



MOTECH AUDIT

SMART CONTRACT SECURITY AUDIT

SECURITY ASSESSMENT

TRICKLE TOKEN AUDIT REPORT

2021

8 DEC 2021

SECURITY ASSESMENT

TABLE OF CONTENTS

Summary	3
Disclaimer	4
Background	5
Audit Details	6
Contract Details	7
Trickle Token Distribution	8
Trickle Token Contract Interaction Details	8
Top 10 Token Holders	9
Security Issue	10
Token Logo	11
Conclusion	12



SECURITY ASSESMENT

SUMMARY

This report has been prepared for Trickle to discover issues and vulnerabilities in the source code of the Trickle project as well as any contract dependencies that were not part of an officially recognized library. A comprehensive examination has been performed, utilizing Static Analysis, Manual Review, and Testnet Deployment techniques.

The auditing process pays special attention to the following considerations:

- Testing the smart contracts against both common and uncommon attack vectors.
- Assessing the codebase to ensure compliance with current best practices and industry standards.
- Ensuring contract logic meets the specifications and intentions of the client.
- Cross referencing contract structure and implementation against similar smart contracts produced by industry leaders.
- Thorough line-by-line manual review of the entire codebase by industry experts.

The security assessment resulted in findings that ranged from critical to informational. We recommend addressing these findings to ensure a high level of security standards and industry practices. We suggest recommendations that could better serve the project from the security perspective:

- Enhance general coding practices for better structures of source codes;
- Add enough unit tests to cover the possible use cases given they are currently missing in the repository;
- Provide more comments per each function for readability, especially contracts are verified in public;
- Provide more transparency on privileged activities once the protocol is live.



MOTECH AUDIT
SMART CONTRACT SECURITY AUDIT

SECURITY ASSESSMENT

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 below disclaimer below – please make sure to read it in full.

DISCLAIMER: By reading this report or any part of it, you agree to the terms of this disclaimer. If you do not agree to the terms, then please immediately cease reading this report, and delete and destroy any and all copies of this report downloaded and/or printed by you. 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 MotechAudit and its affiliates (including holding companies, shareholders, subsidiaries, employees, directors, officers and other representatives) (MotechAudit) owe no duty of care towards you or any other person, nor does MotechAudit make any warranty or representation to any person on the accuracy or completeness of the report. The report is provided "as is", without any conditions, warranties or other terms of any kind except as set out in this disclaimer, and MotechAudit hereby excludes all representations, warranties, conditions and other terms (including, without limitation, the warranties implied by law of satisfactory quality, fitness for purpose and the use of reasonable care and skill) which, but for this clause, might have effect in relation to the report. Except and only to the extent that it is prohibited by law, MotechAudit hereby excludes all liability and responsibility, and neither you nor any other person shall have any claim against MotechAudit, for any amount or kind of loss or damage that may result to you or any other person (including without limitation, any direct, indirect, special, punitive, consequential or pure economic loss or damages, or any loss of income, profits, goodwill, data, contracts, use of money, or business interruption, and whether in delict, tort (including without limitation negligence), contract, breach of statutory duty, misrepresentation (whether innocent or negligent) or otherwise under any claim of any nature whatsoever in any jurisdiction) in any way arising from or connected with this report and the use, inability to use or the results of use of this report, and any reliance on this report.

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.



MOTECH AUDIT
SMART CONTRACT SECURITY AUDIT

SECURITY ASSESSMENT

BACKGROUND

MotechAudit was commissioned by Trickle to perform an audit of smart contracts:

<https://bscscan.com/address/0xB8B932D41d6bE935Ce1666AAF41f056093F9faeE>

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.



MOTECH AUDIT
SMART CONTRACT SECURITY AUDIT

SECURITY ASSESSMENT

AUDIT DETAILS



AUDITED PROJECT

Trickle



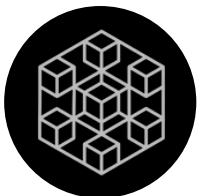
DEPLOYER ADDRESS

0x4f8603db76538642F45d54e1b0b63A40f9fe4b02



CLIENT CONTACTS:

Trickle Team



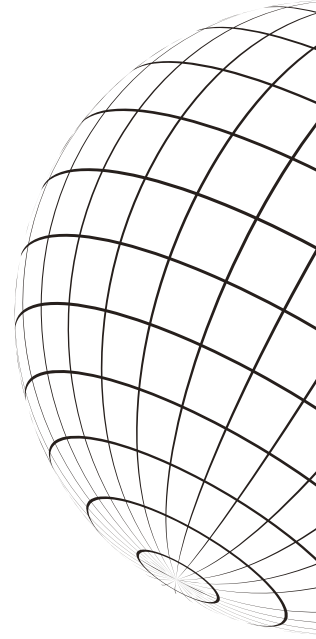
BLOCKCHAIN

BSC Project



WEBSITE:

<http://www.trickle.cloud/>

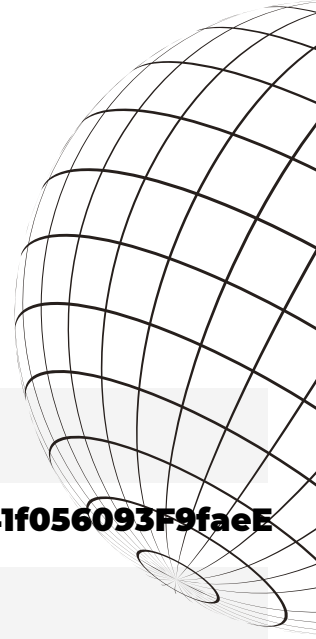


MOTECH AUDIT
SMART CONTRACT SECURITY AUDIT

SECURITY ASSESSMENT

CONTRACT DETAILS

Token contract details for Nov-22-2021



Contract name	Trickle
Contract address	0xB8B932D41d6bE935Ce1666AAF41f056093F9faeE
Total supply	500,000,000 H2O
Token ticker	Trickle (H2O)
Decimals	18
Token holders	1,064
Transactions count	3,760
Top 100 holders dominance	99.82%
Contract deployer address	0x4f8603db76538642F45d54e1b0b63A40f9fe4b02
Contract's current owner address	0x4f8603db76538642F45d54e1b0b63A40f9fe4b02



SECURITY ASSESSMENT

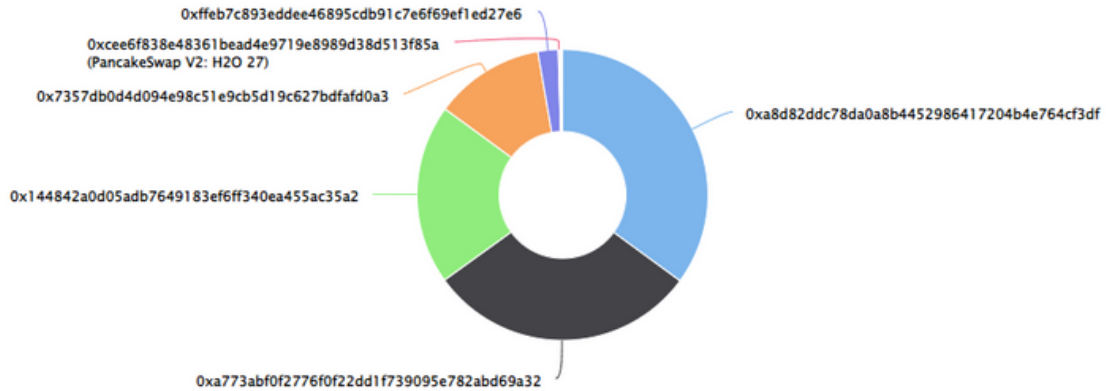
TRICKLE TOKEN DISTRIBUTION

The top 100 holders collectively own 99.89% (499,430,489.98 Tokens) of Trickle

Token Total Supply: 500,000,000.00 Token | Total Token Holders: 1,064

Trickle Top 100 Token Holders

Source: BscScan.com



(A total of 499,430,489.98 tokens held by the top 100 accounts from the total supply of 500,000,000.00 token)

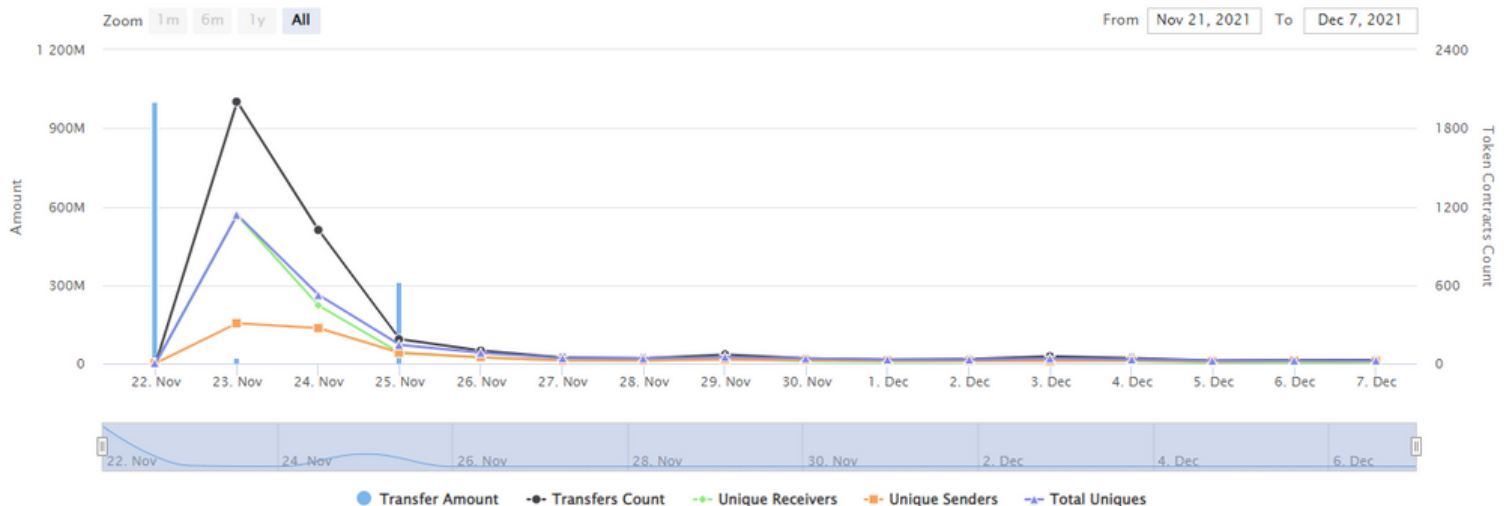
TRICKLE TOKEN CONTRACT INTERACTION DETAILS

Time Series: Token Contract Overview

Mon 22, Nov 2021 - Tue 7, Dec 2021

Token Contract 0x888932D41d6bE935Ce1666AAf41f056093F9faeE (Trickle)

















Source: BscScan.com



MOTECH AUDIT
SMART CONTRACT SECURITY AUDIT

SECURITY ASSESSMENT

TOP 10 TOKEN HOLDERS

Rank	Address	Quantity	Percentage	Value	Analytics
1	 0xa8d82ddc78da0a8b4452986417204b4e764cf3df	175,305,511.8889	35.0611%	\$13,625,270.30	
2	 0xa773abf0f2776f0f22dd1f739095e782abd69a32	150,000,000	30.0000%	\$11,658,450.00	
3	 0x144842a0d05adb7649183ef6ff340ea455ac35a2	100,000,000	20.0000%	\$7,772,300.00	
4	 0x7357db0d4d094e98c51e9cb5d19c627bdfaf0a3	61,161,156	12.2322%	\$4,753,628.53	
5	0xffeb7c893eddee46895cdb91c7e6f69ef1ed27e6	11,158,392.213	2.2317%	\$867,263.72	
6	 PancakeSwap V2: H2O 27	839,760.412328390788936653	0.1680%	\$65,268.70	
7	 0x8f6aa29ea3e76fee0a28af855585b54c8364b659	54,456.451154181296420032	0.0109%	\$4,232.52	
8	0xdcf646e6a54dbd980ad57220c78e8b22a6732414	44,857.717181443169975233	0.0090%	\$3,486.48	
9	0xd440f3b6d5a95486e17ec9ed30a13d649b921764	44,592.620856837385258792	0.0089%	\$3,465.87	
10	0x1557db9326543968f6c4f53be62968b87b396188	44,403.901410929115876347	0.0089%	\$3,451.20	

source:<https://bscscan.com/>



SECURITY ASSESSMENT

SECURITY ISSUES

⚠️ High Severity Issues

All token transfers can be stopped by owners. Such functionality can be used to manipulate the market

Contracts: Trickle.sol

Functions: pause

Recommendation: The owner must be a contract with transparent rules for using the pause function. Else remove this function.

✅ Medium Severity Issues

No high severity issues found.

⚠️ Low Severity Issues

“hardhat/console.sol” is imported but never used

Contracts: Trickle.sol

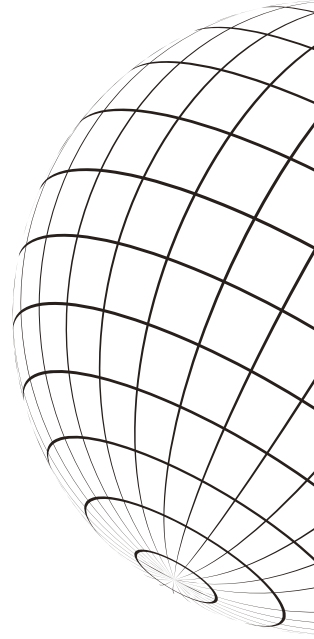
Recommendation: remove unused import.

Status: fixed.



MOTECH AUDIT
SMART CONTRACT SECURITY AUDIT

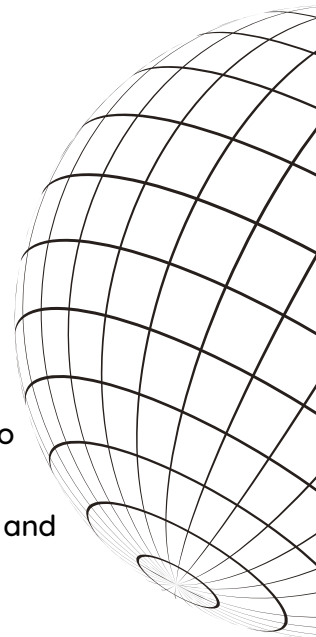
SECURITY ASSESMENT
TOKEN LOGO



SECURITY ASSESMENT CONCLUSION

Smart contracts contain owner privileges!

Motech Audit 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.



MOTECH AUDIT
SMART CONTRACT SECURITY AUDIT