Analytical Report

Tested for: Merkabah, Inc
Sample ID: WV-10/03/17 (H)
Sample Type: Oil
Lab Sample ID: C1710010-01A
Date Received: 10/3/2017 Date Tested 10/9/2017

HQAL
Humboldt Quality Assurance Laboratory

Cannabinoid Potency

LC-DAD	Result	MRL*	Units
Cannabidiol (CBD)	0.397	0.14	%
Cannabidiolic Acid (CBDa)	ND	0.14	%
Cannabigerol (CBG)	2.03	0.14	%
Cannabigerolic Acid (CBGA)	0.320	0.14	%
Cannabinol (CBN)	0.434	0.14	%
Tetrahydrocannabinol (Δ 9THC)	71.9	0.14	%
Tetrahydrocannabinolic Acid (THCa)	0.704	0.14	%

Cannabinoid Summary

LC-DAD	Result	MRL*	Units
Total cannabinoids	75.9	NA	%
Total CBD equivalents	0.482	NA	%
Total THC equivalents	72.5	NA	%

Terpenes

GC-MS	Result	MRL*	Units
3-Carene	ND	0.39	mg/g
Camphene	ND	0.39	mg/g
Caryophyllene oxide	0.584	0.39	mg/g
cis-Nerolidol	ND	0.39	mg/g
Eucalyptol	ND	0.39	mg/g
Geraniol	ND	0.39	mg/g
Guaiol	ND	0.39	mg/g
Isopulegol	ND	0.39	mg/g
Limonene	0.412	0.39	mg/g
Linalool	ND	0.39	mg/g
Myrcene	2.38	0.39	mg/g
Ocimene	0.937	0.39	mg/g
Terpinolene	3.88	0.39	mg/g
trans-Nerolidol	0.425	0.39	mg/g
α-Bisabolol	7.20	0.39	mg/g
α-Humulene	3.23	0.39	mg/g
α-Pinene	1.46	0.39	mg/g
α-Terpinene	1.04	0.39	mg/g
β-Caryophyllene	9.74	0.39	mg/g
β-Pinene	2.29	0.39	mg/g
γ-Terpinene	ND	0.39	mg/g
Total Terpenes	33.6		mg/g

Microbiolgical Analysis

3M Petrafilm/Plate Count	Result	MRL*	Units
E. coli	ND	10	cfu/g
Pseudomonas aeruginosa	ND	1,000	cfu/g
Total aerobic plate count	ND	1,000	cfu/g
Total coliforms	ND	10	cfu/g
Total yeast and mold	ND	1,000	cfu/g

Residual Solvents

GC-FID	Result	MRL*	Units
2-Methylbutane			
Acetone			
Benzene			
Butane			
Chloroform			
Ethanol			
Isobutane			
Isopropanol			
Methanol			
n-Heptane			
n-Hexane			
n-Pentane			
Propane			
Toluene			
Total Residual Solvents	<400	400	mg/kg

ND = Not Detected at the Reporting Limit

*This is the minimum concentration of analyte reported. There are no safety limits imposed by California at this time.

Approved for release by:

Jerry Chaney, Lab Director 10/12/17

Humboldt Quality Assurance Laboratory
5680 West End Road ● Arcata, California 95521-9202 ● 707-822-5468

Analytical Report

Tested for: Merkabah, Inc
Sample ID: WV-10/03/17 (H)
Sample Type: Oil
Lab Sample ID: C1710010-01A
Date Received: 10/3/2017 Date Tested 10/8/2017

HQAL
Humboldt Quality Assurance Laboratory

Pesticides

LC-MS/MS	Result	MRL*	Units
Acequinocyl	ND	2.0	µg/g
Avermectin B1a	ND	0.50	µg/g
Bifenazate	ND	0.20	µg/g
Bifenthrin	ND	0.20	µg/g
Carbaryl	ND	0.20	µg/g
Daminozide	ND	1.0	µg/g
Diazinon	ND	0.20	µg/g
Etoxazole	ND	0.20	µg/g
Fenoxycarb	ND	0.20	µg/g
Imidacloprid	ND	0.40	µg/g
Kresoxim-Methyl	ND	0.40	µg/g
Myclobutanil	ND	0.20	µg/g
Paclobutrazol	ND	0.40	µg/g
Piperonyl butoxide	ND	0.20	µg/g
Pyrethrin I	ND	0.60	µg/g
Pyrethrin II	ND	0.40	µg/g
Spinosyn A	ND	0.11	µg/g
Spinosyn D	ND	0.085	µg/g
Spiromesifen	ND	0.20	µg/g
Spirotetramat	ND	0.20	µg/g
Tebuconazole	ND	0.40	µg/g
Thiamethoxam	ND	0.20	µg/g
Trifloxystrobin	ND	0.20	µg/g

ND = Not Detected at the Reporting Limit

*This is the minimum concentration of analyte reported. There are no safety limits imposed by California at this time.

Approved for release by:

Jerry Chaney, Lab Director 10/12/17

Humboldt Quality Assurance Laboratory
5680 West End Road ● Arcata, California 95521-9202 ● 707-822-5468

Certificate of Analysis

Sample Name:	GSC 2 (0113)
Tested for:	W Vapes
Sample ID:	170814Q040
Date Submitted:	08/14/2017
Sample Type:	Concentrate

Total Sample Weight: 1 Gram

Cannabinoid Test Results

Cannabinoid analysis utilizing High Performance Liquid Chromatography (HPLC, QSP 5-4-4-4)

Cannabinoid Summary

Total THC	Δ9THC+THCa	73.72 %
Total Potential Δ9THC	707.02 mg/g	70.70 %
Total CBD	CBD+CBDa	0.68 %
Total Potential CBD	6.22 mg/g	0.62 %

Full Canabinoid Profile

THC	49.14 %
THCa	24.58 %
CBD	0.21 %
CBDa	0.47 %
CBN	0.40 %
CBDV	ND
CBDVa	ND
CBG	1.07 %
CBGa	1.57 %
THCV	0.47 %
Δ8 - THC	ND
CBC	1.24 %

Total Active Cannabinoids: 79.15 %

Pesticide Test Results

Pesticide, Fungicide and plant growth regulator analysis utilizing HPLC-Mass Spectrometry

		Reporting Limit
Acequinocyl	Not Detected	1
Abamectin	Not Detected	0.25
Bifenezate	Not Detected	0.1
Daminozide	Not Detected	0.5
Fenoxycarb	Not Detected	0.1
Imidacloprid	Not Detected	0.2
Myclobutanil	Not Detected	0.1
Paclobutrazol	Not Detected	0.2
Pyrethrins	Not Detected	0.5
Spinosad	Not Detected	0.1
Spiromesifen	Not Detected	0.1
Spirotetramat	Not Detected	0.1

Microbiological Test Results

3M Petrifilm and plate counts for microbiological contamination

Total Yeast and Mold	<1,000 cfu/g	E. coli	ND
Pseudomonas	ND	Coliforms	<100 cfu/g
Total Aerobic Plate Count	<1,000 cfu/g	Salmonella	ND

Terpene Test Results

Terpene analysis utilizing Gas Chromatography - Flame Ionization Detection (GC - FID)

	mg/g / %		mg/g / %
α Bisabolol	2.79 / 0.279	α Terpinene	0.00 / 0.000
α Pinene	0.00 / 0.000	Linalool	0.20 / 0.020
3 Carene	0.00 / 0.000	Limonene	0.00 / 0.000
Borneol	0.00 / 0.000	Myrcene	0.00 / 0.000
β Caryophyllene	0.44 / 0.044	Fenchol	0.00 / 0.000
Geraniol	0.00 / 0.000	α Phellandrene	0.00 / 0.000
α Humulene	0.15 / 0.015	Caryophyllene Oxide	0.12 / 0.012
Terpinolene	0.00 / 0.000	Terpineol	0.09 / 0.009
Valencene	0.00 / 0.000	β Pinene	0.00 / 0.000
Menthol	0.00 / 0.000	R-(+)-Pulegone	0.00 / 0.000
Nerolidol	0.13 / 0.013	Geranyl Acetate	0.00 / 0.000
Camphene	0.00 / 0.000	Citronellol	0.00 / 0.000
Eucalyptol	0.00 / 0.000	p-Cymene	0.00 / 0.000
α Cedrene	0.00 / 0.000	Ocimene	0.00 / 0.000
Camphor	0.00 / 0.000	Guaiol	0.39 / 0.039
(-)-Isopulegol	0.00 / 0.000	Phytol	6.12 / 0.612
Sabinene	0.00 / 0.000	Isoborneol	0.00 / 0.000
γ Terpinene	0.00 / 0.000		

Total Terpene Concentration: 10.40 mg/g / 1.040 %

Residual Solvent Test Results

Residual Solvent analysis utilizing Gas Chromatography - Flame Ionization Detection (GC - FID)

Propane	ND	Ethanol	ND
Methanol	ND	Isopropanol	ND
Isobutane	ND	Mercaptan	ND
2,2-Dimethylbutane	ND	2-Methylpentane	ND
3-Methylpentane	ND	Cyclohexane + Benzene	ND
Isopentane	ND	Neopentane	ND
n Butane	ND	n Heptane	ND
n Hexane	ND	n Pentane	ND

Sample Certification

Scan to verify at sclabs.com

Josh Wurzer, President

Certificate of Analysis

*Amendment to CoA 170519R026-002

Sample Name:	gsc 2 B0096
Tested for:	W Vapes
Sample ID:	170519R026
Date Submitted:	05/19/2017
Sample Type:	Concentrate

Total Sample Weight: 1 Gram

Cannabinoid Test Results

Cannabinoid analysis utilizing High Performance Liquid Chromatography (HPLC, QSP 5-4-4-4)

Cannabinoid Summary

Total THC	Δ9THC+THCa	78.75 %
Total Potential Δ9THC	755.15 mg/g	75.52 %
Total CBD	CBD+CBDa	Trace
Total Potential CBD	Trace	Trace

Full Canabinoid Profile

THC	52.41 %
THCa	26.34 %
CBD	Trace
CBDa	Trace
CBN	0.42 %
CBDV	ND
CBDVa	ND
CBG	1.83 %
CBGa	2.12 %
THCV	0.62 %
Δ8 - THC	ND
CBC	0.67 %
Total Active Cannabinoids:	84.41 %

Pesticide Test Results

Pesticide, Fungicide and plant growth regulator analysis utilizing HPLC-Mass Spectrometry

		Reporting Limit
Acequinocyl	Not Detected	1
Abamectin	Not Detected	0.25
Bifenezate	Not Detected	0.1
Daminozide	Not Detected	0.5
Fenoxycarb	Not Detected	0.1
Imidacloprid	Not Detected	0.2
Myclobutanil	Not Detected	0.1
Paclobutrazol	Not Detected	0.2
Pyrethrins	Not Detected	0.5
Spinosad	Not Detected	0.1
Spiromesifen	Not Detected	0.1
Spirotetramat	Not Detected	0.1

Microbiological Test Results

3M Petrifilm and plate counts for microbiological contamination

Total Yeast and Mold	<1,000 cfu/g	E. coli	ND
Pseudomonas	ND	Coliforms	<100 cfu/g
Total Aerobic Plate Count	<1,000 cfu/g	Salmonella	ND

Terpene Test Results

Terpene analysis utilizing Gas Chromatography - Flame Ionization Detection (GC - FID)

	mg/g / %		mg/g / %
α Bisabolol	2.98 / 0.298	α Terpinene	0.00 / 0.000
α Pinene	0.00 / 0.000	Linalool	0.23 / 0.023
3 Carene	0.00 / 0.000	Limonene	0.00 / 0.000
Borneol	0.05 / 0.005	Myrcene	0.00 / 0.000
β Caryophyllene	1.43 / 0.143	Fenchol	0.07 / 0.007
Geraniol	0.00 / 0.000	α Phellandrene	0.00 / 0.000
α Humulene	0.57 / 0.057	Caryophyllene Oxide	0.90 / 0.090
Terpinolene	0.00 / 0.000	Terpineol	0.19 / 0.019
Valencene	0.07 / 0.007	β Pinene	0.00 / 0.000
Menthol	0.00 / 0.000	R-(+)-Pulegone	0.00 / 0.000
Nerolidol	0.66 / 0.066	Geranyl Acetate	0.00 / 0.000
Camphene	0.00 / 0.000	Citronellol	0.00 / 0.000
Eucalyptol	0.00 / 0.000	p-Cymene	0.00 / 0.000
α Cedrene	0.00 / 0.000	Ocimene	0.00 / 0.000
Camphor	0.00 / 0.000	Guaiol	2.47 / 0.247
(-)-Isopulegol	0.00 / 0.000	Phytol	7.70 / 0.770
Sabinene	0.00 / 0.000	Isoborneol	0.00 / 0.000
γ Terpinene	0.00 / 0.000		

Total Terpene Concentration: 17.30 mg/g / 1.730 %

Residual Solvent Test Results

Residual Solvent analysis utilizing Gas Chromatography - Flame Ionization Detection (GC - FID)

Propane	ND	Ethanol	ND
Methanol	ND	Isopropanol	ND
Isobutane	ND	Mercaptan	ND
2,2-Dimethylbutane	ND	2-Methylpentane	ND
3-Methylpentane	ND	Cyclohexane + Benzene	ND
Isopentane	ND	Neopentane	ND
n Butane	ND	n Heptane	ND
n Hexane	ND	n Pentane	ND

Sample Certification

Scan to verify at sclabs.com

Josh Wurzer, President

Certificate of Analysis

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Sample Name:	GSC 2 (0071)
Tested for:	W Vapes
Sample ID:	170201S070
Date Submitted:	02/02/2017
Sample Type:	Concentrate

Total Sample Weight: 1 Gram

Cannabinoid Test Results

Cannabinoid analysis utilizing High Performance Liquid Chromatography (HPLC)

Cannabinoid Summary

Total THC	Δ9THC+THCa	84.66 %
Total Potential Δ9THC	829.7 mg/g	82.97 %
Total CBD	CBD+CBDa	1.0 %
Total Potential CBD	9.3 mg/g	0.93 %

Full Cannabinoid Profile

THC	70.87 %
THCa	13.79 %
CBD	0.47 %
CBDa	0.52 %
CBN	0.24 %
CBDV	0.02 %
CBDVa	0.0 %
CBG	1.27 %
CBGa	1.0 %
THCV	0.35 %
Δ8 - THC	0.0 %
CBC	0.69 %
Total Active Cannabinoids:	89.23 %

Pesticide Test Results

Pesticide, Fungicide and plant growth regulator analysis utilizing HPLC-Mass Spectrometry.

		Reporting Limit
Acequinocyl	ND	1
Abamectin	ND	0.25
Bifenazate	ND	0.1
Daminozide	ND	0.5
Fenoxycarb	ND	0.1
Imidacloprid	ND	0.2
Myclobutanil	ND	0.1
Paclobutrazol	ND	0.2
Pyrethrins	ND	0.5
Spinosad	ND	0.1
Spiromesifen	ND	0.1
Spirotetramat	ND	0.1

Microbiological Test Results

3M Petrifilm and plate counts for microbiological contamination

Total Yeast and Mold	<1,000 cfu/g	E.coli	ND
Pseudomonas	ND	Coliforms	<100 cfu/g
Total Aerobic Plate Count	<1,000 cfu/g	Salmonella	ND

Terpene Test Results

Terpene Analysis utilizing Gas Chromatography - Flame Ionization Detection (GC - FID)

	mg/g / %		mg/g / %
α Bisabolol	2.31 / 0.231	α Terpinene	0.00 / 0.000
α Pinene	0.20 / 0.020	Linalool	1.01 / 0.101
3 Carene	0.00 / 0.000	Limonene	0.00 / 0.000
Borneol	0.16 / 0.016	Myrcene	0.72 / 0.072
β Caryophyllene	8.53 / 0.853	Fenchol	0.57 / 0.057
Geraniol	0.08 / 0.008	α Phellandrene	0.00 / 0.000
α Humulene	2.94 / 0.294	Caryophyllene Oxide	0.19 / 0.019
Terpinolene	0.13 / 0.013	Terpineol	0.71 / 0.071
Valencene	0.20 / 0.020	β Pinene	0.20 / 0.020
Menthol	0.00 / 0.000	R-(+)-Pulegone	0.00 / 0.000
Nerolidol	0.09 / 0.009	Geranyl Acetate	0.00 / 0.000
Camphene	0.04 / 0.004	Citronellol	0.09 / 0.009
Eucalyptol	0.00 / 0.000	p-Cymene	0.00 / 0.000
α Cedrene	0.13 / 0.013	Ocimene	0.00 / 0.000
Camphor	0.00 / 0.000	Guaiol	0.00 / 0.000
(-)-Isopulegol	0.00 / 0.000	Phytol	1.20 / 0.120
Sabinene	0.00 / 0.000	Isoborneol	0.01 / 0.001

Total Terpene Concentration: 19.50 mg/g / 1.950 %

Residual Solvent Test Results

Residual Solvent analysis utilizing Gas Chromatography - Flame Ionization Detection (GC - FID)

Propane	ND	Ethanol	ND
Methanol	ND	Isopropanol	ND
Isobutane	ND	Mercaptan	ND
2,2-Dimethylbutane	ND	2-Methylpentane	ND
3-Methylpentane	ND	Cyclohexane + Benzene	ND
Isopentane	ND	Neopentane	ND
n Butane	ND	n Heptane	ND
n Hexane	ND	n Pentane	ND

Sample Certification

Scan to verify at sclabs.com

This sample has been tested by SC Labs and the results are valid until the expiration date shown.

Josh Wurzer, President