TRACE Analytics LLC
15768 Hamilton Pool Road
Austin, Texas 78738
800-AIR-1024 or 512-263-0000 • Fax: 512-263-0002
E-mail: ServiceTeam@AirCheckLab.com

AirCheck Report™

**To**



Mr. Joe Brown
XYZ Food Co.
12345 Long Street
Austin, TX 78738

| | | | |
|---|---|---|---|
| ***Customer*** | 26087 | ***Report*** | 17-32061 |
| ***Sampled*** | Fri, Oct 27, 2017 | ***Received*** | Mon, Oct 30, 2017 |
| ***By*** | Joe Brown | ***Analyzed*** | Wed, Nov 1, 2017 |
| ***For*** | XYZ Food Co. | ***Reported*** | Thu, Nov 2, 2017 |
| ***Sampling Point Identification*** | Collection Point: Line 4<br>System: Low Pressure (≤1,000 psig) | ***Purchase Order No.*** | AO3579 |

***Results vs ISO 8573-1:2010***

| Limiting Characteristic | | | Purity Class (B) | Sample Results | Specification Limit | Pass / Fail | Estimate of Uncertainty, % (1) |
|---|---|---|---|---|---|---|---|
| Particles | Maximum Number of Particles per Cubic Meter ($m^3$) as a Function of Particles Size, d, in micrometers (µm) | 0.1 < d ≤ 0.5 µm | 2 | (A) | ≤400,000 | PASS | |
| | | 0.5 < d ≤ 1.0 µm | | <3266 | ≤6,000 | | ±22 |
| | | 1.0 < d ≤ 5.0 µm | | <80 | ≤100 | | ±22 |
| | | d > 5.0 µm | | None | None | | ±22 |
| | By Mass Concentration ($C_P$), $mg/m^3$ | | | 0.046 | | | ±4.3 |
| Water | Pressure Dew Point, °C | | 2 | -47 | -40 | PASS | ±30 |
| Oil | Oil Aerosol, $mg/m^3$ | | | <0.020 | | | ±4.6 |
| | Oil Vapor, $mg/m^3$ | | | <0.026 | | | ±6.3 |
| | Total Oil, $mg/m^3$ | | 1 | <0.046 | ≤0.01 | PASS | ±11 |
| Other (2) | | | | | | | |

| | |
|---|---|
| Results Notes | n/a = not applicable n/d = not determined n/p = not provided n/s = not specified None (or 0) indicates <LOQ Tr = Trace, >LOD & <LOQ<br>(1) At the 95% confidence interval as a percent of the specification limit includes sampling and analytical estimates of uncertainty.<br>(2) Gases named in ISO 8573-6 Table 2 and/or other measurands required by the specification or customer. |
| Specification Notes | **(A)** By agreement between the customer and laboratory, this report does not include 0.1-0.5 µm particles.<br>**(B)** For a "PRO" sample, the quality range used for comparison is ISO 8573-1:2010 Particle Class 1-7, Water Class 1-6, Oil Aerosol and Oil Vapor Class 1-4. |
| Laboratory Notes | |

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Richard A. Smith

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**Sampling Point Identification**

Collection Point: Line 4
System: Low Pressure (≤1,000 psig)

**Customer Comments**

**Sample Collection Conditions**

| | Temperature | Pressure | Other |
|---|---|---|---|
| Sampling Point | n/p | 100 psig | n/a |
| Ambient | 80 °F | 14.7 psia | n/a |

**Sampling Schedule**

The sampling schedule is recorded as: **Semi-Annual**
The next sample due approximately: **4/27/2018**

**Sample Collection Information**

| Parameter | Media No. | Flow Rate (L/min) | Sampling Time (min:sec) | Blank | For Detector Tubes Only: Reading | For Detector Tubes Only: Scale | Note |
|---|---|---|---|---|---|---|---|
| Aerosol (Particles & Oil Aerosol) | 611620 | 50 | 24 : 00 | | | | |
| Water Vapor (Dewpoint) | 5/a-P (6728531) | 4 | 12 : 30 | | 10 mg/m$^3$ | 200 | |
| | 20/a-P (8103061) | | : | | mg/m$^3$ | | |
| Liquid Water | | | | | | | |
| Oil Liquid | / | | | | | | |
| Sulfur Dioxide, $SO_2$ | 0.5/a-P (6728491) | | | | ppmv | | |
| NItrogen Oxides, $NO_X$ | 0.5/a-P (CH29401) | | | | ppmv | | |
| Oil Vapor | 909346 | 4 | 100 : 00 | 913893 | | | |
| CO, $CO_2$, HC | 763032 | | | | | | |

**Flowmeter Calibration Information**

| Flowmeter Type | Serial No. | Calibration Date | Calibration Due |
|---|---|---|---|
| Filter Flowmeter | 474862 | 3/31/2017 | 3/31/2018 |
| Tube Flowmeter | 474844 | 3/31/2017 | 3/31/2018 |

**NOTE**: ***Blank fields*** indicate that samples were not obtained for the given limiting characteristic and no analytical results are presented.

**Test Methods**

| Method‡ | Contaminant | Sampling Technique | Analytical Technique | Accredited | Cal. Cert. No. |
|---|---|---|---|---|---|
| CAT-A-01 | Gases (CO, $CO_2$, HC) | Gas Collection Bottle | Gas Chromatography - MS / FID | Yes | 2017305-01 |
| CAT-A-03 | Particles by Mass | Membrane Filter (0.2 µm) | Gravimetry | Yes | 2017305-03 |
| CAT-A-03 | Oil Aerosol | Membrane Filter (0.2 µm) | Extraction - Gravimetry | Yes | 2017305-03 |
| CAT-A-04 | Particles by Size | Membrane Filter (0.2 µm) | Optical Microscopy | Yes | 2017305-04 |
| CAT-A-06 | Oil Vapor | Charcoal Tube | Gas Chromatography - Mass Spectrometry | Yes | 2017305-06 |
| CAT-A-07 | Pressure Dewpoint | Gas Detector Tube | Chemical Length-of-Stain | Yes | 2017305-07 |
| CAT-A-08 | Oil Liquid and Liquid Water | Coalescing Filters | Extraction - Gravimetry | No | n/a |
| CAT-A-09 | $SO_2$, $NO_X$, $NH_3$, $Cl_2$ | Gas Detector Tube | Chemical Length-of-Stain | No | n/a |
| CAT-A-10 | Particles by Size | Laser Particle Counter | Laser Particle Counter | No | WO212014 (PMS) |

‡ Trace Analytics, LLC certifies that the instrument(s) associated with the specified method were calibrated in accordance with applicable internal QA procedures.



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