



**TechRate**

AUDIT COMPANY

# Smart Contract Security Audit

TechRate

June, 2021

# Audit Details



Audited project

**CAMEL**



Deployer address

**0x0CA346994d631828676493bF3b232397E7aCccab**



Client contacts:

**CAMEL team**



Blockchain

**Binance Smart Chain**



Project website:

**Not provided by CAMEL team**

# 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.

# Background

TechRate was commissioned by CAMEL to perform an audit of smart contracts:

<https://bscscan.com/address/0x5d10594b6bd9d73f08921f8537f8da1e37431201#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 used to 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.

# Contracts Details

## Token contract details for 08.06.2021

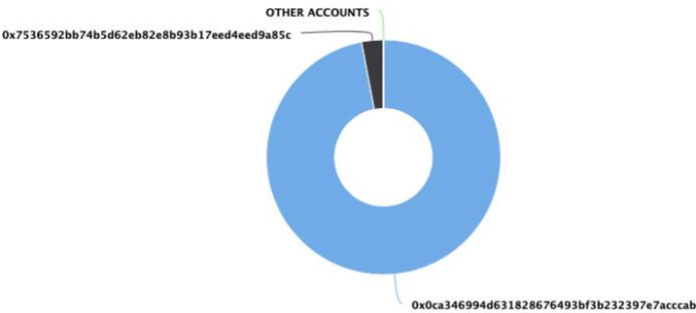
Contract name	CAMEL
Contract address	0x5D10594b6Bd9d73f08921F8537f8dA1E37431201
Total supply	1,000,000,000,000
Token ticker	CAMEL
Decimals	9
Token holders	2
Transactions count	4
Top 100 holders dominance	100.00%
Tax fee	400
Total fees	0
Contract deployer address	0x0CA346994d631828676493bF3b232397E7aCccab
Contract's current owner address	0x0CA346994d631828676493bF3b232397E7aCccab

# CAMEL Token Distribution

The top 100 holders collectively own 100.00% (1,000,000,000,000.00 Tokens) of CAMEL

Token Total Supply: 1,000,000,000,000.00 Token | Total Token Holders: 2

CAMEL Top 100 Token Holders  
Source: BscScan.com



(A total of 1,000,000,000,000.00 tokens held by the top 100 accounts from the total supply of 1,000,000,000,000.00 token)

## CAMEL Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	<a href="#">Ox0ca346994d631828676493bf3b232397e7accab</a>	970,000,000,000	97.0000%
2	<a href="#">Ox7536592bb74b5d62eb82e8b93b17eed4eed9a85c</a>	30,000,000,000	3.0000%

# Contract functions details

## + [Int] IERC20

- [Ext] totalSupply
- [Ext] balanceOf
- [Ext] transfer #
- [Ext] allowance
- [Ext] approve #
- [Ext] transferFrom #

## + [Lib] SafeMath

- [Int] add
- [Int] sub
- [Int] sub
- [Int] mul
- [Int] div
- [Int] div
- [Int] mod
- [Int] mod

## + Context

- [Int] \_msgSender
- [Int] \_msgData

## + [Lib] Address

- [Int] isContract
- [Int] sendValue #
- [Int] functionCall #
- [Int] functionCall #
- [Int] functionCallWithValue #
- [Int] functionCallWithValue #
- [Prv] \_functionCallWithValue #

## + Ownable (Context)

- [Int] <Constructor> #
- [Pub] owner
- [Pub] renounceOwnership #
  - modifiers: onlyOwner
- [Pub] transferOwnership #
  - modifiers: onlyOwner
- [Pub] geUnlockTime
- [Pub] lock #
  - modifiers: onlyOwner
- [Pub] unlock #

## + CAMEL (Context, IERC20, Ownable)

- [Pub] <Constructor> #
- [Pub] name
- [Pub] symbol
- [Pub] decimals
- [Pub] totalSupply
- [Pub] balanceOf
- [Pub] transfer #
- [Pub] allowance



- [Pub] approve #
- [Pub] transferFrom #
- [Pub] increaseAllowance #
- [Pub] decreaseAllowance #
- [Pub] isExcluded
- [Pub] isCharity
- [Pub] totalFees
- [Pub] totalBurn
- [Pub] totalCharity
- [Pub] deliver #
- [Pub] reflectionFromToken
- [Pub] tokenFromReflection
- [Pub] excludeFromFee #
  - modifiers: onlyOwner
- [Pub] includeInFee #
  - modifiers: onlyOwner
- [Ext] excludeAccount #
  - modifiers: onlyOwner
- [Ext] includeAccount #
  - modifiers: onlyOwner
- [Ext] setAsCharityAccount #
  - modifiers: onlyOwner
- [Pub] updateFee #
  - modifiers: onlyOwner
- [Prv] \_approve #
- [Prv] \_transfer #
- [Prv] \_transferStandard #
- [Prv] \_standardTransferContent #
- [Prv] \_transferToExcluded #
- [Prv] \_excludedFromTransferContent #
- [Prv] \_transferFromExcluded #
- [Prv] \_excludedToTransferContent #
- [Prv] \_transferBothExcluded #
- [Prv] \_bothTransferContent #
- [Prv] \_reflectFee #
- [Prv] \_getValues
- [Prv] \_getTBasics
- [Prv] getTTransferAmount
- [Prv] \_getRBasics
- [Prv] \_getRTransferAmount
- [Prv] \_getRate
- [Prv] \_getCurrentSupply
- [Prv] \_sendToCharity #
- [Prv] removeAllFee #
- [Prv] restoreAllFee #
- [Pub] isExcludedFromFee
- [Prv] \_getTaxFee

(\$) = payable function

# = non-constant function



# Issues Checking Status

Issue description		Checking status
1.	Compiler errors.	Passed
2.	Race conditions and Reentrancy. Cross-function race conditions.	Passed
3.	Possible delays in data delivery.	Passed
4.	Oracle calls.	Passed
5.	Front running.	Passed
6.	Timestamp dependence.	Passed
7.	Integer Overflow and Underflow.	Passed
8.	DoS with Revert.	Passed
9.	DoS with block gas limit.	Low issues
10.	Methods execution permissions.	Passed
11.	Economy model of the contract.	Passed
12.	The impact of the exchange rate on the logic.	Passed
13.	Private user data leaks.	Passed
14.	Malicious Event log.	Passed
15.	Scoping and Declarations.	Passed
16.	Uninitialized storage pointers.	Passed
17.	Arithmetic accuracy.	Passed
18.	Design Logic.	Passed
19.	Cross-function race conditions.	Passed
20.	Safe Open Zeppelin contracts implementation and usage.	Passed
21.	Fallback function security.	Passed

# Security Issues

## ✓ High Severity Issues

No high severity issues found.

## ✓ Medium Severity Issues

No medium severity issues found.

## ✓ Low Severity Issues

### 1. Out of gas

Issue:

- The function `includeAccount()` uses the loop to find and remove addresses from the `_excluded` list. Function will be aborted with `OUT_OF_GAS` exception if there will be a long excluded addresses list.

```
function includeAccount(address account↑) external onlyOwner() {
    require(!_isExcluded[account↑], "Account is already excluded");
    for (uint256 i = 0; i < _excluded.length; i++) {
        if (_excluded[i] == account↑) {
            ftrace | funcSig
            _excluded[i] = _excluded[_excluded.length - 1];
            _tOwned[account↑] = 0;
            _isExcluded[account↑] = false;
            _excluded.pop();
            break;
        }
        ftrace | funcSig
    }
}
```

- The function `_getCurrentSupply` also uses the loop for evaluating total supply. It also could be aborted with `OUT_OF_GAS` exception if there will be a long excluded addresses list.

```
function _getCurrentSupply() private view returns(uint256, uint256) {
    ftrace | funcSig
    uint256 rSupply = _rTotal;
    uint256 tSupply = _tTotal;
    for (uint256 i = 0; i < _excluded.length; i++) {
        if (_rOwned[_excluded[i]] > rSupply || _tOwned[_excluded[i]] > tSupply) return (_rTotal, _tTotal);
        rSupply = rSupply.sub(_rOwned[_excluded[i]]);
        ftrace | funcSig
        tSupply = tSupply.sub(_tOwned[_excluded[i]]);
    }
    if (rSupply < _rTotal.div(_tTotal)) return (_rTotal, _tTotal);
    return (rSupply, tSupply);
    ftrace | funcSig
}
```

Recommendation:

Check that the excluded array length is not too big.

## Owner privileges (In the period when the owner is not renounced)

- Owner can change charity address.

```
function setAsCharityAccount(address account) external onlyOwner() {
    require(!_isCharity[account], "Account is already charity account");
    _isCharity[account] = true;
    FeeAddress = account;
}
```

- Owner can include and exclude from fee.

```
ftrace | funcSig
function excludeFromFee(address account↑) public onlyOwner {
    _isExcludedFromFee[account↑] = true;
}

ftrace | funcSig
function includeInFee(address account↑) public onlyOwner {
    _isExcludedFromFee[account↑] = false;
}
```

- Owner can change fees.

```
function updateFee(uint256 _txFee,uint256 _burnFee,uint256 _charityFee) onlyOwner() public{
    _TAX_FEE = _txFee* 100;
    _BURN_FEE = _burnFee * 100;
    _CHARITY_FEE = _charityFee* 100;
    ORIG_TAX_FEE = _TAX_FEE;
    ORIG_BURN_FEE = _BURN_FEE;
    ORIG_CHARITY_FEE = _CHARITY_FEE;
}
```

- Owner can lock and unlock. By the way, using these functions the owner could retake privileges even after the ownership was renounced.

```
//Locks the contract for owner for the amount of time provided
function lock(uint256 time) public virtual onlyOwner {
    _previousOwner = _owner;
    _owner = address(0);
    _lockTime = now + time;
    emit OwnershipTransferred(_owner, address(0));
}

//Unlocks the contract for owner when _lockTime is exceeds
function unlock() public virtual {
    require(_previousOwner == msg.sender, "You don't have permission to unlock");
    require(now > _lockTime , "Contract is locked until 7 days");
    emit OwnershipTransferred(_owner, _previousOwner);
    _owner = _previousOwner;
}
```

# Conclusion

Smart contracts contain low severity issues! Liquidity pair contract's security is not checked due to out of scope.

Liquidity locking details NOT provided by the team.

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## *TechRate 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.*