MPOB INFORMATION SERIES • ISSN 1511-7871 • JUNE 2010 MPOB TS No. 91

The sample is diluted with kerosene using a 1:1 weight ratio. The resulting solution is directly injected into the plasma of the ICP OES spectrometer (*Figure 1*), and the content of Na, K, Ca and Mg is calculated with reference to a set of calibration solutions prepared. The wavelengths for the analysis of Na, K, Ca and Mg are 588.995 nm, 769.897 nm, 422.673 nm and 279.553 nm, respectively.

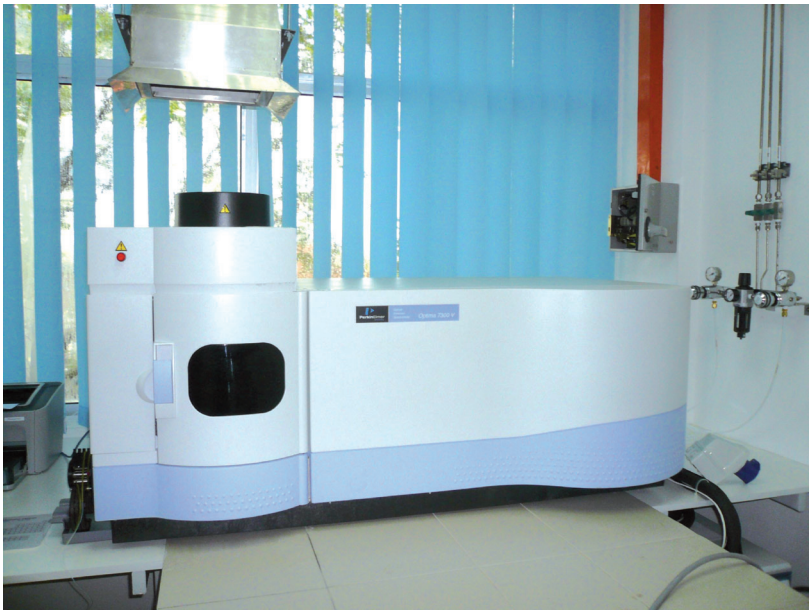

Figure 1. Inductively coupled plasma optical emission spectrometer (ICP OES).

Amount of sample required: 10 g
Cost of analysis: RM 500 per sample*

Note: * As at June 2010; subject to change.

REFERENCES

EUROPEAN COMMITTEE FOR STANDARDIZATION (2006). *EN 14538:2006 Fat and Oil Derivatives – Fatty Acid Methyl Esters (FAME) – Determination of Ca, K, Mg and Na Content by Inductively Coupled Plasma (ICP OES).*

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) (2009). *ASTM D4951-09 Standard Test Method for Determination of Additive Elements in Lubricating Oils by Inductively Coupled Plasma Atomic Emission Spectrometry.*

ISSN 1511-7871
9 771511 787001

Malaysian Palm Oil Board, Ministry of Plantation Industries and Commodities, Malaysia
P. O. Box 10620, 50720 Kuala Lumpur, Malaysia. *Tel*: 03-87694400 *Website*: www.mpob.gov.my *Telefax*: 03-89259446

MPOB

For more information, kindly contact:

Director-General
MPOB
P. O. Box 10620
50720 Kuala Lumpur, Malaysia.
Tel: 03-8769 4400
Fax: 03-8925 9446
www.mpob.gov.my