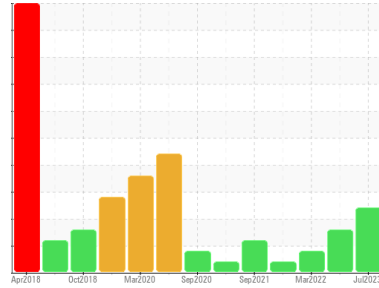


PROBLEM SUMMARY

Area
AG FORMALDEHYDE
Machine Id
FM BLOWER-SILVER PROCESS FANBL11001 GE (S/N 2263591 GEAR END)
Component
Blower
Fluid
CHEVRON DELO TORQFORCE SAE 30 (4 GAL)

Sample Rating Trend

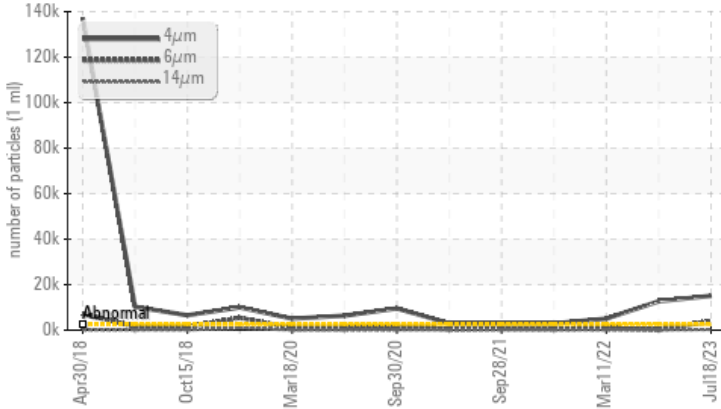


ISO



COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

No corrective actions at this time. Continue to sample at the standard interval.

PROBLEMATIC TEST RESULTS

| Sample Status | | | ABNORMAL | ABNORMAL | ABNORMAL |
|-----------------|--------------|-----------|------------|------------|------------|
| Particles >4µm | ASTM D7647 | >2500 | ▲ 15093 | ▲ 12672 | ▲ 5061 |
| Particles >6µm | ASTM D7647 | >640 | ▲ 3896 | 288 | ▲ 848 |
| Particles >14µm | ASTM D7647 | >80 | ▲ 261 | 22 | 36 |
| Particles >21µm | ASTM D7647 | >20 | ▲ 65 | 8 | 8 |
| Particles >38µm | ASTM D7647 | >4 | ▲ 6 | 1 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >18/16/13 | ▲ 21/19/15 | ▲ 21/15/12 | ▲ 20/17/12 |

Customer Id: HEXLAG
Sample No.: PLS0000625
Lab Number: 05903694
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

28 Nov 2022 Diag: Mike Johnson

WEAR



Investigate machine for other possible indicators of wear (excess heat, slop, vibration analysis). Filter if possible using B6=75 media or better. Resample at next normal interval. Iron wear particles are elevated from previous samples. This could indicate accelerated wear. Particle contamination is slightly elevated. Filtration can help extend machine life. Fluid health is acceptable for continued use.

view report



11 Mar 2022 Diag: Doug Bogart

ISO



Filter oil with B6=75 filter media or better if possible. No other action required at this time. Resample at next normal interval. Wear particles are low and steady. Particle count is slightly elevated and should be filtered if possible. Fluid health indicators are acceptable for continued use.

view report



31 Dec 2021 Diag: Mike Johnson

ISO



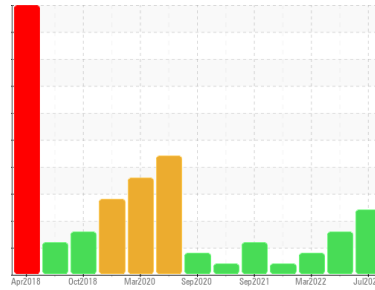
Filter oil if possible using B6=75 filter media or better. Resample at next normal interval. Wear indicators are low and acceptable. Contamination is on par with noew unfiltered oil. Fluid health is acceptable for continued use.

view report



OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
AG FORMALDEHYDE
Machine Id
FM BLOWER-SILVER PROCESS FANBL11001 GE (S/N 2263591 GEAR END)
Component
Blower
Fluid
CHEVRON DELO TORQFORCE SAE 30 (4 GAL)

DIAGNOSIS

Recommendation

No corrective actions at this time. Continue to sample at the standard interval.

Wear

The wear rate is low and steady

Contamination

Oil cleanliness is on par with new unfiltered oil. It would be useful to filter the oil while the machine is operating using side-stream (kidney-loop) filtration, with elements rates for B6=75 or better.

Fluid Condition

Fluid health conditions indicate that the oil is acceptable for continued use.

SAMPLE INFORMATION

| method | limit/base | current | history1 | history2 |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | PLS0000625 | PLS0000621 | PLS0000308 |
| Sample Date | Client Info | 18 Jul 2023 | 28 Nov 2022 | 11 Mar 2022 |
| Machine Age | hrs | 6000 | 6000 | 6000 |
| Oil Age | hrs | 0 | 0 | 0 |
| Oil Changed | Client Info | N/A | N/A | N/A |
| Sample Status | | ABNORMAL | ABNORMAL | ABNORMAL |

WEAR METALS

| method | limit/base | current | history1 | history2 | |
|----------|------------|-----------------|--------------|----------|-----|
| PQ | ASTM D8184 | 10 | 12 | 15 | |
| Iron | ppm | ASTM D5185m >20 | 4 | ▲ 19 | 3 |
| Chromium | ppm | ASTM D5185m >20 | <1 | <1 | 0 |
| Nickel | ppm | ASTM D5185m >20 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185m | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >20 | <1 | 1 | <1 |
| Lead | ppm | ASTM D5185m >20 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185m >20 | 0 | <1 | <1 |
| Tin | ppm | ASTM D5185m >20 | 0 | 0 | <1 |
| Antimony | ppm | ASTM D5185m | --- | --- | --- |
| Vanadium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | 0 | 0 | 0 |

ADDITIVES

| method | limit/base | current | history1 | history2 | |
|------------|------------|------------------|--------------|----------|------|
| Boron | ppm | ASTM D5185m 4 | 0 | 6 | 0 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 2 | 2 | 2 |
| Manganese | ppm | ASTM D5185m | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m 13 | 11 | 11 | 11 |
| Calcium | ppm | ASTM D5185m 4000 | 3865 | 3413 | 3612 |
| Phosphorus | ppm | ASTM D5185m 990 | 970 | 875 | 906 |
| Zinc | ppm | ASTM D5185m 1310 | 1251 | 1046 | 1062 |
| Sulfur | ppm | ASTM D5185m 3010 | 4519 | 3795 | 2926 |

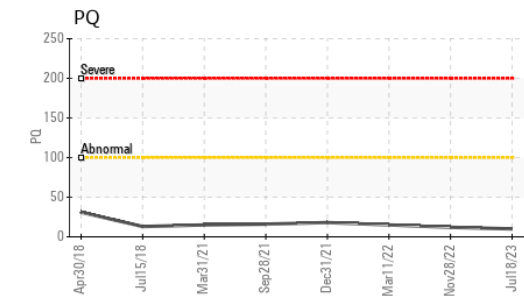
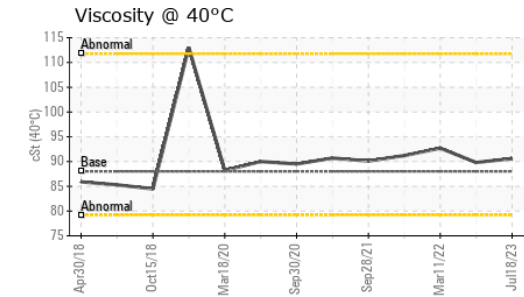
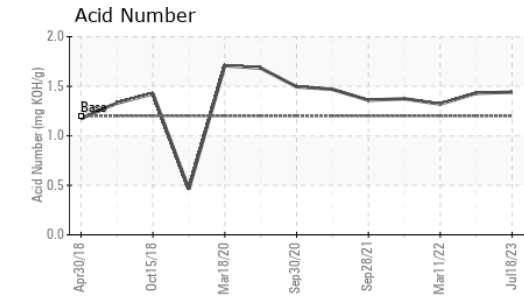
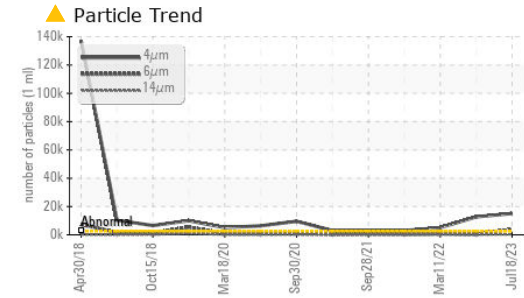
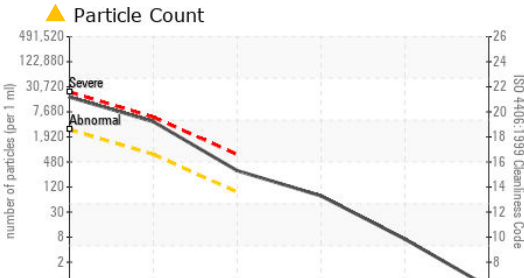
CONTAMINANTS

| method | limit/base | current | history1 | history2 | |
|-----------|------------|-----------------|--------------|----------|----|
| Silicon | ppm | ASTM D5185m >15 | 5 | 12 | 5 |
| Sodium | ppm | ASTM D5185m | <1 | 0 | <1 |
| Potassium | ppm | ASTM D5185m >20 | <1 | 1 | 0 |

INFRA-RED

| method | limit/base | current | history1 | history2 | |
|-----------|------------|-------------|-------------|----------|------|
| Soot % | % | *ASTM D7844 | 0 | 0.1 | 0 |
| Nitration | Abs/cm | *ASTM D7624 | 3.4 | 3.9 | 3.6 |
| Sulfation | Abs/.1mm | *ASTM D7415 | 12.2 | 13.4 | 13.1 |

OIL ANALYSIS REPORT



| FLUID CLEANLINESS | method | limit/base | current | history1 | history2 |
|-------------------|--------------|------------|-------------------|------------|------------|
| Particles >4µm | ASTM D7647 | >2500 | ▲ 15093 | ▲ 12672 | ▲ 5061 |
| Particles >6µm | ASTM D7647 | >640 | ▲ 3896 | 288 | ▲ 848 |
| Particles >14µm | ASTM D7647 | >80 | ▲ 261 | 22 | 36 |
| Particles >21µm | ASTM D7647 | >20 | ▲ 65 | 8 | 8 |
| Particles >38µm | ASTM D7647 | >4 | ▲ 6 | 1 | 0 |
| Particles >71µm | ASTM D7647 | >3 | ▲ 0 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >18/16/13 | ▲ 21/19/15 | ▲ 21/15/12 | ▲ 20/17/12 |

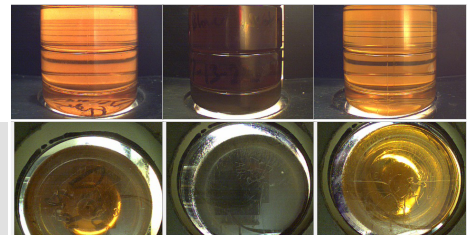
| FLUID DEGRADATION | method | limit/base | current | history1 | history2 |
|-------------------|----------------------|------------|-------------|----------|----------|
| Oxidation | Abs./1mm *ASTM D7414 | | 5.9 | 6.0 | 6.0 |
| Acid Number (AN) | mg KOH/g ASTM D8045 | 1.2 | 1.44 | 1.43 | 1.32 |

| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|----------------|------------|--------------|----------|----------|
| White Metal | scalar *Visual | NONE | NONE | NONE | 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 | NONE | 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 | | NEG | NEG | NEG |
| Free Water | scalar *Visual | | NEG | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|---------------|------------|-------------|----------|----------|
| Visc @ 40°C | cSt ASTM D445 | 88 | 90.6 | 89.8 | 92.7 |

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

Color



Bottom



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PLS0000625 **Received** : 20 Jul 2023
Lab Number : **05903694** **Diagnosed** : 23 Aug 2023
Unique Number : 10565050 **Diagnostician** : Doug Bogart
Test Package : IND 2 (Additional Tests: FT-IR, PQ, PrtCount)

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)

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