

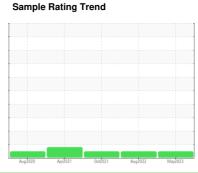
# **OIL ANALYSIS REPORT**

# SCOF [98227405] 6310/6320 SOUTH

Component

Gearbox

GEAR OIL ISO 460 (--- GAL)





### DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

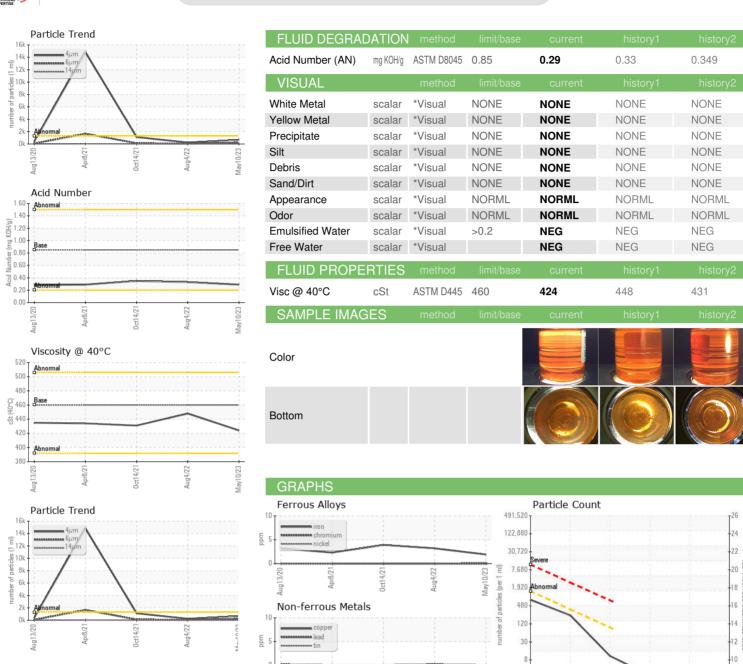
### **Fluid Condition**

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

| SAMPLE INFOR  | MATION   | method   | limit/base  | current   | history1  | history2   |
|---|--|--|---|---|---|--|
| Sample Number   |  | Client Info  |   | PCA0088321  | PCA0076142  | PCA0056538   |
| Sample Date   |  | Client Info  |   | 10 May 2023   | 04 Aug 2022   | 14 Oct 2021  |
| Machine Age   | hrs  | Client Info  |   | 0   | 0   | 0  |
| Oil Age   | hrs  | Client Info  |   | 0   | 0   | 0  |
| Oil Changed   |  | Client Info  |   | Filtered  | Filtered  | Filtered   |
| Sample Status   |  |  |   | NORMAL  | NORMAL  | NORMAL   |
| CONTAMINAT  | ION  | method   | limit/base  | current   | history1  | history2   |
| Water   |  | WC Method  | >0.2  | NEG   | NEG   | NEG  |
| WEAR METAL  | .S   | method   | limit/base  | current   | history1  | history2   |
| Iron  | ppm  | ASTM D5185m  | >200  | 2   | 3   | 4  |
| Chromium  | ppm  | ASTM D5185m  | >15   | 0   | 0   | 0  |
| Nickel  | ppm  | ASTM D5185m  | >15   | <1  | 0   | <1   |
| Titanium  | ppm  | ASTM D5185m  |   | 0   | 0   | 0  |
| Silver  | ppm  | ASTM D5185m  |   | 0   | 0   | <1   |
| Aluminum  | ppm  | ASTM D5185m  | >25   | 2   | 3   | 5  |
| Lead  | ppm  | ASTM D5185m  | >100  | 0   | <1  | 0  |
| Copper  | ppm  | ASTM D5185m  | >200  | 0   | 0   | 0  |
| Tin   | ppm  | ASTM D5185m  | >25   | 0   | <1  | 0  |
| Antimony  | ppm  | ASTM D5185m  | >5  |   |   | 0  |
| Vanadium  | ppm  | ASTM D5185m  |   | 0   | 0   | 0  |
| Cadmium   | ppm  | ASTM D5185m  |   | 0   | <1  | 0  |
|   |  |  |   |   |   |  |
| ADDITIVES   |  | method   | limit/base  | current   | history1  | history2   |
| ADDITIVES<br>Boron  | ppm  | method ASTM D5185m   | limit/base 50   | current<br>0  | history1<br><1  | history2<br><1   |
|   | ppm  |  |   |   | •   | · ·  |
| Boron   |  | ASTM D5185m  | 50  | 0   | <1  | <1   |
| Boron<br>Barium   | ppm  | ASTM D5185m<br>ASTM D5185m   | 50<br>15  | 0<br>0  | <1<br>0   | <1   |
| Boron<br>Barium<br>Molybdenum   | ppm<br>ppm   | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | 50<br>15  | 0<br>0<br>0   | <1<br>0<br><1   | <1<br>0<br>0   |
| Boron<br>Barium<br>Molybdenum<br>Manganese  | ppm<br>ppm   | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | 50<br>15<br>15  | 0<br>0<br>0<br><1   | <1<br>0<br><1<br><1   | <1<br>0<br>0<br>0<br><1  |
| Boron Barium Molybdenum Manganese Magnesium   | ppm<br>ppm<br>ppm                                    | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | 50<br>15<br>15<br>50  | 0<br>0<br>0<br><1<br><1   | <1<br>0<br><1<br><1<br><1   | <1<br>0<br>0<br><1<br>0  |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc   | ppm<br>ppm<br>ppm<br>ppm                             | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | 50<br>15<br>15<br>50  | 0<br>0<br>0<br><1<br><1<br>0<br>341   | <1<br>0<br><1<br><1<br><1<br><1<br>2<br>251<br>6  | <1<br>0<br>0<br><1<br>0<br>0<br>346                                    |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm        | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | 50<br>15<br>15<br>50<br>50<br>350   | 0<br>0<br>0<br><1<br><1<br>0<br>341   | <1<br>0<br><1<br><1<br><1<br><1<br>2<br>251   | <1<br>0<br>0<br><1<br>0<br>0<br>346                                    |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm        | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | 50<br>15<br>15<br>50<br>50<br>350<br>100  | 0<br>0<br>0<br><1<br><1<br>0<br>341   | <1<br>0<br><1<br><1<br><1<br><1<br>2<br>251<br>6  | <1<br>0<br>0<br><1<br>0<br>0<br>346                                    |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm        | ASTM D5185m  | 50<br>15<br>15<br>50<br>50<br>350<br>100<br>12500<br>limit/base                     | 0<br>0<br>0<br><1<br><1<br>0<br>341<br>0<br>473<br>current  | <1<br>0<br><1<br><1<br><1<br><1<br>2<br>251<br>6<br>375<br>history1                                   | <1<br>0<br>0<br><1<br>0<br>0<br>346<br>0<br>346<br>history2            |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m  | 50<br>15<br>15<br>50<br>50<br>350<br>100<br>12500<br>limit/base<br>>50              | 0<br>0<br>0<br><1<br><1<br>0<br>341<br>0<br>473<br>current<br><1  | <1<br>0<br><1<br><1<br><1<br>2<br>251<br>6<br>375<br>history1<br>1                                    | <1<br>0<br>0<br><1<br>0<br>0<br>346<br>0<br>346<br>history2<br><1<br>2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium  | ppm              | ASTM D5185m  | 50 15 15 50 50 350 100 12500 limit/base >50 >20                                     | 0<br>0<br>0<br><1<br><1<br>0<br>341<br>0<br>473<br>current  | <1<br>0<br><1<br><1<br><1<br><1<br>2<br>251<br>6<br>375<br>history1                                   | <1<br>0<br>0<br><1<br>0<br>0<br>346<br>0<br>346<br>history2            |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEAN  | ppm              | ASTM D5185m  | 50 15 15 50 50 350 100 12500 limit/base >50 >20                                     | 0<br>0<br>0<br><1<br><1<br>0<br>341<br>0<br>473<br>current<br><1<br><1<br>0   | <1<br>0<br><1<br><1<br><1<br>2<br>251<br>6<br>375<br>history1<br>1<br>0<br>1                          | <1 0 0 0 <1 0 0 346 0 346 history2 <1 2 0 history2                     |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEAN Particles >4µm   | ppm              | ASTM D5185m  MEthod ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  | 50 15 15 50 50 350 100 12500 limit/base >50   | 0<br>0<br>0<br>-1<br>-1<br>0<br>341<br>0<br>473<br>current<br>-1<br>0<br>current                                    | <1<br>0<br><1<br><1<br><1<br>2<br>251<br>6<br>375<br>history1<br>1<br>0<br>1<br>history1<br>238       | <1 0 0 0 <1 0 0 346 0 346 history2 <1 2 0 history2 1119                |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEAN Particles >4µm Particles >6µm                                  | ppm              | ASTM D5185m  METHOD  ASTM D5185m                               | 50 15 15 50 50 350 100 12500 limit/base >50 >20 limit/base >1300 >320               | 0<br>0<br>0<br>0<br><1<br><1<br>0<br>341<br>0<br>473<br>current<br><1<br><1<br>0<br>current                         | <1<br>0<br><1<br><1<br><1<br>2<br>251<br>6<br>375<br>history1<br>1<br>0<br>1<br>history1<br>238<br>63 | <1 0 0 0 <1 0 0 346 0 346 history2 <1 2 0 history2 1119 112            |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEAN Particles >4µm Particles >6µm Particles >14µm                  | ppm              | ASTM D5185m  METHOD  ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647          | 50 15 15 50 50 350 100 12500 limit/base >50 >20 limit/base >1300 >320 >80           | 0<br>0<br>0<br>-1<br>-1<br>0<br>341<br>0<br>473<br>current<br>-1<br>-1<br>0<br>current<br>669<br>203<br>9           | <1 0 <1 <1 <1 <1 <2 251 6 375 history1 1 0 1 history1 238 63 12                                       | <1 0 0 0 <1 0 0 346 0 346 history2 <1 2 0 history2 1119 112 8          |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEAN Particles >4µm Particles >14µm Particles >21µm                 | ppm              | ASTM D5185m  METHOD  ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647          | 50 15 15 50 50 350 100 12500 limit/base >50 >20 limit/base >1300 >320 >80 >20       | 0<br>0<br>0<br>   | <1 0 <1 <1 <1 <1 <1 <2 251 6 375 history1 1 0 1 history1 238 63 12 5                                  | <1 0 0 0 <1 0 0 346 0 346 history2 <1 2 0 history2 1119 112 8 2        |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEAN Particles >4µm Particles >14µm Particles >21µm Particles >38µm | ppm              | ASTM D5185m  Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 | 50 15 15 15 50 50 350 100 12500 limit/base >50 >20 limit/base >1300 >320 >80 >20 >4 | 0<br>0<br>0<br>0<br><1<br><1<br>0<br>341<br>0<br>473<br>current<br><1<br><1<br>0<br>current<br>669<br>203<br>9<br>2 | <1 0 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1   | <1 0 0 0 <1 0 0 346 0 346 history2 <1 2 0 history2 1119 112 8 2 0      |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEAN Particles >4µm Particles >14µm Particles >21µm                 | ppm              | ASTM D5185m  METHOD  ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647          | 50 15 15 15 50 50 350 100 12500 limit/base >50 >20 limit/base >1300 >320 >80 >20 >4 | 0<br>0<br>0<br>   | <1 0 <1 <1 <1 <1 <1 <2 251 6 375 history1 1 0 1 history1 238 63 12 5                                  | <1 0 0 0 <1 0 0 346 0 346 history2 <1 2 0 history2 1119 112 8 2        |



## OIL ANALYSIS REPORT







Laboratory Sample No. Lab Number

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

: PCA0088321 : 05856664

Ç 500 € 450

₹ 400. 350

Unique Number: 10486019

Received

Viscosity @ 40°C

**Tested** Diagnosed

0ct14/21

Oct14/21

: 25 May 2023 : 26 May 2023 : 26 May 2023 - Don Baldridge

Aug4/22.

KraftHeinz - Springfield - Plant 8311 PCA

2035 E BENNETT SPRINGFIELD, MO US 65804

Contact: Service Manager

Test Package : IND 2 ( Additional Tests: 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)

Acid Number

KOH/g)

1.00

T: F: