



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

Job Number: 18-002807
Report Date: 05/08/2018
Purchase Order: Meridian 2018-01
Received: 05/01/18 12:00 PM



Cover Letter

Meridian Cacao Company
2411 SE 49 Ave
Portland Oregon 97206
United States

Dear Gino Dalla Gasperina,

Enclosed please find Columbia Food Laboratories analytical report for samples received as order number 18-002807 on 05/01/2018. Should you have any questions about this report or any other matter, please do not hesitate to contact us. We are here to help you.

Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of Columbia Food 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 kept a maximum of 15 days from the report date unless prior arrangements have been made.

Thank you for allowing Columbia Food Laboratories to be of service to you, we appreciate your business.

Sincerely,

Derrick Tanner
General Manager



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Portland, OR 97230
503-254-1794

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Customer: Meridian Cacao Company
2411 SE 49 Ave
Portland Oregon 97206
United States

Sample ID: I-RP-18
Sample Matrix: Cocoa/Cacao bean
Laboratory ID: 18-002807-0001
Evidence of Cooling: n
Temp: 22 °C

Sample Results

Metals

Heavy Metals Profile A

| Analyte | Result | Units | LOQ | Analyzed | Method | Notes |
|---------|--------|-------|---------|----------|----------------------|-------|
| Arsenic | < LOQ | mg/kg | 0.00983 | 05/04/18 | AOAC 2013.06 (mod) 1 | |
| Cadmium | 0.0609 | mg/kg | 0.00983 | 05/04/18 | AOAC 2013.06 (mod) 1 | |
| Lead | < LOQ | mg/kg | 0.00983 | 05/04/18 | AOAC 2013.06 (mod) 1 | |
| Mercury | < LOQ | mg/kg | 0.00491 | 05/04/18 | AOAC 2013.06 (mod) 1 | |

1) trace metals in food by Inductively Coupled Mass Spectrometry



Customer: Meridian Cacao Company
2411 SE 49 Ave
Portland Oregon 97206
United States

Sample ID: M-AO-18
Sample Matrix: Cocoa/Cacao bean
Laboratory ID: 18-002807-0002
Evidence of Cooling: n
Temp: 22 °C

Sample Results

Metals

Heavy Metals Profile A

| Analyte | Result | Units | LOQ | Analyzed | Method | Notes |
|---------|--------|-------|---------|----------|----------------------|-------|
| Arsenic | < LOQ | mg/kg | 0.00934 | 05/04/18 | AOAC 2013.06 (mod) 1 | |
| Cadmium | 0.307 | mg/kg | 0.00934 | 05/04/18 | AOAC 2013.06 (mod) 1 | |
| Lead | < LOQ | mg/kg | 0.00934 | 05/04/18 | AOAC 2013.06 (mod) 1 | |
| Mercury | < LOQ | mg/kg | 0.00467 | 05/04/18 | AOAC 2013.06 (mod) 1 | |

1) trace metals in food by Inductively Coupled Mass Spectrometry



Customer: Meridian Cacao Company
2411 SE 49 Ave
Portland Oregon 97206
United States

Sample ID: SL-G-18
Sample Matrix: Cocoa/Cacao bean
Laboratory ID: 18-002807-0003
Evidence of Cooling: n
Temp: 22 °C

Sample Results

Metals

Heavy Metals Profile A

| Analyte | Result | Units | LOQ | Analyzed | Method | Notes |
|---------|--------|-------|---------|----------|----------------------|-------|
| Arsenic | < LOQ | mg/kg | 0.00956 | 05/04/18 | AOAC 2013.06 (mod) 1 | |
| Cadmium | 0.0713 | mg/kg | 0.00956 | 05/04/18 | AOAC 2013.06 (mod) 1 | |
| Lead | < LOQ | mg/kg | 0.00956 | 05/04/18 | AOAC 2013.06 (mod) 1 | |
| Mercury | < LOQ | mg/kg | 0.00478 | 05/04/18 | AOAC 2013.06 (mod) 1 | |

1) trace metals in food by Inductively Coupled Mass Spectrometry



Customer: Meridian Cacao Company
2411 SE 49 Ave
Portland Oregon 97206
United States

Sample ID: T-KK-18
Sample Matrix: Cocoa/Cacao bean
Laboratory ID: 18-002807-0004
Evidence of Cooling: n
Temp: 22 °C

Sample Results

Metals

Heavy Metals Profile A

| Analyte | Result | Units | LOQ | Analyzed | Method | Notes |
|---------|--------|-------|---------|----------|----------------------|-------|
| Arsenic | < LOQ | mg/kg | 0.00979 | 05/04/18 | AOAC 2013.06 (mod) 1 | |
| Cadmium | 0.101 | mg/kg | 0.00979 | 05/04/18 | AOAC 2013.06 (mod) 1 | |
| Lead | < LOQ | mg/kg | 0.00979 | 05/04/18 | AOAC 2013.06 (mod) 1 | |
| Mercury | < LOQ | mg/kg | 0.00490 | 05/04/18 | AOAC 2013.06 (mod) 1 | |

1) trace metals in food by Inductively Coupled Mass Spectrometry



Customer: Meridian Cacao Company
2411 SE 49 Ave
Portland Oregon 97206
United States

Sample ID: E-CV-18
Sample Matrix: Cocoa/Cacao bean
Laboratory ID: 18-002807-0005
Evidence of Cooling: n
Temp: 22 °C

Sample Results

Metals

Heavy Metals Profile A

| Analyte | Result | Units | LOQ | Analyzed | Method | Notes |
|---------|--------|-------|---------|----------|----------------------|-------|
| Arsenic | < LOQ | mg/kg | 0.00922 | 05/04/18 | AOAC 2013.06 (mod) 1 | |
| Cadmium | 0.376 | mg/kg | 0.00922 | 05/04/18 | AOAC 2013.06 (mod) 1 | |
| Lead | < LOQ | mg/kg | 0.00922 | 05/04/18 | AOAC 2013.06 (mod) 1 | |
| Mercury | < LOQ | mg/kg | 0.00461 | 05/04/18 | AOAC 2013.06 (mod) 1 | |

1) trace metals in food by Inductively Coupled Mass Spectrometry



Customer: Meridian Cacao Company
2411 SE 49 Ave
Portland Oregon 97206
United States

Sample ID: DR-O-18
Sample Matrix: Cocoa/Cacao bean
Laboratory ID: 18-002807-0006
Evidence of Cooling: n
Temp: 22 °C

Sample Results

Metals

Heavy Metals Profile A

| Analyte | Result | Units | LOQ | Analyzed | Method | Notes |
|---------|---------|-------|---------|----------|----------------------|-------|
| Arsenic | < LOQ | mg/kg | 0.00961 | 05/04/18 | AOAC 2013.06 (mod) 1 | |
| Cadmium | 0.253 | mg/kg | 0.00961 | 05/04/18 | AOAC 2013.06 (mod) 1 | |
| Lead | < LOQ | mg/kg | 0.00961 | 05/04/18 | AOAC 2013.06 (mod) 1 | |
| Mercury | 0.00577 | mg/kg | 0.00480 | 05/04/18 | AOAC 2013.06 (mod) 1 | |

1) trace metals in food by Inductively Coupled Mass Spectrometry



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Abbreviations

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.

Units of Measure

mg/kg = Milligram per kilogram

Approved Signatory

Derrick Tanner
General Manager



MERIDIANCACAO 18-002807



ANALYTICAL REQUEST/CHAIN OF CUSTODY

PO#: Meridian 2018-01
Date: 4/30/18
Page: 1 of 1

Meridian Cacao Company
Company Name: meridian cacao company llc
Point of Contact: Gino Dalla Gasperina
Address: 2411 SE 49th AVE
City, State, Zip: Portland, OR 97206

info@columbiafoodlab.com
Phone No.: 5039130654 Fax No.:
Email Address for reports: gino@meridiancacao.com

After analysis, samples are to be:
 Disposed of by CFL Stored over 30 days
 Returned to Customer Stored 30 days max.

For Nutrition Labels:
Serving Size _____ oz or _____ grams
No. of servings per container: _____

Invoice to a different name and/or address (check here and write information on other side of this form)
ANALYSES REQUESTED

| | | | | | | | | | | |
|----------------------|--|--|--|--|--|--|--|--|--|--|
| Heavy Metals - N1700 | | | | | | | | | | |
| Ecoli basic | | | | | | | | | | |
| Salmonella | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

Write sample information in horizontal rows. Write test names or codes in vertical boxes at left. Mark an "x" at the intersection, where appropriate.

-001
-002
-003
-004
-005
-006
-007

| Client Sample Identification | Date/Time Taken | # of Containers | Sample Type/Description | C-tainer Type | Heavy Metals - N1700 | Ecoli basic | Salmonella | | | | | Comments |
|------------------------------|-----------------|-----------------|-------------------------|---------------|----------------------|-------------|------------|--|--|--|--|--|
| I-RP-18 | 4/30/18 | 1 | Cocoa Mass | bag | X | X | X | | | | | Do heavy metals only. Gino will send more sample for micro. Route 5/1/18 1:04pm |
| M-AO-18 | 4/30/18 | 1 | Cocoa Mass | bag | X | X | X | | | | | |
| SL-G-18 | 4/30/18 | 1 | Cocoa Mass | bag | X | X | X | | | | | |
| T-KK-18 | 4/30/18 | 1 | Cocoa Mass | bag | X | X | X | | | | | |
| E-CV-18 | 4/30/18 | 1 | Cocoa Mass | bag | X | X | X | | | | | |
| DR-O-18 | 4/30/18 | 1 | Cocoa Mass | bag | X | X | X | | | | | |
| DR-Z-18 | 4/30/18 | 1 | Cocoa Mass | bag | | X | X | | | | | |
| | | | | | | | | | | | | Please retain samples for possible future analysis |

| | | | | | |
|----------------------------------|------|------|---|---------------|-------|
| (Signature) | Date | Time | (Signature) | Date | Time |
| Sampled by: Gino Dalla Gasperina | | | Received by: | | |
| Relinquished by: GDG | | | Received by: | | |
| Dispatched by: GDG | | | Received for Lab by: <i>[Signature]</i> | 5/1/18 | 12:00 |
| Method of shipment: UPS | | | Lab Job No.: | Lab Comments: | |

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