

**Proficiency Testing Scheme
Umweltanalytik
CBL05 Chlorierte Kohlenwasserstoffe (CKW)
und BTEX & C5-C10**

**Proficiency Testing Scheme for
Environmental Analysis
CBL05 Chlorinated hydrocarbons (CHC) and
BTEX & C5-C10
BERICHT / REPORT**

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D1. Beschreibung des Ringversuchs

D1.1. Ausgestaltung und Durchführung

- Anzahl der Anmeldungen: 24
- Anzahl der übermittelten Datensätze: 24
- Probenversand: 08.10.2019
- Einsendeschluss der Daten: 05.11.2019

Beim Ringversuch CBL05 bestand die Möglichkeit, an den Teilen CL06 (CKW) und/oder BL07 (BTEX & C5-C10) teilzunehmen.

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

Als Probe wurde jeweils ein mit zertifiziertem Kalibriergas beladenes Aktivkohleröhrchen versandt. Zusätzlich wurde ein unbeladenes Röhrchen zur Blindwertbestimmung beigelegt. Die Beladung der Röhrchen erfolgte in zwei Serien (CL06 und BL07). Es wurde ein definiertes Volumen des Kalibriergases der Firma Air Liquide mit einer Pumpe über Orbo 32S Aktivkohleröhrchen (Supelco) gesaugt. Die verwendeten Kalibriergase enthielten zum einen die Substanzen cis-1,2-Dichlorethen, trans-1,2-Dichlorethen, Trichlormethan, 1,1,1-Trichlorethan, Trichlorethen, Tetrachlormethan und Tetrachlorethen (CL06) und zum anderen Benzol, Ethylbenzol, o-, m- und p-Xylool, Toluol, n-Pantan, n-Hexan, n-Heptan, n-Oktan, n-Nonan und n-Dekan (BL07). Die Beladung der Röhrchen erfolgte über ein Y-Stück im drucklosen Zustand. Der eingestellte Pumpenfluss wurde sowohl vor als auch nach der Beladung der Aktivkohleröhrchen kontrolliert. Das Beladen der Röhrchen erfolgte am 02.10.2019 (Probe CL06) und 07.10.2019 (Probe BL07). Die Proben wurden bis zum Versand bei < -70 °C gelagert und am 08.10.2019 verschickt.

Jedes Teilnehmerlabor erhielt je nach Anmeldung:

- 1 beladenes Aktivkohleröhrchen Probe CL06 und/oder
- 1 beladenes Aktivkohleröhrchen Probe BL07

- sowie 1 unbeladenes Aktivkohleröhrchen (Blindwert) pro Probe

D1.3. Anweisungen für die Teilnehmer

Aus Stabilitätsgründen wurde empfohlen bis spätestens 16.10.2019 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 des Beladens wurden zu willkürlichen Zeitpunkten mehrere Aliquote pro Probe zur Kontrollanalytik entnommen.

Es wurden für CL06 bzw. BL07 jeweils n=5 Kontrollproben dem Labor zur Analyse übergeben.

Die Bestimmung der Parameter wurde an ein externes Labor (akkreditiert nach EN ISO/IEC 17025) vergeben.

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 parameterorientierten Auswertung (E7) in Form von Mittelwerten \pm Messunsicherheit als Kontrollwert (control test value) \pm U gelistet (jeweils angegeben als erweiterte Messunsicherheit, k=2).

D1.5. Trendtest zur Bewertung der Stabilität

Die Bewertung der Stabilität der Prüfgegenstände erfolgte auf Basis der Datenstatistik aus den vergangenen Runden für Proben im Zeitraum 2013 bis 2018.

Um die ausreichende Stabilität der Prüfgegenstände der aktuellen Eignungsprüfungsrounde 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 05.11.2019 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, numerischen 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:

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

Dabei ist:

x_i	Messergebnis des teilnehmenden Labors
\bar{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 Proben der vorangegangenen Runden im Zeitraum 2013 bis 2018 (RSDpooled) bzw. aus den ausreißerbereinigten Teilnehmerergebnissen (sR) des aktuellen Ringversuchs (falls noch weniger als 6 vorangegangene Runden vorlagen). In begründeten Fällen (z.B. Ergebnisse Prüfgegenstände 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 Prüfgegenstände 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:

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

Dabei ist:

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

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

Interpretation der z-Scores:

- $|z\text{-Score}| \leq 2.0$ Ergebnis gut
- $2.0 < |z\text{-Score}| < 3.0$ Ergebnis fragwürdig
- $|z\text{-Score}| \geq 3.0$ Ergebnis nicht zufriedenstellend

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

Interpretation der E_n -Scores:

- $|E_n\text{-Score}| \leq 1.0$ zufriedenstellende Leistung
- $|E_n\text{-Score}| > 1.0$ nicht zufriedenstellende Leistung

Hinweis: Bei der Bewertung mittels E_n -Score erfolgt die Berücksichtigung der erweiterten Messunsicherheiten der Teilnehmer und des zugewiesenen Wertes. $|E_n\text{-Score}| > 1.0$ 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 ($\pm U$), 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 labororientierten Auswertung werden pro Labor in anonymisierter Form die Ergebnisse der einzelnen Labore als Messergebnis \pm 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 labororientierten Auswertungen enthalten jeweils die Bewertungsgrundlagen wie zugewiesener Wert samt erweiterter Messunsicherheit, sowie das Kriterium.

Eine Erläuterung zu den Tabellen und Grafiken kann Punkt D5 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 Ergebnistreuung dazu kommen kann, dass der Bereich z-Score - 2 bis z-Score + 2 einen ungewöhnlich hohen Wiederfindungsbereich abdeckt. Umgekehrt führt eine sehr geringe Streuung der Teilnehmerergebnisse dazu, dass z-Score - 2 bis z-Score + 2 einen ungewöhnlich kleinen Wiederfindungsbereich abdeckt.

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

Für alle Parameter wurde als Kriterium für die Berechnung des z-Scores die aktuelle Vergleichsstandardabweichung gewählt.

Parameter Benzol, m-, p-Xylol, n-Hexan, n-Heptan, n-Oktan, n-Nonan und n-Dekan Probe BL07 und 1,1,1-Trichlorethan, cis-1,2-Dichlorethen, Tetrachlormethan, Trichlorethen und Trichlormethan Probe CL06: Die auf Basis der Teilnehmerergebnisse berechneten Sollwerte lagen außerhalb der Messunsicherheit des Kontrollwertes und es ist über das Kontrolllabor keine Rückführbarkeit möglich. Der zugewiesene Wert wurde daher über die ausreißerbereinigten Mittelwerte aus der Gruppe der akkreditierten Teilnehmer berechnet.

Parameter trans-1,2-Dichlorethen Probe CL06: Die relative Vergleichsstandardabweichung der ausreißerbereinigten Teilnehmerergebnisse übersteigt 50 % (60 %). Daher ist keine Bewertung der Teilnehmerergebnisse für diesen Parameter möglich.

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 Teilnehmerergebnisse (angegeben auf 3 signifikante Stellen)
VB (99%)	99% Vertrauensbereich (angegeben auf 3 signifikante Stellen)
Minimum	Minimales abgegebenes Messergebnis, ausreißerbereinigt (angegeben auf 3 signifikante Stellen)
Maximum	Maximales abgegebenes Messergebnis, ausreißerbereinigt (angegeben auf 3 signifikante Stellen)
sR	Vergleichsstandardabweichung berechnet aus den ausreißerbereinigten Teilnehmerergebnissen des aktuellen Ringversuchs (angegeben auf 3 signifikante Stellen)
vR	relative Vergleichsstandardabweichung in %, berechnet aus den ausreißerbereinigten Teilnehmerergebnissen des aktuellen Ringversuchs bezogen auf den Mittelwert (angegeben auf 2 signifikante Stellen)
Kontrollwert ± U (k=2)	Mittelwert der Kontrollmessungen des Veranstalters ± erweiterte Ergebnisunsicherheit des Kontrollwertes (jeweils angegeben auf 3 signifikante Stellen)
Laborcode	anonymisierte, eindeutige Teilnehmerkennung im jeweiligen Ringversuch
Messwert	einzelne(r) Messwert(e) lt. Teilnehmerangabe (maximal 5 Nachkommastellen dargestellt)
Messergebnis	Für die Bewertung herangezogenes Ergebnis lt. Teilnehmerangabe (maximal 5 Nachkommastellen)

	dargestellt).
	Bei Eignungsprüfungsrunden mit Vorgabe von unabhängigen Mehrfachbestimmungen, entspricht dies dem berechneten Mittelwert aus den einzelnen Messwerten der Teilnehmer.
± U	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)

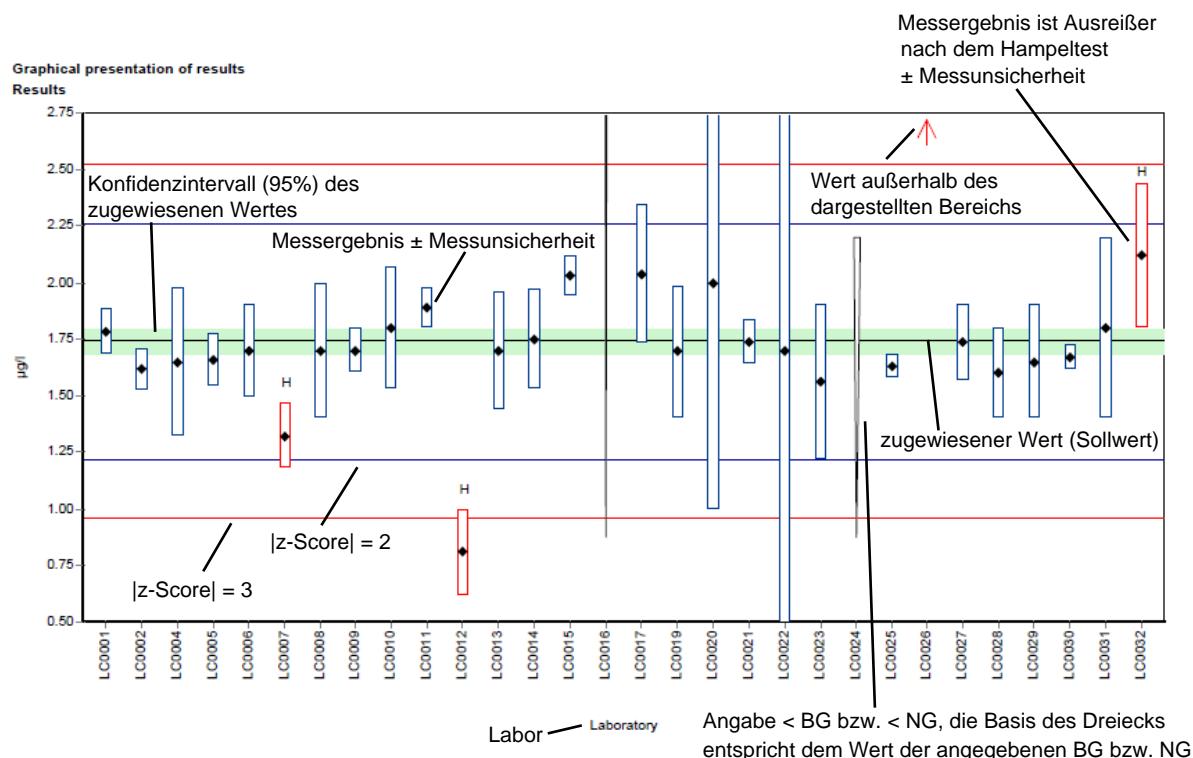
rel. Standardabweichung relative Vergleichsstandardabweichung in %, berechnet aus den Teilnehmerergebnissen des aktuellen Ringversuchs bezogen auf den Mittelwert (angegeben auf 3 signifikante Stellen)

n Anzahl der Messergebnisse

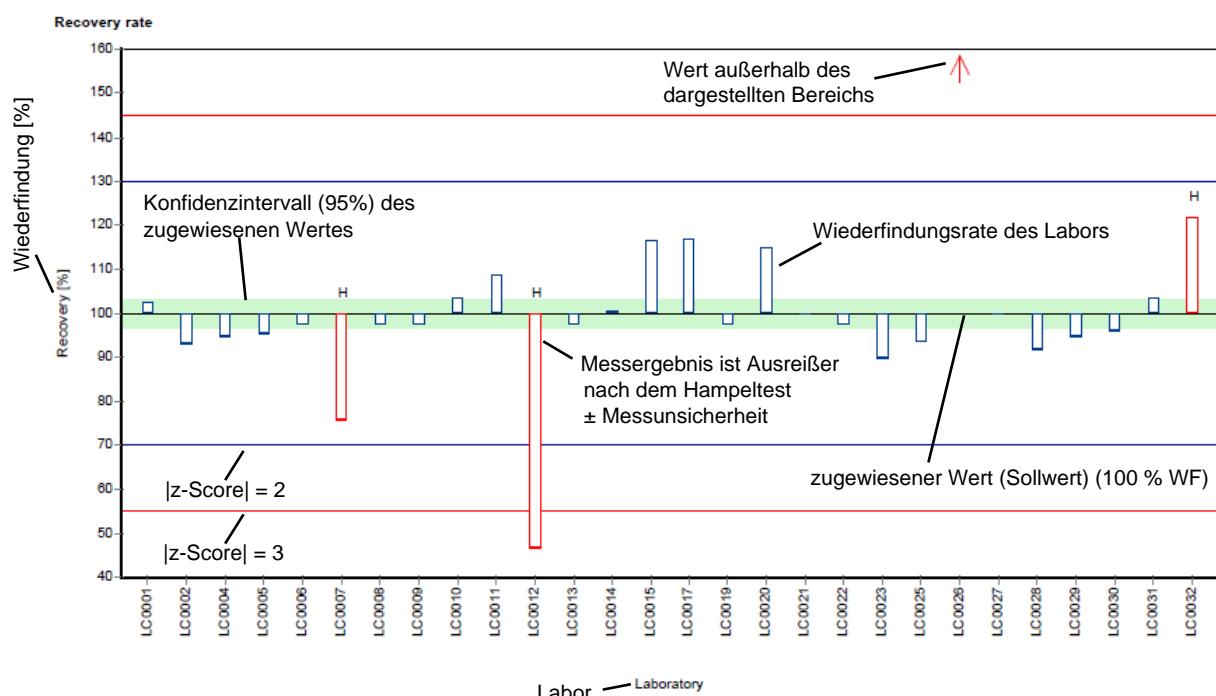
D5.2. Graphische Darstellung der Ergebnisse

Nachfolgend wird die graphische Darstellung anhand von kommentierten Beispieldiagrammen erläutert.

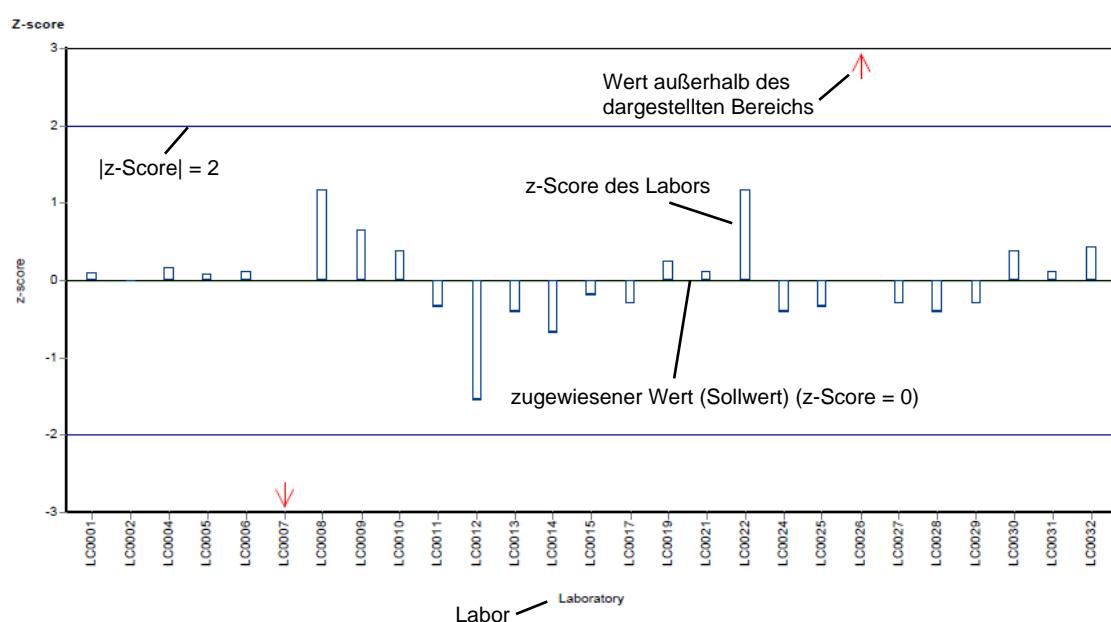
Beispieldiagramm: Messwerte



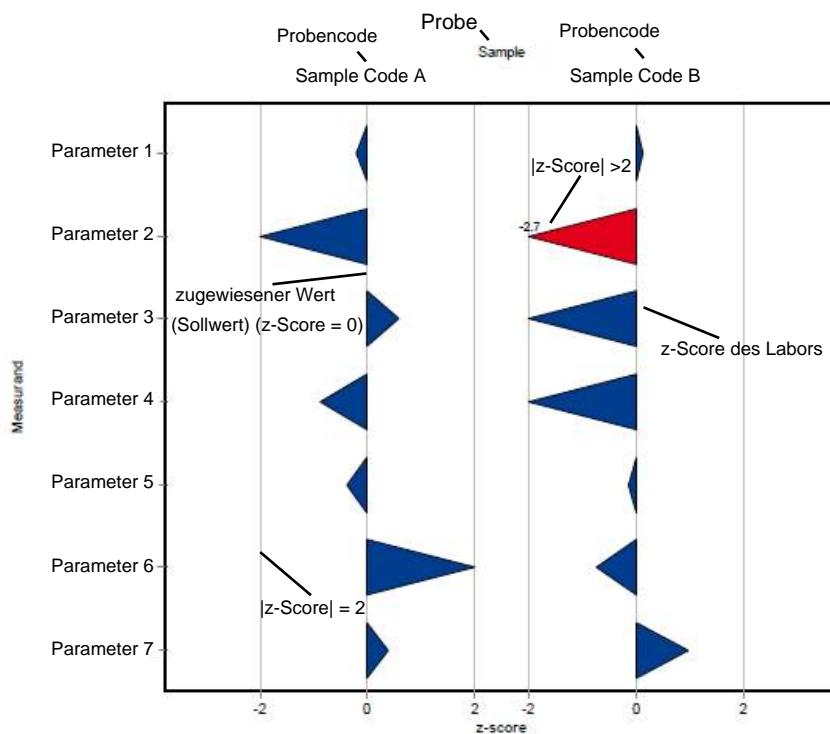
Beispieldiagramm: Wiederfindung zum zugewiesenen Wert



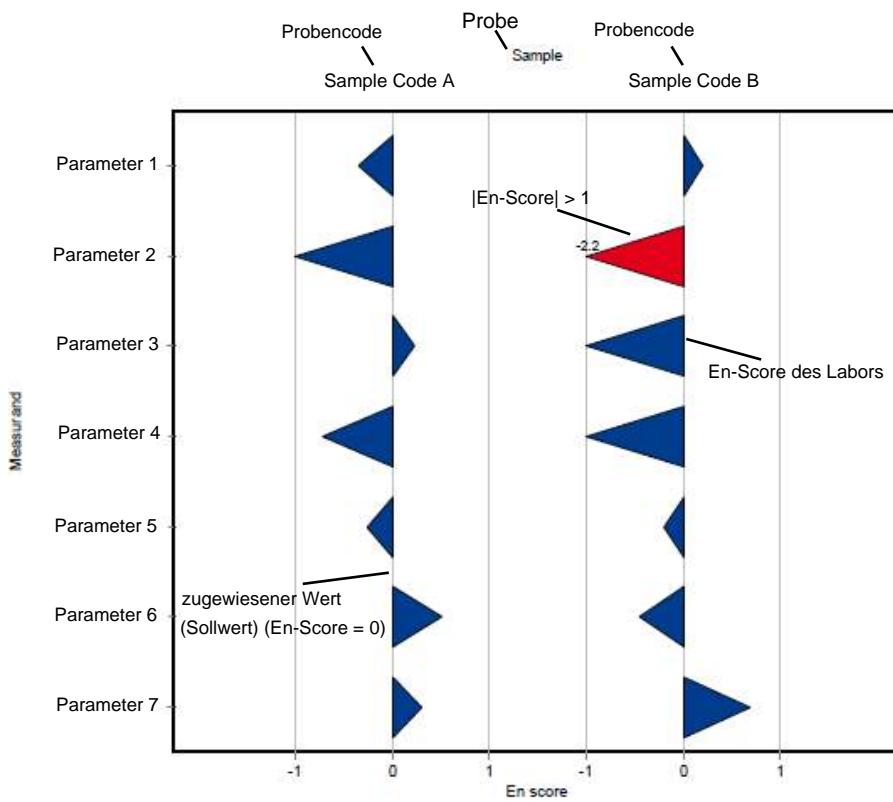
Beispieldiagramm: z-Score



Beispieldiagramm: z-Score (labororientierte Auswertung)



Beispieldiagramm: En-Score (labororientierte Auswertung)



D6. Zusammenfassung

D6.1. Tabelle der zugewiesenen Werte

Parameter	Probe	Einheit	zugewiesener Wert	U (k=2)	Kriterium	Kriterium [%]
1,1,1-Trichlorethan	CL06 - CKW	µg/Röhrchen	4.65 ±	0.414	0.876	19
Benzol	BL07- BTEX & C5-C10	µg/Röhrchen	5.97 ±	0.227	0.495	8.3
cis-1,2-Dichlorethen	CL06 - CKW	µg/Röhrchen	2.78 ±	0.647	1.2	43
Ethylbenzol	BL07- BTEX & C5-C10	µg/Röhrchen	5.86 ±	0.453	1.06	18
n-Dekan	BL07- BTEX & C5-C10	µg/Röhrchen	3.3 ±	0.913	1.39	42
n-Heptan	BL07- BTEX & C5-C10	µg/Röhrchen	6.52 ±	0.816	1.5	23
n-Hexan	BL07- BTEX & C5-C10	µg/Röhrchen	6.68 ±	0.786	1.42	21
n-Nonan	BL07- BTEX & C5-C10	µg/Röhrchen	5.39 ±	0.954	1.56	29
n-Oktan	BL07- BTEX & C5-C10	µg/Röhrchen	6.38 ±	0.846	1.5	23
n-Pentan	BL07- BTEX & C5-C10	µg/Röhrchen	6.61 ±	1.69	2.53	38
o-Xylool	BL07- BTEX & C5-C10	µg/Röhrchen	5.52 ±	0.368	0.823	15
Summe von m-Xylool und p-Xylool	BL07- BTEX & C5-C10	µg/Röhrchen	11.2 ±	0.913	2.2	20
Tetrachlorethen	CL06 - CKW	µg/Röhrchen	3.81 ±	0.363	0.747	20
Tetrachlormethan	CL06 - CKW	µg/Röhrchen	5.53 ±	0.659	1.24	22
Toluol	BL07- BTEX & C5-C10	µg/Röhrchen	6.12 ±	0.353	0.81	13
trans-1,2-Dichlorethen	CL06 - CKW	µg/Röhrchen	*2.45 ±	0.801	-	-
Trichlorethen	CL06 - CKW	µg/Röhrchen	3.83 ±	0.396	0.76	20
Trichlormethan	CL06 - CKW	µg/Röhrchen	4.14 ±	0.522	0.994	24

* keine Bewertung möglich, nähere Details können Kapitel D4. entnommen werden.

D6.2. Zusammenfassung der ausreißerbereinigten Ringversuchsergebnisse

Parameter	Probe	Anzahl Labors für Berechnung	Anzahl Ausreißer Labors	Einheit	Mittelwert	± VB (99%)	Minimum	Maximum	sR	vR [%]
1,1,1-Trichlorethan	CL06 - CKW	17	1	µg/Röhrchen	4.68	± 0.637	3.18	6.27	0.876	19
Benzol	BL07 - BTEX & C5-C10	19	3	µg/Röhrchen	5.99	± 0.341	5.19	6.99	0.495	8.3
cis-1,2-Dichlorethen	CL06 - CKW	16	0	µg/Röhrchen	2.78	± 0.898	0.913	4.75	1.2	43
Ethylbenzol	BL07 - BTEX & C5-C10	22	0	µg/Röhrchen	5.86	± 0.679	2.95	7.19	1.06	18
n-Dekan	BL07 - BTEX & C5-C10	12	0	µg/Röhrchen	3.13	± 1.21	1.2	5.2	1.39	45
n-Heptan	BL07 - BTEX & C5-C10	13	0	µg/Röhrchen	6.35	± 1.25	3.58	8.04	1.5	24
n-Hexan	BL07 - BTEX & C5-C10	12	0	µg/Röhrchen	6.48	± 1.23	3.75	8.34	1.42	22
n-Nonan	BL07 - BTEX & C5-C10	12	0	µg/Röhrchen	5.12	± 1.35	2.77	7.1	1.56	31
n-Oktan	BL07 - BTEX & C5-C10	13	0	µg/Röhrchen	6.16	± 1.25	3.58	7.99	1.5	24
n-Pentan	BL07 - BTEX & C5-C10	9	0	µg/Röhrchen	6.61	± 2.53	4.17	11.9	2.53	38
o-Xylol	BL07 - BTEX & C5-C10	20	2	µg/Röhrchen	5.52	± 0.552	3.25	6.6	0.823	15
Summe von m-Xylol und p-Xylol	BL07 - BTEX & C5-C10	22	0	µg/Röhrchen	11	± 1.41	5.42	13.8	2.2	20
Tetrachlorethen	CL06 - CKW	17	1	µg/Röhrchen	3.81	± 0.544	2.2	5.11	0.747	20
Tetrachlormethan	CL06 - CKW	16	2	µg/Röhrchen	5.47	± 0.929	3.41	8.34	1.24	23
Toluol	BL07 - BTEX & C5-C10	21	1	µg/Röhrchen	6.12	± 0.53	4.44	7.47	0.81	13
trans-1,2-Dichlorethen	CL06 - CKW	16	0	µg/Röhrchen	2.45	± 1.11	0.28	4.81	1.48	60
Trichlorethen	CL06 - CKW	17	1	µg/Röhrchen	3.84	± 0.553	2.11	4.72	0.76	20
Trichlormethan	CL06 - CKW	18	0	µg/Röhrchen	4.12	± 0.703	1.6	6.28	0.994	24

E1. Description of the proficiency test

E1.1. Design and implementation

- Number of registrations: 24
- Number of submitted data records: 24
- Dispatch of samples: 18th October 2019
- Closing date for submission of data: 5th November 2019

For the interlaboratory comparison test CBL05 the participants could participate in CL06 (CHC) and/or BL07 (BTEX & C5-C10).

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

An activated charcoal tube loaded with certified calibration gas was sent as sample. In addition, respectively, an unloaded activated charcoal tube was made available to determine the blank value. The tubes were loaded in two series (CL06 and BL07). A defined volume of the calibration gas from Air Liquide was loaded on Orbo 32S activated charcoal tubes (Supelco) with a pump. The calibration gases contained the substances cis-1,2-Dichloroethene, trans-1,2-Dichloroethene, Trichloromethane, 1,1,1-Trichloroethane, Trichloroethene, Tetrachloromethane and Tetrachloroethene (CL06) on the one hand and Benzene, Ethylbenzene, o -, m- and p-Xylene, Toluene, n-Pentane, n-Hexane, n-Heptane, n-Octane, n-Nonane and n-Decane (BL07). The tubes were loaded using a Y-piece under pressure-less condition. The set flow of the pump was checked before as well as after loading the activated charcoal tubes. The tubes were loaded on 2nd October 2019 (sample CL06) and 7th October 2019 (sample BL07). The samples were stored at <-70 ° C and dispatched on 8th October 2019.

Each participant lab received depending on the registration:

- 1 loaded activated charcoal tube sample CL06 and / or
- 1 loaded activated charcoal tube sample BL07
- and 1 unloaded charcoal tube (blank value) per sample

E1.3. Instructions for the participants

For reasons of stability, it was recommended to start the analysis by the 16th October 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 the loading of the tubes, aliquots of each sample were collected randomly for control testing. From each of the samples CL06 and BL07, n=5 control test samples were transferred to the laboratory for control testing.

The determination of the parameters was assigned to an external laboratory (accredited to EN ISO/IEC 17025).

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 \pm expanded measurement uncertainty as control test value $\pm U$ (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 during the period 2013 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 from 2013 to 2018 and based on the trend test evaluation of the current round, the stability of the test items for

proficiency testing can be confirmed for the recommended analysis period until deadline for submission of data.

E1.6. Determination of the assigned values

The analytical results had to be made available to the organiser not later than 5th November 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.

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:

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

In this context,

x_i	is the measurement value (result) of the participating laboratory
\bar{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 samples from 2013 to 2018 (as RSD pooled) or from the participants' results after removal of outliers (sR) in the current round (if less than 6 previous rounds are available). Where justified (e.g. results are close to minimum quantification limit or in case of regulatory requirements) the criteria is defined by expert judgement and the procedure is clearly described in section E4 of the report.

E2.2. Performance criterion E_n-Score

New for the 2019 proficiency testing of 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:

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

In this context,

x_i	is the measurement value (result) of the participating laboratory
\bar{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:

- $|z\text{-Score}| \leq 2.0$ good result
- $2.0 < |z\text{-Score}| < 3.0$ questionable result
- $|z\text{-Score}| \geq 3.0$ 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:

- $|E_n\text{-Score}| \leq 1.0$ satisfactory performance
- $|E_n\text{-Score}| > 1.0$ 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. $|E_n\text{-Score}| > 1.0$ 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 ($\pm U$), 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 ($\pm U$), 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.

For all parameters, the current reproducibility standard deviation was selected as the criterion for calculating the z-Score.

Parameters Benzene, m-, p-Xylene, n-Hexane, n-Heptane, n-Octane, n-Nonane and n-Decane sample BL07 and 1,1,1-Trichloroethane, cis-1,2-Dichloroethene, Tetrachloromethane, Trichlorethylene and Trichloromethane sample CL06: The assigned values calculated based on the participant results were outside the measurement uncertainty of the control value and thus traceability could not be proven by this procedure. Therefore, new assigned values were defined by the group of accredited participating laboratories after outlier-assessment.

Parameter trans-1,2-Dichloroethene sample CL06: The relative reproducibility standard deviation, calculated from the participants results after removal of outliers

exceeds 50% (60%). Therefore, no evaluation for this parameter is possible in order to evaluate the participant results.

E5. Annotations on tables and charts

E5.1. Information and abbreviations in tables

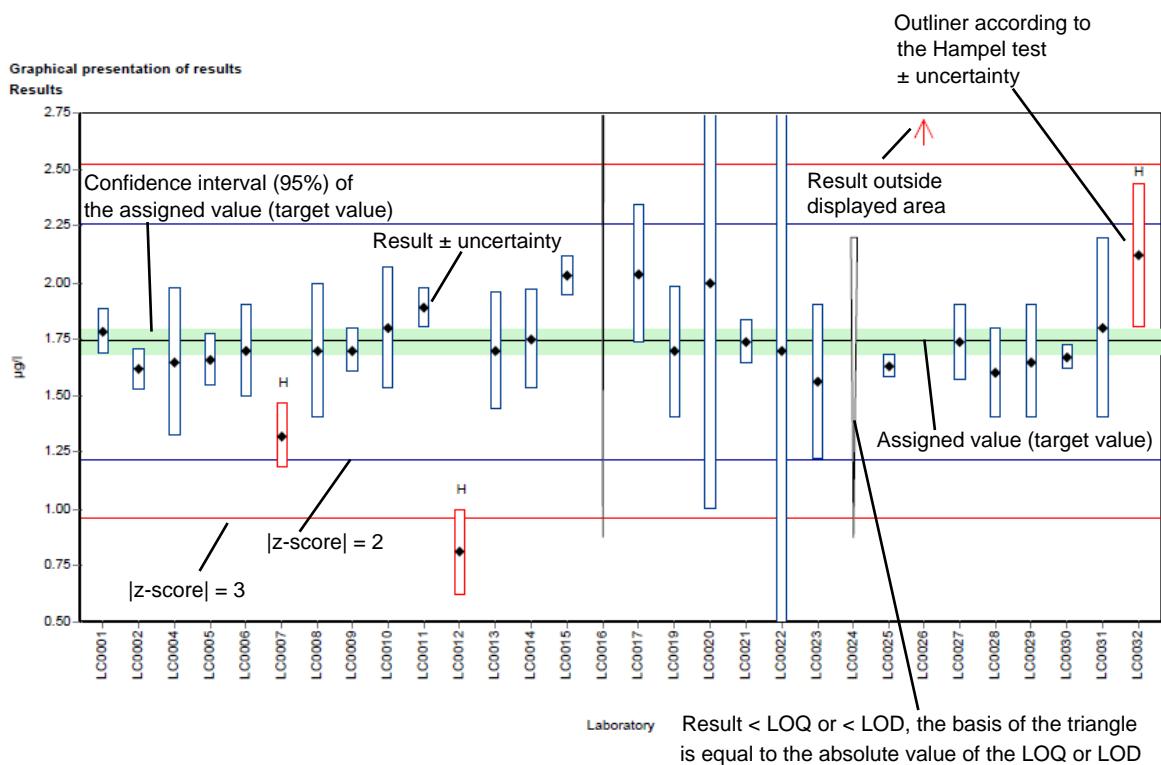
Parameter	Analyte identifier
Sample	Sample identifier
Unit	Given unit for result and uncertainty (e.g. µg/l)
Assigned value	Target value for proficiency assessment of the participants (3 significant digits)
U (k=2)	Expanded uncertainty (k=2) of the assigned value (3 significant digits)
Criterion	Specified 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

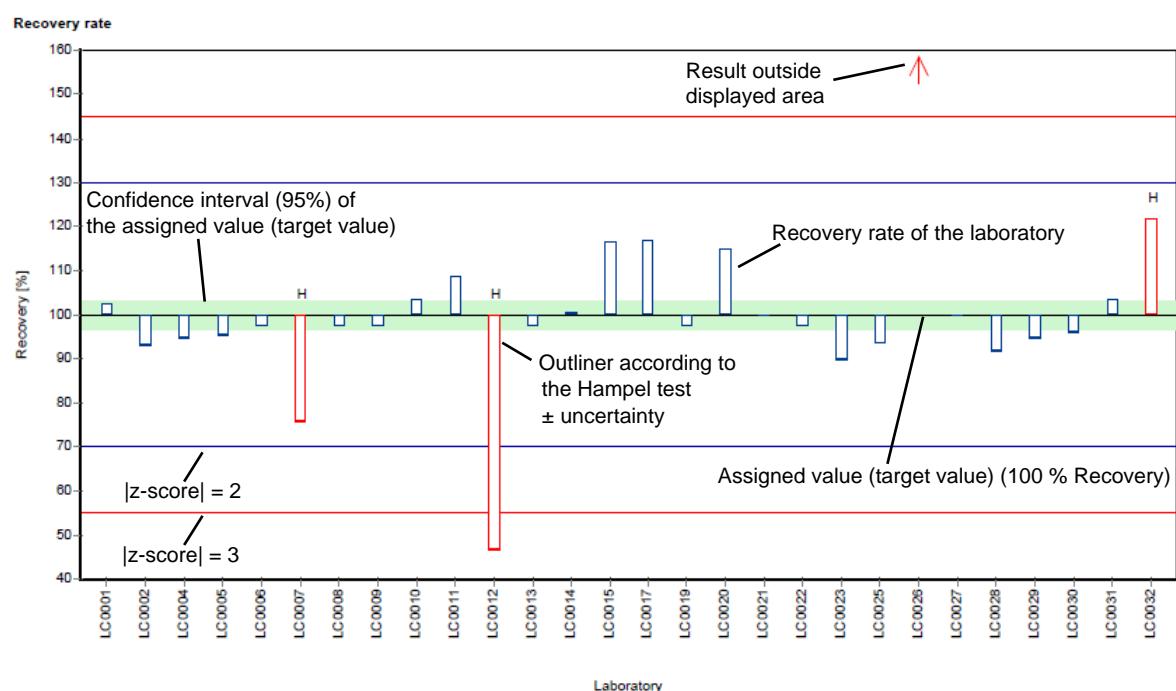
E5.2. Graphical presentation of results

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

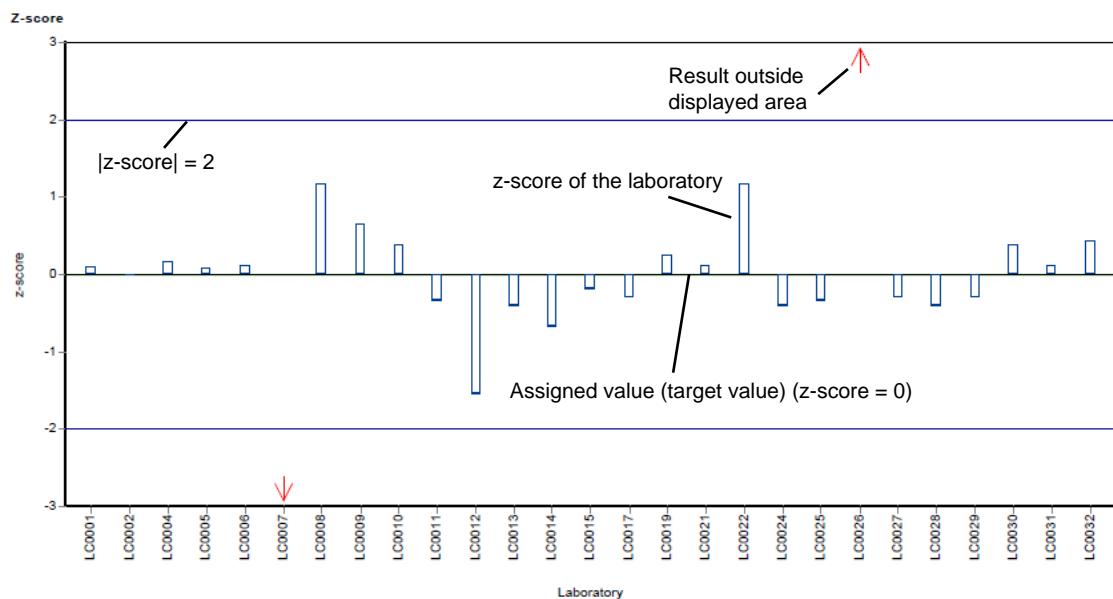
Example chart: Results



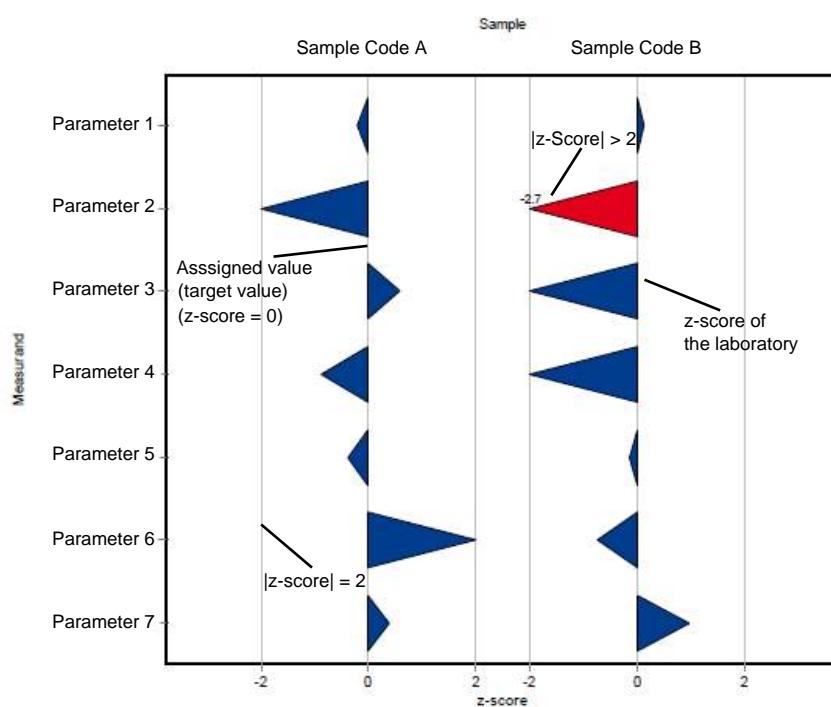
Example chart: Recovery



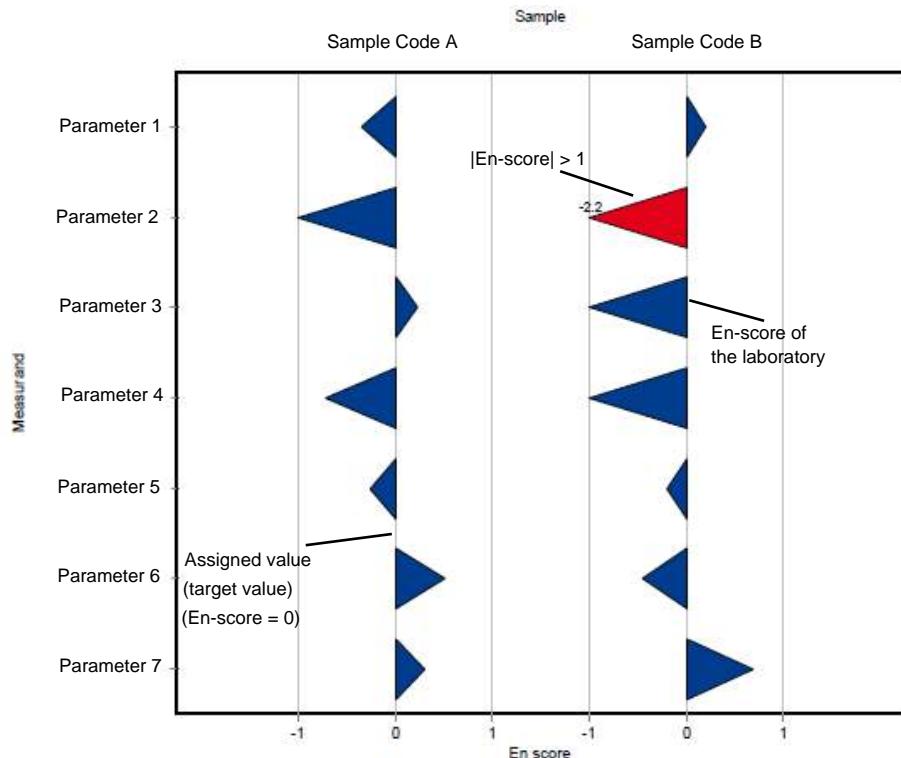
Example chart: z-score



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 [%]
1,1,1-Trichloroethane	CL06 - CHC	µg/tube	4.65 ±	0.414	0.876	19
Benzene	BL07 - BTEX & C5-C10	µg/tube	5.97 ±	0.227	0.495	8.3
cis-1,2-Dichloroethene	CL06 - CHC	µg/tube	2.78 ±	0.647	1.2	43
Ethylbenzene	BL07 - BTEX & C5-C10	µg/tube	5.86 ±	0.453	1.06	18
n-Decane	BL07 - BTEX & C5-C10	µg/tube	3.3 ±	0.913	1.39	42
n-Heptane	BL07 - BTEX & C5-C10	µg/tube	6.52 ±	0.816	1.5	23
n-Hexane	BL07 - BTEX & C5-C10	µg/tube	6.68 ±	0.786	1.42	21
n-Nonane	BL07 - BTEX & C5-C10	µg/tube	5.39 ±	0.954	1.56	29
n-Octane	BL07 - BTEX & C5-C10	µg/tube	6.38 ±	0.846	1.5	23
n-Pentane	BL07 - BTEX & C5-C10	µg/tube	6.61 ±	1.69	2.53	38
o-Xylene	BL07 - BTEX & C5-C10	µg/tube	5.52 ±	0.368	0.823	15
Sum of m-Xylene and p-Xylene	BL07 - BTEX & C5-C10	µg/tube	11.2 ±	0.913	2.2	20
Tetrachloroethene	CL06 - CHC	µg/tube	3.81 ±	0.363	0.747	20
Tetrachloromethane	CL06 - CHC	µg/tube	5.53 ±	0.659	1.24	22
Toluene	BL07 - BTEX & C5-C10	µg/tube	6.12 ±	0.353	0.81	13
trans-1,2-Dichloroethene	CL06 - CHC	µg/tube	*2.45 ±	0.801	-	-
Trichloroethene	CL06 - CHC	µg/tube	3.83 ±	0.396	0.76	20
Trichloromethane	CL06 - CHC	µg/tube	4.14 ±	0.522	0.994	24

* no evaluation possible, for details please see chapter E4.

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

Parameter	Sample	Number of results for calculation	Number of outliers	Unit	Mean	\pm CI (99%)	Minimum	Maximum	sR	vR [%]
1,1,1-Trichloroethane	CL06 - CHC	17	1	µg/tube	4.68	\pm 0.637	3.18	6.27	0.876	19
Benzene	BL07 - BTEX & C5-C10	19	3	µg/tube	5.99	\pm 0.341	5.19	6.99	0.495	8.3
cis-1,2-Dichloroethene	CL06 - CHC	16	0	µg/tube	2.78	\pm 0.898	0.913	4.75	1.2	43
Ethylbenzene	BL07 - BTEX & C5-C10	22	0	µg/tube	5.86	\pm 0.679	2.95	7.19	1.06	18
n-Decane	BL07 - BTEX & C5-C10	12	0	µg/tube	3.13	\pm 1.21	1.2	5.2	1.39	45
n-Heptane	BL07 - BTEX & C5-C10	13	0	µg/tube	6.35	\pm 1.25	3.58	8.04	1.5	24
n-Hexane	BL07 - BTEX & C5-C10	12	0	µg/tube	6.48	\pm 1.23	3.75	8.34	1.42	22
n-Nonane	BL07 - BTEX & C5-C10	12	0	µg/tube	5.12	\pm 1.35	2.77	7.1	1.56	31
n-Octane	BL07 - BTEX & C5-C10	13	0	µg/tube	6.16	\pm 1.25	3.58	7.99	1.5	24
n-Pentane	BL07 - BTEX & C5-C10	9	0	µg/tube	6.61	\pm 2.53	4.17	11.9	2.53	38
o-Xylene	BL07 - BTEX & C5-C10	20	2	µg/tube	5.52	\pm 0.552	3.25	6.6	0.823	15
Sum of m-Xylene and p-Xylene	BL07 - BTEX & C5-C10	22	0	µg/tube	11	\pm 1.41	5.42	13.8	2.2	20
Tetrachloroethylene	CL06 - CHC	17	1	µg/tube	3.81	\pm 0.544	2.2	5.11	0.747	20
Tetrachloromethane	CL06 - CHC	16	2	µg/tube	5.47	\pm 0.929	3.41	8.34	1.24	23
Toluene	BL07 - BTEX & C5-C10	21	1	µg/tube	6.12	\pm 0.53	4.44	7.47	0.81	13
trans-1,2-Dichloroethene	CL06 - CHC	16	0	µg/tube	2.45	\pm 1.11	0.28	4.81	1.48	60
Trichloroethylene	CL06 - CHC	17	1	µg/tube	3.84	\pm 0.553	2.11	4.72	0.76	20
Trichloromethane	CL06 - CHC	18	0	µg/tube	4.12	\pm 0.703	1.6	6.28	0.994	24

E7. Parameterorientierte Auswertung / Parameter oriented report

1,1,1-Trichloroethane	32
Benzene	36
cis-1,2-Dichloroethene.....	40
Ethylbenzene	44
n-Decane.....	48
n-Heptane	52
n-Hexane.....	56
n-Nonane	60
n-Octane	64
n-Pentane.....	68
o-Xylene	72
Sum of m-Xylene and p-Xylene	76
Tetrachloroethene	80
Tetrachloromethane	84
Toluene	88
trans-1,2-Dichloroethene	92
Trichloroethene	96
Trichloromethane	100

Parameter oriented report

CL06 - CHC

1,1,1-Trichloroethane

Unit	µg/tube
Assigned value ± U (k=2)	4.65 ± 0.414
Criterion	0.876 (19 %)
Minimum - Maximum	3.18 - 6.27
Control test value ± U (k=2)	5.90 ± 1.06

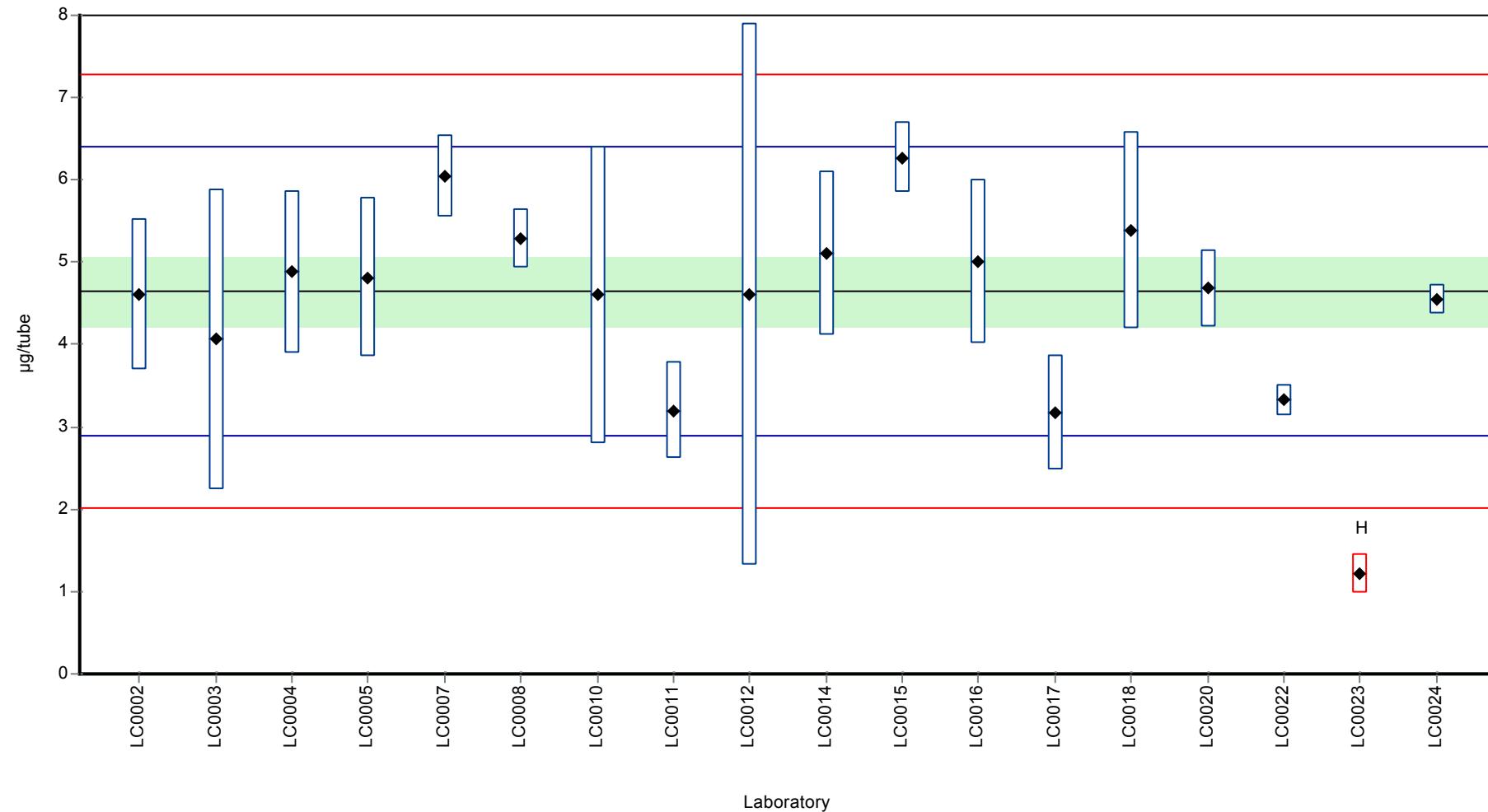
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0002	4.606	0.921	99.1	-0.05	
LC0003	4.06	1.82	87.3	-0.67	
LC0004	4.88	0.98	105	0.26	
LC0005	4.817	0.963	104	0.19	
LC0007	6.0375	0.5	130	1.58	
LC0008	5.29	0.36	114	0.73	
LC0010	4.6	1.8	98.9	-0.06	
LC0011	3.2	0.59	68.8	-1.66	
LC0012	4.608	3.287	99.1	-0.05	
LC0014	5.11	1	110	0.53	
LC0015	6.27	0.433	135	1.85	
LC0016	5.01	1	108	0.41	
LC0017	3.18	0.7	68.4	-1.68	
LC0018	5.38	1.2	116	0.83	
LC0020	4.68	0.468	101	0.03	
LC0022	3.328	0.19	71.6	-1.51	
LC0023	1.21	0.24	26	-3.93	H
LC0024	4.55	0.18	97.9	-0.11	

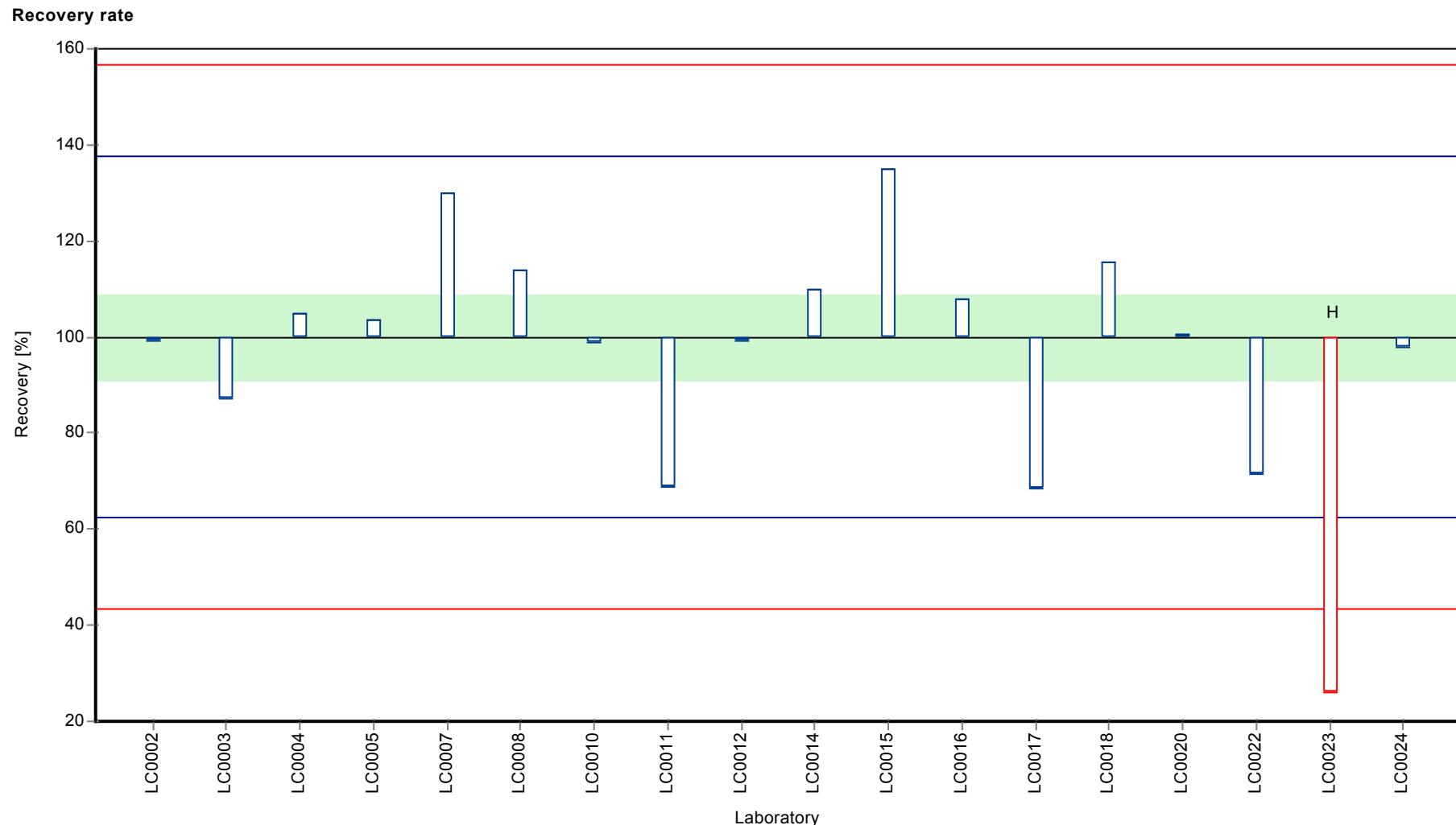
Characteristics of parameter

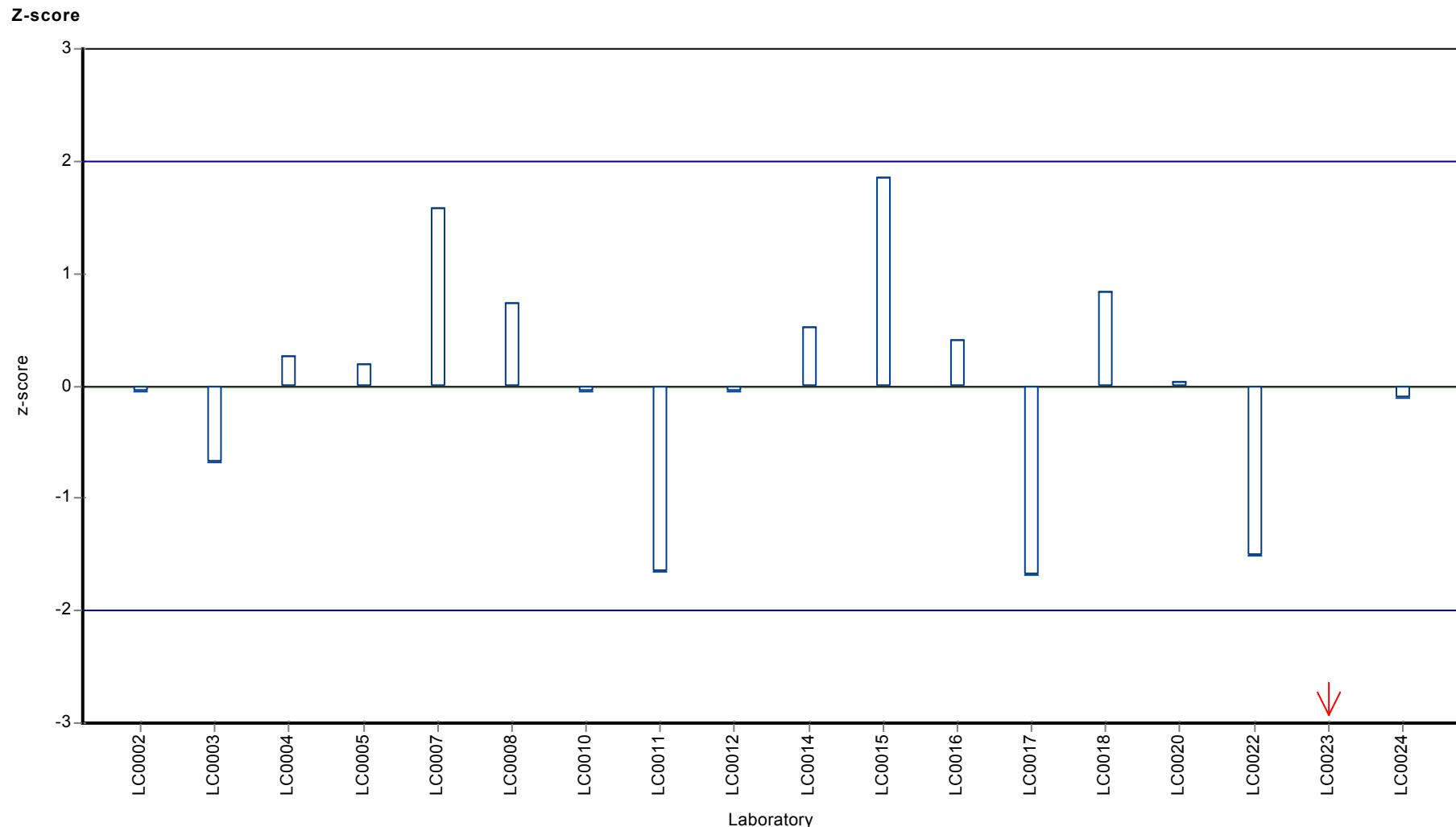
	all results	without outliers	Unit
Mean ± CI (99%)	4.49 ± 0.834	4.68 ± 0.637	µg/tube
Minimum	1.21	3.18	µg/tube
Maximum	6.27	6.27	µg/tube
Standard deviation	1.18	0.876	µg/tube
rel. standard deviation	26.3	18.7	%
n	18	17	-

Graphical presentation of results

Results







Parameter oriented report

BL07 - BTEX & C5-C10

Benzene

Unit $\mu\text{g/tube}$
Assigned value $\pm U$ ($k=2$) 5.97 ± 0.227
Criterion 0.495 (8.3 %)
Minimum - Maximum $5.19 - 6.99$
Control test value $\pm U$ ($k=2$) 7.34 ± 0.649

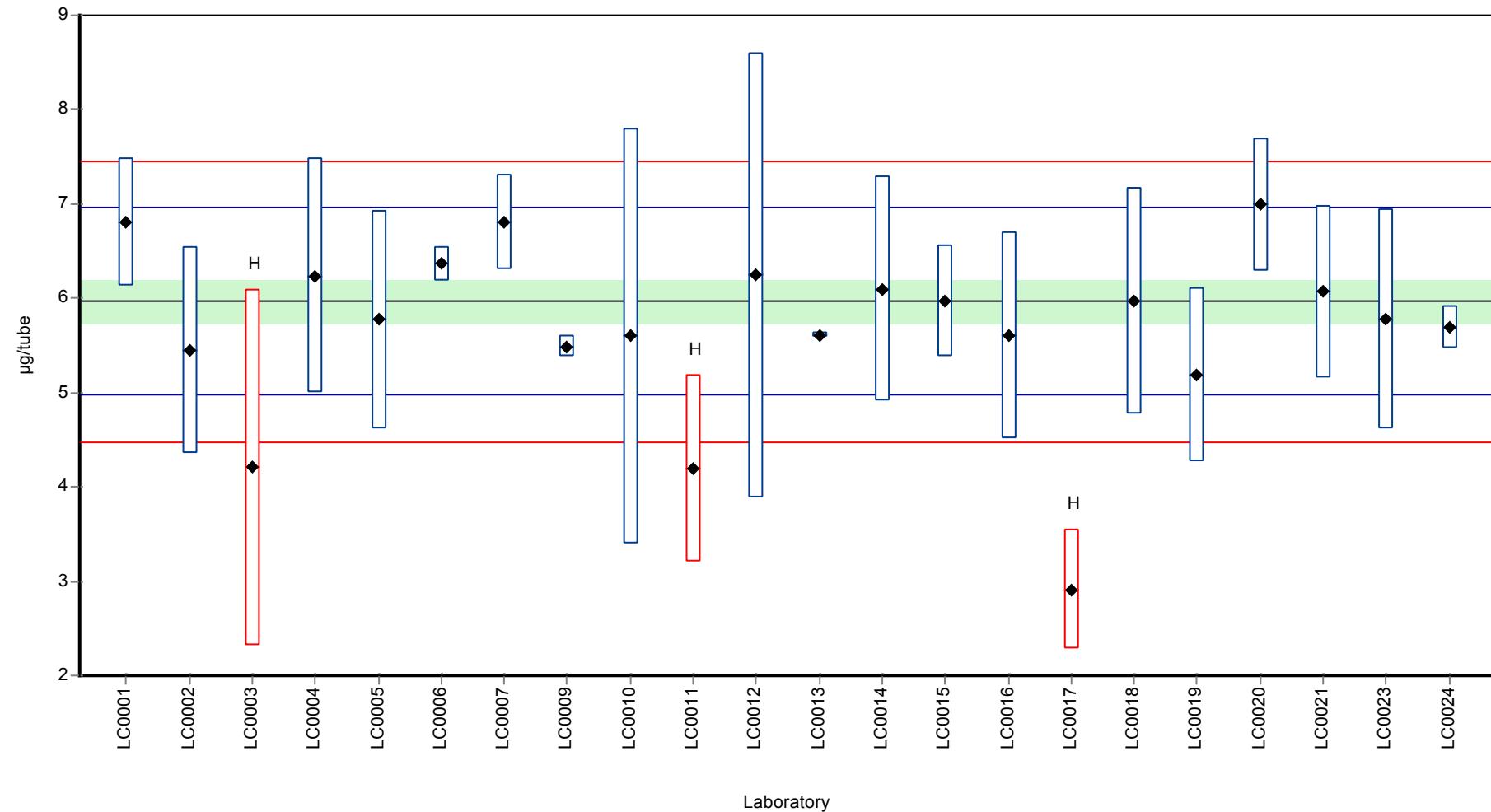
Labcode	Result	$\pm U$	Recovery [%]	z-score	Comments
LC0001	6.8	0.68	114	1.68	
LC0002	5.447	1.09	91.3	-1.05	
LC0003	4.21	1.89	70.6	-3.55	H
LC0004	6.24	1.25	105	0.55	
LC0005	5.771	1.154	96.7	-0.4	
LC0006	6.364	0.18	107	0.8	
LC0007	6.804	0.5	114	1.69	
LC0009	5.49	0.12	92	-0.96	
LC0010	5.6	2.2	93.8	-0.74	
LC0011	4.2	0.99	70.4	-3.57	H
LC0012	6.241	2.352	105	0.55	
LC0013	5.61	0.03	94	-0.72	
LC0014	6.1	1.2	102	0.27	
LC0015	5.97	0.597	100	0.01	
LC0016	5.61	1.1	94	-0.72	
LC0017	2.91	0.64	48.8	-6.17	H
LC0018	5.97	1.2	100	0.01	
LC0019	5.186	0.917	86.9	-1.58	
LC0020	6.99	0.699	117	2.07	
LC0021	6.07	0.91	102	0.21	
LC0023	5.78	1.16	96.9	-0.38	
LC0024	5.69	0.23	95.4	-0.56	

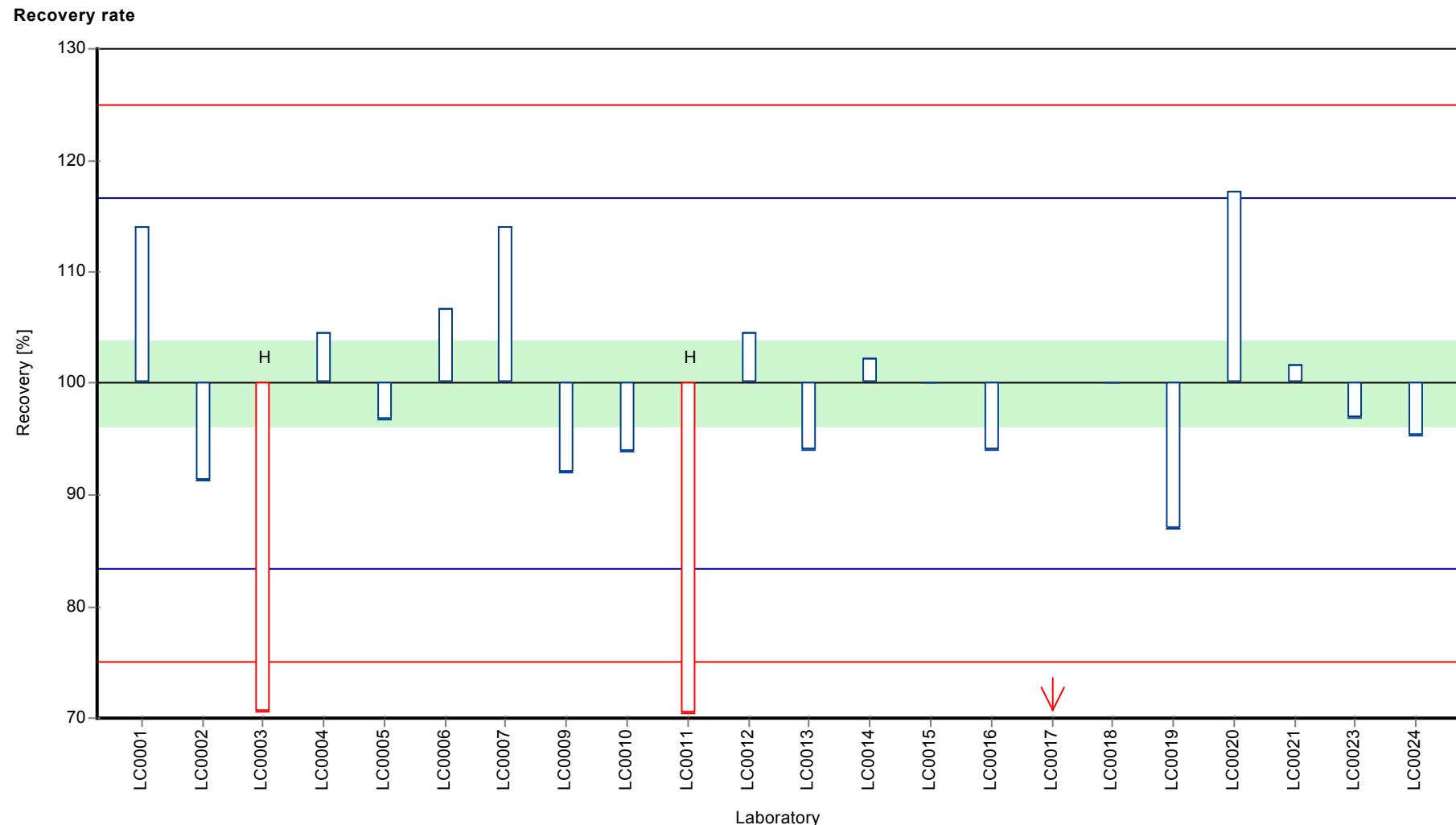
Characteristics of parameter

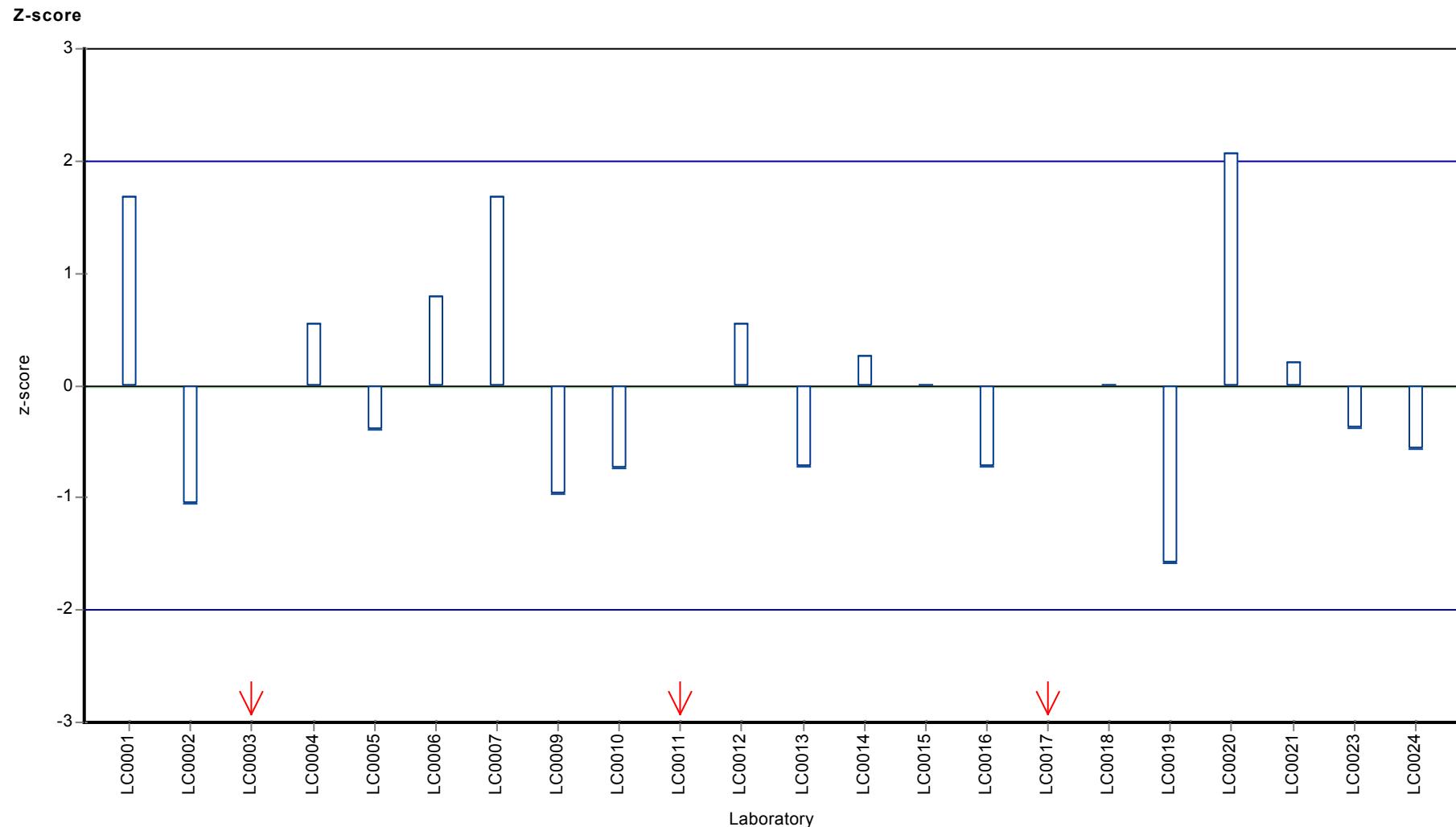
	all results	without outliers	Unit
Mean $\pm CI$ (99%)	5.68 ± 0.596	5.99 ± 0.341	$\mu\text{g/tube}$
Minimum	2.91	5.19	$\mu\text{g/tube}$
Maximum	6.99	6.99	$\mu\text{g/tube}$
Standard deviation	0.931	0.495	$\mu\text{g/tube}$
rel. standard deviation	16.4	8.28	%
n	22	19	-

Graphical presentation of results

Results







Parameter oriented report

CL06 - CHC

cis-1,2-Dichloroethene

Unit	µg/tube
Assigned value ± U (k=2)	2.78 ± 0.647
Criterion	1.2 (43 %)
Minimum - Maximum	0.913 - 4.75
Control test value ± U (k=2)	4.85 ± 0.787

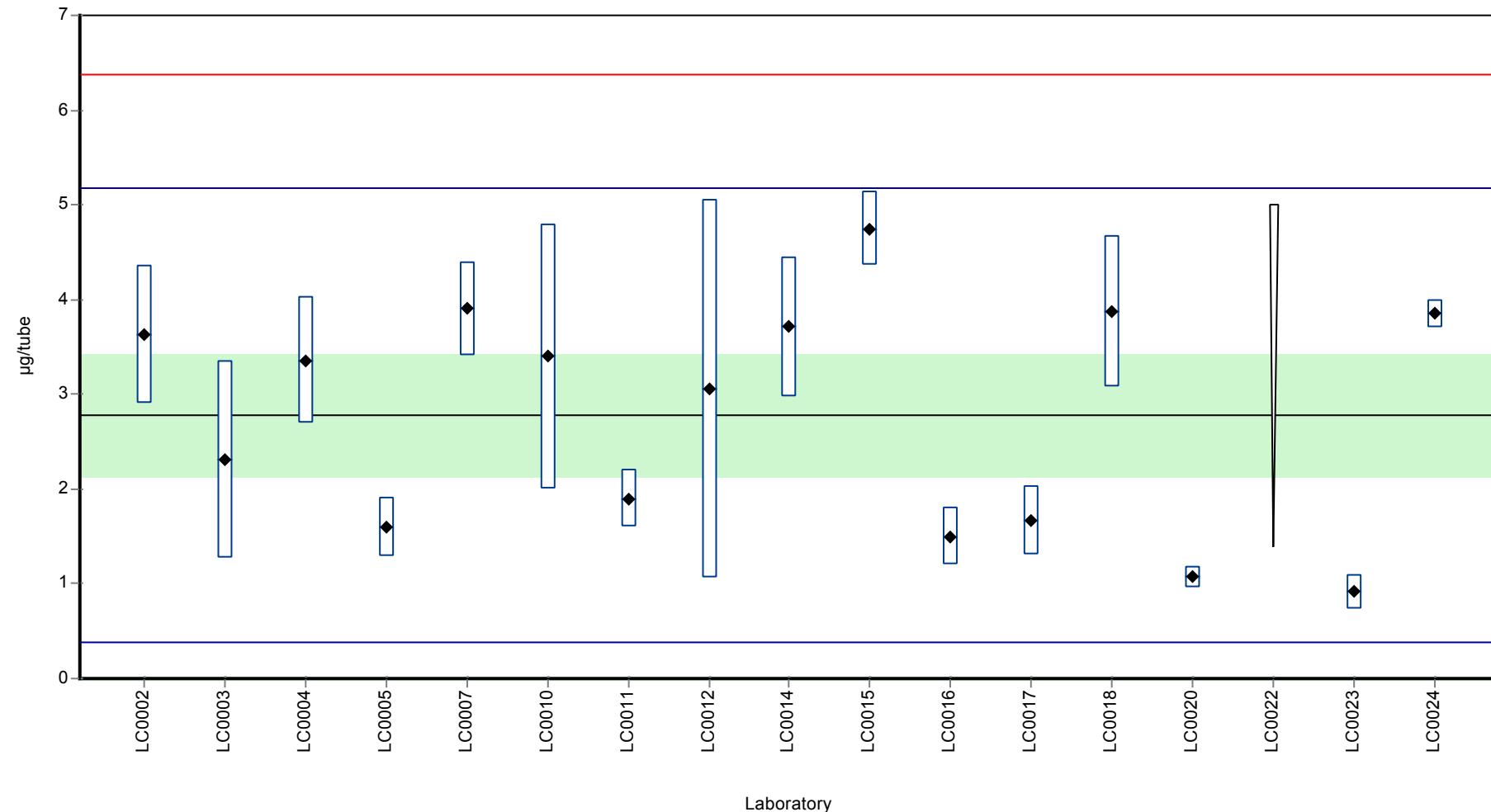
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0002	3.627	0.725	130	0.71	
LC0003	2.31	1.04	83.1	-0.39	
LC0004	3.36	0.67	121	0.48	
LC0005	1.599	0.32	57.5	-0.99	
LC0007	3.9	0.5	140	0.94	
LC0008	-	-	-	-	
LC0010	3.4	1.4	122	0.52	
LC0011	1.9	0.3	68.3	-0.73	
LC0012	3.059	1.994	110	0.23	
LC0014	3.71	0.74	133	0.78	
LC0015	4.75	0.394	171	1.64	
LC0016	1.5	0.3	54	-1.07	
LC0017	1.67	0.37	60.1	-0.93	
LC0018	3.87	0.8	139	0.91	
LC0020	1.07	0.107	38.5	-1.43	
LC0022	< 5 (LOQ)	-	-	-	
LC0023	0.913	0.18	32.8	-1.56	
LC0024	3.85	0.15	138	0.89	

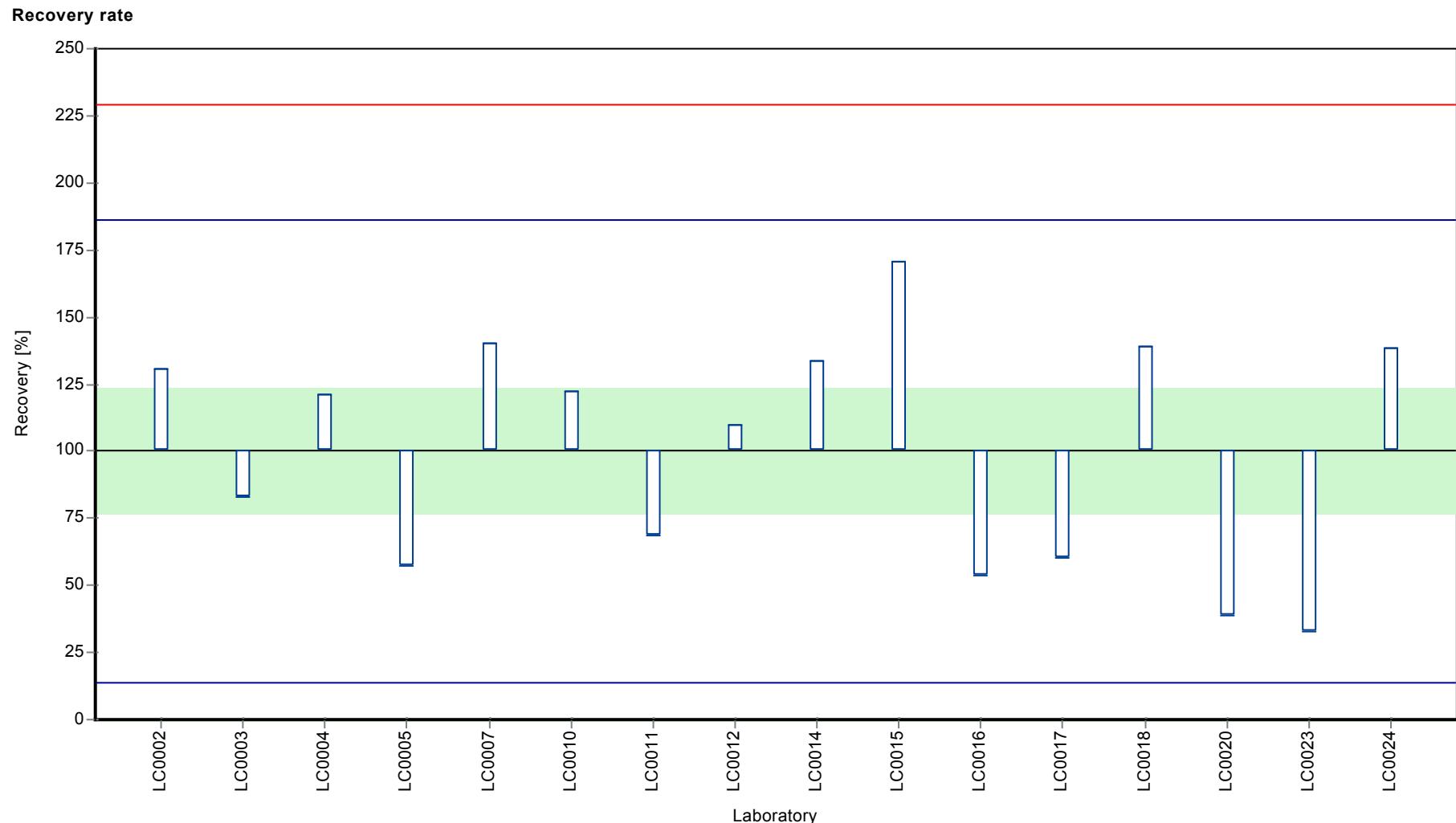
Characteristics of parameter

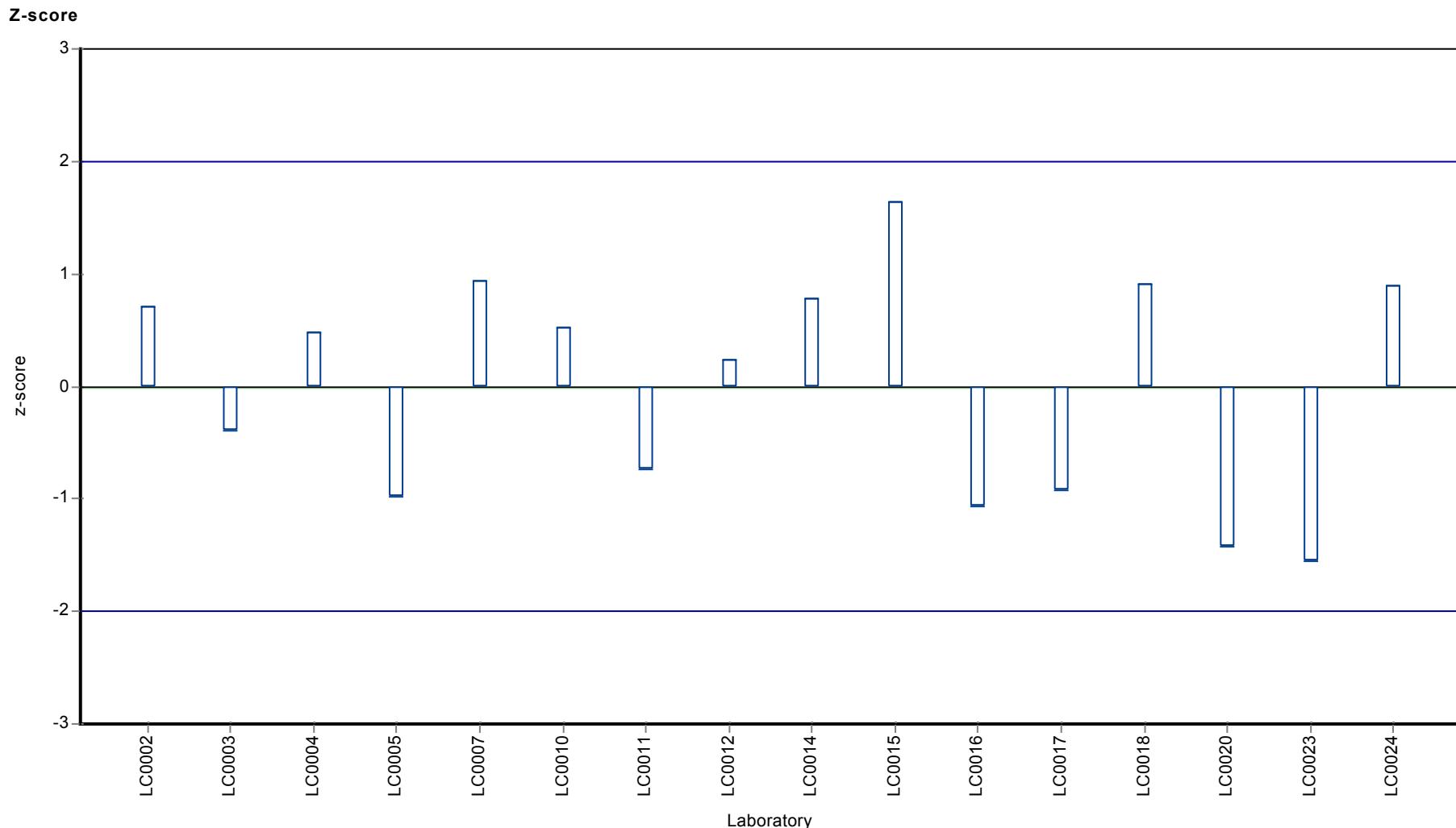
	all results	without outliers	Unit
Mean ± CI (99%)	2.78 ± 0.898	2.78 ± 0.898	µg/tube
Minimum	0.913	0.913	µg/tube
Maximum	4.75	4.75	µg/tube
Standard deviation	1.2	1.2	µg/tube
rel. standard deviation	43.1	43.1	%
n	16	16	-

Graphical presentation of results

Results







Parameter oriented report

BL07 - BTEX & C5-C10

Ethylbenzene

Unit	µg/tube
Assigned value ± U (k=2)	5.86 ± 0.453
Criterion	1.06 (18 %)
Minimum - Maximum	2.95 - 7.19
Control test value ± U (k=2)	6.66 ± 0.751

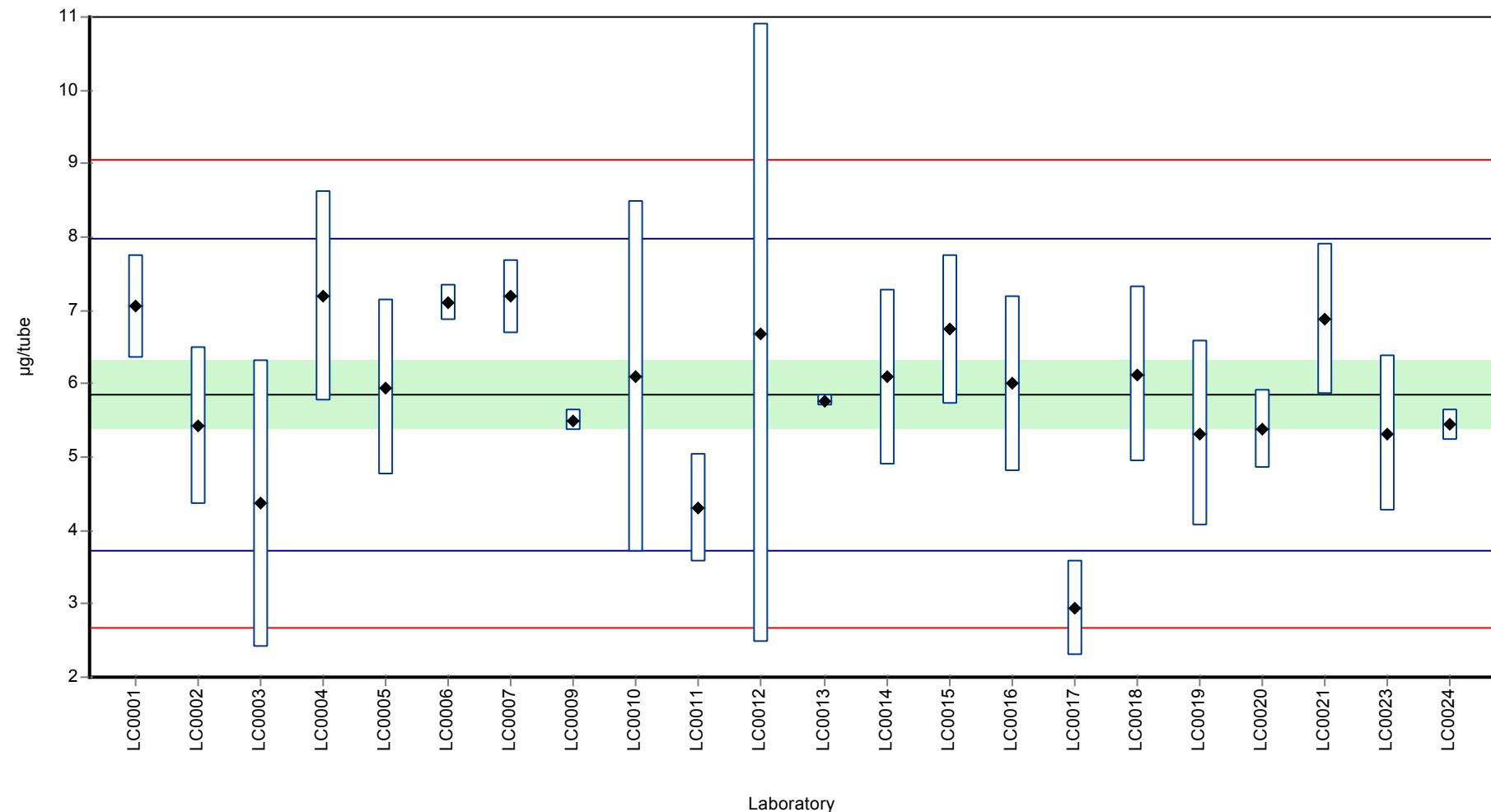
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	7.05	0.71	120	1.12	
LC0002	5.422	1.08	92.6	-0.41	
LC0003	4.37	1.96	74.6	-1.4	
LC0004	7.19	1.44	123	1.26	
LC0005	5.951	1.19	102	0.09	
LC0006	7.098	0.25	121	1.17	
LC0007	7.189	0.5	123	1.25	
LC0009	5.5	0.14	93.9	-0.34	
LC0010	6.1	2.4	104	0.23	
LC0011	4.3	0.74	73.4	-1.47	
LC0012	6.689	4.22	114	0.78	
LC0013	5.77	0.08	98.5	-0.08	
LC0014	6.09	1.2	104	0.22	
LC0015	6.74	1.018	115	0.83	
LC0016	6	1.2	102	0.13	
LC0017	2.95	0.65	50.4	-2.74	
LC0018	6.13	1.2	105	0.26	
LC0019	5.317	1.268	90.8	-0.51	
LC0020	5.37	0.537	91.7	-0.46	
LC0021	6.88	1.03	117	0.96	
LC0023	5.32	1.06	90.8	-0.51	
LC0024	5.44	0.22	92.9	-0.39	

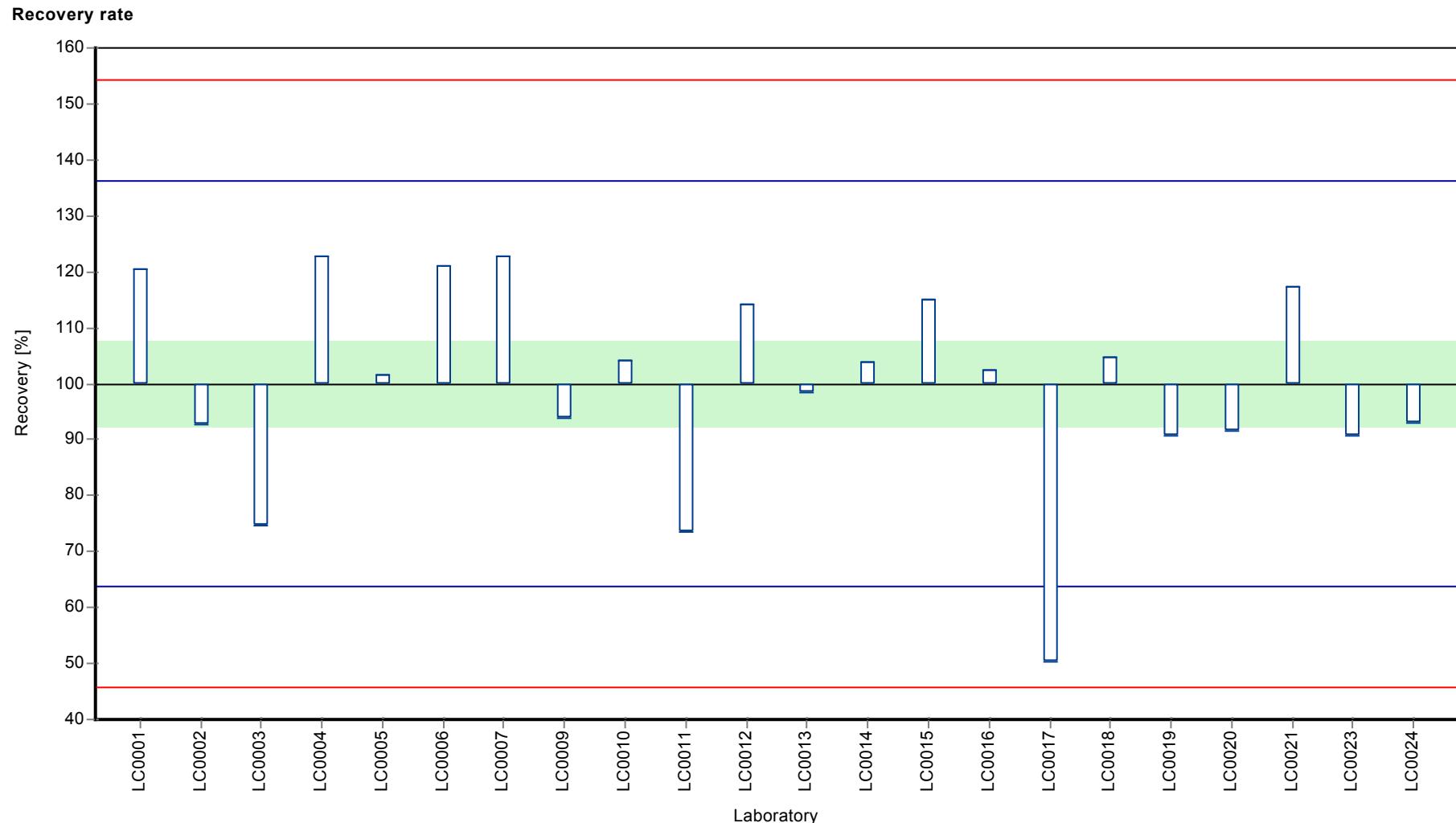
Characteristics of parameter

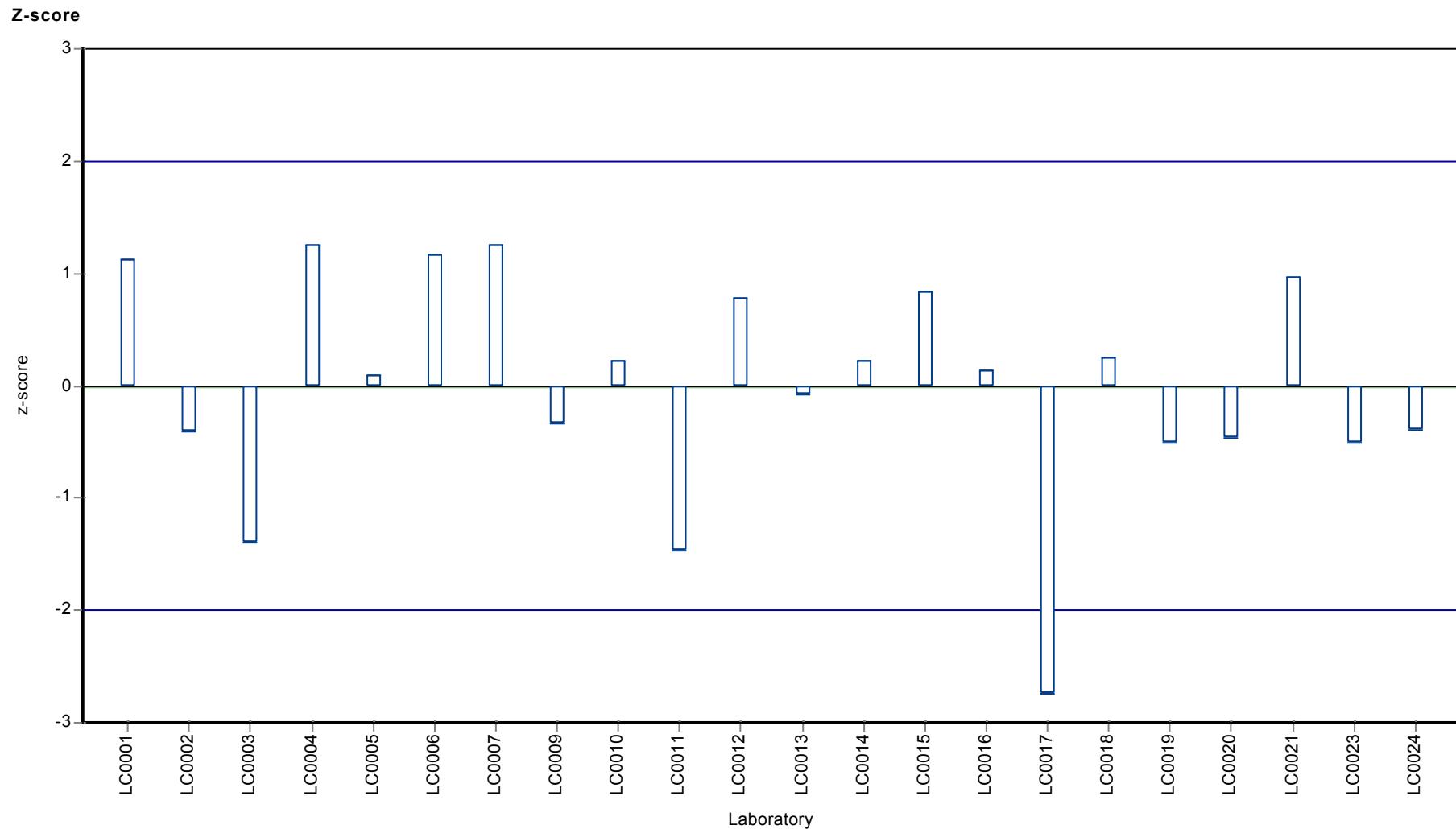
	all results	without outliers	Unit
Mean ± CI (99%)	5.86 ± 0.679	5.86 ± 0.679	µg/tube
Minimum	2.95	2.95	µg/tube
Maximum	7.19	7.19	µg/tube
Standard deviation	1.06	1.06	µg/tube
rel. standard deviation	18.1	18.1	%
n	22	22	-

Graphical presentation of results

Results







Parameter oriented report

BL07 - BTEX & C5-C10

n-Decane

Unit	µg/tube
Assigned value ± U (k=2)	3.3 ± 0.913
Criterion	1.39 (42 %)
Minimum - Maximum	1.2 - 5.2
Control test value ± U (k=2)	4.59 ± 0.545

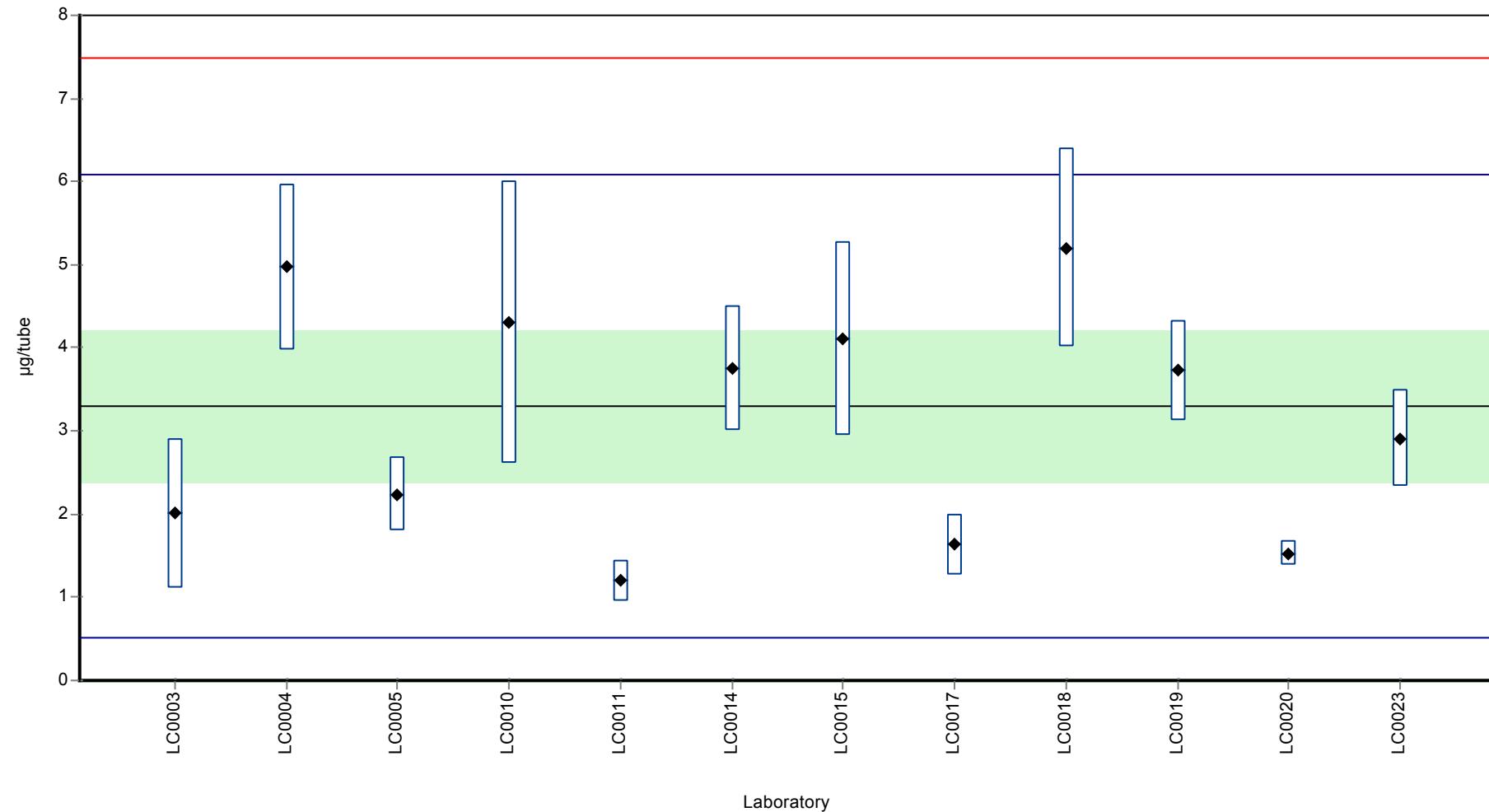
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	-	-	-	-	
LC0003	2.01	0.9	60.8	-0.93	
LC0004	4.97	0.99	150	1.2	
LC0005	2.24	0.448	67.8	-0.76	
LC0006	-	-	-	-	
LC0007	-	-	-	-	
LC0009	-	-	-	-	
LC0010	4.3	1.7	130	0.71	
LC0011	1.2	0.25	36.3	-1.51	
LC0012	-	-	-	-	
LC0013	-	-	-	-	
LC0014	3.75	0.75	114	0.32	
LC0015	4.11	1.171	124	0.58	
LC0016	-	-	-	-	
LC0017	1.63	0.36	49.3	-1.2	
LC0018	5.2	1.2	157	1.36	
LC0019	3.728	0.601	113	0.3	
LC0020	1.53	0.153	46.3	-1.27	
LC0021	-	-	-	-	
LC0023	2.91	0.58	88.1	-0.28	
LC0024	-	-	-	-	

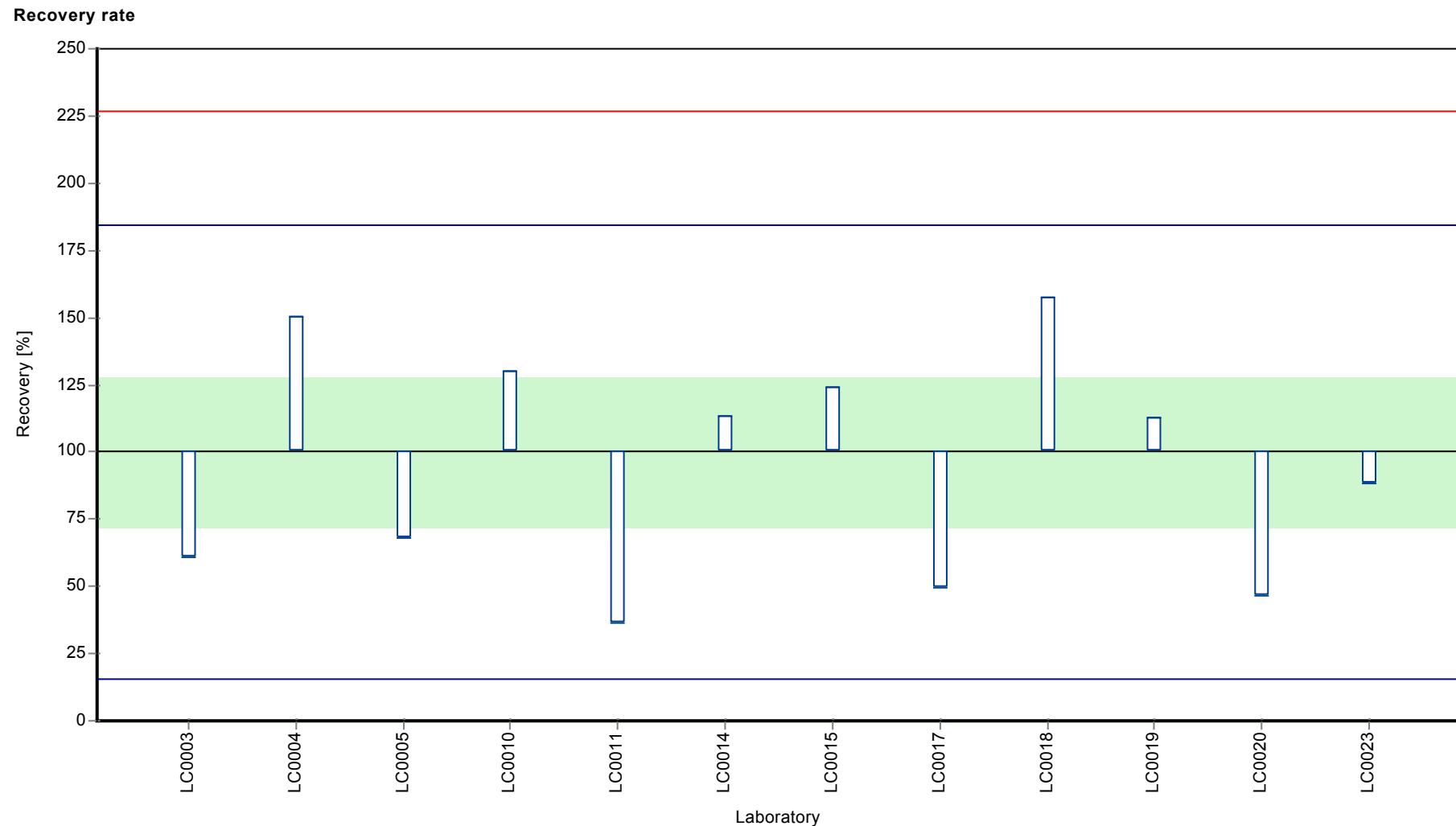
Characteristics of parameter

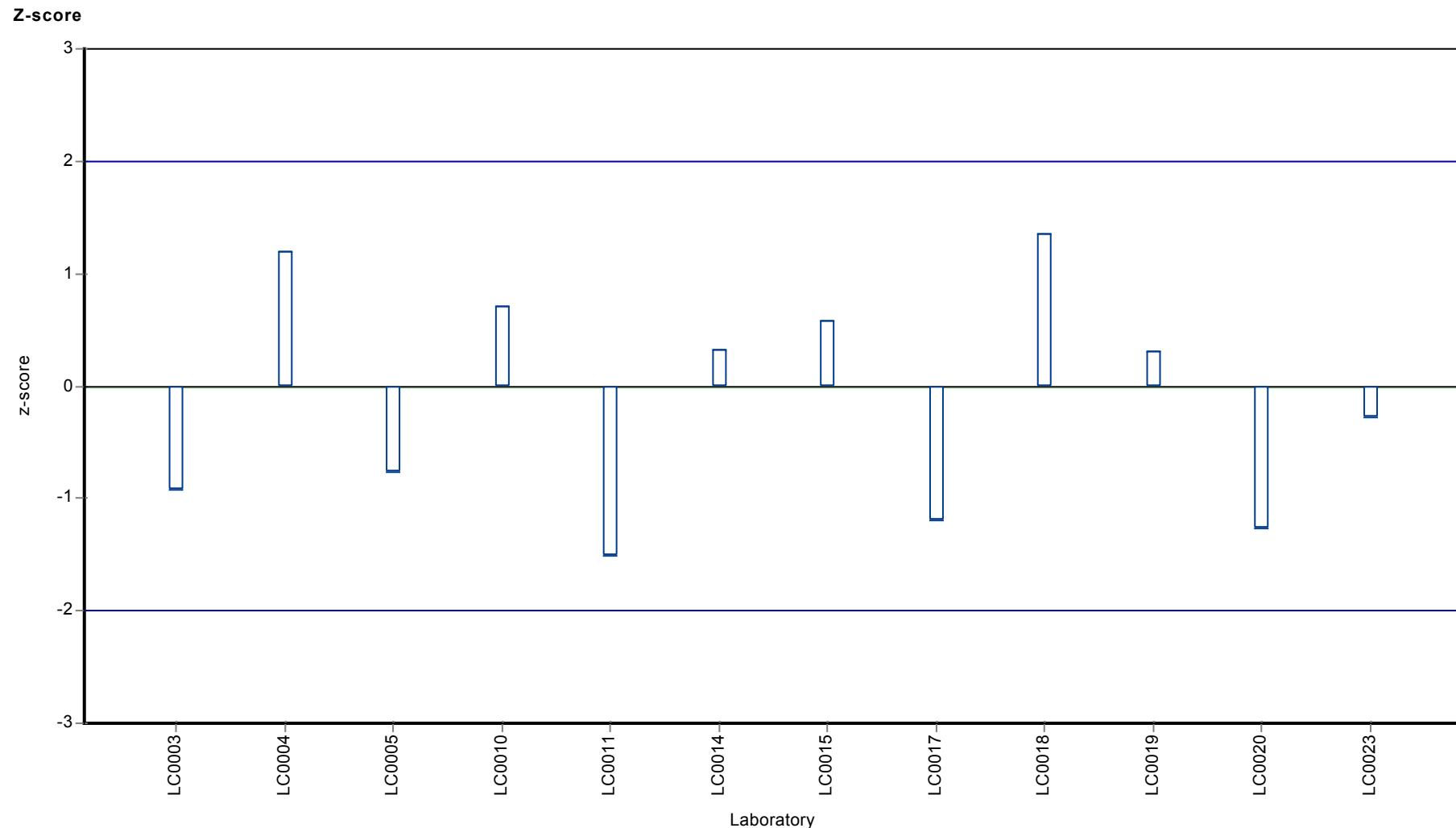
	all results	without outliers	Unit
Mean ± CI (99%)	3.13 ± 1.21	3.13 ± 1.21	µg/tube
Minimum	1.2	1.2	µg/tube
Maximum	5.2	5.2	µg/tube
Standard deviation	1.39	1.39	µg/tube
rel. standard deviation	44.5	44.5	%
n	12	12	-

Graphical presentation of results

Results







Parameter oriented report

BL07 - BTEX & C5-C10

n-Heptane

Unit	µg/tube
Assigned value ± U (k=2)	6.52 ± 0.816
Criterion	1.5 (23 %)
Minimum - Maximum	3.58 - 8.04
Control test value ± U (k=2)	8.98 ± 0.891

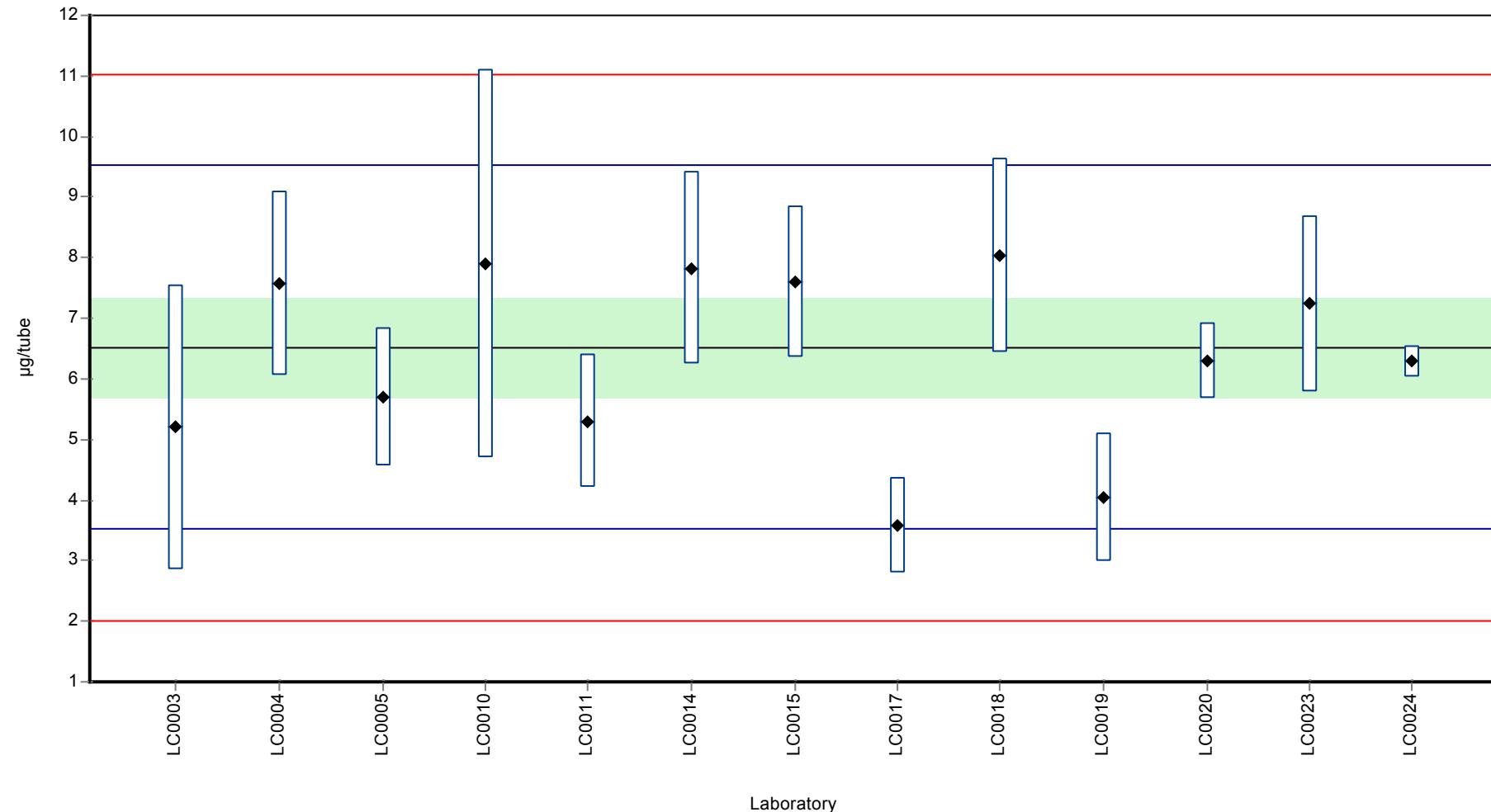
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	-	-	-	-	
LC0003	5.2	2.34	79.7	-0.88	
LC0004	7.58	1.52	116	0.7	
LC0005	5.708	1.142	87.5	-0.54	
LC0006	-	-	-	-	
LC0007	-	-	-	-	
LC0009	-	-	-	-	
LC0010	7.9	3.2	121	0.92	
LC0011	5.3	1.1	81.2	-0.81	
LC0012	-	-	-	-	
LC0013	-	-	-	-	
LC0014	7.83	1.6	120	0.87	
LC0015	7.59	1.252	116	0.71	
LC0016	-	-	-	-	
LC0017	3.58	0.79	54.9	-1.96	
LC0018	8.04	1.6	123	1.01	
LC0019	4.043	1.052	62	-1.65	
LC0020	6.29	0.629	96.4	-0.16	
LC0021	-	-	-	-	
LC0023	7.24	1.45	111	0.48	
LC0024	6.29	0.26	96.4	-0.16	

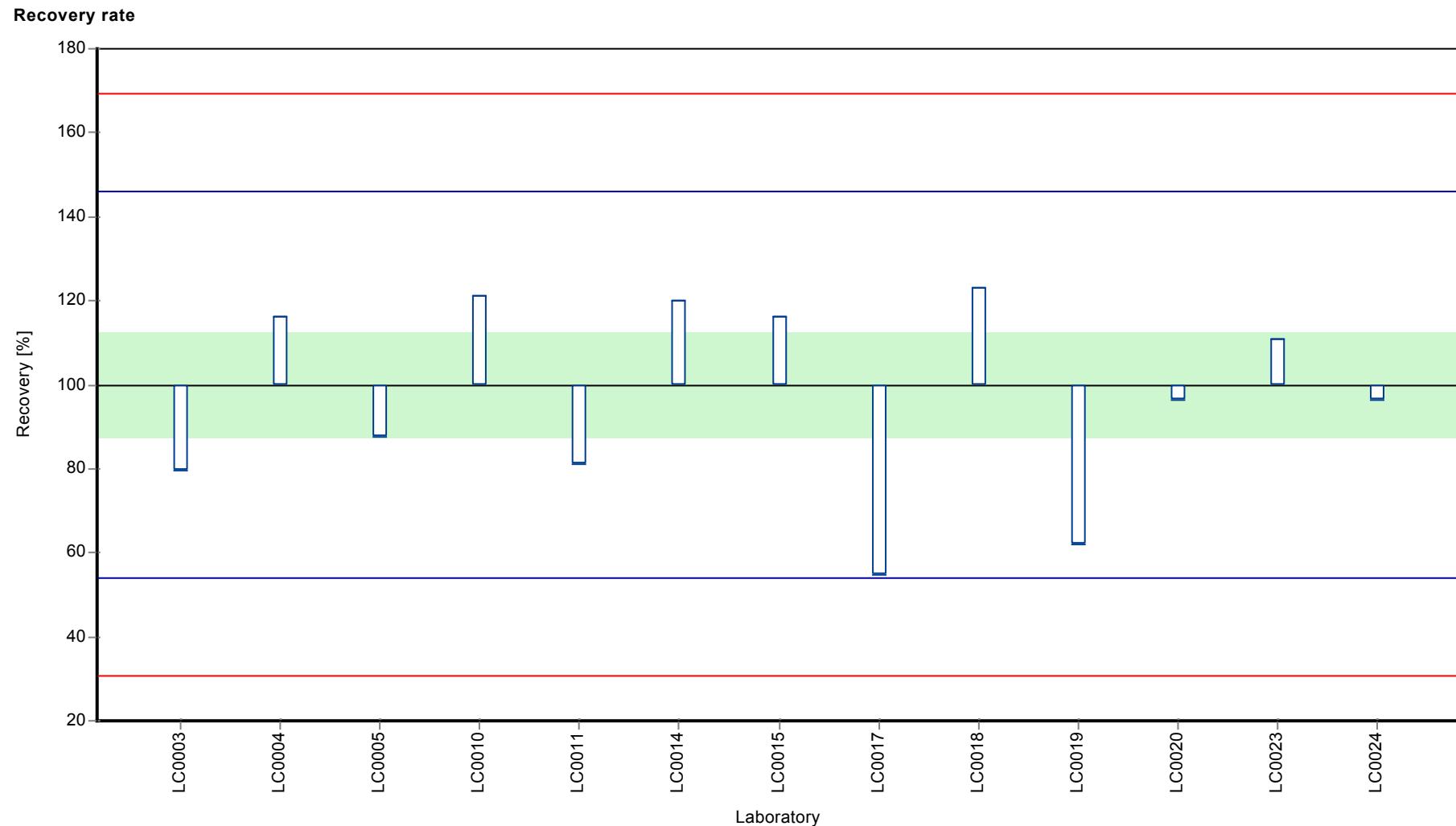
Characteristics of parameter

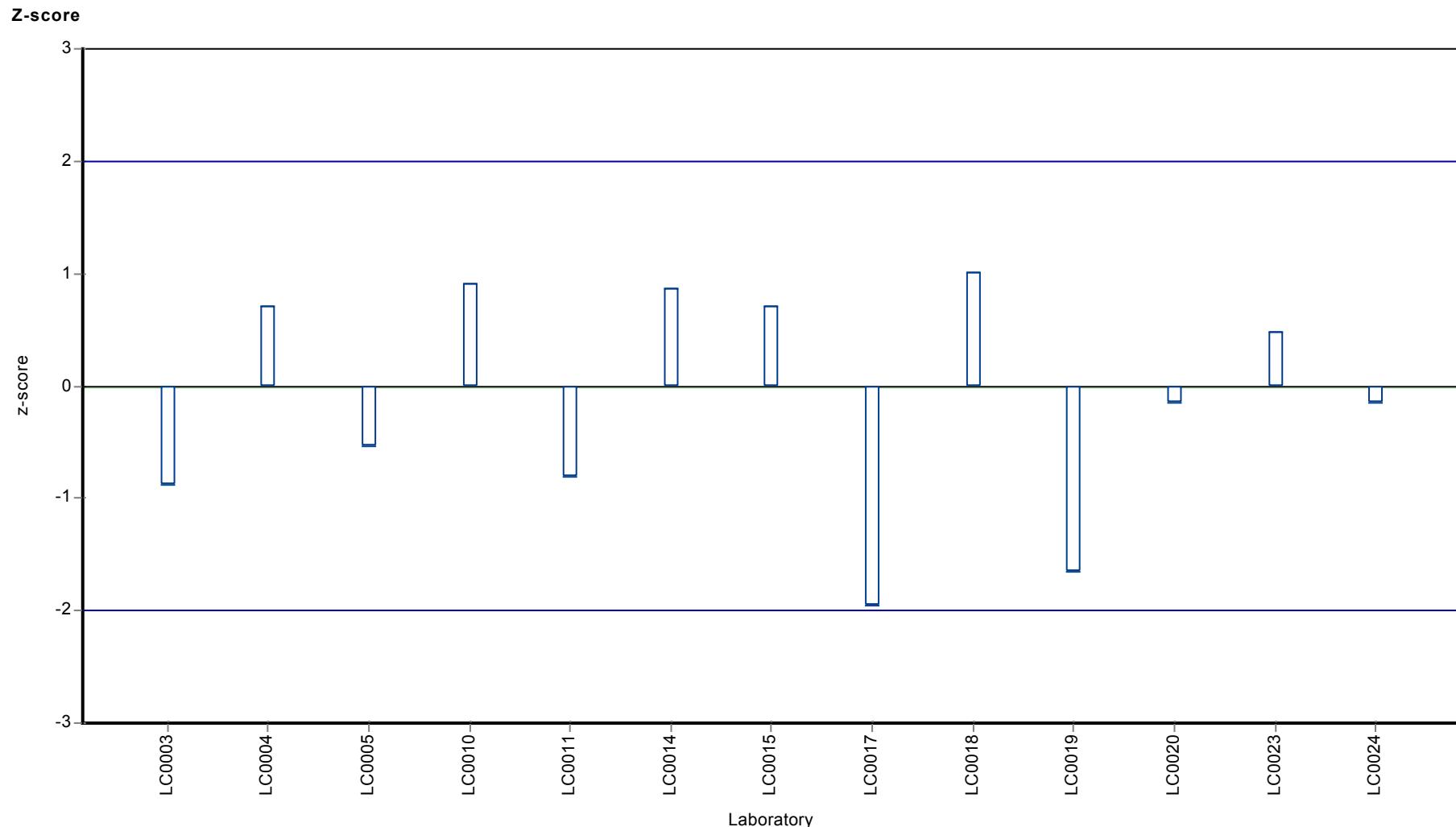
	all results	without outliers	Unit
Mean ± CI (99%)	6.35 ± 1.25	6.35 ± 1.25	µg/tube
Minimum	3.58	3.58	µg/tube
Maximum	8.04	8.04	µg/tube
Standard deviation	1.5	1.5	µg/tube
rel. standard deviation	23.7	23.7	%
n	13	13	-

Graphical presentation of results

Results







Parameter oriented report

BL07 - BTEX & C5-C10

n-Hexane

Unit	µg/tube
Assigned value ± U (k=2)	6.68 ± 0.786
Criterion	1.42 (21 %)
Minimum - Maximum	3.75 - 8.34
Control test value ± U (k=2)	10.3 ± 1.31

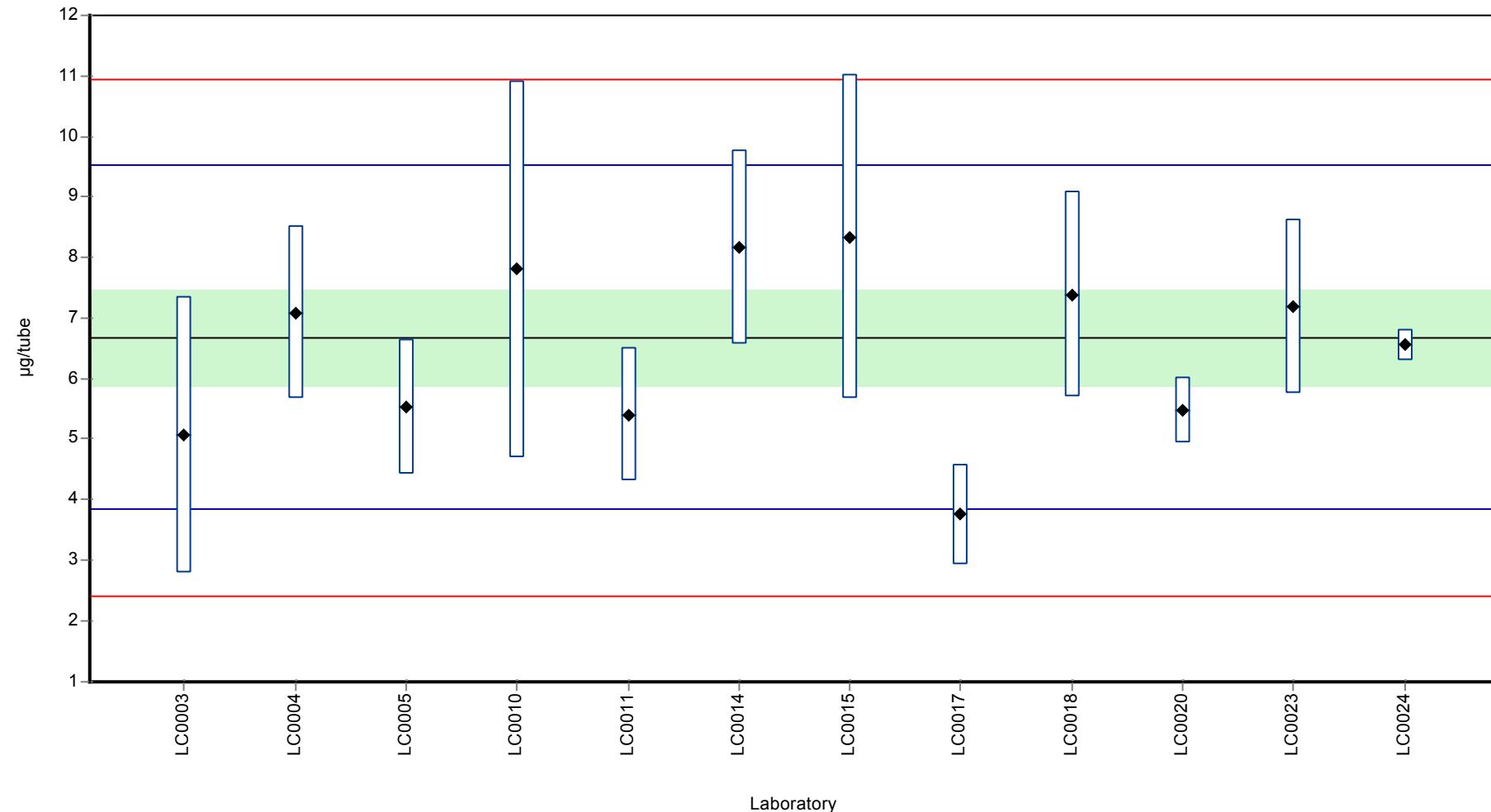
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	-	-	-	-	
LC0003	5.06	2.28	75.7	-1.14	
LC0004	7.09	1.42	106	0.29	
LC0005	5.53	1.106	82.8	-0.81	
LC0006	-	-	-	-	
LC0007	-	-	-	-	
LC0009	-	-	-	-	
LC0010	7.8	3.1	117	0.79	
LC0011	5.4	1.1	80.8	-0.9	
LC0012	-	-	-	-	
LC0013	-	-	-	-	
LC0014	8.16	1.6	122	1.04	
LC0015	8.34	2.677	125	1.17	
LC0016	-	-	-	-	
LC0017	3.75	0.83	56.1	-2.06	
LC0018	7.39	1.7	111	0.5	
LC0019	-	-	-	-	
LC0020	5.48	0.548	82	-0.84	
LC0021	-	-	-	-	
LC0023	7.18	1.44	107	0.35	
LC0024	6.55	0.26	98.1	-0.09	

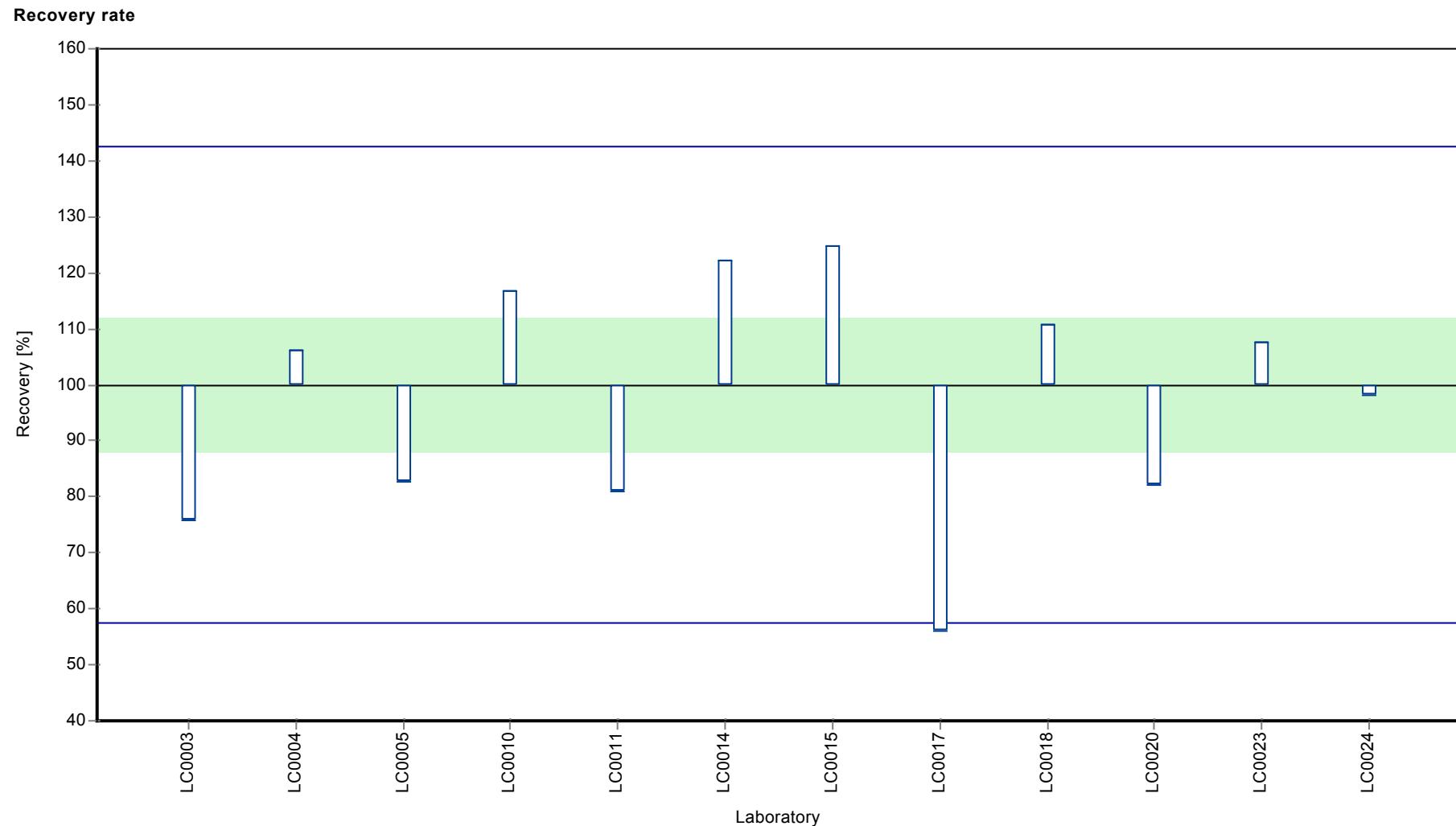
Characteristics of parameter

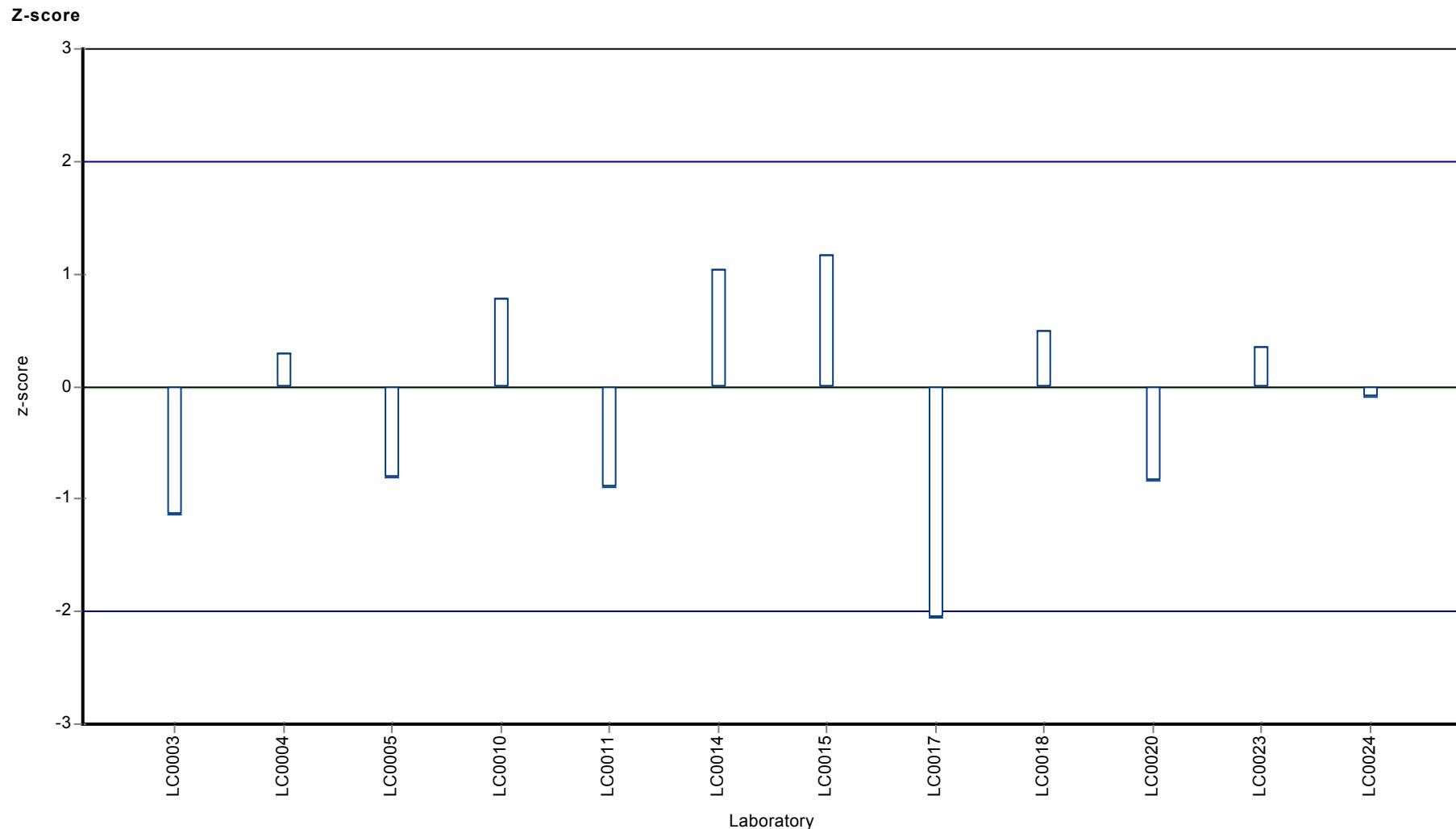
	all results	without outliers	Unit
Mean ± CI (99%)	6.48 ± 1.23	6.48 ± 1.23	µg/tube
Minimum	3.75	3.75	µg/tube
Maximum	8.34	8.34	µg/tube
Standard deviation	1.42	1.42	µg/tube
rel. standard deviation	22	22	%
n	12	12	-

Graphical presentation of results

Results







Parameter oriented report

BL07 - BTEX & C5-C10

n-Nonane

Unit	µg/tube
Assigned value ± U (k=2)	5.39 ± 0.954
Criterion	1.56 (29 %)
Minimum - Maximum	2.77 - 7.1
Control test value ± U (k=2)	6.68 ± 0.593

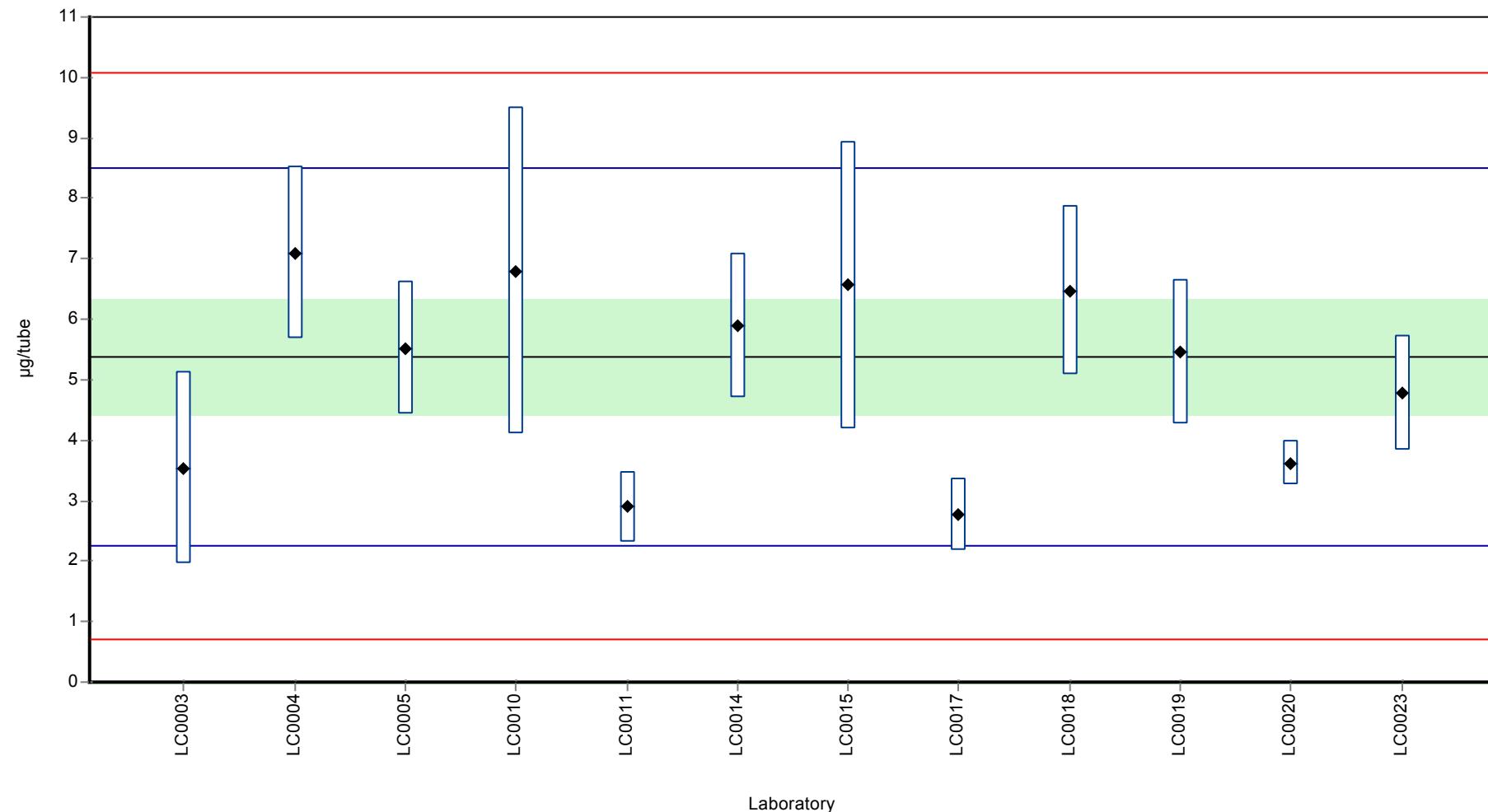
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	-	-	-	-	
LC0003	3.54	1.59	65.7	-1.18	
LC0004	7.1	1.42	132	1.1	
LC0005	5.518	1.104	102	0.08	
LC0006	-	-	-	-	
LC0007	-	-	-	-	
LC0009	-	-	-	-	
LC0010	6.8	2.7	126	0.91	
LC0011	2.9	0.58	53.8	-1.59	
LC0012	-	-	-	-	
LC0013	-	-	-	-	
LC0014	5.9	1.2	110	0.33	
LC0015	6.56	2.388	122	0.75	
LC0016	-	-	-	-	
LC0017	2.77	0.61	51.4	-1.68	
LC0018	6.47	1.4	120	0.69	
LC0019	5.46	1.205	101	0.05	
LC0020	3.62	0.362	67.2	-1.13	
LC0021	-	-	-	-	
LC0023	4.77	0.95	88.5	-0.4	
LC0024	-	-	-	-	

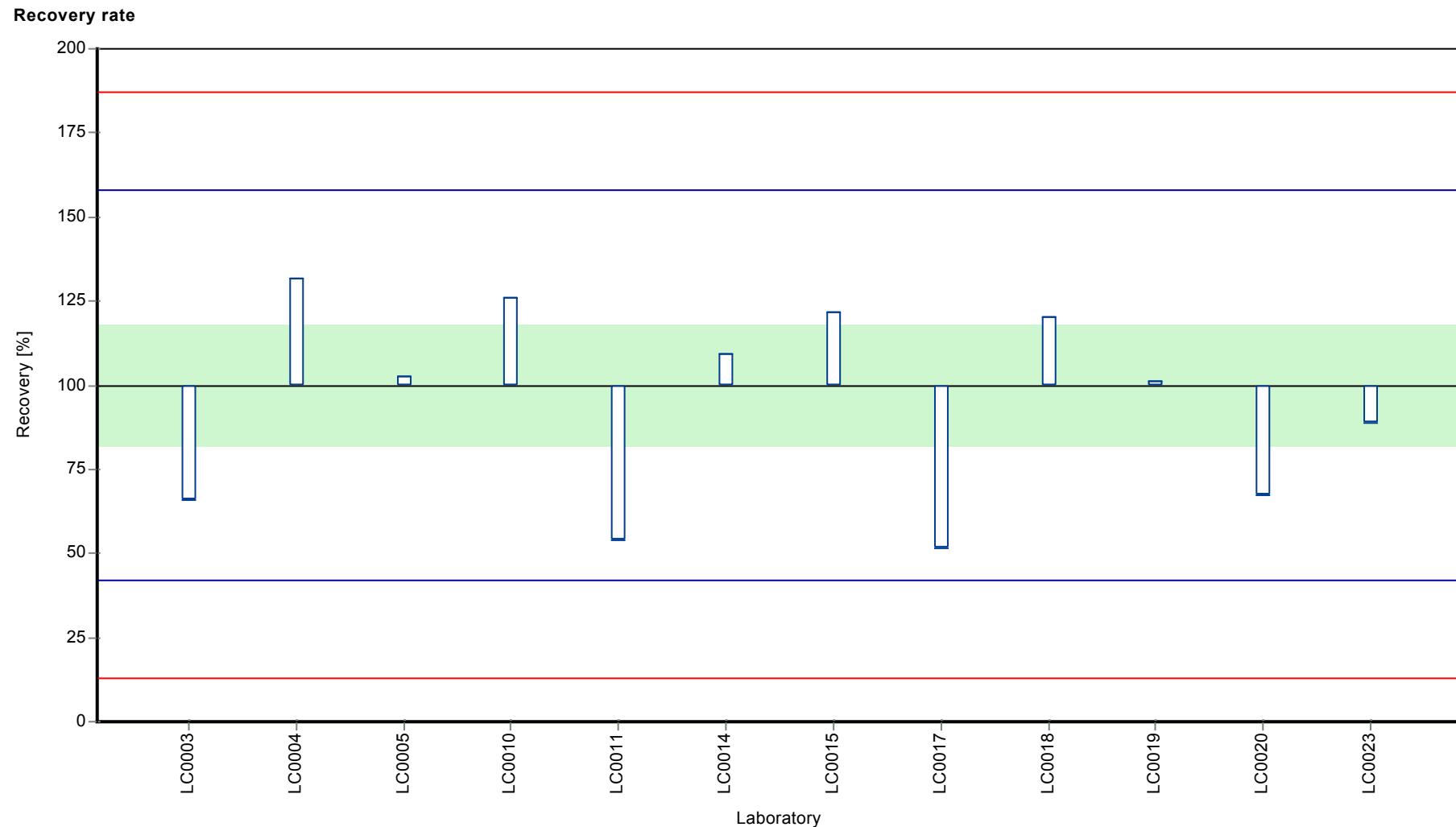
Characteristics of parameter

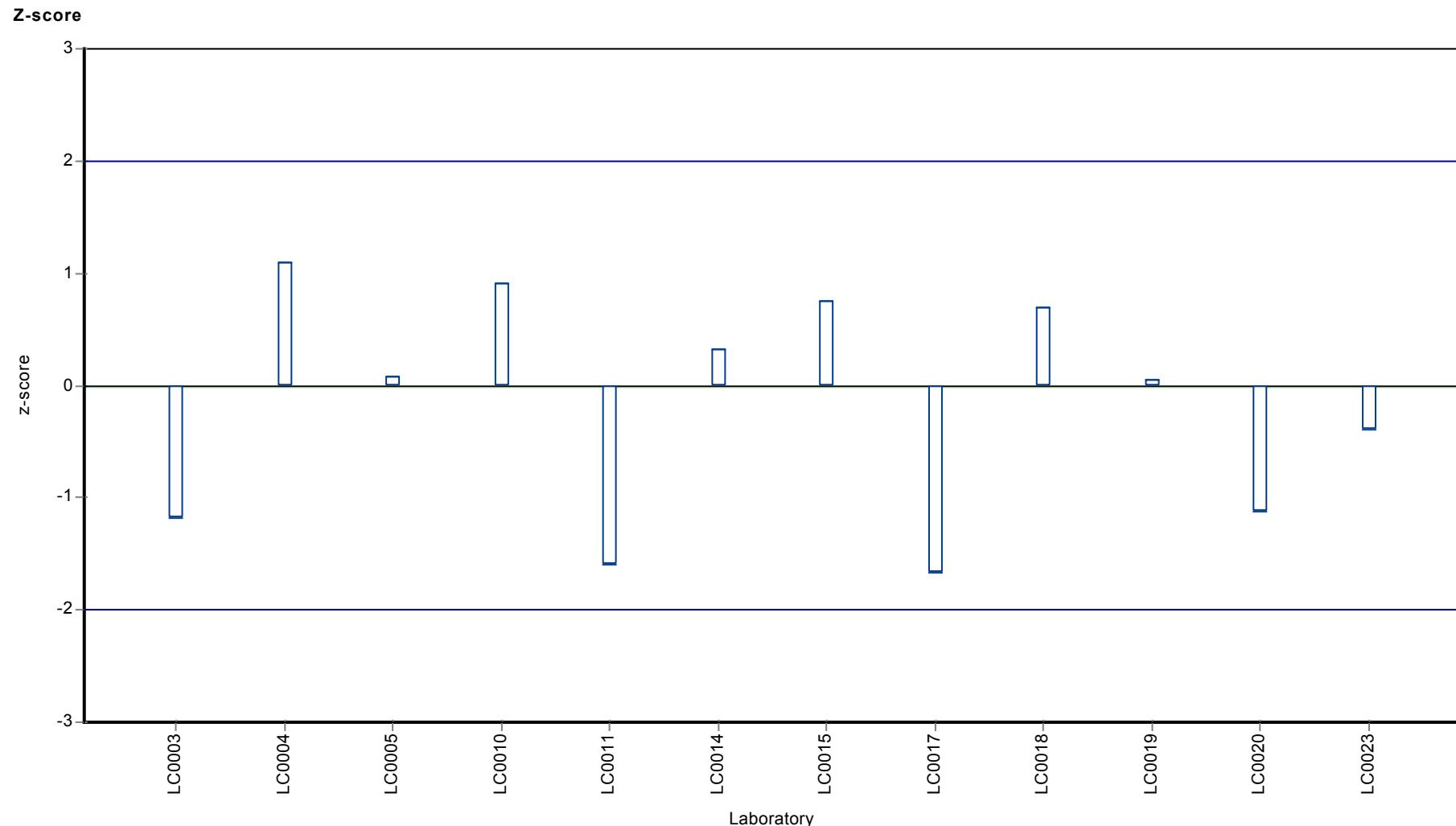
	all results	without outliers	Unit
Mean ± CI (99%)	5.12 ± 1.35	5.12 ± 1.35	µg/tube
Minimum	2.77	2.77	µg/tube
Maximum	7.1	7.1	µg/tube
Standard deviation	1.56	1.56	µg/tube
rel. standard deviation	30.5	30.5	%
n	12	12	-

Graphical presentation of results

Results







Parameter oriented report

BL07 - BTEX & C5-C10

n-Octane

Unit	µg/tube
Assigned value ± U (k=2)	6.38 ± 0.846
Criterion	1.5 (23 %)
Minimum - Maximum	3.58 - 7.99
Control test value ± U (k=2)	8.77 ± 0.793

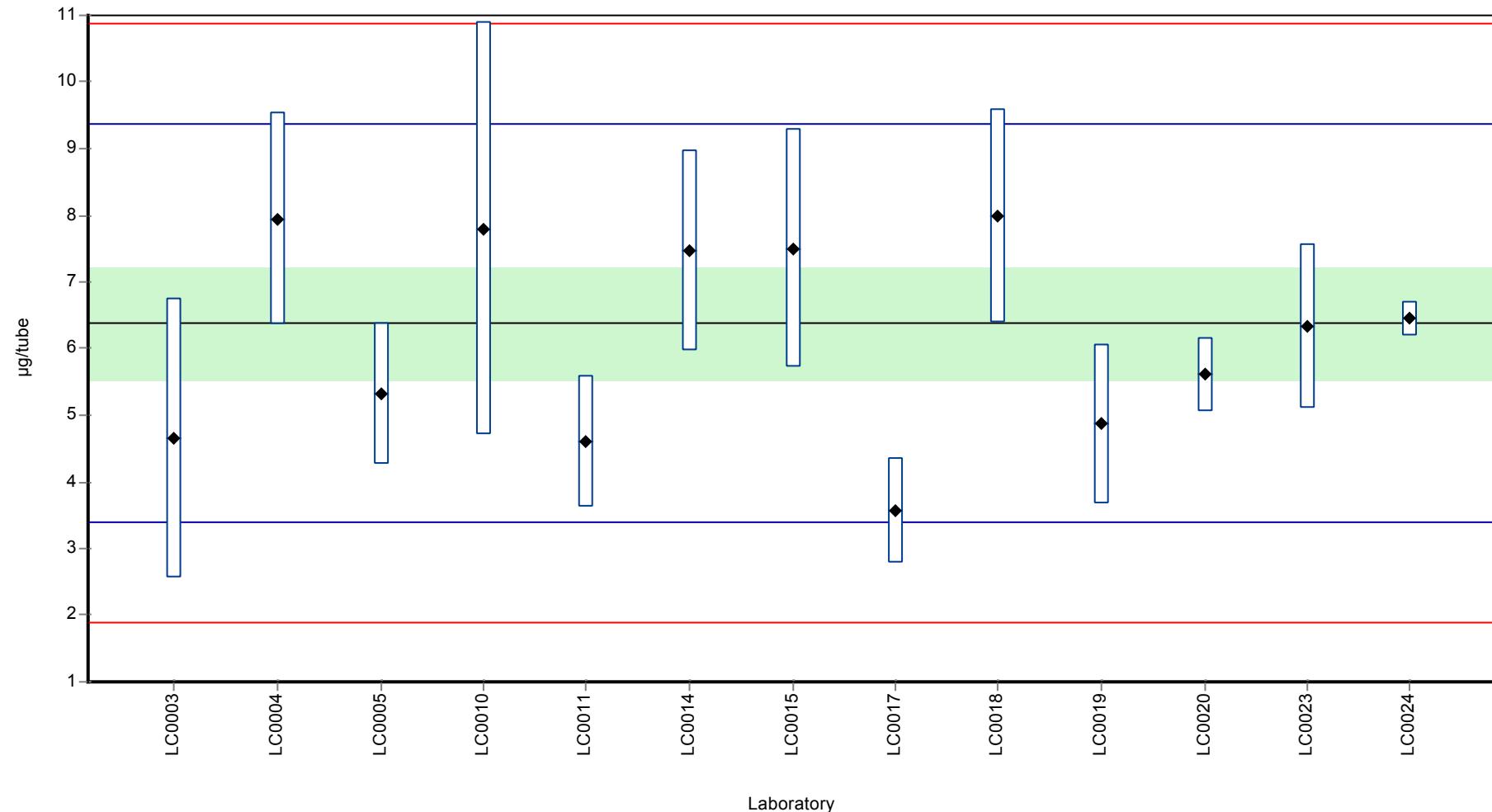
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	-	-	-	-	
LC0003	4.66	2.1	73	-1.15	
LC0004	7.95	1.59	125	1.05	
LC0005	5.31	1.062	83.2	-0.72	
LC0006	-	-	-	-	
LC0007	-	-	-	-	
LC0009	-	-	-	-	
LC0010	7.8	3.1	122	0.95	
LC0011	4.6	0.99	72.1	-1.19	
LC0012	-	-	-	-	
LC0013	-	-	-	-	
LC0014	7.47	1.5	117	0.73	
LC0015	7.5	1.793	118	0.75	
LC0016	-	-	-	-	
LC0017	3.58	0.79	56.1	-1.87	
LC0018	7.99	1.6	125	1.07	
LC0019	4.867	1.196	76.3	-1.01	
LC0020	5.61	0.561	87.9	-0.52	
LC0021	-	-	-	-	
LC0023	6.33	1.23	99.2	-0.04	
LC0024	6.45	0.26	101	0.05	

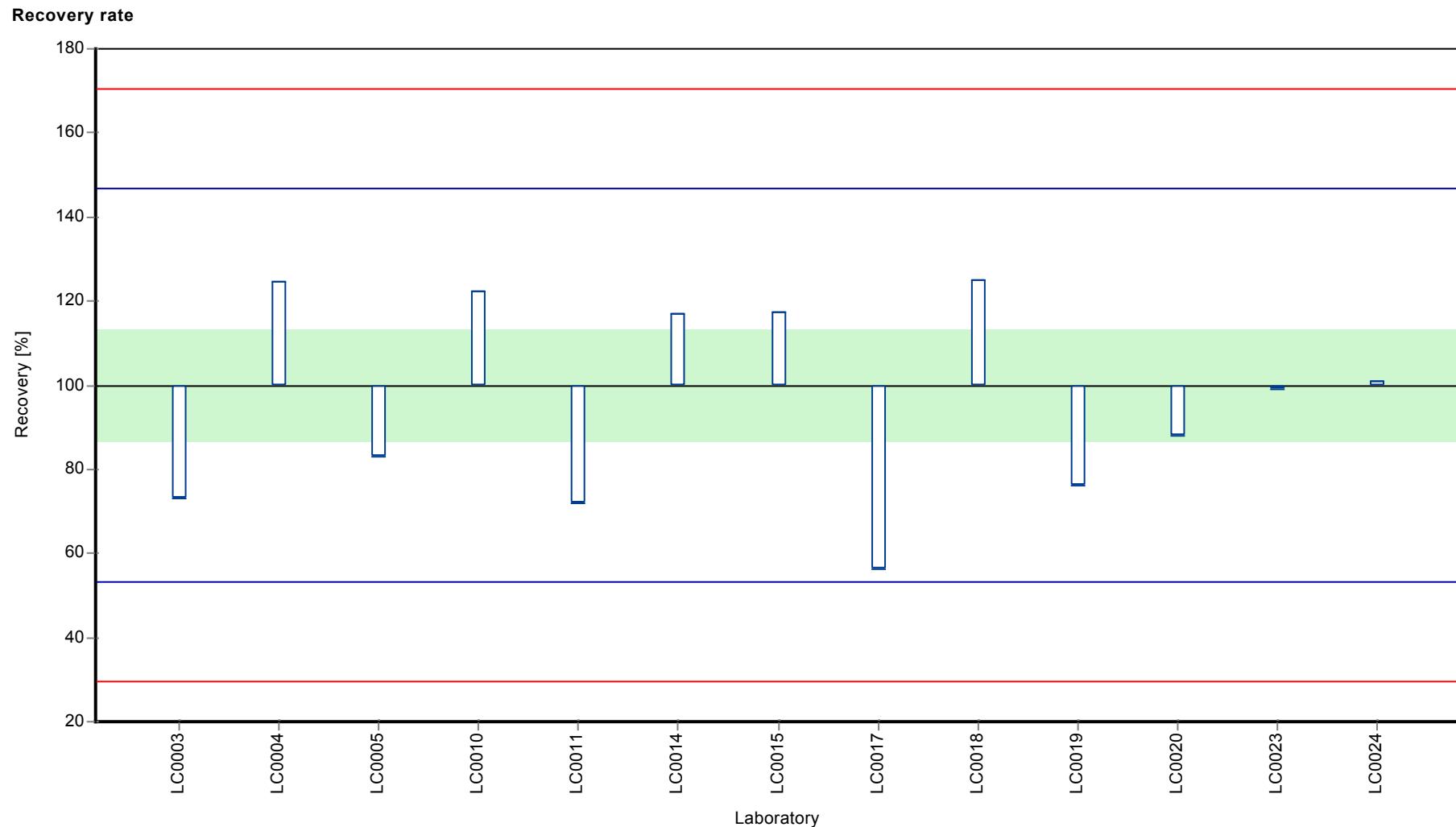
Characteristics of parameter

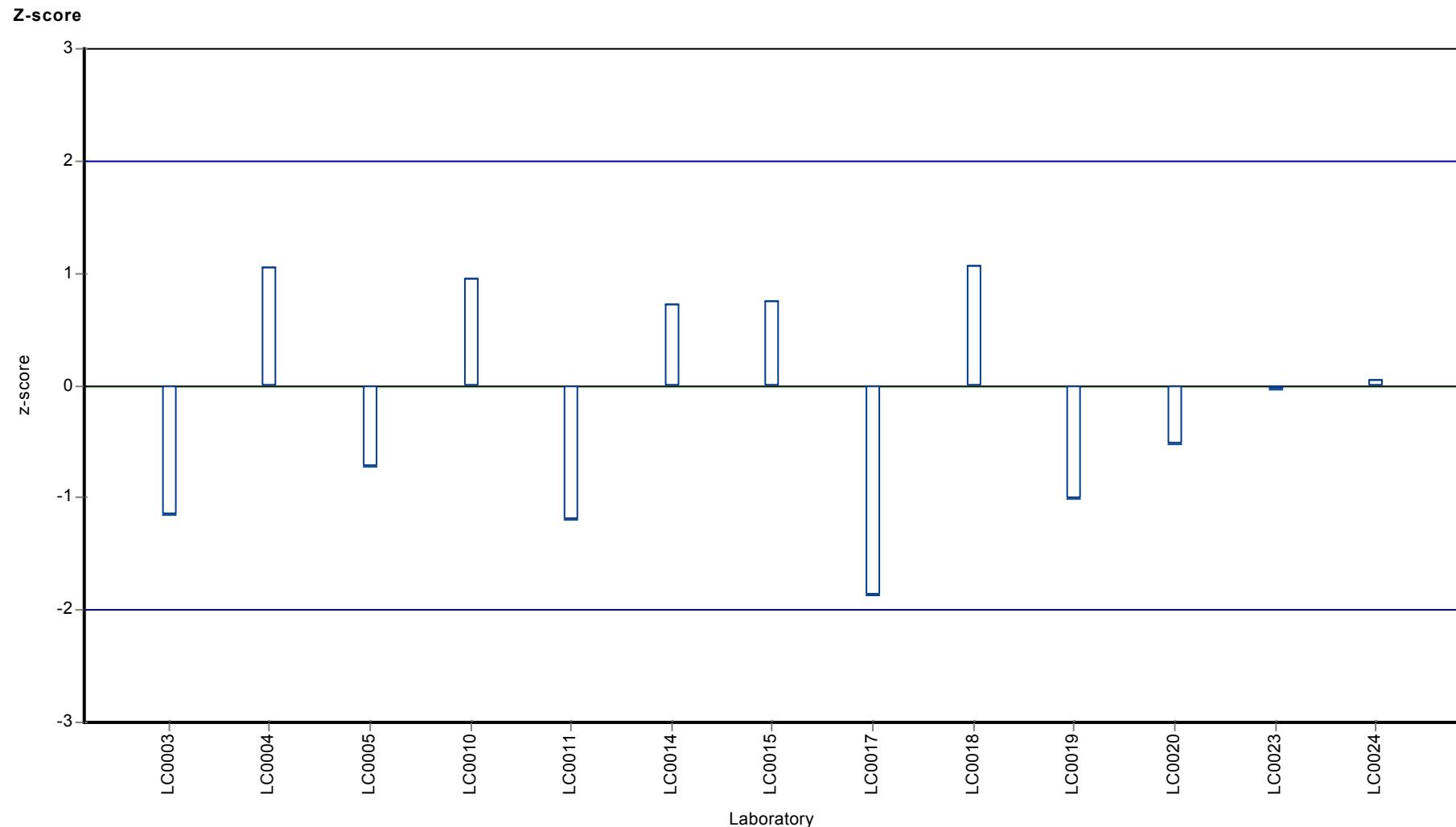
	all results	without outliers	Unit
Mean ± CI (99%)	6.16 ± 1.25	6.16 ± 1.25	µg/tube
Minimum	3.58	3.58	µg/tube
Maximum	7.99	7.99	µg/tube
Standard deviation	1.5	1.5	µg/tube
rel. standard deviation	24.3	24.3	%
n	13	13	-

Graphical presentation of results

Results







Parameter oriented report

BL07 - BTEX & C5-C10

n-Pentane

Unit	µg/tube
Assigned value ± U (k=2)	6.61 ± 1.69
Criterion	2.53 (38 %)
Minimum - Maximum	4.17 - 11.9
Control test value ± U (k=2)	7.43 ± 1.04

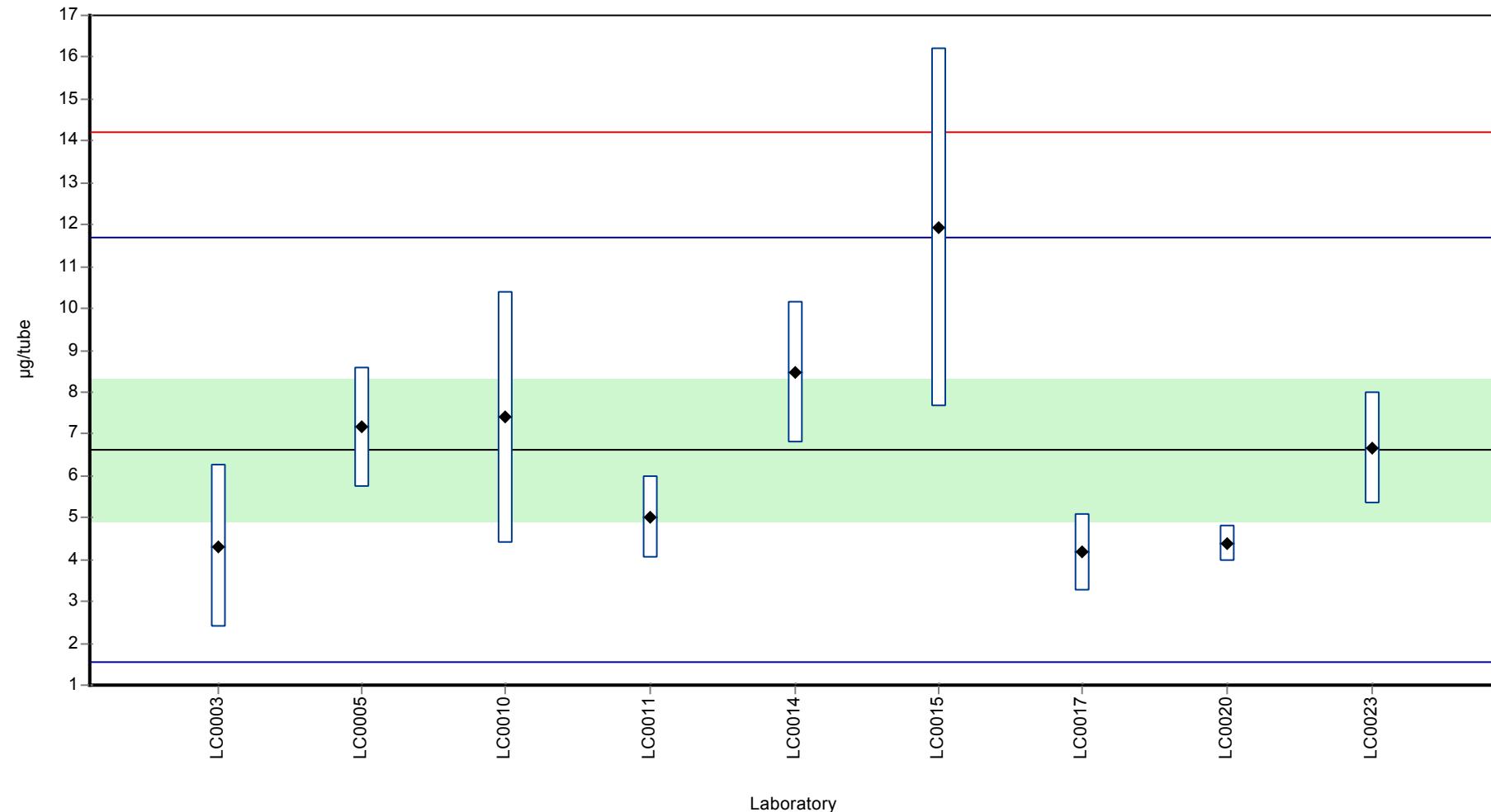
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	-	-	-	-	
LC0003	4.32	1.94	65.4	-0.9	
LC0004	-	-	-	-	
LC0005	7.16	1.432	108	0.22	
LC0006	-	-	-	-	
LC0007	-	-	-	-	
LC0009	-	-	-	-	
LC0010	7.4	3	112	0.31	
LC0011	5	0.99	75.6	-0.64	
LC0012	-	-	-	-	
LC0013	-	-	-	-	
LC0014	8.47	1.7	128	0.73	
LC0015	11.92	4.279	180	2.1	
LC0016	-	-	-	-	
LC0017	4.17	0.92	63.1	-0.96	
LC0018	-	-	-	-	
LC0019	-	-	-	-	
LC0020	4.39	0.439	66.4	-0.88	
LC0021	-	-	-	-	
LC0023	6.66	1.33	101	0.02	
LC0024	-	-	-	-	

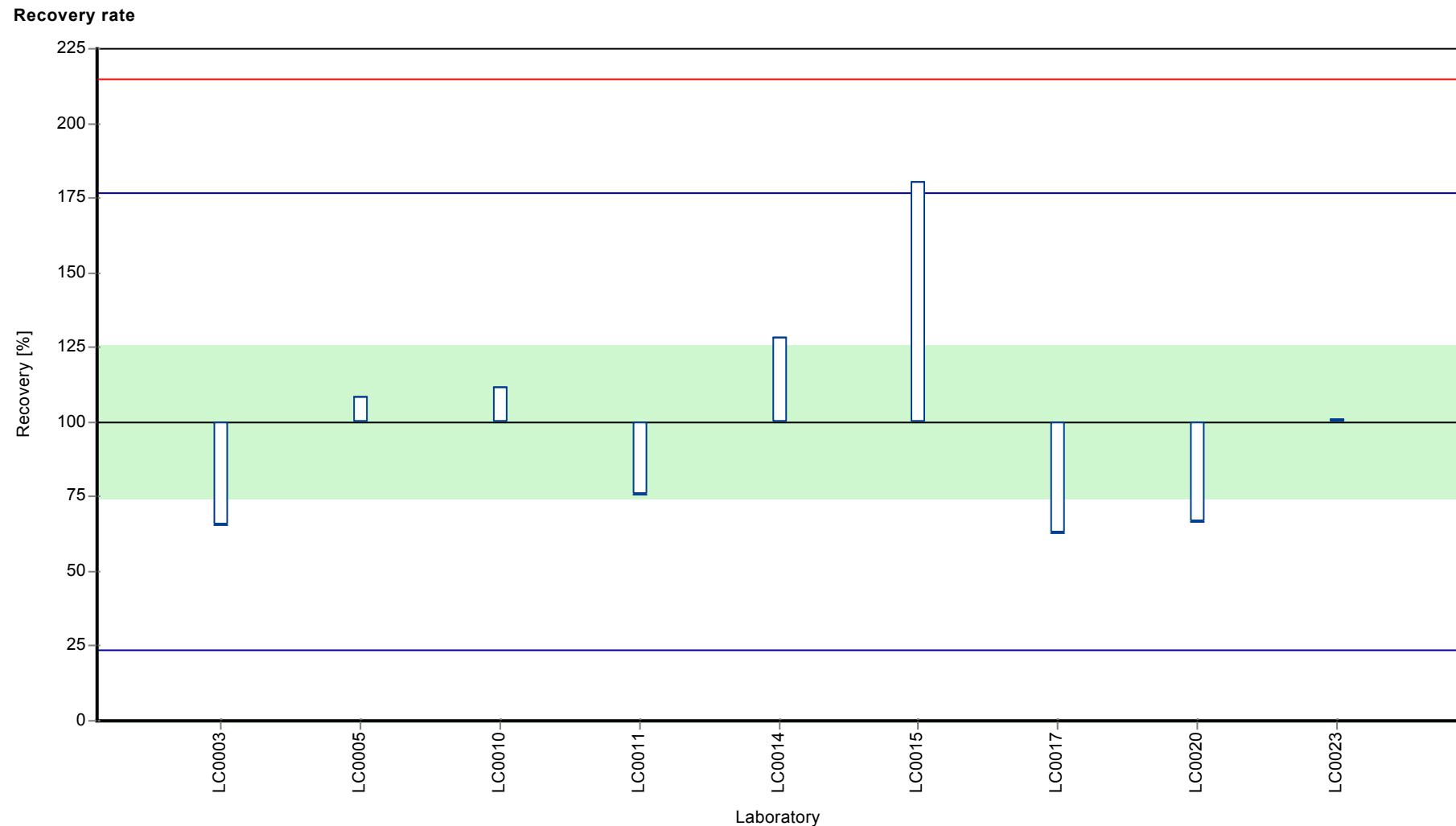
Characteristics of parameter

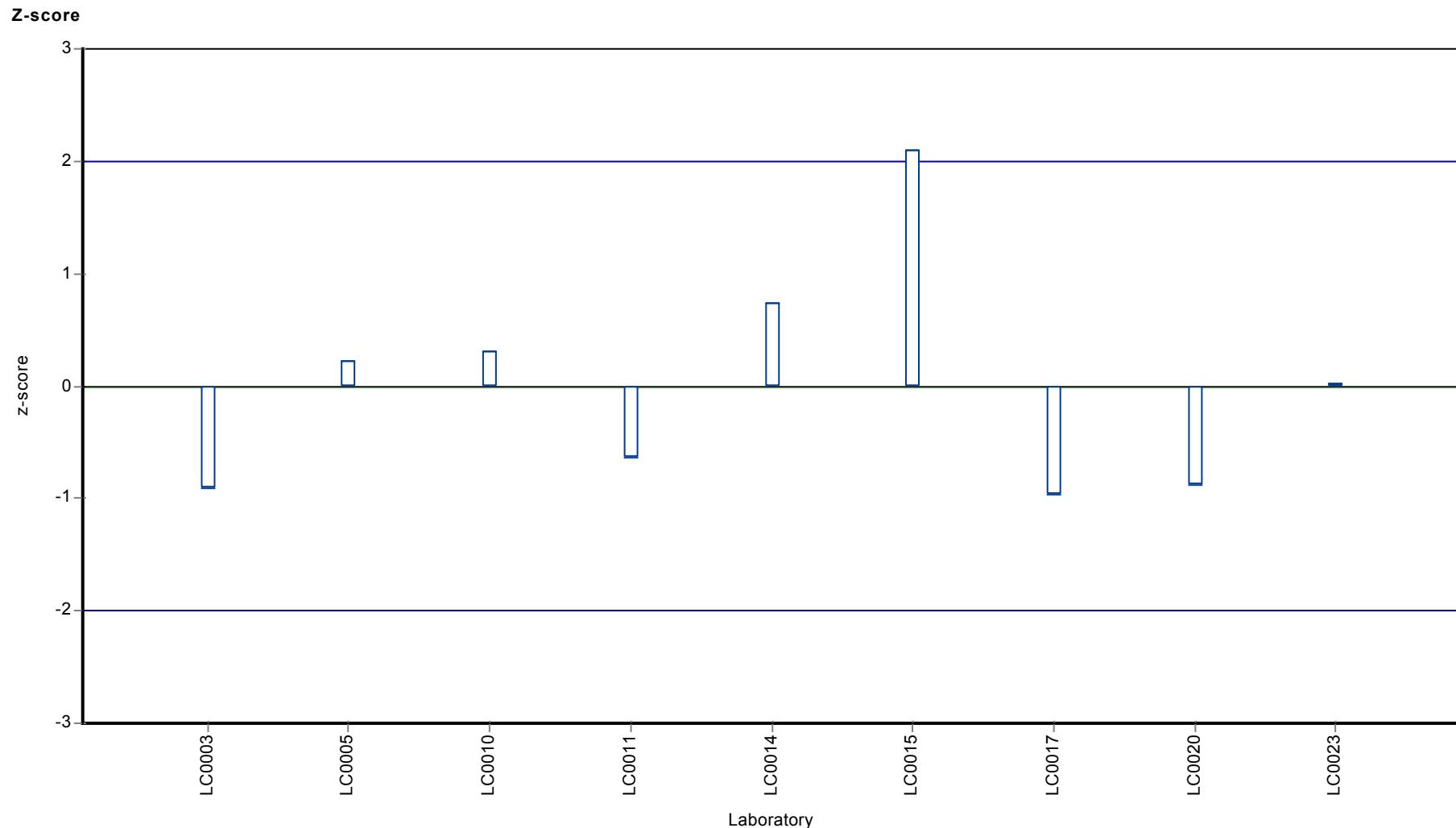
	all results	without outliers	Unit
Mean ± CI (99%)	6.61 ± 2.53	6.61 ± 2.53	µg/tube
Minimum	4.17	4.17	µg/tube
Maximum	11.9	11.9	µg/tube
Standard deviation	2.53	2.53	µg/tube
rel. standard deviation	38.3	38.3	%
n	9	9	-

Graphical presentation of results

Results







Parameter oriented report

BL07 - BTEX & C5-C10

o-Xylene

Unit	µg/tube
Assigned value ± U (k=2)	5.52 ± 0.368
Criterion	0.823 (15 %)
Minimum - Maximum	3.25 - 6.6
Control test value ± U (k=2)	5.98 ± 0.623

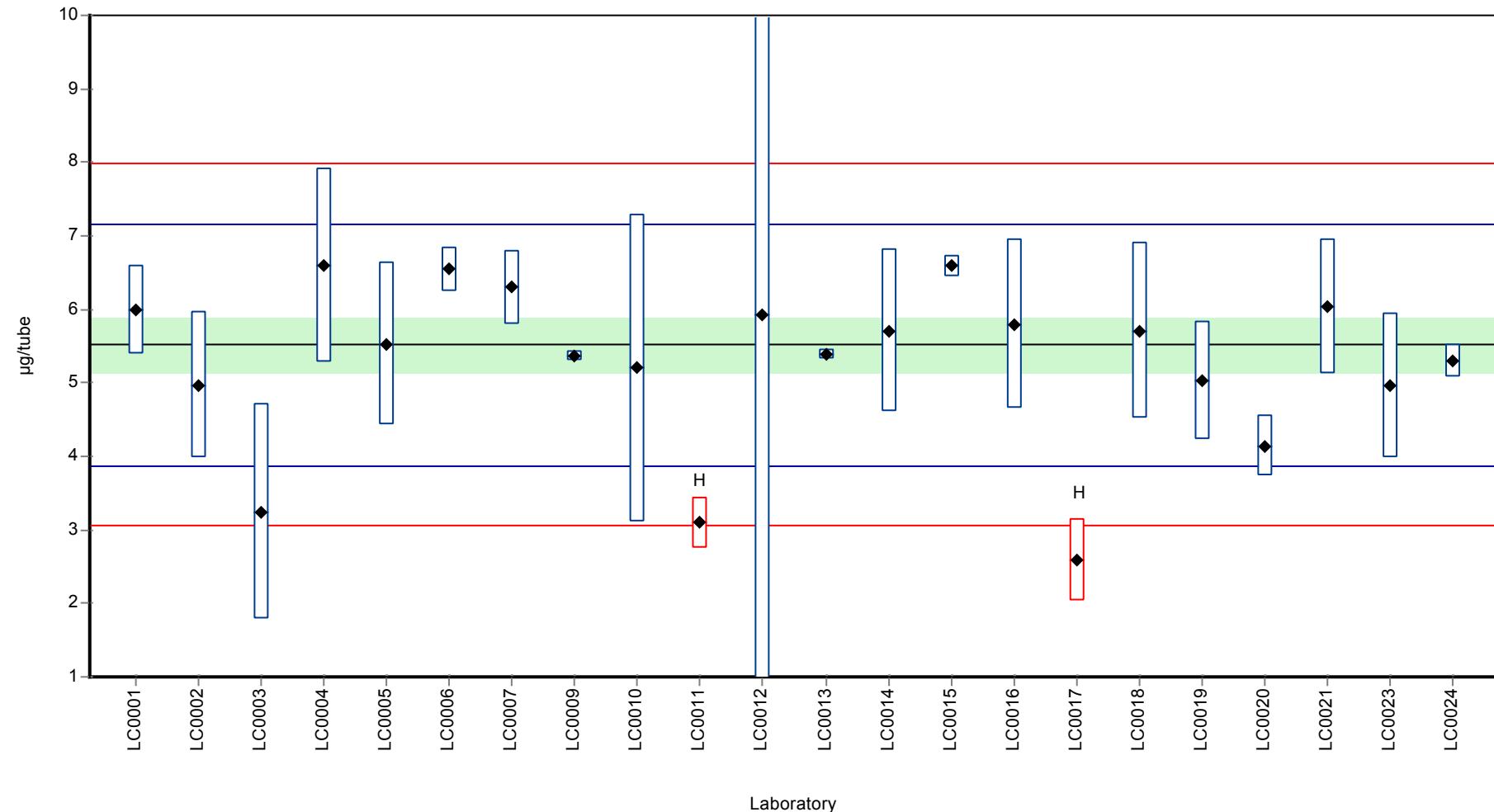
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	5.99	0.6	109	0.57	
LC0002	4.973	0.995	90.1	-0.66	
LC0003	3.25	1.46	58.9	-2.76	
LC0004	6.6	1.32	120	1.32	
LC0005	5.533	1.107	100	0.02	
LC0006	6.542	0.3	119	1.25	
LC0007	6.3	0.5	114	0.95	
LC0009	5.37	0.07	97.3	-0.18	
LC0010	5.2	2.1	94.2	-0.39	
LC0011	3.1	0.35	56.2	-2.94	H
LC0012	5.918	5.591	107	0.49	
LC0013	5.39	0.07	97.7	-0.15	
LC0014	5.71	1.1	103	0.23	
LC0015	6.59	0.145	119	1.3	
LC0016	5.8	1.16	105	0.34	
LC0017	2.59	0.57	46.9	-3.56	H
LC0018	5.71	1.2	103	0.23	
LC0019	5.034	0.803	91.2	-0.59	
LC0020	4.14	0.414	75	-1.67	
LC0021	6.04	0.91	109	0.64	
LC0023	4.96	0.99	89.9	-0.68	
LC0024	5.3	0.22	96.1	-0.26	

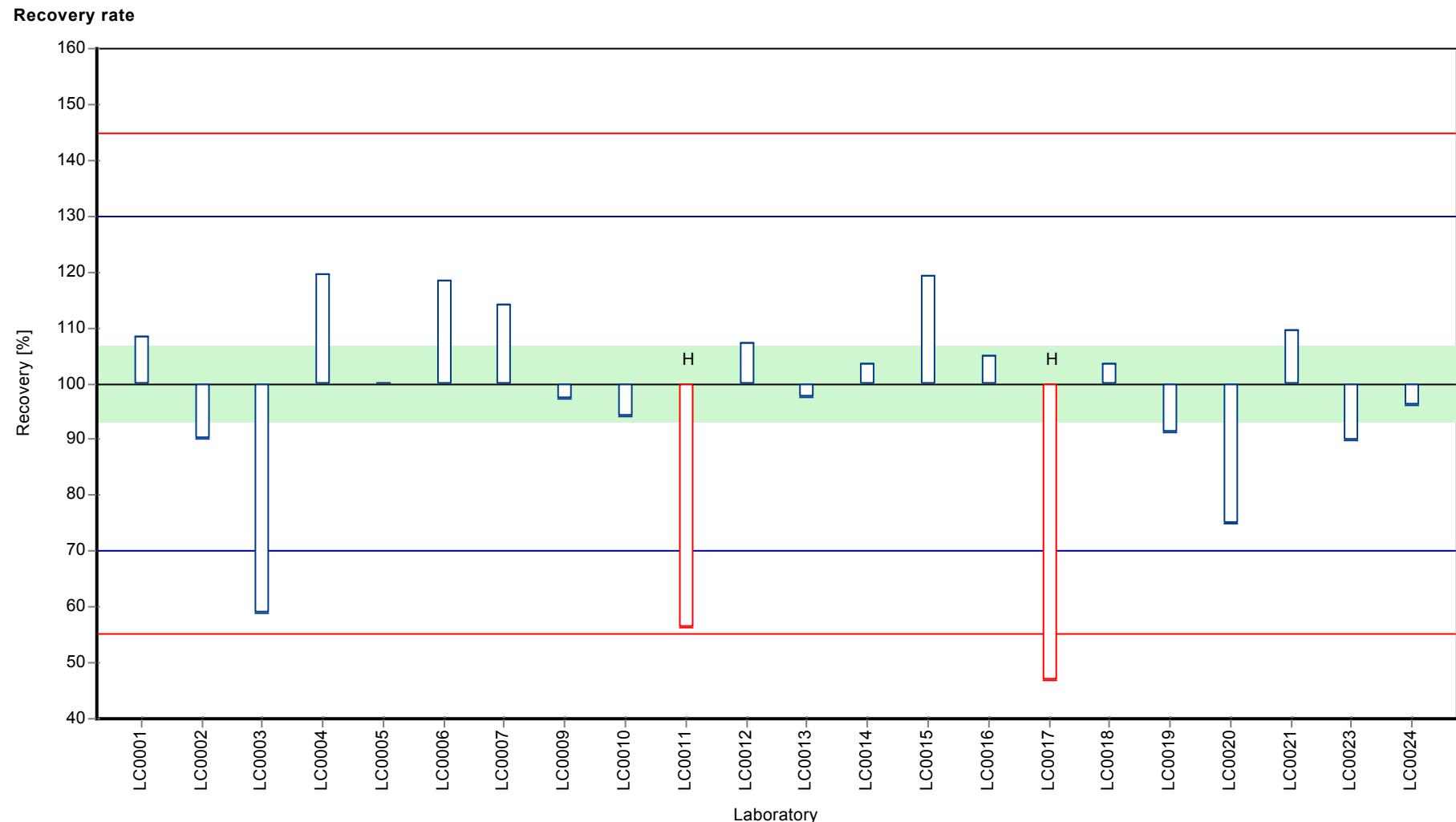
Characteristics of parameter

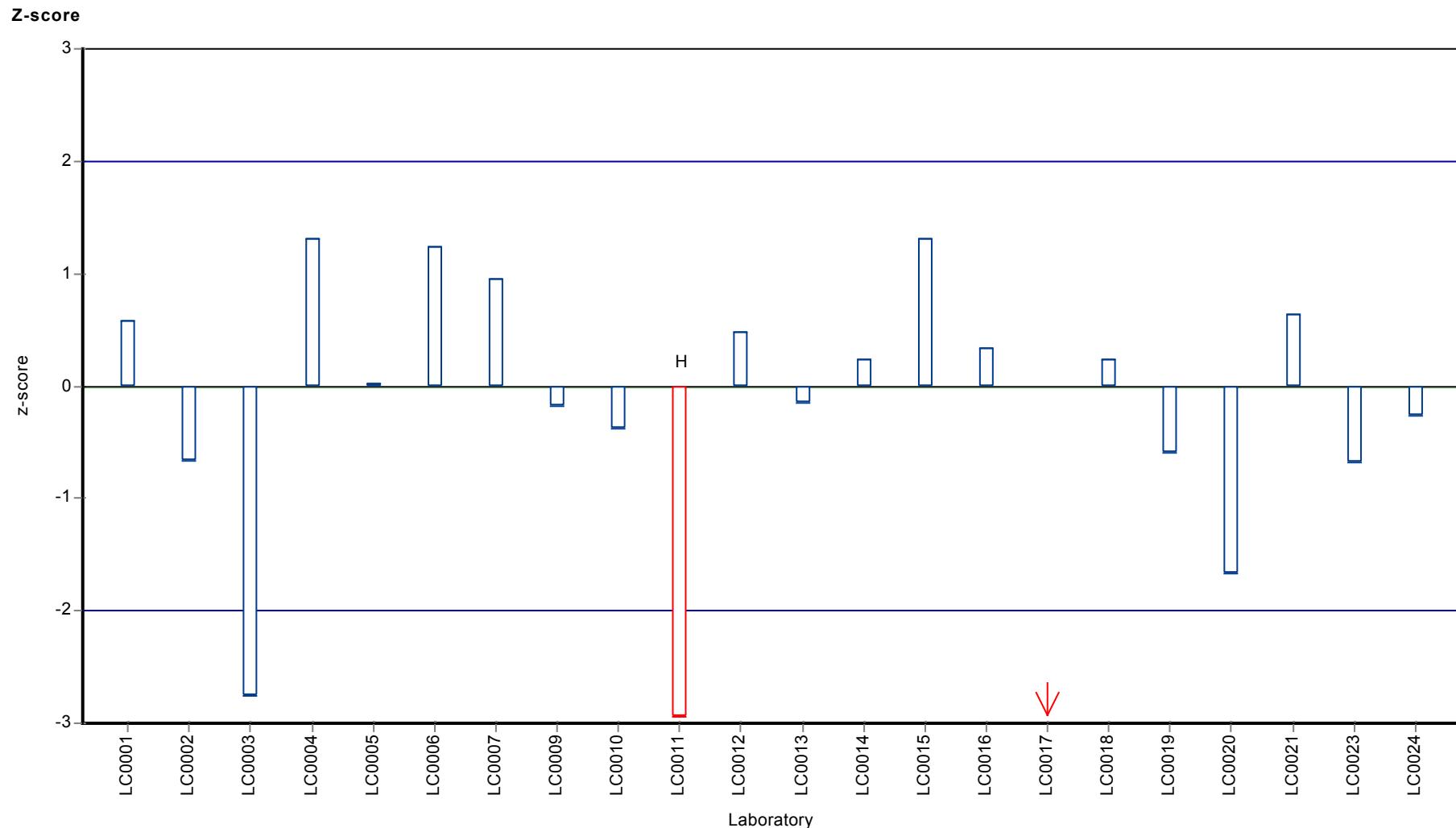
	all results	without outliers	Unit
Mean ± CI (99%)	5.27 ± 0.711	5.52 ± 0.552	µg/tube
Minimum	2.59	3.25	µg/tube
Maximum	6.6	6.6	µg/tube
Standard deviation	1.11	0.823	µg/tube
rel. standard deviation	21.1	14.9	%
n	22	20	-

Graphical presentation of results

Results







Parameter oriented report

BL07 - BTEX & C5-C10

Sum of m-Xylene and p-Xylene

Unit	µg/tube
Assigned value ± U (k=2)	11.2 ± 0.913
Criterion	2.2 (20 %)
Minimum - Maximum	5.42 - 13.8
Control test value ± U (k=2)	14.4 ± 1.48

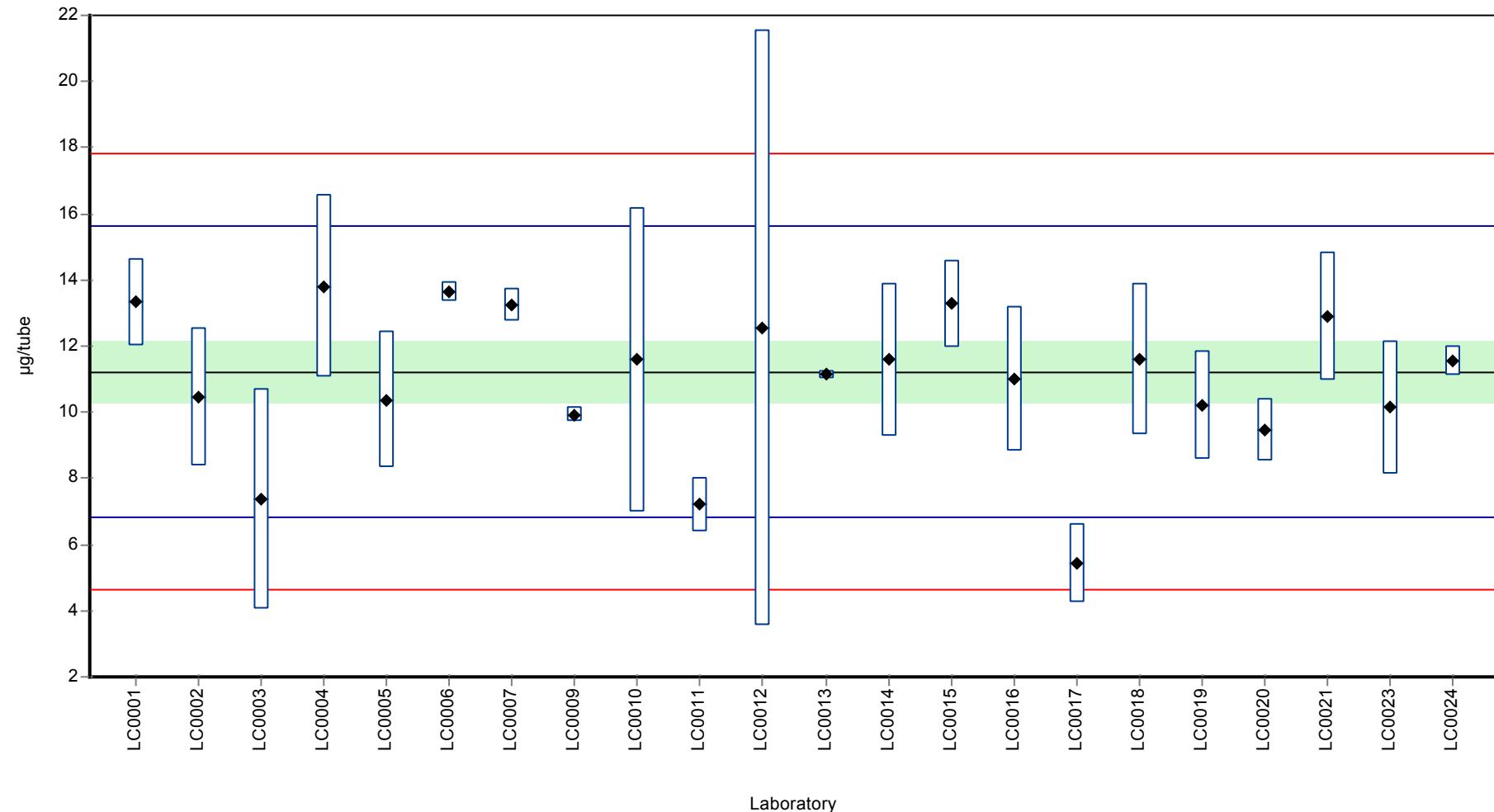
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	13.32	1.33	119	0.95	
LC0002	10.465	2.09	93.3	-0.34	
LC0003	7.38	3.32	65.8	-1.74	
LC0004	13.8	2.76	123	1.17	
LC0005	10.37	2.07	92.4	-0.39	
LC0006	13.622	0.3	121	1.09	
LC0007	13.247	0.5	118	0.92	
LC0009	9.93	0.21	88.5	-0.59	
LC0010	11.6	4.6	103	0.17	
LC0011	7.2	0.82	64.2	-1.83	
LC0012	12.554	8.988	112	0.6	
LC0013	11.13	0.13	99.2	-0.04	
LC0014	11.58	2.3	103	0.16	
LC0015	13.27	1.34	118	0.93	
LC0016	11	2.2	98	-0.1	
LC0017	5.42	1.19	48.3	-2.63	
LC0018	11.6	2.3	103	0.17	
LC0019	10.207	1.629	91	-0.46	
LC0020	9.45	0.945	84.2	-0.8	
LC0021	12.89	1.93	115	0.76	
LC0023	10.14	2.03	90.4	-0.49	
LC0024	11.54	0.46	103	0.14	

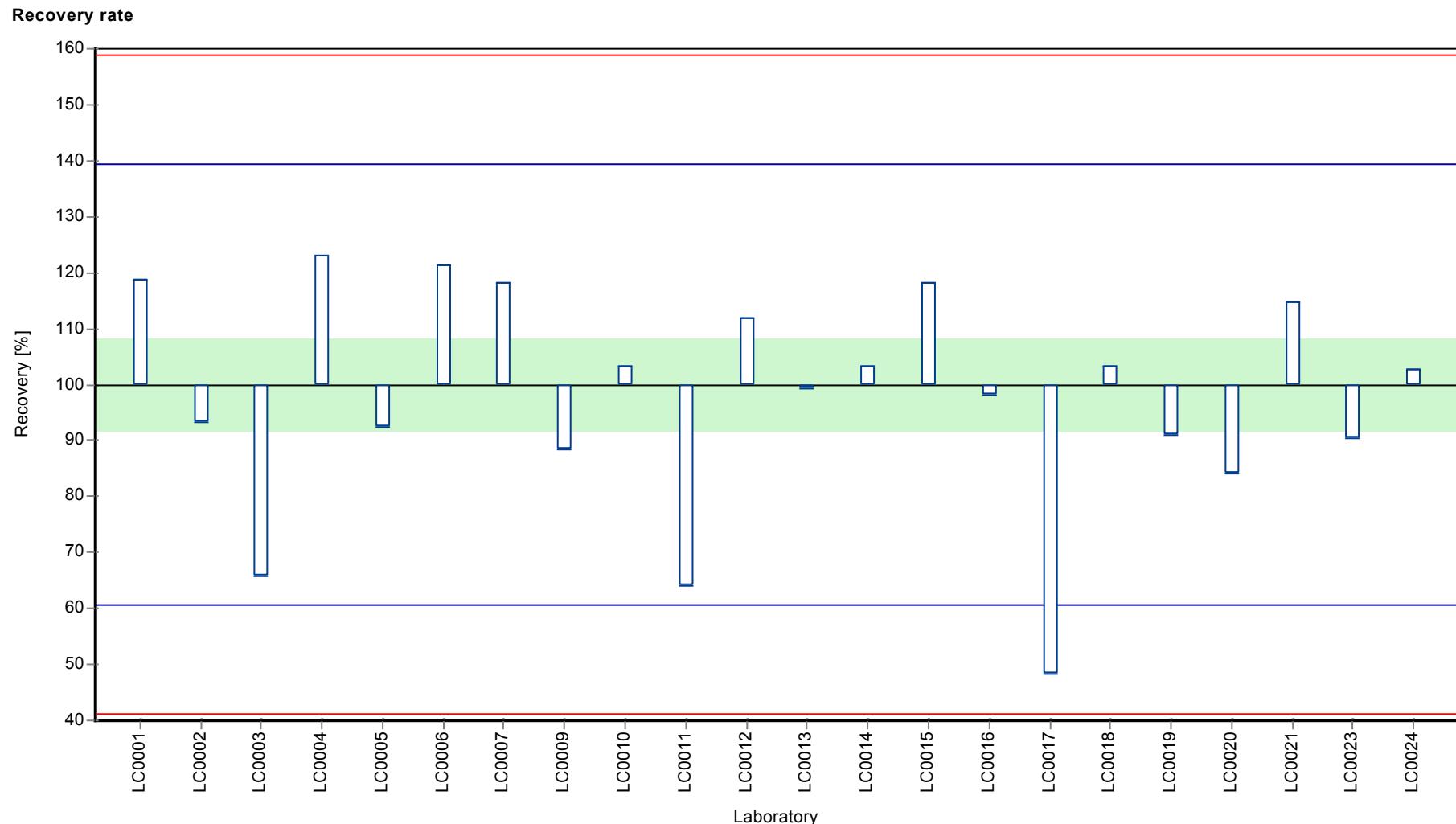
Characteristics of parameter

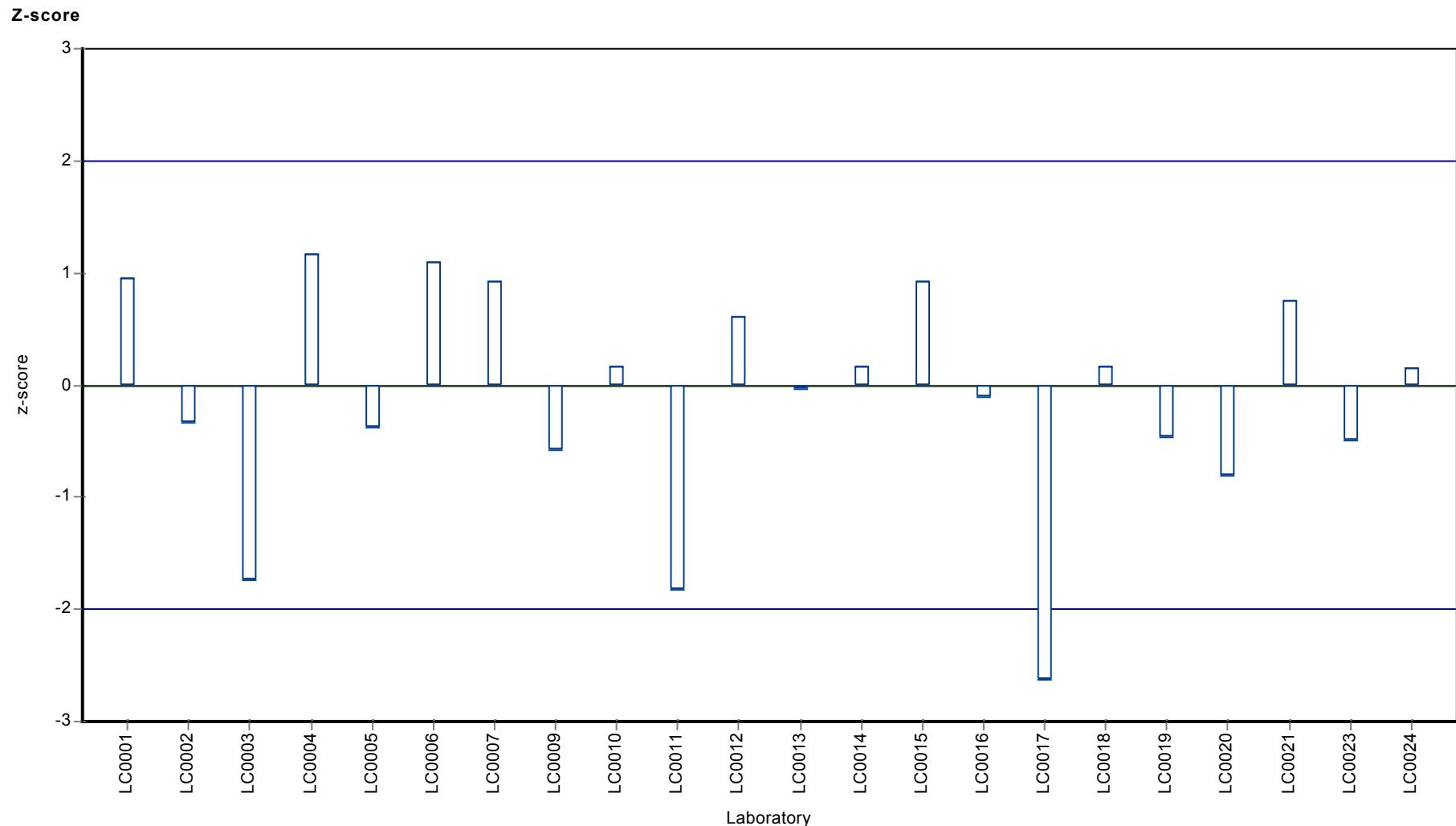
	all results	without outliers	Unit
Mean ± CI (99%)	11 ± 1.41	11 ± 1.41	µg/tube
Minimum	5.42	5.42	µg/tube
Maximum	13.8	13.8	µg/tube
Standard deviation	2.2	2.2	µg/tube
rel. standard deviation	20.1	20.1	%
n	22	22	-

Graphical presentation of results

Results







Parameter oriented report

CL06 - CHC

Tetrachloroethene

Unit	µg/tube
Assigned value ± U (k=2)	3.81 ± 0.363
Criterion	0.747 (20 %)
Minimum - Maximum	2.2 - 5.11
Control test value ± U (k=2)	3.83 ± 0.507

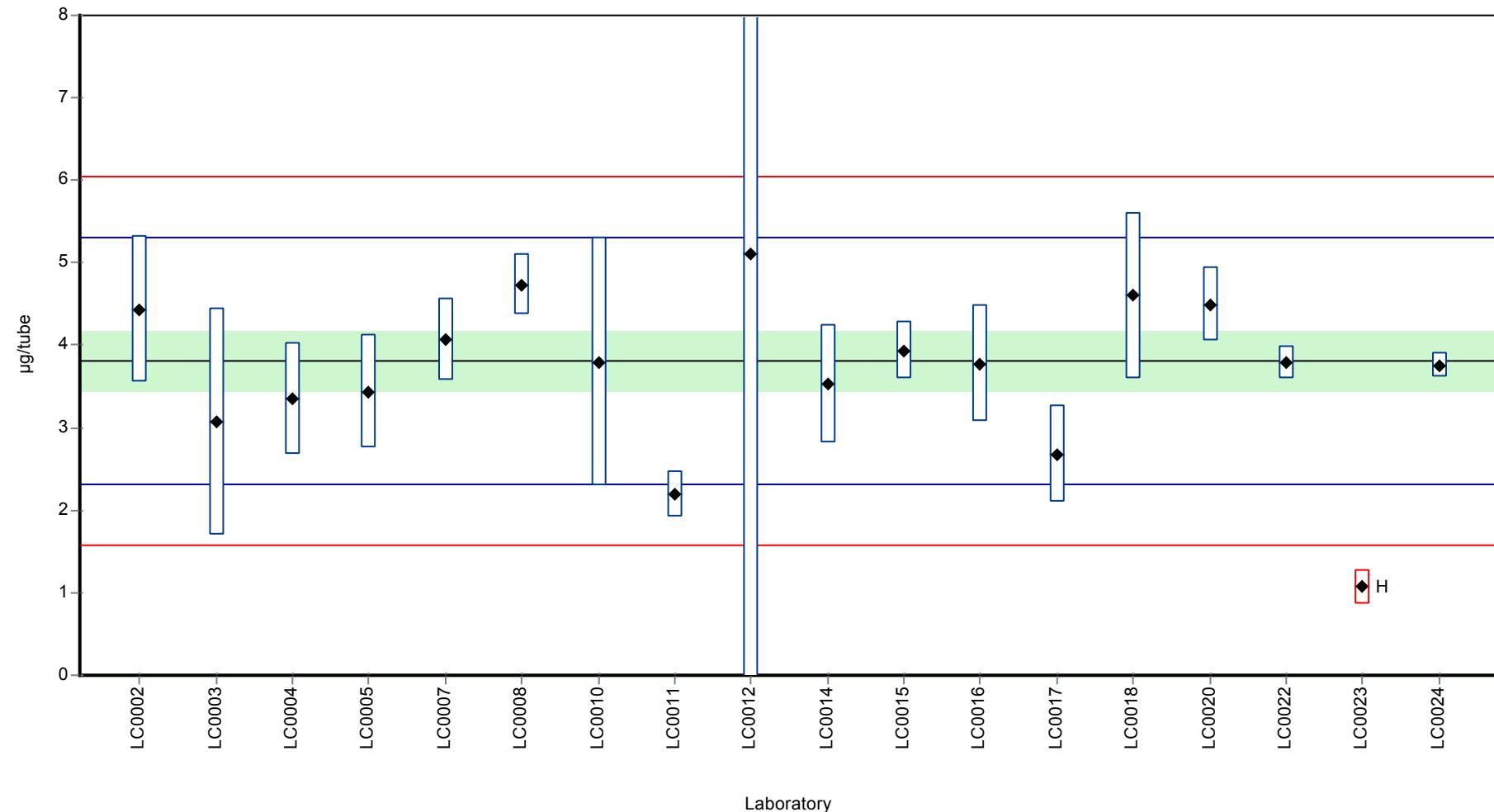
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0002	4.434	0.887	116	0.83	
LC0003	3.07	1.38	80.6	-0.99	
LC0004	3.35	0.67	87.9	-0.61	
LC0005	3.439	0.688	90.3	-0.5	
LC0007	4.075	0.5	107	0.35	
LC0008	4.73	0.37	124	1.23	
LC0010	3.8	1.5	99.7	-0.01	
LC0011	2.2	0.28	57.7	-2.15	
LC0012	5.106	5.65	134	1.73	
LC0014	3.53	0.71	92.7	-0.38	
LC0015	3.94	0.351	103	0.17	
LC0016	3.78	0.7	99.2	-0.04	
LC0017	2.68	0.59	70.3	-1.51	
LC0018	4.6	1	121	1.06	
LC0020	4.49	0.449	118	0.91	
LC0022	3.786	0.2	99.4	-0.03	
LC0023	1.07	0.21	28.1	-3.67	H
LC0024	3.76	0.15	98.7	-0.07	

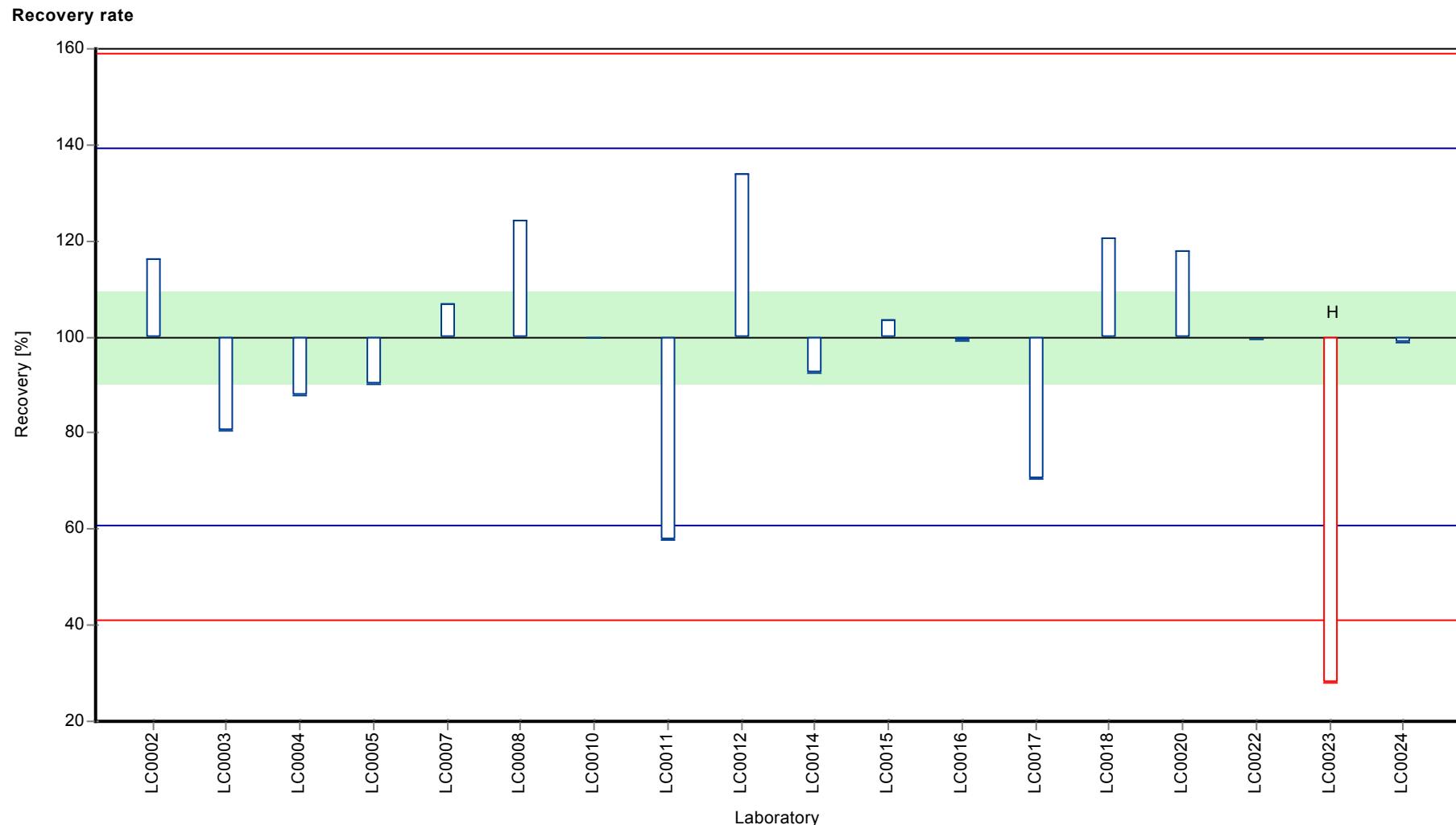
Characteristics of parameter

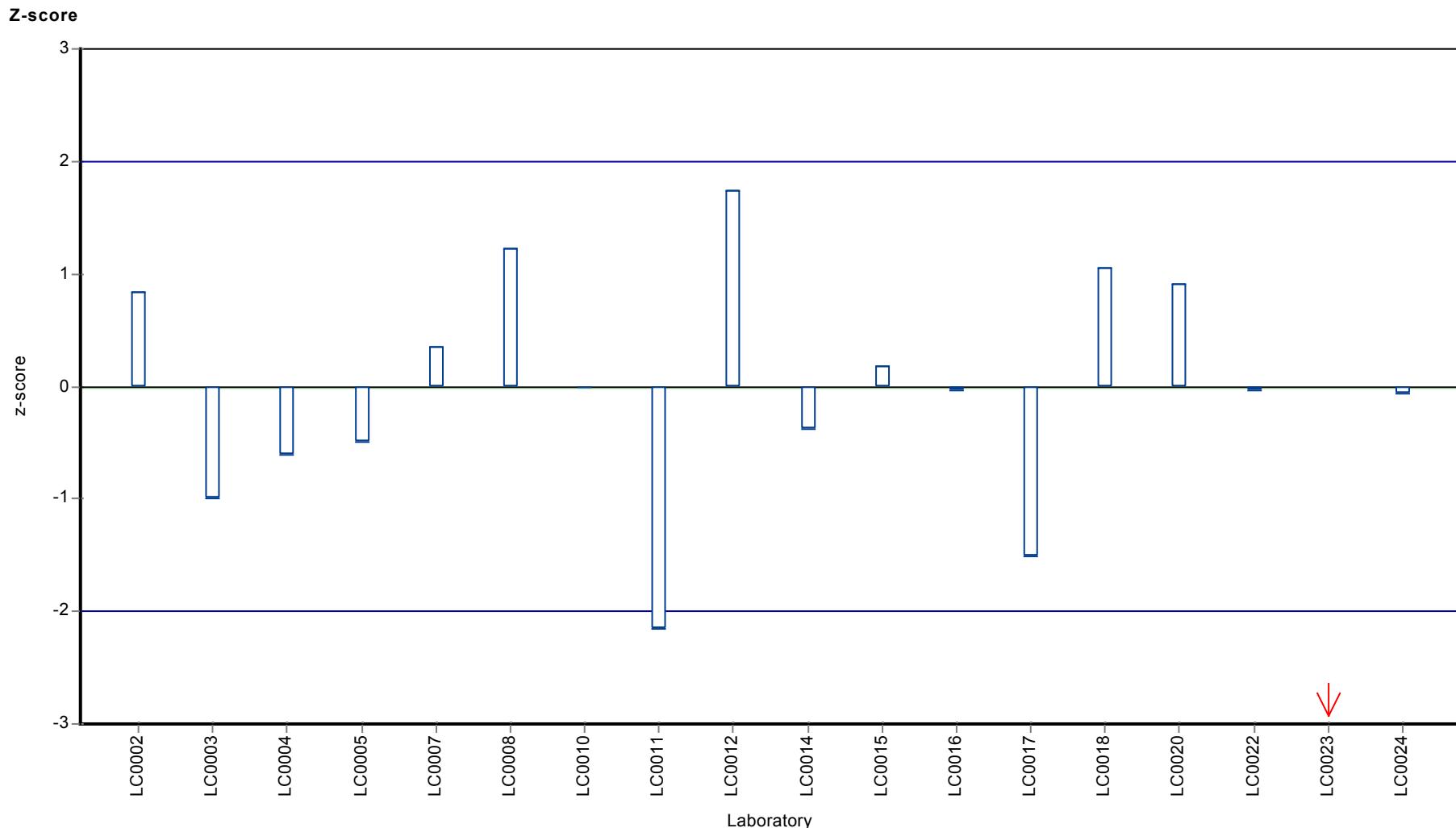
	all results	without outliers	Unit
Mean ± CI (99%)	3.66 ± 0.687	3.81 ± 0.544	µg/tube
Minimum	1.07	2.2	µg/tube
Maximum	5.11	5.11	µg/tube
Standard deviation	0.971	0.747	µg/tube
rel. standard deviation	26.5	19.6	%
n	18	17	-

Graphical presentation of results

Results







Parameter oriented report

CL06 - CHC

Tetrachloromethane

Unit	µg/tube
Assigned value ± U (k=2)	5.53 ± 0.659
Criterion	1.24 (22 %)
Minimum - Maximum	3.41 - 8.34
Control test value ± U (k=2)	7.05 ± 1.16

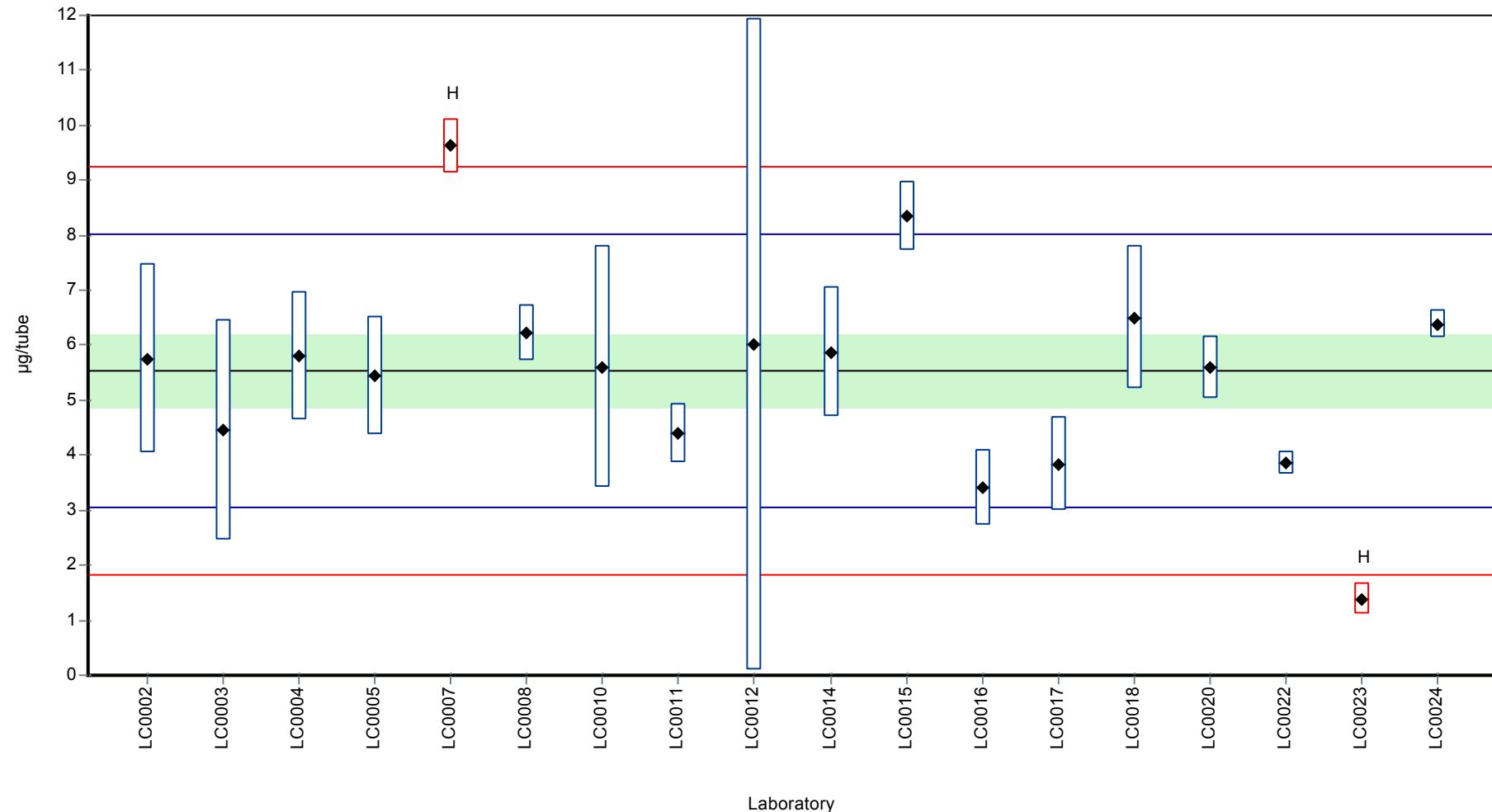
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0002	5.76	1.73	104	0.18	
LC0003	4.46	2.01	80.6	-0.86	
LC0004	5.8	1.16	105	0.22	
LC0005	5.446	1.089	98.4	-0.07	
LC0007	9.625	0.5	174	3.3	H
LC0008	6.22	0.5	112	0.56	
LC0010	5.6	2.2	101	0.05	
LC0011	4.4	0.54	79.5	-0.91	
LC0012	6.013	5.918	109	0.39	
LC0014	5.88	1.18	106	0.28	
LC0015	8.34	0.626	151	2.27	
LC0016	3.41	0.68	61.6	-1.71	
LC0017	3.84	0.85	69.4	-1.37	
LC0018	6.5	1.3	117	0.78	
LC0020	5.6	0.56	101	0.05	
LC0022	3.861	0.22	69.8	-1.35	
LC0023	1.39	0.28	25.1	-3.34	H
LC0024	6.38	0.26	115	0.68	

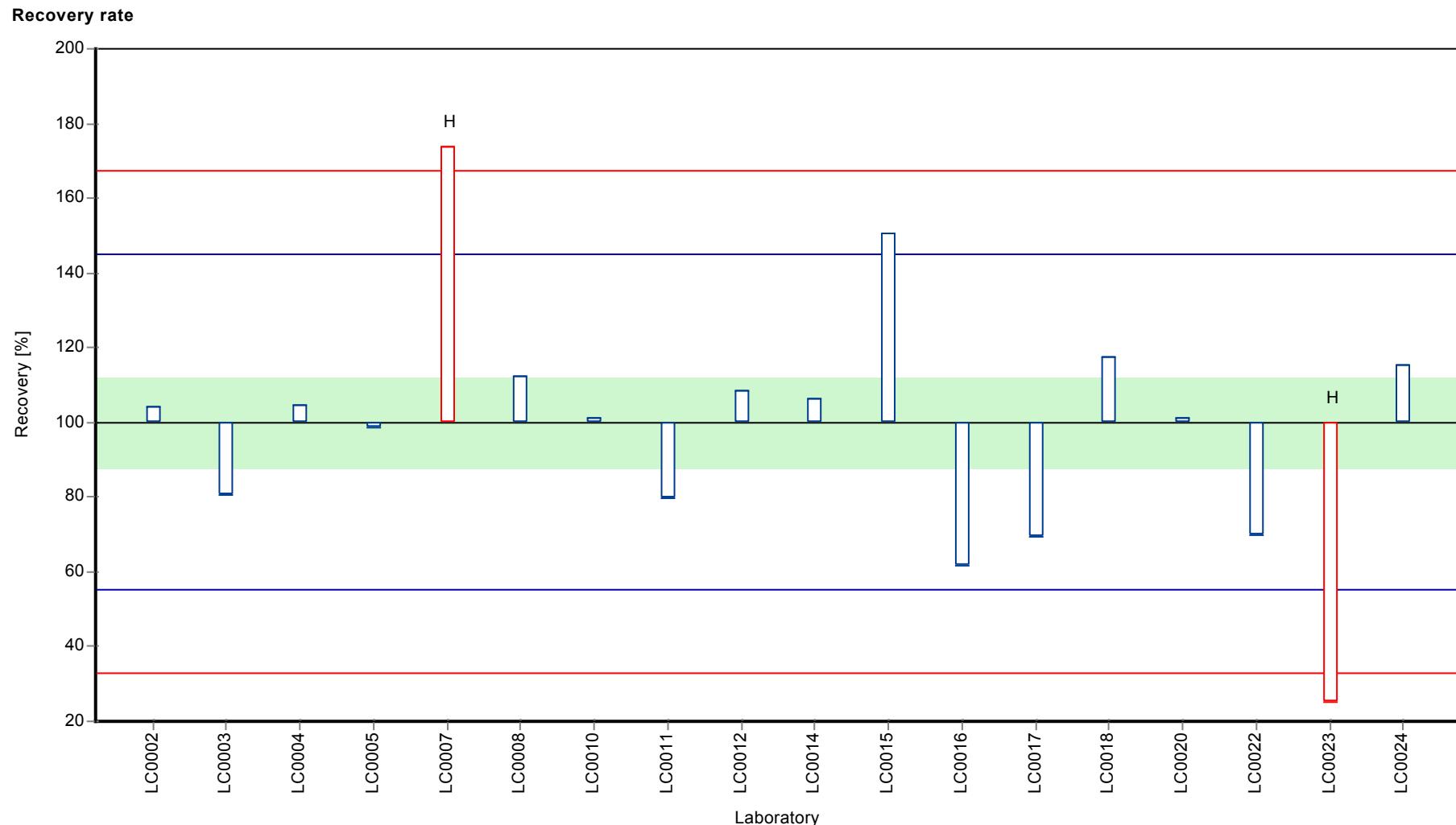
Characteristics of parameter

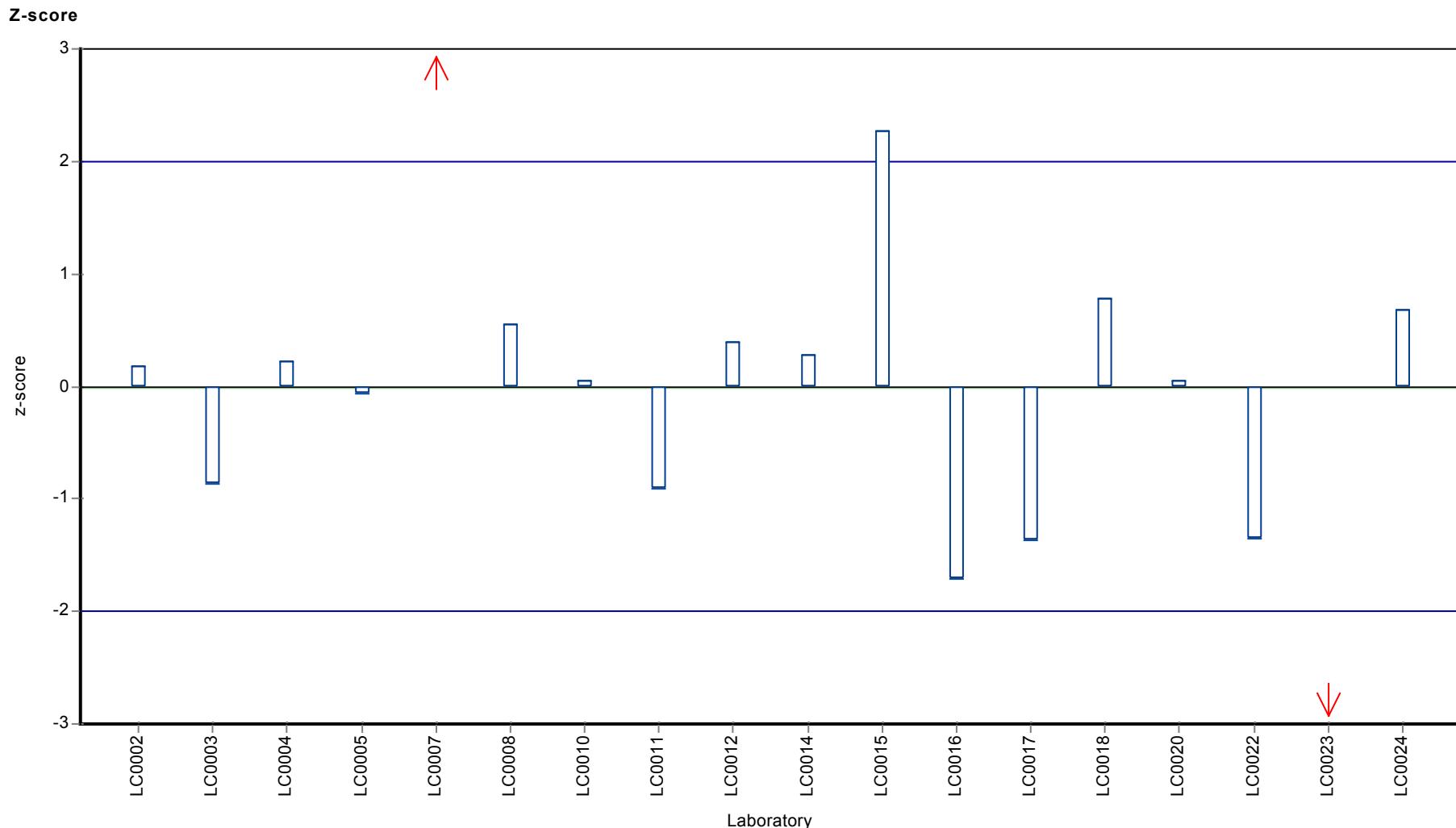
	all results	without outliers	Unit
Mean ± CI (99%)	5.47 ± 1.29	5.47 ± 0.929	µg/tube
Minimum	1.39	3.41	µg/tube
Maximum	9.63	8.34	µg/tube
Standard deviation	1.83	1.24	µg/tube
rel. standard deviation	33.4	22.7	%
n	18	16	-

Graphical presentation of results

Results







Parameter oriented report

BL07 - BTEX & C5-C10

Toluene

Unit $\mu\text{g/tube}$
Assigned value $\pm U$ ($k=2$) 6.12 ± 0.353
Criterion 0.81 (13 %)
Minimum - Maximum $4.44 - 7.47$
Control test value $\pm U$ ($k=2$) 6.78 ± 0.706

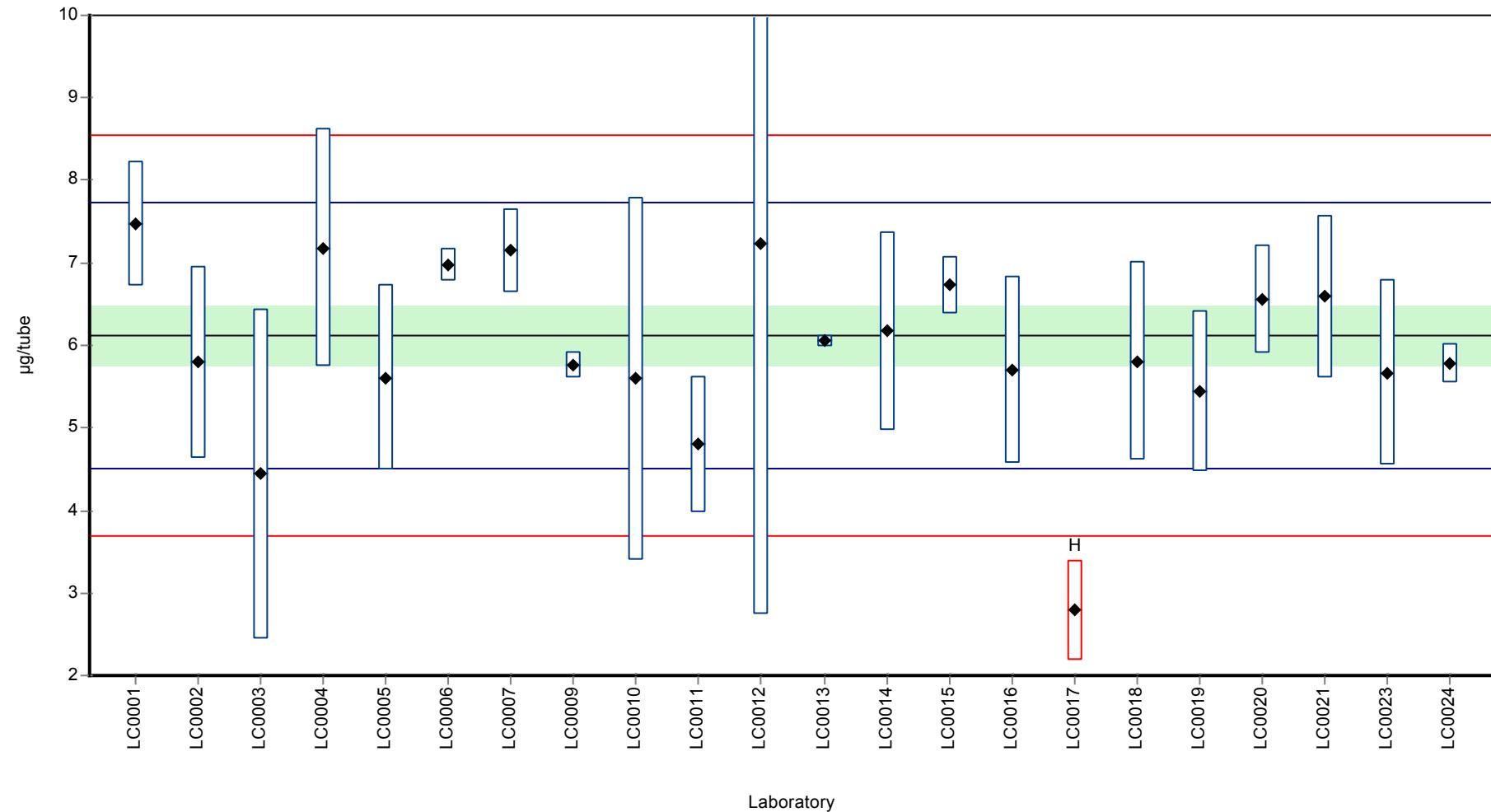
Labcode	Result	$\pm U$	Recovery [%]	z-score	Comments
LC0001	7.47	0.75	122	1.67	
LC0002	5.796	1.16	94.7	-0.4	
LC0003	4.44	2	72.6	-2.07	
LC0004	7.18	1.44	117	1.31	
LC0005	5.609	1.122	91.7	-0.63	
LC0006	6.972	0.2	114	1.05	
LC0007	7.145	0.5	117	1.27	
LC0009	5.77	0.16	94.3	-0.43	
LC0010	5.6	2.2	91.5	-0.64	
LC0011	4.8	0.83	78.4	-1.63	
LC0012	7.225	4.493	118	1.37	
LC0013	6.05	0.06	98.9	-0.09	
LC0014	6.17	1.2	101	0.06	
LC0015	6.73	0.343	110	0.75	
LC0016	5.7	1.14	93.1	-0.52	
LC0017	2.79	0.61	45.6	-4.11	H
LC0018	5.81	1.2	94.9	-0.38	
LC0019	5.44	0.968	88.9	-0.84	
LC0020	6.56	0.656	107	0.54	
LC0021	6.59	0.99	108	0.58	
LC0023	5.67	1.13	92.7	-0.56	
LC0024	5.78	0.24	94.5	-0.42	

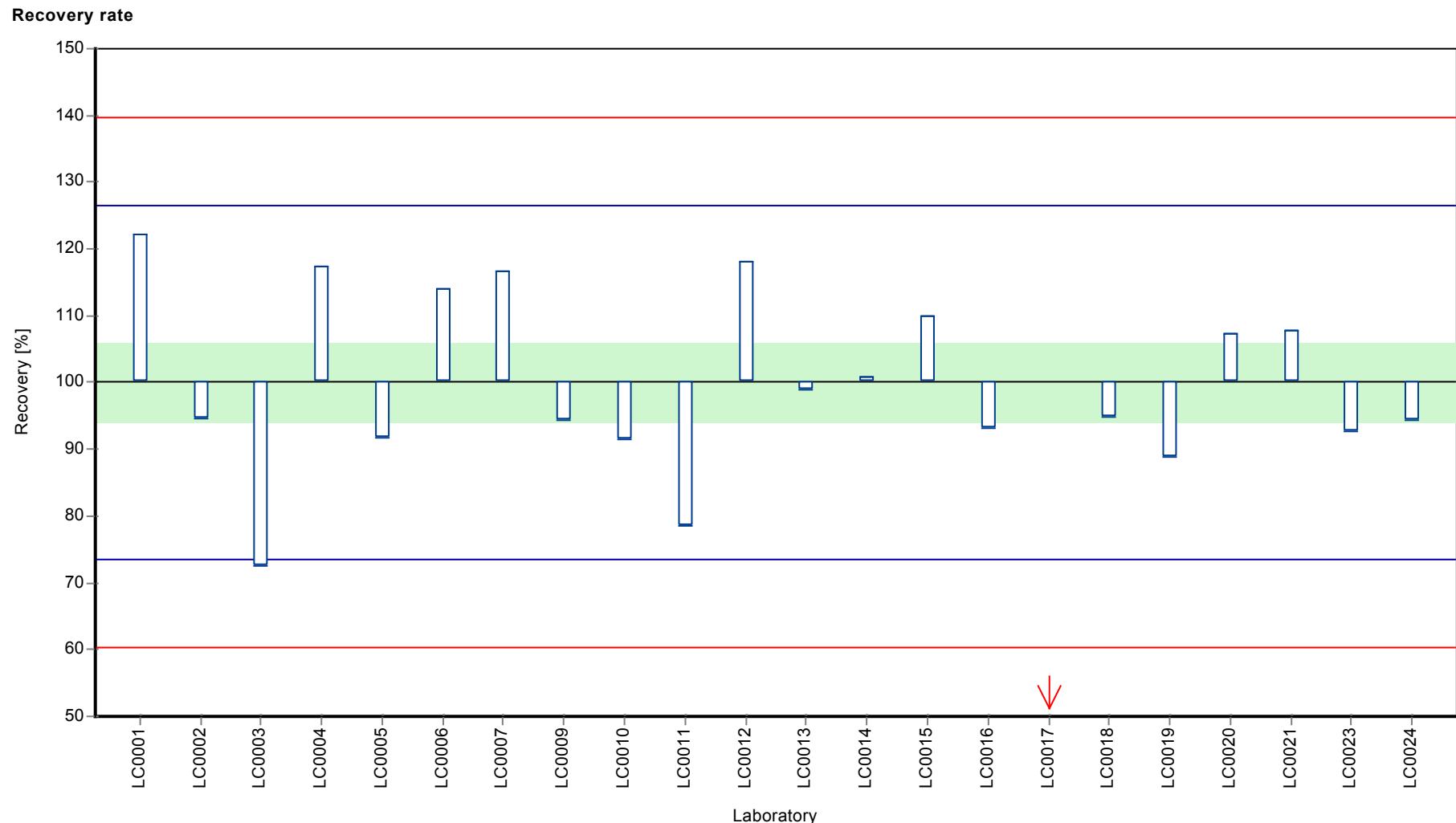
Characteristics of parameter

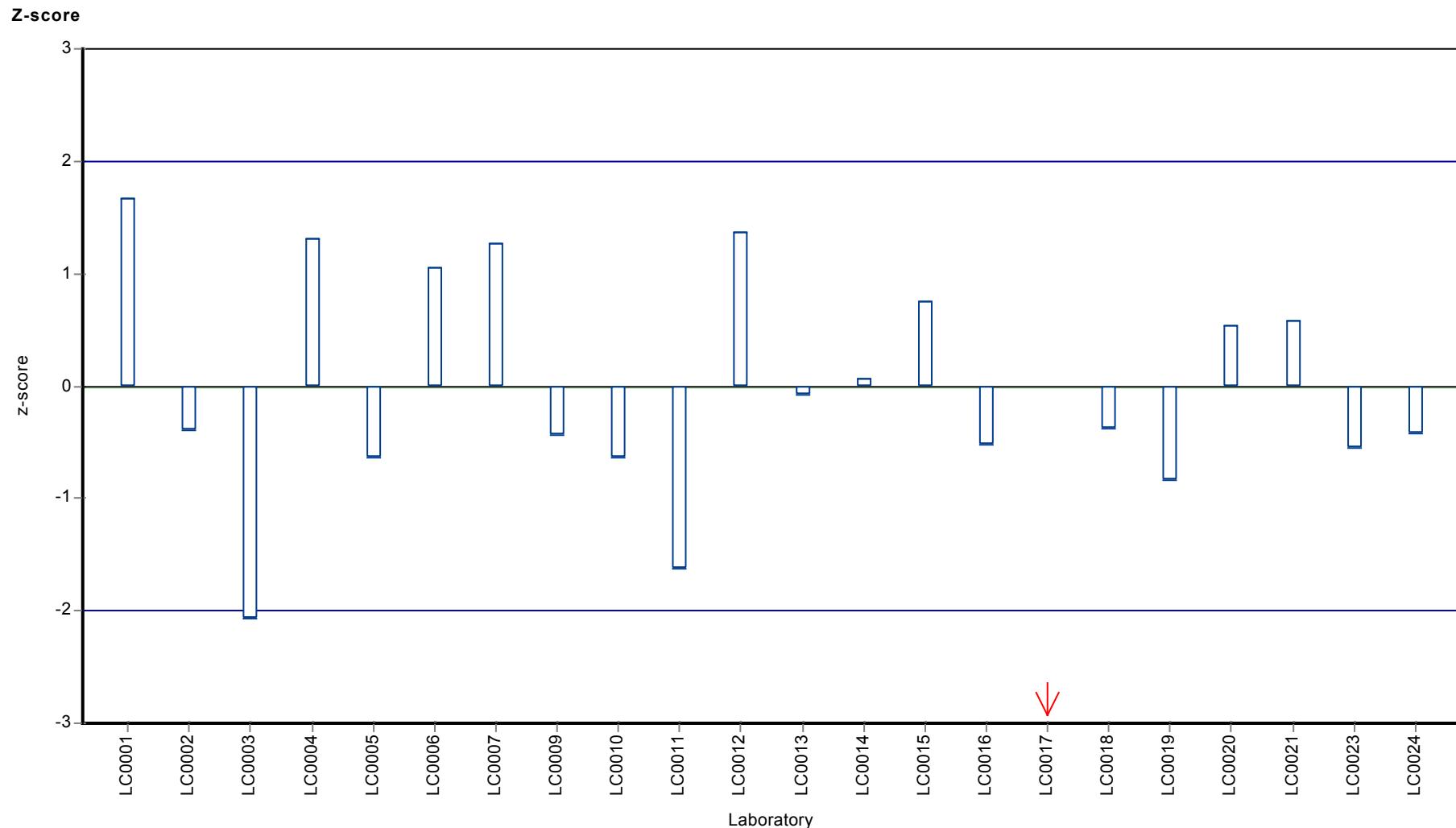
	all results	without outliers	Unit
Mean $\pm CI$ (99%)	5.97 ± 0.679	6.12 ± 0.53	$\mu\text{g/tube}$
Minimum	2.79	4.44	$\mu\text{g/tube}$
Maximum	7.47	7.47	$\mu\text{g/tube}$
Standard deviation	1.06	0.81	$\mu\text{g/tube}$
rel. standard deviation	17.8	13.2	%
n	22	21	-

Graphical presentation of results

Results







Parameter oriented report

CL06 - CHC

trans-1,2-Dichloroethene

Unit	µg/tube
Assigned value ± U (k=2)	2.45 ± 0.801
Criterion	-
Minimum - Maximum	0.28 - 4.81
Control test value ± U (k=2)	5.09 ± 0.877

Information zur Auswertung:
Die Bewertung dient nur zu Informationszwecken, da aufgrund von hohen Streuungen zwischen den Teilnehmern keine Bewertung möglich ist.

Information for evaluation:

Assessment is used for informational purposes only, since no evaluation is possible due to the higher scatter level between the participants.

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0002	3.714	0.743			
LC0003	1.41	0.63			
LC0004	3.38	0.68			
LC0005	1.35	0.27			
LC0007	3.8125	0.5			
LC0008	-	-			
LC0010	3.5	1.4			
LC0011	1.1	0.17			
LC0012	1.57	1.879			
LC0014	3.64	0.73			
LC0015	4.81	0.563			
LC0016	1.4	0.28			
LC0017	1.12	0.25			
LC0018	3.83	0.8			
LC0020	0.28	0.028			
LC0022	< 5 (LOQ)	-			
LC0023	0.462	0.09			
LC0024	3.89	0.16			

Characteristics of parameter

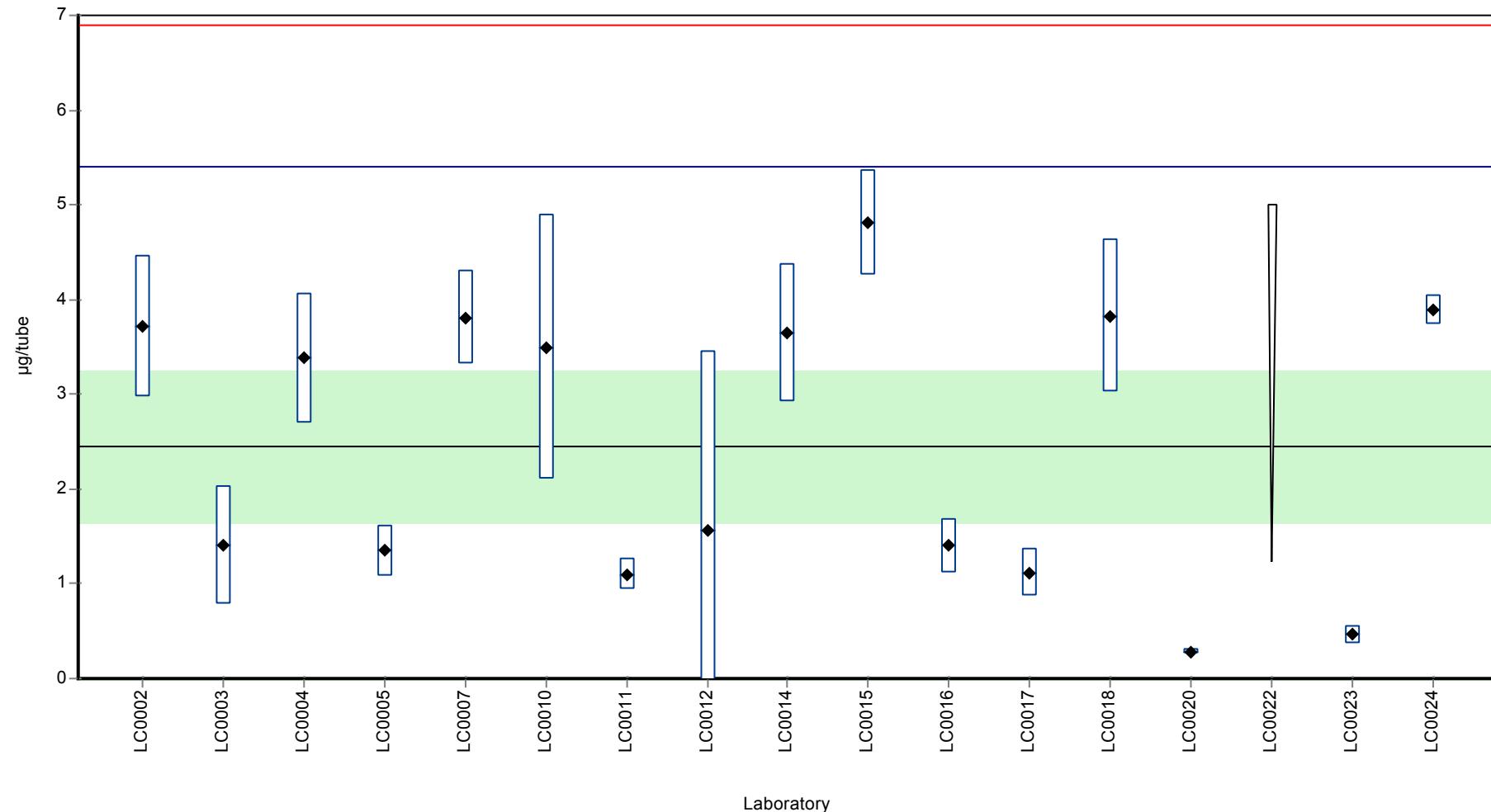
	all results	without outliers	Unit
Mean ± CI (99%)	2.45 ± 1.11	2.45 ± 1.11	µg/tube
Minimum	0.28	0.28	µg/tube
Maximum	4.81	4.81	µg/tube
Standard deviation	1.48	1.48	µg/tube
rel. standard deviation	60.3	60.3	%
n	16	16	-

Information zur Auswertung: Die Bewertung dient nur zu Informationszwecken, da aufgrund von hohen Streuungen zwischen den Teilnehmern keine Bewertung möglich ist.

Information for evaluation: Assessment is used for informational purposes only, since no evaluation is possible due to the high scatter level between the participants.

Graphical presentation of results

Results

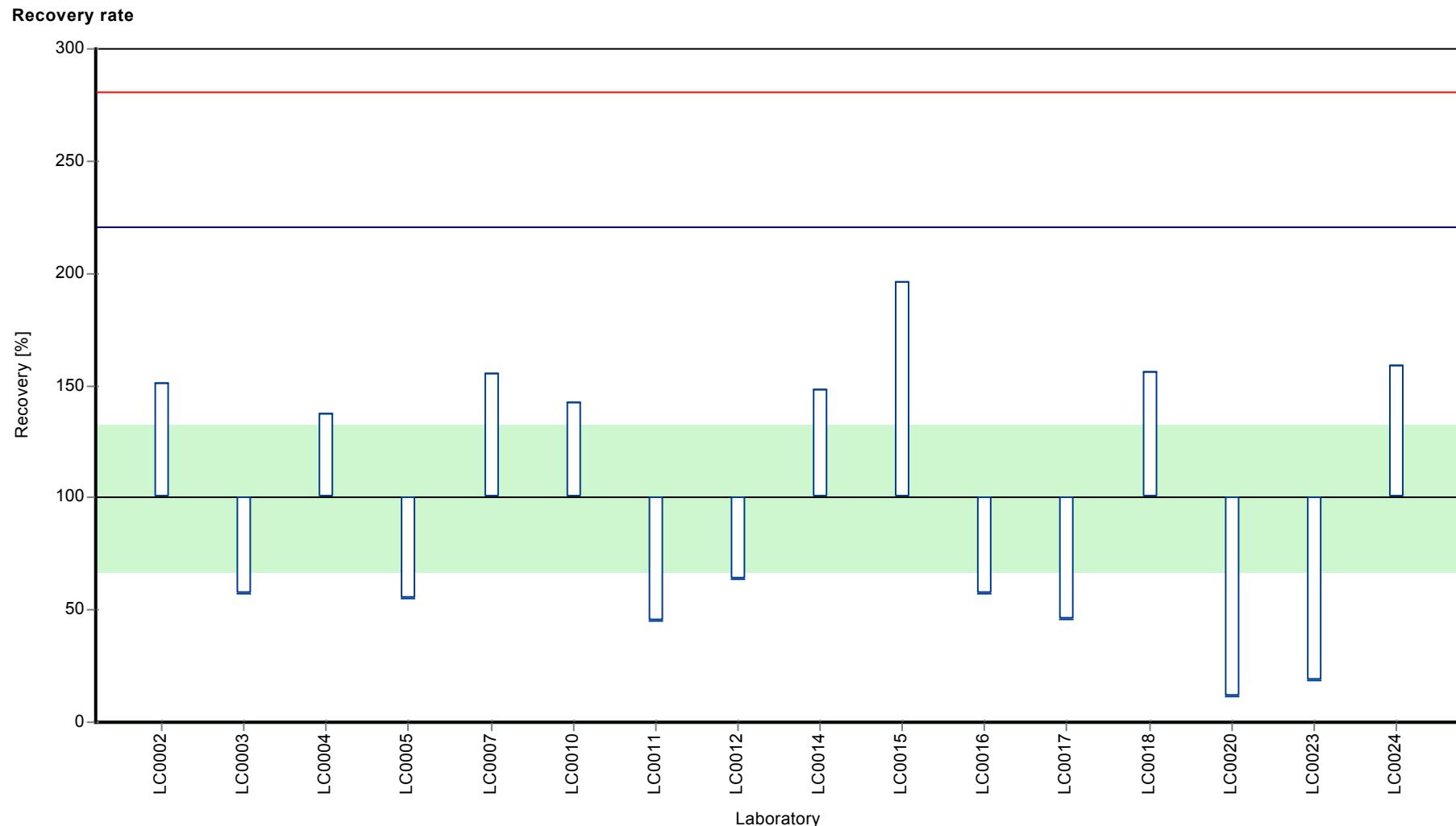


Information zur Auswertung: Die Bewertung dient nur zu Informationszwecken, da aufgrund von hohen Streuungen zwischen den Teilnehmern keine Bewertung möglich ist.

Information for evaluation: Assessment is used for informational purposes only, since no evaluation is possible due to the high scatter level between the participants.

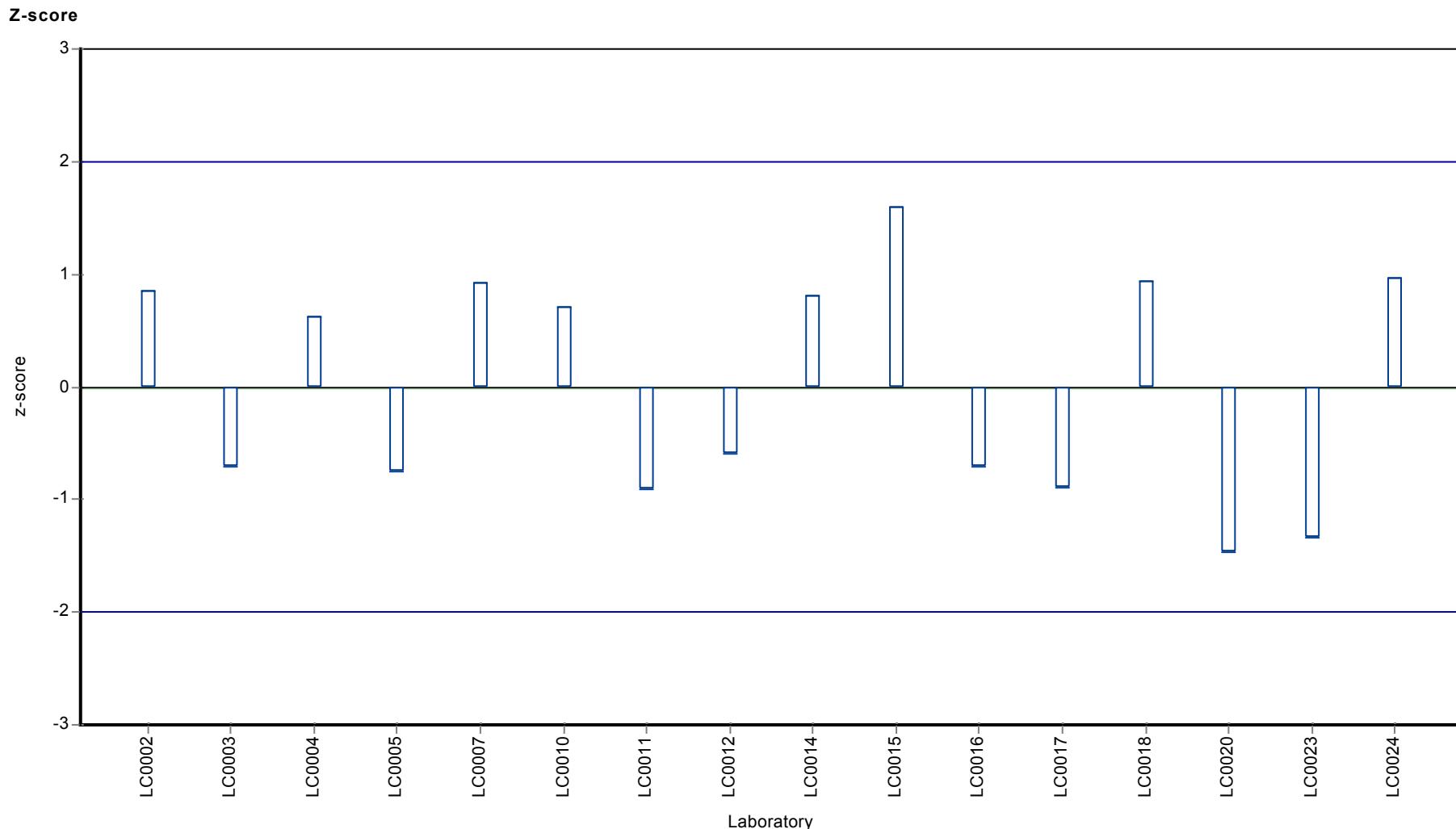
Parameter oriented report CHC and BTEX & C5-C10 - CBL05

Sample: CL06, Parameter: trans-1,2-Dichloroethene



Information zur Auswertung: Die Bewertung dient nur zu Informationszwecken, da aufgrund von hohen Streuungen zwischen den Teilnehmern keine Bewertung möglich ist.

Information for evaluation: Assessment is used for informational purposes only, since no evaluation is possible due to the high scatter level between the participants.



Parameter oriented report

CL06 - CHC

Trichloroethene

Unit $\mu\text{g/tube}$
Assigned value $\pm U$ ($k=2$) 3.83 ± 0.396
Criterion 0.76 (20 %)
Minimum - Maximum $2.11 - 4.72$
Control test value $\pm U$ ($k=2$) 4.64 ± 0.614

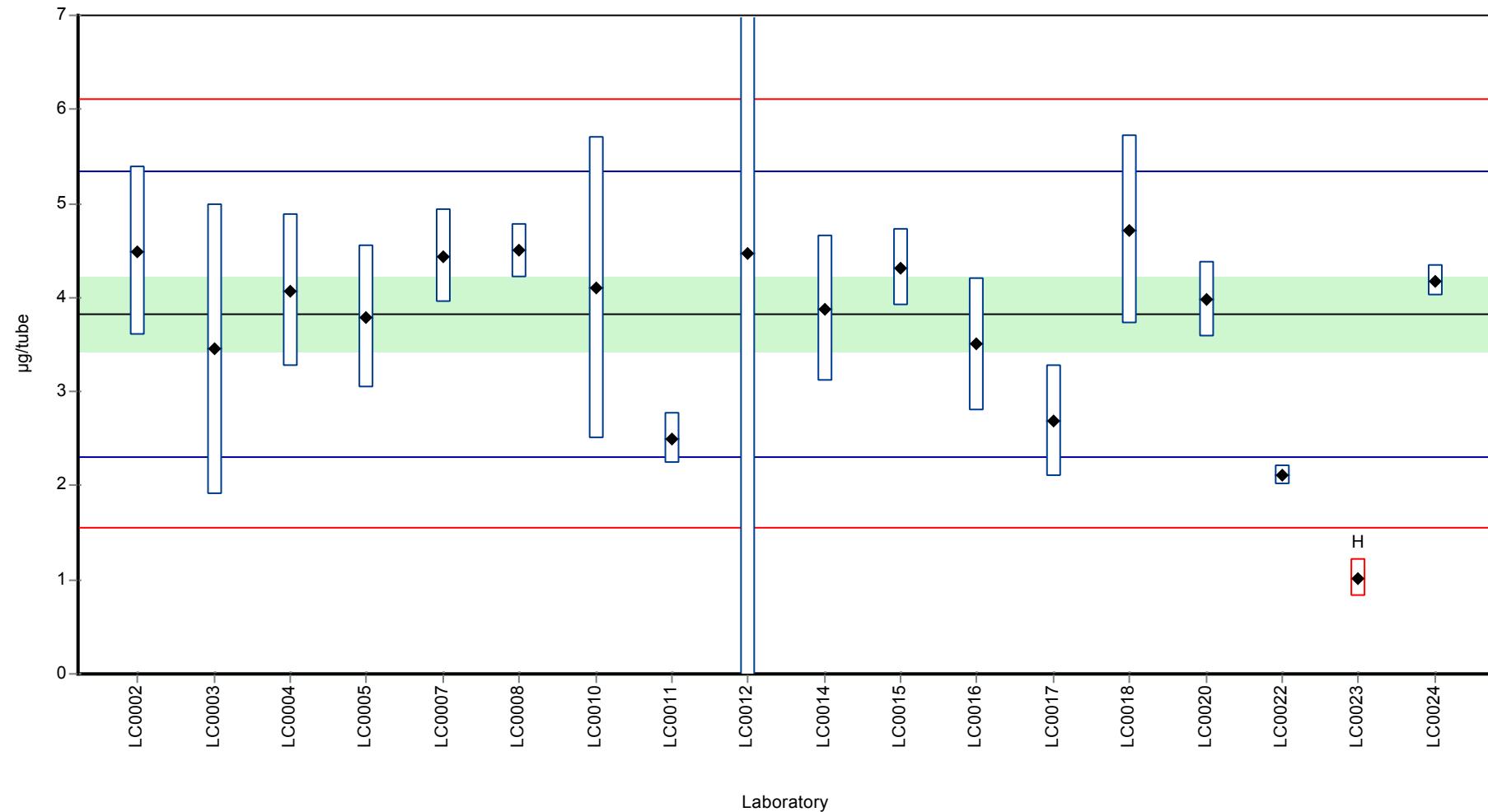
Labcode	Result	$\pm U$	Recovery [%]	z-score	Comments
LC0002	4.488	0.898	117	0.87	
LC0003	3.45	1.55	90.2	-0.49	
LC0004	4.07	0.81	106	0.32	
LC0005	3.793	0.759	99.1	-0.04	
LC0007	4.4375	0.5	116	0.8	
LC0008	4.5	0.29	118	0.89	
LC0010	4.1	1.6	107	0.36	
LC0011	2.5	0.27	65.3	-1.74	
LC0012	4.475	4.529	117	0.85	
LC0014	3.88	0.78	101	0.07	
LC0015	4.32	0.406	113	0.65	
LC0016	3.5	0.7	91.5	-0.43	
LC0017	2.69	0.59	70.3	-1.5	
LC0018	4.72	1	123	1.18	
LC0020	3.98	0.398	104	0.2	
LC0022	2.114	0.11	55.2	-2.25	
LC0023	1.02	0.2	26.7	-3.69	H
LC0024	4.18	0.17	109	0.47	

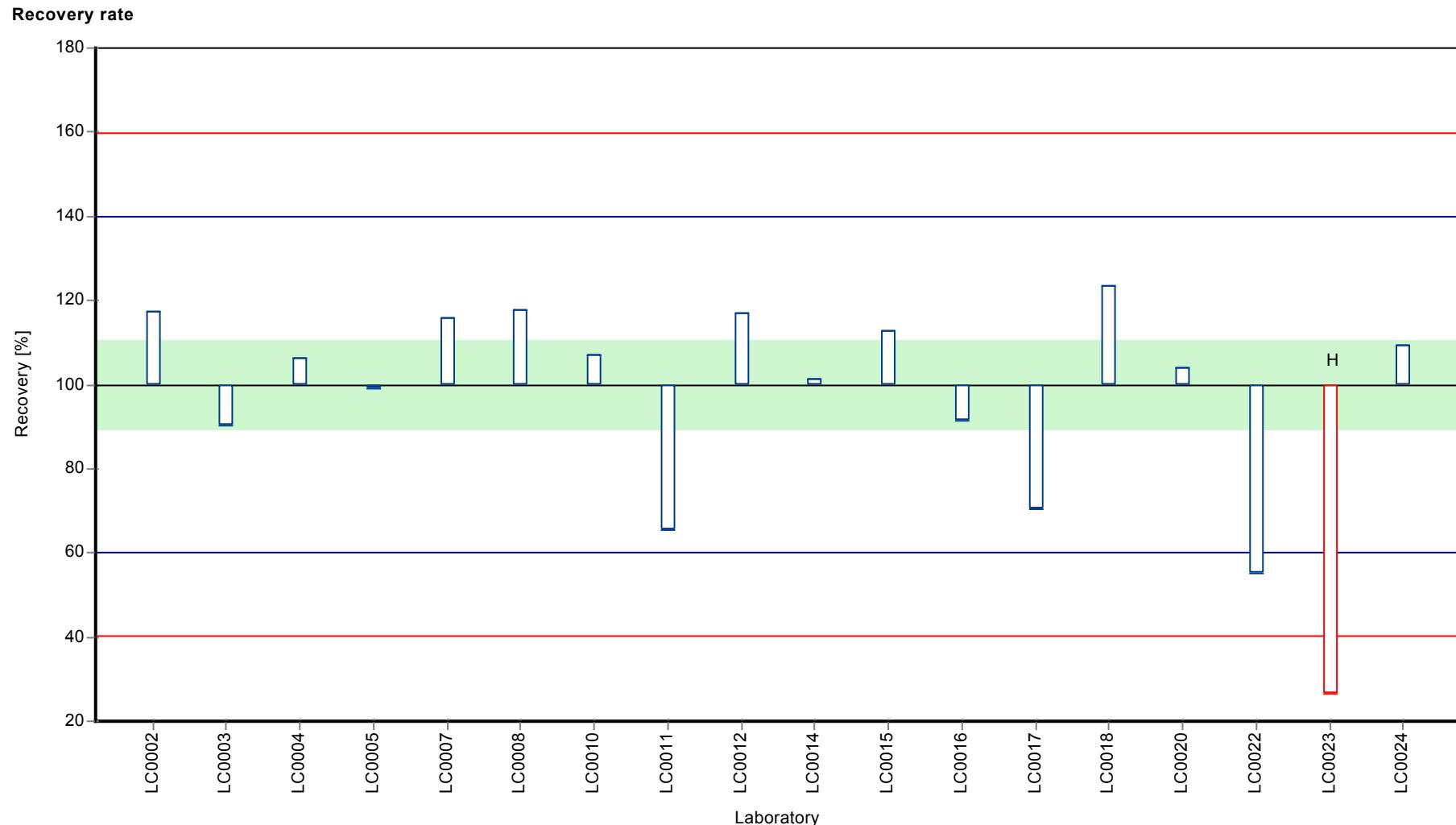
Characteristics of parameter

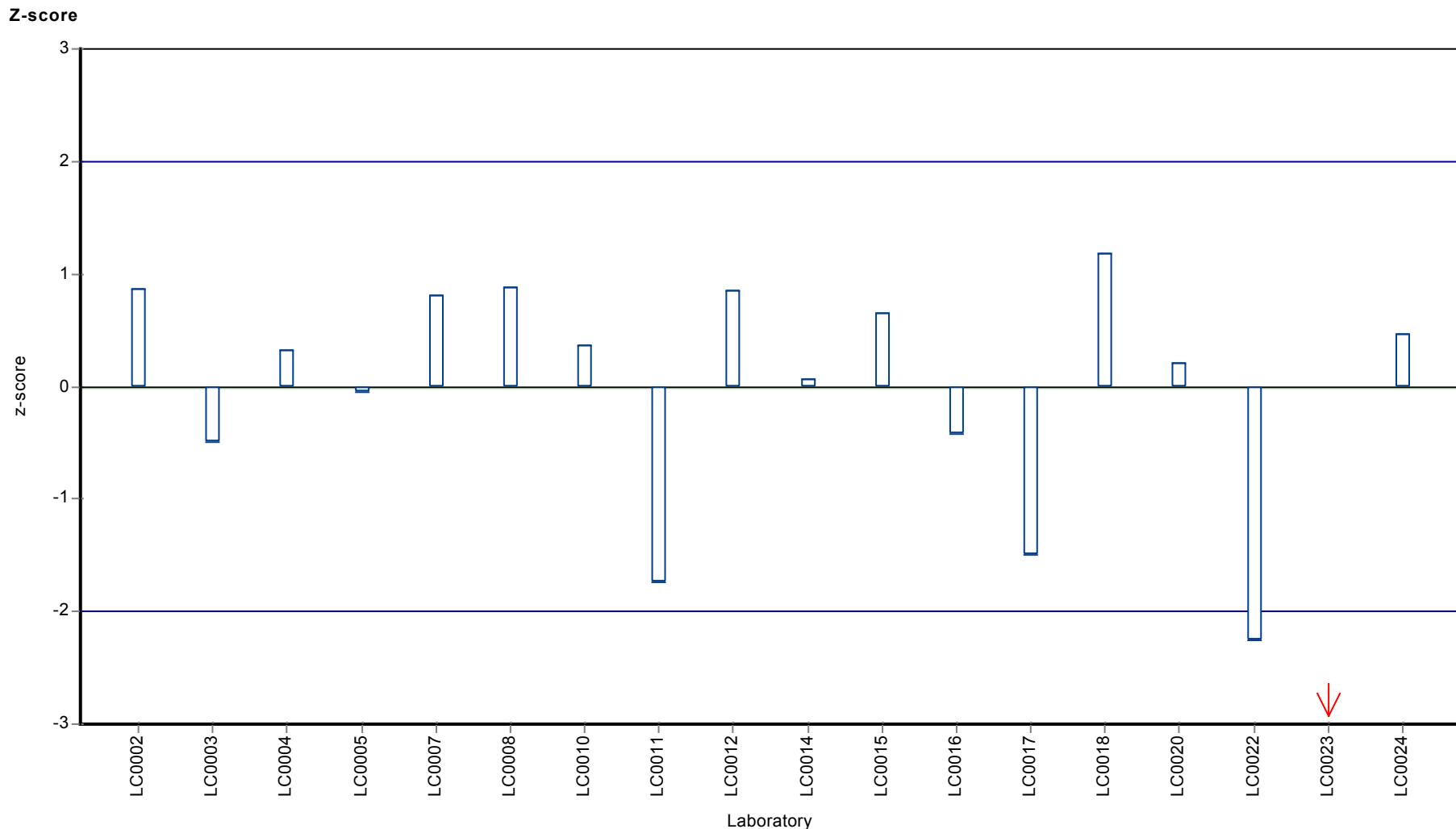
	all results	without outliers	Unit
Mean $\pm CI$ (99%)	3.68 ± 0.701	3.84 ± 0.553	$\mu\text{g/tube}$
Minimum	1.02	2.11	$\mu\text{g/tube}$
Maximum	4.72	4.72	$\mu\text{g/tube}$
Standard deviation	0.992	0.76	$\mu\text{g/tube}$
rel. standard deviation	27	19.8 %	
n	18	17	-

Graphical presentation of results

Results







Parameter oriented report

CL06 - CHC

Trichloromethane

Unit	µg/tube
Assigned value ± U (k=2)	4.14 ± 0.522
Criterion	0.994 (24 %)
Minimum - Maximum	1.6 - 6.28
Control test value ± U (k=2)	6.24 ± 0.898

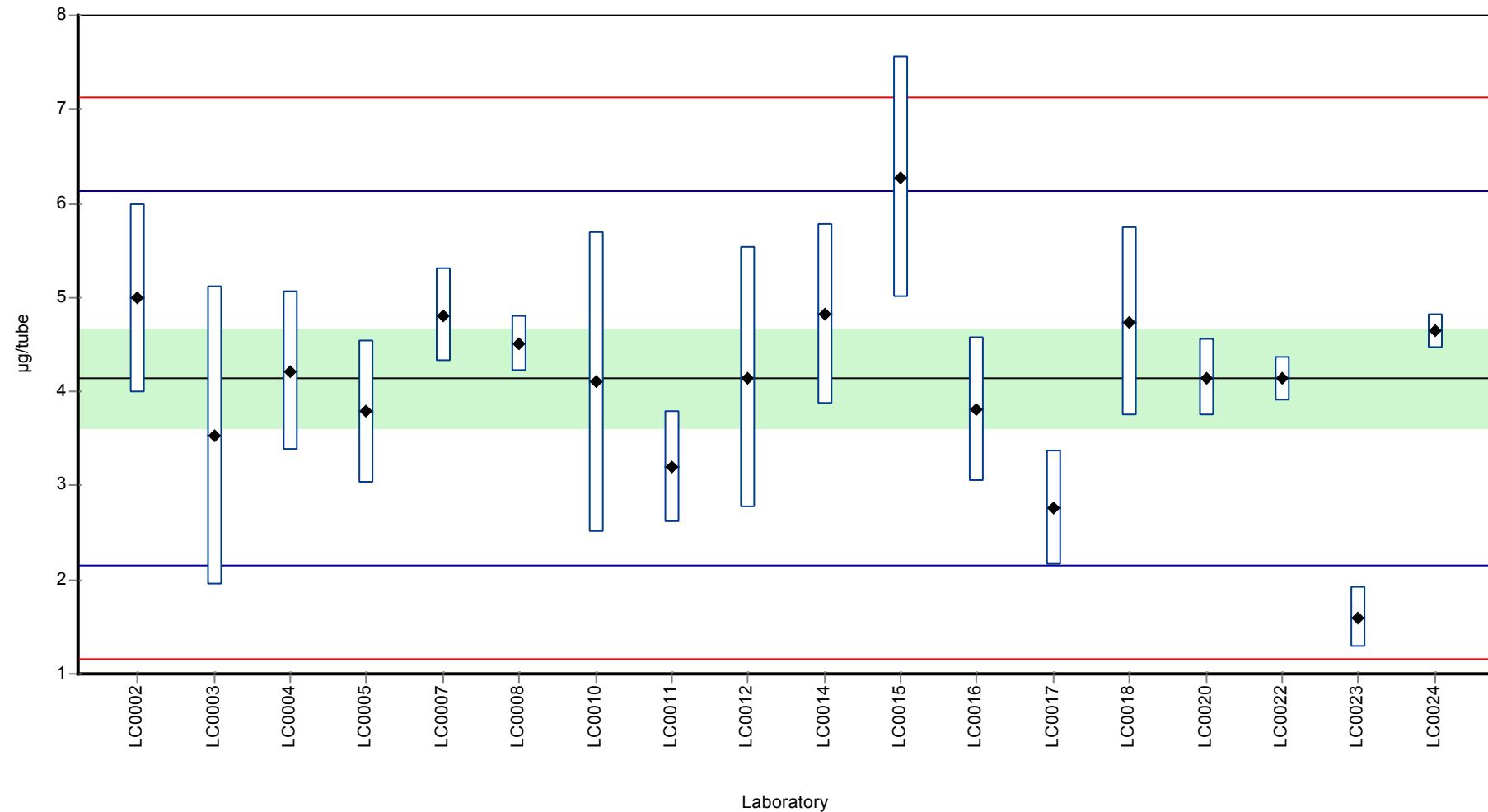
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0002	4.989	0.998	120	0.85	
LC0003	3.53	1.59	85.2	-0.62	
LC0004	4.22	0.84	102	0.08	
LC0005	3.79	0.758	91.5	-0.35	
LC0007	4.8125	0.5	116	0.67	
LC0008	4.51	0.3	109	0.37	
LC0010	4.1	1.6	99	-0.04	
LC0011	3.2	0.59	77.2	-0.95	
LC0012	4.144	1.387	100	0	
LC0014	4.82	0.96	116	0.68	
LC0015	6.28	1.287	152	2.15	
LC0016	3.81	0.76	92	-0.34	
LC0017	2.77	0.61	66.9	-1.38	
LC0018	4.74	1	114	0.6	
LC0020	4.15	0.415	100	0.01	
LC0022	4.135	0.23	99.8	-0.01	
LC0023	1.6	0.32	38.6	-2.56	
LC0024	4.64	0.19	112	0.5	

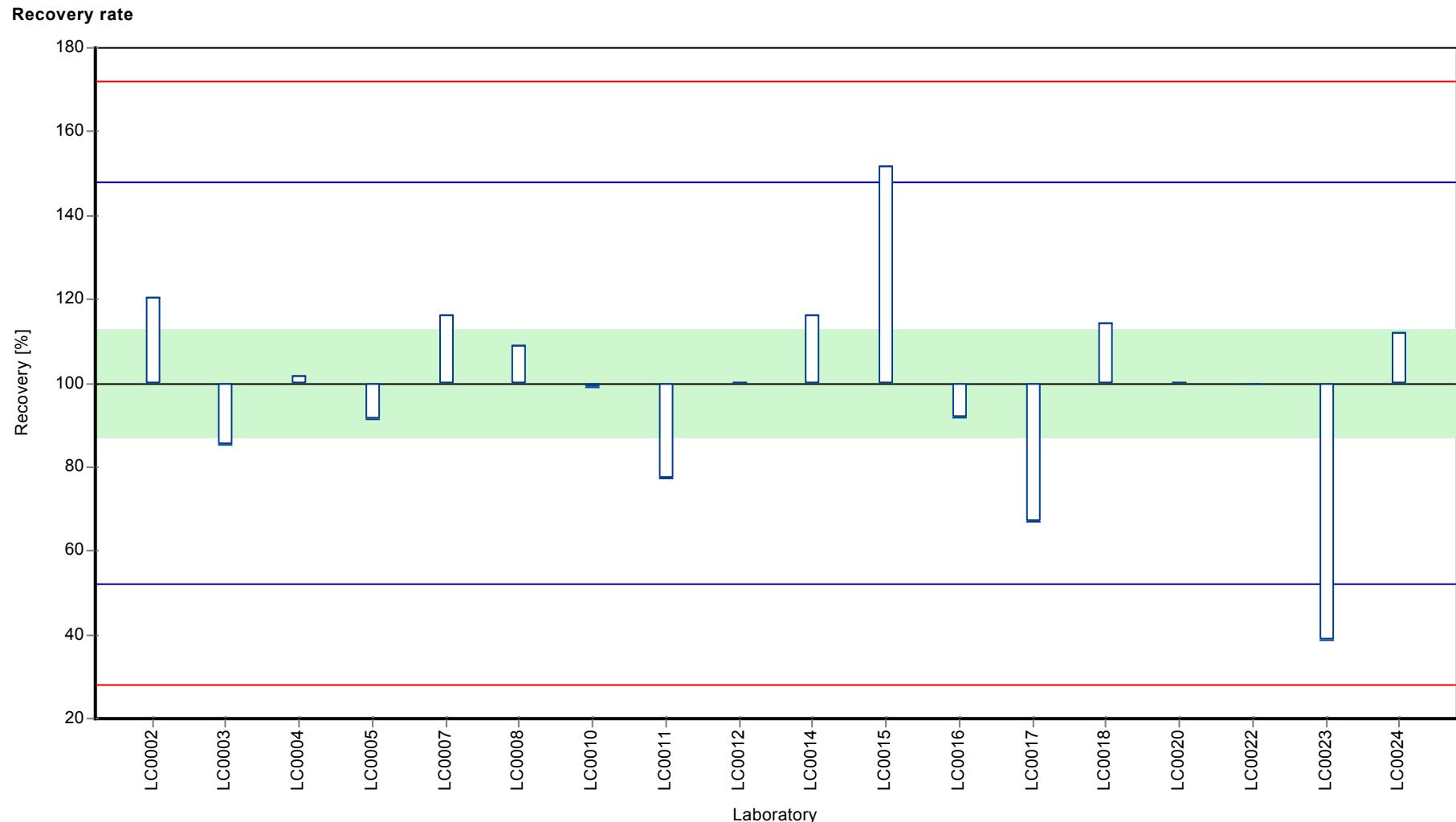
Characteristics of parameter

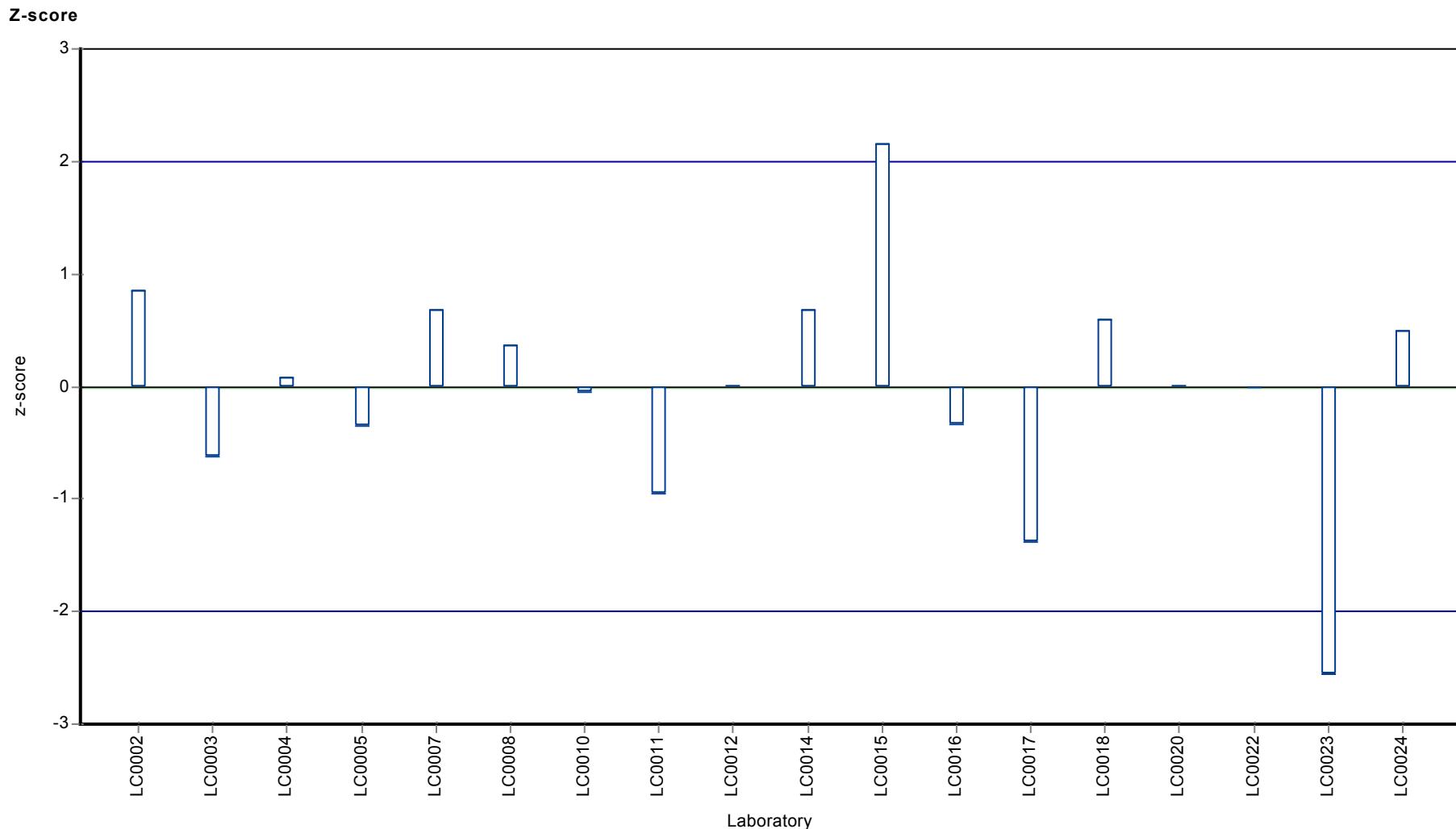
	all results	without outliers	Unit
Mean ± CI (99%)	4.12 ± 0.703	4.12 ± 0.703	µg/tube
Minimum	1.6	1.6	µg/tube
Maximum	6.28	6.28	µg/tube
Standard deviation	0.994	0.994	µg/tube
rel. standard deviation	24.1	24.1	%
n	18	18	-

Graphical presentation of results

Results







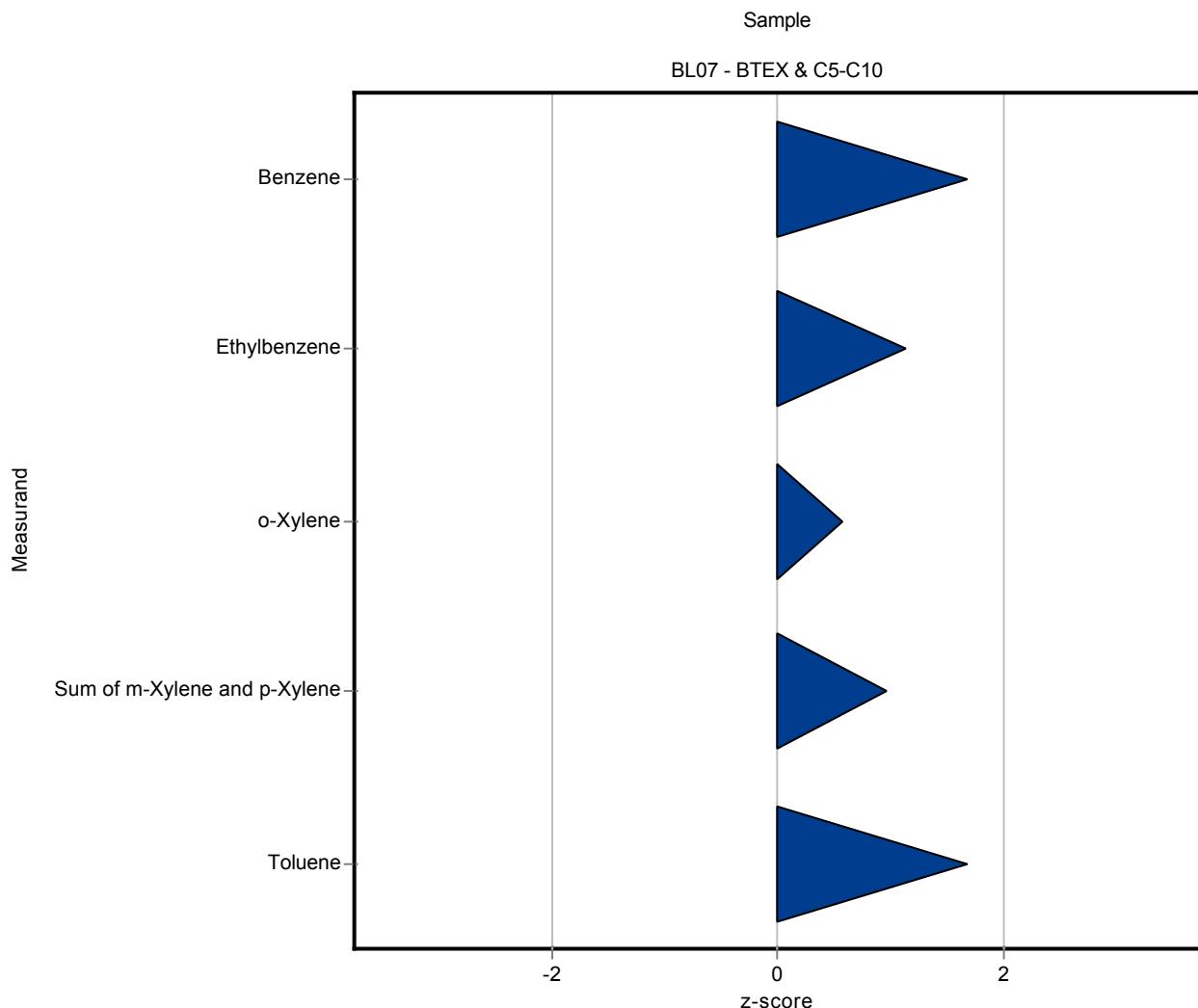
E8. Labororientierte Auswertung / Laboratory oriented report

Die Labororientierte Auswertung ist nach dem Laborcode sortiert.

The laboratory oriented report is sorted by laboratory code.

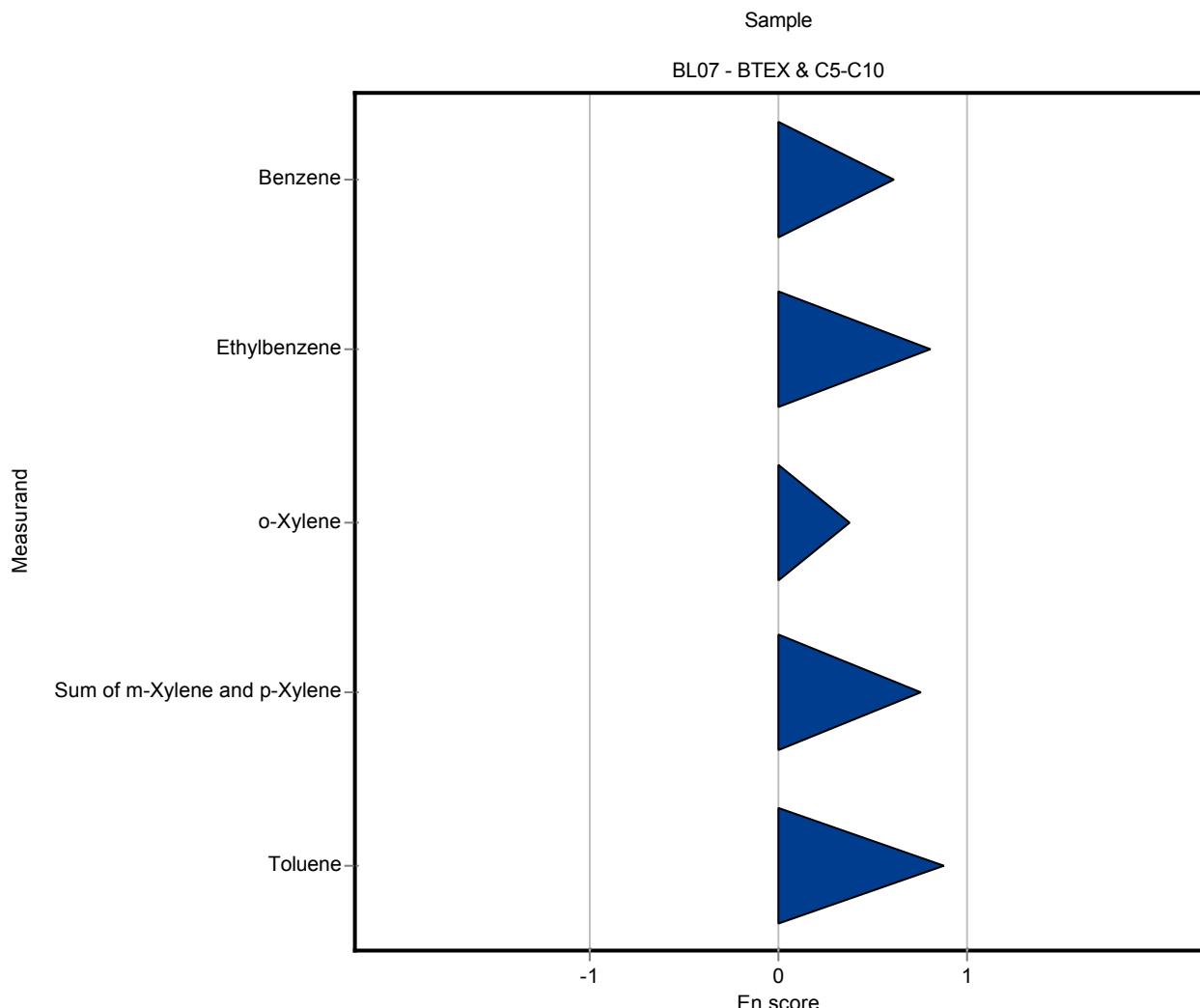
Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	6.8 \pm 0.68	0.495	114	1.68
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	7.05 \pm 0.71	1.06	120	1.12
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	- \pm -	1.39	-	-
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	- \pm -	1.5	-	-
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	- \pm -	1.42	-	-
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	- \pm -	1.56	-	-
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	- \pm -	1.5	-	-
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	- \pm -	2.53	-	-
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	5.99 \pm 0.6	0.823	109	0.57
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	13.32 \pm 1.33	2.2	119	0.95
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	7.47 \pm 0.75	0.81	122	1.67



Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	6.8 \pm 0.68	0.495	114	0.60
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	7.05 \pm 0.71	1.06	120	0.80
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	- \pm -	1.39	-	-
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	- \pm -	1.5	-	-
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	- \pm -	1.42	-	-
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	- \pm -	1.56	-	-
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	- \pm -	1.5	-	-
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	- \pm -	2.53	-	-
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	5.99 \pm 0.6	0.823	109	0.38
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	13.32 \pm 1.33	2.2	119	0.75
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	7.47 \pm 0.75	0.81	122	0.88

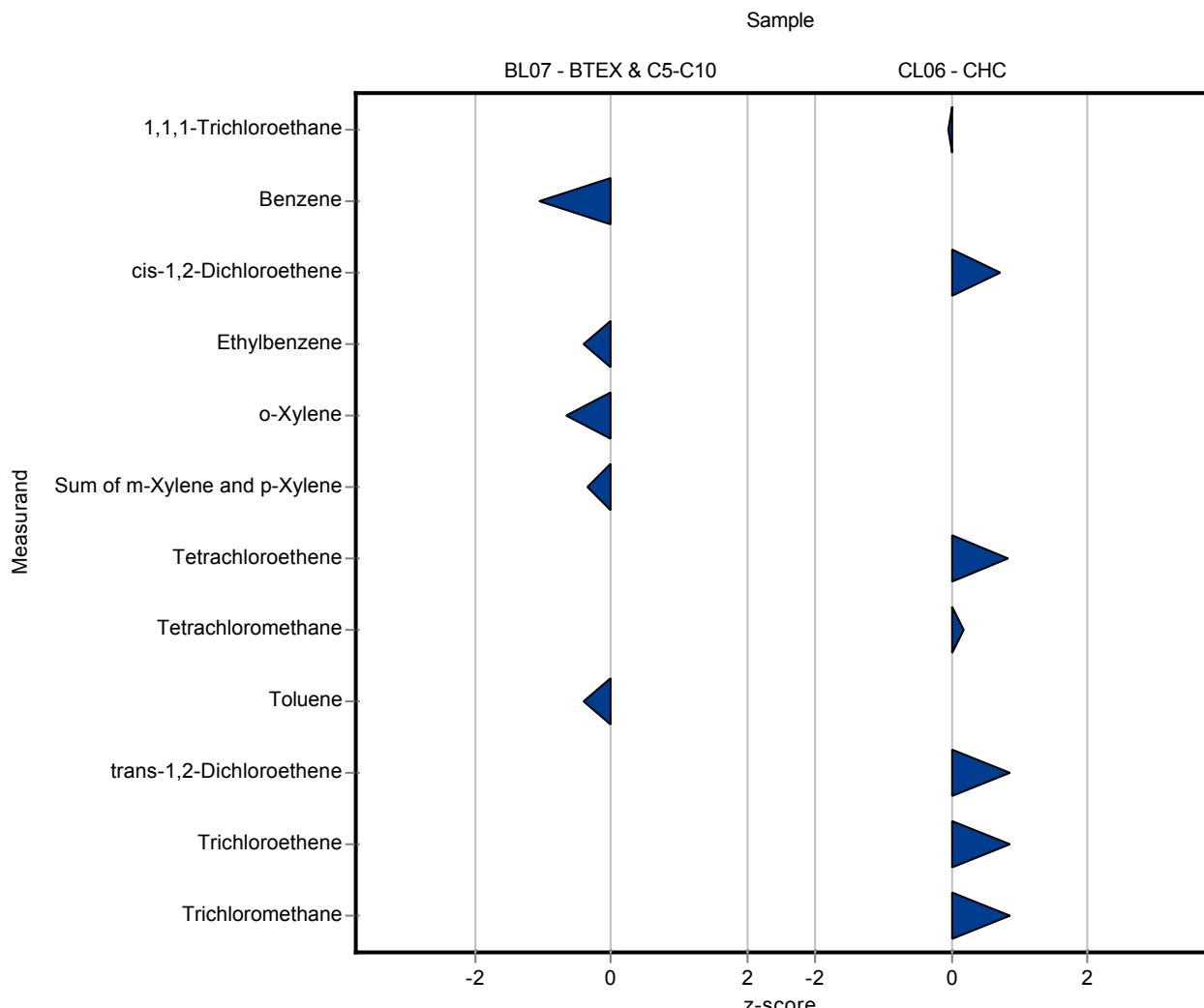


Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	5.447 \pm 1.09	0.495	91.3	-1.05
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	5.422 \pm 1.08	1.06	92.6	-0.41
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	- \pm -	1.39	-	-
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	- \pm -	1.5	-	-
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	- \pm -	1.42	-	-
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	- \pm -	1.56	-	-
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	- \pm -	1.5	-	-
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	- \pm -	2.53	-	-
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	4.973 \pm 0.995	0.823	90.1	-0.66
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	10.465 \pm 2.09	2.2	93.3	-0.34
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	5.796 \pm 1.16	0.81	94.7	-0.40

Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	4.606 \pm 0.921	0.876	99.1	-0.05
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	3.627 \pm 0.725	1.2	130	0.71
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	4.434 \pm 0.887	0.747	116	0.83
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	5.76 \pm 1.73	1.24	104	0.18
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	3.714 \pm 0.743	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	4.488 \pm 0.898	0.76	117	0.87
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	4.989 \pm 0.998	0.994	120	0.85

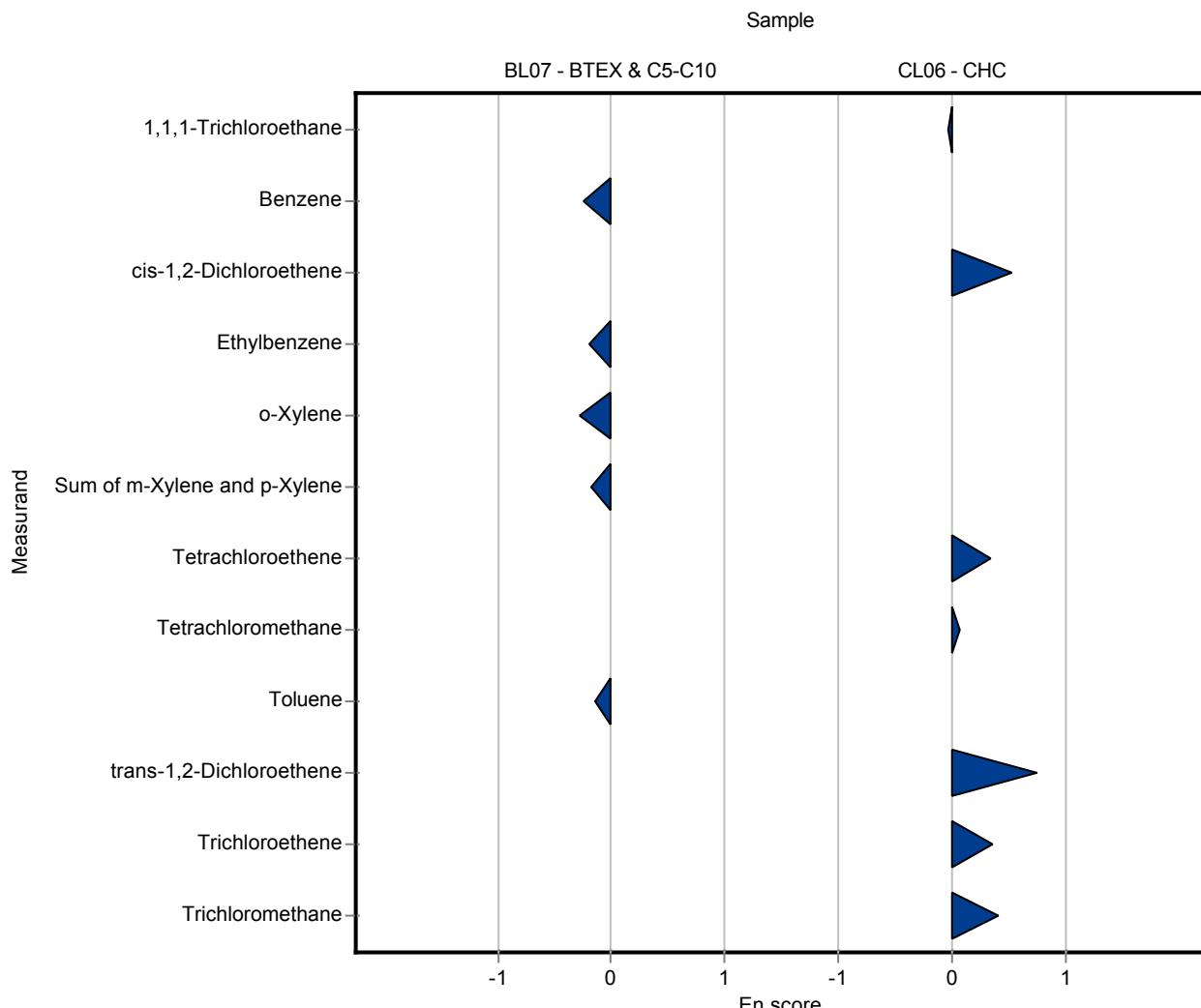


Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	5.447 \pm 1.09	0.495	91.3	-0.24
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	5.422 \pm 1.08	1.06	92.6	-0.20
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	- \pm -	1.39	-	-
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	- \pm -	1.5	-	-
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	- \pm -	1.42	-	-
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	- \pm -	1.56	-	-
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	- \pm -	1.5	-	-
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	- \pm -	2.53	-	-
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	4.973 \pm 0.995	0.823	90.1	-0.27
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	10.465 \pm 2.09	2.2	93.3	-0.18
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	5.796 \pm 1.16	0.81	94.7	-0.14

Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	4.606 \pm 0.921	0.876	99.1	-0.02
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	3.627 \pm 0.725	1.2	130	0.53
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	4.434 \pm 0.887	0.747	116	0.34
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	5.76 \pm 1.73	1.24	104	0.06
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	3.714 \pm 0.743	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	4.488 \pm 0.898	0.76	117	0.36
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	4.989 \pm 0.998	0.994	120	0.41

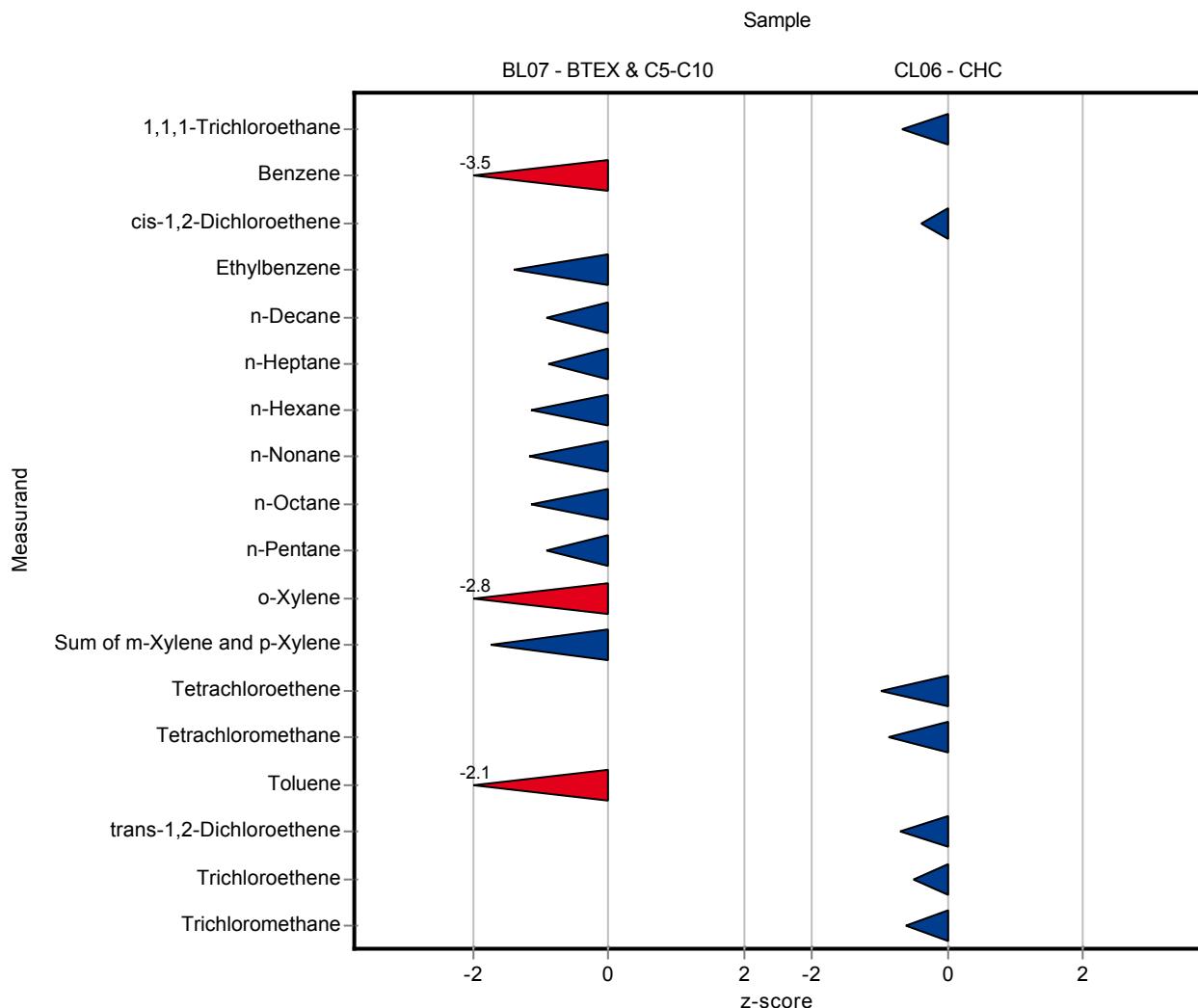


Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	4.21 \pm 1.89	0.495	70.6	-3.55
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	4.37 \pm 1.96	1.06	74.6	-1.40
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	2.01 \pm 0.9	1.39	60.8	-0.93
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	5.2 \pm 2.34	1.5	79.7	-0.88
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	5.06 \pm 2.28	1.42	75.7	-1.14
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	3.54 \pm 1.59	1.56	65.7	-1.18
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	4.66 \pm 2.1	1.5	73	-1.15
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	4.32 \pm 1.94	2.53	65.4	-0.90
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	3.25 \pm 1.46	0.823	58.9	-2.76
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	7.38 \pm 3.32	2.2	65.8	-1.74
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	4.44 \pm 2	0.81	72.6	-2.07

Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	4.06 \pm 1.82	0.876	87.3	-0.67
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	2.31 \pm 1.04	1.2	83.1	-0.39
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	3.07 \pm 1.38	0.747	80.6	-0.99
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	4.46 \pm 2.01	1.24	80.6	-0.86
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	1.41 \pm 0.63	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	3.45 \pm 1.55	0.76	90.2	-0.49
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	3.53 \pm 1.59	0.994	85.2	-0.62

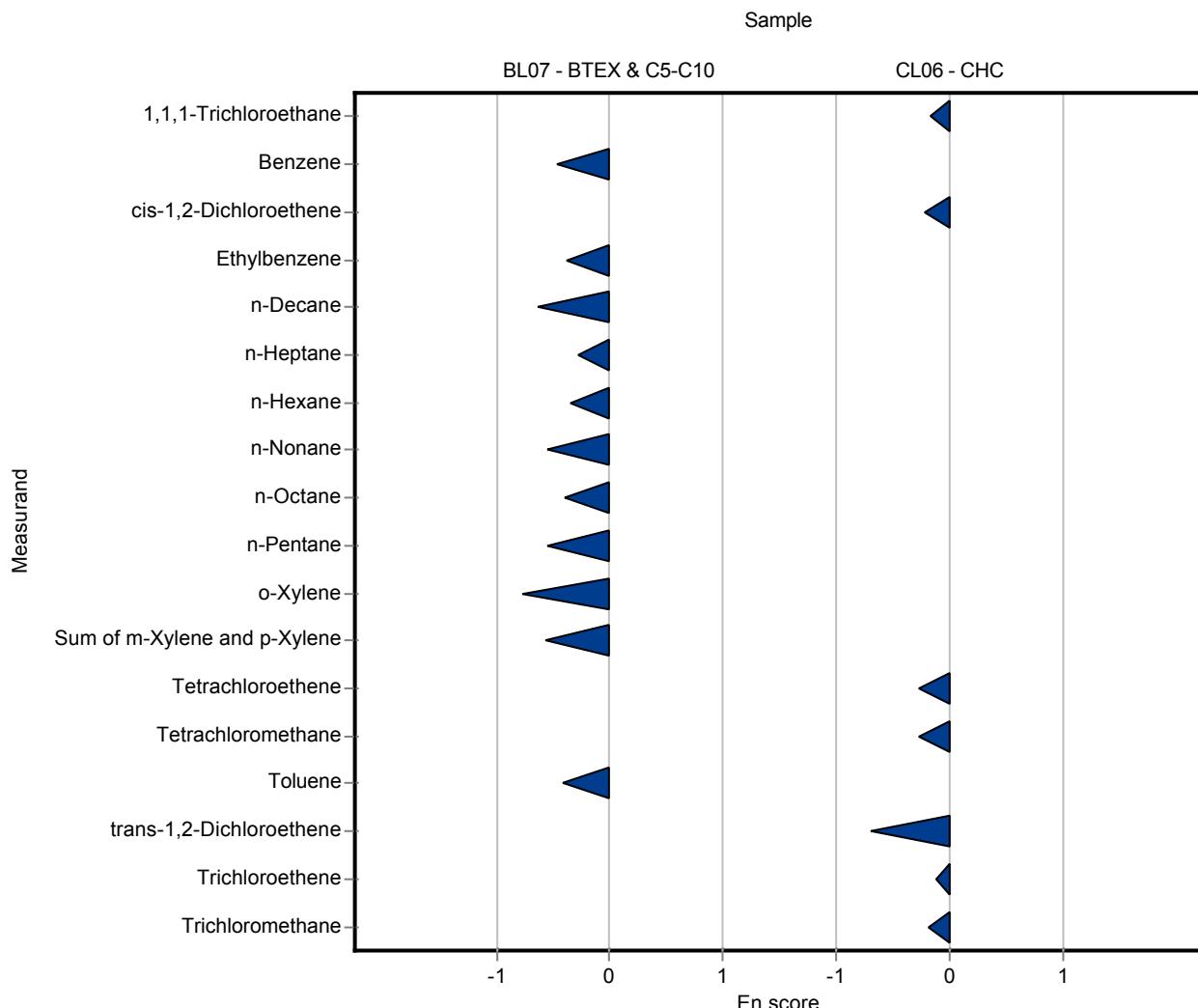


Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	4.21 \pm 1.89	0.495	70.6	-0.46
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	4.37 \pm 1.96	1.06	74.6	-0.38
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	2.01 \pm 0.9	1.39	60.8	-0.64
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	5.2 \pm 2.34	1.5	79.7	-0.28
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	5.06 \pm 2.28	1.42	75.7	-0.35
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	3.54 \pm 1.59	1.56	65.7	-0.56
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	4.66 \pm 2.1	1.5	73	-0.40
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	4.32 \pm 1.94	2.53	65.4	-0.54
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	3.25 \pm 1.46	0.823	58.9	-0.77
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	7.38 \pm 3.32	2.2	65.8	-0.57
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	4.44 \pm 2	0.81	72.6	-0.42

Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	4.06 \pm 1.82	0.876	87.3	-0.16
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	2.31 \pm 1.04	1.2	83.1	-0.22
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	3.07 \pm 1.38	0.747	80.6	-0.27
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	4.46 \pm 2.01	1.24	80.6	-0.26
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	1.41 \pm 0.63	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	3.45 \pm 1.55	0.76	90.2	-0.12
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	3.53 \pm 1.59	0.994	85.2	-0.19

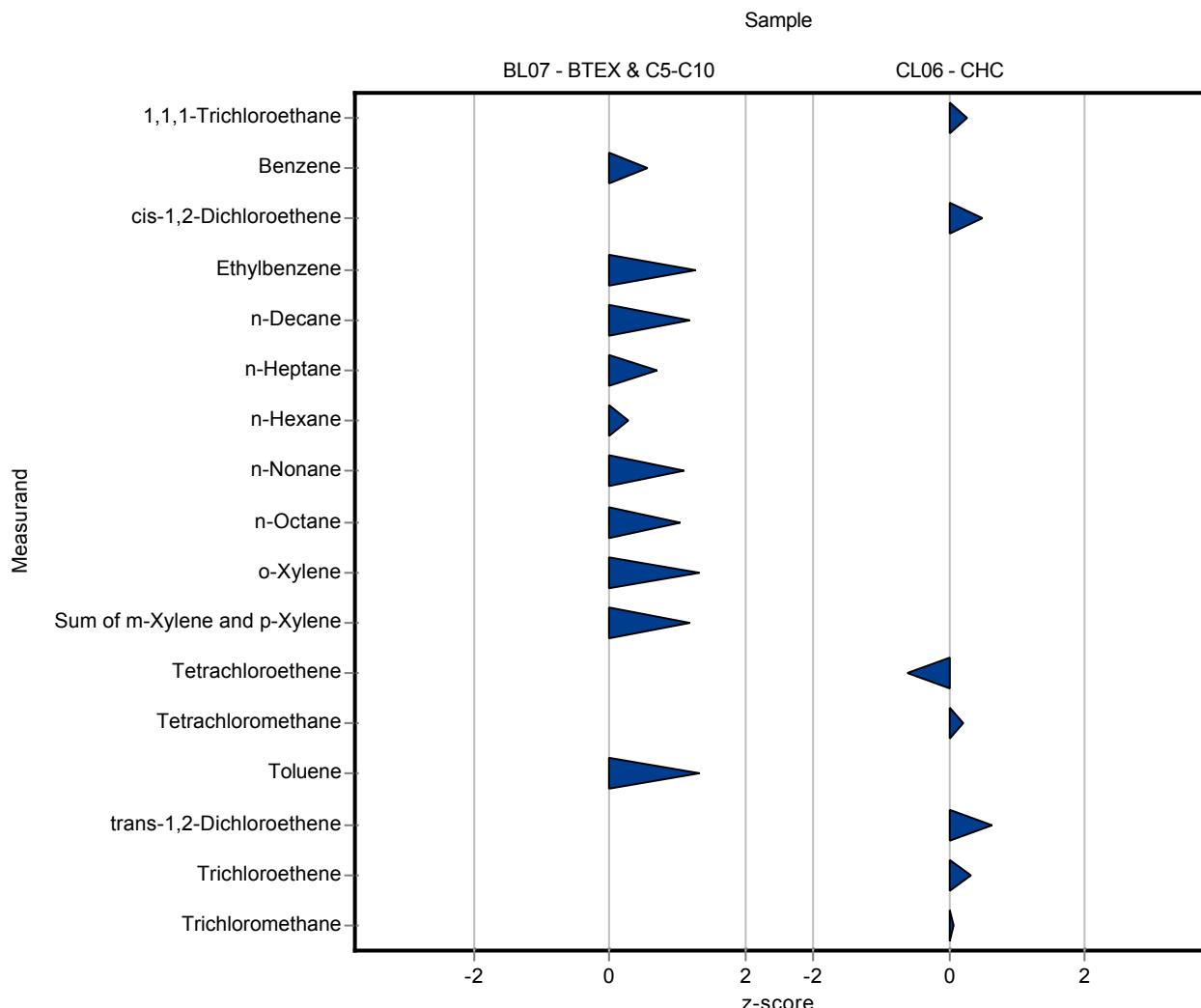


Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	6.24 \pm 1.25	0.495	105	0.55
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	7.19 \pm 1.44	1.06	123	1.26
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	4.97 \pm 0.99	1.39	150	1.20
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	7.58 \pm 1.52	1.5	116	0.70
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	7.09 \pm 1.42	1.42	106	0.29
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	7.1 \pm 1.42	1.56	132	1.10
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	7.95 \pm 1.59	1.5	125	1.05
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	- \pm -	2.53	-	-
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	6.6 \pm 1.32	0.823	120	1.32
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	13.8 \pm 2.76	2.2	123	1.17
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	7.18 \pm 1.44	0.81	117	1.31

Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	4.88 \pm 0.98	0.876	105	0.26
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	3.36 \pm 0.67	1.2	121	0.48
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	3.35 \pm 0.67	0.747	87.9	-0.61
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	5.8 \pm 1.16	1.24	105	0.22
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	3.38 \pm 0.68	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	4.07 \pm 0.81	0.76	106	0.32
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	4.22 \pm 0.84	0.994	102	0.08

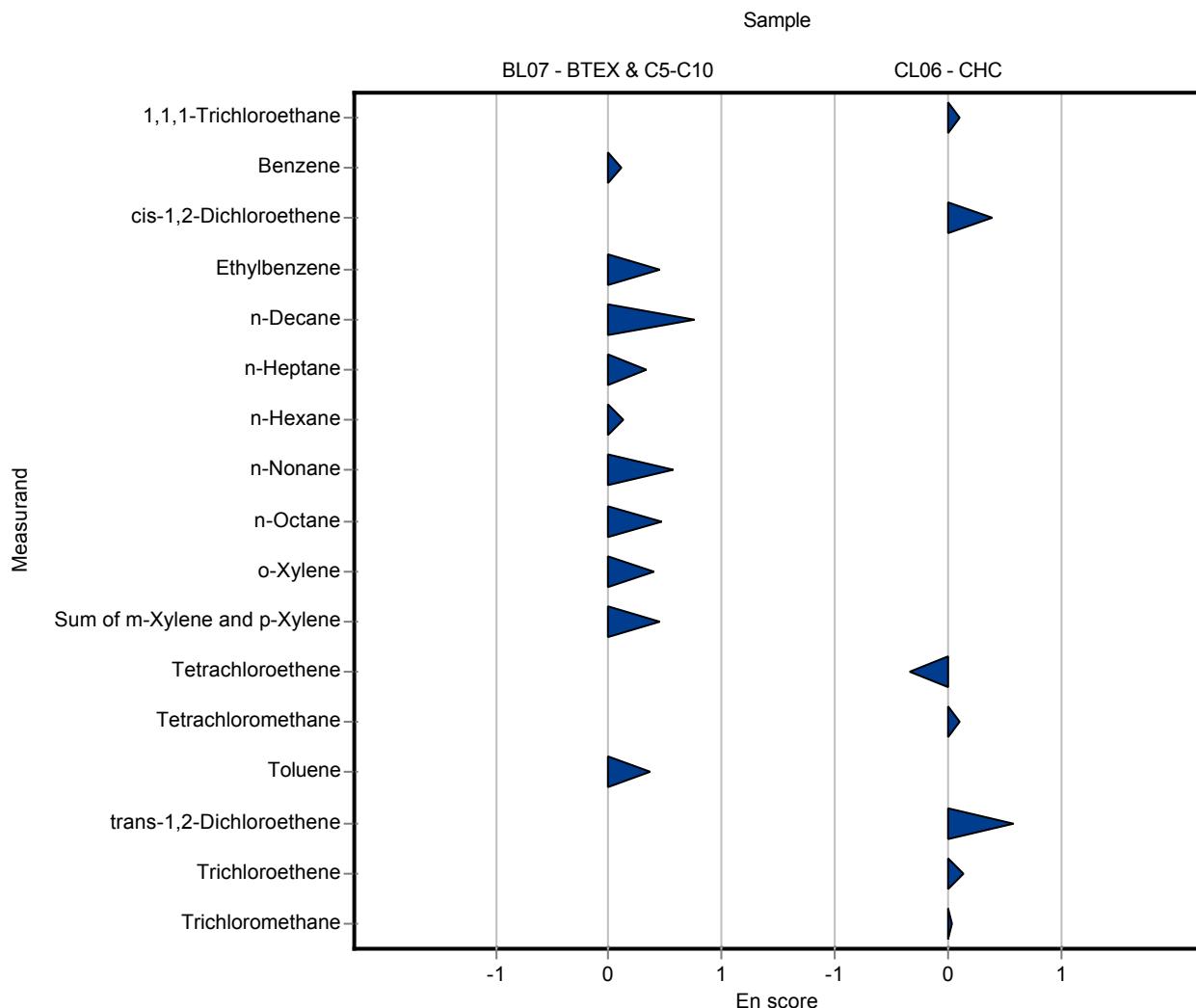


Sample: BL07

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	5.97 ± 0.227	6.24 ± 1.25	0.495	105	0.11
Ethylbenzene	µg/tube	5.86 ± 0.453	7.19 ± 1.44	1.06	123	0.46
n-Decane	µg/tube	3.3 ± 0.913	4.97 ± 0.99	1.39	150	0.76
n-Heptane	µg/tube	6.52 ± 0.816	7.58 ± 1.52	1.5	116	0.34
n-Hexane	µg/tube	6.68 ± 0.786	7.09 ± 1.42	1.42	106	0.14
n-Nonane	µg/tube	5.39 ± 0.954	7.1 ± 1.42	1.56	132	0.57
n-Octane	µg/tube	6.38 ± 0.846	7.95 ± 1.59	1.5	125	0.48
n-Pentane	µg/tube	6.61 ± 1.69	- ± -	2.53	-	-
o-Xylene	µg/tube	5.52 ± 0.368	6.6 ± 1.32	0.823	120	0.41
Sum of m-Xylene and p-Xylene	µg/tube	11.2 ± 0.913	13.8 ± 2.76	2.2	123	0.46
Toluene	µg/tube	6.12 ± 0.353	7.18 ± 1.44	0.81	117	0.37

Sample: CL06

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	µg/tube	4.65 ± 0.414	4.88 ± 0.98	0.876	105	0.12
cis-1,2-Dichloroethene	µg/tube	2.78 ± 0.647	3.36 ± 0.67	1.2	121	0.39
Tetrachloroethene	µg/tube	3.81 ± 0.363	3.35 ± 0.67	0.747	87.9	-0.33
Tetrachloromethane	µg/tube	5.53 ± 0.659	5.8 ± 1.16	1.24	105	0.11
trans-1,2-Dichloroethene	µg/tube	2.45* ± 0.801	3.38 ± 0.68	-	-	-
Trichloroethene	µg/tube	3.83 ± 0.396	4.07 ± 0.81	0.76	106	0.15
Trichloromethane	µg/tube	4.14 ± 0.522	4.22 ± 0.84	0.994	102	0.04

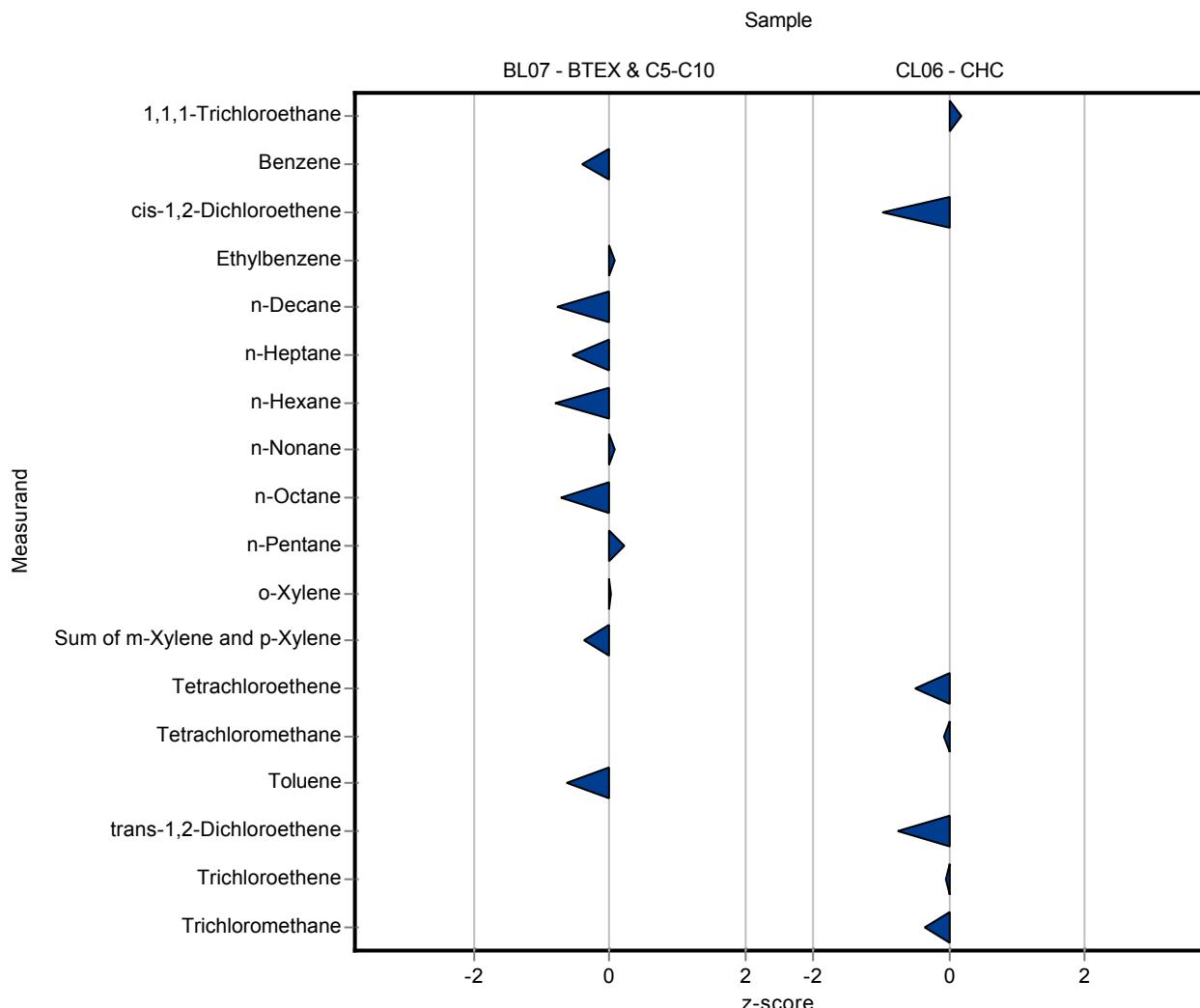


Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	5.771 \pm 1.154	0.495	96.7	-0.40
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	5.951 \pm 1.19	1.06	102	0.09
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	2.24 \pm 0.448	1.39	67.8	-0.76
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	5.708 \pm 1.142	1.5	87.5	-0.54
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	5.53 \pm 1.106	1.42	82.8	-0.81
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	5.518 \pm 1.104	1.56	102	0.08
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	5.31 \pm 1.062	1.5	83.2	-0.72
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	7.16 \pm 1.432	2.53	108	0.22
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	5.533 \pm 1.107	0.823	100	0.02
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	10.37 \pm 2.07	2.2	92.4	-0.39
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	5.609 \pm 1.122	0.81	91.7	-0.63

Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	4.817 \pm 0.963	0.876	104	0.19
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	1.599 \pm 0.32	1.2	57.5	-0.99
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	3.439 \pm 0.688	0.747	90.3	-0.50
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	5.446 \pm 1.089	1.24	98.4	-0.07
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	1.35 \pm 0.27	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	3.793 \pm 0.759	0.76	99.1	-0.04
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	3.79 \pm 0.758	0.994	91.5	-0.35

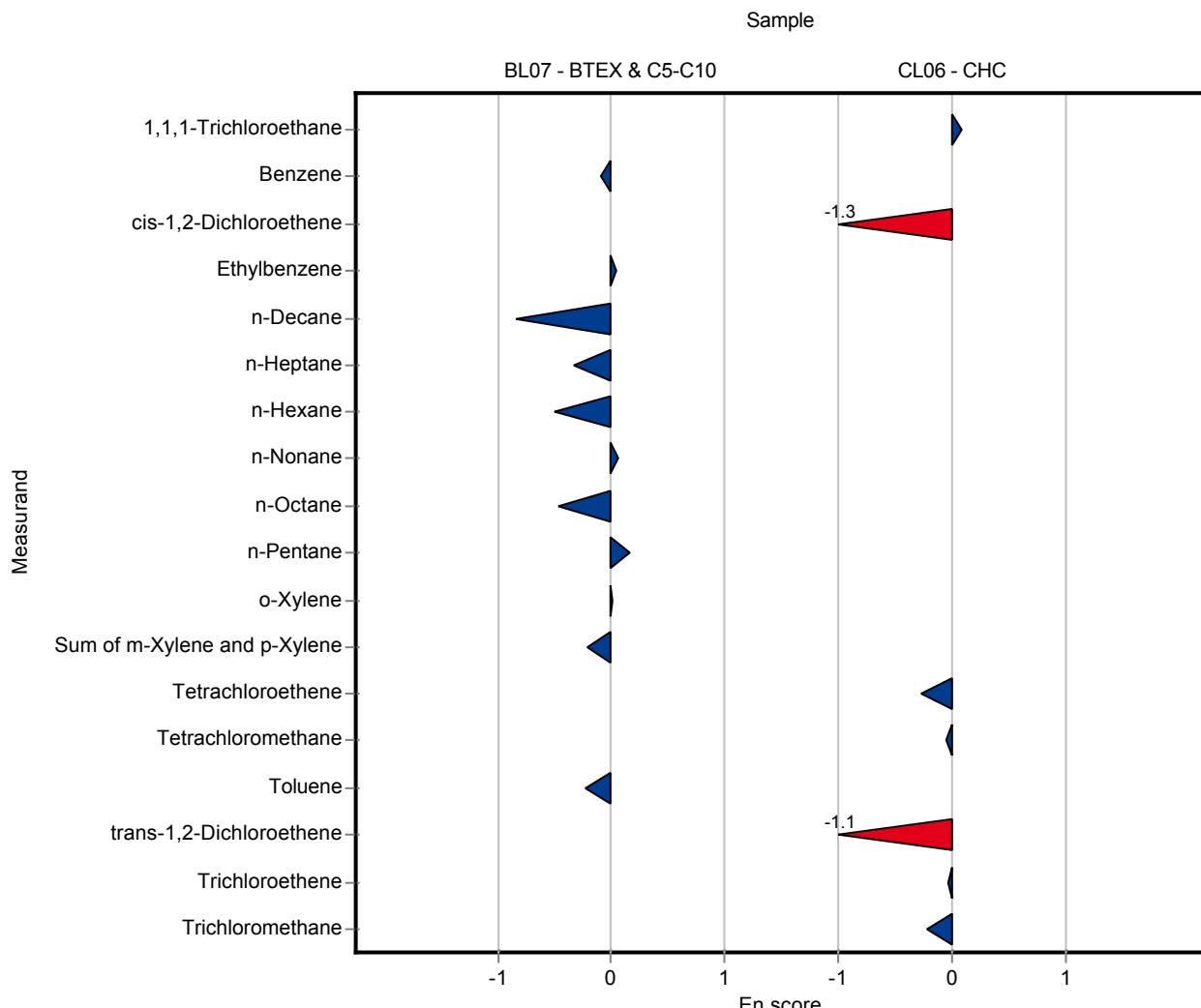


Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	5.771 \pm 1.154	0.495	96.7	-0.08
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	5.951 \pm 1.19	1.06	102	0.04
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	2.24 \pm 0.448	1.39	67.8	-0.83
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	5.708 \pm 1.142	1.5	87.5	-0.34
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	5.53 \pm 1.106	1.42	82.8	-0.49
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	5.518 \pm 1.104	1.56	102	0.05
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	5.31 \pm 1.062	1.5	83.2	-0.47
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	7.16 \pm 1.432	2.53	108	0.17
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	5.533 \pm 1.107	0.823	100	0.01
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	10.37 \pm 2.07	2.2	92.4	-0.20
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	5.609 \pm 1.122	0.81	91.7	-0.23

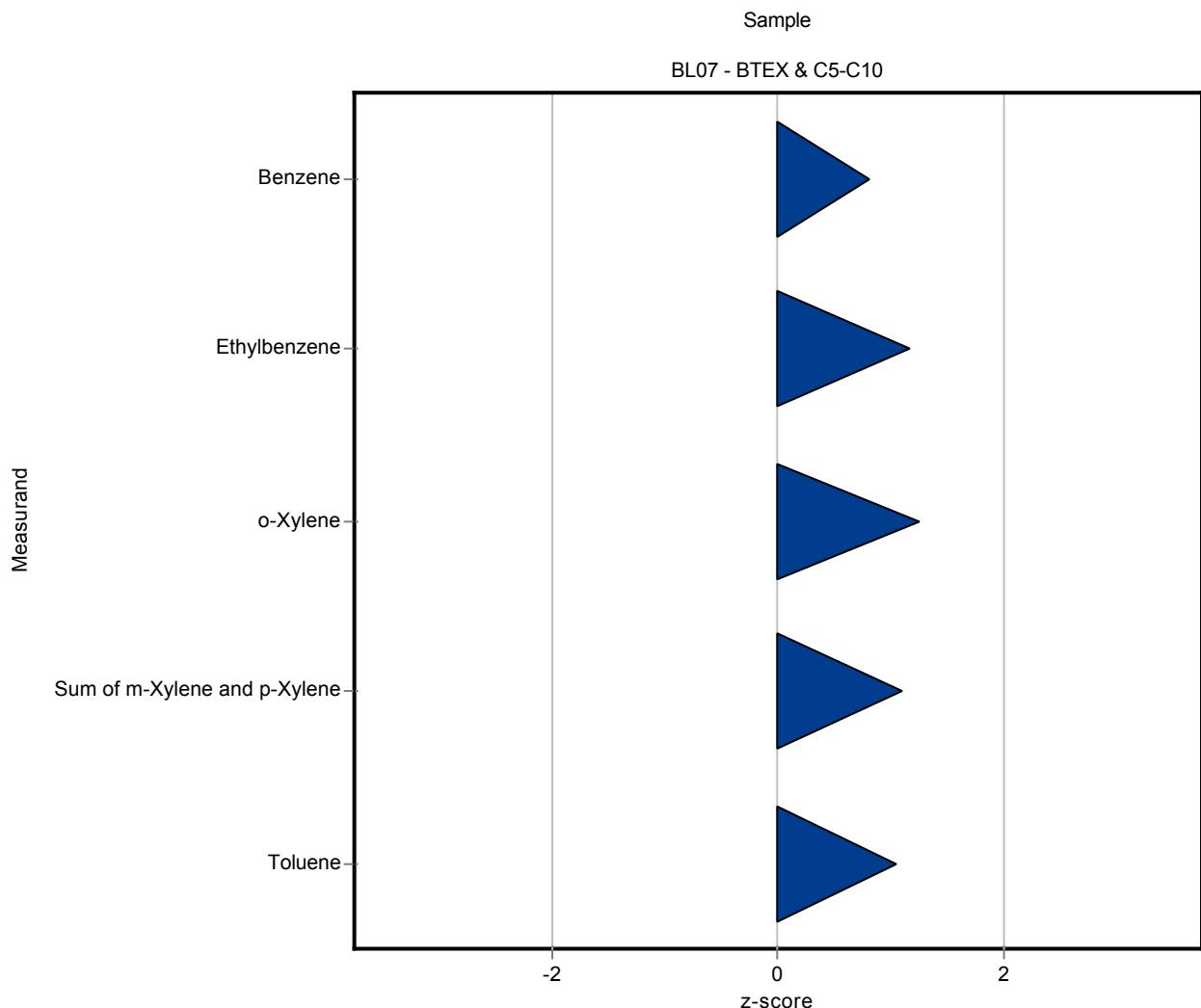
Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	4.817 \pm 0.963	0.876	104	0.08
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	1.599 \pm 0.32	1.2	57.5	-1.30
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	3.439 \pm 0.688	0.747	90.3	-0.26
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	5.446 \pm 1.089	1.24	98.4	-0.04
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	1.35 \pm 0.27	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	3.793 \pm 0.759	0.76	99.1	-0.02
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	3.79 \pm 0.758	0.994	91.5	-0.22



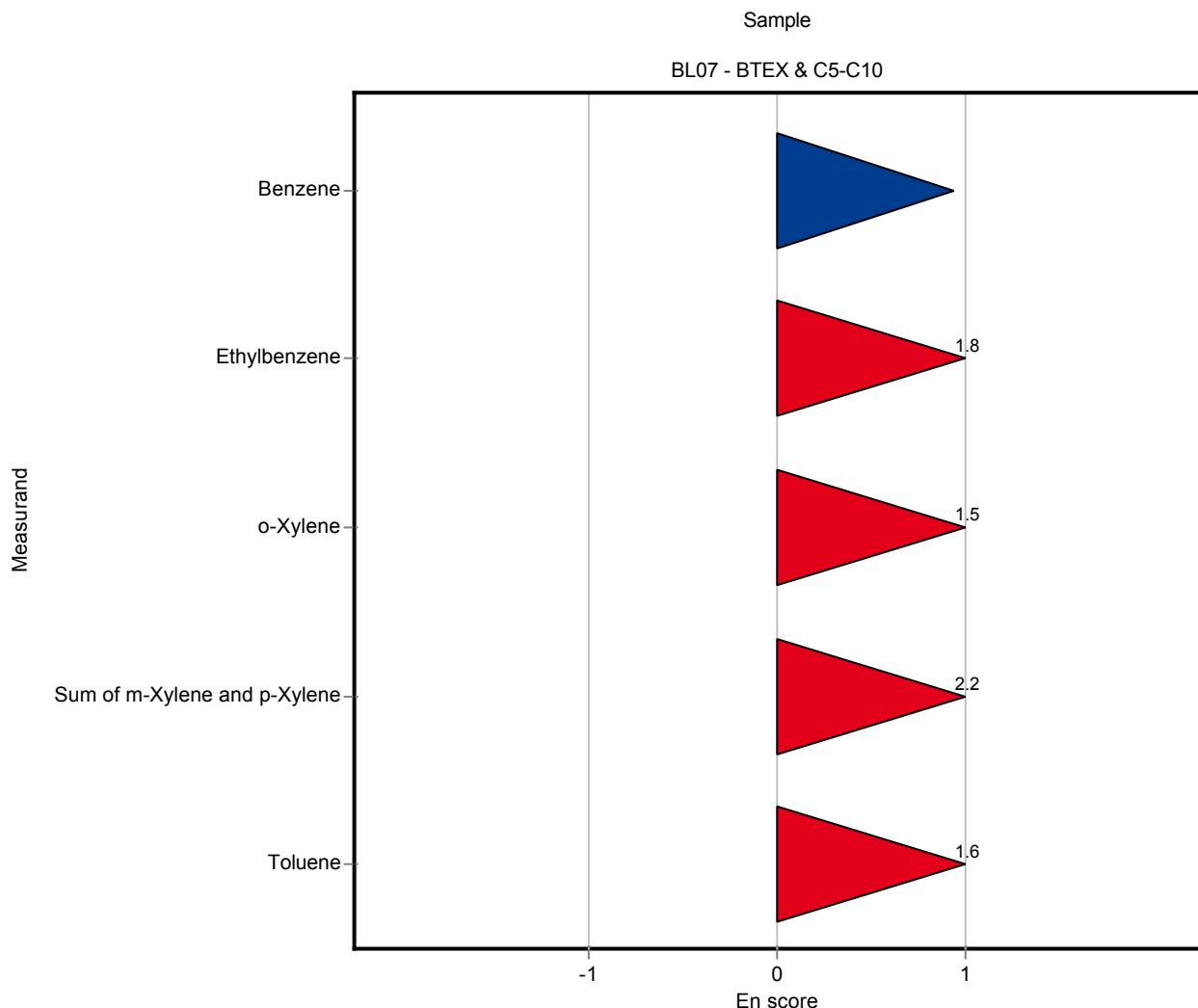
Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	6.364 \pm 0.18	0.495	107	0.80
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	7.098 \pm 0.25	1.06	121	1.17
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	- \pm -	1.39	-	-
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	- \pm -	1.5	-	-
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	- \pm -	1.42	-	-
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	- \pm -	1.56	-	-
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	- \pm -	1.5	-	-
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	- \pm -	2.53	-	-
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	6.542 \pm 0.3	0.823	119	1.25
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	13.622 \pm 0.3	2.2	121	1.09
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	6.972 \pm 0.2	0.81	114	1.05



Sample: BL07

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	5.97 ± 0.227	6.364 ± 0.18	0.495	107	0.93
Ethylbenzene	µg/tube	5.86 ± 0.453	7.098 ± 0.25	1.06	121	1.84
n-Decane	µg/tube	3.3 ± 0.913	- ± -	1.39	-	-
n-Heptane	µg/tube	6.52 ± 0.816	- ± -	1.5	-	-
n-Hexane	µg/tube	6.68 ± 0.786	- ± -	1.42	-	-
n-Nonane	µg/tube	5.39 ± 0.954	- ± -	1.56	-	-
n-Octane	µg/tube	6.38 ± 0.846	- ± -	1.5	-	-
n-Pentane	µg/tube	6.61 ± 1.69	- ± -	2.53	-	-
o-Xylene	µg/tube	5.52 ± 0.368	6.542 ± 0.3	0.823	119	1.46
Sum of m-Xylene and p-Xylene	µg/tube	11.2 ± 0.913	13.622 ± 0.3	2.2	121	2.20
Toluene	µg/tube	6.12 ± 0.353	6.972 ± 0.2	0.81	114	1.60

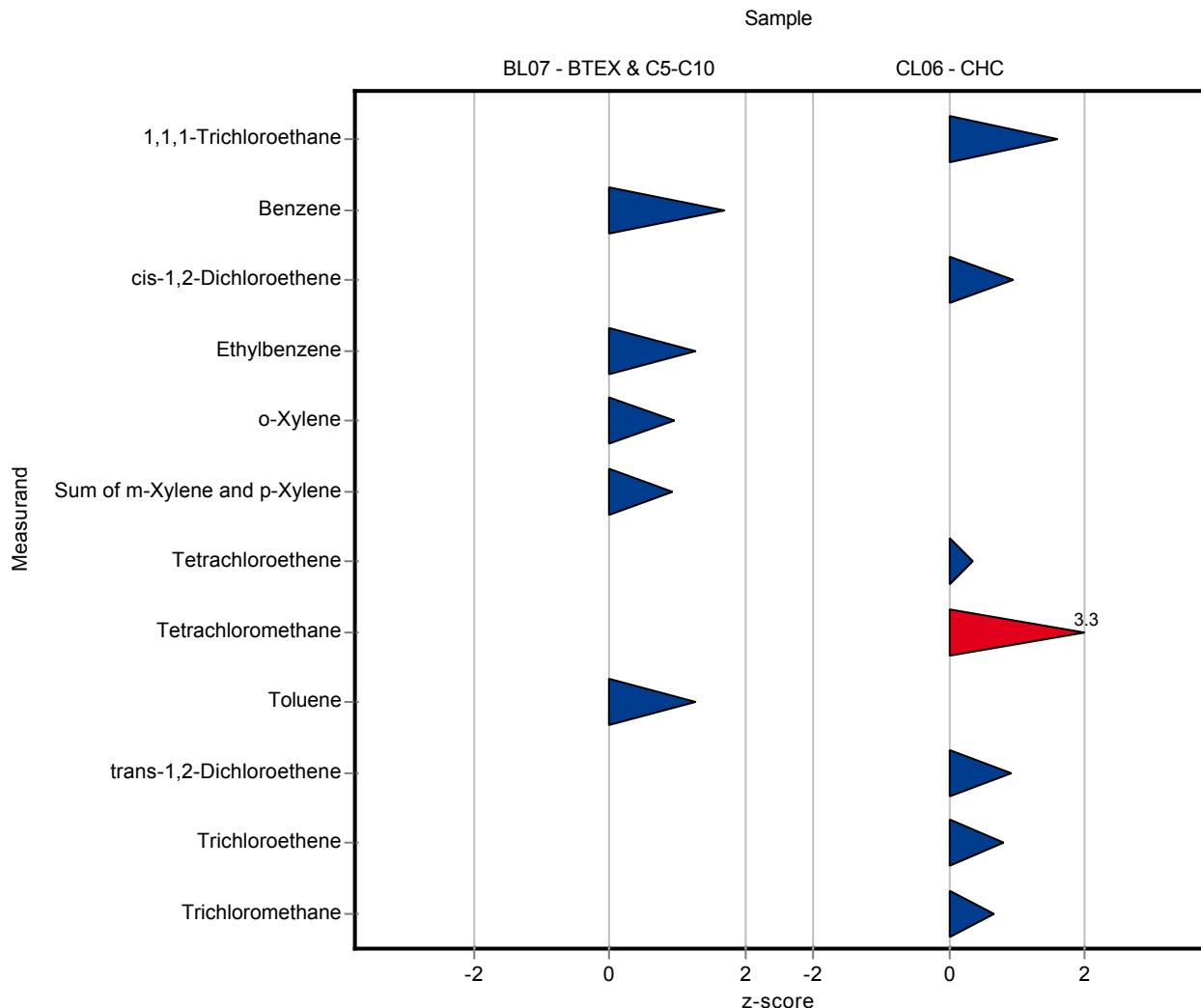


Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	6.804 \pm 0.5	0.495	114	1.69
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	7.189 \pm 0.5	1.06	123	1.25
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	- \pm -	1.39	-	-
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	- \pm -	1.5	-	-
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	- \pm -	1.42	-	-
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	- \pm -	1.56	-	-
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	- \pm -	1.5	-	-
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	- \pm -	2.53	-	-
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	6.3 \pm 0.5	0.823	114	0.95
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	13.247 \pm 0.5	2.2	118	0.92
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	7.145 \pm 0.5	0.81	117	1.27

Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	6.0375 \pm 0.5	0.876	130	1.58
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	3.9 \pm 0.5	1.2	140	0.94
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	4.075 \pm 0.5	0.747	107	0.35
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	9.625 \pm 0.5	1.24	174	3.30
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	3.8125 \pm 0.5	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	4.4375 \pm 0.5	0.76	116	0.80
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	4.8125 \pm 0.5	0.994	116	0.67

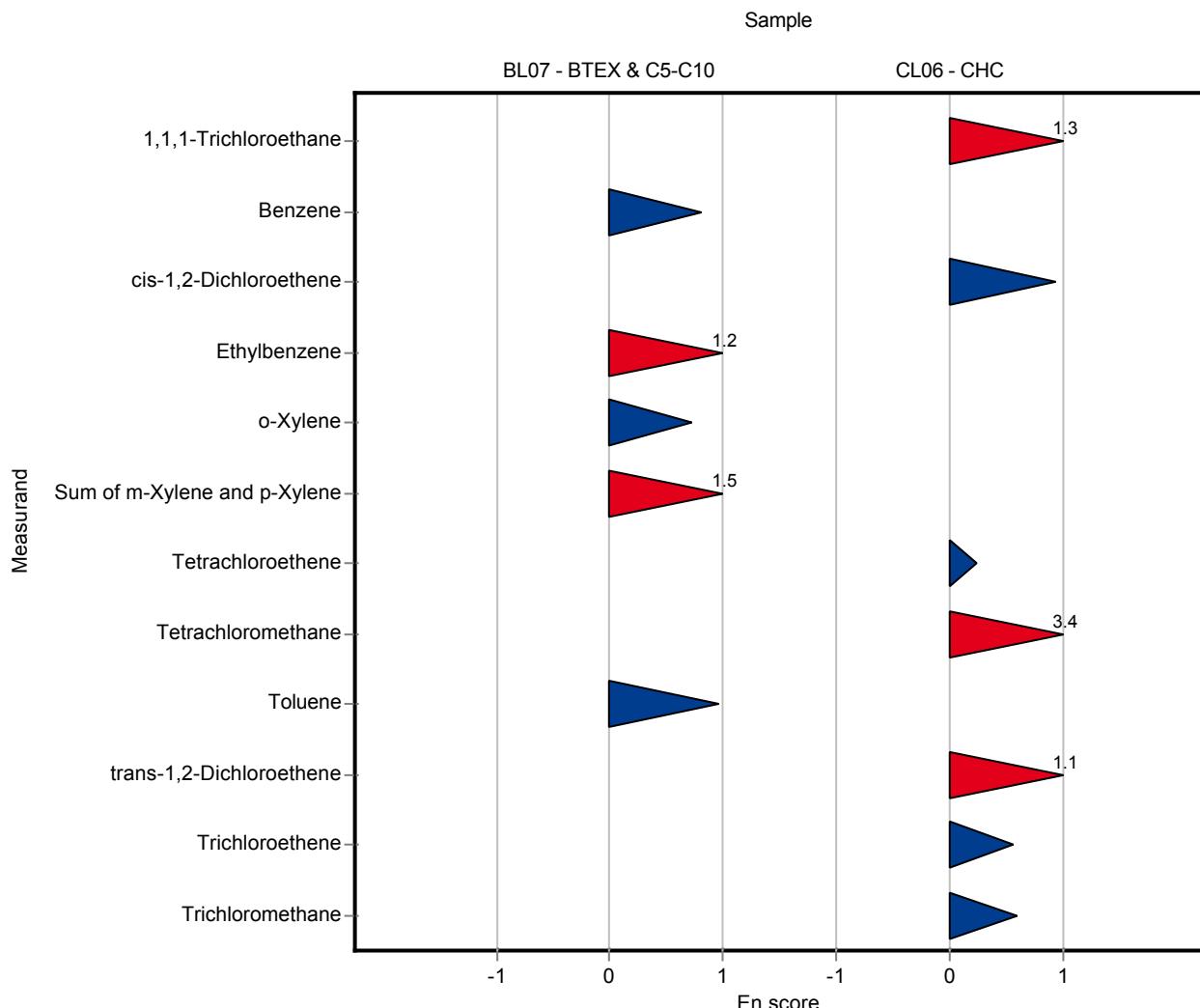


Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	6.804 \pm 0.5	0.495	114	0.82
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	7.189 \pm 0.5	1.06	123	1.21
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	- \pm -	1.39	-	-
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	- \pm -	1.5	-	-
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	- \pm -	1.42	-	-
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	- \pm -	1.56	-	-
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	- \pm -	1.5	-	-
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	- \pm -	2.53	-	-
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	6.3 \pm 0.5	0.823	114	0.73
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	13.247 \pm 0.5	2.2	118	1.50
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	7.145 \pm 0.5	0.81	117	0.97

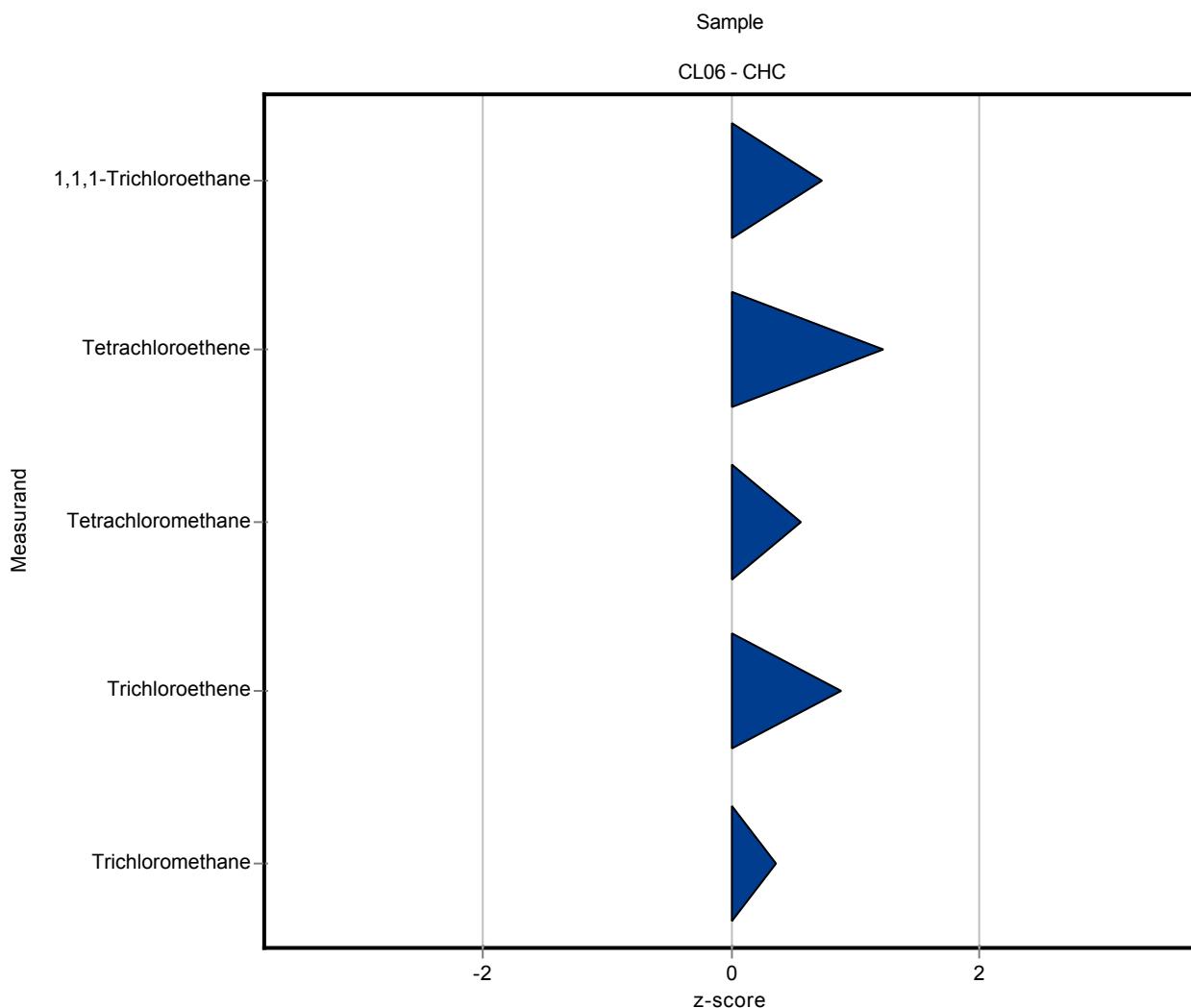
Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	6.0375 \pm 0.5	0.876	130	1.28
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	3.9 \pm 0.5	1.2	140	0.94
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	4.075 \pm 0.5	0.747	107	0.25
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	9.625 \pm 0.5	1.24	174	3.42
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	3.8125 \pm 0.5	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	4.4375 \pm 0.5	0.76	116	0.57
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	4.8125 \pm 0.5	0.994	116	0.59



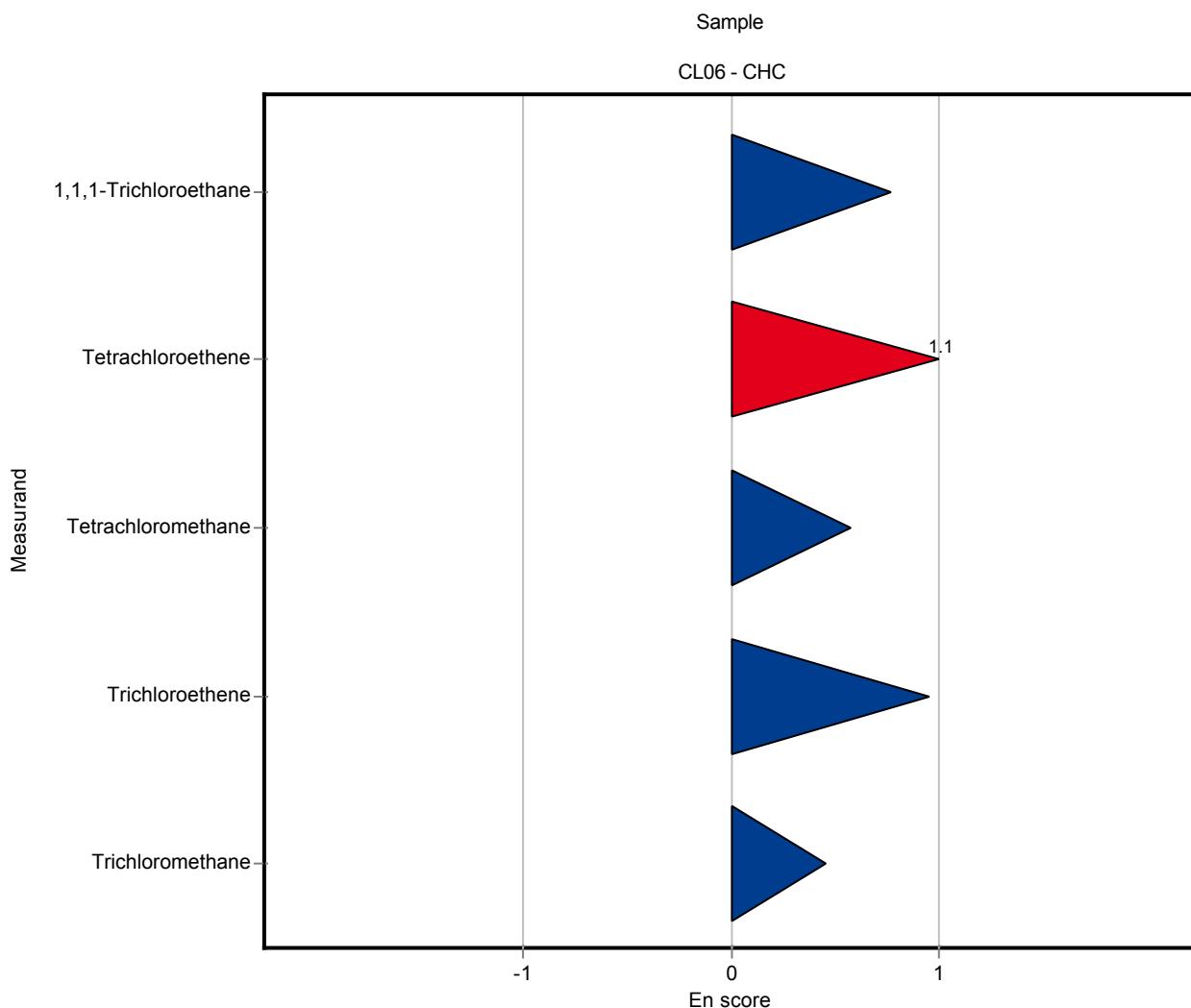
Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	5.29 \pm 0.36	0.876	114	0.73
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	- \pm -	1.2	-	-
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	4.73 \pm 0.37	0.747	124	1.23
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	6.22 \pm 0.5	1.24	112	0.56
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	- \pm -	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	4.5 \pm 0.29	0.76	118	0.89
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	4.51 \pm 0.3	0.994	109	0.37



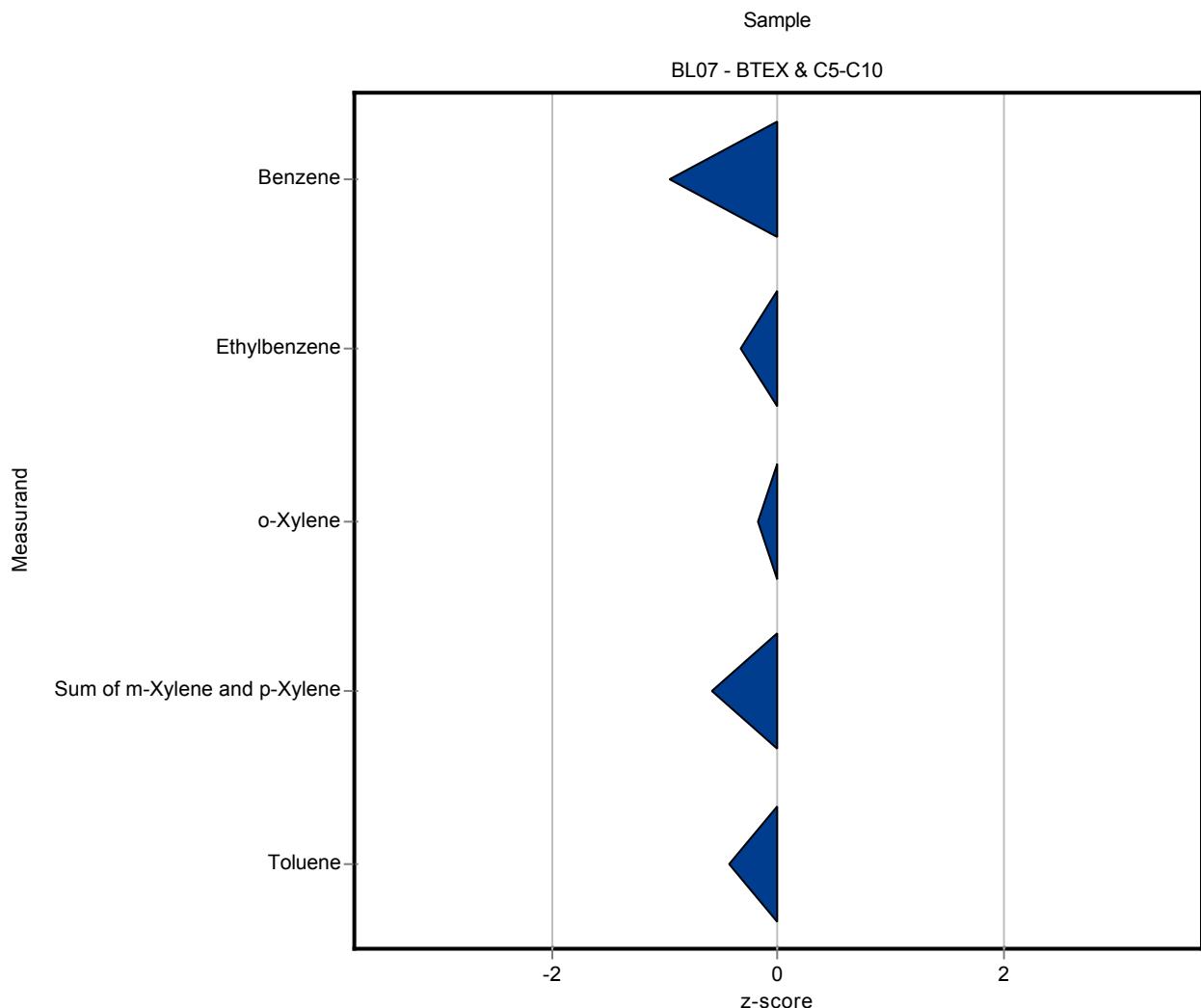
Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	5.29 \pm 0.36	0.876	114	0.77
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	- \pm -	1.2	-	-
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	4.73 \pm 0.37	0.747	124	1.12
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	6.22 \pm 0.5	1.24	112	0.57
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	- \pm -	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	4.5 \pm 0.29	0.76	118	0.96
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	4.51 \pm 0.3	0.994	109	0.46



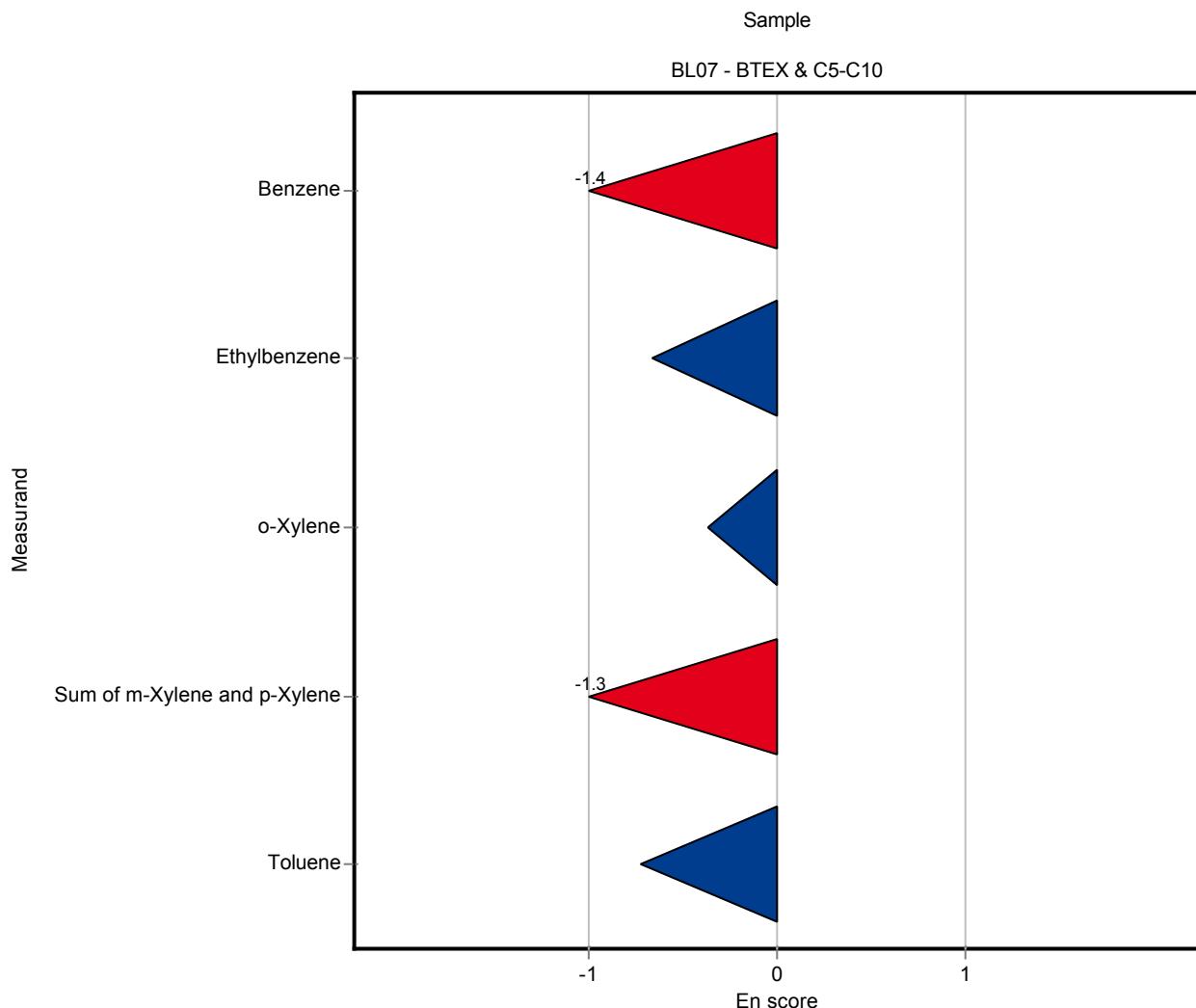
Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	5.49 \pm 0.12	0.495	92	-0.96
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	5.5 \pm 0.14	1.06	93.9	-0.34
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	- \pm -	1.39	-	-
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	- \pm -	1.5	-	-
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	- \pm -	1.42	-	-
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	- \pm -	1.56	-	-
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	- \pm -	1.5	-	-
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	- \pm -	2.53	-	-
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	5.37 \pm 0.07	0.823	97.3	-0.18
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	9.93 \pm 0.21	2.2	88.5	-0.59
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	5.77 \pm 0.16	0.81	94.3	-0.43



Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	5.49 \pm 0.12	0.495	92	-1.44
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	5.5 \pm 0.14	1.06	93.9	-0.67
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	- \pm -	1.39	-	-
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	- \pm -	1.5	-	-
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	- \pm -	1.42	-	-
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	- \pm -	1.56	-	-
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	- \pm -	1.5	-	-
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	- \pm -	2.53	-	-
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	5.37 \pm 0.07	0.823	97.3	-0.38
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	9.93 \pm 0.21	2.2	88.5	-1.29
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	5.77 \pm 0.16	0.81	94.3	-0.73

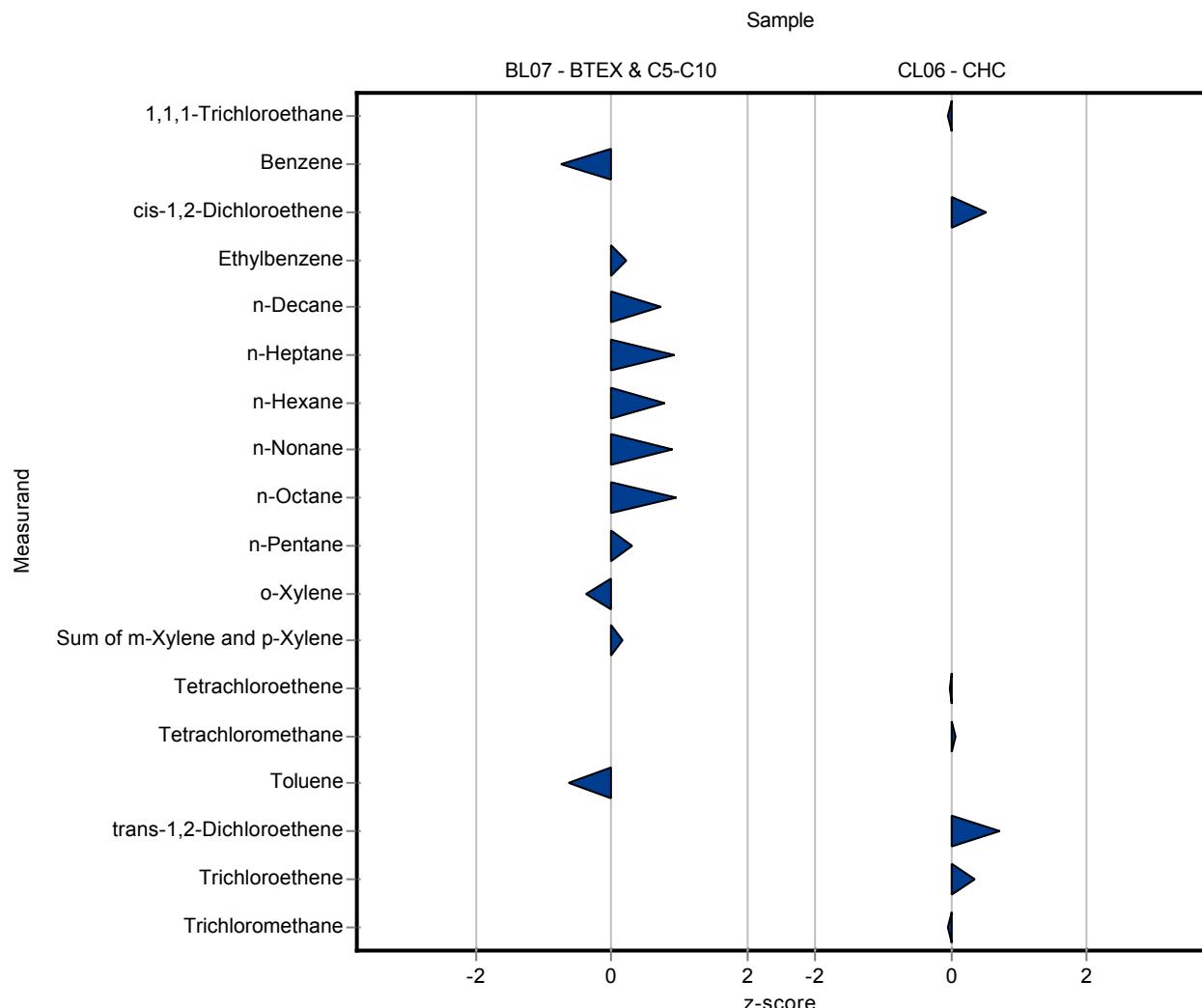


Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	5.6 \pm 2.2	0.495	93.8	-0.74
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	6.1 \pm 2.4	1.06	104	0.23
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	4.3 \pm 1.7	1.39	130	0.71
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	7.9 \pm 3.2	1.5	121	0.92
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	7.8 \pm 3.1	1.42	117	0.79
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	6.8 \pm 2.7	1.56	126	0.91
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	7.8 \pm 3.1	1.5	122	0.95
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	7.4 \pm 3	2.53	112	0.31
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	5.2 \pm 2.1	0.823	94.2	-0.39
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	11.6 \pm 4.6	2.2	103	0.17
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	5.6 \pm 2.2	0.81	91.5	-0.64

Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	4.6 \pm 1.8	0.876	98.9	-0.06
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	3.4 \pm 1.4	1.2	122	0.52
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	3.8 \pm 1.5	0.747	99.7	-0.01
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	5.6 \pm 2.2	1.24	101	0.05
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	3.5 \pm 1.4	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	4.1 \pm 1.6	0.76	107	0.36
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	4.1 \pm 1.6	0.994	99	-0.04

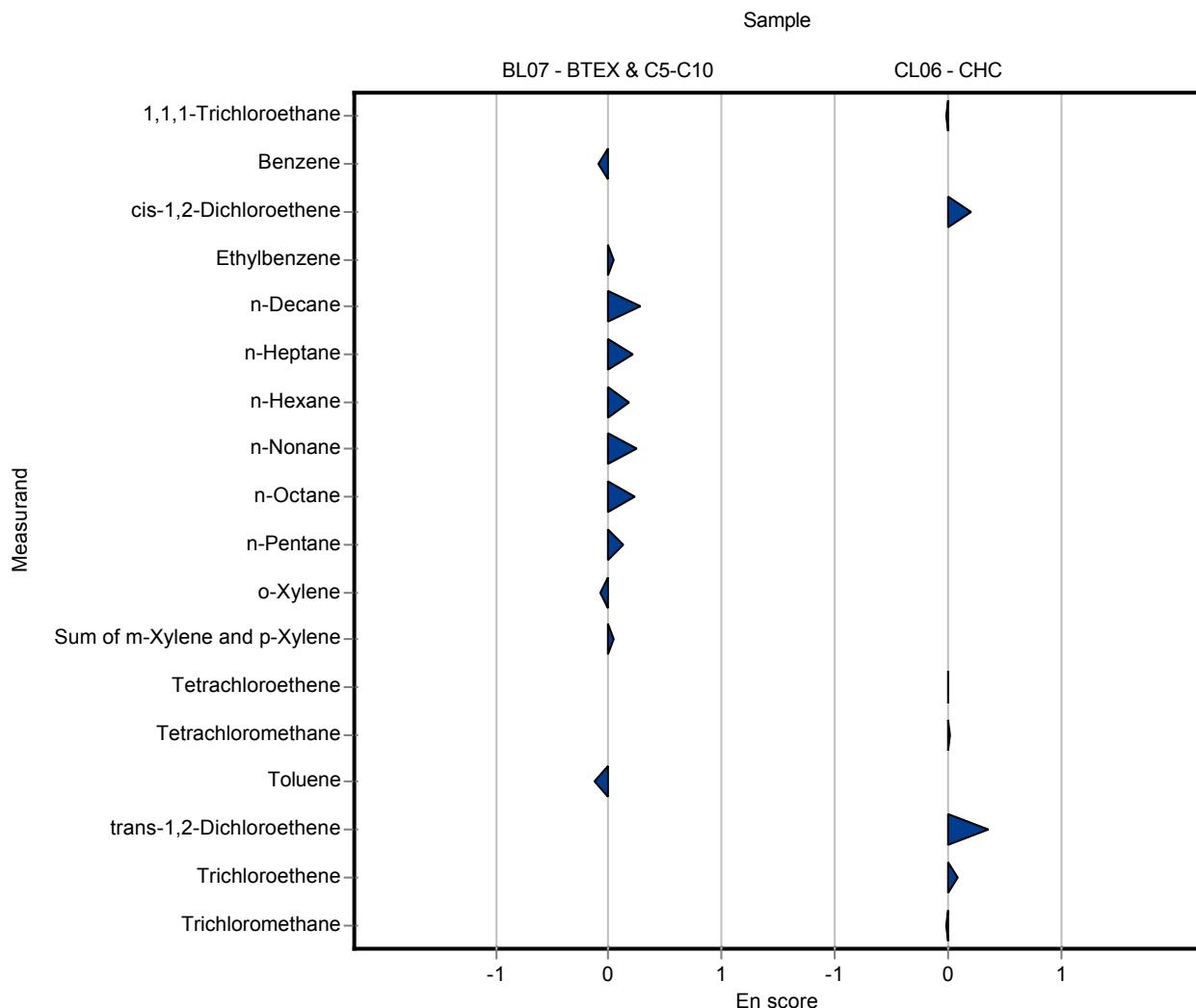


Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	5.6 \pm 2.2	0.495	93.8	-0.08
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	6.1 \pm 2.4	1.06	104	0.05
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	4.3 \pm 1.7	1.39	130	0.28
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	7.9 \pm 3.2	1.5	121	0.21
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	7.8 \pm 3.1	1.42	117	0.18
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	6.8 \pm 2.7	1.56	126	0.26
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	7.8 \pm 3.1	1.5	122	0.23
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	7.4 \pm 3	2.53	112	0.13
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	5.2 \pm 2.1	0.823	94.2	-0.08
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	11.6 \pm 4.6	2.2	103	0.04
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	5.6 \pm 2.2	0.81	91.5	-0.12

Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	4.6 \pm 1.8	0.876	98.9	-0.01
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	3.4 \pm 1.4	1.2	122	0.22
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	3.8 \pm 1.5	0.747	99.7	0.00
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	5.6 \pm 2.2	1.24	101	0.02
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	3.5 \pm 1.4	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	4.1 \pm 1.6	0.76	107	0.08
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	4.1 \pm 1.6	0.994	99	-0.01

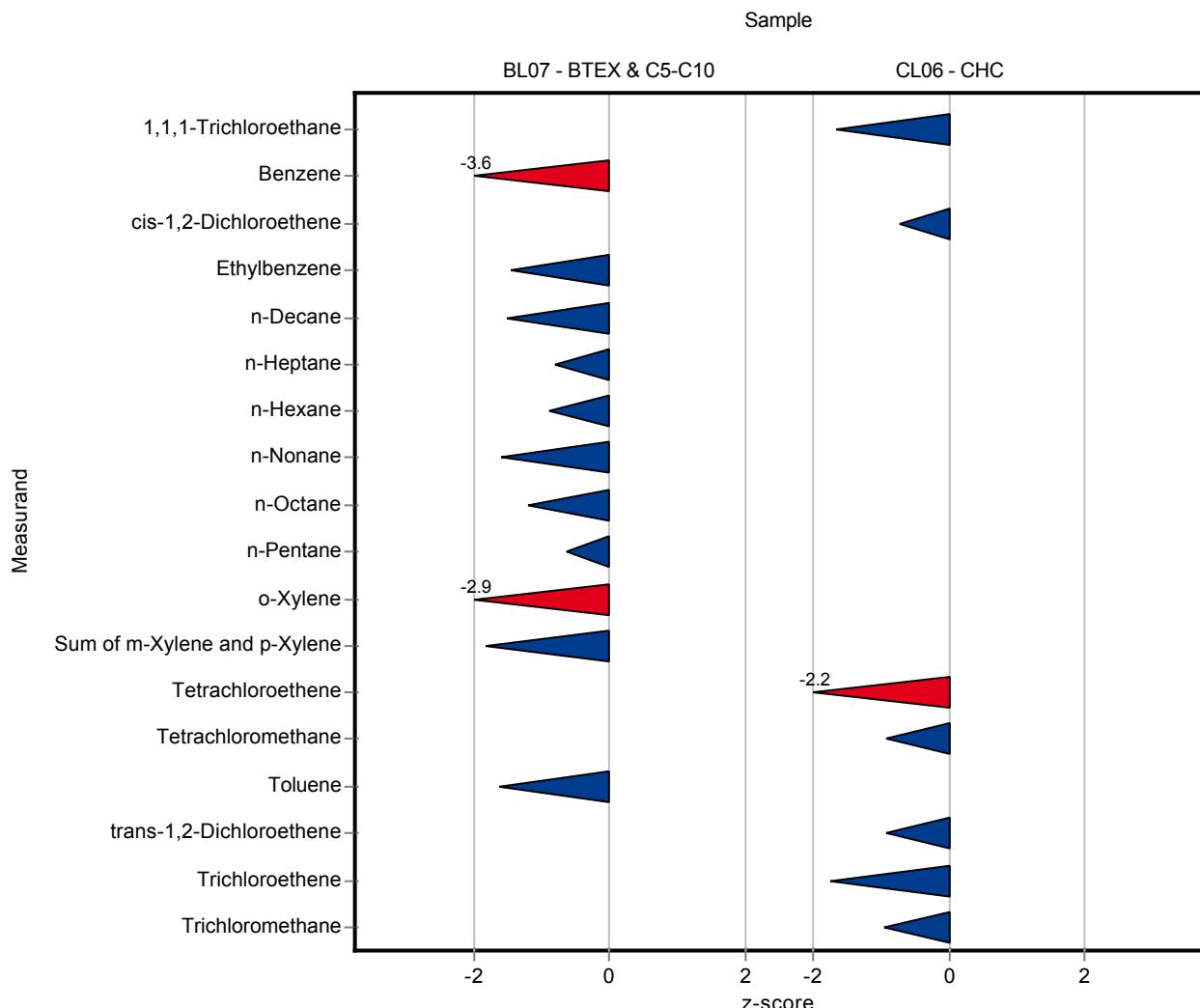


Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	4.2 \pm 0.99	0.495	70.4	-3.57
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	4.3 \pm 0.74	1.06	73.4	-1.47
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	1.2 \pm 0.25	1.39	36.3	-1.51
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	5.3 \pm 1.1	1.5	81.2	-0.81
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	5.4 \pm 1.1	1.42	80.8	-0.90
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	2.9 \pm 0.58	1.56	53.8	-1.59
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	4.6 \pm 0.99	1.5	72.1	-1.19
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	5 \pm 0.99	2.53	75.6	-0.64
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	3.1 \pm 0.35	0.823	56.2	-2.94
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	7.2 \pm 0.82	2.2	64.2	-1.83
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	4.8 \pm 0.83	0.81	78.4	-1.63

Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	3.2 \pm 0.59	0.876	68.8	-1.66
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	1.9 \pm 0.3	1.2	68.3	-0.73
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	2.2 \pm 0.28	0.747	57.7	-2.15
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	4.4 \pm 0.54	1.24	79.5	-0.91
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	1.1 \pm 0.17	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	2.5 \pm 0.27	0.76	65.3	-1.74
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	3.2 \pm 0.59	0.994	77.2	-0.95

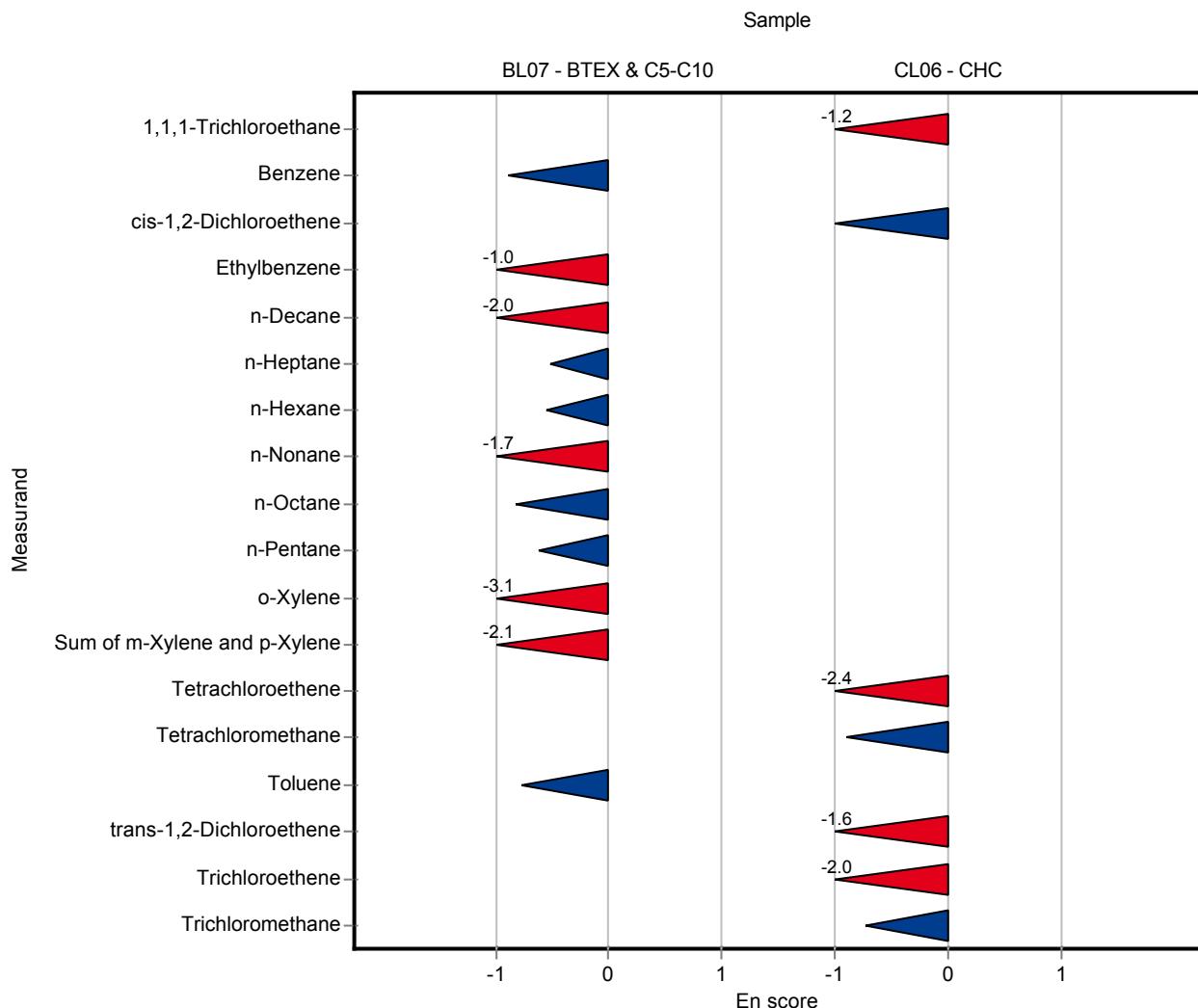


Sample: BL07

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	5.97 ± 0.227	4.2 ± 0.99	0.495	70.4	-0.89
Ethylbenzene	µg/tube	5.86 ± 0.453	4.3 ± 0.74	1.06	73.4	-1.01
n-Decane	µg/tube	3.3 ± 0.913	1.2 ± 0.25	1.39	36.3	-2.02
n-Heptane	µg/tube	6.52 ± 0.816	5.3 ± 1.1	1.5	81.2	-0.52
n-Hexane	µg/tube	6.68 ± 0.786	5.4 ± 1.1	1.42	80.8	-0.55
n-Nonane	µg/tube	5.39 ± 0.954	2.9 ± 0.58	1.56	53.8	-1.66
n-Octane	µg/tube	6.38 ± 0.846	4.6 ± 0.99	1.5	72.1	-0.83
n-Pentane	µg/tube	6.61 ± 1.69	5 ± 0.99	2.53	75.6	-0.62
o-Xylene	µg/tube	5.52 ± 0.368	3.1 ± 0.35	0.823	56.2	-3.06
Sum of m-Xylene and p-Xylene	µg/tube	11.2 ± 0.913	7.2 ± 0.82	2.2	64.2	-2.14
Toluene	µg/tube	6.12 ± 0.353	4.8 ± 0.83	0.81	78.4	-0.78

Sample: CL06

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	µg/tube	4.65 ± 0.414	3.2 ± 0.59	0.876	68.8	-1.16
cis-1,2-Dichloroethene	µg/tube	2.78 ± 0.647	1.9 ± 0.3	1.2	68.3	-1.00
Tetrachloroethene	µg/tube	3.81 ± 0.363	2.2 ± 0.28	0.747	57.7	-2.41
Tetrachloromethane	µg/tube	5.53 ± 0.659	4.4 ± 0.54	1.24	79.5	-0.90
trans-1,2-Dichloroethene	µg/tube	2.45* ± 0.801	1.1 ± 0.17	-	-	-
Trichloroethene	µg/tube	3.83 ± 0.396	2.5 ± 0.27	0.76	65.3	-1.98
Trichloromethane	µg/tube	4.14 ± 0.522	3.2 ± 0.59	0.994	77.2	-0.73

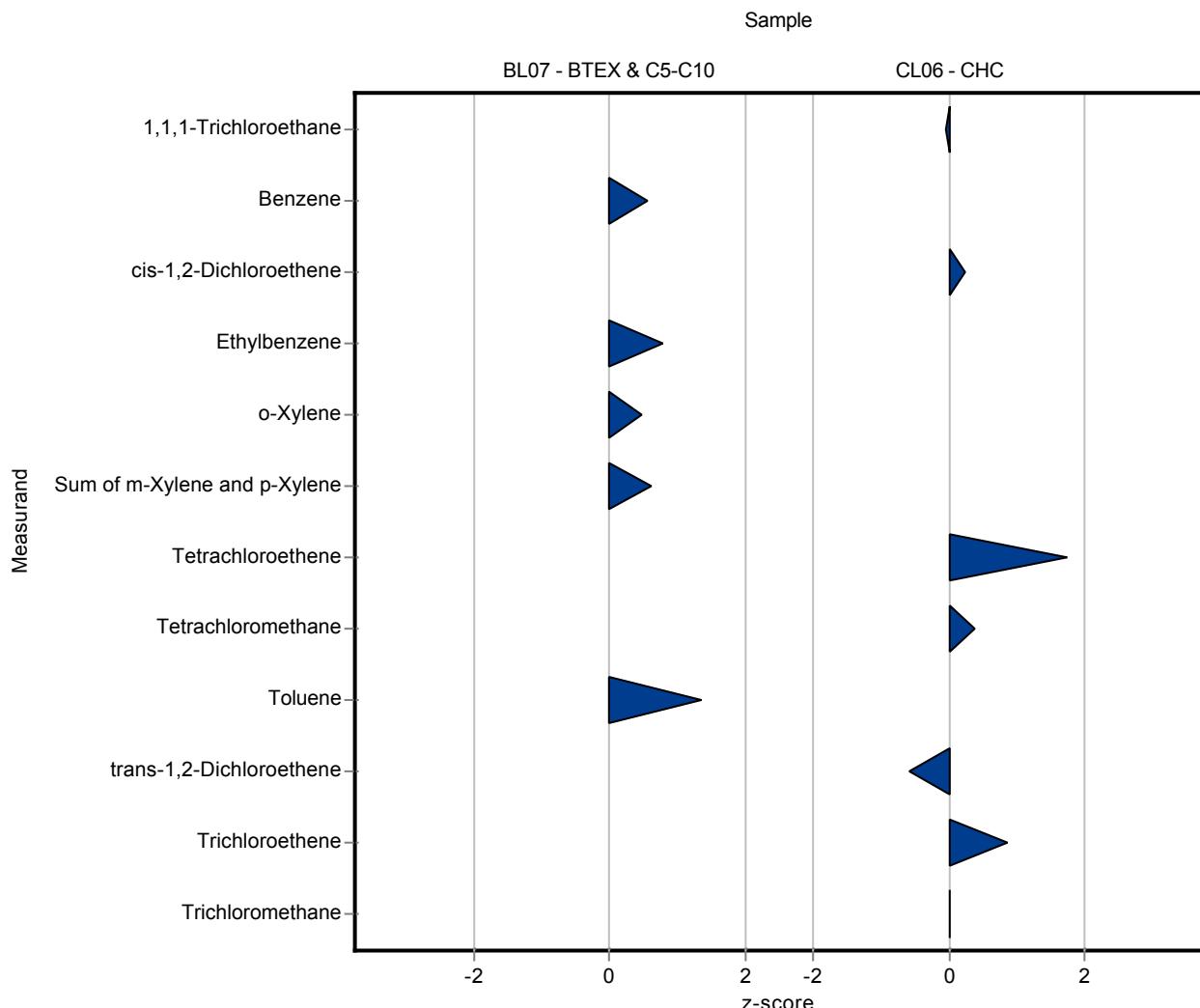


Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	6.241 \pm 2.352	0.495	105	0.55
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	6.689 \pm 4.22	1.06	114	0.78
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	- \pm -	1.39	-	-
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	- \pm -	1.5	-	-
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	- \pm -	1.42	-	-
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	- \pm -	1.56	-	-
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	- \pm -	1.5	-	-
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	- \pm -	2.53	-	-
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	5.918 \pm 5.591	0.823	107	0.49
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	12.554 \pm 8.988	2.2	112	0.60
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	7.225 \pm 4.493	0.81	118	1.37

Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	4.608 \pm 3.287	0.876	99.1	-0.05
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	3.059 \pm 1.994	1.2	110	0.23
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	5.106 \pm 5.65	0.747	134	1.73
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	6.013 \pm 5.918	1.24	109	0.39
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	1.57 \pm 1.879	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	4.475 \pm 4.529	0.76	117	0.85
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	4.144 \pm 1.387	0.994	100	0.00

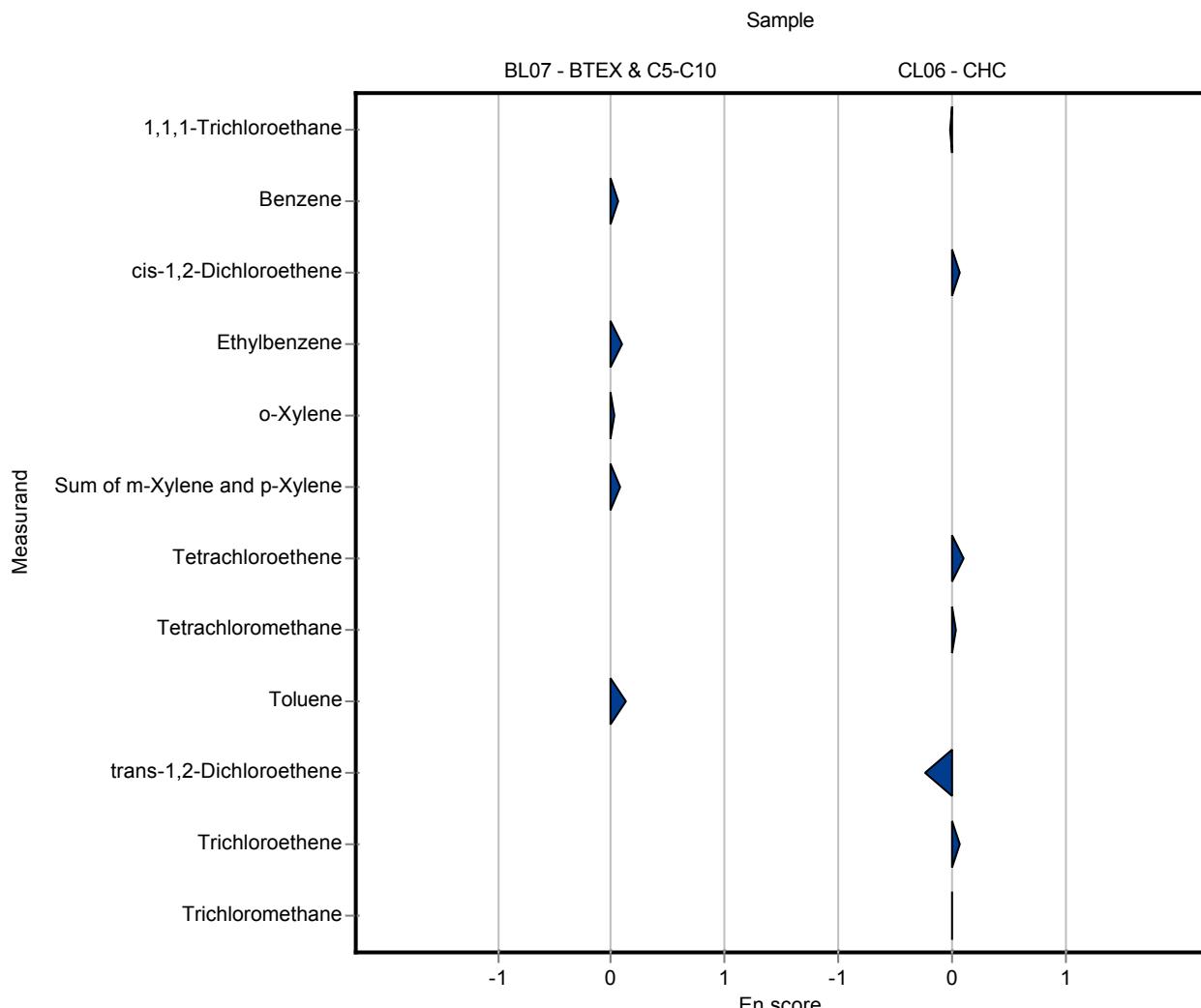


Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	6.241 \pm 2.352	0.495	105	0.06
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	6.689 \pm 4.22	1.06	114	0.10
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	- \pm -	1.39	-	-
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	- \pm -	1.5	-	-
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	- \pm -	1.42	-	-
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	- \pm -	1.56	-	-
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	- \pm -	1.5	-	-
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	- \pm -	2.53	-	-
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	5.918 \pm 5.591	0.823	107	0.04
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	12.554 \pm 8.988	2.2	112	0.07
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	7.225 \pm 4.493	0.81	118	0.12

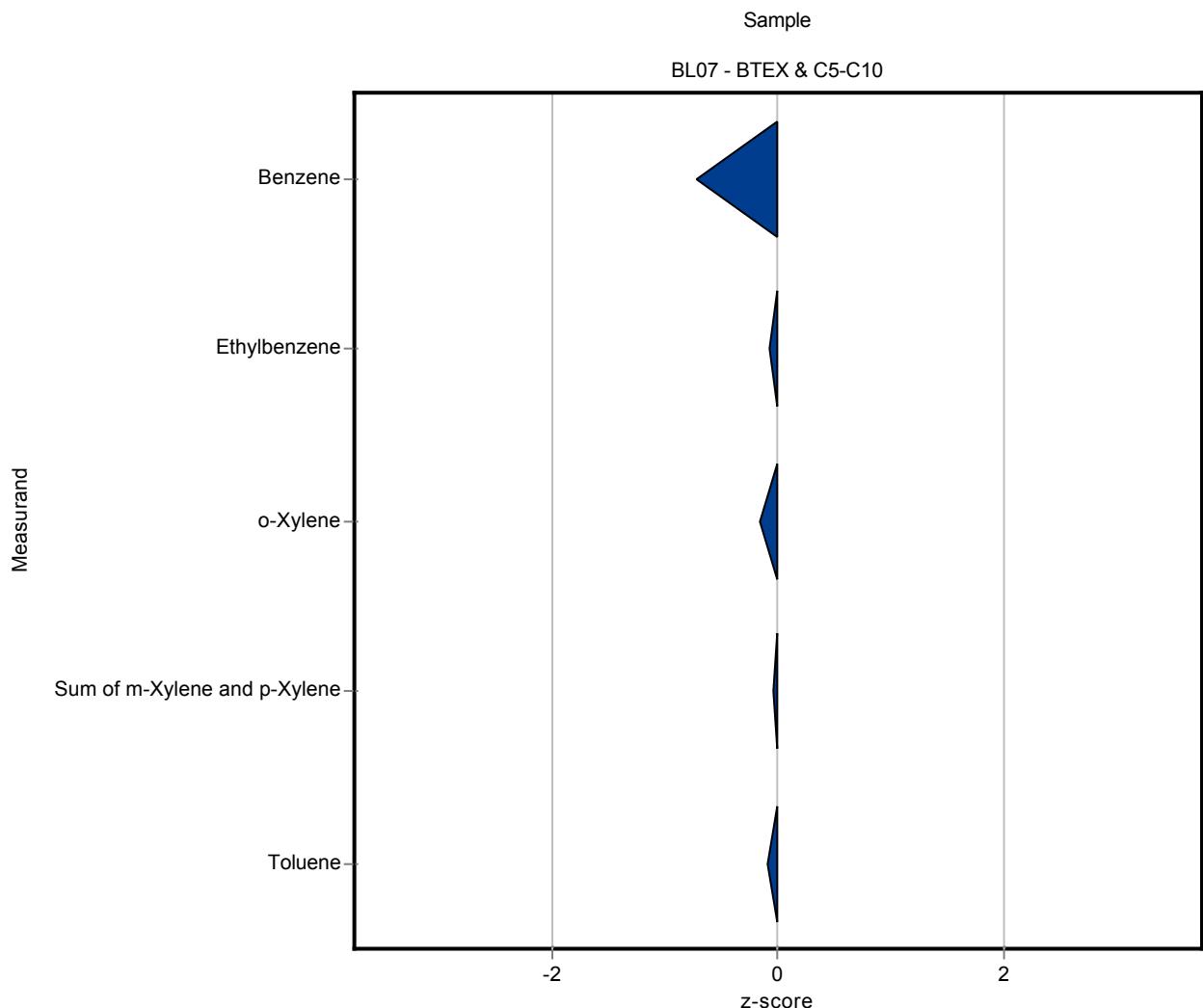
Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	4.608 \pm 3.287	0.876	99.1	-0.01
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	3.059 \pm 1.994	1.2	110	0.07
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	5.106 \pm 5.65	0.747	134	0.12
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	6.013 \pm 5.918	1.24	109	0.04
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	1.57 \pm 1.879	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	4.475 \pm 4.529	0.76	117	0.07
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	4.144 \pm 1.387	0.994	100	0.00



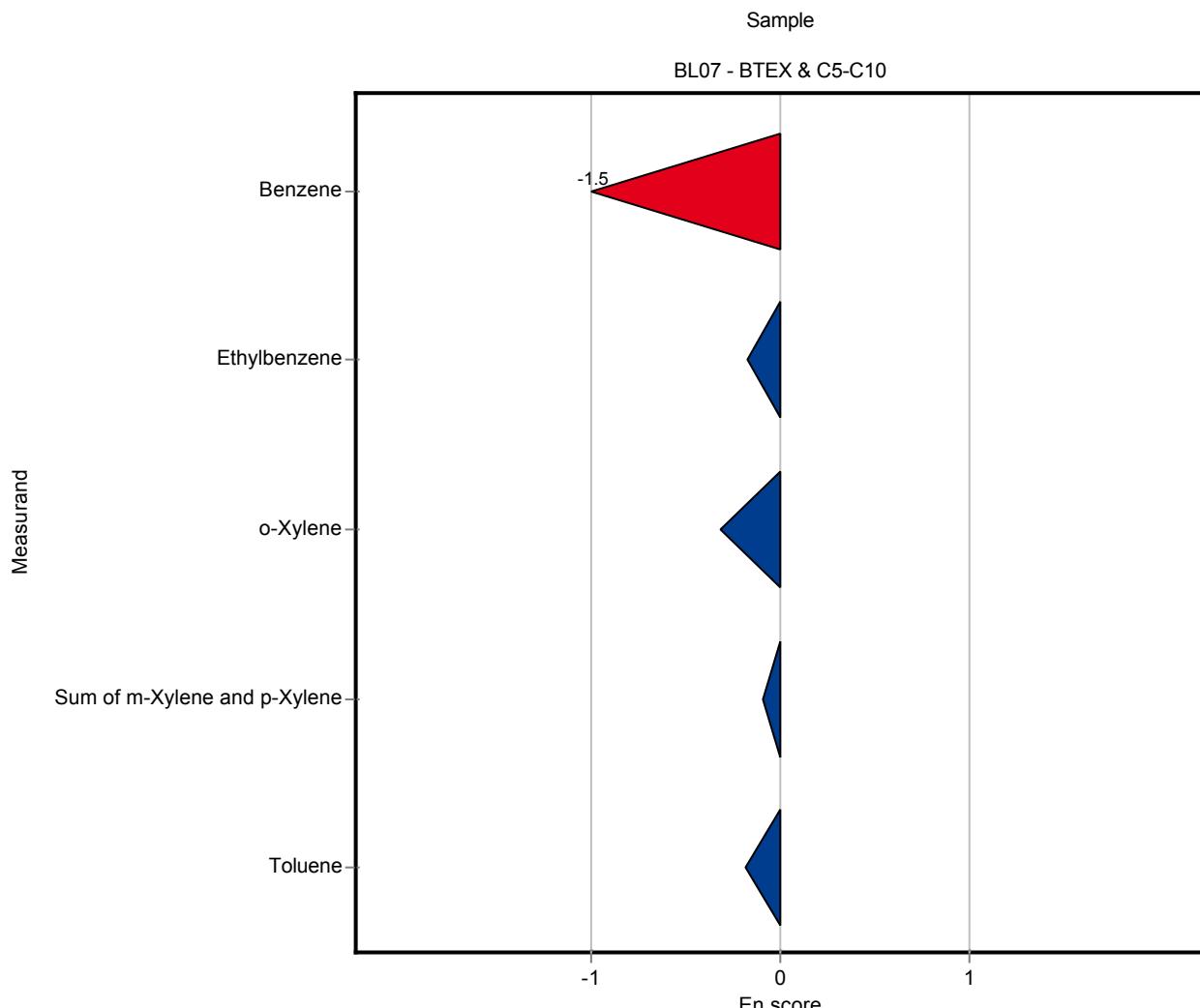
Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	5.61 \pm 0.03	0.495	94	-0.72
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	5.77 \pm 0.08	1.06	98.5	-0.08
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	- \pm -	1.39	-	-
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	- \pm -	1.5	-	-
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	- \pm -	1.42	-	-
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	- \pm -	1.56	-	-
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	- \pm -	1.5	-	-
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	- \pm -	2.53	-	-
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	5.39 \pm 0.07	0.823	97.7	-0.15
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	11.13 \pm 0.13	2.2	99.2	-0.04
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	6.05 \pm 0.06	0.81	98.9	-0.09



Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	5.61 \pm 0.03	0.495	94	-1.52
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	5.77 \pm 0.08	1.06	98.5	-0.18
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	- \pm -	1.39	-	-
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	- \pm -	1.5	-	-
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	- \pm -	1.42	-	-
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	- \pm -	1.56	-	-
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	- \pm -	1.5	-	-
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	- \pm -	2.53	-	-
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	5.39 \pm 0.07	0.823	97.7	-0.32
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	11.13 \pm 0.13	2.2	99.2	-0.10
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	6.05 \pm 0.06	0.81	98.9	-0.19

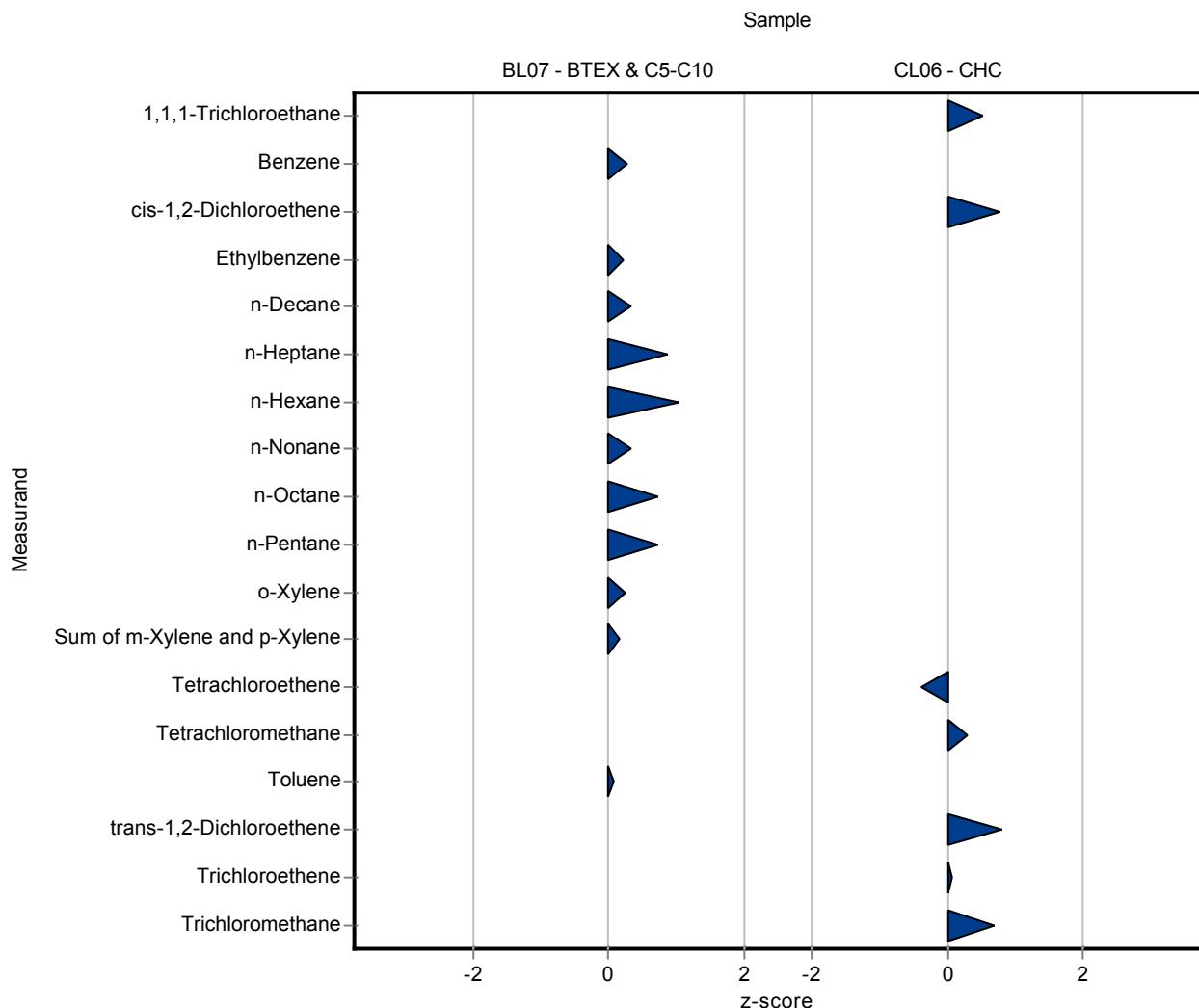


Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	6.1 \pm 1.2	0.495	102	0.27
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	6.09 \pm 1.2	1.06	104	0.22
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	3.75 \pm 0.75	1.39	114	0.32
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	7.83 \pm 1.6	1.5	120	0.87
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	8.16 \pm 1.6	1.42	122	1.04
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	5.9 \pm 1.2	1.56	110	0.33
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	7.47 \pm 1.5	1.5	117	0.73
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	8.47 \pm 1.7	2.53	128	0.73
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	5.71 \pm 1.1	0.823	103	0.23
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	11.58 \pm 2.3	2.2	103	0.16
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	6.17 \pm 1.2	0.81	101	0.06

Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	5.11 \pm 1	0.876	110	0.53
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	3.71 \pm 0.74	1.2	133	0.78
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	3.53 \pm 0.71	0.747	92.7	-0.38
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	5.88 \pm 1.18	1.24	106	0.28
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	3.64 \pm 0.73	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	3.88 \pm 0.78	0.76	101	0.07
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	4.82 \pm 0.96	0.994	116	0.68

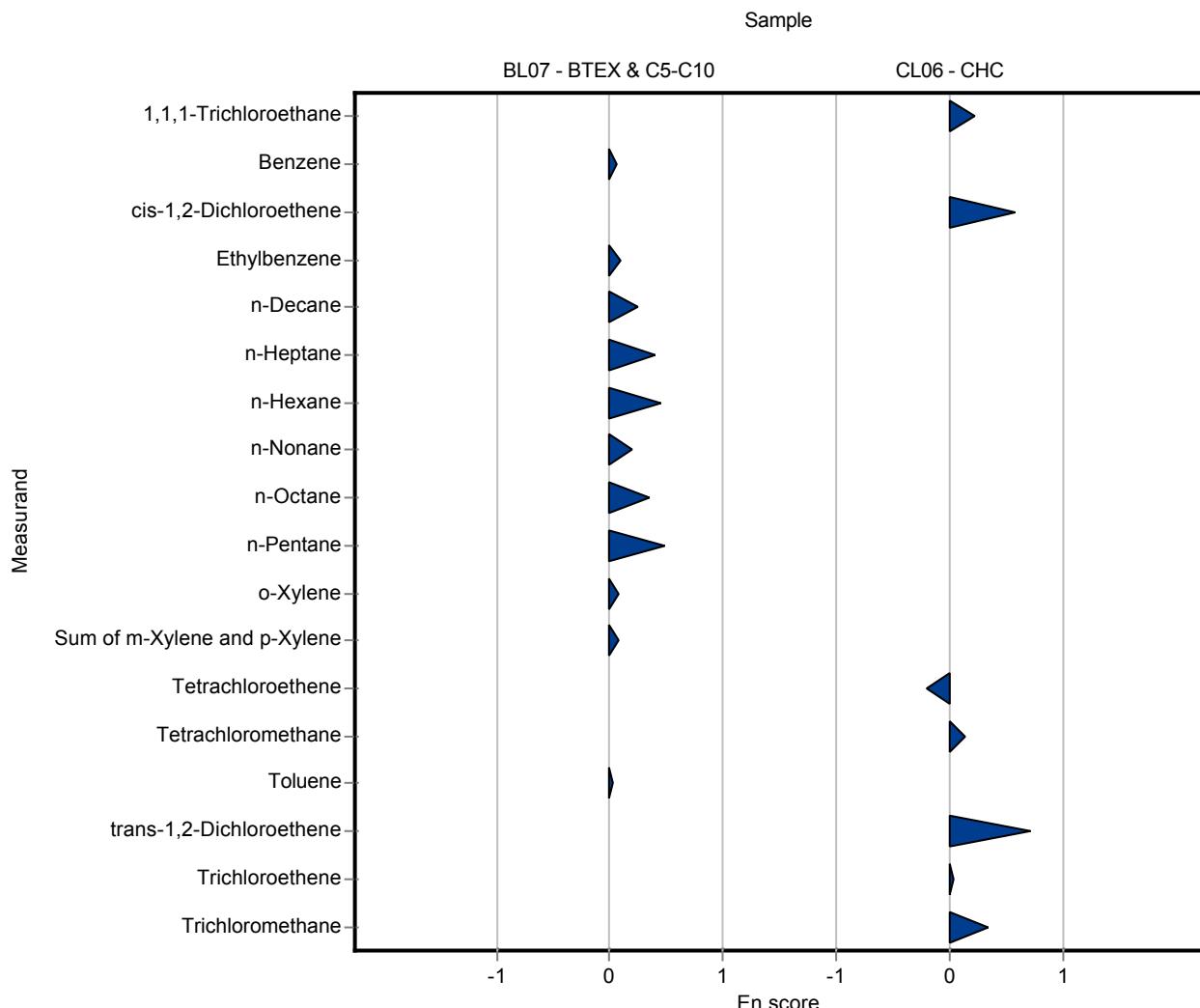


Sample: BL07

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	5.97 ± 0.227	6.1 ± 1.2	0.495	102	0.06
Ethylbenzene	µg/tube	5.86 ± 0.453	6.09 ± 1.2	1.06	104	0.10
n-Decane	µg/tube	3.3 ± 0.913	3.75 ± 0.75	1.39	114	0.25
n-Heptane	µg/tube	6.52 ± 0.816	7.83 ± 1.6	1.5	120	0.40
n-Hexane	µg/tube	6.68 ± 0.786	8.16 ± 1.6	1.42	122	0.45
n-Nonane	µg/tube	5.39 ± 0.954	5.9 ± 1.2	1.56	110	0.20
n-Octane	µg/tube	6.38 ± 0.846	7.47 ± 1.5	1.5	117	0.35
n-Pentane	µg/tube	6.61 ± 1.69	8.47 ± 1.7	2.53	128	0.49
o-Xylene	µg/tube	5.52 ± 0.368	5.71 ± 1.1	0.823	103	0.09
Sum of m-Xylene and p-Xylene	µg/tube	11.2 ± 0.913	11.58 ± 2.3	2.2	103	0.08
Toluene	µg/tube	6.12 ± 0.353	6.17 ± 1.2	0.81	101	0.02

Sample: CL06

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	µg/tube	4.65 ± 0.414	5.11 ± 1	0.876	110	0.23
cis-1,2-Dichloroethene	µg/tube	2.78 ± 0.647	3.71 ± 0.74	1.2	133	0.58
Tetrachloroethene	µg/tube	3.81 ± 0.363	3.53 ± 0.71	0.747	92.7	-0.19
Tetrachloromethane	µg/tube	5.53 ± 0.659	5.88 ± 1.18	1.24	106	0.14
trans-1,2-Dichloroethene	µg/tube	2.45* ± 0.801	3.64 ± 0.73	-	-	-
Trichloroethene	µg/tube	3.83 ± 0.396	3.88 ± 0.78	0.76	101	0.03
Trichloromethane	µg/tube	4.14 ± 0.522	4.82 ± 0.96	0.994	116	0.34

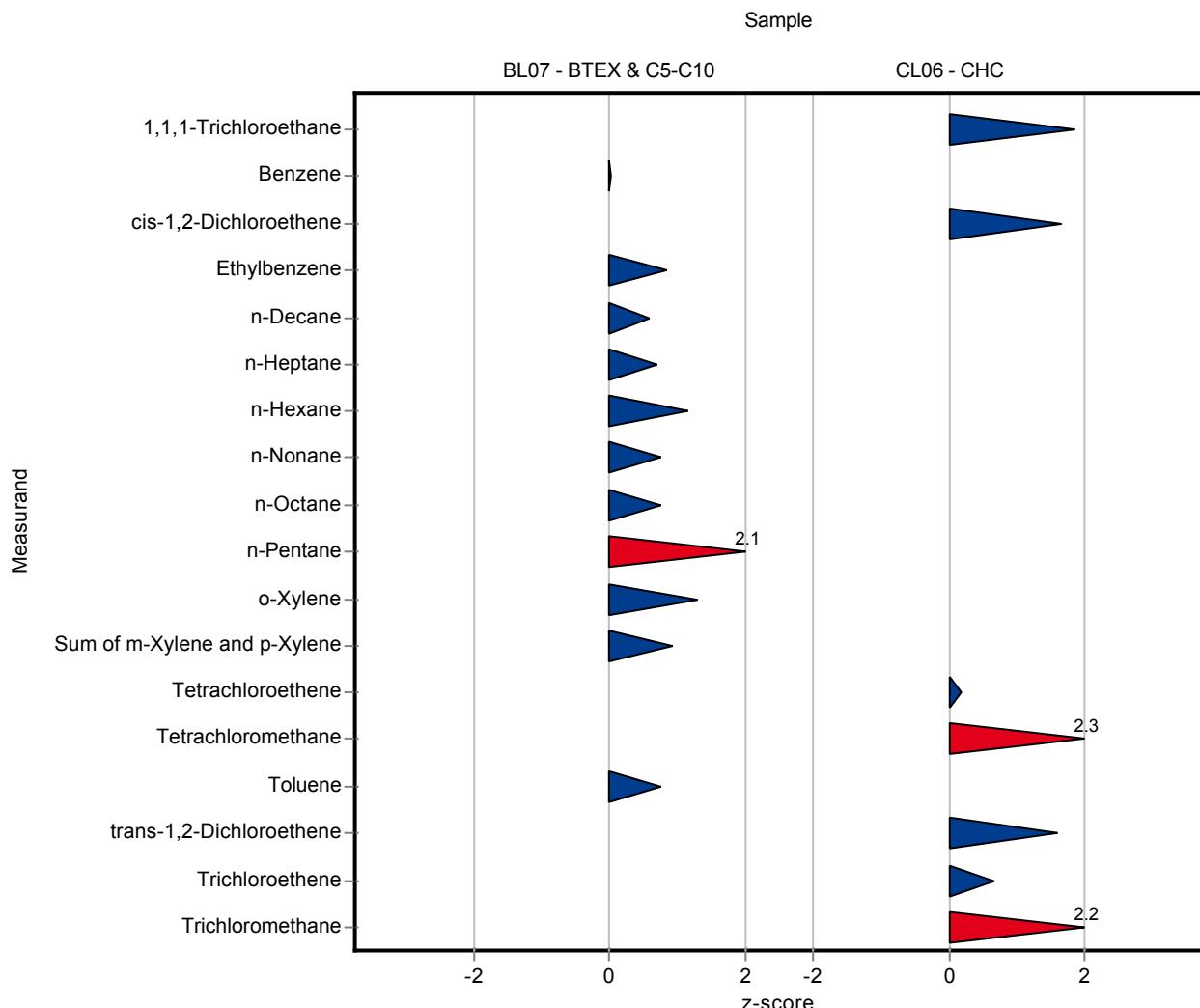


Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	5.97 \pm 0.597	0.495	100	0.01
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	6.74 \pm 1.018	1.06	115	0.83
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	4.11 \pm 1.171	1.39	124	0.58
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	7.59 \pm 1.252	1.5	116	0.71
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	8.34 \pm 2.677	1.42	125	1.17
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	6.56 \pm 2.388	1.56	122	0.75
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	7.5 \pm 1.793	1.5	118	0.75
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	11.92 \pm 4.279	2.53	180	2.10
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	6.59 \pm 0.145	0.823	119	1.30
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	13.27 \pm 1.34	2.2	118	0.93
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	6.73 \pm 0.343	0.81	110	0.75

Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	6.27 \pm 0.433	0.876	135	1.85
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	4.75 \pm 0.394	1.2	171	1.64
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	3.94 \pm 0.351	0.747	103	0.17
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	8.34 \pm 0.626	1.24	151	2.27
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	4.81 \pm 0.563	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	4.32 \pm 0.406	0.76	113	0.65
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	6.28 \pm 1.287	0.994	152	2.15

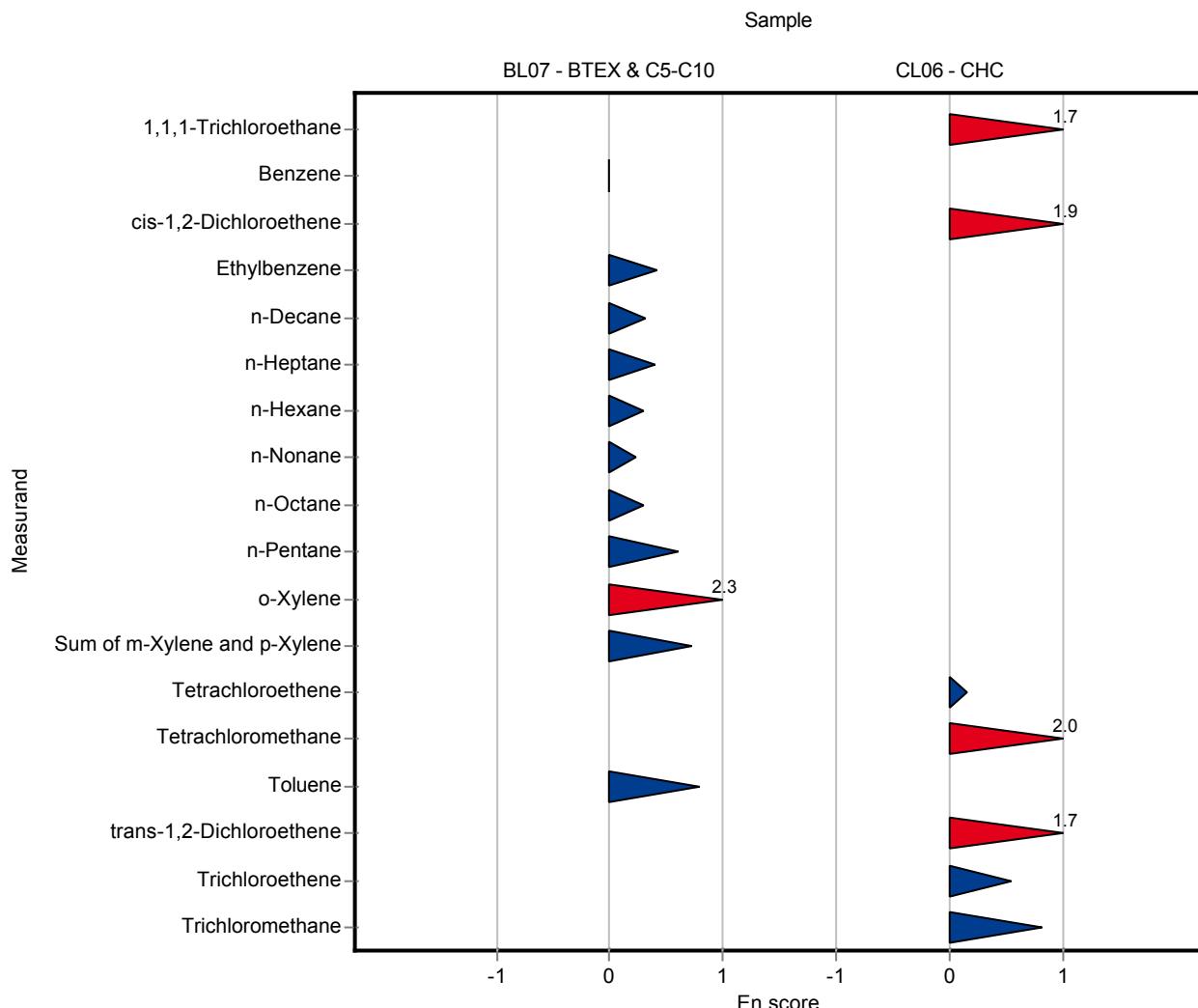


Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	5.97 \pm 0.597	0.495	100	0.00
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	6.74 \pm 1.018	1.06	115	0.42
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	4.11 \pm 1.171	1.39	124	0.32
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	7.59 \pm 1.252	1.5	116	0.41
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	8.34 \pm 2.677	1.42	125	0.31
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	6.56 \pm 2.388	1.56	122	0.24
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	7.5 \pm 1.793	1.5	118	0.30
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	11.92 \pm 4.279	2.53	180	0.61
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	6.59 \pm 0.145	0.823	119	2.29
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	13.27 \pm 1.34	2.2	118	0.72
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	6.73 \pm 0.343	0.81	110	0.79

Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	6.27 \pm 0.433	0.876	135	1.69
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	4.75 \pm 0.394	1.2	171	1.93
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	3.94 \pm 0.351	0.747	103	0.17
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	8.34 \pm 0.626	1.24	151	1.98
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	4.81 \pm 0.563	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	4.32 \pm 0.406	0.76	113	0.55
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	6.28 \pm 1.287	0.994	152	0.81

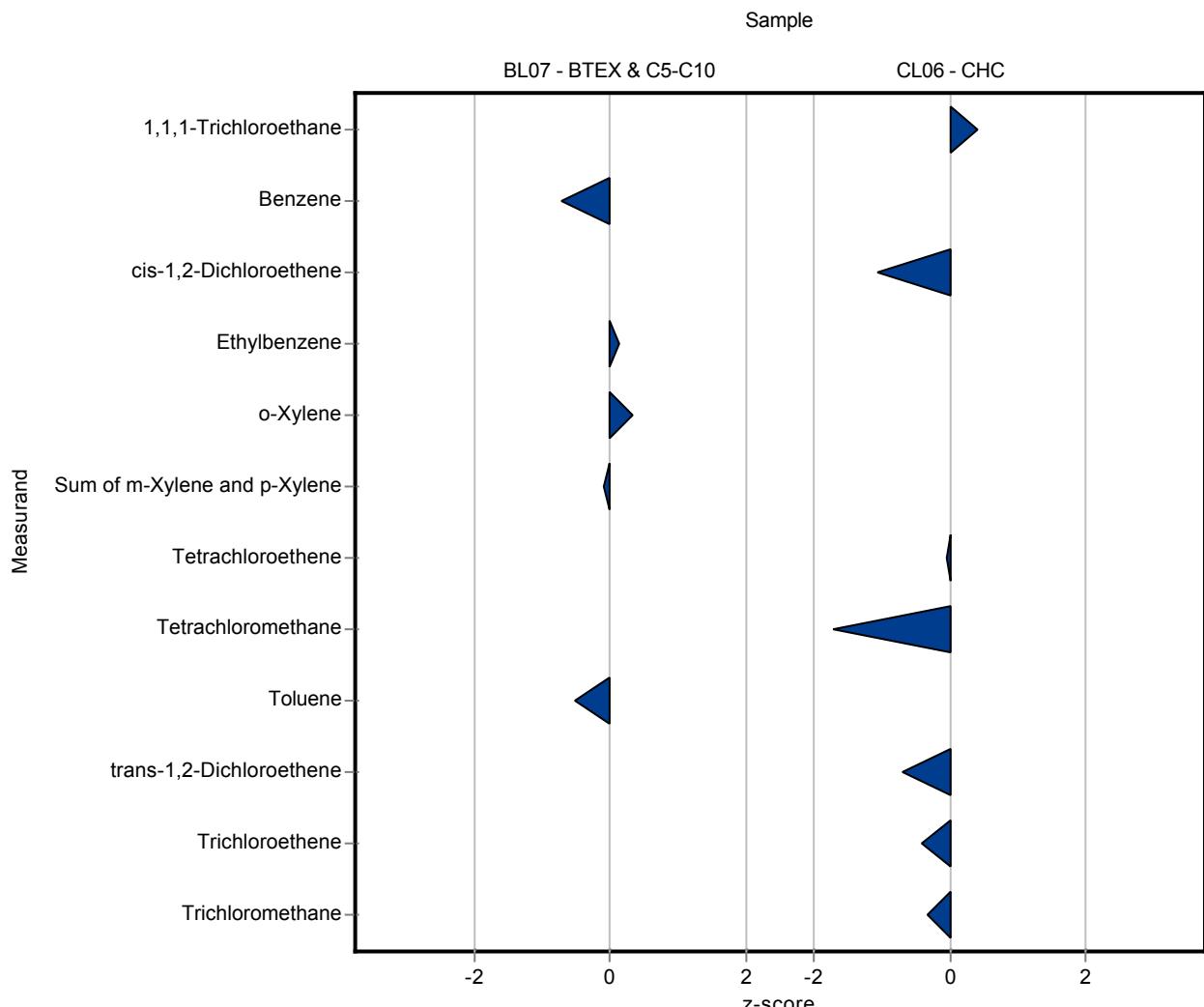


Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	5.61 \pm 1.1	0.495	94	-0.72
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	6 \pm 1.2	1.06	102	0.13
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	- \pm -	1.39	-	-
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	- \pm -	1.5	-	-
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	- \pm -	1.42	-	-
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	- \pm -	1.56	-	-
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	- \pm -	1.5	-	-
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	- \pm -	2.53	-	-
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	5.8 \pm 1.16	0.823	105	0.34
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	11 \pm 2.2	2.2	98	-0.10
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	5.7 \pm 1.14	0.81	93.1	-0.52

Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	5.01 \pm 1	0.876	108	0.41
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	1.5 \pm 0.3	1.2	54	-1.07
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	3.78 \pm 0.7	0.747	99.2	-0.04
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	3.41 \pm 0.68	1.24	61.6	-1.71
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	1.4 \pm 0.28	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	3.5 \pm 0.7	0.76	91.5	-0.43
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	3.81 \pm 0.76	0.994	92	-0.34

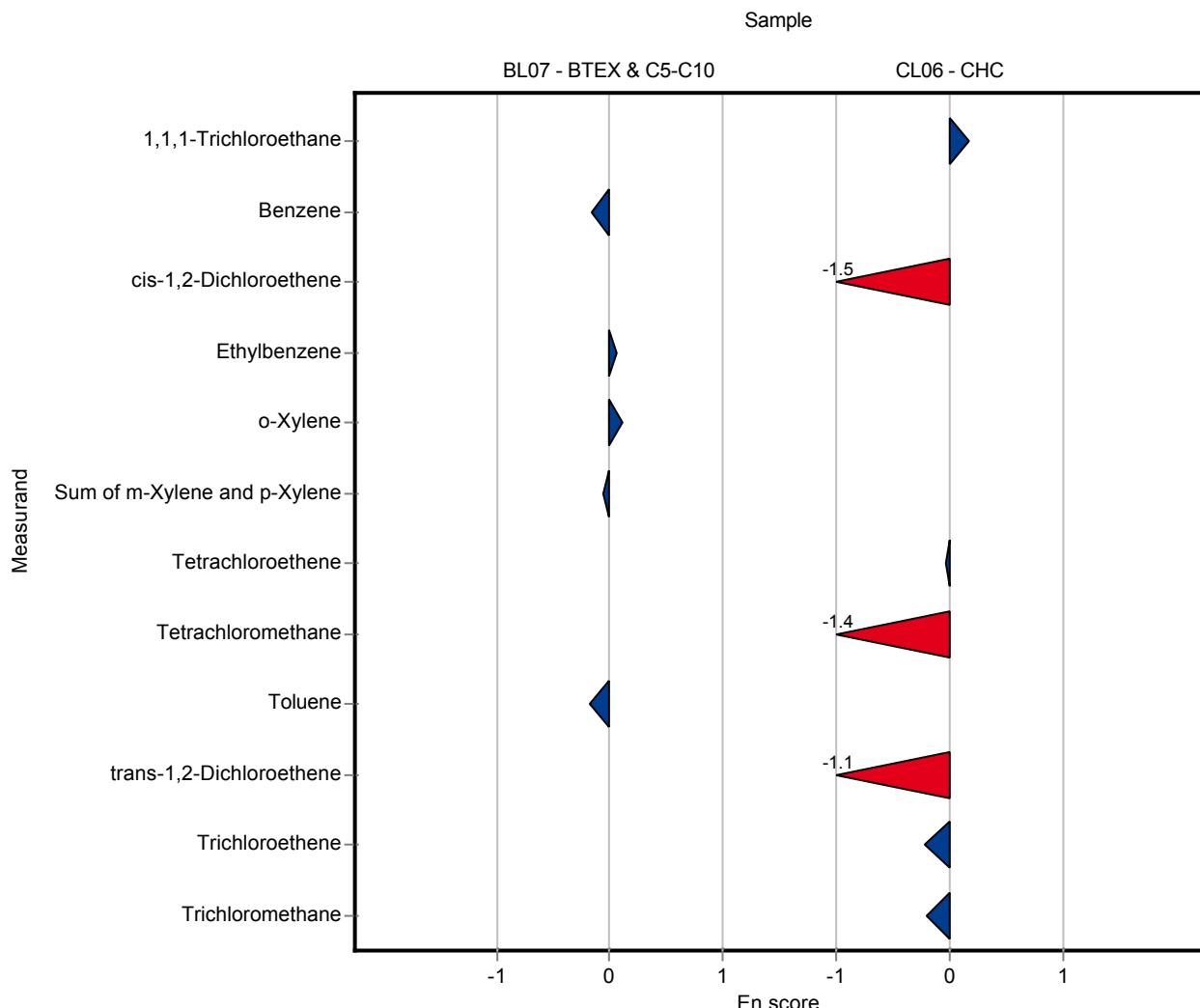


Sample: BL07

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	5.97 ± 0.227	5.61 ± 1.1	0.495	94	-0.16
Ethylbenzene	µg/tube	5.86 ± 0.453	6 ± 1.2	1.06	102	0.06
n-Decane	µg/tube	3.3 ± 0.913	- ± -	1.39	-	-
n-Heptane	µg/tube	6.52 ± 0.816	- ± -	1.5	-	-
n-Hexane	µg/tube	6.68 ± 0.786	- ± -	1.42	-	-
n-Nonane	µg/tube	5.39 ± 0.954	- ± -	1.56	-	-
n-Octane	µg/tube	6.38 ± 0.846	- ± -	1.5	-	-
n-Pentane	µg/tube	6.61 ± 1.69	- ± -	2.53	-	-
o-Xylene	µg/tube	5.52 ± 0.368	5.8 ± 1.16	0.823	105	0.12
Sum of m-Xylene and p-Xylene	µg/tube	11.2 ± 0.913	11 ± 2.2	2.2	98	-0.05
Toluene	µg/tube	6.12 ± 0.353	5.7 ± 1.14	0.81	93.1	-0.18

Sample: CL06

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	µg/tube	4.65 ± 0.414	5.01 ± 1	0.876	108	0.18
cis-1,2-Dichloroethene	µg/tube	2.78 ± 0.647	1.5 ± 0.3	1.2	54	-1.45
Tetrachloroethene	µg/tube	3.81 ± 0.363	3.78 ± 0.7	0.747	99.2	-0.02
Tetrachloromethane	µg/tube	5.53 ± 0.659	3.41 ± 0.68	1.24	61.6	-1.40
trans-1,2-Dichloroethene	µg/tube	2.45* ± 0.801	1.4 ± 0.28	-	-	-
Trichloroethene	µg/tube	3.83 ± 0.396	3.5 ± 0.7	0.76	91.5	-0.22
Trichloromethane	µg/tube	4.14 ± 0.522	3.81 ± 0.76	0.994	92	-0.21

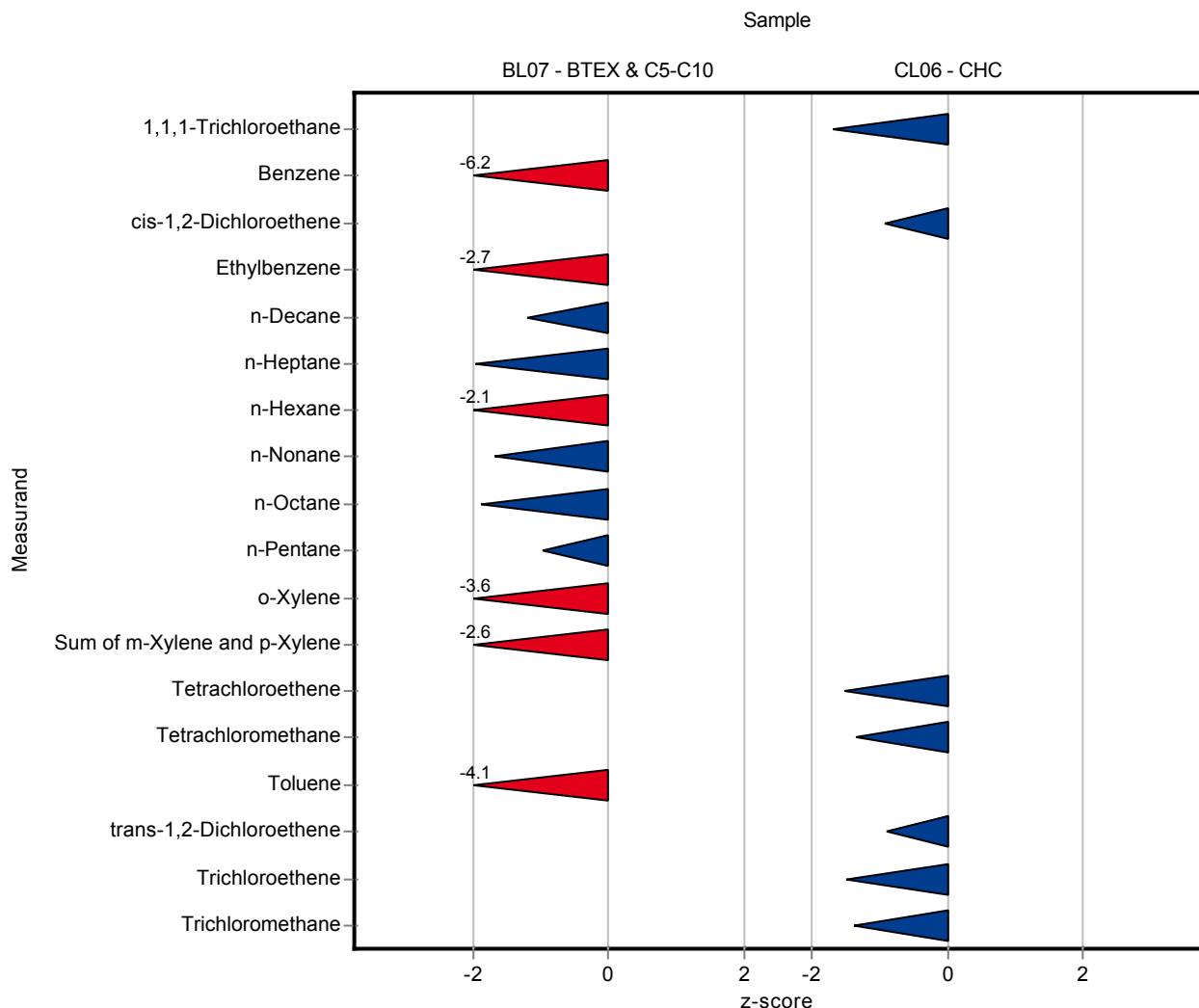


Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	2.91 \pm 0.64	0.495	48.8	-6.17
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	2.95 \pm 0.65	1.06	50.4	-2.74
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	1.63 \pm 0.36	1.39	49.3	-1.20
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	3.58 \pm 0.79	1.5	54.9	-1.96
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	3.75 \pm 0.83	1.42	56.1	-2.06
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	2.77 \pm 0.61	1.56	51.4	-1.68
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	3.58 \pm 0.79	1.5	56.1	-1.87
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	4.17 \pm 0.92	2.53	63.1	-0.96
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	2.59 \pm 0.57	0.823	46.9	-3.56
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	5.42 \pm 1.19	2.2	48.3	-2.63
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	2.79 \pm 0.61	0.81	45.6	-4.11

Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	3.18 \pm 0.7	0.876	68.4	-1.68
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	1.67 \pm 0.37	1.2	60.1	-0.93
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	2.68 \pm 0.59	0.747	70.3	-1.51
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	3.84 \pm 0.85	1.24	69.4	-1.37
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	1.12 \pm 0.25	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	2.69 \pm 0.59	0.76	70.3	-1.50
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	2.77 \pm 0.61	0.994	66.9	-1.38

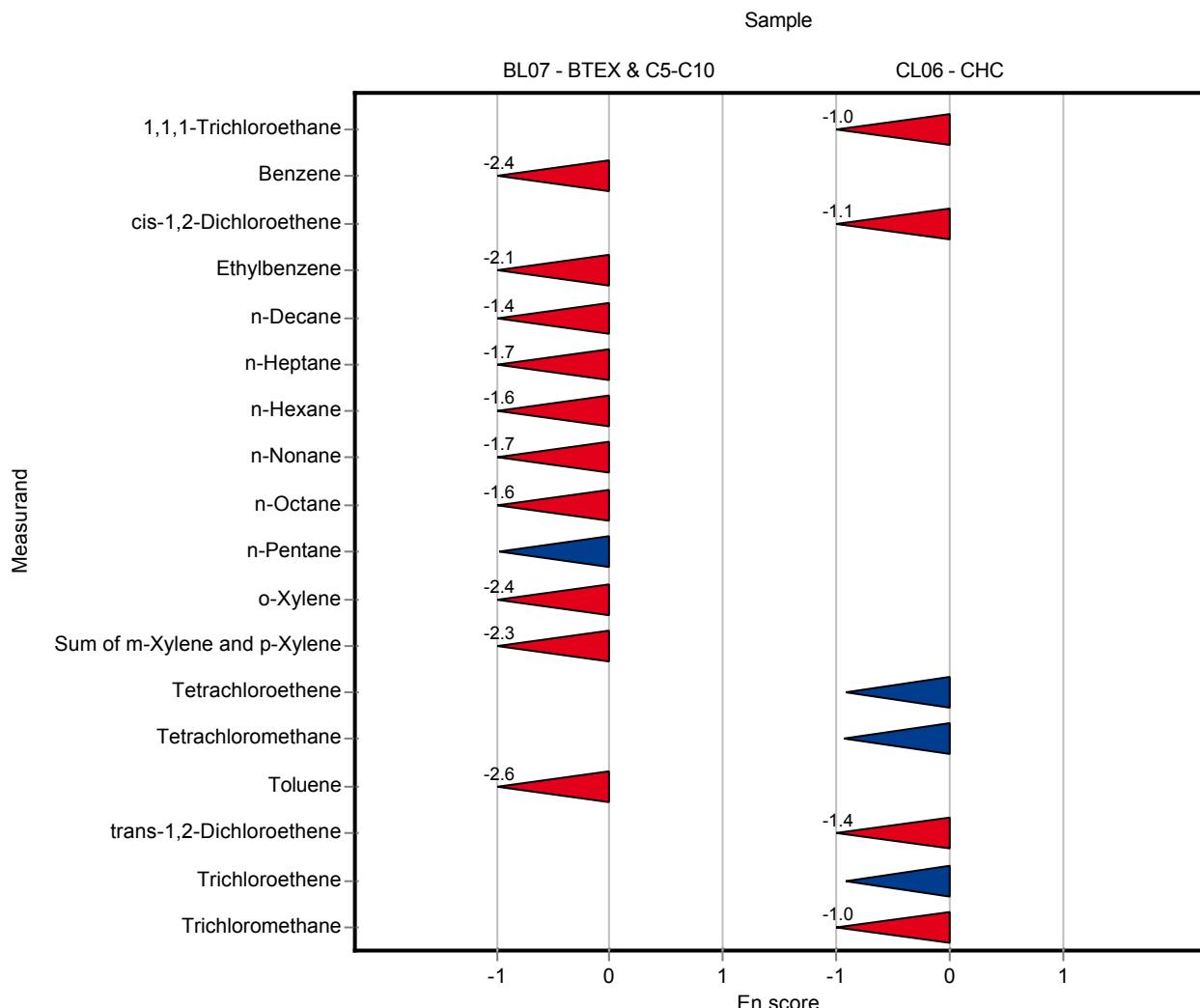


Sample: BL07

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	5.97 ± 0.227	2.91 ± 0.64	0.495	48.8	-2.35
Ethylbenzene	µg/tube	5.86 ± 0.453	2.95 ± 0.65	1.06	50.4	-2.11
n-Decane	µg/tube	3.3 ± 0.913	1.63 ± 0.36	1.39	49.3	-1.44
n-Heptane	µg/tube	6.52 ± 0.816	3.58 ± 0.79	1.5	54.9	-1.66
n-Hexane	µg/tube	6.68 ± 0.786	3.75 ± 0.83	1.42	56.1	-1.60
n-Nonane	µg/tube	5.39 ± 0.954	2.77 ± 0.61	1.56	51.4	-1.69
n-Octane	µg/tube	6.38 ± 0.846	3.58 ± 0.79	1.5	56.1	-1.56
n-Pentane	µg/tube	6.61 ± 1.69	4.17 ± 0.92	2.53	63.1	-0.98
o-Xylene	µg/tube	5.52 ± 0.368	2.59 ± 0.57	0.823	46.9	-2.44
Sum of m-Xylene and p-Xylene	µg/tube	11.2 ± 0.913	5.42 ± 1.19	2.2	48.3	-2.28
Toluene	µg/tube	6.12 ± 0.353	2.79 ± 0.61	0.81	45.6	-2.62

Sample: CL06

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	µg/tube	4.65 ± 0.414	3.18 ± 0.7	0.876	68.4	-1.01
cis-1,2-Dichloroethene	µg/tube	2.78 ± 0.647	1.67 ± 0.37	1.2	60.1	-1.13
Tetrachloroethene	µg/tube	3.81 ± 0.363	2.68 ± 0.59	0.747	70.3	-0.92
Tetrachloromethane	µg/tube	5.53 ± 0.659	3.84 ± 0.85	1.24	69.4	-0.93
trans-1,2-Dichloroethene	µg/tube	2.45* ± 0.801	1.12 ± 0.25	-	-	-
Trichloroethene	µg/tube	3.83 ± 0.396	2.69 ± 0.59	0.76	70.3	-0.91
Trichloromethane	µg/tube	4.14 ± 0.522	2.77 ± 0.61	0.994	66.9	-1.03

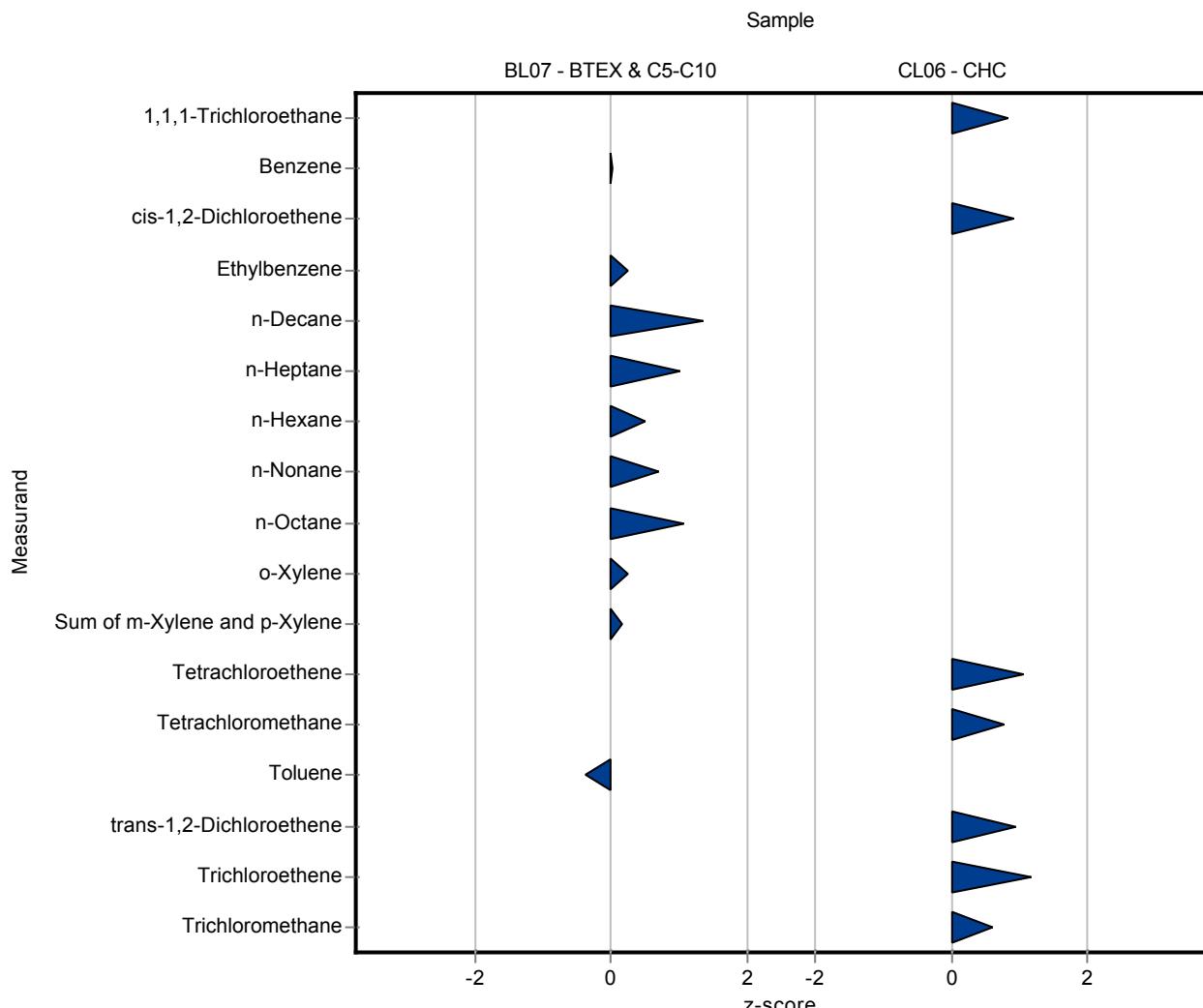


Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	5.97 \pm 1.2	0.495	100	0.01
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	6.13 \pm 1.2	1.06	105	0.26
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	5.2 \pm 1.2	1.39	157	1.36
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	8.04 \pm 1.6	1.5	123	1.01
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	7.39 \pm 1.7	1.42	111	0.50
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	6.47 \pm 1.4	1.56	120	0.69
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	7.99 \pm 1.6	1.5	125	1.07
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	- \pm -	2.53	-	-
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	5.71 \pm 1.2	0.823	103	0.23
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	11.6 \pm 2.3	2.2	103	0.17
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	5.81 \pm 1.2	0.81	94.9	-0.38

Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	5.38 \pm 1.2	0.876	116	0.83
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	3.87 \pm 0.8	1.2	139	0.91
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	4.6 \pm 1	0.747	121	1.06
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	6.5 \pm 1.3	1.24	117	0.78
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	3.83 \pm 0.8	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	4.72 \pm 1	0.76	123	1.18
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	4.74 \pm 1	0.994	114	0.60

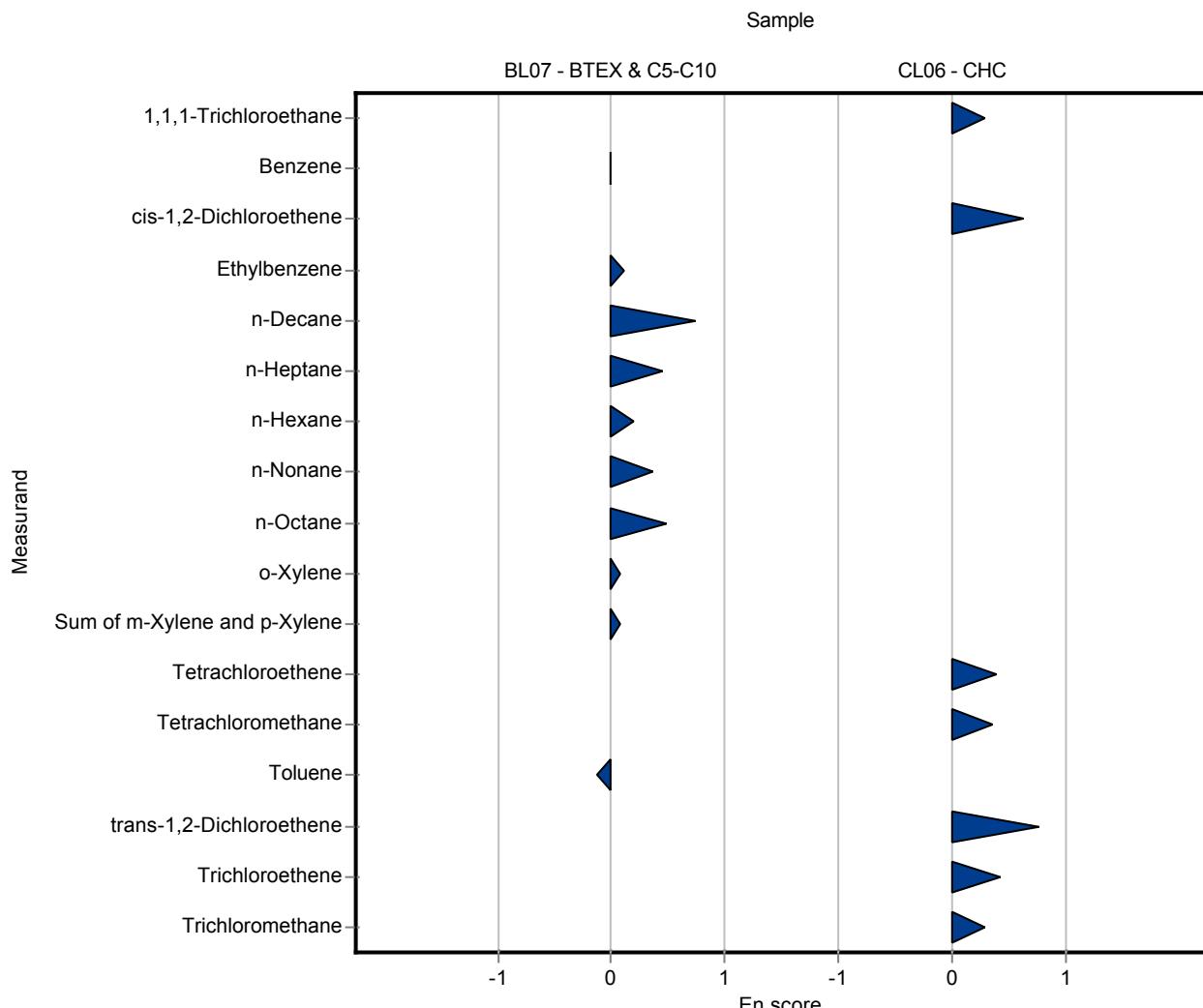


Sample: BL07

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	5.97 ± 0.227	5.97 ± 1.2	0.495	100	0.00
Ethylbenzene	µg/tube	5.86 ± 0.453	6.13 ± 1.2	1.06	105	0.11
n-Decane	µg/tube	3.3 ± 0.913	5.2 ± 1.2	1.39	157	0.74
n-Heptane	µg/tube	6.52 ± 0.816	8.04 ± 1.6	1.5	123	0.46
n-Hexane	µg/tube	6.68 ± 0.786	7.39 ± 1.7	1.42	111	0.20
n-Nonane	µg/tube	5.39 ± 0.954	6.47 ± 1.4	1.56	120	0.37
n-Octane	µg/tube	6.38 ± 0.846	7.99 ± 1.6	1.5	125	0.49
n-Pentane	µg/tube	6.61 ± 1.69	- ± -	2.53	-	-
o-Xylene	µg/tube	5.52 ± 0.368	5.71 ± 1.2	0.823	103	0.08
Sum of m-Xylene and p-Xylene	µg/tube	11.2 ± 0.913	11.6 ± 2.3	2.2	103	0.08
Toluene	µg/tube	6.12 ± 0.353	5.81 ± 1.2	0.81	94.9	-0.13

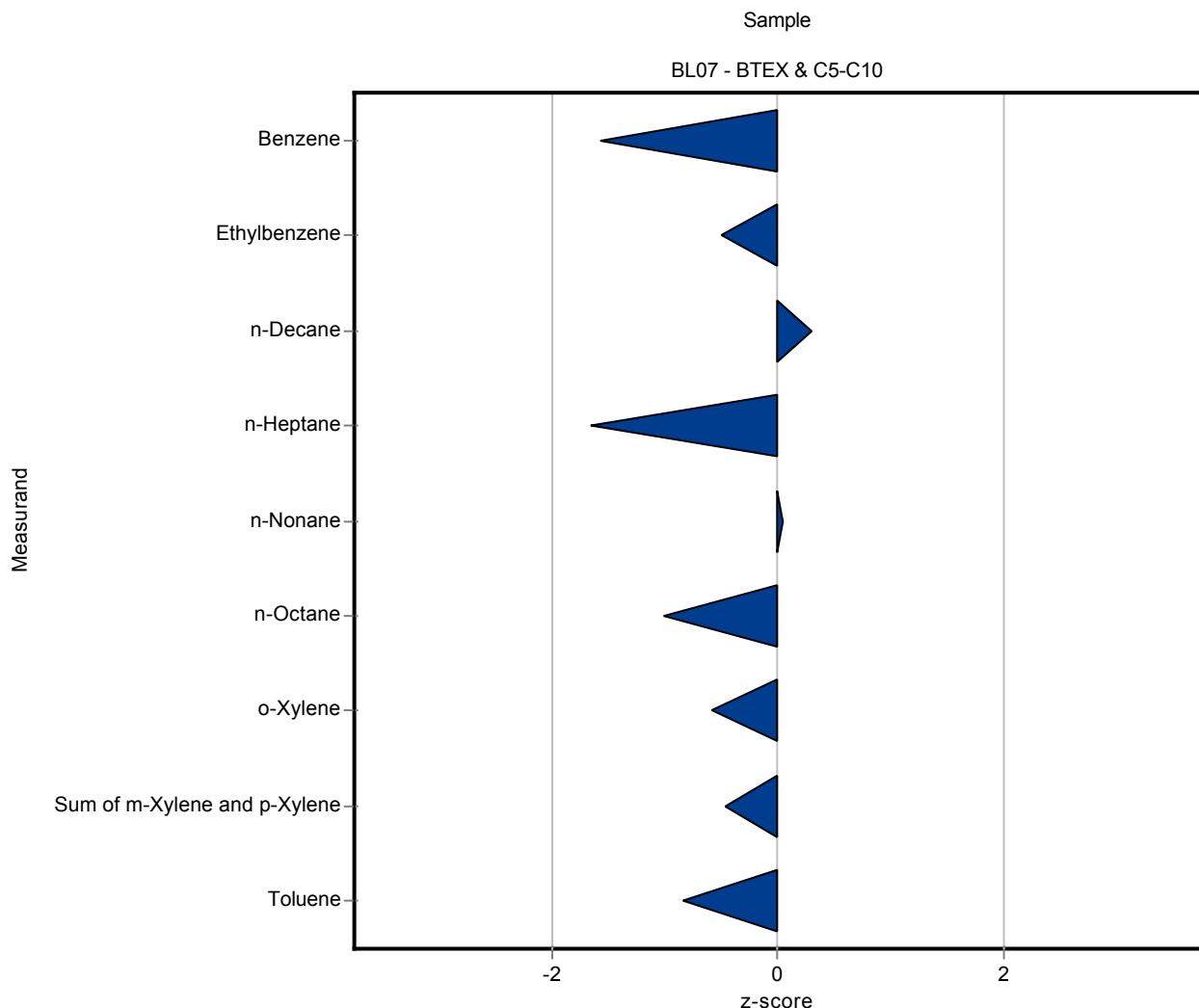
Sample: CL06

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	µg/tube	4.65 ± 0.414	5.38 ± 1.2	0.876	116	0.30
cis-1,2-Dichloroethene	µg/tube	2.78 ± 0.647	3.87 ± 0.8	1.2	139	0.63
Tetrachloroethene	µg/tube	3.81 ± 0.363	4.6 ± 1	0.747	121	0.39
Tetrachloromethane	µg/tube	5.53 ± 0.659	6.5 ± 1.3	1.24	117	0.36
trans-1,2-Dichloroethene	µg/tube	2.45* ± 0.801	3.83 ± 0.8	-	-	-
Trichloroethene	µg/tube	3.83 ± 0.396	4.72 ± 1	0.76	123	0.44
Trichloromethane	µg/tube	4.14 ± 0.522	4.74 ± 1	0.994	114	0.29



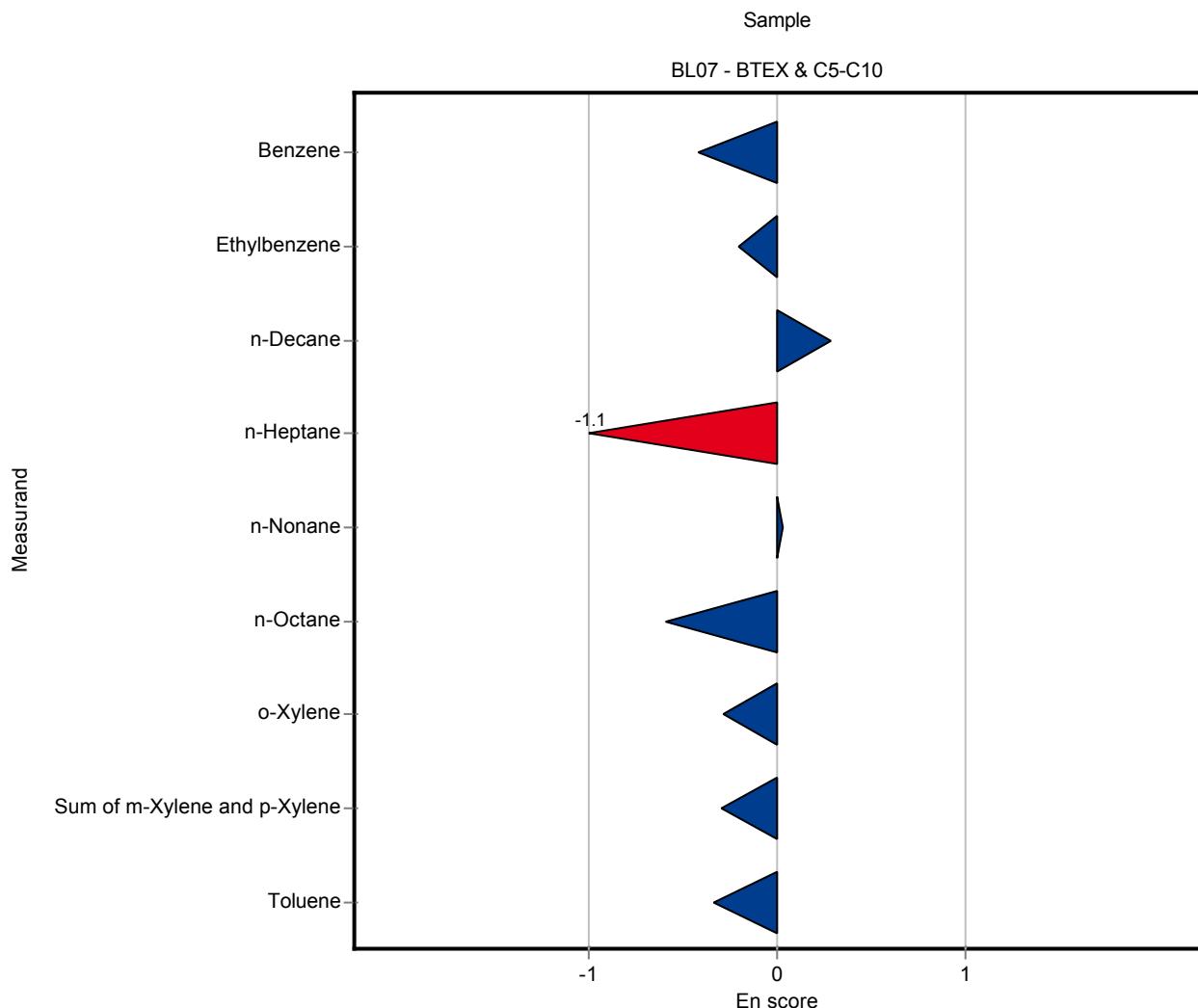
Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	5.186 \pm 0.917	0.495	86.9	-1.58
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	5.317 \pm 1.268	1.06	90.8	-0.51
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	3.728 \pm 0.601	1.39	113	0.30
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	4.043 \pm 1.052	1.5	62	-1.65
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	- \pm -	1.42	-	-
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	5.46 \pm 1.205	1.56	101	0.05
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	4.867 \pm 1.196	1.5	76.3	-1.01
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	- \pm -	2.53	-	-
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	5.034 \pm 0.803	0.823	91.2	-0.59
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	10.207 \pm 1.629	2.2	91	-0.46
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	5.44 \pm 0.968	0.81	88.9	-0.84



Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	5.186 \pm 0.917	0.495	86.9	-0.42
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	5.317 \pm 1.268	1.06	90.8	-0.21
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	3.728 \pm 0.601	1.39	113	0.28
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	4.043 \pm 1.052	1.5	62	-1.10
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	- \pm -	1.42	-	-
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	5.46 \pm 1.205	1.56	101	0.03
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	4.867 \pm 1.196	1.5	76.3	-0.60
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	- \pm -	2.53	-	-
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	5.034 \pm 0.803	0.823	91.2	-0.29
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	10.207 \pm 1.629	2.2	91	-0.30
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	5.44 \pm 0.968	0.81	88.9	-0.34

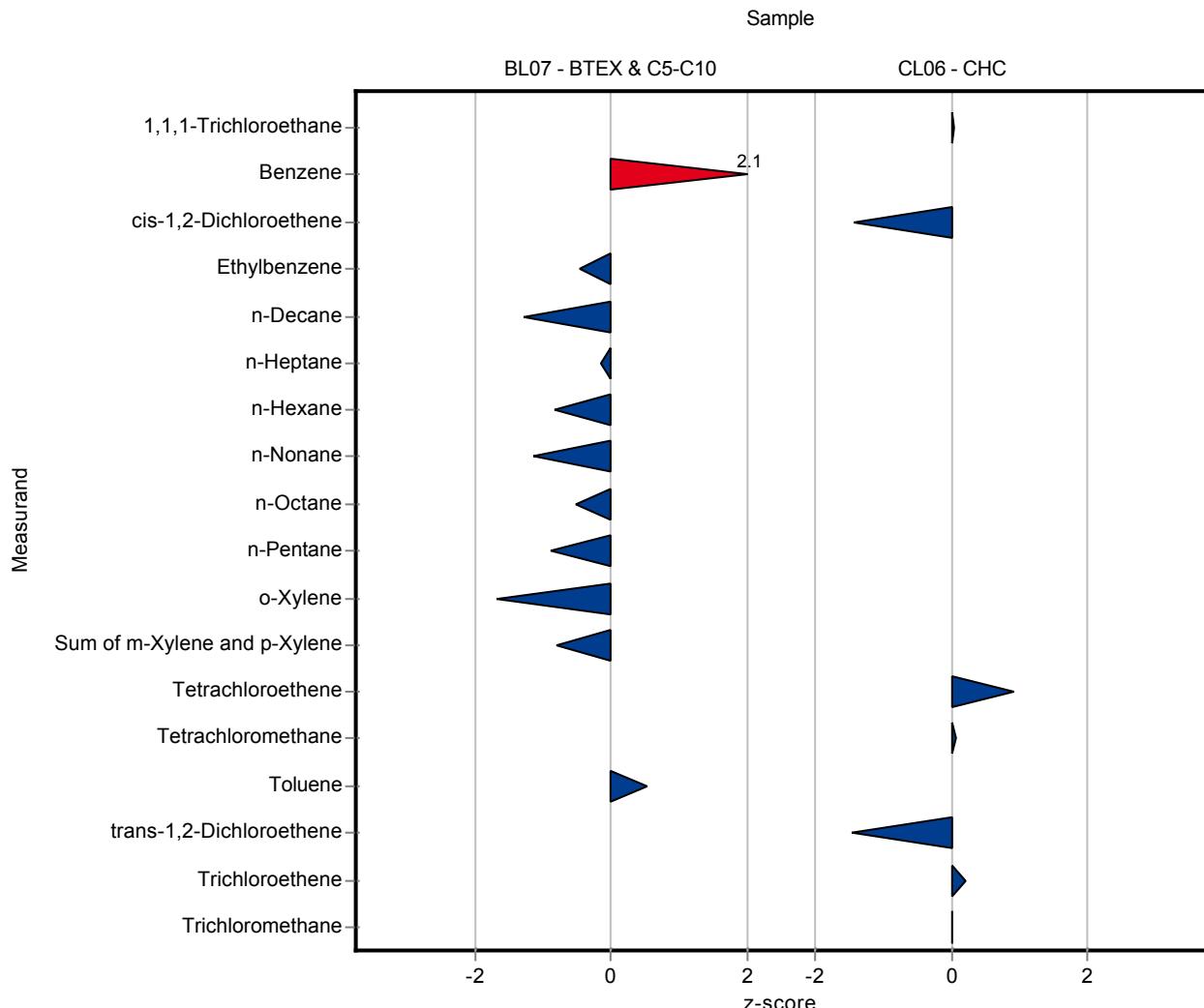


Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	6.99 \pm 0.699	0.495	117	2.07
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	5.37 \pm 0.537	1.06	91.7	-0.46
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	1.53 \pm 0.153	1.39	46.3	-1.27
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	6.29 \pm 0.629	1.5	96.4	-0.16
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	5.48 \pm 0.548	1.42	82	-0.84
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	3.62 \pm 0.362	1.56	67.2	-1.13
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	5.61 \pm 0.561	1.5	87.9	-0.52
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	4.39 \pm 0.439	2.53	66.4	-0.88
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	4.14 \pm 0.414	0.823	75	-1.67
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	9.45 \pm 0.945	2.2	84.2	-0.80
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	6.56 \pm 0.656	0.81	107	0.54

Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	4.68 \pm 0.468	0.876	101	0.03
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	1.07 \pm 0.107	1.2	38.5	-1.43
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	4.49 \pm 0.449	0.747	118	0.91
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	5.6 \pm 0.56	1.24	101	0.05
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	0.28 \pm 0.028	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	3.98 \pm 0.398	0.76	104	0.20
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	4.15 \pm 0.415	0.994	100	0.01

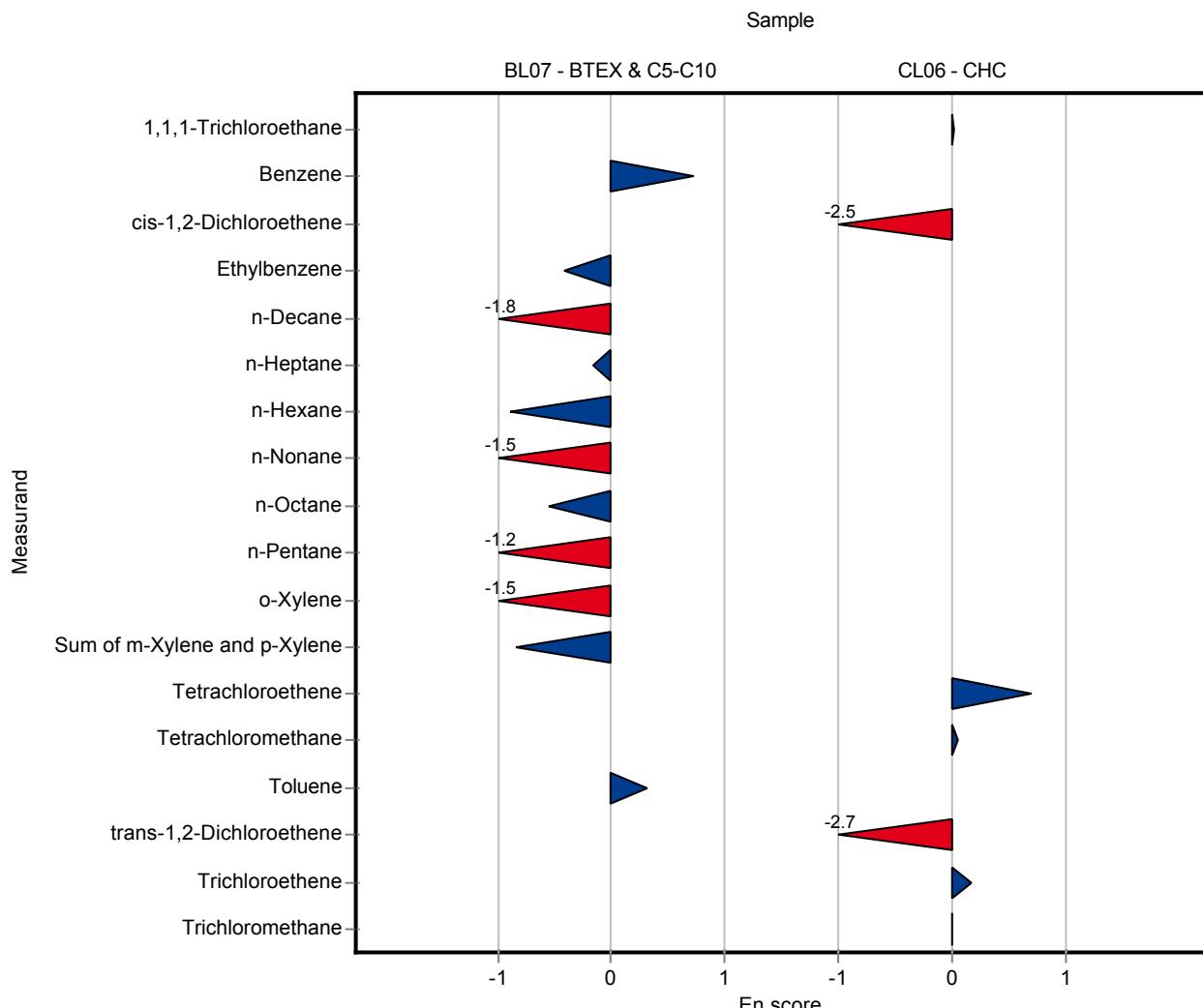


Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	6.99 \pm 0.699	0.495	117	0.72
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	5.37 \pm 0.537	1.06	91.7	-0.42
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	1.53 \pm 0.153	1.39	46.3	-1.84
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	6.29 \pm 0.629	1.5	96.4	-0.16
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	5.48 \pm 0.548	1.42	82	-0.89
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	3.62 \pm 0.362	1.56	67.2	-1.48
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	5.61 \pm 0.561	1.5	87.9	-0.55
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	4.39 \pm 0.439	2.53	66.4	-1.17
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	4.14 \pm 0.414	0.823	75	-1.52
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	9.45 \pm 0.945	2.2	84.2	-0.84
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	6.56 \pm 0.656	0.81	107	0.32

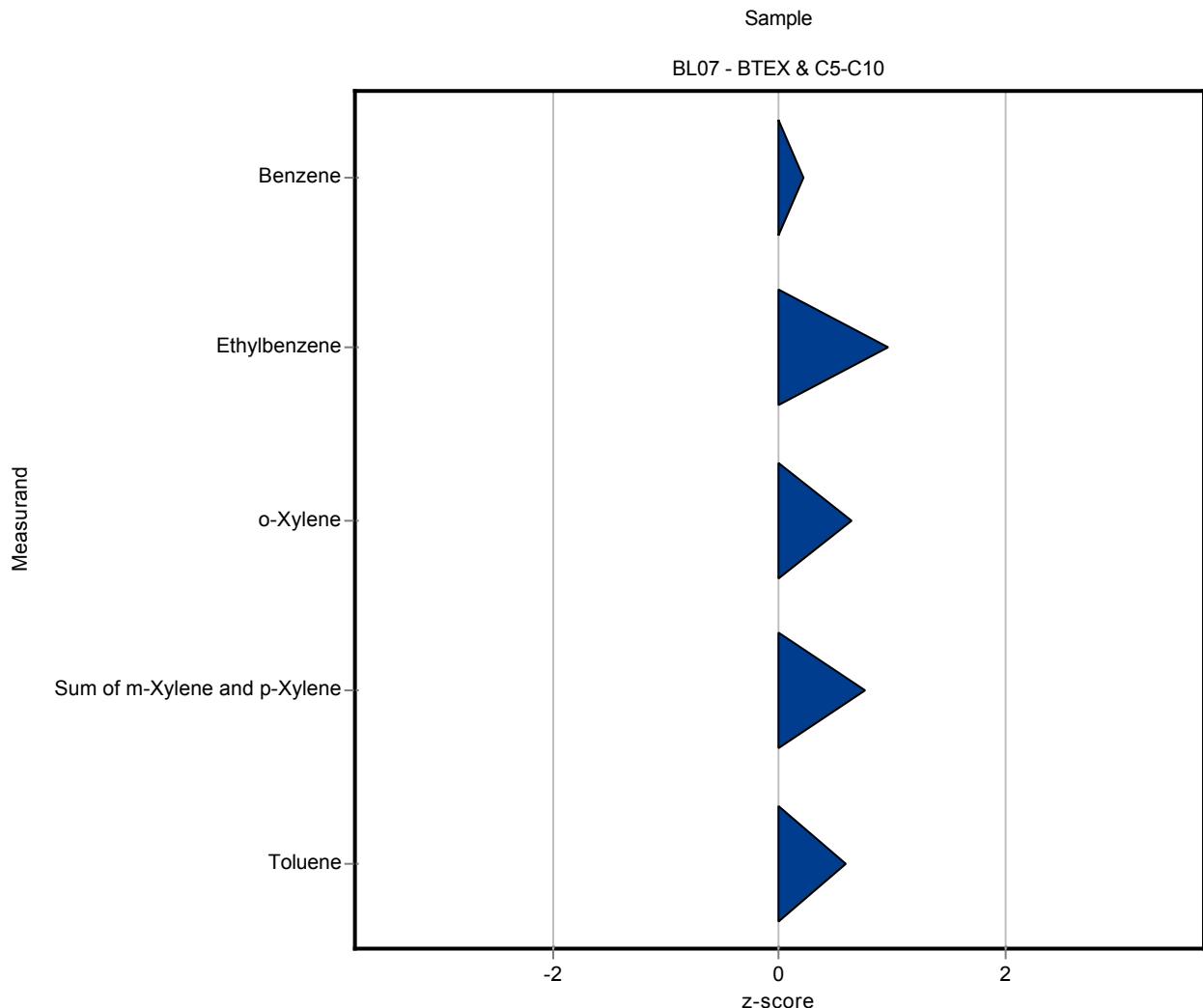
Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	4.68 \pm 0.468	0.876	101	0.03
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	1.07 \pm 0.107	1.2	38.5	-2.51
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	4.49 \pm 0.449	0.747	118	0.70
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	5.6 \pm 0.56	1.24	101	0.05
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	0.28 \pm 0.028	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	3.98 \pm 0.398	0.76	104	0.17
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	4.15 \pm 0.415	0.994	100	0.01



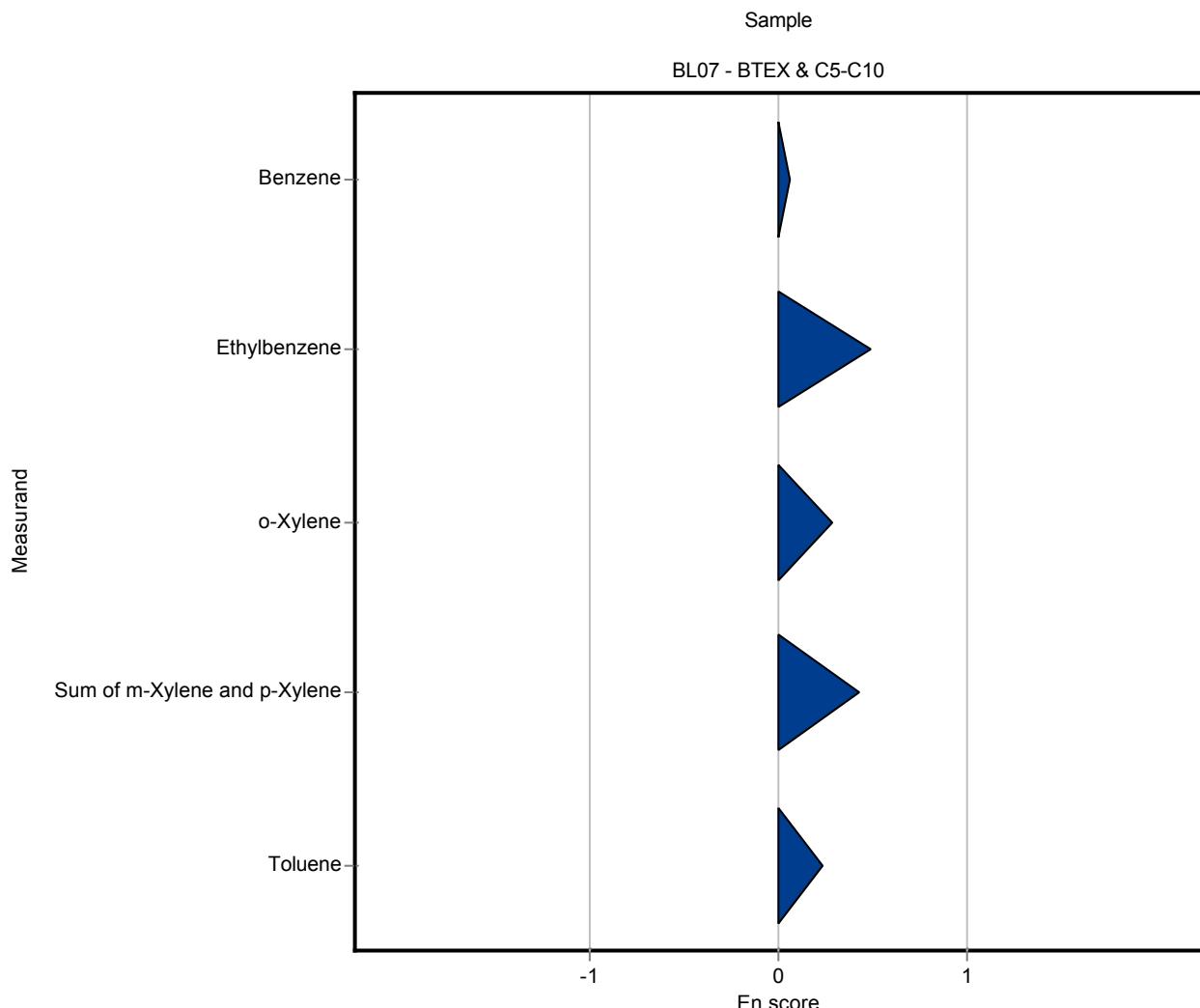
Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	6.07 \pm 0.91	0.495	102	0.21
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	6.88 \pm 1.03	1.06	117	0.96
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	- \pm -	1.39	-	-
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	- \pm -	1.5	-	-
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	- \pm -	1.42	-	-
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	- \pm -	1.56	-	-
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	- \pm -	1.5	-	-
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	- \pm -	2.53	-	-
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	6.04 \pm 0.91	0.823	109	0.64
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	12.89 \pm 1.93	2.2	115	0.76
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	6.59 \pm 0.99	0.81	108	0.58



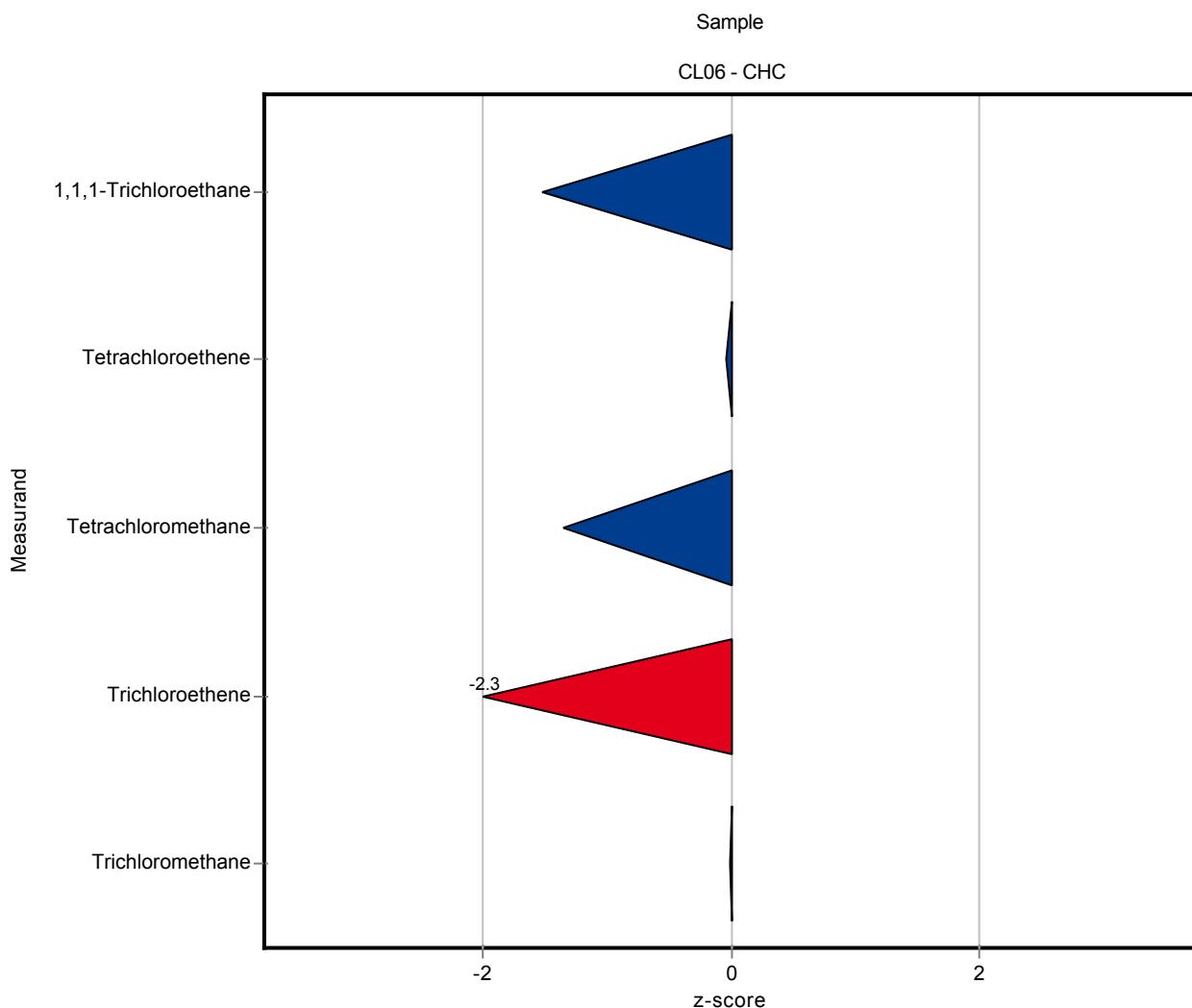
Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	6.07 \pm 0.91	0.495	102	0.06
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	6.88 \pm 1.03	1.06	117	0.48
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	- \pm -	1.39	-	-
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	- \pm -	1.5	-	-
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	- \pm -	1.42	-	-
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	- \pm -	1.56	-	-
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	- \pm -	1.5	-	-
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	- \pm -	2.53	-	-
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	6.04 \pm 0.91	0.823	109	0.28
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	12.89 \pm 1.93	2.2	115	0.42
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	6.59 \pm 0.99	0.81	108	0.23



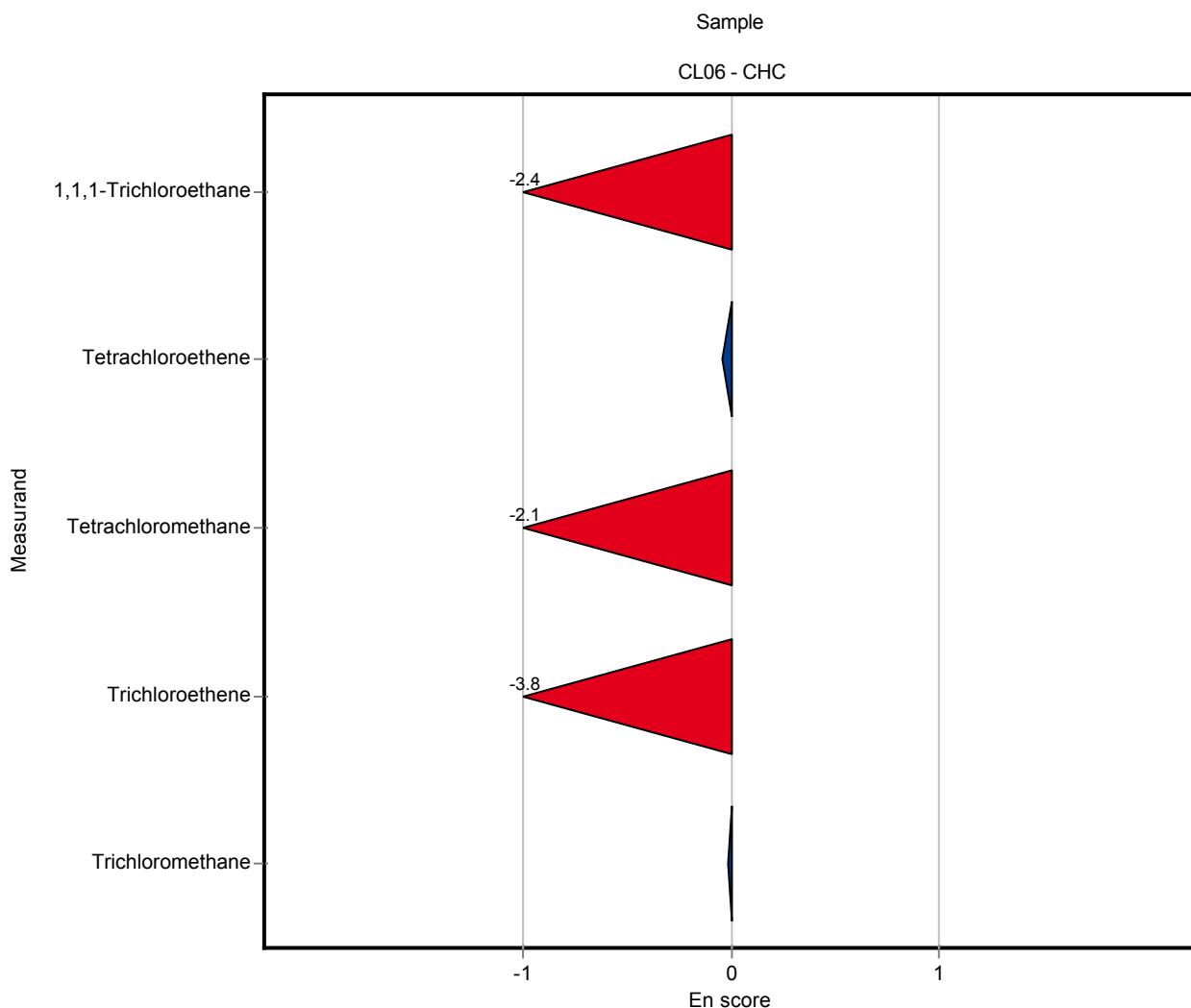
Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	3.328 \pm 0.19	0.876	71.6	-1.51
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	<5 (LOQ) \pm -	1.2	-	-
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	3.786 \pm 0.2	0.747	99.4	-0.03
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	3.861 \pm 0.22	1.24	69.8	-1.35
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	<5 (LOQ) \pm -	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	2.114 \pm 0.11	0.76	55.2	-2.25
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	4.135 \pm 0.23	0.994	99.8	-0.01



Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score [%]
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	3.328 \pm 0.19	0.876	71.6	-2.35
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	<5 (LOQ) \pm -	1.2	-	-
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	3.786 \pm 0.2	0.747	99.4	-0.04
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	3.861 \pm 0.22	1.24	69.8	-2.11
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	<5 (LOQ) \pm -	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	2.114 \pm 0.11	0.76	55.2	-3.78
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	4.135 \pm 0.23	0.994	99.8	-0.01

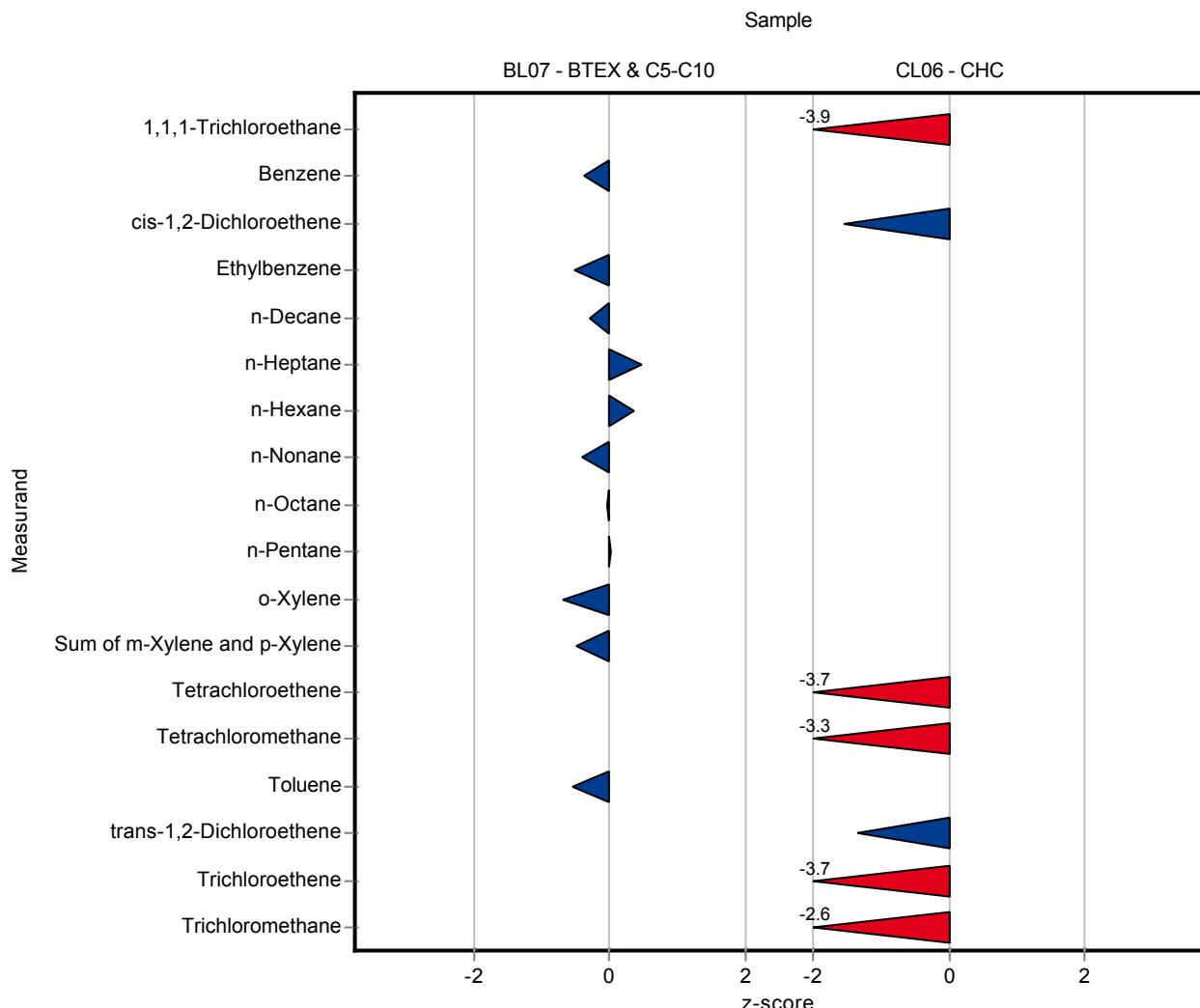


Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	5.78 \pm 1.16	0.495	96.9	-0.38
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	5.32 \pm 1.06	1.06	90.8	-0.51
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	2.91 \pm 0.58	1.39	88.1	-0.28
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	7.24 \pm 1.45	1.5	111	0.48
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	7.18 \pm 1.44	1.42	107	0.35
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	4.77 \pm 0.95	1.56	88.5	-0.40
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	6.33 \pm 1.23	1.5	99.2	-0.04
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	6.66 \pm 1.33	2.53	101	0.02
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	4.96 \pm 0.99	0.823	89.9	-0.68
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	10.14 \pm 2.03	2.2	90.4	-0.49
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	5.67 \pm 1.13	0.81	92.7	-0.56

Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	1.21 \pm 0.24	0.876	26	-3.93
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	0.913 \pm 0.18	1.2	32.8	-1.56
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	1.07 \pm 0.21	0.747	28.1	-3.67
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	1.39 \pm 0.28	1.24	25.1	-3.34
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	0.462 \pm 0.09	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	1.02 \pm 0.2	0.76	26.7	-3.69
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	1.6 \pm 0.32	0.994	38.6	-2.56

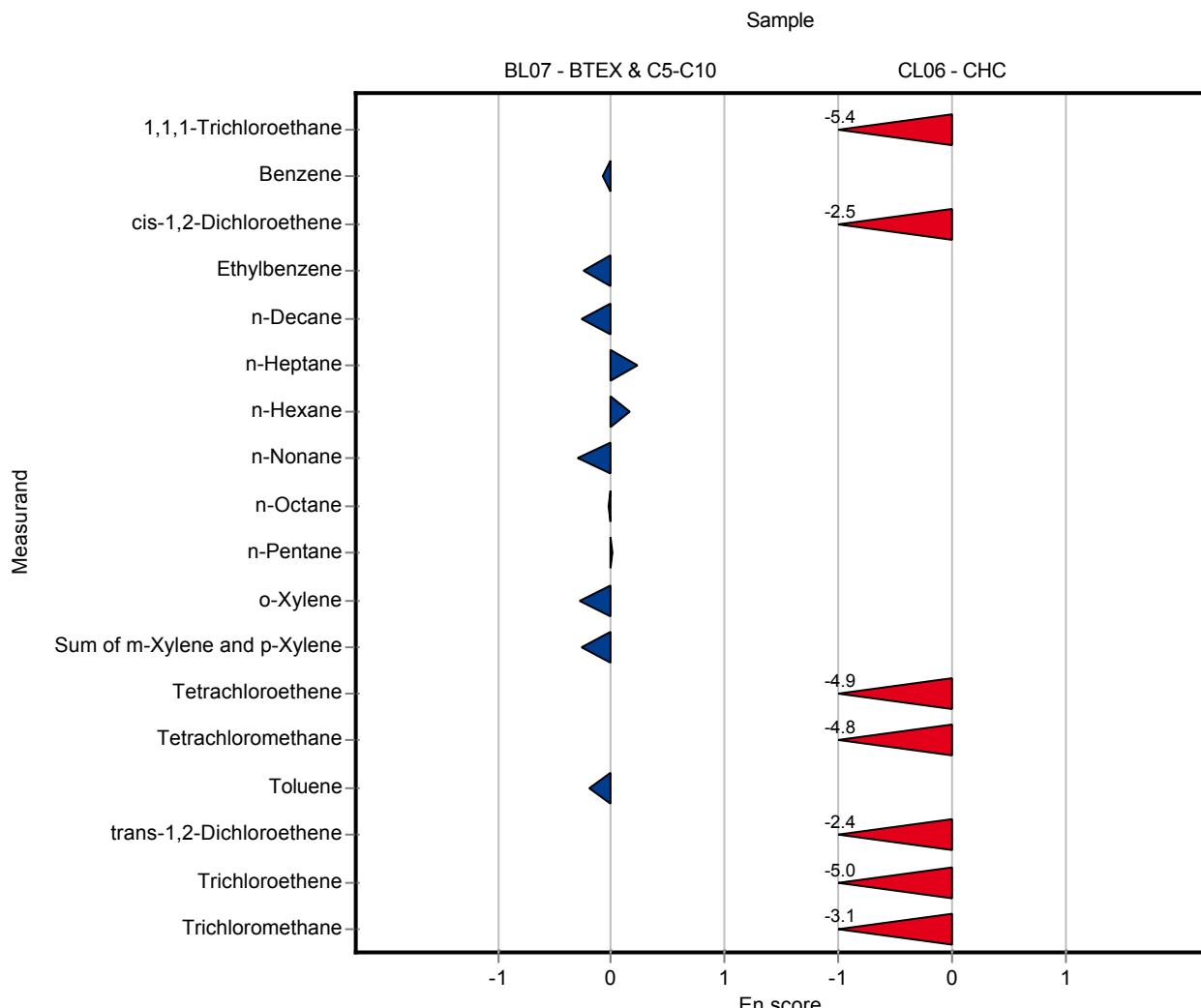


Sample: BL07

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	5.97 ± 0.227	5.78 ± 1.16	0.495	96.9	-0.08
Ethylbenzene	µg/tube	5.86 ± 0.453	5.32 ± 1.06	1.06	90.8	-0.25
n-Decane	µg/tube	3.3 ± 0.913	2.91 ± 0.58	1.39	88.1	-0.27
n-Heptane	µg/tube	6.52 ± 0.816	7.24 ± 1.45	1.5	111	0.24
n-Hexane	µg/tube	6.68 ± 0.786	7.18 ± 1.44	1.42	107	0.17
n-Nonane	µg/tube	5.39 ± 0.954	4.77 ± 0.95	1.56	88.5	-0.29
n-Octane	µg/tube	6.38 ± 0.846	6.33 ± 1.23	1.5	99.2	-0.02
n-Pentane	µg/tube	6.61 ± 1.69	6.66 ± 1.33	2.53	101	0.02
o-Xylene	µg/tube	5.52 ± 0.368	4.96 ± 0.99	0.823	89.9	-0.28
Sum of m-Xylene and p-Xylene	µg/tube	11.2 ± 0.913	10.14 ± 2.03	2.2	90.4	-0.26
Toluene	µg/tube	6.12 ± 0.353	5.67 ± 1.13	0.81	92.7	-0.20

Sample: CL06

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	µg/tube	4.65 ± 0.414	1.21 ± 0.24	0.876	26	-5.43
cis-1,2-Dichloroethene	µg/tube	2.78 ± 0.647	0.913 ± 0.18	1.2	32.8	-2.52
Tetrachloroethene	µg/tube	3.81 ± 0.363	1.07 ± 0.21	0.747	28.1	-4.94
Tetrachloromethane	µg/tube	5.53 ± 0.659	1.39 ± 0.28	1.24	25.1	-4.79
trans-1,2-Dichloroethene	µg/tube	2.45* ± 0.801	0.462 ± 0.09	-	-	-
Trichloroethene	µg/tube	3.83 ± 0.396	1.02 ± 0.2	0.76	26.7	-4.99
Trichloromethane	µg/tube	4.14 ± 0.522	1.6 ± 0.32	0.994	38.6	-3.08

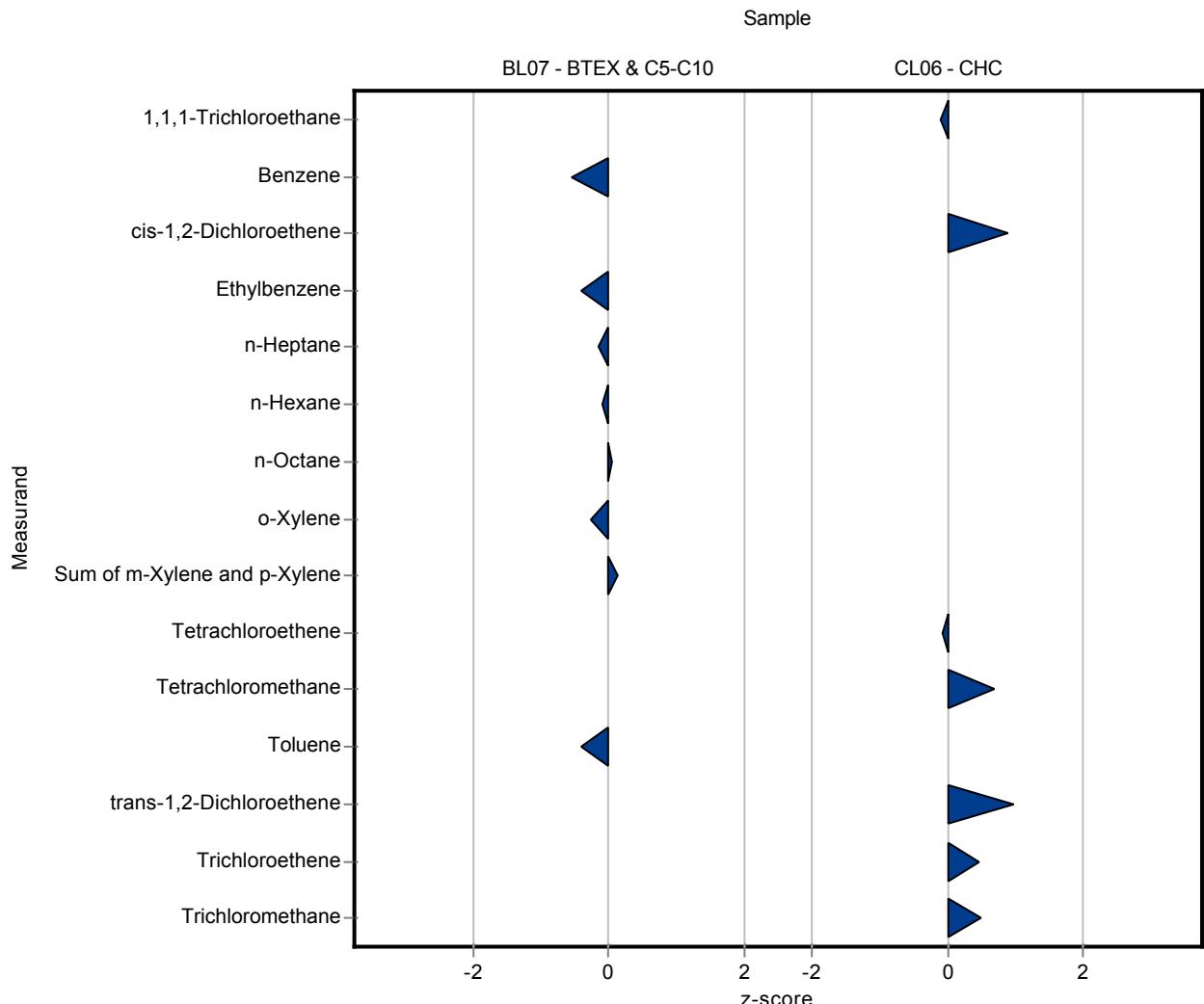


Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	5.69 \pm 0.23	0.495	95.4	-0.56
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	5.44 \pm 0.22	1.06	92.9	-0.39
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	- \pm -	1.39	-	-
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	6.29 \pm 0.26	1.5	96.4	-0.16
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	6.55 \pm 0.26	1.42	98.1	-0.09
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	- \pm -	1.56	-	-
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	6.45 \pm 0.26	1.5	101	0.05
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	- \pm -	2.53	-	-
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	5.3 \pm 0.22	0.823	96.1	-0.26
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	11.54 \pm 0.46	2.2	103	0.14
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	5.78 \pm 0.24	0.81	94.5	-0.42

Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	4.55 \pm 0.18	0.876	97.9	-0.11
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	3.85 \pm 0.15	1.2	138	0.89
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	3.76 \pm 0.15	0.747	98.7	-0.07
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	6.38 \pm 0.26	1.24	115	0.68
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	3.89 \pm 0.16	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	4.18 \pm 0.17	0.76	109	0.47
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	4.64 \pm 0.19	0.994	112	0.50



Sample: BL07

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g/tube}$	5.97 \pm 0.227	5.69 \pm 0.23	0.495	95.4	-0.54
Ethylbenzene	$\mu\text{g/tube}$	5.86 \pm 0.453	5.44 \pm 0.22	1.06	92.9	-0.66
n-Decane	$\mu\text{g/tube}$	3.3 \pm 0.913	- \pm -	1.39	-	-
n-Heptane	$\mu\text{g/tube}$	6.52 \pm 0.816	6.29 \pm 0.26	1.5	96.4	-0.24
n-Hexane	$\mu\text{g/tube}$	6.68 \pm 0.786	6.55 \pm 0.26	1.42	98.1	-0.14
n-Nonane	$\mu\text{g/tube}$	5.39 \pm 0.954	- \pm -	1.56	-	-
n-Octane	$\mu\text{g/tube}$	6.38 \pm 0.846	6.45 \pm 0.26	1.5	101	0.07
n-Pentane	$\mu\text{g/tube}$	6.61 \pm 1.69	- \pm -	2.53	-	-
o-Xylene	$\mu\text{g/tube}$	5.52 \pm 0.368	5.3 \pm 0.22	0.823	96.1	-0.38
Sum of m-Xylene and p-Xylene	$\mu\text{g/tube}$	11.2 \pm 0.913	11.54 \pm 0.46	2.2	103	0.25
Toluene	$\mu\text{g/tube}$	6.12 \pm 0.353	5.78 \pm 0.24	0.81	94.5	-0.57

Sample: CL06

Parameter	Unit	Assigned value \pm U (k=2)	Result \pm U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g/tube}$	4.65 \pm 0.414	4.55 \pm 0.18	0.876	97.9	-0.18
cis-1,2-Dichloroethene	$\mu\text{g/tube}$	2.78 \pm 0.647	3.85 \pm 0.15	1.2	138	1.50
Tetrachloroethene	$\mu\text{g/tube}$	3.81 \pm 0.363	3.76 \pm 0.15	0.747	98.7	-0.11
Tetrachloromethane	$\mu\text{g/tube}$	5.53 \pm 0.659	6.38 \pm 0.26	1.24	115	1.01
trans-1,2-Dichloroethene	$\mu\text{g/tube}$	2.45* \pm 0.801	3.89 \pm 0.16	-	-	-
Trichloroethene	$\mu\text{g/tube}$	3.83 \pm 0.396	4.18 \pm 0.17	0.76	109	0.68
Trichloromethane	$\mu\text{g/tube}$	4.14 \pm 0.522	4.64 \pm 0.19	0.994	112	0.77

