

## **OIL ANALYSIS REPORT**

#### **Sample Rating Trend**



# FRICK TYSHOUP RC-5 (S/N XJF120L193FF)

Component

Refrigeration Compressor

**USPI ALT-68 SC (15 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 component. The amount and size of particulates present in the system is acceptable.

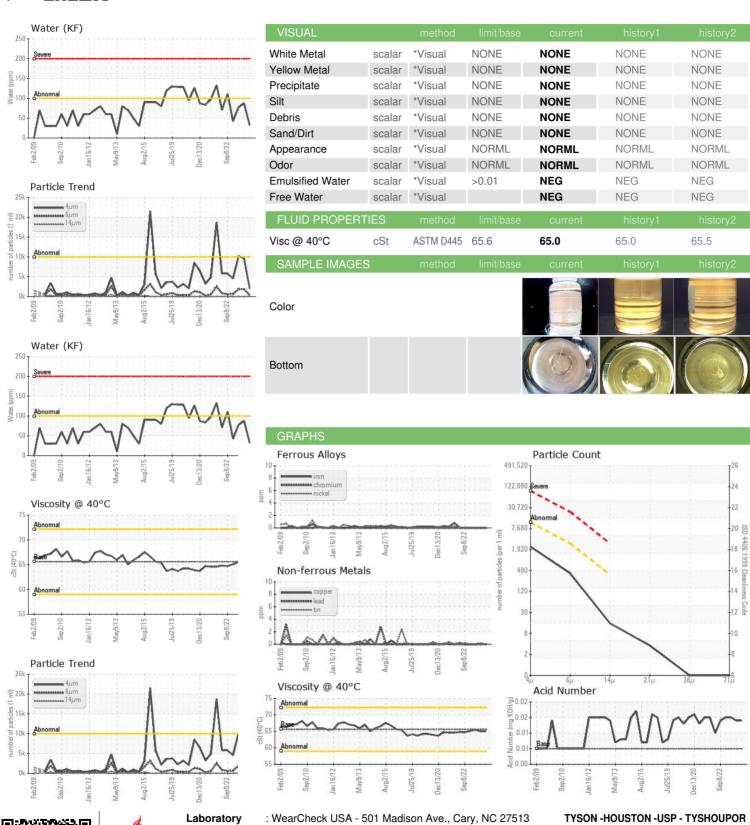
#### **Fluid Condition**

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

| 32009 Sap2010 Jan2012 May2013 Aug2015 Jui2019 Dec2020 Sap2022 |          |              |            |             |             |                   |
|---|----------|--------------|------------|-------------|-------------|-------------------|
| SAMPLE INFORM   | MATION   | method       | limit/base | current     | history1    | history2          |
| Sample Number   |          | Client Info  |            | USP0003100  | USP249898   | USP241984         |
| Sample Date   |          | Client Info  |            | 02 Nov 2023 | 12 Jul 2023 | 05 Apr 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      | ATTENTION         |
| WEAR METALS   |          | method       | limit/base | current     | history1    | history2          |
| Iron  | ppm      | ASTM D5185m  | >8         | 0           | 0           | 0                 |
| Chromium  | ppm      | ASTM D5185m  | >2         | 0           | 0           | 0                 |
| Nickel  | ppm      | ASTM D5185m  |            | 0           | 0           | 0                 |
| Titanium  | ppm      | ASTM D5185m  |            | 0           | <1          | 0                 |
| Silver  | ppm      | ASTM D5185m  | >2         | 0           | 0           | 0                 |
| Aluminum  | ppm      | ASTM D5185m  | >3         | 0           | <1          | <1                |
| Lead  | ppm      | ASTM D5185m  | >2         | 0           | <1          | 0                 |
| Copper  | ppm      | ASTM D5185m  | >8         | 0           | 0           | 0                 |
| Tin   | ppm      | ASTM D5185m  | >4         | 0           | 0           | 0                 |
| Vanadium  | ppm      | ASTM D5185m  |            | 0           | <1          | 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           | <1                |
| Magnesium   | ppm      | ASTM D5185m  |            | 0           | 0           | 0                 |
| Calcium   | ppm      | ASTM D5185m  |            | 0           | 0           | 0                 |
| Phosphorus  | ppm      | ASTM D5185m  |            | 0           | 0           | 0                 |
| Zinc  | ppm      | ASTM D5185m  |            | 0           | 0           | 0                 |
| Sulfur  | ppm      | ASTM D5185m  | 50         | 0           | 0           | 0                 |
| CONTAMINANTS  |          | method       | limit/base | current     | history1    | history2          |
| Silicon   | ppm      | ASTM D5185m  | >15        | 0           | <1          | <1                |
| Sodium  | ppm      | ASTM D5185m  |            | 0           | <1          | 0                 |
| Potassium   | ppm      | ASTM D5185m  | >20        | 0           | 3           | 0                 |
| Water   | %        | ASTM D6304   | >0.01      | 0.003       | 0.008       | 0.007             |
| ppm Water   | ppm      | ASTM D6304   | >100       | 32.1        | 87.5        | 77.4              |
| FLUID CLEANLIN  | ESS      | method       | limit/base | current     | history1    | history2          |
| Particles >4µm  |          | ASTM D7647   | >10000     | 2025        | 9626        | <u> </u>          |
| Particles >6µm  |          | ASTM D7647   | >2500      | 348         | 1849        | 1872              |
| Particles >14µm   |          | ASTM D7647   | >320       | 13          | 33          | 40                |
| Particles >21µm   |          | ASTM D7647   | >80        | 3           | 4           | 7                 |
| Particles >38µm   |          | ASTM D7647   | >20        | 0           | 0           | 0                 |
| Particles >71µm   |          | ASTM D7647   | >4         | 0           | 0           | 0                 |
| Oil Cleanliness   |          | ISO 4406 (c) | >20/18/15  | 18/16/11    | 20/18/12    | <u>△</u> 21/18/12 |
| FLUID DEGRADA   | TION     | method       | limit/base | current     | history1    | history2          |
| Acid Number (AN)  | mg KOH/g | ASTM D974    | 0.005      | 0.014       | 0.014       | 0.015             |



## **OIL ANALYSIS REPORT**







Certificate L2367

Sample No. Lab Number

**Unique Number** 

: USP0003100 : 05998478 : 10726838 Test Package : IND 2

: 03 Nov 2023 Received

: 06 Nov 2023 Diagnosed Diagnostician : Doug Bogart 300 PORTWELL RD.

HOUSTON, TX US 77029

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)

T: F: