



BabyCAW

# Smart Contract Audit Report

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## Disclaimer

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# AUDITED DETAILS

## Audited Project

Project name	Token ticker	Blockchain
BabyCAW	BabyCAW	Ethereum

## Addresses

Contract address	0x25cd00d22F2255235Ef6823cdA8ad003Dc68d859
Contract deployer address	0x219Ffad28740628653DAa9447f33210267738D52

## Project Website

<https://babycawcoin.com/>

## Codebase

<https://etherscan.io/address/0x25cd00d22F2255235Ef6823cdA8ad003Dc68d859#code>

# SUMMARY

Babycaw is a decentralized DeFi project built on the ethereum blockchain (ERC20). It is inspired by the vision of Ryoshi (Founder of the \$CAW & SHIBA) which is to achieve a truly decentralized and fully autonomous cryptocurrency project which is solely of teh people, by teh people and for teh people. This ideology is synonymous to what Abraham Lincoln himself envisioned for democracy which he defined as “a government of the people, by the people and for the people”.

## Contract Summary

### Documentation Quality

BabyCAW 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 BabyCAW 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 62, 74, 84, 85, 97, 109, 216, 466, 466, 467, 467, 498, 498, 510, 510, 624, 659, 661, 803, 804, 805, 806, 884, 901, 974, 974, 974, 974 and 661.
- SWC-103 | Pragma statements can be allowed to float when a contract is intended on lines 31.
- SWC-110 SWC-123 | It is recommended to use of revert(), assert(), and require() in Solidity, and the new REVERT opcode in the EVM on lines 625, 660, 661, 661, 750, 751, 885, 885, 886, 887, 1022 and 1023.

## CONCLUSION

We have audited the BabyCAW project released on June 2022 to discover issues and identify potential security vulnerabilities in BabyCAW 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 a satisfactory result with some low-risk issues.

The issues found in the BabyCAW 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 are some arithmetic operation issues, a floating pragma is set and out of bounds array access which the index access expression can cause an exception in case of the use of an invalid array index value.

# 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.	ISSUE FOUND
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 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 SWC-121 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

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 <code>abi.encodePacked()</code> with multiple variable length arguments can, in certain situations, lead to a hash collision.	PASS
Hardcoded gas amount	SWC-134	The <code>transfer()</code> and <code>send()</code> 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



# SMART CONTRACT ANALYSIS

Started	Thursday Jun 09 2022 07:43:21 GMT+0000 (Coordinated Universal Time)
Finished	Friday Jun 10 2022 16:36:27 GMT+0000 (Coordinated Universal Time)
Mode	Standard
Main Source File	BabyCAW.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
SWC-101	ARITHMETIC OPERATION "/" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "/" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "%" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "**" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "%" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged

SWC-101	ARITHMETIC OPERATION "**" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "++" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "++" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+=" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+=" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+=" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+=" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+=" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "++" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "**" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged



# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 62

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
61  function add(uint256 a, uint256 b) internal pure returns (uint256) {
62  uint256 c = a + b;
63  require(c >= a, "SafeMath: addition overflow");
64
65  return c;
66
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 74

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
73   require(b <= a, errorMessage);
74   uint256 c = a - b;
75
76   return c;
77   }
78
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 84

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
83
84  uint256 c = a * b;
85  require(c / a == b, "SafeMath: multiplication overflow");
86
87  return c;
88
```

# SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 85

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
84  uint256 c = a * b;  
85  require(c / a == b, "SafeMath: multiplication overflow");  
86  
87  return c;  
88  }  
89
```

# SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 97

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
96   require(b > 0, errorMessage);
97   uint256 c = a / b;
98   // assert(a == b * c + a % b); // There is no case in which this doesn't hold
99
100   return c;
101
```



## SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED

LINE 109

### low SEVERITY

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

### Source File

- BabyCAW.sol

### Locations

```
108   require(b != 0, errorMessage);
109   return a % b;
110  }
111  }
112
113
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 216

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
215  _owner = address(0);
216  _lockTime = block.timestamp + time;
217  emit OwnershipTransferred(_owner, address(0));
218  }
219
220
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 466

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
465 uint256 private constant MAX = ~uint256(0);
466 uint256 private _tTotal = 333_333_333_333_333 * 10**18;
467 uint256 private _rTotal = (MAX - (MAX % _tTotal));
468 uint256 private _tFeeTotal;
469
470
```

# SWC-101 | ARITHMETIC OPERATION "\*\*" DISCOVERED

LINE 466

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
465 uint256 private constant MAX = ~uint256(0);
466 uint256 private _tTotal = 333_333_333_333_333 * 10**18;
467 uint256 private _rTotal = (MAX - (MAX % _tTotal));
468 uint256 private _tFeeTotal;
469
470
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 467

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
466 uint256 private _tTotal = 333_333_333_333_333 * 10**18;
467 uint256 private _rTotal = (MAX - (MAX % _tTotal));
468 uint256 private _tFeeTotal;
469
470 string private _name = "BabyCAW";
471
```

# SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED

LINE 467

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
466 uint256 private _tTotal = 333_333_333_333_333 * 10**18;
467 uint256 private _rTotal = (MAX - (MAX % _tTotal));
468 uint256 private _tFeeTotal;
469
470 string private _name = "BabyCAW";
471
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 498

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
497
498  uint256 public totalSwapableSaleFee = _saleLiquidityFee +_saleMarketingFee +
    _saleBuybackFee;
499
500  bool public blacklistMode = true;
501  mapping (address => bool) public isBlacklisted;
502
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 498

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
497
498  uint256 public totalSwapableSaleFee = _saleLiquidityFee +_saleMarketingFee +
   _saleBuybackFee;
499
500  bool public blacklistMode = true;
501  mapping (address => bool) public isBlacklisted;
502
```



# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 510

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
509
510  uint256 private minimumTokensBeforeSwap = 100_000 * 10**18;
511
512  IUniswapV2Router02 public immutable uniswapV2Router;
513  address public immutable uniswapV2Pair;
514
```

# SWC-101 | ARITHMETIC OPERATION "\*\*" DISCOVERED

LINE 510

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
509
510  uint256 private minimumTokensBeforeSwap = 100_000 * 10**18;
511
512  IUniswapV2Router02 public immutable uniswapV2Router;
513  address public immutable uniswapV2Pair;
514
```

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

LINE 624

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
623  function manage_blacklist(address[] calldata addresses, bool status) public
    onlyOwner {
624  for (uint256 i; i < addresses.length; ++i) {
625  isBlacklisted[addresses[i]] = status;
626  }
627  }
628
```

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

LINE 659

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
658   require(!_isExcluded[account], "Account is already excluded");
659   for (uint256 i = 0; i < _excluded.length; i++) {
660     if (_excluded[i] == account) {
661       _excluded[i] = _excluded[_excluded.length - 1];
662       _tOwned[account] = 0;
663     }
```

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

LINE 661

### low SEVERITY

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

### Source File

- BabyCAW.sol

### Locations

```
660  if (_excluded[i] == account) {  
661  _excluded[i] = _excluded[_excluded.length - 1];  
662  _tOwned[account] = 0;  
663  _isExcluded[account] = false;  
664  _excluded.pop();  
665
```

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

LINE 803

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
802  if(totalSwapableFee==0) { return; }
803  liquidityTokensCollected += amount.mul(_liquidityFee).div(100);
804  devTokensCollected += amount.mul(_devFee).div(100);
805  marketingTokensCollected += amount.mul(_marketingFee).div(100);
806  buybackTokensCollected += amount.mul(_buybackFee).div(100);
807
```

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

LINE 804

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
803 liquidityTokensCollected += amount.mul(_liquidityFee).div(100);
804 devTokensCollected += amount.mul(_devFee).div(100);
805 marketingTokensCollected += amount.mul(_marketingFee).div(100);
806 buybackTokensCollected += amount.mul(_buybackFee).div(100);
807 }
808
```

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

LINE 805

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
804 devTokensCollected += amount.mul(_devFee).div(100);
805 marketingTokensCollected += amount.mul(_marketingFee).div(100);
806 buybackTokensCollected += amount.mul(_buybackFee).div(100);
807 }
808
809
```



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

LINE 806

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
805     marketingTokensCollected += amount.mul(_marketingFee).div(100);
806     buybackTokensCollected += amount.mul(_buybackFee).div(100);
807 }
808
809
810
```

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

LINE 884

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
883  uint256 tSupply = _tTotal;
884  for (uint256 i = 0; i < _excluded.length; i++) {
885    if (_rOwned[_excluded[i]] > rSupply || _tOwned[_excluded[i]] > tSupply) return
      (_rTotal, _tTotal);
886    rSupply = rSupply.sub(_rOwned[_excluded[i]]);
887    tSupply = tSupply.sub(_tOwned[_excluded[i]]);
888
```

# SWC-101 | ARITHMETIC OPERATION "\*\*" DISCOVERED

LINE 901

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
900     function calculateTaxFee(uint256 _amount) private view returns (uint256) {
901     return _amount.mul(_taxFee).div(10**2);
902     }
903
904     function calculateLiquidityFee(uint256 _amount) private view returns (uint256) {
905
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 974

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
973  _saleBuybackFee = buybackFee;
974  totalSwapableSaleFee = _saleLiquidityFee + _saleMarketingFee + _saleBuybackFee +
    _saleTaxFee + _saleDevFee;
975  require(totalSwapableSaleFee <= 10, "Must be less than 10% total");
976  }
977
978
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 974

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
973  _saleBuybackFee = buybackFee;
974  totalSwapableSaleFee = _saleLiquidityFee + _saleMarketingFee + _saleBuybackFee +
    _saleTaxFee + _saleDevFee;
975  require(totalSwapableSaleFee <= 10, "Must be less than 10% total");
976  }
977
978
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 974

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
973  _saleBuybackFee = buybackFee;
974  totalSwapableSaleFee = _saleLiquidityFee + _saleMarketingFee + _saleBuybackFee +
    _saleTaxFee + _saleDevFee;
975  require(totalSwapableSaleFee <= 10, "Must be less than 10% total");
976  }
977
978
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 974

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
973  _saleBuybackFee = buybackFee;
974  totalSwapableSaleFee = _saleLiquidityFee + _saleMarketingFee + _saleBuybackFee +
    _saleTaxFee + _saleDevFee;
975  require(totalSwapableSaleFee <= 10, "Must be less than 10% total");
976  }
977
978
```

# SWC-101 | COMPILER-REWRITABLE "<UINT> - 1" DISCOVERED

LINE 661

## low SEVERITY

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

## Source File

- BabyCAW.sol

## Locations

```
660  if (_excluded[i] == account) {  
661  _excluded[i] = _excluded[_excluded.length - 1];  
662  _tOwned[account] = 0;  
663  _isExcluded[account] = false;  
664  _excluded.pop();  
665
```



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

LINE 31

### low SEVERITY

The current pragma Solidity directive is ""^0.8.14"". 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

- BabyCAW.sol

### Locations

```
30
31  pragma solidity ^0.8.14;
32
33  abstract contract Context {
34  function _msgSender() internal view virtual returns (address payable) {
35
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 625

### low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

### Source File

- BabyCAW.sol

### Locations

```
624   for (uint256 i; i < addresses.length; ++i) {  
625     isBlacklisted[addresses[i]] = status;  
626   }  
627 }  
628  
629
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 660

### low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

### Source File

- BabyCAW.sol

### Locations

```
659   for (uint256 i = 0; i < _excluded.length; i++) {
660     if (_excluded[i] == account) {
661       _excluded[i] = _excluded[_excluded.length - 1];
662       _tOwned[account] = 0;
663       _isExcluded[account] = false;
664     }
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 661

### low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

### Source File

- BabyCAW.sol

### Locations

```
660  if (_excluded[i] == account) {  
661  _excluded[i] = _excluded[_excluded.length - 1];  
662  _tOwned[account] = 0;  
663  _isExcluded[account] = false;  
664  _excluded.pop();  
665
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 661

### low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

### Source File

- BabyCAW.sol

### Locations

```
660  if (_excluded[i] == account) {  
661  _excluded[i] = _excluded[_excluded.length - 1];  
662  _tOwned[account] = 0;  
663  _isExcluded[account] = false;  
664  _excluded.pop();  
665
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 750

### low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

### Source File

- BabyCAW.sol

### Locations

```
749 address[] memory path = new address[](2);
750 path[0] = address(this);
751 path[1] = uniswapV2Router.WETH();
752 _approve(address(this), address(uniswapV2Router), tokenAmount);
753
754
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 751

### low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

### Source File

- BabyCAW.sol

### Locations

```
750 path[0] = address(this);
751 path[1] = uniswapV2Router.WETH();
752 _approve(address(this), address(uniswapV2Router), tokenAmount);
753
754 // make the swap
755
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 885

### low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

### Source File

- BabyCAW.sol

### Locations

```
884   for (uint256 i = 0; i < _excluded.length; i++) {
885     if (_rOwned[_excluded[i]] > rSupply || _tOwned[_excluded[i]] > tSupply) return
      (_rTotal, _tTotal);
886     rSupply = rSupply.sub(_rOwned[_excluded[i]]);
887     tSupply = tSupply.sub(_tOwned[_excluded[i]]);
888   }
889
```



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      (_rTotal, _tTotal);
886     rSupply = rSupply.sub(_rOwned[_excluded[i]]);
887     tSupply = tSupply.sub(_tOwned[_excluded[i]]);
888   }
889
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 886

### low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

### Source File

- BabyCAW.sol

### Locations

```
885   if (_rOwned[_excluded[i]] > rSupply || _tOwned[_excluded[i]] > tSupply) return
      (_rTotal, _tTotal);
886   rSupply = rSupply.sub(_rOwned[_excluded[i]]);
887   tSupply = tSupply.sub(_tOwned[_excluded[i]]);
888   }
889   if (rSupply < _rTotal.div(_tTotal)) return (_rTotal, _tTotal);
890
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 887

### low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

### Source File

- BabyCAW.sol

### Locations

```
886   rSupply = rSupply.sub(_rOwned[_excluded[i]]);
887   tSupply = tSupply.sub(_tOwned[_excluded[i]]);
888   }
889   if (rSupply < _rTotal.div(_tTotal)) return (_rTotal, _tTotal);
890   return (rSupply, tSupply);
891
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 1022

### low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

### Source File

- BabyCAW.sol

### Locations

```
1021     address[] memory path = new address[](2);
1022     path[0] = uniswapV2Router.WETH();
1023     path[1] = address(this);
1024     // make the swap
1025     uniswapV2Router.swapExactETHForTokensSupportingFeeOnTransferTokens{value: amount}(
1026
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 1023

### low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

### Source File

- BabyCAW.sol

### Locations

```
1022 path[0] = uniswapV2Router.WETH();
1023 path[1] = address(this);
1024 // make the swap
1025 uniswapV2Router.swapExactETHForTokensSupportingFeeOnTransferTokens{value: amount}(
1026 0, // accept any amount of Tokens
1027
```

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