

WolfSafePoorPeople Smart Contract Audit Report



28 Sep 2021



TABLE OF CONTENTS

Audited Details

- Audited Project
- Blockchain
- Addresses
- Project Website
- Codebase

Summary

- Contract Summary
- Audit Findings Summary
- Vulnerabilities Summary

Conclusion

Audit Results

Smart Contract Analysis

- Detected Vulnerabilities

Disclaimer

About Us



AUDITED DETAILS

Audited Project

Project name	Token ticker	Blockchain
WolfSafePoorPeople	WSPP	Fantom

Addresses

Contract address	0x685a211c9d96d0c8c9d22b7ae309538d4c69c15c	
Contract deployer address	0xc55A7183F6D060271010A4441c106f6a81D46E34	

Project Website

https://wolfsafepoorpeople.com/#home

Codebase

https://ftmscan.com/address/0x685a211c9d96d0c8c9d22b7ae309538d4c69c15c#code



SUMMARY

WolfSafePoorPeople is the first token created on Binance Smart Chain. To develop projects in the DeFi and NFT sectors, the developer team decided to also move to other networks such as Polygon, Fantom, Avalance, Kardia Etc. This means that in the future WSPP Token is a multichain token. The team behind WSPP is composed of some leading Web developers, NFT designers, and Support systems. A passionate team of individuals is in charge of technical development to ensure long-term System, functional in-NFT economic and NFT Marketplace. The team created the NFT marketplace with the name of Wolfible and Wolfible Factory for NFT Collection.

Contract Summary

Documentation Quality

WolfSafePoorPeople provides a very good documentation with standard of solidity base code.

• The technical description is provided clearly and structured and also dont have any high risk issue.

Code Quality

The Overall quality of the basecode is standard.

• Standard solidity basecode and rules are already followed by WolfSafePoorPeople with the discovery of several low issues.

Test Coverage

Test coverage of the project is 100% (Through Codebase)

Audit Findings Summary

- SWC-103 | Pragma statements can be allowed to float when a contract is intended on lines 9, 35, 104, 183, 344 and 487.
- SWC-116 | It is recommended to use oracles for block values as a proxy for time on lines 910.
- SWC-120 | It is recommended to use external sources of randomness via oracles on lines 940, 1013 and 940.



CONCLUSION

We have audited the WolfSafePoorPeople project released in September 2021 to discover issues and identify potential security vulnerabilities in WolfSafePoorPeople Project. This process is used to find technical issues and security loopholes which might be found in the smart contract.

The security audit report provides a satisfactory result with some low-risk issues.

The issues found in the WolfSafePoorPeople smart contract code do not pose a considerable risk. The writing of the contract is close to the standard of writing contracts in general. The low-risk issues found are some a floating pragma is set, A control flow decision is made based on The block.timestamp environment variable, and Potential use of "block.number" as a source of randomness. The block.number environment variable is used to determine a control flow decision. Note that the values of variables like coinbase, gas limit, block number, and timestamp are predictable and can be manipulated by a malicious miner. Also, keep in mind that attackers know hashes of earlier blocks. Don't use any of those environment variables as sources of randomness and be aware that the use of these variables introduces a certain level of trust in miners.



AUDIT RESULT

Article	Category	Description	Result	
Default Visibility	SWC-100 SWC-108	Functions and state variables visibility should be set explicitly. Visibility levels should be specified consciously.		
Integer Overflow and Underflow	SWC-101	If unchecked math is used, all math operations should be safe from overflows and underflows.	PASS	
Outdated Compiler Version	SWC-102	It is recommended to use a recent version of the Solidity compiler.	PASS	
Floating Pragma	SWC-103	Contracts should be deployed with the same compiler version and flags that they have been tested thoroughly.	ISSUE FOUND	
Unchecked Call Return Value	SWC-104	The return value of a message call should be checked.		
Unprotected Ether Withdrawal	SWC-105	Due to missing or insufficient access controls, malicious parties can withdraw from the contract.	PASS	
SELFDESTRUCT Instruction	SWC-106	The contract should not be self-destructible while it has funds belonging to users.		
Reentrancy	SWC-107	Check effect interaction pattern should be followed if the code performs recursive call.	e followed PASS	
Uninitialized Storage Pointer	SWC-109	Uninitialized local storage variables can point to unexpected storage locations in the contract.	PASS	
Assert Violation	SWC-110 SWC-123	Properly functioning code should never reach a failing assert statement.		
Deprecated Solidity Functions	SWC-111	Deprecated built-in functions should never be used.	PASS	
Delegate call to Untrusted Callee	SWC-112	Delegatecalls should only be allowed to trusted addresses.	PASS	



DoS (Denial of Service)	SWC-113 SWC-128	Execution of the code should never be blocked by a specific contract state unless required.	PASS
Race Conditions	SWC-114	Race Conditions and Transactions Order Dependency should not be possible.	PASS
Authorization through tx.origin	SWC-115	tx.origin should not be used for authorization.	
Block values as a proxy for time	SWC-116	Block numbers should not be used for time calculations.	ISSUE FOUND
Signature Unique ID	SWC-117 SWC-121 SWC-122	Signed messages should always have a unique id. A transaction hash should not be used as a unique id.	PASS
Incorrect Constructor Name	SWC-118	Constructors are special functions that are called only once during the contract creation.	PASS
Shadowing State Variable	SWC-119	State variables should not be shadowed.	PASS
Weak Sources of Randomness	SWC-120	Random values should never be generated from Chain Attributes or be predictable.	ISSUE FOUND
Write to Arbitrary Storage Location	SWC-124	The contract is responsible for ensuring that only authorized user or contract accounts may write to sensitive storage locations.	PASS
Incorrect Inheritance Order	SWC-125	When inheriting multiple contracts, especially if they have identical functions, a developer should carefully specify inheritance in the correct order. The rule of thumb is to inherit contracts from more /general/ to more /specific/.	PASS
Insufficient Gas Griefing	SWC-126	Insufficient gas griefing attacks can be performed on contracts which accept data and use it in a sub-call on another contract.	
Arbitrary Jump Function	SWC-127	As Solidity doesnt support pointer arithmetics, it is impossible to change such variable to an arbitrary value.	PASS



Typographical Error	SWC-129	A typographical error can occur for example when the intent of a defined operation is to sum a number to a variable.	
Override control character	SWC-130	Malicious actors can use the Right-To-Left-Override unicode character to force RTL text rendering and confuse users as to the real intent of a contract.	PASS
Unused variables	SWC-131 SWC-135	Unused variables are allowed in Solidity and they do not pose a direct security issue.	PASS
Unexpected Ether balance	SWC-132	Contracts can behave erroneously when they strictly assume a specific Ether balance.	PASS
Hash Collisions Variable	SWC-133	Using abi.encodePacked() with multiple variable length arguments can, in certain situations, lead to a hash collision.	
Hardcoded gas amount	SWC-134	The transfer() and send() functions forward a fixed amount of 2300 gas.	PASS
Unencrypted Private Data	SWC-136	It is a common misconception that private type variables cannot be read.	PASS



SMART CONTRACT ANALYSIS

Started	Monday Sep 27 2021 01:44:51 GMT+0000 (Coordinated Universal Time)		
Finished	Tuesday Sep 28 2021 12:18:07 GMT+0000 (Coordinated Universal Time)		
Mode	Standard		
Main Source File	WsppFantom.sol		

Detected Issues

ID	Title	Severity	Status
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-116	A CONTROL FLOW DECISION IS MADE BASED ON THE BLOCK.TIMESTAMP ENVIRONMENT VARIABLE.	low	acknowledged
SWC-120	POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS.	low	acknowledged
SWC-120	POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS.	low	acknowledged
SWC-120	A CONTROL FLOW DECISION IS MADE BASED ON THE BLOCK.NUMBER ENVIRONMENT VARIABLE.	low	acknowledged



LINE 9

Iow SEVERITY

The current pragma Solidity directive is ""^0.6.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- WsppFantom.sol

Locations

8
9 pragma solidity ^0.6.0;
10
11 /*
12 * @dev Provides information about the current execution context, including the
13



LINE 35

Iow SEVERITY

The current pragma Solidity directive is ""^0.6.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- WsppFantom.sol

```
34
35 pragma solidity ^0.6.0;
36
37 /**
38 * @dev Contract module which provides a basic access control mechanism, where
39
```





LINE 104

IOW SEVERITY

The current pragma Solidity directive is ""^0.6.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- WsppFantom.sol

```
103
104 pragma solidity ^0.6.0;
105
106 /**
107 * @dev Interface of the ERC20 standard as defined in the EIP.
108
```



LINE 183

Iow SEVERITY

The current pragma Solidity directive is ""^0.6.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- WsppFantom.sol

```
182
183 pragma solidity ^0.6.0;
184
185 /**
186 * @dev Wrappers over Solidity's arithmetic operations with added overflow
187
```





LINE 344

Iow SEVERITY

The current pragma Solidity directive is ""^0.6.2"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- WsppFantom.sol

Locations

343
344 pragma solidity ^0.6.2;
345
346 /**
347 * @dev Collection of functions related to the address type
348



LINE 487

Iow SEVERITY

The current pragma Solidity directive is ""^0.6.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- WsppFantom.sol

Locations

486 487 pragma solidity ^0.6.0; 488 489 490 491



SWC-116 | A CONTROL FLOW DECISION IS MADE BASED ON THE BLOCK.TIMESTAMP ENVIRONMENT VARIABLE.

LINE 910

IOW SEVERITY

The block.timestamp environment variable is used to determine a control flow decision. Note that the values of variables like coinbase, gaslimit, block number and timestamp are predictable and can be manipulated by a malicious miner. Also keep in mind that attackers know hashes of earlier blocks. Don't use any of those environment variables as sources of randomness and be aware that use of these variables introduces a certain level of trust into miners.

Source File

- WsppFantom.sol

Locations

909 require(nonce == nonces[signatory]++, "WSPP::delegateBySig: invalid nonce"); 910 require(now <= expiry, "WSPP::delegateBySig: signature expired"); 911 return _delegate(signatory, delegatee); 912 } 913 914



SWC-120 | POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS.

LINE 940

Iow SEVERITY

The environment variable "block.number" looks like it might be used as a source of randomness. Note that the values of variables like coinbase, gaslimit, block number and timestamp are predictable and can be manipulated by a malicious miner. Also keep in mind that attackers know hashes of earlier blocks. Don't use any of those environment variables as sources of randomness and be aware that use of these variables introduces a certain level of trust into miners.

Source File

- WsppFantom.sol

```
939 {
940 require(blockNumber < block.number, "WSPP::getPriorVotes: not yet determined");
941
942 uint32 nCheckpoints = numCheckpoints[account];
943 if (nCheckpoints == 0) {
944</pre>
```





SWC-120 | POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS.

LINE 1013

Iow SEVERITY

The environment variable "block.number" looks like it might be used as a source of randomness. Note that the values of variables like coinbase, gaslimit, block number and timestamp are predictable and can be manipulated by a malicious miner. Also keep in mind that attackers know hashes of earlier blocks. Don't use any of those environment variables as sources of randomness and be aware that use of these variables introduces a certain level of trust into miners.

Source File

- WsppFantom.sol

```
1012 {
1013 uint32 blockNumber = safe32(block.number, "WSPP::_writeCheckpoint: block number
exceeds 32 bits");
1014
1015 if (nCheckpoints > 0 && checkpoints[delegatee][nCheckpoints - 1].fromBlock ==
blockNumber) {
1016 checkpoints[delegatee][nCheckpoints - 1].votes = newVotes;
1017
```



SWC-120 | A CONTROL FLOW DECISION IS MADE BASED ON THE BLOCK.NUMBER ENVIRONMENT VARIABLE.

LINE 940

Iow SEVERITY

The block.number environment variable is used to determine a control flow decision. Note that the values of variables like coinbase, gaslimit, block number and timestamp are predictable and can be manipulated by a malicious miner. Also keep in mind that attackers know hashes of earlier blocks. Don't use any of those environment variables as sources of randomness and be aware that use of these variables introduces a certain level of trust into miners.

Source File

- WsppFantom.sol

Locations

939 {
940 require(blockNumber < block.number, "WSPP::getPriorVotes: not yet determined");
941
942 uint32 nCheckpoints = numCheckpoints[account];
943 if (nCheckpoints == 0) {
944</pre>





DISCLAIMER

This report is subject to the terms and conditions (including without limitation, description of services, confidentiality, disclaimer and limitation of liability) set forth in the Services Agreement, or the scope of services, and terms and conditions provided to you ("Customer" or the "Company") in connection with the Agreement. This report provided in connection with the Services set forth in the Agreement shall be used by the Company only to the extent permitted under the terms and conditions set forth in the Agreement. This report may not be transmitted, disclosed, referred to, or relied upon by any person for any purposes, nor may copies be delivered to any other person other than the Company, without Sysfixed's prior written consent in each instance.

This report is not, nor should be considered, an "endorsement" or "disapproval" of any particular project or team. This report is not, nor should be considered, an indication of the economics or value of any "product" or "asset" created by any team or project that contracts Sysfixed to perform a security assessment. This report does not provide any warranty or guarantee regarding the absolute bug-free nature of the technology analyzed, nor do they provide any indication of the technologies proprietors, business, business model, or legal compliance.

This is a limited report on our findings based on our analysis, in accordance with good industry practice as of the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the below disclaimer below – please make sure to read it in full.

This report should not be used in any way to make decisions around investment or involvement with any particular project. This report in no way provides investment advice, nor should be leveraged as investment advice of any sort. This report represents an extensive assessing process intending to help our customers increase the quality of their code while reducing the high level of risk presented by cryptographic tokens and blockchain technology.

This report is provided for information purposes only and on a non-reliance basis and does not constitute investment advice. No one shall have any right to rely on the report or its contents, and Sysfixed and its affiliates (including holding companies, shareholders, subsidiaries, employees, directors, officers, and other representatives) (Sysfixed) owe no duty of care.



ABOUT US

Sysfixed is a blockchain security certification organization established in 2021 with the objective to provide smart contract security services and verify their correctness in blockchain-based protocols. Sysfixed automatically scans for security vulnerabilities in Ethereum and other EVM-based blockchain smart contracts. Sysfixed a comprehensive range of analysis techniques—including static analysis, dynamic analysis, and symbolic execution—can accurately detect security vulnerabilities to provide an in-depth analysis report. With a vibrant ecosystem of world-class integration partners that amplify developer productivity, Sysfixed can be utilized in all phases of your project's lifecycle. Our team of security experts is dedicated to the research and improvement of our tools and techniques used to fortify your code.