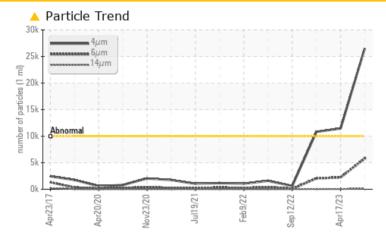


PROBLEM SUMMARY

GEA 25 PUMP OUT (S/N 06429-015-1-01)

Refrigeration Compressor Fluid USPI ALT-68 SC (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Resample at the next service interval to monitor.

| PROBLEMATIC T | EST RESULTS | | | | |
|-----------------|--------------|-----------|-------------|-------------------|-----------------|
| Sample Status | | | ABNORMAL | ATTENTION | ATTENTION |
| Particles >4µm | ASTM D7647 | >10000 | <u> </u> | 🔺 11445 | 10823 |
| Particles >6µm | ASTM D7647 | >2500 | 6794 | 2218 | 2048 |
| Oil Cleanliness | ISO 4406 (c) | >20/18/15 | <u> </u> | 1 21/18/13 | 1 /18/13 |

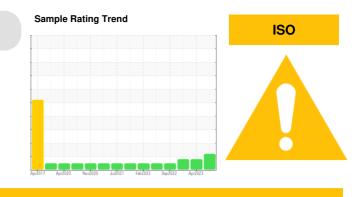
Customer Id: TYSCLA Sample No.: USP0002976 Lab Number: 05995649 Test Package: IND 2



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 <u>customerservice@wearcheck.com</u>



RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

17 Apr 2023 Diag: Doug Bogart



Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of silt (particulates < 6 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.

05 Jan 2023 Diag: Doug Bogart

Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of silt (particulates < 6 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.

12 Sep 2022 Diag: Doug Bogart



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.





view report

view report



OIL ANALYSIS REPORT

GEA 25 PUMP OUT (S/N 06429-015-1-01)

Refrigeration Compressor

USPI ALT-68 SC (--- GAL)

DIAGNOSIS

A Recommendation

Resample at the next service interval to monitor.

Wear

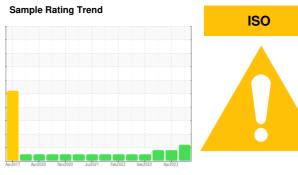
All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

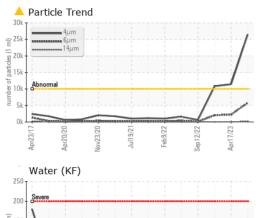
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



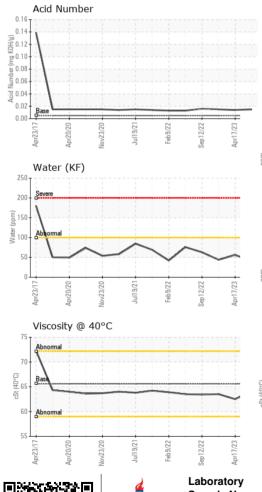
| SAMPLE INFORM | IATION | method | limit/base | current | history1 | history2 |
|-----------------|---------------|--------------|------------|-------------------|-------------------|-----------------|
| Sample Number | | Client Info | | USP0002976 | USP248562 | USP244438 |
| Sample Date | | Client Info | | 31 Oct 2023 | 17 Apr 2023 | 05 Jan 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 | | | | ABNORMAL | ATTENTION | 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 | 0 | 0 |
| 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 | 0 | <1 | 0 |
| Tin | ppm | ASTM D5185m | >4 | 0 | 0 | 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 | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | | 0 | 1 | <1 |
| Calcium | ppm | ASTM D5185m | | 1 | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Zinc | ppm | ASTM D5185m | | 0 | 6 | 0 |
| Sulfur | ppm | ASTM D5185m | 50 | 8 | 0 | 0 |
| CONTAMINANTS | ; | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >15 | 2 | <1 | 2 |
| Sodium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | 0 | <1 |
| Water | % | ASTM D6304 | >0.01 | 0.004 | 0.005 | 0.004 |
| ppm Water | ppm | ASTM D6304 | >100 | 40.4 | 56.0 | 44.0 |
| FLUID CLEANLIN | IESS | method | limit/base | current | history1 | history2 |
| Particles >4µm | | ASTM D7647 | >10000 | A 26508 | ▲ 11445 | ▲ 10823 |
| Particles >6µm | | ASTM D7647 | >2500 | <u> </u> | 2218 | 2048 |
| Particles >14µm | | ASTM D7647 | >320 | 119 | 51 | 42 |
| Particles >21µm | | ASTM D7647 | >80 | 15 | 9 | 8 |
| Particles >38µm | | ASTM D7647 | >20 | 0 | 0 | 0 |
| Particles >71µm | | ASTM D7647 | >4 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >20/18/15 | A 22/20/14 | 1 21/18/13 | 1 /18/13 |
| FLUID DEGRADA | | method | limit/base | current | history1 | history2 |
| | | | | | | |



OIL ANALYSIS REPORT

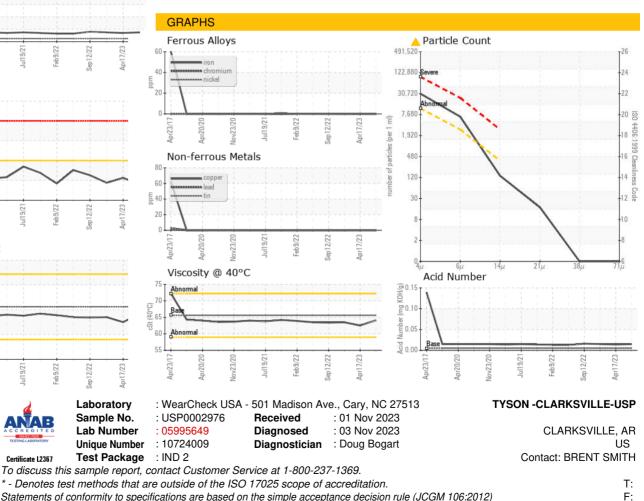








Bottom



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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Contact/Location: BRENT SMITH - TYSCLA