

Audit Report Chameleon

January 2022

Type BEP20

Network BSC

Address 0xBB34a1F084b62579a9e947C59C3eFe12BC7a1591

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Contract Review

Contract Name	Chameleon	
Compiler Version	v0.8.11+commit.d7f03943	
Optimization	200 runs	
Licence	None	
Explorer	https://bscscan.com/token/0xBB34a1F084b62579a9e 947C59C3eFe12BC7a1591	
Symbol	CAMO	
Decimals	9	
Total Supply	1,000,000,000	
Source	contract.sol	
Domain	chameleontoken.app	

Audit Updates

Initial Audit	4th February 2022
Corrected	



Contract Analysis

CriticalMediumMinorPass

Severity	Code	Description
•	ST	Contract Owner is not able to stop or pause transactions
•	OCTD	Contract Owner is not able to transfer tokens from specific address
•	OTUT	Owner Transfer User's Tokens
•	ELFM	Contract Owner is not able to increase fees more than a reasonable percent (25%)
•	ULTW	Contract Owner is not able to increase the amount of liquidity taken by dev wallet more than a reasonable percent
•	MT	Contract Owner is not able to mint new tokens
•	ВТ	Contract Owner is not able to burn tokens from specific wallet
•	ВС	Contract Owner is not able to blacklist wallets from selling



Contract Diagnostics

CriticalMediumMinor

Severity	Code	Description
•	L01	Public Function could be Declared External
•	L02	State Variables could be Declared Constant
•	L04	Conformance to Solidity Naming Conventions
•	L09	Dead Code Elimination
•	L07	Missing Events Arithmetic



L01 - Public Function could be Declared External

Criticality	minor
Location	contract.sol#L1111,L1106,L1095 and 31 more

Description

Public functions that are never called by the contract should be declared external to save gas.

recoverTokensFromContract recoverETHfromContract setBuyBackEnabled

Recommendation

Use the external attribute for functions never called from the contract



L02 - State Variables could be Declared Constant

Criticality	minor
Location	contract.sol#L494,L457,L462 and 2 more

Description

Constant state variables should be declared constant to save gas.

```
deadWallet
_tTotal
_symbol
...
```

Recommendation

Add the constant attribute to state variables that never change.



L04 - Conformance to Solidity Naming Conventions

Criticality	minor
Location	contract.sol#L506,L505,L493 and 24 more

Description

Solidity defines a naming convention that should be followed. Rule exceptions:

- Allow constant variable name/symbol/decimals to be lowercase.
- Allow _ at the beginning of the mixed_case match for private variables and unused parameters.

```
_maxBuyAmount
_maxSaleAmount
BuyBackWallet
...
```

Recommendation

Follow the Solidity naming convention. https://docs.soliditylang.org/en/v0.4.25/style-guide.html#naming-conventions



L09 - Dead Code Elimination

Criticality	minor
Location	contract.sol#L63,L59,L74 and 8 more

Description

Functions that are not used in the contract, and make the code's size bigger.

```
mod
_msgData
_beforeTokenTransfer
...
```

Recommendation

Remove unused functions.



L07 - Missing Events Arithmetic

Criticality	minor
Location	contract.sol#L1091,L1041,L1026 and 4 more

Description

Detected missing events for critical arithmetic parameters. There are functions that have no event emitted, so it is difficult to track off-chain changes.

```
buyBackUpperLimit = buyBackLimit * 10 ** 18
maxLimit = amount
_maxBuyAmount = amount
...
```

Recommendation

Emit an event for critical parameter changes.



Contract Functions

Contract	Туре	Bases		
	Function Name	Visibility	Mutability	Modifiers
IERC20	Interface			
	totalSupply	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	1	-
SafeMath	Library			
	add	Internal		
	sub	Internal		
	sub	Internal		
	mul	Internal		
	div	Internal		
	div	Internal		
	mod	Internal		
	mod	Internal		
Context	Implementation			
	_msgSender	Internal		
	_msgData	Internal		
Address	Library			
	isContract	Internal		
	sendValue	Internal	1	
	functionCall	Internal	✓	
	functionCall	Internal	1	



	functionCallWithValue	Internal	1	
	functionCallWithValue	Internal	1	
	_functionCallWithValue	Private	✓	
		- Tivato	•	
Ownable	Implementation	Context		
Ownable	<constructor></constructor>	Public	✓	
			V	-
	owner	Public		-
	renounceOwnership	Public	✓	onlyOwner
	transferOwnership	Public	√	onlyOwner
	geUnlockTime	Public		-
	lock	Public	✓	onlyOwner
	unlock	Public	1	-
IUniswapV2Fa ctory	Interface			
	feeTo	External		-
	feeToSetter	External		-
	getPair	External		-
	allPairs	External		-
	allPairsLength	External		-
	createPair	External	1	-
	setFeeTo	External	1	-
	setFeeToSetter	External	1	-
IUniswapV2Pai r	Interface			
	name	External		-
	symbol	External		-
	decimals	External		-
	totalSupply	External		-
	balanceOf	External		-
	allowance	External		-
	approve	External	1	-
	transfer	External	√	-
	transferFrom	External	1	-
	DOMAIN_SEPARATOR	External		-



	PERMIT_TYPEHASH	External		-
	nonces	External		-
	permit	External	✓	-
	MINIMUM_LIQUIDITY	External		-
	factory	External		-
	token0	External		-
	token1	External		-
	getReserves	External		-
	price0CumulativeLast	External		-
	price1CumulativeLast	External		-
	kLast	External		-
	mint	External	✓	-
	burn	External	✓	-
	swap	External	✓	-
	skim	External	✓	-
	sync	External	✓	-
	initialize	External	✓	-
IUniswapV2Ro uter01	Interface			
	factory	External		-
	WETH	External		-
	addLiquidity	External	✓	-
	addLiquidityETH	External	Payable	-
	removeLiquidity	External	1	-
	removeLiquidityETH	External	1	-
	removeLiquidityWithPermit	External	1	-
	removeLiquidityETHWithPermit	External	1	-
	swapExactTokensForTokens	External	1	-
	swapTokensForExactTokens	External	1	-
	swapExactETHForTokens	External	Payable	-
	swapTokensForExactETH	External	1	-
	swapExactTokensForETH	External	1	-
	swapETHForExactTokens	External	Payable	-
	quote	External		-



	getAmountIn	External		-
	getAmountsOut	External		-
	getAmountsIn	External		-
IUniswapV2Ro uter02	Interface	IUniswapV2 Router01		
	removeLiquidityETHSupportingFeeOn TransferTokens	External	1	-
	removeLiquidityETHWithPermitSupportingFeeOnTransferTokens	External	✓	-
	swapExactTokensForTokensSupporti ngFeeOnTransferTokens	External	✓	-
	swapExactETHForTokensSupportingF eeOnTransferTokens	External	Payable	-
	swapExactTokensForETHSupportingF eeOnTransferTokens	External	✓	-
Chameleon	Implementation	Context, IERC20, Ownable		
	isRewarded	Public		-
	rewardedUpdate	Public	1	onlyOwner
	<constructor></constructor>	Public	1	-
	removeAllFee	Private	1	
	restoreAllFee	Private	√	
	setAllBuyFees	Public	√	onlyOwner
	prepareForPresale	External	√	onlyOwner
	afterPresale	External	1	onlyOwner
	name	Public		-
	symbol	Public		-
	decimals	Public		-
	totalSupply	Public		-
	balanceOf	Public		-
	transfer	Public	1	-
	allowance	Public		-
	approve	Public	1	-
	transferFrom	Public	1	-
	increaseAllowance	Public	1	-



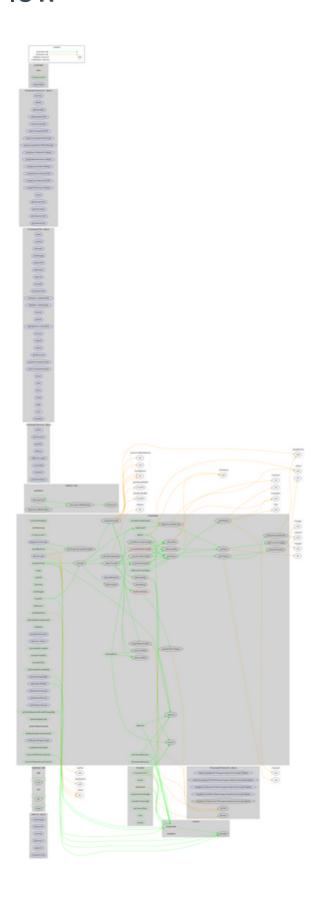
decreaseAllowance	Public	✓	-
isExcludedFromReward	Public		-
totalFees	Public		-
deliver	Public	✓	-
reflectionFromToken	Public		-
tokenFromReflection	Public		-
excludeFromReward	Public	1	onlyOwner
includeInReward	External	1	onlyOwner
_transferBothExcluded	Private	1	
<receive ether=""></receive>	External	Payable	-
_reflectFee	Private	1	
_getValues	Private		
_getTValues	Private		
_getRValues	Private		
_getRate	Private		
_getCurrentSupply	Private		
_takeLiquidity	Private	1	
calculateTaxFee	Private		
calculateLiquidityFee	Private		
isExcludedFromFee	Public		-
_approve	Private	1	
_transfer	Private	1	
swapAndLiquify	Private	1	lockTheSwap
swapTokensForEth	Private	1	
addLiquidity	Private	1	
_tokenTransfer	Private	1	
manualBurn	Public	✓	onlyOwner
_transferStandard	Private	✓	
_transferToExcluded	Private	✓	
_transferFromExcluded	Private	✓	
excludeFromFee	Public	1	onlyOwner
includeInFee	Public	1	onlyOwner
setExcludedFromWhale	Public	1	onlyOwner
setmarketingWallet	External	1	onlyOwner
setBuyBackWallet	External	1	onlyOwner



setSwapAndLiquifyEnabled	Public	✓	onlyOwner
setNumTokensSellToAddToLiquidity	Public	✓	onlyOwner
_beforeTokenTransfer	Internal	✓	
swapETHForTokens	Private	✓	



Contract Flow





Domain Info

Domain Name	chameleontoken.app
Registry Domain ID	4851F6721-APP
Creation Date	2022-01-17T17:17:03Z
Updated Date	2022-01-22T17:17:03Z
Registry Expiry Date	2023-01-17T17:17:03Z
Registrar WHOIS Server	whois.nic.google
Registrar URL	https://www.godaddy.com/
Registrar	GoDaddy.com, LLC
Registrar IANA ID	146

The domain has been created 10 days before the creation of the audit. It will expire in 12 months.

There is no public billing information, the creator is protected by the privacy settings.



Summary

Chameleon is aiming to bring crowdfunding to the crypto space. The Project has a friendly and growing community. The Smart Contract analysis reported no compiler error or critical issues. The contract Owner can access some admin functions that can not be used in a malicious way to disturb the users' transactions.



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About Coinscope

Coinscope is the leading early coin listing, voting and auditing authority firm. The audit process is analyzing and monitoring many aspects of the project. That way, it gives the community a good sense of security using an informative report and a generic score.

Coinscope is aiming to make crypto discoverable and efficient globally. It provides all the essential tools to assist users draw their own conclusions.



The Coinscope.co team

https://www.coinscope.co