Metal and Mining Parameters Utilising LCK

Procedures for Analysing CN^-, S^{2-}, SO_4, Al, Cd, Cr, Cu, Pb, Ni, Fe, Zn and Ag

Hach® offers a variety of colourimetric chemical reagents for testing metals and other mining by-products in mining effluent water. As the state of mining changes, Hach develops new reagents to accommodate regulations and economic trends. With LCK Cuvette Tests, mining operations can reduce errors, variation, and improve safety, while saving money on chemicals.

LCK Cuvette Tests for Mining

Cyanide Testing for Gold Cyanidation

The LCK315 cyanide reagent set addresses the need for cyanide discharge in mining applications.

Working Procedures:

Cyanide Procedure
LCK315 (0.01-0.60 mg/L CN)
LCK315 Procedure

Tests for Metals Used in Batteries

Commodity prices are increasing across the mining industry, particularly for copper, lithium, nickel and chromium; this is largely due to the rising demand for batteries and electric vehicles globally. Hach has a full range of LCK Cuvette Tests to accommodate the growing market for battery-specific metals testing.

Working Procedures:

Aluminium Procedure
LCK 301 (0.02-0.50 mg/L Al)
LCK 301 Procedure

Cadmium Procedure
LCK308 (0.02-0.30 mg/L Cd)
LCK308 Procedure

Chromium Procedure
LCK313 (0.03-1.00 mg/L Cr)
LCK313 Procedure

Copper Procedure
LCK329 (0.1-8.0 mg/L Cu)
LCK329 Procedure

Lead Procedure
LCK306 (0.1-2.0 mg/L Pb)
LCK306 Procedure

Nickel Procedure
LCK337 (0.1-6.0 mg/L Ni)
LCK337 Procedure

Iron Procedure
LCK321 (0.2-6.0 mg/L Fe)
LCK321 Procedure

Zinc Procedure
LCK360 (0,2-6,0 mg/L Zn)
LCK360 Procedure

Crack Set Procedure
LCW902 (Pb, Cd, Ni)
LCW902 Procedure

Silver Procedure
LCK354 (0.04-0.8 mg/L Ag)
LCW354 Procedure

Sulfide and Sulfate Compliance Permitting

Hach offers compliance testing for sulfide in acid mining drainage and sulfide rock mining.

Working Procedures:

Sulfide Procedure
LCK653 (0.1-2.0 mg/L S_2)
LCK653 Procedure

Sulfate Procedure
LCK153 (40-150 mg/L SO_4)
LCK153 Procedure
LCK353 (150-900 mg/L SO_4)
LCK353 Procedure

LCK Cuvette Tests: Expert testing made simple

- **Reduce Errors** – A barcode label on each LCK Cuvette Chemistry is read by the DR6000 UV-VIS Spectrophotometer or DR3900 Benchtop Spectrophotometer to identify the appropriate method and take the measurement.
- **Reduce Varitaion** – Each vial includes its lot calibration data, reducing variation in results. This allows you to meet reporting standards and to perform proficiency testing with higher confidence.
- **Documented shelf life and COA** – Each vial has a bar-code that details its batch number and expiration date. This information is is passed on with the test result. An automatic warning is issued if the expiration date has passed.
- **No reagent blank necessary** – The high quality of LCK cuvette's, tight reagent production controls, instrument calibration verification, and high instrument stability all combine to eliminate the need to run reagent blanks.
- **Safe and easy handling** – LCK cuvette's use innovative Dosicaps that are easier to use than powder pillows or liquid reagents. There's no risk of spillage, no safety risk, and no risk of contamination with Dosicaps because the reagents are completely contained within the vial cap.

How LCK Works

1. Barcode Recognition

Simply drop the vial and get results immediately with automatic method detection.

2. Reference Detector

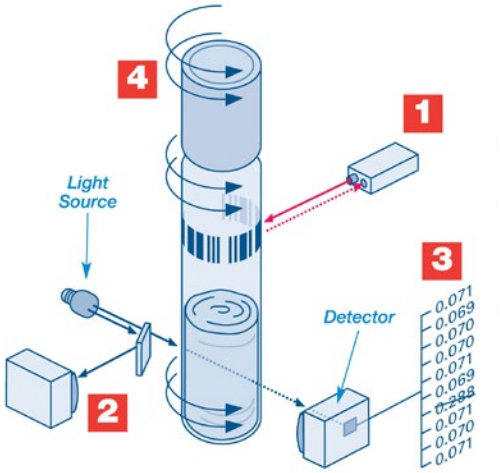
Monitors and compensates for optical fluctuations.

3. 10x Measurement and Outlier Elimination

Dirty, scratched, or flawed glassware, including fingerprints, is no longer an issue. The instrument averages 10 readings and rejects outliers.

4. Self-Contained Packaging. Reagents Inside Sealed Cap.

Reduces exposure to chemicals as there is no need to open powder pillows or clean glassware.



Contact Hach Technical Support for more information regarding these method procedures.

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