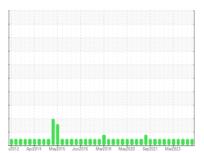


# **OIL ANALYSIS REPORT**

Sample Rating Trend



NORMAL



SLA-3 (S/N 25150279)

Refrigeration Compressor

USPI 1009-68 SC (--- GAL)

### DIAGNOSIS

## Recommendation

Resample at the next service interval to monitor.

#### Wear

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.

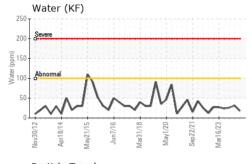
## **Fluid Condition**

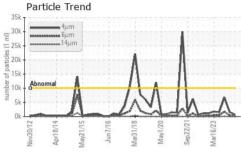
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

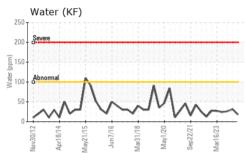
|                  |          | v2012 Apr20              | 14 May2015 Jun2016 | Mar2018 May2020 Sep2021 N | far2023     |               |
|------------------|----------|--------------------------|--------------------|---------------------------|-------------|---------------|
| SAMPLE INFORM    | MATION   | method                   | limit/base         | current                   | history1    | history2      |
| Sample Number    |          | Client Info              |                    | USP0013280                | USP242179   | USP0002918    |
| Sample Date      |          | Client Info              |                    | 16 Jun 2024               | 13 Feb 2024 | 23 Oct 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    |          |                          |                    | NORMAL                    | NORMAL      | NORMAL        |
| WEAR METALS      |          | method                   | limit/base         | current                   | history1    | history2      |
| Iron             | ppm      | ASTM D5185m              | >8                 | 0                         | 0           | <1            |
| Chromium         | ppm      | ASTM D5185m              | >2                 | 0                         | 0           | <1            |
| Nickel           | ppm      | ASTM D5185m              |                    | 0                         | 0           | 0             |
| Titanium         | ppm      | ASTM D5185m              |                    | <1                        | 0           | <1            |
| Silver           | ppm      | ASTM D5185m              | >2                 | 0                         | 0           | 0             |
| Aluminum         | ppm      | ASTM D5185m              | >3                 | 0                         | 0           | 0             |
| Lead             | ppm      | ASTM D5185m              | >2                 | 0                         | 0           | 0             |
| Copper           | ppm      | ASTM D5185m              | >8                 | <1                        | 0           | <1            |
| Tin              | ppm      | ASTM D5185m              | >4                 | 0                         | <1          | <1            |
| Vanadium         | ppm      | ASTM D5185m              |                    | <1                        | <1          | <1            |
| Cadmium          | ppm      | ASTM D5185m              |                    | 0                         | 0           | <1            |
| 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                        | <1          | <1            |
| Magnesium        | ppm      | ASTM D5185m              |                    | 0                         | 0           | 0             |
| Calcium          | ppm      | ASTM D5185m              |                    | 0                         | 0           | 0             |
| Phosphorus       | ppm      | ASTM D5185m              |                    | <1                        | 0           | 0             |
| Zinc             | ppm      | ASTM D5185m              |                    | <1                        | 0           | <1            |
| Sulfur           | ppm      | ASTM D5185m              | 50                 | 0                         | 0           | 6             |
| CONTAMINANTS     |          | method                   | limit/base         | current                   | history1    | history2      |
| Silicon          |          | ASTM D5185m              |                    | <1                        | <1          | <1            |
| Sodium           | ppm      | ASTM D5185m              | >10                | 1                         | 0           | 1             |
| Potassium        | ppm      | ASTM D5185m              | - 20               |                           | 0           | <1            |
|                  | ppm      |                          |                    | 0<br>0.002                |             |               |
| Water ppm Water  | %<br>ppm | ASTM D6304<br>ASTM D6304 |                    | 18                        | 0.003<br>31 | 0.003<br>26.4 |
| FLUID CLEANLIN   |          | method                   | limit/base         | current                   | history1    | history2      |
|                  | 200      |                          |                    |                           |             |               |
| Particles >4µm   |          | ASTM D7647               | >10000             | 655                       | 1585        | 6735          |
| Particles >6µm   |          | ASTM D7647               | >2500              | 142                       | 387         | 1726          |
| Particles >14µm  |          | ASTM D7647               | >320               | 2                         | 25          | 100           |
| Particles >21µm  |          | ASTM D7647               | >80                | 0                         | 5           | 22            |
| Particles >38µm  |          | ASTM D7647               | >20                | 0                         | 0           | 1             |
| Particles >71µm  |          | ASTM D7647               | >4                 | 17/14/0                   | 10/16/12    | 0             |
| Oil Cleanliness  |          | ISO 4406 (c)             | >20/18/15          | 17/14/9                   | 18/16/12    | 20/18/14      |
| FLUID DEGRADA    |          | method                   | limit/base         | current                   | history1    | history2      |
| Acid Number (AN) | mg KOH/g | ASTM D974                | 0.005              | 0.014                     | 0.014       | 0.014         |

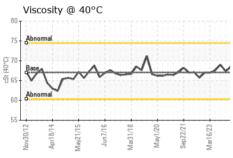


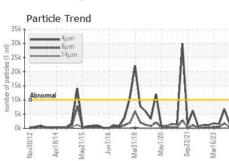
## **OIL ANALYSIS REPORT**











| VISUAL                  |        | method  |       |       |       | 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  | LIGHT    |
| Sand/Dirt               | scalar | *Visual | NONE  | NONE  | NONE  | NONE     |
| Appearance              | scalar | *Visual | NORML | NORML | NORML | NORML    |
| Odor                    | scalar | *Visual | NORML | NORML | NORML | NORML    |
| <b>Emulsified Water</b> | scalar | *Visual | >0.01 | NEG   | NEG   | NEG      |
| Free Water              | scalar | *Visual |       | NEG   | NEG   | NEG      |
|                         |        |         |       |       |       |          |

| I LOID I HOI L | LITTILO | memou     |    |      | HISTORY | Tilotol y Z |
|----------------|---------|-----------|----|------|---------|-------------|
| Visc @ 40°C    | cSt     | ASTM D445 | 67 | 68.5 | 67.3    | 69.0        |

| SAIM | PLEI | IMAG | ES |  |
|------|------|------|----|--|
|      |      |      |    |  |
|      |      |      |    |  |

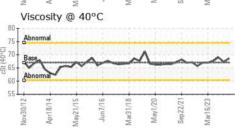


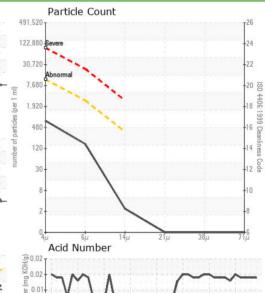
**GRAPHS** Ferrous Alloys

Color

**Bottom** 

Non-ferrous Metals Viscosity @ 40°C





0.01 00.00 PG





Certificate 12367

Laboratory Sample No.

Lab Number : 06211710

Test Package : IND 2

: USP0013280 Unique Number : 11084574

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 17 Jun 2024 **Tested** : 18 Jun 2024

Diagnosed : 20 Jun 2024 - Doug Bogart

US Contact: SERVICE MANAGER

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)

Contact/Location: SERVICE MANAGER - CARDOD

T:

F:

**CARGILL MEAT** 

DODGE CITY, KS