

# Comprehensive Analysis Report

## Sample Overview

**Client:** Gold Naturals

None

**Sample Name:** Muscle + Joint Light Caps

**Date Received:** 12/05/2023

**Sample Matrix:** Edible

**APRC #:** GOL231206C

**Sample Lot:** 2105024A

Assay	Disposition	Date Tested
Heavy Metals - Utah State Cannabis Panel	Tested	12-11-2023
Hemp or R&D Residual Solvents	Tested	12-06-2023
Microbial: Quantitative and Pathogen Detection Combo	Tested	12-11-2023



Accreditation #115229

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## Instrument Analysis Report

### Heavy Metals

Method: CTLA

Sample Name: Muscle + Joint Light Caps

APRC Lot Number: GOL231206C

Analyte	Result (ppm)	LOD (ppm)	Threshold (ppm)	Pass/Fail
Arsenic	0.002	0.001	2.00	Pass
Cadmium	<0.001	0.001	0.82	Pass
Lead	<0.001	0.001	1.20	Pass
Mercury	<0.001	0.001	0.40	Pass

Heavy metal analysis is completed in partnership with Contract Testing Laboratories of America, Orem UT.

Performed by: CTLA

Reviewed by: William Deutschman

# Instrument Analysis Report

## Residual Solvents

Method: SOP 1-2027.03

Sample Name: Muscle + Joint Light Caps

APRC Lot Number: GOL231206C

Residual Solvent	Finding (µg/g)	Action Level (µg/g)	Pass/Fail
Dimethyl sulfoxide	ND	5000	Pass
N,N-dimethylacetamide	ND	1090	Pass
1,2 Dimethoxyethane	ND	100	Pass
1,4 Dioxane	ND	380	Pass
1-Butanol	ND	5000	Pass
1-Pentanol	ND	5000	Pass
1-Propanol	ND	5000	Pass
2-Butanone	ND	5000	Pass
2-Butanol	ND	5000	Pass
2-Ethoxyethanol	ND	160	Pass
2-Methylbutane	ND	5000	Pass
2-Propanol	ND	5000	Pass
Acetone	ND	5000	Pass
Acetonitrile	ND	410	Pass
Benzene	ND	2	Pass
Butane	ND	5000	Pass
Cumene	ND	70	Pass
Cyclohexane	ND	3880	Pass
Dichloromethane	ND	600	Pass
2,2-Dimethylbutane	ND	290	Pass
2,3-Dimethylbutane	ND	290	Pass
m,p-Xylene	ND	See Total Xylenes	Pass
o-Xylene	ND	See Total Xylenes	Pass
Ethanol	ND	5000	Pass
Ethyl Acetate	ND	5000	Pass
Ethyl Benzene	ND	See Total Xylenes	Pass
Ethyl Ether	ND	5000	Pass
Ethylene Glycol	ND	620	Pass
Ethylene Oxide	ND	50	Pass

Residual Solvent	Finding (µg/g)	Action Level (µg/g)	Pass/Fail
Heptane	ND	5000	Pass
Hexane	ND	290	Pass
Isopropyl Acetate	ND	5000	Pass
Methanol	ND	3000	Pass
Methylpropane	ND	5000	Pass
2-Methylpentane	ND	290	Pass
3-Methylpentane	ND	290	Pass
N,N-Dimethylformamide	ND	880	Pass
Pentane	ND	5000	Pass
Propane	ND	5000	Pass
Pyridine	ND	100	Pass
Sulfolane	ND	160	Pass
Tetrahydrofuran	ND	720	Pass
Toluene	ND	890	Pass
Total Xylenes	ND	2170	Pass

† Per Utah state code 4-41a-701(3) Section R68-29-6  
 ‡ Total Xylenes is a combination of the following: o-Xylene, m-Xylene, p-Xylene, and Ethylbenzene

Overall Disposition: Pass  
 Performed By: Riley Hunter  
 Reviewed By: Sophie Pearson

## Instrument Analysis Report

### Microbial Impurities

Method: SOP 1-2034.01 and 1-2035.01 Sample Name: Muscle + Joint Light Caps APRC Lot Number: GOL231206C

Total Counts			
Microbial Group:	Result (CFU/g):	Specification:	Disposition:
Total Aerobic Bacteria	<10	≤10,000	Pass
Total Yeast and Mold	<10	≤1,000	Pass

Specific Organism Identification			
Microbial Organism:	Result:	Specification:	Disposition:
Aspergillus flavus	NT	Not Tested	Not Tested
Aspergillus fumigatus	NT	Not Tested	Not Tested
Aspergillus niger	NT	Not Tested	Not Tested
Aspergillus terreus	NT	Not Tested	Not Tested
E. coli	ND	Not Detected	Pass
STEC	ND	Report Only	Tested
Salmonella - Specific Gene	ND	Not Detected	Pass
Staphylococcus aureus	ND	Not Detected	Pass
Pseudomonas aeruginosa	ND	Report Only	Tested

Performed by: Jordan Morley

Notes: Foreign Matter: Not Detected.

Reviewed by: Sophie Pearson



**Approved By:**  
 William A. Deutschman, Ph.D.  
 Laboratory Director - APRC Lehi  
 12/12/2023



Utah Department of Agriculture and Food  
**Division of Laboratory Services**  
 4451 South 2700 West  
 Taylorsville, Utah 84129  
 (801) 816-3840

## CERTIFICATE OF ANALYSIS

### Sample Information

<b>UDAF Lab #</b>	HP23339-3	<b>Issue Date:</b>	12/11/2023
<b>Client:</b>	Gold Naturals	<b>Client Email:</b>	jake@goldnaturals hemp.com
<b>Producer:</b>	Gold Naturals	<b>Sample Type:</b>	Tablets/Capsules
<b>Description:</b>	Muscle + Joint lights		
<b>Batch/Lot Number:</b>	2105024A	<b>Date Received:</b>	12/05/2023
<b>Date Collected:</b>		<b>Collected By:</b>	Self-Submitted


Notes: Add Pest and Myco per customer request 12/6/23 9:43am CC



### Testing Summary

**Status:**      **PASS**

Analysis:	Testing Date:	Status:	Notes:
Cannabinoids	12/08/2023	PASS	
Pesticides	12/11/2023	PASS	
Mycotoxins	12/11/2023	PASS	

Approved By:  Date: 12/11/2023  
 Brandon Forsyth, Ph.D  
 State Chemist

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## CERTIFICATE OF ANALYSIS

**Cannabinoid Analysis**

**Status:** PASS

<b>Sample ID:</b>	HP23339-3	<b>Description:</b>	Muscle + Joint lights
<b>Testing Date:</b>	12/08/2023	<b>Reviewed By:</b>	Cameron Cheyne

*Method: ACL.AM.003 Analysis performed using High-Performance Liquid Chromatography (HPLC-DAD)*

Analyte	Abbreviation	CAS Number	% (w/w)	mg/g
Δ9-Tetrahydrocannabinidiol	Δ9-THC	1972-08-03	0.16%	1.6
Δ8-Tetrahydrocannabinidiol	Δ8-THC	5957-75-5	<LOQ	<LOQ
Δ9-Tetrahydrocannabinolic acid	THCA	23978-85-0	ND	ND
Δ9-Tetrahydrocannabivarin	THCV	31262-37-0	ND	ND
Cannabidiol	CBD	13956-29-1	4.79%	47.9
Cannabidiolic acid	CBDA	1244-58-2	ND	ND
Cannabidivarin	CBDV	24274-48-4	0.03%	0.3
Cannabinol	CBN	521-35-7	0.32%	3.2
Cannabigerol	CBG	25654-31-3	1.59%	15.9
Cannabichromene	CBC	20675-51-8	0.14%	1.4
Cannabigerolic acid	CBGA	25555-57-1	ND	ND
Cannabichromenic acid	CBCA	20408-52-0	<LOQ	<LOQ
Cannabicitran	CBTC	31508-71-1	0.08%	0.8
9(R+S)-Δ6a,10a-Tetrahydrocannabinidiol	Δ3-THC	95720-01-07, 95720-02-8	ND	ND
(6aR,9R)-Δ10-Tetrahydrocannabinidiol	(6aR,9R)-Δ10-THC	95543-62-7	ND	ND
(6aR,9S)-Δ10-Tetrahydrocannabinidiol	(6aR,9S)-Δ10-THC	95588-87-7	ND	ND
<b>Total Cannabinoids</b>			7.12%	71.20
Total THC			0.16%	1.6
Total CBD			4.79%	47.90
Total THC Analogs			0.24%	2.4

**Unknown Cannabinoid Peak Area:** 0.0%

**Status:** PASS

Notes:

Total Cannabinoids is calculated as the direct sum of each of the cannabinoid values.

Total THC is calculated as Δ9-THC + (THCA x 0.877).

Total CBD is calculated as CBD + (CBDA x 0.877).

Total THC Analogs is calculated as Δ9-THC + (THCA x 0.877) + Δ8-THC + CBTC.

ND = Not Detected, NQ = Not Quantifiable, NT = Not Tested, <LOQ = Below the limit of quantification

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## CERTIFICATE OF ANALYSIS

**Pesticide Analysis**

**Status:** PASS

<b>Sample ID:</b>	HP23339-3	<b>Description:</b>	Muscle + Joint lights
<b>Testing Date:</b>	12/11/2023	<b>Reviewed By:</b>	Cameron Cheyne

*Method: ACL.AM.008 Analysis performed using Liquid Chromatography - Mass Spectrometry (LC-MS/MS)*

Analyte	CAS Number	Result (ppm)	Action Level (ppm)	Status	Analyte	CAS Number	Result (ppm)	Action Level (ppm)	Status
Abamectin	71751-41-2	ND	0.5	PASS	Imazilil	35554-44-0	ND	0.2	PASS
Acephate	30560-19-1	ND	0.4	PASS	Imidacloprid	138261-41-3	ND	0.4	PASS
Acequinocyl	57960-19-7	ND	2	PASS	Kresoxim-methyl	143390-89-0	ND	0.4	PASS
Acetamiprid	135410-20-7	ND	0.2	PASS	Malathion	121-75-5	ND	0.2	PASS
Aldicarb	0116-06-03	ND	0.4	PASS	Metalaxyl	57837-19-1	ND	0.2	PASS
Azoxystrobin	131860-33-8	ND	0.2	PASS	Methiocarb	2032-65-7	ND	0.2	PASS
Bifenazate	149877-41-8	ND	0.2	PASS	Methomyl	16752-77-5	ND	0.4	PASS
Bifenthrin	82657-04-03	ND	0.2	PASS	Methyl parathion	298-00-0	ND	0.2	PASS
Boscalid	188425-85-6	ND	0.4	PASS	MGK-264	113-48-4	ND	0.2	PASS
Carbaryl	63-25-2	ND	0.2	PASS	Myclobutanil	88671-89-0	ND	0.2	PASS
Carbofuran	1563-66-2	ND	0.2	PASS	Naled	300-76-5	ND	0.5	PASS
Chlorantraniliprole	500008-45-7	ND	0.2	PASS	Oxamyl	23135-22-0	ND	1	PASS
Chlorfenapyr	122453-73-0	ND	1	PASS	Paclobutrazol	76738-62-0	ND	0.4	PASS
Chlorpyrifos	2921-88-2	ND	0.2	PASS	Permethrins	52645-53-1	ND	0.2	PASS
Clofentezine	74115-24-5	ND	0.2	PASS	Phosmet	0732-11-6	ND	0.2	PASS
Cyfluthrin	68359-37-5	ND	1	PASS	Piperonyl Butoxide	51-03-6	ND	2	PASS
Cypermethrin	52315-07-08	ND	1	PASS	Prallethrin	23031-36-9	ND	0.2	PASS
Daminozide	1596-84-5	ND	1	PASS	Propiconazole	60207-90-1	ND	0.4	PASS
Dichlorvos	62-73-7	ND	0.1	PASS	Propoxur	114-26-1	ND	0.2	PASS
Diazinon	333-41-5	ND	0.2	PASS	Pyrethrins	8003-34-7	ND	1	PASS
Dimethoate	60-51-5	ND	0.2	PASS	Pyridaben	96489-71-3	ND	0.2	PASS
Ethoprophos	13194-48-4	ND	0.2	PASS	Spinosad	168316-95-8	ND	0.2	PASS
Etofenprox	80844-07-01	ND	0.4	PASS	Spiromesifen	283594-90-1	ND	0.2	PASS
Etoxazole	153233-91-1	ND	0.2	PASS	Spirotetramat	203313-25-1	ND	0.2	PASS
Fenoxycarb	72490-01-08	ND	0.2	PASS	Spiroxamine	118134-30-8	ND	0.4	PASS
Fenpyroximate	134098-61-6	ND	0.4	PASS	Tebuconazole	80443-41-0	ND	0.4	PASS
Fipronil	120068-37-3	ND	0.4	PASS	Thiacloprid	111988-49-9	ND	0.2	PASS
Flonicamid	158062-67-0	ND	1	PASS	Thiamethoxam	153719-23-4	ND	0.2	PASS
Fludioxonil	131341-86-1	ND	0.4	PASS	Trifloxystrobin	141517-21-7	ND	0.2	PASS
Hexythiazox	78587-05-0	ND	1	PASS					

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## CERTIFICATE OF ANALYSIS

### Mycotoxin Analysis

**Status:** PASS

<b>Sample ID:</b> HP23339-3	<b>Description:</b> Muscle + Joint lights
<b>Testing Date:</b> 12/11/2023	<b>Reviewed By:</b> Cameron Cheyne

*Method: ACL.AM.004 Analysis performed using Inductively Coupled Plasma - Mass Spectrometry (ICP-MS)*

Analyte	Result (ppb)	Action Level (ppb)	Status
AflatoxinB1	ND	See Total Aflatoxin	--
AflatoxinB2	ND	See Total Aflatoxin	--
AflatoxinG1	ND	See Total Aflatoxin	--
AflatoxinG2	ND	See Total Aflatoxin	--
Total Aflatoxin	0	20	PASS
Ochratoxin A	ND	20	PASS

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