

**SAMPLE NAME: Hazelnut Cream**

Concentrate, Product Inhalable

**CULTIVATOR / MANUFACTURER**

**Business Name:** ArcataX  
**License Number:** CDPH-10002992  
**Address:** 4651 West End RD. SUITE B  
 ARCATA, CA 95521

**DISTRIBUTOR**

**Business Name:** LIGHTWORK  
 DISTRIBUTORS LLC  
**License Number:** C11-000051-LIC  
**Address:** 4651 West End RD, SUITE F,  
 Arcata, CA 95521



**SAMPLE DETAIL**

**Batch Number:** AF-RAIO-20  
**Sample ID:** 240104Q026  
**Source Metrc UID:**  
 1A40603000042D4000013257

**Date Collected:** 01/04/2024  
**Date Received:** 01/05/2024  
**Batch Size:** 563.0 units  
**Sample Size:** 24.0 units  
**Unit Mass:** 0.5 grams per Unit  
**Serving Size:**



Scan QR code to verify authenticity of results.

**Sampling Method:** QSP 1265 - Sampling of Cannabis and Product Batches

**CANNABINOID ANALYSIS - SUMMARY** ✔ PASS

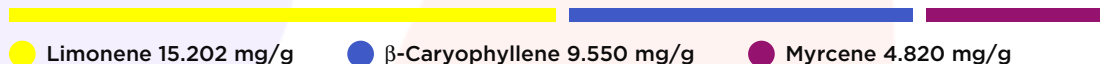
**Sum of Cannabinoids: 88.98%**  
**Total Cannabinoids: 85.07%**  
**Total THC: 71.428%**  
**Total CBD: ND**

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

**TERPENOID ANALYSIS - SUMMARY**

39 TESTED, TOP 3 HIGHLIGHTED

**Total Terpenoids: 4.4146%**



**SAFETY ANALYSIS - SUMMARY**

<b><math>\Delta^9</math>-THC per Unit:</b> <span style="color: green;">✔ PASS</span>	<b>Pesticides:</b> <span style="color: green;">✔ PASS</span>	<b>Mycotoxins:</b> <span style="color: green;">✔ PASS</span>
<b>Residual Solvents:</b> <span style="color: green;">✔ PASS</span>	<b>Heavy Metals:</b> <span style="color: green;">✔ PASS</span>	<b>Microbiology:</b> <span style="color: green;">✔ PASS</span>
<b>Foreign Material:</b> <span style="color: green;">✔ PASS</span>		

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 4 Division 19. Department of Cannabis Control 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)



All LQC samples were performed and met the prescribed acceptance criteria in 4 CCR section 15730, as attested by:  
 Michael Pham  
 Job Title: Senior Laboratory Analyst  
 Date: 01/07/2024



Approved by: Josh Wurzer  
 Job Title: Chief Compliance Officer  
 Date: 01/07/2024



**CANNABINOID TEST RESULTS** - 01/06/2024 ✔ PASS

Tested by high-performance liquid chromatography with diode-array detection (HPLC-DAD). **Method:** QSP 1157 - Analysis of Cannabinoids by HPLC-DAD

**TOTAL CANNABINOIDS: 85.07%**

Total Cannabinoids (Total THC) + (Total CBD) + (Total CBG) + (Total THCV) + (Total CBC) + (Total CBDV) + CBL + CBN

**TOTAL THC: 71.428%**

Total THC ( $\Delta^9$ -THC+0.877\*THCa+ $\Delta^8$ -THC)

**TOTAL CBD: ND**

Total CBD (CBD+0.877\*CBDa)

**TOTAL CBG: 9.75%**

Total CBG (CBG+0.877\*CBGa)

**TOTAL THCV: 0.63%**

Total THCV (THCV+0.877\*THCVa)

**TOTAL CBC: 3.25%**

Total CBC (CBC+0.877\*CBCa)

**TOTAL CBDV: ND**

Total CBDV (CBDV+0.877\*CBDVa)

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
$\Delta^9$ -THC	0.06 / 0.26	±13.931	519.83	51.983
THCa	0.05 / 0.14	±4.434	221.72	22.172
CBGa	0.1 / 0.2	±3.02	74.3	7.43
CBG	0.06 / 0.19	±0.994	32.37	3.237
CBCa	0.07 / 0.28	±0.771	20.23	2.023
CBC	0.2 / 0.5	±0.34	14.8	1.48
THCV	0.1 / 0.2	±0.17	4.5	0.45
THCVa	0.07 / 0.20	±0.077	2.07	0.207
$\Delta^8$ -THC	0.1 / 0.4	N/A	ND	ND
CBD	0.07 / 0.29	N/A	ND	ND
CBDa	0.02 / 0.19	N/A	ND	ND
CBDV	0.04 / 0.15	N/A	ND	ND
CBDVa	0.03 / 0.53	N/A	ND	ND
CBL	0.06 / 0.24	N/A	ND	ND
CBN	0.1 / 0.3	N/A	ND	ND
<b>SUM OF CANNABINOIDS</b>			<b>889.8 mg/g</b>	<b>88.98%</b>

**UNIT MASS: 0.5 grams per Unit**

$\Delta^9$ -THC per Unit	1100 per-package limit	259.92 mg/unit	PASS
Total THC per Unit		357.14 mg/unit	
CBD per Unit		ND	
Total CBD per Unit		ND	
Sum of Cannabinoids per Unit		444.9 mg/unit	
Total Cannabinoids per Unit		425.4 mg/unit	

**TERPENOID TEST RESULTS** - 01/06/2024

Terpene analysis utilizing gas chromatography-flame ionization detection (GC-FID). **Method:** QSP 1192 - Analysis of Terpenoids by GC-FID

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
Limonene	0.005 / 0.016	±0.1687	15.202	1.5202
$\beta$ -Caryophyllene	0.004 / 0.012	±0.2645	9.550	0.9550
Myrcene	0.008 / 0.025	±0.0482	4.820	0.4820
$\alpha$ -Humulene	0.009 / 0.029	±0.0672	2.688	0.2688
Linalool	0.009 / 0.032	±0.0757	2.556	0.2556
$\alpha$ -Pinene	0.005 / 0.017	±0.0156	2.329	0.2329
trans- $\beta$ -Farnesene	0.008 / 0.025	±0.0490	1.775	0.1775
Fenchol	0.010 / 0.034	±0.0429	1.426	0.1426
Terpineol	0.009 / 0.031	±0.0548	1.147	0.1147
Camphene	0.005 / 0.015	±0.0040	0.448	0.0448
$\beta$ -Pinene	0.004 / 0.014	±0.0033	0.375	0.0375
$\alpha$ -Bisabolol	0.008 / 0.026	±0.0122	0.294	0.0294
Borneol	0.005 / 0.016	±0.0087	0.266	0.0266
Nerolidol	0.006 / 0.019	±0.0129	0.263	0.0263
$\alpha$ -Cedrene	0.005 / 0.016	±0.0058	0.251	0.0251
Terpinolene	0.008 / 0.026	±0.0030	0.191	0.0191
Valencene	0.009 / 0.030	±0.0065	0.122	0.0122
Geraniol	0.002 / 0.007	±0.0038	0.112	0.0112
Fenchone	0.009 / 0.028	±0.0021	0.091	0.0091
$\beta$ -Ocimene	0.006 / 0.020	±0.0019	0.076	0.0076
$\gamma$ -Terpinene	0.006 / 0.018	±0.0006	0.044	0.0044
Citronellol	0.003 / 0.010	±0.0012	0.031	0.0031
$\alpha$ -Phellandrene	0.006 / 0.020	±0.0003	0.026	0.0026
$\alpha$ -Terpinene	0.005 / 0.017	±0.0003	0.025	0.0025
Isoborneol	0.004 / 0.012	±0.0006	0.020	0.0020
Nerol	0.003 / 0.011	±0.0006	0.018	0.0018
Caryophyllene Oxide	0.010 / 0.033	N/A	<LOQ	<LOQ
Sabinene	0.004 / 0.014	N/A	ND	ND
$\Delta^3$ -Carene	0.005 / 0.018	N/A	ND	ND
p-Cymene	0.005 / 0.016	N/A	ND	ND
Eucalyptol	0.006 / 0.018	N/A	ND	ND
Sabinene Hydrate	0.006 / 0.022	N/A	ND	ND
Isopulegol	0.005 / 0.016	N/A	ND	ND
Camphor	0.006 / 0.019	N/A	ND	ND
Menthol	0.008 / 0.025	N/A	ND	ND
Pulegone	0.003 / 0.011	N/A	ND	ND
Geranyl Acetate	0.004 / 0.014	N/A	ND	ND
Guaiol	0.009 / 0.030	N/A	ND	ND
Cedrol	0.008 / 0.027	N/A	ND	ND
<b>TOTAL TERPENOIDS</b>			<b>44.146 mg/g</b>	<b>4.4146%</b>



**CATEGORY 1 PESTICIDE TEST RESULTS** - 01/06/2024 ✔ PASS

Pesticide and plant growth regulator analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS) or gas chromatography-mass spectrometry (GC-MS). \*GC-MS utilized where indicated. **Method:** QSP 1212 - Analysis of Pesticides and Mycotoxins by LC-MS or QSP 1213 - Analysis of Pesticides by GC-MS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Aldicarb	0.03 / 0.08	≥ LOD	N/A	ND	PASS
Carbofuran	0.02 / 0.05	≥ LOD	N/A	ND	PASS
Chlordane*	0.03 / 0.08	≥ LOD	N/A	ND	PASS
Chlorfenapyr*	0.03 / 0.10	≥ LOD	N/A	ND	PASS
Chlorpyrifos	0.02 / 0.06	≥ LOD	N/A	ND	PASS
Coumaphos	0.02 / 0.07	≥ LOD	N/A	ND	PASS
Daminozide	0.02 / 0.07	≥ LOD	N/A	ND	PASS
Dichlorvos (DDVP)	0.03 / 0.09	≥ LOD	N/A	ND	PASS
Dimethoate	0.03 / 0.08	≥ LOD	N/A	ND	PASS
Ethoprophos	0.03 / 0.10	≥ LOD	N/A	ND	PASS
Etofenprox	0.02 / 0.06	≥ LOD	N/A	ND	PASS
Fenoxycarb	0.03 / 0.08	≥ LOD	N/A	ND	PASS
Fipronil	0.03 / 0.08	≥ LOD	N/A	ND	PASS
Imazalil	0.02 / 0.06	≥ LOD	N/A	ND	PASS
Methiocarb	0.02 / 0.07	≥ LOD	N/A	ND	PASS
Parathion-methyl	0.03 / 0.10	≥ LOD	N/A	ND	PASS
Mevinphos	0.03 / 0.09	≥ LOD	N/A	ND	PASS
Paclobotrazol	0.02 / 0.05	≥ LOD	N/A	ND	PASS
Propoxur	0.03 / 0.09	≥ LOD	N/A	ND	PASS
Spiroxamine	0.03 / 0.08	≥ LOD	N/A	ND	PASS
Thiacloprid	0.03 / 0.10	≥ LOD	N/A	ND	PASS

**CATEGORY 2 PESTICIDE TEST RESULTS** - 01/06/2024 *continued*

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Cyfluthrin	0.12 / 0.38	2	N/A	ND	PASS
Cypermethrin	0.11 / 0.32	1	N/A	ND	PASS
Diazinon	0.02 / 0.05	0.1	N/A	ND	PASS
Dimethomorph	0.03 / 0.09	2	N/A	ND	PASS
Etoazole	0.02 / 0.06	0.1	N/A	ND	PASS
Fenhexamid	0.03 / 0.09	0.1	N/A	ND	PASS
Fenpyroximate	0.02 / 0.06	0.1	N/A	ND	PASS
Flonicamid	0.03 / 0.10	0.1	N/A	ND	PASS
Fludioxonil	0.03 / 0.10	0.1	N/A	ND	PASS
Hexythiazox	0.02 / 0.07	0.1	N/A	ND	PASS
Imidacloprid	0.04 / 0.11	5	N/A	ND	PASS
Kresoxim-methyl	0.02 / 0.07	0.1	N/A	ND	PASS
Malathion	0.03 / 0.09	0.5	N/A	ND	PASS
Metalaxyl	0.02 / 0.07	2	N/A	ND	PASS
Methomyl	0.03 / 0.10	1	N/A	ND	PASS
Myclobutanil	0.03 / 0.09	0.1	N/A	ND	PASS
Naled	0.02 / 0.07	0.1	N/A	ND	PASS
Oxamyl	0.04 / 0.11	0.5	N/A	ND	PASS
Pentachloronitrobenzene*	0.03 / 0.09	0.1	N/A	ND	PASS
Permethrin	0.04 / 0.12	0.5	N/A	ND	PASS
Phosmet	0.03 / 0.10	0.1	N/A	ND	PASS
Piperonyl Butoxide	0.02 / 0.07	3	N/A	ND	PASS
Prallethrin	0.03 / 0.08	0.1	N/A	ND	PASS
Propiconazole	0.02 / 0.07	0.1	N/A	ND	PASS
Pyrethrins	0.04 / 0.12	0.5	N/A	ND	PASS
Pyridaben	0.02 / 0.07	0.1	N/A	ND	PASS
Spinetoram	0.02 / 0.07	0.1	N/A	ND	PASS
Spinosad	0.02 / 0.07	0.1	N/A	ND	PASS
Spiromesifen	0.02 / 0.05	0.1	N/A	ND	PASS
Spirotetramat	0.02 / 0.06	0.1	N/A	ND	PASS
Tebuconazole	0.02 / 0.07	0.1	N/A	ND	PASS
Thiamethoxam	0.03 / 0.10	5	N/A	ND	PASS
Trifloxystrobin	0.03 / 0.08	0.1	N/A	ND	PASS

**CATEGORY 2 PESTICIDE TEST RESULTS** - 01/06/2024 ✔ PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Abamectin	0.03 / 0.10	0.1	N/A	ND	PASS
Acephate	0.02 / 0.07	0.1	N/A	ND	PASS
Acequinocyl	0.02 / 0.07	0.1	N/A	ND	PASS
Acetamiprid	0.02 / 0.05	0.1	N/A	ND	PASS
Azoxystrobin	0.02 / 0.07	0.1	N/A	ND	PASS
Bifenazate	0.01 / 0.04	0.1	N/A	ND	PASS
Bifenthrin	0.02 / 0.05	3	N/A	ND	PASS
Boscalid	0.03 / 0.09	0.1	N/A	ND	PASS
Captan	0.19 / 0.57	0.7	N/A	ND	PASS
Carbaryl	0.02 / 0.06	0.5	N/A	ND	PASS
Chlorantraniliprole	0.04 / 0.12	10	N/A	ND	PASS
Clofentezine	0.03 / 0.09	0.1	N/A	ND	PASS



**MYCOTOXIN TEST RESULTS** - 01/06/2024 ✔ PASS

Mycotoxin analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS). **Method:** QSP 1212 - Analysis of Pesticides and Mycotoxins by LC-MS

COMPOUND	LOD/LOQ (µg/kg)	ACTION LIMIT (µg/kg)	MEASUREMENT UNCERTAINTY (µg/kg)	RESULT (µg/kg)	RESULT
Aflatoxin B1	2.0 / 6.0		N/A	ND	
Aflatoxin B2	1.8 / 5.6		N/A	ND	
Aflatoxin G1	1.0 / 3.1		N/A	ND	
Aflatoxin G2	1.2 / 3.5		N/A	ND	
Total Aflatoxin		20		ND	PASS
Ochratoxin A	6.3 / 19.2	20	N/A	ND	PASS

**CATEGORY 1 RESIDUAL SOLVENTS TEST RESULTS** - 01/06/2024 ✔ PASS

Residual Solvent analysis utilizing gas chromatography-mass spectrometry (GC-MS). **Method:** QSP 1204 - Analysis of Residual Solvents by GC-MS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
1,2-Dichloroethane	0.05 / 0.1	1	N/A	ND	PASS
Benzene	0.03 / 0.09	1	N/A	ND	PASS
Chloroform	0.1 / 0.2	1	N/A	ND	PASS
Ethylene Oxide	0.3 / 0.8	1	N/A	ND	PASS
Dichloromethane (Methylene Chloride)	0.3 / 0.9	1	N/A	ND	PASS
Trichloroethylene	0.1 / 0.3	1	N/A	ND	PASS

**CATEGORY 2 RESIDUAL SOLVENTS TEST RESULTS** - 01/06/2024 ✔ PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Acetone	20 / 50	5000	N/A	ND	PASS
Acetonitrile	2 / 7	410	N/A	ND	PASS
n-Butane	10 / 50	5000	N/A	ND	PASS
Ethanol	20 / 50	5000	N/A	ND	PASS
Ethyl Acetate	20 / 60	5000	N/A	ND	PASS
Ethyl Ether	20 / 50	5000	N/A	ND	PASS
n-Heptane	20 / 60	5000	N/A	ND	PASS
n-Hexane	2 / 5	290	N/A	ND	PASS
2-Propanol (Isopropyl Alcohol)	10 / 40	5000	N/A	ND	PASS
Methanol	50 / 200	3000	N/A	ND	PASS
n-Pentane	20 / 50	5000	N/A	ND	PASS
Propane	10 / 20	5000	N/A	ND	PASS
Toluene	7 / 21	890	N/A	ND	PASS
Total Xylenes	50 / 160	2170	N/A	ND	PASS

**HEAVY METALS TEST RESULTS** - 01/05/2024 ✔ PASS

Heavy metal analysis utilizing inductively coupled plasma-mass spectrometry (ICP-MS). **Method:** QSP 1160 - Analysis of Heavy Metals by ICP-MS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Arsenic	0.02 / 0.1	0.2	N/A	ND	PASS
Cadmium	0.02 / 0.05	0.2	N/A	ND	PASS
Lead	0.04 / 0.1	0.5	N/A	ND	PASS
Mercury	0.002 / 0.01	0.1	N/A	ND	PASS

**MICROBIOLOGY TEST RESULTS** - 01/06/2024 ✔ PASS

Analysis conducted by polymerase chain reaction (PCR) and fluorescence detection of microbiological contaminants. **Method:** QSP 1221 - Analysis of Microbiological Contaminants

COMPOUND	ACTION LIMIT	RESULT	RESULT
Shiga toxin-producing <i>Escherichia coli</i>	Not Detected in 1g	ND	PASS
<i>Salmonella</i> spp.	Not Detected in 1g	ND	PASS
<i>Aspergillus fumigatus</i>	Not Detected in 1g	ND	PASS
<i>Aspergillus flavus</i>	Not Detected in 1g	ND	PASS
<i>Aspergillus niger</i>	Not Detected in 1g	ND	PASS
<i>Aspergillus terreus</i>	Not Detected in 1g	ND	PASS

**FOREIGN MATERIAL TEST RESULTS** - 01/05/2024 ✔ PASS

Visual analysis includes, but is not limited to, sand, soil, cinders, dirt, mold, hair, insect fragments, and mammalian excreta. **Method:** QSP 1226 - Analysis of Foreign Material in Cannabis and Cannabis Products

COMPOUND	ACTION LIMIT	RESULT
Total Sample Area Covered by Sand, Soil, Cinders, or Dirt	>25%	PASS
Total Sample Area Covered by Mold	>25%	PASS
Total Sample Area Covered by an Imbedded Foreign Material	>25%	PASS
Insect Fragment Count	> 1 per 3 grams	PASS
Hair Count	> 1 per 3 grams	PASS
Mammalian Excreta Count	> 1 per 3 grams	PASS