

Building the Futuristic Blockchain Ecosystem

SECURITY AUDIT REPORT

BAKA INU



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OVERVIEW

The Expelee team has performed a line-by-line manual analysis and automated review of the smart contract. The smart contract was analysed mainly for common smart contract vulnerabilities, exploits, and manipulation hacks. According to the smart contract audit:

Audit Result	Passed
KYC Verification	-
Audit Date	19 April 2023



CONTRACT DETAILS

Token Name: BAKA INU

Symbol: BAKI

Network: Binance Smart Chain

Language: Solidity

Contract Address: --

Total Supply: 1,000,000,000,000

Contract SHA-256 Checksum: fcb3e3f6b69a4b2efc893eae59f2fa0b5730c2cb

Owner's Wallet: --

Deployer's Wallet: --

Testnet:

https://testnet.bscscan.com/token/0x8bdAD51c893Bd4732 91aCD75cA748126c57D4c04



OWNER PRIVILEGES

- owner is not able to change fees (10% for buy/sell/transfer)
- owner is not able to set limits for buy/sell/transfer amounts
- · owner is not able to blacklist an arbitrary wallet
- owner is not able to disable trades/transfers
- owner is not able to mint new tokens
- owner must enable trades manually



AUDIT METHODOLOGY

Audit Details

Our comprehensive audit report provides a full overview of the audited system's architecture, smart contract codebase, and details on any vulnerabilities found within the system.

Audit Goals

The audit goal is to ensure that the project is built to protect investors and users, preventing potentially catastrophic vulnerabilities after launch, that lead to scams and rugpulls.

Code Quality

Our analysis includes both automatic tests and manual code analysis for the following aspects:

- Exploits
- Back-doors
- Vulnerability
- Accuracy
- Readability

Tools

- DE
- Open Zeppelin
- Code Analyzer
- Solidity Code
- Compiler
- Hardhat



VULNERABILITY CHECKS

Design Logic	Passed
Compiler warnings	Passed
Private user data leaks	Passed
Timestamps dependence	Passed
Integer overflow and underflow	Passed
Race conditions & reentrancy. Cross-function race conditions	Passed
Possible delays in data delivery	Passed
Oracle calls	Passed
Front Running	Passed
DoS with Revert	Passed
DoS with block gas limit	Passed
Methods execution permissions	Passed
Economy model	Passed
Impact of the exchange rate on the logic	Passed
Malicious event log	Passed
Scoping and declarations	Passed
Uninitialized storage pointers	Passed
Arithmetic accuracy	Passed
Cross-function race conditions	Passed
Safe Zepplin module	Passed



RISK CLASSIFICATION

When performing smart contract audits, our specialists look for known vulnerabilities as well as logical and acces control issues within the code. The exploitation of these issues by malicious actors may cause serious financial damage to projects that failed to get an audit in time. We categorize these vulnerabilities by the following levels:

High Risk

Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.

Medium Risk

Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.

Low Risk

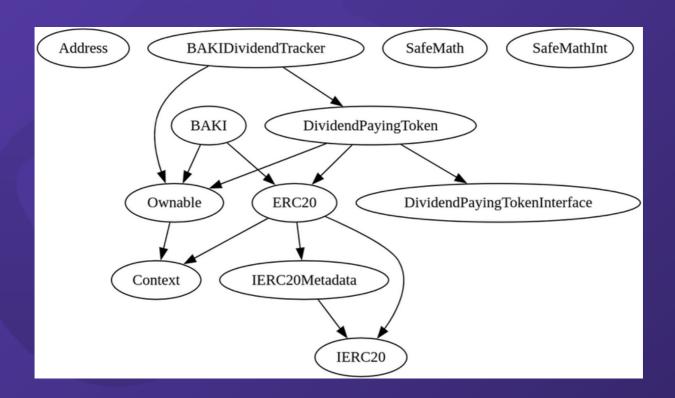
Issues on this level are minor details and warning that can remain unfixed.

Informational

Issues on this level are minor details and warning that can remain unfixed.



INHERITANCE TREES







```
Contract
      **Function Name** | **Visibility** | **Mutability** | **Modifiers** |
**Address** | Library | |||
└ | sendValue | Internal 🔒 | 🛑 | |
**BAKI** | Implementation | ERC20, Ownable ||
└ | <Constructor> | Public | | ● | ERC20 |
| <Receive Ether> | External | | I | NO | |
| claim | External | | | NO | |
└ | withdrawToken | External | | ● | onlyOwner |
| withdrawETH | External | | | | onlyOwner |
L | excludeFromFees | Public | | | onlyOwner |
| excludeMultipleAccountsFromFees | Public | | | onlyOwner |
L | excludeFromDividends | External | | • | onlyOwner |
└ | setMarketingWallet | External | | ● | onlyOwner |
L | setSwapEnabled | External | | | | onlyOwner |
L | setAntiBotBlocks | External | | ● | onlyOwner |
L | setMinBalanceForDividends | External | | | | onlyOwner |
📙 setAutomatedMarketMakerPair | Private 🔐 | 🛑 | |
└ | setGasForProcessing | External | | ● | onlyOwner |
L | setClaimWait | External | | • | onlyOwner |
| getClaimWait | External | NO |
L | getTotalDividendsDistributed | External | NO | |
isExcludedFromFees | Public | NO | |
| withdrawableDividendOf | Public | NO | |
| getCurrentRewardToken | External | NO | |
L | dividendTokenBalanceOf | Public | NO |
| getAccountDividendsInfo | External | NO | |
| getAccountDividendsInfoAtIndex | External | NO | |
| getLastProcessedIndex | External | NO |
L | getNumberOfDividendTokenHolders | External | NO | |
L | _transfer | Internal 🔒 | 🛑 | |
L | swapAndLiquify | Private 🔐 | 🛑 | |
L | swapTokensForBNB | Private 🔐 | 🛑 | |
L | addLiquidity | Private 🔐 | 🛑 | |
**BAKIDividendTracker** | Implementation | Ownable, DividendPayingToken ||
└ | <Constructor> | Public | | ● | DividendPayingToken |
L | transfer | Internal 🔒 | | |
```



```
L | setMinBalanceForDividends | External | | | onlyOwner |
| excludeFromDividends | External | | | | onlyOwner |
| updateClaimWait | External | | | | onlyOwner |
| getLastProcessedIndex | External | NO | |
| getNumberOfTokenHolders | External | NO | |
getCurrentRewardToken | External | NO |
| getAccount | Public | NO | |
getAccountAtIndex | Public | NO | |
L | canAutoClaim | Private 🔐 | | |
└ | setBalance | Public | | ● | onlyOwner |
| process | Public | | | NO | |
| processAccount | Public | | | onlyOwner |
**DividendPayingToken** | Implementation | ERC20, DividendPayingTokenInterface, Ownable ||
└ | <Receive Ether> | External | | ■ | NO | |
| distributeDividends | Public | | | NO | |
| withdrawDividendOfUser | Internal | | |
L | setRewardToken | External | | | onlyOwner |
💄 | swapBnbForCustomToken | Internal 🔒 | 🛑 | |
| dividendOf | Public | | NO | |
| withdrawableDividendOf | Public | NO | |
| withdrawnDividendOf | Public | NO |
| accumulativeDividendOf | Public | | NO | |
📙 transfer | Internal 🔒 | 🛑 | |
L | tokengeneration | Internal 🔒 | 🛑 | |
L | _burn | Internal 🔒 | 🛑 | |
📙 setBalance | Internal 🔒 | 🛑 | |
**ERC20** | Implementation | Context, IERC20, IERC20Metadata ||
└ | <Constructor> | Public | | ● | NO | |
L | name | Public | | NO | |
L | symbol | Public | | NO |
L | decimals | Public | | NO |
L | totalSupply | Public | | NO | |
L | balanceOf | Public | | NO | |
L | transfer | Public | | | NO | |
L | allowance | Public | | NO | |
| approve | Public | | | NO | |
L | transferFrom | Public | | | NO |
increaseAllowance | Public | | INO | |
L | decreaseAllowance | Public | | | NO | |
📙 transfer | Internal 🔒 | 🛑 | |
L | tokengeneration | Internal 🔒 | 🛑 | |
L | _burn | Internal 🔒 | 🛑 | |
L | approve | Internal 🔒 | 🛑
```



```
| L | beforeTokenTransfer | Internal 🔒 | 🛑 | |
| **IERC20** | Interface | ||
L | totalSupply | External | NO | |
 | balanceOf | External | NO | |
 L | transfer | External | | | NO | |
 | allowance | External | NO | |
 | approve | External | | | NO | |
 **IERC20Metadata** | Interface | IERC20 |||
 L | name | External | | | NO | |
 L | symbol | External | | NO | |
 L | decimals | External | | NO | |
**Context** | Implementation | ||
L | _msgSender | Internal 🔒 | | |
L | msgData | Internal 🔒 | |
**SafeMath** | Library | ||
 L | add | Internal 🔒 | | |
 L | sub | Internal 🔒 | | |
 L | sub | Internal 🔒 | | |
 L | mul | Internal 🔒 | | |
 L | div | Internal 🔒 | | |
 L | div | Internal 🔒 | ||
 L | mod | Internal 🔒 | ||
 L | mod | Internal 🔒 | ||
**SafeMathInt** | Library | ||
 L | mul | Internal 🔒 | | |
 L | div | Internal 🔒 | ||
 L | sub | Internal 🔒 | | |
 L | add | Internal 🔒 | ||
 L | abs | Internal 🔒 | | |
 L | toUint256Safe | Internal 🔒 | | |
**SafeMathUint** | Library | ||
L | toInt256Safe | Internal 🔒 | | |
**DividendPayingTokenInterface** | Interface | ||
 L | dividendOf | External | | NO | |
 | distributeDividends | External | | | NO | |
 | withdrawableDividendOf | External | NO | |
 | withdrawnDividendOf | External | NO |
 L | accumulativeDividendOf | External | NO | |
```



```
**Ownable** | Implementation | Context |||
 └ | <Constructor> | Public | | ● | NO |
| L | owner | Public | | NO | |
 renounceOwnership | Public | onlyOwner |
 └ | transferOwnership | Public | | ● | onlyOwner |
**IPair** | Interface | ||
 └ | sync | External | | ● | NO | |
**IFactory** | Interface | ||
 └ | createPair | External | | ● |NO | |
 | getPair | External | NO | |
**IRouter** | Interface | ||
 L | factory | External | | NO | |
 | WETH | External | | NO | |
 | addLiquidityETH | External | | | NO | |
 □ | swapExactTokensForTokensSupportingFeeOnTransferTokens | External | | ● | NO | |
 | swapExactETHForTokens | External | | | NO |
 □ swapExactTokensForETHSupportingFeeOnTransferTokens | External | | ● | NO | |
**IterableMapping** | Library | ||
 L | get | Internal 🔒 | | |
 L | getIndexOfKey | Internal 🔒 | | |
 L | getKeyAtIndex | Internal 🔒 | | |
 L | size | Internal 🔒 | | |
 L | set | Internal 🔒 | 🛑 | |
 L | remove | Internal 🔒 | 🛑 | |
```



MANUAL REVIEW

Severity Criteria

Expelee assesses the severity of disclosed vulnerabilities according to methodology based on OWASP standarts.

Vulnerabilities are dividend into three primary risk categroies:

High

Medium

Low

High-level considerations for vulnerabilities span the following key areas when conducting assessments:

- Malicious input handling
- Escalation of privileges
- Arithmetic
- Gas use

Overall Risk Severity							
	HIGH	Medium	High	Critical			
Impact	MEDIUM	Low	Medium	High			
Impact	LOW	Note	Low	Medium			
		LOW	MEDIUM	HIGH			
	Likelihood						



FINDINGS

Findings	Severity	Found
High Risk	High	0
Medium Risk	Medium	0
Low Risk	Low	0
Suggestion & discussion	Informational	1
Gas Optimizations	● Gas Opt.	0



INFORMATIONAL RISK FINDING

Owner must enable trades manually

Severity: Informational

Overview

The owner of the contract must enable trades for public, <u>otherwise</u> no one would be able to buy/sell/transfer their tokens except whitelisted wallets.

```
function enableTradingEnabled() external onlyOwner {
    require(!tradingEnabled, "Trading is already enabled");
tradingEnabled = true;
startTradingBlock = block.number;
}
```



ABOUT EXPELEE

Expelee is a product-based aspirational Web3 start-up.
Coping up with numerous solutions for blockchain security and constructing a Web3 ecosystem from deal making platform to developer hosting open platform, while also developing our own commercial and sustainable blockchain.

www.expelee.com

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All the content provided in this document is for general information only and should not be used as financial advice or a reason to buy any investment. Team provides no guarantess against the sale of team tokens or the removal of liquidity by the project audited in this document.

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