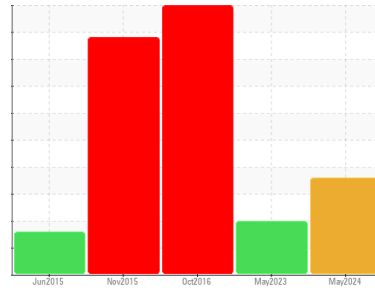




OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Machine Id

RACK C

Component

Refrigeration Compressor

Fluid

Copeland Ultra 32-3MAF (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Wear

The iron level is abnormal. All other component wear rates are normal.

Contamination

There is a light concentration of water present in the oil.

Fluid Condition

The AN level is above the recommended limit.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | WC06195514 | WC05850587 | WC12288300 |
| Sample Date | Client Info | | 29 May 2024 | 10 May 2023 | 26 Oct 2016 |
| Machine Age | mths | Client Info | 0 | 0 | 0 |
| Oil Age | mths | Client Info | 0 | 0 | 0 |
| Oil Changed | Client Info | | N/A | N/A | N/A |
| Sample Status | | | ABNORMAL | ABNORMAL | SEVERE |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|----------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >8 | ▲ 47 | 3 | ▲ 856 |
| Chromium | ppm | ASTM D5185m >2 | <1 | 0 | <1 |
| Nickel | ppm | ASTM D5185m | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | <1 | <1 | 0 |
| Silver | ppm | ASTM D5185m >2 | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m >3 | <1 | 2 | <1 |
| Lead | ppm | ASTM D5185m >2 | 3 | 0 | ▲ 16 |
| Copper | ppm | ASTM D5185m >8 | 2 | 2 | ▲ 21 |
| Tin | ppm | ASTM D5185m >4 | 2 | <1 | 4 |
| Antimony | ppm | ASTM D5185m | --- | --- | 4 |
| Vanadium | ppm | ASTM D5185m | <1 | 0 | <1 |
| Cadmium | ppm | ASTM D5185m | <1 | 0 | <1 |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|-----------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m 0 | 0 | 0 | 3 |
| Barium | ppm | ASTM D5185m 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m 0 | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | <1 | <1 | 1 |
| Magnesium | ppm | ASTM D5185m 0 | 0 | 7 | 0 |
| Calcium | ppm | ASTM D5185m 0 | 0 | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m 600 | 4 | 0 | 6 |
| Zinc | ppm | ASTM D5185m 0 | 32 | 15 | 95 |
| Sulfur | ppm | ASTM D5185m 50 | 13 | 0 | 8 |

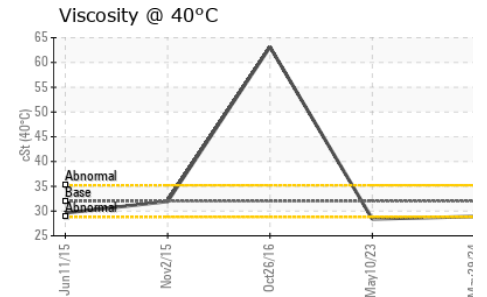
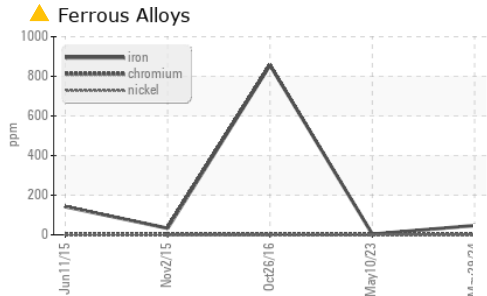
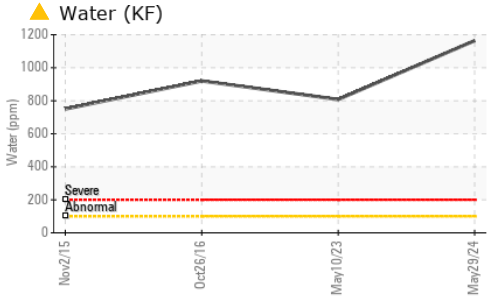
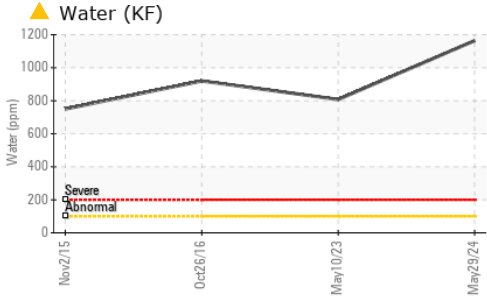
CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|------------------|----------------|----------|----------|
| Silicon | ppm | ASTM D5185m >15 | 3 | 4 | 8 |
| Sodium | ppm | ASTM D5185m | <1 | 0 | 0 |
| Potassium | ppm | ASTM D5185m >20 | 1 | 0 | 0 |
| Water | % | ASTM D6304 >0.01 | ▲ 0.116 | ▲ 0.080 | ▲ 0.092 |
| ppm Water | ppm | ASTM D6304 >100 | ▲ 1164 | ▲ 807.7 | ▲ 920 |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|----------------|----------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D974 0.05 | ▲ 0.416 | 0.156 | ▲ 1.68 |

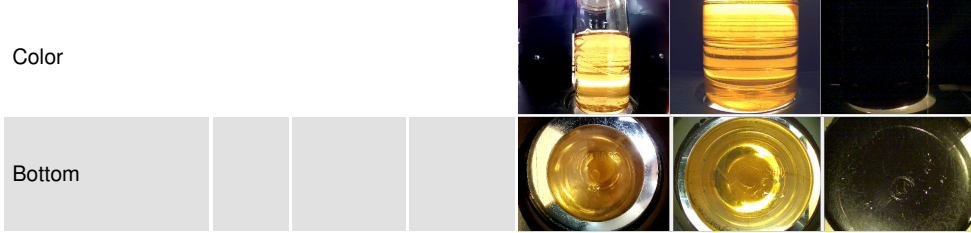
OIL ANALYSIS REPORT



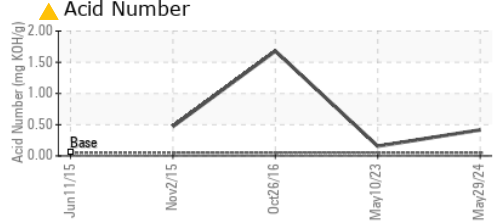
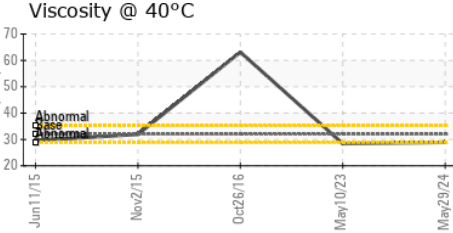
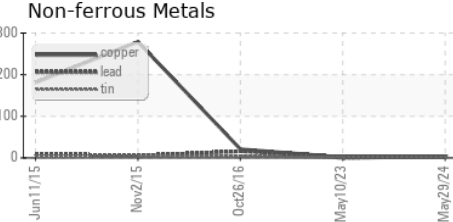
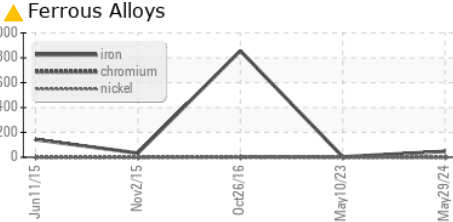
| VISUAL | method | limit/base | current | history1 | history2 | |
|------------------|--------|------------|---------|----------|----------|-------|
| White Metal | scalar | *Visual | NONE | NONE | LIGHT | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | ▲ MODER | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.01 | NEG | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 | |
|------------------|--------|------------|---------|----------|----------|-------|
| Visc @ 40°C | cSt | ASTM D445 | 32.0 | 28.9 | 28.4 | 63.13 |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
|---------------|--------|------------|---------|----------|----------|



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC06195514 **Received** : 30 May 2024
Lab Number : 06195514 **Tested** : 13 Jun 2024
Unique Number : 11057637 **Diagnosed** : 13 Jun 2024 - Angela Borella
Test Package : IND 2

ALMA FOODS
 110 E 1ST
 ALMA, KS
 US 66401
 Contact: JAY WHEELER

To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)