VALIDATION AND VERIFICATION REPORT

American Carbon Registry

ACR 690: Anew - Michigan DNR Wolverine Copper Forestry Project

Reporting Period:
21 December 2021 to 30 September 2022

Prepared for:

Anew Carbon Development LLC

26 February 2024

AMERICAN CARBON REGISTRY

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Executive Summary

This report describes the validation and initial verification services provided for the Anew – Michigan DNR Wolverine Copper Forestry Project ("the project"), an Improved Forest Management ('IFM') project located in the state of Michigan, USA. The audit was conducted by SCS Global Services. The overall goal of the validation engagement was to review impartially and objectively the GHG project plan ("PP") against the requirements laid out in the ACR Standard and relevant methodology. The overall goal of the verification engagement was to review impartially objectively the claimed GHG emission reductions/removal enhancements for the reporting period from 21 December 2021 to 30 September 2022 against relevant ACR standards and the approved methodology. Beginning on 4 October 2022, the validation and verification engagements were carried out through a combination of document review, interviews with relevant personnel and on-site inspections. As part of the validation and verification engagements 20 findings were raised: 2 Non-Conformity Reports, 14 New Information Requests and 4 Observations. These findings are described in Appendix A of this report. The project complies with the validation and verification criteria, and SCS holds no restrictions or uncertainties with respect to the compliance of the project with the validation and verification criteria.

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1 Introduction

1.1 About SCS Global Services

SCS Global Services (SCS) is a global leader in third-party certification, auditing, testing services, and standards. Established as an independent third-party certification firm in 1984, our goal is to recognize the highest levels of performance in environmental protection and social responsibility in the private and public sectors, and to stimulate continuous improvement in sustainable development. In 2012, Scientific Certification Systems, Inc. began doing business as SCS Global Services, communicating its global position with offices and representatives in over 20 countries.

SCS' Greenhouse Gas (GHG) Verification Program has been verifying carbon offsets since 2008 and to date has verified nearly 300 million tonnes of CO2e, providing GHG verification services to a wide array of industries including manufacturing, transportation, municipalities, and non-profit organizations. The GHG Verification Program draws upon SCS's established expertise to serve the global carbon market.

1.2 Objectives

1.2.1 Validation Objectives

The overall goal of third-party validation was to review impartially and objectively the GHG project plan ("PP") against the requirements laid out in the ACR Standard and relevant methodology. SCS independently evaluated the project design and planning information, based on supporting documentation and GHG validation best practices.

The objectives of validation were to evaluate

- Conformance to the ACR Standard.
- GHG emissions reduction project planning information and documentation in accordance with the applicable ACR-approved methodology, including the project description, baseline, eligibility criteria, monitoring and reporting procedures, and quality assurance/quality control (QA/QC) procedures.
- Reported GHG baseline, ex ante estimated project emissions and emission reductions/removal enhancements, leakage assessment, and impermanence risk assessment and mitigation (if applicable).

SCS reviewed any relevant additional documentation provided by the project proponent to confirm the project's eligibility for registration on ACR.

1.2.2 Verification Objectives

The overall goal of third-party verification was to review impartially and objectively the claimed GHG emission reductions/removal enhancements against relevant ACR standards and the approved

methodology. SCS independently evaluated the GHG assertion, based on supporting evidence and GHG verification best practice. The objectives of verification were to evaluate

- Reported GHG baseline, project emissions and emission reductions/removal enhancements, leakage assessment, and impermanence risk assessment and mitigation (if applicable).
- Any significant changes to the project procedures or criteria since the last verification.
- Any significant changes in the GHG project's baseline emissions and emission reductions/removal enhancements since the last verification.

SCS reviewed the PP, GHG assertion, and any additional relevant documentation provided by the client to determine

- That the reported emissions reductions and/or removal enhancements are real.
- Degree of confidence in and completeness of the GHG assertion.
- That project implementation was consistent with the GHG project plan.
- Eligibility for registration on ACR.
- Sources and magnitude of potential errors, omissions, and misrepresentations, including the
    - Inherent risk of material misstatement.
    - Risk that the existing controls of the GHG project would not have prevented or detected a material misstatement.

1.3 Scope

1.3.1 Scope of Validation

The validation included examination of all of the following elements of the PP:

- Project boundary and procedures for establishing the project boundary
- Physical infrastructure, activities, technologies, and processes of the project
- GHGs, sources, and sinks within the project boundary
- Temporal boundary
- Description of and justification for the baseline scenario
- Methodologies, algorithms, and calculations that will be used to generate estimates of emissions and emission reductions/removal enhancements
- Process information, source identification/counts, and operational details
- Data management systems
- QA/QC procedures
- Processes for uncertainty assessments
- Project-specific conformance to ACR eligibility criteria

1.3.2 Scope of Verification

Verification included examination of some or all of the following elements of the PP:

- Physical infrastructure, activities, technologies, and processes of the GHG project
- GHG SSRs within the project boundary
- Temporal boundary
- Baseline scenarios
- Methods and calculations used to generate estimates of emissions and emission reductions/removal enhancements
- Original underlying data and documentation as relevant and required to evaluate the GHG assertion
- Process information, source identification/counts, and operational details
- Data management systems
- Roles and responsibilities of project participants or client staff
- QA/QC procedures and results
- Processes for and results from uncertainty assessments
- Project-specific conformance to ACR eligibility criteria

SCS examined the reported data, quantification methodologies, calculation spread-sheets or databases, source data, project data management systems, data quality controls in place, measurement and monitoring systems, and records pertaining to emissions quantification. Calculation and error checks, site inspections, interviews with project participants, an iterative risk assessment, sampling plan, and audit checklist were performed to the extent necessary for SCS to develop an understanding of how data are collected, handled, and stored for a specific project.

Finally, as a full verification, the verification services included a field visit to the project site and

- Such carbon stock measurements as SCS required to provide a reasonable level of assurance that the GHG assertion is without material discrepancy (per ACR's materiality threshold of ±5%).
- Updated assessment of the risk of reversal and an updated buffer contribution.

1.4 Validation and Verification Criteria

The validation and verification criteria were comprised of the following:

- ACR Standard, Version 7.0
- Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non-Federal U.S. Forestlands, Version 1.3 ("the methodology")
- Errata & Clarifications for ACR IFM Version 1.3
- ACR Tool for Risk Analysis and Buffer Determination, Version 1.0

- ACR Validation and Verification Standard v1.1
- Principles of ISO 14064-3:2006: Greenhouse Gas – Specification with guidance for the validation and verification of greenhouse gas assertions

1.5 Level of Assurance

The level of assurance was reasonable.

1.6 Treatment of Materiality

For validation purposes, a material misstatement was declared if any of the following circumstances were detected:

- The physical or geographic boundary of the PP was not reasonably accurate.
- In respect of the project baseline,
    - The procedures for determining baseline emissions were not technically sound.
    - Data representative of the operations and activities had not been used, either from a single year or a multi-year average.
    - The baseline scenario chosen was not one for which verifiable data are available.
- In respect of the quantification methodology,
    - The quantification method for each data type was not clearly defined, and/or the degree of supporting documentation provided was inadequate to support a reasonable level of assurance.
    - Methods were not appropriate for accurately quantifying each data type:
        - Activity data had not been correctly applied from the original documentation.
        - The most accurate activity data readily available had not been used.
        - The quantification methodology did not account for all variations in activity data over the relevant crediting period.
        - Any emission factors used did not meet the requirements of the approved methodology and/or are not appropriate to the activity.
        - Any emission factors used had not been correctly applied from the original documentation to the relevant activity data.
        - The most appropriate factors readily available had not been selected.
        - Where there was a choice among equally defensible emission factors, the principle of conservativeness had not informed the choice of emission factors.
    - Methods were not applied consistently to develop estimates of emission reductions and removal enhancements.
    - The ISO principle of conservativeness was not applied; i.e., the choice of assumptions, calculation methods, parameters, data sources, and emission factors was not more likely

to lead to an underestimation than overestimation of net GHG emission reductions and removal enhancements.

For verification purposes, it was required that discrepancies between the emission reductions/removal enhancements claimed by the project proponent and estimated by SCS be immaterial, i.e. be less than ACR's materiality threshold of ±5%, as calculated according to the equation in the ACR Standard.

1.7 Summary Description of the Project

The project is in Emmet, Cheboygan, Charlevoix, Otsego, Antrim, Keweenaw, and Houghton counties in Michigan, USA and is aimed at the implementation of forest management practices that represent an improvement in carbon storage and conservation values when compared to more commercially-driven, state-approved management regimes.

2 Assessment Process

2.1 Method and Criteria

The validation and verification services were provided through a combination of document review, interviews with relevant personnel and on-site inspections, as discussed in Sections 2.2 through 2.4 of this report. At all times, an assessment was made for conformance to the criteria described in Section 1.2 of this report. As discussed in Section 2.5 of this report, findings were issued to ensure conformance to all requirements.

The audit team created an evidence gathering plan following a proprietary evidence gathering plan template developed by SCS which includes a strategic analysis and risk assessment. In accordance with the evidence gathering plan, the audit team identified the risk of a material misstatement or nonconformity with the criteria and considered the results of the materiality assessment (see Section 1.6 above). Sampling and data testing activities were planned to address areas of inherent, control, and detection risk. The audit team then created a verification plan that took the evidence gathering plan into account.

2.2 Document Review

The GHG project plan (dated 8 February 2024; "PP") and monitoring report (signed 23 February 2024; "MR") were carefully reviewed for conformance to the validation and verification criteria. The following provides a list of additional documentation, provided by project personnel in support of the aforementioned documents, that was reviewed by the audit team.

Documentation Reviewed During the Course of Validation and Verification Activities		
Document	**File Name**	**Ref.**
GHG Plan	WolverineCopper_ACR_GHGPlan_2_8_24.pdf	1

Monitoring Report	WolverineCopper_RP1_MonitoringReport_Signed.pdf	2
CO2 Calcs	WolverineCopper_Start_RP_CO2_08_18_2023.xlsx	3
ERT Workbook	WolverineCopper_RP_ERT_HWP_08_18_2023.xlsx	4
100 year Calc Workbook	WolverineCopper_100Yr_calcs_08_18_2023.xlsx	5
Regeneration Calculations	WolverineCopper_Regeneration_Calcs.xlsx	6
Site Index Calculations	WolverineCopper_SiteIndex_Calcs_09_27_2022.xlsx	7
Site Visit CO2 Calc Workbook	WolverineCopper_Start_SV_CO2_06_16_2023.xlsx	8
Project Boundary Shapefile	WolverineCopper_Boundary_08_15_23.shp	9
Plots Shapefile	WolverineCopper_Plots_03_09_23.shp	10
SMZ Shapefile	WolverineCopper_RMZ_08_15_23.shp	11
Strata Shapefile	WolverineCopper_Strata_08_15_23.shp	12
Inventory Methodology	WolverineCopper_CarbonPlot_Methodology_Anew_7_22_22.pdf	13
Harvest information	WC_PostInventoryRP1PlotsChecks_Results.xlsx WolverineCopper_RP1_HWPbySale.xlsx. Contents of \ClientSubmissions\Harvest\SaleAnnouncements	14
Harvest Shapefiles	WolverineCopper_RP1_Harvest_032223.shp WolverineCopper_PostInventorytoRP1End_Harvests.shp	15
Stumpage Prices	TimberMartNorth_Vol 28 No 1.pdf	16
Various FVS years for the following database files, out files, and key files	WolverineCopper_IndTreeGrowls WolverineCopper_CCA_2021 WolverineCopper_CCA2_2021 WolverineCopper_CCH_2021 WolverineCopper_CCH2_2021 WolverineCopper_CCLC_CCM_2021 WolverineCopper_CCMP_2021 WolverineCopper_CCRP_2021 WolverineCopper_GROW WolverineCopper_SHWH_TENYR_2021 WolverineCopper_START WolverineCopper_STSH_2021 WolverineCopper_STSP_2021 WolverineCopper_FVS_Plots_03_03_2023.xlsx WolverineCopper_FVSpivot_baseinv_CCA2_2021_11_10_2023.xlsx WolverineCopper_FVSpivot_baseharv_CCA2_2021_11_09_2023.xlsx	17
Parcel and Ownership Information	ACR_Guidance_Re_DNR_Parcels.pdf Wolverine Copper Parcel Detail Report.pdf	18

	WolverineCopper_ParcelData.xlsx	
Forestry Certificates	Certificate_Forestry_FSC_2020_713335_7.pdf Certificate_Forestry_SFI_2020_713334_7.pdf	19
Contract Carbon Development and Marketing Agreement	Bluesource_MI_DNR_Wolverine-Copper_Country_Forest_Carbon_Project_CDMA_executed_Redacted.pdf	20
Michigan BMPs	MI_TPO_Table4.pdf	21
Management Plan	NLPMgmtPlanSec4.pdf WUPMgmtPlanSec4.pdf	22
Addendum: Programmatic Development Approach (PDA)	WolverineCopper_PDA_PDD_7_11_23.pdf	23
Primary Literature	Nunery_Keeton 2010.pdf Nunery_Thesis_2009	24

2.3 Interviews

2.3.1 Interviews of Project Personnel

The process used in interviewing project personnel was a process wherein the audit team elicited information from project personnel regarding (1) the work products provided to the audit team in support of the PP and MR; (2) actions undertaken to ensure conformance with various requirements and (3) implementation status of the project activities. The following provides a list of personnel associated with the project proponent who were interviewed.

Interview Log: Individuals Associated with Project Proponent			
Individual	**Affiliation**	**Role**	**Date(s) Interviewed**
Timothy Hipp	Anew Climate Development, LLC	Director, Natural Climate Solutions – Forest Carbon	Throughout audit
Kaitlyn Krejsa	Anew Climate Development, LLC	Forest Carbon Analyst, Natural Climate Solutions	Throughout audit
David Price	State of Michigan, Department of Natural Resources	Forest Planning and Operations Section Manager	24-May, 2023

2.3.2 Interviews of Other Individuals

The process used in interviewing individuals other than project personnel was a process wherein the audit team made inquiries to confirm the validity of the information provided to the audit team. The following personnel not associated with the project proponent. The following provides a list of individuals not associated with the project proponent who were interviewed.

Interview Log: Individuals Not Associated with Project Proponent			
Individual	**Affiliation**	**Role**	**Date(s) Interviewed**
Brittany VanderWall	Family Forest Carbon Program, A program of the Family Forest Impact Foundation LLC	Senior Forestry Manager, Midwest	18 May 2023

2.4 Site Inspections

The objectives of the on-site inspections were as follows:

- Confirm the validity of the statements made in the PP and associated project documentation;
- Confirm the baseline conditions and project conditions.
- Interview project personnel to determine if the PP correctly identifies project activity and assess project personnel competencies;
- Select samples of data from on-the-ground measurements for verification in order to meet a reasonable level of assurance and to meet the materiality requirements of the Project; and
- Perform a risk-based review of the project area to ensure that the Project is in conformance with the eligibility requirements of the validation/verification criteria.

In support of the above objectives, the audit team performed an on-site inspection of the project area on the dates 24 October 2022 through 27 October 2022. The main activities undertaken by the audit team were as follows:

- Performed an in-depth assessment of the conformance of the Project to the assessment criteria
- Interviewed project personnel (see Section 2.3.1 of this report) to gather information regarding the inventory and monitoring procedures and project implementation
- Carried out on-site inspections of the project's measurement and/or monitoring methodologies through the following activities:
    - Toured the project areas, visually observing and taking coordinates at posted boundary signs, old fence lines, and other boundary references.
    - Selected samples of inventory data using simple random selection methods.
    - At each selected sample location, took on the ground measurements
    - Verified the sample by running a paired sample t-test on the independently calculated Mt CO2e/acre on each plot

- Review of management's commitment to the carbon project.
- Assessment of project during the reporting period to confirm that the project scenario consists of maintaining above baseline carbon stocks through carbon sequestration.

Resolution of Findings

Any potential or actual discrepancies identified during the audit process were resolved through the issuance of findings. The types of findings typically issued by SCS during this type of validation and verification engagement are characterized as follows:

- Non-Conformity Report (NCR): An NCR signified a discrepancy with respect to a specific requirement. This type of finding could only be closed upon receipt by SCS of evidence indicating that the identified discrepancy had been corrected. Resolution of all open NCRs was a prerequisite for issuance of a validation and/or verification statement.
- New Information Request (NIR): An NIR signified a need for supplementary information in order to determine whether a material discrepancy existed with respect to a specific requirement. Receipt of an NIR did not necessarily indicate that the project was not in compliance with a specific requirement. However, resolution of all open NIRs was a prerequisite for issuance of a validation and/or verification statement.
- Observation (OBS): An OBS indicates an area where immaterial discrepancies exist between the observations, data testing results or professional judgment of the audit team and the information reported or utilized (or the methods used to acquire such information) within the GHG assertion. A root cause analysis and corrective action plan are not required, but highly recommended. Observations are considered by the audit team to be closed upon issuance, and a response to this type of finding is not necessary.

As part of the audit process, 2 NCRs, 14 NIRs and 4 OBS were issued. All findings issued by the audit team during the audit process have been closed. All findings issued during the audit process, and the impetus for the closure of each such finding, are described in Appendix A of this report.

2.5 Techniques and Processes Used to Test the GHG Information and GHG Assertion

- Review of project documentation including the PP (Ref. 1), MR (Ref. 2), calculation workbooks (Refs. 3-8), Spatial data (Refs. 9-12), inventory methodology (Ref. 13), harvest data (Ref. 14-16), modeling (Ref. 17), ownership documents (Ref. 18), certifications (Ref. 19), supporting reports (Refs. 20-24), and to check for project-specific conformance to ACR standard and methodology, appropriateness of methodologies and tools applied, and accuracy of GHG information and assertion.
- Assessment of any disturbances or forest management activities that took place in the project area during the reporting period.
- Review of project scenario.

- Review of the sources, sinks, and reservoirs of GHG emissions within the project boundary.
- Assessment of eligibility, additionality, GHG emission reduction assertion and underlying monitoring data to determine if either contained material or immaterial misstatements.
- Assessment of the emission reduction calculation inputs and procedures was performed to review the quantitative analyses undertaken by Anew to convert the raw inventory data into emission reduction estimates during the reporting period. This included a re-calculation of project emissions, ERTs, and uncertainty using inventory data as described below in section 3.1 and 3.2 (Refs. 3-5).
- Communicate with project personnel and project proponent via interviews, emails, and meetings to gain a better understanding of the project team's methodologies.
- Examine the data management and quality control processes and its controls for sources of potential errors and omissions.
- Review of project documentation including risk assessment and regulatory compliance.

3 Validation Findings

3.1 Project Boundary and Activities

3.1.1 Project Boundary and Procedures for Establishment

The PP contains a description of the physical boundary of the project, which is located on 124,449.5 acres of forested land comprised of aspen, lowland conifer, lowland hardwood, northern hardwood, and pine stands. The project area comprises forested parcels spread across the lower and upper peninsula of the state of Michigan, USA. The property is owned by the State of Michigan. This is the physical and geographic site where project activities occur. The audit team confirmed that the boundaries were well documented throughout both the document review and site visit activities. During the site visit the audit team independently checked the accuracy of spatial information on ownership, as used in delineation of the project area, by visiting a sample of corners or other ownership monuments and comparing actual locations to mapped locations. Likewise, during document review the audit team inspected project shapefiles (Refs. 9-12; 15) to confirm project boundaries and project strata are accurately represented as compared to areas mapped during the site visit, maps provided in the PP, and available satellite imagery.

3.1.2 Physical Infrastructure, Activities, Technologies and Processes

The audit team reviewed the PP (Ref. 1) and project documentation which indicate potential infrastructure, activities, and technologies used within the project area. The project activity consists of allowing the forest to progress naturally with less intensive commercial harvesting than would otherwise

be expected on similar properties in the region. The audit team concluded that project activities, infrastructure and technologies will be minimal within the project area due to limited harvesting activity.

Description	Included / Excluded	Gas	Justification
Above-ground biomass carbon	Included	CO_2	Major carbon pool subjected to the project activity.
Below-ground biomass carbon	Included	CO_2	Major carbon pool subjected to the project activity.
Standing dead wood	Included	CO_2	Major carbon pool in unmanaged stands subjected to the project activity.
Harvested wood product	Included	CO_2	Major carbon pool subjected to the project activity.
Burning of biomass	Included	CH_4	Non-CO2 gas emitted from biomass burning.

3.1.3 GHGs, Sources, and Sinks within the Project Boundary

The GHG sources, sinks and/or reservoirs that are applicable to the Project were confirmed. The sources, sinks, and reservoirs of GHG emissions within the project boundary are listed in the table below. This applies to both the baseline and project scenarios.

3.1.4 Temporal Boundary

The ACR Standard in Chapter 3 states that "ACR defines the eligible Start Date(s) for AFOLU project types in Appendix A, 'ACR Requirements for AFOLU Projects.'" SCS reviewed the PP, MR, and relevant contractual documents (Ref. 1, 2, 18) for authenticity and concluded that the documents provided indicate the project start date is eligible, as it is the date that the project proponent entered into a contractual relationship to implement the carbon project.

For ACR the minimum project term is 40 years and the eligible crediting period for this type of project is 20 years. SCS confirmed that the PP included a timeline with a first crediting period of 20 years and a minimum project term of 40 years.

3.2 Description of and Justification for the Baseline Scenario

The methodology defines an IFM baseline scenario as "the legally permissible harvest scenario that would maximize NPV of perpetual wood products harvests." The PP indicates that the baseline scenario, "is the maximum allowable harvest as prescribed under the current management plan approved by the state of Michigan, with consideration of all restrictions on harvesting. The baseline is targeted at maximizing net present value at a 4% discount rate, as required for non-federal public lands in the methodology." (Ref. 1)

During the site visit and through interviews with the project team and a third-party contact with intimate knowledge of forestry in Michigan, the audit team verified that aggressive timber harvesting is common practice by state agencies. The audit team confirmed that the project proponent is a public landowner and thus the 4% discount rate is applicable. The audit team also conducted a financial feasibility assessment of the baseline scenario using regional stumpage rates to independently verify NPV. SCS determined that the harvesting rate indicated in the baseline scenario would be feasible.

3.3 Project-Specific Conformance to ACR Eligibility Criteria

The audit team reviewed the demonstration of conformance, as set out in the PP, to each of the relevant eligibility criteria listed in the ACR Standard. The audit team confirmed the full conformance of the project with the relevant eligibility criteria. A more detailed assessment of the audit team's findings is provided below.

Actions Undertaken to Confirm Conformance to Eligibility Criteria		
Criterion	**ACR Requirement**	**Validation Activities**
Start Date, All Projects	Non-AFOLU Projects must be validated within 2 years of the project Start Date. AFOLU Projects must be validated within 3 years of the project Start Date.	Confirmation that this report was issued less than 3 years after 21 December 2021, the start date of the project according to the PP.
Start Date Definition, Non-AFOLU Projects	ACR defines the Start Date for all projects other than AFOLU as the date on which the project began to reduce GHG emissions against its baseline.	Not applicable; this project is an AFOLU project.
Start Date Definition, AR or Wetland Projects	For AR or Wetland restoration/revegetation projects, the Start Date is when the Project Proponent began planting or site preparation.	Not applicable; the project is not an AR or wetland project.

Start Date Definition, IFM Projects	For IFM, the Start Date may be denoted by one of the following: 1. The date that the Project Proponent began to apply the land management regime to increase carbon stocks and/or reduce emissions relative to the baseline. 2. The date that the Project Proponent initiated a forest carbon inventory. 3. The date that the Project Proponent entered into a contractual relationship to implement a carbon project. 4. The date the project was submitted to ACR for listing review. Other dates may be approved by ACR on a case by case basis.	SCS reviewed the project's PP to find the following statement, "The project 'The project start date of December 21, 2021 coincides with date the project was submitted to ACR for listing review." This confirms adherence to option 4, on the left.
Start Date Definition, Avoided Conversion Projects	For Avoided Conversion of non-forest, the Start Date is when the Project Proponent implemented the project action physically and/or legally, such as securing a concession or placing a land conservation agreement on the project land.	Not applicable; the project is not an avoided conversion project.
Start Date Definition, Other Agricultural Land-based Projects	For other Agricultural Land-based projects, the Start Date is the date by which the Project Proponent began the Project Activity on project lands, or the start of the cultivation year during which the Project Activity began.	Not applicable; the project is not an other agriculture land-based project.
Minimum Project Term (AFOLU Projects Only)	Project Proponents of AFOLU projects with a risk of reversal shall commit to a Minimum Project Term of 40 years. The minimum term begins on the Start Date, not the first or last year of crediting. This requirement applies only to AFOLU projects that have had ERTs issued that are associated with GHG removals (sequestration). AFOLU projects that have claimed only avoided emissions are not subject to this requirement.	Review of the PP to confirm that the minimum term is 40 years, as required.
Crediting Period	The Crediting Period for non-AFOLU projects shall be 10 years. All AR projects shall have a Crediting Period of 40 years. All IFM projects shall have a Crediting Period of 20 years. Avoided Conversion projects on both forest and non-forest land with land conservation agreements in place shall have a Crediting Period	Review of the PP to confirm that the crediting period is 20 years, as required given the project type.

	of 40 years, unless otherwise specified in chosen methodologies. Wetland Restoration/Revegetation projects shall have a Crediting Period of 40 years. The Crediting Periods for agriculture projects that avoid emissions by changing to lower GHG practices and those that include a soil sequestration component will be specified in the applicable methodology.	
Real	GHG reductions and/or removals shall result from an emission mitigation activity that has been conducted in accordance with an approved ACR Methodology and is verifiable. ACR will not credit a projected stream of offsets on an ex-ante basis.	Review of the emission mitigation activity, as described in the PP, to confirm that it conforms to the requirements of the methodology and will be verifiable if implemented as described.
Emission or Removal Origin (Direct Emissions)	The Project Proponent shall own, have control over, or document effective control over the GHG sources/sinks from which the emissions reductions or removals originate. If the Project Proponent does not own or control the GHG sources or sinks, it shall document that effective control exists over the GHG sources and/or sinks from which the reductions/ removals originate.	Review of the PP (Ref. 1), and the ownership documentation provided (Ref. 18) to confirm that Project Proponent has control over the GHG sources/sinks from which the emissions reductions or removals originate on the properties.
Emission or Removal Origin (Indirect Emissions)	For projects reducing or removing non-energy indirect emissions, the following requirement applies: The Project Proponent shall document that no other entity may claim GHG emission reductions or removals from the Project Activity (i.e., that no other entity may make an ownership claim to the emission reductions or removals for which credits are sought).	Not applicable; the project is not reducing or removing non-energy indirect emissions.
Offset Title (All Projects)	The Project Proponent shall provide documentation and attestation of undisputed title to all offsets prior to registration. Title to offsets shall be clear, unique, and uncontested.	Review of the PP, and the ownership documentation provided (Ref. 18) to confirm no offsets prior to registration of the Project and that the Project Proponent has ownership of the properties included in the Project.
Land Title (AFOLU Projects Only)	For U.S. projects with GHG emissions reductions resulting from terrestrial sequestration, Project Proponents shall provide documentation of clear, unique, and uncontested land title. For international projects, Project Proponents shall provide documentation and/or attestation of land title; ACR may require a legal review by an expert in local law. Land title may be held by a person or entity other than the Project Proponent, provided the Project Proponent can show clear, unique, and uncontested offsets title.	

	AFOLU projects that result only in the crediting of avoided emissions with no risk of reversal may not require demonstration of land title.	
Additional	Every project shall use either an ACR-approved performance standard and pass a regulatory surplus test, or pass a three-pronged test of additionality in which the project must: 1. Exceed regulatory/legal requirements; 2. Go beyond common practice; and 3. Overcome at least one of three implementation barriers: institutional, financial, or technical.	Confirmation that the project meets all relevant additionality requirements (see Section 3.4 below for more details).
Regulatory Compliance	Projects must maintain material regulatory compliance. To do this, a regulatory body/bodies must deem that a project is not out of compliance at any point during a reporting period. Projects deemed to be out of compliance with regulatory requirements are not eligible to earn ERTs during the period of non-compliance. Regulatory compliance violations related to administrative processes (e.g., missed application or reporting deadlines) or for issues unrelated to integrity of the GHG emissions reductions shall be treated on a case-by-case basis and may not disqualify a project from ERT issuance. Project Proponents are required to provide a regulatory compliance attestation to a verification body at each verification. This attestation must disclose all violations or other instances of non-compliance with laws, regulations, or other legally binding mandates directly related to Project Activities.	After performing extensive regulatory compliance checks for the reporting period (RP1), the audit team found no indication of any violations regarding regulatory compliance. EPA, ECHO and OSHA were checked, and no violations were observed. There are many regulations that govern forest management in the state. We confirmed with a local forester that there have been no violations pertaining to timber harvesting or other environmental policies on the properties over the last year. We also checked the state database for regulatory and compliance issues on the parcel. Given these lands have been owned by the state for decades, the audit team does not consider this a high area of risk. We have achieved a reasonable level of assurance on this regulatory check.
Permanence (All AFOLU Projects)	AFOLU Project Proponents shall assess reversal risk using ACR's Tool for Risk Analysis and Buffer Determination, and shall enter into a legally binding Reversal Risk Mitigation Agreement with ACR/Winrock that details the risk mitigation option selected and the requirements for reporting and compensating reversals.	Confirmed a total risk percentage of 22% using the ACR Tool for Risk Analysis and Buffer Determination as required by the ACR methodology.
Permanence (Terrestrial Sequestration, Avoided Conversion Projects)	Proponents of terrestrial sequestration or avoided conversion projects shall mitigate reversal risk by contributing ERTs to the ACR Buffer Pool or using another ACR-approved insurance or risk mitigation mechanism.	Confirmed a total risk percentage of 22% using the ACR Tool for Risk Analysis and Buffer Determination as required by the ACR methodology.
Permanence (Geologic	Proponents of geologic sequestration projects shall mitigate reversal risk during the project	Not applicable; the project is not a geologic sequestration project.

Sequestration Projects)	term by contributing ERTs to the ACR Reserve Account and post-project term by filing a Risk Mitigation Covenant, which prohibits any intentional reversal unless there is advance compensation to ACR, or by using another ACR-approved insurance or risk mitigation mechanism.	
Permanence (All Projects)	All projects must adhere to ongoing monitoring, reversal reporting, and compensation requirements as detailed in relevant methodologies and legally binding agreements (e.g., the ACR Reversal Risk Mitigation Agreement).	Confirmed that section D of the PP includes a detailed Monitoring Plan relevant to the methodology.
Net of Leakage	ACR requires Project Proponents to address, account for, and mitigate certain types of leakage, according to the relevant sector requirements and methodology conditions. Project Proponents must deduct leakage that reduces the GHG emissions reduction and/or removal benefit of a project in excess of any applicable threshold specified in the methodology.	Confirmed that a 40% leakage deduction was applied which is consistent with market-leakage per the methodology. No activity shifting leakage was also confirmed through the review of the proponent's participation in the Forest Stewardship Council (FSC) and the Sustainable Forestry Initiative (SFI) (Ref. 19) which demonstrate that all the project proponent's lands are enrolled in this certification program and therefore must meet the sustainability requirements of that certification body. This certification gives reasonable assurance that no market-shifting leakage is occurring due to the project activity.
Independently Validated	ACR requires third-party validation of the PP by an accredited, ACR-approved VVB once during each Crediting Period and prior to issuance of ERTs.	The PP has been independently validated by SCS, an accredited, ACR-approved validation/verification body.
Independently Verified	Verification must be conducted by an accredited, ACR-approved VVB prior to any issuance of ERTs and at minimum specified intervals.	The PP has been independently verified by SCS, an accredited, ACR-approved validation/verification body.
Environmental And Community Assessments	ACR requires that all projects develop and disclose an impact assessment to ensure compliance with environmental and community safeguards best practices. Environmental and community impacts should be net positive, and projects must "do no harm" in terms of violating local, national, or international laws or regulations. Project Proponents must identify in the PP community and environmental impacts of their project(s). Projects shall also disclose and describe positive contributions as aligned with applicable sustainable development goals.	Confirmed by reviewing the PP and MR (Refs. 1-2) which indicate that the project has no anticipated negative community or environmental impacts.

	Projects must describe the safeguard measures in place to avoid, mitigate, or compensate for potential negative impacts, and how such measures will be monitored, managed, and enforced. Project Proponents shall disclose in their Annual Attestations any negative environmental or community impacts or claims thereof and the appropriate mitigation measure.	

3.4 Demonstration of Additionality

The audit team reviewed the demonstration of additionality, as set out in the PP, and confirmed that the additionality requirements set out in the ACR Standard have been met. A more detailed assessment of the audit team's findings is provided below.

3.4.1 Regulatory Surplus Test

A regulatory review of the Project was conducted by the audit team. There are no laws, statutes, regulations, court orders, environmental mitigation agreements, permitting conditions, or other legally binding mandates requiring the project activities.

3.4.2 Performance Standard Test

Not applicable.

3.4.3 Common Practice Test

The Project demonstrated that the predominant forest industry technologies and practices that exist within the project's geographic region are similar in comparison to forest type, ecological condition, and species or forest product type.

Through interviews with a local forester and a detailed review of published data for the region, the audit team verified the timber harvesting practices involving the silvicultural prescriptions claimed in the baseline scenario are common practice in the region. Additionally, the audit team verified the feasibility of the local mill capacity to accept the different wood products created in the baseline scenario and found them to be feasible.

3.4.4 Implementation Barriers Test

The "financial barrier" option was chosen by the project proponent as an implementation barrier. SCS Global Services received guidance from ACR personnel, in an email dated 6 June 2019, stating the following:

The intent of the financial implementation barrier test encompasses the interpretation and wording in Table 2, in which "carbon funding is reasonably expected to incentivize the implementation of the project scenario", yielding increased carbon stocks compared to the baseline. A quantitative assessment demonstrating forgone profit as a result of employing the project scenario suffices for passing this test.

Given this guidance, a financial barrier was demonstrated through a quantitative assessment demonstrating foregone profit as a result of employing the project scenario (i.e., demonstrating that the net present value of the baseline scenario was higher than the project net present value of the project scenario). The audit team's findings regarding this assessment are provided below.

3.5 Processes for Emission Reductions/Removal Enhancements Quantification

3.5.1 Methods, Algorithms, and Calculations To Be Used to Generate Estimates of Emissions and Emission Reductions/Removal Enhancements

The audit team validated the methodologies applied to quantify GHG emissions and emission reductions in the baseline and project scenarios. The objective was to determine whether the methods are clearly defined with supporting documentation, appropriate for accurately quantifying each data parameter, applied consistently, and result in a conservative estimate of GHG emissions reductions and removal enhancements.

Section 4.2 provides further detail on the methods, algorithms, and calculations used to generate and validate emissions reductions estimates.

3.5.2 Process Information, Source Identification/Counts, and Operational Details

The forest inventory serves as the primary source of data and information used to quantify emissions reductions. The PP and inventory methodology describe the process including sample size, determination of plot numbers, plot layout, data collected, and measurement techniques. Through site visit, data, and document review, the audit team verified the forest inventory methodologies and application.

The inventory data was then run within the Forest Vegetation Simulator (FVS) with baseline prescriptions to project the baseline condition and a grow-only scenario to estimate the project scenario. The audit team confirmed that the baseline prescriptions were feasible and representative of common practice conditions in the region (see section 3.4.2).

3.5.3 Data Management Systems

SCS verified through review of the PP and the datasets submitted that the data management systems are in place as described.

3.5.4 QA/QC Procedures

Section D of the PP identifies field and desk QA/QC procedures. The field QA/QC procedures include senior forester review of field collected data and remeasurement of any plots that cannot be reconciled. Further the PP states that "At least 10% of the plots are checked by a different forester than cruised the plot, specifically by someone senior to the field crew. This involves full plot measurement to identify any problems with determining in/out trees, species calls, defect measurements, DBH measurements, and height measurements… The purpose of the check cruise is to identify any consistent errors by either a specific cruiser, or the whole crew, and to verify that all plots are being measured with a high level of diligence." These field QA/QC procedures were confirmed on-site and during interviews.

The PP identifies four stages of desk QA/QC procedures including an implementation forester review, a technical forester review, a technical review, and a senior management review. These include independent checks on the inventory data, model runs, carbon calculations, and document text and formatting.

The QA/QC procedures and the quantification approach employed by the project team conform to the parameters and quantification methods required by the Methodology. SCS determined that the Project Proponent sufficiently documented and quantified each parameter. Section D of the PP also provides in detail a monitoring and data management plan for each parameter throughout the reporting period.

3.5.5 Processes for Uncertainty Assessments

The PP describes how baseline and project uncertainty were calculated. The PP states that uncertainty in the combined carbon stocks in the baseline is quantified using equation 10 of the methodology. The percentage uncertainty in the combined carbon stocks in the project during the reporting period is calculated using equation 18 of the methodology. The total project uncertainty (percentage) during the reporting period is quantified using equation 19 of the methodology. SCS confirmed that the approaches for assessing uncertainty that are identified in the PP are in conformance with the quantification methods required by the Methodology. Further detail on uncertainty quantification is in sections 4.1.

4 Verification Findings

4.1 Results of Quantitative Uncertainty Assessment

SCS devoted a portion of the verification assessment to the review of the manner and propriety by which the project proponent quantified uncertainty associated with the individual GHGs in the project, in addition to the uncertainty of the calculation of GHG emission reductions and removals. The audit team also calculated the total materiality of the GHG reduction and removal assertion.

4.1.1 Project Uncertainty

The reported total Project Uncertainty (UNC_t) value of 3.42% was independently re-quantified by SCS using equation 19 in the methodology.

	SCS Values	Client Values	Difference
Reporting Period	**UNCt**	**UNCt**	
1	3.42%	3.42%	0%

Materiality

$$\%\ Error = \frac{(Project\ Emission\ Reduction\ Assertion - Verifier\ Emission\ Reduction\ Recalculation)}{Verifier\ Emission\ Reduction\ Recalculation} * 100$$

$$\%\ Error = \frac{(203{,}297 - 203{,}298)}{203{,}298} * 100 = \frac{-1}{203{,}298} * 100 = -0.0006\%$$

4.2 Analysis of the Quantification Methodologies and Applicable Data Sets and Sources

The audit team re-quantified baseline and project emissions, emissions reductions, and baseline and project uncertainty from the raw inventory data provided by the client. This process entailed verifying that the methods detailed in the PP and MR were applied as indicated. The team confirmed the emissions reduction by conducting the following analysis:

- Recalculate the live aboveground, live belowground, and standing dead carbon pools using Jenkins et al. (2003) equations and decay class information using the inventory data provided by the client (Ref. 3)
- Recalculate tree and plot-level live aboveground and standing dead tree defect (Ref. 3)
- Recalculate site index for a random selection of plots using available soil survey data (Refs. 7)
- Use the Forest Vegetation Simulator (FVS) to degrow the raw inventory to the project start date (Ref. 17)
- Randomly select a sample of plot(s) and prescription(s) from the baseline scenario. Run the selected sample in FVS and follow methodologies specified in the PP to calculate carbon stocks. Compare to the client's calculations for the selected plot to derive a correction factor to apply the population baseline for the reporting period and ex-ante (Refs. 5, 17)
- Randomly select a sample of plot(s) and the grow prescription from the project scenario. Run the selected sample in FVS and follow methodologies specified in the PP to calculate carbon stocks. Compare to the client's calculations for the selected plot to derive a correction factor to apply the population project for the reporting period and ex-ante (Refs. 5, 17)

- Calculate the change in the baseline carbon stock stored in live trees and standing dead trees using equations 1 and 2 of the methodology. Calculate the 20-year average value of carbon remaining stored in wood products 100 years after harvest using equation 3 (Refs. 3, 5)
- With the outputs from equations 1, 2 and 3, calculate the long-term average baseline stocking level for the crediting period using equation 5 of the methodology. Use equation 6 to calculate the annual change in the baseline carbon stock (Refs. 3, 5)
- Calculate the baseline uncertainty in the combined carbon stocks in the baseline using equation 10 (Refs. 3, 5)
- Calculate the change in project carbon stock stored in live trees using equations 11 and 12 (Refs. 3, 5)
- Calculate the change in the project carbon stock and GHG emissions during the reporting period using equation 14 (Refs. 3, 5)
- Calculate the percentage uncertainty in the combined carbon stocks in the project during the reporting period using equation 18 (Refs. 3, 5)
- Calculate the total project uncertainty (percentage) during the reporting period using equation 19 (Refs. 3, 5)
- Calculate the net greenhouse gas emission reductions (in metric tons CO2e) during the reporting period and during each annual vintage using equation 20 in the methodology (Refs. 3, 5)

4.3 Basis of Data and Information Supporting the GHG Assertion

The following table indicates whether the data and information supporting the GHG assertion were based on assumptions and industry defaults, future projections, and/or actual historical records.

Assumptions and Industry Defaults	☒
Future Projections	☒
Actual Historical Records	☒

4.4 Leakage Assessment

The audit team confirmed that all of the project proponent's land is enrolled in the Forest Stewardship Council (FSC) and the Sustainable Forestry Initiative (SFI) (Ref. 19). These documents resulted in a reasonable level of assurance that the IFM requirements for the demonstration of no activity shifting leakage from project activity are met.

The audit team confirmed that the market leakage value of 0.4 is appropriate when considering the decrease in wood production relative to the baseline.

4.5 Risk Assessment

The reported value of the total risk score, as determined based on the risk analysis documented in the PP and MR, was 22%. The audit team performed a complete review of the risk assessment against the requirements of the ACR Tool for Risk Analysis and Buffer Determination. The audit team concludes that the assignment of risk scores is appropriate and in conformance to the ACR Tool for Risk Analysis and Buffer Determination. A more detailed review of the audit team's conclusions may be found below.

Actions Undertaken to Evaluate Whether the Risk Assessment Has Been Conducted Correctly		
Risk Category	**Value Selected**	**Verification Activities**
A	3%	Confirmation, through site inspections, that project is located on US Public land
B	3%	Confirmation, through site inspections, that project is located on US Public land
C	2%	Confirmation, through site inspections, that the project is not located outside the United States
D	0%	There are no conservation easements on the land
E	8%	The project is located in an area where fire greater than 1000 acres has occurred within 30 mile radius of project area in prior 12 months
F	4%	Confirmation, through research, interviews, and site inspection that the risk of pest and disease is low
G	0%	Confirmation, through site inspections, that project is not a wetland project or a forest project where more than 60% of the project area is not a forested wetland
H	2%	Confirmation that default value has been applied in the risk assessment calculation

5 Conclusion

The audit team asserts, with no qualifications or limitations, that

- The PP conforms, in full, to the validation criteria.
- The quantification of GHG emission reductions and/or removal enhancements, as reported in the MR, conforms to the verification criteria and is without material discrepancy.

Based upon the information made available to SCS and the analyses completed during the verification, SCS was able to reach a positive opinion, with a reasonable level of assurance, that the emission reductions represented by the Project Proponent during the monitoring period of 21 December 2021 to 30 September 2022 are free from material misstatement and in conformance with the assessment criteria.

The following provides a summary of the Net Removals and Reductions separately for the current Reporting Period:

Annual Emission Reductions and Removals in Metric Tons (tCO_2e) during Reporting Period 1				
Vintage	**Start Date**	**End Date**	**Total Emission Removals (tCO_2e)**	**Total Emission Reductions (tCO_2e)**
2021	21 December 2021	31 December 2021	6,396	3,699
2022	1 January 2022	30 September 2022	158,729	91,814
Total for Reporting Period			165,125	95,513

Note: final numbers are rounded for simplicity.

The following provides a summary of the ERT issuance for the current Reporting Period with the Leakage and the Buffer deduction included (Buffer credits shown separately):

Note: final numbers are rounded for simplicity.

Annual Emission Reduction in Metric Tons (tCO_2e)						
Reporting Period	**Vintage**	**Start Date**	**End Date**	**Total Emission Removals and Reductions (tCO_2e)**	**Buffer Credits (tCO_2e)**	**Net Emission Removals and Reductions (tCO_2e)**
1	2021	21 December 2021	31 December 2021	10,095	2,221	7,874
1	2022	1 January 2022	30 September 2022	250,543	55,120	195,423
Total for Reporting Period				260,638	57,341	203,297

Lead Auditor Approval	 Raleigh Ricart, 26 February 2024
Internal Reviewer Approval	 Michael Hoe, 26 February 2024

Appendix A: List of Findings

Please see Section 2.5 above for a description of the findings issuance process and the categories of findings issued. It should be noted that all language under "Project Personnel Response" is a verbatim transcription of responses provided to the findings by project personnel.

NCR 1 Dated 24 May 2023
Standard Reference: ACR Monitoring Report Template V4
ACR Tool for Risk Analysis and Buffer Determination V1.0
Document Reference: WolverineCopper_ACR_GHGPlan_03_23_23.pdf
Finding: The ACR Tool for Risk Analysis and Buffer Determination states under category E Fire:

"- 8% if project is located in an area where fire
greater than 1,000 acres has occurred within 30
mile radius of project area in prior 12 months
- 4% if project is located in high fire risk region
- 2% if project is located in low fire risk region
(verifiable evidence must be provided)
- 1% for agriculture and grassland projects only"

The Blue Lakes Fire with a 30 mile radius of the project area in May of 2022. The fire was of a size greater than 1,000 acres. This warrants an 8% value for category E, however the client has chosen the value for low fire risk region (2%)

The audit team requests more information about the justification for the client's calculated risk score for fire.
Project Personnel Response: Given the recent fire, we have updated the buffer to 22%
Auditor Response: Confirmed that the risk score and buffer contributions have been updated in the MR, GHG Plan, and ERT_HWP workbook. Finding closed.
Bearing on Material Misstatement or Conformance (M/C/NA): M/C

NIR 2 Dated 24 May 2023
Standard Reference: ACR IFM Methodology V1.3
ACR Validation and Verification Standard Section 9.A
Document Reference: WolverineCopper_ACR_GHGPlan_03_23_23.pdf
WolverineCopper_Boundary_12_12_22.shp
WolverineCopper_RMZ_02_10_23.shp
Finding: The Methodology states, "Forest land is defined as land at least 10 percent stocked by trees of any size, or land formerly having such tree cover, and not currently developed for non-forest uses. Land proposed for inclusion in this project are shall meet the stocking requirement, in aggregate, over the entire area." The Validation and Verification standard Section 9.A states the verification of source-level data and records shall include to, "determine whether the data used are appropriate and sufficient to allow for the accurate calculation or estimation of GHG emission reductions and/or removals".

It was noted while reviewing the project area that there is a lack of consistency with regard to the exclusion and inclusion of certain acres. Inconsistencies noted were fairly well distributed throughout the project area. These include:
1.) The inclusion of a paved, public roadway (Liminga Rd) within the project area.
2.) The exclusion of certain small wetland/meadow openings in the forest matrix, while similar, adjacent wetlands/meadows were included in the project area. An example of this may be found in the project areas SW of Schlatter Lake.
3.) The inclusion of certain small clearings developed for natural resource/mineral extraction, while similar adjacent clearings were excluded from the project area. An example of this may be found in the project area NW/N/NE of the town of Elmira.
4.) The inclusion of roadways leading to the abovementioned natural resource extraction sites, as they may be considered having been developed for non-forest uses. The landowner confirmed during an interview that some of these sites are active, while others are in the process of abandonment and remediation. The landowner also confirmed that these sites have developed roads leading to them.

It was also noted while reviewing client spatial data that there may have been conflict with GIS processing when applying RMZ buffer data to rivers or creeks that have been excluded from the project area. An example of this may be seen in Union Creek's initiation into the project area feeding Schlatter Lake, through the Union Creek outlet from Schlatter Lake when viewing the project RMZ over the project boundary shapefiles. Overall, most prominent bodies of water appear to be conservatively excluded from the project area.

The audit team is requesting more information as to the delineation process and how these sites were determined to be included or excluded in the project area.

Project Personnel Response: We used the state-provided, public stands layer to classify stands into two categories: forest and non-forest. In discussion with the proponent, the covertypes assigned to non-forest are: Bare/Sparsely vegetated, Bog, Cropland, Herbaceous, Marsh, Treed bog, Urban, and Water. We then used Lidar data to create a canopy height model (CHM) to remove additional areas with canopy height less than 4 ft. We created and utilized a custom Python script to convert the CHM to a shapefile, smooth the geometries, and apply a minimum mapping unit (MMU) of 1 acre, so any polygon with canopy height less than 4ft and larger than 1 acre was classified as non-forest. We also applied a 20 ft buffer to roads, provided by the DNR, and water bodies, and classified these areas as non-forest. Finally, we conducted a manual review of the forest layer to correct misclassified areas and identify areas that require a finer level of editing. Any manual edits were done with consistency (ie, additional roads or ROWs discovered were removed in their entirety from the project area).

With regard to the particular items listed:
1. This seems like it must have been inadvertently 'tossed' because the buffered portion of the road that crosses the project area is <1 acre, but the road itself was included in the road data used to build the buffer. Seems like this was missed in the manual checks. I re-buffered the road layer and erased areas across the project area without regard to the MMU, resulting in ~30 acre decrease project-wide.
2. Included/excluded areas were based on the process explained above. Areas not meeting the MMU of 1 acre are retained the project area. Areas that appear to be similar, but are included/excluded may have different covertypes as defined by DNR, may have not met the Lidar standard, or may appear differently on the ground as opposed to from aerial imagery.
3. It appears the areas retained in the project area are less than 1 acre, and so were not removed from the project area. For conservatism, I have gone through and removed any remaining gas wells I could identify.
4. Roads are excluded from the project area based on the above process. In general, roads removed from the project area are public, permanent, and open-canopied. Many of the roads in this particular area appear to be closed canopy and temporary. I confirmed this with David Price of the DNR who confirmed many, if not most, of these roads and wells are in the process of being shut-down.

The RMZ was built using the National Hydrology Dataset (NHD) in order to maintain consistency across the project area. As noted, waterbodies and large watercourses are removed from the project area, often in conservative fashion (ie, more than just the area of water is removed). Misalignment of the NHD to on-the-ground conditions is common, but overall we believe this is a consistent and conservative approach to ensure BMPs are met in the baseline scenario. Through this process, in many cases, areas where the RMZ would occur on the ground are already removed from the project area.
Auditor Response: Thank you for this reply. The approach to update the boundary data shows a reasonable amount of conservatism. The adjustment to road buffers for exclusion from the project area also shows a reasonable amount of conservatism. The audit team has reviewed the updated Boundary and RMZ shapefiles and is seeking more clarification prior to performing quantification impacted by project acreage. Comparison of the excluded areas with the state-provided Oil & Gas Test Well Bottom Hole Locations (https://gis-michigan.opendata.arcgis.com/datasets/egle::oil-gas-test-well-bottom-hole-locations/about) reveals there are many well locations within the project area. While many of these are clearly in the forest cover type, there are still several mapped well locations in clearings throughout the southern extent of the project area falling below the MMU. The audit team requests additional information as to the inclusion/exclusion of the well site locations in the project area. Finding remains open.

Project Personnel Response 2: Several of these additional well-sites that can be seen from the aerial imagery were not typed as 'gas wells' in the state's forest covertyping, which is why they were not identified in the previous edit. In consultation with DNR, we have gone through and identified an additional nine well pads to remove from the project area based on the database shared by the verifier and DNR's knowledge of the status of these and other wells/pads. It should be noted that the bottom hole locations in the identifed database do not necessarily mean the well pad is adjacent or coincidental. DNR has consulted that the vast majority of the well pads associated with the bottom holes identified in the cited shapefile are located on private lands outside the project area.
Auditor Response 2: This finding is closed.
Bearing on Material Misstatement or Conformance (M/C/NA): M/C

OBS 3 Dated 24 May 2023
Standard Reference: ACR Validation and Verification Standard Section 9.B
Document Reference: WolverineCopper_100Yr_calcs_03_03_2023.xlsx
Finding: Section 9.B of the ACR Validation and Verification Standard states "The VVB should assess the effectiveness of methods for data collection and processing, identify likely areas for data corruption or potential errors, and characterize GHG data collection and management system integration weaknesses."

The audit team noted the formula in several cells in Column A within sheets Baseline_Inventory_CO2e and Project_Inventory_CO2e appear to have failed to properly concatenate the StandID and RX, outputing a 2 digit numeral reflective of the RX value in Column C. The audit team traced dependent cells to determine if this impacts subsequent calculations and determined it to be inconsequential, thus an OBS has been issued.
Project Personnel Response: By all accounts the formula in column A on both tabs is working correctly, however the concatenated value is sometimes longer than the cell width causing only the last 2-3 characters of the value to be displayed. Expanding the column width for column A solves this issue.
Auditor Response: Thank you. This finding is closed.
Bearing on Material Misstatement or Conformance (M/C/NA): NA

NIR 4 Dated 24 May 2023
Standard Reference: ACR IFM Methodology V1.3
Document Reference: WolverineCopper_ACR_GHGPlan_03_23_23.pdf
Finding: The IFM states that "Consideration shall be given to a reasonable range of feasible baseline assumptions and the selected assumptions should be plausible for the duration of the baseline application." Additionally, the Methodology section C1. states that "The baseline management scenario shall be based on silvicultural prescriptions recommended by published state or federal agencies to perpetuate existing onsite timber producing species while fully utilizing available growing space."

The audit team noted that FVS model inputs for CCA and CCA2 only contain an age constraint for an entry requirement. Please provide documentation supporting the lack of additional harvest constraints such as diameter, basal area, or tree density when making harvest determinations.
Project Personnel Response: The triggers for entry for the CCA and CCA2 prescriptions were determined during an interview with foresters from the MI DNR, who confirmed that rotation age is the only factor considered when entering these stands. This appears to be common practice throughout the lake states for aspen stands which is primarily utilized for pulpwood. These silvicultural practices are similar to recommendations from the WI DNR, MN DNR, and USFS as seen in the FR805_43.pdf, MN_DNR_covertype_aspen.pdf, and ncsm_aspen.pdf now found in the supportingDocs/Silviculture folder.
Auditor Response: Thank you for the additional information. After reviewing the provided documentation, the audit team closed this finding.
Bearing on Material Misstatement or Conformance (M/C/NA): M/C

NIR 5 Dated 24 May 2023
Standard Reference: ACR IFM Methodology V1.3
Document Reference: WolverineCopper_Regeneration_Calcs.xlsx
Contents of folder [FVS_Output]
Finding: The Methodology section A4. states that "Published or written evidence that the baseline scenario (e.g., conversion of existing onsite timber) is common practice in the region (this can be a state or local forester, a consulting forester, an owner of a mill, etc.) must also be provided." Additionally, the Methodology section C1. states that "The baseline management scenario shall be based on silvicultural prescriptions recommended by published state or federal agencies to perpetuate existing onsite timber producing species while fully utilizing available growing space."

During review of the CCA and CCA2 FVS-modeled baseline management scenarios the audit team found it peculiar that Balsam Fir was chosen as the nonSproutRegen species input into the FVS Regeneration Establishment Model within FVSgroups A and AD. This may be considered as a conversion of existing onsite timber. Please provide documentation supporting this baseline scenario.

Where natural sprouting and regen are included inputs for modeling hardwood-dominant strata, it appears that natural regeneration is primarily composed of coniferous species, while deciduous species are being established through regeneration from stump & root sprouts. The audit team requests more information as to the modeled regeneration in prescriptions. Generally speaking, while it's understandable for hardwood regeneration to be established partially via stump & root sprouts, one would not expect that post-harvest natural regeneration would be confined to the establishment of coniferous species in a hardwood dominant stand.
Project Personnel Response: Because the FVS-LS variant does not have a full establishment model, we rely on stump sprouting to regenerate species that are already found on the plot. Because the partial establishment model only regenerates species that are capable of stump sprouting we use calculations found in the Nunery and Keeton, 2010 article (now found in the supportingDocs folder) to determine regeneration rates for species that do not regenerate by stump sprouts. Further demonstration of these calculations have been added to the WolverineCopper_Regeneration_Calcs.xlsx file. But to summarize we determine the background trees per acre present within the project for non-sprout species that are between 1-5 inches DBH and are currently present within each FVS group. Using this background TPA and calculations from the Nunery and Keeton, 2010 article we calculate expected regenration based on treatment type (i.e. Clearcut, Shelterwood, etc...). Because balsam fir saplings are found on the plots inventoried in the A and AD FVS groups, it is assumed that balsam fir saplings will regenerate on the plots in the A and AD FVS groups following harvest. Occasionally for stands such as those found in the A strata, species such as balsam fir may exceed regeneration rates of aspen, this would not be outside the expected possibility of regeneration seen in real life situations where pockets of balsam fir may be found within an overall aspen stand.

Auditor Response: From the approach taken and the name of the Nunery_Keeton tab in the regeneration workbook, it appears as though sapling regeneration was based on the approach of Nunery and Keeton (2010). However, this publication notes that the partial establishment model (i.e., stump sprouting only) does not provide adequate regeneration for either hardwood or softwood species and applies the sapling regeneration approach to both.

Nunery and Keeton states:

"Because NE-FVS includes only a vegetative regeneration sub-model (i.e., limited stump sprouting only), user-defined parameters (including species, spatial distribution, total number per acre, and seedling size) must be defined in order to simulate regeneration."

Table 4 in Nunery and Keeton shows their "regeneration inputs used in model simulations", which include both hardwood and softwood species (sprouting and non-sprouting).

Please clarify why stump sprouting species were omitted from natural regeneration contrasting the approach being used.
Project Personnel Response 2: Our preferred method for regeneration utilizes the existing peer-reviewed partial establishment model built into FVS. Since this only includes stump sprouts for sprouting species, additional regeneration is needed for non-sprouting species, so we supplement FVS sprouting with non-sprout species utilizing Nunery and Keeton (2010). The only deviation from the exact methods used in Nunery and Keeton (2010) is that we do not apply these calculations to species that FVS already provides regeneration establishment for in the partial establishment model (sprouting species). One reason this method is preferred is that using the FVS partial establishment model allows sprouting to be modeled at the plot level based on the species mix on the plot prior to harvest.

If Nunery and Keeton (2010) approach is applied without deviation, FVS stump sprouting is turned off, as indicated in Nunery 2009 master's thesis. This leads to a generic regeneration establishment for all plots, where plot-level species mix is not considered. This approach leads to plots within each strata converging to a homogenous species mix, since regeneration for all plots will be the same following harvest. This also causes plots to transition between softwood/hardwood dominance at a higher rate.

Using our methodology, if stand transitions between softwood/hardwood dominance occur at a high rate, we make parameter adjustments to the regeneration inputs. Examples of parameter adjustments include: (1) limiting the diameter range of nonsprouting saplings used to calculate regeneration rates (which decreases nonsprouting TPA) or (2) adjusting the regeneration survival rates to increase or decrease the number of nonsprouting saplings.

ACR IFM proctocol states "The baseline management scenario shall... perpetuate existing onsite timber-producing species...", Through our approach all significant onsite timber producing species are maintained within each plot from the start date through the 100 year projection. The workbook "StartEnd_SpeciesComposition.xlsx" has been provided showing the species composition for each plot at the start date and in year 2121 for the optimized selected harvest regime. This output file demonstrates that onsite timber-producing speces are perpetuated.
Auditor Response 2: Thank you for the additional information. This finding is closed.
Bearing on Material Misstatement or Conformance (M/C/NA): M/C

NIR 6 Dated 24 May 2023
Standard Reference: ACR Validation and Verification Standard, Section 9.B
Document Reference: WolverineCopper_ACR_GHGPlan_03_23_23.pdf
WolverineCopper_Regeneration_Calcs.xlsx
Finding: Section 9.B of the ACR Validation and Verification Standard states "The VVB should assess the effectiveness of methods for data collection and processing, identify likely areas for data corruption or potential errors, and characterize GHG data collection and management system integration weaknesses."

The GHG Plan stats that, "Strata were further refined for the application of prescriptions in FVS using 'FVSgroups'." The listed FVSgroups include A, AD, ANO, H, HD, HNO, L, LD, LNO, M, MD, MNO, MPD, RP, RPD, and RPNO.

The regeneration calc workbook sheet nonSproutRegen contains regen values for A, ANO, H, L, LD, LNO, M, MNO, and RP.

Please provide additional information as to the exclusion of AD, HD, MD, MPD, RPD, and RPNO in the regeneration calcs workbook.
Project Personnel Response: Because these FVS groups do not have existing non-sprout regeneration present within any plots for that FVS group, there is no way to calculate regeneration for non-sprout species. Realistically, since there are no non-sprout species found within these FVS groups, these plots would not be likely to have significant regeneration from these non-sprout species. Plots found in the FVS groups, AD, HD, MD, MPD, RPD, and RPNO, will still see regeneration establish following treatment in the baseline scenario based on the partial establishment model in FVS.
Auditor Response: See response to Finding 5. The Nunnery and Keaton approach being used to calculate natural regeneration values incorporates both hardwood and softwood (sprouting, and non-sprouting species).

Please clarify why sprouting species were omitted from natural regeneration in contrast with the documented approach.

Auditor Response 2: See response to Finding 5. The Nunnery and Keaton approach is being used to calculate natural regeneration values for softwoods (non-sprouting species), and the FVS sprouting function is being used to calculate regeneration values for hardwoods (sprouting species). This finding is now closed.

Bearing on Material Misstatement or Conformance (M/C/NA): NA

OBS 7 Dated 24 May 2023
Standard Reference: ACR Validation and Verification Standard, Section 9.B
Document Reference: WolverineCopper_ACR_GHGPlan_03_23_23.pdf
Finding: Section 9.B of the ACR Validation and Verification Standard states "The VVB should assess the effectiveness of methods for data collection and processing, identify likely areas for data corruption or potential errors, and characterize GHG data collection and management system integration weaknesses."

The GHG Plan states that baseline prescriptions CCRP and CCMP are modeled to plant 1677.5 trees per acre. FVS rounds these values. The GHG Plan should reflect modeled values.
Project Personnel Response: While some FVS outputs do round TPA (such as in the Summary Statistics table), FVS does allow for non-integer TPA in regeneration keywords such as plant. This can be seen in the Activity Summary in the WolverineCopper_CCRP_2021.out file in line 27,527, where 1667.5 TPA are planted in 2037 for plot 229. Additionally, this can be seen in the WolverineCopper_CCRP_2021.db file in the compute table where plot 229 has 1667.497 TPA in the year 2041.
Auditor Response: Thank you for the additional information. This finding is closed.
Bearing on Material Misstatement or Conformance (M/C/NA): NA

NIR 8 Dated 24 May 2023
Standard Reference: ACR Validation and Verification Standard, Section 9.B
Document Reference: WolverineCopper_SiteVisit_CO2_03_03_2023.xlsx; WolverineCopper_SiteVisit_CO2_10_07_22.xlsx
Finding: Section 9.B of the ACR Validation and Verification Standard states "The VVB should assess the effectiveness of methods for data collection and processing, identify likely areas for data corruption or potential errors, and characterize GHG data collection and management system integration weaknesses."

The client submitted two versions of the site visit workbook. The audit team requests why there is a second version of this documented dated after the site visit and what differences exist between these two workbooks.
Project Personnel Response: Via email the client responded with the following (18 May 2023):
[There are two main differences in the 3/3/23 workbook,
1. A typo in the date for plot 81 was fixed changing from 8/10/2002 to 8/10/2022
2. Columns AF:AH were added to the StartDate_Tree_CO2 tab to calculate the average merchantable Total/Stem CO2e ratio, though this ratio is actually pulled from the WolverineCopper_Start_RP_CO2_03_03_2023 workbook. Ultimately this ratio is used in the ERT calcs on the Actual_RP1_HWP_Step_1 tab where it is used to account for HWP that occurred before the inventory thus accounting for CO2e volume that was not captured by the inventory.]
Auditor Response: After independent investigation of the differences between the workbooks, the audit team confirmed the differences stated by the client, but found an additional difference. Plots 97, 103, 153, 203, and 210 are listed as part of stratum L in the original version, but then are listed in stratum M in the updated version. The audit team requests a justification for this shift in strata designation.
Project Personnel Response 2: Via email the client responded with the following (18 May 2023):
[Those plots were classified as 'low-density tree' in the original landowner stands shapefile and had initially been placed in the L strata. Following a conversation with the landowner they suggested they be put into the M strata instead.]
Auditor Response 2: As the L and M strata apply the same prescriptions, this finding is closed.
Bearing on Material Misstatement or Conformance (M/C/NA): M/C

NIR 9 Dated 24 May 2023
Standard Reference: ACR IFM Methodology v1.3
Document Reference: WolverineCopper_100Yr_calcs_03_03_2023.xlsx; TimberMartNorth_Vol 28 No 1.pdf
Finding: Section C. Baseline C1. Identification of Baseline, in the IFM methodology states, “Required inputs for the project NPV calculation include the results of a recent timber inventory of the project lands, prices for wood products of grades that the project would produce, costs of logging, reforestation and related costs, silvicultural treatment costs, and carrying costs.”

The stumpage values are seen in tab “Stumpage Prices” of the client’s 100Yr calcs workbook and are used in the NPV analysis. These values are taken from the Timber Mart North Price Report (provided by the client).

After reviewing the Timber Mart North Price Report, the audit team concluded that the prices that appear in the client’s 100Yr calcs workbook are taken from table “Lake States Stumpage Prices” and are for the average, statewide values (column "MI"). Cross-referencing the geographic location of the project with the map on the previous page of the price report, it is clear that the project has parcels located in both region MI-1 and region MI-3.

Therefore, the audit team requests justification for stumpage price selection and specifically how this selection results in conservative estimates.
Project Personnel Response: Thank you, stumpage prices have been updated using a weighted average based on the acres located in each Timber Mart North region. Reoptimization was completed maximizing NPV with the new stumpage prices. 100 year Calcs and ERT calcs have been udated to reflect these changes.
Auditor Response: This finding is temporarily closed until finding related to project acreage is closed.
Bearing on Material Misstatement or Conformance (M/C/NA): C

NIR 10 Dated 24 May 2023
Standard Reference: ACR IFM Methodology v1.3
Document Reference: WolverineCopper_100Yr_calcs_03_03_2023.xlsx; WolverineCopper_ACR_GHGPlan_03_23_23.pdf
Finding: Section C1: Identification of Baseline in the IFM methodology states, "Consideration shall be given to a reasonable range of feasible baseline assumptions and the selected assumptions should be plausible for the duration of the baseline application."

The client has stratified the project by forest type, which are described in the GHG Plan. The stratum, L, "Lowland conifer", is composed of low-quality, less-desirable wood product when compared to other strata. The audit team requests more information about the justification for the financial and operational feasibility of prescriptions applied to the "L" stratum in the baseline scenario.
Project Personnel Response: While the timber found in the L strata may be lower quality than what is found in some of the other strata on this property, there is still a market demand for this timber. The plots found in this strata that are available for harvest in the baseline have most of their merchantable timber found in northern white cedar, balsam fir, yellow birch, and red maple. The USFS FIA timber products output interactive reporting tool shows that in the counties where this project is located there is a significant demand for these species in the form of pulpwood, saw logs, and bioenergy/fuelwood (See MI_TPO_Table4.pdf in the supportingDocs folder, sourced from: https://public.tableau.com/views/TPOREPORTINGTOOL/MakeSelection?:showVizHome=no). The baseline scenario was built in consultation with the MI DNR, who indicated that harvesting is limited in much of the L strata, often because these areas can be too wet or otherwise difficult to access. Following this consulatation, only 6 of the 43 plots found in the L strata were permitted for harvest in the baseline model (FVS groups L, LD).
Auditor Response: Thank you for providing MI_TPO_Table4.pdf showing the breakdown of demand for these species by product type for the project area counties. It is reasonable to assume that cedar demand be satisfied by harvesting in the L stratum, as that stratum is where the vast majority of the cedar volume lies within the project area.

Given the operational limitations of these areas, the baseline scenario of permitted harvest in a small proportion of these acres is similar to common practice with in the region. This baseline scenario also aligns well with the provided management plans (NLPMgmtPlanSec4.pdf and WUPMgmtPlanSec4.pdf) 10-Year Management Objectives and Long Term Management Objectives. While varying by proportion of forest types per county, these plans generally state areas representative of lowland conifer, L strata, have harvest objectives at a much smaller scale than hardwood-dominant forest types. Finding closed.
Bearing on Material Misstatement or Conformance (M/C/NA): M/C

NCR 11 Dated 24 May 2023
Standard Reference: ACR Validation and Verification Standard, Section 9.B
Document Reference: WolverineCopper_ACR_GHGPlan_03_23_23.pdf
DRAFT_WolverineCopper_RP1_MonitoringReport_03_23_23.pdf
WolverineCopper_RP_ERT_HWP_03_22_2023.xlsx
Finding: Section 9.B of the ACR Validation and Verification Standard states "The VVB should assess the effectiveness of methods for data collection and processing, identify likely areas for data corruption or potential errors, and characterize GHG data collection and management system integration weaknesses."

A discrepancy was noted between the project-scenario start live tons CO2e/acre between the MR, GHG Plan, and RP_ERT workbook. Where the GHG Plan (Table E6-1) and RP_ERT workbook (sheet Baseline_Project_40Yr_CO2e, cell B15) are reporting values of 136.17 , the MR (Section VI.2) reports a start date value of 135.51. Similarly, the "total t CO2" column in Section VI.2 of the MR does not align with values reported in the GHG Plan RP_ERT workbook sheet Baseline_Project_40YrCO2e. The audit team requests that the client reconcile these values.
Project Personnel Response: Thank you, the reported values should now match those in the calc files.
Auditor Response: Thank you for reconciling these values. This finding is closed.
Bearing on Material Misstatement or Conformance (M/C/NA): C

NIR 12 Dated 24 May 2023
Standard Reference: ACR Validation and Verification Standard, Section 9.B
Document Reference: WolverineCopper_ACR_GHGPlan_03_23_23.pdf
DRAFT_WolverineCopper_RP1_MonitoringReport_03_23_23.pdf
WolverineCopper_RP_ERT_HWP_03_22_2023.xlsx
Finding: Section 9.B of the ACR Validation and Verification Standard states "The VVB should assess the effectiveness of methods for data collection and processing, identify likely areas for data corruption or potential errors, and characterize GHG data collection and management system integration weaknesses."

Section VI.4 of the MR states the buffer pool contribution is using an 18% buffer, while the value used in the ERT_HWP workbook is 16% (sheet ACR_IFM_ERT_Calcs, cell D5), and the value claimed in the GHG Plan Section B8. is 16%. The audit team requests that the client reconcile these values.
Project Personnel Response: Thank you, this has been updated to 22%
Auditor Response: Confirmed that the risk score and buffer contributions have been updated in the MR, GHG Plan, and ERT_HWP workbook. Finding closed.
Bearing on Material Misstatement or Conformance (M/C/NA): C

NIR 13 Dated 24 May 2023
Standard Reference: ACR IFM Methodology v1.3
Document Reference: Landowner interview
Finding: The methodology states that "The IFM baseline is the legally permissible harvest scenario that would maximize NPV of perpetual wood products harvests."

During an interview, the landowner confirmed that the project area contains one or more species that is considered endangered, threatened or sensitive. The project proponent appears to be compliant with relevant laws and regulations which warrant special management considerations due to their presence on the landscape.

The audit team requests more information as to what threatened or endangered species are present, what areas are impacted by these species, and how these areas were accounted for in the baseline modeling process consistent with existing regulatory/legal requirements for these areas (e.g., The Endangered Species Act).
Project Personnel Response: Occurrence information and management implications for T&E species is included in the provided management plans for the project area. The baseline scenario was built using silvicultural treatments approved by these management plans with consideration for these species. The project proponent was actively involved in creating and approving the baseline scenario to ensure that the scenario aligned with management that would have occurred in the absence of the carbon project. Forest management in the baseline will maintain a matrix of habitats for the benefit of all species across taxa.
Auditor Response: Review of the management plans has shown that endangered/threatened/sensistive species have been assessed for the project area, as viewed in the management plan tables "Occurrence information for special concern, rare, threatened and endangered communities and species for the X management area" , and PD reply that the use of existing silvicultural practices used to create the baseline scenario were developed and approved by the PP to closely resemble real-world mangement considerations for these species provide a reasonable level of assurance for compliance with regard to existing regulatory/legal requirements that would be necessary to perform forest management activities in these special resource areas. Finding closed.
Bearing on Material Misstatement or Conformance (M/C/NA): M/C

OBS 14 Dated 24 May 2023
Standard Reference: ACR Validation and Verification Standard Section 9.A
Document Reference: WolverineCopper_ACR_GHGPlan_03_23_23.pdf
Finding: The Validation and Verification standard Section 9.A states the verification of source-level data and records shall include to, "confirm that there are no missing data unaccounted for and that all data have been entered properly.

The audit team noted the following GHG Plan typos that may be easily revised:
1. Page 7: A comma is missing after "song birds"
2. Page 20: "geo-graphic"
3. Page 28: Statement of the carbon inventory being conducted from "Aug. 10, 2002 - Aug. 29, 2022."
4. Page 40/Table of Contents: "Uncertainity"
Project Personnel Response: Thank you, these have been corrected.
Auditor Response: Confirmed. Finding closed.
Bearing on Material Misstatement or Conformance (M/C/NA): NA

NIR 15 Dated 24 May 2023
Standard Reference: ACR IFM Methodology v1.3
Document Reference: Certificate_Forestry_SFI_2020_713334_7.pdf, Certificate_Forestry_FSC_2020_713335_7.pdf, WolverineCopper_ACR_GHGPlan_03_23_23.pdf
Finding: Section D6. MONITORING OF ACTIVITY-SHIFTING LEAKAGE of the IFM states "the Project Proponent must demonstrate no activity shifting leakage beyond de minimus threshold will occur as a result of project implementation" and "If the project decreases wood product production by >5% relative to the baseline then the Project Proponent and all associated land owners must demonstrate that there is no leakage within their operations – i.e., on other lands they manage/operate outside the bounds of the ACR carbon project. Such a demonstration must include one of the following...Entity-wide management certification that requires sustainable practices (programs can include FSC, SFI, or ATFS). Management certification must cover all entity owned lands with active timber management programs." The GHG Plan states that "Quantification of leakage is limited to market leakage, as no activity-shifting leakage is allowed by the methodology beyond de minimis levels," which does not constitute a demonstration of no activity-shifting leakage. Furthermore, the SFI and FSC certification provided does not cover all 4M ha of entity owned land. Please clarify whether the ownership that is not covered by certification meets the IFM criteria above.
Project Personnel Response: The dual-certification by FSC and SFI covers the entirety of the 3.9 million acres of Michigan's State Forestlands with active timber management programs. Entity-owned lands without active timber management programs are not part of the certified lands, and therefore not subject to this certification requirement.
Auditor Response: Perfect. This finding is closed.
Bearing on Material Misstatement or Conformance (M/C/NA): C

NIR 16 Dated 24 May 2023
Standard Reference: ACR IFM Methodology v1.3
Document Reference: Certificate_Forestry_SFI_2020_713334_7.pdf, Certificate_Forestry_FSC_2020_713335_7.pdf
Finding: Section A2. Applicability Conditions of the IFM states that "Public non-federal ownerships currently subject to commercial timber harvesting in the withproject scenario must: be certified by FSC, SFI, or ATFS or become certified within one year of the project Start Date." The SFI and FSC certification provided does not cover all 4M ha of entity owned land. Please clarify whether any of the certification gaps occur within the project area.
Project Personnel Response: The dual-certification by FSC and SFI covers the entirety of the 3.9 million acres of Michigan's State Forestlands with active timber management programs. The are no portions of the project area that are not certified.
Auditor Response: Thank you for the additional information. This finding is closed.
Bearing on Material Misstatement or Conformance (M/C/NA): C

NIR 17 Dated 30 Oct 2023
Standard Reference: ACR Standard
Document Reference: WolverineCopper_Start_RP_CO2_08_18_2023.xlsx, Essential FVS manual, WolverineCopper_START.db
Finding: Section 2.A of the Standard includes guiding principles for GHG accounting including conservativeness, accuracy, and transparency. Section '4.3.1.1.2 Activity Schedule Section' of the Essential FVS manual states: "In the example output file, cycle 1 is the period 1990-2000; cycle 2 is the period 2000-2021. For ease in understanding cycles, consider cycle 1 ending and cycle 2 beginning January 1, 2000." The FVS input file has the inventory year as 2021 and contains data degrown to the start date in Dec of 2021. However, no growth occurs in December, given the locality of the project as well as the WolverineCopper_Start_RP_CO2_08_18_2023.xlsx tab 'InvDate'. Therefore, the input data already contains all growth for the 2021 growing season, yet the project proponent's modeling team is growing this data forward 5 growing seasons (i.e., Jan 2021 through Jan 2026). Please demonstrate whether the duplication of the 2021 growing season (i.e., the first 5 years each containing 1.2 growing seasons in both the project and baseline scenario) is ultimately accurate and conservative with respect to ERT calculation.
Project Personnel Response: Via email the client responded with the following (30 Oct 2023):
The inventory occurred in 2022, not 2021. Stocks were degrown to the Start Date (December 2021) from the Summer 2022 inventory. FVS then projects 100 year baseline and project scenarios in 5 year increments from Dec 2021 (where the first 5 year increment is Dec 2021 - Dec 2026). For Start/RP1 Dates, we apply monthly growth allocations as necessary to grow/degrow partial growing seasons from inventory date to Start/RP1 dates, using FVS outputs.
Auditor Response: Thank you for defining your FVS cycle lengths and touching on the approach for dealing with the first RP being not one whole growing season. This NIR is closed.
Bearing on Material Misstatement or Conformance (M/C/NA): M

NIR 18 Dated 31 Oct 2023
Standard Reference: ACR Standard
Document Reference: WolverineCopper_START.db, WolverineCopper_GROW.db, WolverineCopper_GROW.out,WolverineCopper_Start_RP_CO2_08_18_2023.xlsx
Finding: Section 2.A of the Standard includes guiding principles for GHG accounting including conservativeness, accuracy, and transparency. For FVS modeling input, a tree count of 1 is assigned to a tree in each of the following plots: 54, 62, 121, 141, 210, 302. In the inventory tab of the WolverineCopper_Start_RP_CO2 workbook, these same trees have an inventory measured DBH of 0.1 which is outside of the threshold for inclusion in the inventory. Please clarify/justify these descrepencies from the remaining data.
Project Personnel Response: Via email the client responded with the following (31 Oct 2023):
These are 'placeholders' for the null plots in the project. FVS will otherwise ignore the plots, so we assign them this placeholder record. The TPA for these tree records is given a '0' in the CO2 calcs, resulting in zero carbon on the plot.
Auditor Response: The client's approach (zero for carbon in for start, inventory, and RP1 calculations) makes sense. However, in the FVS runs projecting beyond RP1 (i.e., subsequent years of the baseline and project scenarios), the referenced plots do not have a 0 for TPA or associated/subsequent CO2 calculations. The referenced plots are modeled with this 1 placeholder tree added to the plot, albeit a quite small specimen to begin with. No regeneration or ingrowth occurs beyond this one fictitious tree, as the client's modeling approach requires a harvest to trigger regeneration. Therefore, this approach is quite conservative.
Bearing on Material Misstatement or Conformance (M/C/NA): M/C

NIR 19 Dated 31 Oct 2023
Standard Reference: ACR Standard
Document Reference: WolverineCopper_RP1_HWPbySale.xlsx WolverineCopper_RP_ERT_HWP_08_18_2023xlsx
Finding: Requirement. When comparing WolverineCopper_RP1_HWPbySale.xlsx the 'Harvested Volume' column doesn't always correspond to the values in WolverineCopper_RP_ERT_HWP_08_18_2023xlsx, Actual_RP1_HWP_Step_1 tab, 'Volume' column. As an example, big tooth aspen has 297.31 MBF and 1360.1 cords in HWPbySale, while in the ERT workbook is is 252.73 MBF and 1278.6 cords. Some species do align between these workbooks, however (e.g. eastern white pine).
Project Personnel Response:
Auditor Response: Through correspondence with the client, the client provided further documentation to demonstrate that the described values align. The audit team confirmed the veracity of the documents provided. This finding is now closed.
Bearing on Material Misstatement or Conformance (M/C/NA): M/C

OBS 20 Dated 31 Oct 2023
Standard Reference: ACR IFM Methodology v1.3
Document Reference: WolverineCopper_CCA2_2061.db, WolverineCopper_100Yr_calcs_08_18_2023.xlsx
Finding: The IFM Section 4.2.4 Step 1 states "Determine the amount of wood harvested (actual or baseline) that will be delivered to mills, by volume (cubic feet) or by green weight (lbs.),..." In reviewing the client's inventory list, many species are included that the audit team believe are not merchantable (e.g. eastern hop-hornbeam, mountain maple, striped maple, etc.) When cross-referencing the USDA PLANTS database, these species are listed as "non-commercial." However, as part of our due diligence, we confirmed that the common practice in the region does include eastern hop-hornbeam as pulp, which is the majority of the volume included of these "non-commercial" species. Therefore, this issue is being issued as an observation.
Project Personnel Response:
Auditor Response:
Bearing on Material Misstatement or Conformance (M/C/NA): C