auditace.tech

AuditAce
FROM INCEPTION TO SUCCESS

Smart Contract Audit

FOR

KING PEPE

DATED : 11 March, 2024

AUDIT SUMMARY

Project name – KING PEPE

Date: 11 March, 2024

Scope of Audit- Audit Ace was consulted to conduct the smart contract audit of the solidity source codes.

Audit Status: Passed

Issues Found

Status	Critical	High	Medium	Low	Suggestion
Open	0	0	0	1	2
Acknowledged	0	0	0	0	0
Resolved	0	0	0	0	0

USED TOOLS

Tools:

1- Manual Review:
A line by line code review has been performed by audit ace team.

2- BSC Test Network: All tests were conducted on the BSC Test network, and each test has a corresponding transaction attached to it. These tests can be found in the "Functional Tests" section of the report.

3- Slither :
The code has undergone static analysis using Slither.

Testnet version:
The tests were performed using the contract deployed on the BSC Testnet, which can be found at the following address:
https://bscscan.com/address/0xEa8a7634699Ff01BB0c66C314f346c8EC4f09b6E#code

Token Information

Token Name : KING PEPE

Token Symbol: KINGPEPE

Decimals: 18

Token Supply: 1000000000

Network: BscScan

Token Type: BEP-20

Token Address:
0xEa8a7634699Ff01BB0c66C314f346c8EC4f09b6E

Checksum:
567acbefe2a12642d388659dffd20212

Owner:
0x1517b92f90C10Ca54D967C3B3A8f32e50d9792eF
(at time of writing the audit)

Deployer:
0x1517b92f90C10Ca54D967C3B3A8f32e50d9792eF

TOKEN OVERVIEW

Fees:

Sell Fee: 3%

Transfer Fee: 0-0%

Fees Privilege: Owner

Ownership: Owned

Minting: None

Max Tx Amount/ Max Wallet Amount: No

Blacklist: No

AUDIT METHODOLOGY

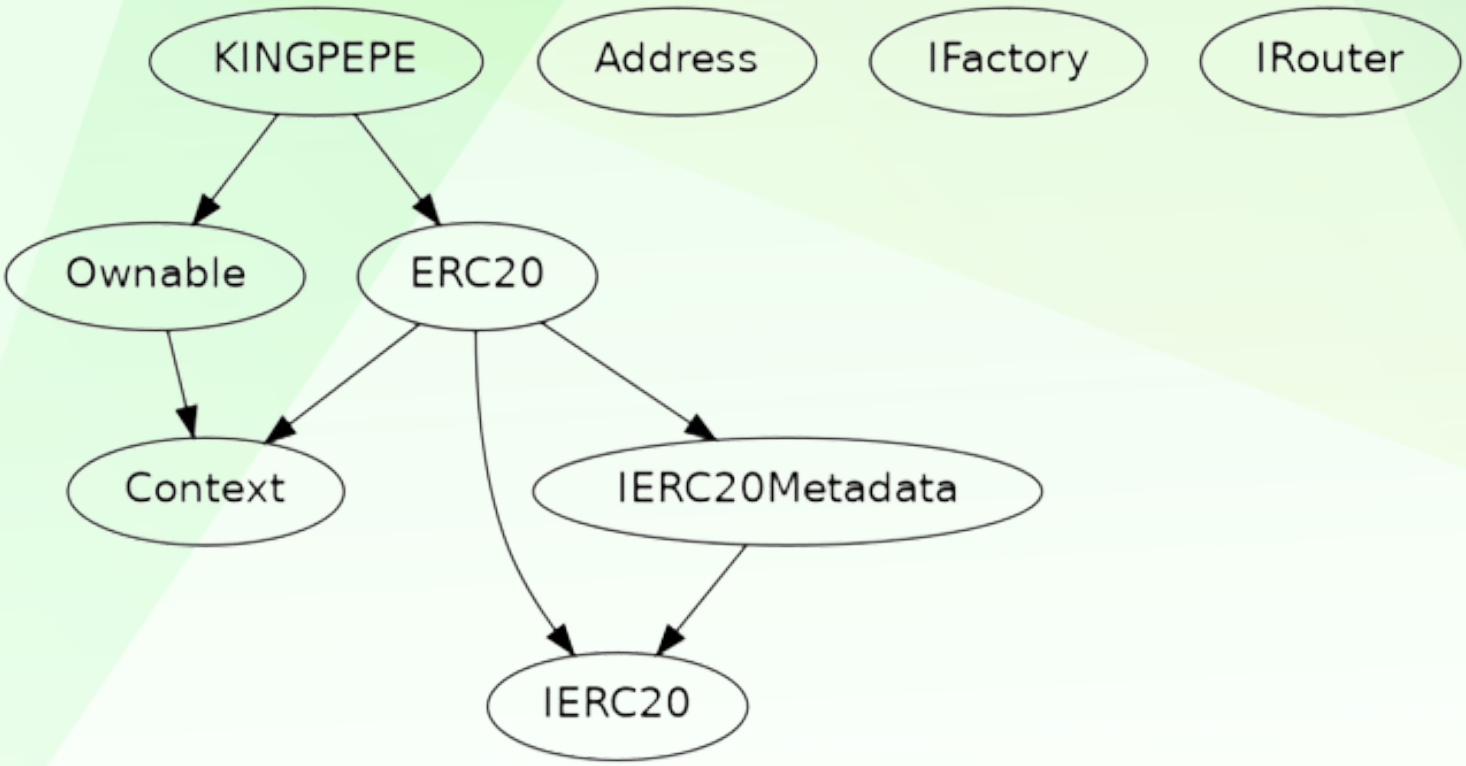
The auditing process will follow a routine as special considerations by Auditace:

- Review of the specifications, sources, and instructions provided to Auditace to make sure the contract logic meets the intentions of the client without exposing the user's funds to risk.
- Manual review of the entire codebase by our experts, which is the process of reading source code line-by-line in an attempt to identify potential vulnerabilities.
- Specification comparison is the process of checking whether the code does what the specifications, sources, and instructions provided to Auditace describe.
- Test coverage analysis determines whether the test cases are covering the code and how much code isexercised when we run the test cases.
- Symbolic execution is analysing a program to determine what inputs cause each part of a program to execute.
- Reviewing the codebase to improve maintainability, security, and control based on the established industry and academic practices.

VULNERABILITY CHECKLIST

- [x] Return values of low-level calls
- [x] Private modifier
- [x] Multiple Sends
- [x] Using Suicide
- [x] Gas Limitand Loops
- [x] Address hardcoded
- [x] Exception Disorder
- [x] Using inline assembly
- [x] Divide before multiply
- [x] Missing Zero Address Validation
- [x] Compiler version not fixed
- [x] **Gasless Send**
- [x] Using block.timestamp
- [x] Re-entrancy
- [x] Tautology or contradiction
- [x] Timestamp Dependence
- [x] Revert/require functions
- [x] Use of tx.origin
- [x] Integer overflow/underflow
- [x] Dangerous strict equalities
- [x] Using SHA3
- [x] Using throw

INHERITANCE TREE



STATIC ANALYSIS

A static analysis of the code was performed using Slither.

No issues were found.

```
INFO:Detectors:
KINGPEPE.Liquify(uint256,KINGPEPE.Taxes) (KINGPEPE.sol#614-653) performs a multiplication on the result of a division:
        - unitBalance = deltaBalance / (denominator - swapTaxes.liquidity) (KINGPEPE.sol#635)
        - ethToAddLiquidityWith = unitBalance * swapTaxes.liquidity (KINGPEPE.sol#636)
KINGPEPE.Liquify(uint256,KINGPEPE.Taxes) (KINGPEPE.sol#614-653) performs a multiplication on the result of a division:
        - unitBalance = deltaBalance / (denominator - swapTaxes.liquidity) (KINGPEPE.sol#635)
        - xmmarketingAmt = unitBalance * 2 * swapTaxes.xmmarketing (KINGPEPE.sol#643)
KINGPEPE.Liquify(uint256,KINGPEPE.Taxes) (KINGPEPE.sol#614-653) performs a multiplication on the result of a division:
        - unitBalance = deltaBalance / (denominator - swapTaxes.liquidity) (KINGPEPE.sol#635)
        - devAmt = unitBalance * 2 * swapTaxes.dev (KINGPEPE.sol#648)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#divide-before-multiply
INFO:Detectors:
KINGPEPE._transfer(address,address,uint256).feesum (KINGPEPE.sol#570) is a local variable never initialized
KINGPEPE._transfer(address,address,uint256).feeswap (KINGPEPE.sol#569) is a local variable never initialized
KINGPEPE._transfer(address,address,uint256).currentTaxes (KINGPEPE.sol#572) is a local variable never initialized
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#uninitialized-local-variables
INFO:Detectors:
KINGPEPE.addLiquidity(uint256,uint256) (KINGPEPE.sol#673-686) ignores return value by router.addLiquidityETH{value: ethAmount}(address(this),tokenAmount,0,0
,deadWallet,block.timestamp) (KINGPEPE.sol#678-685)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#unused-return
INFO:Detectors:
KINGPEPE._transfer(address,address,uint256).fee (KINGPEPE.sol#571) is written in both
        fee = 0 (KINGPEPE.sol#588)
        fee = (amount * feesum) / 100 (KINGPEPE.sol#596)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#write-after-write
INFO:Detectors:
KINGPEPE.updateLiquidityTreshhold(uint256) (KINGPEPE.sol#692-696) should emit an event for:
        - tokenLiquidityThreshold = new_amount * 10 ** decimals() (KINGPEPE.sol#695)
KINGPEPE.updatedeadline(uint256) (KINGPEPE.sol#705-709) should emit an event for:
        - deadline = _deadline (KINGPEPE.sol#708)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-events-arithmetic
INFO:Detectors:
Modifier KINGPEPE.lockTheSwap() (KINGPEPE.sol#472-478) does not always execute _; or revertReference: https://github.com/crytic/slither/wiki/Detector-Docume
ntation#incorrect-modifier
```

```
INFO:Detectors:
Context._msgData() (KINGPEPE.sol#15-18) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code
INFO:Detectors:
Pragma version^0.8.19 (KINGPEPE.sol#8) necessitates a version too recent to be trusted. Consider deploying with 0.8.18.
solc-0.8.19 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity
INFO:Detectors:
Low level call in Address.sendValue(address,uint256) (KINGPEPE.sol#351-362):
        - (success) = recipient.call{value: amount}() (KINGPEPE.sol#357)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls
INFO:Detectors:
Function IRouter.WETH() (KINGPEPE.sol#414) is not in mixedCase
Function KINGPEPE.Liquify(uint256,KINGPEPE.Taxes) (KINGPEPE.sol#614-653) is not in mixedCase
Parameter KINGPEPE.updateLiquidityTreshhold(uint256).new_amount (KINGPEPE.sol#692) is not in mixedCase
Function KINGPEPE.EnableTrading() (KINGPEPE.sol#698-703) is not in mixedCase
Parameter KINGPEPE.updatedeadline(uint256)._deadline (KINGPEPE.sol#705) is not in mixedCase
Function KINGPEPE.AddExemptFee(address) (KINGPEPE.sol#711-713) is not in mixedCase
Parameter KINGPEPE.AddExemptFee(address)._address (KINGPEPE.sol#711) is not in mixedCase
Function KINGPEPE.RemoveExemptFee(address) (KINGPEPE.sol#715-717) is not in mixedCase
Parameter KINGPEPE.RemoveExemptFee(address)._address (KINGPEPE.sol#715) is not in mixedCase
Function KINGPEPE.AddbulkExemptFee(address[]) (KINGPEPE.sol#719-723) is not in mixedCase
Function KINGPEPE.RemovebulkExemptFee(address[]) (KINGPEPE.sol#725-729) is not in mixedCase
Variable KINGPEPE.genesis_block (KINGPEPE.sol#453) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
INFO:Detectors:
Redundant expression "this (KINGPEPE.sol#16)" inContext (KINGPEPE.sol#10-19)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#redundant-statements
INFO:Detectors:
KINGPEPE.devWallet (KINGPEPE.sol#458) should be constant
KINGPEPE.launchtax (KINGPEPE.sol#455) should be constant
KINGPEPE.xmmarketingWallet (KINGPEPE.sol#457) should be constant
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-constant
INFO:Detectors:
KINGPEPE.pair (KINGPEPE.sol#445) should be immutable
KINGPEPE.router (KINGPEPE.sol#444) should be immutable
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-immutable
INFO:Slither:KINGPEPE.sol analyzed (9 contracts with 93 detectors), 40 result(s) found
```

FUNCTIONAL TESTING

1- Approve (passed):
https://testnet.bscscan.com/tx/0xbf38898115dbd615fbf245085a9f1ea86a36ab56dc0d52055d87622c2258bb2b

2- Increase Allowance (passed):
https://testnet.bscscan.com/tx/0xb49c70de043603122755dafca3408d6cce6a4be48bafb8d079c06d71f023e8cb

3- Decrease Allowance (passed):
https://testnet.bscscan.com/tx/0x34628cf6615bb344cb12c89237d8c850b50cba0fb1aff47c9f05dae7f1a390f4

4- Enable Trading (passed):
https://testnet.bscscan.com/tx/0x34628cf6615bb344cb12c89237d8c850b50cba0fb1aff47c9f05dae7f1a390f4

5- Add Exempt Fee (passed):
https://testnet.bscscan.com/tx/0xd17b17f9c1bad63d87ed771e7994747e79b7e31fcbaf642ee9b58c9e8e2b38c5

6- Remove Exempt Fee (passed):
https://testnet.bscscan.com/tx/0x01646393074621f979aca0a3e70a8e140aeedb8e24f9b1690525ff77c4f32c5c

POINTS TO NOTE

- The owner can transfer ownership.
- The owner can renounce ownership.
- The owner can update liquidity threshold.
- The owner can update the deadline.
- The owner can Add/Remove exempt fee.
- The owner can Add/Remove bulk exempt fee.
- The owner can rescue BNB.

CLASSIFICATION OF RISK

Severity	Description
Critical	These vulnerabilities could be exploited easily and can lead to asset loss, data loss, asset, or data manipulation. They should be fixed right away.
High-Risk	A vulnerability that affects the desired outcome when using a contract, or provides the opportunity to use a contract in an unintended way.
Medium-Risk	A vulnerability that could affect the desired outcome of executing the contract in a specific scenario.
Low-Risk	A vulnerability that does not have a significant impact on possible scenarios for the use of the contract and is probably subjective.
Gas Optimization /Suggestion	A vulnerability that has an informational character but is not affecting any of the code.

Findings

Severity	Found
Critical	0
High-Risk	0
Medium-Risk	0
Low-Risk	1
Gas Optimization / Suggestions	2

MANUAL TESTING

Centralization – Missing Events

Severity: Low

Function: Missing Events

Status: Open

Overview:
They serve as a mechanism for emitting and recording data onto the blockchain, making it transparent and easily accessible.

```
function updateLiquidityTreshhold(uint256 new_amount) external onlyOwner {
        require(new_amount >= 1e5,"Swap threshold amount should be lower or equal
to 0.01% of tokens");
        require(new_amount <= 1e7,"Swap threshold amount should be lower or equal
to 1% of tokens");
        tokenLiquidityThreshold = new_amount * 10**decimals();
    }
```

Suggestion:
Emit an event for critical changes.

MANUAL TESTING

Optimization

Severity: Informational

Function: Floating Pragma

Status: Open

Overview:

It is considered best practice to pick one compiler version and stick with it. With a floating pragma, contracts may accidentally be deployed using an outdated.

```
pragma solidity ^0.8.19
```

Suggestion:

Adding the latest constant version of solidity is recommended, as this prevents the unintentional deployment of a contract with an outdated compiler that contains unresolved bugs.

MANUAL TESTING

Optimization

Severity: Optimization

Function: Remove unused code.

Status: Open

Overview:

Unused variables are allowed in Solidity, and they do. not pose a direct security issue. It is the best practice. though to avoid them.

```
function _msgData() internal view virtual returns (bytes calldata) {
        this; // silence state mutability warning without generating bytecode - see
https://github.com/ethereum/solidity/issues/2691
        return msg.data;
    }
```

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