

KISHIELD

Security Audit

BelkaCoin Token

April 12, 2022





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Audit Summary

This report has been prepared for BelkaCoin Token on the Binance Chain network. KISHIELD provides both client-centered and user-centered examination of the smart contracts and their current status when applicable. This report represents the security assessment made to find issues and vulnerabilities on the source code along with the current liquidity and token holder statistics of the protocol.

A comprehensive examination has been performed, utilizing Cross Referencing, Static Analysis, In-House Security Tools, and line-by-line Manual Review.

The auditing process pays special attention to the following considerations:

- Ensuring contract logic meets the specifications and intentions of the client without exposing the user's funds to risk.
- Testing the smart contracts against both common and uncommon attack vectors.
- Inspecting liquidity and holders statistics to inform the current status to both users and client when applicable.
- Assessing the codebase to ensure compliance with current best practices and industry standards.
- Verifying contract functions that allow trusted and/or untrusted actors to mint, lock, pause, and transfer assets.
- Thorough line-by-line manual review of the entire codebase by industry experts.

Project Overview

Token Summary

Parameter	Result
Address	0x1b4d8c89a2120ce3d70a9d1e0e054fbf50d3143b
Name	BelkaCoin
Token Tracker	BelkaCoin (BLC)
Decimals	9
Supply	1,000,000,000
Platform	Binance Chain
compiler	v0.8.7+commit.e28d00a7
Optimization	Yes with 200 runs
LicenseType	MIT
Language	Solidity
Codebase	https://bscscan.com/ address/0x1b4d8c89a2120ce3d70a9d1e0e054fbf50d3143b
Url	https://belkaproject.io/

Main Contract Assessed

Name	Contract	Live
BelkaCoin	0x1b4d8c89a2120ce3d70a9d1e0e054fbf50d3143b	Yes

Smart Contract Vulnerability Checks

Vulnerability	Automatic Scan	Manual Scan	Result
Unencrypted Private Data On-Chain	Complete	Complete	✓ Low / No Risk
Code With No Effects	Complete	Complete	✓ Low / No Risk
Message call with hardcoded gas amount	Complete	Complete	✓ Low / No Risk
Hash Collisions With Multiple Variable Length Arguments	Complete	Complete	✓ Low / No Risk
Unexpected Ether balance	Complete	Complete	✓ Low / No Risk
Presence of unused variables	Complete	Complete	✓ Low / No Risk
Right-To-Left-Override control character (U+202E)	Complete	Complete	✓ Low / No Risk
Typographical Error	Complete	Complete	✓ Low / No Risk
DoS With Block Gas Limit	Complete	Complete	✓ Low / No Risk
Arbitrary Jump with Function Type Variable	Complete	Complete	✓ Low / No Risk
Insufficient Gas Griefing	Complete	Complete	✓ Low / No Risk
Incorrect Inheritance Order	Complete	Complete	✓ Low / No Risk
Write to Arbitrary Storage Location	Complete	Complete	✓ Low / No Risk
Requirement Violation	Complete	Complete	✓ Low / No Risk
Missing Protection against Signature Replay Attacks	Complete	Complete	✓ Low / No Risk
Weak Sources of Randomness from Chain Attributes	Complete	Complete	✓ Low / No Risk

Vulnerability	Automatic Scan	Manual Scan	Result
Authorization through tx.origin	Complete	Complete	✓ Low / No Risk
Delegatecall to Untrusted Callee	Complete	Complete	✓ Low / No Risk
Use of Deprecated Solidity Functions	Complete	Complete	✓ Low / No Risk
Assert Violation	Complete	Complete	✓ Low / No Risk
Reentrancy	Complete	Complete	✓ Low / No Risk
Unprotected SELFDESTRUCT Instruction	Complete	Complete	✓ Low / No Risk
Unprotected Ether Withdrawal	Complete	Complete	✓ Low / No Risk
Unchecked Call Return Value	Complete	Complete	✓ Low / No Risk
Outdated Compiler Version	Complete	Complete	✓ Low / No Risk
Integer Overflow and Underflow	Complete	Complete	✓ Low / No Risk
Function Default Visibility	Complete	Complete	✓ Low / No Risk

Contract Ownership

The contract ownership of BelkaCoin is not currently renounced. The ownership of the contract grants special powers to the protocol creators, making them the sole addresses that can call sensible ownable functions that may alter the state of the protocol.

The current owner is the address 0x66629195f6A31D24A7F1c732865ddA612eE1DB71 which can be viewed from:
[HERE](#)

The owner wallet has the power to call the functions displayed on the privileged functions chart below, if the owner wallet is compromised this privileges could be exploited.

We recommend the team to renounce ownership at the right timing if possible, or gradually migrate to a timelock with governing functionalities in respect of transparency and safety considerations.

Important Notes To The Users:

- The owner cannot mint tokens after initial deployment.
- The owner cannot stop Trading.
- Once the owner renounces ownership of the contract, none of the following are applicable.
- The owner can exclude/include wallets from fees exempt.
- The owner can change the fees with no restrictions.
- The owner can change the max tx amount with the restriction of minimum 1'000,000 tokens.
- The owner can withdraw BNB from the contract.

Audit Passed



Findings Summary

Classification of Issues

Severity	Description
● High	Exploits, vulnerabilities or errors that will certainly or probabilistically lead towards loss of funds, control, or impairment of the contract and its functions. Issues under this classification are recommended to be fixed with utmost urgency
● Medium	Bugs or issues with that may be subject to exploit, though their impact is somewhat limited. Issues under this classification are recommended to be fixed as soon as possible.
● Low	Effects are minimal in isolation and do not pose a significant danger to the project or its users. Issues under this classification are recommended to be fixed nonetheless.
● Info	Consistency, syntax or style best practices. Generally pose a negligible level of risk, if any.

Findings

Severity	Found
● High	0
● Medium	0
● Low	1
● Info	2
Total	3

Findings

Too many digits

ID	Severity	Contract	Function
01	Informational	BelkaCoin	Variables_tTotal

Description

Literals with many digits are difficult to read and review.

Recommendation

Make use of scientific notation, use underscores, and/or use ether suffix.

Division before Multiplication

ID	Severity	Contract	Function
02	Low	BelkaCoin	function _transferStandard()

Description

Precision Loss. Division before multiplication can result in truncation and less accurate results

Recommendation

Multiplication should be performed before division to not lose precision.

Code with no effects

ID	Severity	Contract	Function
03	● Informational	BelkaCoin	inSwap variable

Description

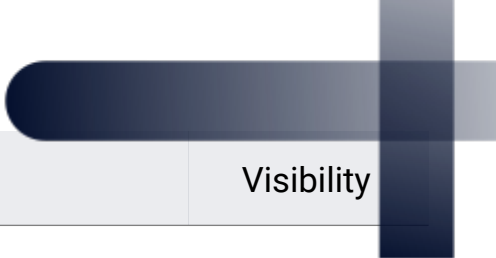
Bools are set to false by default.

Recommendation

We recommend deleting the initialization of the boolean variable to false

Privileged Functions (onlyOwner)

Function Name	Parameters	Visibility
renounceOwnership	none	public
transferOwnership	address newOwner	public
setIsExcludedFromFee	address _address, bool _isExcluded	external
setProjectWallet	address _address	external
setBuybackWallet	address _address	external
setMarketingWallet	address _address	external
setOperationsWallet	address _address	external
setRemoveAllFee	none	external
setRestoreAllFee	none	external
swapTokensForEth	none	private
setBuyFee	uint256 buyFee	external
setSellFee	uint256 sellFee	external
setMaxTxPercent	uint256 maxTxPercent, uint256 power	external
setNumTokensToAddToLiquidity	uint256 percent, uint256 power	external
manualSwap	none	external
setSwapAndLiquifyEnabled	bool _enabled	external



Function Name	Parameters	Visibility
withdrawResidualBnb	address newAddress	external
withdrawResidualErc20	calldata token, address to	external

Statistics

Liquidity Info

Parameter	Result
Pair Address	0x4Dbb7afD4A7A89645DD625EE1C942FE8D5214625
BLC Reserves	323573262.45 BLC
BNB Reserves	15.24 BNB
Liquidity Value	\$6,327.648 USD

Token (BLC) Holders Info

Parameter	Result
BLC Percentage Burnt	0.00%
BLC Amount Burnt	0 BLC
Top 10 Percentage Own	96.13%
Top 10 Amount Owned	961,276,171.812 BLC
Top 10 Aprox Value	\$18,798.269 USD

LP (BLC/BNB) Holders Info

Parameter	Result
BLC/BNB % Burnt	0.00%
BLC/BNB Amount Burnt	0 BLC
Top 10 Percentage Owned	100.00%
Top 10 Amount Owned	2.102 BLC
Locked Tokens Percentage	100.00%
Locked Tokens Amount	2.102 BLC

* All the data displayed above was taken on-chain at block 16882429

* The tokens on industry-standard burn wallets are not included on the top 10 wallets calculations

Liquidity Ownership

The token does not have liquidity at the moment of the audit, block 16882429

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Disclaimer

KISHIELD has conducted an independent audit to verify the integrity of and highlight any vulnerabilities or errors, intentional or unintentional, that may be present in the codes that were provided for the scope of this audit. This audit report does not constitute agreement, acceptance or advocacy for the Project that was audited, and users relying on this audit report should not consider this as having any merit for financial advice in any shape, form or nature. The contracts audited do not account for any economic developments that may be pursued by the Project in question, and that the veracity of the findings thus presented in this report relate solely to the proficiency, competence, aptitude and discretion of our independent auditors, who make no guarantees nor assurance that the contracts are completely free of exploits, bugs, vulnerabilities or deprecation of technologies.

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