VERIFICATION REPORT AFFORESTATION OF DEGRADED GRASSLANDS IN VICHADA, COLOMBIA

Document Prepared By Colombian Institute for Technical Standards and Certification - ICONTEC

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Summary

ICONTEC was contracted by South Pole and Forest First. To conduct the project verification. The verification process was intended to assess the conformance of the project with the VCs and CCB rules and the methodology applied to the project. According to the project document and relevant information, the project aim is to recover degraded grasslands in Vichada, Colombia, through the establishment of timber plantations, afforestation of 22.104 ha of low fertility grasslands that have been degraded by livestock in Puerto Carreño and La Primavera, it includes the planting of Eucaliptus (*Eucaliptus pellita*) and Acacia (*Acacia mangium*) as timber species. In addition, this project is expected to provide more than 200 full-time employment opportunities (with equal access to women and men) in a zone historically affected by poverty, as well as to promote the recuperation of natural biodiversity and ecosystems like morichales.

The grouped project is in the municipalities of Puerto Carreño and La Primavera (Vichada, Colombia), is located in the jurisdiction of the Corporación autónoma regional de la Orinoquia (CORPORINOQUIA), the total project zone for first instance is 29.796 ha distributed across 34 farms located between the Bita river and the Meta river; the eligible area of the project was defined according to the requirements of the VCS standard, and the AR-ACM003 the final eligible area is 22.104 ha.

The increase in the forest cover and sequestration of carbon in living biomass will contribute to the reduction of GHG emissions by acting as a sink that sequesters an average of 98.961 tCO_2e per year, and 2.968.818 tCO_2e over the 30-year crediting period, starting on September 15, 2016, and ending on September 14, 2046.

During the monitoring period, September 15, 2016, to December 03, 2020, which corresponds to the first VCS-CCB verification, Forest First Colombia (FFC) has planted 6,600 ha (274.1 ha in 2016, 3,196.9 ha in 2017, 2,018.6 ha in 2018 and 1,110.5 ha in 2019) of commercial forest with eucalipto (*Eucalyptus pellita*) and acacia (*Acacia mangium*).

The project Description was designs to conform to the VCS Standard V4.1, Specifically an IFM project under the AFOLU project types, The project applied the approved CDM Afforestation and Reforestation methodology: AR-ACM0003 A/R Large-scale Consolidated Methodology “Afforestation and Reforestation of lands except wetlands” - Version 2.0. The project Description has been designed in accordance with the Standard for the design of Climate, Community and Biodiversity Project V3.1. In consequence the Monitoring report contains information about the project benefits, project description, project implementation status, legal status, and property rights, monitoring GHG emission reductions and removal. In addition, the description about the community and biodiversity impacts.

The purpose and scope of verification involve documental review, on-site visit, interviews with relevant personnel, and the consultation of secondary information sources, findings statements, feedback with the project owner and elaboration of the final report. To carry out the verification, Verified Carbon Standard Program Guide (v4.1) were considered and following the guidance provided in the VCS Validation and Verification Manual v.3.2. The verification purpose is to ensure the opinion of a third party, independent of the proposed project, carrying out a full assessment of the evidence to ensure compliance with the criteria defined by the Alliance for Climate, Community and Biodiversity (CCBA) for the project design, in accordance with that, verification was developed also considering project operations, monitoring and reporting by reviewing the criteria that conforms the CCB Standard assessment.

During the verification, the ICONTEC team identified 4 findings (2 Clarification Requests and 2 Corrective Action Request) that were addressed satisfactorily by the project proponent during the verification process to ensure that the Project Description and Monitoring Report fulfils the VCS and CCB program requirements. No CARs that could lead to a material discrepancy between the project and the project monitoring were identified. The project complies with all the verification criteria, and the assessment team has no restrictions or uncertainties with respect to the compliance of the project with the verification criteria.

Documentary review (16/06/2021 to 18/06/2021), interviews and on-site visit (07/09/2021 to 13/09/2021) allowed ICONTEC to collect enough evidence to completely assess the verification criteria and determinate that the project is implemented according to the Project description (Version 4, October 31, 2021), and Monitoring Report (Version 4, October 31, 2021) is in accordance with the Monitoring Plan.

The GHG emission reductions reported for the project proponent, in the Monitoring Report were correctly calculated, based on the applied methodology approved of CDM Afforestation and Reforestation methodology: AR-ACM0003 A/R Large-scale Consolidated Methodology "Afforestation and Reforestation of lands except wetlands" - Version 2.0).

The verification process results in a conclusion of ICONTEC International reporting if the project meets the criteria and requirements of the CCB Standard and subject to verification by the CCBA. The project implementation and the monitoring system are in place and followed appropriately. ICONTEC can confirm that the GHG emission reductions are calculated without material misstatements. Based on the information we have seen and evaluated we confirm the following statement:

Reporting period: 15/09/2016 to 03/12/2020 (which corresponds to the first VCS–CCB verification)

Verified emission reductions in the above reporting period: 482.168 tCO2e

• The project is in accordance with Climate, Community and Biodiversity Alliance, conforming to all requirements, and having reached Exceptional Biodiversity Benefits

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1 INTRODUCTION

1.1 Objective

According to VCS rules (VCS Standard v 4.1), is the periodic ex-post independent assessment by a verification body of the GHG emission reductions and removals that have occurred as a result of the project during the monitoring period, conducted in accordance with the VCS rules. In particular, the verification is an independent review of the monitored reductions that have occurred as a result of the registered VCS project activity during the verification period.

Verification is a requirement for all VCS projects and is seen as necessary as to provide assurance to stakeholders of the quality of the project and its generation of verified emission reductions. In this sense, the verification objectives include the assessment of the monitoring report (Monitoring Report: Grouped project for restoration of degraded lands in Jaguar Corridors, Colombia) in order to identify the extent to which methods and procedures, including monitoring procedures, have been implemented in accordance with the validated project description and the extent to which GHG emission reductions and removals reported in the monitoring report are materially accurate.

In this way, the purpose of the VCS verification audit activities was conducting an independent assessment of the project to determine whether the project complies with the verification criteria, as set out in the guidance documents listed in Section 1.2 of this report. According to CCB Program Rules (CCB Standards v.3.1), the verification demonstrates that multiple benefits have been delivered. Successful validation to the CCB Standards can help project proponents to build support among stakeholders and investors. Additionally, to confirm that the project complies with the rules and guidance to encourage effective and integrated project design.

As a result of those processes, the DOE prepare a verification conclusion and a written certification of the emission reduction achieved and verified for the specified time period.

1.2 Scope and Criteria

The verification scope includes the independent and objective revision to determine that the project design and implementation meet the following criteria: VCS program (relevance, completeness, consistency, accuracy, transparency, and conservativeness), as well as the requirements described in the selected methodology (AR-ACM0003 “Afforestation and reforestation of lands except wetlands” Version 2.0) and the Monitoring Plan.

The verification includes the assessment about the project activity implementation as per the validated PD and that all physical features of the project are in place, ensure that actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan and the approved methodology and that the data reported are complete and transparent.

In accordance with Section 4 of the VCS Standard, the criterion for validation was the VCS Version 4.1, including the following documents:

- VCS Program Guide

- VCS Standard
- VCS AFOLU Requirements
- VCS AFOLU Non-Permanence Risk Tool

In addition, the temporal boundaries for verification are defined by the length of the monitoring period. In this case, the monitoring period goes from 15/11/2016 to 03/12/2020 (VCS and CCB).

ICONTEC, based on its ethics code and internal procedures for carrying out validation, verification, and certification audits of VCS project activities (which, in turn, are based on the Voluntary Carbon Standard) focused on the verification process on the identification of significant risk for credits generation, and verification of the mitigation.

1.3 Level of Assurance

For this project the assessment was conducted to provide reasonable assurance, in compliance with the VCS Project requirements (VCS Standard v4.1, Section 3).

Besides the above mentioned, during the validation and verification ICONTEC ensured to fulfill the requirements additional to ISO 14064-3:2006 and ISO 14065:2007, set in VCS standar, which are as follows:

The level of assurance is reasonable for verification, with respect to material errors, omissions and misrepresentations.

The criteria are VCS Version 4.1 (regardless of the VCS version or GHG program under which the project was validated).

The objective is in conformance with the VCS requirements and VCS program methodologies as applicable to the specific project; and to ensure complete transparence, a verification protocol check list is included in Appendix 1. The verification protocol check list addresses all the criteria that must be met for the project. In addition, the project is classified like a Project (Less than or equal to 300,000 tons of CO2e per year). In consequence, ICONTEC applies materiality of five per cent in accordance with the requirements in VCS version 4.1. Indicate the level of assurance of the verification.

1.4 Summary Description of the Project

Project Proponent(s): Forest First Colombia SAS, Contact name: Jairo Vargas, Email: jairo.vargas@forestfirst.com, Phone number: +57 4 7450560

Other entities involved in the project: South Pole Carbon Asset Management SAS, Contact name: Maria Fernanda Buitrago, Email: m.buitrago@southpole.com Phone number: +57 4 5205000

Title of project activity: Afforestation of degraded grasslands in Vichada, Colombia

Project area: Located in the municipalities of Puerto Carreño and La Primavera, in the department of Vichada, Colombia. It includes 29.796 ha in the project area and of the eligible area it has 22.104 ha distributed in 34 farms.

Baseline and monitoring methodology: AR-ACM0003 A/R Large-scale Consolidated Methodology "Afforestation and Reforestation of lands except wetlands" Version 2.0

Tools applied:

AR-AM Tool 02: combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities. Version 1.0

AR-AM Tool 08: estimation of non-CO_2 GHG emissions resulting from the burning of biomass and attributable to an A/R CDM project activity. Version 4.0

AR-AM Tool 12: estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities. Version 3.1

AR Tool 14: estimation of carbon stocks and change in carbon stocks trees and shrubs in A/R CDM project activities. Version 4.2

AR-AM Tool 15: estimation of the increase in GHG emissions attributable to the displacement of pre- project agricultural activities in A/R CDM project activities

AR-AM Tool 16: tool for the estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities. Version 1.0

Sectoral scope(s): VCS Sectorial Scope 14- Agriculture, Forestry and Other Land Uses under ARR project activities

Location of the project activity: Colombia, Vichada department

Project crediting period: 30 years

Crediting period start date: September 15, 2016

Crediting period end date: September 14, 2046

Through reforestation activities to recover degraded grasslands in Vichada, Through the establishment of timber plantations, promote connectivity between ecosystems, increase in the forest cover and sequestration of carbon in living biomass will contribute to the reduction of GH emissions by acting as sink that sequesters an average of 99.961 tCO_2e per year, it is 2.968.818 tCO_2e whiting the 30 years crediting period.

2 VERIFICATION PROCESS

The verification consisted of the following four phases: 1) a desk review and investigation on secondary sources of information, 2) on-site assessment, 3) the resolution of findings and 4) issuance of the final verification report with the conclusion, as follows:

Desk review

16/06/2021 to 18/06/2021: Planning of the validation activities, preliminary documentation review and logistic aspects for the site visit, with the project proponent.

07/09/2021 to 13/09/2021: On site assessment, this visit included the assessment of the following aspects:

- Project Description, Sectorial scope and project type
- Project´s start date and crediting period
- Description of the project activity
- Proof of land tenure/ ownership as well as contracts on carbon right
- Project location and project boundary (GIS and Project sites)
- Assessment of the ex-ante stratification process and its results
- Methodology applicability
- Quantification of Emission Reductions – estimation of the net anthropogenic removals by sinks evidence fo input data and parameter to the VER calculations, leakage (uncertainty and concervativeness)
- Monitoring Report – System employed for obtaining, recording, compiling and analyzing GHG data and information, as well as descriptions of the roles and responsibilities of those involved.
- Description and explanations about environmental/social impacts and stakeholders consultation.
- Non- Permanence risk Tool and the Non- Permanence Risk report.
- The application of tool and the number of credits that the project proponent deposits into the reserve of non-tradable credits, the AFOLU pooled buffer account.
- Design and goals of project, project participants and project description: land use scenarios, communities, biodiversity, among others.
- Interview with the team responsible for each project activity

On site visit

- Project location and project boundary – confirmation of project sites and project boundaries
- Management activities and baseline scenario
- Stratification on field

- Verification of plots

13/09/2021

Partial closing meeting with the Project Proponent

14/09/2021

Submission of first round of findings to clients (CARs /CLs/FARs)

Reception of the action plan of the findings

11/10/2021

Reception of the final version of the Project Document and related documents

12/10/2021 to 13/10/2021

Review by the validation team of documentation submitted by the client in order to close all CARs/CLs/FARs

14/10/2021 to 18/10/2021

Writing of the draft report after closure of all CARs / CLs Draft of the verification report

20/10/2021 to 21/10/2021

Internal Technical Review

3/11/2021 to 4/11/2021

Adjustment to the final validation/verification report and relative documents to submission, according to the findings spotted by the technical reviewer team

31/10/2021

Project submission to VCS of final Validation Report

The monitoring Report that includes the claimed emission removals for the project (Version 03 dated 07/10/2021), the net anthropogenic GHG removals, and the SOP for monitoring, the Shape files with the project boundary and the relevant documentation were assessed as part of the desk review. In addition, the following documents were checked:

- The last version of the PD (Version 04 dated 31/10/2021), including the monitoring plan

- The emission removals calculation spreadsheet

- Documentation related to the project monitoring

The whole documentation was reviewed, and a verification audit plan was completely carried out during the verification activities.

Documentation review, interviews and on-site visit allowed ICONTEC to collect enough evidence to completely assess the verification criteria and determinate that the project in implemented according to the Project Description (Version 03 dated 07/10/2021) and the project implementation. Removals were correctly calculated, based on the applied methodology (AR-ACM0003 V2.0). the project areas and the monitoring system are in place and followed appropriately. ICONTEC can confirm that the GHG emission reduction/removals are calculated without misstatements. The verification protocol resulting from the verification of the project is enclosed in Appendix 1 of this report.

In addition, documentation review, interviews and on-site visit allowed ICONTEC to collect enough evidence to completely assess the validation criteria and determinate that the PD (Version 4 dated 31/10/2021) is in conformance with the rules and CCB criteria.

2.1 Audit Team Composition (*Rules* 4.3.1)

The verification team consist of the personnel described in

Table *1*.

Table 1. Validation Team

Role / Qualification	Last name	First name	Country	Type of involvement		
				Desk review	Site visit / interviews	Reporting
Lead Auditor	García	Laura	Colombia	X	X	X

The auditor is qualified in accordance with ICONTEC qualification scheme for VCS/CCB validation and verification. The auditor is a Colombian forestry engineer, M.Sc. Environmental management, and account with expertise in forestry project.

2.2 Method and Criteria

The verification process was carried out by using the VCS validation and verification manual in order to ensure a fully completed verification process and to gather the information necessary to complete this report; and demonstrates how emissions removals have been verified and the manner in wich such verifications were confirmed.

In accordance with Section 4 of the VCS Standard, the criterion for validation was the VCS Version 4.1, including the following documents:

- VCS Program Guide
- VCS Standard
- VCS AFOLU Requirements

- VCS AFOLU Non-Permanence Risk Tool

The criteria allow the verification guidance provided by VCS Standard and the rules related to VCS methodology applied. In consequence, the following documents were used to assess this project:

- VCS Standard Version V.4.1
- VCS Guidance Validation and verification Manual V 3.2
- VCS Project Description: VCS V4
- VCS non-Permanence Risk Report Calculation Tool V4
- Approved CDM Methodology – CDM Afforestation and reforestation methodology: AR-ACM0003 A/R Large-scale Consolidated Methodology "Afforestation and Reforestation of lands except wetlands" V2.0
- Climate, community & Biodiversity Standards (CCB) V 3.1
- Rules for the use of the Climate, Community & Biodiversity Standards V3.1
- Guidance for Use of the CCB Standards V3

The sampling plan and site inspections were completed to confirm the project boundaries, verify the baseline, and check the project activities. On-site inspections were also conducted to evaluate the consistency of the sampling technique and parameters related. The project site and plot location were confirmed with GPS. The inventory data (both digital and hard copy) were reviewed to check the monitored parameters.

ICONTEC verified that operational and data collection procedures were implemented in accordance with the monitoring plan of the PD and verified the information flows for generating, aggregating, and reporting the monitoring parameters. Furthermore, the monitoring equipment was checked to confirm that the monitoring practices followed the requirements of the PD and the applicable methodology.

The sampling plan and the site inspections were conducted to evaluate the consistency of the sampling technique and parameters related. The project site and plot location were confirmed with GPS. The inventory data (both digital and hard copy) were reviewed to check the monitored parameters.

2.3 Document Review

The first document review was realized in 16/06/2021 to 18/06/2021, based on the information provided by the Project Proponent before the on-site visit. The review of the action plan and the new documentation was performed in 31 October, 2021, as three review took place to finally conclude that the project meets the requirements of the CCB/VCS program and selected methodology. All answers to findings provided by the proponent were compered with the Voluntary Carbon Standard V 4.1, CCB Standard V3.1 and other relevant requirements defined by CCB/VCS.

This information crosschecking allowed identifying several findings that were declared in Appendix 1- Verification Protocol. In addition, the following documents, among others were checked:

Table 2. Document Review

number	Document Name
/1/	210421_VCS_CCB_MR_ForestFirst.pdf
/2/	FFC 2019 Fiancial Statements.pdf
/3/	ACTIVIDAD DIA DEL ARBOL Y DIA DEL NIÑO 29-04-17
/4/	ARREGLO VIA VENTUROSA HATO MACHO
/5/	CABLE POLICIA NACIONAL
/6/	FORMATO ACTA REUNION COMUNIDAD
/7/	HECTAREA DE TIERRA PREPARADA INDIGENAS
/8/	MEDICAMENTOS 20-07-2017
/9/	PROYECTO GANADO
/10/	REGALOS NIÑOS VENTUROSA 2017
/11/	COMBUSTIBLE ARREGLO VIA ACEITICO
/12/	ENTREGA DE MEDICAMENTOS 31-12-18
/13/	MATERIALES PARA LA COMUNIDAD 05-12-18
/14/	MATERIALES PARA LA COMUNIDAD 28-10-18
/15/	UNIFORMES, PLACAS Y TROFEOS PARA LA COMUNIDAD 05-12-18
/16/	Acta No.3 Final
/17/	Acta No.4
/18/	Acta No.5
/19/	Acta No.6 Final
/20/	Acta No.7 Reunion I
/21/	Acta No.8 Reunion 2
/22/	Acta No.8 Reunion II
/23/	Acta No.9 Reunión III
/24/	Acta No.10 Reunión IV
/25/	Acta No.11 Reunión V
/26/	Acta No.12 Reunión VI
/27/	Acta No.13 Reunión VII
/28/	IMG_0674
/29/	Presentación comité de convivencia FFC
/30/	E1 CMorichalito
/31/	E1 CPinoque
/32/	E1 Toro1
/33/	E1 Toro2
/34/	E2 San Cristobal
/35/	E2 Tierra Adentro
/36/	E2 toro2
/37/	E3 San Cristobal

number	Document Name
/38/	E3 Toro2
/39/	E4 San Cristobal
/40/	E5 San Cristobal
/41/	E6 San Cristobal
/42/	1500-008-01S PLAN DE EMERGENCIAS CAMPO
/43/	anti-corruption policy
/44/	CRONOGRAMA TEMAS
/45/	Entrenamiento brigada 2018
/46/	FUNCIONAMIENTO COMITÉ CONVIVENCIA LABORAL
/47/	MaeEmp Annual Staff List
/48/	Resultados indicadores SST 2015-2019
/49/	Resumen de charlas
/50/	Resumen de Presentaciones 2018-2019
/51/	0110-005-01E Stakeholder Engagement
/52/	Anexo 22 - PLAN DE MANEJO Y CONTINGENCIA DE COMBUSTIBLES.pdf
/53/	Anexo 23- PLAN DE CONTINGENCIA PARA INCENDIOS FORESTALES.pdf
/54/	Anexo 24 - PLAN DE MANEJO DE LOS RESIDUOS SOLIDOS.pdf
/55/	FICHA MCA-01 Uso Eficiente del Agua.pdf
/56/	FICHA MCA-02 Manejo de Aguas Residuales.pdf
/57/	FICHA MCA-03 Manejo de Residuos Solidos No Peligrosos.pdf
/58/	FICHA MCA-04 Manejo de Residuos Solidos Peligrosos.pdf
/59/	FICHA MCA-05 Prevencion de la Contaminación por Insumos Quimicos.pdf
/60/	FICHA MCB-01 Manejo de Fauna Silvestre.pdf
/61/	FICHA MCB-02 Manejo de Flora Silvestre.pdf
/62/	FICHA MCB-03 Manejo de Plagas y Enfermedades.pdf
/63/	FICHA MCB-04 Manejo de Incendios Forestales.pdf
/64/	210202_ExpostER_AR_ForestFirst_JQU2_ALM7_MFB
/65/	Appendix I - Height estimation Epellita
/66/	QC_Forest_Inventory
/67/	I001 - Eventos de incendio 2016
/68/	I002 - Reporte Incendio Paraiso
/69/	I003 - Reporte Incendio San Cristobal
/70/	I004 - Reporte Incendio Hato Nuevo
/71/	I005 - Reporte Incendio Paraíso 05-03-2018
/72/	Registro de eventos de fuego FFC
/73/	Descarga de datos de forcípula digital Masser excaliper II y carga a MF-EDI
/74/	Uso de equipos de medición forestal
/75/	ICA_Cuernavaca.pdf
/76/	ICA_El_Barajuste.pdf
/77/	ICA_El_Comienzo.pdf

number	Document Name
/78/	ICA_El_ParaisoI.pdf
/79/	ICA_El_ParaisoII.pdf
/80/	ICA_El_Toro2.1_CF.pdf
/81/	ICA_El_Toro2.4_CF.pdf
/82/	ICA_El_Toro2.5_CF.pdf
/83/	ICA_El_Toro2.6_CF.pdf
/84/	ICA_El_Toro2_CF.pdf
/85/	ICA_El_Toro3_CF.pdf
/86/	ICA_El_Toro2.2_CF.pdf
/87/	ICA_El_Toro2.7_CF.pdf
/88/	ICA_Hato_Nuevo.pdf
/89/	ICA_LA_Garza_Morena.pdf
/90/	ICA_LaJosa.pdf
/91/	ICA_La_Cordobeza.pdf
/92/	ICA_La_Victoria.pdf
/93/	ICA_Llano_Lindo.pdf
/94/	ICA_Paraiso_TAD.psd
/95/	ICA_Tierradentro_2.pdf
/96/	ICA_Tierradentro_5.pdf
/97/	Nursery_Registration_Certificate.pdf
/98/	Resolución_0734_Importador de Semilla.pdf
/99/	0200-003-01E Land Acquisition Policy.pdf
/100/	0750-003-01E ASI-001 Cemetery at La Venturosa.pdf
/101/	Carraito CTL June 2019. pdf
/102/	Cuernavaca CTL June2019.pdf
/103/	El Barajuste CTL June2019.pdf
/104/	El comienzo CTL June2019.pdf
/105/	El paraiso (PR) CTL June2019.pdf
/106/	El paraiso 2 CTL June2019.pdf
/107/	El paraiso - TAD CTL June2019.pdf
/108/	El triunfo CTL June2019.pdf
/109/	Hato nuevo CTL June2019.pdf
/110/	La cordobeza CTL June2019.pdf
/111/	La delicia contrato Fiducia mercantil 2543.pdf
/112/	La delicia Contrato usufructo 2544.pdf
/113/	La delicia CTL June2019.pdf
/114/	La fe CTL June2019.pdf
/115/	La fortaleza CTL June2019.pdf
/116/	La Garza Morena CTL June2019.pdf
/117/	La Josa CTL June2019.pdf

number	Document Name
/118/	La Orqueta CTL June2019.pdf
/119/	La Pista CTL June2019.pdf
/120/	La Victoria CTL June2019.pdf
/121/	Las Malvinas CTL June2019.pdf
/122/	Llano lindoCTL June2019.pdf
/123/	Los Cuatro Amigos CTL June2019.pdf
/124/	Tierradentro CTL June2019.pdf
/125/	Tierradentro2 CTL June2019.pdf
/126/	Tierradentro5 CTL June2019.pdf
/127/	Toro 2-4 CTL June2019.pdf
/128/	Toro 2-5 CTL June2019.pdf
/129/	Toro 2-6 CTL June2019.pdf
/130/	Toro 2-7 CTL June2019.pdf
/131/	Toro 3 CTL June2019.pdf
/132/	Toro 301 CTL June2019.pdf
/133/	Toro II CTL June2019.pdf
/134/	Toro II-2 CTL June2019.pdf
/135/	Toro2-1 CTL June2019.pdf
/136/	Toro Cesion Derechos
/137/	0200-003-01E Land Acquisition Policy.pdf
/138/	0750-003-01E ASI-001 Cemetery at La Venturosa.pdf
/139/	Certificacion_0818_de_2019.pdf
/140/	201105_VCS-Non-Permanence-Risk-Report_ForestFirst
/141/	201105_VCS-Risk-Report-Calculation_ForestFirst
/142/	201105_VCS-NPRT_ForestFirst_Non_Community_Influence
/143/	201105_VCS-Risk-Report-Calculation_ForestFirst_Non_influence
/144/	210927_VCS-NPRT_ForestFirst_Under_Community_Influence
/145/	210927_VCS-Risk-Report-Calculation_ForestFirst_Under_influence
/146/	External Risk
/147/	Internal Risk
/148/	Natural Risk
/149/	0610-001-02E Management Document Control System.pdf
/150/	0710-001-03S Plan de Proteccion al Fuego.pdf
/151/	0800-000-01E Planning and Technical Plan_Final.pdf
/152/	0850-003-01S Procedimiento de Evaluacion de Vias.pdf
/153/	0900-000-01E Silvicultural Plan_Final.pdf
/154/	0900-001-02E_Plantation_Management_Plan.pdf
/155/	0920-001-01S Applicacion de Herbicidas 100_.pdf
/156/	0920-003-01S Preparacion de tierras.pdf
/157/	0920-005-01S Plantacion con maquinas.pdf

number	Document Name
/158/	0920-007-01S Aplicacion Manual de fertilizante.pdf
/159/	0920-008-01S Podas Acacia mangium.pdf
/160/	0920-012-01S Control de malezas en la fila con mochilla.pdf
/161/	0940-004-02S Control de Hormiga.pdf
/162/	X0920-004-01S Forest First Proceso de Siembra.pdf
/163/	SoilAnalysisResume.xlxs
/164/	19-09.Comp_list.xlxs
/165/	Informe Plantación 2016.pdf
/166/	Factura_Contratista_2016.pdf
/167/	Factura_Fertilizante_09-2016.pdf
/168/	Informe Plantación 2016.pdf
/169/	Carbon_average.xlxs
/170/	SGS May 2015 Forest First 46667-1
/171/	Wood Specifications Firts Test Results 2018.pdf
/172/	003-AM-NTC-176 Densidad en Madera
/173/	004-AM-NTC-176 Densidad en Madera
/174/	005-AM-NTC-176 Densidad en Madera
/175/	006-AM-NTC-176 Densidad en Madera
/176/	007-AM-NTC-176 Densidad en Madera
/177/	008-AM-NTC-176 Densidad en Madera
/178/	Basic_Density

2.4 Interviews

Between 06/09/2021 to 13/09/2021 a site visit to the project was undertaken. Interviews were conducted with Alejandra Monsalve and David Vasquez (South Pole Carbon) and Forest First Staff and some project participants to Forest First.

Interviews were carried out to assess understanding of program requirements and to determine if the Project Description is in accordance with the applied methodology. In consequence, on the interviews with the project developer (South Pole Group and Forest First) and the Project Participants, ICONTEC audited the procedures to determinate project boundary and baseline scenarios, carbon calculation, land eligibility as well as proof of land tenure/ownership, including leakage. In addition, the relevant issues related with the Sampling Plan and in the audit, plan found in appendix 2 of this document.

The validation process included on site interviews with team members of the Venturosa, Puerto Carreño mayor´s office staff, Servialimentos staff, Venturosa Police personal, Morichalito indigenous community and Forest First Staff. In addition, the audit team carried out meetings whit the community, in the Appendix 3 of this report is included the complete list of people that intervened in those meetings. Those interviews included aspects related to the knowledge about the project activities, impact, and benefits.

In the audit process, people belonging to the Forest First Colombia company, who have different positions, were interviewed, such as:

HSEQ Leader

Social coordinator

Harvest Supervisor

District chief

Supervisors

Harvest assistants / operators

Environmental controller

Nursery manager

Cooks

Those who are part of the project and its processes, contributing to the benefits that the implementation of forest plantations in the region has brought with it, some of them are foreigners, others belong to the existing indigenous communities and most of the workers are from the Venturosa, contributing to the income of the sector. This information can be shown in more detail in Appendix 3 and 2.5 section of this report.

2.5 Site Inspections

The site inspection was conducted at the time of the verification project, from 06/09/2021 to 13/09/2021. A ground inspection of the project area was conducted during the site visit and several targeted areas within the project area were visited. The objective of the on-site inspections performed were to:

- Ensure that the geographic area of the project, as reported in Monitoring Report, and the accompanying Shape File, is in conformance with the VCS /CCB program and methodology requirements.
- Perform a risk-based review of the project area to ensure that the project is in conformance the eligibility requirements of the VCS rules and the applicability conditions of the methodology.
- Perform a risk- based review of the project area in order to cover the sampling area.
- Visiting of randomly selected sixteen (16) inventory plots and collect GPS waypoints from the plots, project boundaries and other significant features in order to verify the status of the carbon reservoirs and of other parameters included in the monitoring plan and report.
- An assessment of the implementation and operation of the proposed VCS/CCB project through visual inspection and through the interviews with staff and the community.

- Reliability checks to verify the consistency of the previous measurement and the remeasurement, and to verify the correctness of the reported data.

- Verifying that the operational and data collection procedures were implemented in accordance with the monitoring plan of the PD and verified the information flows for generating, aggregating, and reporting the monitoring parameters. Furthermore, the monitoring equipment was checked in order to confirm that the monitoring practices followed the requirements of the Monitoring Plan and the applicable methodology.

- Confirmation that the quality control and quality assurance procedures were in place.

After developing the sampling analysis, the DOE´s team considered adequate to establish a sampling plan for the inventory and forestry data, carried out by Forest First Colombia and South Pole Carbon S.A.S. According to sampling methodology applied, ICONTEC defined a sample size for the sample plots verification.

In consequence to that, several sites were checked, including representative samples for the identified strata. The sites visited during the validation are provided in *Table 3*. A total of 16 plots of the 8 strata identified within the project were visited, to ensure the reliability and traceability of the data, the values obtained in these plots can be evidenced in appendix 4 of this document with the data of the 16 plots sampled for this audit.

Table 3. Plots

Strata	**Number of plots**	**Plots**
2017Am	3	B315-1, B313 y A143
2017Ep	3	A331, A115 y A155
2018Am	4	C102, C307-2 y B415 – B414
2018Ep	2	B333 y B330
2016Am	1	A227B
2019Ep	1	C407
2016Ep	1	A239
2019Am	1	C202A
TOTAL	16	

For the verification in the following images, the routes and points visited during the on-site audit are observed, where some control points are identified, a total of 13 control points, to identify the limits of the eligible project area, identify the camps, the roads, the clone establishment plots and the

water bodies closest to the project, and complying with the buffer of 100 meters established by law when the water bodies.

The following table and figure present the verification sites of the project areas and the record of meetings with the community

Imagenes puntos de control en una tabla

Besides gathering data related to the carbon stocks and biomass, the field visits included interviews and visits to the different local councils, as an attempt to identify how the people is feeling and their commitment about the project.

2.6 Resolution of Findings

The findings detected by ICONTEC (02 CAR, 02 CL) were presented to the person in charge of the project and were resolved through communications or meetings between the two parties.

Appendix 1 of this verification report describes the findings found, the responses provided by the person responsible or head of the GHG mitigation initiative, the means of verifying such responses, references to any source consulted in the monitoring report. or its supporting documents and the conclusion of their status.

ICONTEC satisfactorily closes a finding only if the person responsible or head of the GHG mitigation initiative modifies or rectifies the PDD, monitoring report, or provides additional information or evidence that the responses comply with the identified finding.

The project adequately corrected all non-conformities, delivering and modifying the missing information, adjusting the document, reviewing, and proposing corrective actions, with which the findings found were closed.

The identification of the findings was determined after the documentary review delivered by the project, these non-conformities respond to the requirements of the Climate, Community, and Biodiversity Standard v.3 and VCS v.4.1 and present a support in the attached folders, as well as verifiable sources and approved.

2.6.1 Forward Action Requests

There are nor Forward Action Requests.

2.7 Eligibility for Validation Activities

Not applicable

3 VALIDATION FINDINGS

Not applicable.

3.1 Participation under Other GHG Programs

In accordance with the documentary review carried out and with the site visit, the audit team was able to establish that the project is not under any system for registering GHG mitigation projects.

3.2 Methodology Deviations

This section is not applicable, as no methodology deviations have been applied to the project.

3.3 Project Description Deviations (*Rules* 3.5.7 – 3.5.10)

There are no project description deviations

3.4 Minor Changes to Project Description (*Rules* 3.5.6)

The project has not changed in the community or biodiversity project design during the course of verification.

3.5 Grouped Project (G1.13 – G1.15, G4.1)

This section is not applicable, as the project does not enter new areas to the project or new communities in this verification period.

4 VERIFICATION FINDINGS

4.1 Public Comments (*Rules* 4.6)

The project PDD was posted to the VERRA website for the formal 30- day public comment period from 07/07/2021 to 06/08/2021. No comments were received.

4.2 Summary of Project Benefits

The project seeks the improvement and enrichment of degrade land area with the aim of restoration of biodiversity and fauna, restoration of deforested areas, job creations which has led to an improvement of their life.

The section 3 (Climate) in MR is adequate and describe the GHG removals associated with the restoration of degraded landscapes are presented with the relevant explanation. The Section 4 (Community), including Table 8, in Monitoring Report, contains the community impacts, showing the project actions, impacts, community group impacted, planed/no planed and effect. Additionally, the section 5 (biodiversity) describes the biodiversity changes, and the monitored data is included.

ICONTEC confirmed that all claims made is supported with adequate information. The auditor agrees that the continuation of the project activities is in way to ensure the maintenance benefits. Furthermore, based on the idea that the project activities will result in net positive benefits that communities will continue such activities into the future.

4.3 General

4.3.1 Implementation Status (G1.9)

The project activity is implemented and operational in accordance with the description contained in the validated PD. As confirmed during the on-site inspection, interviews, the Project Proponent has

implemented the activities as described in the registered PD; At the beginning, the project was expected to develop in an eligible area of 38,859 ha, however, thanks to the on-site audit, and to comply with the project's eligibility and VCS requirements, a modification was made, leaving 29,796 ha of eligible area of the project, with a real planted area of 6,600 ha, distributed in 1,898.78 ha of Acacia mangium and 4,701 ha of Eucalyptus pellita. These activities increase connectivity in the area and the restoration of degraded landscapes.

Evaluation of the execution status of the project activity.

- Material discrepancies between the project implementation and the project description: No material discrepancies have been observed; The absence of such material discrepancies was confirmed by an on-site inspection and interviews with project staff.

- Status of implementation of the monitoring plan and completeness of the monitoring, including the suitability of the implemented monitoring system: The monitoring has been carried out in accordance with the monitoring plan contained in the validated monitoring plan. The audit team has verified that the actual monitoring complies with the monitoring plan and that the data has been evaluated to properly support the claimed emission removals.

- Existence of material discrepancies between the actual monitoring system and the monitoring plan established in the project description and the applied methodology: Monitoring

The plan had a detailed review of the parameters and their implementation, with which the audit team confirms the absence of any material discrepancy between the monitoring plan and the

methodology and monitoring system.

- If the reductions or removals of GHG emissions generated by the project have been included in an emissions trading program or any other mechanism that includes the trading of GHG rights: confirmed in the site visit, the project has not participated or has been rejected by any other GHG program.

- The project has received or requested any other form of environmental credit, or has become eligible to receive it from the prior validation or verification: as could be verified by the audit team, the project has not received any environmental benefit within the period of validation or verification.

- The project has participated or has been rejected under any other GHG program since its validation or prior verification: As verified by the audit team, the project is not registered or in the process of being registered under any other national or international scheme (VCS , GS, CDM, or some other).

- Sustainable development: The project generates GHG removals due to the reforestation of degraded lands that would remain degraded; it also generates social and environmental co-benefits such as biodiversity conservation.

- Project start date: The project start date is September 15, 2016, depending on the date on which the plantation activities take place.

ICONTEC confirms that the project is complying with what is stated in the project description.

4.3.2 Risks to the Community and Biodiversity Benefits (G1.10)

Assessing the accuracy of likely natural and human-induced risks to expected climate, community, and biodiversity benefits, over the life of the project, identified by the project, includes assessing the information that supports the potential risk identified by the project proponent, taking into account the three risks established in the AFOLU Non-permanence Risk Tool V4.0 format (internal risk, external risk and natural risk) with external risk factors related to: land tenure, community participation and political risk and natural risk such as fires, pest and disease outbreaks, and extreme weather. .

The project proponent considered two different social conditions and consequently two risk analyzes were carried out: 1. an eligible area of 1,626 ha under the influence of the Morichalito indigenous community, this zone was defined as the area from the settled community to the Chaquichaque stream, the natural barrier to community mobilization; 2. an eligible area of 20,469, corresponding to the territory that is not under the influence of the indigenous community. The result of the risk of non-permanence was 18% for area 1 (under the influence of indigenous communities) and 16% for area 2 (Not under the influence of indigenous communities).

The document and support of each risk factor applicable to the project was verified, including any evidence. Upon reviewing, an assessment of the quality of the documentation and data provided to support the risk assessment and the risk scoring was performed, in terms of the audit process.

The document indicates the possible risks that may affect the benefits of the project and identifies the necessary measures to mitigate these risks. According to this information, the risk management proposal and the capacity of the Forest First Colombia SAS company were evaluated in terms of compliance in terms of prevention, control, implementation of actions, monitoring and evaluation of actions related to the benefits of the project.

ICONTEC evaluated the risk assessment performed by the project proponent and evaluated all assumptions, justifications and documentation provided by the project proponent to support the risk to the project. The information included in the MR was confirmed and is consistent with the risk assessment.

4.3.3 Community and Biodiversity Benefit Permanence (G1.11)

The measures necessary and taken to extend the benefits of the project beyond the useful life of the project include the selection of planted species that ensure resistance, agreements with the landowner and the project owner, the quality of the soil in In particular, the increase in organic substance and the improvement of all nutritional elements, preservation of natural ecosystems. Community benefits focus on Training in forest management, fire control and conservation importance.

Through the on-site visit, it is confirmed that reasonable steps have been taken to enhance the benefits of the project beyond the life of the project, including aspects that protect the project's lands and attempts to link community success with the project success.

4.3.4 Stakeholder Access to Information (G3.1- G3.3)

The project proponent explains correctly how the stakeholder have access to information and present adequately the summary of the mechanisms for stakeholder access to project documents.

The PP have meetings were held with the communities and the workers of the plantation.

In the on-site visit carried out by ICONTEC, it was verified through interviews with the communities of La venturosa y Morichalito that they have knowledge of the project and access to information about it.

A meeting was held with the workers in which it was verified that they had knowledge of the project's activities. In addition, posters referring to the project and monitoring of social, climatic and biodiversity parameters were identified in common areas.

4.3.5 Stakeholder Consultation (G3.4 – G3.5)

The local consultation was carried out with the community and project workers. Additionally, meetings were held with the social manager to facilitate communication with the owner of the project and the community, meetings were held with the mayor of Puerto Carreño, to identify that the project is taking all the relevant communication measures for the project, where The communicative work that has been implemented hand in hand with the mayor's office, with the different police inspections, the Aceitico and La Venturosa community action boards and with the captains of the Morichalito indigenous community was evidenced.

Meetings and consultations on design, implementation, monitoring and benefits are shared with stakeholders and workers. The project is disseminating relevant information about the project well through traditional communication channels. Adequate levels of information are reaching stakeholders.

4.3.6 Stakeholder Participation in Decision-making and Implementation (G3.6)

The community was able to propose and determine which projects or actions they wanted to implement, according to the needs of each one. Thus, collective work was encouraged, promoting the participation of all attendees (men, women, and children) in the group discussion, to determine lines of work between Forest First Colombia and the communities located in the areas near the project that have some direct influence in the eligible area of the project.

To validate this information, the auditor reviewed and discussed the content of the local consultations and meetings and confirmed that the process to enable effective participation in a culturally appropriate and gender-sensitive manner with all communities was adequate. Through cross-checking and documentation review, ICONTEC can conclude that the communication methods used to ensure stakeholder participation in decision-making and implementation are in accordance with the requirement.

4.3.7 Anti-discrimination (G3.7)

During the interview with the PP, both the project proponent and the project owner are not involved in or complicity in any form of discrimination or sexual harassment with respect to the project. The stakeholder involvement was inclusive without any discrimination of gender, cultural identity and religion.

On the other hand, during the on-site visit it was also identified by the audit team that within the work teams there was participation of women and the inclusion of people from the communities near the project area.

4.3.8 Stakeholder Feedback and Grievance Redress Procedure (G3.8)

To register the complaints, it was agreed with the community that comments and complaints related to the project would be sent to the mailboxes provided for said actions or, failing that, with the social staff of the Forest First Colombia project, or directly. No complaints have been registered during the implementation of the project.

However, it is evident that it was not possible to record the comments received regarding the activities related to the project, but in the visits, it was identified that the main comments were the following:

• Dust produced by cargo trucks that pass through the road that crosses the Venturosa village. To address this complaint, FFC moistens roads before truckloads travel on them to prevent dust particles from rising during the dry season.

• Since the community is not always informed about the donations that FFC makes through JACs, FFC agreed with community leaders to use the community megaphone to report on these issues.

Through a desk review and interviews with project participants, workers, and other stakeholders, during the site visit, the auditor confirmed that the project's complaint and comment procedure meets the requirements.

4.3.9 Worker Relations (G3.9 – G3.12)

According to the information presented by the project proponent, and evidenced in the on-site visit, through discussions with the community, all activities that involve people from outside the community should also result in learning for at least one participant. of the project. of the community. Considering the practices of the project, the community has a group of people large enough to cover the necessary tasks. For this, the training is carried out in an open way and its objective is to train the members of all the populated centers near the project area such as Venturosa, Aceitio and Morichalito. The auditor also reviewed the documented workshops developed during the current monitoring period.

Regarding the training of those hired, all the new workers received initial training by the different supervisors, contemplating internal or external personnel if required. During the execution of the project, the trainings carried out during this monitoring period total more than 5,000 hours of

training, with more than 500 attendees, between 2015 and 2020 approximately 200 jobs were generated at the local level.

The project proponent evidenced staff training on issues related to:

- Fire emergency plans and procedures

- Planning and technical plan

- Road evaluation

- Silvicultural plan

- Plantation managment plan

- Application of herbicides in forest plantations

- Preparation of land for plantation

- Mechanized planting

- Manual application of fertilizer

- Pruning in Acacia mangium

- Herbicide application

- Ant control

- Sowing process

In addition, the evaluation made it possible to conclude that the project complies with all relevant laws and regulations regarding workers' rights and that workers are informed of their rights.

4.3.10 Management Capacity (G4.2 – G4.3)

In the verification period, forest plantation management activities were carried out, which were carried out by personnel hired by the PP. Specific activities such as forest inventories, biodiversity monitoring and carbon quantification by project activities were carried out by firms with proven experience and staff with training and experience in each topic.

The auditor has been able to confirm that exist enough evidence related to management capacity and best practices by the project participants. Is relevant the experience reached by the community, to carry out the project activities and the monitoring.

4.3.11 Commercially Sensitive Information (*Rules* 3.5.13 – 3.5.14)

No applicable. No sensitive information has been generated nor excluded from the public version of the project.

4.3.12 Rights Protection and Free, Prior and Informed Consent (G5.1-G5.5)

The project area is on private property. In accordance with Forest First Colombia's Land Rights Acquisition Policy, the acquisition of land is in line with the legislative requirements of the Republic of Colombia and does not administer land rights or carry out any activity on lands that have not been titled in their entirety or they are not under private property, as can be seen in chapter 2.5 of the Follow-up Report.

For the verification of the project, the SIAC cartographic viewer was used as a source of consultation, with the maps of RAMSAR zones, LEY 2da and the cartography of the Ministry of the Interior of Colombia. ICONTEC mapped these territories with the project areas in both instances and it was established that there are no overlaps between the project and the collective territories.

Likewise, it was established that for the municipality of Puerto Carreño and Primavera no assigned territories are reported, there are no collective territories within the project area that have been awarded to black or indigenous communities. However, the cemetery of one of the nearby settlements, Venturosa, is located within the boundary of a property owned by FFC, this area was abandoned but FFC delimited it and is protecting and preserving it and allowing free access to the community.

Regarding the property and rights over it, the information for the monitoring period of the certificates of tradition and freedom of each one of the properties that are part of the instances of the project is reviewed. In the documentation attached to the MR (Support: legal status), it verified that the properties where the project is being developed belong to private properties without overlaps or processes associated with collective territories (indigenous or black).

During the field visit, through meetings held with the communities near the municipalities of Puerto Carreño and La Primavera, there were no comments associated with the violation of indigenous rights, black communities, or peasant communities.

Based on this, it is concluded that the project area is represented by private property as shown in the proof of title documentation. The project is not an accomplice of involuntary relocation since within the Project area there are no communities that live or depend on the resources located within the farms.

ICONTEC was able to verify that vulnerable communities, such as indigenous ethnic groups or black territories, do not have a presence within the project area. Accordingly, it is clear that the consultation process with each of the communities was carried out during the project design.

4.3.13 Legal Status (G5.6)

Both the validated PD and the MR provide an extensive list of internal agreements, national and local laws and explain their applicability to the project and the way compliance with the law is achieved by the project where applicable.

There is no reason to believe the project is in violation of any local or national laws or regulations. Compliance with the regulatory framework was assessed, and no incompliance was detected during the verification process.

4.4 Climate

4.4.1 Accuracy of GHG Emission Reduction and Removal Calculations

The monitoring has been carried out in accordance with the monitoring plan contained in the validated monitoring plan. The following table describe for each parameter which is to be measured according to the monitoring plan and how the audit team has verified that the actual monitoring complies with the monitoring plan and that data have been assessed to correctly support the GHG removals being claimed. The GHG data monitoring follows project own procedures with regard to management and monitoring. the audit team has assessed the information provided by the PP by reviewing the data and information to verify their completeness, the validated monitoring plan, the applied methodology and methodological tools, evaluating the data management and the quality assurance and quality control of the reported GHG removals.

The quantification of GHG emission reductions and removals were determined using data and parameters, the models and equations contained in the methodology (AR-ACM0003) applied by project proponent.

Data and parameters fixed ex-ante: Data and parameters fixed ex-ante as listed in the monitoring report have been cross-checked and reviewed as applicable against the validated PD and the monitoring plan, applied methodology.

Table 4. Parameters

Parameter	Verification Findings
DBHtree	DBH= Diameter at breast Hight (1,3m) of tree The audit team has re-measured all the tree in 16 sample plots. The audit team has compared the biomass found because of its forest inventory to the biomass found as a result of the project proponent inventory in each of the plots encompassed by the audit sampling. the audit team has used the same point of measurement and the same allometric equations used by the project proponent to determine trees biomass. However, the audit team found a superior biomass value in every case. Taking this in consideration the audit team concludes that the forest inventory performed by the project proponent resulted in lower values because it was performed one year and two years before the inventory made by the audit team and that the project proponent estimates can be considered conservative.
LK	Leakage due to the displacement of agricultural activities in year t. Considered to be zero by the project proponent. The audit team agrees that no leakage emissions has happened during the first monitoring period, taking in consideration the interviews performed during the field audit and the AR-TOOL15 requirements, specifically, 10.

Parameter	Verification Findings
Δ_{CBSL}	Net baseline GHG removals by sinks in year t; t CO2-e, considered zero, following the requirements of the adopted methodology and its associated tools, specifically, AR-TOOL14 article 12, a, b, c and f. that says that in situations where individuals are not removed at the time of establishment, there is no death due to nutrient competition and the trees present are not taken into account for the monitoring of carbon stocks, the land is not subject to cycles periodic slash-and-burn, changes in carbon stocks in trees and shrubs at the baseline can be counted as zero, as verified by the audit team.
Δ_{ACTUAL}	The audit team has checked the carbon calculation spreadsheet and attests the accuracy of spreadsheet formulae, conversions and aggregations and therefore, the accuracy of GHG emission reductions.
Aplot	Area of a sample plot (500 m^2 and 700 m^2). The audit team checked the area of sample plot in each of the 16 sample plots that were re-measured during the forest inventory. We found some trees outside the plots but is insignificant the results can be seen in the Appendix 4.
H	Height of tree in sample plot of stratum
	The audit team has re-measured Heights of 28 individuals in acacia plots and heights of 25 individuals in eucalyptus plots in 16 sample plots with a vertex, clinometer, and Nikon. These values were then used to obtain an allometric model of heights, the audit team has compared the biomass found because of its forest inventory to the biomass found as a result of the project proponent inventory in each of the plots encompassed by the audit samplig. the audit team concludes that the forest inventory performed by the project proponent resulted in lower values because it was performed one year and two years before the inventory made by the audit team and that the project proponent can be considered conservative
ni	Number of plots per stratum. The audit team checked the tool "Calculation of the number of sample plots for measurements within A/R CDM project activities" with 190 plots for the total project in 8 stratums.
A	Project Area
	the audit team check all the stratums of this project and realize the verification for GPS and cartographic tools, verifying 22.104 hectares according to the project with 6.600 planted areas.

The audit team evaluated how the flow of information, from data collection performed by the project proponent in the field to the completion of their ex-post estimates, through all conversions and aggregations. In this process, the audit team evaluated the carbon calculation worksheet presented by the project proponent to evaluate the correct use of all the formulas listed in the methodology adopted in the project design and default values. Thus, we conclude that the project proponent has correctly used the methodology and all its formulas. It is also concluded that the ex-post estimates submitted by the proponent are accurate to a reasonable level of assurance.

4.4.2 Quality of Evidence to Determine GHG Emission Reductions and Removals

The GHG emission removals ex-post estimates were determined by the project proponent using sufficient quantitative evidence and properly qualitative evidence, as it was verified by the audit team. The project proponent has used primary data taken from its forest inventory and spatial data

calculated in GIS, based on the reforested areas to determine the net anthropogenic GHG removals by trees. The quality assessment performed by the audit team over the proponent's inventory was discussed in this report in section 4.4.1, beyond that the audit team has also checked the correct utilization of the allometric equations, cross-checking the inventory sheets. The quality assessment of the spatial information used by the project proponent to determine the different strata areas was verified by the audit team through "ground truthing" analysis. All the information flow from data generation, aggregation and conversions was assessed by the audit team through the carbon calculation spreadsheet. The project proponent has correctly used the relevant methodological framework. Finally, the audit team checked appropriateness of the uncertainty calculation presented by the project proponent in the carbon calculation spreadsheet

4.4.3 Non-Permanence Risk Analysis

The project proponent has been determined the risk factors through a qualitative analysis, following the guidance of the VCS AFOLU Non-Permanence Risk Tool (v4.0) and providing enough evidence and documentation.

ICONTEC evaluated the risk assessment undertaken by the project proponent and assessed all data, rationales, assumptions, justifications and documentation provided by the project proponent to support the non-permanence risk rating.

Below, it is explained the assessment of the non-permanence risk rating determined by the project participant and issues raised to them in this regard.

Table 5. Risk Analysis.

Risk factor	Risk	Risk Raiting	Risk factor and/or mitigation description	Corrective Actions /Clarifications
1. Non community influence				
Internal risk				
Project Management	Species planted (where applicable) associated with more than 25% of the stocks on which GHG credits have previously been issued are not native or proven to be adapted to the same or similar agro-ecological zone(s) in which the project is located.	0	not appicable	N/A
	Ongoing enforcement to prevent encroachment by outside actors is required to protect more than 50% of stocks on which GHG credits have previously been issued.	0	not appicable	N/A
	Management team does not include individuals with significant experience in all skills necessary to successfully undertake all project activities (ie, any area of required experience is not	0	not appicable	N/A

Risk factor	Risk	Risk Raiting	Risk factor and/or mitigation description	Corrective Actions /Clarifications
	covered by at least one individual with at least 5 years experience in the area).			
	Management team does not maintain a presence in the country or is located more than a day of travel from the project site, considering all parcels or polygons in the project area.	0	not appicable	N/A
	Mitigation: Management team includes individuals with significant experience Management team includes individuals with significant experience in AFOLU project design and implementation, carbon accounting and reporting (eg, individuals who have successfully managed projects through validation, verification and issuance of GHG credits) under the VCS Program or other approved GHG programs.	-2	The carbon project developer team, South Pole, has extensive technical expertise in developing AFOLU projects, as well as in-depth knowledge of national and international carbon markets. The risk rating is justified	No corrective actions request or Clarifications
	Mitigation: Adaptive management plan in place	-2	A forest management and establishment plan of the planting area was developed and is being implemented. The risk rating is justified	No corrective actions request or Clarifications
Fiannacial viability	Project cash flow breakeven point is greater than 10 years from the current risk assessment	0	not appicable	N/A
	Project cash flow breakeven point is between 7 and up to less than 10 years from the current risk assessment	2	Project cash flow breakeven is in 2029, eight years from the current risk assessment. The project representatives and documented in FFC 2019 Financial Statements. The risk rating is justified	CL 2

Risk factor	Risk	Risk Raiting	Risk factor and/or mitigation description	Corrective Actions /Clarifications
	Project cash flow breakeven point between 4 and up to less than 7 years from the current risk assessment	0	not appicable	N/A
	Project cash flow breakeven point is less than 4 years from the current risk assessment	0	not appicable	N/A
	Project has secured less than 15% of funding needed to cover the total cash out before the project reaches breakeven	0	not appicable	N/A
	Project has secured 15% to less than 40% of funding needed to cover the total cash out required before the project reaches breakeven	0	not appicable	N/A
	Project has secured 40% to less than 80% of funding needed to cover the total cash out required before the project reaches breakeven	1	The project has secured 40% to less than 80% of the funding needed to cover the total cash out required before the project reaches the break-even point. The risk rating is justified	CL 2
	Project has secured 80% or more of funding needed to cover the total cash out before the project reaches breakeven	0	not appicable	N/A
	Mitigation: Project has available as callable financial resources at least 50% of total cash out before project reaches breakeven	0	not appicable	N/A
Opportunity cost	NPV from the most profitable alternative land use activity is expected to be at least 100% more than that associated with project activities; or where baseline activities are subsistence-driven, net positive community impacts are not demonstrated	0	not appicable	N/A
	NPV from the most profitable alternative land use activity is expected to be between 50% and up to100% more than from project activities	0	not appicable	N/A
	NPV from the most profitable alternative land use activity is expected to be between 20% and up to 50% more than from project activities	0	not appicable	N/A

Risk factor	Risk	Risk Raiting	Risk factor and/or mitigation description	Corrective Actions /Clarifications
	NPV from the most profitable alternative land use activity is expected to be between 20% more than and up to 20% less than from project activities; or where baseline activities are subsistence-driven, net positive community impacts are demonstrated	0	not appicable	N/A
	NPV from project activities is expected to be between 20% and up to 50% more profitable than the most profitable alternative land use activity	0	not appicable	N/A
	NPV from project activities is expected to be at least 50% more profitable than the most profitable alternative land use activity	-4	According the assessed information, NPV from project activities is expected to be at least 50% more profitable than the most profitable alternative land use activity. The risk rating is justified	No corrective actions request or Clarifications
	Mitigation: Project proponent is a non-profit organization	0	not appicable	N/A
	Mitigation: Project is protected by legally binding commitment to continue management practices that protect the credited carbon stocks over the length of the project crediting period (see project longevity)	0	not appicable	N/A
	Mitigation: Project is protected by legally binding commitment to continue management practices that protect the credited carbon stocks over at least 100 years (see project longevity)	0	not appicable	N/A
Project longevity	Without legal agreement or requirement to continue the management practice	18	Without legal agreement or requirement to continue the management practice beyond the 30 years projected for the project activities	No corrective actions request or Clarifications

Risk factor	Risk	Risk Raiting	Risk factor and/or mitigation description	Corrective Actions /Clarifications
	With legal agreement or requirement to continue the management practice	0	not appicable	N/A
External risk				
Land and resource tenure	Ownership and resource access/use rights are held by same entity(s)	0	Ownership and resource access / use rights are held by the same entity FFC.	No corrective actions request or Clarifications
	Ownership and resource access/use rights are held by different entity(s) (eg, land is government owned and the project proponent holds a lease or concession)	0	not appicable	N/A
	In more than 5% of the project area, there exist disputes over land tenure or ownership	0	There are no disputes over land tenure or ownership	No corrective actions request or Clarifications
	There exist disputes over access/use rights (or overlapping rights)	0	There are no disputes over access / use or overlapping rights	No corrective actions request or Clarifications
	WRC projects unable to demonstrate that potential upstream and sea impacts that could undermine issued credits in the next 10 years are irrelevant or expected to be insignificant, or that there is a plan in place for effectively mitigating such impacts	0	not appicable	N/A
	Mitigation: Project area is protected by legally binding commitment (eg, a conservation easement or protected area) to continue management practices that protect carbon stocks over the length of the project crediting period	0	not appicable	N/A
	Mitigation: Where disputes over land tenure, ownership or access/use rights exist, documented evidence is provided that projects have implemented activities to resolve the disputes or clarify overlapping claims	0	not appicable	N/A

Risk factor	Risk	Risk Raiting	Risk factor and/or mitigation description	Corrective Actions /Clarifications
Community engagement	Less than 50 percent of households living within the project area who are reliant on the project area, have been consulted	0	not appicable	N/A
	Less than 20 percent of households living within 20 km of the project boundary outside the project area, and who are reliant on the project area, have been consulted	0	not appicable	N/A
	Mitigation: The project generates net positive impacts on the social and economic well- being of the local communities who derive livelihoods from the project area	-5	Indeed, the project generates net positive impacts on the social and economic wellbeing of the local communities who derive livelihoods from the project area. The socioeconomic potential impacts are documented and it was verified. The risk rating is justified.	No corrective actions request or Clarifications
Political risk	Governance score of less than -0.79	0	not appicable	N/A
	Governance score of -0.79 to less than -0.32	0	not appicable	N/A

Risk factor	Risk	Risk Raiting	Risk factor and/or mitigation description	Corrective Actions /Clarifications
	Governance score of -0.32 to less than 0.19	2	From the governance indicators scoring, the average (of the available last five years) Colombian governance score is -0.187. Political risk was evaluated through the review of documents and literature such as Governance score estimated for Colombia is -0.187 – worldwide governance indicators issued by the World Bank and the document REDD in Colombia issued by the REDD Desk. The risk rating is justified.	No corrective actions request or Clarifications
	Governance score of 0.19 to less than 0.82	0	not appicable	N/A
	Governance score of 0.82 or higher	0	not appicable	N/A

Risk factor	Risk	Risk Raiting	Risk factor and/or mitigation description	Corrective Actions /Clarifications
	Mitigation: Country implementing REDD+ Readiness or other activities such as: a) The country is receiving REDD+ Readiness funding from the FCPF, UN-REDD or other bilateral or multilateral donors b) The country is participating in the CCBA/CARE REDD+ Social and Environmental Standards Initiative c) The jurisdiction in which the project is located is participating in the Governors' Climate and Forest Taskforce d) The country has an established national FSC or PEFC standards body e) The country has an established DNA under the CDM and has at least one registered CDM A/R project	-2	Colombia is active in the UNFCCC REDD+ negotiations where it supports market-based mechanisms and has been a vocal proponent of the idea that REDD+ should accommodate a stepped subnational approach, not only to reference levels and measuring, reporting and verification (MRV) but also regarding eligibility for Phase 3 of REDD+ (results-based payments). Colombia is a member of the World Bank Forest Carbon Partnership Facility (FCPF) and became a UN-REDD+ partner country in 2013. The risk rating is justified	No corrective actions request or Clarifications
Natural risk				
	Fire (F)	1,25	The risk rating is justified	No corrective actions request or Clarifications
	Pest and Disease Outbreaks (PD)	1,00	The risk rating is justified	No corrective actions request or Clarifications
	Extreme Weather (W)	0	not appicable	N/A
	Geological Risk (G)	0	not appicable	N/A
	Other natural risk (ON1)	0	not appicable	N/A
	Other natural risk (ON2)	0	not appicable	N/A
	Other natural risk (ON3)	0	not appicable	N/A

Risk factor	Risk	Risk Raiting	Risk factor and/or mitigation description	Corrective Actions /Clarifications
2. Under community influence				
Internal risk				
Project Management	Species planted (where applicable) associated with more than 25% of the stocks on which GHG credits have previously been issued are not native or proven to be adapted to the same or similar agro-ecological zone(s) in which the project is located.	0	not appicable	N/A
	Ongoing enforcement to prevent encroachment by outside actors is required to protect more than 50% of stocks on which GHG credits have previously been issued.	2	There are two community settlements surrounded the project area. The relationship between them and the project owner is friendly, and no on-going enforcement issues or disputes have been raised. However, 1.3 Km from the project properties called paraiso, an indigenous community was settled in 2016, and in the project area under its influence (1,626.4 ha, defined as the area from the community settled to the Chaquichaque stream, the natural barrier for the community mobilization), community activities, such as hunting or fires for honey collection could occur. The risk rating is justified	CAR 07

Risk factor	Risk	Risk Raiting	Risk factor and/or mitigation description	Corrective Actions /Clarifications
	Management team does not include individuals with significant experience in all skills necessary to successfully undertake all project activities (ie, any area of required experience is not covered by at least one individual with at least 5 years experience in the area).	0	not appicable	N/A
	Management team does not maintain a presence in the country or is located more than a day of travel from the project site, considering all parcels or polygons in the project area.	0	not appicable	N/A
	Mitigation: Management team includes individuals with significant experience Management team includes individuals with significant experience in AFOLU project design and implementation, carbon accounting and reporting (eg, individuals who have successfully managed projects through validation, verification and issuance of GHG credits) under the VCS Program or other approved GHG programs.	-2	The carbon project developer team, South Pole, has extensive technical expertise in developing AFOLU projects, as well as in-depth knowledge of national and international carbon markets. The risk rating is justified	No corrective actions request or Clarifications
	Mitigation: Adaptive management plan in place	-2	A forest management and establishment plan of the planting area was developed and is being implemented. The risk rating is justified	No corrective actions request or Clarifications
Fiannacial viability	Project cash flow breakeven point is greater than 10 years from the current risk assessment	0	not appicable	N/A
	Project cash flow breakeven point is between 7 and up to less than 10 years from the current risk assessment	2	Project cash flow breakeven is in 2029, eight years from the current risk assessment. The project representatives and documented in FFC 2019 Financial Statements.	CL 2

Risk factor	Risk	Risk Raiting	Risk factor and/or mitigation description	Corrective Actions /Clarifications
			The risk rating is justified	
	Project cash flow breakeven point between 4 and up to less than 7 years from the current risk assessment	0	not appicable	N/A
	Project cash flow breakeven point is less than 4 years from the current risk assessment	0	not appicable	N/A
	Project has secured less than 15% of funding needed to cover the total cash out before the project reaches breakeven	0	not appicable	N/A
	Project has secured 15% to less than 40% of funding needed to cover the total cash out required before the project reaches breakeven	0	not appicable	N/A
	Project has secured 40% to less than 80% of funding needed to cover the total cash out required before the project reaches breakeven	1	The project has secured 40% to less than 80% of the funding needed to cover the total cash out required before the project reaches the break-even point. The risk rating is justified	CL 2
	Project has secured 80% or more of funding needed to cover the total cash out before the project reaches breakeven	0	not appicable	N/A
	Mitigation: Project has available as callable financial resources at least 50% of total cash out before project reaches breakeven	0	not appicable	N/A
Opportunity cost	NPV from the most profitable alternative land use activity is expected to be at least 100% more than that associated with project activities; or where baseline activities are subsistence-driven, net positive community impacts are not demonstrated	0	not appicable	N/A
	NPV from the most profitable alternative land use activity is expected to be between 50% and up to100% more than from project activities	0	not appicable	N/A
	NPV from the most profitable alternative land use activity is expected to be between 20% and up to 50% more than from project activities	0	not appicable	N/A

Risk factor	Risk	Risk Raiting	Risk factor and/or mitigation description	Corrective Actions /Clarifications
	NPV from the most profitable alternative land use activity is expected to be between 20% more than and up to 20% less than from project activities; or where baseline activities are subsistence-driven, net positive community impacts are demonstrated	0	not appicable	N/A
	NPV from project activities is expected to be between 20% and up to 50% more profitable than the most profitable alternative land use activity	0	not appicable	N/A
	NPV from project activities is expected to be at least 50% more profitable than the most profitable alternative land use activity	-4	According the assessed information, NPV from project activities is expected to be at least 50% more profitable than the most profitable alternative land use activity. The risk rating is justified	No corrective actions request or Clarifications
	Mitigation: Project proponent is a non-profit organization	0	not appicable	N/A
	Mitigation: Project is protected by legally binding commitment to continue management practices that protect the credited carbon stocks over the length of the project crediting period (see project longevity)	0	not appicable	N/A
	Mitigation: Project is protected by legally binding commitment to continue management practices that protect the credited carbon stocks over at least 100 years (see project longevity)	0	not appicable	N/A
Project longevity	Without legal agreement or requirement to continue the management practice	18	Without legal agreement or requirement to continue the management practice beyond the 30 years projected for the project activities	No corrective actions request or Clarifications

Risk factor	Risk	Risk Raiting	Risk factor and/or mitigation description	Corrective Actions /Clarifications
	With legal agreement or requirement to continue the management practice	0	not appicable	N/A
External risk				
Land and resource tenure	Ownership and resource access/use rights are held by same entity(s)	0	Ownership and resource access / use rights are held by the same entity FFC.	No corrective actions request or Clarifications
	Ownership and resource access/use rights are held by different entity(s) (eg, land is government owned and the project proponent holds a lease or concession)	0	not appicable	N/A
	In more than 5% of the project area, there exist disputes over land tenure or ownership	0	There are no disputes over land tenure or ownership	No corrective actions request or Clarifications
	There exist disputes over access/use rights (or overlapping rights)	5	Disputes over access/use could potentially occur with the indigenous community. The risk rating is justified	CAR 07
	WRC projects unable to demonstrate that potential upstream and sea impacts that could undermine issued credits in the next 10 years are irrelevant or expected to be insignificant, or that there is a plan in place for effectively mitigating such impacts	0	not appicable	N/A
	Mitigation: Project area is protected by legally binding commitment (eg, a conservation easement or protected area) to continue management practices that protect carbon stocks over the length of the project crediting period	0	not appicable	N/A
	Mitigation: Where disputes over land tenure, ownership or access/use rights exist, documented evidence is provided that projects have implemented activities to resolve the disputes or clarify overlapping claims	0	not appicable	N/A
Community engagement	Less than 50 percent of households living within the project area who are reliant on the project area, have been consulted	0	not appicable	N/A

Risk factor	Risk	Risk Raiting	Risk factor and/or mitigation description	Corrective Actions /Clarifications
	Less than 20 percent of households living within 20 km of the project boundary outside the project area, and who are reliant on the project area, have been consulted	0	not appicable	N/A
	Mitigation: The project generates net positive impacts on the social and economic well- being of the local communities who derive livelihoods from the project area	-5	Indeed, the project generates net positive impacts on the social and economic wellbeing of the local communities who derive livelihoods from the project area. The socioeconomic potential impacts are documented and it was verified. The risk rating is justified.	No corrective actions request or Clarifications
Political risk	Governance score of less than -0.79	0	not appicable	N/A
	Governance score of -0.79 to less than -0.32	0	not appicable	N/A
	Governance score of -0.32 to less than 0.19	2	From the governance indicators scoring, the average (of the available last five years) Colombian governance score is -0.187. Political risk was evaluated through the review of documents and literature such as Governance score estimated for Colombia is -0.187 – worldwide governance indicators issued by the World Bank and the document REDD in Colombia issued by the REDD Desk. The risk rating is justified.	No corrective actions request or Clarifications

Risk factor	Risk	Risk Raiting	Risk factor and/or mitigation description	Corrective Actions /Clarifications
	Governance score of 0.19 to less than 0.82	0	not appicable	N/A
	Governance score of 0.82 or higher	0	not appicable	N/A
	Mitigation: Country implementing REDD+ Readiness or other activities such as: a) The country is receiving REDD+ Readiness funding from the FCPF, UN-REDD or other bilateral or multilateral donors b) The country is participating in the CCBA/CARE REDD+ Social and Environmental Standards Initiative c) The jurisdiction in which the project is located is participating in the Governors' Climate and Forest Taskforce d) The country has an established national FSC or PEFC standards body e) The country has an established DNA under the CDM and has at least one registered CDM A/R project	-2	Colombia is active in the UNFCCC REDD+ negotiations where it supports market-based mechanisms and has been a vocal proponent of the idea that REDD+ should accommodate a stepped subnational approach, not only to reference levels and measuring, reporting and verification (MRV) but also regarding eligibility for Phase 3 of REDD+ (results-based payments). Colombia is a member of the World Bank Forest Carbon Partnership Facility (FCPF) and became a UN-REDD+ partner country in 2013. The risk rating is justified	No corrective actions request or Clarifications
Natural risk				
	Fire (F)	1,25	The risk rating is justified	No corrective actions request or Clarifications
	Pest and Disease Outbreaks (PD)	1,00	The risk rating is justified	No corrective actions request or Clarifications
	Extreme Weather (W)	0	not appicable	N/A
	Geological Risk (G)	0	not appicable	N/A

Risk factor	Risk	Risk Raiting	Risk factor and/or mitigation description	Corrective Actions /Clarifications
	Other natural risk (ON1)	0	not appicable	N/A
	Other natural risk (ON2)	0	not appicable	N/A
	Other natural risk (ON3)	0	not appicable	N/A

Considering the different types of risks evaluated and their management by the PP, the quantification of the Non-Permanence Risk Analysis presented equal register at the PD document.

The document and support for each risk factor applicable to the project were verified, including any relevant evidence (See also section 2.3, above). By reviewing, an assessment of the quality of documentation and data provided to support the risk score was realized, in terms of the auditing process.

4.4.4 Dissemination of Monitoring Plan and Results (CL4.2)

The auditor confirms that Grouped project Monitoring plans and all documents and information about the results of the monitoring and verification of this project will be published on VERRA's platforms.

Additionally, the project owner prepared a summary of the monitoring plan and results, which was communicated to the communities and other stakeholders. This ensures direct communication with the community including a feedback tool that generates improvements for the project and the community.

The monitoring plan has been developed by the project proponent and implemented correctly. Monitoring Plans and all documents and information about the results of the monitoring and verification of this project will be published on the platforms of VERRA. Additionally, the project owners prepared summaries of the monitoring plan and result, which is to be communicated to the communities and other stakeholders.

4.4.5 Optional Gold Level: Climate Change Adaptation Measures (GL1.3)

Not applicable.

4.4.6 Optional Gold Level: Climate Change Adaptation Benefits (GL1.4)

Not applicable.

4.5 Community

4.5.1 Community Impacts (CM2.1)

According to the information described and verified in onsite visit, for the analysis of the direct and indirect impacts of the project on communities and Its construction of the change matrix links results with activities through a causal relationship in both Instances

The project proponent provides a complete explanation of the impacts generated for community groups, the activities and management of activities throughout the project and their work teams during the monitoring period. ICONTEC could confirm the information about descriptions of the communities' impact and any significant community changes in the monitoring period. The community characteristics has been adequately described. In conclusion, the explanation responds sufficiently to the requirement. The monitoring was carried in compliance with the respective monitoring plan.

The impacts assessment was realized with an appropriate methodology. The complete text and Table 8 (page 51-52, MR) includes the impacts from the project on the community. The explanation responds adequately to the requirement, and the assessment of impacts is accurate.

4.5.2 Negative Community Impact Mitigation (CM2.2)

According to the PD validated and confirmed by the project documentation (MR and Annex I) and during the interview, the project does not generate negative impacts on the communities, and they are not expected given the nature of the project. However, potential impacts that could be generated were taken into account and identified by the community during the consultation process, for which some strategies were taken into account:

- Conflicts associated with the project activities: Communication mechanism

- Poor or biased linkage in FFC community programs: To support the JACs in anticipating strategies for the effective community participation in communal activities.

- Ineffective socialization processes and communication channels: Socialization workshops and meetings to ensure access to information for all community groups associated with the project.

The project has specific communication channels for each target audience.

Since the monitoring period is related to the retroactive period, the analysis and evaluation carried out at the time of project validation are not modified.

4.5.3 Net Positive Community Well-being (CM2.3)

During the 2016–2020 verification period, the communities influenced by the project received training and support in the development and management of community projects. ICONTEC, by reviewing the information and during the on-site visit, was able to have interviews with the La venturosa and Morichalito community and the forest First Colombia workers. In these interviews, the following projects were verified: planting of species between 2016 and 2018 (Eucalipto y Acacia), which generated about 200 employed in the project area and training for the contracted personnel.

The population from the Venturosa community got training and technical support on controlling pasture fires when land is prepared during the growing season, FFC promotes two major economic incentives for the communities. The first refers to controlled burning, these controlled burnings include to burn garbage and pastures for cattle grazing. Besides, support from the community for early fire detection is also pursued, through informing FFC on any fire starting in the region; The

second incentive refers to controlled cattle grazing within FFC property; to avoid any damage, no animal should graze in the natural forest or plantation areas, particularly, within the areas that have been seeded within one year. If these goals are met, the community will get an incentive, a specific amount of money to be invested / spent in communal goods. The amount will be reduced in the event of a fire started by the community or if livestock is within FFC areas, without being notified in advance.

During this period, the project has given financial and logistic support to organize activities of cultural and traditional importance for the community, including the celebrations of Tree Day, Children's Day, Mother's Day, gifts for Christmas, and the annual soccer tournament; The project has also made annual donations to the school, in the form of books, school supplies, and sports uniforms, so that children and youngsters have everything they need to keep on studying.

The project has also promoted a link between the municipal government of Puerto Carreño and Vichada governorate, to upgrade the roads leading to Venturosa, during this period, it was possible to manage machinery to upgrade the road Venturosa-Hato Macho; FFC supported this effort by providing fuel and food to machine operators during the working time.

The employment relationship offered by the project has produced positive changes in Venturosa, women have been able to participate in the project activities and avoid being financially dependent on their romantic partner; the inflow of new people in the territory and the financial capacity derived from employment has led some people to start their own business within the community

ICONTEC through interviews with the workers verified that the activities were carried out.

The auditor has been confirmed, by crosschecking documentary and interviews in onsite visit, the management capacity obtained by the members of the Forest First Colombia, in this sense, the community members have been able to manage, supervise and order interventions as well as execute agreements and projects. This has been possible by the project implementation, and the impacts obtained are net positive.

4.5.4 Protection of High Conservation Values (CM2.4)

The project activity is designed to protect the High Conservation Values of Biodiversity through forest protection and land use planning, however within the project areas there was an area of high social value for the community. . There are about 35 tombs distributed in an area of approximately 0.5 hectares.

For the sake of its conservation, FFC supported the community in delineating the area, scheduling biannual maintenance efforts and adding new discoveries to the registry, the site has been registered as an area of special interest.

The area is considered part of the cultural landscape of the region and FFC recognizes the cultural value of the cemetery. These activities are specified in number 4.1.4 and 4.6 of this documents.

4.5.5 Other Stakeholder Impacts (CM3.2-CM3.3)

No negative impact on stakeholders expected. During this monitoring period, no negative impacts were anticipated or identified on the communities neighboring the project.

However, it is important to mention that during the verification period, two problems was identify:

1) the difficulty of establishing an employment relationship with people from the indigenous community. Given their cultural dynamics, they find it difficult to keep a steady and committed attitude towards fulfilling the responsibilities assumed in the project activities. To address these problems, FFC has maintained communication with the community leaders, to inform them of issues related to its members. Currently, one woman from the community is employed in the project and two-man workers one in the nursery and another in plantations; and

2) the difficulty of linking the Aceitico community due to the distance of the plantation areas from the communal territory. Activities of community interest that can provide new development opportunities for the hamlet are expected to be initiated in 2021. Consultation meetings will be promoted to inform about the progress of the project. The Aceitico community is interested in been trained on FFC's labor protocols, which will facilitate employment opportunities in the project.

4.5.6 Community Monitoring Plan (CM4.1, CM4.2, GL2.2, GL2.3, GL2.5)

The audit team received from the project proponent the document that supports the methodology for the implementation of the strategy for participation, communication, and appropriation of knowledge /Supporting information_MR- Community- Attendance list and Supporting information_MR- Community- Actividades 2017 y 2018/, and the community monitoring plan that arises from this strategy. that was designed between the project developer and the proponents, in those the plan is detailed and reflects how the interaction between the different actors is, evaluating human capital, social capital, physical capital, financial capital and capital natural and the diferent activities .

The audit team reviewed the documentation provided and, through interviews, was able to corroborate it, understanding that the training has an impact on life expectancy, the perception of timber and non-timber forest resources and improves knowledge on occupational safety and security. in forest management. Social capital has also benefited from the perception that workers have when they recognize their working conditions of dignified and fair work. Physical capital was

evidenced with improvements in infrastructure and financial capital with the increase in people hired from the region and finally natural capital, which was evidenced by the perception of workers and the increase in the availability of wood in the region thanks to the plantations, training in silvicultural activities and the conservation of gallery forests around the project, which brings with it an increase in wildlife that has not been seen in the region for a long time. The audit team corroborated the information and the strategic lines of the project to comply with the environmental and social safeguards, identifying the needs of the different actors identified.

4.5.7 Community Monitoring Plan Dissemination (CM4.3)

The dissemination of the monitoring plan continues to be consolidated, since in the area access to internet connectivity is not guaranteed, the dissemination of the monitoring plan and the results of the monitoring were disseminated through the website and also, Through a WhatsApp group of the Community Action Boards, the installation of the information board in the municipality of Puerto Carreño, and in the physical mailboxes, the various meetings and interactions that the proponent had with the relevant stakeholders during the first period of project monitoring, which was verified by the audit team through interviews with project beneficiaries and different stakeholders.

4.5.8 Optional Gold Level: Short-term and Long-term Community Benefits (GL2.2)

Does not apply.

4.5.9 Optional Gold Level: Smallholder/community member Risks (GL2.3)

Does not apply.

4.5.10 Optional Gold Level: Marginalized and/or Vulnerable Community Groups (GL2.4)

Does not apply.

4.5.11 Optional Gold Level: Net Impacts on Women (GL2.5)

Does not apply.

4.5.12 Optional Gold Level: Benefit Sharing Mechanisms (GL2.6)

Does not apply.

4.5.13 Optional Gold Level: Governance and Implementation Structures (GL2.8)

Does not apply.

4.5.14 Optional Gold Level: Smallholders/Community Members Capacity Development (GL2.9)

Does not apply.

4.6 Biodiversity

4.6.1 Biodiversity Changes (B2.1)

The project proponent explains the potential changes in biodiversity, including assessment of direct and indirect impacts, resulting from project activities in the Project area and over the project lifetime, using appropriate methodologies to recognize the expected impacts for each biodiversity element identified in the project description and monitoring plan.

Table 6. Biodiversity changes in the project area.

Change in Biodiversity	Monitored Change	Description
Connectivity	Positive	Forest plantations provide refuge and generate transit zones for mammals and birds in areas without previous forest cover, in 6,600 ha they promote connectivity between natural ecosystems of forest, savannas and morichales. The proximity to the Meta and Bita rivers, where the gallery forest and the morichales are in a better state of conservation, is generating the main contribution to landscape connectivity. This allows the movement of species such as the Tapir (Tapirus terrestris), the peccaries (Tayassu pecari) and several species of the feline family distributed in the Orinoquia jaguar conservation unit. The audit team, through the site visit and the GIS review, was able to verify that the project areas are located in strategic areas for the recovery of ecosystems and their services in Colombia and also by the information evidenced in the trap cameras that You have used the project to identify the species that the project may host.

Change in Biodiversity	Monitored Change	Description
Fauna and Flora	Positive	109 species were identified in an area of 2.1 ha. The species composition showed a high richness and heterogeneous forest, being the Saladillo, Anime, Manaca and Arenillo Blanco species the most important due to their relative dominance, abundance and frequency, these species are valuable for their uses for wood, food and resin. In the morichal ecosystem, a total of 30 species were identified, the main ones of the arecaeae family, the most important species were the moriche palm, copal, Cachicamo and Manaca, these palms are a very important type of vegetation in the ecosystem, especially for the provision of food for birds and mammals. The audit team, through the visit to the site, was able to verify the areas in these plant covers, which favor the connectivity of ecosystems and the presence of native flora and fauna species.
Fauna (endangered species)	Positive	A total of four species under IUCN threaten categories have been identified. The Whitelipped peccary near theatened (NT), the giant armadillo vulnerable (VU) and endangered (EN) in the country, and the Lowland Tapir wich is vulnerable (VU) and critically endangered (CR), and the Southern long-nosed bat wich is vulnerable (VU). Theses species were founded in the riparian forest and areas near the water courses, showing the importance of the protection of the native ecosystems located in the project area. The audit team verified the information according with the documents and the videos and reports in the zone and articles.

The information, supported by site inspections, according the field visit of some project sites, in the area included in the project boundary, confirmed the affirmations regarding the conditions in the biodiversity changes. In addition, the interviews with the project consultant (South Pole Carbon Asset Management S.A.S) and the project proponent has been conducted observing the information and descriptions. The auditor concludes the equate response to the requirement, including the accuracy and appropriateness of monitored data.

4.6.2 Mitigation Actions (B2.3)

As previously mentioned, the mitigation actions that have been carried out on the impacts on the covers and natural areas, all the project proponents with the help of tractors, regularly maintain the firebreaks of each of the lots that are part of the project, these barriers allow directly and indirectly the maintenance of local biodiversity and the permanence of natural covers and forest plantations. The audit team corroborated this information in the field trip and reviewed the contingency plans that are in place for fire control.

In this way, through field observation and interview with the project owner, the auditor confirmed the description on project document:

- Implementation of protocols for the use of agrochemicals to avoid contamination of surface waters and contamination of soils. In addition, as part of the environmental impact plan under development, the project will have water and soil monitoring.

- Management of drainage channels to permit the passage of fauna using strategies of wildlife passages in key areas for the connectivity of native ecosystems.

For maintenance or enhancement, the project will promote connectivity between remnant patches of forest, thus contributing to the conservation of these protected areas.

In conclusion, the auditor agrees with the project planning regarding mitigation measures needed an is consistent with the precautionary principle.

4.6.3 Net Positive Biodiversity Impacts (B2.2)

The audit team reviewed the evaluation carried out by the project where the net positive impacts related to the forest plantation are identified, and agrees with the results, since the presence of native fauna was evidenced inside and outside the forest plantations, through of the interviews. This information was also corroborated on species that years ago had not been observed and that thanks to the project and the proximity to the PNN and the rivers (Bita and Meta), ecological corridors are formed that generate benefits for the fauna and flora of the country. region.

Table 6 of this report shows the expected impacts of the project. In section 5.1.3 of the MR, the PP explains these Net Positive Impacts on Biodiversity. Verification activities and documents evaluated, interviews conducted, and observations made to support the conclusion that the project generates benefits for biodiversity.

In summary, the auditor could conclude that the impacts in the project area will be positive compared to the conditions in the non-project land use scenario.

4.6.4 High Conservation Values Protected (B2.4)

In the description of the validated project and during the first monitoring period, the project proponent has assessed that reforestation activities and, in a general sense, project activities within the project area do not cause negative impacts on biodiversity or HCVs identified in the project area, and that they do help to conserve these ecosystems and continue to maintain connectivity. The audit team agreed with this reasoning since native reforestation activities are not capable of causing negative impacts on HCV related to biodiversity. The audit team has verified this through direct field observations and through the analysis of the monitoring results.

4.6.5 Invasive Species (B2.5)

In the characterization presented by the project, two invasive species are identified, directly related to forest plantations, and they are *Acacia mangium* and *Eucalyptus pellita*, however, one species is considered invasive when it is naturalized and is capable of generating a large number of fertile offspring. In the previous concept, only one of the two species is taken into account and it is *Acacia mangium*, thanks to its easy establishment and fertility, the result was evaluated in the gallery forest areas, where, as in the study, there is no evidence of any individual of the species reported as

invasive or potentially invasive species, corroborating the information provided to the audit; During the development of the project, practices of conservation of the fire belt and periodic control of burns were implemented in the project, in addition to the removal of seeds from the surrounding riparian forest and morichales ecosystems to limit the colonization of these species.

The proponent of the project, during the development of the project, and the conservation practices implemented, with respect to the control of species with potential risk such as *Acacia mangium* in areas that do not belong to the project, I implement a protocol for the control of invasive species, which is described in the PD (See section 5.1.5 of the PD), and through prevention, identification and removal, and control and monitoring, they have been able to monitor the species and thus, in cases where action is required. During the current verification period, the species is not found to represent invasion risks on any habitat.

In conclusion, by reviewing the pertinent documentation and the observation during the on-site visit, the auditor considers the use of the species by the project, consistent with the CCB requirement.

4.6.6 Impacts of Non-native Species (B2.6)

The project uses two non-native species, as mentioned in the previous chapter, one of these is invasive or potentially invasive, however, the proponents of the project have made use of these species only for forest plantations. and as part of the mitigation they have restoration projects with native species in the gallery forests, thanks to the firebreak barriers and the constant maintenance that is carried out within the plantations, these species do not generate any major negative impact within the natural covers that are presented close to the project, it is worth mentioning that in the interviews the acacia was the most recognized species as invasive and with high invasion potential in the vicinity of the project areas.

4.6.7 GMO Exclusion (B2.7)

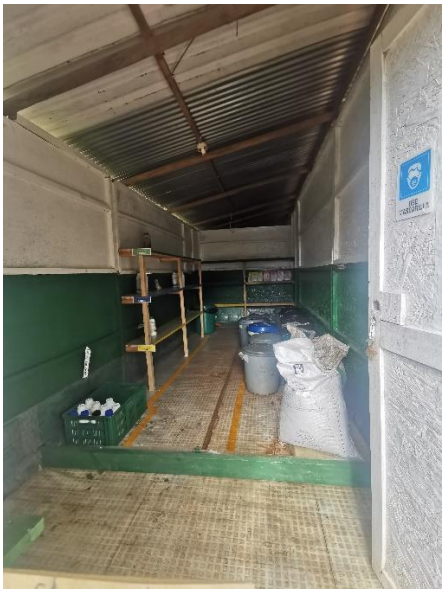
Does not apply

4.6.8 Inputs Justification (B2.8)

In the grouped project, chemical fertilizers and organic fertilizers are used, the soils in Vichada tend to be of acidic pH, low fertility and moisture retention, which makes it necessary to implement fertilizers for the establishment of forest plantations, however, each of the sites carry out application schemes for each of the fertilizers used, for the development of the established species, in addition to this, the annexes in the safety data sheets for NPK 14-4-23, NPK 12-24-12 and Roundup 747 (glyphosate), which must be taken into account in the audit; The audit team reviewed the adverse effects, the periodicity of application of chemical fertilizers and the concentrations used for the plantations and ensures that the impacts do not represent adverse effects or generate negative impacts on the biodiversity of the ecosystem.

The project has implemented several areas of clones where they have made use of fertilizers in different quantities, obtaining better results in the growth of the species, for a smaller amount of the product indicated, so that the chemical, as evidenced, is not used in the quantities that is indicated by the product but in smaller quantities, giving better future yields.

Forestal de la Orinoquía
Invertimos en la energía de los árboles
ÁREA DE
CLONES



4.6.9 Negative Offsite Biodiversity Impacts (B3.1) and Mitigation Actions (B3.2)

In the validated project description and during the first monitoring period, the project proponent has assumed that the reforestation activities and, in a general sense, the project activities within the project area do not cause negative impacts on biodiversity in the project area. The audit team agreed with this justification as reforestation activities cannot cause negative impacts on biodiversity. The audit team has verified this through direct field observations and also by monitoring the analysis of results.

The project carried out a threat analysis under the guidelines of the Planning Manual for the Conservation of Areas (PCA) of The Nature Conservancy, identifying invasive species that can colonize natural areas and displace native vegetation and use chemical fertilizers and herbicides that can generate water and soil contamination, as mentioned earlier in the document. However, the audit team with the interviews and the field visit, showed that the training and the work that has been done hand in hand with the community, helps a lot to care for the fauna and flora to reduce the negative impacts outside the project area site.

4.6.10 Net Offsite Biodiversity Benefits (B3.3)

The project proponent, with the evaluations carried out for the first verification period, identifies that within the project areas there are species within some conservation category near the Meta and Bita rivers, thanks to the conditions that favored the connectivity and protection of the gallery forest and morichales in the area. They are part of the biological corridors that use species such as tapirs, otters, deer, turtles or big cats, generating benefits in the project area. The audit team corroborated this evidence through camera traps, site visit, and interviews with different stakeholders. Therefore, the audit team agrees with the proposed logic, concluding that the project has a net positive impact on biodiversity in the project area.

4.6.11 Biodiversity Monitoring Plan (B4.1, B4.2, GL3.4)

Within the verification period, the project carried out three monitoring documents, the first, carried out in 2017 with an inventory of fauna and flora, the second the interviews with the communities

carried out in 2019 and finally the establishment of a wildlife sighting program within of FFC, since 2019.

The measured parameters were related to the abundance, richness and dominance of flora species, in gallery and morichales ecosystems. The monitoring results show the species richness for these groups and also discuss the conservation status of the flora within the project; Fauna, on the other hand, showed results of the number of mammals, amphibians, reptiles and birds, bats within the same ecosystems that can be observed in better detail in section 5.3.1.1 of the monitoring report.

The interviews show the frequency with which people have been able to see fauna in or near the project areas, the most common being the red-footed turtle, finally FFC, implemented a program where, through a format, it is recorded the sighting of the species that the workers are in the project areas and with the installation of the trap cameras. The audit team determined that the biodiversity monitoring plan was carried out in accordance with the validated project description.

The project's HCVs are related to the existence of endemic and endangered species, protected areas, areas that support significant concentrations of birds during any time of their life cycle, areas that provide critical ecosystem services, and RAMSAR zones. The HCVs identified by the project proponent were effectively maintained due to the implementation of the project activities, which led to ecosystem restoration services, protection of natural resources and local biodiversity. The steps taken to verify the actions taken by the proponent to ensure the maintenance of the HCV attributes identified in the project. The description was based on verification of the implementation of project activities in the field and document analysis, including GIS analysis. The audit team has verified the development of the reforested sites, their design and connectivity with other fragments and their proximity to springs and water courses. Beyond that, the audit team has verified the results of the biodiversity monitoring. The opinion of the audit team is that the project proponent has taken sufficient measures to maintain the HCVs identified in the project area.

4.6.12 Biodiversity Monitoring Plan Dissemination (B4.3)

The dissemination of the results of the characterization and monitoring of biodiversity has been given in constant communication between the proponents of the project and with directly related stakeholders. and through the FFC website, in addition to the above, the project intends to continue holding workshops with nearby communities to disseminate the results.

4.6.13 Optional Gold Level: Trigger Species Population Trends (GL3.3)

Does not apply

4.6.14 Optional Gold Level: Effectiveness of Threat Reduction Actions (GL3.4)

Does not apply

4.7 Additional Project Implementation Information

There is no additional information related to the project implementation.

4.8 Additional Project Impact Information

There is no additional information related to the project implementation.

5 VERIFICATION CONCLUSION

ICONTEC performed the verification process of "Afforestation of degraded grasslands in Vichada, Colombia". The verification was performed on the basis of the VCS Standard, v4.1, and Verified Carbon Standard Program Guide (v4.0) dated 19 September 2019. Moreover, based on the Climate, Community & Biodiversity Standards Third Edition (June 2017).

The review of the Project Description and the subsequent follow up interviews has provided ICONTEC with sufficient evidence to determine the fulfillment of the stated criteria. The project correctly applies the following methodology: AR-ACM0003 A/R Large-scale Consolidated Methodology "Afforestation and Reforestation of lands except wetlands" - Version 2.0.

The project starting date is September 15, 2016. The total emission reductions from the project are estimated to be on the average of 98.961 tCO2e per year over the project crediting period (30 years). The Estimated net GHG emission reductions or removals (tCO2e) are 482.168. The emission reduction forecast has been checked and it is deemed likely that the stated amount is achieved because the underlying assumptions do not change.

In summary, it is ICONTEC's opinion that the project "Afforestation of degraded grasslands in Vichada, Colombia", as described in the Project Description (version 4, 31/10/2021), meets all relevant AFOLU VCS and CCB requirements. ICONTEC confirms that the project is implemented as described in the validated and registered PD. The project activities, essentials for generating emission removals are established and managed appropriately. The monitoring system is in place and the project is generating GHG emission removals as an AFOLU project. The verification was performed based on the requirements set by the VCS Program and relevant guidance provided by VCS Standard. ICONTEC considers that the project's GHG emissions removals reported in the Monitoring Report, are fairly stated.

ICONTEC received the information and asked for explanations we deemed necessary to provide enough evidence that the amount of GHG emission and the calculation of the GHG emission removals, based on

the Monitoring Report, are fairly stated for the reporting period.

ICONTEC's examination process includes test-based assessments of all evidence relevant to the amounts and disclosures of a project's GHG removals and the calculations of such removals for the reporting period.

After review of all project information, procedures, calculations, supporting documentation and selected site visits, ICONTEC confirms that the monitoring are accurate and consistent with all aforementioned VCS criteria, the validated PD, and the applied methodology. In addition, ICONTEC confirms all project activities, including goals, scope and criteria, level of assurance and

the MR compliance to the CCB Project Design Standards, Third Edition, as documented in this report are complete.

ICONTEC can confirm that objective, scope and criteria, level of assurance, project description, monitoring report and project documentation is consistent to the VCS Standard, as documented in this report are complete. ICONTEC concludes without any qualifications or limiting conditions that the GHG emissions removals are calculated without material misstatements. Our opinion applies to the project's GHG emissions and the resulting GHG emissions removals reported and related to the validated and registered baseline, as well as the monitoring plan and its associated documents.

Verification period VCS: 15 September 2016- 03 December 2020

Verification period CCB: 15 September 2016- 03 December 2020

Table 7. Verified GHG emission reductions and removals in the above verification period:

Year	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e)	Net GHG emission reductions or removals (tCO_2e)
2016	-	0	-	0
2017	-	5.772	-	5.772
2018	-	88.559	-	88.559
2019	-	160.758	-	160.758
2020	-	227.079	-	227.079
Total	-	482.168	-	482.168

APPENDIX 1: REQUESTS FOR CORRECTIVE ACTIONS, CLARIFICATIONS AND FUTURE ACTIONS

CAR No.	01	**Requirement: B1 – B2**	CCB Standards V3.1	**Date:** 13-09-2021
Description of the CAR				
Attach within the MR the specific results that have been obtained from the installation of the trap cameras with the information corresponding to the 4 years (2016-2020) and the joint work with Omacha.				
Response from the project developer				**Date:** 30-09-2021
The Contribution agreement signed between Forest First and Omacha foundation has been added as a support document, mentioned in numeral 4.2.2 of the MR. The description, results, and support of the Fauna sighting program developed from 2019 was included as a new numeral 5.3.1.3 of the MR, which includes the information about fauna species watched by the company workers and also, the description of the implementation of the camera tramps. This activity although very successful on recording fauna, was used during a short period of time due to security issues (some camera tramps were stolen) and due to COVID 19 situation.				
Documentation submitted by the project developer				
- Contribution agreement signed between Forest First and Omacha foundation: [MR_V2/Supporting information MR/Biodiversity/OmachaContributionAgreement] - Fauna sighting program registry: [MR_V2/Supporting information MR/Biodiversity/FaunaSighting2020] - Camera registry: [MR_V2/Supporting information MR/Biodiversity/CameraTraps2020]				
Evaluation of the audit team				**Date:** 04-10-2021
The Proponent of the project has complied with the finding including the information corresponding to the issue of biodiversity that has been found during the monitoring of the project from 2016 to 2020. CAR Closed				

CAR No.	02	**Requirement: 2.1.2 2.2 – 2.3 -2.4**	AFOLU Non-Permanence Risk Tool	**Date:** 13-09-2021
Description of the CAR				
Carry out the modification of the Risk of non-permanence of the Project by areas and not one in general, evaluating the risk that exists within the Project area in San Cristobal, due to the presence of the Morichalito community, which requires an additional analysis of the social issue and the risk that this may have in the areas of direct influence of the Project.				

Perform the calculations with the respective percentages of NPRT by areas for the Project.

PD – Validation

PD-Verification

Response from the project developer	**Date:** 30-09-2021

The Morichalito indigenous community settled in the territory in 2016 is located 1,3 Km from the edge of the Paraiso I farm (closest farm to the community). The NPRT was re-evaluated for the area under the influence of the indigenous community, defined as the area from the community settled to the Chaquichaque stream (natural barrier for community mobilization), this covers an eligible area of 1,626.4 ha (section 2.1.18 od the PD).
The area under the influence of Morichalito community has a final risk of 18% [PD_V2/Supporting_information_PD/NPRT/210927_VCS-NPRT_ForestFirst_Under_Community_Influence]
The potential ER were re-estimated, including the new risk percentage and the final values are 2,996,904 tCO_2e for ex-ante estimations [PD_V2/Supporting_information_PD/ER] and 482,168 tCO_2e for ex-post estimations [MR_V2/Supporting_information_PD/ER].

Documentation submitted by the project developer

- Morichalito influence map: [PD_V2/Supporting_information_PD/NPRT/Morichalito_influence]
- Adjusted NPRT: [PD_V2/Supporting_information_PD/NPRT/ 210927_VCS-NPRT_ForestFirst_Under_Community_Influence]
- Adjusted ex-ante estimations: [PD_V2/Supporting_information_PD/ER]
- Adjusted ex-post estimations. [MR_V2/Supporting_information_PD/ER]

Evaluation of the audit team	**Date:** 04-10-2021

The project proponent has made the modifications of the risk of non-permanence for all areas of the project.

However, in the 210922_ExpostER_AR_ForestFirst_JQU2_ALM8_MFB table in the Key Data sheet, when the calculation of the area by stratum is carried out for the risk of non-permanence it is calculated only at 18%, understanding that this represents only a part of the project area and 16% represents the rest of the project area but these discount calculations are not shown.

CAR Open

Response from the project developer	**Date:** 07-10-2021

The calculations were adjusted and three documents were generated: 1. ER estimations for the area under 16% buffer; 2. ER estimations for the area under 18% buffer; 3. The consolidation of 1 and 2.

The final value is 2,967,664 tCO_2e for ex-ante estimations. This value was adjusted through the documents.

Documentation submitted by the project developer

1. Adjusted ex-ante estimations (16% buffer): [PD_V3/Supporting_information_PD/ER/211007_ExanteER_AR-ForestFirst_Risk16%]
2. Adjusted ex-ante estimations (16% buffer): [PD_V3/Supporting_information_PD/ER/211007_ExanteER_AR-ForestFirst_Risk18%]
3. Adjusted ex-ante estimations (16% buffer): [PD_V3/Supporting_information_PD/ER/211007_ExanteER_AR-ForestFirst_Consolidated]

Evaluation of the audit team	**Date:** 11-10-2021

The project proponent has made the modifications resulting in a new tCO2e value throughout the project horizon. CAR Closed

CL No.	01	**Requirement:** **3.11** **3.14**	VCS Standard V4.1	**Date:** 13-09-2021
Description of the CL				
Consider the requests submitted for the carbon quantification documents, to present the due support of the information sources and that they are consistent with the final calculations				
Response from the project developer				**Date:** 30-09-2021
The potential ER were re-estimated according to the adjustments of the CARs 05 and 07. All sources of information were reviewed, no value changed, however the original units of the value were clarified. The final values are 2,996,904 tCO_2e for ex-ante estimations [PD_V2/Supporting_information_PD/ER] and 482,168 tCO_2e for ex-post estimations [MR_V2/Supporting_information_PD/ER].				
Documentation submitted by the project developer				
- Adjusted ex-ante estimations: [PD_V2/Supporting_information_PD/ER] - Adjusted ex-post estimations: [MR_V2/Supporting_information_MR/ER]				
Evaluation of the audit team				**Date:** 07-10-2021
In the Monitoring Report document 210922_ExpostER_AR_ForestFirst_JQU2_ALM8_MFB in the Key Data sheet, when the calculation of the area by stratum for the risk of non-permanence is calculated, it is calculated only at 18%, understanding that this represents only a part of the project area and 16 % represents the rest of the project area but these discount calculations are not shown. CL Open				
Response from the project developer				**Date:** 07-10-2021
The document of the ex-post estimations was adjusted to clarify the applying of the different buffers.				
Documentation submitted by the project developer				
- Adjusted ex-post estimations: [MR_V3/Supporting_information_MR/ER]				
Evaluation of the audit team				**Date:** 11-10-2021
The project proponent has made the modifications resulting in a new tCO2e value throughout the project horizon. CAR Closed				

CL No.	02	**Requirement:** **CM1**	CCB Standards V3.1	**Date:** 13-09-2021

Description of the CL	
Complement the information regarding the hiring of personnel to identify the personnel that is in the plant, the personnel that are contracted or subcontracted, the female personnel, the personnel belonging to indigenous communities, among others, to complement the information both Validation document as well as the Verification document.	
Response from the project developer	**Date:** 30-09-2021
The personnel hired directly and contracted through other entities and the number of women hired is reported in the document: [MR_V2/Supporting_information_MR/Community/Employees/MaeEmp Annual Staff List]. The number of people hired from the indigenous community for the last year of the monitoring period (2020) was included in the section 4.1.3 (page 54) of the MR: 3 men and 1 woman directly employed by FFC; and 5 men and 1 woman employed by contractors. This has been also included as a footnote in section 1.2 Standardized benefit metrics table (page 7) and in the Table 8 Evaluation from the indicators (page 49) of MR.	
Documentation submitted by the project developer	
- Annual Staff list: [MR_V2/Supporting_information_MR/Community/Employees/MaeEmp Annual Staff List]	
Evaluation of the audit team	**Date:** 04-10-2021
The project proponent made modifications and adjustments to the requested documents related to the project employees. CL Closed	

APPENDIX 2: SAMPLING PLAN

Título de la iniciativa del proyecto de mitigación de GEI	AFFORESTATION OF DEGRADED GRASSLANDS IN VICHADA, COLOMBIA		
Nombre completo y cargo del responsable del proyecto	Jairo Alberto Vargas Cárdenas – Gerente de Sostenibilidad Forest First Colombia S.A.S		
Correo electrónico	Jairo.vargas@forestfirst.com	**Celular**	3007821917
Dirección, incluyendo el País.	Calle 75 No. 5-88, Bogotá, colombia		
Datos y cargo de la persona de contacto	Jairo Alberto Vargas Cárdenas – Gerente de Sostenibilidad Alejandra Monsalve – coordinadora de proyectos – a.monsalve@southpole.com Tobey J. Russ, (Representante Legal) - oficinabogota@forestfirst.com		

Tipo de auditoria	**Validación**	X	**Verificación**	X
	Totalmente remota		**Parcialmente remota**	

Con un cordial saludo, me dirijo a usted para remitir la propuesta del plan de la auditoria que se realizará al proyecto de mitigación de GEI presentado por su organización. Así mismo, para la reunión de apertura y reunión de cierre de la auditoria le agradezco invitar a las personas relevantes de las áreas que serán auditadas.

Para el balance diario de información del equipo auditor le agradezco disponer de agenda y un espacio físico o remoto para realizar la reunión, así como también el acceso a la documentación básica de la iniciativa de mitigación de GEI.

En cuanto a las condiciones de seguridad y salud ocupacional aplicables a su organización, por favor informarlas antes de realizar la visita en sitio para que el equipo auditor pueda solicitar a ICONTEC los elementos de protección personal que sean necesarios.

La información que se conozca por la ejecución de esta auditoria será tratada confidencialmente, por parte del equipo auditor e Icontec. El idioma de la auditoria y su informe será en Ingles.

Las condiciones de este servicio se encuentran indicadas en el R-PS-012 REGLAMENTO PARA SERVICIOS DE VALIDACIÓN Y VERIFICACIÓN.

Criterio de la auditoria	**NORMA:** Verified Carbon Standard (VCS) v.4.1 The Climate Community and Biodiversity Standards (CCB) v.3.1 **METODOLOGÍAS:** AR-ACM0003 A/R Large-scale Consolidated Methodology – Afforestation and reforestation of lands except wetlands. Version 02.0. **TOOLS:** 1. AR-AM Tool 02: combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities. Version 1.0 2. AR-AM Tool 08: estimation of non-CO2 GHG emissions resulting from burning of biomass attributable to an A/R CDM project activity. Version 4.0 3. AR-AM Tool 12: estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities. Version 3.1 4. AR-Tool 14: estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities. Version 4.2 5. AR-AM Tool 15: estimation of the increase in GHG emissions attributable to displacement of pre-project agricultural activities in A/R CDM project activity 6. AR-AM Tool 16: tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities. Version 1.0

	Resolución 1447 de 2018 del Ministerio de Ambiente y Desarrollo Sostenible
Objetivos de la auditoria	Para validación: Evaluar la probabilidad de que la implementación del proyecto de GEI planificado produzca las remociones / reducciones de GEI declaradas por el responsable del proyecto, considerando lo siguiente: • La conformidad con los criterios de validación aplicables, incluyendo los principios y requisitos de las normas o programas de GEI pertinentes dentro del alcance de la validación. • El establecimiento, justificación y documentación del proyecto de mitigación de GEI. • La pertinencia de los controles planificados del proyecto de GEI. **Para verificación:** Verificar el cumplimiento en la implementación de las actividades del proyecto de mitigación, incluyendo las asociadas a la metodología seleccionada para el proyecto, considerando lo siguiente: • La conformidad con los criterios de verificación aplicables, incluyendo los principios y requisitos de las normas o programas de GEI pertinentes dentro del alcance de la verificación. • La información y documentación de la planificación del proyecto de GEI, incluyendo procedimientos y criterios para el proyecto, la línea base, el control y el aseguramiento de la calidad, la gestión del riesgo y los documentos de esta verificación. • Las emisiones, remociones, reducciones de emisiones e incrementos de remociones que se informan en la línea base y el proyecto de GEI. • Cualquier cambio significativo en las emisiones, remociones, reducciones de emisiones y aumentos de remociones de GEI desde el último periodo de informe, o desde la validación del proyecto, • El cumplimiento de los principios y los controles reales del proyecto y del sistema de monitoreo, verificación y reporte necesarios para cumplir con sus procedimientos documentados y la legislación vigente de acuerdo con los criterios de auditoría.
Alcance de la auditoria	• Límites del proyecto incluyendo sus escenarios y los escenarios de línea base **LOCALIZACIÓN**

Departamento de Vichada, municipios de Puerto Carreño y La Primavera

ESPECIES

Eucalipto (*Eucalyptus pellita*) y Acacia (*Acacia mangium*).

ÁREA DE ESTABLECIMIENTO:

30.605 ha.

PARCELAS

193 parcelas permanentes circulares de 500 m^2 y 700 m^2, con un radio de 12,62 m. (8 Estratos).

Para el periodo de validación dado entre 15 de septiembre de 2016 y el 14 de septiembre de 2046, en el escenario de línea base se pueden obtener un total de 4.184.164 tCO_2e, para obtener anualmente un promedio de 139.489 tCO_2e, en 46 predios entre Puerto Carreño y La Primavera.

Área del Proyecto: 30.605 ha de área elegible.
Área plantada al año 2021: 6.600 ha.
Zona total del proyecto: 38.859 ha

Para el periodo de verificación dado entre 15 de septiembre de 2016 y el 03 de diciembre de 2020, se van a verificar un total de 574.501 tCO_2e, con un descuento del 16% para un total de 482.581 tCO_2e.

Área de los Estratos.

Stratum	Area (ha)
2016Am	164
2016Ep	110
2017Am	865
2017Ep	2,332
2018Am	679
2018Ep	1,339
2019Am	191
2019Ep	920
Total	6,600

Tomado de Documento de Reporte de Monitoreo AFFORESTATION OF DEGRADED GRASSLANDS IN VICHADA, COLOMBIA.

- Infraestructura física, actividades, tecnologías y procesos del proyecto de GEI

FOREST FIRST COLOMBIA S.A.S: Experiencia en establecimiento, manejo e implementación de proyectos forestales en Colombia.

- Fuentes, sumideros y/o reservorios de GEI

Fuente: Plantación forestal de Eucalipto (*Eucalyptus pellita*) y Acacia (*Acacia mangium).*

Sumideros y/o reservorios: Biomasa.

SUMIDERO Y/O RESERVORIO	HERRAMIENTA	GEI
Biomasa aérea y subterránea	AR-Tool 14: estimation of carbon stocks and the change in carbon stocks of trees and shrubs in A/R CDM project activities. Version 4.2	CO_2
Madera Muerta	AR-AM Tool 12: estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities. Version 3.1	CO_2
Biomasa de madera quemada	AR-AM Tool 08: estimation of non-CO_2 GHG emissions resulting from the burning of biomass and attributable to an A/R CDM project activity. Version 4.0	N_2O CH_4

- Tipos de GEI, y

GEI: CO_2, N_2O, CH_4

- Periodos de tiempo definidos para ejecutar la actividad del proyecto

VALIDACIÓN: 15 de septiembre de 2016 y el 14 de septiembre de 2046.
VERIFICACIÓN: 15 de septiembre de 2016 y el 03 de diciembre de 2020.

Horizonte del proyecto: 30 años

Nivel de Aseguramiento	Resolución 1447 de 2018 – 95%	**Materialidad - Importancia Relativa**	Resolución 1447 de 2018 – 5%
Plan de Muestreo	En cuanto a la información y documentación de la planificación del proyecto de mitigación de GEI, incluyendo procedimientos y criterios para el proyecto, la línea base, el control y el aseguramiento de la calidad, la		

gestión del riesgo y los documentos de esta verificación, se relacionan en la siguiente tabla:

Parámetros	Muestreo (%)	Nivel de Aseguramiento (100%)
Metodologías y herramientas utilizadas para el cálculo de las remociones	100	100
Fórmulas para el cálculo de las remociones	100	100
Datos de actividad (Dasometría)	100	14

En cuanto al número de parcelas a visitar y su localización regional se relacionan en la siguiente tabla:

Estratos	Parcelas	Opciones Parcelas
2017Am	3	B315-1, B313 y A143
2017Ep	3	A331, A115 y A155
2018Am	4	C102, C307-2 y B415 – B414
2018Ep	2	B333 y B330
2016Am	1	A227B
2019Ep	1	C407
2016Ep	1	A239
2019Am	1	C202A
TOTAL	16	

Nombre del auditor líder	Laura María García Murillo - LG	**Correo electrónico**	lmgarciam@icontec.org
Auditor		**Experto técnico**	
Reunión de apertura	6-09-2021	**Hora**	4:00 pm
Reunión de cierre	13-09-2021	**Hora**	4:00 pm
Fecha en la que se diligencio el plan de auditoria	17-06-2021		

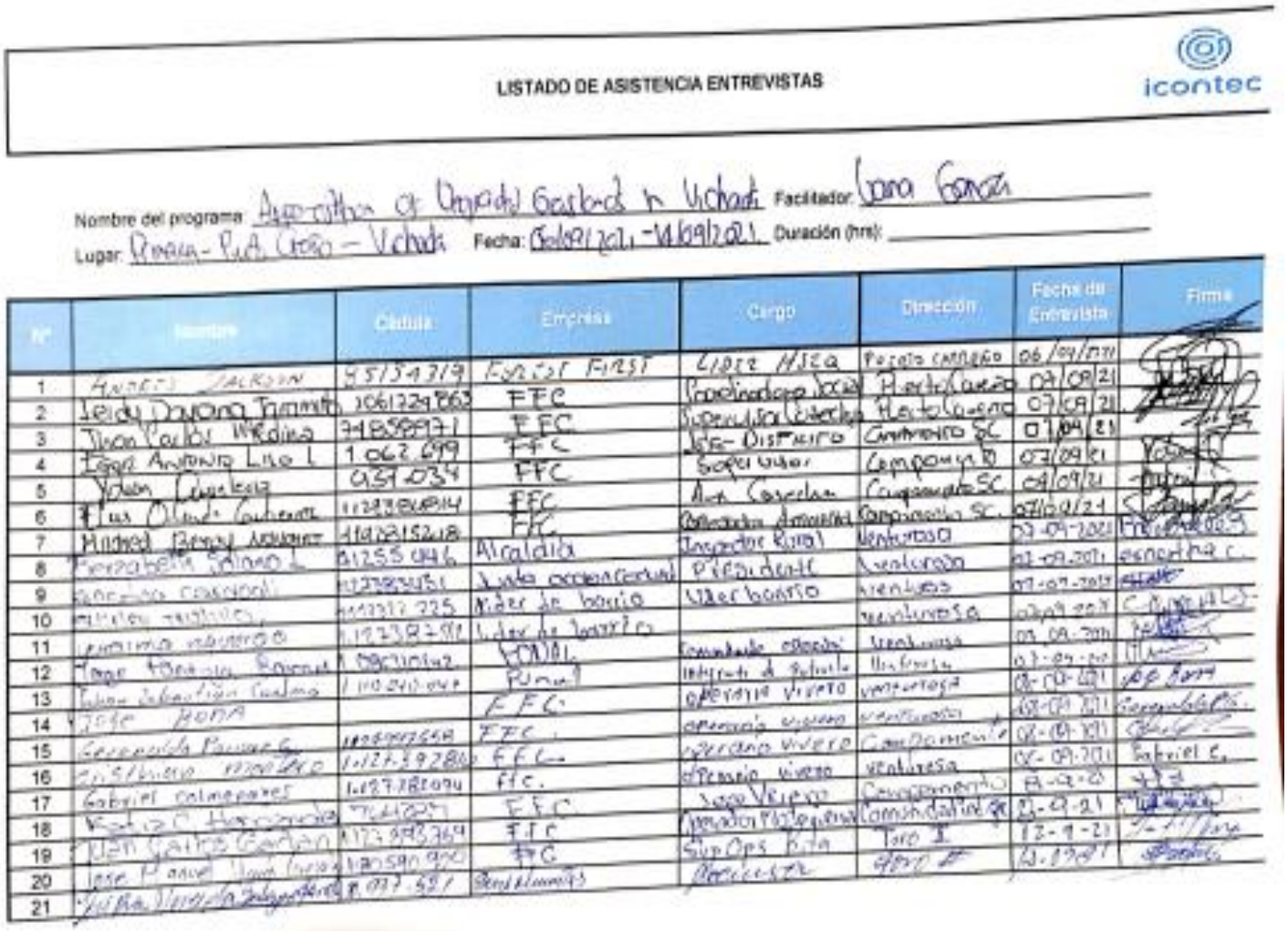
PLAN DE ACTIVIDADES

FECHA	HORA	REQUISITO POR AUDITAR	AUDITOR	NOMBRE y CARGO DEL AUDITADO

16-06-2021 al 18-06-2021	08:00 - 05:00	Planificación y revisión de escritorio.	LG	
06-09-2021	4:00 - 6:00	Reunión de apertura	LG	
07-09-2021	4:00 am – 5:00 pm	Desplazamiento Carreño - Venturosa- Venturosa Desplazamiento venturosa – San Cristobal Presentación equipos FFC Desplazamiento a Inspección la Venturosa Entrevistas comunidad (Escuela, inspección, JAC, Centro de Salud)	LG	
08-09-2021	6:30 am – 5:00 pm	Visita Vivero – Bodegas – San Cristobal Desplazamiento Garza Morena Corta Fuego Medición Parcelas A331 Parcelas A227b – A239 Parcelas A227b- A239 Entrevistas Empleados y contratistas	LG	
09-09-2021	6:30 am – 5:30 pm	Paraiso Parcelas B315-1, B313, B330 y B333 Bosque Hato Nuevo Visitas Camaras Trampa y puntos de conservación (punto tobey)	LG	
10-09-2021	6:00 am – 5:30 pm	Toro 2 Entrevistas Toro 2 Parcelas C102 – C202 a Visita ensayos y clones	LG	
11-09-2021	6:00 am – 5:30 pm	Parcelas A143- A155-A115 Parcela B415 Bita 3 y Bita 4	LG	
12-09-2021	6:00 am – 5:30 pm	Juriepe Parcelas C138 – C304 y C307 Parcelas C307-1 C307 -2 C407	LG	
13-09-2021	2:00 pm – 6:00 pm	Entrevista Corporinoquia Vea	LG	
Observaciones:				

• Durante las entrevistas el equipo auditor revisará por muestreo, la documentación referenciada dentro de la descripción del proyecto y/o en el reporte de monitoreo.
• Este plan de actividades es flexible y puede ser modificado de común acuerdo con el titular del proyecto.
• Todo el personal del titular del proyecto relacionado con la iniciativa de mitigación de GEI debe estar disponible si es solicitado por el equipo de auditoria con el propósito de evaluar cualquier requisito
• Durante cualquier fase de este proceso de evaluación (revisión documental, previa a la visita en sitio, visita en sitio, redacción del informe de auditoría o revisión técnica) se pueden declarar hallazgos, los cuales deben ser resueltos antes de enviar la documentación relevante (descripción del proyecto, reporte de monitoreo, hojas de cálculo, informes de auditoría, entre otros) al programa de GEI.

APPENDIX 3: INTERVIWES



LISTADO DE ASISTENCIA ENTREVISTAS

icontec

Nombre del programa: Apropiación de Ingreso Basico en Uchuchi Facilitador: Lorna Gonzalez

Lugar: Pueblo - Pto. Cruzo - Uchuchi Fecha: 06/09/2021 - 11/09/2021 Duración (hrs):

Nº	Nombre	Cédula	Empresa	Cargo	Dirección	Fecha de Entrevista	Firma
1	Angelo Jacquin	95154319	Forest First	Líder Mesa	Pueblo Cartagena	06/09/2021	
2	Leidy Daiana Tamanto	1061229863	FFC	Coordinadora Social	Puerto Cruzo	07/09/21	
3	Jhon Carlos Mirdiea	71859971	FFC	Supervisor Liberado	Puerto Cruzo	07/09/21	
4	Edgar Antonio Lino L	1.062.699	FFC	SSE - Distrito	Campamento SC	07/09/21	
5	Yoban Chaverra	9591034	FFC	Supervisor	Campamento SC	07/09/21	
6	Luis Olivo Cabrera	1128380814	FFC	Aux Carretera	Campamento SC	07/09/21	
7	Mildred Berrio Mosquera	1102315218	FFC	Coordinadora Ambiental	Campamento SC	07-09-2021	
8	Fernando Solano L	81255046	Alcaldía	Inspector Rural	Venturosa	07-09-2021	
9	[illegible]	[illegible]	Junta comunal	Presidente	Venturosa	07-09-2021	
10	[illegible]	[illegible]	Líder de barrio	Líder barrio	Venturosa	07-09-2021	
11	[illegible]	[illegible]	Líder de barrio		Venturosa	07-09-2021	
12	Jorge [illegible]	98210142	FONAL	Coordinador operativo	Venturosa	07-09-2021	
13	Julian Sebastián Cardona	1102410044	Rumal	Integrante de Bienestar	Venturosa	07-09-2021	
14	Jorge Mora		FFC	Operario Vivero	Venturosa	07-09-2021	
15	Geovanny Pavone G.	[illegible]	FFC	Operario vivero	Venturosa	07-09-2021	
16	Cristiano Morales	1127392806	FFC	Operario vivero	Campamento	07-09-2021	Gabriel G.
17	Gabriel Palmeras	1127781094	FFC	Operario vivero	Venturosa	8-09-21	
18	Kelvin Hernandez	[illegible]	FFC	Jefe Vivero	Campamento	8-9-21	
19	Deli Carlos Cardenas	1123893769	FFC	Operador Motoniveladora	Campamento SC	13-9-21	
20	Jose Manuel [illegible]	1120590920	FFC	Sup Ops Vía	Toro II	13-9-21	
21	Yulbe [illegible]	8.077.591	Rendimientos	Operador	[illegible]	13-9-21	

LISTADO DE ASISTENCIA ENTREVISTAS

icontec

Nombre del programa: Afforestation of Degraded Grassland in Vichada Facilitador: Lauren Gaez

Lugar: Primavera - Puerto Carreño - Vichada Fecha: 06/09/2021 - 14/09/2021 Duración (hrs):

N°	Nombre	Cédula	Empresa	Cargo	Dirección	Fecha de Entrevista	Firma
1	[illegible]	[illegible]	[illegible] Puerto Carreño	[illegible]		13/09/2021	[signature]
2							
3							
4							
5							
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21							

APPENDIX 4: PLOTS RESULTS

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	1	59		5,9		0,0113		1	6,9	6,8
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	2	59		5,9		0,0113		2	0	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	3	59		5,9		0,0113		3	7,8	7,2
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	4	90		9,0		0,0360		4	7,1	6,9
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	5	25		2,5		0,0011		5	10	7,2
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	6	51		5,1		0,0076		6	3,2	4,9
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	7	55		5,5		0,0093		7	5,7	5,9
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	8	58		5,8		0,0108		8	6,2	6,5
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	9	48		4,8		0,0064		9	6,6	6,6
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	10	51		5,1		0,0076		10	5,3	6,5
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	11	67		6,7		0,0160		11	6,3	7,3
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	12	69		6,9		0,0173		12	0	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	13	59		5,9		0,0113		13	8,4	6,6
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	14	59		5,9		0,0113		14	8,2	7,2
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	15	37		3,7		0,0031		15	7,1	7,5
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	16	49		4,9		0,0068		16	7,1	7,1
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	17	58		5,8		0,0108		17	4,4	5,3
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	18	37		3,7		0,0031		18	7,8	5,7
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	19	58		5,8		0,0108		19	7,1	6,9
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	20	38		3,8		0,0034		20	4,4	6,2
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	21	49		4,9		0,0068		21	7	6,8

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	22	59		5,9		0,0113		22	4,4	5,9
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	23	49		4,9		0,0068		23	5,4	6,7
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	24	53		5,3		0,0084		24	7,8	6,7
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	25	63		6,3		0,0135		25	6,1	6,2
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	26	63		6,3		0,0135		26	6,5	6,7
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	27	30		3,0		0,0018		27	7,7	5,8
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	28	55	60	5,5	6,0	0,0093		28	3,7	5,5
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	29	44	53	4,4	5,3	0,0050		29	7,2	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	30	55		5,5	0,0	0,0093		30	5,2	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	31	59	52	5,9	5,2	0,0113		31	6,4	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	32	49		4,9	0,0	0,0068		32	7,2	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	33	39	35	3,9	3,5	0,0036		33	6,1	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	34	57	54	5,7	5,4	0,0103		34	4,7	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	35	48	51	4,8	5,1	0,0064		35	7	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	36	72	68	7,2	6,8	0,0195		36	5,6	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	37	58	69	5,8	6,9	0,0108		37	8,7	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	38	39	44	3,9	4,4	0,0036		38	7	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	39	53	57	5,3	5,7	0,0084		39	4,9	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	40	54	48	5,4	4,8	0,0088		40	6,2	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	41	63		6,3	0,0	0,0135		41	7,4	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	42	59	47	5,9	4,7	0,0113		42	8,1	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	43	48	46	4,8	4,6	0,0064		43	8,1	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	44	52	49	5,2	4,9	0,0080		44	6,1	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	45	69	64	6,9	6,4	0,0173		45	6,4	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	46	68	61	6,8	6,1	0,0166		46	8	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	47	66	51	6,6	5,1	0,0153		47	7,7	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	48	55	50	5,5	5,0	0,0093		48	7,8	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	49	55	53	5,5	5,3	0,0093		49	6,8	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	50	62	50	6,2	5,0	0,0129		50	6,5	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	51	57	52	5,7	5,2	0,0103		51	7,6	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	52	54	54	5,4	5,4	0,0088		52	6,6	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	53	64	58	6,4	5,8	0,0141		53	6,9	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	54	61	56	6,1	5,6	0,0124		54	7,9	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	55	55	53	5,5	5,3	0,0093		55	8	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	56	47	55	4,7	5,5	0,0060		56	7,2	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	57	60	58	6,0	5,8	0,0118		57	6,2	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	58	40	49	4,0	4,9	0,0039		58	7,7	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	NI	NI	NI			0,0000		NI	5,1	
C307-2	500	10203	20/11/2020	Aman	2018	2018Aman	NI	NI	NI			0,0000		NI	2,6	
														NI	3,4	
														NI	2,9	
														NI	2,7	
														NI	4,9	
														NI	8,2	
														NI	5,2	
														NI	3,8	
														NI	5,4	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
B415	500	10202	24/11/2020	Aman	2018	2018Aman	1	67	55	6,7	5,5	0,0160		1	8,4	7
B415	500	10202	24/11/2020	Aman	2018	2018Aman	2				0,0	0,0000		2		
B415	500	10202	24/11/2020	Aman	2018	2018Aman	3				0,0	0,0000		3		
B415	500	10202	24/11/2020	Aman	2018	2018Aman	4				0,0	0,0000		4		
B415	500	10202	24/11/2020	Aman	2018	2018Aman	5	56	50	5,6	5,0	0,0098		5	6,6	6,5
B415	500	10202	24/11/2020	Aman	2018	2018Aman	6	44	40	4,4	4,0	0,0050		6	5	4,8
B415	500	10202	24/11/2020	Aman	2018	2018Aman	7	49	49	4,9	4,9	0,0068		7	5,2	5,2
B415	500	10202	24/11/2020	Aman	2018	2018Aman	8	66	55	6,6	5,5	0,0153		8	7,6	6
B415	500	10202	24/11/2020	Aman	2018	2018Aman	9	36	34	3,6	3,4	0,0029		9	4,7	4
B415	500	10202	24/11/2020	Aman	2018	2018Aman	10				0,0	0,0000		10	3,3	4
B415	500	10202	24/11/2020	Aman	2018	2018Aman	11	61	49	6,1	4,9	0,0124		11	7,9	5,8
B415	500	10202	24/11/2020	Aman	2018	2018Aman	12	54	52	5,4	5,2	0,0088		12	6,3	5,6
B415	500	10202	24/11/2020	Aman	2018	2018Aman	13	35	39	3,5	3,9	0,0027		13	4,6	4,8
B415	500	10202	24/11/2020	Aman	2018	2018Aman	14	61	55	6,1	5,5	0,0124		14	7,3	6,9
B415	500	10202	24/11/2020	Aman	2018	2018Aman	15	52	46	5,2	4,6	0,0080		15	6,5	5,8
B415	500	10202	24/11/2020	Aman	2018	2018Aman	16	61	55	6,1	5,5	0,0124		16	7,5	6,9
B415	500	10202	24/11/2020	Aman	2018	2018Aman	17				0,0	0,0000		17		
B415	500	10202	24/11/2020	Aman	2018	2018Aman	18				0,0	0,0000		18		
B415	500	10202	24/11/2020	Aman	2018	2018Aman	19				0,0	0,0000		19		
B415	500	10202	24/11/2020	Aman	2018	2018Aman	20	62	46	6,2	4,6	0,0129		20		
B415	500	10202	24/11/2020	Aman	2018	2018Aman	21				0,0	0,0000		21		
B415	500	10202	24/11/2020	Aman	2018	2018Aman	22	50	47	5,0	4,7	0,0072		22	6,7	5,4

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
B415	500	10202	24/11/2020	Aman	2018	2018Aman	23				0,0	0,0000		23		
B415	500	10202	24/11/2020	Aman	2018	2018Aman	24				0,0	0,0000		24		
B415	500	10202	24/11/2020	Aman	2018	2018Aman	25	70	57	7,0	5,7	0,0180		25	9	6,2
B415	500	10202	24/11/2020	Aman	2018	2018Aman	26	49	50	4,9	5,0	0,0068		26	5,5	5,6
B415	500	10202	24/11/2020	Aman	2018	2018Aman	27				0,0	0,0000		27		
B415	500	10202	24/11/2020	Aman	2018	2018Aman	28	57	52	5,7	5,2	0,0103		28	7,1	5,8
B415	500	10202	24/11/2020	Aman	2018	2018Aman	29	35		3,5		0,0027		29	4,6	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	30	48		4,8		0,0064		30	5,7	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	31	49		4,9		0,0068		31	6	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	32					0,0000		32		
B415	500	10202	24/11/2020	Aman	2018	2018Aman	33	54		5,4		0,0088		33	5,5	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	34	56		5,6		0,0098		34	7	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	35	64		6,4		0,0141		35	7,4	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	36					0,0000		36	3,3	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	37	60		6,0		0,0118		37	7,1	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	38	37		3,7		0,0031		38	4,3	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	39	57		5,7		0,0103		39	6,6	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	40	64		6,4		0,0141		40	6,8	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	41	78		7,8		0,0243		41	8,7	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	42					0,0000		42		
B415	500	10202	24/11/2020	Aman	2018	2018Aman	43	47		4,7		0,0060		43	5,5	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	44	63		6,3		0,0135		44	7,5	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	45	53		5,3		0,0084		45	7,2	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
B415	500	10202	24/11/2020	Aman	2018	2018Aman	46	47		4,7		0,0060		46	5,5	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	47					0,0000		47		
B415	500	10202	24/11/2020	Aman	2018	2018Aman	48					0,0000		48	6,8	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	49					0,0000		49	6,7	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	50	59		5,9		0,0113		50	6,8	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	51					0,0000		51		
B415	500	10202	24/11/2020	Aman	2018	2018Aman	52	50		5,0		0,0072		52	6,5	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	53	46		4,6		0,0057		53	5,8	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	54	60		6,0		0,0118		54	7,2	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	55	46		4,6		0,0057		55	5,4	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	56					0,0000		56		
B415	500	10202	24/11/2020	Aman	2018	2018Aman	57					0,0000		57	6,1	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	58	60		6,0		0,0118		58	5,5	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	59	42		4,2		0,0044		59	5,5	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	60					0,0000		60	4,8	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	61	71		7,1		0,0187		61	8,7	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	62					0,0000		62	6,4	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	63	54		5,4		0,0088		63	6,6	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	64	49		4,9		0,0068		64	6	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	65	37		3,7		0,0031		65	4,5	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	66	41		4,1		0,0041		66	5,7	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	67	56		5,6		0,0098		67	6,4	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	68	33		3,3		0,0023		68	4	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
B415	500	10202	24/11/2020	Aman	2018	2018Aman	69	58		5,8		0,0108		69	2,9	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	70	49		4,9		0,0068		70	3,8	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	71	36		3,6		0,0029		71	4,4	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	72	50		5,0		0,0072		72	5	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	73	54		5,4		0,0088		73	4,5	
B415	500	10202	24/11/2020	Aman	2018	2018Aman	74	56		5,6		0,0098				
B415	500	10202	24/11/2020	Aman	2018	2018Aman	75	62		6,2		0,0129				
B415	500	10202	24/11/2020	Aman	2018	2018Aman	76	38		3,8		0,0034				
B415	500	10202	24/11/2020	Aman	2018	2018Aman	77	44		4,4		0,0050				

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
C407	700	10203	21/11/2020	Epel	2019	2019Epel	1	75	71	7,5	6,9	0,0151		1		
C407	700	10203	21/11/2020	Epel	2019	2019Epel	2	47	63	4,7	5,0	0,0046		2	5,8	8
C407	700	10203	21/11/2020	Epel	2019	2019Epel	3	55	64	5,5	5,6	0,0068		3	9,1	9,9
C407	700	10203	21/11/2020	Epel	2019	2019Epel	4	71	62	7,1	6,6	0,0132		4	10,2	9,9
C407	700	10203	21/11/2020	Epel	2019	2019Epel	5	56	57	5,6	5,6	0,0072		5	7,7	8,7
C407	700	10203	21/11/2020	Epel	2019	2019Epel	6	42	44	4,2	4,6	0,0034		6	5,7	6,9
C407	700	10203	21/11/2020	Epel	2019	2019Epel	7	75	68	7,5	6,9	0,0151		7	11,2	9,9
C407	700	10203	21/11/2020	Epel	2019	2019Epel	8	47	51	4,7	5,0	0,0046		8	6	7,2
C407	700	10203	21/11/2020	Epel	2019	2019Epel	9	60	58	6,0	5,9	0,0085		9	8,4	8,1
C407	700	10203	21/11/2020	Epel	2019	2019Epel	10	42	47	4,2	4,6	0,0034		10		
C407	700	10203	21/11/2020	Epel	2019	2019Epel	11	41	47	4,1	4,5	0,0032		11		

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
C407	700	10203	21/11/2020	Epel	2019	2019Epel	12	82	83	8,2	7,3	0,0190		12	5,2	6,1
C407	700	10203	21/11/2020	Epel	2019	2019Epel	13	69	52	6,9	6,5	0,0122		13	6,1	6,8
C407	700	10203	21/11/2020	Epel	2019	2019Epel	14	92	91	9,2	8,0	0,0256		14	11,6	11,2
C407	700	10203	21/11/2020	Epel	2019	2019Epel	15	47	61	4,7	5,0	0,0046		15		
C407	700	10203	21/11/2020	Epel	2019	2019Epel	16	70	67	7,0	6,6	0,0127		16		
C407	700	10203	21/11/2020	Epel	2019	2019Epel	17	48	54	4,8	5,0	0,0048		17	8,1	7
C407	700	10203	21/11/2020	Epel	2019	2019Epel	18	68	63	6,8	6,4	0,0118		18	12,8	13,1
C407	700	10203	21/11/2020	Epel	2019	2019Epel	19	74	69	7,4	6,8	0,0146		19		
C407	700	10203	21/11/2020	Epel	2019	2019Epel	20	49	49	4,9	5,1	0,0051		20	9,7	9,1
C407	700	10203	21/11/2020	Epel	2019	2019Epel	21	49	53	4,9	5,1	0,0051		21	6,3	7,6
C407	700	10203	21/11/2020	Epel	2019	2019Epel	22	49	44	4,9	5,1	0,0051		22	8,2	7,8
C407	700	10203	21/11/2020	Epel	2019	2019Epel	23	73	69	7,3	6,8	0,0141		23		
C407	700	10203	21/11/2020	Epel	2019	2019Epel	24	57	59	5,7	5,7	0,0075		24	10,2	9,7
C407	700	10203	21/11/2020	Epel	2019	2019Epel	25	85	76	8,5	7,5	0,0209		25	6,7	7,8
C407	700	10203	21/11/2020	Epel	2019	2019Epel	26	52		5,2	5,3	0,0059		26		
C407	700	10203	21/11/2020	Epel	2019	2019Epel	27	79		7,9	7,2	0,0173		27	6,4	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	28	42		4,2	4,6	0,0034		28	6,7	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	29	85		8,5	7,5	0,0209		29	10,3	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	30	67		6,7	6,4	0,0113		30	7,7	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	31	41		4,1	4,5	0,0032		31	11,9	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	32	54		5,4	5,5	0,0065		32	8	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	33	76		7,6	7,0	0,0157		33	10,7	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	34	79		7,9	7,2	0,0173		34		

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
C407	700	10203	21/11/2020	Epel	2019	2019Epel	35	47		4,7	5,0	0,0046		35	5,8	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	36	85		8,5	7,5	0,0209		36		
C407	700	10203	21/11/2020	Epel	2019	2019Epel	37	39		3,9	4,4	0,0028		37	12,2	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	38	55		5,5	5,6	0,0068		38	8,9	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	39	43		4,3	4,7	0,0036		39	5,7	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	40	86		8,6	7,6	0,0215		40	7,1	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	41	45		4,5	4,8	0,0041		41	10,9	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	42	81		8,1	7,3	0,0185		42	10,3	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	43	72		7,2	6,7	0,0136		43	5,9	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	44	55		5,5	5,6	0,0068		44	11,8	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	45	55		5,5	5,6	0,0068		45	4,4	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	46	67		6,7	6,4	0,0113		46	6,7	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	47	41		4,1	4,5	0,0032		47	5	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	48	58		5,8	5,8	0,0078		48	12,4	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	49	54		5,4	5,5	0,0065		49	6,2	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	50	36		3,6	4,1	0,0023		50	10,5	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	51	78		7,8	7,1	0,0167		51		
C407	700	10203	21/11/2020	Epel	2019	2019Epel	52	56		5,6	5,6	0,0072		52	10,6	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	53	74		7,4	6,8	0,0146		53	6,8	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	54	36		3,6	4,1	0,0023		54	7,5	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	55	76		7,6	7,0	0,0157		55	9,8	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	56	70		7,0	6,6	0,0127		56	4,7	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	57	34		3,4	4,0	0,0020		57	7,7	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
C407	700	10203	21/11/2020	Epel	2019	2019Epel	58	85		8,5	7,5	0,0209		58	6,5	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	59	62		6,2	6,0	0,0093		59	5,6	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	60	81		8,1	7,3	0,0185		60	10,2	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	61	47		4,7	5,0	0,0046		61	7,8	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	62	77		7,7	7,0	0,0162		62	10,9	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	63	31		3,1	3,7	0,0016		63	4,6	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	64	77		7,7	7,0	0,0162		64	9,9	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	65	49		4,9	5,1	0,0051		65	9,2	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	66	86		8,6	7,6	0,0215		66		
C407	700	10203	21/11/2020	Epel	2019	2019Epel	67	92		9,2	8,0	0,0256		67	11,8	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	68	83		8,3	7,4	0,0196		68	7,4	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	69	72		7,2	6,7	0,0136		69	10,6	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	70	37		3,7	4,2	0,0025		70	6,4	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	71	43		4,3	4,7	0,0036		71		
C407	700	10203	21/11/2020	Epel	2019	2019Epel	72	51		5,1	5,3	0,0056		72	9,5	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	73	45		4,5	4,8	0,0041		73		
C407	700	10203	21/11/2020	Epel	2019	2019Epel	74	51		5,1	5,3	0,0056		74	10,5	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	75	42		4,2	4,6	0,0034		75	5,8	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	76	87		8,7	7,7	0,0222		76	11,1	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	77	33		3,3	3,9	0,0018		77	10,9	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	78	66		6,6	6,3	0,0109		78	10,7	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	79	83		8,3	7,4	0,0196		79	10,3	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	80	71		7,1	6,6	0,0132		80	5,4	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
C407	700	10203	21/11/2020	Epel	2019	2019Epel	81	45		4,5	4,8	0,0041		81	6,2	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	82	66		6,6	6,3	0,0109		82	8,2	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	83	54		5,4	5,5	0,0065		83	6	
C407	700	10203	21/11/2020	Epel	2019	2019Epel	84	73		7,3	6,8	0,0141		84	6,7	
														85	4,8	
														86	12,4	
														87	3,5	
														88	8,7	
														89	11	
														90	9,2	
														91	4,5	
														92	8,9	
														93	6,9	
														94		
														95	10,8	
														96	2,2	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
A115	500	10201	20/11/2020	Epel	2017	2017Epel	1	68	53	6,8	6,4	0,0118		1	8,2	6,6
A115	500	10201	20/11/2020	Epel	2017	2017Epel	2	67	51	6,7	6,4	0,0113		2	7,7	6,5
A115	500	10201	20/11/2020	Epel	2017	2017Epel	3	50	52	5,0	5,2	0,0053		3	5,7	5,2
A115	500	10201	20/11/2020	Epel	2017	2017Epel	4	67	62	6,7	6,4	0,0113		4	6,8	7
A115	500	10201	20/11/2020	Epel	2017	2017Epel	5	67	59	6,7	6,4	0,0113		5	8,2	8,1
A115	500	10201	20/11/2020	Epel	2017	2017Epel	6	61	62	6,1	6,0	0,0089		6	6,8	6,8

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
A115	500	10201	20/11/2020	Epel	2017	2017Epel	7	56	48	5,6	5,6	0,0072		7	6,2	5,9
A115	500	10201	20/11/2020	Epel	2017	2017Epel	8	64	45	6,4	6,2	0,0101		8	7,6	4,9
A115	500	10201	20/11/2020	Epel	2017	2017Epel	9	62	54	6,2	6,0	0,0093		9	7	6,3
A115	500	10201	20/11/2020	Epel	2017	2017Epel	10	63	49	6,3	6,1	0,0097		10	7	5,8
A115	500	10201	20/11/2020	Epel	2017	2017Epel	11	48	39	4,8	5,0	0,0048		11	5,6	4,6
A115	500	10201	20/11/2020	Epel	2017	2017Epel	12	45	34	4,5	4,8	0,0041		12		
A115	500	10201	20/11/2020	Epel	2017	2017Epel	13	55	51	5,5	5,6	0,0068		13	6,4	6,5
A115	500	10201	20/11/2020	Epel	2017	2017Epel	14	55	42	5,5	5,6	0,0068		14	5,9	5,6
A115	500	10201	20/11/2020	Epel	2017	2017Epel	15	63	50	6,3	6,1	0,0097		15	7,5	6,4
A115	500	10201	20/11/2020	Epel	2017	2017Epel	16	63	58	6,3	6,1	0,0097		16	6,5	5,4
A115	500	10201	20/11/2020	Epel	2017	2017Epel	17	66	55	6,6	6,3	0,0109		17	7,6	6,6
A115	500	10201	20/11/2020	Epel	2017	2017Epel	18	58	46	5,8	5,8	0,0078		18	6,4	6,1
A115	500	10201	20/11/2020	Epel	2017	2017Epel	19	72	52	7,2	6,7	0,0136		19	7,7	6
A115	500	10201	20/11/2020	Epel	2017	2017Epel	20	69	49	6,9	6,5	0,0122		20	7,4	6,2
A115	500	10201	20/11/2020	Epel	2017	2017Epel	21	74	55	7,4	6,8	0,0146		21	8	6
A115	500	10201	20/11/2020	Epel	2017	2017Epel	22	54	49	5,4	5,5	0,0065		22	6	6,2
A115	500	10201	20/11/2020	Epel	2017	2017Epel	23	64	55	6,4	6,2	0,0101		23	6,7	6,4
A115	500	10201	20/11/2020	Epel	2017	2017Epel	24	72	58	7,2	6,7	0,0136		24	7,3	6,8
A115	500	10201	20/11/2020	Epel	2017	2017Epel	25	51	47	5,1	5,3	0,0056		25	5,1	5,5
A115	500	10201	20/11/2020	Epel	2017	2017Epel	26	54	47	5,4	5,5	0,0065		26	5,4	5,1
A115	500	10201	20/11/2020	Epel	2017	2017Epel	27	49	43	4,9	5,1	0,0051		27	5,5	5,8
A115	500	10201	20/11/2020	Epel	2017	2017Epel	28	68	49	6,8	6,4	0,0118		28	7,4	6,8
A115	500	10201	20/11/2020	Epel	2017	2017Epel	29	39		3,9	4,4	0,0028		29	4,6	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
A115	500	10201	20/11/2020	Epel	2017	2017Epel	30	49		4,9	5,1	0,0051		30	5,7	
A115	500	10201	20/11/2020	Epel	2017	2017Epel	31	45		4,5	4,8	0,0041		31	5,3	
A115	500	10201	20/11/2020	Epel	2017	2017Epel	32					0,0000		32		
A115	500	10201	20/11/2020	Epel	2017	2017Epel	33	62		6,2	6,0	0,0093		33	6,5	
A115	500	10201	20/11/2020	Epel	2017	2017Epel	34	62		6,2	6,0	0,0093		34	7,1	
A115	500	10201	20/11/2020	Epel	2017	2017Epel	35	49		4,9	5,1	0,0051		35	5,4	
A115	500	10201	20/11/2020	Epel	2017	2017Epel	36	73		7,3	6,8	0,0141		36	7,3	
A115	500	10201	20/11/2020	Epel	2017	2017Epel	37	53		5,3	5,4	0,0062		37	5,4	
A115	500	10201	20/11/2020	Epel	2017	2017Epel	38	73		7,3	6,8	0,0141		38	7,8	
A115	500	10201	20/11/2020	Epel	2017	2017Epel	39	62		6,2	6,0	0,0093		39	6,7	
A115	500	10201	20/11/2020	Epel	2017	2017Epel	40	66		6,6	6,3	0,0109		40	6,7	
A115	500	10201	20/11/2020	Epel	2017	2017Epel	41	73		7,3	6,8	0,0141		41	8,3	
A115	500	10201	20/11/2020	Epel	2017	2017Epel	42	83		8,3	7,4	0,0196		42	7,4	
A115	500	10201	20/11/2020	Epel	2017	2017Epel	43	65		6,5	6,2	0,0105		43	7,4	
A115	500	10201	20/11/2020	Epel	2017	2017Epel	44	72		7,2	6,7	0,0136		44	8,2	
A115	500	10201	20/11/2020	Epel	2017	2017Epel	45	69		6,9	6,5	0,0122		45	8,2	
A115	500	10201	20/11/2020	Epel	2017	2017Epel	46	48		4,8	5,0	0,0048		46		
A115	500	10201	20/11/2020	Epel	2017	2017Epel	47	50		5,0	5,2	0,0053		47	5,1	
A115	500	10201	20/11/2020	Epel	2017	2017Epel	48	48		4,8	5,0	0,0048		48	5	
A115	500	10201	20/11/2020	Epel	2017	2017Epel	49	63		6,3	6,1	0,0097		49	7,4	
A115	500	10201	20/11/2020	Epel	2017	2017Epel	50	44		4,4	4,8	0,0039		50	4,5	
A115	500	10201	20/11/2020	Epel	2017	2017Epel	51	69		6,9	6,5	0,0122		51	6,6	
A115	500	10201	20/11/2020	Epel	2017	2017Epel	52	63		6,3	6,1	0,0097		52	7,1	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
A115	500	10201	20/11/2020	Epel	2017	2017Epel	53	57		5,7	5,7	0,0075		53	5,8	
A115	500	10201	20/11/2020	Epel	2017	2017Epel	54	75		7,5	6,9	0,0151		54	7,1	
A115	500	10201	20/11/2020	Epel	2017	2017Epel	55	61		6,1	6,0	0,0089		55	6,1	
A115	500	10201	20/11/2020	Epel	2017	2017Epel	56	52		5,2	5,3	0,0059		56		
A115	500	10201	20/11/2020	Epel	2017	2017Epel	57					0,0000		57		
A115	500	10201	20/11/2020	Epel	2017	2017Epel	58	65		6,5	6,2	0,0105		58	8,3	
A115	500	10201	20/11/2020	Epel	2017	2017Epel	59	56		5,6	5,6	0,0072		59	6,5	
														60	6,6	
														61	5	
														62	4,5	
														63	3,5	
														64	4,6	
														65	4,2	
														66	3,3	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
A155	500	10201	12/11/2020	Epel	2017	2017Epel	1	54	46	5,4	5,5	0,0065		1	6	5,4
A155	500	10201	12/11/2020	Epel	2017	2017Epel	2	79	43	7,9	7,2	0,0173		2	8,8	5,9
A155	500	10201	12/11/2020	Epel	2017	2017Epel	3	44	40	4,4	4,8	0,0039		3	4,8	4,7
A155	500	10201	12/11/2020	Epel	2017	2017Epel	4	69	54	6,9	6,5	0,0122		4	7,5	6,2
A155	500	10201	12/11/2020	Epel	2017	2017Epel	5	44	39	4,4	4,8	0,0039		5	5,2	4,8
A155	500	10201	12/11/2020	Epel	2017	2017Epel	6	75	58	7,5	6,9	0,0151		6	8,1	7,6
A155	500	10201	12/11/2020	Epel	2017	2017Epel	7	62	56	6,2	6,0	0,0093		7	7,8	7

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
A155	500	10201	12/11/2020	Epel	2017	2017Epel	8	50	38	5,0	5,2	0,0053		8	5	4,3
A155	500	10201	12/11/2020	Epel	2017	2017Epel	9	79	59	7,9	7,2	0,0173		9	10	7,3
A155	500	10201	12/11/2020	Epel	2017	2017Epel	10	54	44	5,4	5,5	0,0065		10	6,5	5,1
A155	500	10201	12/11/2020	Epel	2017	2017Epel	11	73	54	7,3	6,8	0,0141		11	8,6	6,9
A155	500	10201	12/11/2020	Epel	2017	2017Epel	12	61	47	6,1	6,0	0,0089		12	6,7	5,7
A155	500	10201	12/11/2020	Epel	2017	2017Epel	13	41	45	4,1	4,5	0,0032		13	4,3	5,5
A155	500	10201	12/11/2020	Epel	2017	2017Epel	14	83	67	8,3	7,4	0,0196		14	9,2	7,6
A155	500	10201	12/11/2020	Epel	2017	2017Epel	15	54	55	5,4	5,5	0,0065		15	6,2	6,4
A155	500	10201	12/11/2020	Epel	2017	2017Epel	16	59	54	5,9	5,8	0,0082		16	6	6,2
A155	500	10201	12/11/2020	Epel	2017	2017Epel	17	52	43	5,2	5,3	0,0059		17	6,5	5,6
A155	500	10201	12/11/2020	Epel	2017	2017Epel	18	48	38	4,8	5,0	0,0048		18	5,3	4,6
A155	500	10201	12/11/2020	Epel	2017	2017Epel	19	75	63	7,5	6,9	0,0151		19	8,3	7,6
A155	500	10201	12/11/2020	Epel	2017	2017Epel	20	47	49	4,7	5,0	0,0046		20	5	5,9
A155	500	10201	12/11/2020	Epel	2017	2017Epel	21	59	49	5,9	5,8	0,0082		21	6,6	5,7
A155	500	10201	12/11/2020	Epel	2017	2017Epel	22	57	51	5,7	5,7	0,0075		22	5,6	6
A155	500	10201	12/11/2020	Epel	2017	2017Epel	23	77	58	7,7	7,0	0,0162		23	8,4	7,4
A155	500	10201	12/11/2020	Epel	2017	2017Epel	24	62	59	6,2	6,0	0,0093		24	7,3	7,4
A155	500	10201	12/11/2020	Epel	2017	2017Epel	25	69	54	6,9	6,5	0,0122		25	7,7	6,4
A155	500	10201	12/11/2020	Epel	2017	2017Epel	26	94		9,4	8,1	0,0270		26	11	
A155	500	10201	12/11/2020	Epel	2017	2017Epel	27	82		8,2	7,3	0,0190		27	9,7	
A155	500	10201	12/11/2020	Epel	2017	2017Epel	28	59		5,9	5,8	0,0082		28	6,5	
A155	500	10201	12/11/2020	Epel	2017	2017Epel	29	53		5,3	5,4	0,0062		29	6,5	
A155	500	10201	12/11/2020	Epel	2017	2017Epel	30	56		5,6	5,6	0,0072		30	6,8	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
A155	500	10201	12/11/2020	Epel	2017	2017Epel	31					0,0000		31		
A155	500	10201	12/11/2020	Epel	2017	2017Epel	32	37		3,7	4,2	0,0025		32	4,2	
A155	500	10201	12/11/2020	Epel	2017	2017Epel	33	63		6,3	6,1	0,0097		33	7,1	
A155	500	10201	12/11/2020	Epel	2017	2017Epel	34	54		5,4	5,5	0,0065		34	5,6	
A155	500	10201	12/11/2020	Epel	2017	2017Epel	35	53		5,3	5,4	0,0062		35	6	
A155	500	10201	12/11/2020	Epel	2017	2017Epel	36	42		4,2	4,6	0,0034		36	4,5	
A155	500	10201	12/11/2020	Epel	2017	2017Epel	37	39		3,9	4,4	0,0028		37	4,4	
A155	500	10201	12/11/2020	Epel	2017	2017Epel	38	76		7,6	7,0	0,0157		38	8,4	
A155	500	10201	12/11/2020	Epel	2017	2017Epel	39	45		4,5	4,8	0,0041		39	4,7	
A155	500	10201	12/11/2020	Epel	2017	2017Epel	40	57		5,7	5,7	0,0075		40	5,6	
A155	500	10201	12/11/2020	Epel	2017	2017Epel	41	53		5,3	5,4	0,0062		41	6	
A155	500	10201	12/11/2020	Epel	2017	2017Epel	42	68		6,8	6,4	0,0118		42	8,4	
A155	500	10201	12/11/2020	Epel	2017	2017Epel	43	39		3,9	4,4	0,0028		43	4,8	
A155	500	10201	12/11/2020	Epel	2017	2017Epel	44	57		5,7	5,7	0,0075		44	6,7	
A155	500	10201	12/11/2020	Epel	2017	2017Epel	45	35		3,5	4,0	0,0021		45	4	
A155	500	10201	12/11/2020	Epel	2017	2017Epel	46	83		8,3	7,4	0,0196		46		
A155	500	10201	12/11/2020	Epel	2017	2017Epel	47	60		6,0	5,9	0,0085		47		
A155	500	10201	12/11/2020	Epel	2017	2017Epel	48	30		3,0	3,6	0,0014		48	3,3	
A155	500	10201	12/11/2020	Epel	2017	2017Epel	49	73		7,3	6,8	0,0141		49	3,2	
A155	500	10201	12/11/2020	Epel	2017	2017Epel	50	31		3,1	3,7	0,0016		50	3,7	
A155	500	10201	12/11/2020	Epel	2017	2017Epel	51	27		2,7	3,4	0,0011		51		
A155	500	10201	12/11/2020	Epel	2017	2017Epel	52	34		3,4	4,0	0,0020		52	3,9	
A155	500	10201	12/11/2020	Epel	2017	2017Epel	53	39		3,9	4,4	0,0028		53	3,6	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
A155	500	10201	12/11/2020	Epel	2017	2017Epel	54	70		7,0	6,6	0,0127		54	8,4	
A155	500	10201	12/11/2020	Epel	2017	2017Epel	55	31		3,1	3,7	0,0016		55	4,6	
A155	500	10201	12/11/2020	Epel	2017	2017Epel	56	34		3,4	4,0	0,0020		56		
A155	500	10201	12/11/2020	Epel	2017	2017Epel	57	31		3,1	3,7	0,0016		57		
A155	500	10201	12/11/2020	Epel	2017	2017Epel	58	72		7,2	6,7	0,0136		58		

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
B414	500	10202	25/11/2020	Aman	2018	2018Aman	1	51	50	5,1	5,0	0,0076		1	6,8	5,9
B414	500	10202	25/11/2020	Aman	2018	2018Aman	2	62	55	6,2	5,5	0,0129		2	6,5	6,1
B414	500	10202	25/11/2020	Aman	2018	2018Aman	3	62	52	6,2	5,2	0,0129		3	7,8	5,7
B414	500	10202	25/11/2020	Aman	2018	2018Aman	4	58	53	5,8	5,3	0,0108		4	6,9	6,4
B414	500	10202	25/11/2020	Aman	2018	2018Aman	5	64	65	6,4	6,5	0,0141		5	7,4	8
B414	500	10202	25/11/2020	Aman	2018	2018Aman	6	64	52	6,4	5,2	0,0141		6	7,5	6,1
B414	500	10202	25/11/2020	Aman	2018	2018Aman	7	47	47	4,7	4,7	0,0060		7	5,6	5,7
B414	500	10202	25/11/2020	Aman	2018	2018Aman	8	54	48	5,4	4,8	0,0088		8	6,2	5,4
B414	500	10202	25/11/2020	Aman	2018	2018Aman	9	45	48	4,5	4,8	0,0054		9	5,4	6,1
B414	500	10202	25/11/2020	Aman	2018	2018Aman	10	56	51	5,6	5,1	0,0098		10	5,3	5,6
B414	500	10202	25/11/2020	Aman	2018	2018Aman	11	46	48	4,6	4,8	0,0057		11	6,2	6
B414	500	10202	25/11/2020	Aman	2018	2018Aman	12	56	49	5,6	4,9	0,0098		12	6	5,8
B414	500	10202	25/11/2020	Aman	2018	2018Aman	13	51	49	5,1	4,9	0,0076		13	6	5,8
B414	500	10202	25/11/2020	Aman	2018	2018Aman	14	59	55	5,9	5,5	0,0113		14	7	6,2
B414	500	10202	25/11/2020	Aman	2018	2018Aman	15	44	44	4,4	4,4	0,0050		15	5,4	5

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
B414	500	10202	25/11/2020	Aman	2018	2018Aman	16	36	41	3,6	4,1	0,0029		16	4,1	5
B414	500	10202	25/11/2020	Aman	2018	2018Aman	17	54	52	5,4	5,2	0,0088		17	6,7	5,9
B414	500	10202	25/11/2020	Aman	2018	2018Aman	18	67	51	6,7	5,1	0,0160		18	7,8	6
B414	500	10202	25/11/2020	Aman	2018	2018Aman	19	74	61	7,4	6,1	0,0210		19	8	6,8
B414	500	10202	25/11/2020	Aman	2018	2018Aman	20	58	54	5,8	5,4	0,0108		20	7,2	6,2
B414	500	10202	25/11/2020	Aman	2018	2018Aman	21	58	47	5,8	4,7	0,0108		21	6,6	5,7
B414	500	10202	25/11/2020	Aman	2018	2018Aman	22	49	47	4,9	4,7	0,0068		22	5,4	5,9
B414	500	10202	25/11/2020	Aman	2018	2018Aman	23	63	52	6,3	5,2	0,0135		23	6,9	5,5
B414	500	10202	25/11/2020	Aman	2018	2018Aman	24	55	48	5,5	4,8	0,0093		24	6	5,5
B414	500	10202	25/11/2020	Aman	2018	2018Aman	25	58	55	5,8	5,5	0,0108		25	7,1	6,7
B414	500	10202	25/11/2020	Aman	2018	2018Aman	26	50	49	5,0	4,9	0,0072		26	5,6	5,4
B414	500	10202	25/11/2020	Aman	2018	2018Aman	27	69	54	6,9	5,4	0,0173		27	7,8	6
B414	500	10202	25/11/2020	Aman	2018	2018Aman	28	63	63	6,3	6,3	0,0135		28	6,1	6,6
B414	500	10202	25/11/2020	Aman	2018	2018Aman	29	55		5,5		0,0093		29	6,2	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	30	69		6,9		0,0173		30	7,8	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	31	72		7,2		0,0195		31	6,9	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	32	49		4,9		0,0068		32	5,9	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	33	71		7,1		0,0187		33	7,9	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	34	62		6,2		0,0129		34	6,9	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	35	57		5,7		0,0103		35	6,2	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	36	54		5,4		0,0088		36	5,8	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	37	57		5,7		0,0103		37	7,4	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	38	55		5,5		0,0093		38	5,9	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
B414	500	10202	25/11/2020	Aman	2018	2018Aman	39	42		4,2		0,0044		39	4,7	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	40	58		5,8		0,0108		40	6,6	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	41	52		5,2		0,0080		41	6,7	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	42	27		2,7		0,0013		42	2,7	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	43	60		6,0		0,0118		43	7,5	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	44	48		4,8		0,0064		44	5,4	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	45	49		4,9		0,0068		45	5,2	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	46	54		5,4		0,0088		46	6,8	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	47	70		7,0		0,0180		47	7	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	48	56		5,6		0,0098		48	5,4	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	49	68		6,8		0,0166		49	7,3	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	50	54		5,4		0,0088		50	5,8	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	51	72		7,2		0,0195		51	8,1	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	52	59		5,9		0,0113		52	6,6	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	53	72		7,2		0,0195		53	9,3	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	54	65		6,5		0,0147		54	7,4	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	55	46		4,6		0,0057		55	5,1	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	56	48		4,8		0,0064		56	5,7	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	57	62		6,2		0,0129		57	7,4	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	58	43		4,3		0,0047		58	4,9	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	59	68		6,8		0,0166		59	7,4	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	60	36		3,6		0,0029		60	4,1	
B414	500	10202	25/11/2020	Aman	2018	2018Aman	61	27		2,7		0,0013		61	3,3	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
B414	500	10202	25/11/2020	Aman	2018	2018Aman	62	39		3,9		0,0036		62	2,7	
														63	3,3	
														64	3,5	
														65	4,1	
														66	4	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	1	101		10,1		0,0494		1	10,7	10,8
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	2	84		8,4		0,0298		2	9	10,1
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	3	100		10,0		0,0480		3	11,5	10,6
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	4	127		12,7		0,0926		4	14,2	10,8
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	5	102		10,2		0,0507		5	10	10,6
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	6	97		9,7		0,0442		6	10	11,6
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	7	96		9,6		0,0429		7	9,7	9,8
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	8	55		5,5		0,0093		8	5,9	9,1
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	9	107		10,7		0,0578		9	11,7	11,5
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	10	39		3,9		0,0036		10	4,4	7,7
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	11	102		10,2		0,0507		11	10,3	11,4
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	12	48		4,8		0,0064		12	5,2	7,8
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	13	101		10,1		0,0494		13	11,1	12,5
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	14	84		8,4		0,0298		14	8,7	10,9

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	15	96		9,6		0,0429		15	10,7	9,6
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	16	92		9,2		0,0382		16	10	12,6
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	17	93		9,3		0,0393		17	9,8	11,5
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	18	91		9,1		0,0371		18	9,8	11,5
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	19	90		9,0		0,0360		19	9,8	12
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	20	108		10,8		0,0593		20	11,7	11,5
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	21	90		9,0		0,0360		21	10,2	9,9
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	22	87	104	8,7	10,4	0,0328		22	9,8	11
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	23	90	80	9,0	8,0	0,0360		23	9,1	8,4
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	24	65	88	6,5	8,8	0,0147		24	6,8	10,1
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	25	83	95	8,3	9,5	0,0288		25	8,5	11
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	26	105	97	10,5	9,7	0,0549		26	11,9	11,1
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	27	67	90	6,7	9,0	0,0160		27	7,2	10,2
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	28	87	92	8,7	9,2	0,0328		28	9,4	11,2
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	29	82	99	8,2	9,9	0,0278		29	9,4	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	30	70	83	7,0	8,3	0,0180		30	7,9	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	31	80	104	8,0	10,4	0,0260		31	9,1	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	32	113	99	11,3	9,9	0,0672		32	12,2	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	33	107	102	10,7	10,2	0,0578		33	12,3	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	34	63	92	6,3	9,2	0,0135		34	7,5	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	35	59	78	5,9	7,8	0,0113		35	6,2	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	36	91	108	9,1	10,8	0,0371		36	9,4	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	37	96	109	9,6	10,9	0,0429		37	10,3	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	38	90	113	9,0	11,3	0,0360		38	9,4	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	39	77	103	7,7	10,3	0,0234		39	7,8	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	40	96	106	9,6	10,6	0,0429		40	10,3	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	41	66	91	6,6	9,1	0,0153		41	6,8	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	42	101	116	10,1	11,6	0,0494		42	11,8	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	43	111	95	11,1	9,5	0,0640		43	11,8	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	44	68	99	6,8	9,9	0,0166		44	6,7	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	45	114	117	11,4	11,7	0,0688		45	11,7	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	46	82	108	8,2	10,8	0,0278		46	8,9	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	47	83	110	8,3	11,0	0,0288		47	9,4	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	48	100	95	10,0	9,5	0,0480		48	10	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	49	80	91	8,0	9,1	0,0260		49	8,4	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	50	64		6,4		0,0141		50	6,8	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	51	117		11,7		0,0739		51	11,9	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	52	99		9,9		0,0467		52	10,2	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	53	141		14,1		0,1234		53	15,9	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	54	80		8,0		0,0260		54	8,8	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	55	79		7,9		0,0251		55	7,7	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	56	55		5,5		0,0093		56	5,9	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	57	54		5,4		0,0088		57	5,8	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	58	28		2,8		0,0015		58	2,9	
B315-1	500	10102	19/11/2020	Aman	2017	2017Aman	59	33		3,3		0,0023		59	3,9	
														60	10,7	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
														61	11,9	
														62	8,6	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
A331	500	10101	14/11/2020	Epel	2017	2017Epel	1	101	101	10,1	8,5	0,0325		1	11,3	12,1
A331	500	10101	14/11/2020	Epel	2017	2017Epel	2	97	111	9,7	8,3	0,0293		2	11,5	13,2
A331	500	10101	14/11/2020	Epel	2017	2017Epel	3	127	109	12,7	10,0	0,0585		3	14	12,2
A331	500	10101	14/11/2020	Epel	2017	2017Epel	4	63	61	6,3	6,1	0,0097		4	6,7	6,9
A331	500	10101	14/11/2020	Epel	2017	2017Epel	5	105	101	10,5	8,7	0,0359		5	12,6	11,7
A331	500	10101	14/11/2020	Epel	2017	2017Epel	6	99	97	9,9	8,4	0,0309		6	11	11,1
A331	500	10101	14/11/2020	Epel	2017	2017Epel	7	53	86	5,3	5,4	0,0062		7	5,3	9,4
A331	500	10101	14/11/2020	Epel	2017	2017Epel	8	124	116	12,4	9,8	0,0551		8	14,6	13,2
A331	500	10101	14/11/2020	Epel	2017	2017Epel	9	106	116	10,6	8,8	0,0368		9	11,9	13
A331	500	10101	14/11/2020	Epel	2017	2017Epel	10	96	101	9,6	8,2	0,0285		10	10,7	11,3
A331	500	10101	14/11/2020	Epel	2017	2017Epel	11	106	108	10,6	8,8	0,0368		11	12,7	12,2
A331	500	10101	14/11/2020	Epel	2017	2017Epel	12	47	70	4,7	5,0	0,0046		12	5,2	8,3
A331	500	10101	14/11/2020	Epel	2017	2017Epel	13	66	74	6,6	6,3	0,0109		13	7	7,8
A331	500	10101	14/11/2020	Epel	2017	2017Epel	14	101	91	10,1	8,5	0,0325		14	11,5	10,5
A331	500	10101	14/11/2020	Epel	2017	2017Epel	15	90	91	9,0	7,8	0,0242		15	9,1	10,1
A331	500	10101	14/11/2020	Epel	2017	2017Epel	16	106	108	10,6	8,8	0,0368		16	11,4	12,5
A331	500	10101	14/11/2020	Epel	2017	2017Epel	17	98	79	9,8	8,3	0,0301		17	11	9,3
A331	500	10101	14/11/2020	Epel	2017	2017Epel	18	108	97	10,8	8,9	0,0386		18	12,3	11,8
A331	500	10101	14/11/2020	Epel	2017	2017Epel	19	101	100	10,1	8,5	0,0325		19	10,7	12

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
A331	500	10101	14/11/2020	Epel	2017	2017Epel	20	68	91	6,8	6,4	0,0118		20	7,5	10,4
A331	500	10101	14/11/2020	Epel	2017	2017Epel	21	52	78	5,2	5,3	0,0059		21	5,5	8,5
A331	500	10101	14/11/2020	Epel	2017	2017Epel	22	114	115	11,4	9,2	0,0444		22	11,9	13,4
A331	500	10101	14/11/2020	Epel	2017	2017Epel	23	131	125	13,1	10,2	0,0634		23	14,1	14
A331	500	10101	14/11/2020	Epel	2017	2017Epel	24	111	108	11,1	9,1	0,0414		24	11,9	12,5
A331	500	10101	14/11/2020	Epel	2017	2017Epel	25	76	75	7,6	7,0	0,0157		25	7,6	8
A331	500	10101	14/11/2020	Epel	2017	2017Epel	26	51		5,1	5,3	0,0056		26	5,5	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	27	151		15,1	11,3	0,0913		27	17	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	28	112		11,2	9,1	0,0424		28	13	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	29	93		9,3	8,0	0,0263		29	9,8	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	30	70		7,0	6,6	0,0127		30	7,7	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	31	92		9,2	8,0	0,0256		31	9,8	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	32	99		9,9	8,4	0,0309		32	10,7	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	33	147		14,7	11,0	0,0852		33	16,1	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	34	82		8,2	7,3	0,0190		34	8,4	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	35	98		9,8	8,3	0,0301		35	10,7	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	36	128		12,8	10,0	0,0597		36	14,7	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	37	97		9,7	8,3	0,0293		37	10	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	38	100		10,0	8,4	0,0317		38	10,7	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	39	46		4,6	4,9	0,0043		39	5	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	40	129		12,9	10,1	0,0609		40	14,8	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	41	91		9,1	7,9	0,0249		41	10	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	42	147		14,7	11,0	0,0852		42	16,1	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
A331	500	10101	14/11/2020	Epel	2017	2017Epel	43	54		5,4	5,5	0,0065		43		
A331	500	10101	14/11/2020	Epel	2017	2017Epel	44	122		12,2	9,7	0,0528		44	12,1	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	45	124		12,4	9,8	0,0551		45	13,8	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	46	64		6,4	6,2	0,0101		46	6,8	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	47	78		7,8	7,1	0,0167		47	7,8	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	48	110		11,0	9,0	0,0405		48	12,1	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	49	61		6,1	6,0	0,0089		49	7,1	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	50	99		9,9	8,4	0,0309		50	11,4	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	51	86		8,6	7,6	0,0215		51	9,2	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	52	51		5,1	5,3	0,0056		52	5,5	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	53	66		6,6	6,3	0,0109		53	6,7	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	54	108		10,8	8,9	0,0386		54	12,6	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	55	36		3,6	4,1	0,0023		55	3,8	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	56	34		3,4	4,0	0,0020		56	3,6	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	57	32		3,2	3,8	0,0017		57	3,3	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	58	55		5,5	5,6	0,0068		58	5,9	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	59	28		2,8	3,5	0,0012		59	3,1	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	60	60		6,0	5,9	0,0085		60	7	
A331	500	10101	14/11/2020	Epel	2017	2017Epel	61	34		3,4	4,0	0,0020		61	3,6	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	1	53	73	5,3	7,3	0,0084		1	6	8

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	2	104	76	10,4	7,6	0,0535		2	10,3	8,4
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	3	77	76	7,7	7,6	0,0234		3	8	8
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	4	103	85	10,3	8,5	0,0521		4	10,6	8,9
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	5	79	81	7,9	8,1	0,0251		5	8,2	8,5
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	6	93	88	9,3	8,8	0,0393		6	9,8	9,7
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	7	90	76	9,0	7,6	0,0360		7	9	7,5
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	8	66	65	6,6	6,5	0,0153		8	7,1	6,5
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	9	92	96	9,2	9,6	0,0382		9	9,5	9,4
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	10	80	74	8,0	7,4	0,0260		10	8,3	4,8
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	11	74	78	7,4	7,8	0,0210		11	7,4	8,6
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	12	89	73	8,9	7,3	0,0349		12	9,8	7,2
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	13	72	77	7,2	7,7	0,0195		13	7,4	8,4
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	14	84	78	8,4	7,8	0,0298		14	9,2	8,7
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	15	95	79	9,5	7,9	0,0417		15	9,7	8,3
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	16	83	80	8,3	8,0	0,0288		16	8,5	8,6
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	17	96	79	9,6	7,9	0,0429		17	9,5	8,4
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	18	74	53	7,4	5,3	0,0210		18	7,6	5,6
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	19	121	89	12,1	8,9	0,0811		19	12	8,9
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	20	92	85	9,2	8,5	0,0382		20	9,5	8,8
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	21	116	95	11,6	9,5	0,0722		21	12,4	9,6
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	22	72	65	7,2	6,5	0,0195		22	7,3	6,6
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	23	84	67	8,4	6,7	0,0298		23	8,7	6,7
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	24	67	64	6,7	6,4	0,0160		24	6,9	6,8

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	25	77	88	7,7	8,8	0,0234		25	8,2	9,6
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	26	75	76	7,5	7,6	0,0218		26	7,8	7,8
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	27	112	90	11,2	9,0	0,0656		27	11,4	9,7
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	28	83	69	8,3	6,9	0,0288		28	8,5	7,1
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	29	76		7,6		0,0226		29	8	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	30	92		9,2		0,0382		30	9,6	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	31	96		9,6		0,0429		31	10	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	32	94		9,4		0,0405		32	9,5	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	33	104		10,4		0,0535		33	10,4	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	34	78		7,8		0,0243		34	7,9	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	35	73		7,3		0,0202		35	7,5	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	36	87		8,7		0,0328		36	8,9	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	37	72		7,2		0,0195		37	7,5	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	38	61		6,1		0,0124		38	6,6	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	39	101		10,1		0,0494		39	10,3	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	40	83		8,3		0,0288		40	8,4	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	41	78		7,8		0,0243		41	8,1	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	42	98		9,8		0,0454		42	9,9	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	43	94		9,4		0,0405		43	9,8	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	44	69		6,9		0,0173		44	6,8	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	45	81		8,1		0,0269		45	8,1	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	46	58		5,8		0,0108		46	5,9	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	47	63		6,3		0,0135		47	6,6	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	48	75		7,5		0,0218		48	7,4	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	49	103		10,3		0,0521		49	10,9	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	50	95		9,5		0,0417		50	9,7	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	51	84		8,4		0,0298		51	8,5	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	52	99		9,9		0,0467		52	10,6	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	53	79		7,9		0,0251		53	8	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	54	61		6,1		0,0124		54	6,4	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	55	102		10,2		0,0507		55	11,1	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	56	50		5,0		0,0072		56	5,5	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	57	44		4,4		0,0050		57	4,7	
A227B	500	10101	11/11/2020	Aman	2016	2016Aman	58	67		6,7		0,0160		58	7,2	

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PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
A239	500	10101	17/11/2020	Epel	2016	2016Epel	1	81		8,1	7,3	0,0185		1	8,6	6,6
A239	500	10101	17/11/2020	Epel	2016	2016Epel	2	104		10,4	8,7	0,0351		2	12	11,1
A239	500	10101	17/11/2020	Epel	2016	2016Epel	3	61		6,1	6,0	0,0089		3	6,2	7,1
A239	500	10101	17/11/2020	Epel	2016	2016Epel	4	91		9,1	7,9	0,0249		4	10	8,4
A239	500	10101	17/11/2020	Epel	2016	2016Epel	5	48		4,8	5,0	0,0048		5	5,6	6
A239	500	10101	17/11/2020	Epel	2016	2016Epel	6	76		7,6	7,0	0,0157		6	8,2	7,6
A239	500	10101	17/11/2020	Epel	2016	2016Epel	7	92		9,2	8,0	0,0256		7	11,2	8,8
A239	500	10101	17/11/2020	Epel	2016	2016Epel	8	80		8,0	7,2	0,0179		8	8,6	8,5
A239	500	10101	17/11/2020	Epel	2016	2016Epel	9	76		7,6	7,0	0,0157		9	8,6	7,3

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
A239	500	10101	17/11/2020	Epel	2016	2016Epel	10	73		7,3	6,8	0,0141		10	8,1	8,2
A239	500	10101	17/11/2020	Epel	2016	2016Epel	11	61		6,1	6,0	0,0089		11	6,7	6,4
A239	500	10101	17/11/2020	Epel	2016	2016Epel	12	84		8,4	7,5	0,0203		12	9,3	11,9
A239	500	10101	17/11/2020	Epel	2016	2016Epel	13	135		13,5	10,4	0,0685		13	15,4	13,1
A239	500	10101	17/11/2020	Epel	2016	2016Epel	14	37		3,7	4,2	0,0025		14	0	
A239	500	10101	17/11/2020	Epel	2016	2016Epel	15	71	70	7,1	6,6	0,0132		15	7,7	7,3
A239	500	10101	17/11/2020	Epel	2016	2016Epel	16	48	53	4,8	5,0	0,0048		16	5,3	5,5
A239	500	10101	17/11/2020	Epel	2016	2016Epel	17	123	98	12,3	9,8	0,0539		17	14,1	10,3
A239	500	10101	17/11/2020	Epel	2016	2016Epel	18	88	86	8,8	7,7	0,0228		18	10	9,4
A239	500	10101	17/11/2020	Epel	2016	2016Epel	19	121	94	12,1	9,6	0,0517		19	13,6	10,3
A239	500	10101	17/11/2020	Epel	2016	2016Epel	20	105	99	10,5	8,7	0,0359		20	12,3	10,5
A239	500	10101	17/11/2020	Epel	2016	2016Epel	21	90	105	9,0	7,8	0,0242		21	10,1	11,3
A239	500	10101	17/11/2020	Epel	2016	2016Epel	22	42	46	4,2	4,6	0,0034		22	4,4	4,7
A239	500	10101	17/11/2020	Epel	2016	2016Epel	23	94	80	9,4	8,1	0,0270		23	10,3	8,5
A239	500	10101	17/11/2020	Epel	2016	2016Epel	24	93	88	9,3	8,0	0,0263		24	10,6	9,9
A239	500	10101	17/11/2020	Epel	2016	2016Epel	25	114	113	11,4	9,2	0,0444		25	13,6	12,6
A239	500	10101	17/11/2020	Epel	2016	2016Epel	26	62	68	6,2	6,0	0,0093		26	6,8	
A239	500	10101	17/11/2020	Epel	2016	2016Epel	27	97	94	9,7	8,3	0,0293		27	10,7	
A239	500	10101	17/11/2020	Epel	2016	2016Epel	28	103	108	10,3	8,6	0,0342		28	11,8	
A239	500	10101	17/11/2020	Epel	2016	2016Epel	29	82	68	8,2	7,3	0,0190		29	8,8	
A239	500	10101	17/11/2020	Epel	2016	2016Epel	30	89	86	8,9	7,8	0,0235		30	11,4	
A239	500	10101	17/11/2020	Epel	2016	2016Epel	31	123	105	12,3	9,8	0,0539		31	14,1	
A239	500	10101	17/11/2020	Epel	2016	2016Epel	32	46	54	4,6	4,9	0,0043		32	5,4	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
A239	500	10101	17/11/2020	Epel	2016	2016Epel	33	52	46	5,2	5,3	0,0059		33	5,6	
A239	500	10101	17/11/2020	Epel	2016	2016Epel	34	68	61	6,8	6,4	0,0118		34	7,3	
A239	500	10101	17/11/2020	Epel	2016	2016Epel	35	64	65	6,4	6,2	0,0101		35	6,8	
A239	500	10101	17/11/2020	Epel	2016	2016Epel	36	63	60	6,3	6,1	0,0097		36	6,7	
A239	500	10101	17/11/2020	Epel	2016	2016Epel	37	51	57	5,1	5,3	0,0056		37	5,3	
A239	500	10101	17/11/2020	Epel	2016	2016Epel	38	140	108	14,0	10,7	0,0752		38	15,6	
A239	500	10101	17/11/2020	Epel	2016	2016Epel	39	87	73	8,7	7,7	0,0222		39	9,2	
A239	500	10101	12/12/2020	Epel	2016	2016Epel	40	106	108	10,6	8,8	0,0368		40	11,2	
A239	500	10101	12/12/2020	Epel	2016	2016Epel	41	51		5,1	5,3	0,0056		41	5,1	
A239	500	10101	12/12/2020	Epel	2016	2016Epel	42	54		5,4	5,5	0,0065		42	6,2	
A239	500	10101	12/12/2020	Epel	2016	2016Epel	43	96		9,6	8,2	0,0285		43	10,2	
A239	500	10101	12/12/2020	Epel	2016	2016Epel	44	100		10,0	8,4	0,0317		44	11,6	
A239	500	10101	12/12/2020	Epel	2016	2016Epel	45	68		6,8	6,4	0,0118		45	7,4	
A239	500	10101	12/12/2020	Epel	2016	2016Epel	46	45		4,5	4,8	0,0041		46	4,7	
A239	500	10101	12/12/2020	Epel	2016	2016Epel	47	45		4,5	4,8	0,0041		47	5	
A239	500	10101	12/12/2020	Epel	2016	2016Epel	48	31		3,1	3,7	0,0016		48	3,2	
A239	500	10101	12/12/2020	Epel	2016	2016Epel	49	48		4,8	5,0	0,0048		49	4,7	
A239	500	10101	12/12/2020	Epel	2016	2016Epel	50	25		2,5	3,2	0,0009		50	2,8	
A239	500	10101	12/12/2020	Epel	2016	2016Epel	51	23		2,3	3,0	0,0007		51	2,4	
A239	500	10101	12/12/2020	Epel	2016	2016Epel	52	89		8,9	7,8	0,0235		52	9,6	
A239	500	10101	12/12/2020	Epel	2016	2016Epel	53	58		5,8	5,8	0,0078		53	6,2	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
B313	500	10102	19/11/2020	Aman	2017	2017Aman	1	65	71	6,5	7,1	0,0147		1	6,6	5,9
B313	500	10102	19/11/2020	Aman	2017	2017Aman	2	79	99	7,9	9,9	0,0251		2	8,2	10,2
B313	500	10102	19/11/2020	Aman	2017	2017Aman	3	96	93	9,6	9,3	0,0429		3	11,1	9,6
B313	500	10102	19/11/2020	Aman	2017	2017Aman	4	73	97	7,3	9,7	0,0202		4	8,4	10,3
B313	500	10102	19/11/2020	Aman	2017	2017Aman	5	82	91	8,2	9,1	0,0278		5	8,8	9,6
B313	500	10102	19/11/2020	Aman	2017	2017Aman	6	59	87	5,9	8,7	0,0113		6	6,1	9,4
B313	500	10102	19/11/2020	Aman	2017	2017Aman	7	84	91	8,4	9,1	0,0298		7	10,1	10,5
B313	500	10102	19/11/2020	Aman	2017	2017Aman	8	95	98	9,5	9,8	0,0417		8	9,9	10,8
B313	500	10102	19/11/2020	Aman	2017	2017Aman	9	83	90	8,3	9,0	0,0288		9	8,8	9,1
B313	500	10102	19/11/2020	Aman	2017	2017Aman	10	87	89	8,7	8,9	0,0328		10	9	10,2
B313	500	10102	19/11/2020	Aman	2017	2017Aman	11	79	97	7,9	9,7	0,0251		11	8,4	9,9
B313	500	10102	19/11/2020	Aman	2017	2017Aman	12	103	106	10,3	10,6	0,0521		12	11	9,9
B313	500	10102	19/11/2020	Aman	2017	2017Aman	13	94	111	9,4	11,1	0,0405		13	10	9,9
B313	500	10102	19/11/2020	Aman	2017	2017Aman	14	53	74	5,3	7,4	0,0084		14	5,9	7,4
B313	500	10102	19/11/2020	Aman	2017	2017Aman	15	97	107	9,7	10,7	0,0442		15	10,8	10,9
B313	500	10102	19/11/2020	Aman	2017	2017Aman	16	71	102	7,1	10,2	0,0187		16	7,3	10,2
B313	500	10102	19/11/2020	Aman	2017	2017Aman	17	103	101	10,3	10,1	0,0521		17	10,7	10,5
B313	500	10102	19/11/2020	Aman	2017	2017Aman	18	61	99	6,1	9,9	0,0124		18	6,7	10,6
B313	500	10102	19/11/2020	Aman	2017	2017Aman	19	74	93	7,4	9,3	0,0210		19	8,3	11,3
B313	500	10102	19/11/2020	Aman	2017	2017Aman	20	109	110	10,9	11,0	0,0609		20	11,8	11
B313	500	10102	19/11/2020	Aman	2017	2017Aman	21	85	104	8,5	10,4	0,0307		21	11	11
B313	500	10102	19/11/2020	Aman	2017	2017Aman	22	86	100	8,6	10,0	0,0317		22	9,4	9,6
B313	500	10102	19/11/2020	Aman	2017	2017Aman	23	61	87	6,1	8,7	0,0124		23		

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
B313	500	10102	19/11/2020	Aman	2017	2017Aman	24	88	110	8,8	11,0	0,0338		24	9,7	11,4
B313	500	10102	19/11/2020	Aman	2017	2017Aman	25	80	93	8,0	9,3	0,0260		25	9,4	10,4
B313	500	10102	19/11/2020	Aman	2017	2017Aman	26	91	107	9,1	10,7	0,0371		26	9,6	11,1
B313	500	10102	19/11/2020	Aman	2017	2017Aman	27	88	102	8,8	10,2	0,0338		27	11,1	10,3
B313	500	10102	19/11/2020	Aman	2017	2017Aman	28	89	108	8,9	10,8	0,0349		28	10	11,6
B313	500	10102	19/11/2020	Aman	2017	2017Aman	29	80		8,0		0,0260		29	8,3	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	30	104		10,4		0,0535		30	11,8	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	31	77		7,7		0,0234		31	7,8	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	32	104		10,4		0,0535		32	10,7	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	33	78		7,8		0,0243		33	7,7	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	34	99		9,9		0,0467		34	10,4	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	35	102		10,2		0,0507		35	11,1	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	36	92		9,2		0,0382		36	10	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	37	54		5,4		0,0088		37	5,7	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	38	99		9,9		0,0467		38	10,9	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	39	61		6,1		0,0124		39	6,6	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	40	89		8,9		0,0349		40	10	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	41	90		9,0		0,0360		41	9	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	42	82		8,2		0,0278		42	8,7	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	43	107		10,7		0,0578		43	11,8	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	44	78		7,8		0,0243		44	8,3	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	45	77		7,7		0,0234		45	7,9	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	46	92		9,2		0,0382		46	9,6	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
B313	500	10102	19/11/2020	Aman	2017	2017Aman	47	106		10,6		0,0564		47	11,4	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	48	87		8,7		0,0328		48	8,8	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	49	94		9,4		0,0405		49	10,8	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	50	74		7,4		0,0210		50	8	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	51	89		8,9		0,0349		51	8,9	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	52	92		9,2		0,0382		52	9,2	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	53	65		6,5		0,0147		53	6,7	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	54	88		8,8		0,0338		54	9,5	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	55	91		9,1		0,0371		55	9,4	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	56	90		9,0		0,0360		56	9,2	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	57	94		9,4		0,0405		57	10,8	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	58	87		8,7		0,0328		58	9,4	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	59	86		8,6		0,0317		59	9,1	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	60	94		9,4		0,0405		60	9,9	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	61	82		8,2		0,0278		61	8,8	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	62	81		8,1		0,0269		62	9	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	63	83		8,3		0,0288		63	9,1	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	64	89		8,9		0,0349		64	9,4	
B313	500	10102	19/11/2020	Aman	2017	2017Aman	65	71		7,1		0,0187		65	7,7	
														66	10,8	
														67	6,9	
														68	8,8	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
B330	500	10102	18/11/2020	Epel	2018	2018Epel	1	68	80	6,8	8,0	0,0146		1	7,5	8,7
B330	500	10102	18/11/2020	Epel	2018	2018Epel	2	96	107	9,6	10,7	0,0371		2	11	11,2
B330	500	10102	18/11/2020	Epel	2018	2018Epel	3	92	99	9,2	9,9	0,0317		3	12,1	12,9
B330	500	10102	18/11/2020	Epel	2018	2018Epel	4	93	96	9,3	9,6	0,0314		4	11,1	11,9
B330	500	10102	18/11/2020	Epel	2018	2018Epel	5	71	88	7,1	8,8	0,0174		5	8,6	11
B330	500	10102	18/11/2020	Epel	2018	2018Epel	6	88	86	8,8	8,6	0,0254		6	10,5	10,5
B330	500	10102	18/11/2020	Epel	2018	2018Epel	7	74	87	7,4	8,7	0,0186		7	8,9	11,2
B330	500	10102	18/11/2020	Epel	2018	2018Epel	8	50	51	5,0	5,1	0,0053		8	5,5	5,6
B330	500	10102	18/11/2020	Epel	2018	2018Epel	9	65	58	6,5	5,8	0,0098		9	6,3	6,1
B330	500	10102	18/11/2020	Epel	2018	2018Epel	10	96	99	9,6	9,9	0,0344		10	10,8	10,9
B330	500	10102	18/11/2020	Epel	2018	2018Epel	11	83	90	8,3	9,0	0,0238		11	10,4	10,2
B330	500	10102	18/11/2020	Epel	2018	2018Epel	12	96	119	9,6	11,9	0,0412		12	11,7	14,3
B330	500	10102	18/11/2020	Epel	2018	2018Epel	13	67	59	6,7	5,9	0,0105		13	7,5	6,6
B330	500	10102	18/11/2020	Epel	2018	2018Epel	14	104	101	10,4	10,1	0,0408		14	12,7	12
B330	500	10102	18/11/2020	Epel	2018	2018Epel	15	111	120	11,1	12,0	0,0546		15	13,4	14,8
B330	500	10102	18/11/2020	Epel	2018	2018Epel	16	120	128	12,0	12,8	0,0674		16	15,3	15,1
B330	500	10102	18/11/2020	Epel	2018	2018Epel	17	109	125	10,9	12,5	0,0549		17	13,6	15,5
B330	500	10102	18/11/2020	Epel	2018	2018Epel	18	75	80	7,5	8,0	0,0175		18	8,1	9,3
B330	500	10102	18/11/2020	Epel	2018	2018Epel	19	90	79	9,0	7,9	0,0244		19	9,8	8,9
B330	500	10102	18/11/2020	Epel	2018	2018Epel	20	73	92	7,3	9,2	0,0191		20	8,4	10,6
B330	500	10102	18/11/2020	Epel	2018	2018Epel	21	77	81	7,7	8,1	0,0186		21	8,4	8,9
B330	500	10102	18/11/2020	Epel	2018	2018Epel	22	74	82	7,4	8,2	0,0175		22	8,7	9,2
B330	500	10102	18/11/2020	Epel	2018	2018Epel	23	77	87	7,7	8,7	0,0200		23	9,9	10

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
B330	500	10102	18/11/2020	Epel	2018	2018Epel	24	54	62	5,4	6,2	0,0074		24	5,6	7,3
B330	500	10102	18/11/2020	Epel	2018	2018Epel	25	67	93	6,7	9,3	0,0165		25	8,1	10,3
B330	500	10102	18/11/2020	Epel	2018	2018Epel	26	64		6,4	6,2	0,0101		26	7,2	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	27	78		7,8	7,1	0,0167		27	9	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	28	77		7,7	7,0	0,0162		28	9,4	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	29	66		6,6	6,3	0,0109		29	8,3	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	30	96		9,6	8,2	0,0285		30	10,8	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	31	99		9,9	8,4	0,0309		31	12,3	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	32	86		8,6	7,6	0,0215		32	10,2	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	33	64		6,4	6,2	0,0101		33	6,8	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	34	51		5,1	5,3	0,0056		34	5,8	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	35	92		9,2	8,0	0,0256		35	11,5	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	36	83		8,3	7,4	0,0196		36	9,4	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	37	44		4,4	4,8	0,0039		37	4,9	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	38	90		9,0	7,8	0,0242		38	10,8	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	39	72		7,2	6,7	0,0136		39	8,2	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	40	61		6,1	6,0	0,0089		40		
B330	500	10102	18/11/2020	Epel	2018	2018Epel	41	96		9,6	8,2	0,0285		41	10,6	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	42	54		5,4	5,5	0,0065		42	5,7	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	43	59		5,9	5,8	0,0082		43	6,2	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	44	66		6,6	6,3	0,0109		44	8,6	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	45	67		6,7	6,4	0,0113		45	7,3	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	46	67		6,7	6,4	0,0113		46	8,8	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
B330	500	10102	18/11/2020	Epel	2018	2018Epel	47	90		9,0	7,8	0,0242		47	12,3	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	48	90		9,0	7,8	0,0242		48	10,1	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	49	51		5,1	5,3	0,0056		49	5,4	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	50	82		8,2	7,3	0,0190		50	8,6	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	51	64		6,4	6,2	0,0101		51	7	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	52	76		7,6	7,0	0,0157		52	8,4	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	53	77		7,7	7,0	0,0162		53	10,1	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	54	82		8,2	7,3	0,0190		54	12,1	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	55	72		7,2	6,7	0,0136		55	8,4	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	56	61		6,1	6,0	0,0089		56	7,5	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	57	44		4,4	4,8	0,0039		57	4,4	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	58	44		4,4	4,8	0,0039		58	4,2	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	59	63		6,3	6,1	0,0097		59	7	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	60	52		5,2	5,3	0,0059		60	5,2	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	61	52		5,2	5,3	0,0059		61	5,6	
B330	500	10102	18/11/2020	Epel	2018	2018Epel	62	39		3,9	4,4	0,0028		62	3,7	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
B333	500	10102	18/11/2020	Epel	2018	2018Epel	1	65	80	6,5	8,0	0,0134		1	7,3	10,3
B333	500	10102	18/11/2020	Epel	2018	2018Epel	2	44	50	4,4	5,0	0,0041		2	4,7	5,9
B333	500	10102	18/11/2020	Epel	2018	2018Epel	3	87	87	8,7	8,7	0,0252		3	10,6	10,8
B333	500	10102	18/11/2020	Epel	2018	2018Epel	4	71	80	7,1	8,0	0,0158		4	8,5	9,2

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
B333	500	10102	18/11/2020	Epel	2018	2018Epel	5	48	57	4,8	5,7	0,0054		5	5,1	6,8
B333	500	10102	18/11/2020	Epel	2018	2018Epel	6	69	71	6,9	7,1	0,0133		6	8,5	9,6
B333	500	10102	18/11/2020	Epel	2018	2018Epel	7	66	71	6,6	7,1	0,0123		7	8	9,4
B333	500	10102	18/11/2020	Epel	2018	2018Epel	8	76	81	7,6	8,1	0,0182		8	10,7	10,8
B333	500	10102	18/11/2020	Epel	2018	2018Epel	9	59	68	5,9	6,8	0,0095		9	7	8,8
B333	500	10102	18/11/2020	Epel	2018	2018Epel	10	80	75	8,0	7,5	0,0186		10	9,7	10,6
B333	500	10102	18/11/2020	Epel	2018	2018Epel	11	59	69	5,9	6,9	0,0097		11	6,5	8,6
B333	500	10102	18/11/2020	Epel	2018	2018Epel	12	89	90	8,9	9,0	0,0271		12	10,9	11,6
B333	500	10102	18/11/2020	Epel	2018	2018Epel	13	46	59	4,6	5,9	0,0052		13	5	7,1
B333	500	10102	18/11/2020	Epel	2018	2018Epel	14	100	99	10,0	9,9	0,0371		14	12,1	12
B333	500	10102	18/11/2020	Epel	2018	2018Epel	15	107	102	10,7	10,2	0,0434		15	13,1	12,7
B333	500	10102	18/11/2020	Epel	2018	2018Epel	16	94	97	9,4	9,7	0,0324		16	11,3	12,3
B333	500	10102	18/11/2020	Epel	2018	2018Epel	17	112	101	11,2	10,1	0,0468		17	13,7	12,7
B333	500	10102	18/11/2020	Epel	2018	2018Epel	18	90	99	9,0	9,9	0,0305		18	12	12,2
B333	500	10102	18/11/2020	Epel	2018	2018Epel	19	52	76	5,2	7,6	0,0084		19	5,2	8,3
B333	500	10102	18/11/2020	Epel	2018	2018Epel	20	79	88	7,9	8,8	0,0212		20	10,2	11,4
B333	500	10102	18/11/2020	Epel	2018	2018Epel	21	65	68	6,5	6,8	0,0114		21	7,8	7,6
B333	500	10102	18/11/2020	Epel	2018	2018Epel	22	65	69	6,5	6,9	0,0116		22	8,6	9,6
B333	500	10102	18/11/2020	Epel	2018	2018Epel	23	66	57	6,6	5,7	0,0099		23	6,3	6
B333	500	10102	18/11/2020	Epel	2018	2018Epel	24	84	75	8,4	7,5	0,0203		24	9	9,2
B333	500	10102	18/11/2020	Epel	2018	2018Epel	25	60	74	6,0	7,4	0,0107		25	6,7	7,9
B333	500	10102	18/11/2020	Epel	2018	2018Epel	26	76		7,6	7,0	0,0157		26	8,8	
B333	500	10102	18/11/2020	Epel	2018	2018Epel	27	98		9,8	8,3	0,0301		27	11,1	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
B333	500	10102	18/11/2020	Epel	2018	2018Epel	28	76		7,6	7,0	0,0157		28	8,8	
B333	500	10102	18/11/2020	Epel	2018	2018Epel	29	83		8,3	7,4	0,0196		29	9,6	
B333	500	10102	18/11/2020	Epel	2018	2018Epel	30	103		10,3	8,6	0,0342		30	12,5	
B333	500	10102	18/11/2020	Epel	2018	2018Epel	31	100		10,0	8,4	0,0317		31	11,5	
B333	500	10102	18/11/2020	Epel	2018	2018Epel	32	101		10,1	8,5	0,0325		32	12,4	
B333	500	10102	18/11/2020	Epel	2018	2018Epel	33	108		10,8	8,9	0,0386		33	13,4	
B333	500	10102	18/11/2020	Epel	2018	2018Epel	34	114		11,4	9,2	0,0444		34	13,6	
B333	500	10102	18/11/2020	Epel	2018	2018Epel	35	128		12,8	10,0	0,0597		35	16,4	
B333	500	10102	18/11/2020	Epel	2018	2018Epel	36	66		6,6	6,3	0,0109		36	7,7	
B333	500	10102	18/11/2020	Epel	2018	2018Epel	37	84		8,4	7,5	0,0203		37	10	
B333	500	10102	18/11/2020	Epel	2018	2018Epel	38	80		8,0	7,2	0,0179		38	8,6	
B333	500	10102	18/11/2020	Epel	2018	2018Epel	39	80		8,0	7,2	0,0179		39	9,1	
B333	500	10102	18/11/2020	Epel	2018	2018Epel	40	83		8,3	7,4	0,0196		40	10,3	
B333	500	10102	18/11/2020	Epel	2018	2018Epel	41	60		6,0	5,9	0,0085		41	6,1	
B333	500	10102	18/11/2020	Epel	2018	2018Epel	42	87		8,7	7,7	0,0222		42	11,4	
B333	500	10102	18/11/2020	Epel	2018	2018Epel	43	34		3,4	4,0	0,0020		43	3,4	
B333	500	10102	18/11/2020	Epel	2018	2018Epel	44	39		3,9	4,4	0,0028		44	3,7	
B333	500	10102	18/11/2020	Epel	2018	2018Epel	45	72		7,2	6,7	0,0136		45		
B333	500	10102	18/11/2020	Epel	2018	2018Epel	46	106		10,6	8,8	0,0368		46	12,6	
B333	500	10102	18/11/2020	Epel	2018	2018Epel	47	127		12,7	10,0	0,0585		47	15,1	
B333	500	10102	18/11/2020	Epel	2018	2018Epel	48	96		9,6	8,2	0,0285		48	11,6	
B333	500	10102	18/11/2020	Epel	2018	2018Epel	49	96		9,6	8,2	0,0285		49	11,6	
B333	500	10102	18/11/2020	Epel	2018	2018Epel	50	98		9,8	8,3	0,0301		50	12,2	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)
B333	500	10102	18/11/2020	Epel	2018	2018Epel	51	85		8,5	7,5	0,0209
B333	500	10102	18/11/2020	Epel	2018	2018Epel	52	82		8,2	7,3	0,0190

TREE	DBH (cm)	HEIGHT (m)_predicted
51	11	
52	10,8	
53	7,2	
54	8,2	
55	7,2	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)
C102	500	10203	20/11/2020	Aman	2018	2018Aman	1	65		6,5		0,0147
C102	500	10203	20/11/2020	Aman	2018	2018Aman	2	92		9,2		0,0382
C102	500	10203	20/11/2020	Aman	2018	2018Aman	3	78		7,8		0,0243
C102	500	10203	20/11/2020	Aman	2018	2018Aman	4	70		7,0		0,0180
C102	500	10203	20/11/2020	Aman	2018	2018Aman	5	84		8,4		0,0298
C102	500	10203	20/11/2020	Aman	2018	2018Aman	6	79		7,9		0,0251
C102	500	10203	20/11/2020	Aman	2018	2018Aman	7	71		7,1		0,0187
C102	500	10203	20/11/2020	Aman	2018	2018Aman	8	93		9,3		0,0393
C102	500	10203	20/11/2020	Aman	2018	2018Aman	9	72		7,2		0,0195
C102	500	10203	20/11/2020	Aman	2018	2018Aman	10	67		6,7		0,0160
C102	500	10203	20/11/2020	Aman	2018	2018Aman	11	92		9,2		0,0382
C102	500	10203	20/11/2020	Aman	2018	2018Aman	12	52		5,2		0,0080
C102	500	10203	20/11/2020	Aman	2018	2018Aman	13	76		7,6		0,0226
C102	500	10203	20/11/2020	Aman	2018	2018Aman	14	74		7,4		0,0210
C102	500	10203	20/11/2020	Aman	2018	2018Aman	15	60		6,0		0,0118

TREE	DBH (cm)	HEIGHT (m)_predicted
1	7,7	11,6
2	10,2	10,5
3	9,6	10,3
4	8,7	10,6
5	10,2	11,3
6	9,3	9,8
7	9,3	11,7
8	10,8	9,6
9	8,8	10
10	7,9	10,2
11	10,8	9
12	5,4	6,9
13	9,6	9,6
14	9,3	9,4
15	7,1	9,1

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
C102	500	10203	20/11/2020	Aman	2018	2018Aman	16	74		7,4		0,0210		16	9	9,9
C102	500	10203	20/11/2020	Aman	2018	2018Aman	17					0,0000		17		
C102	500	10203	20/11/2020	Aman	2018	2018Aman	18	87		8,7		0,0328		18	10,3	9,4
C102	500	10203	20/11/2020	Aman	2018	2018Aman	19	72		7,2		0,0195		19	9,4	9,6
C102	500	10203	20/11/2020	Aman	2018	2018Aman	20	92		9,2		0,0382		20	11,4	10,3
C102	500	10203	20/11/2020	Aman	2018	2018Aman	21	85		8,5		0,0307		21	10,5	10,6
C102	500	10203	20/11/2020	Aman	2018	2018Aman	22	59		5,9		0,0113		22	7	9,8
C102	500	10203	20/11/2020	Aman	2018	2018Aman	23	98		9,8		0,0454		23	11,6	10,9
C102	500	10203	20/11/2020	Aman	2018	2018Aman	24	80		8,0		0,0260		24	9,6	10
C102	500	10203	20/11/2020	Aman	2018	2018Aman	25	82		8,2		0,0278		25	10,2	10,1
C102	500	10203	20/11/2020	Aman	2018	2018Aman	26	84	80	8,4	8,0	0,0298		26	10,7	9,6
C102	500	10203	20/11/2020	Aman	2018	2018Aman	27	73	74	7,3	7,4	0,0202		27	9,7	10,7
C102	500	10203	20/11/2020	Aman	2018	2018Aman	28	80	80	8,0	8,0	0,0260		28	9,9	10,5
C102	500	10203	20/11/2020	Aman	2018	2018Aman	29	79	69	7,9	6,9	0,0251		29	9,9	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	30	69	66	6,9	6,6	0,0173		30	8,7	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	31	79	65	7,9	6,5	0,0251		31	9,8	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	32	86	72	8,6	7,2	0,0317		32	10,3	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	33	83	67	8,3	6,7	0,0288		33	10,1	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	34	74	71	7,4	7,1	0,0210		34	9,5	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	35	92	68	9,2	6,8	0,0382		35	11,7	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	36	77	66	7,7	6,6	0,0234		36	8,4	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	37	79	69	7,9	6,9	0,0251		37	9,8	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	38	88	79	8,8	7,9	0,0338		38	11,4	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
C102	500	10203	20/11/2020	Aman	2018	2018Aman	39	92	72	9,2	7,2	0,0382		39	11,6	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	40	82	69	8,2	6,9	0,0278		40	10	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	41	90	81	9,0	8,1	0,0360		41	11,5	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	42	84	73	8,4	7,3	0,0298		42	10,8	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	43	58	66	5,8	6,6	0,0108		43	6,4	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	44	82	73	8,2	7,3	0,0278		44	10,1	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	45	91	82	9,1	8,2	0,0371		45	10,2	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	46	83	73	8,3	7,3	0,0288		46	10	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	47	63	66	6,3	6,6	0,0135		47	8,1	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	48	72	69	7,2	6,9	0,0195		48	8,6	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	49	85	72	8,5	7,2	0,0307		49	9,7	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	50	78	68	7,8	6,8	0,0243		50	9,3	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	51	68	65	6,8	6,5	0,0166		51	8,8	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	52	85	77	8,5	7,7	0,0307		52	11,2	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	53	88	72	8,8	7,2	0,0338		53		
C102	500	10203	20/11/2020	Aman	2018	2018Aman	54	84		8,4		0,0298		54	9,7	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	55	68		6,8		0,0166		55	10,6	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	56	82		8,2		0,0278		56	8,5	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	57	80		8,0		0,0260		57	10,7	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	58	87		8,7		0,0328		58	9,3	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	59	75		7,5		0,0218		59	10,7	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	60	80	67	8,0		0,0260		60	9,2	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	61	83		8,3		0,0288		61	10	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
C102	500	10203	20/11/2020	Aman	2018	2018Aman	62	43		4,3		0,0047		62	11,8	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	63	80		8,0		0,0260		63	10,9	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	64	86		8,6		0,0317		64	5,9	
C102	500	10203	20/11/2020	Aman	2018	2018Aman	65	74		7,4		0,0210		65	10,9	
														66	9,4	
														67	3,6	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	1	70	62	7,0	6,2	0,0180		1	8,9	8
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	2	70	58	7,0	5,8	0,0180		2	9,4	7,5
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	3	82	65	8,2	6,5	0,0278		3		
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	4	30	40	3,0	4,0	0,0018		4	10,3	9
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	5	62	50	6,2	5,0	0,0129		5	3,3	4,8
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	6	42	34	4,2	3,4	0,0044		6	8,6	7
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	7	69	60	6,9	6,0	0,0173		7	5,7	6,2
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	8	62	51	6,2	5,1	0,0129		8	9,2	8,4
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	9	62	54	6,2	5,4	0,0129		9	7,6	7,4
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	10	62	52	6,2	5,2	0,0129		10	8,8	7,5
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	11	66	53	6,6	5,3	0,0153		11	7,9	7,7
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	12	72	51	7,2	5,1	0,0195		12	9,8	7,4
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	13	69	52	6,9	5,2	0,0173		13	9,5	8
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	14	66	51	6,6	5,1	0,0153		14	10,5	8,4

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	15	65	55	6,5	5,5	0,0147		15	8,7	6,7
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	16	42	36	4,2	3,6	0,0044		16	8,4	8,1
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	17	81	59	8,1	5,9	0,0269		17		
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	18	71	57	7,1	5,7	0,0187		18	11,3	8,2
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	19	67	56	6,7	5,6	0,0160		19	9,9	8,2
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	20	67	55	6,7	5,5	0,0160		20		
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	21	61	54	6,1	5,4	0,0124		21	10,4	7,8
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	22	56	46	5,6	4,6	0,0098		22	8,7	7,3
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	23	69	55	6,9	5,5	0,0173		23	8,4	7,9
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	24	70	58	7,0	5,8	0,0180		24	7,1	6,1
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	25	72	57	7,2	5,7	0,0195		25		
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	26	60	55	6,0	5,5	0,0118		26	8,4	8,4
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	27	68	51	6,8	5,1	0,0166		27	9,7	8,3
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	28	51	49	5,1	4,9	0,0076		28	9	8,3
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	29	59		5,9		0,0113		29	7,7	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	30	57		5,7		0,0103		30	9,8	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	31	76		7,6		0,0226		31		
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	32	69		6,9		0,0173		32	6,6	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	33	73		7,3		0,0202		33	8,4	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	34	63		6,3		0,0135		34	7,8	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	35	55		5,5		0,0093		35	9,8	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	36	60		6,0		0,0118		36	10	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	37	56		5,6		0,0098		37	10,3	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	38	67		6,7		0,0160		38	9,6	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	39	55		5,5		0,0093		39	7,1	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	40	65		6,5		0,0147		40	7,5	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	41	70		7,0		0,0180		41	8,3	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	42	62		6,2		0,0129		42	8,9	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	43	62		6,2		0,0129		43	7,6	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	44	57		5,7		0,0103		44	8	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	45	81		8,1		0,0269		45	8,4	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	46	69		6,9		0,0173		46	8,4	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	47	72		7,2		0,0195		47	8,5	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	48	67		6,7		0,0160		48	7,5	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	49	55		5,5		0,0093		49	10,8	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	50	61		6,1		0,0124		50	8,9	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	51	58		5,8		0,0108		51	9,3	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	52	69		6,9		0,0173		52	8,3	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	53	63		6,3		0,0135		53	7,2	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	54	64		6,4		0,0141		54	8,1	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	55	67		6,7		0,0160		55	7,6	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	56	60		6,0		0,0118		56	8,9	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	57	57		5,7		0,0103		57	7,7	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	58	67		6,7		0,0160		58	9,2	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	59	64		6,4		0,0141		59	8,5	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	60	69		6,9		0,0173		60	7,9	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	61	64		6,4		0,0141		61	7,2	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	62	63		6,3		0,0135		62	7,4	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	63	70		7,0		0,0180		63	8,4	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	64	57		5,7		0,0103		64	8,9	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	65	62		6,2		0,0129		65	8,9	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	66	83		8,3		0,0288		66	8,4	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	67	69		6,9		0,0173		67	8,5	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	68	61		6,1		0,0124		68	7,9	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	69	53		5,3		0,0084		69	11,1	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	70	66		6,6		0,0153		70		
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	71	65		6,5		0,0147		71	8,7	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	72	74		7,4		0,0210		72	7,8	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	73	62		6,2		0,0129		73	7,3	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	74	74		7,4		0,0210		74	8,8	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	75	60		6,0		0,0118		75	8,4	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	76	65		6,5		0,0147		76	9,4	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	77	45		4,5		0,0054		77	7,8	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	78	69		6,9		0,0173		78	9,3	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	79	66		6,6		0,0153		79	7,4	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	80	63		6,3		0,0135		80	8,4	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	81	62		6,2		0,0129		81	5,8	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	82	65		6,5		0,0147		82	9,3	
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	83	64		6,4		0,0141		83	8,5	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	84	65		6,5		0,0147
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	85	73		7,3		0,0202
C202A	700	10203	21/11/2020	Aman	2019	2019Aman	86	69		6,9		0,0173

TREE	DBH (cm)	HEIGHT (m)_predicted
84	8,4	
85	9	
86	8,3	
87	8,4	
88	7,8	
89	9,2	
90	9,1	
91	7,3	
92	7,4	
93	4,5	

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)
A143	500	10201	14/11/2020	Aman	2017	2017Aman	1	65	57	6,5	5,7	0,0147
A143	500	10201	14/11/2020	Aman	2017	2017Aman	2	66	50	6,6	5,0	0,0153
A143	500	10201	14/11/2020	Aman	2017	2017Aman	3	52	43	5,2	4,3	0,0080
A143	500	10201	14/11/2020	Aman	2017	2017Aman	4				0,0	0,0000
A143	500	10201	14/11/2020	Aman	2017	2017Aman	5	49	46	4,9	4,6	0,0068
A143	500	10201	14/11/2020	Aman	2017	2017Aman	6	61	47	6,1	4,7	0,0124
A143	500	10201	14/11/2020	Aman	2017	2017Aman	7	65	57	6,5	5,7	0,0147
A143	500	10201	14/11/2020	Aman	2017	2017Aman	8				0,0	0,0000
A143	500	10201	14/11/2020	Aman	2017	2017Aman	9	59	46	5,9	4,6	0,0113
A143	500	10201	14/11/2020	Aman	2017	2017Aman	10	47	43	4,7	4,3	0,0060
A143	500	10201	14/11/2020	Aman	2017	2017Aman	11	49	45	4,9	4,5	0,0068
A143	500	10201	14/11/2020	Aman	2017	2017Aman	12	66	50	6,6	5,0	0,0153

TREE	DBH (cm)	HEIGHT (m)_predicted
1	7,2	6
2	6,8	5,5
3	5,3	5,1
4		
5	5,8	4,3
6	7,1	5,3
7	7,8	6,3
8	5,6	4,4
9	6,4	5,2
10	7,5	5,3
11	5,8	4,5
12	7,6	5,3

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
A143	500	10201	14/11/2020	Aman	2017	2017Aman	13	68	56	6,8	5,6	0,0166		13	7,1	6,1
A143	500	10201	14/11/2020	Aman	2017	2017Aman	14	56	44	5,6	4,4	0,0098		14	6,1	4,7
A143	500	10201	14/11/2020	Aman	2017	2017Aman	15	54	45	5,4	4,5	0,0088		15	6,3	4,9
A143	500	10201	14/11/2020	Aman	2017	2017Aman	16				0,0	0,0000		16		
A143	500	10201	14/11/2020	Aman	2017	2017Aman	17	62	46	6,2	4,6	0,0129		17	5,9	5
A143	500	10201	14/11/2020	Aman	2017	2017Aman	18	65	48	6,5	4,8	0,0147		18	7,4	5,3
A143	500	10201	14/11/2020	Aman	2017	2017Aman	19	61	50	6,1	5,0	0,0124		19	6,6	5,6
A143	500	10201	14/11/2020	Aman	2017	2017Aman	20	69	48	6,9	4,8	0,0173		20	7,6	5,3
A143	500	10201	14/11/2020	Aman	2017	2017Aman	21	57	46	5,7	4,6	0,0103		21	6,2	4,8
A143	500	10201	14/11/2020	Aman	2017	2017Aman	22	69	47	6,9	4,7	0,0173		22	7,2	5,2
A143	500	10201	14/11/2020	Aman	2017	2017Aman	23				0,0	0,0000		23	6,3	5,1
A143	500	10201	14/11/2020	Aman	2017	2017Aman	24	56	46	5,6	4,6	0,0098		24		
A143	500	10201	14/11/2020	Aman	2017	2017Aman	25				0,0	0,0000		25		
A143	500	10201	14/11/2020	Aman	2017	2017Aman	26	51	37	5,1	3,7	0,0076		26	5,5	4,2
A143	500	10201	14/11/2020	Aman	2017	2017Aman	27	65	49	6,5	4,9	0,0147		27	6,2	5,3
A143	500	10201	14/11/2020	Aman	2017	2017Aman	28					0,0000		28		
A143	500	10201	14/11/2020	Aman	2017	2017Aman	29	55		5,5		0,0093		29	6	
A143	500	10201	14/11/2020	Aman	2017	2017Aman	30	58		5,8		0,0108		30	6,5	
A143	500	10201	14/11/2020	Aman	2017	2017Aman	31	61		6,1		0,0124		31	6,7	
A143	500	10201	14/11/2020	Aman	2017	2017Aman	32	59		5,9		0,0113		32	6,1	
A143	500	10201	14/11/2020	Aman	2017	2017Aman	33					0,0000		33		
A143	500	10201	14/11/2020	Aman	2017	2017Aman	34					0,0000		34		
A143	500	10201	14/11/2020	Aman	2017	2017Aman	35	56		5,6		0,0098		35		

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
A143	500	10201	14/11/2020	Aman	2017	2017Aman	36	65		6,5		0,0147		36	6,6	
A143	500	10201	14/11/2020	Aman	2017	2017Aman	37	58		5,8		0,0108		37	6,3	
A143	500	10201	14/11/2020	Aman	2017	2017Aman	38	49		4,9		0,0068		38		
A143	500	10201	14/11/2020	Aman	2017	2017Aman	39	62		6,2		0,0129		39	7,5	
A143	500	10201	14/11/2020	Aman	2017	2017Aman	40	63		6,3		0,0135		40	6,8	
A143	500	10201	14/11/2020	Aman	2017	2017Aman	41					0,0000		41		
A143	500	10201	14/11/2020	Aman	2017	2017Aman	42	43		4,3		0,0047		42	4,6	
A143	500	10201	14/11/2020	Aman	2017	2017Aman	43	70		7,0		0,0180		43	7,3	
A143	500	10201	14/11/2020	Aman	2017	2017Aman	44	56		5,6		0,0098		44	6,4	
A143	500	10201	14/11/2020	Aman	2017	2017Aman	45					0,0000		45		
A143	500	10201	14/11/2020	Aman	2017	2017Aman	46	52		5,2		0,0080		46	6,1	
A143	500	10201	14/11/2020	Aman	2017	2017Aman	47	70		7,0		0,0180		47	7,7	
A143	500	10201	14/11/2020	Aman	2017	2017Aman	48					0,0000		48	4,5	
A143	500	10201	14/11/2020	Aman	2017	2017Aman	49					0,0000		49		
A143	500	10201	14/11/2020	Aman	2017	2017Aman	50					0,0000		50		
A143	500	10201	14/11/2020	Aman	2017	2017Aman	51					0,0000		51		
A143	500	10201	14/11/2020	Aman	2017	2017Aman	52					0,0000		52		
A143	500	10201	14/11/2020	Aman	2017	2017Aman	53	65		6,5		0,0147		53	7,4	
A143	500	10201	14/11/2020	Aman	2017	2017Aman	54	53		5,3		0,0084		54	4,9	
A143	500	10201	14/11/2020	Aman	2017	2017Aman	55	62		6,2		0,0129		55	3,5	
A143	500	10201	14/11/2020	Aman	2017	2017Aman	56	60		6,0		0,0118		56	6,1	
A143	500	10201	14/11/2020	Aman	2017	2017Aman	57	31		3,1		0,0019		57	4,3	
A143	500	10201	14/11/2020	Aman	2017	2017Aman	58	55		5,5		0,0093		58		

PLOT	RATIO	CODE	DATE	SPECIE	YEAR	CODE	TREE	DBH (mm)	HEIGHT (dm)	DBH (cm)	HEIGHT (m)_predicted	Volume (m3)		TREE	DBH (cm)	HEIGHT (m)_predicted
A143	500	10201	14/11/2020	Aman	2017	2017Aman	59	54		5,4		0,0088		59		

Error parcelas		
alturas	106,94	122,10
	-0,12	
DAP	108,18	120,04
	-0,10	