



# Audit Report

## **DexBerry**

January 2022

Type	BEP20
Network	BSC
Address	0x1D01D0B1A7B86f0DC2162b374ea52663E43E1750
Audited by	© coinscope

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## Contract Review

<b>Contract Name</b>	DexBerry
<b>Compiler Version</b>	v0.6.12+commit.27d51765
<b>Optimization</b>	200 runs
<b>Licence</b>	MIT
<b>Explorer</b>	<a href="https://bscscan.com/token/0x1D01D0B1A7B86f0DC2162b374ea52663E43E1750">https://bscscan.com/token/0x1D01D0B1A7B86f0DC2162b374ea52663E43E1750</a>
<b>Symbol</b>	DEXBY
<b>Decimals</b>	18
<b>Total Supply</b>	2,500,000,000
<b>Source</b>	contract.sol
<b>Domain</b>	dexberry.org

## Audit Updates

<b>Initial Audit</b>	26th January 2022
<b>Corrected</b>	

# Contract Analysis

● Critical
 ● Medium
 ● Minor
 ● Pass

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
●	BT	Contract Owner is not able to burn tokens from specific wallet
●	BC	Contract Owner is not able to blacklist wallets from selling

## ELFM - Exceed Limit Fees Manipulation

<b>Criticality</b>	critical
<b>Location</b>	contract.sol#L1153,L1157,L1161,L1165

### Description

The contract owner has the authority to increase over the allowed limit of 25%. The owner may take advantage of it by calling the `setCharityFee` function with a high percentage value.

```
function setTaxFee (uint taxFee) external onlyOwner() {  
    _taxFee = taxFee;  
}
```

### Recommendation

The contract could embody a check for the maximum acceptable value.

The team should carefully manage the private keys of the owner's account. We strongly recommend a powerful security mechanism that will prevent a single user from accessing the contract admin functions. That risk can be prevented by temporarily locking the contract or renouncing ownership.

# Contract Diagnostics

● Critical    ● Medium    ● Minor

Severity	Code	Description
●	L01	Public Function could be Declared External
●	L02	State Variables could be Declared Constant
●	L05	Unused State Variable
●	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#L1172,L1140,L1136 and 21 more

### Description

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

```
setSwapAndLiquifyEnabled  
includeInFee  
excludeFromFee  
...
```

### Recommendation

Use the external attribute for functions never called from the contract.



## L02 - State Variables could be Declared Constant

<b>Criticality</b>	minor
<b>Location</b>	contract.sol#L728,L699,L704 and 2 more

### Description

Constant state variables should be declared constant to save gas.

```
numTokensSellToAddToLiquidity
_tTotal
_symbol
...
```

### Recommendation

Add the constant attribute to state variables that never change.

## L05 - Unused State Variable

**Criticality**

minor

**Location**

contract.sol#L714

### Description

There are segments that contains unused state variable.

```
_previousBurnFee
```

### Recommendation

Remove unused state variables.

## L04 - Conformance to Solidity Naming Conventions

<b>Criticality</b>	minor
<b>Location</b>	contract.sol#L727,L716,L713 and 9 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.

```
_maxTxAmount  
_charityFee  
_burnFee  
...
```

### Recommendation

Follow the Solidity naming convention.

<https://docs.soliditylang.org/en/v0.4.25/style-guide.html#naming-conventions>

## L09 - Dead Code Elimination

<b>Criticality</b>	minor
<b>Location</b>	contract.sol#L229,L213,L240 and 7 more

### Description

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

```
mod
_msgData
sendValue
...
```

### Recommendation

Remove unused functions.

## L07 - Missing Events Arithmetic

**Criticality**

minor

**Location**

contract.sol#L1165,L1161,L1157 and 2 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.

```
_maxTxAmount = _tTotal.mul(maxTxPercent).div(10 ** 2)
_charityFee = charityFee
_taxFee = taxFee
...
```

### Recommendation

Emit an event for critical parameter changes.

# Contract Functions

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

	_functionCallWithValue	Private	✓	
<b>Ownable</b>	Implementation	Context		
	<Constructor>	Internal	✓	
	owner	Public		-
	renounceOwnership	Public	✓	onlyOwner
	transferOwnership	Public	✓	onlyOwner
	getUnlockTime	Public		-
	lock	Public	✓	onlyOwner
	unlock	Public	✓	-
<b>IUniswapV2Factory</b>	Interface			
	feeTo	External		-
	feeToSetter	External		-
	getPair	External		-
	allPairs	External		-
	allPairsLength	External		-
	createPair	External	✓	-
	setFeeTo	External	✓	-
	setFeeToSetter	External	✓	-
<b>IUniswapV2Pair</b>	Interface			
	name	External		-
	symbol	External		-
	decimals	External		-
	totalSupply	External		-
	balanceOf	External		-
	allowance	External		-
	approve	External	✓	-
	transfer	External	✓	-
	transferFrom	External	✓	-
	DOMAIN_SEPARATOR	External		-
	PERMIT_TYPEHASH	External		-
	nonces	External		-

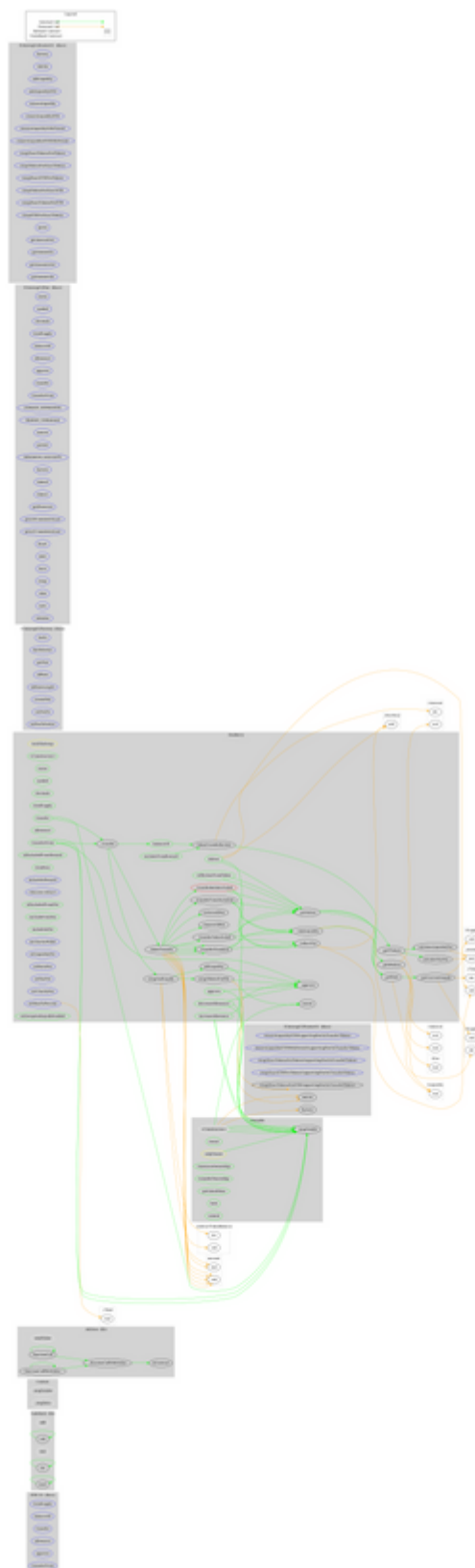
	permit	External	✓	-
	MINIMUM_LIQUIDITY	External		-
	factory	External		-
	token0	External		-
	token1	External		-
	getReserves	External		-
	price0CumulativeLast	External		-
	price1CumulativeLast	External		-
	kLast	External		-
	mint	External	✓	-
	burn	External	✓	-
	swap	External	✓	-
	skim	External	✓	-
	sync	External	✓	-
	initialize	External	✓	-
<b>IUniswapV2Router01</b>	Interface			
	factory	External		-
	WETH	External		-
	addLiquidity	External	✓	-
	addLiquidityETH	External	Payable	-
	removeLiquidity	External	✓	-
	removeLiquidityETH	External	✓	-
	removeLiquidityWithPermit	External	✓	-
	removeLiquidityETHWithPermit	External	✓	-
	swapExactTokensForTokens	External	✓	-
	swapTokensForExactTokens	External	✓	-
	swapExactETHForTokens	External	Payable	-
	swapTokensForExactETH	External	✓	-
	swapExactTokensForETH	External	✓	-
	swapETHForExactTokens	External	Payable	-
	quote	External		-
	getAmountOut	External		-
	getAmountIn	External		-
	getAmountsOut	External		-



	getAmountsIn	External		-
<b>IUniswapV2Router02</b>	Interface	IUniswapV2Router01		
	removeLiquidityETHSupportingFeeOnTransferTokens	External	✓	-
	removeLiquidityETHWithPermitSupportingFeeOnTransferTokens	External	✓	-
	swapExactTokensForTokensSupportingFeeOnTransferTokens	External	✓	-
	swapExactETHForTokensSupportingFeeOnTransferTokens	External	Payable	-
	swapExactTokensForETHSupportingFeeOnTransferTokens	External	✓	-
<b>DexBerry</b>	Implementation	Context, IERC20, Ownable		
	<Constructor>	Public	✓	-
	name	Public		-
	symbol	Public		-
	decimals	Public		-
	totalSupply	Public		-
	balanceOf	Public		-
	transfer	Public	✓	-
	allowance	Public		-
	approve	Public	✓	-
	transferFrom	Public	✓	-
	increaseAllowance	Public	✓	-
	decreaseAllowance	Public	✓	-
	isExcludedFromReward	Public		-
	totalFees	Public		-
	deliver	Public	✓	-
	reflectionFromToken	Public		-
	tokenFromReflection	Public		-
	excludeFromReward	Public	✓	onlyOwner
	includeInReward	External	✓	onlyOwner
	_transferBothExcluded	Private	✓	

<Receive Ether>	External	Payable	-
_reflectFee	Private	✓	
_getValues	Private		
_getTValues	Private		
_getRValues	Private		
_getRate	Private		
_getCurrentSupply	Private		
_takeLiquidity	Private	✓	
calculateTaxFee	Private		
calculateLiquidityFee	Private		
removeAllFee	Private	✓	
restoreAllFee	Private	✓	
isExcludedFromFee	Public		-
_approve	Private	✓	
_transfer	Private	✓	
swapAndLiquify	Private	✓	lockTheSwap
swapTokensForEth	Private	✓	
addLiquidity	Private	✓	
_tokenTransfer	Private	✓	
_transferStandard	Private	✓	
_transferToExcluded	Private	✓	
_transferFromExcluded	Private	✓	
excludeFromFee	Public	✓	onlyOwner
includeInFee	Public	✓	onlyOwner
setcharityWallet	External	✓	onlyOwner
setLiquidityFee	External	✓	onlyOwner
setBurnFee	External	✓	onlyOwner
setTaxFee	External	✓	onlyOwner
setCharityFee	External	✓	onlyOwner
setMaxTxPercent	External	✓	onlyOwner
setSwapAndLiquifyEnabled	Public	✓	onlyOwner

# Contract Flow



## Domain Info

<b>Domain Name</b>	dexberry.org
<b>Registry Domain ID</b>	D402200000017262240-LROR
<b>Creation Date</b>	2021-07-07T16:26:19Z
<b>Updated Date</b>	2021-09-06T03:51:12Z
<b>Registry Expiry Date</b>	2022-07-07T16:26:19Z
<b>Registrar WHOIS Server</b>	whois.sibersname.com
<b>Registrar URL</b>	<a href="http://www.sibersname.com">http://www.sibersname.com</a>
<b>Registrar</b>	WHC Online Solutions Inc.
<b>Registrar IANA ID</b>	938

The domain has been created 7 months before the creation of the audit. It will expire in 5 months.

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

## Summary

DexBery aims to be a next-generation Decentralized Ecosystem Mega-Application. The Project has a friendly and growing community. The Smart Contract analysis reported no compiler error and only 1 critical threat issue. The contract Owner can manipulate fees up to 100% without limitations. A multi-wallet signing pattern will provide security against potential hacks. Temporarily locking the contract or renouncing ownership will eliminate all the contract threats.

# Disclaimer

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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>