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Report No: USR:W215-0448-01
Issue No: 1

Analytical Test Report

Client: EQUUSTOCK, LLC
 8179 Starwood Drive
 Loves Park, IL 61111
Attention: Claire Brant
PO No: MN041315

Signed: *Stephen Sundeen*
 Stephen Sundeen
 Chemistry Laboratory Manager
 Date of Issue: 4/29/2015
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Sample Details
Sample Log No: W215-0448-01 **Sample Date:**
Sample Designation: MN Form 1 **Sample Time:**
Sample Recognized As: Pellets **Arrival Date:** 4/23/2015

Test Results

	METHOD	UNITS	MOISTURE FREE	AS RECEIVED
Moisture Total	ASTM E871	wt. %		6.44
Ash	ASTM D1102	wt. %	0.65	0.60
Volatile Matter	ASTM D3175	wt. %	82.94	77.60
Fixed Carbon by Difference	ASTM D3172	wt. %	16.42	15.36
Sulfur	ASTM D4239	wt. %	0.027	0.025
SO ₂	Calculated	lb/mmbtu		0.058
Net Cal. Value at Const. Pressure	ISO 1928	GJ/tonne	19.28	16.72
Net Cal. Value at Const. Pressure	ISO 1928	J/g	19276	16718
Gross Cal. Value at Const. Vol.	ASTM E711	J/g	20377	19066
Gross Cal. Value at Const. Vol.	ASTM E711	Btu/lb	8761	8197

Carbon	ASTM D5373	wt. %	50.58	47.32
Hydrogen*	ASTM D5373	wt. %	5.03	4.71
Nitrogen	ASTM D5373	wt. %	< 0.20	< 0.19
Oxygen*	ASTM D3176	wt. %	> 43.52	> 40.72

*Note: As received values do not include hydrogen and oxygen in the total moisture.

Chlorine	ASTM D6721	mg/kg		
Fluorine	ASTM D3761	mg/kg		
Mercury	ASTM D6722	mg/kg		

Bulk Density	ASTM E873	lbs/ft ³		
Fines (Less than 1/8")	TPT CH-P-06	wt. %		
Durability Index	Kansas State	PDI		
Sample Above 1.50"	TPT CH-P-06	wt. %		
Maximum Length (Single Pellet)	TPT CH-P-06	inch		
Diameter, Range	TPT CH-P-05	inch		to
Diameter, Average	TPT CH-P-05	inch		
Stated Bag Weight	TPT CH-P-01	lbs		
Actual Bag Weight	TPT CH-P-01	lbs		

Comments