

### **Hemp Quality Assurance Testing**

### **CERTIFICATE OF ANALYSIS**

**DATE ISSUED 06/10/2022** 

SAMPLE NAME: Wookie Breath

Flower, Hemp

**CULTIVATOR / MANUFACTURER** 

Business Name: License Number:

Address:

SAMPLE DETAIL

**Batch Number:** 

Sample ID: 220607N023

**DISTRIBUTOR / TESTED FOR** 

Business Name: Black Tie Group

License Number:

Address:

**Date Collected:** 06/07/2022 **Date Received:** 06/07/2022

Batch Size:

Sample Size: 8.0 grams

**Unit Mass:** 

Serving Size: 1 grams per Serving





Scan QR code to verify authenticity of results.

#### **CANNABINOID ANALYSIS - SUMMARY**

Total THC: 0.52165%

Total CBD: 14.15%

Sum of Cannabinoids: 17.69%

Total Cannabinoids: 15.75%

Total THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during the decarboxylation step: Total THC =  $\Delta^9$ -THC + (THCa (0.877))

Total CBD = CBD + (CBDa (0.877))

Sum of Cannabinoids =  $\Delta^9$ -THC + THCa + CBD + CBDa + CBG + CBGa + THCV + THCVa + CBC + CBCa + CBDV + CBDVa +  $\Delta^8$ -THC + CBL + CBN Total Cannabinoids =  $(\Delta^9$ -THC+0.877\*THCa) + (CBD+0.877\*CBDa) + (CBG+0.877\*CBGa) + (THCV+0.877\*THCVa) + (CBC+0.877\*CBCa) +

(CBDV+0.877\*CBDVa) +  $\Delta$ <sup>8</sup>-THC + CBL + CBN

### TERPENOID ANALYSIS - SUMMARY

39 TESTED, TOP 3 HIGHLIGHTED

Total Terpenoids: 1.1345%

B-Caryophyllene 3.404 mg/g

Myrcene 1.813 mg/g

igcap lpha-Humulene 1.161 mg/g

For quality assurance purposes. Not a Regulatory Hemp Lab Test Report. These results relate only to the sample included on this report. This report shall not be reproduced, except in full, without written approval of the laboratory.

Sample Certification: California Code of Regulations Title 16 Effect Date January 16, 2019. Authority: Section 26013, Business and Professions Code. Reference: Sections 26100, 26104 and 26110, Business and Professions Code.

**Decision Rule:** Statements of conformity (e.g. Pass/Fail) to specifications are made in this report without taking measurement uncertainty into account. Where statements of conformity are made in this report, the following decision rules are applied: PASS - Results within limits/specifications, FAIL - Results exceed limits/specifications.

References: limit of detection (LOD), limit of quantification (LOQ), not detected (ND), not tested (NT)

LQC verified by: Carmen Stackhouse Date: 06/10/2022

Approved by: Josh Wurzer, President Date: 06/10/2022



## Hemp Quality Assurance Testing

### **CERTIFICATE OF ANALYSIS**

WOOKIE BREATH | DATE ISSUED 06/10/2022



# Cannabinoid Analysis

Tested by high-performance liquid chromatography with diode-array detection (HPLC-DAD).

Method: QSP 1157 - Analysis of Cannabinoids by HPLC-DAD

**TOTAL THC: 0.52165%** Total THC (Δ<sup>9</sup>-THC+0.877\*THCa)

TOTAL CBD: 14.15%
Total CBD (CBD+0.877\*CBDa)

#### **TOTAL CANNABINOIDS: 15.75%**

 $\begin{array}{l} Total \ Cannabinoids \ (Total \ THC) + (Total \ CBD) + \\ (Total \ CBG) + (Total \ THCV) + (Total \ CBC) + \\ (Total \ CBDV) + \Delta^8 - THC + CBL + CBN \end{array}$ 

TOTAL CBG: 0.23%
Total CBG (CBG+0.877\*CBGa)

**TOTAL THCV: ND** 

Total THCV (THCV+0.877\*THCVa)

TOTAL CBC: 0.81%
Total CBC (CBC+0.877\*CBCa)

TOTAL CBDV: 0.04%
Total CBDV (CBDV+0.877\*CBDVa)



### **Terpenoid Analysis**

Terpene analysis utilizing gas chromatographyflame ionization detection (GC-FID).

Method: QSP 1192 - Analysis of Terpenoids by GC-FID

#### **CANNABINOID TEST RESULTS - 06/09/2022**

|   | COMPOUND            | LOD/LOQ<br>(mg/g) | MEASUREMENT<br>UNCERTAINTY (mg/g) | RESULT<br>(mg/g) | RESULT<br>(%) |
|---|---------------------|-------------------|-----------------------------------|------------------|---------------|
| Ī | CBDa                | 0.06 / 0.22       | ±4.726                            | 143.65           | 14.365        |
| Ī | CBD                 | 0.1/0.3           | ±0.66                             | 15.5             | 1.55          |
|   | CBCa                | 0.1/0.4           | ±0.52                             | 7.6              | 0.76          |
| Ī | THCa                | 0.0005 / 0.0030   | ±0.14155                          | 4.4098           | 0.44098       |
| Ī | CBGa                | 0.1/0.4           | ±0.09                             | 1.7              | 0.17          |
|   | СВС                 | 0.1/0.2           | ±0.05                             | 1.4              | 0.14          |
| Ī | Δ <sup>9</sup> -THC | 0.0013 / 0.0050   | ±0.04115                          | 1.3491           | 0.13491       |
|   | CBG                 | 0.2 / 0.5         | ±0.05                             | 0.8              | 0.08          |
|   | CBDVa               | 0.02 / 0.22       | ±0.004                            | 0.46             | 0.046         |
|   | $\Delta^8$ -THC     | 0.05 / 0.50       | N/A                               | ND               | ND            |
|   | THCV                | 0.07 / 0.21       | N/A                               | ND               | ND            |
|   | THCVa               | 0.05 / 0.17       | N/A                               | ND               | ND            |
|   | CBDV                | 0.1 / 0.3         | N/A                               | ND               | ND            |
|   | CBL                 | 0.1/0.4           | N/A                               | ND               | ND            |
|   | CBN                 | 0.07 / 0.20       | N/A                               | ND               | ND            |
|   | SUM OF CANNAE       | BINOIDS           | 176.9 mg/g                        | 17.69%           |               |

### Serving Size: 1 grams per Serving

| $\Delta^9$ -THC per Serving     | 1.3491 mg/serving |
|---------------------------------|-------------------|
| Total THC per Serving           | 5.2165 mg/serving |
| CBD per Serving                 | 15.5 mg/serving   |
| Total CBD per Serving           | 141.5 mg/serving  |
| Sum of Cannabinoids per Serving | 176.9 mg/serving  |
| Total Cannabinoids per Serving  | 157.5 mg/serving  |

#### TERPENOID TEST RESULTS - 06/10/2022

| COMPOUND            | LOD/LOQ<br>(mg/g) | MEASUREMENT<br>UNCERTAINTY (mg/g) | RESULT<br>(mg/g) | RESULT<br>(%) |
|---------------------|-------------------|-----------------------------------|------------------|---------------|
| β-Caryophyllene     | 0.004/0.013       | ±0.1831                           | 3.404            | 0.3404        |
| Myrcene             | 0.007 / 0.025     | ±0.0642                           | 1.813            | 0.1813        |
| α-Humulene          | 0.009/0.031       | ±0.0625                           | 1.161            | 0.1161        |
| Limonene            | 0.005 / 0.016     | ±0.0333                           | 1.020            | 0.1020        |
| Linalool            | 0.009/0.030       | ±0.0324                           | 0.825            | 0.0825        |
| α-Bisabolol         | 0.008 / 0.026     | ±0.0255                           | 0.593            | 0.0593        |
| Terpineol           | 0.008 / 0.025     | ±0.0300                           | 0.491            | 0.0491        |
| Terpinolene         | 0.008 / 0.027     | ±0.0059                           | 0.393            | 0.0393        |
| Fenchol             | 0.009/0.029       | ±0.0119                           | 0.323            | 0.0323        |
| Caryophyllene Oxide | 0.011/0.038       | ±0.0179                           | 0.301            | 0.0301        |
| trans-β-Farnesene   | 0.008 / 0.028     | ±0.0136                           | 0.239            | 0.0239        |

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# Hemp Quality Assurance Testing CERTIFICATE OF ANALYSIS







### Terpenoid Analysis Continued

### TERPENOID TEST RESULTS - 06/10/2022 continued

1 β-Caryophyllene

A sesquiterpene with a fragrance that can be described as spicy, woody, dry, dusty and mildly sweet. It was one of the first organic compounds to fully synthesized in a laboratory and plays a role in the endocannabinoid system as it is a functional CB<sub>2</sub> receptor agonist. Found in black pepper, clove, hops, rosemary, black-jack, perilla, spicebush, Indian pennywort, celery, frankincense, vitex, parsley, marigold, tamarind...etc.

2 Myrcene

A monoterpene with a fragrance that can be described as peppery, spicy, herbal, floral and woody. Although it has a pleasant odor, it is typically used by the perfume industry as precursor for developing other fragrances. Found in hops, houttuynia, bay, thyme, lemon grass, mango, verbena, cardamom, citrus...etc.

3 α-Humulene

Also known as  $\alpha$ -caryophyllene, it is an isomer of the sesquiterpene  $\beta$ -Caryophyllene which frequently occurs in nature with many aromatic plants across the globe. It has a fragrance that can be described as earthy or musky with spicy undertones. Found in hops, forskohlii, skullcaps, basil, nutmeg, cloves, sage, cotton, tamarind, black pepper, guava, Scotch pine...etc.

| COMPOUND               | LOD/LOQ<br>(mg/g) | MEASUREMENT<br>UNCERTAINTY (mg/g) | RESULT<br>(mg/g)                                | RESULT<br>(%)       |
|------------------------|-------------------|-----------------------------------|-------------------------------------------------|---------------------|
| β-Pinene               | 0.004 / 0.015     | ±0.0069                           | 0.214                                           | 0.0214              |
| α-Pinene               | 0.005 / 0.015     | ±0.0044                           | 0.122                                           | 0.0122              |
| Borneol                | 0.004 / 0.014     | ±0.0049                           | 0.105                                           | 0.0105              |
| Citronellol            | 0.003 / 0.010     | ±0.0018                           | 0.062                                           | 0.0062              |
| Geraniol               | 0.002 / 0.007     | ±0.0032                           | 0.061                                           | 0.0061              |
| Valencene              | 0.010 / 0.033     | ±0.0022                           | 0.043                                           | 0.0043              |
| Guaiol                 | 0.011/0.035       | ±0.0020                           | 0.036                                           | 0.0036              |
| Camphene               | 0.004 / 0.014     | ±0.0009                           | 0.029                                           | 0.0029              |
| β-Ocimene              | 0.005 / 0.018     | ±0.0011                           | 0.028                                           | 0.0028              |
| Fenchone               | 0.008 / 0.026     | ±0.0010                           | 0.027                                           | 0.0027              |
| α-Phellandrene         | 0.006/0.019       | ±0.0004                           | 0.020                                           | 0.0020              |
| γ-Terpinene            | 0.005 / 0.018     | ±0.0005                           | 0.019                                           | 0.0019              |
| Nerol                  | 0.003 / 0.011     | ±0.0006                           | 0.016                                           | 0.0016              |
| Sabinene               | 0.004 / 0.014     | N/A                               | <loq< td=""><td><loq< td=""></loq<></td></loq<> | <loq< td=""></loq<> |
| Δ <sup>3</sup> -Carene | 0.005 / 0.018     | N/A                               | <loq< td=""><td><loq< td=""></loq<></td></loq<> | <loq< td=""></loq<> |
| α-Terpinene            | 0.006 / 0.019     | N/A                               | <loq< td=""><td><loq< td=""></loq<></td></loq<> | <loq< td=""></loq<> |
| p-Cymene               | 0.005 / 0.015     | N/A                               | <loq< td=""><td><loq< td=""></loq<></td></loq<> | <loq< td=""></loq<> |
| Eucalyptol             | 0.005 / 0.018     | N/A                               | <loq< td=""><td><loq< td=""></loq<></td></loq<> | <loq< td=""></loq<> |
| Sabinene Hydrate       | 0.007 / 0.022     | N/A                               | <loq< td=""><td><loq< td=""></loq<></td></loq<> | <loq< td=""></loq<> |
| Isoborneol             | 0.003 / 0.011     | N/A                               | <loq< td=""><td><loq< td=""></loq<></td></loq<> | <loq< td=""></loq<> |
| Isopulegol             | 0.004 / 0.013     | N/A                               | ND                                              | ND                  |
| Camphor                | 0.005 / 0.015     | N/A                               | ND                                              | ND                  |
| Menthol                | 0.008 / 0.025     | N/A                               | ND                                              | ND                  |
| Pulegone               | 0.003 / 0.010     | N/A                               | ND                                              | ND                  |
| Geranyl Acetate        | 0.004/0.012       | N/A                               | ND                                              | ND                  |
| α-Cedrene              | 0.005 / 0.017     | N/A                               | ND                                              | ND                  |
| Nerolidol              | 0.006 / 0.020     | N/A                               | ND                                              | ND                  |
| Cedrol                 | 0.009 / 0.032     | N/A                               | ND                                              | ND                  |
| TOTAL TERPENOIDS       | ;                 |                                   | 11.345 mg/g                                     | 1.1345%             |