



SOLIDProof

Bring trust into your projects

**Blockchain Security | Smart Contract Audits | KYC
Development | Marketing**

MADE IN GERMANY

Milady Pepe

Audit

Security Assessment
06. June, 2023

For



SolidProof_io



@solidproof_io

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Version	Date	Description
1.0	28. May 2023	<ul style="list-style-type: none">• Layout project• Automated- /Manual-Security Testing• Summary

Network

Binance Smart Chain

Website

<https://miladypepe.io/>

Telegram

<https://t.me/MiLadyPepeBSC>



Description

MILADYPEPE INVASION! 💎🚀🐸

HODLers, get ready! MiLadyPepe is here to shake up the crypto world! Classier than a Doge, sassier than a Pepe, she's the moon-bound queen of meme tokens. 👑🐸

Forever Alone in the Market? Bad Luck Brian bringing you down? Join the MiLadyPepe revolution and ride this epic wave to the MOON! 🌙🚀

Don't just HODL, live the MiLadyPepe lifestyle. Let's take this meme queen to heights never seen before. Diamond hands ready? It's rocket time! 🚀💎👏

Project Engagement

During the 28th of May 2023, **Milady Team** engaged Solidproof.io to audit smart contracts they created. The engagement was technical and focused on identifying security flaws in the design and implementation of the contracts. They provided Solidproof.io with access to their code repository and whitepaper.

Logo



Contract Link v1.0

- <https://bscscan.com/address/0xA4150E765e00D11Dea2C83d26146751A96884CB7#code>

Vulnerability & Risk Level

Risk represents the probability that a particular source threat will exploit the vulnerability and the impact of that event on the organization or system. The risk level is computed based on CVSS version 3.0.

Level	Value	Vulnerability	Risk (Required Action)
Critical	9 - 10	A vulnerability that can disrupt the contract functioning in a number of scenarios, or creates a risk that the contract may be broken.	Immediate action to reduce risk level.
High	7 - 8.9	A vulnerability that affects the desired outcome when using a contract, or provides the opportunity to use a contract in an unintended way.	Implementation of corrective actions as soon as possible.
Medium	4 - 6.9	A vulnerability that could affect the desired outcome of executing the contract in a specific scenario.	Implementation of corrective actions in a certain period.
Low	2 - 3.9	A vulnerability that does not have a significant impact on possible scenarios for the use of the contract and is probably subjective.	Implementation of certain corrective actions or accepting the risk.
Informational	0 - 1.9	A vulnerability that have informational character but is not effecting any of the code.	An observation that does not determine a level of risk

Auditing Strategy and Techniques Applied

Throughout the review process, care was taken to evaluate the repository for security-related issues, code quality, and adherence to specification and best practices. To do so, we reviewed line-by-line by our team of expert pen testers and smart contract developers, documenting any issues as there were discovered.

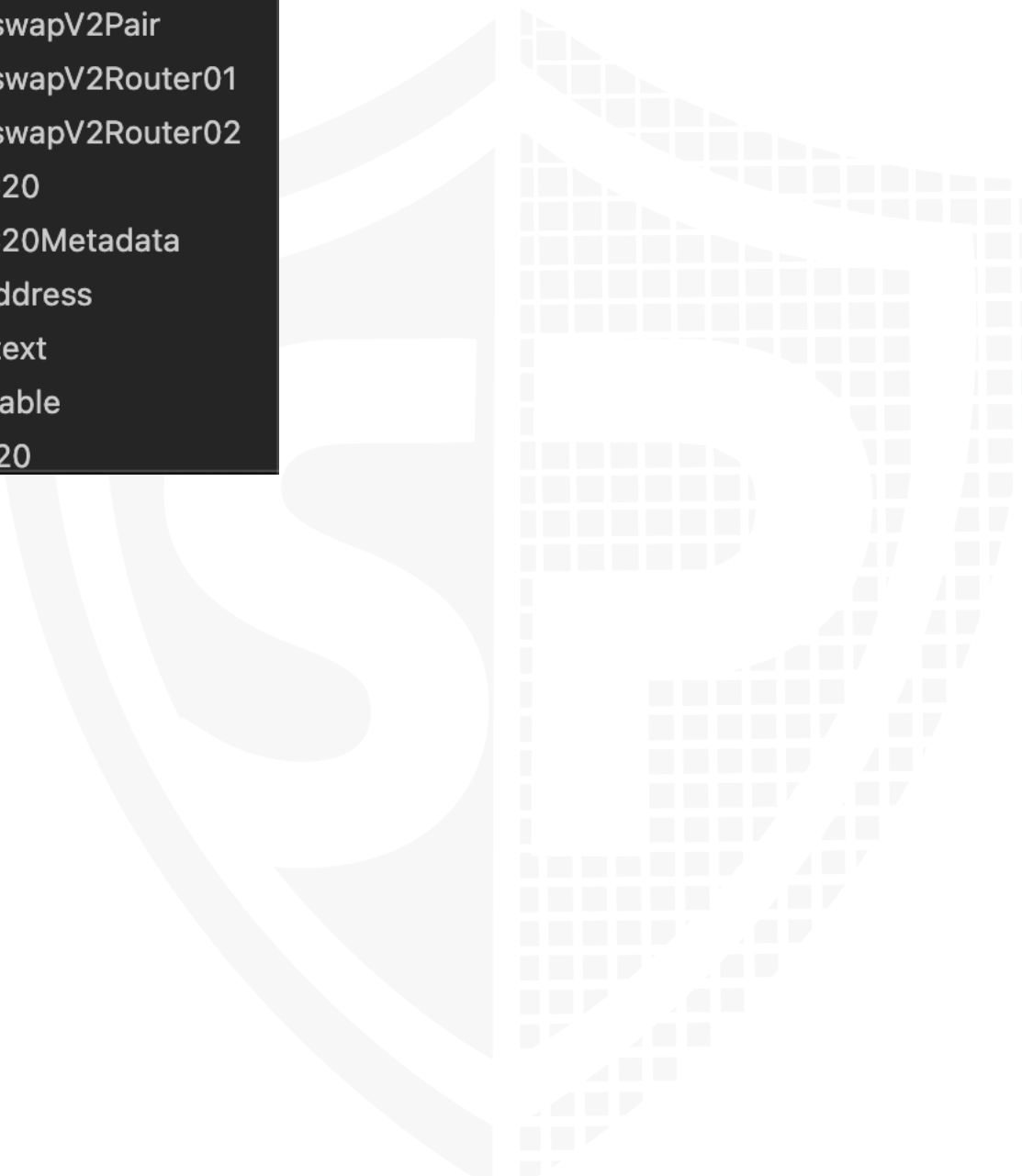
Methodology

The auditing process follows a routine series of steps:

1. Code review that includes the following:
 - i) Review the specifications, sources, and instructions provided to SolidProof to make sure we understand the size, scope, and functionality of the smart contract.
 - ii) Manual review of code, which is the process of reading source code line-by-line in an attempt to identify potential vulnerabilities.
 - iii) Comparison to specification is the process of checking whether the code does what the specifications, sources, and instructions provided to SolidProof describe.
2. Testing and automated analysis that includes the following:
 - i) Test coverage analysis, is the process of determining whether the test cases are actually covering the code and how much code is exercised when we run those test cases.
 - ii) Symbolic execution is analysing a program to determine what inputs causes each part of a program to execute.
3. Best practices review is a review of the smart contracts to improve efficiency, effectiveness, clarify, maintainability, security, and control based on the established industry and academic practices, recommendations, and research.
4. Specific, itemized, actionable recommendations to help you take steps to secure your smart contracts.

Used Code from other Frameworks/Smart Contracts (direct imports)

Imported packages:



```
IUniswapV2Factory  
IUniswapV2Pair  
IUniswapV2Router01  
IUniswapV2Router02  
IERC20  
IERC20Metadata  
📄 Address  
Context  
Ownable  
ERC20
```


Tested Contract Files

This audit covered the following files listed below with an SHA-1 Hash.

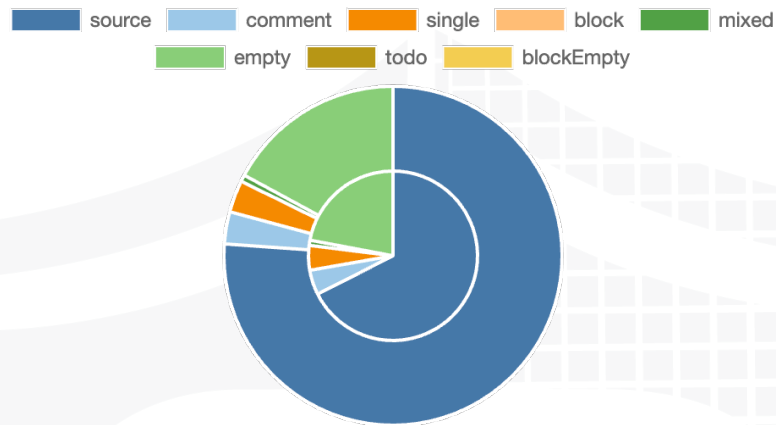
A file with a different Hash has been modified, intentionally or otherwise, after the security review. A different Hash could be (but not necessarily) an indication of a changed condition or potential vulnerability that was not within the scope of this review.

v1.0

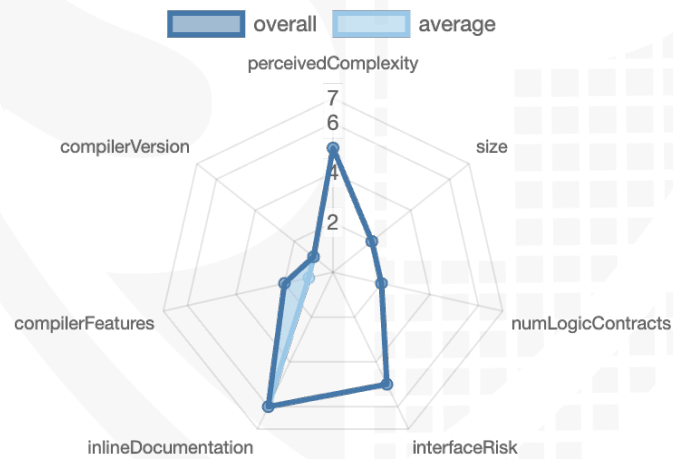
File Name	SHA-1 Hash
contracts/milady.sol	191dee2cc70edb60f778d1bc1c72ad48d6d0ba70

Metrics

Source Lines v1.0



Risk Level v1.0



Capabilities

Components

Version	Contracts	Libraries	Interfaces	Abstract
1.0	2	1	6	2

Exposed Functions

This section lists functions that are explicitly declared public or payable. Please note that getter methods for public stateVars are not included.

Version	Public	Payable
1.0	90	5

Version	External	Internal	Private	Pure	View
1.0	75	81	2	12	39

State Variables

Version	Total	Public
1.0	18	10

Capabilities

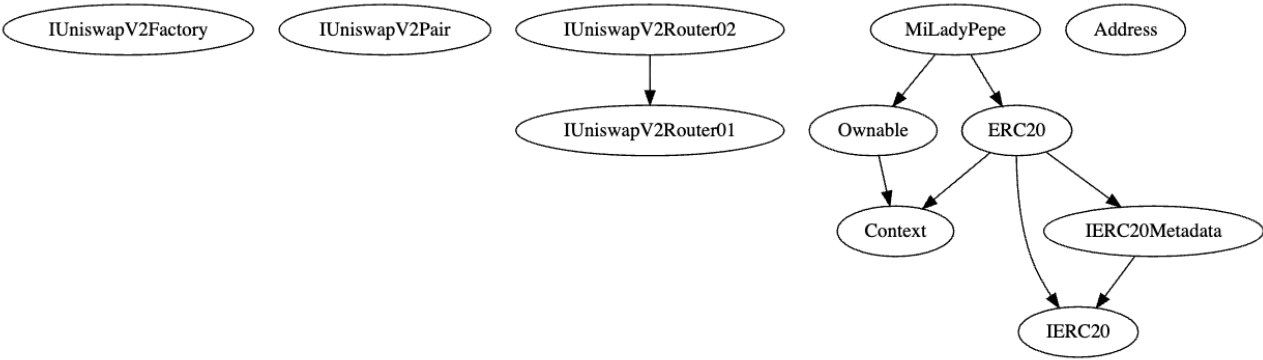
Version	Solidity Versions observed	Experimental Features	Can Receive Funds	Uses Assembly	Has Destroyable Contracts
1.0	0.8.17		yes	yes (1 asm blocks)	

Version	Transfers ETH	Low-Level Calls	DelegateCall	Uses Hash Functions	EC Recover	New/Create/Create2
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1.0	yes		yes			
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Inheritance Graph

v1.0



Scope of Work/Verify Claims

The above token Team provided us with the files that need to be tested (Github, Bscscan, Etherscan, files, etc.). The scope of the audit is the leading contract (usual the same name as the team appended with .sol).

We will verify the following claims:

1. Is contract an upgradeable
2. Correct implementation of Token standard
3. The deployer cannot mint any new tokens
4. Deployer cannot burn or lock user funds
5. Deployer cannot pause the contract
6. Deployer cannot set fees
7. Deployer cannot blacklist/anti snipe addresses
8. Overall checkup (Smart Contract Security)



Is contract an upgradeable

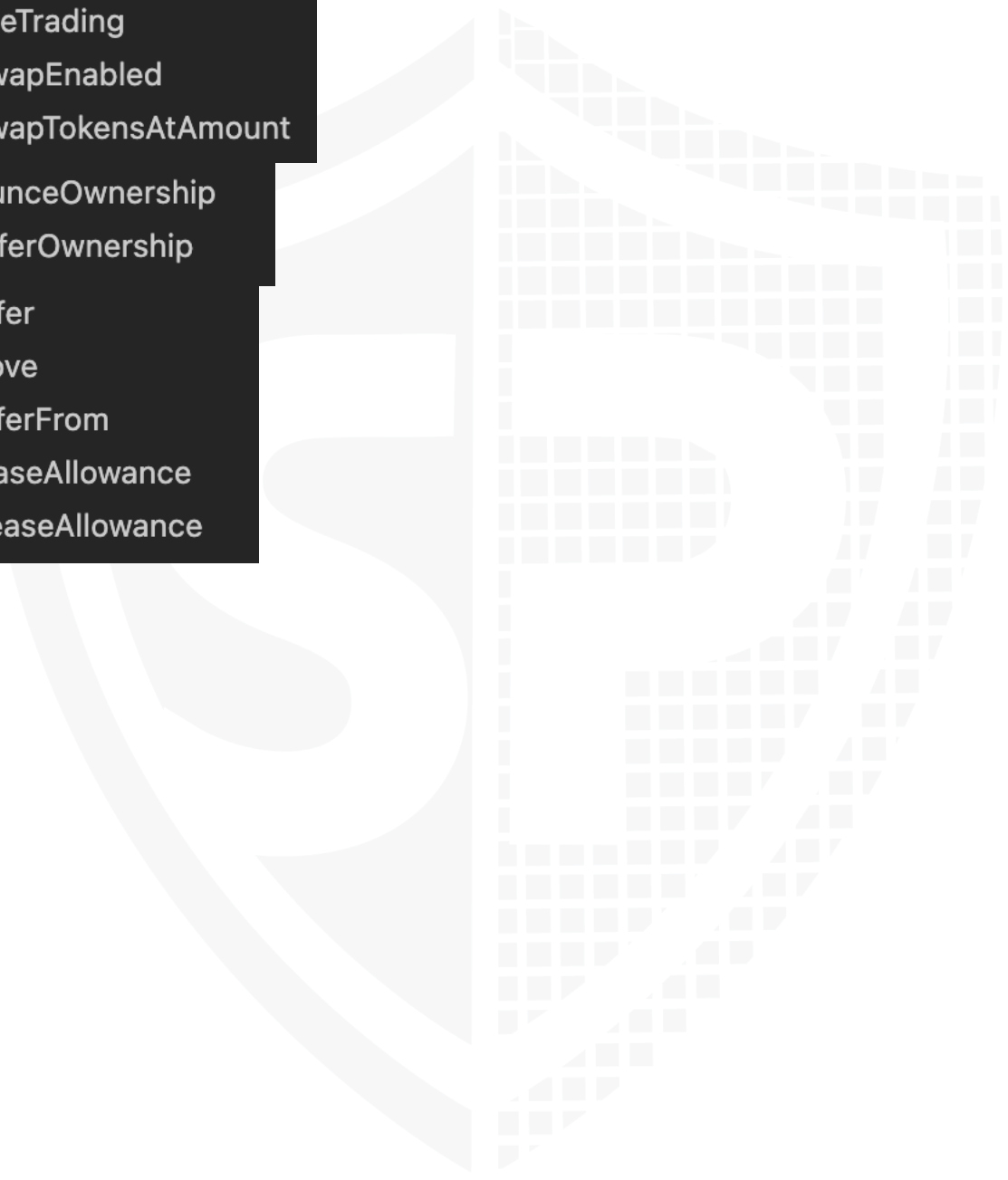
Name	
Is contract an upgradeable?	No



Correct implementation of Token standard

ERC20				
Function	Description	Exist	Tested	Verified
TotalSupply	Provides information about the total token supply	✓	✓	✓
BalanceOf	Provides account balance of the owner's account	✓	✓	✓
Transfer	Executes transfers of a specified number of tokens to a specified address	✓	✓	✓
TransferFrom	Executes transfers of a specified number of tokens from a specified address	✓	✓	✓
Approve	Allow a spender to withdraw a set number of tokens from a specified account	✓	✓	✓
Allowance	Returns a set number of tokens from a spender to the owner	✓	✓	✓

Write functions of contract v1.0



```
claimStuckTokens
excludeFromFees
changeMarketingWallet
enableTrading
setSwapEnabled
setSwapTokensAtAmount
renounceOwnership
transferOwnership
transfer
approve
transferFrom
increaseAllowance
decreaseAllowance
```

The deployer cannot mint any new tokens

Name	Exist	Tested	Status
Deployer cannot mint	✓	✓	✓
Max / Total Supply	888_000_888_000_888		



Deployer cannot burn or lock user funds

Name	Exist	Tested	Status
Deployer cannot lock	✓	✓	✓
Deployer cannot burn	-	-	-



The deployer cannot pause the contract

Name	Exist	Tested	Status
Deployer cannot pause	-	-	-



Deployer cannot set fees

Name	Exist	Tested	Status
Deployer cannot set fees over 25%	—	—	—
Deployer cannot set fees to nearly 100% or to 100%	—	—	—

Comments:

v1.0

- The transfer fee is set to 0
- The selling fee is set to 3%
- The buying fee is set to 3%

The fees cannot be changed in the contract.

Deployer can blacklist/anti snipe addresses

Name	Exist	Tested	Status
Deployer cannot blacklist/antisnipe addresses	—	—	—



Overall checkup (Smart Contract Security)

Tested	Verified
✓	✓

Legend

Attribute	Symbol
Verified / Checked	✓
Partly Verified	🚩
Unverified / Not checked	✗
Not available	—

Modifiers and public functions

v1.0

◆ claimStuckTokens
Ⓜ onlyOwner
◆ excludeFromFees
Ⓜ onlyOwner
◆ changeMarketingWallet
Ⓜ onlyOwner
◆ enableTrading
Ⓜ onlyOwner
◆ setSwapEnabled
Ⓜ onlyOwner
◆ setSwapTokensAtAmount
Ⓜ onlyOwner

◆ renounceOwnership
Ⓜ onlyOwner
◆ transferOwnership
Ⓜ onlyOwner

◆ transfer
◆ approve
◆ transferFrom
◆ increaseAllowance
◆ decreaseAllowance

Comments





- Existing Modifiers
 - onlyOwner
 - Only the owner is able to call the functions that are marked with this modifier
- The owner can
 - Claim stuck tokens but not the own contract tokens.
 - By passing the zero address to the function the native tokens will be sent to the owner's address. Otherwise, the tokens of the passed token address will be sent to the owner's address

- Exclude addresses from fees
 - The owner can pass an address to the “excludeFromFees” function to exclude this address from fees. He can also include an address back. Additionally, by excluding an address it is able to transfer without the trading being enabled
- Change the marketing address
 - By passing the dead address the owner will lose the marketing funds.
- Enable the trading
 - He can enable it only once without disabling the trading anymore.
- Enable/disable the swapping
- Set the swapping amount greater than 0.0001% of the total supply
- Renounce the ownership that the zero address is the owner of the contract
 - That means that nobody is able to change any state variables anymore
- Transfer the ownership to another address

Please check if an OnlyOwner or similar restrictive modifier has been forgotten.

Source Units in Scope

v1.0

Type	File	Logic Contracts	Interfaces	Lines	nLines	nSLOC	Comment Lines	Complex. Score	Capabilities
	contracts/milady.sol	5	6	749	474	343	24	428	
	Totals	5	6	749	474	343	24	428	

Legend

Attribute	Description
Lines	total lines of the source unit
nLines	normalised lines of the source unit (e.g. normalises functions spanning multiple lines)
nSLOC	normalised source lines of code (only source-code lines; no comments, no blank lines)
Comment Lines	lines containing single or block comments
Complexity Score	a custom complexity score derived from code statements that are known to introduce code complexity (branches, loops, calls, external interfaces, ...)

Audit Results

Critical issues

No critical issues

High issues

No high issues

Medium issues

No medium issues

Low issues

Issue	File	Type	Line	Description
#1	Main	Contract doesn't import npm packages from source (like OpenZeppelin etc.)	-	We recommend to import all packages from npm directly without flatten the contract. Functions could be modified or can be susceptible to vulnerabilities
#2	Main	Missing Dead Address Validation	654	The owner is able to set the marketing fee address to the dead address which causes the marketing funds to be lost.

Informational issues

Issue	File	Type	Line	Description
#1	Main	State variables that could be declared immutable	565, 567, 568, 570, 561, 560	Add the `immutable` attribute to state variables that never change or are set only in the constructor.
#2	Main	NatSpec documentation missing	-	If you started to comment your code, also comment all other functions, variables etc.

Audit Comments

We recommend you to use the special form of comments (NatSpec Format, Follow the link for more information <https://docs.soliditylang.org/en/latest/natspec-format.html>) for your contracts to provide rich documentation for functions, return variables, and more. This helps investors to make clear what those variables, functions, etc. do.

06. June 2023:

- Read the whole report and modifiers section for more information



SWC Attacks

ID	Title	Relationships	Status
SW C-1 36	Unencrypted Private Data On-Chain	CWE-767: Access to Critical Private Variable via Public Method	PASSED
SW C-1 35	Code With No Effects	CWE-1164: Irrelevant Code	PASSED
SW C-1 34	Message call with hardcoded gas amount	CWE-655: Improper Initialization	PASSED
SW C-1 33	Hash Collisions With Multiple Variable Length Arguments	CWE-294: Authentication Bypass by Capture-replay	PASSED
SW C-1 32	Unexpected Ether balance	CWE-667: Improper Locking	PASSED
SW C-1 31	Presence of unused variables	CWE-1164: Irrelevant Code	PASSED
SW C-1 30	Right-To-Left-Override control character (U+202E)	CWE-451: User Interface (UI) Misrepresentation of Critical Information	PASSED
SW C-1 29	Typographical Error	CWE-480: Use of Incorrect Operator	PASSED
SW C-1 28	DoS With Block Gas Limit	CWE-400: Uncontrolled Resource Consumption	PASSED

SW C-1 27	Arbitrary Jump with Function Type Variable	CWE-695: Use of Low-Level Functionality	PASSED
SW C-1 25	Incorrect Inheritance Order	CWE-696: Incorrect Behavior Order	PASSED
SW C-1 24	Write to Arbitrary Storage Location	CWE-123: Write-what-where Condition	PASSED
SW C-1 23	Requirement Violation	CWE-573: Improper Following of Specification by Caller	PASSED
SW C-1 22	Lack of Proper Signature Verification	CWE-345: Insufficient Verification of Data Authenticity	PASSED
SW C-1 21	Missing Protection against Signature Replay Attacks	CWE-347: Improper Verification of Cryptographic Signature	PASSED
SW C-1 20	Weak Sources of Randomness from Chain Attributes	CWE-330: Use of Insufficiently Random Values	PASSED
SW C-11 9	Shadowing State Variables	CWE-710: Improper Adherence to Coding Standards	PASSED
SW C-11 8	Incorrect Constructor Name	CWE-665: Improper Initialization	PASSED
SW C-11 7	Signature Malleability	CWE-347: Improper Verification of Cryptographic Signature	PASSED

SW C-11 6	Timestamp Dependence	CWE-829: Inclusion of Functionality from Untrusted Control Sphere	PASSED
SW C-11 5	Authorization through tx.origin	CWE-477: Use of Obsolete Function	PASSED
SW C-11 4	Transaction Order Dependence	CWE-362: Concurrent Execution using Shared Resource with Improper Synchronization ('Race Condition')	PASSED
SW C-11 3	DoS with Failed Call	CWE-703: Improper Check or Handling of Exceptional Conditions	PASSED
SW C-11 2	Delegatecall to Untrusted Callee	CWE-829: Inclusion of Functionality from Untrusted Control Sphere	PASSED
SW C-11 1	Use of Deprecated Solidity Functions	CWE-477: Use of Obsolete Function	PASSED
SW C-11 0	Assert Violation	CWE-670: Always-Incorrect Control Flow Implementation	PASSED
SW C-1 09	Uninitialized Storage Pointer	CWE-824: Access of Uninitialized Pointer	PASSED
SW C-1 08	State Variable Default Visibility	CWE-710: Improper Adherence to Coding Standards	PASSED
SW C-1 07	Reentrancy	CWE-841: Improper Enforcement of Behavioral Workflow	PASSED
SW C-1 06	Unprotected SELFDESTRUCT Instruction	CWE-284: Improper Access Control	PASSED

SW C-1 05	Unprotected Ether Withdrawal	CWE-284: Improper Access Control	PASSED
SW C-1 04	Unchecked Call Return Value	CWE-252: Unchecked Return Value	PASSED
SW C-1 03	Floating Pragma	CWE-664: Improper Control of a Resource Through its Lifetime	PASSED
SW C-1 02	Outdated Compiler Version	CWE-937: Using Components with Known Vulnerabilities	PASSED
SW C-1 01	Integer Overflow and Underflow	CWE-682: Incorrect Calculation	PASSED
SW C-1 00	Function Default Visibility	CWE-710: Improper Adherence to Coding Standards	PASSED


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