

PURO.EARTH

OUTPUT AUDIT REPORT

KEY PROJECT INFORMATION							
REPORT ID	PEJV.25.012_H						
REPORT TITLE	Truecoco Ghana Ltd Biochar Output Audit Report						
REPORT DATE	04/12/2025						
VERSION NO.	2.0						
CO ₂ REMOVAL SUPPLIER	Truecoco Ghana Ltd						
PRODUCTION FACILITY NAME	Truecoco Ghana Ltd's Biochar Facility						
PRODUCTION FACILITY ADDRESSES	Badyloon Street, Tikobo No.1, Jomoro District, Western Region, Ghana						
PRODUCTION FACILITY ID	816220						
PRODUCTION FACILITY COORDINATES	Latitude: 5.0423491 Longitude: -2.701473						
REMOVAL PERIOD	05/08/2025 – 11/10/2025						
CO ₂ SINK SECTOR	Biochar						
APPLIED METHODOLOGY	Biochar Methodology Edition 2022, v3.0						
PURO.EARTH STANDARD VERSION	Puro Standard General Rules Version 4.1						
NET VOLUME OF CO ₂ REMOVAL	941.98 CORCs						
CLIENT	Puro. earth						
PREPARED BY	Earthhood Services Limited (formerly known as Earthhood Services Private Limited)						
APPROVED BY	 Dr. Kaviraj Singh CEO						
WORK CARRIED OUT BY	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Team Leader</td><td style="width: 50%;">Nikhitha Chinthala</td></tr> <tr> <td>Assessor & Methodology Expert</td><td>Saranya Balu</td></tr> <tr> <td>Technical Reviewer & Methodology Expert</td><td>Deepika Mahala</td></tr> </table>	Team Leader	Nikhitha Chinthala	Assessor & Methodology Expert	Saranya Balu	Technical Reviewer & Methodology Expert	Deepika Mahala
Team Leader	Nikhitha Chinthala						
Assessor & Methodology Expert	Saranya Balu						
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1. INTRODUCTION

Earthhood Services Limited (formerly known as Earthhood Services Private Limited) was contracted by Puro. earth to undertake an output audit for the project facility “Truecoco Ghana Ltd Biochar Facility” to verify the CO₂ removal claims for the period spanning from 05/08/2025 to 11/10/2025/01/. This report summarizes the results and conclusions of the output audit performed as a formal part of the Puro. Earth certification process as defined in Puro Standard General Rules version 4.1/06/. Earthhood affirms that it is an impartial auditor, free from any conflicts of interest, capable, and qualified to complete this audit according to Puro Standard General Rules/06/ and related Validation and Verification Body Requirements version 1.1/07/.

The biochar facility uses coconut husks sourced from small-scale farmers and cooperative suppliers across the Takoradi–Sekondi region in Western Ghana/08/. The supply of biomass feedstock from the cooperatives to the biochar facility has been confirmed through the agreements with the cooperatives and farmers through the waybill delivery slips for the reporting period from 05/08/2025 – 11/10/2025/09/.

Agricultural organic waste defined as harvest residues by EBC under ID 05/10/, such as coconut husks undergoes pyrolysis to produce biochar which is sold separately and as a fertilizer blend which is a combination of biochar and compost. The current biochar production capacity is 0.5-0.8 tonnes of dry weight of biochar per hour as verified through the Biochar Production records/11/. Independent research indicates that many areas in the Takoradi–Sekondi region of Western Ghana lack formal organic waste management systems, with open biomass burning being a common disposal method. Through this project activity, coconut husks are converted into biochar, enhancing crop cultivation and preventing open burning, thereby enabling measurable greenhouse gas emission reductions.

1.1 OBJECTIVES

The objective of this audit is to conduct a third-party assessment of the operational and administrative processes of the production facility, as well as the output generated and CO₂ removals achieved during the period from 05/08/2025, to 11/10/2025. The assessment verifies compliance of all project documentation and supporting materials with the rules and requirements of the Puro Standard General Rules Version 4.1/06/. In particular,

- Project conformance to the applied biochar methodology Edition 2022 v3.0/04/.
- Life Cycle Assessment (LCA) Report/02/ and CORC calculation/01/
- LCA Model/15/
- Uncertainty and Reversal risk estimation

- Monitoring and Reporting Plan
- Environmental and Social safeguards
- Project Description

The current project got registered in compliance with the Puro Standard General Rules version 4.1/06/ and is under output audit for second monitoring period (05/08/2025 – 11/10/2025). Therefore, the ongoing CORC issuance has been granted to Truecoco Ghana Ltd as per the Puro Standard General Rules version 4.1/06/.

1.2 LEVEL OF ASSURANCE

Reasonable Level of assurance
 Limited Level of assurance

Earthhood's verification approach is based on understanding the risks associated with reporting GHG emissions data and the controls in place to mitigate these risks. Earthhood's plan for the verification process involved obtaining the necessary evidence, information, and explanations to provide a reasonable level of assurance. The VVB reviewed sufficient evidence to verify the project implementation, data, parameters, and emission reduction calculations for this monitoring period. All the supportive documents and evidence referred during current output audit are included in Appendix 2. Any discrepancies found during the verification assessment were raised as audit findings and successfully resolved. All audit findings are included in Appendix 3 of this report.

During the current output audit, the VVB conducted a remote site audit of the project activity, as detailed in Section 2, and observed no substantial changes, thus meeting a reasonable level of assurance.

1.3 AUDIT TEAM

The audit involved a desk review of the relevant documentation, remote site audit, and technical review. The personnel employed and their roles in this assessment were as follows. The assessment team's qualifications are attached as Appendix 4.

Roles allocated to the assessment team		Nature of involvement				
Role	Name	Desk Review	Remote Site Audit	Reporting	Supervision	Technical Review

Team Leader	Nikhitha Chinthala	Y	Y	Y	Y	-
Assessor & Methodology expert	Saranya Balu	Y	Y	Y	Y	
Technical Reviewer & Methodology Expert	Deepika Mahala	-	-	-	-	Y

2 AUDIT PROCESS

A planned series of audit activities were conducted during the remote site audit/12/ to independently verify facility operations, production, output data, application of biochar and CORC claims. The remote site audit was conducted following the specifications of Puro Standard General Rules Version 4.1/06/, the Puro Biochar Methodology Edition 2022 version 3.0/04/. Specific audit activities conducted are summarized below.

1. Opening meeting:

- a. Conducted an initial meeting to outline the audit objectives, scope, and methodology.
- b. Reviewed key operational measurement points and instrumentation used in the facility.
- c. Review of ownership details, roles and responsibilities of the removal suppliers.

2. System Inputs and Outputs Review:

- a. Examined the inputs (biomass feedstock- coconut husks) and outputs (biochar) of the production system.
- b. Verified the accuracy and consistency of input and output data.
- c. Reviewed the process-flow from incoming biomass feedstock (coconut husks) to the end -product- biochar.

3. Records Examination:

- a. Inspected records related to the delivery slips of incoming feedstock, including supplier declarations/08/09/.
- b. Reviewed production logs detailing the daily operation of the kilns and production outputs/11/.
- c. Assessed the equipment utilization and maintenance records to confirm operational management.
- d. The MRV procedures include a review of the dry mass determination of biochar and verification of the biochar sampling process against the applicable SOPs/23/. The assessment also covers the calibration status of monitoring equipment, the validity of the calibration certificates, and the application of any error factors associated with the

moisture meter in the quantification process/22/. In addition, the project's alignment with relevant waste management policies was reviewed as part of the assessment/24/.

4. Data Collection and Material Handling Procedures:

- a. Evaluated data collection methods and tools to ensure accurate tracking of production metrics.
- b. Observed material handling procedures to ensure compliance with operational standards and efficiency.

5. Equipment and Calibration Review:

- a. Checked the calibration records for all measurement instruments and equipment used in the production process/21/22/.
- b. Ensured that all equipment was properly maintained and functioning correctly.

6. Safety and Social Security Arrangements:

- a. Assessed the safety measures in place at the production facility, including worker safety protocols, environmental safeguards and emergency procedures/12/.
- b. Reviewed social security arrangements for employees to ensure compliance with local regulations and standards.
- c. Interviewed stakeholders to understand the flow of process and existence of grievance mechanisms/12/.

7. Compliance Checklist:

- a. Used the Puro Biochar Methodology Compliance Checklist to systematically verify adherence to the specified standards.
- b. Documented findings and ensured all criteria were met, with any discrepancies noted and addressed.

8. CORC Claims Verification:

- a. Independently verified the facility's CO₂ Removal Certificates (CORCs) claims.
- b. Cross-checked CORC claims against the production and output data to ensure accuracy and legitimacy.

These activities collectively ensured a comprehensive audit of the Biochar production facility, its operations, data integrity, and compliance with the Puro Biochar Methodology version 3.0/4/.

List of facility personnel interviewed during remote site audit is as follows.

S. No	Interviewee			Date	Team member(s)
	Last Name	First Name	Affiliation		
1.	Lynford	Freddy	Founder, Truecoco Ghana Ltd's Biochar facility	27 th November 2025	Nikhitha Chinthala & Saranya Balu

2.	Orr	William	Project Manager, Truecoco Ghana Ltd's Biochar facility		
3.	Kagey	Daniel	Head of Supply, Truecoco Ghana Ltd's Biochar facility		

S. No	Stakeholders Interviewee			Date	Team member(s)
	Last Name	First Name	Affiliation		
1.	Kwateng	Kwasi	Farmer (Coconut husk supplier & End User)	27 th November 2025	Nikhitha Chinthala & Saranya Balu
2.	Blay	Ezekiel	Co-operative Leader (Coconut husk supplier)		
3.	Atobrah	Richard	Farmer (Coconut husk supplier)		
4.	Arthur	Peter	Co-operative member		
5.	Acqai	James	Co-operative Leader		
6.	Mwodobe	Ransjerd	Farmer (coconut husk supplier) and end user biochar		
7.	Anyimah	Charles	Co-operative Leader		
8.	Lowness	Angero	End-user of biochar		

The Stakeholders, who majorly include biomass feedstock suppliers, Co-operative members, co-operative leaders and the biochar end-users were interviewed during the remote site audit/12/.

Questions asked to the Stakeholders:

1. Do you know how to provide feedback, concern or grievance about the project and how?

The stakeholders indicated that feedback and grievances are communicated through two channels: (i) directly to Mr. Daniel, Head of Supply at Truecoco Ghana, and (ii) through the grievance book maintained at the front office of the Truecoco biochar facility/13/.

2. Did you get training on biochar application?

The biochar end-users, who also supply feedstock biomass (coconut husks), undergo periodic training sessions conducted by Daniel, the Head of Supply at Truecoco Ghana Ltd's biochar facility. This was verified by the training records which demonstrate the application of the biochar by the end-users on the crops/14/.

3. On what crops, do you apply biochar?

Biochar is applied to different crops such as cocoa, papaya, tomatoes, pepper and other varieties. This was verified through the training records/14/ and during the remote site audit/12/.

4. What is the impact of crops after biochar application?

The biochar end-users reported that the application of biochar and biochar-blend fertiliser resulted in a significant improvement in crop growth and yield. During the remote site audit, the end-users also expressed interest in receiving additional quantities of biochar from the Truecoco Ghana facility management.

5. Which soil-amendment combination is considered most beneficial for microbial activity?

The combination of biochar and fertilizer was found to be most effective, particularly in enhancing moisture retention thereby providing greater crop yields.

3 COMPLIANCE WITH METHODOLOGY

There are no deviations to applied methodology observed during current monitoring period and project activity complies with the registered PPD and the requirements outlined in the applied methodology Puro Biochar Methodology Edition 2022 version 3.0/04/.

4 RESOLUTION OF FINDINGS

The process for raising the findings (corrective actions, non-conformities, or other findings) by the assessment team was carried out during the desk review phase and from the remote site audit observations and discussions. As an outcome of the audit process, the assessment team can raise different types of findings according to the following understanding:

1. A clarification request (CL) is raised where information is insufficient or not clear enough to determine whether the applicable requirements of the registry have been met.
2. When a non-conformance arises, the team leader raises a Corrective Action Request (CAR). CAR is issued, where:
 - a. The project participant made mistakes that would influence the ability of the project activity to achieve real, measurable, and additional emissions reduction.
 - b. The standard and methodology requirements have not been met; there is a risk that emissions reductions cannot be monitored or calculated.
 - c. The auditing process may be halted until this information is made available to the team leader's satisfaction. Information or clarification provided as a result of CL may also lead to CAR.
3. A Forward Action Request (FAR) will be raised when certain issues related to project implementation are reviewed during the following validation assessment.

During the Output Audit, a total of 04 CLs and 01 CAR were raised and resolved satisfactorily. The list of CARs/CLs raised, and the responses provided, means of verification, reasons for their closure, and corrections in the relevant documents are provided in Appendix 3 of this report. No FAR was raised during this assessment.

5 PRODUCTION STANDING DATA

GENERAL INFORMATION	
Production Facility Name	Truecoco Ghana Ltd's Biochar Facility
Facility ID	816220
CO ₂ Removal Supplier registering the production facility	Truecoco Ghana Limited
Location	Badyloon Street, Tikobo No.1, Jomoro District, Western Region, Ghana

Verified CORC Factor	2.24 ¹ CORCs per ton biochar
Verified CORCs for the reporting period from 05/08/2025 to 11/10/2025	941.98 ton CO ₂ eq CORCS
Dry mass of biochar for the reporting period from 05/08/2025 – 11/10/2025	419.78 ² tonnes of biochar
Removal Methodology for which the plant is eligible to receive CORCs	Biochar Methodology Edition 2022 V3
Production facility has benefitted from public funding	No
Removal method specific information as may be specified in the relevant removal method methodology	Biochar, Pyrolysis Process

6 QUANTIFICATION OF CO₂ REMOVAL

INPUT	VERIFIED RATE	UNIT	NOTES (Specifications, source, etc)
Biomass supply inputs (collection, handling, transportation emissions), (E _{biomass})	1.73	tonne CO ₂ -eq	The emissions from Ebiomass account to the biomass supplied in the secondary output audit and the stock remaining from the first output audit/03/. The emissions from Ebiomass include emissions from transportation – specifically the transportation from the suppliers to the Biochar facility. The verified average transport distance is within 2 kms, as confirmed from the route map depicting the start point and end point. The same has been verified through the transportation records of the Biomass Supply datasheet/16/03/. The reduction in the average transport distance compared to the first monitoring period (01/04/2025–04/08/2025) is attributed to the fact that most coconut husk suppliers in the current monitoring period are located in close proximity to the Truecoco Biochar facility/16/. Emission factors were sourced from reputable database: transportation from Ecoinvent.3.1 as mentioned in the LCA sheet/15/. An

¹ Verified CORC factor - 2.2440 has been rounded to 2.24

² Dry mass of biochar – 419.7764 tonnes has been rounded to 419.78 tonnes.

			allocation factor of 0.95 has been applied based on the “total wet biochar applied” and the “total dry biochar applied” as detailed in the ‘Biochar Production summary sheet’ of the <i>True_CORC_Report</i> summary datasheet/01/. The total emissions associated with biomass processing for the reporting period amount to 1.73 tCO₂e . All the sources used in the calculation of biomass processing include the emissions from the transportation and are found acceptable by the assessment team/15/. The calculations used for the determination of $E_{biomass}$ has been provide in $E_{biomass}$ datasheet of the <i>Truecoco_CORC_Report_Summary</i> datasheet has been found appropriate by assessment team/01/.
Production and operation emissions output ($E_{production}$)	30.24	tonne CO ₂ -eq	The emissions from Eproduction account to the biomass supplied in the secondary output audit and the stock remaining from the first output audit/03/. The emissions from biochar production include those associated with the use of capital goods, and the consumption of electricity, water, diesel, packaging materials, transportation and construction during the production process as verified through the LCA model/15/. Emission factors and activity data for each source are documented in the corresponding sheets of the LCA model as per reputed databased Ecovent.3.1. An allocation factor of 0.95 has been applied based on the “total wet biochar applied” and the “total dry biochar applied” as detailed in the ‘Production summary sheet’ of the <i>Truecoco_CORC_Report</i> summary datasheet/1/. Based on these inputs, the total emissions from the biochar production stage are calculated to be 30.24 tCO₂e . The assessment team verified the sources such as invoices of diesel, electricity bills, fuel logs applicable to the current monitoring period /18/ and the remaining stock from the first output audit which is used in the calculation of emissions related to production and were found acceptable. The Eproduction factor for the current monitoring period is lower compared to the previous monitoring period due to reduced electricity

			consumption, lower water usage, and decreased diesel consumption, which is attributed to the shorter duration of the current monitoring period (05/08/2025–11/10/2025), spanning 68 days/15/.
Product distribution emissions output (E _{use})	9.47	tonne CO ₂ -eq	The emissions from the usage of biochar account for two primary application pathways: (1) direct sale and application of biochar to soil by buyers, and (2) production of biochar-fertiliser blend, where biochar is mixed with compost before sale. Emissions under this category include transportation of biochar from the production facility to end users. Based on the activity data and emission factors included in the LCA model, total emissions from the use phase are calculated to be 9.47 tCO₂e . The sources such as transportation details have been reviewed and verified through the Biochar use records/19/, end user agreements/15/ and evidence against input LCA values/15/. The end-users of biochar include farmers from local cooperatives as well as farms such as Tropi Farms, True Moringa Farms, and Vecomity Farms, all of which are located at considerable distances from the Truecoco Biochar facility. Biochar is transported to these farms using lorries due to both the quantity required and the long transport distances involved. Consequently, the Euse factor has increased in the current monitoring period compared to the previous monitoring period (01/04/2025–04/08/2025), primarily due to the longer transportation distances to end-user locations/15/17/.
Estored	-983.42	tonne CO ₂ -eq	The project produced and applied a total of 419.78 metric tons of biochar as verified through the production records/17/. Laboratory analysis determined that the organic carbon content of the biochar was 76% with a hydrogen content of 1.2%/20/. The Estored is -983.42 tCO₂e . The assessment team verified the calculations in the LCA Model and were found acceptable/15/.
Biochar used for which CORCs are claimed	419.78	Dry metric tonnes	The biochar for which the CORCs are claimed for has been verified through the delivery slips to end-users and end-

			user agreements and the LCA model/08/15/19/.
CORCs issued	941.98	CORCs	The value is correctly calculated based on the total production of biochar during the reporting period, stock from first output audit/03/, and LCA calculation/15/.

Formula CORCS = $E_{stored} - E_{biomass} - E_{Production} - E_{use}$		
Ebiomass	1.73/419.78	0.004 tonne CO ₂ eq/tonne biochar
Eproduction	30.24/419.78	0.072 tonne CO ₂ eq/tonne biochar
Euse	9.47/419.78	0.022 tonne CO ₂ eq/tonne biochar
Estored	-983.42/419.78	-2.34 tonne CO ₂ eq/tonne biochar
CORC Factor	941.98/419.78	2.24 CORCs/tonne biochar
H:C ratio	0.19	

7 FINAL OPINION

Based on our comprehensive review of the project documentation, thorough site inspection, and subsequent follow-up actions, Earthhood Services Limited has gathered sufficient evidence to conclude that the production facility " Truecoco Ghana Biochar Facility" meets the requirements outlined in the Puro Standard General Rules Version 4.1 /06/. We confirm that the Puro Biochar Methodology Edition 2022 version 3.0/04/ has been correctly applied for output and CO₂ removal calculation.

The project implementation aligns closely with the information provided in the project documentation, and monitoring procedures adhere to the prescribed methodology. Furthermore, the removals achieved during the current monitoring period have been accurately calculated without significant discrepancies.

Our verification approach is grounded in a deep understanding of the risks associated with reporting GHG emission data and the implementation of controls to mitigate these risks effectively. Based on the evaluated information, we affirm that the emission removals for the second reporting period from 05/08/2025 to 11/10/2025, amount to 941.98 CORCs.

Therefore, Earthhood Services Limited confirms the production facility's capability to effectively remove CO₂ and requests the issuance of CORCs for the second reporting period.

APPENDIX 1: ABBREVIATIONS

Abbreviations	Full texts
CAR	Corrective Action Request
CL	Clarification Request
FAR	Forward Action Request
Earthhood	Earthhood Services Limited
CORC	CO ₂ Removal Certificate
GHG	Greenhouse Gas(es)
PPD	Puro Project Description
VVB	Validation and Verification Body
LCA	Life Cycle Assessment
CDR	Carbon dioxide Removal

APPENDIX 2: REFERENCES

S.N o.	Title	Referenc es to the docume nt	Provid er
1	CORC Report Summary	Dated 31/10/2 025	Truec oco Ghan a Ltd
2	Life Cycle Assessment Report	-	Truec oco Ghan a Ltd
3	Life Cycle Assessment Reporting Sheets MP1:	-	Truec oco Ghan a Ltd
4	Applied Methodology – Biochar Methodology	Version 3.0	Puro earth
5	Puro Standard General Rules	Version 3.1	Puro earth

6	Puro Standard General Rules	Version 4.1	Puro earth
7	Validation & Verification Requirements	Version 1.1	Puro earth
8	Truecoco's Biomass Suppliers – List of Co-operatives Delivery Slips of Biomass	Period 31/07/2025 04/08/2025 05/08/2025 - 11/10/2025	Truecoco Ghana Ltd
9	Truecoco's Supplier Declarations – Origin & Legality of Biomass Feedstock	05/08/2025 - 11/10/2025	Truecoco Ghana Ltd
10	Positive list of biomass feedstock https://www.european-biochar.org/media/doc/2/positivelist_en_2025_v02.pdf	-	Others
11	Biochar Production records	Period 31/07/2025 - 04/08/2025 05/08/2025 - 11/10/2025	Truecoco Ghana Ltd
12	Remote audit	Dated 27/11/2025	Truecoco Ghana Ltd
13	Grievance book Located at the Truecoco Ghana Biochar Facility	-	Truecoco Ghana Ltd

14	Trainings on application of biochar a. Pictographic evidence b. Video evidence	Dated 25/09/2025 29/09/2025	Truecoco Ghana Ltd
15	LCA Model on Truecoco Ghana Ltd's Biochar Production and Use for CORC calculation	Period 05/08/2025 - 11/10/2025	Truecoco Ghana Ltd
16	Biomass Supply datasheet	Dated 31/10/2025	Truecoco Ghana Ltd
17	End-user agreements of Biochar a. Truecoco's coconut co-operatives b. Agricultural off-takers – Supply % Profit Sharing agreement	Period 31/07/2025 - 04/08/2025 05/08/2025 - 11/10/2025	Truecoco Ghana Ltd
18	Source of emissions related to Eproduction a. Invoices of Electricity bills b. Invoices of Diesel consumption c. Water consumption records	-	Truecoco Ghana Ltd
19	Biochar Usage records	Period 31/07/2025 - 04/08/2025 05/08/2025 - 11/10/2025	Truecoco Ghana Ltd
20	Biochar Analysis Report provided by Eurofins – Report number – AR-25-FR-061023-01	Dated	Eurofins -

		14/10/2025	Umwelt																											
21	Internal Calibration Requirements	Dated July 2025	Truec oco Ghan a Ltd																											
	<table border="1"> <thead> <tr> <th>S.No</th><th>Device</th><th>Model</th><th>Use</th><th>Calibration</th></tr> </thead> <tbody> <tr> <td>1</td><td>Platform scale</td><td>WADFOW WEC 1531</td><td>Weighing of biochar</td><td>EURAMET/cg-18 Once a year or semi-annual</td></tr> <tr> <td>2</td><td>Direct Reading Thermometer</td><td>SELEC TC303</td><td>Production Temperature</td><td>DKD-R 5-1:2018 Once a year</td></tr> <tr> <td>3</td><td>Moisture meter</td><td>Paddy rice YY1011</td><td>Biochar moisture measurements</td><td>ISO712:2009 (E) Once a year</td></tr> <tr> <td>4</td><td>Gas Analyzer</td><td>Testo 350_2010</td><td>One-time third party conducted gas analysis by SGS</td><td>NA (Third party analysis by SGS)</td></tr> </tbody> </table>	S.No	Device	Model	Use	Calibration	1	Platform scale	WADFOW WEC 1531	Weighing of biochar	EURAMET/cg-18 Once a year or semi-annual	2	Direct Reading Thermometer	SELEC TC303	Production Temperature	DKD-R 5-1:2018 Once a year	3	Moisture meter	Paddy rice YY1011	Biochar moisture measurements	ISO712:2009 (E) Once a year	4	Gas Analyzer	Testo 350_2010	One-time third party conducted gas analysis by SGS	NA (Third party analysis by SGS)				
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22	Devices, Manufacture & Error factor applicable	-	Truec oco Ghan a Ltd																											
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2	Direct Reading Thermometer	Production Temperature	2502A0050 56000 0145	SELEC	NA	6 °C																								
3	Moisture meter	Biochar moisture measurements	X001TNHVM F	IERYI	NA	0.9 %																								
23	Standard Operating Procedures (SOP)	Dated 29 th July 2025 21 st July 2025																												
	a. Dry mass determination of biochar b. Biochar sampling																													
24	Waste Policies	Dated 05/05/2025																												
	a. Spill Response Plan b. Waste Disposal Policy																													

APPENDIX 3: AUDIT FINDINGS
Table 1. FAR from previous verification

FAR ID	NA	Section no.	NA	Date : DD/MM/YYYY
Description of FAR				
There were no FARs raised from previous verification.				
Project participant response				Date : DD/MM/YYYY
Documentation provided by project participant				
VVB assessment				Date: DD/MM/YYYY

Table 2. CL from current assessment

CL ID	01	Section no.	Biomass supply sheet	Date : 24/11/2025
Description of CL				
Concerns on Feedstock supply: From the TikoboOne^JSupply_Output Audit^Aug_Oct_Ebiomass_31_10_20205 Excel sheet which lists incoming feedstock applicable to the current monitoring period (MP), PP shall clarify the following pointers:				
<ol style="list-style-type: none"> 1. In the tab 2025 T1 supply- Total, column I represent the sum of the incoming feedstock for this MP is 1583.95 MT while the waybills of the suppliers provided is 1567.8 MT. PP shall make the values in the sheet consistent with the waybills. 2. In the tab 2025 T1 supply-Total, column E represents the list of feedstock mass suppliers where names of the suppliers - Godfirst, Francis, Israel, Jacobs, Stephen, Mahama, Emmanuel, Bernard, Joshua, Michael, are not located from the supplier waybills. PP shall provide the waybills from these suppliers too. 3. The number of deliveries from the suppliers- Abdullah, Daniel, Frank, Gabriel, Gilbert, Joseph Kaku, Judas, Madame Assebi are inconsistent with the supplier waybills provided. PP shall clarify the inconsistency. 				
Project participant response				Date : 25/11/2025
<ol style="list-style-type: none"> 1. This answer is applicable to both points 1 & 2. Due to the current way of working at the Truecoco site, it was aligned during the first output audit that Truecoco should only provide waybills for the suppliers who contribute more than 80% of deliveries. Truecoco has identified the suppliers which provide the vast majority of the feedstock and provided the critical information from each of those suppliers. For the output audit, Truecoco has not uploaded the supplier waybills for Godfirst, Francis, Israel, Jacobs, Stephen, Mahama, Emmanuel, Bernard, Joshua, Michael, as these suppliers are not considered key suppliers. This was in line with the first output audit and the requirement to only provide waybills for key suppliers. The waybills provided equates to 99% of all incoming feedstock. 2. See above 3. Truecoco has provided the waybills for the suppliers that cover from the 31/07 to the end of the monitoring period. TikoboOne^JSupply_Output Audit^Aug_Oct_Ebiomass_31_10_20205, 2025 T1 supply – Total (sheet 2), you will see a breakdown of First Audit Reporting Period and Second Audit Reporting Period. Truecoco has uploaded the waybills that cover the first and second audit reporting period. Consequently, the number of waybills uploaded surpasses the number of deliveries recorded in the second audit reporting period. 				
Supplier	Count of deliveries	Total waybills submitted		

Abdullah	72	74	
Daniel	160	163	
Frank	84	87	
Gabriel	114	116	
Gilbert	15	16	
Joseph Kaku	82	94	
Judas	21	23	
Madame Assebi	66	69	

Documentation provided by project participant

No further documentation provided

VVB assessment

Date: 27/11/2025

1 & 2. The waybills representing the incoming biomass feedstock account for more than 99% of the total biomass received during the monitoring period. As verified through the facility audit report, Truecoco is required to provide waybills only for suppliers contributing more than 80% of total deliveries. Accordingly, waybills covering over 99% of the incoming biomass feedstock have been provided.

The remaining suppliers (Godfirst, Francis, Israel, Jacobs, Stephen, Mahama, Emmanuel, Bernard, Joshua, Michael) are not classified as key suppliers under this criterion. Therefore, waybills for these suppliers are not required and have not been submitted. The assessment team confirms and accepts this approach.

3. The waybills for the period from 31 July 2025 to 4 August 2025 have been provided by the carbon removal supplier. Since combined waybills were documented for a few deliveries, the total number of waybills exceeds the number of individual delivery events.

#CL01 is closed.

CL ID	02	Section no.	Biochar analysis report	Date : 24/11/2025
Description of CL				
Reference: Para 1.1.7 of applied methodology states “ <i>The biochar produced must meet any product quality requirements existing in the jurisdiction where biochar is used and for the specific applications considered.... In jurisdictions where no requirements exist for the intended applications, the biochar produced must be benchmarked against quality thresholds defined in voluntary quality standards for biochar, namely the International Biochar Initiative (IBI) Certification Program or the European Biochar Certificate (EBC) Guidelines.</i> ”				
Observation: From the Preliminary Report for Order No. 12542XXX (Test Report No. PR-25-FR-002159-01), it is noted that the submitted sample results do not include the concentration values of heavy metals such as Arsenic (As), Lead (Pb), Cadmium (Cd), Copper (Cu), Nickel (Ni), Mercury (Hg), Zinc (Zn), Chromium (Cr), Boron (B), Manganese (Mn), and Silver (Ag). As per Paragraph 7.6 of the “Guidelines for a Sustainable Production of Biochar – EBC, Version 10.3 E (dated 5 April 2023), the concentration of heavy metals in biochar shall not exceed the limit values specified under the respective EBC application classes.				
Action required: PP shall provide an updated laboratory test report that includes the quantified concentration values				

of the above-listed heavy metals in the biochar sample, ensuring conformance with the applicable EBC heavy metal limit values.

Project participant response	Date : 26/11/2025
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Please see attached the updated lab result. This lab result incorporates heavy metals result.

Documentation provided by project participant
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AR-25-FR-071901-01_SecondPuroAudit

VVB assessment	Date: 27/11/2025
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The updated lab report *AR-25-FR-071901-01_SecondPuroAudit* includes the quantified concentration values of the heavy metals such as Arsenic (As), Lead (Pb), Cadmium (Cd), Copper (Cu), Nickel (Ni), Mercury (Hg), Zinc (Zn), Chromium (Cr), Boron (B), Manganese (Mn), and Silver (Ag) in the biochar sample, ensuring conformance with the applicable EBC heavy metal limit values.

Hence, CL02 is closed.

CL ID	03	Section no.	Calibration certificates	Date : 24/11/2025
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Description of CL

Clarification regarding calibration certificates:

The calibration certificates submitted by the Project Participant (PP) for the monitoring equipment- specifically the moisture meter and the weighing scale correspond to calibrations conducted in July 2025. The current monitoring period covers 05/08/2025 to 11/10/2025. It is unclear whether the validity period of these calibration certificates adequately covers the entire monitoring period.

The PP shall clarify the validity period of the calibration certificates for both the weighing scale and the moisture meter, and confirm that the calibration remains valid for the full duration of the current monitoring period (11/08/2025–10/10/2025). If applicable, the PP shall provide updated or supplementary calibration documentation.

Project participant response	Date : 25/11/2025
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1. Ghana Standards Authority requires annual. As calibration was completed in July 2025, this covers the timeframe of calibration up to July 2026. This timeframe falls within the monitoring period.
2. In the document, *GSA_CALIBRATION CERTIFICATE_MOISTURE METER.pdf*, it is indicated that the certificate is valid till: July 2026, see page 1.
3. In the document, *CalibrationCertificates_scalesJuly25.pdf*, although there is no timeframe that the calibration certificate is valid to, it is required by GSA that the timeframe is 1 year. During the calibration in July 2025 there was no standard deviation of the scales. According to GRAM-Group, 'Typically, an industrial scale should be calibrated at least once a year.'³

Documentation provided by project participant
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1. *GSA_CALIBRATION CERTIFICATE_MOISTURE METER.pdf*
2. *CalibrationCertificates_scalesJuly25.pdf*

VVB assessment	Date: 27/11/2025
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1. As confirmed from the requirements of Ghana Standards Authority which follows Dakks Calibration, calibration is required semi-annually or annually. Also the manufacturer specifications required calibration to be performed annually. Since calibration was completed in July 2025, there is no calibration required in the current monitoring period.
2. The assessment team confirms from the *GSA_CALIBRATION CERTIFICATE_MOISTURE METER.pdf*, the validity of the moisture meter is until 26/07/2026.

³ [Gram-Group, calibration](#)

#CL03 is closed

CL ID	04	Section no.	CORC Report summary	Date : 24/11/2025
Description of CL				
<p>According to the <i>Truecoco_CORC_Report_Summary_Second_Output_Audit_31_10_2025</i>, the carbon removal supplier claims that 10.15 MT of dry biochar produced on 04/08/2025 - the last day of the first output audit period was not reported due to operational turnover. Although the carbon removal supplier states that biochar is typically sold after approximately three days, the produced biochar is still fully weighed and packed on the day of production. Additionally, the Biochar Production tab includes production records for all days within the monitoring period, including 04/08/2025. PP shall provide evidence for the remaining stock of 10.15 MT produced on 04/08/2025 and a valid reasoning for not accounting the biochar produced - 10.15 MT in the last monitoring period (01/04/2025 - 04/08/2025).</p>				
<p>Project participant response Date : 26/11/2025</p> <p>The first output audit reporting period ended on 04/08/2025. On that day, a batch of biochar was still in production. Due to the tight timeframe, the reported data was finalized at the start of the day using the information available at that time. As a result, the final batch of biochar, whose total quantity of 10.15 MT was only confirmed at the end of the day, was not included in the reported figures in the first output audit.</p>				
<p>Documentation provided by project participant</p> <p>No further documentation provided.</p> <p>VVB assessment Date: 27/11/2025</p> <p>Based on the incoming biomass feedstock records provided by the carbon removal supplier, it was verified that 75 MT of feedstock delivered between 31 July and 4 August 2025 was accounted for in the second output audit and was not included in the first output audit.</p> <p>The assessment team further confirms that the biochar production of 10.15 MT generated during the latter half of 4 August 2025 had also not been captured in the first output audit as verified through the Biochar production records. Accordingly, this 10.15 MT of biochar, representing the remaining stock from the previous period, has been included in the second output audit</p> <p>Hence, CL04 is closed.</p>				

Table 1. CAR from current assessment

CAR ID	01	Section no.	Calibration of Equipment	Date : 24/11/2025
Description of CAR				
<p>From the <i>Truecoco_CORC_Report_Summary_Second_Output_Audit_31_10_2025</i> (tab: Biochar Final Use), column N represents the biochar moisture content as per the laboratory analysis report PR-25-FR-002159-01_Oct25_Puro, which corresponds to the current monitoring period. However, in the LCA Truecoco Second Output Audit 2025-10-31 (tab: Results, cell E31), the value reported for "average biochar moisture content before it is sent to the client" was taken from the moisture measurements from the first output audit applicable to the monitoring period 01/04/2025 – 04/08/2025.</p> <p>PP shall update the calculation by applying the average moisture content in the LCA Truecoco Second Output Audit 2025-10-31 from the most recent laboratory report corresponding to the current monitoring period.</p>				

Project participant response	Date : 26/11/2025
The moisture content value and average moisture content value have been updated in both Truecoco_CORC_Report_Summary_Second_Output_Audit_31_10_2025 Updated 26-11-2025 and LCA Truecoco Second Output Audit 2025-10-31 Updated 26-11-2025. The moisture content value come from the laboratory report performed during the second output audit reporting period: PWDR-2025282-008 - 1_LiveLabs_output2	
Documentation provided by project participant	
PWDR-2025282-008 - 1_LiveLabs_output2	
VVB assessment	
The assessment team confirms that moisture content (from PWDR-2025282-008 - 1_LiveLabs_output2) applicable to "Biochar end-use" has been updated in both Truecoco_CORC_Report_Summary_Second_Output_Audit_31_10_2025 Updated 26-11-2025 and LCA Truecoco Second Output Audit 2025-10-31 Updated 26-11-2025.	
Hence, CAR01 is closed.	

Table 2. FAR from this verification

FAR ID	NA	Section No.	NA	Date : DD/MM/YYYY
Description of FAR				
NA				
Project participant response			Date : DD/MM/YYYY	
Documentation provided by project participant				
VVB assessment			Date: DD/MM/YYYY	

APPENDIX 4: AUDIT TEAM EXPERIENCE

Competence Statement			
Name	Nikhitha Chinthala		
Country	India		
Education	M.Tech (Renewable Energy) B.Tech (Electrical and Electronics Engineering)		
Experience	1.5+ Years		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	YES (TA 1.2)		
Reviewed by	Shifali Guleria (Quality Manager)	Date	24/12/2024
Approved by	Deepika Mahala (Technical Manager)	Date	24/12/2024

Competence Statement			
Name	Saranya Balu		
Education	MS Environmental Engineering		
Experience	4+ years		
Field	Solid Waste Management & Plastic Waste Management		
Approved Roles			
Team Leader	NO		
Validator	YES		
Verifier	YES		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	YES (TA 13.1 & TA 13.2)		
Reviewed by	Shifali Guleria (Quality Manager)	Date	11/09/2025
Approved by	Deepika Mahala (Technical Manager)	Date	11/09/2025

Competence Statement			
Name	Deepika Mahala		
Country	India		
Education	M. Sc. (Environment Management), GGSIP University B.Sc. Hons. (Chemistry), Sri Venkateshwar College, DU		
Experience	8 Years +		
Field	Climate Change		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Local expert	YES (India, Bangladesh)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert (X.X)	YES (TA 1.1, TA 1.2, TA 3.1, TA 13.1, TA 13.2)		
Reviewed by	Shifali Guleria (Quality Manager)	Date	08/07/2024
Approved by	Kaviraj Singh (MD)	Date	08/07/2024