



Coinsult

Advanced Manual Smart Contract Audit



Project: YieldZard

Website: <https://yieldzard.com>

Low-risk

4 low-risk code
issues found

1 resolved and fixed

Medium-risk

0 medium-risk code
issues found

1 resolved and fixed

High-risk

0 high-risk code
issues found

Contract address

0x9adBdcB5ed360114240495F6C8ccC14E5BE87f13

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

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.

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Tokenomics

Rank	Address	Quantity (Token)	Percentage
1	<u>0xaa90f851a16393bdd69704b40f6c212193aad0b0</u>	289,950.096	89.2154%
2	<u>0x96334277762d5af306bf9abc4daa24e92082fd2c</u>	35,049.904	10.7846%

Source code

Coinsult was commissioned by YieldZard to perform an audit based on the following smart contract:

<https://bscscan.com/address/0x9adBdcB5ed360114240495F6C8ccC14E5BE87f13#code>

Manual Code Review

● Low-risk

4 low-risk code issues found.

Could be fixed, will not bring problems.

- Contract contains Reentrancy vulnerabilities:

`_transferFrom(address,address,uint256)`

Additional information: This combination increases risk of malicious intent. While it may be justified by some complex mechanics (e.g. rebase, reflections, buyback).

More information: [Slither](#)

```
function _transferFrom(
    address sender,
    address recipient,
    uint256 amount
) internal returns (bool) {
    require(!blacklist[sender] && !blacklist[recipient], "in_blacklist");

    if (inSwap) {
        return _basicTransfer(sender, recipient, amount);
    }
    if (shouldRebase()) {
        rebase();
    }

    if (shouldAddLiquidity()) {
        addLiquidity();
    }

    if (shouldSwapBack()) {
        swapBack();
    }

    uint256 gonAmount = amount.mul(_gonsPerFragment);
    _gonBalances[sender] = _gonBalances[sender].sub(gonAmount);
    uint256 gonAmountReceived = shouldTakeFee(sender, recipient)
        ? takeFee(sender, recipient, gonAmount)
        : gonAmount;
    _gonBalances[recipient] = _gonBalances[recipient].add(
        gonAmountReceived
    );

    emit Transfer(
        sender,
        recipient,
        gonAmountReceived.div(_gonsPerFragment)
    );
    return true;
}
```

- Function which sends eth to arbitrary destination

Ensure that an arbitrary user cannot withdraw unauthorized funds. More information: [Slither](#)

```
(bool success, ) = payable(wizardsChestReceiver).call{
    value: amountETHToChestAndYCF.mul(wizardsChestBuyFee).div(
        wizardsChestBuyFee.add(coverageFundBuyFee)
    ),
    gas: 30000
}("");
(success, ) = payable(coverageFundReceiver).call{
    value: amountETHToChestAndYCF.mul(coverageFundBuyFee).div(
        wizardsChestBuyFee.add(coverageFundBuyFee)
    ),
    gas: 30000
}("");
```

- Block.timestamp can be manipulated by miners.

Avoid relying on block.timestamp.

More information:

<https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp>

```
function shouldRebase() internal view returns (bool) {
    return
        _autoRebase &&
        (_totalSupply < MAX_SUPPLY) &&
        msg.sender != pair &&
        !inSwap &&
        block.timestamp >= (_lastRebasedTime + 5 minutes);
}
```

- Variable written twice

Fix or remove the writes.

More information:

<https://github.com/crytic/slither/wiki/Detector-Documentation#write-after-write>

```
(bool success, ) = payable(wizardsChestReceiver).call{
    value: amountETHToChestAndYCF.mul(wizardsChestBuyFee).div(
        wizardsChestBuyFee.add(coverageFundBuyFee)
    ),
    gas: 30000
}("");
(success, ) = payable(coverageFundReceiver).call{
    value: amountETHToChestAndYCF.mul(coverageFundBuyFee).div(
        wizardsChestBuyFee.add(coverageFundBuyFee)
    ),
    gas: 30000
}("");
```

- Missing zero address validation. (● Acknowledged and changed)
Check that the new address is not zero.

Old function

```
function setFeeReceivers(  
    address _autoLiquidityReceiver,  
    address _wizardsChestReceiver,  
    address _coverageFundReceiver,  
    address _lavaLakeReceiver  
) external onlyOwner {  
    autoLiquidityReceiver = _autoLiquidityReceiver;  
    wizardsChestReceiver = _wizardsChestReceiver;  
    coverageFundReceiver = _coverageFundReceiver;  
    lavaLakeReceiver = _lavaLakeReceiver;  
}
```

● New changed function:

```
function setFeeReceivers(  
    address _autoLiquidityReceiver,  
    address _wizardsChestReceiver,  
    address _coverageFundReceiver,  
) external onlyOwner {  
    require(_autoLiquidityReceiver != address(0));  
    require(_wizardsChestReceiver != address(0));  
    require(_coverageFundReceiver != address(0));  
    autoLiquidityReceiver = _autoLiquidityReceiver;  
    wizardsChestReceiver = _wizardsChestReceiver;  
    coverageFundReceiver = _coverageFundReceiver;  
}
```

● Medium-risk

0 medium-risk code issues found.

Should be fixed, could bring problems.

- If statements might never be reached (● Acknowledged and changed)
If the second statement is reached (≥ 365 days), then the other two below will not be called upon.

Old function:

```
if (deltaTimeFromInit < (365 days)) {
    rebaseRate = 868;
} else if (deltaTimeFromInit >= (365 days)) {
    rebaseRate = 72;
} else if (deltaTimeFromInit >= ((15 * 365 days) / 10)) {
    rebaseRate = 4;
} else if (deltaTimeFromInit >= (7 * 365 days)) {
    rebaseRate = uint256(6).div(10);
}
```

● New changed function:

```
if (deltaTimeFromInit < (365 days)) {
    rebaseRate = 8680;
} else if (deltaTimeFromInit >= (7 * 365 days)) {
    rebaseRate = 6;
} else if (deltaTimeFromInit >= ((15 * 365 days) / 10)) {
    rebaseRate = 40;
} else if (deltaTimeFromInit >= (365 days)) {
    rebaseRate = 720;
}
```

● High-risk

0 high-risk code issues found

Must be fixed, and will bring problems.

Extra notes by the team

- Owner can not change the fees
- Owner can blacklist contract addresses
- Contract uses rebase

```
function rebase() internal {
    if (inSwap) return;
    uint256 rebaseRate;
    uint256 deltaTimeFromInit = block.timestamp -
_initRebaseStartTime;

    uint256 deltaTime = block.timestamp - _lastRebasedTime;
    uint256 times = deltaTime.div(5 minutes);
    uint256 epoch = times.mul(5);

    if (deltaTimeFromInit < (365 days)) {
        rebaseRate = 868;
    } else if (deltaTimeFromInit >= (365 days)) {
        rebaseRate = 72;
    } else if (deltaTimeFromInit >= ((15 * 365 days) / 10)) {
        rebaseRate = 4;
    } else if (deltaTimeFromInit >= (7 * 365 days)) {
        rebaseRate = uint256(6).div(10);
    }

    for (uint256 i = 0; i < times; i++) {
        _totalSupply = _totalSupply
            .mul((10**RATE_DECIMALS).add(rebaseRate))
            .div(10**RATE_DECIMALS);
    }

    _gonsPerFragment = TOTAL_GONS.div(_totalSupply);
    _lastRebasedTime = _lastRebasedTime.add(times.mul(5 minutes));

    pairContract.sync();

    emit LogRebase(epoch, _totalSupply);
}
```


Contract Snapshot

```
contract YieldZard is ERC20Detailed, Ownable {
    using SafeMath for uint256;
    using SafeMathInt for int256;

    event LogRebase(uint256 indexed epoch, uint256 totalSupply);

    string public _name = "YieldZard";
    string public _symbol = "YLZ";
    uint8 public _decimals = 5;

    IPancakeSwapPair public pairContract;
    mapping(address => bool) _isFeeExempt;

    modifier validRecipient(address to) {
        require(to != address(0x0));
        _;
    }

    uint256 public constant DECIMALS = 5;
    uint256 public constant MAX_UINT256 = ~uint256(0);
    uint8 public constant RATE_DECIMALS = 7;

    uint256 private constant INITIAL_FRAGMENTS_SUPPLY =
        325 * 10**3 * 10**DECIMALS;

    uint256 public liquidityBuyFee = 30;
    uint256 public liquiditySellFee = 40;

    uint256 public wizardsChestBuyFee = 25;
    uint256 public wizardsChestSellFee = 45;

    uint256 public coverageFundBuyFee = 40;
    uint256 public coverageFundSellFee = 60;

    uint256 public lavaLakeBuyFee = 25;
    uint256 public lavaLakeSellFee = 35;
```

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
- Contains no jQuery errors
- SSL Secured
- No major spelling errors

Loading speed: 92%

Rug-pull Review

Based on the available information analyzed by us, we come to the following conclusions:

- Locked Liquidity - No liquidity yet
- Large unlocked wallets - Tokens not yet distributed
- Doxxed Team (KYC at Coinsult)

Honeypot Review

Based on the available information analyzed by us, we come to the following conclusions:

- Ability to sell
- Owner is not able to pause the contract
- Router hard coded in the contract

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 the project owner.