



MS ISO/IEC 17025

Certificate of Accreditation

No: SMM 646

Valid until: 8 May 2017

This is to certify that

ALEX STEWART LABORATORY (MALAYSIA) SDN. BHD.
BAYAN LEPAS, PULAU PINANG
MALAYSIA
(FIELD OF TESTING: CHEMICAL)

has been granted accreditation in respect of the scope of accreditation described in the SCHEDULE attached, subject to the terms and conditions governing the *Skim Akreditasi Makmal Malaysia (SMM)*, the Laboratory Accreditation Scheme of Malaysia.

"This laboratory is accredited in accordance with the recognised International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF Communiqué dated January 2009)".

Issuance of this certificate is governed by Section 16 Subsection (2) and (3) of Standards of Malaysia Act 1996, (Act 549).



(FADILAH BAHARIN)
Director General
Department of Standards Malaysia

Date of issue: 8 May 2014

Schedule



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LABORATORY LOCATION: ALEX STEWART LABORATORY (MALAYSIA) SDN. BHD.
(PERMANENT LABORATORY) 17-G-12, 17-1-12, 17-2-12, BAYAN POINT
MEDAN KAMPONG RELAU
11900 BAYAN LEPAS
PULAU PINANG
MALAYSIA

SITE TESTING LOCATION SITIAWAN SITE LABORATORY
(SITE TESTING - CATEGORY II) 27, TAMAN RAJA MUDA MUSA
32000 SITIAWAN, PERAK
MALAYSIA

This laboratory accredited under *Skim Akreditasi Makmal Malaysia* (SAMM) meets the requirements of MS ISO/IEC 17025:2005 'General requirements for competence of testing and calibration laboratories'. This Malaysian Standards is identical with ISO/IEC 17025:2005 published by the International Organization for Standardization (ISO).

FIELD OF TESTING: CHEMICAL

SCOPE OF ACCREDITATION:

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Coal and Coke	Preparing Coal and Coke Samples for Analysis	In-house Method STP-001 based on ASTM D 2013/ D 2013 M-12
	Total Moisture	ASTM D 3302/ D 3302 M-12
	Ash	ASTM D 3174-12
	Inherent Moisture	ASTM D 3173-11
	Volatile Matter	ASTM D 3175-11
	Fixed Carbon	ASTM D 3172-13
	Sulfur	ASTM D 4239 – 13 Method B
	Gross Colorific Value	ASTM D 5865-13
	Net Calorific Value	ASTM D 5865-13
	Carbon, Hydrogen and Nitrogen	ASTM D 5373-13 Method A
	Hardgrove Grindability Index	ASTM D 409/ D 409M-12
	Calculating Coal and Coke Analysis from as determined to different bases	ASTM D 3180-12



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FIELD OF TESTING: CHEMICAL

SITE TESTING-CATEGORY II

SCOPE OF ACCREDITATION:

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Coal and Coke	Total Moisture	ASTM D 3302/ D 3302M-12 (excluding procedure 9:3)

Note:

ASTM: American Society for Testing and Materials

Signatories:

1. Chew Bee Yan A/2378/4983/06
2. Tan Ai Ling L/1775/5789/10

