



OIL ANALYSIS REPORT

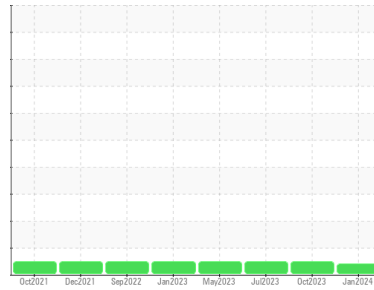
Sample Rating Trend

VIS DEBRIS

Machine Id
L2 B (S/N CHM120120029)

Component
Vacuum Pump

Fluid
USPI VAC 100 (--- QTS)



DIAGNOSIS

▲ Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear

All component wear rates are normal.

▲ Contamination

Moderate concentration of visible dirt/debris present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|--------------------|-------------|-------------|------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | | USPM30585 | USPM31030 | USPM27737 |
| Sample Date | Client Info | | | 10 Jan 2024 | 15 Oct 2023 | 10 Jul 2023 |
| Machine Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | Client Info | | | N/A | N/A | N/A |
| Sample Status | | | | ABNORMAL | NORMAL | NORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m | >20 | 0 | 4 | 2 |
| Chromium | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | <1 | 0 | <1 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 2 | <1 | 1 |
| Lead | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >20 | <1 | <1 | <1 |
| Tin | ppm | ASTM D5185m | >20 | <1 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | <1 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | <1 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Calcium | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m | 1800 | 730 | 676 | 680 |
| Zinc | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Sulfur | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |

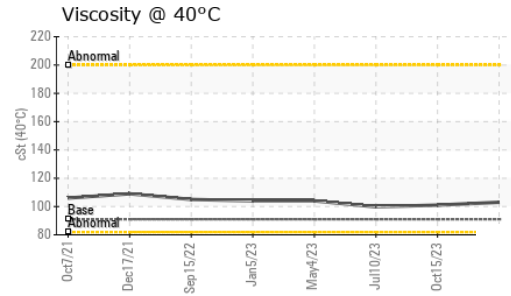
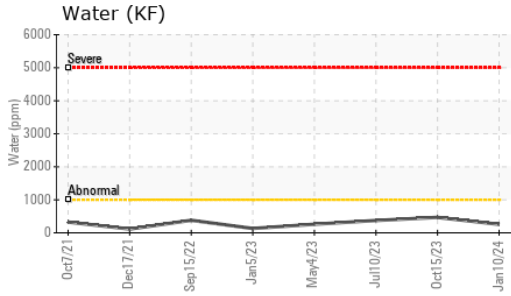
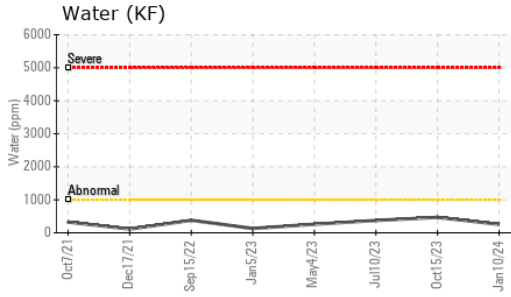
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >15 | 19 | 15 | 11 |
| Sodium | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Potassium | ppm | ASTM D5185m | >20 | 1 | <1 | 2 |
| Water | % | ASTM D6304 | >.1 | 0.025 | 0.046 | 0.037 |
| ppm Water | ppm | ASTM D6304 | >1000 | 257 | 468.3 | 373.8 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|-------------------|--|--------------|------------|------------|----------|----------|
| Particles >4µm | | ASTM D7647 | >10000 | --- | 8869 | 994 |
| Particles >6µm | | ASTM D7647 | >2500 | --- | 1733 | 278 |
| Particles >14µm | | ASTM D7647 | >640 | --- | 72 | 26 |
| Particles >21µm | | ASTM D7647 | >160 | --- | 18 | 8 |
| Particles >38µm | | ASTM D7647 | >40 | --- | 1 | 2 |
| Particles >71µm | | ASTM D7647 | >10 | --- | 0 | 1 |
| Oil Cleanliness | | ISO 4406 (c) | >20/18/16 | --- | 20/18/13 | 17/15/12 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.05 | 0.20 | 0.172 | 0.08 |



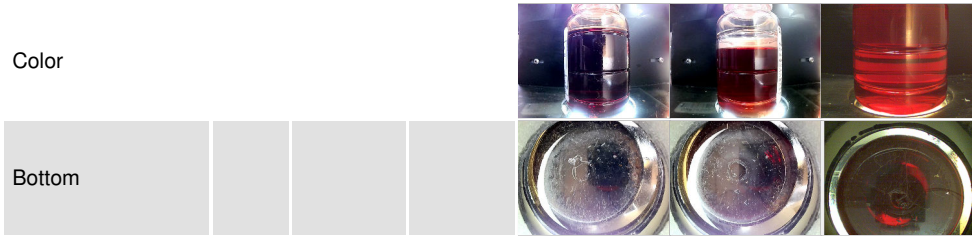
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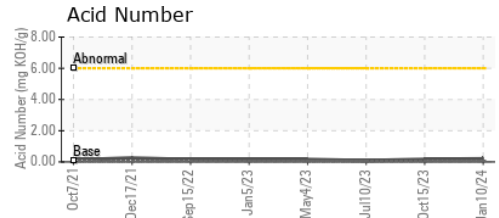
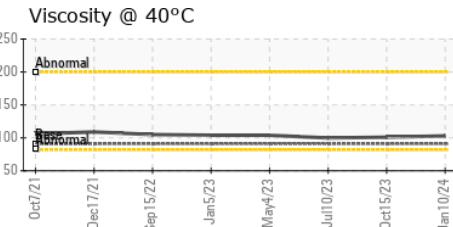
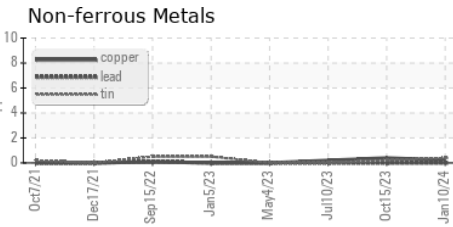
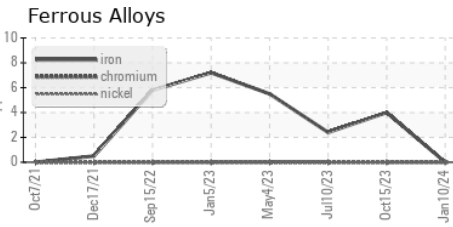
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | ▲ MODER | LIGHT |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >.1 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|--------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 91 | 103 | 101 | 99.8 |

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



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USPM30585 **Recieved** : 11 Jan 2024
Lab Number : 06058110 **Diagnosed** : 12 Jan 2024
Unique Number : 10829492 **Diagnostician** : Doug Bogart
Test Package : IND 2

KraftHeinz - Kirksville - Plant 8333 USP
 2504 INDUSTRIAL RD
 KIRKSVILLE, MO
 US 63501
 Contact: LARRY WISKIRCHEN
 larry.wiskirchen@kraftfoods.com
 T: (660)627-1031
 F:

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)