



PT. GEOSERVICES - MINERAL LABORATORY

KAN Accreditation for ISO17025 Laboratory Certification

Ark Spark Optical Emission Spectroscopy

Location

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About us

PT. GEOSERVICES is a National Company founded in 1971 by Dr.Ong HL and Ir.Durban LA Msc. The Company has gained a solid base of expertise covering all aspects of the exploration and development of Indonesia's oil, gas, coal, mineral, and geothermal industries. Originally providing field sampling and chemical analysis for the mineral industry, PT. Geoservices has diversified its services and broadened its clientele. Located in Cikarang are the Mineral Division business streams covering:

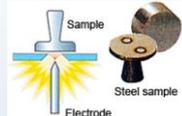
- Mineral/exploration analysis,
- Metallurgical testwork
- Oil analysis testwork
- Geotechnical testwork

The mineral division of PT. Geoservices has installed and accredited to ISO 17025 a SPECTROLAB Ark Spark Optical Emission Spectrometer (OES) for analysis of metal samples.



WHAT IS ARK SPARK OES

Ark Spark Optical emission spectrometry involves applying electrical energy in the form of spark generated between an electrode and a metal sample, whereby the vaporized atoms are brought to a high energy state within a so-called "discharge plasma" with an emission of radiation.



The radiation emitted is passed to the spectrometer optics where it is dispersed into its spectral components. From the wavelengths emitted by each element the intensity is measured against a stored set of calibration curves and the concentration of each element determined.

The Ark Spark OES covers the analysis of chemical elements at the complete range from sub-ppm to percentage levels from pure metals trace analysis to high alloyed grades. All relevant elements are analyzed simultaneously

INDUSTRIAL APPLICATION OF ARK SPARK OES

Quality control for metal producing industries:
 Foundries producing metals and alloys
 Steel, copper and aluminium plant producers
 Fabricators in the automotive, aviation and home appliance industry
 Inspection companies and contract laboratories and metal Recyclers.

METAL ANALYSIS CAPABILITY

The SPECTROLAB Ark Spark installed at Geoservices has been calibrated for analysis of 10 metal matrices either pure or as alloys:

- Aluminium (Al)
- Copper (Cu)
- Cobalt (Co)
- Iron (Fe)
- Magnesium (Mg)
- Nickel (Ni)
- Lead (Pb)
- Tin (Sn)
- Titanium (Ti)
- Zinc (Zn)

SAMPLE PRESENTATION REQUIREMENTS

Milled and polished metal round or square shape approximately 40mmx40mm

