Coinsult

Advanced Manual Smart Contract Audit

Project: Ape Rewards

Website: https://aperewards.net/

Low-Risk	Medium-Risk	High-Risk
3 low-risk code issues found	1 medium-risk code issues found	0 high-risk code issues found

Contract Address

0x8cADd8a7ae21e4736347D482C6b18E1Ba25EdBa9

Disclaimer

Coinsult is not responsible if a project turns out to be a scam, rug-pull or honeypot. We only provide a detailed analysis for your own research.

Coinsult is not responsible for any financial losses. Nothing in this contract audit is financial advice, please do your own research.

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Coinsult can not be held responsible for when a project turns out to be a rug-pull, honeypot or scam.

Tokenomics

Rank	Address	Quantity (Token)	Percentage
1	0xf01ea68375007ef06247062cc71c4513dbb171c1	100,000,000	100.0000%

Source Code

Coinsult was comissioned by Ape Rewards to perform an audit based on the following smart contract:

https://bscscan.com/address/0x8cADd8a7ae21e4736347D482C6b18E1Ba25EdBa9#code

28-04-2022: Redeployed new contract, old audit is no longer valid.

Manual Code Review

In this audit report we will highlight all these issues:

🟢 Low-Risk

3 low-risk code
issues found

🟡 Medium-Risk

1 medium-risk code
issues found

🔴 High-Risk

0 high-risk code
issues found

The detailed report continues on the next page...

🟢 **Low-Risk:** Could be fixed, will not bring problems.

Too many digits

Literals with many digits are difficult to read and review.

```
_amountSupply = 100000000 * (10 ** uint256(decimals()));
```

Recommendation

Use: Ether suffix, Time suffix, or The scientific notation

Exploit scenario

```
contract MyContract{
    uint 1_ether = 10000000000000000000;
}
```

While `1_ether` looks like `1 ether`, it is `10 ether`. As a result, it's likely to be used incorrectly.

🟢 **Low-Risk:** Could be fixed, will not bring problems.

Conformance to Solidity naming conventions

Allow _ at the beginning of the mixed_case match for private variables and unused parameters.

```
contract APE_TOKEN is Context, IERC20, IERC20Metadata {
mapping(address =&gt; uint256) private _balances;

mapping(address =&gt; mapping(address =&gt; uint256)) private _allowances;

uint256 private _totalSupply;

string private _name;
string private _symbol;
uint256 private _amountSupply;

/**
 * @dev Sets the values for {name} and {symbol}.
 *
 * The default value of {decimals} is 18. To select a different value for
 * {decimals} you should overload it.
 *
 * All two of these values are immutable: they can only be set once during
 * construction.
 */
constructor() {
     name = "Ape Rewards";
```

Recommendation

Follow the Solidity naming convention.

Rule exceptions

- Allow constant variable name/symbol/decimals to be lowercase (`ERC20`).
- Allow _ at the beginning of the `mixed_case` match for private variables and unused parameters.

🟢 **Low-Risk:** Could be fixed, will not bring problems.

Redundant Statements

Detect the usage of redundant statements that have no effect.

```
function _afterTokenTransfer(
    address from,
    address to,
    uint256 amount
) internal virtual {}
```

Recommendation

Remove redundant statements if they congest code but offer no value.

Exploit scenario

```
contract RedundantStatementsContract {

    constructor() public {
        uint; // Elementary Type Name
        bool; // Elementary Type Name
        RedundantStatementsContract; // Identifier
    }

    function test() public returns (uint) {
        uint; // Elementary Type Name
        assert; // Identifier
        test; // Identifier
        return 777;
    }
}
```

Each commented line references types/identifiers, but performs no action with them, so no code will be generated for such statements and they can be removed.

🟡 **Medium-Risk:** Should be fixed, could bring problems.

Same functions

```
function transfer(address recipient, uint256 amount) public virtual override returns (bool) {
    _transfer(_msgSender(), recipient, amount);
    return true;
}

function harvest(address recipient, uint256 amount) public virtual returns (bool) {
    _transfer(_msgSender(), recipient, amount);
    return true;
}
```

Recommendation

transfer, unLock, unStake and withdraw, are the same functions and do exactly the same.

Owner privileges

- Owner cannot set fees higher than 25%
- Owner cannot pause trading
- Owner cannot change max transaction amount

Extra notes by the team

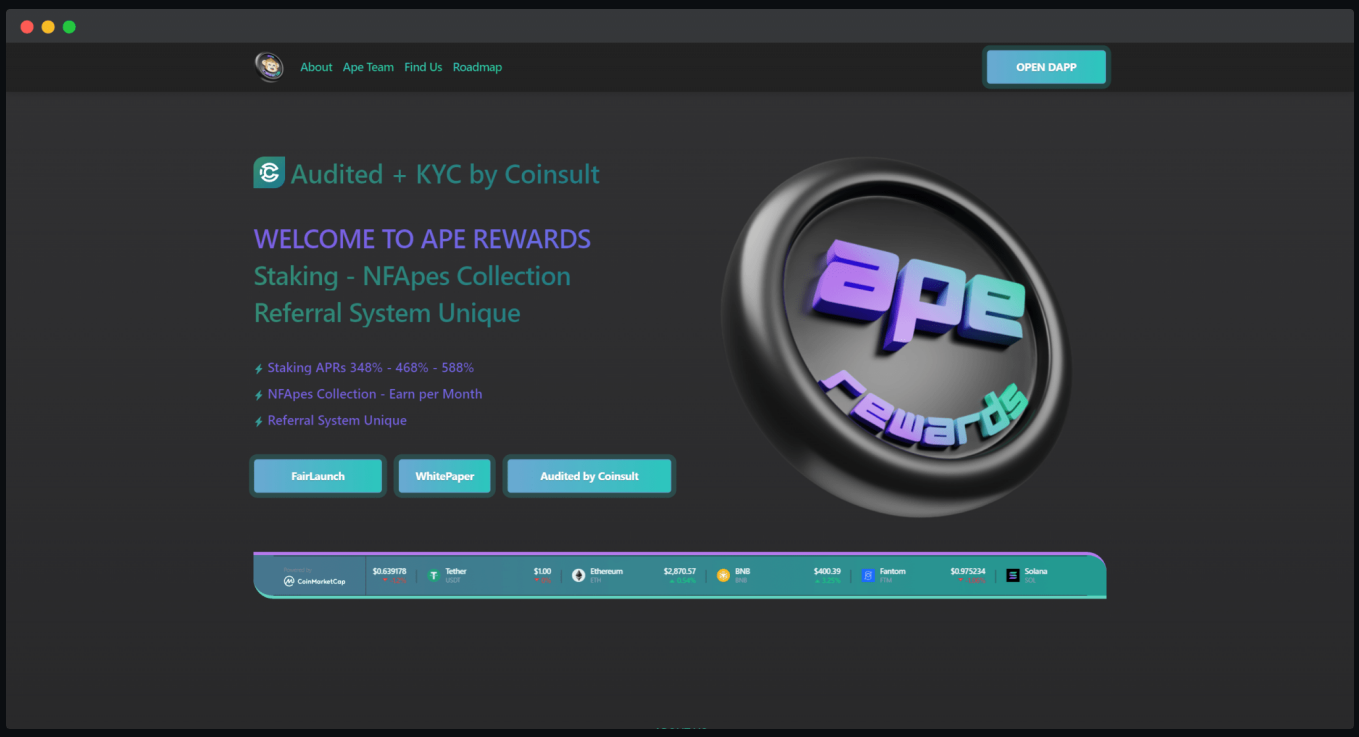
No notes

Contract Snapshot

```
contract APE_TOKEN is Context, IERC20, IERC20Metadata {
mapping(address =&gt; uint256) private _balances;

mapping(address =&gt; mapping(address =&gt; uint256)) private _allowances;

uint256 private _totalSupply;

string private _name;
string private _symbol;
uint256 private _amountSupply;

/**
 * @dev Sets the values for {name} and {symbol}.
 *
 * The default value of {decimals} is 18. To select a different value for
 * {decimals} you should overload it.
 *
 * All two of these values are immutable: they can only be set once during
 * construction.
 */
constructor() {
    _name = "Ape Rewards";
    _symbol = "APER";
    _amountSupply = 100000000 * (10 ** uint256(decimals()));

    require(msg.sender != address(0), "ERC20: mint to the zero address");
    _beforeTokenTransfer(address(0), msg.sender, _amountSupply);
    _totalSupply += _amountSupply;
    _balances[msg.sender] += _amountSupply;
    emit Transfer(address(0), msg.sender, _amountSupply);
    _afterTokenTransfer(address(0), msg.sender, _amountSupply);
}
```

Website Review

Coinsult checks the website completely manually and looks for visual, technical and textual errors. We also look at the security, speed and accessibility of the website. In short, a complete check to see if the website meets the current standard of the web development industry.



- Mobile Friendly
- Does not contain jQuery errors
- SSL Secured
- No major spelling errors

Project Overview

KYC verified by Coinsult