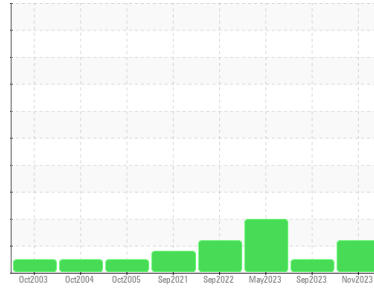


PROBLEM SUMMARY

Sample Rating Trend



ISO



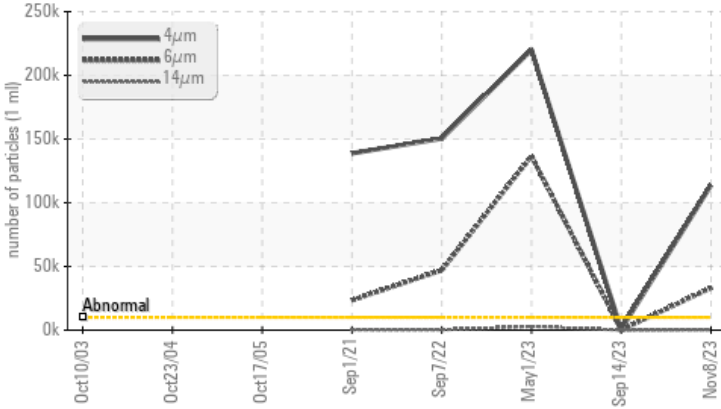
Machine Id
SPIRAL #1

Component
Gearbox

Fluid
MOBIL SHC 634 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

| Sample Status | | ABNORMAL | NORMAL | ABNORMAL |
|-----------------|------------------------|------------|----------|------------|
| Particles >4µm | ASTM D7647 >10000 | ▲ 113713 | 649 | ▲ 220012 |
| Particles >6µm | ASTM D7647 >2500 | ▲ 33072 | 146 | ▲ 136536 |
| Oil Cleanliness | ISO 4406 (c) >20/18/16 | ▲ 24/22/15 | 17/14/10 | ▲ 25/24/19 |

Customer Id: KRANEW
Sample No.: PCA0103608
Lab Number: 06005533
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldrige +1
don.b505@comcast.net

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

RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---------------|--------|------|---------|-----------------------------------------------------------------------|
| Change Filter | --- | --- | ? | We recommend you service the filters on this component if applicable. |

HISTORICAL DIAGNOSIS

14 Sep 2023 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



01 May 2023 Diag: Don Baldrige

ISO



We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



07 Sep 2022 Diag: Don Baldrige

ISO



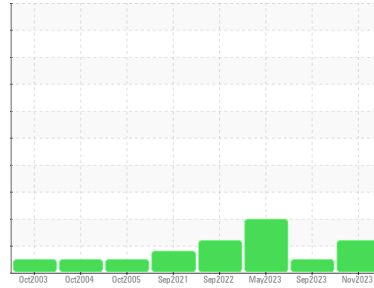
We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

view report





Machine Id
SPIRAL #1
 Component
Gearbox
 Fluid
MOBIL SHC 634 (--- GAL)



DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|--------------------|-------------|-------------|------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | | PCA0103608 | PCA0099610 | PCA0092041 |
| Sample Date | Client Info | | | 08 Nov 2023 | 14 Sep 2023 | 01 May 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 | ABNORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m | >200 | <1 | 1 | 1 |
| Chromium | ppm | ASTM D5185m | >15 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >15 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 0 | <1 | 6 |
| Lead | ppm | ASTM D5185m | >100 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >200 | 8 | 0 | 14 |
| Tin | ppm | ASTM D5185m | >25 | 1 | <1 | 0 |
| 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 | | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | | 0 | <1 | 6 |
| Calcium | ppm | ASTM D5185m | | 0 | 6 | 32 |
| Phosphorus | ppm | ASTM D5185m | | 437 | 653 | 456 |
| Zinc | ppm | ASTM D5185m | | 0 | 0 | 3 |
| Sulfur | ppm | ASTM D5185m | | 0 | 236 | 0 |

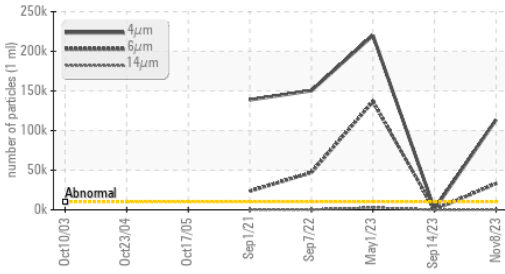
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|-----------|----------|----------|
| Silicon | ppm | ASTM D5185m | >50 | 20 | 32 | 23 |
| Sodium | ppm | ASTM D5185m | | 0 | 1 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | 1 | <1 | 0 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|-------------------|--|--------------|------------|-------------------|----------|------------|
| Particles >4µm | | ASTM D7647 | >10000 | ▲ 113713 | 649 | ▲ 220012 |
| Particles >6µm | | ASTM D7647 | >2500 | ▲ 33072 | 146 | ▲ 136536 |
| Particles >14µm | | ASTM D7647 | >640 | 292 | 8 | ▲ 2804 |
| Particles >21µm | | ASTM D7647 | >160 | 45 | 3 | ▲ 125 |
| Particles >38µm | | ASTM D7647 | >40 | 1 | 0 | 3 |
| Particles >71µm | | ASTM D7647 | >10 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >20/18/16 | ▲ 24/22/15 | 17/14/10 | ▲ 25/24/19 |

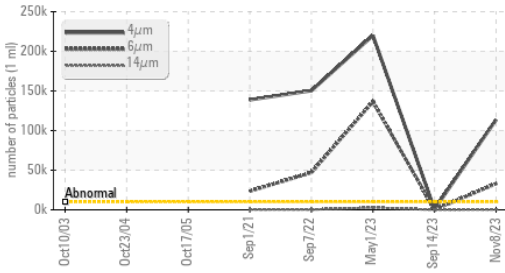
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.43 | 0.48 | 0.61 |

OIL ANALYSIS REPORT

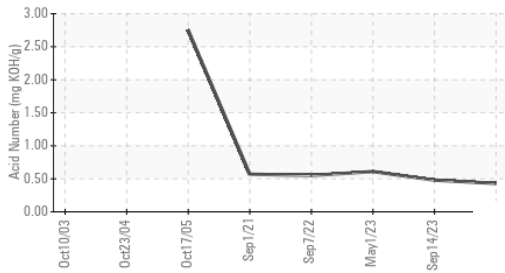
▲ Particle Trend



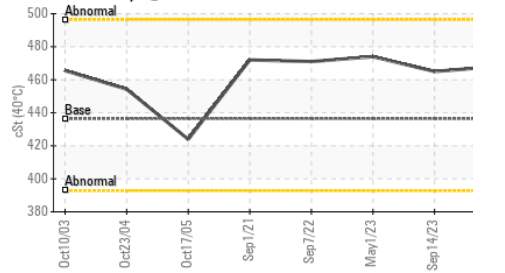
▲ Particle Trend



Acid Number



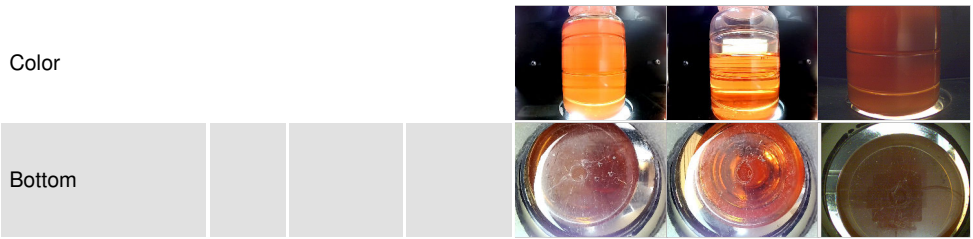
Viscosity @ 40°C



| 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 | NONE | LIGHT |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

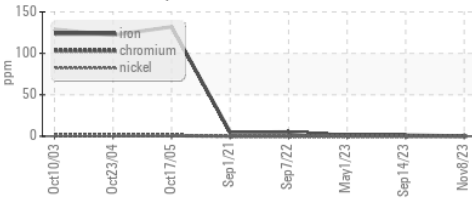
| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 436.4 | 468 | 465 |

SAMPLE IMAGES

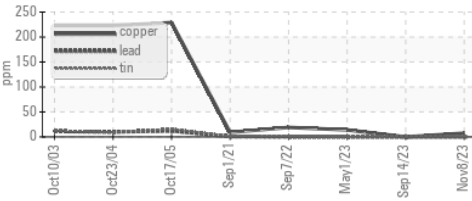


GRAPHS

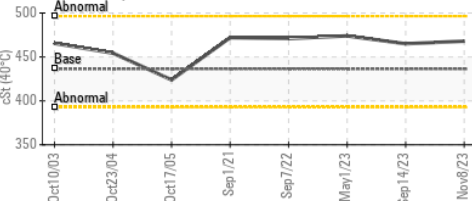
Ferrous Alloys



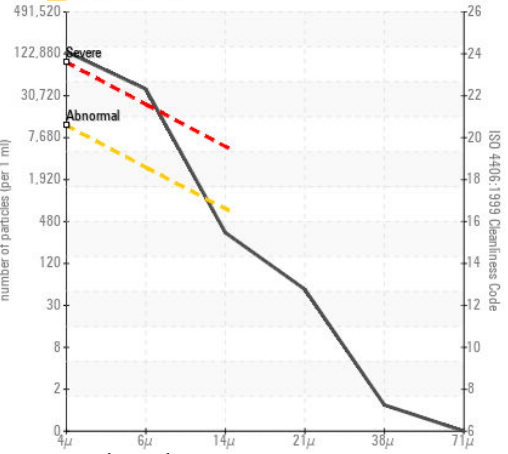
Non-ferrous Metals



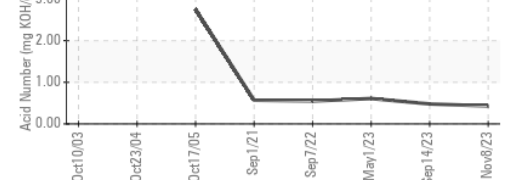
Viscosity @ 40°C



▲ Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0103608 **Received** : 13 Nov 2023
Lab Number : 06005533 **Diagnosed** : 15 Nov 2023
Unique Number : 10739295 **Diagnostician** : Don Baldrige
Test Package : IND 2 (Additional Tests: PrtCount)

KraftHeinz - New Ulm - Plant 8302
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 NEW ULM, MN
 US 56073
 Contact: RYAN SCHMID
 ryan.schmid@kraftheinz.com
 T: (507)568-0338
 F: (507)354-7927

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)