ENVIRONMENT AGENCY AUSTRIA umweltbundesamt

Proficiency Testing Scheme für die Wasseranalytik - Realproben

P20 Polyzyklische Aromatische Kohlenwasserstoffe (PAK)

Proficiency Testing Scheme for Water Analysis - natural water samples

P20 Polycyclic aromatic hydrocarbons (PAH)

BERICHT / REPORT

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D1. Beschreibung des Ringversuchs

D1.1. Ausgestaltung und Durchführung

- Anzahl der Anmeldungen: 19
- Anzahl der übermittelten Datensätze: 17
- Probenversand: 07.05.2019
- Einsendeschluss der Daten: 04.06.2019

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 Probenahme von Leitungswasser und Grundwasser erfolgte am 06.05.2019.

Das Probenmaterial umfasste:

- 1 Probe synthetisches Wasser (P20 A)
- 1 Probe Grundwasser (P20 B)

Alle Proben wurden bis zur weiteren Verarbeitung bei < 4 °C gelagert. Die o.a. Proben wurden zusätzlich mit einzelnen Substanzen dotiert.

Das Abfüllen der Proben erfolgte unter ständigem Rühren (Rührkessel). Die homogenen Prüfgegenstände wurden am 07.05.2019 verschickt.

Jedes Teilnehmerlabor erhielt:

- 2 Proben zu je 2000 ml, abgefüllt in jeweils 2 x 1000 ml Braunglas-Flaschen

D1.3. Anweisungen für die Teilnehmer

Aus Stabilitätsgründen wurde empfohlen bis spätestens 09.05.2019 mit den Analysen zu beginnen.

Den Teilnehmern stand die Wahl der Analysenmethode bzw. der verwendeten Norm frei, welche mit ihrem Routineverfahren übereinstimmen sollte.

D1.4. Kontrollanalytik zur Bewertung der Homogenität

Im Zuge der Abfüllung wurden zu willkürlichen Zeitpunkten mehrere Aliquote pro Probe zur Kontrollanalytik entnommen.
Es wurden für die A- bzw. B-Probe jeweils n=5 Kontrollproben sowie n=1 undotierte Realprobe dem Labor zur Analyse übergeben.

Alle Parameter wurden in der Prüfstelle am Umweltbundesamt (Prüfstelle für Umwelt-, GVO- & Treibstoffanalytik) zeitnah zum Probenversand analysiert.

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 (E7) 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

Die Bewertung der Stabilität der Prüfgegenstände (Realproben) erfolgte auf Basis der Datenstatistik aus den vergangenen Runden für Realproben im Zeitraum 2017 bis 2018.

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 04.06.2019 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 DIN 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 % und/oder bei mangelhafter Rückführbarkeit der statistischen Kenndaten aus den ausreißerbereinigten Ergebnissen der Teilnehmer auf den Mittelwert des Kontrolllabores, 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 für reale Wasserproben der vorangegangenen Runden für PAK im Zeitraum 2017 bis 2018 (RSDpooled) bzw. aus den 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 die realen Wasserproben erfolgen neu ab 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 (Teilnehmer-ergebnis)
U($\bar{X}$)	erweiterte Messunsicherheit des zugewiesenen Wertes

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 0 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.

Als Ergebnis einer Auswertung über aktuell 2 Eignungsprüfungsrunden (2017, 2018) in Realproben wurden Kriterien (RSDpool) zur Ergebnisbewertung berechnet. Diese wurden im Zuge der Auswertung den relativen Vergleichsstandardabweichungen (vR) des aktuellen Ringversuchs gegenübergestellt.

Parameter Anthracen, Probe P20 A: Die Bewertung dient nur zu Informationszwecken, da der von Ausreißern bereinigte Mittelwert der Ergebnisse der Teilnehmer nicht im Bereich der Messunsicherheit des Kontrollwertes liegt und dadurch die Rückführbarkeit nicht gewährleistet ist.

Parameter Benz(a)pyren, Probe P20 A: Die relative Vergleichsstandardabweichung betrug hier 32 %. Daher wurde das berechnete Kriterium der bisherigen Auswertung mit 23 % gewählt.

Parameter Dibenzo(a,h)anthracen, Probe P20 A und P20 B: Es wurde die relative Vergleichsstandardabweichung der aktuellen Runde mit 20 % für Probe P20 A und 28 % für Probe P20 B als Kriterium gewählt.

Parameter Benzo(g,h,i)perylen, Proben P20 A: Das berechnete Kriterium der bisherigen Auswertung betrug hier 33 %. Es wurde für die Bewertung die relative Vergleichsstandardabweichung mit 22 % für Probe P20 A als Kriterium gewählt.

Parameter Benzo(g,h,i)perylen, Proben P20 B: Die relative Vergleichsstandardabweichung betrug hier 37 %. Es wurde das berechnete Kriterium der bisherigen Auswertung mit 33 % gewählt.

Für alle anderen Parameter wurde als Kriterium für die Berechnung des z-Scores das jeweils höhere Kriterium von der aktuellen Vergleichsstandardabweichung und dem berechneten Kriterium der bisherigen Auswertung gewählt.

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. µg/l)
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 Teilnehmer-ergebnisse (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 ±

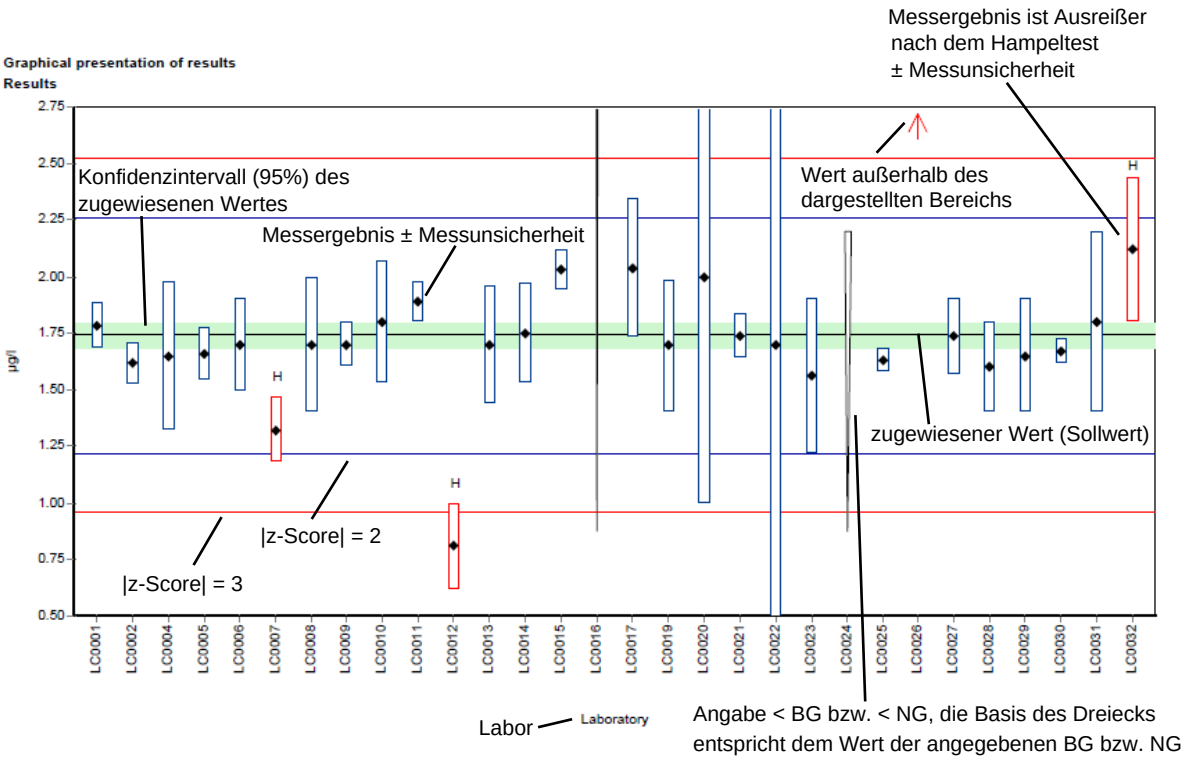
	erweiterte Ergebnisunsicherheit des Kontrollwertes (jeweils angegeben auf 3 signifikante Stellen)
Laborcode	anonymisierte, eindeutige Teilnehmerkennung im jeweiligen Ringversuch
Messwert	einzelne(r) Messwert(e) lt. Teilnehmerangabe (maximal 5 Nachkommastellen dargestellt)
Messergebnis	Für die Bewertung 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	Ergebnisunsicherheit 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

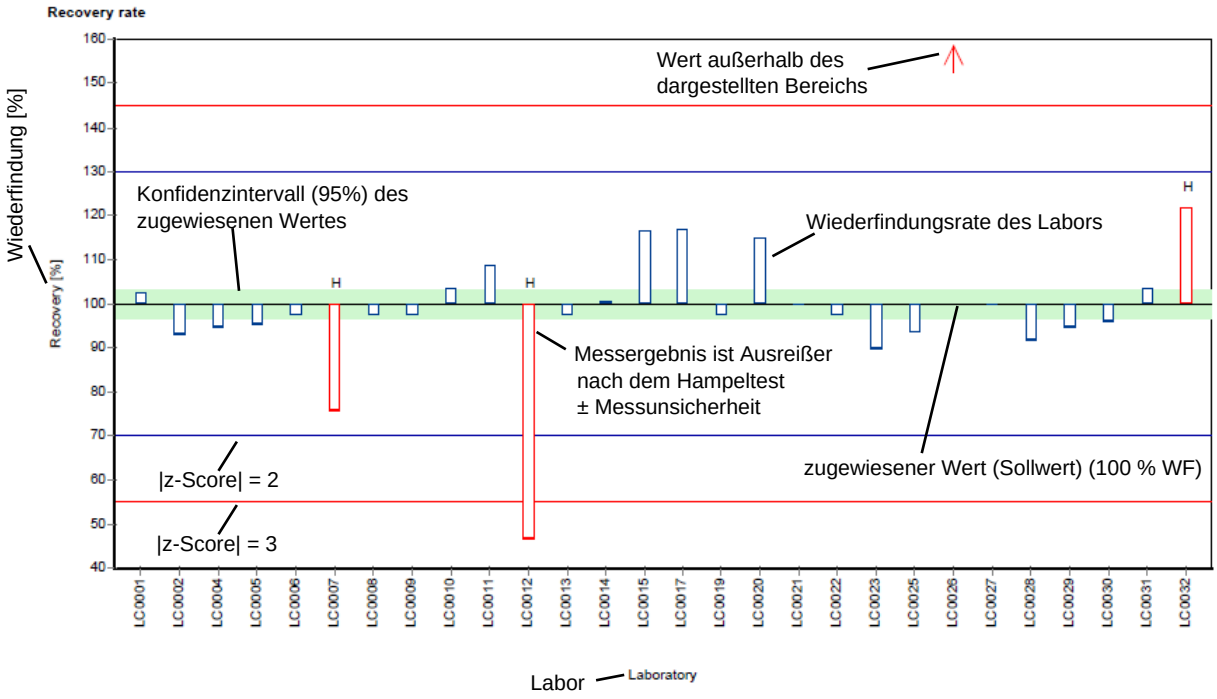
D5.2. Graphische Darstellung der Ergebnisse

Nachfolgend wird die graphische Darstellung anhand von kommentierten Beispieldiagrammen erläutert.

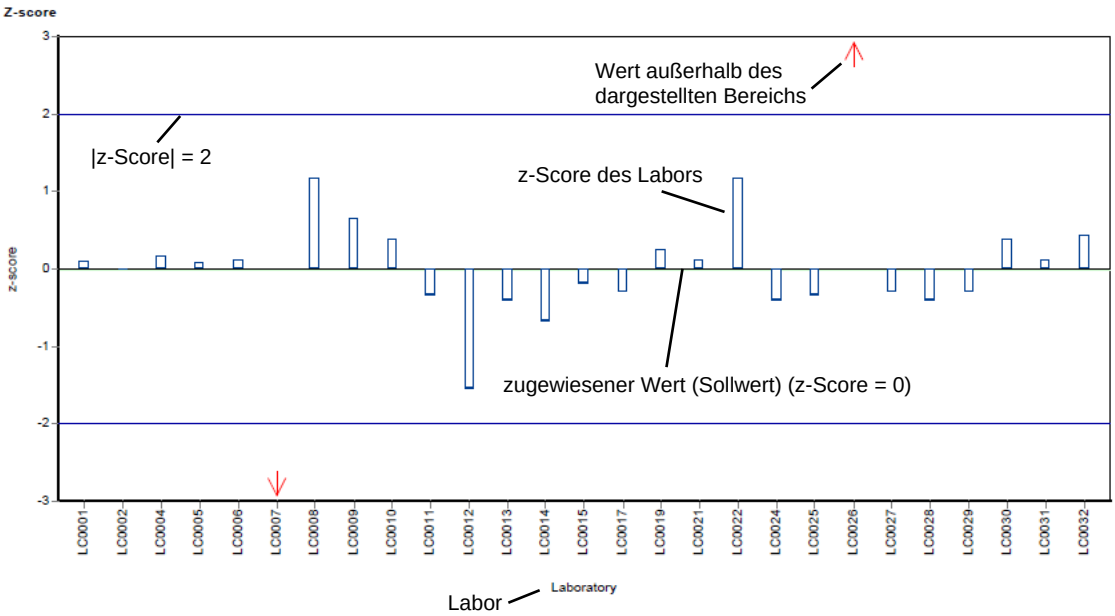
Beispieldiagramm: Messwerte



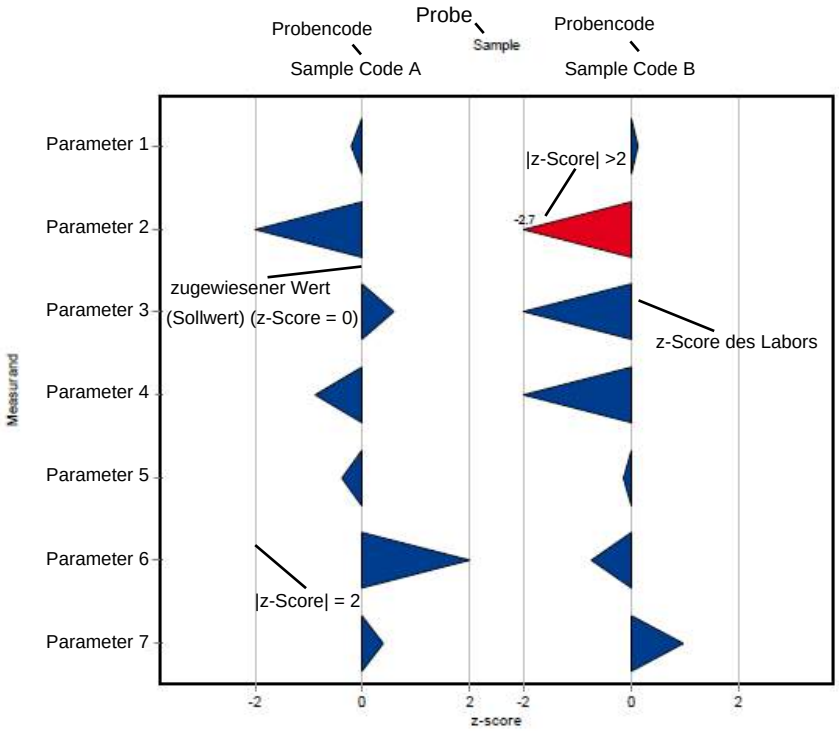
Beispieldiagramm: Wiederfindung zum zugewiesenen Wert



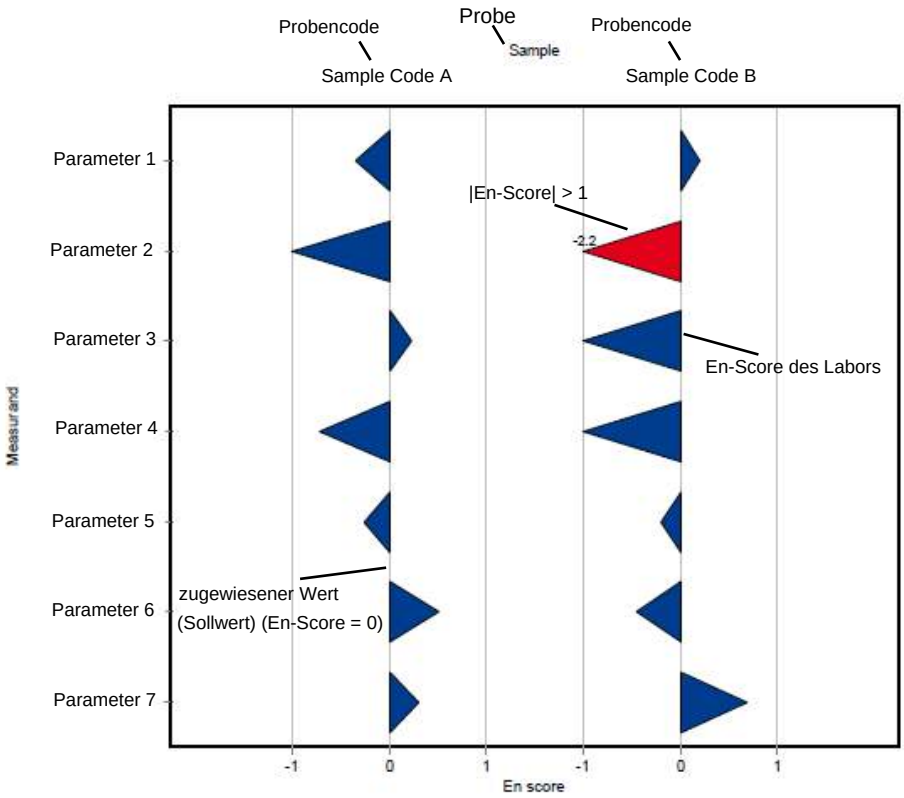
Beispieldiagramm: z-Score



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 [%]
Acenaphthen	P20 A	ng/l	124	±	14.2	27.5	22
	P20 B	ng/l	10.4	±	1.38	1.98	19
Acenaphthylen	P20 A	ng/l	244	±	30.9	56.1	23
	P20 B	ng/l	-	±	-	-	-
Anthracen	P20 A	ng/l	-	±	-	-	-
	P20 B	ng/l	33.4	±	2.14	8	24
Benzo[a]anthracen	P20 A	ng/l	40.9	±	5.55	10.4	25
	P20 B	ng/l	9.26	±	0.668	1.67	18
Benzo[a]pyren	P20 A	ng/l	57.6	±	9.56	13.3	23
	P20 B	ng/l	9.87	±	1.48	2.27	23
Benzo[b]fluoranthen	P20 A	ng/l	185	±	12.1	33.3	18
	P20 B	ng/l	6.38	±	0.696	1.15	18
Benzo[g,h,i]perylen	P20 A	ng/l	203	±	23.4	45.4	22
	P20 B	ng/l	19.6	±	4.4	6.47	33
Benzo[k]fluoranthen	P20 A	ng/l	204	±	25.3	55.1	27
	P20 B	ng/l	33.3	±	3.57	9	27
Chrysen	P20 A	ng/l	202	±	12.8	38.4	19
	P20 B	ng/l	42.6	±	3.58	8.09	19
Dibenzo[a,h]anthracen	P20 A	ng/l	67.1	±	7.04	13.2	20
	P20 B	ng/l	26.1	±	4.09	7.37	28
Fluoranthen	P20 A	ng/l	125	±	8.6	23.7	19
	P20 B	ng/l	29.2	±	2.5	5.54	19
Fluoren	P20 A	ng/l	158	±	9.33	20.6	13
	P20 B	ng/l	26.3	±	2.42	4.36	17
Indeno[1,2,3-cd]pyren	P20 A	ng/l	-	±	-	-	-
	P20 B	ng/l	-	±	-	-	-
Naphthalin	P20 A	ng/l	87.6	±	4.77	21	24
	P20 B	ng/l	42.6	±	3.86	10.2	24
Phenanthren	P20 A	ng/l	274	±	13.2	41.1	15
	P20 B	ng/l	47.4	±	4	7.48	16
Pyren	P20 A	ng/l	175	±	13.6	29.8	17
	P20 B	ng/l	20.6	±	0.83	3.51	17

D6.2. Zusammenfassung der ausreißerbereinigten Ringversuchsergebnisse

Parameter	Probe	Anzahl Labors für Berechnung	Anzahl Ausreißer Labors	Einheit	Mittelwert	± VB (99%)	Minimum	Maximum	sR	vR [%]
Acenaphthen	P20 A	15	0	ng/l	124	± 21.3	78	177	27.5	22
	P20 B	7	0	ng/l	10.4	± 2.07	7.6	12.9	1.82	18
Acenaphthylen	P20 A	12	1	ng/l	244	± 46.4	162	373	53.6	22
	P20 B	5	2	ng/l	-	± -	10	22.4	-	-
Anthracen	P20 A	15	0	ng/l	58.3	± 11.9	30	77.4	15.3	26
	P20 B	13	0	ng/l	33.4	± 3.2	28.4	40.8	3.85	12
Benzo[a]anthracen	P20 A	14	0	ng/l	40.9	± 8.33	20	55	10.4	25
	P20 B	9	0	ng/l	9.26	± 1	7.6	10.4	1	11
Benzo[a]pyren	P20 A	15	1	ng/l	57.6	± 14.3	26	85	18.5	32
	P20 B	9	2	ng/l	9.87	± 2.22	6.2	13.3	2.22	22
Benzo[b]fluoranthen	P20 A	13	3	ng/l	185	± 18.2	150	233	21.9	12
	P20 B	6	2	ng/l	6.38	± 1.04	5.1	7	0.852	13
Benzo[g,h,i]perylen	P20 A	15	1	ng/l	203	± 35.2	101	278	45.4	22
	P20 B	11	1	ng/l	19.6	± 6.6	12	37	7.3	37
Benzo[k]fluoranthen	P20 A	16	0	ng/l	204	± 37.9	91	282	50.6	25
	P20 B	14	0	ng/l	33.3	± 5.35	20	42.8	6.68	20
Chrysen	P20 A	14	1	ng/l	202	± 19.2	137	230	24	12
	P20 B	14	0	ng/l	42.6	± 5.37	26	51.2	6.69	16
Dibenzo[a,h]anthracen	P20 A	14	0	ng/l	67.1	± 10.6	40	86	13.2	20
	P20 B	13	0	ng/l	26.1	± 6.13	10	35	7.37	28
Fluoranthen	P20 A	15	0	ng/l	125	± 12.9	82.3	143	16.7	13
	P20 B	13	0	ng/l	29.2	± 3.75	20	37	4.51	15
Fluoren	P20 A	15	0	ng/l	158	± 14	135	196	18.1	11
	P20 B	13	0	ng/l	26.3	± 3.63	16.5	33.1	4.36	17
Indeno[1,2,3-cd]pyren	P20 A	2	0	ng/l	-	± -	8.02	34.3	-	-
	P20 B	2	0	ng/l	-	± -	4.4	33.6	-	-

Parameter	Probe	Anzahl Labors für Berechnung	Anzahl Ausreißer Labors	Einheit	Mittelwert	± VB (99%)	Minimum	Maximum	sR	vR [%]
Naphthalin	P20 A	12	1	ng/l	87.6	± 7.15	70	98.6	8.26	9.4
	P20 B	11	0	ng/l	42.6	± 5.78	31.4	50	6.39	15
Phenanthren	P20 A	15	0	ng/l	274	± 19.8	229	316	25.5	9.3
	P20 B	14	0	ng/l	47.4	± 6	30.8	58.5	7.48	16
Pyren	P20 A	15	0	ng/l	175	± 20.4	122	213	26.3	15
	P20 B	11	1	ng/l	20.6	± 1.25	18.4	23	1.38	6.7

E1. Description of the proficiency test

E1.1. Design and implementation

- Number of registrations: 19
- Number of submitted data records: 17
- Dispatch of samples: 7th May 2019
- Closing date for submission of data: 4th June 2019

The results were submitted electronically through 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 assigned a laboratory code on a random basis.

E1.2. Description of the proficiency test items

The sampling of tap water and ground water was carried out on 6th May 2019.

The following samples were made available:

- 1 sample synthetic water (P20 A)
- 1 sample ground water (P20 B)

Both samples were stored at < 4 °C until further processing.

The samples were partly spiked with specific substances and filled into bottles under continuous stirring (stirring vessel) to obtain homogeneous samples.

The homogeneous proficiency test items were dispatched on 7th May 2019.

All participating laboratories received:

- 2 samples of 2000 ml each, filled in 2x 1000 ml brownglas-bottles each

E1.3. Instructions for the participants

For reasons of stability, it was recommended to start the analysis by the 9th May 2019 at the latest.

The participants are expected to use the test method or measurement method of their choice, which should be consistent with their routine procedures.

E1.4. Control testing for homogeneity evaluation

During filling of the bottles, aliquots of each sample were collected randomly for control testing. From each of the samples A and B, n=5 control test samples and n=1 unspiked real water sample were transferred to the laboratory for control testing.

All parameters were tested in the testing laboratory at the Environment Agency Austria (Prüfstelle für Umwelt-, GVO- & Treibstoffanalytik) close to the time of sample dispatch.

During evaluation, the relative standard deviation between the individual results of the control test samples was assessed and compared with the reproducibility standard deviation of the current proficiency test.

In the parameter-oriented evaluation (E7), 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 evaluation of stability of the proficiency test items was performed using data statistics of previous results of proficiency testing rounds for real water samples during the period 2017 to 2018.

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 participant 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 for real water samples from 2017 to 2018 and based on the trend test evaluation of the current round, the stability of the test items for proficiency testing of real water samples 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 4th June 2019. 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,…) 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 DIN 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 of the assigned value.

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

For real water samples 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.

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 assurance, the participants can compare their results to 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 based on 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 from previous rounds for proficiency testing for real water samples from 2017 to 2018 (PAH, as RSD pooled) or from the participants' results after removal of outliers (sR) in the current round.

Where justified (e.g. results for real water samples 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

New for the 2019 proficiency testing of real water samples 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 based on 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
U($\bar{X}$)	expanded measurement uncertainty for the assigned value

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 the results 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 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 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 the evaluation of E_n-Scores on separate pages.

The tables also contain the evaluation basis such as the assigned values including expanded measurement uncertainties and the criteria.

An annotation of the tables and graphics is given in section E5.

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 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.

As a result of an evaluation of 2 proficiency testing rounds (2017, 2018) in real samples, evaluation criteria (RSDpool) were calculated. These criteria were compared with the relative reproducibility standard deviation (sR) of the current proficiency testing.

Parameter Anthracene, sample P20 A: Assessment is used for informational purposes only, since the outlier adjusted mean value of participant results is not within range of the measurement uncertainty of the control value and thereby the traceability is not guaranteed.

Parameter Benz(a)pyrene, sample P20 A: The relative reproducibility standard deviation was 32%. The calculated criterion of evaluation was chosen to be 23%.

Parameter Dibenzo(a,h)anthracene, sample P20 A and P20 B: The relative reproducibility standard deviation of the current round was chosen, 20% for sample P20 A and 28% for sample P20 B as a criterion.

Parameter Benzo(g,h,i)perylene, sample P20 A: The calculated criterion of evaluation was 33%. The relative reproducibility standard deviation of 22% for sample P20 A was chosen as the criterion.

Parameter Benzo(g,h,i)perylene, sample P20 B: The relative reproducibility standard deviation was 37%. Therefore, the calculated criterion of evaluation was chosen to be 33%.

For all other parameters, the higher criterion of the current relative reproducibility standard deviation and the calculated criterion of evaluation was selected as the criterion for calculating the z-score.

E5. Annotations on tables and charts

E5.1. Information and abbreviations in tables

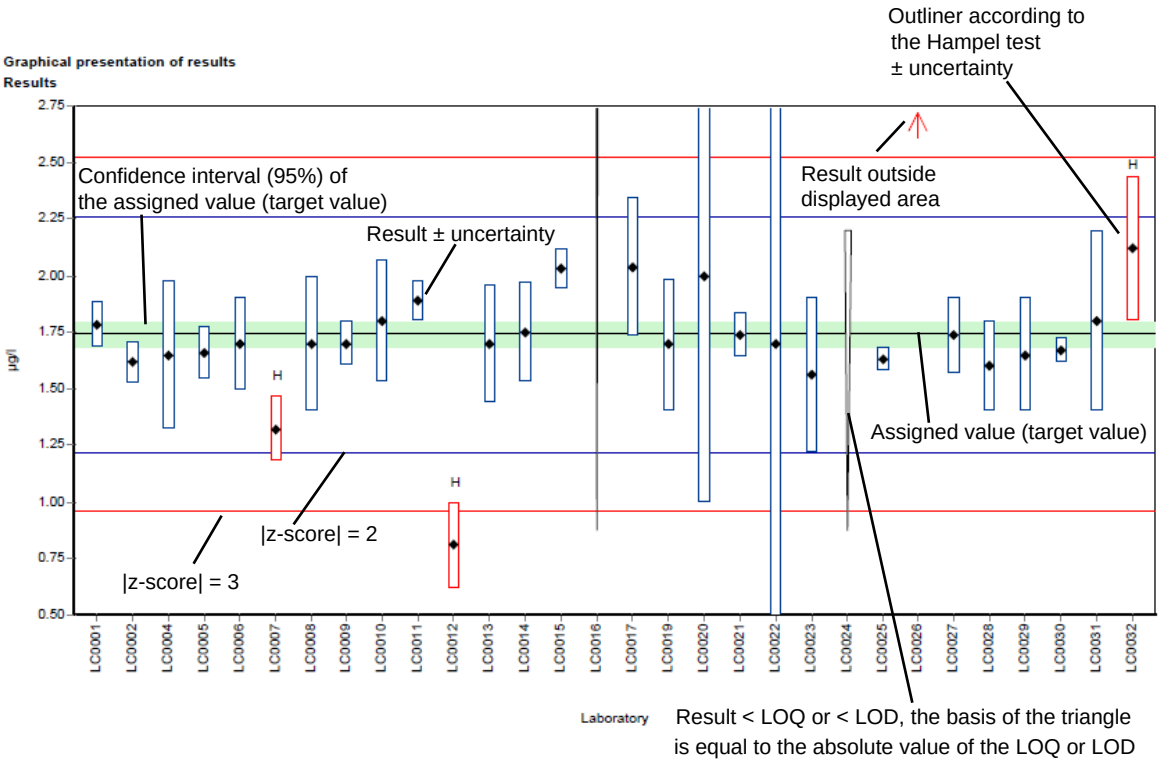
Parameter	Analyte identifier
Sample	Sample identifier
Unit	Given unit for result and uncertainty (e.g. µg/l)
Assigned value	Target value for proficiency assessment of the participants (3 significant digits)
U (k=2)	Expanded uncertainty (k=2) of the assigned value (3 significant digits)
Criterion	Specified value for the determination of the z-score in the given unit (3 significant digits)
Criterion [%]	Specified value for the determination of the z-score in % of the assigned value (3 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)
sR	Reproducibility standard deviation, calculated from the participants results, after removal of outliers (3 significant digits)
vR [%]	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	uncertainty 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

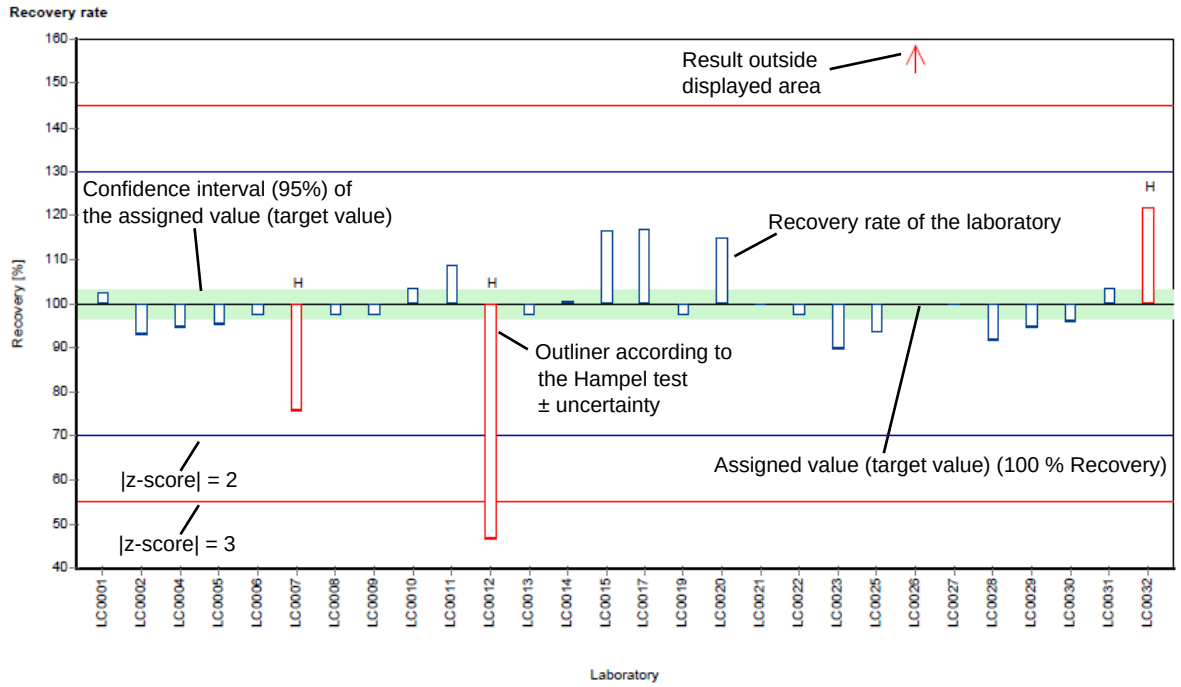
E5.2. Graphical presentation of results

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

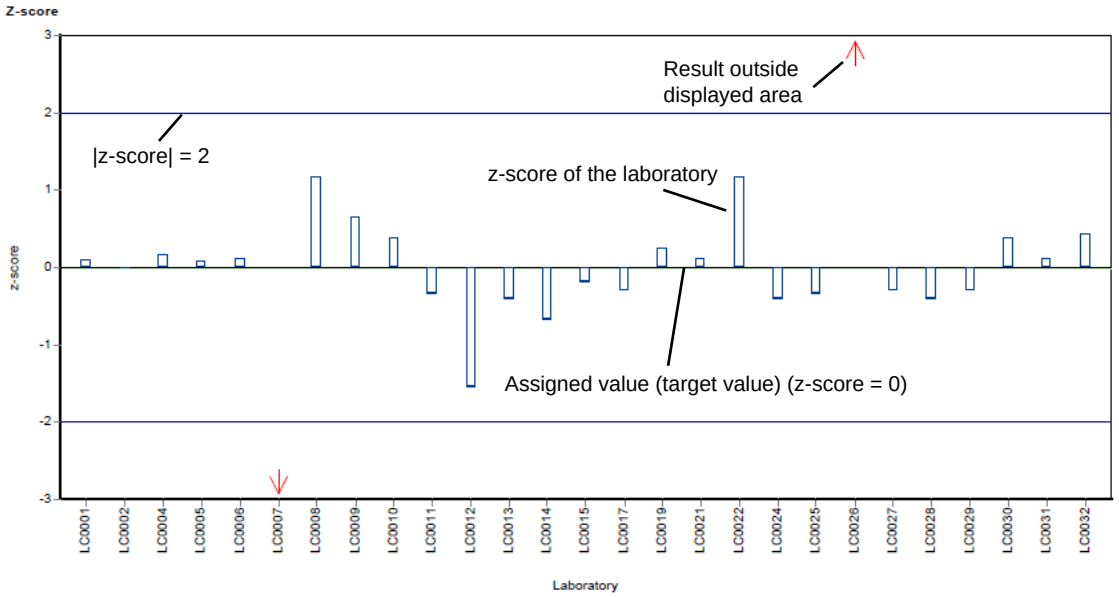
Example chart: Results



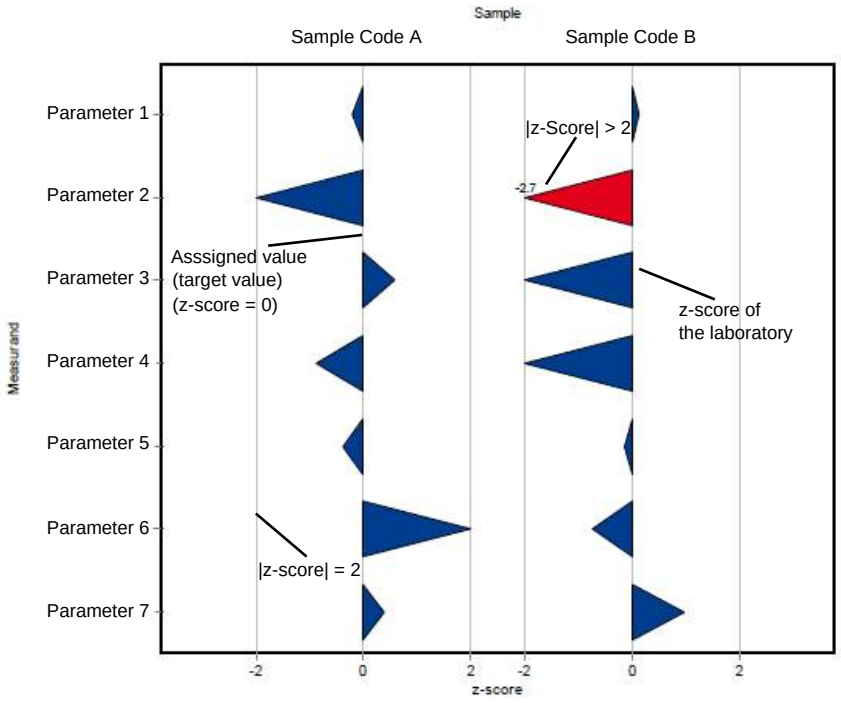
Example chart: Recovery



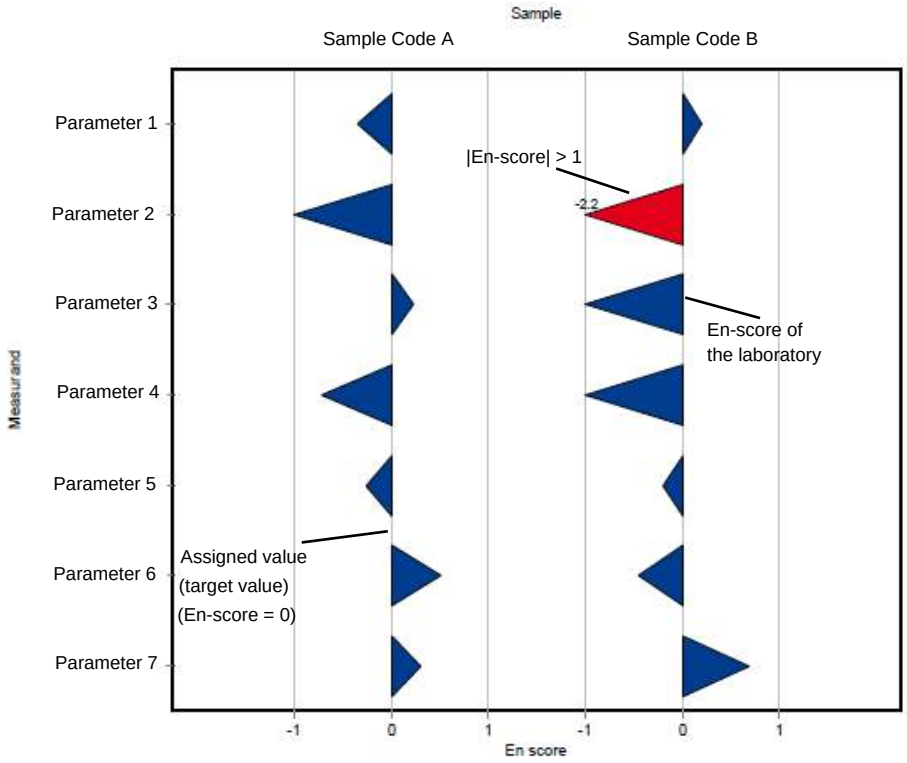
Example chart: z-score



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 [%]
Acenaphthene	P20 A	ng/l	124	±	14.2	27.5	22
	P20 B	ng/l	10.4	±	1.38	1.98	19
Acenaphthylene	P20 A	ng/l	244	±	30.9	56.1	23
	P20 B	ng/l	-	±	-	-	-
Anthracene	P20 A	ng/l	-	±	-	-	-
	P20 B	ng/l	33.4	±	2.14	8	24
Benzo[a]anthracene	P20 A	ng/l	40.9	±	5.55	10.4	25
	P20 B	ng/l	9.26	±	0.668	1.67	18
Benzo[a]pyrene	P20 A	ng/l	57.6	±	9.56	13.3	23
	P20 B	ng/l	9.87	±	1.48	2.27	23
Benzo[b]fluoranthene	P20 A	ng/l	185	±	12.1	33.3	18
	P20 B	ng/l	6.38	±	0.696	1.15	18
Benzo[g,h,i]perylene	P20 A	ng/l	203	±	23.4	45.4	22
	P20 B	ng/l	19.6	±	4.4	6.47	33
Benzo[k]fluoranthene	P20 A	ng/l	204	±	25.3	55.1	27
	P20 B	ng/l	33.3	±	3.57	9	27
Chrysene	P20 A	ng/l	202	±	12.8	38.4	19
	P20 B	ng/l	42.6	±	3.58	8.09	19
Dibenzo[a,h]anthracene	P20 A	ng/l	67.1	±	7.04	13.2	20
	P20 B	ng/l	26.1	±	4.09	7.37	28
Fluoranthene	P20 A	ng/l	125	±	8.6	23.7	19
	P20 B	ng/l	29.2	±	2.5	5.54	19
Fluorene	P20 A	ng/l	158	±	9.33	20.6	13
	P20 B	ng/l	26.3	±	2.42	4.36	17
Indeno[1,2,3-cd]pyrene	P20 A	ng/l	-	±	-	-	-
	P20 B	ng/l	-	±	-	-	-
Naphthalene	P20 A	ng/l	87.6	±	4.77	21	24
	P20 B	ng/l	42.6	±	3.86	10.2	24
Phenanthrene	P20 A	ng/l	274	±	13.2	41.1	15
	P20 B	ng/l	47.4	±	4	7.48	16
Pyrene	P20 A	ng/l	175	±	13.6	29.8	17
	P20 B	ng/l	20.6	±	0.83	3.51	17

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 [%]
Acenaphthene	P20 A	15	0	ng/l	124	± 21.3	78	177	27.5	22
	P20 B	7	0	ng/l	10.4	± 2.07	7.6	12.9	1.82	18
Acenaphthylene	P20 A	12	1	ng/l	244	± 46.4	162	373	53.6	22
	P20 B	5	2	ng/l	-	± -	10	22.4	-	-
Anthracene	P20 A	15	0	ng/l	58.3	± 11.9	30	77.4	15.3	26
	P20 B	13	0	ng/l	33.4	± 3.2	28.4	40.8	3.85	12
Benzo[a]anthracene	P20 A	14	0	ng/l	40.9	± 8.33	20	55	10.4	25
	P20 B	9	0	ng/l	9.26	± 1	7.6	10.4	1	11
Benzo[a]pyrene	P20 A	15	1	ng/l	57.6	± 14.3	26	85	18.5	32
	P20 B	9	2	ng/l	9.87	± 2.22	6.2	13.3	2.22	22
Benzo[b]fluoranthene	P20 A	13	3	ng/l	185	± 18.2	150	233	21.9	12
	P20 B	6	2	ng/l	6.38	± 1.04	5.1	7	0.852	13
Benzo[g,h,i]perylene	P20 A	15	1	ng/l	203	± 35.2	101	278	45.4	22
	P20 B	11	1	ng/l	19.6	± 6.6	12	37	7.3	37
Benzo[k]fluoranthene	P20 A	16	0	ng/l	204	± 37.9	91	282	50.6	25
	P20 B	14	0	ng/l	33.3	± 5.35	20	42.8	6.68	20
Chrysene	P20 A	14	1	ng/l	202	± 19.2	137	230	24	12
	P20 B	14	0	ng/l	42.6	± 5.37	26	51.2	6.69	16
Dibenzo[a,h]anthracene	P20 A	14	0	ng/l	67.1	± 10.6	40	86	13.2	20
	P20 B	13	0	ng/l	26.1	± 6.13	10	35	7.37	28
Fluoranthene	P20 A	15	0	ng/l	125	± 12.9	82.3	143	16.7	13
	P20 B	13	0	ng/l	29.2	± 3.75	20	37	4.51	15
Fluorene	P20 A	15	0	ng/l	158	± 14	135	196	18.1	11
	P20 B	13	0	ng/l	26.3	± 3.63	16.5	33.1	4.36	17
Indeno[1,2,3-cd]pyrene	P20 A	2	0	ng/l	-	± -	8.02	34.3	-	-
	P20 B	2	0	ng/l	-	± -	4.4	33.6	-	-
Naphthalene	P20 A	12	1	ng/l	87.6	± 7.15	70	98.6	8.26	9.4

Parameter	Sample	Number of results for calculation	Number of outliers	Unit	Mean	± CI (99%)	Minimum	Maximum	sR	vR [%]
Naphthalene	P20 B	11	0	ng/l	42.6	± 5.78	31.4	50	6.39	15
Phenanthrene	P20 A	15	0	ng/l	274	± 19.8	229	316	25.5	9.3
	P20 B	14	0	ng/l	47.4	± 6	30.8	58.5	7.48	16
Pyrene	P20 A	15	0	ng/l	175	± 20.4	122	213	26.3	15
	P20 B	11	1	ng/l	20.6	± 1.25	18.4	23	1.38	6.7

E7. Parameterorientierte Auswertung / Parameter oriented report

Parameter oriented report

P20 A

Acenaphthene

Unit	ng/l
Assigned value ± U (k=2)	124 ± 14.2
Criterion	27.5 (22 %)
Minimum - Maximum	78 - 177
Control test value ± U (k=2)	150 ± 42.1

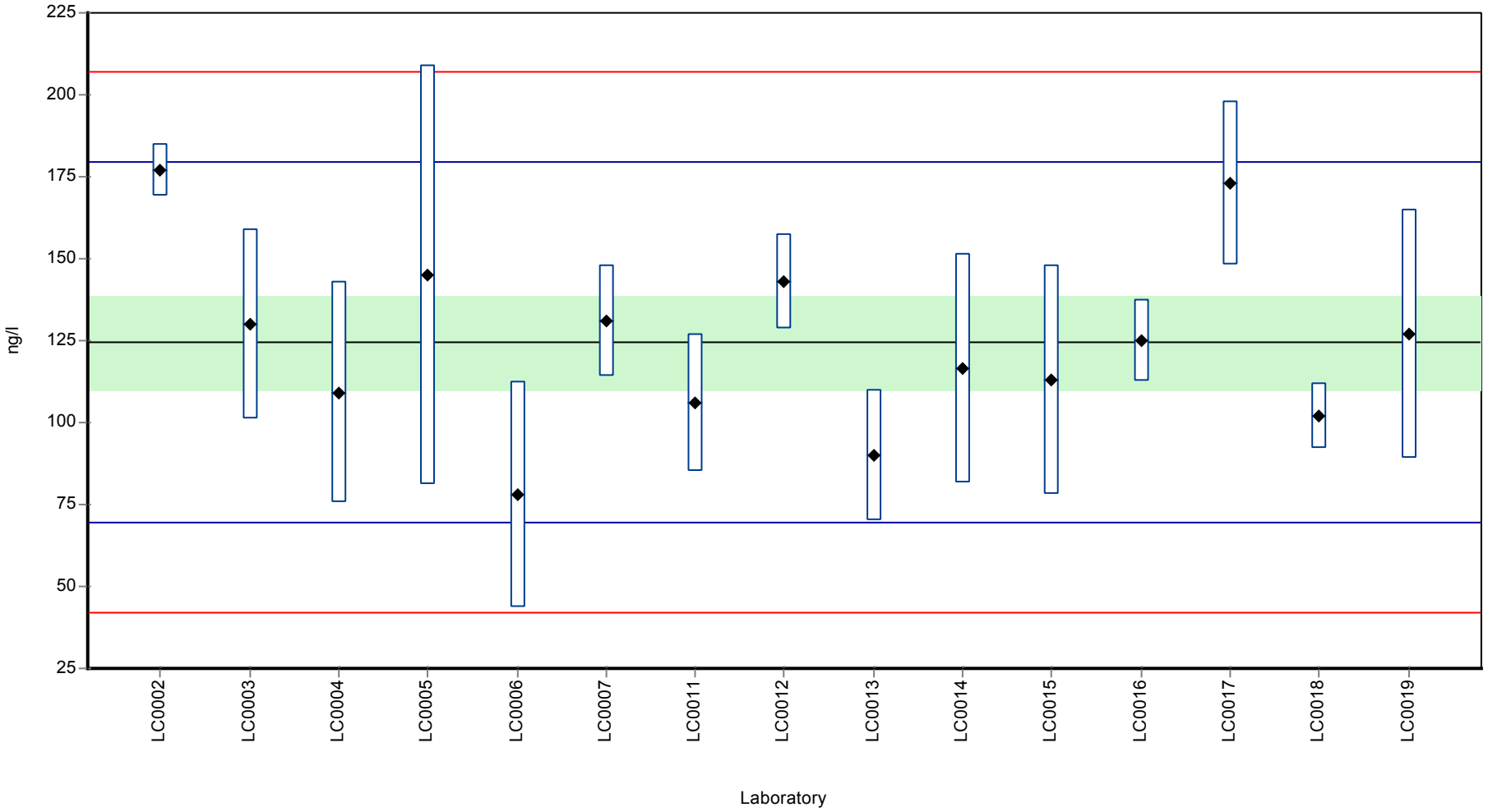
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	177	8.09	142	1.91	
LC0003	130	29	105	0.2	
LC0004	109.1	33.8	87.7	-0.56	
LC0005	145	64	117	0.75	
LC0006	78	34.32	62.7	-1.69	
LC0007	131.18	17.05	105	0.25	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	-	-	-	-	
LC0011	106	21	85.2	-0.67	
LC0012	143	14.3	115	0.68	
LC0013	90	20	72.4	-1.25	
LC0014	116.5	35	93.7	-0.29	
LC0015	113	35	90.8	-0.41	
LC0016	125.13	12.51	101	0.03	
LC0017	173	25	139	1.77	
LC0018	102	10	82	-0.81	
LC0019	127	38	102	0.09	

Characteristics of parameter

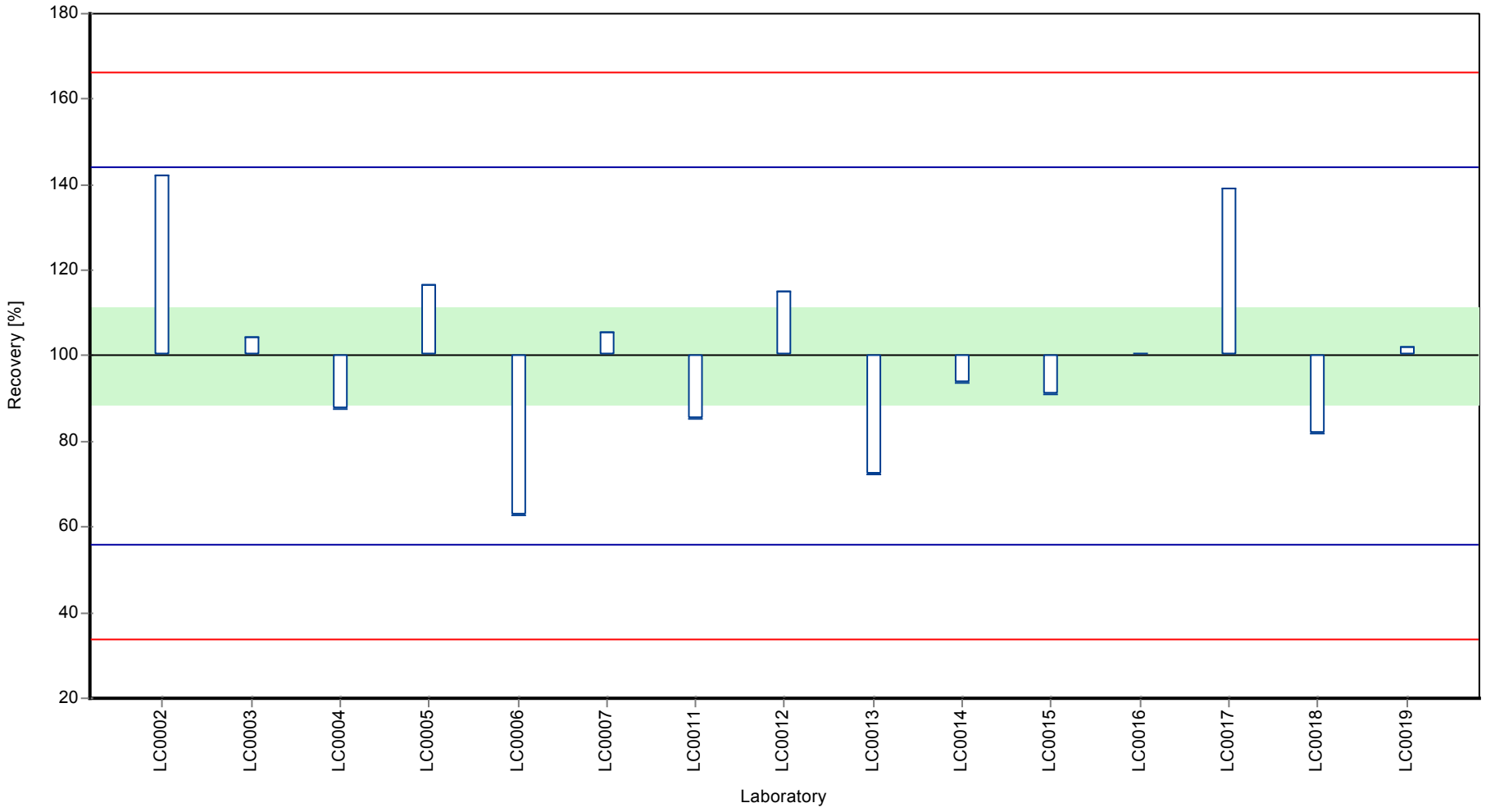
	all results	without outliers	Unit
Mean ± CI (99%)	124 ± 21.3	124 ± 21.3	ng/l
Minimum	78	78	ng/l
Maximum	177	177	ng/l
Standard deviation	27.5	27.5	ng/l
rel. standard deviation	22.1	22.1	%
n	15	15	-

Graphical presentation of results

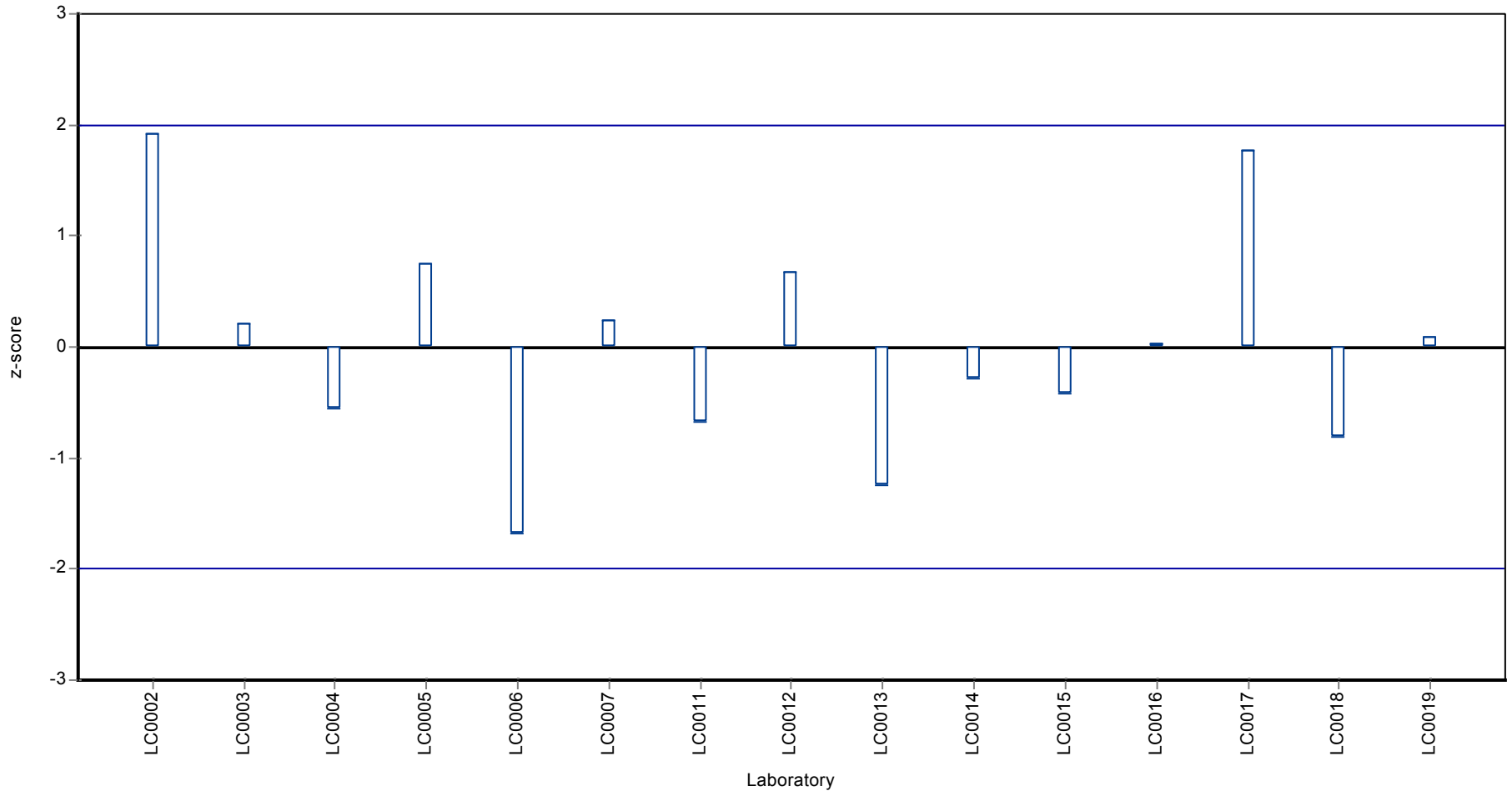
Results



Recovery rate



Z-score


3
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-1
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-3
z-score
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
Laboratory

Parameter oriented report

P20 B

Acenaphthene

Unit	ng/l
Assigned value ± U (k=2)	10.4 ± 1.38
Criterion	1.98 (19 %)
Minimum - Maximum	7.6 - 12.9
Control test value ± U (k=2)	11.6 ± 3.26

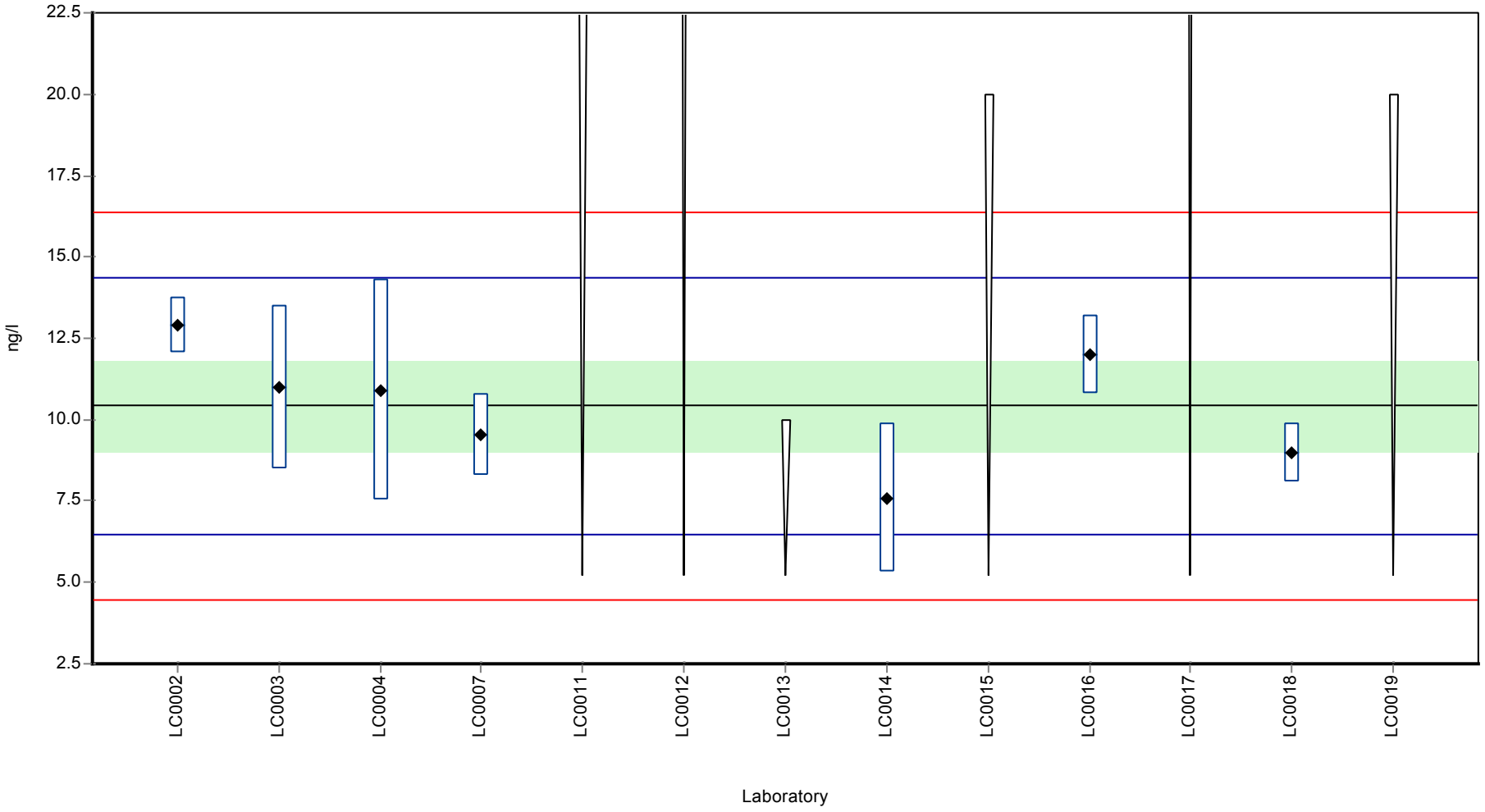
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	12.9	0.87	124	1.25	
LC0003	11	2.5	106	0.29	
LC0004	10.9	3.4	105	0.24	
LC0005	-	-	-	-	
LC0006	-	-	-	-	
LC0007	9.54	1.24	91.6	-0.44	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	-	-	-	-	
LC0011	< 25 (LOQ)	-	-	-	
LC0012	< 52.6 (LOQ)	-	-	-	
LC0013	< 10 (LOQ)	-	-	-	
LC0014	7.6	2.3	72.9	-1.42	
LC0015	< 20 (LOQ)	-	-	-	
LC0016	12	1.2	115	0.8	
LC0017	< 66.9 (LOQ)	-	-	-	
LC0018	9	0.9	86.4	-0.72	
LC0019	< 20 (LOQ)	-	-	-	

Characteristics of parameter

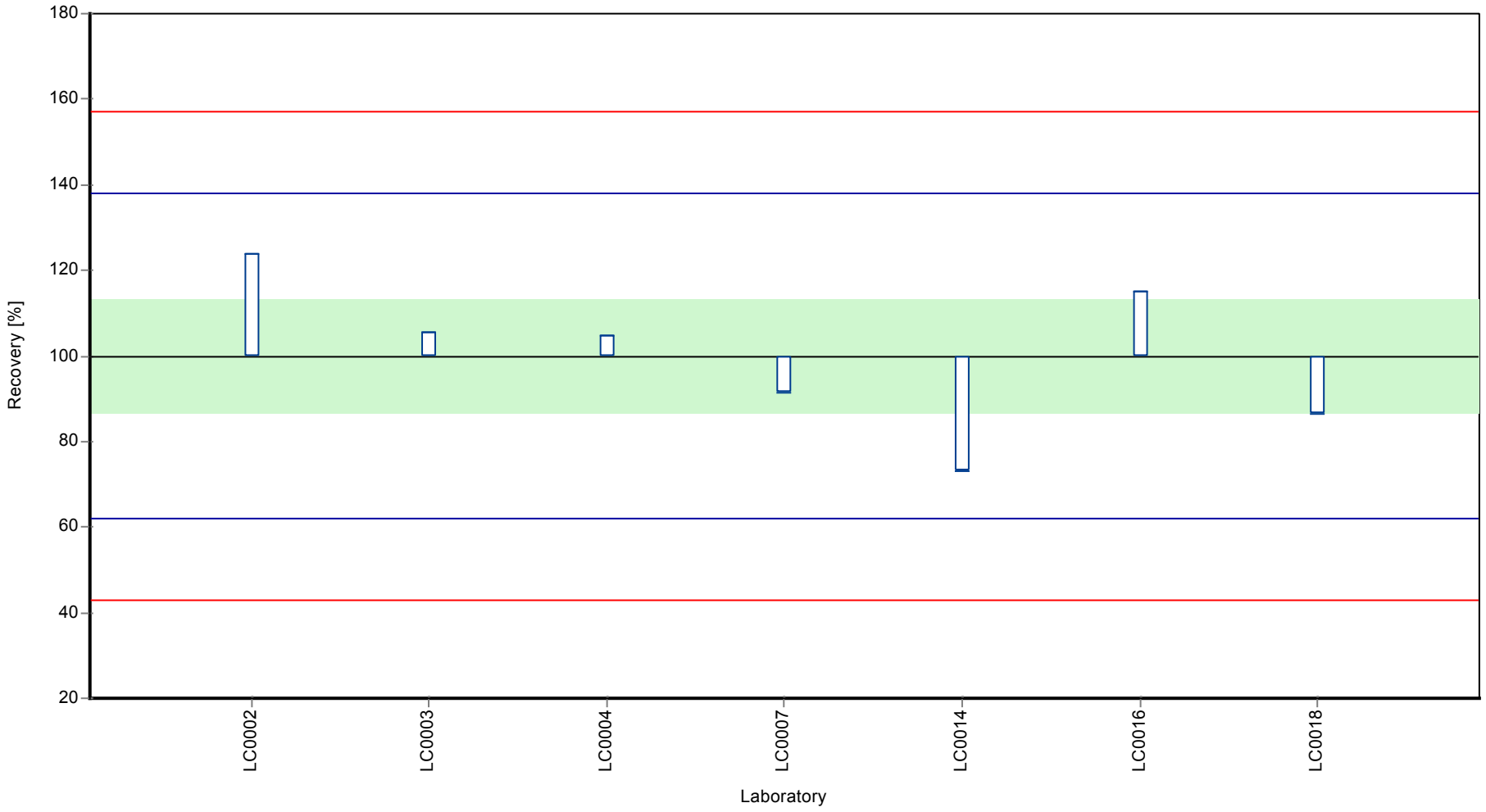
	all results	without outliers	Unit
Mean ± CI (99%)	10.4 ± 2.07	10.4 ± 2.07	ng/l
Minimum	7.6	7.6	ng/l
Maximum	12.9	12.9	ng/l
Standard deviation	1.82	1.82	ng/l
rel. standard deviation	17.5	17.5	%
n	7	7	-

Graphical presentation of results

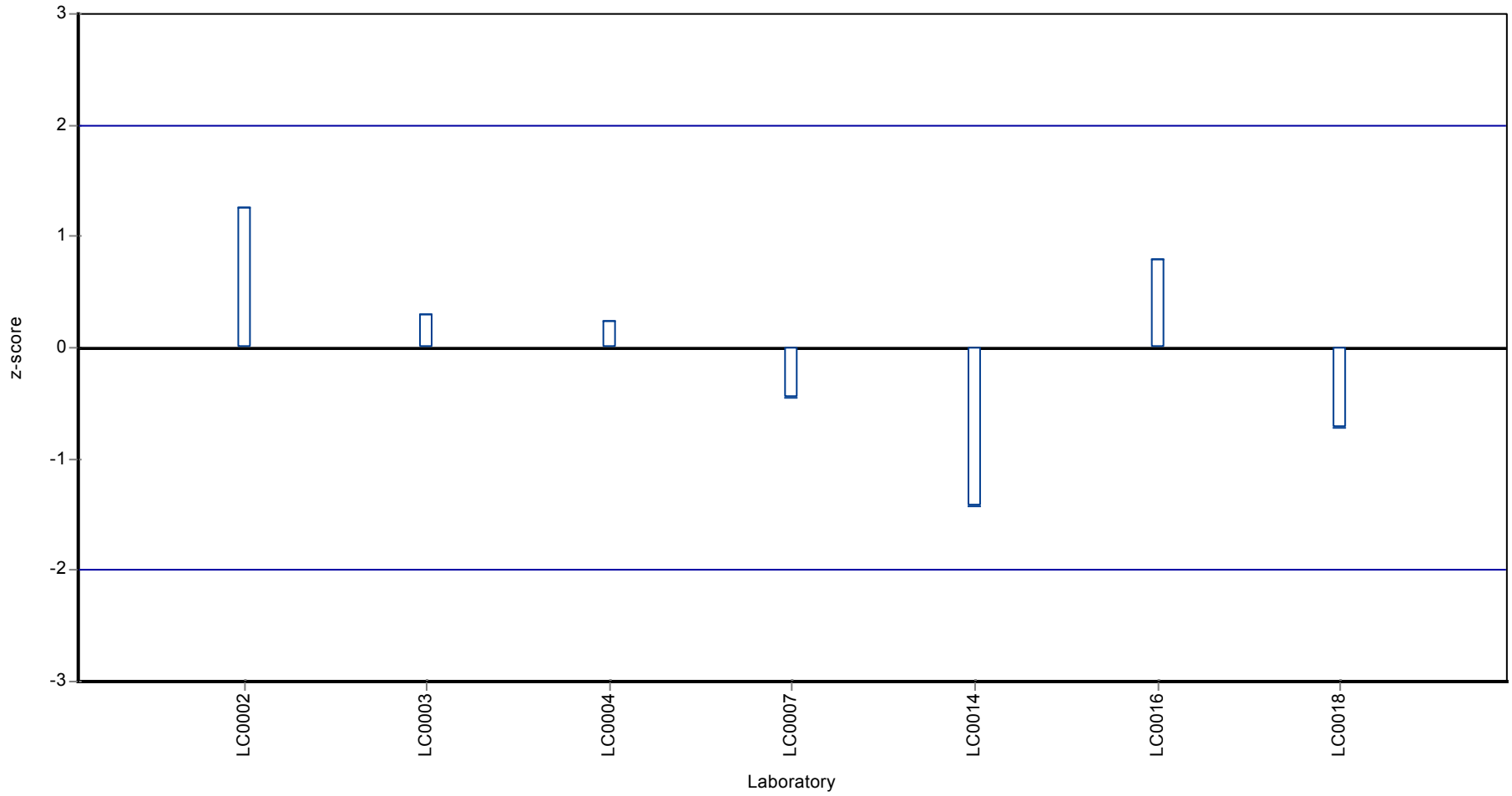
Results



Recovery rate



Z-score


3
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-2
-3
z-score
LC0002
LC0003
LC0004
LC0007
LC0014
LC0016
LC0018
Laboratory

Parameter oriented report

P20 A

Acenaphthylene

Unit	ng/l
Assigned value ± U (k=2)	244 ± 30.9
Criterion	56.1 (23 %)
Minimum - Maximum	162 - 373
Control test value ± U (k=2)	279 ± 78.1

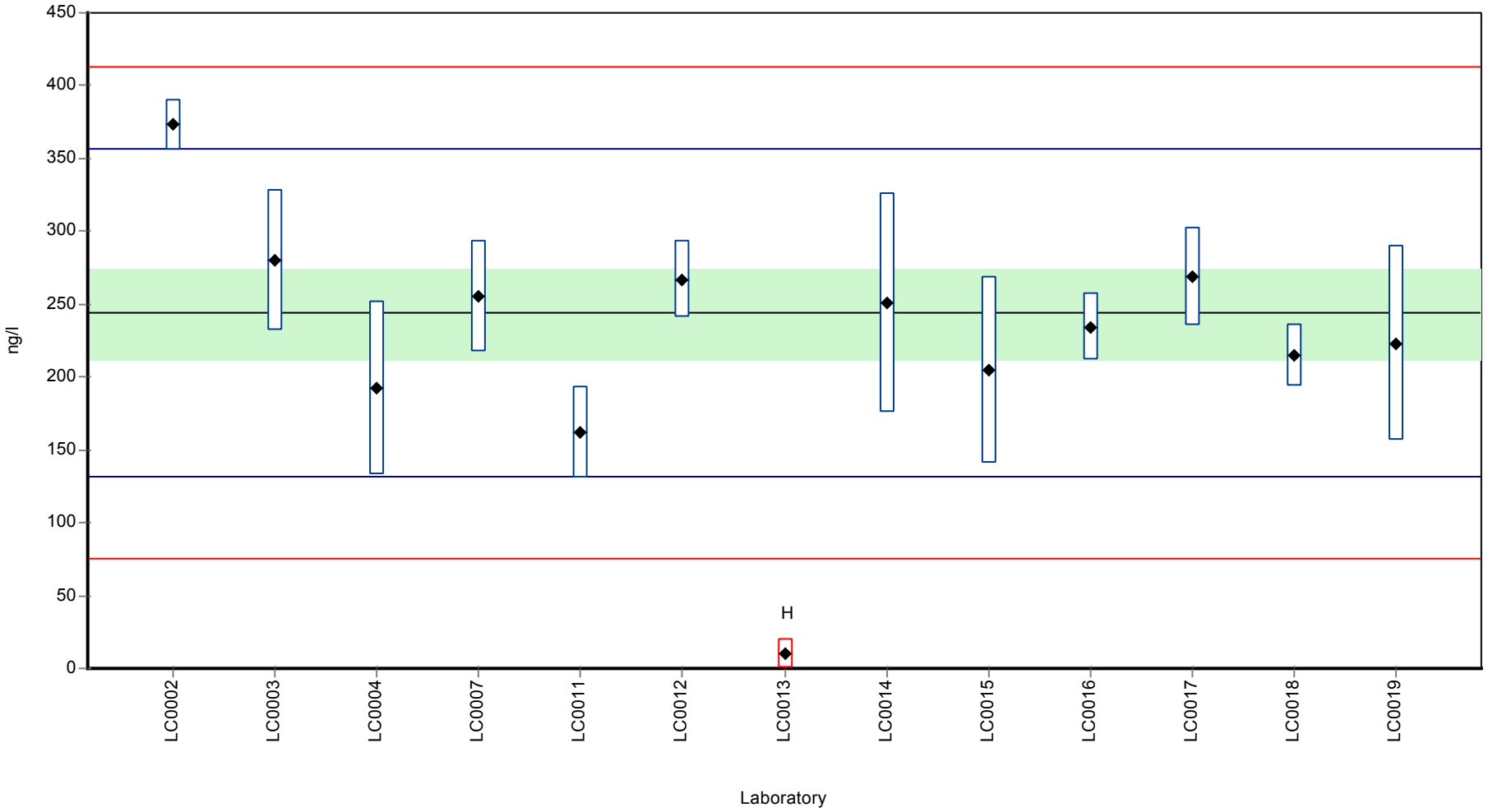
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	373	17.6	153	2.3	
LC0003	280	48	115	0.64	
LC0004	192.4	59.7	78.9	-0.92	
LC0005	-	-	-	-	
LC0006	-	-	-	-	
LC0007	255.53	38.33	105	0.21	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	-	-	-	-	
LC0011	162	32	66.4	-1.46	
LC0012	267	26.7	109	0.41	
LC0013	10	10	4.1	-4.17	H
LC0014	251.4	75.4	103	0.13	
LC0015	205	64	84	-0.69	
LC0016	234.5	23.45	96.1	-0.17	
LC0017	269	33.4	110	0.45	
LC0018	215	21	88.1	-0.52	
LC0019	223	67	91.4	-0.37	

Characteristics of parameter

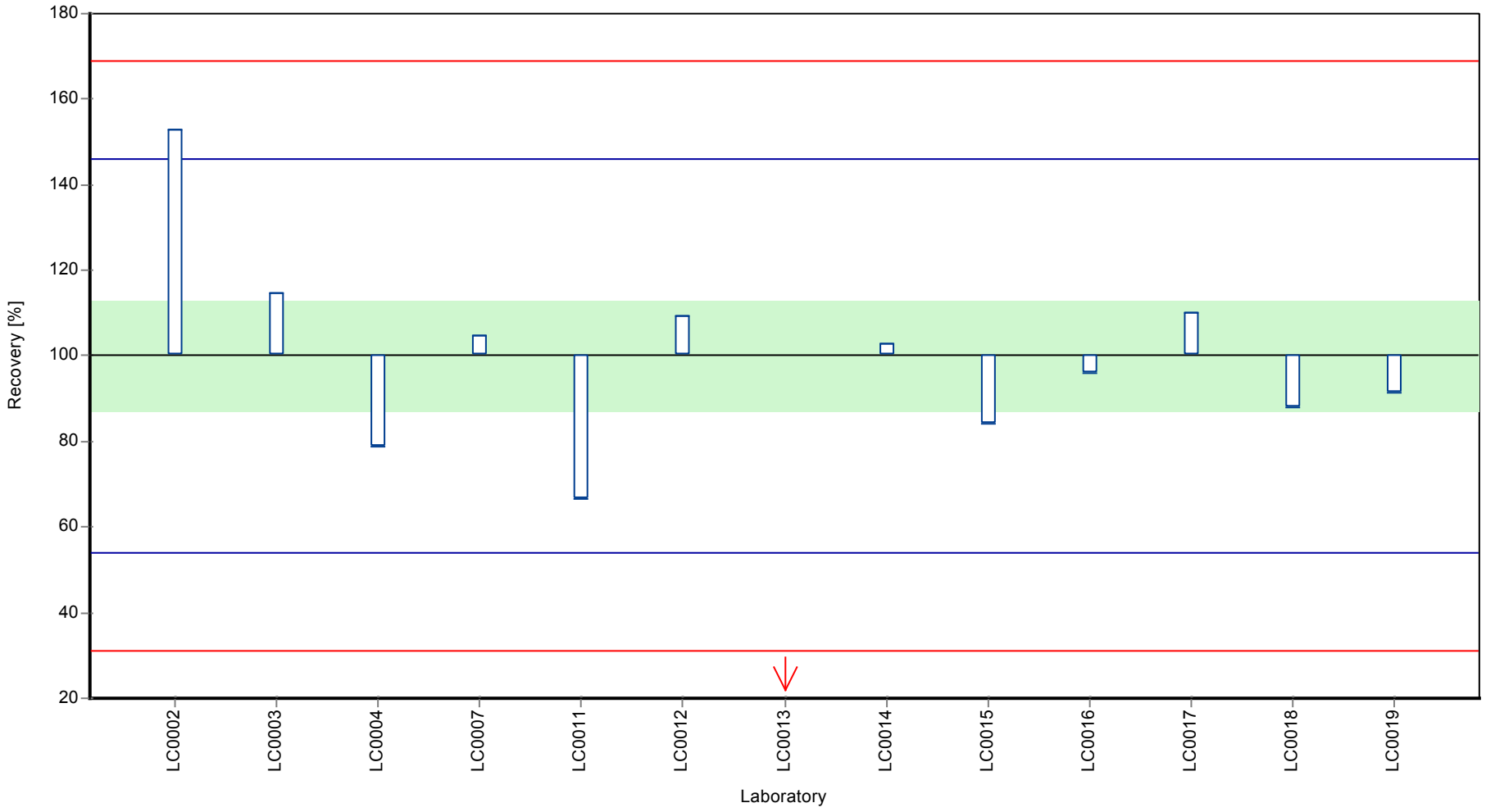
	all results	without outliers	Unit
Mean ± CI (99%)	226 ± 68.8	244 ± 46.4	ng/l
Minimum	10	162	ng/l
Maximum	373	373	ng/l
Standard deviation	82.7	53.6	ng/l
rel. standard deviation	36.6	22	%
n	13	12	-

Graphical presentation of results

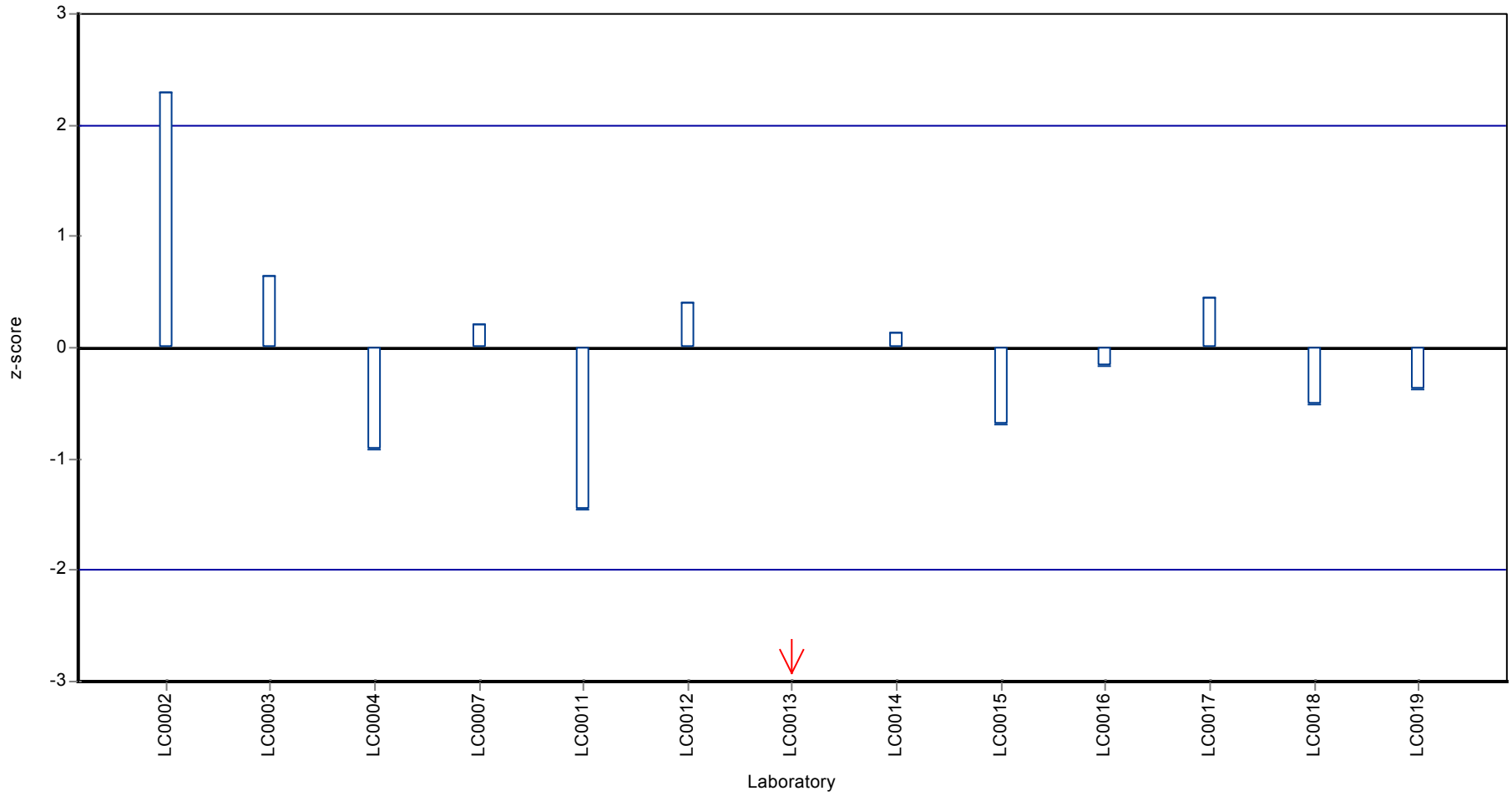
Results



Recovery rate



Z-score


3
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0
-1
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z-score
LC0002
LC0003
LC0004
LC0007
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
Laboratory

Parameter oriented report

P20 B

Acenaphthylene

Unit	ng/l
Assigned value ± U (k=2)	-
Criterion	-
Minimum - Maximum	10 - 22.4
Control test value ± U (k=2)	15.7 ± 4.39

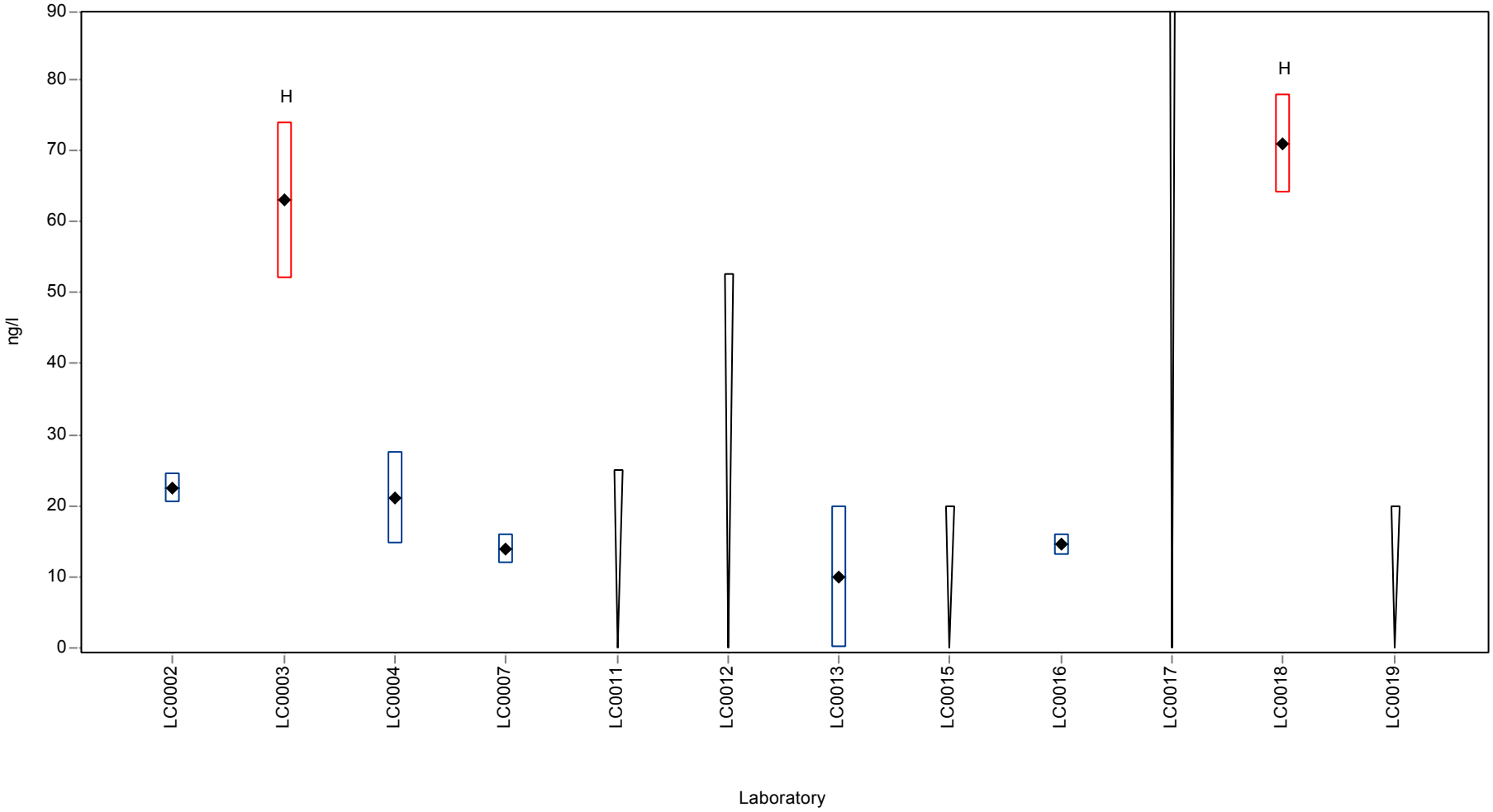
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	22.4	2.12	-	-	
LC0003	63	11	-	-	H
LC0004	21	6.5	-	-	
LC0005	-	-	-	-	
LC0006	-	-	-	-	
LC0007	13.82	2.07	-	-	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	-	-	-	-	
LC0011	< 25 (LOQ)	-	-	-	
LC0012	< 52.6 (LOQ)	-	-	-	
LC0013	10	10	-	-	
LC0014	-	-	-	-	
LC0015	< 20 (LOQ)	-	-	-	
LC0016	14.5	1.5	-	-	
LC0017	< 161 (LOQ)	-	-	-	
LC0018	71	7	-	-	H
LC0019	< 20 (LOQ)	-	-	-	

Characteristics of parameter

	all results	without outliers	Unit
Mean ± CI (99%)	30.8 ± 28.6	-	ng/l
Minimum	10	10	ng/l
Maximum	71	22.4	ng/l
Standard deviation	25.2	-	ng/l
rel. standard deviation	81.7	-	%
n	7	5	-

Graphical presentation of results

Results



Parameter oriented report

P20 A

Anthracene

Unit	ng/l
Assigned value ± U (k=2)	-
Criterion	-
Minimum - Maximum	-
Control test value ± U (k=2)	80.6 ± 21

Information zur Auswertung:

Die Bewertung dient nur zu Informationszwecken, da der von Ausreißern bereinigte Mittelwert der Ergebnisse der Teilnehmer nicht im Bereich der Messunsicherheit des Kontrollwertes liegt und dadurch Rückführbarkeit nicht gewährleisted ist.

Information for evaluation:

Assessment is used for informational purposes only, since the outlier adjusted mean value of participant results is not within range of the measurement uncertainty of the control value and thereby traceability is not guaranteed.

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-			
LC0002	77.4	0.04			
LC0003	68	8			
LC0004	56.9	17.6			
LC0005	73.2	32.2			
LC0006	32	14.08			
LC0007	69.98	12.6			
LC0008	-	-			
LC0009	-	-			
LC0010	-	-			
LC0011	47	9			
LC0012	62	6.2			
LC0013	30	10			
LC0014	37.3	11.2			
LC0015	57	18			
LC0016	72	7.2			
LC0017	72.2	8.22			
LC0018	59	6			
LC0019	60	18			

Characteristics of parameter

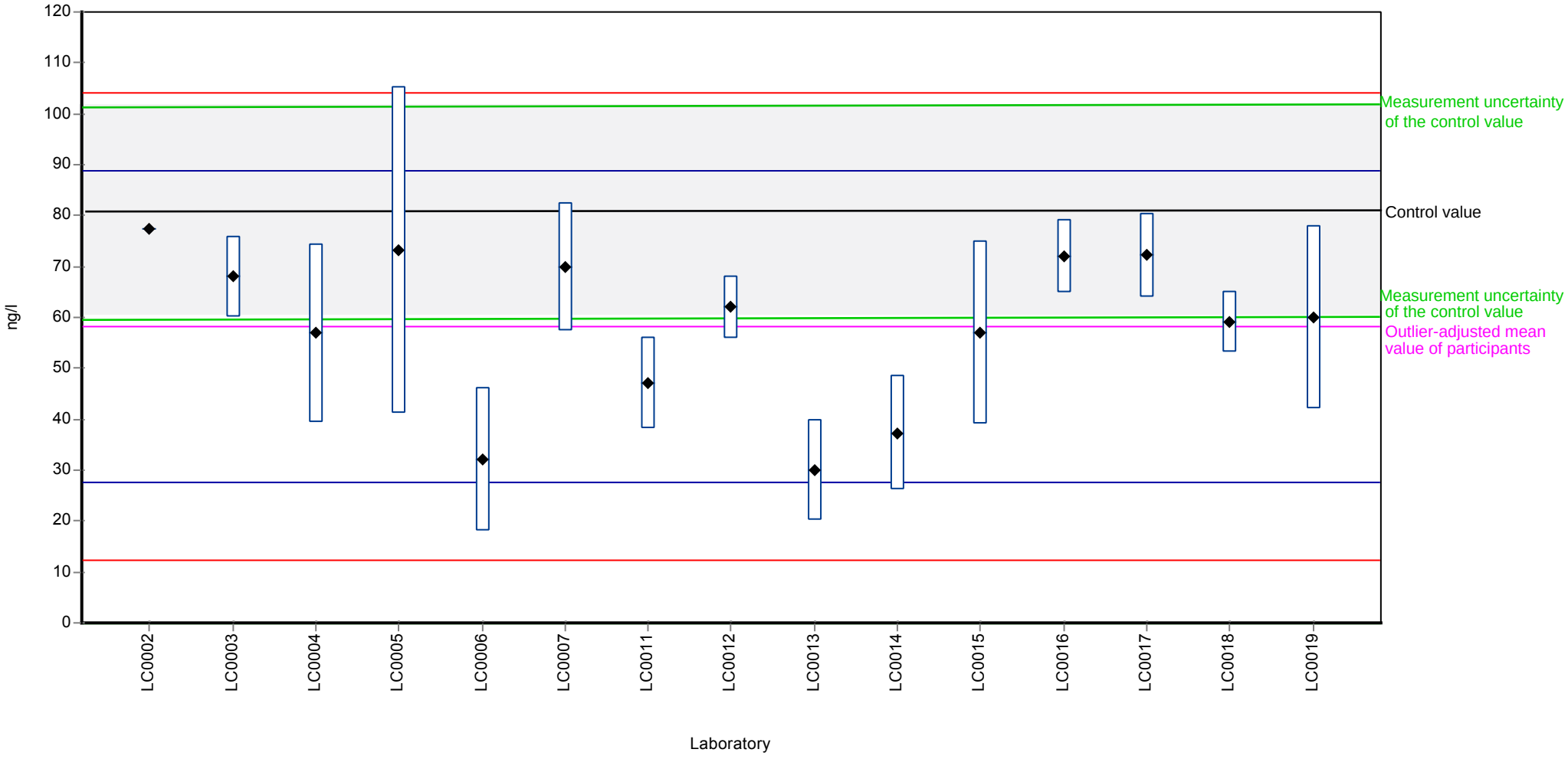
	all results	without outliers	Unit
Mean ± CI (99%)	58.3 ± 11.9	58.3 ± 11.9	ng/l
Minimum	30	30	ng/l
Maximum	77.4	77.4	ng/l
Standard deviation	15.3	15.3	ng/l
rel. standard deviation	26.3	26.3	%
n	15	15	-

Information zur Auswertung: Die Bewertung dient nur zu Informationszwecken, da der von Ausreißern bereinigte Mittelwert der Ergebnisse der Teilnehmer nicht im Bereich der Messunsicherheit des Kontrollwertes liegt und dadurch keine Rückführbarkeit gegeben ist.

Information for evaluation: Assessment is used for informational purposes only, since the outlier adjusted mean value of participant results is not within range of the measurement uncertainty of the control value and thus, traceability is not given.

Graphical presentation of results

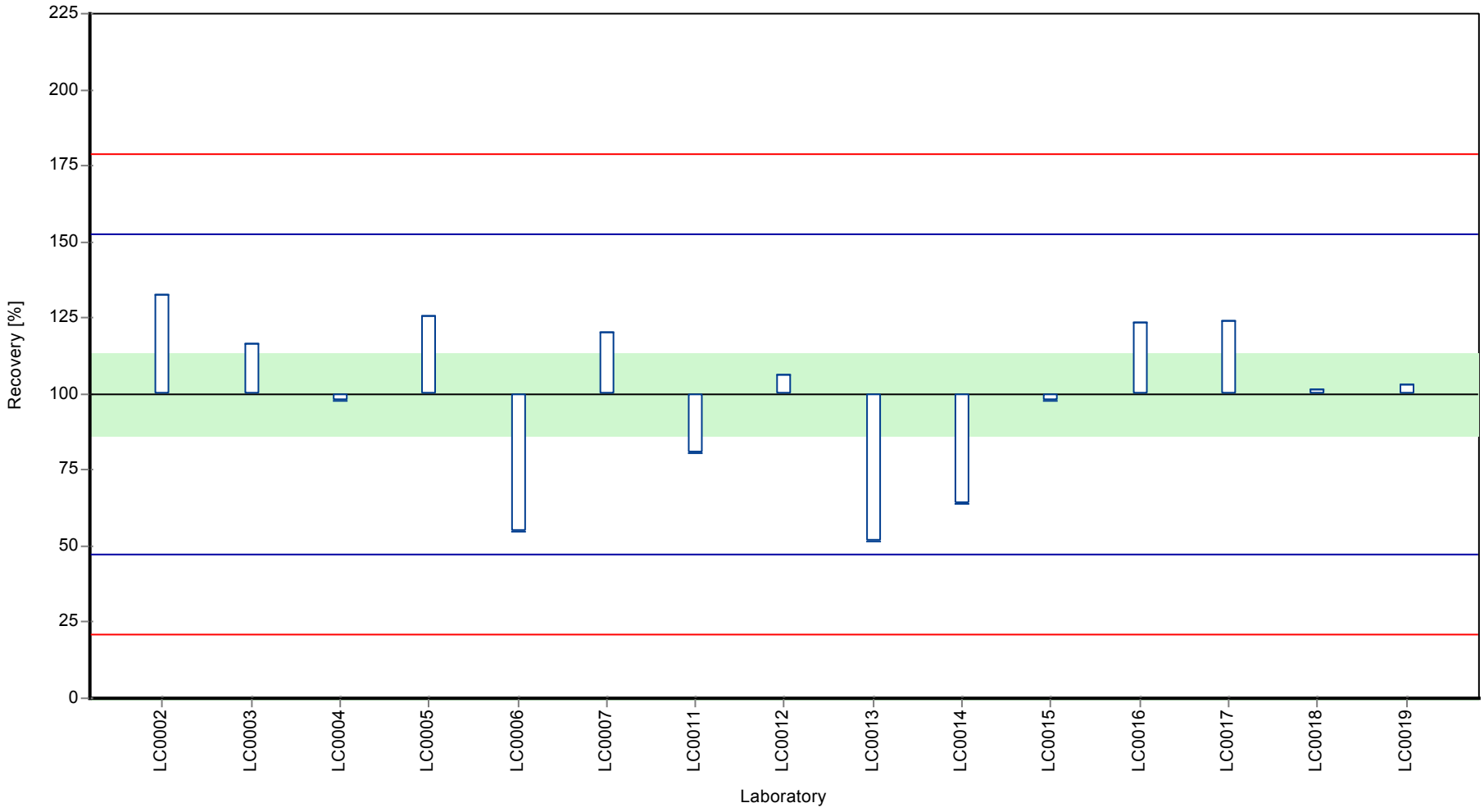
Results



Information zur Auswertung: Die Bewertung dient nur zu Informationszwecken, da der von Ausreißern bereinigte Mittelwert der Ergebnisse der Teilnehmer nicht im Bereich der Messunsicherheit des Kontrollwertes liegt und dadurch keine Rückführbarkeit gegeben ist.

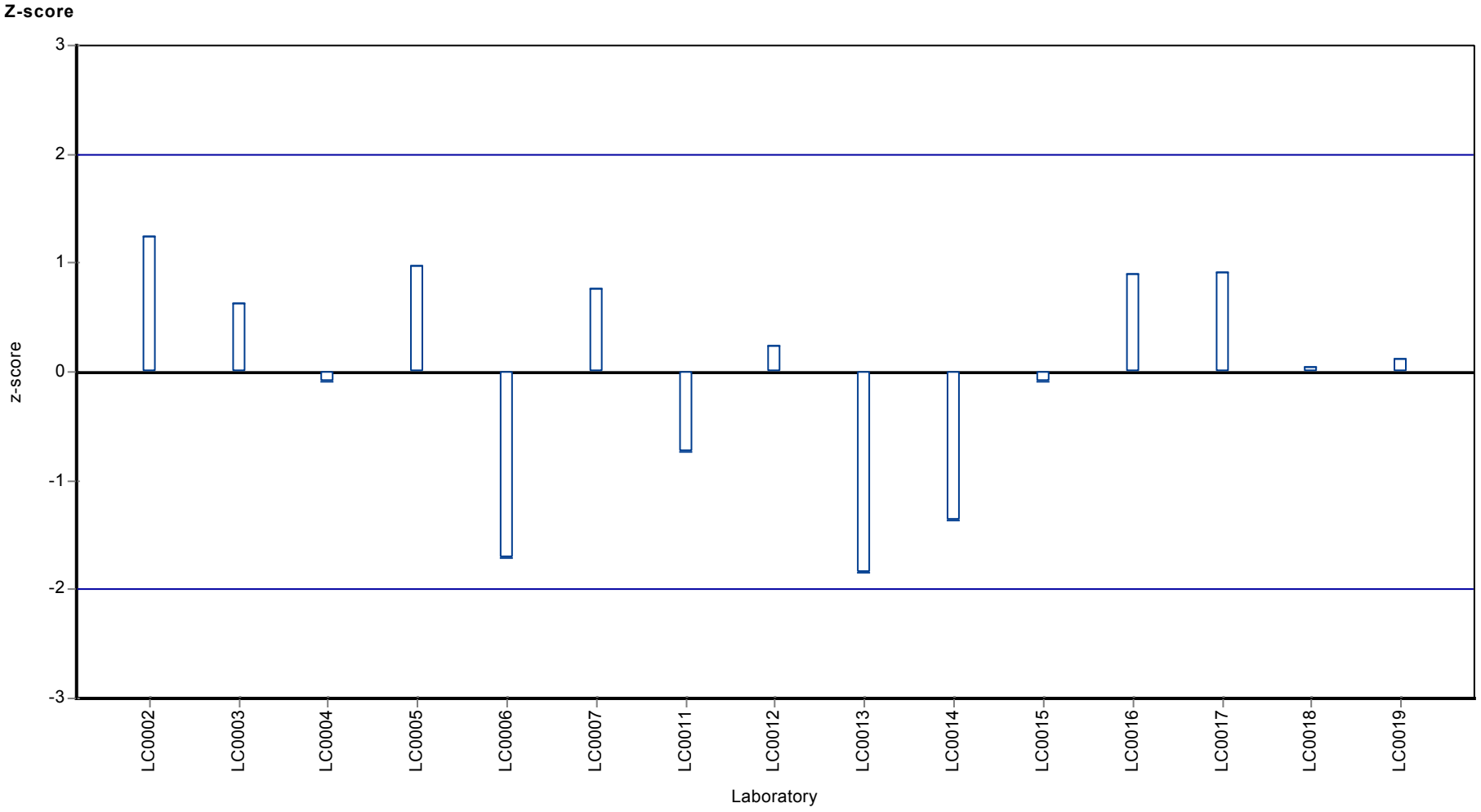
Information for evaluation: Assessment is used for informational purposes only, since the outlier adjusted mean value of participant results is not within range of the measurement uncertainty of the control value and thus, traceability is not given.

Recovery rate



Information zur Auswertung: Die Bewertung dient nur zu Informationszwecken, da der von Ausreißern bereinigte Mittelwert der Ergebnisse der Teilnehmer nicht im Bereich der Messunsicherheit des Kontrollwertes liegt und dadurch keine Rückführbarkeit gegeben ist.

Information for evaluation: Assessment is used for informational purposes only, since the outlier adjusted mean value of participant results is not within range of the measurement uncertainty of the control value and thus, traceability is not given.



Parameter oriented report

P20 B

Anthracene

Unit	ng/l
Assigned value ± U (k=2)	33.4 ± 2.14
Criterion	8 (24 %)
Minimum - Maximum	28.4 - 40.8
Control test value ± U (k=2)	36.3 ± 9.44

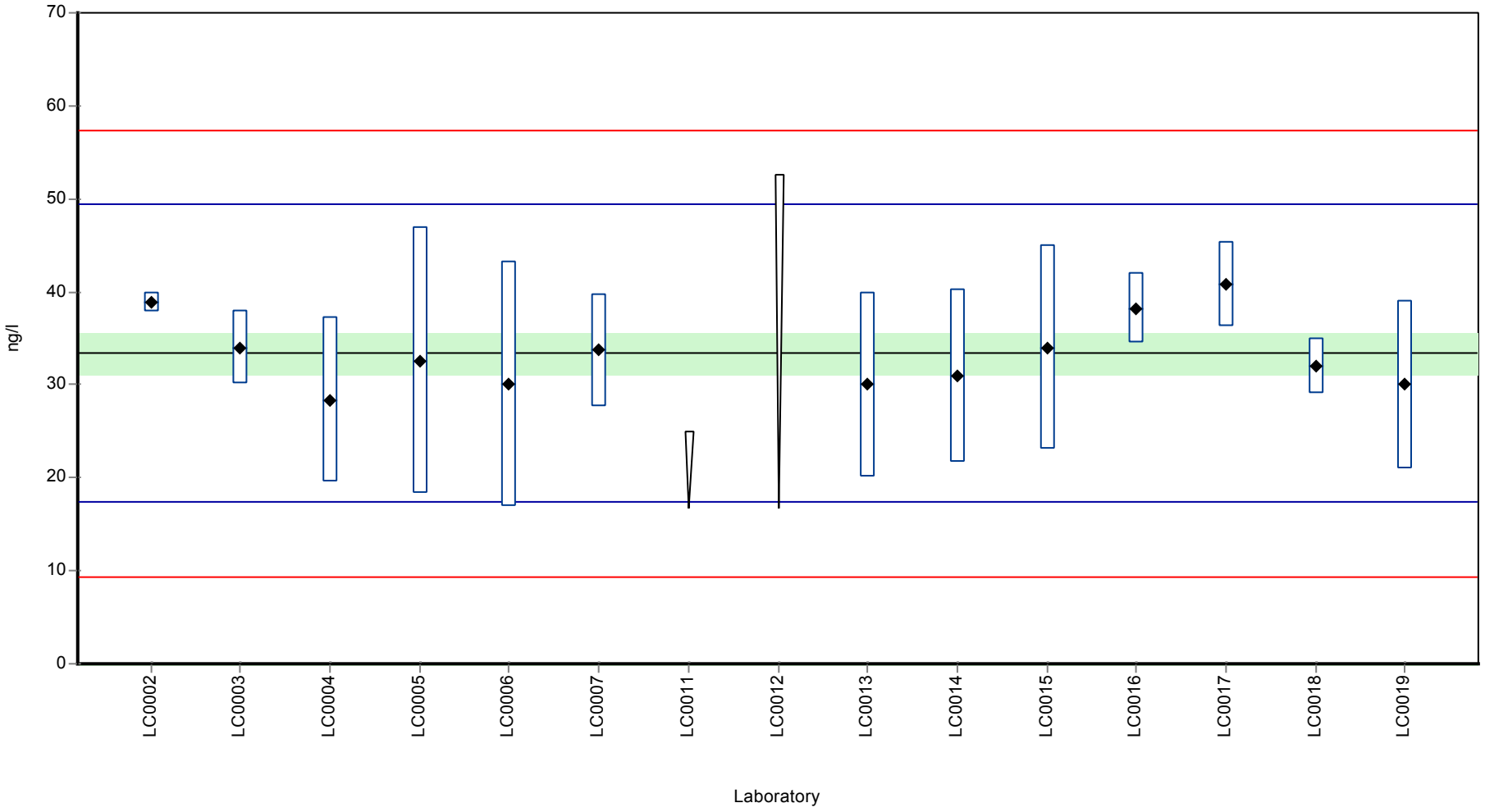
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	38.9	1.05	117	0.69	
LC0003	34	4	102	0.08	
LC0004	28.4	8.8	85.2	-0.62	
LC0005	32.6	14.3	97.7	-0.09	
LC0006	30	13.2	90	-0.42	
LC0007	33.72	6.06	101	0.05	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	-	-	-	-	
LC0011	< 25 (LOQ)	-	-	-	
LC0012	< 52.6 (LOQ)	-	-	-	
LC0013	30	10	90	-0.42	
LC0014	30.9	9.3	92.6	-0.31	
LC0015	34	11	102	0.08	
LC0016	38.25	3.85	115	0.61	
LC0017	40.8	4.64	122	0.93	
LC0018	32	3	95.9	-0.17	
LC0019	30	9	90	-0.42	

Characteristics of parameter

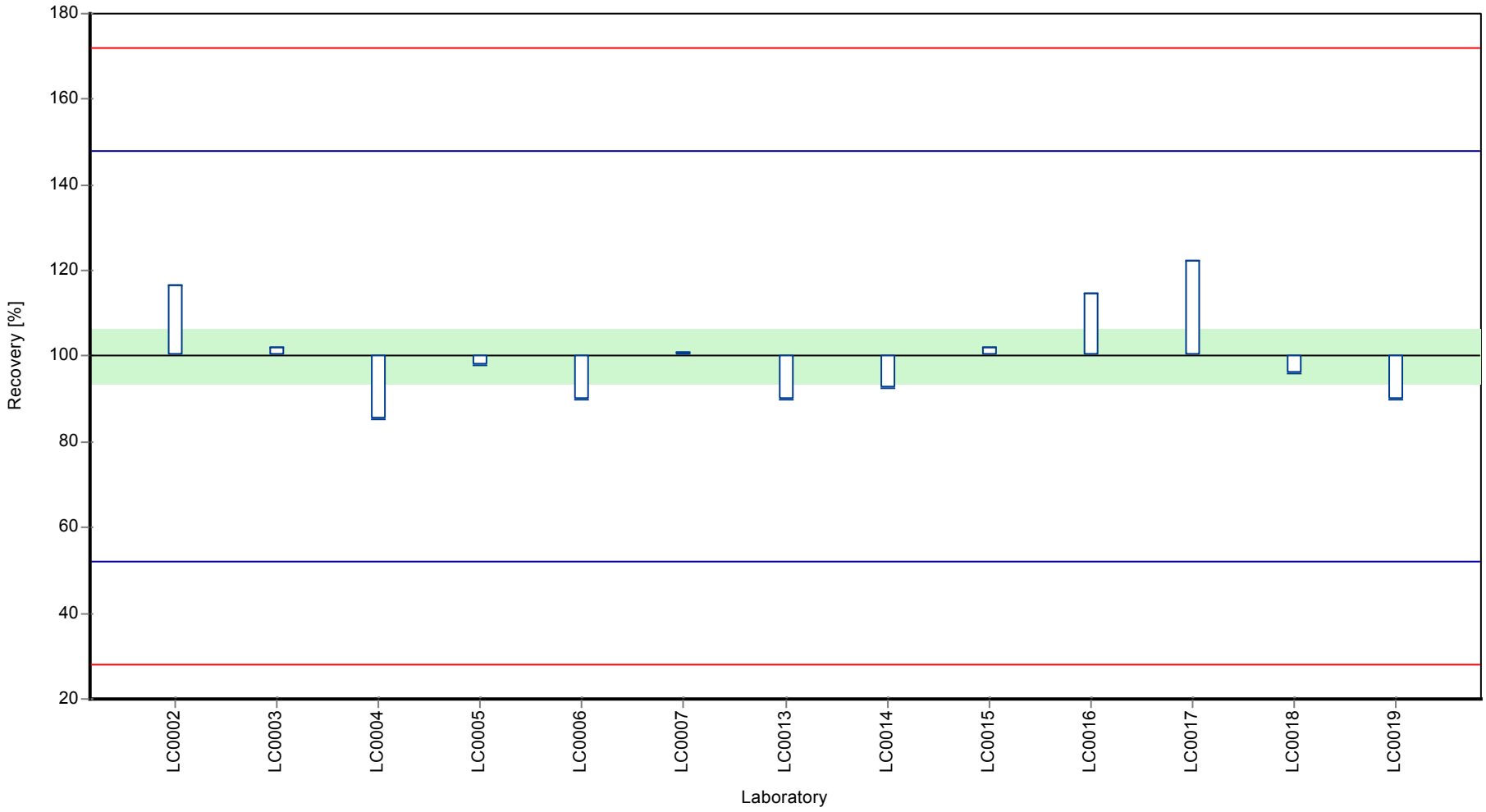
	all results	without outliers	Unit
Mean ± CI (99%)	33.4 ± 3.2	33.4 ± 3.2	ng/l
Minimum	28.4	28.4	ng/l
Maximum	40.8	40.8	ng/l
Standard deviation	3.85	3.85	ng/l
rel. standard deviation	11.5	11.5	%
n	13	13	-

Graphical presentation of results

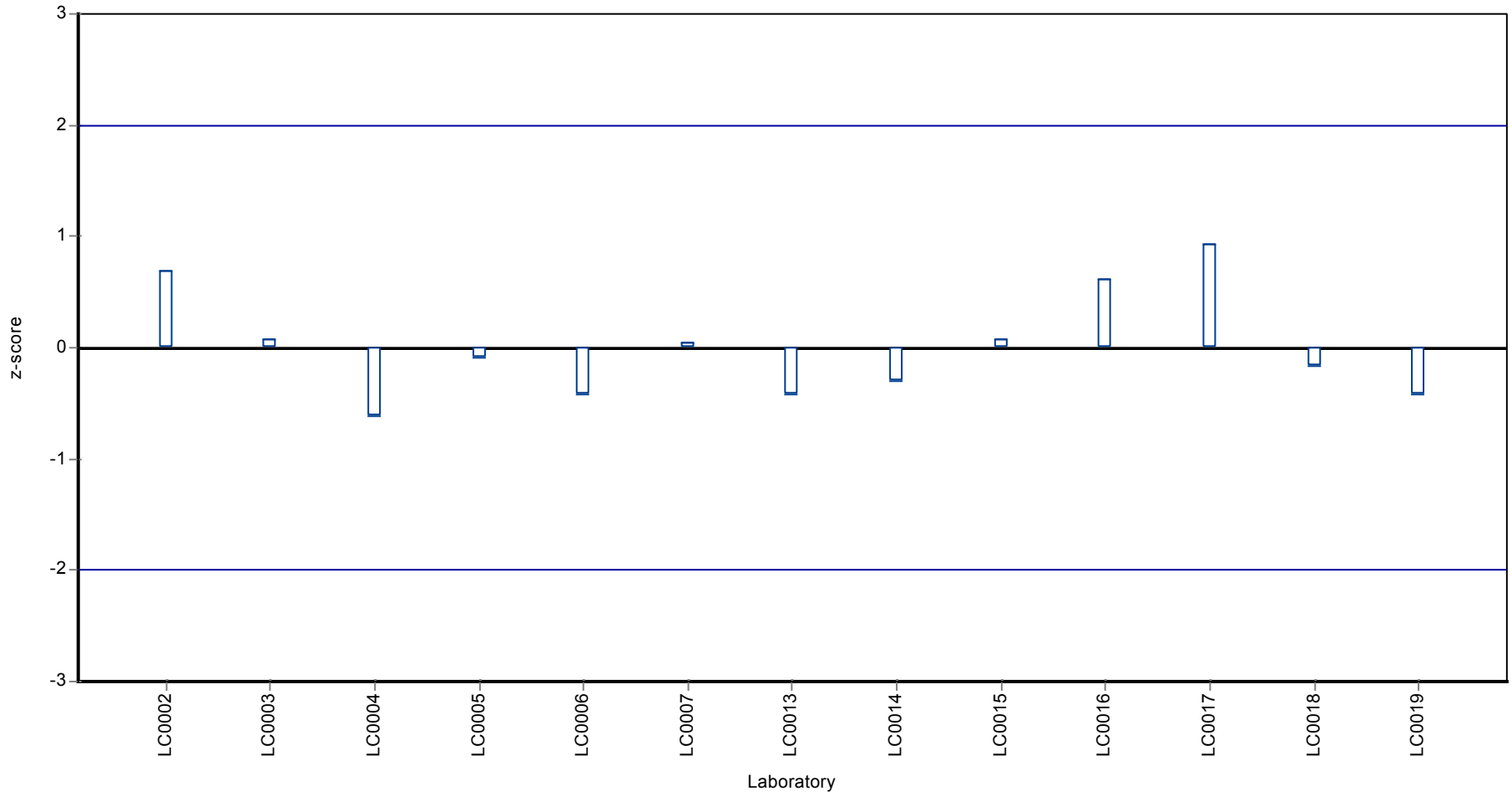
Results



Recovery rate



Z-score


3
2
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-1
-2
-3
z-score
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
Laboratory

Parameter oriented report

P20 A

Benzo[a]anthracene

Unit	ng/l
Assigned value ± U (k=2)	40.9 ± 5.55
Criterion	10.4 (25 %)
Minimum - Maximum	20 - 55
Control test value ± U (k=2)	51.4 ± 12.3

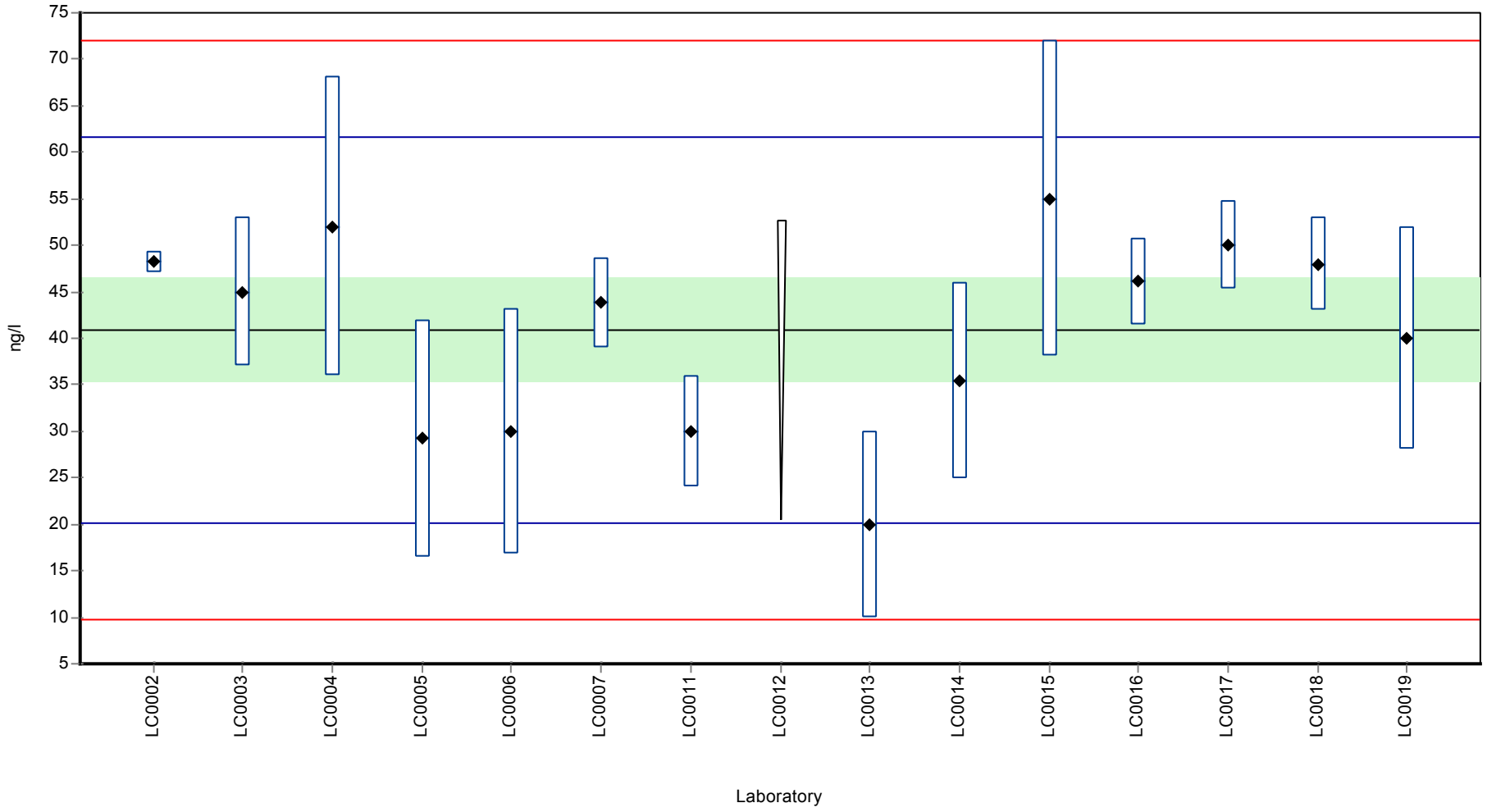
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	48.2	1.14	118	0.7	
LC0003	45	8	110	0.39	
LC0004	52	16.1	127	1.07	
LC0005	29.2	12.8	71.4	-1.13	
LC0006	30	13.2	73.3	-1.05	
LC0007	43.83	4.82	107	0.28	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	-	-	-	-	
LC0011	30	6	73.3	-1.05	
LC0012	< 52.6 (LOQ)	-	-	-	
LC0013	20	10	48.9	-2.01	
LC0014	35.4	10.6	86.5	-0.53	
LC0015	55	17	134	1.36	
LC0016	46.13	4.65	113	0.5	
LC0017	50	4.75	122	0.88	
LC0018	48	5	117	0.68	
LC0019	40	12	97.8	-0.09	

Characteristics of parameter

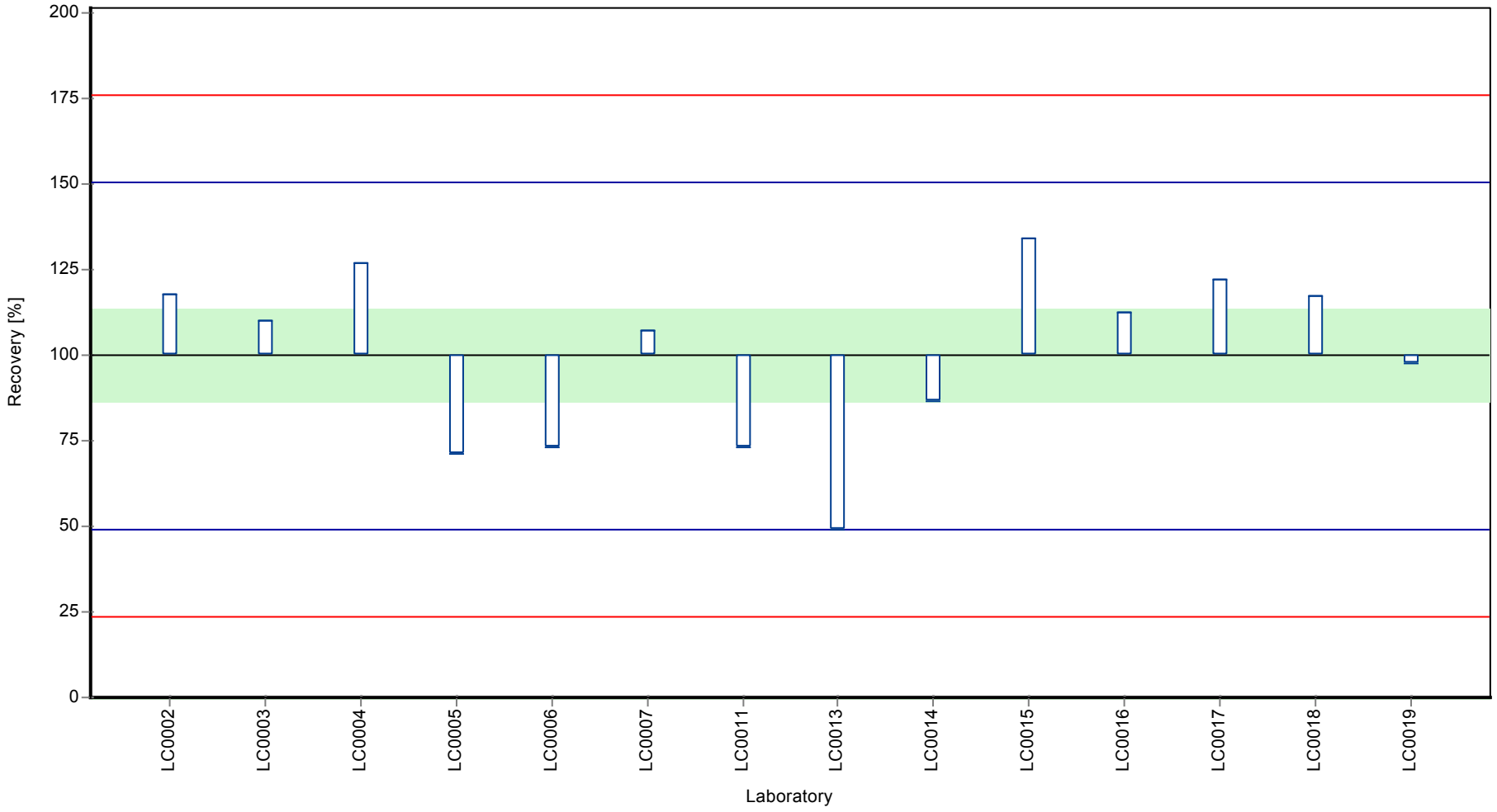
	all results	without outliers	Unit
Mean ± CI (99%)	40.9 ± 8.33	40.9 ± 8.33	ng/l
Minimum	20	20	ng/l
Maximum	55	55	ng/l
Standard deviation	10.4	10.4	ng/l
rel. standard deviation	25.4	25.4	%
n	14	14	-

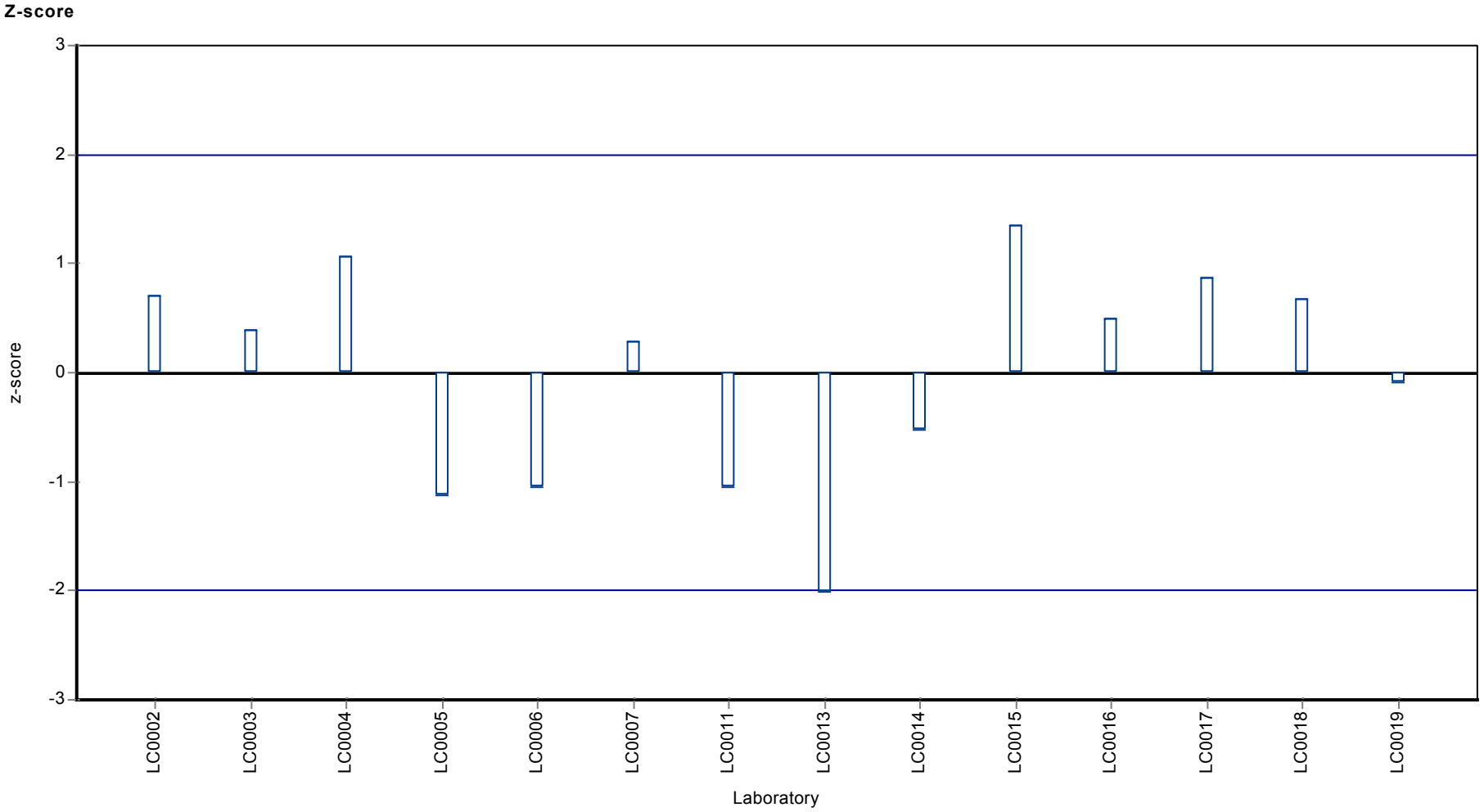
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
z-score
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0011
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
Laboratory

Parameter oriented report

P20 B

Benzo[a]anthracene

Unit	ng/l
Assigned value ± U (k=2)	9.26 ± 0.668
Criterion	1.67 (18 %)
Minimum - Maximum	7.6 - 10.4
Control test value ± U (k=2)	9.08 ± 2.18

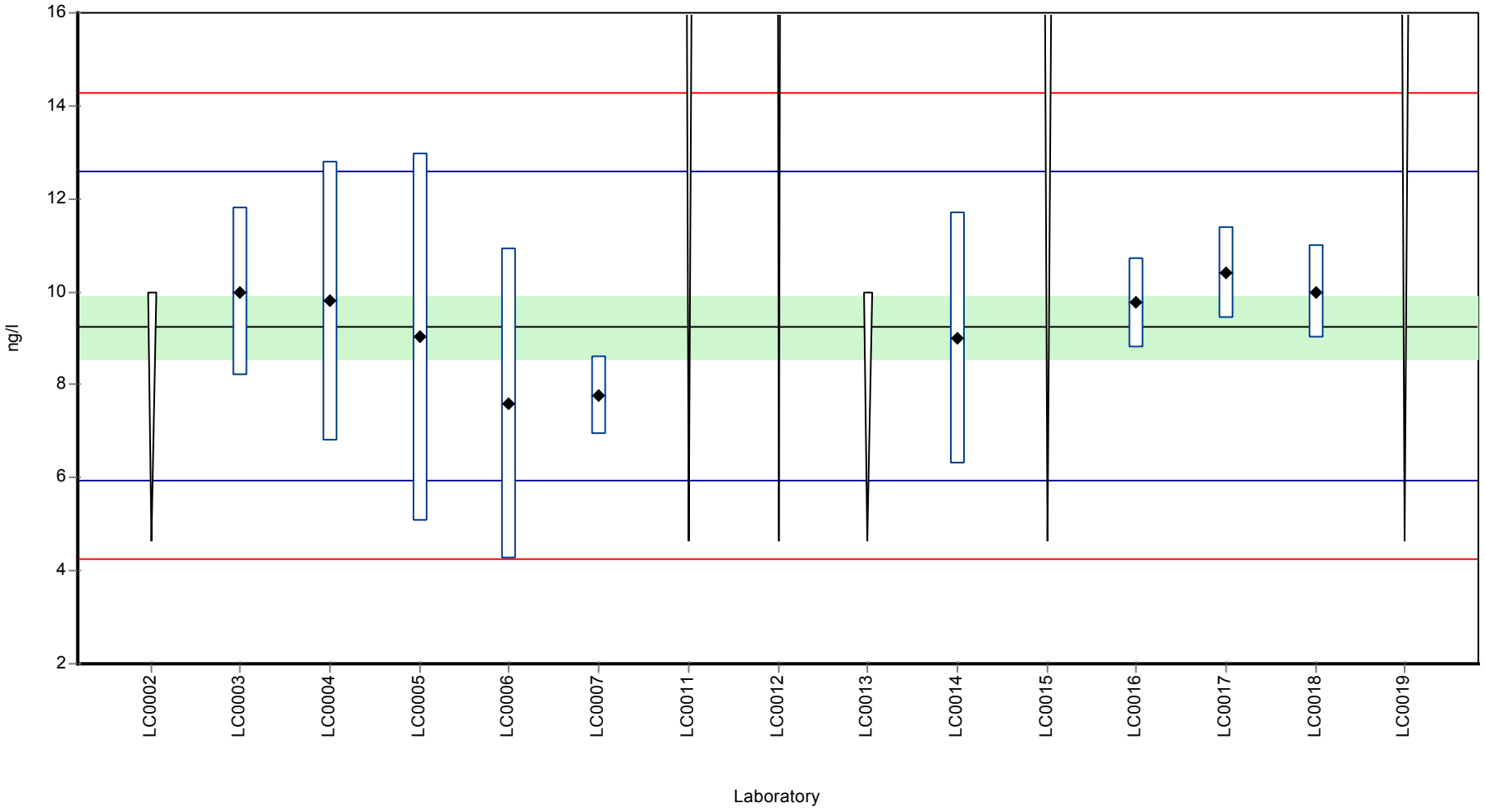
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	< 10 (LOQ)	-	-	-	
LC0003	10	1.8	108	0.44	
LC0004	9.8	3	106	0.32	
LC0005	9.02	3.97	97.4	-0.14	
LC0006	7.6	3.34	82.1	-1	
LC0007	7.77	0.85	83.9	-0.89	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	-	-	-	-	
LC0011	< 25 (LOQ)	-	-	-	
LC0012	< 52.6 (LOQ)	-	-	-	
LC0013	< 10 (LOQ)	-	-	-	
LC0014	9	2.7	97.2	-0.16	
LC0015	< 20 (LOQ)	-	-	-	
LC0016	9.76	0.98	105	0.3	
LC0017	10.4	0.992	112	0.68	
LC0018	10	1	108	0.44	
LC0019	< 20 (LOQ)	-	-	-	

Characteristics of parameter

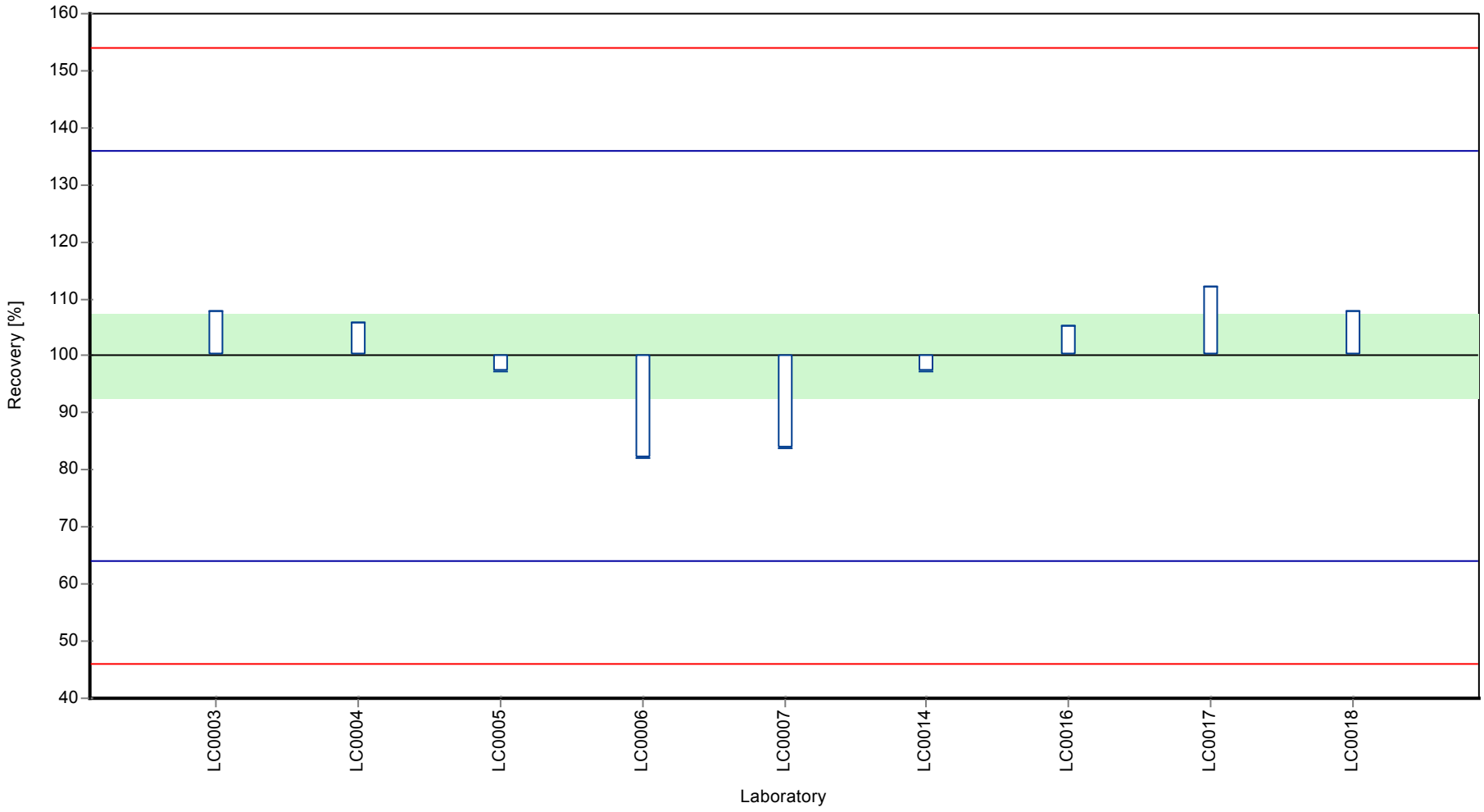
	all results	without outliers	Unit
Mean ± CI (99%)	9.26 ± 1	9.26 ± 1	ng/l
Minimum	7.6	7.6	ng/l
Maximum	10.4	10.4	ng/l
Standard deviation	1	1	ng/l
rel. standard deviation	10.8	10.8	%
n	9	9	-

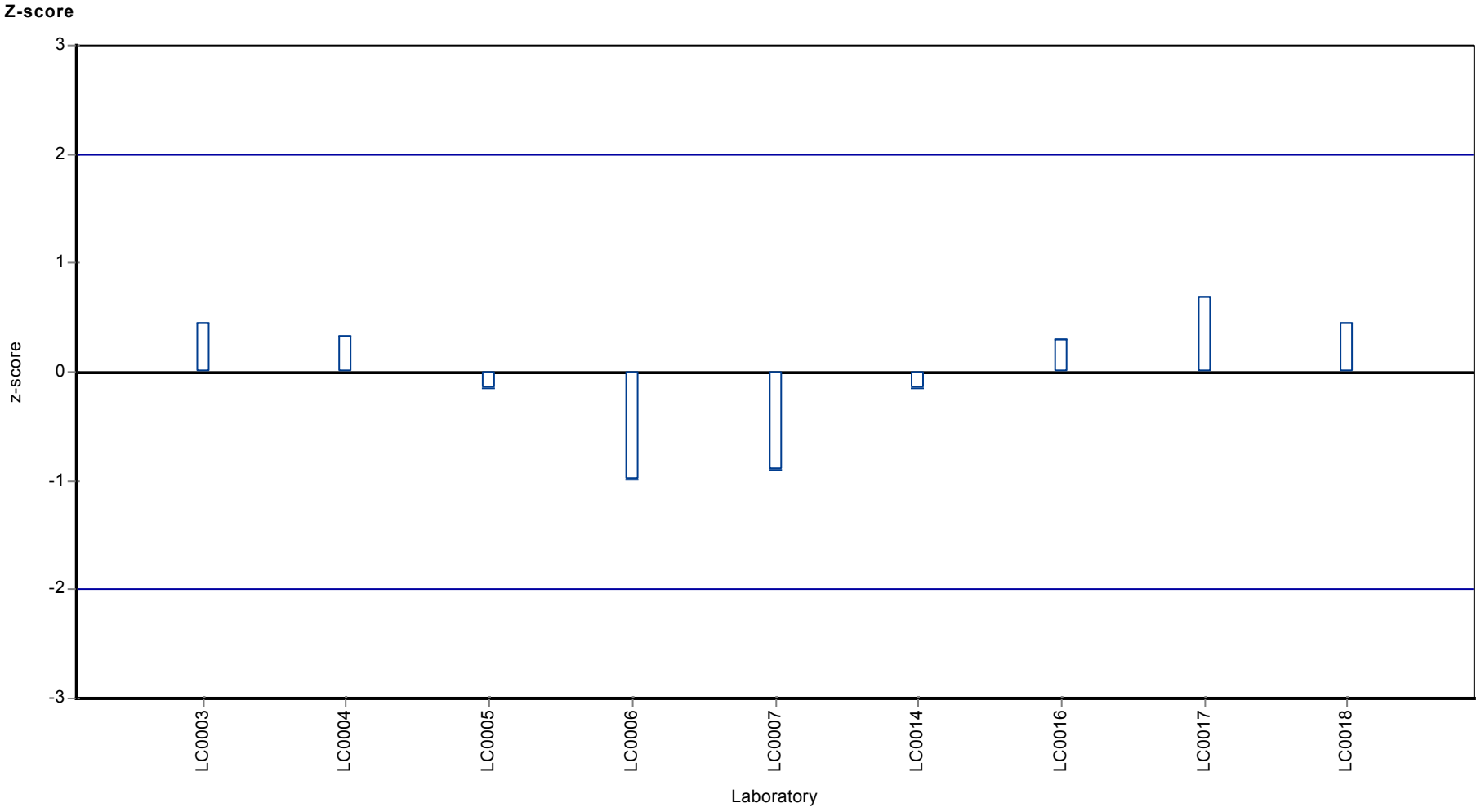
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
z-score
LC0003
LC0004
LC0005
LC0006
LC0007
LC0014
LC0016
LC0017
LC0018
Laboratory

Parameter oriented report

P20 A

Benzo[a]pyrene

Unit	ng/l
Assigned value ± U (k=2)	57.6 ± 9.56
Criterion	13.3 (23 %)
Minimum - Maximum	26 - 85
Control test value ± U (k=2)	75.7 ± 21.2

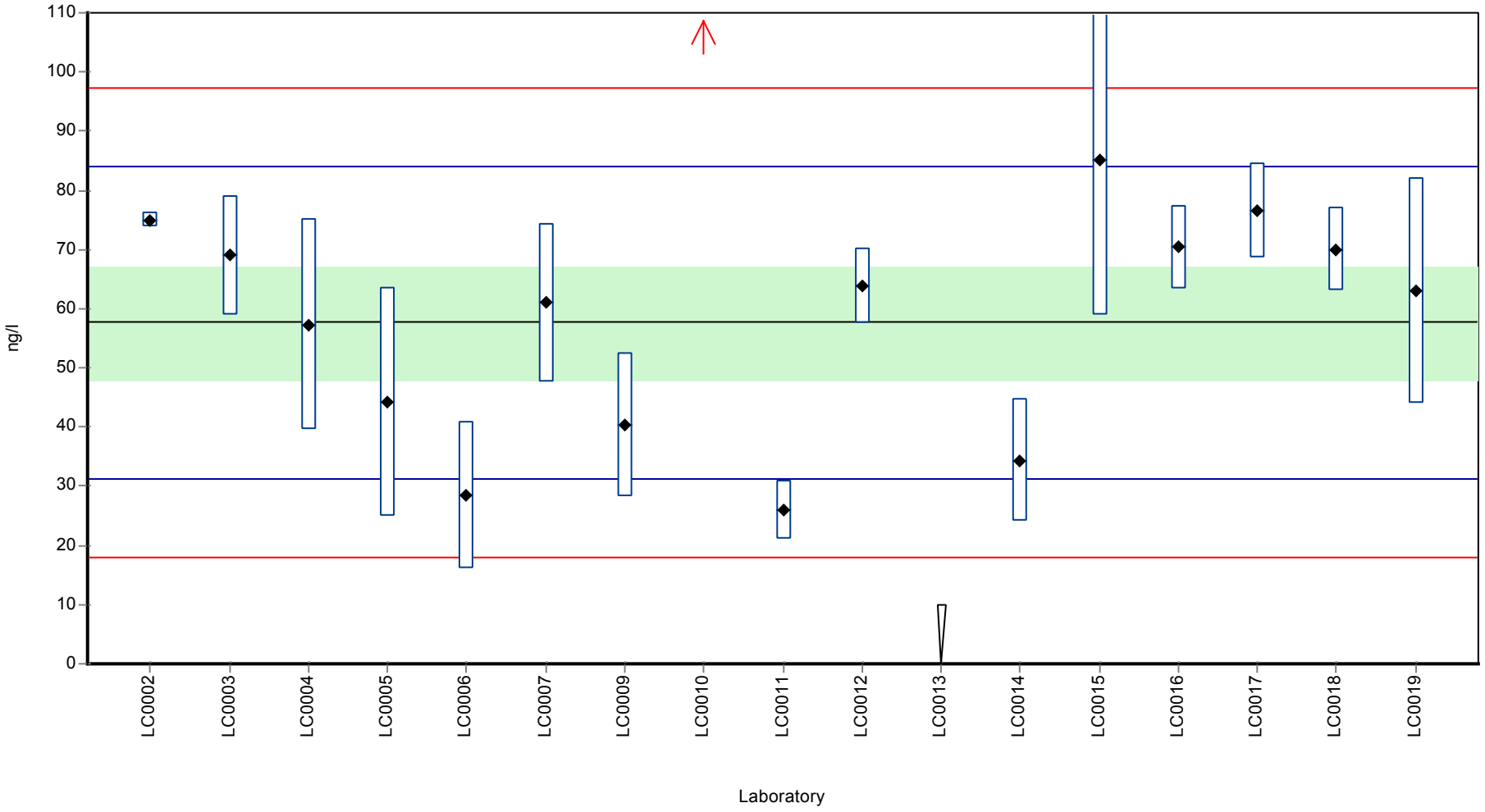
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	75	1.21	130	1.31	
LC0003	69	10	120	0.86	
LC0004	57.3	17.8	99.4	-0.02	
LC0005	44.2	19.4	76.7	-1.01	
LC0006	28.5	12.54	49.5	-2.2	
LC0007	61.04	13.43	106	0.26	
LC0008	-	-	-	-	
LC0009	40.3	12.1	69.9	-1.31	
LC0010	146.7	44.02	255	6.72	H
LC0011	26	5	45.1	-2.39	
LC0012	63.8	6.4	111	0.47	
LC0013	< 10 (LOQ)	-	-	-	
LC0014	34.4	10.3	59.7	-1.75	
LC0015	85	26	147	2.07	
LC0016	70.38	7.1	122	0.96	
LC0017	76.5	7.96	133	1.42	
LC0018	70	7	121	0.93	
LC0019	63	19	109	0.41	

Characteristics of parameter

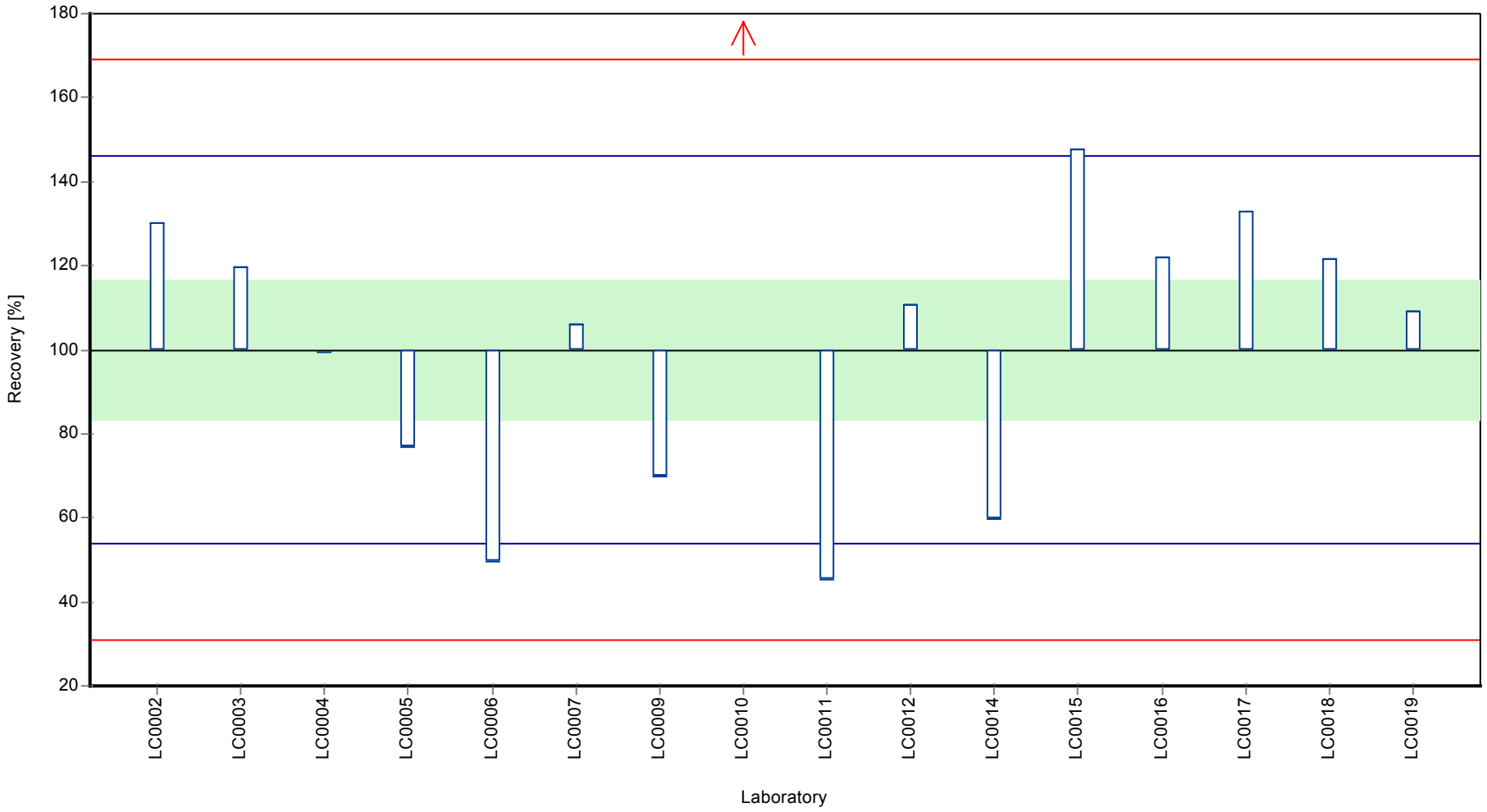
	all results	without outliers	Unit
Mean ± CI (99%)	63.2 ± 21.4	57.6 ± 14.3	ng/l
Minimum	26	26	ng/l
Maximum	147	85	ng/l
Standard deviation	28.6	18.5	ng/l
rel. standard deviation	45.2	32.1	%
n	16	15	-

Graphical presentation of results

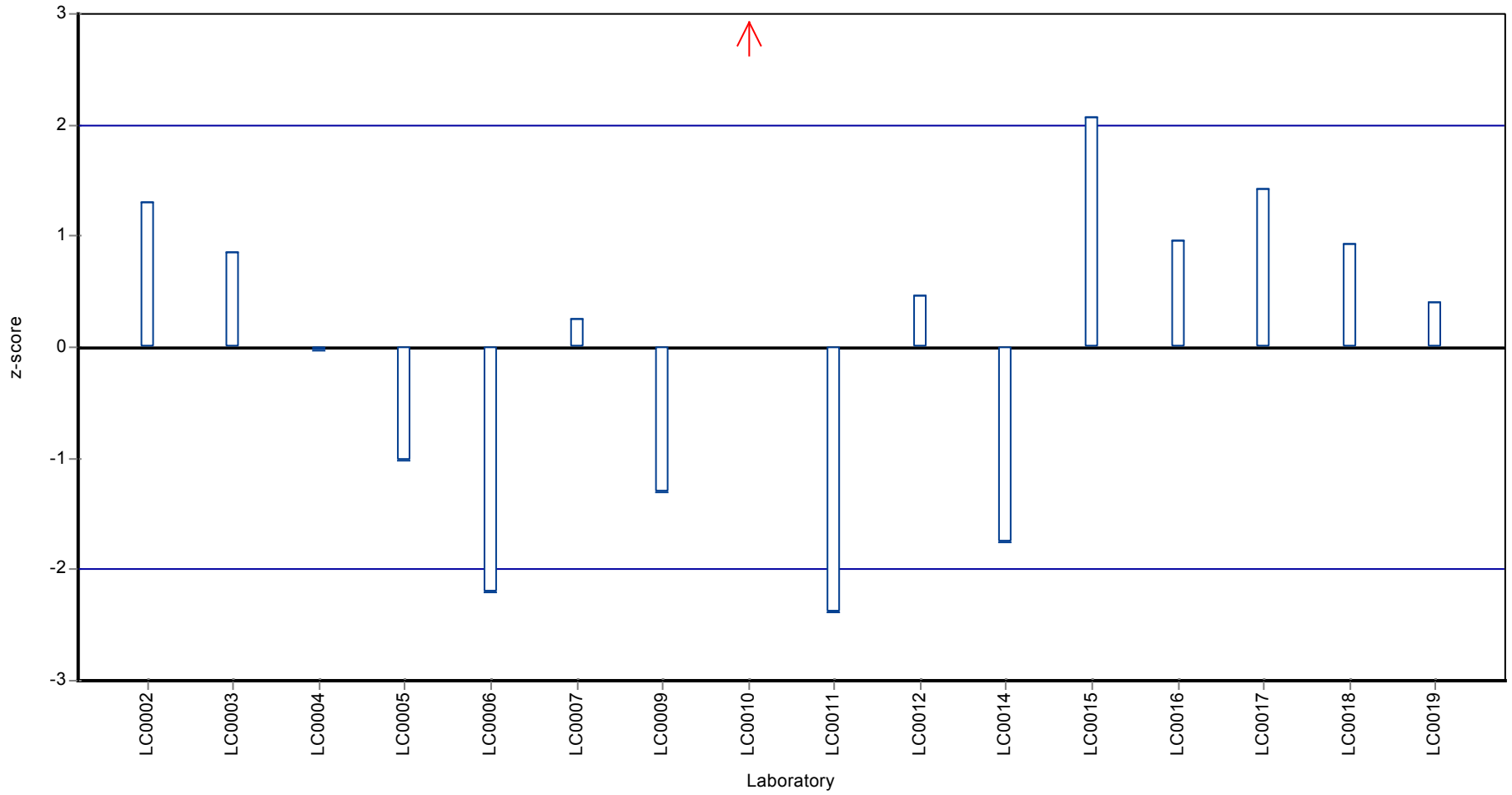
Results



Recovery rate



Z-score


3
2
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-1
-2
-3
z-score
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0009
LC0010
LC0011
LC0012
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
Laboratory

Parameter oriented report

P20 B

Benzo[a]pyrene

Unit	ng/l
Assigned value ± U (k=2)	9.87 ± 1.48
Criterion	2.27 (23 %)
Minimum - Maximum	6.2 - 13.3
Control test value ± U (k=2)	9.72 ± 2.72

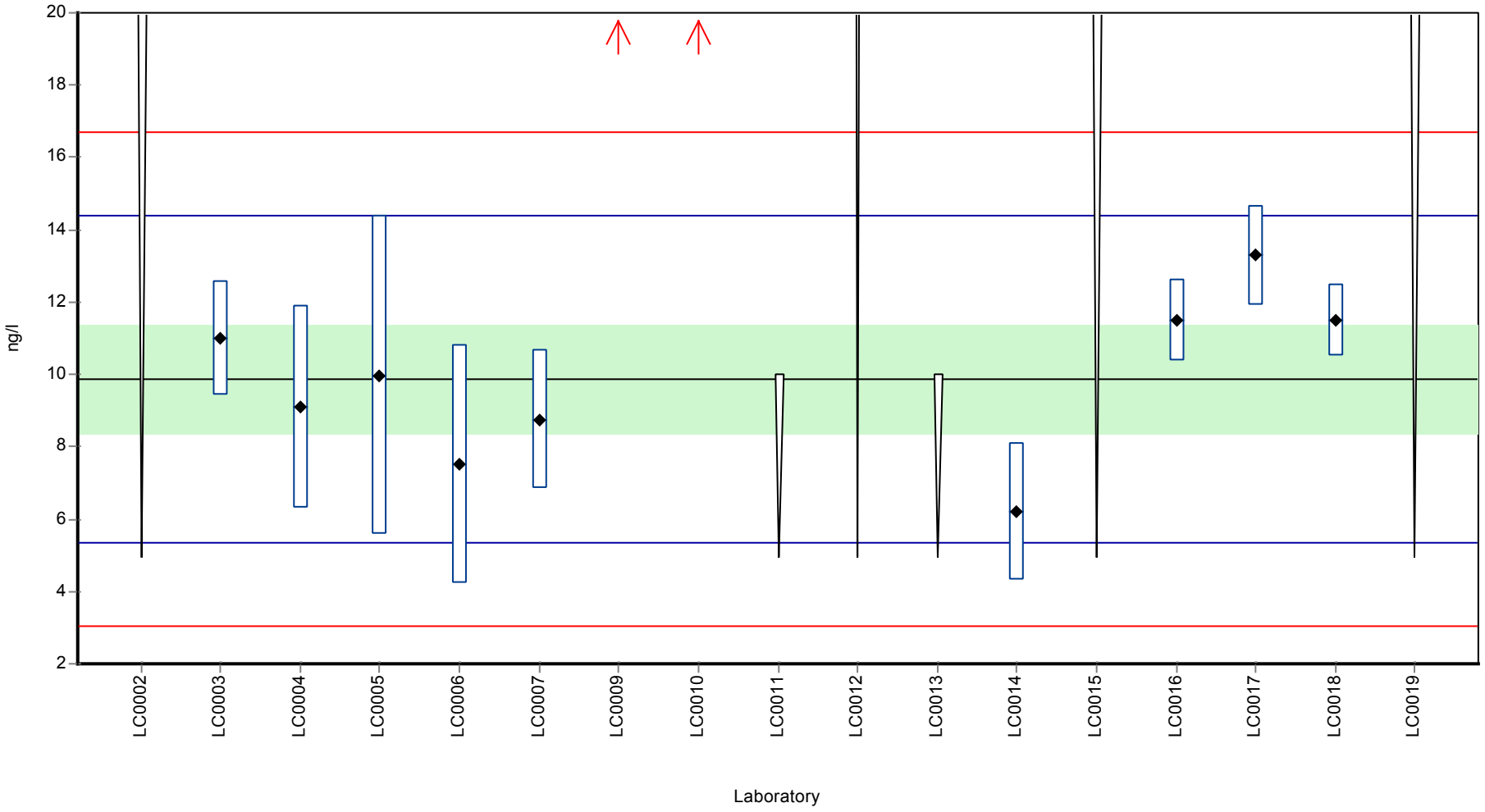
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	< 20 (LOQ)	-	-	-	
LC0003	11	1.6	111	0.5	
LC0004	9.1	2.8	92.2	-0.34	
LC0005	9.98	4.39	101	0.05	
LC0006	7.5	3.3	76	-1.04	
LC0007	8.76	1.93	88.7	-0.49	
LC0008	-	-	-	-	
LC0009	29	8.7	294	8.43	H
LC0010	35.6	10.68	361	11.3	H
LC0011	< 10 (LOQ)	-	-	-	
LC0012	< 52.6 (LOQ)	-	-	-	
LC0013	< 10 (LOQ)	-	-	-	
LC0014	6.2	1.9	62.8	-1.62	
LC0015	< 20 (LOQ)	-	-	-	
LC0016	11.5	1.15	117	0.72	
LC0017	13.3	1.38	135	1.51	
LC0018	11.5	1	117	0.72	
LC0019	< 20 (LOQ)	-	-	-	

Characteristics of parameter

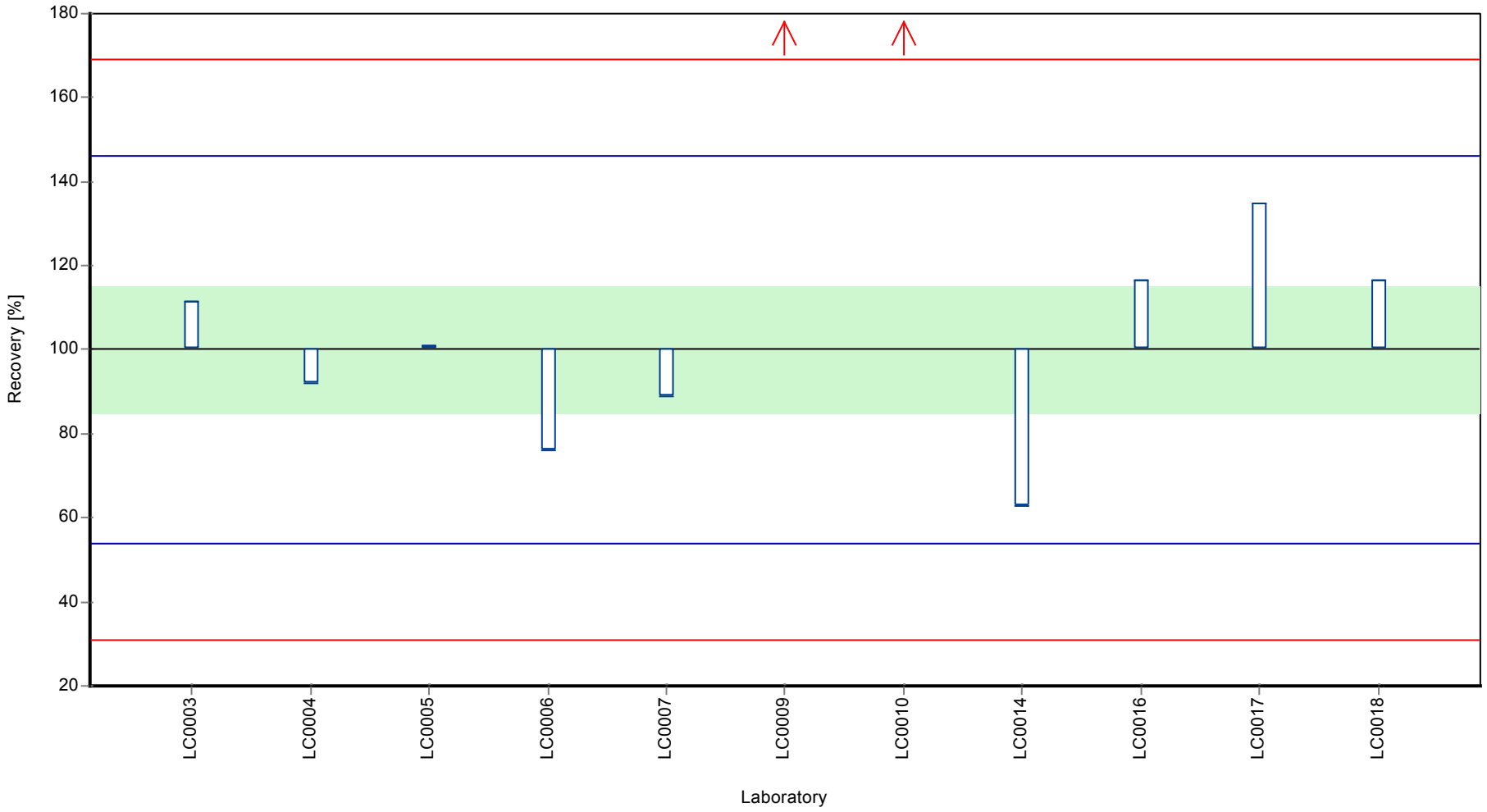
	all results	without outliers	Unit
Mean ± CI (99%)	13.9 ± 8.51	9.87 ± 2.22	ng/l
Minimum	6.2	6.2	ng/l
Maximum	35.6	13.3	ng/l
Standard deviation	9.4	2.22	ng/l
rel. standard deviation	67.4	22.4	%
n	11	9	-

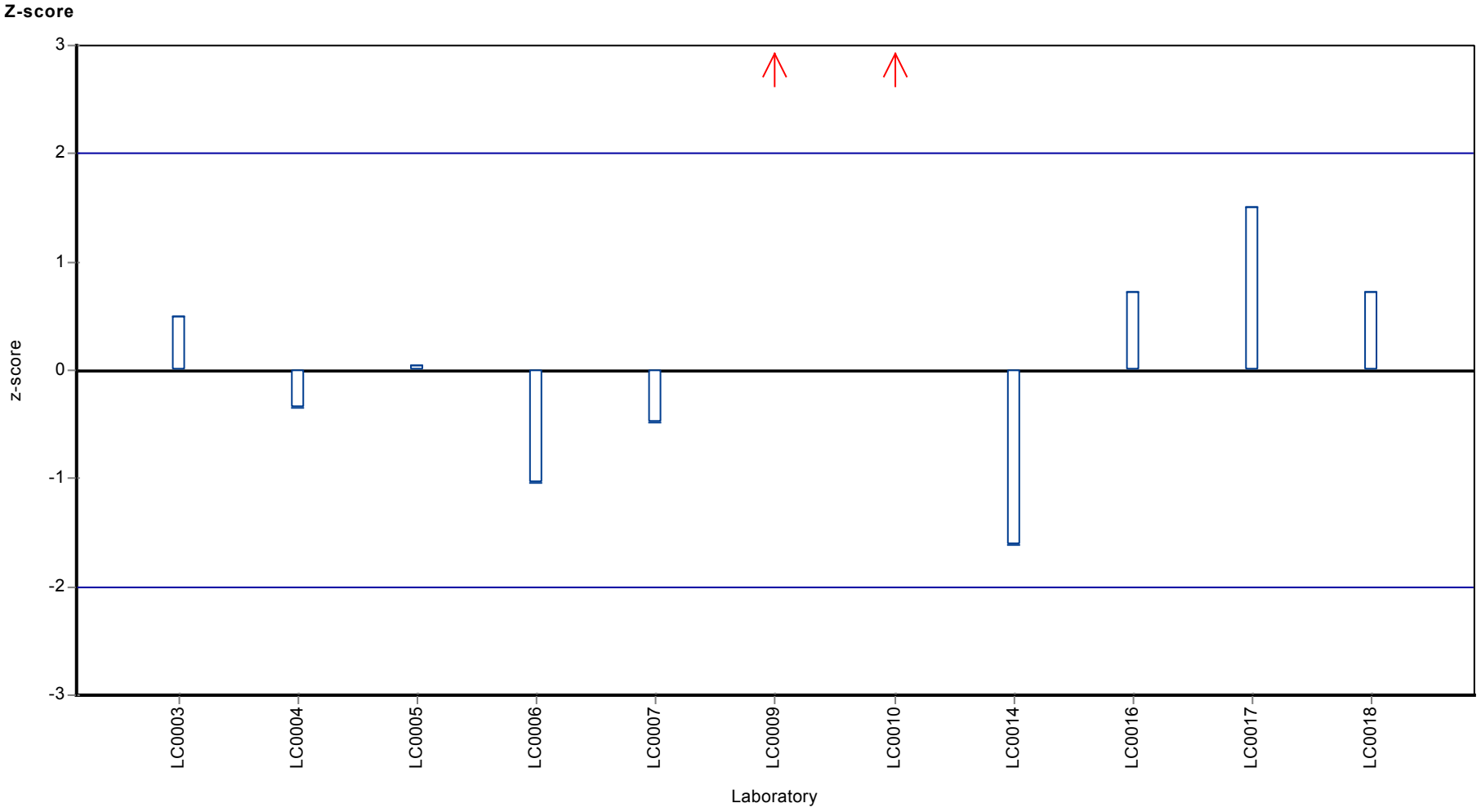
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
z-score
LC0003
LC0004
LC0005
LC0006
LC0007
LC0009
LC0010
LC0014
LC0016
LC0017
LC0018
Laboratory

Parameter oriented report

P20 A

Benzo[b]fluoranthene

Unit	ng/l
Assigned value ± U (k=2)	185 ± 12.1
Criterion	33.3 (18 %)
Minimum - Maximum	150 - 233
Control test value ± U (k=2)	196 ± 50.9

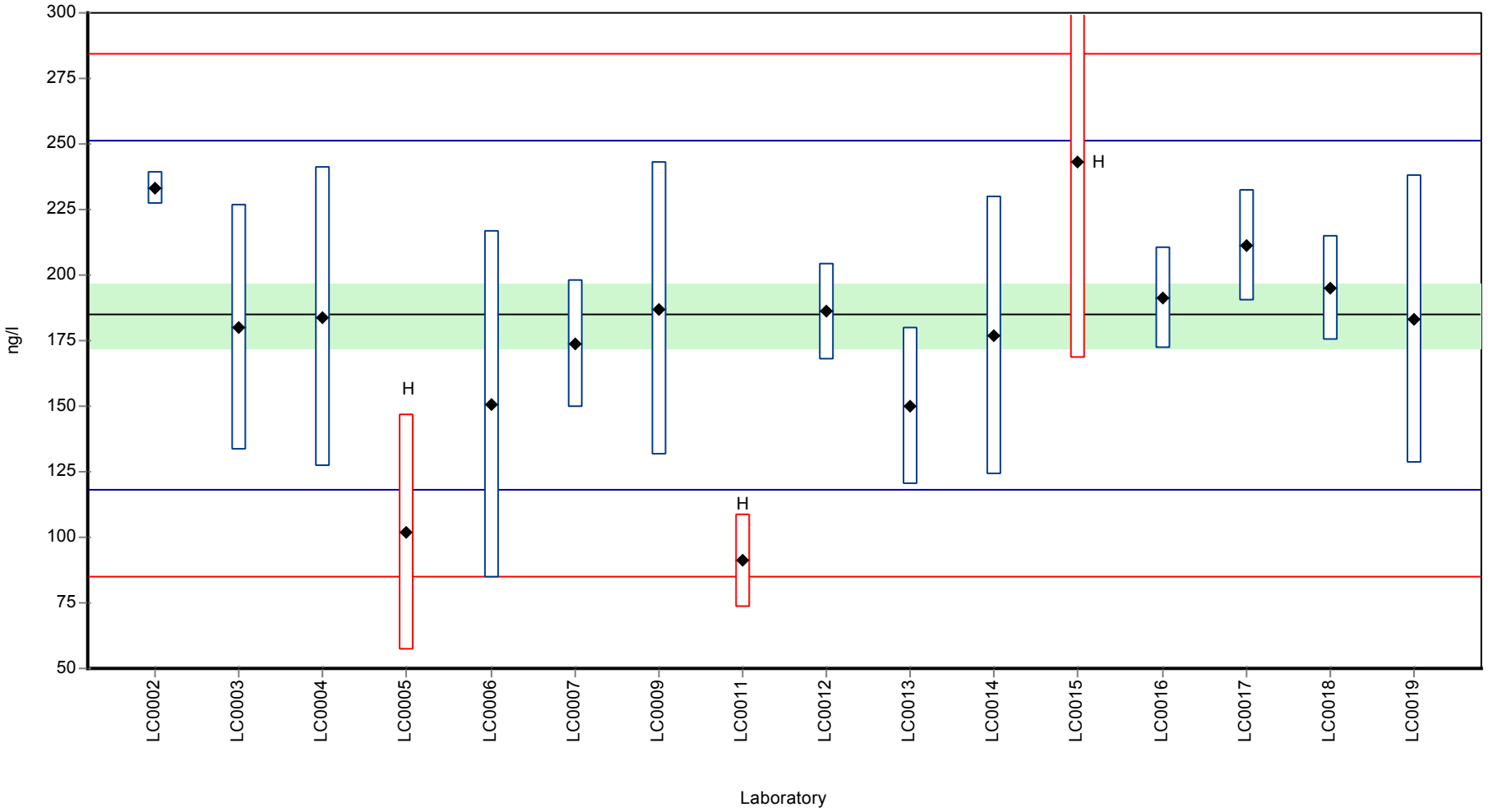
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	233	6.35	126	1.45	
LC0003	180	47	97.4	-0.14	
LC0004	184	57.1	99.6	-0.02	
LC0005	102	45	55.2	-2.49	H
LC0006	150.8	66.35	81.6	-1.02	
LC0007	173.78	24.33	94.1	-0.33	
LC0008	-	-	-	-	
LC0009	187	56	101	0.07	
LC0010	-	-	-	-	
LC0011	91	18	49.3	-2.82	H
LC0012	186	18.6	101	0.04	
LC0013	150	30	81.2	-1.04	
LC0014	176.8	53.1	95.7	-0.24	
LC0015	243	75	132	1.75	H
LC0016	191.25	19.15	104	0.2	
LC0017	211	21.3	114	0.79	
LC0018	195	20	106	0.31	
LC0019	183	55	99.1	-0.05	

Characteristics of parameter

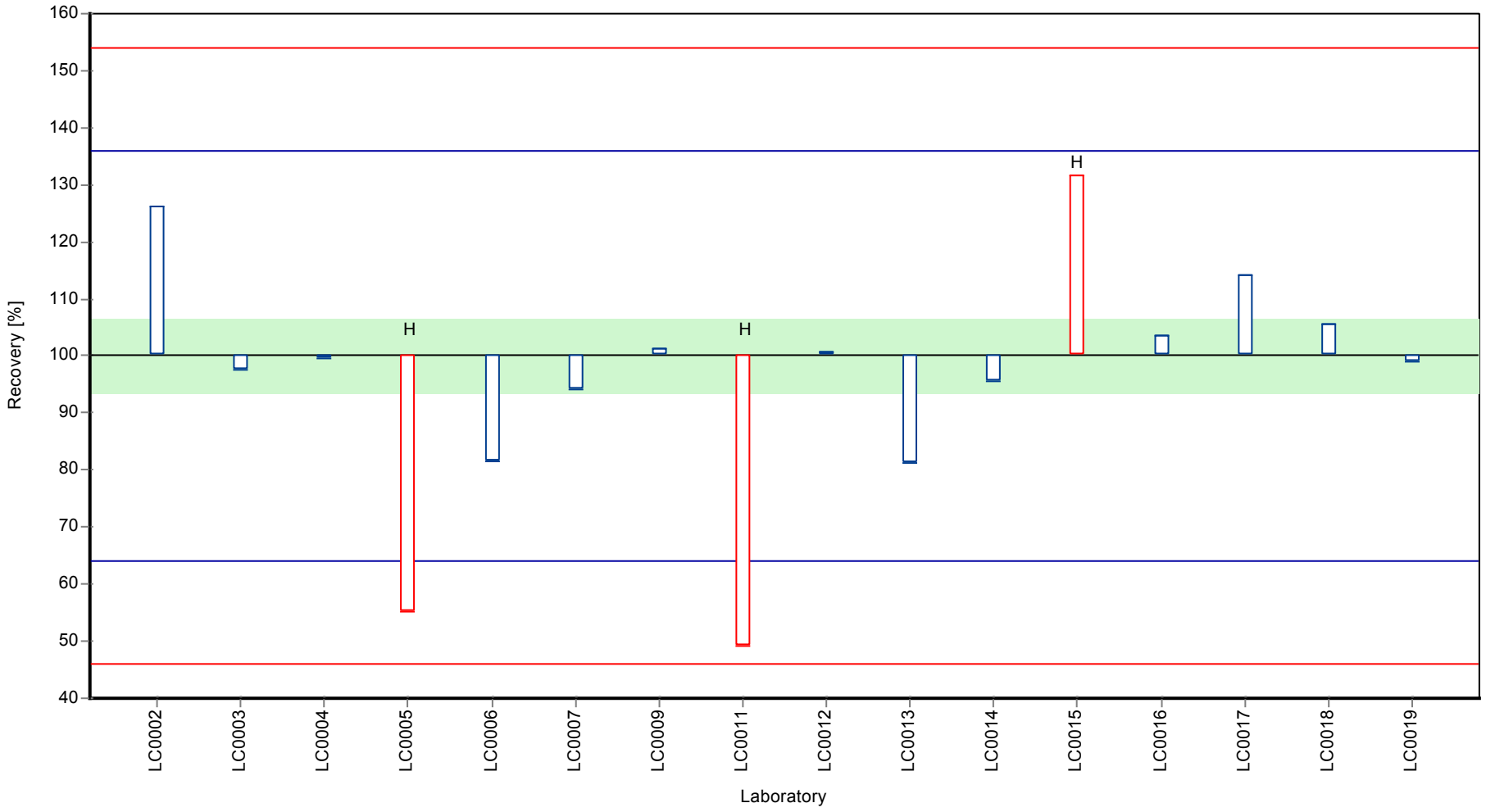
	all results	without outliers	Unit
Mean ± CI (99%)	177 ± 29.9	185 ± 18.2	ng/l
Minimum	91	150	ng/l
Maximum	243	233	ng/l
Standard deviation	39.9	21.9	ng/l
rel. standard deviation	22.5	11.8	%
n	16	13	-

Graphical presentation of results

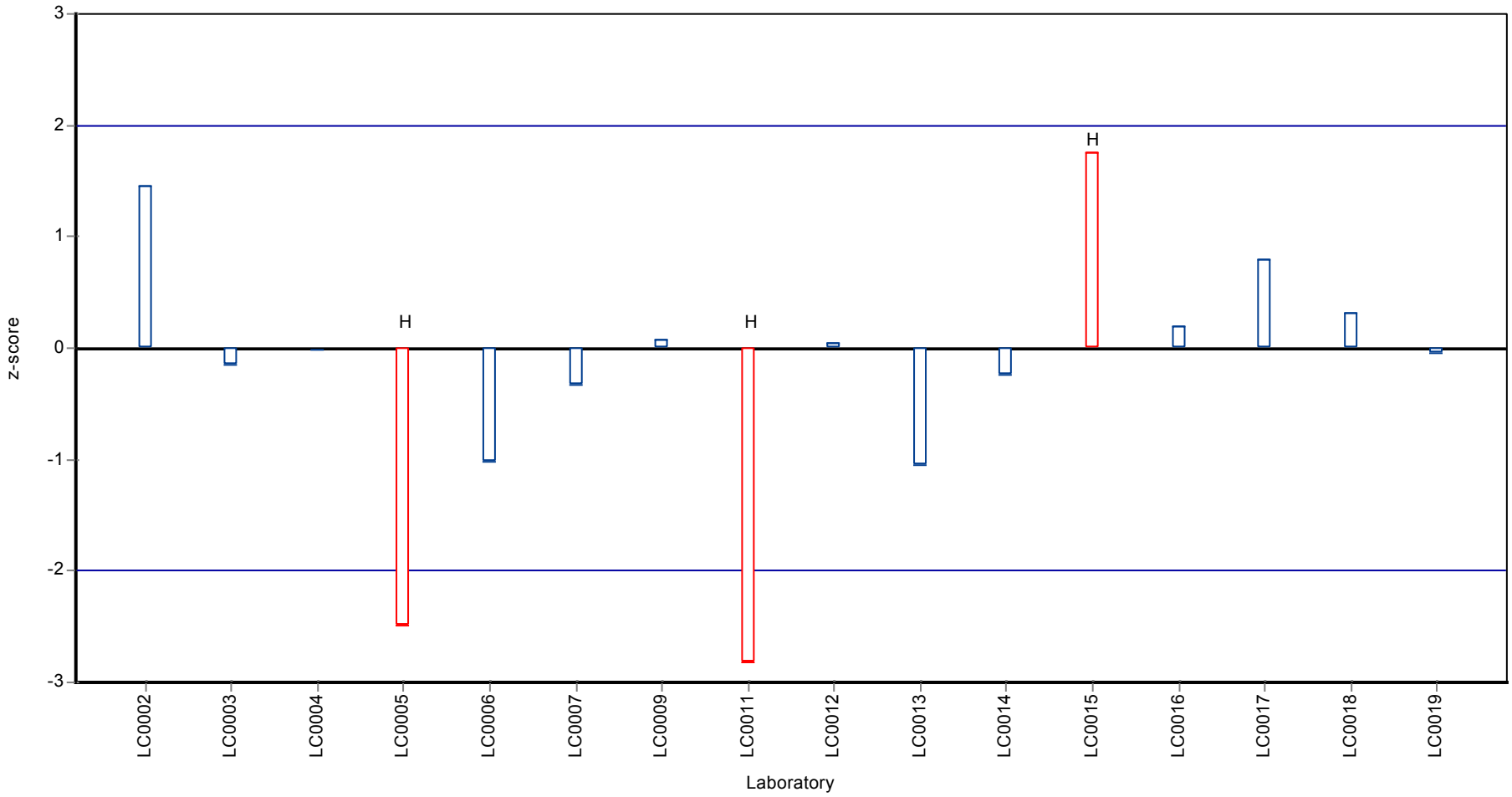
Results



Recovery rate



Z-score


3
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-1
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-3
z-score
H
H
H
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0009
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
Laboratory

Parameter oriented report

P20 B

Benzo[b]fluoranthene

Unit	ng/l
Assigned value ± U (k=2)	6.38 ± 0.696
Criterion	1.15 (18 %)
Minimum - Maximum	5.1 - 7
Control test value ± U (k=2)	5.47 ± 1.42

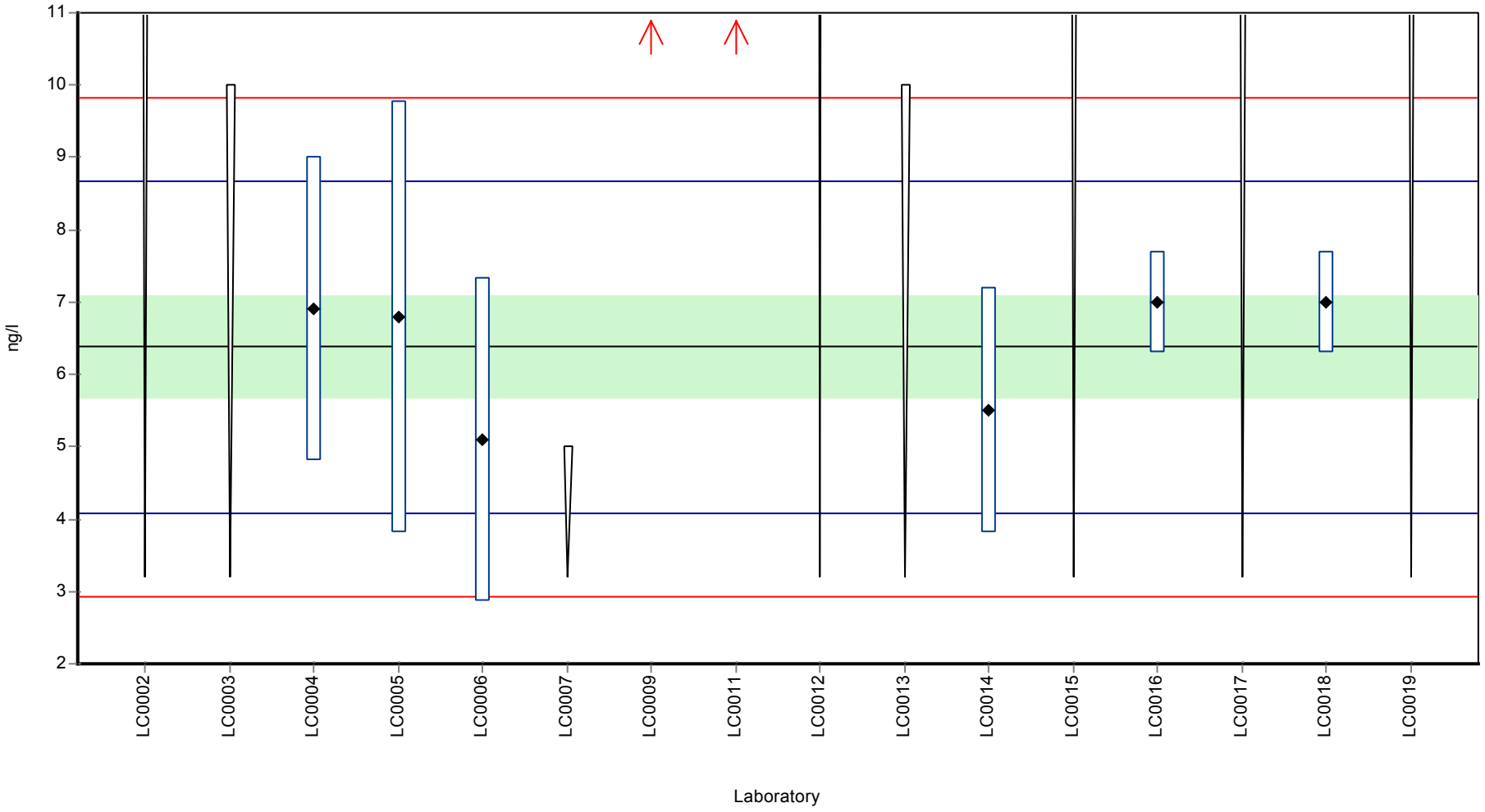
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	< 20 (LOQ)	-	-	-	
LC0003	< 10 (LOQ)	-	-	-	
LC0004	6.9	2.1	108	0.45	
LC0005	6.8	2.99	107	0.36	
LC0006	5.1	2.24	79.9	-1.12	
LC0007	< 5 (LOQ)	-	-	-	
LC0008	-	-	-	-	
LC0009	28.2	8.5	442	19	H
LC0010	-	-	-	-	
LC0011	24	5	376	15.3	H
LC0012	< 52.6 (LOQ)	-	-	-	
LC0013	< 10 (LOQ)	-	-	-	
LC0014	5.5	1.7	86.2	-0.77	
LC0015	< 20 (LOQ)	-	-	-	
LC0016	7	0.7	110	0.54	
LC0017	< 16.8 (LOQ)	-	-	-	
LC0018	7	0.7	110	0.54	
LC0019	< 20 (LOQ)	-	-	-	

Characteristics of parameter

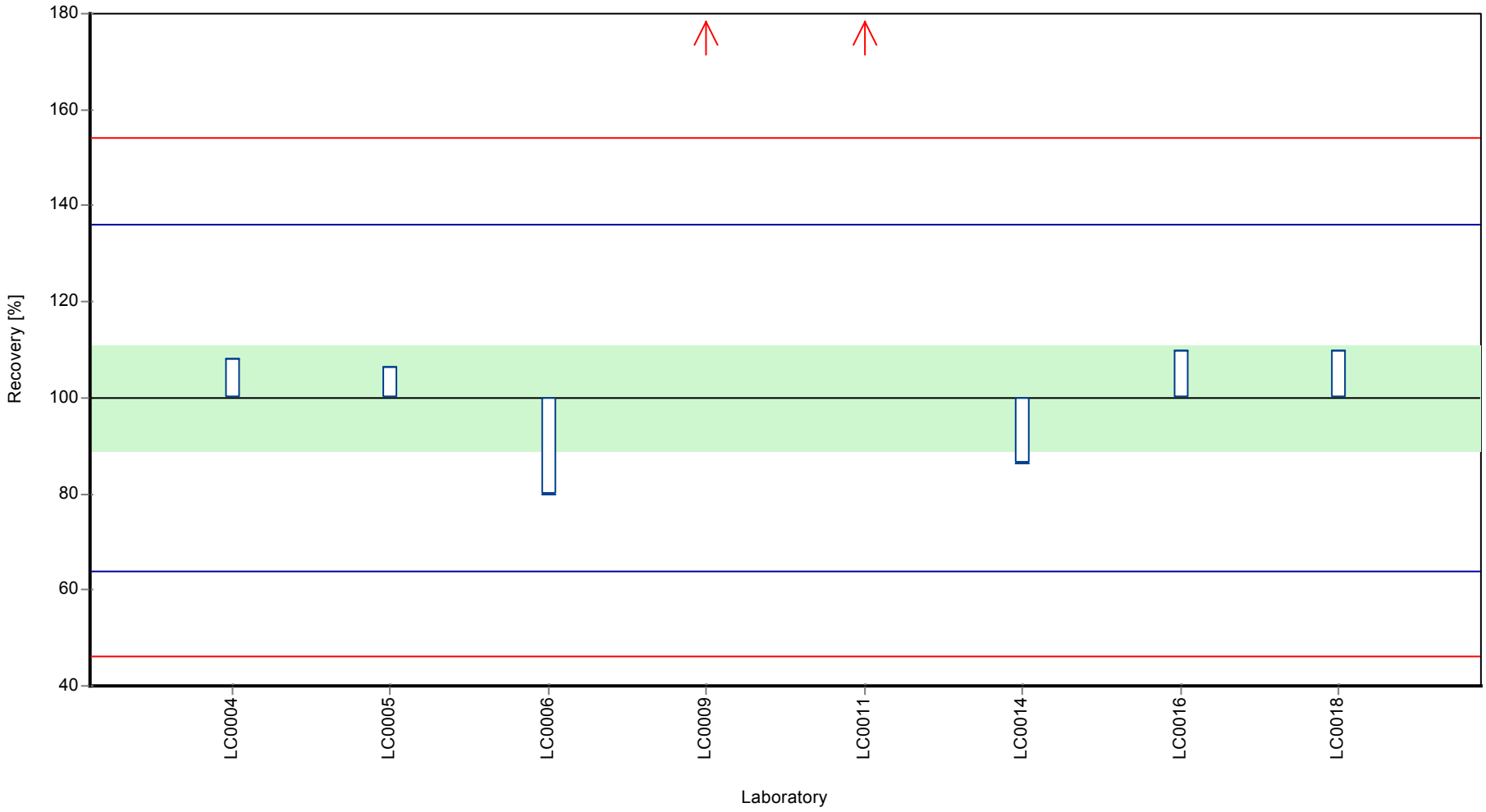
	all results	without outliers	Unit
Mean ± CI (99%)	11.3 ± 9.78	6.38 ± 1.04	ng/l
Minimum	5.1	5.1	ng/l
Maximum	28.2	7	ng/l
Standard deviation	9.22	0.852	ng/l
rel. standard deviation	81.5	13.3	%
n	8	6	-

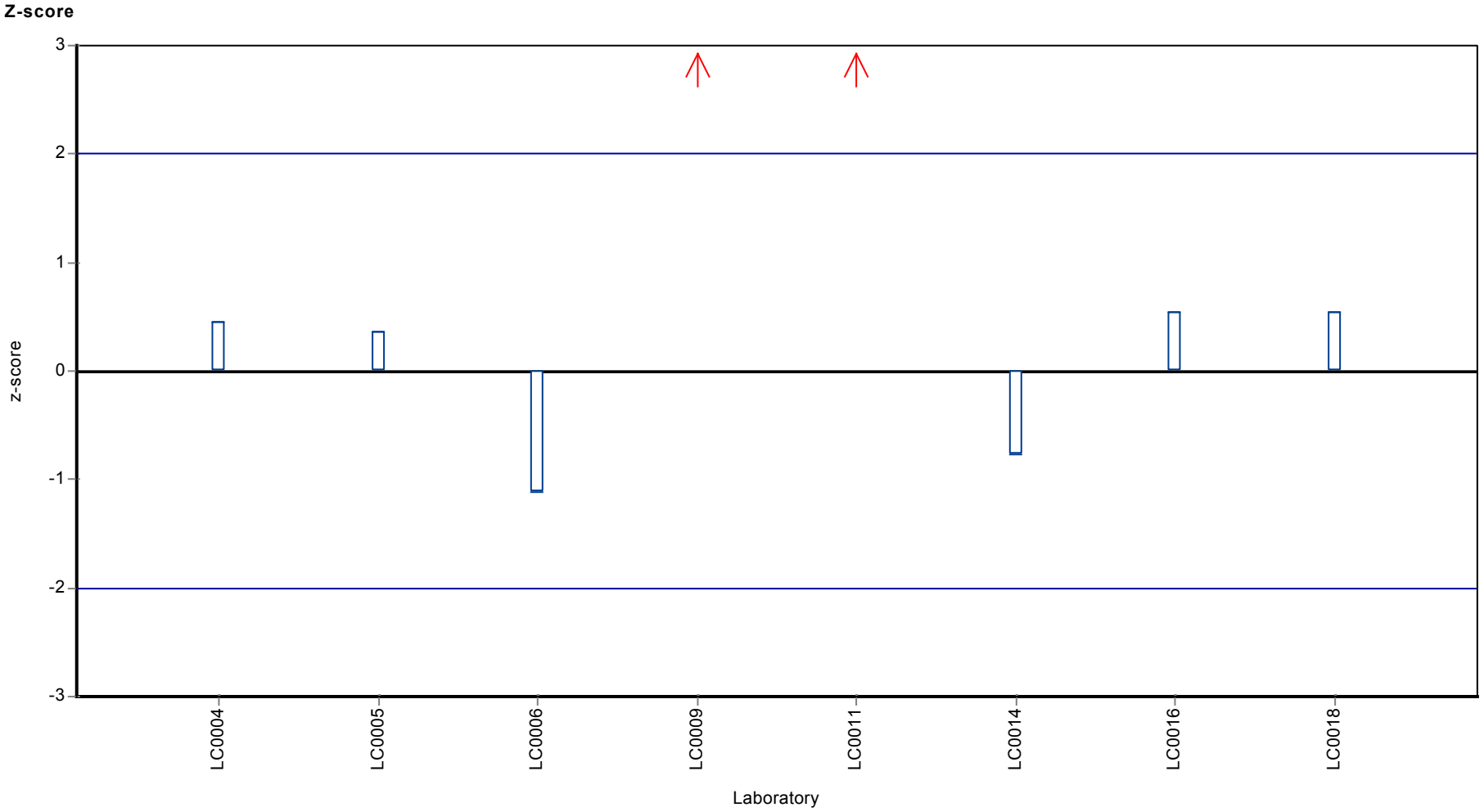
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
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0
-1
-2
-3
z-score
LC0004
LC0005
LC0006
LC0009
LC0011
LC0014
LC0016
LC0018
Laboratory

Parameter oriented report

P20 A

Benzo[g,h,i]perylene

Unit	ng/l
Assigned value ± U (k=2)	203 ± 23.4
Criterion	45.4 (22 %)
Minimum - Maximum	101 - 278
Control test value ± U (k=2)	238 ± 76.1

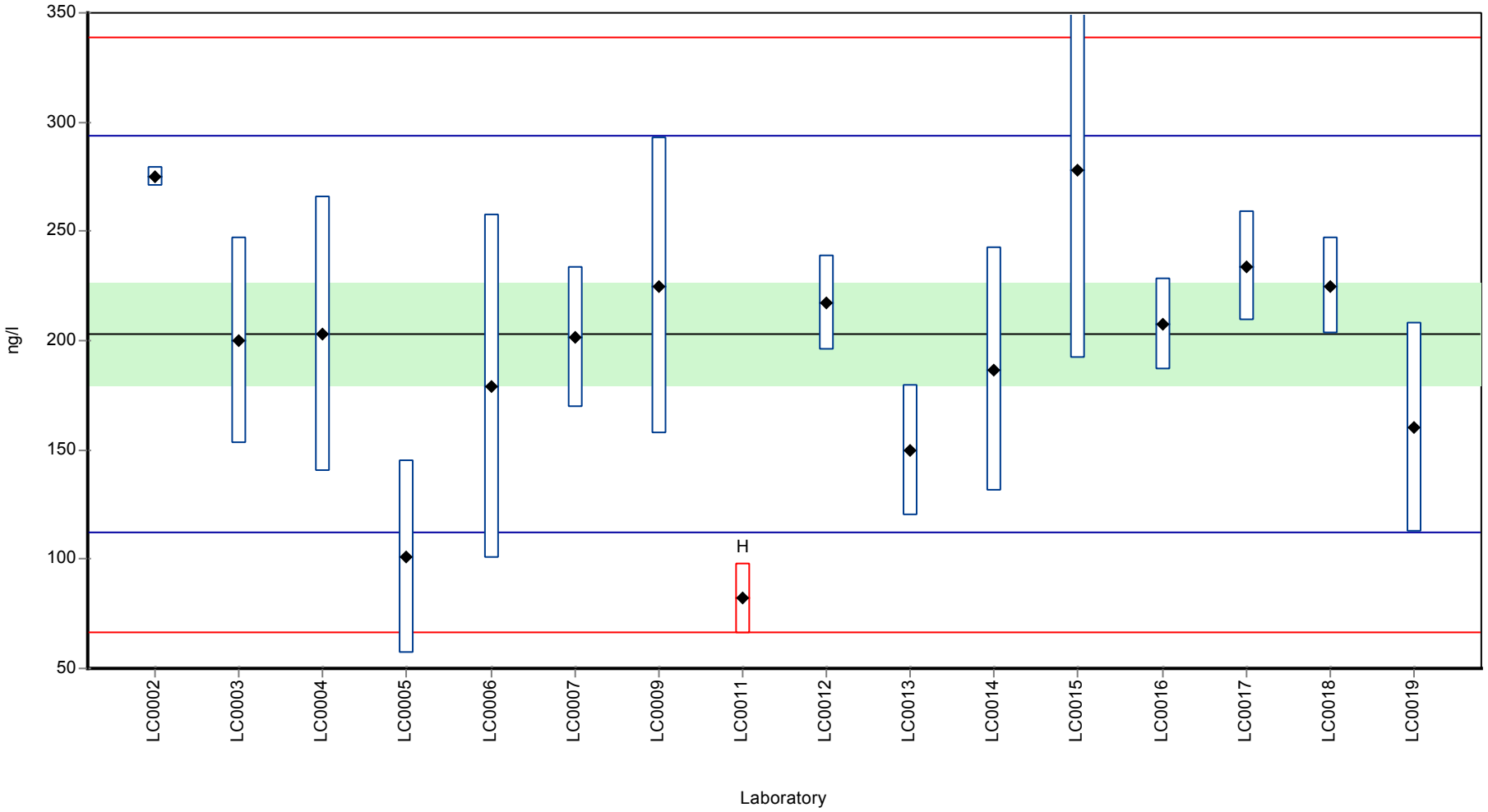
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	275	4.35	136	1.59	
LC0003	200	47	98.6	-0.06	
LC0004	203.2	63	100	0.01	
LC0005	101	44	49.8	-2.24	
LC0006	179	78.76	88.2	-0.53	
LC0007	201.65	32.26	99.4	-0.03	
LC0008	-	-	-	-	
LC0009	225	68	111	0.49	
LC0010	-	-	-	-	
LC0011	82	16	40.4	-2.66	H
LC0012	217	21.7	107	0.31	
LC0013	150	30	73.9	-1.16	
LC0014	186.8	56	92.1	-0.35	
LC0015	278	86	137	1.65	
LC0016	207.38	20.75	102	0.1	
LC0017	234	25	115	0.69	
LC0018	225	22	111	0.49	
LC0019	160	48	78.9	-0.94	

Characteristics of parameter

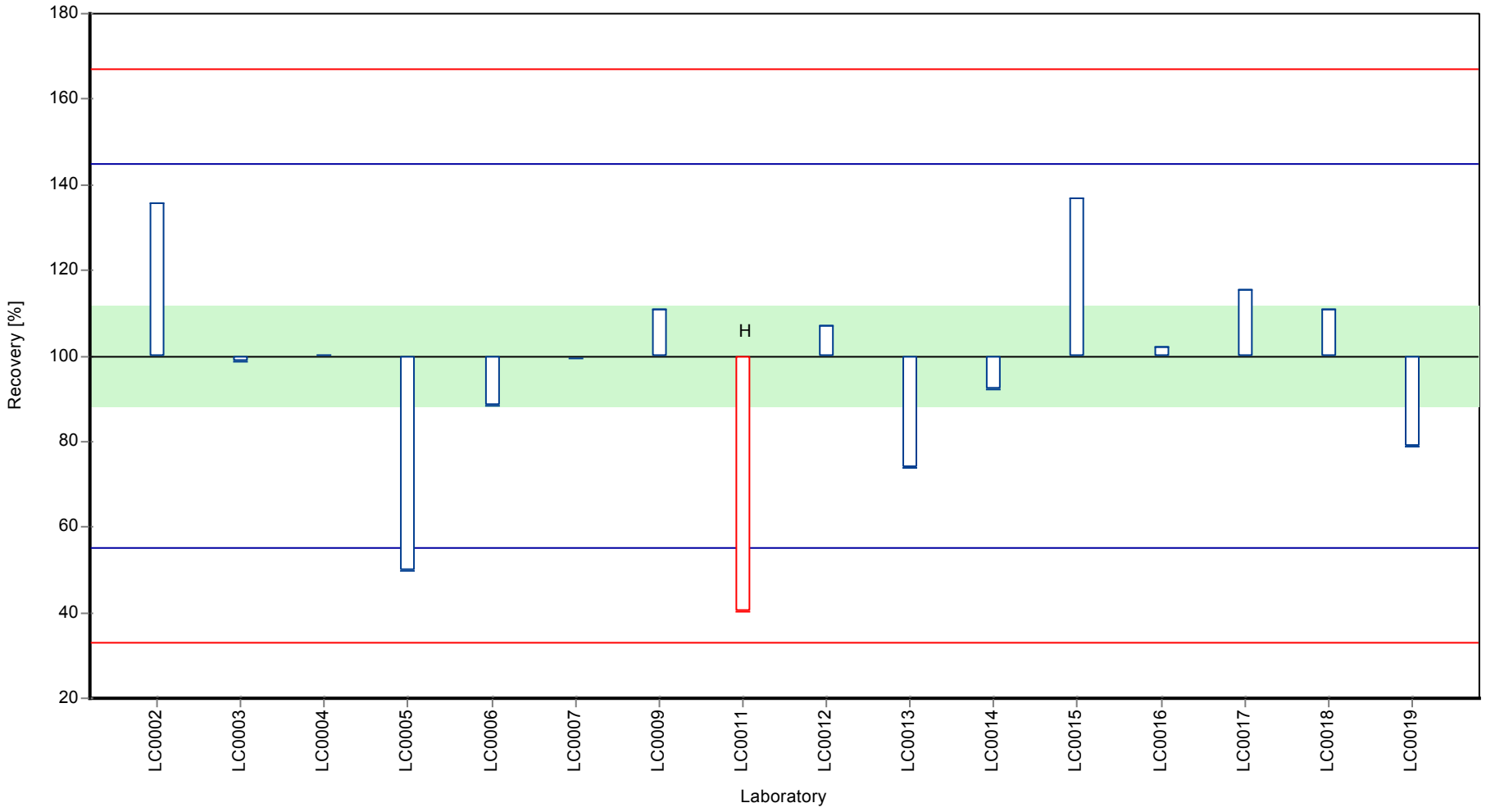
	all results	without outliers	Unit
Mean ± CI (99%)	195 ± 40	203 ± 35.2	ng/l
Minimum	82	101	ng/l
Maximum	278	278	ng/l
Standard deviation	53.3	45.4	ng/l
rel. standard deviation	27.3	22.4	%
n	16	15	-

Graphical presentation of results

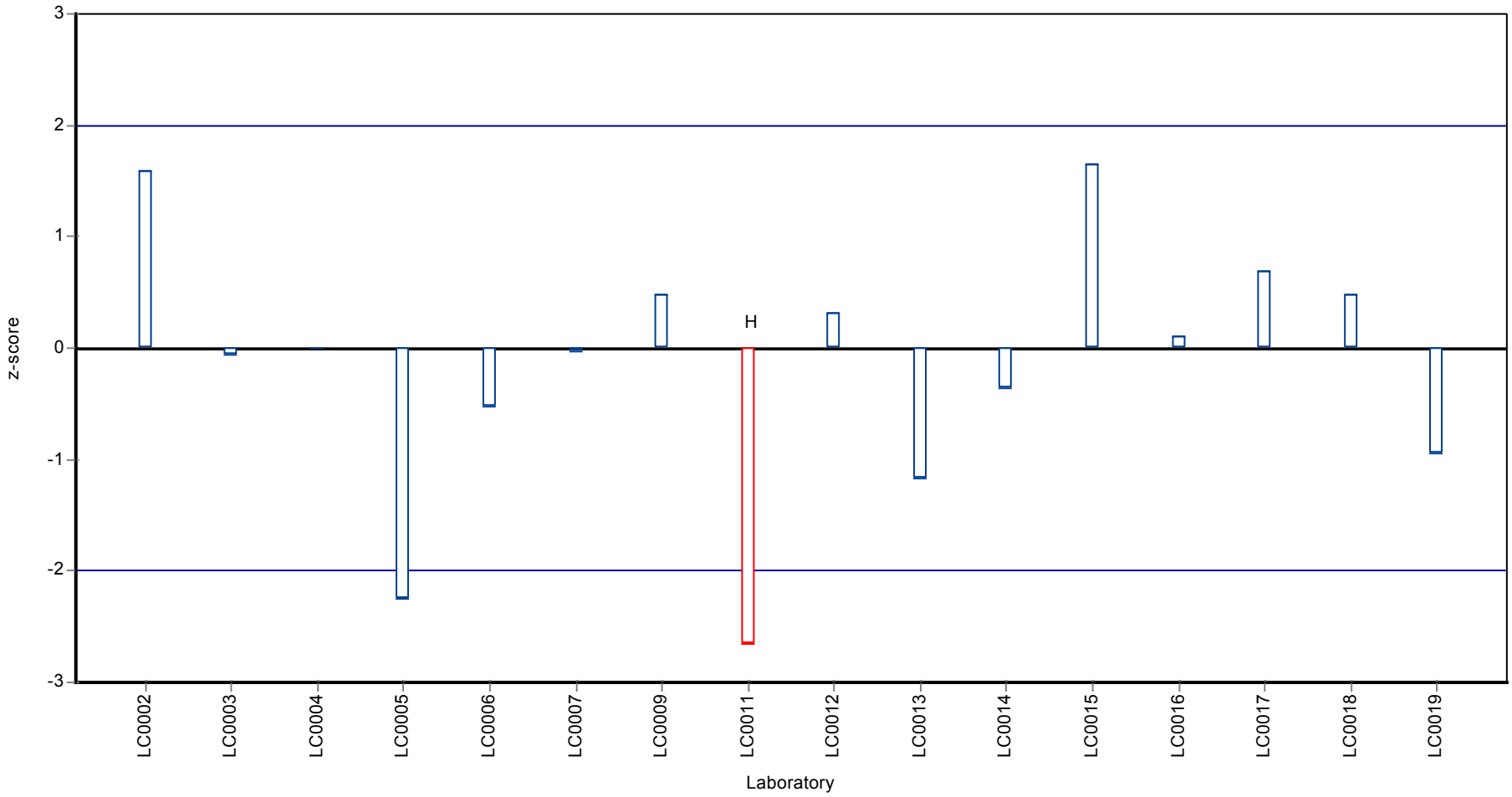
Results



Recovery rate



Z-score


3
2
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-1
-2
-3
z-score
H
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0009
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
Laboratory

Parameter oriented report

P20 B

Benzo[g,h,i]perylene

Unit	ng/l
Assigned value ± U (k=2)	19.6 ± 4.4
Criterion	6.47 (33 %)
Minimum - Maximum	12 - 37
Control test value ± U (k=2)	19.7 ± 6.3

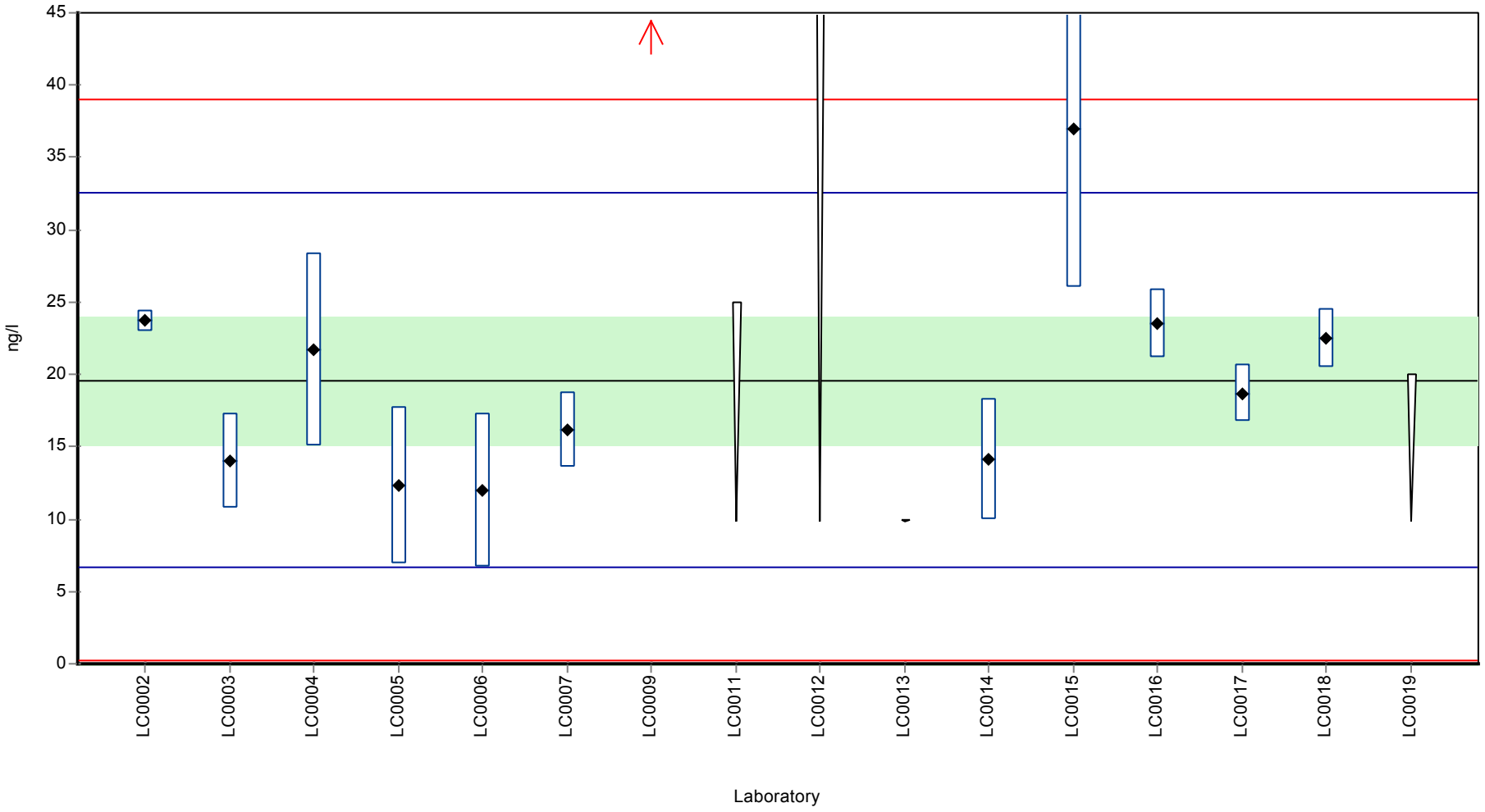
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	23.7	0.74	121	0.63	
LC0003	14	3.3	71.4	-0.87	
LC0004	21.7	6.7	111	0.32	
LC0005	12.3	5.41	62.7	-1.13	
LC0006	12	5.28	61.2	-1.18	
LC0007	16.17	2.58	82.5	-0.53	
LC0008	-	-	-	-	
LC0009	48.4	14.5	247	4.45	H
LC0010	-	-	-	-	
LC0011	< 25 (LOQ)	-	-	-	
LC0012	< 52.6 (LOQ)	-	-	-	
LC0013	< 10 (LOQ)	-	-	-	
LC0014	14.1	4.2	71.9	-0.85	
LC0015	37	11	189	2.69	
LC0016	23.5	2.35	120	0.6	
LC0017	18.7	2	95.4	-0.14	
LC0018	22.5	2	115	0.45	
LC0019	< 20 (LOQ)	-	-	-	

Characteristics of parameter

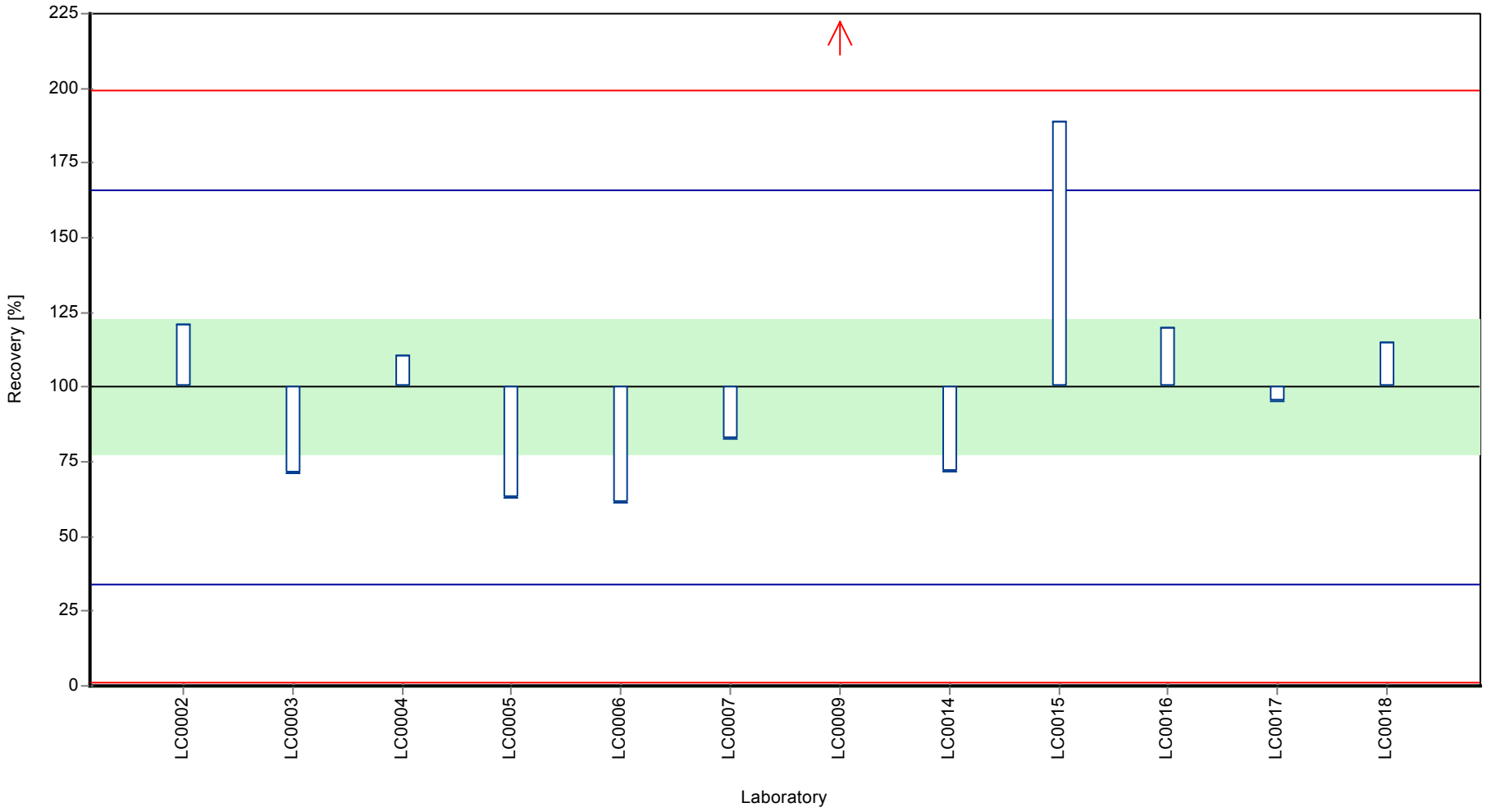
	all results	without outliers	Unit
Mean ± CI (99%)	22 ± 9.39	19.6 ± 6.6	ng/l
Minimum	12	12	ng/l
Maximum	48.4	37	ng/l
Standard deviation	10.8	7.3	ng/l
rel. standard deviation	49.3	37.2	%
n	12	11	-

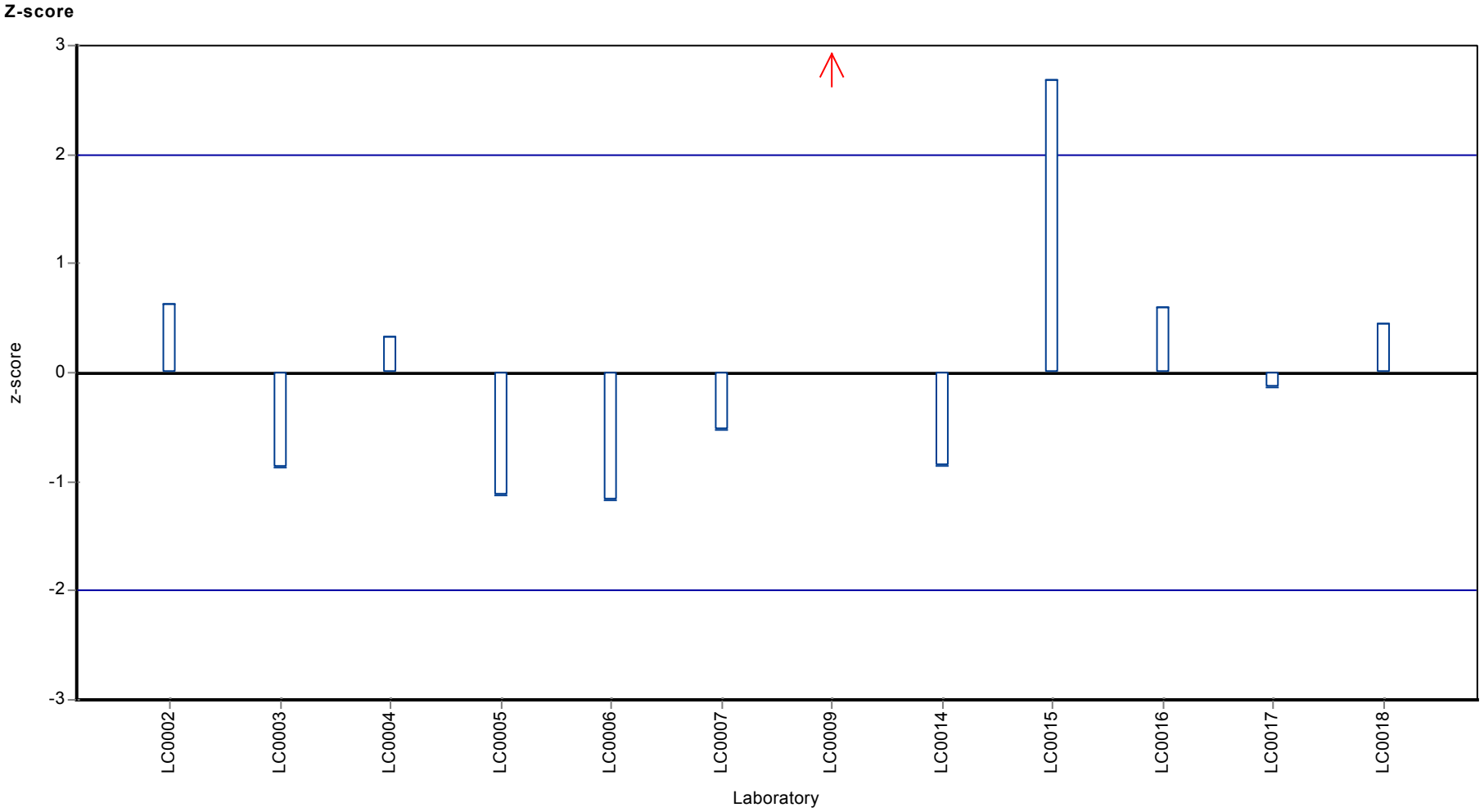
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
z-score
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0009
LC0014
LC0015
LC0016
LC0017
LC0018
Laboratory

Parameter oriented report

P20 A

Benzo[k]fluoranthene

Unit	ng/l
Assigned value ± U (k=2)	204 ± 25.3
Criterion	55.1 (27 %)
Minimum - Maximum	91 - 282
Control test value ± U (k=2)	240 ± 67.2

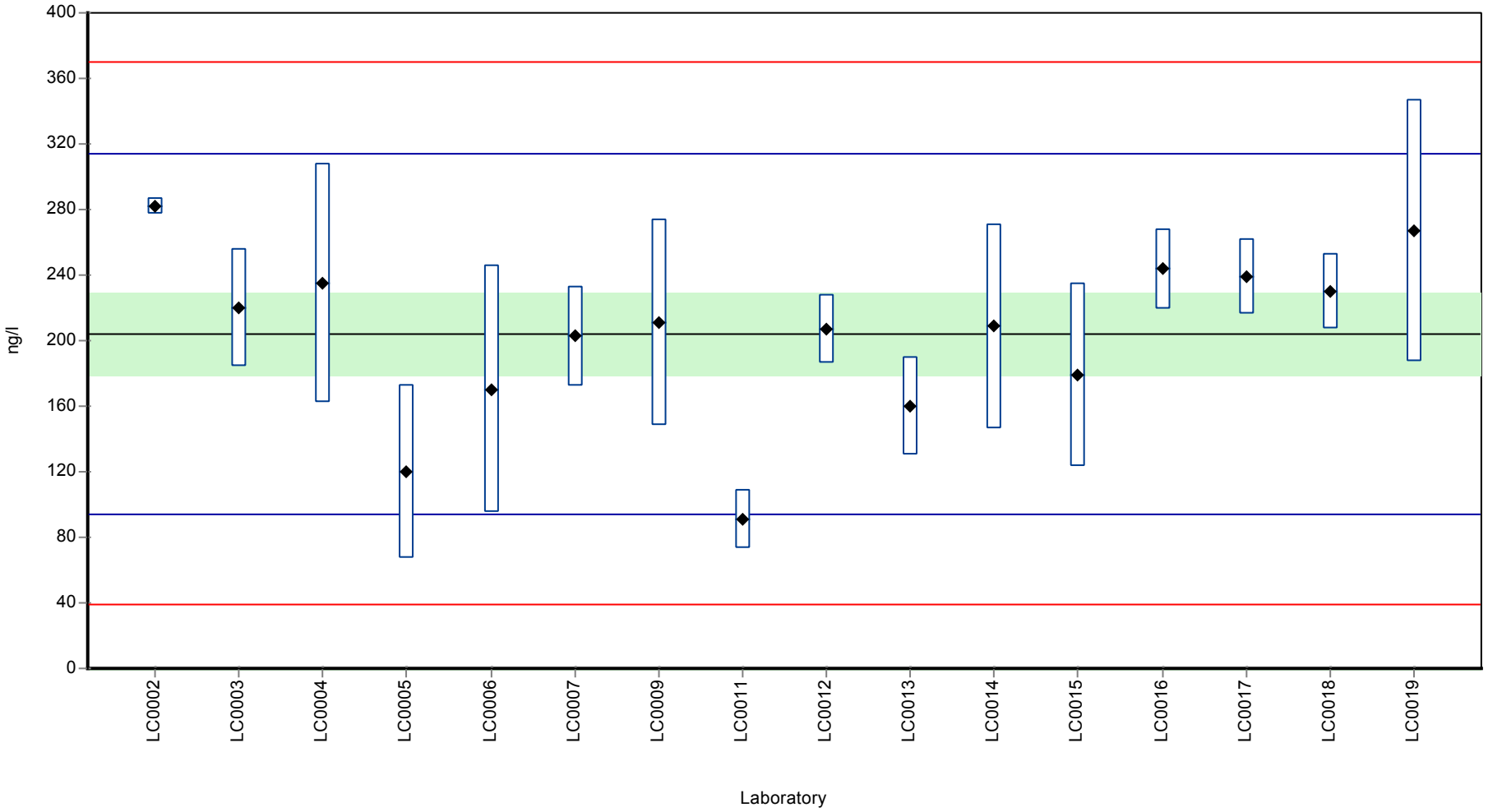
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	282	4.59	138	1.41	
LC0003	220	36	108	0.29	
LC0004	235.3	72.9	115	0.56	
LC0005	120	53	58.8	-1.53	
LC0006	170.5	75.02	83.5	-0.61	
LC0007	202.53	30.38	99.2	-0.03	
LC0008	-	-	-	-	
LC0009	211	63	103	0.12	
LC0010	-	-	-	-	
LC0011	91	18	44.6	-2.05	
LC0012	207	20.7	101	0.05	
LC0013	160	30	78.4	-0.8	
LC0014	208.8	62.6	102	0.08	
LC0015	179	56	87.7	-0.46	
LC0016	243.5	24.4	119	0.71	
LC0017	239	22.9	117	0.63	
LC0018	230	23	113	0.47	
LC0019	267	80	131	1.14	

Characteristics of parameter

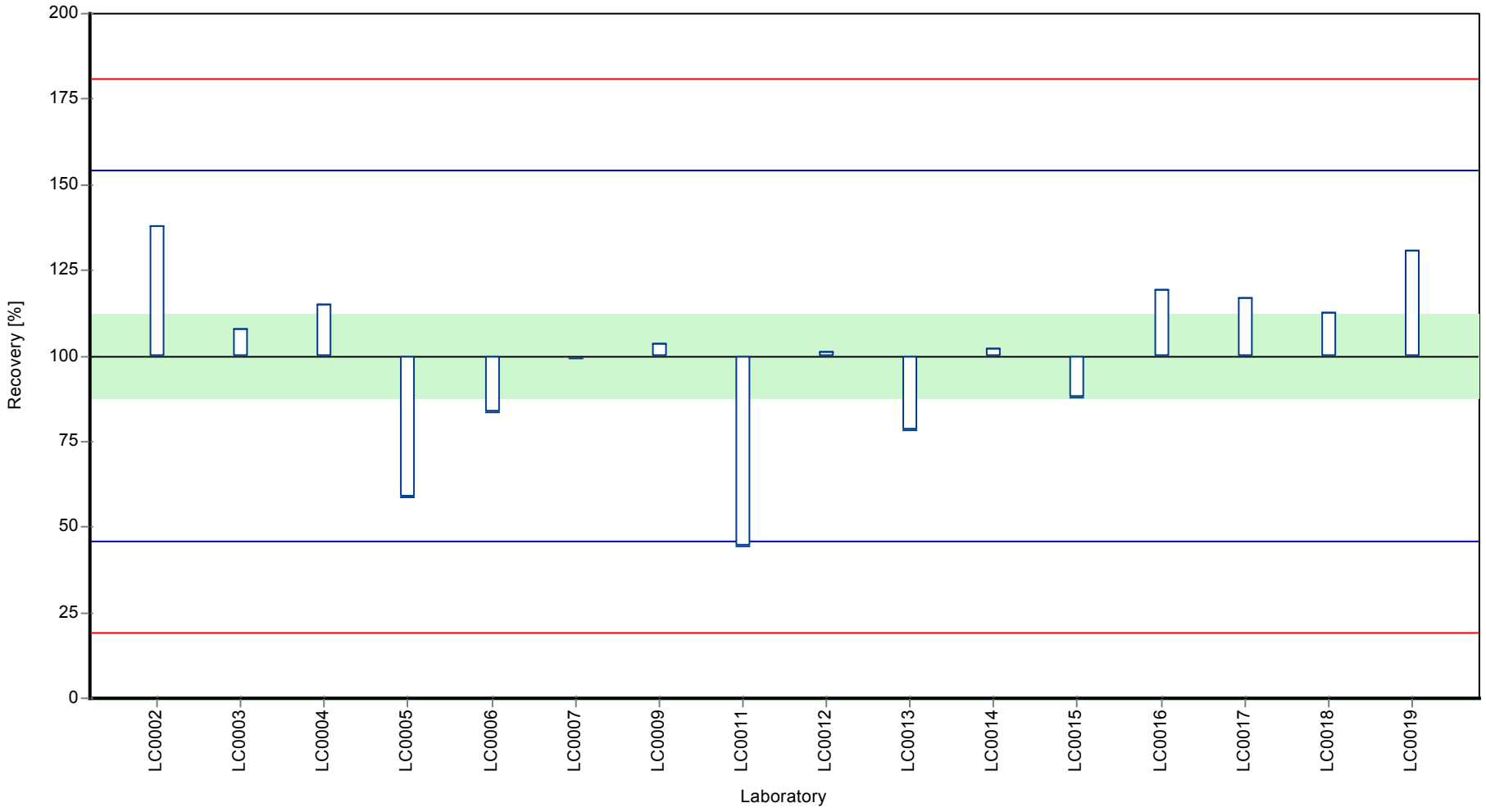
	all results	without outliers	Unit
Mean ± CI (99%)	204 ± 37.9	204 ± 37.9	ng/l
Minimum	91	91	ng/l
Maximum	282	282	ng/l
Standard deviation	50.6	50.6	ng/l
rel. standard deviation	24.8	24.8	%
n	16	16	-

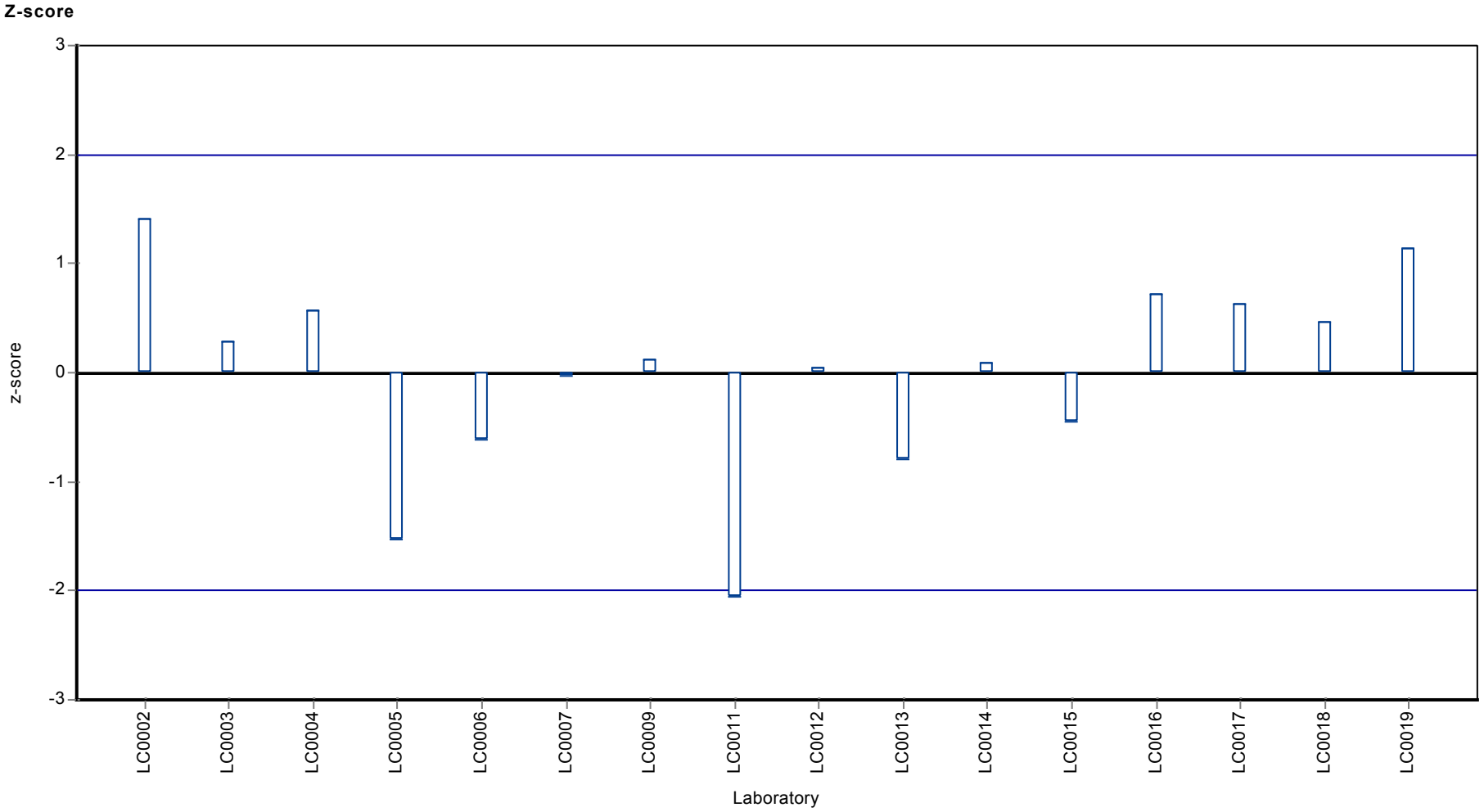
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
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-1
-2
-3
z-score
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0009
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
Laboratory

Parameter oriented report

P20 B

Benzo[k]fluoranthene

Unit	ng/l
Assigned value ± U (k=2)	33.3 ± 3.57
Criterion	9 (27 %)
Minimum - Maximum	20 - 42.8
Control test value ± U (k=2)	36 ± 10.1

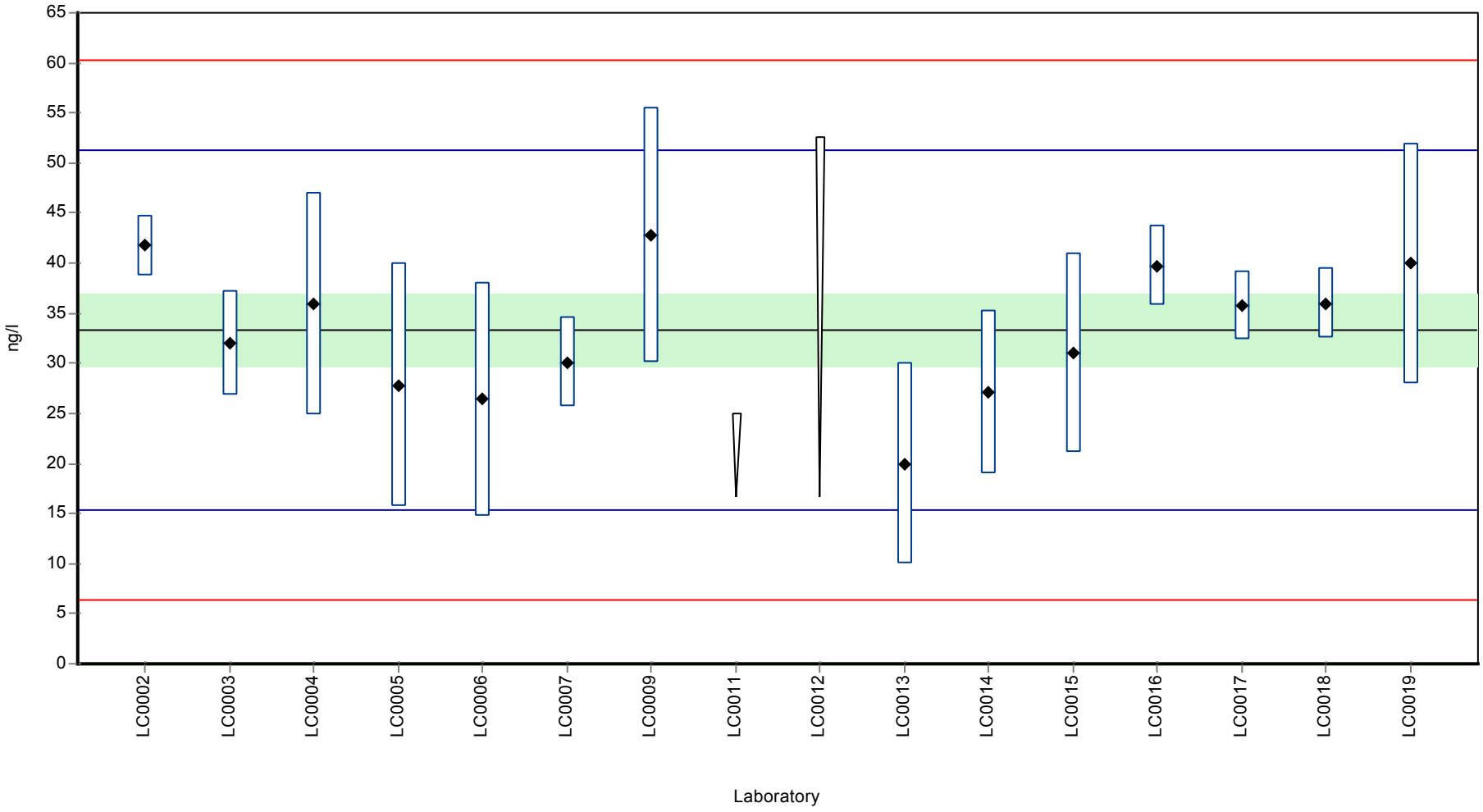
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	41.8	3.02	125	0.94	
LC0003	32	5.2	96	-0.15	
LC0004	36	11.1	108	0.3	
LC0005	27.8	12.2	83.4	-0.61	
LC0006	26.4	11.62	79.2	-0.77	
LC0007	30.1	4.52	90.3	-0.36	
LC0008	-	-	-	-	
LC0009	42.8	12.8	128	1.05	
LC0010	-	-	-	-	
LC0011	< 25 (LOQ)	-	-	-	
LC0012	< 52.6 (LOQ)	-	-	-	
LC0013	20	10	60	-1.48	
LC0014	27.1	8.1	81.3	-0.69	
LC0015	31	10	93	-0.26	
LC0016	39.75	4	119	0.71	
LC0017	35.7	3.42	107	0.27	
LC0018	36	3.5	108	0.3	
LC0019	40	12	120	0.74	

Characteristics of parameter

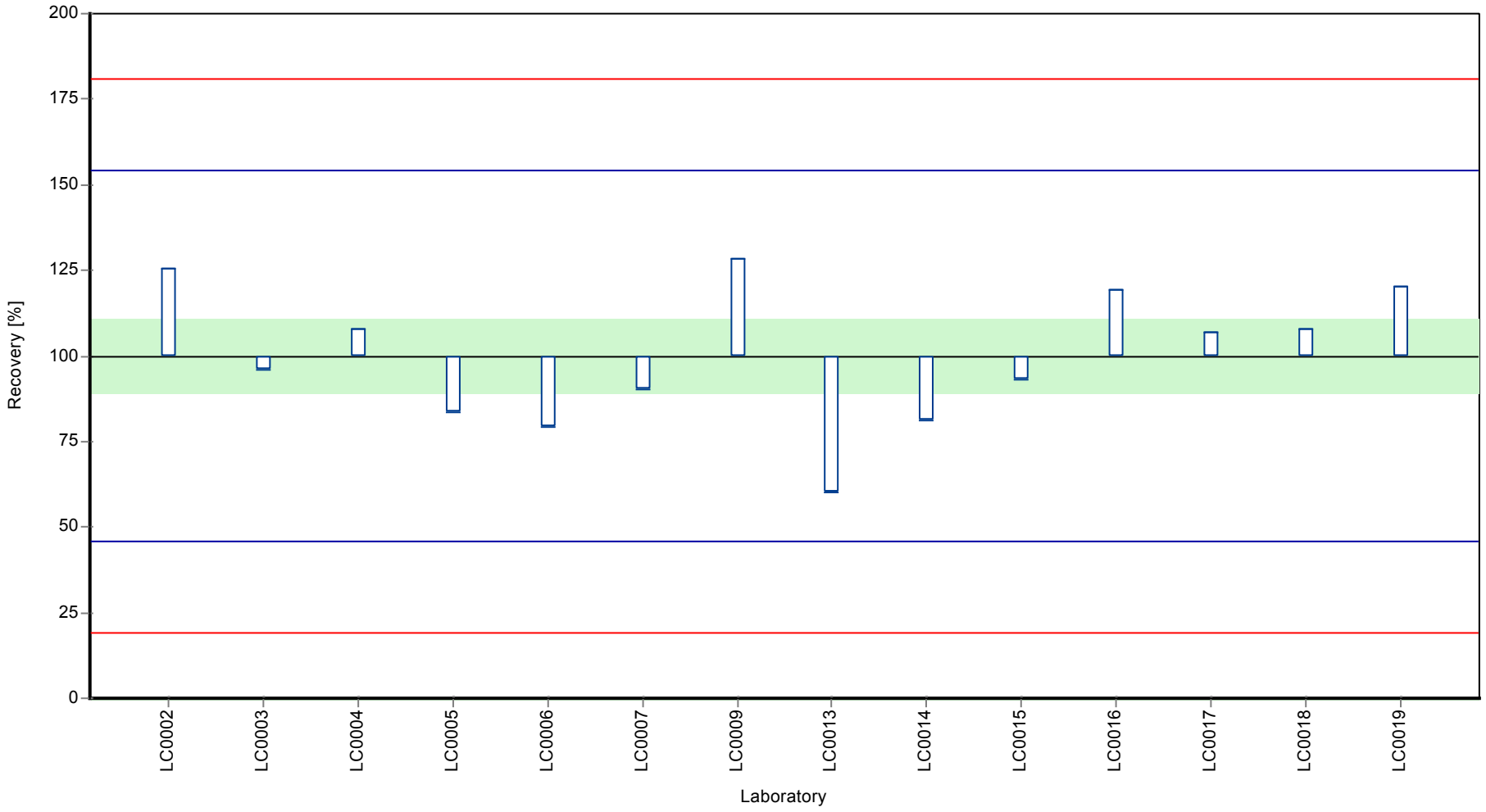
	all results	without outliers	Unit
Mean ± CI (99%)	33.3 ± 5.35	33.3 ± 5.35	ng/l
Minimum	20	20	ng/l
Maximum	42.8	42.8	ng/l
Standard deviation	6.68	6.68	ng/l
rel. standard deviation	20	20	%
n	14	14	-

Graphical presentation of results

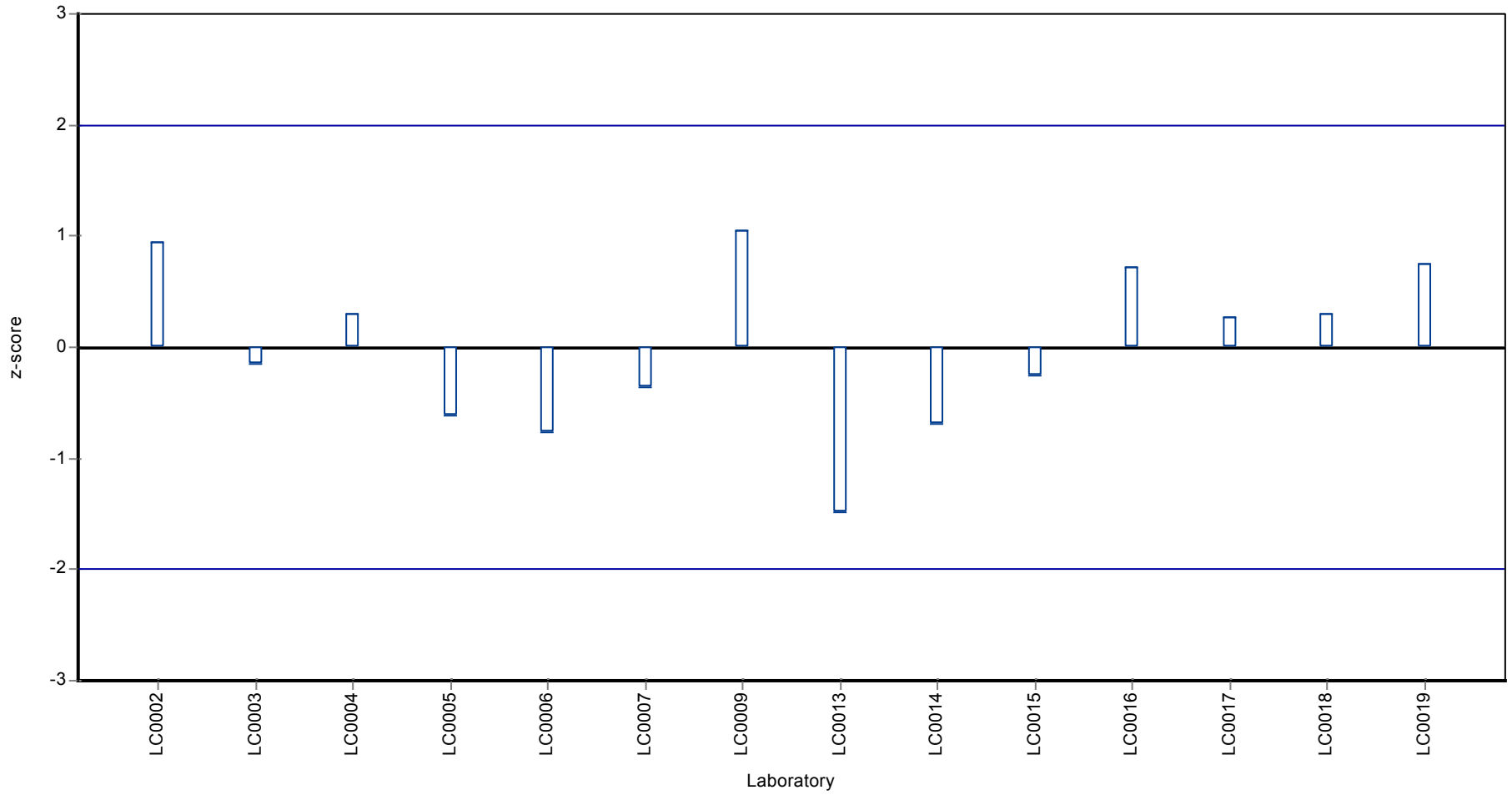
Results



Recovery rate



Z-score


3
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z-score
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0009
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
Laboratory

Parameter oriented report

P20 A

Chrysene

Unit	ng/l
Assigned value ± U (k=2)	202 ± 12.8
Criterion	38.4 (19 %)
Minimum - Maximum	137 - 230
Control test value ± U (k=2)	199 ± 51.7

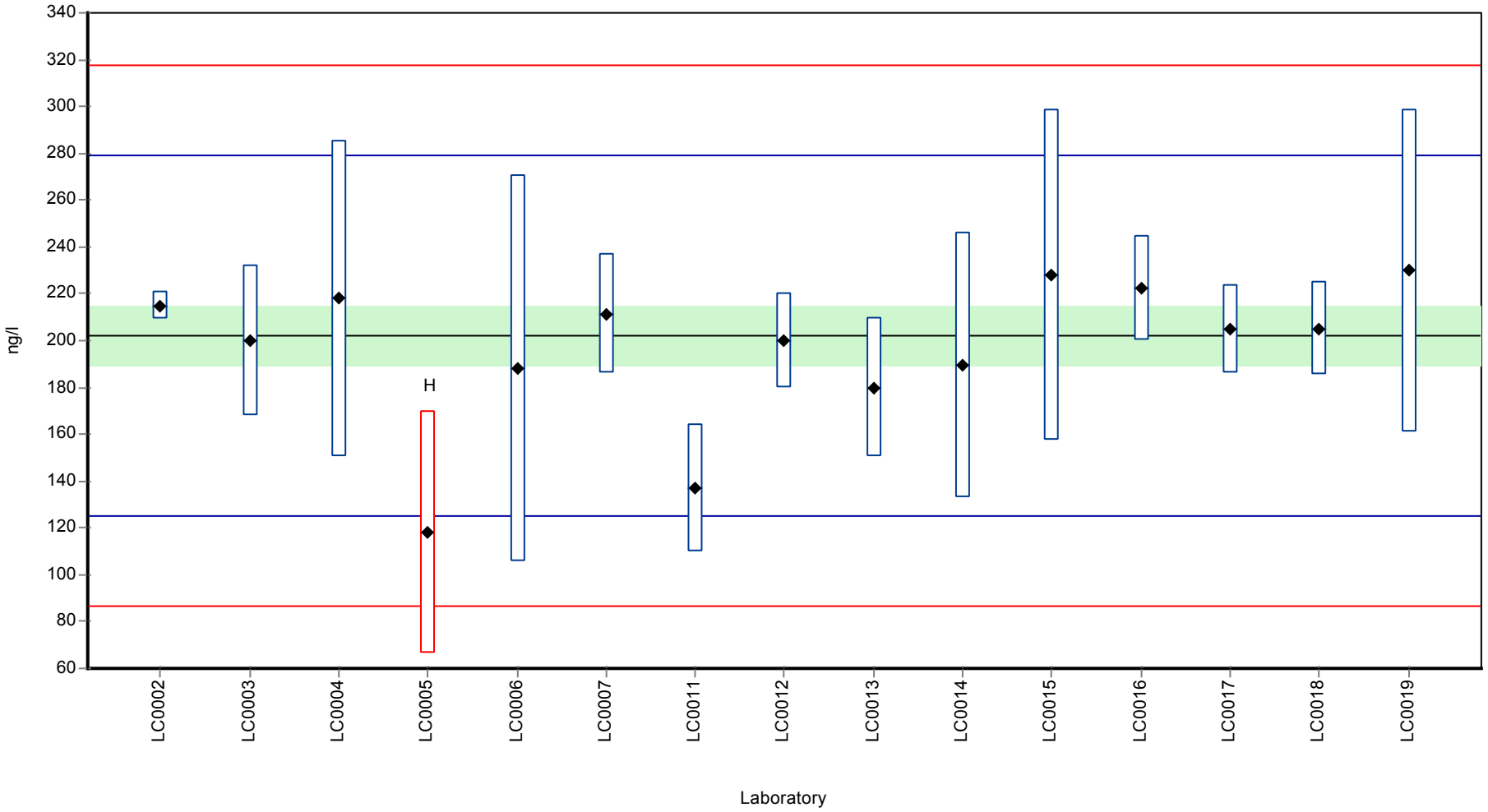
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	215	5.9	106	0.34	
LC0003	200	32	99	-0.05	
LC0004	217.9	67.5	108	0.41	
LC0005	118	52	58.4	-2.19	H
LC0006	188	82.72	93	-0.37	
LC0007	211.42	25.37	105	0.24	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	-	-	-	-	
LC0011	137	27	67.8	-1.7	
LC0012	200	20	99	-0.05	
LC0013	180	30	89.1	-0.57	
LC0014	189.6	56.9	93.8	-0.33	
LC0015	228	71	113	0.68	
LC0016	222.25	22.25	110	0.53	
LC0017	205	18.7	101	0.08	
LC0018	205	20	101	0.08	
LC0019	230	69	114	0.73	

Characteristics of parameter

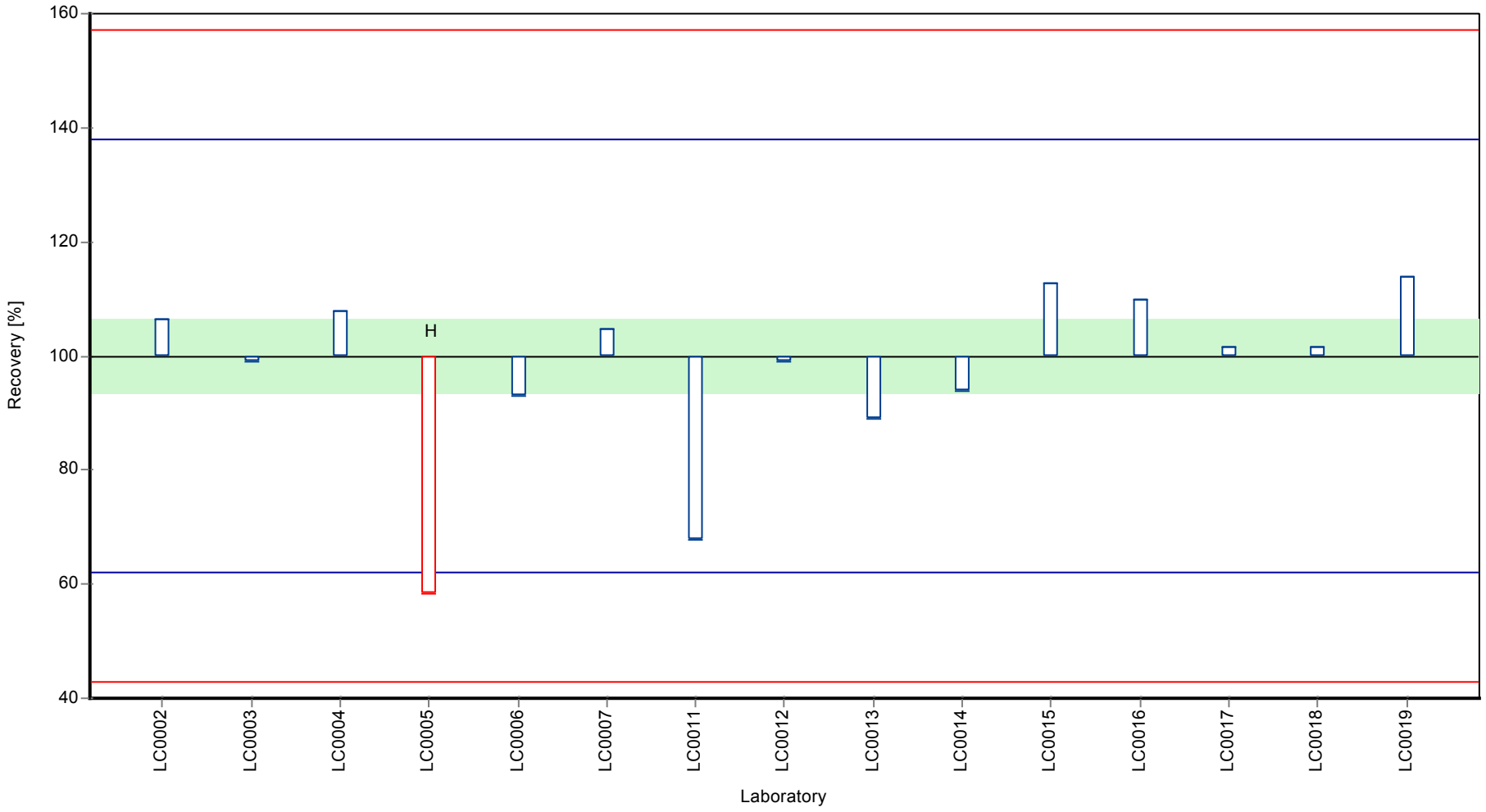
	all results	without outliers	Unit
Mean ± CI (99%)	196 ± 24.6	202 ± 19.2	ng/l
Minimum	118	137	ng/l
Maximum	230	230	ng/l
Standard deviation	31.7	24	ng/l
rel. standard deviation	16.1	11.9	%
n	15	14	-

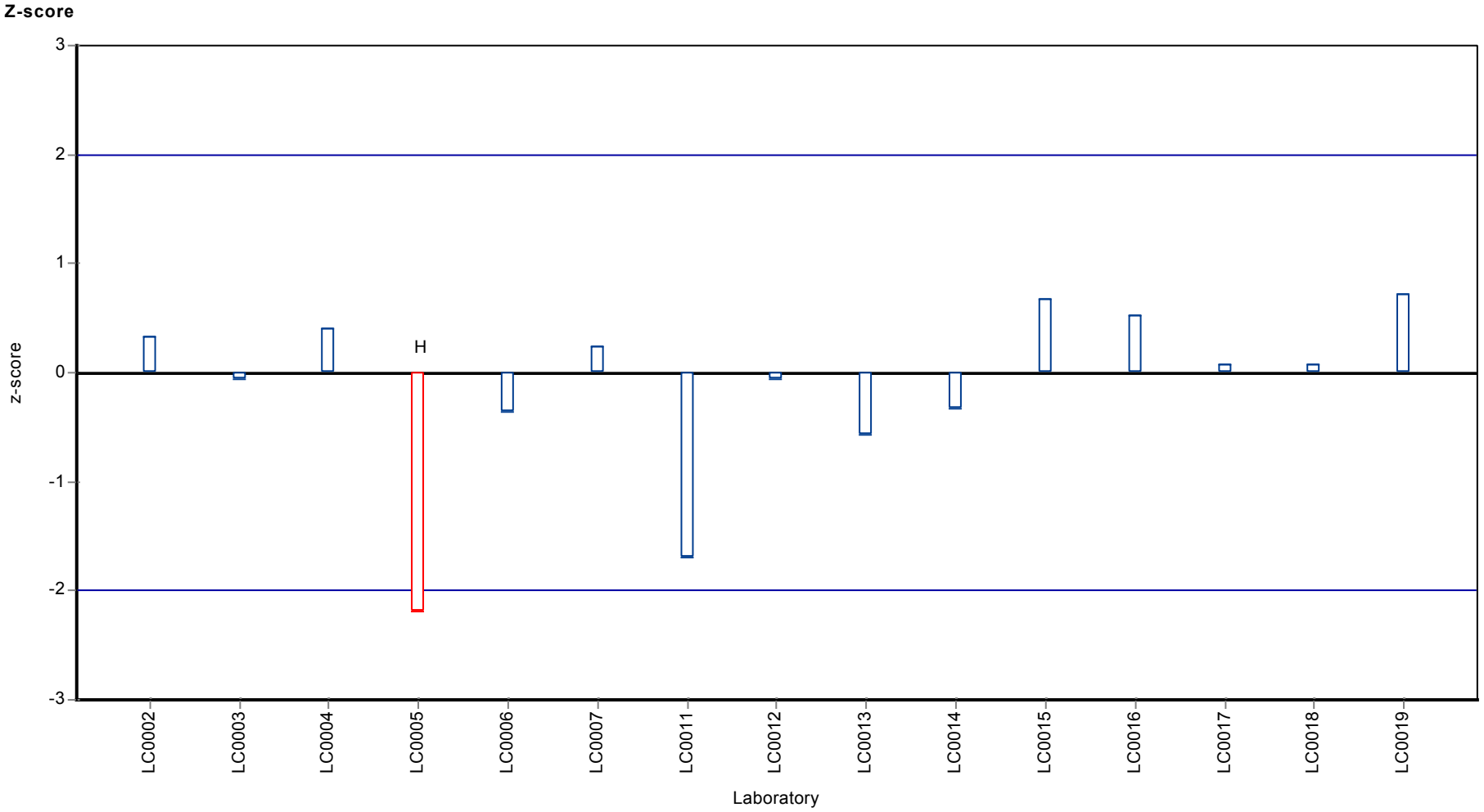
Graphical presentation of results

Results



Recovery rate




Z-score
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z-score
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LC0002
LC0003
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LC0007
LC0011
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LC0016
LC0017
LC0018
LC0019
Laboratory

Parameter oriented report

P20 B

Chrysene

Unit	ng/l
Assigned value ± U (k=2)	42.6 ± 3.58
Criterion	8.09 (19 %)
Minimum - Maximum	26 - 51.3
Control test value ± U (k=2)	41.7 ± 10.8

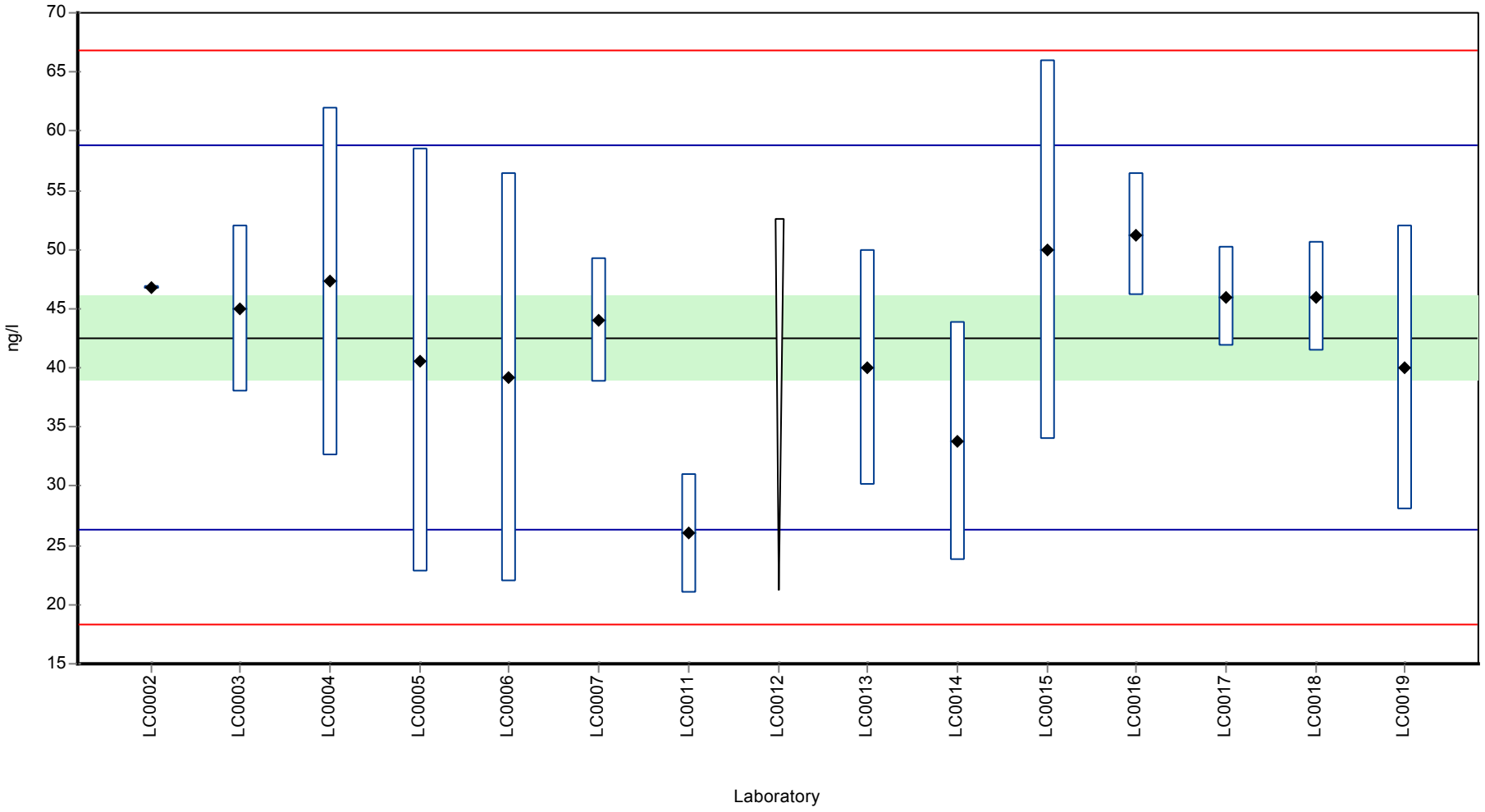
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	46.8	0.09	110	0.52	
LC0003	45	7.1	106	0.3	
LC0004	47.3	14.7	111	0.58	
LC0005	40.6	17.9	95.4	-0.24	
LC0006	39.2	17.25	92.1	-0.42	
LC0007	44	5.28	103	0.18	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	-	-	-	-	
LC0011	26	5	61.1	-2.05	
LC0012	< 52.6 (LOQ)	-	-	-	
LC0013	40	10	94	-0.32	
LC0014	33.8	10.1	79.4	-1.08	
LC0015	50	16	117	0.92	
LC0016	51.25	5.15	120	1.07	
LC0017	46	4.19	108	0.42	
LC0018	46	4.6	108	0.42	
LC0019	40	12	94	-0.32	

Characteristics of parameter

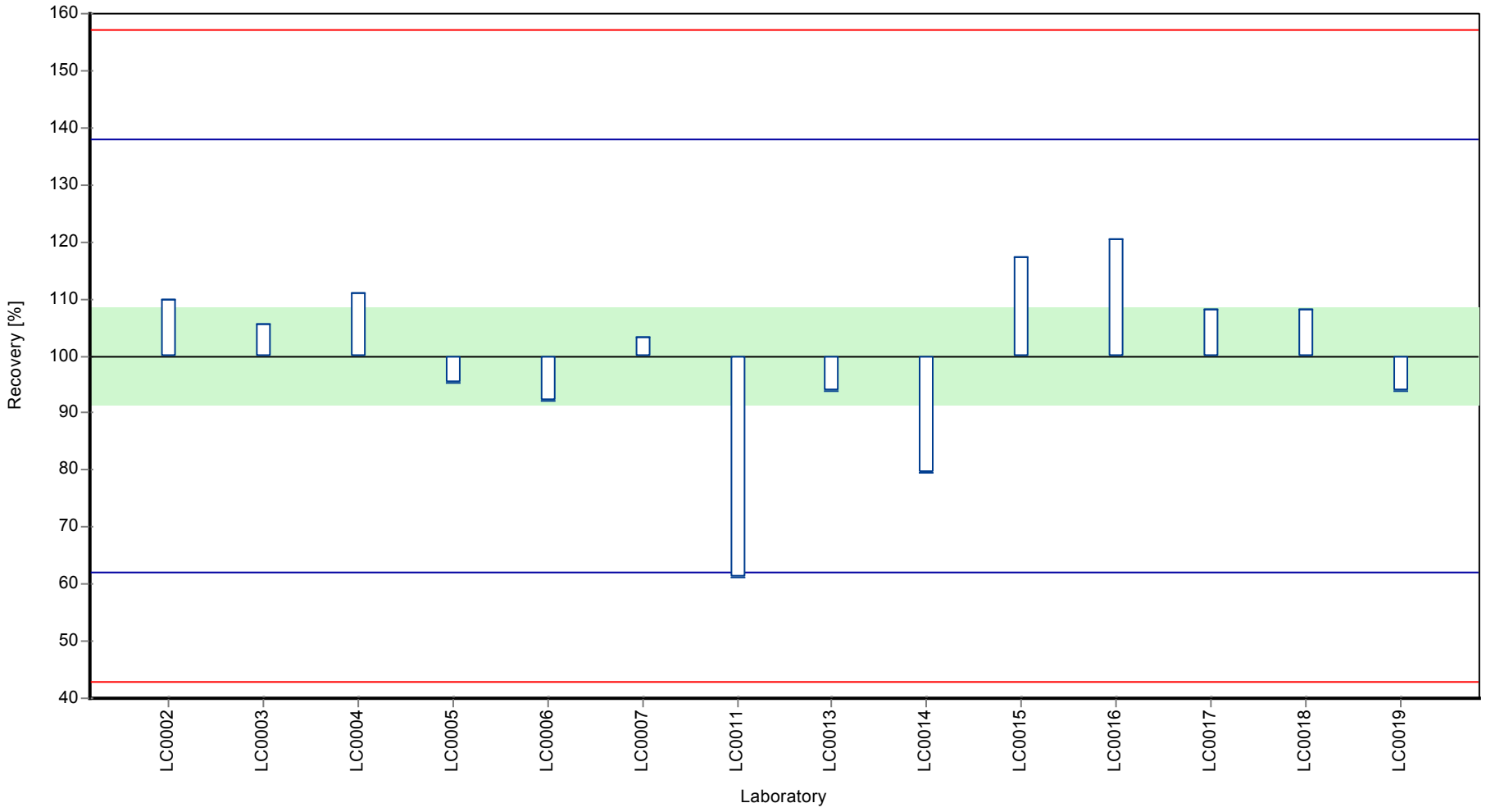
	all results	without outliers	Unit
Mean ± CI (99%)	42.6 ± 5.37	42.6 ± 5.37	ng/l
Minimum	26	26	ng/l
Maximum	51.2	51.2	ng/l
Standard deviation	6.69	6.69	ng/l
rel. standard deviation	15.7	15.7	%
n	14	14	-

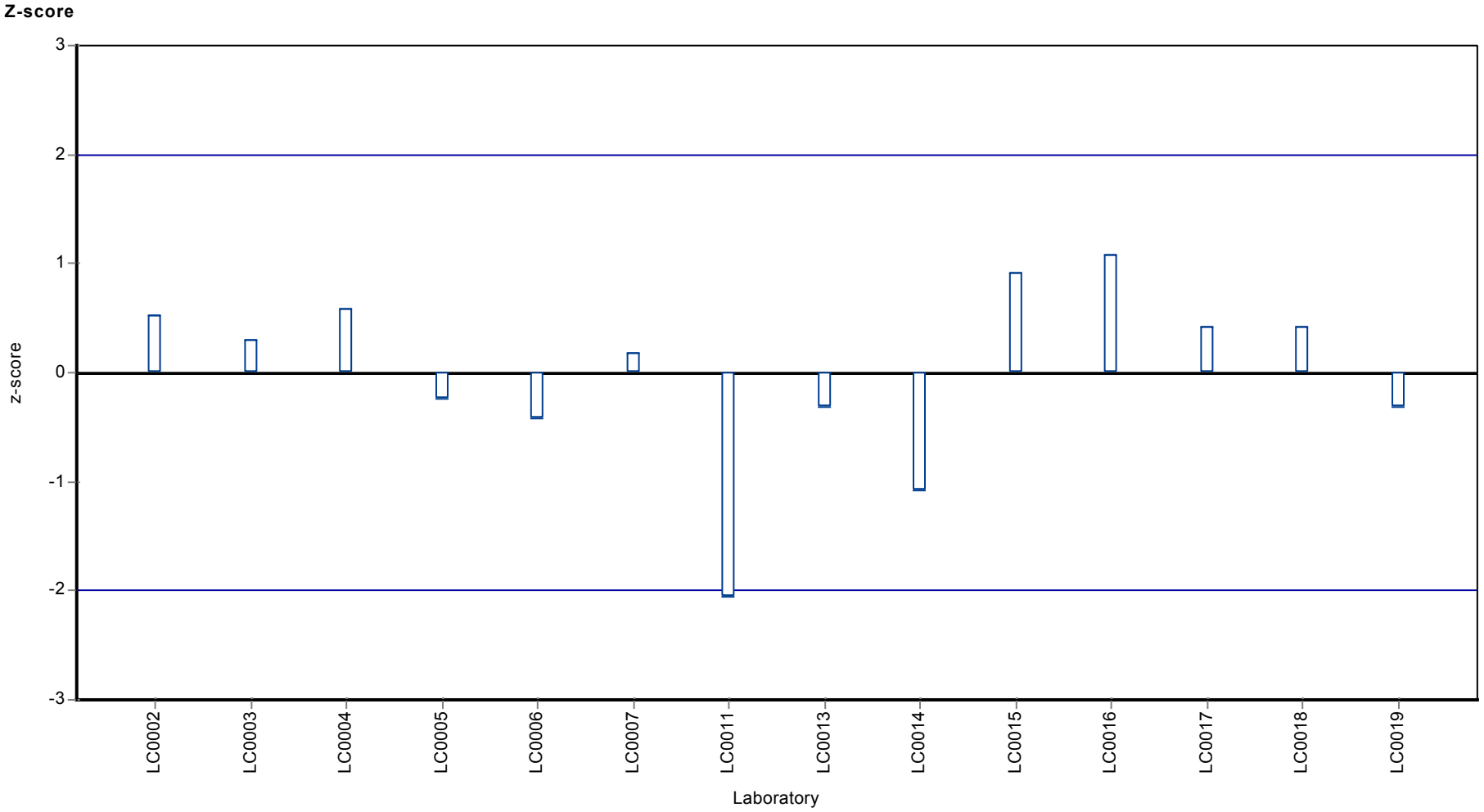
Graphical presentation of results

Results



Recovery rate




Z-score
3
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z-score
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0011
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
Laboratory

Parameter oriented report

P20 A

Dibenzo[a,h]anthracene

Unit	ng/l
Assigned value ± U (k=2)	67.1 ± 7.04
Criterion	13.2 (20 %)
Minimum - Maximum	40 - 86
Control test value ± U (k=2)	72.4 ± 23.2

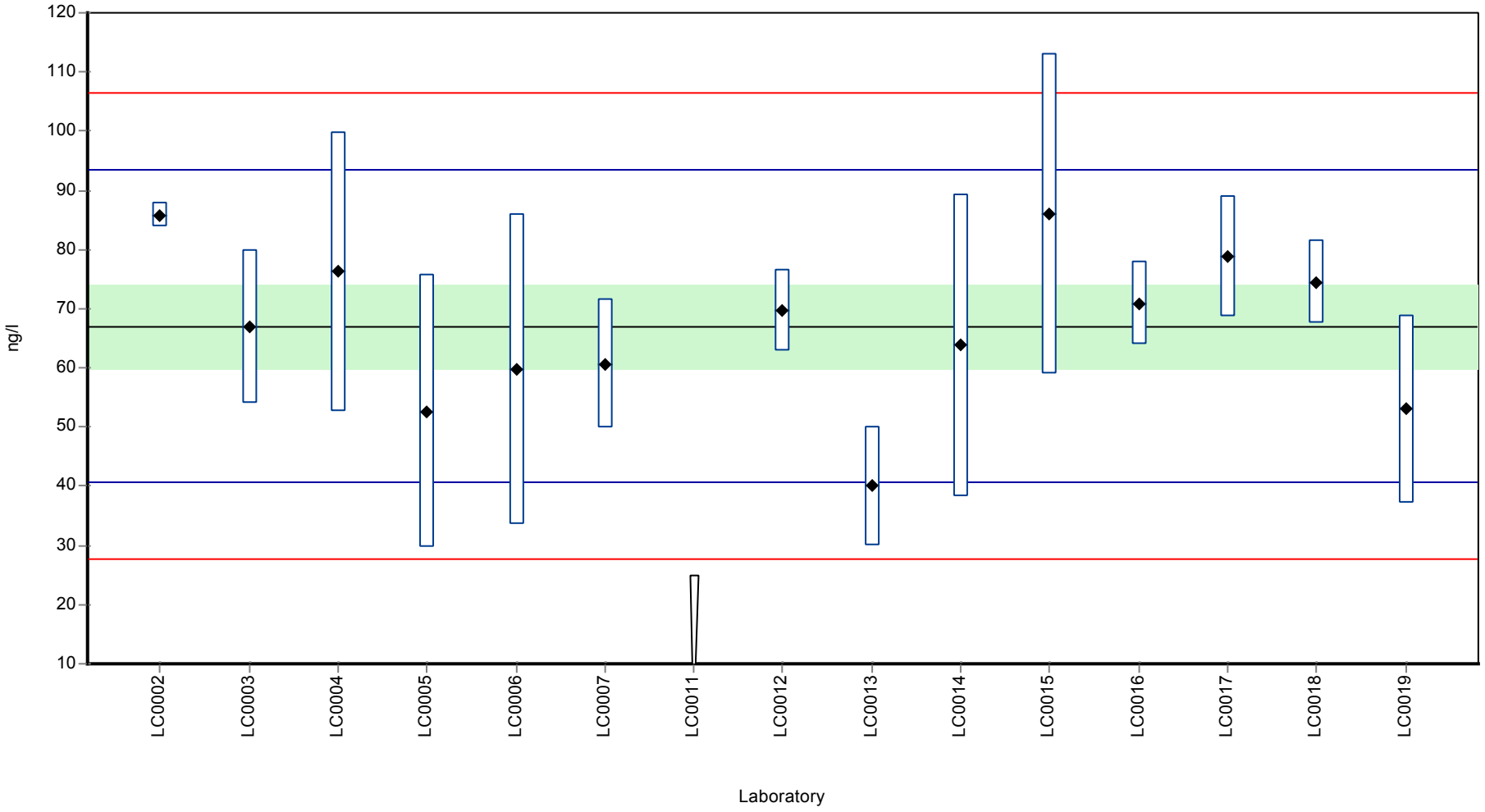
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	85.8	2.09	128	1.42	
LC0003	67	13	99.9	0.00	
LC0004	76.3	23.6	114	0.7	
LC0005	52.6	23.1	78.4	-1.1	
LC0006	59.8	26.31	89.2	-0.55	
LC0007	60.7	10.93	90.5	-0.48	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	-	-	-	-	
LC0011	< 25 (LOQ)	-	-	-	FN
LC0012	69.7	6.8	104	0.2	
LC0013	40	10	59.6	-2.06	
LC0014	63.8	25.5	95.1	-0.25	
LC0015	86	27	128	1.44	
LC0016	70.88	7.1	106	0.29	
LC0017	78.8	10.3	118	0.89	
LC0018	74.5	7	111	0.56	
LC0019	53	16	79	-1.07	

Characteristics of parameter

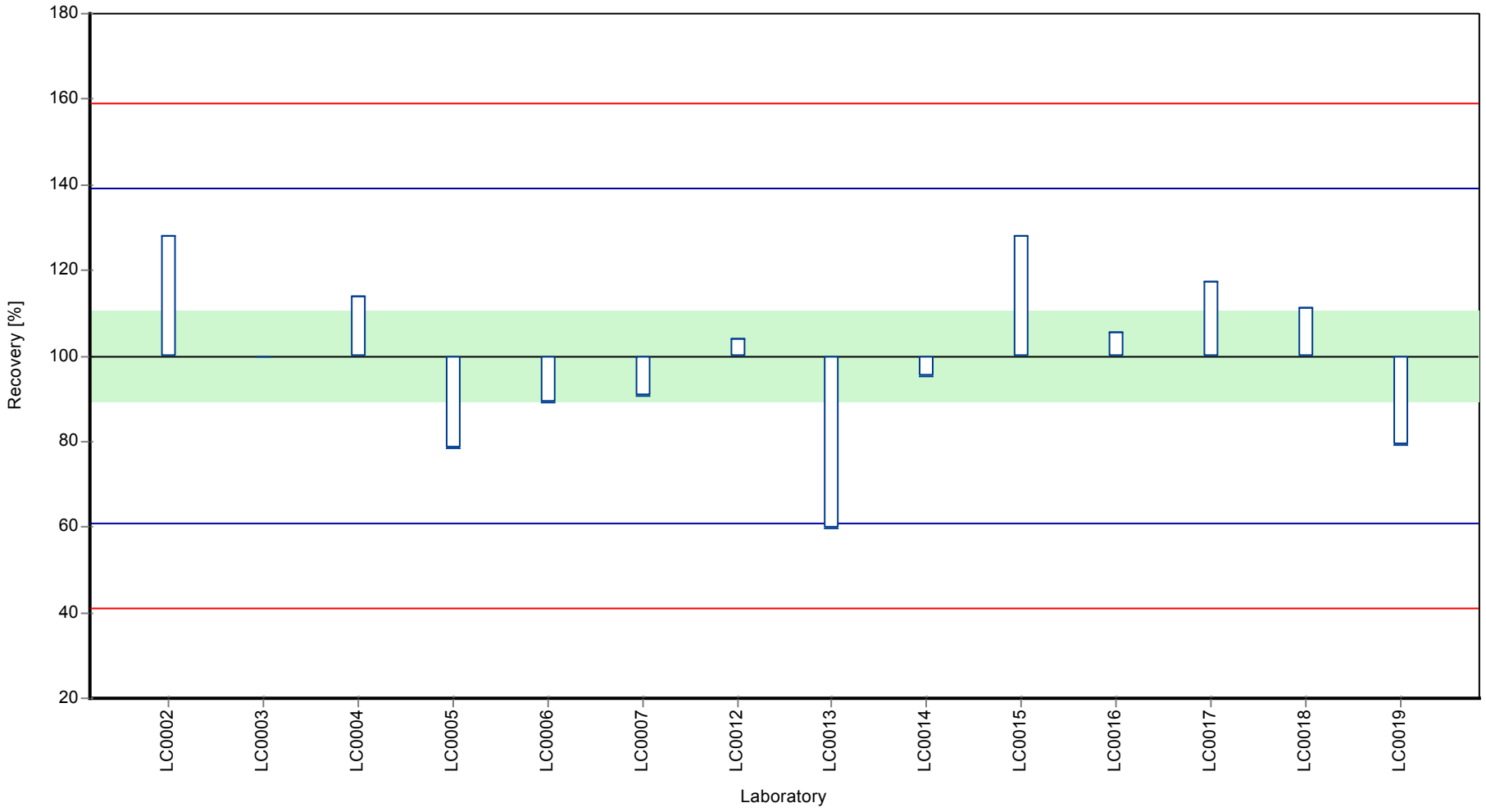
	all results	without outliers	Unit
Mean ± CI (99%)	67.1 ± 10.6	67.1 ± 10.6	ng/l
Minimum	40	40	ng/l
Maximum	86	86	ng/l
Standard deviation	13.2	13.2	ng/l
rel. standard deviation	19.6	19.6	%
n	14	14	-

Graphical presentation of results

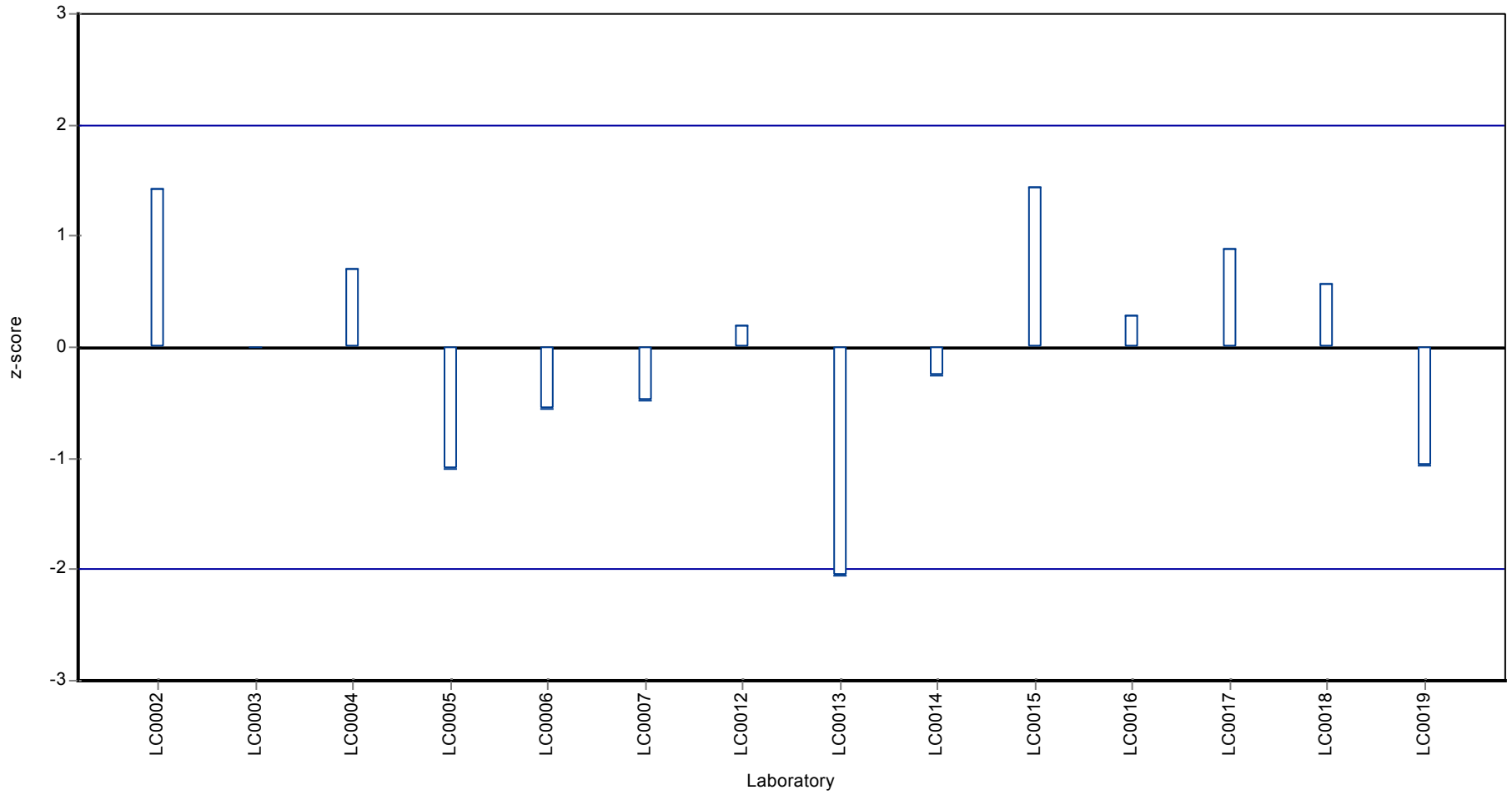
Results



Recovery rate



Z-score


3
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z-score
LC0002
LC0003
LC0004
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LC0012
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LC0017
LC0018
LC0019
Laboratory

Parameter oriented report

P20 B

Dibenzo[a,h]anthracene

Unit	ng/l
Assigned value ± U (k=2)	26.1 ± 4.09
Criterion	7.37 (28 %)
Minimum - Maximum	10 - 35
Control test value ± U (k=2)	24.4 ± 7.8

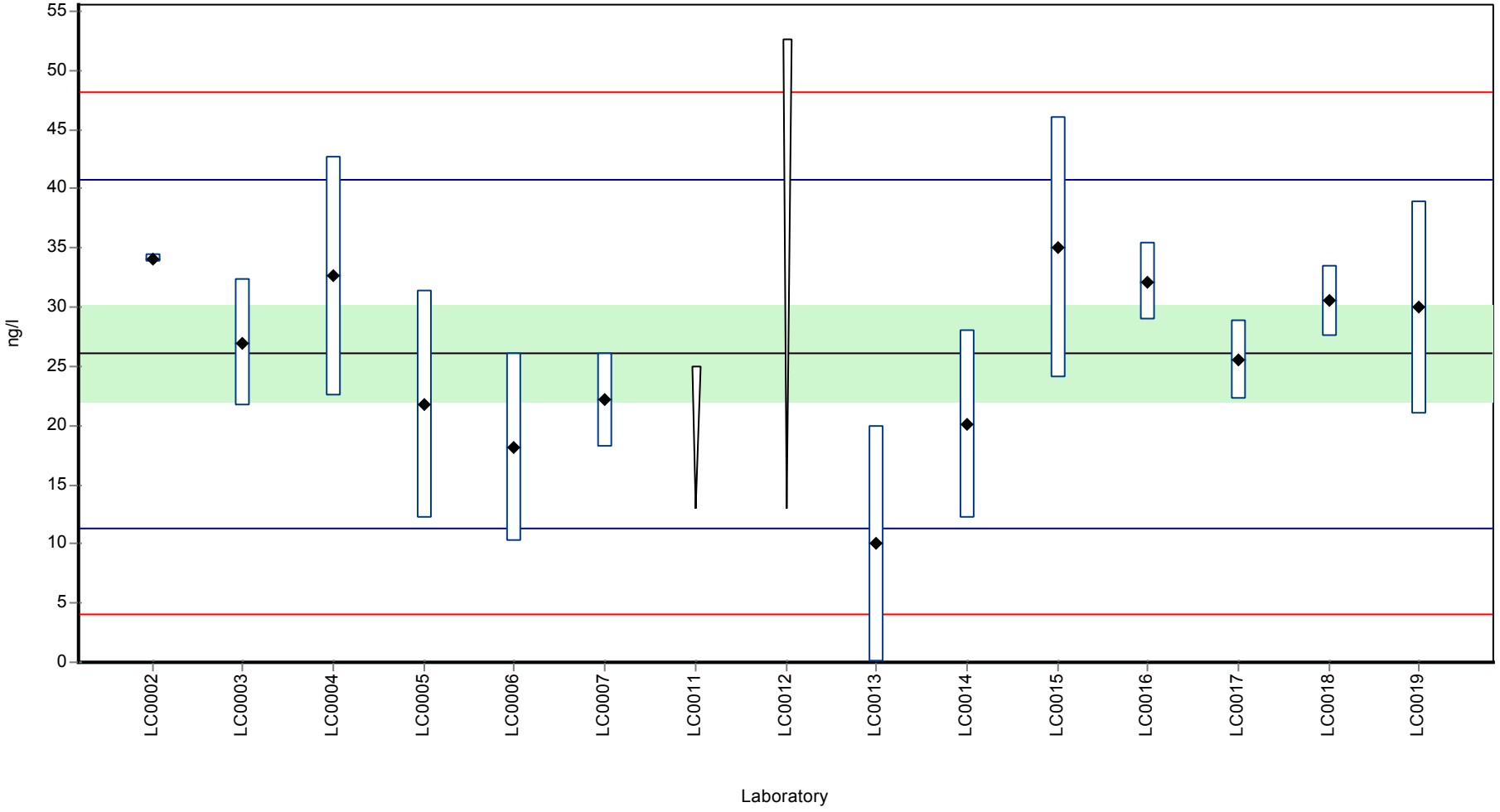
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	34.1	0.31	131	1.09	
LC0003	27	5.4	104	0.13	
LC0004	32.6	10.1	125	0.89	
LC0005	21.8	9.59	83.6	-0.58	
LC0006	18.1	7.96	69.4	-1.08	
LC0007	22.12	3.98	84.8	-0.54	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	-	-	-	-	
LC0011	< 25 (LOQ)	-	-	-	
LC0012	< 52.6 (LOQ)	-	-	-	
LC0013	10	10	38.3	-2.18	
LC0014	20.1	8	77.1	-0.81	
LC0015	35	11	134	1.21	
LC0016	32.13	3.25	123	0.82	
LC0017	25.6	3.35	98.2	-0.07	
LC0018	30.5	3	117	0.6	
LC0019	30	9	115	0.53	

Characteristics of parameter

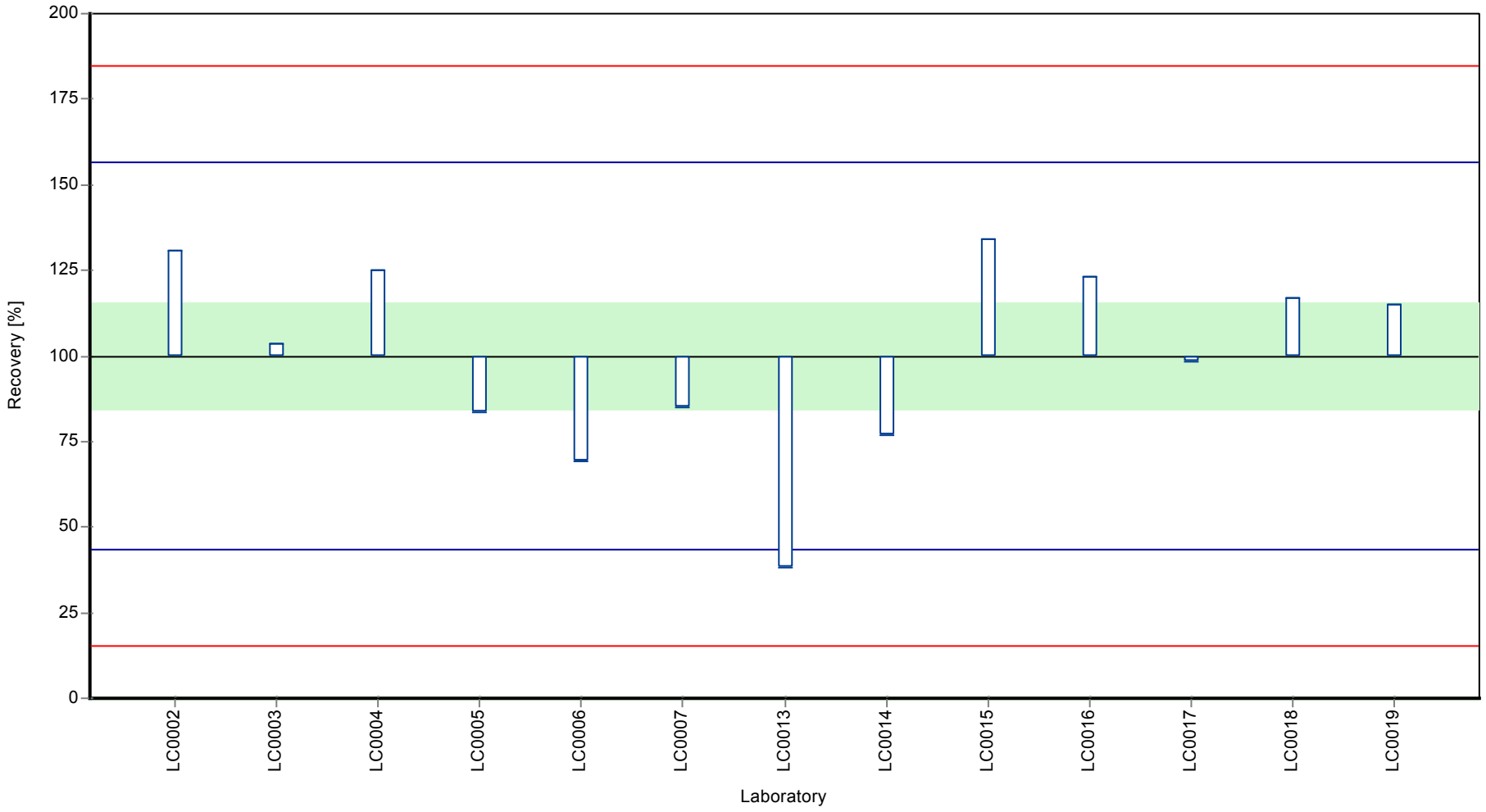
	all results	without outliers	Unit
Mean ± CI (99%)	26.1 ± 6.13	26.1 ± 6.13	ng/l
Minimum	10	10	ng/l
Maximum	35	35	ng/l
Standard deviation	7.37	7.37	ng/l
rel. standard deviation	28.2	28.2	%
n	13	13	-

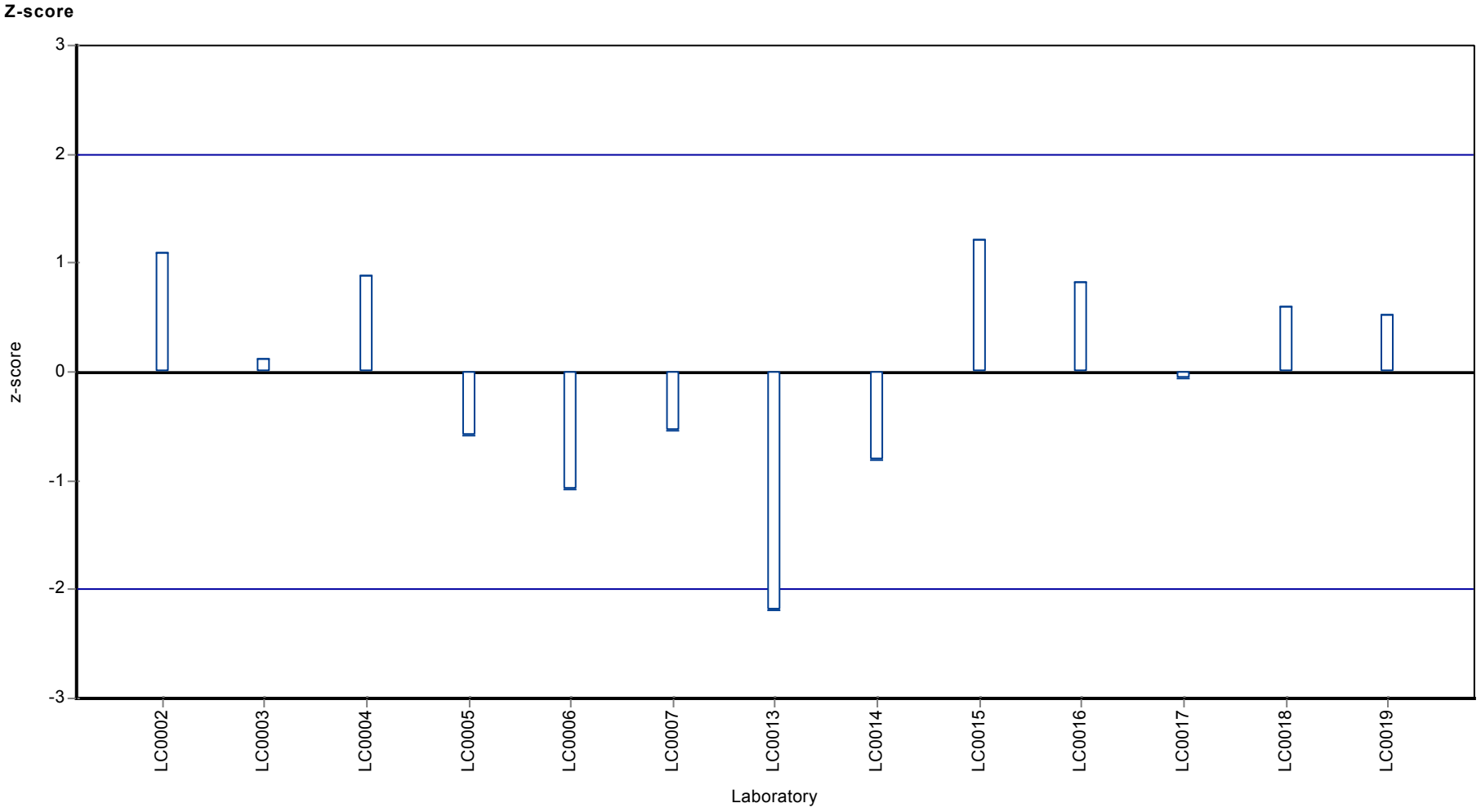
Graphical presentation of results

Results



Recovery rate




Z-score
3
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z-score
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0013
LC0014
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LC0016
LC0017
LC0018
LC0019
Laboratory

Parameter oriented report

P20 A

Fluoranthene

Unit	ng/l
Assigned value ± U (k=2)	125 ± 8.6
Criterion	23.7 (19 %)
Minimum - Maximum	82.3 - 143
Control test value ± U (k=2)	146 ± 32

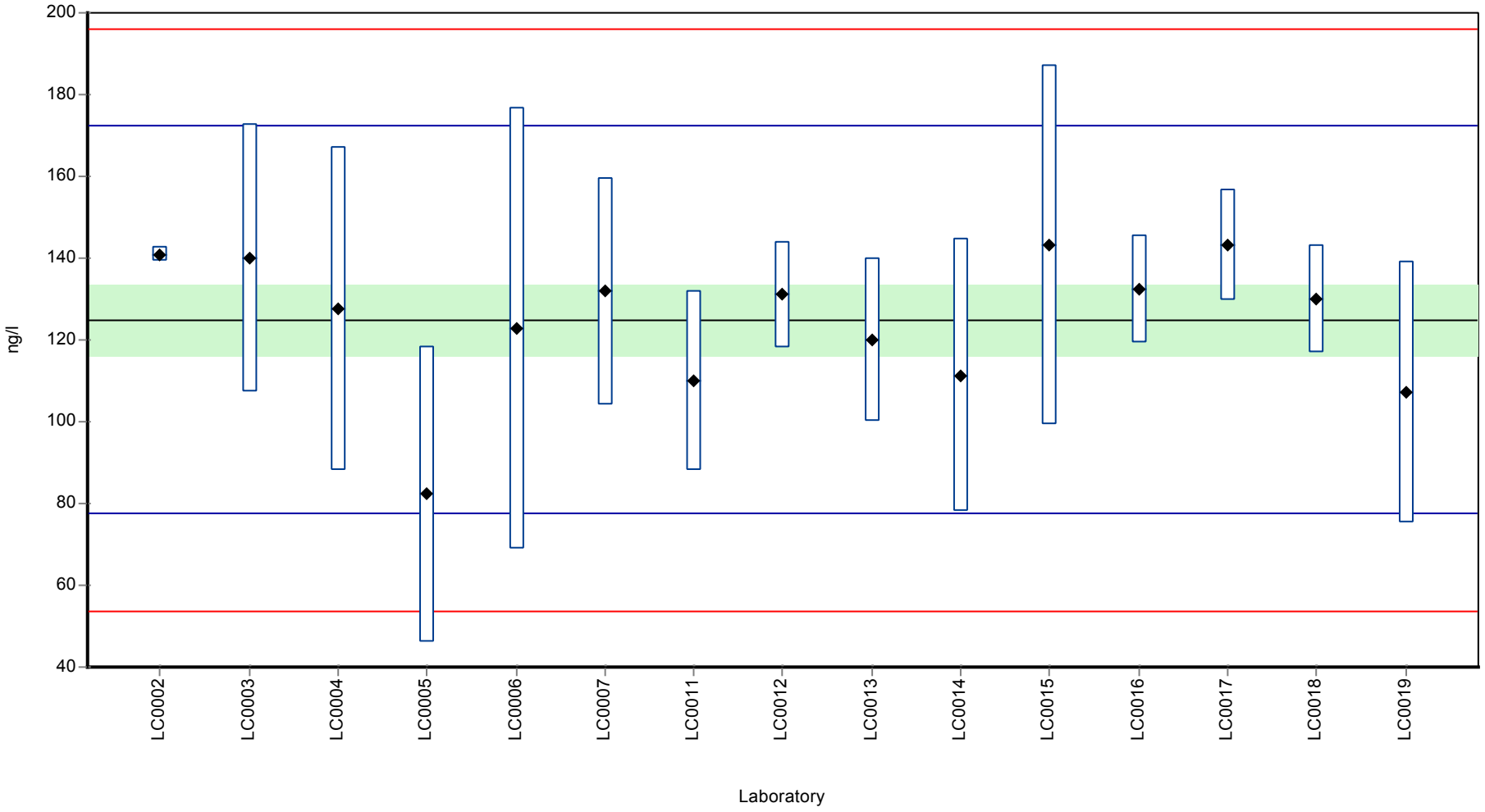
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	141	1.79	113	0.68	
LC0003	140	33	112	0.64	
LC0004	127.5	39.5	102	0.11	
LC0005	82.3	36.2	65.9	-1.79	
LC0006	122.8	54.12	98.3	-0.09	
LC0007	131.87	27.69	106	0.29	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	-	-	-	-	
LC0011	110	22	88.1	-0.63	
LC0012	131	13.1	105	0.26	
LC0013	120	20	96.1	-0.2	
LC0014	111.4	33.4	89.2	-0.57	
LC0015	143	44	115	0.76	
LC0016	132.25	13.25	106	0.31	
LC0017	143	13.6	115	0.76	
LC0018	130	13	104	0.22	
LC0019	107	32	85.7	-0.75	

Characteristics of parameter

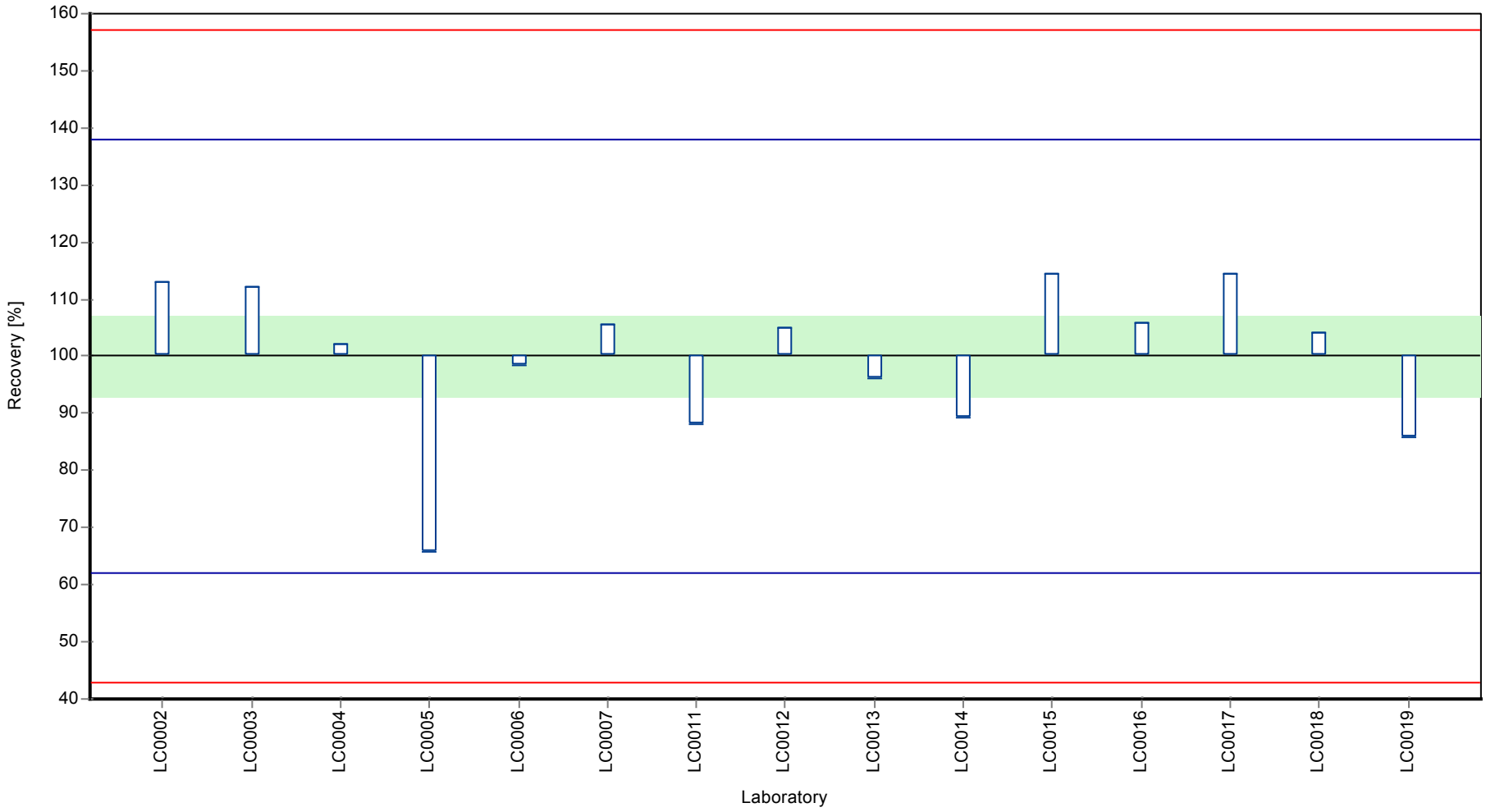
	all results	without outliers	Unit
Mean ± CI (99%)	125 ± 12.9	125 ± 12.9	ng/l
Minimum	82.3	82.3	ng/l
Maximum	143	143	ng/l
Standard deviation	16.7	16.7	ng/l
rel. standard deviation	13.3	13.3	%
n	15	15	-

Graphical presentation of results

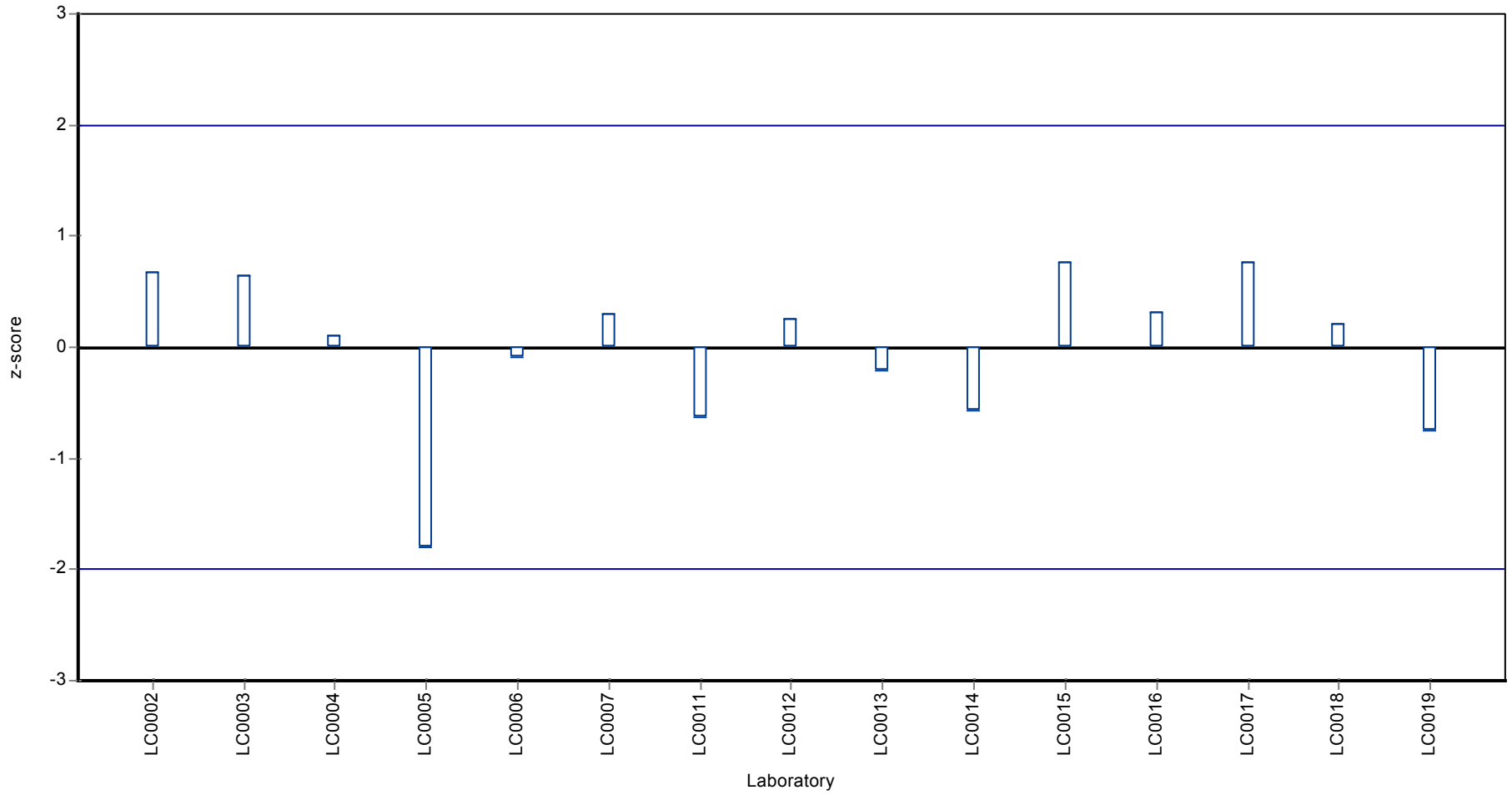
Results



Recovery rate



Z-score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z-score
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
Laboratory

Parameter oriented report

P20 B

Fluoranthene

Unit	ng/l
Assigned value ± U (k=2)	29.2 ± 2.5
Criterion	5.54 (19 %)
Minimum - Maximum	20 - 37
Control test value ± U (k=2)	32.4 ± 7.13

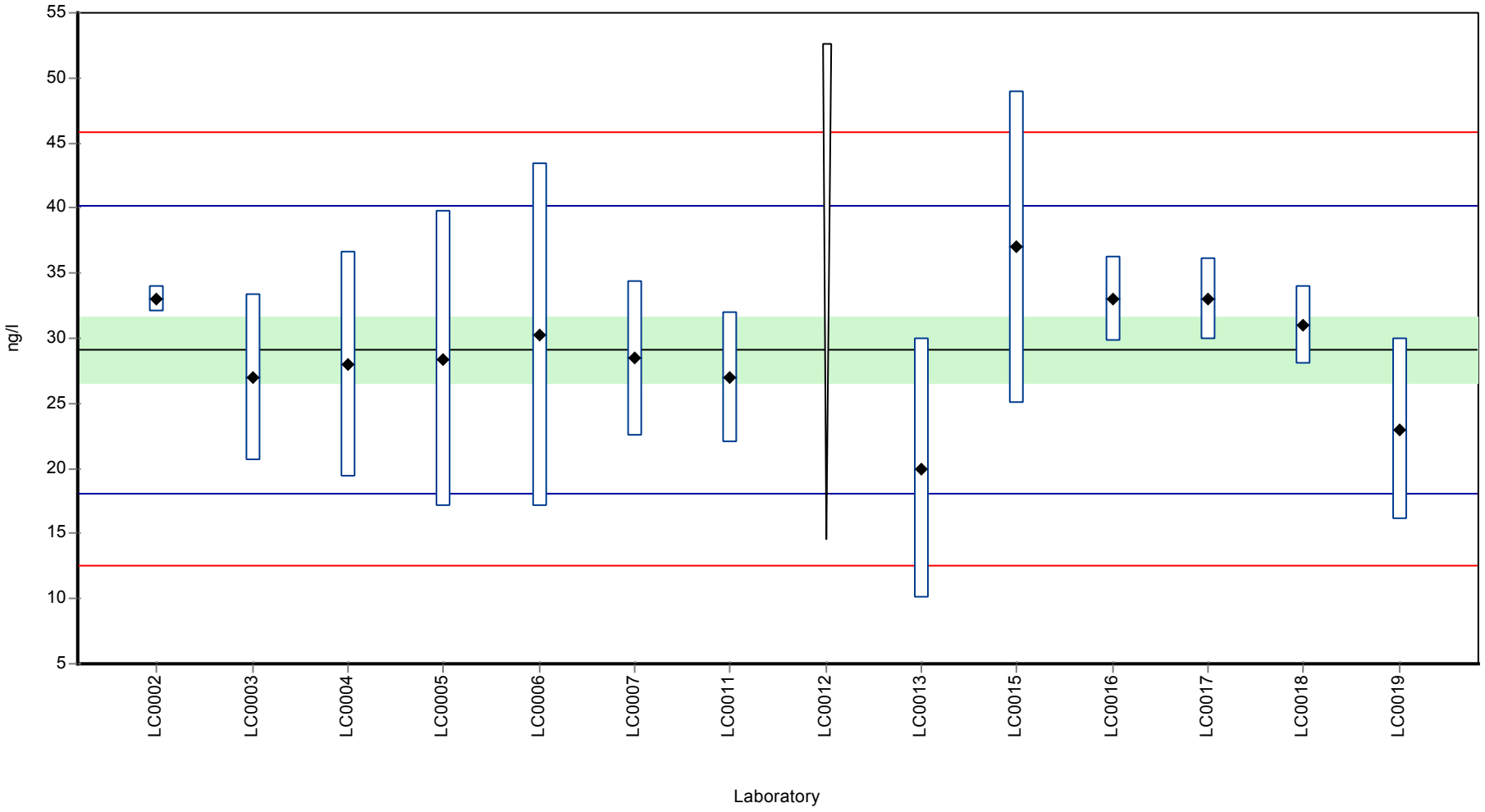
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	33	1	113	0.69	
LC0003	27	6.4	92.6	-0.39	
LC0004	28	8.7	96	-0.21	
LC0005	28.4	11.4	97.4	-0.14	
LC0006	30.2	13.2	104	0.19	
LC0007	28.46	5.98	97.6	-0.13	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	-	-	-	-	
LC0011	27	5	92.6	-0.39	
LC0012	< 52.6 (LOQ)	-	-	-	
LC0013	20	10	68.6	-1.65	
LC0014	-	-	-	-	
LC0015	37	12	127	1.42	
LC0016	33	3.3	113	0.69	
LC0017	33	3.14	113	0.69	
LC0018	31	3	106	0.33	
LC0019	23	7	78.9	-1.11	

Characteristics of parameter

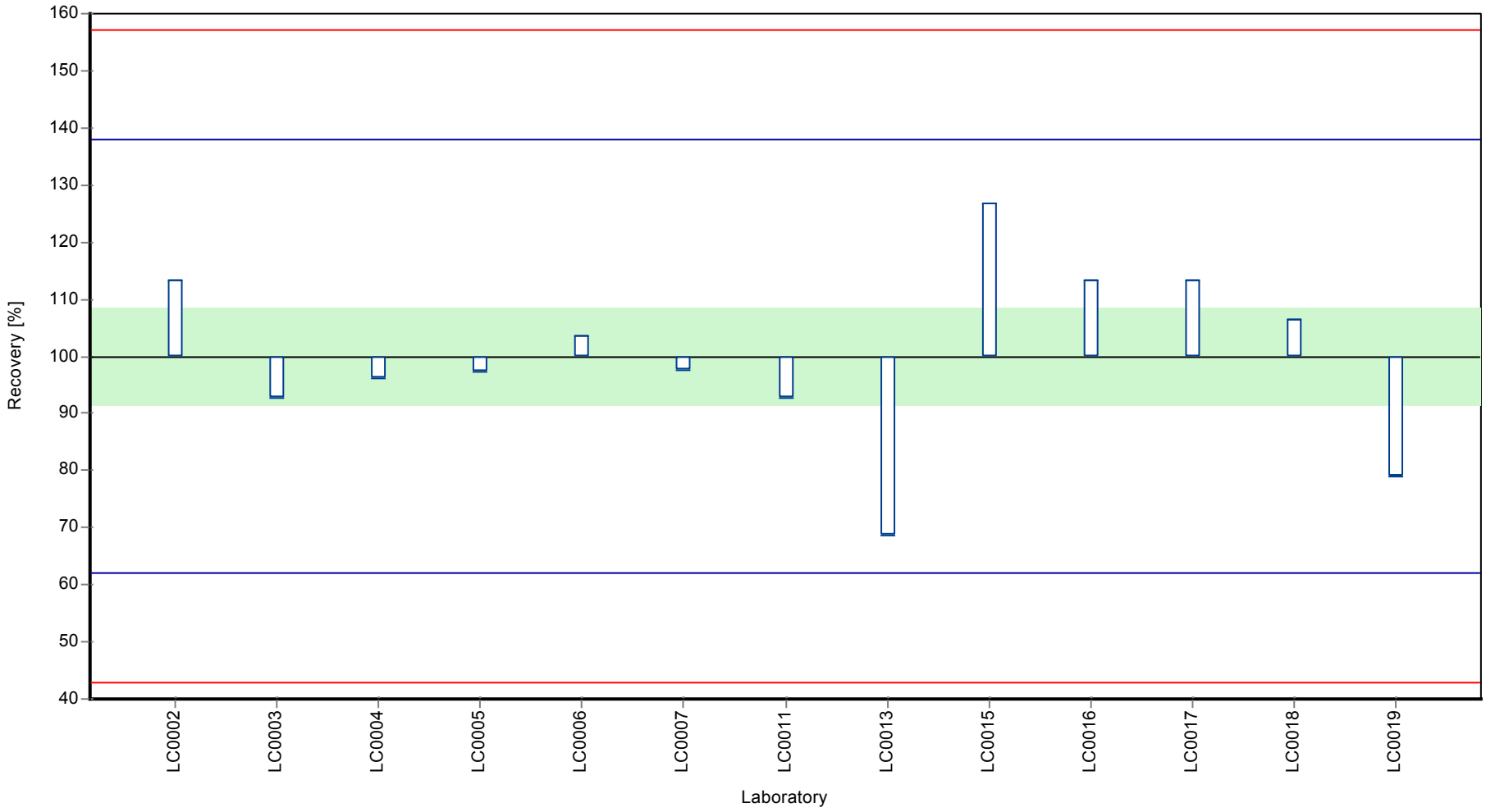
	all results	without outliers	Unit
Mean ± CI (99%)	29.2 ± 3.75	29.2 ± 3.75	ng/l
Minimum	20	20	ng/l
Maximum	37	37	ng/l
Standard deviation	4.51	4.51	ng/l
rel. standard deviation	15.5	15.5	%
n	13	13	-

Graphical presentation of results

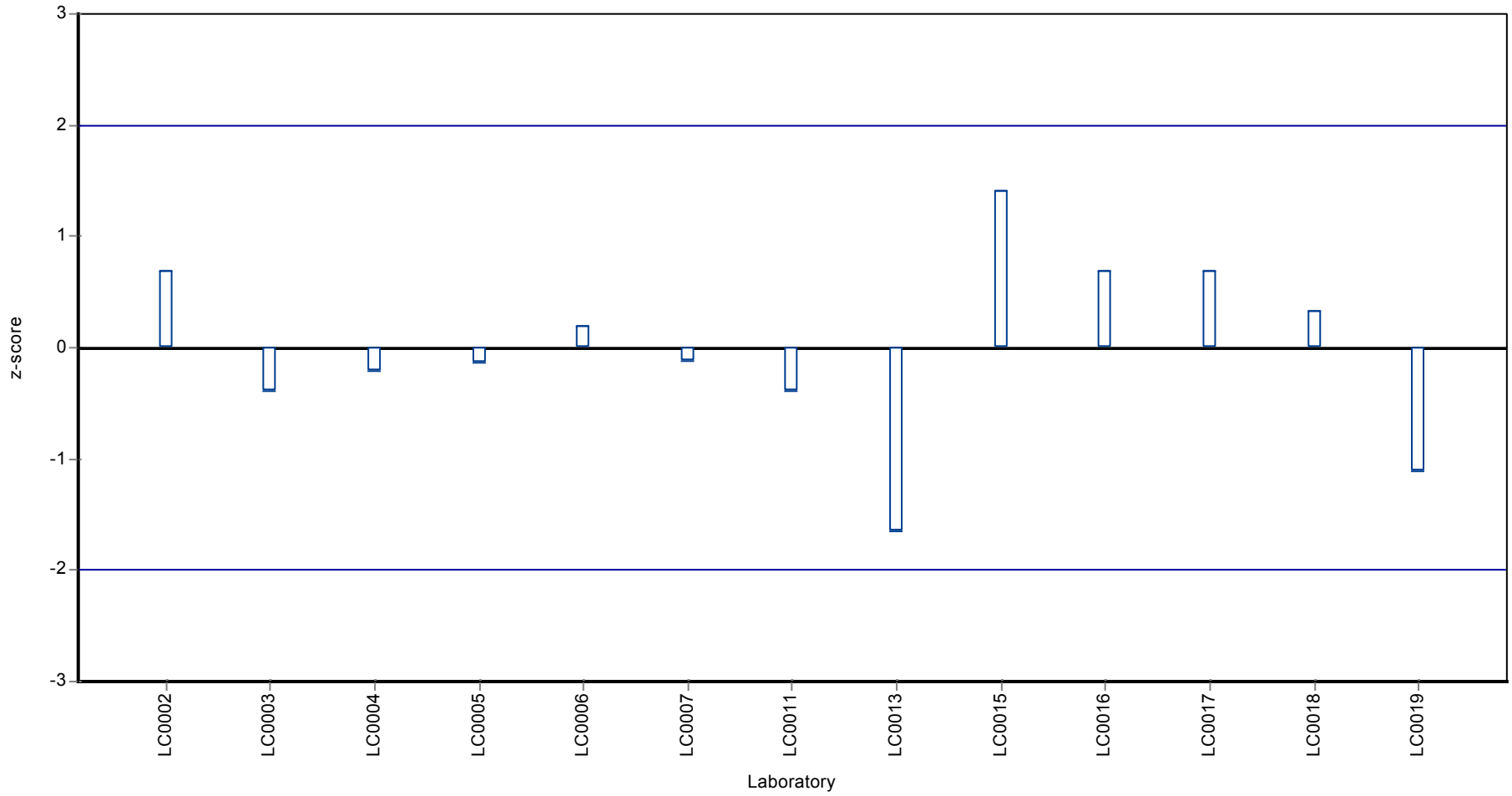
Results



Recovery rate



Z-score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z-score
LC0002
LC0003
LC0004
LC0005
LC0006
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LC0011
LC0013
LC0015
LC0016
LC0017
LC0018
LC0019
Laboratory

Parameter oriented report

P20 A

Fluorene

Unit	ng/l
Assigned value ± U (k=2)	158 ± 9.33
Criterion	20.6 (13 %)
Minimum - Maximum	135 - 196
Control test value ± U (k=2)	184 ± 55.3

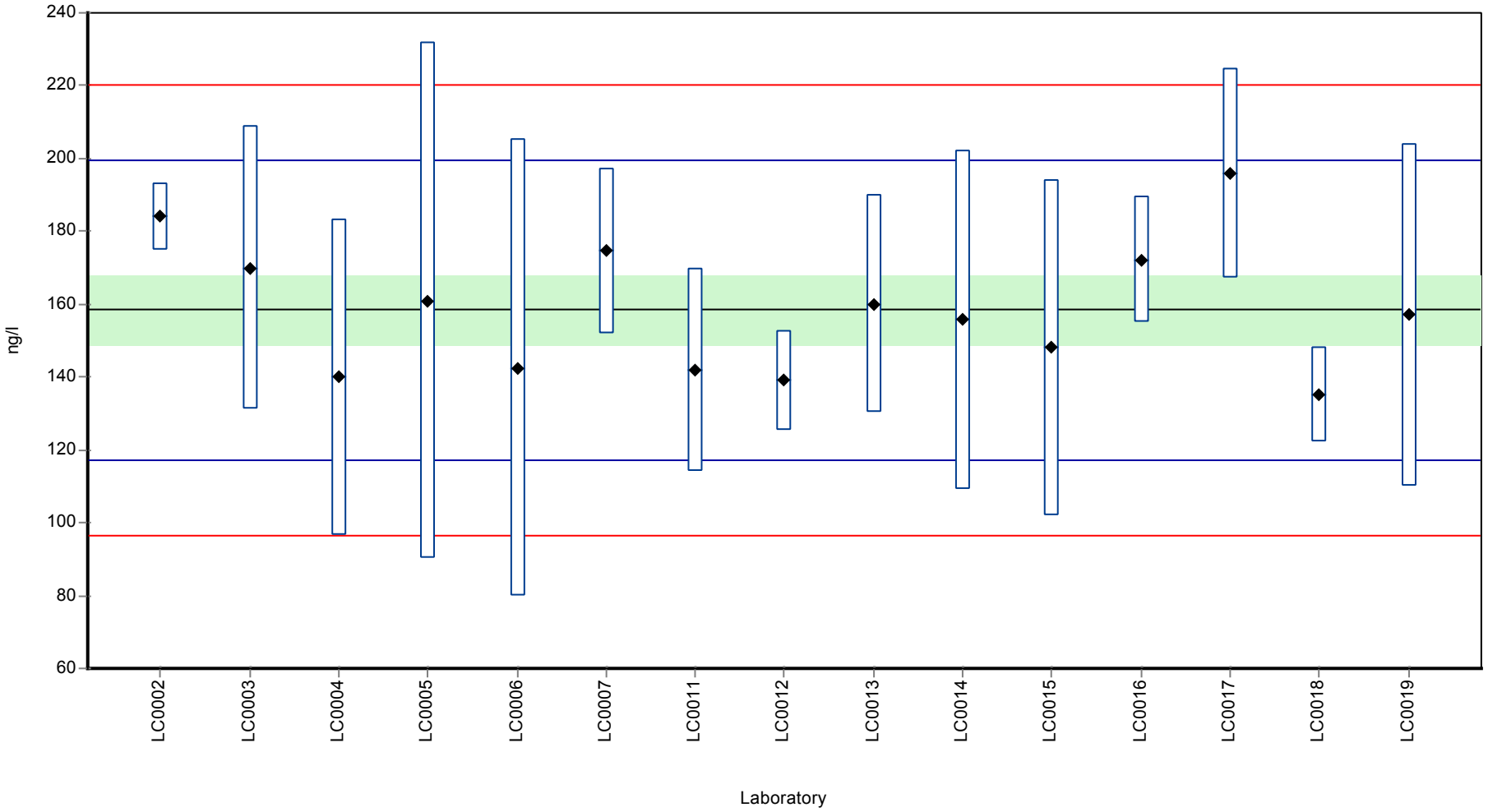
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	184	9.24	116	1.24	
LC0003	170	39	107	0.56	
LC0004	139.9	43.4	88.3	-0.9	
LC0005	161	71	102	0.12	
LC0006	142.5	62.7	89.9	-0.78	
LC0007	174.55	22.69	110	0.78	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	-	-	-	-	
LC0011	142	28	89.6	-0.8	
LC0012	139	13.9	87.7	-0.94	
LC0013	160	30	101	0.07	
LC0014	155.7	46.7	98.3	-0.13	
LC0015	148	46	93.4	-0.51	
LC0016	172.25	17.25	109	0.67	
LC0017	196	28.9	124	1.82	
LC0018	135	13	85.2	-1.14	
LC0019	157	47	99.1	-0.07	

Characteristics of parameter

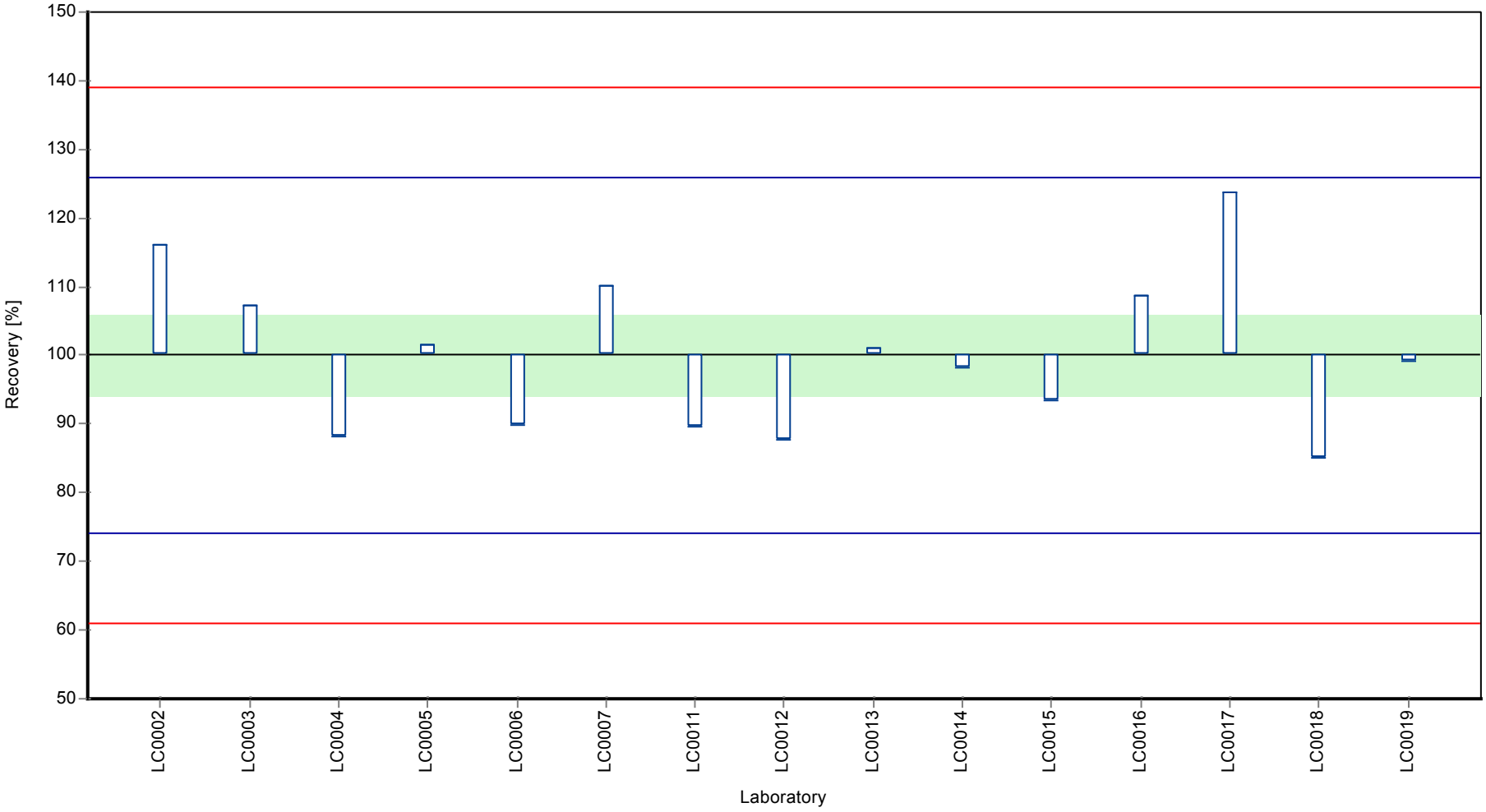
	all results	without outliers	Unit
Mean ± CI (99%)	158 ± 14	158 ± 14	ng/l
Minimum	135	135	ng/l
Maximum	196	196	ng/l
Standard deviation	18.1	18.1	ng/l
rel. standard deviation	11.4	11.4	%
n	15	15	-

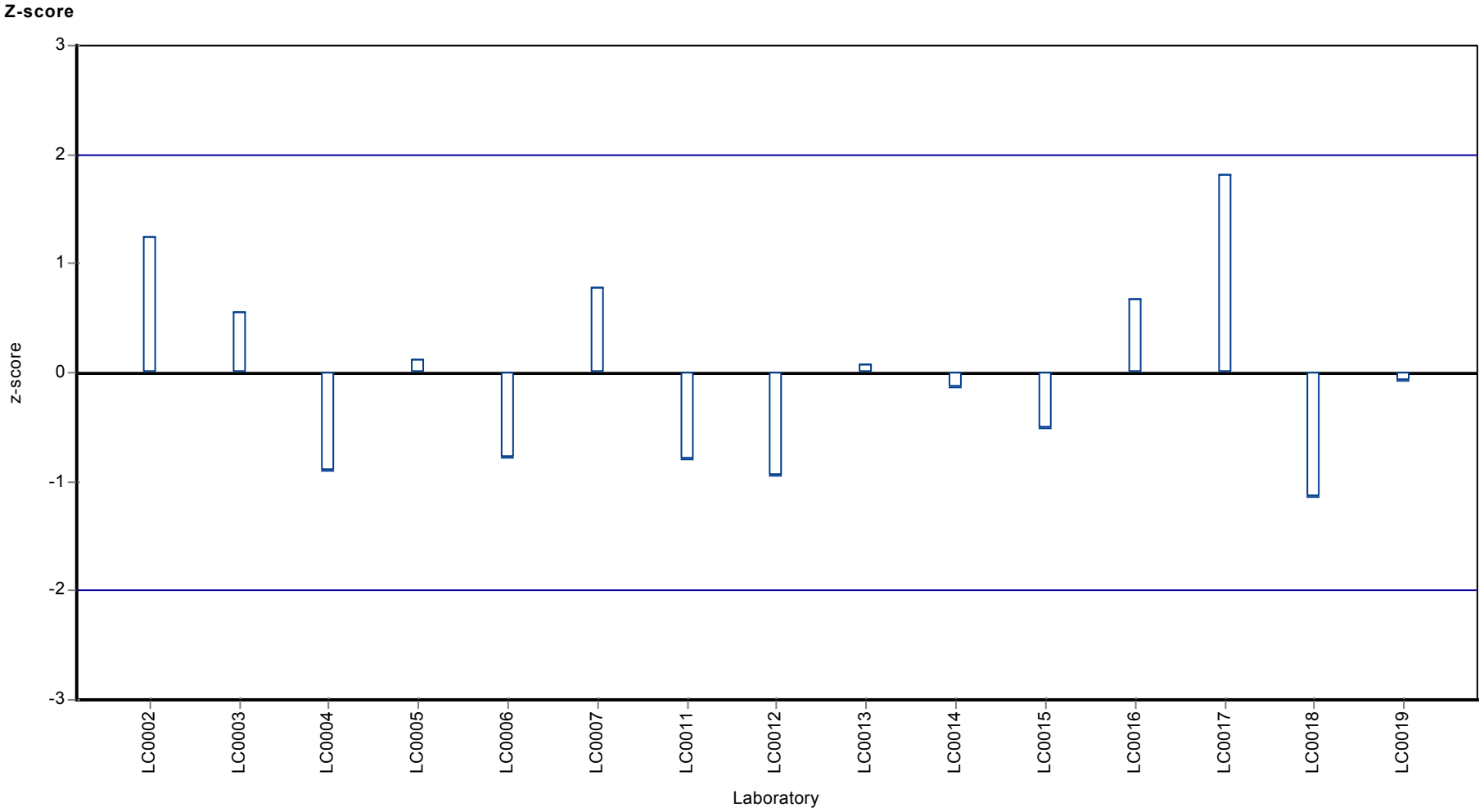
Graphical presentation of results

Results



Recovery rate




Z-score
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z-score
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
Laboratory

Parameter oriented report

P20 B

Fluorene

Unit	ng/l
Assigned value ± U (k=2)	26.3 ± 2.42
Criterion	4.36 (17 %)
Minimum - Maximum	16.5 - 33.1
Control test value ± U (k=2)	30.3 ± 9.1

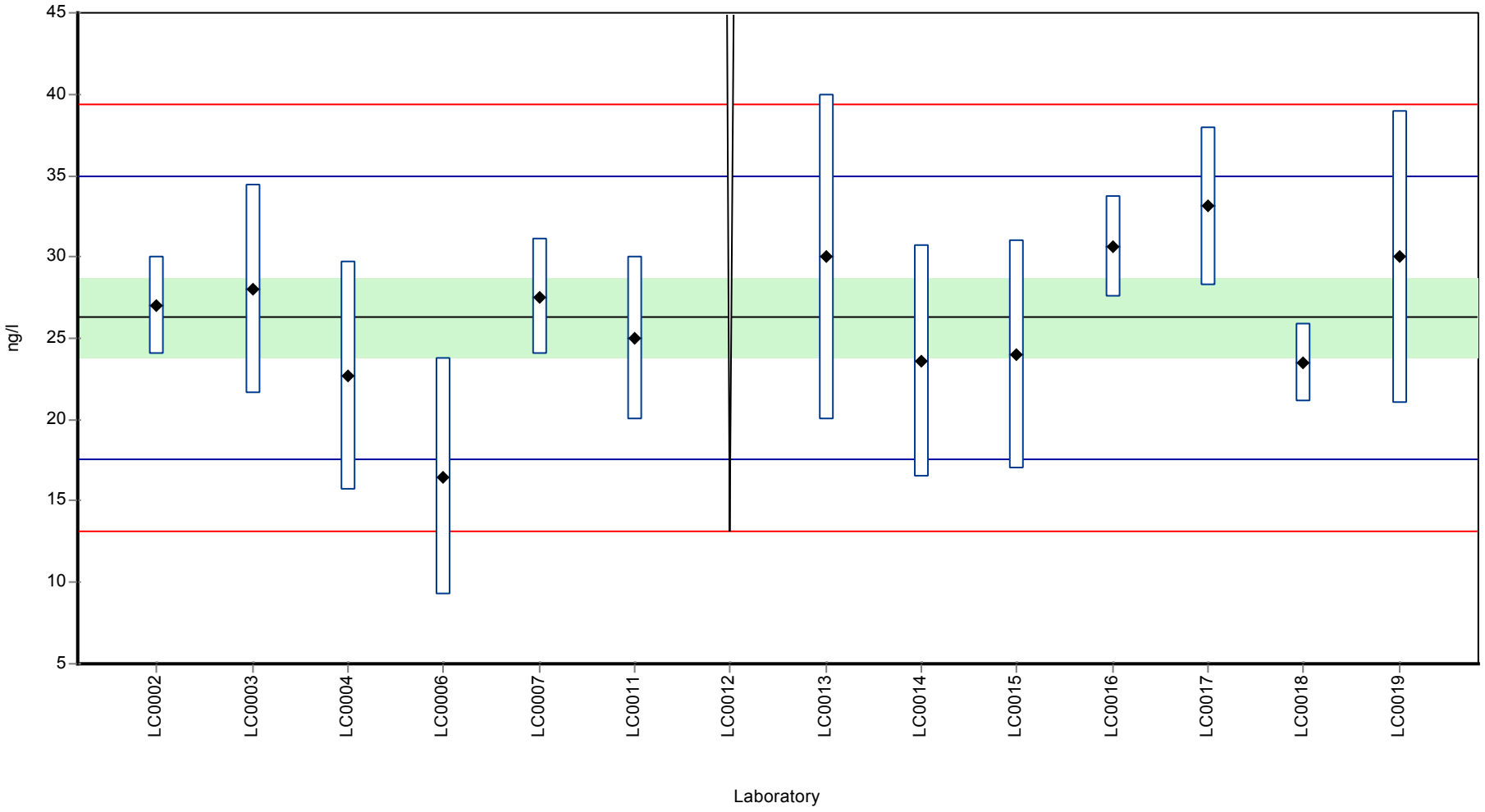
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	27	2.98	103	0.17	
LC0003	28	6.4	107	0.4	
LC0004	22.7	7	86.4	-0.82	
LC0005	-	-	-	-	
LC0006	16.5	7.26	62.8	-2.24	
LC0007	27.54	3.58	105	0.29	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	-	-	-	-	
LC0011	25	5	95.1	-0.29	
LC0012	< 52.6 (LOQ)	-	-	-	
LC0013	30	10	114	0.85	
LC0014	23.6	7.1	89.8	-0.61	
LC0015	24	7	91.3	-0.52	
LC0016	30.63	3.1	117	1	
LC0017	33.1	4.9	126	1.56	
LC0018	23.5	2.4	89.4	-0.64	
LC0019	30	9	114	0.85	

Characteristics of parameter

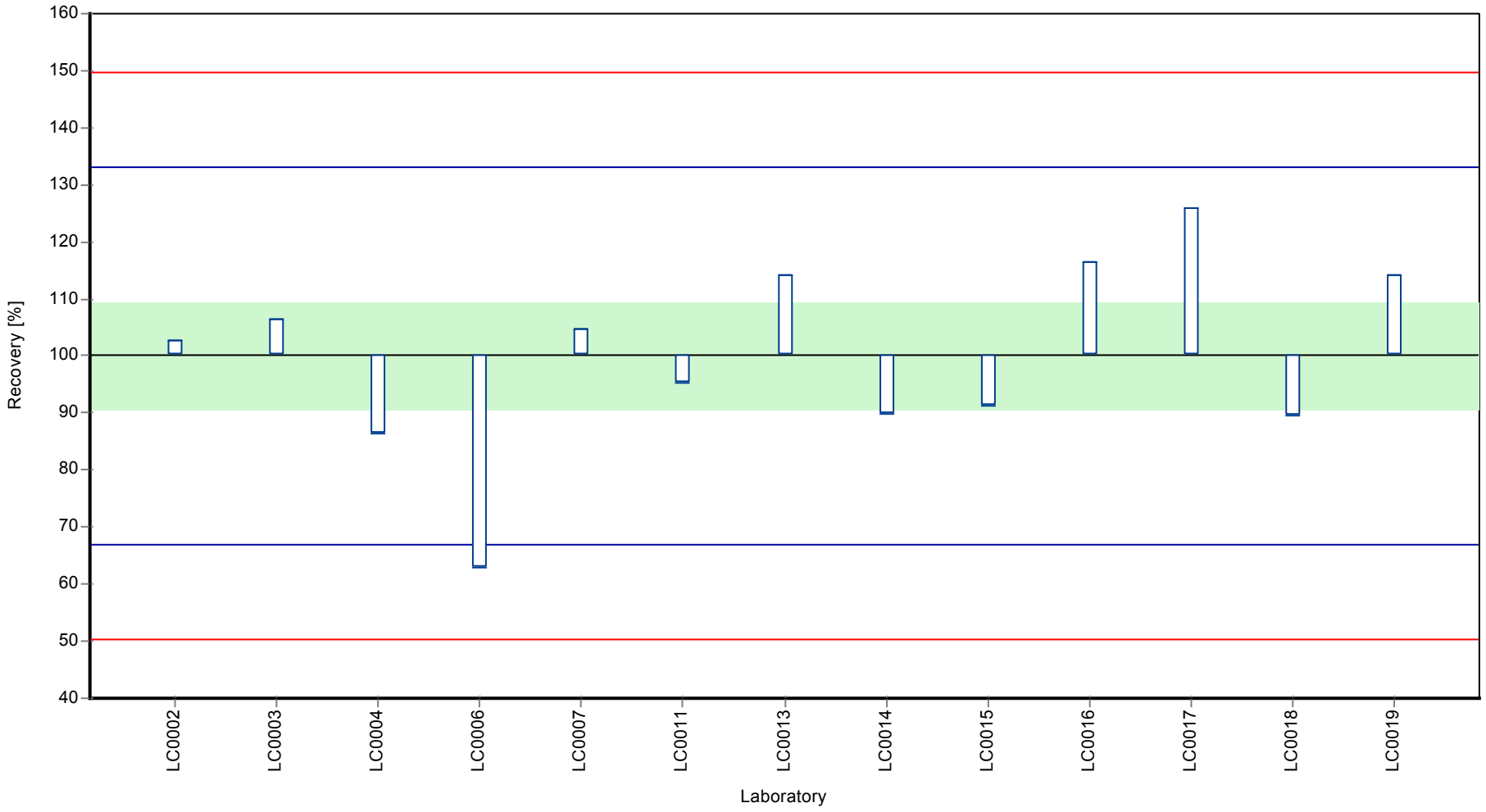
	all results	without outliers	Unit
Mean ± CI (99%)	26.3 ± 3.63	26.3 ± 3.63	ng/l
Minimum	16.5	16.5	ng/l
Maximum	33.1	33.1	ng/l
Standard deviation	4.36	4.36	ng/l
rel. standard deviation	16.6	16.6	%
n	13	13	-

Graphical presentation of results

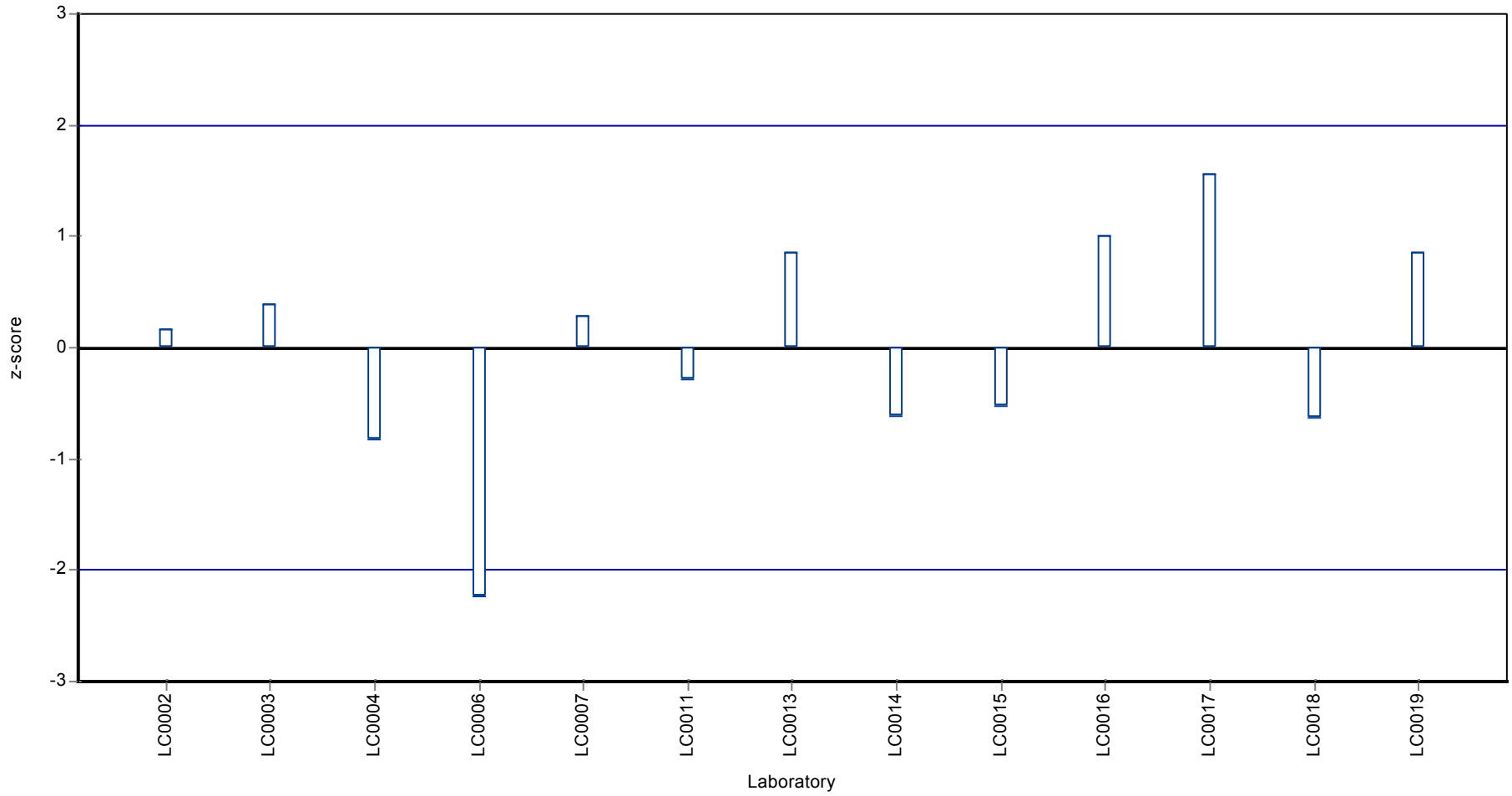
Results



Recovery rate



Z-score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z-score
LC0002
LC0003
LC0004
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LC0011
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LC0017
LC0018
LC0019
Laboratory

Parameter oriented report

P20 A

Indeno[1,2,3-cd]pyrene

Unit	ng/l
Assigned value ± U (k=2)	-
Criterion	-
Minimum - Maximum	8.02 - 34.3
Control test value ± U (k=2)	11.4 ± 3.64

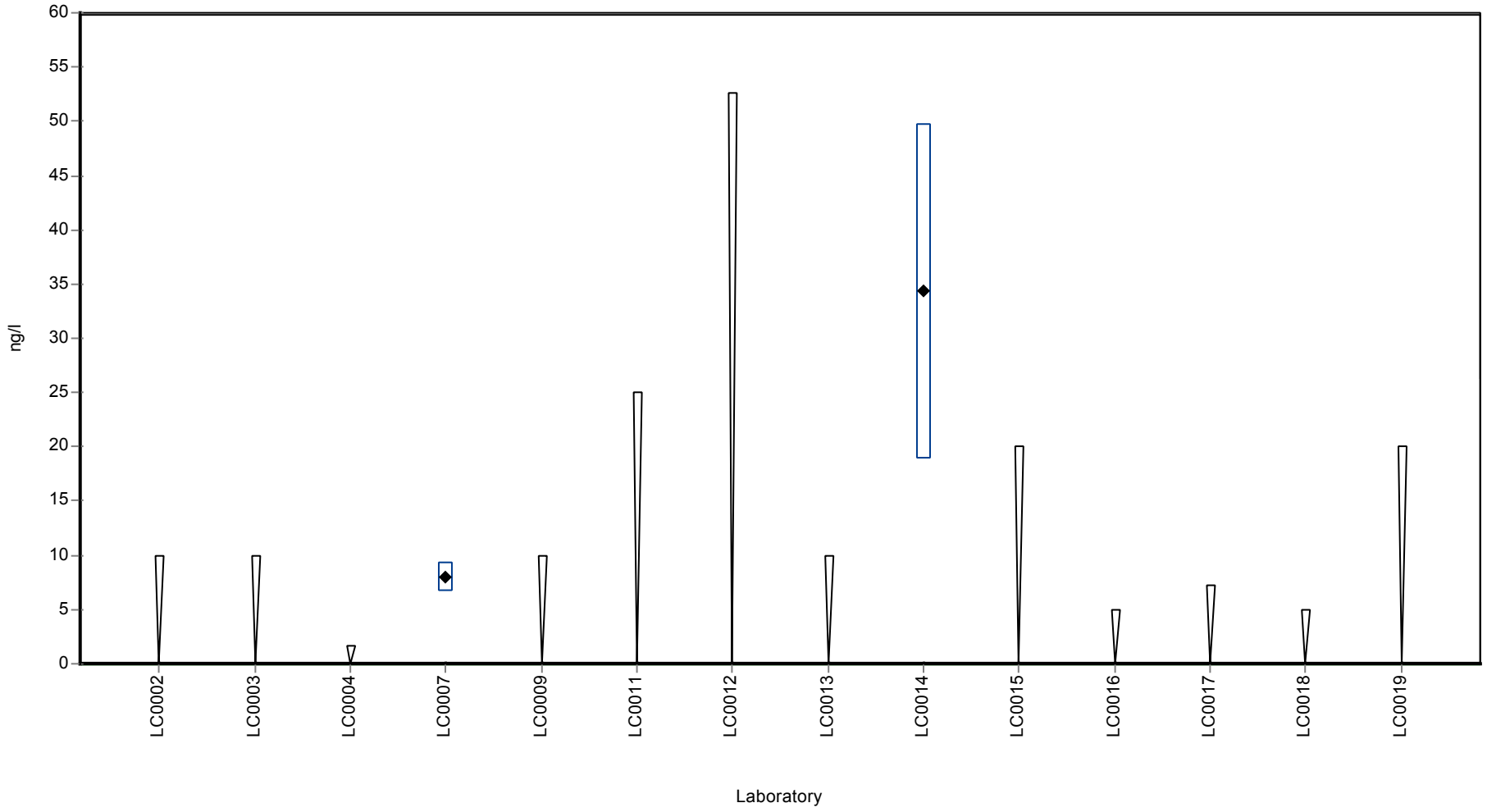
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	< 10 (LOQ)	-	-	-	
LC0003	< 10 (LOQ)	-	-	-	
LC0004	< 1.6 (LOQ)	-	-	-	
LC0005	-	-	-	-	
LC0006	-	-	-	-	
LC0007	8.02	1.36	-	-	
LC0008	-	-	-	-	
LC0009	< 10 (LOQ)	-	-	-	
LC0010	-	-	-	-	
LC0011	< 25 (LOQ)	-	-	-	
LC0012	< 52.6 (LOQ)	-	-	-	
LC0013	< 10 (LOQ)	-	-	-	
LC0014	34.3	15.4	-	-	FP
LC0015	< 20 (LOQ)	-	-	-	
LC0016	< 5 (LOQ)	-	-	-	
LC0017	< 7.22 (LOQ)	-	-	-	
LC0018	< 5 (LOQ)	-	-	-	
LC0019	< 20 (LOQ)	-	-	-	

Characteristics of parameter

	all results	without outliers	Unit
Mean ± CI (99%)	21.2 ± 39.4	-	ng/l
Minimum	8.02	8.02	ng/l
Maximum	34.3	34.3	ng/l
Standard deviation	18.6	-	ng/l
rel. standard deviation	87.8	-	%
n	2	2	-

Graphical presentation of results

Results



Parameter oriented report

P20 B

Indeno[1,2,3-cd]pyrene

Unit	ng/l
Assigned value ± U (k=2)	-
Criterion	-
Minimum - Maximum	4.4 - 33.6
Control test value ± U (k=2)	3.72 ± 1.19

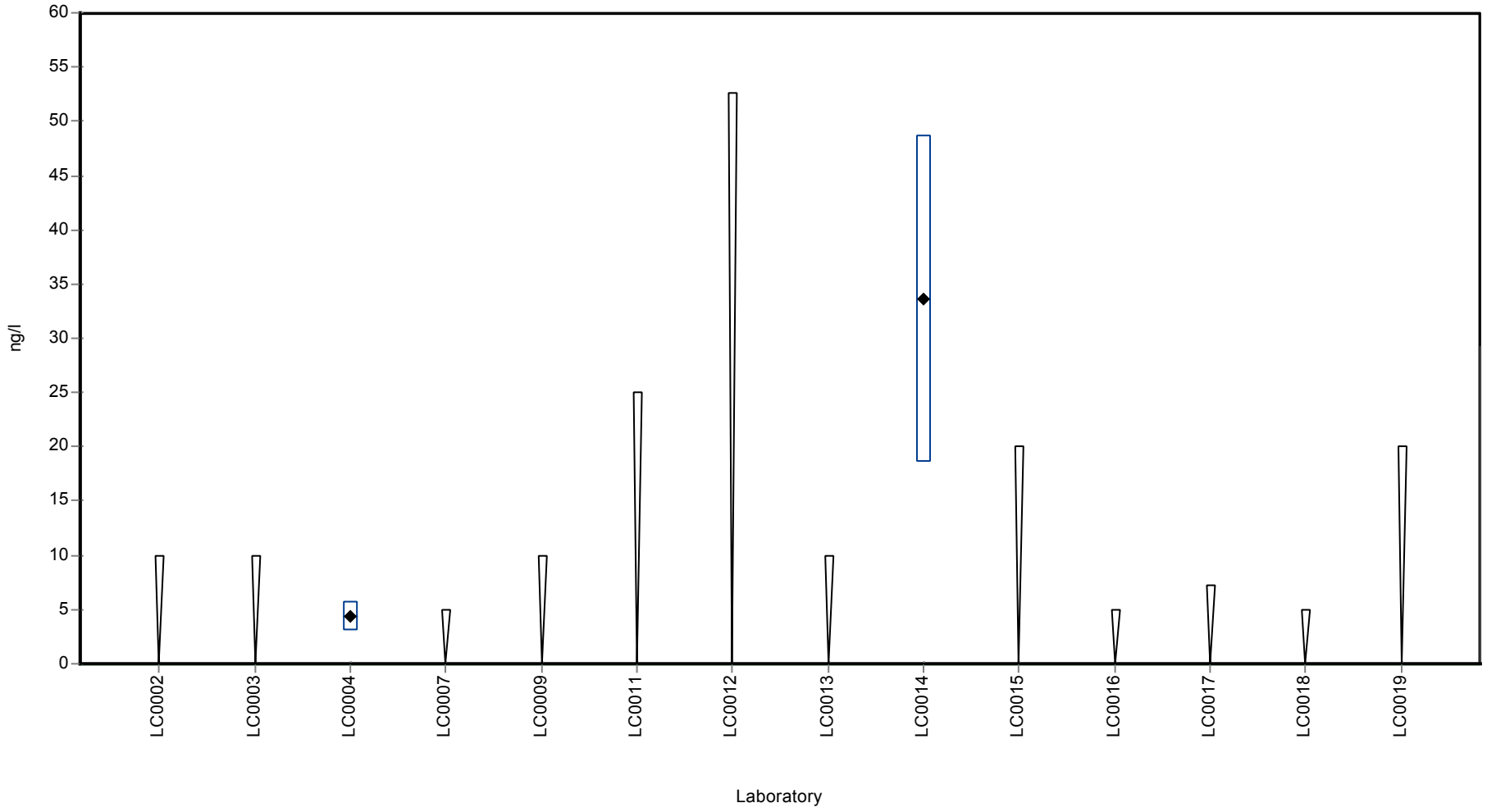
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	< 10 (LOQ)	-	-	-	
LC0003	< 10 (LOQ)	-	-	-	
LC0004	4.4	1.4	-	-	
LC0005	-	-	-	-	
LC0006	-	-	-	-	
LC0007	< 5 (LOQ)	-	-	-	
LC0008	-	-	-	-	
LC0009	< 10 (LOQ)	-	-	-	
LC0010	-	-	-	-	
LC0011	< 25 (LOQ)	-	-	-	
LC0012	< 52.6 (LOQ)	-	-	-	
LC0013	< 10 (LOQ)	-	-	-	
LC0014	33.6	15.1	-	-	FP
LC0015	< 20 (LOQ)	-	-	-	
LC0016	< 5 (LOQ)	-	-	-	
LC0017	< 7.22 (LOQ)	-	-	-	
LC0018	< 5 (LOQ)	-	-	-	
LC0019	< 20 (LOQ)	-	-	-	

Characteristics of parameter

	all results	without outliers	Unit
Mean ± CI (99%)	19 ± 43.8	-	ng/l
Minimum	4.4	4.4	ng/l
Maximum	33.6	33.6	ng/l
Standard deviation	20.6	-	ng/l
rel. standard deviation	109	-	%
n	2	2	-

Graphical presentation of results

Results



Parameter oriented report

P20 A

Naphthalene

Unit	ng/l
Assigned value ± U (k=2)	87.6 ± 4.77
Criterion	21 (24 %)
Minimum - Maximum	70 - 98.6
Control test value ± U (k=2)	109 ± 30.5

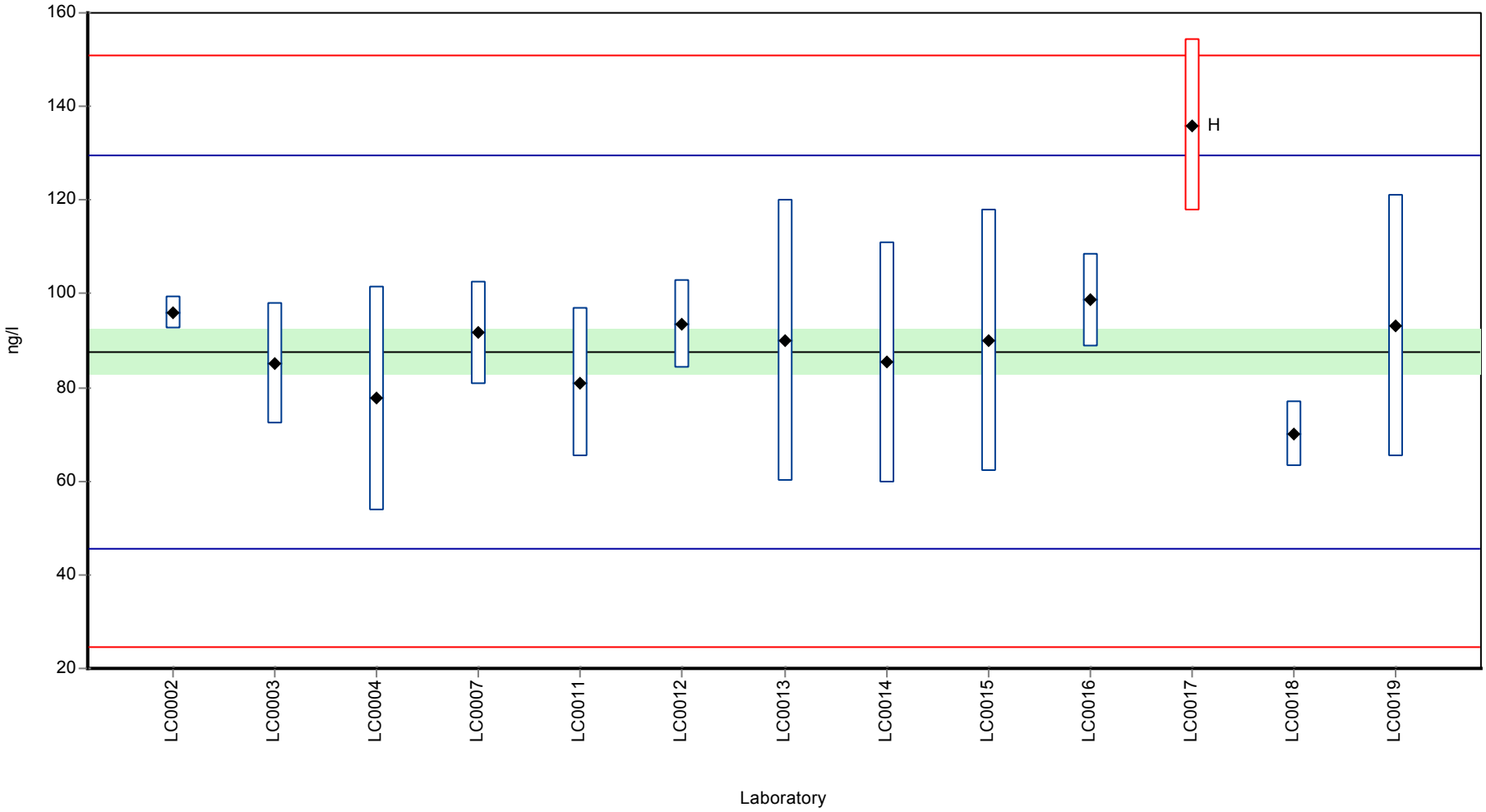
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	96	3.45	110	0.4	
LC0003	85	13	97	-0.13	
LC0004	77.6	24.1	88.5	-0.48	
LC0005	-	-	-	-	
LC0006	-	-	-	-	
LC0007	91.69	11	105	0.19	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	-	-	-	-	
LC0011	81	16	92.4	-0.32	
LC0012	93.5	9.4	107	0.28	
LC0013	90	30	103	0.11	
LC0014	85.3	25.6	97.3	-0.11	
LC0015	90	28	103	0.11	
LC0016	98.63	9.9	113	0.52	
LC0017	136	18.4	155	2.3	H
LC0018	70	7	79.9	-0.84	
LC0019	93	28	106	0.26	

Characteristics of parameter

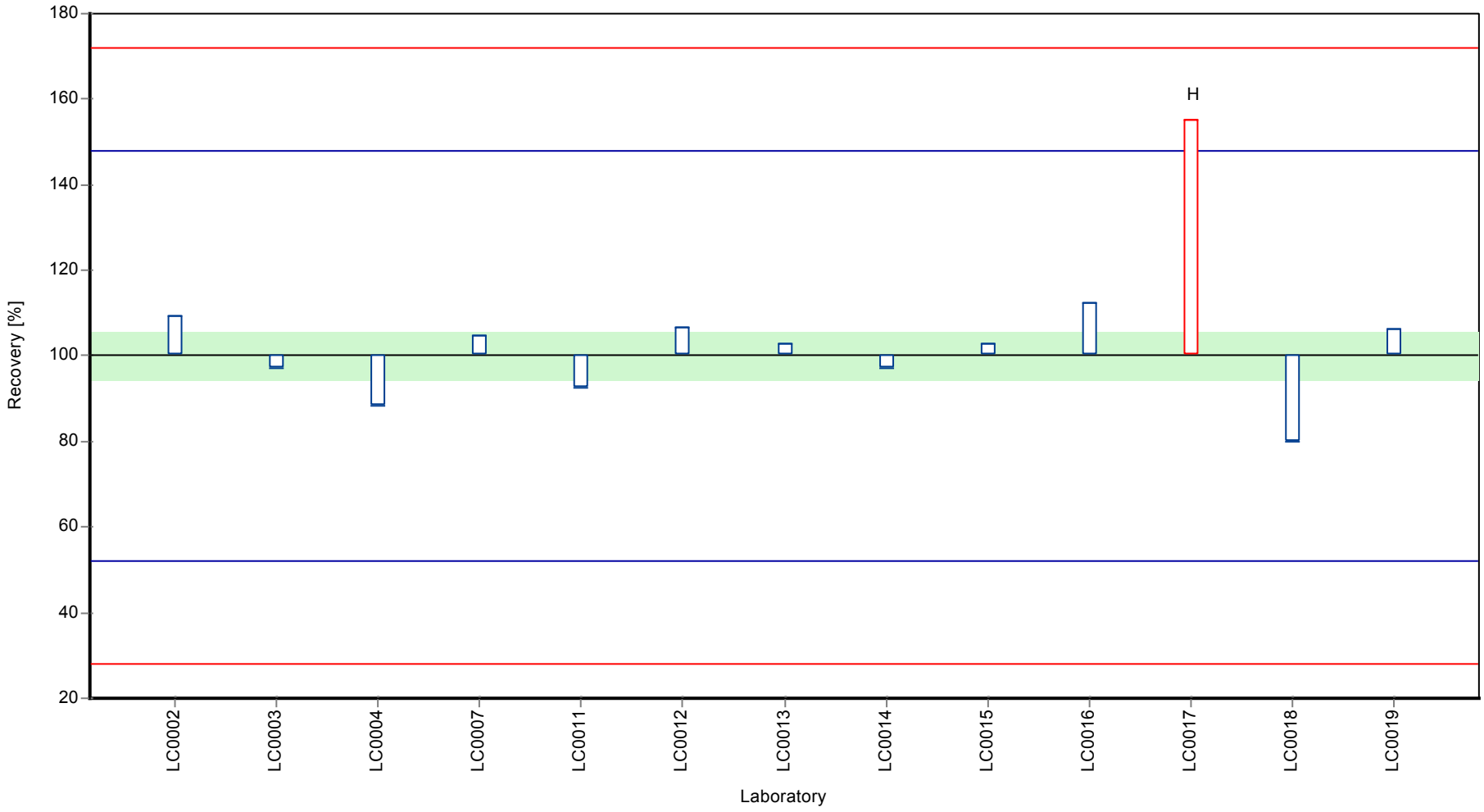
	all results	without outliers	Unit
Mean ± CI (99%)	91.4 ± 13	87.6 ± 7.15	ng/l
Minimum	70	70	ng/l
Maximum	136	98.6	ng/l
Standard deviation	15.6	8.26	ng/l
rel. standard deviation	17	9.42	%
n	13	12	-

Graphical presentation of results

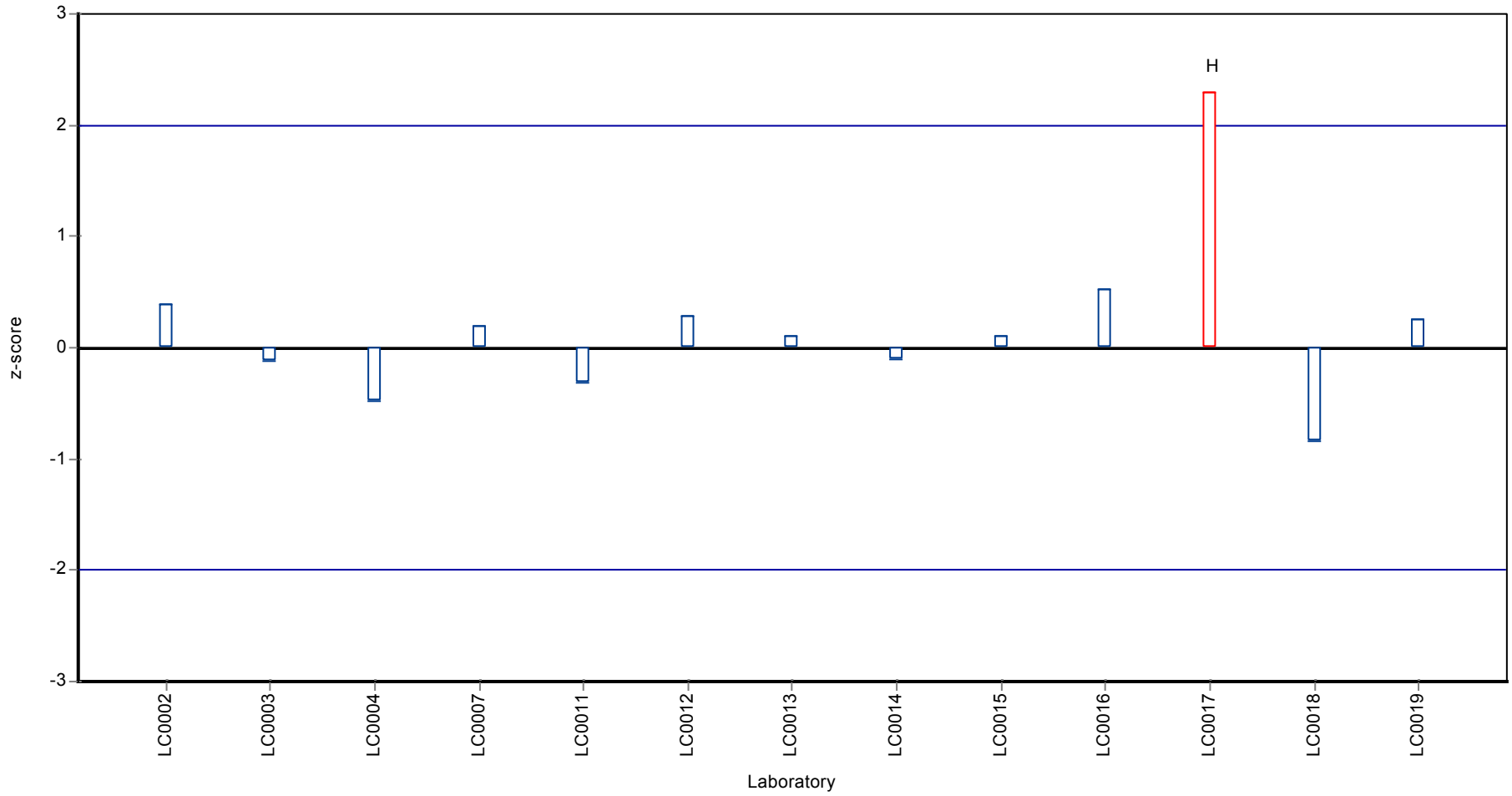
Results



Recovery rate



Z-score


3
2
1
0
-1
-2
-3
z-score
H
LC0002
LC0003
LC0004
LC0007
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
Laboratory

Parameter oriented report

P20 B

Naphthalene

Unit	ng/l
Assigned value ± U (k=2)	42.6 ± 3.86
Criterion	10.2 (24 %)
Minimum - Maximum	31.4 - 50
Control test value ± U (k=2)	48.2 ± 13.5

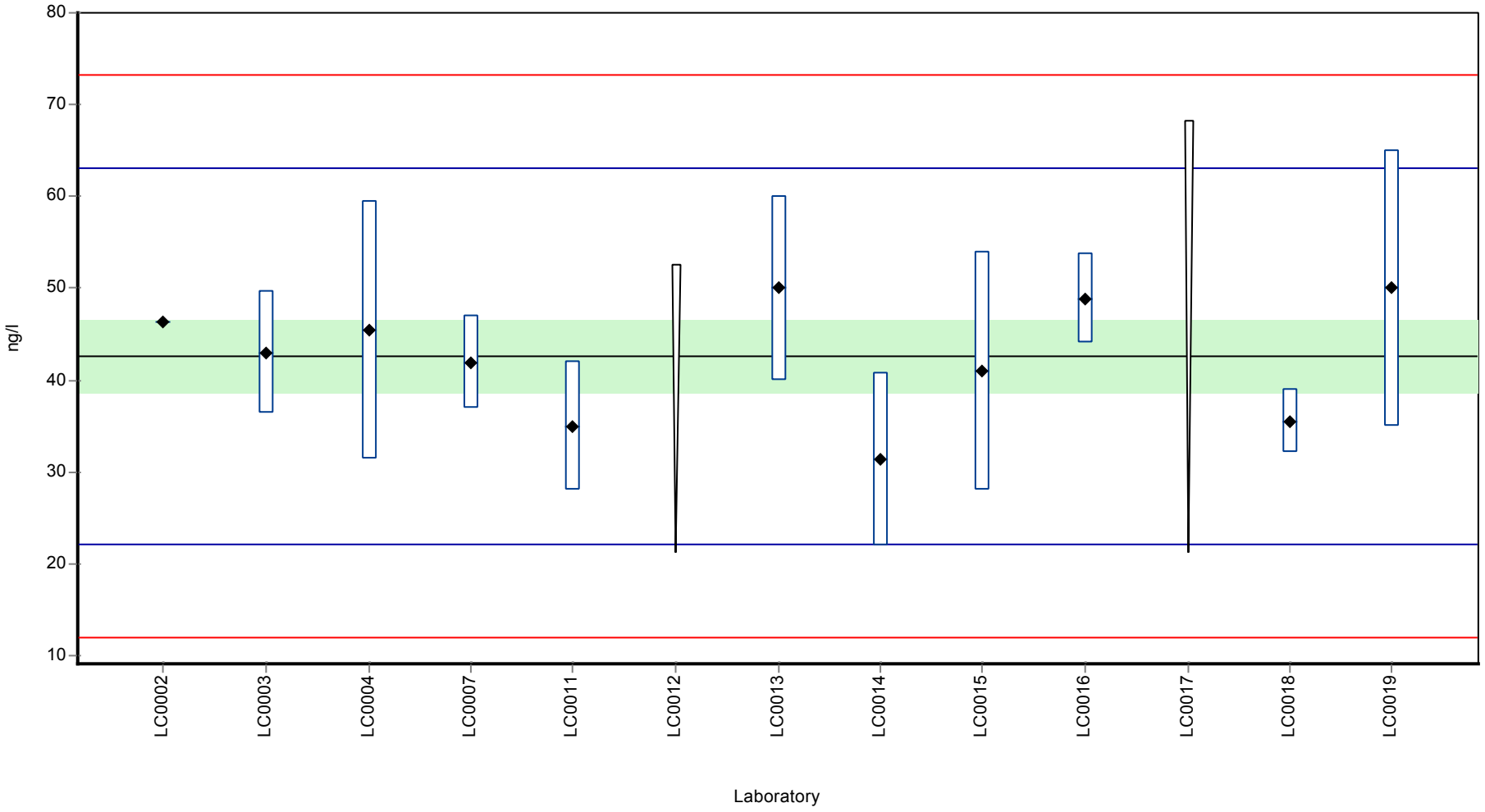
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	46.4	0.07	109	0.37	
LC0003	43	6.7	101	0.04	
LC0004	45.5	14.1	107	0.28	
LC0005	-	-	-	-	
LC0006	-	-	-	-	
LC0007	41.95	5.03	98.5	-0.06	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	-	-	-	-	
LC0011	35	7	82.2	-0.74	
LC0012	< 52.6 (LOQ)	-	-	-	
LC0013	50	10	117	0.72	
LC0014	31.4	9.4	73.7	-1.1	
LC0015	41	13	96.2	-0.16	
LC0016	48.9	4.9	115	0.62	
LC0017	< 68.2 (LOQ)	-	-	-	
LC0018	35.5	3.5	83.3	-0.69	
LC0019	50	15	117	0.72	

Characteristics of parameter

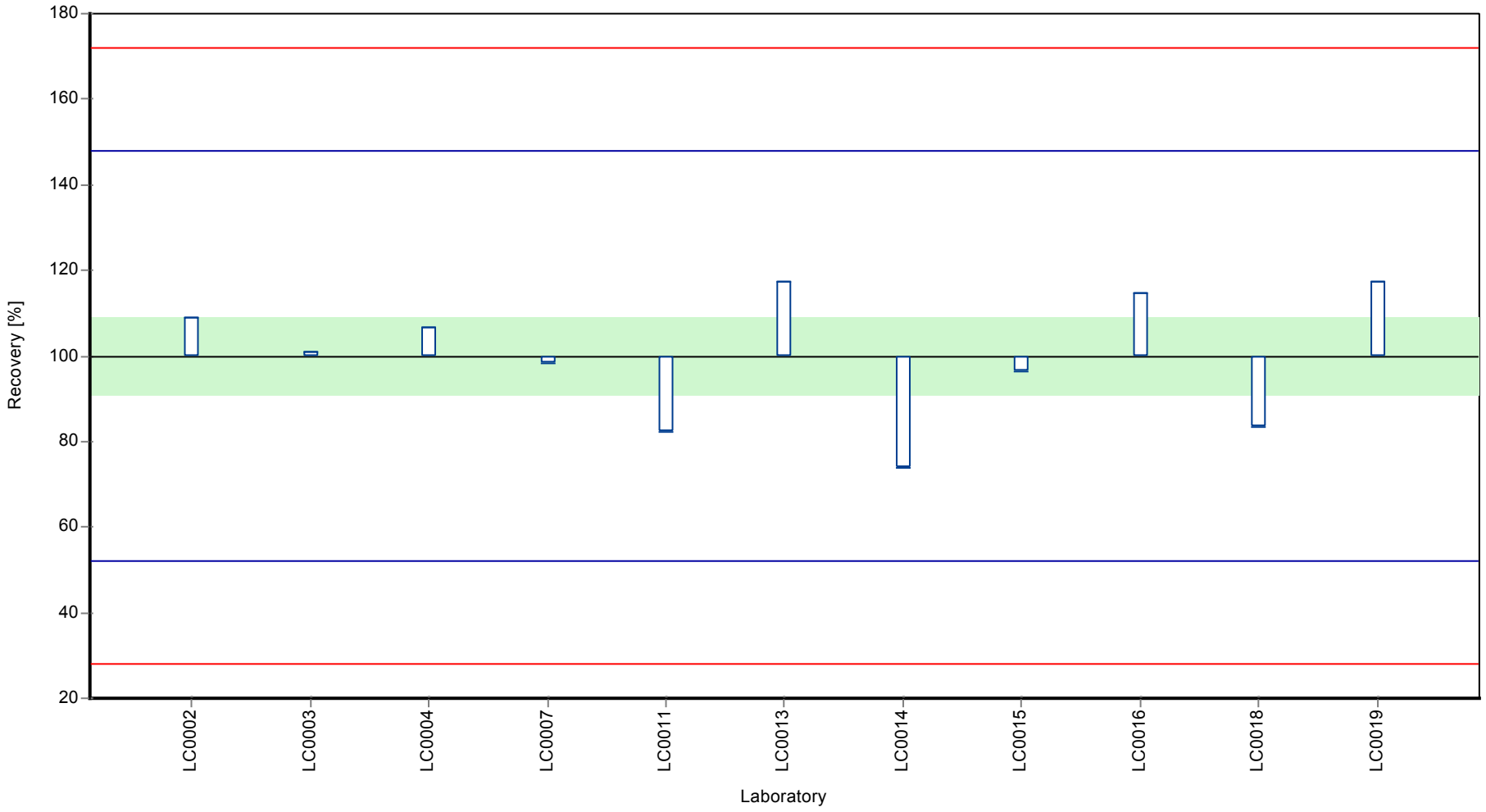
	all results	without outliers	Unit
Mean ± CI (99%)	42.6 ± 5.78	42.6 ± 5.78	ng/l
Minimum	31.4	31.4	ng/l
Maximum	50	50	ng/l
Standard deviation	6.39	6.39	ng/l
rel. standard deviation	15	15	%
n	11	11	-

Graphical presentation of results

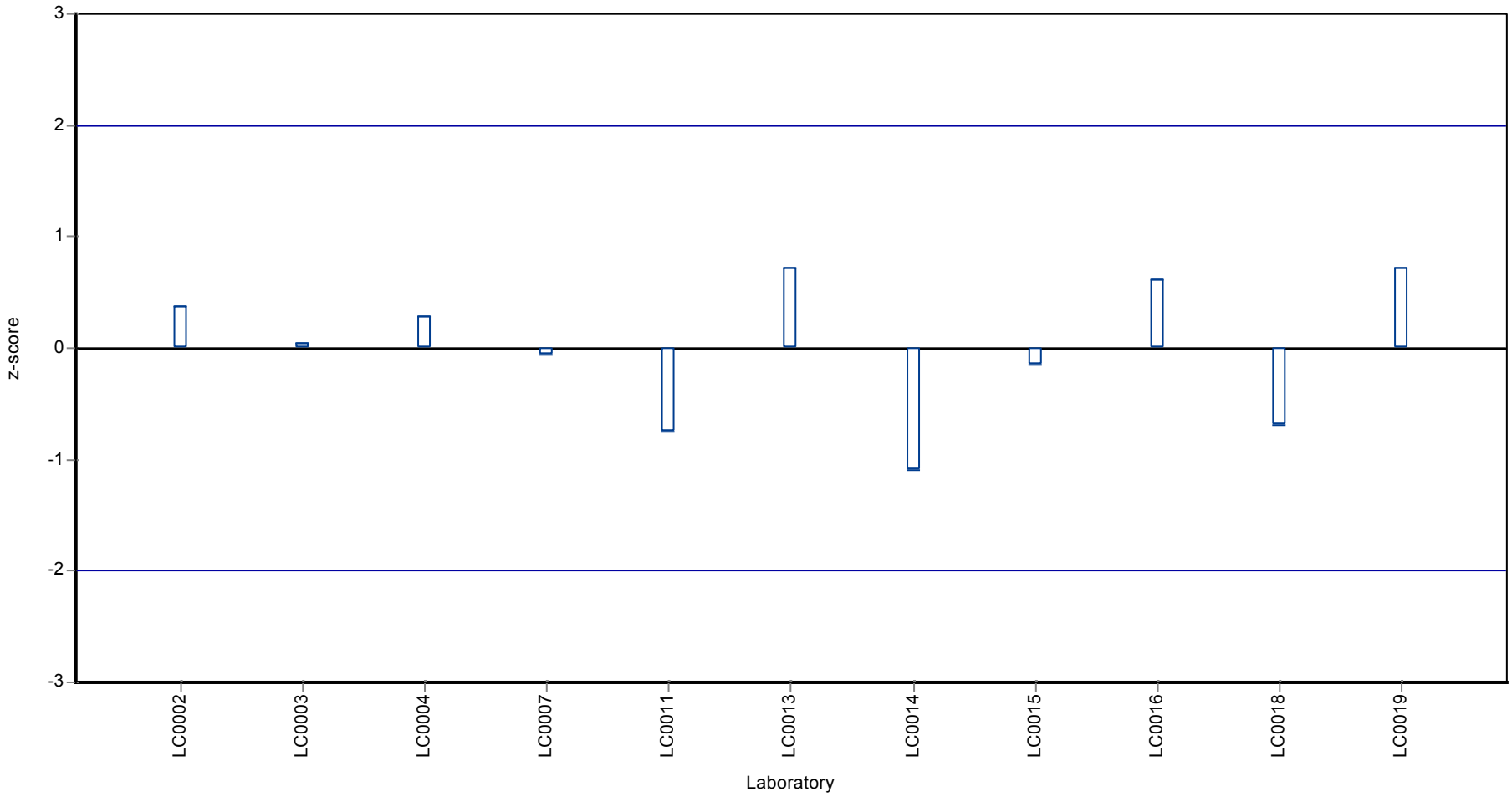
Results



Recovery rate



Z-score


3
2
1
0
-1
-2
-3
z-score
LC0002
LC0003
LC0004
LC0007
LC0011
LC0013
LC0014
LC0015
LC0016
LC0018
LC0019
Laboratory

Parameter oriented report

P20 A

Phenanthrene

Unit	ng/l
Assigned value ± U (k=2)	274 ± 13.2
Criterion	41.1 (15 %)
Minimum - Maximum	229 - 316
Control test value ± U (k=2)	300 ± 78.1

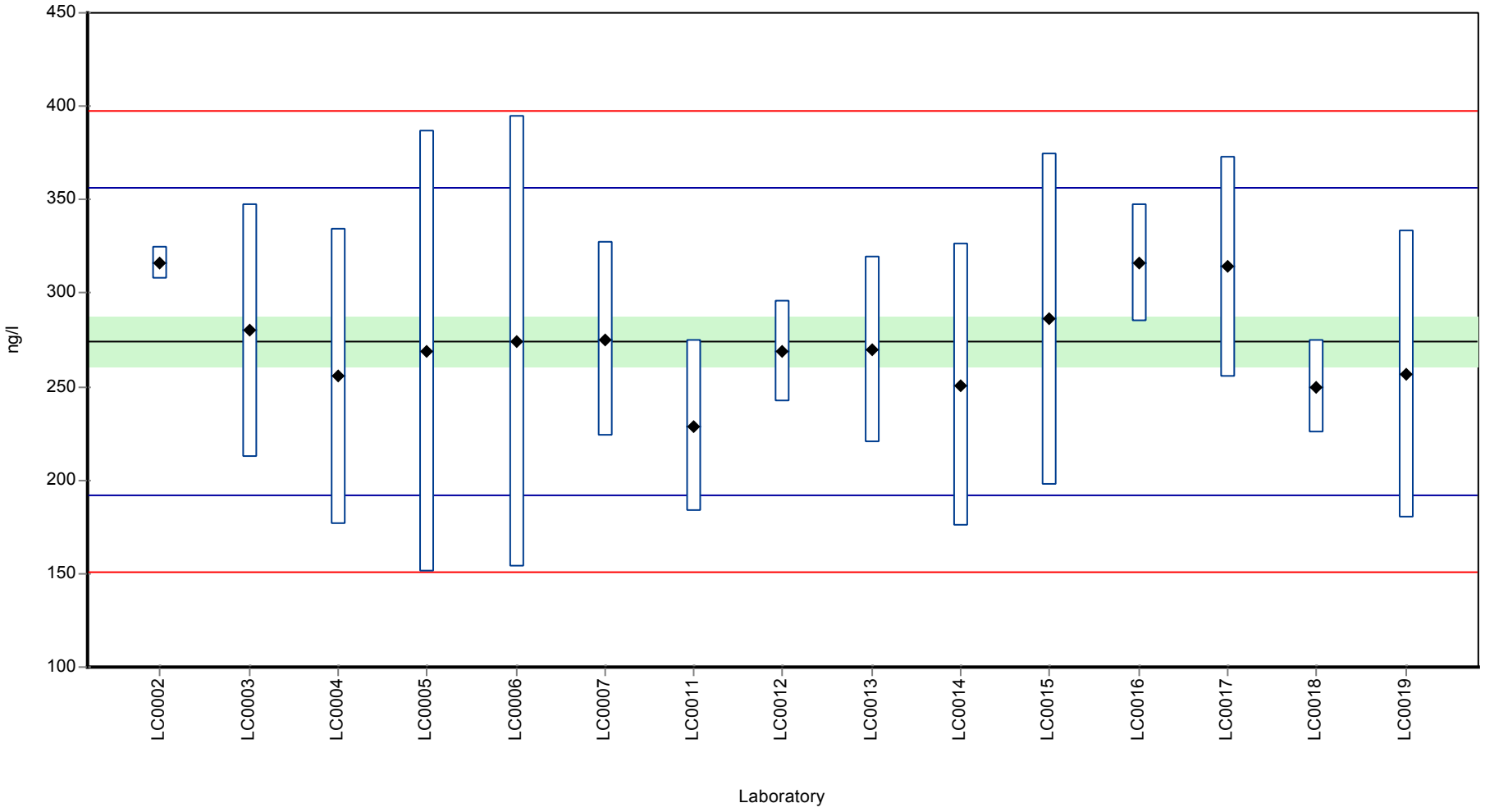
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	316	8.64	115	1.02	
LC0003	280	68	102	0.14	
LC0004	255.4	79.2	93.2	-0.46	
LC0005	269	118	98.1	-0.13	
LC0006	274.5	120.78	100	0.01	
LC0007	275.28	52.3	100	0.03	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	-	-	-	-	
LC0011	229	46	83.5	-1.1	
LC0012	269	26.9	98.1	-0.13	
LC0013	270	50	98.5	-0.1	
LC0014	250.9	75.3	91.5	-0.56	
LC0015	286	89	104	0.29	
LC0016	315.88	31.6	115	1.02	
LC0017	314	59.4	115	0.97	
LC0018	250	25	91.2	-0.59	
LC0019	257	77	93.8	-0.42	

Characteristics of parameter

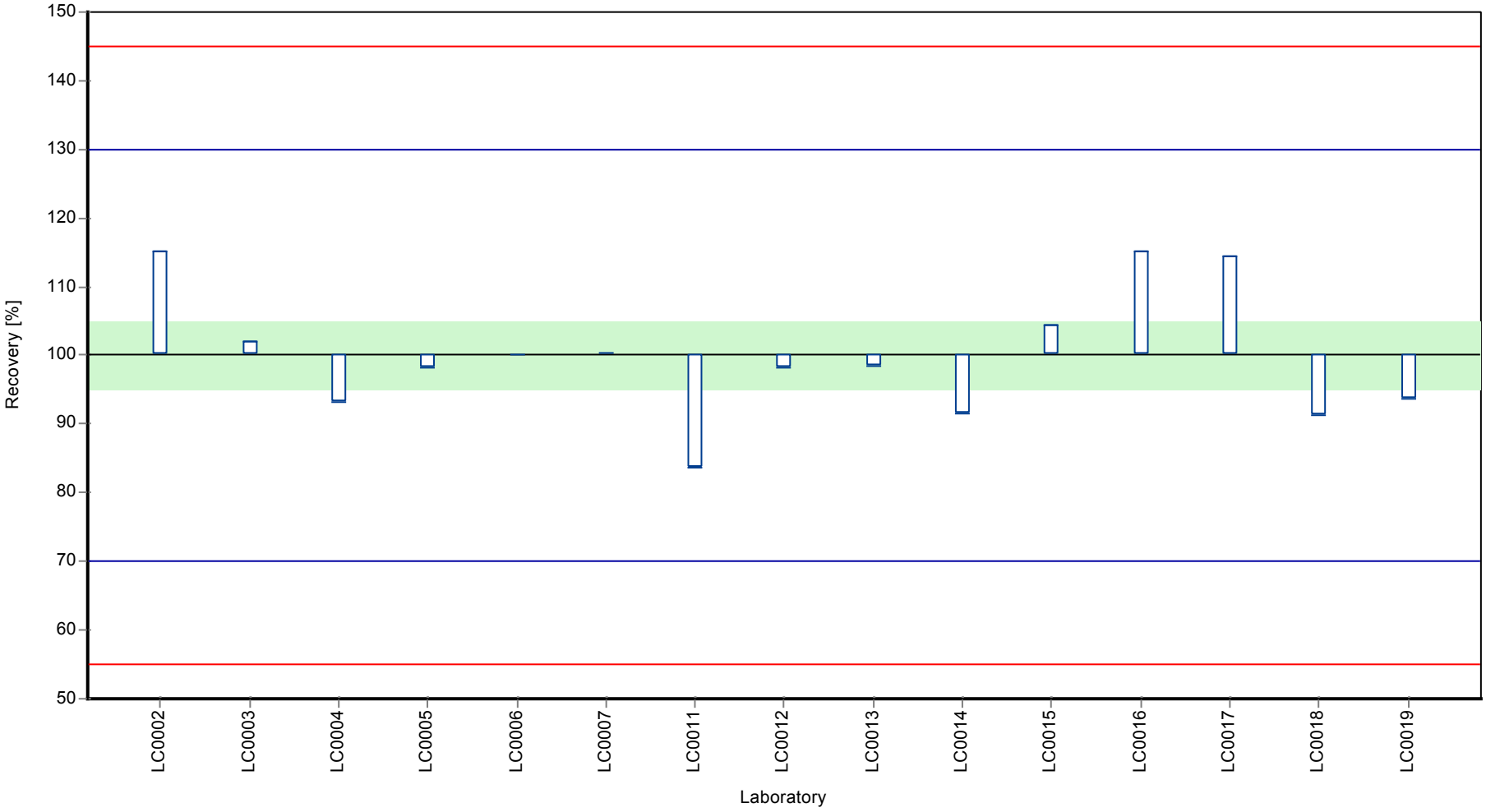
	all results	without outliers	Unit
Mean ± CI (99%)	274 ± 19.8	274 ± 19.8	ng/l
Minimum	229	229	ng/l
Maximum	316	316	ng/l
Standard deviation	25.5	25.5	ng/l
rel. standard deviation	9.32	9.32	%
n	15	15	-

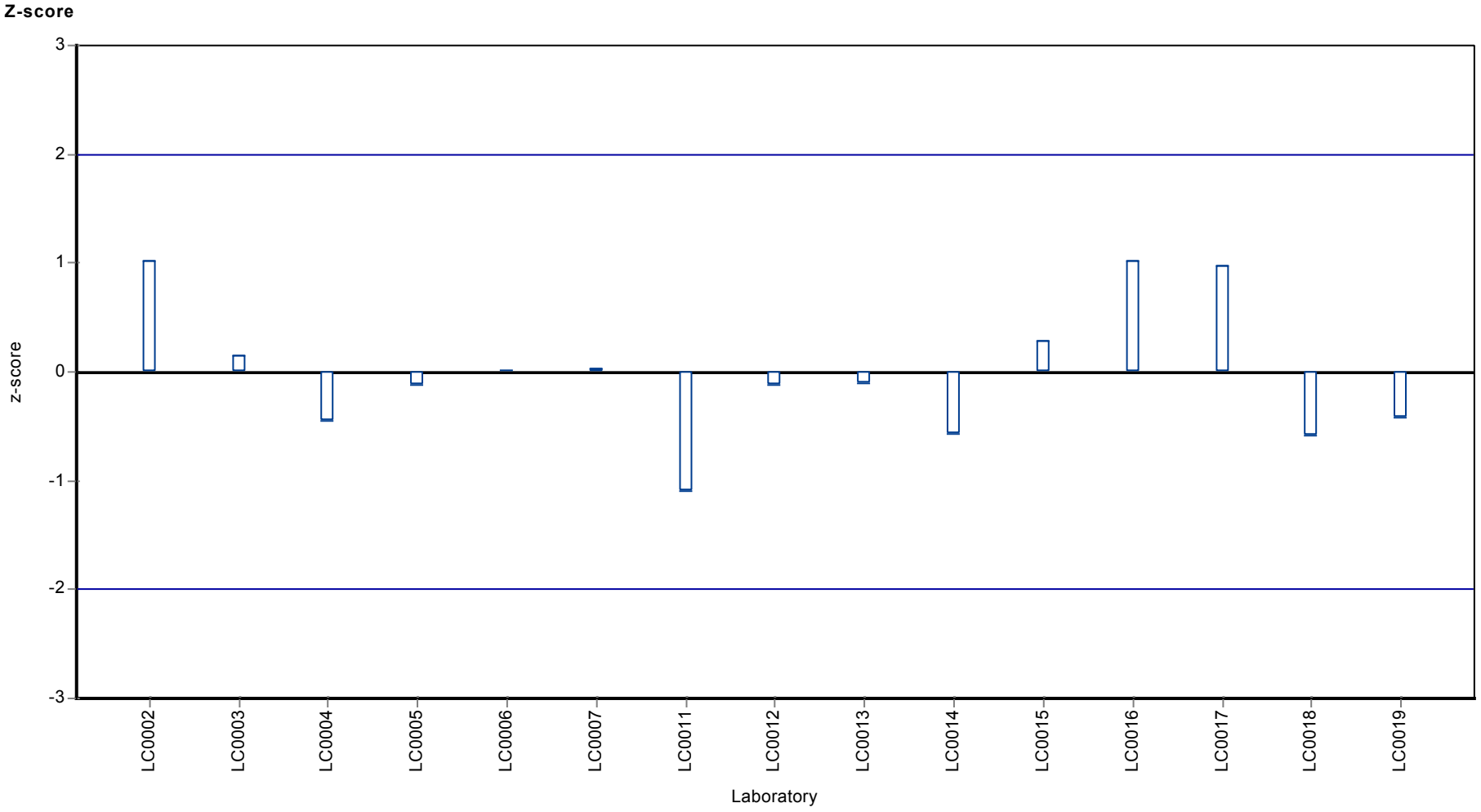
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
z-score
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
Laboratory

Parameter oriented report

P20 B

Phenanthrene

Unit	ng/l
Assigned value ± U (k=2)	47.4 ± 4
Criterion	7.48 (16 %)
Minimum - Maximum	30.8 - 58.5
Control test value ± U (k=2)	52.8 ± 13.7

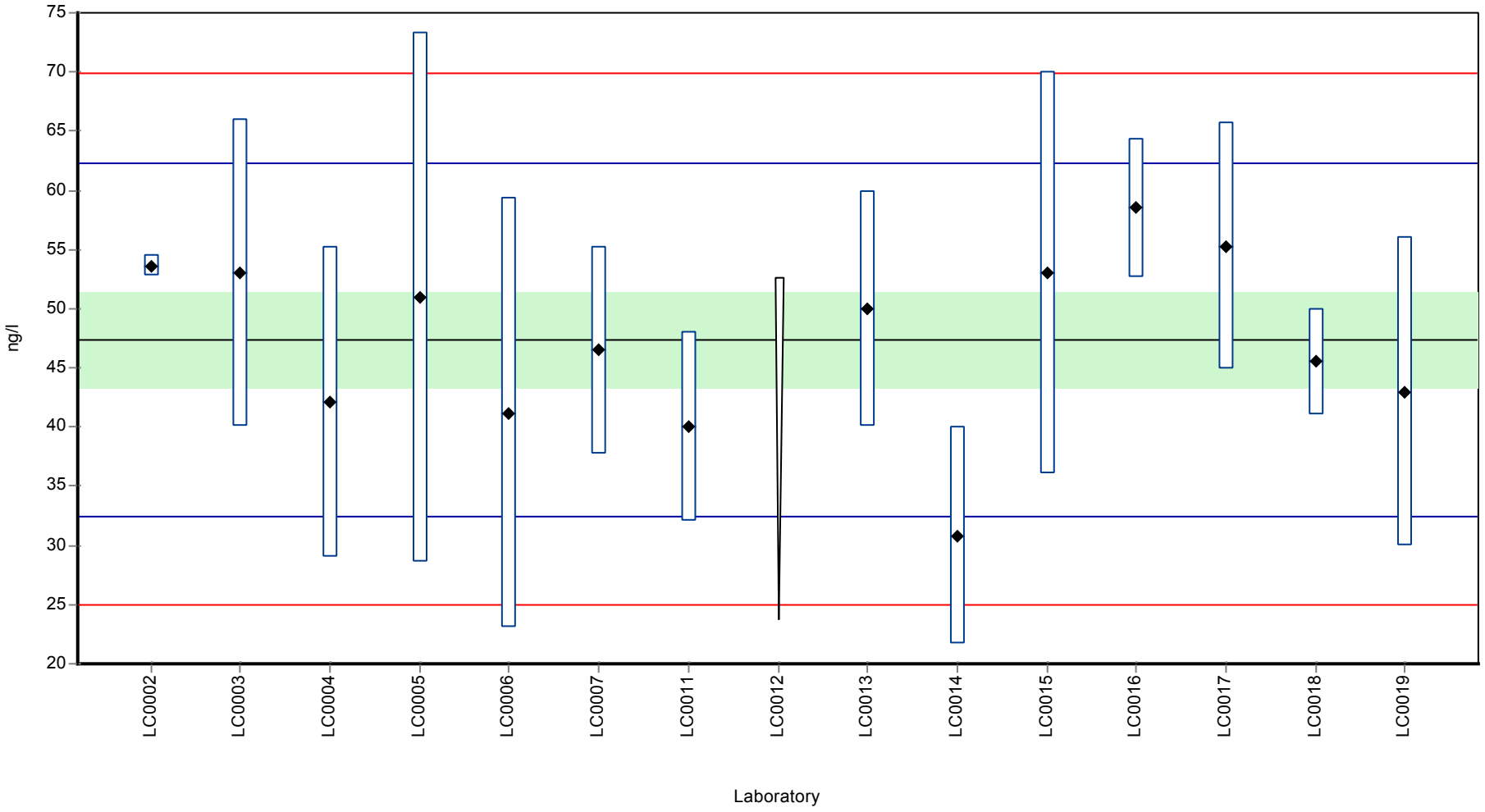
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	53.6	0.88	113	0.83	
LC0003	53	13	112	0.75	
LC0004	42.1	13.1	88.8	-0.71	
LC0005	51	22.4	108	0.48	
LC0006	41.2	18.13	86.9	-0.83	
LC0007	46.47	8.83	98.1	-0.12	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	-	-	-	-	
LC0011	40	8	84.4	-0.99	
LC0012	< 52.6 (LOQ)	-	-	-	
LC0013	50	10	106	0.35	
LC0014	30.8	9.2	65	-2.22	
LC0015	53	17	112	0.75	
LC0016	58.5	5.85	123	1.49	
LC0017	55.3	10.4	117	1.06	
LC0018	45.5	4.5	96	-0.25	
LC0019	43	13	90.7	-0.59	

Characteristics of parameter

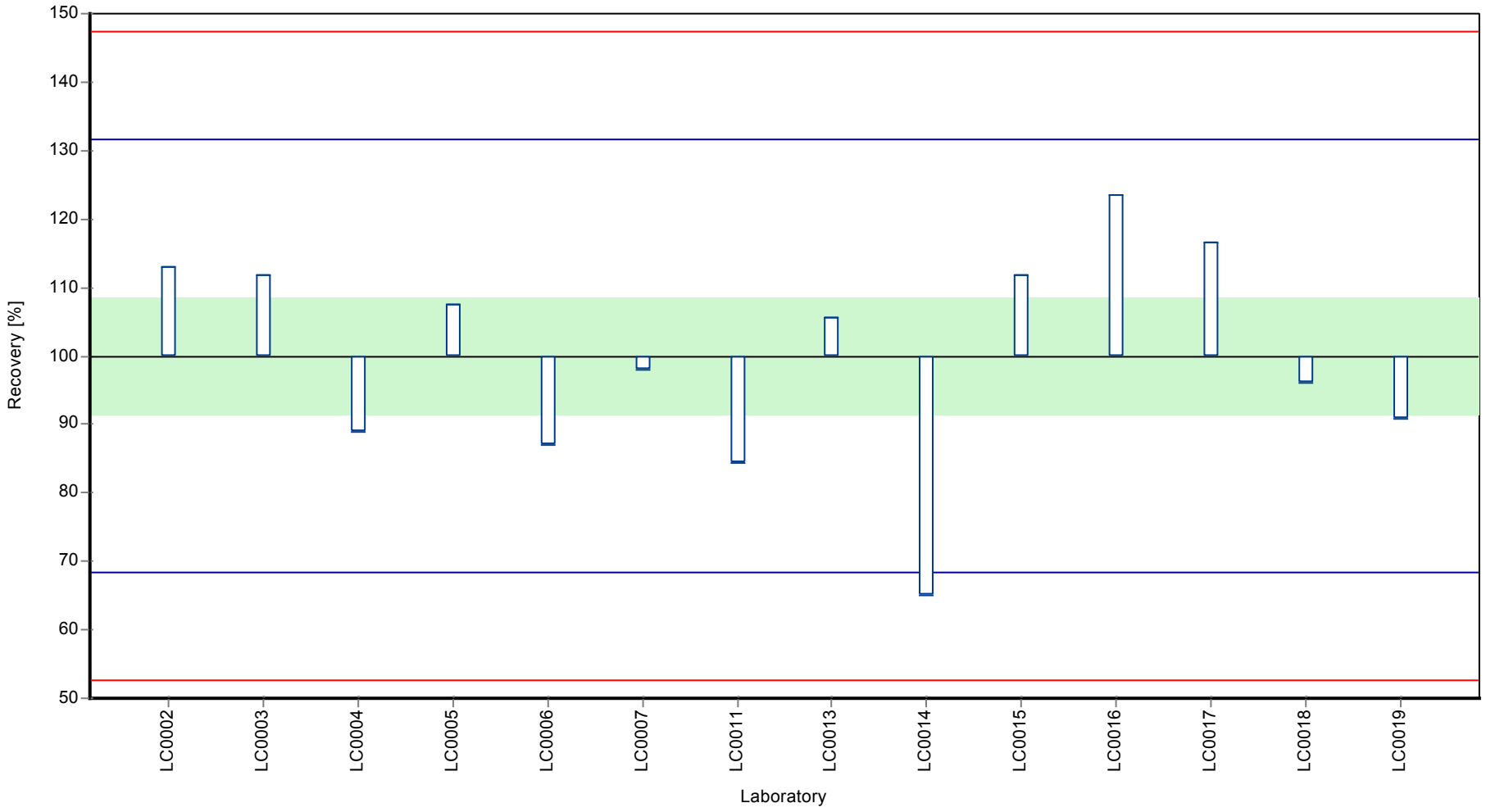
	all results	without outliers	Unit
Mean ± CI (99%)	47.4 ± 6	47.4 ± 6	ng/l
Minimum	30.8	30.8	ng/l
Maximum	58.5	58.5	ng/l
Standard deviation	7.48	7.48	ng/l
rel. standard deviation	15.8	15.8	%
n	14	14	-

Graphical presentation of results

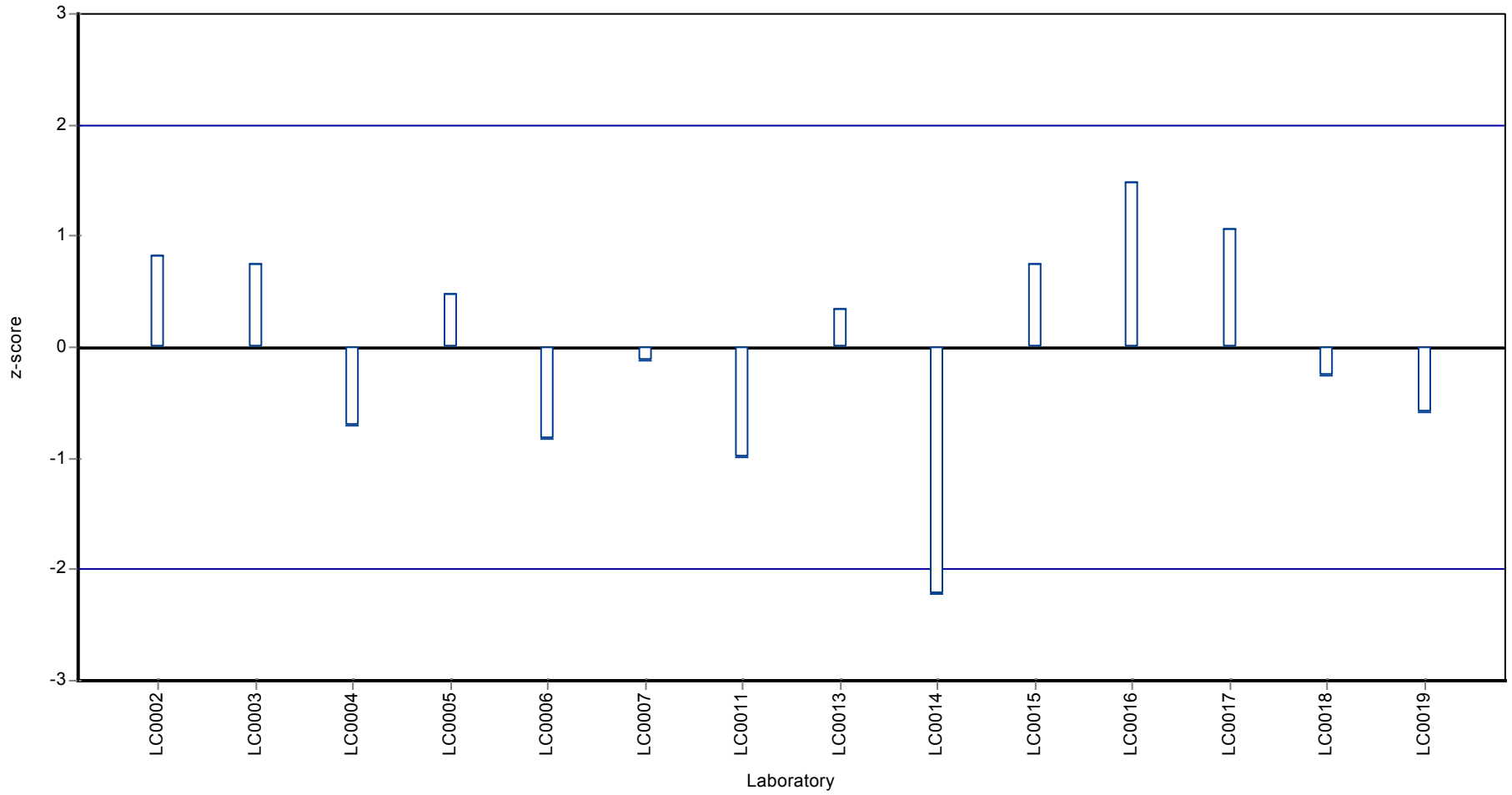
Results



Recovery rate



Z-score


3
2
1
0
-1
-2
-3
z-score
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0011
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
Laboratory

Parameter oriented report

P20 A

Pyrene

Unit	ng/l
Assigned value ± U (k=2)	175 ± 13.6
Criterion	29.8 (17 %)
Minimum - Maximum	122 - 213
Control test value ± U (k=2)	208 ± 41.7

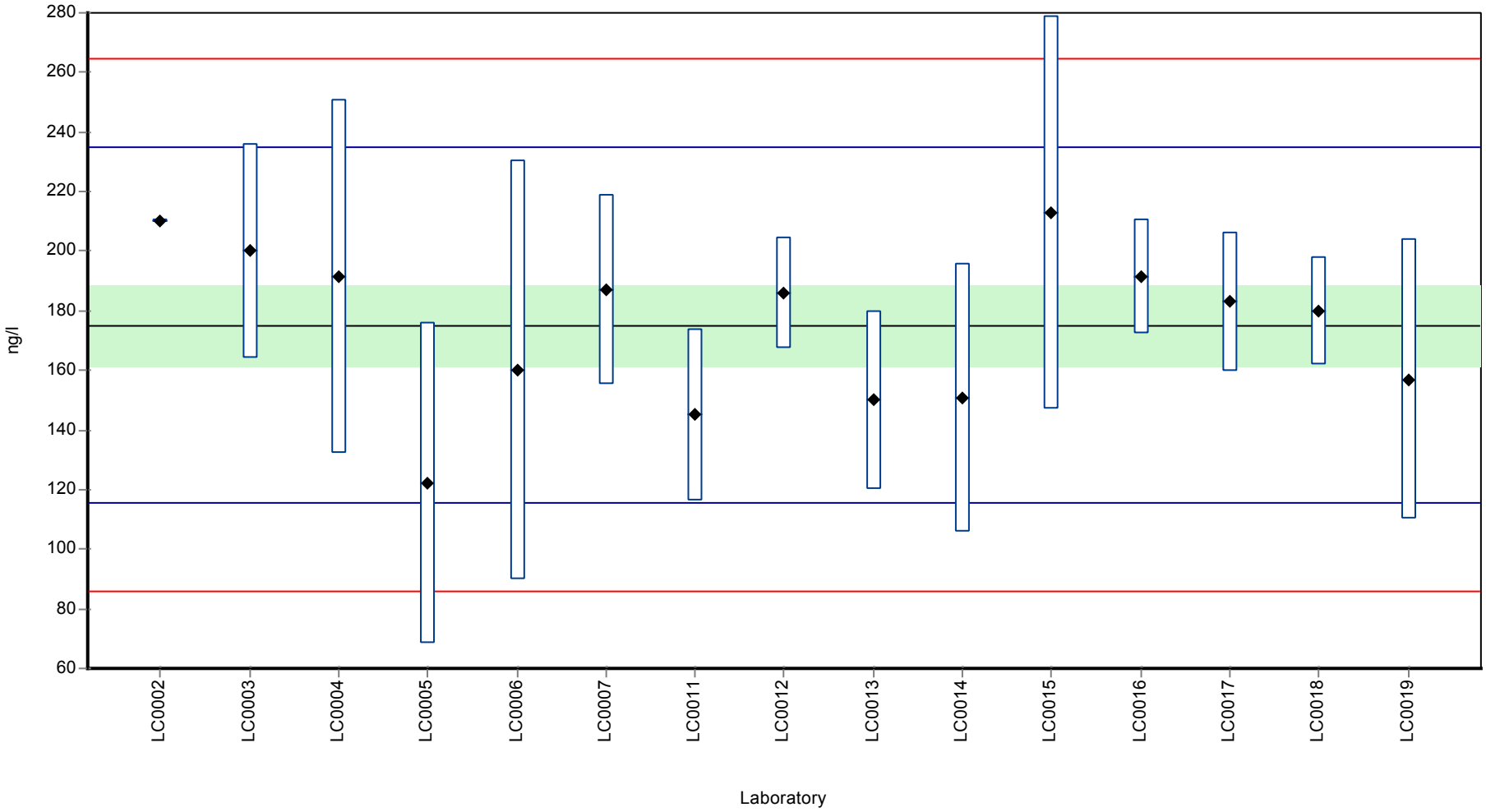
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	210	0.64	120	1.17	
LC0003	200	36	114	0.84	
LC0004	191.5	59.4	109	0.55	
LC0005	122	54	69.7	-1.78	
LC0006	160	70.4	91.4	-0.51	
LC0007	187.03	31.8	107	0.4	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	-	-	-	-	
LC0011	145	29	82.8	-1.01	
LC0012	186	18.6	106	0.37	
LC0013	150	30	85.7	-0.84	
LC0014	150.6	45.2	86	-0.82	
LC0015	213	66	122	1.27	
LC0016	191.38	19.2	109	0.55	
LC0017	183	23.3	105	0.27	
LC0018	180	18	103	0.17	
LC0019	157	47	89.7	-0.61	

Characteristics of parameter

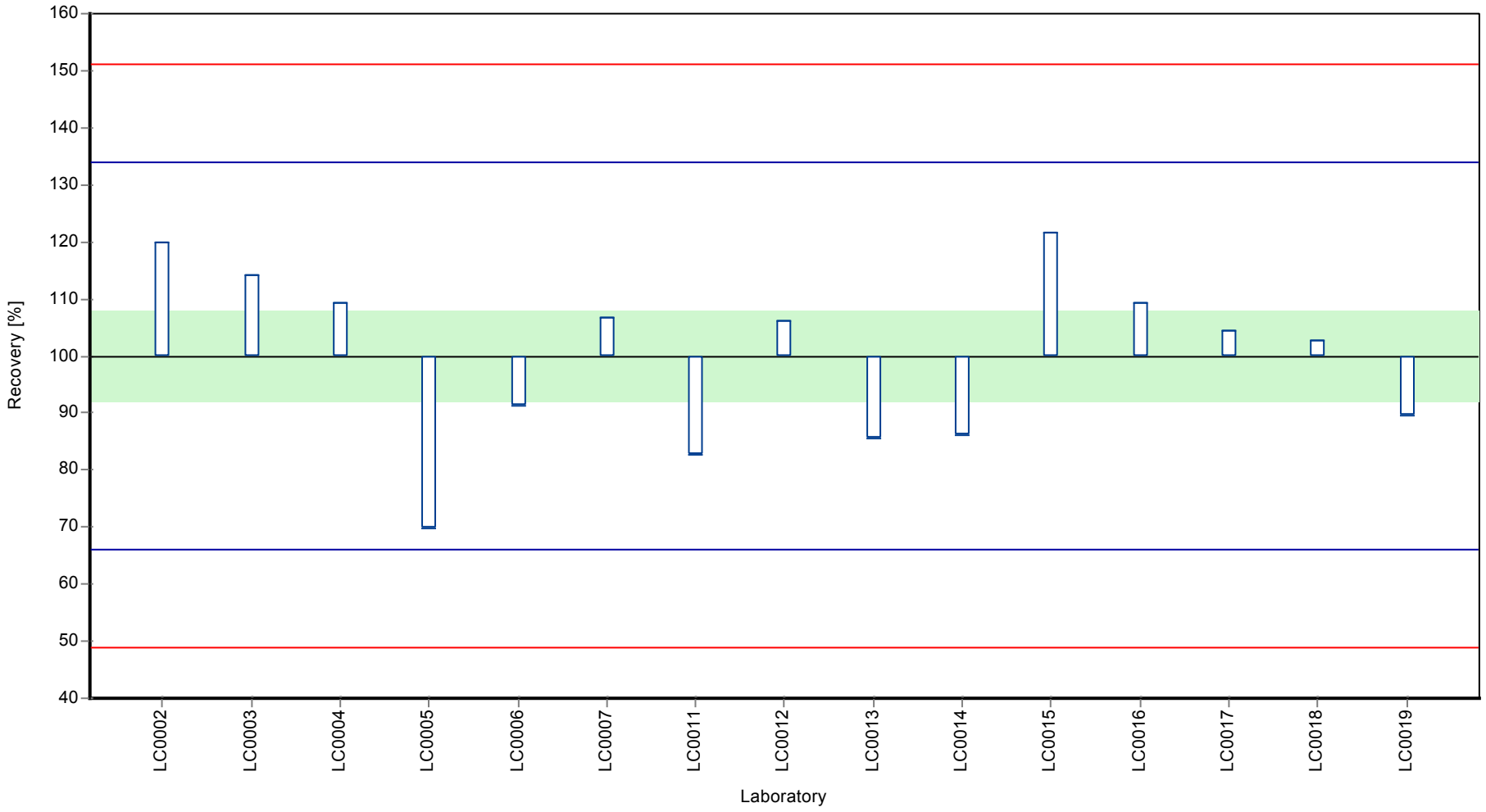
	all results	without outliers	Unit
Mean ± CI (99%)	175 ± 20.4	175 ± 20.4	ng/l
Minimum	122	122	ng/l
Maximum	213	213	ng/l
Standard deviation	26.3	26.3	ng/l
rel. standard deviation	15	15	%
n	15	15	-

Graphical presentation of results

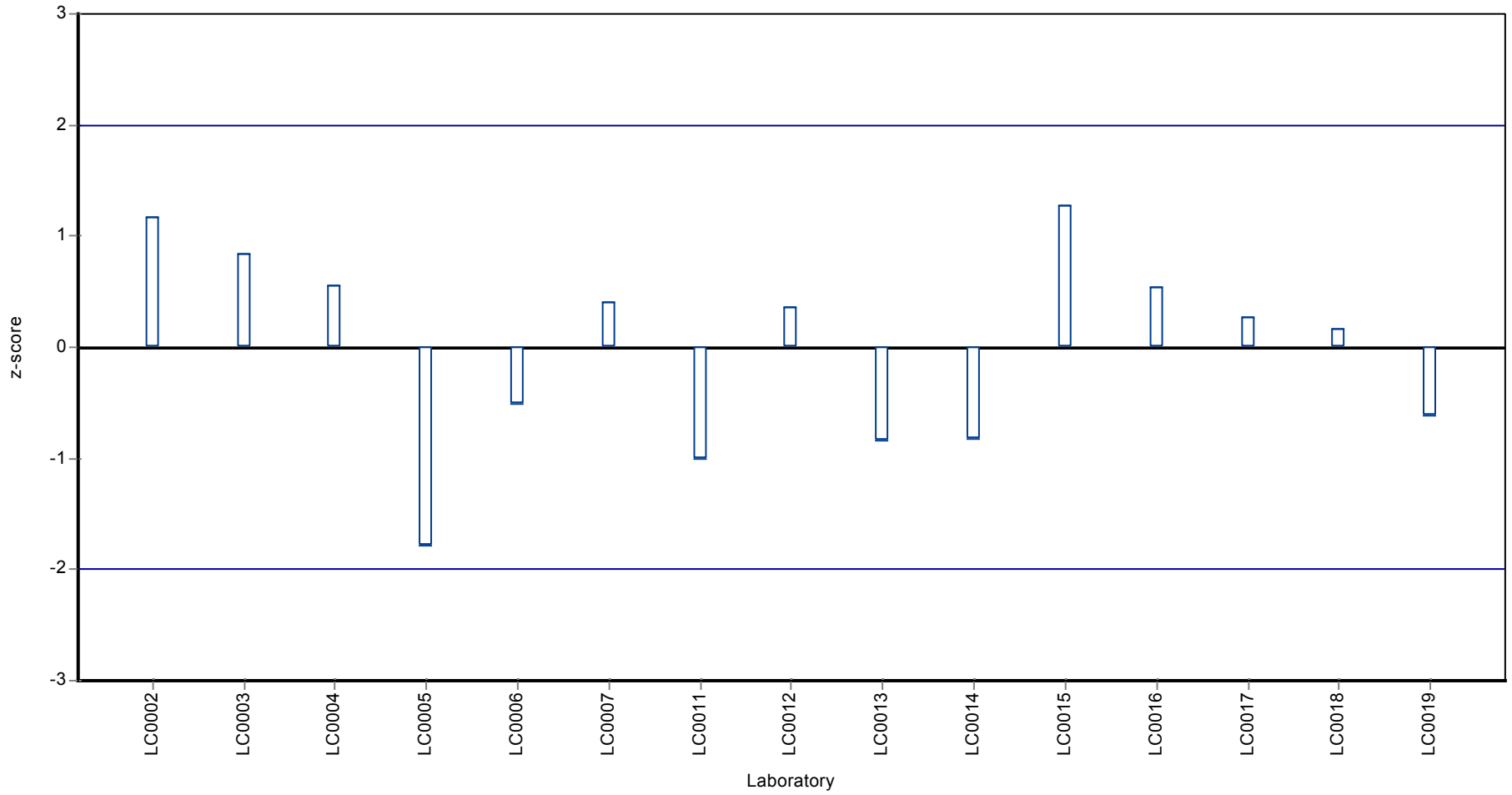
Results



Recovery rate



Z-score


3
2
1
0
-1
-2
-3
z-score
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
Laboratory

Parameter oriented report

P20 B

Pyrene

Unit	ng/l
Assigned value ± U (k=2)	20.6 ± 0.83
Criterion	3.51 (17 %)
Minimum - Maximum	18.4 - 23
Control test value ± U (k=2)	21.3 ± 4.26

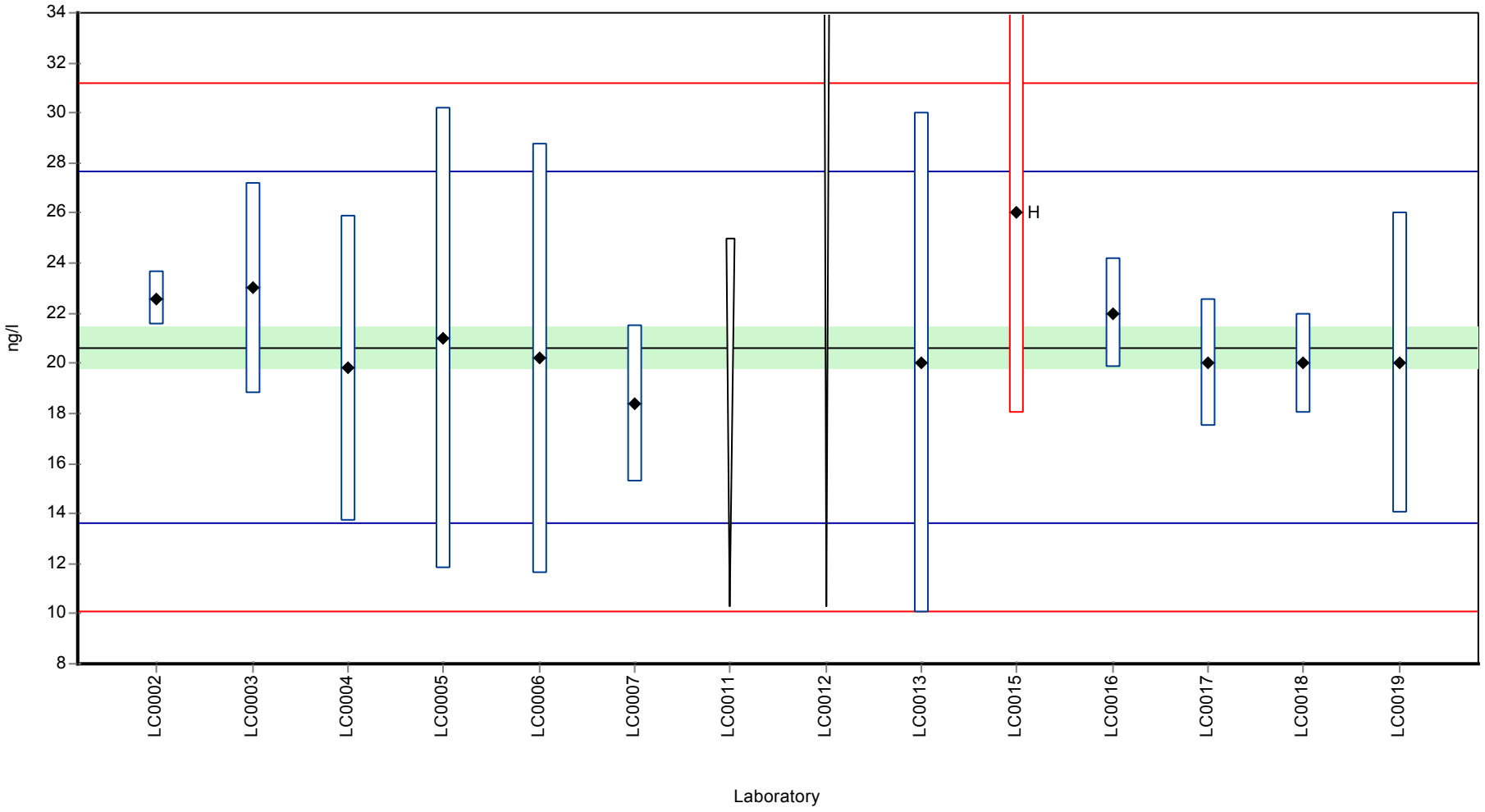
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	22.6	1.07	110	0.56	
LC0003	23	4.2	111	0.67	
LC0004	19.8	6.1	95.9	-0.24	
LC0005	21	9.24	102	0.1	
LC0006	20.2	8.6	97.9	-0.12	
LC0007	18.4	3.13	89.2	-0.64	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	-	-	-	-	
LC0011	< 25 (LOQ)	-	-	-	
LC0012	< 52.6 (LOQ)	-	-	-	
LC0013	20	10	96.9	-0.18	
LC0014	-	-	-	-	
LC0015	26	8	126	1.53	H
LC0016	22	2.2	107	0.39	
LC0017	20	2.55	96.9	-0.18	
LC0018	20	2	96.9	-0.18	
LC0019	20	6	96.9	-0.18	

Characteristics of parameter

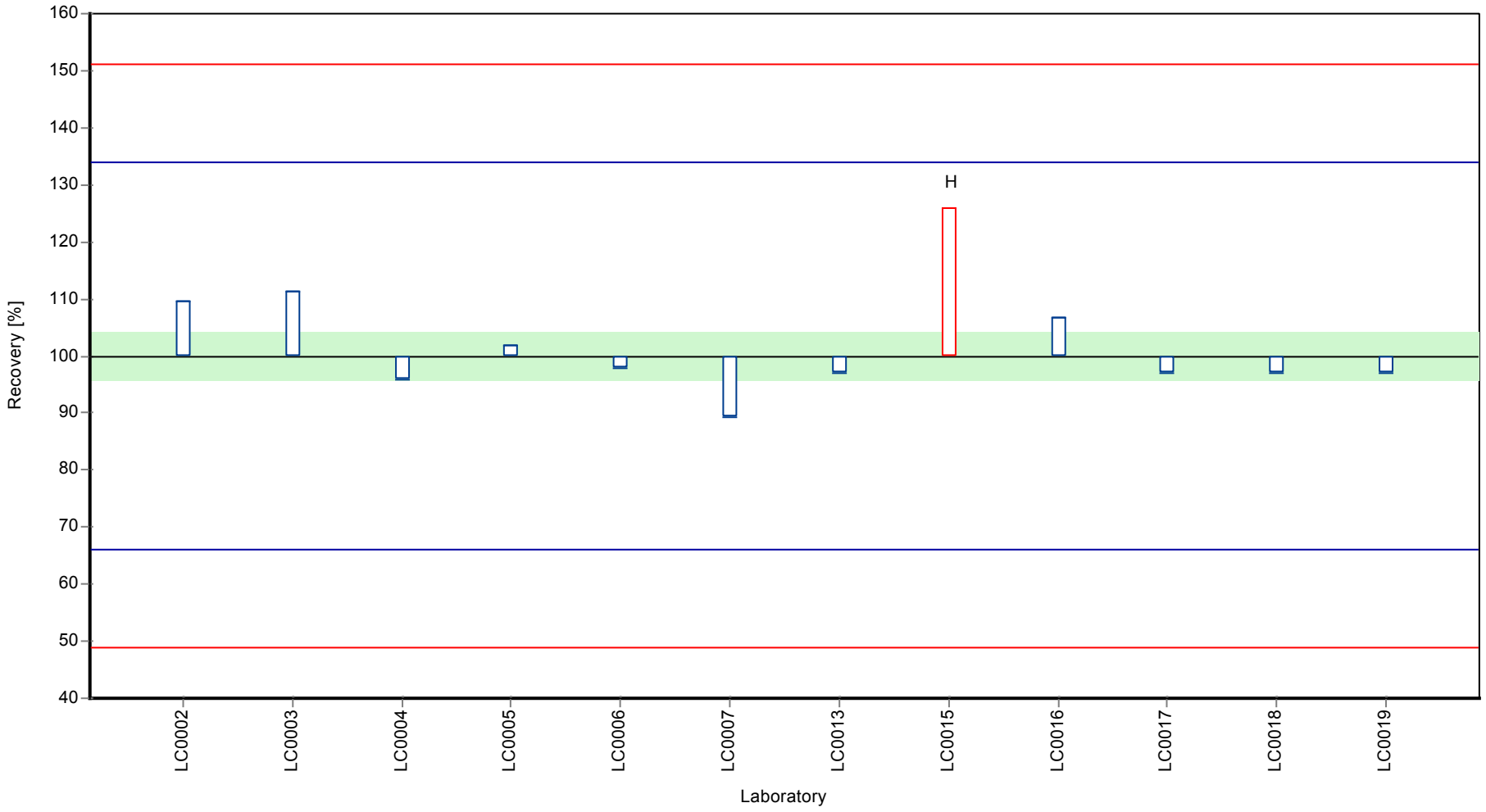
	all results	without outliers	Unit
Mean ± CI (99%)	21.1 ± 1.76	20.6 ± 1.25	ng/l
Minimum	18.4	18.4	ng/l
Maximum	26	23	ng/l
Standard deviation	2.03	1.38	ng/l
rel. standard deviation	9.63	6.67	%
n	12	11	-

Graphical presentation of results

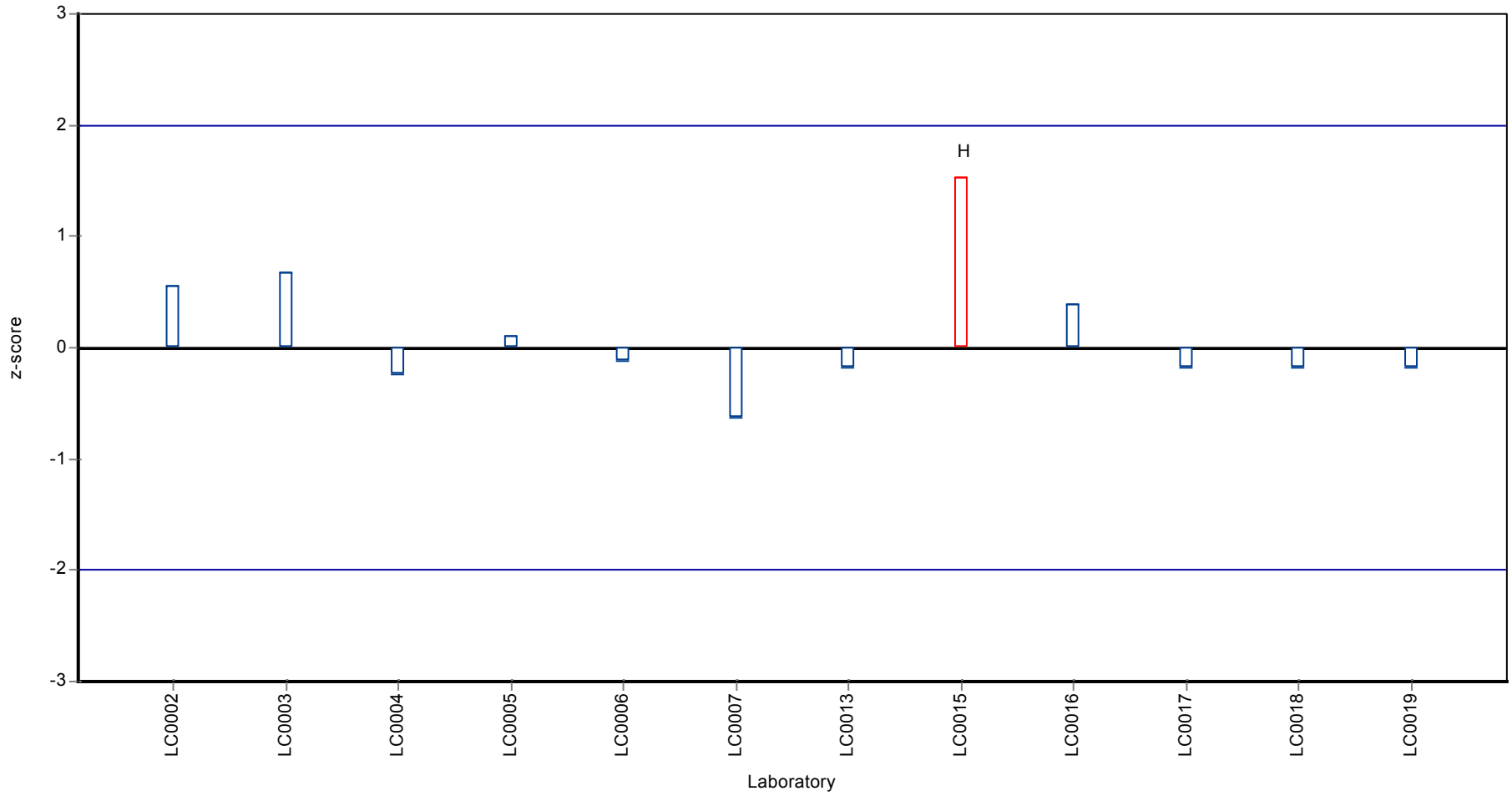
Results



Recovery rate



Z-score


3
2
1
0
-1
-2
-3
z-score
H
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0013
LC0015
LC0016
LC0017
LC0018
LC0019
Laboratory

E8. Labororientierte Auswertung / Laboratory oriented report

Die Labororientierte Auswertung ist nach dem Laborcode sortiert.

The laboratory oriented report is sorted by laboratory code.

Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	124 ± 14.2	- ± -	27.5	-	-
Acenaphthylene	ng/l	244 ± 30.9	- ± -	56.1	-	-
Anthracene	ng/l	- ± -	- ± -	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	- ± -	10.4	-	-
Benzo[a]pyrene	ng/l	57.6 ± 9.56	- ± -	13.3	-	-
Benzo[b]fluoranthene	ng/l	185 ± 12.1	- ± -	33.3	-	-
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	- ± -	45.4	-	-
Benzo[k]fluoranthene	ng/l	204 ± 25.3	- ± -	55.1	-	-
Chrysene	ng/l	202 ± 12.8	- ± -	38.4	-	-
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	- ± -	13.2	-	-
Fluoranthene	ng/l	125 ± 8.6	- ± -	23.7	-	-
Fluorene	ng/l	158 ± 9.33	- ± -	20.6	-	-
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	- ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	- ± -	21	-	-
Phenanthrene	ng/l	274 ± 13.2	- ± -	41.1	-	-
Pyrene	ng/l	175 ± 13.6	- ± -	29.8	-	-

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	10.4 ± 1.38	- ± -	1.98	-	-
Acenaphthylene	ng/l	- ± -	- ± -	-	-	-
Anthracene	ng/l	33.4 ± 2.14	- ± -	8	-	-
Benzo[a]anthracene	ng/l	9.26 ± 0.668	- ± -	1.67	-	-
Benzo[a]pyrene	ng/l	9.87 ± 1.48	- ± -	2.27	-	-
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	- ± -	1.15	-	-
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	- ± -	6.47	-	-
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	- ± -	9	-	-
Chrysene	ng/l	42.6 ± 3.58	- ± -	8.09	-	-
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	- ± -	7.37	-	-
Fluoranthene	ng/l	29.2 ± 2.5	- ± -	5.54	-	-
Fluorene	ng/l	26.3 ± 2.42	- ± -	4.36	-	-
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	- ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	- ± -	10.2	-	-

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Phenanthrene	ng/l	47.4 ± 4	- ± -	7.48	-	-
Pyrene	ng/l	20.6 ± 0.83	- ± -	3.51	-	-

Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	124 ± 14.2	- ± -	27.5	-	-
Acenaphthylene	ng/l	244 ± 30.9	- ± -	56.1	-	-
Anthracene	ng/l	- ± -	- ± -	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	- ± -	10.4	-	-
Benzo[a]pyrene	ng/l	57.6 ± 9.56	- ± -	13.3	-	-
Benzo[b]fluoranthene	ng/l	185 ± 12.1	- ± -	33.3	-	-
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	- ± -	45.4	-	-
Benzo[k]fluoranthene	ng/l	204 ± 25.3	- ± -	55.1	-	-
Chrysene	ng/l	202 ± 12.8	- ± -	38.4	-	-
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	- ± -	13.2	-	-
Fluoranthene	ng/l	125 ± 8.6	- ± -	23.7	-	-
Fluorene	ng/l	158 ± 9.33	- ± -	20.6	-	-
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	- ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	- ± -	21	-	-
Phenanthrene	ng/l	274 ± 13.2	- ± -	41.1	-	-
Pyrene	ng/l	175 ± 13.6	- ± -	29.8	-	-

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	10.4 ± 1.38	- ± -	1.98	-	-
Acenaphthylene	ng/l	- ± -	- ± -	-	-	-
Anthracene	ng/l	33.4 ± 2.14	- ± -	8	-	-
Benzo[a]anthracene	ng/l	9.26 ± 0.668	- ± -	1.67	-	-
Benzo[a]pyrene	ng/l	9.87 ± 1.48	- ± -	2.27	-	-
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	- ± -	1.15	-	-
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	- ± -	6.47	-	-
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	- ± -	9	-	-
Chrysene	ng/l	42.6 ± 3.58	- ± -	8.09	-	-
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	- ± -	7.37	-	-

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	29.2 ± 2.5	- ± -	5.54	-	-
Fluorene	ng/l	26.3 ± 2.42	- ± -	4.36	-	-
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	- ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	- ± -	10.2	-	-
Phenanthrene	ng/l	47.4 ± 4	- ± -	7.48	-	-
Pyrene	ng/l	20.6 ± 0.83	- ± -	3.51	-	-

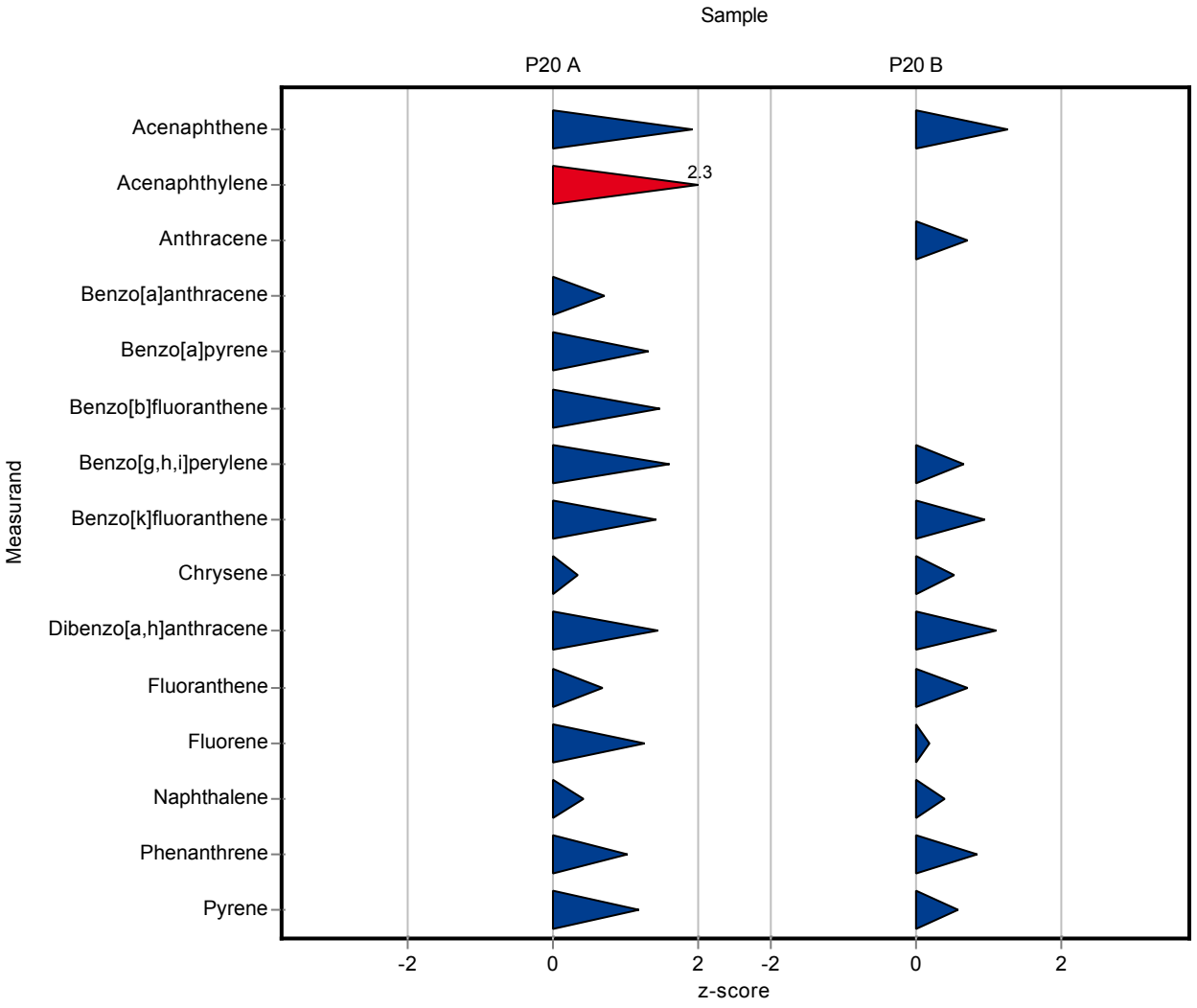
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	124 ± 14.2	177 ± 8.09	27.5	142	1.91
Acenaphthylene	ng/l	244 ± 30.9	373 ± 17.6	56.1	153	2.30
Anthracene	ng/l	- ± -	77.4 ± 0.04	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	48.2 ± 1.14	10.4	118	0.70
Benzo[a]pyrene	ng/l	57.6 ± 9.56	75 ± 1.21	13.3	130	1.31
Benzo[b]fluoranthene	ng/l	185 ± 12.1	233 ± 6.35	33.3	126	1.45
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	275 ± 4.35	45.4	136	1.59
Benzo[k]fluoranthene	ng/l	204 ± 25.3	282 ± 4.59	55.1	138	1.41
Chrysene	ng/l	202 ± 12.8	215 ± 5.9	38.4	106	0.34
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	85.8 ± 2.09	13.2	128	1.42
Fluoranthene	ng/l	125 ± 8.6	141 ± 1.79	23.7	113	0.68
Fluorene	ng/l	158 ± 9.33	184 ± 9.24	20.6	116	1.24
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<10 (LOQ) ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	96 ± 3.45	21	110	0.40
Phenanthrene	ng/l	274 ± 13.2	316 ± 8.64	41.1	115	1.02
Pyrene	ng/l	175 ± 13.6	210 ± 0.64	29.8	120	1.17

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	10.4 ± 1.38	12.9 ± 0.87	1.98	124	1.25
Acenaphthylene	ng/l	- ± -	22.4 ± 2.12	-	-	-
Anthracene	ng/l	33.4 ± 2.14	38.9 ± 1.05	8	117	0.69
Benzo[a]anthracene	ng/l	9.26 ± 0.668	<10 (LOQ) ± -	1.67	-	-
Benzo[a]pyrene	ng/l	9.87 ± 1.48	<20 (LOQ) ± -	2.27	-	-
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	<20 (LOQ) ± -	1.15	-	-
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	23.7 ± 0.74	6.47	121	0.63
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	41.8 ± 3.02	9	125	0.94
Chrysene	ng/l	42.6 ± 3.58	46.8 ± 0.09	8.09	110	0.52
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	34.1 ± 0.31	7.37	131	1.09
Fluoranthene	ng/l	29.2 ± 2.5	33 ± 1	5.54	113	0.69
Fluorene	ng/l	26.3 ± 2.42	27 ± 2.98	4.36	103	0.17
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<10 (LOQ) ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	46.4 ± 0.07	10.2	109	0.37

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Phenanthrene	ng/l	47.4 ± 4	53.6 ± 0.88	7.48	113	0.83
Pyrene	ng/l	20.6 ± 0.83	22.6 ± 1.07	3.51	110	0.56



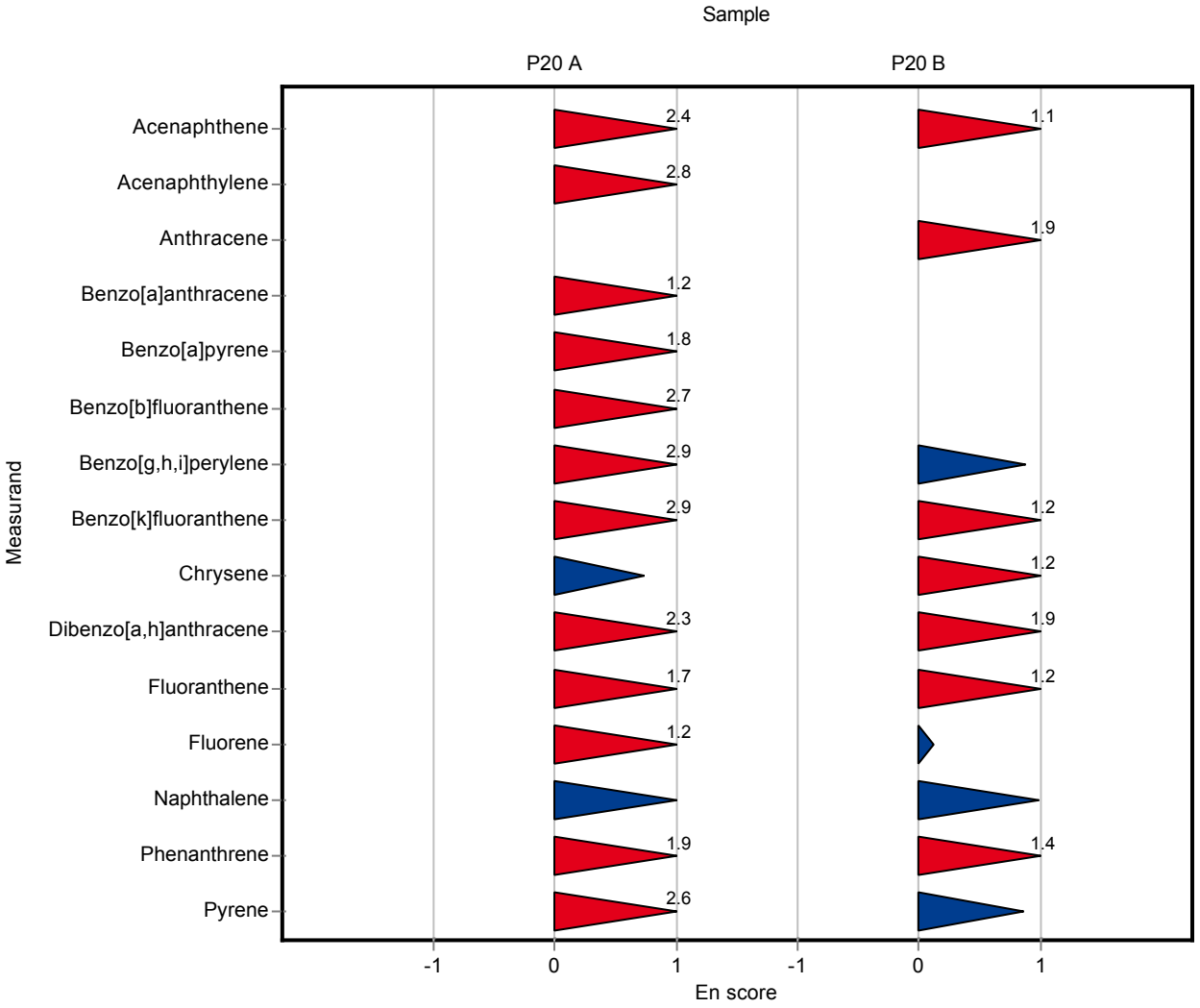
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	124 ± 14.2	177 ± 8.09	27.5	142	2.44
Acenaphthylene	ng/l	244 ± 30.9	373 ± 17.6	56.1	153	2.75
Anthracene	ng/l	- ± -	77.4 ± 0.04	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	48.2 ± 1.14	10.4	118	1.21
Benzo[a]pyrene	ng/l	57.6 ± 9.56	75 ± 1.21	13.3	130	1.76
Benzo[b]fluoranthene	ng/l	185 ± 12.1	233 ± 6.35	33.3	126	2.75
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	275 ± 4.35	45.4	136	2.88
Benzo[k]fluoranthene	ng/l	204 ± 25.3	282 ± 4.59	55.1	138	2.89
Chrysene	ng/l	202 ± 12.8	215 ± 5.9	38.4	106	0.74
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	85.8 ± 2.09	13.2	128	2.29
Fluoranthene	ng/l	125 ± 8.6	141 ± 1.79	23.7	113	1.73
Fluorene	ng/l	158 ± 9.33	184 ± 9.24	20.6	116	1.23
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<10 (LOQ) ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	96 ± 3.45	21	110	1.00
Phenanthrene	ng/l	274 ± 13.2	316 ± 8.64	41.1	115	1.93
Pyrene	ng/l	175 ± 13.6	210 ± 0.64	29.8	120	2.56

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	10.4 ± 1.38	12.9 ± 0.87	1.98	124	1.12
Acenaphthylene	ng/l	- ± -	22.4 ± 2.12	-	-	-
Anthracene	ng/l	33.4 ± 2.14	38.9 ± 1.05	8	117	1.85
Benzo[a]anthracene	ng/l	9.26 ± 0.668	<10 (LOQ) ± -	1.67	-	-
Benzo[a]pyrene	ng/l	9.87 ± 1.48	<20 (LOQ) ± -	2.27	-	-
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	<20 (LOQ) ± -	1.15	-	-
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	23.7 ± 0.74	6.47	121	0.88
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	41.8 ± 3.02	9	125	1.21
Chrysene	ng/l	42.6 ± 3.58	46.8 ± 0.09	8.09	110	1.18
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	34.1 ± 0.31	7.37	131	1.94

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	29.2 ± 2.5	33 ± 1	5.54	113	1.20
Fluorene	ng/l	26.3 ± 2.42	27 ± 2.98	4.36	103	0.11
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<10 (LOQ) ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	46.4 ± 0.07	10.2	109	0.98
Phenanthrene	ng/l	47.4 ± 4	53.6 ± 0.88	7.48	113	1.42
Pyrene	ng/l	20.6 ± 0.83	22.6 ± 1.07	3.51	110	0.85



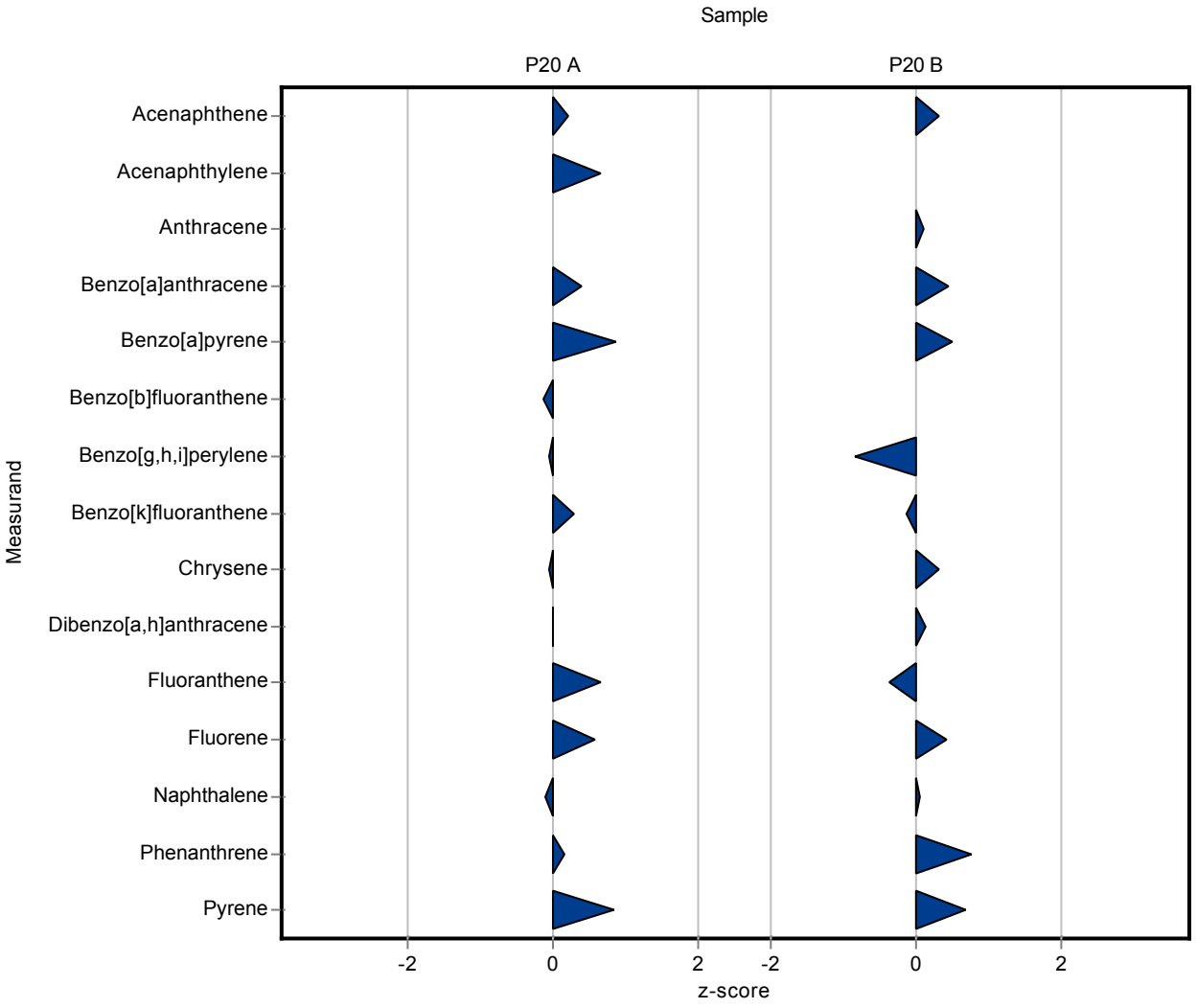
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	124 ± 14.2	130 ± 29	27.5	105	0.20
Acenaphthylene	ng/l	244 ± 30.9	280 ± 48	56.1	115	0.64
Anthracene	ng/l	- ± -	68 ± 8	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	45 ± 8	10.4	110	0.39
Benzo[a]pyrene	ng/l	57.6 ± 9.56	69 ± 10	13.3	120	0.86
Benzo[b]fluoranthene	ng/l	185 ± 12.1	180 ± 47	33.3	97.4	-0.14
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	200 ± 47	45.4	98.6	-0.06
Benzo[k]fluoranthene	ng/l	204 ± 25.3	220 ± 36	55.1	108	0.29
Chrysene	ng/l	202 ± 12.8	200 ± 32	38.4	99	-0.05
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	67 ± 13	13.2	99.9	0.00
Fluoranthene	ng/l	125 ± 8.6	140 ± 33	23.7	112	0.64
Fluorene	ng/l	158 ± 9.33	170 ± 39	20.6	107	0.56
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<10 (LOQ) ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	85 ± 13	21	97	-0.13
Phenanthrene	ng/l	274 ± 13.2	280 ± 68	41.1	102	0.14
Pyrene	ng/l	175 ± 13.6	200 ± 36	29.8	114	0.84

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	10.4 ± 1.38	11 ± 2.5	1.98	106	0.29
Acenaphthylene	ng/l	- ± -	63 ± 11	-	-	-
Anthracene	ng/l	33.4 ± 2.14	34 ± 4	8	102	0.08
Benzo[a]anthracene	ng/l	9.26 ± 0.668	10 ± 1.8	1.67	108	0.44
Benzo[a]pyrene	ng/l	9.87 ± 1.48	11 ± 1.6	2.27	111	0.50
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	<10 (LOQ) ± -	1.15	-	-
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	14 ± 3.3	6.47	71.4	-0.87
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	32 ± 5.2	9	96	-0.15
Chrysene	ng/l	42.6 ± 3.58	45 ± 7.1	8.09	106	0.30
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	27 ± 5.4	7.37	104	0.13
Fluoranthene	ng/l	29.2 ± 2.5	27 ± 6.4	5.54	92.6	-0.39
Fluorene	ng/l	26.3 ± 2.42	28 ± 6.4	4.36	107	0.40
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<10 (LOQ) ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	43 ± 6.7	10.2	101	0.04

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Phenanthrene	ng/l	47.4 ± 4	53 ± 13	7.48	112	0.75
Pyrene	ng/l	20.6 ± 0.83	23 ± 4.2	3.51	111	0.67



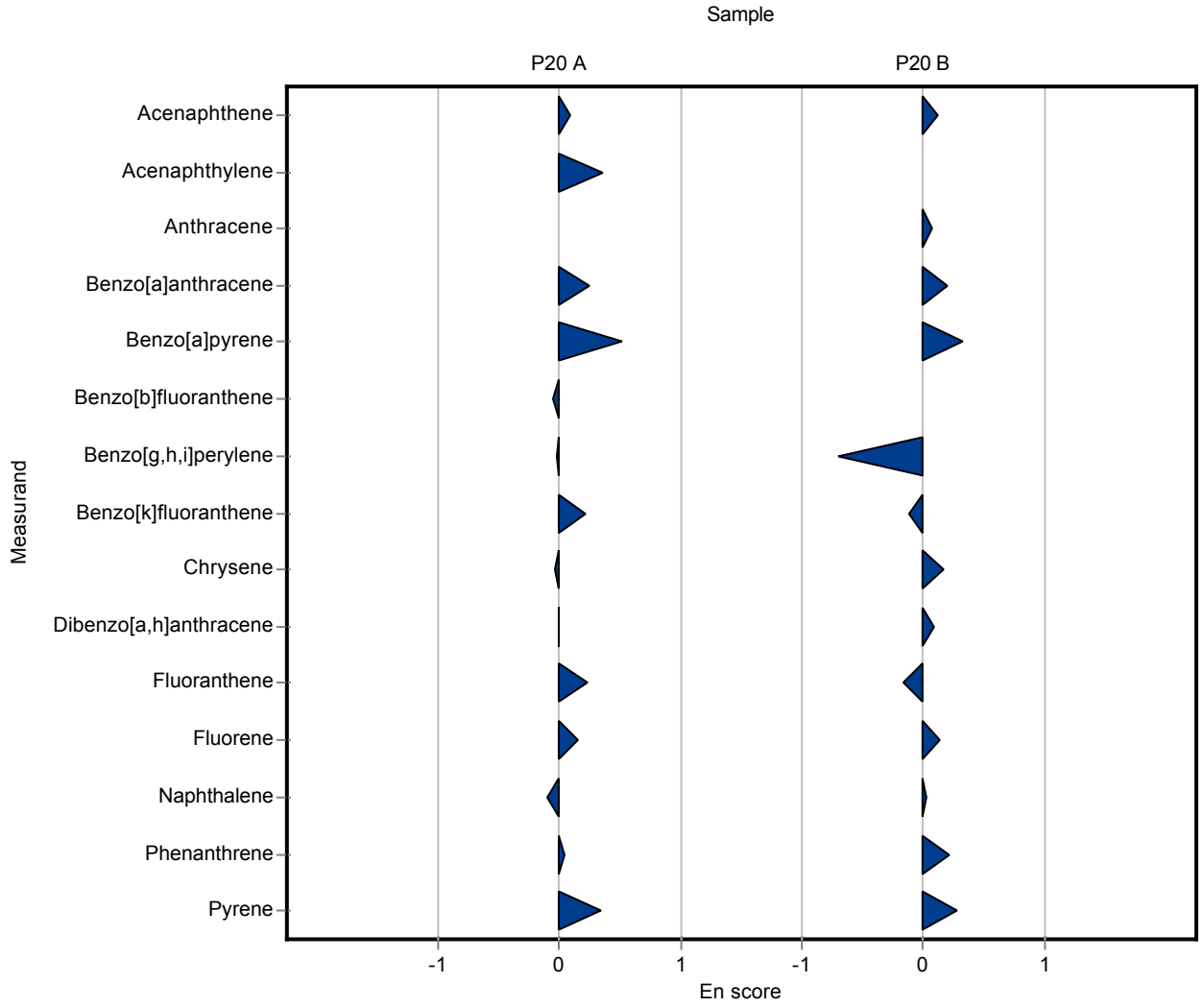
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	124 ± 14.2	130 ± 29	27.5	105	0.09
Acenaphthylene	ng/l	244 ± 30.9	280 ± 48	56.1	115	0.36
Anthracene	ng/l	- ± -	68 ± 8	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	45 ± 8	10.4	110	0.24
Benzo[a]pyrene	ng/l	57.6 ± 9.56	69 ± 10	13.3	120	0.51
Benzo[b]fluoranthene	ng/l	185 ± 12.1	180 ± 47	33.3	97.4	-0.05
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	200 ± 47	45.4	98.6	-0.03
Benzo[k]fluoranthene	ng/l	204 ± 25.3	220 ± 36	55.1	108	0.21
Chrysene	ng/l	202 ± 12.8	200 ± 32	38.4	99	-0.03
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	67 ± 13	13.2	99.9	0.00
Fluoranthene	ng/l	125 ± 8.6	140 ± 33	23.7	112	0.23
Fluorene	ng/l	158 ± 9.33	170 ± 39	20.6	107	0.15
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<10 (LOQ) ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	85 ± 13	21	97	-0.10
Phenanthrene	ng/l	274 ± 13.2	280 ± 68	41.1	102	0.04
Pyrene	ng/l	175 ± 13.6	200 ± 36	29.8	114	0.34

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	10.4 ± 1.38	11 ± 2.5	1.98	106	0.11
Acenaphthylene	ng/l	- ± -	63 ± 11	-	-	-
Anthracene	ng/l	33.4 ± 2.14	34 ± 4	8	102	0.08
Benzo[a]anthracene	ng/l	9.26 ± 0.668	10 ± 1.8	1.67	108	0.20
Benzo[a]pyrene	ng/l	9.87 ± 1.48	11 ± 1.6	2.27	111	0.32
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	<10 (LOQ) ± -	1.15	-	-
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	14 ± 3.3	6.47	71.4	-0.71
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	32 ± 5.2	9	96	-0.12
Chrysene	ng/l	42.6 ± 3.58	45 ± 7.1	8.09	106	0.17
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	27 ± 5.4	7.37	104	0.08

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	29.2 ± 2.5	27 ± 6.4	5.54	92.6	-0.17
Fluorene	ng/l	26.3 ± 2.42	28 ± 6.4	4.36	107	0.13
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<10 (LOQ) ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	43 ± 6.7	10.2	101	0.03
Phenanthrene	ng/l	47.4 ± 4	53 ± 13	7.48	112	0.21
Pyrene	ng/l	20.6 ± 0.83	23 ± 4.2	3.51	111	0.28



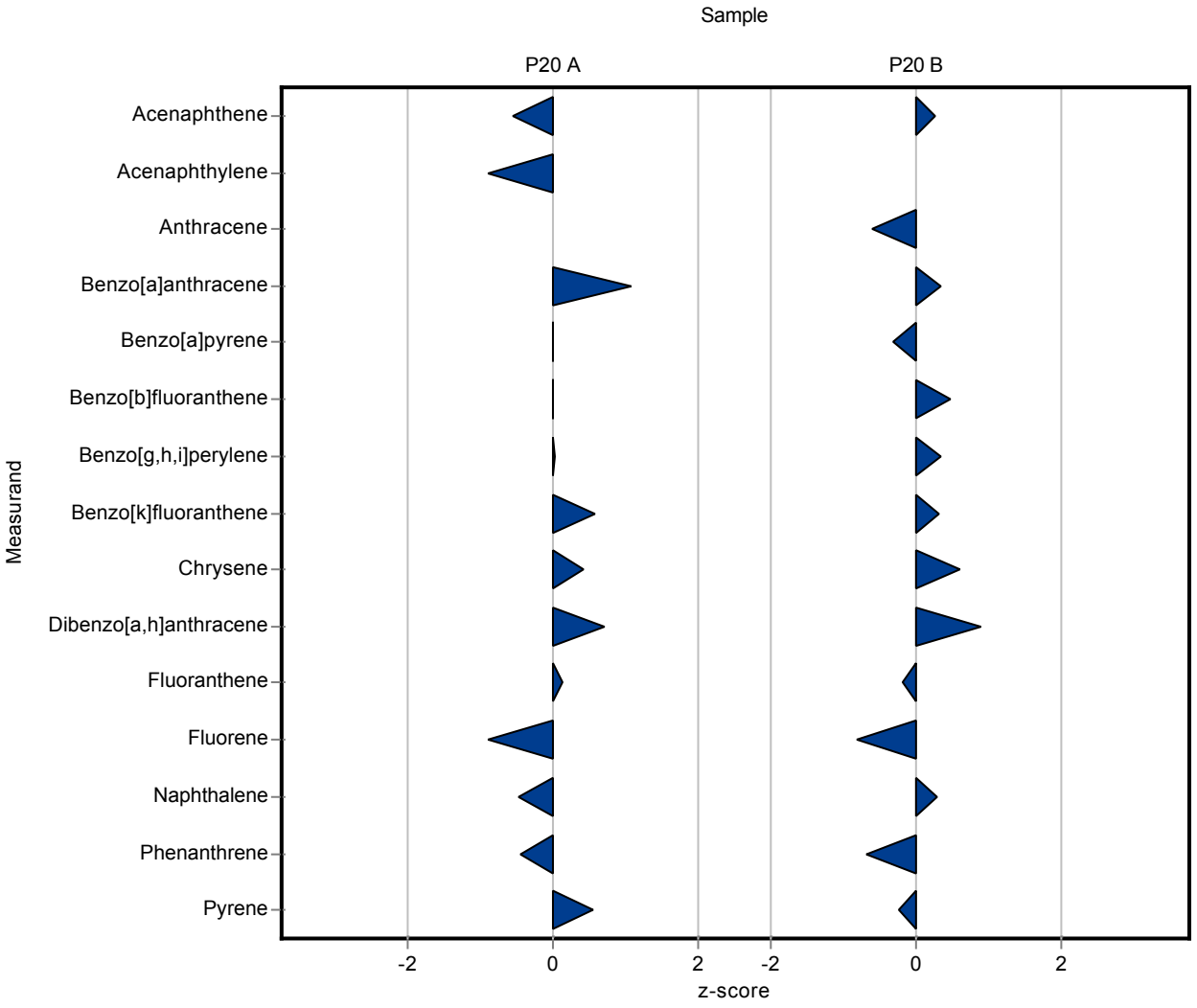
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	124 ± 14.2	109.1 ± 33.8	27.5	87.7	-0.56
Acenaphthylene	ng/l	244 ± 30.9	192.4 ± 59.7	56.1	78.9	-0.92
Anthracene	ng/l	- ± -	56.9 ± 17.6	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	52 ± 16.1	10.4	127	1.07
Benzo[a]pyrene	ng/l	57.6 ± 9.56	57.3 ± 17.8	13.3	99.4	-0.02
Benzo[b]fluoranthene	ng/l	185 ± 12.1	184 ± 57.1	33.3	99.6	-0.02
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	203.2 ± 63	45.4	100	0.01
Benzo[k]fluoranthene	ng/l	204 ± 25.3	235.3 ± 72.9	55.1	115	0.56
Chrysene	ng/l	202 ± 12.8	217.9 ± 67.5	38.4	108	0.41
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	76.3 ± 23.6	13.2	114	0.70
Fluoranthene	ng/l	125 ± 8.6	127.5 ± 39.5	23.7	102	0.11
Fluorene	ng/l	158 ± 9.33	139.9 ± 43.4	20.6	88.3	-0.90
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<1.6 (LOQ) ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	77.6 ± 24.1	21	88.5	-0.48
Phenanthrene	ng/l	274 ± 13.2	255.4 ± 79.2	41.1	93.2	-0.46
Pyrene	ng/l	175 ± 13.6	191.5 ± 59.4	29.8	109	0.55

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	10.4 ± 1.38	10.9 ± 3.4	1.98	105	0.24
Acenaphthylene	ng/l	- ± -	21 ± 6.5	-	-	-
Anthracene	ng/l	33.4 ± 2.14	28.4 ± 8.8	8	85.2	-0.62
Benzo[a]anthracene	ng/l	9.26 ± 0.668	9.8 ± 3	1.67	106	0.32
Benzo[a]pyrene	ng/l	9.87 ± 1.48	9.1 ± 2.8	2.27	92.2	-0.34
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	6.9 ± 2.1	1.15	108	0.45
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	21.7 ± 6.7	6.47	111	0.32
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	36 ± 11.1	9	108	0.30
Chrysene	ng/l	42.6 ± 3.58	47.3 ± 14.7	8.09	111	0.58
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	32.6 ± 10.1	7.37	125	0.89
Fluoranthene	ng/l	29.2 ± 2.5	28 ± 8.7	5.54	96	-0.21
Fluorene	ng/l	26.3 ± 2.42	22.7 ± 7	4.36	86.4	-0.82
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	4.4 ± 1.4	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	45.5 ± 14.1	10.2	107	0.28

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Phenanthrene	ng/l	47.4 ± 4	42.1 ± 13.1	7.48	88.8	-0.71
Pyrene	ng/l	20.6 ± 0.83	19.8 ± 6.1	3.51	95.9	-0.24



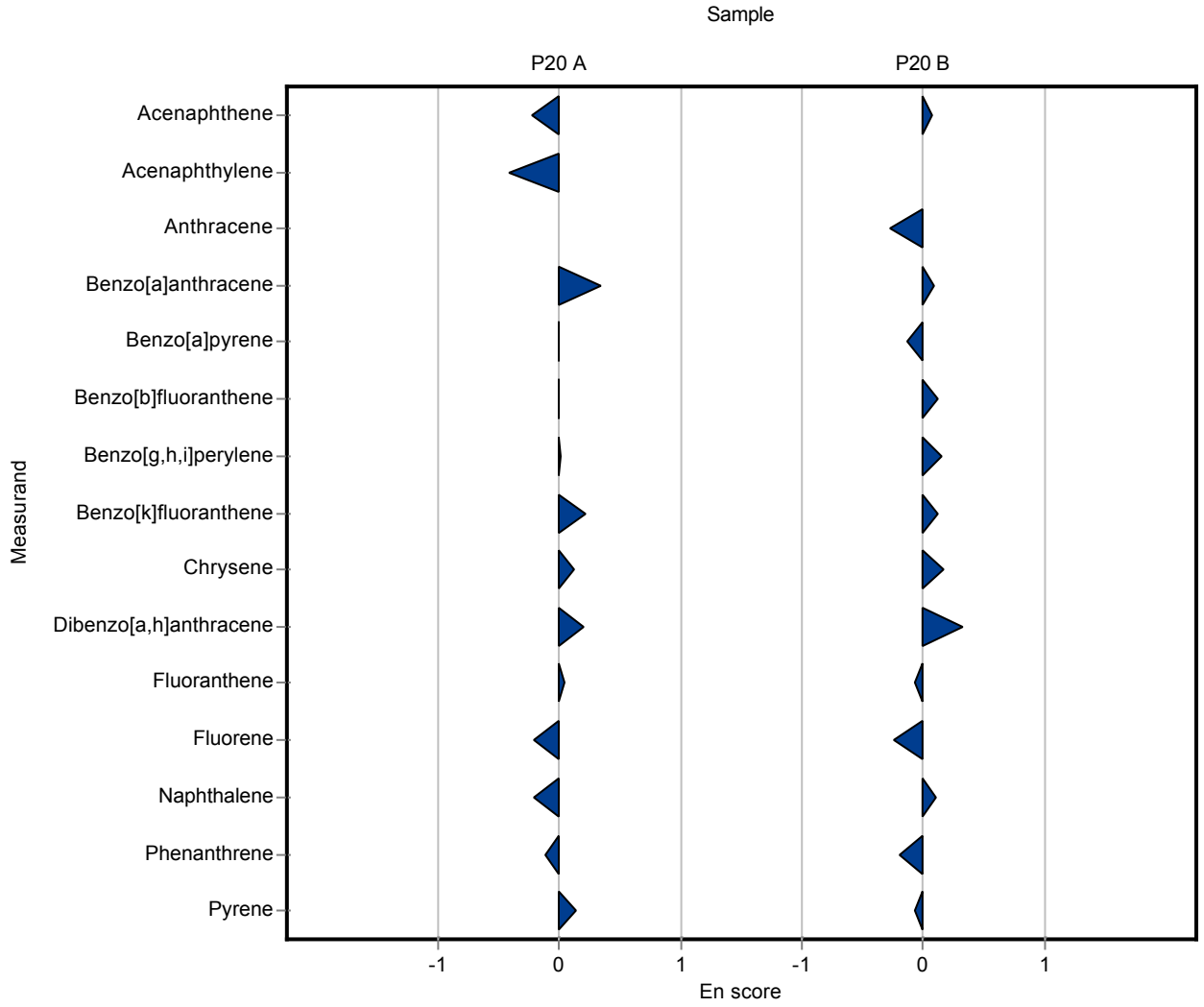
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	124 ± 14.2	109.1 ± 33.8	27.5	87.7	-0.22
Acenaphthylene	ng/l	244 ± 30.9	192.4 ± 59.7	56.1	78.9	-0.42
Anthracene	ng/l	- ± -	56.9 ± 17.6	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	52 ± 16.1	10.4	127	0.34
Benzo[a]pyrene	ng/l	57.6 ± 9.56	57.3 ± 17.8	13.3	99.4	-0.01
Benzo[b]fluoranthene	ng/l	185 ± 12.1	184 ± 57.1	33.3	99.6	-0.01
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	203.2 ± 63	45.4	100	0.00
Benzo[k]fluoranthene	ng/l	204 ± 25.3	235.3 ± 72.9	55.1	115	0.21
Chrysene	ng/l	202 ± 12.8	217.9 ± 67.5	38.4	108	0.12
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	76.3 ± 23.6	13.2	114	0.19
Fluoranthene	ng/l	125 ± 8.6	127.5 ± 39.5	23.7	102	0.03
Fluorene	ng/l	158 ± 9.33	139.9 ± 43.4	20.6	88.3	-0.21
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<1.6 (LOQ) ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	77.6 ± 24.1	21	88.5	-0.21
Phenanthrene	ng/l	274 ± 13.2	255.4 ± 79.2	41.1	93.2	-0.12
Pyrene	ng/l	175 ± 13.6	191.5 ± 59.4	29.8	109	0.14

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	10.4 ± 1.38	10.9 ± 3.4	1.98	105	0.07
Acenaphthylene	ng/l	- ± -	21 ± 6.5	-	-	-
Anthracene	ng/l	33.4 ± 2.14	28.4 ± 8.8	8	85.2	-0.28
Benzo[a]anthracene	ng/l	9.26 ± 0.668	9.8 ± 3	1.67	106	0.09
Benzo[a]pyrene	ng/l	9.87 ± 1.48	9.1 ± 2.8	2.27	92.2	-0.13
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	6.9 ± 2.1	1.15	108	0.12
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	21.7 ± 6.7	6.47	111	0.15
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	36 ± 11.1	9	108	0.12
Chrysene	ng/l	42.6 ± 3.58	47.3 ± 14.7	8.09	111	0.16
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	32.6 ± 10.1	7.37	125	0.32

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	29.2 ± 2.5	28 ± 8.7	5.54	96	-0.07
Fluorene	ng/l	26.3 ± 2.42	22.7 ± 7	4.36	86.4	-0.25
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	4.4 ± 1.4	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	45.5 ± 14.1	10.2	107	0.10
Phenanthrene	ng/l	47.4 ± 4	42.1 ± 13.1	7.48	88.8	-0.20
Pyrene	ng/l	20.6 ± 0.83	19.8 ± 6.1	3.51	95.9	-0.07



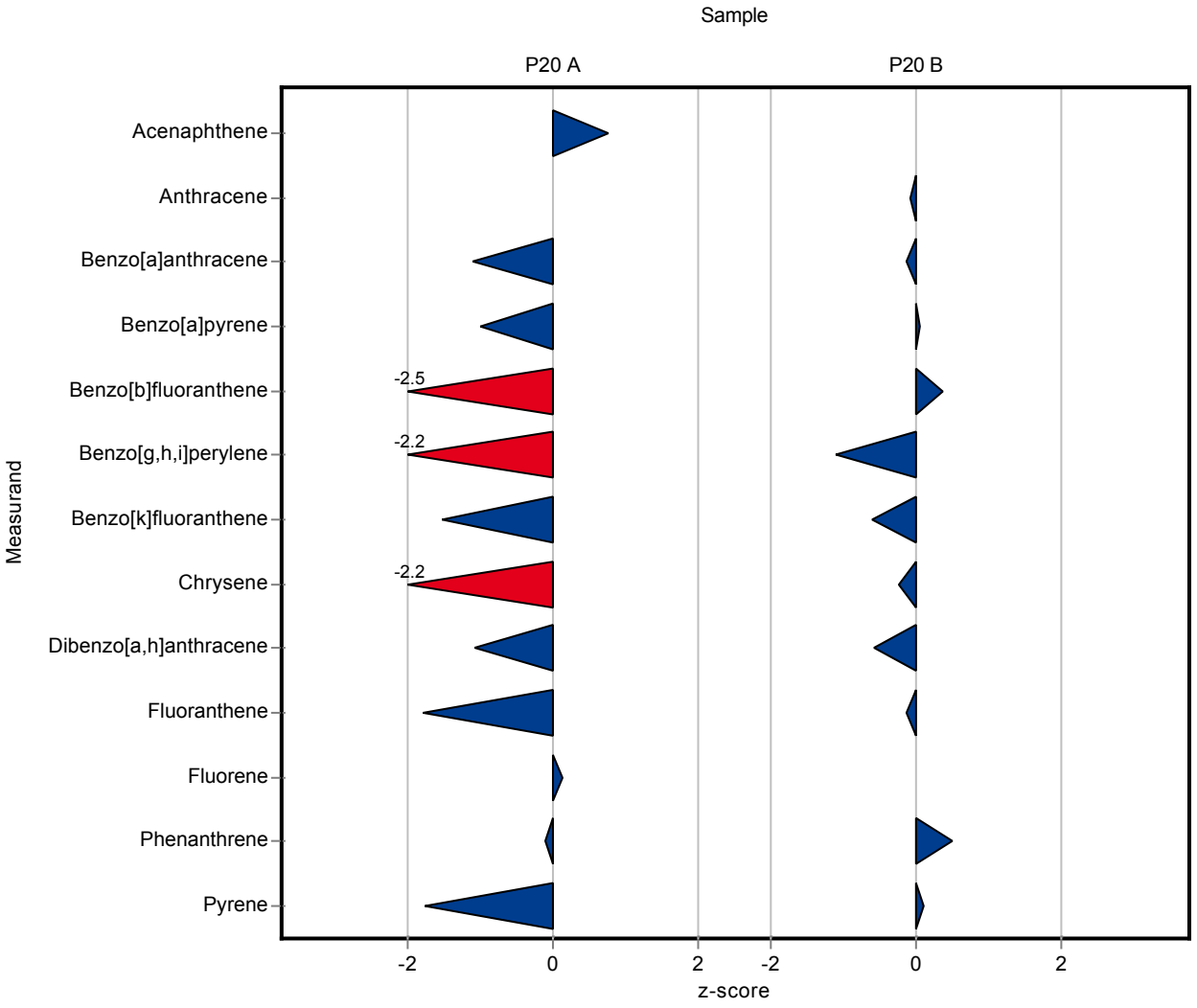
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	124 ± 14.2	145 ± 64	27.5	117	0.75
Acenaphthylene	ng/l	244 ± 30.9	- ± -	56.1	-	-
Anthracene	ng/l	- ± -	73.2 ± 32.2	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	29.2 ± 12.8	10.4	71.4	-1.13
Benzo[a]pyrene	ng/l	57.6 ± 9.56	44.2 ± 19.4	13.3	76.7	-1.01
Benzo[b]fluoranthene	ng/l	185 ± 12.1	102 ± 45	33.3	55.2	-2.49
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	101 ± 44	45.4	49.8	-2.24
Benzo[k]fluoranthene	ng/l	204 ± 25.3	120 ± 53	55.1	58.8	-1.53
Chrysene	ng/l	202 ± 12.8	118 ± 52	38.4	58.4	-2.19
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	52.6 ± 23.1	13.2	78.4	-1.10
Fluoranthene	ng/l	125 ± 8.6	82.3 ± 36.2	23.7	65.9	-1.79
Fluorene	ng/l	158 ± 9.33	161 ± 71	20.6	102	0.12
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	- ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	- ± -	21	-	-
Phenanthrene	ng/l	274 ± 13.2	269 ± 118	41.1	98.1	-0.13
Pyrene	ng/l	175 ± 13.6	122 ± 54	29.8	69.7	-1.78

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	10.4 ± 1.38	- ± -	1.98	-	-
Acenaphthylene	ng/l	- ± -	- ± -	-	-	-
Anthracene	ng/l	33.4 ± 2.14	32.6 ± 14.3	8	97.7	-0.09
Benzo[a]anthracene	ng/l	9.26 ± 0.668	9.02 ± 3.97	1.67	97.4	-0.14
Benzo[a]pyrene	ng/l	9.87 ± 1.48	9.98 ± 4.39	2.27	101	0.05
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	6.8 ± 2.99	1.15	107	0.36
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	12.3 ± 5.41	6.47	62.7	-1.13
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	27.8 ± 12.2	9	83.4	-0.61
Chrysene	ng/l	42.6 ± 3.58	40.6 ± 17.9	8.09	95.4	-0.24
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	21.8 ± 9.59	7.37	83.6	-0.58
Fluoranthene	ng/l	29.2 ± 2.5	28.4 ± 11.4	5.54	97.4	-0.14
Fluorene	ng/l	26.3 ± 2.42	- ± -	4.36	-	-
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	- ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	- ± -	10.2	-	-

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Phenanthrene	ng/l	47.4 ± 4	51 ± 22.4	7.48	108	0.48
Pyrene	ng/l	20.6 ± 0.83	21 ± 9.24	3.51	102	0.10



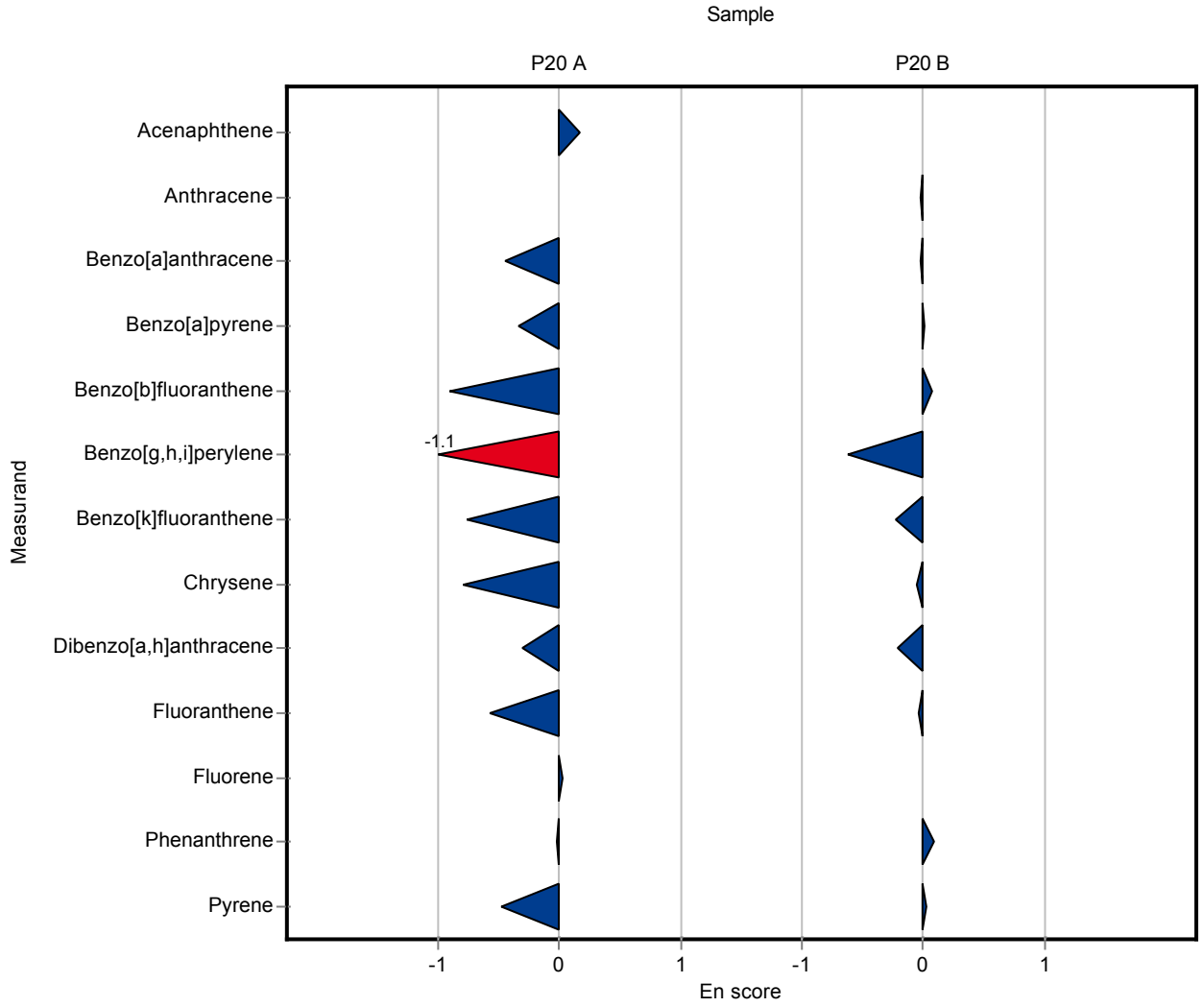
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	124 ± 14.2	145 ± 64	27.5	117	0.16
Acenaphthylene	ng/l	244 ± 30.9	- ± -	56.1	-	-
Anthracene	ng/l	- ± -	73.2 ± 32.2	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	29.2 ± 12.8	10.4	71.4	-0.45
Benzo[a]pyrene	ng/l	57.6 ± 9.56	44.2 ± 19.4	13.3	76.7	-0.34
Benzo[b]fluoranthene	ng/l	185 ± 12.1	102 ± 45	33.3	55.2	-0.91
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	101 ± 44	45.4	49.8	-1.12
Benzo[k]fluoranthene	ng/l	204 ± 25.3	120 ± 53	55.1	58.8	-0.77
Chrysene	ng/l	202 ± 12.8	118 ± 52	38.4	58.4	-0.80
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	52.6 ± 23.1	13.2	78.4	-0.31
Fluoranthene	ng/l	125 ± 8.6	82.3 ± 36.2	23.7	65.9	-0.58
Fluorene	ng/l	158 ± 9.33	161 ± 71	20.6	102	0.02
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	- ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	- ± -	21	-	-
Phenanthrene	ng/l	274 ± 13.2	269 ± 118	41.1	98.1	-0.02
Pyrene	ng/l	175 ± 13.6	122 ± 54	29.8	69.7	-0.49

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	10.4 ± 1.38	- ± -	1.98	-	-
Acenaphthylene	ng/l	- ± -	- ± -	-	-	-
Anthracene	ng/l	33.4 ± 2.14	32.6 ± 14.3	8	97.7	-0.03
Benzo[a]anthracene	ng/l	9.26 ± 0.668	9.02 ± 3.97	1.67	97.4	-0.03
Benzo[a]pyrene	ng/l	9.87 ± 1.48	9.98 ± 4.39	2.27	101	0.01
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	6.8 ± 2.99	1.15	107	0.07
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	12.3 ± 5.41	6.47	62.7	-0.63
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	27.8 ± 12.2	9	83.4	-0.22
Chrysene	ng/l	42.6 ± 3.58	40.6 ± 17.9	8.09	95.4	-0.05
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	21.8 ± 9.59	7.37	83.6	-0.22

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	29.2 ± 2.5	28.4 ± 11.4	5.54	97.4	-0.03
Fluorene	ng/l	26.3 ± 2.42	- ± -	4.36	-	-
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	- ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	- ± -	10.2	-	-
Phenanthrene	ng/l	47.4 ± 4	51 ± 22.4	7.48	108	0.08
Pyrene	ng/l	20.6 ± 0.83	21 ± 9.24	3.51	102	0.02



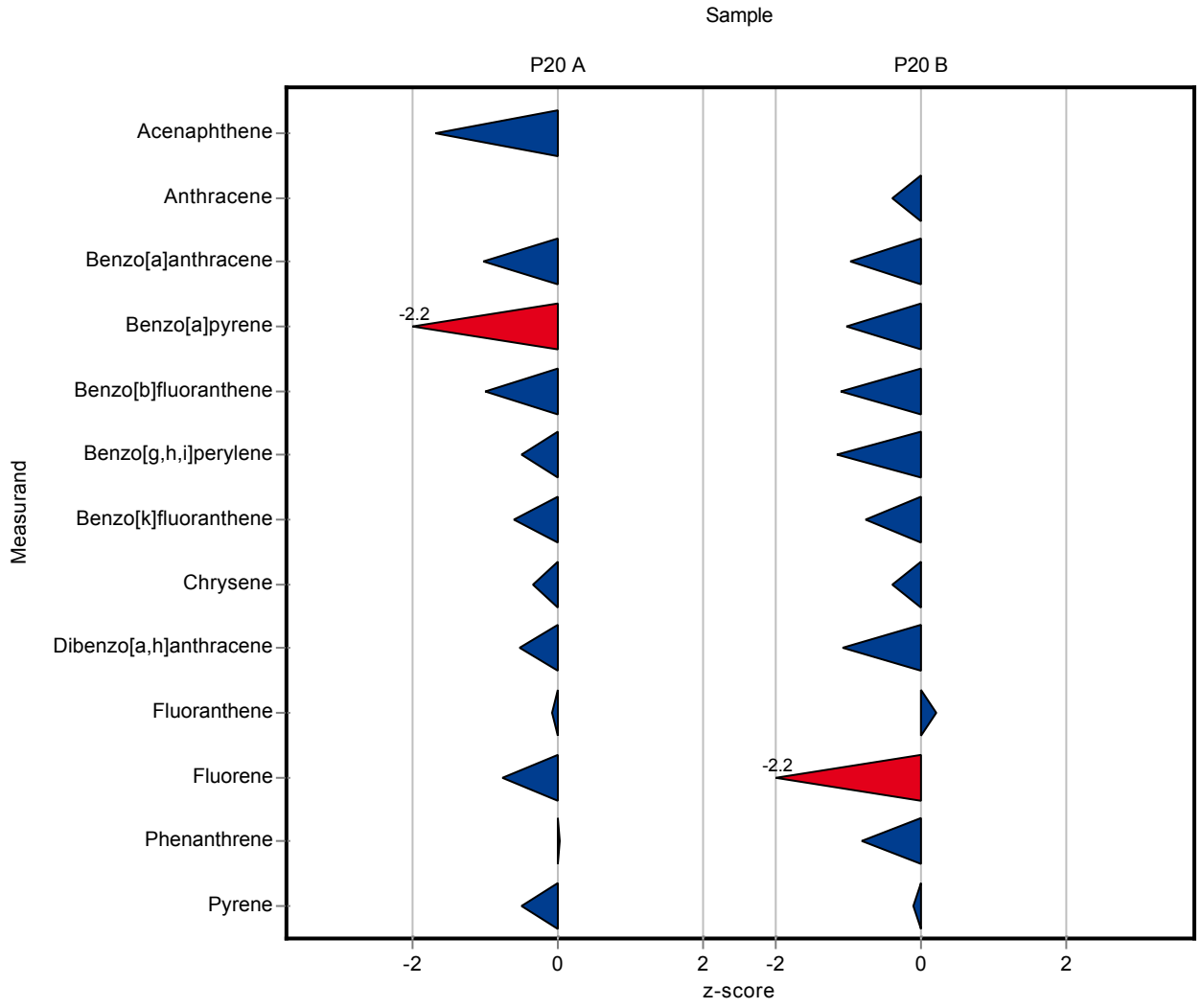
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	124 ± 14.2	78 ± 34.32	27.5	62.7	-1.69
Acenaphthylene	ng/l	244 ± 30.9	- ± -	56.1	-	-
Anthracene	ng/l	- ± -	32 ± 14.08	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	30 ± 13.2	10.4	73.3	-1.05
Benzo[a]pyrene	ng/l	57.6 ± 9.56	28.5 ± 12.54	13.3	49.5	-2.20
Benzo[b]fluoranthene	ng/l	185 ± 12.1	150.8 ± 66.35	33.3	81.6	-1.02
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	179 ± 78.76	45.4	88.2	-0.53
Benzo[k]fluoranthene	ng/l	204 ± 25.3	170.5 ± 75.02	55.1	83.5	-0.61
Chrysene	ng/l	202 ± 12.8	188 ± 82.72	38.4	93	-0.37
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	59.8 ± 26.31	13.2	89.2	-0.55
Fluoranthene	ng/l	125 ± 8.6	122.8 ± 54.12	23.7	98.3	-0.09
Fluorene	ng/l	158 ± 9.33	142.5 ± 62.7	20.6	89.9	-0.78
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	- ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	- ± -	21	-	-
Phenanthrene	ng/l	274 ± 13.2	274.5 ± 120.78	41.1	100	0.01
Pyrene	ng/l	175 ± 13.6	160 ± 70.4	29.8	91.4	-0.51

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	10.4 ± 1.38	- ± -	1.98	-	-
Acenaphthylene	ng/l	- ± -	- ± -	-	-	-
Anthracene	ng/l	33.4 ± 2.14	30 ± 13.2	8	90	-0.42
Benzo[a]anthracene	ng/l	9.26 ± 0.668	7.6 ± 3.34	1.67	82.1	-1.00
Benzo[a]pyrene	ng/l	9.87 ± 1.48	7.5 ± 3.3	2.27	76	-1.04
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	5.1 ± 2.24	1.15	79.9	-1.12
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	12 ± 5.28	6.47	61.2	-1.18
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	26.4 ± 11.62	9	79.2	-0.77
Chrysene	ng/l	42.6 ± 3.58	39.2 ± 17.25	8.09	92.1	-0.42
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	18.1 ± 7.96	7.37	69.4	-1.08
Fluoranthene	ng/l	29.2 ± 2.5	30.2 ± 13.2	5.54	104	0.19
Fluorene	ng/l	26.3 ± 2.42	16.5 ± 7.26	4.36	62.8	-2.24
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	- ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	- ± -	10.2	-	-

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Phenanthrene	ng/l	47.4 ± 4	41.2 ± 18.13	7.48	86.9	-0.83
Pyrene	ng/l	20.6 ± 0.83	20.2 ± 8.6	3.51	97.9	-0.12



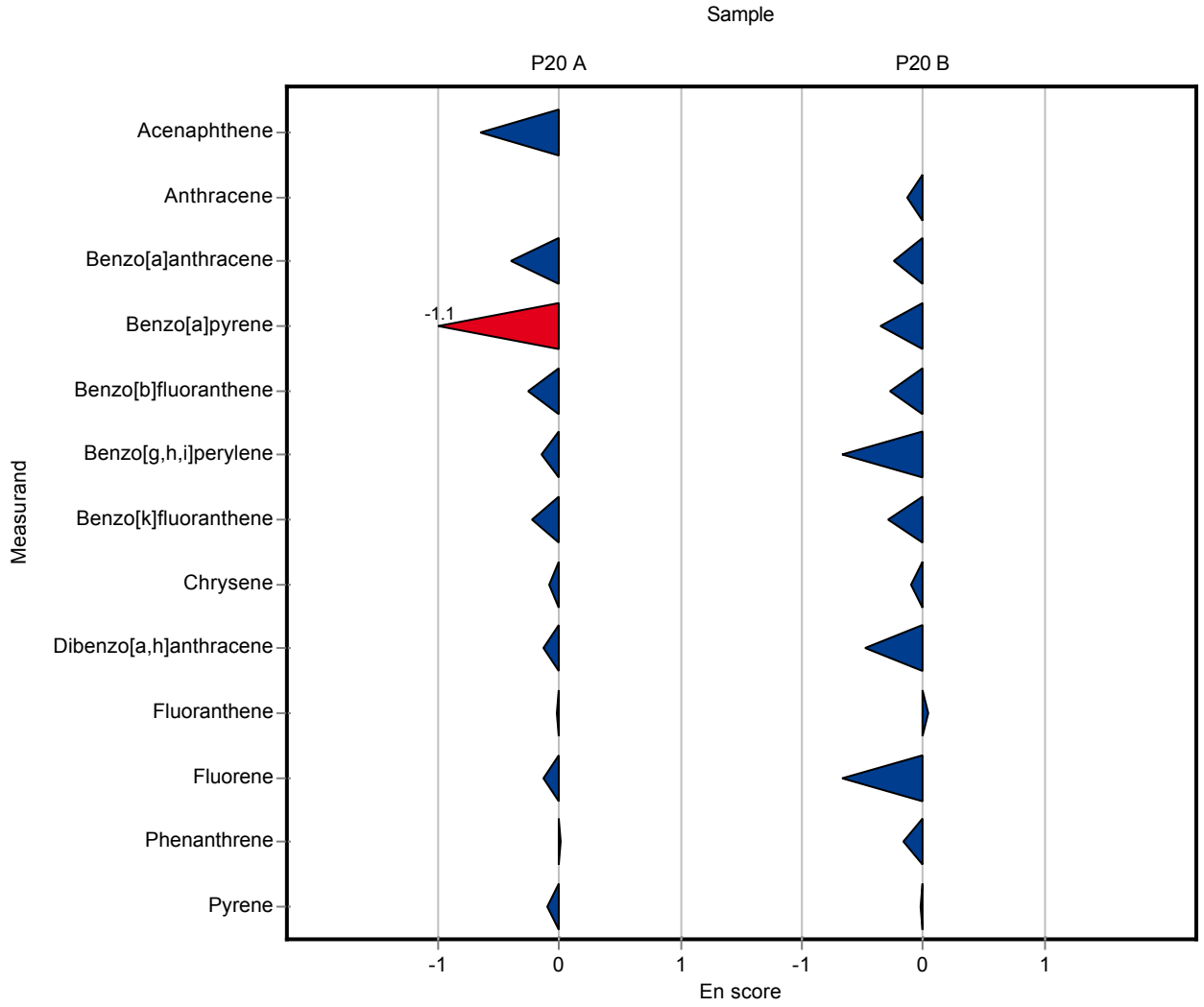
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	124 ± 14.2	78 ± 34.32	27.5	62.7	-0.66
Acenaphthylene	ng/l	244 ± 30.9	- ± -	56.1	-	-
Anthracene	ng/l	- ± -	32 ± 14.08	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	30 ± 13.2	10.4	73.3	-0.40
Benzo[a]pyrene	ng/l	57.6 ± 9.56	28.5 ± 12.54	13.3	49.5	-1.09
Benzo[b]fluoranthene	ng/l	185 ± 12.1	150.8 ± 66.35	33.3	81.6	-0.26
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	179 ± 78.76	45.4	88.2	-0.15
Benzo[k]fluoranthene	ng/l	204 ± 25.3	170.5 ± 75.02	55.1	83.5	-0.22
Chrysene	ng/l	202 ± 12.8	188 ± 82.72	38.4	93	-0.08
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	59.8 ± 26.31	13.2	89.2	-0.14
Fluoranthene	ng/l	125 ± 8.6	122.8 ± 54.12	23.7	98.3	-0.02
Fluorene	ng/l	158 ± 9.33	142.5 ± 62.7	20.6	89.9	-0.13
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	- ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	- ± -	21	-	-
Phenanthrene	ng/l	274 ± 13.2	274.5 ± 120.78	41.1	100	0.00
Pyrene	ng/l	175 ± 13.6	160 ± 70.4	29.8	91.4	-0.11

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	10.4 ± 1.38	- ± -	1.98	-	-
Acenaphthylene	ng/l	- ± -	- ± -	-	-	-
Anthracene	ng/l	33.4 ± 2.14	30 ± 13.2	8	90	-0.13
Benzo[a]anthracene	ng/l	9.26 ± 0.668	7.6 ± 3.34	1.67	82.1	-0.25
Benzo[a]pyrene	ng/l	9.87 ± 1.48	7.5 ± 3.3	2.27	76	-0.35
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	5.1 ± 2.24	1.15	79.9	-0.28
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	12 ± 5.28	6.47	61.2	-0.67
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	26.4 ± 11.62	9	79.2	-0.29
Chrysene	ng/l	42.6 ± 3.58	39.2 ± 17.25	8.09	92.1	-0.10
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	18.1 ± 7.96	7.37	69.4	-0.49

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	29.2 ± 2.5	30.2 ± 13.2	5.54	104	0.04
Fluorene	ng/l	26.3 ± 2.42	16.5 ± 7.26	4.36	62.8	-0.66
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	- ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	- ± -	10.2	-	-
Phenanthrene	ng/l	47.4 ± 4	41.2 ± 18.13	7.48	86.9	-0.17
Pyrene	ng/l	20.6 ± 0.83	20.2 ± 8.6	3.51	97.9	-0.03



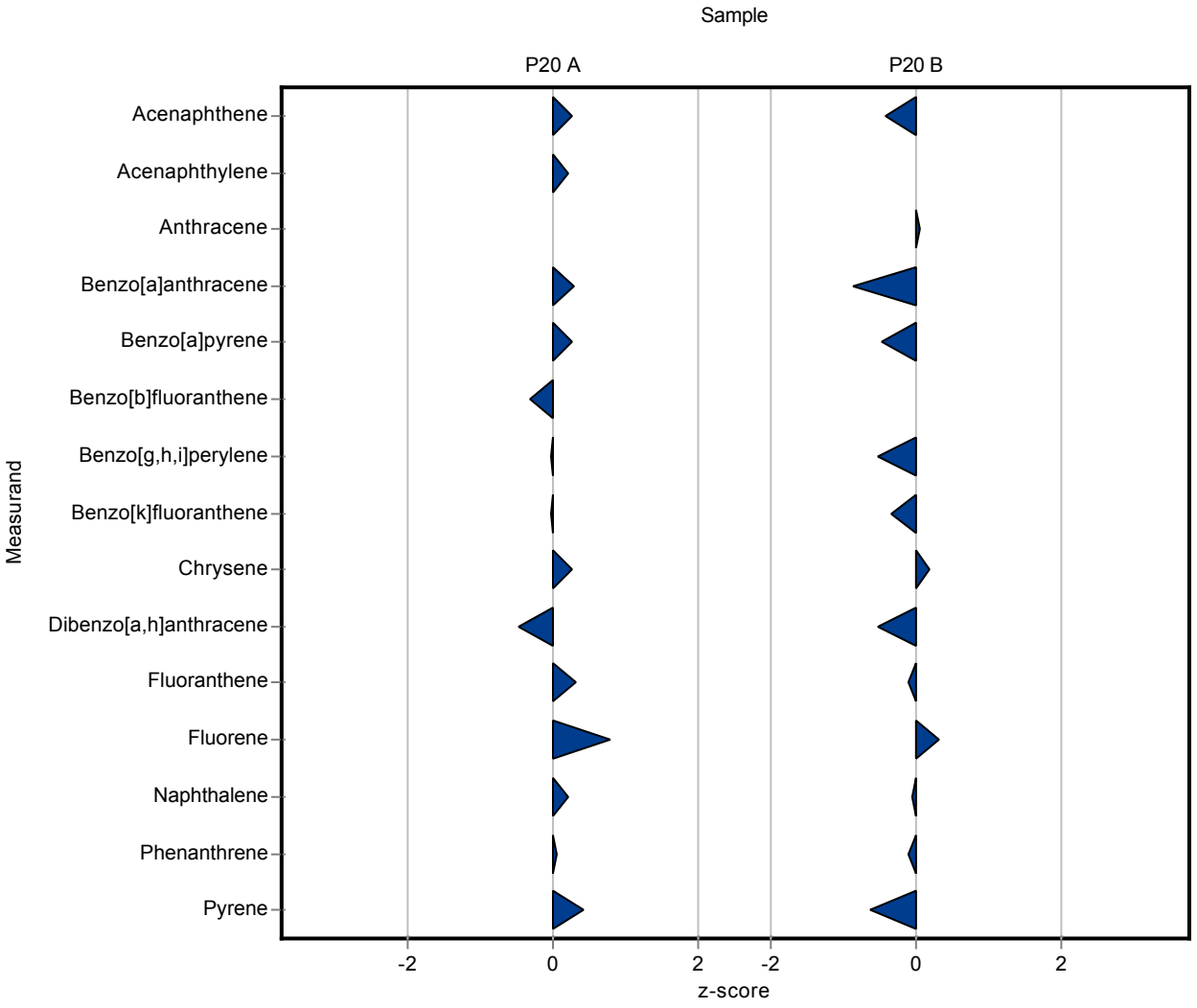
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	124 ± 14.2	131.18 ± 17.05	27.5	105	0.25
Acenaphthylene	ng/l	244 ± 30.9	255.53 ± 38.33	56.1	105	0.21
Anthracene	ng/l	- ± -	69.98 ± 12.6	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	43.83 ± 4.82	10.4	107	0.28
Benzo[a]pyrene	ng/l	57.6 ± 9.56	61.04 ± 13.43	13.3	106	0.26
Benzo[b]fluoranthene	ng/l	185 ± 12.1	173.78 ± 24.33	33.3	94.1	-0.33
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	201.65 ± 32.26	45.4	99.4	-0.03
Benzo[k]fluoranthene	ng/l	204 ± 25.3	202.53 ± 30.38	55.1	99.2	-0.03
Chrysene	ng/l	202 ± 12.8	211.42 ± 25.37	38.4	105	0.24
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	60.7 ± 10.93	13.2	90.5	-0.48
Fluoranthene	ng/l	125 ± 8.6	131.87 ± 27.69	23.7	106	0.29
Fluorene	ng/l	158 ± 9.33	174.55 ± 22.69	20.6	110	0.78
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	8.02 ± 1.36	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	91.69 ± 11	21	105	0.19
Phenanthrene	ng/l	274 ± 13.2	275.28 ± 52.3	41.1	100	0.03
Pyrene	ng/l	175 ± 13.6	187.03 ± 31.8	29.8	107	0.40

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	10.4 ± 1.38	9.54 ± 1.24	1.98	91.6	-0.44
Acenaphthylene	ng/l	- ± -	13.82 ± 2.07	-	-	-
Anthracene	ng/l	33.4 ± 2.14	33.72 ± 6.06	8	101	0.05
Benzo[a]anthracene	ng/l	9.26 ± 0.668	7.77 ± 0.85	1.67	83.9	-0.89
Benzo[a]pyrene	ng/l	9.87 ± 1.48	8.76 ± 1.93	2.27	88.7	-0.49
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	<5 (LOQ) ± -	1.15	-	-
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	16.17 ± 2.58	6.47	82.5	-0.53
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	30.1 ± 4.52	9	90.3	-0.36
Chrysene	ng/l	42.6 ± 3.58	44 ± 5.28	8.09	103	0.18
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	22.12 ± 3.98	7.37	84.8	-0.54
Fluoranthene	ng/l	29.2 ± 2.5	28.46 ± 5.98	5.54	97.6	-0.13
Fluorene	ng/l	26.3 ± 2.42	27.54 ± 3.58	4.36	105	0.29
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<5 (LOQ) ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	41.95 ± 5.03	10.2	98.5	-0.06

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Phenanthrene	ng/l	47.4 ± 4	46.47 ± 8.83	7.48	98.1	-0.12
Pyrene	ng/l	20.6 ± 0.83	18.4 ± 3.13	3.51	89.2	-0.64



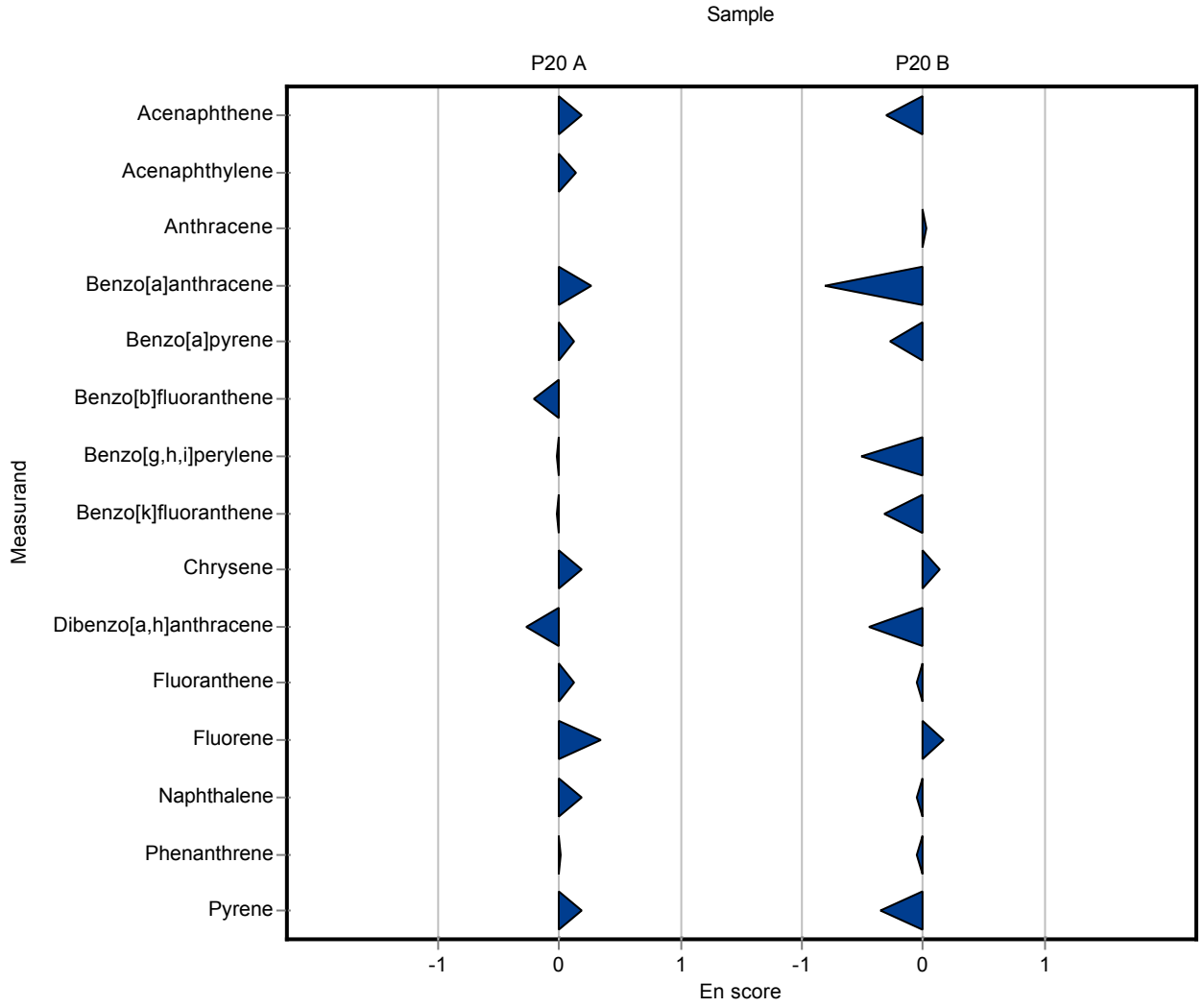
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	124 ± 14.2	131.18 ± 17.05	27.5	105	0.18
Acenaphthylene	ng/l	244 ± 30.9	255.53 ± 38.33	56.1	105	0.14
Anthracene	ng/l	- ± -	69.98 ± 12.6	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	43.83 ± 4.82	10.4	107	0.26
Benzo[a]pyrene	ng/l	57.6 ± 9.56	61.04 ± 13.43	13.3	106	0.12
Benzo[b]fluoranthene	ng/l	185 ± 12.1	173.78 ± 24.33	33.3	94.1	-0.22
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	201.65 ± 32.26	45.4	99.4	-0.02
Benzo[k]fluoranthene	ng/l	204 ± 25.3	202.53 ± 30.38	55.1	99.2	-0.02
Chrysene	ng/l	202 ± 12.8	211.42 ± 25.37	38.4	105	0.18
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	60.7 ± 10.93	13.2	90.5	-0.28
Fluoranthene	ng/l	125 ± 8.6	131.87 ± 27.69	23.7	106	0.13
Fluorene	ng/l	158 ± 9.33	174.55 ± 22.69	20.6	110	0.35
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	8.02 ± 1.36	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	91.69 ± 11	21	105	0.18
Phenanthrene	ng/l	274 ± 13.2	275.28 ± 52.3	41.1	100	0.01
Pyrene	ng/l	175 ± 13.6	187.03 ± 31.8	29.8	107	0.18

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	10.4 ± 1.38	9.54 ± 1.24	1.98	91.6	-0.31
Acenaphthylene	ng/l	- ± -	13.82 ± 2.07	-	-	-
Anthracene	ng/l	33.4 ± 2.14	33.72 ± 6.06	8	101	0.03
Benzo[a]anthracene	ng/l	9.26 ± 0.668	7.77 ± 0.85	1.67	83.9	-0.82
Benzo[a]pyrene	ng/l	9.87 ± 1.48	8.76 ± 1.93	2.27	88.7	-0.27
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	<5 (LOQ) ± -	1.15	-	-
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	16.17 ± 2.58	6.47	82.5	-0.51
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	30.1 ± 4.52	9	90.3	-0.33
Chrysene	ng/l	42.6 ± 3.58	44 ± 5.28	8.09	103	0.13
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	22.12 ± 3.98	7.37	84.8	-0.44

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	29.2 ± 2.5	28.46 ± 5.98	5.54	97.6	-0.06
Fluorene	ng/l	26.3 ± 2.42	27.54 ± 3.58	4.36	105	0.17
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<5 (LOQ) ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	41.95 ± 5.03	10.2	98.5	-0.06
Phenanthrene	ng/l	47.4 ± 4	46.47 ± 8.83	7.48	98.1	-0.05
Pyrene	ng/l	20.6 ± 0.83	18.4 ± 3.13	3.51	89.2	-0.35



Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	124 ± 14.2	- ± -	27.5	-	-
Acenaphthylene	ng/l	244 ± 30.9	- ± -	56.1	-	-
Anthracene	ng/l	- ± -	- ± -	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	- ± -	10.4	-	-
Benzo[a]pyrene	ng/l	57.6 ± 9.56	- ± -	13.3	-	-
Benzo[b]fluoranthene	ng/l	185 ± 12.1	- ± -	33.3	-	-
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	- ± -	45.4	-	-
Benzo[k]fluoranthene	ng/l	204 ± 25.3	- ± -	55.1	-	-
Chrysene	ng/l	202 ± 12.8	- ± -	38.4	-	-
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	- ± -	13.2	-	-
Fluoranthene	ng/l	125 ± 8.6	- ± -	23.7	-	-
Fluorene	ng/l	158 ± 9.33	- ± -	20.6	-	-
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	- ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	- ± -	21	-	-
Phenanthrene	ng/l	274 ± 13.2	- ± -	41.1	-	-
Pyrene	ng/l	175 ± 13.6	- ± -	29.8	-	-

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	10.4 ± 1.38	- ± -	1.98	-	-
Acenaphthylene	ng/l	- ± -	- ± -	-	-	-
Anthracene	ng/l	33.4 ± 2.14	- ± -	8	-	-
Benzo[a]anthracene	ng/l	9.26 ± 0.668	- ± -	1.67	-	-
Benzo[a]pyrene	ng/l	9.87 ± 1.48	- ± -	2.27	-	-
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	- ± -	1.15	-	-
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	- ± -	6.47	-	-
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	- ± -	9	-	-
Chrysene	ng/l	42.6 ± 3.58	- ± -	8.09	-	-
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	- ± -	7.37	-	-
Fluoranthene	ng/l	29.2 ± 2.5	- ± -	5.54	-	-
Fluorene	ng/l	26.3 ± 2.42	- ± -	4.36	-	-
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	- ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	- ± -	10.2	-	-

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Phenanthrene	ng/l	47.4 ± 4	- ± -	7.48	-	-
Pyrene	ng/l	20.6 ± 0.83	- ± -	3.51	-	-

Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	124 ± 14.2	- ± -	27.5	-	-
Acenaphthylene	ng/l	244 ± 30.9	- ± -	56.1	-	-
Anthracene	ng/l	- ± -	- ± -	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	- ± -	10.4	-	-
Benzo[a]pyrene	ng/l	57.6 ± 9.56	- ± -	13.3	-	-
Benzo[b]fluoranthene	ng/l	185 ± 12.1	- ± -	33.3	-	-
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	- ± -	45.4	-	-
Benzo[k]fluoranthene	ng/l	204 ± 25.3	- ± -	55.1	-	-
Chrysene	ng/l	202 ± 12.8	- ± -	38.4	-	-
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	- ± -	13.2	-	-
Fluoranthene	ng/l	125 ± 8.6	- ± -	23.7	-	-
Fluorene	ng/l	158 ± 9.33	- ± -	20.6	-	-
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	- ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	- ± -	21	-	-
Phenanthrene	ng/l	274 ± 13.2	- ± -	41.1	-	-
Pyrene	ng/l	175 ± 13.6	- ± -	29.8	-	-

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	10.4 ± 1.38	- ± -	1.98	-	-
Acenaphthylene	ng/l	- ± -	- ± -	-	-	-
Anthracene	ng/l	33.4 ± 2.14	- ± -	8	-	-
Benzo[a]anthracene	ng/l	9.26 ± 0.668	- ± -	1.67	-	-
Benzo[a]pyrene	ng/l	9.87 ± 1.48	- ± -	2.27	-	-
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	- ± -	1.15	-	-
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	- ± -	6.47	-	-
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	- ± -	9	-	-
Chrysene	ng/l	42.6 ± 3.58	- ± -	8.09	-	-
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	- ± -	7.37	-	-

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	29.2 ± 2.5	- ± -	5.54	-	-
Fluorene	ng/l	26.3 ± 2.42	- ± -	4.36	-	-
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	- ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	- ± -	10.2	-	-
Phenanthrene	ng/l	47.4 ± 4	- ± -	7.48	-	-
Pyrene	ng/l	20.6 ± 0.83	- ± -	3.51	-	-

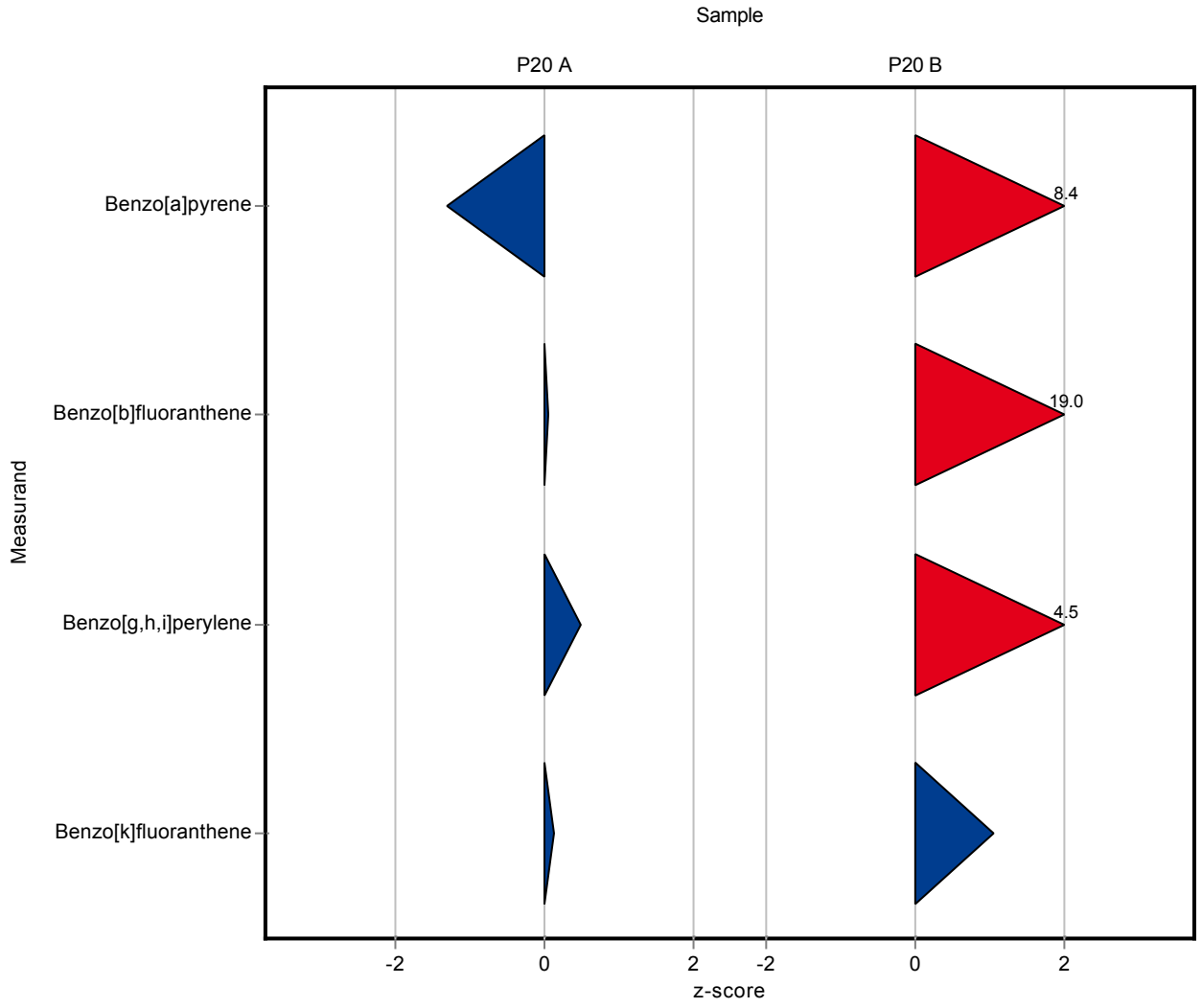
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	124 ± 14.2	- ± -	27.5	-	-
Acenaphthylene	ng/l	244 ± 30.9	- ± -	56.1	-	-
Anthracene	ng/l	- ± -	- ± -	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	- ± -	10.4	-	-
Benzo[a]pyrene	ng/l	57.6 ± 9.56	40.3 ± 12.1	13.3	69.9	-1.31
Benzo[b]fluoranthene	ng/l	185 ± 12.1	187 ± 56	33.3	101	0.07
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	225 ± 68	45.4	111	0.49
Benzo[k]fluoranthene	ng/l	204 ± 25.3	211 ± 63	55.1	103	0.12
Chrysene	ng/l	202 ± 12.8	- ± -	38.4	-	-
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	- ± -	13.2	-	-
Fluoranthene	ng/l	125 ± 8.6	- ± -	23.7	-	-
Fluorene	ng/l	158 ± 9.33	- ± -	20.6	-	-
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<10 (LOQ) ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	- ± -	21	-	-
Phenanthrene	ng/l	274 ± 13.2	- ± -	41.1	-	-
Pyrene	ng/l	175 ± 13.6	- ± -	29.8	-	-

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	10.4 ± 1.38	- ± -	1.98	-	-
Acenaphthylene	ng/l	- ± -	- ± -	-	-	-
Anthracene	ng/l	33.4 ± 2.14	- ± -	8	-	-
Benzo[a]anthracene	ng/l	9.26 ± 0.668	- ± -	1.67	-	-
Benzo[a]pyrene	ng/l	9.87 ± 1.48	29 ± 8.7	2.27	294	8.43
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	28.2 ± 8.5	1.15	442	19.00
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	48.4 ± 14.5	6.47	247	4.45
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	42.8 ± 12.8	9	128	1.05
Chrysene	ng/l	42.6 ± 3.58	- ± -	8.09	-	-
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	- ± -	7.37	-	-
Fluoranthene	ng/l	29.2 ± 2.5	- ± -	5.54	-	-
Fluorene	ng/l	26.3 ± 2.42	- ± -	4.36	-	-
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<10 (LOQ) ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	- ± -	10.2	-	-

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Phenanthrene	ng/l	47.4 ± 4	- ± -	7.48	-	-
Pyrene	ng/l	20.6 ± 0.83	- ± -	3.51	-	-



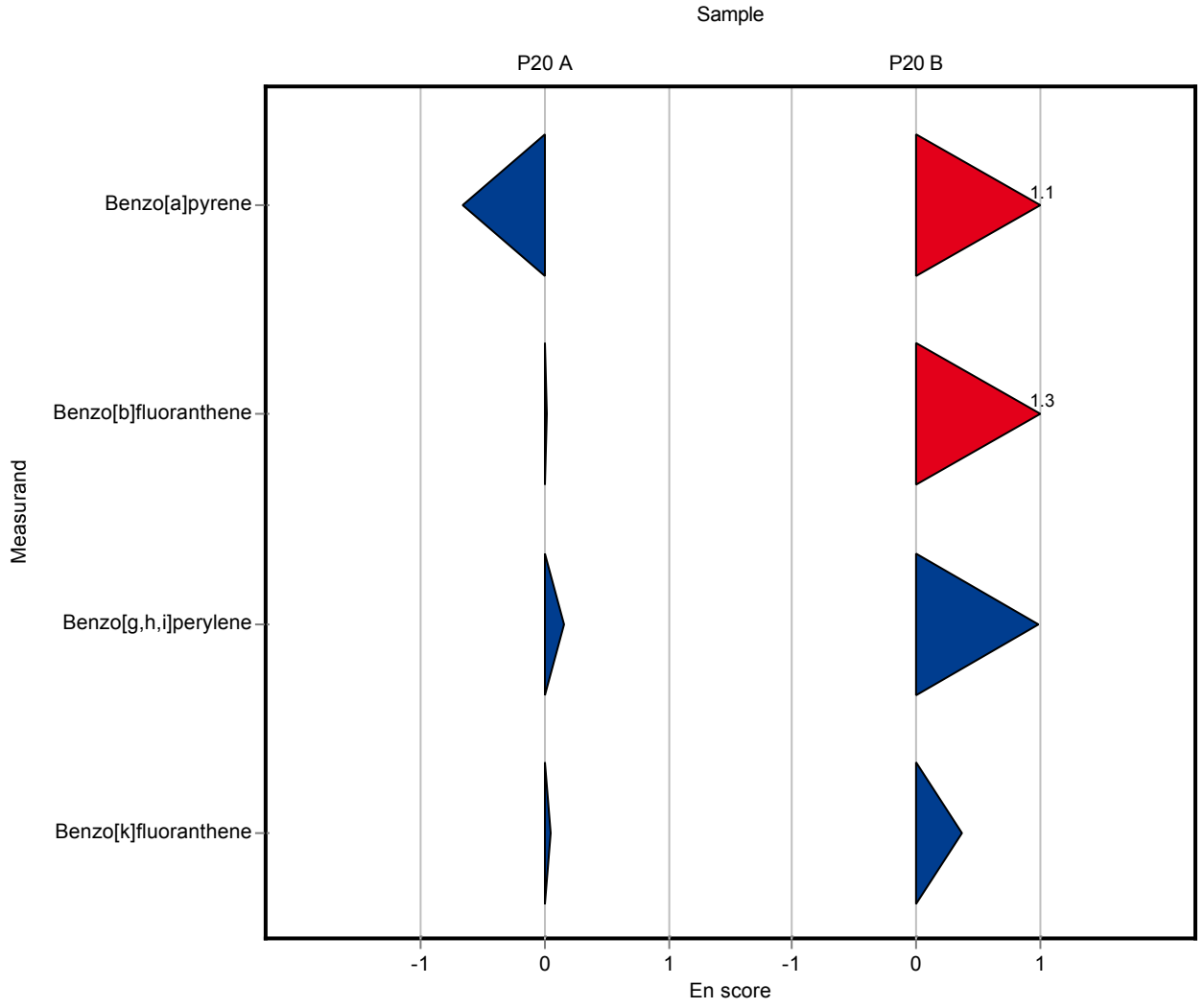
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	124 ± 14.2	- ± -	27.5	-	-
Acenaphthylene	ng/l	244 ± 30.9	- ± -	56.1	-	-
Anthracene	ng/l	- ± -	- ± -	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	- ± -	10.4	-	-
Benzo[a]pyrene	ng/l	57.6 ± 9.56	40.3 ± 12.1	13.3	69.9	-0.67
Benzo[b]fluoranthene	ng/l	185 ± 12.1	187 ± 56	33.3	101	0.02
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	225 ± 68	45.4	111	0.16
Benzo[k]fluoranthene	ng/l	204 ± 25.3	211 ± 63	55.1	103	0.05
Chrysene	ng/l	202 ± 12.8	- ± -	38.4	-	-
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	- ± -	13.2	-	-
Fluoranthene	ng/l	125 ± 8.6	- ± -	23.7	-	-
Fluorene	ng/l	158 ± 9.33	- ± -	20.6	-	-
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<10 (LOQ) ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	- ± -	21	-	-
Phenanthrene	ng/l	274 ± 13.2	- ± -	41.1	-	-
Pyrene	ng/l	175 ± 13.6	- ± -	29.8	-	-

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	10.4 ± 1.38	- ± -	1.98	-	-
Acenaphthylene	ng/l	- ± -	- ± -	-	-	-
Anthracene	ng/l	33.4 ± 2.14	- ± -	8	-	-
Benzo[a]anthracene	ng/l	9.26 ± 0.668	- ± -	1.67	-	-
Benzo[a]pyrene	ng/l	9.87 ± 1.48	29 ± 8.7	2.27	294	1.10
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	28.2 ± 8.5	1.15	442	1.28
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	48.4 ± 14.5	6.47	247	0.98
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	42.8 ± 12.8	9	128	0.37
Chrysene	ng/l	42.6 ± 3.58	- ± -	8.09	-	-
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	- ± -	7.37	-	-

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	29.2 ± 2.5	- ± -	5.54	-	-
Fluorene	ng/l	26.3 ± 2.42	- ± -	4.36	-	-
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<10 (LOQ) ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	- ± -	10.2	-	-
Phenanthrene	ng/l	47.4 ± 4	- ± -	7.48	-	-
Pyrene	ng/l	20.6 ± 0.83	- ± -	3.51	-	-



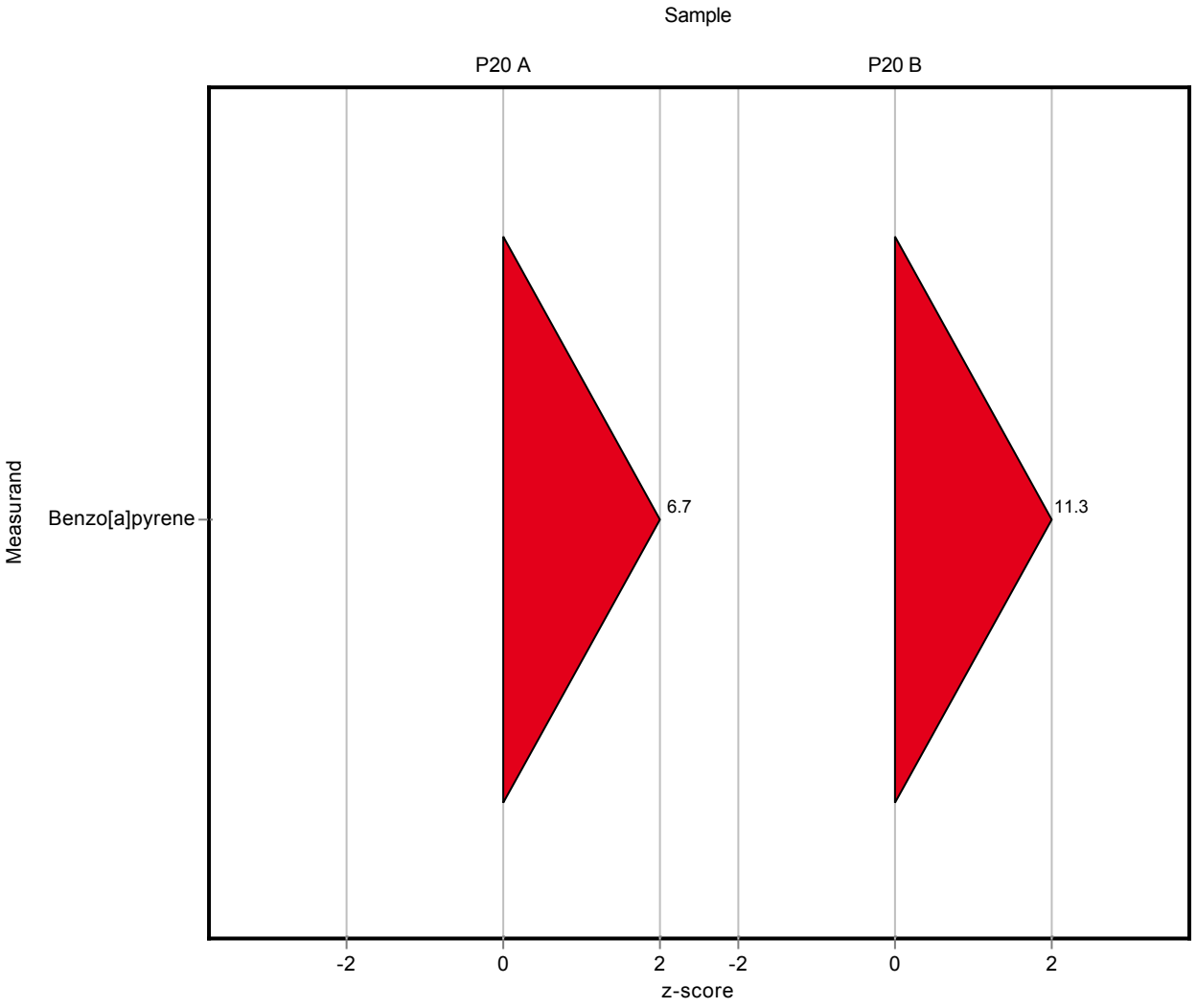
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	124 ± 14.2	- ± -	27.5	-	-
Acenaphthylene	ng/l	244 ± 30.9	- ± -	56.1	-	-
Anthracene	ng/l	- ± -	- ± -	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	- ± -	10.4	-	-
Benzo[a]pyrene	ng/l	57.6 ± 9.56	146.7 ± 44.02	13.3	255	6.72
Benzo[b]fluoranthene	ng/l	185 ± 12.1	- ± -	33.3	-	-
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	- ± -	45.4	-	-
Benzo[k]fluoranthene	ng/l	204 ± 25.3	- ± -	55.1	-	-
Chrysene	ng/l	202 ± 12.8	- ± -	38.4	-	-
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	- ± -	13.2	-	-
Fluoranthene	ng/l	125 ± 8.6	- ± -	23.7	-	-
Fluorene	ng/l	158 ± 9.33	- ± -	20.6	-	-
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	- ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	- ± -	21	-	-
Phenanthrene	ng/l	274 ± 13.2	- ± -	41.1	-	-
Pyrene	ng/l	175 ± 13.6	- ± -	29.8	-	-

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	10.4 ± 1.38	- ± -	1.98	-	-
Acenaphthylene	ng/l	- ± -	- ± -	-	-	-
Anthracene	ng/l	33.4 ± 2.14	- ± -	8	-	-
Benzo[a]anthracene	ng/l	9.26 ± 0.668	- ± -	1.67	-	-
Benzo[a]pyrene	ng/l	9.87 ± 1.48	35.6 ± 10.68	2.27	361	11.30
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	- ± -	1.15	-	-
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	- ± -	6.47	-	-
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	- ± -	9	-	-
Chrysene	ng/l	42.6 ± 3.58	- ± -	8.09	-	-
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	- ± -	7.37	-	-
Fluoranthene	ng/l	29.2 ± 2.5	- ± -	5.54	-	-
Fluorene	ng/l	26.3 ± 2.42	- ± -	4.36	-	-
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	- ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	- ± -	10.2	-	-

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Phenanthrene	ng/l	47.4 ± 4	- ± -	7.48	-	-
Pyrene	ng/l	20.6 ± 0.83	- ± -	3.51	-	-



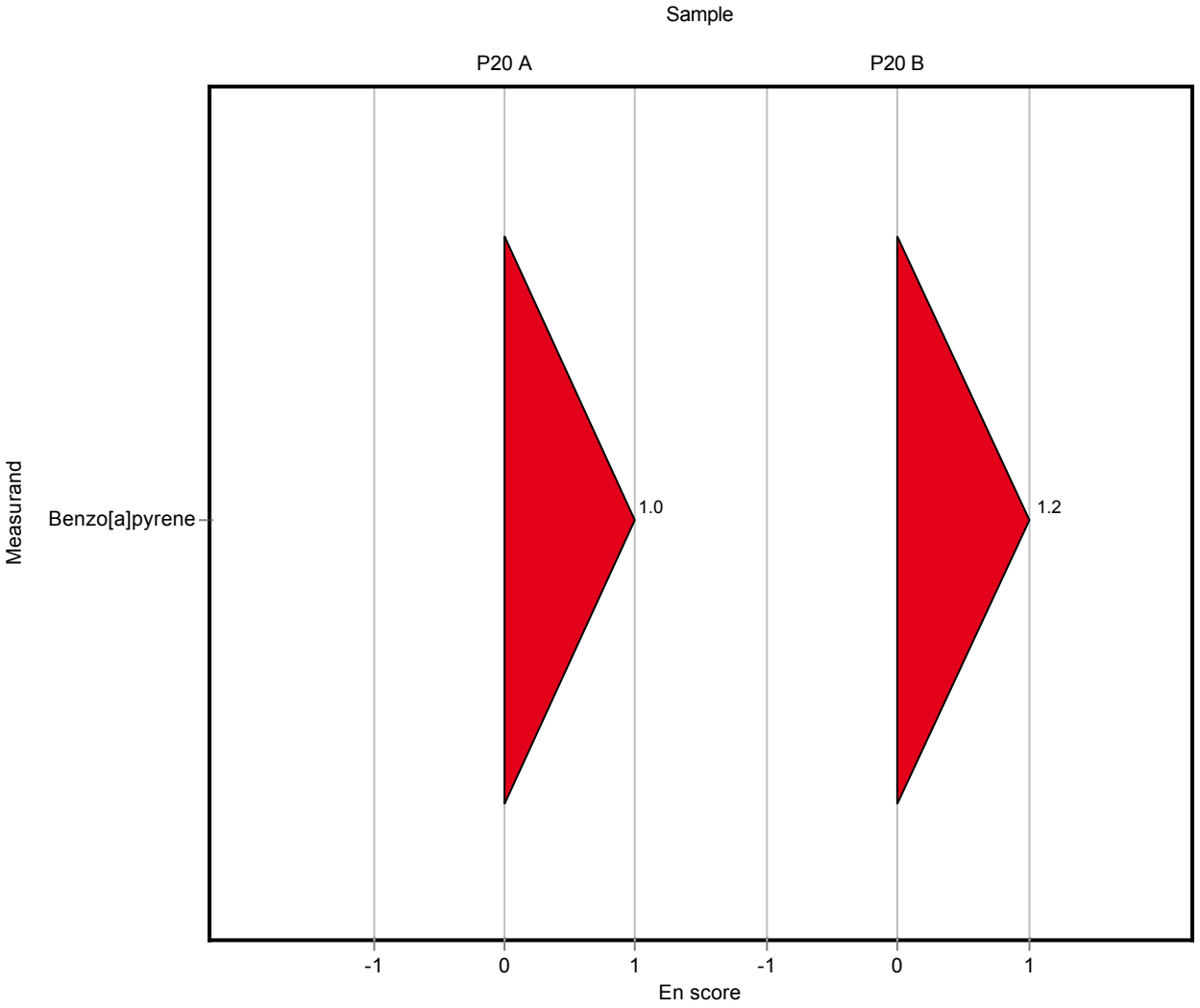
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	124 ± 14.2	- ± -	27.5	-	-
Acenaphthylene	ng/l	244 ± 30.9	- ± -	56.1	-	-
Anthracene	ng/l	- ± -	- ± -	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	- ± -	10.4	-	-
Benzo[a]pyrene	ng/l	57.6 ± 9.56	146.7 ± 44.02	13.3	255	1.01
Benzo[b]fluoranthene	ng/l	185 ± 12.1	- ± -	33.3	-	-
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	- ± -	45.4	-	-
Benzo[k]fluoranthene	ng/l	204 ± 25.3	- ± -	55.1	-	-
Chrysene	ng/l	202 ± 12.8	- ± -	38.4	-	-
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	- ± -	13.2	-	-
Fluoranthene	ng/l	125 ± 8.6	- ± -	23.7	-	-
Fluorene	ng/l	158 ± 9.33	- ± -	20.6	-	-
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	- ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	- ± -	21	-	-
Phenanthrene	ng/l	274 ± 13.2	- ± -	41.1	-	-
Pyrene	ng/l	175 ± 13.6	- ± -	29.8	-	-

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	10.4 ± 1.38	- ± -	1.98	-	-
Acenaphthylene	ng/l	- ± -	- ± -	-	-	-
Anthracene	ng/l	33.4 ± 2.14	- ± -	8	-	-
Benzo[a]anthracene	ng/l	9.26 ± 0.668	- ± -	1.67	-	-
Benzo[a]pyrene	ng/l	9.87 ± 1.48	35.6 ± 10.68	2.27	361	1.20
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	- ± -	1.15	-	-
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	- ± -	6.47	-	-
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	- ± -	9	-	-
Chrysene	ng/l	42.6 ± 3.58	- ± -	8.09	-	-
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	- ± -	7.37	-	-

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	29.2 ± 2.5	- ± -	5.54	-	-
Fluorene	ng/l	26.3 ± 2.42	- ± -	4.36	-	-
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	- ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	- ± -	10.2	-	-
Phenanthrene	ng/l	47.4 ± 4	- ± -	7.48	-	-
Pyrene	ng/l	20.6 ± 0.83	- ± -	3.51	-	-



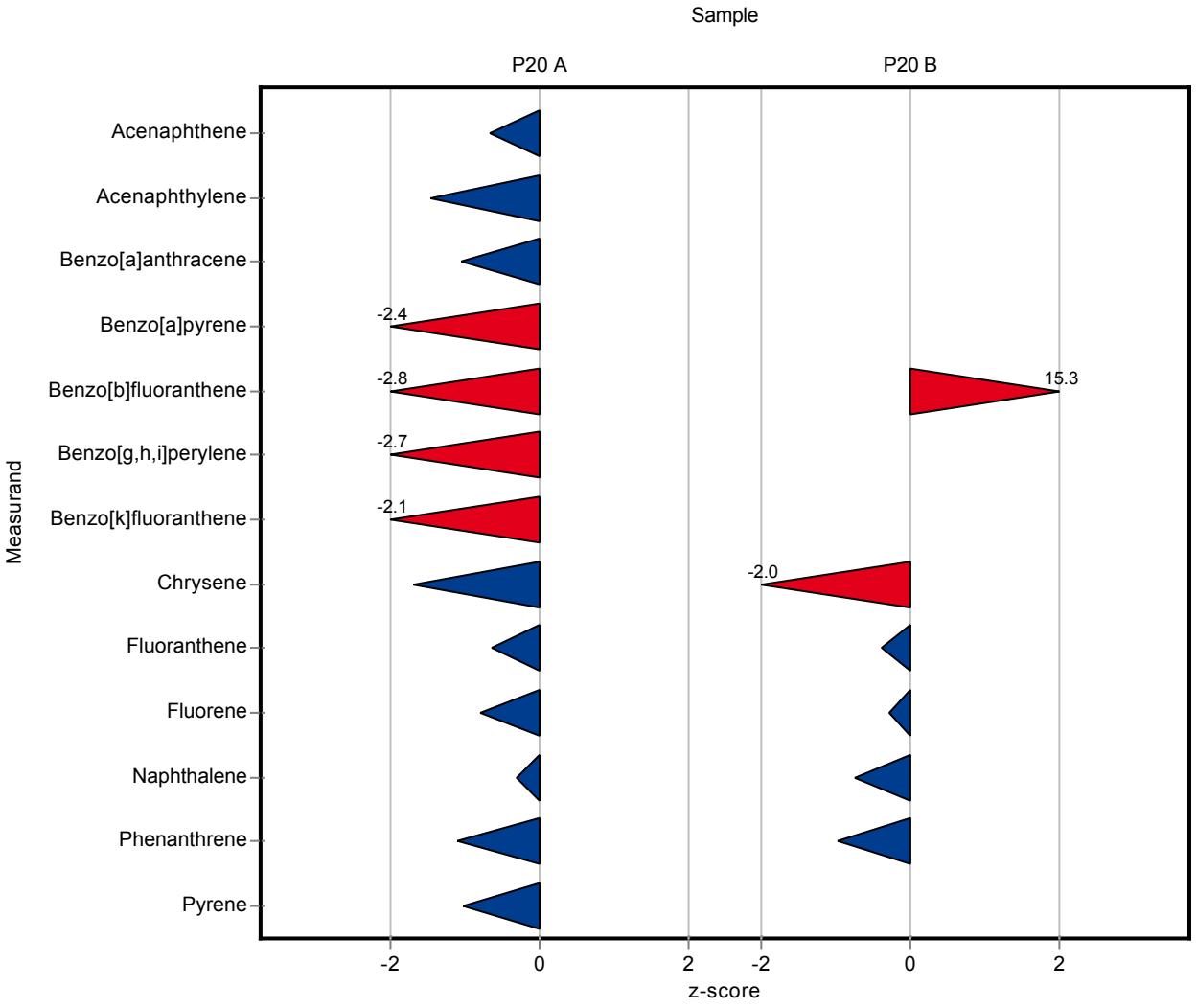
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	124 ± 14.2	106 ± 21	27.5	85.2	-0.67
Acenaphthylene	ng/l	244 ± 30.9	162 ± 32	56.1	66.4	-1.46
Anthracene	ng/l	- ± -	47 ± 9	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	30 ± 6	10.4	73.3	-1.05
Benzo[a]pyrene	ng/l	57.6 ± 9.56	26 ± 5	13.3	45.1	-2.39
Benzo[b]fluoranthene	ng/l	185 ± 12.1	91 ± 18	33.3	49.3	-2.82
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	82 ± 16	45.4	40.4	-2.66
Benzo[k]fluoranthene	ng/l	204 ± 25.3	91 ± 18	55.1	44.6	-2.05
Chrysene	ng/l	202 ± 12.8	137 ± 27	38.4	67.8	-1.70
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	<25 (LOQ) ± -	13.2	-	-
Fluoranthene	ng/l	125 ± 8.6	110 ± 22	23.7	88.1	-0.63
Fluorene	ng/l	158 ± 9.33	142 ± 28	20.6	89.6	-0.80
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<25 (LOQ) ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	81 ± 16	21	92.4	-0.32
Phenanthrene	ng/l	274 ± 13.2	229 ± 46	41.1	83.5	-1.10
Pyrene	ng/l	175 ± 13.6	145 ± 29	29.8	82.8	-1.01

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	10.4 ± 1.38	<25 (LOQ) ± -	1.98	-	-
Acenaphthylene	ng/l	- ± -	<25 (LOQ) ± -	-	-	-
Anthracene	ng/l	33.4 ± 2.14	<25 (LOQ) ± -	8	-	-
Benzo[a]anthracene	ng/l	9.26 ± 0.668	<25 (LOQ) ± -	1.67	-	-
Benzo[a]pyrene	ng/l	9.87 ± 1.48	<10 (LOQ) ± -	2.27	-	-
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	24 ± 5	1.15	376	15.30
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	<25 (LOQ) ± -	6.47	-	-
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	<25 (LOQ) ± -	9	-	-
Chrysene	ng/l	42.6 ± 3.58	26 ± 5	8.09	61.1	-2.05
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	<25 (LOQ) ± -	7.37	-	-
Fluoranthene	ng/l	29.2 ± 2.5	27 ± 5	5.54	92.6	-0.39
Fluorene	ng/l	26.3 ± 2.42	25 ± 5	4.36	95.1	-0.29
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<25 (LOQ) ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	35 ± 7	10.2	82.2	-0.74

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Phenanthrene	ng/l	47.4 ± 4	40 ± 8	7.48	84.4	-0.99
Pyrene	ng/l	20.6 ± 0.83	<25 (LOQ) ± -	3.51	-	-



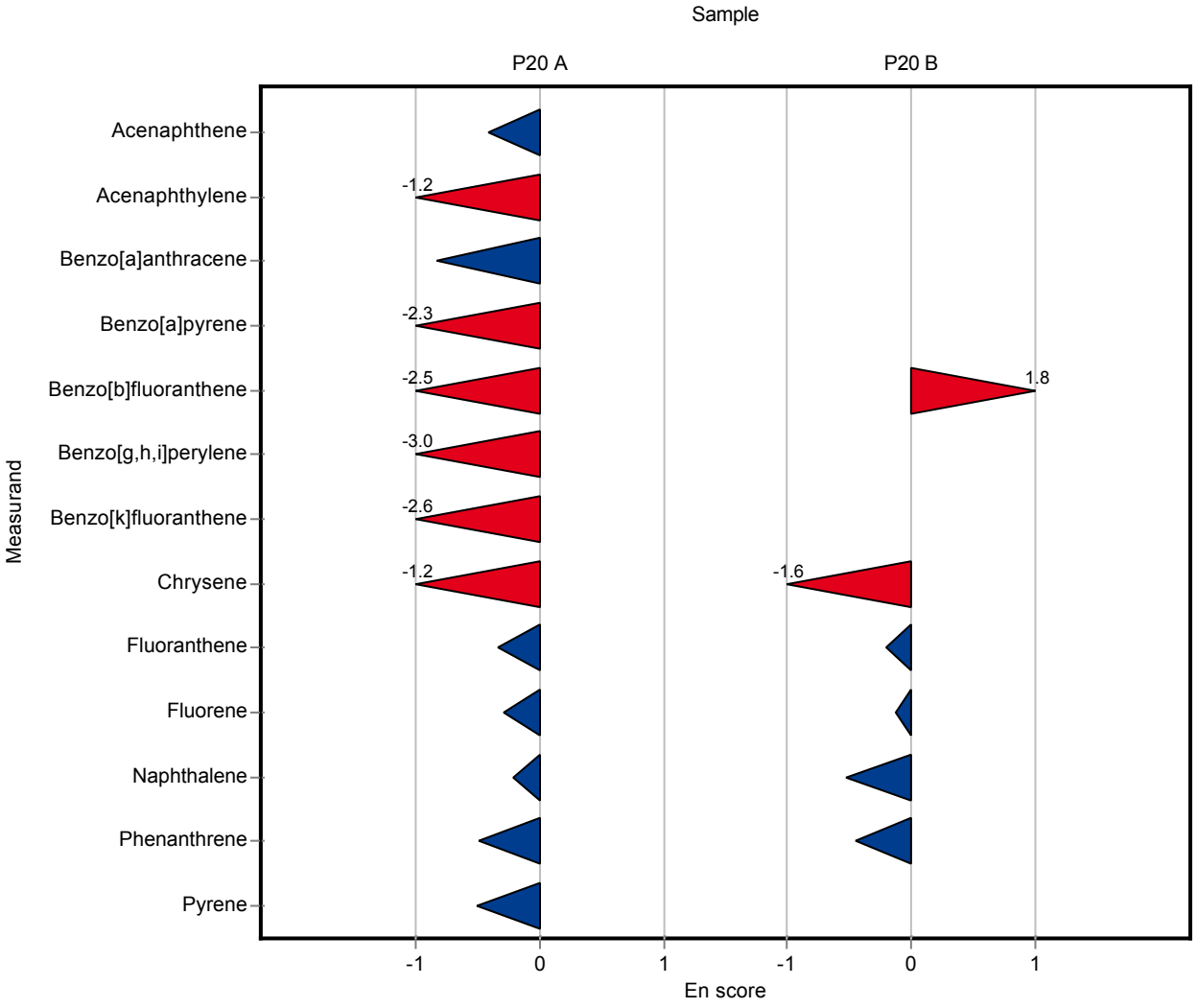
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	124 ± 14.2	106 ± 21	27.5	85.2	-0.41
Acenaphthylene	ng/l	244 ± 30.9	162 ± 32	56.1	66.4	-1.15
Anthracene	ng/l	- ± -	47 ± 9	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	30 ± 6	10.4	73.3	-0.82
Benzo[a]pyrene	ng/l	57.6 ± 9.56	26 ± 5	13.3	45.1	-2.29
Benzo[b]fluoranthene	ng/l	185 ± 12.1	91 ± 18	33.3	49.3	-2.47
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	82 ± 16	45.4	40.4	-3.05
Benzo[k]fluoranthene	ng/l	204 ± 25.3	91 ± 18	55.1	44.6	-2.57
Chrysene	ng/l	202 ± 12.8	137 ± 27	38.4	67.8	-1.17
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	<25 (LOQ) ± -	13.2	-	-
Fluoranthene	ng/l	125 ± 8.6	110 ± 22	23.7	88.1	-0.33
Fluorene	ng/l	158 ± 9.33	142 ± 28	20.6	89.6	-0.29
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<25 (LOQ) ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	81 ± 16	21	92.4	-0.20
Phenanthrene	ng/l	274 ± 13.2	229 ± 46	41.1	83.5	-0.49
Pyrene	ng/l	175 ± 13.6	145 ± 29	29.8	82.8	-0.51

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	10.4 ± 1.38	<25 (LOQ) ± -	1.98	-	-
Acenaphthylene	ng/l	- ± -	<25 (LOQ) ± -	-	-	-
Anthracene	ng/l	33.4 ± 2.14	<25 (LOQ) ± -	8	-	-
Benzo[a]anthracene	ng/l	9.26 ± 0.668	<25 (LOQ) ± -	1.67	-	-
Benzo[a]pyrene	ng/l	9.87 ± 1.48	<10 (LOQ) ± -	2.27	-	-
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	24 ± 5	1.15	376	1.76
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	<25 (LOQ) ± -	6.47	-	-
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	<25 (LOQ) ± -	9	-	-
Chrysene	ng/l	42.6 ± 3.58	26 ± 5	8.09	61.1	-1.56
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	<25 (LOQ) ± -	7.37	-	-

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	29.2 ± 2.5	27 ± 5	5.54	92.6	-0.21
Fluorene	ng/l	26.3 ± 2.42	25 ± 5	4.36	95.1	-0.12
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<25 (LOQ) ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	35 ± 7	10.2	82.2	-0.52
Phenanthrene	ng/l	47.4 ± 4	40 ± 8	7.48	84.4	-0.45
Pyrene	ng/l	20.6 ± 0.83	<25 (LOQ) ± -	3.51	-	-



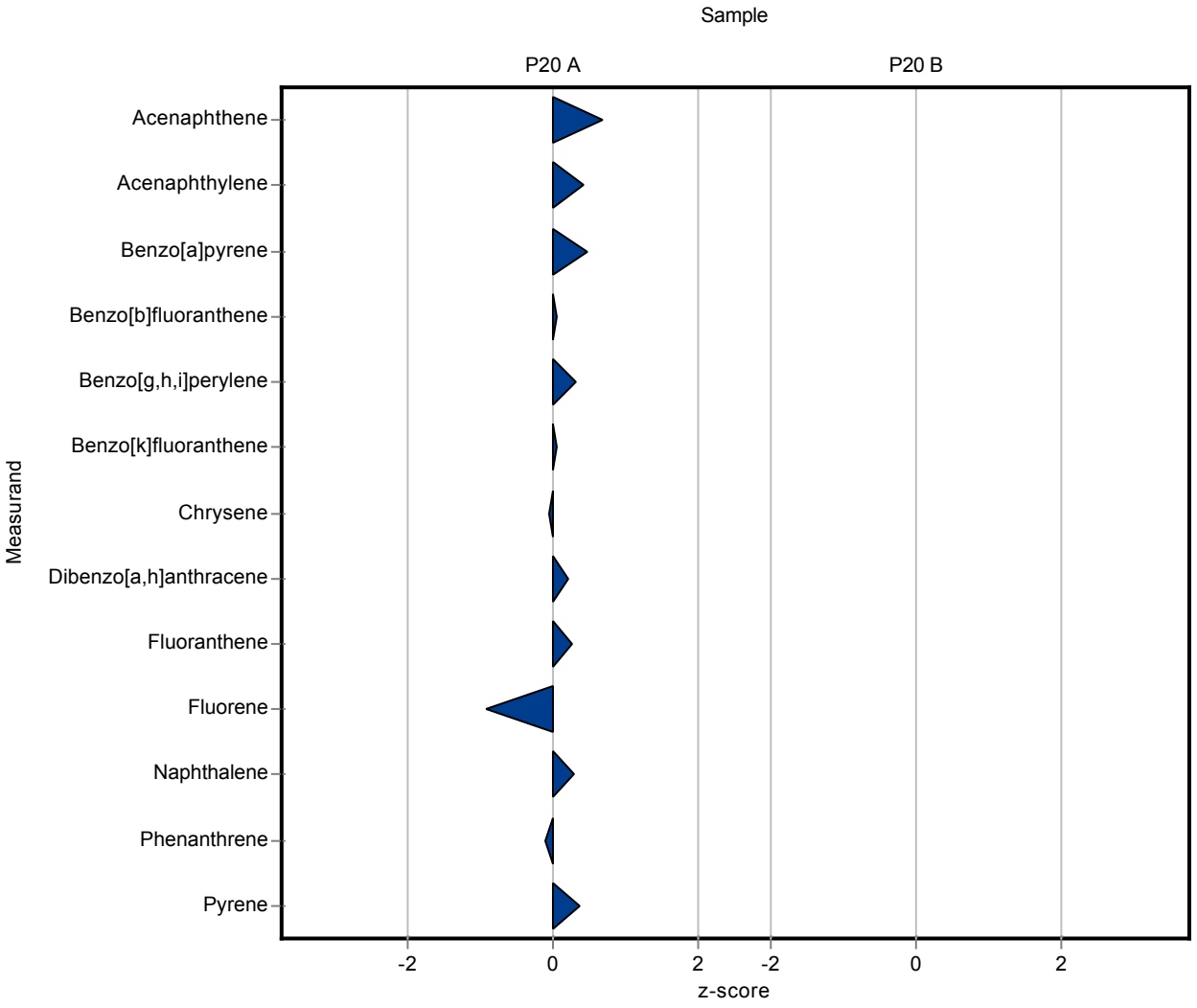
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	124 ± 14.2	143 ± 14.3	27.5	115	0.68
Acenaphthylene	ng/l	244 ± 30.9	267 ± 26.7	56.1	109	0.41
Anthracene	ng/l	- ± -	62 ± 6.2	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	<52.6 (LOQ) ± -	10.4	-	-
Benzo[a]pyrene	ng/l	57.6 ± 9.56	63.8 ± 6.4	13.3	111	0.47
Benzo[b]fluoranthene	ng/l	185 ± 12.1	186 ± 18.6	33.3	101	0.04
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	217 ± 21.7	45.4	107	0.31
Benzo[k]fluoranthene	ng/l	204 ± 25.3	207 ± 20.7	55.1	101	0.05
Chrysene	ng/l	202 ± 12.8	200 ± 20	38.4	99	-0.05
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	69.7 ± 6.8	13.2	104	0.20
Fluoranthene	ng/l	125 ± 8.6	131 ± 13.1	23.7	105	0.26
Fluorene	ng/l	158 ± 9.33	139 ± 13.9	20.6	87.7	-0.94
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<52.6 (LOQ) ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	93.5 ± 9.4	21	107	0.28
Phenanthrene	ng/l	274 ± 13.2	269 ± 26.9	41.1	98.1	-0.13
Pyrene	ng/l	175 ± 13.6	186 ± 18.6	29.8	106	0.37

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	10.4 ± 1.38	<52.6 (LOQ) ± -	1.98	-	-
Acenaphthylene	ng/l	- ± -	<52.6 (LOQ) ± -	-	-	-
Anthracene	ng/l	33.4 ± 2.14	<52.6 (LOQ) ± -	8	-	-
Benzo[a]anthracene	ng/l	9.26 ± 0.668	<52.6 (LOQ) ± -	1.67	-	-
Benzo[a]pyrene	ng/l	9.87 ± 1.48	<52.6 (LOQ) ± -	2.27	-	-
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	<52.6 (LOQ) ± -	1.15	-	-
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	<52.6 (LOQ) ± -	6.47	-	-
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	<52.6 (LOQ) ± -	9	-	-
Chrysene	ng/l	42.6 ± 3.58	<52.6 (LOQ) ± -	8.09	-	-
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	<52.6 (LOQ) ± -	7.37	-	-
Fluoranthene	ng/l	29.2 ± 2.5	<52.6 (LOQ) ± -	5.54	-	-
Fluorene	ng/l	26.3 ± 2.42	<52.6 (LOQ) ± -	4.36	-	-
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<52.6 (LOQ) ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	<52.6 (LOQ) ± -	10.2	-	-

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Phenanthrene	ng/l	47.4 ± 4	<52.6 (LOQ) ± -	7.48	-	-
Pyrene	ng/l	20.6 ± 0.83	<52.6 (LOQ) ± -	3.51	-	-



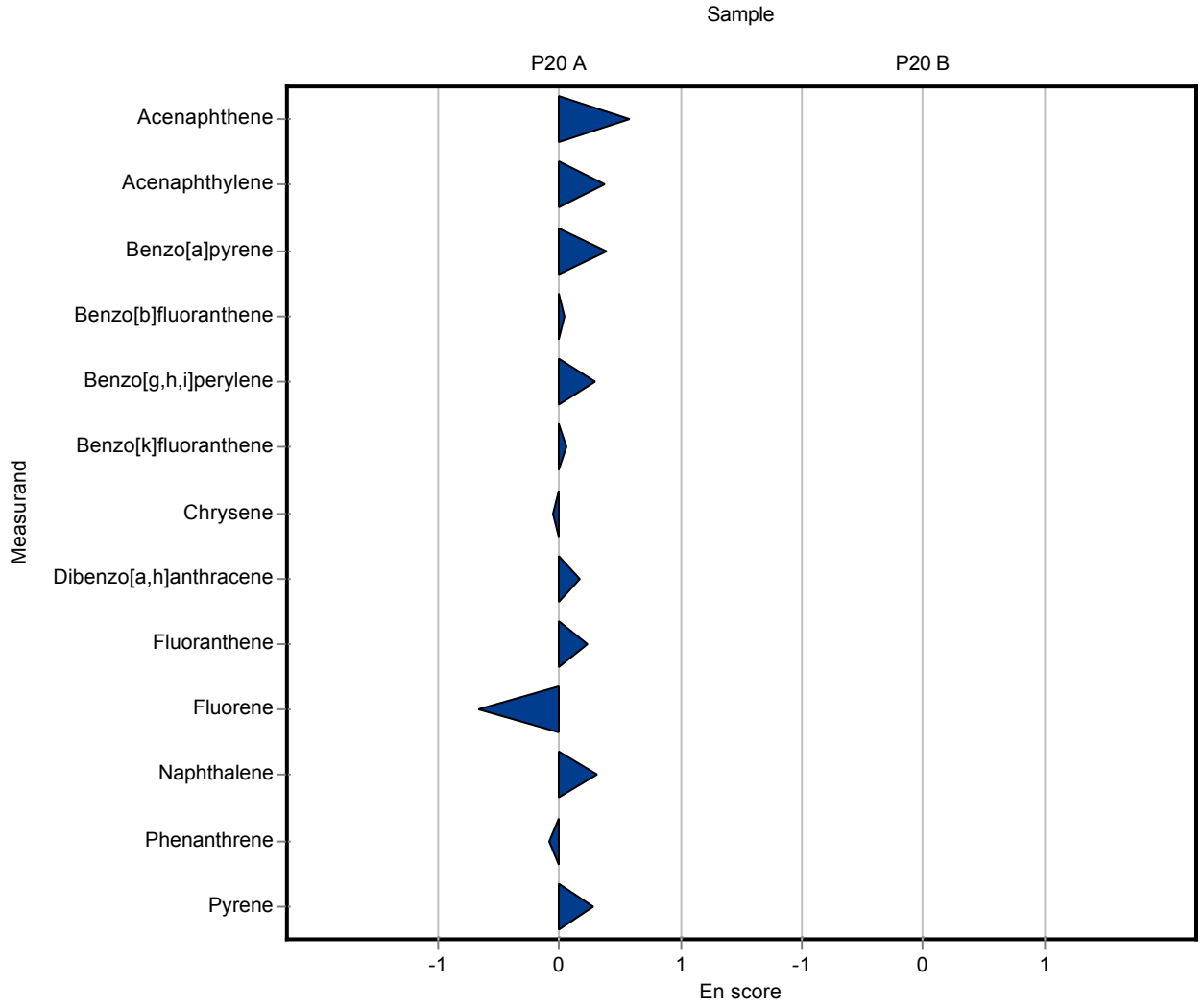
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	124 ± 14.2	143 ± 14.3	27.5	115	0.58
Acenaphthylene	ng/l	244 ± 30.9	267 ± 26.7	56.1	109	0.37
Anthracene	ng/l	- ± -	62 ± 6.2	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	<52.6 (LOQ) ± -	10.4	-	-
Benzo[a]pyrene	ng/l	57.6 ± 9.56	63.8 ± 6.4	13.3	111	0.39
Benzo[b]fluoranthene	ng/l	185 ± 12.1	186 ± 18.6	33.3	101	0.03
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	217 ± 21.7	45.4	107	0.29
Benzo[k]fluoranthene	ng/l	204 ± 25.3	207 ± 20.7	55.1	101	0.06
Chrysene	ng/l	202 ± 12.8	200 ± 20	38.4	99	-0.05
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	69.7 ± 6.8	13.2	104	0.17
Fluoranthene	ng/l	125 ± 8.6	131 ± 13.1	23.7	105	0.22
Fluorene	ng/l	158 ± 9.33	139 ± 13.9	20.6	87.7	-0.66
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<52.6 (LOQ) ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	93.5 ± 9.4	21	107	0.30
Phenanthrene	ng/l	274 ± 13.2	269 ± 26.9	41.1	98.1	-0.09
Pyrene	ng/l	175 ± 13.6	186 ± 18.6	29.8	106	0.28

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	10.4 ± 1.38	<52.6 (LOQ) ± -	1.98	-	-
Acenaphthylene	ng/l	- ± -	<52.6 (LOQ) ± -	-	-	-
Anthracene	ng/l	33.4 ± 2.14	<52.6 (LOQ) ± -	8	-	-
Benzo[a]anthracene	ng/l	9.26 ± 0.668	<52.6 (LOQ) ± -	1.67	-	-
Benzo[a]pyrene	ng/l	9.87 ± 1.48	<52.6 (LOQ) ± -	2.27	-	-
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	<52.6 (LOQ) ± -	1.15	-	-
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	<52.6 (LOQ) ± -	6.47	-	-
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	<52.6 (LOQ) ± -	9	-	-
Chrysene	ng/l	42.6 ± 3.58	<52.6 (LOQ) ± -	8.09	-	-
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	<52.6 (LOQ) ± -	7.37	-	-

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	29.2 ± 2.5	<52.6 (LOQ) ± -	5.54	-	-
Fluorene	ng/l	26.3 ± 2.42	<52.6 (LOQ) ± -	4.36	-	-
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<52.6 (LOQ) ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	<52.6 (LOQ) ± -	10.2	-	-
Phenanthrene	ng/l	47.4 ± 4	<52.6 (LOQ) ± -	7.48	-	-
Pyrene	ng/l	20.6 ± 0.83	<52.6 (LOQ) ± -	3.51	-	-



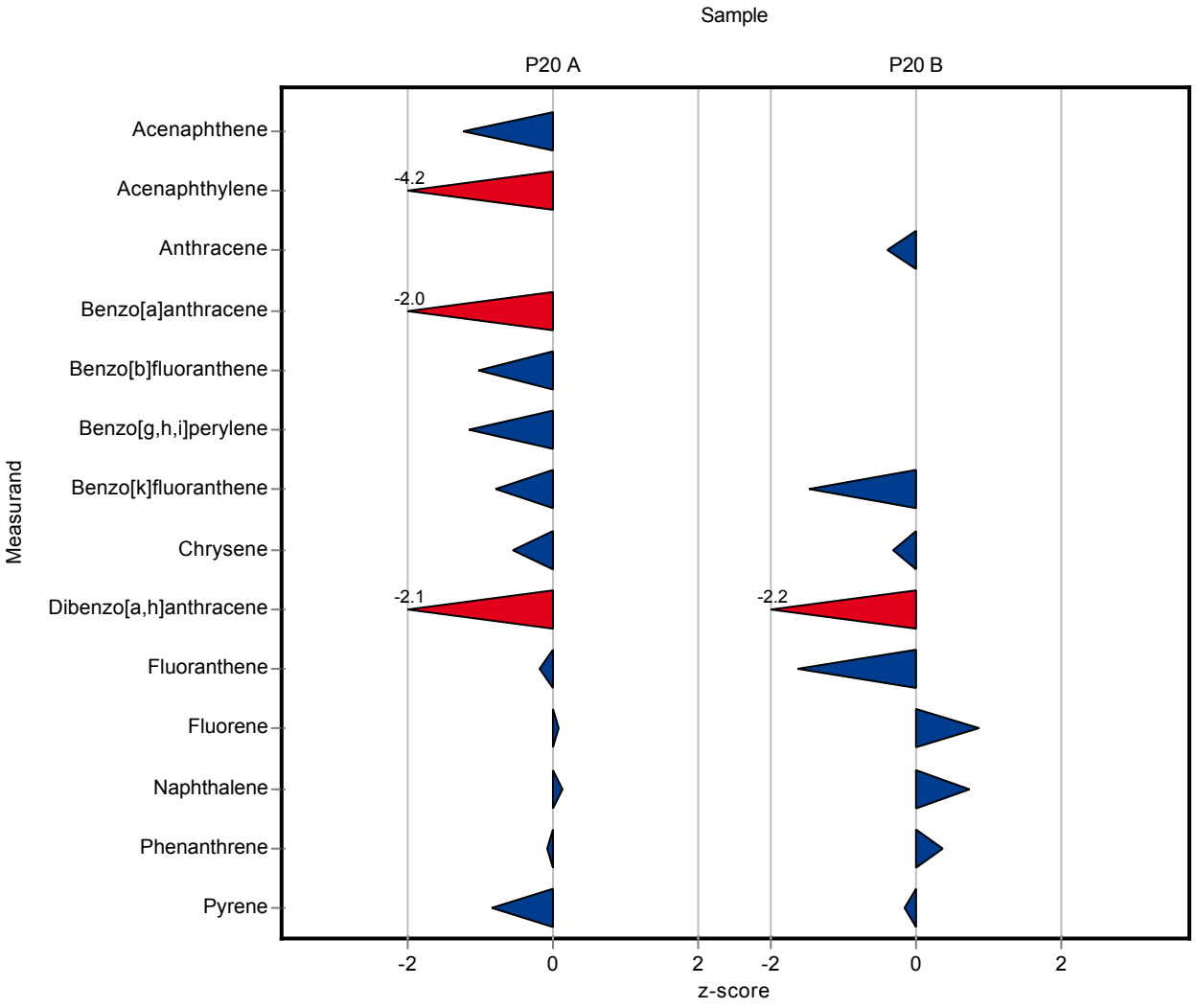
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	124 ± 14.2	90 ± 20	27.5	72.4	-1.25
Acenaphthylene	ng/l	244 ± 30.9	10 ± 10	56.1	4.1	-4.17
Anthracene	ng/l	- ± -	30 ± 10	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	20 ± 10	10.4	48.9	-2.01
Benzo[a]pyrene	ng/l	57.6 ± 9.56	<10 (LOQ) ± -	13.3	-	-
Benzo[b]fluoranthene	ng/l	185 ± 12.1	150 ± 30	33.3	81.2	-1.04
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	150 ± 30	45.4	73.9	-1.16
Benzo[k]fluoranthene	ng/l	204 ± 25.3	160 ± 30	55.1	78.4	-0.80
Chrysene	ng/l	202 ± 12.8	180 ± 30	38.4	89.1	-0.57
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	40 ± 10	13.2	59.6	-2.06
Fluoranthene	ng/l	125 ± 8.6	120 ± 20	23.7	96.1	-0.20
Fluorene	ng/l	158 ± 9.33	160 ± 30	20.6	101	0.07
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<10 (LOQ) ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	90 ± 30	21	103	0.11
Phenanthrene	ng/l	274 ± 13.2	270 ± 50	41.1	98.5	-0.10
Pyrene	ng/l	175 ± 13.6	150 ± 30	29.8	85.7	-0.84

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	10.4 ± 1.38	<10 (LOQ) ± -	1.98	-	-
Acenaphthylene	ng/l	- ± -	10 ± 10	-	-	-
Anthracene	ng/l	33.4 ± 2.14	30 ± 10	8	90	-0.42
Benzo[a]anthracene	ng/l	9.26 ± 0.668	<10 (LOQ) ± -	1.67	-	-
Benzo[a]pyrene	ng/l	9.87 ± 1.48	<10 (LOQ) ± -	2.27	-	-
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	<10 (LOQ) ± -	1.15	-	-
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	<10 (LOQ) ± -	6.47	-	-
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	20 ± 10	9	60	-1.48
Chrysene	ng/l	42.6 ± 3.58	40 ± 10	8.09	94	-0.32
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	10 ± 10	7.37	38.3	-2.18
Fluoranthene	ng/l	29.2 ± 2.5	20 ± 10	5.54	68.6	-1.65
Fluorene	ng/l	26.3 ± 2.42	30 ± 10	4.36	114	0.85
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<10 (LOQ) ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	50 ± 10	10.2	117	0.72

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Phenanthrene	ng/l	47.4 ± 4	50 ± 10	7.48	106	0.35
Pyrene	ng/l	20.6 ± 0.83	20 ± 10	3.51	96.9	-0.18



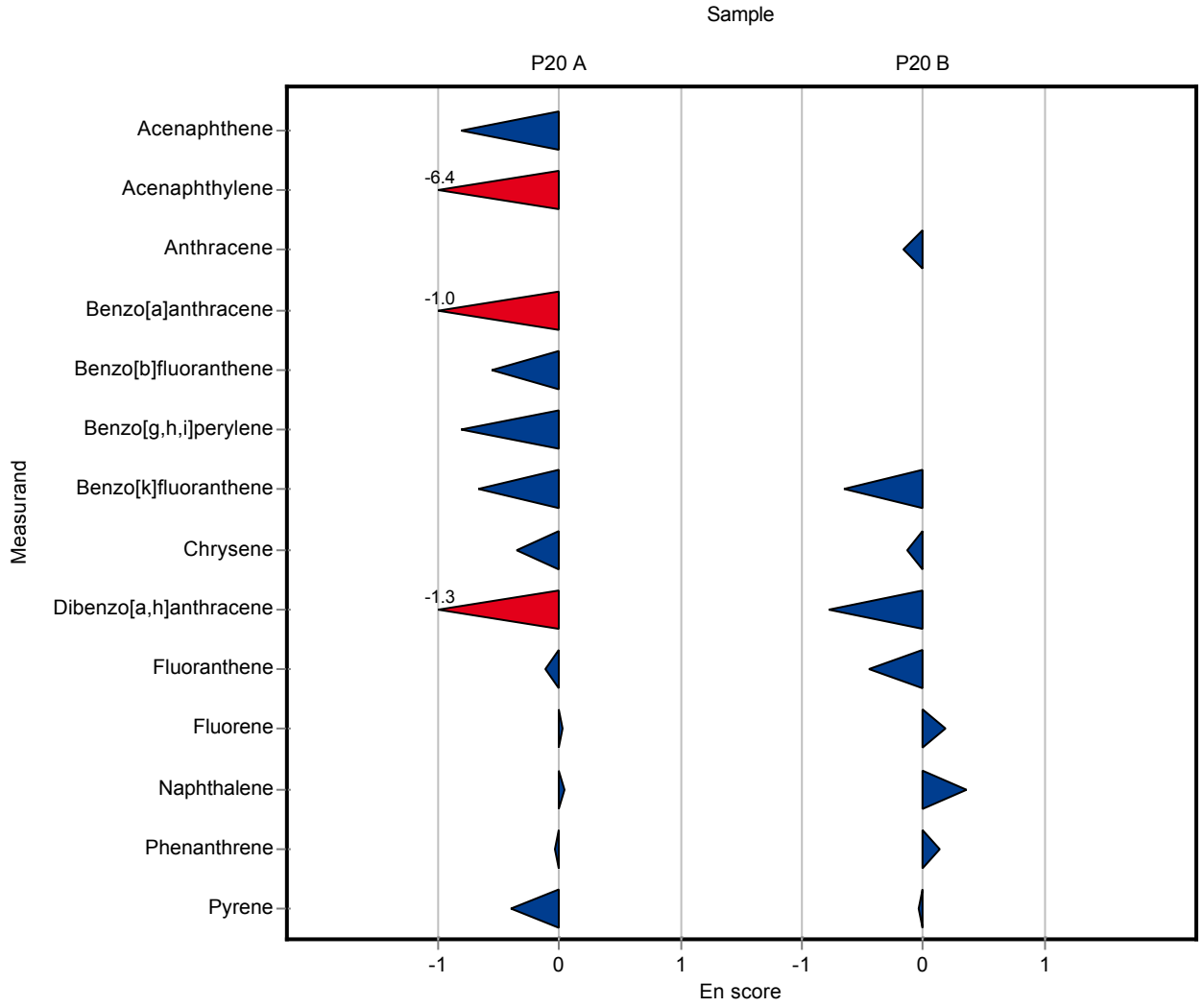
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	124 ± 14.2	90 ± 20	27.5	72.4	-0.81
Acenaphthylene	ng/l	244 ± 30.9	10 ± 10	56.1	4.1	-6.35
Anthracene	ng/l	- ± -	30 ± 10	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	20 ± 10	10.4	48.9	-1.01
Benzo[a]pyrene	ng/l	57.6 ± 9.56	<10 (LOQ) ± -	13.3	-	-
Benzo[b]fluoranthene	ng/l	185 ± 12.1	150 ± 30	33.3	81.2	-0.57
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	150 ± 30	45.4	73.9	-0.82
Benzo[k]fluoranthene	ng/l	204 ± 25.3	160 ± 30	55.1	78.4	-0.68
Chrysene	ng/l	202 ± 12.8	180 ± 30	38.4	89.1	-0.36
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	40 ± 10	13.2	59.6	-1.28
Fluoranthene	ng/l	125 ± 8.6	120 ± 20	23.7	96.1	-0.12
Fluorene	ng/l	158 ± 9.33	160 ± 30	20.6	101	0.03
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<10 (LOQ) ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	90 ± 30	21	103	0.04
Phenanthrene	ng/l	274 ± 13.2	270 ± 50	41.1	98.5	-0.04
Pyrene	ng/l	175 ± 13.6	150 ± 30	29.8	85.7	-0.41

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	10.4 ± 1.38	<10 (LOQ) ± -	1.98	-	-
Acenaphthylene	ng/l	- ± -	10 ± 10	-	-	-
Anthracene	ng/l	33.4 ± 2.14	30 ± 10	8	90	-0.17
Benzo[a]anthracene	ng/l	9.26 ± 0.668	<10 (LOQ) ± -	1.67	-	-
Benzo[a]pyrene	ng/l	9.87 ± 1.48	<10 (LOQ) ± -	2.27	-	-
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	<10 (LOQ) ± -	1.15	-	-
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	<10 (LOQ) ± -	6.47	-	-
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	20 ± 10	9	60	-0.66
Chrysene	ng/l	42.6 ± 3.58	40 ± 10	8.09	94	-0.13
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	10 ± 10	7.37	38.3	-0.79

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	29.2 ± 2.5	20 ± 10	5.54	68.6	-0.45
Fluorene	ng/l	26.3 ± 2.42	30 ± 10	4.36	114	0.18
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<10 (LOQ) ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	50 ± 10	10.2	117	0.36
Phenanthrene	ng/l	47.4 ± 4	50 ± 10	7.48	106	0.13
Pyrene	ng/l	20.6 ± 0.83	20 ± 10	3.51	96.9	-0.03



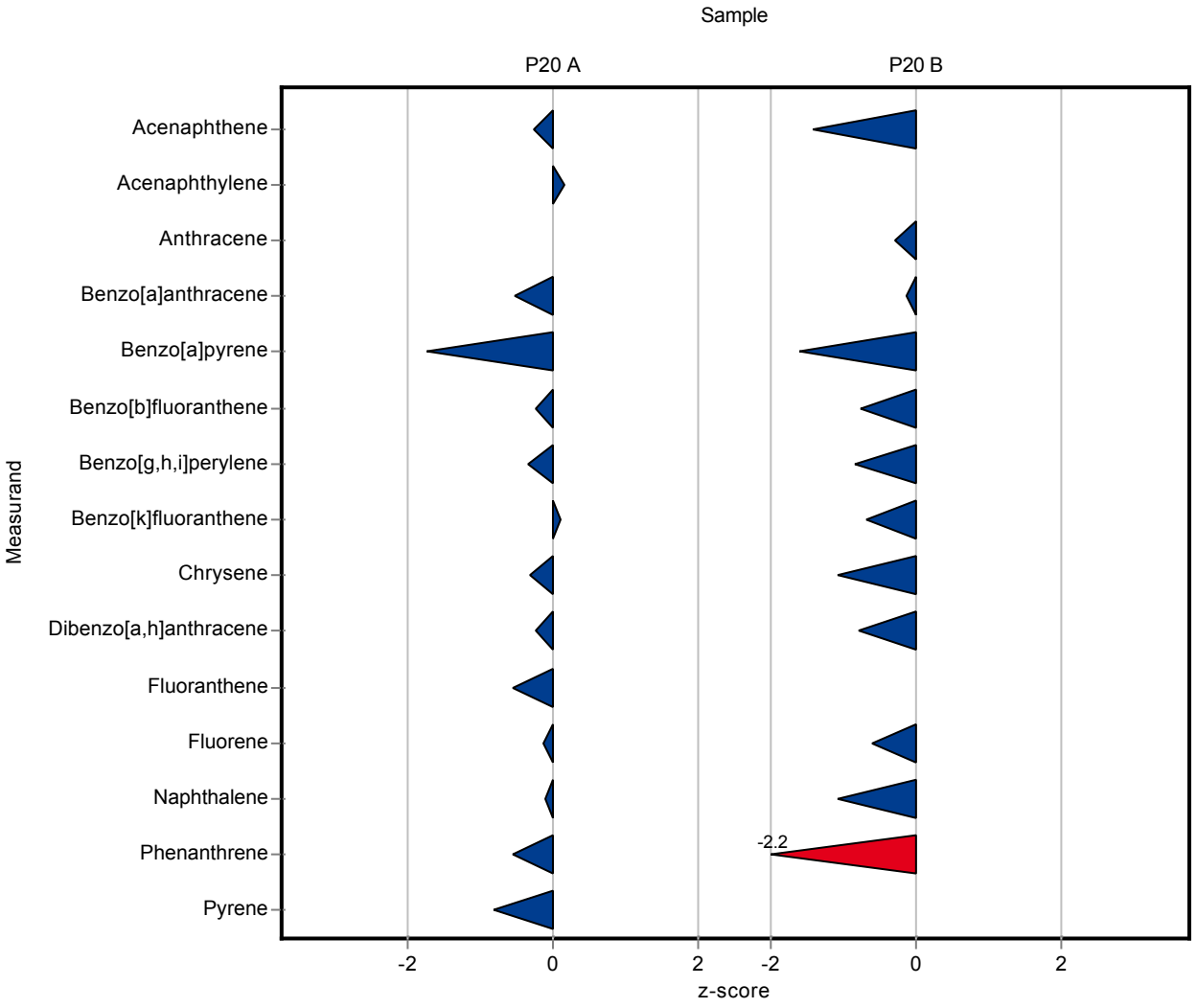
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	124 ± 14.2	116.5 ± 35	27.5	93.7	-0.29
Acenaphthylene	ng/l	244 ± 30.9	251.4 ± 75.4	56.1	103	0.13
Anthracene	ng/l	- ± -	37.3 ± 11.2	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	35.4 ± 10.6	10.4	86.5	-0.53
Benzo[a]pyrene	ng/l	57.6 ± 9.56	34.4 ± 10.3	13.3	59.7	-1.75
Benzo[b]fluoranthene	ng/l	185 ± 12.1	176.8 ± 53.1	33.3	95.7	-0.24
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	186.8 ± 56	45.4	92.1	-0.35
Benzo[k]fluoranthene	ng/l	204 ± 25.3	208.8 ± 62.6	55.1	102	0.08
Chrysene	ng/l	202 ± 12.8	189.6 ± 56.9	38.4	93.8	-0.33
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	63.8 ± 25.5	13.2	95.1	-0.25
Fluoranthene	ng/l	125 ± 8.6	111.4 ± 33.4	23.7	89.2	-0.57
Fluorene	ng/l	158 ± 9.33	155.7 ± 46.7	20.6	98.3	-0.13
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	34.3 ± 15.4	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	85.3 ± 25.6	21	97.3	-0.11
Phenanthrene	ng/l	274 ± 13.2	250.9 ± 75.3	41.1	91.5	-0.56
Pyrene	ng/l	175 ± 13.6	150.6 ± 45.2	29.8	86	-0.82

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	10.4 ± 1.38	7.6 ± 2.3	1.98	72.9	-1.42
Acenaphthylene	ng/l	- ± -	- ± -	-	-	-
Anthracene	ng/l	33.4 ± 2.14	30.9 ± 9.3	8	92.6	-0.31
Benzo[a]anthracene	ng/l	9.26 ± 0.668	9 ± 2.7	1.67	97.2	-0.16
Benzo[a]pyrene	ng/l	9.87 ± 1.48	6.2 ± 1.9	2.27	62.8	-1.62
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	5.5 ± 1.7	1.15	86.2	-0.77
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	14.1 ± 4.2	6.47	71.9	-0.85
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	27.1 ± 8.1	9	81.3	-0.69
Chrysene	ng/l	42.6 ± 3.58	33.8 ± 10.1	8.09	79.4	-1.08
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	20.1 ± 8	7.37	77.1	-0.81
Fluoranthene	ng/l	29.2 ± 2.5	- ± -	5.54	-	-
Fluorene	ng/l	26.3 ± 2.42	23.6 ± 7.1	4.36	89.8	-0.61
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	33.6 ± 15.1	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	31.4 ± 9.4	10.2	73.7	-1.10

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Phenanthrene	ng/l	47.4 ± 4	30.8 ± 9.2	7.48	65	-2.22
Pyrene	ng/l	20.6 ± 0.83	- ± -	3.51	-	-



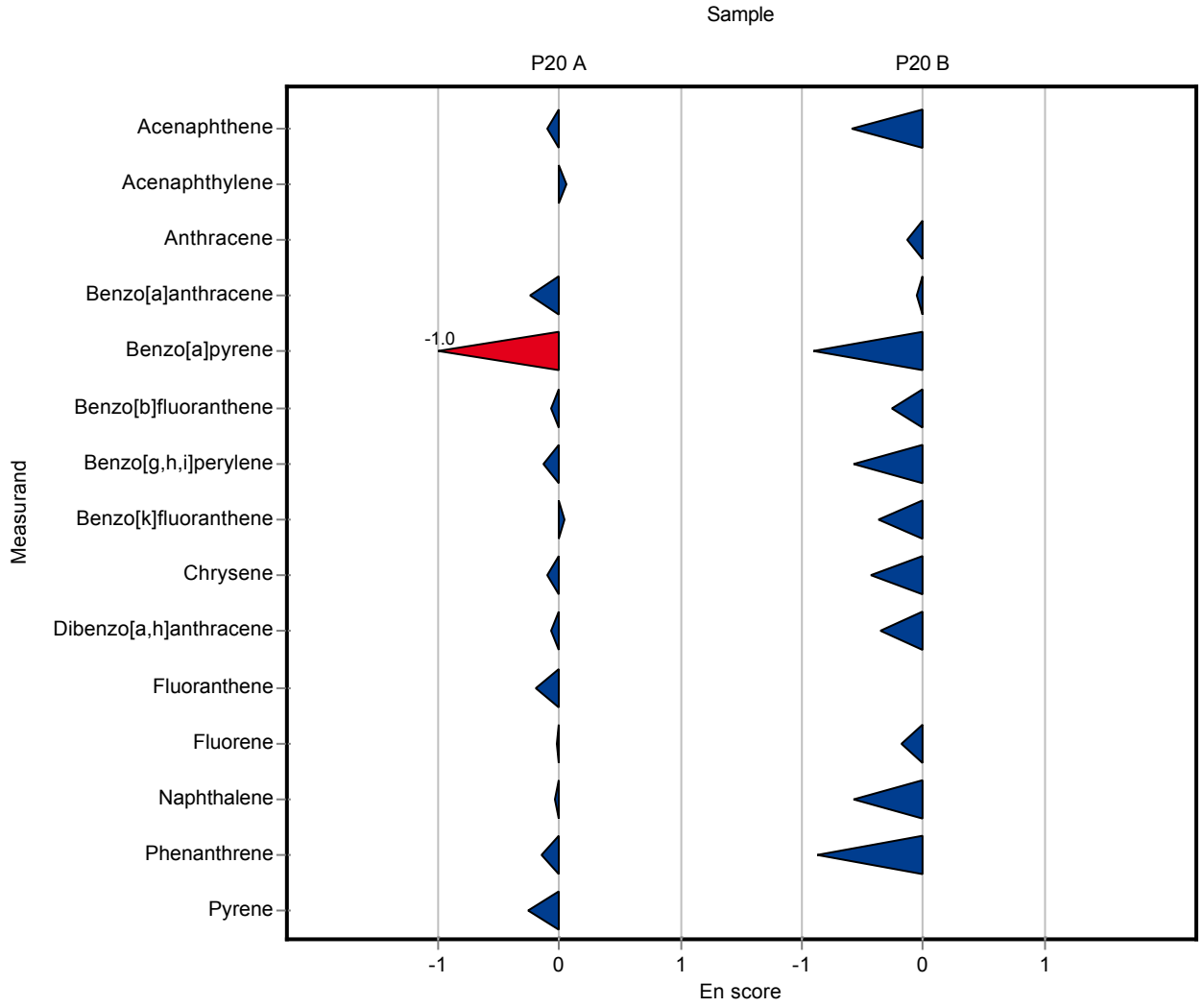
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	124 ± 14.2	116.5 ± 35	27.5	93.7	-0.11
Acenaphthylene	ng/l	244 ± 30.9	251.4 ± 75.4	56.1	103	0.05
Anthracene	ng/l	- ± -	37.3 ± 11.2	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	35.4 ± 10.6	10.4	86.5	-0.25
Benzo[a]pyrene	ng/l	57.6 ± 9.56	34.4 ± 10.3	13.3	59.7	-1.02
Benzo[b]fluoranthene	ng/l	185 ± 12.1	176.8 ± 53.1	33.3	95.7	-0.07
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	186.8 ± 56	45.4	92.1	-0.14
Benzo[k]fluoranthene	ng/l	204 ± 25.3	208.8 ± 62.6	55.1	102	0.04
Chrysene	ng/l	202 ± 12.8	189.6 ± 56.9	38.4	93.8	-0.11
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	63.8 ± 25.5	13.2	95.1	-0.06
Fluoranthene	ng/l	125 ± 8.6	111.4 ± 33.4	23.7	89.2	-0.20
Fluorene	ng/l	158 ± 9.33	155.7 ± 46.7	20.6	98.3	-0.03
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	34.3 ± 15.4	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	85.3 ± 25.6	21	97.3	-0.05
Phenanthrene	ng/l	274 ± 13.2	250.9 ± 75.3	41.1	91.5	-0.15
Pyrene	ng/l	175 ± 13.6	150.6 ± 45.2	29.8	86	-0.27

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	10.4 ± 1.38	7.6 ± 2.3	1.98	72.9	-0.59
Acenaphthylene	ng/l	- ± -	- ± -	-	-	-
Anthracene	ng/l	33.4 ± 2.14	30.9 ± 9.3	8	92.6	-0.13
Benzo[a]anthracene	ng/l	9.26 ± 0.668	9 ± 2.7	1.67	97.2	-0.05
Benzo[a]pyrene	ng/l	9.87 ± 1.48	6.2 ± 1.9	2.27	62.8	-0.90
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	5.5 ± 1.7	1.15	86.2	-0.26
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	14.1 ± 4.2	6.47	71.9	-0.58
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	27.1 ± 8.1	9	81.3	-0.38
Chrysene	ng/l	42.6 ± 3.58	33.8 ± 10.1	8.09	79.4	-0.43
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	20.1 ± 8	7.37	77.1	-0.36

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	29.2 ± 2.5	- ± -	5.54	-	-
Fluorene	ng/l	26.3 ± 2.42	23.6 ± 7.1	4.36	89.8	-0.19
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	33.6 ± 15.1	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	31.4 ± 9.4	10.2	73.7	-0.58
Phenanthrene	ng/l	47.4 ± 4	30.8 ± 9.2	7.48	65	-0.88
Pyrene	ng/l	20.6 ± 0.83	- ± -	3.51	-	-



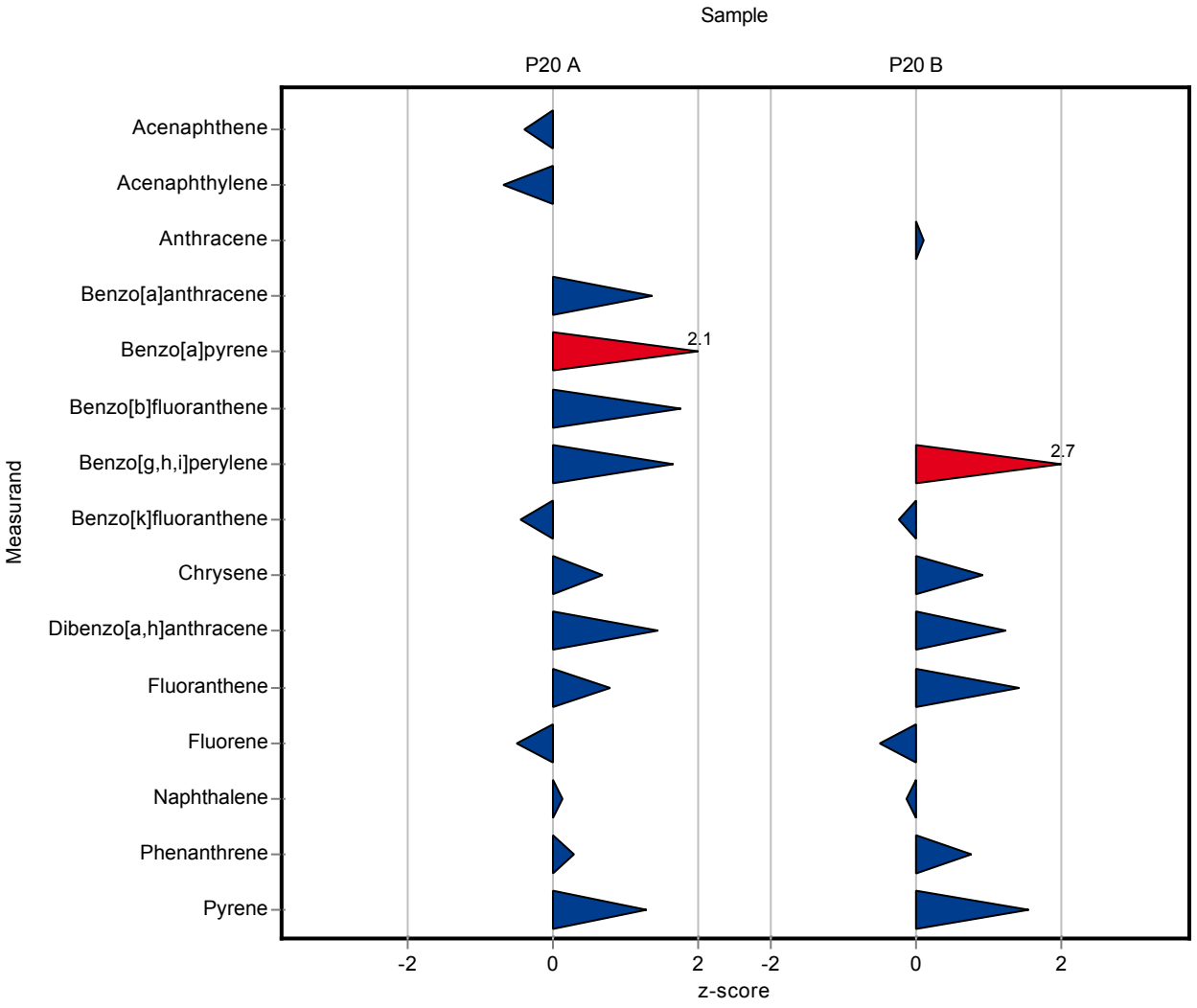
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	124 ± 14.2	113 ± 35	27.5	90.8	-0.41
Acenaphthylene	ng/l	244 ± 30.9	205 ± 64	56.1	84	-0.69
Anthracene	ng/l	- ± -	57 ± 18	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	55 ± 17	10.4	134	1.36
Benzo[a]pyrene	ng/l	57.6 ± 9.56	85 ± 26	13.3	147	2.07
Benzo[b]fluoranthene	ng/l	185 ± 12.1	243 ± 75	33.3	132	1.75
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	278 ± 86	45.4	137	1.65
Benzo[k]fluoranthene	ng/l	204 ± 25.3	179 ± 56	55.1	87.7	-0.46
Chrysene	ng/l	202 ± 12.8	228 ± 71	38.4	113	0.68
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	86 ± 27	13.2	128	1.44
Fluoranthene	ng/l	125 ± 8.6	143 ± 44	23.7	115	0.76
Fluorene	ng/l	158 ± 9.33	148 ± 46	20.6	93.4	-0.51
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<20 (LOQ) ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	90 ± 28	21	103	0.11
Phenanthrene	ng/l	274 ± 13.2	286 ± 89	41.1	104	0.29
Pyrene	ng/l	175 ± 13.6	213 ± 66	29.8	122	1.27

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	10.4 ± 1.38	<20 (LOQ) ± -	1.98	-	-
Acenaphthylene	ng/l	- ± -	<20 (LOQ) ± -	-	-	-
Anthracene	ng/l	33.4 ± 2.14	34 ± 11	8	102	0.08
Benzo[a]anthracene	ng/l	9.26 ± 0.668	<20 (LOQ) ± -	1.67	-	-
Benzo[a]pyrene	ng/l	9.87 ± 1.48	<20 (LOQ) ± -	2.27	-	-
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	<20 (LOQ) ± -	1.15	-	-
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	37 ± 11	6.47	189	2.69
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	31 ± 10	9	93	-0.26
Chrysene	ng/l	42.6 ± 3.58	50 ± 16	8.09	117	0.92
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	35 ± 11	7.37	134	1.21
Fluoranthene	ng/l	29.2 ± 2.5	37 ± 12	5.54	127	1.42
Fluorene	ng/l	26.3 ± 2.42	24 ± 7	4.36	91.3	-0.52
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<20 (LOQ) ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	41 ± 13	10.2	96.2	-0.16

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Phenanthrene	ng/l	47.4 ± 4	53 ± 17	7.48	112	0.75
Pyrene	ng/l	20.6 ± 0.83	26 ± 8	3.51	126	1.53



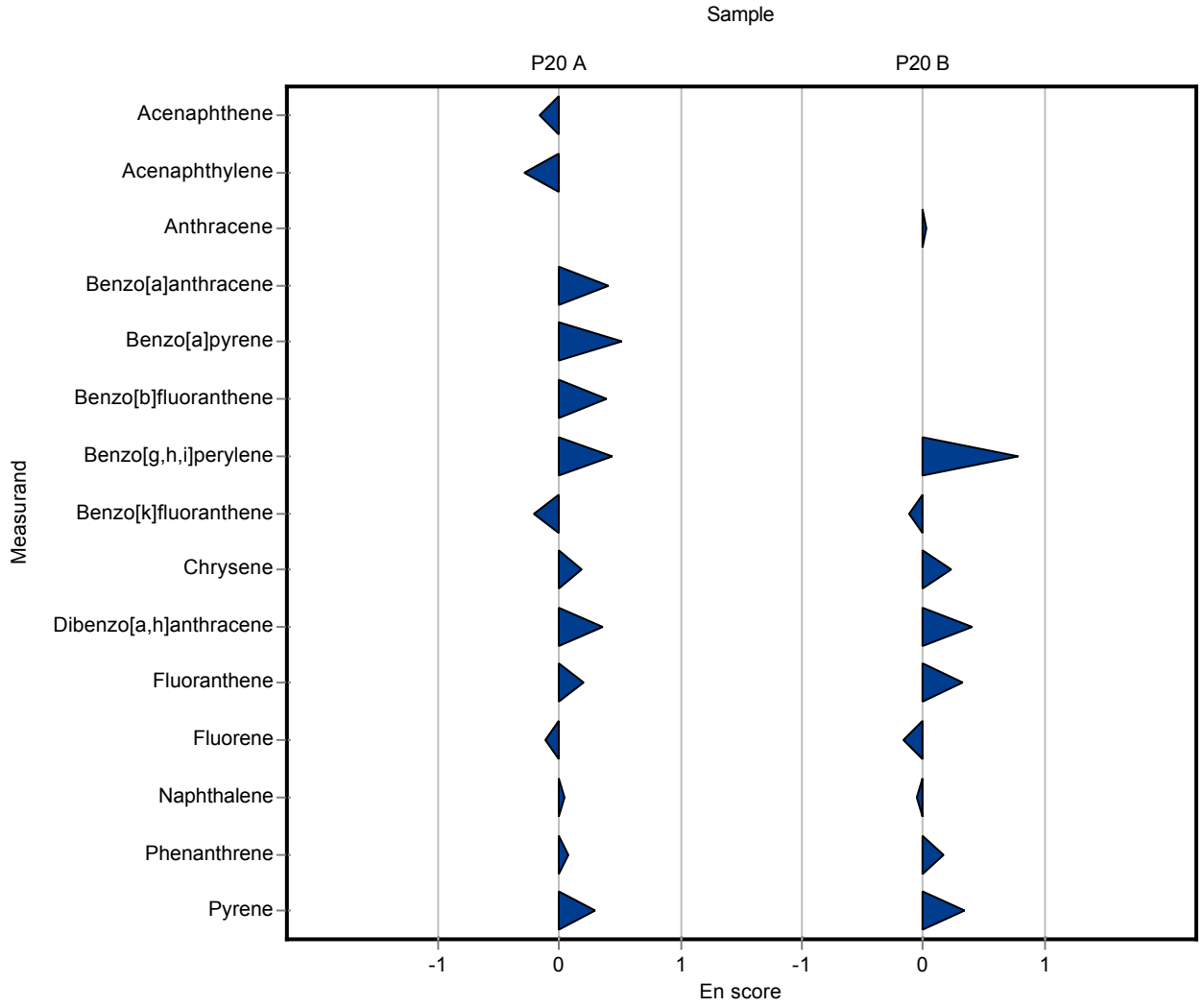
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	124 ± 14.2	113 ± 35	27.5	90.8	-0.16
Acenaphthylene	ng/l	244 ± 30.9	205 ± 64	56.1	84	-0.30
Anthracene	ng/l	- ± -	57 ± 18	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	55 ± 17	10.4	134	0.41
Benzo[a]pyrene	ng/l	57.6 ± 9.56	85 ± 26	13.3	147	0.52
Benzo[b]fluoranthene	ng/l	185 ± 12.1	243 ± 75	33.3	132	0.39
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	278 ± 86	45.4	137	0.43
Benzo[k]fluoranthene	ng/l	204 ± 25.3	179 ± 56	55.1	87.7	-0.22
Chrysene	ng/l	202 ± 12.8	228 ± 71	38.4	113	0.18
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	86 ± 27	13.2	128	0.35
Fluoranthene	ng/l	125 ± 8.6	143 ± 44	23.7	115	0.20
Fluorene	ng/l	158 ± 9.33	148 ± 46	20.6	93.4	-0.11
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<20 (LOQ) ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	90 ± 28	21	103	0.04
Phenanthrene	ng/l	274 ± 13.2	286 ± 89	41.1	104	0.07
Pyrene	ng/l	175 ± 13.6	213 ± 66	29.8	122	0.29

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	10.4 ± 1.38	<20 (LOQ) ± -	1.98	-	-
Acenaphthylene	ng/l	- ± -	<20 (LOQ) ± -	-	-	-
Anthracene	ng/l	33.4 ± 2.14	34 ± 11	8	102	0.03
Benzo[a]anthracene	ng/l	9.26 ± 0.668	<20 (LOQ) ± -	1.67	-	-
Benzo[a]pyrene	ng/l	9.87 ± 1.48	<20 (LOQ) ± -	2.27	-	-
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	<20 (LOQ) ± -	1.15	-	-
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	37 ± 11	6.47	189	0.78
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	31 ± 10	9	93	-0.11
Chrysene	ng/l	42.6 ± 3.58	50 ± 16	8.09	117	0.23
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	35 ± 11	7.37	134	0.40

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	29.2 ± 2.5	37 ± 12	5.54	127	0.33
Fluorene	ng/l	26.3 ± 2.42	24 ± 7	4.36	91.3	-0.16
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<20 (LOQ) ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	41 ± 13	10.2	96.2	-0.06
Phenanthrene	ng/l	47.4 ± 4	53 ± 17	7.48	112	0.16
Pyrene	ng/l	20.6 ± 0.83	26 ± 8	3.51	126	0.34



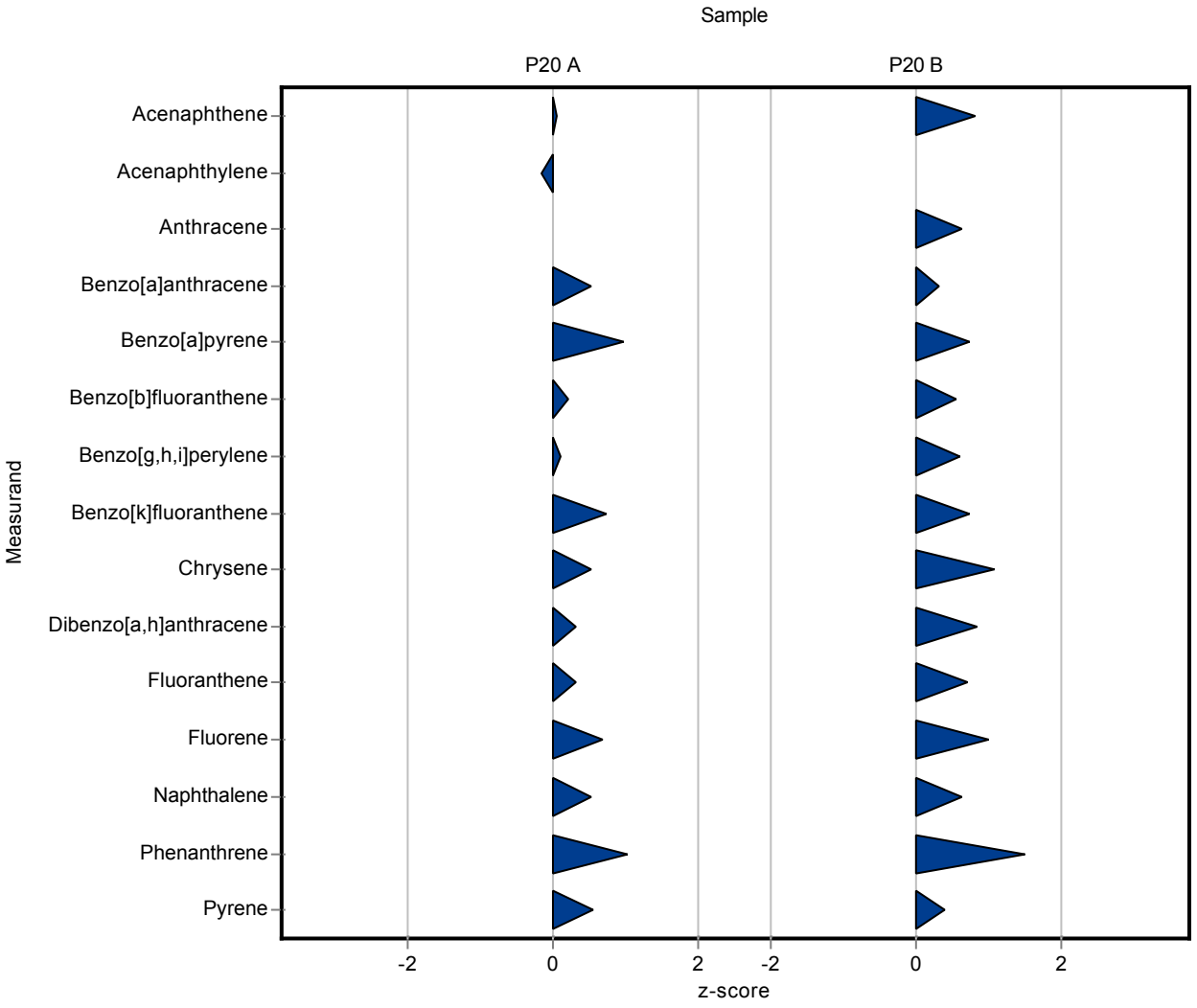
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	124 ± 14.2	125.13 ± 12.51	27.5	101	0.03
Acenaphthylene	ng/l	244 ± 30.9	234.5 ± 23.45	56.1	96.1	-0.17
Anthracene	ng/l	- ± -	72 ± 7.2	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	46.13 ± 4.65	10.4	113	0.50
Benzo[a]pyrene	ng/l	57.6 ± 9.56	70.38 ± 7.1	13.3	122	0.96
Benzo[b]fluoranthene	ng/l	185 ± 12.1	191.25 ± 19.15	33.3	104	0.20
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	207.38 ± 20.75	45.4	102	0.10
Benzo[k]fluoranthene	ng/l	204 ± 25.3	243.5 ± 24.4	55.1	119	0.71
Chrysene	ng/l	202 ± 12.8	222.25 ± 22.25	38.4	110	0.53
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	70.88 ± 7.1	13.2	106	0.29
Fluoranthene	ng/l	125 ± 8.6	132.25 ± 13.25	23.7	106	0.31
Fluorene	ng/l	158 ± 9.33	172.25 ± 17.25	20.6	109	0.67
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<5 (LOQ) ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	98.63 ± 9.9	21	113	0.52
Phenanthrene	ng/l	274 ± 13.2	315.88 ± 31.6	41.1	115	1.02
Pyrene	ng/l	175 ± 13.6	191.38 ± 19.2	29.8	109	0.55

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	10.4 ± 1.38	12 ± 1.2	1.98	115	0.80
Acenaphthylene	ng/l	- ± -	14.5 ± 1.5	-	-	-
Anthracene	ng/l	33.4 ± 2.14	38.25 ± 3.85	8	115	0.61
Benzo[a]anthracene	ng/l	9.26 ± 0.668	9.76 ± 0.98	1.67	105	0.30
Benzo[a]pyrene	ng/l	9.87 ± 1.48	11.5 ± 1.15	2.27	117	0.72
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	7 ± 0.7	1.15	110	0.54
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	23.5 ± 2.35	6.47	120	0.60
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	39.75 ± 4	9	119	0.71
Chrysene	ng/l	42.6 ± 3.58	51.25 ± 5.15	8.09	120	1.07
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	32.13 ± 3.25	7.37	123	0.82
Fluoranthene	ng/l	29.2 ± 2.5	33 ± 3.3	5.54	113	0.69
Fluorene	ng/l	26.3 ± 2.42	30.63 ± 3.1	4.36	117	1.00
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<5 (LOQ) ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	48.9 ± 4.9	10.2	115	0.62

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Phenanthrene	ng/l	47.4 ± 4	58.5 ± 5.85	7.48	123	1.49
Pyrene	ng/l	20.6 ± 0.83	22 ± 2.2	3.51	107	0.39



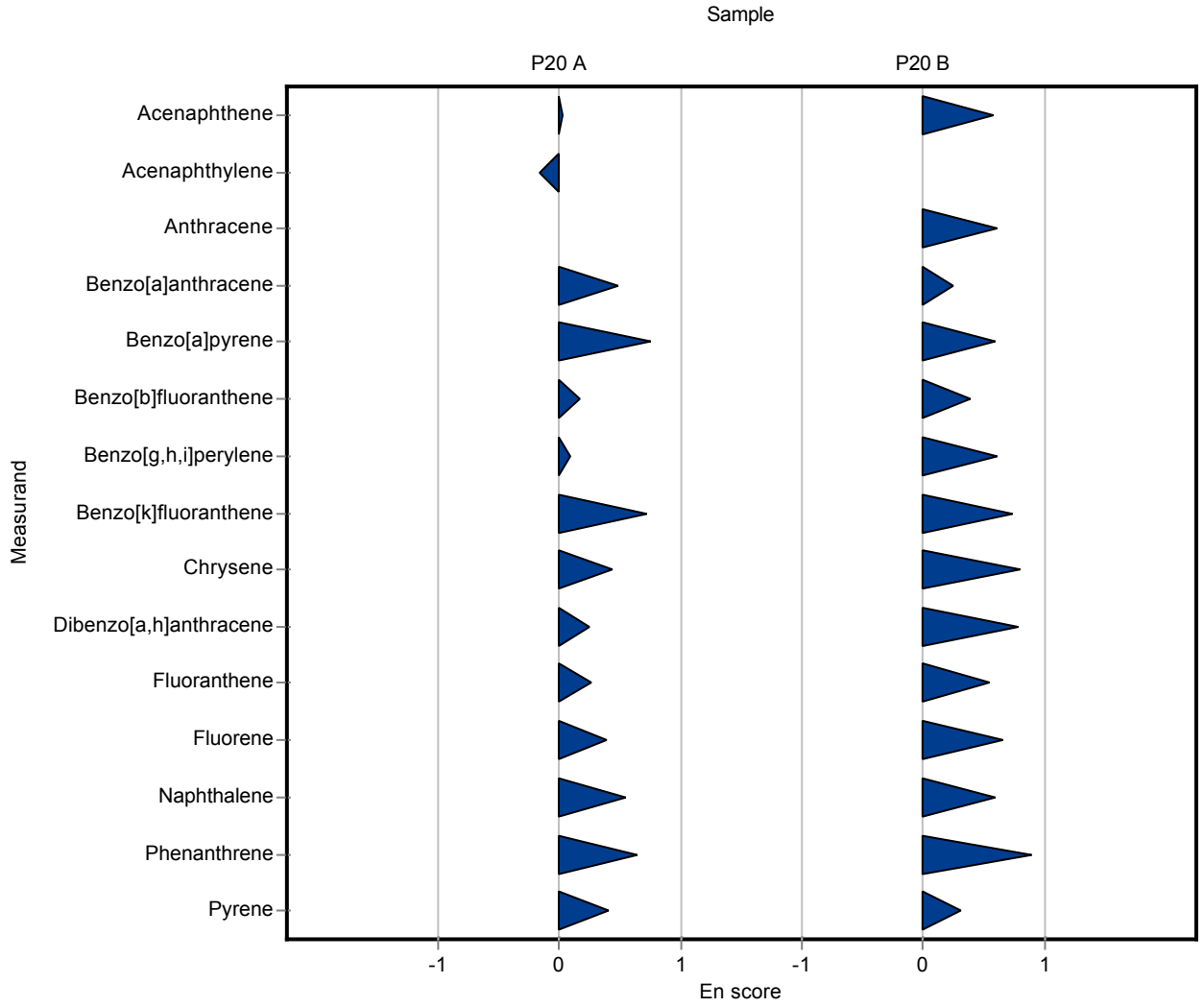
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	124 ± 14.2	125.13 ± 12.51	27.5	101	0.03
Acenaphthylene	ng/l	244 ± 30.9	234.5 ± 23.45	56.1	96.1	-0.17
Anthracene	ng/l	- ± -	72 ± 7.2	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	46.13 ± 4.65	10.4	113	0.48
Benzo[a]pyrene	ng/l	57.6 ± 9.56	70.38 ± 7.1	13.3	122	0.74
Benzo[b]fluoranthene	ng/l	185 ± 12.1	191.25 ± 19.15	33.3	104	0.16
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	207.38 ± 20.75	45.4	102	0.09
Benzo[k]fluoranthene	ng/l	204 ± 25.3	243.5 ± 24.4	55.1	119	0.72
Chrysene	ng/l	202 ± 12.8	222.25 ± 22.25	38.4	110	0.43
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	70.88 ± 7.1	13.2	106	0.24
Fluoranthene	ng/l	125 ± 8.6	132.25 ± 13.25	23.7	106	0.27
Fluorene	ng/l	158 ± 9.33	172.25 ± 17.25	20.6	109	0.39
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<5 (LOQ) ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	98.63 ± 9.9	21	113	0.54
Phenanthrene	ng/l	274 ± 13.2	315.88 ± 31.6	41.1	115	0.65
Pyrene	ng/l	175 ± 13.6	191.38 ± 19.2	29.8	109	0.40

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	10.4 ± 1.38	12 ± 1.2	1.98	115	0.57
Acenaphthylene	ng/l	- ± -	14.5 ± 1.5	-	-	-
Anthracene	ng/l	33.4 ± 2.14	38.25 ± 3.85	8	115	0.61
Benzo[a]anthracene	ng/l	9.26 ± 0.668	9.76 ± 0.98	1.67	105	0.24
Benzo[a]pyrene	ng/l	9.87 ± 1.48	11.5 ± 1.15	2.27	117	0.60
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	7 ± 0.7	1.15	110	0.39
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	23.5 ± 2.35	6.47	120	0.60
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	39.75 ± 4	9	119	0.73
Chrysene	ng/l	42.6 ± 3.58	51.25 ± 5.15	8.09	120	0.80
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	32.13 ± 3.25	7.37	123	0.79

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	29.2 ± 2.5	33 ± 3.3	5.54	113	0.54
Fluorene	ng/l	26.3 ± 2.42	30.63 ± 3.1	4.36	117	0.65
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<5 (LOQ) ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	48.9 ± 4.9	10.2	115	0.60
Phenanthrene	ng/l	47.4 ± 4	58.5 ± 5.85	7.48	123	0.90
Pyrene	ng/l	20.6 ± 0.83	22 ± 2.2	3.51	107	0.30



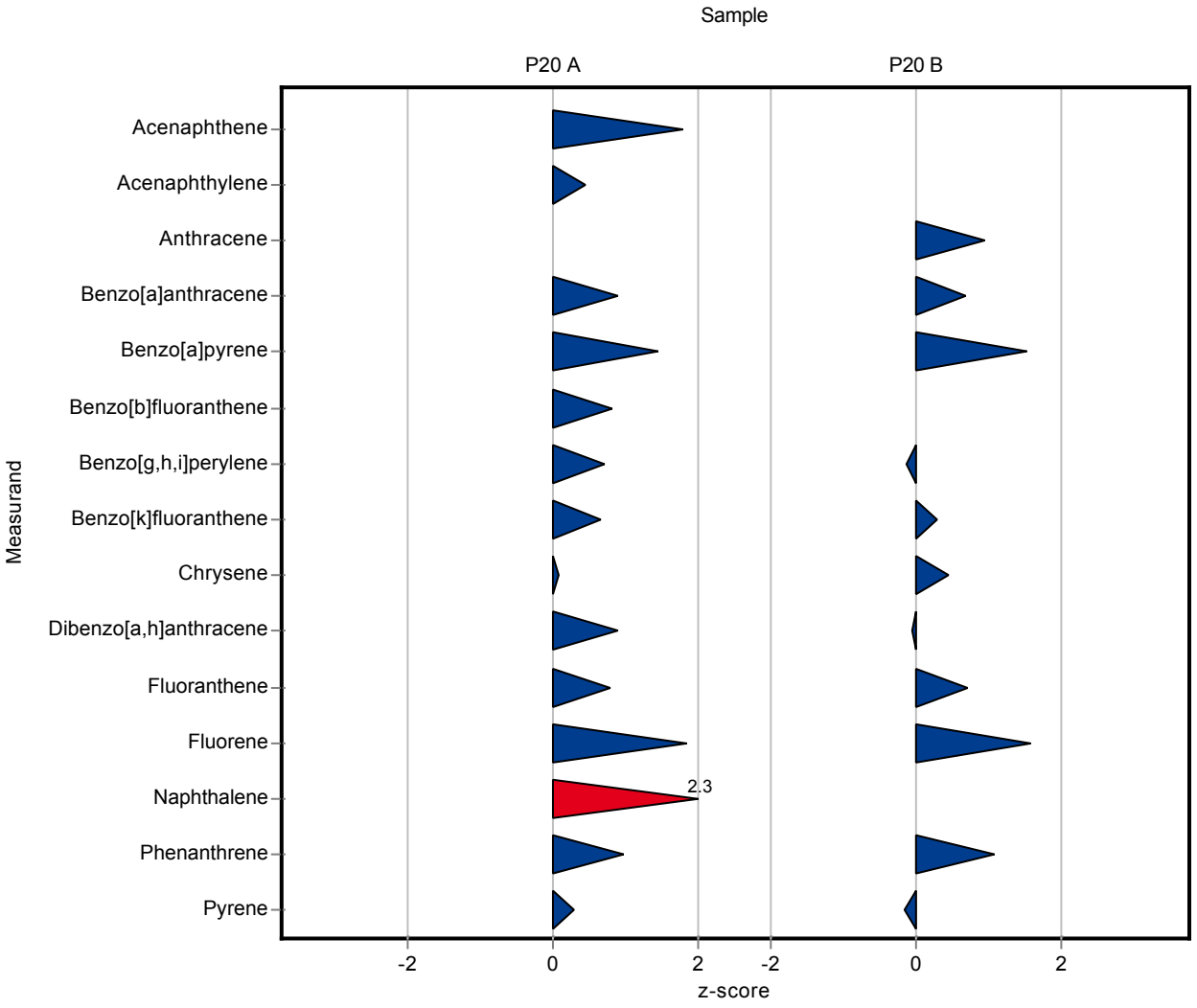
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	124 ± 14.2	173 ± 25	27.5	139	1.77
Acenaphthylene	ng/l	244 ± 30.9	269 ± 33.4	56.1	110	0.45
Anthracene	ng/l	- ± -	72.2 ± 8.22	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	50 ± 4.75	10.4	122	0.88
Benzo[a]pyrene	ng/l	57.6 ± 9.56	76.5 ± 7.96	13.3	133	1.42
Benzo[b]fluoranthene	ng/l	185 ± 12.1	211 ± 21.3	33.3	114	0.79
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	234 ± 25	45.4	115	0.69
Benzo[k]fluoranthene	ng/l	204 ± 25.3	239 ± 22.9	55.1	117	0.63
Chrysene	ng/l	202 ± 12.8	205 ± 18.7	38.4	101	0.08
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	78.8 ± 10.3	13.2	118	0.89
Fluoranthene	ng/l	125 ± 8.6	143 ± 13.6	23.7	115	0.76
Fluorene	ng/l	158 ± 9.33	196 ± 28.9	20.6	124	1.82
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<7.22 (LOQ) ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	136 ± 18.4	21	155	2.30
Phenanthrene	ng/l	274 ± 13.2	314 ± 59.4	41.1	115	0.97
Pyrene	ng/l	175 ± 13.6	183 ± 23.3	29.8	105	0.27

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	10.4 ± 1.38	<66.9 (LOQ) ± -	1.98	-	-
Acenaphthylene	ng/l	- ± -	<161 (LOQ) ± -	-	-	-
Anthracene	ng/l	33.4 ± 2.14	40.8 ± 4.64	8	122	0.93
Benzo[a]anthracene	ng/l	9.26 ± 0.668	10.4 ± 0.992	1.67	112	0.68
Benzo[a]pyrene	ng/l	9.87 ± 1.48	13.3 ± 1.38	2.27	135	1.51
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	<16.8 (LOQ) ± -	1.15	-	-
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	18.7 ± 2	6.47	95.4	-0.14
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	35.7 ± 3.42	9	107	0.27
Chrysene	ng/l	42.6 ± 3.58	46 ± 4.19	8.09	108	0.42
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	25.6 ± 3.35	7.37	98.2	-0.07
Fluoranthene	ng/l	29.2 ± 2.5	33 ± 3.14	5.54	113	0.69
Fluorene	ng/l	26.3 ± 2.42	33.1 ± 4.9	4.36	126	1.56
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<7.22 (LOQ) ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	<68.2 (LOQ) ± -	10.2	-	-

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Phenanthrene	ng/l	47.4 ± 4	55.3 ± 10.4	7.48	117	1.06
Pyrene	ng/l	20.6 ± 0.83	20 ± 2.55	3.51	96.9	-0.18



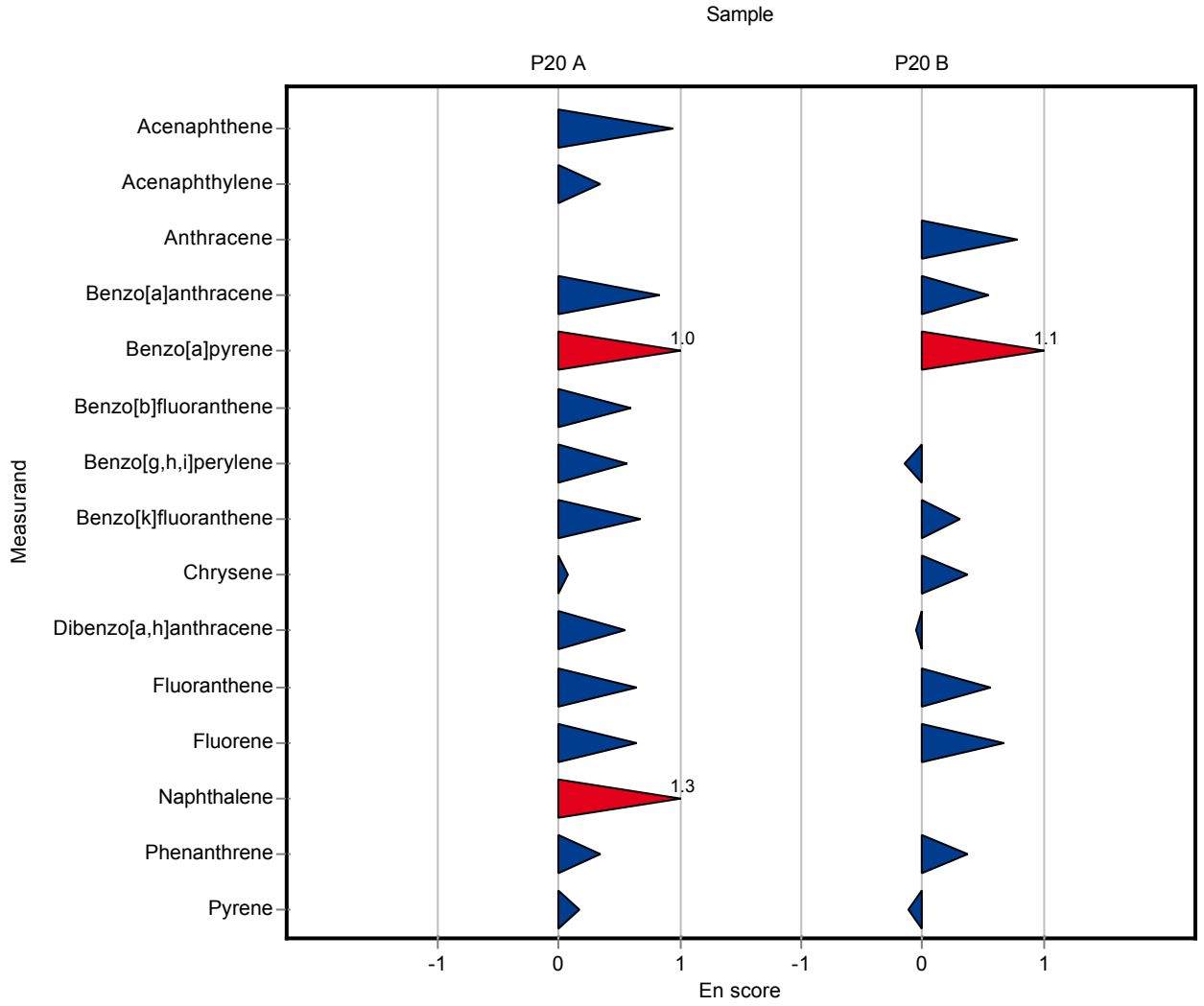
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	124 ± 14.2	173 ± 25	27.5	139	0.94
Acenaphthylene	ng/l	244 ± 30.9	269 ± 33.4	56.1	110	0.34
Anthracene	ng/l	- ± -	72.2 ± 8.22	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	50 ± 4.75	10.4	122	0.83
Benzo[a]pyrene	ng/l	57.6 ± 9.56	76.5 ± 7.96	13.3	133	1.02
Benzo[b]fluoranthene	ng/l	185 ± 12.1	211 ± 21.3	33.3	114	0.59
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	234 ± 25	45.4	115	0.56
Benzo[k]fluoranthene	ng/l	204 ± 25.3	239 ± 22.9	55.1	117	0.67
Chrysene	ng/l	202 ± 12.8	205 ± 18.7	38.4	101	0.07
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	78.8 ± 10.3	13.2	118	0.54
Fluoranthene	ng/l	125 ± 8.6	143 ± 13.6	23.7	115	0.64
Fluorene	ng/l	158 ± 9.33	196 ± 28.9	20.6	124	0.64
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<7.22 (LOQ) ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	136 ± 18.4	21	155	1.30
Phenanthrene	ng/l	274 ± 13.2	314 ± 59.4	41.1	115	0.33
Pyrene	ng/l	175 ± 13.6	183 ± 23.3	29.8	105	0.16

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	10.4 ± 1.38	<66.9 (LOQ) ± -	1.98	-	-
Acenaphthylene	ng/l	- ± -	<161 (LOQ) ± -	-	-	-
Anthracene	ng/l	33.4 ± 2.14	40.8 ± 4.64	8	122	0.78
Benzo[a]anthracene	ng/l	9.26 ± 0.668	10.4 ± 0.992	1.67	112	0.54
Benzo[a]pyrene	ng/l	9.87 ± 1.48	13.3 ± 1.38	2.27	135	1.10
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	<16.8 (LOQ) ± -	1.15	-	-
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	18.7 ± 2	6.47	95.4	-0.15
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	35.7 ± 3.42	9	107	0.31
Chrysene	ng/l	42.6 ± 3.58	46 ± 4.19	8.09	108	0.38
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	25.6 ± 3.35	7.37	98.2	-0.06

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	29.2 ± 2.5	33 ± 3.14	5.54	113	0.57
Fluorene	ng/l	26.3 ± 2.42	33.1 ± 4.9	4.36	126	0.68
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<7.22 (LOQ) ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	<68.2 (LOQ) ± -	10.2	-	-
Phenanthrene	ng/l	47.4 ± 4	55.3 ± 10.4	7.48	117	0.37
Pyrene	ng/l	20.6 ± 0.83	20 ± 2.55	3.51	96.9	-0.12



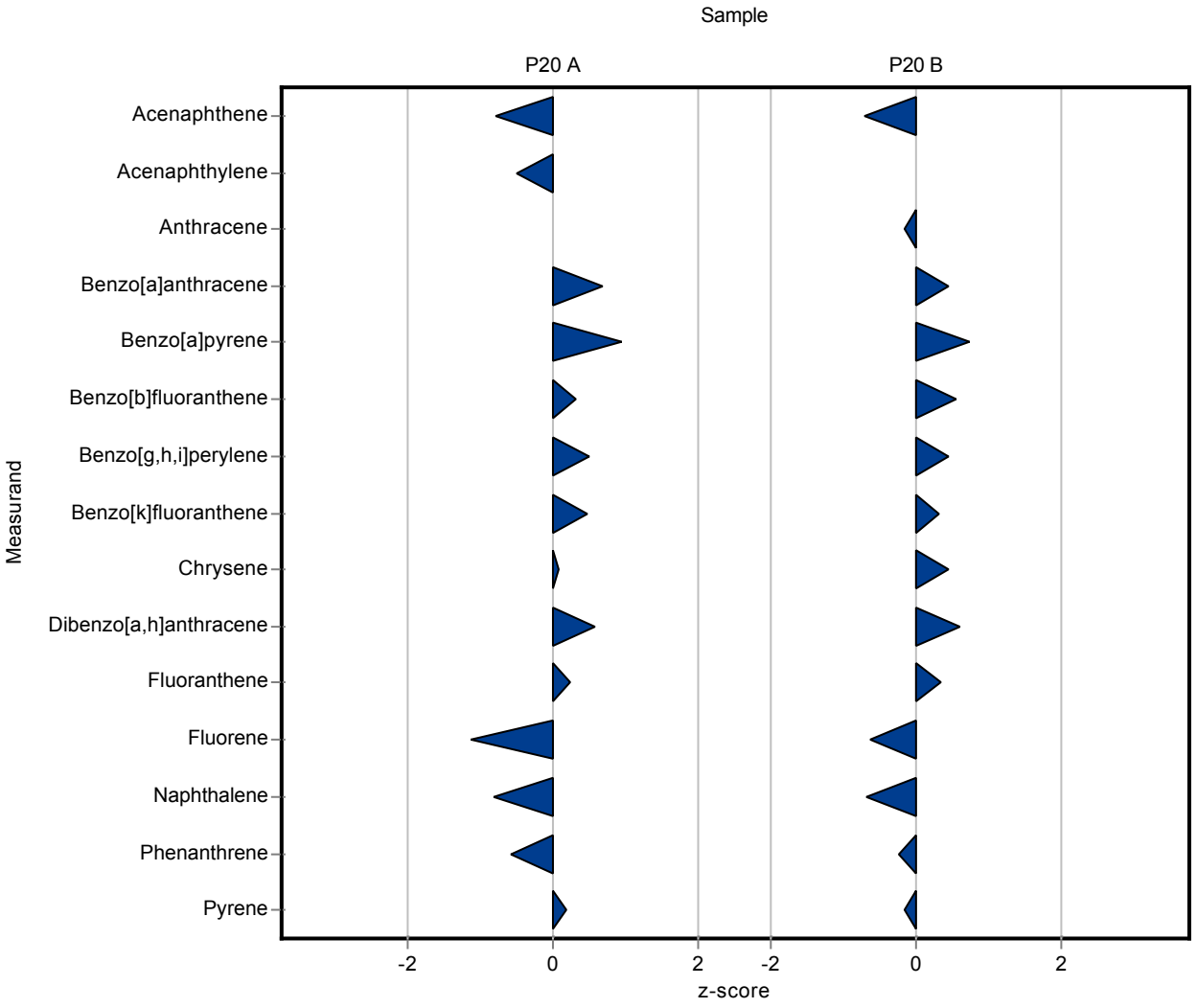
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	124 ± 14.2	102 ± 10	27.5	82	-0.81
Acenaphthylene	ng/l	244 ± 30.9	215 ± 21	56.1	88.1	-0.52
Anthracene	ng/l	- ± -	59 ± 6	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	48 ± 5	10.4	117	0.68
Benzo[a]pyrene	ng/l	57.6 ± 9.56	70 ± 7	13.3	121	0.93
Benzo[b]fluoranthene	ng/l	185 ± 12.1	195 ± 20	33.3	106	0.31
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	225 ± 22	45.4	111	0.49
Benzo[k]fluoranthene	ng/l	204 ± 25.3	230 ± 23	55.1	113	0.47
Chrysene	ng/l	202 ± 12.8	205 ± 20	38.4	101	0.08
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	74.5 ± 7	13.2	111	0.56
Fluoranthene	ng/l	125 ± 8.6	130 ± 13	23.7	104	0.22
Fluorene	ng/l	158 ± 9.33	135 ± 13	20.6	85.2	-1.14
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<5 (LOQ) ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	70 ± 7	21	79.9	-0.84
Phenanthrene	ng/l	274 ± 13.2	250 ± 25	41.1	91.2	-0.59
Pyrene	ng/l	175 ± 13.6	180 ± 18	29.8	103	0.17

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	10.4 ± 1.38	9 ± 0.9	1.98	86.4	-0.72
Acenaphthylene	ng/l	- ± -	71 ± 7	-	-	-
Anthracene	ng/l	33.4 ± 2.14	32 ± 3	8	95.9	-0.17
Benzo[a]anthracene	ng/l	9.26 ± 0.668	10 ± 1	1.67	108	0.44
Benzo[a]pyrene	ng/l	9.87 ± 1.48	11.5 ± 1	2.27	117	0.72
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	7 ± 0.7	1.15	110	0.54
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	22.5 ± 2	6.47	115	0.45
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	36 ± 3.5	9	108	0.30
Chrysene	ng/l	42.6 ± 3.58	46 ± 4.6	8.09	108	0.42
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	30.5 ± 3	7.37	117	0.60
Fluoranthene	ng/l	29.2 ± 2.5	31 ± 3	5.54	106	0.33
Fluorene	ng/l	26.3 ± 2.42	23.5 ± 2.4	4.36	89.4	-0.64
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<5 (LOQ) ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	35.5 ± 3.5	10.2	83.3	-0.69

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Phenanthrene	ng/l	47.4 ± 4	45.5 ± 4.5	7.48	96	-0.25
Pyrene	ng/l	20.6 ± 0.83	20 ± 2	3.51	96.9	-0.18



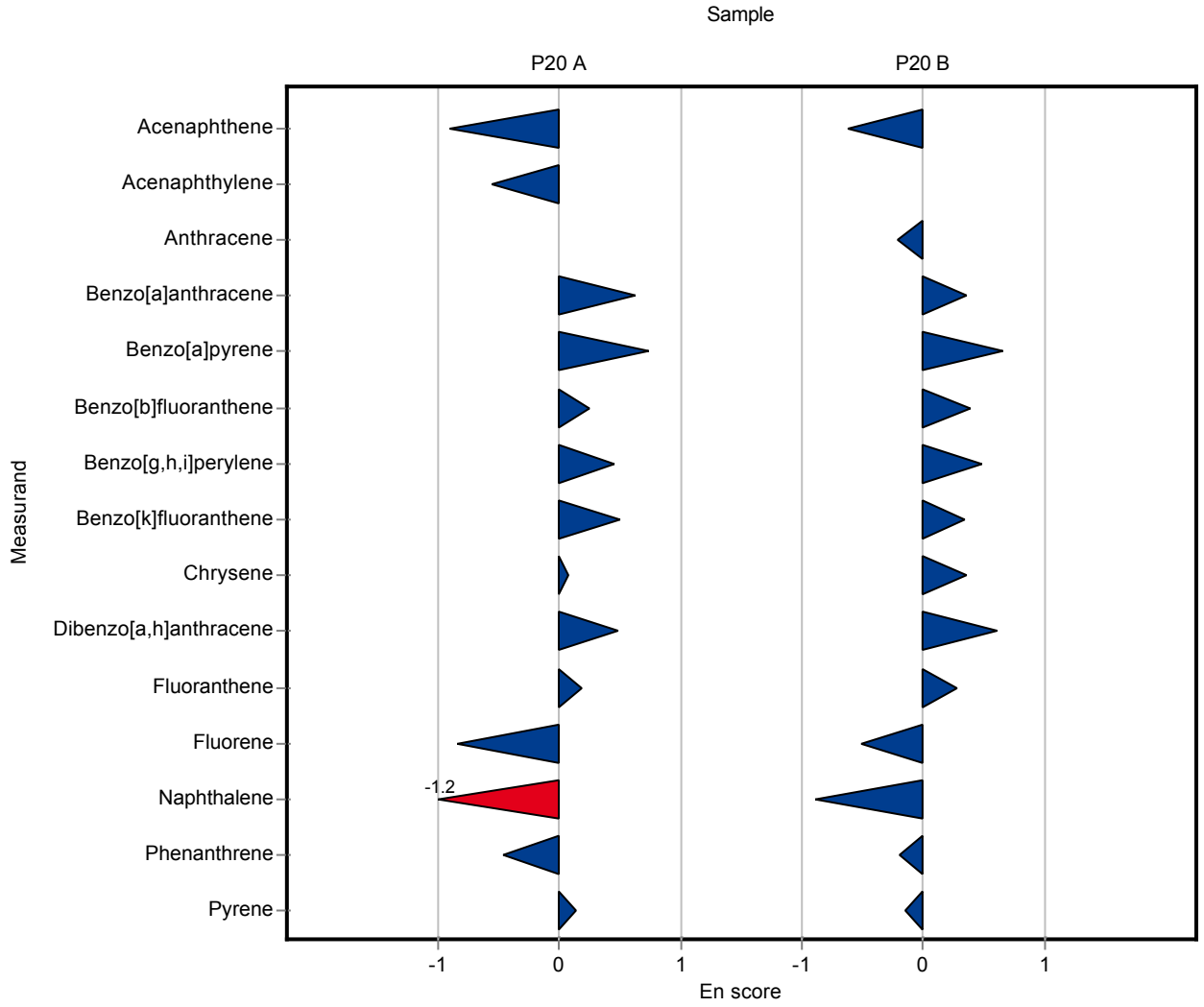
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	124 ± 14.2	102 ± 10	27.5	82	-0.91
Acenaphthylene	ng/l	244 ± 30.9	215 ± 21	56.1	88.1	-0.56
Anthracene	ng/l	- ± -	59 ± 6	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	48 ± 5	10.4	117	0.62
Benzo[a]pyrene	ng/l	57.6 ± 9.56	70 ± 7	13.3	121	0.73
Benzo[b]fluoranthene	ng/l	185 ± 12.1	195 ± 20	33.3	106	0.24
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	225 ± 22	45.4	111	0.44
Benzo[k]fluoranthene	ng/l	204 ± 25.3	230 ± 23	55.1	113	0.49
Chrysene	ng/l	202 ± 12.8	205 ± 20	38.4	101	0.07
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	74.5 ± 7	13.2	111	0.47
Fluoranthene	ng/l	125 ± 8.6	130 ± 13	23.7	104	0.19
Fluorene	ng/l	158 ± 9.33	135 ± 13	20.6	85.2	-0.85
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<5 (LOQ) ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	70 ± 7	21	79.9	-1.19
Phenanthrene	ng/l	274 ± 13.2	250 ± 25	41.1	91.2	-0.47
Pyrene	ng/l	175 ± 13.6	180 ± 18	29.8	103	0.13

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	10.4 ± 1.38	9 ± 0.9	1.98	86.4	-0.63
Acenaphthylene	ng/l	- ± -	71 ± 7	-	-	-
Anthracene	ng/l	33.4 ± 2.14	32 ± 3	8	95.9	-0.21
Benzo[a]anthracene	ng/l	9.26 ± 0.668	10 ± 1	1.67	108	0.35
Benzo[a]pyrene	ng/l	9.87 ± 1.48	11.5 ± 1	2.27	117	0.66
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	7 ± 0.7	1.15	110	0.39
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	22.5 ± 2	6.47	115	0.49
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	36 ± 3.5	9	108	0.34
Chrysene	ng/l	42.6 ± 3.58	46 ± 4.6	8.09	108	0.35
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	30.5 ± 3	7.37	117	0.61

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	29.2 ± 2.5	31 ± 3	5.54	106	0.28
Fluorene	ng/l	26.3 ± 2.42	23.5 ± 2.4	4.36	89.4	-0.52
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<5 (LOQ) ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	35.5 ± 3.5	10.2	83.3	-0.89
Phenanthrene	ng/l	47.4 ± 4	45.5 ± 4.5	7.48	96	-0.19
Pyrene	ng/l	20.6 ± 0.83	20 ± 2	3.51	96.9	-0.16



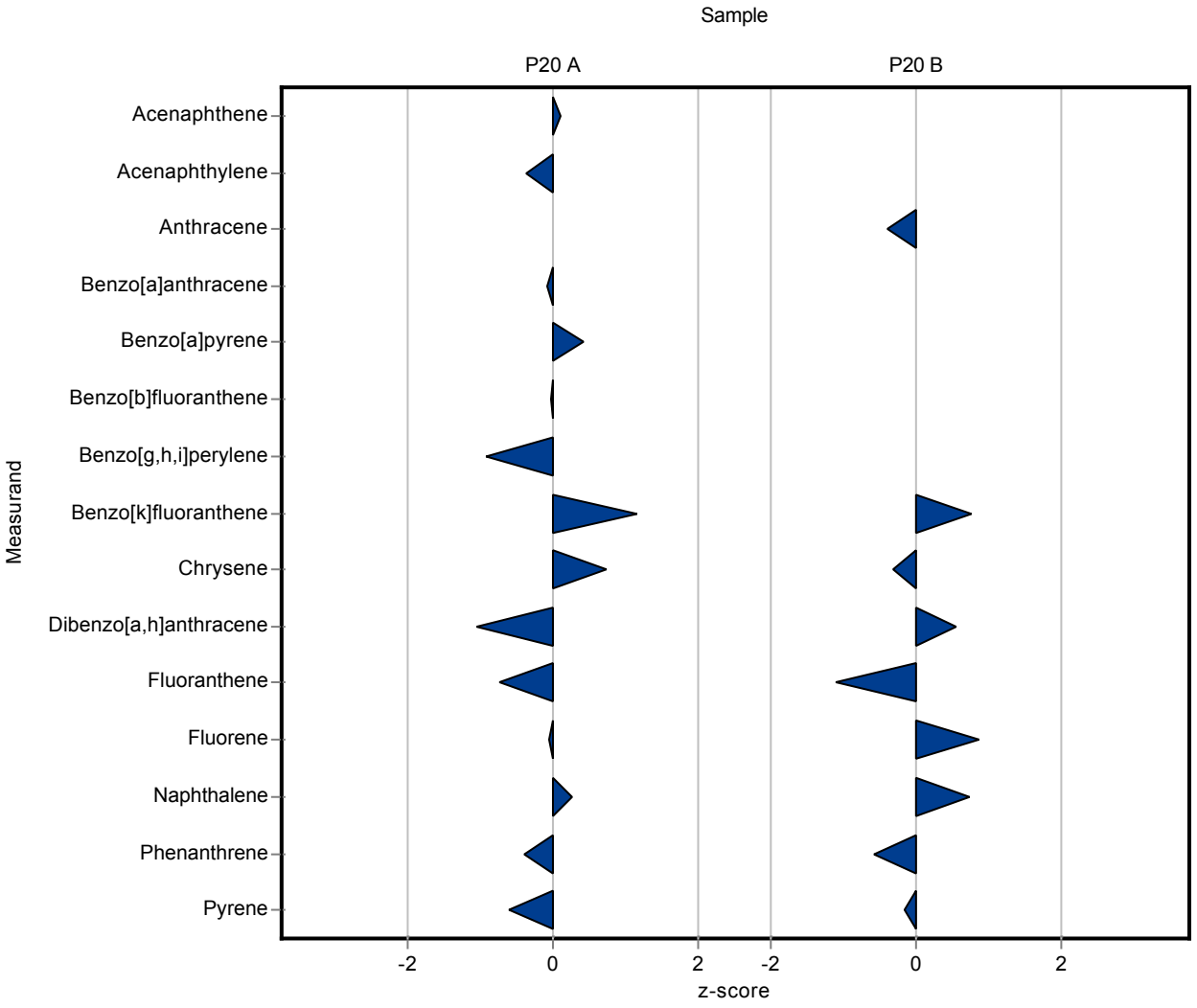
Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	124 ± 14.2	127 ± 38	27.5	102	0.09
Acenaphthylene	ng/l	244 ± 30.9	223 ± 67	56.1	91.4	-0.37
Anthracene	ng/l	- ± -	60 ± 18	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	40 ± 12	10.4	97.8	-0.09
Benzo[a]pyrene	ng/l	57.6 ± 9.56	63 ± 19	13.3	109	0.41
Benzo[b]fluoranthene	ng/l	185 ± 12.1	183 ± 55	33.3	99.1	-0.05
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	160 ± 48	45.4	78.9	-0.94
Benzo[k]fluoranthene	ng/l	204 ± 25.3	267 ± 80	55.1	131	1.14
Chrysene	ng/l	202 ± 12.8	230 ± 69	38.4	114	0.73
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	53 ± 16	13.2	79	-1.07
Fluoranthene	ng/l	125 ± 8.6	107 ± 32	23.7	85.7	-0.75
Fluorene	ng/l	158 ± 9.33	157 ± 47	20.6	99.1	-0.07
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<20 (LOQ) ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	93 ± 28	21	106	0.26
Phenanthrene	ng/l	274 ± 13.2	257 ± 77	41.1	93.8	-0.42
Pyrene	ng/l	175 ± 13.6	157 ± 47	29.8	89.7	-0.61

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	10.4 ± 1.38	<20 (LOQ) ± -	1.98	-	-
Acenaphthylene	ng/l	- ± -	<20 (LOQ) ± -	-	-	-
Anthracene	ng/l	33.4 ± 2.14	30 ± 9	8	90	-0.42
Benzo[a]anthracene	ng/l	9.26 ± 0.668	<20 (LOQ) ± -	1.67	-	-
Benzo[a]pyrene	ng/l	9.87 ± 1.48	<20 (LOQ) ± -	2.27	-	-
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	<20 (LOQ) ± -	1.15	-	-
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	<20 (LOQ) ± -	6.47	-	-
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	40 ± 12	9	120	0.74
Chrysene	ng/l	42.6 ± 3.58	40 ± 12	8.09	94	-0.32
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	30 ± 9	7.37	115	0.53
Fluoranthene	ng/l	29.2 ± 2.5	23 ± 7	5.54	78.9	-1.11
Fluorene	ng/l	26.3 ± 2.42	30 ± 9	4.36	114	0.85
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<20 (LOQ) ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	50 ± 15	10.2	117	0.72

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Phenanthrene	ng/l	47.4 ± 4	43 ± 13	7.48	90.7	-0.59
Pyrene	ng/l	20.6 ± 0.83	20 ± 6	3.51	96.9	-0.18



Sample: P20A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	124 ± 14.2	127 ± 38	27.5	102	0.03
Acenaphthylene	ng/l	244 ± 30.9	223 ± 67	56.1	91.4	-0.15
Anthracene	ng/l	- ± -	60 ± 18	-	-	-
Benzo[a]anthracene	ng/l	40.9 ± 5.55	40 ± 12	10.4	97.8	-0.04
Benzo[a]pyrene	ng/l	57.6 ± 9.56	63 ± 19	13.3	109	0.14
Benzo[b]fluoranthene	ng/l	185 ± 12.1	183 ± 55	33.3	99.1	-0.02
Benzo[g,h,i]perylene	ng/l	203 ± 23.4	160 ± 48	45.4	78.9	-0.43
Benzo[k]fluoranthene	ng/l	204 ± 25.3	267 ± 80	55.1	131	0.39
Chrysene	ng/l	202 ± 12.8	230 ± 69	38.4	114	0.20
Dibenzo[a,h]anthracene	ng/l	67.1 ± 7.04	53 ± 16	13.2	79	-0.43
Fluoranthene	ng/l	125 ± 8.6	107 ± 32	23.7	85.7	-0.28
Fluorene	ng/l	158 ± 9.33	157 ± 47	20.6	99.1	-0.02
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<20 (LOQ) ± -	-	-	-
Naphthalene	ng/l	87.6 ± 4.77	93 ± 28	21	106	0.10
Phenanthrene	ng/l	274 ± 13.2	257 ± 77	41.1	93.8	-0.11
Pyrene	ng/l	175 ± 13.6	157 ± 47	29.8	89.7	-0.19

Sample: P20B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	10.4 ± 1.38	<20 (LOQ) ± -	1.98	-	-
Acenaphthylene	ng/l	- ± -	<20 (LOQ) ± -	-	-	-
Anthracene	ng/l	33.4 ± 2.14	30 ± 9	8	90	-0.18
Benzo[a]anthracene	ng/l	9.26 ± 0.668	<20 (LOQ) ± -	1.67	-	-
Benzo[a]pyrene	ng/l	9.87 ± 1.48	<20 (LOQ) ± -	2.27	-	-
Benzo[b]fluoranthene	ng/l	6.38 ± 0.696	<20 (LOQ) ± -	1.15	-	-
Benzo[g,h,i]perylene	ng/l	19.6 ± 4.4	<20 (LOQ) ± -	6.47	-	-
Benzo[k]fluoranthene	ng/l	33.3 ± 3.57	40 ± 12	9	120	0.28
Chrysene	ng/l	42.6 ± 3.58	40 ± 12	8.09	94	-0.11
Dibenzo[a,h]anthracene	ng/l	26.1 ± 4.09	30 ± 9	7.37	115	0.21

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	29.2 ± 2.5	23 ± 7	5.54	78.9	-0.43
Fluorene	ng/l	26.3 ± 2.42	30 ± 9	4.36	114	0.20
Indeno[1,2,3-cd]pyrene	ng/l	- ± -	<20 (LOQ) ± -	-	-	-
Naphthalene	ng/l	42.6 ± 3.86	50 ± 15	10.2	117	0.24
Phenanthrene	ng/l	47.4 ± 4	43 ± 13	7.48	90.7	-0.17
Pyrene	ng/l	20.6 ± 0.83	20 ± 6	3.51	96.9	-0.05