

# **PROBLEM SUMMARY**

Sample Rating Trend

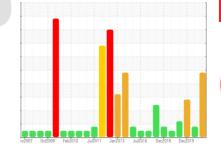
**WATER** 



# LFC-1030-CM-01-CM023 [1940187] P201PP05-1030 - SURGE HOPPER#2 DRIVE

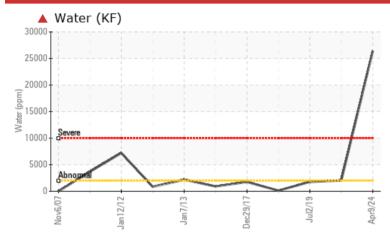
Gearbox

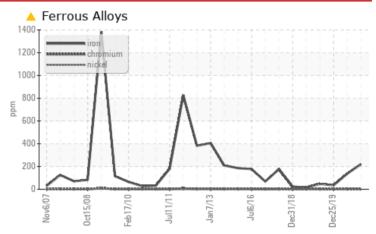
LE 4220 (--- GAL)





## COMPONENT CONDITION SUMMARY





### **RECOMMENDATION**

We advise that you check for the source of water entry. We advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this oil or we advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition.

| PROBLEMATIC TEST RESULTS |        |             |       |              |           |                |  |
|--------------------------|--------|-------------|-------|--------------|-----------|----------------|--|
| Sample Status            |        |             |       | SEVERE       | ATTENTION | ABNORMAL       |  |
| Iron                     | ppm    | ASTM D5185m | >200  | <b>220</b>   | 138       | 35             |  |
| Water                    | %      | ASTM D6304  | >0.2  | <b>2.64</b>  |           | <b>△</b> 0.205 |  |
| ppm Water                | ppm    | ASTM D6304  | >2000 | <b>26400</b> |           | <u>^</u> 2050  |  |
| <b>Emulsified Water</b>  | scalar | *Visual     | >0.2  | <b>0.2%</b>  | NEG       | 0.2%           |  |

Customer Id: LEPALL Sample No.: WC0913992 Lab Number: 06147483 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Angela Borella +1 800-237-1369 angela.borella@wearcheckusa.com

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

| RECOMMENDED ACTIONS |        |      |         |   |  |  |
|---------------------|--------|------|---------|---|--|--|
| Action              | Status | Date | Done By | Description   |  |  |
| Water Drain-off     |        |      | ?       | We advise that you follow the water drain-off procedure for this component.   |  |  |
| Resample            |        |      | ?       | We recommend an early resample to monitor this condition.   |  |  |
| Check Water Access  |        |      | ?       | We advise that you check for the source of water entry.   |  |  |
| Filter Fluid        |        |      | ?       | We advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this oil. |  |  |

## HISTORICAL DIAGNOSIS

### 26 Mar 2023 Diag: Doug Bogart

WEAR

No corrective action is recommended at this time. Resample at the next service interval to monitor. An increase in the iron level is noted. All component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



#### WATER



25 Dec 2019 Diag: Don Baldridge
We suspect abnormal contamination may be due to sampling method. No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Appearance is hazy. Moderate concentration of visible dirt/debris present in the oil. There is a trace of moisture present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



## CONTAMINANT



02 Jul 2019 Diag: Don Baldridge

We suspect abnormal contamination may be due to sampling method. No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Appearance is milky. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



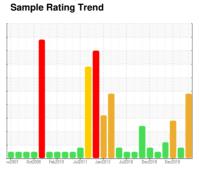


# **OIL ANALYSIS REPORT**

# LFC-1030-CM-01-CM023 [1940187] P201PP05-1030 - SURGE HOPPER#2 DRIVE

Gearbox

LE 4220 (--- GAL)





## DIAGNOSIS

### Recommendation

We advise that you check for the source of water entry. We advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this oil or we advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition.

### Wear

The iron level is abnormal.

### Contamination

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

### Fluid Condition

The AN level is acceptable for this fluid.

| SAMPLE INFORM                                     | MATION                          | method  | limit/base     | current                               | history1                               | history2                                |
|---|---------------------------------|---|----------------|---------------------------------------|--|---|
| Sample Number                                     |                                 | Client Info   |                | WC0913992                             | WC0771846                              | WC0402625                               |
| Sample Date                                       |                                 | Client Info   |                | 09 Apr 2024                           | 26 Mar 2023                            | 25 Dec 2019                             |
| Machine Age                                       | hrs                             | Client Info   |                | 0                                     | 0                                      | 0                                       |
| Oil Age   | hrs                             | Client Info   |                | 0                                     | 0                                      | 0                                       |
| Oil Changed                                       |                                 | Client Info   |                | N/A                                   | N/A                                    | Not Changd                              |
| Sample Status                                     |                                 |   |                | SEVERE                                | ATTENTION                              | ABNORMAL                                |
| WEAR METALS                                       |                                 | method  | limit/base     | current                               | history1                               | history2                                |
| Iron  | ppm                             | ASTM D5185m   | >200           | <u>^</u> 220                          | 138                                    | 35                                      |
| Chromium  | ppm                             | ASTM D5185m   | >15            | 0                                     | 1                                      | <1                                      |
| Nickel  | ppm                             | ASTM D5185m   | >15            | 0                                     | <1                                     | <1                                      |
| Titanium  | ppm                             | ASTM D5185m   |                | 0                                     | 0                                      | 0                                       |
| Silver  | ppm                             | ASTM D5185m   |                | 0                                     | 0                                      | <1                                      |
| Aluminum  | ppm                             | ASTM D5185m   | >25            | 0                                     | <1                                     | 0                                       |
| Lead  | ppm                             | ASTM D5185m   | >100           | 0                                     | 0                                      | 0                                       |
| Copper  | ppm                             | ASTM D5185m   | >200           | 4                                     | <1                                     | <1                                      |
| Tin   | ppm                             | ASTM D5185m   | >25            | 0                                     | 0                                      | 0                                       |
| Antimony  | ppm                             | ASTM D5185m   | >5             |                                       |  | 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   |                | <1                                    | 2                                      | <1                                      |
| Magnesium   | ppm                             | ASTM D5185m   |                | 0                                     | 3                                      | <1                                      |
| Calcium   | ppm                             | ASTM D5185m   |                | 1                                     | 4                                      | 13                                      |
| Phosphorus  |                                 |   |                |                                       |  |   |
| i nospriorus                                      | ppm                             | ASTM D5185m   |                | 237                                   | 368                                    | 409                                     |
| Zinc  | ppm                             | ASTM D5185m<br>ASTM D5185m  |                | 237<br>9                              | 368<br>21                              | 409<br>280                              |
|   |                                 |   |                |                                       |  |   |
| Zinc  | ppm                             | ASTM D5185m   | limit/base     | 9                                     | 21                                     | 280                                     |
| Zinc<br>Sulfur                                    | ppm                             | ASTM D5185m<br>ASTM D5185m  | limit/base >50 | 9<br>2142                             | 21<br>1819                             | 280<br>3094                             |
| Zinc<br>Sulfur<br>CONTAMINANTS                    | ppm<br>ppm                      | ASTM D5185m<br>ASTM D5185m<br>method  |                | 9<br>2142<br>current                  | 21<br>1819<br>history1                 | 280<br>3094<br>history2                 |
| Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon         | ppm<br>ppm                      | ASTM D5185m<br>ASTM D5185m<br>method<br>ASTM D5185m                               |                | 9<br>2142<br>current                  | 21<br>1819<br>history1                 | 280<br>3094<br>history2                 |
| Zinc Sulfur CONTAMINANTS Silicon Sodium           | ppm<br>ppm<br>ppm               | ASTM D5185m<br>ASTM D5185m<br>method<br>ASTM D5185m<br>ASTM D5185m                | >50            | 9<br>2142<br>current<br>11<br>2       | 21<br>1819<br>history1<br>3            | 280<br>3094<br>history2<br>2            |
| Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium | ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m<br>ASTM D5185m<br>method<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m | >50<br>>20     | 9<br>2142<br>current<br>11<br>2<br><1 | 21<br>1819<br>history1<br>3<br>2<br><1 | 280<br>3094<br>history2<br>2<br>0<br><1 |

0.54

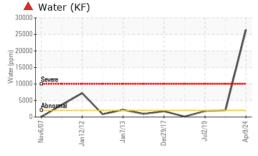
Acid Number (AN) mg KOH/g ASTM D8045

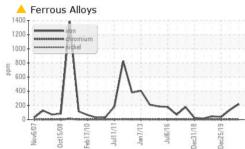
0.41

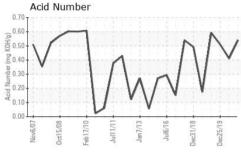
0.510

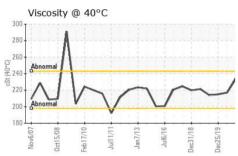


# **OIL ANALYSIS REPORT**









| 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       | MODER       | MODER    | NONE     |
| Debris                  | scalar | *Visual | NONE       | NONE        | LIGHT    | ▲ MODER  |
| Sand/Dirt               | scalar | *Visual | NONE       | NONE        | NONE     | NONE     |
| Appearance              | scalar | *Visual | NORML      | HAZY        | HAZY     | HAZY     |
| Odor                    | scalar | *Visual | NORML      | NORML       | NORML    | NORML    |
| <b>Emulsified Water</b> | scalar | *Visual | >0.2       | <b>0.2%</b> | NEG      | 0.2%     |
| Free Water              | scalar | *Visual |            | NEG         | NEG      | NEG      |
| FLUID PROPERT           | TIES   | method  | limit/base | current     | history1 | history2 |

| FLUID PROPERT | IES | method    | limit/base | current | history1 | history2 |
|---------------|-----|-----------|------------|---------|----------|----------|
| Visc @ 40°C   | cSt | ASTM D445 |            | 234     | 217      | 215      |

| AMPLE IMAGES | method | limit/ba |
|--------------|--------|----------|
|              |        |          |



S

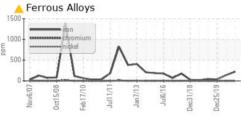
**Bottom** 

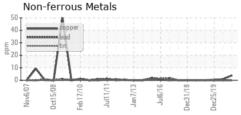


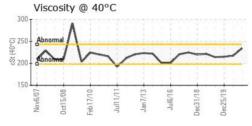


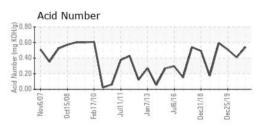


### **GRAPHS**













Certificate 12367

Laboratory Sample No.

: WC0913992 Lab Number : 06147483 Unique Number : 10977561

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

: 12 Apr 2024 : 16 Apr 2024 Diagnosed : 16 Apr 2024 - Angela Borella Test Package : IND 2 ( Additional Tests: KF )

**LEPRINO FOODS - ALLENDALE** 

4700 RICH STREET ALLENDALE, MI US 49401

Contact: BILL FERRIER BFERRIER@LEPRINOFOODS.COM

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) Report Id: LEPALL [WUSCAR] 06147483 (Generated: 04/16/2024 11:49:09) Rev: 1

T:

F: