	1(74132)		3	B48B20A	94P	BMW318i	WBA71DZ070FL95049		Germany	24/09/2021	20,030	19/01/2023	FAK-01-20230119-02	Fakt Petral	EU64	30/01/2023	100,20 17,04 15,79 9,17 27,00	188.3 17.8 15.8 9.2 0.0 0.00 0.00E+00	PASS PASS
24-WBA-038	1(18919)		1	B48A20E	08P	BMW X2 M35i	WBAYN110005U74913		Germay	08/12/2021	32,144	20/01/2023	FAK-02-20230120-06	Fakt Petral	EU64	30/01/2023	168.53 17.62 15.94 11.65 29.27	168.5 17.6 15.9 11.6 0.0 0.00 0.00E+00	PASS -
24-WBA-P25	1(57614)	-1	1	B38A15A	17P	BMW X2 xDrive 25e	WBAYN910205U79597	Aut.	Germany	15/12/2021	23,708	30/03/2023	FAK-02-20230330-04	Fakt Petral	EU6-d	13/09/2023	149.05 5.06 3.77 1.70 6.77	149.0 5.1 3.8 1.7 0.0 0.00 0.00E+00	PASS -
24-WBA-P25	1(57614)	1	2	B38A15A	15P	BMW X2 xDrive 25e	WBAYN910605T55942	Aut.	Germany	07/04/2021	20,168	21/03/2023	FAK-02-20230321-09	Fakt Petral	EU64	13/09/2023	128.33 4.21 2.80 2.91 7.12	128.3 4.2 2.8 2.9 0.0 0.00 0.00E+00	PASS -
24-WBA-P25	1(57614)	1	3	B38A15A	25P	BMW#125a	WBA71AB0705T38770		Germany	24/02/2021	25,765	26/06/2023	FAK-01-20230626-09	Fakt Petral	EU6-d	13/09/2023	178.71 7.36 5.66 4.04 11.40	178.7 7.4 5.7 4.0 0.0 0.00 0.00E+00	PASS PASS
24-WBA-P26	1(84918)	1	1	B48B20A	12P	BMW330e	WBA6N31040FM24786	Aut.	Germany	24/11/2021	36,480	07/02/2023	FAK-01-20230207-07	Fakt Potral	EU64	13/09/2023	224,87 9.58 8.22 8.37 17.95	224.9 9.6 8.2 8.4 0.0 0.00 0.00E+00	PASS -
24-WBA-P26	1(84918)	1	2	B48B20A	16P	BMW 530a	WBA11CG010CJ46931		Germany	11/11/2021	22,056	31/03/2023	FAK-02-20230331-09	Fakt Potral	EU6-4	13/09/2023	270.16 14.07 12.51 12.41 26.48	270.2 14.1 12.5 12.4 0.0 0.00 0.00E+00	PASS -
24-WBA-P26	1(84918)		3	B48B20A	20P	BMW330e	WBA6N31020FM28440		Germany	07/12/2021	18,208	03/05/2023	FAK-01-20230503-01	Fakt Petral		13/09/2023	179.06 6.59 5.59 9.09 15.68	179.1 6.6 5.6 9.1 0.0 0.00 0.00E+00	PASS PASS
24-WBA-P28	1(36369)		1	B58B30C	09P	BMW X5 45a	WBATA610209H66643		Germay	20/06/2021	27,598	18/01/2023	FAK-02-20230118-08	Fakt Petral	EU64	04/03/2024	227.99 15.00 12.76 6.36 21.35	228.0 15.0 12.8 6.4 0.0 0.00 0.00E+00	PASS -
24-WBA-P28	1(36369)		2	B58B30C	36P	BMW X5 xDrive45e	WBATA610909F89556		Germany	03/02/2021	35,430	14/12/2023	FAK-01-20231214-03	Fakt Petral		04/03/2024	325.52 18.26 16.33 8.40 26.66	325.5 18.3 16.3 8.4 0.0 0.00 0.00E+00	PASS
24-WBA-0H17	1(15116)			B58B3001	29P	BMW M340i xDriva	WBA6N11020FL03937		Germany	22/02/2021	60,589	29/08/2023	FAK-02-20230829-13	Fakt Potral	E064	04/03/2024	192.89 30.87 26.64 14.09 44.96	192.9 30.9 26.6 14.1 0.0 0.00 0.00E+00	PASS
24-WBA-0H17	1(15116)	1		B58B30B	34P	BMW M340i xDrive	WBA6N11040FL87016		Germany	24/08/2021	65,329	20/09/2023	FAK-02-20230920-04	Fakt Petral	EU6-4	04/03/2024	132.83 21.42 18.94 10.11 31.53	132.8 21.4 18.9 10.1 0.0 0.00 0.00E+00	PASS ·
24-WBA-0H8	1(13207)		1	B48B20B B48B20B	11P	BMW X3 xDrive 30i	WBA55DP010N127991		Germany	12/10/2021	29,313	03/02/2023	FAK-01-20230203-01	Fakt Petral	EU6-d	13/09/2023	211.06 13.72 11.84 8.90 22.62 197.22 13.81 11.96 8.54 22.36	211.1 13.7 11.8 8.9 0.0 0.00 0.00E+00 187.2 13.8 12.0 8.5 0.0 0.00 0.00E+00	PASS -
24-WBA-OH8	1(13207)	1	3	B48B30B	23P	BMWX3 xDrive 30i BMWX4 xDrive 30i	WBASSDP050N106688 WBA31DT0509J96779		Germany	19/08/2021	25,279	26/04/2023 25/04/2023	FAK-01-20230426-06	Fakt Potral	EU64	13/09/2023			PASS PASS
24-WBA-OHS	1(13207)	1		B51B30B	19P 22P	RMW X3 M46i	WBASSDP000N131737		Germany	1871172012	31,213	25/04/2023	FAK-02-20230425-01 FAK-01-20230425-08	Fakt Petral	EU64	13/09/2023	179.35 10.23 8.21 11.22 21.45 116.20 17.03 14.27 10.20 27.23	179.3 10.2 8.2 11.2 0.0 0.00 0.00E+00 116.2 17.0 14.3 10.2 0.0 0.00 0.00E+00	PASS PASS
24-WBA-0H9	1(10325)		_	070639B	LEEP	DETW 83 P140i	MENOSPLO00HISTIST	Aut.	Germany	V6.66.2021	24,024	2510412023	FMN-91-20230429-08	r ext Patrel	2064	1370992023	119.69 11.93 PEET 19.29 21.23	119.6 11.0 19.5 10.6 0.0 0.00 0.006+00	LHSS .



#### Production Year 2020:

							Takicla							test data			mourared test results		final test results			etius of
language.	Amount of Sampler based on sale	_	N.				Habital Harasterastas	T:-		Production Date	dirtance	. Date of Test		Tort _	fuel	reported to	CO THE NMHE NON THE+NON PM PN .	a co THC N	MHC NON THC+NON	PM PN	o g Specific	Statistica 🧃
Family	(raler valume)	Sample	Vehicle	Engine Type	Fæq Nr.	. Medel	Vohiclo Idontification Number	ion Type	Vehicle Origin	[DD.MM.YYYY]	indicated an adameter	[DD.MM.YYYY]	Tart Number	Facility Po	tralar CortifiedStando Diezel	d authority			qfkm] [mqfkm] [mqfkm]		Yohiclo pareffail	Procedur & Comm.
1-WBA-D9	1(52098)	1	3	B47C20B	30D	BMW 1184	WBA7M910905R37354		Germany	25/02/2020	69,271	28/03/2023	FAK-02-20230328-12	Fakt D		12/04/2023	71.83 35.00 10.48 26.59 61.59 0.14 1.597E+09			0.16 1.60E+09	PASS	
1-WBA-016	1(13300)	1	1	B48A20E	30P	BMW M135i x Drive	WBA7L110207G79481		Germany	09/09/2020	17,185	16/01/2023	FAK-01-20230116-19	Fakt P		12/04/2023	263.37 13.03 11.78 13.77 26.79 0.06 \$\$\$\$\$\$		13.8 0.0	0.06 4.97E+08	PASS	
1-WBA-016	1(13300)	1	2	B48A20E	34P	BMW X2 M35i	WBAYN110705R08292	Aut.	Germany	10/01/2020	34,062	20/01/2023	FAK-01-20230120-03	Fakt P		12/04/2023	407.35 16.84 14.53 12.65 29.49 0.26 3.147E+10		4.5 12.6 0.0		PASS	
1-WBA-016	1(13300)		3	B48A20E			WMWYZ910303M04031		Germany	24/04/2020	19,454	28/03/2023	FAK-01-20230328-02	Fakt P		12/04/2023	372.46 16.00 14.46 17.06 33.06 0.42 *****		4.5 17.1 0.0			PASS
1-WBA-09	1(11827	1		B58B30A	32P	BMW M240i	WBA2J710307G58500		Germany	04/08/2020	26,729	20/01/2023	FAK-02-20230120-07	Fakt P		15/02/2023	417.73 25.12 20.26 7.31 32.43 0.10 1.032E+10		0.3 7.3 0.0	0.10 1.83E+10	PASS	PASS
1-WBA-P5	1(9124)		- 1	B38A19A		MINI Countryman Cooper SE			Germany	13/02/2020	20,363	17/01/2023	FAK-02-20230117-04	Fakt P		19/02/2023	437.52 11.20 9.66 12.20 23.41 0.99 ******		9.7 12.2 0.0		PASS	· · · · · · · · · · · · · · · · · · ·
1-WBA-P5	1(9124)		2	B38A19A	35P		WMWYU710903M28305			24/06/2020	27,820	25/01/2023	FAK-02-20230125-18	Fakt P		19/02/2023	368.39 11.12 9.57 15.06 26.19 1.82 1.935E+11				PASS	
1-WBA-P5	1(9124)			B38A19A	37P		WMWYU710603M03376			19/02/2020	49,099	02/02/2023	FAK-01-20230202-09	Fakt P		19/02/2023	348.83 14.68 12.85 15.09 29.77 0.64 2.068E+10		2.9 15.1 0.0		PASS	
1-WBA-P6	1(20477)			B48B20B	39P	BMW330a	WBA5X71040FJ78416			10/03/2020	47,076	15/02/2023	FAK-01-20230215-02	Fakt P		13/09/2023	205.32 14.03 11.72 11.57 25.60 0.07 6.301E+09			0.07 6.30E+09	PASS	
1-WBA-P6	1(20477)		2		41P	BMW330a	WBA5X71000FJ71365			10/03/2020	32,908	30/03/2023	FAK-02-20230330-03	Fakt P		13/09/2023	156.58 9.09 7.31 8.94 18.04 0.16 4.101E+10		7.3 8.9 0.0		PASS	
1-WBA-P6	1(20477)	1 1	3	B48B30B	44P	BMW330a	WBA5X710X0FJ74080			04/03/2020	54,754	03/05/2023	FAK-01-20230503-02	Fakt P		13/09/2023	150.60 12.47 10.59 12.15 24.62 0.03 3.004E+10	150.6 12.5		0.03 3.00E+10	PASS	
1-WBA-014	1(valuntary)(2904)	_		B38B15A	58	BMW218i	WBA2M110X07F76381		Germany	11/02/2020	33,604	10/11/2023	FAK-01-20231110-04	Fakt P		20/12/2023	252.21 7.58 5.29 4.80 12.38 0.18 6.141E+10		5.3 4.8 0.0			
1-WBA-P8	1(9170)		1		26P	BMW 745Le xDrive	WBA7W41010CE43484			27/02/2020	63,135	12/01/2023	FAK-01-20230112-09	Fakt P		13/09/2023	248.86 15.36 13.26 6.02 21.38 0.56 5.610E+09	248.9 15.4		0.56 5.61E+09	PASS	
1-WBA-P8	1(9170)		2		27P	BMW X5 xDrive 45e	WBATA610209C05106			09/01/2020	68,047	16/01/2023	FAK-02-20230116-07	Fakt P		13/09/2023	198.02 11.97 9.41 6.05 18.02 0.58 1.889E+10	198.0 12.0			PASS	
1-WBA-P8	1(9170)		3	B58B30C	50P	BMW X5 xDrive 45e	WBATA610509D27128			18/01/2020	42,291	01/08/2023	FAK-02-20230801-07	Fakt P		13/09/2023	208.99 12.37 10.42 6.42 18.79 0.54 1.580E+11	209.0 12.4				PASS
1-WBS-010	1(8955)		3		49P	BMWX3 M	WBSTS010109C30353			31/01/2020	18,067	27/07/2023	FAK-02-20230727-01	Fakt P		13/09/2023	110.89 9.12 7.17 4.32 13.44 0.37 8.591E+10			0.37 8.59E+10		PASS
24-WBA-D22	1(37595)			B37C15A	33D		WMW31BB0802M88280			28/02/2020	32,829	29/06/2023	FAK-01-20230629-07	Fakt D		13/09/2023	47.67 32.94 4.42 33.65 66.58 0.10			0.12 2.06E+09	PASS	
1-WBA-015	1(valuntary)(1789)		1			BMW X6 M50i	WBACY810709D15697			08/06/2020	18,177	01/09/2023	FAK-02-20230901-01	Fakt P		13/09/2023	211.00 20.23 18.19 13.51 33.74 0.32 1.907E+10		18.2 13.5 0.0		PASS	
24-WBA-D30	185806)			B47D20B	29D	BMW3184				10/06/2020	50,910	21/02/2023	FAK-02-20230221-08	Fakt D		13/09/2023	82.20 25.89 7.70 25.44 51.32 0.15 1.746E+09			0.16 1.75E+09	PASS	
24-WBA-DH12	1(7660)			B57D30B	35D	BMW 7304	WBA7A61070CF65776			02/10/2020	51,452	06/09/2023	FAK-02-20230906-04	Fakt D		20/12/2023	215.15 23.47 16.47 41.47 64.93 0.28 ******			0.62 3.05E+09	PASS	
24-WBA-DH12	1(7660)			B57D30B	37D	BMW3304×Drive	WBA6N51030FK68963			30/11/2020	41,975	17/11/2023	FAK-02-20231117-07	Fakt D		20/12/2023	170.72 15.70 11.53 44.35 60.05 0.23 ******			0.80 2.28E+09	PASS	
24-WBA-DH12	1(7660)			B57D30B	38D	BMW 5304 x Drive	WBA31AJ060CF27389			19/08/2020	51,034	05/12/2023	FAK-01-20231205-05	Fakt D		20/12/2023	178.41 16.97 13.84 41.75 58.72 0.15 1.241E+09			0.48 1.24E+09		PASS
24-WBA-DH13	1(5079)			B57D30B	36D	BMWX5×DRIVE404	WBATH410509D73462			29/07/2020	69,823	19/09/2023	FAK-02-20230919-05	Fakt D		20/12/2023	201.89 26.83 17.52 27.84 54.67 0.26 ******			0.62 5.34E+09	PASS	
24-WBA-DH14	1(8958)			B57D30B	27D	BMW X5 304	WBAJU810409E90167			28/10/2020	26,877	13/01/2023	FAK-02-20230113-10	Fakt D		13/09/2023	204.37 22.83 17.63 35.83 58.66 0.23 ******			0.59 3.49E+09	PASS	
24-WBA-DH14	1(8958)			B57D30B	34D	BMW X4 xDrive 304	WBA4M310509E04882			25/08/2020	31,769	24/08/2023	FAK-01-20230824-07	Fakt D		13/09/2023	131.50 16.75 10.94 36.04 52.78 0.15 3.901E+09			0.51 3.90E+09	PASS	PASS
24-WBA-DH9	1(10307)			B47D20B	26D	BMW 5204 x Drive	WBA31DX030CE53762			10/03/2020	34,410	11/01/2023	FAK-02-20230111-01	Fakt D		13/09/2023	76.44 33.31 7.64 41.08 74.40 0.11 ******			0.21 9.64E+08	PASS	
24-WBA-DH9	1(10307)		3		32D	BMW5204	WBA11DW030WW86772			18/06/2020	50,149	28/06/2023	FAK-01-20230628-03	Fakt D		13/09/2023	50.68 31.91 9.79 42.88 74.79 0.02 ******		0.0 44.6 80.3	0.12 2.84E+08		PASS
24-WBA-027	1(40277)		3		29P	BMW 118i	WBA7K310X05S80650			25/11/2020	21,561	13/01/2023	FAK-01-20230113-03	Fakt P		18/01/2023	158.92 14.35 13.32 8.06 22.41 0.22 1.795E+10		3.3 8.1 0.0			PASS
24-WBA-028	1(15565)		1		54P	MINI Cooper S	WMWXU910102P25274			04/12/2020	32,845	01/09/2023	FAK-02-20230901-02	Fakt P		13/11/2023	137.24 18.27 15.68 5.93 24.20 0.24 1.200E+09				PASS	
24-WBA-028	1(15565)		2	B48A20F	55P	MINI Cooper S	WMWLV710002P20499			27/11/2020	36,275	01/09/2023	FAK-02-20230901-03	Fakt P		13/11/2023	189.61 15.30 13.36 12.16 27.47 0.33 1.376E+09				PASS	
24-WBA-028	1(15565)		3	B48A20B	57P		WMWWJ910003M94544			27/11/2020	33,167	12/10/2023	FAK-01-20231012-02	Fakt P		13/11/2023	154.44 12.99 11.50 5.83 18.82 0.44 ******					PASS
24-WBA-030	1(28807)		3		47P	BMW320i	WBA6K31030FK69379			26/11/2020	47,116	23/06/2023	FAK-02-20230623-02	Fakt P		13/11/2023	211.56 18.80 15.68 9.95 28.75 0.21 ******		5.7 9.9 0.0	0.21 3.64E+09		PASS
24-WBA-P25	1(32909)			B38A15A		MINI Countryman Cooper SE	WMW21BS0703M78975			28/10/2020	25,234	25/01/2023		Fakt P		15/02/2023	153.04 5.96 4.16 2.83 8.78 0.54 6.153E+09		4.2 2.8 0.0		PASS	· · · · · · · · · · · · · · · · · · ·
24-WBA-P25	1(32909)			B38A15A	25P		WBA71AB0405S84599			30/11/2020	53,756	12/01/2023	FAK-01-20230112-02	Fakt P		15/02/2023	181.59 5.72 4.47 2.58 8.30 0.26 1.073E+11		4.5 2.6 0.0		PASS	
24-WBA-P25	1(32909)			B38A15A	28P		WBA71AB0X05S82355			27/11/2020	15,478	17/01/2023	FAK-02-20230117-02	Fakt P		19/02/2023	134.04 4.93 3.45 3.26 8.19 0.62 6.457E+10		3.5 3.3 0.0		PASS	
24-WBA-P26	1(34227)			B48B20A	38P	BMW330a	WBA6N31020FK40971			08/10/2020	17,438	02/02/2023	FAK-01-20230202-10	Fakt P		12/04/2023	230.19 7.79 6.74 7.85 15.65 0.11 6.519E+10				PASS	
24-WBA-P26	1(34227)			B48B20A	40P	BMW330a	WBA6N310X0FK25287			11/09/2020	58,597	15/02/2023	FAK-02-20230215-03	Fakt P		12/04/2023	247.17 8.82 6.52 7.27 16.09 0.19 ******		6.5 7.3 0.0		PASS	
24-WBA-P26	1(34227)			B48B20A	42P		WBA6N71070FK13587			07/08/2020	18,433	31/03/2023	FAK-02-20230331-10	Fakt P		12/04/2023	314.43 12.83 11.43 14.63 27.46 0.42 4.028E+10		1.4 14.6 0.0			PASS
24-WBA-P28	1(9723)			B58B30C	52P		WBATA610909E25580			09/09/2020	22,403	14/09/2023	FAK-02-20230914-11	Fakt P		13/11/2023	223.15 12.89 11.08 8.98 21.88 0.56 9.804E+10		11.1 9.0 0.0		PASS	
24-WBA-P28	1(9723)			B58B30C	51P	BMW X5 xDrive 45e	WBATA610909D98042			18/08/2020	26,232	14/09/2023	FAK-02-20230914-08	Fakt P		13/11/2023	267.10 12.49 10.34 11.68 24.17 0.59 4.594E+10		0.3 11.7 0.0		PASS	
24-WBA-029	1(valuntary)(3208)			B58B30B	33P	BMW X3 M40i	WBATY95010N069251			26/10/2020	27,360	20/01/2023	FAK-02-20230120-08	Fakt P		30/01/2023	160.21 26.39 22.00 9.72 36.12 ******		2.0 9.7 0.0		PASS	
24-WBA-0H17	1(valuntary)(3292)			B58B30B	48P		WBA11AR040CF49080			01/10/2020	29,730	14/07/2023	FAK-01-20230714-03	Fakt P		13/09/2023	173.77 24.73 21.97 7.60 32.33 0.05 1.210E+09		2.0 7.6 0.0		PASS	
24-WBA-0H8	1(valuntary)(2932)		1	B48B20B	45P	BMW 536i	WBA51BH080WW97916	Aut.	Germany	06/10/2020	56,807	25/05/2023	FAK-01-20230525-06	Fakt P	otral EU64	13/09/2023	172.26 12.68 10.87 13.31 25.99 0.05	172.3 12.7	0.9 13.3 0.0	0.05   2.87E+09	PASS	



#### Production Year 2019:

							Vahiela							ter	t data					-	ed test ses	ultr					final test re	reitr			Evel	uation of
In-Service Family	Amount of Samples base on sales (sales valume)	od Sample	Na. Vohiclo	Engino Typo	FxqNr.	Medel	Vohicle Identification Number	Transmissis n Type	Yahicla Oriqin	Production Date [DD.MM.YYYY]	dirtanco indicatodan adamotor	Date of Tort [DD.MM.YYYY]	Tart Number	Tort Facility	fuol Potralar Diozol	Cortified Standard	ropartod ta authority [DD.MM.YYYY]	CO [mq/km]	THC [mq/km]	NMHC [mq/km]	NO× [m-qfkm]	THC+NOx [mqfkm]	PM PN [mqfkm] [\$fkm]	Articles (may	O THC 'km] [mq/kr	NMHC s] [mq/km;	NOx [mqfkm]	THC+NOx [mq/km]	PM [mq/km]	PN <u>=</u>		Statistical Procedure pass/fail
1-WBA-P8	7702	1	2	B58B30C	42P	BMW 745a	WBA7D61020CD35649	Aut.	Germony	09/10/2019	43,407	11/01/2023	FAK-01-20230111-0	2 Fakt	Potrol	EU64	30/01/2023	169.44	14.86	13.38	6.70	21.57		16.9	9.4 14.9	13.4	6.7	0.0	0.00	0.00E+00	PASS	
1-WBA-P8	7702	1	3	B58B30C	43P	BMW X5 45.	WBATA610609B06797	Aut.	Germany	10/10/2019	31,376	26/01/2023	FAK-02-20230126-0	g Fakt	Petrol	EU64	30/10/2023	243.40	16.54	14.90	6.02	22.56		243	3.4 16.5	14.9	6.0	0.0	0.00	0.00E+00	PASS	PASS
24-WBA-D22	21897	1	3	B37C15A	33D	BMW 1164	WBA7M710807E85314	Man.	Germany	20/12/2019	90,229	09/02/2023	FAK-01-20230209-0	e Fakt	Dierel	EU64	16/02/2023	83.96	36.09	10.81	30.03	66.12		86	.0 0.0	0.0	30.8	67.7	0.02	0.00E+00	PASS	PASS



#### C. <u>ISC activities performed by accredited laboratories or technical services in the previous year:</u>

NSAI did not receive any information in 2023 relating to ISC performed by accredited laboratories or technical services.

- (3) Information gathering and risk assessment: -
- (4) ISC testing (including planning and selection of families tested, and final results of tests): -

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#### D. ISC activities performed by the granting type-approval authority in the previous year:

### (5) <u>Information gathering and risk assessment:</u>

The information gathering and risk assessment was carried out on the basis of:

- BMW's Emission Warranty Information Report (EWIR). This report details:
  - Emission related warranty claims.
  - o Frequency and nature of faults for emission related components.
  - o Numbers of vehicles affected by each fault.
- RDE emission performance of the vehicle type-approvals issued.
  - o Provided the highest emitting vehicles during type-approval.
  - Combined with the minimum mileage of 15000km required for ISC vehicle selection these were seen as high risk vehicles.
- Exhaust aftertreatment system architecture.
  - The complexity of the exhaust aftertreatment architecture added to the risk.
- Sales volumes.
  - The most significant aspect to the risk assessment.



(6) <u>ISC testing (including planning and selection of families tested and final results of tests):</u>

Based on the criteria established during the information gathering process, NSAI selected the following ISC families for ISC testing:

- 24-WBA-O30
- 24-WBA-P26

These ISC families were among the highest in sales volumes and were representative of all emission related warranty claims.

These ISC families represented the highest pollutant emitting vehicles type-approved.

These ISC families contained complex exhaust after-treatment architecture.

Annex II of Commission Regulation (EU) 2017/1151 as amended by ((EU) 2020/49), defines an ISC family as the PEMS (Portable Emission Measurement System) test family. The PEMS test family is itself defined in Annex IIIA of Commission Regulation (EU) 2017/1151 as amended by ((EU) 2020/49), and consists of two administrative criterion (GTAA, Manufacturer) and eleven technical criterion.

For the two ISC families selected by NSAI the ISC Family parameters are tabulated as follows:



#### 24-WBA-O30

Family Parameters:	24-WBA-O30
Approval authority:	NSAI
Manufacturer:	BMW
Propulsion type:	ICE
Fuel type:	Gasoline
Combustion process:	4-stroke
Number of Cylinders:	4
Configuration of cylinder block:	in-line
max. Engine volume:	1998
Method of fuel injection:	direct
Cooling system:	liquid
Aspiration charger type:	single
Exhaust aftertreatment:	2x CAT MN + OPF UB
EGR:	

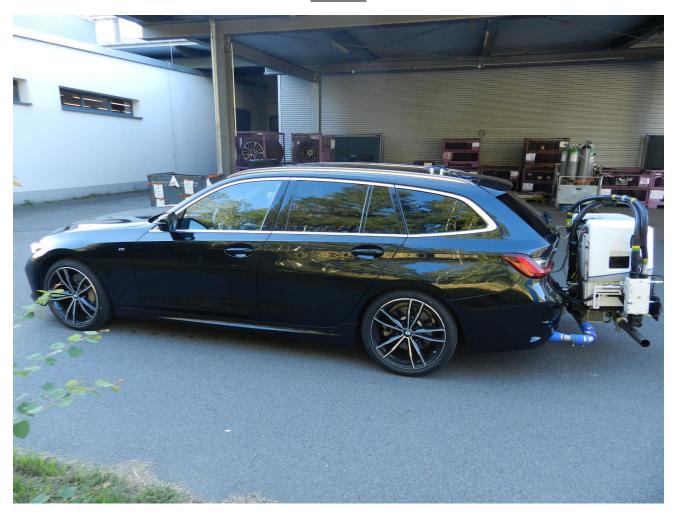


Vehicle 1

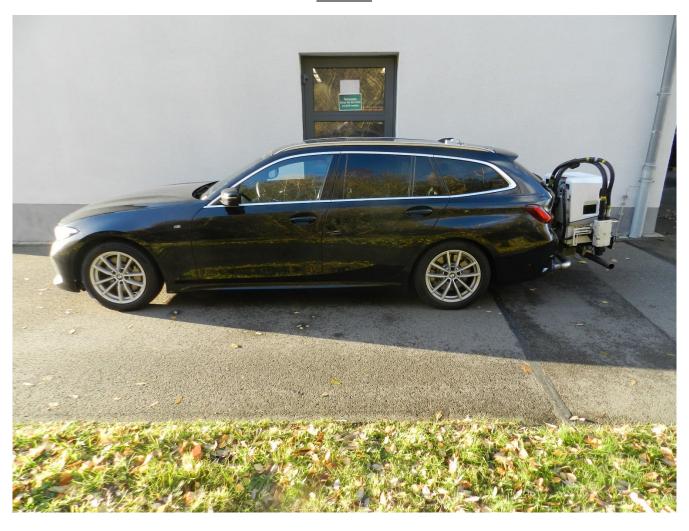




Vehicle 2







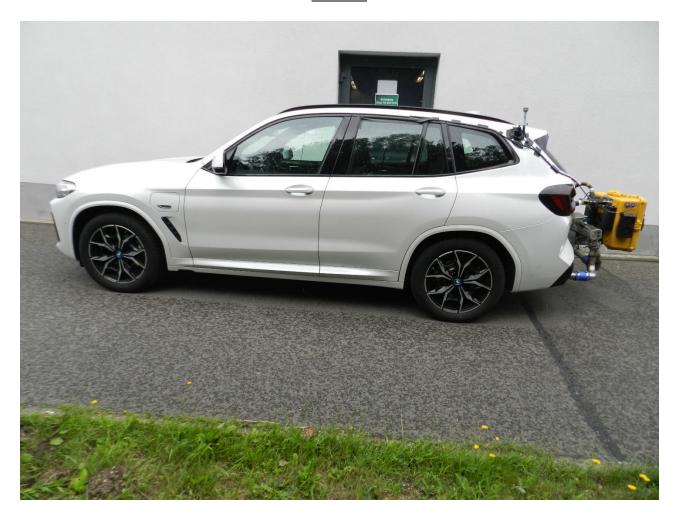


# 24-WBA-P26

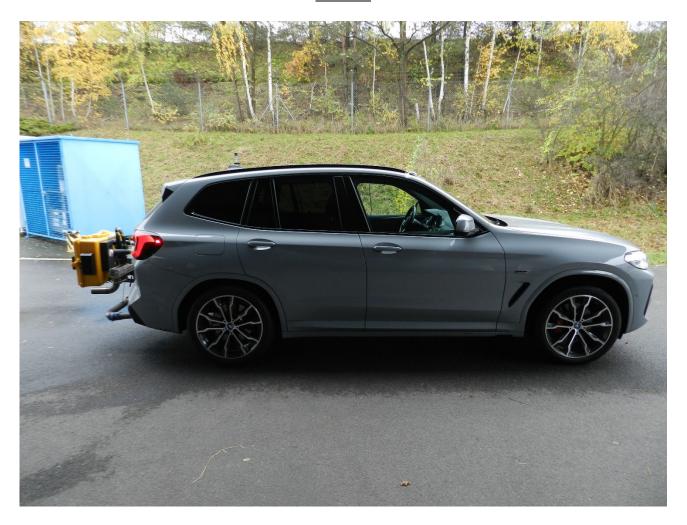
Family Parameters:	24-WBA-P26
Approval authority:	NSAI
Manufacturer:	BMW
Propulsion type:	ICE + E-engine
Fuel type:	Gasoline
Combustion process:	4-stroke
Number of Cylinders:	4
Configuration of cylinder block:	in-line
max. Engine volume:	1998
Method of fuel injection:	direct
Cooling system:	liquid
Aspiration charger type:	single
Exhaust aftertreatment:	2 x CAT MN+OPF UB
EGR:	-

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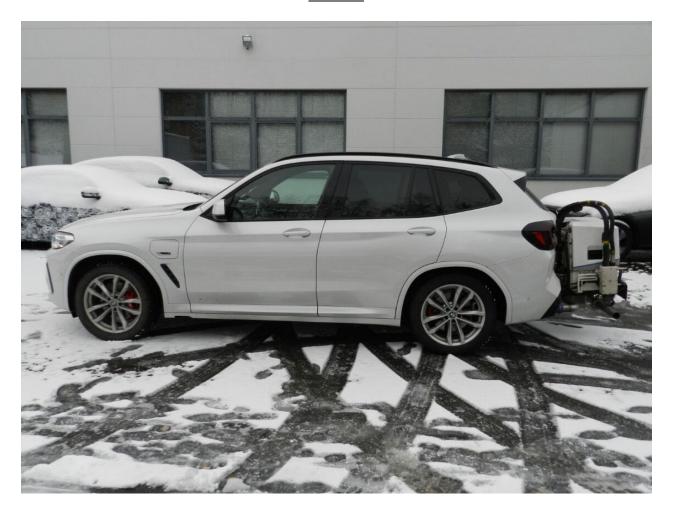














#### Vehicle selection:

DEKRA Automobil GmbH sourced these vehicles from their respective ISC Families for vehicle owner interview and examination as per the established ISC rules.

For each selected vehicle the following documentation has been provided:

- Vehicle COC
- Vehicle Owner Interview as per Appendix 1 of the ISC Annex.
- Vehicle Examination and Maintenance report as per Appendix 1 of the ISC Annex.



# Final results of the WLTP Type 1 and RDE tests:

#### ISC Family 24-WBA-O30

#### Vehicle 1

Type / Variant / Version: G3L / 61FF / IAW500M0

# Summary of test results from DEKRA Automobil GmbH test report: 202350720\_FN25300\_1

En	ission Limits		WLI	「P Type 1 Test Re	sults			RDE Te	st Results	
Pollutants	Limit (Petrol)	Limit (Diesel)	ISC Values	Intermediate Outlier ISC Value ≥ 1.3 x PEL*	Extreme Outlier ISC Value ≥ 2.5 x PEL*	ISC Values RDE Cold Start	ISC Values RDE Hot Start	Mild Outlier  PEL < ISC  Value <  1.3 x PEL*	Intermediate Outlier ISC Value ≥ 1.3 x PEL*	Extreme Outlier ISC Value > 2.5 x PEL*
CO (mg/km):	1000	500	167.62	No	No	136.3		No	No	No
THC (mg/km):	100		12.72	No	No					
NMHC (mg/km):	68		10.73	No	No					
NOx (mg/km):	60	80	5.48	No	No	6.9		No	No	No
THC+NOx (mg/km):		170								
PM (mg/km):	4.5	4.5	0.15	No	No					
PN (#/km):	6.00x10 <sup>11</sup>	6.00x10 <sup>11</sup>	1.29x10 <sup>10</sup>	No	No	5.85x10 <sup>9</sup>		No	No	No
	* PEL = Pollutant Emission Limit									



Vehicle 2

Type / Variant / Version: G3K / 71FY / IAW500M0

Summary of test results from DEKRA Automobil GmbH test report: 202350720\_FN67964\_1

Emi	ission Limits		WLT	「P Type 1 Test Re	sults			RDE Te	st Results	
Pollutants	Limit (Petrol)	Limit (Diesel)	ISC Values	Intermediate Outlier ISC Value > 1.3 x PEL*	Extreme Outlier ISC Value > 2.5 x PEL*	ISC Values RDE Cold Start	ISC Values RDE Hot Start	Mild Outlier  PEL < ISC  Value <  1.3 x PEL*	Intermediate Outlier ISC Value > 1.3 x PEL*	Extreme Outlier ISC Value > 2.5 x PEL*
CO (mg/km):	1000	500	175.98	No	No	77.7	80.0	No	No	No
THC (mg/km):	100		16.86	No	No					
NMHC (mg/km):	68		14.52	No	No					
NOx (mg/km):	60	80	15.60	No	No	26.9	7.4	No	No	No
THC+NOx (mg/km):		170								
PM (mg/km):	4.5	4.5	0.19	No	No					
PN (#/km):	6.00x10 <sup>11</sup>	6.00x10 <sup>11</sup>	1.61x10 <sup>10</sup>	No	No	4.10x10 <sup>9</sup>	3.91x10 <sup>9</sup>	No	No	No
	* PEL = Pollu	tant Emission L	imit							



Vehicle 3

Type / Variant / Version: G3K / 61FY / IAW500M0

Summary of test results from DEKRA Automobil GmbH test report: 202350720\_FN67520

Emi	ission Limits		WL1	TP Type 1 Test Re	sults			RDE Te	st Results	
Pollutants	Limit (Petrol)	Limit (Diesel)	ISC Values	Intermediate Outlier ISC Value ≥ 1.3 x PEL*	Extreme Outlier ISC Value > 2.5 x PEL*	ISC Values RDE Cold Start	ISC Values RDE Hot Start	Mild Outlier  PEL < ISC  Value <  1.3 x PEL*	Intermediate Outlier ISC Value > 1.3 x PEL*	Extreme Outlier ISC Value > 2.5 x PEL*
CO (mg/km):	1000	500	156.28	No	No	78.0		No	No	No
THC (mg/km):	100		13.99	No	No					
NMHC (mg/km):	68		11.98	No	No					
NOx (mg/km):	60	80	7.41	No	No	7.6		No	No	No
THC+NOx (mg/km):		170								
PM (mg/km):	4.5	4.5	0.13	No	No					
PN (#/km):	6.00x10 <sup>11</sup>	6.00x10 <sup>11</sup>	2.03x10 <sup>10</sup>	No	No	9.69x10 <sup>9</sup>		No	No	No
	* PEL = Pollu	tant Emission L	imit							



# **ISC Family 24-WBA-P26**

#### Vehicle 1

Type / Variant / Version: G3X / 61DP / IAW50000

Summary of test results from DEKRA Automobil GmbH test report: 202350720\_9K44031

Em	ission Limits		WLI	TP Type 1 Test Re	sults			RDE Te	st Results	
Pollutants	Limit (Petrol)	Limit (Diesel)	ISC Values	Intermediate Outlier ISC Value > 1.3 x PEL*	Extreme Outlier ISC Value > 2.5 x PEL*	ISC Values RDE Cold Start	ISC Values RDE Hot Start	Mild Outlier  PEL < ISC  Value <  1.3 x PEL*	Intermediate Outlier ISC Value > 1.3 x PEL*	Extreme Outlier ISC Value > 2.5 x PEL*
CO (mg/km):	1000	500	399.89	No	No	208.9		No	No	No
THC (mg/km):	100		10.82							
NMHC (mg/km):	68		8.85							
NOx (mg/km):	60	80	10.31	No	No	6.2		No	No	No
THC+NOx (mg/km):		170								
PM (mg/km):	4.5	4.5	0.91	No	No					
PN (#/km):	6.00x10 <sup>11</sup>	6.00x10 <sup>11</sup>	1.17x10 <sup>10</sup>	No	No	1.15x10 <sup>9</sup>		No	No	No
	* PEL = Pollu	tant Emission L	imit			·	·		·	



Type / Variant / Version: G3X / 61DP / IAW50000

# Summary of test results from DEKRA Automobil GmbH test report: 202350720\_9K66472

Emi	ission Limits		WL	ΓΡ Type 1 Test Re	sults			RDE Te	st Results	
Pollutants	Limit (Petrol)	Limit (Diesel)	ISC Values	Intermediate Outlier ISC Value ≥ 1.3 x PEL*	Extreme Outlier ISC Value > 2.5 x PEL*	ISC Values RDE Cold Start	ISC Values RDE Hot Start	Mild Outlier  PEL < ISC  Value <  1.3 x PEL*	Intermediate Outlier ISC Value > 1.3 x PEL*	Extreme Outlier ISC Value > 2.5 x PEL*
CO (mg/km):	1000	500	375.93	No	No	290.1	336.0	No	No	No
THC (mg/km):	100		12.43							
NMHC (mg/km):	68		10.78							
NOx (mg/km):	60	80	11.45	No	No	5.5	9.4	No	No	No
THC+NOx (mg/km):		170								
PM (mg/km):	4.5	4.5	0.81	No	No					
PN (#/km):	6.00x10 <sup>11</sup>	6.00x10 <sup>11</sup>	2.24x10 <sup>10</sup>	No	No	9.03x10 <sup>9</sup>	1.08x10 <sup>10</sup>	No	No	No
	* PEL = Pollu	tant Emission L	imit							



Type / Variant / Version: G3X / 61DP / IAW50000

# Summary of test results from DEKRA Automobil GmbH test report: 202350720\_9K43980

Emission Limits			WLTP Type 1 Test Results			RDE Test Results				
Pollutants	Limit (Petrol)	Limit (Diesel)	ISC Values	Intermediate Outlier ISC Value ≥ 1.3 x PEL*	Extreme Outlier ISC Value > 2.5 x PEL*	ISC Values RDE Cold Start	ISC Values RDE Hot Start	Mild Outlier  PEL < ISC  Value <  1.3 x PEL*	Intermediate Outlier ISC Value > 1.3 x PEL*	Extreme Outlier ISC Value > 2.5 x PEL*
CO (mg/km):	1000	500	391.37	No	No	404.2		No	No	No
THC (mg/km):	100		12.78							
NMHC (mg/km):	68		11.01							
NOx (mg/km):	60	80	8.79	No	No	8.4		No	No	No
THC+NOx (mg/km):		170								
PM (mg/km):	4.5	4.5	0.00	No	No					
PN (#/km):	6.00x10 <sup>11</sup>	6.00x10 <sup>11</sup>	2.54x10 <sup>10</sup>	No	No	2.83x10 <sup>10</sup>		No	No	No
	* PEL = Pollutant Emission Limit									



#### (7) <u>Detailed investigations:</u>

- All vehicles passed the WLTP Type 1 tests and RDE tests.
- One vehicle from each ISC family was subjected to an additional RDE hot test.
- o All vehicles subjected to an additional RDE hot test passed this additional test.
- o No mild, intermediate, or extreme outliers were detected in either sample.
- No remedial measures were detected.

#### (8) Remedial measures:

All selected vehicles passed all ISC tests with no detection of the need to apply remedial measures, both ISC families were found to be ISC compliant. NSAI closed both Statistical Folders on 19<sup>th</sup> January 2024.



E.	Assessment of the yearly expected emissions decrease due to any ISC remedial measures:	Not Applicable.
F.	Lessons learned (including for performance of instruments used):	
	<ul> <li>No instrumentation difficulties were reported by DEKRA Automobil GmbH.</li> <li>Availability of vehicles.</li> <li>Availability of test facilities.</li> </ul>	

G. Report of other invalid tests: Not applicable.

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# Statistical analysis:

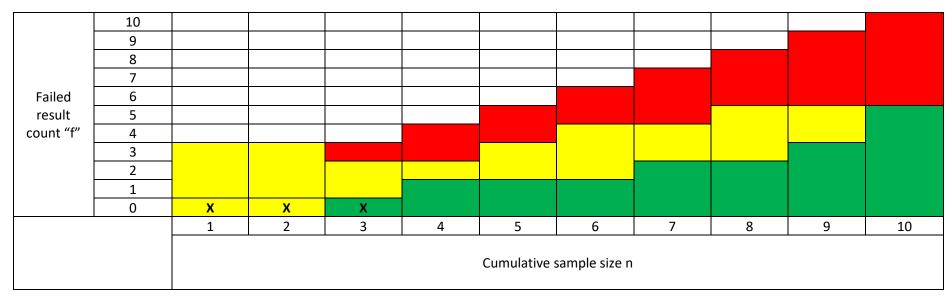
ISC Family: 24-WBA-O30			ISC Family: 24-WBA-P26				
Vehicle	Vehicle WLTP Type 1 Test Result		Vehicle		pe 1 Test sult	RDE Test Result	
Vehicle 1:	Pass	Pass	Vehicle 1:	Pass		Pass	
Vehicle 2: Pass		Pass	Vehicle 2:	Pass		Pass	
Vehicle 3:	Pass	Pass	Vehicle 3:	Vehicle 3: Pass		Pass	
*Mild Outliers:		0	*Mild Outliers:			0	
**Intermediate outliers:		0	**Intermediate outliers:		0		
***Extreme outliers:		0	***Extreme outliers:		0		
Sample size "n":		3	Sample size "n":		3		
"f" count:		0	"f" count:			0	
ISO Overal	ISC sample family 24-WBA-P26  Overall result: Pass: ✓ Fail: □						



# ISC Family: 24-WBA-O30 WLTP Statistical Result

Figure B.2

Decision chart for the statistical procedure for vehicles type approved as of 1 January 2020 (where 'UND' means undecided)



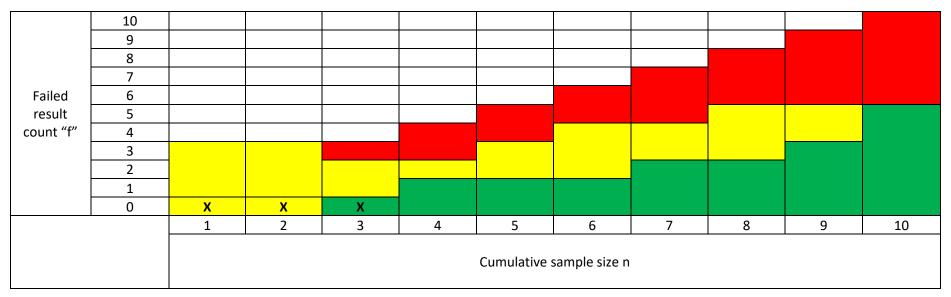
Pass
UND (Undecided)
Fail



# ISC Family: 24-WBA-O30 RDE Statistical Result

Figure B.2

Decision chart for the statistical procedure for vehicles type approved as of 1 January 2020 (where 'UND' means undecided)



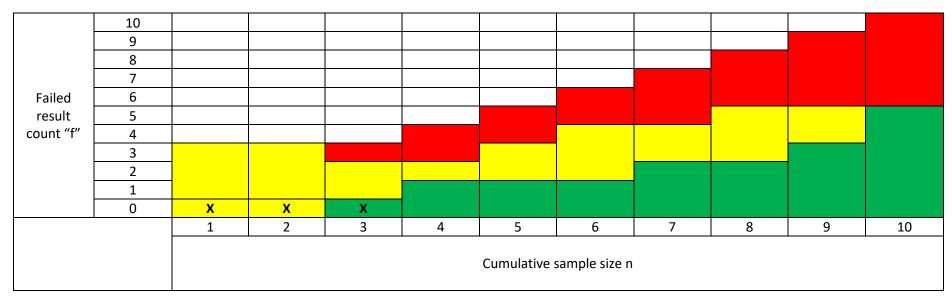
Pass
UND (Undecided)
Fail



# ISC Family: 24-WBA-P26 WLTP Statistical Result

Figure B.2

Decision chart for the statistical procedure for vehicles type approved as of 1 January 2020 (where 'UND' means undecided)



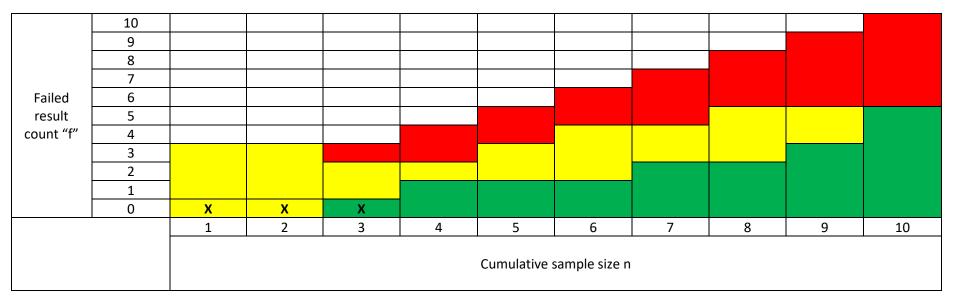
Pass
UND (Undecided)
Fail



# ISC Family: 24-WBA-P26 RDE Statistical Result

Figure B.2

Decision chart for the statistical procedure for vehicles type approved as of 1 January 2020 (where 'UND' means undecided)



Pass
UND (Undecided)
Fail



#### **Supporting documentation:**

- Commission Regulation (EU) 2017/1151 as amended by ((EU) 2020/49).
- DEKRA Automobil GmbH ISC test reports:
  - o TR 202350720\_FN25300\_1
  - o TR 202350720\_FN67964\_1
  - o TR 202350720\_FN67520
  - o TR 202350720\_9K44031
  - o TR 202350720\_9K66472
  - o TR 202350720\_9K43980
- BMW EWIR (Emission Warranty Information Report) 2022.
- Transparency Lists for all ISC families.
- Certificates of Conformity (COC) for each vehicle.
- Vehicle owner interviews for each vehicle.
- Vehicle examination and maintenance reports for each vehicle.



- EU exhaust emission type-approvals:
  - o e24\*715/2007\*2018/1832AP\*1688\*00
  - o e24\*715/2007\*2018/1832AP\*1680\*00
  - o e24\*715/2007\*2018/1832AP\*1643\*00
  - o e24\*715/2007\*2018/1832AP\*1684\*00