



SMART CONTRACT SECURITY AUDIT

WholeEarthCoin

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Website: soken.io

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Disclaimer

This is a comprehensive report based on our automated and manual examination of cybersecurity vulnerabilities and framework flaws. We took into consideration smart contract based algorithms, as well. Reading the full analysis report is essential to build your understanding of project's security level. It is crucial to take note, though we have done our best to perform this analysis and report, that you should not rely on the our research and cannot claim what it states or how we created it. Before making any judgments, you have to conduct your own independent research. We will discuss this in more depth in the following disclaimer - please read it fully.

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Security analysis is based only on the smart contracts. No applications or operations were reviewed for security. No product code has been reviewed.

Procedure

Our analysis contains following steps:

1. Project Analysis;
2. Manual analysis of smart contracts:
 - Deploying smart contracts on any of the network(Ropsten/Rinkeby) using Remix IDE
 - Hashes of all transaction will be recorded
 - Behaviour of functions and gas consumption is noted, as well.
3. Unit Testing:
 - Smart contract functions will be unit tested on multiple parameters and under multiple conditions to ensure that all paths of functions are functioning as intended.
 - In this phase intended behaviour of smart contract is verified.
 - In this phase, we would also ensure that smart contract functions are not consuming unnecessary gas.
 - Gas limits of functions will be verified in this stage.
4. Automated Testing:
 - Mythril
 - Oyente
 - Manticore
 - Solgraph

Terminology

We categorize the finding into 4 categories based on their vulnerability:

- Low-severity issue — less important, must be analyzed
- Medium-severity issue — important, needs to be analyzed and fixed
- High-severity issue — important, might cause vulnerabilities, must be analyzed and fixed
- Critical-severity issue — serious bug causes, must be analyzed and fixed.

Limitations

The security audit of Smart Contract cannot cover all vulnerabilities. Even if no vulnerabilities are detected in the audit, there is no guarantee that future smart contracts are safe. Smart contracts are in most cases safeguarded against specific sorts of attacks. In order to find as many flaws as possible, we carried out a comprehensive smart contract audit. Audit is a document that is not legally binding and guarantees nothing.

Token Contract Details for 30.10.2021

Contract Name: **WholeEarthCoinToken**

Deployed address: **0xcC1a8BD438BebC4b2a885a34475BB974f2124317**

Total Supply: **300,000,000**

Token Ticker: **WEC**

Decimals: **18**

Token holders: **710**

Transactions count: **1,209**

Top 100 holders dominance: **99.93%**

Audit Details



Project Name: **Whole Earth Foundation**

Language: **Solidity**

Compiler version: **v.0.5.0**

Blockchain: **Ethereum**

Social Profiles

Project Website: <https://www.wholeearthfoundation.org>

Project Twitter: <https://twitter.com/WholeEarthFdn>

Project Telegram: <https://t.me/WholeEarthFoundation>

Project Reddit: <https://www.reddit.com/r/WholeEarthFoundation/>

Project Facebook: <https://www.facebook.com/WholeEarthFoundation>

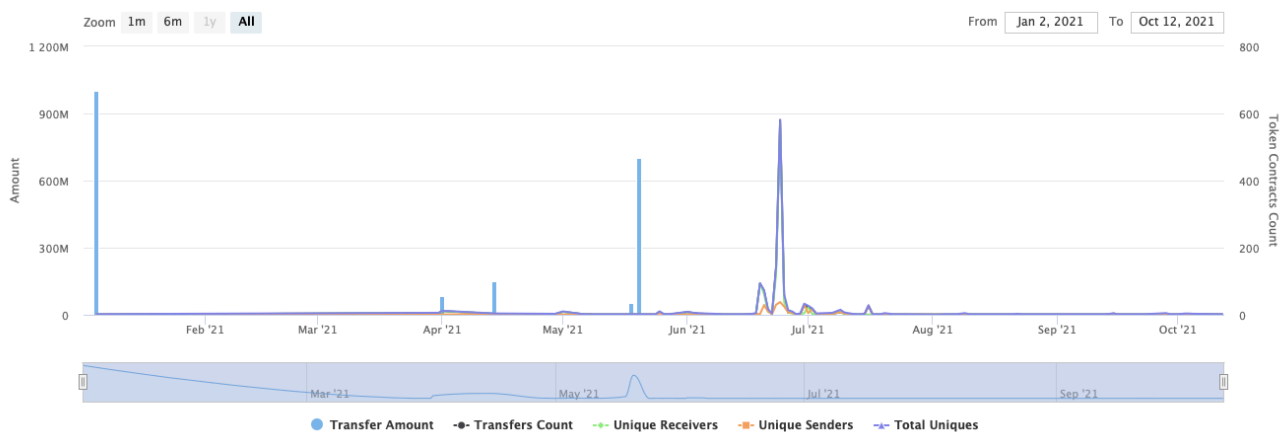
Project Medium: <https://wholeearthfoundation.medium.com>

Project LinkedIn: <https://www.linkedin.com/company/whole-earth-foundation/>

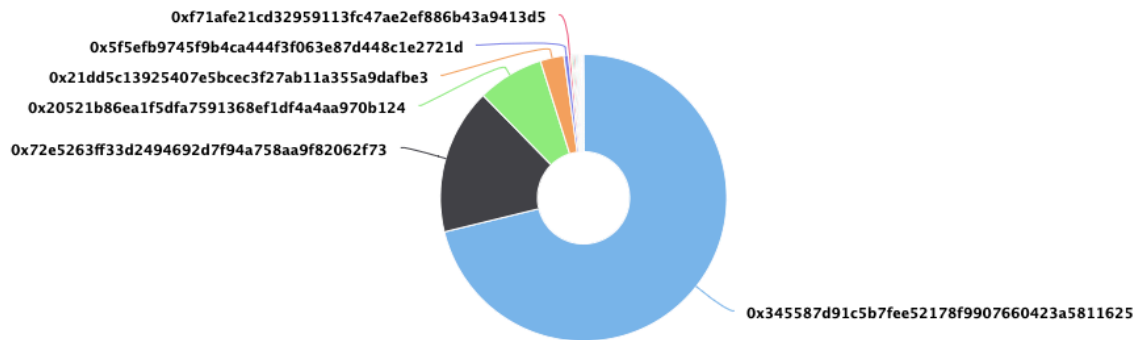
Project Discord: <https://discord.com/invite/9P6y5BTQaE>

Project GitHub: <https://github.com/Whole-Earth-Foundation>

Token Contract Overview



WEC Token Distribution



WEC Top 10 Holders

Rank	Address	Quantity (Token)	Percentage
1	0x345587d91c5b7fee52178f9907660423a5811625	213,571,060.261	71.1904%
2	0x72e5263ff33d2494692d7f94a758aa9f82062f73	49,351,927.156	16.4506%
3	0x20521b86ea1f5dfa7591368ef1df4a4aa970b124	22,500,000	7.5000%
4	0x21dd5c13925407e5bcec3f27ab11a355a9dafbe3	8,000,164.06079012	2.6667%
5	0x5f5efb9745f9b4ca444f3f063e87d448c1e2721d	1,562,500.1	0.5208%
6	0xf71afe21cd32959113fc47ae2ef886b43a9413d5	819,182.04550988	0.2731%
7	0xfb5b7ef4121786737eec77e4ad52b6bf9a39b230	500,000	0.1667%
8	0x9eeaaa689006a4a0559182e276ae8c8226f32cd	500,000	0.1667%
9	0x0e0af81f4d145b096f36740d3ac83c377534ee2a	500,000	0.1667%
10	0x60df4a7e064f8536b83f9acdcb6118da3198cc63	499,900	0.1666%

Contract Analysis

- ✓ Verified contract source
- ✓ No prior similar token contracts
- ✗ Source does not contain a proxy contract
- ✗ Source does not contain a pausable contract
- ✗ Ownership renounced or source does not contain an owner contract.

Contract Function Details

+ Context.sol

- [Int] _msgSender
- [Int] _msgData

+ WECToken.sol

- [Pub] name
- [Pub] symbol
- [Pub] decimals

+ ERC20.sol

- [Pub] totalSupply
- [Pub] balanceOf
- [Pub] transfer #
- [Pub] allowance
- [Pub] approve #
- [Pub] transferFrom #
- [Pub] increaseAllowance
- [Pub] decreaseAllowance
- [Int] _transfer
- [Int] _mint
- [Int] _burn
- [Int] _approve
- [Int] _burnFrom

+ ERC20Burnable.sol

- [Pub] burn
- [Pub] burnFrom

+ ERC20Mintable.sol

- [Pub] mint

+ ERC20Pausable.sol

- [Pub] transfer
- [Pub] transferFrom
- [Pub] approve
- [Pub] increaseAllowance
- [Pub] decreaseAllowance

+ Ownable.sol

- [Pub] owner
- [Pub] isOwner

- [Pub] renounceOwnership
- [Pub] transferOwnership
- [Int] _transferOwnership

+ Pausable.sol

- [Pub] paused
- [Pub] pause
- [Pub] unpause

+ [Int] IERC20.sol

- [Ext] totalSupply
- [Ext] balanceOf
- [Ext] transfer
- [Ext] allowance
- [Ext] approve
- [Ext] transferFrom

+ [Lib] SafeMath

- [Int] add
- [Int] sub
- [Int] sub
- [Int] mul
- [Int] div
- [Int] div
- [Int] mod
- [Int] mod

(\$) = payable function

= non-constant function

Vulnerabilities checking

Issue Description	Checking Status
Compiler Errors	Completed
Delays in Data Delivery	Completed
Re-entrancy	Completed
Transaction-Ordering Dependence	Completed
Timestamp Dependence	Completed
Shadowing State Variables	Completed
DoS with Failed Call	Completed
DoS with Block Gas Limit	Completed
Outdated Compiler Version	Completed
Assert Violation	Completed
Use of Deprecated Solidity Functions	Completed
Integer Overflow and Underflow	Completed
Function Default Visibility	Completed
Malicious Event Log	Completed
Math Accuracy	Completed
Design Logic	Completed
Fallback Function Security	Completed
Cross-function Race Conditions	Completed
Safe Zeppelin Module	Completed

Security Issues

1) Owner privileges:

The contract contains ownership functionality and ownership is not renounced which allows the creator or current owner to modify contract behavior (for example, disable selling or mint new tokens).

2) SWC-103: A floating pragma is set.

The current pragma Solidity directive is ""^0.5.0"". 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.

```
1 // SPDX-License-Identifier: MIT
2
3 pragma solidity ^0.5.0;
```

Conclusion

Low-severity issues exist within smart contracts. Smart contracts are free from any critical or high-severity issues.

NOTE: Please check the disclaimer above and note, that audit makes no statements or warranties on business model, investment attractiveness or code sustainability.

Soken Contact Info

Website: www.soken.io

Mob: (+1)416-875-4174

32 Britain Street, Toronto, Ontario, Canada

Telegram: @team_soken

GitHub: sokenteam

Twitter: @soken_team

