ENVIRONMENT AGENCY AUSTRIA umweltbundesamt

Proficiency Testing Scheme Umweltanalytik

Abfall nach der Deponie-VO (Gesamtgehalte) – AB10

Proficiency Testing Scheme for Environmental Analysis

Waste acc. to landfill directive (total contents) – AB10

BERICHT / REPORT

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D1. Beschreibung des Ringversuchs

D1.1. Ausgestaltung und Durchführung

- Anzahl der Anmeldungen: 25
- Anzahl der übermittelten Datensätze: 25
- Probenversand: 21.09.2021
- Einsendeschluss der Daten: 19.10.2021

Die Ergebnisabgabe erfolgte auf elektronischem Weg mittels passwortgeschützter Online-Dateneingabe. Beim Abschluss der Dateneingabe bestätigte der Teilnehmer die vollständige und korrekte Eingabe aller Daten und die Freigabe der Ergebnisse zur Auswertung.

Zur Anonymisierung der Ergebnisse wurde jedem Labor willkürlich ein Laborcode zugeteilt.

D1.2. Beschreibung der Prüfgegenstände

Die Abfallprobe wurde im September 2021 am Umweltbundesamt durch Vereinigung von auf ≤ 0,5 mm vorgesiebten Fraktionen aus luftgetrockneten Asche- und kontaminiertem Boden hergestellt. Nach ausführlichem Misch- und Homogenisierungsschritt in einer 50 L Tonne wurden Abfüllungen zu je 0,3 kg durch fraktioniertes Schaufeln hergestellt.

Die homogenen Prüfgegenstände wurden am 21.09.2021 verschickt.

Jedes Teilnehmerlabor erhielt:

- 1 Feststoffprobe Abfall zu 0,3 kg (AB10) – Korngröße ≤ 0,5 mm, lufttrocken - abgefüllt in ein 1000 ml HDPE Schraubgefäß

D1.3. Anweisungen für die Teilnehmer

Aus Stabilitätsgründen wurde empfohlen bis spätestens 29.09.2021 mit den Analysen zu beginnen. Gemäß Hinweis im Versandemail wurde eine Homogenisierung der Probe vor der Analytik durch die Teilnehmer empfohlen.

Den Teilnehmern stand die Wahl der Analysenmethode bzw. der verwendeten Norm frei, welche mit ihrem Routineverfahren übereinstimmen sollte. Eine Übersicht der angewendeten Methoden findet sich unter E9.

D1.4. Kontrollanalytik zur Bewertung der Homogenität

Im Zuge der Abfüllung wurden zu willkürlichen Zeitpunkten mehrere Aliquote pro Probe zur Kontrollanalytik entnommen. Es wurden n=5 Kontrollproben den Labors zur Analyse übergeben.

Die Gesamtgehalte (Metalle, Trockenmasse) wurden in der Prüfstelle am Umweltbundesamt (Prüfstelle für Umwelt-, GVO- & Treibstoffanalytik) zeitnah zum Probenversand analysiert.
Die Bestimmung von TOC, Kohlenwasserstoff-Index, Trockenmasse und Summe 16 PAK (nach EPA) sowie Benzo(a)pyren wurde an ein externes Labor (akkreditiert nach EN ISO/IEC 17025 für diese Parameter) im Unterauftrag vergeben (verdeckte Vergabe, Proben anonymisiert) und erfolgte zeitnah zum Probenversand.

Im Zuge der Auswertung wurde die relative Standardabweichung zwischen den Kontrollprobenabfüllungen bewertet und mit der Vergleichsstandardabweichung beim aktuellen Ringversuch verglichen.
Die Ergebnisse der Kontrollanalytik sind in der parameterorientieren Auswertung (E.7.) in Form von Mittelwerten ± Messunsicherheit als Kontrollwert (control test value) ± U gelistet (jeweils angegeben als erweiterte Messunsicherheit, k=2).

D1.5. Trendtest zur Bewertung der Stabilität

Um die ausreichende Stabilität der Prüfgegenstände der aktuellen Eignungsprüfungsrunde bis zum Abgabetermin zu überprüfen, wurde die Darstellung der Teilnehmerergebnisse nach Analysendatum ausgewertet und auf systematische Trends geprüft (unauffällig). Durch Darstellung der Teilnehmerergebnisse nach Abfüllreihenfolge wurde auf das Vorliegen möglicher systematischer Trends der Ergebnisse geprüft (unauffällig).

Aufgrund der bisherigen Erfahrungen und aufgrund der Bewertungsgrundlagen der aktuellen Eignungsprüfungsrunde gilt die Stabilität der Prüfgegenstände im empfohlenen Zeitraum für die Analyse bis zum Abgabeschluss als gewährleistet.

D1.6. Ermittlung des zugewiesenen Wertes

Die Ergebnisse der Analysen mussten spätestens bis zum 19.10.2021 beim Veranstalter vorliegen. Später eingehende Werte wurden nicht berücksichtigt.

Im Zuge der Plausibilitätsprüfung der Daten (z.B. Check korrekte Einheiten, Messunsicherheitsangabe, …) wurden die Teilnehmer mit auffälligen Ergebnissen zum erneuten Datencheck der Eingabe und um Rückmeldung binnen 24 h aufgefordert.

Nach Abschluss der Plausibilitätsprüfung, wurde der Ausreißertest nach Hampel durchgeführt und die Ausreißer ermittelt. Die von diesem Test auffällig eingestuften Werte wurden in der Auswertung gekennzeichnet („H“). In begründeten Fällen, z.B. wenn der Ausreißertest nach Hampel nicht anwendbar ist (z.B. Ergebnisse liegen sehr eng beieinander oder überwiegend selber Zahlenwert bzw. bei wenig abgegebenen Daten mit sehr hoher Streuung), kann eine Ausreißereliminierung nach weiteren Kriterien erfolgen (z.B. Dean- und Dixon Test bzw. manuelle Ausreißerdefinition aufgrund Expertenbefund). Diese Vorgangsweise wird nach Anwendung unter Punkt D4 des Berichts dokumentiert.

Die weitere Auswertung erfolgte gemäß ISO 5725-2. Eine statistische Auswertung der Ringversuchsdaten erfolgte erst ab zumindest 6 gültigen, nummerischen Ergebnissen pro Parameter. Ergebnisse kleiner Bestimmungs- oder Nachweisgrenze wurden bei den Berechnungen nicht berücksichtigt.

Der zugewiesene Wert wird im Normalfall jeweils als der ausreißerbereinigte Mittelwert über alle übermittelten Ergebnisse gebildet.

Bei sehr hohen Streuungen der Teilnehmerergebnisse von über 50 % oder bei mangelhafter Rückführbarkeit der statistischen Kenndaten aus den ausreißerbereinigten Ergebnissen der Teilnehmer auf den Mittelwert des Kontrolllabores bzw. einer zu geringen Anzahl an ausreißerbereinigten Ergebnissen über die Gruppe der akkreditierten Labore, kann die Situation auftreten, dass kein zugewiesener Wert für den aktuellen Ringversuch festgelegt werden kann und daher keine Bewertung der Teilnehmerergebnisse für diesen Parameter möglich ist. Ein entsprechender Hinweis wird im Bericht unter E7 bei der informativen Auswertung angebracht. Im Rahmen der internen Qualitätssicherung der Teilnehmer kann ein Vergleich mit den Ergebnissen des Kontrolllabors durchgeführt werden. Diese Vorgehensweise wird bei Anwendung jeweils parameter- und probenbezogen unter Punkt D4 des Berichts dokumentiert.

D2. Kriterien der Leistungsbewertung

D2.1. Leistungskriterium z-Score

Als Basis zur Berechnung der Wiederfindungsraten sowie der z-Scores wurde der ausreißerbereinigte Mittelwert über alle übermittelten Ergebnisse herangezogen.

Die Ermittlung der z-Scores erfolgte gemäß nachfolgender Formel:

$$z - score = \frac{x_i - \overline{X}}{Kriterium}$$

Dabei ist:

x_i	Messergebnis des teilnehmenden Labors
$\overline{X}$	zugewiesener Wert Sollwert für die Leistungsbewertung der Teilnehmer (angegeben auf 3 signifikante Stellen); im Regelfall: ausreißerbereinigter Mittelwert der Teilnehmerergebnisse. Eine davon abweichende Vorgehensweise wird unter Punkt D4 des Berichts beschrieben.
Kriterium	Vergleichsstandardabweichung berechnet aus den Statistiken der ausreißerbereinigten Teilnehmerergebnissen (sR) des aktuellen Ringversuchs. In begründeten Fällen (z.B. Ergebnisse Realproben nahe an Mindestbestimmungsgrenze oder regulatorischer Vorgaben) erfolgt die Festlegung nach Expertenbefund und die Vorgangsweise wird unter Punkt D4 des Berichts beschrieben.

D2.2. Leistungskriterium E_n-Score

Für Feststoffproben erfolgen seit 2019 zusätzliche Bewertungen unter Einbeziehung der erweiterten Messunsicherheiten der Teilnehmer und der erweiterten Messunsicherheit des zugewiesenen Wertes, gemäß E_n-Score. Diese Auswertungen werden für die Teilnehmer im Bericht unter Punkt E8, jeweils im Anschluss an die z-Score Auswertung dargestellt.

Die Ermittlung der E_n-Scores erfolgte gemäß nachfolgender Formel:

$$E_n - score = \frac{x_i - \bar{X}}{\sqrt{U(x_i)^2 + U(\bar{X})^2}}$$

Dabei ist:

x_i	Messergebnis des teilnehmenden Labors
$\overline{X}$	zugewiesener Wert Sollwert für die Leistungsbewertung der Teilnehmer (angegeben auf 3 signifikante Stellen); im Regelfall: ausreißerbereinigter Mittelwert der Teilnehmerergebnisse. Eine davon abweichende Vorgehensweise wird unter Punkt D4 des Berichts beschrieben.

U(x_i) erweiterte Messunsicherheit des Messergebnisses (Teilnehmerergebnis), k=2

U($\bar{X}$) erweiterte Messunsicherheit des zugewiesenen Wertes, k=2

D2.3. Leistungsbewertung z-Score und E_n-Score

Interpretation der z-Scores:

- |z-Score| ≤ 2.0 Ergebnis gut
- 2.0 < |z-Score| < 3.0 Ergebnis fragwürdig
- |z-Score| ≥ 3.0 Ergebnis nicht zufriedenstellend

Hinweis: Bei der Bewertung mittels z-Score wird die Messunsicherheit der Teilnehmer nicht mitberücksichtigt. Der Vergleich der Abweichung zum zugewiesenen Wert erfolgt über das Kriterium.

Interpretation der E_n-Scores:

- |E_n-Score| ≤ 1.0 zufriedenstellende Leistung
- |E_n-Score| > 1.0 nicht zufriedenstellende Leistung

Hinweis: Bei der Bewertung mittels E_n-Score erfolgt die Berücksichtigung der erweiterten Messunsicherheiten der Teilnehmer und des zugewiesenen Wertes. |E_n-Score| > 1.0 können darauf hinweisen, dass die Unsicherheitsschätzungen überprüft oder ein Messproblem korrigiert werden muss.

D3. Darstellung und Interpretation der Messergebnisse

In der parameterorientierten Auswertung ist eine tabellarische Übersicht mit den Messergebnissen inklusive der Unsicherheit (± U), der Wiederfindung zum zugewiesenen Wert und dem berechneten z-Score dargestellt. Weiterhin werden unter Anmerkungen die Ausreißer gekennzeichnet. Die in der Tabelle angeführten Ergebnisse werden auch grafisch dargestellt.

In der laborientierten Auswertung werden pro Labor in anonymisierter Form die Ergebnisse der einzelnen Labore als Messergebnis ± U sowie die Wiederfindungen und die ermittelten z-Scores bezugnehmend auf das Kriterium dargestellt. Weiters werden die E_n-Scores unter Berücksichtigung der erweiterten Unsicherheiten in unabhängigen Tabellen ausgegeben. Die laborientierten Auswertungen enthalten jeweils die Bewertungsgrundlagen wie zugewiesener Wert samt erweiterter Messunsicherheit sowie das Kriterium.

Eine Erläuterung zu den Tabellen und Grafiken kann Punkt D.5. entnommen werden.

D4. Anmerkungen zur Auswertung

Wie unter Punkt D2 ersichtlich, können die z-Scores auch unter Einbeziehung der Vergleichsstandardabweichung der ausreißerbereinigten Teilnehmerergebnisse des aktuellen Ringversuchs berechnet werden. Das kann zur Folge haben, dass es bei Parametern mit hoher Ergebnisstreuung dazu kommen kann, dass der Bereich z-Score - 2 bis z-Score + 2 einen ungewöhnlich hohen Wiederfindungsbereich abdeckt. Umgekehrt führt eine sehr geringe Streuung der Teilnehmerergebnisse dazu, dass z-Score - 2 bis z-Score + 2 einen ungewöhnlich kleinen Wiederfindungsbereich abdeckt.

Die Wiederfindungsrate wird unabhängig von der Streuung der Ergebnisse, als prozentuelle Abweichung vom zugewiesenen Wert berechnet und sollte bei der Bewertung von Ergebnissen im Rahmen des internen Qualitätsmanagementsystems der teilnehmenden Labore berücksichtigt werden.

Für alle Parameter mit Ausnahme der Trockenmasse wurde als Kriterium für die Berechnung des z-Scores die Vergleichsstandardabweichung der aktuellen Ringversuchsrunde gewählt (jeweils auf 2 signifikante Stellen gerundet). Für die Trockenmasse (105°C, %-Gehalt bezogen auf die versendete, lufttrockene Probe) wurde das Kriterium auf 1 % gesetzt.

Parameter Barium, Quecksilber, TOC (als C) und Benzo[a]pyren: Die auf Basis der Teilnehmerergebnisse berechneten Sollwerte lagen außerhalb der Messunsicherheit des Kontrollwertes und es ist über das Kontrolllabor keine Rückführbarkeit möglich. Der zugewiesene Wert und das Kriterium wurde daher über die ausreißerbereinigten Mittelwerte aus der Gruppe der akkreditierten Teilnehmer berechnet.

D5. Erläuterung zu Tabellen und Grafiken

D5.1. Angaben und Abkürzungen in Tabellen

Parameter	Allgemeine Bezeichnung des Analysenparameters
Probe	Bezeichnung der übermittelten Probe
Einheit	Vorgegebene Einheit für Messwert und Ergebnisunsicherheit (z.B. mg/kg TM oder %)
Zugewiesener Wert	Sollwert für die Leistungsbewertung der Teilnehmer (angegeben auf 3 signifikante Stellen)
U (k=2)	erweiterte Unsicherheit (k=2) des zugewiesenen Wertes (angegeben auf 3 signifikante Stellen)

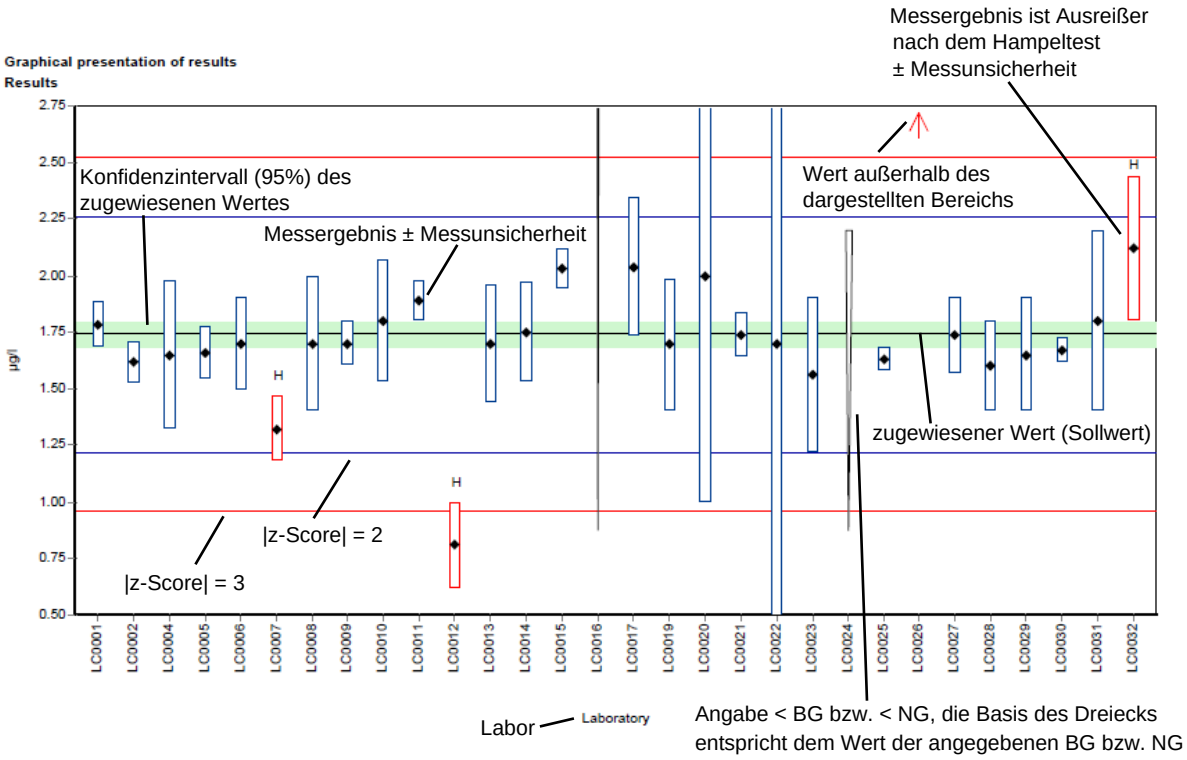
Kriterium	Vorgabewert zur Ermittlung des z-Scores in der angegebenen Einheit (angegeben auf 3 signifikante Stellen)
Kriterium [%]	Vorgabewert zur Ermittlung des z-Scores in % des zugewiesenen Wertes (angegeben auf 2 signifikante Stellen)
Mittelwert	Ausreißerbereinigter Mittelwert über die Teilnehmerergebnisse (angegeben auf 3 signifikante Stellen)
VB (99%)	99 % Vertrauensbereich (angegeben auf 3 signifikante Stellen)
Minimum	Minimales abgegebenes Messergebnis, ausreißerbereinigt (angegeben auf 3 signifikante Stellen)
Maximum	Maximales abgegebenes Messergebnis, ausreißerbereinigt (angegeben auf 3 signifikante Stellen)
sR	Vergleichsstandardabweichung, berechnet aus den ausreißerbereinigten Teilnehmerergebnissen des aktuellen Ringversuchs (angegeben auf 3 signifikante Stellen)
vR	relative Vergleichsstandardabweichung in %, berechnet aus den ausreißerbereinigten Teilnehmerergebnissen des aktuellen Ringversuchs bezogen auf den Mittelwert (angegeben auf 2 signifikante Stellen)
Kontrollwert ± U (k=2)	Mittelwert der Kontrollmessungen des Veranstalters ± erweiterte Ergebnisunsicherheit des Kontrollwertes (jeweils angegeben auf 3 signifikante Stellen)
Laborcode	anonymisierte, eindeutige Teilnehmerkennung im jeweiligen Ringversuch
Messwert	einzelne(r) Messwert(e) lt. Teilnehmerangabe (maximal 5 Nachkommastellen dargestellt)
Messergebnis	Für die Bewertung herangezogenes Ergebnis lt. Teilnehmerangabe (maximal 5 Nachkommastellen dargestellt). Bei Eignungsprüfungsrunden mit Vorgabe von unabhängigen Mehrfachbestimmungen, entspricht dies dem berechneten Mittelwert aus den einzelnen Messwerten der Teilnehmer.
± U	kombinierte Messunsicherheit ohne Erweiterungsfaktor (k=1) lt. Teilnehmerangabe (maximal 5 Nachkommastellen dargestellt)
BG	Bestimmungsgrenze
NG	Nachweisgrenze
WF	Wiederfindungsrate in %, bezogen auf den zugewiesenen Wert (angegeben auf 3 signifikante Stellen, dargestellt maximal 1 Nachkommastelle)

MW	Mittelwert
z-Score	Abweichung des Messergebnisses zum zugewiesenen Wert, ausgedrückt als Vielfaches des Kriteriums (angegeben auf 3 signifikante Stellen, dargestellt maximal 2 Nachkommastellen)
E_n-Score	Abweichung des Messergebnisses zum zugewiesenen Wert, ausgedrückt als Vielfaches der kombinierten Messunsicherheiten, bestehend aus erweiterter Unsicherheit des zugewiesenen Wertes und der erweiterten Unsicherheit der Messergebnisse der Teilnehmer (angegeben auf 3 signifikante Stellen, dargestellt maximal 2 Nachkommastellen). Beim E_n-Score erfolgt die Berücksichtigung der Messunsicherheit der Teilnehmer.
-	Keine Daten übermittelt bzw. keine Berechnung möglich
Anmerkungen	Anmerkungen zum jeweiligen Messergebnis (z.B. H, FN, FP)
H	Ausreißer nach dem Hampel-Test
FN	Falsch negativ – Messergebnis kleiner Bestimmungs- bzw. Nachweisgrenze dessen Betrag die Bedingungen eines Ausreißers nach dem Hampeltest erfüllt.
FP	Falsch positiv – Falls aufgrund des geringen Analytgehalts kein zugewiesener Wert ermittelt werden kann ($n < 6$), wird der Median der Beträge der übermittelten Nachweis- bzw. Bestimmungsgrenzen ermittelt. Als falsch positiv wird ein Messergebnis bewertet, welches diesen Median um mehr als 100 % übersteigt.
Standardabweichung	Vergleichsstandardabweichung berechnet aus den Teilnehmerergebnissen des aktuellen Ringversuchs (angegeben auf 3 signifikante Stellen)
rel. Standardabweichung	relative Vergleichsstandardabweichung in %, berechnet aus den Teilnehmerergebnissen des aktuellen Ringversuchs bezogen auf den Mittelwert (angegeben auf 3 signifikante Stellen)
n	Anzahl der Messergebnisse

D5.2. Graphische Darstellung der Ergebnisse

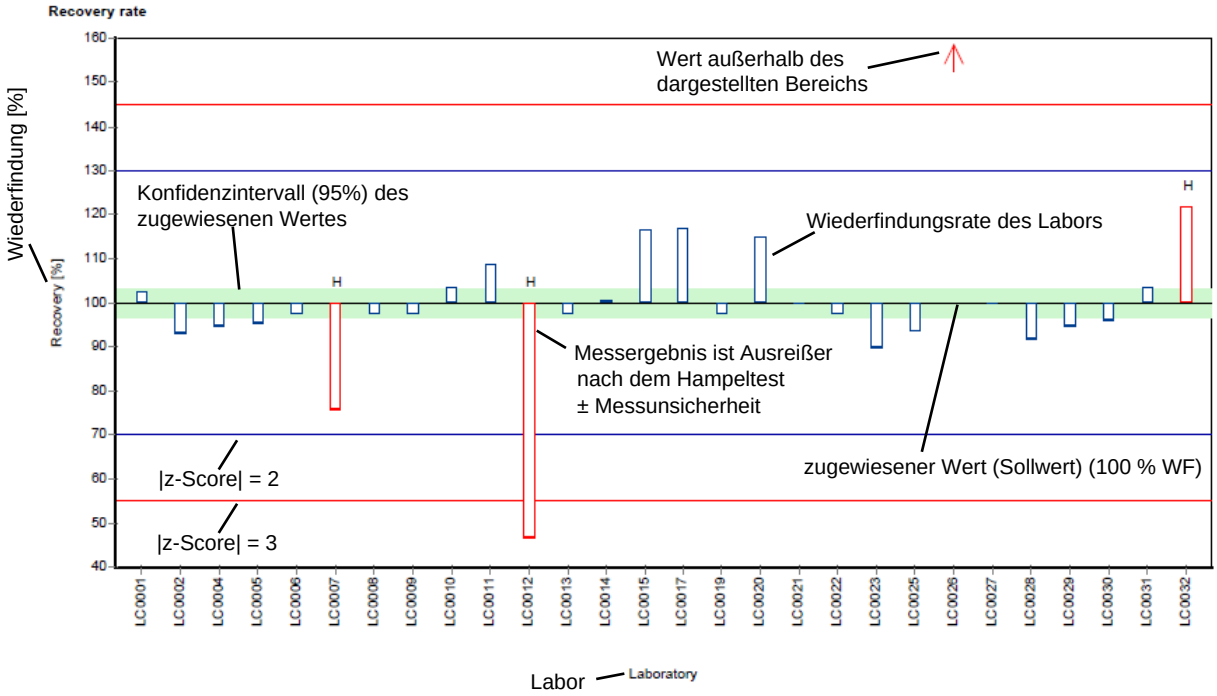
Nachfolgend wird die graphische Darstellung anhand von kommentierten Beispieldiagrammen erläutert.

Beispieldiagramm: Messwerte



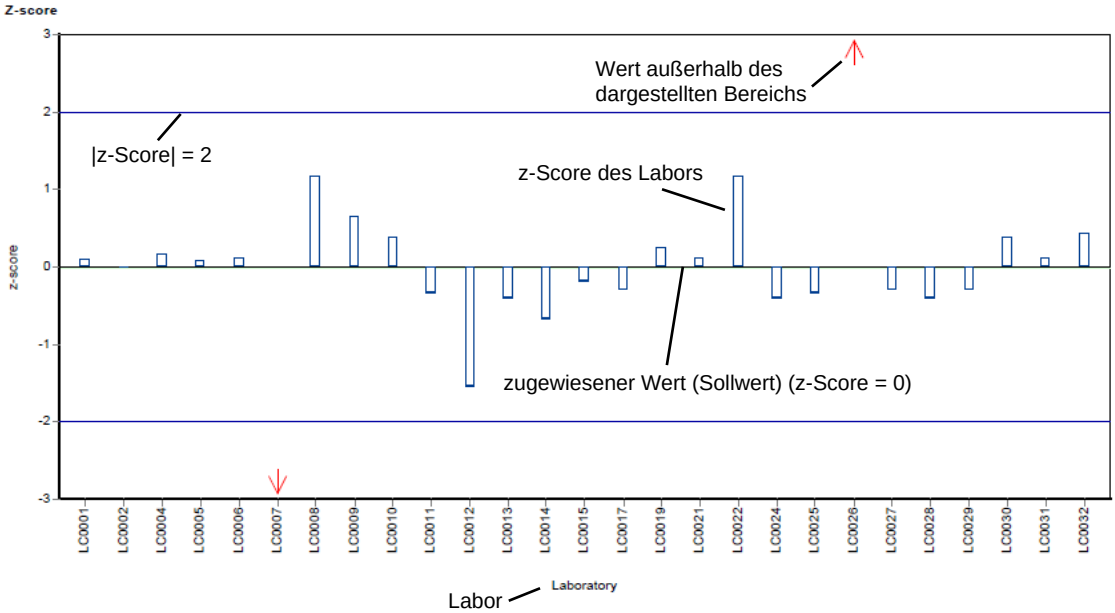
Unterschiedliche Analysenmethoden werden mit unterschiedlichen Farben kenntlich gemacht.

Beispieldiagramm: Wiederfindung zum zugewiesenen Wert



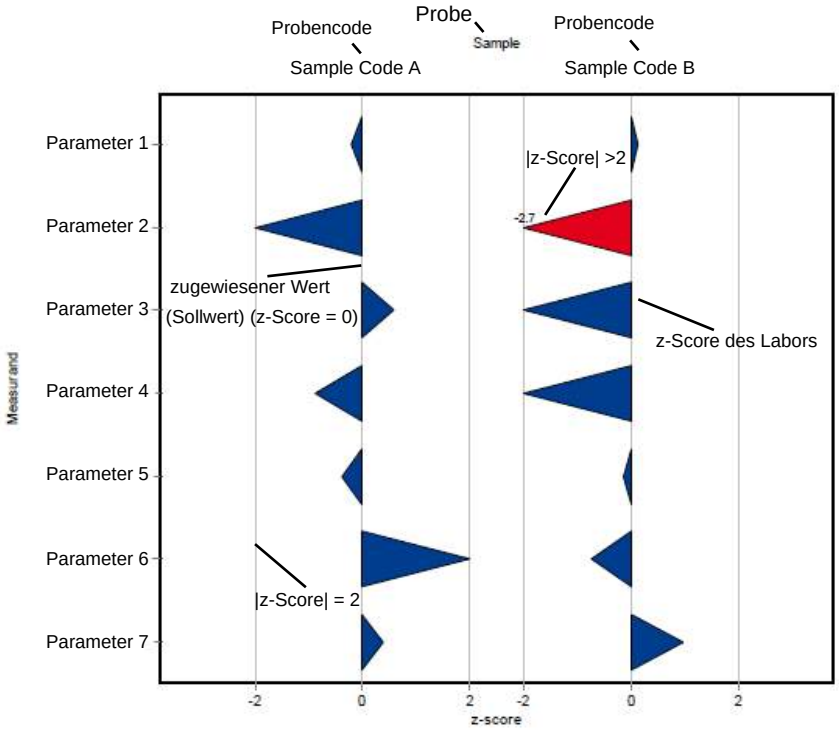
Unterschiedliche Analysenmethoden werden mit unterschiedlichen Farben kenntlich gemacht.

Beispieldiagramm: z-Score

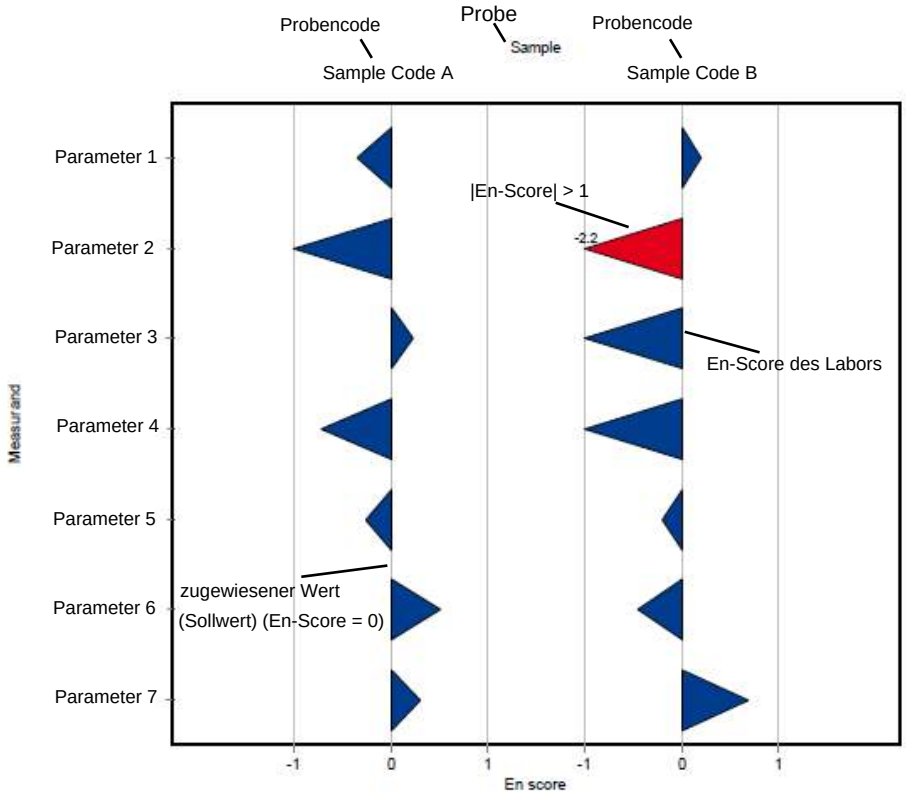


Unterschiedliche Analysenmethoden werden mit unterschiedlichen Farben kenntlich gemacht.

Beispieldiagramm: z-Score (laborientierte Auswertung)



Beispieldiagramm: En-Score (laborientierte Auswertung)



D6. Zusammenfassung

D6.1. Tabelle der zugewiesenen Werte

Parameter	Probe	Einheit	zugewiesener Wert	±	U (k=2)	Kriterium	Kriterium [%]
Antimon	AB10	mg/kg TM	198	±	14.5	31.6	16
Arsen	AB10	mg/kg TM	7.94	±	0.696	1.59	20
Barium	AB10	mg/kg TM	1000	±	139	281	28
Benzo[a]pyren	AB10	mg/kg TM	0.134	±	0.0281	0.0548	41
Cadmium	AB10	mg/kg TM	6.21	±	0.317	0.745	12
Chrom	AB10	mg/kg TM	217	±	13.4	32.5	15
Cobalt	AB10	mg/kg TM	25.3	±	1.54	3.55	14
Kupfer	AB10	mg/kg TM	2970	±	171	416	14
KW-Index	AB10	mg/kg TM	660	±	114	238	36
Blei	AB10	mg/kg TM	478	±	27.2	62.1	13
Quecksilber	AB10	mg/kg TM	0.0394	±	0.00938	0.0162	41
Molybdän	AB10	mg/kg TM	23.6	±	1.86	4.24	18
Nickel	AB10	mg/kg TM	157	±	10.1	23.5	15
Selen	AB10	mg/kg TM	3.73	±	0.834	1.61	43
Silber	AB10	mg/kg TM	5.83	±	0.428	0.816	14
Summe 16 PAK (nach EPA)	AB10	mg/kg TM	2.15	±	0.271	0.56	26
Zinn	AB10	mg/kg TM	108	±	6.68	14	13
TOC (als C)	AB10	mg/kg TM	33600	±	1670	3690	11
Vanadium	AB10	mg/kg TM	39	±	2.27	5.07	13
Zink	AB10	mg/kg TM	3340	±	206	501	15
Trockenmasse	AB10	%	96.8	±	0.19	0.968	1

D6.2. Zusammenfassung der ausreißerbereinigten Ringversuchsergebnisse

Parameter	Probe	Anzahl Labors für Berechnung	Anzahl Ausreißer Labors	Einheit	Mittelwert	±	VB (99%)	Minimum	Maximum	sR	vR [%]
Antimon	AB10	18	2	mg/kg TM	198	±	21.8	131	267	30.8	16
Arsen	AB10	20	2	mg/kg TM	7.94	±	1.04	4.14	11	1.56	20
Barium	AB10	18	2	mg/kg TM	1010	±	187	457	1600	265	26
Benzo[a]pyren	AB10	16	2	mg/kg TM	0.138	±	0.0419	0.01	0.22	0.0558	40
Cadmium	AB10	23	0	mg/kg TM	6.21	±	0.476	4.56	7.55	0.761	12
Chrom	AB10	23	0	mg/kg TM	217	±	20	154	281	32	15
Cobalt	AB10	20	0	mg/kg TM	25.3	±	2.32	17.4	31	3.45	14
Kupfer	AB10	23	0	mg/kg TM	2970	±	257	2160	3800	410	14
KW-Index	AB10	18	1	mg/kg TM	660	±	170	270	1190	241	36
Blei	AB10	21	2	mg/kg TM	478	±	40.8	333	595	62.4	13
Quecksilber	AB10	12	2	mg/kg TM	0.0394	±	0.0141	0.012	0.07	0.0163	41
Molybdän	AB10	20	0	mg/kg TM	23.6	±	2.78	17	32.7	4.15	18
Nickel	AB10	23	0	mg/kg TM	157	±	15.1	114	203	24.2	15
Selen	AB10	15	0	mg/kg TM	3.73	±	1.25	0.123	6.02	1.62	43
Silber	AB10	15	3	mg/kg TM	5.83	±	0.642	4.45	7.57	0.829	14
Summe 16 PAK (nach EPA)	AB10	17	1	mg/kg TM	2.15	±	0.406	0.86	3	0.559	26
Zinn	AB10	18	1	mg/kg TM	108	±	10	80	131	14.2	13
TOC (als C)	AB10	20	1	mg/kg TM	33700	±	2410	26300	40000	3590	11
Vanadium	AB10	21	0	mg/kg TM	39	±	3.41	31	47.3	5.21	13
Zink	AB10	23	0	mg/kg TM	3340	±	309	2230	4430	494	15
Trockenmasse	AB10	23	0	%	96.8	±	0.285	96.2	97.9	0.455	0.47

E1. Description of the proficiency test

E1.1. Design and implementation

- Number of registrations: 25
- Number of submitted data records: 25
- Dispatch of samples: 21st September 2021
- Closing date for submission of data: 19th October 2021

The results were submitted electronically by a password-protected online data entry. Upon completion of the data entry, the participant confirmed the complete and correct entry of all data and the authorization of the results for evaluation.

To anonymize results, each laboratory was given a laboratory code on a random basis.

E1.2. Description of the proficiency test items

The waste sample was prepared at the Umweltbundesamt in September 2021 by mixing sieved fractions of air-dried ash and contaminated soil (≤ 0.5 mm).

After thorough mixing and homogenization in a 50 l barrel, fractionated shovelling was used to produce the test items.

The test items were dispatched on 21st September 2021.

All participating laboratories received:

- 1 solid waste sample of 0.3 kg (AB10) - particle size ≤ 0.5 mm, air-dried - filled in a 1000 ml HDPE vessel

E1.3. Instructions for the participants

For reasons of stability, it was recommended to start the analysis by the 28th September 2021 at the latest. The participants were advised to homogenize the sample before analysis.

The participants are expected to use the test method or measurement method of their choice, which should be consistent with their routine procedures. In E9. you will find the overview of applied methods in course of the proficiency testing.

E1.4. Control testing for homogeneity evaluation

During filling of the vessels, aliquots of each sample were collected randomly for control testing. At the time of sample dispatch, n = 5 control samples were handed over to the laboratories for analysis.

The total contents (metals, dry mass) were analysed in the testing laboratory at the Environment Agency Austria (Prüfstelle für Umwelt-, GVO- & Treibstoffanalytik) close to the time of sample dispatch.

The determination of TOC, HC-index, dry mass, sum of 16 PAK according to EPA and Benzo(a)pyrene was subcontracted to an external laboratory (accredited to EN ISO / IEC 17025 for the mentioned parameters) (concealed allocation, anonymized samples) and was carried out contemporarily when the sample was dispatched. During evaluation the relative standard deviation between the individual results of the control test samples was assessed for each parameter by comparison with the reproducibility standard deviation of the actual proficiency test.

In the parameter-oriented evaluation (E.7.), the results of the control testing are given in the form of arithmetic means of the detected concentrations ± expanded measurement uncertainty as control test value ± U (expanded uncertainty, k=2).

E1.5. Trend test for stability evaluation

The assessment of the stability of the proficiency test items of the current round was carried out by evaluation of all participant results sorted by analysis date (until submission deadline): No systematic trends were identified.

Using all participants results, it was furthermore tested if systematic trends could be detected depending on the order in which the bottles were filled for the proficiency test: No systematic trends could be identified.

According to data obtained from previous rounds and based on the trend test evaluation of the current round, the stability of the test items for proficiency testing can be confirmed for the recommended analysis period until deadline for submission of data.

E1.6. Determination of the assigned values

The analytical results had to be made available to the organiser not later than 19th October 2021. Any values received at a later date were not considered.

In the course of the plausibility assessment of all received data (e.g. check for correct units, indication of measurement uncertainty, …) the participants with noticeable results were asked to perform a subsequent data check and to give a prompt feedback within 24 h.

After plausibility assessment an outlier test according to Hampel was performed to identify outliers. Values identified as conspicuous are marked specifically in the parameter-oriented evaluation ('H').

In justified cases, for instance, when the outlier test according to Hampel is not applicable (e.g. many similar or identical results of the participants or in case of a very limited number of highly scattering results) a different outlier identification method can be applied (e.g. Dean and Dixon outlier test or manual outlier elimination by expert judgement). In such a case, this procedure is documented in section E4 of the report.

Further data evaluation was performed in accordance with ISO 5725-2. A statistical evaluation of proficiency testing data was only carried out if at least 6 valid results per parameter were available. Results < LOQ or < LOD are not included in the calculation for the assigned value.

The assigned values are normally calculated as the mean over all submitted results, after removal of outliers.

In some exceptional cases it might occur, that no assigned value based on participants' results can be calculated and no evaluation of the participants results can be made. E.g due to large variations in the participant results (vR > 50 %) and/or insufficient traceability of the calculated mean of all participants after outlier-clearing to the mean of control testing or if the number of results (without outliers) of the group of accredited testing laboratories is too low.

In this case, a clear statement in section E7 of the report is made and all provided statistical data are for information only. In section E4 further information is given, when applicable, for each parameter and proficiency test item. In course of the internal quality measures, the participants can compare their results with the control test values.

E2. Criteria of performance evaluation

E2.1. Performance criterion z-Score

The adjusted average value (after removal of outliers) for all submitted results was used as a basis for the calculation of recovery rates and z-scores.

z-Scores were calculated on the basis of the following formula:

$$z - score = \frac{x_i - \overline{X}}{Criteria}$$

In this context,

x_i	is the measurement value (result) of the participating laboratory;
$\overline{X}$	assigned value the target value for the assessment of the performance of the participants (3 significant digits), normally the average value of the participants' results after removal of outliers; if this approach is not applicable, the target value is assigned according to the procedure given in section E4
Criteria	is the reproducibility standard deviation calculated the participants' results after removal of outliers (sR) in the current round. Where justified (e.g. results are close to minimum quantification limit or in case of regulatory requirements) the criteria is defined by expert judgement and the procedure is clearly described in section E4 of the report.

E2.2. Performance criterion E_n-Score

Since 2019 proficiency testing is the additional assessment of the participants' results using E_n-Scores. This additional assessment takes into account the expanded measurement uncertainties of the participants results and the expanded uncertainty of the assigned value and is provided in the laboratory oriented part of the report (see E8 after the z-scores evaluation).

E_n-Scores were calculated on the basis of the following formula:

$$E_n - score = \frac{x_i - \bar{X}}{\sqrt{U(x_i)^2 + U(\bar{X})^2}}$$

In this context,

x_i	is the measurement value (result) of the participating laboratory
$\overline{X}$	assigned value

the target value for the assessment of the performance of the participants (3 significant digits), normally the average value of the participants' results after removal of outliers; if this approach is not applicable, the target value is assigned according to the procedure given in section E4

$U(x_i)$ expanded measurement uncertainty for the result of the participating laboratory, k=2

$U(\bar{X})$ expanded measurement uncertainty for the assigned value, k=2

E2.3. Performance evaluation z-Score and E_n-Score

Interpretation of z-Scores:

- |z-Score| ≤ 2.0 good result
- 2.0 < |z-Score| < 3.0 questionable result
- |z-Score| ≥ 3.0 unsatisfactory result

Note: In case of assessment of the participants' performance by z-scores the measurement uncertainty of the participants' results is not taken into account. The difference between result of participants and the assigned value is evaluated by the criteria.

Interpretation of E_n-Scores:

- $|E_n$-Score| ≤ 1.0 satisfactory performance
- $|E_n$-Score| > 1.0 unsatisfactory performance

Note: In case of assessment of the participants' performance by E_n-Scores the expanded measurement uncertainties for the results and for the assigned values are taken into account. IE_n-ScoreI > 1.0 might indicate to check the measurement uncertainty estimation or might point out to correct a measurement problem.

E3. Representation and interpretation of measurement results

The parameter-oriented report provides the measurement values (results) including uncertainty (± U), recovery rate, calculated z-Score and the outliers in tabular form. The results listed in the table are also represented graphically.

The laboratory oriented report shows the results of the individual laboratories (anonymous), including the measurement uncertainty (± U), recovery rates, z-Scores and additionally evaluation of E_n-Scores on separate pages.

The tables also contain the basis for the data assessment as the assigned values and expanded measurement uncertainties and the criteria.

An annotation of the tables and graphics is given in section E.5.

E4. Explanatory notes

As explained in section E2, the z-Score can also be calculated using the reproducibility standard deviation, calculated from the participants' results (after removal of outliers) in the relevant test round. It might occur that the z-Score between -2 and 2 covers a large range of measurement values when the variance of the results is high. On the other hand, the range of good results can be very narrow, when the variation of the participants' results is small.

The recovery rate is calculated for the individual result based on the assigned value and is thus independent of the reproducibility standard deviation. In the case of a high variance of the results, participants should also consider recovery rates as additional criteria to decide on the necessity of internal quality assurance measures.

For all parameters except dry matter, the criterion for calculating the z-score was the reproducibility standard deviation of the current round of interlaboratory comparisons (rounded to 2 significant digits in each case). For the dry matter (105°C, %-content related to the provided air-dried sample) the criterion was set to 1 %.

Parameters barium, mercury, TOC (as C) and benzo[a]pyrene: The assigned values calculated based on the participant results were outside of the measurement uncertainty of the control test value and thus traceability could not be proven by this procedure. Therefore, new assigned values and criteria were defined by the group of accredited participating laboratories after outlier-assessment.

E5. Annotations on tables and charts

E5.1. Information and abbreviations in tables

Parameter	Analyte identifier
Sample	Sample identifier
Unit	Given unit for result and uncertainty (e.g. mg/kg dm or %)
Assigned value	Target value for proficiency assessment of the participants (3 significant digits)

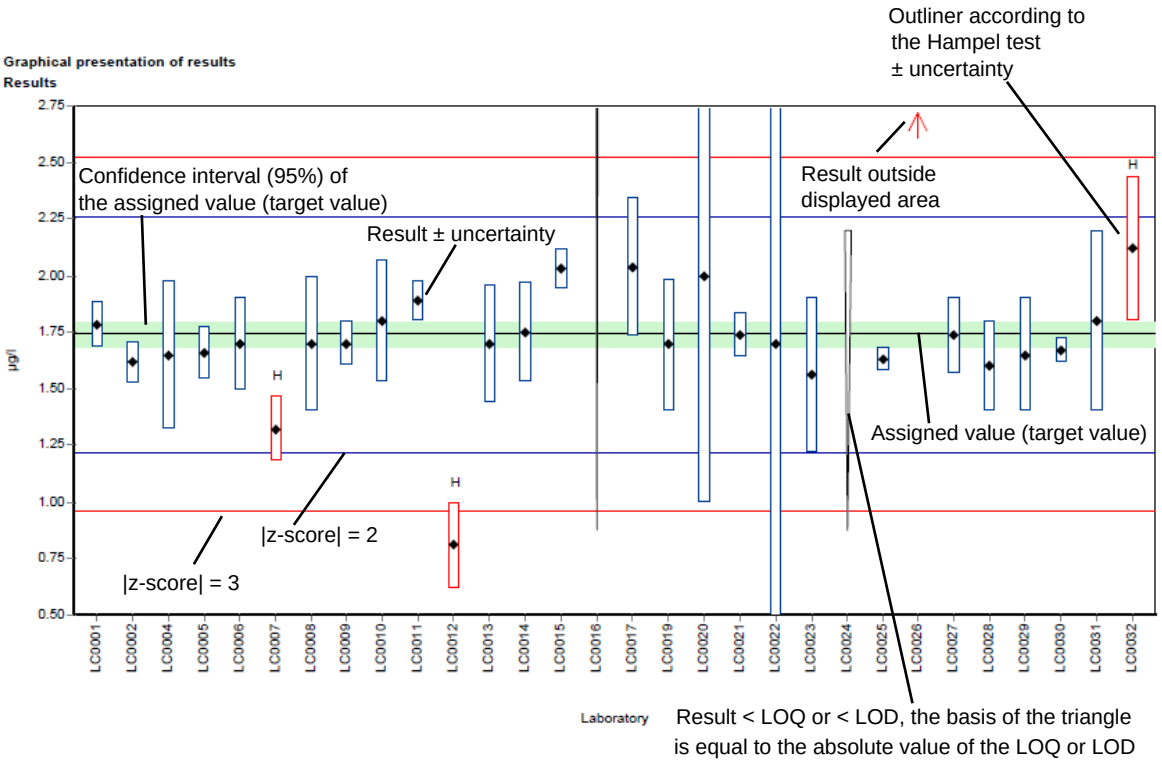
U (k=2)	Expanded uncertainty (k=2) of the assigned value (3 significant digits)
Criteria	Specified value for the determination of the z-score in the given unit (3 significant digits)
Criteria [%]	Specified value for the determination of the z-score in % of the assigned value (2 significant digits)
Mean	Mean of the participants results, without outliers (3 significant digits)
CI (99 %)	99% confidence interval (3 significant digits)
Minimum	Minimum of all submitted results, after removal of outliers (3 significant digits)
Maximum	Maximum of all submitted results, after removal of outliers (3 significant digits)
SD	Reproducibility standard deviation, calculated from the participants results, after removal of outliers (3 significant digits)
RSD %	Reproducibility standard deviation, calculated from the participants results relative to the target value, given in %, after removal of outliers (2 significant digits)
Control test value ± U (k=2)	Mean of control test value ± expanded measurement uncertainty (3 significant digits)
Labcode	Laboratory identifier (anonymized)
Result	Result as indicated by participant (max. 5 decimal places)
± U	combined measurement uncertainty without expansion factor (k=1), as indicated by participant (max. 5 decimal places)
LOQ	Limit of quantification
LOD	Limit of detection
Recovery	Recovery rate in % based on assigned value (target value) (3 significant digits, max. one decimal place given)
z-Score	Deviation of result based on the assigned value (target value) given as a multiple of the criteria (3 significant digits, max. 2 decimal places given)
E_n-Score	Deviation of result based on the assigned value (target value) given as a multiple of the combined expanded measurement uncertainty of the participant's results and expanded measurement uncertainty for the assigned value (3 significant digits, max. 2 decimal places given). Note: E_n-Score assessment takes into account the measurement uncertainty of the participants.
-	No data available or no calculation possible
Comments	Comment on the respective result (e.g. H, FN, FP)
H	Outlier according to Hampel-Test

FN	False negative – for a result < LOQ or result < LOD: The absolute value of the LOQ or LOD fulfils the condition of an outlier according to the Hampel test.
FP	False positive – for parameters where no target value is available because of a too low analyte content (n < 6): Result that exceeds the median of the absolute values of the transmitted LOQs or LODs by more than 100 %.
Standard deviation	Reproducibility standard deviation, calculated from the participants results (3 significant digits)
Rel. standard deviation	Reproducibility standard deviation, calculated from the participants results relative to the target value, given in %, (3 significant digits)
n	Number of results

E5.2. Graphical presentation of results

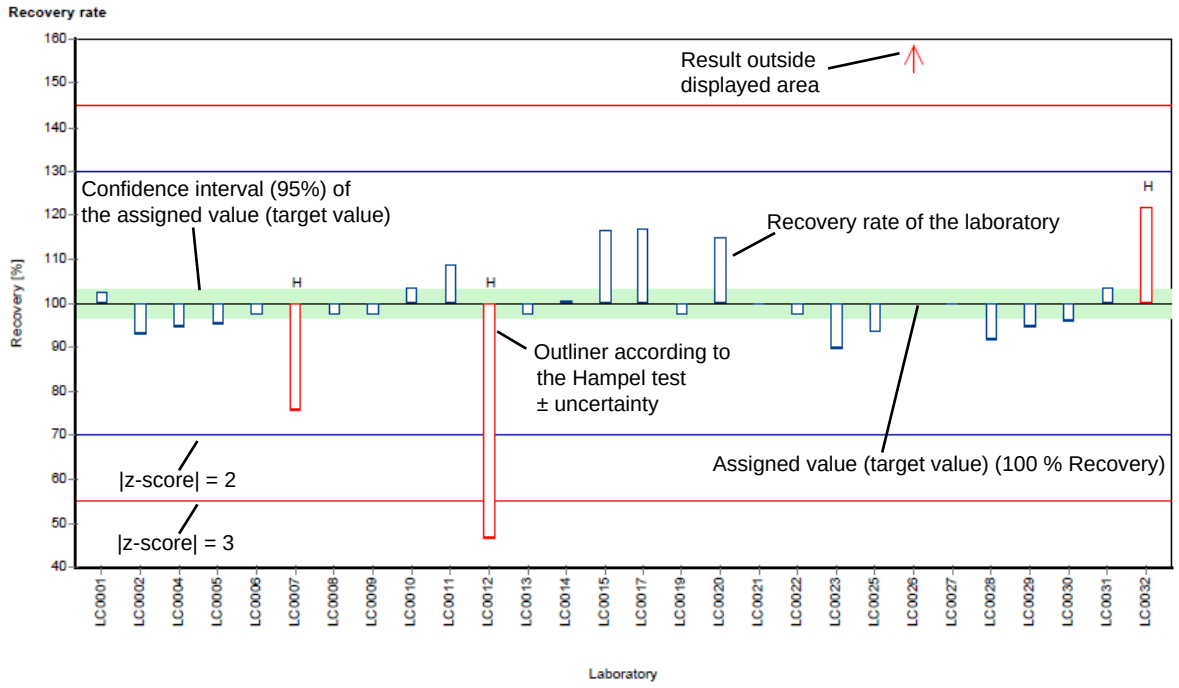
The graphic representation in the report is explained below by means of commented example diagrams:

Example chart: Results



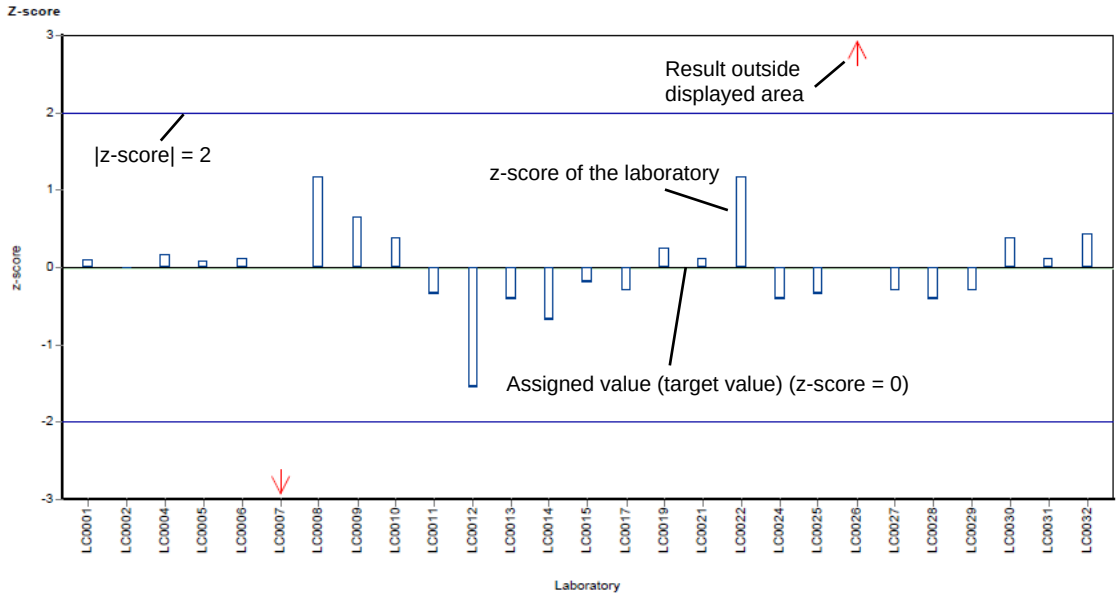
Different analysis methods are represented with different colors.

Example chart: Recovery



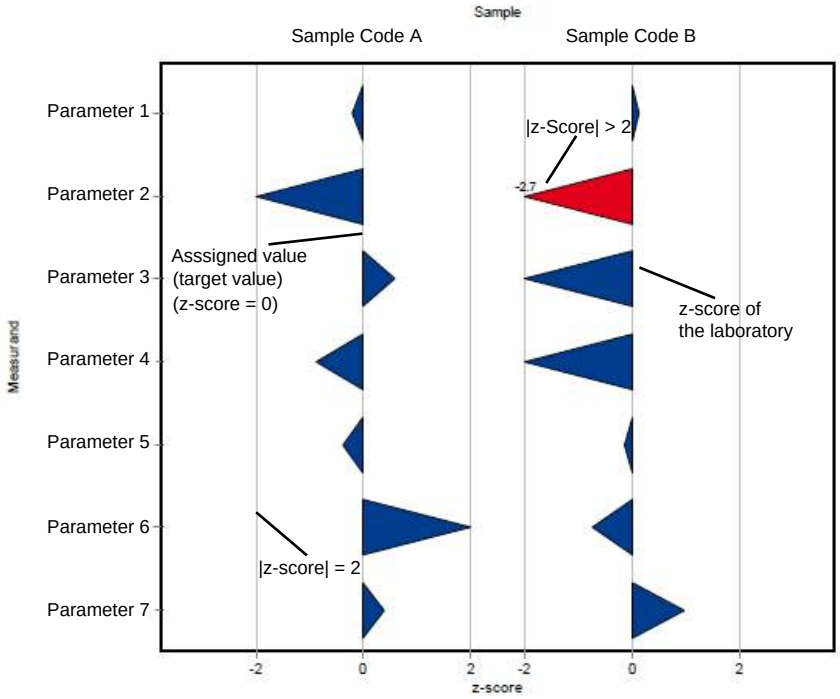
Different analysis methods are represented with different colors.

Example chart: z-score

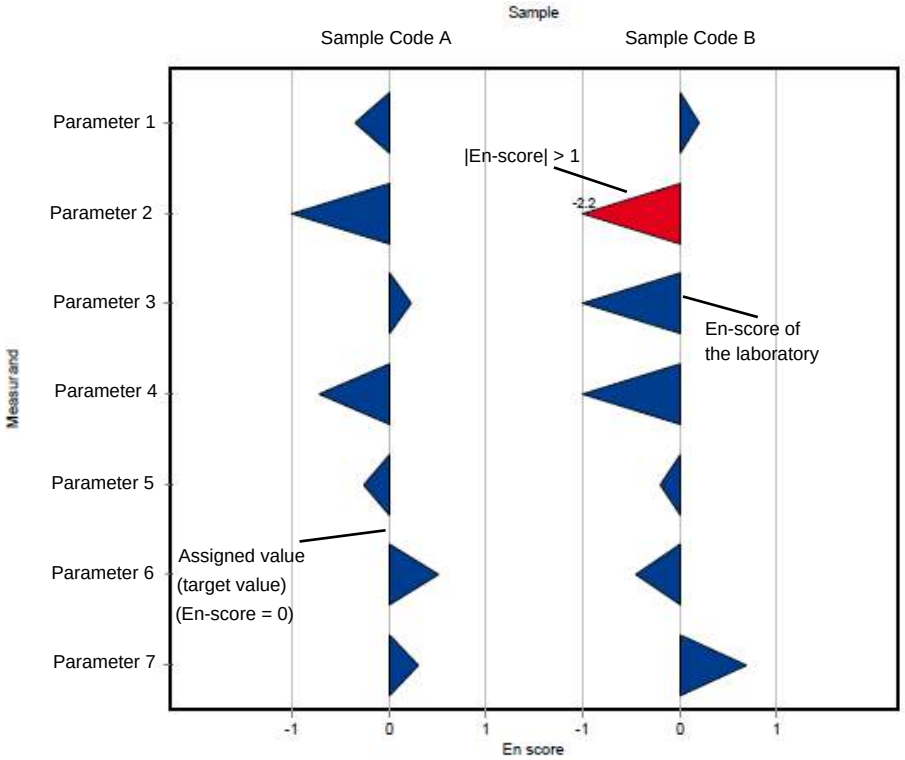


Different analysis methods are represented with different colors.

Example chart: z-score (laboratory oriented report)



Example chart: En-score (laboratory oriented report)



E6. Summary

E6.1. Table of assigned values

Parameter	Sample	Unit	Assigned value	±	U (k=2)	Criterion	Criterion [%]
Antimony	AB10	mg/kg DM	198	±	14.5	31.6	16
Arsenic	AB10	mg/kg DM	7.94	±	0.696	1.59	20
Barium	AB10	mg/kg DM	1000	±	139	281	28
Benzo[a]pyrene	AB10	mg/kg DM	0.134	±	0.0281	0.0548	41
Cadmium	AB10	mg/kg DM	6.21	±	0.317	0.745	12
Chromium	AB10	mg/kg DM	217	±	13.4	32.5	15
Cobalt	AB10	mg/kg DM	25.3	±	1.54	3.55	14
Copper	AB10	mg/kg DM	2970	±	171	416	14
HC-Index	AB10	mg/kg DM	660	±	114	238	36
Lead	AB10	mg/kg DM	478	±	27.2	62.1	13
Mercury	AB10	mg/kg DM	0.0394	±	0.00938	0.0162	41
Molybdenum	AB10	mg/kg DM	23.6	±	1.86	4.24	18
Nickel	AB10	mg/kg DM	157	±	10.1	23.5	15
Selenium	AB10	mg/kg DM	3.73	±	0.834	1.61	43
Silver	AB10	mg/kg DM	5.83	±	0.428	0.816	14
Sum 16 PAH (acc. to EPA)	AB10	mg/kg DM	2.15	±	0.271	0.56	26
Tin	AB10	mg/kg DM	108	±	6.68	14	13
TOC (as C)	AB10	mg/kg DM	33600	±	1670	3690	11
Vanadium	AB10	mg/kg DM	39	±	2.27	5.07	13
Zinc	AB10	mg/kg DM	3340	±	206	501	15
Dry mass	AB10	%	96.8	±	0.19	0.968	1

E6.2. Summary of results, after removal of outliers

Parameter	Sample	Number of results for calculation	Number of outliers	Unit	Mean	± CI (99%)	Minimum	Maximum	sR	vR [%]
Antimony	AB10	18	2	mg/kg DM	198	± 21.8	131	267	30.8	16
Arsenic	AB10	20	2	mg/kg DM	7.94	± 1.04	4.14	11	1.56	20
Barium	AB10	18	2	mg/kg DM	1010	± 187	457	1600	265	26
Benzo[a]pyrene	AB10	16	2	mg/kg DM	0.138	± 0.0419	0.01	0.22	0.0558	40
Cadmium	AB10	23	0	mg/kg DM	6.21	± 0.476	4.56	7.55	0.761	12
Chromium	AB10	23	0	mg/kg DM	217	± 20	154	281	32	15
Cobalt	AB10	20	0	mg/kg DM	25.3	± 2.32	17.4	31	3.45	14
Copper	AB10	23	0	mg/kg DM	2970	± 257	2160	3800	410	14
HC-Index	AB10	18	1	mg/kg DM	660	± 170	270	1190	241	36
Lead	AB10	21	2	mg/kg DM	478	± 40.8	333	595	62.4	13
Mercury	AB10	12	2	mg/kg DM	0.0394	± 0.0141	0.012	0.07	0.0163	41
Molybdenum	AB10	20	0	mg/kg DM	23.6	± 2.78	17	32.7	4.15	18
Nickel	AB10	23	0	mg/kg DM	157	± 15.1	114	203	24.2	15
Selenium	AB10	15	0	mg/kg DM	3.73	± 1.25	0.123	6.02	1.62	43
Silver	AB10	15	3	mg/kg DM	5.83	± 0.642	4.45	7.57	0.829	14
Sum 16 PAH (acc. to EPA)	AB10	17	1	mg/kg DM	2.15	± 0.406	0.86	3	0.559	26
Tin	AB10	18	1	mg/kg DM	108	± 10	80	131	14.2	13
TOC (as C)	AB10	20	1	mg/kg DM	33700	± 2410	26300	40000	3590	11
Vanadium	AB10	21	0	mg/kg DM	39	± 3.41	31	47.3	5.21	13
Zinc	AB10	23	0	mg/kg DM	3340	± 309	2230	4430	494	15
Dry mass	AB10	23	0	%	96.8	± 0.285	96.2	97.9	0.455	0.47

E7. Parameterorientierte Auswertung / Parameter oriented report

Parameter oriented report

AB10

Antimony

Unit	mg/kg DM
Assigned value ± U (k=2)	198 ± 14.5
Criterion	31.6 (16 %)
Minimum - Maximum	131 - 267
Control test value ± U (k=2)	212.0 ± 44.5

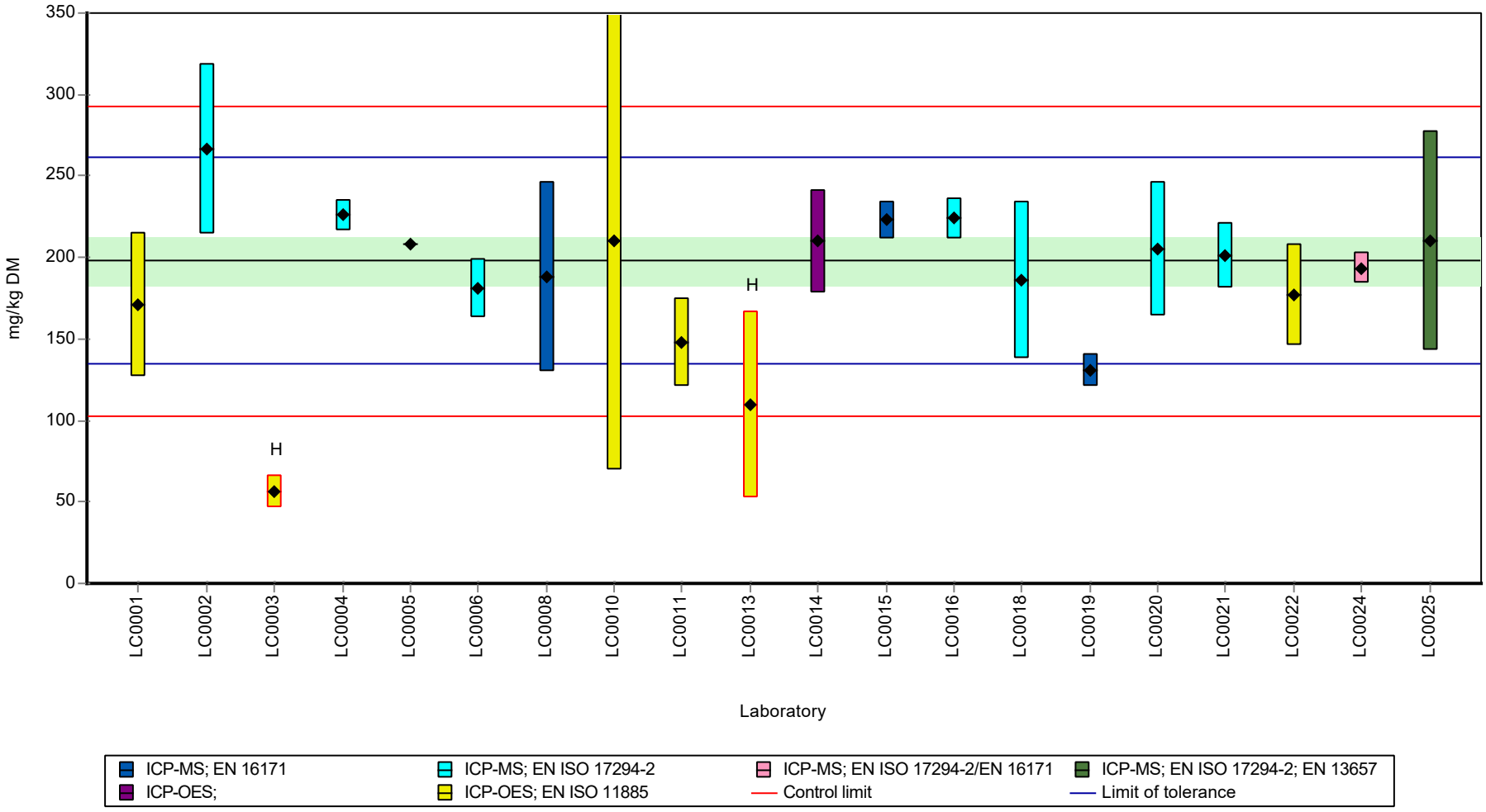
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	171	44	86.5	-0.85	
LC0002	266.8	52.3	135	2.18	
LC0003	55.97	9.95	28.3	-4.48	H
LC0004	226	9.72	114	0.89	
LC0005	208.1	0.05	105	0.33	
LC0006	181	18	91.5	-0.53	
LC0007	-	-	-	-	
LC0008	188.3	58.4	95.2	-0.3	
LC0009	-	-	-	-	
LC0010	210	141	106	0.39	
LC0011	148	27	74.8	-1.57	
LC0012	-	-	-	-	
LC0013	110	57.2	55.6	-2.77	H
LC0014	210	31.5	106	0.39	
LC0015	223	11.4	113	0.8	
LC0016	224.037	12.67	113	0.83	
LC0017	-	-	-	-	
LC0018	186	48	94	-0.37	
LC0019	131	10	66.2	-2.11	
LC0020	205	41	104	0.23	
LC0021	201.38	20.138	102	0.11	
LC0022	176.7	31.1	89.3	-0.67	
LC0023	-	-	-	-	
LC0024	193.582	9.7	97.9	-0.13	
LC0025	210.36	67.3	106	0.4	

Characteristics of parameter

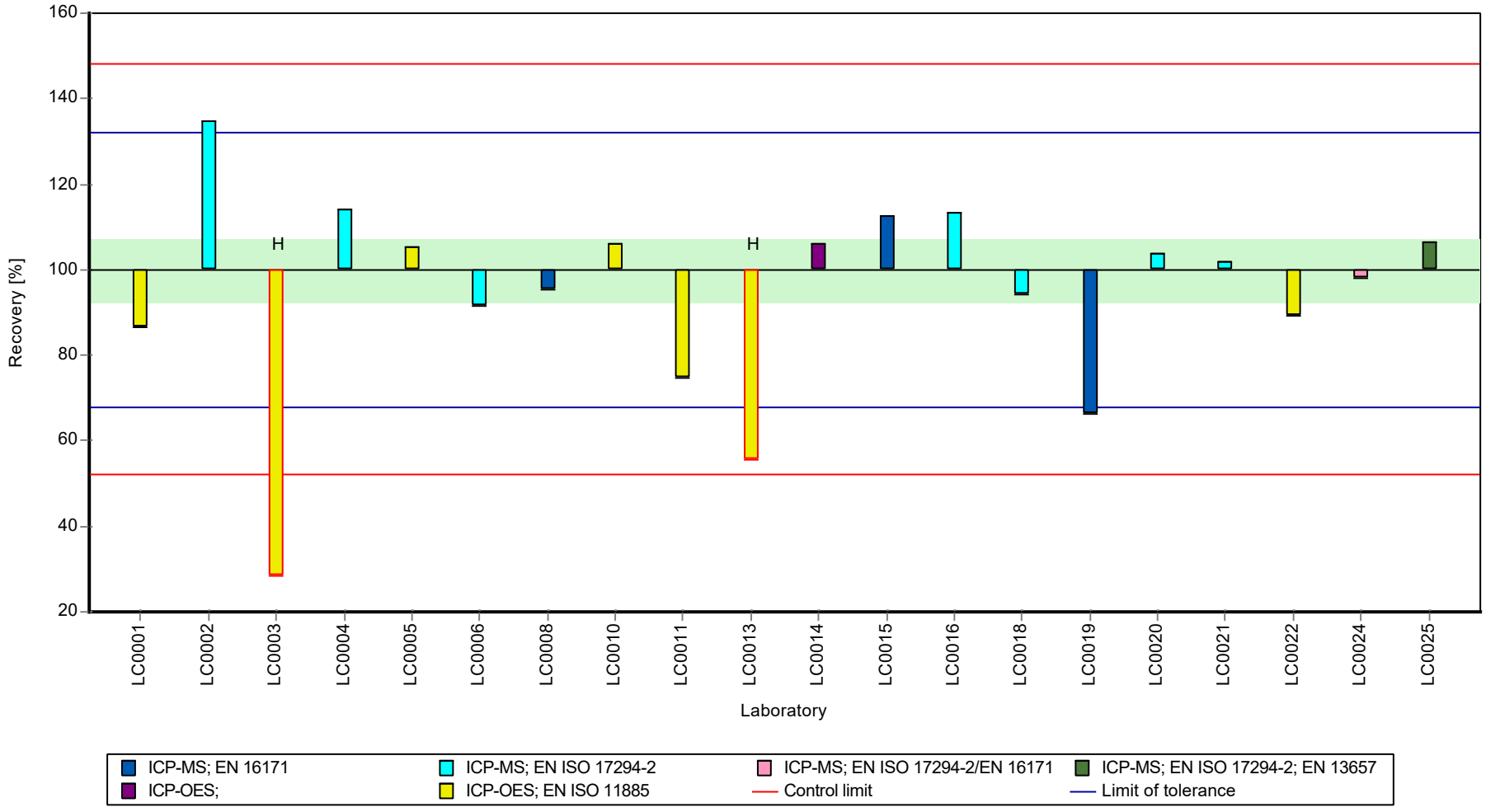
	all results	without outliers	Unit
Mean ± CI (99%)	186 ± 31.3	198 ± 21.8	mg/kg DM
Minimum	56	131	mg/kg DM
Maximum	267	267	mg/kg DM
Standard deviation	46.6	30.8	mg/kg DM
rel. standard deviation	25	15.6	%
n	20	18	-

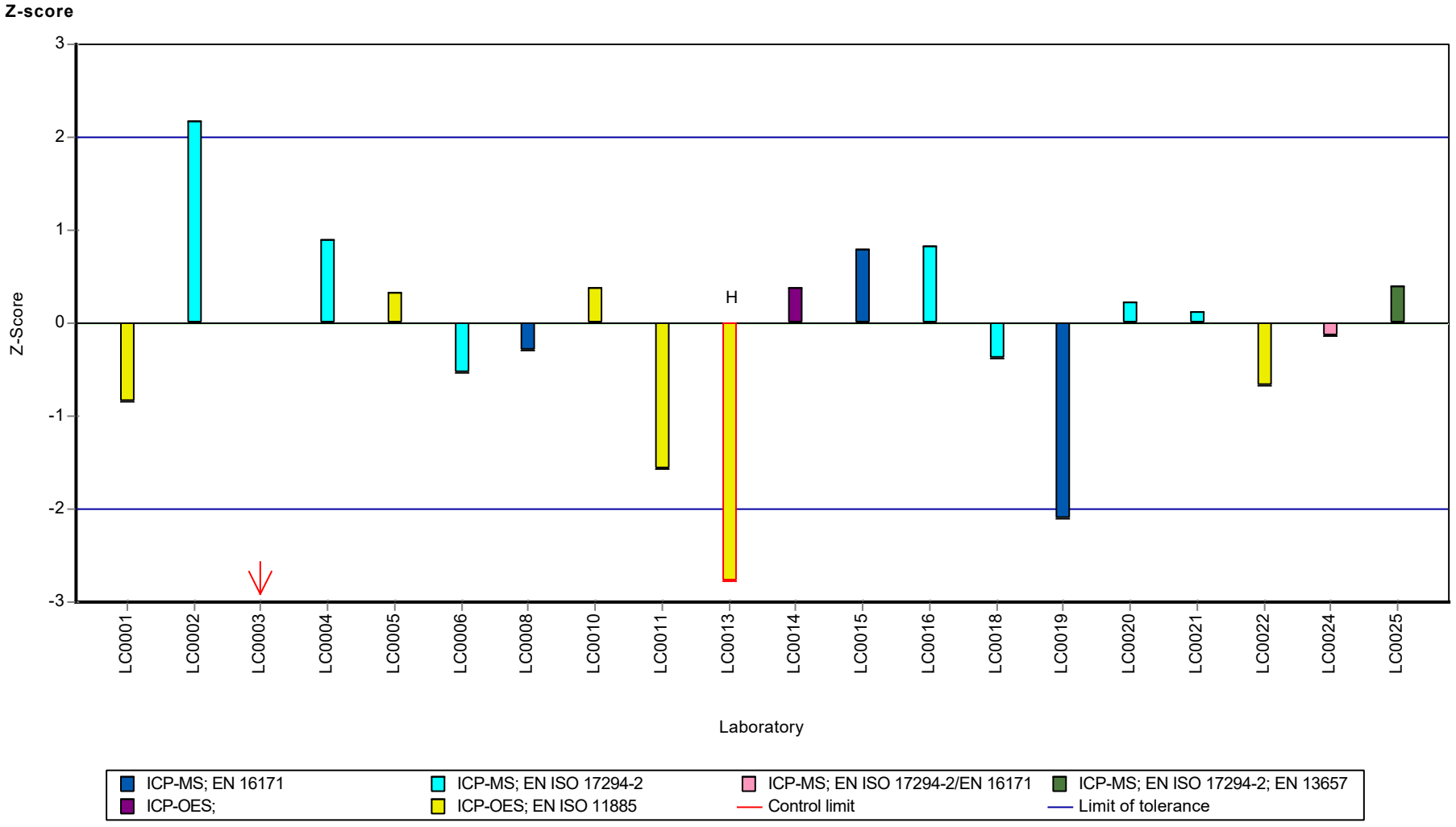
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
H
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0008
LC0010
LC0011
LC0013
LC0014
LC0015
LC0016
LC0018
LC0019
LC0020
LC0021
LC0022
LC0024
LC0025
Laboratory
ICP-MS; EN 16171
ICP-MS; EN ISO 17294-2
ICP-MS; EN ISO 17294-2/EN 16171
ICP-MS; EN ISO 17294-2; EN 13657
ICP-OES;
ICP-OES; EN ISO 11885
Control limit
Limit of tolerance

Parameter oriented report

AB10

Arsenic

Unit	mg/kg DM
Assigned value ± U (k=2)	7.94 ± 0.696
Criterion	1.59 (20 %)
Minimum - Maximum	4.14 - 11
Control test value ± U (k=2)	8.420 ± 0.926

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	6.98	1.19	87.9	-0.6	
LC0002	11	1.51	139	1.93	
LC0003	4.14	0.7	52.1	-2.39	
LC0004	8.98	0.314	113	0.66	
LC0005	8.1	0.05	102	0.1	
LC0006	6.94	0.7	87.4	-0.63	
LC0007	-	-	-	-	
LC0008	7.52	2.56	94.7	-0.26	
LC0009	8.71	2.8	110	0.48	
LC0010	14	3.5	176	3.82	H
LC0011	6.03	1.08	76	-1.2	
LC0012	7.812	0.114	98.4	-0.08	
LC0013	8.5	5.14	107	0.35	
LC0014	17	2.55	214	5.71	H
LC0015	7.29	0.677	91.8	-0.41	
LC0016	9.41	0.77	119	0.93	
LC0017	-	-	-	-	
LC0018	9.12	1.43	115	0.74	
LC0019	5.66	0.35	71.3	-1.44	
LC0020	7.8	1.56	98.2	-0.09	
LC0021	8.351	0.835	105	0.26	
LC0022	9.562	2.01	120	1.02	
LC0023	-	-	-	-	
LC0024	7.468	0.37	94.1	-0.3	
LC0025	9.41	3.01	119	0.93	

Characteristics of parameter

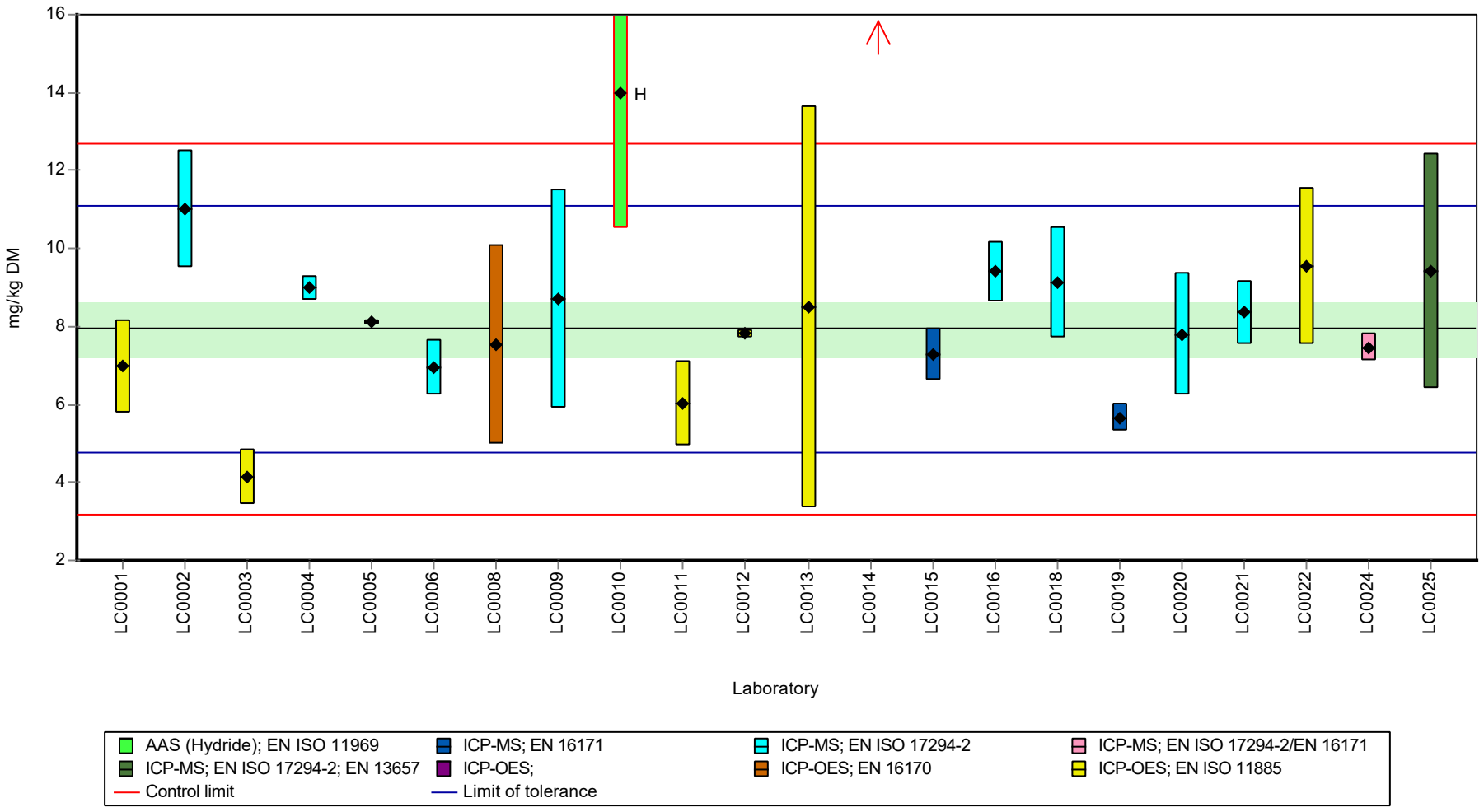
	all results	without outliers	Unit
Mean ± CI (99%)	8.63 ± 1.73	7.94 ± 1.04	mg/kg DM
Minimum	4.14	4.14	mg/kg DM
Maximum	17	11	mg/kg DM
Standard deviation	2.71	1.56	mg/kg DM
rel. standard deviation	31.4	19.6	%
n	22	20	-

Parameter oriented report Waste acc. to landfill directive (Austria) (total content) - AB10

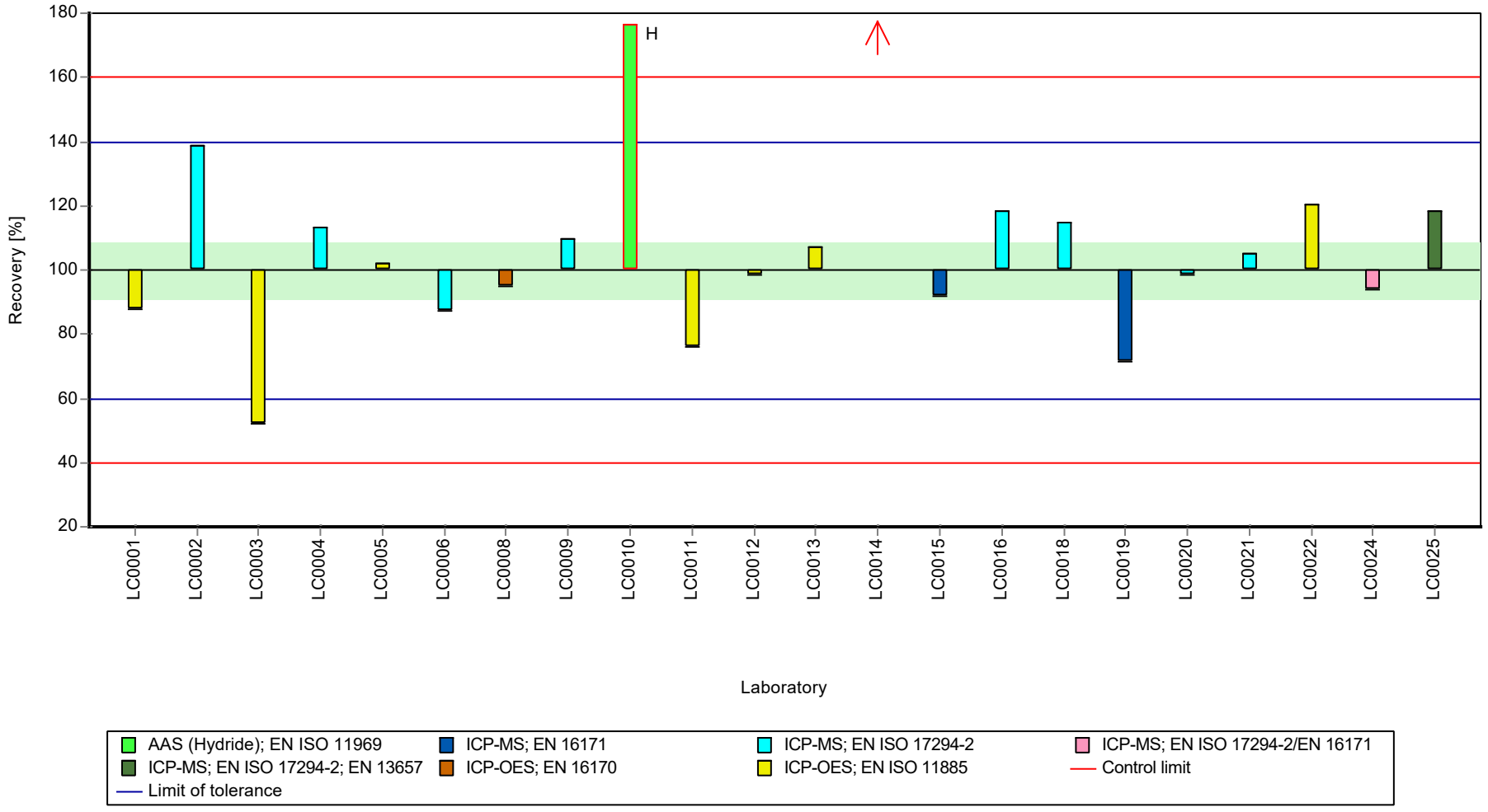
Sample: AB10, Parameter: Arsenic

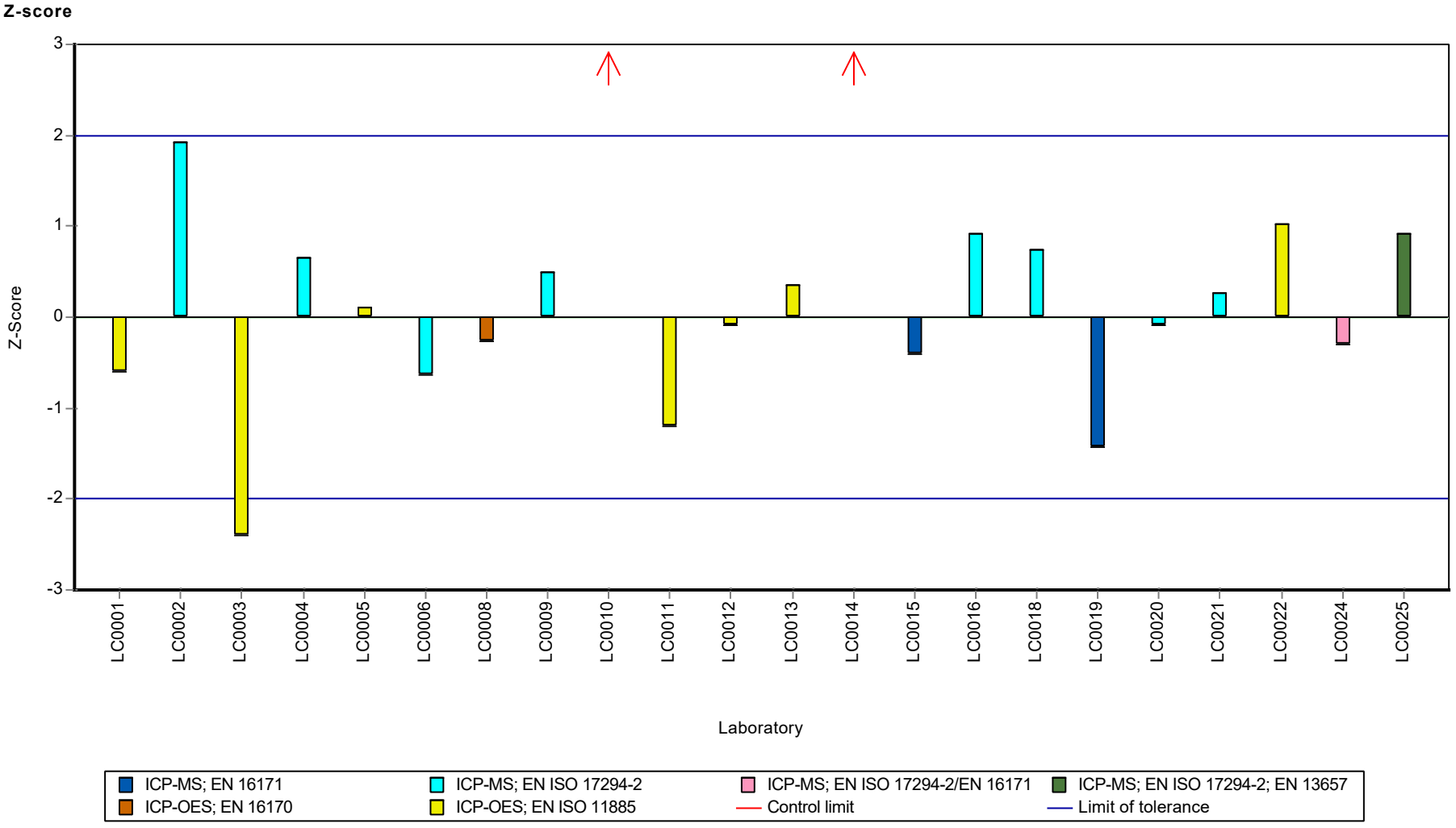
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0018
LC0019
LC0020
LC0021
LC0022
LC0024
LC0025
Laboratory
ICP-MS; EN 16171
ICP-MS; EN ISO 17294-2
ICP-MS; EN ISO 17294-2/EN 16171
ICP-MS; EN ISO 17294-2; EN 13657
ICP-OES; EN 16170
ICP-OES; EN ISO 11885
Control limit
Limit of tolerance

Parameter oriented report

AB10

Barium

Unit	mg/kg DM
Assigned value ± U (k=2)	1000 ± 139
Criterion	281 (28 %)
Minimum - Maximum	457 - 1600
Control test value ± U (k=2)	714.0 ± 114

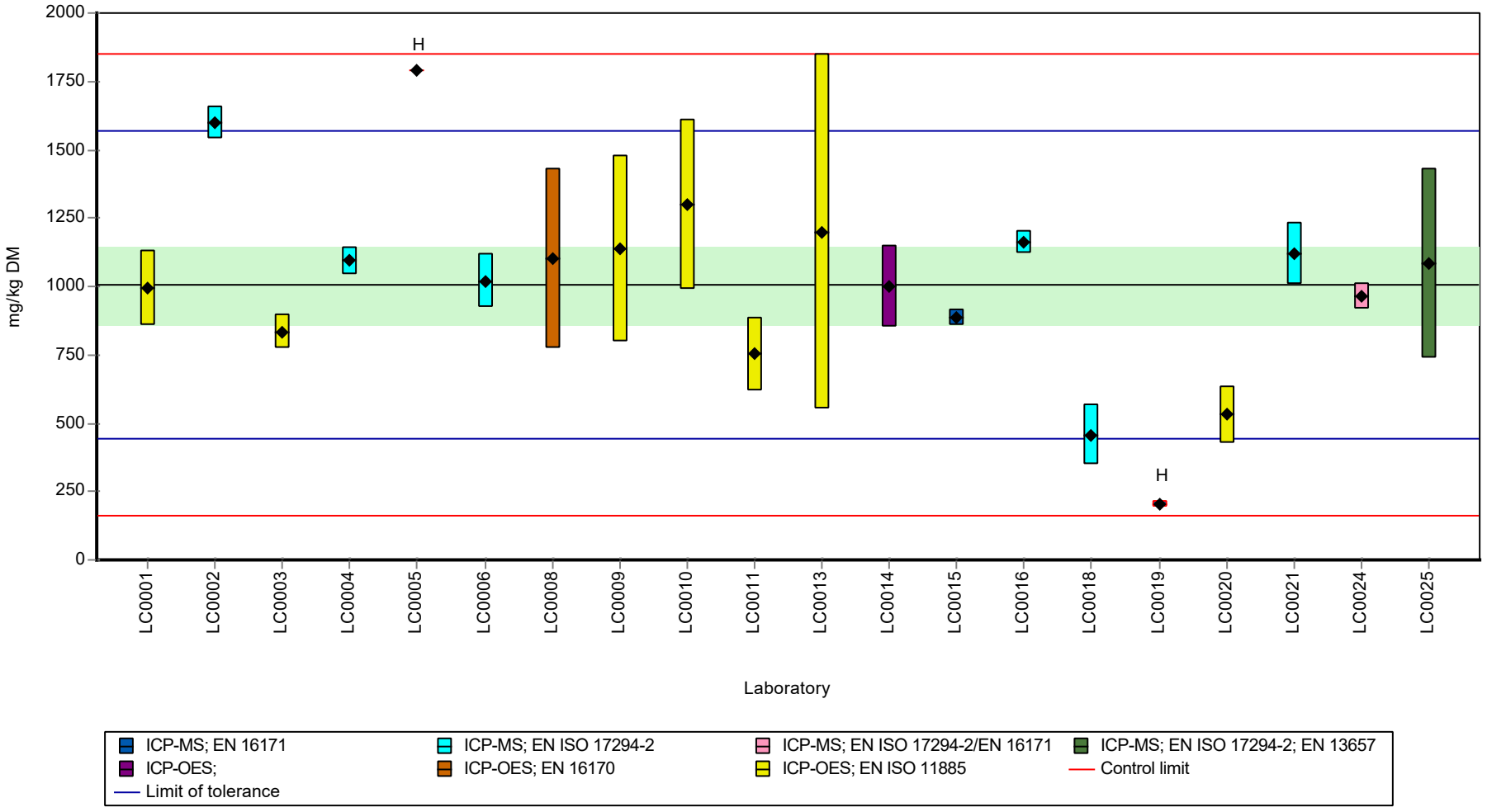
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	995	139	99.1	-0.03	
LC0002	1599	57.8	159	2.11	
LC0003	833.53	62.5	83	-0.61	
LC0004	1093	52.5	109	0.32	
LC0005	1789	0.1	178	2.79	H
LC0006	1020	100	102	0.06	
LC0007	-	-	-	-	
LC0008	1102	330	110	0.35	
LC0009	1136	342	113	0.47	
LC0010	1300	310	129	1.05	
LC0011	752	135	74.9	-0.9	
LC0012	-	-	-	-	
LC0013	1200	650.4	119	0.69	
LC0014	1000	150	99.5	-0.02	
LC0015	886	30.4	88.2	-0.42	
LC0016	1162.676	42.83	116	0.56	
LC0017	-	-	-	-	
LC0018	457	110	45.5	-1.95	
LC0019	203	10	20.2	-2.85	H
LC0020	530	106	52.8	-1.69	
LC0021	1120.048	112.005	111	0.41	
LC0022	-	-	-	-	
LC0023	-	-	-	-	
LC0024	963.598	48.2	95.9	-0.15	
LC0025	1085.34	347	108	0.29	

Characteristics of parameter

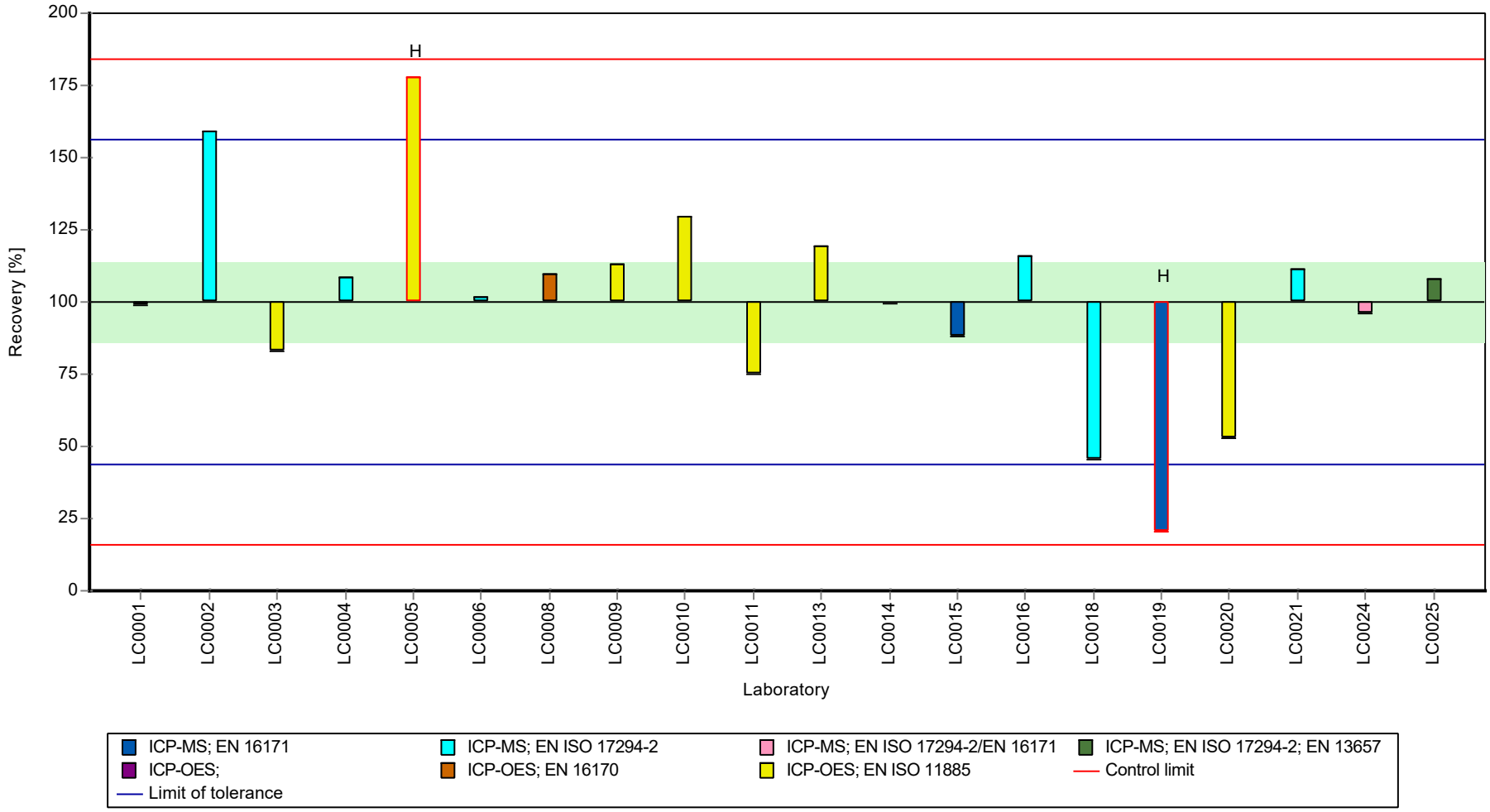
	all results	without outliers	Unit
Mean ± CI (99%)	1010 ± 241	1010 ± 187	mg/kg DM
Minimum	203	457	mg/kg DM
Maximum	1790	1600	mg/kg DM
Standard deviation	359	265	mg/kg DM
rel. standard deviation	35.5	26.1	%
n	20	18	-

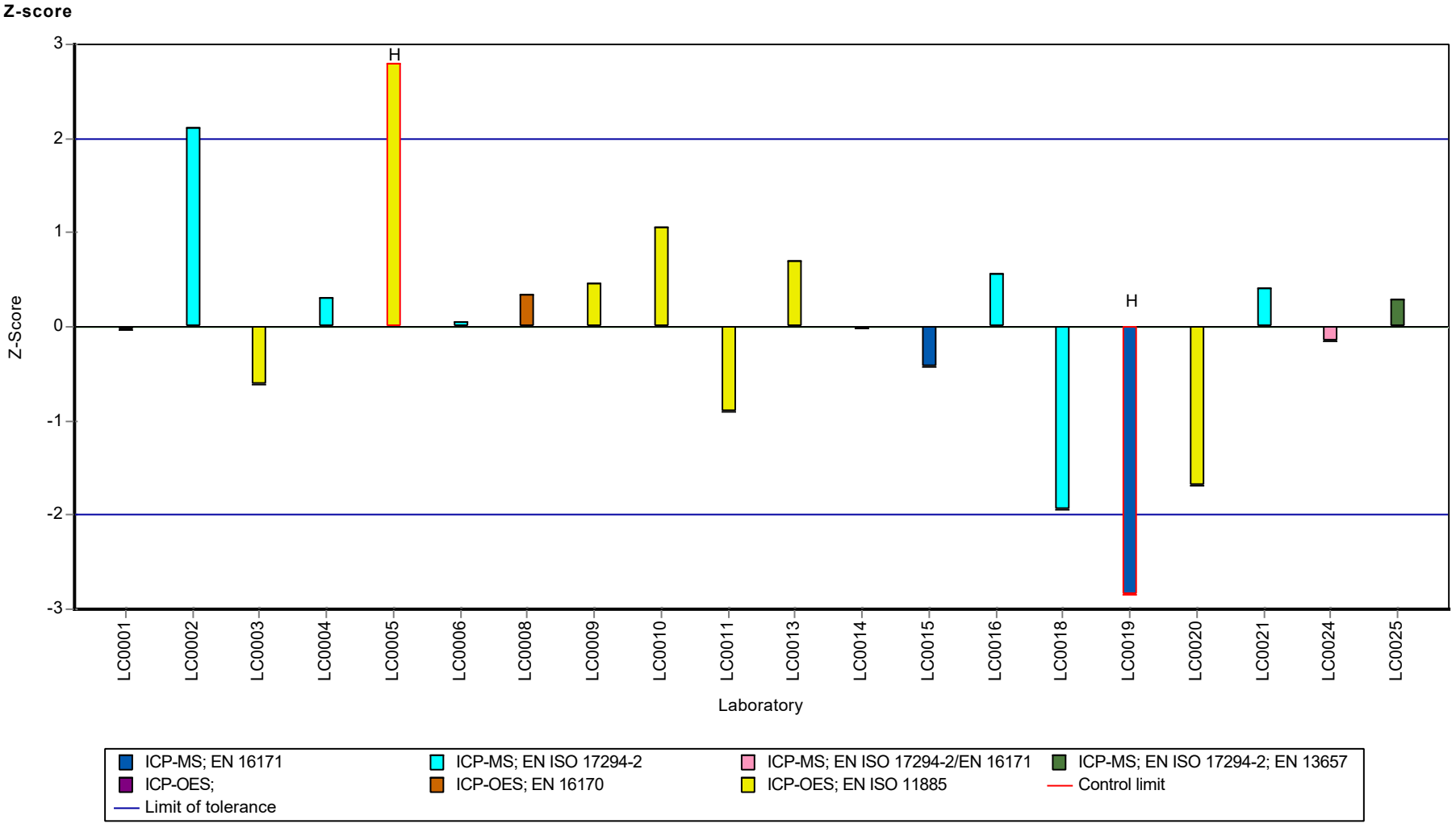
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
H
H
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0008
LC0009
LC0010
LC0011
LC0013
LC0014
LC0015
LC0016
LC0018
LC0019
LC0020
LC0021
LC0024
LC0025
Laboratory
ICP-MS; EN 16171
ICP-MS; EN ISO 17294-2
ICP-MS; EN ISO 17294-2/EN 16171
ICP-MS; EN ISO 17294-2; EN 13657
ICP-OES;
ICP-OES; EN 16170
ICP-OES; EN ISO 11885
Control limit
Limit of tolerance

Parameter oriented report

AB10

Benzo[a]pyrene

Unit	mg/kg DM
Assigned value ± U (k=2)	0.134 ± 0.0281
Criterion	0.0548 (41 %)
Minimum - Maximum	0.01 - 0.22
Control test value ± U (k=2)	0.2180 ± 0.0437

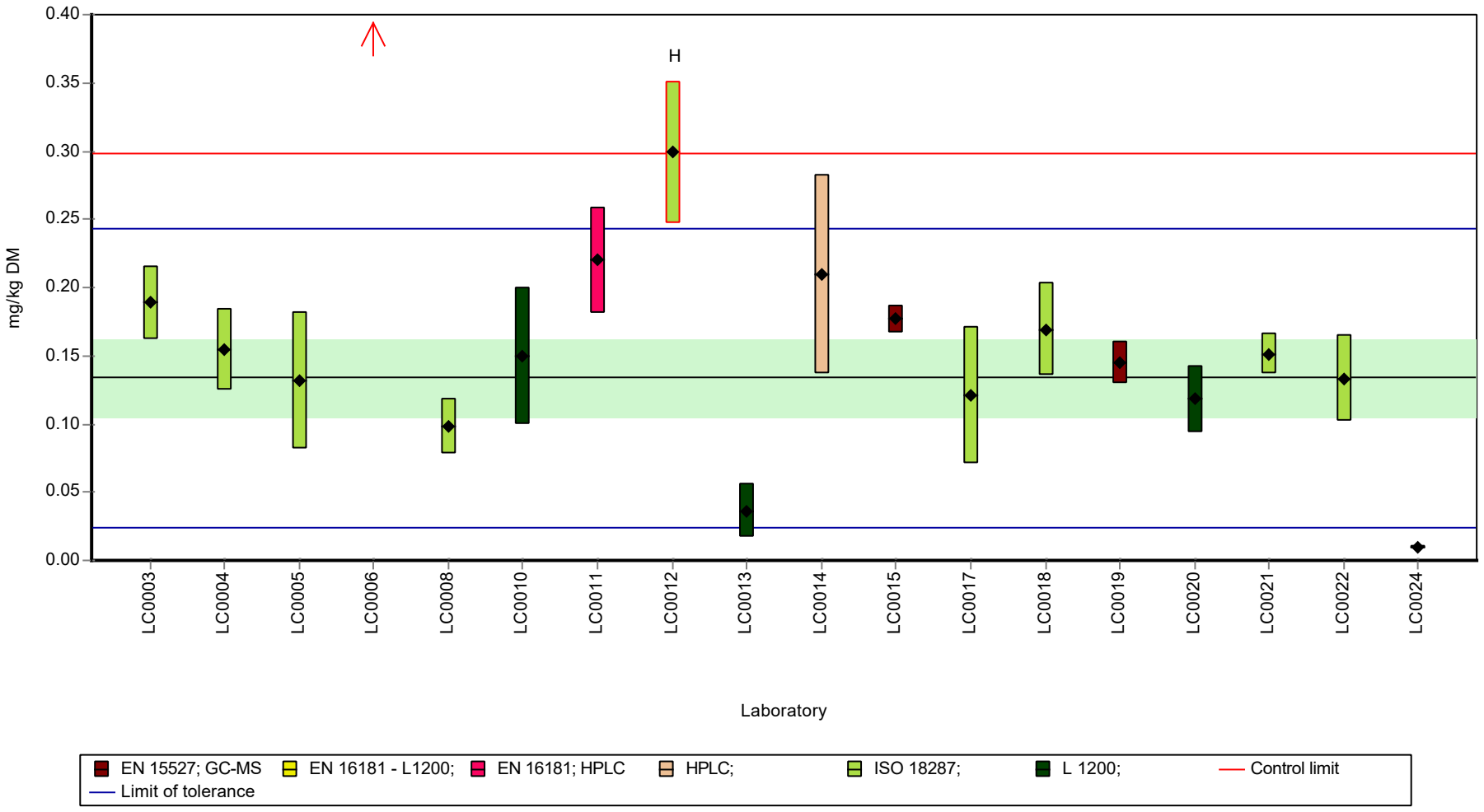
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	-	-	-	-	
LC0003	0.189	0.027	141	1.01	
LC0004	0.155	0.03	116	0.39	
LC0005	0.132	0.05	98.8	-0.03	
LC0006	0.426	0.04	319	5.34	H
LC0007	-	-	-	-	
LC0008	0.098	0.02	73.3	-0.65	
LC0009	-	-	-	-	
LC0010	0.15	0.05	112	0.3	
LC0011	0.22	0.039	165	1.58	
LC0012	0.299	0.052	224	3.02	H
LC0013	0.036	0.0198	26.9	-1.78	
LC0014	0.21	0.073	157	1.39	
LC0015	0.177	0.01	132	0.79	
LC0016	-	-	-	-	
LC0017	0.121	0.05	90.5	-0.23	
LC0018	0.169	0.034	126	0.65	
LC0019	0.145	0.016	109	0.21	
LC0020	0.118	0.024	88.3	-0.28	
LC0021	0.1514	0.0151	113	0.32	
LC0022	0.1332	0.032	99.7	-0.01	
LC0023	-	-	-	-	
LC0024	0.01	0.0011	7.5	-2.26	
LC0025	-	-	-	-	

Characteristics of parameter

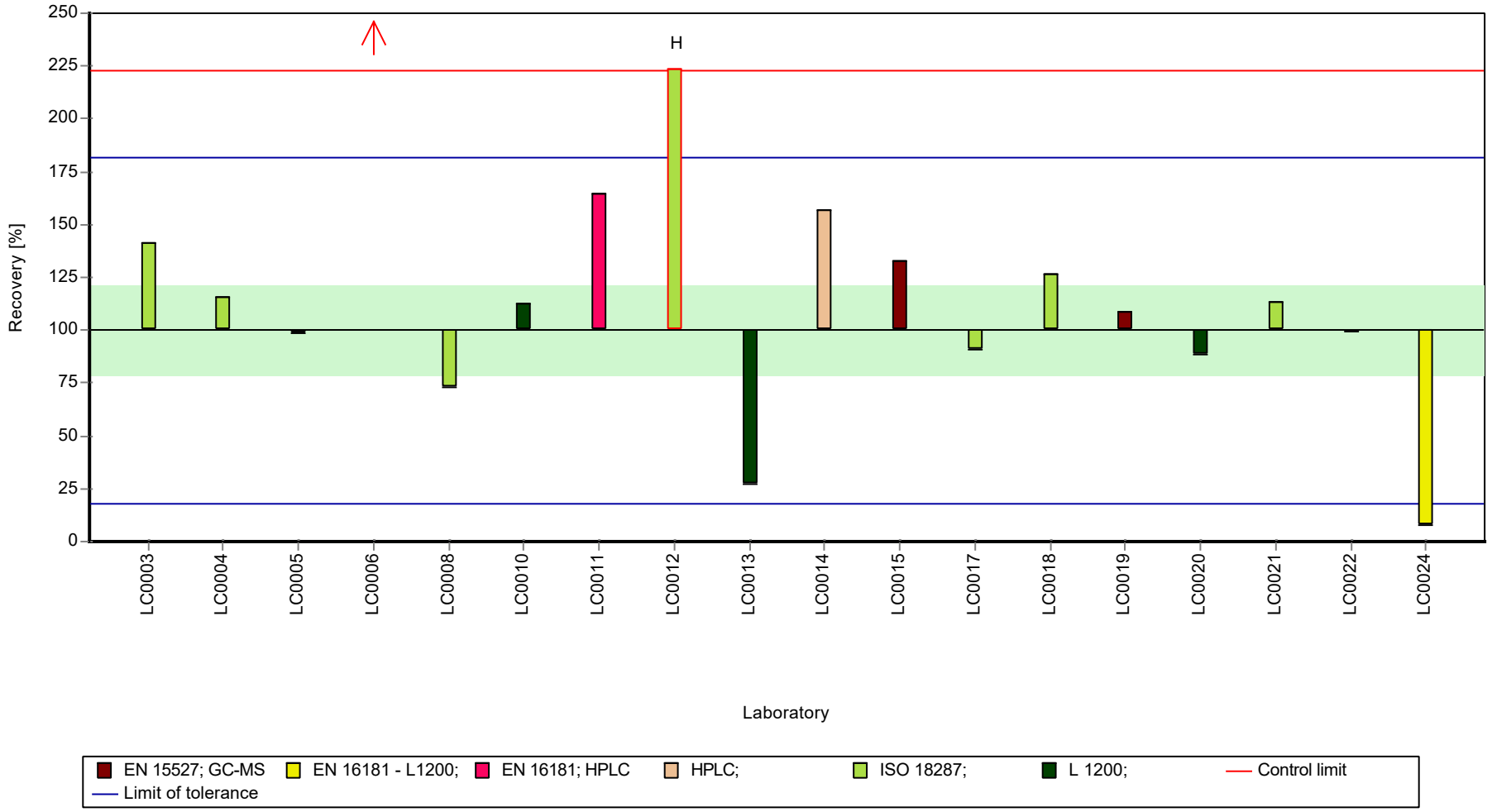
	all results	without outliers	Unit
Mean ± CI (99%)	0.163 ± 0.0651	0.138 ± 0.0419	mg/kg DM
Minimum	0.01	0.01	mg/kg DM
Maximum	0.426	0.22	mg/kg DM
Standard deviation	0.0921	0.0558	mg/kg DM
rel. standard deviation	56.4	40.3	%
n	18	16	-

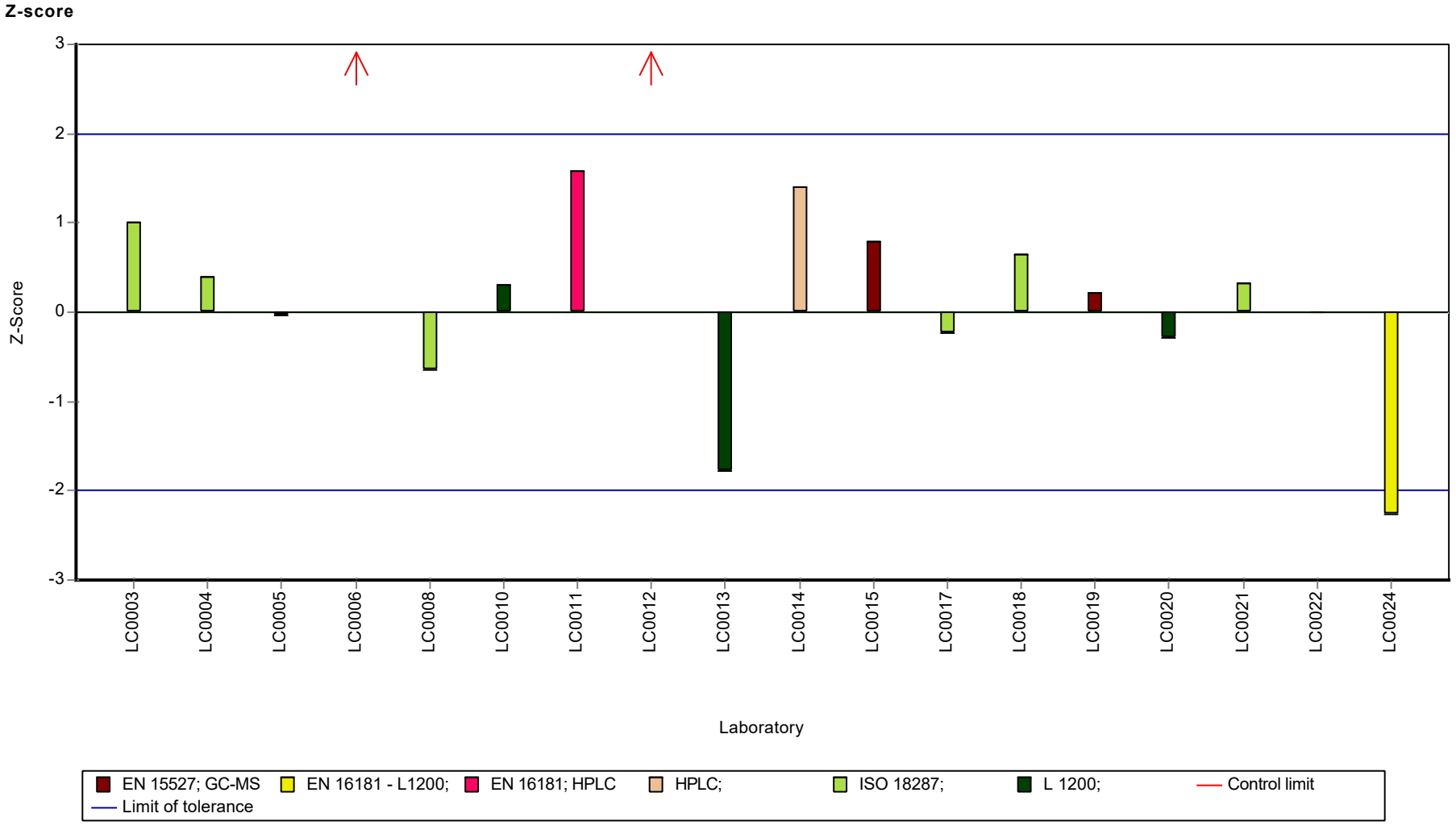
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
LC0003
LC0004
LC0005
LC0006
LC0008
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0024
Laboratory
EN 15527; GC-MS
EN 16181 - L1200;
EN 16181; HPLC
HPLC;
ISO 18287;
L 1200;
Control limit
Limit of tolerance

Parameter oriented report

AB10

Cadmium

Unit	mg/kg DM
Assigned value ± U (k=2)	6.21 ± 0.317
Criterion	0.745 (12 %)
Minimum - Maximum	4.56 - 7.55
Control test value ± U (k=2)	6.88 ± 1.03

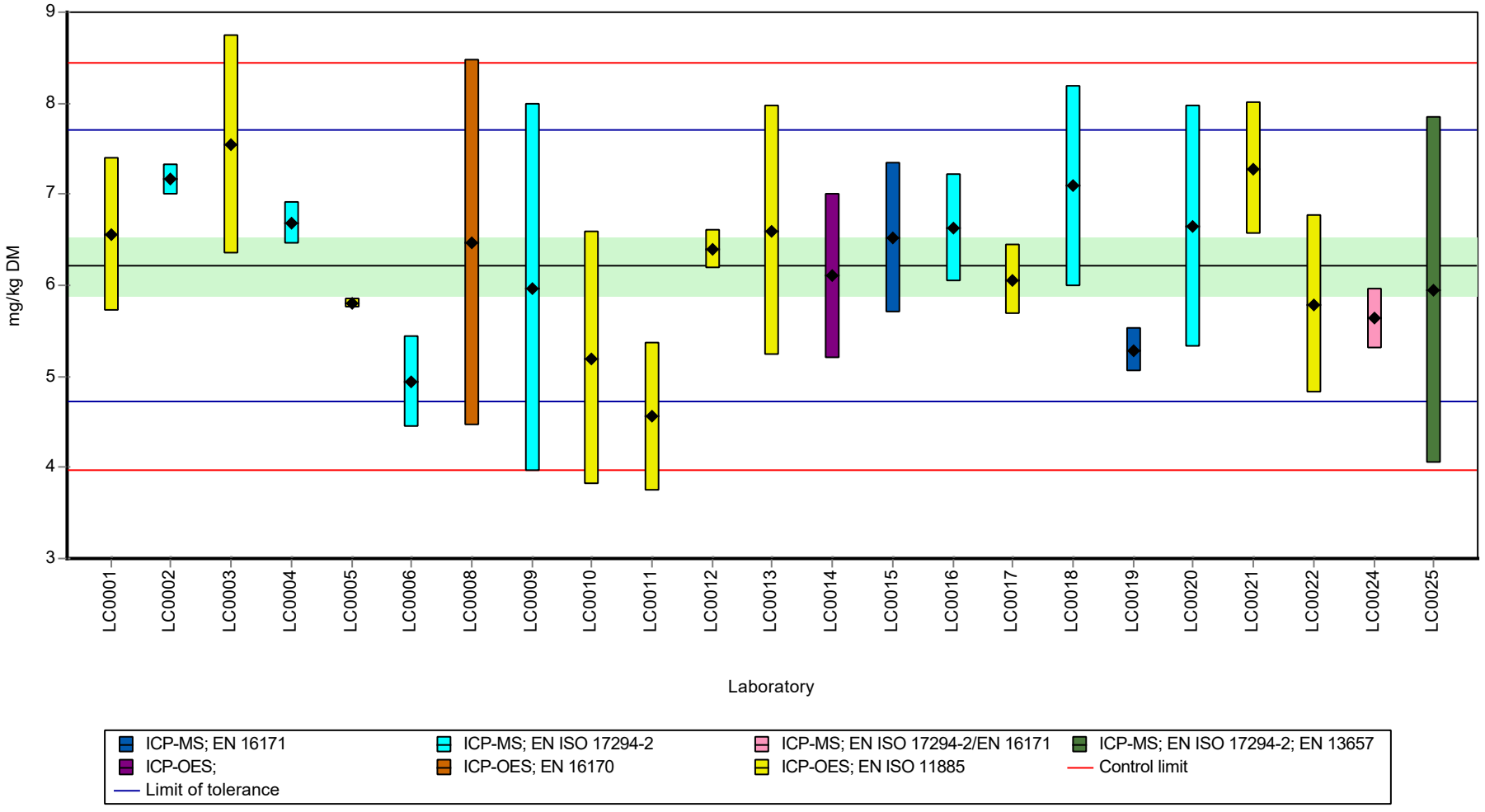
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	6.56	0.85	106	0.47	
LC0002	7.16	0.178	115	1.27	
LC0003	7.55	1.2	122	1.79	
LC0004	6.69	0.234	108	0.64	
LC0005	5.8	0.05	93.4	-0.55	
LC0006	4.94	0.5	79.5	-1.71	
LC0007	-	-	-	-	
LC0008	6.47	2.01	104	0.35	
LC0009	5.97	2.02	96.1	-0.33	
LC0010	5.2	1.4	83.7	-1.36	
LC0011	4.56	0.82	73.4	-2.22	
LC0012	6.393	0.212	103	0.24	
LC0013	6.6	1.37	106	0.52	
LC0014	6.1	0.915	98.2	-0.15	
LC0015	6.52	0.828	105	0.41	
LC0016	6.631	0.59	107	0.56	
LC0017	6.061	0.38	97.6	-0.2	
LC0018	7.09	1.1	114	1.18	
LC0019	5.29	0.25	85.2	-1.24	
LC0020	6.65	1.33	107	0.59	
LC0021	7.277	0.728	117	1.43	
LC0022	5.786	0.98	93.1	-0.57	
LC0023	-	-	-	-	
LC0024	5.633	0.34	90.7	-0.78	
LC0025	5.95	1.9	95.8	-0.35	

Characteristics of parameter

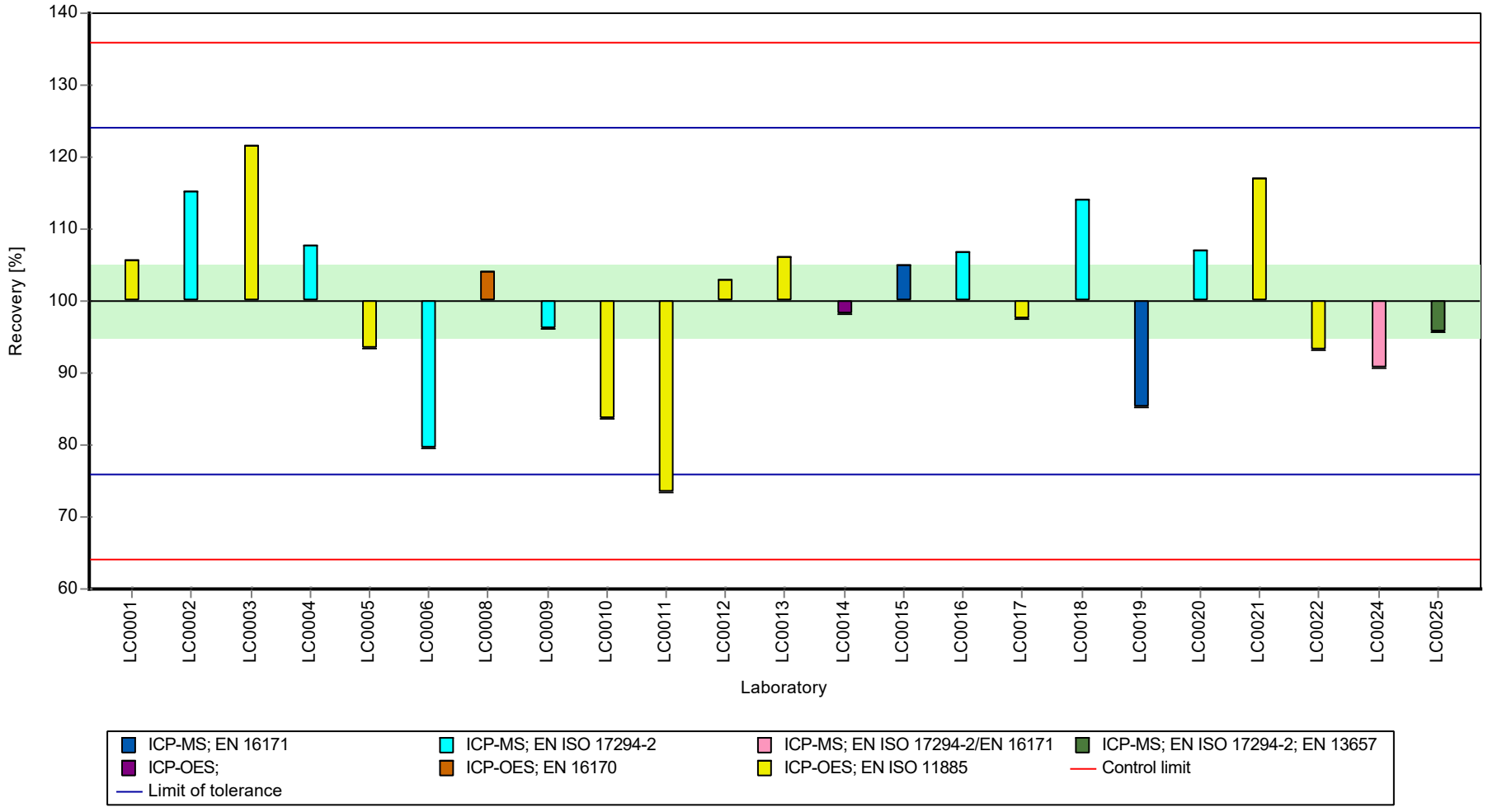
	all results	without outliers	Unit
Mean ± CI (99%)	6.21 ± 0.476	6.21 ± 0.476	mg/kg DM
Minimum	4.56	4.56	mg/kg DM
Maximum	7.55	7.55	mg/kg DM
Standard deviation	0.761	0.761	mg/kg DM
rel. standard deviation	12.2	12.2	%
n	23	23	-

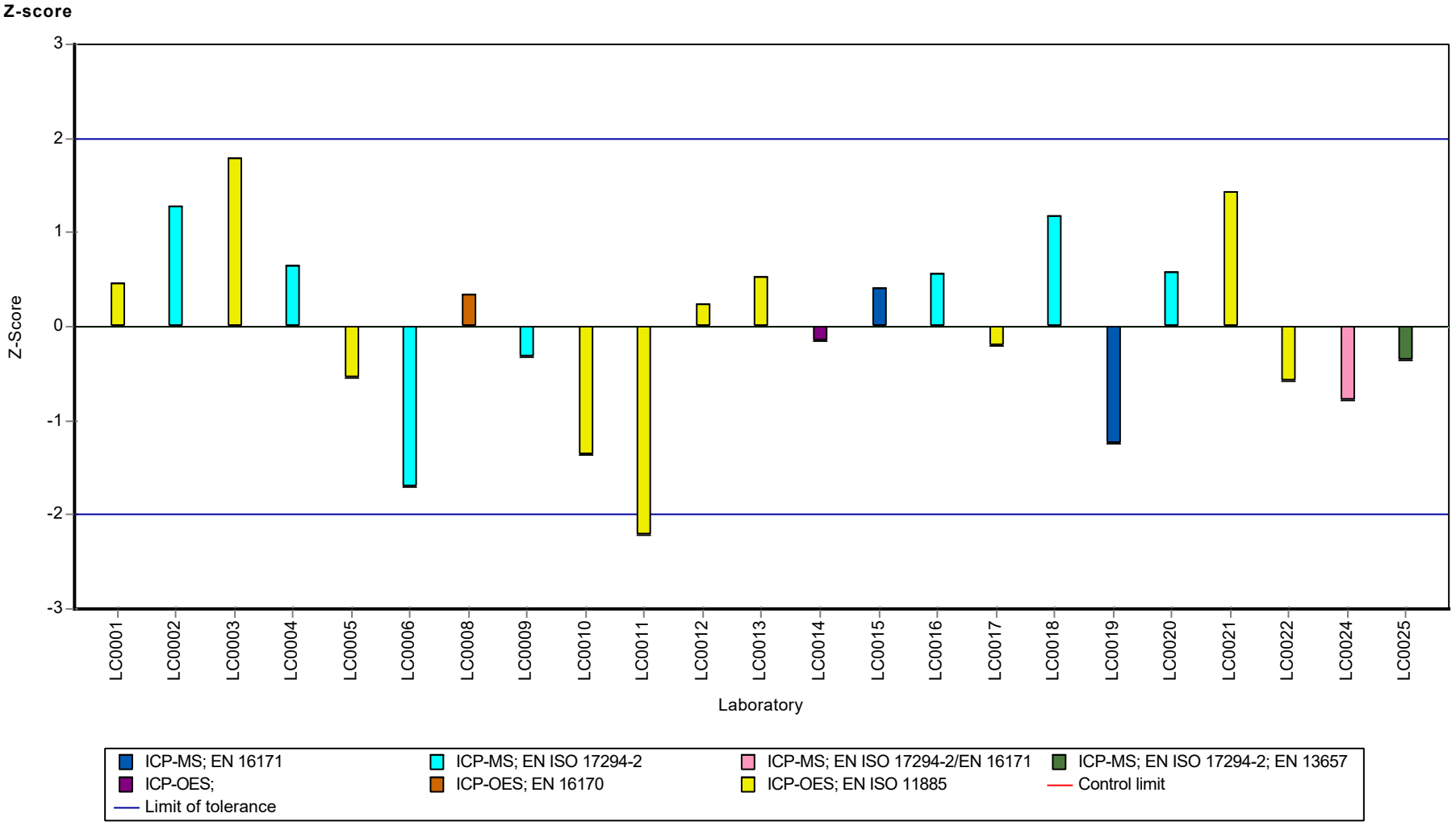
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
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LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0024
LC0025
Laboratory
ICP-MS; EN 16171
ICP-MS; EN ISO 17294-2
ICP-MS; EN ISO 17294-2/EN 16171
ICP-MS; EN ISO 17294-2; EN 13657
ICP-OES;
ICP-OES; EN 16170
ICP-OES; EN ISO 11885
Control limit
Limit of tolerance

Parameter oriented report

AB10

Chromium

Unit	mg/kg DM
Assigned value ± U (k=2)	217 ± 13.4
Criterion	32.5 (15 %)
Minimum - Maximum	154 - 281
Control test value ± U (k=2)	212.0 ± 42.4

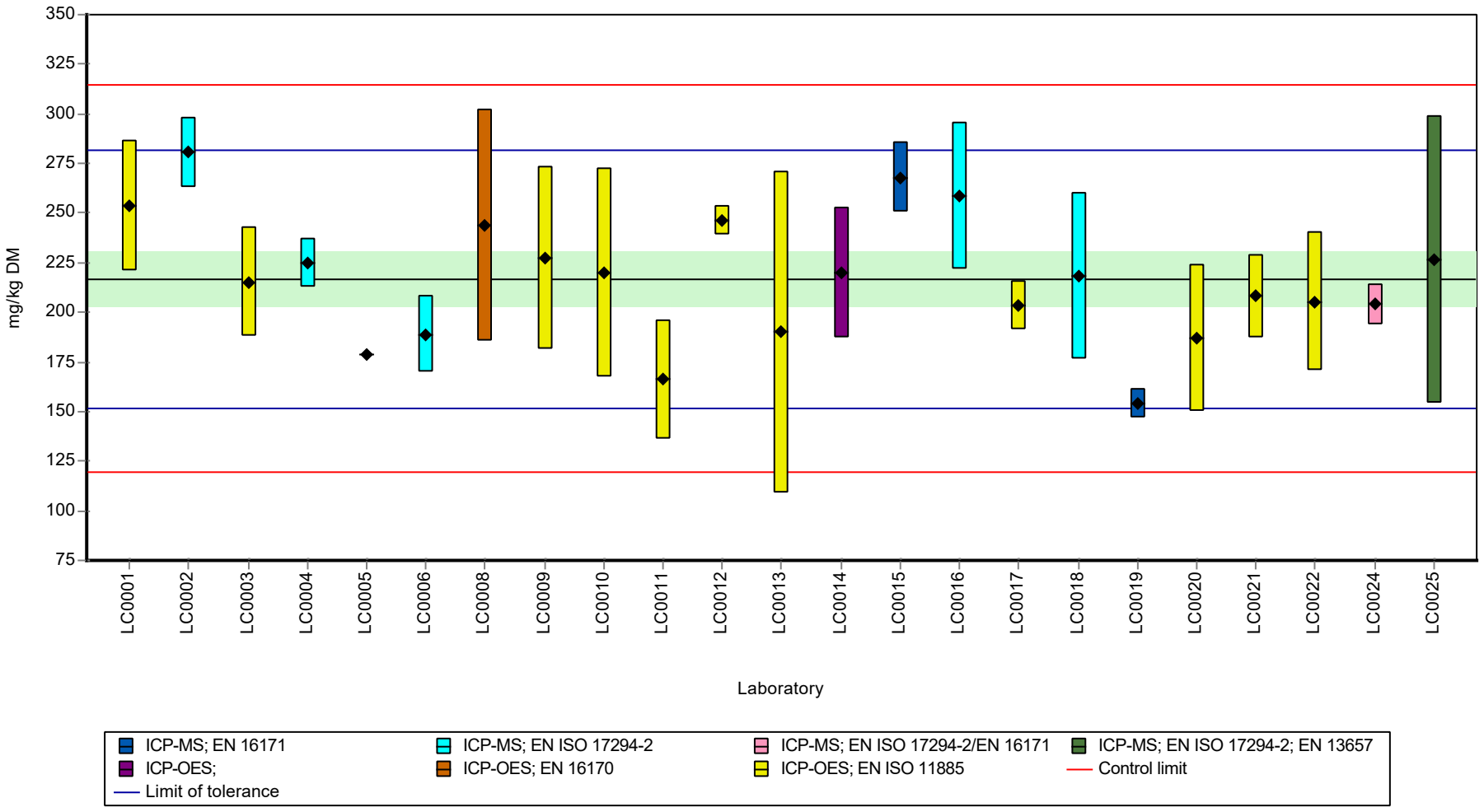
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	254	33	117	1.14	
LC0002	280.6	17.9	129	1.96	
LC0003	215.31	27.4	99.3	-0.05	
LC0004	225	12.6	104	0.25	
LC0005	178.8	0.1	82.4	-1.17	
LC0006	189	19	87.1	-0.86	
LC0007	-	-	-	-	
LC0008	243.8	58.5	112	0.83	
LC0009	227.2	45.9	105	0.32	
LC0010	220	53	101	0.1	
LC0011	166	30	76.5	-1.56	
LC0012	246.4	7.5	114	0.91	
LC0013	190	80.94	87.6	-0.83	
LC0014	220	33	101	0.1	
LC0015	268	17.6	124	1.57	
LC0016	258.279	37.04	119	1.27	
LC0017	203.8	12.4	94	-0.4	
LC0018	218	42	101	0.03	
LC0019	154	7.5	71	-1.93	
LC0020	187	37	86.2	-0.92	
LC0021	208.178	20.818	96	-0.27	
LC0022	205.4	34.7	94.7	-0.35	
LC0023	-	-	-	-	
LC0024	203.898	10.2	94	-0.4	
LC0025	226.23	72.4	104	0.29	

Characteristics of parameter

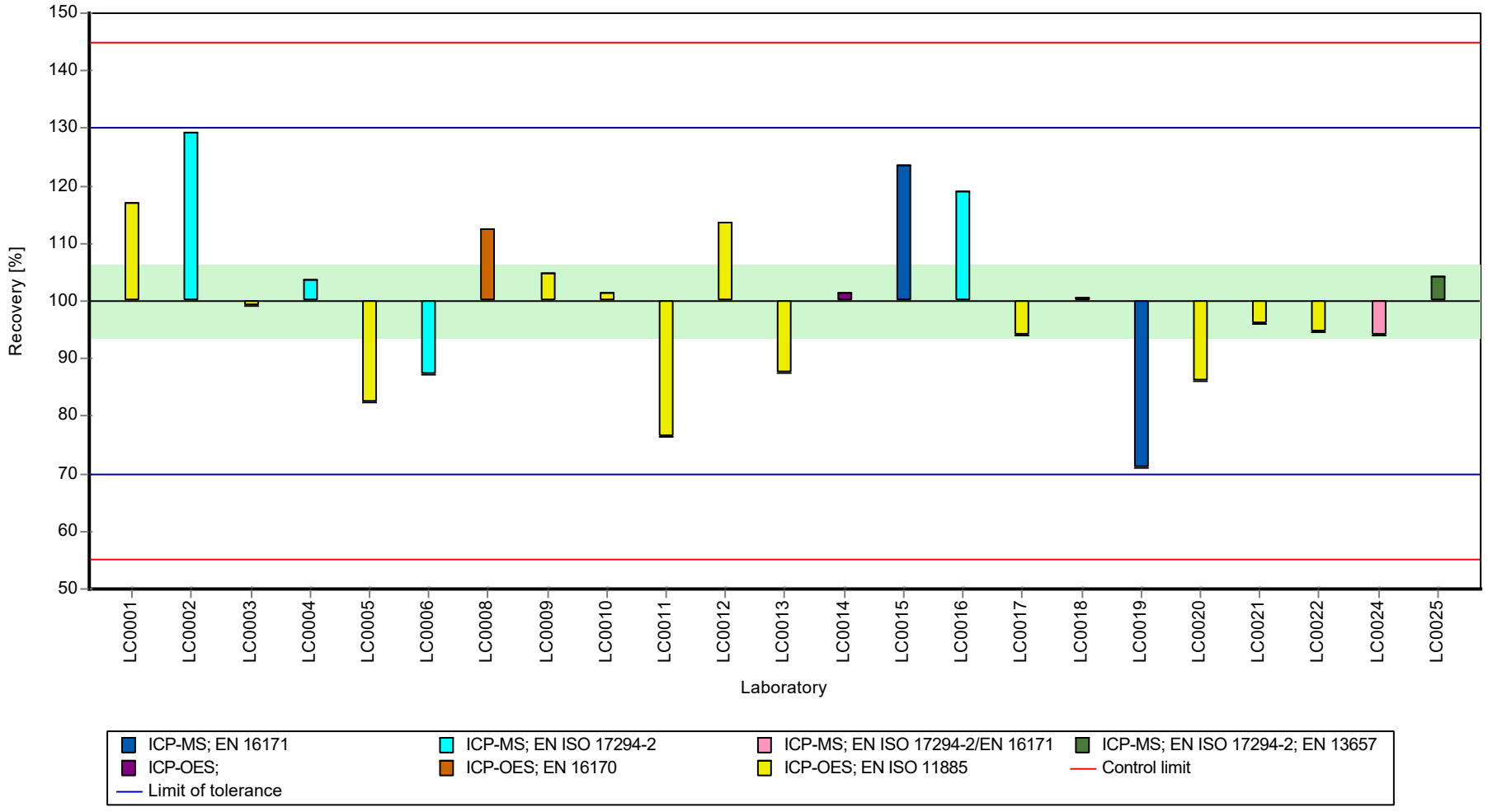
	all results	without outliers	Unit
Mean ± CI (99%)	217 ± 20	217 ± 20	mg/kg DM
Minimum	154	154	mg/kg DM
Maximum	281	281	mg/kg DM
Standard deviation	32	32	mg/kg DM
rel. standard deviation	14.8	14.8	%
n	23	23	-

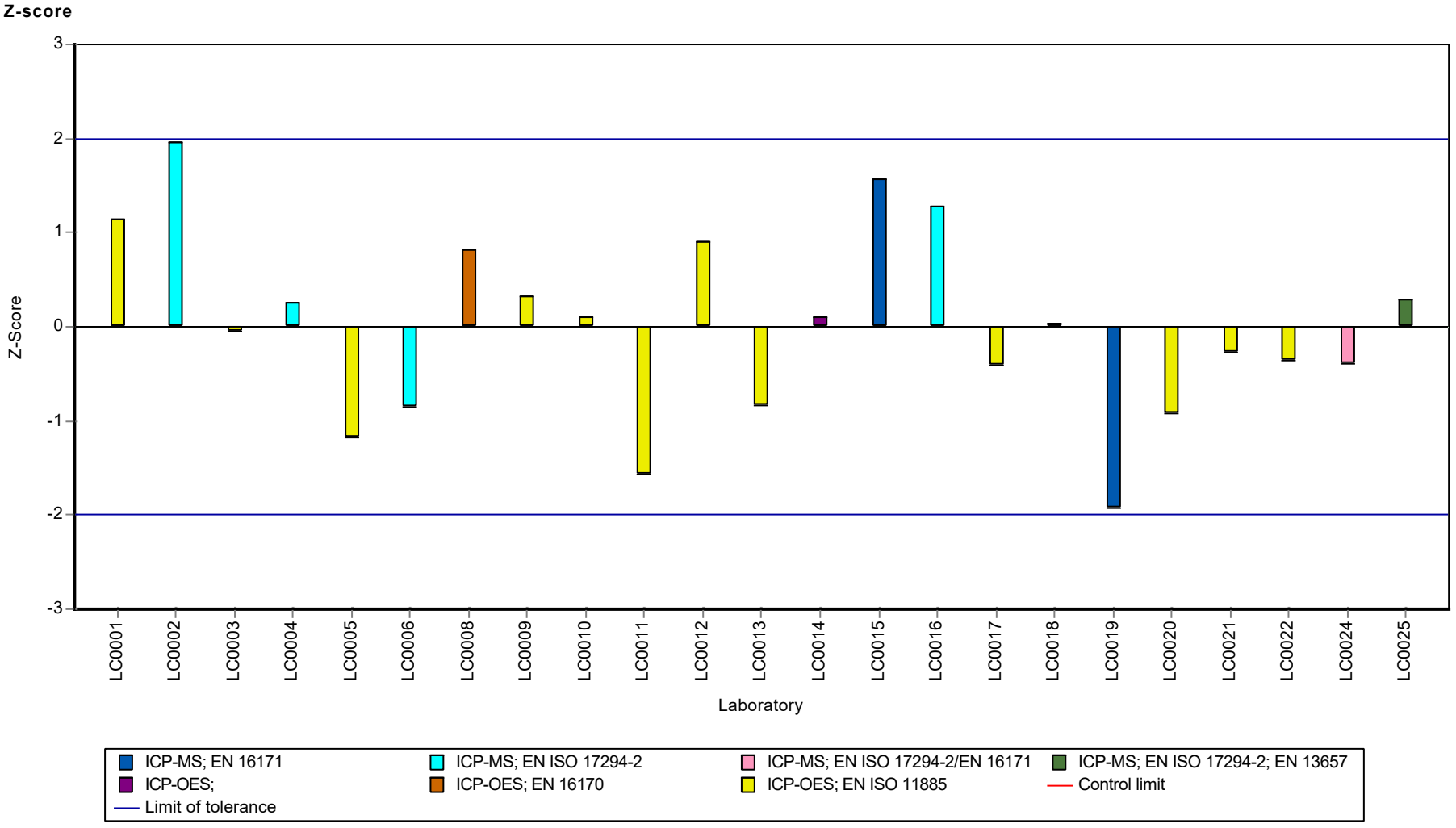
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0024
LC0025
Laboratory
ICP-MS; EN 16171
ICP-MS; EN ISO 17294-2
ICP-MS; EN ISO 17294-2/EN 16171
ICP-MS; EN ISO 17294-2; EN 13657
ICP-OES;
ICP-OES; EN 16170
ICP-OES; EN ISO 11885
Control limit
Limit of tolerance

Parameter oriented report

AB10

Cobalt

Unit	mg/kg DM
Assigned value ± U (k=2)	25.3 ± 1.54
Criterion	3.55 (14 %)
Minimum - Maximum	17.4 - 31
Control test value ± U (k=2)	25.00 ± 4.25

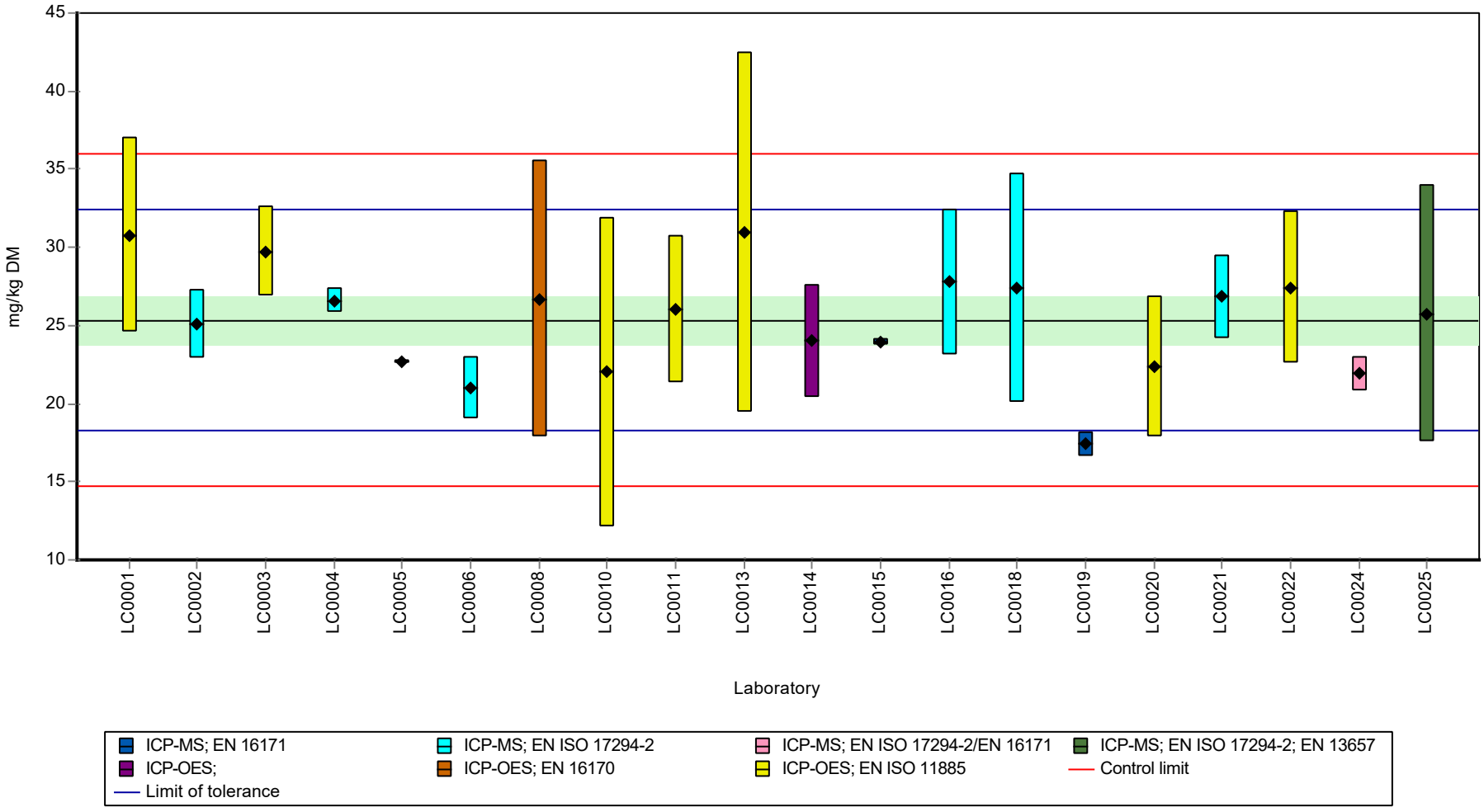
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	30.8	6.2	122	1.54	
LC0002	25.1	2.18	99.1	-0.06	
LC0003	29.75	2.9	117	1.25	
LC0004	26.6	0.825	105	0.36	
LC0005	22.7	0.1	89.6	-0.74	
LC0006	21	2	82.9	-1.22	
LC0007	-	-	-	-	
LC0008	26.7	8.82	105	0.39	
LC0009	-	-	-	-	
LC0010	22	9.9	86.9	-0.94	
LC0011	26	4.7	103	0.19	
LC0012	-	-	-	-	
LC0013	31	11.53	122	1.6	
LC0014	24	3.6	94.8	-0.37	
LC0015	23.9	0.212	94.4	-0.4	
LC0016	27.782	4.67	110	0.69	
LC0017	-	-	-	-	
LC0018	27.4	7.3	108	0.58	
LC0019	17.4	0.8	68.7	-2.24	
LC0020	22.4	4.5	88.5	-0.82	
LC0021	26.829	2.683	106	0.42	
LC0022	27.43	4.88	108	0.59	
LC0023	-	-	-	-	
LC0024	21.936	1.1	86.6	-0.96	
LC0025	25.76	8.24	102	0.12	

Characteristics of parameter

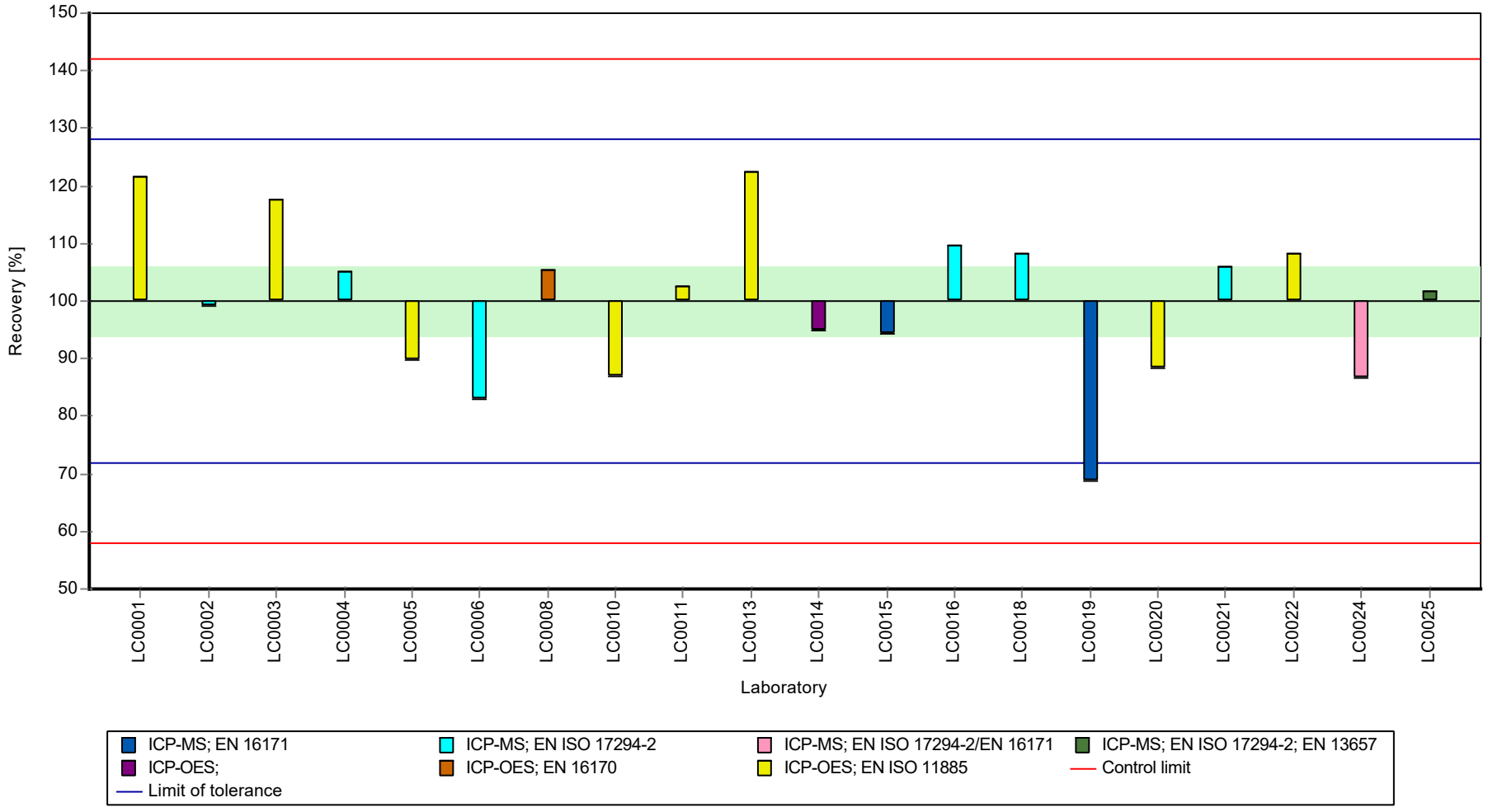
	all results	without outliers	Unit
Mean ± CI (99%)	25.3 ± 2.32	25.3 ± 2.32	mg/kg DM
Minimum	17.4	17.4	mg/kg DM
Maximum	31	31	mg/kg DM
Standard deviation	3.45	3.45	mg/kg DM
rel. standard deviation	13.6	13.6	%
n	20	20	-

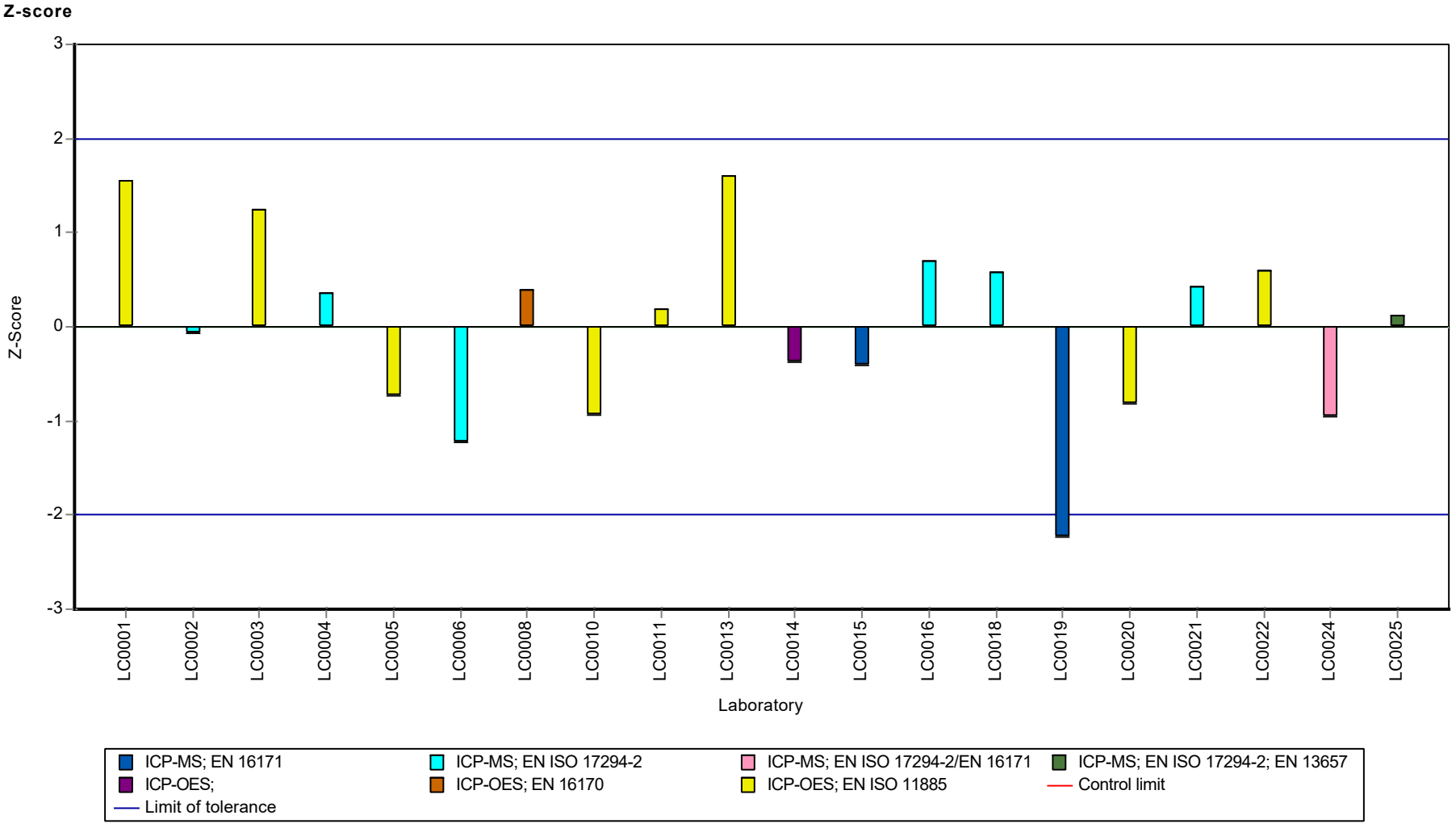
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
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2
1
0
-1
-2
-3
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0008
LC0010
LC0011
LC0013
LC0014
LC0015
LC0016
LC0018
LC0019
LC0020
LC0021
LC0022
LC0024
LC0025
Laboratory
ICP-MS; EN 16171
ICP-MS; EN ISO 17294-2
ICP-MS; EN ISO 17294-2/EN 16171
ICP-MS; EN ISO 17294-2; EN 13657
ICP-OES;
ICP-OES; EN 16170
ICP-OES; EN ISO 11885
Control limit
Limit of tolerance

Parameter oriented report

AB10

Copper

Unit	mg/kg DM
Assigned value ± U (k=2)	2970 ± 171
Criterion	416 (14 %)
Minimum - Maximum	2160 - 3800
Control test value ± U (k=2)	2660.0 ± 452

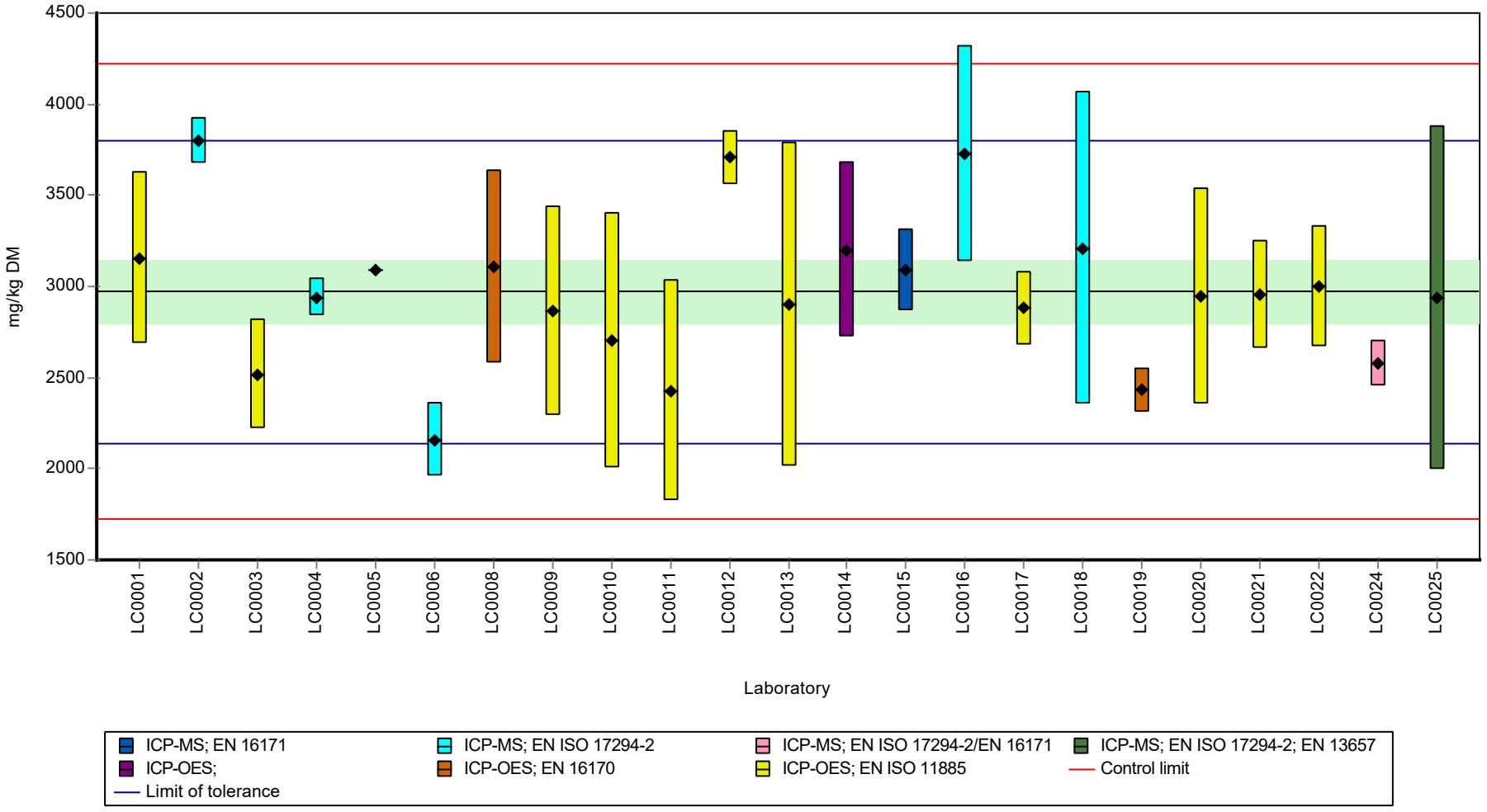
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	3156	473	106	0.45	
LC0002	3799	122	128	1.99	
LC0003	2516	301	84.7	-1.09	
LC0004	2938	102.83	98.9	-0.08	
LC0005	3091	0.1	104	0.29	
LC0006	2160	200	72.7	-1.95	
LC0007	-	-	-	-	
LC0008	3106	528	105	0.33	
LC0009	2867	573	96.5	-0.25	
LC0010	2700	700	90.9	-0.65	
LC0011	2429	607	81.8	-1.3	
LC0012	3707	149	125	1.77	
LC0013	2900	890.3	97.6	-0.17	
LC0014	3200	480	108	0.55	
LC0015	3090	221	104	0.29	
LC0016	3730.773	592.44	126	1.83	
LC0017	2880	201	96.9	-0.22	
LC0018	3210	858	108	0.57	
LC0019	2430	120	81.8	-1.3	
LC0020	2945	590	99.1	-0.06	
LC0021	2957.248	295.725	99.5	-0.03	
LC0022	3001	333	101	0.07	
LC0023	-	-	-	-	
LC0024	2577.86	129	86.8	-0.94	
LC0025	2937.88	940	98.9	-0.08	

Characteristics of parameter

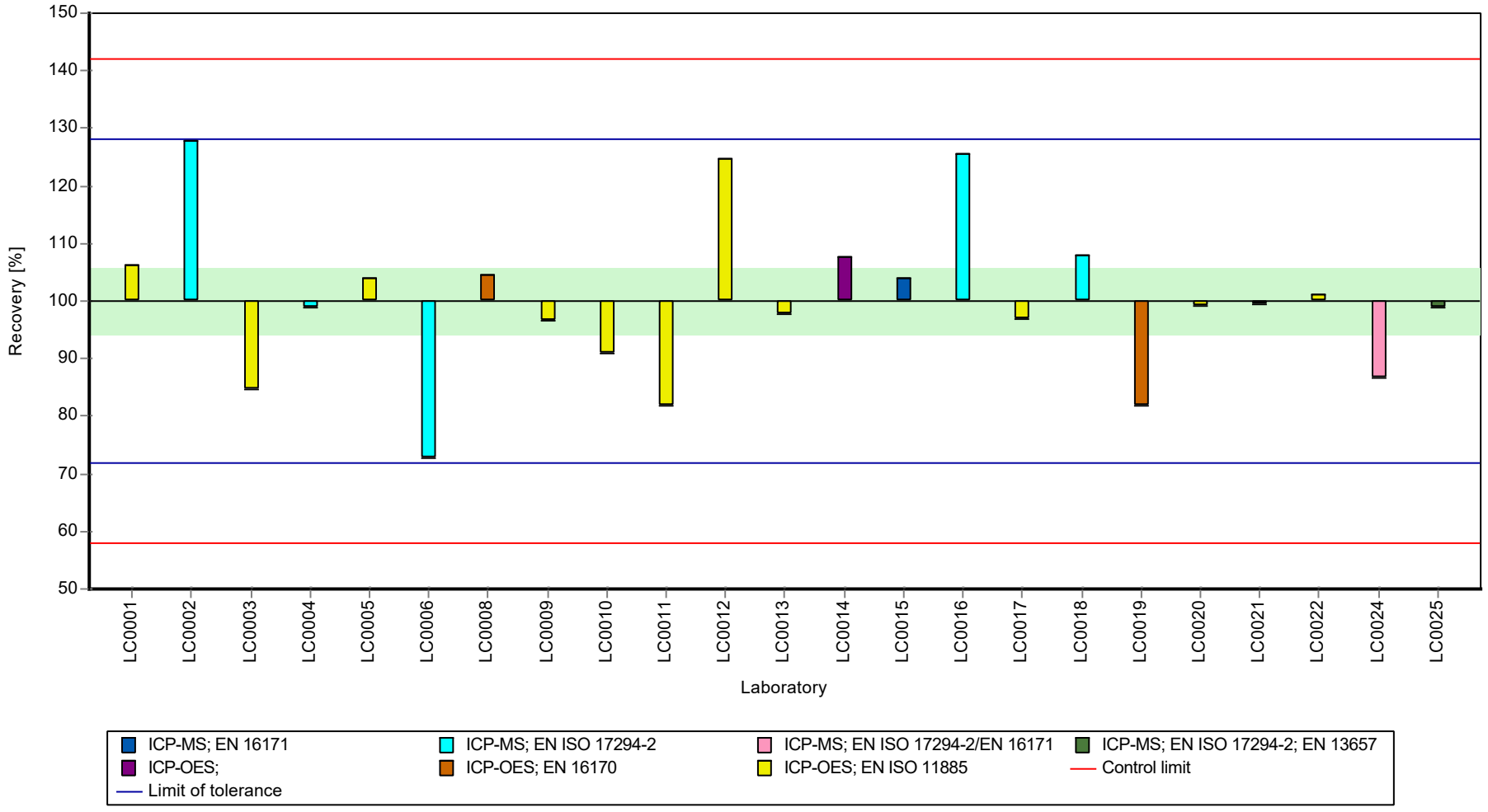
	all results	without outliers	Unit
Mean ± CI (99%)	2970 ± 257	2970 ± 257	mg/kg DM
Minimum	2160	2160	mg/kg DM
Maximum	3800	3800	mg/kg DM
Standard deviation	410	410	mg/kg DM
rel. standard deviation	13.8	13.8	%
n	23	23	-

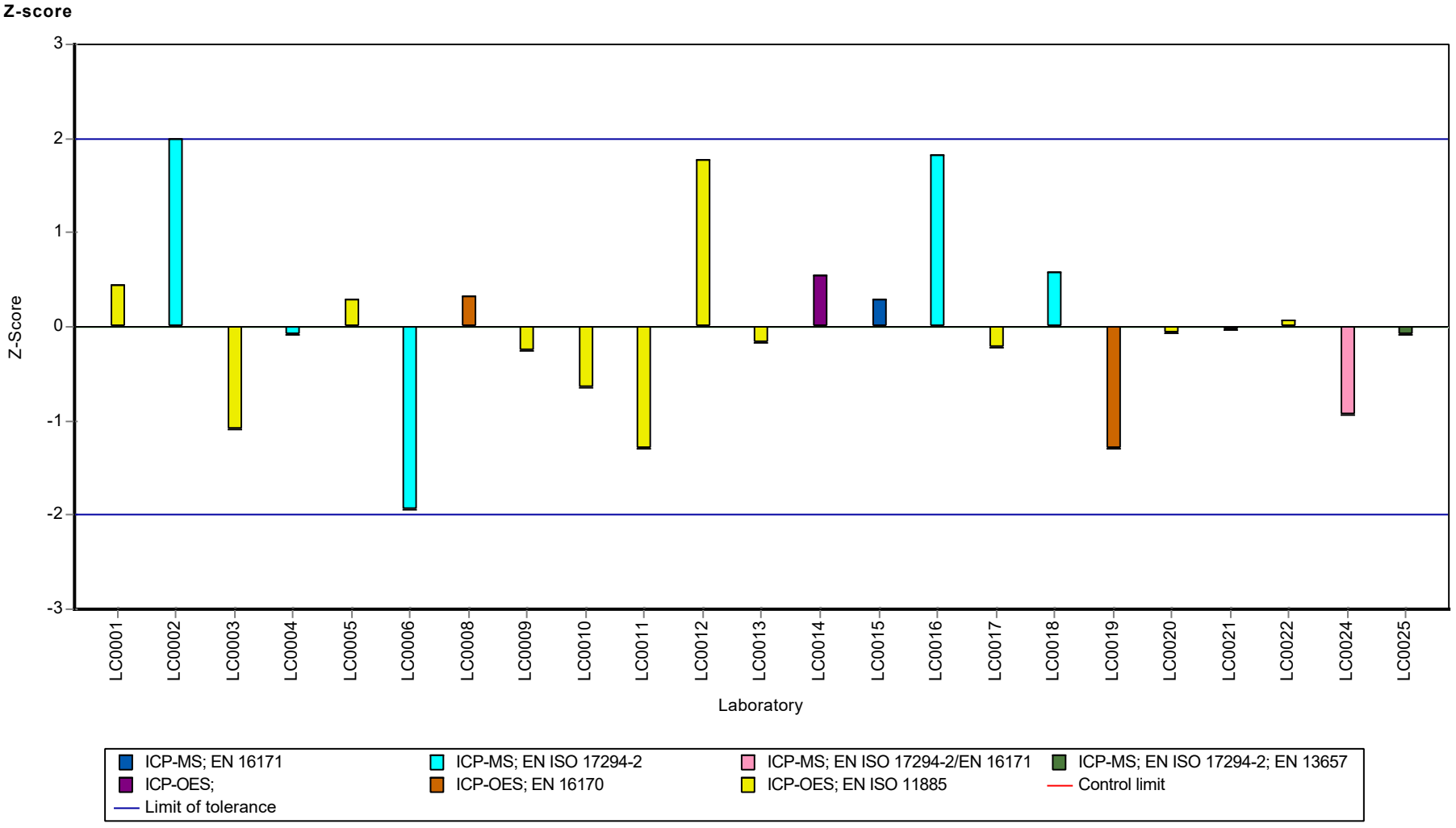
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0024
LC0025
Laboratory
ICP-MS; EN 16171
ICP-MS; EN ISO 17294-2
ICP-MS; EN ISO 17294-2/EN 16171
ICP-MS; EN ISO 17294-2; EN 13657
ICP-OES;
ICP-OES; EN 16170
ICP-OES; EN ISO 11885
Control limit
Limit of tolerance

Parameter oriented report

AB10

HC-Index

Unit	mg/kg DM
Assigned value ± U (k=2)	660 ± 114
Criterion	238 (36 %)
Minimum - Maximum	270 - 1190
Control test value ± U (k=2)	583.0 ± 117

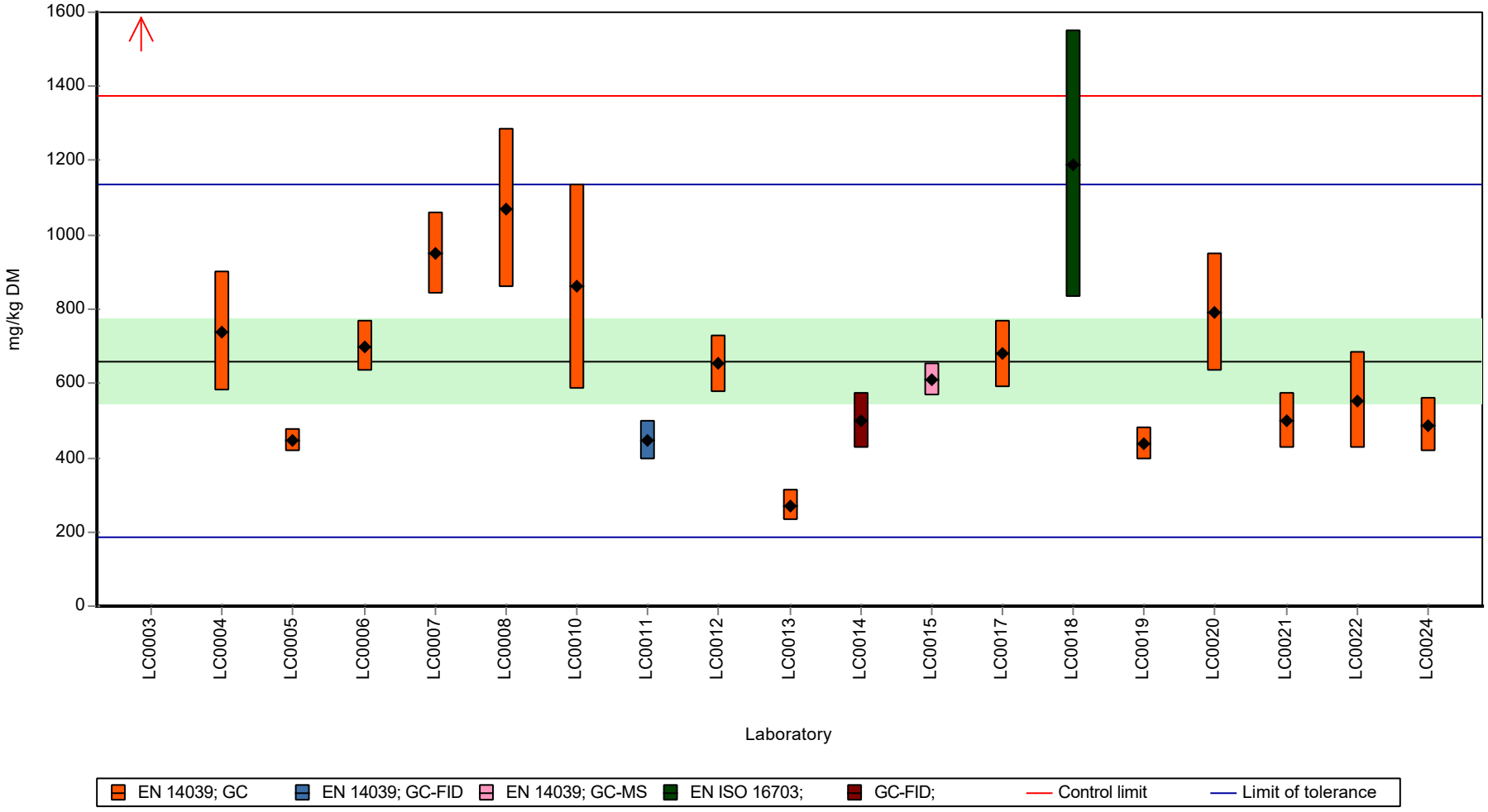
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	-	-	-	-	
LC0003	1700	153	257	4.37	H
LC0004	740	162.06	112	0.34	
LC0005	446	30	67.5	-0.9	
LC0006	700	70	106	0.17	
LC0007	950	111	144	1.22	
LC0008	1071	214	162	1.73	
LC0009	-	-	-	-	
LC0010	860	275	130	0.84	
LC0011	447	54	67.7	-0.9	
LC0012	653	78	98.9	-0.03	
LC0013	270	41.88	40.9	-1.64	
LC0014	500	75	75.7	-0.68	
LC0015	610	45.1	92.4	-0.21	
LC0016	-	-	-	-	
LC0017	680	90	103	0.08	
LC0018	1190	360	180	2.23	
LC0019	438	45	66.3	-0.94	
LC0020	790	160	120	0.55	
LC0021	499.956	74.993	75.7	-0.68	
LC0022	554.3	129	83.9	-0.45	
LC0023	-	-	-	-	
LC0024	487.34	73.5	73.8	-0.73	
LC0025	-	-	-	-	

Characteristics of parameter

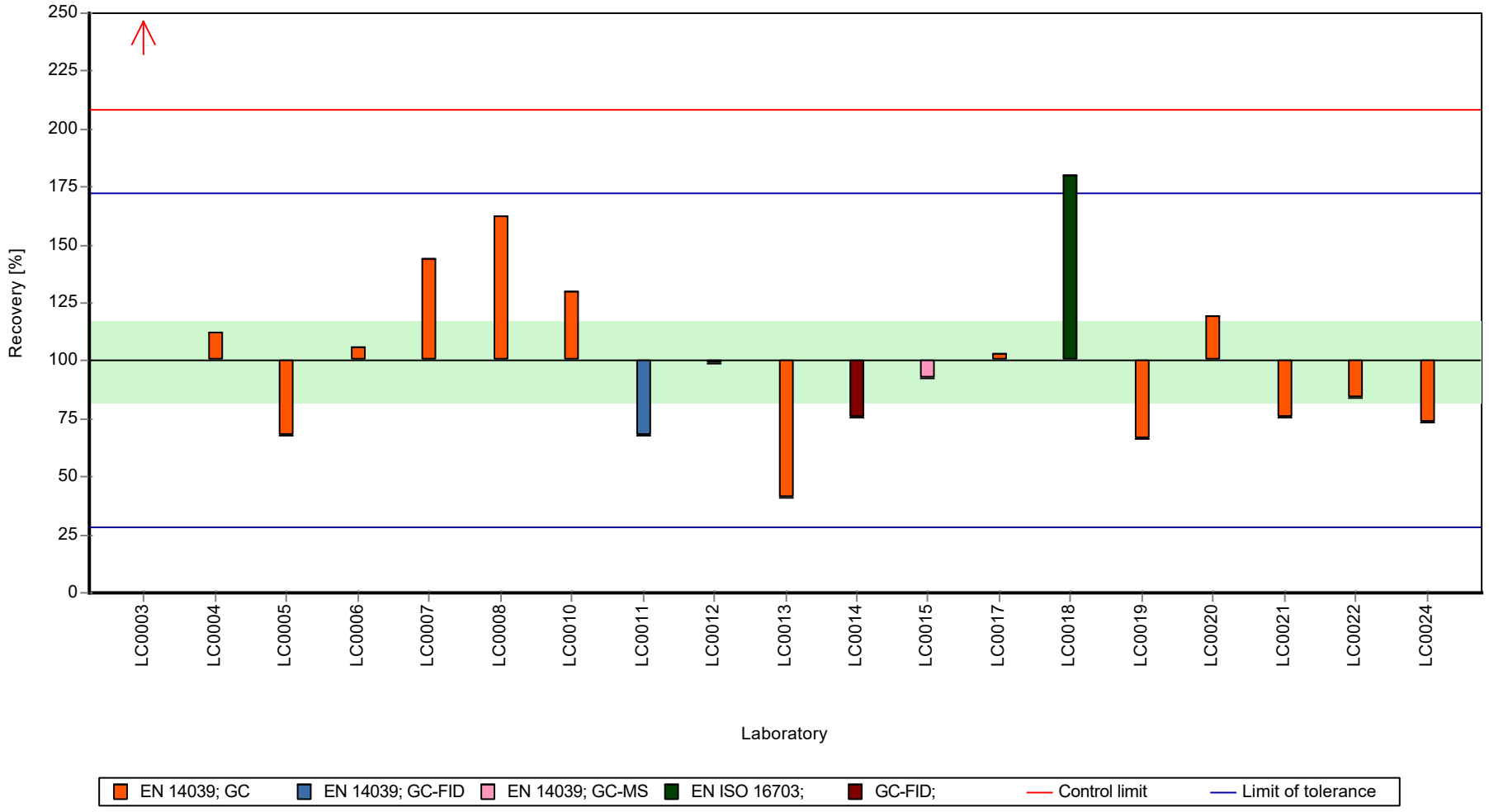
	all results	without outliers	Unit
Mean ± CI (99%)	715 ± 230	660 ± 170	mg/kg DM
Minimum	270	270	mg/kg DM
Maximum	1700	1190	mg/kg DM
Standard deviation	334	241	mg/kg DM
rel. standard deviation	46.7	36.5	%
n	19	18	-

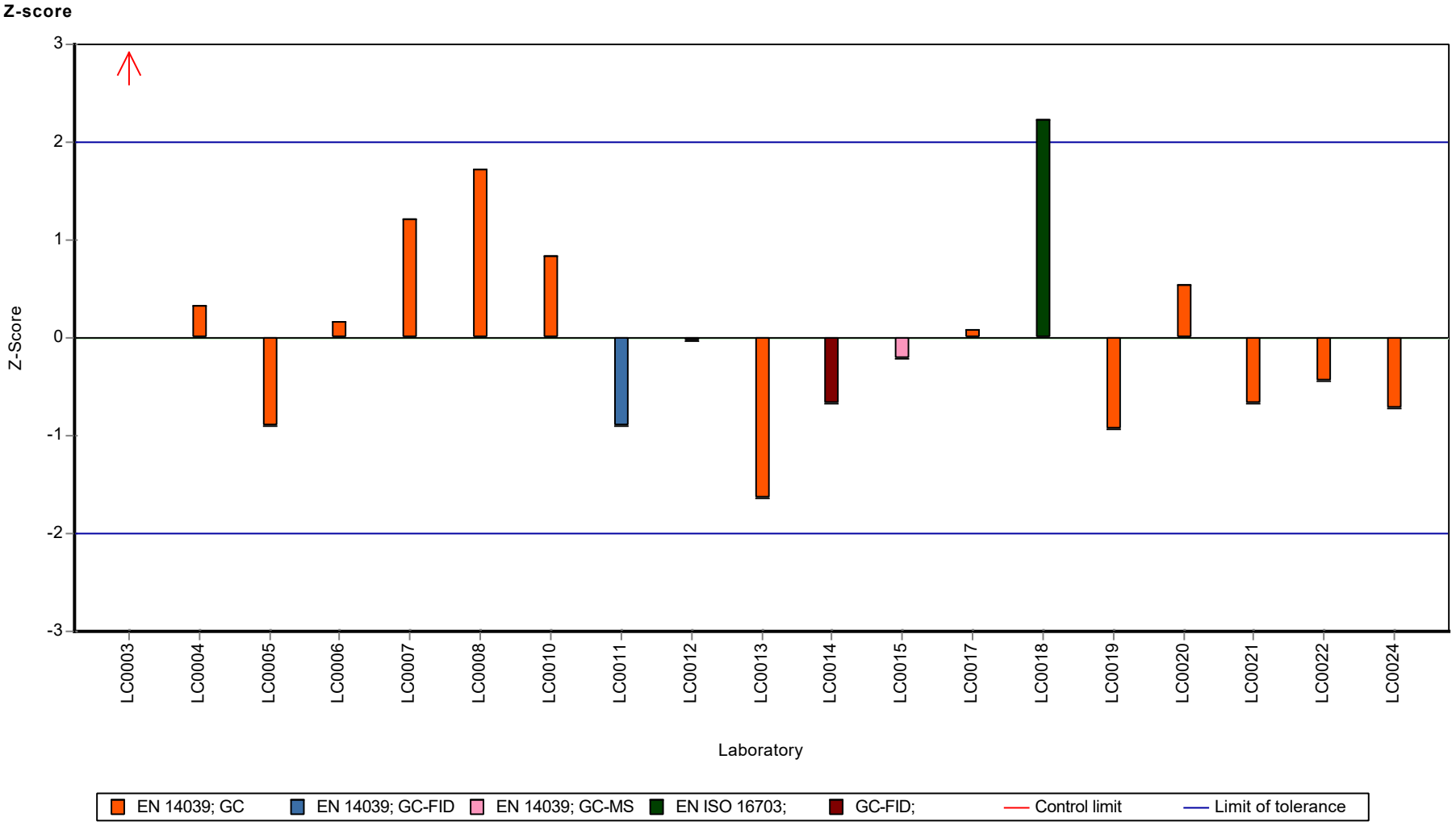
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
Z-Score
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0024
Laboratory
EN 14039; GC
EN 14039; GC-FID
EN 14039; GC-MS
EN ISO 16703;
GC-FID;
Control limit
Limit of tolerance

Parameter oriented report

AB10

Lead

Unit	mg/kg DM
Assigned value ± U (k=2)	478 ± 27.2
Criterion	62.1 (13 %)
Minimum - Maximum	333 - 595
Control test value ± U (k=2)	478.0 ± 47.8

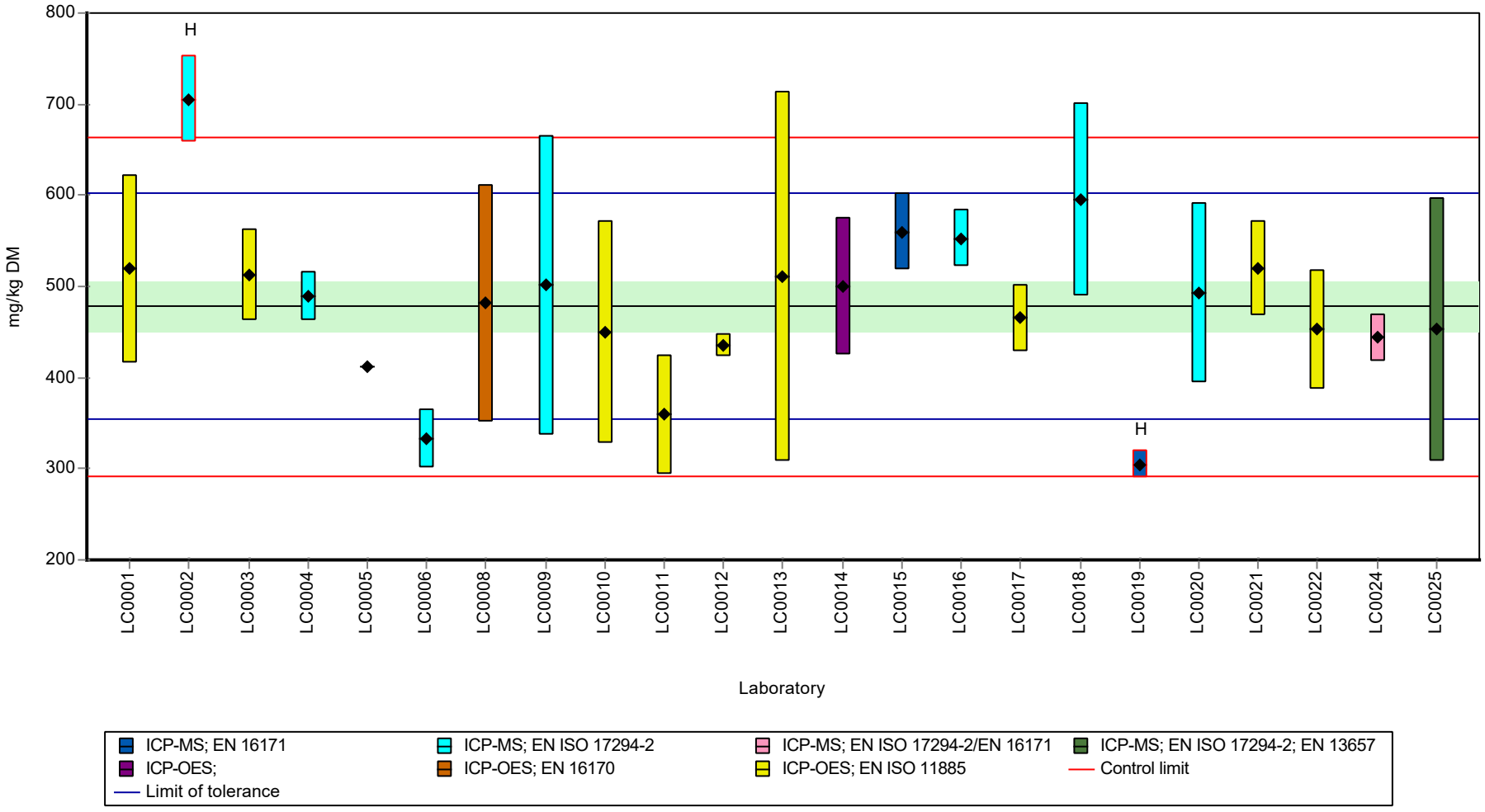
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	519	104	109	0.66	
LC0002	705.5	47.7	148	3.66	H
LC0003	512.89	50	107	0.56	
LC0004	489	26.9	102	0.18	
LC0005	412	0.1	86.2	-1.06	
LC0006	333	33	69.7	-2.33	
LC0007	-	-	-	-	
LC0008	481.2	130	101	0.05	
LC0009	501	165	105	0.37	
LC0010	450	122	94.1	-0.45	
LC0011	359	65	75.1	-1.91	
LC0012	435.4	13	91.1	-0.69	
LC0013	510	202.98	107	0.52	
LC0014	500	75	105	0.35	
LC0015	560	41.6	117	1.32	
LC0016	552.833	31.18	116	1.2	
LC0017	465	37	97.3	-0.21	
LC0018	595	106	124	1.88	
LC0019	305	15	63.8	-2.78	H
LC0020	493	99	103	0.24	
LC0021	519.734	51.973	109	0.67	
LC0022	452.8	65.7	94.7	-0.41	
LC0023	-	-	-	-	
LC0024	443.761	26.6	92.8	-0.55	
LC0025	452.59	145	94.7	-0.41	

Characteristics of parameter

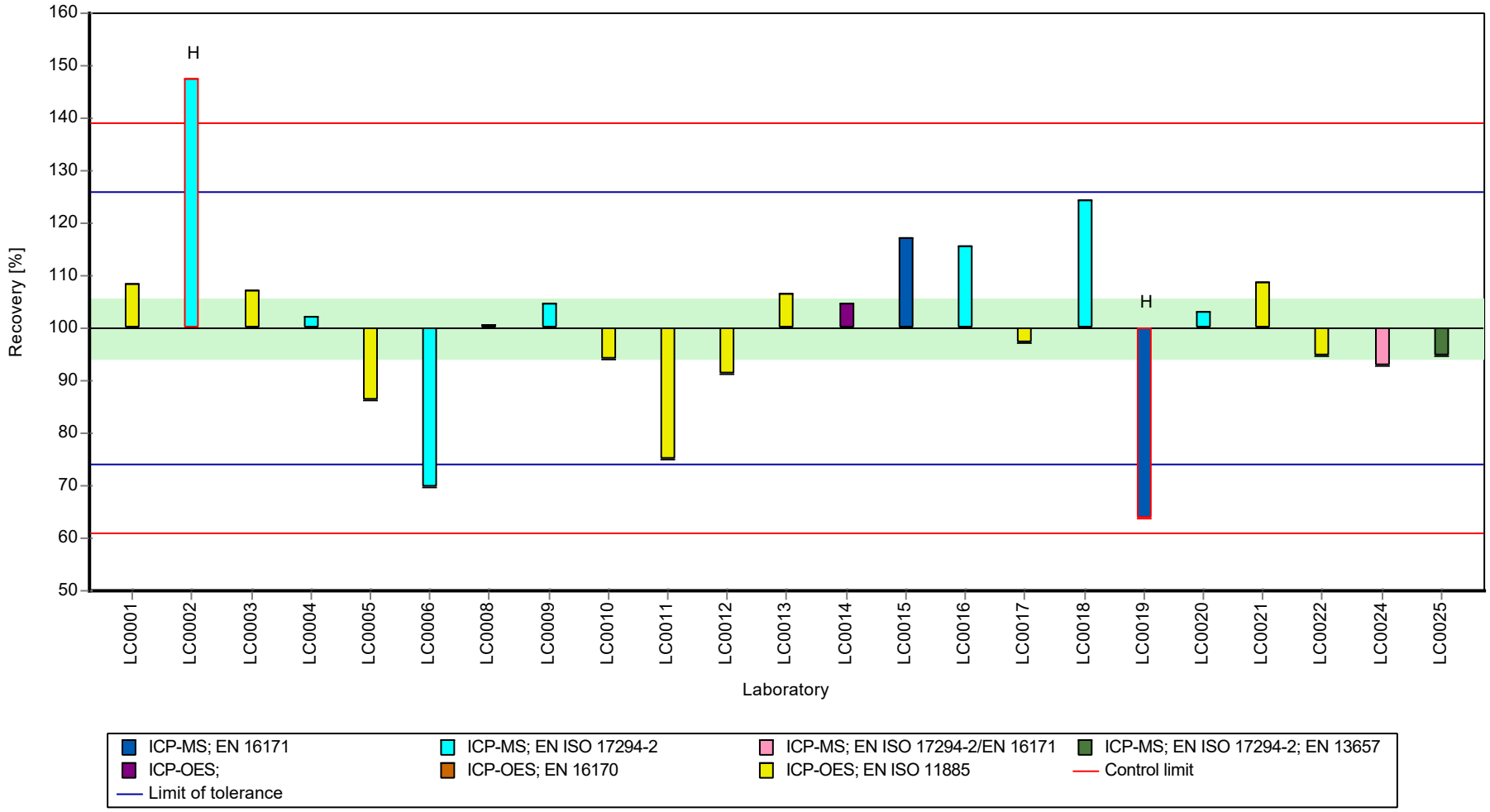
	all results	without outliers	Unit
Mean ± CI (99%)	480 ± 53.2	478 ± 40.8	mg/kg DM
Minimum	305	333	mg/kg DM
Maximum	706	595	mg/kg DM
Standard deviation	85.1	62.4	mg/kg DM
rel. standard deviation	17.7	13	%
n	23	21	-

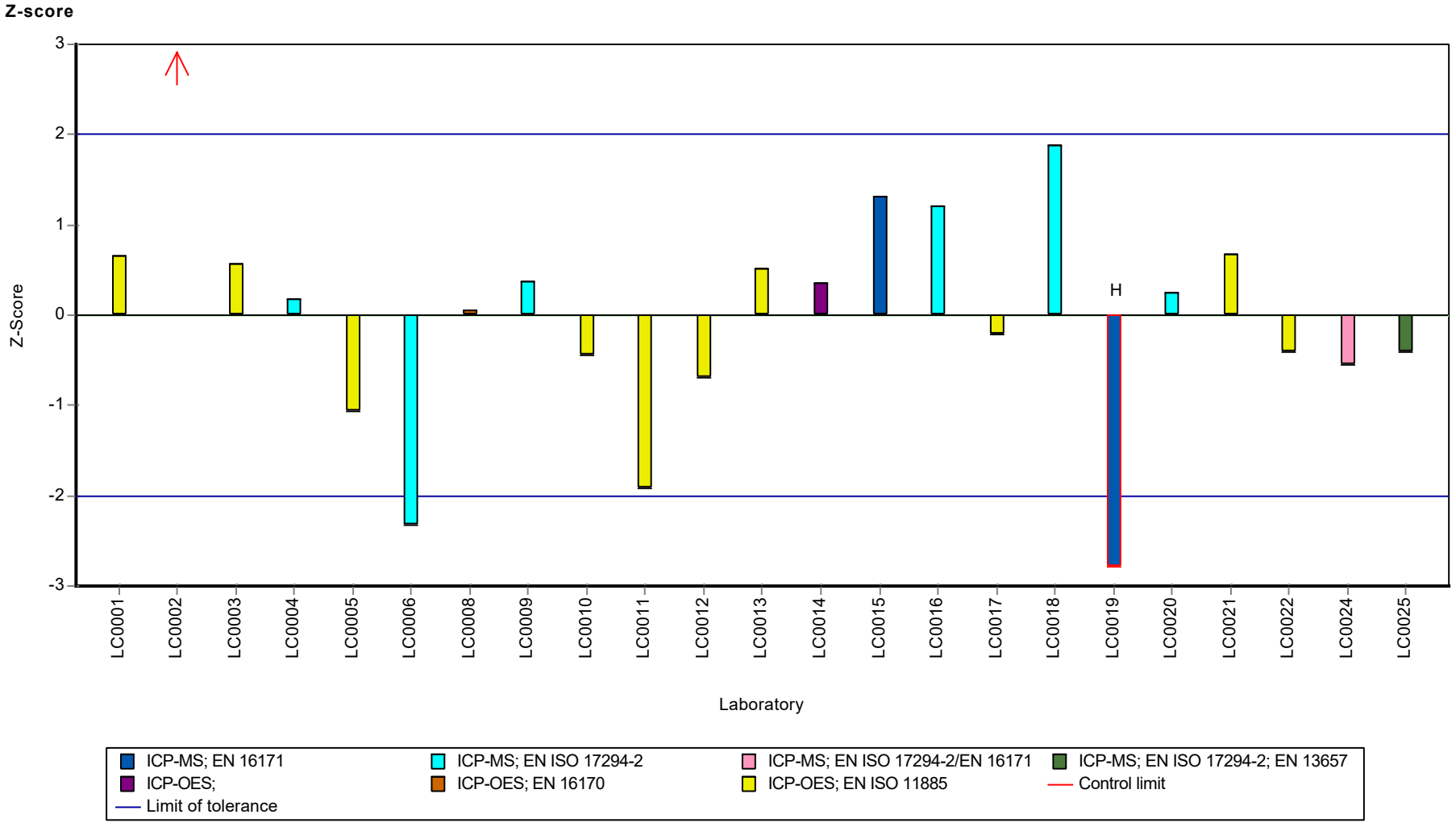
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
H
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0024
LC0025
Laboratory
ICP-MS; EN 16171
ICP-MS; EN ISO 17294-2
ICP-MS; EN ISO 17294-2/EN 16171
ICP-MS; EN ISO 17294-2; EN 13657
ICP-OES;
ICP-OES; EN 16170
ICP-OES; EN ISO 11885
Control limit
Limit of tolerance

Parameter oriented report

AB10

Mercury

Unit	mg/kg DM
Assigned value ± U (k=2)	0.0394 ± 0.00938
Criterion	0.0162 (41 %)
Minimum - Maximum	0.012 - 0.07
Control test value ± U (k=2)	0.2780 ± 0.0445

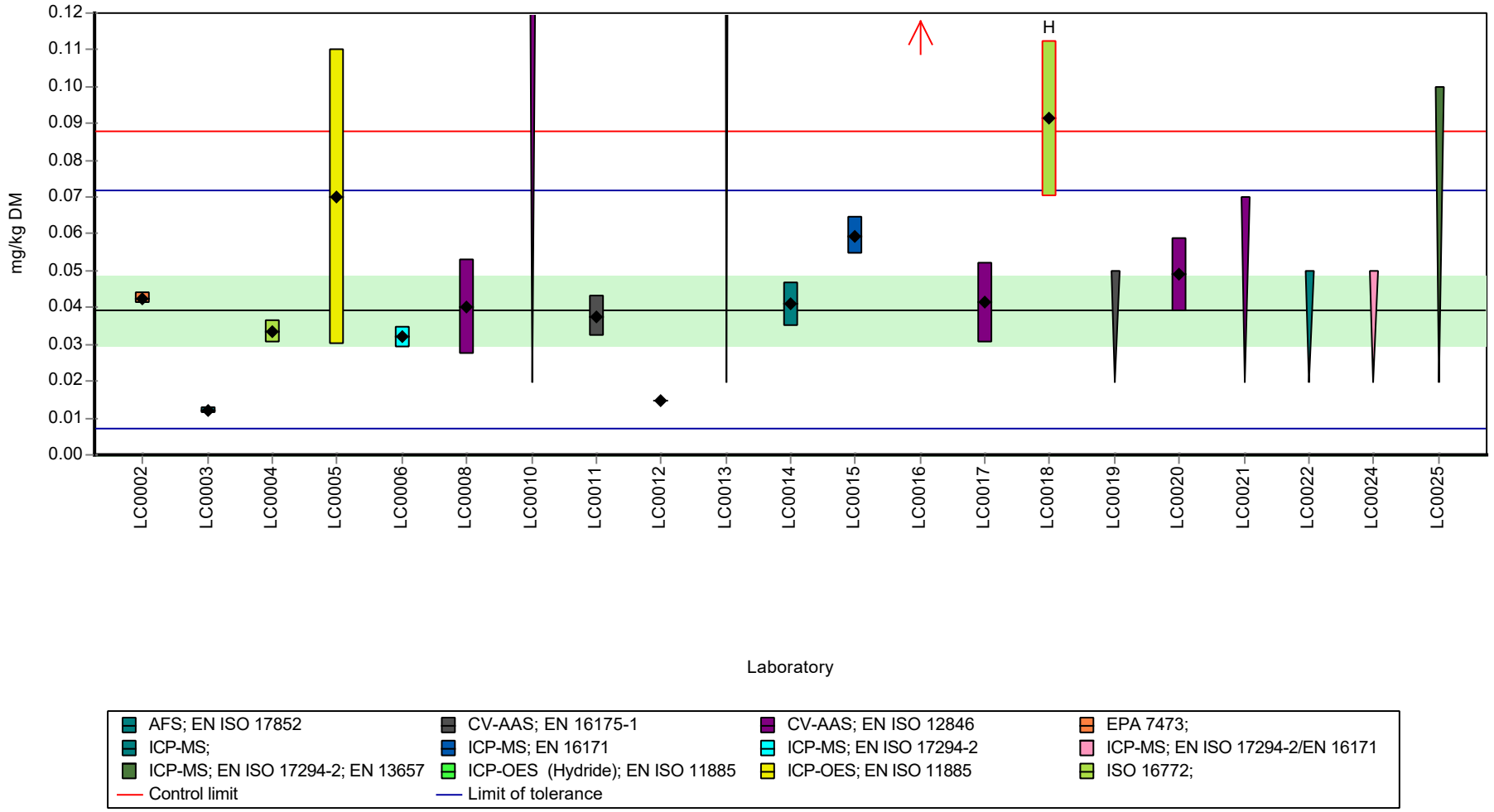
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	0.0426	0.0017	108	0.2	
LC0003	0.012	0.001	30.4	-1.7	
LC0004	0.0334	0.00327	84.7	-0.37	
LC0005	0.07	0.04	178	1.89	
LC0006	0.032	0.003	81.2	-0.46	
LC0007	-	-	-	-	
LC0008	0.04	0.013	101	0.04	
LC0009	-	-	-	-	
LC0010	< 0.2 (LOQ)	-	-	-	
LC0011	0.0376	0.0056	95.4	-0.11	
LC0012	0.01468	0.00011	37.2	-1.53	
LC0013	< 0.5 (LOQ)	-	-	-	
LC0014	0.041	0.006	104	0.1	
LC0015	0.0595	0.005	151	1.24	
LC0016	0.487	0.23	1240	27.7	H
LC0017	0.0413	0.011	105	0.12	
LC0018	0.0913	0.0213	232	3.21	H
LC0019	< 0.05 (LOQ)	-	-	-	
LC0020	0.049	0.01	124	0.59	
LC0021	< 0.07 (LOQ)	-	-	-	
LC0022	< 0.05 (LOQ)	-	-	-	
LC0023	-	-	-	-	
LC0024	< 0.05 (LOQ)	-	-	-	
LC0025	< 0.1 (LOQ)	-	-	-	

Characteristics of parameter

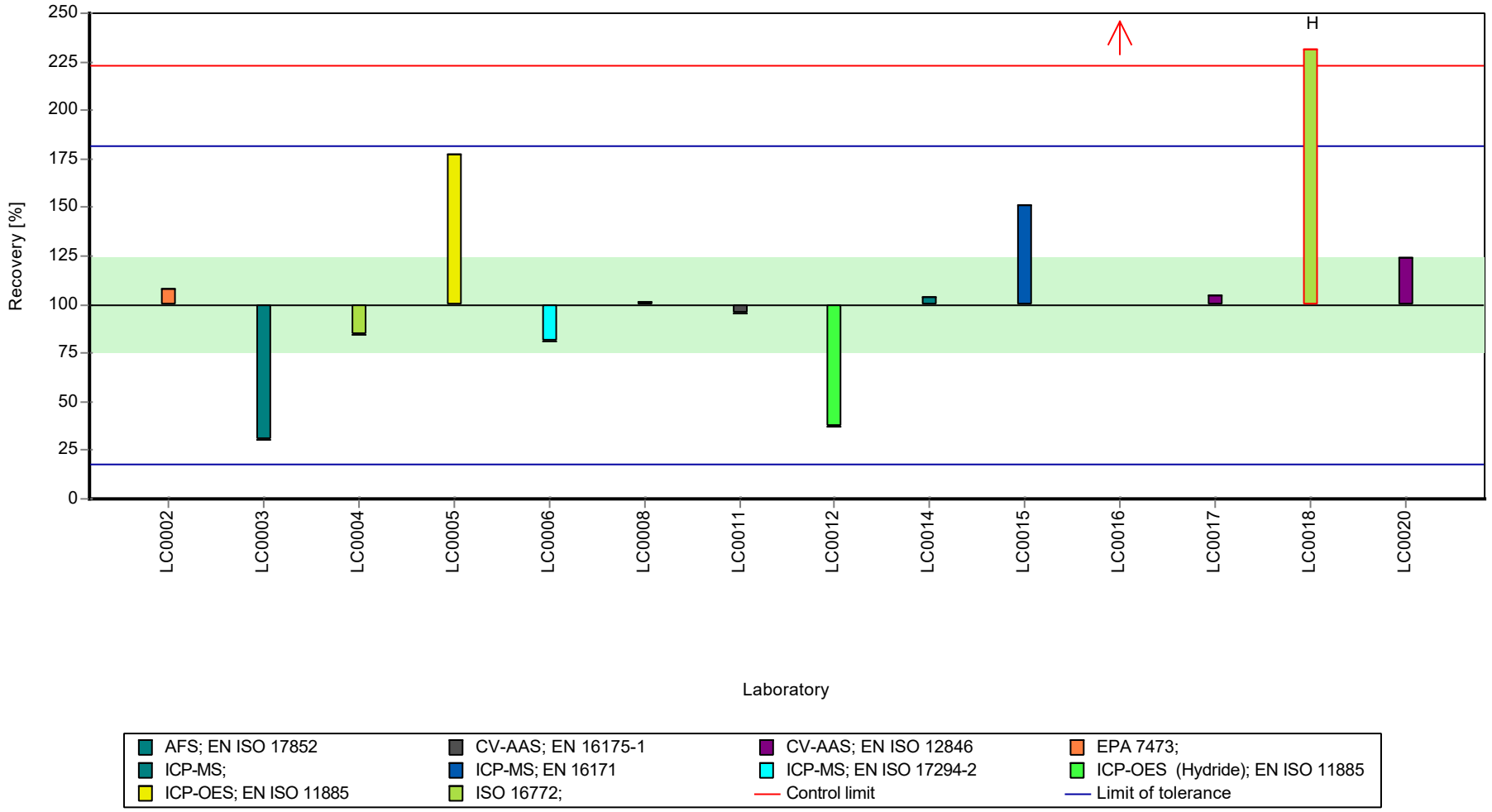
	all results	without outliers	Unit
Mean ± CI (99%)	0.0751 ± 0.0964	0.0394 ± 0.0141	mg/kg DM
Minimum	0.012	0.012	mg/kg DM
Maximum	0.487	0.07	mg/kg DM
Standard deviation	0.12	0.0163	mg/kg DM
rel. standard deviation	160	41.2	%
n	14	12	-

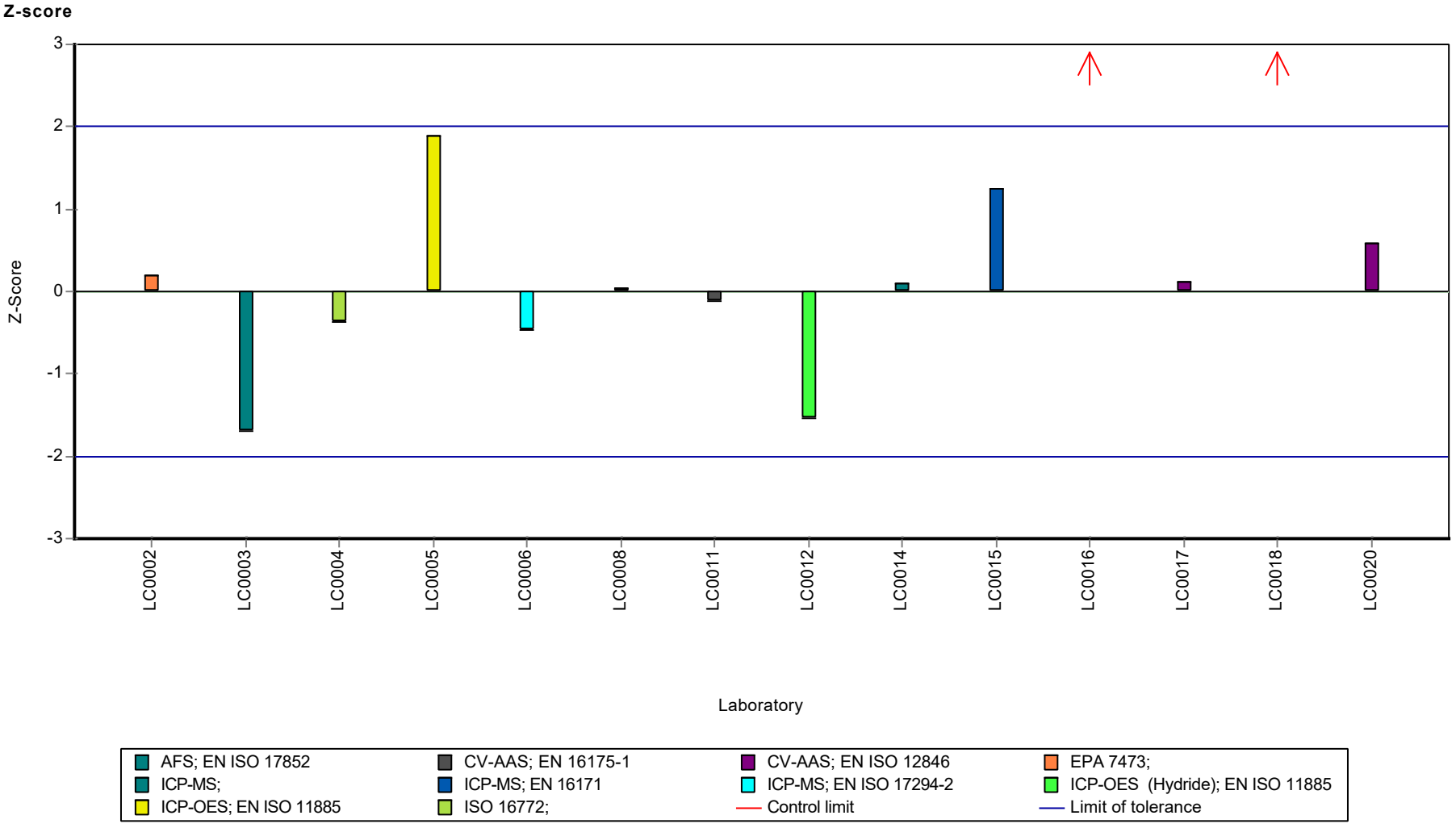
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
LC0002
LC0003
LC0004
LC0005
LC0006
LC0008
LC0011
LC0012
LC0014
LC0015
LC0016
LC0017
LC0018
LC0020
Laboratory
AFS; EN ISO 17852
CV-AAS; EN 16175-1
CV-AAS; EN ISO 12846
EPA 7473;
ICP-MS;
ICP-MS; EN 16171
ICP-MS; EN ISO 17294-2
ICP-OES (Hydride); EN ISO 11885
ICP-OES; EN ISO 11885
ISO 16772;
Control limit
Limit of tolerance

Parameter oriented report

AB10

Molybdenum

Unit	mg/kg DM
Assigned value ± U (k=2)	23.6 ± 1.86
Criterion	4.24 (18 %)
Minimum - Maximum	17 - 32.7
Control test value ± U (k=2)	28.60 ± 7.72

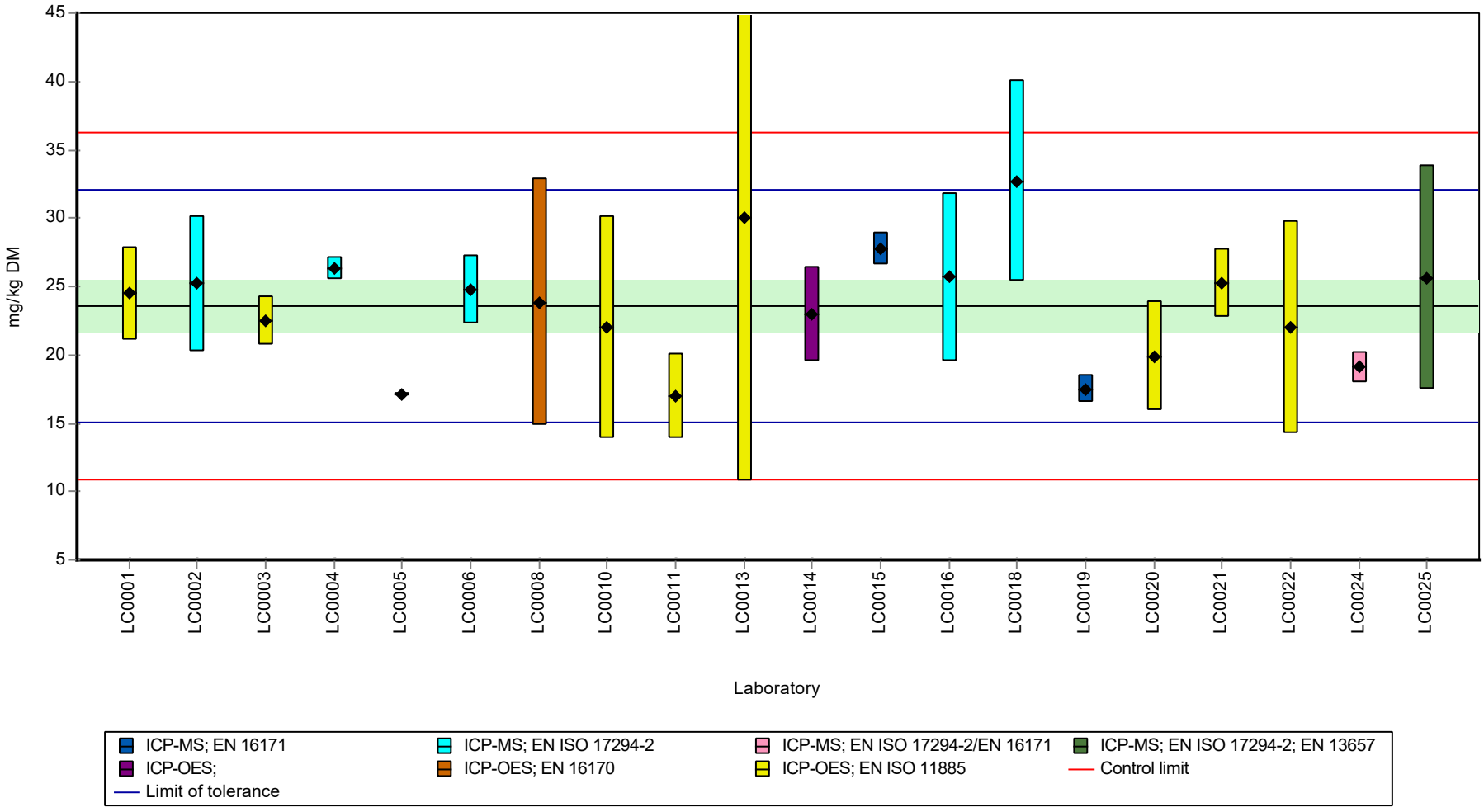
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	24.5	3.4	104	0.22	
LC0002	25.2	4.99	107	0.38	
LC0003	22.48	1.85	95.3	-0.26	
LC0004	26.3	0.842	112	0.64	
LC0005	17.1	0.1	72.5	-1.53	
LC0006	24.8	2.5	105	0.29	
LC0007	-	-	-	-	
LC0008	23.83	9.06	101	0.06	
LC0009	-	-	-	-	
LC0010	22	8.1	93.3	-0.37	
LC0011	17	3.1	72.1	-1.55	
LC0012	-	-	-	-	
LC0013	30	19.22	127	1.51	
LC0014	23	3.45	97.5	-0.14	
LC0015	27.7	1.2	117	0.97	
LC0016	25.686	6.2	109	0.5	
LC0017	-	-	-	-	
LC0018	32.7	7.4	139	2.15	
LC0019	17.5	1	74.2	-1.43	
LC0020	19.9	4	84.4	-0.87	
LC0021	25.202	2.5202	107	0.38	
LC0022	22.04	7.78	93.5	-0.36	
LC0023	-	-	-	-	
LC0024	19.083	1.1	80.9	-1.06	
LC0025	25.63	8.2	109	0.48	

Characteristics of parameter

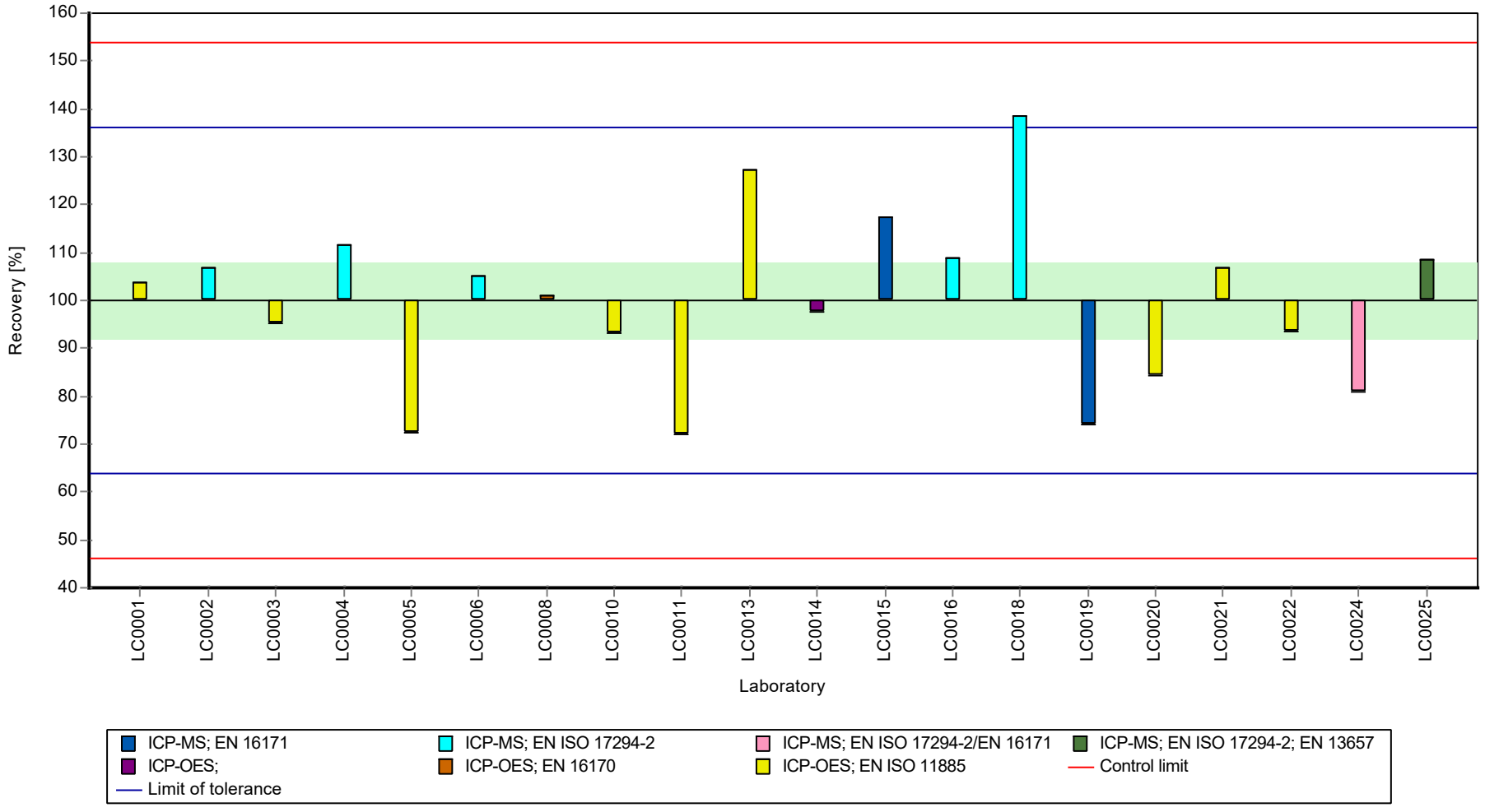
	all results	without outliers	Unit
Mean ± CI (99%)	23.6 ± 2.78	23.6 ± 2.78	mg/kg DM
Minimum	17	17	mg/kg DM
Maximum	32.7	32.7	mg/kg DM
Standard deviation	4.15	4.15	mg/kg DM
rel. standard deviation	17.6	17.6	%
n	20	20	-

Graphical presentation of results

Results

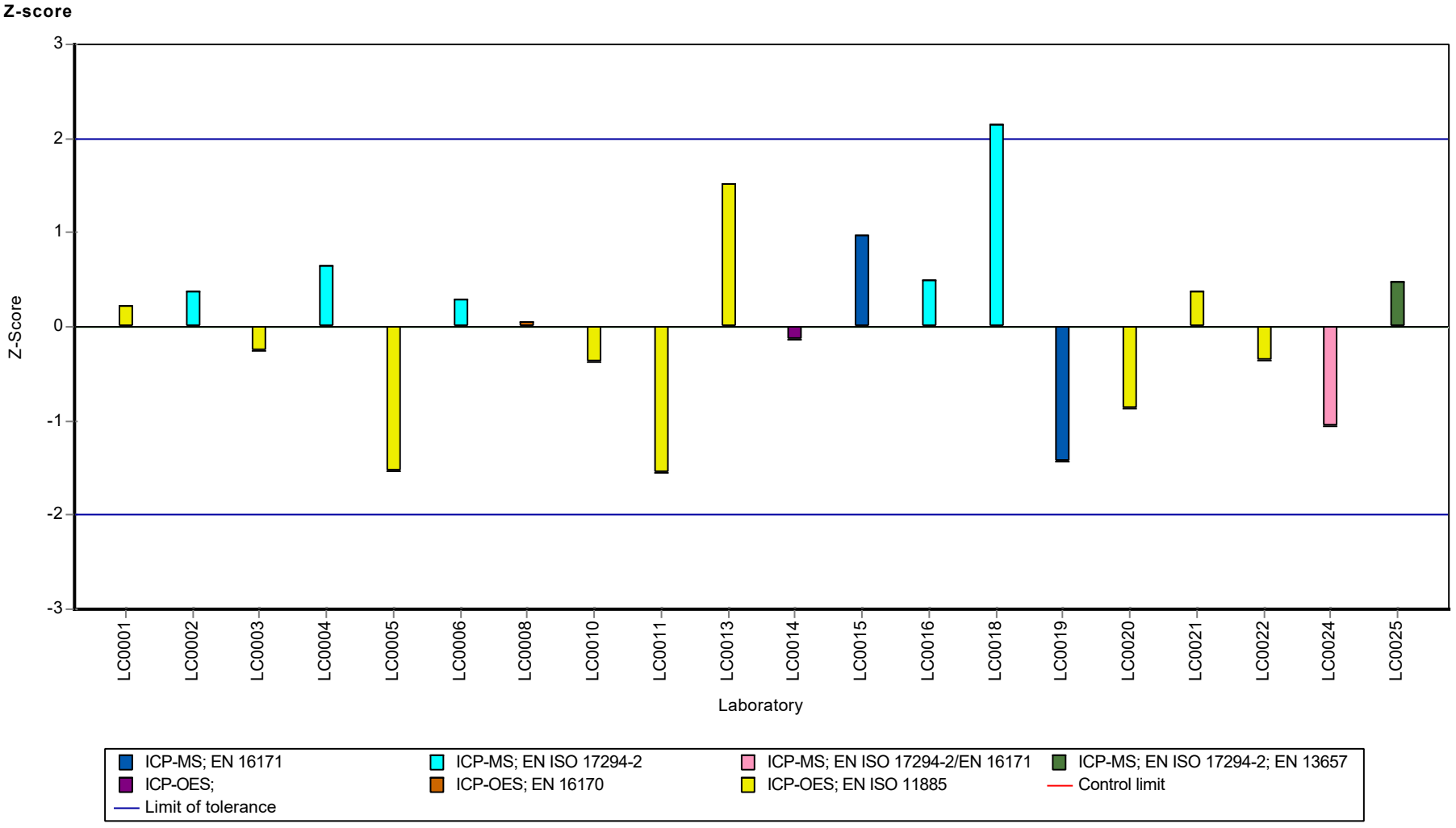


Recovery rate



Parameter oriented report Waste acc. to landfill directive (Austria) (total content) - AB10

Sample: AB10, Parameter: Molybdenum



Parameter oriented report

AB10

Nickel

Unit	mg/kg DM
Assigned value ± U (k=2)	157 ± 10.1
Criterion	23.5 (15 %)
Minimum - Maximum	114 - 203
Control test value ± U (k=2)	196.0 ± 49

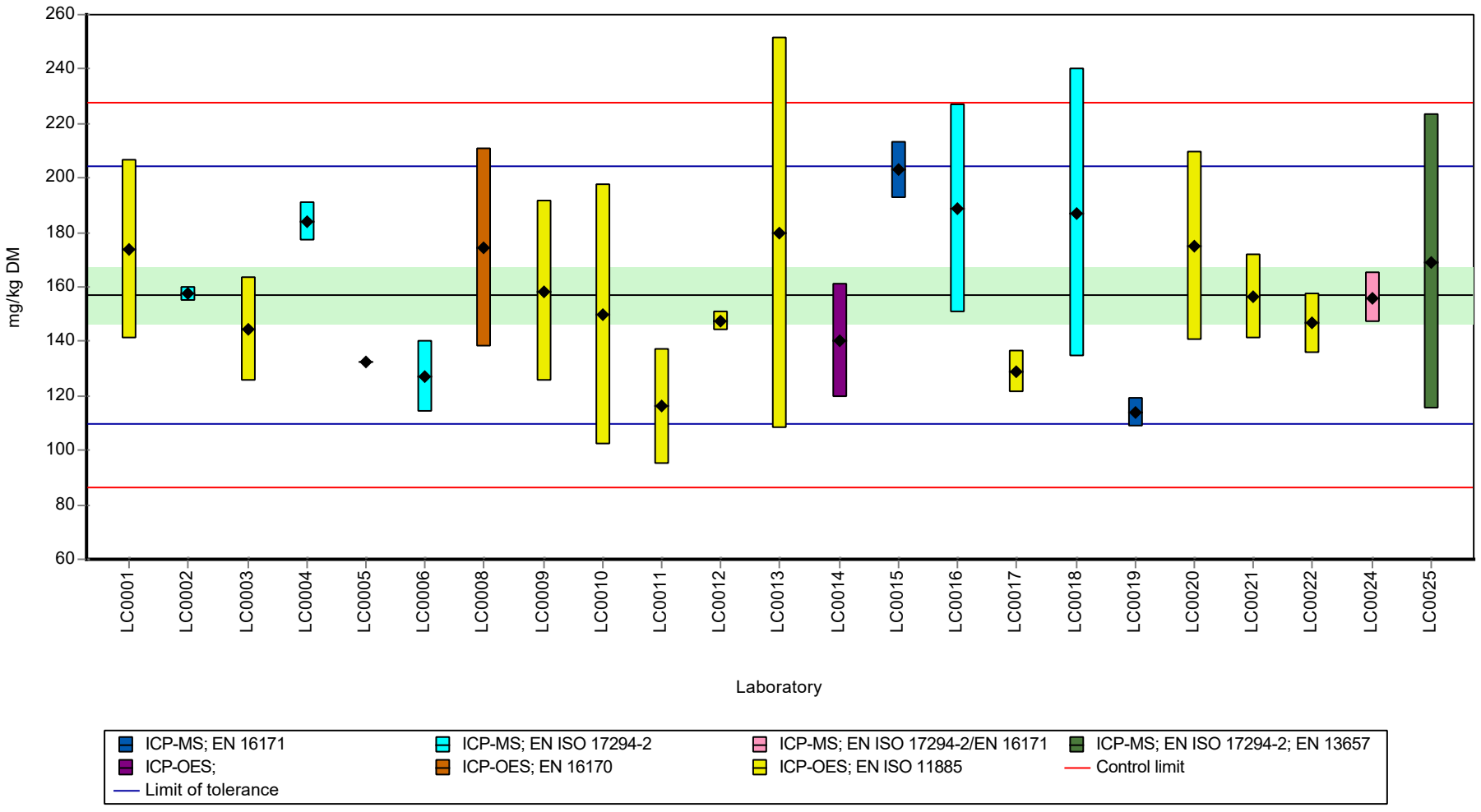
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	174	33	111	0.72	
LC0002	157.4	2.7	100	0.02	
LC0003	144.37	19	92	-0.54	
LC0004	184	7.18	117	1.15	
LC0005	132.2	0.1	84.2	-1.05	
LC0006	127	13	80.9	-1.27	
LC0007	-	-	-	-	
LC0008	174.2	36.6	111	0.73	
LC0009	158.5	33.5	101	0.06	
LC0010	150	48	95.6	-0.3	
LC0011	116	21	73.9	-1.74	
LC0012	147.5	3.4	94	-0.4	
LC0013	180	71.89	115	0.98	
LC0014	140	21	89.2	-0.72	
LC0015	203	10.4	129	1.95	
LC0016	188.856	38.34	120	1.35	
LC0017	129	7.7	82.2	-1.19	
LC0018	187	53	119	1.28	
LC0019	114	5.5	72.6	-1.83	
LC0020	175	35	111	0.77	
LC0021	156.593	15.659	99.8	-0.02	
LC0022	146.7	11.2	93.5	-0.44	
LC0023	-	-	-	-	
LC0024	155.947	9.4	99.3	-0.04	
LC0025	169.08	54.1	108	0.51	

Characteristics of parameter

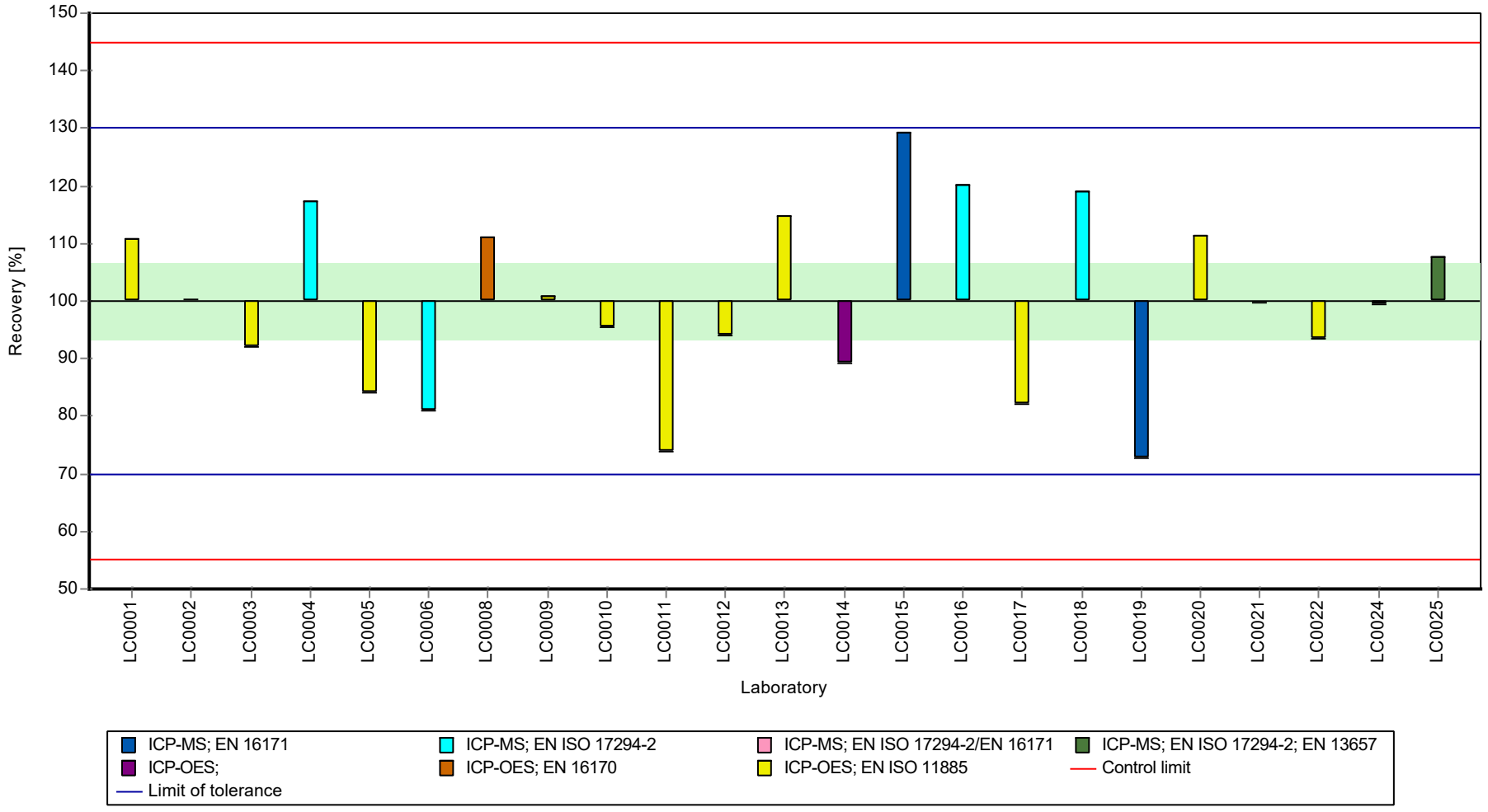
	all results	without outliers	Unit
Mean ± CI (99%)	157 ± 15.1	157 ± 15.1	mg/kg DM
Minimum	114	114	mg/kg DM
Maximum	203	203	mg/kg DM
Standard deviation	24.2	24.2	mg/kg DM
rel. standard deviation	15.4	15.4	%
n	23	23	-

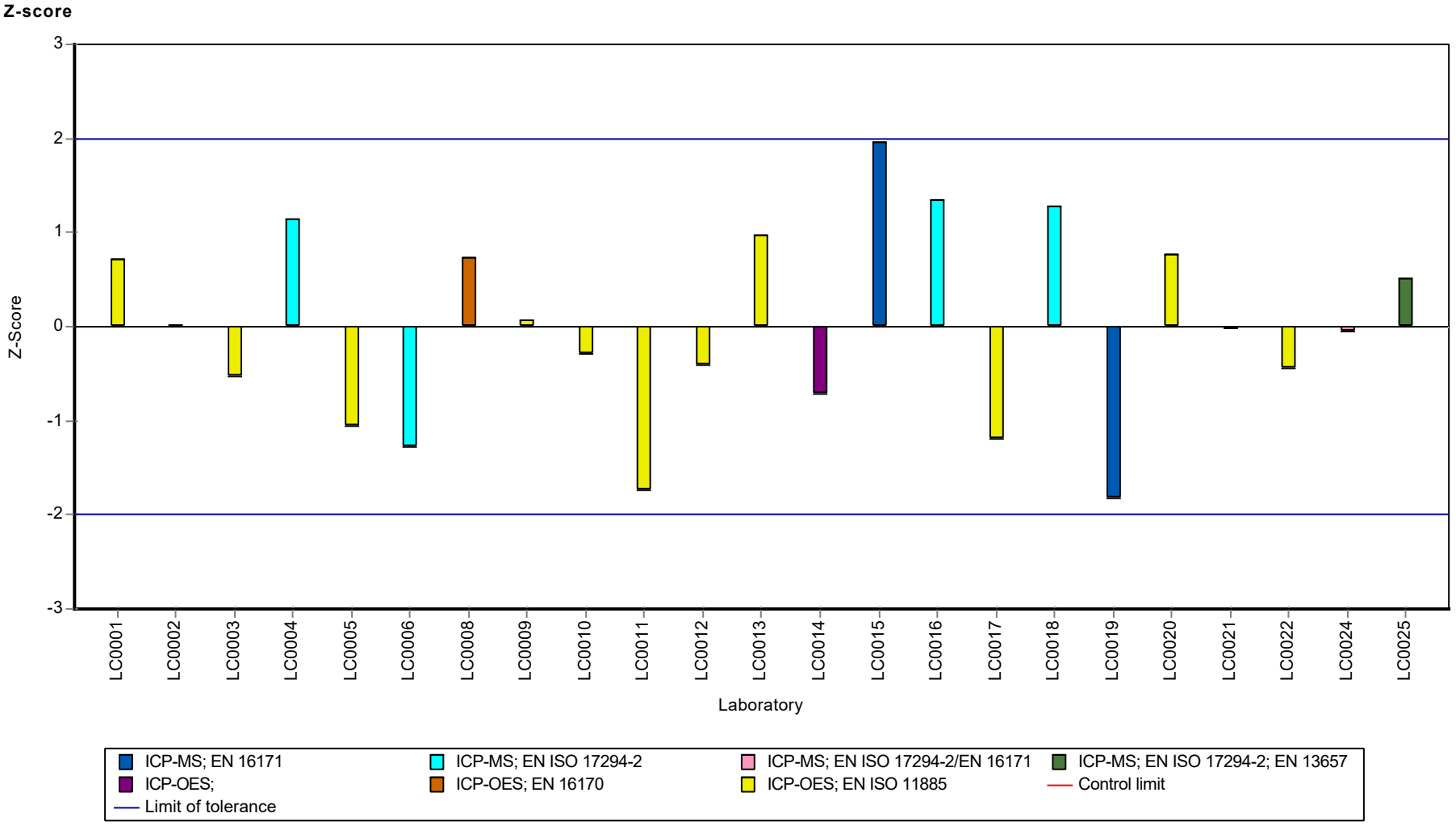
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0024
LC0025
Laboratory
ICP-MS; EN 16171
ICP-MS; EN ISO 17294-2
ICP-MS; EN ISO 17294-2/EN 16171
ICP-MS; EN ISO 17294-2; EN 13657
ICP-OES;
ICP-OES; EN 16170
ICP-OES; EN ISO 11885
Control limit
Limit of tolerance

Parameter oriented report

AB10

Selenium

Unit	mg/kg DM
Assigned value ± U (k=2)	3.73 ± 0.834
Criterion	1.61 (43 %)
Minimum - Maximum	0.123 - 6.02
Control test value ± U (k=2)	4.00 ± 1.24

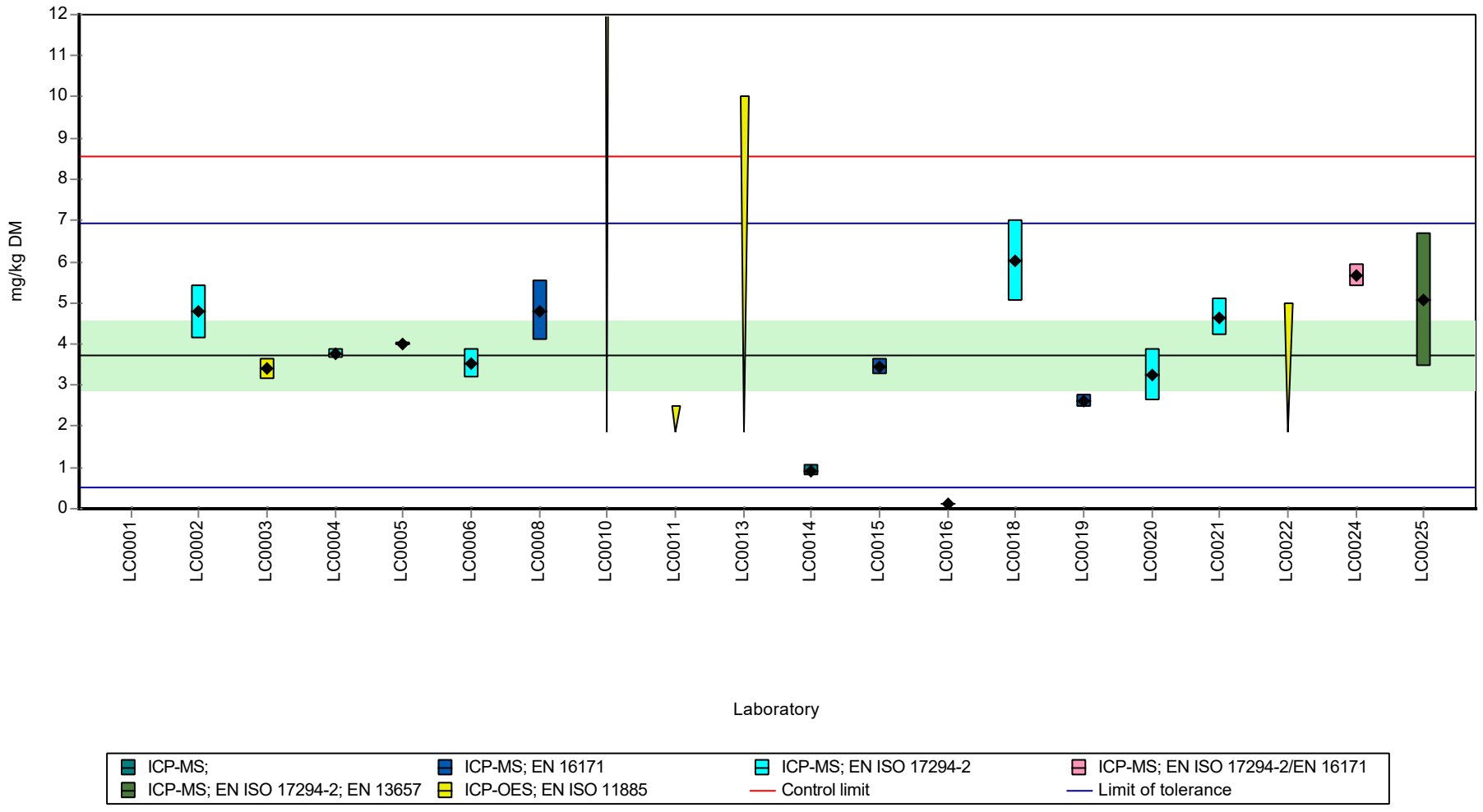
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 0.01 (LOQ)	-	-	-	
LC0002	4.78	0.66	128	0.65	
LC0003	3.39	0.25	90.8	-0.21	
LC0004	3.77	0.128	101	0.02	
LC0005	4	0.05	107	0.17	
LC0006	3.52	0.35	94.3	-0.13	
LC0007	-	-	-	-	
LC0008	4.81	0.72	129	0.67	
LC0009	-	-	-	-	
LC0010	< 40 (LOQ)	-	-	-	
LC0011	< 2.5 (LOQ)	-	-	-	
LC0012	-	-	-	-	
LC0013	< 10 (LOQ)	-	-	-	
LC0014	0.92	0.138	24.6	-1.75	
LC0015	3.44	0.203	92.2	-0.18	
LC0016	0.123	0.02	3.3	-2.25	
LC0017	-	-	-	-	
LC0018	6.02	0.99	161	1.42	
LC0019	2.61	0.15	69.9	-0.7	
LC0020	3.25	0.65	87.1	-0.3	
LC0021	4.647	0.465	124	0.57	
LC0022	< 5 (LOQ)	-	-	-	
LC0023	-	-	-	-	
LC0024	5.653	0.28	151	1.2	
LC0025	5.06	1.62	136	0.83	

Characteristics of parameter

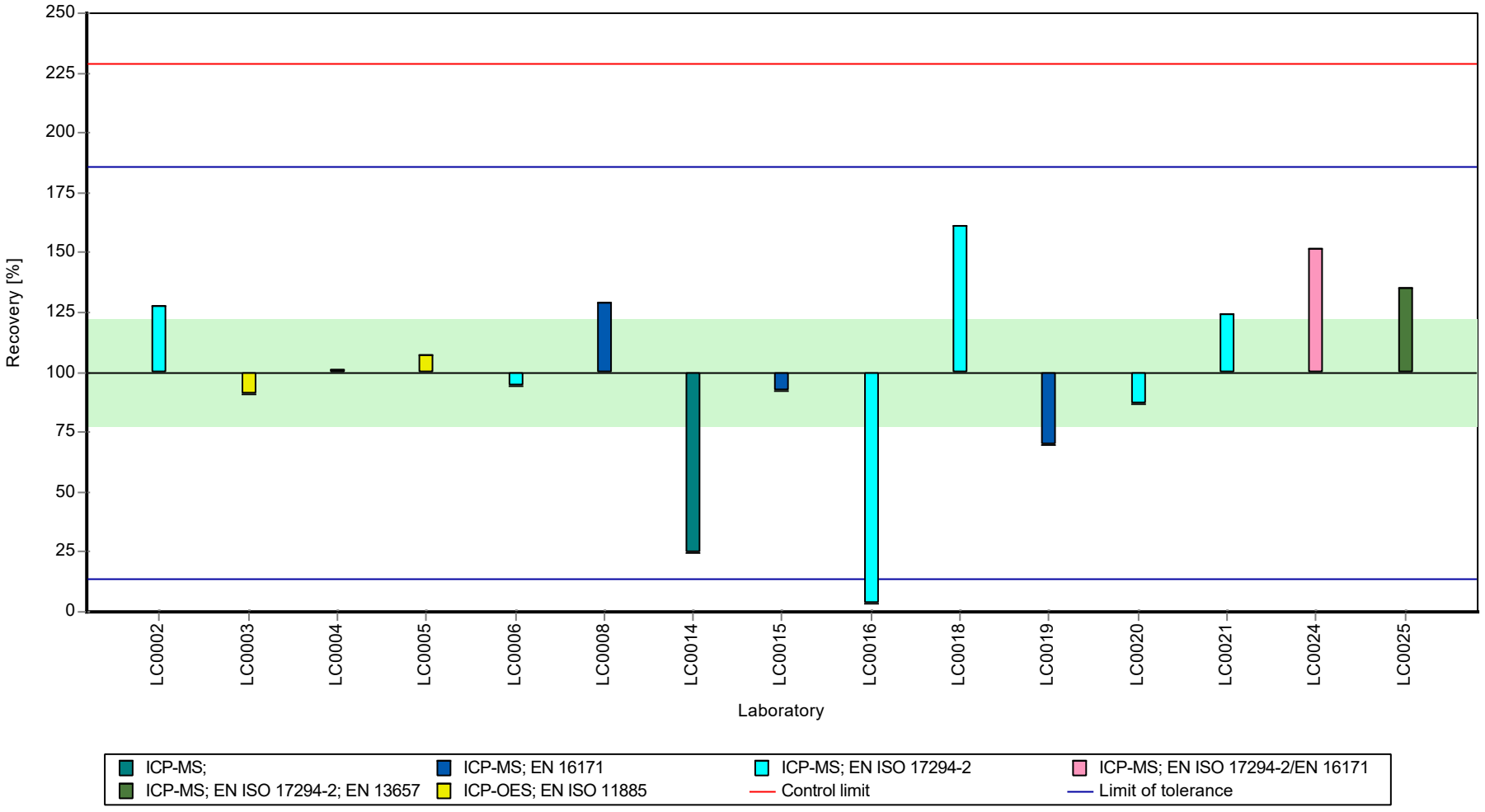
	all results	without outliers	Unit
Mean ± CI (99%)	3.73 ± 1.25	3.73 ± 1.25	mg/kg DM
Minimum	0.123	0.123	mg/kg DM
Maximum	6.02	6.02	mg/kg DM
Standard deviation	1.62	1.62	mg/kg DM
rel. standard deviation	43.3	43.3	%
n	15	15	-

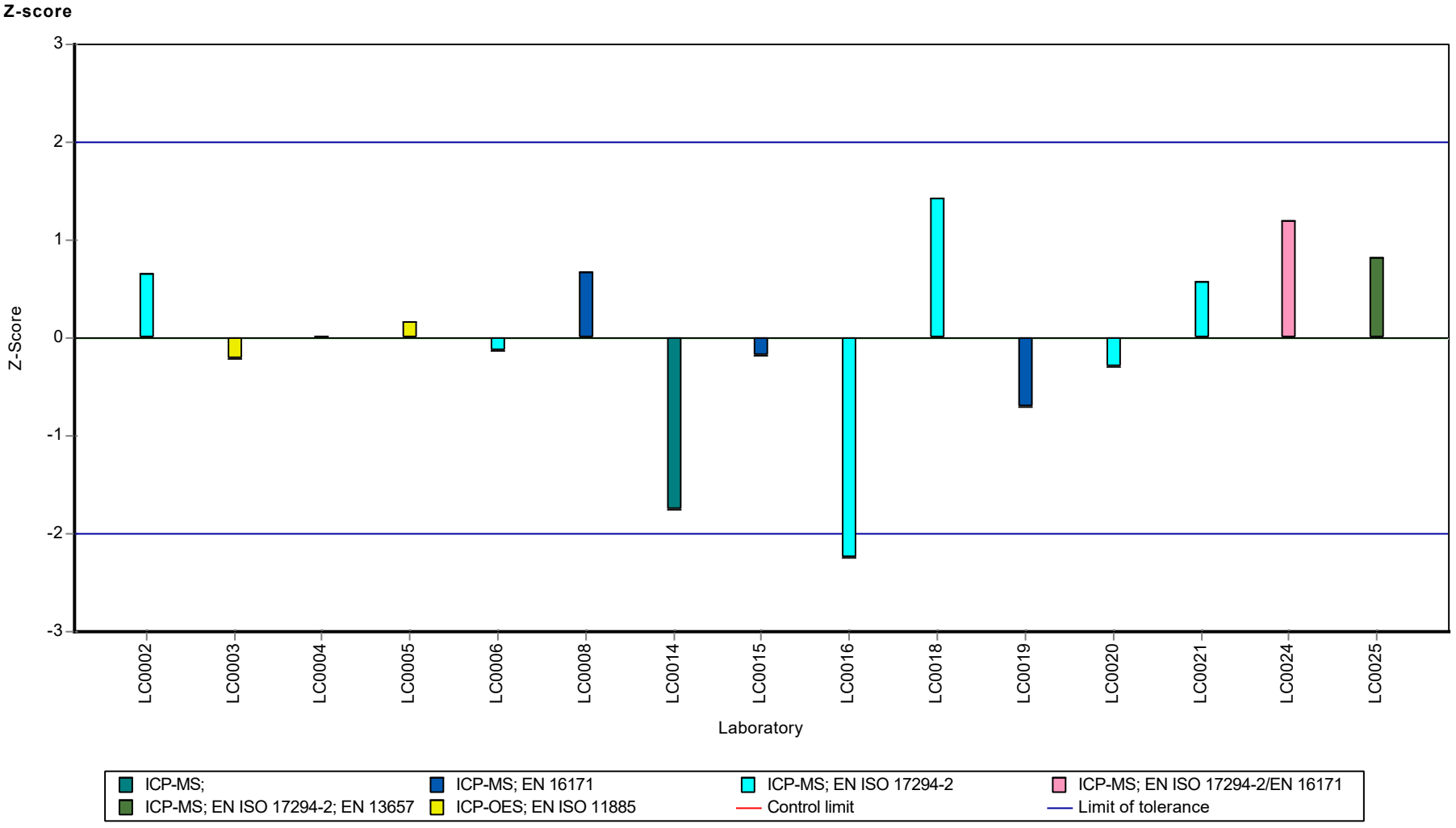
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
LC0002
LC0003
LC0004
LC0005
LC0006
LC0008
LC0014
LC0015
LC0016
LC0018
LC0019
LC0020
LC0021
LC0024
LC0025
Laboratory
ICP-MS;
ICP-MS; EN 16171
ICP-MS; EN ISO 17294-2
ICP-MS; EN ISO 17294-2/EN 16171
ICP-MS; EN ISO 17294-2; EN 13657
ICP-OES; EN ISO 11885
Control limit
Limit of tolerance

Parameter oriented report

AB10

Silver

Unit	mg/kg DM
Assigned value ± U (k=2)	5.83 ± 0.428
Criterion	0.816 (14 %)
Minimum - Maximum	4.45 - 7.57
Control test value ± U (k=2)	5.200 ± 0.572

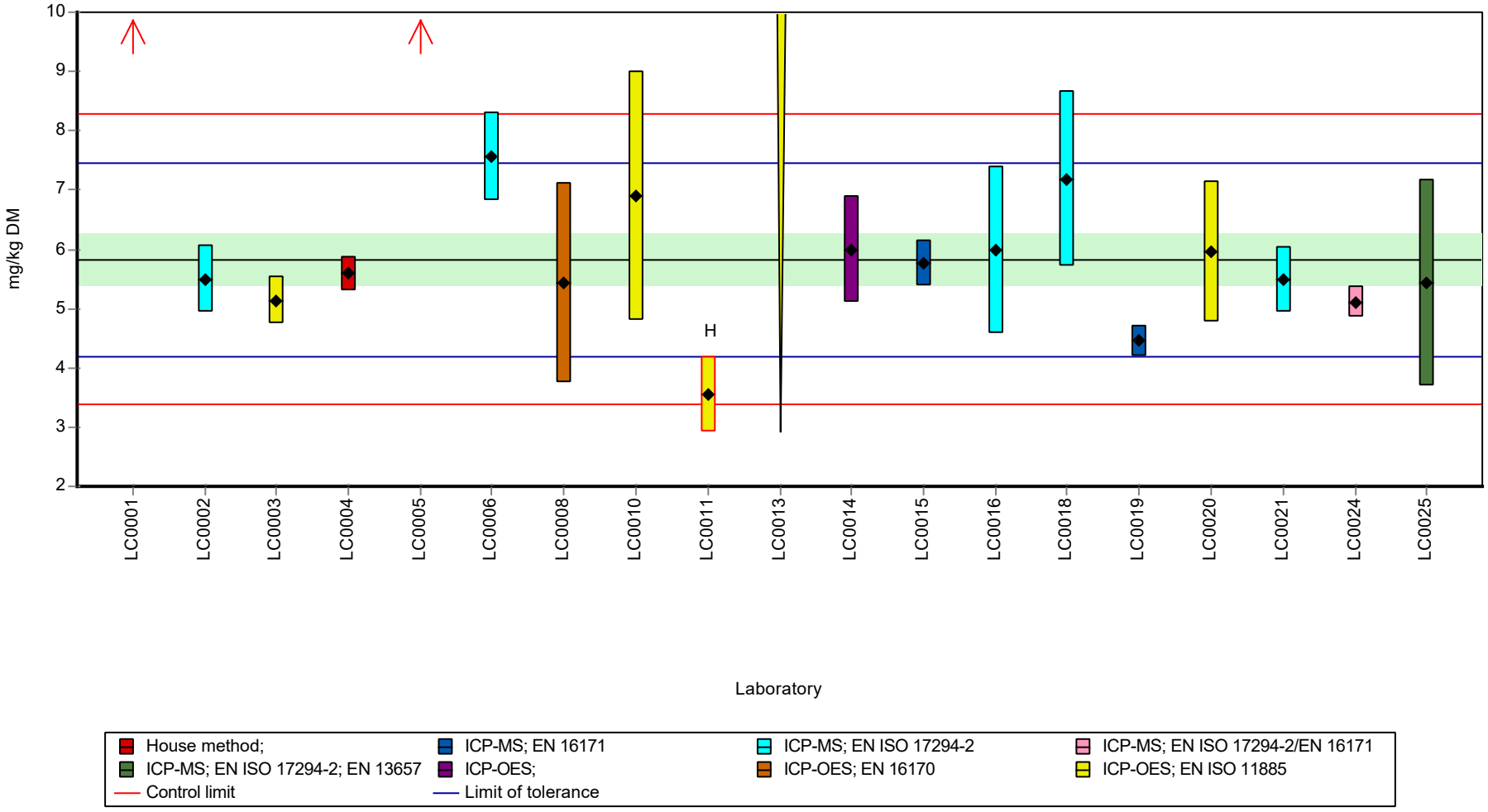
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	53.5	10.7	917	58.4	H
LC0002	5.5	0.57	94.3	-0.41	
LC0003	5.13	0.4	88	-0.86	
LC0004	5.59	0.285	95.9	-0.3	
LC0005	15.1	0.05	259	11.4	H
LC0006	7.57	0.75	130	2.13	
LC0007	-	-	-	-	
LC0008	5.43	1.68	93.1	-0.49	
LC0009	-	-	-	-	
LC0010	6.9	2.1	118	1.31	
LC0011	3.55	0.64	60.9	-2.79	H
LC0012	-	-	-	-	
LC0013	< 10 (LOQ)	-	-	-	
LC0014	6	0.9	103	0.21	
LC0015	5.76	0.379	98.8	-0.09	
LC0016	5.987	1.4	103	0.19	
LC0017	-	-	-	-	
LC0018	7.19	1.47	123	1.66	
LC0019	4.45	0.25	76.3	-1.69	
LC0020	5.95	1.19	102	0.14	
LC0021	5.484	0.548	94	-0.43	
LC0022	-	-	-	-	
LC0023	-	-	-	-	
LC0024	5.107	0.26	87.6	-0.89	
LC0025	5.43	1.74	93.1	-0.49	

Characteristics of parameter

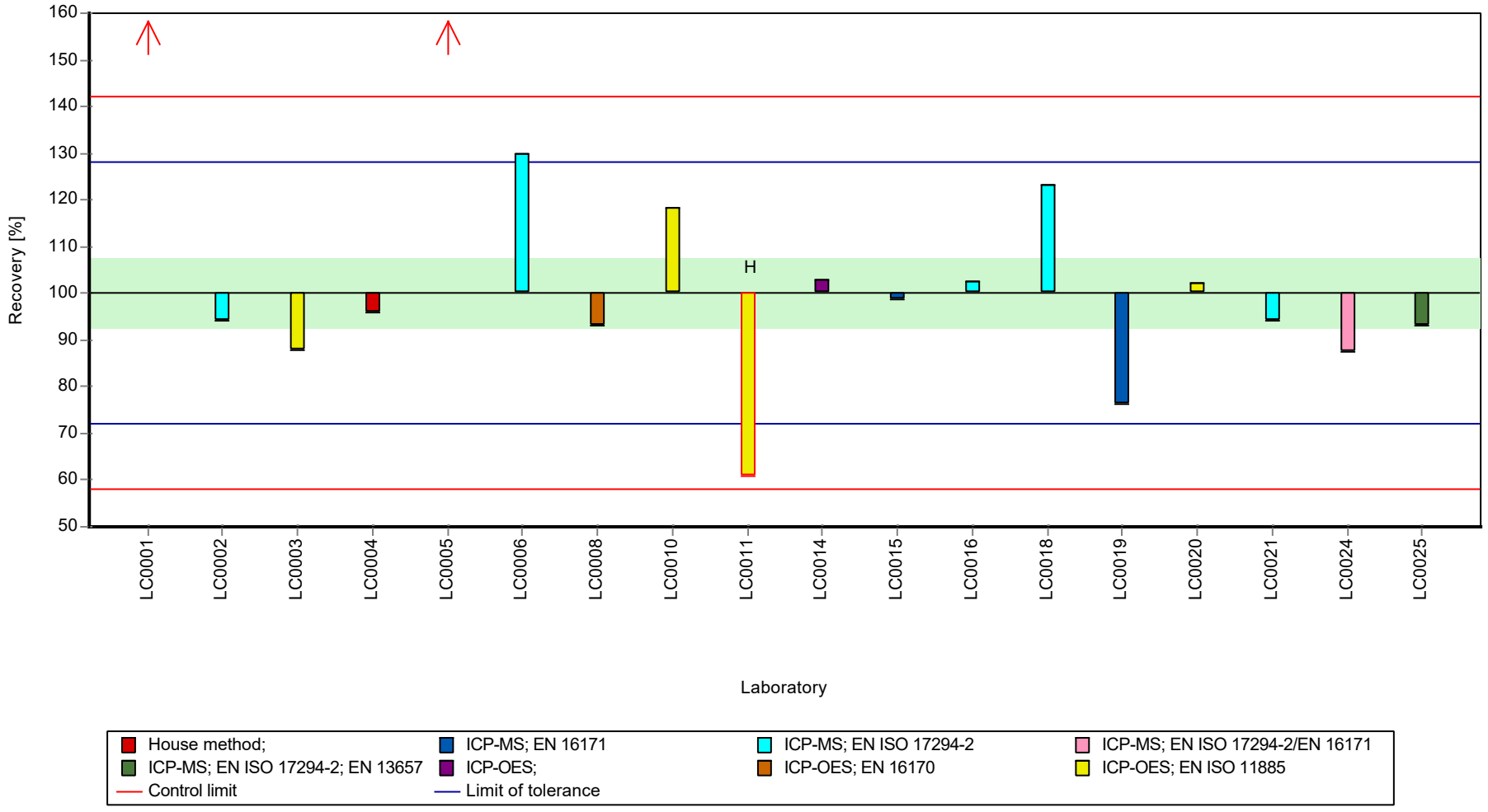
	all results	without outliers	Unit
Mean ± CI (99%)	8.87 ± 8.06	5.83 ± 0.642	mg/kg DM
Minimum	3.55	4.45	mg/kg DM
Maximum	53.5	7.57	mg/kg DM
Standard deviation	11.4	0.829	mg/kg DM
rel. standard deviation	128	14.2	%
n	18	15	-

Graphical presentation of results

Results

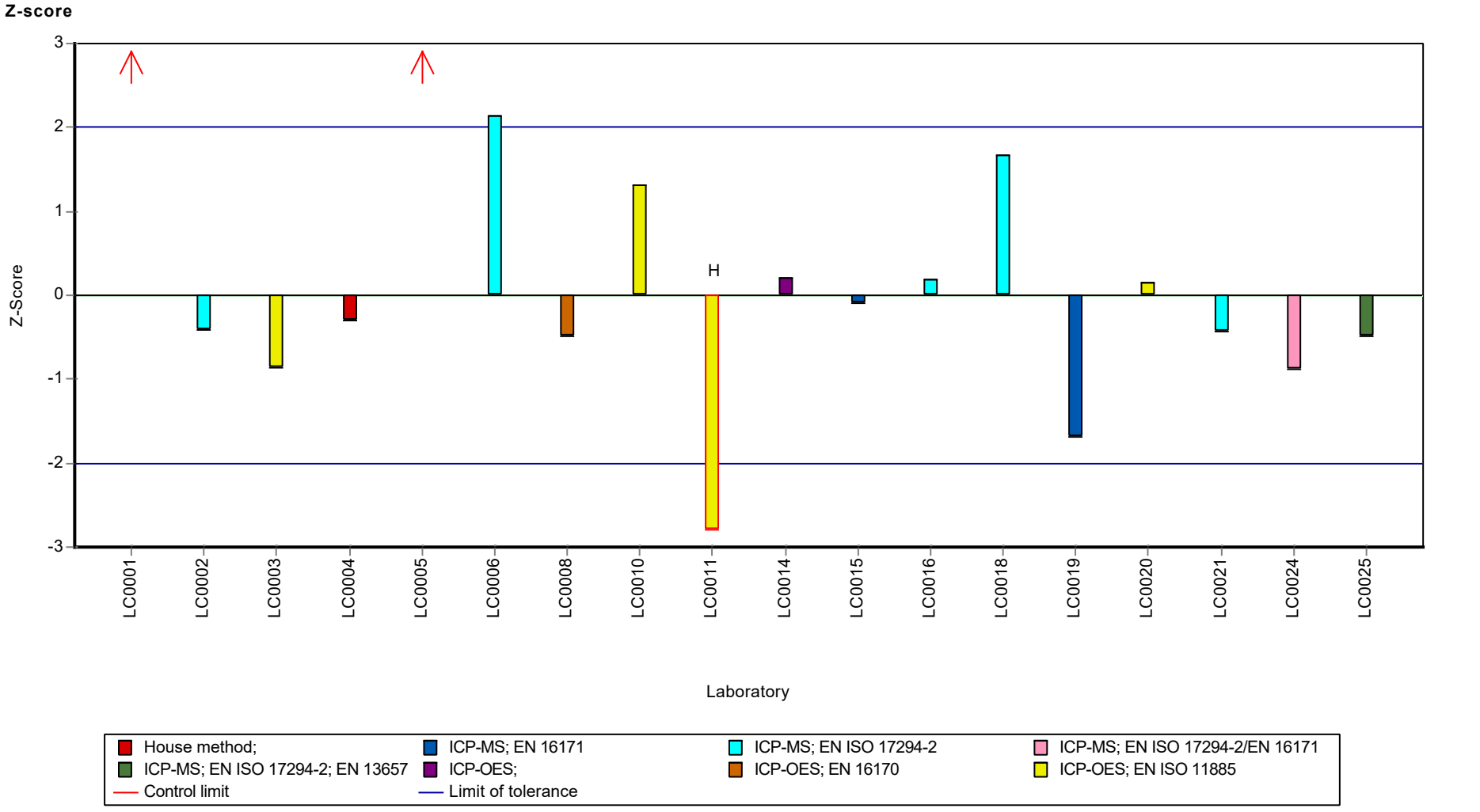


Recovery rate



Parameter oriented report Waste acc. to landfill directive (Austria) (total content) - AB10

Sample: AB10, Parameter: Silver



Parameter oriented report

AB10

Sum 16 PAH (acc. to EPA)

Unit	mg/kg DM
Assigned value ± U (k=2)	2.15 ± 0.271
Criterion	0.56 (26 %)
Minimum - Maximum	0.86 - 3
Control test value ± U (k=2)	2.650 ± 0.583

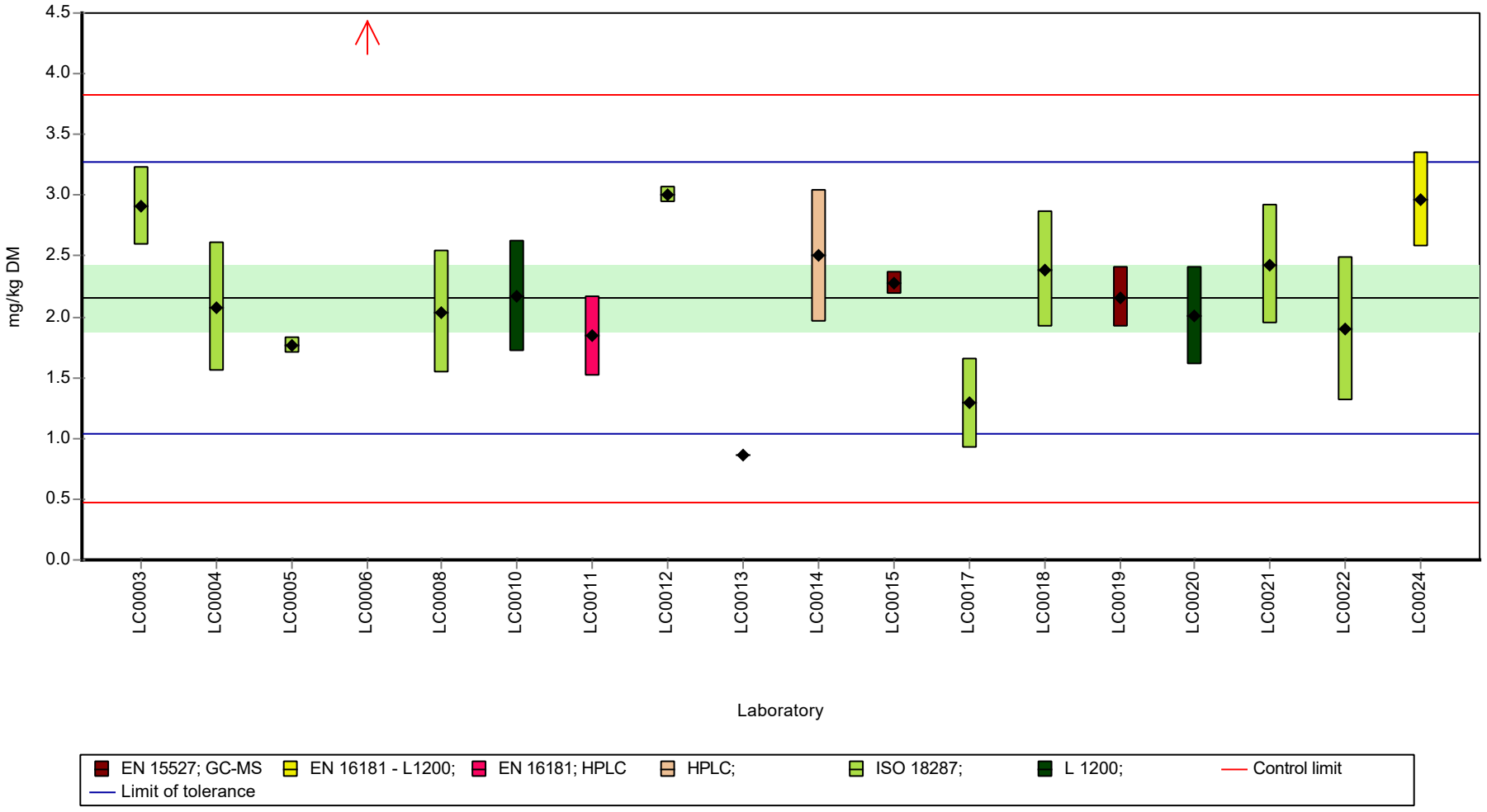
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	-	-	-	-	
LC0003	2.91	0.32	135	1.35	
LC0004	2.08	0.53	96.6	-0.13	
LC0005	1.765	0.07	82	-0.69	
LC0006	15	1.5	697	23	H
LC0007	-	-	-	-	
LC0008	2.04	0.51	94.8	-0.2	
LC0009	-	-	-	-	
LC0010	2.17	0.46	101	0.03	
LC0011	1.84	0.33	85.5	-0.56	
LC0012	2.999	0.067	139	1.51	
LC0013	0.86	0.001	39.9	-2.31	
LC0014	2.5	0.55	116	0.62	
LC0015	2.28	0.095	106	0.23	
LC0016	-	-	-	-	
LC0017	1.29	0.37	59.9	-1.54	
LC0018	2.39	0.48	111	0.42	
LC0019	2.16	0.25	100	0.01	
LC0020	2.01	0.4	93.4	-0.26	
LC0021	2.4312	0.486	113	0.5	
LC0022	1.903	0.592	88.4	-0.45	
LC0023	-	-	-	-	
LC0024	2.97	0.39	138	1.46	
LC0025	-	-	-	-	

Characteristics of parameter

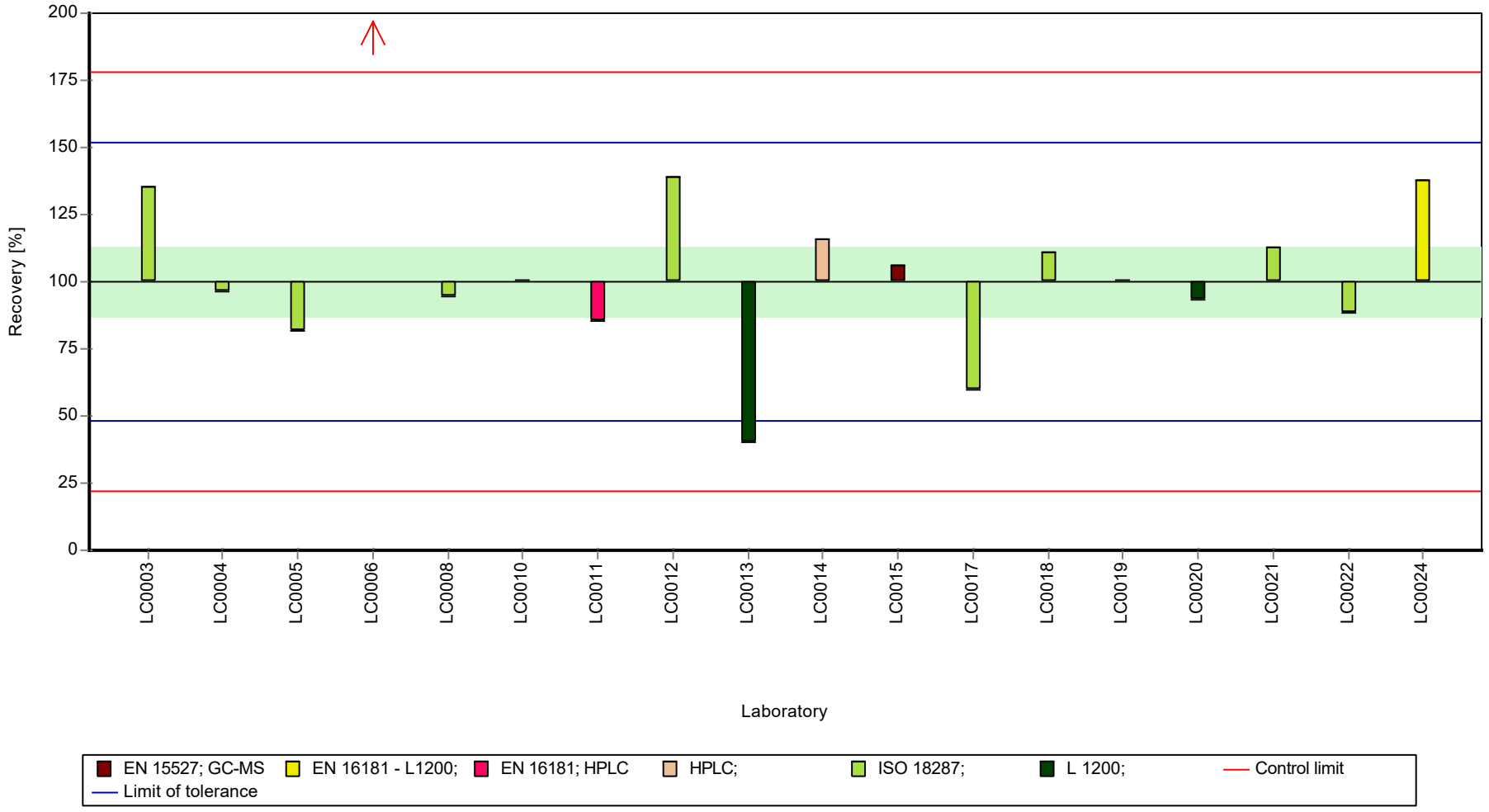
	all results	without outliers	Unit
Mean ± CI (99%)	2.87 ± 2.18	2.15 ± 0.406	mg/kg DM
Minimum	0.86	0.86	mg/kg DM
Maximum	15	3	mg/kg DM
Standard deviation	3.08	0.559	mg/kg DM
rel. standard deviation	107	25.9	%
n	18	17	-

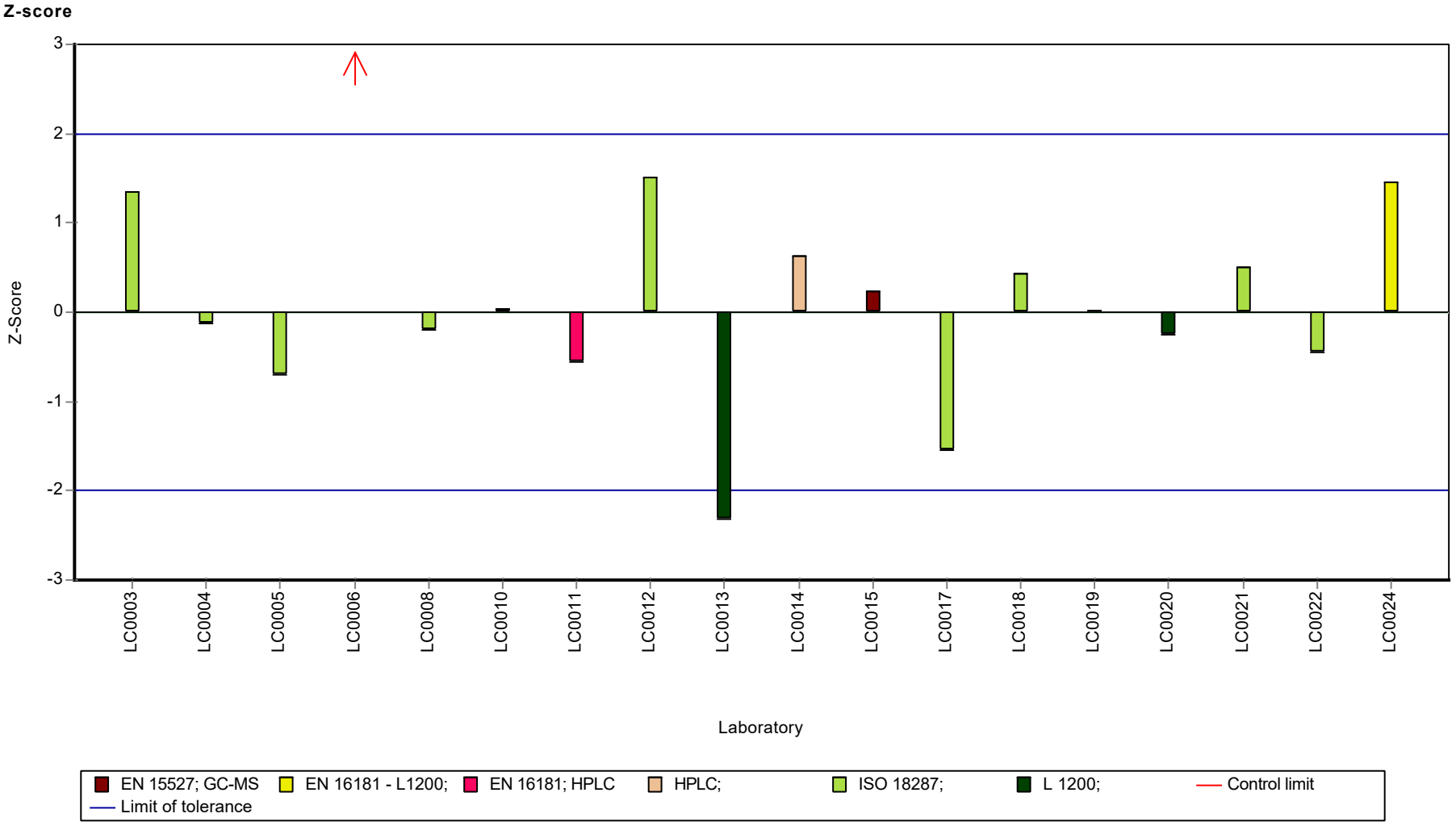
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
Z-Score
LC0003
LC0004
LC0005
LC0006
LC0008
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0024
Laboratory
EN 15527; GC-MS
EN 16181 - L1200;
EN 16181; HPLC
HPLC;
ISO 18287;
L 1200;
Control limit
Limit of tolerance

Parameter oriented report

AB10

Tin

Unit	mg/kg DM
Assigned value ± U (k=2)	108 ± 6.68
Criterion	14 (13 %)
Minimum - Maximum	80 - 131
Control test value ± U (k=2)	122.0 ± 13.4

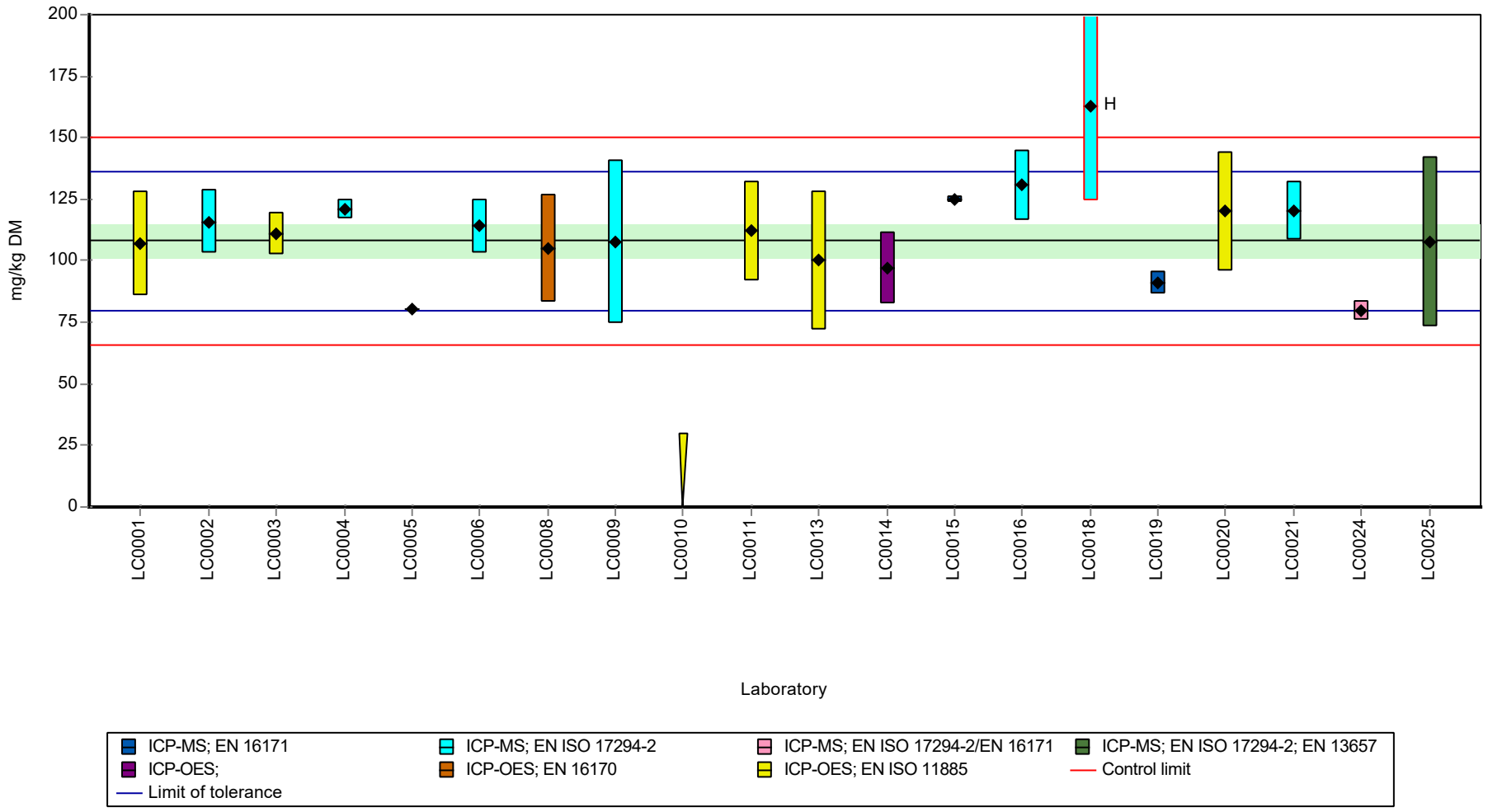
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	107	21	99	-0.07	
LC0002	115.7	13	107	0.55	
LC0003	110.69	8.6	102	0.19	
LC0004	121	3.99	112	0.92	
LC0005	80.4	0.1	74.4	-1.97	
LC0006	114	11	106	0.42	
LC0007	-	-	-	-	
LC0008	104.9	22	97.1	-0.22	
LC0009	107.8	33.1	99.8	-0.02	
LC0010	< 30 (LOQ)	-	-	-	FN
LC0011	112	20	104	0.28	
LC0012	-	-	-	-	
LC0013	100	28.2	92.5	-0.57	
LC0014	97	14.55	89.8	-0.79	
LC0015	125	1.53	116	1.21	
LC0016	130.599	14.41	121	1.61	
LC0017	-	-	-	-	
LC0018	163	39	151	3.91	H
LC0019	91	4.5	84.2	-1.21	
LC0020	120	24	111	0.85	
LC0021	120.342	12.034	111	0.88	
LC0022	-	-	-	-	
LC0023	-	-	-	-	
LC0024	80.026	4	74.1	-2	
LC0025	107.47	34.4	99.5	-0.04	

Characteristics of parameter

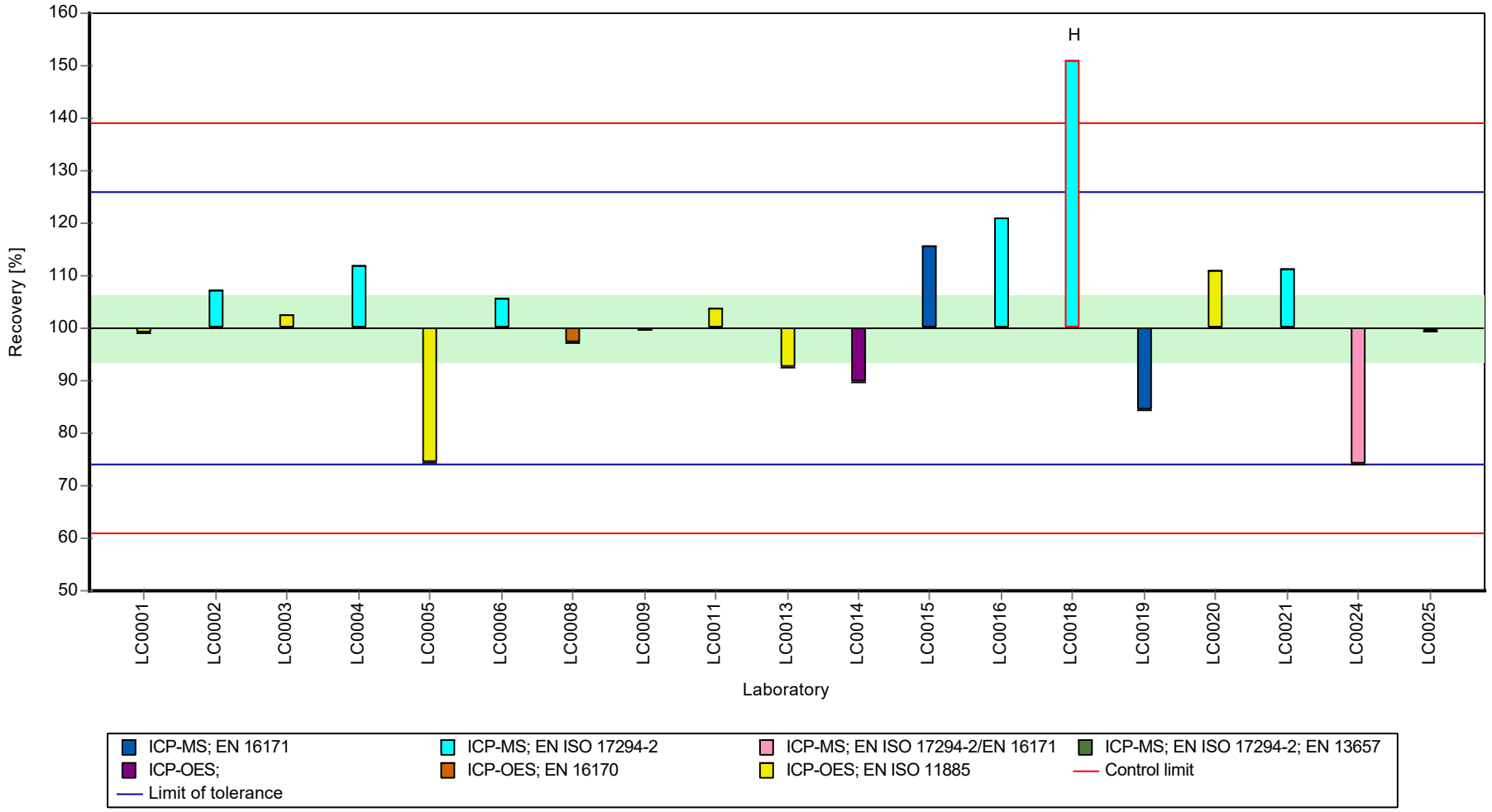
	all results	without outliers	Unit
Mean ± CI (99%)	111 ± 12.8	108 ± 10	mg/kg DM
Minimum	80	80	mg/kg DM
Maximum	163	131	mg/kg DM
Standard deviation	18.7	14.2	mg/kg DM
rel. standard deviation	16.8	13.1	%
n	19	18	-

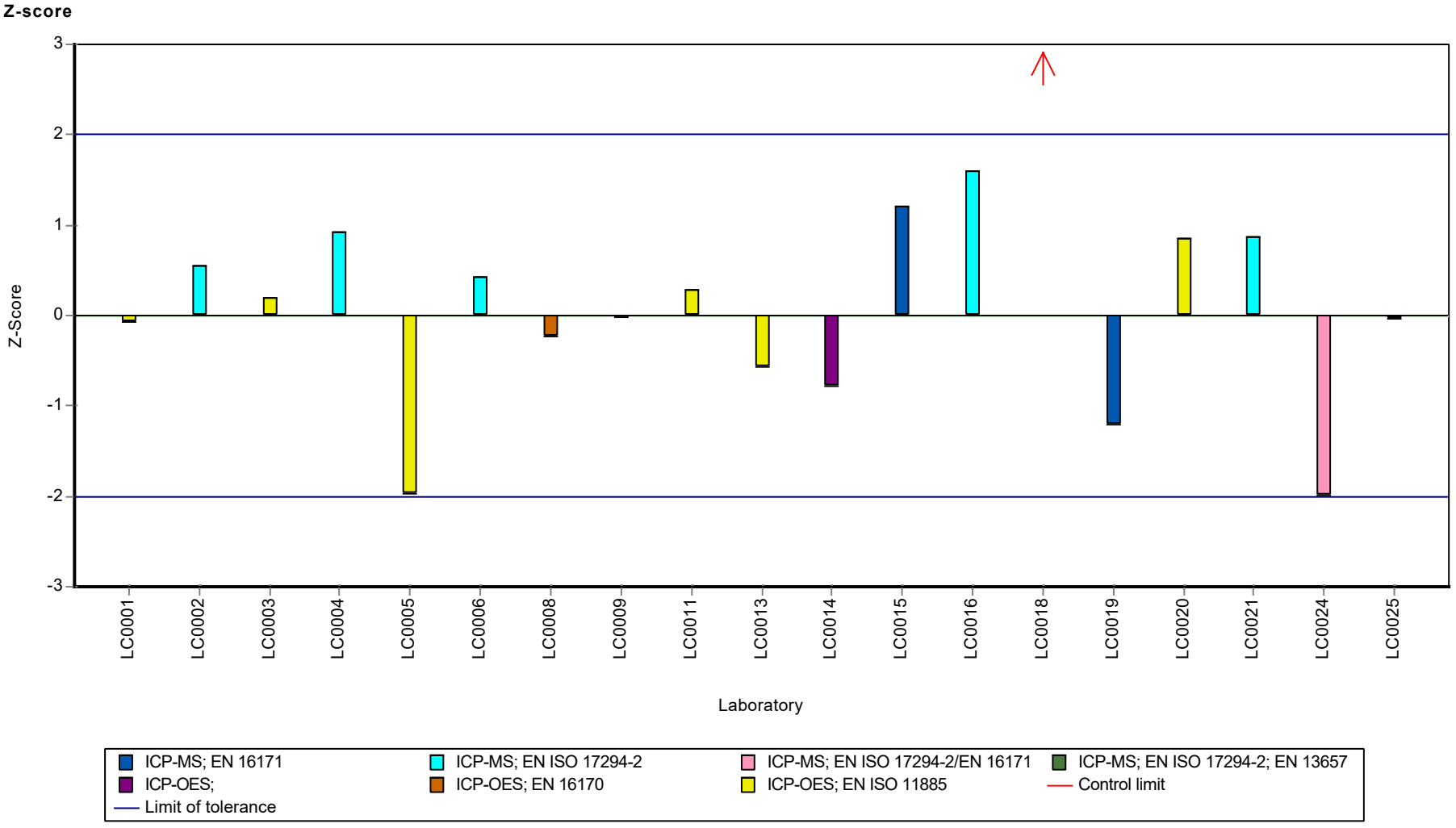
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0008
LC0009
LC0011
LC0013
LC0014
LC0015
LC0016
LC0018
LC0019
LC0020
LC0021
LC0024
LC0025
Laboratory
ICP-MS; EN 16171
ICP-MS; EN ISO 17294-2
ICP-MS; EN ISO 17294-2/EN 16171
ICP-MS; EN ISO 17294-2; EN 13657
ICP-OES;
ICP-OES; EN 16170
ICP-OES; EN ISO 11885
Control limit
Limit of tolerance

Parameter oriented report

AB10

TOC (as C)

Unit	mg/kg DM
Assigned value ± U (k=2)	33600 ± 1670
Criterion	3690 (11 %)
Minimum - Maximum	26300 - 40000
Control test value ± U (k=2)	43400.0 ± 8680

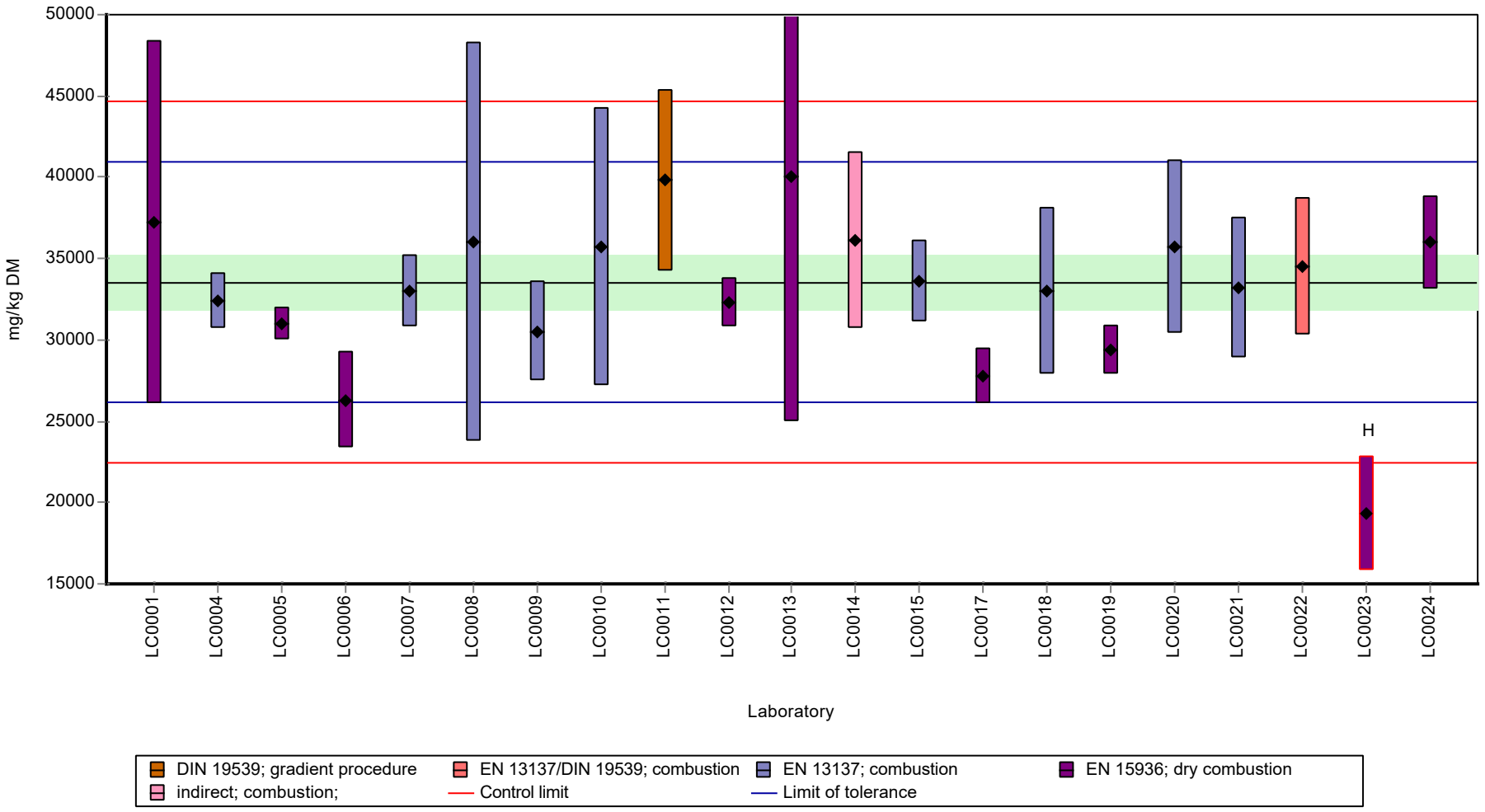
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	37191	11157	111	0.99	
LC0002	-	-	-	-	
LC0003	-	-	-	-	
LC0004	32400	1700	96.6	-0.31	
LC0005	31000	1000	92.4	-0.69	
LC0006	26300	3000	78.4	-1.96	
LC0007	33000	2211	98.4	-0.15	
LC0008	36050	12260	107	0.68	
LC0009	30520	3050	91	-0.82	
LC0010	35720	8573	106	0.59	
LC0011	39800	5572	119	1.69	
LC0012	32320	1517	96.3	-0.33	
LC0013	40000	15040	119	1.75	
LC0014	36117	5415	108	0.7	
LC0015	33600	2540	100	0.01	
LC0016	-	-	-	-	
LC0017	27797	1700	82.9	-1.56	
LC0018	33000	5110	98.4	-0.15	
LC0019	29350	1500	87.5	-1.14	
LC0020	35700	5355	106	0.58	
LC0021	33202.6	4316.3	99	-0.09	
LC0022	34500	4240	103	0.26	
LC0023	19351	3497	57.7	-3.85	H
LC0024	36000	2880	107	0.66	
LC0025	-	-	-	-	

Characteristics of parameter

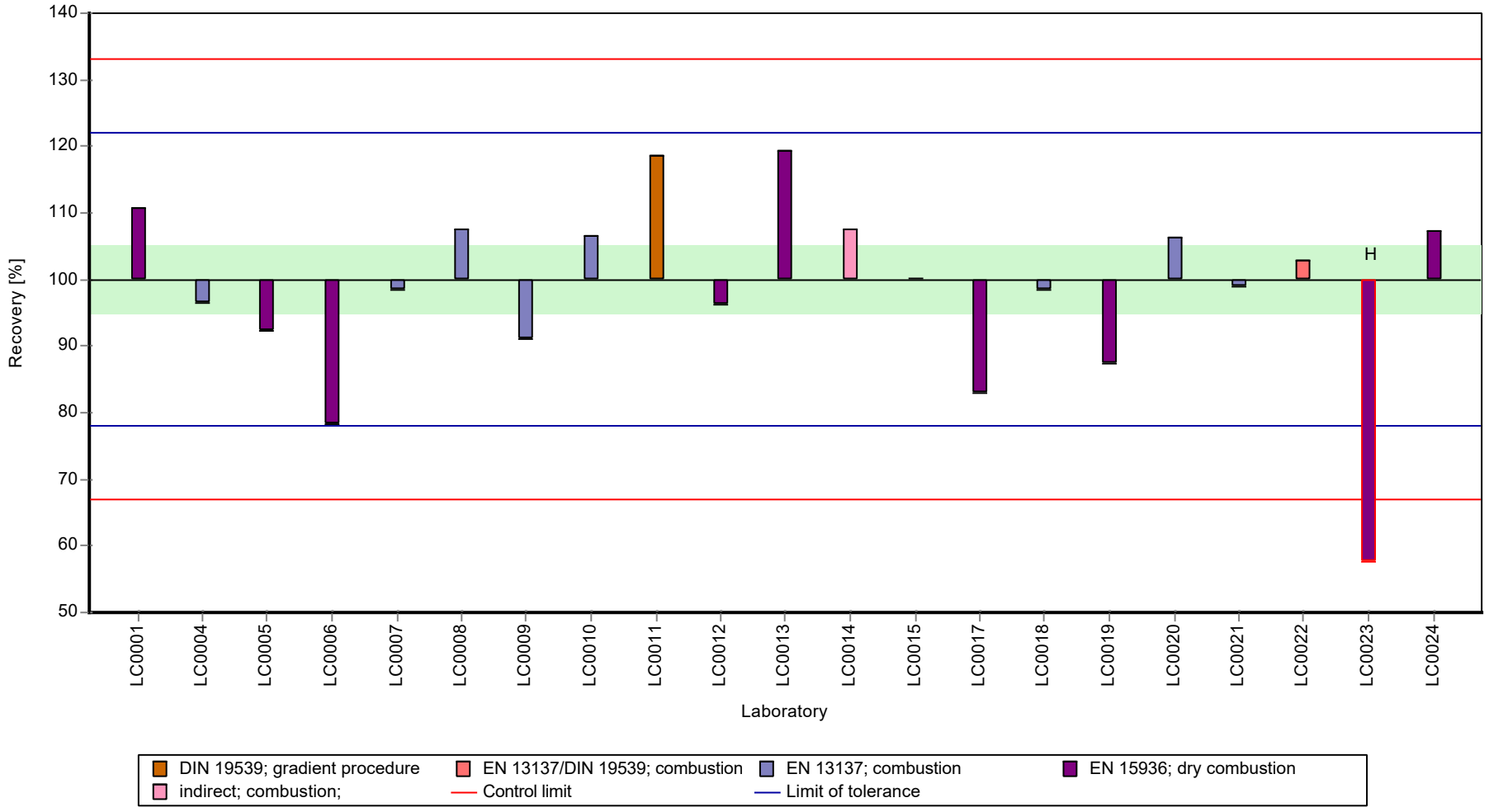
	all results	without outliers	Unit
Mean ± CI (99%)	33000 ± 3070	33700 ± 2410	mg/kg DM
Minimum	19400	26300	mg/kg DM
Maximum	40000	40000	mg/kg DM
Standard deviation	4690	3590	mg/kg DM
rel. standard deviation	14.2	10.7	%
n	21	20	-

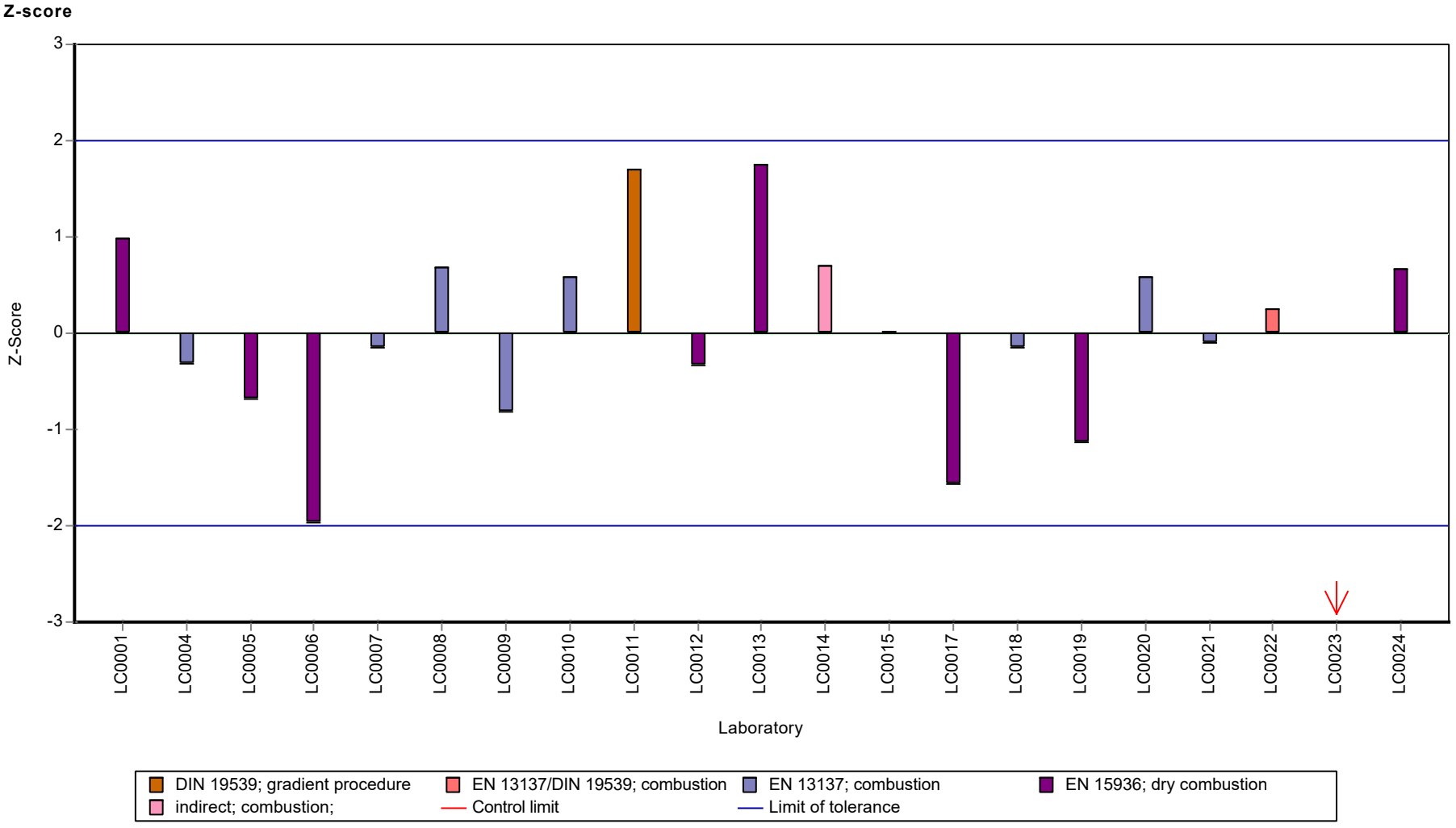
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
LC0001
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0023
LC0024
Laboratory
DIN 19539; gradient procedure
EN 13137/DIN 19539; combustion
EN 13137; combustion
EN 15936; dry combustion
indirect; combustion;
Control limit
Limit of tolerance

Parameter oriented report

AB10

Vanadium

Unit	mg/kg DM
Assigned value ± U (k=2)	39 ± 2.27
Criterion	5.07 (13 %)
Minimum - Maximum	31 - 47.3
Control test value ± U (k=2)	40.40 ± 4.44

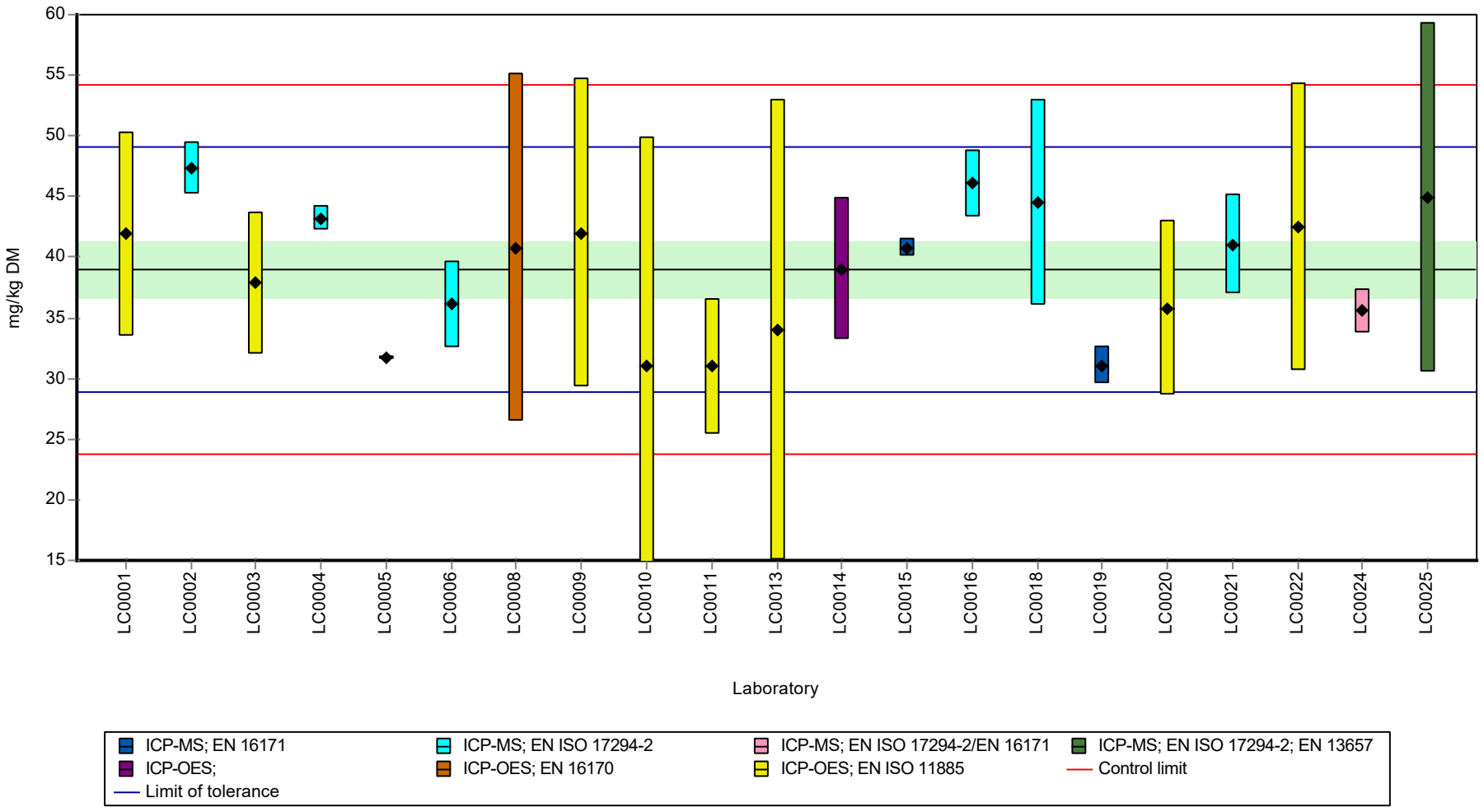
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	41.9	8.4	108	0.58	
LC0002	47.3	2.16	121	1.65	
LC0003	37.87	5.85	97.2	-0.22	
LC0004	43.2	1.04	111	0.84	
LC0005	31.7	0.1	81.4	-1.43	
LC0006	36.1	3.6	92.6	-0.56	
LC0007	-	-	-	-	
LC0008	40.8	14.3	105	0.36	
LC0009	42	12.7	108	0.6	
LC0010	31	18.9	79.6	-1.57	
LC0011	31	5.6	79.6	-1.57	
LC0012	-	-	-	-	
LC0013	34	18.94	87.3	-0.98	
LC0014	39	5.85	100	0.01	
LC0015	40.8	0.757	105	0.36	
LC0016	46.101	2.76	118	1.41	
LC0017	-	-	-	-	
LC0018	44.5	8.5	114	1.09	
LC0019	31.1	1.5	79.8	-1.55	
LC0020	35.8	7.2	91.9	-0.63	
LC0021	41.054	4.105	105	0.41	
LC0022	42.49	11.9	109	0.7	
LC0023	-	-	-	-	
LC0024	35.585	1.8	91.3	-0.67	
LC0025	44.95	14.4	115	1.18	

Characteristics of parameter

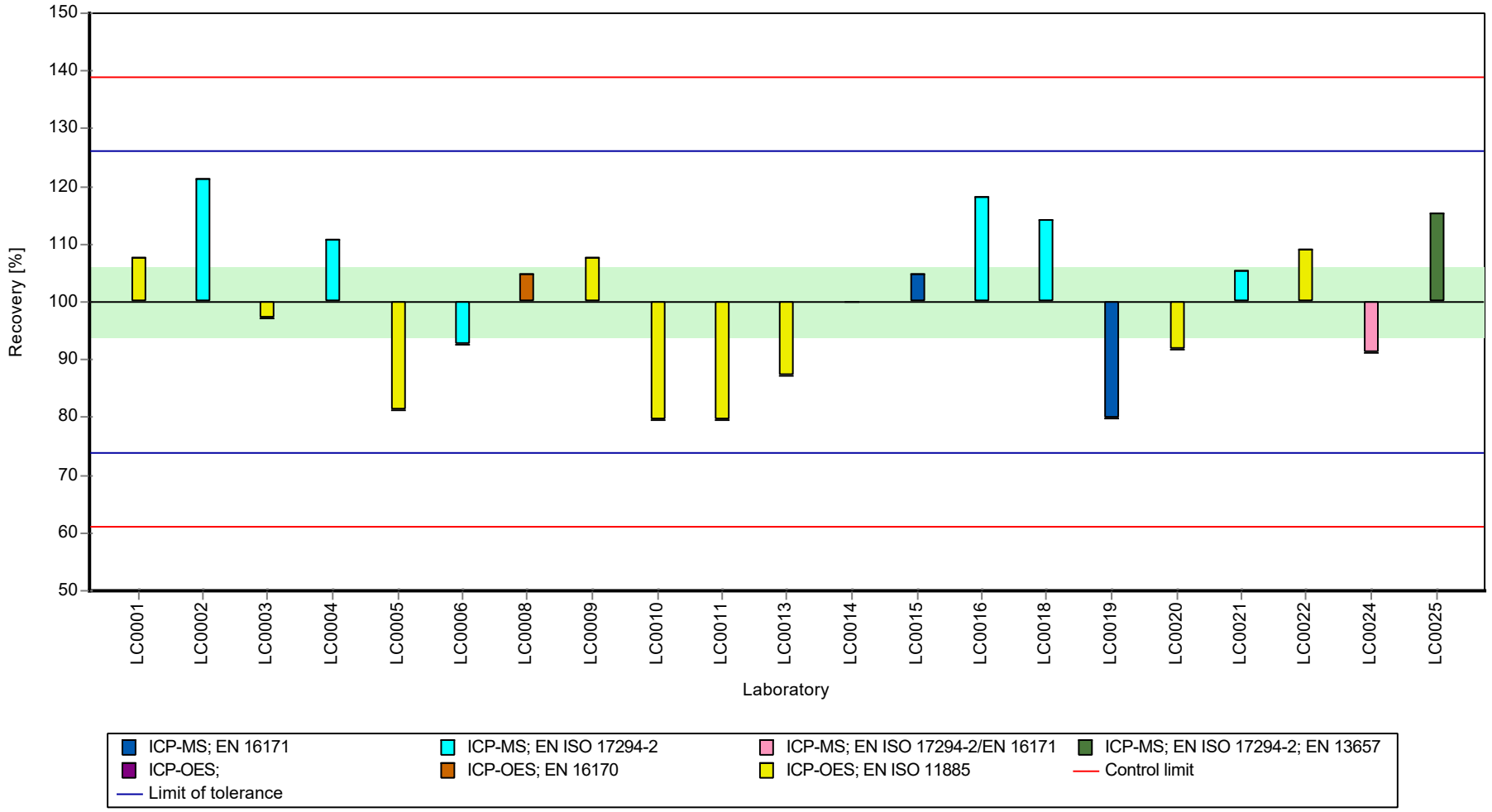
	all results	without outliers	Unit
Mean ± CI (99%)	39 ± 3.41	39 ± 3.41	mg/kg DM
Minimum	31	31	mg/kg DM
Maximum	47.3	47.3	mg/kg DM
Standard deviation	5.21	5.21	mg/kg DM
rel. standard deviation	13.4	13.4	%
n	21	21	-

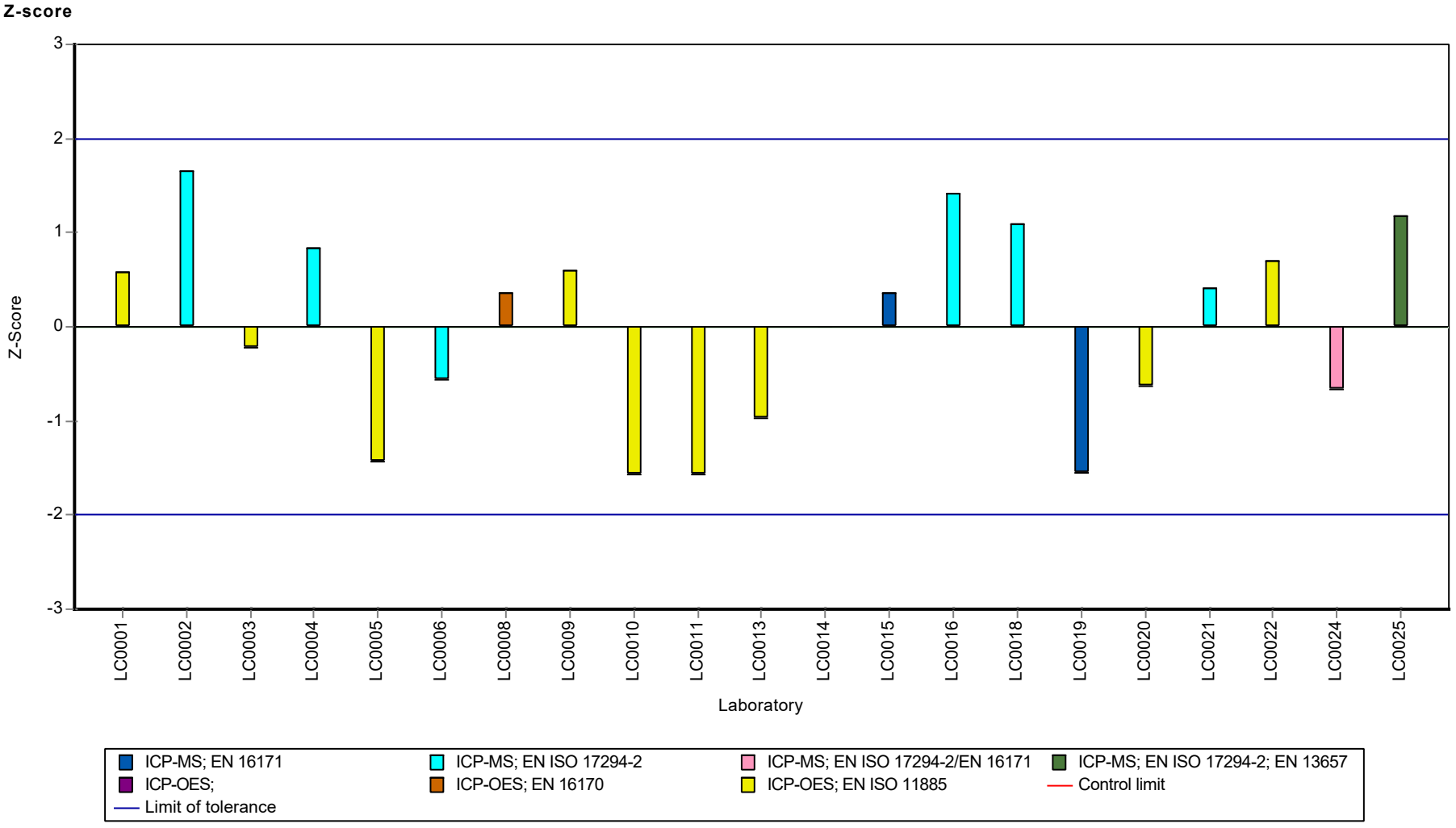
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0008
LC0009
LC0010
LC0011
LC0013
LC0014
LC0015
LC0016
LC0018
LC0019
LC0020
LC0021
LC0022
LC0024
LC0025
Laboratory
ICP-MS; EN 16171
ICP-MS; EN ISO 17294-2
ICP-MS; EN ISO 17294-2/EN 16171
ICP-MS; EN ISO 17294-2; EN 13657
ICP-OES;
ICP-OES; EN 16170
ICP-OES; EN ISO 11885
Control limit
Limit of tolerance

Parameter oriented report

AB10

Zinc

Unit	mg/kg DM
Assigned value ± U (k=2)	3340 ± 206
Criterion	501 (15 %)
Minimum - Maximum	2230 - 4430
Control test value ± U (k=2)	3280.0 ± 394

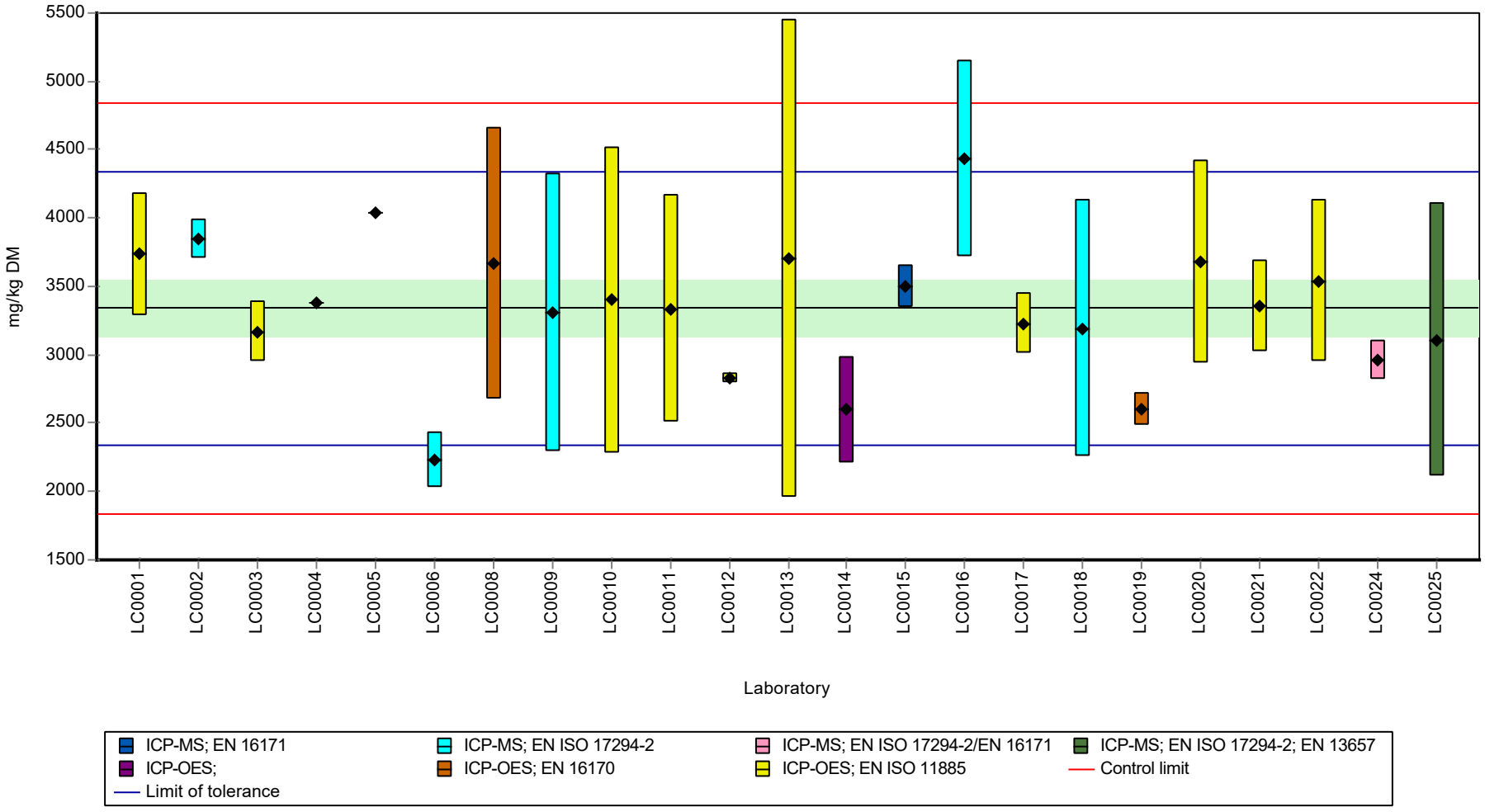
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	3736	448	112	0.79	
LC0002	3852	145	115	1.02	
LC0003	3167	220	94.8	-0.35	
LC0004	3377	9.1	101	0.07	
LC0005	4039	0.1	121	1.39	
LC0006	2230	200	66.7	-2.22	
LC0007	-	-	-	-	
LC0008	3670	991	110	0.66	
LC0009	3307	1019	99	-0.07	
LC0010	3400	1120	102	0.12	
LC0011	3337	834	99.9	-0.01	
LC0012	2833	38	84.8	-1.01	
LC0013	3700	1750	111	0.72	
LC0014	2600	390	77.8	-1.48	
LC0015	3500	155	105	0.32	
LC0016	4432.598	718.01	133	2.18	
LC0017	3230	226	96.7	-0.22	
LC0018	3190	941	95.5	-0.3	
LC0019	2600	120	77.8	-1.48	
LC0020	3680	740	110	0.68	
LC0021	3355.175	335.518	100	0.03	
LC0022	3538	591	106	0.39	
LC0023	-	-	-	-	
LC0024	2960.422	148	88.6	-0.76	
LC0025	3110.1	995	93.1	-0.46	

Characteristics of parameter

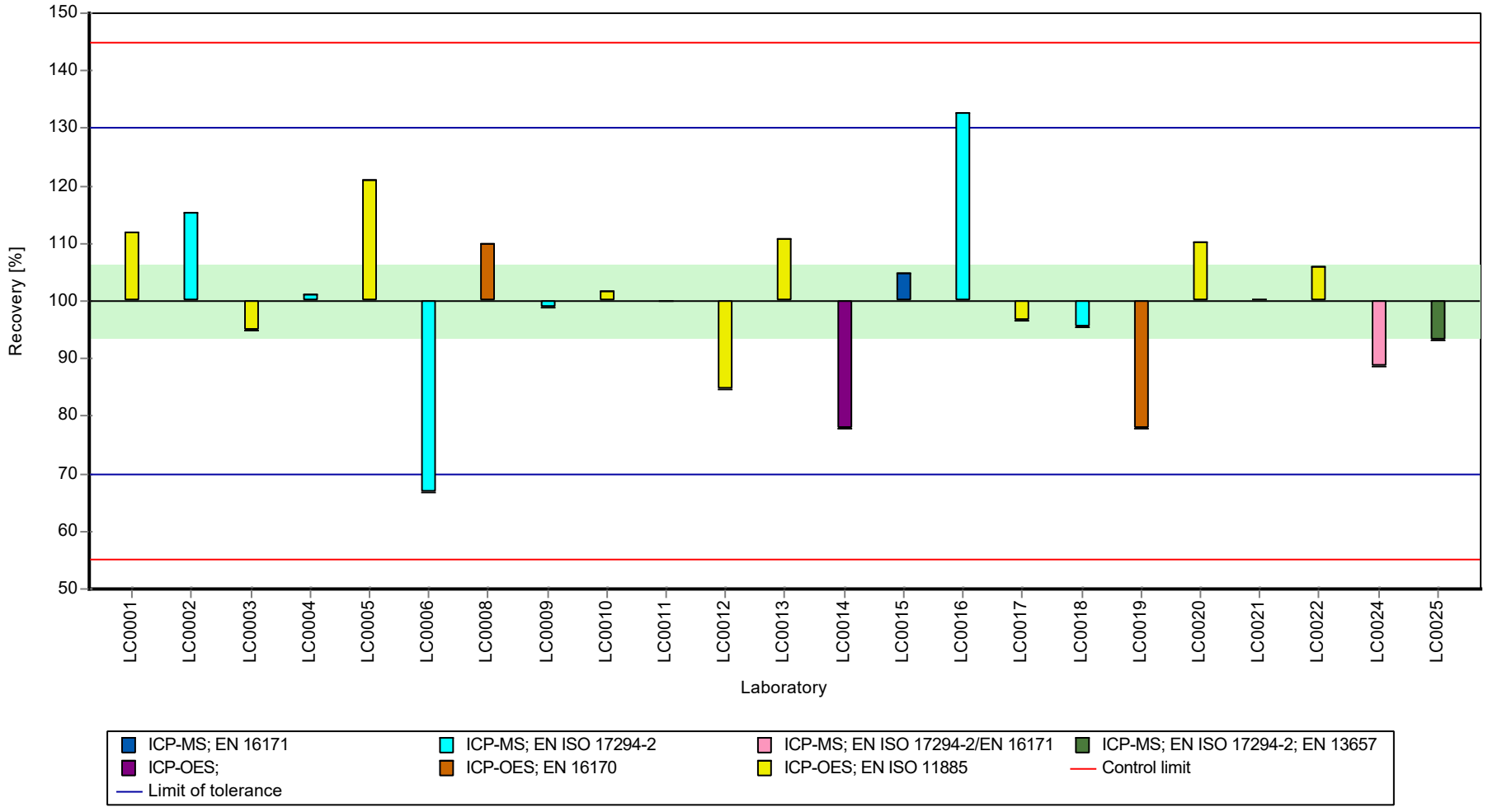
	all results	without outliers	Unit
Mean ± CI (99%)	3340 ± 309	3340 ± 309	mg/kg DM
Minimum	2230	2230	mg/kg DM
Maximum	4430	4430	mg/kg DM
Standard deviation	494	494	mg/kg DM
rel. standard deviation	14.8	14.8	%
n	23	23	-

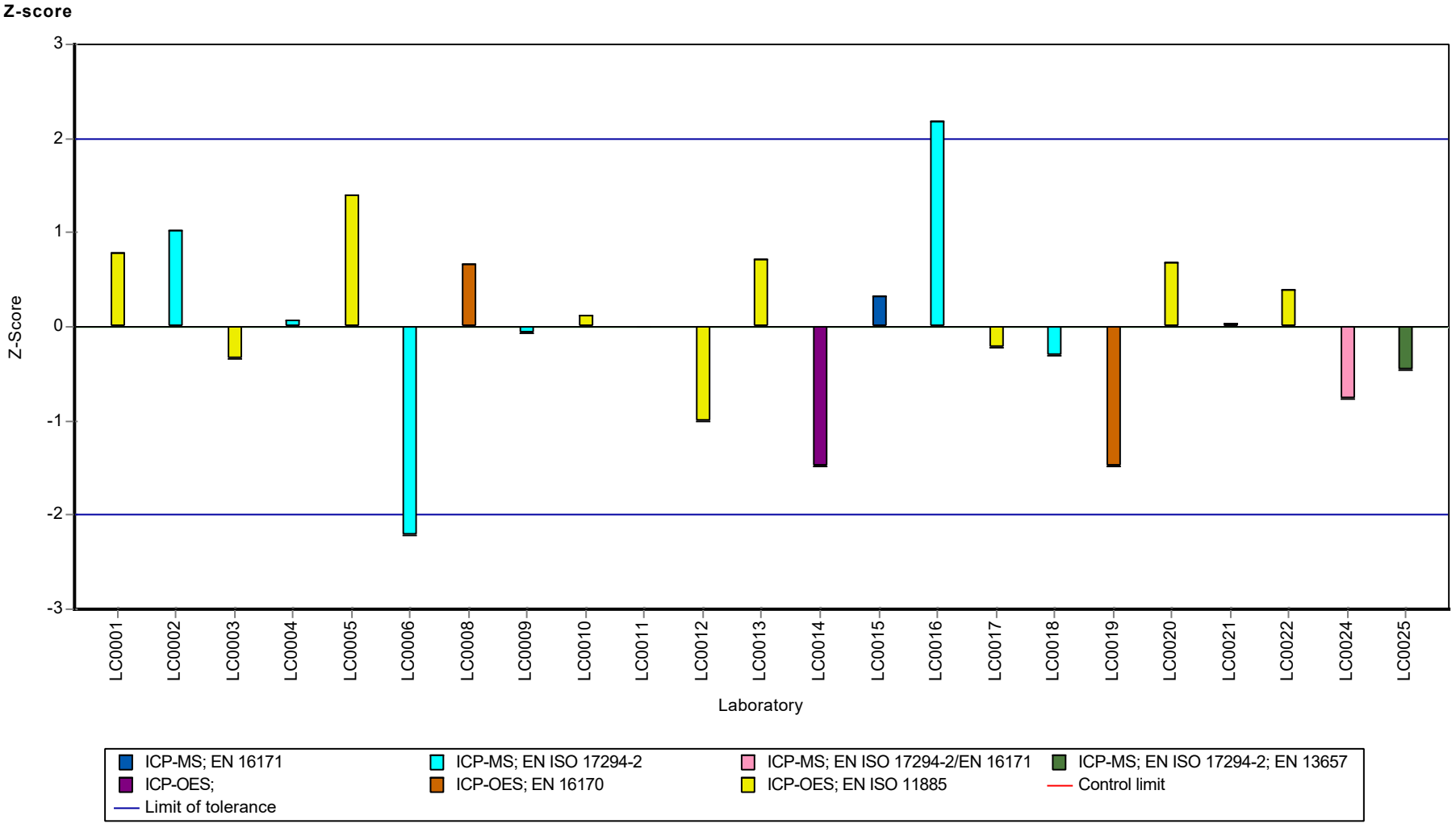
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0024
LC0025
Laboratory
ICP-MS; EN 16171
ICP-MS; EN ISO 17294-2
ICP-MS; EN ISO 17294-2/EN 16171
ICP-MS; EN ISO 17294-2; EN 13657
ICP-OES;
ICP-OES; EN 16170
ICP-OES; EN ISO 11885
Control limit
Limit of tolerance

Parameter oriented report

AB10

Dry mass

Unit	%
Assigned value ± U (k=2)	96.8 ± 0.19
Criterion	0.968 (1 %)
Minimum - Maximum	96.2 - 97.9
Control test value ± U (k=2)	96.70 ± 0.29

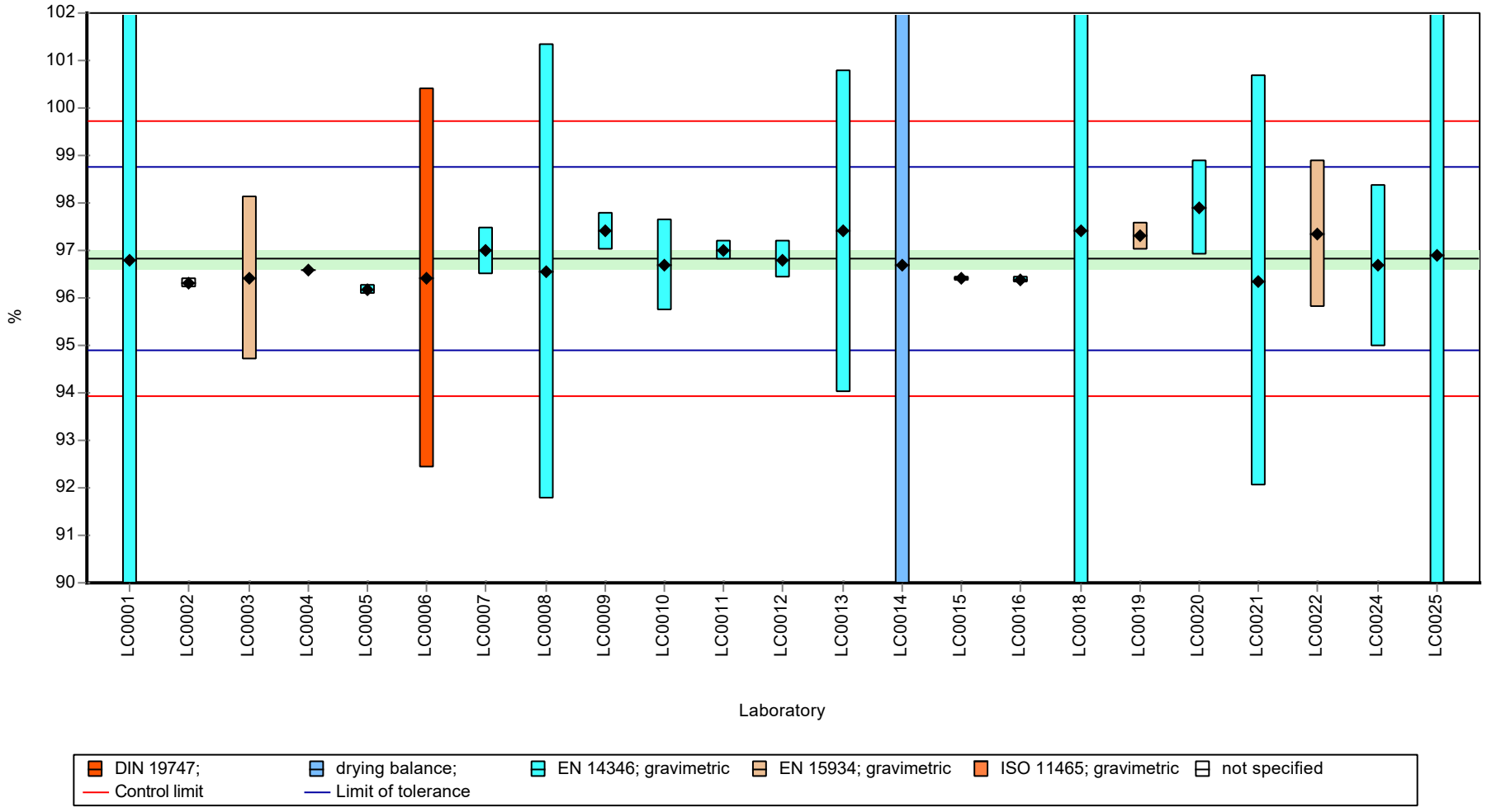
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	96.8	19	100	-0.02	
LC0002	96.3	0.1	99.5	-0.54	
LC0003	96.42	1.72	99.6	-0.41	
LC0004	96.6	-	99.8	-0.23	
LC0005	96.16	0.1	99.3	-0.68	
LC0006	96.4	4	99.6	-0.44	
LC0007	97	0.5	100	0.18	
LC0008	96.56	4.8	99.7	-0.27	
LC0009	97.4	0.4	101	0.6	
LC0010	96.7	0.97	99.9	-0.13	
LC0011	97	0.2	100	0.18	
LC0012	96.8	0.4	100	-0.02	
LC0013	97.4	3.41	101	0.6	
LC0014	96.7	14.5	99.9	-0.13	
LC0015	96.4	0.058	99.6	-0.44	
LC0016	96.37	0.07	99.5	-0.47	
LC0017	-	-	-	-	
LC0018	97.4	9	101	0.6	
LC0019	97.3	0.3	100	0.49	
LC0020	97.9	1	101	1.11	
LC0021	96.36	4.34	99.5	-0.48	
LC0022	97.35	1.56	101	0.55	
LC0023	-	-	-	-	
LC0024	96.68	1.7	99.9	-0.15	
LC0025	96.9	9.69	100	0.08	

Characteristics of parameter

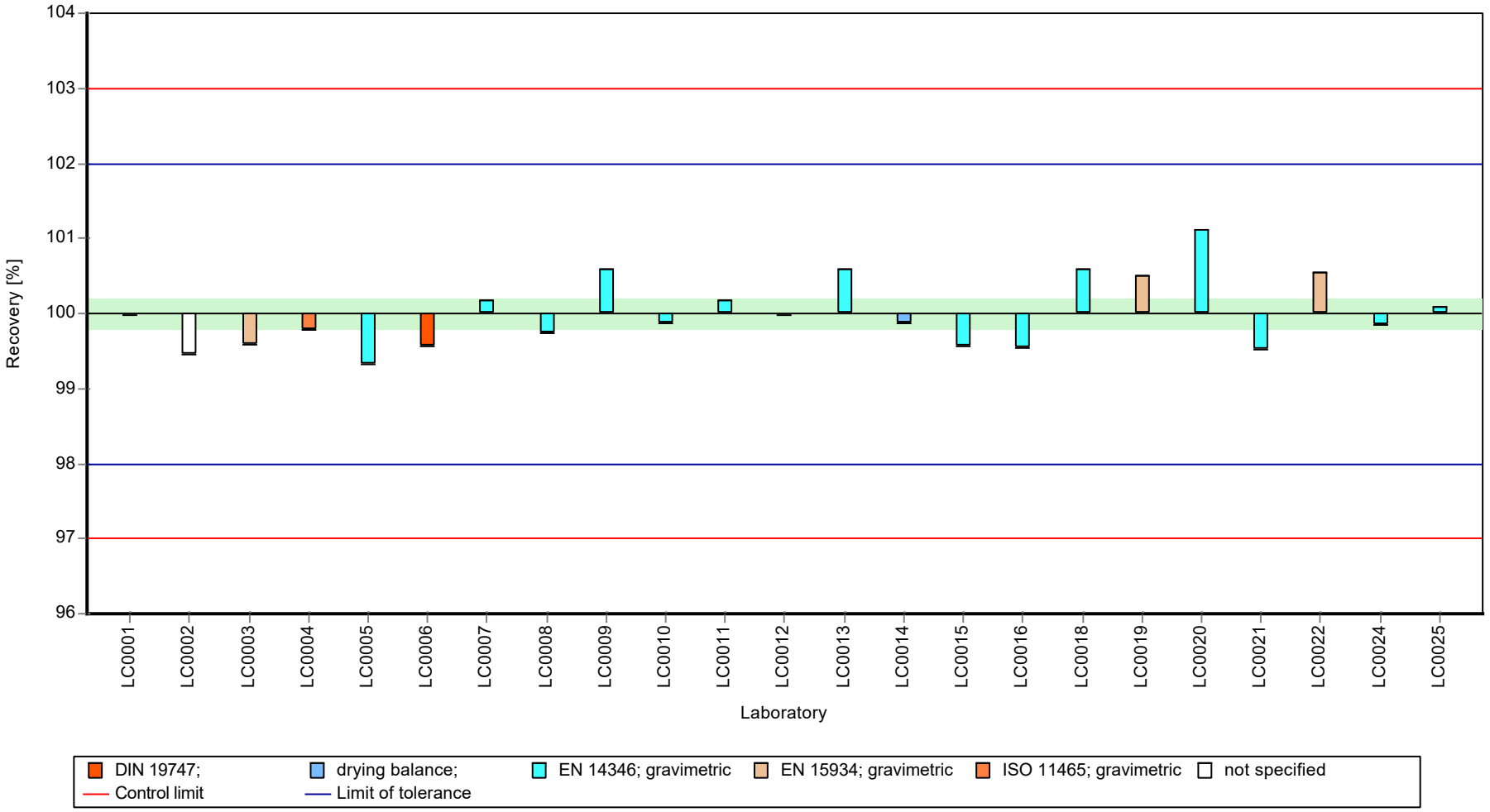
	all results	without outliers	Unit
Mean ± CI (99%)	96.8 ± 0.285	96.8 ± 0.285	%
Minimum	96.2	96.2	%
Maximum	97.9	97.9	%
Standard deviation	0.455	0.455	%
rel. standard deviation	0.47	0.47	%
n	23	23	-

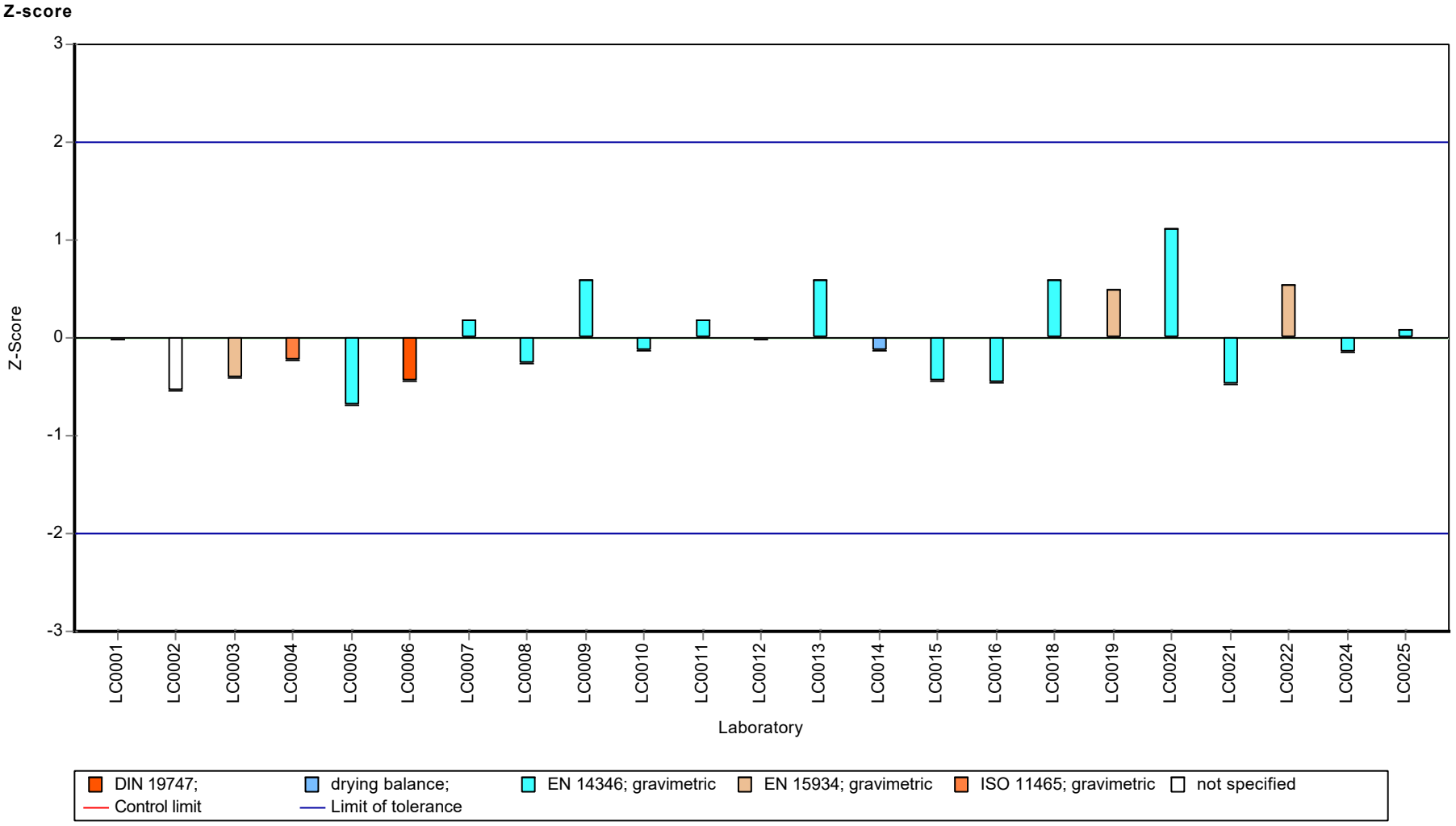
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
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2
1
0
-1
-2
-3
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0018
LC0019
LC0020
LC0021
LC0022
LC0024
LC0025
Laboratory
DIN 19747;
drying balance;
EN 14346; gravimetric
EN 15934; gravimetric
ISO 11465; gravimetric
not specified
Control limit
Limit of tolerance

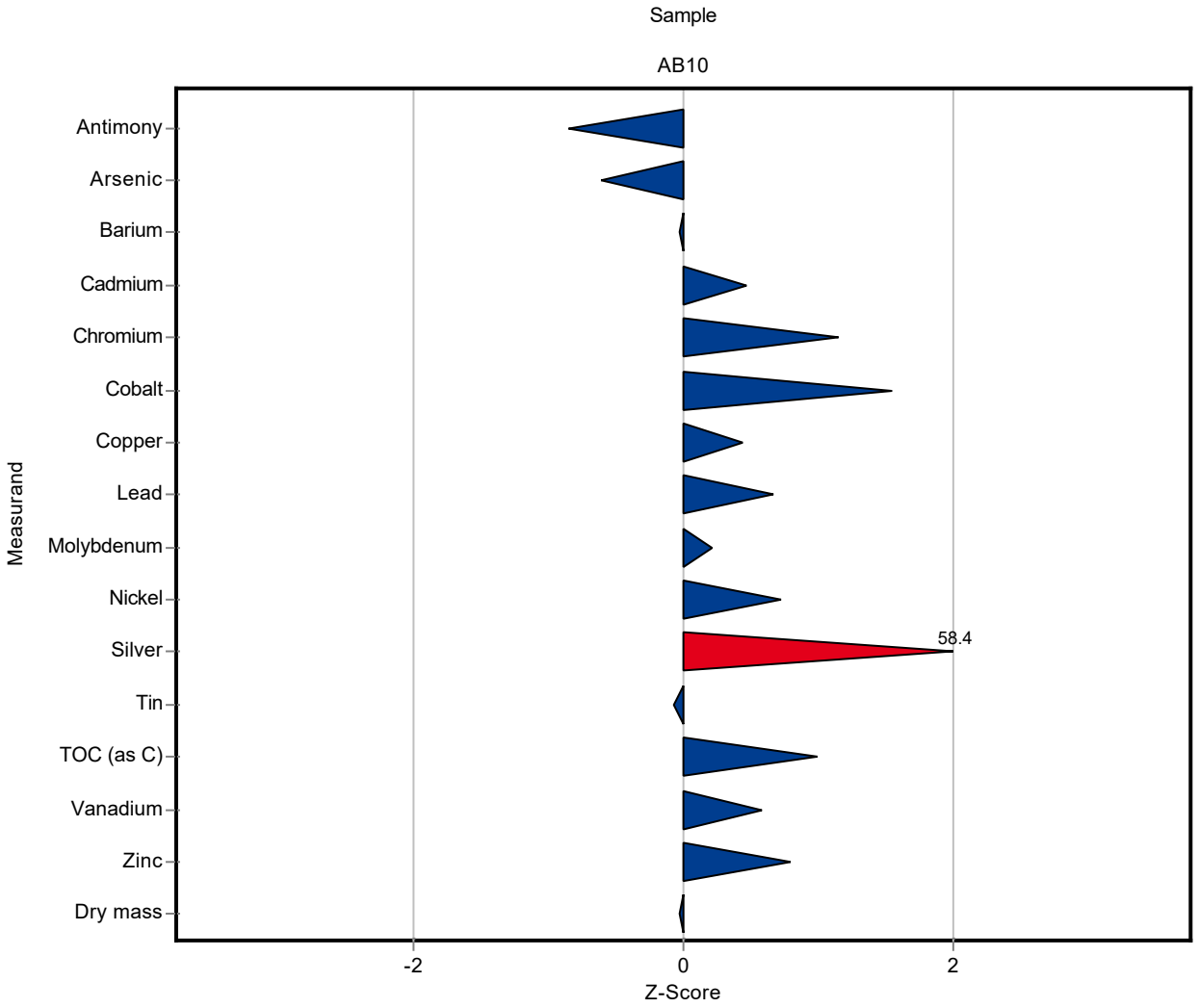
E8. Laborорientierte Auswertung / Laboratory oriented report

Die Laborорientierte Auswertung ist nach dem Laborcode sortiert.

The laboratory oriented report is sorted by laboratory code.

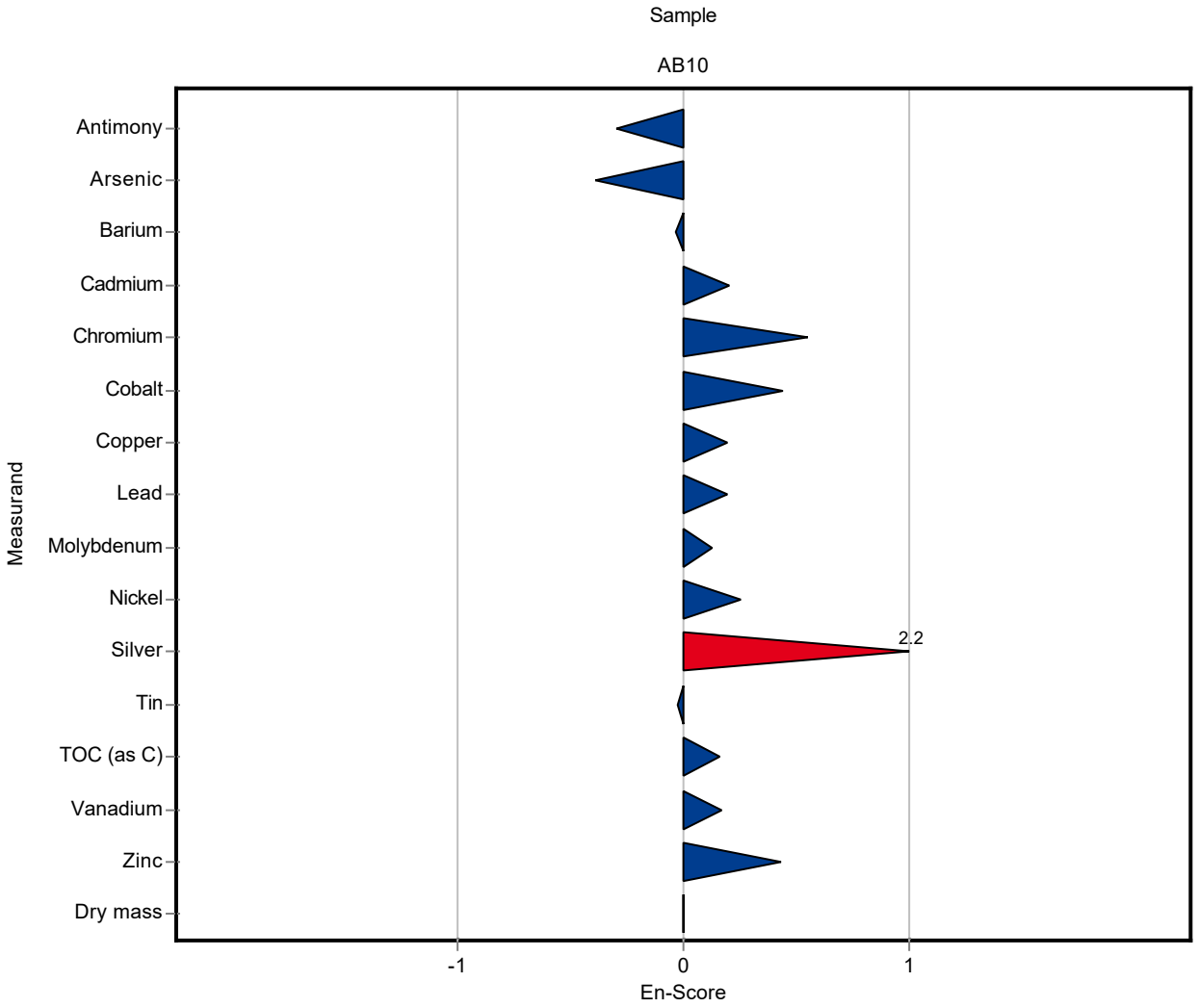
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	171 ± 44	31.6	86.5	-0.85
Arsenic	mg/kg DM	7.94 ± 0.696	6.98 ± 1.19	1.59	87.9	-0.60
Barium	mg/kg DM	1000 ± 139	995 ± 139	281	99.1	-0.03
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	- ± -	0.0548	-	-
Cadmium	mg/kg DM	6.21 ± 0.317	6.56 ± 0.85	0.745	106	0.47
Chromium	mg/kg DM	217 ± 13.4	254 ± 33	32.5	117	1.14
Cobalt	mg/kg DM	25.3 ± 1.54	30.8 ± 6.2	3.55	122	1.54
Copper	mg/kg DM	2970 ± 171	3156 ± 473	416	106	0.45
HC-Index	mg/kg DM	660 ± 114	- ± -	238	-	-
Lead	mg/kg DM	478 ± 27.2	519 ± 104	62.1	109	0.66
Mercury	mg/kg DM	0.0394 ± 0.00938	- ± -	0.0162	-	-
Molybdenum	mg/kg DM	23.6 ± 1.86	24.5 ± 3.4	4.24	104	0.22
Nickel	mg/kg DM	157 ± 10.1	174 ± 33	23.5	111	0.72
Selenium	mg/kg DM	3.73 ± 0.834	<0.01 (LOQ) ± -	1.61	-	-
Silver	mg/kg DM	5.83 ± 0.428	53.5 ± 10.7	0.816	917	58.40
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	- ± -	0.56	-	-
Tin	mg/kg DM	108 ± 6.68	107 ± 21	14	99	-0.07
TOC (as C)	mg/kg DM	33600 ± 1670	37191 ± 11157	3690	111	0.99
Vanadium	mg/kg DM	39 ± 2.27	41.9 ± 8.4	5.07	108	0.58
Zinc	mg/kg DM	3340 ± 206	3736 ± 448	501	112	0.79
Dry mass	%	96.8 ± 0.19	96.8 ± 19	0.968	100	-0.02


Sample
AB10
Antimony
Arsenic
Barium
Cadmium
Chromium
Cobalt
Copper
Lead
Molybdenum
Nickel
Silver
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
Measurand
58.4
-2
0
2
Z-Score

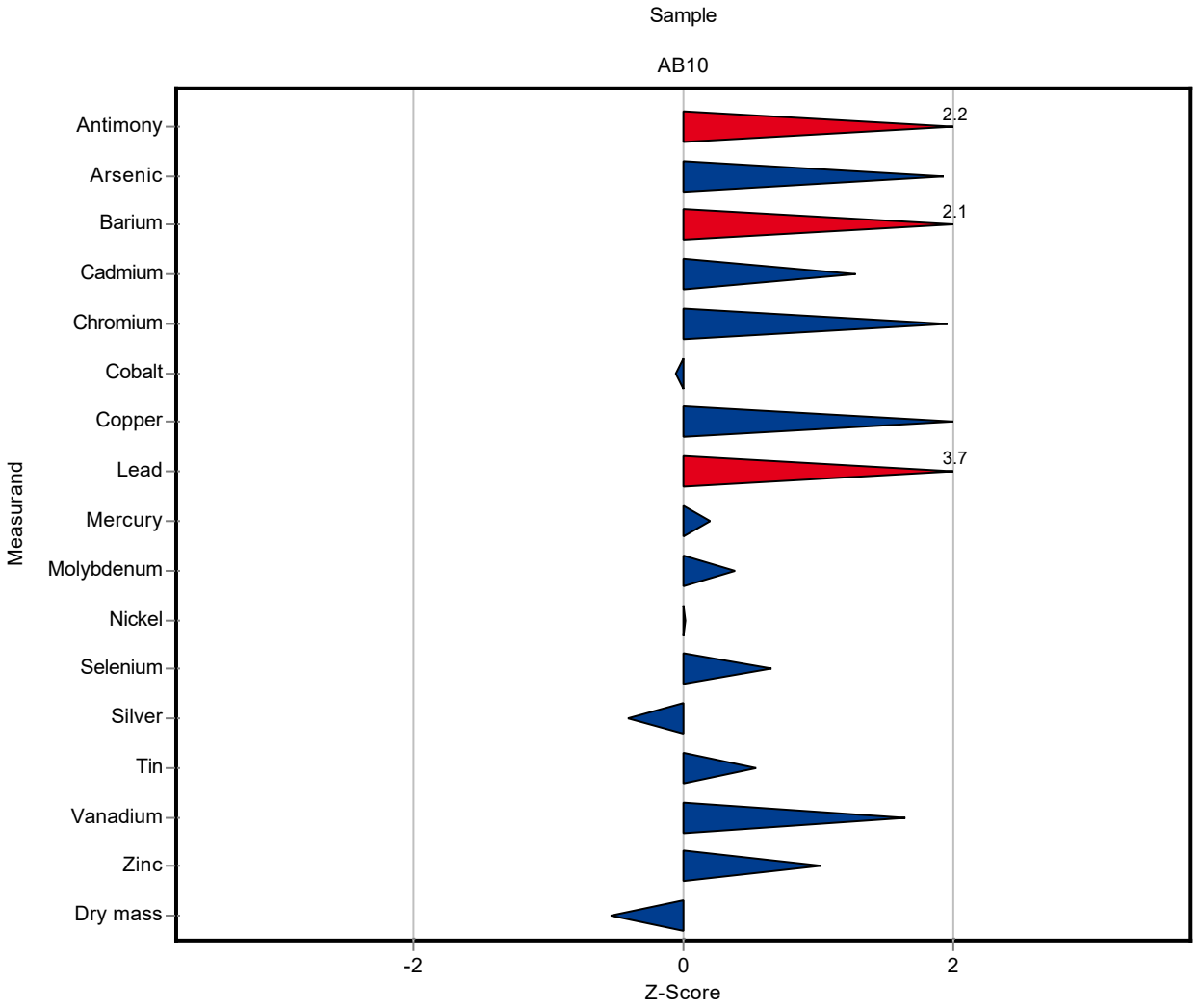
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	171 ± 44	31.6	86.5	-0.30
Arsenic	mg/kg DM	7.94 ± 0.696	6.98 ± 1.19	1.59	87.9	-0.39
Barium	mg/kg DM	1000 ± 139	995 ± 139	281	99.1	-0.03
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	- ± -	0.0548	-	-
Cadmium	mg/kg DM	6.21 ± 0.317	6.56 ± 0.85	0.745	106	0.20
Chromium	mg/kg DM	217 ± 13.4	254 ± 33	32.5	117	0.55
Cobalt	mg/kg DM	25.3 ± 1.54	30.8 ± 6.2	3.55	122	0.44
Copper	mg/kg DM	2970 ± 171	3156 ± 473	416	106	0.19
HC-Index	mg/kg DM	660 ± 114	- ± -	238	-	-
Lead	mg/kg DM	478 ± 27.2	519 ± 104	62.1	109	0.20
Mercury	mg/kg DM	0.0394 ± 0.00938	- ± -	0.0162	-	-
Molybdenum	mg/kg DM	23.6 ± 1.86	24.5 ± 3.4	4.24	104	0.13
Nickel	mg/kg DM	157 ± 10.1	174 ± 33	23.5	111	0.26
Selenium	mg/kg DM	3.73 ± 0.834	<0.01 (LOQ) ± -	1.61	-	-
Silver	mg/kg DM	5.83 ± 0.428	53.5 ± 10.7	0.816	917	2.23
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	- ± -	0.56	-	-
Tin	mg/kg DM	108 ± 6.68	107 ± 21	14	99	-0.02
TOC (as C)	mg/kg DM	33600 ± 1670	37191 ± 11157	3690	111	0.16
Vanadium	mg/kg DM	39 ± 2.27	41.9 ± 8.4	5.07	108	0.17
Zinc	mg/kg DM	3340 ± 206	3736 ± 448	501	112	0.43
Dry mass	%	96.8 ± 0.19	96.8 ± 19	0.968	100	0.00


Sample
AB10
Antimony
Arsenic
Barium
Cadmium
Chromium
Cobalt
Copper
Lead
Molybdenum
Nickel
Silver
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
Measurand
2.2
-1
0
1
En-Score

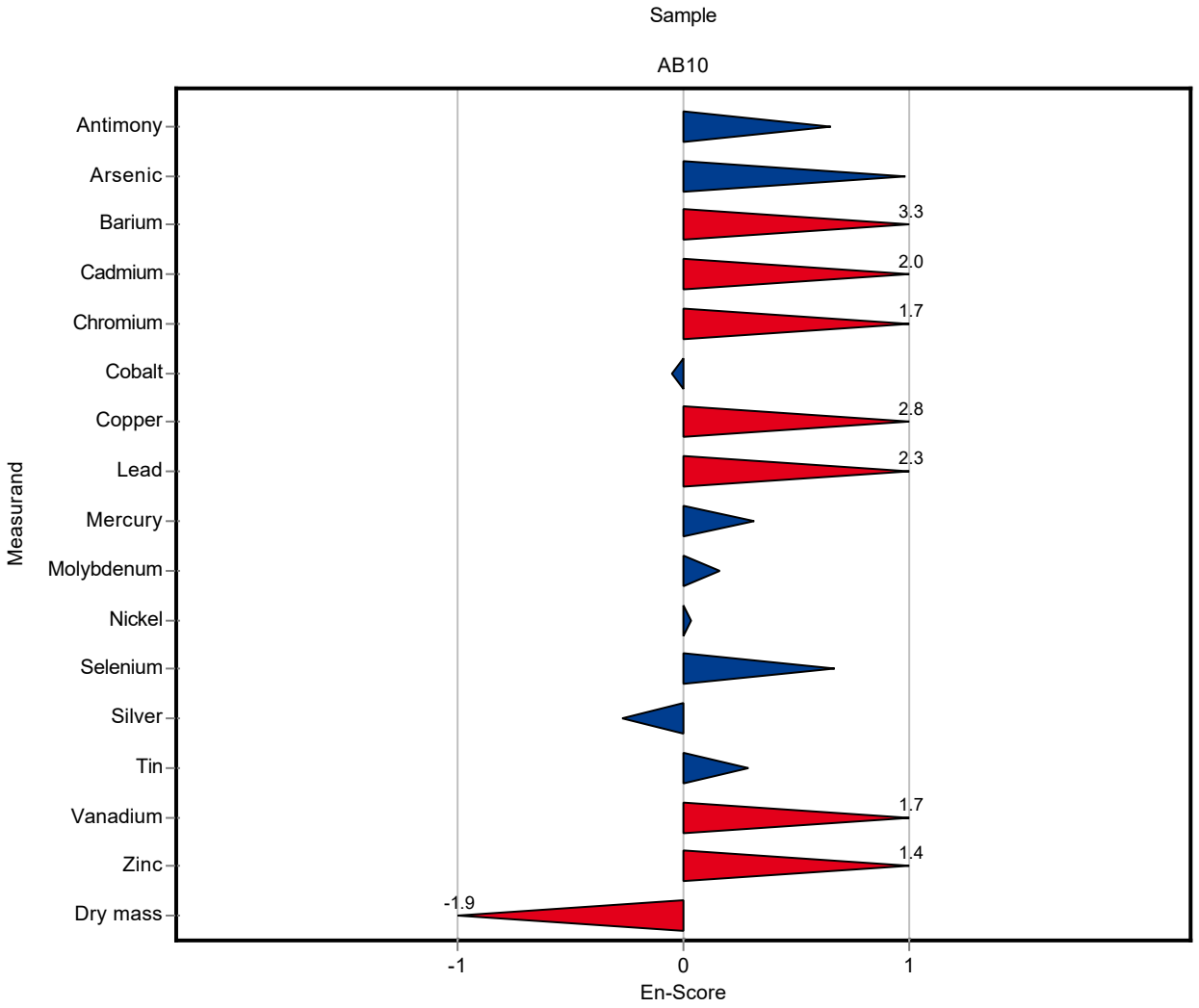
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	266.8 ± 52.3	31.6	135	2.18
Arsenic	mg/kg DM	7.94 ± 0.696	11 ± 1.51	1.59	139	1.93
Barium	mg/kg DM	1000 ± 139	1599 ± 57.8	281	159	2.11
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	- ± -	0.0548	-	-
Cadmium	mg/kg DM	6.21 ± 0.317	7.16 ± 0.178	0.745	115	1.27
Chromium	mg/kg DM	217 ± 13.4	280.6 ± 17.9	32.5	129	1.96
Cobalt	mg/kg DM	25.3 ± 1.54	25.1 ± 2.18	3.55	99.1	-0.06
Copper	mg/kg DM	2970 ± 171	3799 ± 122	416	128	1.99
HC-Index	mg/kg DM	660 ± 114	- ± -	238	-	-
Lead	mg/kg DM	478 ± 27.2	705.5 ± 47.7	62.1	148	3.66
Mercury	mg/kg DM	0.0394 ± 0.00938	0.0426 ± 0.0017	0.0162	108	0.20
Molybdenum	mg/kg DM	23.6 ± 1.86	25.2 ± 4.99	4.24	107	0.38
Nickel	mg/kg DM	157 ± 10.1	157.4 ± 2.7	23.5	100	0.02
Selenium	mg/kg DM	3.73 ± 0.834	4.78 ± 0.66	1.61	128	0.65
Silver	mg/kg DM	5.83 ± 0.428	5.5 ± 0.57	0.816	94.3	-0.41
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	- ± -	0.56	-	-
Tin	mg/kg DM	108 ± 6.68	115.7 ± 13	14	107	0.55
TOC (as C)	mg/kg DM	33600 ± 1670	- ± -	3690	-	-
Vanadium	mg/kg DM	39 ± 2.27	47.3 ± 2.16	5.07	121	1.65
Zinc	mg/kg DM	3340 ± 206	3852 ± 145	501	115	1.02
Dry mass	%	96.8 ± 0.19	96.3 ± 0.1	0.968	99.5	-0.54


Sample
AB10
Antimony
Arsenic
Barium
Cadmium
Chromium
Cobalt
Copper
Lead
Mercury
Molybdenum
Nickel
Selenium
Silver
Tin
Vanadium
Zinc
Dry mass
Measurand
2.2
2.1
3.7
-2
0
2
Z-Score

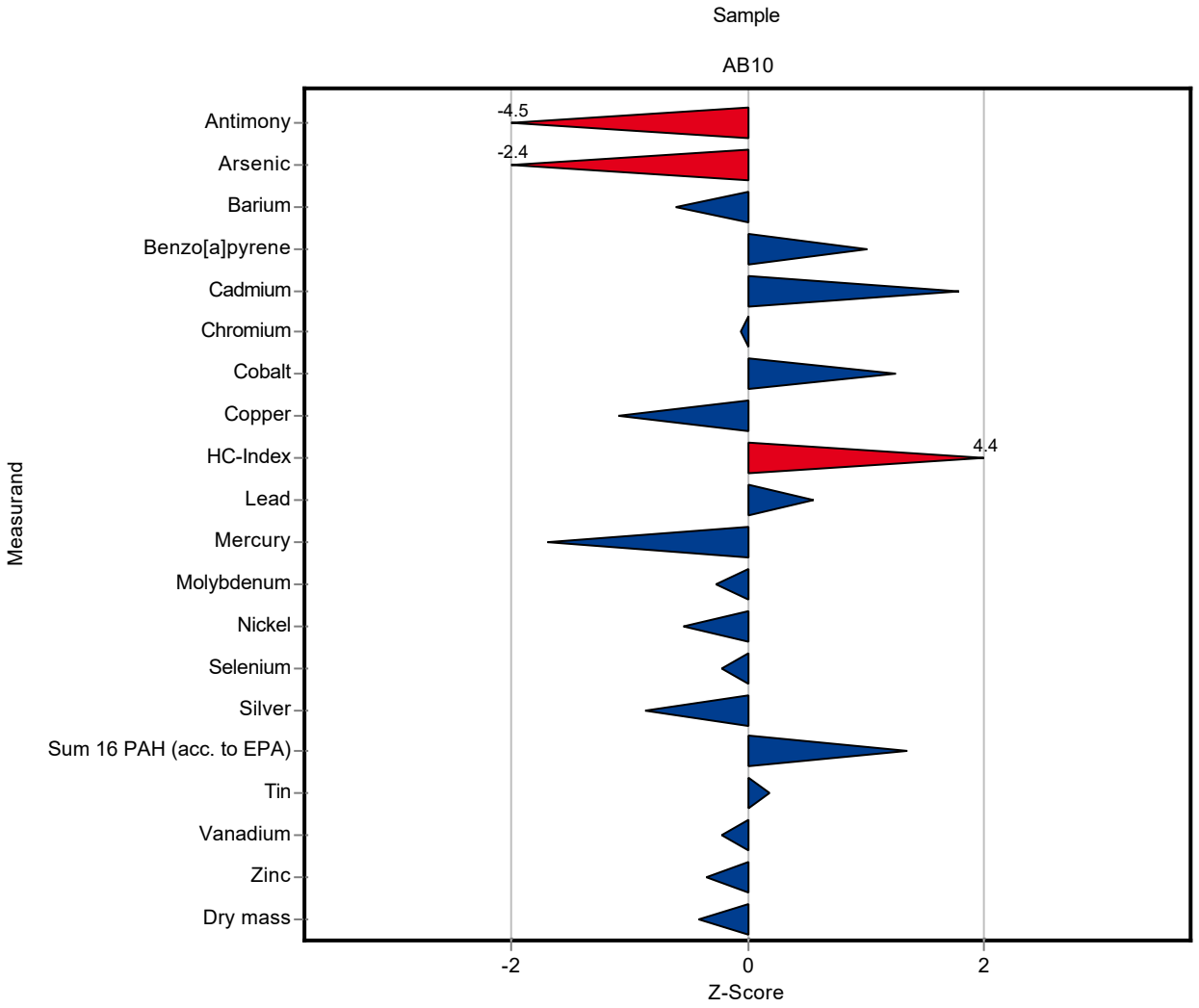
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	266.8 ± 52.3	31.6	135	0.65
Arsenic	mg/kg DM	7.94 ± 0.696	11 ± 1.51	1.59	139	0.99
Barium	mg/kg DM	1000 ± 139	1599 ± 57.8	281	159	3.28
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	- ± -	0.0548	-	-
Cadmium	mg/kg DM	6.21 ± 0.317	7.16 ± 0.178	0.745	115	1.99
Chromium	mg/kg DM	217 ± 13.4	280.6 ± 17.9	32.5	129	1.67
Cobalt	mg/kg DM	25.3 ± 1.54	25.1 ± 2.18	3.55	99.1	-0.05
Copper	mg/kg DM	2970 ± 171	3799 ± 122	416	128	2.78
HC-Index	mg/kg DM	660 ± 114	- ± -	238	-	-
Lead	mg/kg DM	478 ± 27.2	705.5 ± 47.7	62.1	148	2.29
Mercury	mg/kg DM	0.0394 ± 0.00938	0.0426 ± 0.0017	0.0162	108	0.32
Molybdenum	mg/kg DM	23.6 ± 1.86	25.2 ± 4.99	4.24	107	0.16
Nickel	mg/kg DM	157 ± 10.1	157.4 ± 2.7	23.5	100	0.04
Selenium	mg/kg DM	3.73 ± 0.834	4.78 ± 0.66	1.61	128	0.67
Silver	mg/kg DM	5.83 ± 0.428	5.5 ± 0.57	0.816	94.3	-0.27
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	- ± -	0.56	-	-
Tin	mg/kg DM	108 ± 6.68	115.7 ± 13	14	107	0.28
TOC (as C)	mg/kg DM	33600 ± 1670	- ± -	3690	-	-
Vanadium	mg/kg DM	39 ± 2.27	47.3 ± 2.16	5.07	121	1.71
Zinc	mg/kg DM	3340 ± 206	3852 ± 145	501	115	1.44
Dry mass	%	96.8 ± 0.19	96.3 ± 0.1	0.968	99.5	-1.89


Sample
AB10
Antimony
Arsenic
Barium
Cadmium
Chromium
Cobalt
Copper
Lead
Mercury
Molybdenum
Nickel
Selenium
Silver
Tin
Vanadium
Zinc
Dry mass
Measurand
3.3
2.0
1.7
2.8
2.3
1.7
1.4
-1.9
-1
0
1
En-Score

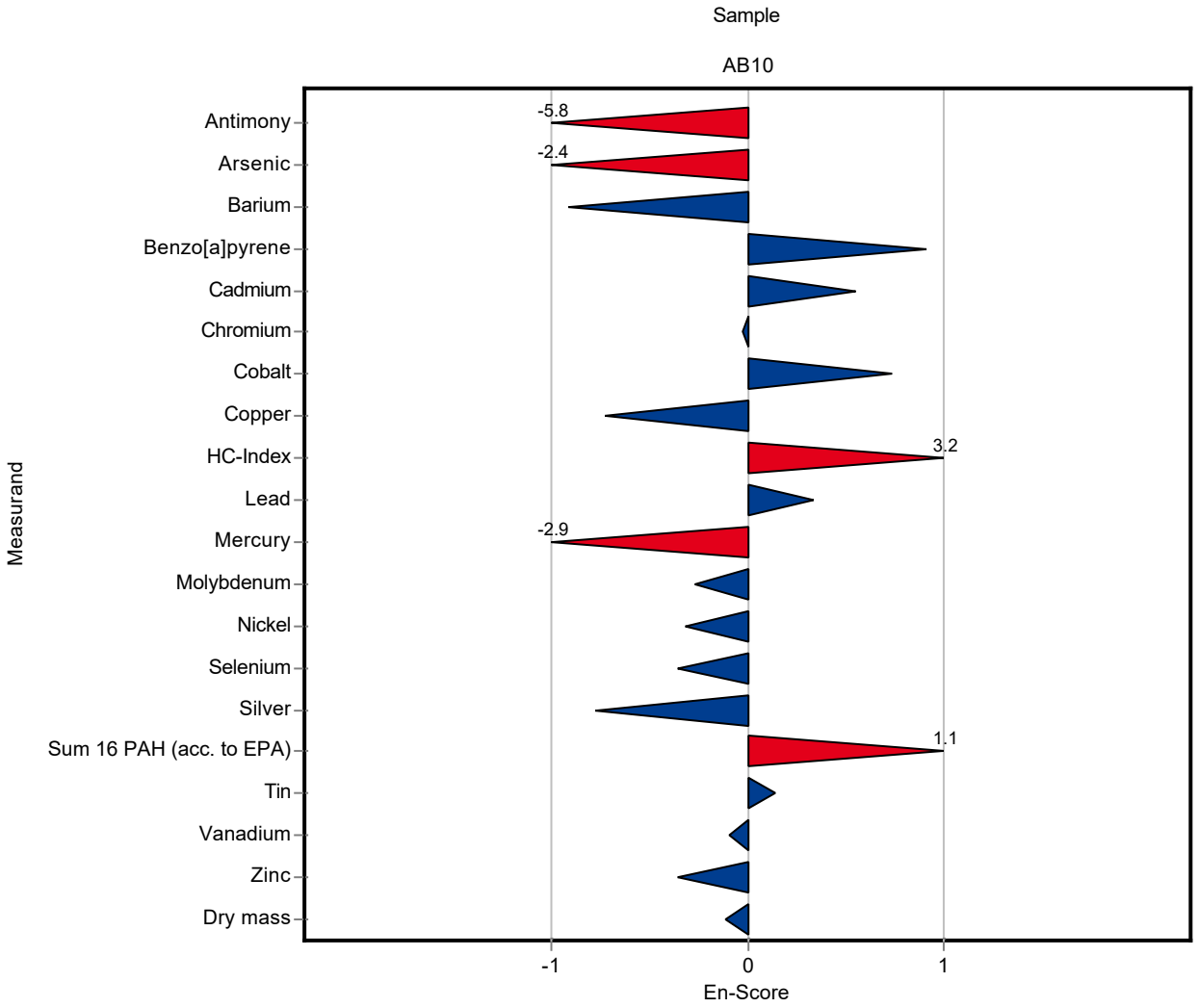
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	55.97 ± 9.95	31.6	28.3	-4.48
Arsenic	mg/kg DM	7.94 ± 0.696	4.14 ± 0.7	1.59	52.1	-2.39
Barium	mg/kg DM	1000 ± 139	833.53 ± 62.5	281	83	-0.61
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.189 ± 0.027	0.0548	141	1.01
Cadmium	mg/kg DM	6.21 ± 0.317	7.55 ± 1.2	0.745	122	1.79
Chromium	mg/kg DM	217 ± 13.4	215.31 ± 27.4	32.5	99.3	-0.05
Cobalt	mg/kg DM	25.3 ± 1.54	29.75 ± 2.9	3.55	117	1.25
Copper	mg/kg DM	2970 ± 171	2516 ± 301	416	84.7	-1.09
HC-Index	mg/kg DM	660 ± 114	1700 ± 153	238	257	4.37
Lead	mg/kg DM	478 ± 27.2	512.89 ± 50	62.1	107	0.56
Mercury	mg/kg DM	0.0394 ± 0.00938	0.012 ± 0.001	0.0162	30.4	-1.70
Molybdenum	mg/kg DM	23.6 ± 1.86	22.48 ± 1.85	4.24	95.3	-0.26
Nickel	mg/kg DM	157 ± 10.1	144.37 ± 19	23.5	92	-0.54
Selenium	mg/kg DM	3.73 ± 0.834	3.39 ± 0.25	1.61	90.8	-0.21
Silver	mg/kg DM	5.83 ± 0.428	5.13 ± 0.4	0.816	88	-0.86
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	2.91 ± 0.32	0.56	135	1.35
Tin	mg/kg DM	108 ± 6.68	110.69 ± 8.6	14	102	0.19
TOC (as C)	mg/kg DM	33600 ± 1670	- ± -	3690	-	-
Vanadium	mg/kg DM	39 ± 2.27	37.87 ± 5.85	5.07	97.2	-0.22
Zinc	mg/kg DM	3340 ± 206	3167 ± 220	501	94.8	-0.35
Dry mass	%	96.8 ± 0.19	96.42 ± 1.72	0.968	99.6	-0.41


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Mercury
Molybdenum
Nickel
Selenium
Silver
Sum 16 PAH (acc. to EPA)
Tin
Vanadium
Zinc
Dry mass
Measurand
-4.5
-2.4
4.4
-2
0
2
Z-Score

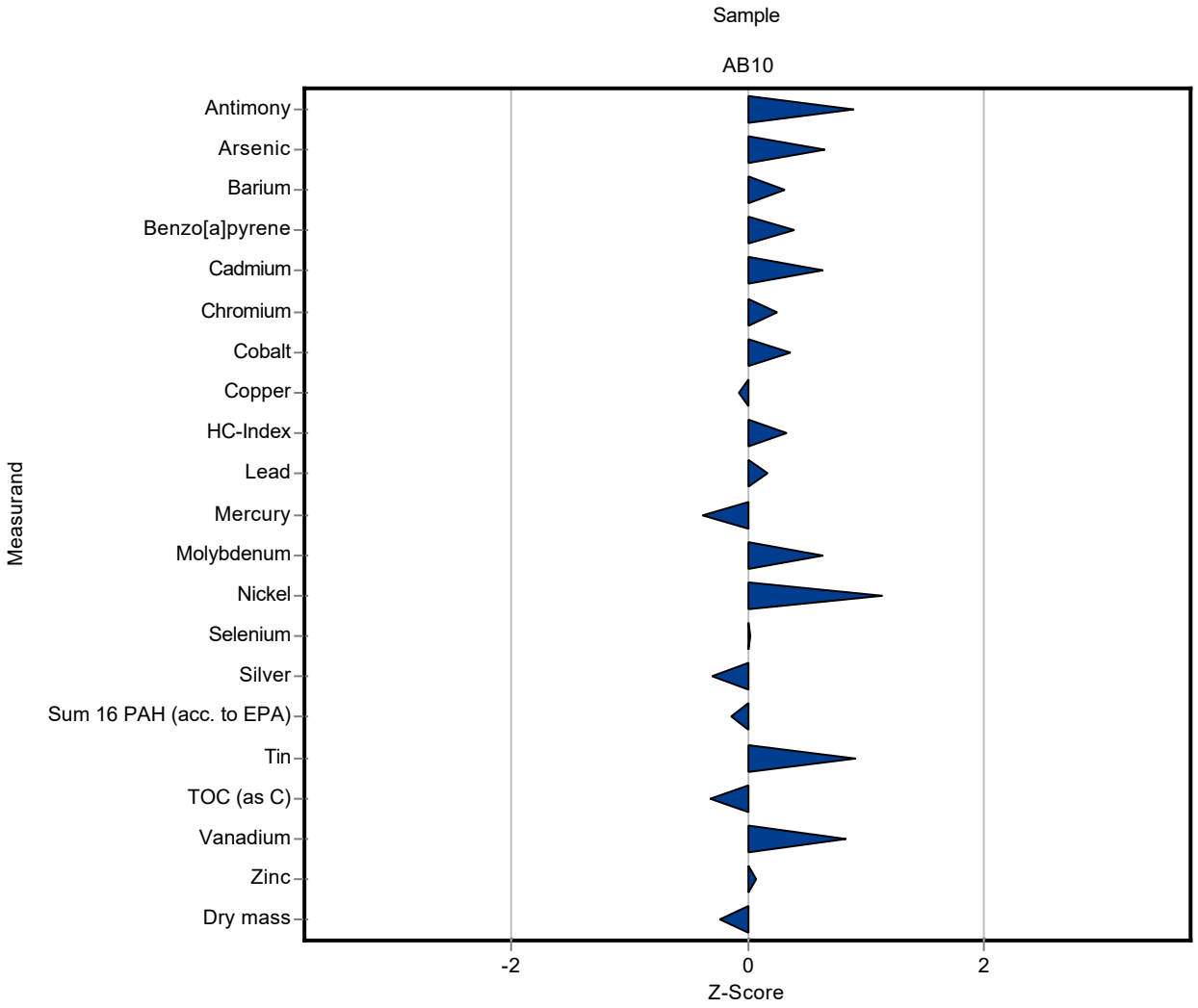
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	55.97 ± 9.95	31.6	28.3	-5.76
Arsenic	mg/kg DM	7.94 ± 0.696	4.14 ± 0.7	1.59	52.1	-2.43
Barium	mg/kg DM	1000 ± 139	833.53 ± 62.5	281	83	-0.91
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.189 ± 0.027	0.0548	141	0.91
Cadmium	mg/kg DM	6.21 ± 0.317	7.55 ± 1.2	0.745	122	0.55
Chromium	mg/kg DM	217 ± 13.4	215.31 ± 27.4	32.5	99.3	-0.03
Cobalt	mg/kg DM	25.3 ± 1.54	29.75 ± 2.9	3.55	117	0.74
Copper	mg/kg DM	2970 ± 171	2516 ± 301	416	84.7	-0.73
HC-Index	mg/kg DM	660 ± 114	1700 ± 153	238	257	3.19
Lead	mg/kg DM	478 ± 27.2	512.89 ± 50	62.1	107	0.34
Mercury	mg/kg DM	0.0394 ± 0.00938	0.012 ± 0.001	0.0162	30.4	-2.86
Molybdenum	mg/kg DM	23.6 ± 1.86	22.48 ± 1.85	4.24	95.3	-0.27
Nickel	mg/kg DM	157 ± 10.1	144.37 ± 19	23.5	92	-0.32
Selenium	mg/kg DM	3.73 ± 0.834	3.39 ± 0.25	1.61	90.8	-0.35
Silver	mg/kg DM	5.83 ± 0.428	5.13 ± 0.4	0.816	88	-0.77
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	2.91 ± 0.32	0.56	135	1.09
Tin	mg/kg DM	108 ± 6.68	110.69 ± 8.6	14	102	0.14
TOC (as C)	mg/kg DM	33600 ± 1670	- ± -	3690	-	-
Vanadium	mg/kg DM	39 ± 2.27	37.87 ± 5.85	5.07	97.2	-0.09
Zinc	mg/kg DM	3340 ± 206	3167 ± 220	501	94.8	-0.36
Dry mass	%	96.8 ± 0.19	96.42 ± 1.72	0.968	99.6	-0.12


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Mercury
Molybdenum
Nickel
Selenium
Silver
Sum 16 PAH (acc. to EPA)
Tin
Vanadium
Zinc
Dry mass
Measurand
-5.8
-2.4
3.2
-2.9
1.1
-1
0
1
En-Score

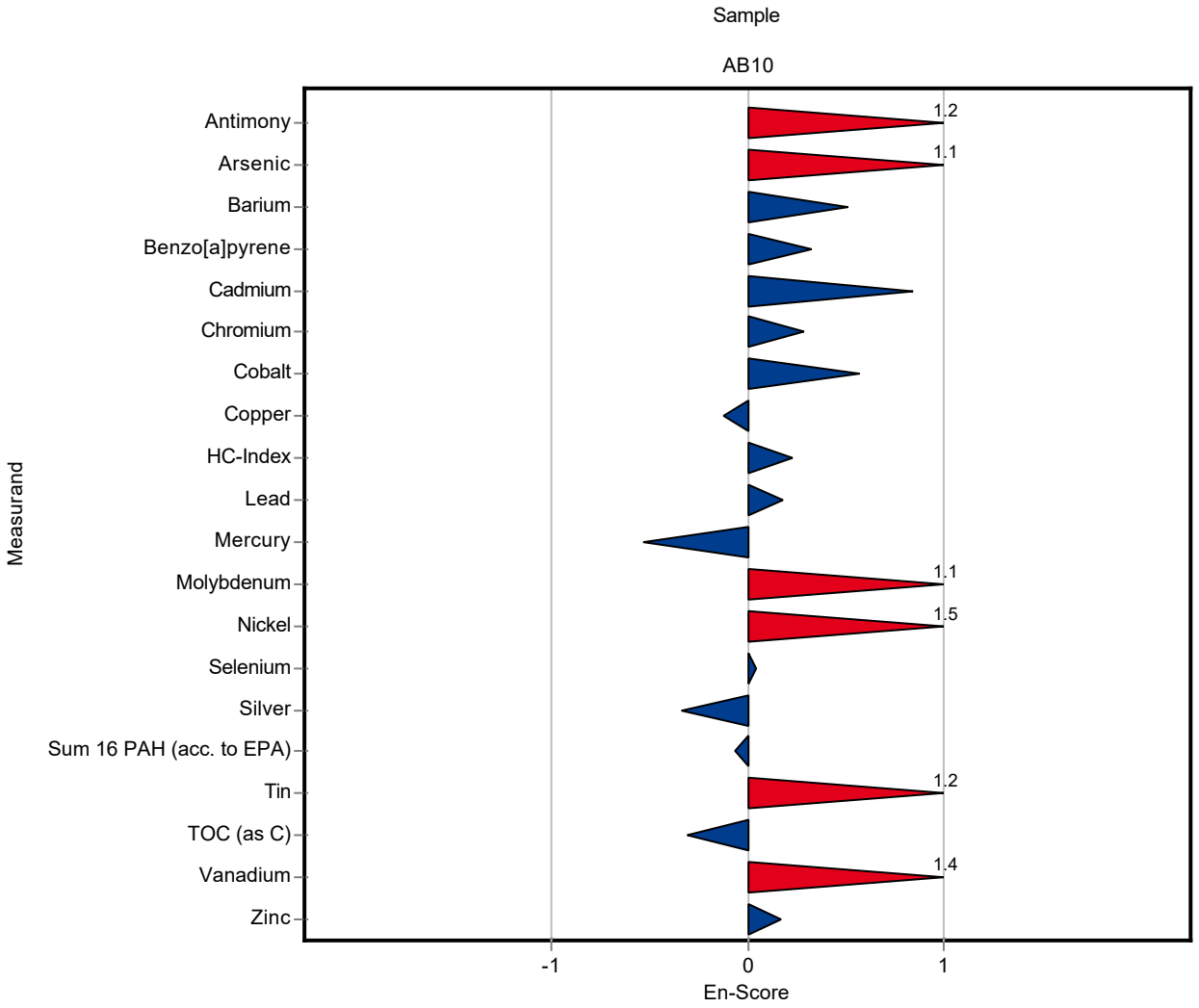
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	226 ± 9.72	31.6	114	0.89
Arsenic	mg/kg DM	7.94 ± 0.696	8.98 ± 0.314	1.59	113	0.66
Barium	mg/kg DM	1000 ± 139	1093 ± 52.5	281	109	0.32
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.155 ± 0.03	0.0548	116	0.39
Cadmium	mg/kg DM	6.21 ± 0.317	6.69 ± 0.234	0.745	108	0.64
Chromium	mg/kg DM	217 ± 13.4	225 ± 12.6	32.5	104	0.25
Cobalt	mg/kg DM	25.3 ± 1.54	26.6 ± 0.825	3.55	105	0.36
Copper	mg/kg DM	2970 ± 171	2938 ± 102.83	416	98.9	-0.08
HC-Index	mg/kg DM	660 ± 114	740 ± 162.06	238	112	0.34
Lead	mg/kg DM	478 ± 27.2	489 ± 26.9	62.1	102	0.18
Mercury	mg/kg DM	0.0394 ± 0.00938	0.0334 ± 0.00327	0.0162	84.7	-0.37
Molybdenum	mg/kg DM	23.6 ± 1.86	26.3 ± 0.842	4.24	112	0.64
Nickel	mg/kg DM	157 ± 10.1	184 ± 7.18	23.5	117	1.15
Selenium	mg/kg DM	3.73 ± 0.834	3.77 ± 0.128	1.61	101	0.02
Silver	mg/kg DM	5.83 ± 0.428	5.59 ± 0.285	0.816	95.9	-0.30
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	2.08 ± 0.53	0.56	96.6	-0.13
Tin	mg/kg DM	108 ± 6.68	121 ± 3.99	14	112	0.92
TOC (as C)	mg/kg DM	33600 ± 1670	32400 ± 1700	3690	96.6	-0.31
Vanadium	mg/kg DM	39 ± 2.27	43.2 ± 1.04	5.07	111	0.84
Zinc	mg/kg DM	3340 ± 206	3377 ± 9.1	501	101	0.07
Dry mass	%	96.8 ± 0.19	96.6 ± -	0.968	99.8	-0.23


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Mercury
Molybdenum
Nickel
Selenium
Silver
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
Measurand
-2
0
2
Z-Score

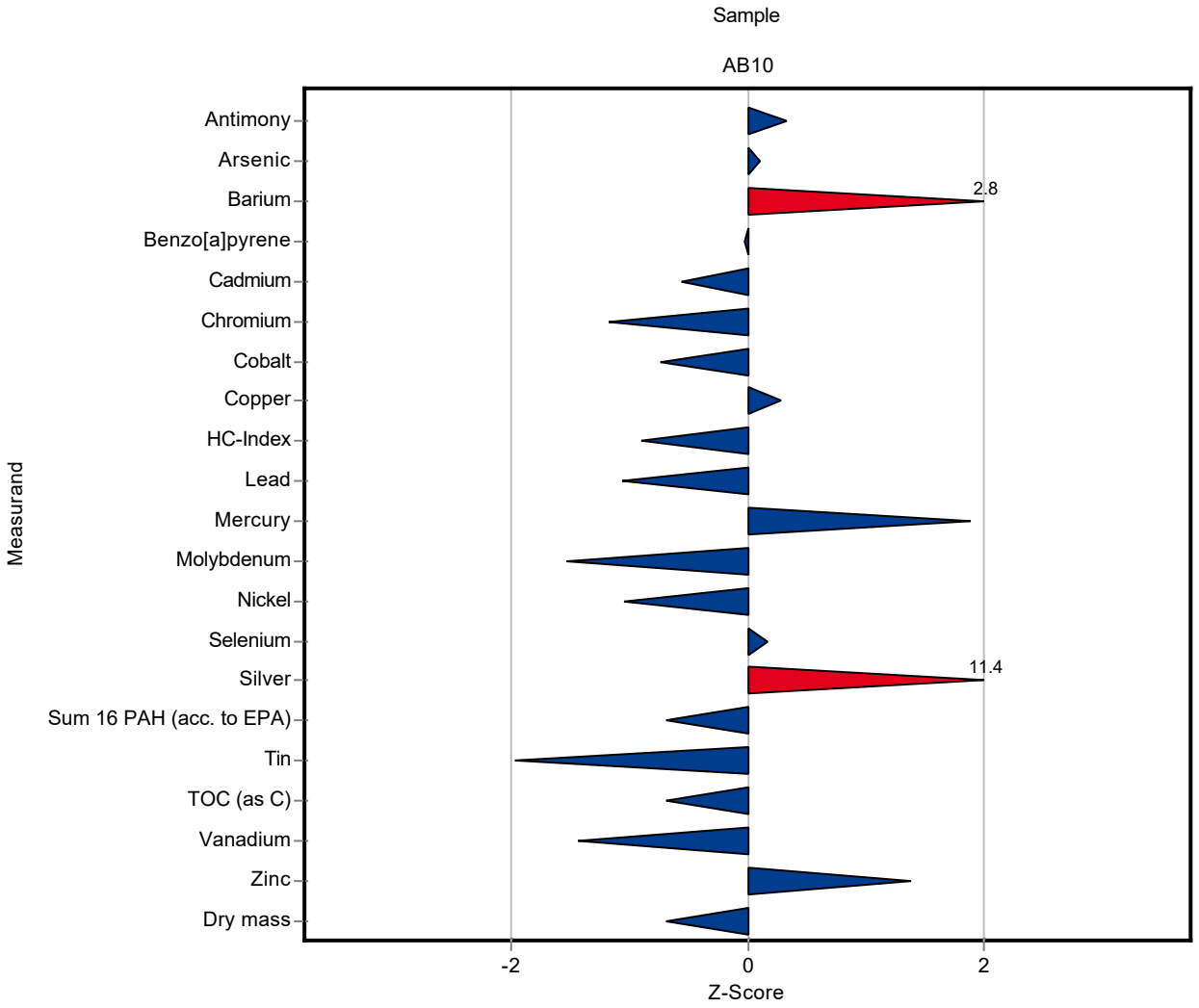
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	226 ± 9.72	31.6	114	1.16
Arsenic	mg/kg DM	7.94 ± 0.696	8.98 ± 0.314	1.59	113	1.11
Barium	mg/kg DM	1000 ± 139	1093 ± 52.5	281	109	0.51
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.155 ± 0.03	0.0548	116	0.32
Cadmium	mg/kg DM	6.21 ± 0.317	6.69 ± 0.234	0.745	108	0.84
Chromium	mg/kg DM	217 ± 13.4	225 ± 12.6	32.5	104	0.28
Cobalt	mg/kg DM	25.3 ± 1.54	26.6 ± 0.825	3.55	105	0.56
Copper	mg/kg DM	2970 ± 171	2938 ± 102.83	416	98.9	-0.12
HC-Index	mg/kg DM	660 ± 114	740 ± 162.06	238	112	0.23
Lead	mg/kg DM	478 ± 27.2	489 ± 26.9	62.1	102	0.18
Mercury	mg/kg DM	0.0394 ± 0.00938	0.0334 ± 0.00327	0.0162	84.7	-0.53
Molybdenum	mg/kg DM	23.6 ± 1.86	26.3 ± 0.842	4.24	112	1.08
Nickel	mg/kg DM	157 ± 10.1	184 ± 7.18	23.5	117	1.54
Selenium	mg/kg DM	3.73 ± 0.834	3.77 ± 0.128	1.61	101	0.04
Silver	mg/kg DM	5.83 ± 0.428	5.59 ± 0.285	0.816	95.9	-0.34
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	2.08 ± 0.53	0.56	96.6	-0.07
Tin	mg/kg DM	108 ± 6.68	121 ± 3.99	14	112	1.24
TOC (as C)	mg/kg DM	33600 ± 1670	32400 ± 1700	3690	96.6	-0.30
Vanadium	mg/kg DM	39 ± 2.27	43.2 ± 1.04	5.07	111	1.37
Zinc	mg/kg DM	3340 ± 206	3377 ± 9.1	501	101	0.17
Dry mass	%	96.8 ± 0.19	96.6 ± -	0.968	99.8	0.00


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Mercury
Molybdenum
Nickel
Selenium
Silver
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Measurand
1.2
1.1
1.1
1.5
1.2
1.4
-1
0
1
En-Score

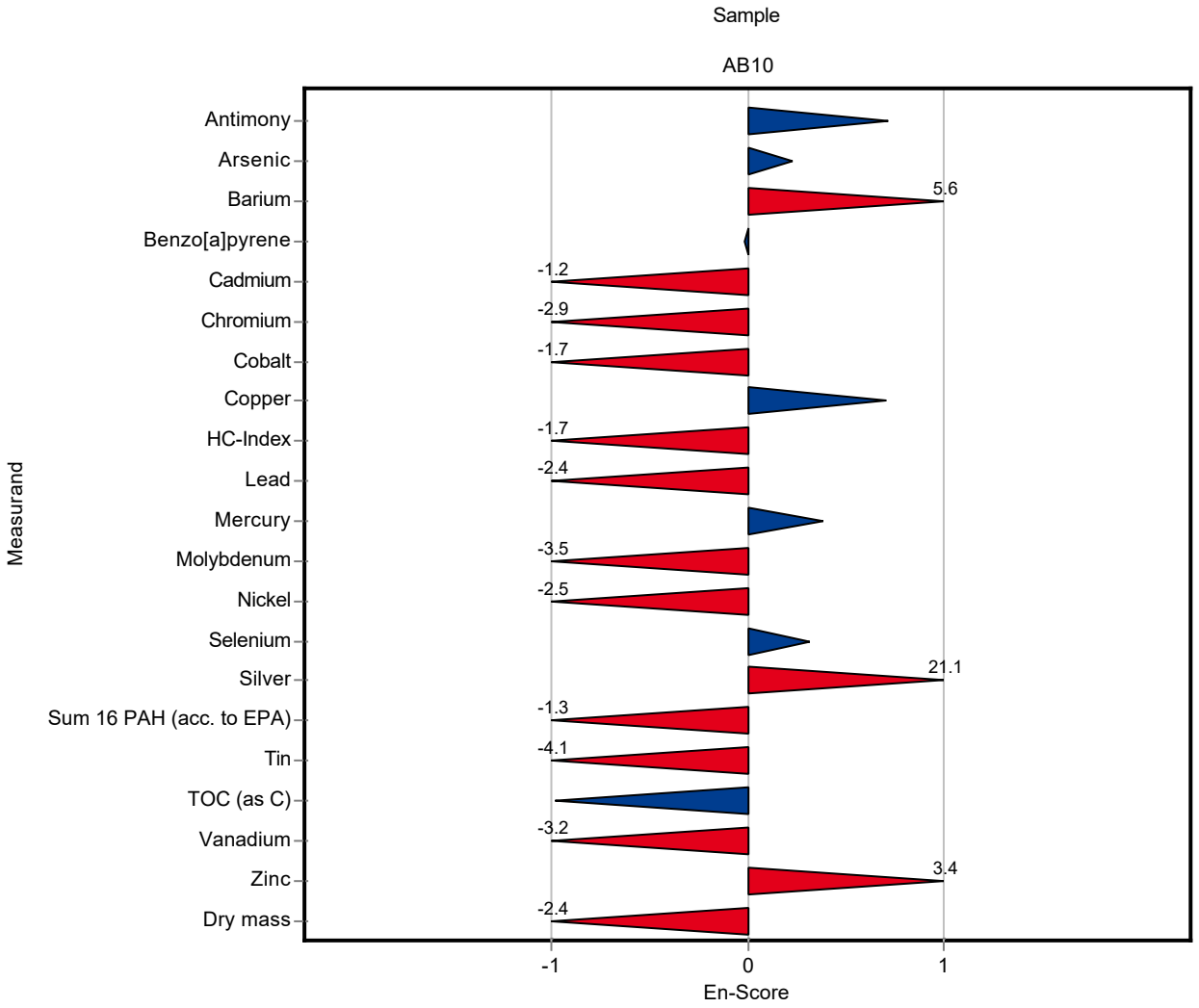
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	208.1 ± 0.05	31.6	105	0.33
Arsenic	mg/kg DM	7.94 ± 0.696	8.1 ± 0.05	1.59	102	0.10
Barium	mg/kg DM	1000 ± 139	1789 ± 0.1	281	178	2.79
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.132 ± 0.05	0.0548	98.8	-0.03
Cadmium	mg/kg DM	6.21 ± 0.317	5.8 ± 0.05	0.745	93.4	-0.55
Chromium	mg/kg DM	217 ± 13.4	178.8 ± 0.1	32.5	82.4	-1.17
Cobalt	mg/kg DM	25.3 ± 1.54	22.7 ± 0.1	3.55	89.6	-0.74
Copper	mg/kg DM	2970 ± 171	3091 ± 0.1	416	104	0.29
HC-Index	mg/kg DM	660 ± 114	446 ± 30	238	67.5	-0.90
Lead	mg/kg DM	478 ± 27.2	412 ± 0.1	62.1	86.2	-1.06
Mercury	mg/kg DM	0.0394 ± 0.00938	0.07 ± 0.04	0.0162	178	1.89
Molybdenum	mg/kg DM	23.6 ± 1.86	17.1 ± 0.1	4.24	72.5	-1.53
Nickel	mg/kg DM	157 ± 10.1	132.2 ± 0.1	23.5	84.2	-1.05
Selenium	mg/kg DM	3.73 ± 0.834	4 ± 0.05	1.61	107	0.17
Silver	mg/kg DM	5.83 ± 0.428	15.1 ± 0.05	0.816	259	11.40
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	1.765 ± 0.07	0.56	82	-0.69
Tin	mg/kg DM	108 ± 6.68	80.4 ± 0.1	14	74.4	-1.97
TOC (as C)	mg/kg DM	33600 ± 1670	31000 ± 1000	3690	92.4	-0.69
Vanadium	mg/kg DM	39 ± 2.27	31.7 ± 0.1	5.07	81.4	-1.43
Zinc	mg/kg DM	3340 ± 206	4039 ± 0.1	501	121	1.39
Dry mass	%	96.8 ± 0.19	96.16 ± 0.1	0.968	99.3	-0.68


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Mercury
Molybdenum
Nickel
Selenium
Silver
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
Measurand
2.8
11.4
-2
0
2
Z-Score

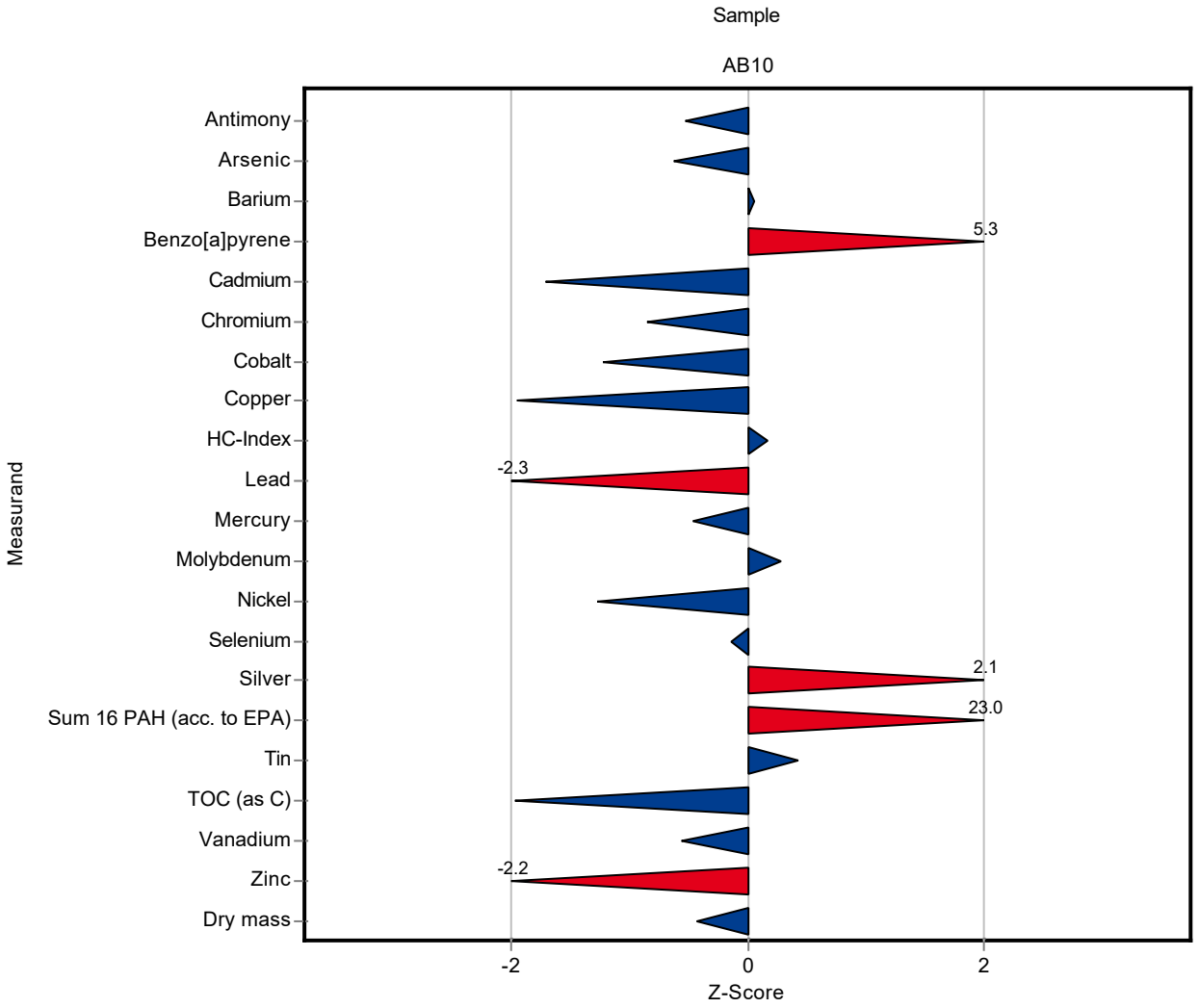
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	208.1 ± 0.05	31.6	105	0.71
Arsenic	mg/kg DM	7.94 ± 0.696	8.1 ± 0.05	1.59	102	0.23
Barium	mg/kg DM	1000 ± 139	1789 ± 0.1	281	178	5.62
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.132 ± 0.05	0.0548	98.8	-0.02
Cadmium	mg/kg DM	6.21 ± 0.317	5.8 ± 0.05	0.745	93.4	-1.24
Chromium	mg/kg DM	217 ± 13.4	178.8 ± 0.1	32.5	82.4	-2.85
Cobalt	mg/kg DM	25.3 ± 1.54	22.7 ± 0.1	3.55	89.6	-1.69
Copper	mg/kg DM	2970 ± 171	3091 ± 0.1	416	104	0.70
HC-Index	mg/kg DM	660 ± 114	446 ± 30	238	67.5	-1.67
Lead	mg/kg DM	478 ± 27.2	412 ± 0.1	62.1	86.2	-2.42
Mercury	mg/kg DM	0.0394 ± 0.00938	0.07 ± 0.04	0.0162	178	0.38
Molybdenum	mg/kg DM	23.6 ± 1.86	17.1 ± 0.1	4.24	72.5	-3.47
Nickel	mg/kg DM	157 ± 10.1	132.2 ± 0.1	23.5	84.2	-2.46
Selenium	mg/kg DM	3.73 ± 0.834	4 ± 0.05	1.61	107	0.32
Silver	mg/kg DM	5.83 ± 0.428	15.1 ± 0.05	0.816	259	21.10
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	1.765 ± 0.07	0.56	82	-1.27
Tin	mg/kg DM	108 ± 6.68	80.4 ± 0.1	14	74.4	-4.14
TOC (as C)	mg/kg DM	33600 ± 1670	31000 ± 1000	3690	92.4	-0.98
Vanadium	mg/kg DM	39 ± 2.27	31.7 ± 0.1	5.07	81.4	-3.18
Zinc	mg/kg DM	3340 ± 206	4039 ± 0.1	501	121	3.39
Dry mass	%	96.8 ± 0.19	96.16 ± 0.1	0.968	99.3	-2.40


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Mercury
Molybdenum
Nickel
Selenium
Silver
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
5.6
-1.2
-2.9
-1.7
-1.7
-2.4
-3.5
-2.5
21.1
-1.3
-4.1
-3.2
3.4
-2.4
Measurand
-1
0
1
En-Score

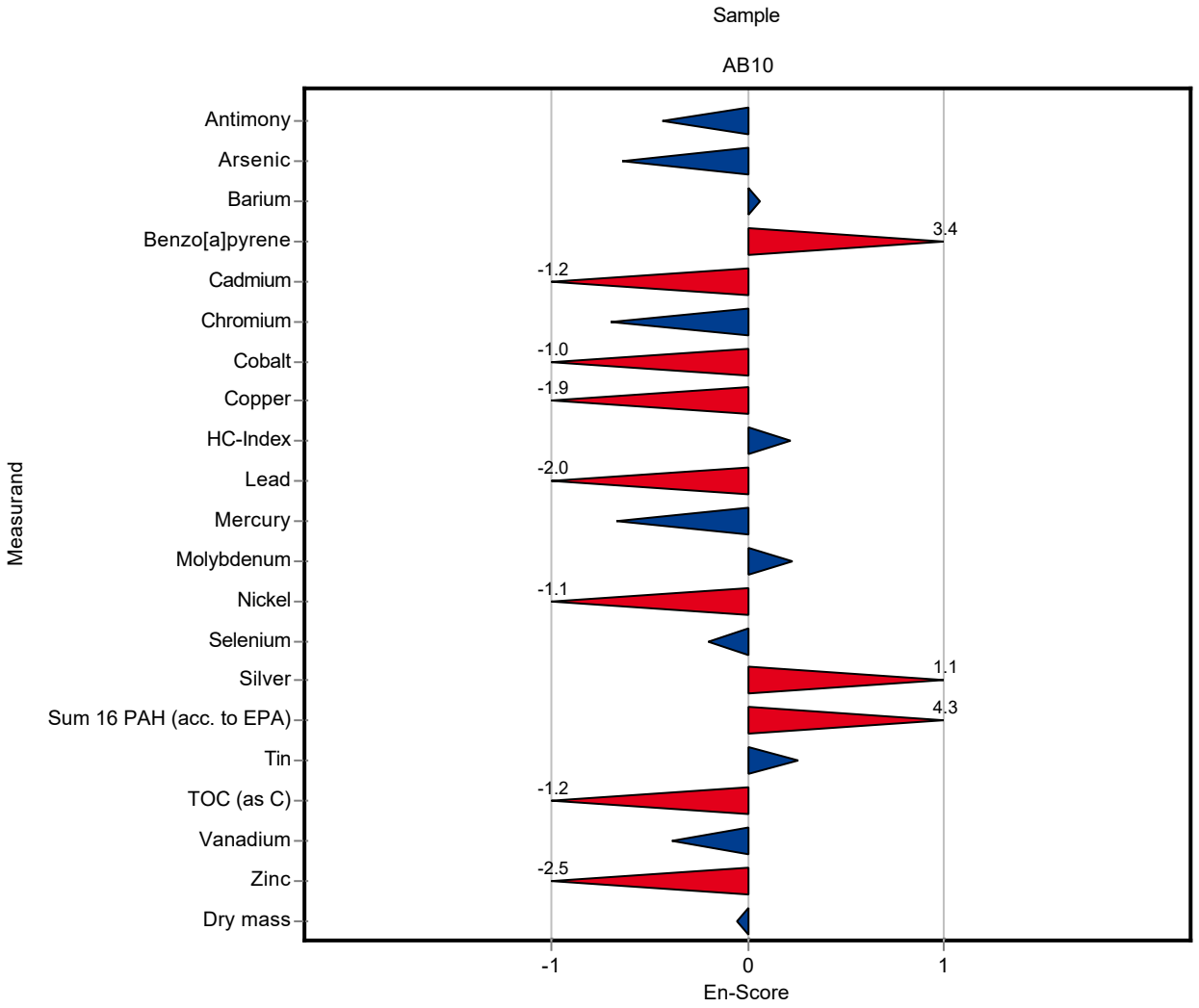
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	181 ± 18	31.6	91.5	-0.53
Arsenic	mg/kg DM	7.94 ± 0.696	6.94 ± 0.7	1.59	87.4	-0.63
Barium	mg/kg DM	1000 ± 139	1020 ± 100	281	102	0.06
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.426 ± 0.04	0.0548	319	5.34
Cadmium	mg/kg DM	6.21 ± 0.317	4.94 ± 0.5	0.745	79.5	-1.71
Chromium	mg/kg DM	217 ± 13.4	189 ± 19	32.5	87.1	-0.86
Cobalt	mg/kg DM	25.3 ± 1.54	21 ± 2	3.55	82.9	-1.22
Copper	mg/kg DM	2970 ± 171	2160 ± 200	416	72.7	-1.95
HC-Index	mg/kg DM	660 ± 114	700 ± 70	238	106	0.17
Lead	mg/kg DM	478 ± 27.2	333 ± 33	62.1	69.7	-2.33
Mercury	mg/kg DM	0.0394 ± 0.00938	0.032 ± 0.003	0.0162	81.2	-0.46
Molybdenum	mg/kg DM	23.6 ± 1.86	24.8 ± 2.5	4.24	105	0.29
Nickel	mg/kg DM	157 ± 10.1	127 ± 13	23.5	80.9	-1.27
Selenium	mg/kg DM	3.73 ± 0.834	3.52 ± 0.35	1.61	94.3	-0.13
Silver	mg/kg DM	5.83 ± 0.428	7.57 ± 0.75	0.816	130	2.13
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	15 ± 1.5	0.56	697	23.00
Tin	mg/kg DM	108 ± 6.68	114 ± 11	14	106	0.42
TOC (as C)	mg/kg DM	33600 ± 1670	26300 ± 3000	3690	78.4	-1.96
Vanadium	mg/kg DM	39 ± 2.27	36.1 ± 3.6	5.07	92.6	-0.56
Zinc	mg/kg DM	3340 ± 206	2230 ± 200	501	66.7	-2.22
Dry mass	%	96.8 ± 0.19	96.4 ± 4	0.968	99.6	-0.44


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Mercury
Molybdenum
Nickel
Selenium
Silver
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
Measurand
5.3
-2.3
2.1
23.0
-2.2
-2
0
2
Z-Score

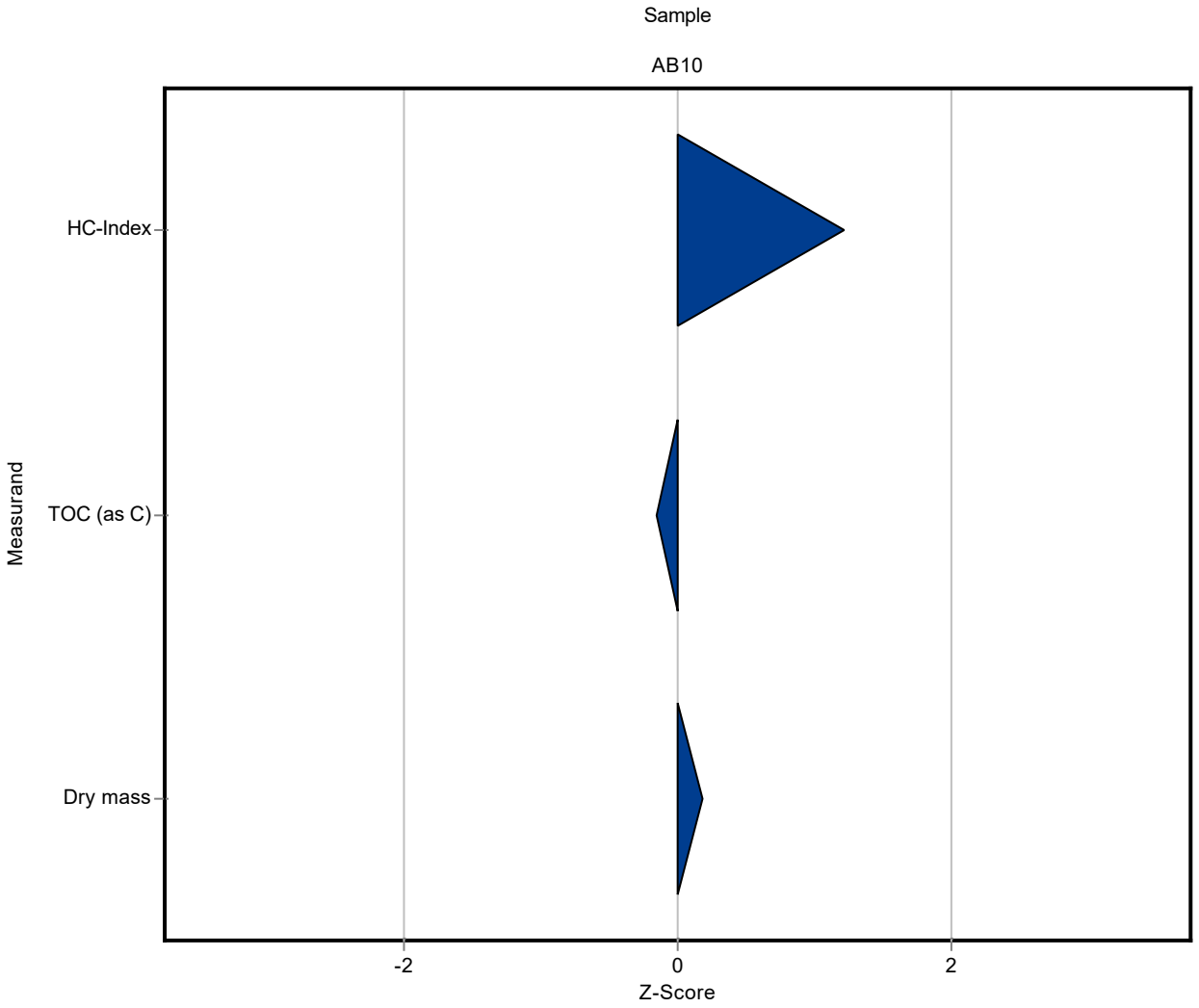
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	181 ± 18	31.6	91.5	-0.43
Arsenic	mg/kg DM	7.94 ± 0.696	6.94 ± 0.7	1.59	87.4	-0.64
Barium	mg/kg DM	1000 ± 139	1020 ± 100	281	102	0.06
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.426 ± 0.04	0.0548	319	3.45
Cadmium	mg/kg DM	6.21 ± 0.317	4.94 ± 0.5	0.745	79.5	-1.21
Chromium	mg/kg DM	217 ± 13.4	189 ± 19	32.5	87.1	-0.69
Cobalt	mg/kg DM	25.3 ± 1.54	21 ± 2	3.55	82.9	-1.01
Copper	mg/kg DM	2970 ± 171	2160 ± 200	416	72.7	-1.86
HC-Index	mg/kg DM	660 ± 114	700 ± 70	238	106	0.22
Lead	mg/kg DM	478 ± 27.2	333 ± 33	62.1	69.7	-2.03
Mercury	mg/kg DM	0.0394 ± 0.00938	0.032 ± 0.003	0.0162	81.2	-0.67
Molybdenum	mg/kg DM	23.6 ± 1.86	24.8 ± 2.5	4.24	105	0.23
Nickel	mg/kg DM	157 ± 10.1	127 ± 13	23.5	80.9	-1.07
Selenium	mg/kg DM	3.73 ± 0.834	3.52 ± 0.35	1.61	94.3	-0.20
Silver	mg/kg DM	5.83 ± 0.428	7.57 ± 0.75	0.816	130	1.11
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	15 ± 1.5	0.56	697	4.27
Tin	mg/kg DM	108 ± 6.68	114 ± 11	14	106	0.26
TOC (as C)	mg/kg DM	33600 ± 1670	26300 ± 3000	3690	78.4	-1.16
Vanadium	mg/kg DM	39 ± 2.27	36.1 ± 3.6	5.07	92.6	-0.38
Zinc	mg/kg DM	3340 ± 206	2230 ± 200	501	66.7	-2.47
Dry mass	%	96.8 ± 0.19	96.4 ± 4	0.968	99.6	-0.05


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Mercury
Molybdenum
Nickel
Selenium
Silver
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
Measurand
3.4
-1.2
-1.0
-1.9
-2.0
-1.1
1.1
4.3
-1.2
-2.5
-1
0
1
En-Score

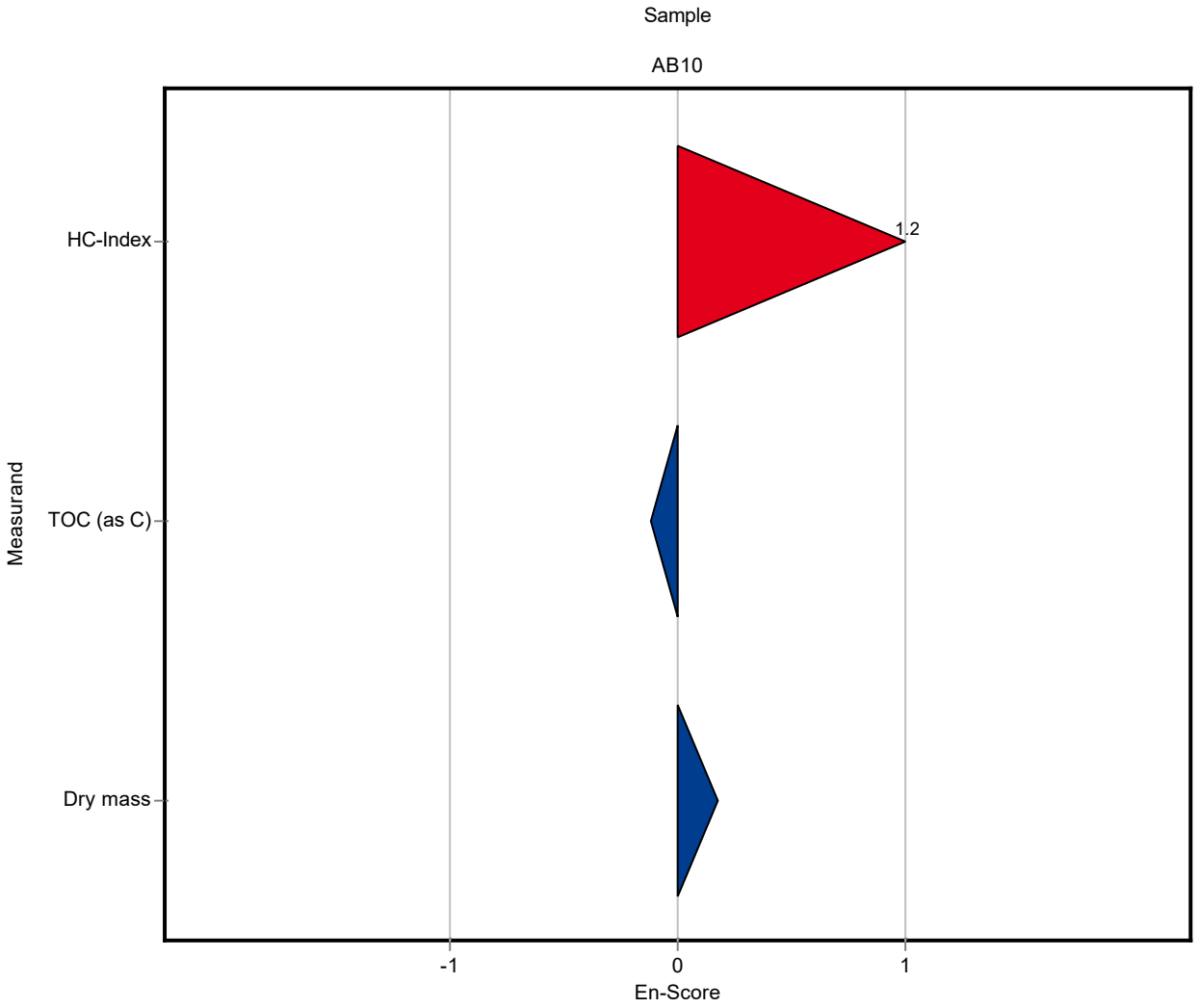
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	- ± -	31.6	-	-
Arsenic	mg/kg DM	7.94 ± 0.696	- ± -	1.59	-	-
Barium	mg/kg DM	1000 ± 139	- ± -	281	-	-
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	- ± -	0.0548	-	-
Cadmium	mg/kg DM	6.21 ± 0.317	- ± -	0.745	-	-
Chromium	mg/kg DM	217 ± 13.4	- ± -	32.5	-	-
Cobalt	mg/kg DM	25.3 ± 1.54	- ± -	3.55	-	-
Copper	mg/kg DM	2970 ± 171	- ± -	416	-	-
HC-Index	mg/kg DM	660 ± 114	950 ± 111	238	144	1.22
Lead	mg/kg DM	478 ± 27.2	- ± -	62.1	-	-
Mercury	mg/kg DM	0.0394 ± 0.00938	- ± -	0.0162	-	-
Molybdenum	mg/kg DM	23.6 ± 1.86	- ± -	4.24	-	-
Nickel	mg/kg DM	157 ± 10.1	- ± -	23.5	-	-
Selenium	mg/kg DM	3.73 ± 0.834	- ± -	1.61	-	-
Silver	mg/kg DM	5.83 ± 0.428	- ± -	0.816	-	-
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	- ± -	0.56	-	-
Tin	mg/kg DM	108 ± 6.68	- ± -	14	-	-
TOC (as C)	mg/kg DM	33600 ± 1670	33000 ± 2211	3690	98.4	-0.15
Vanadium	mg/kg DM	39 ± 2.27	- ± -	5.07	-	-
Zinc	mg/kg DM	3340 ± 206	- ± -	501	-	-
Dry mass	%	96.8 ± 0.19	97 ± 0.5	0.968	100	0.18


Sample
AB10
HC-Index
TOC (as C)
Dry mass
Measurand
-2
0
2
Z-Score

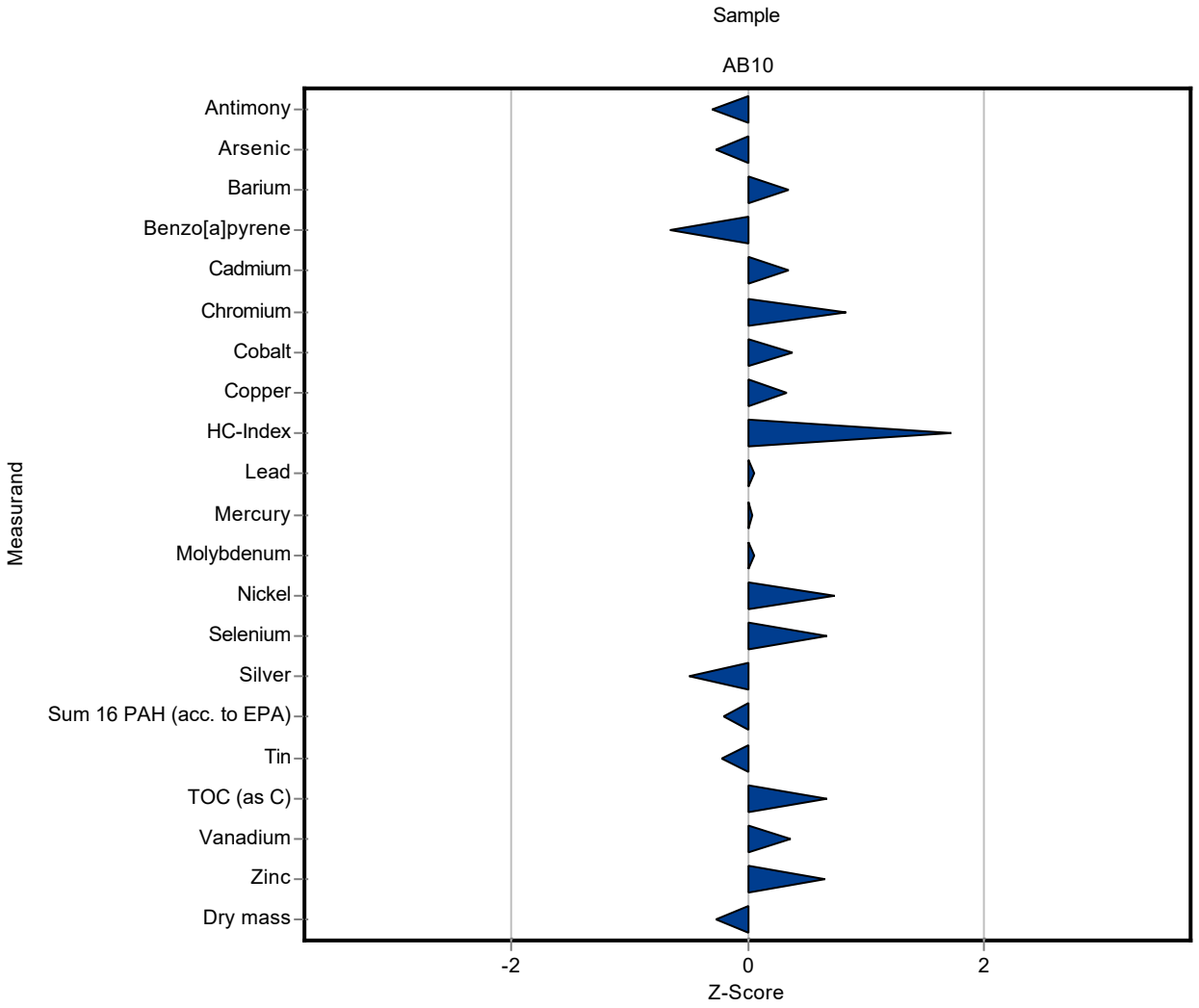
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	- ± -	31.6	-	-
Arsenic	mg/kg DM	7.94 ± 0.696	- ± -	1.59	-	-
Barium	mg/kg DM	1000 ± 139	- ± -	281	-	-
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	- ± -	0.0548	-	-
Cadmium	mg/kg DM	6.21 ± 0.317	- ± -	0.745	-	-
Chromium	mg/kg DM	217 ± 13.4	- ± -	32.5	-	-
Cobalt	mg/kg DM	25.3 ± 1.54	- ± -	3.55	-	-
Copper	mg/kg DM	2970 ± 171	- ± -	416	-	-
HC-Index	mg/kg DM	660 ± 114	950 ± 111	238	144	1.16
Lead	mg/kg DM	478 ± 27.2	- ± -	62.1	-	-
Mercury	mg/kg DM	0.0394 ± 0.00938	- ± -	0.0162	-	-
Molybdenum	mg/kg DM	23.6 ± 1.86	- ± -	4.24	-	-
Nickel	mg/kg DM	157 ± 10.1	- ± -	23.5	-	-
Selenium	mg/kg DM	3.73 ± 0.834	- ± -	1.61	-	-
Silver	mg/kg DM	5.83 ± 0.428	- ± -	0.816	-	-
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	- ± -	0.56	-	-
Tin	mg/kg DM	108 ± 6.68	- ± -	14	-	-
TOC (as C)	mg/kg DM	33600 ± 1670	33000 ± 2211	3690	98.4	-0.12
Vanadium	mg/kg DM	39 ± 2.27	- ± -	5.07	-	-
Zinc	mg/kg DM	3340 ± 206	- ± -	501	-	-
Dry mass	%	96.8 ± 0.19	97 ± 0.5	0.968	100	0.17


Sample
AB10
HC-Index
TOC (as C)
Dry mass
Measurand
1.2
-1
0
1
En-Score

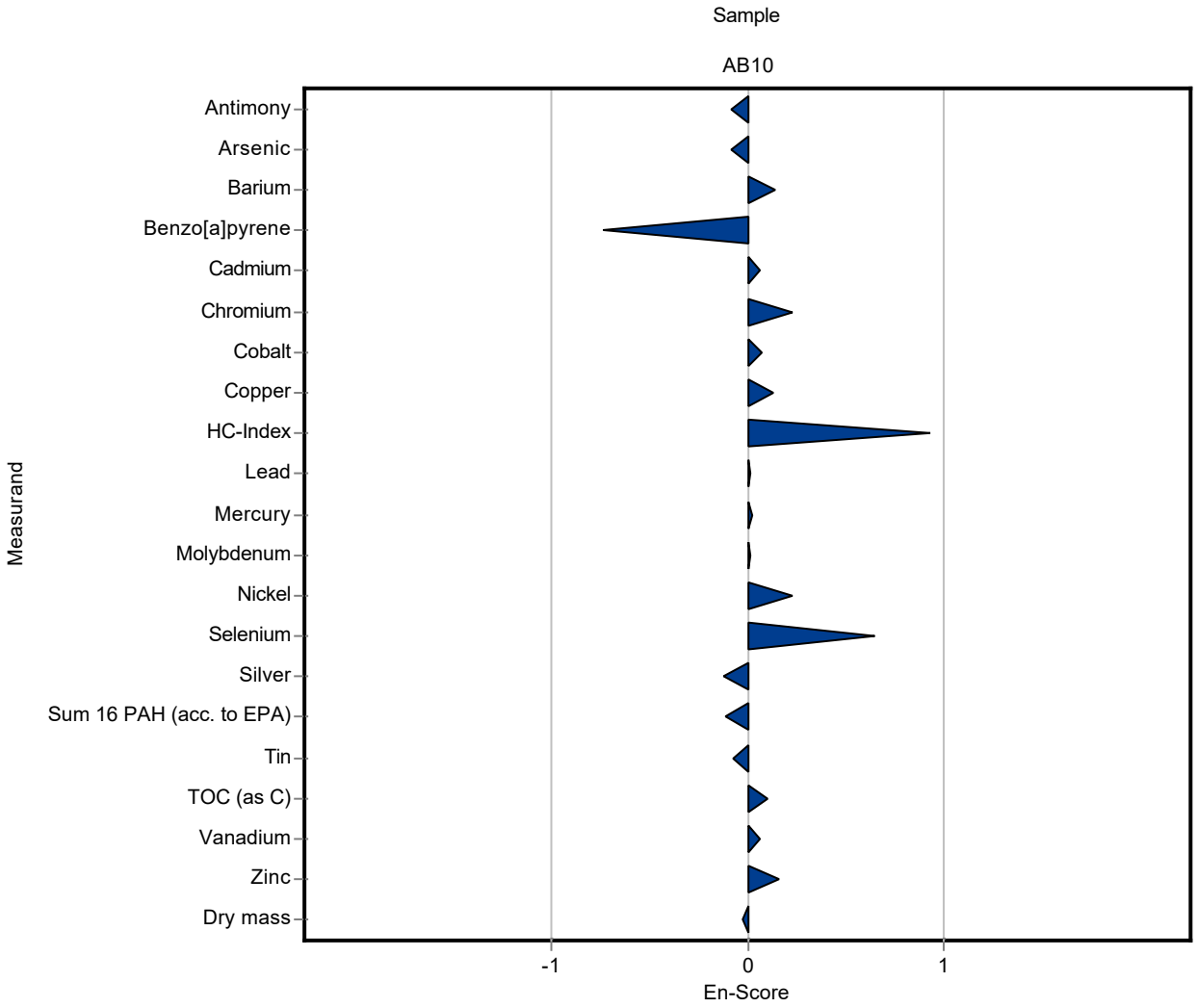
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	188.3 ± 58.4	31.6	95.2	-0.30
Arsenic	mg/kg DM	7.94 ± 0.696	7.52 ± 2.56	1.59	94.7	-0.26
Barium	mg/kg DM	1000 ± 139	1102 ± 330	281	110	0.35
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.098 ± 0.02	0.0548	73.3	-0.65
Cadmium	mg/kg DM	6.21 ± 0.317	6.47 ± 2.01	0.745	104	0.35
Chromium	mg/kg DM	217 ± 13.4	243.8 ± 58.5	32.5	112	0.83
Cobalt	mg/kg DM	25.3 ± 1.54	26.7 ± 8.82	3.55	105	0.39
Copper	mg/kg DM	2970 ± 171	3106 ± 528	416	105	0.33
HC-Index	mg/kg DM	660 ± 114	1071 ± 214	238	162	1.73
Lead	mg/kg DM	478 ± 27.2	481.2 ± 130	62.1	101	0.05
Mercury	mg/kg DM	0.0394 ± 0.00938	0.04 ± 0.013	0.0162	101	0.04
Molybdenum	mg/kg DM	23.6 ± 1.86	23.83 ± 9.06	4.24	101	0.06
Nickel	mg/kg DM	157 ± 10.1	174.2 ± 36.6	23.5	111	0.73
Selenium	mg/kg DM	3.73 ± 0.834	4.81 ± 0.72	1.61	129	0.67
Silver	mg/kg DM	5.83 ± 0.428	5.43 ± 1.68	0.816	93.1	-0.49
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	2.04 ± 0.51	0.56	94.8	-0.20
Tin	mg/kg DM	108 ± 6.68	104.9 ± 22	14	97.1	-0.22
TOC (as C)	mg/kg DM	33600 ± 1670	36050 ± 12260	3690	107	0.68
Vanadium	mg/kg DM	39 ± 2.27	40.8 ± 14.3	5.07	105	0.36
Zinc	mg/kg DM	3340 ± 206	3670 ± 991	501	110	0.66
Dry mass	%	96.8 ± 0.19	96.56 ± 4.8	0.968	99.7	-0.27


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Mercury
Molybdenum
Nickel
Selenium
Silver
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
Measurand
-2
0
2
Z-Score

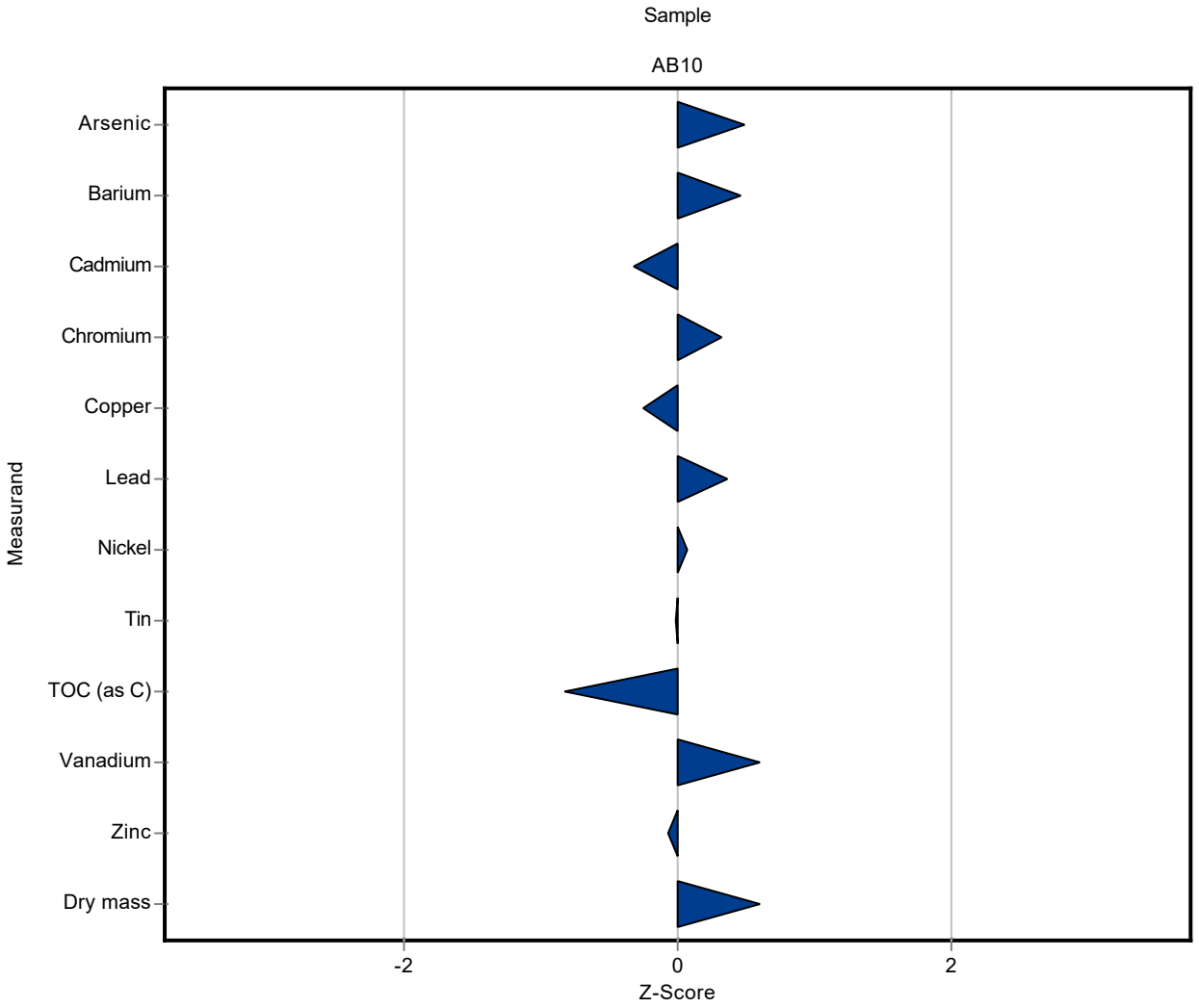
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	188.3 ± 58.4	31.6	95.2	-0.08
Arsenic	mg/kg DM	7.94 ± 0.696	7.52 ± 2.56	1.59	94.7	-0.08
Barium	mg/kg DM	1000 ± 139	1102 ± 330	281	110	0.14
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.098 ± 0.02	0.0548	73.3	-0.73
Cadmium	mg/kg DM	6.21 ± 0.317	6.47 ± 2.01	0.745	104	0.06
Chromium	mg/kg DM	217 ± 13.4	243.8 ± 58.5	32.5	112	0.23
Cobalt	mg/kg DM	25.3 ± 1.54	26.7 ± 8.82	3.55	105	0.08
Copper	mg/kg DM	2970 ± 171	3106 ± 528	416	105	0.13
HC-Index	mg/kg DM	660 ± 114	1071 ± 214	238	162	0.93
Lead	mg/kg DM	478 ± 27.2	481.2 ± 130	62.1	101	0.01
Mercury	mg/kg DM	0.0394 ± 0.00938	0.04 ± 0.013	0.0162	101	0.02
Molybdenum	mg/kg DM	23.6 ± 1.86	23.83 ± 9.06	4.24	101	0.01
Nickel	mg/kg DM	157 ± 10.1	174.2 ± 36.6	23.5	111	0.23
Selenium	mg/kg DM	3.73 ± 0.834	4.81 ± 0.72	1.61	129	0.65
Silver	mg/kg DM	5.83 ± 0.428	5.43 ± 1.68	0.816	93.1	-0.12
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	2.04 ± 0.51	0.56	94.8	-0.11
Tin	mg/kg DM	108 ± 6.68	104.9 ± 22	14	97.1	-0.07
TOC (as C)	mg/kg DM	33600 ± 1670	36050 ± 12260	3690	107	0.10
Vanadium	mg/kg DM	39 ± 2.27	40.8 ± 14.3	5.07	105	0.06
Zinc	mg/kg DM	3340 ± 206	3670 ± 991	501	110	0.17
Dry mass	%	96.8 ± 0.19	96.56 ± 4.8	0.968	99.7	-0.03


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Mercury
Molybdenum
Nickel
Selenium
Silver
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
Measurand
-1
0
1
En-Score

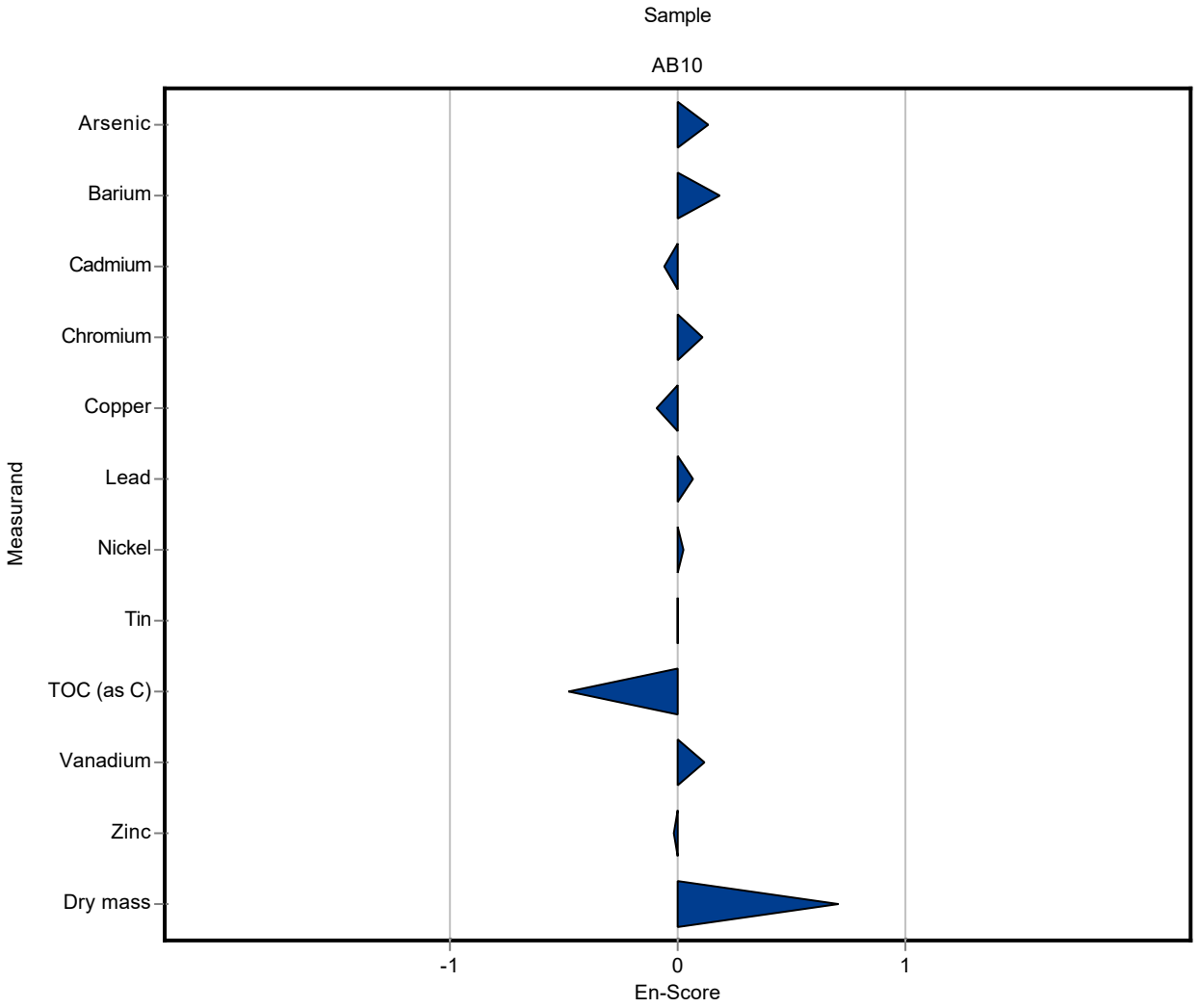
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	- ± -	31.6	-	-
Arsenic	mg/kg DM	7.94 ± 0.696	8.71 ± 2.8	1.59	110	0.48
Barium	mg/kg DM	1000 ± 139	1136 ± 342	281	113	0.47
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	- ± -	0.0548	-	-
Cadmium	mg/kg DM	6.21 ± 0.317	5.97 ± 2.02	0.745	96.1	-0.33
Chromium	mg/kg DM	217 ± 13.4	227.2 ± 45.9	32.5	105	0.32
Cobalt	mg/kg DM	25.3 ± 1.54	- ± -	3.55	-	-
Copper	mg/kg DM	2970 ± 171	2867 ± 573	416	96.5	-0.25
HC-Index	mg/kg DM	660 ± 114	- ± -	238	-	-
Lead	mg/kg DM	478 ± 27.2	501 ± 165	62.1	105	0.37
Mercury	mg/kg DM	0.0394 ± 0.00938	- ± -	0.0162	-	-
Molybdenum	mg/kg DM	23.6 ± 1.86	- ± -	4.24	-	-
Nickel	mg/kg DM	157 ± 10.1	158.5 ± 33.5	23.5	101	0.06
Selenium	mg/kg DM	3.73 ± 0.834	- ± -	1.61	-	-
Silver	mg/kg DM	5.83 ± 0.428	- ± -	0.816	-	-
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	- ± -	0.56	-	-
Tin	mg/kg DM	108 ± 6.68	107.8 ± 33.1	14	99.8	-0.02
TOC (as C)	mg/kg DM	33600 ± 1670	30520 ± 3050	3690	91	-0.82
Vanadium	mg/kg DM	39 ± 2.27	42 ± 12.7	5.07	108	0.60
Zinc	mg/kg DM	3340 ± 206	3307 ± 1019	501	99	-0.07
Dry mass	%	96.8 ± 0.19	97.4 ± 0.4	0.968	101	0.60


Sample
AB10
Arsenic
Barium
Cadmium
Chromium
Copper
Lead
Nickel
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
Measurand
-2
0
2
Z-Score

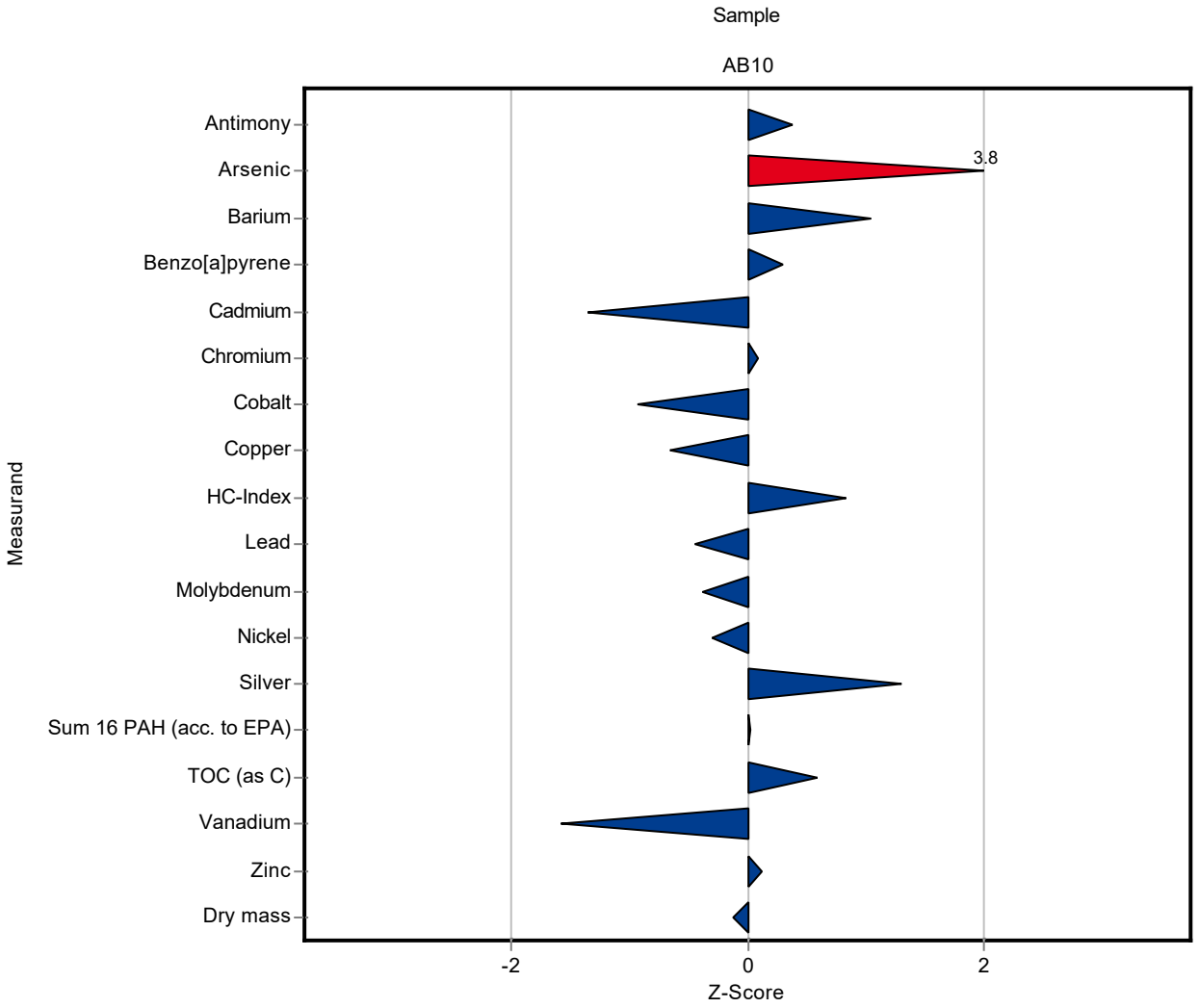
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	- ± -	31.6	-	-
Arsenic	mg/kg DM	7.94 ± 0.696	8.71 ± 2.8	1.59	110	0.14
Barium	mg/kg DM	1000 ± 139	1136 ± 342	281	113	0.19
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	- ± -	0.0548	-	-
Cadmium	mg/kg DM	6.21 ± 0.317	5.97 ± 2.02	0.745	96.1	-0.06
Chromium	mg/kg DM	217 ± 13.4	227.2 ± 45.9	32.5	105	0.11
Cobalt	mg/kg DM	25.3 ± 1.54	- ± -	3.55	-	-
Copper	mg/kg DM	2970 ± 171	2867 ± 573	416	96.5	-0.09
HC-Index	mg/kg DM	660 ± 114	- ± -	238	-	-
Lead	mg/kg DM	478 ± 27.2	501 ± 165	62.1	105	0.07
Mercury	mg/kg DM	0.0394 ± 0.00938	- ± -	0.0162	-	-
Molybdenum	mg/kg DM	23.6 ± 1.86	- ± -	4.24	-	-
Nickel	mg/kg DM	157 ± 10.1	158.5 ± 33.5	23.5	101	0.02
Selenium	mg/kg DM	3.73 ± 0.834	- ± -	1.61	-	-
Silver	mg/kg DM	5.83 ± 0.428	- ± -	0.816	-	-
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	- ± -	0.56	-	-
Tin	mg/kg DM	108 ± 6.68	107.8 ± 33.1	14	99.8	0.00
TOC (as C)	mg/kg DM	33600 ± 1670	30520 ± 3050	3690	91	-0.48
Vanadium	mg/kg DM	39 ± 2.27	42 ± 12.7	5.07	108	0.12
Zinc	mg/kg DM	3340 ± 206	3307 ± 1019	501	99	-0.02
Dry mass	%	96.8 ± 0.19	97.4 ± 0.4	0.968	101	0.70


Sample
AB10
Arsenic
Barium
Cadmium
Chromium
Copper
Lead
Nickel
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
Measurand
-1
0
1
En-Score

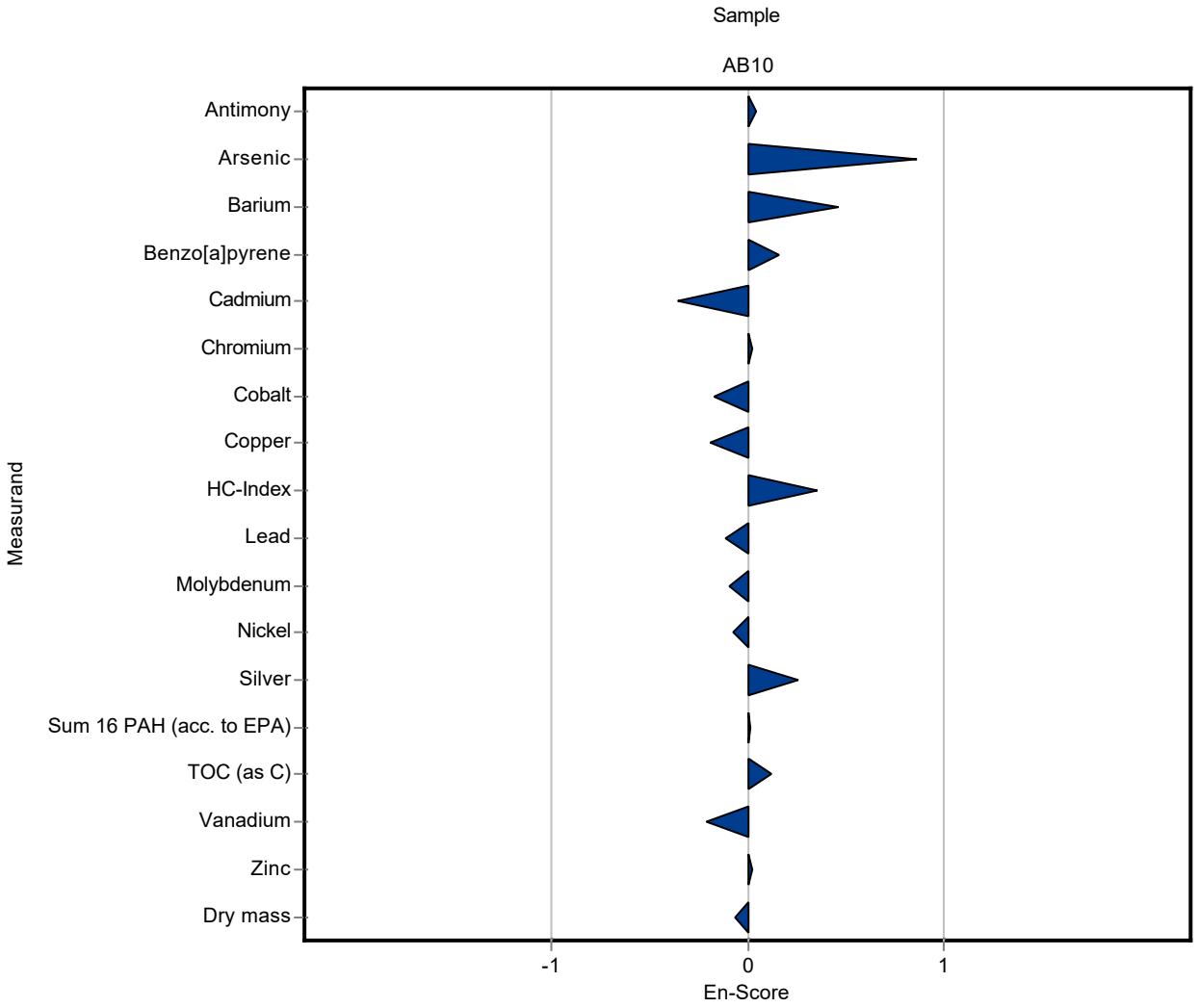
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	210 ± 141	31.6	106	0.39
Arsenic	mg/kg DM	7.94 ± 0.696	14 ± 3.5	1.59	176	3.82
Barium	mg/kg DM	1000 ± 139	1300 ± 310	281	129	1.05
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.15 ± 0.05	0.0548	112	0.30
Cadmium	mg/kg DM	6.21 ± 0.317	5.2 ± 1.4	0.745	83.7	-1.36
Chromium	mg/kg DM	217 ± 13.4	220 ± 53	32.5	101	0.10
Cobalt	mg/kg DM	25.3 ± 1.54	22 ± 9.9	3.55	86.9	-0.94
Copper	mg/kg DM	2970 ± 171	2700 ± 700	416	90.9	-0.65
HC-Index	mg/kg DM	660 ± 114	860 ± 275	238	130	0.84
Lead	mg/kg DM	478 ± 27.2	450 ± 122	62.1	94.1	-0.45
Mercury	mg/kg DM	0.0394 ± 0.00938	<0.2 (LOQ) ± -	0.0162	-	-
Molybdenum	mg/kg DM	23.6 ± 1.86	22 ± 8.1	4.24	93.3	-0.37
Nickel	mg/kg DM	157 ± 10.1	150 ± 48	23.5	95.6	-0.30
Selenium	mg/kg DM	3.73 ± 0.834	<40 (LOQ) ± -	1.61	-	-
Silver	mg/kg DM	5.83 ± 0.428	6.9 ± 2.1	0.816	118	1.31
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	2.17 ± 0.46	0.56	101	0.03
Tin	mg/kg DM	108 ± 6.68	<30 (LOQ) ± -	14	-	-
TOC (as C)	mg/kg DM	33600 ± 1670	35720 ± 8573	3690	106	0.59
Vanadium	mg/kg DM	39 ± 2.27	31 ± 18.9	5.07	79.6	-1.57
Zinc	mg/kg DM	3340 ± 206	3400 ± 1120	501	102	0.12
Dry mass	%	96.8 ± 0.19	96.7 ± 0.97	0.968	99.9	-0.13


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Molybdenum
Nickel
Silver
Sum 16 PAH (acc. to EPA)
TOC (as C)
Vanadium
Zinc
Dry mass
3.8
Measurand
-2
0
2
Z-Score

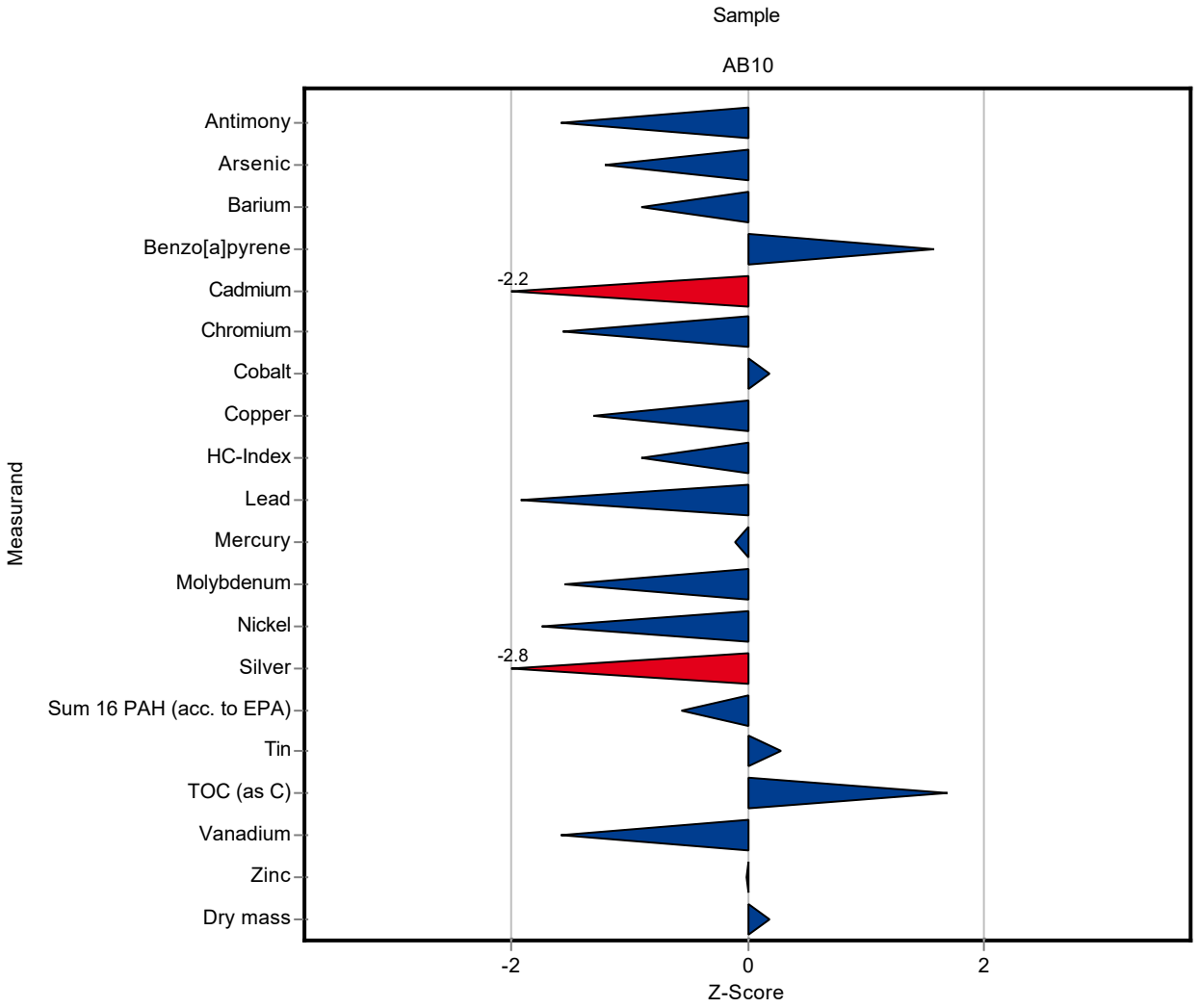
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	210 ± 141	31.6	106	0.04
Arsenic	mg/kg DM	7.94 ± 0.696	14 ± 3.5	1.59	176	0.86
Barium	mg/kg DM	1000 ± 139	1300 ± 310	281	129	0.47
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.15 ± 0.05	0.0548	112	0.16
Cadmium	mg/kg DM	6.21 ± 0.317	5.2 ± 1.4	0.745	83.7	-0.36
Chromium	mg/kg DM	217 ± 13.4	220 ± 53	32.5	101	0.03
Cobalt	mg/kg DM	25.3 ± 1.54	22 ± 9.9	3.55	86.9	-0.17
Copper	mg/kg DM	2970 ± 171	2700 ± 700	416	90.9	-0.19
HC-Index	mg/kg DM	660 ± 114	860 ± 275	238	130	0.35
Lead	mg/kg DM	478 ± 27.2	450 ± 122	62.1	94.1	-0.11
Mercury	mg/kg DM	0.0394 ± 0.00938	<0.2 (LOQ) ± -	0.0162	-	-
Molybdenum	mg/kg DM	23.6 ± 1.86	22 ± 8.1	4.24	93.3	-0.10
Nickel	mg/kg DM	157 ± 10.1	150 ± 48	23.5	95.6	-0.07
Selenium	mg/kg DM	3.73 ± 0.834	<40 (LOQ) ± -	1.61	-	-
Silver	mg/kg DM	5.83 ± 0.428	6.9 ± 2.1	0.816	118	0.25
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	2.17 ± 0.46	0.56	101	0.02
Tin	mg/kg DM	108 ± 6.68	<30 (LOQ) ± -	14	-	-
TOC (as C)	mg/kg DM	33600 ± 1670	35720 ± 8573	3690	106	0.13
Vanadium	mg/kg DM	39 ± 2.27	31 ± 18.9	5.07	79.6	-0.21
Zinc	mg/kg DM	3340 ± 206	3400 ± 1120	501	102	0.03
Dry mass	%	96.8 ± 0.19	96.7 ± 0.97	0.968	99.9	-0.06


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Molybdenum
Nickel
Silver
Sum 16 PAH (acc. to EPA)
TOC (as C)
Vanadium
Zinc
Dry mass
Measurand
-1
0
1
En-Score

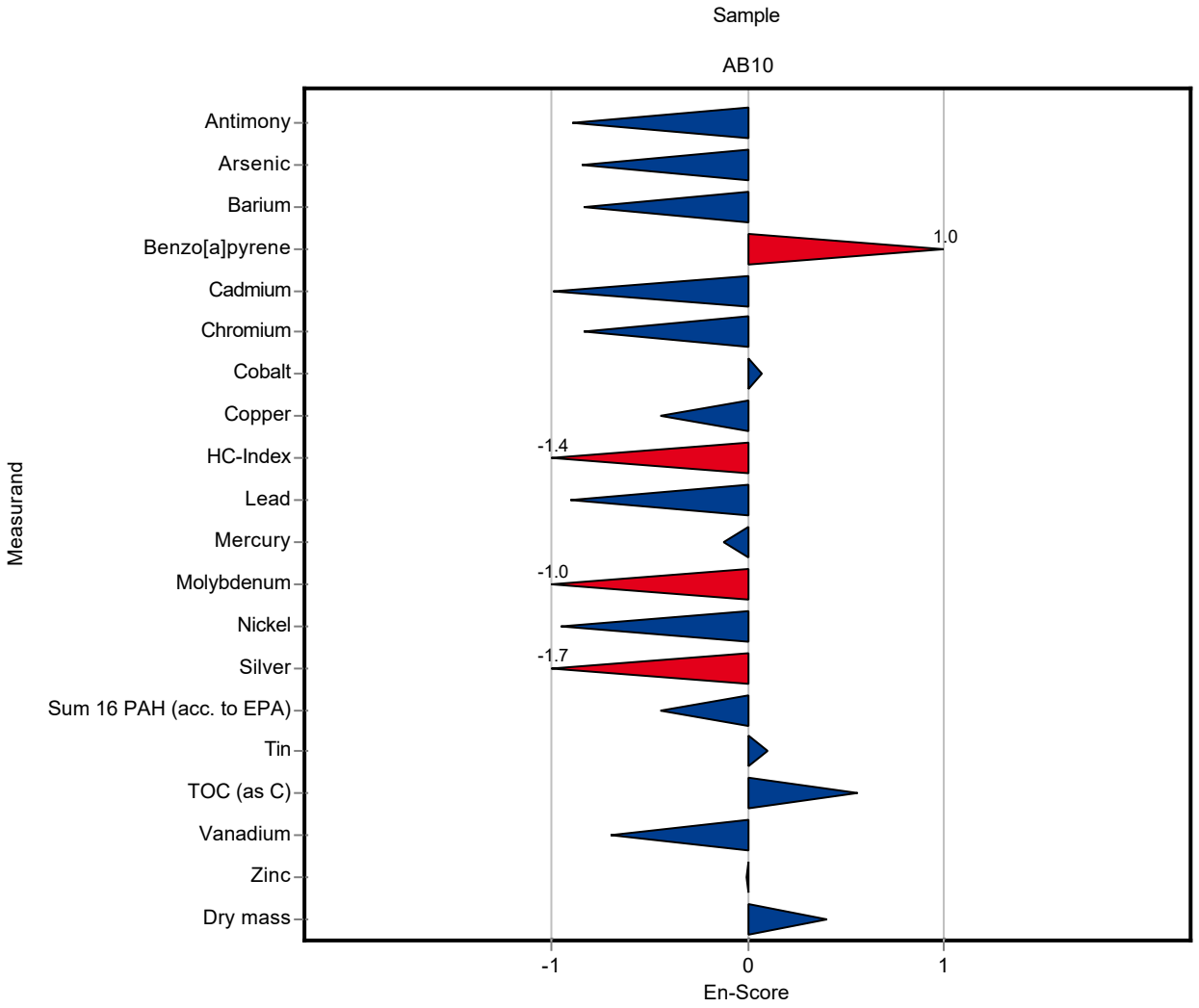
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	148 ± 27	31.6	74.8	-1.57
Arsenic	mg/kg DM	7.94 ± 0.696	6.03 ± 1.08	1.59	76	-1.20
Barium	mg/kg DM	1000 ± 139	752 ± 135	281	74.9	-0.90
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.22 ± 0.039	0.0548	165	1.58
Cadmium	mg/kg DM	6.21 ± 0.317	4.56 ± 0.82	0.745	73.4	-2.22
Chromium	mg/kg DM	217 ± 13.4	166 ± 30	32.5	76.5	-1.56
Cobalt	mg/kg DM	25.3 ± 1.54	26 ± 4.7	3.55	103	0.19
Copper	mg/kg DM	2970 ± 171	2429 ± 607	416	81.8	-1.30
HC-Index	mg/kg DM	660 ± 114	447 ± 54	238	67.7	-0.90
Lead	mg/kg DM	478 ± 27.2	359 ± 65	62.1	75.1	-1.91
Mercury	mg/kg DM	0.0394 ± 0.00938	0.0376 ± 0.0056	0.0162	95.4	-0.11
Molybdenum	mg/kg DM	23.6 ± 1.86	17 ± 3.1	4.24	72.1	-1.55
Nickel	mg/kg DM	157 ± 10.1	116 ± 21	23.5	73.9	-1.74
Selenium	mg/kg DM	3.73 ± 0.834	<2.5 (LOQ) ± -	1.61	-	-
Silver	mg/kg DM	5.83 ± 0.428	3.55 ± 0.64	0.816	60.9	-2.79
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	1.84 ± 0.33	0.56	85.5	-0.56
Tin	mg/kg DM	108 ± 6.68	112 ± 20	14	104	0.28
TOC (as C)	mg/kg DM	33600 ± 1670	39800 ± 5572	3690	119	1.69
Vanadium	mg/kg DM	39 ± 2.27	31 ± 5.6	5.07	79.6	-1.57
Zinc	mg/kg DM	3340 ± 206	3337 ± 834	501	99.9	-0.01
Dry mass	%	96.8 ± 0.19	97 ± 0.2	0.968	100	0.18


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Mercury
Molybdenum
Nickel
Silver
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
-2.2
-2.8
Measurand
-2
0
2
Z-Score

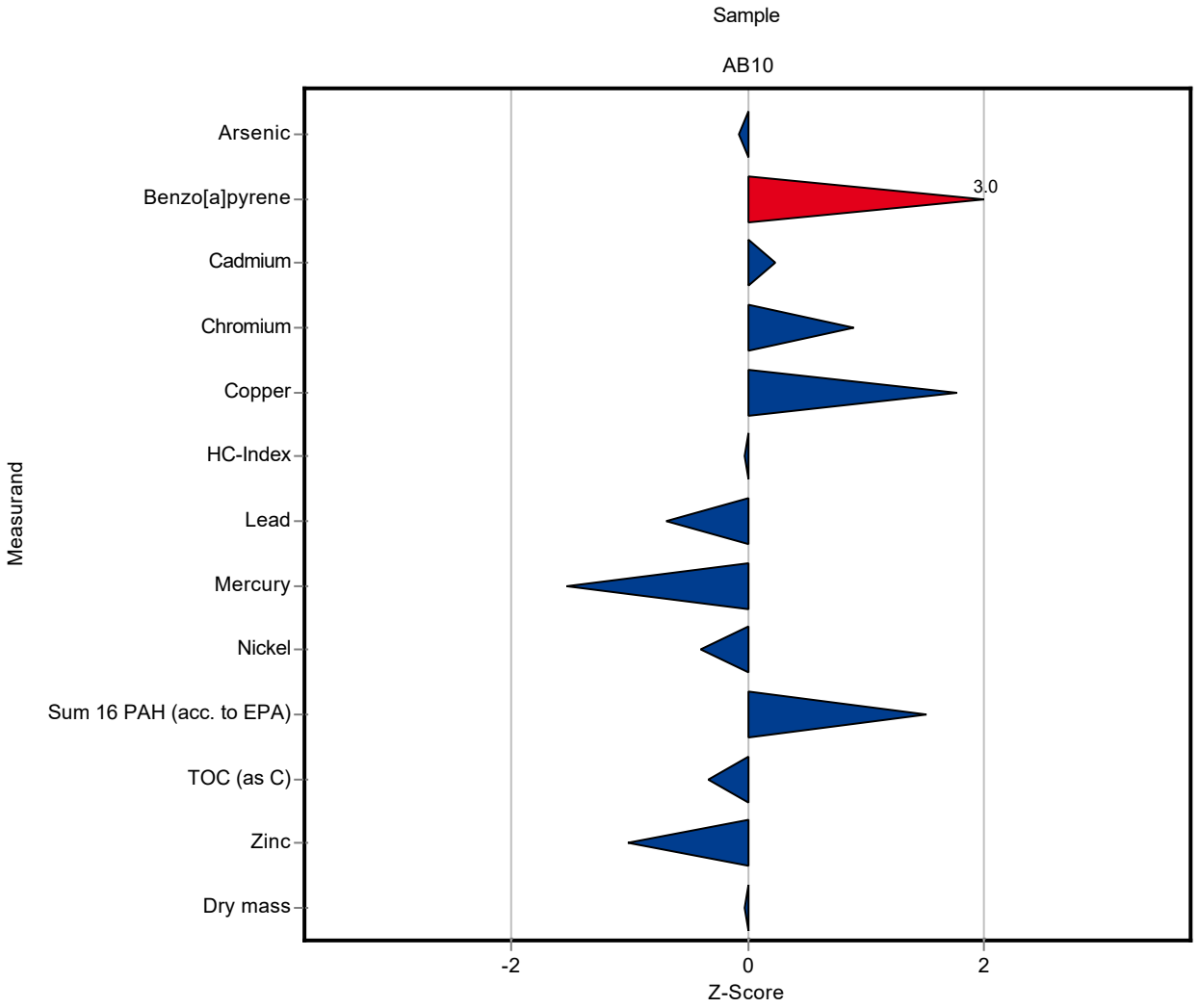
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	148 ± 27	31.6	74.8	-0.89
Arsenic	mg/kg DM	7.94 ± 0.696	6.03 ± 1.08	1.59	76	-0.84
Barium	mg/kg DM	1000 ± 139	752 ± 135	281	74.9	-0.83
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.22 ± 0.039	0.0548	165	1.04
Cadmium	mg/kg DM	6.21 ± 0.317	4.56 ± 0.82	0.745	73.4	-0.99
Chromium	mg/kg DM	217 ± 13.4	166 ± 30	32.5	76.5	-0.83
Cobalt	mg/kg DM	25.3 ± 1.54	26 ± 4.7	3.55	103	0.07
Copper	mg/kg DM	2970 ± 171	2429 ± 607	416	81.8	-0.44
HC-Index	mg/kg DM	660 ± 114	447 ± 54	238	67.7	-1.36
Lead	mg/kg DM	478 ± 27.2	359 ± 65	62.1	75.1	-0.90
Mercury	mg/kg DM	0.0394 ± 0.00938	0.0376 ± 0.0056	0.0162	95.4	-0.13
Molybdenum	mg/kg DM	23.6 ± 1.86	17 ± 3.1	4.24	72.1	-1.02
Nickel	mg/kg DM	157 ± 10.1	116 ± 21	23.5	73.9	-0.95
Selenium	mg/kg DM	3.73 ± 0.834	<2.5 (LOQ) ± -	1.61	-	-
Silver	mg/kg DM	5.83 ± 0.428	3.55 ± 0.64	0.816	60.9	-1.69
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	1.84 ± 0.33	0.56	85.5	-0.44
Tin	mg/kg DM	108 ± 6.68	112 ± 20	14	104	0.10
TOC (as C)	mg/kg DM	33600 ± 1670	39800 ± 5572	3690	119	0.56
Vanadium	mg/kg DM	39 ± 2.27	31 ± 5.6	5.07	79.6	-0.70
Zinc	mg/kg DM	3340 ± 206	3337 ± 834	501	99.9	0.00
Dry mass	%	96.8 ± 0.19	97 ± 0.2	0.968	100	0.40


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Mercury
Molybdenum
Nickel
Silver
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
Measurand
1.0
-1.4
-1.0
-1.7
-1
0
1
En-Score

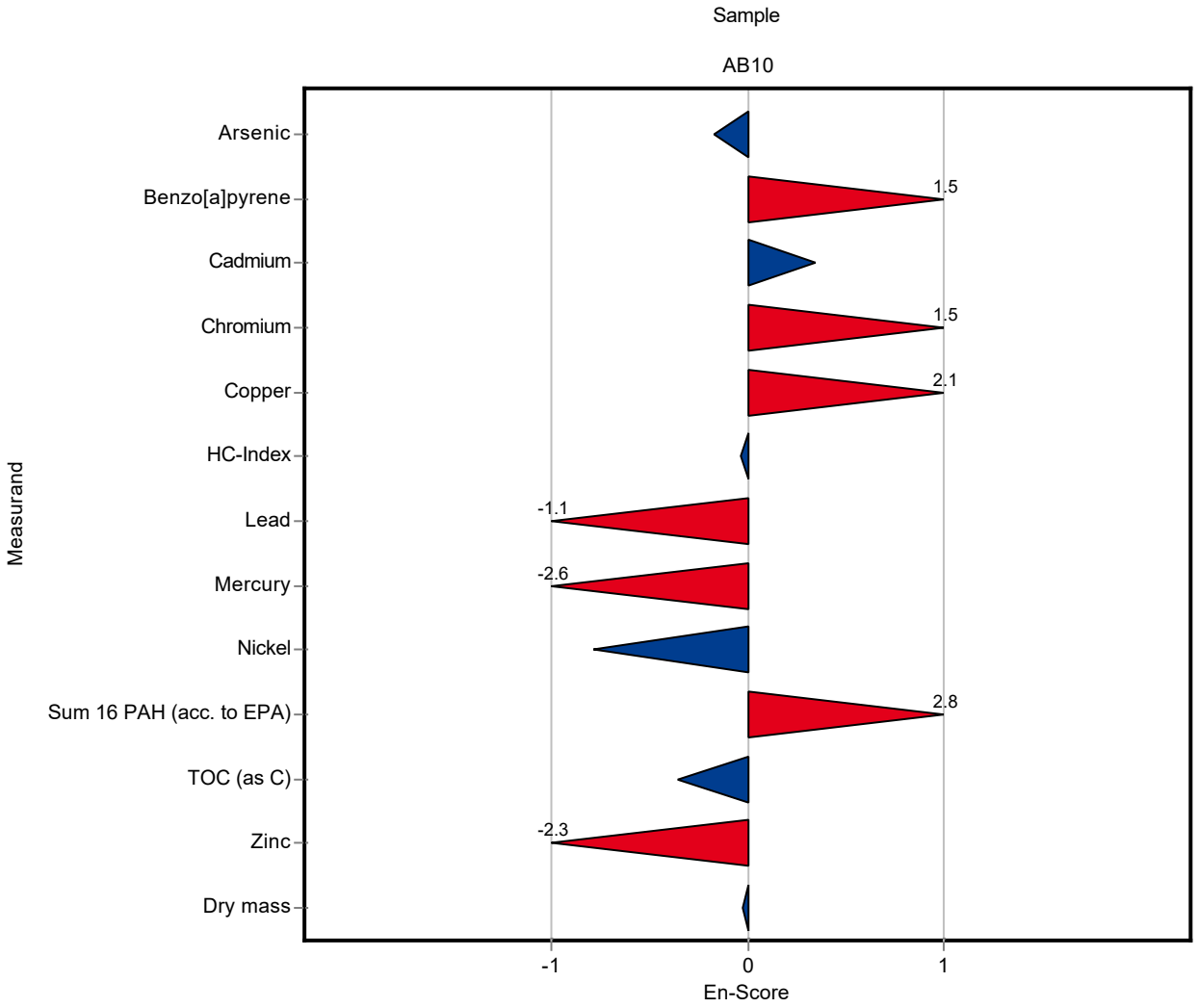
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	- ± -	31.6	-	-
Arsenic	mg/kg DM	7.94 ± 0.696	7.812 ± 0.114	1.59	98.4	-0.08
Barium	mg/kg DM	1000 ± 139	- ± -	281	-	-
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.299 ± 0.052	0.0548	224	3.02
Cadmium	mg/kg DM	6.21 ± 0.317	6.393 ± 0.212	0.745	103	0.24
Chromium	mg/kg DM	217 ± 13.4	246.4 ± 7.5	32.5	114	0.91
Cobalt	mg/kg DM	25.3 ± 1.54	- ± -	3.55	-	-
Copper	mg/kg DM	2970 ± 171	3707 ± 149	416	125	1.77
HC-Index	mg/kg DM	660 ± 114	653 ± 78	238	98.9	-0.03
Lead	mg/kg DM	478 ± 27.2	435.4 ± 13	62.1	91.1	-0.69
Mercury	mg/kg DM	0.0394 ± 0.00938	0.01468 ± 0.00011	0.0162	37.2	-1.53
Molybdenum	mg/kg DM	23.6 ± 1.86	- ± -	4.24	-	-
Nickel	mg/kg DM	157 ± 10.1	147.5 ± 3.4	23.5	94	-0.40
Selenium	mg/kg DM	3.73 ± 0.834	- ± -	1.61	-	-
Silver	mg/kg DM	5.83 ± 0.428	- ± -	0.816	-	-
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	2.999 ± 0.067	0.56	139	1.51
Tin	mg/kg DM	108 ± 6.68	- ± -	14	-	-
TOC (as C)	mg/kg DM	33600 ± 1670	32320 ± 1517	3690	96.3	-0.33
Vanadium	mg/kg DM	39 ± 2.27	- ± -	5.07	-	-
Zinc	mg/kg DM	3340 ± 206	2833 ± 38	501	84.8	-1.01
Dry mass	%	96.8 ± 0.19	96.8 ± 0.4	0.968	100	-0.02


Sample
AB10
Arsenic
Benzo[a]pyrene
Cadmium
Chromium
Copper
HC-Index
Lead
Mercury
Nickel
Sum 16 PAH (acc. to EPA)
TOC (as C)
Zinc
Dry mass
Measurand
3.0
-2
0
2
Z-Score

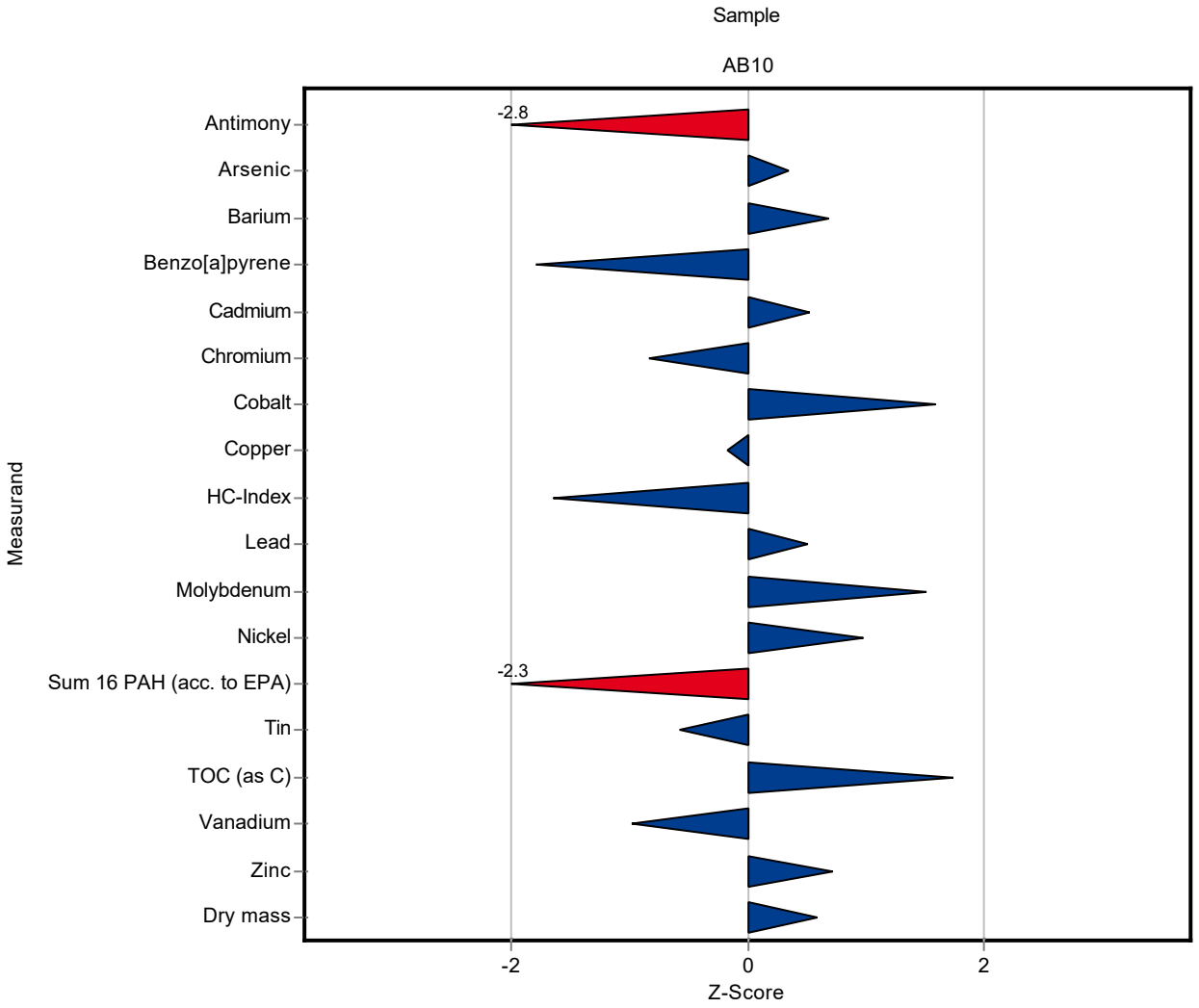
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	- ± -	31.6	-	-
Arsenic	mg/kg DM	7.94 ± 0.696	7.812 ± 0.114	1.59	98.4	-0.17
Barium	mg/kg DM	1000 ± 139	- ± -	281	-	-
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.299 ± 0.052	0.0548	224	1.54
Cadmium	mg/kg DM	6.21 ± 0.317	6.393 ± 0.212	0.745	103	0.34
Chromium	mg/kg DM	217 ± 13.4	246.4 ± 7.5	32.5	114	1.47
Cobalt	mg/kg DM	25.3 ± 1.54	- ± -	3.55	-	-
Copper	mg/kg DM	2970 ± 171	3707 ± 149	416	125	2.14
HC-Index	mg/kg DM	660 ± 114	653 ± 78	238	98.9	-0.04
Lead	mg/kg DM	478 ± 27.2	435.4 ± 13	62.1	91.1	-1.13
Mercury	mg/kg DM	0.0394 ± 0.00938	0.01468 ± 0.00011	0.0162	37.2	-2.64
Molybdenum	mg/kg DM	23.6 ± 1.86	- ± -	4.24	-	-
Nickel	mg/kg DM	157 ± 10.1	147.5 ± 3.4	23.5	94	-0.78
Selenium	mg/kg DM	3.73 ± 0.834	- ± -	1.61	-	-
Silver	mg/kg DM	5.83 ± 0.428	- ± -	0.816	-	-
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	2.999 ± 0.067	0.56	139	2.80
Tin	mg/kg DM	108 ± 6.68	- ± -	14	-	-
TOC (as C)	mg/kg DM	33600 ± 1670	32320 ± 1517	3690	96.3	-0.35
Vanadium	mg/kg DM	39 ± 2.27	- ± -	5.07	-	-
Zinc	mg/kg DM	3340 ± 206	2833 ± 38	501	84.8	-2.31
Dry mass	%	96.8 ± 0.19	96.8 ± 0.4	0.968	100	-0.03


Sample
AB10
Arsenic
Benzo[a]pyrene
Cadmium
Chromium
Copper
HC-Index
Lead
Mercury
Nickel
Sum 16 PAH (acc. to EPA)
TOC (as C)
Zinc
Dry mass
Measurand
1.5
1.5
2.1
-1.1
-2.6
2.8
-2.3
-1
0
1
En-Score

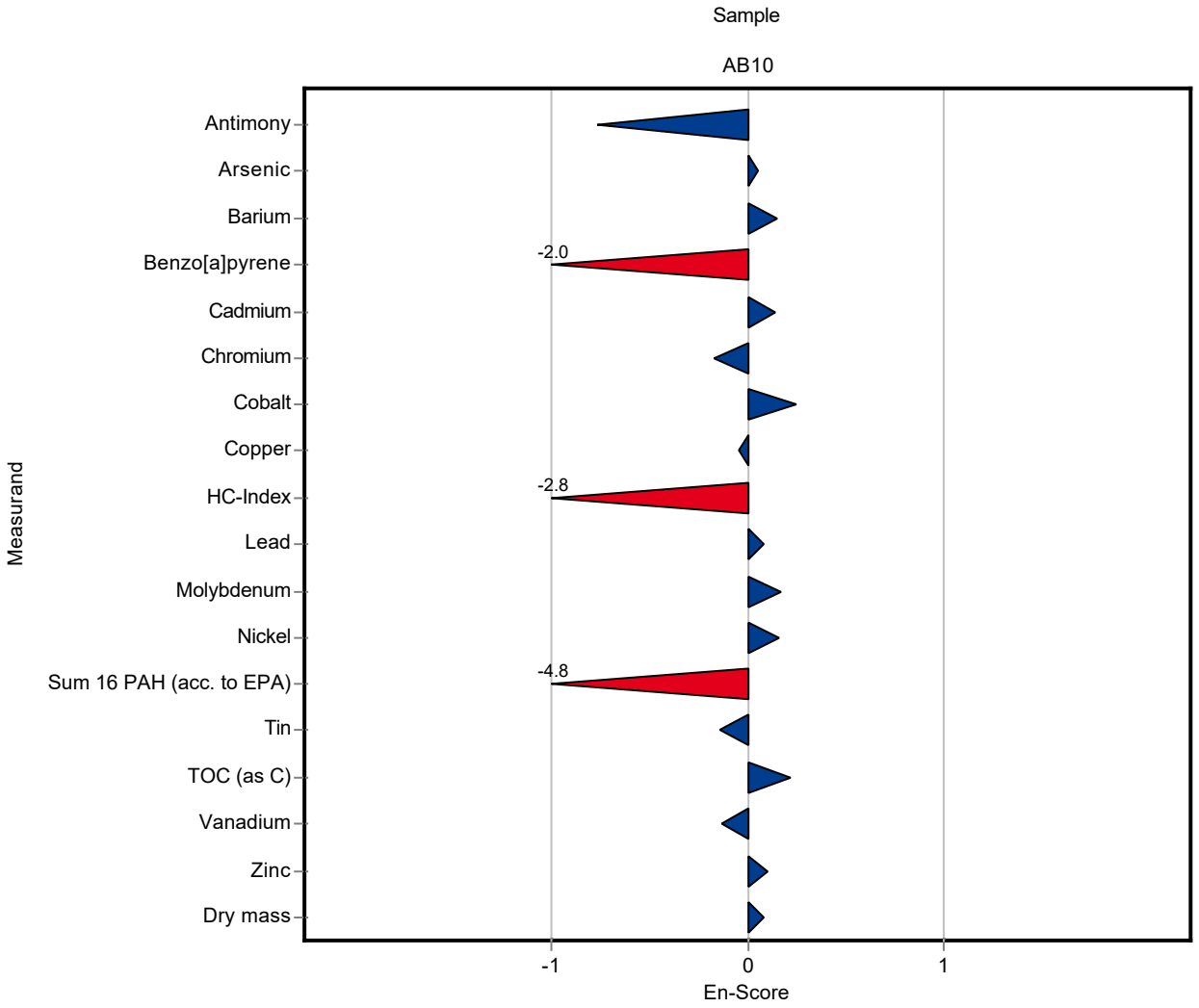
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	110 ± 57.2	31.6	55.6	-2.77
Arsenic	mg/kg DM	7.94 ± 0.696	8.5 ± 5.14	1.59	107	0.35
Barium	mg/kg DM	1000 ± 139	1200 ± 650.4	281	119	0.69
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.036 ± 0.0198	0.0548	26.9	-1.78
Cadmium	mg/kg DM	6.21 ± 0.317	6.6 ± 1.37	0.745	106	0.52
Chromium	mg/kg DM	217 ± 13.4	190 ± 80.94	32.5	87.6	-0.83
Cobalt	mg/kg DM	25.3 ± 1.54	31 ± 11.53	3.55	122	1.60
Copper	mg/kg DM	2970 ± 171	2900 ± 890.3	416	97.6	-0.17
HC-Index	mg/kg DM	660 ± 114	270 ± 41.88	238	40.9	-1.64
Lead	mg/kg DM	478 ± 27.2	510 ± 202.98	62.1	107	0.52
Mercury	mg/kg DM	0.0394 ± 0.00938	<0.5 (LOQ) ± -	0.0162	-	-
Molybdenum	mg/kg DM	23.6 ± 1.86	30 ± 19.22	4.24	127	1.51
Nickel	mg/kg DM	157 ± 10.1	180 ± 71.89	23.5	115	0.98
Selenium	mg/kg DM	3.73 ± 0.834	<10 (LOQ) ± -	1.61	-	-
Silver	mg/kg DM	5.83 ± 0.428	<10 (LOQ) ± -	0.816	-	-
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	0.86 ± 0.001	0.56	39.9	-2.31
Tin	mg/kg DM	108 ± 6.68	100 ± 28.2	14	92.5	-0.57
TOC (as C)	mg/kg DM	33600 ± 1670	40000 ± 15040	3690	119	1.75
Vanadium	mg/kg DM	39 ± 2.27	34 ± 18.94	5.07	87.3	-0.98
Zinc	mg/kg DM	3340 ± 206	3700 ± 1750	501	111	0.72
Dry mass	%	96.8 ± 0.19	97.4 ± 3.41	0.968	101	0.60


Sample
AB10
Measurand
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Molybdenum
Nickel
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
-2.8
-2.3
-2
0
2
Z-Score

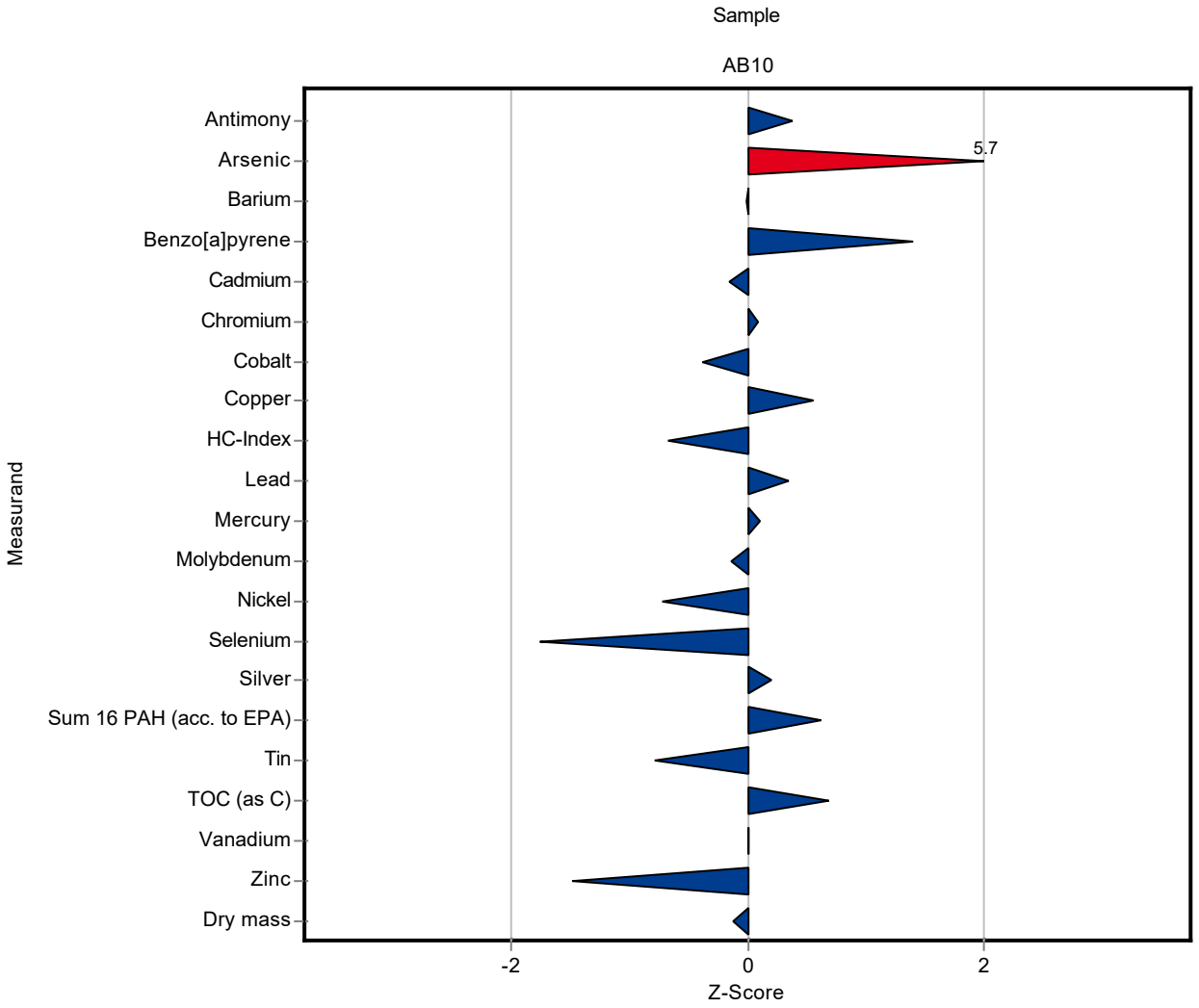
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	110 ± 57.2	31.6	55.6	-0.76
Arsenic	mg/kg DM	7.94 ± 0.696	8.5 ± 5.14	1.59	107	0.05
Barium	mg/kg DM	1000 ± 139	1200 ± 650.4	281	119	0.15
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.036 ± 0.0198	0.0548	26.9	-2.01
Cadmium	mg/kg DM	6.21 ± 0.317	6.6 ± 1.37	0.745	106	0.14
Chromium	mg/kg DM	217 ± 13.4	190 ± 80.94	32.5	87.6	-0.17
Cobalt	mg/kg DM	25.3 ± 1.54	31 ± 11.53	3.55	122	0.25
Copper	mg/kg DM	2970 ± 171	2900 ± 890.3	416	97.6	-0.04
HC-Index	mg/kg DM	660 ± 114	270 ± 41.88	238	40.9	-2.77
Lead	mg/kg DM	478 ± 27.2	510 ± 202.98	62.1	107	0.08
Mercury	mg/kg DM	0.0394 ± 0.00938	<0.5 (LOQ) ± -	0.0162	-	-
Molybdenum	mg/kg DM	23.6 ± 1.86	30 ± 19.22	4.24	127	0.17
Nickel	mg/kg DM	157 ± 10.1	180 ± 71.89	23.5	115	0.16
Selenium	mg/kg DM	3.73 ± 0.834	<10 (LOQ) ± -	1.61	-	-
Silver	mg/kg DM	5.83 ± 0.428	<10 (LOQ) ± -	0.816	-	-
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	0.86 ± 0.001	0.56	39.9	-4.77
Tin	mg/kg DM	108 ± 6.68	100 ± 28.2	14	92.5	-0.14
TOC (as C)	mg/kg DM	33600 ± 1670	40000 ± 15040	3690	119	0.21
Vanadium	mg/kg DM	39 ± 2.27	34 ± 18.94	5.07	87.3	-0.13
Zinc	mg/kg DM	3340 ± 206	3700 ± 1750	501	111	0.10
Dry mass	%	96.8 ± 0.19	97.4 ± 3.41	0.968	101	0.08


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Molybdenum
Nickel
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
-2.0
-2.8
-4.8
Measurand
-1
0
1
En-Score

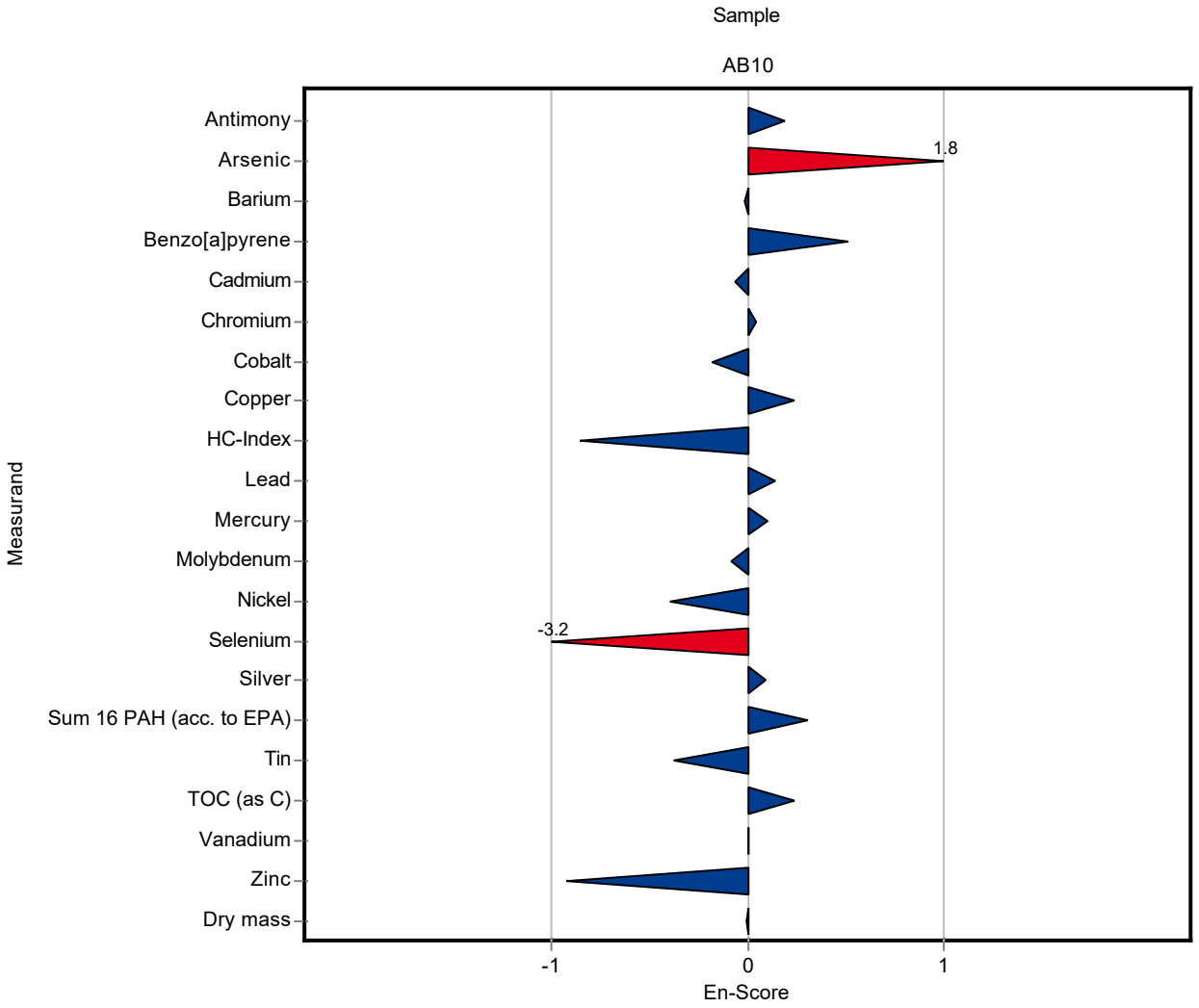
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	210 ± 31.5	31.6	106	0.39
Arsenic	mg/kg DM	7.94 ± 0.696	17 ± 2.55	1.59	214	5.71
Barium	mg/kg DM	1000 ± 139	1000 ± 150	281	99.5	-0.02
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.21 ± 0.073	0.0548	157	1.39
Cadmium	mg/kg DM	6.21 ± 0.317	6.1 ± 0.915	0.745	98.2	-0.15
Chromium	mg/kg DM	217 ± 13.4	220 ± 33	32.5	101	0.10
Cobalt	mg/kg DM	25.3 ± 1.54	24 ± 3.6	3.55	94.8	-0.37
Copper	mg/kg DM	2970 ± 171	3200 ± 480	416	108	0.55
HC-Index	mg/kg DM	660 ± 114	500 ± 75	238	75.7	-0.68
Lead	mg/kg DM	478 ± 27.2	500 ± 75	62.1	105	0.35
Mercury	mg/kg DM	0.0394 ± 0.00938	0.041 ± 0.006	0.0162	104	0.10
Molybdenum	mg/kg DM	23.6 ± 1.86	23 ± 3.45	4.24	97.5	-0.14
Nickel	mg/kg DM	157 ± 10.1	140 ± 21	23.5	89.2	-0.72
Selenium	mg/kg DM	3.73 ± 0.834	0.92 ± 0.138	1.61	24.6	-1.75
Silver	mg/kg DM	5.83 ± 0.428	6 ± 0.9	0.816	103	0.21
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	2.5 ± 0.55	0.56	116	0.62
Tin	mg/kg DM	108 ± 6.68	97 ± 14.55	14	89.8	-0.79
TOC (as C)	mg/kg DM	33600 ± 1670	36117 ± 5415	3690	108	0.70
Vanadium	mg/kg DM	39 ± 2.27	39 ± 5.85	5.07	100	0.01
Zinc	mg/kg DM	3340 ± 206	2600 ± 390	501	77.8	-1.48
Dry mass	%	96.8 ± 0.19	96.7 ± 14.5	0.968	99.9	-0.13


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Mercury
Molybdenum
Nickel
Selenium
Silver
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
5.7
Measurand
-2
0
2
Z-Score

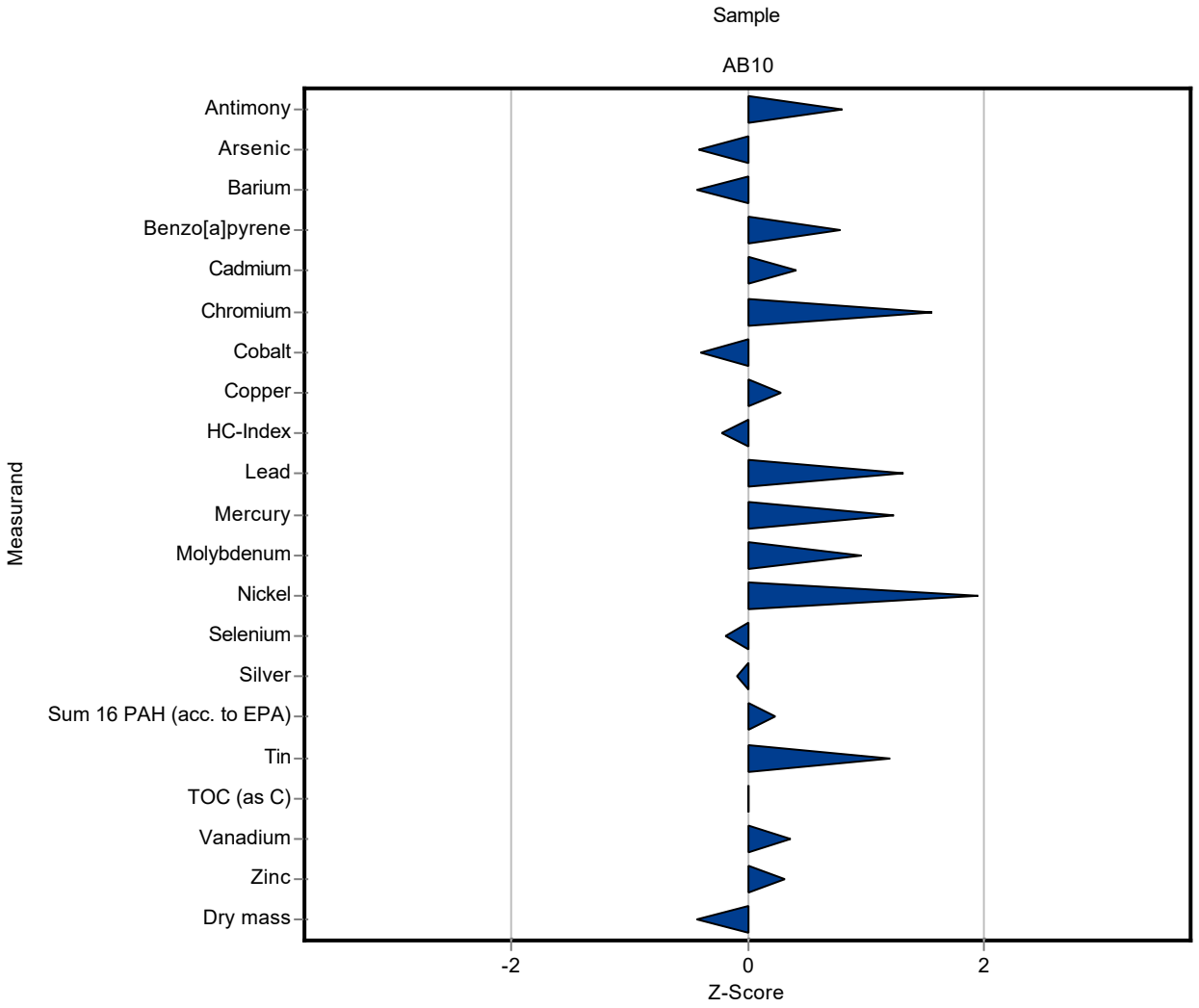
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	210 ± 31.5	31.6	106	0.19
Arsenic	mg/kg DM	7.94 ± 0.696	17 ± 2.55	1.59	214	1.76
Barium	mg/kg DM	1000 ± 139	1000 ± 150	281	99.5	-0.01
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.21 ± 0.073	0.0548	157	0.51
Cadmium	mg/kg DM	6.21 ± 0.317	6.1 ± 0.915	0.745	98.2	-0.06
Chromium	mg/kg DM	217 ± 13.4	220 ± 33	32.5	101	0.05
Cobalt	mg/kg DM	25.3 ± 1.54	24 ± 3.6	3.55	94.8	-0.18
Copper	mg/kg DM	2970 ± 171	3200 ± 480	416	108	0.23
HC-Index	mg/kg DM	660 ± 114	500 ± 75	238	75.7	-0.85
Lead	mg/kg DM	478 ± 27.2	500 ± 75	62.1	105	0.14
Mercury	mg/kg DM	0.0394 ± 0.00938	0.041 ± 0.006	0.0162	104	0.10
Molybdenum	mg/kg DM	23.6 ± 1.86	23 ± 3.45	4.24	97.5	-0.08
Nickel	mg/kg DM	157 ± 10.1	140 ± 21	23.5	89.2	-0.39
Selenium	mg/kg DM	3.73 ± 0.834	0.92 ± 0.138	1.61	24.6	-3.20
Silver	mg/kg DM	5.83 ± 0.428	6 ± 0.9	0.816	103	0.09
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	2.5 ± 0.55	0.56	116	0.31
Tin	mg/kg DM	108 ± 6.68	97 ± 14.55	14	89.8	-0.37
TOC (as C)	mg/kg DM	33600 ± 1670	36117 ± 5415	3690	108	0.23
Vanadium	mg/kg DM	39 ± 2.27	39 ± 5.85	5.07	100	0.00
Zinc	mg/kg DM	3340 ± 206	2600 ± 390	501	77.8	-0.92
Dry mass	%	96.8 ± 0.19	96.7 ± 14.5	0.968	99.9	0.00


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Mercury
Molybdenum
Nickel
Selenium
Silver
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
Measurand
1.8
-3.2
-1
0
1
En-Score

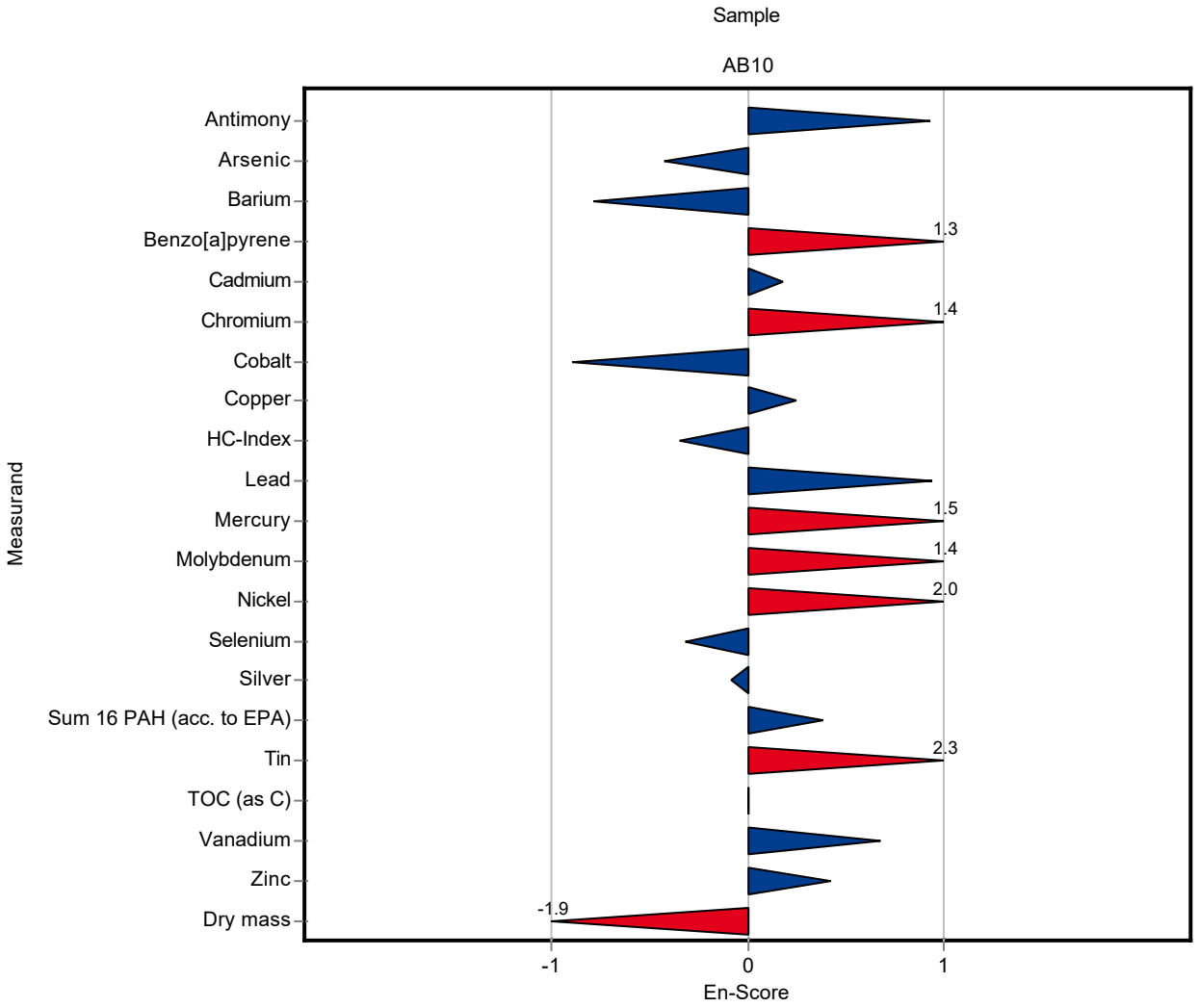
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	223 ± 11.4	31.6	113	0.80
Arsenic	mg/kg DM	7.94 ± 0.696	7.29 ± 0.677	1.59	91.8	-0.41
Barium	mg/kg DM	1000 ± 139	886 ± 30.4	281	88.2	-0.42
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.177 ± 0.01	0.0548	132	0.79
Cadmium	mg/kg DM	6.21 ± 0.317	6.52 ± 0.828	0.745	105	0.41
Chromium	mg/kg DM	217 ± 13.4	268 ± 17.6	32.5	124	1.57
Cobalt	mg/kg DM	25.3 ± 1.54	23.9 ± 0.212	3.55	94.4	-0.40
Copper	mg/kg DM	2970 ± 171	3090 ± 221	416	104	0.29
HC-Index	mg/kg DM	660 ± 114	610 ± 45.1	238	92.4	-0.21
Lead	mg/kg DM	478 ± 27.2	560 ± 41.6	62.1	117	1.32
Mercury	mg/kg DM	0.0394 ± 0.00938	0.0595 ± 0.005	0.0162	151	1.24
Molybdenum	mg/kg DM	23.6 ± 1.86	27.7 ± 1.2	4.24	117	0.97
Nickel	mg/kg DM	157 ± 10.1	203 ± 10.4	23.5	129	1.95
Selenium	mg/kg DM	3.73 ± 0.834	3.44 ± 0.203	1.61	92.2	-0.18
Silver	mg/kg DM	5.83 ± 0.428	5.76 ± 0.379	0.816	98.8	-0.09
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	2.28 ± 0.095	0.56	106	0.23
Tin	mg/kg DM	108 ± 6.68	125 ± 1.53	14	116	1.21
TOC (as C)	mg/kg DM	33600 ± 1670	33600 ± 2540	3690	100	0.01
Vanadium	mg/kg DM	39 ± 2.27	40.8 ± 0.757	5.07	105	0.36
Zinc	mg/kg DM	3340 ± 206	3500 ± 155	501	105	0.32
Dry mass	%	96.8 ± 0.19	96.4 ± 0.058	0.968	99.6	-0.44


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Mercury
Molybdenum
Nickel
Selenium
Silver
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
Measurand
-2
0
2
Z-Score

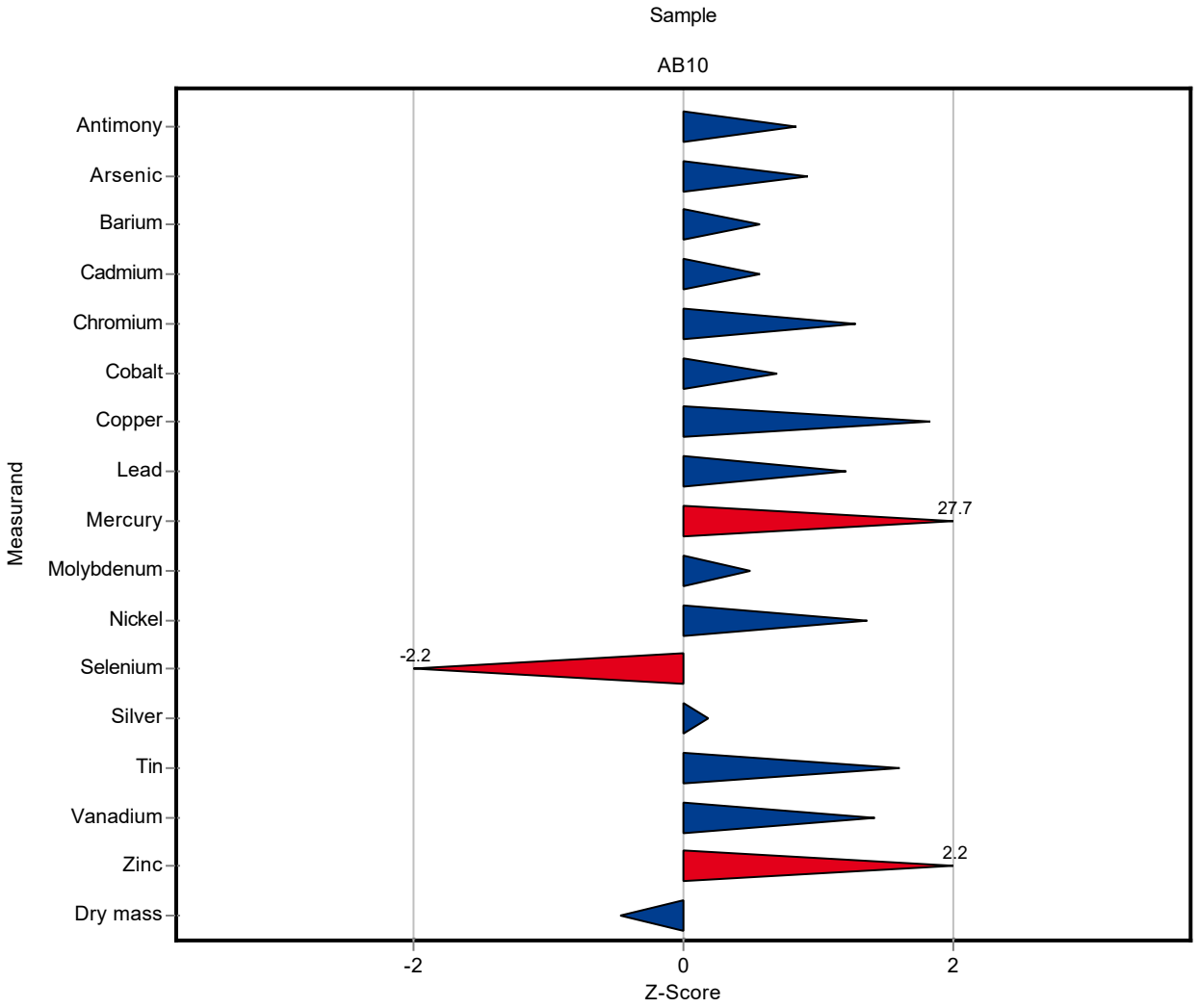
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	223 ± 11.4	31.6	113	0.93
Arsenic	mg/kg DM	7.94 ± 0.696	7.29 ± 0.677	1.59	91.8	-0.43
Barium	mg/kg DM	1000 ± 139	886 ± 30.4	281	88.2	-0.78
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.177 ± 0.01	0.0548	132	1.26
Cadmium	mg/kg DM	6.21 ± 0.317	6.52 ± 0.828	0.745	105	0.18
Chromium	mg/kg DM	217 ± 13.4	268 ± 17.6	32.5	124	1.36
Cobalt	mg/kg DM	25.3 ± 1.54	23.9 ± 0.212	3.55	94.4	-0.89
Copper	mg/kg DM	2970 ± 171	3090 ± 221	416	104	0.25
HC-Index	mg/kg DM	660 ± 114	610 ± 45.1	238	92.4	-0.35
Lead	mg/kg DM	478 ± 27.2	560 ± 41.6	62.1	117	0.94
Mercury	mg/kg DM	0.0394 ± 0.00938	0.0595 ± 0.005	0.0162	151	1.46
Molybdenum	mg/kg DM	23.6 ± 1.86	27.7 ± 1.2	4.24	117	1.36
Nickel	mg/kg DM	157 ± 10.1	203 ± 10.4	23.5	129	1.99
Selenium	mg/kg DM	3.73 ± 0.834	3.44 ± 0.203	1.61	92.2	-0.32
Silver	mg/kg DM	5.83 ± 0.428	5.76 ± 0.379	0.816	98.8	-0.08
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	2.28 ± 0.095	0.56	106	0.38
Tin	mg/kg DM	108 ± 6.68	125 ± 1.53	14	116	2.31
TOC (as C)	mg/kg DM	33600 ± 1670	33600 ± 2540	3690	100	0.01
Vanadium	mg/kg DM	39 ± 2.27	40.8 ± 0.757	5.07	105	0.67
Zinc	mg/kg DM	3340 ± 206	3500 ± 155	501	105	0.43
Dry mass	%	96.8 ± 0.19	96.4 ± 0.058	0.968	99.6	-1.90


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Mercury
Molybdenum
Nickel
Selenium
Silver
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
Measurand
1.3
1.4
1.5
1.4
2.0
2.3
-1.9
-1
0
1
En-Score

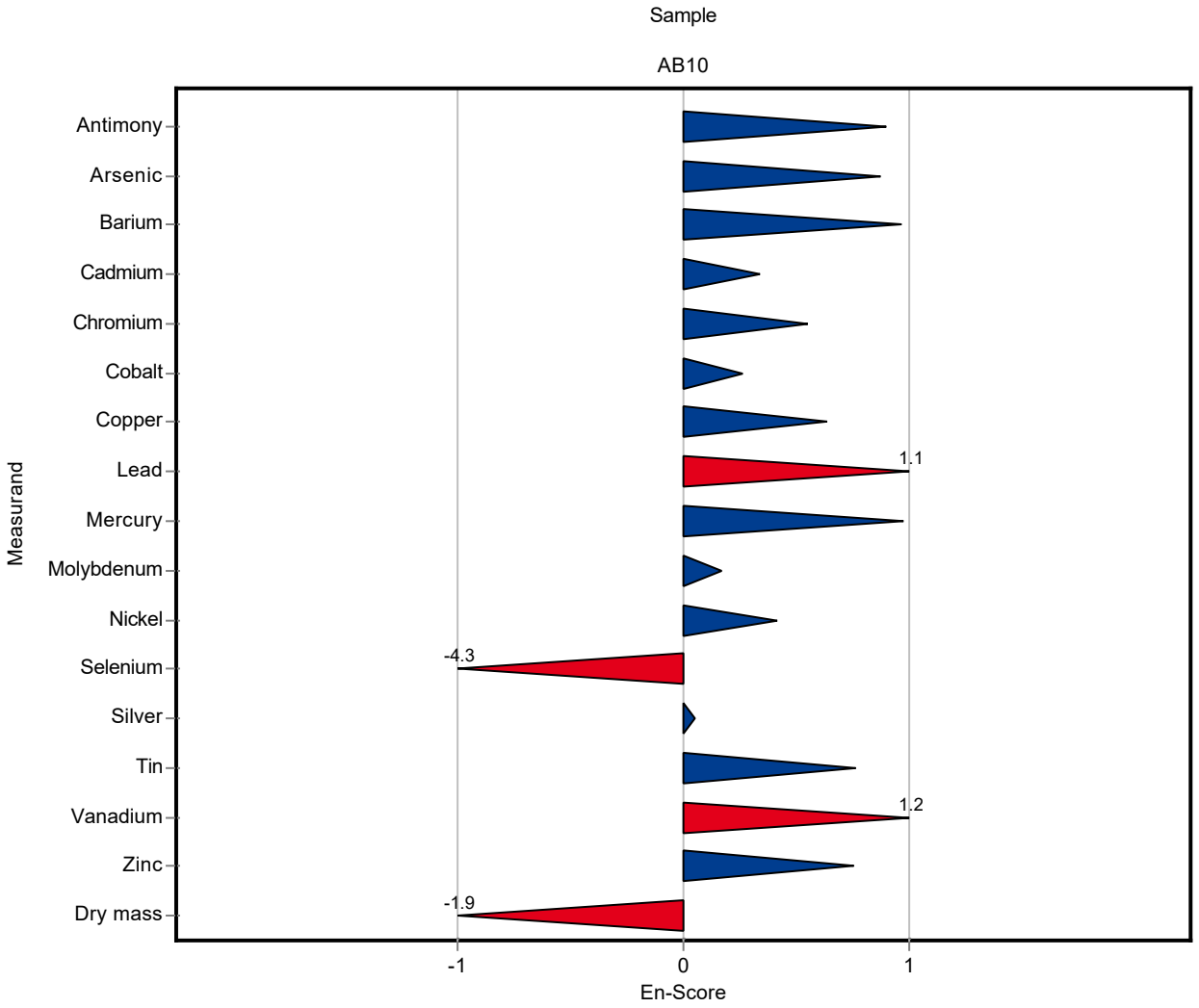
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	224.037 ± 12.67	31.6	113	0.83
Arsenic	mg/kg DM	7.94 ± 0.696	9.41 ± 0.77	1.59	119	0.93
Barium	mg/kg DM	1000 ± 139	1162.676 ± 42.83	281	116	0.56
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	- ± -	0.0548	-	-
Cadmium	mg/kg DM	6.21 ± 0.317	6.631 ± 0.59	0.745	107	0.56
Chromium	mg/kg DM	217 ± 13.4	258.279 ± 37.04	32.5	119	1.27
Cobalt	mg/kg DM	25.3 ± 1.54	27.782 ± 4.67	3.55	110	0.69
Copper	mg/kg DM	2970 ± 171	3730.773 ± 592.44	416	126	1.83
HC-Index	mg/kg DM	660 ± 114	- ± -	238	-	-
Lead	mg/kg DM	478 ± 27.2	552.833 ± 31.18	62.1	116	1.20
Mercury	mg/kg DM	0.0394 ± 0.00938	0.487 ± 0.23	0.0162	1240	27.70
Molybdenum	mg/kg DM	23.6 ± 1.86	25.686 ± 6.2	4.24	109	0.50
Nickel	mg/kg DM	157 ± 10.1	188.856 ± 38.34	23.5	120	1.35
Selenium	mg/kg DM	3.73 ± 0.834	0.123 ± 0.02	1.61	3.3	-2.25
Silver	mg/kg DM	5.83 ± 0.428	5.987 ± 1.4	0.816	103	0.19
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	- ± -	0.56	-	-
Tin	mg/kg DM	108 ± 6.68	130.599 ± 14.41	14	121	1.61
TOC (as C)	mg/kg DM	33600 ± 1670	- ± -	3690	-	-
Vanadium	mg/kg DM	39 ± 2.27	46.101 ± 2.76	5.07	118	1.41
Zinc	mg/kg DM	3340 ± 206	4432.598 ± 718.01	501	133	2.18
Dry mass	%	96.8 ± 0.19	96.37 ± 0.07	0.968	99.5	-0.47


Sample
AB10
Antimony
Arsenic
Barium
Cadmium
Chromium
Cobalt
Copper
Lead
Mercury
Molybdenum
Nickel
Selenium
Silver
Tin
Vanadium
Zinc
Dry mass
Measurand
27.7
-2.2
2.2
-2
0
2
Z-Score

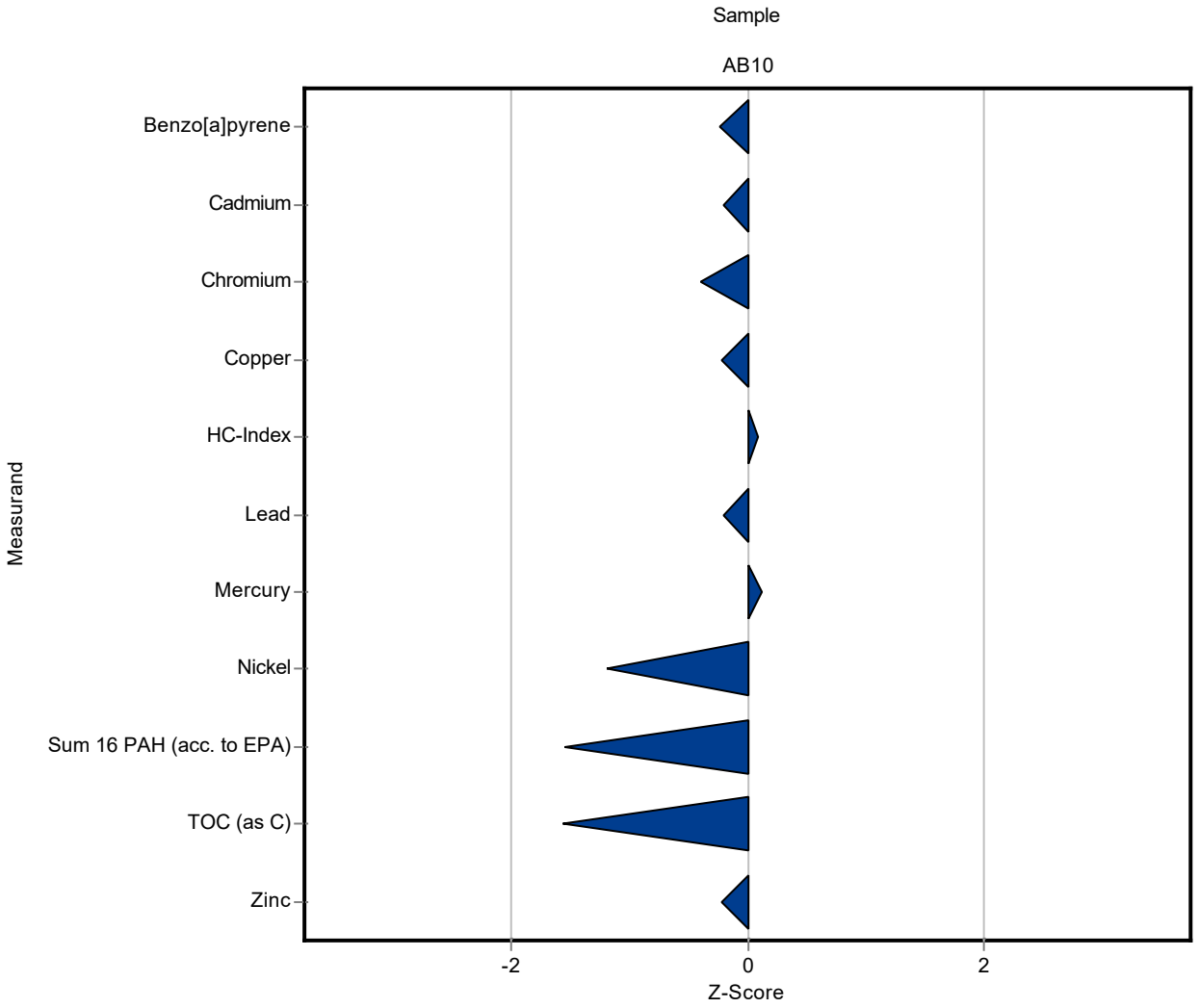
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	224.037 ± 12.67	31.6	113	0.90
Arsenic	mg/kg DM	7.94 ± 0.696	9.41 ± 0.77	1.59	119	0.87
Barium	mg/kg DM	1000 ± 139	1162.676 ± 42.83	281	116	0.97
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	- ± -	0.0548	-	-
Cadmium	mg/kg DM	6.21 ± 0.317	6.631 ± 0.59	0.745	107	0.34
Chromium	mg/kg DM	217 ± 13.4	258.279 ± 37.04	32.5	119	0.55
Cobalt	mg/kg DM	25.3 ± 1.54	27.782 ± 4.67	3.55	110	0.26
Copper	mg/kg DM	2970 ± 171	3730.773 ± 592.44	416	126	0.64
HC-Index	mg/kg DM	660 ± 114	- ± -	238	-	-
Lead	mg/kg DM	478 ± 27.2	552.833 ± 31.18	62.1	116	1.10
Mercury	mg/kg DM	0.0394 ± 0.00938	0.487 ± 0.23	0.0162	1240	0.97
Molybdenum	mg/kg DM	23.6 ± 1.86	25.686 ± 6.2	4.24	109	0.17
Nickel	mg/kg DM	157 ± 10.1	188.856 ± 38.34	23.5	120	0.41
Selenium	mg/kg DM	3.73 ± 0.834	0.123 ± 0.02	1.61	3.3	-4.32
Silver	mg/kg DM	5.83 ± 0.428	5.987 ± 1.4	0.816	103	0.05
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	- ± -	0.56	-	-
Tin	mg/kg DM	108 ± 6.68	130.599 ± 14.41	14	121	0.76
TOC (as C)	mg/kg DM	33600 ± 1670	- ± -	3690	-	-
Vanadium	mg/kg DM	39 ± 2.27	46.101 ± 2.76	5.07	118	1.20
Zinc	mg/kg DM	3340 ± 206	4432.598 ± 718.01	501	133	0.75
Dry mass	%	96.8 ± 0.19	96.37 ± 0.07	0.968	99.5	-1.92


Sample
AB10
Antimony
Arsenic
Barium
Cadmium
Chromium
Cobalt
Copper
Lead
Mercury
Molybdenum
Nickel
Selenium
Silver
Tin
Vanadium
Zinc
Dry mass
Measurand
1.1
-4.3
1.2
-1.9
-1
0
1
En-Score

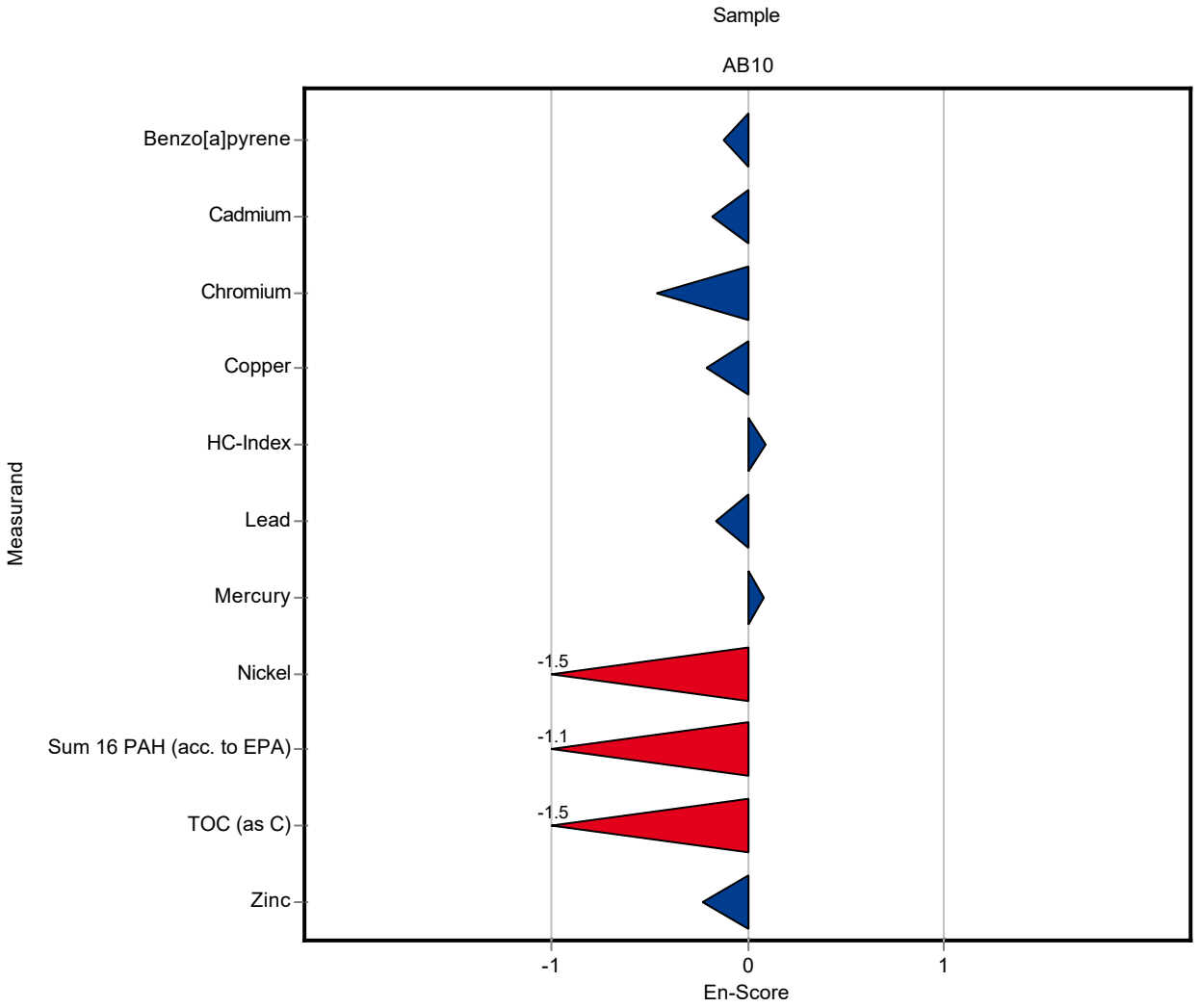
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	- ± -	31.6	-	-
Arsenic	mg/kg DM	7.94 ± 0.696	- ± -	1.59	-	-
Barium	mg/kg DM	1000 ± 139	- ± -	281	-	-
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.121 ± 0.05	0.0548	90.5	-0.23
Cadmium	mg/kg DM	6.21 ± 0.317	6.061 ± 0.38	0.745	97.6	-0.20
Chromium	mg/kg DM	217 ± 13.4	203.8 ± 12.4	32.5	94	-0.40
Cobalt	mg/kg DM	25.3 ± 1.54	- ± -	3.55	-	-
Copper	mg/kg DM	2970 ± 171	2880 ± 201	416	96.9	-0.22
HC-Index	mg/kg DM	660 ± 114	680 ± 90	238	103	0.08
Lead	mg/kg DM	478 ± 27.2	465 ± 37	62.1	97.3	-0.21
Mercury	mg/kg DM	0.0394 ± 0.00938	0.0413 ± 0.011	0.0162	105	0.12
Molybdenum	mg/kg DM	23.6 ± 1.86	- ± -	4.24	-	-
Nickel	mg/kg DM	157 ± 10.1	129 ± 7.7	23.5	82.2	-1.19
Selenium	mg/kg DM	3.73 ± 0.834	- ± -	1.61	-	-
Silver	mg/kg DM	5.83 ± 0.428	- ± -	0.816	-	-
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	1.29 ± 0.37	0.56	59.9	-1.54
Tin	mg/kg DM	108 ± 6.68	- ± -	14	-	-
TOC (as C)	mg/kg DM	33600 ± 1670	27797 ± 1700	3690	82.9	-1.56
Vanadium	mg/kg DM	39 ± 2.27	- ± -	5.07	-	-
Zinc	mg/kg DM	3340 ± 206	3230 ± 226	501	96.7	-0.22
Dry mass	%	96.8 ± 0.19	- ± -	0.968	-	-


Sample
AB10
Benzo[a]pyrene
Cadmium
Chromium
Copper
HC-Index
Lead
Mercury
Nickel
Sum 16 PAH (acc. to EPA)
TOC (as C)
Zinc
Measurand
-2
0
2
Z-Score

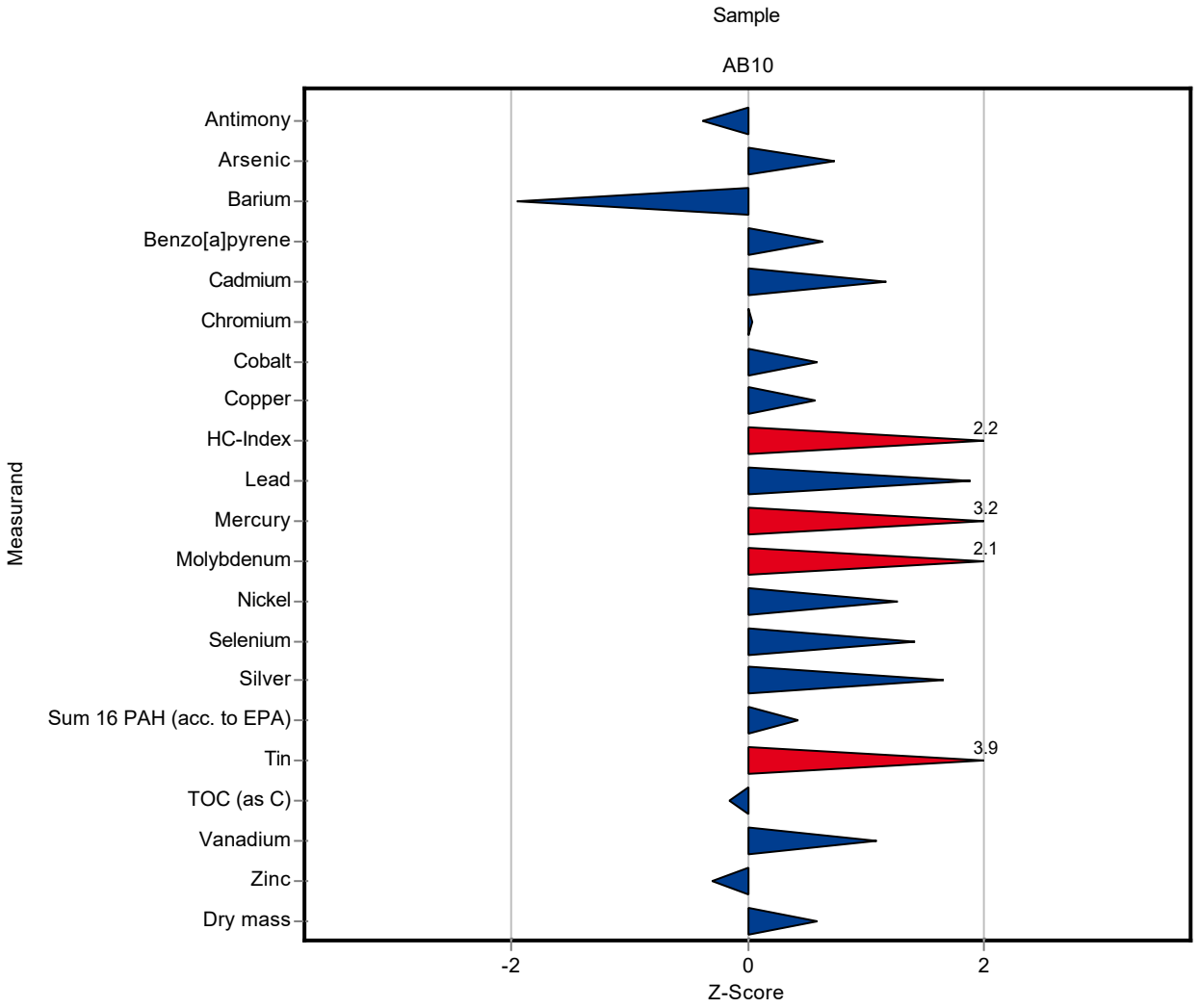
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	- ± -	31.6	-	-
Arsenic	mg/kg DM	7.94 ± 0.696	- ± -	1.59	-	-
Barium	mg/kg DM	1000 ± 139	- ± -	281	-	-
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.121 ± 0.05	0.0548	90.5	-0.12
Cadmium	mg/kg DM	6.21 ± 0.317	6.061 ± 0.38	0.745	97.6	-0.18
Chromium	mg/kg DM	217 ± 13.4	203.8 ± 12.4	32.5	94	-0.47
Cobalt	mg/kg DM	25.3 ± 1.54	- ± -	3.55	-	-
Copper	mg/kg DM	2970 ± 171	2880 ± 201	416	96.9	-0.21
HC-Index	mg/kg DM	660 ± 114	680 ± 90	238	103	0.09
Lead	mg/kg DM	478 ± 27.2	465 ± 37	62.1	97.3	-0.16
Mercury	mg/kg DM	0.0394 ± 0.00938	0.0413 ± 0.011	0.0162	105	0.08
Molybdenum	mg/kg DM	23.6 ± 1.86	- ± -	4.24	-	-
Nickel	mg/kg DM	157 ± 10.1	129 ± 7.7	23.5	82.2	-1.52
Selenium	mg/kg DM	3.73 ± 0.834	- ± -	1.61	-	-
Silver	mg/kg DM	5.83 ± 0.428	- ± -	0.816	-	-
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	1.29 ± 0.37	0.56	59.9	-1.09
Tin	mg/kg DM	108 ± 6.68	- ± -	14	-	-
TOC (as C)	mg/kg DM	33600 ± 1670	27797 ± 1700	3690	82.9	-1.52
Vanadium	mg/kg DM	39 ± 2.27	- ± -	5.07	-	-
Zinc	mg/kg DM	3340 ± 206	3230 ± 226	501	96.7	-0.22
Dry mass	%	96.8 ± 0.19	- ± -	0.968	-	-


Sample
AB10
Measurand
Benzo[a]pyrene
Cadmium
Chromium
Copper
HC-Index
Lead
Mercury
Nickel
Sum 16 PAH (acc. to EPA)
TOC (as C)
Zinc
-1.5
-1.1
-1.5
-1
0
1
En-Score

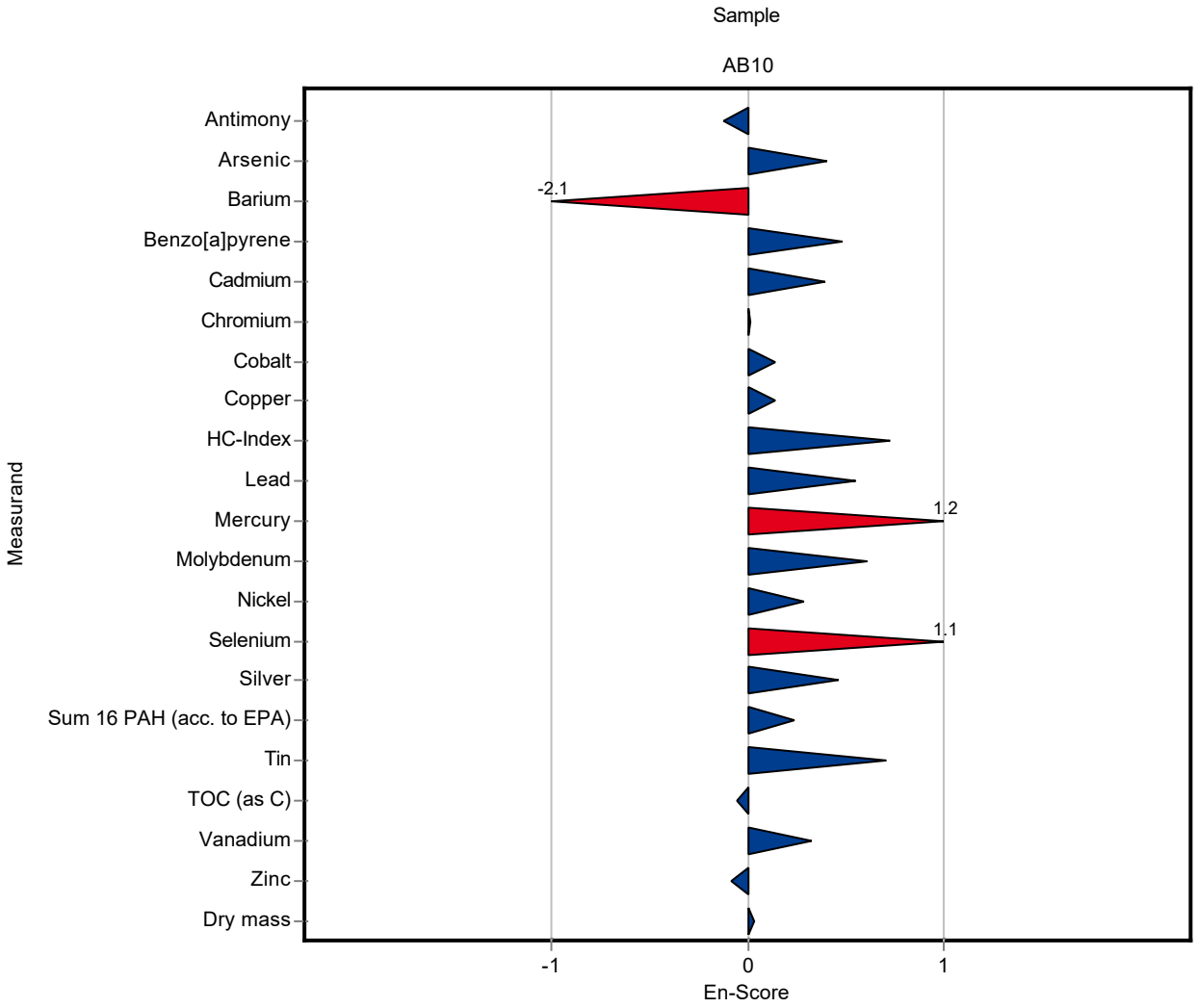
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	186 ± 48	31.6	94	-0.37
Arsenic	mg/kg DM	7.94 ± 0.696	9.12 ± 1.43	1.59	115	0.74
Barium	mg/kg DM	1000 ± 139	457 ± 110	281	45.5	-1.95
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.169 ± 0.034	0.0548	126	0.65
Cadmium	mg/kg DM	6.21 ± 0.317	7.09 ± 1.1	0.745	114	1.18
Chromium	mg/kg DM	217 ± 13.4	218 ± 42	32.5	101	0.03
Cobalt	mg/kg DM	25.3 ± 1.54	27.4 ± 7.3	3.55	108	0.58
Copper	mg/kg DM	2970 ± 171	3210 ± 858	416	108	0.57
HC-Index	mg/kg DM	660 ± 114	1190 ± 360	238	180	2.23
Lead	mg/kg DM	478 ± 27.2	595 ± 106	62.1	124	1.88
Mercury	mg/kg DM	0.0394 ± 0.00938	0.0913 ± 0.0213	0.0162	232	3.21
Molybdenum	mg/kg DM	23.6 ± 1.86	32.7 ± 7.4	4.24	139	2.15
Nickel	mg/kg DM	157 ± 10.1	187 ± 53	23.5	119	1.28
Selenium	mg/kg DM	3.73 ± 0.834	6.02 ± 0.99	1.61	161	1.42
Silver	mg/kg DM	5.83 ± 0.428	7.19 ± 1.47	0.816	123	1.66
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	2.39 ± 0.48	0.56	111	0.42
Tin	mg/kg DM	108 ± 6.68	163 ± 39	14	151	3.91
TOC (as C)	mg/kg DM	33600 ± 1670	33000 ± 5110	3690	98.4	-0.15
Vanadium	mg/kg DM	39 ± 2.27	44.5 ± 8.5	5.07	114	1.09
Zinc	mg/kg DM	3340 ± 206	3190 ± 941	501	95.5	-0.30
Dry mass	%	96.8 ± 0.19	97.4 ± 9	0.968	101	0.60


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Mercury
Molybdenum
Nickel
Selenium
Silver
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
Measurand
2.2
3.2
2.1
3.9
-2
0
2
Z-Score

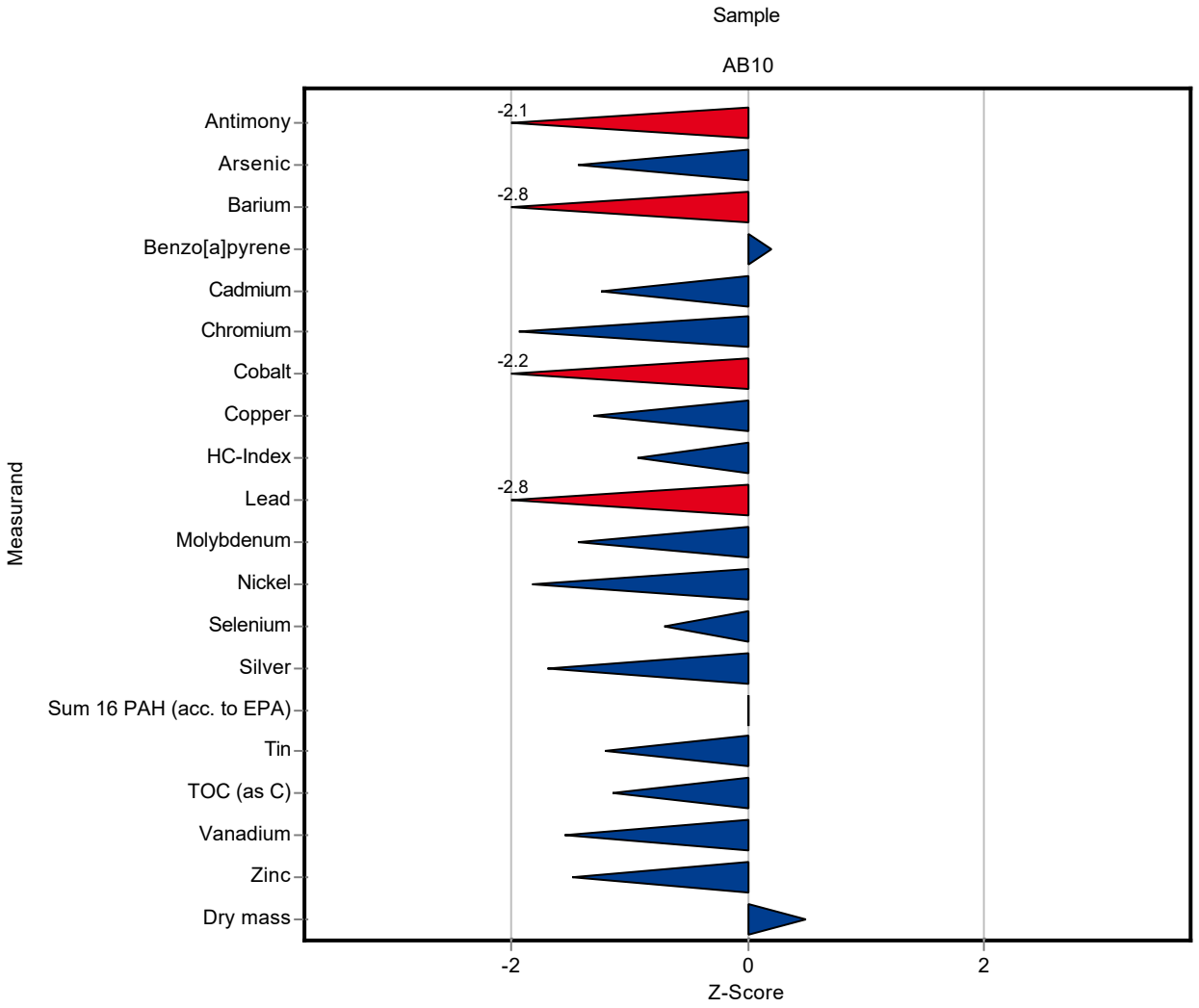
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	186 ± 48	31.6	94	-0.12
Arsenic	mg/kg DM	7.94 ± 0.696	9.12 ± 1.43	1.59	115	0.40
Barium	mg/kg DM	1000 ± 139	457 ± 110	281	45.5	-2.10
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.169 ± 0.034	0.0548	126	0.48
Cadmium	mg/kg DM	6.21 ± 0.317	7.09 ± 1.1	0.745	114	0.40
Chromium	mg/kg DM	217 ± 13.4	218 ± 42	32.5	101	0.01
Cobalt	mg/kg DM	25.3 ± 1.54	27.4 ± 7.3	3.55	108	0.14
Copper	mg/kg DM	2970 ± 171	3210 ± 858	416	108	0.14
HC-Index	mg/kg DM	660 ± 114	1190 ± 360	238	180	0.73
Lead	mg/kg DM	478 ± 27.2	595 ± 106	62.1	124	0.55
Mercury	mg/kg DM	0.0394 ± 0.00938	0.0913 ± 0.0213	0.0162	232	1.19
Molybdenum	mg/kg DM	23.6 ± 1.86	32.7 ± 7.4	4.24	139	0.61
Nickel	mg/kg DM	157 ± 10.1	187 ± 53	23.5	119	0.28
Selenium	mg/kg DM	3.73 ± 0.834	6.02 ± 0.99	1.61	161	1.06
Silver	mg/kg DM	5.83 ± 0.428	7.19 ± 1.47	0.816	123	0.46
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	2.39 ± 0.48	0.56	111	0.24
Tin	mg/kg DM	108 ± 6.68	163 ± 39	14	151	0.70
TOC (as C)	mg/kg DM	33600 ± 1670	33000 ± 5110	3690	98.4	-0.05
Vanadium	mg/kg DM	39 ± 2.27	44.5 ± 8.5	5.07	114	0.32
Zinc	mg/kg DM	3340 ± 206	3190 ± 941	501	95.5	-0.08
Dry mass	%	96.8 ± 0.19	97.4 ± 9	0.968	101	0.03


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Mercury
Molybdenum
Nickel
Selenium
Silver
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
Measurand
-2.1
1.2
1.1
-1
0
1
En-Score

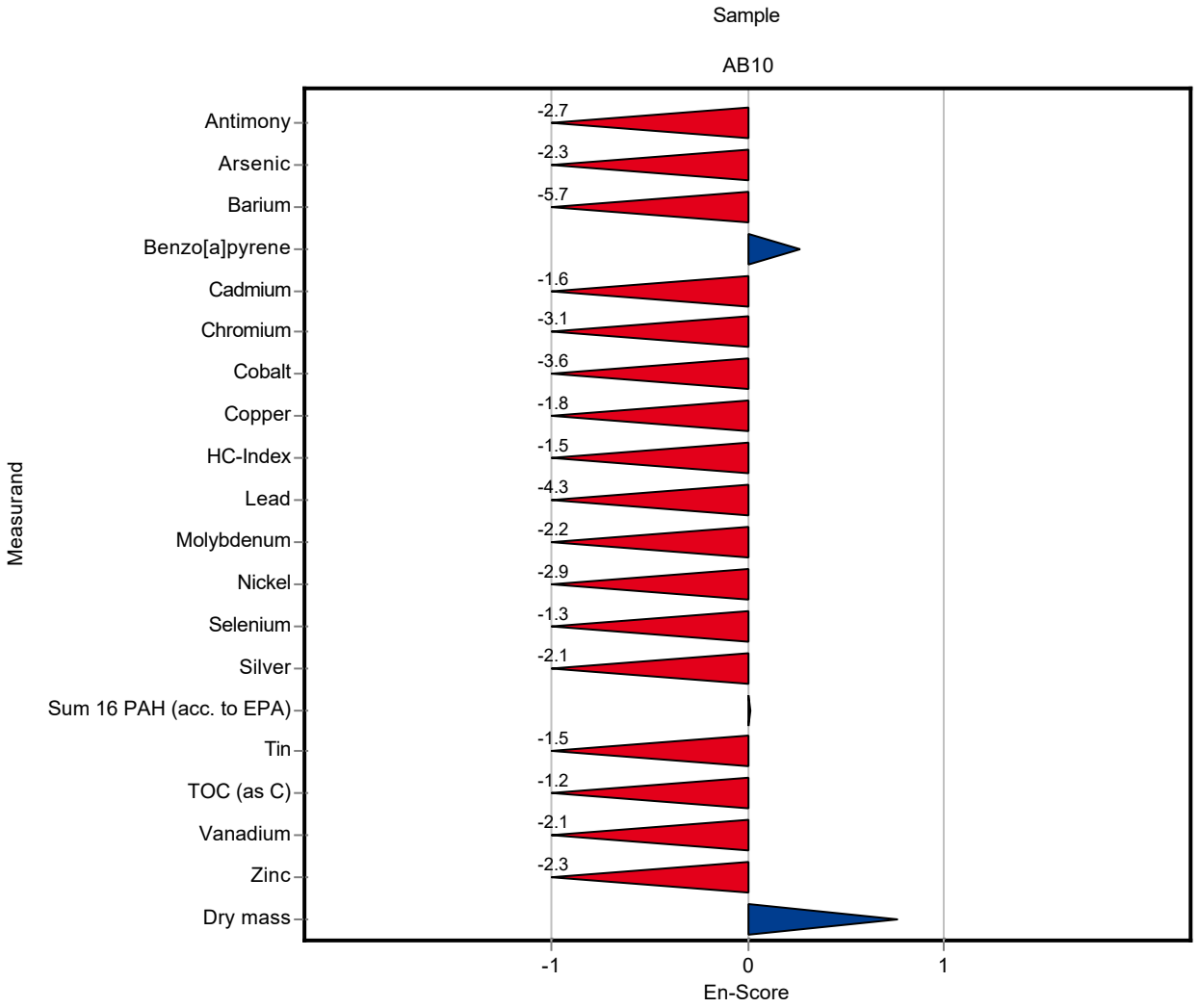
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	131 ± 10	31.6	66.2	-2.11
Arsenic	mg/kg DM	7.94 ± 0.696	5.66 ± 0.35	1.59	71.3	-1.44
Barium	mg/kg DM	1000 ± 139	203 ± 10	281	20.2	-2.85
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.145 ± 0.016	0.0548	109	0.21
Cadmium	mg/kg DM	6.21 ± 0.317	5.29 ± 0.25	0.745	85.2	-1.24
Chromium	mg/kg DM	217 ± 13.4	154 ± 7.5	32.5	71	-1.93
Cobalt	mg/kg DM	25.3 ± 1.54	17.4 ± 0.8	3.55	68.7	-2.24
Copper	mg/kg DM	2970 ± 171	2430 ± 120	416	81.8	-1.30
HC-Index	mg/kg DM	660 ± 114	438 ± 45	238	66.3	-0.94
Lead	mg/kg DM	478 ± 27.2	305 ± 15	62.1	63.8	-2.78
Mercury	mg/kg DM	0.0394 ± 0.00938	<0.05 (LOQ) ± -	0.0162	-	-
Molybdenum	mg/kg DM	23.6 ± 1.86	17.5 ± 1	4.24	74.2	-1.43
Nickel	mg/kg DM	157 ± 10.1	114 ± 5.5	23.5	72.6	-1.83
Selenium	mg/kg DM	3.73 ± 0.834	2.61 ± 0.15	1.61	69.9	-0.70
Silver	mg/kg DM	5.83 ± 0.428	4.45 ± 0.25	0.816	76.3	-1.69
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	2.16 ± 0.25	0.56	100	0.01
Tin	mg/kg DM	108 ± 6.68	91 ± 4.5	14	84.2	-1.21
TOC (as C)	mg/kg DM	33600 ± 1670	29350 ± 1500	3690	87.5	-1.14
Vanadium	mg/kg DM	39 ± 2.27	31.1 ± 1.5	5.07	79.8	-1.55
Zinc	mg/kg DM	3340 ± 206	2600 ± 120	501	77.8	-1.48
Dry mass	%	96.8 ± 0.19	97.3 ± 0.3	0.968	100	0.49


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Molybdenum
Nickel
Selenium
Silver
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
Measurand
-2.1
-2.8
-2.2
-2.8
-2
0
2
Z-Score

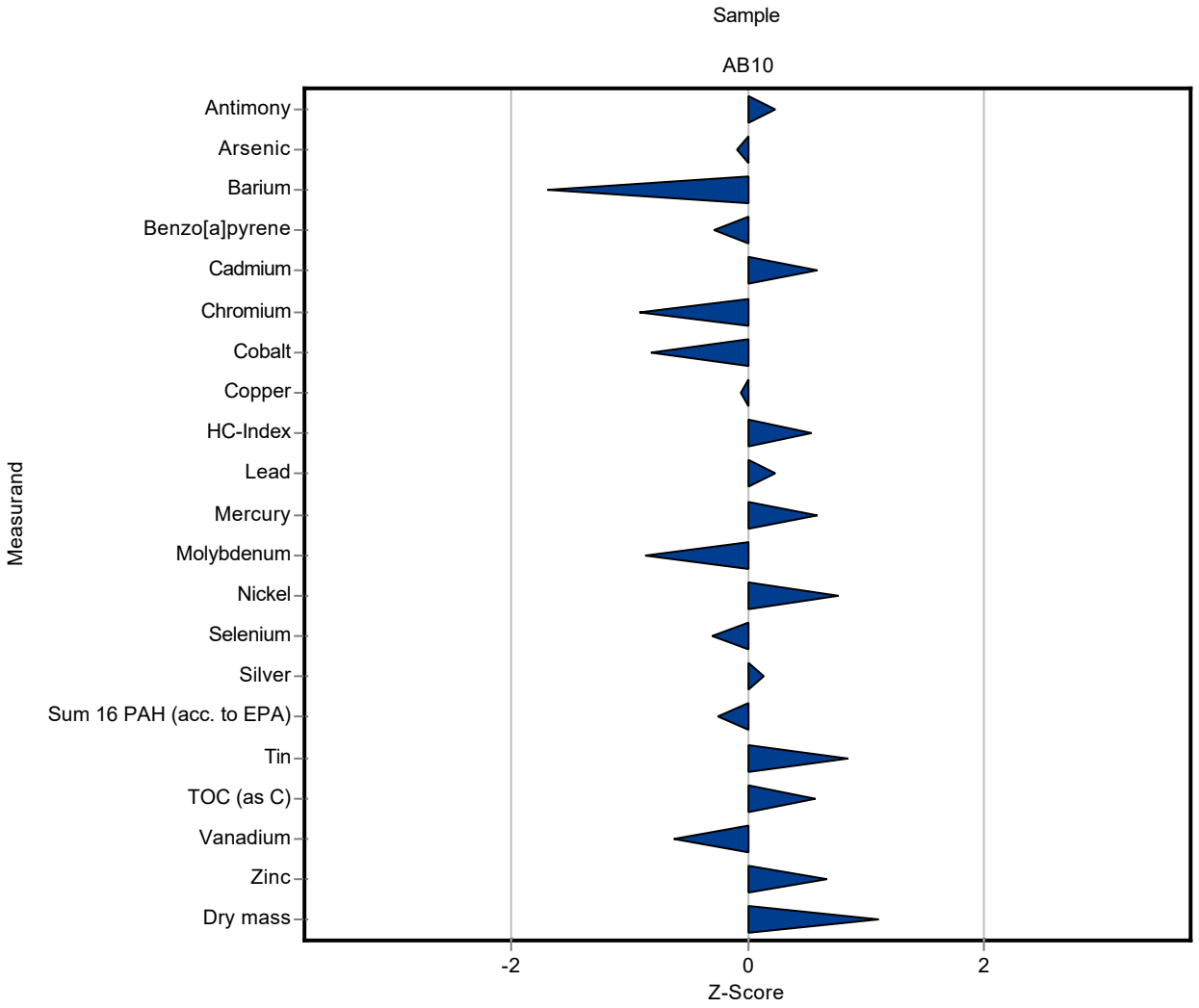
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	131 ± 10	31.6	66.2	-2.70
Arsenic	mg/kg DM	7.94 ± 0.696	5.66 ± 0.35	1.59	71.3	-2.31
Barium	mg/kg DM	1000 ± 139	203 ± 10	281	20.2	-5.69
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.145 ± 0.016	0.0548	109	0.27
Cadmium	mg/kg DM	6.21 ± 0.317	5.29 ± 0.25	0.745	85.2	-1.56
Chromium	mg/kg DM	217 ± 13.4	154 ± 7.5	32.5	71	-3.13
Cobalt	mg/kg DM	25.3 ± 1.54	17.4 ± 0.8	3.55	68.7	-3.56
Copper	mg/kg DM	2970 ± 171	2430 ± 120	416	81.8	-1.83
HC-Index	mg/kg DM	660 ± 114	438 ± 45	238	66.3	-1.53
Lead	mg/kg DM	478 ± 27.2	305 ± 15	62.1	63.8	-4.27
Mercury	mg/kg DM	0.0394 ± 0.00938	<0.05 (LOQ) ± -	0.0162	-	-
Molybdenum	mg/kg DM	23.6 ± 1.86	17.5 ± 1	4.24	74.2	-2.23
Nickel	mg/kg DM	157 ± 10.1	114 ± 5.5	23.5	72.6	-2.88
Selenium	mg/kg DM	3.73 ± 0.834	2.61 ± 0.15	1.61	69.9	-1.27
Silver	mg/kg DM	5.83 ± 0.428	4.45 ± 0.25	0.816	76.3	-2.10
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	2.16 ± 0.25	0.56	100	0.01
Tin	mg/kg DM	108 ± 6.68	91 ± 4.5	14	84.2	-1.52
TOC (as C)	mg/kg DM	33600 ± 1670	29350 ± 1500	3690	87.5	-1.22
Vanadium	mg/kg DM	39 ± 2.27	31.1 ± 1.5	5.07	79.8	-2.09
Zinc	mg/kg DM	3340 ± 206	2600 ± 120	501	77.8	-2.34
Dry mass	%	96.8 ± 0.19	97.3 ± 0.3	0.968	100	0.76


Sample
AB10
Measurand
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Molybdenum
Nickel
Selenium
Silver
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
-2.7
-2.3
-5.7
-1.6
-3.1
-3.6
-1.8
-1.5
-4.3
-2.2
-2.9
-1.3
-2.1
-1.5
-1.2
-2.1
-2.3
-1
0
1
En-Score

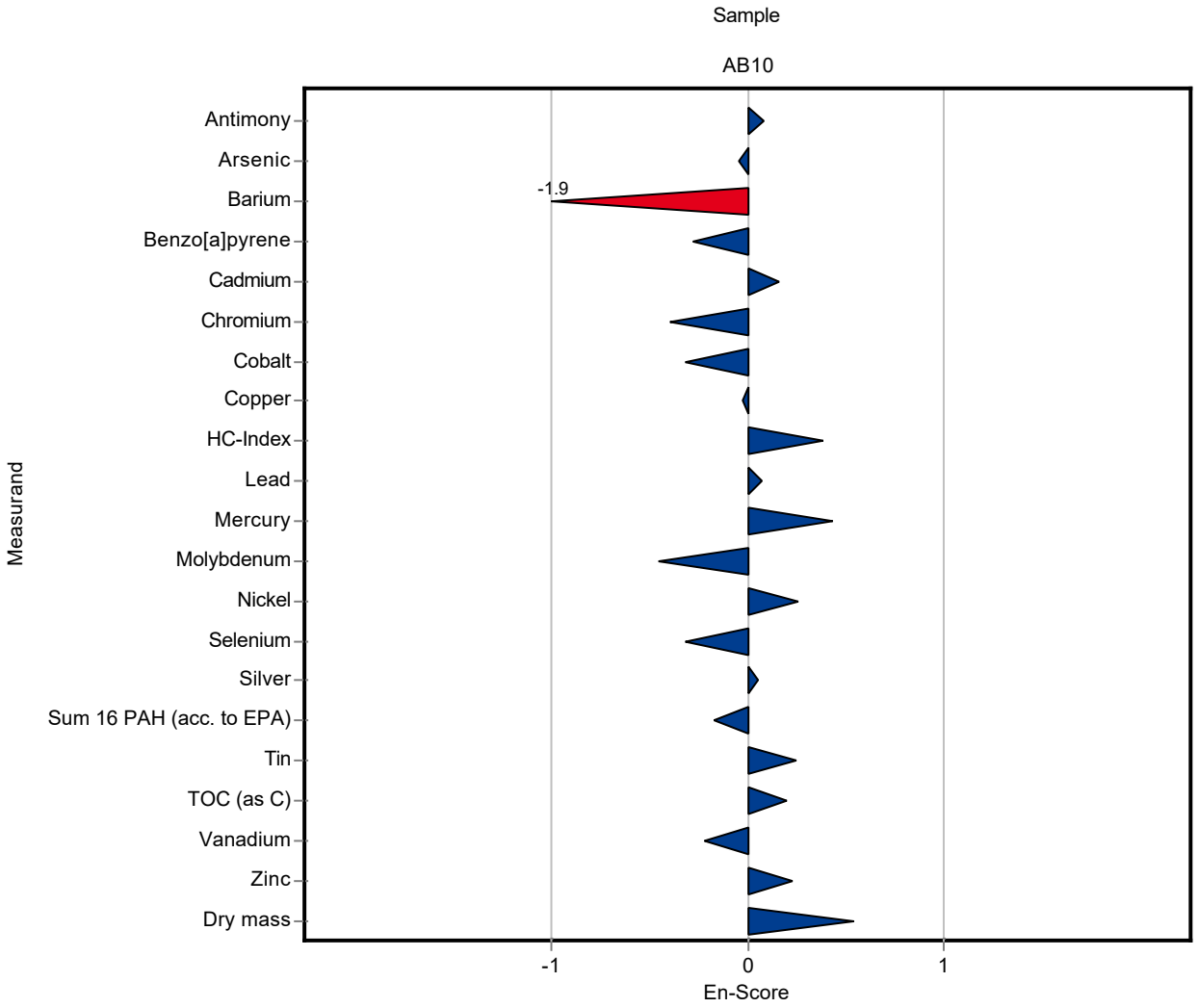
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	205 ± 41	31.6	104	0.23
Arsenic	mg/kg DM	7.94 ± 0.696	7.8 ± 1.56	1.59	98.2	-0.09
Barium	mg/kg DM	1000 ± 139	530 ± 106	281	52.8	-1.69
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.118 ± 0.024	0.0548	88.3	-0.28
Cadmium	mg/kg DM	6.21 ± 0.317	6.65 ± 1.33	0.745	107	0.59
Chromium	mg/kg DM	217 ± 13.4	187 ± 37	32.5	86.2	-0.92
Cobalt	mg/kg DM	25.3 ± 1.54	22.4 ± 4.5	3.55	88.5	-0.82
Copper	mg/kg DM	2970 ± 171	2945 ± 590	416	99.1	-0.06
HC-Index	mg/kg DM	660 ± 114	790 ± 160	238	120	0.55
Lead	mg/kg DM	478 ± 27.2	493 ± 99	62.1	103	0.24
Mercury	mg/kg DM	0.0394 ± 0.00938	0.049 ± 0.01	0.0162	124	0.59
Molybdenum	mg/kg DM	23.6 ± 1.86	19.9 ± 4	4.24	84.4	-0.87
Nickel	mg/kg DM	157 ± 10.1	175 ± 35	23.5	111	0.77
Selenium	mg/kg DM	3.73 ± 0.834	3.25 ± 0.65	1.61	87.1	-0.30
Silver	mg/kg DM	5.83 ± 0.428	5.95 ± 1.19	0.816	102	0.14
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	2.01 ± 0.4	0.56	93.4	-0.26
Tin	mg/kg DM	108 ± 6.68	120 ± 24	14	111	0.85
TOC (as C)	mg/kg DM	33600 ± 1670	35700 ± 5355	3690	106	0.58
Vanadium	mg/kg DM	39 ± 2.27	35.8 ± 7.2	5.07	91.9	-0.63
Zinc	mg/kg DM	3340 ± 206	3680 ± 740	501	110	0.68
Dry mass	%	96.8 ± 0.19	97.9 ± 1	0.968	101	1.11


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Mercury
Molybdenum
Nickel
Selenium
Silver
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
Measurand
-2
0
2
Z-Score

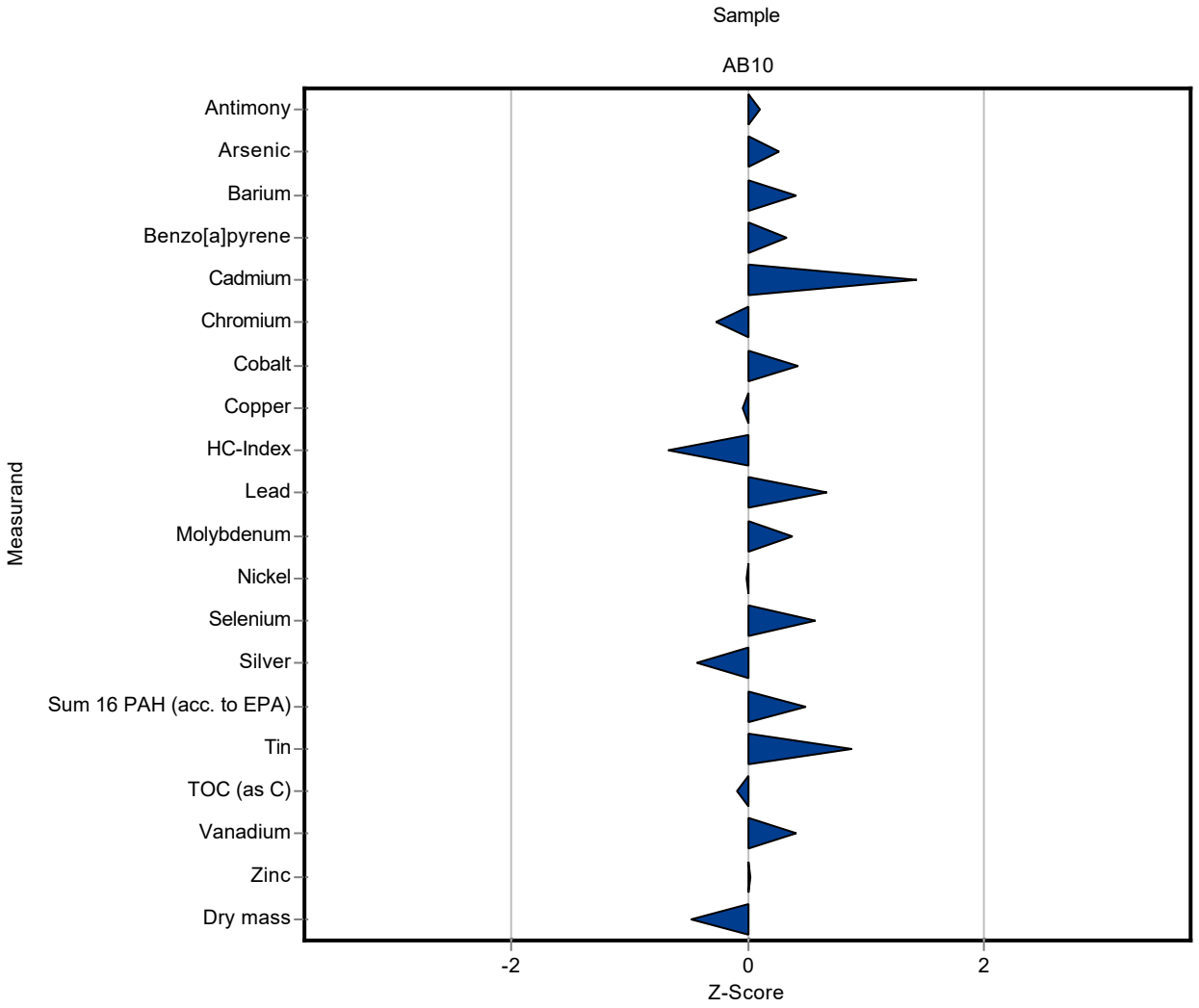
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	205 ± 41	31.6	104	0.09
Arsenic	mg/kg DM	7.94 ± 0.696	7.8 ± 1.56	1.59	98.2	-0.04
Barium	mg/kg DM	1000 ± 139	530 ± 106	281	52.8	-1.87
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.118 ± 0.024	0.0548	88.3	-0.28
Cadmium	mg/kg DM	6.21 ± 0.317	6.65 ± 1.33	0.745	107	0.16
Chromium	mg/kg DM	217 ± 13.4	187 ± 37	32.5	86.2	-0.40
Cobalt	mg/kg DM	25.3 ± 1.54	22.4 ± 4.5	3.55	88.5	-0.32
Copper	mg/kg DM	2970 ± 171	2945 ± 590	416	99.1	-0.02
HC-Index	mg/kg DM	660 ± 114	790 ± 160	238	120	0.38
Lead	mg/kg DM	478 ± 27.2	493 ± 99	62.1	103	0.08
Mercury	mg/kg DM	0.0394 ± 0.00938	0.049 ± 0.01	0.0162	124	0.43
Molybdenum	mg/kg DM	23.6 ± 1.86	19.9 ± 4	4.24	84.4	-0.45
Nickel	mg/kg DM	157 ± 10.1	175 ± 35	23.5	111	0.26
Selenium	mg/kg DM	3.73 ± 0.834	3.25 ± 0.65	1.61	87.1	-0.31
Silver	mg/kg DM	5.83 ± 0.428	5.95 ± 1.19	0.816	102	0.05
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	2.01 ± 0.4	0.56	93.4	-0.17
Tin	mg/kg DM	108 ± 6.68	120 ± 24	14	111	0.25
TOC (as C)	mg/kg DM	33600 ± 1670	35700 ± 5355	3690	106	0.20
Vanadium	mg/kg DM	39 ± 2.27	35.8 ± 7.2	5.07	91.9	-0.22
Zinc	mg/kg DM	3340 ± 206	3680 ± 740	501	110	0.23
Dry mass	%	96.8 ± 0.19	97.9 ± 1	0.968	101	0.54


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Mercury
Molybdenum
Nickel
Selenium
Silver
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
Measurand
-1.9
-1
0
1
En-Score

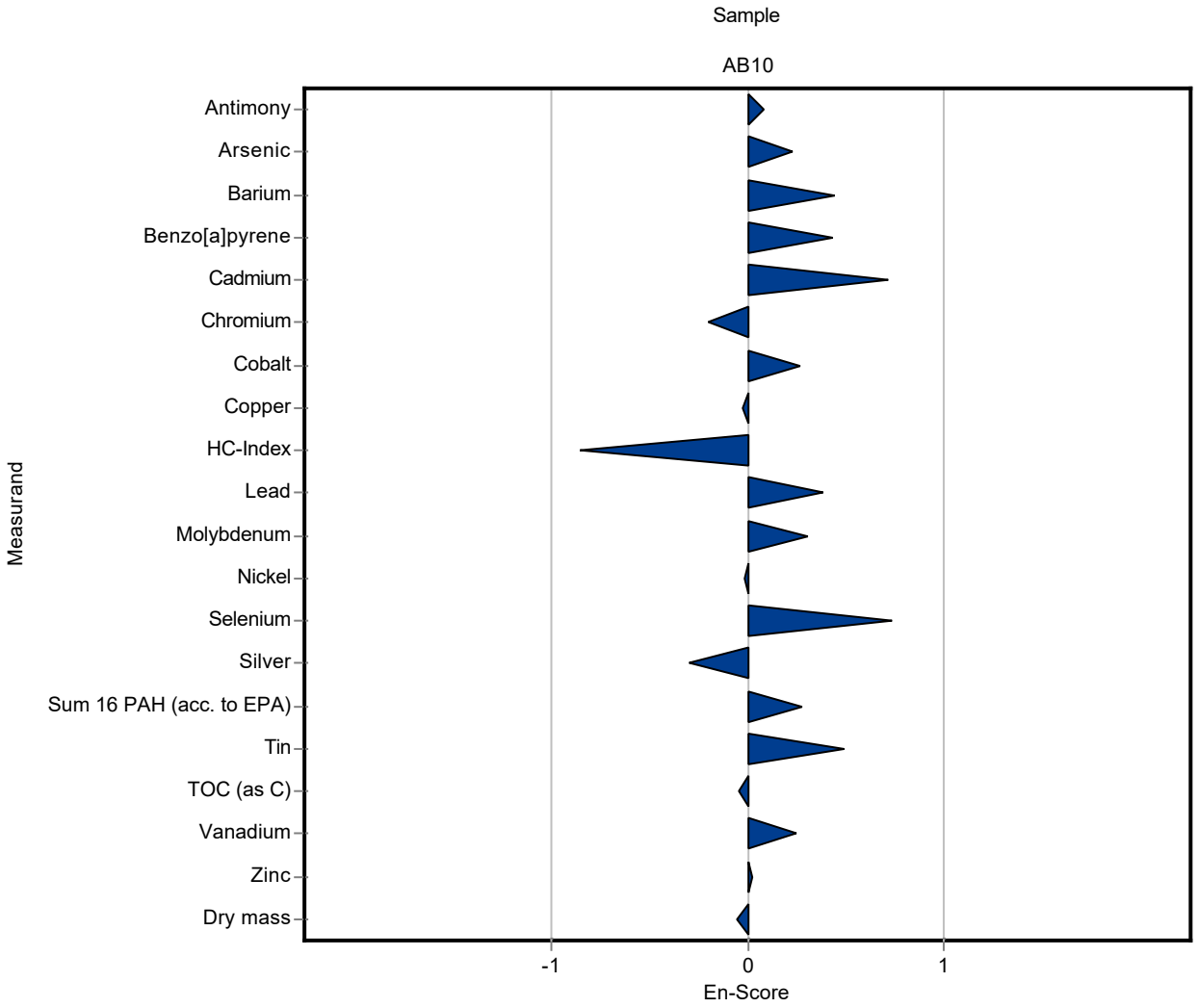
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	201.38 ± 20.138	31.6	102	0.11
Arsenic	mg/kg DM	7.94 ± 0.696	8.351 ± 0.835	1.59	105	0.26
Barium	mg/kg DM	1000 ± 139	1120.048 ± 112.005	281	111	0.41
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.1514 ± 0.0151	0.0548	113	0.32
Cadmium	mg/kg DM	6.21 ± 0.317	7.277 ± 0.728	0.745	117	1.43
Chromium	mg/kg DM	217 ± 13.4	208.178 ± 20.818	32.5	96	-0.27
Cobalt	mg/kg DM	25.3 ± 1.54	26.829 ± 2.683	3.55	106	0.42
Copper	mg/kg DM	2970 ± 171	2957.248 ± 295.725	416	99.5	-0.03
HC-Index	mg/kg DM	660 ± 114	499.956 ± 74.993	238	75.7	-0.68
Lead	mg/kg DM	478 ± 27.2	519.734 ± 51.973	62.1	109	0.67
Mercury	mg/kg DM	0.0394 ± 0.00938	<0.07 (LOQ) ± -	0.0162	-	-
Molybdenum	mg/kg DM	23.6 ± 1.86	25.202 ± 2.5202	4.24	107	0.38
Nickel	mg/kg DM	157 ± 10.1	156.593 ± 15.659	23.5	99.8	-0.02
Selenium	mg/kg DM	3.73 ± 0.834	4.647 ± 0.465	1.61	124	0.57
Silver	mg/kg DM	5.83 ± 0.428	5.484 ± 0.548	0.816	94	-0.43
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	2.4312 ± 0.486	0.56	113	0.50
Tin	mg/kg DM	108 ± 6.68	120.342 ± 12.034	14	111	0.88
TOC (as C)	mg/kg DM	33600 ± 1670	33202.6 ± 4316.3	3690	99	-0.09
Vanadium	mg/kg DM	39 ± 2.27	41.054 ± 4.105	5.07	105	0.41
Zinc	mg/kg DM	3340 ± 206	3355.175 ± 335.518	501	100	0.03
Dry mass	%	96.8 ± 0.19	96.36 ± 4.34	0.968	99.5	-0.48


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Molybdenum
Nickel
Selenium
Silver
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
Measurand
-2
0
2
Z-Score

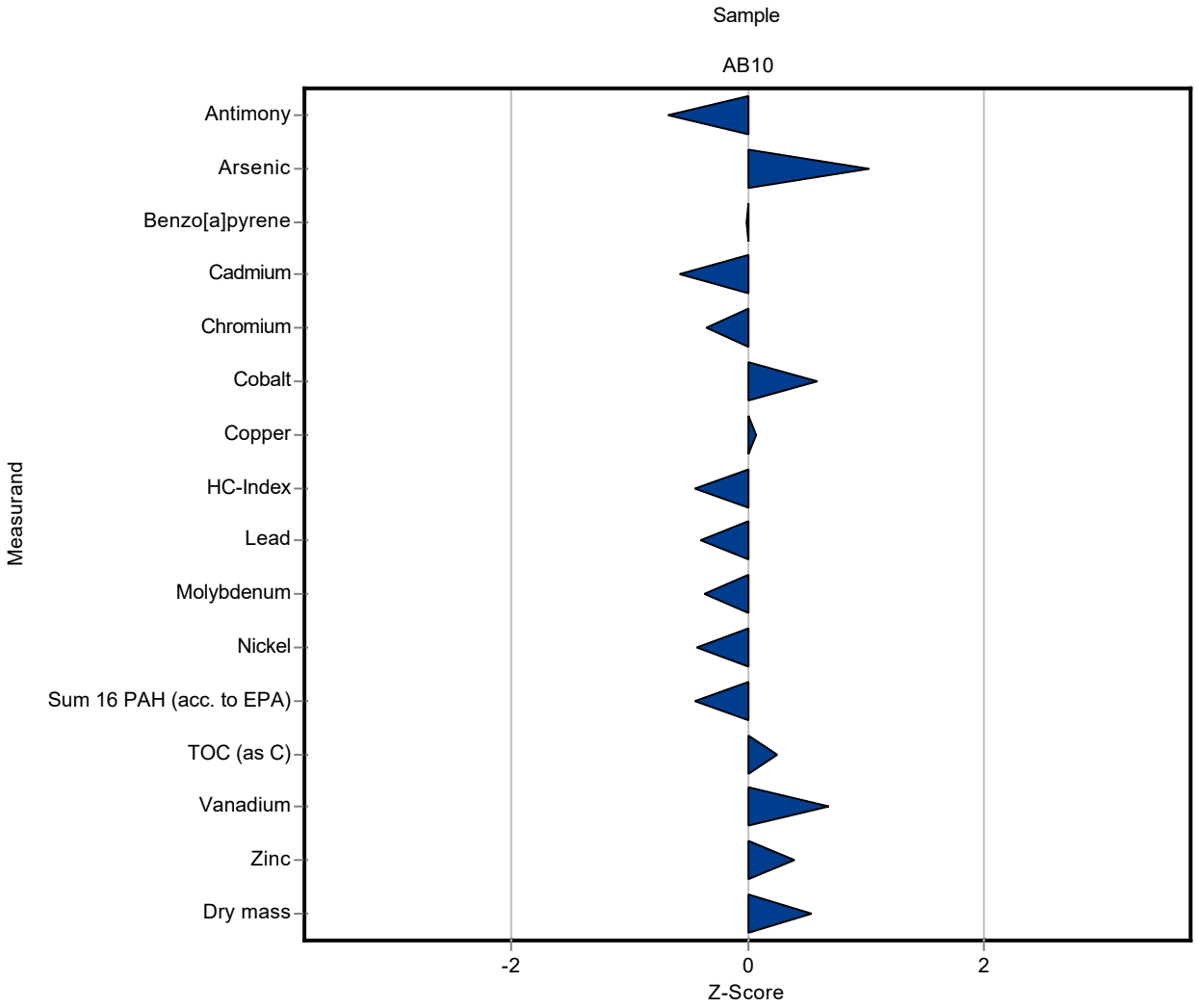
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	201.38 ± 20.138	31.6	102	0.08
Arsenic	mg/kg DM	7.94 ± 0.696	8.351 ± 0.835	1.59	105	0.23
Barium	mg/kg DM	1000 ± 139	1120.048 ± 112.005	281	111	0.44
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.1514 ± 0.0151	0.0548	113	0.43
Cadmium	mg/kg DM	6.21 ± 0.317	7.277 ± 0.728	0.745	117	0.71
Chromium	mg/kg DM	217 ± 13.4	208.178 ± 20.818	32.5	96	-0.20
Cobalt	mg/kg DM	25.3 ± 1.54	26.829 ± 2.683	3.55	106	0.27
Copper	mg/kg DM	2970 ± 171	2957.248 ± 295.725	416	99.5	-0.02
HC-Index	mg/kg DM	660 ± 114	499.956 ± 74.993	238	75.7	-0.85
Lead	mg/kg DM	478 ± 27.2	519.734 ± 51.973	62.1	109	0.39
Mercury	mg/kg DM	0.0394 ± 0.00938	<0.07 (LOQ) ± -	0.0162	-	-
Molybdenum	mg/kg DM	23.6 ± 1.86	25.202 ± 2.5202	4.24	107	0.30
Nickel	mg/kg DM	157 ± 10.1	156.593 ± 15.659	23.5	99.8	-0.01
Selenium	mg/kg DM	3.73 ± 0.834	4.647 ± 0.465	1.61	124	0.73
Silver	mg/kg DM	5.83 ± 0.428	5.484 ± 0.548	0.816	94	-0.30
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	2.4312 ± 0.486	0.56	113	0.28
Tin	mg/kg DM	108 ± 6.68	120.342 ± 12.034	14	111	0.49
TOC (as C)	mg/kg DM	33600 ± 1670	33202.6 ± 4316.3	3690	99	-0.04
Vanadium	mg/kg DM	39 ± 2.27	41.054 ± 4.105	5.07	105	0.24
Zinc	mg/kg DM	3340 ± 206	3355.175 ± 335.518	501	100	0.02
Dry mass	%	96.8 ± 0.19	96.36 ± 4.34	0.968	99.5	-0.05


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Molybdenum
Nickel
Selenium
Silver
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
Measurand
-1
0
1
En-Score

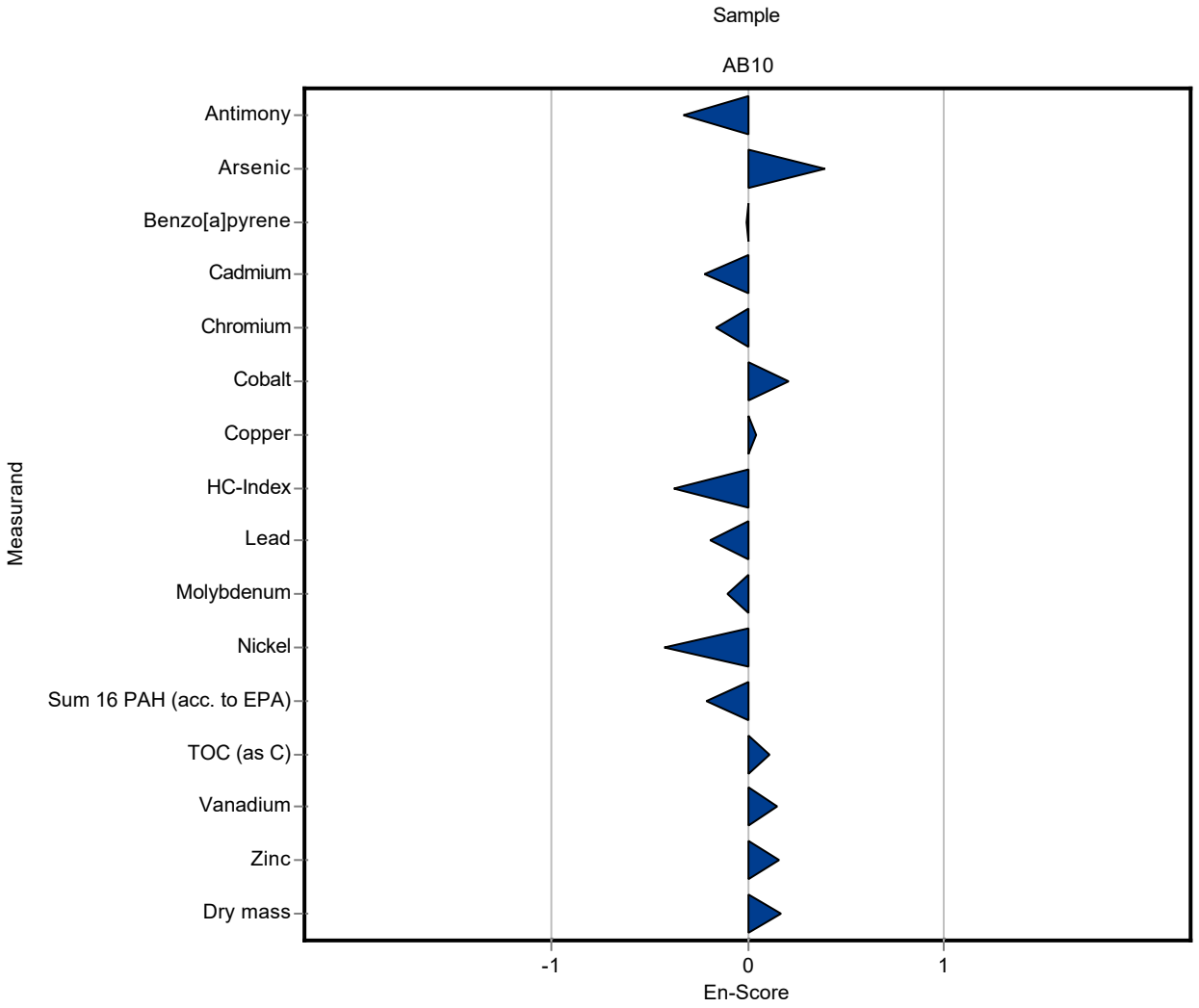
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	176.7 ± 31.1	31.6	89.3	-0.67
Arsenic	mg/kg DM	7.94 ± 0.696	9.562 ± 2.01	1.59	120	1.02
Barium	mg/kg DM	1000 ± 139	- ± -	281	-	-
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.1332 ± 0.032	0.0548	99.7	-0.01
Cadmium	mg/kg DM	6.21 ± 0.317	5.786 ± 0.98	0.745	93.1	-0.57
Chromium	mg/kg DM	217 ± 13.4	205.4 ± 34.7	32.5	94.7	-0.35
Cobalt	mg/kg DM	25.3 ± 1.54	27.43 ± 4.88	3.55	108	0.59
Copper	mg/kg DM	2970 ± 171	3001 ± 333	416	101	0.07
HC-Index	mg/kg DM	660 ± 114	554.3 ± 129	238	83.9	-0.45
Lead	mg/kg DM	478 ± 27.2	452.8 ± 65.7	62.1	94.7	-0.41
Mercury	mg/kg DM	0.0394 ± 0.00938	<0.05 (LOQ) ± -	0.0162	-	-
Molybdenum	mg/kg DM	23.6 ± 1.86	22.04 ± 7.78	4.24	93.5	-0.36
Nickel	mg/kg DM	157 ± 10.1	146.7 ± 11.2	23.5	93.5	-0.44
Selenium	mg/kg DM	3.73 ± 0.834	<5 (LOQ) ± -	1.61	-	-
Silver	mg/kg DM	5.83 ± 0.428	- ± -	0.816	-	-
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	1.903 ± 0.592	0.56	88.4	-0.45
Tin	mg/kg DM	108 ± 6.68	- ± -	14	-	-
TOC (as C)	mg/kg DM	33600 ± 1670	34500 ± 4240	3690	103	0.26
Vanadium	mg/kg DM	39 ± 2.27	42.49 ± 11.9	5.07	109	0.70
Zinc	mg/kg DM	3340 ± 206	3538 ± 591	501	106	0.39
Dry mass	%	96.8 ± 0.19	97.35 ± 1.56	0.968	101	0.55


Sample
AB10
Measurand
Antimony
Arsenic
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Molybdenum
Nickel
Sum 16 PAH (acc. to EPA)
TOC (as C)
Vanadium
Zinc
Dry mass
-2
0
2
Z-Score

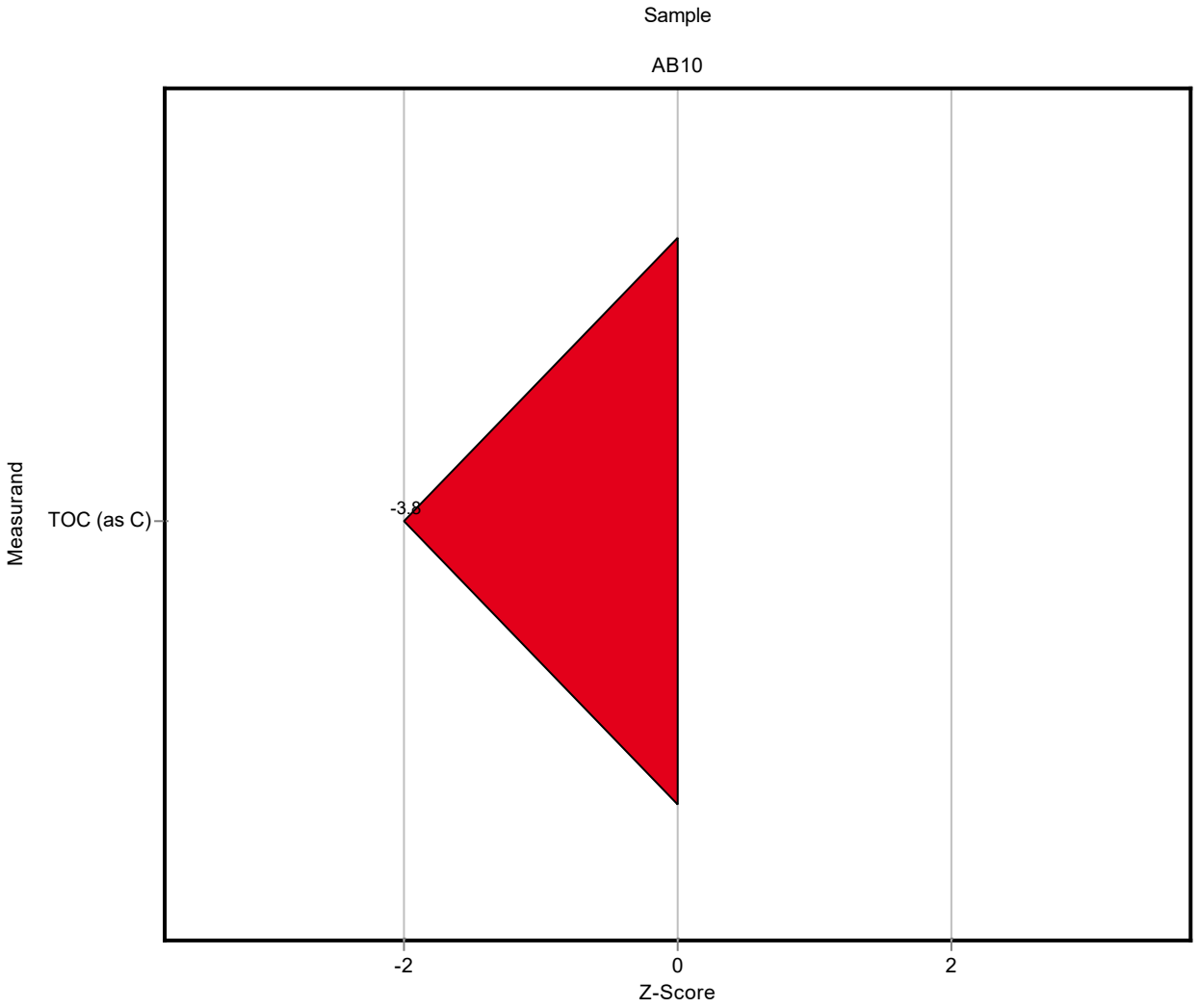
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	176.7 ± 31.1	31.6	89.3	-0.33
Arsenic	mg/kg DM	7.94 ± 0.696	9.562 ± 2.01	1.59	120	0.40
Barium	mg/kg DM	1000 ± 139	- ± -	281	-	-
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.1332 ± 0.032	0.0548	99.7	-0.01
Cadmium	mg/kg DM	6.21 ± 0.317	5.786 ± 0.98	0.745	93.1	-0.21
Chromium	mg/kg DM	217 ± 13.4	205.4 ± 34.7	32.5	94.7	-0.16
Cobalt	mg/kg DM	25.3 ± 1.54	27.43 ± 4.88	3.55	108	0.21
Copper	mg/kg DM	2970 ± 171	3001 ± 333	416	101	0.04
HC-Index	mg/kg DM	660 ± 114	554.3 ± 129	238	83.9	-0.38
Lead	mg/kg DM	478 ± 27.2	452.8 ± 65.7	62.1	94.7	-0.19
Mercury	mg/kg DM	0.0394 ± 0.00938	<0.05 (LOQ) ± -	0.0162	-	-
Molybdenum	mg/kg DM	23.6 ± 1.86	22.04 ± 7.78	4.24	93.5	-0.10
Nickel	mg/kg DM	157 ± 10.1	146.7 ± 11.2	23.5	93.5	-0.42
Selenium	mg/kg DM	3.73 ± 0.834	<5 (LOQ) ± -	1.61	-	-
Silver	mg/kg DM	5.83 ± 0.428	- ± -	0.816	-	-
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	1.903 ± 0.592	0.56	88.4	-0.21
Tin	mg/kg DM	108 ± 6.68	- ± -	14	-	-
TOC (as C)	mg/kg DM	33600 ± 1670	34500 ± 4240	3690	103	0.11
Vanadium	mg/kg DM	39 ± 2.27	42.49 ± 11.9	5.07	109	0.15
Zinc	mg/kg DM	3340 ± 206	3538 ± 591	501	106	0.16
Dry mass	%	96.8 ± 0.19	97.35 ± 1.56	0.968	101	0.17


Sample
AB10
Antimony
Arsenic
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Molybdenum
Nickel
Sum 16 PAH (acc. to EPA)
TOC (as C)
Vanadium
Zinc
Dry mass
Measurand
-1
0
1
En-Score

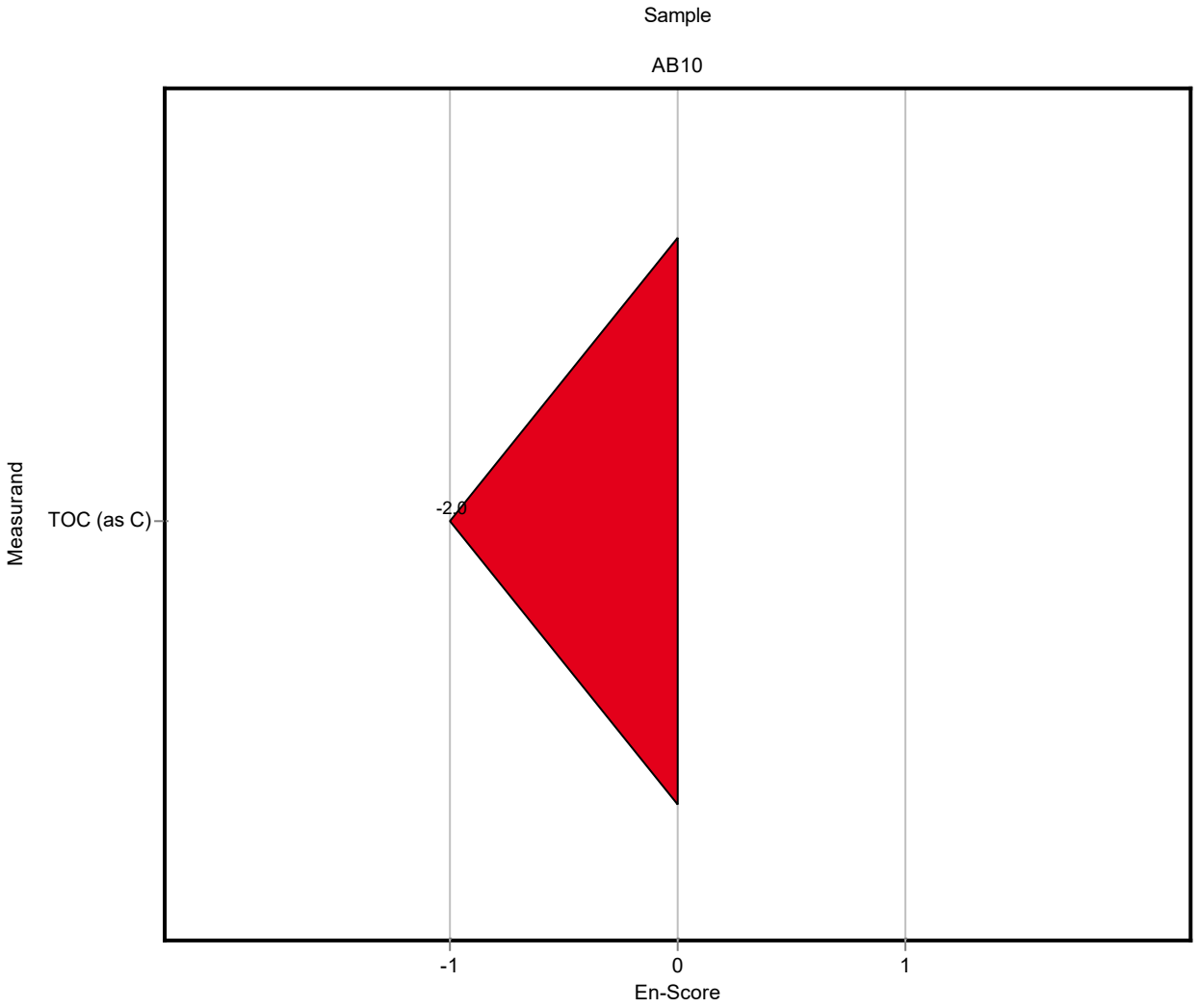
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	- ± -	31.6	-	-
Arsenic	mg/kg DM	7.94 ± 0.696	- ± -	1.59	-	-
Barium	mg/kg DM	1000 ± 139	- ± -	281	-	-
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	- ± -	0.0548	-	-
Cadmium	mg/kg DM	6.21 ± 0.317	- ± -	0.745	-	-
Chromium	mg/kg DM	217 ± 13.4	- ± -	32.5	-	-
Cobalt	mg/kg DM	25.3 ± 1.54	- ± -	3.55	-	-
Copper	mg/kg DM	2970 ± 171	- ± -	416	-	-
HC-Index	mg/kg DM	660 ± 114	- ± -	238	-	-
Lead	mg/kg DM	478 ± 27.2	- ± -	62.1	-	-
Mercury	mg/kg DM	0.0394 ± 0.00938	- ± -	0.0162	-	-
Molybdenum	mg/kg DM	23.6 ± 1.86	- ± -	4.24	-	-
Nickel	mg/kg DM	157 ± 10.1	- ± -	23.5	-	-
Selenium	mg/kg DM	3.73 ± 0.834	- ± -	1.61	-	-
Silver	mg/kg DM	5.83 ± 0.428	- ± -	0.816	-	-
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	- ± -	0.56	-	-
Tin	mg/kg DM	108 ± 6.68	- ± -	14	-	-
TOC (as C)	mg/kg DM	33600 ± 1670	19351 ± 3497	3690	57.7	-3.85
Vanadium	mg/kg DM	39 ± 2.27	- ± -	5.07	-	-
Zinc	mg/kg DM	3340 ± 206	- ± -	501	-	-
Dry mass	%	96.8 ± 0.19	- ± -	0.968	-	-


Sample
AB10
Measurand
TOC (as C)
-3.8
-2
0
2
Z-Score

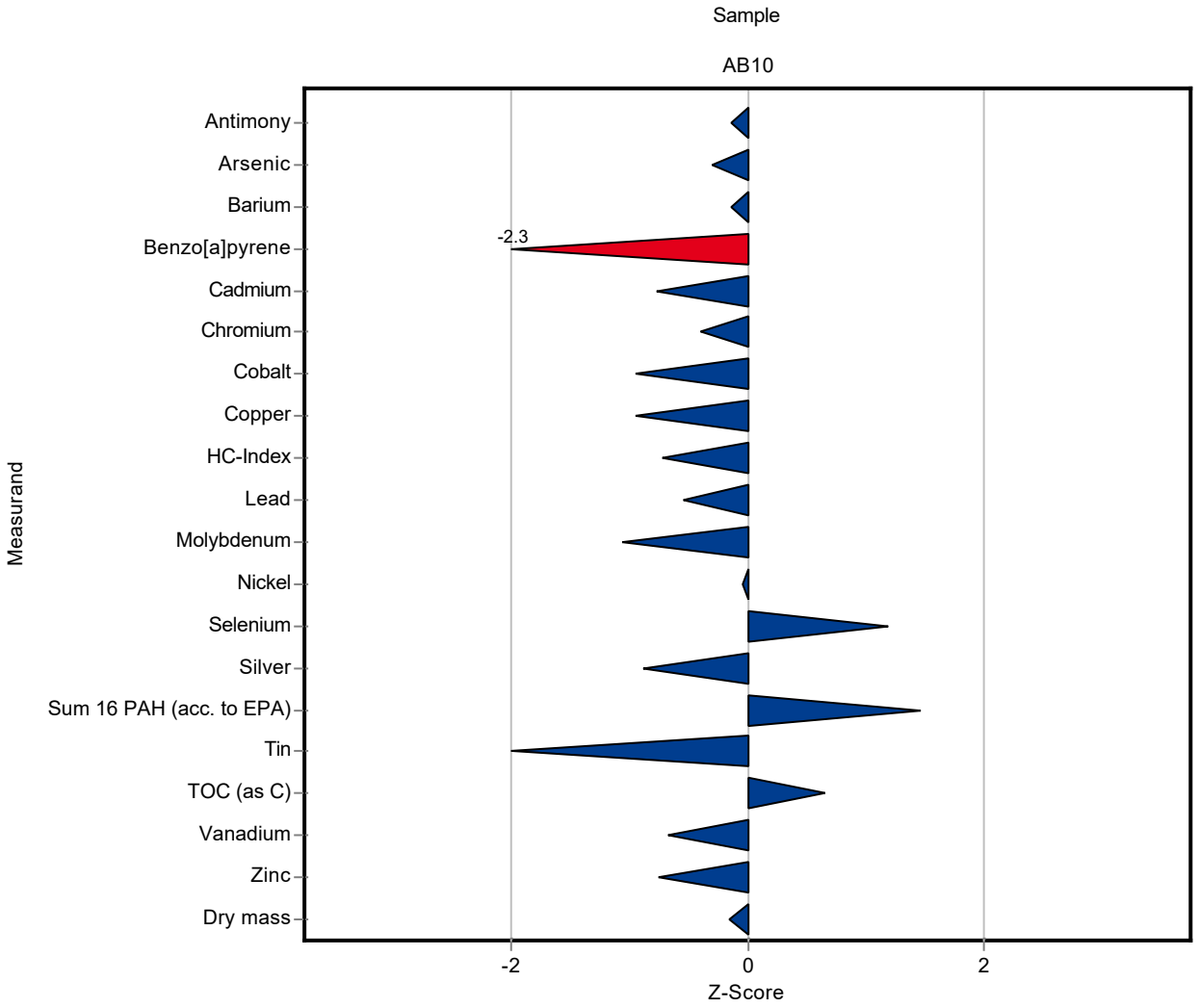
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	- ± -	31.6	-	-
Arsenic	mg/kg DM	7.94 ± 0.696	- ± -	1.59	-	-
Barium	mg/kg DM	1000 ± 139	- ± -	281	-	-
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	- ± -	0.0548	-	-
Cadmium	mg/kg DM	6.21 ± 0.317	- ± -	0.745	-	-
Chromium	mg/kg DM	217 ± 13.4	- ± -	32.5	-	-
Cobalt	mg/kg DM	25.3 ± 1.54	- ± -	3.55	-	-
Copper	mg/kg DM	2970 ± 171	- ± -	416	-	-
HC-Index	mg/kg DM	660 ± 114	- ± -	238	-	-
Lead	mg/kg DM	478 ± 27.2	- ± -	62.1	-	-
Mercury	mg/kg DM	0.0394 ± 0.00938	- ± -	0.0162	-	-
Molybdenum	mg/kg DM	23.6 ± 1.86	- ± -	4.24	-	-
Nickel	mg/kg DM	157 ± 10.1	- ± -	23.5	-	-
Selenium	mg/kg DM	3.73 ± 0.834	- ± -	1.61	-	-
Silver	mg/kg DM	5.83 ± 0.428	- ± -	0.816	-	-
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	- ± -	0.56	-	-
Tin	mg/kg DM	108 ± 6.68	- ± -	14	-	-
TOC (as C)	mg/kg DM	33600 ± 1670	19351 ± 3497	3690	57.7	-1.97
Vanadium	mg/kg DM	39 ± 2.27	- ± -	5.07	-	-
Zinc	mg/kg DM	3340 ± 206	- ± -	501	-	-
Dry mass	%	96.8 ± 0.19	- ± -	0.968	-	-


Sample
AB10
Measurand
TOC (as C)
-2.0
-1
0
1
En-Score

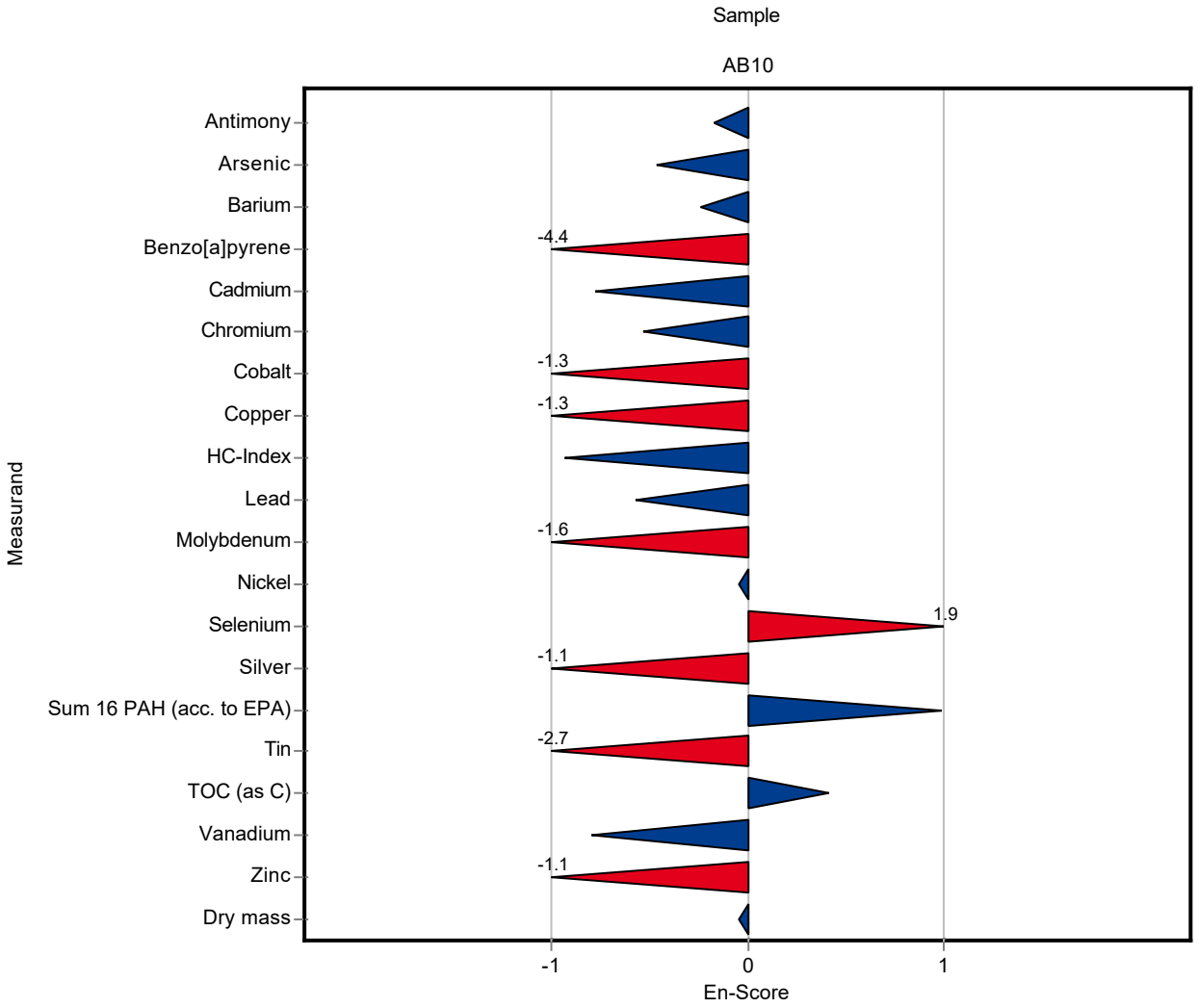
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	193.582 ± 9.7	31.6	97.9	-0.13
Arsenic	mg/kg DM	7.94 ± 0.696	7.468 ± 0.37	1.59	94.1	-0.30
Barium	mg/kg DM	1000 ± 139	963.598 ± 48.2	281	95.9	-0.15
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.01 ± 0.0011	0.0548	7.48	-2.26
Cadmium	mg/kg DM	6.21 ± 0.317	5.633 ± 0.34	0.745	90.7	-0.78
Chromium	mg/kg DM	217 ± 13.4	203.898 ± 10.2	32.5	94	-0.40
Cobalt	mg/kg DM	25.3 ± 1.54	21.936 ± 1.1	3.55	86.6	-0.96
Copper	mg/kg DM	2970 ± 171	2577.86 ± 129	416	86.8	-0.94
HC-Index	mg/kg DM	660 ± 114	487.34 ± 73.5	238	73.8	-0.73
Lead	mg/kg DM	478 ± 27.2	443.761 ± 26.6	62.1	92.8	-0.55
Mercury	mg/kg DM	0.0394 ± 0.00938	<0.05 (LOQ) ± -	0.0162	-	-
Molybdenum	mg/kg DM	23.6 ± 1.86	19.083 ± 1.1	4.24	80.9	-1.06
Nickel	mg/kg DM	157 ± 10.1	155.947 ± 9.4	23.5	99.3	-0.04
Selenium	mg/kg DM	3.73 ± 0.834	5.653 ± 0.28	1.61	151	1.20
Silver	mg/kg DM	5.83 ± 0.428	5.107 ± 0.26	0.816	87.6	-0.89
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	2.97 ± 0.39	0.56	138	1.46
Tin	mg/kg DM	108 ± 6.68	80.026 ± 4	14	74.1	-2.00
TOC (as C)	mg/kg DM	33600 ± 1670	36000 ± 2880	3690	107	0.66
Vanadium	mg/kg DM	39 ± 2.27	35.585 ± 1.8	5.07	91.3	-0.67
Zinc	mg/kg DM	3340 ± 206	2960.422 ± 148	501	88.6	-0.76
Dry mass	%	96.8 ± 0.19	96.68 ± 1.7	0.968	99.9	-0.15


Sample
AB10
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Molybdenum
Nickel
Selenium
Silver
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
Measurand
-2.3
-2
0
2
Z-Score

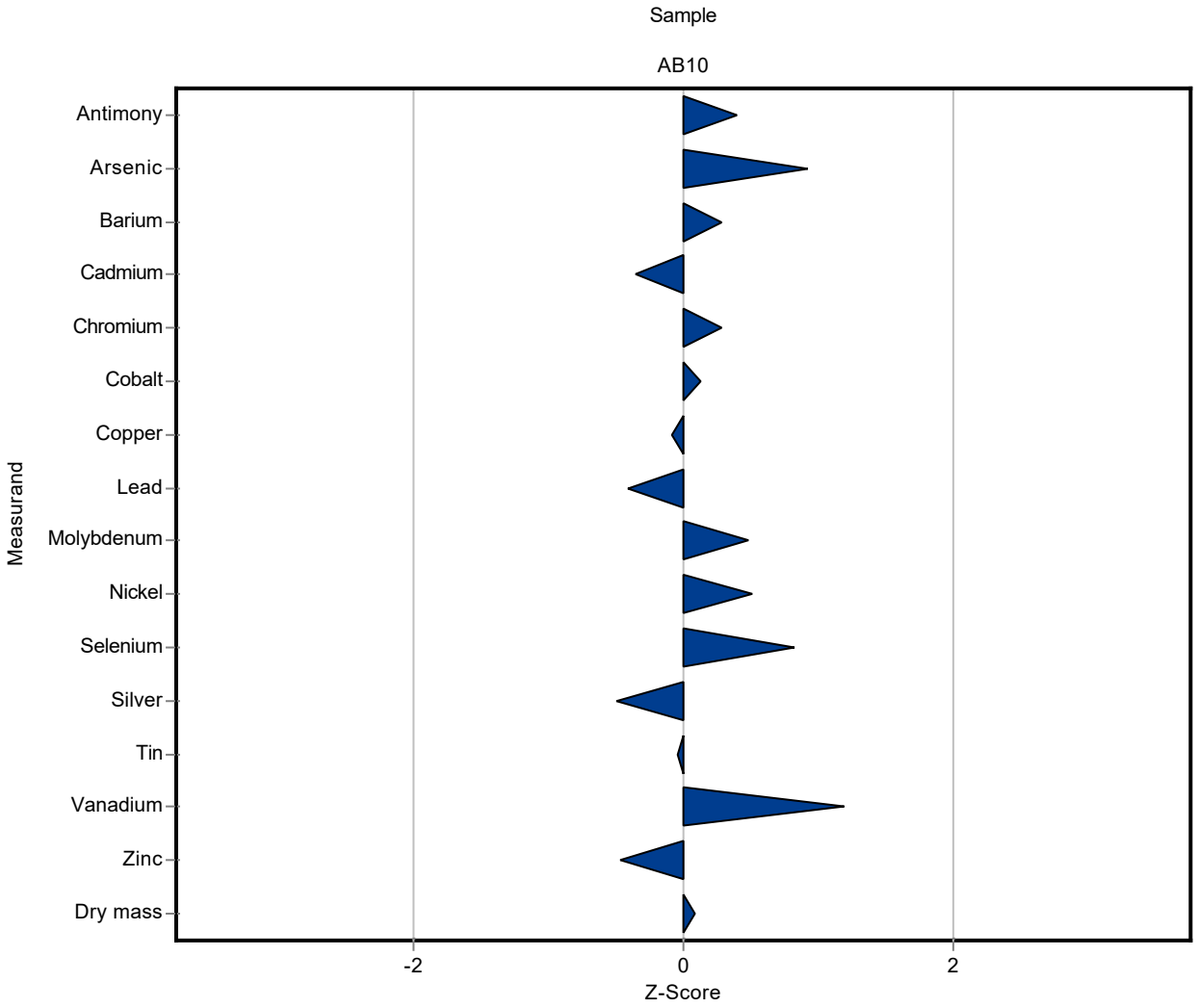
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	193.582 ± 9.7	31.6	97.9	-0.17
Arsenic	mg/kg DM	7.94 ± 0.696	7.468 ± 0.37	1.59	94.1	-0.46
Barium	mg/kg DM	1000 ± 139	963.598 ± 48.2	281	95.9	-0.24
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	0.01 ± 0.0011	0.0548	7.48	-4.39
Cadmium	mg/kg DM	6.21 ± 0.317	5.633 ± 0.34	0.745	90.7	-0.77
Chromium	mg/kg DM	217 ± 13.4	203.898 ± 10.2	32.5	94	-0.53
Cobalt	mg/kg DM	25.3 ± 1.54	21.936 ± 1.1	3.55	86.6	-1.26
Copper	mg/kg DM	2970 ± 171	2577.86 ± 129	416	86.8	-1.27
HC-Index	mg/kg DM	660 ± 114	487.34 ± 73.5	238	73.8	-0.93
Lead	mg/kg DM	478 ± 27.2	443.761 ± 26.6	62.1	92.8	-0.57
Mercury	mg/kg DM	0.0394 ± 0.00938	<0.05 (LOQ) ± -	0.0162	-	-
Molybdenum	mg/kg DM	23.6 ± 1.86	19.083 ± 1.1	4.24	80.9	-1.56
Nickel	mg/kg DM	157 ± 10.1	155.947 ± 9.4	23.5	99.3	-0.05
Selenium	mg/kg DM	3.73 ± 0.834	5.653 ± 0.28	1.61	151	1.91
Silver	mg/kg DM	5.83 ± 0.428	5.107 ± 0.26	0.816	87.6	-1.08
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	2.97 ± 0.39	0.56	138	0.99
Tin	mg/kg DM	108 ± 6.68	80.026 ± 4	14	74.1	-2.69
TOC (as C)	mg/kg DM	33600 ± 1670	36000 ± 2880	3690	107	0.41
Vanadium	mg/kg DM	39 ± 2.27	35.585 ± 1.8	5.07	91.3	-0.79
Zinc	mg/kg DM	3340 ± 206	2960.422 ± 148	501	88.6	-1.06
Dry mass	%	96.8 ± 0.19	96.68 ± 1.7	0.968	99.9	-0.04


Sample
AB10
Measurand
Antimony
Arsenic
Barium
Benzo[a]pyrene
Cadmium
Chromium
Cobalt
Copper
HC-Index
Lead
Molybdenum
Nickel
Selenium
Silver
Sum 16 PAH (acc. to EPA)
Tin
TOC (as C)
Vanadium
Zinc
Dry mass
-4.4
-1.3
-1.3
-1.6
1.9
-1.1
-2.7
-1.1
-1
0
1
En-Score

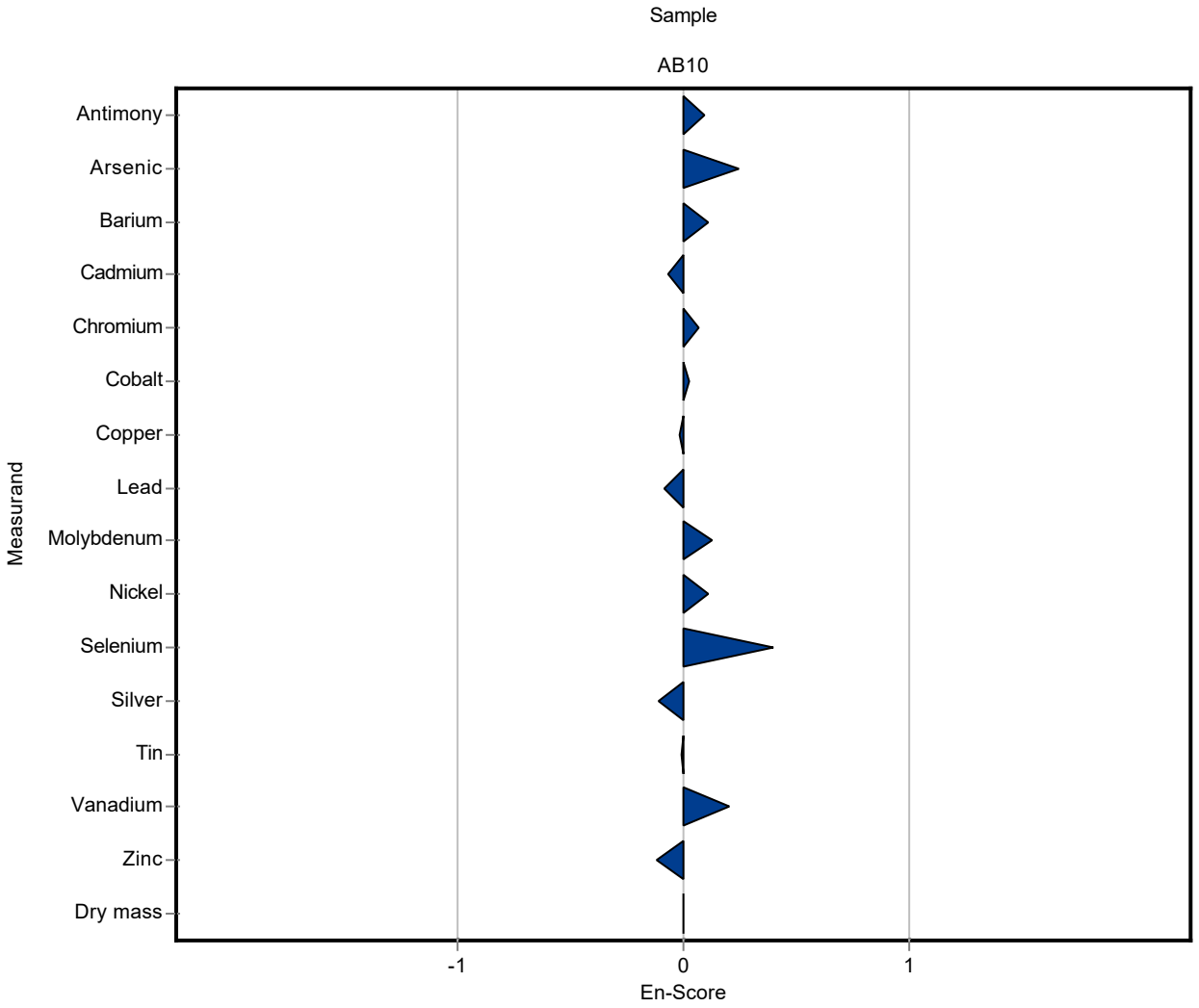
Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Antimony	mg/kg DM	198 ± 14.5	210.36 ± 67.3	31.6	106	0.40
Arsenic	mg/kg DM	7.94 ± 0.696	9.41 ± 3.01	1.59	119	0.93
Barium	mg/kg DM	1000 ± 139	1085.34 ± 347	281	108	0.29
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	- ± -	0.0548	-	-
Cadmium	mg/kg DM	6.21 ± 0.317	5.95 ± 1.9	0.745	95.8	-0.35
Chromium	mg/kg DM	217 ± 13.4	226.23 ± 72.4	32.5	104	0.29
Cobalt	mg/kg DM	25.3 ± 1.54	25.76 ± 8.24	3.55	102	0.12
Copper	mg/kg DM	2970 ± 171	2937.88 ± 940	416	98.9	-0.08
HC-Index	mg/kg DM	660 ± 114	- ± -	238	-	-
Lead	mg/kg DM	478 ± 27.2	452.59 ± 145	62.1	94.7	-0.41
Mercury	mg/kg DM	0.0394 ± 0.00938	<0.1 (LOQ) ± -	0.0162	-	-
Molybdenum	mg/kg DM	23.6 ± 1.86	25.63 ± 8.2	4.24	109	0.48
Nickel	mg/kg DM	157 ± 10.1	169.08 ± 54.1	23.5	108	0.51
Selenium	mg/kg DM	3.73 ± 0.834	5.06 ± 1.62	1.61	136	0.83
Silver	mg/kg DM	5.83 ± 0.428	5.43 ± 1.74	0.816	93.1	-0.49
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	- ± -	0.56	-	-
Tin	mg/kg DM	108 ± 6.68	107.47 ± 34.4	14	99.5	-0.04
TOC (as C)	mg/kg DM	33600 ± 1670	- ± -	3690	-	-
Vanadium	mg/kg DM	39 ± 2.27	44.95 ± 14.4	5.07	115	1.18
Zinc	mg/kg DM	3340 ± 206	3110.1 ± 995	501	93.1	-0.46
Dry mass	%	96.8 ± 0.19	96.9 ± 9.69	0.968	100	0.08


Sample
AB10
Antimony
Arsenic
Barium
Cadmium
Chromium
Cobalt
Copper
Lead
Molybdenum
Nickel
Selenium
Silver
Tin
Vanadium
Zinc
Dry mass
Measurand
-2
0
2
Z-Score

Sample: AB10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Antimony	mg/kg DM	198 ± 14.5	210.36 ± 67.3	31.6	106	0.09
Arsenic	mg/kg DM	7.94 ± 0.696	9.41 ± 3.01	1.59	119	0.24
Barium	mg/kg DM	1000 ± 139	1085.34 ± 347	281	108	0.11
Benzo[a]pyrene	mg/kg DM	0.134 ± 0.0281	- ± -	0.0548	-	-
Cadmium	mg/kg DM	6.21 ± 0.317	5.95 ± 1.9	0.745	95.8	-0.07
Chromium	mg/kg DM	217 ± 13.4	226.23 ± 72.4	32.5	104	0.06
Cobalt	mg/kg DM	25.3 ± 1.54	25.76 ± 8.24	3.55	102	0.03
Copper	mg/kg DM	2970 ± 171	2937.88 ± 940	416	98.9	-0.02
HC-Index	mg/kg DM	660 ± 114	- ± -	238	-	-
Lead	mg/kg DM	478 ± 27.2	452.59 ± 145	62.1	94.7	-0.09
Mercury	mg/kg DM	0.0394 ± 0.00938	<0.1 (LOQ) ± -	0.0162	-	-
Molybdenum	mg/kg DM	23.6 ± 1.86	25.63 ± 8.2	4.24	109	0.12
Nickel	mg/kg DM	157 ± 10.1	169.08 ± 54.1	23.5	108	0.11
Selenium	mg/kg DM	3.73 ± 0.834	5.06 ± 1.62	1.61	136	0.40
Silver	mg/kg DM	5.83 ± 0.428	5.43 ± 1.74	0.816	93.1	-0.12
Sum 16 PAH (acc. to EPA)	mg/kg DM	2.15 ± 0.271	- ± -	0.56	-	-
Tin	mg/kg DM	108 ± 6.68	107.47 ± 34.4	14	99.5	-0.01
TOC (as C)	mg/kg DM	33600 ± 1670	- ± -	3690	-	-
Vanadium	mg/kg DM	39 ± 2.27	44.95 ± 14.4	5.07	115	0.21
Zinc	mg/kg DM	3340 ± 206	3110.1 ± 995	501	93.1	-0.12
Dry mass	%	96.8 ± 0.19	96.9 ± 9.69	0.968	100	0.00


Sample
AB10
Antimony
Arsenic
Barium
Cadmium
Chromium
Cobalt
Copper
Lead
Molybdenum
Nickel
Selenium
Silver
Tin
Vanadium
Zinc
Dry mass
Measurand
-1
0
1
En-Score

E9. Methodenübersicht / Overview of methods

LabCode	Sample	Ag Silber	As Arsen	Cd Cadmium	Cr Chrom	Cu Kupfer	Hg Quecksilber
LC0001	AB10	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	
LC0002	AB10	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	EPA 7473;
LC0003	AB10	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	AFS; EN ISO 17852
LC0004	AB10	House method;	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ISO 16772;
LC0005	AB10	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885
LC0006	AB10	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2
LC0007	AB10						
LC0008	AB10	ICP-OES; EN 16170	ICP-OES; EN 16170	ICP-OES; EN 16170	ICP-OES; EN 16170	ICP-OES; EN 16170	CV-AAS; EN ISO 12846
LC0009	AB10		ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	
LC0010	AB10	ICP-OES; EN ISO 11885	AAS (Hydride); EN ISO 11969	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	CV-AAS; EN ISO 12846
LC0011	AB10	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	CV-AAS; EN 16175-1
LC0012	AB10		ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES (Hydride); EN ISO 11885
LC0013	AB10	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	CV-AAS; EN ISO 12846
LC0014	AB10	ICP-OES;	ICP-OES;	ICP-OES;	ICP-OES;	ICP-OES;	ICP-MS;
LC0015	AB10	ICP-MS; EN 16171	ICP-MS; EN 16171	ICP-MS; EN 16171	ICP-MS; EN 16171	ICP-MS; EN 16171	ICP-MS; EN 16171
LC0016	AB10	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2
LC0017	AB10			ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	CV-AAS; EN ISO 12846
LC0018	AB10	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ISO 16772;
LC0019	AB10	ICP-MS; EN 16171	ICP-MS; EN 16171	ICP-MS; EN 16171	ICP-MS; EN 16171	ICP-OES; EN 16170	CV-AAS; EN 16175-1
LC0020	AB10	ICP-OES; EN ISO 11885	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	CV-AAS; EN ISO 12846
LC0021	AB10	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	CV-AAS; EN ISO 12846
LC0022	AB10		ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	AFS; EN ISO 17852
LC0023	AB10						
LC0024	AB10	ICP-MS; EN ISO 17294-2/EN 16171	ICP-MS; EN ISO 17294-2/EN 16171	ICP-MS; EN ISO 17294-2/EN 16171	ICP-MS; EN ISO 17294-2/EN 16171	ICP-MS; EN ISO 17294-2/EN 16171	ICP-MS; EN ISO 17294-2/EN 16171
LC0025	AB10	ICP-MS; EN ISO 17294-2; EN 13657	ICP-MS; EN ISO 17294-2; EN 13657	ICP-MS; EN ISO 17294-2; EN 13657	ICP-MS; EN ISO 17294-2; EN 13657	ICP-MS; EN ISO 17294-2; EN 13657	ICP-MS; EN ISO 17294-2; EN 13657

LabCode	Sample	Ni Nickel	Pb Blei	Se Selen	Zn Zink	BaP Benzo[a]pyren
LC0001	AB10	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	
LC0002	AB10	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	
LC0003	AB10	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ISO 18287;
LC0004	AB10	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ISO 18287;
LC0005	AB10	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ISO 18287;
LC0006	AB10	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ISO 18287;
LC0007	AB10					
LC0008	AB10	ICP-OES; EN 16170	ICP-OES; EN 16170	ICP-MS; EN 16171	ICP-OES; EN 16170	ISO 18287;
LC0009	AB10	ICP-OES; EN ISO 11885	ICP-MS; EN ISO 17294-2		ICP-MS; EN ISO 17294-2	
LC0010	AB10	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	L 1200;
LC0011	AB10	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	EN 16181; HPLC
LC0012	AB10	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885		ICP-OES; EN ISO 11885	ISO 18287;
LC0013	AB10	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	L 1200;
LC0014	AB10	ICP-OES;	ICP-OES;	ICP-MS;	ICP-OES;	HPLC;
LC0015	AB10	ICP-MS; EN 16171	ICP-MS; EN 16171	ICP-MS; EN 16171	ICP-MS; EN 16171	EN 15527; GC-MS
LC0016	AB10	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	
LC0017	AB10	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885		ICP-OES; EN ISO 11885	ISO 18287;
LC0018	AB10	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ISO 18287;
LC0019	AB10	ICP-MS; EN 16171	ICP-MS; EN 16171	ICP-MS; EN 16171	ICP-OES; EN 16170	EN 15527; GC-MS
LC0020	AB10	ICP-OES; EN ISO 11885	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-OES; EN ISO 11885	L 1200;
LC0021	AB10	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-MS; EN ISO 17294-2	ICP-OES; EN ISO 11885	ISO 18287;
LC0022	AB10	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ISO 18287;
LC0023	AB10					
LC0024	AB10	ICP-MS; EN ISO 17294-2/EN 16171	ICP-MS; EN ISO 17294-2/EN 16171	ICP-MS; EN ISO 17294-2/EN 16171	ICP-MS; EN ISO 17294-2/EN 16171	EN 16181 - L1200;
LC0025	AB10	ICP-MS; EN ISO 17294-2; EN 13657	ICP-MS; EN ISO 17294-2; EN 13657	ICP-MS; EN ISO 17294-2; EN 13657	ICP-MS; EN ISO 17294-2; EN 13657	

LabCode	Sample	HC-Index KW-Index	Sb Antimon	Sum EPA-PAH (16) Summe 16 PAK (nach EPA)	TOC (as C) TOC (als C)	Ba Barium
LC0001	AB10		ICP-OES; EN ISO 11885		EN 15936; dry combustion	ICP-OES; EN ISO 11885
LC0002	AB10		ICP-MS; EN ISO 17294-2			ICP-MS; EN ISO 17294-2
LC0003	AB10	EN 14039; GC	ICP-OES; EN ISO 11885	ISO 18287;		ICP-OES; EN ISO 11885
LC0004	AB10	EN 14039; GC	ICP-MS; EN ISO 17294-2	ISO 18287;	EN 13137; combustion	ICP-MS; EN ISO 17294-2
LC0005	AB10	EN 14039; GC	ICP-OES; EN ISO 11885	ISO 18287;	EN 15936; dry combustion	ICP-OES; EN ISO 11885
LC0006	AB10	EN 14039; GC	ICP-MS; EN ISO 17294-2	ISO 18287;	EN 15936; dry combustion	ICP-MS; EN ISO 17294-2
LC0007	AB10	EN 14039; GC			EN 13137; combustion	
LC0008	AB10	EN 14039; GC	ICP-MS; EN 16171	ISO 18287;	EN 13137; combustion	ICP-OES; EN 16170
LC0009	AB10				EN 13137; combustion	ICP-OES; EN ISO 11885
LC0010	AB10	EN 14039; GC	ICP-OES; EN ISO 11885	L 1200;	EN 13137; combustion	ICP-OES; EN ISO 11885
LC0011	AB10	EN 14039; GC-FID	ICP-OES; EN ISO 11885	EN 16181; HPLC	DIN 19539; gradient procedure	ICP-OES; EN ISO 11885
LC0012	AB10	EN 14039; GC		ISO 18287;	EN 15936; dry combustion	
LC0013	AB10	EN 14039; GC	ICP-OES; EN ISO 11885	L 1200;	EN 15936; dry combustion	ICP-OES; EN ISO 11885
LC0014	AB10	GC-FID;	ICP-OES;	HPLC;	indirect; combustion;	ICP-OES;
LC0015	AB10	EN 14039; GC-MS	ICP-MS; EN 16171	EN 15527; GC-MS	EN 13137; combustion	ICP-MS; EN 16171
LC0016	AB10		ICP-MS; EN ISO 17294-2			ICP-MS; EN ISO 17294-2
LC0017	AB10	EN 14039; GC		ISO 18287;	EN 15936; dry combustion	
LC0018	AB10	EN ISO 16703;	ICP-MS; EN ISO 17294-2	ISO 18287;	EN 13137; combustion	ICP-MS; EN ISO 17294-2
LC0019	AB10	EN 14039; GC	ICP-MS; EN 16171	EN 15527; GC-MS	EN 15936; dry combustion	ICP-MS; EN 16171
LC0020	AB10	EN 14039; GC	ICP-MS; EN ISO 17294-2	L 1200;	EN 13137; combustion	ICP-OES; EN ISO 11885
LC0021	AB10	EN 14039; GC	ICP-MS; EN ISO 17294-2	ISO 18287;	EN 13137; combustion	ICP-MS; EN ISO 17294-2
LC0022	AB10	EN 14039; GC	ICP-OES; EN ISO 11885	ISO 18287;	EN 13137/DIN 19539; combustion	
LC0023	AB10				EN 15936; dry combustion	
LC0024	AB10	EN 14039; GC	ICP-MS; EN ISO 17294-2/EN 16171	EN 16181 - L1200;	EN 15936; dry combustion	ICP-MS; EN ISO 17294-2/EN 16171
LC0025	AB10		ICP-MS; EN ISO 17294-2; EN 13657			ICP-MS; EN ISO 17294-2; EN 13657

LabCode	Sample	Co Cobalt	Mo Molybdän	V Vanadium	Sn Zinn	dry mass Trockenmasse
LC0001	AB10	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	EN 14346; gravimetric
LC0002	AB10	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	
LC0003	AB10	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	EN 15934; gravimetric
LC0004	AB10	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ISO 11465; gravimetric
LC0005	AB10	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	EN 14346; gravimetric
LC0006	AB10	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	DIN 19747;
LC0007	AB10					EN 14346; gravimetric
LC0008	AB10	ICP-OES; EN 16170	ICP-OES; EN 16170	ICP-OES; EN 16170	ICP-OES; EN 16170	EN 14346; gravimetric
LC0009	AB10			ICP-OES; EN ISO 11885	ICP-MS; EN ISO 17294-2	EN 14346; gravimetric
LC0010	AB10	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	EN 14346; gravimetric
LC0011	AB10	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	EN 14346; gravimetric
LC0012	AB10					EN 14346; gravimetric
LC0013	AB10	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	EN 14346; gravimetric
LC0014	AB10	ICP-OES;	ICP-OES;	ICP-OES;	ICP-OES;	drying balance;
LC0015	AB10	ICP-MS; EN 16171	ICP-MS; EN 16171	ICP-MS; EN 16171	ICP-MS; EN 16171	EN 14346; gravimetric
LC0016	AB10	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	EN 14346; gravimetric
LC0017	AB10					
LC0018	AB10	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	EN 14346; gravimetric
LC0019	AB10	ICP-MS; EN 16171	ICP-MS; EN 16171	ICP-MS; EN 16171	ICP-MS; EN 16171	EN 15934; gravimetric
LC0020	AB10	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	EN 14346; gravimetric
LC0021	AB10	ICP-MS; EN ISO 17294-2	ICP-OES; EN ISO 11885	ICP-MS; EN ISO 17294-2	ICP-MS; EN ISO 17294-2	EN 14346; gravimetric
LC0022	AB10	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885	ICP-OES; EN ISO 11885		EN 15934; gravimetric
LC0023	AB10					
LC0024	AB10	ICP-MS; EN ISO 17294-2/EN 16171	ICP-MS; EN ISO 17294-2/EN 16171	ICP-MS; EN ISO 17294-2/EN 16171	ICP-MS; EN ISO 17294-2/EN 16171	EN 14346; gravimetric
LC0025	AB10	ICP-MS; EN ISO 17294-2; EN 13657	ICP-MS; EN ISO 17294-2; EN 13657	ICP-MS; EN ISO 17294-2; EN 13657	ICP-MS; EN ISO 17294-2; EN 13657	EN 14346; gravimetric