

LABORATORIO QUÍMICO MICROBIOLÓGICO, S.L.

Dirección/Address: C/ Principal, Parcela 21/1. Polígono Industrial Oeste; 30169 San Ginés (Murcia)

Norma de referencia/Reference Standard: UNE-EN ISO/IEC 17025:2017

Actividad/Activity: **Ensayos/Testing**

Acreditación/Accreditation nº: **498/LE1340**

Fecha de entrada en vigor/Coming into effect: 12/12/2008

ALCANCE DE LA ACREDITACIÓN

SCHEDULE OF ACCREDITATION

(Rev./Ed. 30 fecha/date 21/02/2025)

Instalaciones donde se llevan a cabo las actividades cubiertas por esta acreditación

Facilities where the activities covered by this accreditation are carried out:

| | Código / Code |
|---|------------------|
| C/ Principal, Parcela 21/1. Polígono Industrial Oeste; 30169 San Ginés (Murcia) | A |

Ensayos en el sector medioambiental / Environmental sector tests

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Código Validación Electrónica: gC917Bd9G2a09MO851

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MUESTRAS LÍQUIDAS / LIQUID SAMPLES

I. Análisis físico-químicos/Physico-chemical analysis

| ENSAYO / TYPE OF TEST | NORMA/PROCEDIMIENTO DE ENSAYO STANDARD SPECIFICATIONS/ TEST PROCEDURE | CÓDIGO CODE |
|--|---|-------------|
| Aguas de consumo y aguas envasadas/ Potable waters and bottled waters | | |
| pH/ <i>pH</i> (4 - 10 uds. de pH) | PNTe/LQM/MDA/013 Método interno basado en/ <i>In-house method based on:</i> SM 4500 H ⁺ B | A |
| Conductividad / <i>Conductivity</i> (20 - 15000 $\mu\text{S/cm}$) | PNTe/LQM/MDA/012 Método interno basado en/ <i>In-house method based on:</i> SM 2510 B | A |
| Color por comparación visual / <i>Colour by visual comparison</i> (≥ 5 mg Pt-Co/l) | PNTe/LQM/MDA/070 Método interno basado en/ <i>In-house method based on:</i> UNE-EN ISO 7887 | A |
| Alcalinidad, Carbonatos, Bicarbonatos por titulación potenciométrica/ <i>Alkalinity, carbonate and bicarbonate by potentiometric titration</i> (≥ 10 mg/l) | PNTe/LQM/MDA/072 Método interno basado en/ <i>In-house method based on:</i> UNE-EN ISO 9963-1 | A |
| Oxidabilidad por titulación volumétrica / <i>Oxidability by volumetric titration</i> (≥ 1 mg/l) | PNTe/LQM/MDA/069 Método interno basado en/ <i>In-house method based on:</i> UNE-EN ISO 8467 | A |
| Amonio por espectrofotometría UV-VIS / <i>Ammonium by UV-VIS spectrometry</i> ($\geq 0,05$ mg/l) | PNTe/LQM/MDA/053 Método interno basado en/ <i>In-house method based on:</i> ISO 7150-1 | A |
| Color por espectrofotometría UV-VIS / <i>Colour by UV-VIS spectrometry</i> (≥ 5 mg Pt-Co/l) | PNTe/LQM/MDA/070 Método interno basado en/ <i>In-house method based on:</i> UNE-EN ISO 7887 | A |
| Cromo VI por espectrofotometría UV-VIS / <i>Chrome VI by UV-VIS spectrometry</i> ($\geq 0,01$ mg/l) | PNTe/LQM/MDA/074 Método interno basado en/ <i>In-house method based on:</i> SM 3500-Cr B | A |
| Mercurio y mercurio disuelto por espectroscopía de fluorescencia atómica <i>Mercury and soluble mercury by Atomic Fluorescence Spectroscopy</i> ($\geq 0,1$ $\mu\text{g/l}$) | PNTe/LQM/MDA/043 Método interno basado en/ <i>In-house method based on:</i> UNE-EN ISO 17852 | A |

| ENSAYO / TYPE OF TEST | NORMA/PROCEDIMIENTO DE ENSAYO STANDARD SPECIFICATIONS/ TEST PROCEDURE | CÓDIGO CODE | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|--|---|---|--|--|---------------------------------------|--|---|--|---|---|--|---|---|---|---------------------------------------|---|----------|
| Aguas de consumo y aguas envasadas/ Potable waters and bottled waters | | | | | | | | | | | | | | | | | | | | | | |
| <p>Metales por espectroscopía de plasma de acoplamiento inductivo (ICP/MS) /Metals by inductively coupled plasma mass spectrometry.</p> <table border="0"> <tr> <td>Aluminio/Aluminum ($\geq 10 \mu\text{g/l}$)</td> <td>Magnesio/Magnesium ($\geq 5 \text{ mg/l}$)</td> </tr> <tr> <td>Antimonio/Antimony ($\geq 2 \mu\text{g/l}$)</td> <td>Manganeso/Manganese ($\geq 1 \mu\text{g/l}$)</td> </tr> <tr> <td>Arsénico/Arsenic ($\geq 0,2 \mu\text{g/l}$)</td> <td>Molibdeno/Molybdenum ($\geq 2 \mu\text{g/l}$)</td> </tr> <tr> <td>Bario/Barium ($\geq 2 \mu\text{g/l}$)</td> <td>Níquel/Nickel ($\geq 1 \mu\text{g/l}$)</td> </tr> <tr> <td>Cadmio/Cadmium ($\geq 0,04 \mu\text{g/l}$)</td> <td>Plomo/Lead ($\geq 2 \mu\text{g/l}$)</td> </tr> <tr> <td>Calcio/Calcium ($\geq 5 \text{ mg/l}$)</td> <td>Potasio/Potassium ($\geq 5 \text{ mg/l}$)</td> </tr> <tr> <td>Cobalto/Cobalt ($\geq 2 \mu\text{g/l}$)</td> <td>Selenio/Selenium ($\geq 0,4 \mu\text{g/l}$)</td> </tr> <tr> <td>Cobre/Copper ($\geq 2 \mu\text{g/l}$)</td> <td>Sodio/Sodium ($\geq 5 \text{ mg/l}$)</td> </tr> <tr> <td>Cromo/Chrome ($\geq 1 \mu\text{g/l}$)</td> <td>Vanadio/Vanadium ($\geq 1 \mu\text{g/l}$)</td> </tr> <tr> <td>Hierro/iron ($\geq 15 \mu\text{g/l}$)</td> <td>Zinc/Zinc ($\geq 15 \mu\text{g/l}$)</td> </tr> </table> | Aluminio/Aluminum ($\geq 10 \mu\text{g/l}$) | Magnesio/Magnesium ($\geq 5 \text{ mg/l}$) | Antimonio/Antimony ($\geq 2 \mu\text{g/l}$) | Manganeso/Manganese ($\geq 1 \mu\text{g/l}$) | Arsénico/Arsenic ($\geq 0,2 \mu\text{g/l}$) | Molibdeno/Molybdenum ($\geq 2 \mu\text{g/l}$) | Bario/Barium ($\geq 2 \mu\text{g/l}$) | Níquel/Nickel ($\geq 1 \mu\text{g/l}$) | Cadmio/Cadmium ($\geq 0,04 \mu\text{g/l}$) | Plomo/Lead ($\geq 2 \mu\text{g/l}$) | Calcio/Calcium ($\geq 5 \text{ mg/l}$) | Potasio/Potassium ($\geq 5 \text{ mg/l}$) | Cobalto/Cobalt ($\geq 2 \mu\text{g/l}$) | Selenio/Selenium ($\geq 0,4 \mu\text{g/l}$) | Cobre/Copper ($\geq 2 \mu\text{g/l}$) | Sodio/Sodium ($\geq 5 \text{ mg/l}$) | Cromo/Chrome ($\geq 1 \mu\text{g/l}$) | Vanadio/Vanadium ($\geq 1 \mu\text{g/l}$) | Hierro/iron ($\geq 15 \mu\text{g/l}$) | Zinc/Zinc ($\geq 15 \mu\text{g/l}$) | <p>PNTe/LQM/MDA/041 Método interno basado en/ In-house method based on: UNE-EN ISO 17294-2</p> | <p>A</p> |
| Aluminio/Aluminum ($\geq 10 \mu\text{g/l}$) | Magnesio/Magnesium ($\geq 5 \text{ mg/l}$) | | | | | | | | | | | | | | | | | | | | | |
| Antimonio/Antimony ($\geq 2 \mu\text{g/l}$) | Manganeso/Manganese ($\geq 1 \mu\text{g/l}$) | | | | | | | | | | | | | | | | | | | | | |
| Arsénico/Arsenic ($\geq 0,2 \mu\text{g/l}$) | Molibdeno/Molybdenum ($\geq 2 \mu\text{g/l}$) | | | | | | | | | | | | | | | | | | | | | |
| Bario/Barium ($\geq 2 \mu\text{g/l}$) | Níquel/Nickel ($\geq 1 \mu\text{g/l}$) | | | | | | | | | | | | | | | | | | | | | |
| Cadmio/Cadmium ($\geq 0,04 \mu\text{g/l}$) | Plomo/Lead ($\geq 2 \mu\text{g/l}$) | | | | | | | | | | | | | | | | | | | | | |
| Calcio/Calcium ($\geq 5 \text{ mg/l}$) | Potasio/Potassium ($\geq 5 \text{ mg/l}$) | | | | | | | | | | | | | | | | | | | | | |
| Cobalto/Cobalt ($\geq 2 \mu\text{g/l}$) | Selenio/Selenium ($\geq 0,4 \mu\text{g/l}$) | | | | | | | | | | | | | | | | | | | | | |
| Cobre/Copper ($\geq 2 \mu\text{g/l}$) | Sodio/Sodium ($\geq 5 \text{ mg/l}$) | | | | | | | | | | | | | | | | | | | | | |
| Cromo/Chrome ($\geq 1 \mu\text{g/l}$) | Vanadio/Vanadium ($\geq 1 \mu\text{g/l}$) | | | | | | | | | | | | | | | | | | | | | |
| Hierro/iron ($\geq 15 \mu\text{g/l}$) | Zinc/Zinc ($\geq 15 \mu\text{g/l}$) | | | | | | | | | | | | | | | | | | | | | |
| <p>Aniones por cromatografía iónica /Anions by ionic chromatography.</p> <table border="0"> <tr> <td>Bromuros/Bromide ($\geq 0,35 \text{ mg/l}$)</td> <td>Nitratos/Nitrates ($\geq 1 \text{ mg/l}$)</td> </tr> <tr> <td>Cloruros/Chloride ($\geq 5 \text{ mg/l}$)</td> <td>Nitritos/Nitrites ($\geq 0,05 \text{ mg/l}$)</td> </tr> <tr> <td>Fluoruros/Fluoride ($\geq 0,5 \text{ mg/l}$)</td> <td>Sulfatos/Sulphates ($\geq 5 \text{ mg/l}$)</td> </tr> </table> | Bromuros/Bromide ($\geq 0,35 \text{ mg/l}$) | Nitratos/Nitrates ($\geq 1 \text{ mg/l}$) | Cloruros/Chloride ($\geq 5 \text{ mg/l}$) | Nitritos/Nitrites ($\geq 0,05 \text{ mg/l}$) | Fluoruros/Fluoride ($\geq 0,5 \text{ mg/l}$) | Sulfatos/Sulphates ($\geq 5 \text{ mg/l}$) | <p>PNTe/LQM/MDA/039 Método interno basado en/ In-house method based on: UNE-EN ISO 10304-1</p> | <p>A</p> | | | | | | | | | | | | | | |
| Bromuros/Bromide ($\geq 0,35 \text{ mg/l}$) | Nitratos/Nitrates ($\geq 1 \text{ mg/l}$) | | | | | | | | | | | | | | | | | | | | | |
| Cloruros/Chloride ($\geq 5 \text{ mg/l}$) | Nitritos/Nitrites ($\geq 0,05 \text{ mg/l}$) | | | | | | | | | | | | | | | | | | | | | |
| Fluoruros/Fluoride ($\geq 0,5 \text{ mg/l}$) | Sulfatos/Sulphates ($\geq 5 \text{ mg/l}$) | | | | | | | | | | | | | | | | | | | | | |
| <p>Hidrocarburos Policíclicos Aromáticos (HAPs) por cromatografía de gases/ espectrometría de masas (CG/MS) / Polycyclic Aromatic Hydrocarbon (PAHs) by gas chromatography mass spectrometry (GC/MS)</p> <p>Benzo(a)pireno / Benzo(a)pyrene ($\geq 0,001 \mu\text{g/l}$)</p> <table border="0"> <tr> <td>Antraceno / Anthracene</td> <td>Benzo(ghi)perileno / Benzo(g,h,i) perilene</td> </tr> <tr> <td>Benzo(b)fluoranteno / Benzo(b) fluorantene</td> <td>Indeno(1,2,3-cd)pireno / Indene(1,2,3)pyrene</td> </tr> <tr> <td>Benzo(k)fluoranteno / Benzo(k) fluorantene</td> <td></td> </tr> </table> <p>($\geq 0,005 \mu\text{g/l}$)</p> <table border="0"> <tr> <td>Benzo(a)antraceno / Benzo(a)anthracene</td> <td>Fluoranteno / Fluorantene</td> </tr> <tr> <td>Criseno / Chrysene</td> <td>Pireno / Pyrene</td> </tr> <tr> <td>Dibenzo(a,h)antraceno / Dibenzo(a,h)anthracene</td> <td></td> </tr> </table> <p>($\geq 0,01 \mu\text{g/l}$)</p> <p>Suma de benzo(b)fluoranteno, benzo(k)fluoranteno, benzo(ghi) perileno e indeno(1,2,3-cd) pireno / Sum Benzo(b) fluorantene, Benzo(k) fluorantene, Benzo(g,h,i) perilene and Indene(1,2,3)pyrene</p> | Antraceno / Anthracene | Benzo(ghi)perileno / Benzo(g,h,i) perilene | Benzo(b)fluoranteno / Benzo(b) fluorantene | Indeno(1,2,3-cd)pireno / Indene(1,2,3)pyrene | Benzo(k)fluoranteno / Benzo(k) fluorantene | | Benzo(a)antraceno / Benzo(a)anthracene | Fluoranteno / Fluorantene | Criseno / Chrysene | Pireno / Pyrene | Dibenzo(a,h)antraceno / Dibenzo(a,h)anthracene | | <p>PNTe/LQM/MDA/059 Método interno basado en/ In-house method based on: SM 6040 D y E</p> | <p>A</p> | | | | | | | | |
| Antraceno / Anthracene | Benzo(ghi)perileno / Benzo(g,h,i) perilene | | | | | | | | | | | | | | | | | | | | | |
| Benzo(b)fluoranteno / Benzo(b) fluorantene | Indeno(1,2,3-cd)pireno / Indene(1,2,3)pyrene | | | | | | | | | | | | | | | | | | | | | |
| Benzo(k)fluoranteno / Benzo(k) fluorantene | | | | | | | | | | | | | | | | | | | | | | |
| Benzo(a)antraceno / Benzo(a)anthracene | Fluoranteno / Fluorantene | | | | | | | | | | | | | | | | | | | | | |
| Criseno / Chrysene | Pireno / Pyrene | | | | | | | | | | | | | | | | | | | | | |
| Dibenzo(a,h)antraceno / Dibenzo(a,h)anthracene | | | | | | | | | | | | | | | | | | | | | | |

| ENSAYO / TYPE OF TEST | NORMA/PROCEDIMIENTO DE ENSAYO STANDARD SPECIFICATIONS/ TEST PROCEDURE | CÓDIGO CODE |
|--|--|----------------|
| Aguas de consumo y aguas envasadas/ Potable waters and bottled waters | | |
| Índice de Langelier por cálculo / <i>Langelier Index by calculation</i> | PNTe/LQM/MDA/073 Método interno basado en/ <i>In-house method based on:</i> SM 2330 B | A |

| ENSAYO / TYPE OF TEST | NORMA/PROCEDIMIENTO DE ENSAYO STANDARD SPECIFICATIONS/ TEST PROCEDURE | CÓDIGO CODE |
|--|---|----------------|
| Aguas continentales/ Clean and surface waters | | |
| pH / <i>pH</i> (1 - 10 uds. de pH) | PNTe/LQM/MDA/013 Método interno basado en/ <i>In-house method based on:</i> SM 4500 H ⁺ B | A |
| Conductividad / <i>Conductivity</i> (20 - 30000 $\mu\text{S/cm}$) | PNTe/LQM/MDA/012 Método interno basado en/ <i>In-house method based on:</i> SM 2510 B | A |
| Color por comparación visual / <i>Colour by visual comparison</i> (≥ 5 mg Pt-Co/l) | PNTe/LQM/MDA/070 Método interno basado en/ <i>In-house method based on:</i> UNE-EN ISO 7887 | A |
| Sólidos en suspensión / <i>Total suspended solids</i> (≥ 5 mg/l) | PNTe/LQM/MDA/011 Método interno basado en/ <i>In-house method based on:</i> SM 2540 D UNE-EN 872 | A |
| Alcalinidad, Carbonatos, Bicarbonatos por titulación potenciométrica/ <i>Alkalinity, carbonate and bicarbonate by potentiometric titration</i> (≥ 10 mg/l) | PNTe/LQM/MDA/072 Método interno basado en/ <i>In-house method based on:</i> UNE-EN ISO 9963-1 | A |
| Nitrógeno Kjeldahl por titulación volumétrica / <i>Kjeldahl Nitrogen by volumetric titration</i> (≥ 1 mg/l) | PNTe/LQM/MDA/028 Método interno basado en/ <i>In-house method based on:</i> SM 4500 Norg B | A |
| Oxidabilidad por titulación volumétrica / <i>Oxidability by volumetric titration</i> (≥ 1 mg/l) | PNTe/LQM/MDA/069 Método interno basado en/ <i>In-house method based on:</i> UNE-EN ISO 8467 | A |
| Amonio por espectrofotometría UV-VIS / <i>Ammonium by UV-VIS spectrometry</i> ($\geq 0,05$ mg/l) | PNTe/LQM/MDA/053 Método interno basado en/ <i>In-house method based on:</i> ISO 7150-1 | A |
| Carbono Orgánico Total (COT) por espectrofotometría UV-VIS / <i>Total Organic Carbon (TOC) by UV-VIS spectrometry</i> (≥ 5 mg/l) | PNTe/LQM/MDA/046 Método interno basado en/ <i>In-house method based on:</i> UNE-EN 1484 | A |

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| ENSAYO / TYPE OF TEST | NORMA/PROCEDIMIENTO DE ENSAYO STANDARD SPECIFICATIONS/ TEST PROCEDURE | CÓDIGO CODE |
|--|--|----------------|
| Aguas continentales/ Clean and surface waters | | |
| Color por espectrofotometría UV-VIS / Colour by UV-VIS spectrometry (≥ 5 mg Pt-Co/l) | PNTe/LQM/MDA/070 Método interno basado en/ In-house method based on: UNE-EN ISO 7887 | A |
| Cromo VI por espectrofotometría UV-VIS / Chrome VI by UV-VIS spectrometry (≥ 0,01 mg/l) | PNTe/LQM/MDA/074 Método interno basado en/ In-house method based on: SM 3500-Cr B | A |
| Fenoles (índice de fenol) por espectrofotometría UV-VIS / Phenols (phenol index) by UV-VIS spectrometry (≥ 0,1 mg/l) | PNTe/LQM/MDA/049 Método interno basado en/ In-house method based on: SM 5530 D UNE-EN ISO 6439 | A |
| Fosfatos por espectrofotometría UV-VIS / Orthophosphate by UV-VIS spectrometry (≥ 0,3 mg/l) | PNTe/LQM/MDA/029 Método interno basado en/ In-house method based on: SM 4500-P E | A |
| Fósforo total por espectrofotometría UV-VIS / Phosphorus by UV-VIS spectrometry (≥ 0,1 mg/l) | PNTe/LQM/MDA/029 Método interno basado en/ In-house method based on: SM 4500-P E | A |
| Nitrógeno total por espectrofotometría UV-VIS / Total nitrogen by UV-VIS spectrometry (≥ 1 mg/l) | PNTe/LQM/MDA/048 Método interno basado en/ In-house method based on: SM 4500-N C | A |
| Tensioactivos aniónicos por espectrofotometría UV-VIS / Anionics surfactants by UV-VIS spectrometry (≥ 0,1 mg/l) | PNTe/LQM/MDA/047 Método interno basado en/ In-house method based on: SM 5540 C | A |
| Mercurio y mercurio disuelto por espectroscopía de fluorescencia atómica / Mercury and soluble mercury by Atomic Fluorescence Spectroscopy (≥ 0,025 µg/l) | PNTe/LQM/MDA/043 Método interno basado en/ In-house method based on: UNE-EN ISO 17852 | A |

| ENSAYO / TYPE OF TEST | NORMA/PROCEDIMIENTO DE ENSAYO STANDARD SPECIFICATIONS/ TEST PROCEDURE | CÓDIGO CODE |
|---|--|----------------|
| Aguas continentales/ Clean and surface waters | | |
| Metales disueltos por espectroscopía de plasma de acoplamiento inductivo (ICP/MS) / Dissolved Metals by inductively coupled plasma mass spectrometry (ICP/MS) Aluminio/Aluminum ($\geq 10 \mu\text{g/l}$) Hierro/Iron ($\geq 15 \mu\text{g/l}$) Antimonio/Antimony ($\geq 2 \mu\text{g/l}$) Magnesio/Magnesium ($\geq 5 \text{mg/l}$) Arsénico/Arsenic ($\geq 0,2 \mu\text{g/l}$) Manganeso/Manganese ($\geq 1 \mu\text{g/l}$) Bario/Barium ($\geq 2 \mu\text{g/l}$) Molibdeno/Molybdenum ($\geq 2 \mu\text{g/l}$) Cadmio/Cadmium ($\geq 0,04 \mu\text{g/l}$) Níquel/Nickel ($\geq 2,5 \mu\text{g/l}$) Calcio/Calcium ($\geq 5 \text{mg/l}$) Plomo/Lead ($\geq 0,5 \mu\text{g/l}$) Cobalto/Cobalt ($\geq 2 \mu\text{g/l}$) Potasio/Potassium ($\geq 5 \text{mg/l}$) Cobre/Copper ($\geq 2,5 \mu\text{g/l}$) Selenio/Selenium ($\geq 0,4 \mu\text{g/l}$) Cromo/Chrome ($\geq 2,5 \mu\text{g/l}$) Sodio/Sodium ($\geq 5 \text{mg/l}$) Estaño/Tin ($\geq 10 \mu\text{g/l}$) Vanadio/Vanadium ($\geq 1 \mu\text{g/l}$) Estroncio/Strontium ($\geq 5 \mu\text{g/l}$) Zinc/Zinc ($\geq 15 \mu\text{g/l}$) | PNTE/LQM/MDA/041 Método interno basado en/ In-house method based on: UNE-EN ISO 17294-2 | A |
| Aniones por cromatografía iónica / Anions by ionic chromatography Bromuros/Bromide ($\geq 0,35 \text{mg/l}$) Nitratos/Nitrates ($\geq 1 \text{mg/l}$) Cloruros/Chloride ($\geq 5 \text{mg/l}$) Nitritos/Nitrites ($\geq 0,05 \text{mg/l}$) Fluoruros/Fluoride ($\geq 0,5 \text{mg/l}$) Sulfatos/Sulphates ($\geq 5 \text{mg/l}$) | PNTE/LQM/MDA/039 Método interno basado en/ In-house method based on: UNE-EN ISO 10304-1 | A |
| Índice de Hidrocarburos / Hidrocarburos C ₁₀ – C ₄₀ (TPH - aceite mineral) por cromatografía de gases con detector de ionización de llama (CG/FID) / Hydrocarbon oil index / Hydrocarbon C ₁₀ – C ₄₀ (TPH – mineral oil) by gas chromatography flame ionization detector (CG/FID) ($\geq 0,2 \text{mg/l}$) | UNE-EN ISO 9377-2 | A |

| ENSAYO / TYPE OF TEST | NORMA/PROCEDIMIENTO DE ENSAYO STANDARD SPECIFICATIONS/ TEST PROCEDURE | CÓDIGO CODE |
|---|--|----------------|
| Aguas continentales/ Clean and surface waters | | |
| <p> Hidrocarburos Policíclicos Aromáticos (HAPs) por cromatografía de gases/espectrometría de masas (CG/MS) / Polycyclic Aromatic Hydrocarbon (PAHs) by gas chromatography mass spectrometry (GC/MS) Benzo(a)pireno / Benzo(a)pyrene Benzo(ghi)perileno / Benzo(g,h,i)perilene Benzo(b)fluoranteno / Benzo(b)fluorantene Benzo(k)fluoranteno / Benzo(k)fluorantene Antraceno / Anthracene Fluoranteno / Fluorantene Benzo(a)antraceno / Benzo(a)anthracene Dibenzo(a,h)antraceno / Dibenzo(a,h)anthracene Criseno / Chrysene Pireno / Pyrene ($\geq 0,001 \mu\text{g/l}$) ($\geq 0,005 \mu\text{g/l}$) ($\geq 0,01 \mu\text{g/l}$) </p> | <p> PNTE/LQM/MDA/059 Método interno basado en/ In-house method based on: SM 6040 D y E </p> | <p>A</p> |
| <p> Plaguicidas por cromatografía de gases/espectrometría de masas-masas (CG/MS-MS) / Pesticides by gas chromatography/mass spectrometry (GC/MS-MS) Aldrin / Aldrin β-Endosulfan / β-Endosulfan Cis clordano / Cis-chlordane Heptacloro / Heptachlor Dieldrin / Dieldrin Heptacloro epóxido / Heptachlor-epoxide α-Endosulfan / α-Endosulfan Isodrin / Isodrin Endrin / Endrin Pentaclorobenceno / Pentachlorobenzene α-HCH / α-HCH Trans clordano / Trans chlordane β-HCH / β-HCH Clorpirifos / Chlorpyrifos δ-HCH / δ-HCH 4,4'DDD / 4,4'DDD Hexaclorobenceno / Hexachlorobenzene 4,4'DDE / 4,4'DDE Lindano / Lindane 4,4-Diclorobenzofenona / 4,4-Dichlorobenzophenone Trifluralina / Trifluralin ($\geq 0,001 \mu\text{g/l}$) ($\geq 0,005 \mu\text{g/l}$) </p> | <p> PNTE/LQM/MDA/059 Método interno basado en/ In-house method based on: SM 6040 D y E </p> | <p>A</p> |
| <p> Cromo III por cálculo / Chrome III by calculation ($\geq 0,01 \text{ mg/l}$) </p> | <p> PNTE/LQM/MDA/074 Método interno basado en/ In-house method based on: SM 3500-Cr B </p> | <p>A</p> |
| <p> Dureza por cálculo / Hardness by calculation ($\geq 3,3 \text{ }^\circ\text{F}$) </p> | <p> PNTE/LQM/MDA/041 Método interno basado en/ In-house method based on: SM 2340 B </p> | <p>A</p> |
| <p> Índice de Langelier por cálculo / Langelier Index by calculation </p> | <p> PNTE/LQM/MDA/073 Método interno basado en/ In-house method based on: SM 2330 B </p> | <p>A</p> |
| <p> Nitrógeno Kjeldahl por cálculo / Kjeldahl Nitrogen by volumetric titration ($\geq 1 \text{ mg/l}$) </p> | <p> PNTE/LQM/MDA/028 Método interno basado en/ In-house method based on: SM 4500-N A </p> | <p>A</p> |

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| ENSAYO / TYPE OF TEST | NORMA/PROCEDIMIENTO DE ENSAYO STANDARD SPECIFICATIONS/ TEST PROCEDURE | CÓDIGO CODE |
|--|--|----------------|
| Aguas continentales/ Clean and surface waters | | |
| Nitrógeno total por cálculo / Total nitrogen by calculation (≥ 2 mg/l) | PNTe/LQM/MDA/053 Método interno basado en/ In-house method based on: SM 4500-N A | A |
| Relación de absorción de sodio (RAS) por cálculo / Sodium adsorption ratio by calculation (≥ 1 meq/l) | PNTe/LQM/MDA/041 Método interno basado en/ In-house method based on: "A short Note on Calculating the Adjusted SAR Index" Suarez D.L. et al. ASABE 52:493-496 2009 | A |

| ENSAYO / TYPE OF TEST | NORMA/PROCEDIMIENTO DE ENSAYO STANDARD SPECIFICATIONS/ TEST PROCEDURE | CÓDIGO CODE |
|---|--|----------------|
| Aguas continentales no tratadas/ Clean and surface waters | | |
| Demanda Biológica de Oxígeno (DBO ₅) por método manométrico / Biochemical oxygen demand (BOD ₅) by manometric method (≥ 10 mg/l) | PNTe/LQM/MDA/010 Método interno basado en/ In-house method based on: SM 5210 D | A |
| Demanda Biológica de Oxígeno (DBO ₅) por método electrométrico / Biochemical oxygen demand (BOD ₅) by electrometric method (≥ 5 mg/l) | PNTe/LQM/MDA/010 Método interno basado en/ In-house method based on: ISO 5815-1 | A |
| Demanda Química de Oxígeno (DQO) por espectrofotometría UV-VIS / Chemical Oxygen Demand (DQO) by UV-VIS spectrometry (≥ 10 mg/l) | PNTe/LQM/MDA/009 Método interno basado en/ In-house method based on: SM 5220 D ISO 15705 | A |

| ENSAYO / TYPE OF TEST | NORMA/PROCEDIMIENTO DE ENSAYO STANDARD SPECIFICATIONS/ TEST PROCEDURE | CÓDIGO CODE |
|--|--|----------------|
| Aguas residuales/ Waste waters | | |
| pH / pH (1 - 10 uds. de pH) | PNTE/LQM/MDA/013 Método interno basado en/ In-house method based on: SM 4500 H ⁺ B UNE-EN ISO 10523 | A |
| Conductividad / Conductivity (150 - 50000 µS/cm) | PNTE/LQM/MDA/012 Método interno basado en/ In-house method based on: SM 2510 B | A |
| Sólidos en suspensión / Total suspended solids (≥ 5 mg/l) | PNTE/LQM/MDA/011 Método interno basado en/ In-house method based on: SM 2540 D UNE-EN 872 | A |
| Nitrógeno Kjeldahl por titulación volumétrica / Kjeldahl Nitrogen by volumetric titration (≥ 1 mg/l) | PNTE/LQM/MDA/028 Método interno basado en/ In-house method based on: SM 4500-Norg B | A |
| Demanda Biológica de Oxígeno (DBO ₅) por método manométrico / Biochemical oxygen demand (BOD ₅) by manometric method (≥ 10 mg/l) | PNTE/LQM/MDA/010 Método interno basado en/ In-house method based on: SM 5210 D | A |
| Demanda Biológica de Oxígeno (DBO ₅) por método electrométrico / Biochemical oxygen demand (BOD ₅) by electrometric method (≥ 5 mg/l) | PNTE/LQM/MDA/010 Método interno basado en/ In-house method based on: ISO 5815-1 | A |
| Amonio por espectrofotometría UV-VIS / Ammonium by UV-VIS spectrometry (≥ 0,05 mg/l) | PNTE/LQM/MDA/053 Método interno basado en/ In-house method based on: ISO 7150-1 | A |
| Color por espectrofotometría UV-VIS / Colour by UV-VIS spectrometry (≥ 5 mg Pt-Co/l) | PNTE/LQM/MDA/070 Método interno basado en/ In-house method based on: UNE-EN ISO 7887 | A |
| Cromo VI por espectrofotometría UV-VIS / Chrome VI by UV-VIS spectrometry (≥ 0,1 mg/l) | PNTE/LQM/MDA/074 Método interno basado en/ In-house method based on: SM 3500-Cr B | A |
| Demanda Química de Oxígeno (DQO) por espectrofotometría UV-VIS / Chemical Oxygen Demand (DQO) by UV-VIS spectrometry (≥ 10 mg/l) | PNTE/LQM/MDA/009 Método interno basado en/ In-house method based on: SM 5220 D ISO 15705 | A |
| Fenoles (índice de fenol) por espectrofotometría UV-VIS / Phenols (phenol index) by UV-VIS spectrometry (≥ 0,1 mg/l) | PNTE/LQM/MDA/049 Método interno basado en/ In-house method based on: SM 5530 D UNE-EN ISO 6439 | A |

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| ENSAYO / TYPE OF TEST | NORMA/PROCEDIMIENTO DE ENSAYO STANDARD SPECIFICATIONS/ TEST PROCEDURE | CÓDIGO CODE | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|--|---------------------------------|---|--------------------------------------|------------------------------------|-----------------------------------|---------------------------------|-----------------------------------|--------------------------------------|-----------------------------------|---------------------------------------|-----------------------------------|---------------------------------|--------------------------------|-------------------------------------|--|-------------------------------|--|--|
| Aguas residuales/ Waste waters | | | | | | | | | | | | | | | | | | | | | | | | |
| Fosfatos por espectrofotometría UV-VIS / <i>Orthophosphate by UV-VIS spectrometry</i> (≥ 0,3 mg/l) | PNTe/LQM/MDA/029 Método interno basado en/ <i>In-house method based on:</i> SM 4500-P E | A | | | | | | | | | | | | | | | | | | | | | | |
| Fósforo total por espectrofotometría UV-VIS / <i>Phosphorus by UV-VIS spectrometry</i> (≥ 0,1 mg/l) | PNTe/LQM/MDA/029 Método interno basado en/ <i>In-house method based on:</i> SM 4500-P E | A | | | | | | | | | | | | | | | | | | | | | | |
| Nitrógeno total por espectrofotometría UV-VIS / <i>Total nitrogen by UV-VIS spectrometry</i> (≥ 1 mg/l) | PNTe/LQM/MDA/048 Método interno basado en/ <i>In-house method based on:</i> SM 4500-N C UNE-EN ISO 11905-1 | A | | | | | | | | | | | | | | | | | | | | | | |
| Tensioactivos aniónicos por espectrofotometría UV-VIS / <i>Anionics surfactants by UV-VIS spectrometry</i> (≥ 0,1 mg/l) | PNTe/LQM/MDA/047 Método interno basado en/ <i>In-house method based on:</i> SM 5540 C | A | | | | | | | | | | | | | | | | | | | | | | |
| Mercurio y mercurio disuelto por espectroscopía de fluorescencia atómica / <i>Mercury and soluble mercury by Atomic Fluorescence Spectroscopy</i> (≥ 0,025 µg/l) | PNTe/LQM/MDA/043 Método interno basado en/ <i>In-house method based on:</i> UNE-EN ISO 17852 | A | | | | | | | | | | | | | | | | | | | | | | |
| Metales disueltos por espectroscopía de plasma de acoplamiento inductivo (ICP/MS) / <i>Dissolved Metals by inductively coupled plasma mass spectrometry (ICP/MS)</i> | PNTe/LQM/MDA/041 Método interno basado en/ <i>In-house method based on:</i> UNE-EN ISO 17294-2 | A | | | | | | | | | | | | | | | | | | | | | | |
| <table border="0" style="width: 100%;"> <tr> <td>Aluminio/<i>Aluminum</i> (≥ 10 µg/l)</td> <td>Hierro/<i>iron</i> (≥ 15 µg/l)</td> </tr> <tr> <td>Antimonio/<i>Antimony</i> (≥ 2 µg/l)</td> <td>Magnesio/<i>Magnesium</i> (≥ 5 mg/l)</td> </tr> <tr> <td>Arsénico/<i>Arsenic</i> (≥ 0,2 µg/l)</td> <td>Manganeso/<i>Manganese</i> (≥ 1 µg/l)</td> </tr> <tr> <td>Bario/<i>Barium</i> (≥ 2 µg/l)</td> <td>Molibdeno/<i>Molybdenum</i> (≥ 2 µg/l)</td> </tr> <tr> <td>Cadmio/<i>Cadmium</i> (≥ 0,04 µg/l)</td> <td>Níquel/<i>Nickel</i> (≥ 2,5 µg/l)</td> </tr> <tr> <td>Calcio/<i>Calcium</i> (≥ 5 mg/l)</td> <td>Plomo/<i>Lead</i> (≥ 0,5 µg/l)</td> </tr> <tr> <td>Cobalto/<i>Cobalt</i> (≥ 2 µg/l)</td> <td>Potasio/<i>Potassium</i> (≥ 5 mg/l)</td> </tr> <tr> <td>Cobre/<i>Copper</i> (≥ 2,5 µg/l)</td> <td>Selenio/<i>Selenium</i> (≥ 0,4 µg/l)</td> </tr> <tr> <td>Cromo/<i>Chrome</i> (≥ 2,5 µg/l)</td> <td>Sodio/<i>Sodium</i> (≥ 5 mg/l)</td> </tr> <tr> <td>Estaño/<i>Tin</i> (≥ 10 µg/l)</td> <td>Vanadio/<i>Vanadium</i> (≥ 1 µg/l)</td> </tr> <tr> <td>Estroncio/<i>Stroncium</i> (≥ 5 µg/l)</td> <td>Zinc/<i>Zinc</i> (≥ 15 µg/l)</td> </tr> </table> | Aluminio/ <i>Aluminum</i> (≥ 10 µg/l) | Hierro/ <i>iron</i> (≥ 15 µg/l) | Antimonio/ <i>Antimony</i> (≥ 2 µg/l) | Magnesio/ <i>Magnesium</i> (≥ 5 mg/l) | Arsénico/ <i>Arsenic</i> (≥ 0,2 µg/l) | Manganeso/ <i>Manganese</i> (≥ 1 µg/l) | Bario/ <i>Barium</i> (≥ 2 µg/l) | Molibdeno/ <i>Molybdenum</i> (≥ 2 µg/l) | Cadmio/ <i>Cadmium</i> (≥ 0,04 µg/l) | Níquel/ <i>Nickel</i> (≥ 2,5 µg/l) | Calcio/ <i>Calcium</i> (≥ 5 mg/l) | Plomo/ <i>Lead</i> (≥ 0,5 µg/l) | Cobalto/ <i>Cobalt</i> (≥ 2 µg/l) | Potasio/ <i>Potassium</i> (≥ 5 mg/l) | Cobre/ <i>Copper</i> (≥ 2,5 µg/l) | Selenio/ <i>Selenium</i> (≥ 0,4 µg/l) | Cromo/ <i>Chrome</i> (≥ 2,5 µg/l) | Sodio/ <i>Sodium</i> (≥ 5 mg/l) | Estaño/ <i>Tin</i> (≥ 10 µg/l) | Vanadio/ <i>Vanadium</i> (≥ 1 µg/l) | Estroncio/ <i>Stroncium</i> (≥ 5 µg/l) | Zinc/ <i>Zinc</i> (≥ 15 µg/l) | | |
| Aluminio/ <i>Aluminum</i> (≥ 10 µg/l) | Hierro/ <i>iron</i> (≥ 15 µg/l) | | | | | | | | | | | | | | | | | | | | | | | |
| Antimonio/ <i>Antimony</i> (≥ 2 µg/l) | Magnesio/ <i>Magnesium</i> (≥ 5 mg/l) | | | | | | | | | | | | | | | | | | | | | | | |
| Arsénico/ <i>Arsenic</i> (≥ 0,2 µg/l) | Manganeso/ <i>Manganese</i> (≥ 1 µg/l) | | | | | | | | | | | | | | | | | | | | | | | |
| Bario/ <i>Barium</i> (≥ 2 µg/l) | Molibdeno/ <i>Molybdenum</i> (≥ 2 µg/l) | | | | | | | | | | | | | | | | | | | | | | | |
| Cadmio/ <i>Cadmium</i> (≥ 0,04 µg/l) | Níquel/ <i>Nickel</i> (≥ 2,5 µg/l) | | | | | | | | | | | | | | | | | | | | | | | |
| Calcio/ <i>Calcium</i> (≥ 5 mg/l) | Plomo/ <i>Lead</i> (≥ 0,5 µg/l) | | | | | | | | | | | | | | | | | | | | | | | |
| Cobalto/ <i>Cobalt</i> (≥ 2 µg/l) | Potasio/ <i>Potassium</i> (≥ 5 mg/l) | | | | | | | | | | | | | | | | | | | | | | | |
| Cobre/ <i>Copper</i> (≥ 2,5 µg/l) | Selenio/ <i>Selenium</i> (≥ 0,4 µg/l) | | | | | | | | | | | | | | | | | | | | | | | |
| Cromo/ <i>Chrome</i> (≥ 2,5 µg/l) | Sodio/ <i>Sodium</i> (≥ 5 mg/l) | | | | | | | | | | | | | | | | | | | | | | | |
| Estaño/ <i>Tin</i> (≥ 10 µg/l) | Vanadio/ <i>Vanadium</i> (≥ 1 µg/l) | | | | | | | | | | | | | | | | | | | | | | | |
| Estroncio/ <i>Stroncium</i> (≥ 5 µg/l) | Zinc/ <i>Zinc</i> (≥ 15 µg/l) | | | | | | | | | | | | | | | | | | | | | | | |

| ENSAYO / TYPE OF TEST | NORMA/PROCEDIMIENTO DE ENSAYO STANDARD SPECIFICATIONS/ TEST PROCEDURE | CÓDIGO CODE |
|---|---|----------------|
| Aguas residuales/ Waste waters | | |
| Metales totales por espectroscopía de plasma de acoplamiento inductivo (ICP/MS) / <i>Total Metals by inductively coupled plasma mass spectrometry (ICP-MS)</i> Aluminio/Aluminum ($\geq 25 \mu\text{g/l}$) Magnesio/Magnesium ($\geq 15 \text{mg/l}$) Antimonio/Antimony ($\geq 5 \mu\text{g/l}$) Manganeso/Manganese ($\geq 3 \mu\text{g/l}$) Arsénico/Arsenic ($\geq 0,5 \mu\text{g/l}$) Molibdeno/Molybdenum ($\geq 5 \mu\text{g/l}$) Bario/Barium ($\geq 5 \mu\text{g/l}$) Níquel/Nickel ($\geq 5 \mu\text{g/l}$) Cadmio/Cadmium ($\geq 0,1 \mu\text{g/l}$) Plomo/Lead ($\geq 5 \mu\text{g/l}$) Calcio/Calcium ($\geq 15 \text{mg/l}$) Potasio/Potassium ($\geq 15 \text{mg/l}$) Cobalto/Cobalt ($\geq 5 \mu\text{g/l}$) Selenio/Selenium ($\geq 1 \mu\text{g/l}$) Cobre/Copper ($\geq 5 \mu\text{g/l}$) Sodio/Sodium ($\geq 15 \text{mg/l}$) Cromo/Chrome ($\geq 5 \mu\text{g/l}$) Vanadio/Vanadium ($\geq 3 \mu\text{g/l}$) Estaño/Tin ($\geq 25 \mu\text{g/l}$) Zinc/Zinc ($\geq 35 \mu\text{g/l}$) Hierro/iron ($\geq 35 \mu\text{g/l}$) | PNTE/LQM/MDA/041 Método interno basado en/ <i>In-house method based on:</i> UNE-EN ISO 17294-2 | A |
| Aniones por cromatografía iónica / <i>Anions by ionic chromatography</i> Bromuros/Bromide ($\geq 0,35 \text{mg/l}$) Nitratos/Nitrates ($\geq 1 \text{mg/l}$) Cloruros/Chloride ($\geq 5 \text{mg/l}$) Nitritos/Nitrites ($\geq 0,05 \text{mg/l}$) Fluoruros/Fluoride ($\geq 0,5 \text{mg/l}$) Sulfatos/Sulphates ($\geq 5 \text{mg/l}$) | PNTE/LQM/MDA/039 Método interno basado en/ <i>In-house method based on:</i> UNE-EN ISO 10304-1 | A |
| Índice de Hidrocarburos / Hidrocarburos C ₁₀ – C ₄₀ (TPH - aceite mineral) por cromatografía de gases con detector de ionización de llama (CG/FID) / <i>Hydrocarbon oil index / Hydrocarbon C₁₀ – C₄₀ (TPH – mineral oil) by gas chromatography flame ionization detector (CG/FID)</i> ($\geq 0,2 \text{mg/l}$) | UNE-EN ISO 9377-2 | A |

| ENSAYO / TYPE OF TEST | NORMA/PROCEDIMIENTO DE ENSAYO STANDARD SPECIFICATIONS/ TEST PROCEDURE | CÓDIGO CODE |
|---|--|----------------|
| Aguas residuales/ Waste waters | | |
| Compuestos Orgánicos Volátiles (COVs) por cromatografía de gases/espectrometría de masas-masas (CG/MS-MS) / <i>Volatile Organic Compounds (VOCs) by gas chromatography – mass spectrometry (GC/MS-MS)</i> 1,1,2-Tricloroetano / <i>1,1,2-Trichloroethane</i> 1,1,2,2-Tetracloroetano / <i>1,1,2,2-Tetrachloroethane</i> 1,2,3-triclorobenceno / <i>1,2,3-trichlorobenzene</i> 1,2,4-triclorobenceno / <i>1,2,4-trichlorobenzene</i> 1,2,4-trimetilbenceno / <i>1,2,4-trimethylbenzene</i> 1,3,5-trimetilbenceno / <i>1,3,5-trimethylbenzene</i> 1,2-dibromo-3-cloropropano / <i>1,2-ibromo-3-chloropropene</i> 1,2-dibromoetano / <i>1,2-dibromoethano</i> 1,2-diclorobenceno / <i>1,2-dichlorobenzene</i> 1,2-dicloroetano / <i>1,2-dichloroethane</i> 1,2-dicloropropano / <i>1,2-dichloropropane</i> 1,3-diclorobenceno / <i>1,3-dichlorobenzene</i> 1,3-Dicloropropeno (Cis) / <i>1,3-Dichloropropene (Cys)</i> 1,3-Dicloropropeno (Trans) / <i>1,3-Dichloropropene (Trans)</i> 1,4-diclorobenceno / <i>1,4-dichlorobenzene</i> 2-clorotolueno / <i>2-chlorotoluene</i> 4-clorotolueno / <i>4-chlorotoluene</i> Bromobenceno / <i>Bromobenzene</i> Bromoclorometano / <i>Bromochloromethane</i> Bromodiclorometano / <i>Bromodichloromethane</i> Bromoformo / <i>Bromoform</i> Clorobenceno / <i>Chlorobenzene</i> Cloroformo/ <i>Chloroform</i> Dibromometano / <i>Dibromomethane</i> Dibromoclorometano / <i>Dibromochloromethane</i> Etilbenceno / <i>Ethylbenzene</i> Estireno / <i>styrene</i> Hexacloro-1,3-butadieno / <i>Hexachlor-1,3-butadiene</i> Isopropilbenceno / <i>Isopropylbenzene</i> Naftaleno / <i>Naphthalene</i> n-Butilbenceno / <i>n-butylbenzene</i> n-propilbenceno / <i>n-propylbenzene</i> o-xileno / <i>o-xylene</i> Ter-butilbenceno / <i>Ter-butylbenzene</i> Tetracloroetano / <i>Tetrachloroethene</i> Tricloroetano / <i>Trichloroethene</i> ($\geq 5 \mu\text{g/l}$) Benzene / <i>Benzene</i> ($\geq 1 \mu\text{g/l}$) m+p- xileno / <i>m+p-xylene</i> ($\geq 10 \mu\text{g/l}$) Tolueno / <i>Toluene</i> ($\geq 15 \mu\text{g/l}$) Suma xilenos (o+m+p) / <i>Sum xylenes (o+m+p)</i> Suma Diclorobencenos / <i>Sum dichlorobenzenos</i> | PNTE/LQM/MDA/055 Método interno basado en/ <i>In-house method based on:</i> SM 6200 B | A |

| ENSAYO / TYPE OF TEST | NORMA/PROCEDIMIENTO DE ENSAYO STANDARD SPECIFICATIONS/ TEST PROCEDURE | CÓDIGO CODE |
|---|---|----------------|
| Aguas residuales/ Waste waters | | |
| Relación de absorción de sodio (RAS) por cálculo / <i>Sodium adsorption ratio by calculation</i> (≥ 1 meq/L) | PNTe/LQM/MDA/041 Método interno basado en/ <i>In-house method based on:</i> "A short Note on Calculating the Adjusted SAR Index" Suarez D.L. et al. ASABE 52:493–496 2009 | A |

| ENSAYO / TYPE OF TEST | NORMA/PROCEDIMIENTO DE ENSAYO STANDARD SPECIFICATIONS/ TEST PROCEDURE | CÓDIGO CODE |
|---|---|----------------|
| Aguas marinas/Sea waters | | |
| pH / <i>pH</i> (7 - 10 uds. de pH) | PNTe/LQM/MDA/013 Método interno basado en/ <i>In-house method based on:</i> SM 4500 H ⁺ B | A |
| Conductividad a 20 °C y 25 °C / <i>Conductivity at 20 °C and 25 °C</i> (30000 - 112000 μ S/cm) | PNTe/LQM/MDA/012 Método interno basado en/ <i>In-house method based on:</i> SM 2510 B | A |
| Sólidos en suspensión / <i>Total suspended solids</i> (≥ 5 mg/l) | PNTe/LQM/MDA/011 Método interno basado en/ <i>In-house method based on:</i> SM 2540 D | A |
| Amonio por espectrofotometría UV-VIS / <i>Ammonium by UV-VIS spectrometry</i> ($\geq 0,05$ mg/l) | PNTe/LQM/MDA/053 Método interno basado en/ <i>In-house method based on:</i> ISO 7150-1 | A |
| Fosfatos por espectrofotometría UV-VIS / <i>Orthophosphate by UV-VIS spectrometry</i> ($\geq 0,3$ mg/l) | PNTe/LQM/MDA/029 Método interno basado en/ <i>In-house method based on:</i> SM 4500-P E | A |
| Aniones por cromatografía iónica / <i>Anions by ionic chromatography</i> Bromuros/Bromide (≥ 60 mg/l) Nitratos/Nitrates (≥ 1 mg/l) Cloruros/Chloride (≥ 30000 mg/l) Sulfatos/Sulphates (≥ 4000 mg/l) Fluoruros/Fluoride ($\geq 0,5$ mg/l) | PNTe/LQM/MDA/039 Método interno basado en/ <i>In-house method based on:</i> UNE-EN ISO 10304-1 | A |

II. Análisis microbiológicos/Microbiological analyses

| ENSAYO / TYPE OF TEST | NORMA/PROCEDIMIENTO DE ENSAYO STANDARD SPECIFICATIONS/ TEST PROCEDURE | CÓDIGO CODE |
|--|--|-------------|
| Aguas de consumo y envasadas/Potable waters and bottled waters | | |
| Investigación de <i>Salmonella</i> spp. / Detection of <i>Salmonella</i> spp. | PNTe/LQM/MIC/031 Método interno basado en/ In-house method based on: UNE-EN ISO 19250 | A |
| Recuento en placa de bacterias aerobias totales a 22 °C y 36 °C/ Enumeration of culturable micro-organisms at 22 °C and 36 °C | UNE-EN ISO 6222 | A |
| Recuento de coliformes totales y <i>Escherichia coli</i> β-glucuronidasa + / Enumeration of coliform bacteria and Enumeration of <i>Escherichia coli</i> (NMP / MPN) | UNE-EN ISO 9308-2 | A |
| Recuento de <i>Escherichia coli</i> β-glucuronidasa + / Enumeration of <i>Escherichia coli</i> (Filtración / Filtration) | UNE-EN ISO 9308-1 | A |
| Recuento de enterococos intestinales / Enumeration of intestinal enterococci (Filtración / Filtration) | UNE-EN ISO 7899-2 | A |
| Recuento de <i>Pseudomonas aeruginosa</i> / Enumeration of <i>Pseudomonas aeruginosa</i> (Filtración / Filtration) | UNE-EN ISO16266 | A |

| ENSAYO / TYPE OF TEST | NORMA/PROCEDIMIENTO DE ENSAYO STANDARD SPECIFICATIONS/ TEST PROCEDURE | CÓDIGO CODE |
|---|--|-------------|
| Aguas continentales/Potable waters and surface and clean waters | | |
| Investigación de <i>Salmonella</i> spp./ Detection of <i>Salmonella</i> spp | PNTe/LQM/MIC/031 Método interno basado en/ In-house method based on: UNE-EN ISO 19250 | A |
| Recuento en placa de bacterias aerobias totales a 22 °C y 36°C / Enumeration of culturable micro-organisms at 22 °C and 36 °C | PNTe/LQM/MIC/036 Método interno basado en/ In-house method based on: UNE-EN ISO 6222 | A |
| Recuento de coliformes totales / Enumeration of coliform bacteria (NMP / MPN) | PNTe/LQM/MIC/0156 Método interno basado en/ In-house method based on: UNE-EN ISO 9308-2 | A |
| Recuento de <i>Escherichia coli</i> β-glucuronidasa+/ Enumeration of <i>Escherichia coli</i> (NMP / MPN) | PNTe/LQM/MIC/0156 Método interno basado en/ In-house method based on: UNE-EN ISO 9308-2 | A |
| Recuento de enterococos intestinales / Enumeration of intestinal enterococci (Filtración / Filtration) | PNTe/LQM/MIC/032 Método interno basado en/ In-house method based on: UNE-EN ISO 7899-2 | A |

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| ENSAYO / TYPE OF TEST | NORMA/PROCEDIMIENTO DE ENSAYO STANDARD SPECIFICATIONS/ TEST PROCEDURE | CÓDIGO CODE |
|---|--|----------------|
| Aguas continentales/Potable waters and surface and clean waters | | |
| Recuento de <i>Pseudomonas aeruginosa</i> / Enumeration of <i>Pseudomonas aeruginosa</i> (Filtración / Filtration) | PNTe/LQM/MIC/035 Método interno basado en/ In-house method based on: UNE-EN ISO 16266 | A |

| ENSAYO / TYPE OF TEST | NORMA/PROCEDIMIENTO DE ENSAYO STANDARD SPECIFICATIONS/ TEST PROCEDURE | CÓDIGO CODE |
|--|--|----------------|
| Aguas residuales y aguas regeneradas/Waste waters | | |
| Recuento de coliformes totales / Enumeration of coliform bacteria (NMP / MPN) | PNTe/LQM/MIC/0156 Método interno basado en/ In-house method based on: UNE-EN ISO 9308-2 | A |
| Recuento de <i>Escherichia coli</i> β-glucuronidasa+ / Enumeration of <i>Escherichia coli</i> (NMP / MPN) | PNTe/LQM/MIC/0153 Método interno basado en/ In-house method based on: UNE-EN ISO 9308-2 | A |

MUESTRAS SÓLIDAS / SOLID SAMPLES

I. Análisis físico-químicos/ Physical-Chemical Analyses

| ENSAYO / TYPE OF TEST | NORMA/PROCEDIMIENTO DE ENSAYO STANDARD SPECIFICATIONS/ TEST PROCEDURE | CÓDIGO CODE |
|---|--|----------------|
| Suelos y sedimentos/Soils and sediments | | |
| Metales totales por espectroscopía de plasma de acoplamiento inductivo (ICP/MS) / Totals metals by inductively coupled plasma mass spectrometry (ICP/MS) Arsénico/Arsenic (≥ 0,5 mg/Kg) Mercurio/Mercury (≥ 0,5 mg/Kg) Cadmio/Cadmium (≥ 1 mg/Kg) Níquel/Nickel (≥ 5 mg/Kg) Cobre/Copper (≥ 5 mg/Kg) Plomo/Lead (≥ 0,5 mg/Kg) Cromo/Chrome (≥ 5 mg/Kg) Zinc/Zinc (≥ 10 mg/Kg) | PNTe/LQM/MDA/056 Método interno basado en/ In-house method based on: EPA 6020 | A |
| Bifenilos policlorados (PCBs) por cromatografía de gases/espectrometría de masas (GC/MS) / Polychlorinated biphenyl (PCBs) by gas chromatography/mass spectrometry (GC/MS) PCB 28 PCB 138 PCB 52 PCB 153 PCB 101 PCB 180 PCB 118 (≥ 4 µg/Kg) | PNTe/LQM/MDA/057 Método interno basado en/ In-house method based on: EPA 8270 | A |

| ENSAYO / TYPE OF TEST | NORMA/PROCEDIMIENTO DE ENSAYO STANDARD SPECIFICATIONS/ TEST PROCEDURE | CÓDIGO CODE |
|---|--|----------------|
| Suelos y sedimentos/Soils and sediments | | |
| <p>Hidrocarburos Aromáticos Policíclicos (HAPs) por cromatografía de gases/espectrometría de masas (CG/MS) / <i>Polycyclic aromatic hydrocarbon (PAHs) by gas chromatography/mass spectrometry (GC/MS)</i></p> <p>Acenafteno/<i>Acenaphtene</i> Antraceno/<i>Anthracene</i> Benzo (g,h,i) perileno/<i>Benzo (g,h,i) perilene</i> Benzo (a) antraceno/<i>Benzo (a) anthracene</i> Benzo (a) pireno/<i>Benzo (a) pyrene</i> Benzo (b + K) fluoranteno/<i>Benzo (b+k) fluorantene</i> Criseno/<i>Chrysanthemum</i> Dibenzo (a,h) antraceno/<i>Dibenzo (a,h) antrazene</i> Fenantreno/<i>Phenanthrene</i> Fluoranteno/<i>Fluoranthene</i> Fluoreno/<i>Fluorene</i> Indeno (1,2,3) cd pireno /<i>Indene (1,2,3) pyrene</i> Pireno/<i>Pyrene</i></p> <p style="text-align: right;">(≥ 40 µg/Kg)</p> | <p>PNTe/LQM/MDA/057 Método interno basado en/ <i>In-house method based on:</i> EPA 8270</p> | <p>A</p> |
| <p>Compuestos Orgánicos Volátiles (COVs) por cromatografía de gases/espectrometría de masas-masas (CG/MS-MS) / <i>Volatile Organic Compounds (VOCs) by gas chromatography – mass spectrometry (GC/MS-MS)</i></p> <p>1,2-dicloroetano / <i>1,2-dichloroethane</i> Tricloroetileno / <i>Trichloroethylene</i> Tetracloroetileno/<i>Tetrachloroethylene</i> Benzene / <i>Benzene</i></p> <p style="text-align: right;">(≥ 0,05 mg/Kg)</p> <p>1,1,2-Tricloroetano / <i>1,1,2- Trichloroethane</i> 1,1,2,2-Tetracloroetano / <i>1,1,2,2-Tetrachloroethane</i> 1,2-dicloropropano / <i>1,2-dichloropropane</i> Clorobenceno / <i>Chlorobenzene</i> o-xileno / <i>o-xylene</i> 1,2-diclorobenceno / <i>1,2-dichlorobenzene</i> 1,4-diclorobenceno / <i>1,4-dichlorobenzene</i> 1,2,4-triclorobenceno / <i>1,2,4-trichlorobenzene</i> Cloroformo/ <i>Chloroform</i> Estireno / <i>styrene</i> Etilbenceno / <i>Ethylbenzene</i> Hexaclorobutadieno / <i>Hexachlorbutadiene</i> Naftaleno / <i>Naphthalene</i></p> <p style="text-align: right;">(≥ 0,25 mg/Kg)</p> <p>Tolueno / <i>Toluene</i> 1,2-dicloroetano / <i>1,2-dichloroethane</i></p> <p style="text-align: right;">(≥ 1 mg/Kg)</p> <p>m+p- xileno / <i>m+p-xylene</i> (≥ 0,50 mg/Kg)</p> | <p>PNTe/LQM/MDA/66 Método interno basado en/ <i>In-house method based on:</i> ISO 22155</p> | <p>A</p> |

CALIDAD DEL AIRE / AIR QUALITY

I. Emisiones de fuentes estacionarias/ Atmospheric emissions from stationary sources

| ENSAYO / TYPE OF TEST | NORMA/PROCEDIMIENTO DE ENSAYO STANDARD SPECIFICATIONS/ TEST PROCEDURE | CÓDIGO CODE |
|--|---|----------------|
| Soportes de muestreo de emisiones de fuentes estacionarias / Sampling media for atmospheric emissions from stationary sources | | |
| Partículas / Particles (≥ 0,3 mg/filtro) Disolución de lavado / Washing solution (≥ 1mg/muestra) | UNE-EN 13284-1 | A |
| Partículas / Particles (≥ 0,3 mg/filtro) Disolución de lavado / Washing solution (≥ 1mg/muestra) | UNE-ISO 9096 | A |
| Fluoruros gaseosos por potenciometría / Gas fluorides by potentiometry F (≥ 0,1 mg/l) HF (≥ 0,1 mg/l) | UNE-ISO 15713 | A |
| Amoniaco por espectrofotometría UV-VIS / Ammonia by UV-VIS spectrometry Solución captadora/Capture solution (≥ 0,25 mg/l) | PNTe/LQM/MDA/053 Método interno basado en/ In-house method based on: NF T 90-015-2 | A |
| Amoniaco por espectrofotometría UV-VIS / Ammonia by UV-VIS spectrometry Solución captadora/Capture solution (≥ 0,25 mg/l) | PNTe/LQM/MDA/053 Método interno basado en/ In-house method based on: ISO 7150-1 | A |
| Mercurio por fluorescencia atómica / Mercury by atomic fluorescence Filtros / Filters (≥ 0,01 µg/filtro) Solución captadora y disolución de lavado / Capture solutions and cleaning (≥ 0,2 µg/l) | UNE-EN 13211 | A |
| Metales por espectroscopía de plasma de acoplamiento inductivo (ICP/MS) /Metals by inductively coupled plasma mass spectrometry. <u>Filtros/Filters:</u> Antimonio/Antimony Cadmio/Cadmium Niquel/Nicquel Arsénico/Arsenic Cobre/Calcium Plomo/Lead Cadmio/Cadmium Cromo/Chrome Talio/Thalium Cobalto/Cobalt Manganeso/Manganese Vanadio/Vanadium (≥ 0,5 µg/filtro) <u>Solución captadora y disolución de lavado/Capture solutions and cleaning</u> Antimonio/Antimony (≥ 1 µg/l) Cromo/Chrome (≥ 1 µg/l) Arsénico/Arsenic (≥ 1 µg/l) Manganeso/Manganese (≥ 1 µg/l) Cadmio/Cadmium (≥ 1 µg/l) Niquel/Nicquel (≥ 1 µg/l) Cobalto/Cobalt (≥ 1 µg/l) Plomo/Lead (≥ 1 µg/l) Cadmio/Cadmium (≥ 1 µg/l) Talio/Thalium (≥ 1 µg/l) Cobre/Calcium (≥ 1,5 µg/l) Vanadio/Vanadium (≥ 1 µg/l) | UNE-EN 14385 | A |
| Ácido clorhídrico (HCl) por cromatografía iónica / Hydrochloric acid (HCl) by ion chromatography Ácido clorhídrico / Clorhidric acid (≥ 0,2 mg/l) Cloruros / Chlorides (≥ 0,2 mg/l) | UNE-EN 1911 | A |

| ENSAYO / TYPE OF TEST | NORMA/PROCEDIMIENTO DE ENSAYO STANDARD SPECIFICATIONS/ TEST PROCEDURE | CÓDIGO CODE |
|--|---|----------------|
| Soportes de muestreo de emisiones de fuentes estacionarias / Sampling media for atmospheric emissions from stationary sources | | |
| Ácido fluorhídrico (HF) por cromatografía iónica / Hydrofluoric acid (HF) by ion chromatography (≥ 0,1 mg/l) | PNTe/LQM/MDA/063 Método interno basado en/ In-house method based on: ISO 10304-1 | A |
| Ácido sulfúrico (H ₂ SO ₄) y dióxido de azufre (SO ₂) por cromatografía iónica / Sulphuric acid (H ₂ SO ₄) and sulphur dioxide (SO ₂) by ion chromatography SO ₂ (≥ 0,1 mg/l) H ₂ SO ₄ (≥ 0,2 mg/l) | UNE 14791 | A |
| Ácido sulfúrico (H ₂ SO ₄) y dióxido de azufre (SO ₂) por cromatografía iónica / Sulphuric acid (H ₂ SO ₄) and sulphur dioxide (SO ₂) by ion chromatography H ₂ SO ₄ (≥ 0,2 mg/l) SO ₂ (≥ 0,1 mg/l) | PNTe/LQM/MDA/063 Método interno basado en/ In-house method based on: UNE 14791 | A |

Un método interno se considera que está basado en métodos normalizados cuando su validez y su adecuación al uso se han demostrado por referencia a dicho método normalizado y en ningún caso implica que ENAC considere que ambos métodos sean equivalentes. Para más información recomendamos consultar el Anexo I al CGA-ENAC-LEC.

An in-house method is considered based on standardized methods when its validity and suitability have been demonstrated against standard reference methods. This will never imply that ENAC considers both methods equivalent. For more information, please consult Annex I to the CGA-ENAC-LEC.