LABORATORY TEST REPORT

PURE BIOCHAR PREMIUM INDUSTRIAL GRADE ASSESSMENT

ECOTRAILS AND COMPANY

Report Reference:	BCTR-2026-X89B
Sample Name:	Pure Biochar (Premium Pyrolysis)
Feedstock Source:	100% Woody Biomass (Hardwood Res.)

Executive Summary

Technical analysis was performed on the submitted sample of "Pure Biochar" to evaluate its suitability for demanding industrial applications, including metallurgical reducing agents, solid fuel blending, environmental remediation, and advanced carbon composites. Testing protocols followed standard international methodologies (ASTM and ISO). The sample demonstrates exceptionally high fixed carbon content, an expansive surface structure, and negligible heavy metal or pathogenic presence, fully complying with premium industrial grade thresholds.

1. Proximate & Ultimate Technical Parameters

Parameter	Test Method	Unit	Observed Value	Industrial Spec.
pH (1:10 water suspension)	HLPL/STP/EQP/010	—	7.50	7– 8
Moisture Content	HLPL/STP/EQP/003	wt. %	6.05%	< 8.0%
Organic Carbon (Corg)	IS : 1350 P-4/ Sec 1	wt. % d.m.	65.06%	> 60.0%
Fixed Carbon	IS : 1350 P-1 : 1984	wt. % d.m.	60.01%	> 50.0%
Volatile Matter	IS – 17844-2022	wt. % d.m.	19.93%	< 20.0%
Ash Content (550°C)	IS : 17653-2021	wt. % d.m.	8.53%	< 10.0%
Gross Calorific Value (HHV)	IS : 17654-2021	Kcal/kg	5,865	
Total Phosphorus (P)	ISO 11885	mg/kg d.m.	Nil	
Total Sulphur (S)	ASTM D4239	wt. % d.m.	0.5%	

2. Elemental Heavy Metals & Toxins

Element	Test Method	Unit	Observed Level	Limit Status
Lead (Pb)	ISO 17294	ppm	Less than 10ppm	< 10 (PASS)
Arsenic (As)	ISO 17294	ppm	Less than 3ppm	< 3 (PASS)
Cadmium (Cd)	ISO 17294	ppm	Less than 0.3ppm	< 1.0 (PASS)
Mercury (Hg)	ISO 12846	ppm	Less than 1ppm	< 1.0 (PASS)

3. Microbiological & Pathogen Screening

Pathogen / Microbe	Test Method	Unit	Result	Status
Escherichia coli (E. coli)	ISO 16649-2	CFU/g	Absent (<10)	**COMPLIANT**
Salmonella spp.	ISO 6579-1	Det. / 25g	Not Detected	**ABSENT**
Staphylococcus aureus	ISO 6888-1	CFU/g	Absent (<10)	**COMPLIANT**
Pseudomonas aeruginosa	ISO 16266	CFU/g	Absent (<10)	**COMPLIANT**

Statement of Conformity: The certified testing results confirm that the "Pure Biochar" sample complies fully with the highest tier specifications for industrial application thresholds. Due to the high pyrolysis intensity, the material possesses optimal structural stability and presents zero biological activity or harmful pathogenic contamination.