



SCOPE OF ACCREDITATION

IAS Accreditation Number	TL-829
Company Name	Servicios Analíticos Generales S.A.C.
Address	Av. Naciones Unidas 1565, Chacra Ríos Norte Cercado de Lima 15082, Peru
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Effective Date of Scope	January 8, 2019
Accreditation Standard	ISO/IEC 17025:2005

Chemistry, Organic

Water

Method 8260D – Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) Revision 4, June 2018.	in waters: Volatile Organic Compounds (VOC's) 1,1-Dichloroethene, Dichloromethane, Trans-1,2-Dichloroethylene, 1,1-Dichloroethane 2,2- Dichloropropane, Cis-1,2-Dichloroethylene, Bromochloromethane, 1,1,1-Trichloroethane, 1,1- Dichloropropene, Carbon Tetrachloride, 1,2-Dichloroethane, trichloroethylene, 1,2-Dichloropropane, Dibromomethane, Cis-1,3-Dichloropropene, Trans-1,3-Dichloropropene, 1,1,2 Trichloroethane, 1,3-Dichloropropane, tetrachloroethylene, 1,2-Dibromoethane, Chlorobenzene, 1,1,1,2-Tetrachloroethane, Styrene, Cumene, 1,1,2,2 Tetrachloroethane, 1,2,3- Trichloropropane, n-Propylbenzene, Bromobenzene, 1,3,5- Trimethylbenzene, 2-Chlorotoluene, 4-Chlorotoluene, Tert-Butylbenzene, 1,2,4- Trimethylbenzene, Sec- Butylbenzene, p-Isopropyltoluene, 1,3 Dichlorobenzene, 1,4-Dichlorobenzene, n-Butylbenzene, 1,2-Dichlorobenzene, 1,2-Dibromo-3-chloropropane, 1,2,4-Trichlorobenzene, Hexachlorobutadiene, Naphthalene, 1,2,3-Trichlorobenzene, Chloroform, Bromodichloromethane, Dibromochloromethane, Bromoform.
Method 8260D – Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) Revision 4, June 2018	in waters: BTEX Benzene, Toluene, Ethylbenzene, m-Xylene, p-Xylene, o-Xylene
Method 8260D – Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) Revision 4, June 2018.	in waters: Trihalometans Chloroform, Bromodichloromethane, Dibromochloromethane, Bromoform
EPA 8015 C. Nonhalogenated Organics by Gas Chromatography. Rev 3 / February 2007.	in waters: Total Petroleum Hydrocarbons (TPH) Range:



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Chemistry, Organic	
Soil, Sediments and Sludges	
Method 8260D – Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) Revision 4, June 2018.	in soils, sediments and sludges: Volatile Organic Compounds (VOC's) Trichloroethylene, Tetrachloroethylene
Method 8260D – Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) Revision 4, June 2018.	in soils, sediments and sludges: BTEX Benzene, Toluene, Ethylbenzene, m-Xylene, p-Xylene, o-Xylene. Suma de Xilenos: orto, meta y para xilenos
EPA 8015 C. Nonhalogenated Organics by Gas Chromatography. Rev 3 / February 2007.	in soils, sediments and sludges: Total Petroleum Hydrocarbons (TPH) C6-C10 Fracción de Hidrocarburos F1 (C ₆ -C ₁₀)
EPA Method 8270E: Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS). Revision 6, June 2018.	in soils, sediments and sludges: PCB: PCB 28, PCB 52, PCB 101, PCB 118, PCB 138, PCB 153, PCB 180 Suma de 7 PCB indicadores: PCB 28, PCB 52, PCB 101, PCB 118, PCB 138, PCB 153, PCB 180
Chemistry, Inorganic	
Water	
SMEWW-APHA-AWWA-WEF. Part 2120 C. Color. Spectrophotometric-Single-Wavelength Method (Proposed). 23rd Ed. 2017.	in waters: Color (True Color, Apparent Color)
Method 180921. Color in Saline Water (Validated). Referenced in SMEWW-APHA-AWWA-WEF. Part 2120 C. Color. Spectrophotometric-Single-Wavelength Method (Proposed). 23rd Ed. 2017.	in waters: Color (True Color, Apparent Color)
SMEWW-APHA-AWWA-WEF. Part 2310 B. Acidity. Titration Method. 23rd Ed. 2017.	in waters: Acidez
SMEWW-APHA-AWWA-WEF. Part 4500-Br B. Bromide. Phenol Red Colorimetric Method. 23rd Ed. 2017.	in waters: Bromides (Br-)



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SMEWW-APHA-AWWA-WEF. Part 2540 E. Solids. Fixed and Volatile Solids Ignited at 550°C. 23rd Ed. 2017.	in waters: Fixed and Volatile Solids (Total Sample, Dissolved or Suspended)
SMEWW-APHA-AWWA-WEF. Phosphorus. Part 4500-P B Sample Preparation. / Part 4500-P E. Ascorbic Acid Method. 23rd Ed. 2017.	in waters: Phosphorus: Total phosphorus, Total reactive phosphorus, Total acid-hydrolyzable phosphorus, Total organic phosphorus, Dissolved phosphorus, Dissolved reactive phosphorus, Dissolved acid-hydrolyzable phosphorus, and Dissolved organic phosphorus.
Method 180810. Total Metals and Dissolved by ICP in Saline Water (Validated). Referenced in EPA Method 200.8. Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma-Mass Spectrometry. Revision 5.4. 1994.	in waters: Total and Dissolved Metals Metals: Silver (Ag), Aluminum (Al), Arsenic (As), Boron (B), Barium (Ba), Beryllium (Be), Bismuth (Bi), Cadmium (Cd), Calcium (Ca), Cerium (Ce), Cobalt (Co), Chromium (Cr), Cesium (Cs), Copper (Cu), Iron (Fe), Potassium (K), Lithium (Li), Magnesium (Mg), Manganese (Mn), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Lead (Pb), Antimony (Sb), Selenium (Se), Strontium (Sr), Thorium (Th), Titanium (Ti), Thallium (Tl), Uranium (U), Vanadium (V), Zinc (Zn).
Method 180806. Floatable Material of Anthropogenic Origin (Validated) Referenced in: SMEWW-APHA-AWWA-WEF Part 2530 B. Particulate Floatables. 23rd Ed. 2017.	in waters: Floatable Material of Anthropogenic Origin
Biological	
Water	
SAG-180917 Rev. 0 (Validated) 2018. Immunoassay method for the quantification of microcystin-LR	in waters: Microcystin-LR
Physical	
Water	
ISO 748:2007 Hydrometry - Measurement of liquid flow in open channels using current-meters or floats	in waters: Flow
Biological Tissues	
Vegetable Tissues, Biological Tissues	
EPA Method 200.3, Rev. 1, April. 1991. Metals, Total Recoverable in Biological Tissues / EPA Method 200.7, Rev.4.4. EMMC Version 1994.	In Vegetable Tissues Total Metals: Aluminum (Al), Antimony (Sb), Arsenic (As), Barium (Ba), Beryllium (Be), Cadmium (Cd), Calcium (Ca), Chromium (Cr), Cobalt (Co), Copper (Cu), Iron (Fe), Lead (Pb), Lithium (Li), Magnesium (Mg), Manganese (Mn), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Phosphorus (P), Potassium (K), Selenium (Se), Silver (Ag), Sodium (Na), Strontium (Sr),



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	Thallium (Tl), Uranium (U), Vanadium (V), Zinc (Zn).
EPA Method 200.3, Rev. 1, April.1991. Metals, Total Recoverable in Biological Tissues / EPA Method 200.7, Rev.4.4. EMMC Version 1994.	in Biological Tissues Total Metals: Aluminum (Al), Antimony (Sb), Arsenic (As), Barium (Ba), Beryllium (Be), Cadmium (Cd), Calcium (Ca), Chromium (Cr), Cobalt (Co), Copper (Cu), Iron (Fe), Lead (Pb), Lithium (Li), Magnesium (Mg), Manganese (Mn), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Phosphorus (P), Potassium (K), Selenium (Se), Silver (Ag), Sodium (Na), Strontium (Sr), Thallium (Tl), Uranium (U), Vanadium (V), Zinc (Zn).
Chemistry, Inorganic	
Atmosphere	
EPA CFR 40, Appendix C to Part 50. Measurement Principle and Calibration Procedure for the Measurement of Carbon Monoxide in the Atmosphere (Non-Dispersive Infrared Photometry). NTP 900.031: 2003. Environmental Management. Air Quality Principle of measurement and calibration procedure for the measurement of carbon monoxide in the atmosphere (non-dispersive infrared photometry).	in Air: Determination of Carbon Monoxide (CO)
EPA CFR 40, Appendix D to Part 50. Measurement Principle and Calibration Procedure for the Measurement of Ozone in the Atmosphere. NTP 900.034: 2005. Environmental Management. Air Quality Principle of measurement and calibration procedure for the measurement of ozone in the atmosphere.	in Air: Determination of Ozone (O ₃)
EPA CFR 40, Appendix F to Part 50. Measurement Principle and Calibration Procedure for the Measurement of Nitrogen Dioxide in the Atmosphere (Gas Phase Chemiluminescence). NTP 900.033: 2004. Environmental Management. Air quality. Principle of measurement and calibration procedure for the measurement of	in Air: Determination of Nitrogen Dioxide (NO ₂)



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nitrogen dioxide in the atmosphere (chemiluminescence of the gas phase).	
NTP ISO 10498: 2006. Determination of sulfur dioxide. Ultraviolet fluorescence method.	in Air: Determination of Sulfur Dioxide (SO ₂)
Method 180806. Measurement of hydrogen sulfide in air quality (Validated). Referenced in NTP ISO 10498: 2006. Determination of sulfur dioxide. Ultraviolet fluorescence method.	in Air: Determination of Hydrogen Sulfide (H ₂ S)
Method 180901. Total Gaseous Mercury in Air Quality (Validated). Referenced in NIOSH 6009, Mercury 1994.	in Air: Total Gaseous Mercury (Sampling and Analysis)
Method 180901. Total Gaseous Mercury in Air Quality (Validated). Referenced in NIOSH 6009, Mercury 1994.	in Air: Total Gaseous Mercury (Only Analysis)
EPA 40 CFR, Appendix A-6 to Part 60. Method 16A - Determination of total reduced sulfur emissions from stationary sources (impinger technique). 2017	in Gaseous Emissions: Hydrogen Sulfide (H ₂ S)/ Total Reduced sulfur (TRS)
EPA-40 CFR, Appendix A-8 to Part 60. Method 29. Determination of Metals Emissions from Stationary Sources. 2017	in Gaseous Emissions: Metals: Silver (Ag), Arsenic (As), Barium (Ba), Beryllium (Be), Cadmium(Cd), Chromiun (Cr), Cobalt (Co), Mercury (Hg), Copper (Cu), Manganese (Mn), Nickel (Ni), Phosphorus (P), Lead (Pb), Antimony (Sb), Selenium (Se), Thallium (Tl), Zinc (Zn).
Method 180924. Metals: Vanadium (Validated). Referenced in EPA-40 CFR, Appendix A-8 to Part 60. Method 29. Determination of Metals Emissions from Stationary Sources. 2017.	in Gaseous Emissions: Metals: Vanadium (V)
EPA CTM-034. Determination of Oxygen, Carbon Monoxide and Oxides of Nitrogen from Stationary Sources For Periodic Monitoring (Portable Electrochemical Analyzer Procedure) / September 1999.	in Gaseous Emissions: Gases NOx (NO) CO O2
EPA 40 CFR, Appendix A-6 to Part 60. Method 8 - Determination of	in Gaseous Emissions: Determination of sulfuric acid (H ₂ SO ₄) and sulfur dioxide (SO ₂)



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sulfuric acid mist and sulfur dioxide emissions from stationary sources. 2017	emissions from stationary sources
Method 180925. Determination of particulate material PM 2.5 High volume in the Atmosphere (Validated). Referenced in EPA CFR40 Appendix J. Part 50 Method for the Determination of Particulate Matter as PM10 in the Atmosphere.	in Air: Particulate Material PM 2.5 High volume
Chemistry, Organic	
Atmosphere	
ASTM D3686 – 13 & ASTM D3687 - 07(2012). Standard Practice for Sampling Atmospheres to Collect Organic Compound Vapors (Activated Charcoal Tube Adsorption Method) / Standard Practice for Analysis of Organic Compound Vapors Collected by the Activated Charcoal Tube Adsorption Method.	in Air: Benzene Volatile Organic Compounds: Benzene (Sampling and Analysis)
ASTM D3687 - 07(2012) Standard Practice for Analysis of Organic Compound Vapors Collected by the Activated Charcoal Tube Adsorption Method.	in Air: Benzene Volatile Organic Compounds: Benzene (Only Analysis)
EPA-40 CFR, Appendix A, Part 60 Method 18. 2017. Measurement of gaseous organic compound emissions by gas chromatography.	in Gaseous Emissions: Volatile Organic Compounds (VOC's): Benzene, Trichloroethylene, Toluene, Tetrachloroethylene, Chlorobenzene, Ethylbenzene, m-Xylene, p-Xylene, Styrene, o-Xylene, Bromobenzene, 2-Chlorotoluene, n-Propylbenzene, 4-Chlorotoluene, 1,3,5- Trimethylbenzene, Tert-Butylbenzene, 1,2,4- Trimethylbenzene, 1,3 Dichlorobenzene, Sec-Butylbenzene, 1,4-Dichlorobenzene, 1,2-Dichlorobenzene, p-Isopropyltoluene, n-Butylbenzene, 1,2,4-Trichlorobenzene, Naftaleno, 1,2,3-Trichlorobenzene.
Chemistry, Inorganic	
Occupational Health	
NIOSH 7601. Issue 3, 2003. Silica, Crystalline, by VIS.	in Occupational Health: Silica Crystalline (SiO ₂) (Sampling and Analysis)
NIOSH 7601. Issue 3, 2003. Silica, Crystalline, by VIS. (EXCEPT SAMPLING).	in Occupational Health: Silica Crystalline (SiO ₂) (Only Analysis)
NIOSH 7400, Issue 2, 1994. Asbestos and Other Fibers by PCM.	in Occupational Health: Asbestos (Sampling and Analysis)



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NIOSH 7400, Issue 2, 1994. Asbestos and Other Fibers by PCM (EXCEPT SAMPLING).	in Occupational Health: Asbestos (Only Analysis)
Method 180910. Determination of weight and weight filter respirable particles (validated) Referenced in NIOSH 0600, Issue 3. Particulates Not Otherwise Regulated, Respirable - 1998 (EXCEPT SAMPLING).	in Occupational Health: Determination of filter weight and weight of respirable particles.
Method 180911. Determination of weight and weight particle filter totals (inhalable powder) - (validated). Referenced in NIOSH 0500, Issue 2. Particulates Not Otherwise Regulated, Total - 1994. (EXCEPT SAMPLING).	in Occupational Health: Determination of filter weight and weight of totals particles (inhalable powder).
Physical	
Occupational Health	
ISO 1996-2:2017(E) Acoustic – Description, Measurement and assessment of environmental noise. Part 2: Determination of sound pressure levels.	in Air: Determination of environmental noise
UNE – EN ISO 9612 (2009). Acoustics - Determination of occupational noise exposure - Engineering method.	in Occupational Health: Determination of exposure to noise at work
ISO 7243:2017(E) Ergonomic of the thermal environment – Assessment of heat stress using the WBGT (wet bulb globe temperature) index.	in Occupational Health: Ergonomics of thermal stress in hot environments
ISO 11079:2007 Ergonomics of the thermal environment - Determination and interpretation of cold stress when using required clothing insulation (IREQ) and local cooling effects.	in Occupational Health: Ergonomics of thermal stress of cold stress
UNE-EN 12464-1(2011). Lighting of workplaces. Part 1: Workplaces indoors. UNE-EN 12464-2 (2014). Lighting of workplaces. Part 2: External workplaces.	in Occupational Health: Lighting
UNE – EN ISO 5349-2 (2001). Mechanical vibration - Measurement and evaluation of human exposure to	in Occupational Health: Measurement and evaluation of human exposure to hand-transmitted vibration



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hand-transmitted vibration - Part 2: Practical guidance for measurement at the workplace.	
NTP – ISO 2631-1(2016). Mechanical vibration and shock - Evaluation of human exposure to whole-body vibration - Part 1: General requirement.	<u>in Occupational Health:</u> Mechanical vibration and shock - Evaluation of human exposure to whole-body vibration
NTP-ISO 2631-2 (2012). Vibrations And Mechanical Shocks. Evaluation of human exposure to whole-body vibrations. Part 2: Vibration in buildings (1 Hz to 80 Hz).	<u>in Occupational Health:</u> Vibration in buildings.