

## **OIL ANALYSIS REPORT**

## COMPRESSOR 1 / SYSTEM 2 (S/N 10241G76731900) Component

**Refrigeration Compressor** 

USPI ALT-68 SC (--- GAL)

### Recommendation

Resample at the next service interval to monitor.

#### Wear

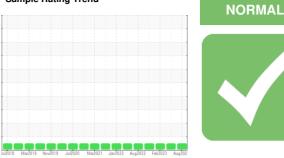
All component wear rates are normal.

#### 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.





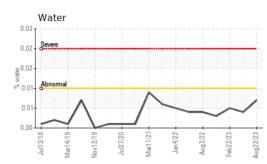
Sample Rating Trend

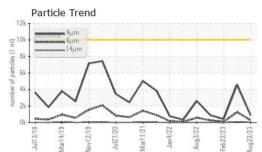
| SAMPLE INFORM    | IATION   | method       | limit/base | current     | history1    | history2    |
|------------------|----------|--------------|------------|-------------|-------------|-------------|
| Sample Number    |          | Client Info  |            | USP0000477  | USP243623   | USP250606   |
| Sample Date      |          | Client Info  |            | 22 Aug 2023 | 16 May 2023 | 22 Feb 2023 |
| Machine Age      | hrs      | Client Info  |            | 4535        | 4473        | 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           | 0           |
| Chromium         | ppm      | ASTM D5185m  | >2         | 0           | 0           | 0           |
| Nickel           | ppm      | ASTM D5185m  |            | 0           | <1          | 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           | 0           | 0           |
| Tin              | ppm      | ASTM D5185m  | >4         | 0           | 0           | 0           |
| Vanadium         | ppm      | ASTM D5185m  |            | <1          | 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           | <1          | 0           |
| Calcium          | ppm      | ASTM D5185m  |            | 0           | <1          | 0           |
| Phosphorus       | ppm      | ASTM D5185m  |            | 0           | 1           | 0           |
| Zinc             | ppm      | ASTM D5185m  |            | 0           | 0           | <1          |
| Sulfur           | ppm      | ASTM D5185m  | 50         | 0           | 13          | 10          |
| CONTAMINANTS     |          | method       | limit/base | current     | history1    | history2    |
| Silicon          | ppm      | ASTM D5185m  | >15        | <1          | 1           | <1          |
| Sodium           | ppm      | ASTM D5185m  |            | <1          | 0           | <1          |
| Potassium        | ppm      | ASTM D5185m  | >20        | 0           | <1          | 0           |
| Water            | %        | ASTM D6304   | >0.01      | 0.007       | 0.004       | 0.005       |
| ppm Water        | ppm      | ASTM D6304   | >100       | 78.5        | 45.3        | 55.2        |
| FLUID CLEANLIN   | IESS     | method       | limit/base | current     | history1    | history2    |
| Particles >4µm   |          | ASTM D7647   | >10000     | 871         | 4584        | 420         |
| Particles >6µm   |          | ASTM D7647   | >2500      | 279         | 1260        | 105         |
| Particles >14µm  |          | ASTM D7647   | >320       | 26          | 97          | 10          |
| Particles >21µm  |          | ASTM D7647   | >80        | 8           | 44          | 3           |
| Particles >38µm  |          | ASTM D7647   | >20        | 0           | 11          | 0           |
| Particles >71µm  |          | ASTM D7647   | >4         | 0           | 3           | 0           |
| Oil Cleanliness  |          | ISO 4406 (c) | >20/18/15  | 17/15/12    | 19/17/14    | 16/14/10    |
| FLUID DEGRADA    | TION     | method       | limit/base | current     | history1    | history2    |
| Acid Number (AN) | mg KOH/g | ASTM D974    | 0.005      | 0.015       | 0.015       | 0.014       |

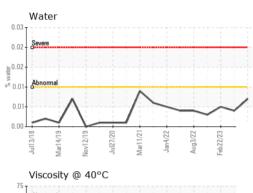
Contact/Location: ? ? - CONOGD

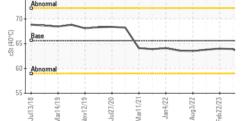


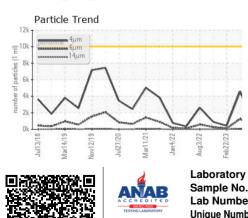
# **OIL ANALYSIS REPORT**



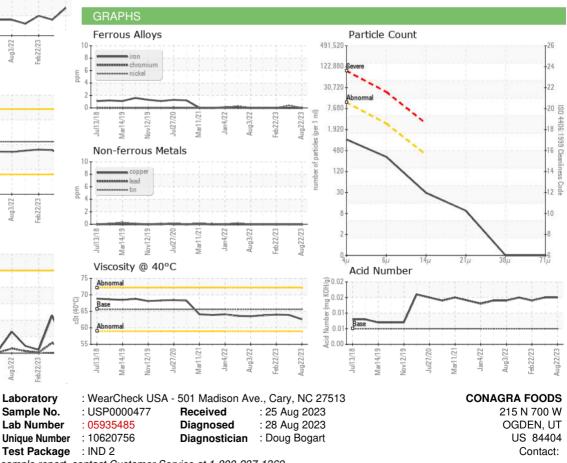








| VISUAL           |        | method    | limit/base | current       | history1 | history2               |
|------------------|--------|-----------|------------|---------------|----------|------------------------|
| White Metal      | scalar | *Visual   | NONE       | NONE          | NONE     | NONE                   |
| Yellow Metal     | scalar | *Visual   | NONE       | NONE          | NONE     | NONE                   |
| Precipitate      | scalar | *Visual   | NONE       | NONE          | NONE     | NONE                   |
| Silt             | scalar | *Visual   | NONE       | NONE          | NONE     | NONE                   |
| Debris           | scalar | *Visual   | NONE       | NONE          | NONE     | NONE                   |
| Sand/Dirt        | scalar | *Visual   | NONE       | NONE          | NONE     | NONE                   |
| Appearance       | scalar | *Visual   | NORML      | NORML         | NORML    | NORML                  |
| Odor             | scalar | *Visual   | NORML      | NORML         | NORML    | NORML                  |
| Emulsified Water | scalar | *Visual   | >0.01      | NEG           | NEG      | NEG                    |
| Free Water       | scalar | *Visual   |            | NEG           | NEG      | NEG                    |
| FLUID PROPERTIES |        | method    | limit/base | current       | history1 | history2               |
| Visc @ 40°C      | cSt    | ASTM D445 | 65.6       | 62.6          | 63.9     | 64.0                   |
| SAMPLE IMAGES    |        | method    | limit/base | current       | history1 | history2               |
| Color            |        |           |            | EL CONTRACTOR |          | eld #1<br>Bi3464<br>XQ |
| Bottom           |        |           |            | 6             |          |                        |



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)

Certificate L2367

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