



12423 NE Whitaker Way  
 Portland, OR 97230  
 503-254-1794



**Report Number:** 24-012493/D001.R000  
**Report Date:** 11/12/2024  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 11/05/24 13:42

**Customer:** NW Natural Goods  
**Product identity:** HEMP - DEB 0002  
**Client/Metric ID:** .  
**Laboratory ID:** 24-012493-0001

### Summary

**Potency:**

Analyte per 4g	Result	Limits	Units	Status	
CBD per 4g	0.334		mg/4g		Delta-9-THC-Total per 13.4 mg/4g
CBN per 4g	5.20		mg/4g		
Δ8-THC per 4g	0.214		mg/4g		CBD-Total per Serving Size 0.334 mg/4g
Δ9-THC per 4g	13.4		mg/4g		(Reported in milligrams per serving)

**Residual Solvents:**

*All analytes passing and less than LOQ.*

**Pesticides:**

Analyte	Result (mg/kg)	Limits (mg/kg)	Status
Multi-Residue Pesticide Profile	< LOQ for all analytes		

**Metals:**

*Less than LOQ for all analytes.*

**Microbiology:**

*Less than LOQ for all analytes.*



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**Customer:** NW Natural Goods  
**Product identity:** HEMP - DEB 0002  
**Client/Metric ID:** .  
**Sample Date:**  
**Laboratory ID:** 24-012493-0001  
**Evidence of Cooling:** No  
**Temp:** 21.0  
**Relinquished by:** client  
**Serving Size #1:** 4 g

### Sample Results

Potency per 4g		Method: J AOAC 2015 V98-6 (mod) <sup>b</sup>		Units mg/se Batch: 2408679		Analyze: 11/8/24 4:20:00 AM
Analyte	Result	Limits	Units	LOQ	Notes	
CBC per 4g	< LOQ		mg/4g	0.129		
CBC-A per 4g	< LOQ		mg/4g	0.129		
CBC-Total per 4g	< LOQ		mg/4g	0.242		
CBD per 4g	0.334		mg/4g	0.129		
CBD-A per 4g <sup>1</sup>	< LOQ		mg/4g	0.129		
CBD-Total per 4g <sup>1</sup>	0.334		mg/4g	0.242		
CBDV per 4g	< LOQ		mg/4g	0.129		
CBDV-A per 4g	< LOQ		mg/4g	0.129		
CBDV-Total per 4g	< LOQ		mg/4g	0.241		
CBE per 4g	< LOQ		mg/4g	0.129		
CBG per 4g	< LOQ		mg/4g	0.129		
CBG-A per 4g	< LOQ		mg/4g	0.129		
CBG-Total per 4g	< LOQ		mg/4g	0.241		
CBL per 4g	< LOQ		mg/4g	0.129		
CBL-A per 4g	< LOQ		mg/4g	0.129		
CBL-Total per 4g	< LOQ		mg/4g	0.242		
CBN per 4g	5.20		mg/4g	0.129		
CBT per 4g	< LOQ		mg/4g	0.129		
Δ10-THC-9R per 4g	< LOQ		mg/4g	0.129		
Δ10-THC-9S per 4g	< LOQ		mg/4g	0.129		
Δ10-THC-Total per 4g	< LOQ		mg/4g	0.258		
Δ8-THC per 4g <sup>1</sup>	0.214		mg/4g	0.129		
Δ8-THCV per 4g	< LOQ		mg/4g	0.129		
Δ9-THC per 4g <sup>1</sup>	13.4		mg/4g	0.129		
Δ9-THC-Total per 4g	13.4		mg/4g	0.242		
Δ9-THCP per 4g	< LOQ		mg/4g	0.129		
Δ9-THCV per 4g	< LOQ		mg/4g	0.129		
Δ9-THCV-A per 4g	< LOQ		mg/4g	0.129		
Δ9-THCV-Total per 4g	< LOQ		mg/4g	0.242		
exo-THC per 4g	< LOQ		mg/4g	0.129		
THC-A per 4g <sup>1</sup>	< LOQ		mg/4g	0.129		
Total Cannabinoids per 4g	19.2		mg/4g			



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**Microbiology**

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
E.coli	< LOQ		cfu/g	10	2408612	11/08/24 AOAC 991.14 (Petrifilm)		
Total Coliforms	< LOQ		cfu/g	10	2408612	11/08/24 AOAC 991.14 (Petrifilm)		
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2408613	11/09/24 AOAC 2014.05 (RAPID)		
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2408613	11/09/24 AOAC 2014.05 (RAPID)		

**Solvents Method: Residual Solvents by HS-GC-MS<sup>b</sup> Units µg/g Batch 2408686 Analyze 11/08/24 12:38 PM**

Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
1,4-Dioxane <sup>±</sup>	< LOQ	380	100	pass		2-Butanol <sup>±</sup>	< LOQ	5000	200	pass	
2-Ethoxyethanol <sup>±</sup>	< LOQ	160	30.0	pass		2-Methylbutane (Isopentane) <sup>±</sup>	< LOQ		200		
2-Methylpentane <sup>±</sup>	< LOQ		30.0			2-Propanol (IPA) <sup>±</sup>	< LOQ	5000	200	pass	
2,2-Dimethylbutane <sup>±</sup>	< LOQ		30.0			2,2-Dimethylpropane (neo-pentane) <sup>±</sup>	< LOQ		200		
2,3-Dimethylbutane <sup>±</sup>	< LOQ		30.0			3-Methylpentane <sup>±</sup>	< LOQ		30.0		
Acetone <sup>±</sup>	< LOQ	5000	200	pass		Acetonitrile <sup>±</sup>	< LOQ	410	100	pass	
Benzene <sup>±</sup>	< LOQ	2.00	1.00	pass		Butanes (sum) <sup>±</sup>	< LOQ	5000	400	pass	
Cyclohexane <sup>±</sup>	< LOQ	3880	200	pass		Ethyl acetate <sup>±</sup>	< LOQ	5000	200	pass	
Ethyl benzene	< LOQ		200			Ethyl ether <sup>±</sup>	< LOQ	5000	200	pass	
Ethylene glycol <sup>±</sup>	< LOQ	620	200	pass		Ethylene oxide <sup>±</sup>	< LOQ	50.0	20.0	pass	
Hexanes (sum) <sup>±</sup>	< LOQ	290	150	pass		Isopropyl acetate <sup>±</sup>	< LOQ	5000	200	pass	
Isopropylbenzene (Cumene) <sup>±</sup>	< LOQ	70.0	30.0	pass		m,p-Xylene <sup>±</sup>	< LOQ		200		
Methanol <sup>±</sup>	< LOQ	3000	200	pass		Methylene chloride <sup>±</sup>	< LOQ	600	60.0	pass	
Methylpropane (Isobutane) <sup>±</sup>	< LOQ		200			n-Butane <sup>±</sup>	< LOQ		200		
n-Heptane <sup>±</sup>	< LOQ	5000	200	pass		n-Hexane <sup>±</sup>	< LOQ		30.0		
n-Pentane <sup>±</sup>	< LOQ		200			o-Xylene <sup>±</sup>	< LOQ		200		
Pentanes (sum)	< LOQ	5000	600	pass		Propane	< LOQ	5000	200	pass	
Tetrahydrofuran <sup>±</sup>	< LOQ	720	100	pass		Toluene <sup>±</sup>	< LOQ	890	100	pass	
Total Xylenes <sup>±</sup>	< LOQ		400			Total Xylenes and Ethyl benzene	< LOQ	2170	600	pass	

**Pesticides Method: AOAC 2007.01 & EN 15662 (mod) Units mg/kg Batch 2408759 Analyze 11/12/24 02:19 PM**

Analyte	Result	Limits	Status	Notes
Multi-Residue Pesticide Profile	< LOQ for all analytes			



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**Metals**

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Arsenic <sup>±</sup>	< LOQ	0.200	mg/kg	0.0186	2408695	11/08/24 AOAC 2013.06 (mod.) <sup>Þ</sup>	pass	
Cadmium <sup>±</sup>	< LOQ	0.200	mg/kg	0.0186	2408695	11/08/24 AOAC 2013.06 (mod.) <sup>Þ</sup>	pass	
Lead <sup>±</sup>	< LOQ	0.500	mg/kg	0.0186	2408695	11/08/24 AOAC 2013.06 (mod.) <sup>Þ</sup>	pass	
Mercury <sup>±</sup>	< LOQ	0.100	mg/kg	0.00930	2408695	11/08/24 AOAC 2013.06 (mod.) <sup>Þ</sup>	pass	

**Nutrition**

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Moisture (Loss on Drying)	16.8		g/100g	0.10	2408719	11/07/24 AOAC 925.10 (mod.)		
Water Activity	0.688		Aw	0.030	2408662	11/07/24 AOAC 978.18		



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**Abbreviations**

**Limits:** Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220, CCR title 16-division 42. BCC-section 5723

**Limit(s) of Quantitation (LOQ):** The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.

<sup>p</sup> = ISO/IEC 17025:2017 accredited method.

<sup>⊥</sup> = TNI accredited analyte.

**Units of Measure**

cfu/g = Colony forming units per gram

g = Gram

g/100g = Grams per 100 Grams

µg/g = Microgram per gram

mg/kg = Milligram per kilogram = parts per million (ppm)

mg/4g = Milligram per 4g

% = Percentage of sample

Aw = Water Activity

% wt = µg/g divided by 10,000



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Hemp & Cannabis  
 Chain of Custody

Northwest-Natural-  
 Goods-1730819699

Company Details Company: <u>Northwest Natural Goods</u> Contact: <u>Northwest Johnson</u> Street Address: <u>11791 SE HWY 212</u> City, State, Zip: <u>Clackamas, OR 97015</u> Email: <u>kjohnson@nwnaturalgoods.com</u> Contact Phone: <u>3865699210</u> Company Phone: <u>3865699210</u> Billing Information Billing Email: <u>ap@nwconfections.com</u>		Project Details Turnaround Time: <u>5 Business Days   Req. For Micro Testing   Standard</u> Relinquishment   Sampling, Courier & Shipping Options: <u>Pick-Up Courier Service</u> Project Name / ID: <u>HEMP - DEB 0002</u> Pick-Up Details Pick-Up Location Name: <u>Northwest Natural Goods</u> Contact Phone: <u>3865699210</u> Address Line 1: <u>11791 SE HWY 212</u> City, State, Zip: <u>Clackamas, OR 97015</u> Receipt Information Prelog Storage: <u>Canna Shelves</u> Sample Condition: <u>Satisfactory</u>		Testing							
				H0010 - Potency Cannabis (Basic-Expanded)	H0013 - Cannabis Heavy Metals Pro le OR	H0008 - Residual Solvents (Cannabis - Oregon)	M283 - RAPID Yeast and Mold Count (RYM) Petri Im	N3600 - Water Activity & Moisture (as Loss on Drying)   Food	P2320 - Multi-Residue Pesticide Pro le (Cannabis)	M075 - E. coli/Coliform Count (EO) Petri Im	
#	Sample Name	Material	Amount Provided	Reporting Unit	Serving Size						
1	HEMP - DEB 0002	Cannabinoid Edible	20 each	mg/g & mg/ serving	4 g	✓	✓	✓	✓	✓	✓

Relinquished By	Date	Time	Temp., °C	Received By	Date	Time	Received Temp., °C	Evidence of Cooling?

Samples submitted to Columbia Laboratories with testing requirements constitute an agreement for services in accordance with the [current terms of services](#) associated with this COC. By signing "Relinquished by" you are agreeing to these terms.

Columbia Laboratories  
 12423 NE Whitaker Way  
 Portland, OR 97230

P: (503) 254-1794  
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Revision: 4 Document ID: 7148  
Legacy ID: Worksheet Validated 04/20/2021

Laboratory Quality Control Results

J AOAC 2015 V98-6 Batch ID: 2408679

Laboratory Control Sample

Analyte	LCS	Result	Spike	Units	% Rec	Limits	Evaluation	Notes
CBDVA	2	0.0326	0.0319	%	102	80.0 - 120	Acceptable	
CBDV	2	0.0320	0.0316	%	101	80.0 - 120	Acceptable	
CBE	2	0.0148	0.0150	%	98.6	80.0 - 120	Acceptable	
CBDA	1	0.0376	0.0365	%	103	90.0 - 110	Acceptable	
CBGA	1	0.0355	0.0348	%	102	80.0 - 120	Acceptable	
CBG	1	0.0353	0.0346	%	102	80.0 - 120	Acceptable	
CBD	1	0.0342	0.0334	%	102	90.0 - 110	Acceptable	
THCV	2	0.0344	0.0346	%	99.2	80.0 - 120	Acceptable	
d8THCV	2	0.0345	0.0352	%	98.1	80.0 - 120	Acceptable	
THCVA	2	0.0321	0.0312	%	103	80.0 - 120	Acceptable	
CBN	1	0.0335	0.0335	%	100	80.0 - 120	Acceptable	
exo-THC	2	0.0311	0.0313	%	99.4	80.0 - 120	Acceptable	
d9THC	1	0.0345	0.0340	%	101	90.0 - 110	Acceptable	
d8THC	1	0.0332	0.0340	%	97.5	90.0 - 110	Acceptable	
9S-d10THC	1	0.0342	0.0349	%	97.9	80.0 - 120	Acceptable	
CBL	2	0.0311	0.0318	%	98.0	80.0 - 120	Acceptable	
9R-d10THC	1	0.0349	0.0358	%	97.5	80.0 - 120	Acceptable	
CBC	2	0.0330	0.0343	%	96.2	80.0 - 120	Acceptable	
THCA	1	0.0375	0.0353	%	106	90.0 - 110	Acceptable	
CBCA	2	0.0338	0.0327	%	103	80.0 - 120	Acceptable	
CBLA	2	0.0311	0.0306	%	102	80.0 - 120	Acceptable	
d9THCP	2	0.0303	0.0323	%	93.7	80.0 - 120	Acceptable	
CBT	2	0.0303	0.0337	%	89.9	80.0 - 120	Acceptable	

Method Blank

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDVA	<LOQ	0.00315	%	< 0.00315	Acceptable	
CBDV	<LOQ	0.00315	%	< 0.00315	Acceptable	
CBE	<LOQ	0.00315	%	< 0.00315	Acceptable	
CBDA	<LOQ	0.00315	%	< 0.00315	Acceptable	
CBGA	<LOQ	0.00315	%	< 0.00315	Acceptable	
CBG	<LOQ	0.00315	%	< 0.00315	Acceptable	
CBD	<LOQ	0.00315	%	< 0.00315	Acceptable	
THCV	<LOQ	0.00315	%	< 0.00315	Acceptable	
d8THCV	<LOQ	0.00315	%	< 0.00315	Acceptable	
THCVA	<LOQ	0.00315	%	< 0.00315	Acceptable	
CBN	<LOQ	0.00315	%	< 0.00315	Acceptable	
exo-THC	<LOQ	0.00315	%	< 0.00315	Acceptable	
d9THC	<LOQ	0.00315	%	< 0.00315	Acceptable	
d8THC	<LOQ	0.00315	%	< 0.00315	Acceptable	
9S-d10THC	<LOQ	0.00315	%	< 0.00315	Acceptable	
CBL	<LOQ	0.00315	%	< 0.00315	Acceptable	
9R-d10THC	<LOQ	0.00315	%	< 0.00315	Acceptable	
CBC	<LOQ	0.00315	%	< 0.00315	Acceptable	
THCA	<LOQ	0.00315	%	< 0.00315	Acceptable	
CBCA	<LOQ	0.00315	%	< 0.00315	Acceptable	
CBLA	<LOQ	0.00315	%	< 0.00315	Acceptable	
d9THCP	<LOQ	0.00315	%	< 0.00315	Acceptable	
CBT	<LOQ	0.00315	%	< 0.00315	Acceptable	

Abbreviations

ND - None Detected at or above MRL  
RPD - Relative Percent Difference  
LOQ - Limit of Quantitation

Units of Measure:

% - Percent



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Revision: 4 Document ID: 7148  
 Legacy ID: Worksheet Validated 04/20/2021

**Laboratory Quality Control Results**

AOAC 2015 V98-6		Batch ID: 2408679						
Sample Duplicate		Sample ID: 24-012454-0001						
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	<LOQ	<LOQ	0.00321	%	NA	< 20	Acceptable	
CBDV	<LOQ	<LOQ	0.00321	%	NA	< 20	Acceptable	
CBE	<LOQ	<LOQ	0.00321	%	NA	< 20	Acceptable	
CBDA	<LOQ	<LOQ	0.00321	%	NA	< 20	Acceptable	
CBGA	<LOQ	<LOQ	0.00321	%	NA	< 20	Acceptable	
CBG	<LOQ	<LOQ	0.00321	%	NA	< 20	Acceptable	
CBD	0.00658	0.00656	0.00321	%	0.261	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.00321	%	NA	< 20	Acceptable	
d8THCV	<LOQ	<LOQ	0.00321	%	NA	< 20	Acceptable	
THCVA	<LOQ	<LOQ	0.00321	%	NA	< 20	Acceptable	
CBN	<LOQ	<LOQ	0.00321	%	NA	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.00321	%	NA	< 20	Acceptable	
d9THC	0.197	0.197	0.00321	%	0.310	< 20	Acceptable	
d8THC	<LOQ	<LOQ	0.00321	%	NA	< 20	Acceptable	
9S-d10THC	<LOQ	<LOQ	0.00321	%	NA	< 20	Acceptable	
CBL	<LOQ	<LOQ	0.00321	%	NA	< 20	Acceptable	
9R-d10THC	<LOQ	<LOQ	0.00321	%	NA	< 20	Acceptable	
CBC	<LOQ	<LOQ	0.00321	%	NA	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.00321	%	NA	< 20	Acceptable	
CBCA	<LOQ	<LOQ	0.00321	%	NA	< 20	Acceptable	
CBLA	<LOQ	<LOQ	0.00321	%	NA	< 20	Acceptable	
d9THCP	<LOQ	<LOQ	0.00321	%	NA	< 20	Acceptable	
CBT	<LOQ	<LOQ	0.00321	%	NA	< 20	Acceptable	

**Abbreviations**

ND - None Detected at or above MRL  
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**Units of Measure:**

% - Percent





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Revision: 2 Document ID: 7087  
Legacy ID: CFL-E33Effective:

**Laboratory Quality Control Results**

Residual Solvents				Batch ID: 2408686						
Method Blank				Laboratory Control Sample						
Analyte	Result	LOQ	Notes	Result	Spike	Units	% Rec	Limits	Notes	
Propane	ND	< 200		705	585	µg/g	120.5	60 - 120	Q1	
Isobutane	ND	< 200		914	770	µg/g	118.7	60 - 120		
Butane	ND	< 200		919	769	µg/g	119.5	60 - 120		
2,2-Dimethylpropane	ND	< 200		1120	956	µg/g	117.2	60 - 120		
Methanol	ND	< 200		1940	1630	µg/g	119.0	60 - 120		
Ethylene Oxide	ND	< 20		67.6	57.7	µg/g	117.2	60 - 120		
2-Methylbutane	ND	< 200		1900	1620	µg/g	117.3	60 - 120		
Pentane	ND	< 200		1900	1620	µg/g	117.3	60 - 120		
Ethanol	ND	< 200		2000	1620	µg/g	123.5	70 - 130		
Ethyl Ether	ND	< 200		1900	1620	µg/g	117.3	60 - 120		
2,2-Dimethylbutane	ND	< 30		206	179	µg/g	115.1	60 - 120		
Acetone	ND	< 200		1940	1620	µg/g	119.8	60 - 120		
2-Propanol	ND	< 200		1960	1620	µg/g	121.0	60 - 120	Q1	
Ethyl Formate	ND	< 500		1480	1600	µg/g	92.5	70 - 130		
Acetonitrile	ND	< 100		599	502	µg/g	119.3	60 - 120		
Methyl Acetate	ND	< 500		1790	1600	µg/g	111.9	70 - 130		
2,3-Dimethylbutane	ND	< 30		218	180	µg/g	121.1	60 - 120	Q1	
Dichloromethane	ND	< 60		644	533	µg/g	120.8	60 - 120	Q1	
2-Methylpentane	ND	< 30		221	181	µg/g	122.1	60 - 120	Q1	
MTBE	ND	< 500		1780	1600	µg/g	111.3	70 - 130		
3-Methylpentane	ND	< 30		219	177	µg/g	123.7	60 - 120	Q1	
Hexane	ND	< 30		218	182	µg/g	119.8	60 - 120		
1-Propanol	ND	< 500		1760	1600	µg/g	110.0	70 - 130		
Methylethylketone	ND	< 500		1780	1600	µg/g	111.3	70 - 130		
Ethyl acetate	ND	< 200		1960	1620	µg/g	121.0	60 - 120	Q1	
2-Butanol	ND	< 200		1960	1630	µg/g	120.2	60 - 120	Q1	
Tetrahydrofuran	ND	< 100		609	499	µg/g	122.0	60 - 120	Q1	
Cyclohexane	ND	< 200		1950	1610	µg/g	121.1	60 - 120	Q1	
2-methyl-1-propanol	ND	< 500		1710	1600	µg/g	106.9	70 - 130		
Benzene	ND	< 1		6.39	5.01	µg/g	127.5	60 - 120	Q1	
Isopropyl Acetate	ND	< 200		1990	1620	µg/g	122.8	60 - 120	Q1	
Heptane	ND	< 200		1920	1610	µg/g	119.3	60 - 120		
1-Butanol	ND	< 500		1690	1600	µg/g	105.6	70 - 130		
Propyl Acetate	ND	< 500		1810	1610	µg/g	112.4	70 - 130		
1,4-Dioxane	ND	< 100		656	493	µg/g	133.1	60 - 120	Q1	
2-Ethoxyethanol	ND	< 30		238	182	µg/g	130.8	60 - 120	Q1	
Methylisobutylketone	ND	< 500		1730	1610	µg/g	107.5	70 - 130		
3-Methyl-1-butanol	ND	< 500		1690	1600	µg/g	105.6	70 - 130		
Ethylene Glycol	ND	< 200		591	501	µg/g	118.0	60 - 120		
Toluene	ND	< 100		642	501	µg/g	128.1	60 - 120	Q1	
Isobutyl Acetate	ND	< 500		1640	1600	µg/g	102.5	70 - 130		
1-Pentanol	ND	< 500		1360	1600	µg/g	85.0	70 - 130		
Butyl Acetate	ND	< 500		1750	1600	µg/g	109.4	70 - 130		
Ethylbenzene	ND	< 200		1280	981	µg/g	130.5	60 - 120	Q1	
m,p-Xylene	ND	< 200		1300	1000	µg/g	130.0	60 - 120	Q1	
o-Xylene	ND	< 200		1240	981	µg/g	126.4	60 - 120	Q1	
Cumene	ND	< 30		212	177	µg/g	119.8	60 - 120		
Anisole	ND	< 500		1780	1610	µg/g	110.6	70 - 130		
DMSO	ND	< 500		1780	1600	µg/g	111.3	70 - 130		
1,2-dimethoxyethane	ND	< 50		181	164	µg/g	110.4	70 - 130		
Triethylamine	ND	< 500		1780	1600	µg/g	111.3	70 - 130		
N,N-dimethylformamide	ND	< 150		460	481	µg/g	95.6	70 - 130		
N,N-dimethylacetamide	ND	< 150		528	486	µg/g	108.6	70 - 130		
Pyridine	ND	< 50		208	168	µg/g	123.8	70 - 130		
Sulfolane	ND	< 50		152	165	µg/g	92.1	70 - 130		
1,2-Dichloroethane	ND	< 1		1.17	1	µg/g	117.0	70 - 130		
Chloroform	ND	< 1		1.14	1	µg/g	114.0	70 - 130		
Trichloroethylene	ND	< 1		1.11	1	µg/g	111.0	70 - 130		
1,1-Dichloroethane	ND	< 1		1.13	1	µg/g	113.0	70 - 130		

Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.



**QC - Sample Duplicate**

**Sample ID: 24-012454-0001**

Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Accept/Fail	Notes
Propane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Isobutane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Butane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2,2-Dimethylpropane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Methanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethylene Oxide	ND	ND	20	µg/g	0.0	< 20	Acceptable	
2-Methylbutane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Pentane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethyl Ether	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2,2-Dimethylbutane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Acetone	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2-Propanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethyl Formate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Acetonitrile	ND	ND	100	µg/g	0.0	< 20	Acceptable	
Methyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
2,3-Dimethylbutane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Dichloromethane	ND	ND	60	µg/g	0.0	< 20	Acceptable	
2-Methylpentane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
MTBE	ND	ND	500	µg/g	0.0	< 20	Acceptable	
3-Methylpentane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Hexane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
1-Propanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Methylethylketone	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Ethyl acetate	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2-Butanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Tetrahydrofuran	ND	ND	100	µg/g	0.0	< 20	Acceptable	
Cyclohexane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2-methyl-1-propanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Benzene	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Isopropyl Acetate	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Heptane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
1-Butanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Propyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
1,4-Dioxane	ND	ND	100	µg/g	0.0	< 20	Acceptable	
2-Ethoxyethanol	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Methylisobutylketone	ND	ND	500	µg/g	0.0	< 20	Acceptable	
3-Methyl-1-butanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Ethylene Glycol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Toluene	ND	ND	100	µg/g	0.0	< 20	Acceptable	
Isobutyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
1-Pentanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Butyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Ethylbenzene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
m,p-Xylene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
o-Xylene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Cumene	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Anisole	ND	ND	500	µg/g	0.0	< 20	Acceptable	
DMSO	ND	ND	500	µg/g	0.0	< 20	Acceptable	
1,2-dimethoxyethane	ND	ND	50	µg/g	0.0	< 20	Acceptable	
Triethylamine	ND	ND	500	µg/g	0.0	< 20	Acceptable	
N,N-dimethylformamide	ND	ND	150	µg/g	0.0	< 20	Acceptable	
N,N-dimethylacetamide	ND	ND	150	µg/g	0.0	< 20	Acceptable	
Pyridine	ND	ND	50	µg/g	0.0	< 20	Acceptable	
Sulfolane	ND	ND	50	µg/g	0.0	< 20	Acceptable	
1,2-Dichloroethane	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Chloroform	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Trichloroethylene	ND	ND	1	µg/g	0.0	< 20	Acceptable	
1,1-Dichloroethane	ND	ND	1	µg/g	0.0	< 20	Acceptable	

**Abbreviations**

ND - None Detected at or above MRL  
RPD - Relative Percent Difference  
LOQ - Limit of Quantitation

**Units of Measure:**

µg/g- Microgram per gram or ppm



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**Report Number:** 24-012493/D001.R000  
**Report Date:** 11/12/2024  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 11/05/24 13:42





Explanation of QC Flag Comments:

Code	Explanation
Q	Matrix interferences affecting spike or surrogate recoveries.
Q1	Quality control result biased high. Only non-detect samples reported.
Q2	Quality control outside QC limits. Data considered estimate.
Q3	Sample concentration greater than four times the amount spiked.
Q4	Non-homogenous sample matrix, affecting RPD result and/or % recoveries.
Q5	Spike results above calibration curve.
Q6	Quality control outside QC limits. Data acceptable based on remaining QC.
R	Relative percent difference (RPD) outside control limit.
R1	RPD non-calculable, as sample or duplicate results are less than five times the LOQ.
R2	Sample replicates RPD non-calculable, as only one replicate is within the analytical range.
LOQ1	Quantitation level raised due to low sample volume and/or dilution.
LOQ2	Quantitation level raised due to matrix interference.
B	Analyte detected in method blank, but not in associated samples.
B1	The sample concentration is greater than 5 times the blank concentration.
B2	The sample concentration is less than 5 times the blank concentration.