

## **Certificate of Analysis**

Client: Certispec Services, Inc.

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**Attention:** Montreal Laboratory

**PO No:** 13035

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Report No: USR:W219-0697-01

Issue No: 2

Revised Report. Previous report is USR:W219-0697-01 issue number 1

Signed:

Stephen Sundeen

Chemistry Laboratory Manager

Date of Issue: 8/27/2019

THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

**Sample Log No:** W219-0697-01 **Sample Date:** 8/15/2019

Sample Designation: MTL-19-9779 Sample Time:

Sample Recognized As:Wood PelletsArrival Date:8/26/2019Custody Seal #:19470Sample Weight:10.1 kg

Test Results				
			MOISTURE	AS
	METHOD	UNITS	FREE	RECEIVED
Moisture Total	100 10124 1	ud 0/		4.02
	ISO 18134-1	wt.%	0.00	4.93
Ash	ISO 18122	wt.%	0.33	0.31
Sulfur	ISO 16994	wt.%	0.009	0.008
Gross Cal. Value at Const. Volume	ISO 18125	MJ/kg	20.34	19.34
Net Cal. Value at Const. Volume	ISO 18125	MJ/kg		18.03
Net Cal. Value at Const. Pressure	ISO 18125	MJ/kg	19.01	17.95
Carbon	ISO 16948	wt.%	50.29	47.81
Hydrogen	ISO 16948	wt.%	6.10	5.80
Nitrogen	ISO 16948	wt.%	< 0.21	< 0.20
Oxygen	ISO 16948	wt.%	43.06	40.94
Chlorine	ISO 16994	wt.%	<0.01	<0.01
Dulk density	100 47000	3		674
Bulk density	ISO 17828	ka/m³		671
Mechanical durability	ISO 17831-1	%		99.0
Average Pellet Length	ISO 17829	mm		13.2
Average Pellet Diameter	ISO 17829	mm		6.3
Pellet Length > 40 mm	ISO 17829	wt.%		0.0
Pellet Length > 45 mm	ISO 17829	wt.%		0.0
Pellet Length < 10 mm	ISO 17829	wt.%		20.4
Fines less than 3.15 mm	ISO 18846	wt.%		1.1

## Comments:





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