



ALEX STEWART LABORATORY (M) SDN BHD

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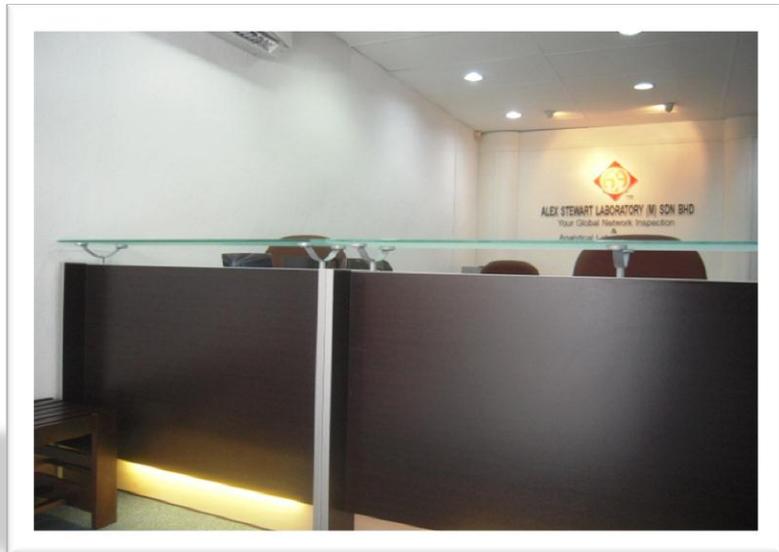


2012
COAL
TESTING
LAB

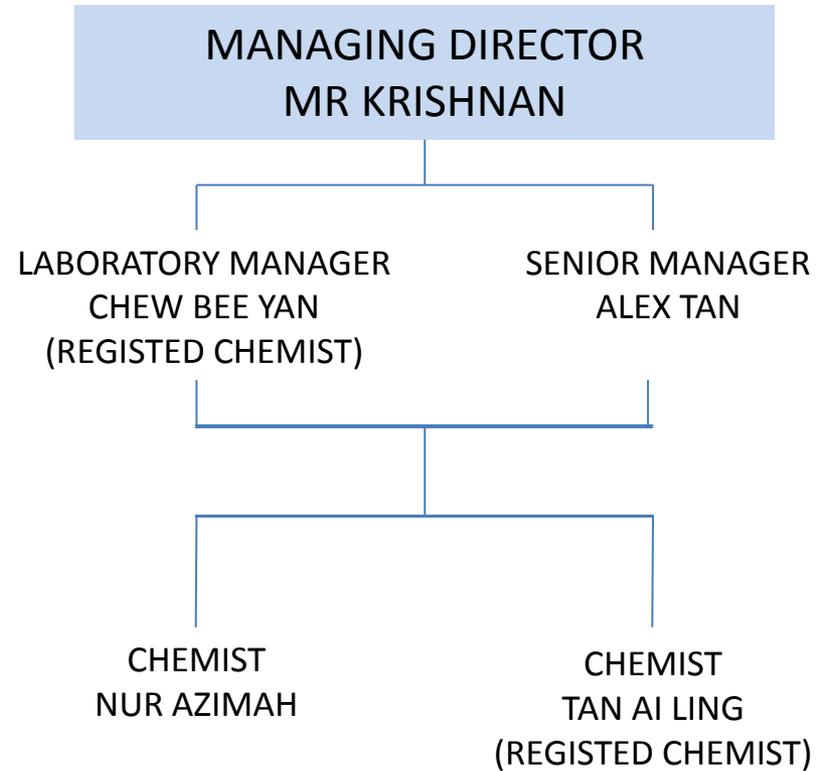


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LABORATORY ORGANIZATION

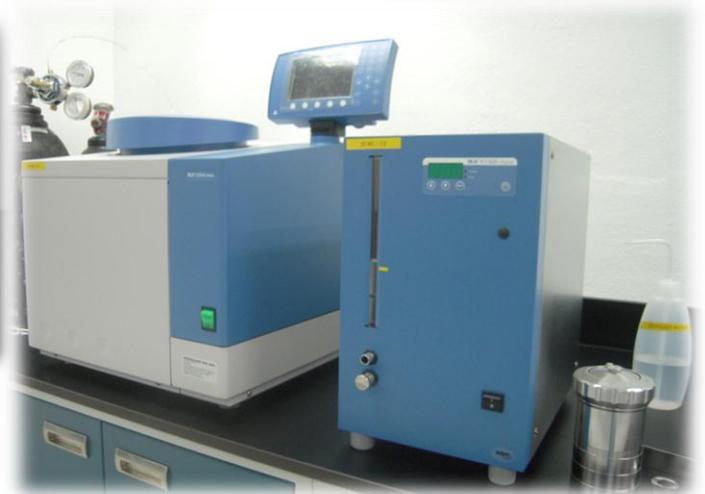




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Our laboratory facilities are capable in performing coal analysis.

1. Total Moisture
2. Inherent Moisture
3. Gross Calorific Value
4. Ash
5. Volatile Matter
6. Fixed Carbon
7. Sulphur
8. Carbon
9. Nitrogen
10. Hidrogen
11. Hardgrove Grindability Index





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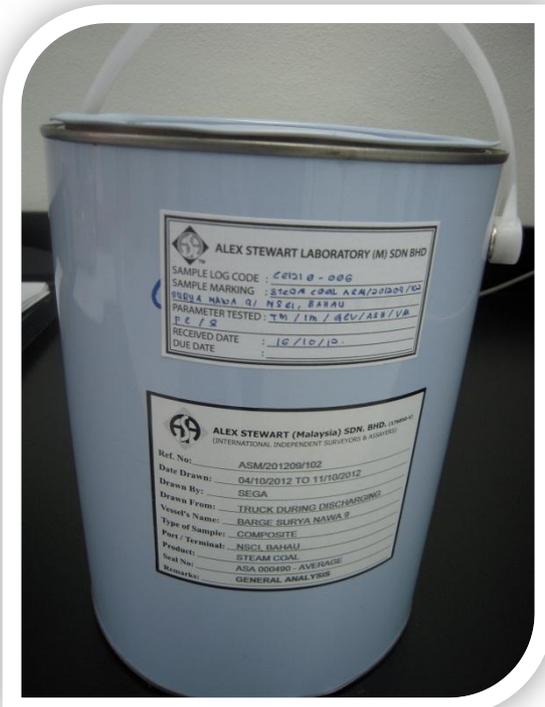


Sample Receiving/Log in



Each sample will be log in by given different lab reference number

CC 1210 - 001

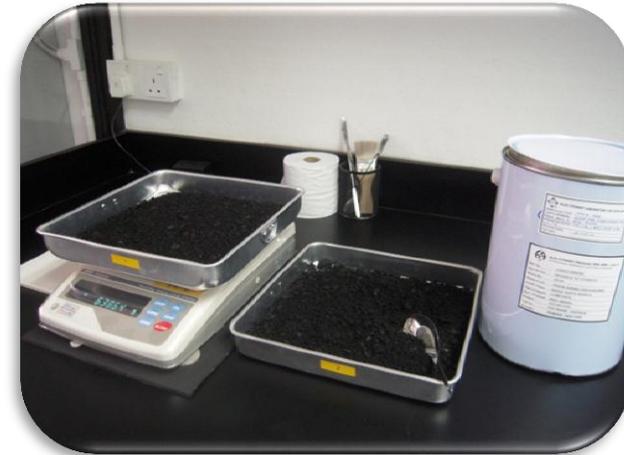


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SAMPLE LOG CODE	: _____
SAMPLE MARKING	: _____
PARAMETER TESTED	: _____
RECEIVED DATE	: _____
DUE DATE	: _____

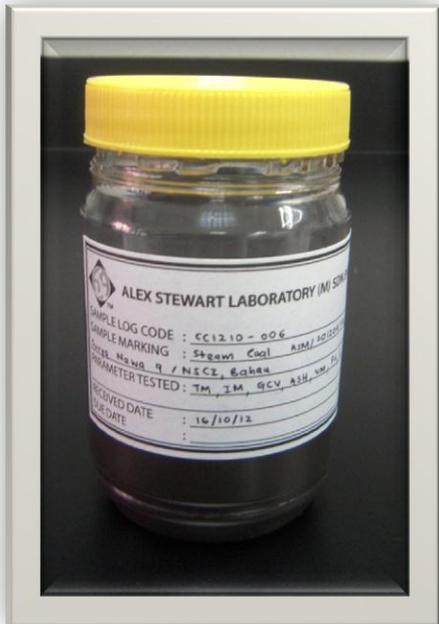
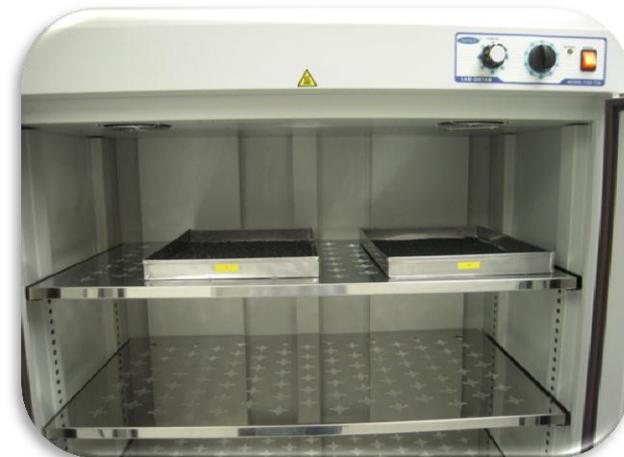


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Air drying process



Sample is pulverized to below 250 μ m



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Worksheet for Proximate Analysis of Coal and Coke

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Worksheet

Sample Log Code: CC		Sample Marking:		
TEST PARAMETER	Inherent Moisture	Ash	Volatile Matter	Fixed Carbon
Test Method:	ASTM D3173 – 11	Test Method: ASTM D3174 – 11	Test Method: ASTM D3175 – 11	Test Method: ASTM D3172 – 07a
Test Description:	1 g sample heat at 107 ° C for 1 hour.	1 g sample ignite at 700 ° C - 750 ° C for 4 hours.	1 g sample closed with cover heating at 950 ° C for exactly 7 minutes.	It is the resultant of the summation of percentage moisture, ash, and volatile matter subtracted from 100.
EC = Empty Crucible SW= Sample Weight Aft = After IM = Inherent Moisture VM= Volatile Matter FC = Fixed Carbon	<u>Analysis 1:</u> EC (g) = SW(g) = A) EC + SW (g) = B) Aft Heat (g) = <u>Analysis 2:</u> EC (g) = SW(g) = A) EC + SW (g) = B) Aft Heat (g) =	<u>Analysis 1:</u> EC (g) = SW(g) = Aft Ignite (g) = <u>Analysis 2:</u> EC (g) = SW(g) = Aft Ignite (g) =	<u>Analysis 1:</u> EC (g) = SW(g) = A) EC + SW (g) = B) Aft Heat (g) = Weight Loss = % <u>Analysis 2:</u> EC (g) = SW(g) = A) EC + SW (g) = B) Aft Heat (g) = Weight Loss = %	
Calculation:	$IM, \% = \frac{A(g) - B(g)}{SW(g)} \times 100$	$Ash, \% = \frac{Aft\ Ignite(g) - EC(g)}{SW(g)} \times 100$	$Weight\ Loss, \% = \frac{A(g) - B(g)}{SW(g)} \times 100$ VM, % = Weight Loss (%) – IM (%)	$FC, \% = 100 - (IM + Ash + VM)$
Result:	Analysis 1 = % Analysis 2 = %	Analysis 1 = % Analysis 2 = %	Analysis 1 = % Analysis 2 = %	
Average Result: (as Air Dry basis)	%	%	%	%
Test Performed by : Date :			Checked by :	



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Facilities in Alex Stewart Laboratory (M) Sdn Bhd



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Inherent Moisture / Residue Moisture

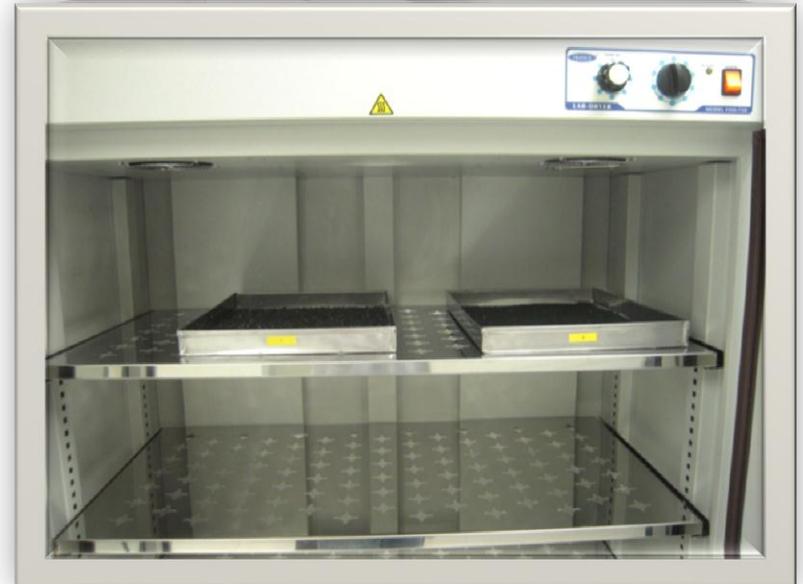




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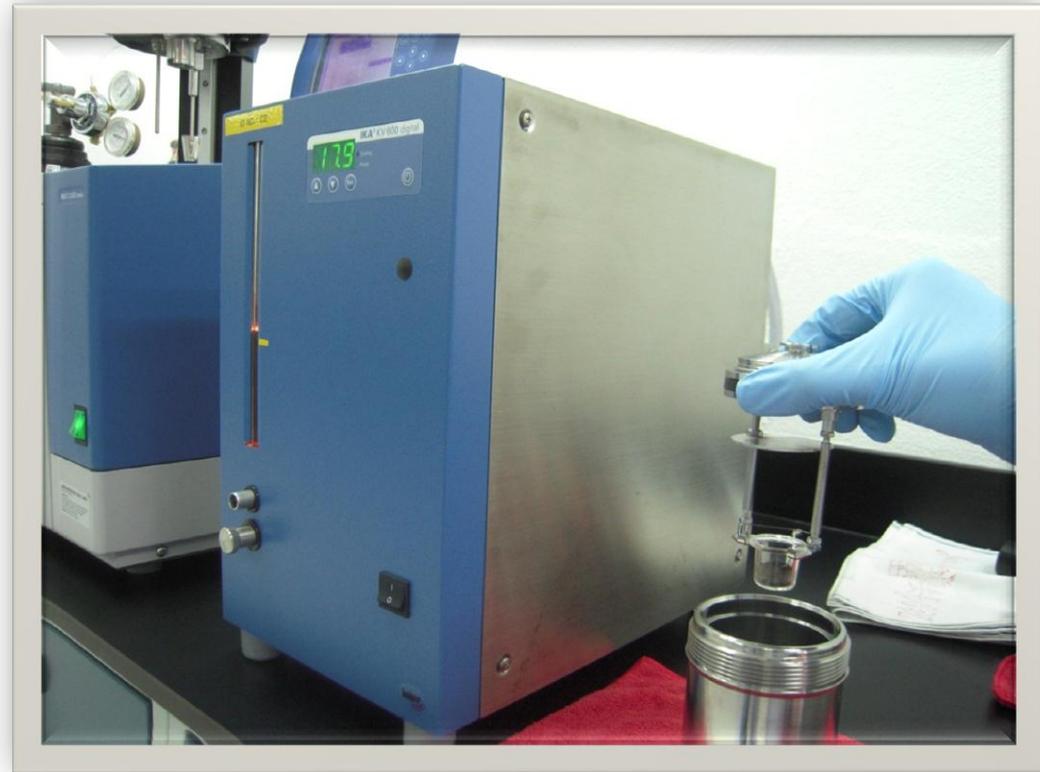
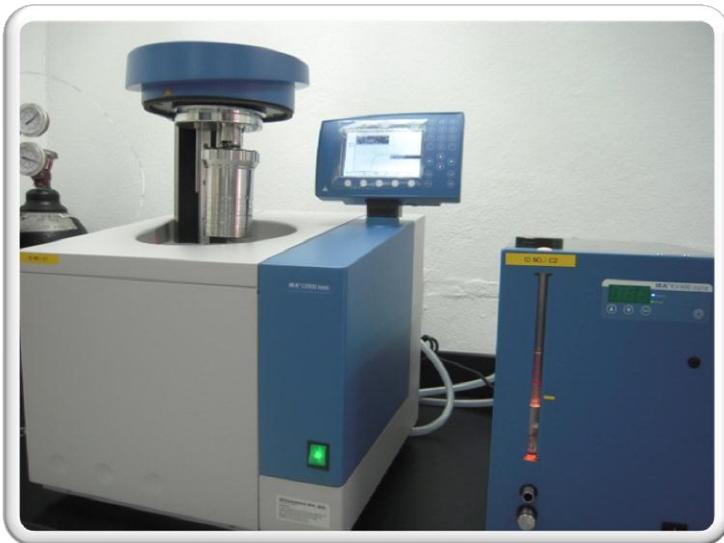
Total Moisture





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Gross Calorific Value

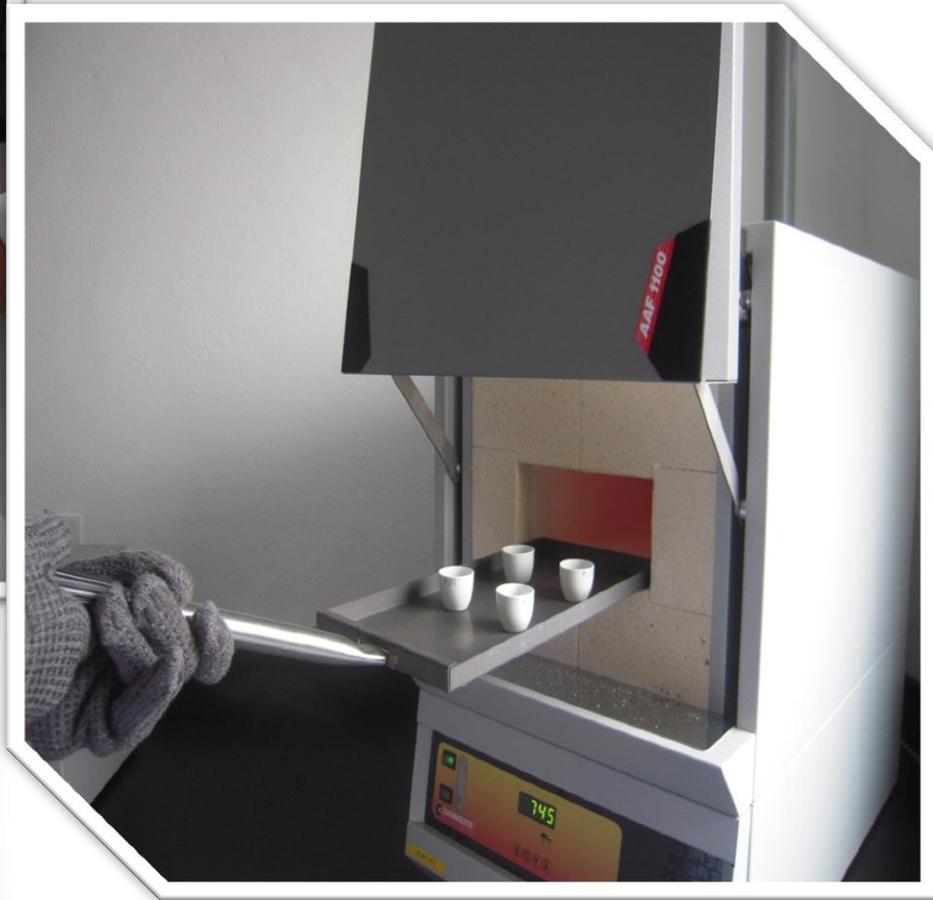




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Ash





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Volatile Matter





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CHN Analyzer





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Sulfur Analyzer





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Hardgrove Grindability Index





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Sample Store Room





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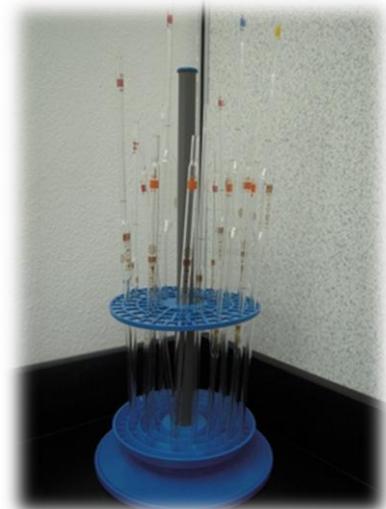
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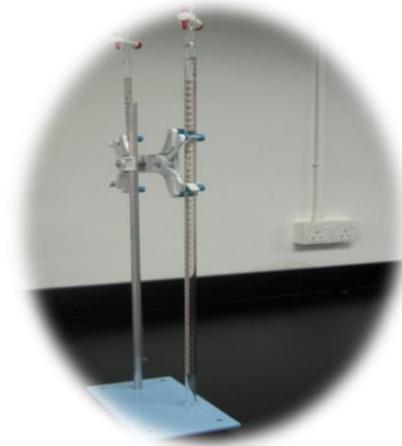
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THE END

THANK YOU