

TechRate  
August, 2022



# SMART CONTRACTS SECURITY AUDIT REPORT



Techrate\_audits



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Techrate1

# Audit Details



Audited project

TranshumanCoinStaking



Deployer address

0xfbb35a4b34f73906e3ad67dca52024c9cfa97c09



Client contacts:

[www.twitter.com/transhumancoin](https://www.twitter.com/transhumancoin)



Blockchain

Binance Smart Chain



Project website:

[www.transhumancoin.finance](https://www.transhumancoin.finance)

# Disclaimer

This is a limited report on our findings based on our analysis, in accordance with good industry practice as at 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 disclaimer below – please make sure to read it in full.

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The analysis of the security is purely based on the smart contracts alone. No applications or operations were reviewed for security. No product code has been reviewed.

# Background

**TechRate was commissioned by TranshumanCoinStaking to perform an audit of smart contracts:**

<https://bscscan.com/address/0x144960C94c846D30C3b4f373C348ed5f13C1f42a#code>

The purpose of the audit was to achieve the following:

- Ensure that the smart contract functions as intended.
- Identify potential security issues with the smart contract.

The information in this report should be used to understand the risk exposure of the smart contract, and as a guide to improve the security posture of the smart contract by remediating the issues that were identified.

# Contracts Details

## Token contract details for 12.08.2022

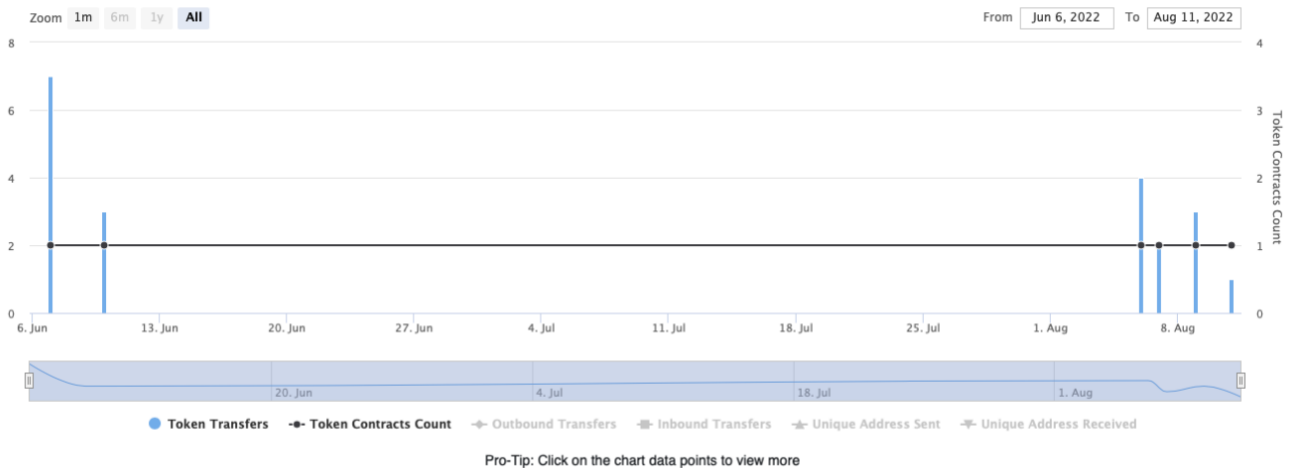
Contract name	TranshumanCoinStaking
Contract address	0x144960C94c846D30C3b4f373C348ed5f13C1f42a
Stake token address	0x56083560594e314b5cdd1680ec6a493bb851bbd8
Marketing wallet	0x7e214f5f19ef8f3fec429d6f4cdd205a6681f413
Contract deployer address	0xfbb35a4b34f73906e3ad67dca52024c9cfa97c09
Owner address	0xfbb35a4b34f73906e3ad67dca52024c9cfa97c09

# TranshumanCoinStaking Contract Interaction Details

Time Series: Address Token (BEP-20) Transfers

Tue 7, Jun 2022 - Thu 11, Aug 2022

Token Transfers for 0x144960C94c846D30C3b4f373C348ed5f13C1f42a  
Source: BscScan.com



1408

C6

780

DF1408

65

76C6

5C780

29C4CAD8

C4

87C9C

31B2A384

DF1

65

# Contract functions details

## + [Lib] SafeMath2

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

## + [Int] IERC20

- [Ext] name
- [Ext] symbol
- [Ext] decimals
- [Ext] totalSupply
- [Ext] balanceOf
- [Ext] allowance
- [Ext] approve #
- [Ext] transfer #
- [Ext] transferFrom #
- [Ext] mint #

## + TranshumanCoinStaking

- [Pub] <Constructor> #
- [Pub] stake #
- [Pub] unstake #
- [Pub] stakingDateOf
- [Pub] periodOf
- [Pub] stakeOf
- [Pub] rewardOf
- [Pub] nowUnixTime
- [Int] calcRewards
- [Int] creatStaker #
- [Int] removeStaker #
- [Int] ownerConstructor #
- [Pub] owner
- [Pub] renounceOwnership #
  - modifiers: onlyOwner
- [Pub] transferOwnership #
  - modifiers: onlyOwner
- [Int] \_transferOwnership #

(\$) = payable function

# = non-constant function

# Issues Checking Status

Issue description	Checking status
1. <b>Compiler errors.</b>	Passed
2. <b>Race conditions and Reentrancy. Cross-function race conditions.</b>	Passed
3. <b>Possible delays in data delivery.</b>	Passed
4. <b>Oracle calls.</b>	Passed
5. <b>Front running.</b>	Passed
6. <b>Timestamp dependence.</b>	Passed
7. <b>Integer Overflow and Underflow.</b>	Passed
8. <b>DoS with Revert.</b>	Passed
9. <b>DoS with block gas limit.</b>	Passed
10. <b>Methods execution permissions.</b>	Passed
11. <b>Economy model of the contract.</b>	Passed
12. <b>The impact of the exchange rate on the logic.</b>	Passed
13. <b>Private user data leaks.</b>	Passed
14. <b>Malicious Event log.</b>	Passed
15. <b>Scoping and Declarations.</b>	Passed
16. <b>Uninitialized storage pointers.</b>	Passed
17. <b>Arithmetic accuracy.</b>	Passed
18. <b>Design Logic.</b>	Passed
19. <b>Cross-function race conditions.</b>	Passed
20. <b>Safe Open Zeppelin contracts implementation and usage.</b>	Passed
21. <b>Fallback function security.</b>	Passed



# Security Issues

## ✓ High Severity Issues

No high severity issues found.

## ✓ Medium Severity Issues

No medium severity issues found.

## ✓ Low Severity Issues



No low severity issues found.

### Notes:



- calcRewards function's first condition is unused.
- Warning: Visibility for constructor is ignored.
- Contract contains early withdraw fees.

# Testnet deployment

Contracts Description Table

Contract	Type	Bases	Visibility	Mutability	Modifiers
L	Function Name				
TranshumanCoinStaking	Implementation				
	L		Public !		NO !
	L		Public !		NO !
	<a href="#">stake</a>				
	<a href="#">unstake</a>				

## Legend

Symbol	Meaning
	Function can modify state
	Function is payable

# Conclusion

Smart contracts do not contain high severity issues! The further transfers and operations with the funds raise are not related to this particular contract.

Security score: 95.

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## *TechRate note:*

*Please check the disclaimer above and note, the audit makes no statements or warranties on business model, investment attractiveness or code sustainability. The report is provided for the only contract mentioned in the report and does not include any other potential contracts deployed by Owner.*