

Certificate ID: 93094

Received: 3/15/21

Scan QR Code for authenticity

Vance Global Inc.

Client Sample ID: Vance Global All Natural Blend

1575 S 38th Street

Lot Number: VGWL019925

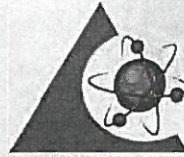
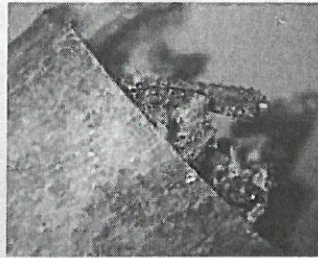
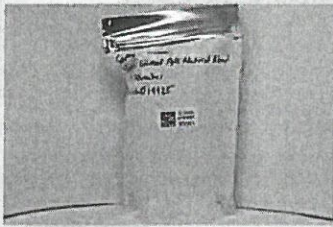
Milwaukee, WI 53215

Matrix: Flowers/Bud - Pre-Rolls or Cones

Attn: Brandon Marhal



Authorization: Chris Hudalla, Chief Science Officer	Signature: <i>Christopher Hudalla</i>	Date: 4/10/2021
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**PJLA Testing**  
Accreditation  
# 80585

The data contained within this report was collected in accordance with the requirements of ISO/IEC17025:2017. I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

**CN: Cannabinoid Profile & Potency [WI-10-17 & WI-10-17-01]**

Analyst: AC

Test Date: 3/24/2021

The client sample was analyzed for plant-based cannabinoids by Liquid Chromatography (LC). The collected data was compared to data collected for certified reference standards at known concentrations.

**93094-CN**

ID	Weight %	Concentration (mg/g)	
D9-THC	0.126	1.26	
THCV	ND	ND	
CBD	6.96	69.6	
CBDV	0.0359	0.359	
CBG	0.0937	0.937	
CBC	0.101	1.01	
CBN	<LOQ	<LOQ	
THCA	0.153	1.53	
CBDA	6.13	61.3	
CBGA	0.911	9.11	
D8-THC	ND	ND	
exo-THC	ND	ND	
<b>Total</b>	<b>14.5</b>	<b>145</b>	0% Cannabinoids (wt%) 7.0%
Max THC	0.260	2.60	Limit of Quantitation (LOQ) = 0.0064 wt%
Max CBD	12.3	123	Limit of Detection (LOD) = 0.0021 wt%

**Ratio of Total CBD to THC 47.4:1**

Max THC (and Max CBD) are calculated values for total cannabinoids after heating, assuming complete decarboxylation of the acid to the neutral form. It is calculated based on the weight loss of the acid group during decarboxylation: Max THC = (0.877 x THCA) + THC. This calculation does not include other cannabinoid isomers (eg. D8-THC and exo-THC). ND = None detected above the limits of detection (LOD), which is one third of LOQ.

**HM: Heavy Metal Analysis [WI-10-13]**

Analyst: CJS

Test Date: 4/6/2021

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

**93094-HM**

Symbol	Metal	Conc. <sup>1</sup> (µg/kg)	RL	Use Limits <sup>2</sup> (µg/kg)		Status
				All	Ingestion	
As	Arsenic	136	50.0	200	1,500	PASS
Cd	Cadmium	ND	50.0	200	500	PASS
Hg	Mercury	ND	50.0	100	1,500	PASS
Pb	Lead	424	50.0	500	1,000	PASS

1) ND = None detected above the indicated Reporting Limit (RL)

2) MA Dept. of Public Health: Protocol for MMJ and MIPS, Exhibit 4(a) for all products.

3) USP exposure limits based on daily oral dosing of 1g of concentrate for a 110 lb person.

**MBI: Microbiological Contaminants [WI-10-09]**

Analyst: MM

Test Date: 3/19/2021

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

**93094-MBI**

Symbol	Analysis	Results	Units	Limits*	Status
AC	Total Aerobic Bacterial Count	=44,000	CFU/g	100,000 CFU/g	PASS
CC	Total Coliform Bacterial Count	=600	CFU/g	1,000 CFU/g	PASS
EB	Total Bile Tolerant Gram Negative Count	=700	CFU/g	1,000 CFU/g	PASS
YM	Total Yeast & Mold	=4,000	CFU/g	10,000 CFU/g	PASS

Recommended limits established by the American Herbal Pharmacopoeia (AHP) monograph for Cannabis Inflorescence [2013], for consumable botanical products, including processed and unprocessed cannabis materials, and solvent-based extracts.

**MY: Mycotoxin Testing [WI-10-05]**

Analyst: SLC

Test Date: 4/1/2021

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

**93094-MY**

Test ID	Date	Results	MDL	Limits	Status*
Total Aflatoxin	4/1/2021	< MDL	2 ppb	< 20 ppb	PASS
Total Ochratoxin	4/1/2021	3.4	3 ppb	< 20 ppb	PASS

**PST: Pesticide Analysis [WI-10-11]**

Analyst: CJS

Test Date: 3/31/2021

The client sample was analyzed for pesticides using Liquid Chromatography with Mass Spectrometric detection (LC/MS/MS). The method used for sample prep was based on the European method for pesticide analysis (EN 15662).

**93094-PST**

Analyte	CAS	Result	Units	LLD	Limits (ppb)	Status
Abamectin	71751-41-2	ND	ppb	0.20	10	PASS
Spinosad	168316-95-8	ND	ppb	0.10	10	PASS
Pyrethrin	8003-34-7	ND	ppb	0.10	10	PASS
Trifloxystrobin	141517-21-7	ND	ppb	0.10	100	PASS
Spirotetramat	203313-25-1	ND	ppb	0.10	100	PASS
Spiromesifen	283594-90-1	ND	ppb	0.10	100	PASS
Piperonyl butoxide	51-03-6	ND	ppb	0.10	3000	PASS
Pacllobutrazol	76738-62-0	ND	ppb	0.10	10	PASS
Myclobutanil	88671-89-0	ND	ppb	0.10	100	PASS
Imidacloprid	138261-41-3	ND	ppb	0.10	5000	PASS
Imazalil	35554-44-0	ND	ppb	0.10	10	PASS
Fenoxycarb	72490-01-8	ND	ppb	0.10	10	PASS
Etoxazole	153233-91-1	ND	ppb	0.10	100	PASS
Dichlorvos	62-73-7	ND	ppb	3.00	10	PASS
Cyfluthrin	68359-37-5	ND	ppb	0.50	2000	PASS
Bifenthrin	82657-04-3	ND	ppb	0.20	3000	PASS
Bifenazate	149877-41-8	ND	ppb	0.10	100	PASS
Azoxystrobin	131860-33-8	ND	ppb	0.10	100	PASS

\* Testing limits established by the Massachusetts Department of Public Health, Protocol for Sampling and Analysis of Finished Medical Marijuana Products and Marijuana-Infused Products for Massachusetts Registered Medical Marijuana Dispensaries, Exhibit 5. ND indicates "none detected" above the lower limit of detection (LLD). Analytes marked with (\*) indicate analytes for which no recovery was observed for a pre-spiked matrix sample due to matrix interference.

**VC: Analysis of Volatile Organic Compounds [WI-10-28]**

Analyst: LC

Test Date: 3/23/2021

The client sample was analyzed by Head-Space Gas Chromatography (HS-GC). The collected data was compared to data collected for certified reference standards at known concentrations.

**93094-VC**

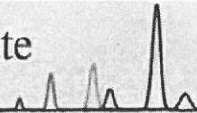
Compound	CAS	Amount <sup>1</sup>	Limit <sup>2</sup>	RL	Status
Propane	74-98-6	ND	1,000 ppm	100	PASS
Isobutane	75-28-5	ND	1,000 ppm	100	PASS
Butane	106-97-8	ND	1,000 ppm	100	PASS
Methanol	67-56-1	380 ppm	3,000 ppm	100	PASS
Pentane	109-66-0	126 ppm	5,000 ppm	100	PASS
Ethanol	64-17-5	ND	5,000 ppm	100	PASS
Acetone	67-64-1	129 ppm	5,000 ppm	100	PASS
Isopropanol	67-63-0	ND	5,000 ppm	100	PASS
Acetonitrile	75-05-8	ND	410 ppm	100	PASS
Hexane	110-54-3	ND	290 ppm	100	PASS
Heptane	142-82-5	ND	5,000 ppm	100	PASS

1) ND = Not detected at a level greater than the Reporting Limit (RL).

2) In ppm, based on USP recommended limits for residual solvents, adopted by the Massachusetts Department of Public Health for cannabis concentrates and extracts on 3/31/16. Butane/Propane limits are based on limits established for state of Colorado.

(\*) For ethanol, as many formulations contain flavorings based on ethanol extracts of natural products, no status has been assigned.

**END OF REPORT**



Certificate ID: **93093**

Received: **3/15/21**

Scan QR Code for authenticity

**Vance Global Inc.**

Client Sample ID: **Vance Global PURE**

**1575 S 38th Street**

Lot Number: **VGWL019924**

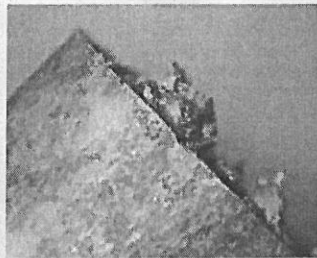
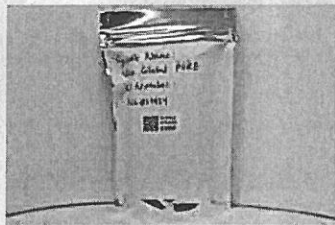
**Milwaukee, WI 53215**

Matrix: **Flowers/Bud - Pre-Rolls or Cones**

**Attn: Brandon Marhal**



Authorization: Chris Hudalla, Chief Science Officer	Signature: <i>Christopher Hudalla</i>	Date: 4/10/2021
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**CN: Cannabinoid Profile & Potency [WI-10-17 & WI-10-17-01]**

Analyst: *AC*

Test Date: 3/24/2021

The client sample was analyzed for plant-based cannabinoids by Liquid Chromatography (LC). The collected data was compared to data collected for certified reference standards at known concentrations.

**93093-CN**

ID	Weight %	Concentration (mg/g)	
D9-THC	0.143	1.43	
THCV	ND	ND	
CBD	9.0	90	
CBDV	0.0486	0.486	
CBG	0.0993	0.993	
CBC	0.119	1.19	
CBN	ND	ND	
THCA	0.153	1.53	
CBDA	5.98	59.8	
CBGA	0.839	8.39	
D8-THC	ND	ND	
exo-THC	ND	ND	
<b>Total</b>	<b>16.4</b>	<b>164</b>	<b>0% Cannabinoids (wt%) 9.0%</b>
<b>Max THC</b>	<b>0.277</b>	<b>2.77</b>	<b>Limit of Quantitation (LOQ) = 0.0064 wt%</b>
<b>Max CBD</b>	<b>14.3</b>	<b>143</b>	<b>Limit of Detection (LOD) = 0.0021 wt%</b>

Max THC (and Max CBD) are calculated values for total cannabinoids after heating, assuming complete decarboxylation of the acid to the neutral form. It is calculated based on the weight loss of the acid group during decarboxylation:  $\text{Max THC} = (0.877 \times \text{THCA}) + \text{THC}$ . This calculation does not include other cannabinoid isomers (eg. D8-THC and exo-THC). ND = None detected above the limits of detection (LOD), which is one third of LOQ.

**HM: Heavy Metal Analysis [WI-10-13]**

Analyst: CJS

Test Date: 4/6/2021

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**93093-HM**

Symbol	Metal	Conc. <sup>1</sup> (µg/kg)	RL	Use Limits <sup>2</sup> (µg/kg)		Status
				All	Ingestion	
As	Arsenic	193	50.0	200	1,500	PASS
Cd	Cadmium	ND	50.0	200	500	PASS
Hg	Mercury	ND	50.0	100	1,500	PASS
Pb	Lead	476	50.0	500	1,000	PASS

1) ND = None detected above the indicated Reporting Limit (RL)

2) MA Dept. of Public Health: Protocol for MMJ and MIPS, Exhibit 4(a) for all products.

3) USP exposure limits based on daily oral dosing of 1g of concentrate for a 110 lb person.

**MBI: Microbiological Contaminants [WI-10-09]**

Analyst: MM

Test Date: 3/19/2021

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**93093-MBI**

Symbol	Analysis	Results	Units	Limits*	Status
AC	Total Aerobic Bacterial Count	=40,000	CFU/g	100,000 CFU/g	PASS
CC	Total Coliform Bacterial Count	=590	CFU/g	1,000 CFU/g	PASS
EB	Total Bile Tolerant Gram Negative Count	=600	CFU/g	1,000 CFU/g	PASS
YM	Total Yeast & Mold	=6,400	CFU/g	10,000 CFU/g	PASS

Recommended limits established by the American Herbal Pharmacopoeia (AHP) monograph for Cannabis Inflorescence [2013], for consumable botanical products, including processed and unprocessed cannabis materials, and solvent-based extracts.

**MY: Mycotoxin Testing [WI-10-05]**

Analyst: SLC

Test Date: 4/1/2021

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Test ID	Date	Results	MDL	Limits	Status*
Total Aflatoxin	4/1/2021	< MDL	2 ppb	< 20 ppb	PASS
Total Ochratoxin	4/1/2021	< MDL	3 ppb	< 20 ppb	PASS

**PST: Pesticide Analysis [WI-10-11]**

Analyst: CJS

Test Date: 3/31/2021

The client sample was analyzed for pesticides using Liquid Chromatography with Mass Spectrometric detection (LC/MS/MS). The method used for sample prep was based on the European method for pesticide analysis (EN 15662).

**93093-PST**

Analyte	CAS	Result	Units	LLD	Limits (ppb)	Status
Abamectin	71751-41-2	ND	ppb	0.20	10	PASS
Spinosad	168316-95-8	ND	ppb	0.10	10	PASS
Pyrethrin	8003-34-7	ND	ppb	0.10	10	PASS
Trifloxystrobin	141517-21-7	ND	ppb	0.10	100	PASS
Spirotetramat	203313-25-1	ND	ppb	0.10	100	PASS
Spiromesifen	283594-90-1	ND	ppb	0.10	100	PASS
Piperonyl butoxide	51-03-6	ND	ppb	0.10	3000	PASS
Paclobutrazol	76738-62-0	ND	ppb	0.10	10	PASS
Myclobutanil	88671-89-0	ND	ppb	0.10	100	PASS
Imidacloprid	138261-41-3	ND	ppb	0.10	5000	PASS
Imazalil	35554-44-0	ND	ppb	0.10	10	PASS
Fenoxycarb	72490-01-8	ND	ppb	0.10	10	PASS
Etoxazole	153233-91-1	ND	ppb	0.10	100	PASS
Dichlorvos	62-73-7	ND	ppb	3.00	10	PASS
Cyfluthrin	68359-37-5	ND	ppb	0.50	2000	PASS
Bifenthrin	82657-04-3	ND	ppb	0.20	3000	PASS
Bifenazate	149877-41-8	ND	ppb	0.10	100	PASS
Azoxystrobin	131860-33-8	ND	ppb	0.10	100	PASS

\* Testing limits established by the Massachusetts Department of Public Health, Protocol for Sampling and Analysis of Finished Medical Marijuana Products and Marijuana-Infused Products for Massachusetts Registered Medical Marijuana Dispensaries, Exhibit 5. ND indicates "none detected" above the lower limit of detection (LLD). Analytes marked with (\*) indicate analytes for which no recovery was observed for a pre-spiked matrix sample due to matrix interference.

**VC: Analysis of Volatile Organic Compounds [WI-10-28]**

Analyst: LC

Test Date: 3/23/2021

The client sample was analyzed by Head-Space Gas Chromatography (HS-GC). The collected data was compared to data collected for certified reference standards at known concentrations.

**93093-VC**

Compound	CAS	Amount <sup>1</sup>	Limit <sup>2</sup>	RL	Status
Propane	74-98-6	ND	1,000 ppm	100	PASS
Isobutane	75-28-5	ND	1,000 ppm	100	PASS
Butane	106-97-8	ND	1,000 ppm	100	PASS
Methanol	67-56-1	ND	3,000 ppm	100	PASS
Pentane	109-66-0	393 ppm	5,000 ppm	100	PASS
Ethanol	64-17-5	ND	5,000 ppm	100	PASS
Acetone	67-64-1	ND	5,000 ppm	100	PASS
Isopropanol	67-63-0	ND	5,000 ppm	100	PASS
Acetonitrile	75-05-8	ND	410 ppm	100	PASS
Hexane	110-54-3	ND	290 ppm	100	PASS
Heptane	142-82-5	ND	5,000 ppm	100	PASS

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2) In ppm, based on USP recommended limits for residual solvents, adopted by the Massachusetts Department of Public Health for cannabis concentrates and extracts on 3/31/16. Butane/Propane limits are based on limits established for state of Colorado.

(\*) For ethanol, as many formulations contain flavorings based on ethanol extracts of natural products, no status has been assigned.

**END OF REPORT**

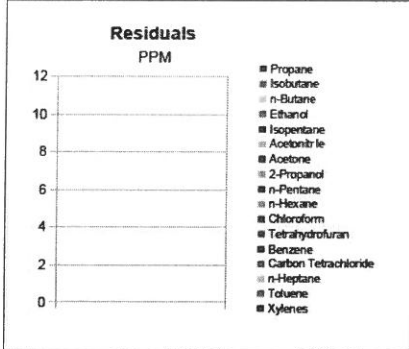




DESERT VALLEY TESTING  
 51 W. Weldon Ave  
 Phoenix, Arizona 85013  
 480-788-6644  
 www.desertvalleytesting.com

Sample Information		
Sample Identification	Vance Global Hemp Flower	
Laboratory Number	2020001174	
Batch Number	VG-HF	
Matrix	Flower	
Analyzed Date	02/14/20	
Extraction Date	02/07/20	
Cannabinoid (HPLC)		
Compound	%	mg/g
CBD-V	ND	ND
CBD-A	17.41%	174.13
CBG	ND	ND
CBD	0.15%	1.52
THC-V	ND	ND
CBN	ND	ND
Delta 9-THC	ND	ND
CBC	ND	ND
THC-A	0.27%	2.68
Delta 8-THC	ND	ND
Cannabinoids Total		
Max Active THC	0.24%	2.36
Max Active CBD	15.43%	154.31
T. Active Cannabinoids	0.15%	1.52
Total Cannabinoids	17.83%	178.33
Max Active Ratios		
64.3 :1 CBD to THC		
0.0 :1 THC to CBD		
Cannabinoid %		

RS (GCMS-HS) Compound	PPM	RL
Propane	ND	5.0
Isobutane	ND	5.0
n-Butane	ND	5.0
Ethanol	ND	5.0
Isopentane	ND	5.0
Acetonitrile	ND	5.0
Acetone	ND	50.0
2-Propanol	ND	5.0
n-Pentane	ND	5.0
n-Hexane	ND	5.0
Chloroform	ND	5.0
Tetrahydrofuran	ND	5.0
Benzene	ND	5.0
Carbon Tetrachloride	ND	5.0
n-Heptane	ND	5.0
Toluene	ND	5.0
Xylenes	ND	10.0

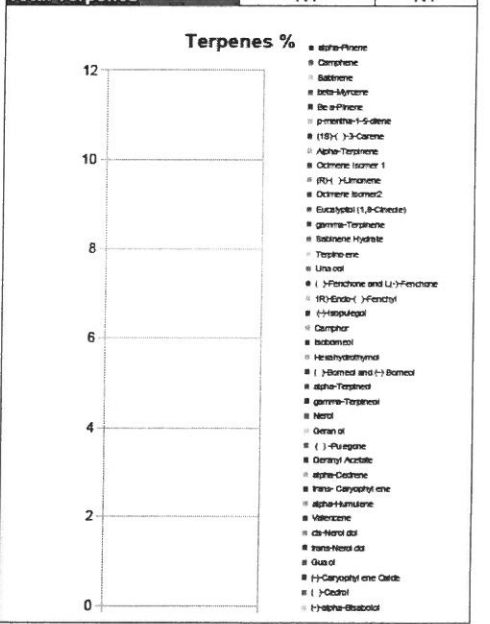


g/medible
NA
mg THC/medible
NA
mg CBD/medible
NA
(mg) total cannabinoids/medible
NA

Metals Compound	PPM	RL
Lead	ND	0.010
Arsenic	ND	0.010
Cadmium	ND	0.010
Mercury	ND	0.001

RL=Reporting Limit  
 NA=Not Applicable  
 NT=Not Tested  
 ND=Non Detected

Terpene (GC-MS) Compound	%	mg/g
alpha-Pinene	NT	NT
Camphene	NT	NT
Sabinene	NT	NT
beta-Myrcene	NT	NT
Beta-Pinene	NT	NT
p-mentha-1,5-diene	NT	NT
(1S)-(+)-3-Carene	NT	NT
Alpha-Terpinene	NT	NT
Ocimene Isomer 1	NT	NT
(R)-(+)-Limonene	NT	NT
Ocimene Isomer2	NT	NT
Eucalyptol (1,8-Cineole)	NT	NT
gamma-Terpinene	NT	NT
Sabinene Hydrate	NT	NT
Terpinolene	NT	NT
Linalool	NT	NT
(+)-Fenchone and L(-)-Fenchone	NT	NT
1R)-Endo-(+)-Fenchyl	NT	NT
(-)-Isopulegol	NT	NT
Camphor	NT	NT
Isoborneol	NT	NT
Hexahydrothymol	NT	NT
(+)-Borneol and (-)-Borneol	NT	NT
alpha-Terpineol	NT	NT
gamma-Terpineol	NT	NT
Nerol	NT	NT
Geraniol	NT	NT
(+)-Pulegone	NT	NT
Geranyl Acetate	NT	NT
alpha-Cedrene	NT	NT
trans-Caryophyllene	NT	NT
alpha-Humulene	NT	NT
Valencene	NT	NT
cis-Nerolidol	NT	NT
trans-Nerolidol	NT	NT
Guaiol	NT	NT
(-)-Caryophyllene Oxide	NT	NT
(+)-Cedrol	NT	NT
(-)-alpha-Bisabolol	NT	NT
Total Terpenes	NT	NT



Sample Image

Micro Visual: NOT TESTED  
 Percent Moisture: Not Tested

Chemist: EG





DESERT VALLEY TESTING  
 51 W. Weldon Ave  
 Phoenix, Arizona 85012  
 480-788-6644  
 www.desertvalleytesting.com



**Sample Information**

Sample Identification	Vance Global Hemp Flower
Laboratory Number	2020001174
Batch Number	VG-HF
Matrix	Flower
Analyzed Date	02/14/20
Extraction Date	02/07/20

RL=Report Limit  
 NT=Not Tested

NR=Not Reported  
 ND=Non Detected

Chemist: TH

Pesticides (LC-MS TQ)	Mass	RL
Compound	ppm	ppm
ACEPHATE	ND	0.040
ACEQUINOCYL	ND	0.200
ACETAMIPRID	ND	0.020
ALDICARB	ND	0.040
ABAMECTIN	ND	0.070
AVERMECTIN B1B	ND	0.070
AZOXYSTROBIN	ND	0.020
BIFENAZATE	ND	0.020
BIFENTHRIN	ND	0.020
BOSCALID	ND	0.040
CARBARYL	ND	0.020
CARBOFURAN	ND	0.020
CHLORANTRANILIPROLE	ND	0.020
CHLORFENAPYR	ND	0.100
CHLORPYRIFOS	ND	0.020
CLOFENTEZINE	ND	0.020
CYFLUTHRIN	ND	0.100
CYPERMETHRIN	ND	0.100
DAMINOZIDE	ND	0.100
DIAZINON	ND	0.020
DICHLORVOS	ND	0.010
DIMETHOATE	ND	0.020
ETHOPROPHOS	ND	0.020
ETOXAZOLE	ND	0.040
ETOXAZOLE	ND	0.010
FENOXYCARB	ND	0.020
FENPYROXIMATE	ND	0.040
FIPRONIL	ND	0.040
FLONICAMID	ND	0.100
FLUDIOXONIL	ND	0.040
HEXYTHIAZOX	ND	0.100
IMAZALIL	ND	0.040

Pesticides (LC-MS TQ)	Mass	RL
Compound	ppm	ppm
IMIDACLOPRID	ND	0.020
KRESOXIM-METHYL	ND	0.040
MALATHION A	ND	0.050
METALAXYL	ND	0.020
METHIOCARB	ND	0.020
METHOMYL	ND	0.040
MGK 264	ND	0.020
MYCLOBUTANIL	ND	0.040
NALED	ND	0.050
OXAMYL	ND	0.100
PACLOBUTRAZOL	ND	0.040
PARATHION METHYL	ND	0.100
PERMETHRINS	ND	0.040
PHOSMET	ND	0.020
PRALLETHRIN	ND	0.020
PROPICONAZOLE	ND	0.040
PROPOXURE	ND	0.020
PYRETHRINS CINERIN 1	ND	0.500
PYRETHRINS JASMOLIN 1	ND	0.500
PYRETHRINS PYRETHRIN 1	ND	0.500
PYRIDABEN	ND	0.020
SPINOSYN A	ND	0.060
SPINOSYN D	ND	0.060
SPIROMESIFEN	ND	0.030
SPIROTETRAMAT	ND	0.020
SPIROXAMINE	ND	0.040
TEBUCONAZOLE	ND	0.010
THIACLOMPRID	ND	0.020
THIAMETHOXAM	ND	0.020
TRIFLOXYSTROBIN	ND	0.020
PIPERONYL BUTOXIDE	ND	0.200