

## **OIL ANALYSIS REPORT**

# Area Separation 2592-A S-Line crystalizer gearbox

Component **Agitator Gearbox** 

## Mobilgear 629 (--- GAL)

### Recommendation

Resample at the next service interval to monitor.

#### Wear

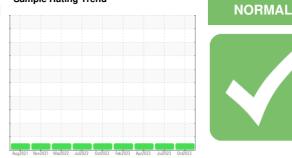
All component wear rates are normal.

#### 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.



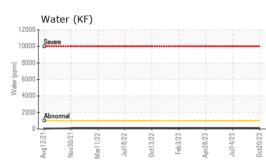
Sample Rating Trend

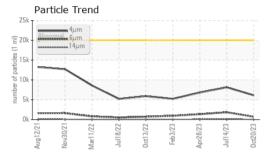


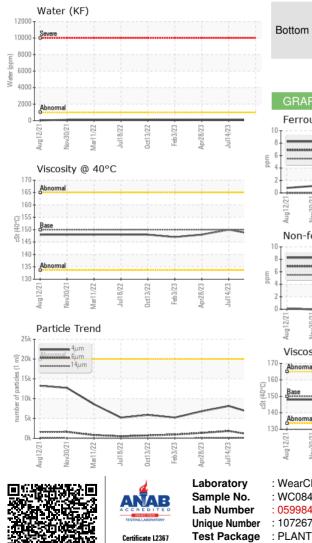
| SAMPLE INFORM    | <b>IATION</b> | method       | limit/base | current     | history1    | history2    |
|------------------|---------------|--------------|------------|-------------|-------------|-------------|
| Sample Number    |               | Client Info  |            | WC0845085   | WC0810788   | WC0784175   |
| Sample Date      |               | Client Info  |            | 20 Oct 2023 | 14 Jul 2023 | 28 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      | NORMAL      |
| WEAR METALS      |               | method       | limit/base | current     | history1    | history2    |
| Iron             | ppm           | ASTM D5185m  | >150       | 1           | 2           | 2           |
| Chromium         | ppm           | ASTM D5185m  | >10        | 0           | 0           | 0           |
| Nickel           | ppm           | ASTM D5185m  | >10        | 0           | 0           | 0           |
| Titanium         | ppm           | ASTM D5185m  |            | 0           | 0           | 0           |
| Silver           | ppm           | ASTM D5185m  |            | 0           | 0           | 0           |
| Aluminum         | ppm           | ASTM D5185m  | >25        | 0           | 0           | 0           |
| Lead             | ppm           | ASTM D5185m  | >100       | 0           | 0           | 0           |
| Copper           | ppm           | ASTM D5185m  | >50        | 0           | 0           | 0           |
| Tin              | ppm           | ASTM D5185m  | >10        | 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  |            | 14          | 19          | 18          |
| 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           | <1          |
| Calcium          | ppm           | ASTM D5185m  |            | 0           | <1          | 0           |
| Phosphorus       | ppm           | ASTM D5185m  |            | 307         | 374         | 331         |
| Zinc             | ppm           | ASTM D5185m  |            | 0           | 0           | 0           |
| Sulfur           | ppm           | ASTM D5185m  |            | 11262       | 16144       | 13712       |
| CONTAMINANTS     | ;             | method       | limit/base | current     | history1    | history2    |
| Silicon          | ppm           | ASTM D5185m  | >50        | 0           | 0           | 0           |
| Sodium           | ppm           | ASTM D5185m  |            | 0           | 0           | 0           |
| Potassium        | ppm           | ASTM D5185m  | >20        | 0           | <1          | <1          |
| Water            | %             | ASTM D6304   |            | 0.013       | 0.011       | 0.010       |
| ppm Water        | ppm           | ASTM D6304   |            | 134.4       | 110.8       | 102.8       |
| FLUID CLEANLIN   | IESS          | method       | limit/base | current     | history1    | history2    |
| Particles >4µm   |               | ASTM D7647   | >20000     | 6121        | 8141        | 6809        |
| Particles >6µm   |               | ASTM D7647   | >5000      | 707         | 1834        | 1363        |
| Particles >14µm  |               | ASTM D7647   | >640       | 37          | 132         | 79          |
| Particles >21µm  |               | ASTM D7647   | >160       | 8           | 24          | 13          |
| Particles >38µm  |               | ASTM D7647   | >40        | 1           | 1           | 1           |
| Particles >71µm  |               | ASTM D7647   |            | 0           | 0           | 0           |
| Oil Cleanliness  |               | ISO 4406 (c) | >21/19/16  | 20/17/12    | 20/18/14    | 20/18/13    |
| FLUID DEGRADA    |               | method       | limit/base | current     | history1    | history2    |
| Acid Number (AN) | mg KOH/g      | ASTM D8045   |            | 0.80        | 0.79        | 0.76        |



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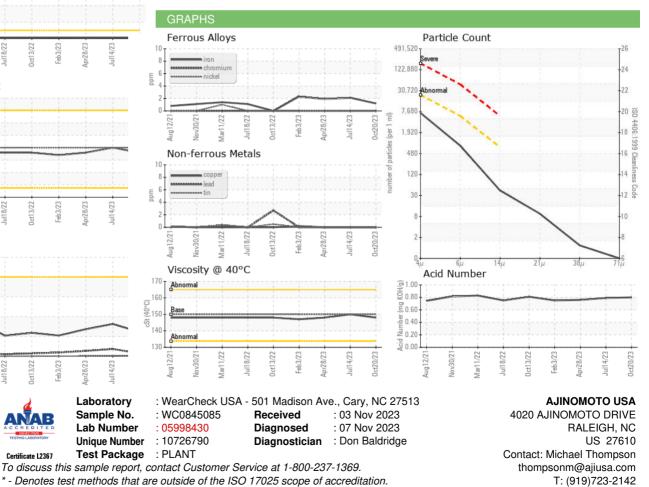




| VISUAL           |        | method    | limit/base | current | history1 | history2 |
|------------------|--------|-----------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual   | 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   | >0.1       | NEG     | NEG      | NEG      |
| Free Water       | scalar | *Visual   |            | NEG     | NEG      | NEG      |
| FLUID PROPERT    | IES    | method    | limit/base | current | history1 | history2 |
| Visc @ 40°C      | cSt    | ASTM D445 | 150        | 148     | 150      | 148      |
| SAMPLE IMAGES    | \$     | method    | limit/base | current | history1 | history2 |
| Color            |        |           |            |         |          |          |



Bottom



\* - 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)

Submitted By: BRENT FORSYTHE

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