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Proficiency testing scheme field measurements of PM_{10} and $PM_{2.5}$ 23/01-05/03/2025, Ispra - Italy

European Union-wide quality assurance programmes

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Contents

Abstract

The 2025 Proficiency Testing (PT) Scheme for PM_{10} and $PM_{2.5}$ measurements, organized by the Joint Research Centre (JRC) and the AQUILA Network, assessed the performance of 22 European laboratories in measuring particulate matter (PM) concentrations, following the EU Ambient Air Quality Directive [1] and the EN 12341 [2] standard. Conducted from 23 January to 5 March 2025 at the JRC Ispra site (Italy), the study aimed at ensuring harmonized, accurate PM monitoring across the EU, critical for compliance and air quality policy evaluation.

Participants used gravimetric samplers (reference method) and, optionally, automatic analyzers, reporting daily PM concentrations with associated uncertainties. Performance was evaluated using z and z' scores (measuring deviation from assigned values) and En-scores (accounting for measurement uncertainties). The results showed:

- High compliance: more than 90% of the results were considered satisfactory for both PM_{10} and $PM_{2.5}$.
- Outliers: few laboratories exhibited questionable or unsatisfactory performance, often due to overestimation biases.
- The En-score distributions confirm that most laboratories met the uncertainty targets of the Air Quality Directives [1].
- Data capture issues: laboratories using PTFE filters achieved a lower data coverage due to filter clogging in high-humidity conditions.
- Spatial homogeneity confirmed: the field variability was lower than in-between uncertainty limit stated in the EN method [2] (residuals < 0.71 $\mu g/m^3$), ensuring a robust and reliable inter-laboratory comparisons.

The study highlights the solid capacity of EU National Reference Laboratories to monitor $PM_{2.5}$ and PM_{10} in line with the EU Air Quality Directive but identifies key areas for improvement, including strengthen quality assurance and control checks at every step of the measurement, with reference to the conditioning and weighing of the filters. These findings support ongoing efforts to standardize air quality measurements and enhance data reliability for regulatory compliance.

Keywords: Proficiency Testing, PM_{10}, $PM_{2.5}$, EN 12341, Air Quality Directive, z score, En-score, measurement uncertainty, AQUILA Network, JRC

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PROFICIENCY TESTING SCHEME

EUROPEAN REFERENCE LABORATORY FOR AIR POLLUTION - ERLAP

Proficiency testing scheme field measurements of PM_{10}/$PM_{2.5}$ 23/01-05/03/2025, Ispra - Italy

Tarricone, C., Barbiere, M., Borowiak, A., Putaud, J.-P.

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1. Introduction

JRC-ERLAP (Joint Research Centre's European Reference Laboratory for Air Pollution in Ispra (IT)) has been organising Proficiency Testing scheme (PT) amongst National Air Quality Reference Laboratories (NRLs) since the early '90s. JRC-ERLAP has implemented an accredited ISO/IEC 17043 [6] quality system for managing the proficiency testing organization.

Particulate Matter (PM) is considered the most harming outdoor air pollutant for human health. The European Union has set annual and daily limit values for $PM_{2.5}$ and PM_{10}, as well as a target to reduce exposure to $PM_{2.5}$, all outlined in the Ambient Air Quality Directive [1]. Accurate measurement of $PM_{2.5}$ and PM_{10} is crucial not just for complying with the Directive, but also for consistently assessing pollution levels across the EU. This helps to track the success of emission reduction efforts, support health studies with sound data and spot changes in pollution sources.

The Air Quality Directive [1] sets the legal basis for a harmonised assessment of air pollutants in Europe. The reference measurement methods for $PM_{2.5}$ and PM_{10} are described in the European standard EN 12341 [2]. Requirements on the data quality are set as minimum objectives for the uncertainty of the measurement itself, and as minimum data capture.

The accuracy of PM measurements has to be ensured and must meet the Directive's requirements and international quality standards. The European Commission's Joint Research Centre (JRC) oversees quality assurance tests at EU level, working with the AQUILA Network. Each EU member state's National air quality Reference Laboratory (NRL), in charge of the air pollution measurements, must regularly take part in these quality assurance programmes.

In 2015, 2018 and 2022, the JRC and the AQUILA Network have been organising similar quality assurance programmes for PM measurements, with results compiled in technical reports.

In September 2024, the 2025 Proficiency Testing (PT) was announced to the AQUILA network and the representative of the World Health Organization Collaborating Centre (WHO-CC) via email. Along with the announcement, the protocol for the PT, which included all necessary logistical and technical requirements, was made available. This protocol was published on the PT-Data Acquisition Platform (PT-DAP) at the same time that registrations for the PT opened.

To capture both low and high PM pollution periods sampling took place from mid-January till early March 2025 at the JRC site in Ispra, Northern Italy. Over six weeks, up to 42 filters for each PM size fraction were collected by participants. The JRC's European Reference Laboratory for Air Pollution (ERLAP) set up four samplers at each corner of the sampling area to verify the consistency of PM concentrations across the sampling site.

2. Organisation of the field proficiency testing scheme

The PT took place at the premises of the European Commission's JRC in Ispra site in Italy. Participants were requested to bring their own PM_{10} and $PM_{2.5}$ samplers, following the recommendations from the European standard for airborne particulate matter measurements [2], as well as the equipment necessary to check the samplers' operation on site. On a voluntary basis participants were given the possibility to install and run also automatic PM monitors, and their results evaluation is included in Annex 3 of this report.

Sampling started on 23 January 2025, at 0:00 a.m. local time and concluded 6 weeks later on March 5, 2025, at 12:00 p.m. local time.

Participants were responsible for exchanging loaded filters with unloaded ones as needed. JRC staff assisted with filter changes for laboratories that requested support services. After the campaign ended, participants returned to the sampling site dismantle their equipment.

Data was submitted through a web application. Participants reported daily values (0:00 a.m. – 12:00 p.m. local time) along with associated uncertainties and provided details about the equipment used and sampling methods.

2.1. Accreditation

The ERLAP Laboratory is accredited for organising PTs for $PM_{2.5}$ and PM_{10} in ambient air according to ISO/IEC 17043 [6], implementing a quality system aimed at improving its ability to consistently produce valid proficiency tests.
This system aims to enhance the laboratory's ability to consistently produce valid exercises and serves as the foundation for accreditation by an Accreditation Body. Accreditation, being centered around competence, formally recognizes the laboratory's demonstrated capabilities.
To achieve accreditation, a laboratory must first establish a documented Quality Management System. Typically, the quality manual outlining this system aligns with the structure of ISO/IEC 17043 [6] and complies with ISO/IEC 17025 [3] standards. These standards ensure that the laboratory's processes and procedures are well-documented, controlled, and effective in producing valid results.

2.2. Confidentiality

The results of the Proficiency Testing are published non-anonymously in accordance with the agreement of the National Reference Laboratories (NRLs) AQUILA network [7].
To ensure the confidentiality of laboratories' information, ERLAP implements the following measures:

- Any administrative information supplied by a laboratory remains confidential and will not be shared with third parties.
- Access to ERLAP facilities is strictly limited to members of JRC Unit C5 and authorized personnel.
- A confidential password permits to access the web application for all phases of the PT exercise.
- By expressing interest in participating, each applicant agrees with these privacy and confidentiality policies.

To ensure permanent and public access to the PT results, a Digital Object Identifier (DOI) is associated with the report.

2.3. Collusion and falsification

Although Proficiency Testing schemes are designed to help participants improve their performance, there is a risk that some may attempt to present their analytical capabilities in a misleading way. Collusion between participants and the falsification of results are contrary to professional ethics. Such a behaviour

undermines the benefits of PT for both the participating laboratories and the organizer, defeating the purpose of genuine participation.

ERLAP's PT program operates on the assumption that participants conduct analyses and report results with scientific integrity. To maintain this standard, ERLAP is committed to preventing and addressing any instances of collusion or result falsification.

Through a protocol sent before the exercise, every participant was made aware of the consequences of detected collusion or falsification that are unethical and constitute scientific fraud. If a clear situation of collusion or falsification is identified, the involved participants will be contacted. Upon confirmation of the evidence, these participants will be excluded from the PT data evaluation.

3. Participants and equipment

Twenty-two countries, along with the JRC/ERLAP, took part in this PT. 23 laboratories measured PM_{10}, and 22 measured $PM_{2.5}$. JRC-ERLAP contributed with two samplers for PM_{10} and three for $PM_{2.5}$.

Table 1. Participant Countries and laboratories

Country	Acronym	Laboratory	Accreditation
Austria (AT)	EAA	Environment Agency Austria	ISO 17043
Belgium (BE)	ISSeP	Institut Scientifique de Service Public	ISO 17025
Belgium (BE)	VMM	Flemish Environmental Agency	ISO 17025
Bulgaria (BG)	EEA	Executive Environmental Agency	ISO 17025
Croatia (HR)	IMROH	Institute for Medical Research and Occupational Health	ISO 17025
Czechia (CZ)	CHMI	Czech Hydrometeorological Institute	ISO 17025
Denmark (DK)	DCE	National Environmental Research Institute	ISO 17025
Estonia (EE)	EERC	Estonian Environmental Research Centre	ISO 17025
Finland (FI)	FMI	Finnish Meteorological Institute	ISO 17025
France (FR)	INERIS	Institut National de l'Environnement Industriel et des Risques	ISO 17025
Germany (DE)	LANUV	Landesamt fur Natur, Umwelt und Verbraucherschutz	ISO 17025, ISO 17043
Hungary (HU)	HungaroMet	Hungarian Meteorological Service	ISO 17025, ISO 17043
Ireland (IE)	EPA	Environmental Protection Agency	ISO 17025
Italy (IT)	ERLAP	European Reference Laboratory for Air Pollution	ISO 17043
Italy (IT)	ISPRA	Italian Institute for Environmental Protection and Research	ISO 17025, ISO 17043
Lithuania (LT)	AAA	Environmental Protection Agency	ISO 17025
Luxembourg (LU)	AEV	Service Surveillance et Controle de la Qualite de Air	ISO 17025
Norway (NO)	NILU	Norwegian Institute for Air Research	ISO 17025
Montenegro (ME)	CETI	Center for Ecotoxicological Research Podgorica LLC	ISO 17025
Poland (PL)	GIOS	Chief Inspectorate of Environmental Protection	None
Slovakia (SK)	SHI	Slovak Hydrometeorological Institute	ISO 17043
Slovenia (SI)	EARS	Environment Agency of Republic of Slovenia	ISO 17025
Spain (ES)	ISCIII	Instituto De Salud Carlos III	ISO 17025
Sweden (SE)	ACES	Stockholm University	ISO 17025

Source: JRC 2025

All laboratories registered to this PT are listed Table 1. Most of these laboratories are accredited for PM measurements according to ISO 17025 [3].

Each participant provided information regarding the type of filter material and sampler/analyser used (Table 2 and Table 3).

Table 2. Instruments and filter materials used for sampling/measuring PM_{10}. In green high-volume samplers, in pink equivalent method.

PM_{10}				
Laboratory	**Instrument**	**ID**	**Method**	**Filter**
LANUV	SVEN LECKEL SEQ47/50-RV	SEQ_14 LANUV	Gravimetric	Glass fiber
LANUV	Digitel DHA-80	Digitel_70 LANUV	Gravimetric	Glass fiber
LANUV	Digitel DHA-80	Digitel_69 LANUV	Gravimetric	Quartz
ISCIII	DIGITEL DPA-14	ZM-MT-25	Gravimetric	Quartz
ISPRA	DadoLab Dual Channel	159B	Gravimetric	Quartz
GIOS	SVEN LECKEL SEQ47/50-RV	1	Gravimetric	Quartz
GIOS	BAM 1020	3	β-Absorption	
VMM	COMDE DERENDA PNS 18T-DM-3.1	25II01002	Gravimetric	PTFE+Glass fiber
NILU	SVEN LECKEL SEQ47/50-RV CD	18/0054	Gravimetric	PTFE
CHMI	SVEN LECKEL SEQ47/50-RV CD	19/0061	Gravimetric	Glass fiber
CHMI	PALAS Fidas 200/200 E	11847	Optical counter	
DCE	SVEN LECKEL SEQ47/50-RV CD	17/0106	Gravimetric	Glass fiber
EEA	DadoLab Giano	SQ111A720220138	Gravimetric	Quartz
ERLAP	SVEN LECKEL SEQ47/50-RV CD	186	Gravimetric	Quartz
ERLAP	SVEN LECKEL SEQ47/50-RV CD	66	Gravimetric	Quartz
SHI	SVEN LECKEL SEQ47/50-RV CD	19/0056	Gravimetric	Glass fiber
AAA	SVEN LECKEL SEQ47/50-RV	17/0162	Gravimetric	Quartz
EERC	Digitel DHA-80	Nr. 1548	Gravimetric	Quartz
EPA	SVEN LECKEL SEQ47/50-RV	19/0173 A0110	Gravimetric	Glass fiber
FMI	SVEN LECKEL SEQ47/50-RV CD	SEQ1	Gravimetric	PTFE
ISSeP	SVEN LECKEL SEQ47/50-RV CD	L1	Gravimetric	PTFE+Glass fiber
ISSeP	GRIMM EDM 180		Optical counter	
AEV	SVEN LECKEL SEQ47/50-RV CD	24-146	Gravimetric	Quartz
INERIS	SVEN LECKEL SEQ47/50-RV CD	M-CE-21620	Gravimetric	PTFE+Glass fiber
ACES	COMDE DERENDA PNS T-DM-3.1	10459	Gravimetric	PTFE+Glass fiber
EARS	Digitel DHA-80	5103	Gravimetric	Quartz
EAA	DIGITEL DPA-14	061	Gravimetric	Glass fiber
HungaroMet	Digitel DHA-80	1775	Gravimetric	Quartz
IMROH	SVEN LECKEL SEQ47/50-RV CD	18/0061	Gravimetric	Quartz
CETI	SVEN LECKEL SEQ47/50-RV	16/0085	Gravimetric	Quartz

Source: JRC 2025

Table 3. Instruments and filter materials used for sampling/measuring $PM_{2.5}$. In pink equivalent method.

$PM_{2.5}$				
Laboratory	**Instrument**	**ID**	**Method**	**Filter**
LANUV	SVEN LECKEL SEQ47/50-RV	SEQ_25 LANUV	Gravimetric	Glass fiber
ISCIII	DIGITEL DPA-14	ZM-MT-26	Gravimetric	Quartz
ISPRA	DadoLab Dual Channel	159A	Gravimetric	Quartz
GIOS	SVEN LECKEL SEQ47/50-RV	2	Gravimetric	Quartz
VMM	COMDE DERENDA PNS 18T-DM-3.1	26II01002	Gravimetric	PTFE+Glass fiber
NILU	SVEN LECKEL SEQ47/50-RV CD	11/0051	Gravimetric	PTFE
CHMI	SVEN LECKEL SEQ47/50-RV CD	19/0156	Gravimetric	Glass fiber
CHMI	PALAS Fidas 200/200 E	11847	Optical counter	
DCE	SVEN LECKEL SEQ47/50-RV CD	23/0096	Gravimetric	Glass fiber
EEA	DadoLab Giano	SQ111A720220138	Gravimetric	Quartz
ERLAP	SVEN LECKEL SEQ47/50-RV CD	68	Gravimetric	Quartz
ERLAP	SVEN LECKEL SEQ47/50-RV CD	116	Gravimetric	Quartz
ERLAP	SVEN LECKEL SEQ47/50-RV CD	78	Gravimetric	Quartz
SHI	SVEN LECKEL SEQ47/50-RV CD	10/0071	Gravimetric	Glass fiber
AAA	SVEN LECKEL SEQ47/50-RV	17/0161	Gravimetric	Quartz
EPA	SVEN LECKEL SEQ47/50-RV	19/0174 A0111	Gravimetric	Glass fiber
FMI	SVEN LECKEL SEQ47/50-RV CD	SEQ2	Gravimetric	PTFE
ISSeP	GRIMM EDM 180		Optical counter	
ISSeP	SVEN LECKEL SEQ47/50-RV CD	L2	Gravimetric	PTFE+Glass fiber
AEV	SVEN LECKEL SEQ47/50-RV CD	24-147	Gravimetric	Quartz
INERIS	SVEN LECKEL SEQ47/50-RV CD	M-CE-21625	Gravimetric	PTFE+Glass fiber
ACES	COMDE DERENDA PNS T-DM-3.1	10461	Gravimetric	PTFE+Glass fiber
EARS	SVEN LECKEL SEQ47/50-RV	17/0069	Gravimetric	Glass fiber
EAA	DIGITEL DPA-14	001	Gravimetric	Glass fiber
HungaroMet	SVEN LECKEL SEQ47/50-RV	2940	Gravimetric	Quartz
IMROH	SVEN LECKEL SEQ47/50-RV CD	18/0063	Gravimetric	Quartz
CETI	SVEN LECKEL SEQ47/50-RV	23/0068	Gravimetric	Quartz

4. Measurement site

4.1. Location

The chosen sampling site is located on the roof of Building 44 within the Joint Research Centre (JRC) site in Ispra, Italy. The area is secured, and access is restricted.

The site is in the Po Valley in Northern Italy and can be considered a regional background air monitoring site. It experiences varying levels of particulate matter due to a mix of influences: the region is affected by the polluted air of the Po Valley but is also periodically exposed to clean air brought by strong Foehn winds from the Alps.
The roof of Building 44 is about 6 meters above ground level and has no close surrounding obstacles. Nearby roads are used mainly by JRC personnel during morning, lunch, and evening commuting.
Figure 1 shows a picture of the measurement site with the installed samplers.

Figure 1. Measurement site in Ispra, Italy

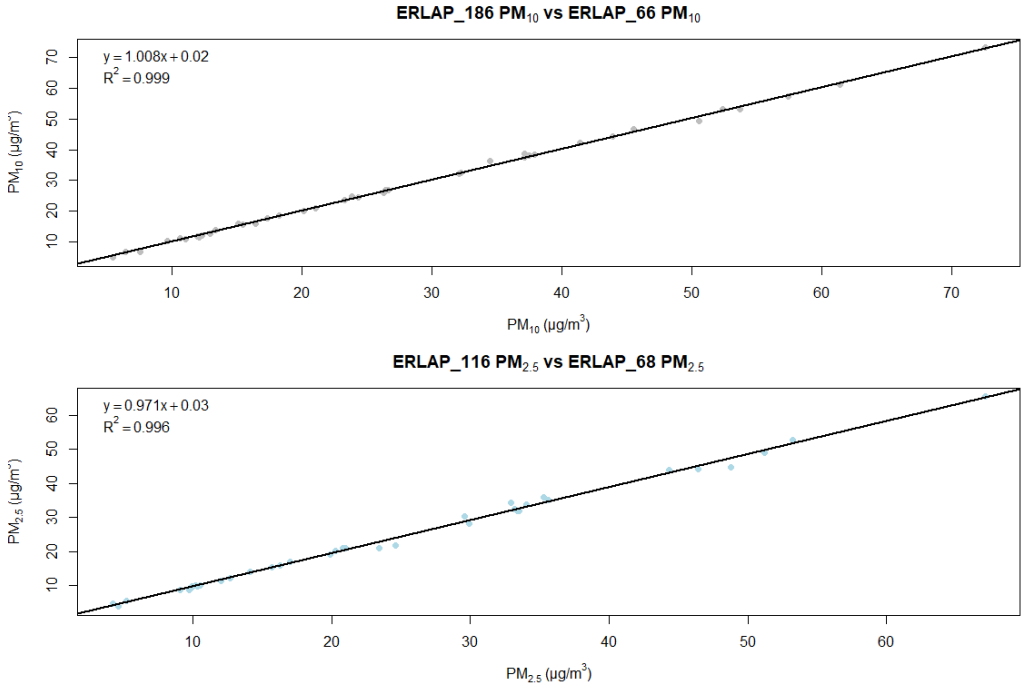
Source: JRC 2025

All instruments were labelled with the laboratory's details and checked daily by JRC staff according to a predefined check list. In case of malfunction, participants were notified, and JRC staff addressed the problems upon feedback whenever possible.

4.2. Homogeneity

Field homogeneity was ensured through strategic instrument placement at each corner of the sampling area. The homogeneity was assessed by calculating the averaged residual between daily measurements from instruments at opposite corners. The observed residuals were 0.45 µg/m³ for PM_{10} and 0.71 µg/m³ for $PM_{2.5}$, both well below the maximum allowed limit (u_{bsmax} = 2 µg/m³) for in-between sampler uncertainty specified in EN 12341 [2]. Since these values confirm compliance with the EN standard [2], the field was deemed homogeneous, and no additional uncertainty contribution was assigned to the measured values due to spatial variability.

Figure 2. Scatter plots of two PM_{10} and two $PM_{2.5}$ samplers placed at the sampling field corners



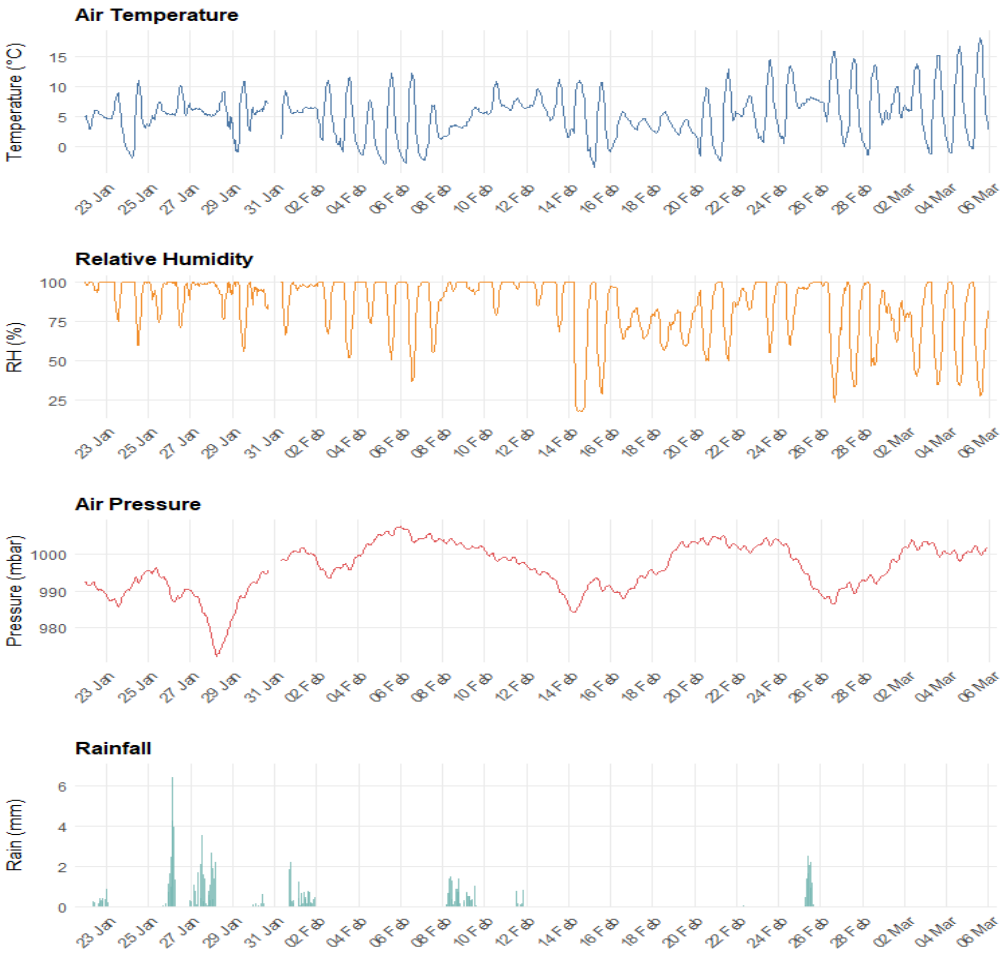
Source: JRC 2025

4.3. Meteorological conditions

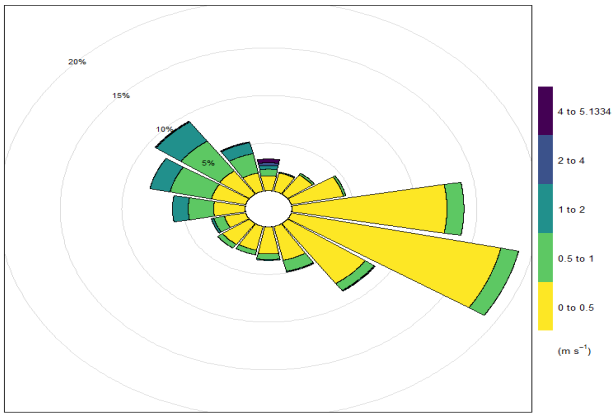
The meteorological conditions during the sampling period were monitored by the JRC's meteorological station (Figure 3).

- Temperature: Average 5.4 °C (range: -3.4 to 18.2 °C)
- Humidity: Average 84.5% (range: 17.4 to 100%)
- Wind: Average speed 0.5 m/s (maximum 5.1 m/s) Calm conditions: 71.7% of hours with wind speed < 0.5 m/s
- Total rainfall: 99.2 mm

Figure 3. Meteorological data plots



Wind direction



Source: JRC 2025

5. PM data analysis

5.1. Blunder identification

In accordance with ISO 13528 [4], the PM_{10} and $PM_{2.5}$ datasets were visually inspected to detect anomalies and remove obvious blunders before applying robust statistical methods.

One laboratory reported suspicious results for both PM_{10} and $PM_{2.5}$ on the same sampling day. Despite being contacted, the laboratory provided no feedback. No other blunders (e.g., measurement artefacts or transcription errors) were identified, nor was there evidence of procedural anomalies—including calendar effects or data entry inconsistencies. The submitted data were thus validated as definitive measurements, allowing for subsequent performance assessment.

5.2. Standard deviation for proficiency assessment (σ_{pt})

The standard deviation for proficiency assessment (σ_{pt}) was calculated based on the maximum measurement uncertainty of the method, as specified in the EN 12341 standard [2]. This approach ensures that the criterion is independent of participants' performance and allows for consistent comparison with results from previous and future PTs.

The calculation of σ_{pt} is based on the following equation:

Equation 1

$$\sigma_{pt} = \sqrt{\frac{u_m^2}{(m_l - m_u)^2} + u_f^2 + \frac{u_{bs}^2}{C^2} \cdot C}$$

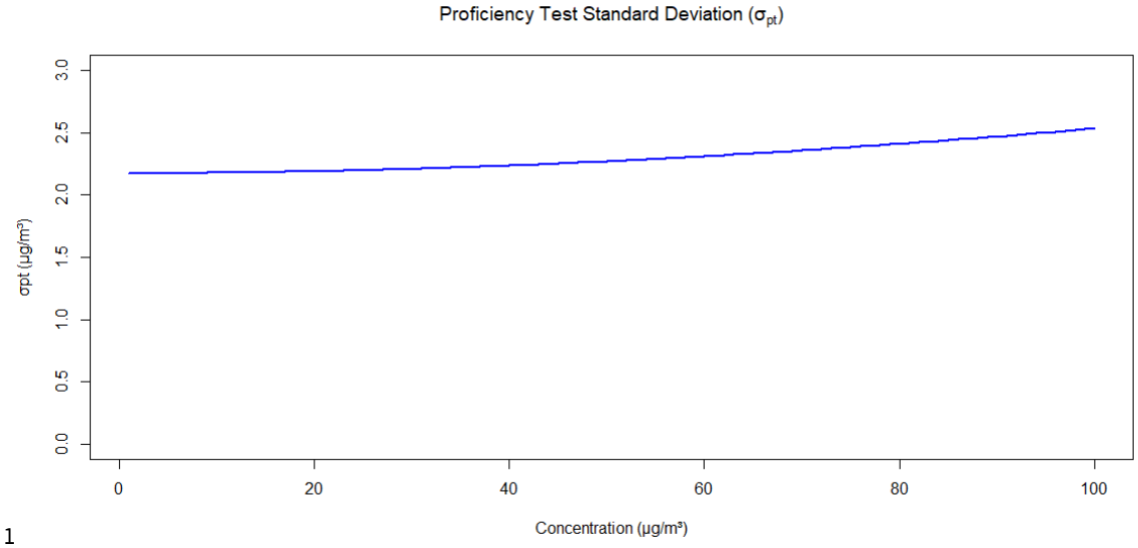
Where:

- σ_{pt} Standard deviation for proficiency assessment in µg/m³
- u_m mass uncertainty = 47 µg
- $m_l - m_u$ = mass loaded – mass unloaded, calculated at the level of concentration C
- u_f flow relative uncertainty = 1.3%
- u_{bs} between-sampler uncertainty = 2 µg/m³
- C actual PM concentration (daily average) in µg/m³

5.2.1. Functional correlation between σ_{pt} and the concentration values

A functional correlation between the standard deviation σ_{pt} and the mass concentration is illustrated in Figure 4. This graph shows the range of σ_{pt} values that can occur within a PM concentration interval of 0–100 µg/m³. In Table 4 for each assigned values are reported the correspondent σ_{pt} values.

Figure 4. Proficiency Test Standard Deviation vs PM mass concentration



1

Source: JRC 2025

5.3. Assigned Values

The reference PM_{10} and $PM_{2.5}$ values (x_{ERLAP}) obtained as averages of JRC-ERLAP's two sampler's data installed at the opposite corner of the sampling site.

For each daily value the ERLAP mean uncertainty $\left(u(x_{ERLAP})\right)$ is calculated as

Equation 2

$$u(x_{ERLAP}) = \frac{\sqrt{u^2(x_1)+u^2(x_2)}}{2}$$

$u(x_i)$ uncertainty of instruments used
i = 1,2

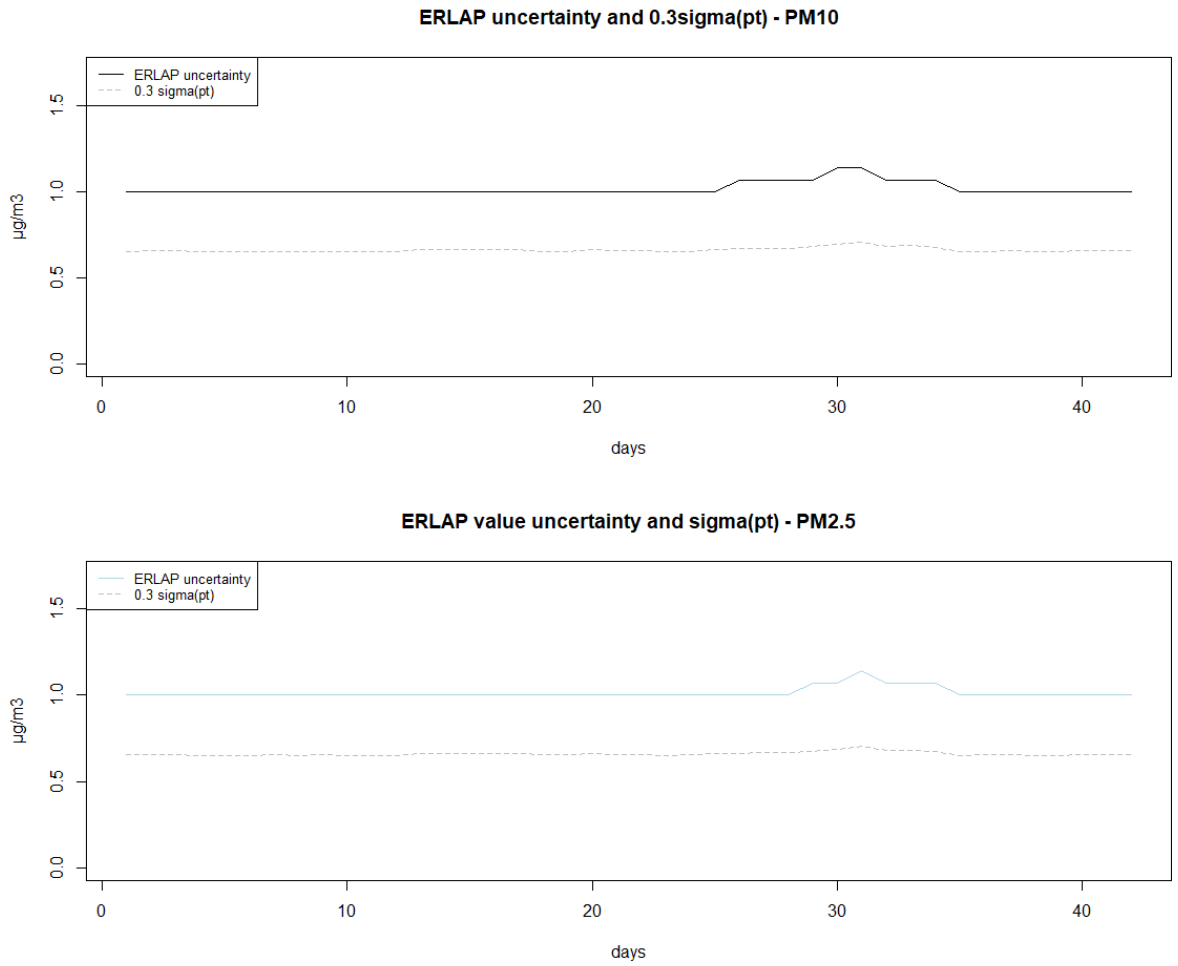
The values x_{ERLAP} were compared to robust averages x^* (ISO 13528 § 7.8) [4] using the criterion:

Equation 3

$$|x_{ERLAP} - x^*| \leq 2\sqrt{u^2(x_{ERLAP}) + u^2(x^*)}$$

JRC-ERLAP's measurements pass this robustness confirmation test, however, to assess whether the assigned value is suitable for performance evaluation, it must be verified that its uncertainty is sufficiently small compared to σ_{pt} (defined here as the maximum uncertainty allowed by the reference method).
If the uncertainty of the assigned value ($u(x_{pt})$) is too large in comparison with σ_{pt}, there is a risk that some laboratories will receive questionable or unsatisfactory performance rating because of inaccuracy in the determination of the assigned value, rather than issues within the laboratories. themselves. Therefore, the uncertainties of the ERLAP values are compared to σ_{pt} to mitigate this risk.

Figure 5. x_{ERLAP} uncertainties vs 0.3 σ_{pt}



Source: JRC 2025

Since $u(x_{\text{ERLAP}})$ is always greater than $0.3\sigma_{pt}$ (Figure 5), the standard uncertainty cannot be considered negligible (ISO 13528 [4]). Therefore, this uncertainty should be included when interpreting the proficiency test results using the z'score.

The z' score is used to evaluate laboratory performance by taking into account both the σ_{pt} (the method's maximum permissible uncertainty) and the uncertainty of the assigned value. If the assigned value uncertainty is large, the denominator of the z' score (which includes this uncertainty) becomes larger. In this scenario, the current performance assessment metric would not be fit for purpose. This artificially inflates the acceptance threshold, making it easier for laboratories to achieve a 'satisfactory' rating even if their measurements are not as precise or accurate as intended.

As a result, it was decided to adopt the robust mean of all participants' results as the assigned values for the evaluation of this PT.

5.3.1. Statistical evaluation according to ISO 13528

The assigned value (x_{pt}) for this proficiency test was determined using the robust average (x^*), calculated in accordance with ISO 13528 § 7.7 [4]. The robust average (x^*) and the robust standard deviation (s*) were derived through an iterative procedure designed to minimize the influence of outliers. The values of x^* and s* were refined iteratively until convergence was achieved, defined as no change in the third significant digit of x^* and s* between successive iterations.

5.3.2. Estimation of the uncertainty of the assigned value

When the assigned value is derived as a robust average, ISO 13528 [4] recommends estimating the standard uncertainty of the assigned value, $u(x_{pt})$, using the following equation:

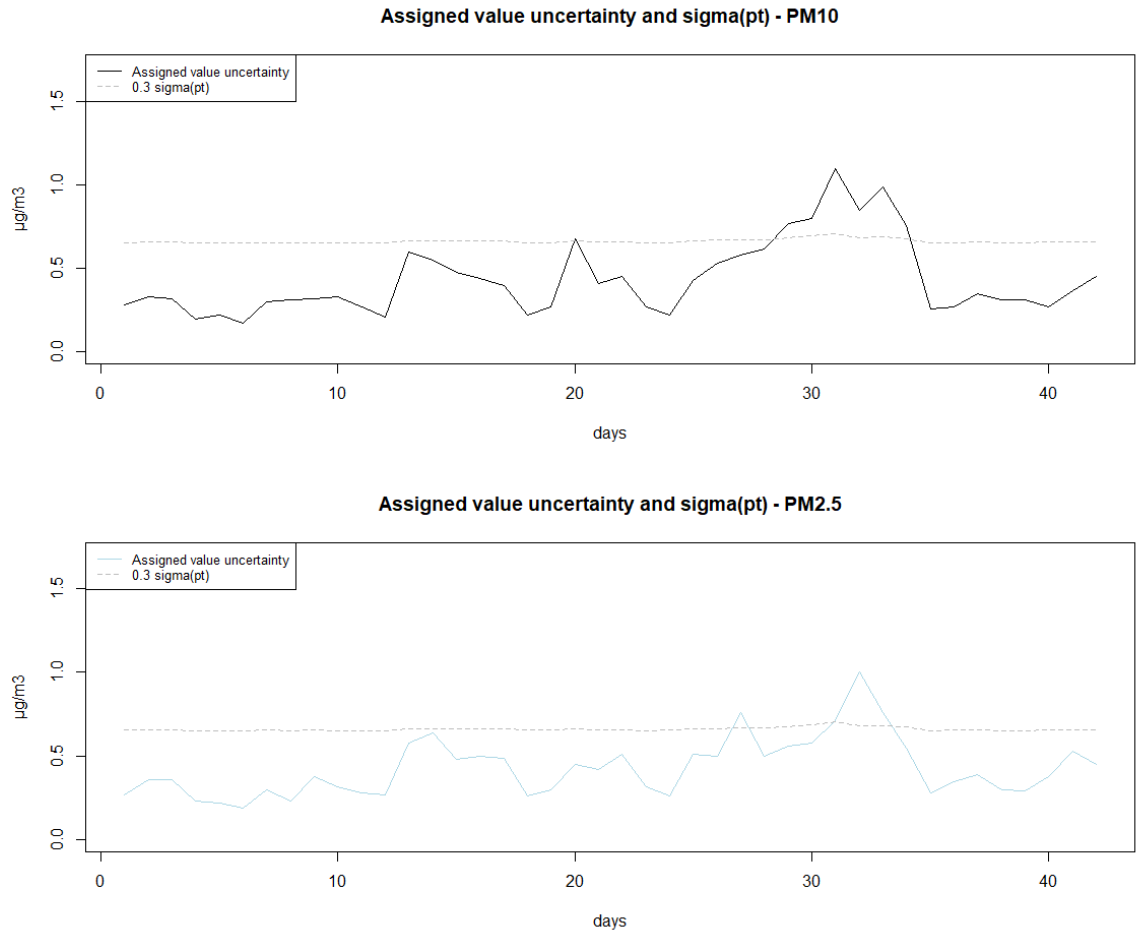
Equation 4

$$u(x_{pt}) = \frac{1.25 \cdot s^*}{\sqrt{p}}$$

where: - s^* is the robust standard deviation
- p is the number of participant results.

Figure 6 presents a comparison between the uncertainty of the assigned value $u(x_{pt})$ and standard deviation for proficiency assessment σ_{pt}.

Figure 6. Comparison of $u(x_{pt})$ and σ_{pt} for PM_{10} and $PM_{2.5}$



Source: JRC 2025

It is observed that only for few values does $u(x_{pt})$ exceeds 0.3 times σ_{pt} These situations typically occur on days with high PM concentrations.

The daily expanded uncertainty of the assigned value, $U(x_{pt})$, is calculated using a coverage factor $k = 2$, providing an approximate 95% confidence level:

Equation 5

$$U(x_{pt}) = 2 \cdot u(x_{pt})$$

The resulting expanded uncertainties are reported in Table 4.

5.4. PM_{10} and $PM_{2.5}$ assigned daily values

The daily assigned values ranged from 4.6 to 73 µg/m³ for PM_{10} and from 3.6 to 67 µg/m³ for $PM_{2.5}$. Table 4 shows the assigned daily values, their expanded uncertainty and the number of laboratories (p) who submitted the daily value on the respective day and the σ_{pt}.

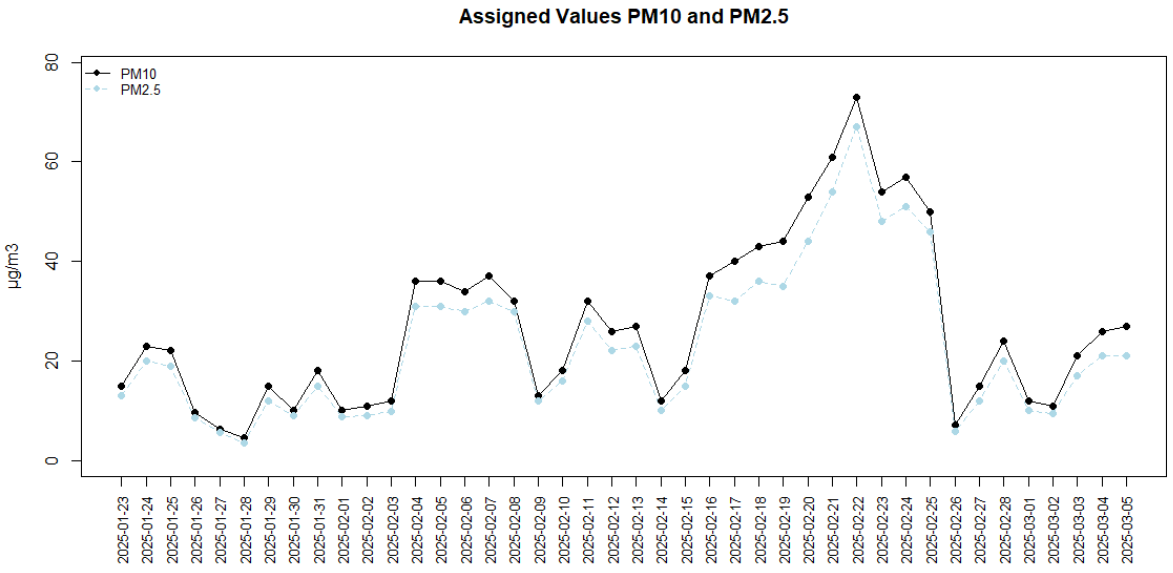
Table 4. Assigned values, uncertainties and σ_{pt} for PM_{10} and $PM_{2.5}$ on the measurement period

	PM_{10}				$PM_{2.5}$			
Day	**Assigned Value**	**Exp. unc.**	**Number of values**	**σ_{pt}**	**Assigned Value**	**Exp. unc.**	**Number of values**	**σ_{pt}**
	µg/m³				**µg/m³**			
2025-01-23	15	0.58	25	2.2	13	0.52	25	2.2
2025-01-24	23	0.66	27	2.2	20	0.72	25	2.2
2025-01-25	22	0.64	27	2.2	19	0.70	25	2.2
2025-01-26	9.6	0.38	27	2.2	8.7	0.46	25	2.2
2025-01-27	6.3	0.44	27	2.2	5.6	0.44	25	2.2
2025-01-28	4.6	0.34	27	2.2	3.6	0.38	25	2.2
2025-01-29	15	0.58	27	2.2	12	0.60	25	2.2
2025-01-30	10	0.62	27	2.2	9.0	0.46	25	2.2
2025-01-31	18	0.64	27	2.2	15	0.76	25	2.2
2025-02-01	10	0.68	27	2.2	8.9	0.68	25	2.2
2025-02-02	11	0.54	27	2.2	9.1	0.56	25	2.2
2025-02-03	12	0.42	27	2.2	9.8	0.54	25	2.2
2025-02-04	36	1.2	26	2.2	31	1.1	24	2.2
2025-02-05	36	1.1	24	2.2	31	1.3	23	2.2
2025-02-06	34	0.96	26	2.2	30	0.96	24	2.2
2025-02-07	37	0.86	27	2.2	32	1.0	25	2.2
2025-02-08	32	0.82	26	2.2	30	0.96	24	2.2
2025-02-09	13	0.44	27	2.2	12	0.50	24	2.2
2025-02-10	18	0.58	27	2.2	16	0.68	25	2.2
2025-02-11	32	1.4	26	2.2	28	0.90	25	2.2
2025-02-12	26	0.82	27	2.2	22	0.84	24	2.2
2025-02-13	27	0.92	27	2.2	23	1.0	25	2.2
2025-02-14	12	0.52	27	2.2	10	0.64	25	2.2
2025-02-15	18	0.44	27	2.2	15	0.52	25	2.2
2025-02-16	37	0.88	27	2.2	33	1.0	25	2.2
2025-02-17	40	1.0	27	2.2	32	0.98	25	2.2
2025-02-18	43	1.2	27	2.2	36	1.5	25	2.2

Day	PM_{10}				$PM_{2.5}$			
	Assigned Value	Exp. unc.	Number of values	σ_{pt}	Assigned Value	Exp. unc.	Number of values	σ_{pt}
	µg/m³				µg/m³			
2025-02-19	44	1.3	26	2.2	35	1.0	24	2.2
2025-02-20	53	1.5	26	2.3	44	1.1	25	2.2
2025-02-21	61	1.6	25	2.3	54	1.2	23	2.3
2025-02-22	73	2.2	25	2.4	67	1.4	23	2.3
2025-02-23	54	1.7	24	2.3	48	2.0	23	2.3
2025-02-24	57	2.0	26	2.3	51	1.5	23	2.3
2025-02-25	50	1.5	26	2.3	46	1.1	23	2.3
2025-02-26	7.1	0.52	27	2.2	5.8	0.56	25	2.2
2025-02-27	15	0.54	27	2.2	12	0.68	25	2.2
2025-02-28	24	0.70	27	2.2	20	0.80	25	2.2
2025-03-01	12	0.62	27	2.2	10	0.60	25	2.2
2025-03-02	11	0.62	27	2.2	9.5	0.58	25	2.2
2025-03-03	21	0.54	26	2.2	17	0.76	25	2.2
2025-03-04	26	0.76	26	2.2	21	1.0	25	2.2
2025-03-05	27	0.90	24	2.2	21	0.90	24	2.2

Source: JRC 2025

Figure 7. Assigned values for PM_{10} and $PM_{2.5}$ for the measurement period

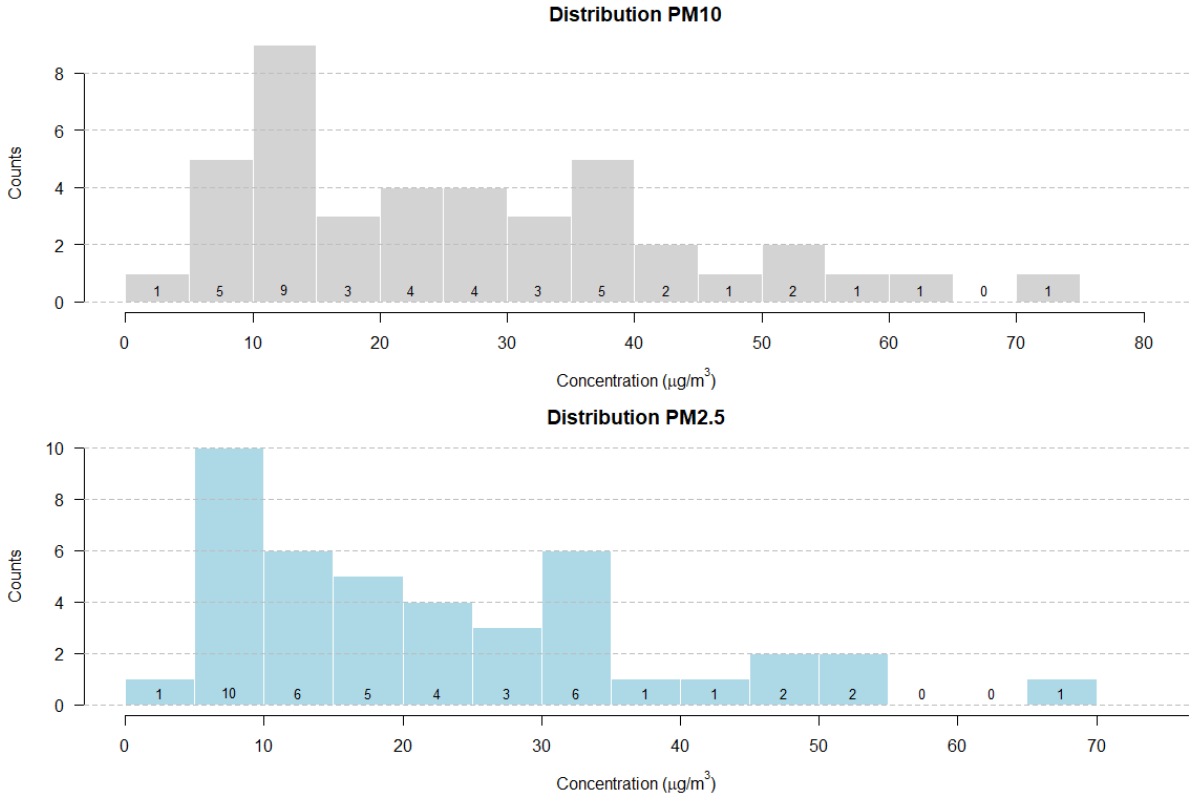


Source: JRC 2025

5.4.1. Distributions of PM_{10} and $PM_{2.5}$ concentrations

The frequency distributions of PM_{10} and $PM_{2.5}$ concentrations are shown in Figure 8. The histograms illustrate the frequency of different concentration levels for both PM size fractions, providing insights into their distribution patterns during the sampling period.

Figure 8. Distributions of PM10 (top) and PM2.5 (bottom) concentration levels



Source: JRC 2025

6. Performance data evaluation

6.1. Data capture

The data capture for PM_{10} and $PM_{2.5}$ measurements are shown in Table 5 and Table 6. The data capture is defined as the percentage of days with valid measurements compared to the total number of days in the sampling period.

Table 5. PM_{10} data capture

Laboratory	N. samples PM_{10}	Data capture %
AAA_17/0162	42	100
ACES_10459	40	95
AEV_24-146	42	100
CETI_16/0085	42	100
CHMI_19/0061	42	100
DCE_17/0106	42	100
EAA_061	42	100
EARS_5103	39	93
EEA_SQ111A720220138	42	100
EERC_Nr. 1548	42	100
EPA_19/0173 A0110	42	100
ERLAP_186	42	100
ERLAP_66	41	98
FMI_SEQ1	38	90
GIOS_1	42	100
HungaroMet_1775	42	100
IMROH_18/0061	42	100
INERIS_M-CE-21620	39	93
ISCIII_ZM-MT-25	40	95
ISPRA_159B	42	100
ISSeP_L1	41	98
LANUV_Digitel_69 LANUV	42	100
LANUV_Digitel_70 LANUV	42	100
LANUV_SEQ_14 LANUV	42	100
NILU_18/0054	33	79
SHI_19/0056	42	100
VMM_25II01002	42	100

Source: JRC 2025

Table 6. $PM_{2.5}$ data capture

Laboratory	N. samples $PM_{2.5}$	Data capture %
AAA_17/0161	42	100
ACES_10461	40	95
AEV_24-147	42	100
CETI_23/0068	42	100
CHMI_19/0156	42	100
DCE_23/0096	42	100
EAA_001	42	100
EARS_17/0069	42	100
EEA_SQ111A720220138	42	100
EPA_19/0174 A0111	42	100
ERLAP_116	42	100
ERLAP_68	39	93
ERLAP_78	42	100
FMI_SEQ2	39	93
GIOS_2	42	100
HungaroMet_2940	42	100
IMROH_18/0063	42	100
INERIS_M-CE-21625	40	95
ISCIII_ZM-MT-26	42	100
ISPRA_159A	41	98
ISSeP_L2	42	100
LANUV_SEQ_25 LANUV	42	100
NILU_11/0051	34	81
SHI_10/0071	42	100
VMM_26II01002	42	100

Source: JRC 2025

All participants, except for one laboratory, achieved the minimum data capture rates of 90% requested by the Air Quality Directive [1]. Two laboratories, using PTFE filters, achieved lower data capture on PM_{10} rates ranging from 79% to 90%. This reduction in efficiency was probably due to the high humidity and elevated PM concentration in the Po Valley's which led to clogging of the filters.

6.2. Performance Indicators

Definitions, equations and evaluation criteria relating to different performance indicators are provided. Participants' performance assessment based on these indicators is presented in section 6.3.

6.2.1. z and z' scores

The indicators named z and z' score are the most commonly used performance metric, as they measure the deviation of a result from the assigned value. The z score was chosen as the main performance indicator when the following condition was met: $u(x_{pt}) < 0.3\sigma_{pt}$.

For a few specific measurement days where $u(x_{pt}) > 0.3\sigma_{pt}$, the z' score metric was used for data evaluation instead.

The indicator z score evaluates the difference between a participant's measured value and the assigned value, normalized by the standard deviation for proficiency assessment (σ_{pt}), while for z' score the

denominator is the square root of the quadratic sum of the standard deviation for proficiency assessment and the standard uncertainty of the assigned value as expressed in the following equations:

Equation 6

$$z = \frac{x - x_{pt}}{\sigma_{pt}}$$

Equation 7

$$z' = \frac{x - x_{pt}}{\sqrt{\sigma_{pt}^2 + u\left(x_{pt}\right)^2}}$$

The interpretation of the z and z' score values follow the criteria defined in ISO 13528 [4]:

$|z \text{ or } z'| \leq 2$: **Satisfactory**
$2 < |z \text{ or } z'| < 3$: **Questionable**
$|z \text{ or } z'| \geq 3$: **Unsatisfactory**

The z or z' score results are presented in tables and graphical charts for each laboratory and each day of the PT, as shown in Annex 1.
In section 6.3 a graphical overview of z and z' score evaluation is reported. Performance thresholds are indicated with green and red lines. For indicators between the green lines the results are satisfactory, between the green and red lines they are questionable and beyond the red lines they are unsatisfactory.

6.2.2. En score

In addition to the z or z' score, the En-score was also evaluated. This metric compares the difference between a participant's result and the assigned value, normalized by the square root of the quadratic sum of the expanded uncertainties of both the participant's measurement and the assigned value. It is calculated according to ISO 13528 [4] as:

Equation 8

$$E_n = \frac{x_{lab} - x_{pt}}{\sqrt{U(x_{lab})^2 + U\left(x_{pt}\right)^2}}$$

Where:
-x_{pt} = assigned value
-x_{lab} = laboratory's value
- $U(x_{lab})$ = expanded uncertainty of the participant's value
- $U\left(x_{pt}\right)$ = expanded uncertainty of the assigned value
The En score serves as a critical performance indicator in proficiency testing, quantifying the agreement between a laboratory's results and the reference value while accounting for measurement uncertainties.
A good performance is indicated by $|En| < 1$, while values of $|En| \geq 1$ suggest either a need to review the uncertainty estimates, or an erroneous measurement result.
In Annex 1, participant-submitted data and all En-score values are reported for each participant and for each sampling day.

6.2.2.1. Uncertainty Analysis for PM_{10} and $PM_{2.5}$

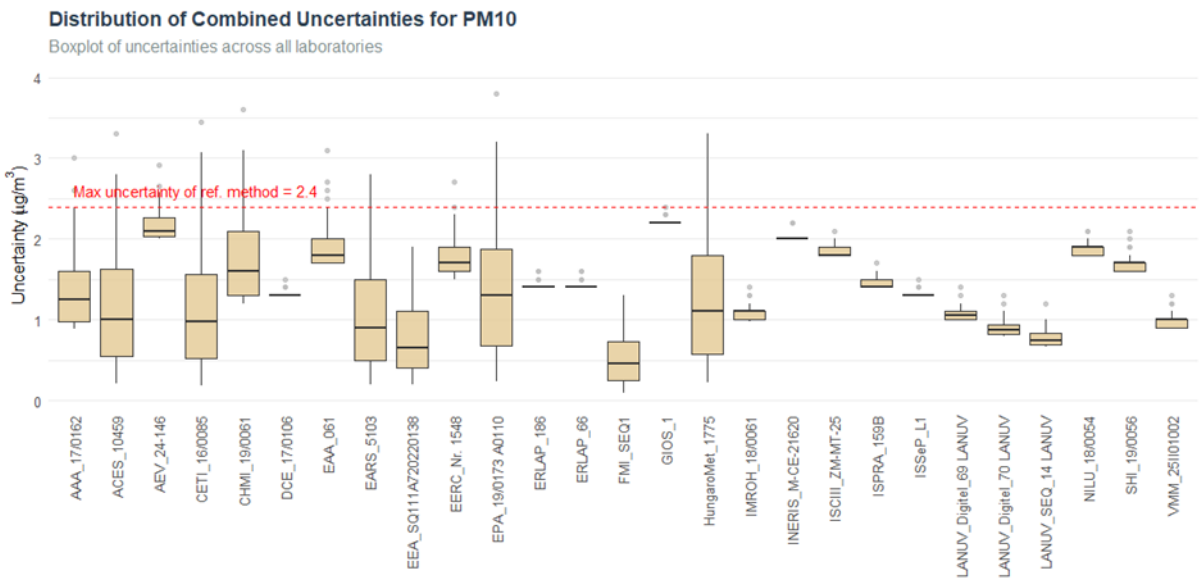
En score reliability fundamentally depends on the accurate estimation of the participant's measurement uncertainty.
However, incorrect uncertainty estimates introduce critical limitations: they may lead to erroneous pass/fail conclusions, compromise interlaboratory comparability, and distort proficiency assessment. This underscores why rigorous uncertainty evaluation is prerequisite for meaningful En score interpretation. All

participant laboratories reported their uncertainties that were compared against the reference method's maximum permitted uncertainty (σ_{pt}) as defined in EN 12341 [2]. This comparison served two critical quality control functions:

a. Metrological validation
   - Identify laboratories reporting a too large uncertainty ($u_{lab} \gg \sigma_{pt}$)
   - Flag potential underestimations ($u_{lab} \ll \sigma_{pt}$) that could indicate incomplete uncertainty budgets

b. Performance assessment integrity
   - Ensured En scores reflect true measurement capability.
   - Maintained interlaboratory comparability by enforcing consistent uncertainty standards

Figure 9. PM_{10} distribution of combined uncertainties as reported by participants

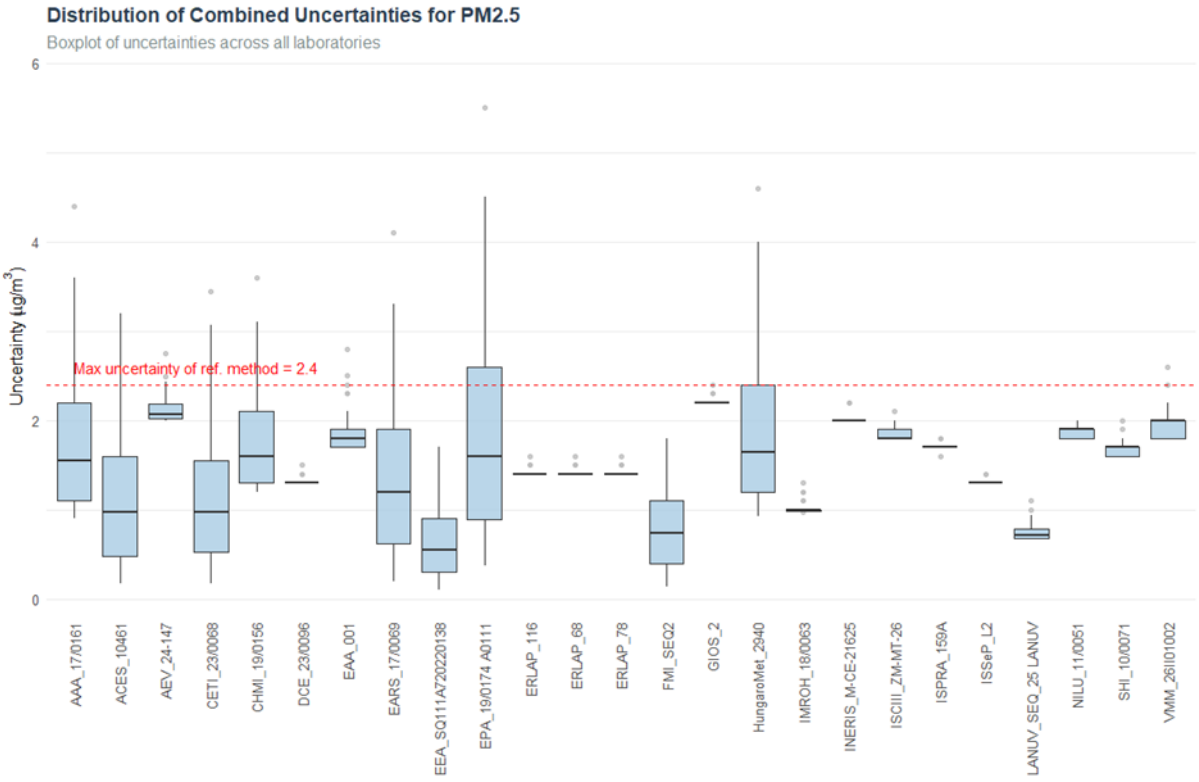


Source: JRC 2025

Each box represents the combined measurement uncertainty distribution for a given laboratory over the series of test samples, highlighting intra-laboratory variability. A comparative analysis of the boxplots shows the inter-laboratory variability.

The dashed line at 2.4 µg/m³ marks the maximum uncertainty derived from EN 12341 [2], serving as a benchmark for compliance assessment. Laboratories exceeding this threshold may require further investigation of their uncertainty estimation or measurement protocols.

Figure 10. $PM_{2.5}$ distribution of combined uncertainties as reported by participants



Source: JRC 2025

6.2.3. Absolute difference and percentage difference

The absolute difference (D) (Equation 9) is straightforward to calculate and understand. It simply measures the difference between the participant's result and the assigned value without considering the magnitude of the values involved and giving an easy method for identifying systematic biases.
The percent difference (D%) (Equation 10) normalizes the error relative to the magnitude of the measured value. It is effective in identifying proportional errors, where the error is a fixed percentage of the measured value.

Equation 9

$$D = x_{lab} - x_{pt}$$

Equation 10

$$D\% = \frac{x_{lab} - x_{pt}}{x_{pt}} \times 100$$

Where:
x_{pt} = assigned value
x_{lab} = laboratory's value

In Annex 1 for each laboratory the differences D of results are compared to the robustness criterion.

Equation 11

$$\left|x_{lab} - x_{pt}\right| \leq 2\sqrt{u^2(x_{lab}) + u^2(x_{pt})}$$

The dots in the graphs of the Differences represent the $|x_{lab}\text{-}x_{pt}| \leq 2\sqrt{u^2(x_{lab}) + u^2(x_{pt})}$ and the dotted red lines represent the second part of equation $2\sqrt{u^2(x_{lab}) + u^2(x_{pt})}$ expressed in µg/m³ and D% is compared with a criterion based on fitness for purpose or expected performance (DQO).

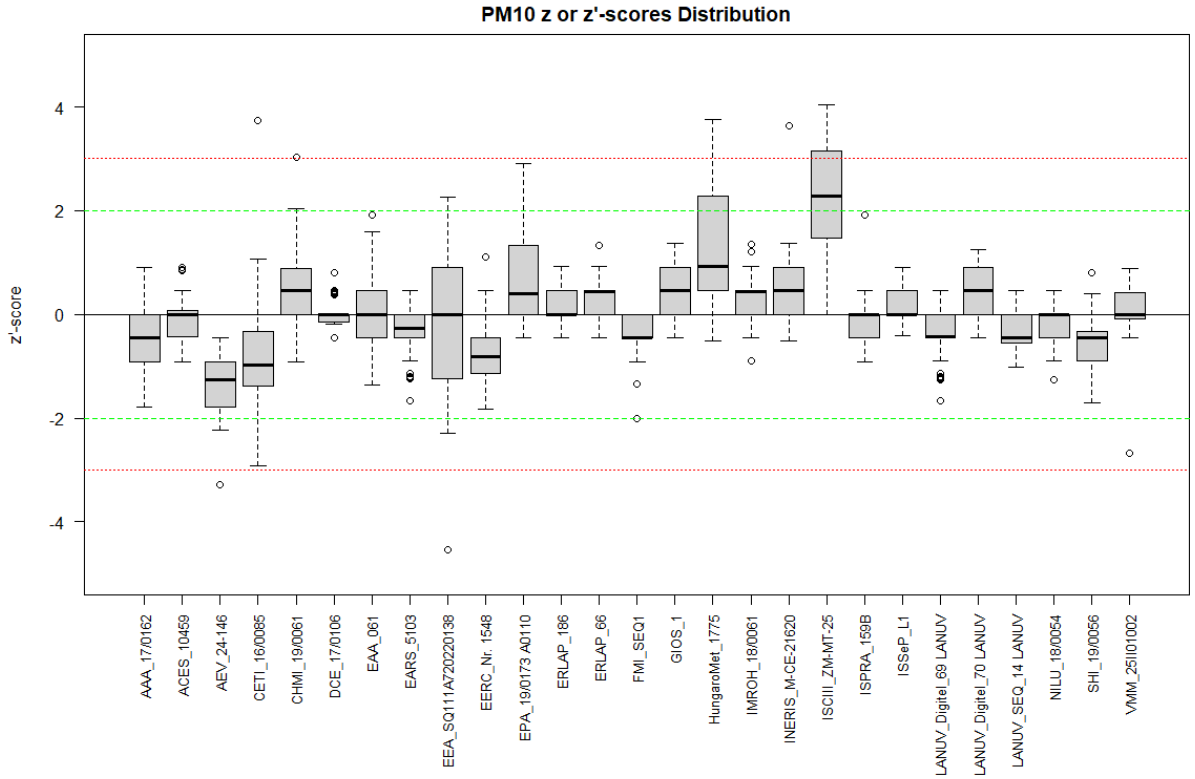
These two indicators have the advantage to be a simple way to assess the absolute (D) or relative (D%) accuracy of measurements and to identify systematic biases or consistent differences from the assigned values.

6.3. Performance assessment

6.3.1. PM_{10} z or z' scores

Figure 11 presents a box plot summarizing the distribution of PM_{10} z or z' score values for each participant. The boxes display the median, interquartile range, and potential outliers in the dataset, providing a clear visual overview of participant's performance.

Figure 11. PM_{10} z or z' scores results



Source: JRC 2025

The box plot is a valuable tool for quickly assessing the spread and central tendency of z or z' scores, as well as identifying participants whose results deviate significantly from the expected range.

Table 7 presents the percentage of satisfactory, questionable and unsatisfactory PM_{10} results. Participant's performance was generally good, with 93% of the results found to be satisfactory.

Table 7. PM_{10} z or z' score Analysis Results of PT

Assessment	Count	Percentage
Satisfactory (|z or z'| ≤ 2)	1,053	92.9%
Questionable (2 < |z or z'| < 3)	31	2.7%
Unsatisfactory (|z or z'| ≥ 3)	25	2.2%
Not reported Data	25	2.2%

Source: JRC 2025

According to document N37 [7], any National Reference Laboratory that achieves less than 80% satisfactory results is required to conduct a root cause analysis of these outcomes. Following this investigation, the NRL must submit a comprehensive report to the Joint Research Centre describing the corrective actions planned to address the issues and improve future performance.

Table 8 provides a summary of the z and z' score unsatisfactory and questionable results for each laboratory.

Table 8. PM10 not satisfactory results by laboratories.

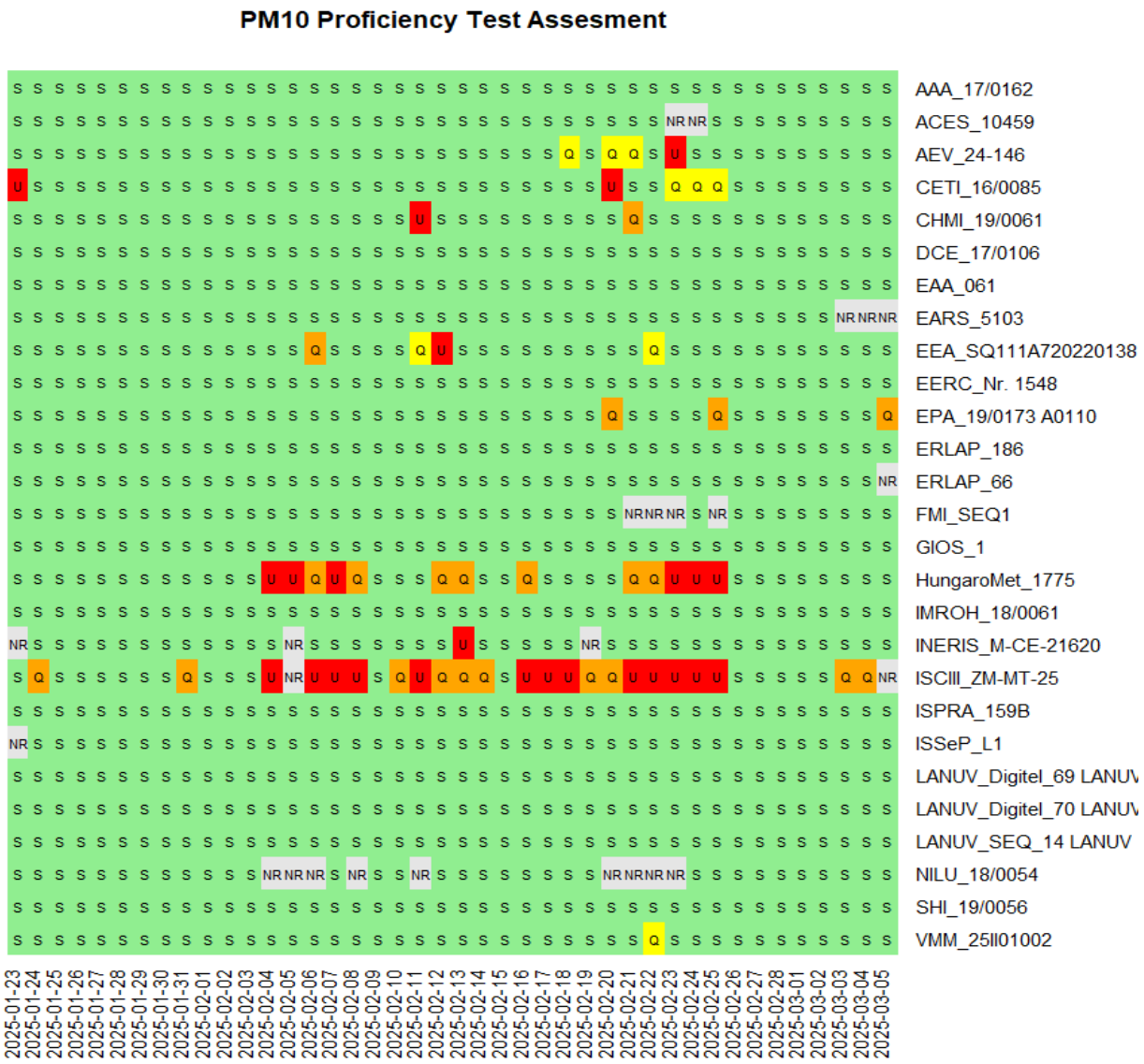
PM_{10} z and z' score not satisfactory results summary				
Laboratory	**Questionable (Q)**	**Unsatisfactory (U)**	**Not satisfactory (Q+U)**	**% Not satisfactory (Q+U)**
ISCIII_ZM-MT-25	10	13	23	54.8%
HungaroMet_1775	7	6	13	31%
CETI_16/0085	3	2	5	11.9%
AEV_24-146	3	1	4	9.5%
EEA_SQ111A720220138	3	1	4	9.5%
EPA_19/0173 A0110	3	0	3	7.1%
CHMI_19/0061	1	1	2	4.8%
INERIS_M-CE-21620	0	1	1	2.4%
VMM_25II01002	1	0	1	2.4%

Source: JRC 2025

Figure 12 presents a comprehensive matrix visualization of z or z' score evaluations for PM_{10} measurements across all participating laboratories. The matrix includes:

- X-axis: Sampling days
- Y-axis: Participant laboratories
- Colour coding:
    - Green: S (Satisfactory)
    - Yellow: Q (Questionable, underestimate)
    - Orange: Q (Questionable, overestimate)
    - Red: U (Unsatisfactory)
    - Grey: NR (Not reported data)

Figure 12. PM_{10} z or z' scores matrix



Source: JRC 2025

In the following Table 9 is reported a detailed summary of the unsatisfactory and questionable results identified for these performance parameters.

Table 9. PM_{10} questionable and unsatisfactory results for z and z' score

Lab	Date	xpt	xlab	Score	Score Type	Assessment
AEV_24-146	2025-02-18	43	38	-2.23	z score	Questionable
AEV_24-146	2025-02-20	53	48	-2.08	z' score	Questionable
AEV_24-146	2025-02-21	61	56	-2.04	z' score	Questionable
AEV_24-146	2025-02-23	54	46	-3.28	z' score	Unsatisfactory
CETI_16/0085	2025-01-23	15	23	3.73	z score	Unsatisfactory
CETI_16/0085	2025-02-20	53	77	9.83	z' score	Unsatisfactory
CETI_16/0085	2025-02-23	54	48	-2.56	z' score	Questionable
CETI_16/0085	2025-02-24	57	51	-2.46	z' score	Questionable
CETI_16/0085	2025-02-25	50	43	-2.93	z' score	Questionable
CHMI_19/0061	2025-02-11	32	39	3.02	z' score	Unsatisfactory
CHMI_19/0061	2025-02-21	61	66	2.04	z' score	Questionable
EEA_SQ111A720220138	2025-02-06	34	39	2.25	z score	Questionable
EEA_SQ111A720220138	2025-02-11	32	27	-2.16	z' score	Questionable

Lab	Date	xpt	xlab	Score	Score Type	Assessment
EEA_SQ111A720220138	2025-02-12	26	16	-4.55	z score	Unsatisfactory
EEA_SQ111A720220138	2025-02-22	73	67	-2.29	z' score	Questionable
EPA_19/0173 A0110	2025-02-20	53	60	2.91	z' score	Questionable
EPA_19/0173 A0110	2025-02-25	50	55	2.09	z' score	Questionable
EPA_19/0173 A0110	2025-03-05	27	32	2.27	z score	Questionable
HungaroMet_1775	2025-02-04	36	43	3.15	z score	Unsatisfactory
HungaroMet_1775	2025-02-05	36	43	3.15	z score	Unsatisfactory
HungaroMet_1775	2025-02-06	34	40	2.70	z score	Questionable
HungaroMet_1775	2025-02-07	37	44	3.14	z score	Unsatisfactory
HungaroMet_1775	2025-02-08	32	37	2.26	z score	Questionable
HungaroMet_1775	2025-02-12	26	31	2.27	z score	Questionable
HungaroMet_1775	2025-02-13	27	32	2.27	z score	Questionable
HungaroMet_1775	2025-02-16	37	43	2.70	z score	Questionable
HungaroMet_1775	2025-02-21	61	66	2.04	z' score	Questionable
HungaroMet_1775	2025-02-22	73	79	2.29	z' score	Questionable
HungaroMet_1775	2025-02-23	54	62	3.28	z' score	Unsatisfactory
HungaroMet_1775	2025-02-24	57	66	3.60	z' score	Unsatisfactory
HungaroMet_1775	2025-02-25	50	59	3.76	z' score	Unsatisfactory
INERIS_M-CE-21620	2025-02-13	27	35	3.63	z score	Unsatisfactory
ISCIII_ZM-MT-25	2025-01-24	23	28	2.28	z score	Questionable
ISCIII_ZM-MT-25	2025-01-31	18	23	2.29	z score	Questionable
ISCIII_ZM-MT-25	2025-02-04	36	43	3.15	z score	Unsatisfactory
ISCIII_ZM-MT-25	2025-02-06	34	41	3.16	z score	Unsatisfactory
ISCIII_ZM-MT-25	2025-02-07	37	46	4.04	z score	Unsatisfactory
ISCIII_ZM-MT-25	2025-02-08	32	39	3.16	z score	Unsatisfactory
ISCIII_ZM-MT-25	2025-02-10	18	24	2.74	z score	Questionable
ISCIII_ZM-MT-25	2025-02-11	32	40	3.46	z' score	Unsatisfactory
ISCIII_ZM-MT-25	2025-02-12	26	32	2.73	z score	Questionable
ISCIII_ZM-MT-25	2025-02-13	27	33	2.72	z score	Questionable
ISCIII_ZM-MT-25	2025-02-14	12	17	2.29	z score	Questionable
ISCIII_ZM-MT-25	2025-02-16	37	44	3.14	z score	Unsatisfactory
ISCIII_ZM-MT-25	2025-02-17	40	48	3.58	z score	Unsatisfactory
ISCIII_ZM-MT-25	2025-02-18	43	50	3.12	z score	Unsatisfactory
ISCIII_ZM-MT-25	2025-02-19	44	49	2.22	z score	Questionable
ISCIII_ZM-MT-25	2025-02-20	53	59	2.49	z' score	Questionable
ISCIII_ZM-MT-25	2025-02-21	61	69	3.27	z' score	Unsatisfactory
ISCIII_ZM-MT-25	2025-02-22	73	83	3.82	z' score	Unsatisfactory
ISCIII_ZM-MT-25	2025-02-23	54	62	3.28	z' score	Unsatisfactory
ISCIII_ZM-MT-25	2025-02-24	57	66	3.60	z' score	Unsatisfactory
ISCIII_ZM-MT-25	2025-02-25	50	58	3.34	z' score	Unsatisfactory
ISCIII_ZM-MT-25	2025-03-03	21	26	2.28	z score	Questionable
ISCIII_ZM-MT-25	2025-03-04	26	31	2.27	z score	Questionable
VMM_25II01002	2025-02-22	73	66	-2.68	z' score	Questionable

Source: JRC 2025

6.3.2. $PM_{2.5}$ z or z' scores

Table 10, Figure 13 and

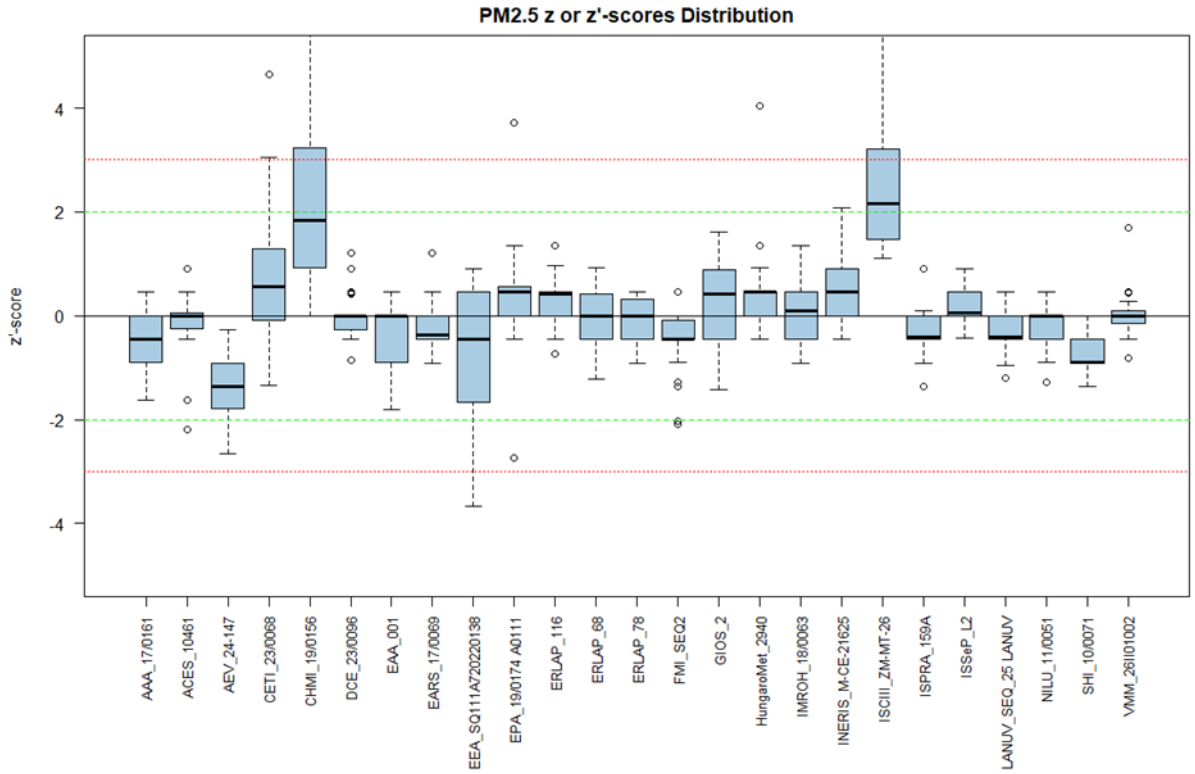
Figure **14** show the z or z' scores for $PM_{2.5}$ measurements similarly to PM_{10} z or z' score values.

Table 10. $PM_{2.5}$ z or z' score analysis results

Assessment	Count	Percentage
Satisfactory (|z or z'| ≤ 2)	965	91.9%
Questionable (2 < |z or z'| < 3)	35	3.3%
Unsatisfactory (|z or z'| ≥ 3)	31	3.0%
Not reported Data	19	1.8%

Source: JRC 2025

Figure 13. $PM_{2.5}$ z or z' scores results



Source: JRC 2025

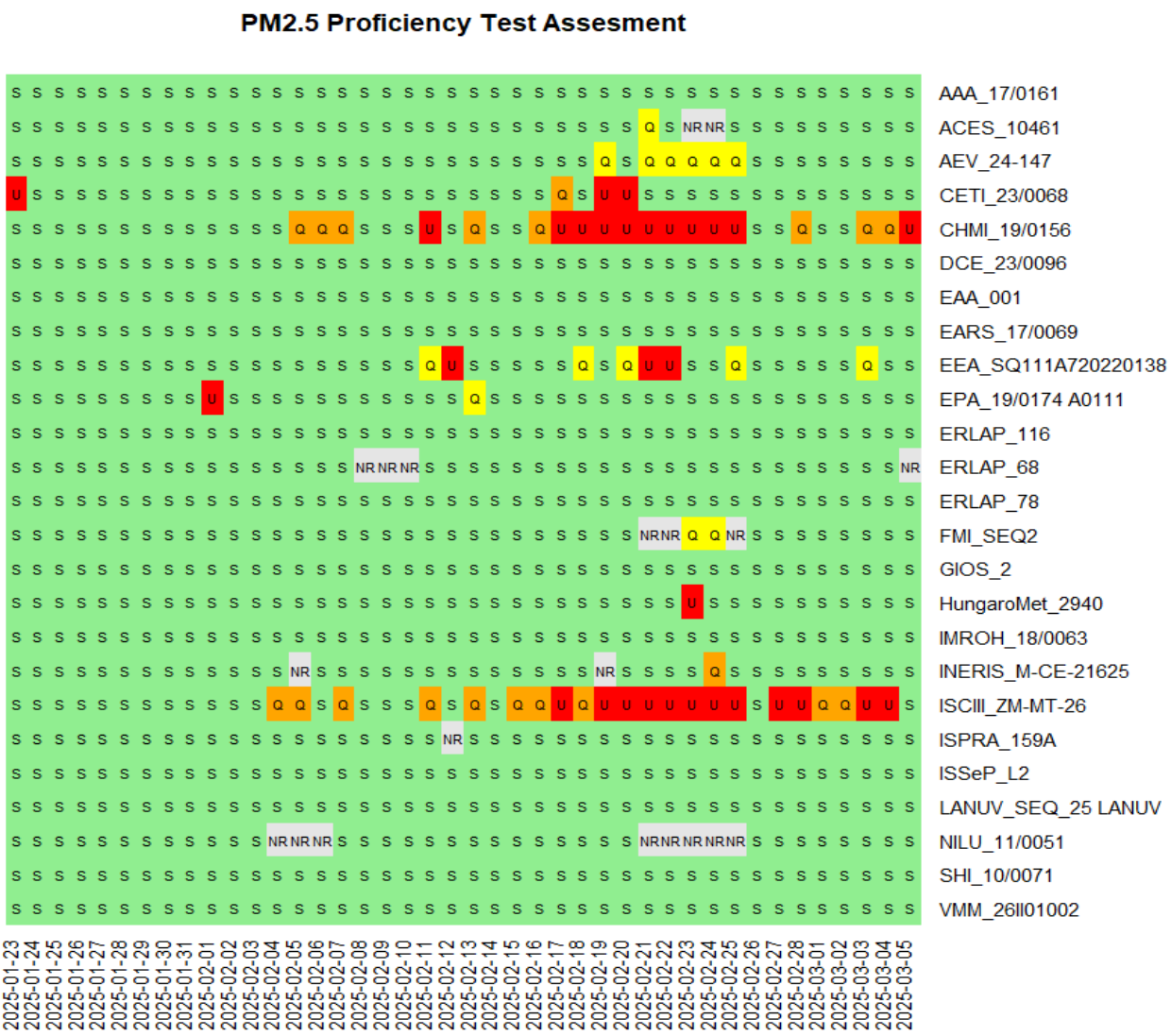
Table 11 presents a summary of z or z' score unsatisfactory and questionable results by laboratories. As state in the N37 document [7] the NRL's that obtains less than 80% of satisfactory results must analyse the possible causes and to send a report of corrective actions to the JRC.

Table 11. PM_{25} Not satisfactory results by laboratories for z and z' score.

PM2.5 z and z' score not satisfactory results summary				
Laboratory	**Questionable (Q)**	**Unsatisfactory (U)**	**Not Satisfactory (Q+U)**	**% Not satisfactory (Q+U)**
ISCIII_ZM-MT-26	10	12	22	52.4%
CHMI_19/0156	8	11	19	45.2%
EEA_SQ111A720220138	5	3	8	19.0%
AEV_24-147	6	0	6	14.3%
CETI_23/0068	1	3	4	9.5%
EPA_19/0174 A0111	1	1	2	4.8%
FMI_SEQ2	2	0	2	4.8%
ACES_10461	1	0	1	2.4%
HungaroMet_2940	0	1	1	2.4%
INERIS_M-CE-21625	1	0	1	2.4%

Source: JRC 2025

Figure 14. $PM_{2.5}$ z or z' scores matrix



Source: JRC 2025

In the following Table 12 is reported a summary of the questionable and unsatisfactory results identified for z and z' score performance indicators.

Table 12. $PM_{2.5}$ questionable and unsatisfactory results for z and z' score

Lab	Date	xpt	xlab	Score	Score Type	Assessment
ACES_10461	2025-02-21	54	49	-2.19	z' score	Questionable
AEV_24-147	2025-02-19	35	30	-2.25	z score	Questionable
AEV_24-147	2025-02-21	54	48	-2.63	z' score	Questionable
AEV_24-147	2025-02-22	67	61	-2.45	z' score	Questionable
AEV_24-147	2025-02-23	48	42	-2.43	z' score	Questionable
AEV_24-147	2025-02-24	51	45	-2.50	z' score	Questionable
AEV_24-147	2025-02-25	46	40	-2.66	z' score	Questionable
CETI_23/0068	2025-01-23	13	23	4.66	z score	Unsatisfactory
CETI_23/0068	2025-02-17	32	37	2.41	z score	Questionable
CETI_23/0068	2025-02-19	35	42	3.06	z score	Unsatisfactory
CETI_23/0068	2025-02-20	44	77	14.53	z' score	Unsatisfactory
CHMI_19/0156	2025-02-05	31	37	2.71	z score	Questionable
CHMI_19/0156	2025-02-06	30	35	2.26	z score	Questionable
CHMI_19/0156	2025-02-07	32	38	2.71	z score	Questionable
CHMI_19/0156	2025-02-11	28	39	4.99	z' score	Unsatisfactory
CHMI_19/0156	2025-02-13	23	28	2.28	z score	Questionable
CHMI_19/0156	2025-02-16	33	39	2.71	z score	Questionable
CHMI_19/0156	2025-02-17	32	42	4.52	z score	Unsatisfactory
CHMI_19/0156	2025-02-18	36	46	4.26	z score	Unsatisfactory
CHMI_19/0156	2025-02-19	35	46	4.95	z score	Unsatisfactory
CHMI_19/0156	2025-02-20	44	57	5.78	z' score	Unsatisfactory
CHMI_19/0156	2025-02-21	54	66	5.25	z' score	Unsatisfactory
CHMI_19/0156	2025-02-22	67	77	4.08	z' score	Unsatisfactory
CHMI_19/0156	2025-02-23	48	56	3.24	z' score	Unsatisfactory
CHMI_19/0156	2025-02-24	51	61	4.17	z' score	Unsatisfactory
CHMI_19/0156	2025-02-25	46	54	3.55	z' score	Unsatisfactory
CHMI_19/0156	2025-02-28	20	25	2.28	z score	Questionable
CHMI_19/0156	2025-03-03	17	22	2.29	z score	Questionable
CHMI_19/0156	2025-03-04	21	27	2.74	z score	Questionable
CHMI_19/0156	2025-03-05	21	29	3.65	z score	Unsatisfactory
EEA_SQ111A720220138	2025-02-11	28	23	-2.27	z' score	Questionable
EEA_SQ111A720220138	2025-02-12	22	14	-3.65	z score	Unsatisfactory
EEA_SQ111A720220138	2025-02-18	36	31	-2.13	z score	Questionable
EEA_SQ111A720220138	2025-02-20	44	38	-2.67	z' score	Questionable
EEA_SQ111A720220138	2025-02-21	54	47	-3.06	z' score	Unsatisfactory
EEA_SQ111A720220138	2025-02-22	67	58	-3.67	z' score	Unsatisfactory
EEA_SQ111A720220138	2025-02-25	46	40	-2.66	z' score	Questionable
EEA_SQ111A720220138	2025-03-03	17	11	-2.75	z score	Questionable
EPA_19/0174 A0111	2025-02-01	8.9	17	3.72	z score	Unsatisfactory
EPA_19/0174 A0111	2025-02-13	23	17	-2.73	z score	Questionable
FMI_SEQ2	2025-02-23	48	43	-2.03	z' score	Questionable
FMI_SEQ2	2025-02-24	51	46	-2.09	z' score	Questionable
HungaroMet_2940	2025-02-23	48	58	4.05	z' score	Unsatisfactory
INERIS_M-CE-21625	2025-02-24	51	56	2.09	z' score	Questionable

Lab	Date	xpt	xlab	Score	Score Type	Assessment
ISCIII_ZM-MT-26	2025-02-04	31	37	2.71	z score	Questionable
ISCIII_ZM-MT-26	2025-02-05	31	37	2.71	z score	Questionable
ISCIII_ZM-MT-26	2025-02-07	32	37	2.26	z score	Questionable
ISCIII_ZM-MT-26	2025-02-11	28	34	2.72	z' score	Questionable
ISCIII_ZM-MT-26	2025-02-13	23	28	2.28	z score	Questionable
ISCIII_ZM-MT-26	2025-02-15	15	20	2.29	z score	Questionable
ISCIII_ZM-MT-26	2025-02-16	33	39	2.71	z score	Questionable
ISCIII_ZM-MT-26	2025-02-17	32	39	3.16	z score	Unsatisfactory
ISCIII_ZM-MT-26	2025-02-18	36	42	2.55	z score	Questionable
ISCIII_ZM-MT-26	2025-02-19	35	44	4.05	z score	Unsatisfactory
ISCIII_ZM-MT-26	2025-02-20	44	59	6.67	z' score	Unsatisfactory
ISCIII_ZM-MT-26	2025-02-21	54	69	6.57	z' score	Unsatisfactory
ISCIII_ZM-MT-26	2025-02-22	67	83	6.53	z' score	Unsatisfactory
ISCIII_ZM-MT-26	2025-02-23	48	62	5.67	z' score	Unsatisfactory
ISCIII_ZM-MT-26	2025-02-24	51	66	6.26	z' score	Unsatisfactory
ISCIII_ZM-MT-26	2025-02-25	46	58	5.32	z' score	Unsatisfactory
ISCIII_ZM-MT-26	2025-02-27	12	19	3.21	z score	Unsatisfactory
ISCIII_ZM-MT-26	2025-02-28	20	28	3.65	z score	Unsatisfactory
ISCIII_ZM-MT-26	2025-03-01	10	15	2.30	z score	Questionable
ISCIII_ZM-MT-26	2025-03-02	9.5	14	2.07	z score	Questionable
ISCIII_ZM-MT-26	2025-03-03	17	26	4.12	z score	Unsatisfactory
ISCIII_ZM-MT-26	2025-03-04	21	31	4.56	z score	Unsatisfactory

Source: JRC 2025

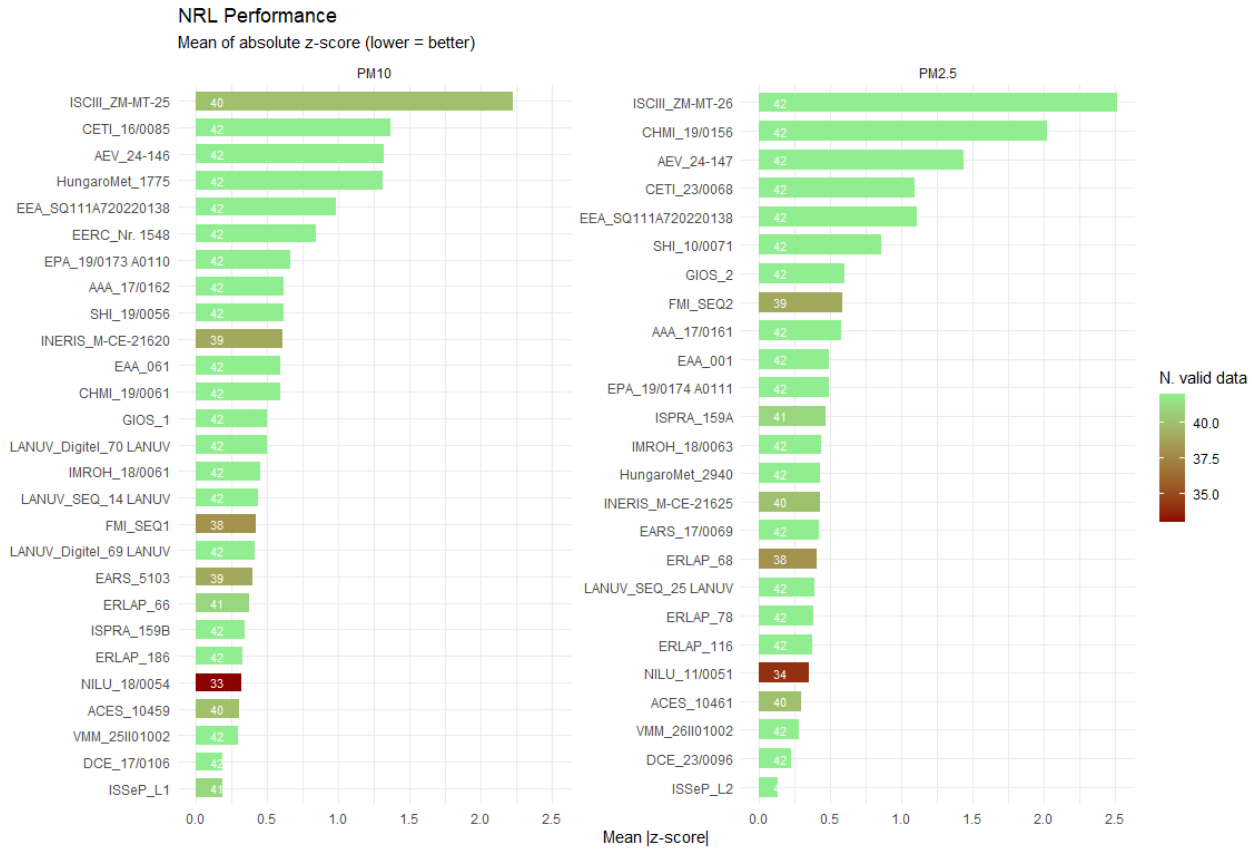
6.3.3. Mean absolute z score: overall performance assessment

The ranking presented in Figure 15 is based on the z and z' scores mean absolute for PM_{10} and $PM_{2.5}$ measurements, providing a comparative assessment of laboratory performance. The length of each bar represents the average deviation of a laboratory's results from the assigned reference values—lower values indicate better performance, as they reflect closer agreement with the true or consensus values. By normalizing for missing data, the ranking ensures fairness, allowing labs with incomplete records to be evaluated without bias.

The colour gradient (red to green) further refines the interpretation by indicating the number of valid observations per lab. This dual metric—combining both the magnitude of deviation (bar length) and data completeness (colour)—allows for a comprehensive evaluation. Essentially, a lab ranking highly (short bar, green colour) demonstrates both precision (consistently close to reference values) and reliability (sufficient data), while a poor performer (tall bar, red colour) may have larger deviations and/or limited data, warranting further investigation into measurement accuracy or reporting consistency.

Thus, this indicator not only ranks labs by how closely they approximate the assigned values on average but also contextualizes their performance based on data availability, ensuring a balanced and informative comparison.

Figure 15. Overall laboratories performance evaluation

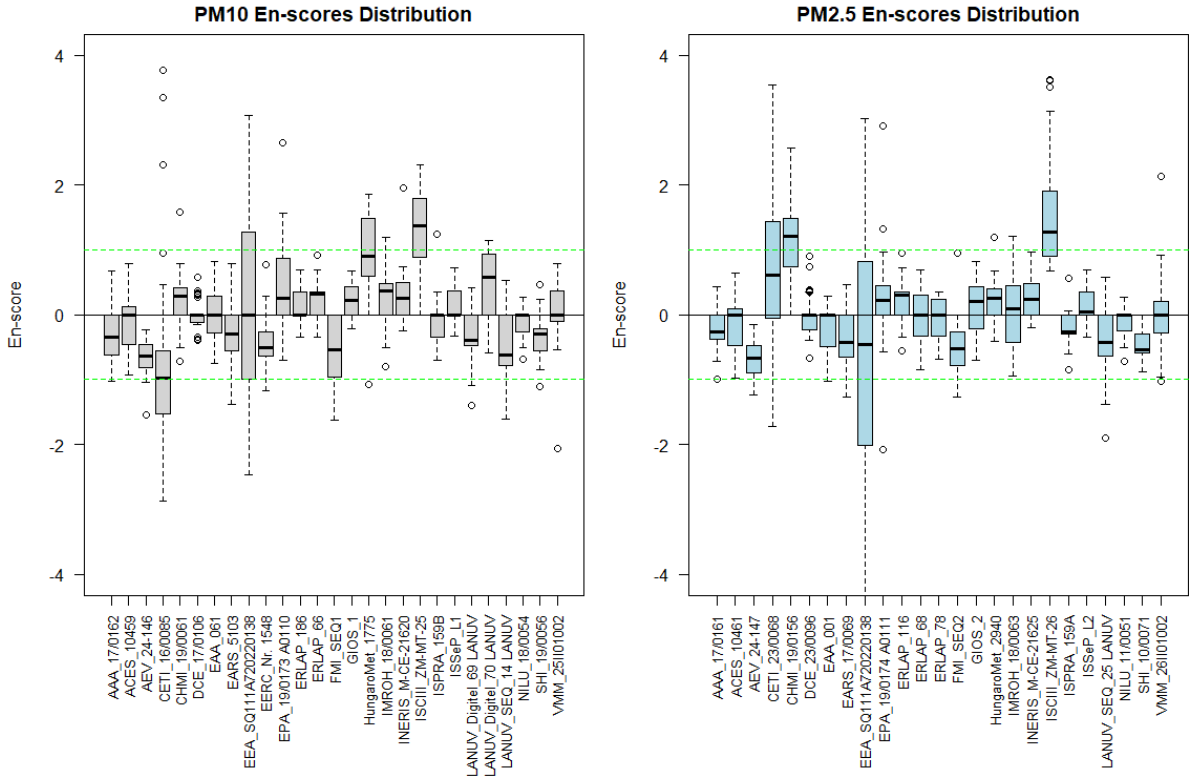


Source: JRC 2025

6.3.4. PM_{10} and $PM_{2.5}$ En scores

Next boxplots illustrate the distribution of the PM_{10} and $PM_{2.5}$ En-score values for each participant. The good performance indication based on En scores is defined by the area between the two green horizontal lines that correspond to En score values of 1 and -1.

Figure 16. PM_{10} and $PM_{2.5}$ En-scores boxplots



Source: JRC 2025

Based on the En score evaluation reported in the following tables, it is evident that the overall results are predominantly positive. A significant majority of the data points, around 85% for both PM_{10} and $PM_{2.5}$, fall within the "Satisfactory" category, giving the indication that most of the results reported are accurate. However, it is crucial to acknowledge that a notable number of participants have "Unsatisfactory" results. For these laboratories, it is essential to investigate the reasons behind their performance. Poor performance in this context can be attributed to either a significant deviation from the assigned value or an incorrect calculation of uncertainty.

Table 13. PM_{10} overview of En score evaluation

Category	Count	Percentage
Satisfactory (|En| < 1)	964	85%
Unsatisfactory (|En| ≥ 1)	145	12.8%
Not reported Data	25	2.2%

Source: JRC 2025

Table 14. $PM_{2.5}$ overview of En score evaluation

Category	Count	Percentage
Satisfactory (|En| < 1)	902	85.9%
Unsatisfactory (|En| ≥ 1)	129	12.3%
Not reported Data	19	1.8%

Source: JRC 2025

Table 15. PM_{10} participants En score unsatisfactory results

Lab	Unsatisfactory	% Unsatisfactory
ISCIII_ZM-MT-25	29	69.0
CETI_16/0085	23	54.8
EEA_SQ111A720220138	23	54.8
HungaroMet_1775	20	47.6
EPA_19/0173 A0110	10	23.8
FMI_SEQ1	8	19.0
LANUV_Digitel_70 LANUV	7	16.7
LANUV_SEQ_14 LANUV	7	16.7
LANUV_Digitel_69 LANUV	4	9.5
EERC_Nr. 1548	3	7.1
AEV_24-146	2	4.8
EARS_5103	2	4.8
AAA_17/0162	1	2.4
CHMI_19/0061	1	2.4
IMROH_18/0061	1	2.4
INERIS_M-CE-21620	1	2.4
ISPRA_159B	1	2.4
SHI_19/0056	1	2.4
VMM_25II01002	1	2.4

Source: JRC 2025

Table 16. $PM_{2.5}$ participants En score unsatisfactory results

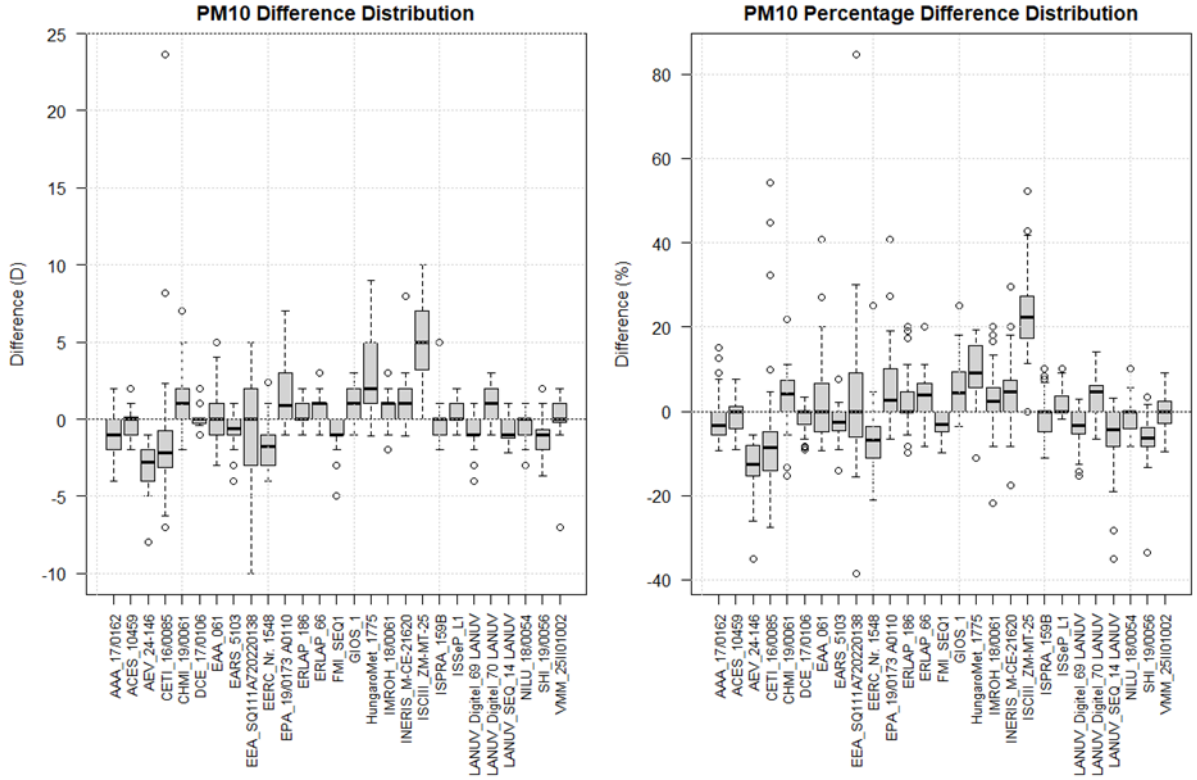
Lab	Unsatisfactory	% Unsatisfactory
ISCIII_ZM-MT-26	30	71.4
EEA_SQ111A720220138	29	69.0
CHMI_19/0156	26	61.9
CETI_23/0068	18	42.9
AEV_24-147	6	14.3
LANUV_SEQ_25 LANUV	6	14.3
FMI_SEQ2	4	9.5
EPA_19/0174 A0111	3	7.1
EARS_17/0069	2	4.8
VMM_26II01002	2	4.8
EAA_001	1	2.4
HungaroMet_2940	1	2.4
IMROH_18/0063	1	2.4

Source: JRC 2025

6.3.5. Deviation estimation: difference (D) and percent difference (D%)

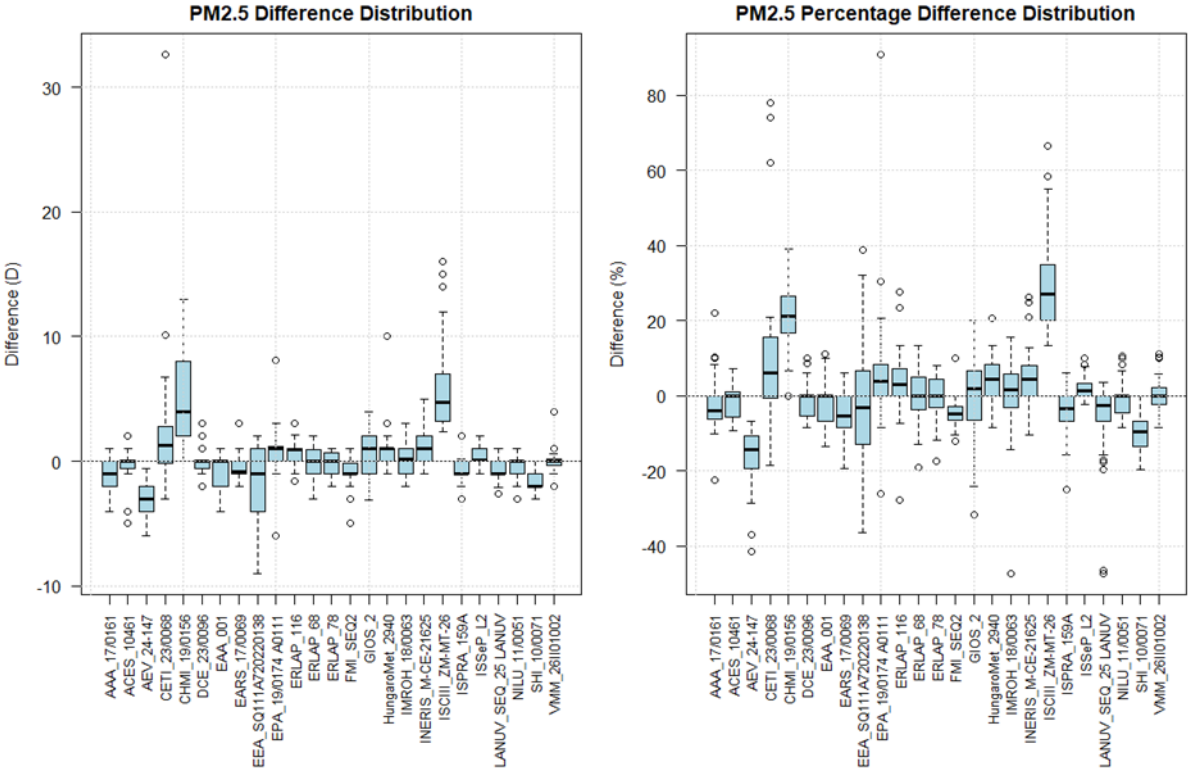
To conduct a preliminary analysis, the indicator “D” or “D%” in Figure 17 can help. This figure illustrates the difference between each laboratory's results and the assigned value, providing a clear visual representation of where the discrepancies lie. The difference, denoted as Di where i=(1,2,...42 day), can be expressed in the same unit as the assigned value (D_i) or as a percentage (D_i%). In the following figures the distributions of the differences for each participant are reported.

Figure 17. PM_{10} Difference (D) and Percentage Difference (D%) Boxplots



Source: JRC 2025

Figure 18. $PM_{2.5}$ Difference (D) and Percentage Difference (D%) Boxplots



Source: JRC 2025

The absolute difference (D) and the percentage difference (D%) between each participant's result and the assigned value are reported in **Annex 1**. These indicators confirmed the deviations from the assigned values identified with z and z' score.

7. Conclusions

The 2025 Proficiency Testing scheme showed strong overall compliance among participating laboratories, with over 90% of PM_{10} and $PM_{2.5}$ measurements rated as satisfactory based on z/z' score evaluation. However, some critical issues were identified:

- **PM_{10} z and z' score:** 92.9% of results fell within satisfactory thresholds (|z or z'| ≤ 2), while 2.7% were questionable and 2.2% unsatisfactory. Two laboratories exhibited relevant and systematic overestimation, with deviations up to +24 µg/m³ from assigned values.
- **$PM_{2.5}$ z and z' score:** Participant's performance was similar to PM_{10} (91.9% satisfactory results), but three participants reported statistically significant deviations from the assigned value, particularly on high-concentration days.
- **En score** confirmed that most laboratories provided accurate uncertainty estimates, though a few obtained |En| > 1, indicating a potential under or overestimation.
- **D and D%** are calculated in a manner similar to the z and z' score. As a result, their graphical visualizations tend to look quite alike. These parameters serve a straightforward method to evaluate the magnitude of the difference between measured values and a reference value. By examining the boxplots of D and D%, can be easily identified laboratories with a consistent variation with the expected value. These parameters are confirming the assessment results obtained with z and z' score.
- **Technical Issues**: Two laboratories, using PTFE filters, achieved lower data capture on PM_{10} rates ranging from 79% to 90%. This reduction in efficiency was probably due to the high humidity and elevated PM concentration in the Po Valley's which led to clogging of the filters.

Homogeneity of the sampling site was confirmed through the deployment of four samplers strategically placed at the corners of the site. Of these, two samplers measured PM_{10} concentrations and the other two measured $PM_{2.5}$ concentrations, with each type of sampler positioned at opposite corners. The homogeneity of the sampling site was confirmed with residuals consistently measured below 0.71 µg/m³ way below the limit of 2 µg/m³ required by the method [2].

While these results highlight the overall robustness of European NRL performances, they also underscore the need for improved quality assurance plans by participants with lower performance results. They shall investigate the root causes of this bias, which could range from calibration issues to problems during filter conditioning and weighing. Further investigation is also necessary for the participants who submitted elevated field blank values (> 60 µg for low volume sampler).

To enhance data quality, we recommend:

- optimizing conditioning procedures
- using at minimum one field blank per batch of samples to monitor contamination,
- applying all QA/QC controls required by EN 12341 [2].

In order to avoid low data capture and missing results in case of filter clogging, it is advisable to set the instrument in a way to begin sampling immediately with the next filter to reach the minimum sampling time for a valid daily concentration (18hs).

References

1. *Directive (EU) 2024/2881 of the European Parliament and of the Council of 23 October 2024 on ambient air quality and cleaner air for Europe*
2. EN 12341:2023, *Ambient air - Standard gravimetric measurement method for the determination of the* PM_{10} *or* $PM_{2.5}$ *mass concentration of suspended particulate matter*
3. ISO 17025:2017, *General Requirements for the Competence of Testing and Calibration Laboratories*
4. ISO 13528:2022, *Statistical methods for use in proficiency testing by interlaboratory comparison*
5. ISO 5725-2:2019, *Accuracy (trueness and precision) of measurement methods and results – Part 2: Basic method for the determination of repeatability and reproducibility of a standard measurement method*
6. ISO/IEC 17043*, Conformity assessment - General requirements for the competence of proficiency testing providers.*
7. AQUILA POSITION PAPER N. 37, Protocol for intercomparison exercise. Organisation of intercomparison exercises for gaseous air pollution for EU national air quality reference laboratories and laboratories of the WHO EURO region, 2024

List of abbreviations and definitions

DQO	Data Quality Objective of the Air Quality European Directive
LV	Limit Value of the Air Quality European Directive
AQUILA	Network of National Air Quality Reference Laboratories
WHO-CC	World Health Organisation Collaboration Centre for Air Quality
PM_{10}	Particulate Matter in the size fraction ≤ 10 µm aerodynamic diameter
$PM_{2.5}$	Particulate Matter in the size fraction ≤ 2.5 µm aerodynamic diameter
PAH	Polycyclic Aromatic Hydrocarbons
ERLAP	European Reference Laboratory for Air Pollution
HVS	High Volume Sampler
LVS	Low Volume Sampler
PT	Proficiency Testing scheme
PTFE	Polytetrafluoroethylene
JRC	Joint Research Centre of the European Commission
EC	European Commission
ISO	International Organisation for Standardisation
Avg	Average
U	Combined uncertainty
U	Expanded Uncertainty (k=2)
R	Reproducibility
ILC	Inter-laboratory comparison exercise
UTC	Coordinated Universal Time
CEN	European Committee for Standardisation
NRL	National Reference Laboratory
PT-DAP	Data Acquisition Platform

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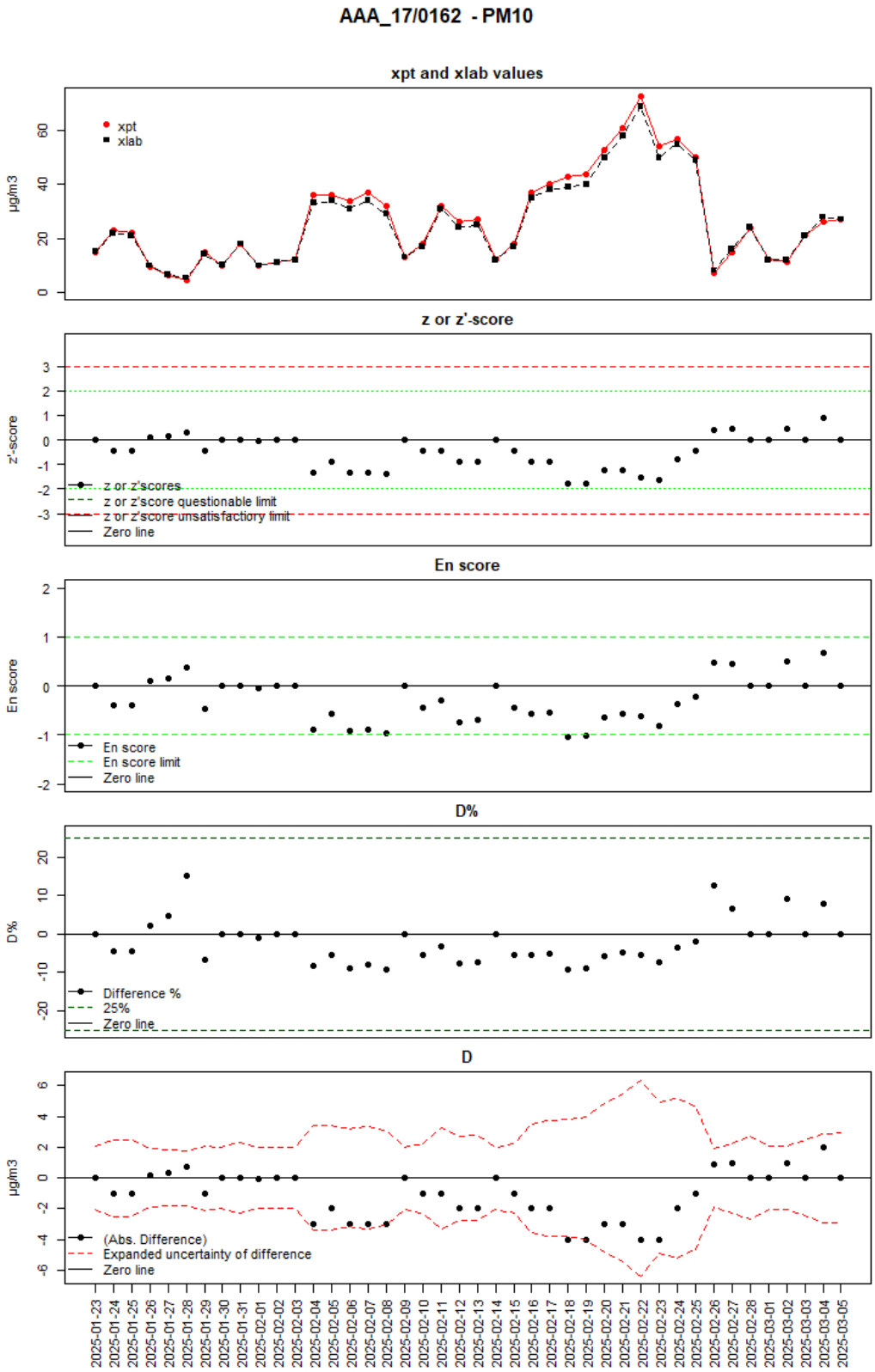
ANNEX 1: PM_{10} and $PM_{2.5}$ Proficiency Test Results

Table 17. AAA_17/0162: PM_{10} Results

AAA_17/0162								
PM_{10} data capture = 100								
Day	**xpt**	**xlab**	**Ulab**	**z or z'score**	**Score Type**	**En**	**D**	**D%**
2025-01-23	15	15	2.1	0.00	z score	0.00	0.0	0.00
2025-01-24	23	22	2.5	-0.46	z score	-0.39	-1.0	-4.35
2025-01-25	22	21	2.4	-0.46	z score	-0.40	-1.0	-4.55
2025-01-26	9.6	9.8	1.9	0.09	z score	0.10	0.2	2.08
2025-01-27	6.3	6.6	1.8	0.14	z score	0.16	0.3	4.76
2025-01-28	4.6	5.3	1.8	0.32	z score	0.38	0.7	15.22
2025-01-29	15	14	2.1	-0.46	z score	-0.46	-1.0	-6.67
2025-01-30	10	10	1.9	0.00	z score	0.00	0.0	0.00
2025-01-31	18	18	2.2	0.00	z score	0.00	0.0	0.00
2025-02-01	10	9.9	1.9	-0.05	z score	-0.05	-0.1	-1.00
2025-02-02	11	11	1.9	0.00	z score	0.00	0.0	0.00
2025-02-03	12	12	1.9	0.00	z score	0.00	0.0	0.00
2025-02-04	36	33	3.2	-1.35	z score	-0.88	-3.0	-8.33
2025-02-05	36	34	3.3	-0.90	z score	-0.58	-2.0	-5.56
2025-02-06	34	31	3.1	-1.35	z score	-0.92	-3.0	-8.82
2025-02-07	37	34	3.3	-1.35	z score	-0.88	-3.0	-8.11
2025-02-08	32	29	3.0	-1.36	z score	-0.96	-3.0	-9.38
2025-02-09	13	13	2.0	0.00	z score	0.00	0.0	0.00
2025-02-10	18	17	2.2	-0.46	z score	-0.44	-1.0	-5.56
2025-02-11	32	31	3.1	-0.43	z' score	-0.30	-1.0	-3.12
2025-02-12	26	24	2.6	-0.91	z score	-0.73	-2.0	-7.69
2025-02-13	27	25	2.7	-0.91	z score	-0.70	-2.0	-7.41
2025-02-14	12	12	2.0	0.00	z score	0.00	0.0	0.00
2025-02-15	18	17	2.2	-0.46	z score	-0.45	-1.0	-5.56
2025-02-16	37	35	3.4	-0.90	z score	-0.57	-2.0	-5.41
2025-02-17	40	38	3.6	-0.89	z score	-0.53	-2.0	-5.00
2025-02-18	43	39	3.7	-1.78	z score	-1.03	-4.0	-9.30
2025-02-19	44	40	3.8	-1.78	z score	-1.00	-4.0	-9.09
2025-02-20	53	50	4.5	-1.25	z' score	-0.63	-3.0	-5.66
2025-02-21	61	58	5.1	-1.23	z' score	-0.56	-3.0	-4.92
2025-02-22	73	69	6.0	-1.53	z' score	-0.63	-4.0	-5.48
2025-02-23	54	50	4.6	-1.64	z' score	-0.82	-4.0	-7.41
2025-02-24	57	55	4.9	-0.80	z' score	-0.38	-2.0	-3.51
2025-02-25	50	49	4.4	-0.42	z' score	-0.21	-1.0	-2.00
2025-02-26	7.1	8.0	1.8	0.41	z score	0.48	0.9	12.68
2025-02-27	15	16	2.1	0.46	z score	0.46	1.0	6.67
2025-02-28	24	24	2.6	0.00	z score	0.00	0.0	0.00
2025-03-01	12	12	2.0	0.00	z score	0.00	0.0	0.00
2025-03-02	11	12	1.9	0.46	z score	0.50	1.0	9.09
2025-03-03	21	21	2.4	0.00	z score	0.00	0.0	0.00
2025-03-04	26	28	2.9	0.91	z score	0.67	2.0	7.69
2025-03-05	27	27	2.8	0.00	z score	0.00	0.0	0.00

Source: JRC 2025

Figure 19. AAA_17/0162: PM_{10} Results



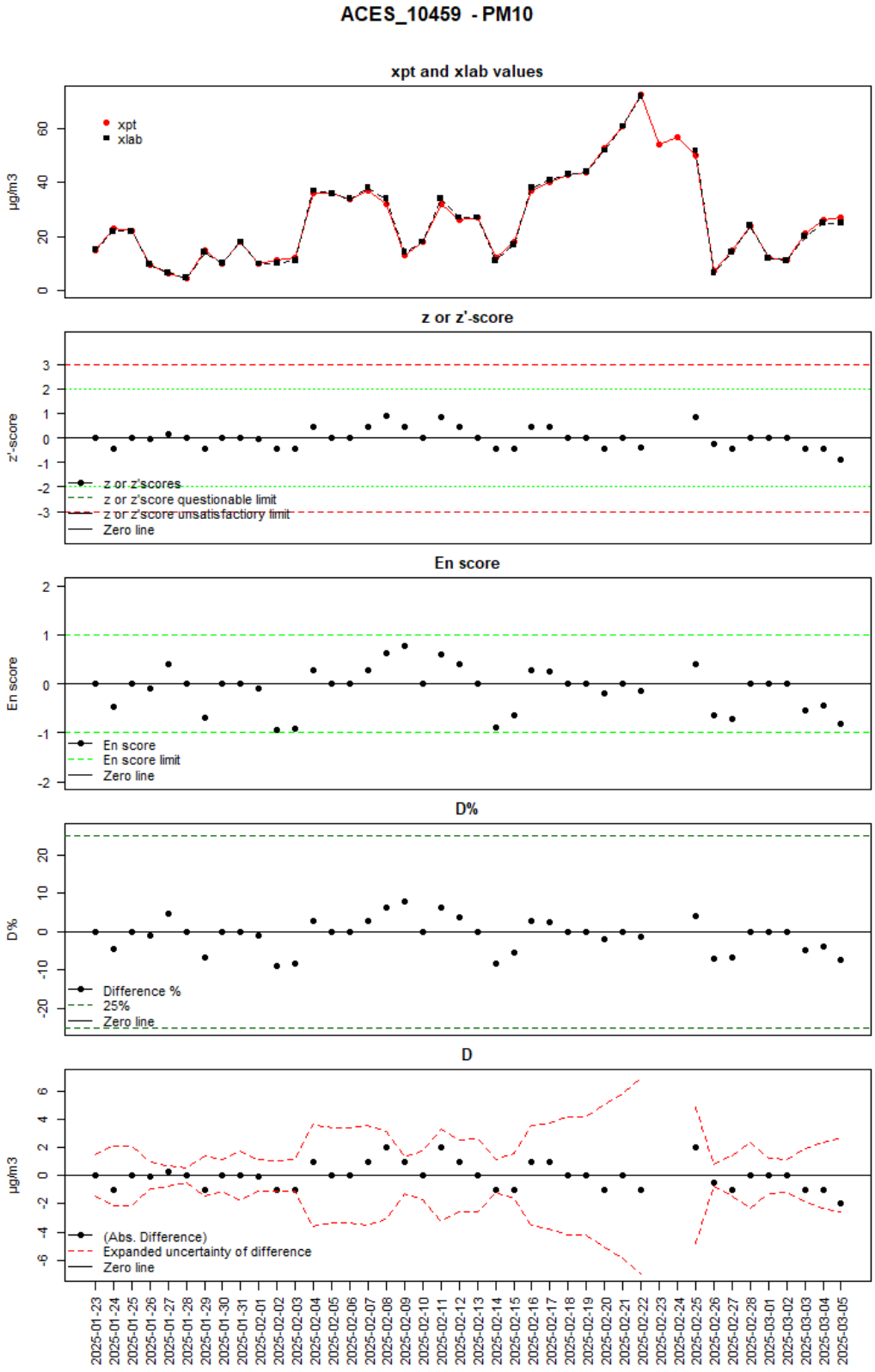
Source: JRC 2025

Table 18. ACES_10459: PM_{10} Results

ACES_10459								
PM_{10} data capture = 95								
Day	**xpt**	**xlab**	**Ulab**	**z or z'score**	**Score Type**	**En**	**D**	**D%**
2025-01-23	15	15	1.40	0.00	z score	0.00	0.0	0.00
2025-01-24	23	22	2.00	-0.46	z score	-0.47	-1.0	-4.35
2025-01-25	22	22	2.00	0.00	z score	0.00	0.0	0.00
2025-01-26	9.6	9.5	0.86	-0.05	z score	-0.11	-0.1	-1.04
2025-01-27	6.3	6.6	0.60	0.14	z score	0.40	0.3	4.76
2025-01-28	4.6	4.6	0.41	0.00	z score	0.00	0.0	0.00
2025-01-29	15	14	1.30	-0.46	z score	-0.70	-1.0	-6.67
2025-01-30	10	10	0.93	0.00	z score	0.00	0.0	0.00
2025-01-31	18	18	1.60	0.00	z score	0.00	0.0	0.00
2025-02-01	10	9.9	0.90	-0.05	z score	-0.09	-0.1	-1.00
2025-02-02	11	10	0.93	-0.46	z score	-0.93	-1.0	-9.09
2025-02-03	12	11	1.00	-0.46	z score	-0.92	-1.0	-8.33
2025-02-04	36	37	3.40	0.45	z score	0.28	1.0	2.78
2025-02-05	36	36	3.20	0.00	z score	0.00	0.0	0.00
2025-02-06	34	34	3.10	0.00	z score	0.00	0.0	0.00
2025-02-07	37	38	3.50	0.45	z score	0.28	1.0	2.70
2025-02-08	32	34	3.10	0.90	z score	0.62	2.0	6.25
2025-02-09	13	14	1.20	0.46	z score	0.78	1.0	7.69
2025-02-10	18	18	1.60	0.00	z score	0.00	0.0	0.00
2025-02-11	32	34	3.10	0.86	z' score	0.59	2.0	6.25
2025-02-12	26	27	2.40	0.45	z score	0.39	1.0	3.85
2025-02-13	27	27	2.50	0.00	z score	0.00	0.0	0.00
2025-02-14	12	11	1.00	-0.46	z score	-0.89	-1.0	-8.33
2025-02-15	18	17	1.50	-0.46	z score	-0.64	-1.0	-5.56
2025-02-16	37	38	3.40	0.45	z score	0.28	1.0	2.70
2025-02-17	40	41	3.70	0.45	z score	0.26	1.0	2.50
2025-02-18	43	43	3.90	0.00	z score	0.00	0.0	0.00
2025-02-19	44	44	3.90	0.00	z score	0.00	0.0	0.00
2025-02-20	53	52	4.70	-0.42	z' score	-0.20	-1.0	-1.89
2025-02-21	61	61	5.50	0.00	z' score	0.00	0.0	0.00
2025-02-22	73	72	6.50	-0.38	z' score	-0.15	-1.0	-1.37
2025-02-23	54				z' score			
2025-02-24	57				z' score			
2025-02-25	50	52	4.70	0.83	z' score	0.40	2.0	4.00
2025-02-26	7.1	6.6	0.59	-0.23	z score	-0.64	-0.5	-7.04
2025-02-27	15	14	1.30	-0.46	z score	-0.71	-1.0	-6.67
2025-02-28	24	24	2.10	0.00	z score	0.00	0.0	0.00
2025-03-01	12	12	1.10	0.00	z score	0.00	0.0	0.00
2025-03-02	11	11	1.00	0.00	z score	0.00	0.0	0.00
2025-03-03	21	20	1.80	-0.46	z score	-0.53	-1.0	-4.76
2025-03-04	26	25	2.20	-0.45	z score	-0.43	-1.0	-3.85
2025-03-05	27	25	2.30	-0.91	z score	-0.81	-2.0	-7.41

Source: JRC 2025

Figure 20. ACES_10459: PM_{10} Results



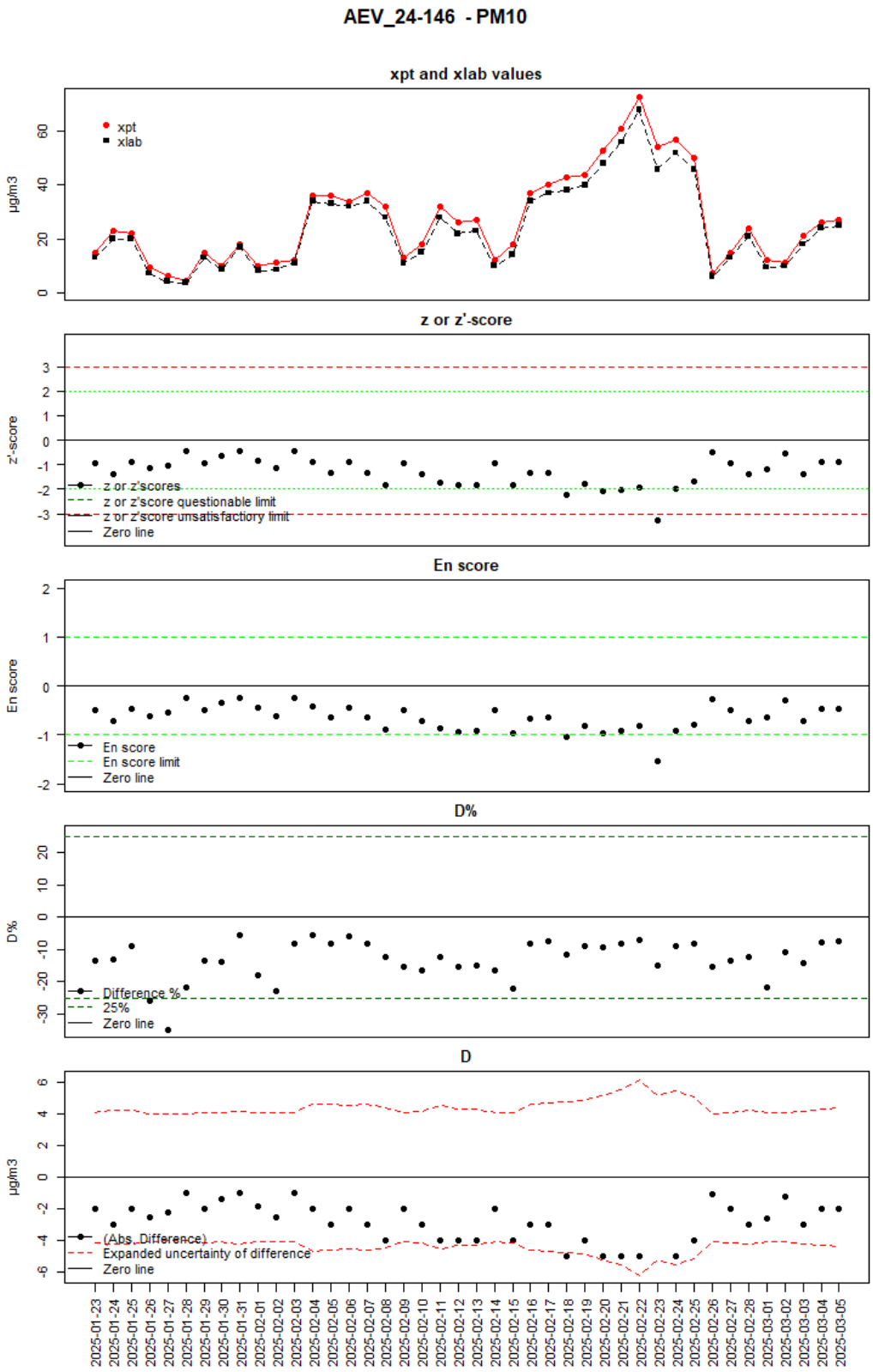
Source: JRC 2025

Table 19. AEV_24-146: PM_{10} Results

AEV_24-146								
PM_{10} data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	15	13	4.08	-0.92	z score	-0.49	-2.0	-13.33
2025-01-24	23	20	4.20	-1.37	z score	-0.71	-3.0	-13.04
2025-01-25	22	20	4.18	-0.91	z score	-0.47	-2.0	-9.09
2025-01-26	9.6	7.1	4.02	-1.15	z score	-0.62	-2.5	-26.04
2025-01-27	6.3	4.1	4.01	-1.01	z score	-0.55	-2.2	-34.92
2025-01-28	4.6	3.6	4.01	-0.46	z score	-0.25	-1.0	-21.74
2025-01-29	15	13	4.08	-0.92	z score	-0.49	-2.0	-13.33
2025-01-30	10	8.6	4.04	-0.64	z score	-0.34	-1.4	-14.00
2025-01-31	18	17	4.13	-0.46	z score	-0.24	-1.0	-5.56
2025-02-01	10	8.2	4.03	-0.83	z score	-0.44	-1.8	-18.00
2025-02-02	11	8.5	4.04	-1.15	z score	-0.61	-2.5	-22.73
2025-02-03	12	11	4.06	-0.46	z score	-0.24	-1.0	-8.33
2025-02-04	36	34	4.52	-0.90	z score	-0.43	-2.0	-5.56
2025-02-05	36	33	4.49	-1.35	z score	-0.65	-3.0	-8.33
2025-02-06	34	32	4.47	-0.90	z score	-0.44	-2.0	-5.88
2025-02-07	37	34	4.54	-1.35	z score	-0.65	-3.0	-8.11
2025-02-08	32	28	4.37	-1.81	z score	-0.90	-4.0	-12.50
2025-02-09	13	11	4.06	-0.92	z score	-0.49	-2.0	-15.38
2025-02-10	18	15	4.11	-1.37	z score	-0.72	-3.0	-16.67
2025-02-11	32	28	4.37	-1.73	z' score	-0.87	-4.0	-12.50
2025-02-12	26	22	4.23	-1.82	z score	-0.93	-4.0	-15.38
2025-02-13	27	23	4.24	-1.82	z score	-0.92	-4.0	-14.81
2025-02-14	12	10	4.05	-0.92	z score	-0.49	-2.0	-16.67
2025-02-15	18	14	4.10	-1.83	z score	-0.97	-4.0	-22.22
2025-02-16	37	34	4.51	-1.35	z score	-0.65	-3.0	-8.11
2025-02-17	40	37	4.60	-1.34	z score	-0.64	-3.0	-7.50
2025-02-18	43	38	4.64	-2.23	z score	-1.05	-5.0	-11.63
2025-02-19	44	40	4.70	-1.78	z score	-0.82	-4.0	-9.09
2025-02-20	53	48	4.98	-2.08	z' score	-0.96	-5.0	-9.43
2025-02-21	61	56	5.31	-2.04	z' score	-0.90	-5.0	-8.20
2025-02-22	73	68	5.81	-1.91	z' score	-0.80	-5.0	-6.85
2025-02-23	54	46	4.91	-3.28	z' score	-1.54	-8.0	-14.81
2025-02-24	57	52	5.14	-2.00	z' score	-0.91	-5.0	-8.77
2025-02-25	50	46	4.91	-1.67	z' score	-0.78	-4.0	-8.00
2025-02-26	7.1	6.0	4.02	-0.51	z score	-0.27	-1.1	-15.49
2025-02-27	15	13	4.08	-0.92	z score	-0.49	-2.0	-13.33
2025-02-28	24	21	4.20	-1.37	z score	-0.70	-3.0	-12.50
2025-03-01	12	9.4	4.04	-1.19	z score	-0.64	-2.6	-21.67
2025-03-02	11	9.8	4.05	-0.55	z score	-0.29	-1.2	-10.91
2025-03-03	21	18	4.16	-1.37	z score	-0.72	-3.0	-14.29
2025-03-04	26	24	4.27	-0.91	z score	-0.46	-2.0	-7.69
2025-03-05	27	25	4.29	-0.91	z score	-0.46	-2.0	-7.41

Source: JRC 2025

Figure 21. AEV_24-146: PM_{10} Results



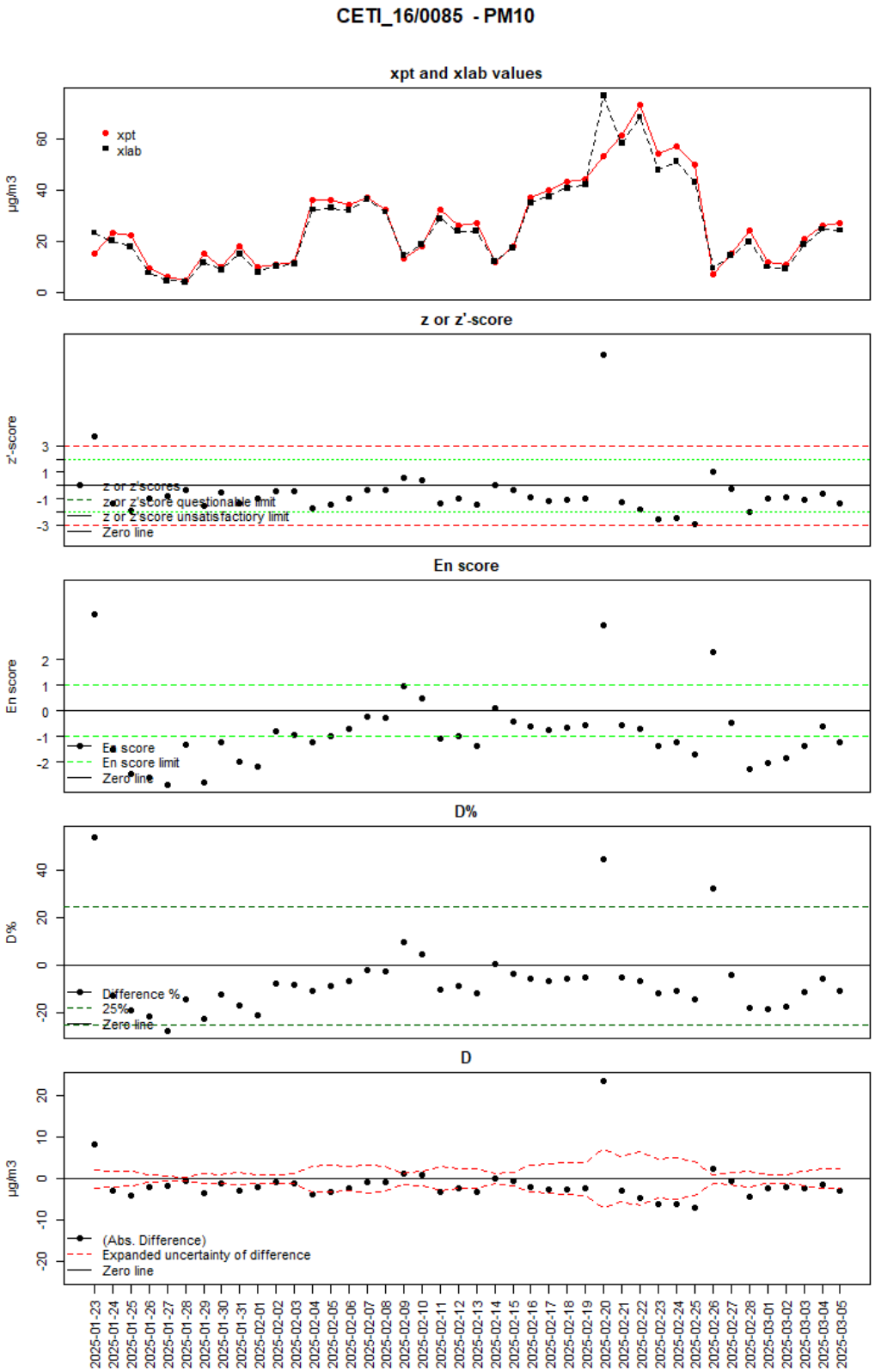
Source: JRC 2025

Table 20. CETI_16/0085: PM_{10} Results

CETI_16/0085								
PM_{10} data capture = 100								
Day	**xpt**	**xlab**	**Ulab**	**z or z'score**	**Score Type**	**En**	**D**	**D%**
2025-01-23	15	23.15	2.08	3.73	z score	3.77	8.15	54.33
2025-01-24	23	20.07	1.81	-1.34	z score	-1.52	-2.93	-12.74
2025-01-25	22	17.80	1.60	-1.92	z score	-2.44	-4.20	-19.09
2025-01-26	9.6	7.53	0.68	-0.95	z score	-2.66	-2.07	-21.56
2025-01-27	6.3	4.57	0.41	-0.80	z score	-2.88	-1.73	-27.46
2025-01-28	4.6	3.95	0.36	-0.30	z score	-1.31	-0.65	-14.13
2025-01-29	15	11.63	1.05	-1.54	z score	-2.81	-3.37	-22.47
2025-01-30	10	8.78	0.79	-0.56	z score	-1.21	-1.22	-12.20
2025-01-31	18	15.02	1.35	-1.36	z score	-1.99	-2.98	-16.56
2025-02-01	10	7.90	0.71	-0.96	z score	-2.14	-2.10	-21.00
2025-02-02	11	10.15	0.91	-0.39	z score	-0.80	-0.85	-7.73
2025-02-03	12	11.01	0.99	-0.45	z score	-0.92	-0.99	-8.25
2025-02-04	36	32.23	2.90	-1.70	z score	-1.20	-3.77	-10.47
2025-02-05	36	32.87	2.96	-1.41	z score	-0.99	-3.13	-8.69
2025-02-06	34	31.84	2.87	-0.97	z score	-0.71	-2.16	-6.35
2025-02-07	37	36.26	3.26	-0.33	z score	-0.22	-0.74	-2.00
2025-02-08	32	31.25	2.81	-0.34	z score	-0.26	-0.75	-2.34
2025-02-09	13	14.29	1.29	0.59	z score	0.95	1.29	9.92
2025-02-10	18	18.83	1.69	0.38	z score	0.46	0.83	4.61
2025-02-11	32	28.78	2.59	-1.39	z' score	-1.10	-3.22	-10.06
2025-02-12	26	23.77	2.14	-1.01	z score	-0.97	-2.23	-8.58
2025-02-13	27	23.85	2.15	-1.43	z score	-1.35	-3.15	-11.67
2025-02-14	12	12.11	1.09	0.05	z score	0.09	0.11	0.92
2025-02-15	18	17.35	1.56	-0.30	z score	-0.40	-0.65	-3.61
2025-02-16	37	35.00	3.15	-0.90	z score	-0.61	-2.00	-5.41
2025-02-17	40	37.33	3.36	-1.19	z score	-0.76	-2.67	-6.68
2025-02-18	43	40.55	3.65	-1.09	z score	-0.64	-2.45	-5.70
2025-02-19	44	41.79	3.76	-0.98	z score	-0.56	-2.21	-5.02
2025-02-20	53	76.67	6.90	9.83	z' score	3.35	23.67	44.66
2025-02-21	61	57.98	5.22	-1.23	z' score	-0.55	-3.02	-4.95
2025-02-22	73	68.33	6.15	-1.79	z' score	-0.71	-4.67	-6.40
2025-02-23	54	47.76	4.30	-2.56	z' score	-1.35	-6.24	-11.56
2025-02-24	57	50.84	4.58	-2.46	z' score	-1.23	-6.16	-10.81
2025-02-25	50	42.99	3.87	-2.93	z' score	-1.68	-7.01	-14.02
2025-02-26	7.1	9.40	0.85	1.06	z score	2.31	2.30	32.39
2025-02-27	15	14.37	1.29	-0.29	z score	-0.45	-0.63	-4.20
2025-02-28	24	19.67	1.77	-1.97	z score	-2.27	-4.33	-18.04
2025-03-01	12	9.81	0.88	-1.00	z score	-2.03	-2.19	-18.25
2025-03-02	11	9.11	0.82	-0.87	z score	-1.84	-1.89	-17.18
2025-03-03	21	18.61	1.67	-1.09	z score	-1.36	-2.39	-11.38
2025-03-04	26	24.61	2.21	-0.63	z score	-0.59	-1.39	-5.35
2025-03-05	27	24.10	2.17	-1.32	z score	-1.23	-2.90	-10.74

Source: JRC 2025

Figure 22. CETI_16/0085: PM_{10} Results



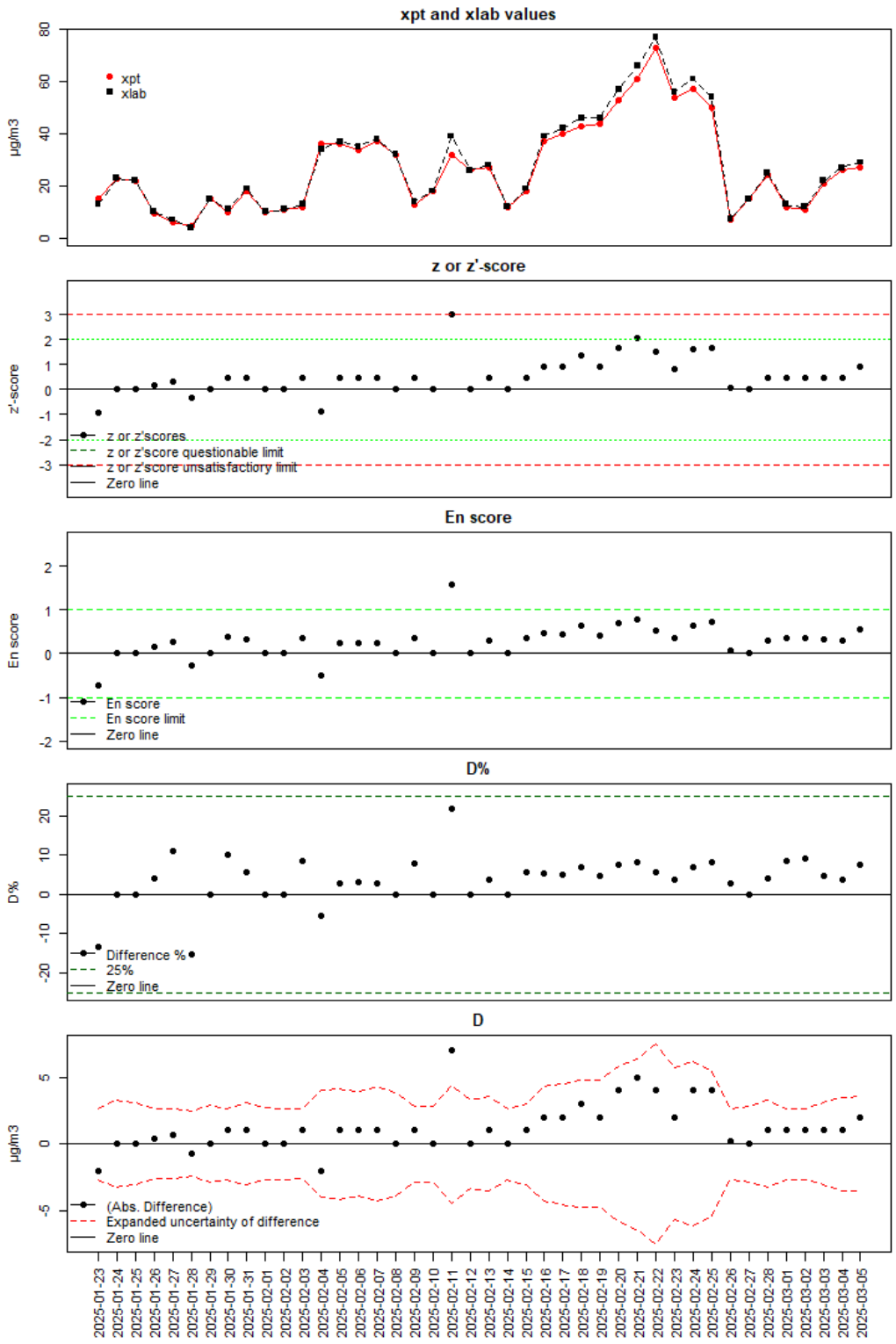
Source: JRC 2025

Table 21. CHMI_19/0061: PM_{10} Results

CHMI_19/0061								
PM_{10} data capture = 100								
Day	**xpt**	**xlab**	**Ulab**	**z or z'score**	**Score Type**	**En**	**D**	**D%**
2025-01-23	15	13	2.7	-0.92	z score	-0.72	-2.0	-13.33
2025-01-24	23	23	3.1	0.00	z score	0.00	0.0	0.00
2025-01-25	22	22	3.1	0.00	z score	0.00	0.0	0.00
2025-01-26	9.6	10	2.6	0.18	z score	0.15	0.4	4.17
2025-01-27	6.3	7.0	2.5	0.32	z score	0.28	0.7	11.11
2025-01-28	4.6	3.9	2.5	-0.32	z score	-0.28	-0.7	-15.22
2025-01-29	15	15	2.8	0.00	z score	0.00	0.0	0.00
2025-01-30	10	11	2.6	0.46	z score	0.37	1.0	10.00
2025-01-31	18	19	2.9	0.46	z score	0.34	1.0	5.56
2025-02-01	10	10	2.6	0.00	z score	0.00	0.0	0.00
2025-02-02	11	11	2.6	0.00	z score	0.00	0.0	0.00
2025-02-03	12	13	2.7	0.46	z score	0.37	1.0	8.33
2025-02-04	36	34	3.8	-0.90	z score	-0.50	-2.0	-5.56
2025-02-05	36	37	4.0	0.45	z score	0.24	1.0	2.78
2025-02-06	34	35	3.9	0.45	z score	0.25	1.0	2.94
2025-02-07	37	38	4.1	0.45	z score	0.24	1.0	2.70
2025-02-08	32	32	3.7	0.00	z score	0.00	0.0	0.00
2025-02-09	13	14	2.7	0.46	z score	0.37	1.0	7.69
2025-02-10	18	18	2.9	0.00	z score	0.00	0.0	0.00
2025-02-11	32	39	4.2	3.02	z' score	1.59	7.0	21.88
2025-02-12	26	26	3.3	0.00	z score	0.00	0.0	0.00
2025-02-13	27	28	3.4	0.45	z score	0.28	1.0	3.70
2025-02-14	12	12	2.6	0.00	z score	0.00	0.0	0.00
2025-02-15	18	19	2.9	0.46	z score	0.34	1.0	5.56
2025-02-16	37	39	4.2	0.90	z score	0.47	2.0	5.41
2025-02-17	40	42	4.4	0.89	z score	0.44	2.0	5.00
2025-02-18	43	46	4.6	1.34	z score	0.63	3.0	6.98
2025-02-19	44	46	4.7	0.89	z score	0.41	2.0	4.55
2025-02-20	53	57	5.5	1.66	z' score	0.70	4.0	7.55
2025-02-21	61	66	6.2	2.04	z' score	0.78	5.0	8.20
2025-02-22	73	77	7.1	1.53	z' score	0.54	4.0	5.48
2025-02-23	54	56	5.4	0.82	z' score	0.35	2.0	3.70
2025-02-24	57	61	5.8	1.60	z' score	0.65	4.0	7.02
2025-02-25	50	54	5.3	1.67	z' score	0.72	4.0	8.00
2025-02-26	7.1	7.3	2.5	0.09	z score	0.08	0.2	2.82
2025-02-27	15	15	2.8	0.00	z score	0.00	0.0	0.00
2025-02-28	24	25	3.3	0.46	z score	0.30	1.0	4.17
2025-03-01	12	13	2.7	0.46	z score	0.36	1.0	8.33
2025-03-02	11	12	2.7	0.46	z score	0.36	1.0	9.09
2025-03-03	21	22	3.1	0.46	z score	0.32	1.0	4.76
2025-03-04	26	27	3.4	0.45	z score	0.29	1.0	3.85
2025-03-05	27	29	3.5	0.91	z score	0.55	2.0	7.41

Source: JRC 2025

Figure 23. CHMI_19/0061: PM_{10} Results



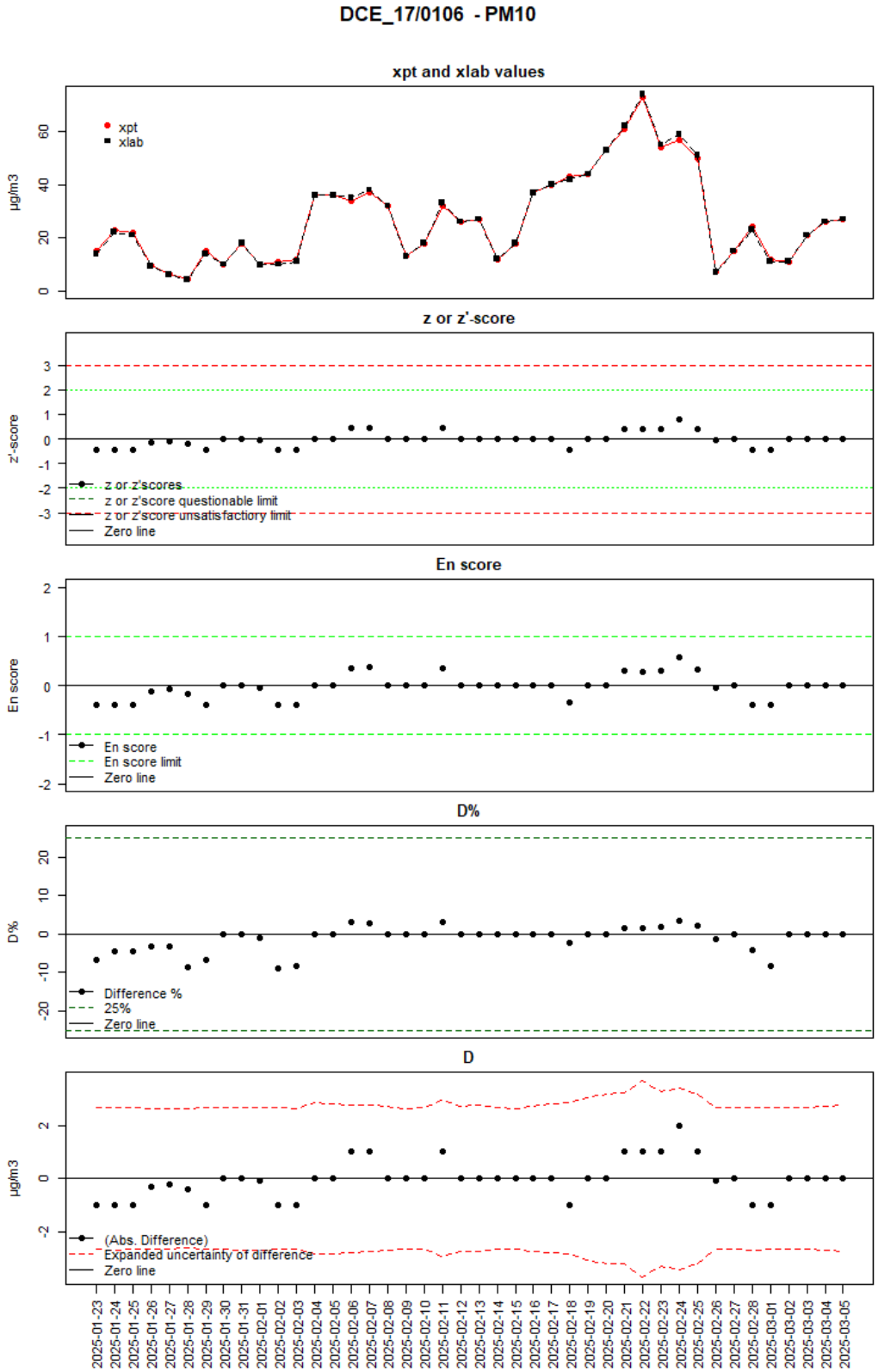
Source: JRC 2025

Table 22. DCE_17/0106: PM_{10} Results

DCE_17/0106								
PM_{10} data capture = 100								
Day	**xpt**	**xlab**	**Ulab**	**z or z'score**	**Score Type**	**En**	**D**	**D%**
2025-01-23	15	14	2.5	-0.46	z score	-0.39	-1.0	-6.67
2025-01-24	23	22	2.5	-0.46	z score	-0.39	-1.0	-4.35
2025-01-25	22	21	2.5	-0.46	z score	-0.39	-1.0	-4.55
2025-01-26	9.6	9.3	2.5	-0.14	z score	-0.12	-0.3	-3.12
2025-01-27	6.3	6.1	2.5	-0.09	z score	-0.08	-0.2	-3.17
2025-01-28	4.6	4.2	2.5	-0.18	z score	-0.16	-0.4	-8.70
2025-01-29	15	14	2.5	-0.46	z score	-0.39	-1.0	-6.67
2025-01-30	10	10	2.5	0.00	z score	0.00	0.0	0.00
2025-01-31	18	18	2.5	0.00	z score	0.00	0.0	0.00
2025-02-01	10	9.9	2.5	-0.05	z score	-0.04	-0.1	-1.00
2025-02-02	11	10	2.5	-0.46	z score	-0.39	-1.0	-9.09
2025-02-03	12	11	2.5	-0.46	z score	-0.39	-1.0	-8.33
2025-02-04	36	36	2.6	0.00	z score	0.00	0.0	0.00
2025-02-05	36	36	2.6	0.00	z score	0.00	0.0	0.00
2025-02-06	34	35	2.6	0.45	z score	0.36	1.0	2.94
2025-02-07	37	38	2.6	0.45	z score	0.37	1.0	2.70
2025-02-08	32	32	2.6	0.00	z score	0.00	0.0	0.00
2025-02-09	13	13	2.5	0.00	z score	0.00	0.0	0.00
2025-02-10	18	18	2.5	0.00	z score	0.00	0.0	0.00
2025-02-11	32	33	2.6	0.43	z' score	0.34	1.0	3.12
2025-02-12	26	26	2.5	0.00	z score	0.00	0.0	0.00
2025-02-13	27	27	2.5	0.00	z score	0.00	0.0	0.00
2025-02-14	12	12	2.5	0.00	z score	0.00	0.0	0.00
2025-02-15	18	18	2.5	0.00	z score	0.00	0.0	0.00
2025-02-16	37	37	2.6	0.00	z score	0.00	0.0	0.00
2025-02-17	40	40	2.6	0.00	z score	0.00	0.0	0.00
2025-02-18	43	42	2.6	-0.45	z score	-0.35	-1.0	-2.33
2025-02-19	44	44	2.6	0.00	z score	0.00	0.0	0.00
2025-02-20	53	53	2.7	0.00	z' score	0.00	0.0	0.00
2025-02-21	61	62	2.8	0.41	z' score	0.31	1.0	1.64
2025-02-22	73	74	3.0	0.38	z' score	0.27	1.0	1.37
2025-02-23	54	55	2.8	0.41	z' score	0.31	1.0	1.85
2025-02-24	57	59	2.8	0.80	z' score	0.58	2.0	3.51
2025-02-25	50	51	2.7	0.42	z' score	0.32	1.0	2.00
2025-02-26	7.1	7.0	2.5	-0.05	z score	-0.04	-0.1	-1.41
2025-02-27	15	15	2.5	0.00	z score	0.00	0.0	0.00
2025-02-28	24	23	2.5	-0.46	z score	-0.39	-1.0	-4.17
2025-03-01	12	11	2.5	-0.46	z score	-0.39	-1.0	-8.33
2025-03-02	11	11	2.5	0.00	z score	0.00	0.0	0.00
2025-03-03	21	21	2.5	0.00	z score	0.00	0.0	0.00
2025-03-04	26	26	2.5	0.00	z score	0.00	0.0	0.00
2025-03-05	27	27	2.5	0.00	z score	0.00	0.0	0.00

Source: JRC 2025

Figure 24. DCE_17/0106: PM_{10} Results



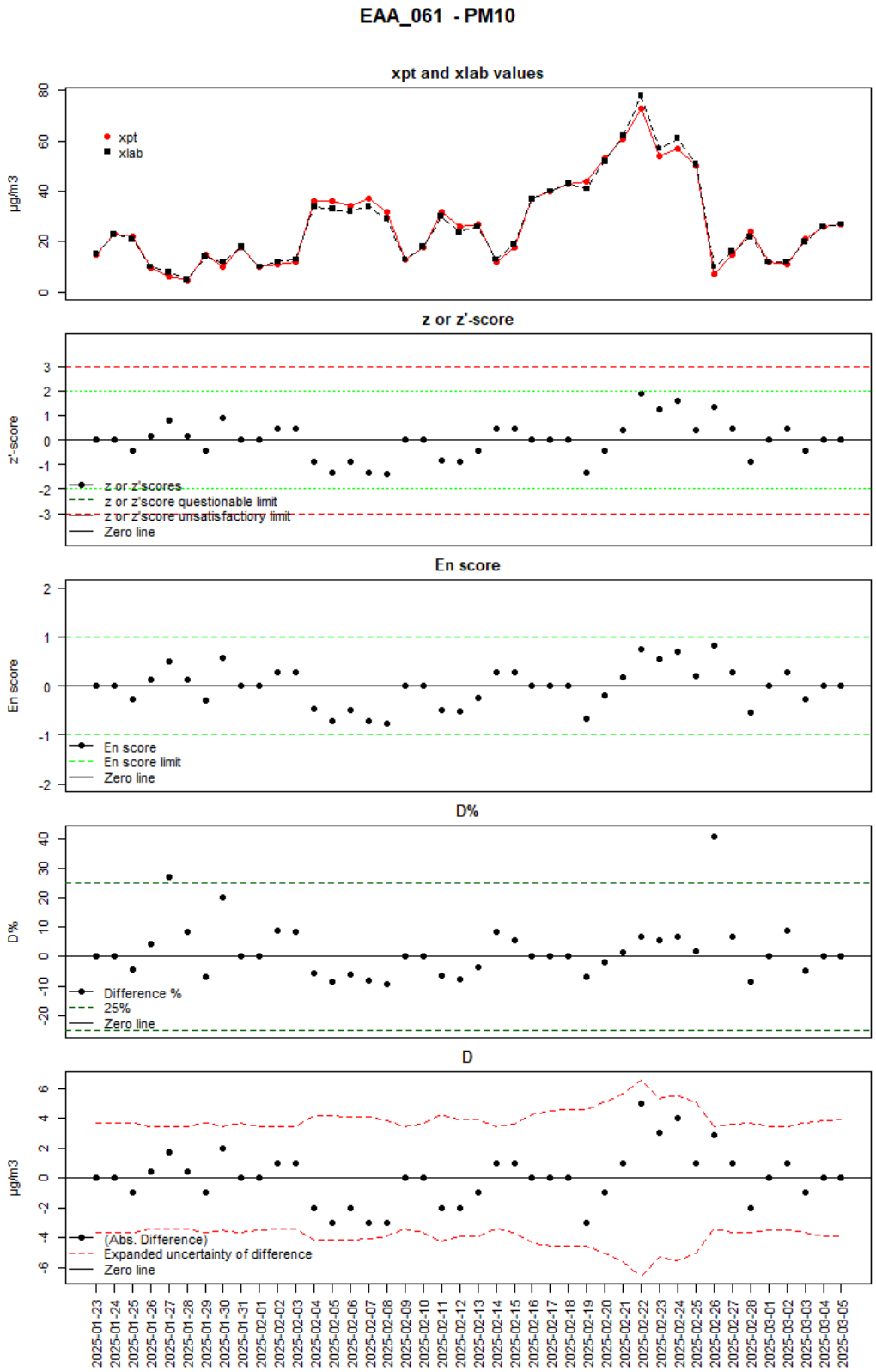
Source: JRC 2025

Table 23. EAA_061: PM_{10} Results

EAA_061								
PM_{10} data capture = 100								
Day	**xpt**	**xlab**	**Ulab**	**z or z'score**	**Score Type**	**En**	**D**	**D%**
2025-01-23	15	15	3.5	0.00	z score	0.00	0.0	0.00
2025-01-24	23	23	3.7	0.00	z score	0.00	0.0	0.00
2025-01-25	22	21	3.7	-0.46	z score	-0.27	-1.0	-4.55
2025-01-26	9.6	10	3.4	0.18	z score	0.12	0.4	4.17
2025-01-27	6.3	8	3.4	0.78	z score	0.50	1.7	26.98
2025-01-28	4.6	5	3.4	0.18	z score	0.12	0.4	8.70
2025-01-29	15	14	3.5	-0.46	z score	-0.28	-1.0	-6.67
2025-01-30	10	12	3.5	0.92	z score	0.56	2.0	20.00
2025-01-31	18	18	3.6	0.00	z score	0.00	0.0	0.00
2025-02-01	10	10	3.4	0.00	z score	0.00	0.0	0.00
2025-02-02	11	12	3.5	0.46	z score	0.28	1.0	9.09
2025-02-03	12	13	3.5	0.46	z score	0.28	1.0	8.33
2025-02-04	36	34	4.1	-0.90	z score	-0.47	-2.0	-5.56
2025-02-05	36	33	4.0	-1.35	z score	-0.72	-3.0	-8.33
2025-02-06	34	32	4.0	-0.90	z score	-0.49	-2.0	-5.88
2025-02-07	37	34	4.1	-1.35	z score	-0.72	-3.0	-8.11
2025-02-08	32	29	3.9	-1.36	z score	-0.75	-3.0	-9.38
2025-02-09	13	13	3.5	0.00	z score	0.00	0.0	0.00
2025-02-10	18	18	3.6	0.00	z score	0.00	0.0	0.00
2025-02-11	32	30	3.9	-0.86	z' score	-0.48	-2.0	-6.25
2025-02-12	26	24	3.7	-0.91	z score	-0.53	-2.0	-7.69
2025-02-13	27	26	3.8	-0.45	z score	-0.26	-1.0	-3.70
2025-02-14	12	13	3.5	0.46	z score	0.28	1.0	8.33
2025-02-15	18	19	3.6	0.46	z score	0.28	1.0	5.56
2025-02-16	37	37	4.2	0.00	z score	0.00	0.0	0.00
2025-02-17	40	40	4.3	0.00	z score	0.00	0.0	0.00
2025-02-18	43	43	4.4	0.00	z score	0.00	0.0	0.00
2025-02-19	44	41	4.3	-1.33	z score	-0.67	-3.0	-6.82
2025-02-20	53	52	4.8	-0.42	z' score	-0.20	-1.0	-1.89
2025-02-21	61	62	5.3	0.41	z' score	0.18	1.0	1.64
2025-02-22	73	78	6.2	1.91	z' score	0.76	5.0	6.85
2025-02-23	54	57	5.1	1.23	z' score	0.56	3.0	5.56
2025-02-24	57	61	5.3	1.60	z' score	0.71	4.0	7.02
2025-02-25	50	51	4.8	0.42	z' score	0.20	1.0	2.00
2025-02-26	7.1	10	3.5	1.33	z score	0.82	2.9	40.85
2025-02-27	15	16	3.5	0.46	z score	0.28	1.0	6.67
2025-02-28	24	22	3.7	-0.91	z score	-0.53	-2.0	-8.33
2025-03-01	12	12	3.5	0.00	z score	0.00	0.0	0.00
2025-03-02	11	12	3.5	0.46	z score	0.28	1.0	9.09
2025-03-03	21	20	3.6	-0.46	z score	-0.27	-1.0	-4.76
2025-03-04	26	26	3.8	0.00	z score	0.00	0.0	0.00
2025-03-05	27	27	3.8	0.00	z score	0.00	0.0	0.00

Source: JRC 2025

Figure 25. EAA_061: PM_{10} Results



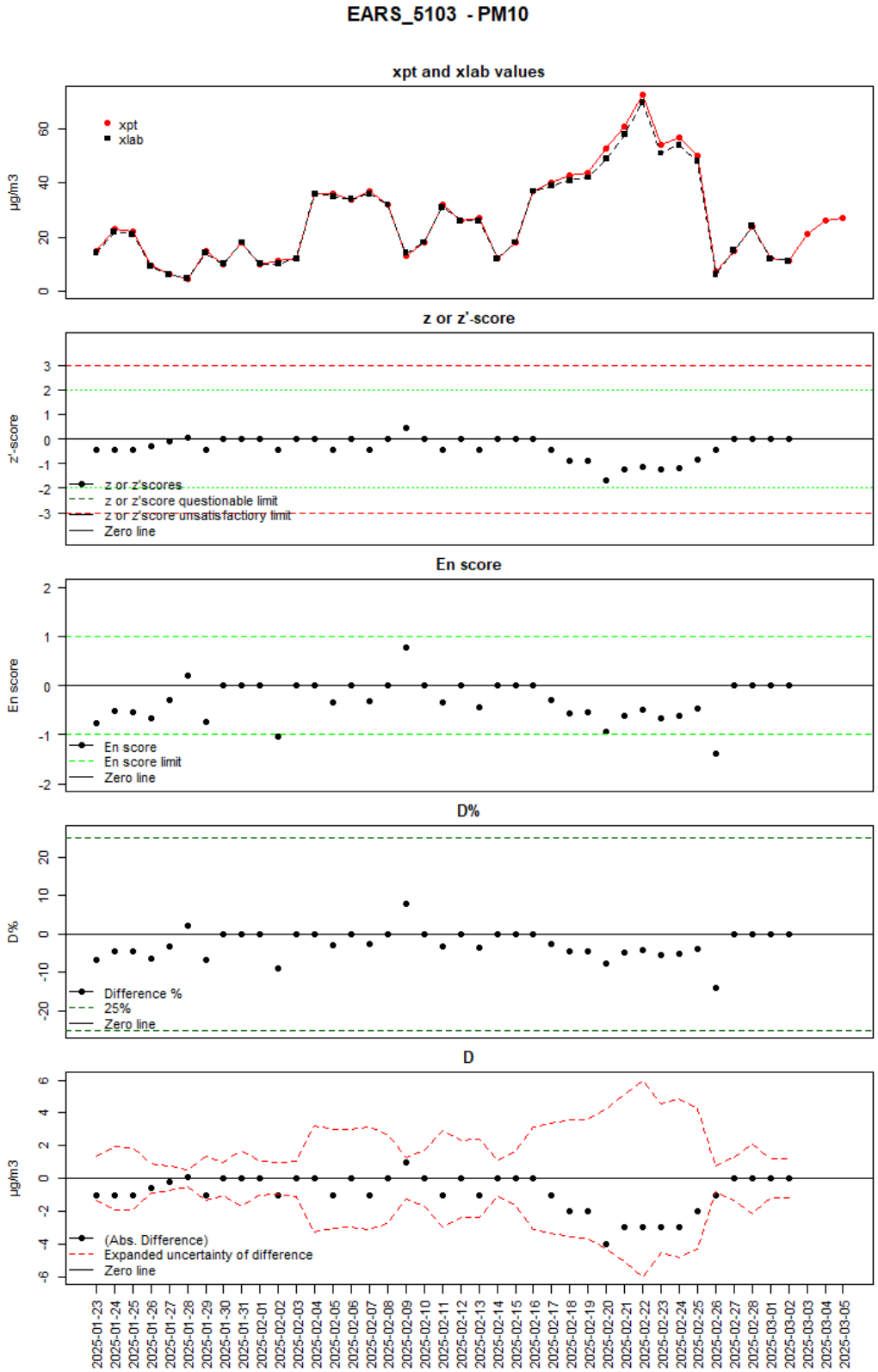
Source: JRC 2025

Table 24. EARS_5103: PM_{10} Results

EARS_5103								
PM_{10} data capture = 93								
Day	**xpt**	**xlab**	**Ulab**	**z or z'score**	**Score Type**	**En**	**D**	**D%**
2025-01-23	15	14	1.2	-0.46	z score	-0.75	-1.0	-6.67
2025-01-24	23	22	1.8	-0.46	z score	-0.52	-1.0	-4.35
2025-01-25	22	21	1.7	-0.46	z score	-0.55	-1.0	-4.55
2025-01-26	9.6	9.0	0.8	-0.28	z score	-0.68	-0.6	-6.25
2025-01-27	6.3	6.1	0.5	-0.09	z score	-0.30	-0.2	-3.17
2025-01-28	4.6	4.7	0.4	0.05	z score	0.19	0.1	2.17
2025-01-29	15	14	1.2	-0.46	z score	-0.75	-1.0	-6.67
2025-01-30	10	10	0.8	0.00	z score	0.00	0.0	0.00
2025-01-31	18	18	1.5	0.00	z score	0.00	0.0	0.00
2025-02-01	10	10	0.8	0.00	z score	0.00	0.0	0.00
2025-02-02	11	10	0.8	-0.46	z score	-1.04	-1.0	-9.09
2025-02-03	12	12	1.0	0.00	z score	0.00	0.0	0.00
2025-02-04	36	36	2.9	0.00	z score	0.00	0.0	0.00
2025-02-05	36	35	2.8	-0.45	z score	-0.33	-1.0	-2.78
2025-02-06	34	34	2.8	0.00	z score	0.00	0.0	0.00
2025-02-07	37	36	2.9	-0.45	z score	-0.33	-1.0	-2.70
2025-02-08	32	32	2.6	0.00	z score	0.00	0.0	0.00
2025-02-09	13	14	1.2	0.46	z score	0.78	1.0	7.69
2025-02-10	18	18	1.5	0.00	z score	0.00	0.0	0.00
2025-02-11	32	31	2.5	-0.43	z' score	-0.35	-1.0	-3.12
2025-02-12	26	26	2.1	0.00	z score	0.00	0.0	0.00
2025-02-13	27	26	2.1	-0.45	z score	-0.44	-1.0	-3.70
2025-02-14	12	12	1.0	0.00	z score	0.00	0.0	0.00
2025-02-15	18	18	1.5	0.00	z score	0.00	0.0	0.00
2025-02-16	37	37	3.0	0.00	z score	0.00	0.0	0.00
2025-02-17	40	39	3.2	-0.45	z score	-0.30	-1.0	-2.50
2025-02-18	43	41	3.3	-0.89	z score	-0.57	-2.0	-4.65
2025-02-19	44	42	3.4	-0.89	z score	-0.55	-2.0	-4.55
2025-02-20	53	49	4.0	-1.66	z' score	-0.93	-4.0	-7.55
2025-02-21	61	58	4.7	-1.23	z' score	-0.60	-3.0	-4.92
2025-02-22	73	70	5.6	-1.15	z' score	-0.50	-3.0	-4.11
2025-02-23	54	51	4.1	-1.23	z' score	-0.68	-3.0	-5.56
2025-02-24	57	54	4.4	-1.20	z' score	-0.62	-3.0	-5.26
2025-02-25	50	48	3.9	-0.83	z' score	-0.48	-2.0	-4.00
2025-02-26	7.1	6.1	0.5	-0.46	z score	-1.39	-1.0	-14.08
2025-02-27	15	15	1.2	0.00	z score	0.00	0.0	0.00
2025-02-28	24	24	2.0	0.00	z score	0.00	0.0	0.00
2025-03-01	12	12	1.0	0.00	z score	0.00	0.0	0.00
2025-03-02	11	11	0.9	0.00	z score	0.00	0.0	0.00
2025-03-03	21				z score			
2025-03-04	26				z score			
2025-03-05	27				z score			

Source: JRC 2025

Figure 26. EARS_5103: PM_{10} Results



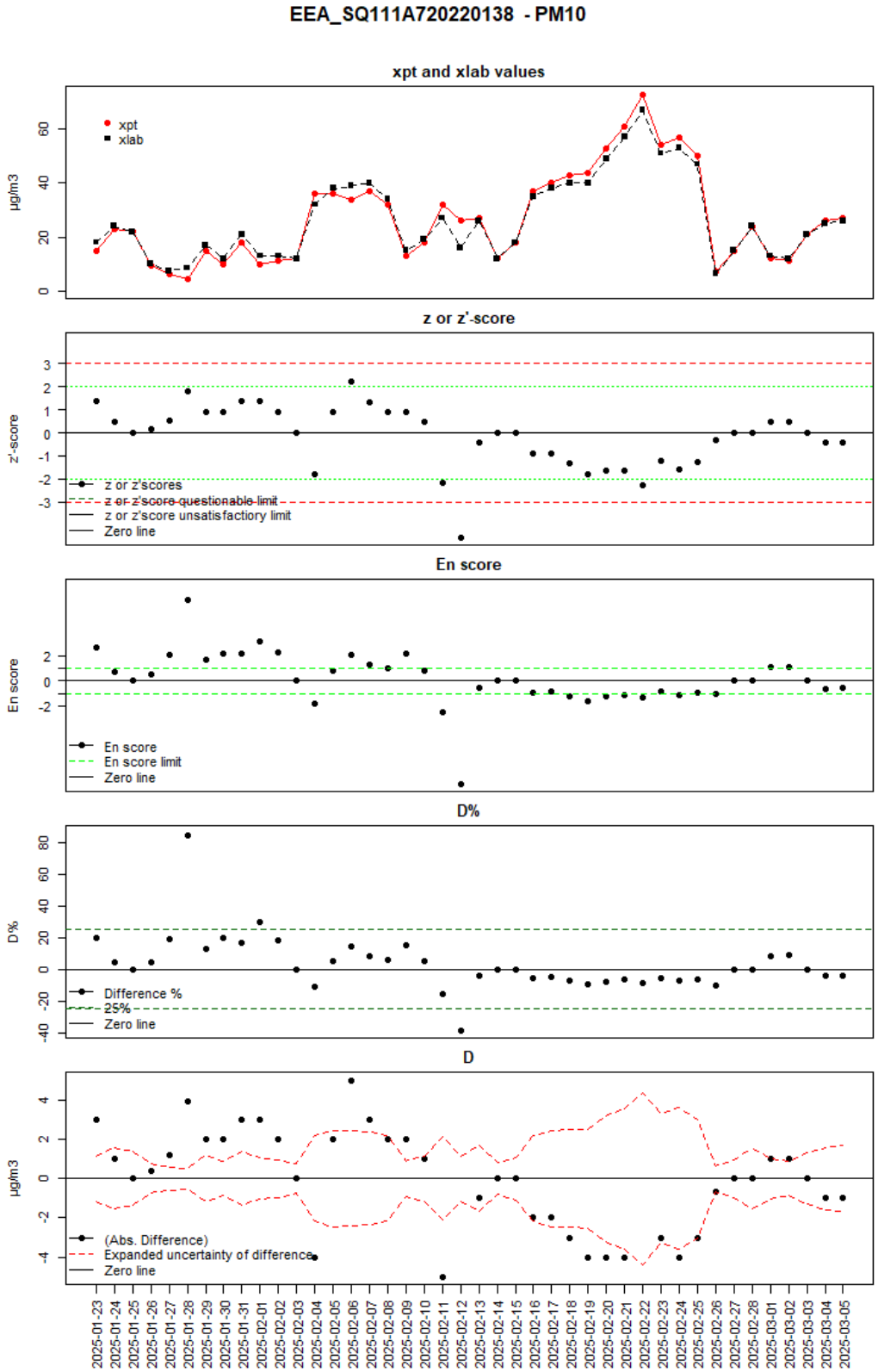
Source: JRC 2025

Table 25. EEA_SQ111A720220138: PM_{10} Results

EEA_SQ111A720220138								
PM_{10} data capture = 100								
Day	**xpt**	**xlab**	**Ulab**	**z or z'score**	**Score Type**	**En**	**D**	**D%**
2025-01-23	15	18	1.0	1.37	z score	2.60	3.0	20.00
2025-01-24	23	24	1.3	0.46	z score	0.69	1.0	4.35
2025-01-25	22	22	1.2	0.00	z score	0.00	0.0	0.00
2025-01-26	9.6	10	0.6	0.18	z score	0.56	0.4	4.17
2025-01-27	6.3	7.5	0.4	0.55	z score	2.02	1.2	19.05
2025-01-28	4.6	8.5	0.5	1.79	z score	6.45	3.9	84.78
2025-01-29	15	17	1.0	0.92	z score	1.73	2.0	13.33
2025-01-30	10	12	0.7	0.92	z score	2.14	2.0	20.00
2025-01-31	18	21	1.2	1.37	z score	2.21	3.0	16.67
2025-02-01	10	13	0.7	1.38	z score	3.07	3.0	30.00
2025-02-02	11	13	0.7	0.92	z score	2.26	2.0	18.18
2025-02-03	12	12	0.7	0.00	z score	0.00	0.0	0.00
2025-02-04	36	32	1.8	-1.80	z score	-1.85	-4.0	-11.11
2025-02-05	36	38	2.1	0.90	z score	0.85	2.0	5.56
2025-02-06	34	39	2.2	2.25	z score	2.08	5.0	14.71
2025-02-07	37	40	2.2	1.35	z score	1.27	3.0	8.11
2025-02-08	32	34	1.9	0.90	z score	0.97	2.0	6.25
2025-02-09	13	15	0.8	0.92	z score	2.19	2.0	15.38
2025-02-10	18	19	1.1	0.46	z score	0.80	1.0	5.56
2025-02-11	32	27	1.5	-2.16	z' score	-2.47	-5.0	-15.62
2025-02-12	26	16	0.9	-4.55	z score	-8.21	-10.0	-38.46
2025-02-13	27	26	1.5	-0.45	z score	-0.57	-1.0	-3.70
2025-02-14	12	12	0.7	0.00	z score	0.00	0.0	0.00
2025-02-15	18	18	1.0	0.00	z score	0.00	0.0	0.00
2025-02-16	37	35	2.0	-0.90	z score	-0.92	-2.0	-5.41
2025-02-17	40	38	2.1	-0.89	z score	-0.85	-2.0	-5.00
2025-02-18	43	40	2.2	-1.34	z score	-1.21	-3.0	-6.98
2025-02-19	44	40	2.2	-1.78	z score	-1.58	-4.0	-9.09
2025-02-20	53	49	2.7	-1.66	z' score	-1.29	-4.0	-7.55
2025-02-21	61	57	3.2	-1.63	z' score	-1.12	-4.0	-6.56
2025-02-22	73	67	3.8	-2.29	z' score	-1.37	-6.0	-8.22
2025-02-23	54	51	2.9	-1.23	z' score	-0.89	-3.0	-5.56
2025-02-24	57	53	3.0	-1.60	z' score	-1.11	-4.0	-7.02
2025-02-25	50	47	2.6	-1.25	z' score	-0.99	-3.0	-6.00
2025-02-26	7.1	6.4	0.4	-0.32	z score	-1.07	-0.7	-9.86
2025-02-27	15	15	0.8	0.00	z score	0.00	0.0	0.00
2025-02-28	24	24	1.3	0.00	z score	0.00	0.0	0.00
2025-03-01	12	13	0.7	0.46	z score	1.07	1.0	8.33
2025-03-02	11	12	0.7	0.46	z score	1.07	1.0	9.09
2025-03-03	21	21	1.2	0.00	z score	0.00	0.0	0.00
2025-03-04	26	25	1.4	-0.45	z score	-0.63	-1.0	-3.85
2025-03-05	27	26	1.5	-0.45	z score	-0.57	-1.0	-3.70

Source: JRC 2025

Figure 27. EEA_SQ111A720220138: PM_{10} Results



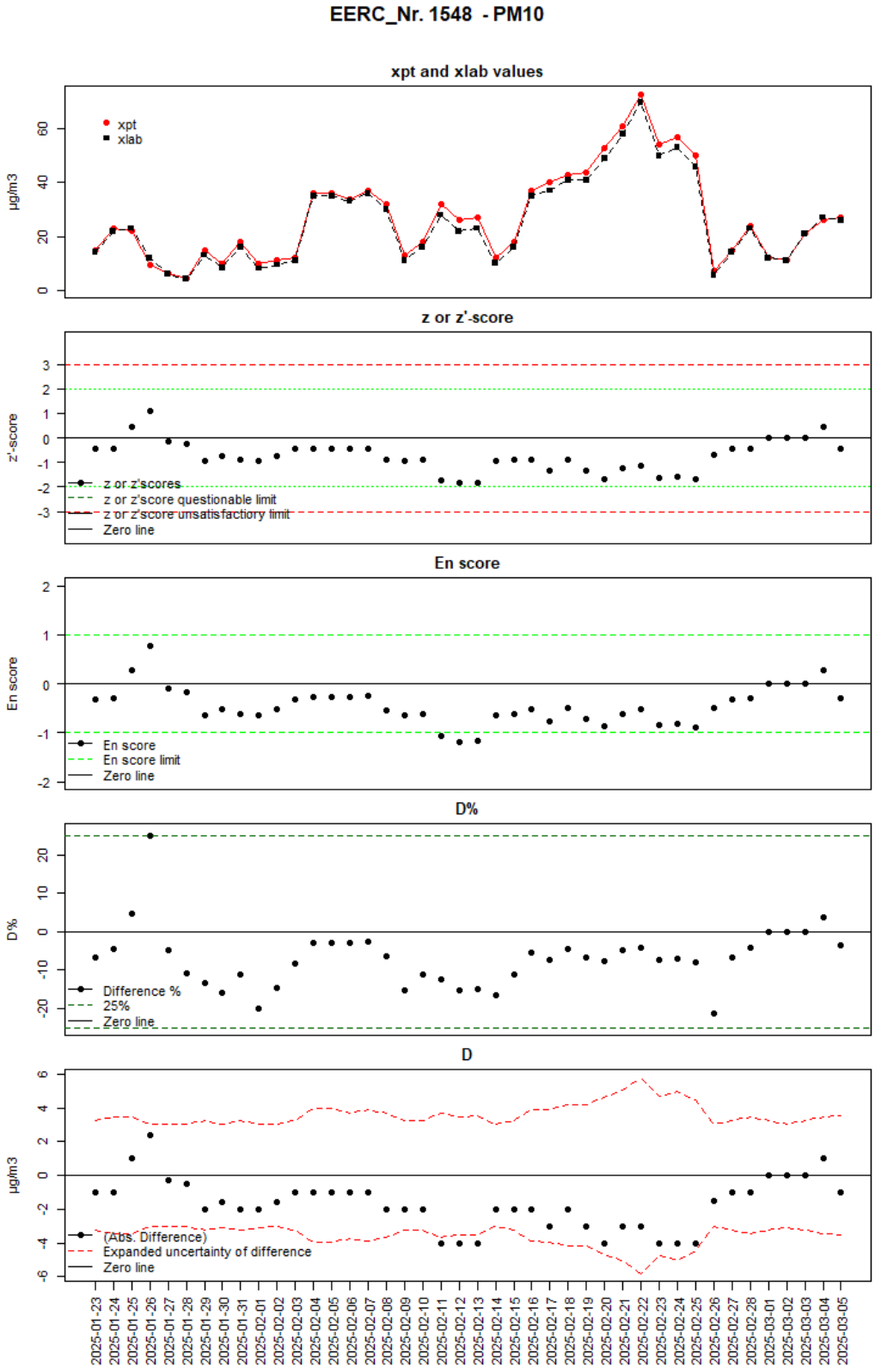
Source: JRC 2025

Table 26. EERC Nr. 1548: PM_{10} Results

EERC_Nr. 1548								
PM_{10} data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	15	14	3.1	-0.46	z score	-0.32	-1.0	-6.67
2025-01-24	23	22	3.3	-0.46	z score	-0.30	-1.0	-4.35
2025-01-25	22	23	3.4	0.46	z score	0.29	1.0	4.55
2025-01-26	9.6	12	3.1	1.10	z score	0.77	2.4	25.00
2025-01-27	6.3	6.0	3.0	-0.14	z score	-0.10	-0.3	-4.76
2025-01-28	4.6	4.1	3.0	-0.23	z score	-0.17	-0.5	-10.87
2025-01-29	15	13	3.1	-0.92	z score	-0.63	-2.0	-13.33
2025-01-30	10	8.4	3.1	-0.73	z score	-0.51	-1.6	-16.00
2025-01-31	18	16	3.2	-0.91	z score	-0.61	-2.0	-11.11
2025-02-01	10	8.0	3.1	-0.92	z score	-0.63	-2.0	-20.00
2025-02-02	11	9.4	3.1	-0.73	z score	-0.51	-1.6	-14.55
2025-02-03	12	11	3.1	-0.46	z score	-0.32	-1.0	-8.33
2025-02-04	36	35	3.7	-0.45	z score	-0.26	-1.0	-2.78
2025-02-05	36	35	3.7	-0.45	z score	-0.26	-1.0	-2.78
2025-02-06	34	33	3.7	-0.45	z score	-0.26	-1.0	-2.94
2025-02-07	37	36	3.8	-0.45	z score	-0.26	-1.0	-2.70
2025-02-08	32	30	3.6	-0.90	z score	-0.54	-2.0	-6.25
2025-02-09	13	11	3.1	-0.92	z score	-0.64	-2.0	-15.38
2025-02-10	18	16	3.2	-0.91	z score	-0.61	-2.0	-11.11
2025-02-11	32	28	3.5	-1.73	z' score	-1.07	-4.0	-12.50
2025-02-12	26	22	3.3	-1.82	z score	-1.18	-4.0	-15.38
2025-02-13	27	23	3.3	-1.82	z score	-1.17	-4.0	-14.81
2025-02-14	12	10	3.1	-0.92	z score	-0.64	-2.0	-16.67
2025-02-15	18	16	3.2	-0.91	z score	-0.62	-2.0	-11.11
2025-02-16	37	35	3.7	-0.90	z score	-0.53	-2.0	-5.41
2025-02-17	40	37	3.8	-1.34	z score	-0.76	-3.0	-7.50
2025-02-18	43	41	4.0	-0.89	z score	-0.48	-2.0	-4.65
2025-02-19	44	41	4.0	-1.33	z score	-0.72	-3.0	-6.82
2025-02-20	53	49	4.3	-1.66	z' score	-0.88	-4.0	-7.55
2025-02-21	61	58	4.7	-1.23	z' score	-0.60	-3.0	-4.92
2025-02-22	73	70	5.3	-1.15	z' score	-0.52	-3.0	-4.11
2025-02-23	54	50	4.4	-1.64	z' score	-0.85	-4.0	-7.41
2025-02-24	57	53	4.5	-1.60	z' score	-0.81	-4.0	-7.02
2025-02-25	50	46	4.2	-1.67	z' score	-0.89	-4.0	-8.00
2025-02-26	7.1	5.6	3.0	-0.69	z score	-0.49	-1.5	-21.13
2025-02-27	15	14	3.1	-0.46	z score	-0.32	-1.0	-6.67
2025-02-28	24	23	3.3	-0.46	z score	-0.30	-1.0	-4.17
2025-03-01	12	12	3.1	0.00	z score	0.00	0.0	0.00
2025-03-02	11	11	3.1	0.00	z score	0.00	0.0	0.00
2025-03-03	21	21	3.3	0.00	z score	0.00	0.0	0.00
2025-03-04	26	27	3.5	0.45	z score	0.28	1.0	3.85
2025-03-05	27	26	3.4	-0.45	z score	-0.28	-1.0	-3.70

Source: JRC 2025

Figure 28. EERC_Nr. 1548: PM_{10} Results



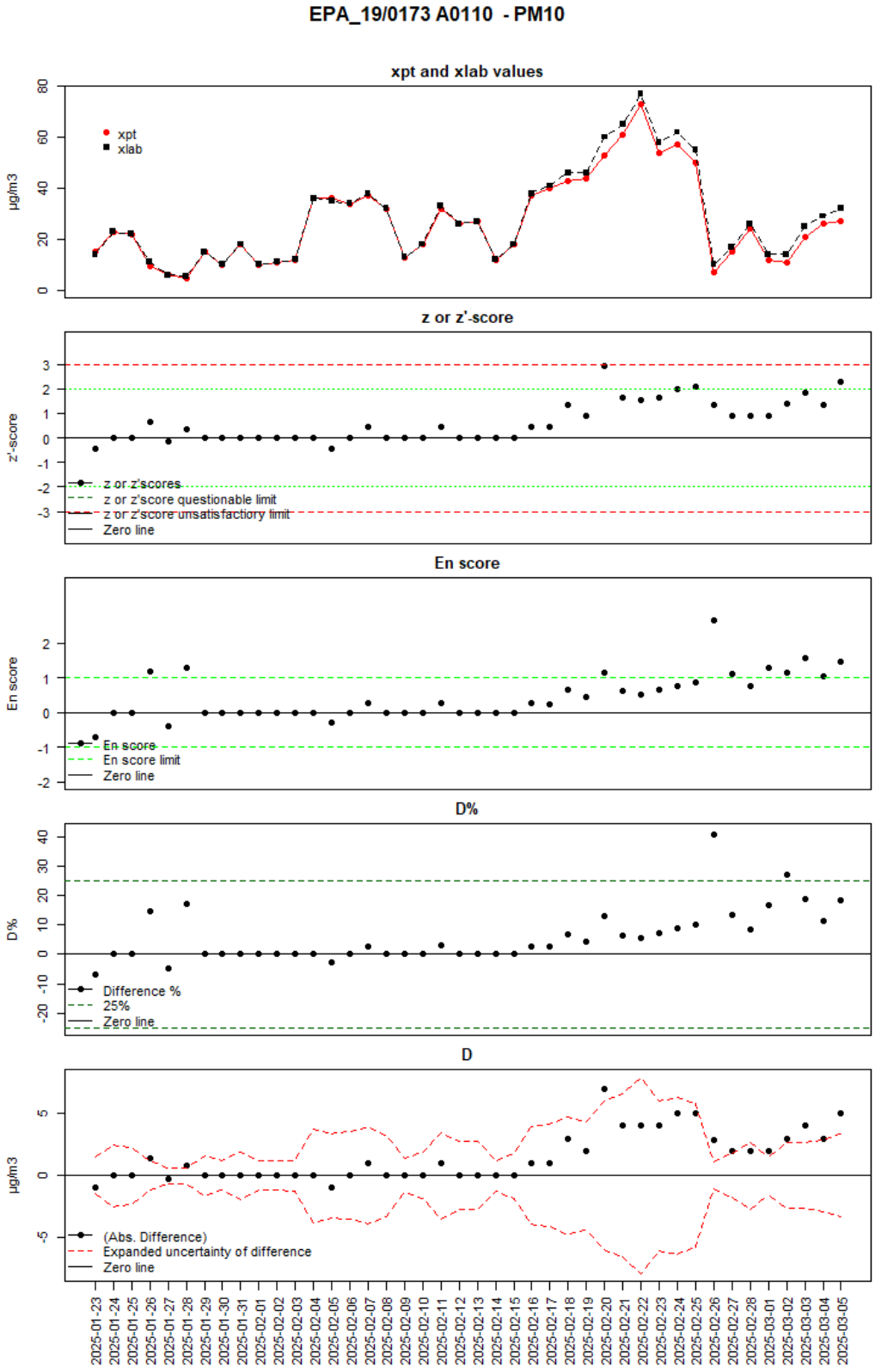
Source: JRC 2025

Table 27. EPA_19/0173 A0110: PM_{10} Results

EPA_19/0173 A0110								
PM_{10} data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	15	14	1.30	-0.46	z score	-0.70	-1.0	-6.67
2025-01-24	23	23	2.30	0.00	z score	0.00	0.0	0.00
2025-01-25	22	22	2.10	0.00	z score	0.00	0.0	0.00
2025-01-26	9.6	11	1.10	0.64	z score	1.20	1.4	14.58
2025-01-27	6.3	6.0	0.59	-0.14	z score	-0.41	-0.3	-4.76
2025-01-28	4.6	5.4	0.52	0.37	z score	1.29	0.8	17.39
2025-01-29	15	15	1.50	0.00	z score	0.00	0.0	0.00
2025-01-30	10	10	0.96	0.00	z score	0.00	0.0	0.00
2025-01-31	18	18	1.80	0.00	z score	0.00	0.0	0.00
2025-02-01	10	10	0.98	0.00	z score	0.00	0.0	0.00
2025-02-02	11	11	1.10	0.00	z score	0.00	0.0	0.00
2025-02-03	12	12	1.20	0.00	z score	0.00	0.0	0.00
2025-02-04	36	36	3.50	0.00	z score	0.00	0.0	0.00
2025-02-05	36	35	3.20	-0.45	z score	-0.30	-1.0	-2.78
2025-02-06	34	34	3.50	0.00	z score	0.00	0.0	0.00
2025-02-07	37	38	3.80	0.45	z score	0.26	1.0	2.70
2025-02-08	32	32	3.10	0.00	z score	0.00	0.0	0.00
2025-02-09	13	13	1.30	0.00	z score	0.00	0.0	0.00
2025-02-10	18	18	1.80	0.00	z score	0.00	0.0	0.00
2025-02-11	32	33	3.20	0.43	z' score	0.29	1.0	3.12
2025-02-12	26	26	2.50	0.00	z score	0.00	0.0	0.00
2025-02-13	27	27	2.60	0.00	z score	0.00	0.0	0.00
2025-02-14	12	12	1.20	0.00	z score	0.00	0.0	0.00
2025-02-15	18	18	1.80	0.00	z score	0.00	0.0	0.00
2025-02-16	37	38	3.80	0.45	z score	0.26	1.0	2.70
2025-02-17	40	41	4.00	0.45	z score	0.24	1.0	2.50
2025-02-18	43	46	4.50	1.34	z score	0.65	3.0	6.98
2025-02-19	44	46	4.20	0.89	z score	0.46	2.0	4.55
2025-02-20	53	60	5.80	2.91	z' score	1.17	7.0	13.21
2025-02-21	61	65	6.40	1.63	z' score	0.61	4.0	6.56
2025-02-22	73	77	7.60	1.53	z' score	0.51	4.0	5.48
2025-02-23	54	58	5.80	1.64	z' score	0.66	4.0	7.41
2025-02-24	57	62	6.10	2.00	z' score	0.78	5.0	8.77
2025-02-25	50	55	5.50	2.09	z' score	0.88	5.0	10.00
2025-02-26	7.1	10	0.96	1.33	z score	2.66	2.9	40.85
2025-02-27	15	17	1.70	0.92	z score	1.12	2.0	13.33
2025-02-28	24	26	2.50	0.91	z score	0.77	2.0	8.33
2025-03-01	12	14	1.40	0.92	z score	1.31	2.0	16.67
2025-03-02	11	14	2.50	1.38	z score	1.16	3.0	27.27
2025-03-03	21	25	2.50	1.83	z score	1.56	4.0	19.05
2025-03-04	26	29	2.80	1.36	z score	1.03	3.0	11.54
2025-03-05	27	32	3.30	2.27	z score	1.46	5.0	18.52

Source: JRC 2025

Figure 29. EPA_19/0173 A0110: PM_{10} Results



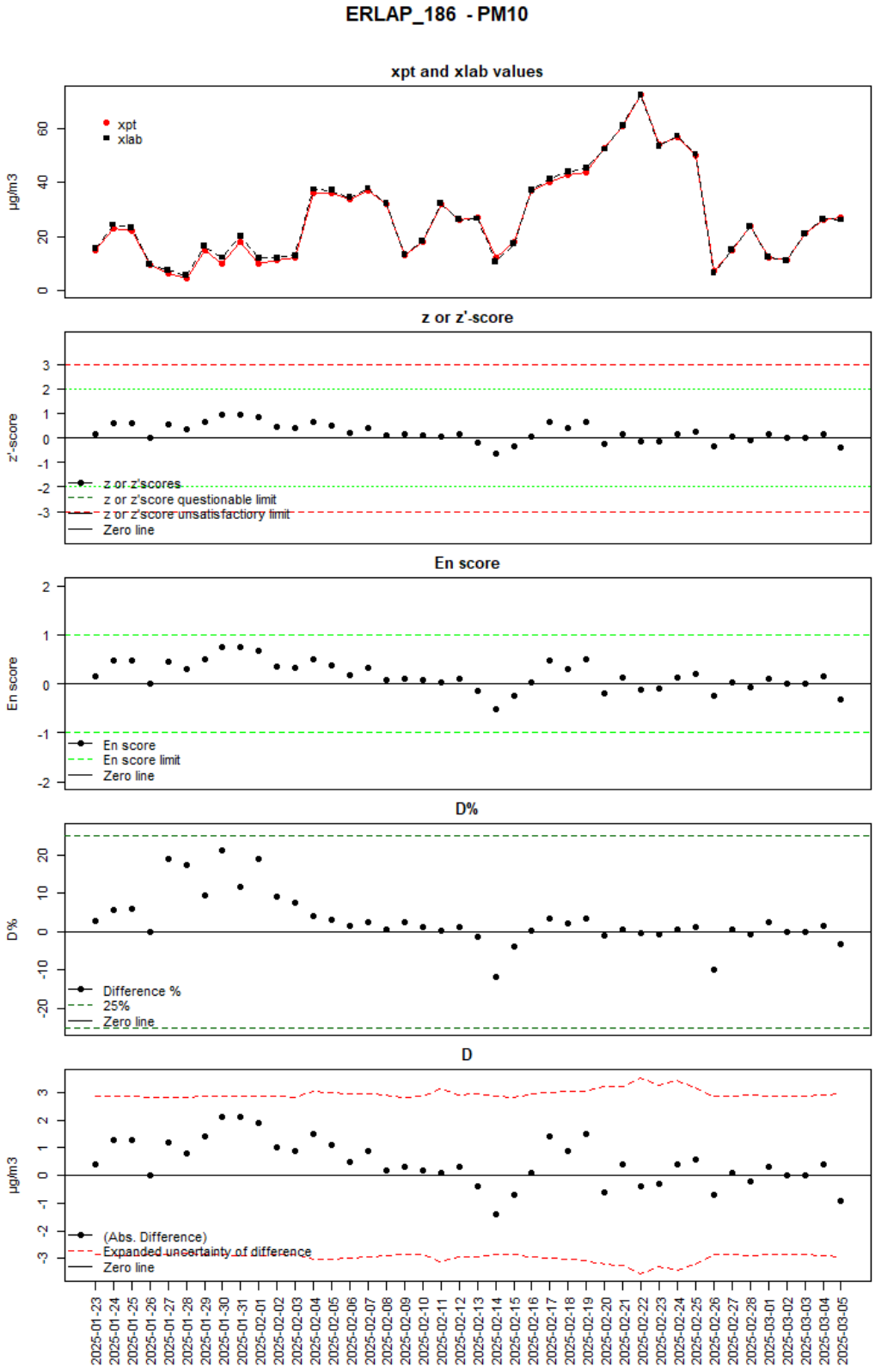
Source: JRC 2025

Table 28. ERLAP_186: PM_{10} Results

ERLAP_186								
PM_{10} data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	15	15	2.8	0.00	z score	0.00	0.0	0.00
2025-01-24	23	24	2.8	0.46	z score	0.35	1.0	4.35
2025-01-25	22	23	2.8	0.46	z score	0.35	1.0	4.55
2025-01-26	9.6	9.6	2.8	0.00	z score	0.00	0.0	0.00
2025-01-27	6.3	7.5	2.8	0.55	z score	0.42	1.2	19.05
2025-01-28	4.6	5.4	2.8	0.37	z score	0.28	0.8	17.39
2025-01-29	15	16	2.8	0.46	z score	0.35	1.0	6.67
2025-01-30	10	12	2.8	0.92	z score	0.70	2.0	20.00
2025-01-31	18	20	2.8	0.91	z score	0.70	2.0	11.11
2025-02-01	10	12	2.8	0.92	z score	0.69	2.0	20.00
2025-02-02	11	12	2.8	0.46	z score	0.35	1.0	9.09
2025-02-03	12	13	2.8	0.46	z score	0.35	1.0	8.33
2025-02-04	36	38	2.9	0.90	z score	0.64	2.0	5.56
2025-02-05	36	37	2.9	0.45	z score	0.32	1.0	2.78
2025-02-06	34	35	2.9	0.45	z score	0.33	1.0	2.94
2025-02-07	37	38	2.9	0.45	z score	0.33	1.0	2.70
2025-02-08	32	32	2.9	0.00	z score	0.00	0.0	0.00
2025-02-09	13	13	2.8	0.00	z score	0.00	0.0	0.00
2025-02-10	18	18	2.8	0.00	z score	0.00	0.0	0.00
2025-02-11	32	32	2.9	0.00	z' score	0.00	0.0	0.00
2025-02-12	26	26	2.8	0.00	z score	0.00	0.0	0.00
2025-02-13	27	27	2.8	0.00	z score	0.00	0.0	0.00
2025-02-14	12	11	2.8	-0.46	z score	-0.35	-1.0	-8.33
2025-02-15	18	17	2.8	-0.46	z score	-0.35	-1.0	-5.56
2025-02-16	37	37	2.9	0.00	z score	0.00	0.0	0.00
2025-02-17	40	41	2.9	0.45	z score	0.32	1.0	2.50
2025-02-18	43	44	2.9	0.45	z score	0.32	1.0	2.33
2025-02-19	44	46	3.0	0.89	z score	0.61	2.0	4.55
2025-02-20	53	52	3.0	-0.42	z' score	-0.30	-1.0	-1.89
2025-02-21	61	61	3.1	0.00	z' score	0.00	0.0	0.00
2025-02-22	73	73	3.2	0.00	z' score	0.00	0.0	0.00
2025-02-23	54	54	3.0	0.00	z' score	0.00	0.0	0.00
2025-02-24	57	57	3.1	0.00	z' score	0.00	0.0	0.00
2025-02-25	50	51	3.0	0.42	z' score	0.30	1.0	2.00
2025-02-26	7.1	6.4	2.8	-0.32	z score	-0.25	-0.7	-9.86
2025-02-27	15	15	2.8	0.00	z score	0.00	0.0	0.00
2025-02-28	24	24	2.8	0.00	z score	0.00	0.0	0.00
2025-03-01	12	12	2.8	0.00	z score	0.00	0.0	0.00
2025-03-02	11	11	2.8	0.00	z score	0.00	0.0	0.00
2025-03-03	21	21	2.8	0.00	z score	0.00	0.0	0.00
2025-03-04	26	26	2.8	0.00	z score	0.00	0.0	0.00
2025-03-05	27	26	2.8	-0.45	z score	-0.34	-1.0	-3.70

Source: JRC 2025

Figure 30. ERLAP_186: PM10 Results



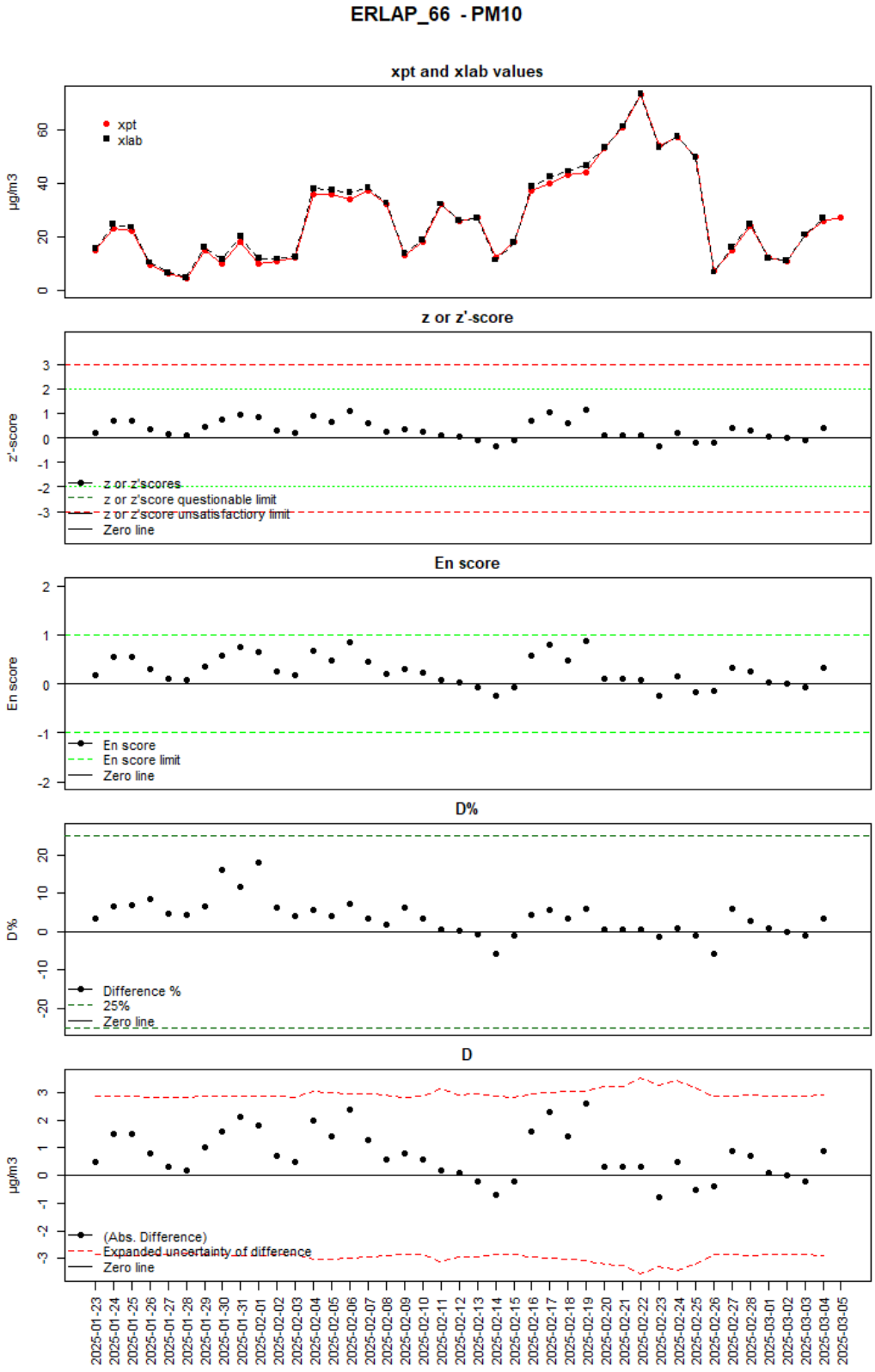
Source: JRC 2025

Table 29. ERLAP_66: PM_{10} Results

ERLAP_66								
PM_{10} data capture = 98								
Day	**xpt**	**xlab**	**Ulab**	**z or z'score**	**Score Type**	**En**	**D**	**D%**
2025-01-23	15	16	2.8	0.46	z score	0.35	1.0	6.67
2025-01-24	23	25	2.8	0.91	z score	0.70	2.0	8.70
2025-01-25	22	24	2.8	0.91	z score	0.70	2.0	9.09
2025-01-26	9.6	10	2.8	0.18	z score	0.14	0.4	4.17
2025-01-27	6.3	6.6	2.8	0.14	z score	0.11	0.3	4.76
2025-01-28	4.6	4.8	2.8	0.09	z score	0.07	0.2	4.35
2025-01-29	15	16	2.8	0.46	z score	0.35	1.0	6.67
2025-01-30	10	12	2.8	0.92	z score	0.70	2.0	20.00
2025-01-31	18	20	2.8	0.91	z score	0.70	2.0	11.11
2025-02-01	10	12	2.8	0.92	z score	0.69	2.0	20.00
2025-02-02	11	12	2.8	0.46	z score	0.35	1.0	9.09
2025-02-03	12	12	2.8	0.00	z score	0.00	0.0	0.00
2025-02-04	36	38	2.9	0.90	z score	0.64	2.0	5.56
2025-02-05	36	37	2.9	0.45	z score	0.32	1.0	2.78
2025-02-06	34	36	2.9	0.90	z score	0.65	2.0	5.88
2025-02-07	37	38	2.9	0.45	z score	0.33	1.0	2.70
2025-02-08	32	33	2.9	0.45	z score	0.33	1.0	3.12
2025-02-09	13	14	2.8	0.46	z score	0.35	1.0	7.69
2025-02-10	18	19	2.8	0.46	z score	0.35	1.0	5.56
2025-02-11	32	32	2.9	0.00	z' score	0.00	0.0	0.00
2025-02-12	26	26	2.8	0.00	z score	0.00	0.0	0.00
2025-02-13	27	27	2.8	0.00	z score	0.00	0.0	0.00
2025-02-14	12	11	2.8	-0.46	z score	-0.35	-1.0	-8.33
2025-02-15	18	18	2.8	0.00	z score	0.00	0.0	0.00
2025-02-16	37	39	2.9	0.90	z score	0.66	2.0	5.41
2025-02-17	40	42	2.9	0.89	z score	0.65	2.0	5.00
2025-02-18	43	44	2.9	0.45	z score	0.32	1.0	2.33
2025-02-19	44	47	3.0	1.33	z score	0.92	3.0	6.82
2025-02-20	53	53	3.0	0.00	z' score	0.00	0.0	0.00
2025-02-21	61	61	3.1	0.00	z' score	0.00	0.0	0.00
2025-02-22	73	73	3.2	0.00	z' score	0.00	0.0	0.00
2025-02-23	54	53	3.0	-0.41	z' score	-0.29	-1.0	-1.85
2025-02-24	57	58	3.1	0.40	z' score	0.27	1.0	1.75
2025-02-25	50	49	3.0	-0.42	z' score	-0.30	-1.0	-2.00
2025-02-26	7.1	6.7	2.8	-0.18	z score	-0.14	-0.4	-5.63
2025-02-27	15	16	2.8	0.46	z score	0.35	1.0	6.67
2025-02-28	24	25	2.8	0.46	z score	0.35	1.0	4.17
2025-03-01	12	12	2.8	0.00	z score	0.00	0.0	0.00
2025-03-02	11	11	2.8	0.00	z score	0.00	0.0	0.00
2025-03-03	21	21	2.8	0.00	z score	0.00	0.0	0.00
2025-03-04	26	27	2.8	0.45	z score	0.34	1.0	3.85
2025-03-05	27				z score			

Source: JRC 2025

Figure 31. ERLAP_66: PM10 Results



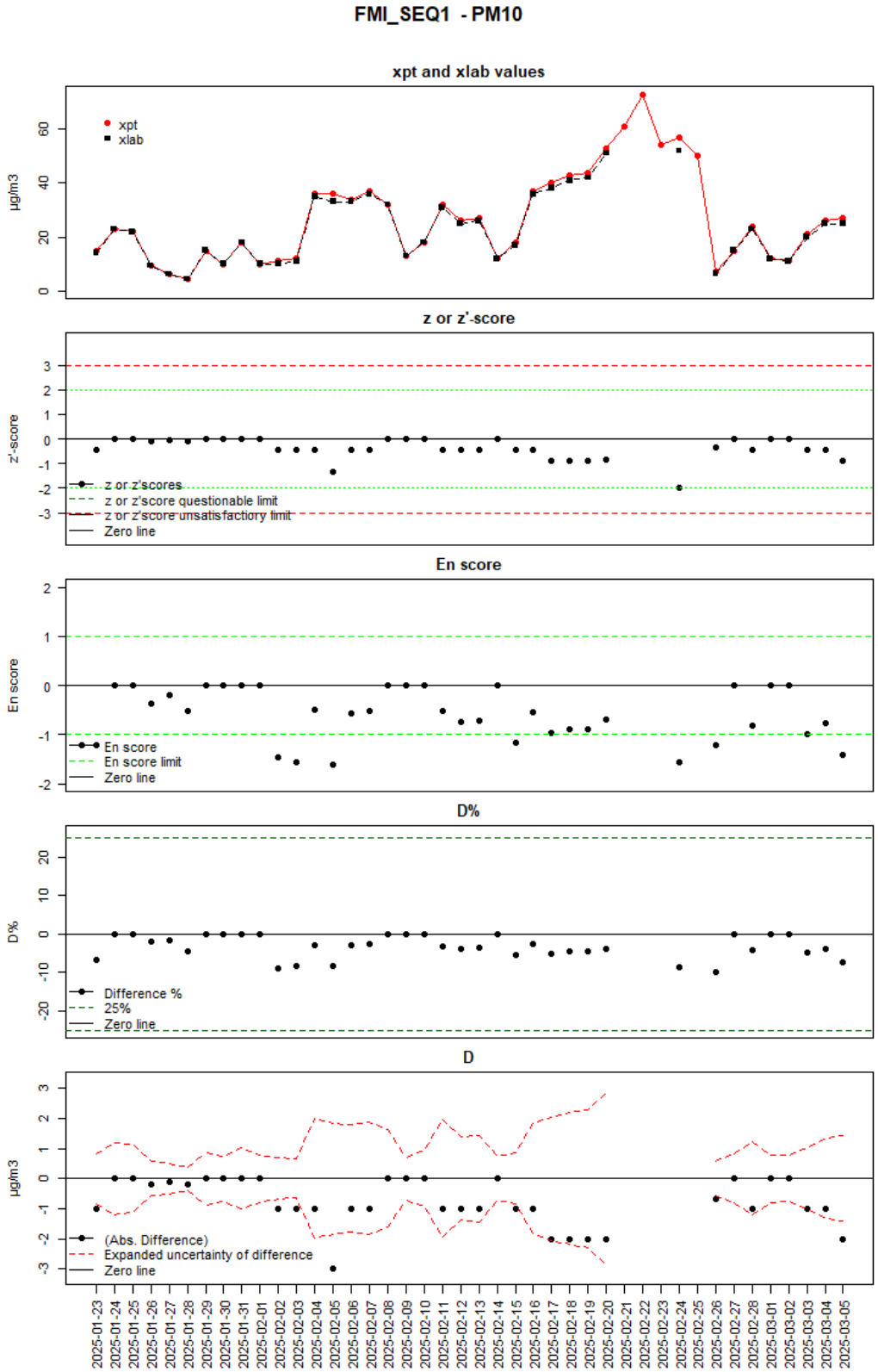
Source: JRC 2025

Table 30. FMI_SEQ1: PM_{10} Results

FMI_SEQ1								
PM_{10} data capture = 90								
Day	**xpt**	**xlab**	**Ulab**	**z or z'score**	**Score Type**	**En**	**D**	**D%**
2025-01-23	15	14	0.61	-0.46	z score	-1.19	-1.0	-6.67
2025-01-24	23	23	0.99	0.00	z score	0.00	0.0	0.00
2025-01-25	22	22	0.94	0.00	z score	0.00	0.0	0.00
2025-01-26	9.6	9.4	0.39	-0.09	z score	-0.37	-0.2	-2.08
2025-01-27	6.3	6.2	0.26	-0.05	z score	-0.20	-0.1	-1.59
2025-01-28	4.6	4.4	0.18	-0.09	z score	-0.52	-0.2	-4.35
2025-01-29	15	15	0.62	0.00	z score	0.00	0.0	0.00
2025-01-30	10	10	0.44	0.00	z score	0.00	0.0	0.00
2025-01-31	18	18	0.79	0.00	z score	0.00	0.0	0.00
2025-02-01	10	10	0.43	0.00	z score	0.00	0.0	0.00
2025-02-02	11	10	0.43	-0.46	z score	-1.45	-1.0	-9.09
2025-02-03	12	11	0.48	-0.46	z score	-1.57	-1.0	-8.33
2025-02-04	36	35	1.60	-0.45	z score	-0.50	-1.0	-2.78
2025-02-05	36	33	1.50	-1.35	z score	-1.62	-3.0	-8.33
2025-02-06	34	33	1.50	-0.45	z score	-0.56	-1.0	-2.94
2025-02-07	37	36	1.70	-0.45	z score	-0.52	-1.0	-2.70
2025-02-08	32	32	1.40	0.00	z score	0.00	0.0	0.00
2025-02-09	13	13	0.56	0.00	z score	0.00	0.0	0.00
2025-02-10	18	18	0.77	0.00	z score	0.00	0.0	0.00
2025-02-11	32	31	1.40	-0.43	z' score	-0.51	-1.0	-3.12
2025-02-12	26	25	1.10	-0.45	z score	-0.73	-1.0	-3.85
2025-02-13	27	26	1.10	-0.45	z score	-0.70	-1.0	-3.70
2025-02-14	12	12	0.50	0.00	z score	0.00	0.0	0.00
2025-02-15	18	17	0.75	-0.46	z score	-1.15	-1.0	-5.56
2025-02-16	37	36	1.60	-0.45	z score	-0.55	-1.0	-2.70
2025-02-17	40	38	1.80	-0.89	z score	-0.96	-2.0	-5.00
2025-02-18	43	41	1.90	-0.89	z score	-0.90	-2.0	-4.65
2025-02-19	44	42	1.90	-0.89	z score	-0.88	-2.0	-4.55
2025-02-20	53	51	2.40	-0.83	z' score	-0.70	-2.0	-3.77
2025-02-21	61				z' score			
2025-02-22	73				z' score			
2025-02-23	54				z' score			
2025-02-24	57	52	2.50	-2.00	z' score	-1.57	-5.0	-8.77
2025-02-25	50				z' score			
2025-02-26	7.1	6.4	0.26	-0.32	z score	-1.20	-0.7	-9.86
2025-02-27	15	15	0.62	0.00	z score	0.00	0.0	0.00
2025-02-28	24	23	0.99	-0.46	z score	-0.82	-1.0	-4.17
2025-03-01	12	12	0.50	0.00	z score	0.00	0.0	0.00
2025-03-02	11	11	0.45	0.00	z score	0.00	0.0	0.00
2025-03-03	21	20	0.87	-0.46	z score	-0.98	-1.0	-4.76
2025-03-04	26	25	1.10	-0.45	z score	-0.75	-1.0	-3.85
2025-03-05	27	25	1.10	-0.91	z score	-1.41	-2.0	-7.41

Source: JRC 2025

Figure 32. FMI_SEQ1: PM10 Results



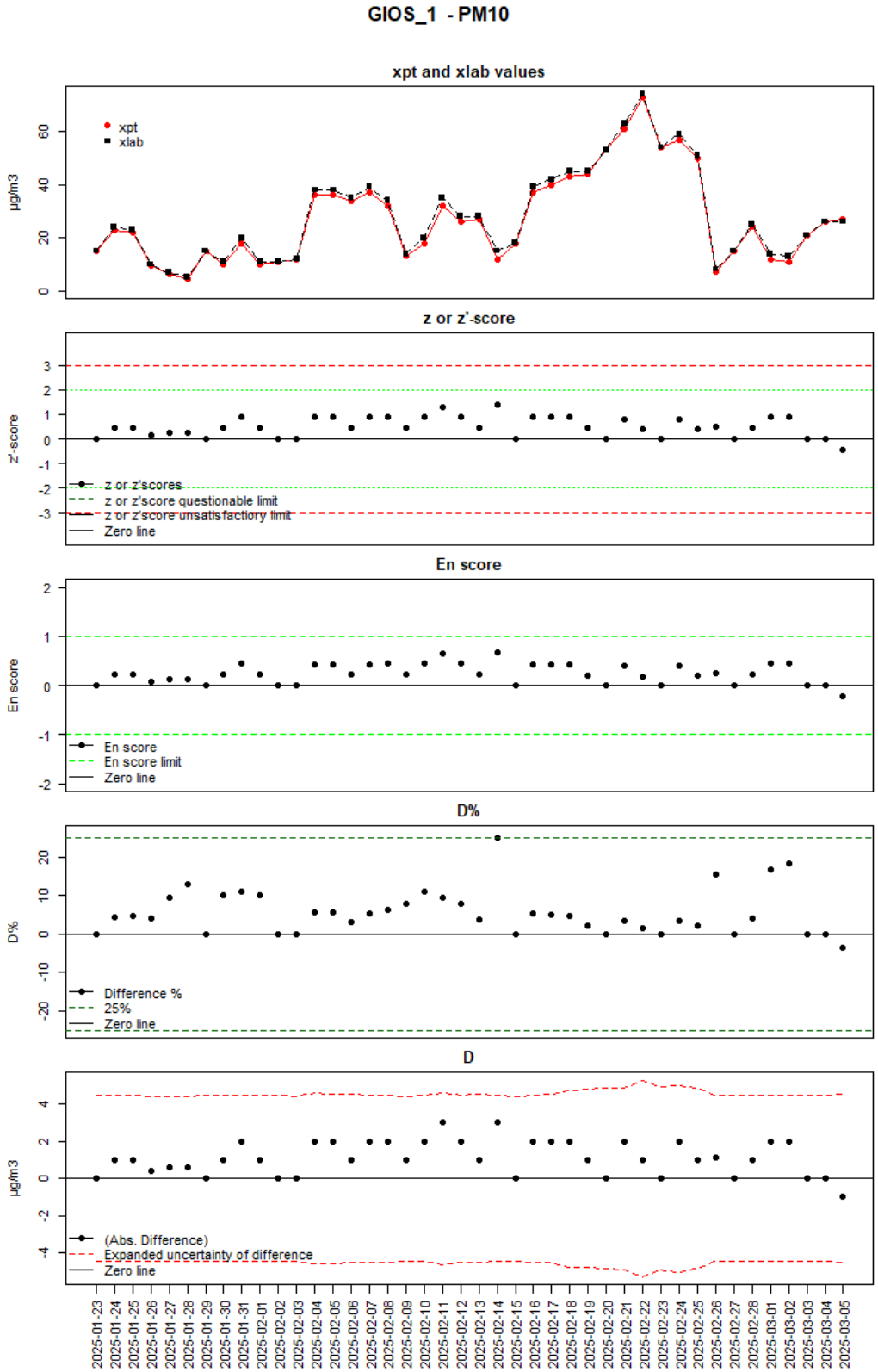
Source: JRC 2025

Table 31. GIOS_1: PM_{10} Results

GIOS_1								
PM_{10} data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	15	15	4.4	0.00	z score	0.00	0.0	0.00
2025-01-24	23	24	4.4	0.46	z score	0.22	1.0	4.35
2025-01-25	22	23	4.4	0.46	z score	0.22	1.0	4.55
2025-01-26	9.6	10	4.4	0.18	z score	0.09	0.4	4.17
2025-01-27	6.3	6.9	4.4	0.28	z score	0.14	0.6	9.52
2025-01-28	4.6	5.2	4.4	0.28	z score	0.14	0.6	13.04
2025-01-29	15	15	4.4	0.00	z score	0.00	0.0	0.00
2025-01-30	10	11	4.4	0.46	z score	0.23	1.0	10.00
2025-01-31	18	20	4.4	0.91	z score	0.45	2.0	11.11
2025-02-01	10	11	4.4	0.46	z score	0.22	1.0	10.00
2025-02-02	11	11	4.4	0.00	z score	0.00	0.0	0.00
2025-02-03	12	12	4.4	0.00	z score	0.00	0.0	0.00
2025-02-04	36	38	4.5	0.90	z score	0.43	2.0	5.56
2025-02-05	36	38	4.5	0.90	z score	0.43	2.0	5.56
2025-02-06	34	35	4.4	0.45	z score	0.22	1.0	2.94
2025-02-07	37	39	4.5	0.90	z score	0.44	2.0	5.41
2025-02-08	32	34	4.4	0.90	z score	0.45	2.0	6.25
2025-02-09	13	14	4.4	0.46	z score	0.23	1.0	7.69
2025-02-10	18	20	4.4	0.91	z score	0.45	2.0	11.11
2025-02-11	32	35	4.4	1.30	z' score	0.65	3.0	9.38
2025-02-12	26	28	4.4	0.91	z score	0.45	2.0	7.69
2025-02-13	27	28	4.4	0.45	z score	0.22	1.0	3.70
2025-02-14	12	15	4.4	1.38	z score	0.68	3.0	25.00
2025-02-15	18	18	4.4	0.00	z score	0.00	0.0	0.00
2025-02-16	37	39	4.5	0.90	z score	0.44	2.0	5.41
2025-02-17	40	42	4.5	0.89	z score	0.43	2.0	5.00
2025-02-18	43	45	4.5	0.89	z score	0.43	2.0	4.65
2025-02-19	44	45	4.5	0.44	z score	0.21	1.0	2.27
2025-02-20	53	53	4.6	0.00	z' score	0.00	0.0	0.00
2025-02-21	61	63	4.6	0.82	z' score	0.41	2.0	3.28
2025-02-22	73	74	4.8	0.38	z' score	0.19	1.0	1.37
2025-02-23	54	54	4.6	0.00	z' score	0.00	0.0	0.00
2025-02-24	57	59	4.6	0.80	z' score	0.40	2.0	3.51
2025-02-25	50	51	4.5	0.42	z' score	0.21	1.0	2.00
2025-02-26	7.1	8.2	4.4	0.51	z score	0.25	1.1	15.49
2025-02-27	15	15	4.4	0.00	z score	0.00	0.0	0.00
2025-02-28	24	25	4.4	0.46	z score	0.22	1.0	4.17
2025-03-01	12	14	4.4	0.92	z score	0.45	2.0	16.67
2025-03-02	11	13	4.4	0.92	z score	0.45	2.0	18.18
2025-03-03	21	21	4.4	0.00	z score	0.00	0.0	0.00
2025-03-04	26	26	4.4	0.00	z score	0.00	0.0	0.00
2025-03-05	27	26	4.4	-0.45	z score	-0.22	-1.0	-3.70

Source: JRC 2025

Figure 33. GIOS_1: PM10 Results



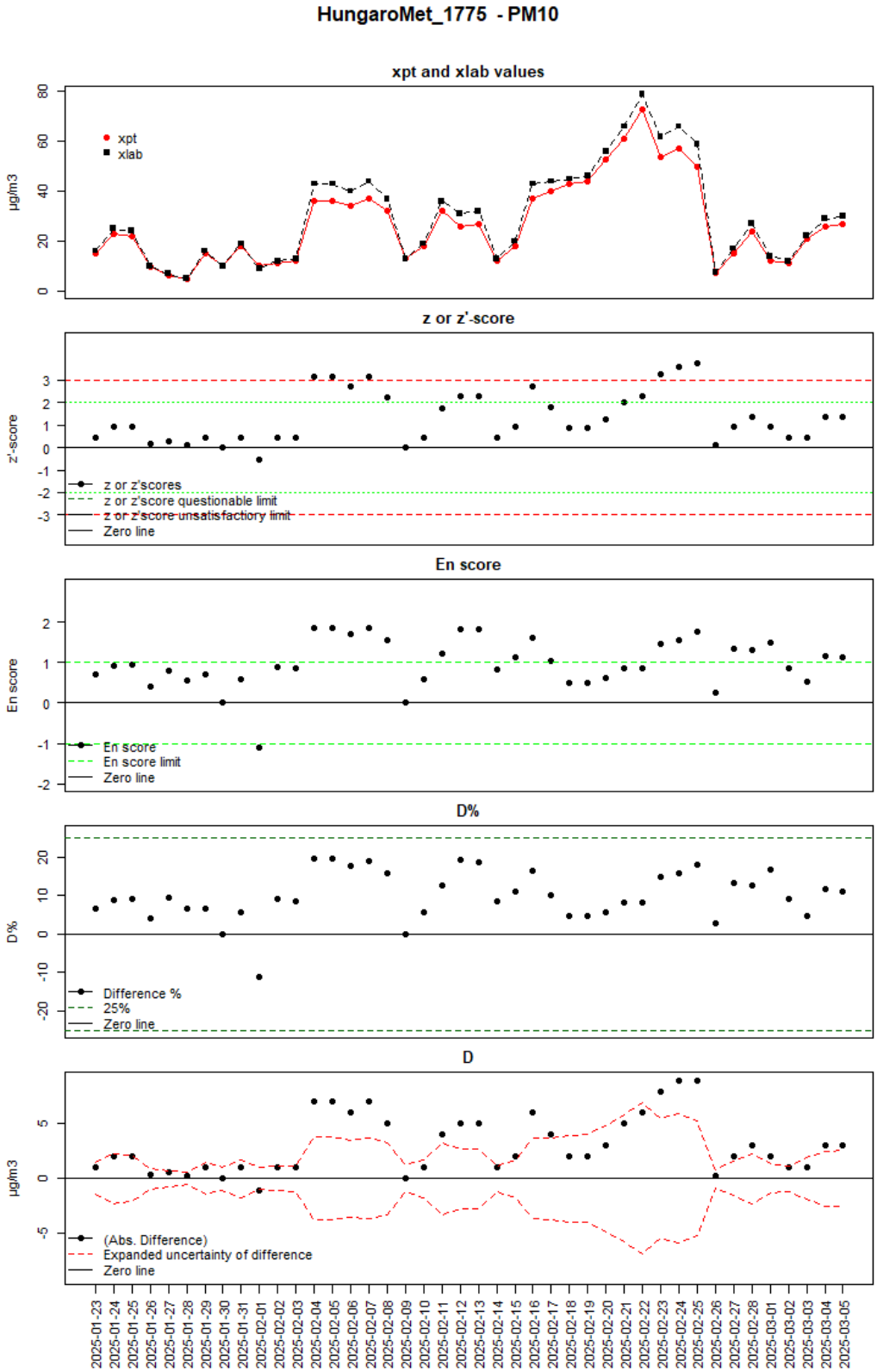
Source: JRC 2025

Table 32. HungaroMet_1775: PM_{10} Results

HungaroMet_1775								
PM_{10} data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	15	16	1.30	0.46	z score	0.70	1.0	6.67
2025-01-24	23	25	2.10	0.91	z score	0.91	2.0	8.70
2025-01-25	22	24	2.00	0.91	z score	0.95	2.0	9.09
2025-01-26	9.6	10	0.87	0.18	z score	0.42	0.4	4.17
2025-01-27	6.3	6.9	0.60	0.28	z score	0.81	0.6	9.52
2025-01-28	4.6	4.9	0.43	0.14	z score	0.55	0.3	6.52
2025-01-29	15	16	1.30	0.46	z score	0.70	1.0	6.67
2025-01-30	10	10	0.87	0.00	z score	0.00	0.0	0.00
2025-01-31	18	19	1.60	0.46	z score	0.58	1.0	5.56
2025-02-01	10	8.9	0.76	-0.51	z score	-1.08	-1.1	-11.00
2025-02-02	11	12	0.98	0.46	z score	0.89	1.0	9.09
2025-02-03	12	13	1.10	0.46	z score	0.85	1.0	8.33
2025-02-04	36	43	3.60	3.15	z score	1.84	7.0	19.44
2025-02-05	36	43	3.60	3.15	z score	1.86	7.0	19.44
2025-02-06	34	40	3.40	2.70	z score	1.70	6.0	17.65
2025-02-07	37	44	3.70	3.14	z score	1.84	7.0	18.92
2025-02-08	32	37	3.10	2.26	z score	1.56	5.0	15.62
2025-02-09	13	13	1.10	0.00	z score	0.00	0.0	0.00
2025-02-10	18	19	1.60	0.46	z score	0.59	1.0	5.56
2025-02-11	32	36	3.00	1.73	z' score	1.21	4.0	12.50
2025-02-12	26	31	2.60	2.27	z score	1.83	5.0	19.23
2025-02-13	27	32	2.60	2.27	z score	1.81	5.0	18.52
2025-02-14	12	13	1.10	0.46	z score	0.82	1.0	8.33
2025-02-15	18	20	1.70	0.91	z score	1.14	2.0	11.11
2025-02-16	37	43	3.60	2.70	z score	1.62	6.0	16.22
2025-02-17	40	44	3.70	1.79	z score	1.04	4.0	10.00
2025-02-18	43	45	3.80	0.89	z score	0.50	2.0	4.65
2025-02-19	44	46	3.90	0.89	z score	0.49	2.0	4.55
2025-02-20	53	56	4.70	1.25	z' score	0.61	3.0	5.66
2025-02-21	61	66	5.60	2.04	z' score	0.86	5.0	8.20
2025-02-22	73	79	6.70	2.29	z' score	0.85	6.0	8.22
2025-02-23	54	62	5.20	3.28	z' score	1.46	8.0	14.81
2025-02-24	57	66	5.50	3.60	z' score	1.54	9.0	15.79
2025-02-25	50	59	4.90	3.76	z' score	1.75	9.0	18.00
2025-02-26	7.1	7.3	0.60	0.09	z score	0.25	0.2	2.82
2025-02-27	15	17	1.40	0.92	z score	1.33	2.0	13.33
2025-02-28	24	27	2.20	1.37	z score	1.30	3.0	12.50
2025-03-01	12	14	1.20	0.92	z score	1.48	2.0	16.67
2025-03-02	11	12	1.00	0.46	z score	0.85	1.0	9.09
2025-03-03	21	22	1.80	0.46	z score	0.53	1.0	4.76
2025-03-04	26	29	2.50	1.36	z score	1.15	3.0	11.54
2025-03-05	27	30	2.50	1.36	z score	1.13	3.0	11.11

Source: JRC 2025

Figure 34. HungaroMet_1775: PM10 Results



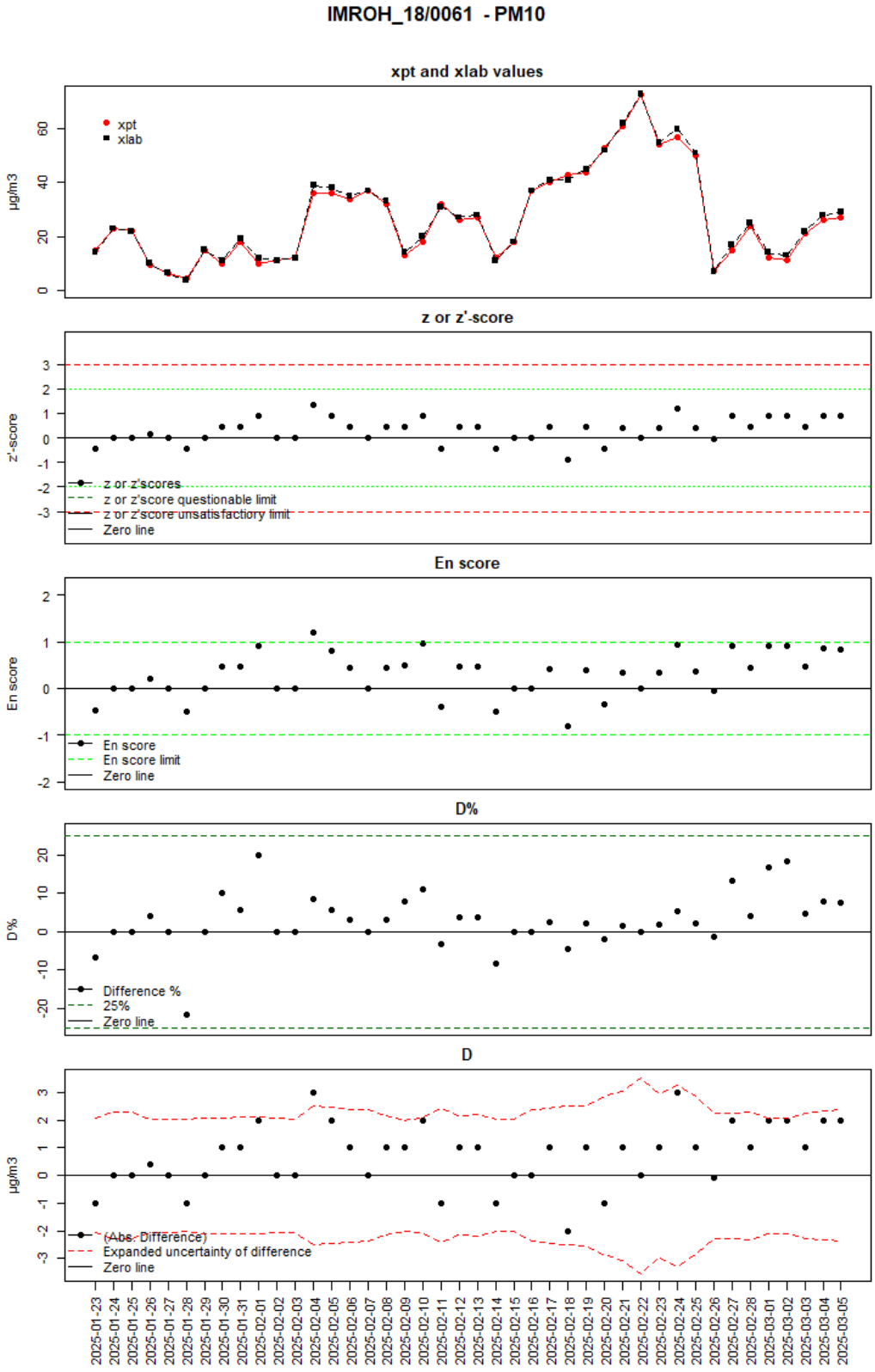
Source: JRC 2025

Table 33. IMROH_18/0061: PM_{10} Results

IMROH_18/0061								
PM_{10} data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	15	14	2.0	-0.46	z score	-0.48	-1.0	-6.67
2025-01-24	23	23	2.2	0.00	z score	0.00	0.0	0.00
2025-01-25	22	22	2.1	0.00	z score	0.00	0.0	0.00
2025-01-26	9.6	10	2.0	0.18	z score	0.20	0.4	4.17
2025-01-27	6.3	6.3	2.0	0.00	z score	0.00	0.0	0.00
2025-01-28	4.6	3.6	2.0	-0.46	z score	-0.49	-1.0	-21.74
2025-01-29	15	15	2.0	0.00	z score	0.00	0.0	0.00
2025-01-30	10	11	2.0	0.46	z score	0.48	1.0	10.00
2025-01-31	18	19	2.1	0.46	z score	0.46	1.0	5.56
2025-02-01	10	12	2.1	0.92	z score	0.91	2.0	20.00
2025-02-02	11	11	2.0	0.00	z score	0.00	0.0	0.00
2025-02-03	12	12	2.0	0.00	z score	0.00	0.0	0.00
2025-02-04	36	39	2.2	1.35	z score	1.20	3.0	8.33
2025-02-05	36	38	2.2	0.90	z score	0.82	2.0	5.56
2025-02-06	34	35	2.1	0.45	z score	0.43	1.0	2.94
2025-02-07	37	37	2.1	0.00	z score	0.00	0.0	0.00
2025-02-08	32	33	2.1	0.45	z score	0.44	1.0	3.12
2025-02-09	13	14	2.0	0.46	z score	0.49	1.0	7.69
2025-02-10	18	20	2.0	0.91	z score	0.96	2.0	11.11
2025-02-11	32	31	2.1	-0.43	z' score	-0.40	-1.0	-3.12
2025-02-12	26	27	2.0	0.45	z score	0.46	1.0	3.85
2025-02-13	27	28	2.0	0.45	z score	0.45	1.0	3.70
2025-02-14	12	11	1.9	-0.46	z score	-0.51	-1.0	-8.33
2025-02-15	18	18	2.0	0.00	z score	0.00	0.0	0.00
2025-02-16	37	37	2.1	0.00	z score	0.00	0.0	0.00
2025-02-17	40	41	2.2	0.45	z score	0.41	1.0	2.50
2025-02-18	43	41	2.2	-0.89	z score	-0.80	-2.0	-4.65
2025-02-19	44	45	2.2	0.44	z score	0.39	1.0	2.27
2025-02-20	53	52	2.4	-0.42	z' score	-0.35	-1.0	-1.89
2025-02-21	61	62	2.6	0.41	z' score	0.33	1.0	1.64
2025-02-22	73	73	2.8	0.00	z' score	0.00	0.0	0.00
2025-02-23	54	55	2.5	0.41	z' score	0.33	1.0	1.85
2025-02-24	57	60	2.5	1.20	z' score	0.94	3.0	5.26
2025-02-25	50	51	2.4	0.42	z' score	0.35	1.0	2.00
2025-02-26	7.1	7.0	2.1	-0.05	z score	-0.05	-0.1	-1.41
2025-02-27	15	17	2.1	0.92	z score	0.92	2.0	13.33
2025-02-28	24	25	2.2	0.46	z score	0.43	1.0	4.17
2025-03-01	12	14	2.1	0.92	z score	0.91	2.0	16.67
2025-03-02	11	13	2.1	0.92	z score	0.91	2.0	18.18
2025-03-03	21	22	2.1	0.46	z score	0.46	1.0	4.76
2025-03-04	26	28	2.2	0.91	z score	0.86	2.0	7.69
2025-03-05	27	29	2.2	0.91	z score	0.84	2.0	7.41

Source: JRC 2025

Figure 35. IMROH_18/0061: PM10 Results



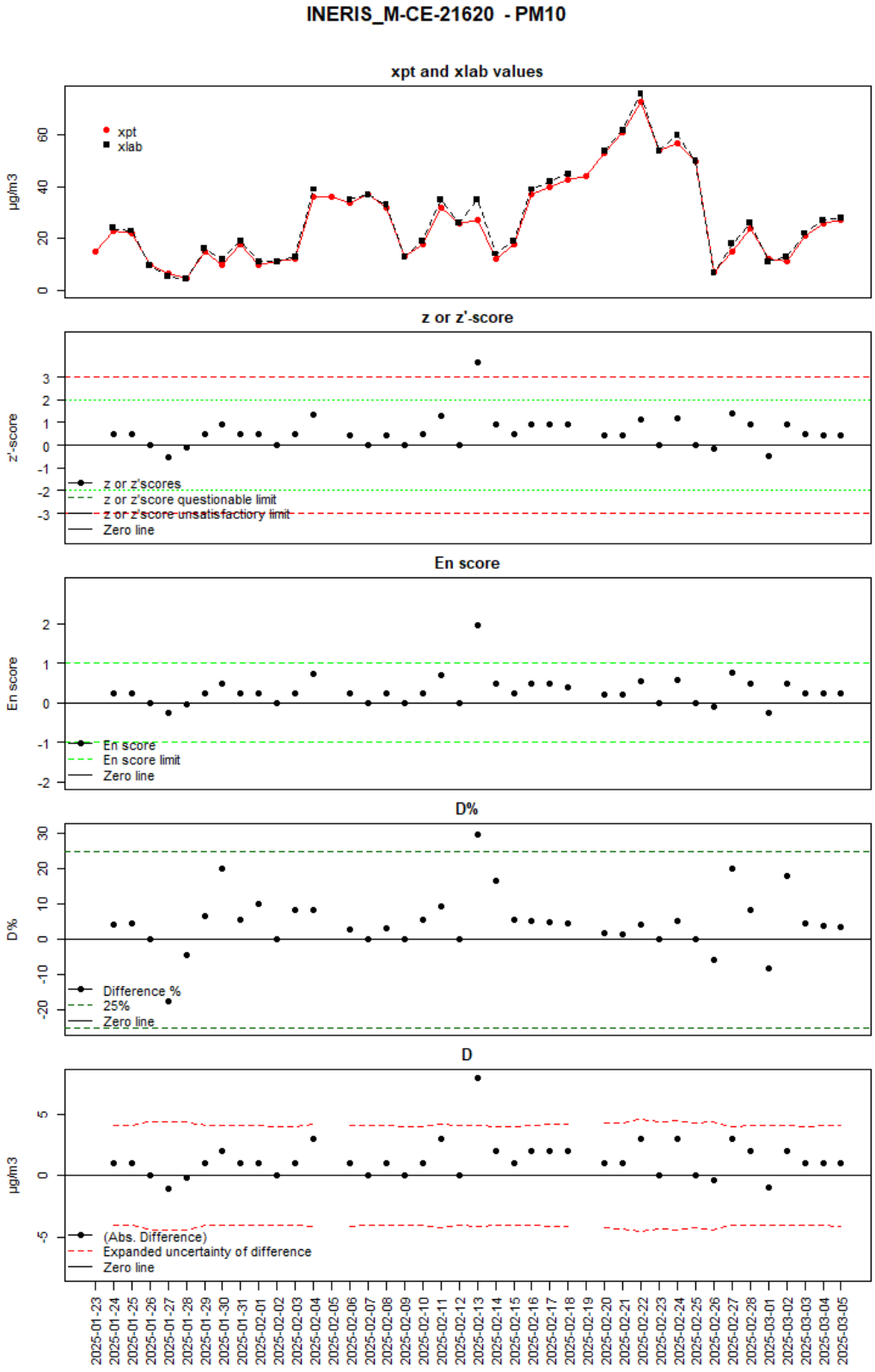
Source: JRC 2025

Table 34. INERIS_M-CE-21620: PM_{10} Results

INERIS_M-CE-21620								
PM_{10} data capture = 93								
Day	**xpt**	**xlab**	**Ulab**	**z or z'score**	**Score Type**	**En**	**D**	**D%**
2025-01-23	15				z score			
2025-01-24	23	24	4.0	0.46	z score	0.25	1.0	4.35
2025-01-25	22	23	4.0	0.46	z score	0.25	1.0	4.55
2025-01-26	9.6	9.6	4.4	0.00	z score	0.00	0.0	0.00
2025-01-27	6.3	5.2	4.4	-0.51	z score	-0.25	-1.1	-17.46
2025-01-28	4.6	4.4	4.4	-0.09	z score	-0.05	-0.2	-4.35
2025-01-29	15	16	4.0	0.46	z score	0.25	1.0	6.67
2025-01-30	10	12	4.0	0.92	z score	0.49	2.0	20.00
2025-01-31	18	19	4.0	0.46	z score	0.25	1.0	5.56
2025-02-01	10	11	4.0	0.46	z score	0.25	1.0	10.00
2025-02-02	11	11	4.0	0.00	z score	0.00	0.0	0.00
2025-02-03	12	13	4.0	0.46	z score	0.25	1.0	8.33
2025-02-04	36	39	4.0	1.35	z score	0.72	3.0	8.33
2025-02-05	36				z score			
2025-02-06	34	35	4.0	0.45	z score	0.24	1.0	2.94
2025-02-07	37	37	4.0	0.00	z score	0.00	0.0	0.00
2025-02-08	32	33	4.0	0.45	z score	0.24	1.0	3.12
2025-02-09	13	13	4.0	0.00	z score	0.00	0.0	0.00
2025-02-10	18	19	4.0	0.46	z score	0.25	1.0	5.56
2025-02-11	32	35	4.0	1.30	z' score	0.71	3.0	9.38
2025-02-12	26	26	4.0	0.00	z score	0.00	0.0	0.00
2025-02-13	27	35	4.0	3.63	z score	1.95	8.0	29.63
2025-02-14	12	14	4.0	0.92	z score	0.50	2.0	16.67
2025-02-15	18	19	4.0	0.46	z score	0.25	1.0	5.56
2025-02-16	37	39	4.0	0.90	z score	0.49	2.0	5.41
2025-02-17	40	42	4.0	0.89	z score	0.48	2.0	5.00
2025-02-18	43	45	5.0	0.89	z score	0.39	2.0	4.65
2025-02-19	44				z score			
2025-02-20	53	54	5.0	0.42	z' score	0.19	1.0	1.89
2025-02-21	61	62	5.0	0.41	z' score	0.19	1.0	1.64
2025-02-22	73	76	5.0	1.15	z' score	0.55	3.0	4.11
2025-02-23	54	54	5.0	0.00	z' score	0.00	0.0	0.00
2025-02-24	57	60	5.0	1.20	z' score	0.56	3.0	5.26
2025-02-25	50	50	5.0	0.00	z' score	0.00	0.0	0.00
2025-02-26	7.1	6.7	4.4	-0.18	z score	-0.09	-0.4	-5.63
2025-02-27	15	18	4.0	1.37	z score	0.74	3.0	20.00
2025-02-28	24	26	4.0	0.91	z score	0.49	2.0	8.33
2025-03-01	12	11	4.0	-0.46	z score	-0.25	-1.0	-8.33
2025-03-02	11	13	4.0	0.92	z score	0.49	2.0	18.18
2025-03-03	21	22	4.0	0.46	z score	0.25	1.0	4.76
2025-03-04	26	27	4.0	0.45	z score	0.25	1.0	3.85
2025-03-05	27	28	4.0	0.45	z score	0.24	1.0	3.70

Source: JRC 2025

Figure 36. INERIS_M-CE-21620: PM10 Results



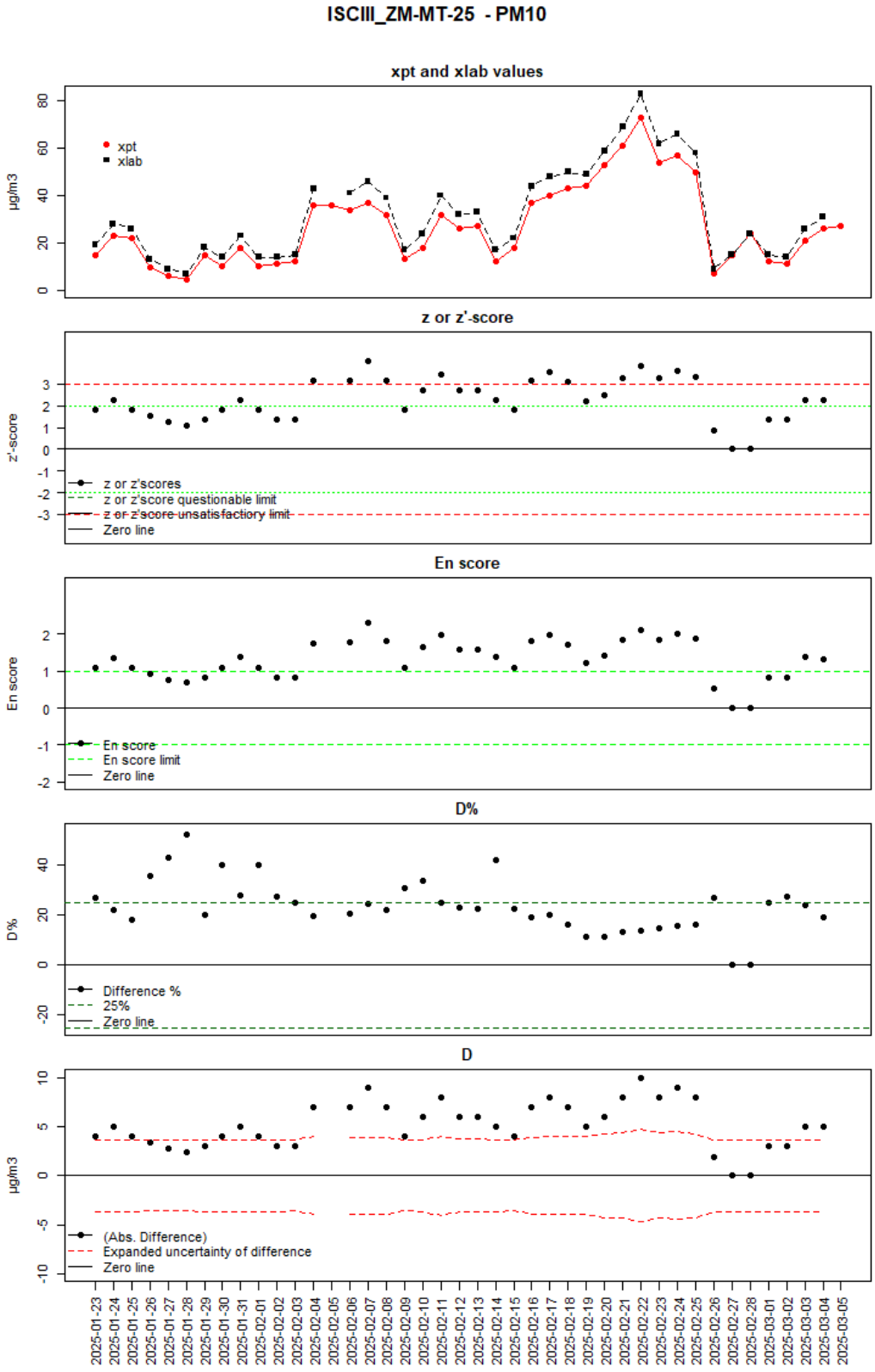
Source: JRC 2025

Table 35. ISCIII_ZM-MT-25: PM_{10} Results

ISCIII_ZM-MT-25								
PM_{10} data capture = 95								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	15	19	3.6	1.83	z score	1.10	4.0	26.67
2025-01-24	23	28	3.6	2.28	z score	1.37	5.0	21.74
2025-01-25	22	26	3.6	1.82	z score	1.09	4.0	18.18
2025-01-26	9.6	13	3.6	1.56	z score	0.94	3.4	35.42
2025-01-27	6.3	9	3.5	1.24	z score	0.77	2.7	42.86
2025-01-28	4.6	7	3.5	1.10	z score	0.68	2.4	52.17
2025-01-29	15	18	3.6	1.37	z score	0.82	3.0	20.00
2025-01-30	10	14	3.6	1.84	z score	1.09	4.0	40.00
2025-01-31	18	23	3.6	2.29	z score	1.37	5.0	27.78
2025-02-01	10	14	3.6	1.84	z score	1.09	4.0	40.00
2025-02-02	11	14	3.6	1.38	z score	0.82	3.0	27.27
2025-02-03	12	15	3.6	1.38	z score	0.83	3.0	25.00
2025-02-04	36	43	3.8	3.15	z score	1.76	7.0	19.44
2025-02-05	36				z score			
2025-02-06	34	41	3.8	3.16	z score	1.79	7.0	20.59
2025-02-07	37	46	3.8	4.04	z score	2.31	9.0	24.32
2025-02-08	32	39	3.8	3.16	z score	1.80	7.0	21.88
2025-02-09	13	17	3.6	1.83	z score	1.10	4.0	30.77
2025-02-10	18	24	3.6	2.74	z score	1.65	6.0	33.33
2025-02-11	32	40	3.8	3.46	z' score	1.98	8.0	25.00
2025-02-12	26	32	3.7	2.73	z score	1.58	6.0	23.08
2025-02-13	27	33	3.7	2.72	z score	1.57	6.0	22.22
2025-02-14	12	17	3.6	2.29	z score	1.37	5.0	41.67
2025-02-15	18	22	3.6	1.83	z score	1.10	4.0	22.22
2025-02-16	37	44	3.8	3.14	z score	1.79	7.0	18.92
2025-02-17	40	48	3.9	3.58	z score	1.98	8.0	20.00
2025-02-18	43	50	3.9	3.12	z score	1.72	7.0	16.28
2025-02-19	44	49	3.9	2.22	z score	1.22	5.0	11.36
2025-02-20	53	59	4.0	2.49	z' score	1.40	6.0	11.32
2025-02-21	61	69	4.0	3.27	z' score	1.86	8.0	13.11
2025-02-22	73	83	4.2	3.82	z' score	2.11	10.0	13.70
2025-02-23	54	62	4.0	3.28	z' score	1.84	8.0	14.81
2025-02-24	57	66	4.0	3.60	z' score	2.02	9.0	15.79
2025-02-25	50	58	4.0	3.34	z' score	1.87	8.0	16.00
2025-02-26	7.1	9	3.5	0.87	z score	0.54	1.9	26.76
2025-02-27	15	15	3.6	0.00	z score	0.00	0.0	0.00
2025-02-28	24	24	3.6	0.00	z score	0.00	0.0	0.00
2025-03-01	12	15	3.6	1.38	z score	0.82	3.0	25.00
2025-03-02	11	14	3.6	1.38	z score	0.82	3.0	27.27
2025-03-03	21	26	3.6	2.28	z score	1.37	5.0	23.81
2025-03-04	26	31	3.7	2.27	z score	1.32	5.0	19.23
2025-03-05	27				z score			

Source: JRC 2025

Figure 37. ISCIII_ZM-MT-25: PM10 Results



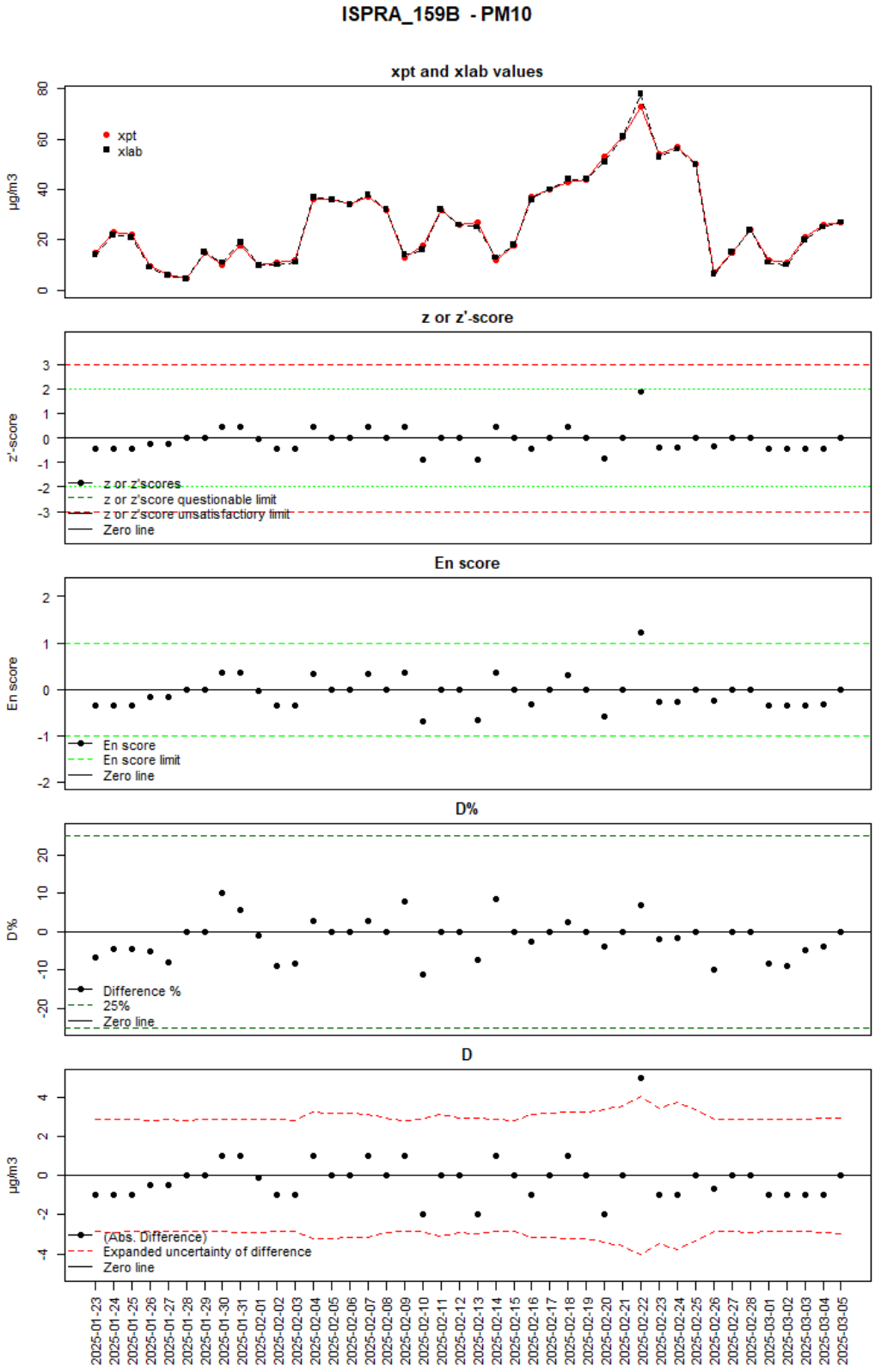
Source: JRC 2025

Table 36. ISPRA_159B: PM_{10} Results

ISPRA_159B								
PM_{10} data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	15	14	2.8	-0.46	z score	-0.35	-1.0	-6.67
2025-01-24	23	22	2.8	-0.46	z score	-0.35	-1.0	-4.35
2025-01-25	22	21	2.8	-0.46	z score	-0.35	-1.0	-4.55
2025-01-26	9.6	9.1	2.8	-0.23	z score	-0.18	-0.5	-5.21
2025-01-27	6.3	5.8	2.8	-0.23	z score	-0.18	-0.5	-7.94
2025-01-28	4.6	4.6	2.8	0.00	z score	0.00	0.0	0.00
2025-01-29	15	15	2.8	0.00	z score	0.00	0.0	0.00
2025-01-30	10	11	2.8	0.46	z score	0.35	1.0	10.00
2025-01-31	18	19	2.8	0.46	z score	0.35	1.0	5.56
2025-02-01	10	9.9	2.8	-0.05	z score	-0.03	-0.1	-1.00
2025-02-02	11	10	2.8	-0.46	z score	-0.35	-1.0	-9.09
2025-02-03	12	11	2.8	-0.46	z score	-0.35	-1.0	-8.33
2025-02-04	36	37	2.9	0.45	z score	0.32	1.0	2.78
2025-02-05	36	36	2.9	0.00	z score	0.00	0.0	0.00
2025-02-06	34	34	2.9	0.00	z score	0.00	0.0	0.00
2025-02-07	37	38	2.9	0.45	z score	0.33	1.0	2.70
2025-02-08	32	32	2.9	0.00	z score	0.00	0.0	0.00
2025-02-09	13	14	2.8	0.46	z score	0.35	1.0	7.69
2025-02-10	18	16	2.8	-0.91	z score	-0.70	-2.0	-11.11
2025-02-11	32	32	2.9	0.00	z' score	0.00	0.0	0.00
2025-02-12	26	26	2.9	0.00	z score	0.00	0.0	0.00
2025-02-13	27	25	2.9	-0.91	z score	-0.66	-2.0	-7.41
2025-02-14	12	13	2.8	0.46	z score	0.35	1.0	8.33
2025-02-15	18	18	2.8	0.00	z score	0.00	0.0	0.00
2025-02-16	37	36	2.9	-0.45	z score	-0.33	-1.0	-2.70
2025-02-17	40	40	3.0	0.00	z score	0.00	0.0	0.00
2025-02-18	43	44	3.0	0.45	z score	0.31	1.0	2.33
2025-02-19	44	44	3.0	0.00	z score	0.00	0.0	0.00
2025-02-20	53	51	3.1	-0.83	z' score	-0.58	-2.0	-3.77
2025-02-21	61	61	3.2	0.00	z' score	0.00	0.0	0.00
2025-02-22	73	78	3.4	1.91	z' score	1.23	5.0	6.85
2025-02-23	54	53	3.1	-0.41	z' score	-0.28	-1.0	-1.85
2025-02-24	57	56	3.1	-0.40	z' score	-0.27	-1.0	-1.75
2025-02-25	50	50	3.1	0.00	z' score	0.00	0.0	0.00
2025-02-26	7.1	6.4	2.8	-0.32	z score	-0.25	-0.7	-9.86
2025-02-27	15	15	2.8	0.00	z score	0.00	0.0	0.00
2025-02-28	24	24	2.8	0.00	z score	0.00	0.0	0.00
2025-03-01	12	11	2.8	-0.46	z score	-0.35	-1.0	-8.33
2025-03-02	11	10	2.8	-0.46	z score	-0.35	-1.0	-9.09
2025-03-03	21	20	2.8	-0.46	z score	-0.35	-1.0	-4.76
2025-03-04	26	25	2.9	-0.45	z score	-0.33	-1.0	-3.85
2025-03-05	27	27	2.9	0.00	z score	0.00	0.0	0.00

Source: JRC 2025

Figure 38. . ISPRA_159B: PM10 Results



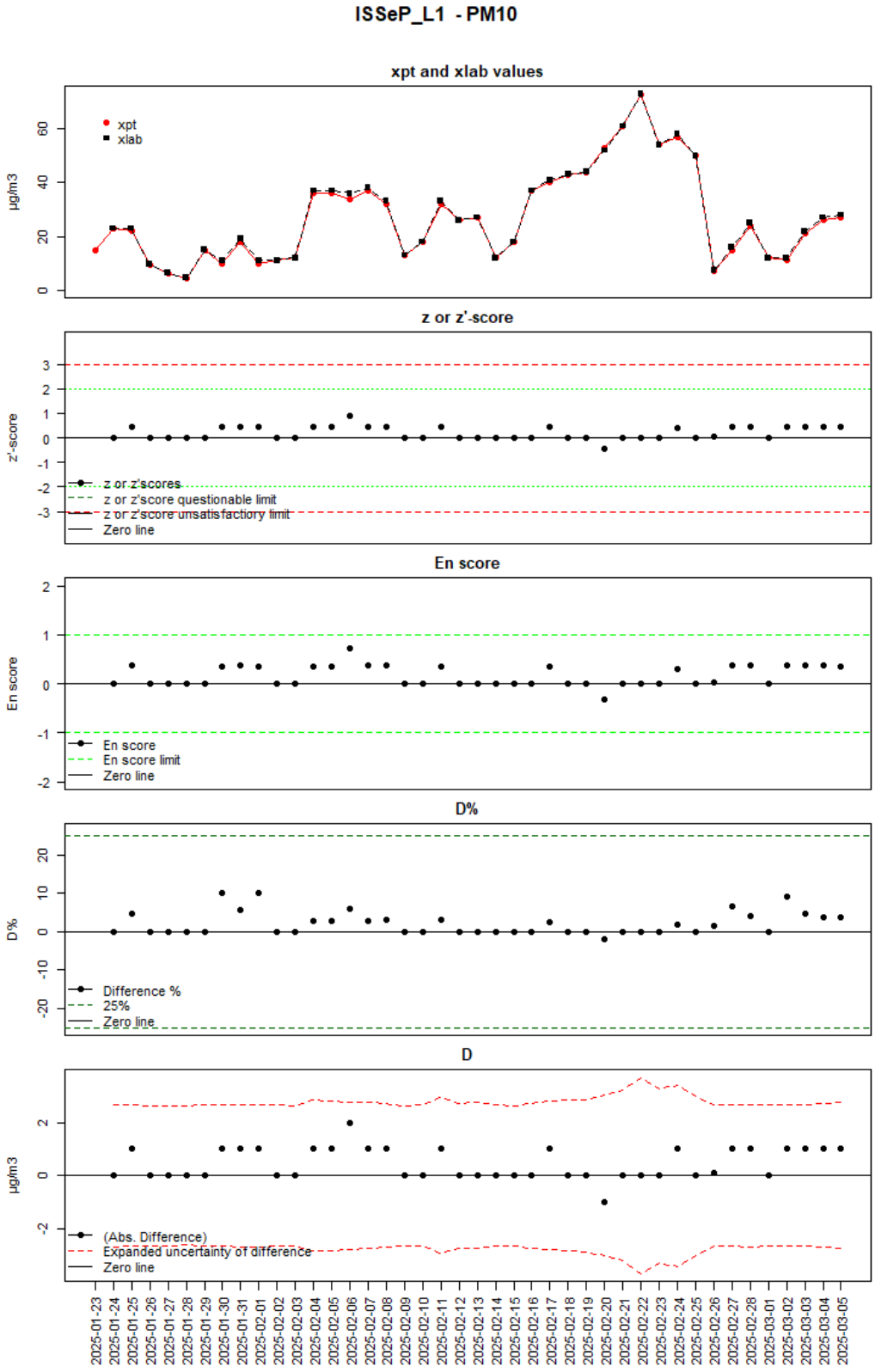
Source: JRC 2025

Table 37. ISSeP_L1: PM_{10} Results

ISSeP_L1								
PM_{10} data capture = 98								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	15				z score			
2025-01-24	23	23	2.6	0.00	z score	0.00	0.0	0.00
2025-01-25	22	23	2.6	0.46	z score	0.37	1.0	4.55
2025-01-26	9.6	9.6	2.7	0.00	z score	0.00	0.0	0.00
2025-01-27	6.3	6.3	2.7	0.00	z score	0.00	0.0	0.00
2025-01-28	4.6	4.6	2.7	0.00	z score	0.00	0.0	0.00
2025-01-29	15	15	2.6	0.00	z score	0.00	0.0	0.00
2025-01-30	10	11	2.7	0.46	z score	0.36	1.0	10.00
2025-01-31	18	19	2.6	0.46	z score	0.37	1.0	5.56
2025-02-01	10	11	2.7	0.46	z score	0.36	1.0	10.00
2025-02-02	11	11	2.7	0.00	z score	0.00	0.0	0.00
2025-02-03	12	12	2.6	0.00	z score	0.00	0.0	0.00
2025-02-04	36	37	2.6	0.45	z score	0.35	1.0	2.78
2025-02-05	36	37	2.6	0.45	z score	0.36	1.0	2.78
2025-02-06	34	36	2.6	0.90	z score	0.72	2.0	5.88
2025-02-07	37	38	2.6	0.45	z score	0.37	1.0	2.70
2025-02-08	32	33	2.6	0.45	z score	0.37	1.0	3.12
2025-02-09	13	13	2.6	0.00	z score	0.00	0.0	0.00
2025-02-10	18	18	2.6	0.00	z score	0.00	0.0	0.00
2025-02-11	32	33	2.6	0.43	z' score	0.34	1.0	3.12
2025-02-12	26	26	2.6	0.00	z score	0.00	0.0	0.00
2025-02-13	27	27	2.6	0.00	z score	0.00	0.0	0.00
2025-02-14	12	12	2.6	0.00	z score	0.00	0.0	0.00
2025-02-15	18	18	2.6	0.00	z score	0.00	0.0	0.00
2025-02-16	37	37	2.6	0.00	z score	0.00	0.0	0.00
2025-02-17	40	41	2.6	0.45	z score	0.36	1.0	2.50
2025-02-18	43	43	2.6	0.00	z score	0.00	0.0	0.00
2025-02-19	44	44	2.6	0.00	z score	0.00	0.0	0.00
2025-02-20	53	52	2.7	-0.42	z' score	-0.32	-1.0	-1.89
2025-02-21	61	61	2.8	0.00	z' score	0.00	0.0	0.00
2025-02-22	73	73	2.9	0.00	z' score	0.00	0.0	0.00
2025-02-23	54	54	2.7	0.00	z' score	0.00	0.0	0.00
2025-02-24	57	58	2.8	0.40	z' score	0.29	1.0	1.75
2025-02-25	50	50	2.7	0.00	z' score	0.00	0.0	0.00
2025-02-26	7.1	7.2	2.7	0.05	z score	0.04	0.1	1.41
2025-02-27	15	16	2.6	0.46	z score	0.38	1.0	6.67
2025-02-28	24	25	2.6	0.46	z score	0.37	1.0	4.17
2025-03-01	12	12	2.6	0.00	z score	0.00	0.0	0.00
2025-03-02	11	12	2.6	0.46	z score	0.37	1.0	9.09
2025-03-03	21	22	2.6	0.46	z score	0.38	1.0	4.76
2025-03-04	26	27	2.6	0.45	z score	0.37	1.0	3.85
2025-03-05	27	28	2.6	0.45	z score	0.36	1.0	3.70

Source: JRC 2025

Figure 39. ISSeP_L1: PM10 Results



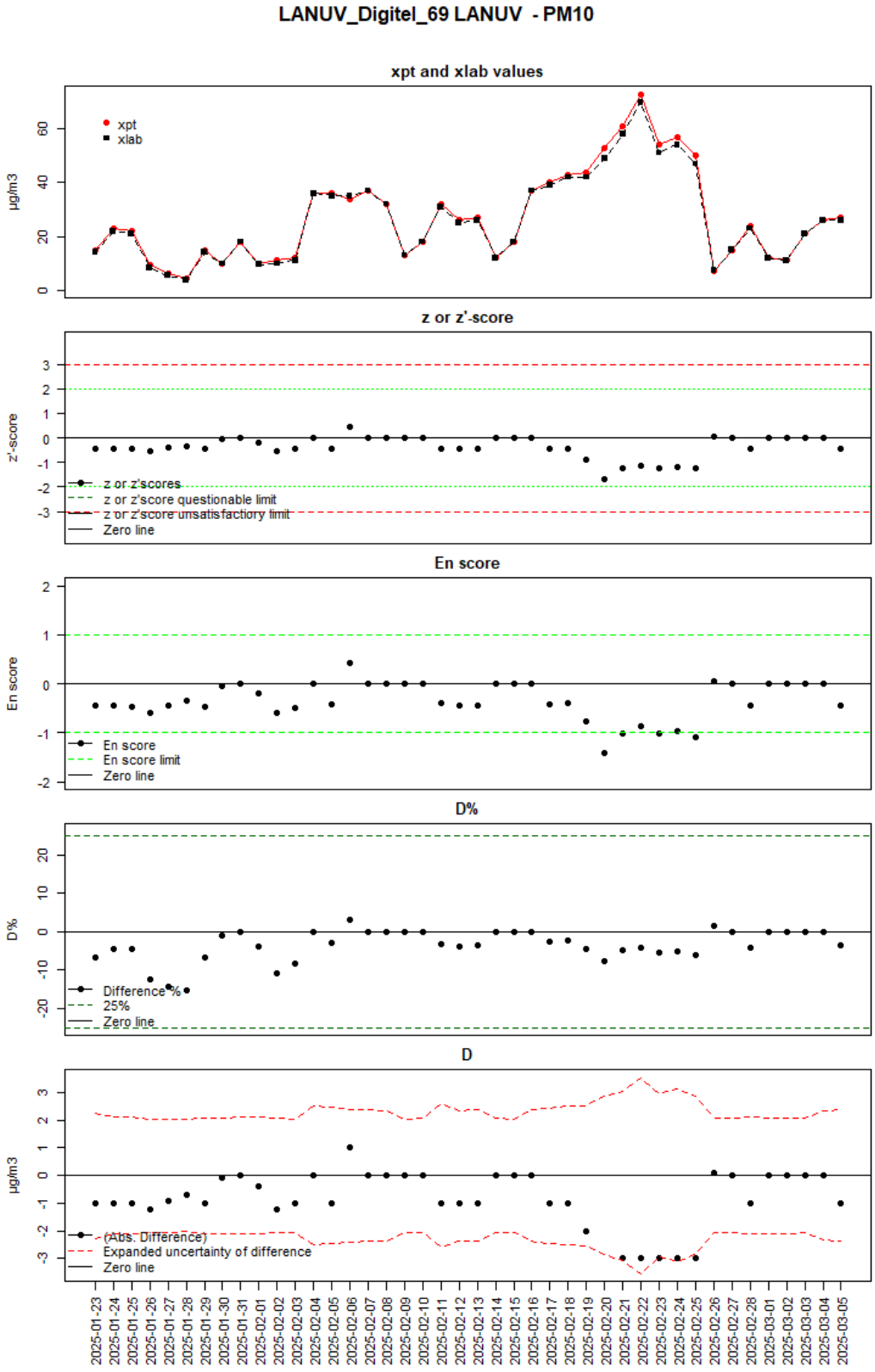
Source: JRC 2025

Table 38. LANUV_Digitel_69 LANUV: PM_{10} Results

LANUV_Digitel_69 LANUV								
PM_{10} data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	15	14	2.2	-0.46	z score	-0.44	-1.0	-6.67
2025-01-24	23	22	2.1	-0.46	z score	-0.45	-1.0	-4.35
2025-01-25	22	21	2.1	-0.46	z score	-0.46	-1.0	-4.55
2025-01-26	9.6	8.4	2.0	-0.55	z score	-0.59	-1.2	-12.50
2025-01-27	6.3	5.4	2.0	-0.41	z score	-0.44	-0.9	-14.29
2025-01-28	4.6	3.9	2.0	-0.32	z score	-0.35	-0.7	-15.22
2025-01-29	15	14	2.0	-0.46	z score	-0.48	-1.0	-6.67
2025-01-30	10	9.9	2.0	-0.05	z score	-0.05	-0.1	-1.00
2025-01-31	18	18	2.1	0.00	z score	0.00	0.0	0.00
2025-02-01	10	9.6	2.0	-0.18	z score	-0.19	-0.4	-4.00
2025-02-02	11	9.8	2.0	-0.55	z score	-0.58	-1.2	-10.91
2025-02-03	12	11	2.0	-0.46	z score	-0.49	-1.0	-8.33
2025-02-04	36	36	2.2	0.00	z score	0.00	0.0	0.00
2025-02-05	36	35	2.2	-0.45	z score	-0.41	-1.0	-2.78
2025-02-06	34	35	2.2	0.45	z score	0.42	1.0	2.94
2025-02-07	37	37	2.2	0.00	z score	0.00	0.0	0.00
2025-02-08	32	32	2.2	0.00	z score	0.00	0.0	0.00
2025-02-09	13	13	2.0	0.00	z score	0.00	0.0	0.00
2025-02-10	18	18	2.1	0.00	z score	0.00	0.0	0.00
2025-02-11	32	31	2.2	-0.43	z' score	-0.39	-1.0	-3.12
2025-02-12	26	25	2.1	-0.45	z score	-0.44	-1.0	-3.85
2025-02-13	27	26	2.1	-0.45	z score	-0.44	-1.0	-3.70
2025-02-14	12	12	2.0	0.00	z score	0.00	0.0	0.00
2025-02-15	18	18	2.1	0.00	z score	0.00	0.0	0.00
2025-02-16	37	37	2.2	0.00	z score	0.00	0.0	0.00
2025-02-17	40	39	2.2	-0.45	z score	-0.41	-1.0	-2.50
2025-02-18	43	42	2.3	-0.45	z score	-0.39	-1.0	-2.33
2025-02-19	44	42	2.3	-0.89	z score	-0.76	-2.0	-4.55
2025-02-20	53	49	2.4	-1.66	z' score	-1.40	-4.0	-7.55
2025-02-21	61	58	2.5	-1.23	z' score	-1.01	-3.0	-4.92
2025-02-22	73	70	2.7	-1.15	z' score	-0.86	-3.0	-4.11
2025-02-23	54	51	2.4	-1.23	z' score	-1.02	-3.0	-5.56
2025-02-24	57	54	2.4	-1.20	z' score	-0.96	-3.0	-5.26
2025-02-25	50	47	2.3	-1.25	z' score	-1.08	-3.0	-6.00
2025-02-26	7.1	7.2	2.0	0.05	z score	0.05	0.1	1.41
2025-02-27	15	15	2.0	0.00	z score	0.00	0.0	0.00
2025-02-28	24	23	2.1	-0.46	z score	-0.45	-1.0	-4.17
2025-03-01	12	12	2.0	0.00	z score	0.00	0.0	0.00
2025-03-02	11	11	2.0	0.00	z score	0.00	0.0	0.00
2025-03-03	21	21	2.1	0.00	z score	0.00	0.0	0.00
2025-03-04	26	26	2.1	0.00	z score	0.00	0.0	0.00
2025-03-05	27	26	2.1	-0.45	z score	-0.44	-1.0	-3.70

Source: JRC 2025

Figure 40. LANUV_Digitel_69 LANUV: PM10 Results



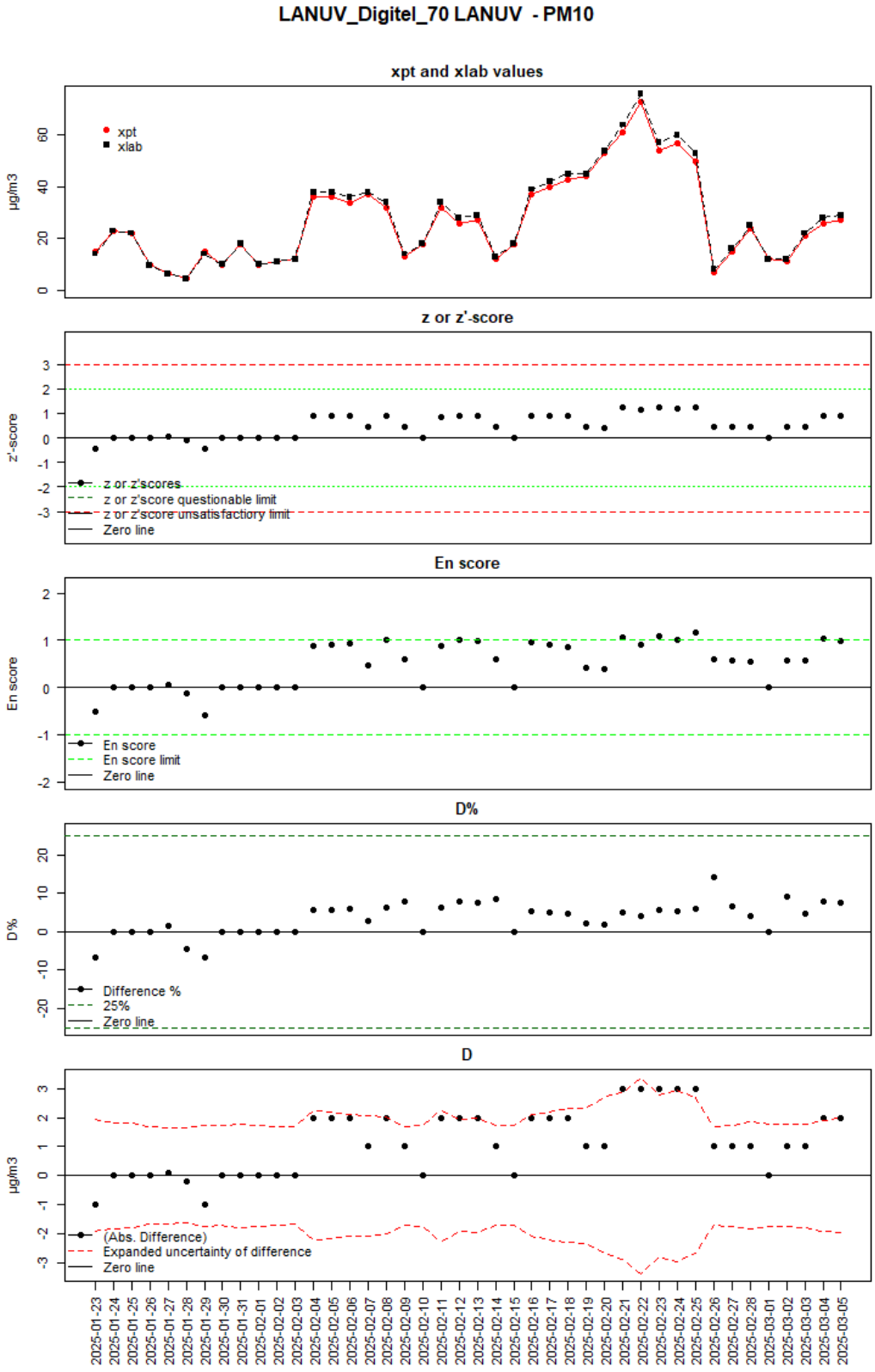
Source: JRC 2025

Table 39. LANUV_Digitel_70 LANUV: PM_{10} Results

LANUV_Digitel_70 LANUV								
PM_{10} data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	15	14	1.9	-0.46	z score	-0.50	-1.0	-6.67
2025-01-24	23	23	1.7	0.00	z score	0.00	0.0	0.00
2025-01-25	22	22	1.7	0.00	z score	0.00	0.0	0.00
2025-01-26	9.6	9.6	1.6	0.00	z score	0.00	0.0	0.00
2025-01-27	6.3	6.4	1.6	0.05	z score	0.06	0.1	1.59
2025-01-28	4.6	4.4	1.6	-0.09	z score	-0.12	-0.2	-4.35
2025-01-29	15	14	1.6	-0.46	z score	-0.59	-1.0	-6.67
2025-01-30	10	10	1.6	0.00	z score	0.00	0.0	0.00
2025-01-31	18	18	1.7	0.00	z score	0.00	0.0	0.00
2025-02-01	10	10	1.6	0.00	z score	0.00	0.0	0.00
2025-02-02	11	11	1.6	0.00	z score	0.00	0.0	0.00
2025-02-03	12	12	1.6	0.00	z score	0.00	0.0	0.00
2025-02-04	36	38	1.9	0.90	z score	0.89	2.0	5.56
2025-02-05	36	38	1.9	0.90	z score	0.92	2.0	5.56
2025-02-06	34	36	1.9	0.90	z score	0.94	2.0	5.88
2025-02-07	37	38	1.9	0.45	z score	0.48	1.0	2.70
2025-02-08	32	34	1.8	0.90	z score	1.01	2.0	6.25
2025-02-09	13	14	1.6	0.46	z score	0.60	1.0	7.69
2025-02-10	18	18	1.7	0.00	z score	0.00	0.0	0.00
2025-02-11	32	34	1.8	0.86	z' score	0.89	2.0	6.25
2025-02-12	26	28	1.8	0.91	z score	1.01	2.0	7.69
2025-02-13	27	29	1.8	0.91	z score	0.99	2.0	7.41
2025-02-14	12	13	1.6	0.46	z score	0.59	1.0	8.33
2025-02-15	18	18	1.7	0.00	z score	0.00	0.0	0.00
2025-02-16	37	39	1.9	0.90	z score	0.96	2.0	5.41
2025-02-17	40	42	1.9	0.89	z score	0.92	2.0	5.00
2025-02-18	43	45	2.0	0.89	z score	0.87	2.0	4.65
2025-02-19	44	45	2.0	0.44	z score	0.42	1.0	2.27
2025-02-20	53	54	2.1	0.42	z' score	0.38	1.0	1.89
2025-02-21	61	64	2.3	1.23	z' score	1.07	3.0	4.92
2025-02-22	73	76	2.5	1.15	z' score	0.90	3.0	4.11
2025-02-23	54	57	2.2	1.23	z' score	1.08	3.0	5.56
2025-02-24	57	60	2.2	1.20	z' score	1.01	3.0	5.26
2025-02-25	50	53	2.1	1.25	z' score	1.15	3.0	6.00
2025-02-26	7.1	8.1	1.6	0.46	z score	0.59	1.0	14.08
2025-02-27	15	16	1.7	0.46	z score	0.56	1.0	6.67
2025-02-28	24	25	1.7	0.46	z score	0.54	1.0	4.17
2025-03-01	12	12	1.6	0.00	z score	0.00	0.0	0.00
2025-03-02	11	12	1.6	0.46	z score	0.58	1.0	9.09
2025-03-03	21	22	1.7	0.46	z score	0.56	1.0	4.76
2025-03-04	26	28	1.8	0.91	z score	1.02	2.0	7.69
2025-03-05	27	29	1.8	0.91	z score	0.99	2.0	7.41

Source: JRC 2025

Figure 41. LANUV_Digitel_70 LANUV: PM10 Results



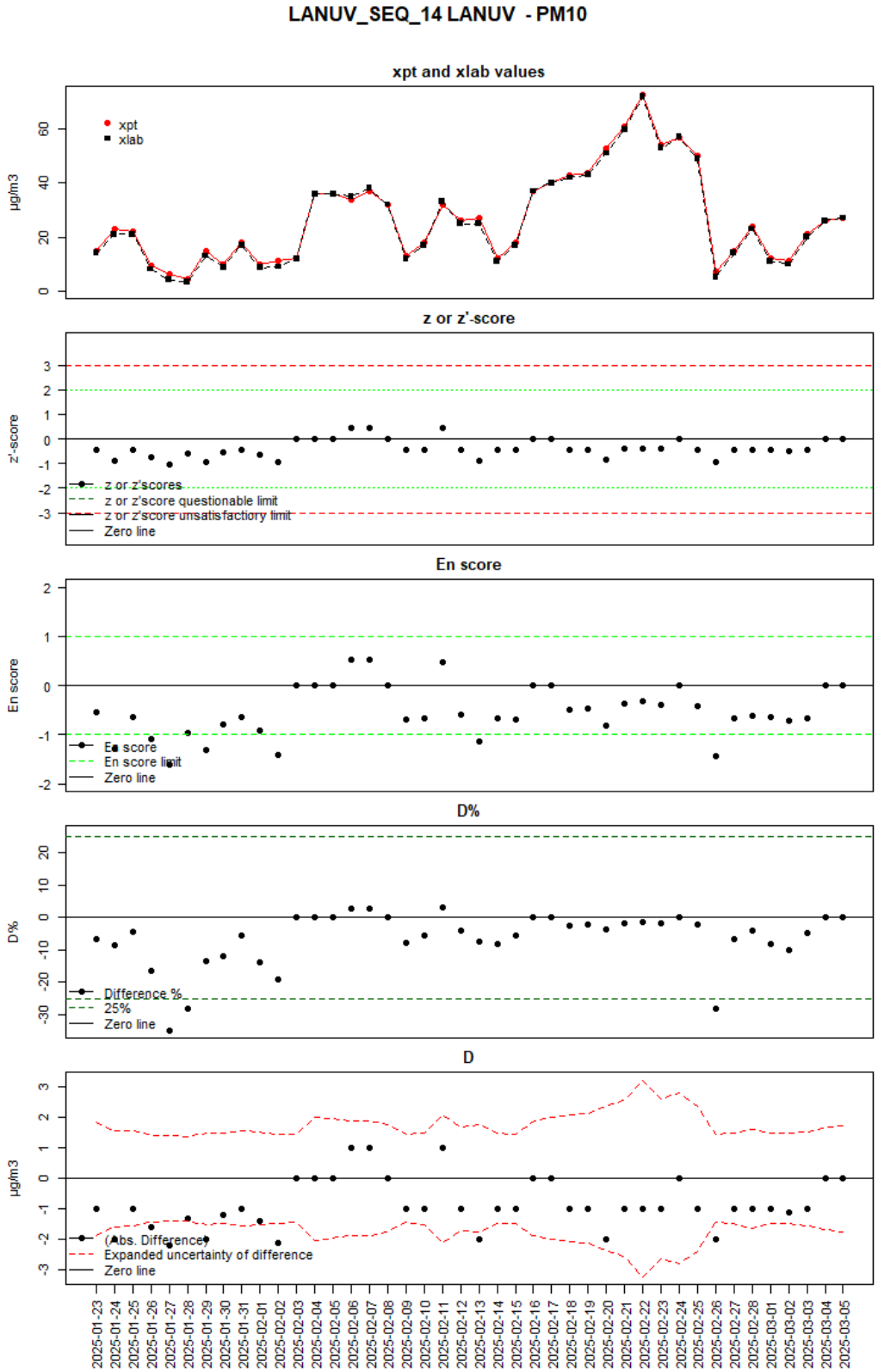
Source: JRC 2025

Table 40. LANUV_SEQ_14 LANUV: PM_{10} Results

LANUV_SEQ_14 LANUV								
PM_{10} data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	15	14	1.8	-0.46	z score	-0.53	-1.0	-6.67
2025-01-24	23	21	1.4	-0.91	z score	-1.29	-2.0	-8.70
2025-01-25	22	21	1.4	-0.46	z score	-0.65	-1.0	-4.55
2025-01-26	9.6	8.0	1.4	-0.73	z score	-1.10	-1.6	-16.67
2025-01-27	6.3	4.1	1.3	-1.01	z score	-1.60	-2.2	-34.92
2025-01-28	4.6	3.3	1.3	-0.60	z score	-0.97	-1.3	-28.26
2025-01-29	15	13	1.4	-0.92	z score	-1.32	-2.0	-13.33
2025-01-30	10	8.8	1.4	-0.55	z score	-0.78	-1.2	-12.00
2025-01-31	18	17	1.4	-0.46	z score	-0.65	-1.0	-5.56
2025-02-01	10	8.6	1.4	-0.64	z score	-0.90	-1.4	-14.00
2025-02-02	11	8.9	1.4	-0.96	z score	-1.40	-2.1	-19.09
2025-02-03	12	12	1.4	0.00	z score	0.00	0.0	0.00
2025-02-04	36	36	1.6	0.00	z score	0.00	0.0	0.00
2025-02-05	36	36	1.6	0.00	z score	0.00	0.0	0.00
2025-02-06	34	35	1.6	0.45	z score	0.54	1.0	2.94
2025-02-07	37	38	1.7	0.45	z score	0.52	1.0	2.70
2025-02-08	32	32	1.6	0.00	z score	0.00	0.0	0.00
2025-02-09	13	12	1.4	-0.46	z score	-0.68	-1.0	-7.69
2025-02-10	18	17	1.4	-0.46	z score	-0.66	-1.0	-5.56
2025-02-11	32	33	1.6	0.43	z' score	0.48	1.0	3.12
2025-02-12	26	25	1.5	-0.45	z score	-0.58	-1.0	-3.85
2025-02-13	27	25	1.5	-0.91	z score	-1.14	-2.0	-7.41
2025-02-14	12	11	1.4	-0.46	z score	-0.67	-1.0	-8.33
2025-02-15	18	17	1.4	-0.46	z score	-0.68	-1.0	-5.56
2025-02-16	37	37	1.7	0.00	z score	0.00	0.0	0.00
2025-02-17	40	40	1.7	0.00	z score	0.00	0.0	0.00
2025-02-18	43	42	1.7	-0.45	z score	-0.49	-1.0	-2.33
2025-02-19	44	43	1.7	-0.44	z score	-0.47	-1.0	-2.27
2025-02-20	53	51	1.9	-0.83	z' score	-0.82	-2.0	-3.77
2025-02-21	61	60	2.1	-0.41	z' score	-0.38	-1.0	-1.64
2025-02-22	73	72	2.3	-0.38	z' score	-0.31	-1.0	-1.37
2025-02-23	54	53	1.9	-0.41	z' score	-0.39	-1.0	-1.85
2025-02-24	57	57	2.0	0.00	z' score	0.00	0.0	0.00
2025-02-25	50	49	1.8	-0.42	z' score	-0.42	-1.0	-2.00
2025-02-26	7.1	5.1	1.3	-0.92	z score	-1.43	-2.0	-28.17
2025-02-27	15	14	1.4	-0.46	z score	-0.67	-1.0	-6.67
2025-02-28	24	23	1.5	-0.46	z score	-0.60	-1.0	-4.17
2025-03-01	12	11	1.4	-0.46	z score	-0.65	-1.0	-8.33
2025-03-02	11	9.9	1.4	-0.50	z score	-0.72	-1.1	-10.00
2025-03-03	21	20	1.4	-0.46	z score	-0.67	-1.0	-4.76
2025-03-04	26	26	1.5	0.00	z score	0.00	0.0	0.00
2025-03-05	27	27	1.5	0.00	z score	0.00	0.0	0.00

Source: JRC 2025

Figure 42. LANUV_SEQ_14 LANUV: PM10 Results



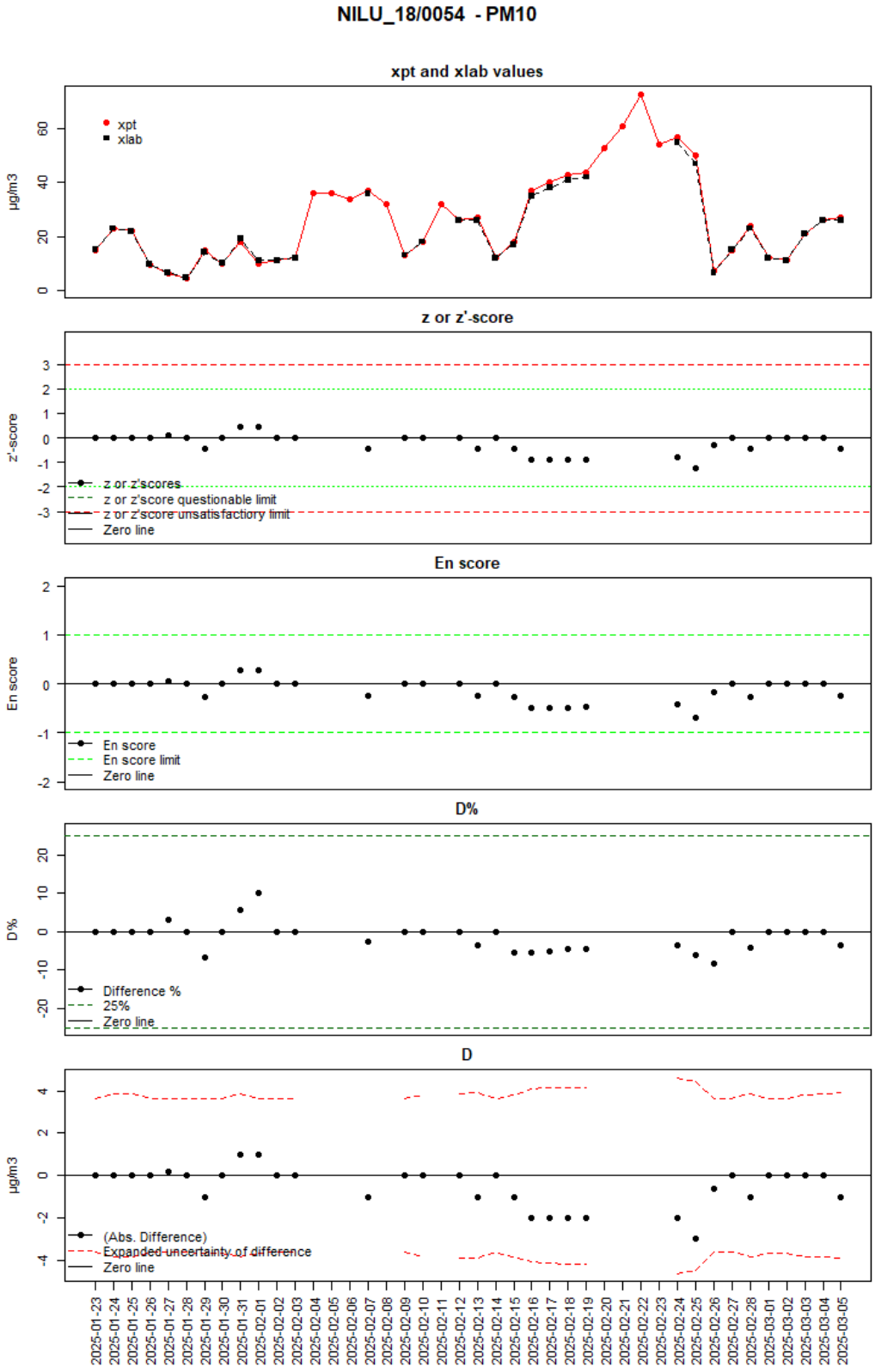
Source: JRC 2025

Table 41. NILU_18/0054: PM_{10} Results

NILU_18/0054								
PM_{10} data capture = 79								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	15	15	3.7	0.00	z score	0.00	0.0	0.00
2025-01-24	23	23	3.8	0.00	z score	0.00	0.0	0.00
2025-01-25	22	22	3.8	0.00	z score	0.00	0.0	0.00
2025-01-26	9.6	9.6	3.7	0.00	z score	0.00	0.0	0.00
2025-01-27	6.3	6.5	3.7	0.09	z score	0.05	0.2	3.17
2025-01-28	4.6	4.6	3.7	0.00	z score	0.00	0.0	0.00
2025-01-29	15	14	3.7	-0.46	z score	-0.27	-1.0	-6.67
2025-01-30	10	10	3.7	0.00	z score	0.00	0.0	0.00
2025-01-31	18	19	3.7	0.46	z score	0.27	1.0	5.56
2025-02-01	10	11	3.7	0.46	z score	0.27	1.0	10.00
2025-02-02	11	11	3.7	0.00	z score	0.00	0.0	0.00
2025-02-03	12	12	3.7	0.00	z score	0.00	0.0	0.00
2025-02-04	36				z score			
2025-02-05	36				z score			
2025-02-06	34				z score			
2025-02-07	37	36	3.9	-0.45	z score	-0.25	-1.0	-2.70
2025-02-08	32				z score			
2025-02-09	13	13	3.7	0.00	z score	0.00	0.0	0.00
2025-02-10	18	18	3.7	0.00	z score	0.00	0.0	0.00
2025-02-11	32				z' score			
2025-02-12	26	26	3.8	0.00	z score	0.00	0.0	0.00
2025-02-13	27	26	3.8	-0.45	z score	-0.26	-1.0	-3.70
2025-02-14	12	12	3.7	0.00	z score	0.00	0.0	0.00
2025-02-15	18	17	3.7	-0.46	z score	-0.27	-1.0	-5.56
2025-02-16	37	35	3.9	-0.90	z score	-0.50	-2.0	-5.41
2025-02-17	40	38	4.0	-0.89	z score	-0.48	-2.0	-5.00
2025-02-18	43	41	4.0	-0.89	z score	-0.48	-2.0	-4.65
2025-02-19	44	42	4.0	-0.89	z score	-0.48	-2.0	-4.55
2025-02-20	53				z' score			
2025-02-21	61				z' score			
2025-02-22	73				z' score			
2025-02-23	54				z' score			
2025-02-24	57	55	4.3	-0.80	z' score	-0.42	-2.0	-3.51
2025-02-25	50	47	4.1	-1.25	z' score	-0.68	-3.0	-6.00
2025-02-26	7.1	6.5	3.7	-0.28	z score	-0.16	-0.6	-8.45
2025-02-27	15	15	3.7	0.00	z score	0.00	0.0	0.00
2025-02-28	24	23	3.8	-0.46	z score	-0.26	-1.0	-4.17
2025-03-01	12	12	3.7	0.00	z score	0.00	0.0	0.00
2025-03-02	11	11	3.7	0.00	z score	0.00	0.0	0.00
2025-03-03	21	21	3.7	0.00	z score	0.00	0.0	0.00
2025-03-04	26	26	3.8	0.00	z score	0.00	0.0	0.00
2025-03-05	27	26	3.8	-0.45	z score	-0.26	-1.0	-3.70

Source: JRC 2025

Figure 43. NILU_18/0054: PM10 Results



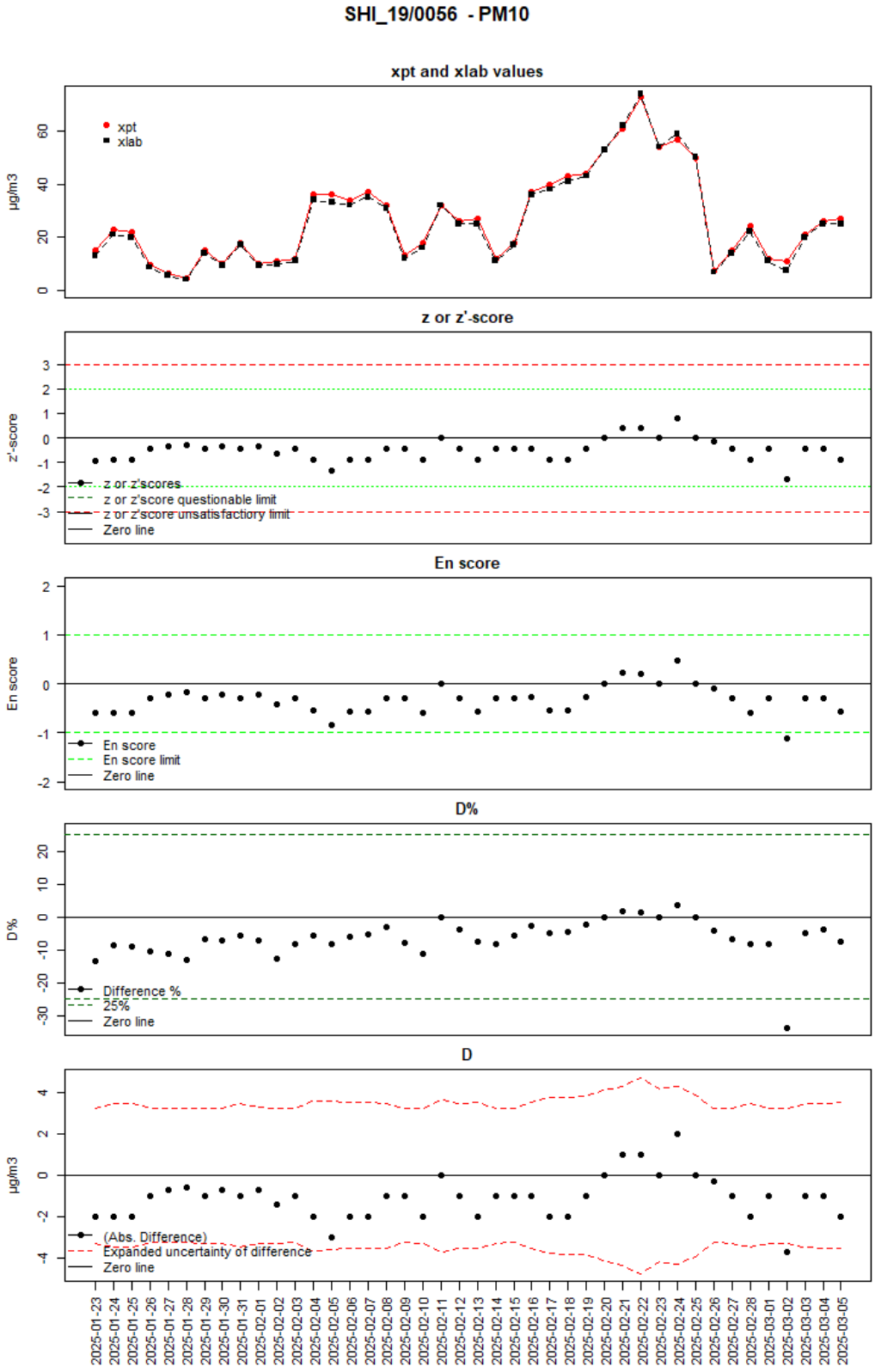
Source: JRC 2025

Table 42. SHI_19/0056: PM_{10} Results

SHI_19/0056								
PM_{10} data capture = 100								
Day	**xpt**	**xlab**	**Ulab**	**z or z'score**	**Score Type**	**En**	**D**	**D%**
2025-01-23	15	13	3.3	-0.92	z score	-0.60	-2.0	-13.33
2025-01-24	23	21	3.3	-0.91	z score	-0.59	-2.0	-8.70
2025-01-25	22	20	3.3	-0.91	z score	-0.59	-2.0	-9.09
2025-01-26	9.6	8.6	3.3	-0.46	z score	-0.30	-1.0	-10.42
2025-01-27	6.3	5.6	3.3	-0.32	z score	-0.21	-0.7	-11.11
2025-01-28	4.6	4.0	3.3	-0.28	z score	-0.18	-0.6	-13.04
2025-01-29	15	14	3.3	-0.46	z score	-0.30	-1.0	-6.67
2025-01-30	10	9.3	3.3	-0.32	z score	-0.21	-0.7	-7.00
2025-01-31	18	17	3.3	-0.46	z score	-0.30	-1.0	-5.56
2025-02-01	10	9.3	3.3	-0.32	z score	-0.21	-0.7	-7.00
2025-02-02	11	9.6	3.3	-0.64	z score	-0.42	-1.4	-12.73
2025-02-03	12	11	3.3	-0.46	z score	-0.30	-1.0	-8.33
2025-02-04	36	34	3.5	-0.90	z score	-0.54	-2.0	-5.56
2025-02-05	36	33	3.4	-1.35	z score	-0.84	-3.0	-8.33
2025-02-06	34	32	3.4	-0.90	z score	-0.57	-2.0	-5.88
2025-02-07	37	35	3.5	-0.90	z score	-0.55	-2.0	-5.41
2025-02-08	32	31	3.4	-0.45	z score	-0.29	-1.0	-3.12
2025-02-09	13	12	3.3	-0.46	z score	-0.30	-1.0	-7.69
2025-02-10	18	16	3.3	-0.91	z score	-0.60	-2.0	-11.11
2025-02-11	32	32	3.4	0.00	z' score	0.00	0.0	0.00
2025-02-12	26	25	3.4	-0.45	z score	-0.29	-1.0	-3.85
2025-02-13	27	25	3.4	-0.91	z score	-0.57	-2.0	-7.41
2025-02-14	12	11	3.3	-0.46	z score	-0.30	-1.0	-8.33
2025-02-15	18	17	3.3	-0.46	z score	-0.30	-1.0	-5.56
2025-02-16	37	36	3.5	-0.45	z score	-0.28	-1.0	-2.70
2025-02-17	40	38	3.5	-0.89	z score	-0.55	-2.0	-5.00
2025-02-18	43	41	3.5	-0.89	z score	-0.54	-2.0	-4.65
2025-02-19	44	43	3.6	-0.44	z score	-0.26	-1.0	-2.27
2025-02-20	53	53	3.7	0.00	z' score	0.00	0.0	0.00
2025-02-21	61	62	3.9	0.41	z' score	0.24	1.0	1.64
2025-02-22	73	74	4.1	0.38	z' score	0.21	1.0	1.37
2025-02-23	54	54	3.7	0.00	z' score	0.00	0.0	0.00
2025-02-24	57	59	3.8	0.80	z' score	0.47	2.0	3.51
2025-02-25	50	50	3.7	0.00	z' score	0.00	0.0	0.00
2025-02-26	7.1	6.8	3.3	-0.14	z score	-0.09	-0.3	-4.23
2025-02-27	15	14	3.3	-0.46	z score	-0.30	-1.0	-6.67
2025-02-28	24	22	3.3	-0.91	z score	-0.59	-2.0	-8.33
2025-03-01	12	11	3.3	-0.46	z score	-0.30	-1.0	-8.33
2025-03-02	11	7.3	3.3	-1.70	z score	-1.10	-3.7	-33.64
2025-03-03	21	20	3.3	-0.46	z score	-0.30	-1.0	-4.76
2025-03-04	26	25	3.4	-0.45	z score	-0.29	-1.0	-3.85
2025-03-05	27	25	3.4	-0.91	z score	-0.57	-2.0	-7.41

Source: JRC 2025

Figure 44. SHI_19/0056: PM10 Results



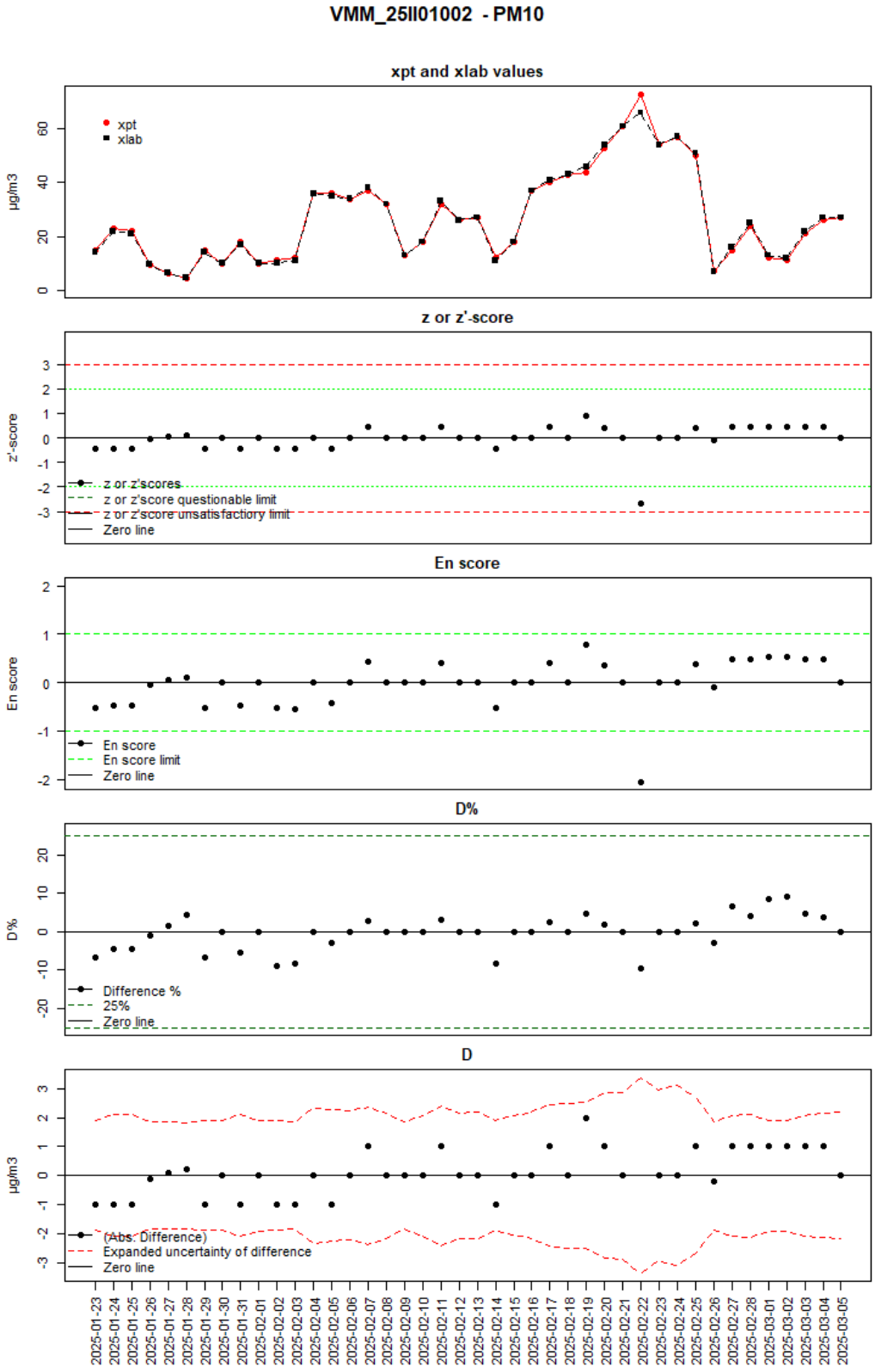
Source: JRC 2025

Table 43. VMM_25II01002: PM_{10} Results

VMM_25II01002								
PM_{10} data capture = 100								
Day	**xpt**	**xlab**	**Ulab**	**z or z'score**	**Score Type**	**En**	**D**	**D%**
2025-01-23	15	14	1.8	-0.46	z score	-0.53	-1.0	-6.67
2025-01-24	23	22	2.0	-0.46	z score	-0.47	-1.0	-4.35
2025-01-25	22	21	2.0	-0.46	z score	-0.48	-1.0	-4.55
2025-01-26	9.6	9.5	1.8	-0.05	z score	-0.05	-0.1	-1.04
2025-01-27	6.3	6.4	1.8	0.05	z score	0.05	0.1	1.59
2025-01-28	4.6	4.8	1.8	0.09	z score	0.11	0.2	4.35
2025-01-29	15	14	1.8	-0.46	z score	-0.53	-1.0	-6.67
2025-01-30	10	10	1.8	0.00	z score	0.00	0.0	0.00
2025-01-31	18	17	2.0	-0.46	z score	-0.48	-1.0	-5.56
2025-02-01	10	10	1.8	0.00	z score	0.00	0.0	0.00
2025-02-02	11	10	1.8	-0.46	z score	-0.53	-1.0	-9.09
2025-02-03	12	11	1.8	-0.46	z score	-0.54	-1.0	-8.33
2025-02-04	36	36	2.0	0.00	z score	0.00	0.0	0.00
2025-02-05	36	35	2.0	-0.45	z score	-0.44	-1.0	-2.78
2025-02-06	34	34	2.0	0.00	z score	0.00	0.0	0.00
2025-02-07	37	38	2.2	0.45	z score	0.42	1.0	2.70
2025-02-08	32	32	2.0	0.00	z score	0.00	0.0	0.00
2025-02-09	13	13	1.8	0.00	z score	0.00	0.0	0.00
2025-02-10	18	18	2.0	0.00	z score	0.00	0.0	0.00
2025-02-11	32	33	2.0	0.43	z' score	0.41	1.0	3.12
2025-02-12	26	26	2.0	0.00	z score	0.00	0.0	0.00
2025-02-13	27	27	2.0	0.00	z score	0.00	0.0	0.00
2025-02-14	12	11	1.8	-0.46	z score	-0.53	-1.0	-8.33
2025-02-15	18	18	2.0	0.00	z score	0.00	0.0	0.00
2025-02-16	37	37	2.0	0.00	z score	0.00	0.0	0.00
2025-02-17	40	41	2.2	0.45	z score	0.41	1.0	2.50
2025-02-18	43	43	2.2	0.00	z score	0.00	0.0	0.00
2025-02-19	44	46	2.2	0.89	z score	0.79	2.0	4.55
2025-02-20	53	54	2.4	0.42	z' score	0.35	1.0	1.89
2025-02-21	61	61	2.4	0.00	z' score	0.00	0.0	0.00
2025-02-22	73	66	2.6	-2.68	z' score	-2.06	-7.0	-9.59
2025-02-23	54	54	2.4	0.00	z' score	0.00	0.0	0.00
2025-02-24	57	57	2.4	0.00	z' score	0.00	0.0	0.00
2025-02-25	50	51	2.2	0.42	z' score	0.37	1.0	2.00
2025-02-26	7.1	6.9	1.8	-0.09	z score	-0.11	-0.2	-2.82
2025-02-27	15	16	2.0	0.46	z score	0.48	1.0	6.67
2025-02-28	24	25	2.0	0.46	z score	0.47	1.0	4.17
2025-03-01	12	13	1.8	0.46	z score	0.53	1.0	8.33
2025-03-02	11	12	1.8	0.46	z score	0.53	1.0	9.09
2025-03-03	21	22	2.0	0.46	z score	0.48	1.0	4.76
2025-03-04	26	27	2.0	0.45	z score	0.47	1.0	3.85
2025-03-05	27	27	2.0	0.00	z score	0.00	0.0	0.00

Source: JRC 2025

Figure 45. VMM_25II01002: PM10 Results



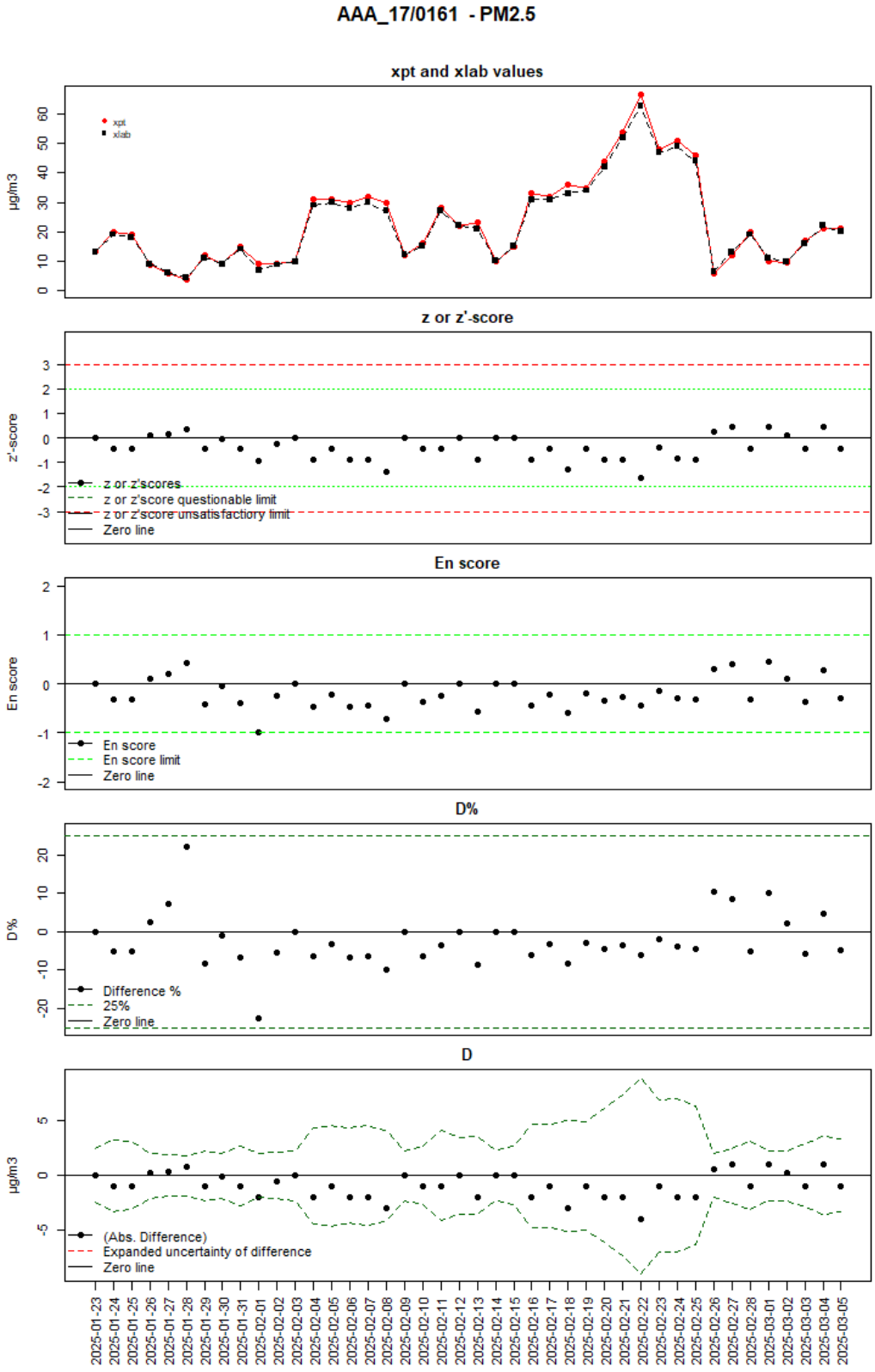
Source: JRC 2025

Table 44. $PM_{2.5}$ AAA_17/0161 Results

AAA_17/0161								
$PM_{2.5}$ data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	13	2.5	0.00	z score	0.00	0.0	0.00
2025-01-24	20	19	3.1	-0.46	z score	-0.31	-1.0	-5.00
2025-01-25	19	18	3.0	-0.46	z score	-0.32	-1.0	-5.26
2025-01-26	8.7	8.9	2.1	0.09	z score	0.09	0.2	2.30
2025-01-27	5.6	6.0	1.9	0.18	z score	0.21	0.4	7.14
2025-01-28	3.6	4.4	1.8	0.37	z score	0.43	0.8	22.22
2025-01-29	12	11	2.3	-0.46	z score	-0.42	-1.0	-8.33
2025-01-30	9.0	8.9	2.1	-0.05	z score	-0.05	-0.1	-1.11
2025-01-31	15	14	2.5	-0.46	z score	-0.38	-1.0	-6.67
2025-02-01	8.9	6.9	1.9	-0.92	z score	-0.99	-2.0	-22.47
2025-02-02	9.1	8.6	2.0	-0.23	z score	-0.24	-0.5	-5.49
2025-02-03	9.8	9.8	2.1	0.00	z score	0.00	0.0	0.00
2025-02-04	31	29	4.2	-0.90	z score	-0.46	-2.0	-6.45
2025-02-05	31	30	4.4	-0.45	z score	-0.22	-1.0	-3.23
2025-02-06	30	28	4.1	-0.91	z score	-0.47	-2.0	-6.67
2025-02-07	32	30	4.3	-0.90	z score	-0.45	-2.0	-6.25
2025-02-08	30	27	4.1	-1.36	z score	-0.71	-3.0	-10.00
2025-02-09	12	12	2.3	0.00	z score	0.00	0.0	0.00
2025-02-10	16	15	2.7	-0.46	z score	-0.36	-1.0	-6.25
2025-02-11	28	27	4.0	-0.45	z score	-0.24	-1.0	-3.57
2025-02-12	22	22	3.4	0.00	z score	0.00	0.0	0.00
2025-02-13	23	21	3.4	-0.91	z score	-0.56	-2.0	-8.70
2025-02-14	10	10	2.2	0.00	z score	0.00	0.0	0.00
2025-02-15	15	15	2.6	0.00	z score	0.00	0.0	0.00
2025-02-16	33	31	4.5	-0.90	z score	-0.43	-2.0	-6.06
2025-02-17	32	31	4.5	-0.45	z score	-0.22	-1.0	-3.12
2025-02-18	36	33	4.8	-1.28	z' score	-0.60	-3.0	-8.33
2025-02-19	35	34	4.9	-0.45	z score	-0.20	-1.0	-2.86
2025-02-20	44	42	5.9	-0.89	z score	-0.33	-2.0	-4.55
2025-02-21	54	52	7.2	-0.88	z score	-0.27	-2.0	-3.70
2025-02-22	67	63	8.7	-1.63	z' score	-0.45	-4.0	-5.97
2025-02-23	48	47	6.6	-0.41	z' score	-0.15	-1.0	-2.08
2025-02-24	51	49	6.9	-0.83	z' score	-0.28	-2.0	-3.92
2025-02-25	46	44	6.2	-0.89	z score	-0.32	-2.0	-4.35
2025-02-26	5.8	6.4	1.9	0.28	z score	0.30	0.6	10.34
2025-02-27	12	13	2.4	0.46	z score	0.40	1.0	8.33
2025-02-28	20	19	3.1	-0.46	z score	-0.31	-1.0	-5.00
2025-03-01	10	11	2.2	0.46	z score	0.44	1.0	10.00
2025-03-02	9.5	9.7	2.1	0.09	z score	0.09	0.2	2.11
2025-03-03	17	16	2.7	-0.46	z score	-0.36	-1.0	-5.88
2025-03-04	21	22	3.4	0.46	z score	0.28	1.0	4.76
2025-03-05	21	20	3.2	-0.46	z score	-0.30	-1.0	-4.76

Source: JRC 2025

Figure 46. PM2.5 AAA_17/0161 Results



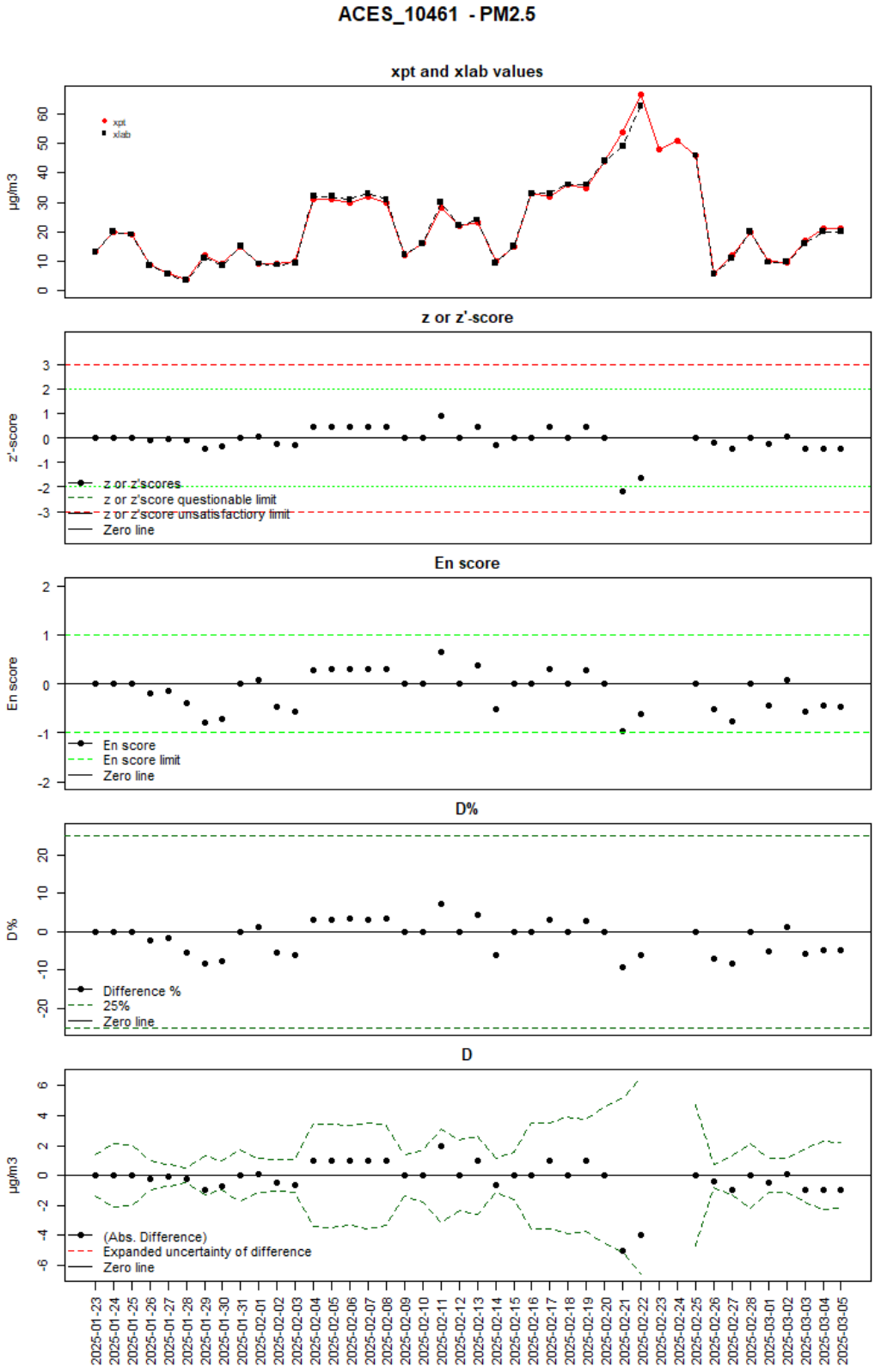
Source: JRC 2025

Table 45. $PM_{2.5}$ ACES_10461 Results

ACES_10461								
$PM_{2.5}$ data capture = 95								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	13	1.30	0.00	z score	0.00	0.0	0.00
2025-01-24	20	20	2.00	0.00	z score	0.00	0.0	0.00
2025-01-25	19	19	1.90	0.00	z score	0.00	0.0	0.00
2025-01-26	8.7	8.5	0.86	-0.09	z score	-0.21	-0.2	-2.30
2025-01-27	5.6	5.5	0.56	-0.05	z score	-0.14	-0.1	-1.79
2025-01-28	3.6	3.4	0.34	-0.09	z score	-0.39	-0.2	-5.56
2025-01-29	12	11	1.10	-0.46	z score	-0.80	-1.0	-8.33
2025-01-30	9.0	8.3	0.85	-0.32	z score	-0.72	-0.7	-7.78
2025-01-31	15	15	1.60	0.00	z score	0.00	0.0	0.00
2025-02-01	8.9	9.0	0.91	0.05	z score	0.09	0.1	1.12
2025-02-02	9.1	8.6	0.88	-0.23	z score	-0.48	-0.5	-5.49
2025-02-03	9.8	9.2	0.93	-0.28	z score	-0.56	-0.6	-6.12
2025-02-04	31	32	3.30	0.45	z score	0.29	1.0	3.23
2025-02-05	31	32	3.20	0.45	z score	0.29	1.0	3.23
2025-02-06	30	31	3.10	0.45	z score	0.31	1.0	3.33
2025-02-07	32	33	3.30	0.45	z score	0.29	1.0	3.12
2025-02-08	30	31	3.20	0.45	z score	0.30	1.0	3.33
2025-02-09	12	12	1.30	0.00	z score	0.00	0.0	0.00
2025-02-10	16	16	1.60	0.00	z score	0.00	0.0	0.00
2025-02-11	28	30	3.00	0.91	z score	0.64	2.0	7.14
2025-02-12	22	22	2.20	0.00	z score	0.00	0.0	0.00
2025-02-13	23	24	2.40	0.46	z score	0.38	1.0	4.35
2025-02-14	10	9.4	0.95	-0.28	z score	-0.52	-0.6	-6.00
2025-02-15	15	15	1.50	0.00	z score	0.00	0.0	0.00
2025-02-16	33	33	3.40	0.00	z score	0.00	0.0	0.00
2025-02-17	32	33	3.30	0.45	z score	0.29	1.0	3.12
2025-02-18	36	36	3.60	0.00	z' score	0.00	0.0	0.00
2025-02-19	35	36	3.60	0.45	z score	0.27	1.0	2.86
2025-02-20	44	44	4.40	0.00	z score	0.00	0.0	0.00
2025-02-21	54	49	5.00	-2.19	z score	-0.97	-5.0	-9.26
2025-02-22	67	63	6.30	-1.63	z' score	-0.62	-4.0	-5.97
2025-02-23	48				z' score			
2025-02-24	51				z' score			
2025-02-25	46	46	4.70	0.00	z score	0.00	0.0	0.00
2025-02-26	5.8	5.4	0.55	-0.18	z score	-0.51	-0.4	-6.90
2025-02-27	12	11	1.10	-0.46	z score	-0.77	-1.0	-8.33
2025-02-28	20	20	2.00	0.00	z score	0.00	0.0	0.00
2025-03-01	10	9.5	0.97	-0.23	z score	-0.44	-0.5	-5.00
2025-03-02	9.5	9.6	0.97	0.05	z score	0.09	0.1	1.05
2025-03-03	17	16	1.60	-0.46	z score	-0.56	-1.0	-5.88
2025-03-04	21	20	2.00	-0.46	z score	-0.44	-1.0	-4.76
2025-03-05	21	20	2.00	-0.46	z score	-0.46	-1.0	-4.76

Source: JRC 2025

Figure 47. PM2.5 ACES_10461 Results



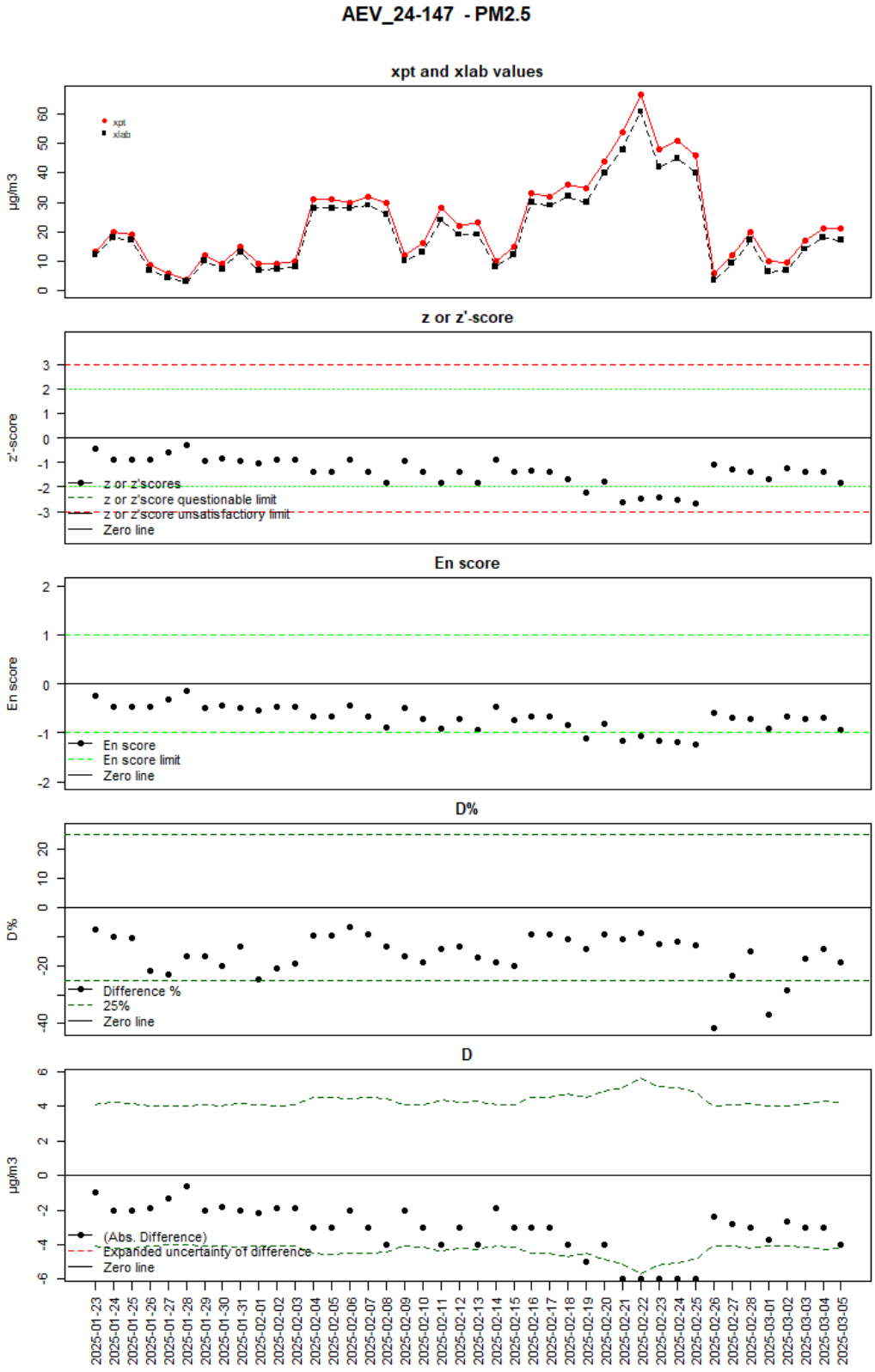
Source: JRC 2025

Table 46. $PM_{2.5}$ AEV_24-147 Results

AEV_24-147								
$PM_{2.5}$ data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	12	4.06	-0.46	z score	-0.24	-1.0	-7.69
2025-01-24	20	18	4.16	-0.91	z score	-0.47	-2.0	-10.00
2025-01-25	19	17	4.14	-0.91	z score	-0.48	-2.0	-10.53
2025-01-26	8.7	6.8	4.02	-0.87	z score	-0.47	-1.9	-21.84
2025-01-27	5.6	4.3	4.01	-0.60	z score	-0.32	-1.3	-23.21
2025-01-28	3.6	3.0	4.00	-0.28	z score	-0.15	-0.6	-16.67
2025-01-29	12	10	4.05	-0.92	z score	-0.49	-2.0	-16.67
2025-01-30	9.0	7.2	4.03	-0.83	z score	-0.44	-1.8	-20.00
2025-01-31	15	13	4.08	-0.92	z score	-0.48	-2.0	-13.33
2025-02-01	8.9	6.7	4.02	-1.01	z score	-0.54	-2.2	-24.72
2025-02-02	9.1	7.2	4.03	-0.87	z score	-0.47	-1.9	-20.88
2025-02-03	9.8	7.9	4.03	-0.87	z score	-0.47	-1.9	-19.39
2025-02-04	31	28	4.37	-1.36	z score	-0.66	-3.0	-9.68
2025-02-05	31	28	4.37	-1.36	z score	-0.66	-3.0	-9.68
2025-02-06	30	28	4.35	-0.91	z score	-0.45	-2.0	-6.67
2025-02-07	32	29	4.38	-1.36	z score	-0.67	-3.0	-9.38
2025-02-08	30	26	4.33	-1.81	z score	-0.90	-4.0	-13.33
2025-02-09	12	10	4.05	-0.92	z score	-0.49	-2.0	-16.67
2025-02-10	16	13	4.08	-1.37	z score	-0.73	-3.0	-18.75
2025-02-11	28	24	4.26	-1.81	z score	-0.92	-4.0	-14.29
2025-02-12	22	19	4.17	-1.37	z score	-0.71	-3.0	-13.64
2025-02-13	23	19	4.17	-1.82	z score	-0.93	-4.0	-17.39
2025-02-14	10	8.1	4.03	-0.87	z score	-0.47	-1.9	-19.00
2025-02-15	15	12	4.07	-1.37	z score	-0.73	-3.0	-20.00
2025-02-16	33	30	4.40	-1.35	z score	-0.66	-3.0	-9.09
2025-02-17	32	29	4.39	-1.36	z score	-0.67	-3.0	-9.38
2025-02-18	36	32	4.47	-1.70	z' score	-0.85	-4.0	-11.11
2025-02-19	35	30	4.42	-2.25	z score	-1.10	-5.0	-14.29
2025-02-20	44	40	4.72	-1.78	z score	-0.83	-4.0	-9.09
2025-02-21	54	48	4.98	-2.63	z score	-1.17	-6.0	-11.11
2025-02-22	67	61	5.50	-2.45	z' score	-1.06	-6.0	-8.96
2025-02-23	48	42	4.77	-2.43	z' score	-1.16	-6.0	-12.50
2025-02-24	51	45	4.87	-2.50	z' score	-1.18	-6.0	-11.76
2025-02-25	46	40	4.71	-2.66	z score	-1.24	-6.0	-13.04
2025-02-26	5.8	3.4	4.01	-1.10	z score	-0.59	-2.4	-41.38
2025-02-27	12	9.2	4.04	-1.28	z score	-0.68	-2.8	-23.33
2025-02-28	20	17	4.13	-1.37	z score	-0.71	-3.0	-15.00
2025-03-01	10	6.3	4.02	-1.70	z score	-0.91	-3.7	-37.00
2025-03-02	9.5	6.8	4.02	-1.24	z score	-0.66	-2.7	-28.42
2025-03-03	17	14	4.09	-1.37	z score	-0.72	-3.0	-17.65
2025-03-04	21	18	4.16	-1.37	z score	-0.70	-3.0	-14.29
2025-03-05	21	17	4.14	-1.83	z score	-0.94	-4.0	-19.05

Source: JRC 2025

Figure 48. PM2.5 AEV_24-147 Results



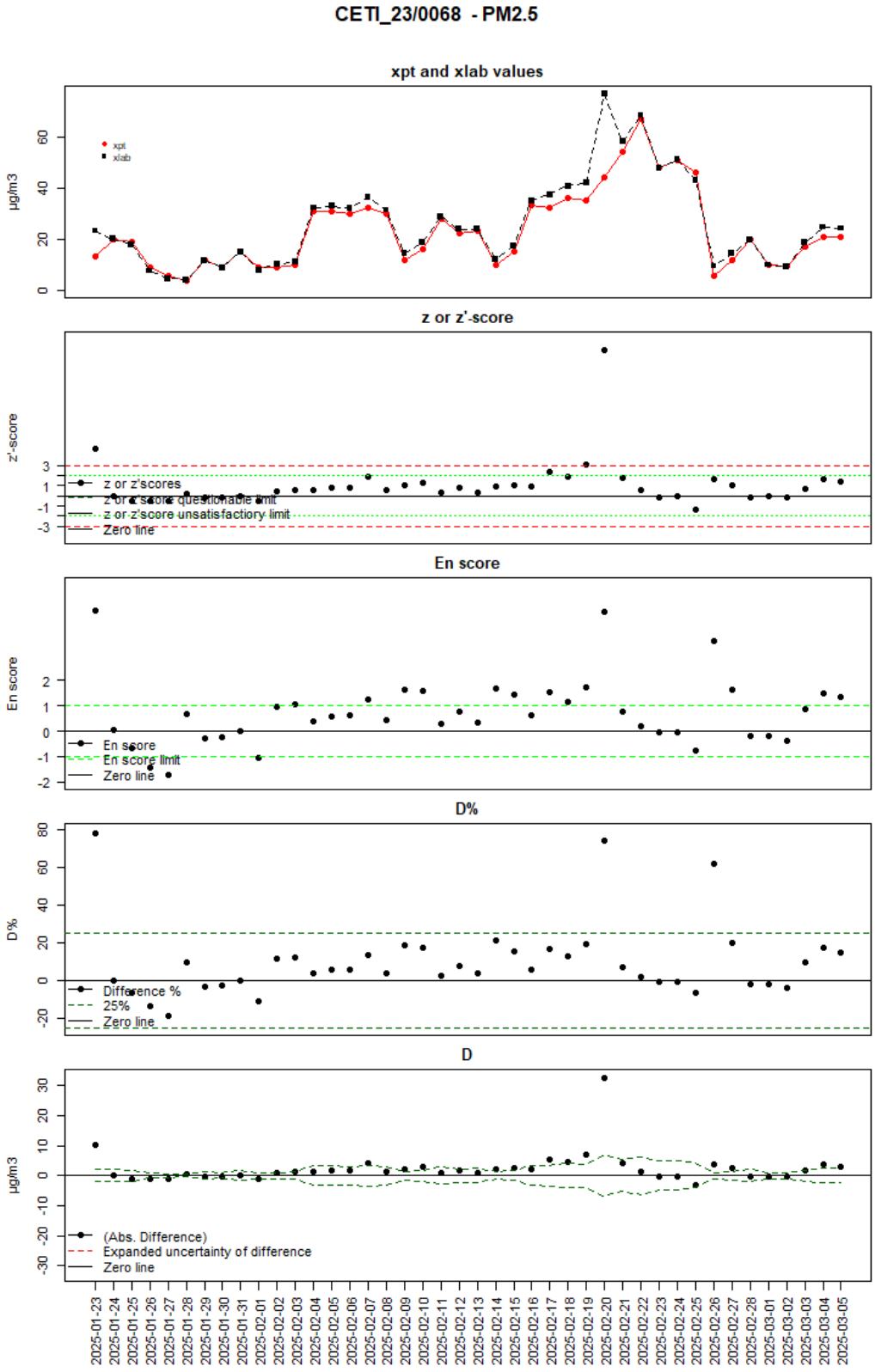
Source: JRC 2025

Table 47. $PM_{2.5}$ CETI_23/0068 Results

CETI_23/0068								
$PM_{2.5}$ data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	23.15	2.08	4.66	z score	4.73	10.15	78.08
2025-01-24	20	20.07	1.81	0.03	z score	0.04	0.07	0.35
2025-01-25	19	17.80	1.60	-0.55	z score	-0.69	-1.20	-6.32
2025-01-26	8.7	7.53	0.68	-0.54	z score	-1.43	-1.17	-13.45
2025-01-27	5.6	4.57	0.41	-0.47	z score	-1.71	-1.03	-18.39
2025-01-28	3.6	3.95	0.36	0.16	z score	0.67	0.35	9.72
2025-01-29	12	11.63	1.05	-0.17	z score	-0.31	-0.37	-3.08
2025-01-30	9.0	8.78	0.79	-0.10	z score	-0.24	-0.22	-2.44
2025-01-31	15	15.02	1.35	0.01	z score	0.01	0.02	0.13
2025-02-01	8.9	7.90	0.71	-0.46	z score	-1.02	-1.00	-11.24
2025-02-02	9.1	10.15	0.91	0.48	z score	0.98	1.05	11.54
2025-02-03	9.8	11.01	0.99	0.56	z score	1.07	1.21	12.35
2025-02-04	31	32.23	2.90	0.56	z score	0.39	1.23	3.97
2025-02-05	31	32.87	2.96	0.85	z score	0.58	1.87	6.03
2025-02-06	30	31.84	2.87	0.83	z score	0.61	1.84	6.13
2025-02-07	32	36.26	3.26	1.92	z score	1.25	4.26	13.31
2025-02-08	30	31.25	2.81	0.57	z score	0.42	1.25	4.17
2025-02-09	12	14.29	1.29	1.05	z score	1.66	2.29	19.08
2025-02-10	16	18.83	1.69	1.30	z score	1.55	2.83	17.69
2025-02-11	28	28.78	2.59	0.35	z score	0.28	0.78	2.79
2025-02-12	22	23.77	2.14	0.81	z score	0.77	1.77	8.05
2025-02-13	23	23.85	2.15	0.39	z score	0.36	0.85	3.70
2025-02-14	10	12.11	1.09	0.97	z score	1.67	2.11	21.10
2025-02-15	15	17.35	1.56	1.08	z score	1.43	2.35	15.67
2025-02-16	33	35.00	3.15	0.90	z score	0.60	2.00	6.06
2025-02-17	32	37.33	3.36	2.41	z score	1.52	5.33	16.66
2025-02-18	36	40.55	3.65	1.94	z' score	1.15	4.55	12.64
2025-02-19	35	41.79	3.76	3.06	z score	1.74	6.79	19.40
2025-02-20	44	76.67	6.90	14.53	z score	4.68	32.67	74.25
2025-02-21	54	57.98	5.22	1.74	z score	0.74	3.98	7.37
2025-02-22	67	68.33	6.15	0.54	z' score	0.21	1.33	1.99
2025-02-23	48	47.76	4.30	-0.10	z' score	-0.05	-0.24	-0.50
2025-02-24	51	50.84	4.58	-0.07	z' score	-0.03	-0.16	-0.31
2025-02-25	46	42.99	3.87	-1.34	z score	-0.75	-3.01	-6.54
2025-02-26	5.8	9.40	0.85	1.66	z score	3.54	3.60	62.07
2025-02-27	12	14.37	1.29	1.09	z score	1.63	2.37	19.75
2025-02-28	20	19.67	1.77	-0.15	z score	-0.17	-0.33	-1.65
2025-03-01	10	9.81	0.88	-0.09	z score	-0.18	-0.19	-1.90
2025-03-02	9.5	9.11	0.82	-0.18	z score	-0.39	-0.39	-4.11
2025-03-03	17	18.61	1.67	0.74	z score	0.88	1.61	9.47
2025-03-04	21	24.61	2.21	1.65	z score	1.48	3.61	17.19
2025-03-05	21	24.10	2.17	1.42	z score	1.32	3.10	14.76

Source: JRC 2025

Figure 49. PM2.5 CETI_23/0068 Results



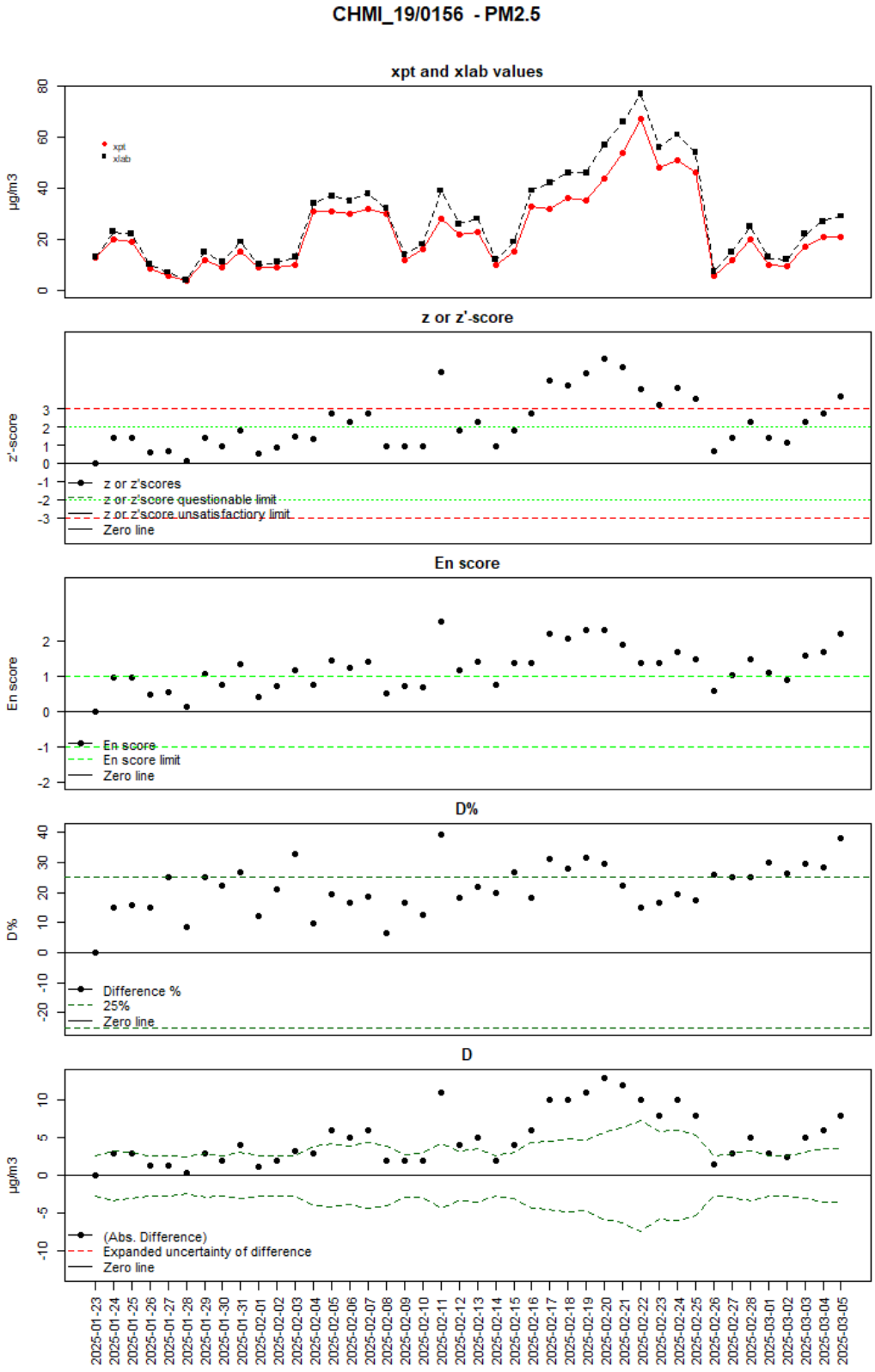
Source: JRC 2025

Table 48. $PM_{2.5}$ CHMI_19/0156 Results

CHMI_19/0156								
$PM_{2.5}$ data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	13	2.7	0.00	z score	0.00	0.0	0.00
2025-01-24	20	23	3.1	1.37	z score	0.94	3.0	15.00
2025-01-25	19	22	3.1	1.37	z score	0.94	3.0	15.79
2025-01-26	8.7	10	2.6	0.60	z score	0.49	1.3	14.94
2025-01-27	5.6	7.0	2.5	0.64	z score	0.55	1.4	25.00
2025-01-28	3.6	3.9	2.5	0.14	z score	0.12	0.3	8.33
2025-01-29	12	15	2.8	1.38	z score	1.05	3.0	25.00
2025-01-30	9.0	11	2.6	0.92	z score	0.76	2.0	22.22
2025-01-31	15	19	2.9	1.83	z score	1.33	4.0	26.67
2025-02-01	8.9	10	2.6	0.51	z score	0.41	1.1	12.36
2025-02-02	9.1	11	2.6	0.87	z score	0.71	1.9	20.88
2025-02-03	9.8	13	2.7	1.47	z score	1.16	3.2	32.65
2025-02-04	31	34	3.8	1.36	z score	0.76	3.0	9.68
2025-02-05	31	37	4.0	2.71	z score	1.43	6.0	19.35
2025-02-06	30	35	3.9	2.26	z score	1.24	5.0	16.67
2025-02-07	32	38	4.1	2.71	z score	1.42	6.0	18.75
2025-02-08	30	32	3.7	0.91	z score	0.52	2.0	6.67
2025-02-09	12	14	2.7	0.92	z score	0.73	2.0	16.67
2025-02-10	16	18	2.9	0.92	z score	0.67	2.0	12.50
2025-02-11	28	39	4.2	4.99	z score	2.56	11.0	39.29
2025-02-12	22	26	3.3	1.82	z score	1.17	4.0	18.18
2025-02-13	23	28	3.4	2.28	z score	1.41	5.0	21.74
2025-02-14	10	12	2.6	0.92	z score	0.75	2.0	20.00
2025-02-15	15	19	2.9	1.83	z score	1.36	4.0	26.67
2025-02-16	33	39	4.2	2.71	z score	1.39	6.0	18.18
2025-02-17	32	42	4.4	4.52	z score	2.22	10.0	31.25
2025-02-18	36	46	4.6	4.26	z' score	2.06	10.0	27.78
2025-02-19	35	46	4.7	4.95	z score	2.29	11.0	31.43
2025-02-20	44	57	5.5	5.78	z score	2.32	13.0	29.55
2025-02-21	54	66	6.2	5.25	z score	1.90	12.0	22.22
2025-02-22	67	77	7.1	4.08	z' score	1.38	10.0	14.93
2025-02-23	48	56	5.4	3.24	z' score	1.39	8.0	16.67
2025-02-24	51	61	5.8	4.17	z' score	1.67	10.0	19.61
2025-02-25	46	54	5.3	3.55	z score	1.48	8.0	17.39
2025-02-26	5.8	7.3	2.5	0.69	z score	0.59	1.5	25.86
2025-02-27	12	15	2.8	1.38	z score	1.04	3.0	25.00
2025-02-28	20	25	3.3	2.28	z score	1.47	5.0	25.00
2025-03-01	10	13	2.7	1.38	z score	1.08	3.0	30.00
2025-03-02	9.5	12	2.7	1.15	z score	0.91	2.5	26.32
2025-03-03	17	22	3.1	2.29	z score	1.57	5.0	29.41
2025-03-04	21	27	3.4	2.74	z score	1.69	6.0	28.57
2025-03-05	21	29	3.5	3.65	z score	2.21	8.0	38.10

Source: JRC 2025

Figure 50. PM2.5 CHMI_19/0156 Results



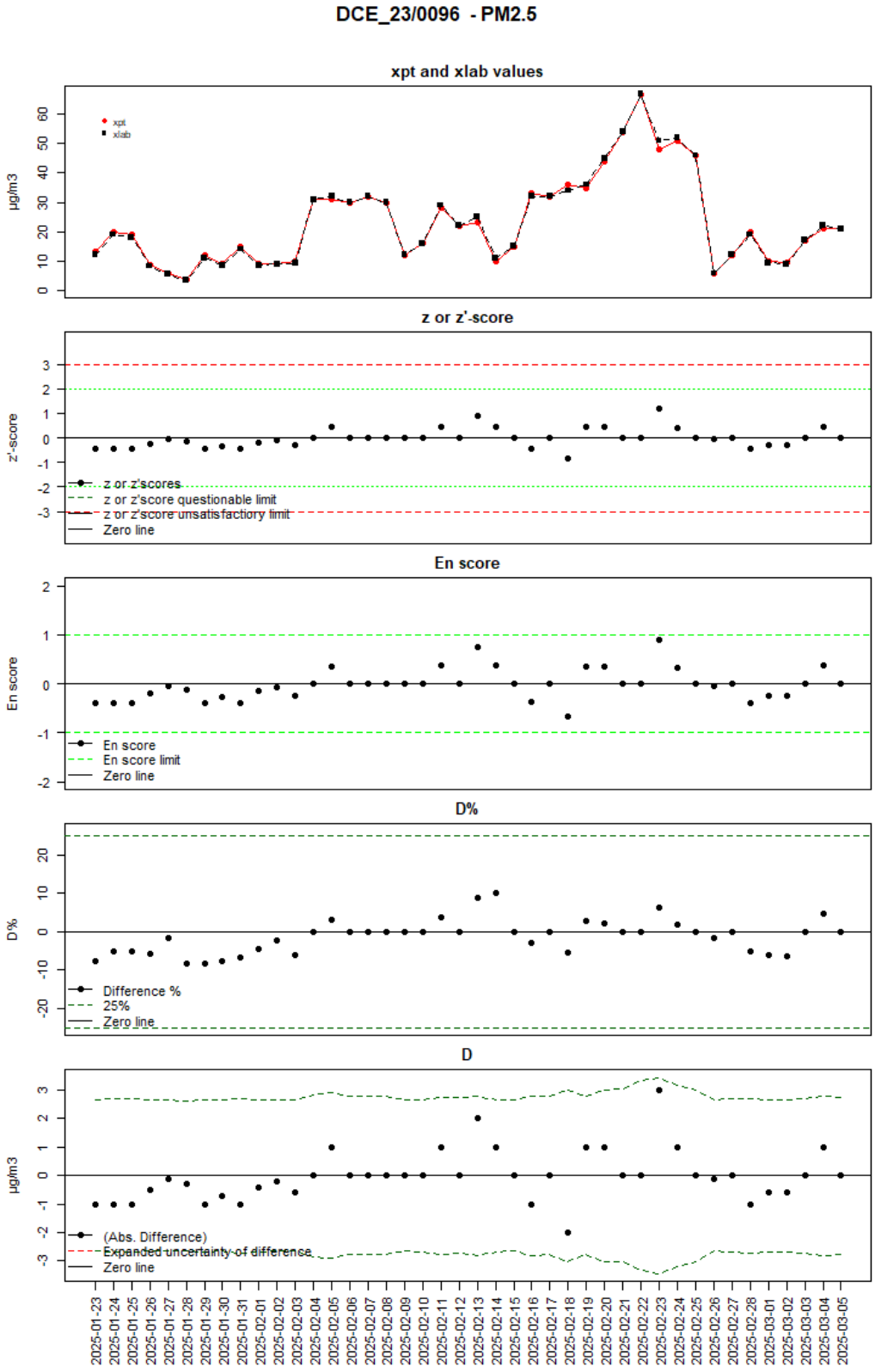
Source: JRC 2025

Table 49. $PM_{2.5}$ DCE_23/0096 Results

DCE_23/0096								
$PM_{2.5}$ data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	12	2.5	-0.46	z score	-0.39	-1.0	-7.69
2025-01-24	20	19	2.5	-0.46	z score	-0.38	-1.0	-5.00
2025-01-25	19	18	2.5	-0.46	z score	-0.39	-1.0	-5.26
2025-01-26	8.7	8.2	2.5	-0.23	z score	-0.20	-0.5	-5.75
2025-01-27	5.6	5.5	2.5	-0.05	z score	-0.04	-0.1	-1.79
2025-01-28	3.6	3.3	2.5	-0.14	z score	-0.12	-0.3	-8.33
2025-01-29	12	11	2.5	-0.46	z score	-0.39	-1.0	-8.33
2025-01-30	9.0	8.3	2.5	-0.32	z score	-0.28	-0.7	-7.78
2025-01-31	15	14	2.5	-0.46	z score	-0.38	-1.0	-6.67
2025-02-01	8.9	8.5	2.5	-0.18	z score	-0.15	-0.4	-4.49
2025-02-02	9.1	8.9	2.5	-0.09	z score	-0.08	-0.2	-2.20
2025-02-03	9.8	9.2	2.5	-0.28	z score	-0.23	-0.6	-6.12
2025-02-04	31	31	2.6	0.00	z score	0.00	0.0	0.00
2025-02-05	31	32	2.6	0.45	z score	0.34	1.0	3.23
2025-02-06	30	30	2.5	0.00	z score	0.00	0.0	0.00
2025-02-07	32	32	2.6	0.00	z score	0.00	0.0	0.00
2025-02-08	30	30	2.5	0.00	z score	0.00	0.0	0.00
2025-02-09	12	12	2.5	0.00	z score	0.00	0.0	0.00
2025-02-10	16	16	2.5	0.00	z score	0.00	0.0	0.00
2025-02-11	28	29	2.5	0.45	z score	0.38	1.0	3.57
2025-02-12	22	22	2.5	0.00	z score	0.00	0.0	0.00
2025-02-13	23	25	2.5	0.91	z score	0.74	2.0	8.70
2025-02-14	10	11	2.5	0.46	z score	0.39	1.0	10.00
2025-02-15	15	15	2.5	0.00	z score	0.00	0.0	0.00
2025-02-16	33	32	2.6	-0.45	z score	-0.36	-1.0	-3.03
2025-02-17	32	32	2.6	0.00	z score	0.00	0.0	0.00
2025-02-18	36	34	2.6	-0.85	z' score	-0.66	-2.0	-5.56
2025-02-19	35	36	2.6	0.45	z score	0.36	1.0	2.86
2025-02-20	44	45	2.7	0.44	z score	0.34	1.0	2.27
2025-02-21	54	54	2.7	0.00	z score	0.00	0.0	0.00
2025-02-22	67	67	2.9	0.00	z' score	0.00	0.0	0.00
2025-02-23	48	51	2.7	1.22	z' score	0.90	3.0	6.25
2025-02-24	51	52	2.7	0.42	z' score	0.32	1.0	1.96
2025-02-25	46	46	2.7	0.00	z score	0.00	0.0	0.00
2025-02-26	5.8	5.7	2.5	-0.05	z score	-0.04	-0.1	-1.72
2025-02-27	12	12	2.5	0.00	z score	0.00	0.0	0.00
2025-02-28	20	19	2.5	-0.46	z score	-0.38	-1.0	-5.00
2025-03-01	10	9.4	2.5	-0.28	z score	-0.23	-0.6	-6.00
2025-03-02	9.5	8.9	2.5	-0.28	z score	-0.23	-0.6	-6.32
2025-03-03	17	17	2.5	0.00	z score	0.00	0.0	0.00
2025-03-04	21	22	2.5	0.46	z score	0.37	1.0	4.76
2025-03-05	21	21	2.5	0.00	z score	0.00	0.0	0.00

Source: JRC 2025

Figure 51. PM2.5 DCE_23/0096 Results



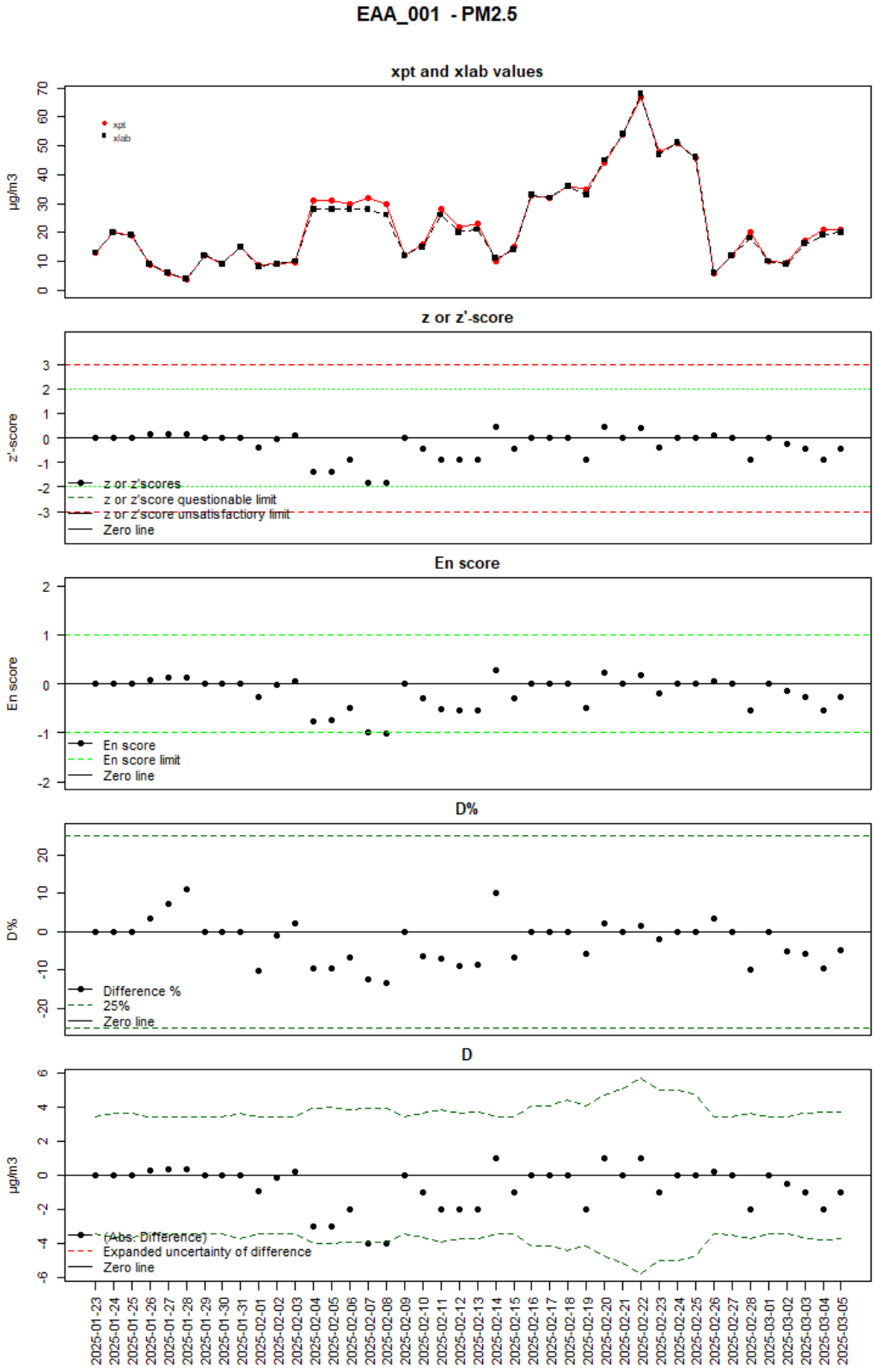
Source: JRC 2025

Table 50. $PM_{2.5}$ EAA_001 Results

EAA_001								
$PM_{2.5}$ data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	13	3.5	0.00	z score	0.00	0.0	0.00
2025-01-24	20	20	3.6	0.00	z score	0.00	0.0	0.00
2025-01-25	19	19	3.6	0.00	z score	0.00	0.0	0.00
2025-01-26	8.7	9	3.4	0.14	z score	0.09	0.3	3.45
2025-01-27	5.6	6	3.4	0.18	z score	0.12	0.4	7.14
2025-01-28	3.6	4	3.4	0.18	z score	0.12	0.4	11.11
2025-01-29	12	12	3.5	0.00	z score	0.00	0.0	0.00
2025-01-30	9.0	9	3.4	0.00	z score	0.00	0.0	0.00
2025-01-31	15	15	3.5	0.00	z score	0.00	0.0	0.00
2025-02-01	8.9	8	3.4	-0.41	z score	-0.26	-0.9	-10.11
2025-02-02	9.1	9	3.4	-0.05	z score	-0.03	-0.1	-1.10
2025-02-03	9.8	10	3.4	0.09	z score	0.06	0.2	2.04
2025-02-04	31	28	3.8	-1.36	z score	-0.76	-3.0	-9.68
2025-02-05	31	28	3.9	-1.36	z score	-0.73	-3.0	-9.68
2025-02-06	30	28	3.9	-0.91	z score	-0.50	-2.0	-6.67
2025-02-07	32	28	3.9	-1.81	z score	-0.99	-4.0	-12.50
2025-02-08	30	26	3.8	-1.81	z score	-1.02	-4.0	-13.33
2025-02-09	12	12	3.5	0.00	z score	0.00	0.0	0.00
2025-02-10	16	15	3.5	-0.46	z score	-0.28	-1.0	-6.25
2025-02-11	28	26	3.8	-0.91	z score	-0.51	-2.0	-7.14
2025-02-12	22	20	3.6	-0.91	z score	-0.54	-2.0	-9.09
2025-02-13	23	21	3.6	-0.91	z score	-0.53	-2.0	-8.70
2025-02-14	10	11	3.4	0.46	z score	0.29	1.0	10.00
2025-02-15	15	14	3.5	-0.46	z score	-0.28	-1.0	-6.67
2025-02-16	33	33	4.0	0.00	z score	0.00	0.0	0.00
2025-02-17	32	32	4.0	0.00	z score	0.00	0.0	0.00
2025-02-18	36	36	4.1	0.00	z' score	0.00	0.0	0.00
2025-02-19	35	33	4.0	-0.90	z score	-0.48	-2.0	-5.71
2025-02-20	44	45	4.5	0.44	z score	0.22	1.0	2.27
2025-02-21	54	54	4.9	0.00	z score	0.00	0.0	0.00
2025-02-22	67	68	5.6	0.41	z' score	0.17	1.0	1.49
2025-02-23	48	47	4.6	-0.41	z' score	-0.20	-1.0	-2.08
2025-02-24	51	51	4.8	0.00	z' score	0.00	0.0	0.00
2025-02-25	46	46	4.6	0.00	z score	0.00	0.0	0.00
2025-02-26	5.8	6	3.4	0.09	z score	0.06	0.2	3.45
2025-02-27	12	12	3.5	0.00	z score	0.00	0.0	0.00
2025-02-28	20	18	3.6	-0.91	z score	-0.54	-2.0	-10.00
2025-03-01	10	10	3.4	0.00	z score	0.00	0.0	0.00
2025-03-02	9.5	9	3.4	-0.23	z score	-0.14	-0.5	-5.26
2025-03-03	17	16	3.5	-0.46	z score	-0.28	-1.0	-5.88
2025-03-04	21	19	3.6	-0.91	z score	-0.53	-2.0	-9.52
2025-03-05	21	20	3.6	-0.46	z score	-0.27	-1.0	-4.76

Source: JRC 2025

Figure 52. PM2.5 EAA_001 Results



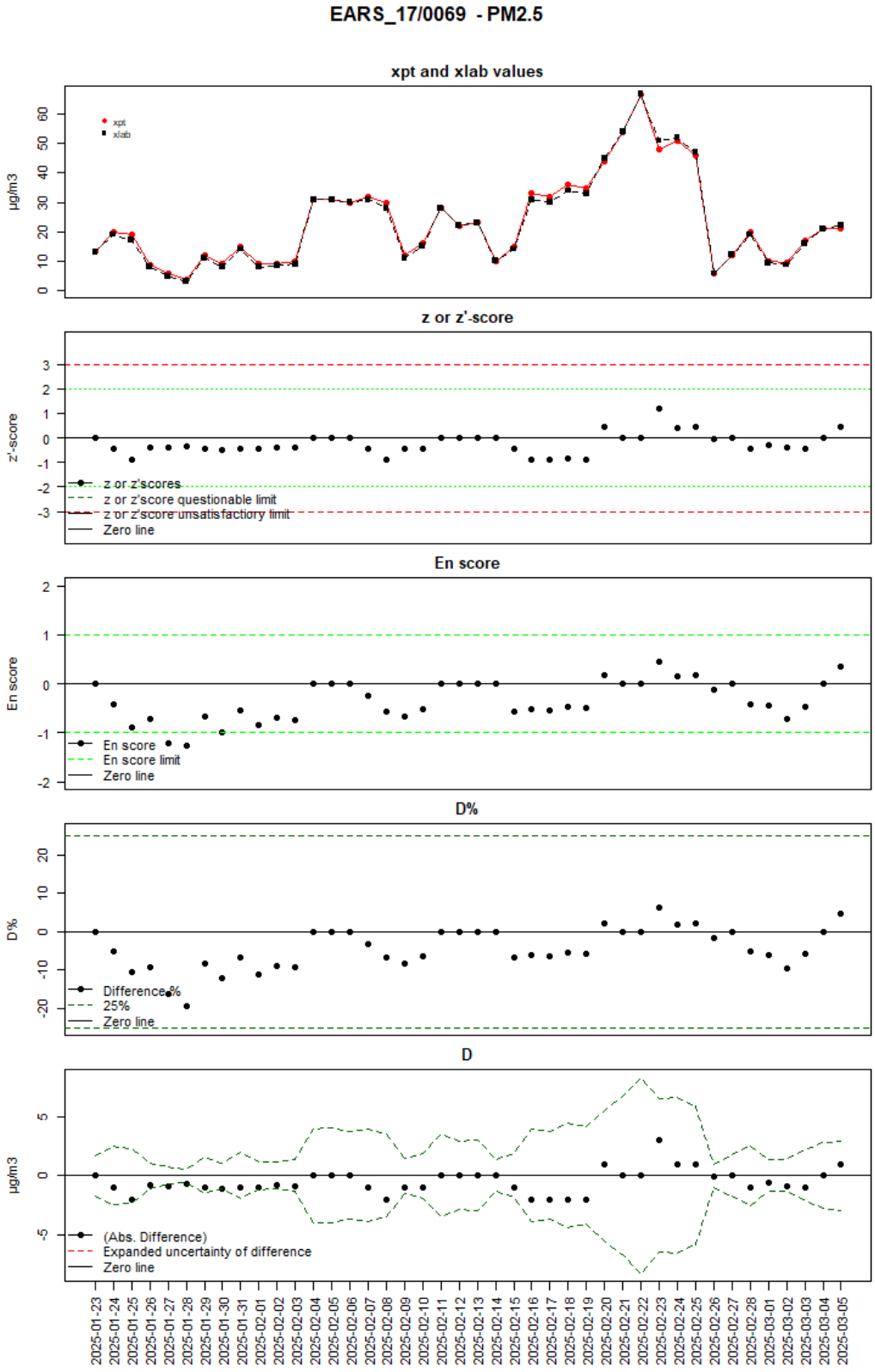
Source: JRC 2025

Table 51. $PM_{2.5}$ EARS_17/0069 Results

EARS_17/0069								
$PM_{2.5}$ data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	13	1.6	0.00	z score	0.00	0.0	0.00
2025-01-24	20	19	2.3	-0.46	z score	-0.41	-1.0	-5.00
2025-01-25	19	17	2.1	-0.91	z score	-0.90	-2.0	-10.53
2025-01-26	8.7	7.9	1.0	-0.37	z score	-0.73	-0.8	-9.20
2025-01-27	5.6	4.7	0.6	-0.41	z score	-1.21	-0.9	-16.07
2025-01-28	3.6	2.9	0.4	-0.32	z score	-1.27	-0.7	-19.44
2025-01-29	12	11	1.4	-0.46	z score	-0.66	-1.0	-8.33
2025-01-30	9.0	7.9	1.0	-0.51	z score	-1.00	-1.1	-12.22
2025-01-31	15	14	1.7	-0.46	z score	-0.54	-1.0	-6.67
2025-02-01	8.9	7.9	1.0	-0.46	z score	-0.83	-1.0	-11.24
2025-02-02	9.1	8.3	1.0	-0.37	z score	-0.70	-0.8	-8.79
2025-02-03	9.8	8.9	1.1	-0.41	z score	-0.73	-0.9	-9.18
2025-02-04	31	31	3.8	0.00	z score	0.00	0.0	0.00
2025-02-05	31	31	3.8	0.00	z score	0.00	0.0	0.00
2025-02-06	30	30	3.6	0.00	z score	0.00	0.0	0.00
2025-02-07	32	31	3.8	-0.45	z score	-0.25	-1.0	-3.12
2025-02-08	30	28	3.4	-0.91	z score	-0.57	-2.0	-6.67
2025-02-09	12	11	1.4	-0.46	z score	-0.67	-1.0	-8.33
2025-02-10	16	15	1.8	-0.46	z score	-0.52	-1.0	-6.25
2025-02-11	28	28	3.4	0.00	z score	0.00	0.0	0.00
2025-02-12	22	22	2.7	0.00	z score	0.00	0.0	0.00
2025-02-13	23	23	2.8	0.00	z score	0.00	0.0	0.00
2025-02-14	10	10	1.2	0.00	z score	0.00	0.0	0.00
2025-02-15	15	14	1.7	-0.46	z score	-0.56	-1.0	-6.67
2025-02-16	33	31	3.8	-0.90	z score	-0.51	-2.0	-6.06
2025-02-17	32	30	3.6	-0.90	z score	-0.54	-2.0	-6.25
2025-02-18	36	34	4.1	-0.85	z’ score	-0.46	-2.0	-5.56
2025-02-19	35	33	4.0	-0.90	z score	-0.48	-2.0	-5.71
2025-02-20	44	45	5.4	0.44	z score	0.18	1.0	2.27
2025-02-21	54	54	6.5	0.00	z score	0.00	0.0	0.00
2025-02-22	67	67	8.1	0.00	z’ score	0.00	0.0	0.00
2025-02-23	48	51	6.2	1.22	z’ score	0.46	3.0	6.25
2025-02-24	51	52	6.3	0.42	z’ score	0.15	1.0	1.96
2025-02-25	46	47	5.7	0.44	z score	0.17	1.0	2.17
2025-02-26	5.8	5.7	0.7	-0.05	z score	-0.11	-0.1	-1.72
2025-02-27	12	12	1.5	0.00	z score	0.00	0.0	0.00
2025-02-28	20	19	2.3	-0.46	z score	-0.41	-1.0	-5.00
2025-03-01	10	9.4	1.2	-0.28	z score	-0.45	-0.6	-6.00
2025-03-02	9.5	8.6	1.1	-0.41	z score	-0.72	-0.9	-9.47
2025-03-03	17	16	2.0	-0.46	z score	-0.47	-1.0	-5.88
2025-03-04	21	21	2.6	0.00	z score	0.00	0.0	0.00
2025-03-05	21	22	2.7	0.46	z score	0.35	1.0	4.76

Source: JRC 2025

Figure 53. PM2.5 EARS_17/0069 Results



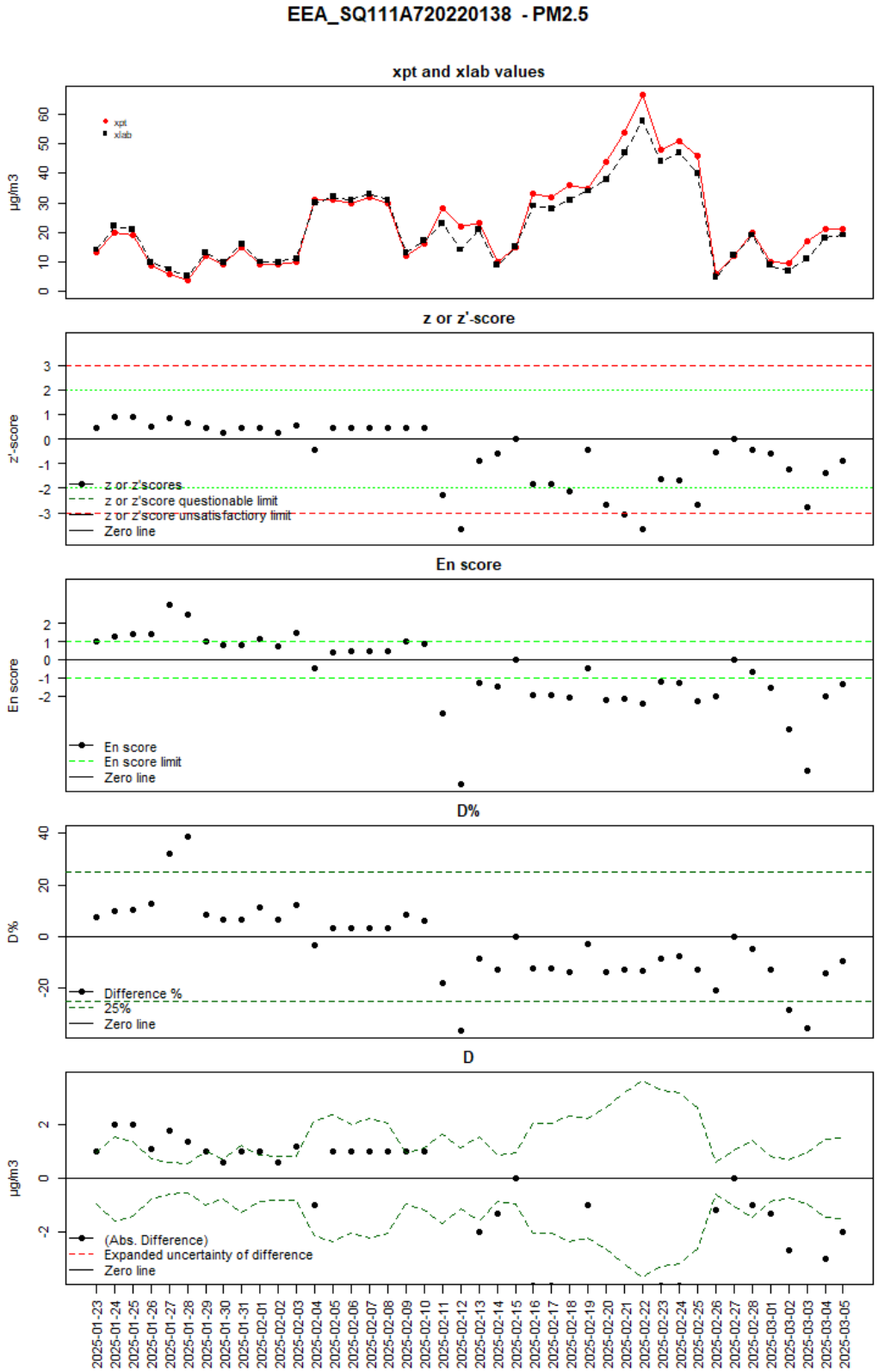
Source: JRC 2025

Table 52. $PM_{2.5}$ EEA_SQ111A720220138 Results

EEA_SQ111A720220138								
$PM_{2.5}$ data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	14	0.8	0.46	z score	1.05	1.0	7.69
2025-01-24	20	22	1.4	0.91	z score	1.27	2.0	10.00
2025-01-25	19	21	1.2	0.91	z score	1.44	2.0	10.53
2025-01-26	8.7	9.8	0.6	0.51	z score	1.45	1.1	12.64
2025-01-27	5.6	7.4	0.4	0.83	z score	3.03	1.8	32.14
2025-01-28	3.6	5.0	0.4	0.64	z score	2.54	1.4	38.89
2025-01-29	12	13	0.8	0.46	z score	1.00	1.0	8.33
2025-01-30	9.0	9.6	0.6	0.28	z score	0.79	0.6	6.67
2025-01-31	15	16	1.0	0.46	z score	0.80	1.0	6.67
2025-02-01	8.9	9.9	0.6	0.46	z score	1.10	1.0	11.24
2025-02-02	9.1	9.7	0.6	0.28	z score	0.73	0.6	6.59
2025-02-03	9.8	11	0.6	0.55	z score	1.49	1.2	12.24
2025-02-04	31	30	1.8	-0.45	z score	-0.47	-1.0	-3.23
2025-02-05	31	32	2.0	0.45	z score	0.42	1.0	3.23
2025-02-06	30	31	1.8	0.45	z score	0.49	1.0	3.33
2025-02-07	32	33	2.0	0.45	z score	0.45	1.0	3.12
2025-02-08	30	31	1.8	0.45	z score	0.49	1.0	3.33
2025-02-09	12	13	0.8	0.46	z score	1.06	1.0	8.33
2025-02-10	16	17	1.0	0.46	z score	0.83	1.0	6.25
2025-02-11	28	23	1.4	-2.27	z score	-3.00	-5.0	-17.86
2025-02-12	22	14	0.8	-3.65	z score	-6.90	-8.0	-36.36
2025-02-13	23	21	1.2	-0.91	z score	-1.26	-2.0	-8.70
2025-02-14	10	8.7	0.6	-0.60	z score	-1.48	-1.3	-13.00
2025-02-15	15	15	0.8	0.00	z score	0.00	0.0	0.00
2025-02-16	33	29	1.8	-1.81	z score	-1.93	-4.0	-12.12
2025-02-17	32	28	1.8	-1.81	z score	-1.95	-4.0	-12.50
2025-02-18	36	31	1.8	-2.13	z' score	-2.12	-5.0	-13.89
2025-02-19	35	34	2.0	-0.45	z score	-0.45	-1.0	-2.86
2025-02-20	44	38	2.4	-2.67	z score	-2.27	-6.0	-13.64
2025-02-21	54	47	3.0	-3.06	z score	-2.18	-7.0	-12.96
2025-02-22	67	58	3.4	-3.67	z' score	-2.44	-9.0	-13.43
2025-02-23	48	44	2.6	-1.62	z' score	-1.22	-4.0	-8.33
2025-02-24	51	47	2.8	-1.67	z' score	-1.26	-4.0	-7.84
2025-02-25	46	40	2.4	-2.66	z score	-2.27	-6.0	-13.04
2025-02-26	5.8	4.6	0.2	-0.55	z score	-2.02	-1.2	-20.69
2025-02-27	12	12	0.8	0.00	z score	0.00	0.0	0.00
2025-02-28	20	19	1.2	-0.46	z score	-0.69	-1.0	-5.00
2025-03-01	10	8.7	0.6	-0.60	z score	-1.53	-1.3	-13.00
2025-03-02	9.5	6.8	0.4	-1.24	z score	-3.83	-2.7	-28.42
2025-03-03	17	11	0.6	-2.75	z score	-6.20	-6.0	-35.29
2025-03-04	21	18	1.0	-1.37	z score	-2.08	-3.0	-14.29
2025-03-05	21	19	1.2	-0.91	z score	-1.33	-2.0	-9.52

Source: JRC 2025

Figure 54. PM2.5 EEA_SQ111A720220138 Results



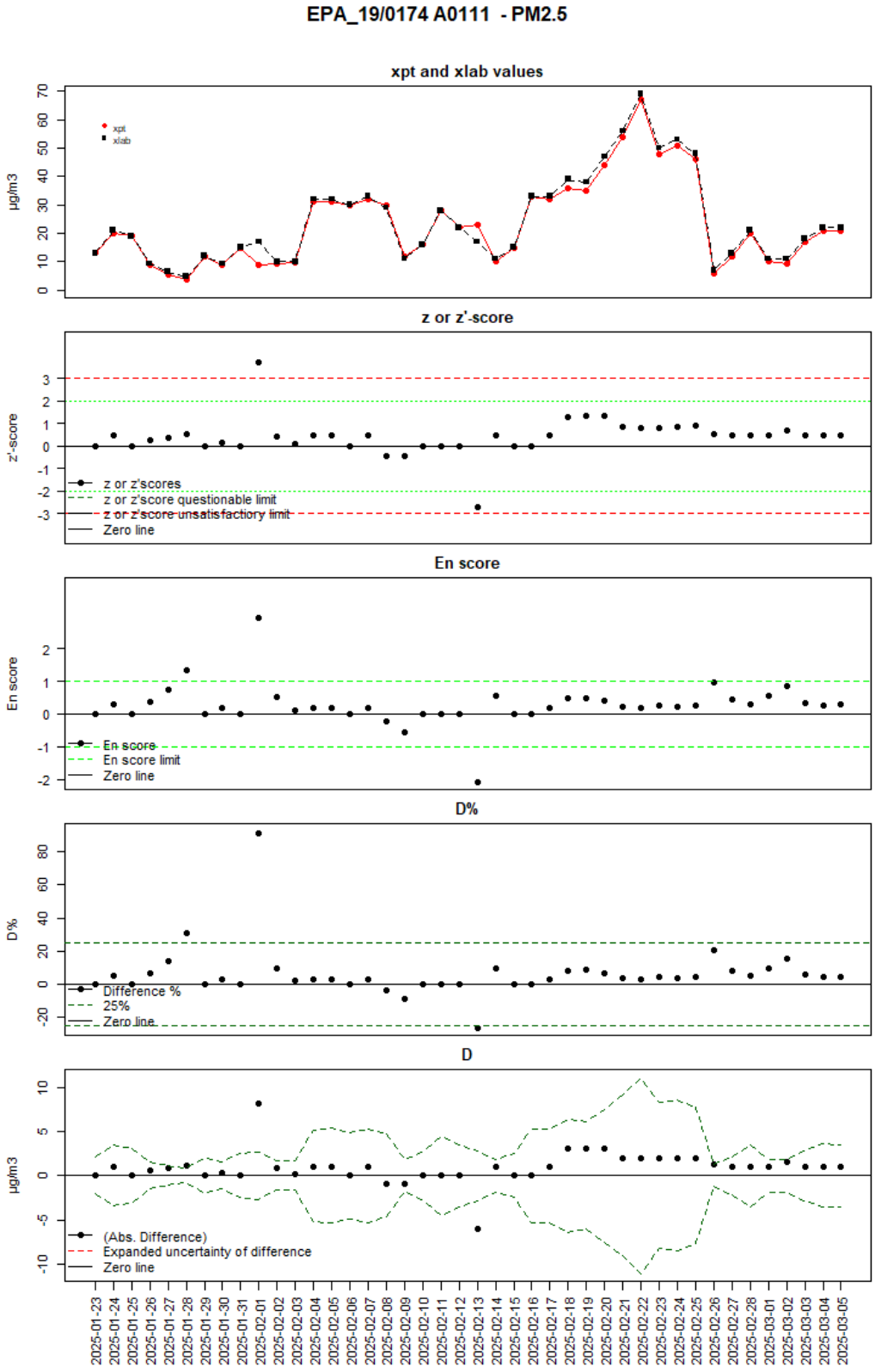
Source: JRC 2025

Table 53. $PM_{2.5}$ EPA_19/0174 A0111 Results

EPA_19/0174 A0111								
$PM_{2.5}$ data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	13	2.00	0.00	z score	0.00	0.0	0.00
2025-01-24	20	21	3.30	0.46	z score	0.30	1.0	5.00
2025-01-25	19	19	3.00	0.00	z score	0.00	0.0	0.00
2025-01-26	8.7	9.3	1.50	0.28	z score	0.38	0.6	6.90
2025-01-27	5.6	6.4	1.00	0.37	z score	0.73	0.8	14.29
2025-01-28	3.6	4.7	0.74	0.51	z score	1.32	1.1	30.56
2025-01-29	12	12	1.90	0.00	z score	0.00	0.0	0.00
2025-01-30	9.0	9.3	1.50	0.14	z score	0.19	0.3	3.33
2025-01-31	15	15	2.40	0.00	z score	0.00	0.0	0.00
2025-02-01	8.9	17	2.70	3.72	z score	2.91	8.1	91.01
2025-02-02	9.1	10	1.60	0.41	z score	0.53	0.9	9.89
2025-02-03	9.8	10	1.60	0.09	z score	0.12	0.2	2.04
2025-02-04	31	32	5.10	0.45	z score	0.19	1.0	3.23
2025-02-05	31	32	5.10	0.45	z score	0.19	1.0	3.23
2025-02-06	30	30	4.80	0.00	z score	0.00	0.0	0.00
2025-02-07	32	33	5.20	0.45	z score	0.19	1.0	3.12
2025-02-08	30	29	4.60	-0.45	z score	-0.21	-1.0	-3.33
2025-02-09	12	11	1.70	-0.46	z score	-0.56	-1.0	-8.33
2025-02-10	16	16	2.50	0.00	z score	0.00	0.0	0.00
2025-02-11	28	28	4.40	0.00	z score	0.00	0.0	0.00
2025-02-12	22	22	3.50	0.00	z score	0.00	0.0	0.00
2025-02-13	23	17	2.70	-2.73	z score	-2.07	-6.0	-26.09
2025-02-14	10	11	1.70	0.46	z score	0.55	1.0	10.00
2025-02-15	15	15	2.40	0.00	z score	0.00	0.0	0.00
2025-02-16	33	33	5.20	0.00	z score	0.00	0.0	0.00
2025-02-17	32	33	5.30	0.45	z score	0.19	1.0	3.12
2025-02-18	36	39	6.20	1.28	z' score	0.47	3.0	8.33
2025-02-19	35	38	6.00	1.35	z score	0.49	3.0	8.57
2025-02-20	44	47	7.40	1.33	z score	0.40	3.0	6.82
2025-02-21	54	56	9.00	0.88	z score	0.22	2.0	3.70
2025-02-22	67	69	11.00	0.82	z' score	0.18	2.0	2.99
2025-02-23	48	50	8.00	0.81	z' score	0.24	2.0	4.17
2025-02-24	51	53	8.40	0.83	z' score	0.23	2.0	3.92
2025-02-25	46	48	7.70	0.89	z score	0.26	2.0	4.35
2025-02-26	5.8	7.0	1.10	0.55	z score	0.97	1.2	20.69
2025-02-27	12	13	2.10	0.46	z score	0.45	1.0	8.33
2025-02-28	20	21	3.40	0.46	z score	0.29	1.0	5.00
2025-03-01	10	11	1.70	0.46	z score	0.55	1.0	10.00
2025-03-02	9.5	11	1.70	0.69	z score	0.84	1.5	15.79
2025-03-03	17	18	2.80	0.46	z score	0.34	1.0	5.88
2025-03-04	21	22	3.50	0.46	z score	0.27	1.0	4.76
2025-03-05	21	22	3.50	0.46	z score	0.28	1.0	4.76

Source: JRC 2025

Figure 55. PM2.5 EPA_19/0174 A0111 Results



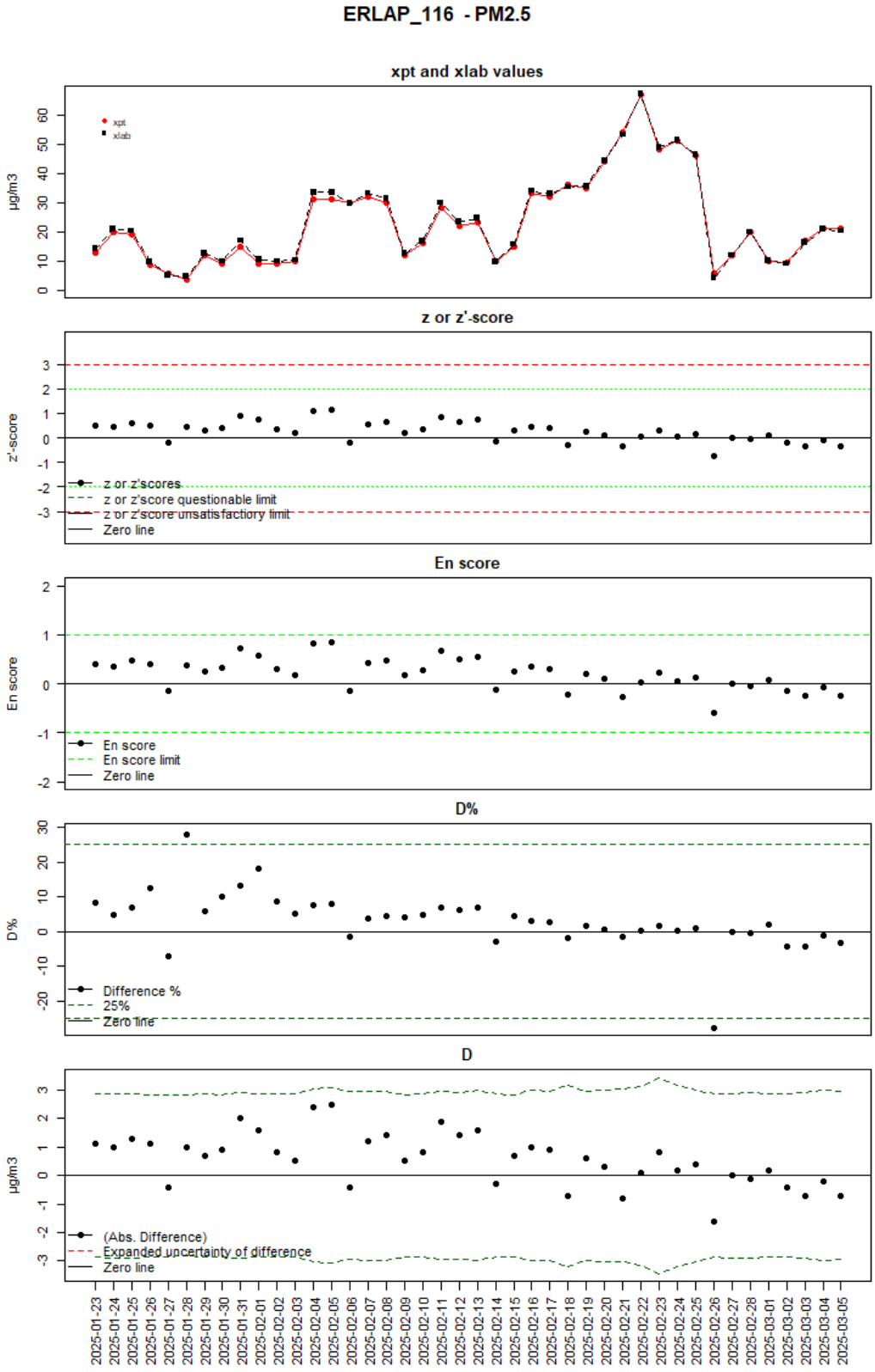
Source: JRC 2025

Table 54. $PM_{2.5}$ ERLAP_116 Results

ERLAP_116								
$PM_{2.5}$ data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	14	2.8	0.46	z score	0.35	1.0	7.69
2025-01-24	20	21	2.8	0.46	z score	0.35	1.0	5.00
2025-01-25	19	20	2.8	0.46	z score	0.35	1.0	5.26
2025-01-26	8.7	9.8	2.8	0.51	z score	0.39	1.1	12.64
2025-01-27	5.6	5.2	2.8	-0.18	z score	-0.14	-0.4	-7.14
2025-01-28	3.6	4.6	2.8	0.46	z score	0.35	1.0	27.78
2025-01-29	12	13	2.8	0.46	z score	0.35	1.0	8.33
2025-01-30	9.0	9.9	2.8	0.41	z score	0.32	0.9	10.00
2025-01-31	15	17	2.8	0.92	z score	0.69	2.0	13.33
2025-02-01	8.9	11	2.8	0.96	z score	0.73	2.1	23.60
2025-02-02	9.1	9.9	2.8	0.37	z score	0.28	0.8	8.79
2025-02-03	9.8	10	2.8	0.09	z score	0.07	0.2	2.04
2025-02-04	31	33	2.9	0.90	z score	0.64	2.0	6.45
2025-02-05	31	34	2.9	1.36	z score	0.94	3.0	9.68
2025-02-06	30	30	2.8	0.00	z score	0.00	0.0	0.00
2025-02-07	32	33	2.9	0.45	z score	0.33	1.0	3.12
2025-02-08	30	31	2.9	0.45	z score	0.33	1.0	3.33
2025-02-09	12	12	2.8	0.00	z score	0.00	0.0	0.00
2025-02-10	16	17	2.8	0.46	z score	0.35	1.0	6.25
2025-02-11	28	30	2.8	0.91	z score	0.68	2.0	7.14
2025-02-12	22	23	2.8	0.46	z score	0.34	1.0	4.55
2025-02-13	23	25	2.8	0.91	z score	0.67	2.0	8.70
2025-02-14	10	9.7	2.8	-0.14	z score	-0.10	-0.3	-3.00
2025-02-15	15	16	2.8	0.46	z score	0.35	1.0	6.67
2025-02-16	33	34	2.9	0.45	z score	0.33	1.0	3.03
2025-02-17	32	33	2.9	0.45	z score	0.33	1.0	3.12
2025-02-18	36	35	2.9	-0.43	z' score	-0.31	-1.0	-2.78
2025-02-19	35	36	2.9	0.45	z score	0.33	1.0	2.86
2025-02-20	44	44	2.9	0.00	z score	0.00	0.0	0.00
2025-02-21	54	53	3.0	-0.44	z score	-0.31	-1.0	-1.85
2025-02-22	67	67	3.2	0.00	z' score	0.00	0.0	0.00
2025-02-23	48	49	3.0	0.41	z' score	0.28	1.0	2.08
2025-02-24	51	51	3.0	0.00	z' score	0.00	0.0	0.00
2025-02-25	46	46	3.0	0.00	z score	0.00	0.0	0.00
2025-02-26	5.8	4.2	2.8	-0.74	z score	-0.56	-1.6	-27.59
2025-02-27	12	12	2.8	0.00	z score	0.00	0.0	0.00
2025-02-28	20	20	2.8	0.00	z score	0.00	0.0	0.00
2025-03-01	10	10	2.8	0.00	z score	0.00	0.0	0.00
2025-03-02	9.5	9.1	2.8	-0.18	z score	-0.14	-0.4	-4.21
2025-03-03	17	16	2.8	-0.46	z score	-0.34	-1.0	-5.88
2025-03-04	21	21	2.8	0.00	z score	0.00	0.0	0.00
2025-03-05	21	20	2.8	-0.46	z score	-0.34	-1.0	-4.76

Source: JRC 2025

Figure 56. PM2.5 ERLAP_116 Results



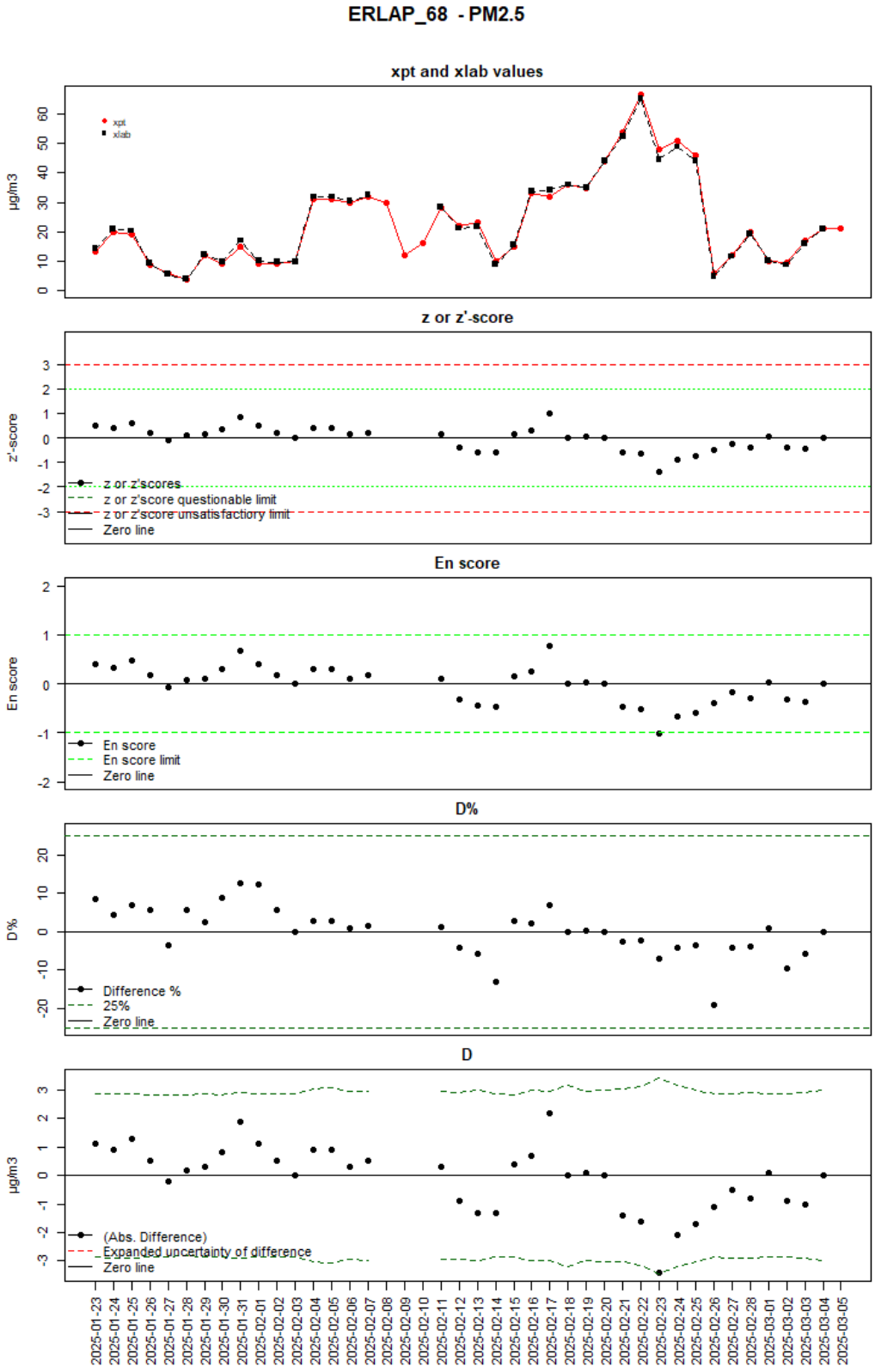
Source: JRC 2025

Table 55. $PM_{2.5}$ ERLAP_68 Results

ERLAP_68								
$PM_{2.5}$ data capture = 90								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	14	2.8	0.46	z score	0.35	1.0	7.69
2025-01-24	20	21	2.8	0.46	z score	0.35	1.0	5.00
2025-01-25	19	20	2.8	0.46	z score	0.35	1.0	5.26
2025-01-26	8.7	9.2	2.8	0.23	z score	0.18	0.5	5.75
2025-01-27	5.6	5.4	2.8	-0.09	z score	-0.07	-0.2	-3.57
2025-01-28	3.6	3.8	2.8	0.09	z score	0.07	0.2	5.56
2025-01-29	12	12	2.8	0.00	z score	0.00	0.0	0.00
2025-01-30	9.0	9.8	2.8	0.37	z score	0.28	0.8	8.89
2025-01-31	15	17	2.8	0.92	z score	0.69	2.0	13.33
2025-02-01	8.9	10	2.8	0.51	z score	0.38	1.1	12.36
2025-02-02	9.1	9.6	2.8	0.23	z score	0.18	0.5	5.49
2025-02-03	9.8	9.8	2.8	0.00	z score	0.00	0.0	0.00
2025-02-04	31	32	2.9	0.45	z score	0.32	1.0	3.23
2025-02-05	31	32	2.9	0.45	z score	0.31	1.0	3.23
2025-02-06	30	30	2.8	0.00	z score	0.00	0.0	0.00
2025-02-07	32	32	2.9	0.00	z score	0.00	0.0	0.00
2025-02-08	30				z score			
2025-02-09	12				z score			
2025-02-10	16	18	2.8	0.92	z score	0.69	2.0	12.50
2025-02-11	28	28	2.8	0.00	z score	0.00	0.0	0.00
2025-02-12	22	21	2.8	-0.46	z score	-0.34	-1.0	-4.55
2025-02-13	23	22	2.8	-0.46	z score	-0.33	-1.0	-4.35
2025-02-14	10	8.7	2.8	-0.60	z score	-0.45	-1.3	-13.00
2025-02-15	15	15	2.8	0.00	z score	0.00	0.0	0.00
2025-02-16	33	34	2.9	0.45	z score	0.33	1.0	3.03
2025-02-17	32	34	2.9	0.90	z score	0.65	2.0	6.25
2025-02-18	36	36	2.9	0.00	z' score	0.00	0.0	0.00
2025-02-19	35	35	2.9	0.00	z score	0.00	0.0	0.00
2025-02-20	44	44	2.9	0.00	z score	0.00	0.0	0.00
2025-02-21	54	53	3.0	-0.44	z score	-0.31	-1.0	-1.85
2025-02-22	67	65	3.1	-0.82	z' score	-0.59	-2.0	-2.99
2025-02-23	48	45	2.9	-1.22	z' score	-0.85	-3.0	-6.25
2025-02-24	51	49	3.0	-0.83	z' score	-0.59	-2.0	-3.92
2025-02-25	46	44	2.9	-0.89	z score	-0.64	-2.0	-4.35
2025-02-26	5.8	4.7	2.8	-0.51	z score	-0.39	-1.1	-18.97
2025-02-27	12	12	2.8	0.00	z score	0.00	0.0	0.00
2025-02-28	20	19	2.8	-0.46	z score	-0.34	-1.0	-5.00
2025-03-01	10	10	2.8	0.00	z score	0.00	0.0	0.00
2025-03-02	9.5	8.6	2.8	-0.41	z score	-0.31	-0.9	-9.47
2025-03-03	17	16	2.8	-0.46	z score	-0.34	-1.0	-5.88
2025-03-04	21	21	2.8	0.00	z score	0.00	0.0	0.00
2025-03-05	21				z score			

Source: JRC 2025

Figure 57. PM2.5 ERLAP_68 Results



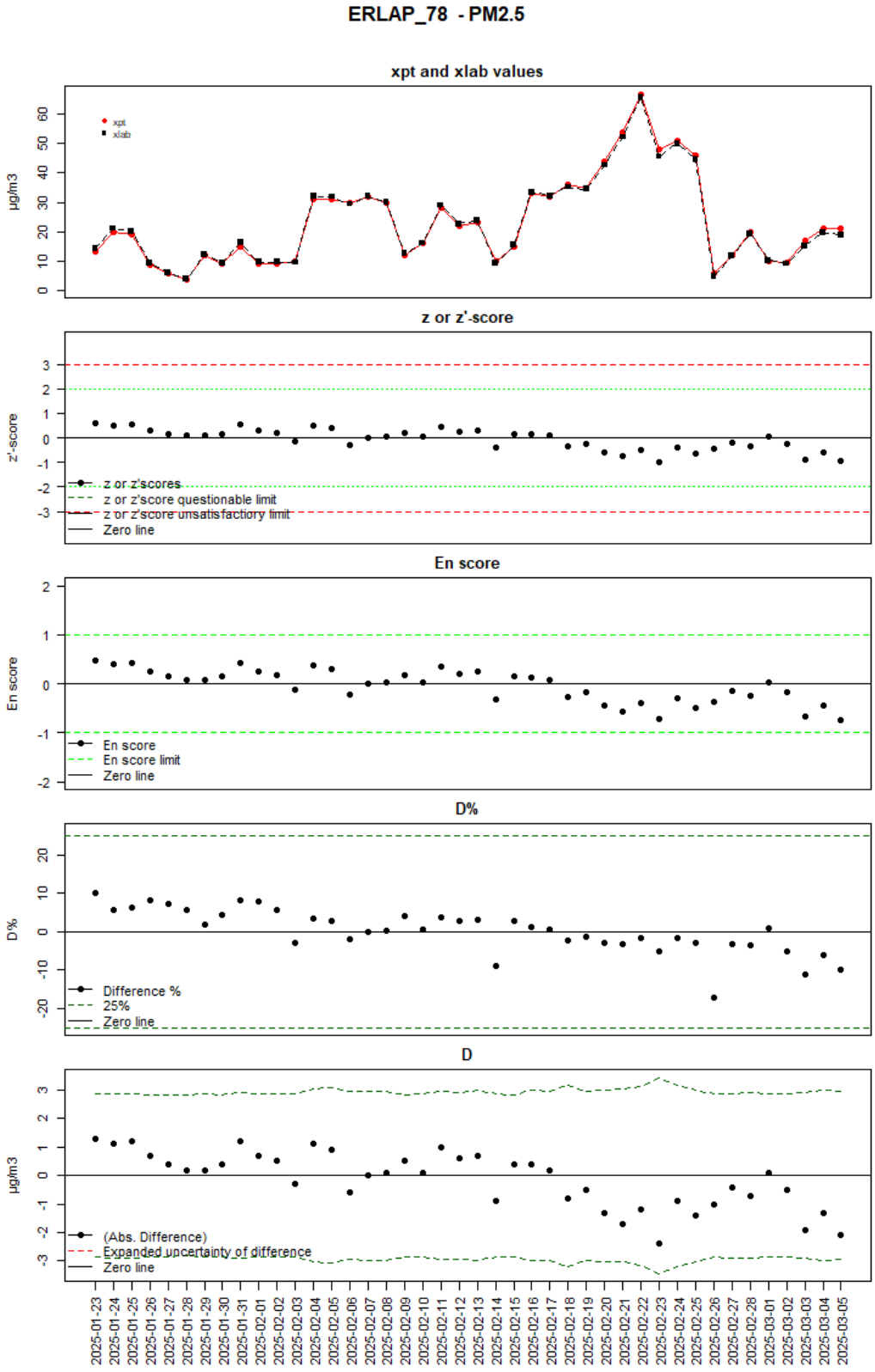
Source: JRC 2025

Table 56. $PM_{2.5}$ ERLAP_78 Results

ERLAP_78								
$PM_{2.5}$ data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	14	2.8	0.46	z score	0.35	1.0	7.69
2025-01-24	20	21	2.8	0.46	z score	0.35	1.0	5.00
2025-01-25	19	20	2.8	0.46	z score	0.35	1.0	5.26
2025-01-26	8.7	9.4	2.8	0.32	z score	0.25	0.7	8.05
2025-01-27	5.6	6.0	2.8	0.18	z score	0.14	0.4	7.14
2025-01-28	3.6	3.8	2.8	0.09	z score	0.07	0.2	5.56
2025-01-29	12	12	2.8	0.00	z score	0.00	0.0	0.00
2025-01-30	9.0	9.4	2.8	0.18	z score	0.14	0.4	4.44
2025-01-31	15	16	2.8	0.46	z score	0.34	1.0	6.67
2025-02-01	8.9	9.6	2.8	0.32	z score	0.24	0.7	7.87
2025-02-02	9.1	9.6	2.8	0.23	z score	0.18	0.5	5.49
2025-02-03	9.8	9.5	2.8	-0.14	z score	-0.11	-0.3	-3.06
2025-02-04	31	32	2.9	0.45	z score	0.32	1.0	3.23
2025-02-05	31	32	2.9	0.45	z score	0.31	1.0	3.23
2025-02-06	30	29	2.8	-0.45	z score	-0.34	-1.0	-3.33
2025-02-07	32	32	2.9	0.00	z score	0.00	0.0	0.00
2025-02-08	30	30	2.8	0.00	z score	0.00	0.0	0.00
2025-02-09	12	12	2.8	0.00	z score	0.00	0.0	0.00
2025-02-10	16	16	2.8	0.00	z score	0.00	0.0	0.00
2025-02-11	28	29	2.8	0.45	z score	0.34	1.0	3.57
2025-02-12	22	23	2.8	0.46	z score	0.34	1.0	4.55
2025-02-13	23	24	2.8	0.46	z score	0.33	1.0	4.35
2025-02-14	10	9.1	2.8	-0.41	z score	-0.31	-0.9	-9.00
2025-02-15	15	15	2.8	0.00	z score	0.00	0.0	0.00
2025-02-16	33	33	2.9	0.00	z score	0.00	0.0	0.00
2025-02-17	32	32	2.9	0.00	z score	0.00	0.0	0.00
2025-02-18	36	35	2.9	-0.43	z' score	-0.31	-1.0	-2.78
2025-02-19	35	34	2.9	-0.45	z score	-0.33	-1.0	-2.86
2025-02-20	44	43	2.9	-0.44	z score	-0.32	-1.0	-2.27
2025-02-21	54	52	3.0	-0.88	z score	-0.62	-2.0	-3.70
2025-02-22	67	66	3.2	-0.41	z' score	-0.28	-1.0	-1.49
2025-02-23	48	46	3.0	-0.81	z' score	-0.56	-2.0	-4.17
2025-02-24	51	50	3.0	-0.42	z' score	-0.30	-1.0	-1.96
2025-02-25	46	45	2.9	-0.44	z score	-0.32	-1.0	-2.17
2025-02-26	5.8	4.8	2.8	-0.46	z score	-0.35	-1.0	-17.24
2025-02-27	12	12	2.8	0.00	z score	0.00	0.0	0.00
2025-02-28	20	19	2.8	-0.46	z score	-0.34	-1.0	-5.00
2025-03-01	10	10	2.8	0.00	z score	0.00	0.0	0.00
2025-03-02	9.5	9.0	2.8	-0.23	z score	-0.17	-0.5	-5.26
2025-03-03	17	15	2.8	-0.92	z score	-0.69	-2.0	-11.76
2025-03-04	21	20	2.8	-0.46	z score	-0.33	-1.0	-4.76
2025-03-05	21	19	2.8	-0.91	z score	-0.68	-2.0	-9.52

Source: JRC 2025

Figure 58. PM2.5 ERLAP_78 Results



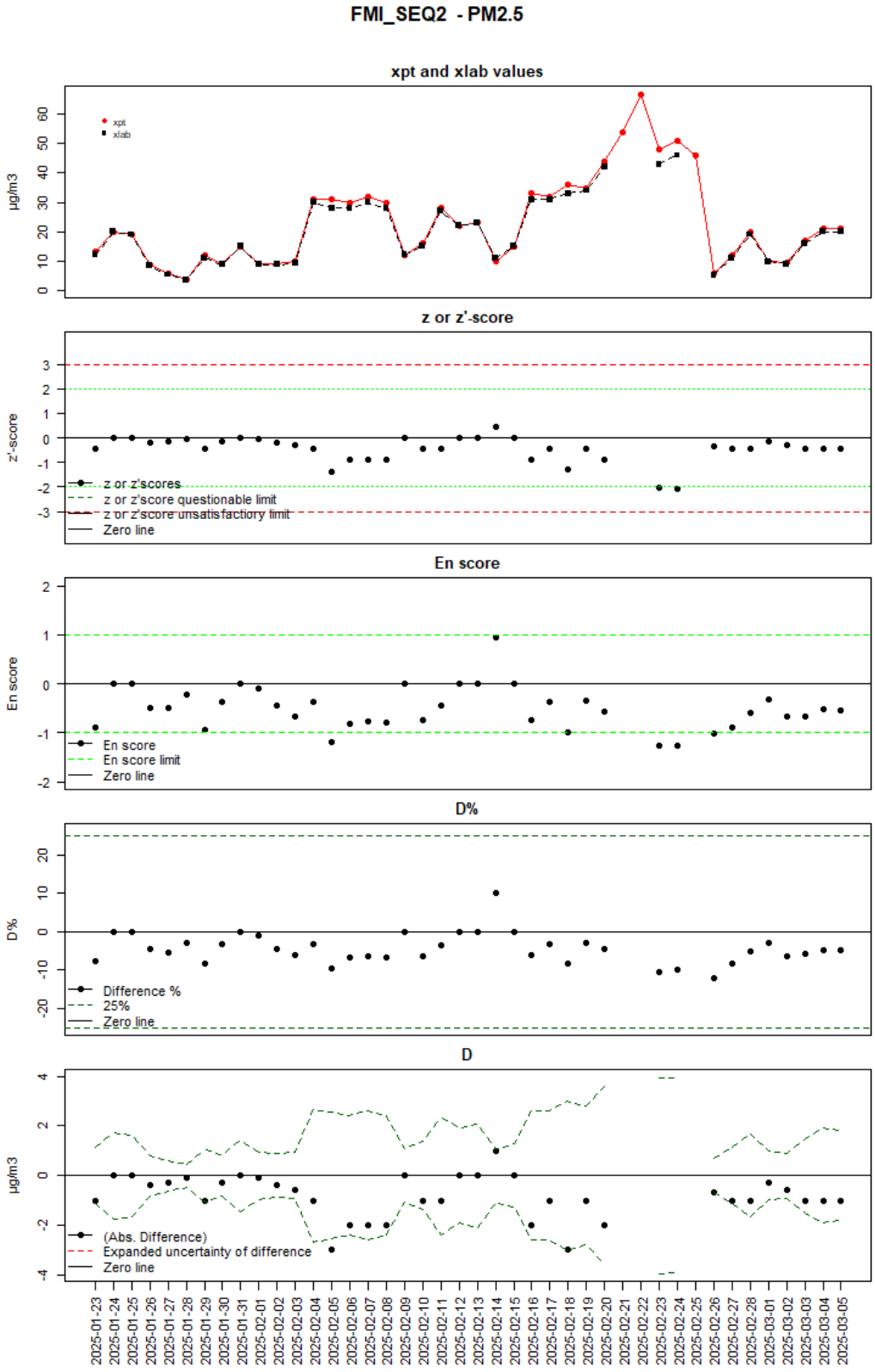
Source: JRC 2025

Table 57. $PM_{2.5}$ FMI_SEQ2 Results

FMI_SEQ2								
$PM_{2.5}$ data capture = 93								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	12	0.99	-0.46	z score	-0.89	-1.0	-7.69
2025-01-24	20	20	1.60	0.00	z score	0.00	0.0	0.00
2025-01-25	19	19	1.50	0.00	z score	0.00	0.0	0.00
2025-01-26	8.7	8.3	0.66	-0.18	z score	-0.50	-0.4	-4.60
2025-01-27	5.6	5.3	0.42	-0.14	z score	-0.49	-0.3	-5.36
2025-01-28	3.6	3.5	0.28	-0.05	z score	-0.21	-0.1	-2.78
2025-01-29	12	11	0.89	-0.46	z score	-0.93	-1.0	-8.33
2025-01-30	9.0	8.7	0.69	-0.14	z score	-0.36	-0.3	-3.33
2025-01-31	15	15	1.20	0.00	z score	0.00	0.0	0.00
2025-02-01	8.9	8.8	0.70	-0.05	z score	-0.10	-0.1	-1.12
2025-02-02	9.1	8.7	0.69	-0.18	z score	-0.45	-0.4	-4.40
2025-02-03	9.8	9.2	0.73	-0.28	z score	-0.66	-0.6	-6.12
2025-02-04	31	30	2.40	-0.45	z score	-0.38	-1.0	-3.23
2025-02-05	31	28	2.20	-1.36	z score	-1.17	-3.0	-9.68
2025-02-06	30	28	2.30	-0.91	z score	-0.80	-2.0	-6.67
2025-02-07	32	30	2.40	-0.90	z score	-0.77	-2.0	-6.25
2025-02-08	30	28	2.30	-0.91	z score	-0.80	-2.0	-6.67
2025-02-09	12	12	0.94	0.00	z score	0.00	0.0	0.00
2025-02-10	16	15	1.20	-0.46	z score	-0.73	-1.0	-6.25
2025-02-11	28	27	2.10	-0.45	z score	-0.44	-1.0	-3.57
2025-02-12	22	22	1.70	0.00	z score	0.00	0.0	0.00
2025-02-13	23	23	1.80	0.00	z score	0.00	0.0	0.00
2025-02-14	10	11	0.84	0.46	z score	0.95	1.0	10.00
2025-02-15	15	15	1.20	0.00	z score	0.00	0.0	0.00
2025-02-16	33	31	2.50	-0.90	z score	-0.74	-2.0	-6.06
2025-02-17	32	31	2.50	-0.45	z score	-0.37	-1.0	-3.12
2025-02-18	36	33	2.60	-1.28	z' score	-1.00	-3.0	-8.33
2025-02-19	35	34	2.70	-0.45	z score	-0.35	-1.0	-2.86
2025-02-20	44	42	3.30	-0.89	z score	-0.57	-2.0	-4.55
2025-02-21	54				z score			
2025-02-22	67				z' score			
2025-02-23	48	43	3.40	-2.03	z' score	-1.27	-5.0	-10.42
2025-02-24	51	46	3.70	-2.09	z' score	-1.25	-5.0	-9.80
2025-02-25	46				z score			
2025-02-26	5.8	5.1	0.41	-0.32	z score	-1.01	-0.7	-12.07
2025-02-27	12	11	0.90	-0.46	z score	-0.89	-1.0	-8.33
2025-02-28	20	19	1.50	-0.46	z score	-0.59	-1.0	-5.00
2025-03-01	10	9.7	0.77	-0.14	z score	-0.31	-0.3	-3.00
2025-03-02	9.5	8.9	0.71	-0.28	z score	-0.65	-0.6	-6.32
2025-03-03	17	16	1.30	-0.46	z score	-0.66	-1.0	-5.88
2025-03-04	21	20	1.60	-0.46	z score	-0.52	-1.0	-4.76
2025-03-05	21	20	1.60	-0.46	z score	-0.54	-1.0	-4.76

Source: JRC 2025

Figure 59. PM2.5 FMI_SEQ2 Results



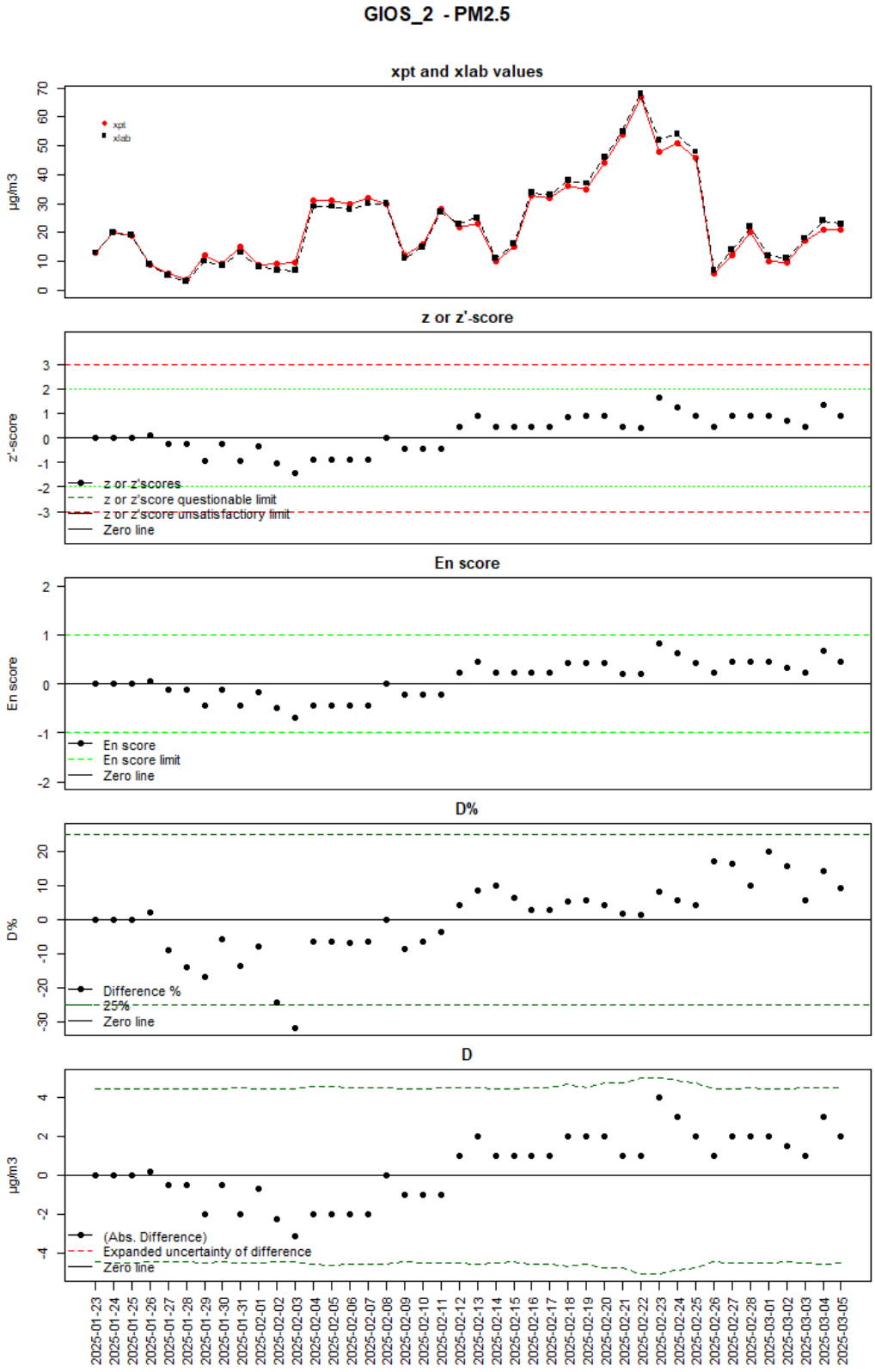
Source: JRC 2025

Table 58. $PM_{2.5}$ GIOS_2 Results

GIOS_2								
$PM_{2.5}$ data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	13	4.4	0.00	z score	0.00	0.0	0.00
2025-01-24	20	20	4.4	0.00	z score	0.00	0.0	0.00
2025-01-25	19	19	4.4	0.00	z score	0.00	0.0	0.00
2025-01-26	8.7	8.9	4.4	0.09	z score	0.05	0.2	2.30
2025-01-27	5.6	5.1	4.4	-0.23	z score	-0.11	-0.5	-8.93
2025-01-28	3.6	3.1	4.3	-0.23	z score	-0.12	-0.5	-13.89
2025-01-29	12	10	4.4	-0.92	z score	-0.45	-2.0	-16.67
2025-01-30	9.0	8.5	4.4	-0.23	z score	-0.11	-0.5	-5.56
2025-01-31	15	13	4.4	-0.92	z score	-0.45	-2.0	-13.33
2025-02-01	8.9	8.2	4.4	-0.32	z score	-0.16	-0.7	-7.87
2025-02-02	9.1	6.9	4.4	-1.01	z score	-0.50	-2.2	-24.18
2025-02-03	9.8	6.7	4.4	-1.42	z score	-0.70	-3.1	-31.63
2025-02-04	31	29	4.4	-0.90	z score	-0.44	-2.0	-6.45
2025-02-05	31	29	4.4	-0.90	z score	-0.44	-2.0	-6.45
2025-02-06	30	28	4.4	-0.91	z score	-0.44	-2.0	-6.67
2025-02-07	32	30	4.4	-0.90	z score	-0.44	-2.0	-6.25
2025-02-08	30	30	4.4	0.00	z score	0.00	0.0	0.00
2025-02-09	12	11	4.4	-0.46	z score	-0.23	-1.0	-8.33
2025-02-10	16	15	4.4	-0.46	z score	-0.22	-1.0	-6.25
2025-02-11	28	27	4.4	-0.45	z score	-0.22	-1.0	-3.57
2025-02-12	22	23	4.4	0.46	z score	0.22	1.0	4.55
2025-02-13	23	25	4.4	0.91	z score	0.44	2.0	8.70
2025-02-14	10	11	4.4	0.46	z score	0.22	1.0	10.00
2025-02-15	15	16	4.4	0.46	z score	0.23	1.0	6.67
2025-02-16	33	34	4.4	0.45	z score	0.22	1.0	3.03
2025-02-17	32	33	4.4	0.45	z score	0.22	1.0	3.12
2025-02-18	36	38	4.5	0.85	z' score	0.42	2.0	5.56
2025-02-19	35	37	4.5	0.90	z score	0.43	2.0	5.71
2025-02-20	44	46	4.5	0.89	z score	0.43	2.0	4.55
2025-02-21	54	55	4.6	0.44	z score	0.21	1.0	1.85
2025-02-22	67	68	4.7	0.41	z' score	0.20	1.0	1.49
2025-02-23	48	52	4.5	1.62	z' score	0.81	4.0	8.33
2025-02-24	51	54	4.6	1.25	z' score	0.62	3.0	5.88
2025-02-25	46	48	4.5	0.89	z score	0.43	2.0	4.35
2025-02-26	5.8	6.8	4.4	0.46	z score	0.23	1.0	17.24
2025-02-27	12	14	4.4	0.92	z score	0.45	2.0	16.67
2025-02-28	20	22	4.4	0.91	z score	0.45	2.0	10.00
2025-03-01	10	12	4.4	0.92	z score	0.45	2.0	20.00
2025-03-02	9.5	11	4.4	0.69	z score	0.34	1.5	15.79
2025-03-03	17	18	4.4	0.46	z score	0.22	1.0	5.88
2025-03-04	21	24	4.4	1.37	z score	0.66	3.0	14.29
2025-03-05	21	23	4.4	0.91	z score	0.45	2.0	9.52

Source: JRC 2025

Figure 60. PM2.5 GIOS_2 Results



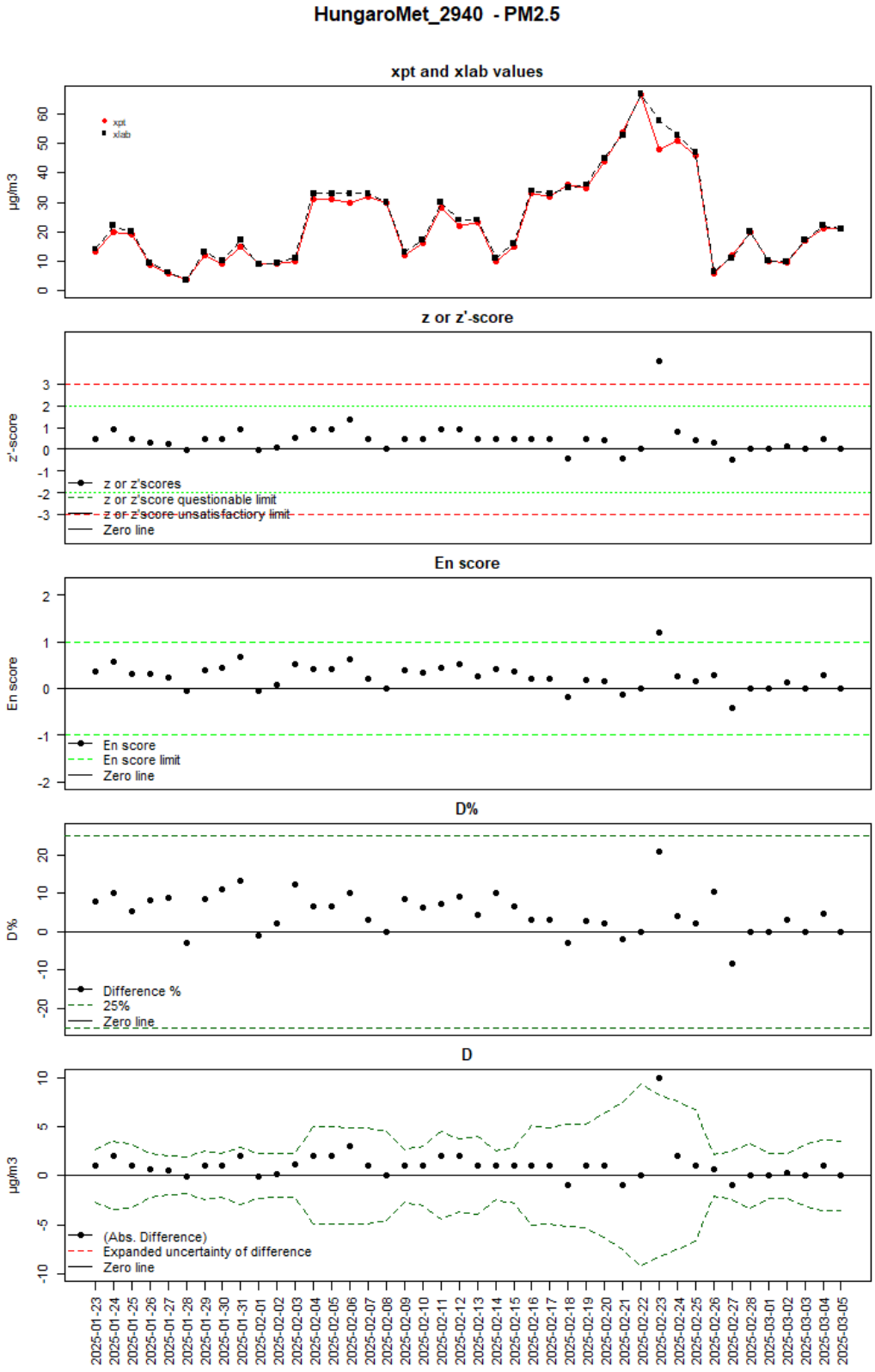
Source: JRC 2025

Table 59. $PM_{2.5}$ HungaroMet_2940 Results

HungaroMet_2940								
$PM_{2.5}$ data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	14	2.6	0.46	z score	0.38	1.0	7.69
2025-01-24	20	22	3.5	0.91	z score	0.56	2.0	10.00
2025-01-25	19	20	3.2	0.46	z score	0.31	1.0	5.26
2025-01-26	8.7	9.4	2.2	0.32	z score	0.31	0.7	8.05
2025-01-27	5.6	6.1	2.0	0.23	z score	0.24	0.5	8.93
2025-01-28	3.6	3.5	1.9	-0.05	z score	-0.05	-0.1	-2.78
2025-01-29	12	13	2.5	0.46	z score	0.39	1.0	8.33
2025-01-30	9.0	10	2.2	0.46	z score	0.44	1.0	11.11
2025-01-31	15	17	2.9	0.92	z score	0.67	2.0	13.33
2025-02-01	8.9	8.8	2.1	-0.05	z score	-0.05	-0.1	-1.12
2025-02-02	9.1	9.3	2.2	0.09	z score	0.09	0.2	2.20
2025-02-03	9.8	11	2.3	0.55	z score	0.51	1.2	12.24
2025-02-04	31	33	4.8	0.90	z score	0.41	2.0	6.45
2025-02-05	31	33	4.7	0.90	z score	0.41	2.0	6.45
2025-02-06	30	33	4.7	1.36	z score	0.63	3.0	10.00
2025-02-07	32	33	4.8	0.45	z score	0.20	1.0	3.12
2025-02-08	30	30	4.4	0.00	z score	0.00	0.0	0.00
2025-02-09	12	13	2.6	0.46	z score	0.38	1.0	8.33
2025-02-10	16	17	2.9	0.46	z score	0.34	1.0	6.25
2025-02-11	28	30	4.4	0.91	z score	0.45	2.0	7.14
2025-02-12	22	24	3.7	0.91	z score	0.53	2.0	9.09
2025-02-13	23	24	3.8	0.46	z score	0.25	1.0	4.35
2025-02-14	10	11	2.3	0.46	z score	0.42	1.0	10.00
2025-02-15	15	16	2.8	0.46	z score	0.35	1.0	6.67
2025-02-16	33	34	5.0	0.45	z score	0.20	1.0	3.03
2025-02-17	32	33	4.8	0.45	z score	0.20	1.0	3.12
2025-02-18	36	35	5.1	-0.43	z' score	-0.19	-1.0	-2.78
2025-02-19	35	36	5.2	0.45	z score	0.19	1.0	2.86
2025-02-20	44	45	6.3	0.44	z score	0.16	1.0	2.27
2025-02-21	54	53	7.4	-0.44	z score	-0.13	-1.0	-1.85
2025-02-22	67	67	9.2	0.00	z' score	0.00	0.0	0.00
2025-02-23	48	58	8.1	4.05	z' score	1.20	10.0	20.83
2025-02-24	51	53	7.4	0.83	z' score	0.26	2.0	3.92
2025-02-25	46	47	6.7	0.44	z score	0.15	1.0	2.17
2025-02-26	5.8	6.4	2.0	0.28	z score	0.29	0.6	10.34
2025-02-27	12	11	2.3	-0.46	z score	-0.42	-1.0	-8.33
2025-02-28	20	20	3.2	0.00	z score	0.00	0.0	0.00
2025-03-01	10	10	2.2	0.00	z score	0.00	0.0	0.00
2025-03-02	9.5	9.8	2.2	0.14	z score	0.13	0.3	3.16
2025-03-03	17	17	2.9	0.00	z score	0.00	0.0	0.00
2025-03-04	21	22	3.5	0.46	z score	0.27	1.0	4.76
2025-03-05	21	21	3.4	0.00	z score	0.00	0.0	0.00

Source: JRC 2025

Figure 61. PM2.5 HungaroMet_2940 Results



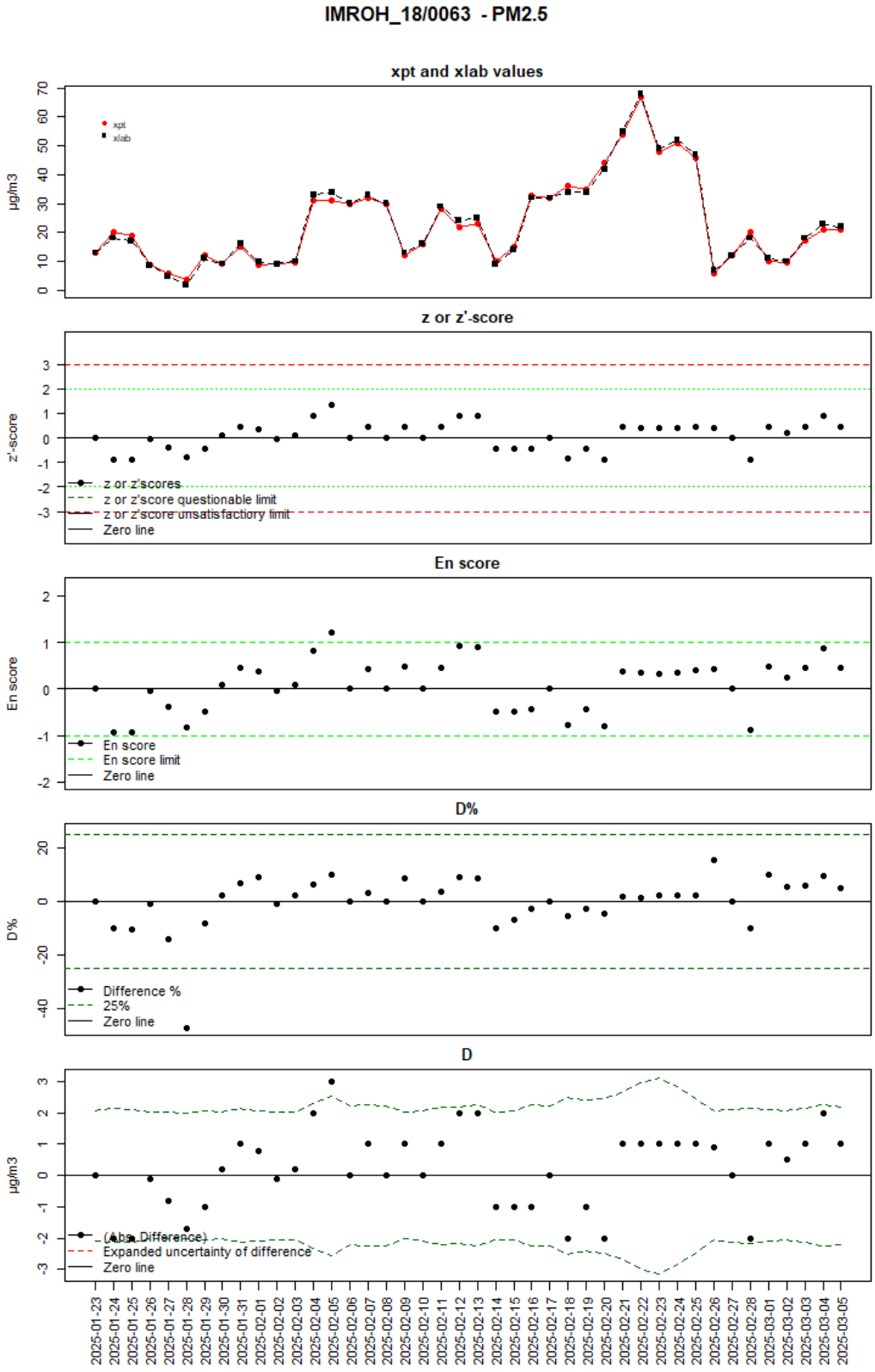
Source: JRC 2025

Table 60. $PM_{2.5}$ IMROH_18/0063 Results

IMROH_18/0063								
$PM_{2.5}$ data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	13	2.0	0.00	z score	0.00	0.0	0.00
2025-01-24	20	18	2.0	-0.91	z score	-0.94	-2.0	-10.00
2025-01-25	19	17	2.0	-0.91	z score	-0.94	-2.0	-10.53
2025-01-26	8.7	8.6	2.0	-0.05	z score	-0.05	-0.1	-1.15
2025-01-27	5.6	4.8	2.0	-0.37	z score	-0.39	-0.8	-14.29
2025-01-28	3.6	1.9	2.0	-0.78	z score	-0.84	-1.7	-47.22
2025-01-29	12	11	2.0	-0.46	z score	-0.48	-1.0	-8.33
2025-01-30	9.0	9.2	2.0	0.09	z score	0.10	0.2	2.22
2025-01-31	15	16	2.0	0.46	z score	0.47	1.0	6.67
2025-02-01	8.9	9.7	2.0	0.37	z score	0.38	0.8	8.99
2025-02-02	9.1	9.0	2.0	-0.05	z score	-0.05	-0.1	-1.10
2025-02-03	9.8	10	2.0	0.09	z score	0.10	0.2	2.04
2025-02-04	31	33	2.1	0.90	z score	0.84	2.0	6.45
2025-02-05	31	34	2.1	1.36	z score	1.21	3.0	9.68
2025-02-06	30	30	2.1	0.00	z score	0.00	0.0	0.00
2025-02-07	32	33	2.1	0.45	z score	0.43	1.0	3.12
2025-02-08	30	30	2.1	0.00	z score	0.00	0.0	0.00
2025-02-09	12	13	2.0	0.46	z score	0.49	1.0	8.33
2025-02-10	16	16	2.0	0.00	z score	0.00	0.0	0.00
2025-02-11	28	29	2.0	0.45	z score	0.46	1.0	3.57
2025-02-12	22	24	2.0	0.91	z score	0.92	2.0	9.09
2025-02-13	23	25	2.0	0.91	z score	0.89	2.0	8.70
2025-02-14	10	9.0	1.9	-0.46	z score	-0.50	-1.0	-10.00
2025-02-15	15	14	2.0	-0.46	z score	-0.48	-1.0	-6.67
2025-02-16	33	32	2.1	-0.45	z score	-0.43	-1.0	-3.03
2025-02-17	32	32	2.1	0.00	z score	0.00	0.0	0.00
2025-02-18	36	34	2.1	-0.85	z’ score	-0.77	-2.0	-5.56
2025-02-19	35	34	2.1	-0.45	z score	-0.43	-1.0	-2.86
2025-02-20	44	42	2.2	-0.89	z score	-0.81	-2.0	-4.55
2025-02-21	54	55	2.4	0.44	z score	0.38	1.0	1.85
2025-02-22	67	68	2.6	0.41	z’ score	0.34	1.0	1.49
2025-02-23	48	49	2.3	0.41	z’ score	0.33	1.0	2.08
2025-02-24	51	52	2.3	0.42	z’ score	0.36	1.0	1.96
2025-02-25	46	47	2.3	0.44	z score	0.39	1.0	2.17
2025-02-26	5.8	6.7	2.0	0.41	z score	0.43	0.9	15.52
2025-02-27	12	12	2.0	0.00	z score	0.00	0.0	0.00
2025-02-28	20	18	2.1	-0.91	z score	-0.89	-2.0	-10.00
2025-03-01	10	11	2.0	0.46	z score	0.48	1.0	10.00
2025-03-02	9.5	10	2.0	0.23	z score	0.24	0.5	5.26
2025-03-03	17	18	2.0	0.46	z score	0.47	1.0	5.88
2025-03-04	21	23	2.0	0.91	z score	0.89	2.0	9.52
2025-03-05	21	22	2.0	0.46	z score	0.46	1.0	4.76

Source: JRC 2025

Figure 62. PM2.5 IMROH_18/0063 Results



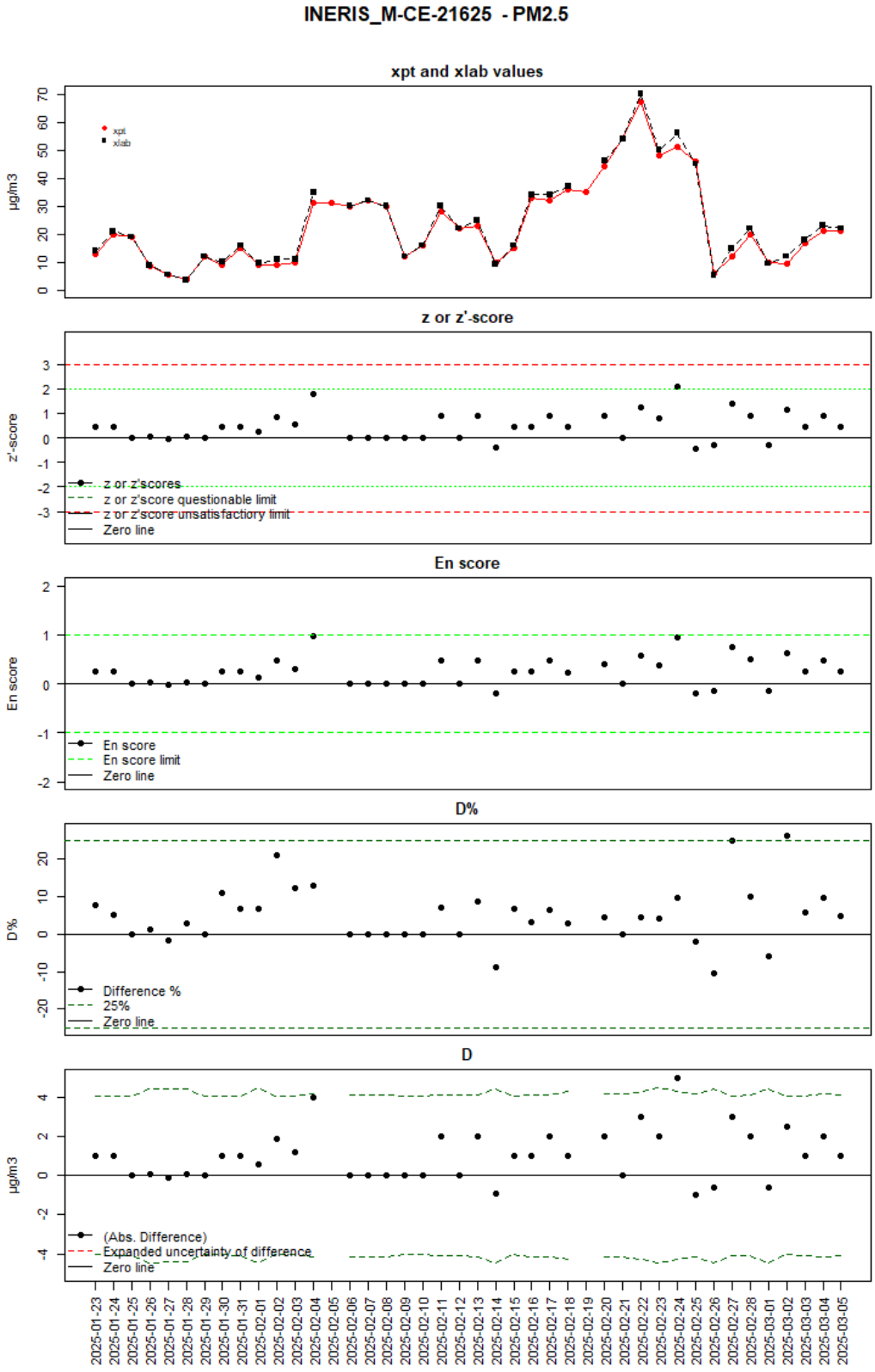
Source: JRC 2025

Table 61. $PM_{2.5}$ INERIS_M-CE-21625 Results

INERIS_M-CE-21625								
$PM_{2.5}$ data capture = 95								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	14	4.0	0.46	z score	0.25	1.0	7.69
2025-01-24	20	21	4.0	0.46	z score	0.25	1.0	5.00
2025-01-25	19	19	4.0	0.00	z score	0.00	0.0	0.00
2025-01-26	8.7	8.8	4.4	0.05	z score	0.02	0.1	1.15
2025-01-27	5.6	5.5	4.4	-0.05	z score	-0.02	-0.1	-1.79
2025-01-28	3.6	3.7	4.4	0.05	z score	0.02	0.1	2.78
2025-01-29	12	12	4.0	0.00	z score	0.00	0.0	0.00
2025-01-30	9.0	10	4.0	0.46	z score	0.25	1.0	11.11
2025-01-31	15	16	4.0	0.46	z score	0.25	1.0	6.67
2025-02-01	8.9	9.5	4.4	0.28	z score	0.13	0.6	6.74
2025-02-02	9.1	11	4.0	0.87	z score	0.47	1.9	20.88
2025-02-03	9.8	11	4.0	0.55	z score	0.30	1.2	12.24
2025-02-04	31	35	4.0	1.81	z score	0.96	4.0	12.90
2025-02-05	31				z score			
2025-02-06	30	30	4.0	0.00	z score	0.00	0.0	0.00
2025-02-07	32	32	4.0	0.00	z score	0.00	0.0	0.00
2025-02-08	30	30	4.0	0.00	z score	0.00	0.0	0.00
2025-02-09	12	12	4.0	0.00	z score	0.00	0.0	0.00
2025-02-10	16	16	4.0	0.00	z score	0.00	0.0	0.00
2025-02-11	28	30	4.0	0.91	z score	0.49	2.0	7.14
2025-02-12	22	22	4.0	0.00	z score	0.00	0.0	0.00
2025-02-13	23	25	4.0	0.91	z score	0.48	2.0	8.70
2025-02-14	10	9.1	4.4	-0.41	z score	-0.20	-0.9	-9.00
2025-02-15	15	16	4.0	0.46	z score	0.25	1.0	6.67
2025-02-16	33	34	4.0	0.45	z score	0.24	1.0	3.03
2025-02-17	32	34	4.0	0.90	z score	0.49	2.0	6.25
2025-02-18	36	37	4.0	0.43	z' score	0.23	1.0	2.78
2025-02-19	35				z score			
2025-02-20	44	46	5.0	0.89	z score	0.39	2.0	4.55
2025-02-21	54	54	5.0	0.00	z score	0.00	0.0	0.00
2025-02-22	67	70	5.0	1.22	z' score	0.58	3.0	4.48
2025-02-23	48	50	5.0	0.81	z' score	0.37	2.0	4.17
2025-02-24	51	56	5.0	2.09	z' score	0.96	5.0	9.80
2025-02-25	46	45	5.0	-0.44	z score	-0.20	-1.0	-2.17
2025-02-26	5.8	5.2	4.4	-0.28	z score	-0.14	-0.6	-10.34
2025-02-27	12	15	4.0	1.38	z score	0.74	3.0	25.00
2025-02-28	20	22	4.0	0.91	z score	0.49	2.0	10.00
2025-03-01	10	9.4	4.4	-0.28	z score	-0.14	-0.6	-6.00
2025-03-02	9.5	12	4.0	1.15	z score	0.62	2.5	26.32
2025-03-03	17	18	4.0	0.46	z score	0.25	1.0	5.88
2025-03-04	21	23	4.0	0.91	z score	0.48	2.0	9.52
2025-03-05	21	22	4.0	0.46	z score	0.24	1.0	4.76

Source: JRC 2025

Figure 63. PM2.5 INERIS_M-CE-21625 Results



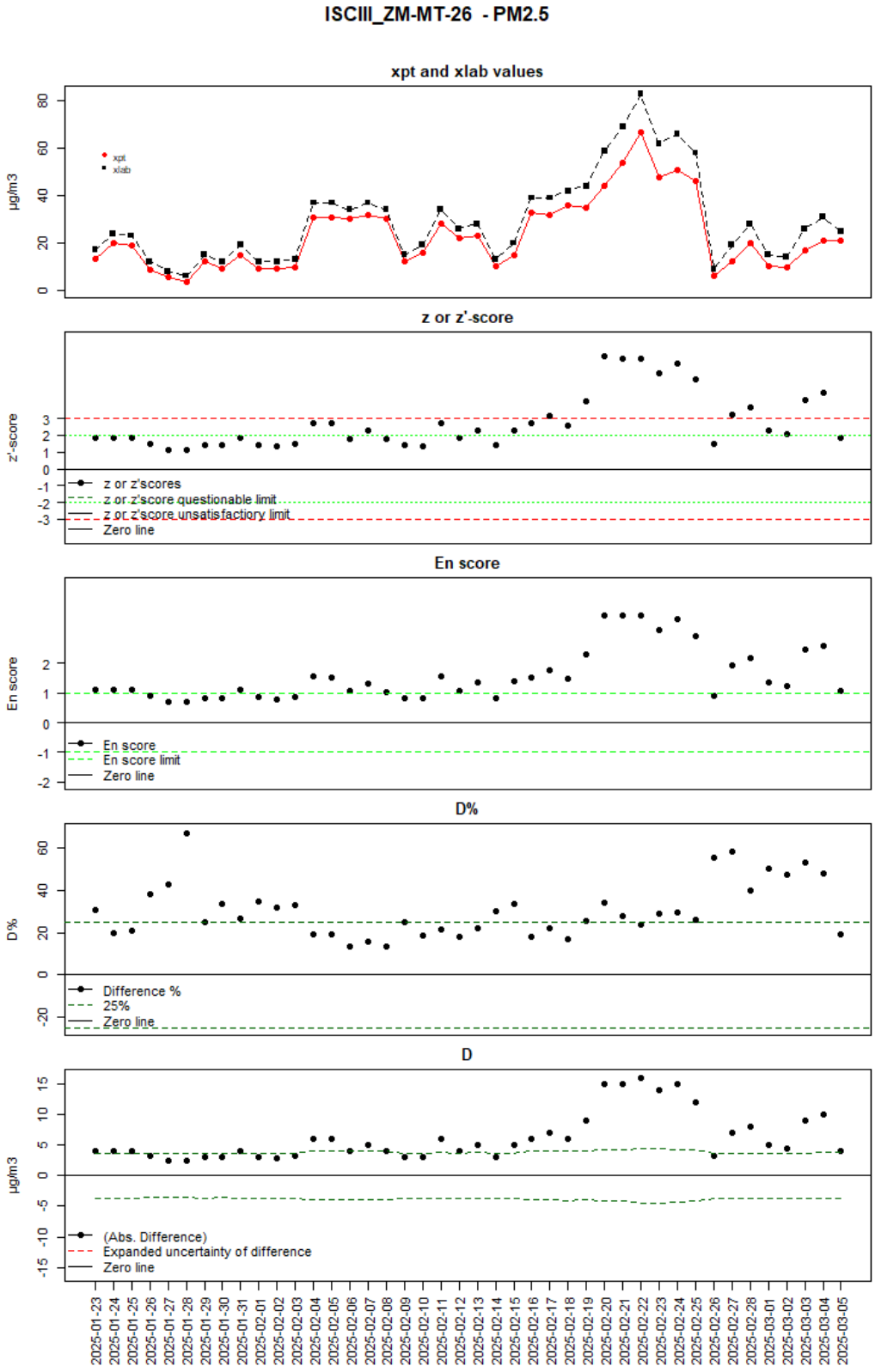
Source: JRC 2025

Table 62. $PM_{2.5}$ ISCIII_ZM-MT-26 Results

ISCIII_ZM-MT-26								
$PM_{2.5}$ data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	17	3.6	1.83	z score	1.10	4.0	30.77
2025-01-24	20	24	3.6	1.83	z score	1.09	4.0	20.00
2025-01-25	19	23	3.6	1.83	z score	1.09	4.0	21.05
2025-01-26	8.7	12	3.6	1.52	z score	0.91	3.3	37.93
2025-01-27	5.6	8	3.5	1.10	z score	0.68	2.4	42.86
2025-01-28	3.6	6	3.5	1.10	z score	0.68	2.4	66.67
2025-01-29	12	15	3.6	1.38	z score	0.82	3.0	25.00
2025-01-30	9.0	12	3.6	1.38	z score	0.83	3.0	33.33
2025-01-31	15	19	3.6	1.83	z score	1.09	4.0	26.67
2025-02-01	8.9	12	3.6	1.42	z score	0.85	3.1	34.83
2025-02-02	9.1	12	3.6	1.33	z score	0.80	2.9	31.87
2025-02-03	9.8	13	3.6	1.47	z score	0.88	3.2	32.65
2025-02-04	31	37	3.7	2.71	z score	1.55	6.0	19.35
2025-02-05	31	37	3.7	2.71	z score	1.53	6.0	19.35
2025-02-06	30	34	3.7	1.81	z score	1.05	4.0	13.33
2025-02-07	32	37	3.7	2.26	z score	1.30	5.0	15.62
2025-02-08	30	34	3.7	1.81	z score	1.05	4.0	13.33
2025-02-09	12	15	3.6	1.38	z score	0.83	3.0	25.00
2025-02-10	16	19	3.6	1.37	z score	0.82	3.0	18.75
2025-02-11	28	34	3.7	2.72	z score	1.58	6.0	21.43
2025-02-12	22	26	3.6	1.82	z score	1.08	4.0	18.18
2025-02-13	23	28	3.6	2.28	z score	1.33	5.0	21.74
2025-02-14	10	13	3.6	1.38	z score	0.82	3.0	30.00
2025-02-15	15	20	3.6	2.29	z score	1.37	5.0	33.33
2025-02-16	33	39	3.8	2.71	z score	1.52	6.0	18.18
2025-02-17	32	39	3.8	3.16	z score	1.78	7.0	21.88
2025-02-18	36	42	3.8	2.55	z' score	1.47	6.0	16.67
2025-02-19	35	44	3.8	4.05	z score	2.29	9.0	25.71
2025-02-20	44	59	4.0	6.67	z score	3.62	15.0	34.09
2025-02-21	54	69	4.0	6.57	z score	3.60	15.0	27.78
2025-02-22	67	83	4.2	6.53	z' score	3.60	16.0	23.88
2025-02-23	48	62	4.0	5.67	z' score	3.14	14.0	29.17
2025-02-24	51	66	4.0	6.26	z' score	3.51	15.0	29.41
2025-02-25	46	58	4.0	5.32	z score	2.89	12.0	26.09
2025-02-26	5.8	9	3.5	1.47	z score	0.90	3.2	55.17
2025-02-27	12	19	3.6	3.21	z score	1.91	7.0	58.33
2025-02-28	20	28	3.6	3.65	z score	2.17	8.0	40.00
2025-03-01	10	15	3.6	2.30	z score	1.37	5.0	50.00
2025-03-02	9.5	14	3.6	2.07	z score	1.23	4.5	47.37
2025-03-03	17	26	3.6	4.12	z score	2.45	9.0	52.94
2025-03-04	21	31	3.7	4.56	z score	2.60	10.0	47.62
2025-03-05	21	25	3.6	1.83	z score	1.08	4.0	19.05

Source: JRC 2025

Figure 64. PM2.5 ISCIII_ZM-MT-26 Results



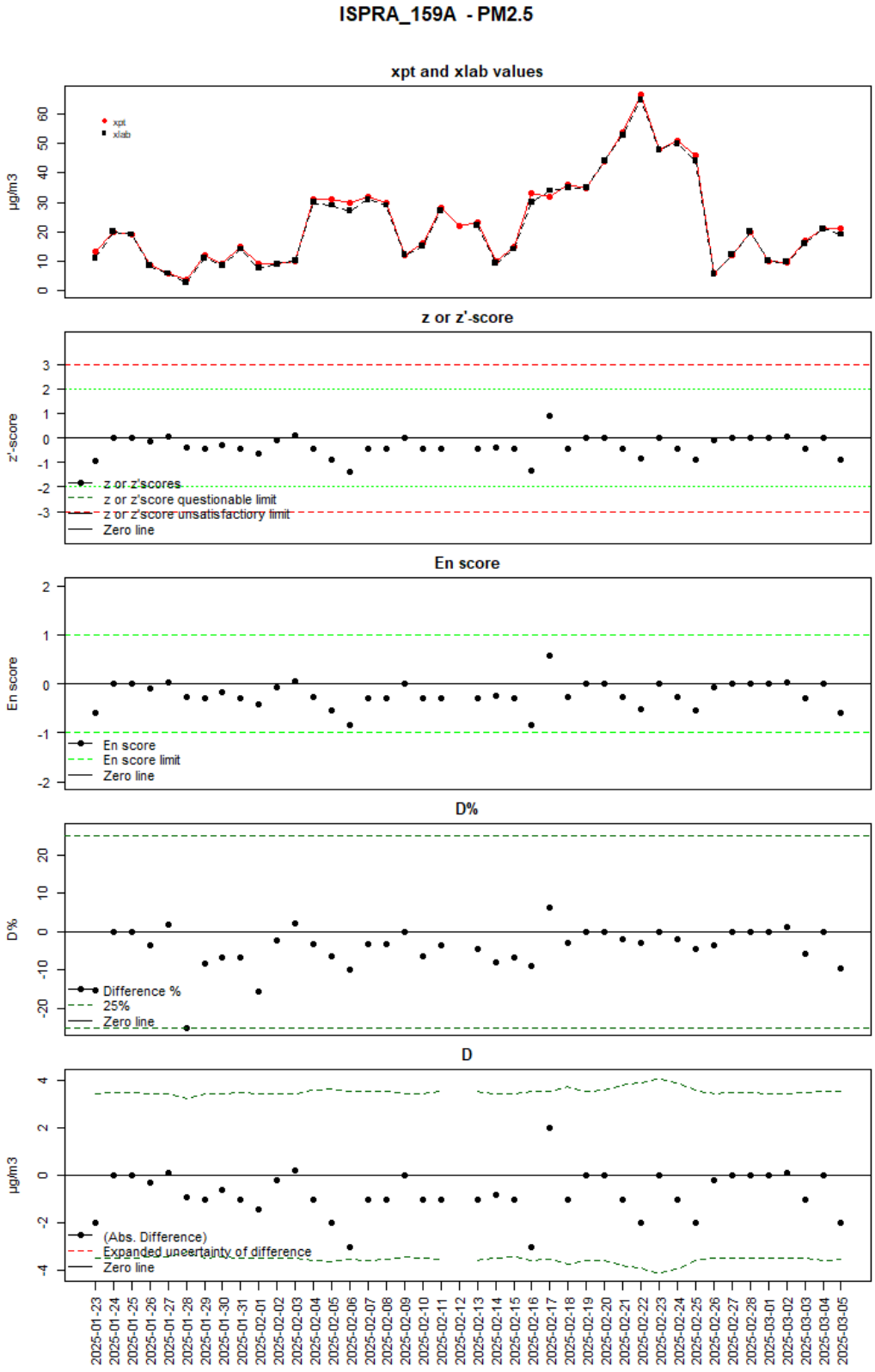
Source: JRC 2025

Table 63. $PM_{2.5}$ ISPRA_159A Results

ISPRA_159A								
$PM_{2.5}$ data capture = 98								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	11	3.3	-0.92	z score	-0.60	-2.0	-15.38
2025-01-24	20	20	3.3	0.00	z score	0.00	0.0	0.00
2025-01-25	19	19	3.3	0.00	z score	0.00	0.0	0.00
2025-01-26	8.7	8.4	3.3	-0.14	z score	-0.09	-0.3	-3.45
2025-01-27	5.6	5.7	3.3	0.05	z score	0.03	0.1	1.79
2025-01-28	3.6	2.7	3.3	-0.41	z score	-0.27	-0.9	-25.00
2025-01-29	12	11	3.3	-0.46	z score	-0.30	-1.0	-8.33
2025-01-30	9.0	8.4	3.3	-0.28	z score	-0.18	-0.6	-6.67
2025-01-31	15	14	3.3	-0.46	z score	-0.30	-1.0	-6.67
2025-02-01	8.9	7.5	3.3	-0.64	z score	-0.42	-1.4	-15.73
2025-02-02	9.1	8.9	3.3	-0.09	z score	-0.06	-0.2	-2.20
2025-02-03	9.8	10	3.3	0.09	z score	0.06	0.2	2.04
2025-02-04	31	30	3.4	-0.45	z score	-0.28	-1.0	-3.23
2025-02-05	31	29	3.4	-0.90	z score	-0.55	-2.0	-6.45
2025-02-06	30	27	3.4	-1.36	z score	-0.85	-3.0	-10.00
2025-02-07	32	31	3.4	-0.45	z score	-0.28	-1.0	-3.12
2025-02-08	30	29	3.4	-0.45	z score	-0.28	-1.0	-3.33
2025-02-09	12	12	3.3	0.00	z score	0.00	0.0	0.00
2025-02-10	16	15	3.3	-0.46	z score	-0.30	-1.0	-6.25
2025-02-11	28	27	3.4	-0.45	z score	-0.28	-1.0	-3.57
2025-02-12	22				z score			
2025-02-13	23	22	3.3	-0.46	z score	-0.29	-1.0	-4.35
2025-02-14	10	9.2	3.3	-0.37	z score	-0.24	-0.8	-8.00
2025-02-15	15	14	3.3	-0.46	z score	-0.30	-1.0	-6.67
2025-02-16	33	30	3.4	-1.35	z score	-0.85	-3.0	-9.09
2025-02-17	32	34	3.4	0.90	z score	0.57	2.0	6.25
2025-02-18	36	35	3.4	-0.43	z' score	-0.27	-1.0	-2.78
2025-02-19	35	35	3.4	0.00	z score	0.00	0.0	0.00
2025-02-20	44	44	3.5	0.00	z score	0.00	0.0	0.00
2025-02-21	54	53	3.6	-0.44	z score	-0.26	-1.0	-1.85
2025-02-22	67	65	3.7	-0.82	z' score	-0.50	-2.0	-2.99
2025-02-23	48	48	3.5	0.00	z' score	0.00	0.0	0.00
2025-02-24	51	50	3.5	-0.42	z' score	-0.26	-1.0	-1.96
2025-02-25	46	44	3.5	-0.89	z score	-0.55	-2.0	-4.35
2025-02-26	5.8	5.6	3.3	-0.09	z score	-0.06	-0.2	-3.45
2025-02-27	12	12	3.3	0.00	z score	0.00	0.0	0.00
2025-02-28	20	20	3.3	0.00	z score	0.00	0.0	0.00
2025-03-01	10	10	3.3	0.00	z score	0.00	0.0	0.00
2025-03-02	9.5	9.6	3.3	0.05	z score	0.03	0.1	1.05
2025-03-03	17	16	3.3	-0.46	z score	-0.30	-1.0	-5.88
2025-03-04	21	21	3.3	0.00	z score	0.00	0.0	0.00
2025-03-05	21	19	3.3	-0.91	z score	-0.58	-2.0	-9.52

Source: JRC 2025

Figure 65. PM2.5 ISPRA_159A Results



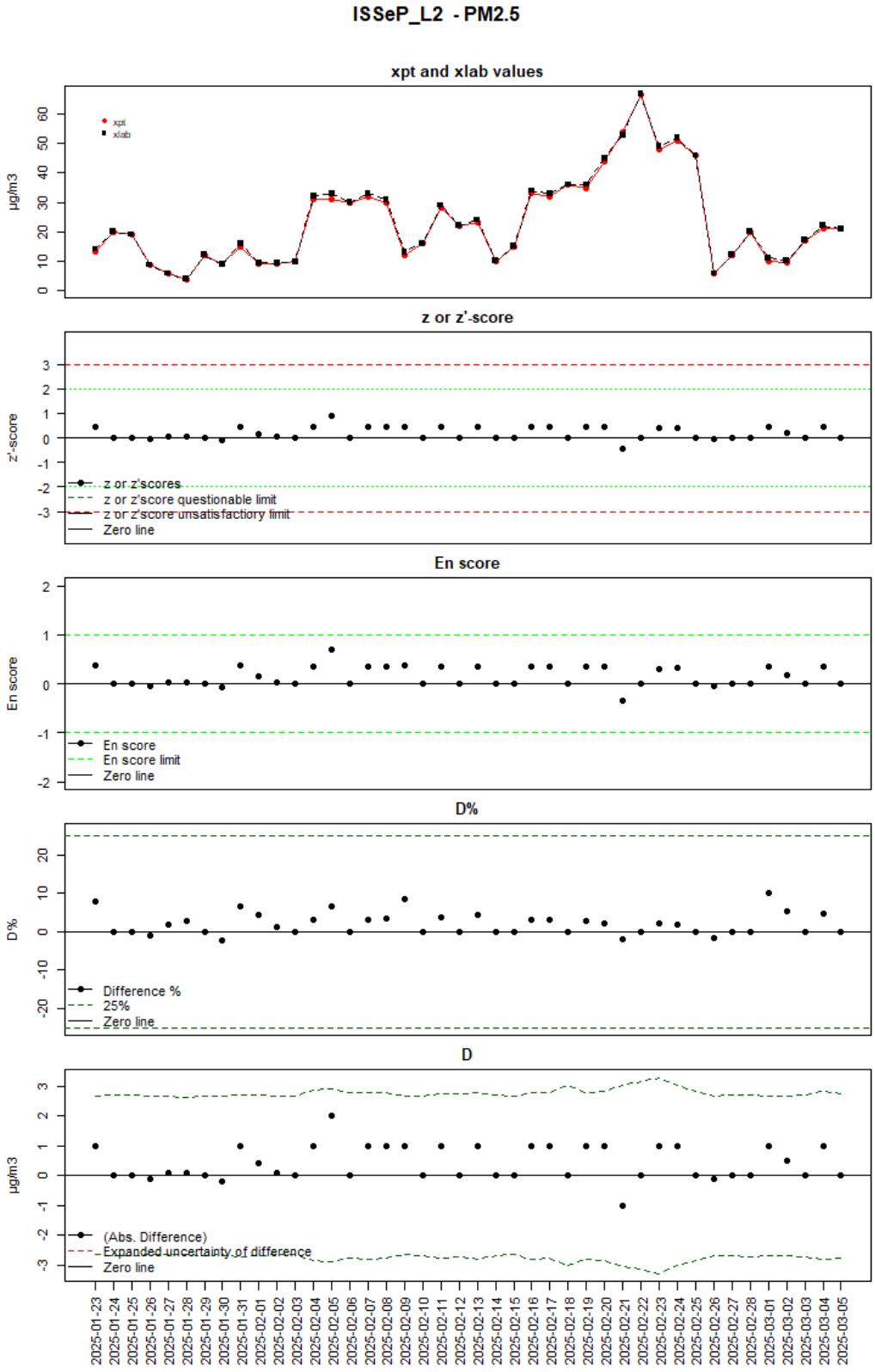
Source: JRC 2025

Table 64. $PM_{2.5}$ ISSeP_L2 Results

ISSeP_L2								
$PM_{2.5}$ data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	14	2.6	0.46	z score	0.38	1.0	7.69
2025-01-24	20	20	2.6	0.00	z score	0.00	0.0	0.00
2025-01-25	19	19	2.6	0.00	z score	0.00	0.0	0.00
2025-01-26	8.7	8.6	2.7	-0.05	z score	-0.04	-0.1	-1.15
2025-01-27	5.6	5.7	2.7	0.05	z score	0.04	0.1	1.79
2025-01-28	3.6	3.7	2.7	0.05	z score	0.04	0.1	2.78
2025-01-29	12	12	2.6	0.00	z score	0.00	0.0	0.00
2025-01-30	9.0	8.8	2.7	-0.09	z score	-0.07	-0.2	-2.22
2025-01-31	15	16	2.6	0.46	z score	0.37	1.0	6.67
2025-02-01	8.9	9.3	2.7	0.18	z score	0.14	0.4	4.49
2025-02-02	9.1	9.2	2.7	0.05	z score	0.04	0.1	1.10
2025-02-03	9.8	9.8	2.7	0.00	z score	0.00	0.0	0.00
2025-02-04	31	32	2.6	0.45	z score	0.35	1.0	3.23
2025-02-05	31	33	2.6	0.90	z score	0.69	2.0	6.45
2025-02-06	30	30	2.6	0.00	z score	0.00	0.0	0.00
2025-02-07	32	33	2.6	0.45	z score	0.36	1.0	3.12
2025-02-08	30	31	2.6	0.45	z score	0.36	1.0	3.33
2025-02-09	12	13	2.6	0.46	z score	0.38	1.0	8.33
2025-02-10	16	16	2.6	0.00	z score	0.00	0.0	0.00
2025-02-11	28	29	2.6	0.45	z score	0.36	1.0	3.57
2025-02-12	22	22	2.6	0.00	z score	0.00	0.0	0.00
2025-02-13	23	24	2.6	0.46	z score	0.36	1.0	4.35
2025-02-14	10	10	2.7	0.00	z score	0.00	0.0	0.00
2025-02-15	15	15	2.6	0.00	z score	0.00	0.0	0.00
2025-02-16	33	34	2.6	0.45	z score	0.36	1.0	3.03
2025-02-17	32	33	2.6	0.45	z score	0.36	1.0	3.12
2025-02-18	36	36	2.6	0.00	z' score	0.00	0.0	0.00
2025-02-19	35	36	2.6	0.45	z score	0.36	1.0	2.86
2025-02-20	44	45	2.6	0.44	z score	0.35	1.0	2.27
2025-02-21	54	53	2.7	-0.44	z score	-0.34	-1.0	-1.85
2025-02-22	67	67	2.9	0.00	z' score	0.00	0.0	0.00
2025-02-23	48	49	2.7	0.41	z' score	0.30	1.0	2.08
2025-02-24	51	52	2.7	0.42	z' score	0.32	1.0	1.96
2025-02-25	46	46	2.7	0.00	z score	0.00	0.0	0.00
2025-02-26	5.8	5.7	2.7	-0.05	z score	-0.04	-0.1	-1.72
2025-02-27	12	12	2.6	0.00	z score	0.00	0.0	0.00
2025-02-28	20	20	2.6	0.00	z score	0.00	0.0	0.00
2025-03-01	10	11	2.7	0.46	z score	0.36	1.0	10.00
2025-03-02	9.5	10	2.7	0.23	z score	0.18	0.5	5.26
2025-03-03	17	17	2.6	0.00	z score	0.00	0.0	0.00
2025-03-04	21	22	2.6	0.46	z score	0.36	1.0	4.76
2025-03-05	21	21	2.6	0.00	z score	0.00	0.0	0.00

Source: JRC 2025

Figure 66. PM2.5 ISSeP_L2 Results



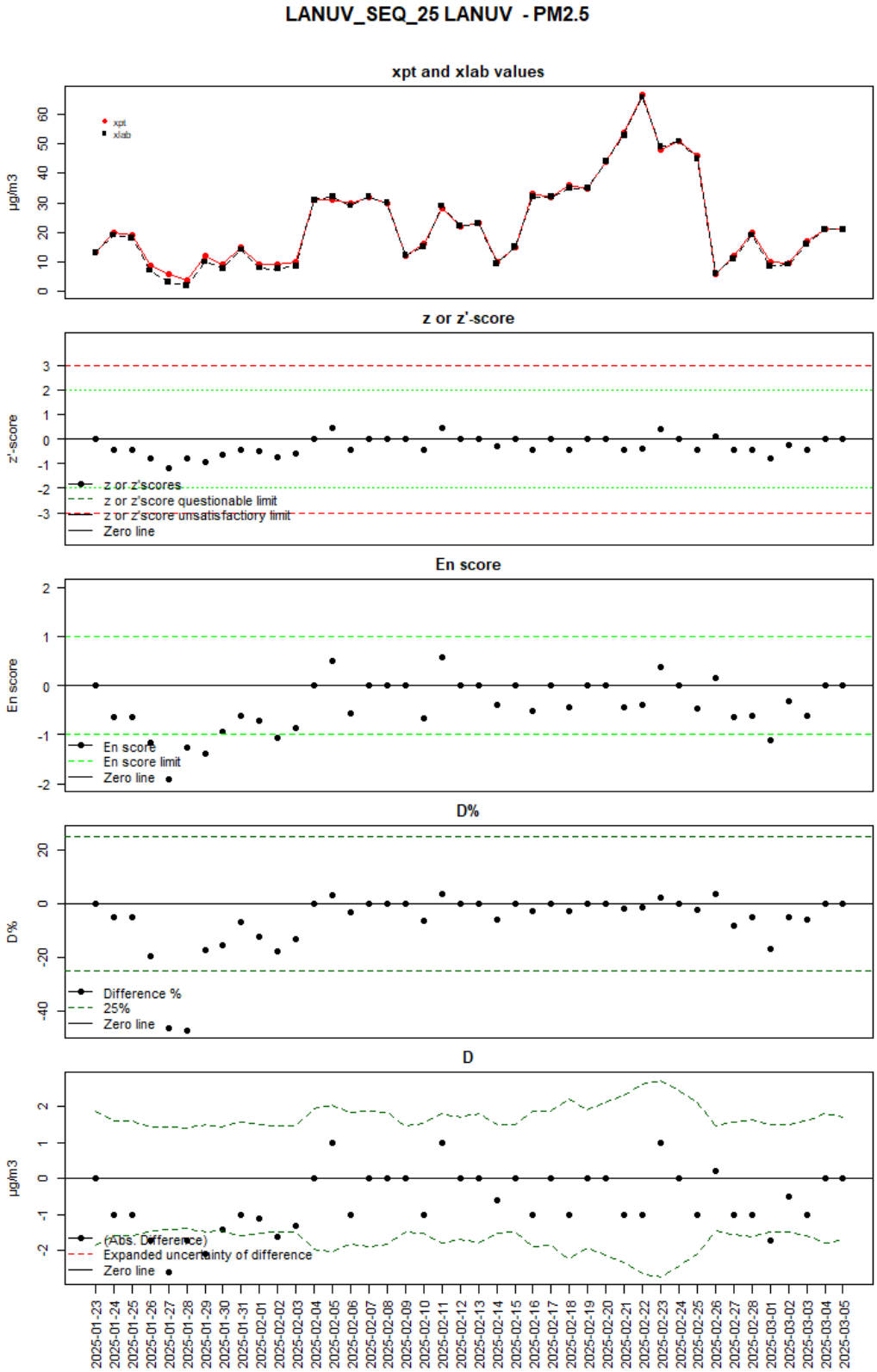
Source: JRC 2025

Table 65. $PM_{2.5}$ LANUV_SEQ_25 LANUV Results

LANUV_SEQ_25 LANUV								
$PM_{2.5}$ data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	13	1.8	0.00	z score	0.00	0.0	0.00
2025-01-24	20	19	1.4	-0.46	z score	-0.64	-1.0	-5.00
2025-01-25	19	18	1.4	-0.46	z score	-0.64	-1.0	-5.26
2025-01-26	8.7	7.0	1.4	-0.78	z score	-1.15	-1.7	-19.54
2025-01-27	5.6	3.0	1.3	-1.20	z score	-1.89	-2.6	-46.43
2025-01-28	3.6	1.9	1.3	-0.78	z score	-1.26	-1.7	-47.22
2025-01-29	12	9.9	1.4	-0.96	z score	-1.38	-2.1	-17.50
2025-01-30	9.0	7.6	1.4	-0.64	z score	-0.95	-1.4	-15.56
2025-01-31	15	14	1.4	-0.46	z score	-0.63	-1.0	-6.67
2025-02-01	8.9	7.8	1.4	-0.51	z score	-0.71	-1.1	-12.36
2025-02-02	9.1	7.5	1.4	-0.73	z score	-1.06	-1.6	-17.58
2025-02-03	9.8	8.5	1.4	-0.60	z score	-0.87	-1.3	-13.27
2025-02-04	31	31	1.6	0.00	z score	0.00	0.0	0.00
2025-02-05	31	32	1.6	0.45	z score	0.49	1.0	3.23
2025-02-06	30	29	1.5	-0.45	z score	-0.56	-1.0	-3.33
2025-02-07	32	32	1.6	0.00	z score	0.00	0.0	0.00
2025-02-08	30	30	1.5	0.00	z score	0.00	0.0	0.00
2025-02-09	12	12	1.4	0.00	z score	0.00	0.0	0.00
2025-02-10	16	15	1.4	-0.46	z score	-0.64	-1.0	-6.25
2025-02-11	28	29	1.5	0.45	z score	0.57	1.0	3.57
2025-02-12	22	22	1.5	0.00	z score	0.00	0.0	0.00
2025-02-13	23	23	1.5	0.00	z score	0.00	0.0	0.00
2025-02-14	10	9.4	1.4	-0.28	z score	-0.39	-0.6	-6.00
2025-02-15	15	15	1.4	0.00	z score	0.00	0.0	0.00
2025-02-16	33	32	1.6	-0.45	z score	-0.53	-1.0	-3.03
2025-02-17	32	32	1.6	0.00	z score	0.00	0.0	0.00
2025-02-18	36	35	1.6	-0.43	z' score	-0.45	-1.0	-2.78
2025-02-19	35	35	1.6	0.00	z score	0.00	0.0	0.00
2025-02-20	44	44	1.8	0.00	z score	0.00	0.0	0.00
2025-02-21	54	53	1.9	-0.44	z score	-0.45	-1.0	-1.85
2025-02-22	67	66	2.2	-0.41	z' score	-0.38	-1.0	-1.49
2025-02-23	48	49	1.8	0.41	z' score	0.37	1.0	2.08
2025-02-24	51	51	1.9	0.00	z' score	0.00	0.0	0.00
2025-02-25	46	45	1.8	-0.44	z score	-0.47	-1.0	-2.17
2025-02-26	5.8	6.0	1.3	0.09	z score	0.14	0.2	3.45
2025-02-27	12	11	1.4	-0.46	z score	-0.64	-1.0	-8.33
2025-02-28	20	19	1.4	-0.46	z score	-0.62	-1.0	-5.00
2025-03-01	10	8.3	1.4	-0.78	z score	-1.12	-1.7	-17.00
2025-03-02	9.5	9.0	1.4	-0.23	z score	-0.33	-0.5	-5.26
2025-03-03	17	16	1.4	-0.46	z score	-0.63	-1.0	-5.88
2025-03-04	21	21	1.4	0.00	z score	0.00	0.0	0.00
2025-03-05	21	21	1.4	0.00	z score	0.00	0.0	0.00

Source: JRC 2025

Figure 67. PM2.5 LANUV_SEQ_25 LANUV Results



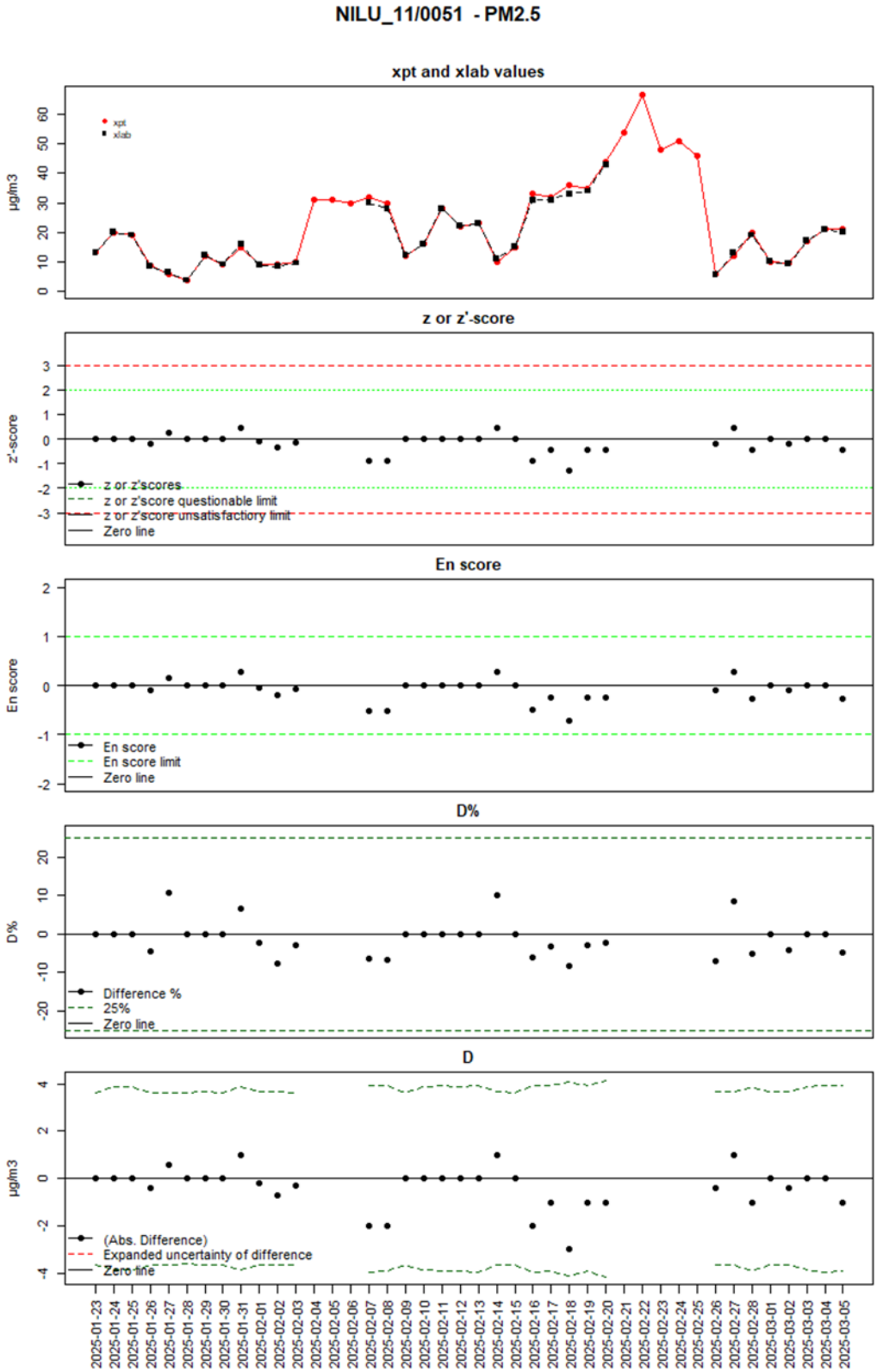
Source: JRC 2025

Table 66. $PM_{2.5}$ NILU_11/0051 Results

NILU_11/0051								
$PM_{2.5}$ data capture = 81								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	13	3.7	0.00	z score	0.00	0.0	0.00
2025-01-24	20	20	3.7	0.00	z score	0.00	0.0	0.00
2025-01-25	19	19	3.7	0.00	z score	0.00	0.0	0.00
2025-01-26	8.7	8.3	3.7	-0.18	z score	-0.11	-0.4	-4.60
2025-01-27	5.6	6.2	3.7	0.28	z score	0.16	0.6	10.71
2025-01-28	3.6	3.6	3.7	0.00	z score	0.00	0.0	0.00
2025-01-29	12	12	3.7	0.00	z score	0.00	0.0	0.00
2025-01-30	9.0	9.0	3.7	0.00	z score	0.00	0.0	0.00
2025-01-31	15	16	3.7	0.46	z score	0.26	1.0	6.67
2025-02-01	8.9	8.7	3.7	-0.09	z score	-0.05	-0.2	-2.25
2025-02-02	9.1	8.4	3.7	-0.32	z score	-0.19	-0.7	-7.69
2025-02-03	9.8	9.5	3.7	-0.14	z score	-0.08	-0.3	-3.06
2025-02-04	31				z score			
2025-02-05	31				z score			
2025-02-06	30				z score			
2025-02-07	32	30	3.8	-0.90	z score	-0.51	-2.0	-6.25
2025-02-08	30	28	3.8	-0.91	z score	-0.51	-2.0	-6.67
2025-02-09	12	12	3.7	0.00	z score	0.00	0.0	0.00
2025-02-10	16	16	3.7	0.00	z score	0.00	0.0	0.00
2025-02-11	28	28	3.8	0.00	z score	0.00	0.0	0.00
2025-02-12	22	22	3.8	0.00	z score	0.00	0.0	0.00
2025-02-13	23	23	3.8	0.00	z score	0.00	0.0	0.00
2025-02-14	10	11	3.7	0.46	z score	0.27	1.0	10.00
2025-02-15	15	15	3.7	0.00	z score	0.00	0.0	0.00
2025-02-16	33	31	3.9	-0.90	z score	-0.50	-2.0	-6.06
2025-02-17	32	31	3.9	-0.45	z score	-0.25	-1.0	-3.12
2025-02-18	36	33	3.9	-1.28	z' score	-0.72	-3.0	-8.33
2025-02-19	35	34	3.9	-0.45	z score	-0.25	-1.0	-2.86
2025-02-20	44	43	4.0	-0.44	z score	-0.24	-1.0	-2.27
2025-02-21	54				z score			
2025-02-22	67				z' score			
2025-02-23	48				z' score			
2025-02-24	51				z' score			
2025-02-25	46				z score			
2025-02-26	5.8	5.4	3.7	-0.18	z score	-0.11	-0.4	-6.90
2025-02-27	12	13	3.7	0.46	z score	0.27	1.0	8.33
2025-02-28	20	19	3.7	-0.46	z score	-0.26	-1.0	-5.00
2025-03-01	10	10	3.7	0.00	z score	0.00	0.0	0.00
2025-03-02	9.5	9.1	3.7	-0.18	z score	-0.11	-0.4	-4.21
2025-03-03	17	17	3.7	0.00	z score	0.00	0.0	0.00
2025-03-04	21	21	3.7	0.00	z score	0.00	0.0	0.00
2025-03-05	21	20	3.7	-0.46	z score	-0.26	-1.0	-4.76

Source: JRC 2025

Figure 68. . PM2.5 NILU_11/0051 Results



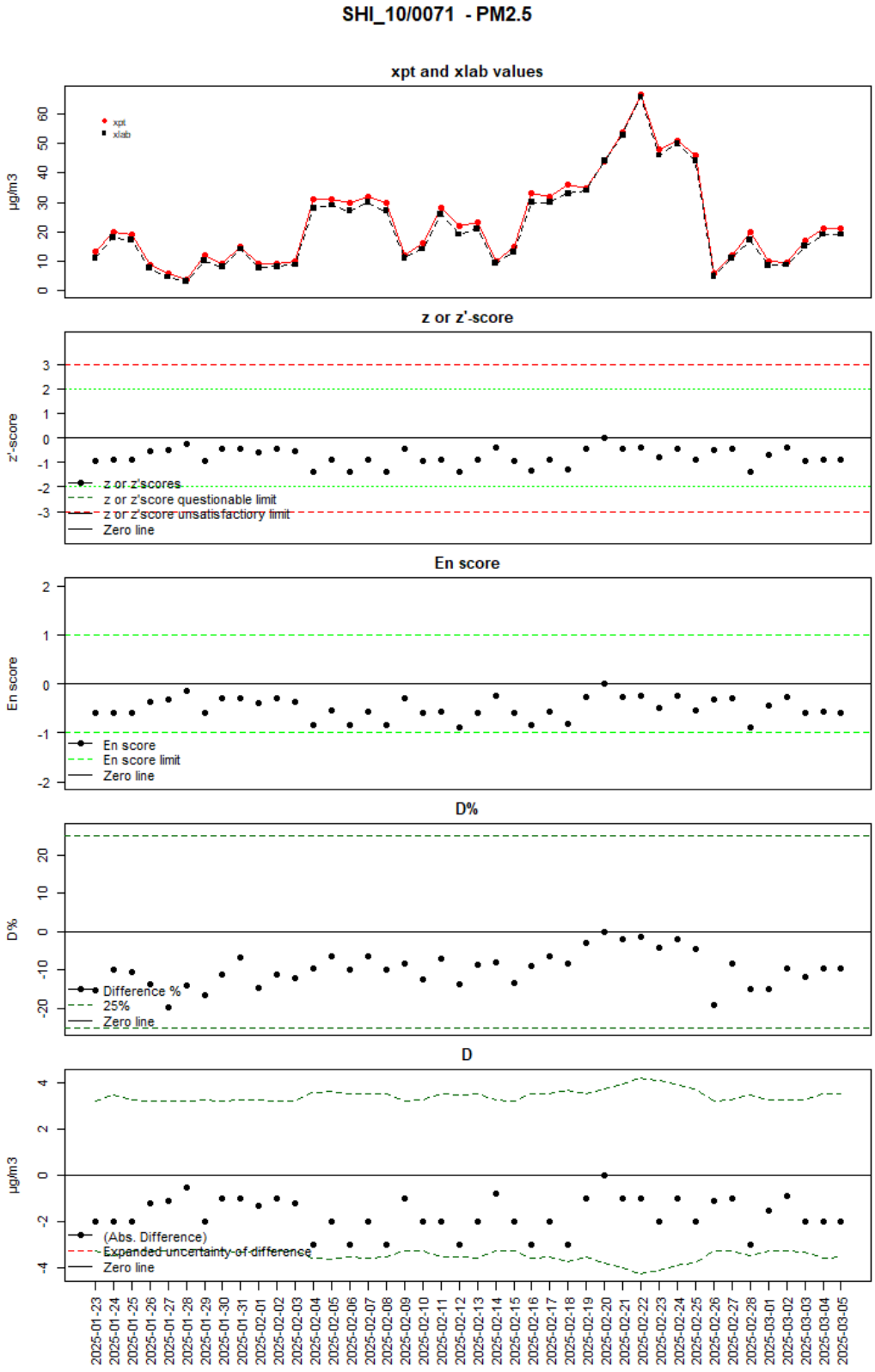
Source: JRC 2025

Table 67. $PM_{2.5}$ SHI_10/0071 Results

SHI_10/0071								
$PM_{2.5}$ data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	11	3.3	-0.92	z score	-0.60	-2.0	-15.38
2025-01-24	20	18	3.3	-0.91	z score	-0.59	-2.0	-10.00
2025-01-25	19	17	3.3	-0.91	z score	-0.59	-2.0	-10.53
2025-01-26	8.7	7.5	3.3	-0.55	z score	-0.36	-1.2	-13.79
2025-01-27	5.6	4.5	3.3	-0.51	z score	-0.33	-1.1	-19.64
2025-01-28	3.6	3.1	3.3	-0.23	z score	-0.15	-0.5	-13.89
2025-01-29	12	10	3.3	-0.92	z score	-0.60	-2.0	-16.67
2025-01-30	9.0	8.0	3.3	-0.46	z score	-0.30	-1.0	-11.11
2025-01-31	15	14	3.3	-0.46	z score	-0.30	-1.0	-6.67
2025-02-01	8.9	7.6	3.3	-0.60	z score	-0.39	-1.3	-14.61
2025-02-02	9.1	8.1	3.3	-0.46	z score	-0.30	-1.0	-10.99
2025-02-03	9.8	8.6	3.3	-0.55	z score	-0.36	-1.2	-12.24
2025-02-04	31	28	3.4	-1.36	z score	-0.84	-3.0	-9.68
2025-02-05	31	29	3.4	-0.90	z score	-0.55	-2.0	-6.45
2025-02-06	30	27	3.4	-1.36	z score	-0.85	-3.0	-10.00
2025-02-07	32	30	3.4	-0.90	z score	-0.56	-2.0	-6.25
2025-02-08	30	27	3.4	-1.36	z score	-0.85	-3.0	-10.00
2025-02-09	12	11	3.3	-0.46	z score	-0.30	-1.0	-8.33
2025-02-10	16	14	3.3	-0.92	z score	-0.59	-2.0	-12.50
2025-02-11	28	26	3.4	-0.91	z score	-0.57	-2.0	-7.14
2025-02-12	22	19	3.3	-1.37	z score	-0.88	-3.0	-13.64
2025-02-13	23	21	3.3	-0.91	z score	-0.58	-2.0	-8.70
2025-02-14	10	9.2	3.3	-0.37	z score	-0.24	-0.8	-8.00
2025-02-15	15	13	3.3	-0.92	z score	-0.60	-2.0	-13.33
2025-02-16	33	30	3.4	-1.35	z score	-0.85	-3.0	-9.09
2025-02-17	32	30	3.4	-0.90	z score	-0.57	-2.0	-6.25
2025-02-18	36	33	3.4	-1.28	z' score	-0.81	-3.0	-8.33
2025-02-19	35	34	3.5	-0.45	z score	-0.27	-1.0	-2.86
2025-02-20	44	44	3.6	0.00	z score	0.00	0.0	0.00
2025-02-21	54	53	3.7	-0.44	z score	-0.26	-1.0	-1.85
2025-02-22	67	66	4.0	-0.41	z' score	-0.24	-1.0	-1.49
2025-02-23	48	46	3.6	-0.81	z' score	-0.49	-2.0	-4.17
2025-02-24	51	50	3.7	-0.42	z' score	-0.25	-1.0	-1.96
2025-02-25	46	44	3.6	-0.89	z score	-0.53	-2.0	-4.35
2025-02-26	5.8	4.7	3.3	-0.51	z score	-0.33	-1.1	-18.97
2025-02-27	12	11	3.3	-0.46	z score	-0.30	-1.0	-8.33
2025-02-28	20	17	3.3	-1.37	z score	-0.88	-3.0	-15.00
2025-03-01	10	8.5	3.3	-0.69	z score	-0.45	-1.5	-15.00
2025-03-02	9.5	8.6	3.3	-0.41	z score	-0.27	-0.9	-9.47
2025-03-03	17	15	3.3	-0.92	z score	-0.59	-2.0	-11.76
2025-03-04	21	19	3.3	-0.91	z score	-0.58	-2.0	-9.52
2025-03-05	21	19	3.3	-0.91	z score	-0.58	-2.0	-9.52

Source: JRC 2025

Figure 69. PM2.5 SHI_10/0071 Results



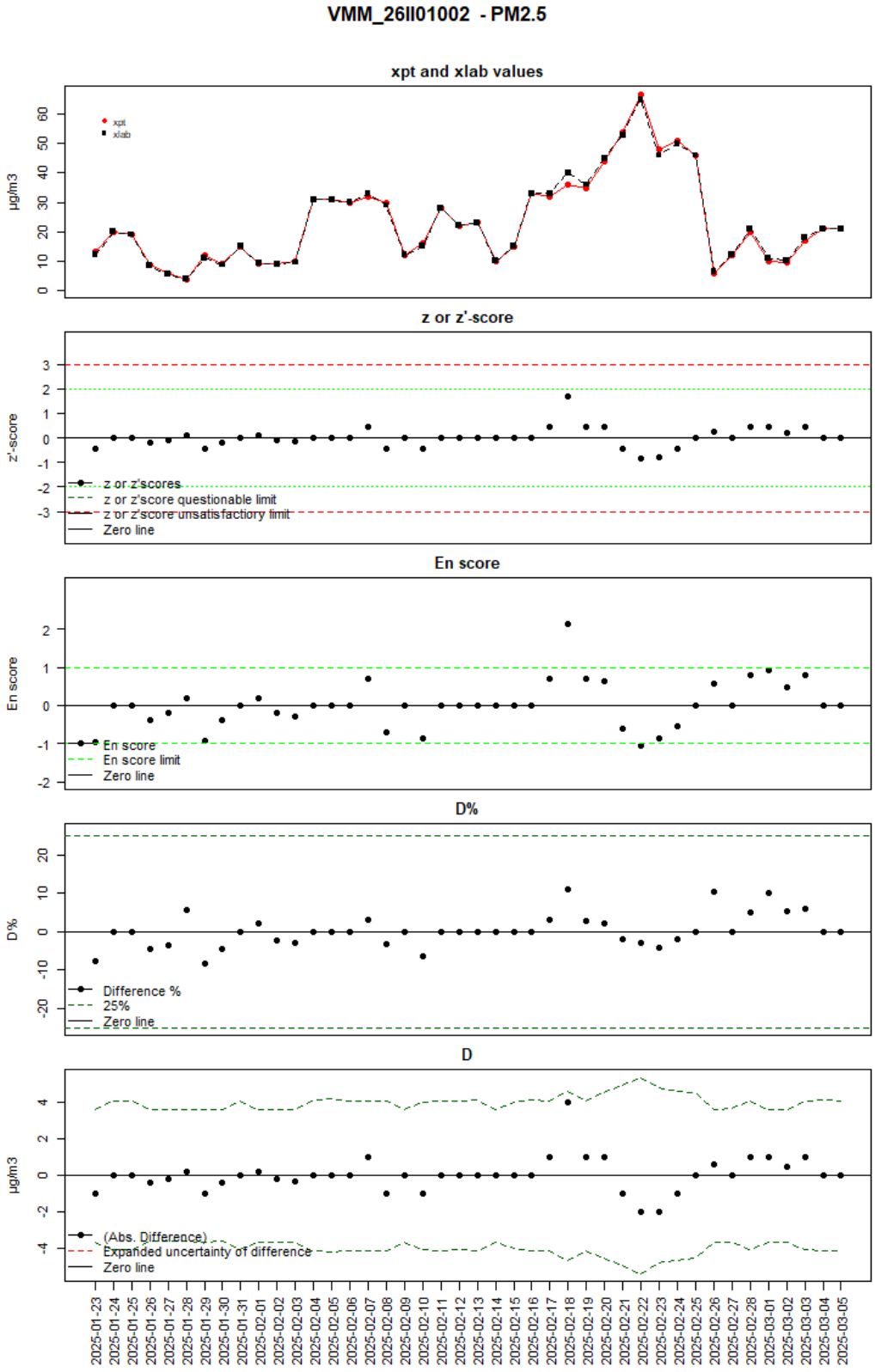
Source: JRC 2025

Table 68. $PM_{2.5}$ VMM_26II01002 Results

VMM_26II01002								
$PM_{2.5}$ data capture = 100								
Day	xpt	xlab	Ulab	z or z'score	Score Type	En	D	D%
2025-01-23	13	12	0.9	-0.46	z score	-0.96	-1.0	-7.69
2025-01-24	20	20	1.0	0.00	z score	0.00	0.0	0.00
2025-01-25	19	19	1.0	0.00	z score	0.00	0.0	0.00
2025-01-26	8.7	8.3	0.9	-0.18	z score	-0.40	-0.4	-4.60
2025-01-27	5.6	5.4	0.9	-0.09	z score	-0.20	-0.2	-3.57
2025-01-28	3.6	3.8	0.9	0.09	z score	0.20	0.2	5.56
2025-01-29	12	11	0.9	-0.46	z score	-0.92	-1.0	-8.33
2025-01-30	9.0	8.6	0.9	-0.18	z score	-0.40	-0.4	-4.44
2025-01-31	15	15	1.0	0.00	z score	0.00	0.0	0.00
2025-02-01	8.9	9.1	0.9	0.09	z score	0.18	0.2	2.25
2025-02-02	9.1	8.9	0.9	-0.09	z score	-0.19	-0.2	-2.20
2025-02-03	9.8	9.5	0.9	-0.14	z score	-0.29	-0.3	-3.06
2025-02-04	31	31	1.0	0.00	z score	0.00	0.0	0.00
2025-02-05	31	31	1.0	0.00	z score	0.00	0.0	0.00
2025-02-06	30	30	1.0	0.00	z score	0.00	0.0	0.00
2025-02-07	32	33	1.0	0.45	z score	0.71	1.0	3.12
2025-02-08	30	29	1.0	-0.45	z score	-0.72	-1.0	-3.33
2025-02-09	12	12	0.9	0.00	z score	0.00	0.0	0.00
2025-02-10	16	15	1.0	-0.46	z score	-0.83	-1.0	-6.25
2025-02-11	28	28	1.0	0.00	z score	0.00	0.0	0.00
2025-02-12	22	22	1.0	0.00	z score	0.00	0.0	0.00
2025-02-13	23	23	1.0	0.00	z score	0.00	0.0	0.00
2025-02-14	10	10	0.9	0.00	z score	0.00	0.0	0.00
2025-02-15	15	15	1.0	0.00	z score	0.00	0.0	0.00
2025-02-16	33	33	1.0	0.00	z score	0.00	0.0	0.00
2025-02-17	32	33	1.0	0.45	z score	0.71	1.0	3.12
2025-02-18	36	40	1.1	1.70	z' score	2.13	4.0	11.11
2025-02-19	35	36	1.0	0.45	z score	0.70	1.0	2.86
2025-02-20	44	45	1.1	0.44	z score	0.64	1.0	2.27
2025-02-21	54	53	1.2	-0.44	z score	-0.60	-1.0	-1.85
2025-02-22	67	65	1.3	-0.82	z' score	-1.03	-2.0	-2.99
2025-02-23	48	46	1.1	-0.81	z' score	-0.88	-2.0	-4.17
2025-02-24	51	50	1.1	-0.42	z' score	-0.53	-1.0	-1.96
2025-02-25	46	46	1.1	0.00	z score	0.00	0.0	0.00
2025-02-26	5.8	6.4	0.9	0.28	z score	0.57	0.6	10.34
2025-02-27	12	12	0.9	0.00	z score	0.00	0.0	0.00
2025-02-28	20	21	1.0	0.46	z score	0.78	1.0	5.00
2025-03-01	10	11	0.9	0.46	z score	0.92	1.0	10.00
2025-03-02	9.5	10	0.9	0.23	z score	0.47	0.5	5.26
2025-03-03	17	18	1.0	0.46	z score	0.80	1.0	5.88
2025-03-04	21	21	1.0	0.00	z score	0.00	0.0	0.00
2025-03-05	21	21	1.0	0.00	z score	0.00	0.0	0.00

Source: JRC 2025

Figure 70. PM2.5 VMM_26II01002 Results



Source: JRC 2025

ANNEX 2: Reproducibility of the EN method

Outliers

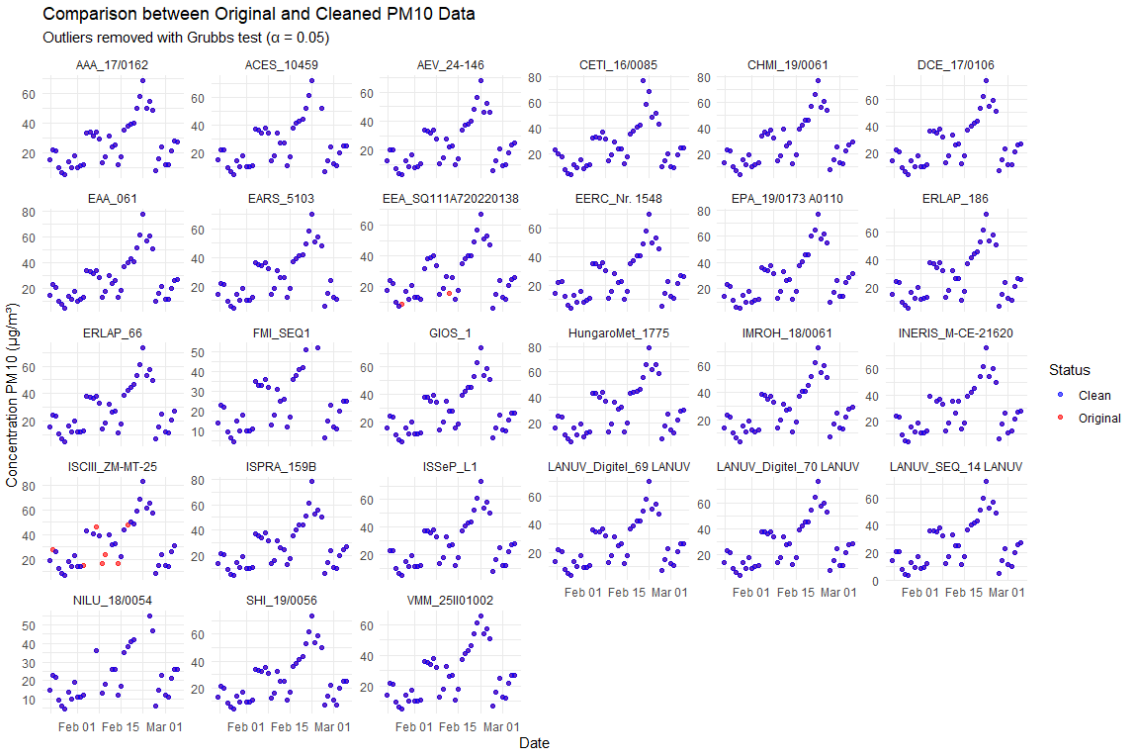
The reproducibility assessment of the gravimetric method [2] for PM_{10} determination was conducted using intercomparison data organized by ERLAP (European Reference Laboratory for Air Pollution). According to ISO 5725-2 [5], measurement results obtained in an interlaboratory experiment are checked to avoid outliers before evaluating the reproducibility of the method by application of the Grubbs test. Grubbs test require a normal distribution of the data. The daily qq-plots show data are not distributed normally because of outlier's presence. A Mandel h test is used after Grubbs test, revealing most strict. A Grubbs' bilateral test was applied to identify and remove statistical outliers at a significance level of α = 0.01. The test was performed iteratively on each measurement row, checking for extreme values (either maximum or minimum) that significantly deviated from the expected distribution. Outliers were replaced with NA to avoid bias in subsequent reproducibility calculations. A summary table (**Table 69**) present the removed outliers.

Table 69. Outliers removed from PM_{10} data

Outliers removed count	
Laboratory	**Outliers removed**
EEA_SQ111A720220138	2
ISCIII_ZM-MT-25	7

Source: JRC 2025

Figure 71. PM10 Laboratories data with and without outliers



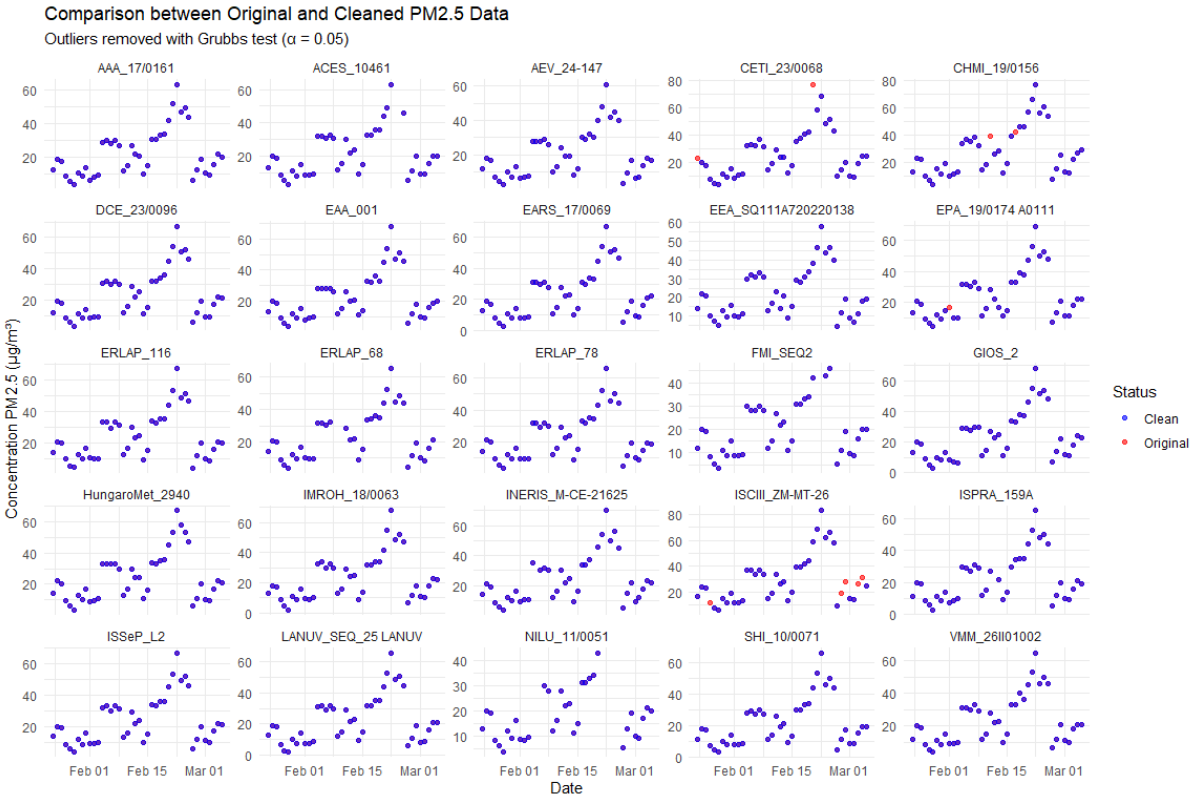
Source: JRC 2025

Table 70. Outliers Removed from $PM_{2.5}$ Data

Outliers Removed Count	
Laboratory	**Outliers Removed**
CETI_23/0068	2
CHMI_19/0156	2
EPA_19/0174 A0111	1
ISCIII_ZM-MT-26	5

Source: JRC 2025

Figure 72. PM2.5 Laboratories data with and without outliers



Source: JRC 2025

Critical Value Calculation for Mandel h

The critical value h_n for Mandel h is calculated using the following formula (ISO 5725-2 [5]):

Equation 12

$$h_n = \frac{(n-1) \cdot t_{n-2;1-\alpha/2}}{\sqrt{n\left(n-2+t^2_{n-2;1-\alpha/2}\right)}}$$

Where:

- n is the number of laboratories,
- $t_{n-2;1-\alpha/2}$ is the quantile of the t-distribution with $\nu = n-2$ degrees of freedom,
- α is the significance level. For $\alpha = 0.05$ (95% confidence level)

Given: - $n = 27$ - Degrees of freedom $\nu = 25$ - $t_{25;0.975} \approx 2.060$

The critical value is:

Equation 13

$$h_{0.05} = \frac{26 \cdot 2.060}{\sqrt{27(25+2.060^2)}} \approx \boxed{1.906}$$

For $\alpha = 0.01$ (99% confidence level)

Given: - $n = 27$ - Degrees of freedom $\nu = 25$ - $t_{25;0.995} \approx 2.787$

The critical value is:

Equation 14

$$h_{0.01} = \frac{26 \cdot 2.787}{\sqrt{27(25+2.787^2)}} \approx \boxed{2.436}$$

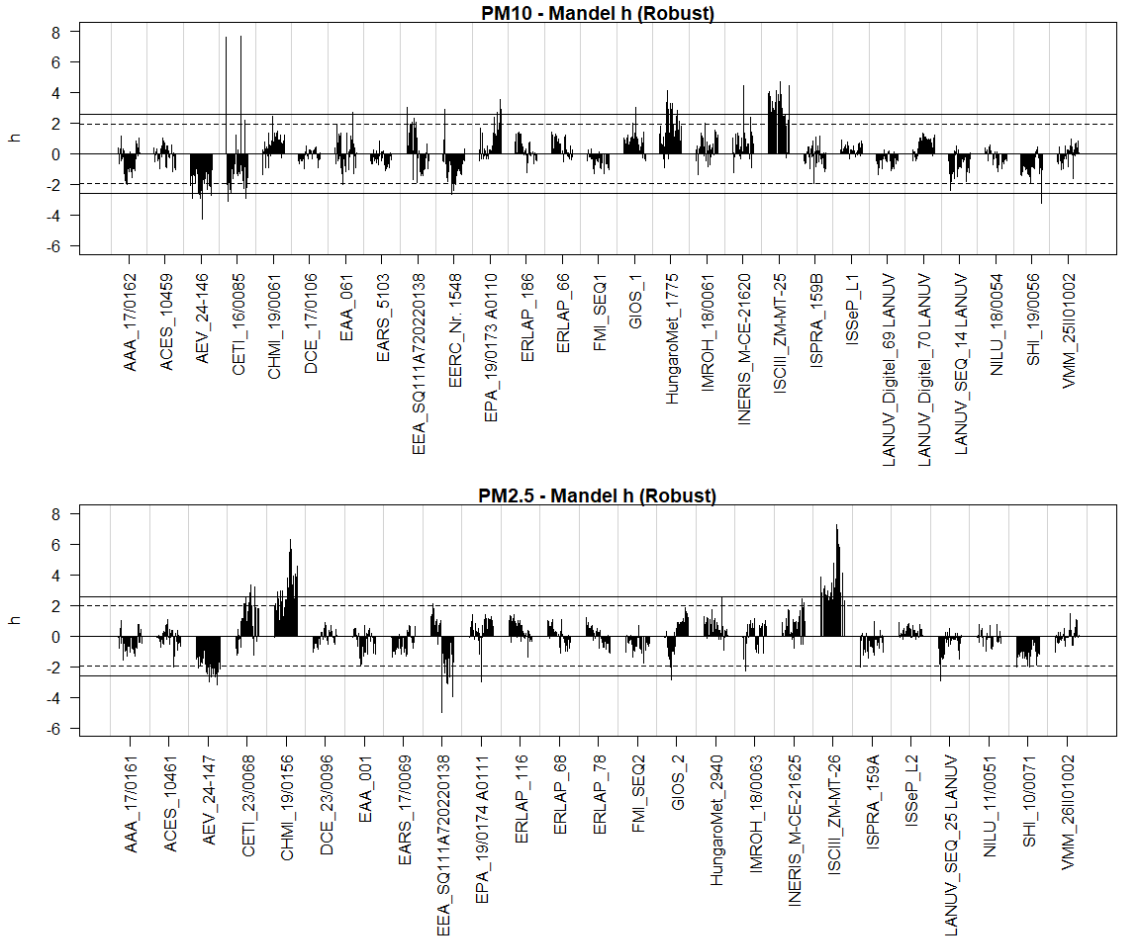
These values can be used as **solid reference lines** in Mandel h plots to identify statistically significant deviations.

Table 71. PM_{10} and $PM_{2.5}$ outliers - Mandel'h statistic

PM_{10} Outliers Summary	
Laboratory Code	**Number of Outliers**
ISCIII_ZM-MT-25	24
HungaroMet_1775	10
AEV_24-146	6
CETI_16/0085	6
EPA_19/0173 A0110	3
EERC_Nr. 1548	2
CHMI_19/0061	1
EAA_061	1
EEA_SQ111A720220138	1
GIOS_1	1
INERIS_M-CE-21620	1
SHI_19/0056	1
Threshold: |h| > 2.436	
Source: JRC 2025	

$PM_{2.5}$ Outliers Summary	
Laboratory Code	**Number of Outliers**
ISCIII_ZM-MT-26	28
CHMI_19/0156	19
AEV_24-147	7
EEA_SQ111A720220138	7
CETI_23/0068	3
EPA_19/0174 A0111	1
GIOS_2	1
HungaroMet_2940	1
LANUV_SEQ_25 LANUV	1
Threshold: |h| > 2.436	

Figure 73. Mandel h evaluation for PM10 and PM2.5



Source: JRC 2025

Reproducibility estimation

The Annex has the aim to do a numerical estimation of the precision of gravimetric measurement method by means of collaborative interlaboratory experiment. Reproducibility Analysis of EN 12341 [2] method for PM_{10} and $PM_{2.5}$ The reproducibility of the EN 12341 [2] gravimetric method was evaluated using interlaboratory comparison data organised by ERLAP (European Reference Laboratory for Air Pollution) following the ISO 5725-2 [5]. After removing outliers (Grubbs' test, α = 0.01 and Mandel h, α = 0.01), we assessed the daily reproducibility (R_{rep}) of the reference method is calculated as:

Equation 15

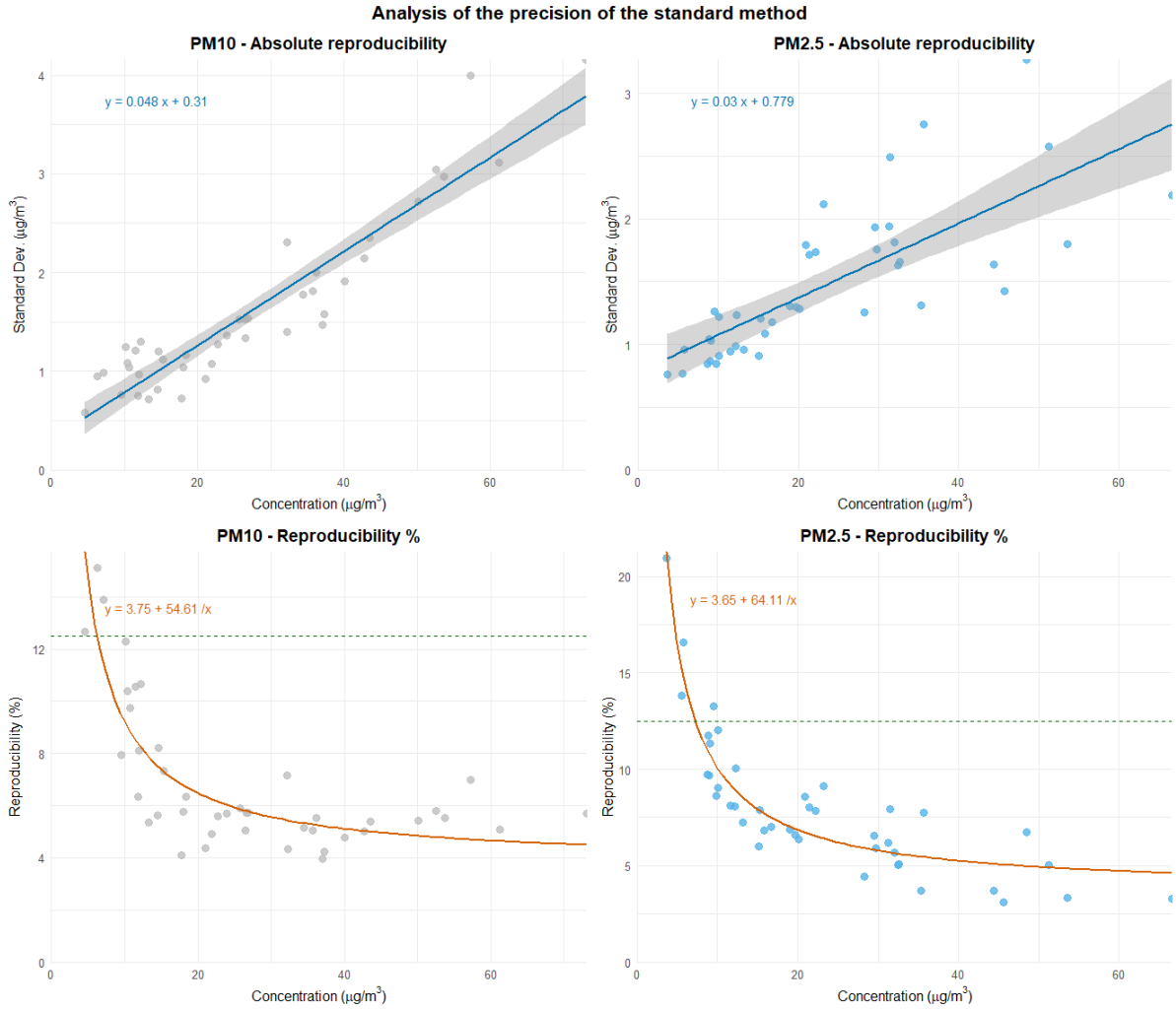
$$R_{rep}\ (\%) = (\frac{\sigma_{daily}}{\mu_{daily}}) \times\ 100$$

Where:

σ_{daily} = Daily standard deviation of PM_{10} measurements across instruments:

μ_{daily} = Daily mean concentration of PM_{10} (robust mean after data cleaning).

Figure 74. Reproducibility evaluation

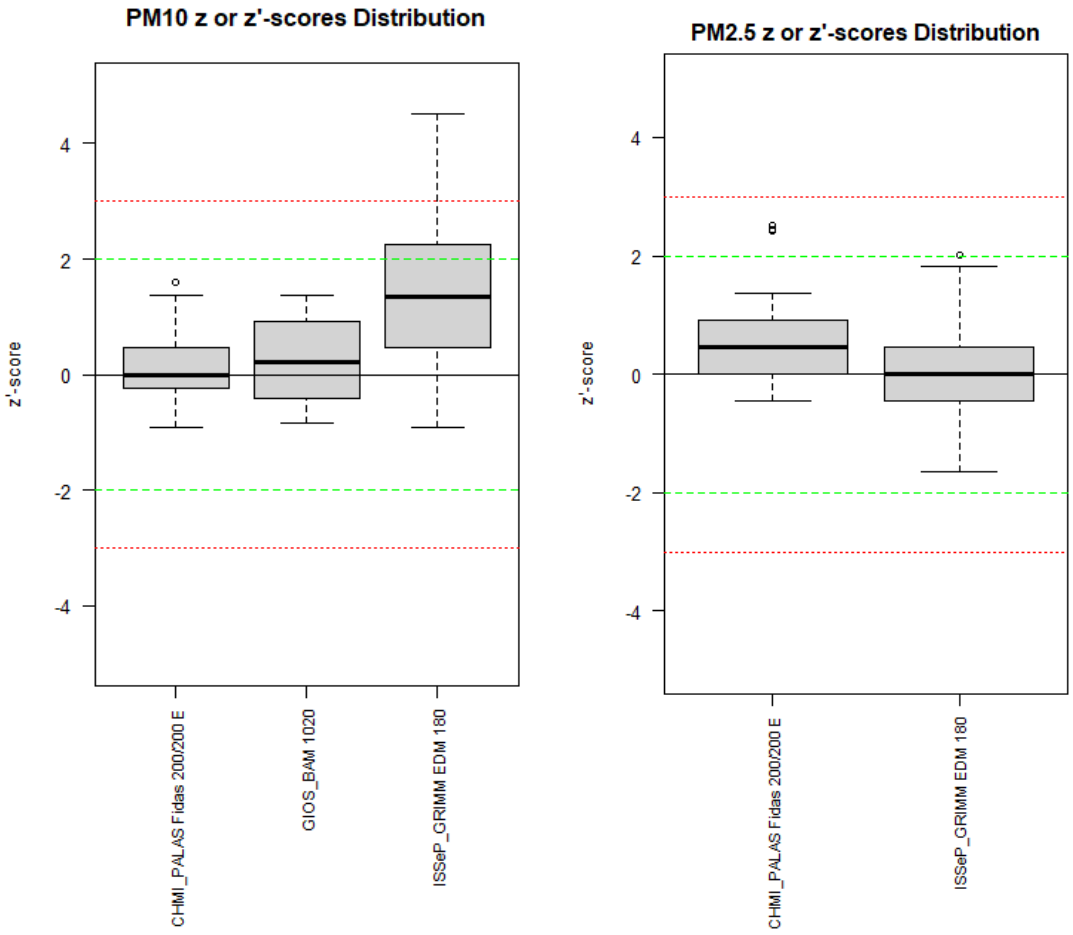


Source: JRC 2025

The hyperbolic model better captures the asymptotic behaviour at high concentrations compared to linear approaches. Both PM_{10} and $PM_{2.5}$ meet the European data quality objective, also with the new daily limit values.

ANNEX 3: Results Automatic Measurement System

Figure 75. PM_{10} z or z' scores results



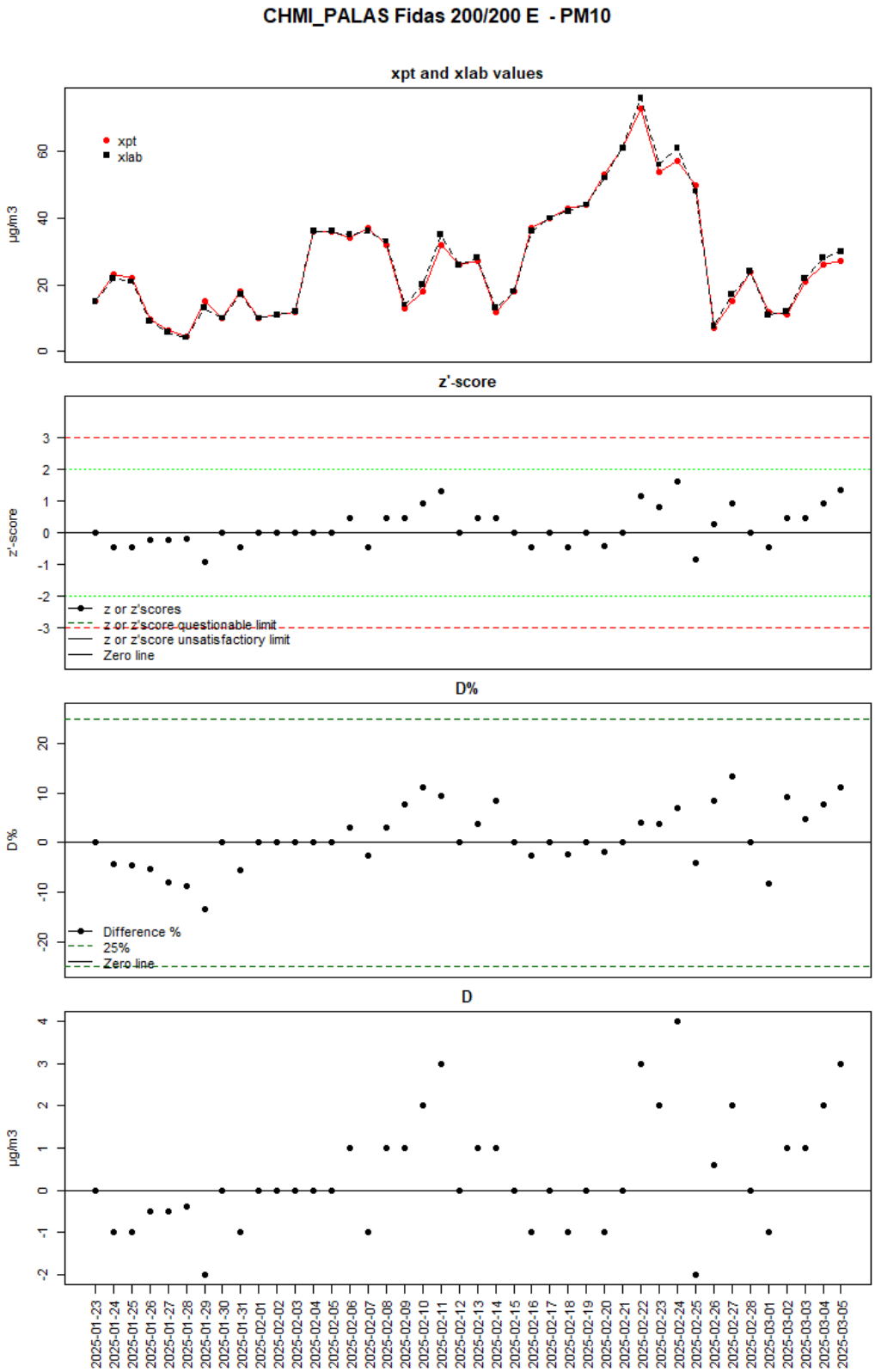
Source: JRC 2025

Table 72. CHMI_PALAS Fidas 200/200 E : PM_{10} Results

CHMI_PALAS Fidas 200/200 E						
PM_{10} data capture = 100						
Day	xpt	xlab	z or z'score	Score Type	D	D%
2025-01-23	15	15	0.00	z score	0.0	0.00
2025-01-24	23	22	-0.46	z score	-1.0	-4.35
2025-01-25	22	21	-0.46	z score	-1.0	-4.55
2025-01-26	9.6	9.1	-0.23	z score	-0.5	-5.21
2025-01-27	6.3	5.8	-0.23	z score	-0.5	-7.94
2025-01-28	4.6	4.2	-0.18	z score	-0.4	-8.70
2025-01-29	15	13	-0.92	z score	-2.0	-13.33
2025-01-30	10	10	0.00	z score	0.0	0.00
2025-01-31	18	17	-0.46	z score	-1.0	-5.56
2025-02-01	10	10	0.00	z score	0.0	0.00
2025-02-02	11	11	0.00	z score	0.0	0.00
2025-02-03	12	12	0.00	z score	0.0	0.00
2025-02-04	36	36	0.00	z score	0.0	0.00
2025-02-05	36	36	0.00	z score	0.0	0.00
2025-02-06	34	35	0.45	z score	1.0	2.94
2025-02-07	37	36	-0.45	z score	-1.0	-2.70
2025-02-08	32	33	0.45	z score	1.0	3.12
2025-02-09	13	14	0.46	z score	1.0	7.69
2025-02-10	18	20	0.91	z score	2.0	11.11
2025-02-11	32	35	1.30	z' score	3.0	9.38
2025-02-12	26	26	0.00	z score	0.0	0.00
2025-02-13	27	28	0.45	z score	1.0	3.70
2025-02-14	12	13	0.46	z score	1.0	8.33
2025-02-15	18	18	0.00	z score	0.0	0.00
2025-02-16	37	36	-0.45	z score	-1.0	-2.70
2025-02-17	40	40	0.00	z score	0.0	0.00
2025-02-18	43	42	-0.45	z score	-1.0	-2.33
2025-02-19	44	44	0.00	z score	0.0	0.00
2025-02-20	53	52	-0.42	z' score	-1.0	-1.89
2025-02-21	61	61	0.00	z' score	0.0	0.00
2025-02-22	73	76	1.15	z' score	3.0	4.11
2025-02-23	54	56	0.82	z' score	2.0	3.70
2025-02-24	57	61	1.60	z' score	4.0	7.02
2025-02-25	50	48	-0.83	z' score	-2.0	-4.00
2025-02-26	7.1	7.7	0.28	z score	0.6	8.45
2025-02-27	15	17	0.92	z score	2.0	13.33
2025-02-28	24	24	0.00	z score	0.0	0.00
2025-03-01	12	11	-0.46	z score	-1.0	-8.33
2025-03-02	11	12	0.46	z score	1.0	9.09
2025-03-03	21	22	0.46	z score	1.0	4.76
2025-03-04	26	28	0.91	z score	2.0	7.69
2025-03-05	27	30	1.36	z score	3.0	11.11

Source: JRC 2025

Figure 76. CHMI_PALAS Fidas 200/200 E: PM_{10} Results



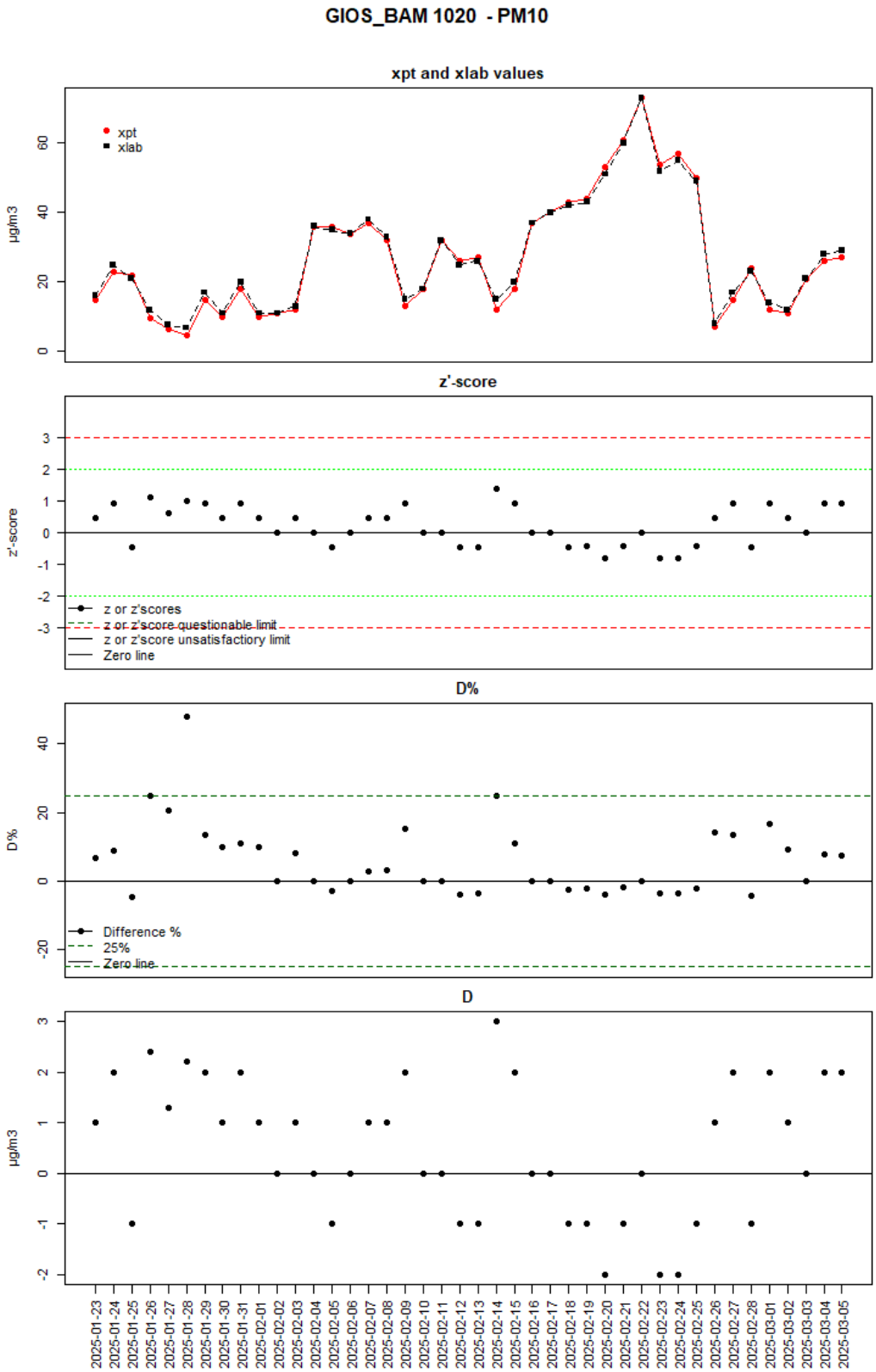
Source: JRC 2025

Table 73. GIOS_BAM 1020: PM_{10} Results

GIOS_BAM 1020						
PM_{10} data capture = 100						
Day	xpt	xlab	z or z'score	Score Type	D	D%
2025-01-23	15	16	0.46	z score	1.0	6.67
2025-01-24	23	25	0.91	z score	2.0	8.70
2025-01-25	22	21	-0.46	z score	-1.0	-4.55
2025-01-26	9.6	12	1.10	z score	2.4	25.00
2025-01-27	6.3	7.6	0.60	z score	1.3	20.63
2025-01-28	4.6	6.8	1.01	z score	2.2	47.83
2025-01-29	15	17	0.92	z score	2.0	13.33
2025-01-30	10	11	0.46	z score	1.0	10.00
2025-01-31	18	20	0.91	z score	2.0	11.11
2025-02-01	10	11	0.46	z score	1.0	10.00
2025-02-02	11	11	0.00	z score	0.0	0.00
2025-02-03	12	13	0.46	z score	1.0	8.33
2025-02-04	36	36	0.00	z score	0.0	0.00
2025-02-05	36	35	-0.45	z score	-1.0	-2.78
2025-02-06	34	34	0.00	z score	0.0	0.00
2025-02-07	37	38	0.45	z score	1.0	2.70
2025-02-08	32	33	0.45	z score	1.0	3.12
2025-02-09	13	15	0.92	z score	2.0	15.38
2025-02-10	18	18	0.00	z score	0.0	0.00
2025-02-11	32	32	0.00	z' score	0.0	0.00
2025-02-12	26	25	-0.45	z score	-1.0	-3.85
2025-02-13	27	26	-0.45	z score	-1.0	-3.70
2025-02-14	12	15	1.38	z score	3.0	25.00
2025-02-15	18	20	0.91	z score	2.0	11.11
2025-02-16	37	37	0.00	z score	0.0	0.00
2025-02-17	40	40	0.00	z score	0.0	0.00
2025-02-18	43	42	-0.45	z score	-1.0	-2.33
2025-02-19	44	43	-0.44	z score	-1.0	-2.27
2025-02-20	53	51	-0.83	z' score	-2.0	-3.77
2025-02-21	61	60	-0.41	z' score	-1.0	-1.64
2025-02-22	73	73	0.00	z' score	0.0	0.00
2025-02-23	54	52	-0.82	z' score	-2.0	-3.70
2025-02-24	57	55	-0.80	z' score	-2.0	-3.51
2025-02-25	50	49	-0.42	z' score	-1.0	-2.00
2025-02-26	7.1	8.1	0.46	z score	1.0	14.08
2025-02-27	15	17	0.92	z score	2.0	13.33
2025-02-28	24	23	-0.46	z score	-1.0	-4.17
2025-03-01	12	14	0.92	z score	2.0	16.67
2025-03-02	11	12	0.46	z score	1.0	9.09
2025-03-03	21	21	0.00	z score	0.0	0.00
2025-03-04	26	28	0.91	z score	2.0	7.69
2025-03-05	27	29	0.91	z score	2.0	7.41

Source: JRC 2025

Figure 77. GIOS_BAM 1020: PM_{10} Results



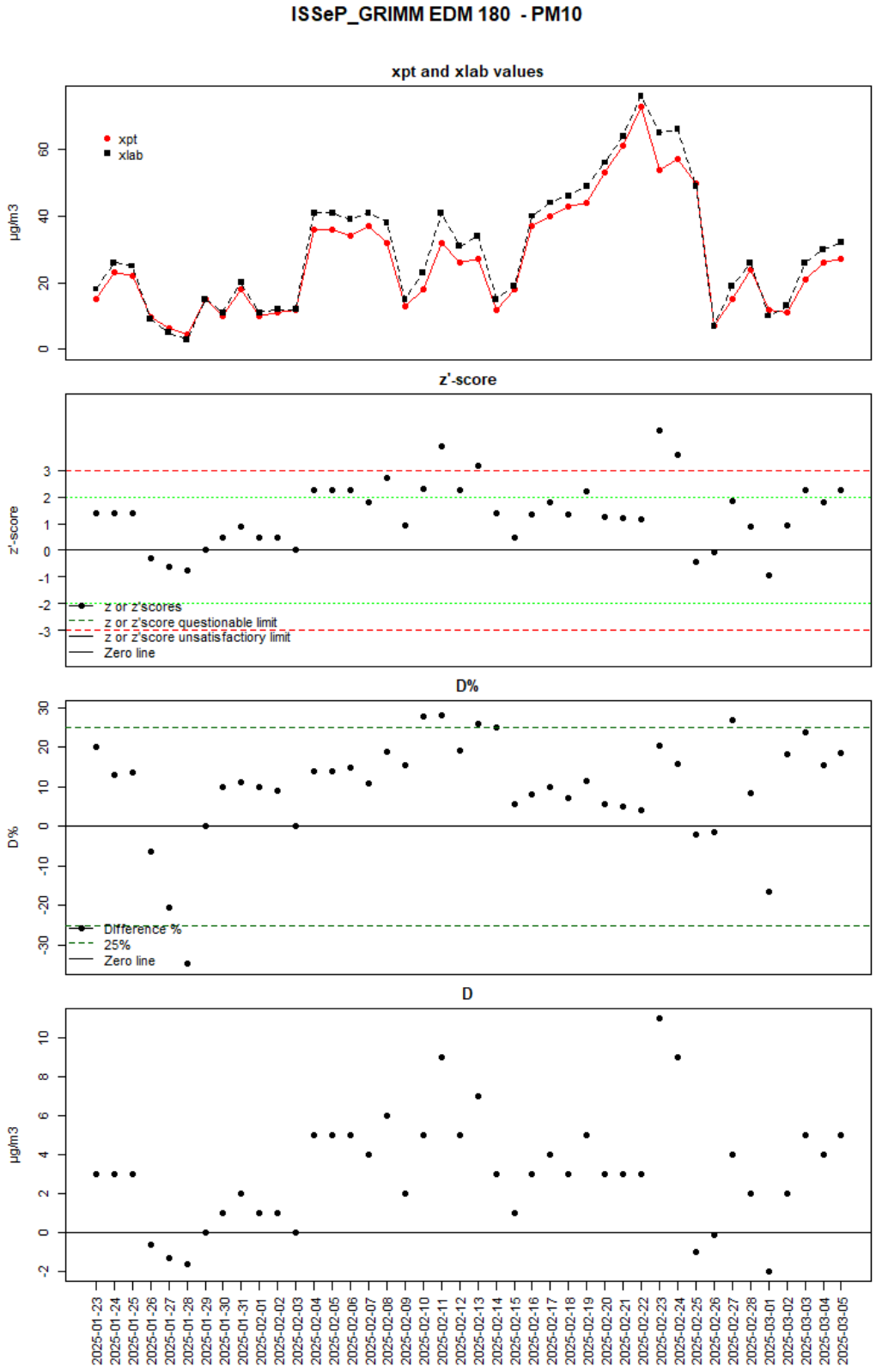
Source: JRC 2025

Table 74. ISSeP GRIMM EDM 180: PM_{10} Results

ISSeP_GRIMM EDM 180						
PM_{10} data capture = 100						
Day	**xpt**	**xlab**	**z or z'score**	**Score Type**	**D**	**D%**
2025-01-23	15	18	1.37	z score	3.0	20.00
2025-01-24	23	26	1.37	z score	3.0	13.04
2025-01-25	22	25	1.37	z score	3.0	13.64
2025-01-26	9.6	9	-0.28	z score	-0.6	-6.25
2025-01-27	6.3	5	-0.60	z score	-1.3	-20.63
2025-01-28	4.6	3	-0.74	z score	-1.6	-34.78
2025-01-29	15	15	0.00	z score	0.0	0.00
2025-01-30	10	11	0.46	z score	1.0	10.00
2025-01-31	18	20	0.91	z score	2.0	11.11
2025-02-01	10	11	0.46	z score	1.0	10.00
2025-02-02	11	12	0.46	z score	1.0	9.09
2025-02-03	12	12	0.00	z score	0.0	0.00
2025-02-04	36	41	2.25	z score	5.0	13.89
2025-02-05	36	41	2.25	z score	5.0	13.89
2025-02-06	34	39	2.25	z score	5.0	14.71
2025-02-07	37	41	1.80	z score	4.0	10.81
2025-02-08	32	38	2.71	z score	6.0	18.75
2025-02-09	13	15	0.92	z score	2.0	15.38
2025-02-10	18	23	2.29	z score	5.0	27.78
2025-02-11	32	41	3.89	z' score	9.0	28.12
2025-02-12	26	31	2.27	z score	5.0	19.23
2025-02-13	27	34	3.18	z score	7.0	25.93
2025-02-14	12	15	1.38	z score	3.0	25.00
2025-02-15	18	19	0.46	z score	1.0	5.56
2025-02-16	37	40	1.35	z score	3.0	8.11
2025-02-17	40	44	1.79	z score	4.0	10.00
2025-02-18	43	46	1.34	z score	3.0	6.98
2025-02-19	44	49	2.22	z score	5.0	11.36
2025-02-20	53	56	1.25	z' score	3.0	5.66
2025-02-21	61	64	1.23	z' score	3.0	4.92
2025-02-22	73	76	1.15	z' score	3.0	4.11
2025-02-23	54	65	4.51	z' score	11.0	20.37
2025-02-24	57	66	3.60	z' score	9.0	15.79
2025-02-25	50	49	-0.42	z' score	-1.0	-2.00
2025-02-26	7.1	7	-0.05	z score	-0.1	-1.41
2025-02-27	15	19	1.83	z score	4.0	26.67
2025-02-28	24	26	0.91	z score	2.0	8.33
2025-03-01	12	10	-0.92	z score	-2.0	-16.67
2025-03-02	11	13	0.92	z score	2.0	18.18
2025-03-03	21	26	2.28	z score	5.0	23.81
2025-03-04	26	30	1.82	z score	4.0	15.38
2025-03-05	27	32	2.27	z score	5.0	18.52

Source: JRC 2025

Figure 78. ISSeP_GRIMM EDM 180: PM_{10} Results



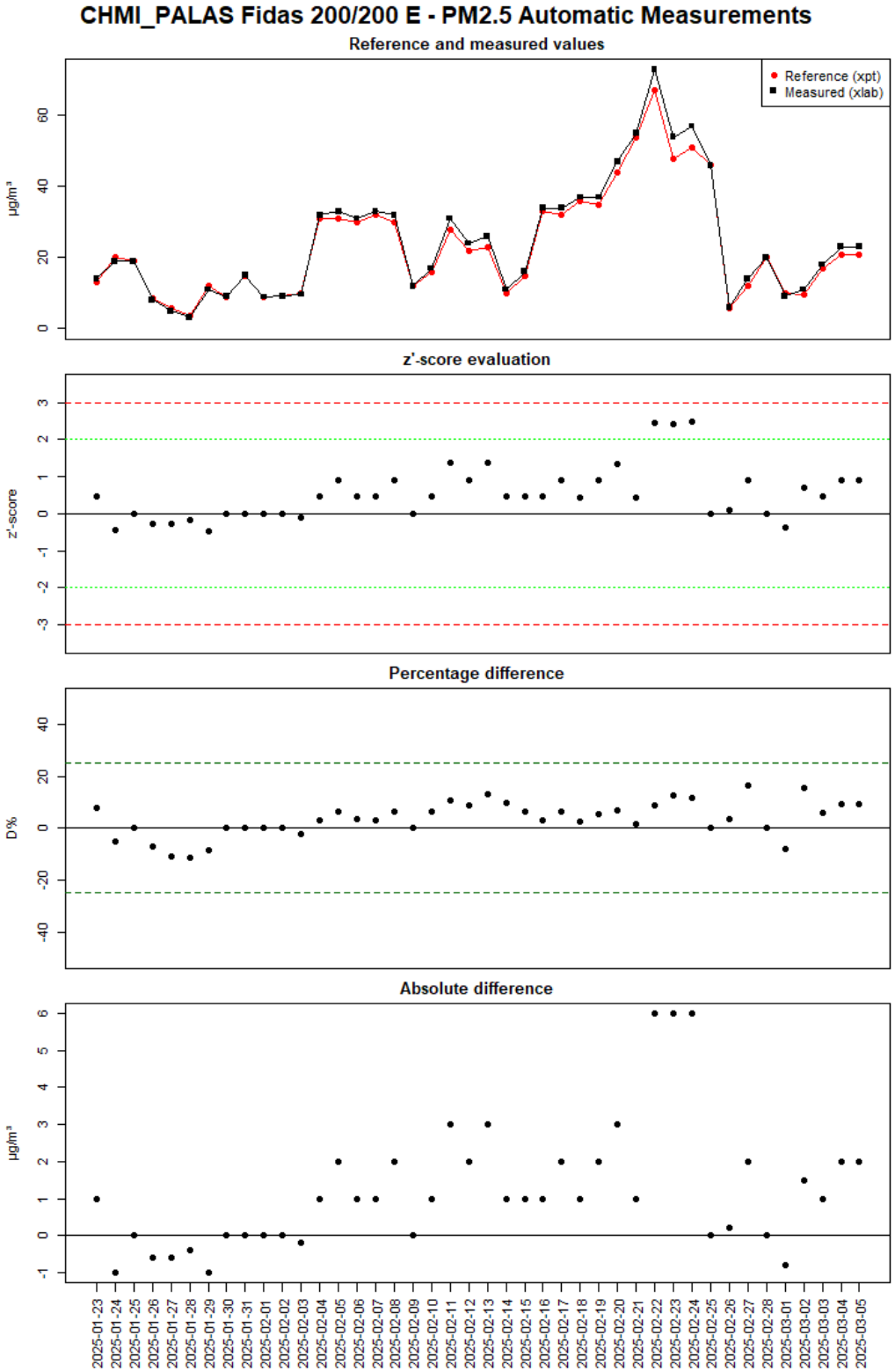
Source: JRC 2025

Table 75. CHMI_PALAS Fidas 200/200 E: $PM_{2.5}$ Results

CHMI_PALAS Fidas 200/200 E						
$PM_{2.5}$ data capture = 100						
Day	**xpt**	**xlab**	**z or z'score**	**Score Type**	**D**	**D%**
2025-01-23	13	14	0.46	z score	1.0	7.69
2025-01-24	20	19	-0.46	z score	-1.0	-5.00
2025-01-25	19	19	0.00	z score	0.0	0.00
2025-01-26	8.7	8.1	-0.28	z score	-0.6	-6.90
2025-01-27	5.6	5.0	-0.28	z score	-0.6	-10.71
2025-01-28	3.6	3.2	-0.18	z score	-0.4	-11.11
2025-01-29	12	11	-0.46	z score	-1.0	-8.33
2025-01-30	9.0	9.0	0.00	z score	0.0	0.00
2025-01-31	15	15	0.00	z score	0.0	0.00
2025-02-01	8.9	8.9	0.00	z score	0.0	0.00
2025-02-02	9.1	9.1	0.00	z score	0.0	0.00
2025-02-03	9.8	9.6	-0.09	z score	-0.2	-2.04
2025-02-04	31	32	0.45	z score	1.0	3.23
2025-02-05	31	33	0.90	z score	2.0	6.45
2025-02-06	30	31	0.45	z score	1.0	3.33
2025-02-07	32	33	0.45	z score	1.0	3.12
2025-02-08	30	32	0.91	z score	2.0	6.67
2025-02-09	12	12	0.00	z score	0.0	0.00
2025-02-10	16	17	0.46	z score	1.0	6.25
2025-02-11	28	31	1.36	z score	3.0	10.71
2025-02-12	22	24	0.91	z score	2.0	9.09
2025-02-13	23	26	1.37	z score	3.0	13.04
2025-02-14	10	11	0.46	z score	1.0	10.00
2025-02-15	15	16	0.46	z score	1.0	6.67
2025-02-16	33	34	0.45	z score	1.0	3.03
2025-02-17	32	34	0.90	z score	2.0	6.25
2025-02-18	36	37	0.43	z' score	1.0	2.78
2025-02-19	35	37	0.90	z score	2.0	5.71
2025-02-20	44	47	1.33	z score	3.0	6.82
2025-02-21	54	55	0.44	z score	1.0	1.85
2025-02-22	67	73	2.45	z' score	6.0	8.96
2025-02-23	48	54	2.43	z' score	6.0	12.50
2025-02-24	51	57	2.50	z' score	6.0	11.76
2025-02-25	46	46	0.00	z score	0.0	0.00
2025-02-26	5.8	6.0	0.09	z score	0.2	3.45
2025-02-27	12	14	0.92	z score	2.0	16.67
2025-02-28	20	20	0.00	z score	0.0	0.00
2025-03-01	10	9.2	-0.37	z score	-0.8	-8.00
2025-03-02	9.5	11	0.69	z score	1.5	15.79
2025-03-03	17	18	0.46	z score	1.0	5.88
2025-03-04	21	23	0.91	z score	2.0	9.52
2025-03-05	21	23	0.91	z score	2.0	9.52

Source: JRC 2025

Figure 79. CHMI_PALAS Fidas 200/200 E: $PM_{2.5}$ Results



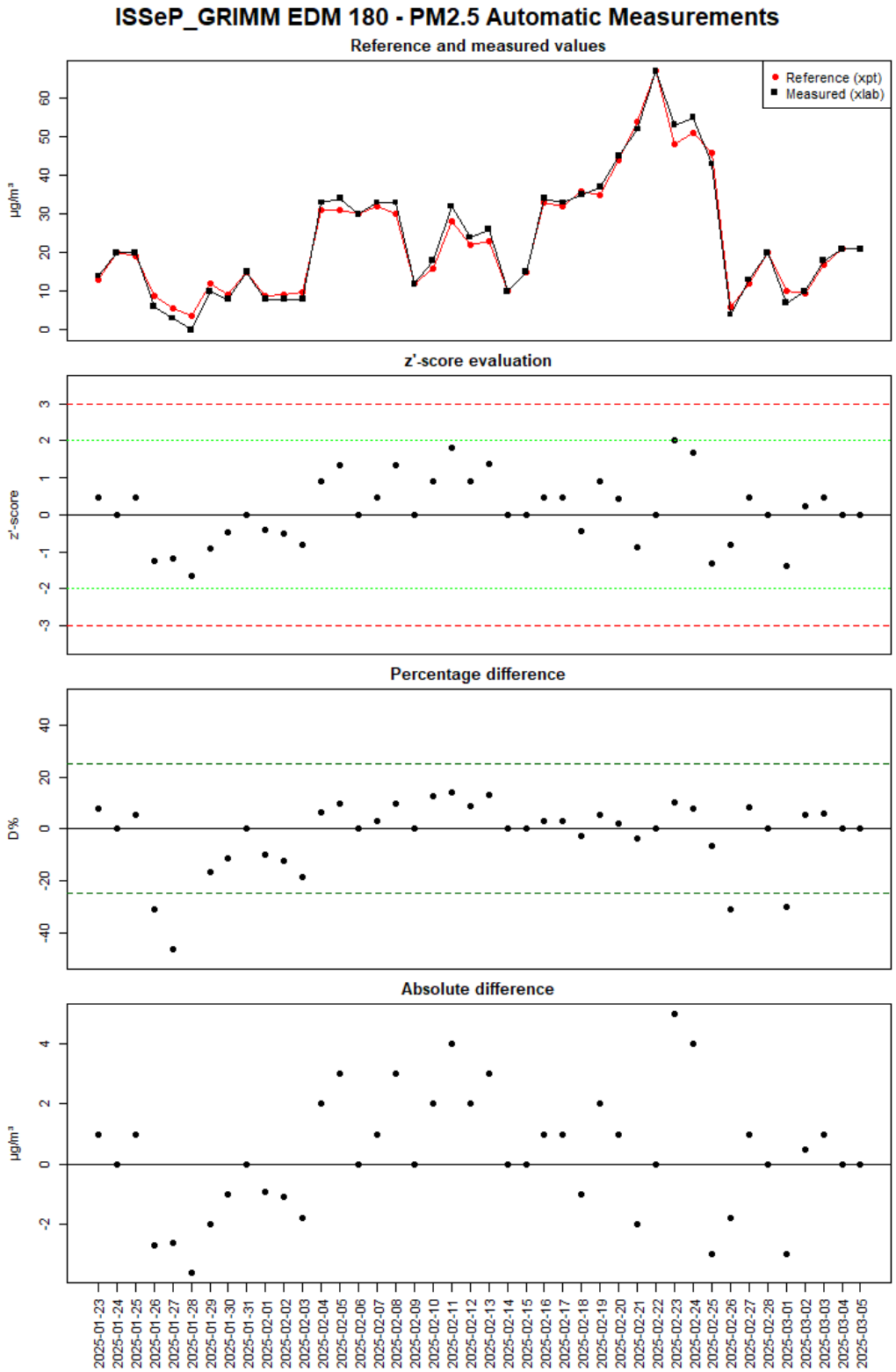
Source: JRC 2025

Table 76. ISSeP_GRIMM EDM 180: $PM_{2.5}$ Results

ISSeP_GRIMM EDM 180						
$PM_{2.5}$ data capture = 100						
Day	**xpt**	**xlab**	**z or z'score**	**Score Type**	**D**	**D%**
2025-01-23	13	14	0.46	z score	1.0	7.69
2025-01-24	20	20	0.00	z score	0.0	0.00
2025-01-25	19	20	0.46	z score	1.0	5.26
2025-01-26	8.7	6	-1.24	z score	-2.7	-31.03
2025-01-27	5.6	3	-1.20	z score	-2.6	-46.43
2025-01-28	3.6	0	-1.66	z score	-3.6	-100.0
2025-01-29	12	10	-0.92	z score	-2.0	-16.67
2025-01-30	9.0	8	-0.46	z score	-1.0	-11.11
2025-01-31	15	15	0.00	z score	0.0	0.00
2025-02-01	8.9	8	-0.41	z score	-0.9	-10.11
2025-02-02	9.1	8	-0.51	z score	-1.1	-12.09
2025-02-03	9.8	8	-0.83	z score	-1.8	-18.37
2025-02-04	31	33	0.90	z score	2.0	6.45
2025-02-05	31	34	1.36	z score	3.0	9.68
2025-02-06	30	30	0.00	z score	0.0	0.00
2025-02-07	32	33	0.45	z score	1.0	3.12
2025-02-08	30	33	1.36	z score	3.0	10.00
2025-02-09	12	12	0.00	z score	0.0	0.00
2025-02-10	16	18	0.92	z score	2.0	12.50
2025-02-11	28	32	1.81	z score	4.0	14.29
2025-02-12	22	24	0.91	z score	2.0	9.09
2025-02-13	23	26	1.37	z score	3.0	13.04
2025-02-14	10	10	0.00	z score	0.0	0.00
2025-02-15	15	15	0.00	z score	0.0	0.00
2025-02-16	33	34	0.45	z score	1.0	3.03
2025-02-17	32	33	0.45	z score	1.0	3.12
2025-02-18	36	35	-0.43	z' score	-1.0	-2.78
2025-02-19	35	37	0.90	z score	2.0	5.71
2025-02-20	44	45	0.44	z score	1.0	2.27
2025-02-21	54	52	-0.88	z score	-2.0	-3.70
2025-02-22	67	67	0.00	z' score	0.0	0.00
2025-02-23	48	53	2.03	z' score	5.0	10.42
2025-02-24	51	55	1.67	z' score	4.0	7.84
2025-02-25	46	43	-1.33	z score	-3.0	-6.52
2025-02-26	5.8	4	-0.83	z score	-1.8	-31.03
2025-02-27	12	13	0.46	z score	1.0	8.33
2025-02-28	20	20	0.00	z score	0.0	0.00
2025-03-01	10	7	-1.38	z score	-3.0	-30.00
2025-03-02	9.5	10	0.23	z score	0.5	5.26
2025-03-03	17	18	0.46	z score	1.0	5.88
2025-03-04	21	21	0.00	z score	0.0	0.00
2025-03-05	21	21	0.00	z score	0.0	0.00

Source: JRC 2025

Figure 80. ISSeP_GRIMM EDM 180: $PM_{2.5}$ Results



Source: JRC 2025

ANNEX 4: Comments from participants

CETI: due to inexperience in uploading a data to DAP, exported two times the same CSV (pm10.CSV) as PM 10 and PM2,5 results, so the evaluation of CETI PM2,5 results is not valid.

VMM: Due to an error in the supplied PM2.5-csv, the combined uncertainty values (Uc) are used for the Ulab-values in table 68 instead of the expanded uncertainty values (Ue). Consequently, the reported Ulab-values are too low (factor 2), which results in too high En-scores.
This error was only discovered late in the reporting process which made it impossible to correct all the tables and graphs.
The En-scores in figure 16, figure 70, table 16 and table 68 are therefore not correct and too high. Figure 10 shows the Ue instead of the Uc.
Instead of 2 En-scores >|1|, the correct Ulab-values would have led to only 1 En-score that is unsatisfactory.
The reported PM2.5-values were correct and these show good comparability with the assigned values.

FMI: General observation: in average, FMI reported lower concentrations than the assigned values in both size fractions. This might imply that there is an issue with the flow calibration. We need to check this and potentially increase its uncertainty in the future.
We had several samples in both size fractions that were clogged during the sampling duration. This is due to the fact that the filter material we use (PTFE) is more prone to get clogged when there are high PM concentrations and it is humid. In Finland, we never face this issue, but it is repeatedly experienced during the PM ILC in Ispra. In case of PM10, there were 9 clogged filters, of which we even so reported 5 samples, and in case of PM2.5, there were 5 clogged filters, of which we reported 2 samples. For these clogged but reported samples, we estimated the concentration based on the sampled mass and the sampling duration. Also, the uncertainty was increased for these samples. However, we have obviously underestimated the concentrations and uncertainties for some of these samples. In future, we need to discard all the results of the clogged filters.
In the case of PM10, all the reported samples passed the z-analysis, but 8 samples did not pass the En-analysis. This implies that our uncertainty budget might be too optimistic. We need to investigate this carefully. At least, the uncertainty contributions of the effects concerning flow require attention.
In the case of PM2.5, we have two questionable results in z-analysis and the same two samples with two additional samples failed in En-analysis. These are most probably due to underestimating the concentrations for clogged filters as well as too optimistic uncertainty budget.
FMI has now started to review its PM method and investigate the potential causes for the erroneous results as well as to evaluate the uncertainty budget of the PM method.

EEA: According evaluation criteria (AQUILA №37): satisfactory results of z or z' score evaluation for PM10 and PM2,5 shall be more than 80% of satisfactory results (z or z' score ≤ 2) for each parameter and data coverage more than 90%.
The results of the laboratory: code SQ111A720220138
Data coverage 100%;
Satisfactory result for PM10: 90.5%;
Satisfactory result for PM2.5: 81.0%.
ISCIII: We would like to inform you that our particle concentration values showed adequate data during the first few days. However, after the first filter change, we noticed that something interfered with the operation of both devices.
We are not sure whether it would have been more appropriate not to submit data from our laboratory in these circumstances. If you believe it is best not to do so and we still have time, please let us know. Looking ahead to future occasions, experience tell us that it would be more appropriate to avoid having to manipulate the equipment during the sampling process. Therefore, we would prepare as much filters as the sampler loader capacity to be installed from day one in order to minimise possible interference. Additionally, perhaps we would have to make the effort to make personally the required filters changes.

CHMI: we collected information and we had an investigation and these are the findings:

- There was no wrong settings in both our samplers (no differences in temperature and pressure sensors and in case of flow -0,1 % before sampling and also after the campaign).
- There was no problem during sampling.
- There was no problem during transport.
- There was no filter exchange during lab work.
- The work of balance systems (2x Derenda AWS-1 with Sartorius WZA26-NC and 1x Mettler-Toledo MX5/A) was without any problem (with unsampled nor sampled filters).
- There was no problem with concentration calculations.

BUT

- The could be a problem in PM10 first unsatisfied filter (2025/02/11) joined to several days high humidity.
- There WAS a problem in PM2.5 during uploading of our results (I sent the PM10 values in PM2.5 too – it is known yet).
- There WAS a problem of blank values – after sampling they are more heavy they should be.
- The two branch offices farther from Brno city, from where the filters were distributed, had WORSE results than Brno itself (even in field blanks).

So the most probably reason of our difference are the filters and their behaviour with water/humidity – they were not fully stabilized prior to use (even the unsampled 2 weighing were OK). At this time, we are unable to say more, but my colleagues will try to investigate more later.

EPA: The EPA Ireland notes the return of three (3) questionable results for the PM10 measurements, and one (1) unsatisfactory and one (1) questionable results for the PM2.5 measurements. Following review of the filters it has been concluded that for the PM2.5 unsatisfactory result there may have been an error with the initial filter weighing. The same conclusion has been reached for the PM2.5 questionable result.

END OF REPORT

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