



CERTIFICATE OF ACCREDITATION

This is to attest that

R-LAB S.A.C.

ASOC. DE VIVIENDA CRUZ DE MOTUPE, MZ. B – LT. 4 VILLA EL SALVADOR
LIMA 15829, PERU

Testing Laboratory TL-971

has met the requirements of AC89, *IAS Accreditation Criteria for Testing Laboratories*, and has demonstrated compliance with ISO/IEC Standard 17025:2017, *General requirements for the competence of testing and calibration laboratories*. This organization is accredited to provide the services specified in the scope of accreditation.

Effective Date April 24, 2025



International Accreditation Service
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R-LAB S.A.C.

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Accredited to ISO/IEC 17025:2017

Effective Date April 24, 2025

FIELDS OF TESTING	MATERIAL/MATRIX	DETERMINANT(S)/ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – AIR	Ambient air (Does not include sampling).	Determination of PM-2.5 weights (Low volume)	R-LAB-01. EPA CFR 40, Appendix L. Part 50. 2017 (VALIDADO-2021) Filter Weight, Determination PM-2,5 - Low Volume (Validated for Sample Weighing)
		Determination PM-10 - Low Volume	R-LAB-02. EPA CFR 40, Appendix L. Part 50. 2017 (VALIDADO-2021) Filter Weight, Determination PM-10 - Low Volume (Validated for Sample Weighing)
		Metals Filter PM-10 (Low Volume)	R-LAB-03. NTP 712.105:2019 (VALIDADO-2021) Environmental quality monitoring, Air quality. Determination of the content of Pb, Cd, Ni, Sb, Bi, Ti in articulated p-material suspended in the air captured in filters. Atomic absorption spectrometry method
		Metals filter PM-10 (High Volume) - Ni, Bi, Ti	R-LAB-23 Compendium Method IO3.2. 1999 (VALIDADO-2021) Determination of Metals In Ambient Particulate Matter Using Atomic Absorption (Aa) Spectroscopy
		Metals filter PM-10 (High Volume): Sb, SiO ₂ , V	R-LAB-05. Compendium Method IO3.2. 1999 (VALIDADO-2021) Determination Of Metals In Ambient Particulate Matter Using Atomic Absorption (Aa) Spectroscopy
	Ambient air	Particulate matter PM-10 (low volume)	NTP 900.030:2018 ENVIRONMENTAL QUALITY MONITORING. Air quality. Reference method for the determination of respirable particulate matter as PM10 in the atmosphere
	Ambient air (Sampling & analysis)	Particulate matter PM-2.5 (low volume)	EPA CFR 40, Appendix L. Part 50. 2023. Reference Method for the determination of fine particulate matter as PM2.5 in the atmosphere//

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FIELDS OF TESTING	MATERIAL/MATRIX	DETERMINANT(S)/ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – AIR (cont'd.)	Ambient air (Sampling & analysis) (cont'd.)	Particulate matter PM-2.5 (low volume) (cont'd.)	NTP 900.069:2017 Environmental quality monitoring. Air quality. Reference method for the determination of fine particulate matter such as PM 2.5 in the atmosphere. 1 st Edition.
		Metals PM-10 (Low Volume)	R-LAB-04. NTP 712.105:2019 (VALIDADO-2021) Monitoring of environmental quality, air quality. Determination of the content of Cd, Ni, Sb, Bi, Tl in particulate matter suspended in the air captured in filters. Atomic absorption spectrometry method
		Lead in PM-10 (low volume)	NTP 712.105:2019 Monitoring of environmental quality, air quality. Determination of the lead content in particulate matter suspended in the air captured in filters. Atomic absorption spectrometry method
		Metals PM-10 (High Volume) - Ni, Bi, Tl	Compendium Method IO3.2. 1999 Determination of Metals in Ambient Particulate Matter Using Atomic Absorption (Aa) Spectroscopy
		Metals PM-10 (High Volume): Sb, SiO ₂ , V	R-LAB-06. Compendium Method IO3.2. 1999 (VALIDADO-2021) Determination Of Metals In Ambient Particulate Matter Using Atomic Absorption (Aa) Spectroscopy
		Nitrogen Dioxide	ASTM D1607-91 (Reapproved 2018) Standard Test Method for Nitrogen Dioxide Content of the Atmosphere (Griess Saltzman Reaction)
		Total Hydrocarbon expressed as Hexane	ASTM D3687-2019 // ASTM D3686-2020. Standard Test Method for Analysis of Organic Compound Vapors Collected by the Activated Charcoal Tube Adsorption Method.//Standard Practice for Sampling Atmospheres to Collect Organic Compound Vapors (Activated Charcoal Tube Adsorption Method)

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FIELDS OF TESTING	MATERIAL/MATRIX	DETERMINANT(S)/ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – AIR (cont'd.)	Ambient air (Sampling & analysis) (cont'd.)	Benzene	UNE-EN 14662-2:2006 Ambient air quality. Standardized method of measuring benzene concentrations. Part 2: Suction sampling followed by solvent desorption and gas chromatography
		Total Gaseous Mercury	R-LAB-07 NIOSH 6009, Mercury 1994 (VALIDADO-2021) Analysis of total gaseous mercury in the air
	Ambient air (Field measurement)	Sulfur Dioxide	NTP-ISO 10498:2017(Revised 2022) Ambient air, determination of sulfur dioxide. Ultraviolet fluorescence method.
		Carbon Monoxide	NTP-ISO 4224-2019 1st Edition Ambient air, carbon monoxide determination. Method of non-dispersive infrared spectrophotometry
		Nitrogen Dioxide	NTP-ISO 7996-2019 1st Edition Ambient air, determination of the concentration of nitrogen oxides. Method of chemiluminescence
		Hydrogen sulfide	NTP-ISO 10498:2017(Revised 2022) Ambient air, determination of sulfur dioxide. Ultraviolet fluorescence method.
		Ozone	NTP-ISO 13964:2020 1st Edition / UNE 77221:2000 Air quality . Determination of ozone in ambient air. Method by ultraviolet photometry (equivalent to ISO 13964:1998)
		Total Gaseous Mercury (Hg)	NTP 900.068:2016 // NTP 900.068:2016 COR 1:2017 Normalized Mercury Standard for Total Gaseous Mercury. CORRIGENDUM 1. 1st Edition.
	Ambient air (Only Analysis)	Benzene in sorbent tube	R-LAB-26. UNE-EN 14662-2:2006 (VALIDATED-2021) Ambient air quality. Standardized method of measuring benzene concentrations. Part 2: Suction sampling followed by solvent desorption and gas chromatography

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ENVIRONMENTAL – AIR (cont'd.)	Ambient air (Only Analysis) (cont'd.)	Total hydrocarbon expressed as Hexane	ASTM D3687-2019 Standard Test Method for Analysis of Organic Compound Vapors Collected by the Activated Charcoal Tube Adsorption Method. Total Hydrocarbons expressed as Hexane
		Total Gaseous Mercury	R-LAB-08 NIOSH 6009, Mercury 1994 (VALIDADO-2021)
	Ambient air (Sampling & analysis)	Non-Methane Hydrocarbon	ASTM D3687- 19/ ASTM D3686-20 Standard Test Method for Analysis of Organic Compound Vapors Collected by The Activated Charcoal Tube Adsorption Method // Standard Practice for Sampling Atmospheres to Collect Organic Compound Vapors (Activated Charcoal Tube Adsorption Method)
	Ambient air (Sampling & analysis)	Metals In Low Volume Air (PM 10) by ICP-MS (Aluminum, Antimony, Arsenic, Barium, Bismuth, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Tin, Strontium, Iron, Mercury, Lead, Magnesium, Manganese, Molybdenum, Nickel, Lithium, Potassium, Phosphorus, Selenium, Silver, Sodium, Silicon, Thallium, Titanium, Uranium, Vanadium, Zinc)	R-LAB 36 EPA/625/R-96/010a Compendium Method IO3.5 June 1999 (Validated 2024) Determination of Metals in Ambient Particulate Matter by ICP-MS
	Ambient air (Sampling & analysis)	METALS IN HIGH VOLUME AIR (PM 2.5 / PM 10) BY ICP-MS (Bismuth, Calcium, Strontium, Tin, Iron, Magnesium, Mercury, Titanium, Potassium, Sodium)	RLAB-30 EPA Compendium Method IO-3.5: 1999. (Validated 2024) Determination of Metals in Ambient Particulate Matter Using Inductively Coupled Plasma /Mass Spectrometry (ICP-MS)
	Ambient air (Sampling & analysis)	METALS IN HIGH VOLUME AIR (PM 2.5 / PM 10) BY ICP-MS (Beryllium, Aluminum, Vanadium, Chromium, Manganese, Cobalt, Nickel, Copper, Zinc, Arsenic, Selenium, Molybdenum,	EPA Compendium Method IO-3.5: 1999. Determination of Metals in Ambient Particulate Matter Using Inductively Coupled Plasma /Mass Spectrometry (ICP-MS)

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ENVIRONMENTAL – AIR (cont'd.)		Silver, Cadmium, Antimony, Barium, Cesium, Thallium, Lead, Thorium, Uranium)	
	Ambient air (Field measurement)	Non-Ionizing Radiation: Electric Field Strength, Magnetic Field Strength, Magnetic Flux Density, Power Density	IEEE 644-2019: IEEE Standard Procedures for Measurement of Power Frequency Electric and Magnetic Fields from AC Power Lines.
	Ambient air (Sampling & analysis)	Benzene (Passive Method)	UNE-EN 13528-Part 1, Part 2:2003 / UNE-EN 13528-Part 3:2004 Ambient Air Quality – Diffusive Samplers for the Determination of Concentrations of Gases and Vapours – Requirements and Test Methods Part 1: General Requirements Part 2: Specific Requirements and Test Methods Part 3: Guide to Selection, Use and Maintenance UNE-EN 14662-5:2006 Diffusive Sampling Followed by Solvent Desorption and Gas Chromatography NTP 900.036.2017 Environmental Quality Monitoring Air Quality – Passive Diffusion Samplers for the Determination of Gas and Vapour Concentration – Requirements and Test Methods – Part 1: General Requirements – 2nd Edition
OCCUPATIONAL HEALTH & SAFETY – AIR	Air (Sampling and Analysis)	Respirable Particulates	NIOSH Method 0600 Issue 3. 1998 Particulates not otherwise regulated. Respirable
		Total or inhalable particles	NIOSH Method 0500, Issue 2. 1994 Particulates not otherwise regulated. Total
	Air (Only analysis)	Determination of weight: Total or inhalable particles	R-LAB-10. NIOSH Method 0500, Issue 2. 1994 (VALIDADO - 2021) Particulates not otherwise regulated. Total

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OCCUPATIONAL HEALTH & SAFETY – AIR (cont'd.)	Air (Only analysis)	Weight Determination: Respirable Particulates	R-LAB-09. NIOSH Method 0600 Issue 3. 1998 (VALIDADO-2021) Particulates Not Otherwise Regulated, Respirable
	Air (Sampling and Analysis)	METALS (Aluminum, Arsenic, Barium, Beryllium, Calcium, Cadmium, Chromium, Cobalt, Copper, Iron, Lithium, Manganese, Nickel, Phosphorus, Potassium, Silver, Lead, Antimony, Selenium, Tin, Strontium, Titanium, Thallium, Vanadium, Zinc)	NIOSH 7303. Issue 1, 2003 ELEMENTS by ICP (Hot Block/HCl/HNO3 Digestion)
	Air (Only Analysis)	METALS (Aluminum, Arsenic, Barium, Calcium, Cadmium, Chromium, Cobalt, Copper, Iron, Manganese, Nickel, Potassium, Silver, Lead, Antimony, Tin, Strontium, Titanium, Thallium, Vanadium, Zinc)	R-LAB 34. NIOSH 7303. Issue 1, 2003 ELEMENTS by ICP (Hot Block/HCl/HNO3 Digestion)
OCCUPATIONAL HEALTH & SAFETY – ACOUSTICS	Air (Field measurement)	DETERMINATION OF OCCUPATIONAL NOISE	NTP ISO 9612:2010 (Reviewed 2020). Acoustics. Determination of occupational noise exposure. Engineering method
GASEOUS EMISSIONS	Emissions (Sampling & Analysis)	Hydrogen Sulfide (H2S) / Total Reduced Sulfur (TRS)	EPA CFR Title 40, Appendix A- 6 to part 60 Method 16A. 2017 Determination of Total Reduced Sulfur Emission From Stationary Sources (Impinger Technique)
		Metals: Total Metals in Gaseous Emissions Antimony(Sb), Barium(Ba), Beryllium(Be), Cadmium(Cd), Chromium(Cr), Cobalt(Co), Copper(Cu), Manganese(Mn), Mercury(Hg), Nickel(Ni), Phosphorus(P), Selenium(Se), Silver(Ag), Thallium(Tl), Zinc(Zn)	EPA CFR 40, Appendix A-8 Part 60. Method 29. 2017 Determination of Metals Emissions from Stationary Sources

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GASEOUS EMISSIONS (cont'd.)	Emissions (Sampling & Analysis) (cont'd.)	Metals: Total Metals in Gaseous Emissions Vanadium (V), Iron (Fe)	R-LAB-12. EPA CFR 40, Appendix A-8 Part 60. Method 29 (VALIDADO-2021) Determination of Metals Emissions From Stationary Sources
	Emissions (Field measurement)	H2S in Gaseous Emission	R-LAB-11. CTM 034 (VALIDATED-2021) Determination of Oxygen, Carbon Monoxide and Oxides of Nitrogen from Stationary Sources For Periodic Monitoring (Portable Electrochemical Analyzer Procedure)
		NOx (NO, NO2), O2, CO NOx (NO, NO2), O2, CO (cont'd.)	CTM 034: Test Method. 1999 Determination of Oxygen, Carbon Monoxide and Oxides of Nitrogen from Stationary Sources For Periodic Monitoring (Portable Electrochemical Analyzer Procedure)
	Emissions (Field measurement)	Velocity and Volumetric Flow in Emissions	NTP 900.002:2021. MONITORING OF ATMOSPHERIC EMISSIONS. Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube) EPA 40 CFR, Appendix A-1 to Part 60, Method 2. 2017. Determination of Stack Gas Velocity and Volumetric Flow Rate (type S Pitot tube).
	Emissions (Field measurement)	Carbon Monoxide (CO)	NTP 900.010:2021. MONITORING OF ATMOSPHERIC EMISSIONS. Determination of Carbon Monoxide Emissions from Stationary Sources (Instrumental Analyzer Procedure). EPA 40 CFR, Appendix A-4 to Part 60, Method 10. 2017. Determination of Carbon Monoxide Emissions From Stationary Sources (Instrumental Analyzer Procedure).

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GASEOUS EMISSIONS (cont'd.)	Emissions (Field measurement)	Nitrogen Oxides "NO _x " (NO and NO ₂) (NO and NO ₂)	NTP 712.120:2022. MONITORING OF ATMOSPHERIC EMISSIONS. Determination of Nitrogen Oxides emissions in stationary sources (Instrumental Analyzer Procedure). EPA 40 CFR, Appendix A-4 to Part 60, Method 7E: 2020. Determination of Nitrogen Oxides Emissions from Stationary Sources (Instrumental Analyzer Procedure).
	Emissions (Field measurement)	Carbon Dioxide (CO ₂) and Oxygen (O ₂)	NTP 712.111:2021 MONITORING OF ATMOSPHERIC EMISSIONS. Determination of Oxygen and Carbon Dioxide Concentrations in Emissions from Stationary Sources (Instrumental Analyzer Procedure). EPA 40 CFR, Appendix A-2 to Part 60 EPA Method 3A. 2017. Determination of Oxygen and Carbon Dioxide Concentrations in Emissions from Stationary Sources (Instrumental Analyzer Procedure)
	Emissions (Sampling & analysis)	METALS BY ICP MS (Cerium, Boron, Aluminum, Calcium, Magnesium, Sodium, Bismuth, Strontium, Iron, Potassium, Molybdenum, Tin, Lithium, Thorium, Titanium, Vanadium, Uranium)	RLAB-31. EPA CFR TITLE 40, APPENDIX A-8 TO PART 60. METHOD 29 (Validated 2024). Determination of Metals Emissions from Stationary Sources (ICPMS)
	Emissions (Sampling & analysis)	METALS BY ICP MS (Silver, Arsenic, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Lead, Antimony, Thallium, Zinc)	EPA CFR TITLE 40, APPENDIX A-8 TO PART 60. METHOD 29. 2017. Determination of Metals Emissions from Stationary Sources (ICPMS)
	Emissions (Field measurement)	Total Hydrocarbons / Total Organic Hydrocarbons	RLAB-32. EPA CTM-022. 1995. Determination of Nitric Oxide, Nitrogen Dioxide and NO _x Emissions from Stationary Combustion Sources by Electrochemical Analyzer. (Validated 2024)

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GASEOUS EMISSIONS (cont'd.)	Emissions (Field measurement)	METHANE (CH ₄)	RLAB-38. EPA CTM-022. 1995. Determination of Nitric Oxide, Nitrogen Dioxide and NO _x Emissions from Stationary Combustion Sources by Electrochemical Analyzer. (Validated 2024)
ENVIRONMENTAL – ACOUSTIC	Acoustic	Environment Noise	NTP-ISO 1996-1: 2020 / NTP-ISO 1996-2: 2023 ACOUSTICS. Description, measurement and assessment of environmental noise. Part 1: Basic quantities and assessment procedures / ACOUSTICS. Description, measurement and assessment of environmental noise. Part 2: Determination of environmental noise levels.
ENVIRONMENTAL ORGANICS	Natural Water, Water for use and Human Consumption, Saline Water, Process Water and Wastewater (Sampling & Analysis)	Total Petroleum Hydrocarbons:C10-C28, Total Petroleum Hydrocarbons:C28-C40, Total Petroleum Hydrocarbons:C08-C40	EPA Method 8015C. 2007 Non-Halogenated Organics using GC-FID
		Hydrocarbons	SMEWW-APHA-AWWA-WEF Part 5520 F, 24th Ed. 2023. Hydrocarbons
		Total Petroleum Hydrocarbons	EPA Method 1664, Revision B. 2010 n-Hexane Extractable Material (HEM; Oil and Grease) and Silica Gel Treated n-Hexane Extractable Material (SGT- HEM; Non-polar Material) by Extraction and Gravimetry
	Soils, Sediments, and Sludges (Sampling & Analysis)	Total Petroleum Hydrocarbons:C10-C28, Total Petroleum Hydrocarbons:C28-C40, Total Petroleum Hydrocarbons:C08-C40	EPA Method 8015C. 2007 Non-Halogenated Organics using GC-FID
	Soils, Sediments, and Sludges (Sampling & Analysis)	F1 HYDROCARBON FRACTION (C6 - C10)	EPA METHOD 8015C Rev. 03, 2007 / EPA METHOD 5021A, 2018 Nonhalogenated Organics by Gas Chromatography.

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ENVIRONMENTAL ORGANICS (cont'd.)	Water for use and Human Consumption, salt water, Wastewater, Natural Water (Sampling & Analysis)	BTEX Benzene, Toluene, Ethylbenzene, Xylenes: o-Xylene, m-Xylenes, p-Xylene	EPA METHOD 8260 D, 2018 Volatile Organic Compounds by Gas Chromatography / Mass Spectrometry
	Soils, Sediments, and Sludges (Sampling & Analysis)	BTEX Benzene, Toluene, Ethylbenzene, and Xylenes: o-Xylene, m-Xylenes, p-Xylene	EPA METHOD 8260 D, 2018 Volatile Organic Compounds by Gas Chromatography / Mass Spectrometry
	Soils, Sediments, and Sludges (Sampling & Analysis)	SVOCs: Benzene; Toluene; Ethylbenzene; Xylenes: o-Xylene, m-Xylenes, p-Xylene; Trichloroethylene; Tetrachloroethylene; Naphthalene; Chloroform; 1,1,1-Trichloroethane; Carbon Tetrachloride; 1,2-Dichloroethane; Bromodichloromethane; Dibromochloromethane; Bromoform; 1,2-Dichlorobenzene.	EPA METHOD 8260 D, 2018 Volatile Organic Compounds by Gas Chromatography / Mass Spectrometry
	Water for use and Human Consumption, salt water, Wastewater, Natural Water (Sampling & Analysis)	Volatile Organic Compounds (VOCs): Bromodichloromethane, Bromoform, Chloroform, Dibromochloromethane (Total Trihalomethanes), Benzene, Toluene, Ethylbenzene, Xylenes: o-Xylene, m-Xylene, p-Xylene (BTEX), Bromobenzene, Bromochloromethane, Butylbenzene, sec-Butylbenzene, tert-Butylbenzene, Carbon Tetrachloride, Chlorobenzene, 2-Chlorotoluene, 4-Chlorotoluene, 1,2-Dibromo-3-Chloropropane,	EPA METHOD 8260 D, 2018 Volatile Organic Compounds by Gas Chromatography / Mass Spectrometry

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ENVIRONMENTAL ORGANICS (cont'd.)	Water for use and Human Consumption, salt water, Wastewater, Natural Water (Sampling & Analysis) (cont'd.)	1,2-Dibromoethane, Dibromomethane, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1,1-Dichloroethane, 1,2-Dichloroethane, cis-1,2-Dichloroethylene, trans-1,2-Dichloroethylene, 1,2-Dichloropropane, 1,3-Dichloropropane, 2,2-Dichloropropane, 1,1-Dichloro-1-Propene, Hexachloro-1,3-Butadiene, Isopropyltoluene, Naphthalene, Propylbenzene, Styrene, 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, Tetrachloroethylene, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethylene, 1,2,3-Trichloropropane, 1,2,4-Trimethylbenzene, Cumene, 1,1-Dichloroethene, Hexachlorobutadiene, Tetrachloroethene, Trichloroethene.	EPA METHOD 8260 D, 2018 Volatile Organic Compounds by Gas Chromatography / Mass Spectrometry (cont'd.)
	Water for use and Human Consumption, Wastewater, salt water, Natural Water (Sampling & Analysis)	PAH'S Naphthalene; 2-Methylnaphthalene; 1-Methylnaphthalene; Acenaphthylene; Acenaphthene; Fluorene; Phenanthrene; Anthracene; Fluoranthene; Pyrene; Benz(a)anthracene; Chrysene; Benzo(b)fluoranthene; Benzo(k)fluoranthene; Benzo(a)pyrene; Indeno(1,2,3-cd)pyrene; Dibenz(a,h)anthracene; Benzo(g,h,i)perylene	EPA METHOD 8270 E, 2018 Semivolatile Organic Compounds by Gas Chromatography / Mass Spectrometry

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ENVIRONMENTAL ORGANICS (cont'd.)	Soils, Sediments, and Sludges (Sampling & Analysis)	PCB's 2,4,4'-TRICHLOROBIPHENYL (PCB-28) 2,2',5,5'-TETRACHLOROBIPHENYL (PCB-52) 2,2',4,5,5'-PENTACHLOROBIPHENYL (PCB-101) 2,3',4,4',5-PENTACHLOROBIPHENYL (PCB-118) 2,2',3,4',4,5'-HEXACHLOROBIPHENYL (PCB-138) 2,2',4,4',5,5'-HEXACHLOROBIPHENYL (PCB-153) 2,2'3,4,4',5,5'-HEPTACHLOROBIPHENYL (PCB-180) PCB'S TOTAL	Method EPA 8270 E, 2018 Semivolatile Organic Compounds by Gas Chromatography / Mass Spectrometry
	Water for use and Human Consumption, Wastewater, salt water, Natural Water (Sampling & Analysis)	PHENOLS: Phenol, 2-Chlorophenol, 2-Methylphenol (o-cresol); ; 3-Methylphenol (m-cresol); 2-Nitrophenol; 2,4-Dimethylphenol; 2,4-Dichlorophenol; 2,6-Dichlorophenol; 4-Chloro-3-methylphenol; 2,4,6-Trichlorophenol 2,4,5-Trichlorophenol; 4-Nitrophenol 2,3,4,6-Tetrachlorophenol; 4,6-Dinitro-2-methylphenol (Dinitro-cresol); Pentachlorophenol	EPA Method 8270 E, 2018 Semivolatile Organic Compounds by Gas Chromatography / Mass Spectrometry
	Soils, Sediments, and Sludges (Sampling & Analysis)	PAHs: Benzo[a]pyrene; Naphthalene	EPA METHOD 8270 E, 2018 Semivolatile Organic Compounds by Gas Chromatography / Mass Spectrometry

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ENVIRONMENTAL ORGANICS (cont'd.)	Water for use and Human Consumption, Wastewater, salt water, Natural Water (Sampling & Analysis)	Phthalate Esters: Di(2-ethylhexyl) phthalate	EPA METHOD 8270 E, 2018 Semivolatile Organic Compounds by Gas Chromatography / Mass Spectrometry
	Water for use and Human Consumption, Wastewater, salt water, Natural Water (Sampling & Analysis)	Organophosphorus Pesticides: O,O,O-Triethyl phosphorothioate; Zinophos (Thionazine); Sulfotepp; Phorate; Dimethoate; Disulfoton; Methyl Parathion; Parathion (Ethyl Parathion); Famphur; Malathion; Parathion	EPA METHOD 8270 E, 2018 Semivolatile Organic Compounds by Gas Chromatography / Mass Spectrometry.
	Water for use and Human Consumption, Wastewater, salt water, Natural Water (Sampling & Analysis)	Organochlorine Pesticides: Alpha-BHC, Gamma-BHC (Lindane), Beta-BHC, Delta-BHC, Heptachlor, Heptachlor Epoxide (Isomer B), Heptachlor + Heptachlor Epoxide, Aldrin, Dieldrin, (Aldrin + Dieldrin), 4,4'-DDT, 4,4'-DDD, 4,4'-DDE, Sum of 4,4'-DDD and 4,4'-DDE, Endrin, Endosulfan I, Endosulfan II, Endrin Aldehyde, Methoxychlor, Endrin Ketone, Chlordane (Total Isomers), Endosulfan.	EPA METHOD 8270 E, 2018 Semivolatile Organic Compounds by Gas Chromatography / Mass Spectrometry.
	Emissions (Sampling & analysis)	VOLATILE ORGANIC COMPOUNDS (VOCs)	EPA Method 18 (Item 8.2.4 Adsorption Tube Procedure), 2019 Measurement of Gaseous Organic Compound Emissions by Gas Chromatography NTP 900.018:2021. MONITORING OF ATMOSPHERIC EMISSIONS. Measurement of Gaseous Organic Compound Emissions by Gas Chromatography.

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ENVIRONMENTAL CHEMISTRY INORGANIC	Soils, Sediments, Sludges and Biosolids (Sampling & Analysis)	Copper	SW-846 Method 7210. 1986, SW-846 method 7000B. 2007, (Atomic Absorption direct Aspiration)
		Nickel	SW-846 Method 7520. 1986, SW-846 method 7000B. 2007, (Atomic Absorption direct Aspiration)
		Zinc	SW-846 Method 7950. 1986, SW-846 method 7000B. 2007, (Atomic Absorption direct Aspiration)
		Cadmium	SW-846 Method 7130. 1986, SW-846 method 7000B. 2007, (Atomic Absorption direct Aspiration)
	Soils, Sediments, Sludges and Biosolids (Sampling & Analysis)	Chromium	SW-846 Method 7190. 1986, SW-846 method 7000B. 2007, (Atomic Absorption direct Aspiration)
		Lead	SW-846 Method 7420. 1986, SW-846 method 7000B. 2007, (Atomic Absorption direct Aspiration)
		Arsenic	R-LAB-13. SW-846 Method 7061. 1992. (VALIDADO-2021) (Atomic absorption, gaseous hydride)
		Organic Matter / Total Organic Carbon	R-LAB-22. Official Mexican STANDARD NON-021-REC NAT-2000 2d Section. 2002 (VALIDATED-2021). AS-07 Walkley Black Method
	Sediments and Sludges (Sampling & Analysis)	Free cyanide	R-LAB-14. EPA Method 9013-A Rev. 2.2014//SMEWW-APHA-AWWA-WEF Part. 4500-CN- F. 24th Ed. 2023 (VALIDADO). Cyanide Extraction Procedure for Solids and Oils// Cyanide-Ion Selective Electrode Method
		Total cyanide	R-LAB-15. EPA Method 9013-A Rev. 2.2014//SMEWW-APHA-AWWA-WEF Part. 4500-CN- F. 24th Ed. 2023 (VALIDADO-2021). Cyanide Extraction Procedure for Solids and Oils// Cyanide-Ion Selective Electrode Method
		Total Kjeldahl Nitrogen	SMEWW-APHA-AWWA-WEF Part 4500-Norg-C, 24th Ed. 2023. Semi-Micro-Kjeldahl Method.

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ENVIRONMENTAL CHEMISTRY INORGANIC (cont'd.)	Soils, Sediments, and Sludges (Sampling & Analysis)	True Total Barium	Alberta Environment 2009 (ISBN No. 978-0-7785-7691-4) / ASTM D4503-08/ SMEWW – APHA – AWWA – WEF 3111 B. 24th Ed. 2023. Soil
		True Total Barium (cont'd.)	Remediation Guidelines for Barite: Environmental Health and Human Health. Section 2.2.1 Soil (Fusion Methods), 9.1.3 True Total Barium / Standard Practice for Dissolution of Solid Waste by Lithium Metaborate Fusion (Withdrawn 2012) / Direct Air Acetylene Flame Method.
		Extractable Barium	Alberta Environment 2009 (ISBN No. 978-0-7785-7691-4) / SMEWW – APHA – AWWA – WEF 3111 B. 24th Ed 2023. Soil Remediation Guidelines for Barite: Environmental Health and Human Health. Section 6.2.2 Analytical Method for Extractable Barium / Direct Air Acetylene Flame Method
		Total, fixed and volatile solids.	SMEWW-APHA-AWWA-WEF. Part 2540 G. 24th Ed. 2023. Total, Fixed, and Volatile Solids and Semisolid Samples.
		Dry Matter	according to D.S. 015-2017-HOUSING for PTAR sludge
		Calcination loss: total solids. Dry Material	SMEWW-APHA-AWWA-WEF. Part 2540 G. 24th Ed. 2023. Total, Fixed, and Volatile Solids and Semisolid Samples
		Calcination loss: total volatile solids Calcination loss: volatile total solids	SMEWW-APHA-AWWA-WEF. Part 2540 G. 24th Ed. 2023. Total, Fixed, and Volatile Solids and Semisolid Samples
		Organic Material Organic matter	according to D.S. 015-2017-HOUSING for PTAR sludge
		Conductivity	R-LAB-17. Official Mexican STANDARD NON-021- RECNAT-2000 2d Section. 2002 (VALIDATED-2021). Metodo AS-18
		Humidity	R-LAB-18. Official Mexican STANDARD NON-021- RECNAT-2000 2d Section. 2002 (VALIDATED-2021). As-05.

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ENVIRONMENTAL CHEMISTRY INORGANIC (cont'd.)	Soils, Sediments, and Sludges (Sampling & Analysis) (cont'd.)	Soluble Salts (dissolved solids)	NTP 339.152: 2002 (revised 2015) SOILS. Standard test method for determining the content of soluble salts in soils and groundwater
		Granulometry Particle size	R-LAB-25. NTP 339.128. 1999 (VALIDADO-2021) Soils. Test methods for granulometric analysis
		Sulfides	EPA Method 9031, Rev. 0. 1992 Extractable Sulfides
		Sulfates	R-LAB-19. Official Mexican STANDARD NON-021-RECNAT-2000 2d Section. 2002 (VALIDATED-2021). MetodoAS-20
	Sludges (Sampling & Analysis)	Total nitrogen	R-LAB-16. SMEWW-APHA- AWWA-WEF Part. 4500-N C, 24th Edition 2023. (VALIDADO) Persulfate Method. / Total Nitrogen in Sludges
	Water for use and Human Consumption, Wastewater, Natural Water, Salt Water (Sampling & Analysis)	Salinity	SMEWW-APHA-AWWA-WEF Part 2520 B, 24th Edition 2023. Salinity. Electrical Conductivity Method (Field measurement)
		Un-ionized Hydrogen Sulfide	SMEWW-APHA-AWWA-WEF Part 4500-S2- D, H, 24th Ed. 2023. Methylene Blue Method. Calculation of Un-ionized Hydrogen Sulfide
		Ammonium, Ammonia and Ammoniacal nitrogen	SMEWW-APHA-AWWA-WEF Part 4500-NH3 D, 23 rd. Ed. 2017 Nitrogen (Ammonia). Ammonia-Selective Electrode Method
		Bromide	SMEWW-APHA-AWWA-WEF Part 4500-Br- B, 24th Ed. 2023. Bromide Phenol Red Colorimetric Method
		Sodium	SMEWW – APHA – AWWA – WEF. Part 3500-Na B. 24th Ed. 2023. Flame emission photometric method
	Water for use and Human Consumption, Wastewater, Natural Water, Salt Water (Analysis)	Conductivity	SMEWW-APHA-AWWA-WEF Part 2510 B, 24th Ed. 2023 Conductivity. Laboratory Method
		Solids. Settleable Solids	SMEWW-APHA-AWWA-WEF Part 2540 F, 24th Ed. 2023. Solids. Settleable Solids.

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ENVIRONMENTAL CHEMISTRY INORGANIC (cont'd.)	Water for use and Human Consumption, Wastewater, Natural Water (Sampling & Analysis)	Silver, Aluminum	SMEWW – APHA – AWWA – WEF part, 3030 E, 3030B, 3111 B. 24th Ed. 2023. Nitric Acid Digestion / Filtration for Dissolved and Suspended Metals / Direct Air Acetylene Flame Method
	Water for use and Human Consumption, Wastewater, Natural Water, Salt Water (Field measurement)	Transparency	ISO 7027-2:2019. Water quality — Determination of turbidity — Part 2: Semi-quantitative methods for the assessment of transparency of waters
		Floating Materials of Anthropogenic Origin	NMX-AA-006-SCFI 2010 Water Analysis - Determination of floatable Material in Wastewaters and Treated Wastewaters - Test Method
	Water for use and Human Consumption (Field measurement)	Temperature	SMEWW-APHA- AWWA-WEF Part 2550 B, 24th Ed. 2023 (Except part 2) Temperature. Laboratory and Field Method
	Wastewater, Natural Water (Field measurement)	Flow	UNE - EN ISO 748:2023 Hydrometry - Measurement of liquid flow in open channels – Velocity area methods using point velocity measurements (ISO 748:2021)
	Wastewater, Salt Water, Water for use and human consumption, Natural Water (Sampling & Analysis)	Turbidity	SMEWW-APHA-AWWA-WEF Part 2130 B. 24th Ed. 2023. Nephelometric Method
	Wastewater, Salt Water (Field measurement)	Conductivity	SMEWW-APHA-AWWA-WEF Part 2510 B, 24th Ed. 2023. Conductivity. Laboratory Method
	Wastewater (Sampling & Analysis)	Color	SMEWW-APHA-AWWA-WEF Part 2120 C, 24th Ed. 2023. Color. Spectrophotometric - Single - Wavelength Method

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ENVIRONMENTAL CHEMISTRY INORGANIC (cont'd.)	Salt Water, Natural water, Water for use and Human consumption, Wastewater (Sampling & Analysis)	Total hardness	SMEWW-APHA-AWWA-WEF Part 2340 C, 24th Ed. 2023. Hardness. EDTA Titrimetric Method
	Salt Water (Sampling & Analysis)	Calcium hardness	SMEWW-APHA-AWWA-WEF Part 3500-Ca B, 24th Ed. 2023. Calcium. EDTA Titrimetric Method
	Salt Water (Sampling & Analysis) (cont'd.)	Chemical Oxygen Demand (COD)	R-LAB-20 SMEWW-APHA-AWWA-WEF Part 5220 B, 24th Ed. 2023. (VALIDADO). Chemical Oxygen Demand (COD). Open Reflux, Method
	Salt Water, Wastewater (Sampling & Analysis)	Chloride	SMEWW-APHA-AWWA-WEF Part 4500-Cl-B, 24th Ed. 2023. Chloride. Argentometric Method
	Soils, Sediments, Sludges (Sampling & Analysis and only analysis)	TOTAL METALS: (Bismuth, Boron, Cerium, Tin, Strontium, Phosphorus, Lithium, Molybdenum, Titanium, Thorium, Uranium)	R-LAB-29. EPA METHOD 3050B Rev. 2. 1996. (Validated-2024) ACID DIGESTION OF SEDIMENTS, SLUDGES AND SOILS // EPA METHOD 6020 B- Rev. 2. 2014. INDUCTIVELY COUPLED PLASMA - MASS SPECTROMETRY.
	Soils, Sediments, Sludges (Sampling & Analysis and only analysis)	TOTAL METALS: (Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Cobalt, Copper, Chromium, Iron, Magnesium, Manganese, Mercury, Nickel, Silver, Lead, Potassium, Selenium, Sodium, Thallium, Vanadium, Tungsten, Zinc)	EPA METHOD 3050B Rev. 2. 1996. ACID DIGESTION OF SEDIMENTS, SLUDGES AND SOILS // EPA METHOD 6020 B- Rev. 2. 2014. INDUCTIVELY COUPLED PLASMA - MASS SPECTROMETRY.

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ENVIRONMENTAL CHEMISTRY INORGANIC (cont'd.)	Natural Water (Sampling & Analysis)	NITRATES (NO ₃ -N) + NITRITES (NO ₂ - N)	R-LAB 35. SMEWW - APHA-AWWA-WEF Part. 4500 NO ₃ - E, 24TH Ed. 2023 (Validated 2024) CADMIUM REDUCTION METHOD. // SMEWW-APHA - AWWA - WEF Part 4500 NO ₂ - B. 24TH Edition 2023. COLORIMETRIC METHOD
	Water for use and Human Consumption, Wastewater, salt water (Sampling & Analysis)	Anionic Detergents	SMEWW - APHA-AWWA-WEF Part. 5540 C. 24th - 2023 Ed. Surfactants Anionic Surfactants as MBAS
	Water for use and Human Consumption, Wastewater, (Sampling & Analysis)	Total Alkalinity, Alkalinity by Bicarbonates, Alkalinity by Carbonates, Alkalinity by Hydroxide	SMEWW - APHA-AWWA-WEF Part. 5540 C. 24th Ed.-2023 Alkalinity. Titration Method.
	Water (Sampling & Analysis)	Total Dissolved Solids	SMEWW - APHA-AWWA-WEF Part. 5540 C. 24th Ed. - 2023 Solids. Total Dissolved Solids Dried at 180 °C. Salt
	Wastewater (Sampling & Analysis)	Flow Rate (Volumetric Method)	NTP 214.060. 2016. WASTEWATER. Sampling protocol no domestic wastewater discharged into the sewer.
	Water for use and Human Consumption, Natural Water, Process Water (Sampling & Analysis)	Flow Rate (Volumetric Method)	RLAB-33. NTP 214.060. 2016. (Validated-2024) Sampling protocol no domestic wastewater discharged into the sewer.
	Water for use and Human Consumption, Wastewater, Natural Water (Sampling & Analysis and only analysis)	TOTAL AND DISSOLVED METALS: Bismuth, Boron, Calcium, Cerium, Tin, Strontium, Phosphorus, Iron, Lithium, Magnesium, Potassium, Silicon, Sodium, Titanium, Wolfram	R-LAB-28. EPA METHOD 200.8. REVISION 5.4. 1994. (Validated-2024) DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY COUPLED PLASMA - MASS SPECTROMETRY.

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ENVIRONMENTAL CHEMISTRY INORGANIC (cont'd.)	Water for use and Human Consumption, Wastewater, Natural Water (Sampling & Analysis and only analysis)	TOTAL AND DISSOLVED METALS: Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Cobalt, Copper, Chromium, Manganese, Mercury, Molybdenum, Nickel, Silver, Lead, Selenium, Thallium, Thorium, Uranium, Vanadium, Zinc	EPA METHOD 200.8. REVISION 5.4. 1994. DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY COUPLED PLASMA – MASS SPECTROMETRY.
	Salt Water (Sampling & Analysis and only analysis)	TOTAL AND DISSOLVED METALS Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cerium, Cobalt, Copper, Chromium, Tin, Strontium, Phosphorus, Iron, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Silver, Lead, Potassium, Selenium, Silicon, Sodium, Thallium, Thorium, Titanium, Uranium, Vanadium, Wolfram, Zinc	R-LAB 39. EPA- Method 200.8 Rev. 5.4, 1994 (Validated 2024) Determination of trace elements in water and wastes by Inductively Coupled Plasma-Mass spectrometry.
	Salt Water (Sampling & Analysis)	CYANIDE WAD	SMEWW-APHA-AWWA-WEF Part 4500-CN ⁻ I, F, 24th Ed.2023. Cyanide. Weak Acid Dissociable Cyanide. Cyanide-Selective Electrode Method.
	Natural Water (Sampling & Analysis)	WATER LEVEL	ISO 21413.2005. Manual methods for the measurement of a groundwater level in a well.
	Water for use and Human Consumption, Wastewater, Natural Water, Salt Water (Field Measurement)	OXIDATION-REDUCTION POTENTIAL (REDOX)	SMEWW-APHA-AWWA-WEF Part 2580 B. 24th Edition 2023. Oxidation-Reduction Potential (ORP) Measurement in Clean Water.

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ENVIRONMENTAL CHEMISTRY INORGANIC (cont'd.)	Water for use and Human Consumption, Wastewater, Natural Water, Salt Water (Sampling & Analysis)	Total Suspended Solids	SMEWW-APHA-AWWA WEF Part 2540 D, 24th Edition 2023. Solids. Total Suspended Solids Dried at 103-105°C
	Water for use and Human Consumption, Wastewater, Natural Water, Salt Water (Sampling & Analysis)	Biochemical Oxygen Demand (BOD)	SMEWW-APHA-AWWA WEF Part 5210 B, 24th Edition 2023. Biochemical Oxygen Demand (BOD). 5-Day BOD Test
	Water for use and Human Consumption, Wastewater, Natural Water (Sampling & Analysis)	Chemical Oxygen Demand (COD)	SMEWW-APHA-AWWA WEF Part 5220 D, 24th Edition 2023. Chemical Oxygen Demand (COD). Closed Reflux, Colorimetric Method.
ENVIRONMENTAL CLIMATOLOGY	Meteorological parameters (Field Measurement)	Meteorological Parameters: Environmental Temperature, Relative Humidity, Environmental Pressure, Wind Speed, Wind Direction (Wind Rose)	ASTM D5741-96 (2017) Standard Practice for Characterizing Surface Wind Using a Wind Vane and Rotating Anemometer
	Meteorological parameters (Field Measurement)	METEOROLOGICAL PARAMETERS: Ambient temperature, Relative humidity, Ambient pressure, Wind speed, Wind direction (Wind Rose), Precipitation	M-GDI-M-G002. 2019. METHODOLOGICAL GUIDE OF THE OPERATION STATISTICS OF METEOROLOGICAL VARIABLES (IDEAM).
ENVIRONMENTAL SENSORY	Natural Water and Water for human use and consumption (Sampling & Analysis)	Odor	ISO 4121:2003. Sensory analysis -- Guidelines for the use of quantitative response scales.
	Water for human use and consumption (Sampling & Analysis)	Flavor	SMEWW-APHA-AWWA-WEF 2160 B. 24th Ed. 2023. Taste. Flavor Threshold Test (FTT).

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ENVIRONMENTAL – MICROBIOLOGY	Water for use and Human Consumption, Wastewater, Natural Water, Salt Water (Sampling & Analysis)	Detection of Salmonella spp	ISO 19250:2010 Water quality-Detection of Salmonella spp
		Heterotrophic Bacteria	SMEWW-APHA-AWWA-WEF Part 9215 B, 24th Ed. 2023. Heterotrophic Method Plate Count. Pour Plate Method
		Eggs and larvae of helminths	R-LAB-21. Determination of intestinal parasitic forms pathogenic to humans, in water samples (VALIDATED-2021) A.- Analysis of wastewater for use in agriculture. Rachel M.Ayres and D. Duncan Mara. WHO.1997 - Método Bailenger modified // B.- A new method for the concentration of Cryptosporidium oocysts from water. Vesey et al. J Appl Bacteriol. 1993. - Modified flocculation method. ITEM A ONLY.
		Eggs and larvae of Helminths, Cysts and oocysts of pathogenic protozoans	R-LAB-21. Determination of intestinal parasitic forms pathogenic to humans, in water samples (VALIDATED-2021) To. - Analysis of wastewater for use in agriculture. Rachel M.Ayres and D. Duncan Mara. WHO.1997 - Método Bailenger modified // B.- A new method for the concentration of Cryptosporidium oocysts from water. Vesey et al. J Appl Bacteriol. 1993. - Modified flocculation method. ITEM A and B.
		Parasite forms	R-LAB-21. Determination of intestinal parasitic forms pathogenic to humans, in water samples (VALIDATED-2021) To. - Analysis of wastewater for use in agriculture. Rachel M.Ayres and D. Duncan Mara. WHO.1997 - Método Bailenger modified // B.- A new method for the concentration of Cryptosporidium oocysts from water. Vesey et al. J Appl Bacteriol. 1993. - Modified flocculation method. Item A and B

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ENVIRONMENTAL – MICROBIOLOGY (cont'd.)	Water for use and Human Consumption, Wastewater, Natural Water, Salt Water (Sampling & Analysis) (cont'd.)	Giardia sp.	R-LAB-21. Determination of intestinal parasitic forms pathogenic to humans, in water samples (VALIDATED- 2021) A. - Analysis of wastewater for use in agriculture. Rachel M.Ayres and D. Duncan Mara. OMS.1997. - Bailenger method modified // B.- (X) A new method for the concentration of Cryptosporidium oocysts from water. Vesey et al. J Appl Bacteriol. 1993. - Modified flocculation method. ITEM B ONLY.
		Fecal Streptococcus	SMEWW-APHA-AWWA-WEF Part 9230 B, 24th Ed. 2023. Fecal Enterococci - Multiple-Tube Technique. Fecal Streptococcus (Multiple Tube Technique)
		Fecal Enterococcus	SMEWW-APHA-AWWA-WEF Part 9230 B, 24th Ed. 2023. Fecal Enterococci - Multiple-Tube Technique. Fecal Enterococcus (Multiple Tube Technique)
	Water for use and Human Consumption, Natural Water (Sampling & Analysis)	Detection of Vibrio cholerae	EPA 600/R-10/139, 2010. EPA Standard Analytical Protocol for Vibrio cholerae O1 and O139 in Drinking Water and Surface Water (Except the use of the O139 antiserum and the items 11 and 16.1)
		Total Coliform - Membrane Filter Techniques	SMEWW-APHA-AWWA-WEF Part 9222 B, 24th Ed. 2023. Membrane Filter Technique for Members of the Coliform Group. Standard Total Coliform Membrane Filter Procedure using Endo Media
		Fecal (Thermotolerant) Coliform membrane filter Techniques	SMEWW-APHA-AWWA-WEF Part 9222 D, 24th Ed. 2023. Membrane Filter Technique for Members of the Coliform Group. Thermotolerant (Fecal) Coliform Membrane Filter Procedure
		Escherichia Coli	SMEWW-APHA-AWWA-WEF Part 9222 H, 24th Ed. 2023. Membrane Filter Technique for Members of the Coliform Group.

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ENVIRONMENTAL – MICROBIOLOGY (cont'd.)	Water for use and Human Consumption, Natural Water (Sampling & Analysis) (cont'd.)		Partitioning E. coli from MF Total Coliform using EC- MUG Broth
		Heterotrophic Bacteria	SMEWW-APHA-AWWA-WEF Part 9215 D, 24th Ed. 2023. Heterotrophic Plate Count. Membrane Filter Method.
	Water for use and Human Consumption (Sampling & Analysis)	Detection of Pseudomonas aeruginosa	ISO 16266:2006. Water quality Detection and enumeration of Pseudomonas aeruginosa (only the detection) - Method by membrane filtration. 2006
		Staphylococcus aureus	SMEWW-APHA-AWWA-WEF Part 9213 B (Item 6 a.), 24th Ed. 2023. Recreational Waters. Swimming Pools.
		Staphylococcus aureus (cont'd.)	Test for Staphylococci or Staphylococcus
	Air (Sampling & Analysis)	Aerobic mesophilic counts	APHA. Compendium of Methods for the Microbiological Examination of Foods. APHA. 5th Ed. 2015, chapter 3, item 3.10 y 3.101 pages 36-37. //Chapter 8: item 8.72. page 98 Microbiological monitoring of the food processing environment. Air-sampling methods. Sedimentation methods.// Mesophilic aerobic plate count. Pour Plate Techniques
		Mold and Yeast counts	APHA. Compendium of Methods for the Microbiological Examination of Foods. APHA. 5th Ed. 2015, chapter 3, item 3.10 y 3.101 pages 36-37.//
		Mold and Yeast counts (cont'd.)	ICMSF Food Microorganisms 1. Their meaning and enumeration methods. Pages 166-167 (II, 5-7). 2nd. Ed. Reprint 2000 (1983). Microbiological monitoring of the food processing environment. Air-sampling methods. Sedimentation methods.// Method of counting yeasts and molds by sowing in plaque throughout the medium

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ENVIRONMENTAL – MICROBIOLOGY (cont'd.)	Inert Regular, Inert Irregular and Living Surfaces (Sampling & Analysis)	Total Coliform Count	ICMSF. Food Microorganisms 1. Its meaning and enumeration methods. Method 4. P. 137. 2nd Ed., Reprint 2000 (1983) // RM No. 461-2007 MINSA (X) Coliform count. Method 4. (Direct count on board). // Technical Guide for microbiological analysis of surfaces in contact with food and beverages
		Detection of Salmonella sp	ISO 6579-1: 2017 / Amd 1: 2020(E) // RM No. 461-2007 MINSA. Microbiology of the food chain- Horizontal method for the detection, enumeration and serotyping of Salmonella - Part 1: Detection of Salmonella spp. AMENDMENT 1: Broader range of incubation temperatures, amendment to the status of Annex D, and correction of the composition of MSRV and SC. (Except item 9.3.3; 9.4.3; 9.5.6 and Annex D) // // Guía Técnica para el Análisis Microbiológico de Superficies en contacto con Alimentos y Bebidas
	Living Surfaces (Sampling & Analysis)	Staphylococcus aureus counts	AOAC 975.55. 22nd Ed. 2023 // RM N° 461-2007 MINSA Staphylococcus aureus in Foods. Surface Plating Method for Isolation and Enumeration // Technical Guide for Microbiological Analysis of Surfaces in Contact with Food and Beverage.
	Soils, Sediments, Sludges and Biosolids (Sampling & Analysis)	Viable helminth eggs	Standard Methods for the Recovery and Enumeration of Moodley et al. Helminth Ova in Wastewater, Sludge, compost and Urine-Diversion Waste in South Africa (Moodley, Archer, Hawksworth, & Leibach, 2008)
		Escherichia coli	SMEWW-APHA-AWWA-WEF. Part 9221G (Item 2), 24th Ed. 2023. Multiple-Tube Fermentation. Technique for Members of the Coliform Group. Other Escherichia coli Procedures. / EPA-821-R--14-009.
		Escherichia coli (cont'd.)	Method 1680: Fecal Coliforms in Sewage Sludge (Biosolids) by

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ENVIRONMENTAL – MICROBIOLOGY (cont'd.)	Soils, Sediments, Sludges and Biosolids (Sampling & Analysis) (cont'd.)		Multiple- Tube Fermentation using Lauril Tryptose Broth (LTB) and EC Medium, September 2014, Items: 11, 12.4 y 14.
		Total Coliforms	SMEWW-APHA-AWWA-WEF. Part 9221 B, 24th Ed. 2023. Multiple-Tube Fermentation. Technique for Members of the Coliform Group. Standard Total Coliform Fermentation Technique. / EPA-821- R--14-009. Method 1680: Fecal Coliforms in Sewage Sludge (Biosolids) by Multiple-Tube Fermentation using Lauril Tryptose Broth (LTB) and EC Medium, September 2014, Items: 11, 12.4 y 14.
		Fecal Coliforms	SMEWW-APHA-AWWA-WEF. Part 9221 E (Item 1), 24th Ed. 2023. Multiple-Tube Fermentation. Technique for Members of the Coliform Group. Thermotolerant (Fecal) Coliform Procedure. / EPA-821-R--14-009. Method 1680: Fecal Coliforms in Sewage Sludge (Biosolids) by Multiple- Tube Fermentation using Lauril Tryptose Broth (LTB) and EC Medium, September 2014, Items: 11, 12.4 y 14.
	Sludges and Biosolids (Sampling & Analysis)	Salmonella sp	EPA-821-R-06-14. Method 1682: Salmonella in Sewage Sludge (Biosolids) by Modified Semisolid Rappaport-Vassiliadis (MSRV) Medium. July 2006
ENVIRONMENTAL HYDROBIOLOGY	Superficial water (Sampling & Analysis)	Periphyton quantitative	SMEWW-APHA-AWWA-WEF Part 10300 C.1, 2, 24th Ed. 2023. Periphyton Sample Analysis
		Periphyton qualitative	SMEWW-APHA-AWWA-WEF Part 10300 C.1, 2. // Part 10900, 24th Ed. 2023. Periphyton Sample Analysis. // Identification of Aquatic Organisms
ENVIRONMENTAL HYDROBIOLOGY (cont'd.)	Natural Water, Water for use and Human Consumption,	Phytoplankton Qualitative	SMEWW-APHA-AWWA-WEF Part 10200 C.1, F.2.a, F.2.c.1 // Part 10900, 24th Ed. 2023.

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FIELDS OF TESTING	MATERIAL/MATRIX	DETERMINANT(S)/ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL HYDROBIOLOGY (cont'd.)	Saline Water (Sampling & Analysis)		Plankton Concentration Techniques. Phytoplankton Counting Techniques. // Identification of Aquatic Organisms.
		Phytoplankton Quantitative	SMEWW-APHA-AWWA-WEF Part 10200 C.1, F.1, F.2.a, F.2.c.1, 24th Ed. 2023. Plankton. Concentration Techniques. Phytoplankton Counting Techniques
		Zooplankton Qualitative	SMEWW-APHA-AWWA-WEF Part 10200 G.1, // Part 10900, 24th Ed. 2023. Plankton. Zooplankton Counting Techniques. Subsampling. // Identification of Aquatic Organisms
		Zooplankton Quantitative	SMEWW-APHA-AWWA-WEF Part 10200 G. 24th Ed. 2023. Plankton. Zooplankton Counting Techniques.
	Natural Water, Water for use and Human Consumption (Sampling & Analysis)	Free-Living Organisms - Phytoplankton (Algae), Zooplankton (Protozoa, rotifer copepods and nematodes in all their evolutionary stages)	SMEWW-APHA-AWWA-WEF Part 10200 C.1, F.2. a, F.2.c.1, 24th Edition / SMEWW-APHA-AWWA-WEF Part 10200 G, 24th Ed. 2023. Plankton. Concentration Techniques. Phytoplankton Counting Techniques / Plankton. Zooplankton. Counting Techniques.
	Epicontinental sediments, Estuarine sediments, marine sediments (Sampling & Analysis)	Quantitative benthic macroinvertebrates	SMEWW-APHA-AWWA-WEF Part 10500 C.1,2, 24th Ed. 2023. Benthic Macroinvertebrates. Sample Processing and Analysis. Sorting and Identification.
		Qualitative benthic macroinvertebrates	SMEWW-APHA-AWWA-WEF Part 10500C // Part 10900, 24th Ed. 2023. Benthic Macroinvertebrates. Sample Processing and Analysis. // Identification of aquatic organisms
	Wastewater (Sampling & Analysis)	FREE-LIVING ORGANISMS - Phytoplankton (Algae) +,Zooplankton (Protozoa, rotifer copepods and nematodes in all their evolutionary stages)	SMEWW-APHA-AWWA-WEF Part 10200 F.1, F.2.a., 24th Edition. 2023 / SMEWW-APHA-AWWA-WEF Part 10200 G, 24th Edition. 2023. Plankton. Phytoplankton Counting Techniques. / Plankton. Zooplankton Counting Techniques.
	Wastewater (Sampling & Analysis)	Detection of Vibrio Cholerae	R-LAB-46. EPA 600/R-10/139, 2010. (Validated -2024) EPA Standard Analytica

SCOPE OF ACCREDITATION

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FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
			I Protocol for Vibrio cholerae O1 and O139 in Drinking Water and Surface Water (Except the use of the O139 antiserum and the items 11 and 16.1)