Assure DeFi®

THE VERIFICATION **GOLD STANDARD**

Security Assessment

GeneAlpha

Date: 23/07/2025

Audit Status: PASS

Audit Edition: Advanced

ASSURE DEFI®
THE VERIFICATION **GOLD STANDARD**

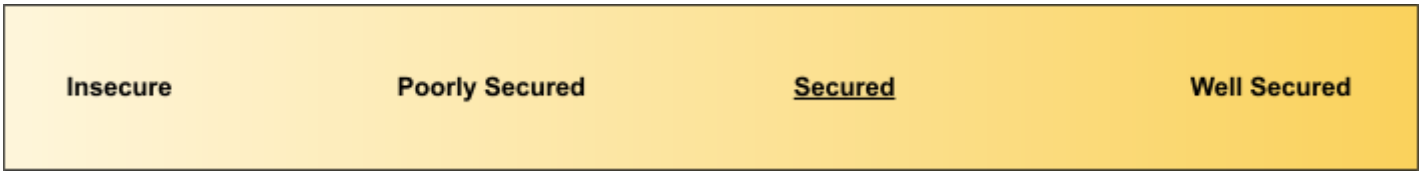
Risk Analysis

Vulnerability summary

Classification	Description
High	High-level vulnerabilities can result in the loss of assets or manipulation of data.
Medium	Medium-level vulnerabilities can be challenging to exploit, but they still have a considerable impact on smart contract execution, such as allowing public access to critical functions.
Low	Low-level vulnerabilities are primarily associated with outdated or unused code snippets that generally do not significantly impact execution, sometimes they can be ignored.
Informational	Informational vulnerabilities, code style violations, and informational statements do not affect smart contract execution and can typically be disregarded.

Executive Summary

According to the Assure assessment, the Customer's smart contract is **Secured.**



Scope

Target Code And Revision

For this audit, we performed research, investigation, and review of the GeneAlpha contracts followed by issue reporting, along with mitigation and remediation instructions outlined in this report.

Target Code And Revision

Project	Assure
Language	Solidity
Ticker	GA
Codebase	https://etherscan.io/address/0x5e6dd9a767894470e7e93e603c25f681a5adf1ae#readContract
Audit Methodology	Static, Manual

Attacks made to the contract

In order to check for the security of the contract, we tested several attacks in order to make sure that the contract is secure and follows best practices.

Category	Item
Code review & Functional Review	• Compiler warnings. • Race conditions and Reentrancy. Cross-function race conditions. • Possible delays in data delivery. • Oracle calls. • Front running. • Timestamp dependence. • Integer Overflow and Underflow. • DoS with Revert. • DoS with block gas limit. • Methods execution permissions. • Economy model. • Private user data leaks. • Malicious Event log. • Scoping and Declarations. • Uninitialized storage pointers. • Arithmetic accuracy. • Design Logic. • Cross-function race conditions. • Safe Zeppelin module. • Fallback function security. • Overpowered functions / Owner privileges

AUDIT OVERVIEW

HIGH

No high issues were found.

MEDIUM

1. Swap Enabled Flag Does Not Disable Fees

Issue: The toggleSwap(bool enabled) function flips isSwapEnabled, which gates only the auto-swap of collected fees but does not disable fee charging itself. Users may believe disabling swap also turns off fees, but in reality every trade still incurs fees, which then accumulate in the contract indefinitely.

Recommendation: Split swap and fee flags into two: isSwapEnabled (for swapping) and isFeeEnabled (for charging).

In the fee branch, require isFeeEnabled == true.

Update documentation and events to reflect the dual behavior.

2. Unlimited Slippage in Auto-Swap -> Sandwich Attacks

Issue: In swapAndDistribute(), the call below passes amountOutMin = 0, accepting any amount of ETH in return. An attacker can manipulate the pool price (via a flash swap or sandwich) so that the contract receives virtually zero ETH for tokenAmount.

Recommendation: Compute a conservative minAmountOut = tokenAmount * (1 - slippageTolerance%) * oraclePrice.

Use an on-chain price feed or Uniswap sample to estimate minimum expected ETH.

Revert if amountOut < minAmountOut.

LOW

No low issues were found.

INFORMATIONAL

No informational issues were found.

Technical Findings Summary

Findings

Vulnerability Level	Total	Pending	Not Apply	Acknowledged	Partially Fixed	Fixed
High	0					
Medium	2					
Low	0					
Informational	0					

Assessment Results

Score Results

Review	Score
Global Score	**85/100**
Assure KYC	Not completed
Audit Score	85/100

The Following Score System Has been Added to this page to help understand the value of the audit, the maximum score is 100, however to attain that value the project must pass and provide all the data needed for the assessment. Our Passing Score has been changed to 84 Points for a higher standard, if a project does not attain 85% is an automatic failure. Read our notes and final assessment below. The Global Score is a combination of the evaluations obtained between having or not having KYC and the type of contract audited together with its manual audit.

Audit PASS

Following our comprehensive security audit of the token contract for the GeneAlpha project, we inform you that the project has met the necessary security standards.

Disclaimer

Assure Defi has conducted an independent security assessment to verify the integrity of and highlight any vulnerabilities or errors, intentional or unintentional, that may be present in the reviewed code for the scope of this assessment. This report does not constitute agreement, acceptance, or advocating for the Project, and users relying on this report should not consider this as having any merit for financial adGeneAlpha in any shape, form, or nature. The contracts audited do not account for any economic developments that the Project in question may pursue, and the veracity of the findings thus presented in this report relate solely to the proficiency, competence, aptitude, and discretion of our independent auditors, who make no guarantees nor assurance that the contracts are entirely free of exploits, bugs, vulnerabilities or deprecation of technologies.

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