




Email Address				Page/s	1 of 2
Sample Mark	Submitted Sample - No Marking				
Sample Mass	14.70 Kg				
Proximate Analysis	Unit	Method	As Received Basis	Air Dried Basis	Dry Basis
Total Moisture	%	Based on ISO 589	10.0		
Moisture in Analysis Sample	%	Based on SANS 5925		5.3	
Ash Content	%	Based on ISO 1171	9.3	9.8	10.4
Volatile Matter	%	Based on ISO 562	37.6	39.6	41.8
Fixed Carbon	%	By Difference	43.1	45.3	47.8
Total Sulphur	%	Based on ASTM D4239	0.71	0.75	0.79
Gross Calorific Value	MJ/kg	Based on ISO 1928	27.24	28.65	30.26
Gross Calorific Value	Kcal/kg	Based on ISO 1928	6504	6841	7226
Net Calorific Value	Kcal/kg	Based on ISO 1928	6240	6593	6995
Ultimate Analysis	Unit	Method	As Received Basis	Air Dried Basis	Dry Basis
Total Carbon	%	Based on ISO 29541			
Hydrogen (Calculated)	%	Based on ISO 29541	4.27	4.49	4.74
Total Nitrogen	%	Based on ISO 29541			
Oxygen by Difference (Excl. O in Moisture)	%	Based on ISO 29541			
Total Chlorine * #	ppm	Based on ASTM D4208			
Total Fluorine * #	ppm	Based on ASTM D3761			
Hardgrove Grindability Index (HGI) * #	Units	Based on ISO 5074	36		
Dry Sizing Analysis	Unit	Method	Size Fraction (mm)	Fractional Mass (kg)	Percentile Retained (%)
	%	Based on ISO 1953			
	%	Based on ISO 1953			
	%	Based on ISO 1953			
	%	Based on ISO 1953			
	%	Based on ISO 1953			
	%	Based on ISO 1953			
	%	Based on ISO 1953	Total		
Ash Fusion Temperature (AFT) * #	Unit	Method	Result		
Reducing Atmosphere					
Initial Deformation (IDT)	Deg. C	Based on ISO 540			
Spherical (Softening)	Deg. C	Based on ISO 540			
Hemispherical	Deg. C	Based on ISO 540			
Flow (Fluid)	Deg. C	Based on ISO 540			
(Condition of test item if abnormal / additional information)					
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Analysis Marked "*" in this report are Subcontracted to another laboratory			Keshnee Moonsamy		
Tests Marked "##" in this report are not included in the SANAS schedule of accreditation for this laboratory.			Technical Signatory		
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Certificate of Analysis

Reference Number	14517	Page/s 2 of 2
Analytical Methods Used		
Analysis	Method	Status
Manual Sampling	COT/01/SAMP	Not Accredited
Sample Preparation	COT/01/PREP	Accredited
Calorific Value (MJ/kg)	COT/02/CV	Accredited
Moisture in Analysis Sample (%)	COT/03A/MOIST	Accredited
Ash Content (%)	COT/05/ASH	Accredited
Volatile Matter (%)	COT/04/VOL	Accredited
Fixed Carbon by difference (%)	COT/06/FC	Accredited
Total Sulphur (%)	COT/07/S	Accredited
Total Moisture (%)	COT/09/TMOIST	Accredited
Sizing Analysis	COT/10/PSD	Accredited
Ultimate Analysis	COT/08/CHN	Accredited
Float and Sink Analysis	Analytical (*) (#)	Subcontracted Analysis
Ash Fusion Temperature	Analytical (*) (#)	Subcontracted Analysis
Hardgrove Grindability Index	Analytical (*) (#)	Subcontracted Analysis
Abrasiveness Index	Analytical (*) (#)	Subcontracted Analysis
True Relative Density	Analytical (*) (#)	Subcontracted Analysis
Crucible Swelling Number	Analytical (*) (#)	Subcontracted Analysis
Roga Index	Analytical (*) (#)	Subcontracted Analysis
Ruhr Dilatometer Test (%)	Analytical (*) (#)	Subcontracted Analysis
Gieseler Fluidity Plastometer (ddpm)	Analytical (*) (#)	Subcontracted Analysis
Fischer Assay	Analytical (*) (#)	Subcontracted Analysis
Gray-King Index	Analytical (*) (#)	Subcontracted Analysis
Ash Analysis (Major & Minor Elements)	Analytical (*) (#)	Subcontracted Analysis
Forms of Sulphur	Analytical (*) (#)	Subcontracted Analysis
Phosphorus in Coal (%)	Analytical (*) (#)	Subcontracted Analysis
Trace Elements	Analytical (*) (#)	Subcontracted Analysis
Analysis Marked "Subcontracted analysis" in this report are Subcontracted to another laboratory and indicated with a hash "#"		
Tests Marked "Not SANAS Accredited" in this report are not included in the SANAS schedule of accreditation for this laboratory and indicated with an asterisk "*"		
*Sampling Plan: Sampling carried out by the client.		
Date of Sampling:		
Identification of sample type:		
Sample Size:		
Number of Increments taken per sample:		
Equipment used:		
Location of sampling (Diagrams/Photographs included):		
Sampling Plan:		
Environmental Conditions:		
Deviations, Additions or Exclusions:		