Pleasure Coin

# Smart Contract Audit Report

SYSFIXED

25 Jan 2023

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# AUDITED DETAILS

## Audited Project

| Project name | Token ticker | Blockchain |
|---|---|---|
| Pleasure Coin | NSFW | Binance Smart Chain |

## Addresses

| Contract address | 0xaa076b62efc6f357882e07665157a271ab46a063 |
|---|---|
| Contract deployer address | 0x129F027a491D96aBCeD68cC30976797a42987303 |

## Project Website

https://www.pleasurecoin.com/

## Codebase

https://bscscan.com/address/0xaa076b62efc6f357882e07665157a271ab46a063#code

# SUMMARY

Pleasure Coin (NSFW) is an ERC-20 token on the Polygon chain that will be utilized within the Pleasure Network, an adult industry ecosystem that empowers individuals and businesses.

## Contract Summary

**Documentation Quality**

Pleasure Coin provides a very good documentation with standard of solidity base code.

- The technical description is provided clearly and structured and also dont have any high risk issue.

**Code Quality**

The Overall quality of the basecode is standard.

- Standard solidity basecode and rules are already followed by Pleasure Coin with the discovery of several low issues.

**Test Coverage**

Test coverage of the project is 100% ( Through Codebase )

## Audit Findings Summary

- SWC-101 | It is recommended to use vetted safe math libraries for arithmetic operations consistently on lines 310, 329, 351, 384, 386, 407, 408, 433 and 435.
- SWC-103 | Pragma statements can be allowed to float when a contract is intended on lines 13, 98, 128, 155, 512 and 536.

# CONCLUSION

We have audited the NamaFile project released on January 2023 to discover issues and identify potential security vulnerabilities in NamaFile Project. This process is used to find technical issues and security loopholes which might be found in the smart contract.

The security audit report provides satisfactory results with low-risk issues.

The issues found in the NamaFile smart contract code do not pose a considerable risk. The writing of the contract is close to the standard of writing contracts in general. The low-risk issues found in floating pragma are set. Specifying a fixed compiler version is recommended to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

# AUDIT RESULT

| Article | Category | Description | Result |
|---|---|---|---|
| Default Visibility | SWC-100 SWC-108 | Functions and state variables visibility should be set explicitly. Visibility levels should be specified consciously. | PASS |
| Integer Overflow and Underflow | SWC-101 | If unchecked math is used, all math operations should be safe from overflows and underflows. | ISSUE FOUND |
| Outdated Compiler Version | SWC-102 | It is recommended to use a recent version of the Solidity compiler. | PASS |
| Floating Pragma | SWC-103 | Contracts should be deployed with the same compiler version and flags that they have been tested thoroughly. | ISSUE FOUND |
| Unchecked Call Return Value | SWC-104 | The return value of a message call should be checked. | PASS |
| Unprotected Ether Withdrawal | SWC-105 | Due to missing or insufficient access controls, malicious parties can withdraw from the contract. | PASS |
| SELFDESTRUCT Instruction | SWC-106 | The contract should not be self-destructible while it has funds belonging to users. | PASS |
| Reentrancy | SWC-107 | Check effect interaction pattern should be followed if the code performs recursive call. | PASS |
| Uninitialized Storage Pointer | SWC-109 | Uninitialized local storage variables can point to unexpected storage locations in the contract. | PASS |
| Assert Violation | SWC-110 SWC-123 | Properly functioning code should never reach a failing assert statement. | PASS |
| Deprecated Solidity Functions | SWC-111 | Deprecated built-in functions should never be used. | PASS |
| Delegate call to Untrusted Callee | SWC-112 | Delegatecalls should only be allowed to trusted addresses. | PASS |

| | | | |
|---|---|---|---|
| DoS (Denial of Service) | SWC-113<br>SWC-128 | Execution of the code should never be blocked by a specific contract state unless required. | PASS |
| Race Conditions | SWC-114 | Race Conditions and Transactions Order Dependency should not be possible. | PASS |
| Authorization through tx.origin | SWC-115 | tx.origin should not be used for authorization. | PASS |
| Block values as a proxy for time | SWC-116 | Block numbers should not be used for time calculations. | PASS |
| Signature Unique ID | SWC-117<br>SWC-121<br>SWC-122 | Signed messages should always have a unique id. A transaction hash should not be used as a unique id. | PASS |
| Incorrect Constructor Name | SWC-118 | Constructors are special functions that are called only once during the contract creation. | PASS |
| Shadowing State Variable | SWC-119 | State variables should not be shadowed. | PASS |
| Weak Sources of Randomness | SWC-120 | Random values should never be generated from Chain Attributes or be predictable. | PASS |
| Write to Arbitrary Storage Location | SWC-124 | The contract is responsible for ensuring that only authorized user or contract accounts may write to sensitive storage locations. | PASS |
| Incorrect Inheritance Order | SWC-125 | When inheriting multiple contracts, especially if they have identical functions, a developer should carefully specify inheritance in the correct order. The rule of thumb is to inherit contracts from more /general/ to more /specific/. | PASS |
| Insufficient Gas Griefing | SWC-126 | Insufficient gas griefing attacks can be performed on contracts which accept data and use it in a sub-call on another contract. | PASS |
| Arbitrary Jump Function | SWC-127 | As Solidity doesnt support pointer arithmetics, it is impossible to change such variable to an arbitrary value. | PASS |

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| Typographical Error | SWC-129 | A typographical error can occur for example when the intent of a defined operation is to sum a number to a variable. | PASS |
|---|---|---|---|
| Override control character | SWC-130 | Malicious actors can use the Right-To-Left-Override unicode character to force RTL text rendering and confuse users as to the real intent of a contract. | PASS |
| Unused variables | SWC-131 SWC-135 | Unused variables are allowed in Solidity and they do not pose a direct security issue. | PASS |
| Unexpected Ether balance | SWC-132 | Contracts can behave erroneously when they strictly assume a specific Ether balance. | PASS |
| Hash Collisions Variable | SWC-133 | Using abi.encodePacked() with multiple variable length arguments can, in certain situations, lead to a hash collision. | PASS |
| Hardcoded gas amount | SWC-134 | The transfer() and send() functions forward a fixed amount of 2300 gas. | PASS |
| Unencrypted Private Data | SWC-136 | It is a common misconception that private type variables cannot be read. | PASS |

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# SMART CONTRACT ANALYSIS

| Started | Tuesday Jan 24 2023 02:15:24 GMT+0000 (Coordinated Universal Time) |
|---|---|
| Finished | Wednesday Jan 25 2023 09:48:17 GMT+0000 (Coordinated Universal Time) |
| Mode | Standard |
| Main Source File | StandardERC20.sol |

## Detected Issues

| ID | Title | Severity | Status |
|---|---|---|---|
| SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED | low | acknowledged |
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# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED
LINE 310

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- StandardERC20.sol

## Locations

```
309    unchecked {
310    _approve(sender, _msgSender(), currentAllowance - amount);
311    }
312
313    return true;
314
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED
LINE 329

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- StandardERC20.sol

## Locations

```
328    function increaseAllowance(address spender, uint256 addedValue) public virtual
returns (bool) {
329    _approve(_msgSender(), spender, _allowances[_msgSender()][spender] + addedValue);
330    return true;
331    }
332
333
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 351

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- StandardERC20.sol

## Locations

```
350    unchecked {
351    _approve(_msgSender(), spender, currentAllowance - subtractedValue);
352    }
353
354    return true;
355
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED
LINE 384

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- StandardERC20.sol

## Locations

```
383   unchecked {
384   _balances[sender] = senderBalance - amount;
385   }
386   _balances[recipient] += amount;
387
388
```

# SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED
## LINE 386

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- StandardERC20.sol

## Locations

```
385    }
386    _balances[recipient] += amount;
387
388    emit Transfer(sender, recipient, amount);
389
390
```

# SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED
LINE 407

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- StandardERC20.sol

## Locations

```
406
407    _totalSupply += amount;
408    _balances[account] += amount;
409    emit Transfer(address(0), account, amount);
410
411
```

# SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED
LINE 408

## low SEVERITY
This plugin produces issues to support false positive discovery within mythril.

## Source File
- StandardERC20.sol

## Locations

```
407    _totalSupply += amount;
408    _balances[account] += amount;
409    emit Transfer(address(0), account, amount);
410
411    _afterTokenTransfer(address(0), account, amount);
412
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED
LINE 433

## low SEVERITY
This plugin produces issues to support false positive discovery within mythril.

## Source File
- StandardERC20.sol

## Locations

```
432    unchecked {
433    _balances[account] = accountBalance - amount;
434    }
435    _totalSupply -= amount;
436
437
```

# SWC-101 | ARITHMETIC OPERATION "-=" DISCOVERED
## LINE 435

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- StandardERC20.sol

## Locations

```
434    }
435    _totalSupply -= amount;
436
437    emit Transfer(account, address(0), amount);
438
439
```

# SWC-103 | A FLOATING PRAGMA IS SET.
LINE 13

## low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

## Source File

- StandardERC20.sol

## Locations

```
12
13   pragma solidity ^0.8.0;
14
15   /**
16   * @dev Interface of the ERC20 standard as defined in the EIP.
17
```

# SWC-103 | A FLOATING PRAGMA IS SET.
LINE 98

## low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

## Source File

- StandardERC20.sol

## Locations

```
97
98    pragma solidity ^0.8.0;
99
100
101   /**
102
```

# SWC-103 | A FLOATING PRAGMA IS SET.
LINE 128

## low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

## Source File

- StandardERC20.sol

## Locations

```
127
128    pragma solidity ^0.8.0;
129
130    /**
131    * @dev Provides information about the current execution context, including the
132
```

# SWC-103 | A FLOATING PRAGMA IS SET.
LINE 155

## low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

## Source File

- StandardERC20.sol

## Locations

```
154
155    pragma solidity ^0.8.0;
156
157
158
159
```

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# SWC-103 | A FLOATING PRAGMA IS SET.
LINE 512

## low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

## Source File

- StandardERC20.sol

## Locations

```
511
512   pragma solidity ^0.8.0;
513
514
515   /**
516
```

# SYSFIXED

# SWC-103 | A FLOATING PRAGMA IS SET.
LINE 536

## low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

## Source File

- StandardERC20.sol

## Locations

```
535    // File: contracts/token/ERC20/StandardERC20.sol
536    pragma solidity ^0.8.0;
537
538    /**
539    * @title StandardERC20
540
```

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