For a better and safer world
KNOWLEDGE AND SPECIALIZATION

Through our network of laboratories, R&D and consulting services, we get to the root of the trouble finding the most reliable, sustainable and worthwhile solution. We offer our clients from punctual solutions to total outsourcing.

One of AGQ Labs keys to success is its professional, continuously trained, involved, motivated and young team of specialists.

EASE AND RAPIDITY

Our partnerships with specialized logistics companies from all around the world take us further. Once samples have been received in our laboratories our sample turnaround times are second to none. Delivery of results is performed by physical, digital and online channels, through our online platform BeSafer.

GLOBAL PRESENCE

EUROPE
Spain
Portugal
Italy

SOUTH AMERICA
Chile
Argentina
Perú
Ecuador
Colombia

NORTH AFRICA
Morocco
Tunisia
Egypt

CENTRAL AND NORTH AMERICA
United States
Mexico
Guatemala
Costa Rica/Caribbean

ACCREDITED LABORATORIES

Our global network of laboratories, inspection and sampling services are accredited at the highest international levels.

SPAIN
365 - LE 13227 LE 1323
EI276

PORTUGAL
Portuguese Institute of Accreditations LO128

CHILE
LE 667

PERU
National Institute of Quality - Registration No. LE-072

COSTA RICA
National Accreditation Body of Costa Rica No. File LE-144

All our accreditations, certificates and scopes can be checked on the Accreditations section of our website www.agqliabs.com

Our technological centers in Spain, Chile, USA, Morocco, Peru, Mexico and Portugal, together with an extensive network of technical branches, can take us anywhere in the world. This allows us to collaborate with the leading agri-food and industrial companies in Europe, America and Africa.
Technological Service Platform

GLOBAL SOLUTIONS

We respond with ease and rapidity to legislative demands and market alerts (analytical controls, quality controls, traceability, food safety controls, environmental impact analyses, etc.)

Technological center

Control laboratories

Specialized Consulting/Engineering services

Inspections and controls

Agronomy

Food Safety

Environmental

Mining

Health and Safety

BeSafer
Laboratories for tomorrow’s **agriculture**

**ISO 17025** international accreditation for analytical laboratories: soil, plant, foliar, water, fertilizer analysis, etc.

Authorization from the Health and Agriculture Department of the Regional Government of Andalusia (Spain)

Authorization from the Department of Agriculture of the Regional Government of Catalonia (Spain)

**SECTORS FOR WHICH WE WORK**

AGRICULTURAL PRODUCTION MANUFACTURER AND SUPPLIERS OF AGRICULTURAL INPUTS EVERGREEN
CROP NUTRITIONAL MONITORING AND CONTROL

For the last 20 years, AGQ Labs has been evaluating the needs of all types of crops throughout their life cycles in a continuous manner. In a practical and dynamic fashion, during the entirety of the campaign, we will control the necessities of water and nutrients for the crop, with the goal of adjusting the irrigation and fertilization to its demands.

With this control we are also establishing a sustainable agricultural practice by avoiding leachates that can contaminate aquifers and damage the soil structure. The result is:

- Savings on fertilizer cost up to 40%
- More productivity and profitability
- Better quality fruit
- Minimization of environmental impact

GIS (MAPS OF NUTRIENTS)

- Identification of areas with deficient, adequate or excessive levels of nutrients
- Setting amendments adapted to the features of the farm
- Optimization of fertilizer usage
- Control of crop nutrients evolution
- Assessment of saline areas
- Indicator for starting new crops / varieties
- Correlation between nutrient status and productivity/quality

RECOVERY / REUSE OF EFFLUENTS

- Characterization of effluent
- Feasibility study of their application (limiting and / or risk factors)
- Nutritional monitoring after their application
- Corrective measures

ANALYTICAL SERVICES

- Analysis of irrigation water
- Fertilizing solutions
- Agronomic Soil Analysis (Soil Factory Lab)
- Drainage solutions (hydroponics)
- Vegetable tissue (analysis of crops - leaves -, sap, fruits)
- Fertilizers
- Manure and compost
- Agricultural influents and effluents

ECOLOGICAL AGRICULTURE

AGQ Labs provides ecological agriculture with tools and knowledge of soil-plant-water systems. AGQ Labs has been using suction probes for more than 15 years as a way of detecting plant response to nutrients, the availability of nutrients, and the relationship between nutrients and the salt concentrations produced in the area.
Food quality and safety

ISO 17025 international accreditation for advanced laboratory analysis.

GLP. Certificate of Good Laboratory Practices (degradation studies of pesticide residues)

SECTORS FOR WHICH WE WORK

AGRICULTURAL PRODUCTION
AQUACULTURE PRODUCTION
PROCESSED PRODUCTS
CATERING-HORECA
DISTRIBUTION CHAIN
BEVERAGES
ANIMAL FEED
PROCESSED FOOD (TYPE IV, V and VI) COFFEE AND COCOA
TEAS, INFUSIONS AND AROMATIC HERBS GREEN AND CURED TOBACCO
ANALYTICAL SERVICES

- Analysis of pesticide residues (phytosanitary products and pesticides)
- Specific determinations (analysis of glyphosate, azadirachtin, fosetyl aluminum, ethephon, fenbutestan, chloromequat chloride, elemental sulfur, quaternary ammonium compounds, perchlorates, chlorates, etc.)
- Heavy metals (Pb, Cd, Hg, As, Cr, Sb,...)
- Analysis of mycotoxins (aflatoxins, ochratoxin, patulin, zearalenone, deoxynivalenol...)
- Micropollutants (PCB’s, PAH, biotoxins,...)
- Antibiotics, coloring, penicillin, sulfonamides, coccidiostats
- Microbiology
- Food Additives: nitrates, nitrites, SO2, citric acid, isocitric acid, benzoic acid, sorbic acid, acetic acid, lactic acid, malic acid, etc.
- Inorganic analysis: Water activity, chlorides, volatile basic nitrogen, sodium chloride
- Nutrition facts (proteins, fats, fiber, types of fat, sugars, carbohydrates, etc.)
- Vitamins and other specific compounds
- Key analysis to control specific products (processed vegetables, fish, oil, wines, etc.)
- Other specific: Nitrofurans, histamine, etc.

FOOD CONSULTANCY

- Detection and resolution of sanitary problems.
- Quality improvements - products and processes.
- Revision of internal analytical control processes.
- Installation of quality control systems (GlobalGAP, BRC, IFS, Organic Production...)
- Administration and management of internal agrifood company laboratories: OUTSOURCING.
- Shelf life studies on food and preservation sensory analysis and control of modified atmosphere (O2-CO2)
- Legislative requirements on ticketing, product labeling, packaging and export composition and explanation of technical reports.
- Answering technical requests. Knowledge of international law. Preparation of reports of results.
- Development of degradation curves and study of pollutants analysis

SUPPLIER CONTROL

- Risk analysis
- Preparation of reference documentation
- Criteria for supplier assessment
- Inspections and audits
- Sampling for analysis
- Statistical analysis of data
- Control of sanitary alerts

R & D FOR AGRIFOOD COMPANIES

- Development and optimization of new analytical techniques.
- Validation of new methods.
- Development of new products.
- Improvement of quality products, chemically and qualitatively/ perceptually.
- Specific developments to improve the production efficiency, with special focus on food quality and food safety.

FULL SUPPORT SERVICE TO FDA DETECTIONS

- Sampling
- Analysis
- Monitoring
Environmental solutions

**ISO 17025** laboratory accreditation for all types of water (surface and subterranean water, waste water, marine water, drinking water), soil, muds and residues; atmospheric, biota and fertilizer analyses, acoustic emission modeling and testing.

**ISO 17020** accreditation for all types of inspection services: atmospheric, water (surface and subterranean water, waste water, marine water, drinking water), potentially contaminated soils and residues.

**ISO 9001** management of physio-chemical and microbiological tests in waters, atmospheric emissions, acoustics, soils and residues.

**ISO 14001** environmental management quality in all types of processes.

**ECAH.** Hydraulic Administration Collaborating Entity for all types of analyses and inspections.

**REACH** physio-chemical studies for chemical substances; compliance with GLP practices.

SECTORS FOR WHICH WE WORK

ENERGY
INDUSTRY
WATER CYCLE
ENVIRONMENTAL CONSULTANCIES
ANALYTICAL SERVICES

WATER
• Analysis and features of surface (rivers, streams, lakes, ...) and subterranean water quality
• Analysis of drinking water.
• Analysis of marine water.
• Analysis and features of waste water.
• Performance monitoring of wastewater treatment plants.
• Wastewater valuation (reutilization).

WASTE
• Tests for the characterization of waste.
• Characterization of waste for disposal by landfill.
• Comprehensive studies for residue inertization (blanketing) and subsequent removal of hazardous materials
• Characterization of sewage sludge for use in agriculture.
• Studies for the valuation of waste.

ENVIRONMENTAL RADIOACTIVITY
• Analysis of Tritium in drinking water
• Total alpha and total beta activity index
• Other Beta Index
• Natural uranium
• Uranium-235 ($^{235}$U) and uranium 238 ($^{238}$U)
• Polonium-210 ($^{210}$Po)
• Thorium-228 ($^{228}$Th), thorium 230 ($^{230}$Th) and thorium 232 ($^{232}$Th)

SAMPLING
• Planning, design and implementation of sampling campaigns and monitoring of liquid, solid and gaseous samples.
• Determination of minimum number of samples and their location. Positioning by GIS. Sampling process and “in situ” analysis of both punctual and temporary samples (individual or integrated), or continuously at predefined time periods.
• Flow measurement and estimation.
• Hydrolevel measurements.
• Sampling in deep water masses.

INSPECTIONS
• Standardized inspections complying with ISO 17020 in the fields of waste, water, soil and atmosphere.
• Control and monitoring of surveillance programs complying with environmental authorizations

SOIL
• Analysis of potentially contaminated soil covering the Exploration
• Detailed phases until the determination of contaminated soil.
• Follow-up of national and international guidelines and standards for assessing the contamination of soils.
• Certification of the remaining soil as decontaminated.
• Studies and characterization of soil environmental targets before the activity.
• Analysis of thermal oils in soils.

ATMOSPHERE
• Sampling and analysis of emission sources and stationary sources
• Sampling and analysis of air quality (sedimentary, suspension and SH2 particles)
• Air quality.
• Performance of air purification systems in channeled foci (cyclones, baghouses, electrofilters, ...)
• Dispersion modeling simulations with calpuff modeling system

OTHER
• Characterization of chemicals used in industrial processes
• Tests following REACH regulations (physical and chemical)

STUDIES
• Acoustic environmental tests: environmental noise emission and noise immission complying with ISO 17025
• Predictive models or pre-operational acoustic studies using modeling and simulation.
• Environmental health tests: acid mist and metals in dosimeters; respirable dust...
• Aquatic phytoplankton and zooplankton studies.

OUTSOURCING
• Design, implementation, management and accreditation services of laboratories in customer facilities
• Models based on objectives, scope, extent and management of assets and investments.
We work for a more efficient and sustainable mining industry

ISO 17025 International accreditation for mining laboratory testings

REACH Physical and Chemical characterization studies of Chemicals, in compliance with the principles of GLP

SECTORS FOR WHICH WE WORK

GEOLOGICAL EXPLORATION
EXPLORATION PROJECTS
MINING AND METALLURGICAL INDUSTRY
MINING WASTE AND TAILINGS
SAMPLE PREPARATION AND CHARACTERIZATION

- Drying
- Crushing
- Grinding
- Pulverizing

PHYSICAL AND CHEMICAL ANALYSIS OF MINERALS, METALS AND ROCKS

PHYSICAL TESTS
- Degree of humidity.
- Specific weight.
- Degradability.
- Reactivity during combustion or flammability of solids.
- Grain size determination.
- Mineralogy studies with reflected light microscopy and quantification of mineral species.

CHEMICAL ANALYSIS IN SOLID SAMPLES
- Aqua regia digest.
- Four acid digestion.
- Alkaline fusion and acid digestion.

GOLD, SILVER AND PRECIOUS METALS FIRE ASSAY WITH FINISH BY ICP AND AAS.

SPECIES OF SULFUR

SPECIATION BY OXIDATION STATE

SEQUENTIAL EXTRACTION

LIQUID SAMPLES
- Metal analysis.
- Analysis of organic compounds.
- Environmental assays in different matrices: water, soil, sediments, air particles, vegetation samples and animal samples.
- Organic micropollutants.
- Inorganic parameters: Selective electrode, Soluble anions by ICP
- Spectrophotometer UV-VIS, infrared FT-IR, titration / potentiometer, electrochemical methods.
- In situ analysis of pH, electric conductivity, dissolved oxygen...

METALLURGICAL TESTS
- Sample preparation and characterization
- Recovery techniques by physics and chemical properties of materials.
- Solid-liquid extraction: Leaching.

ENVIRONMENTAL SERVICES AND SOLUTIONS FOR THE MINING INDUSTRY
- Baselines for environmental impacts valuation.
- Preoperational feasibility.
- Diagnosis and impacts and passive valuation (Due Diligence).
- Plans, projects and environmental control in mining closing operations.
- Remediation of contaminated soils. Site rehabilitation.
- Inspections and chemical analysis of compulsory environmental controls.

ENVIRONMENTAL GEOCHEMISTRY. WASTE AND TAILING CHARACTERIZATION.

STATIC GEOCHEMICAL TESTS
- Acid base accounting test
- European standard BS EN 15875.
- Net acid generation - NAG test.

KINETIC GEOCHEMICAL TESTS
- Wet cell test
- Column leach test - Meteoric water mobility procedure (MWMP)- and CEN/TS 14405.

LEACHING TESTS
- Leaching as a function of pH.
- General leaching and leachate toxicity.
- Toxicity Characteristic Leaching Procedure (TCLP)

OUTSOURCING

Establishment and management of internal laboratories.

ENERGY CROPS PROJECTS
Health & Safety, two concepts that concern us all

ISO 17025

GLP: Certificate of Good Laboratory Practices

SECTORS WHERE WE WORK

TOYS AND SCHOOL MATERIAL
CLEANING AND DISINFECTION PRODUCTS
PHARMACY AND COSMETICS
FOOD PACKAGING
HYGIENE AND INDUSTRIAL SECURITY
TOYS AND SCHOOL SUPPLIES

- **Physical tests**: mechanical physical resistance, flammability.
- **Chemical tests**: heavy metals, solvents, toluene, nitrosamines, phthalates, etc.

CLEANING AND DISINFECTION PRODUCTS

- Checking labeling
- Determination of wealth
- Physical chemical properties
- Stability studies

COSMETICS AND PHARMACEUTICAL PRODUCTS

- Microbiological assays
- Toxicity tests
- Determination of wealth
- Physical and chemical properties under USP standards

FOOD PACKAGING

- Analysis of pollutants
- Pesticides, phthalates, bisphenol A, etc.
- Heavy metals
- Transfer studies of both metals and plastics
- Determination of monomers and solvent residues

HYGIENE AND INDUSTRIAL SECURITY

- Air quality analysis
- Radon analysis
BeSafer, the Smart Online Platform for a complete management of analytical data
Get the most of your analytical results

BeSafer is an AGQ Labs online service and a mobile app available to all its clients. BeSafer enables clients to have real-time access to their samples, to their analytical data at any stage, distinguishing between log-in and installation date and sampling point.

BeSafer allows the geotraceability of sampling points and it also allows clients to set personalized alerts, getting notifications if a pre-established boundary value is exceeded (complying with laws in force) without having to wait for the receipt of a final report.

In addition, thanks to a comprehensive program of development, BeSafer incorporates new tools extending the platform services in different areas, such as the possibility of consulting the GIS service interactive maps (maps of nutrients).
HEADQUARTER
Avda. de La Palmera 27. 41013 Sevilla, Spain
T. (+34) 955 738 908

For a better and safer world

www.agqlabs.com