

PROBLEM SUMMARY

Sample Rating Trend

WEAR

WEAR

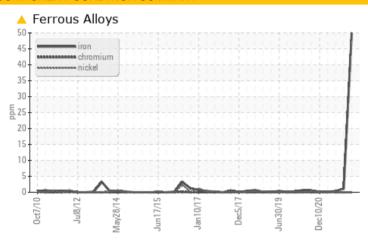
FES TYSSEG 7 FES (S/N R0992)

Refrigeration Compressor

Fluid

USPI ALT-68 SC (--- QTS)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Resample at the next service interval to monitor.

| PROBLEMATIC TEST RESULTS | | | | | | | | | |
|--------------------------|-----|-------------|----|----------|----------|----------|--|--|--|
| Sample Status | | | | ABNORMAL | ABNORMAL | ABNORMAL | | | |
| Iron | ppm | ASTM D5185m | >8 | <u> </u> | 1 | <1 | | | |

Customer Id: TYSSEG01 Sample No.: USP249948 Lab Number: 05902298 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Doug Bogart +1 (800)237-1369 x4016 dougb@wearcheckusa.com

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

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

13 Apr 2022 Diag: Doug Bogart

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



31 Dec 2021 Diag: Doug Bogart

ISO



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 suitable for further service.



20 May 2021 Diag: Doug Bogart

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.





OIL ANALYSIS REPORT

Sample Rating Trend



FES TYSSEG 7 FES (S/N R0992)

Refrigeration Compressor

USPI ALT-68 SC (--- QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

The iron level is abnormal.

Contamination

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

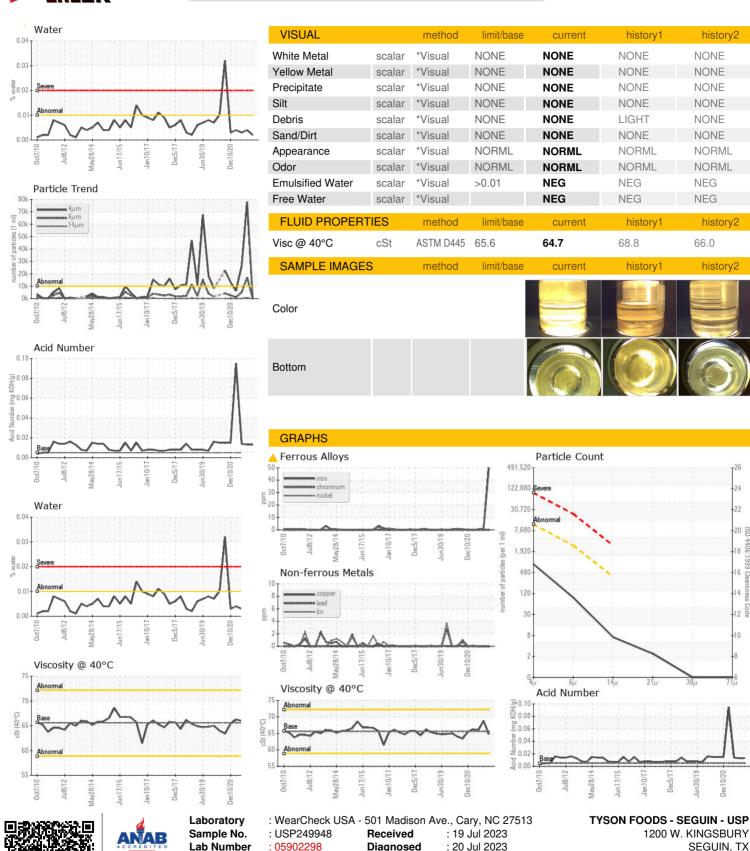
Fluid Condition

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

| 2010 Ju2012 May2014 Jun2015 Jun2017 Dec2017 Jun2019 Dec2020 | | | | | | | | |
|---|--------|--------------|------------|-------------|----------------------------|-----------------|--|--|
| SAMPLE INFORM | MATION | method | limit/base | current | history1 | history2 | | |
| Sample Number | | Client Info | | USP249948 | USP235385 | USP236284 | | |
| Sample Date | | Client Info | | 18 Jul 2023 | 13 Apr 2022 | 31 Dec 2021 | | |
| 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 | ABNORMAL | ABNORMAL | | |
| WEAR METALS | | method | limit/base | current | history1 | history2 | | |
| Iron | ppm | ASTM D5185m | >8 | <u> </u> | 1 | <1 | | |
| Chromium | ppm | ASTM D5185m | >2 | 0 | 0 | 0 | | |
| Nickel | ppm | ASTM D5185m | | 0 | 0 | 0 | | |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 | | |
| Silver | ppm | ASTM D5185m | >2 | 0 | <1 | 0 | | |
| Aluminum | ppm | ASTM D5185m | >3 | <1 | <1 | 0 | | |
| Lead | ppm | ASTM D5185m | >2 | 0 | 0 | 0 | | |
| Copper | ppm | ASTM D5185m | >8 | 0 | 0 | 0 | | |
| Tin | ppm | ASTM D5185m | >4 | 0 | 0 | 0 | | |
| Antimony | ppm | ASTM D5185m | | | | 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 | 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 | 23 | 2 | | |
| CONTAMINANTS | 1 | method | limit/base | current | history1 | history2 | | |
| Silicon | ppm | ASTM D5185m | >15 | 2 | 1 | <1 | | |
| Sodium | ppm | ASTM D5185m | | 0 | <1 | 0 | | |
| Potassium | ppm | ASTM D5185m | >20 | <1 | 0 | 0 | | |
| Water | % | ASTM D6304 | >0.01 | 0.002 | 0.004 | 0.003 | | |
| ppm Water | ppm | ASTM D6304 | >100 | 17.2 | 40.5 | 25.2 | | |
| FLUID CLEANLIN | IESS | method | limit/base | current | history1 | history2 | | |
| Particles >4μm | | ASTM D7647 | >10000 | 733 | <u></u> 77851 | <u>^</u> 26306 | | |
| Particles >6µm | | ASTM D7647 | >2500 | 81 | <u>▲</u> 16916 | ▲ 4933 | | |
| Particles >14μm | | ASTM D7647 | >320 | 6 | <u></u> 511 | 64 | | |
| Particles >21µm | | ASTM D7647 | >80 | 2 | <u></u> 83 | 4 | | |
| Particles >38μm | | ASTM D7647 | >20 | 0 | 0 | 0 | | |
| Particles >71μm | | ASTM D7647 | >4 | 0 | 0 | 0 | | |
| Oil Cleanliness | | ISO 4406 (c) | >20/18/15 | 17/14/10 | <u>\$\text{23}\21/16\$</u> | <u>22/19/13</u> | | |
| FLUID DEGRADA | TION | method | limit/base | current | history1 | history2 | | |



OIL ANALYSIS REPORT







Lab Number **Unique Number**

: 10563654 Test Package : IND 2

: 20 Jul 2023 Diagnosed Diagnostician : Doug Bogart

Certificate L2367 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)

US 78155

T: F:

Contact: ALEX DELACRUZ