



Smart Contract Security Audit Report

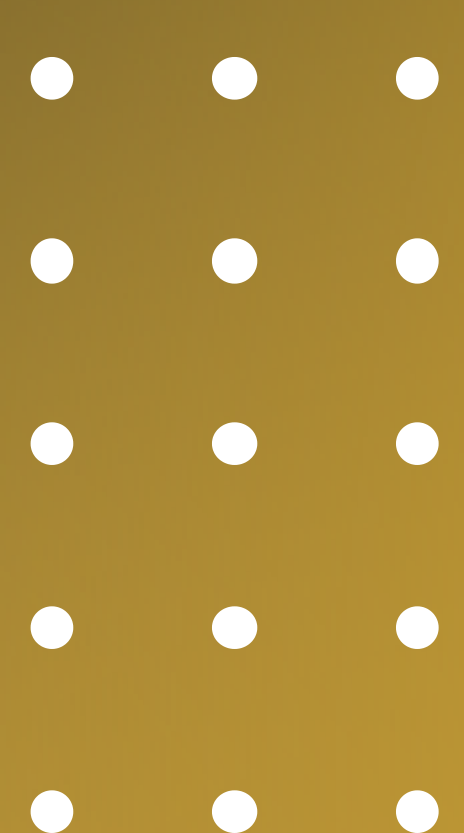
YFIH2

December 2022

Security Status



www.hacksafe.io



Audit Details



Audited project

YFIH2



Deployer address

0xfcf8a84d70594274df450bd725fe943caeea1af5



Client contacts

YFIH2 Team



Blockchain

Binance smart chain



Website

<http://www.h2finance.io/>

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.

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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.

Procedure

Step 1 - In-Depth Manual Review

Manual line-by-line code reviews to ensure the logic behind each function is sound and safe from various attack vectors. This is the most important and lengthy portion of the audit process (as automated tools often cannot find the nuances that lead to exploits such as flash loan attacks).

Step 2 - Automated Testing

Simulation of a variety of interactions with your Smart Contract on a test blockchain leveraging a combination of automated test tools and manual testing to determine if any security vulnerabilities exist.

Step 3 – Leadership Review

The engineers assigned to the audit will schedule meetings with our leadership team to review the contracts, any comments or findings, and ask questions to further apply adversarial thinking to discuss less common attack vectors.

Step 4 - Resolution of Issues

Consulting with the team to provide our recommendations to ensure the code's security and optimize its gas efficiency, if possible. We assist project team's in resolving any outstanding issues or implementing our recommendations.

Step 5 - Published Audit Report

Boiling down results and findings into an easy-to-read report tailored to the project. Our audit reports highlight resolved issues and any risks that exist to the project or its users, along with any remaining suggested remediation measures. Diagrams are included at the end of each report to help users understand the interactions which occur within the project.

Background

HackSafe was commissioned by to YFIH2 perform an audit of smart contracts:

- <https://bscscan.com/token/0xDcb624C870d73CDD0B3345762977CB14dE598cd0#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 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.

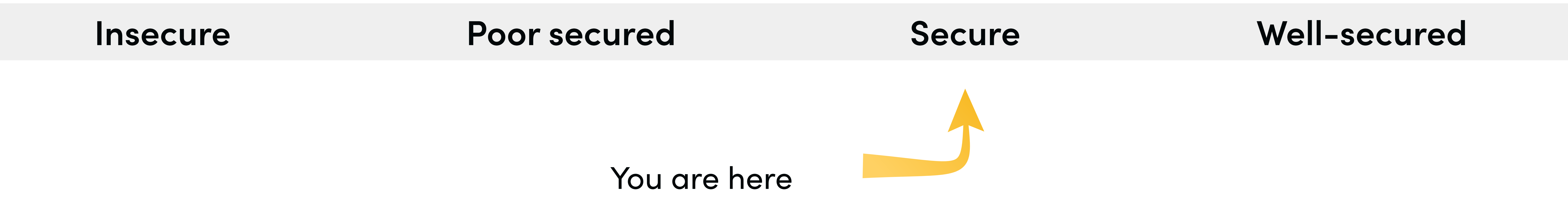
Contract Details

Token contract details for 02.12.2022

Token Type	: DEFI
Contract name	: StandardBEP20
Contract address	: 0xDcb624C870d73CDD0B3345762977CB14dE598cd0
Total supply	: 25,000
Token ticker	: YFIH2
Decimals	: 18
Token Holders	: 4,383
Transactions count	: 57,909
Compiler version	: v0.8.3+commit.8d00100c
Contract deployer address	: 0xfcf8a84d70594274df450bd725fe943caeea1af5
Owner address	: 0x83f3e9fb978f52ce8d07fe71f7033f19f992debc

Audit Summary

According to the standard audit assessment, Customer`s solidity smart contracts are **“Secure”**. This token contract does contain owner control, which do not make it fully decentralized as owner does have control over smart contract.



We used various tools like Slither, Mythril and Remix IDE. At the same time this finding is based on critical analysis of the manual audit. All issues found during automated analysis were manually reviewed and applicable vulnerabilities are presented in the issues checking status.

We found 0 critical, 0 high, 0 medium and 1 low.

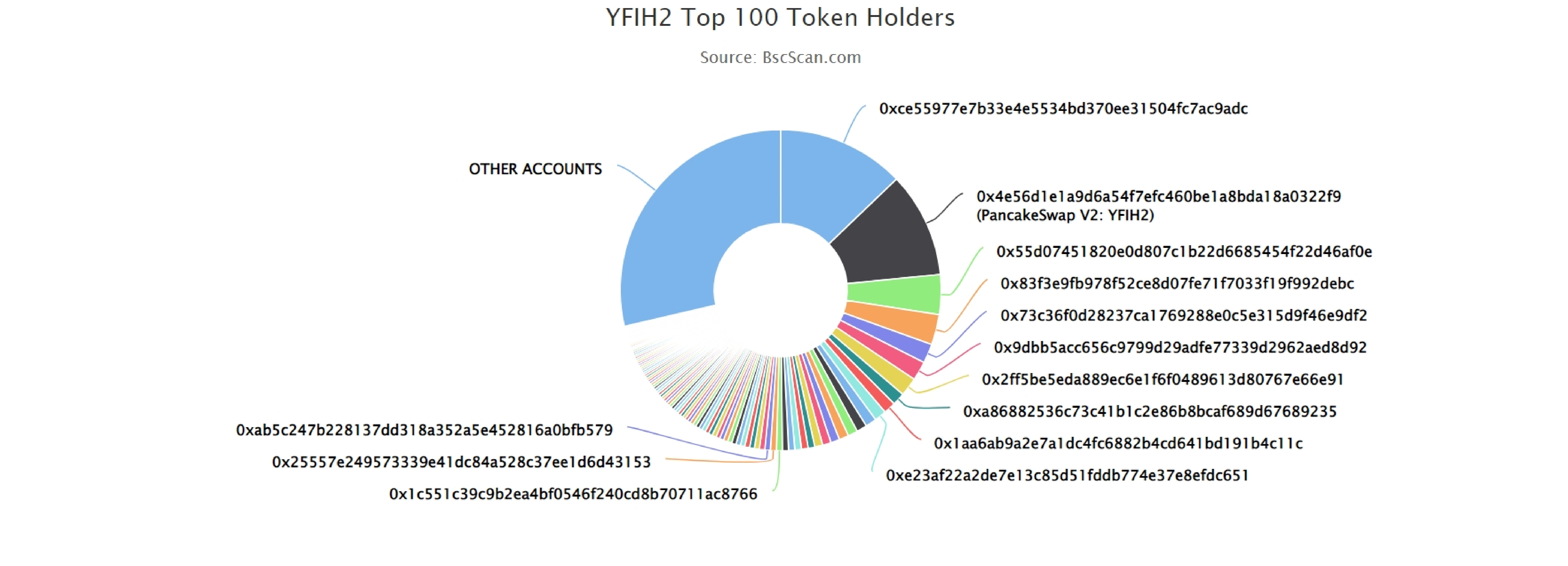
YFIH2 Distribution

 The top 100 holders collectively own 71.40% (17,849.09 Tokens) of YFIH2

 Token Total Supply: 25,000.00 Token


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Total Token Holders: 4,383



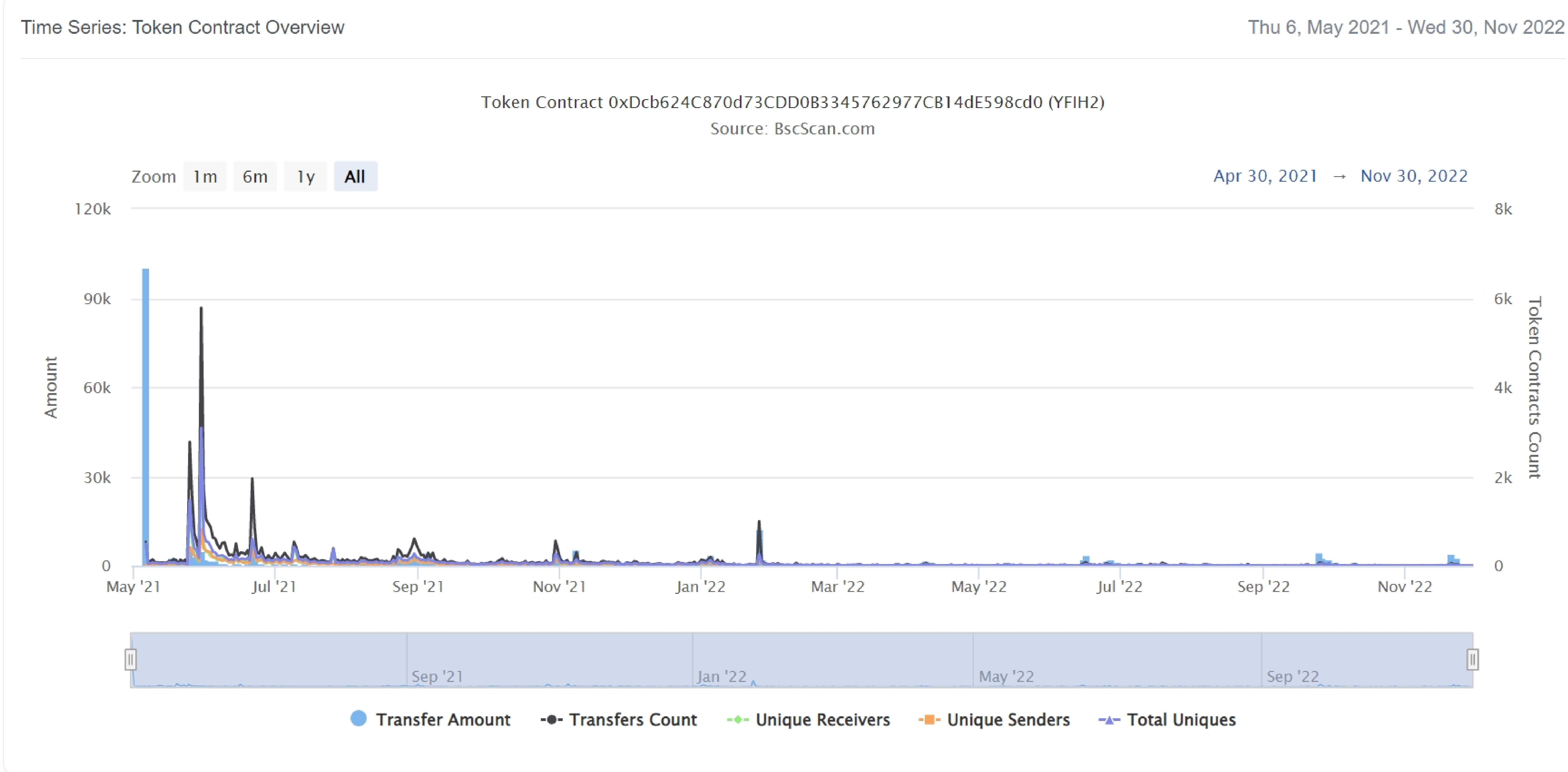
YFIH2 Top 20 Token Holders

(A total of 17,849.09 tokens held by the top 100 accounts from the total supply of 25,000.00 token)

Rank	Address	Quantity (Token)	Percentage
1	0xce55977e7b33e4e5534bd370ee31504fc7ac9adc	3,209.207980684377082578	12.8368%
2	 PancakeSwap V2: YFIH2	2,648.92556441117898627	10.5957%
3	0x55d07451820e0d807c1b22d6685454f22d46af0e	1,005	4.0200%
4	0x83f3e9fb978f52ce8d07fe71f7033f19f992debc	763.685338487226762816	3.0547%
5	0x73c36f0d28237ca1769288e0c5e315d9f46e9df2	485	1.9400%
6	0x9dbb5acc656c9799d29adfe77339d2962aed8d92	480	1.9200%
7	0x2ff5be5eda889ec6e1f6f0489613d80767e66e91	472.007169177088416233	1.8880%
8	0xa86882536c73c41b1c2e86b8bcacf689d67689235	317.642458192643406555	1.2706%
9	0x1aa6ab9a2e7a1dc4fc6882b4cd641bd191b4c11c	304.237494898699312044	1.2169%
10	0xe23af22a2de7e13c85d51fddb774e37e8efdc651	300	1.2000%
11	0x61b921d8fa8a825758d4a5ff44034f020fa14f3b	280.308146675294268176	1.1212%
12	0xe552600088f84aa2bceef2f09e15f1c81ce4dbc	257.645203821272965108	1.0306%
13	0xcf29e9dbe9593937919119c75b707871bb857896	247.280421221761760938	0.9891%
14	0x2b2855cdf211741756d6bff500c37c87e577a9e2	243.495489997290572881	0.9740%
15	0x0ab439be10fce68ee5c9a433a8a55c5039c6639b	219.463641752358838527	0.8779%
16	0x65913f5fae1491004b8b37a972dd1f2c3155a544	215	0.8600%
17	0x57c505081ec25c38a7e8e9040454fea7e528b57	200.429519280567591602	0.8017%
18	0x32cf0f65d051229475312c175d3c0aa3aa839736	168.826237953732403297	0.6753%
19	0x9d79bf8028ce6094cd1ea9e7fedb55693ced1d8f	167.164472377858722975	0.6687%
20	0xc9031933b6b69b43f3ad481f0c70ee6f4c9f3104	167.022148244823119242	0.6681%

YFIH2 Distribution

YFIH2 Overview



Contract functions details

+Context

- [Int] _msgSender
- [Int] _msgData

+Ownable (Context)

- <constructor>
- [Pub] owner
- [Pub] renounceOwnership #
 - modifiers: onlyOwner
- [Pub] transferOwnership #
 - modifiers: onlyOwner

+[Int] IBEP20

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

+BEP20 (Context, IBEP20, Ownable)

- <constructor>
- [Pub] name
- [Pub] symbol
- [Pub] decimals
- [Pub] totalSupply
- [Pub] balanceOf
- [Pub] getOwner
- [Pub] transfer #
- [Pub] transferFrom #
- [Pub] approve #
- [Pub] allowance
- [Pub] increaseAllowance #
- [Pub] decreaseAllowance #
- [Int] _transfer #
- [Int] _mint #

Contract functions details

- [Int] _burn #
- [Int] _approve #
- [Int] _setupDecimals #
- [Int] _beforeTokenTransfer

- + [Int] IPayable
 - [Ext] pay \$

- +ServicePayer
 - <constructor> \$

- +StandardBEP20 (BEP20, ServicePayer)
 - <constructor> \$

(\$) = payable function

= non-constant function

Issues Checking Status

No.	Title	Status
1.	Unlocked Compiler Version	Low issue
2.	Missing Input Validation	Passed
3.	Race conditions and Reentrancy. Cross-function race conditions.	Passed
4.	Possible delays in data delivery	Passed
5.	Oracle calls.	Passed
6.	Timestamp dependence.	Passed
7.	Integer Overflow and Underflow	Passed
8.	DoS with Revert.	Passed
9.	DoS with block gas limit.	Passed
10.	Methods execution permissions.	Passed
11.	Economy model of the contract.	Passed
12.	Private use data leaks.	Passed
13.	Malicious Event log.	Passed
14.	Scoping and Declarations.	Passed
15.	Uninitialized storage pointers.	Passed
16.	Arithmetic accuracy.	Passed
17.	Design Logic.	Passed
18.	Safe Open Zeppelin contracts implementation and usage.	Passed
19.	Incorrect Naming State Variable	Passed
20.	Too old version	Passed

Severity Definitions

Risk Level	Description
Critical	Critical vulnerabilities are usually straightforward to exploit and can lead to assets loss or data manipulations.
High	High-level vulnerabilities are difficult to exploit; however, they also have a significant impact on smart contract execution, e.g., public access to crucial functions
Medium	Medium-level vulnerabilities are important to fix; however, they can't lead to assets loss or data manipulations.
Low	Low-level vulnerabilities are mostly related to outdated, unused, etc. code snippets that can't have a significant impact on execution.

Security Issues

✓ Critical Severity Issues

No critical severity issue found.

✓ High Severity Issues

No high severity issue found.

✓ Medium Severity Issues

No medium severity issue found.

✓ Low Severity Issues

One low severity issue found.

1. Unlocked Compiler Version.

- **Description**

The contract utilizes an unlocked compiler version. An unlocked compiler version in the contract's source code permits the user to compile it at or above a particular version. This, in turn, leads to differences in the generated bytecode between compilations due to differing compiler version numbers. This can lead to ambiguity when debugging as compiler-specific bugs may occur in the codebase that would be difficult to identify over a span of multiple compiler versions rather than a specific one.

- **Recommendation**

It is advisable that the compiler version is alternatively locked at the lowest version possible so that the contract can be compiled. For example, for version ^0.8.0 the contract should contain the following line:

```
pragma solidity 0.8.3;
```


Centralization

Owner Privileges :

- YFIH2 Contract:
 - Owner can renounce and transfer ownership.

This smart contract has some functions which can be executed by the admin (Owner) only. If the admin wallet private key would be compromised, then it would create trouble as smart contract ownership has not been renounced. Following are Admin functions:

- `renounceOwnership`
- `transferOwnership`

Conclusion

Smart contract contains low severity issues! The further transfer and operations with the fund raised are not related to this particular contract.

HackSafe 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.