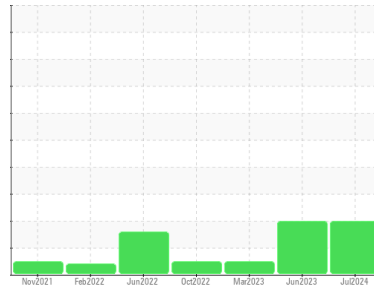




# OIL ANALYSIS REPORT

Sample Rating Trend



Area

**POWERBLOCK**

Machine Id

**Boiler Feed Pump #1 (S/N M-152666)**

Component

**Drive End Bearing**

Fluid

**MOBIL SHC 824 (--- GAL)**

## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

Elemental level of silicon (Si) above normal. Moderate concentration of visible dirt/debris present in the oil.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

|               | method      | limit/base  | current            | history1    | history2    |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info |             | <b>WC0839388</b>   | WC0798562   | WC0720395   |
| Sample Date   | Client Info |             | <b>10 Jul 2024</b> | 16 Jun 2023 | 17 Mar 2023 |
| Machine Age   | mths        | Client Info | <b>36</b>          | 36          | 36          |
| Oil Age       | mths        | Client Info | <b>36</b>          | 36          | 36          |
| Oil Changed   | Client Info |             | <b>N/A</b>         | N/A         | N/A         |
| Sample Status |             |             | <b>ABNORMAL</b>    | ABNORMAL    | NORMAL      |

## CONTAMINATION

|       | method    | limit/base | current    | history1 | history2 |
|-------|-----------|------------|------------|----------|----------|
| Water | WC Method | >2         | <b>NEG</b> | NEG      | NEG      |

## WEAR METALS

|          | method | limit/base  | current | history1 | history2 |
|----------|--------|-------------|---------|----------|----------|
| Iron     | ppm    | ASTM D5185m | >20     | <b>0</b> | 0        |
| Chromium | ppm    | ASTM D5185m | >20     | <b>0</b> | 0        |
| Nickel   | ppm    | ASTM D5185m | >20     | <b>0</b> | <1       |
| Titanium | ppm    | ASTM D5185m |         | <b>0</b> | <1       |
| Silver   | ppm    | ASTM D5185m |         | <b>0</b> | <1       |
| Aluminum | ppm    | ASTM D5185m | >20     | <b>0</b> | 0        |
| Lead     | ppm    | ASTM D5185m | >20     | <b>0</b> | 6        |
| Copper   | ppm    | ASTM D5185m | >20     | <b>8</b> | 8        |
| Tin      | ppm    | ASTM D5185m | >20     | <b>0</b> | <1       |
| Vanadium | ppm    | ASTM D5185m |         | <b>0</b> | 0        |
| Cadmium  | ppm    | ASTM D5185m |         | <b>0</b> | 0        |

## ADDITIVES

|            | method | limit/base  | current | history1    | history2 |
|------------|--------|-------------|---------|-------------|----------|
| Boron      | ppm    | ASTM D5185m |         | <b>0</b>    | 0        |
| Barium     | ppm    | ASTM D5185m |         | <b>0</b>    | <1       |
| Molybdenum | ppm    | ASTM D5185m |         | <b>0</b>    | <1       |
| Manganese  | ppm    | ASTM D5185m |         | <b>0</b>    | 0        |
| Magnesium  | ppm    | ASTM D5185m |         | <b>1</b>    | <1       |
| Calcium    | ppm    | ASTM D5185m |         | <b>0</b>    | 0        |
| Phosphorus | ppm    | ASTM D5185m |         | <b>1127</b> | 1193     |
| Zinc       | ppm    | ASTM D5185m |         | <b>9</b>    | 4        |
| Sulfur     | ppm    | ASTM D5185m |         | <b>7</b>    | 16       |

## CONTAMINANTS

|           | method | limit/base  | current | history1    | history2 |
|-----------|--------|-------------|---------|-------------|----------|
| Silicon   | ppm    | ASTM D5185m | >15     | <b>▲ 74</b> | ▲ 70     |
| Sodium    | ppm    | ASTM D5185m |         | <b>1</b>    | 0        |
| Potassium | ppm    | ASTM D5185m | >20     | <b>0</b>    | <1       |

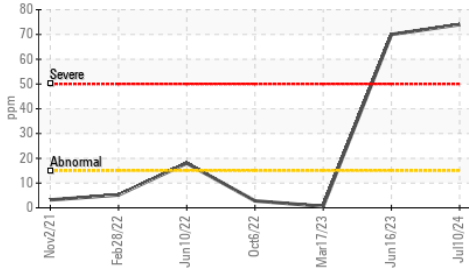
## FLUID DEGRADATION

|                  | method   | limit/base | current | history1    | history2 |
|------------------|----------|------------|---------|-------------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.5     | <b>0.19</b> | 0.17     |

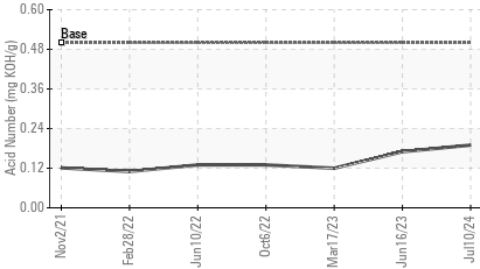


# OIL ANALYSIS REPORT

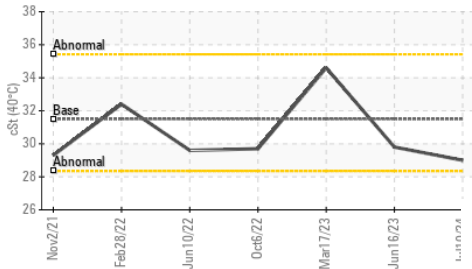
▲ Silicon (ppm)



Acid Number



Viscosity @ 40°C

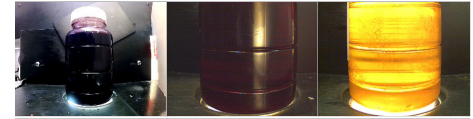


| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | ▲ MODER  | ▲ MODER  |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | NONE     |
| Appearance       | scalar | *Visual    | NORML   | NORML    | NORML    |
| Odor             | scalar | *Visual    | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual    | >2      | NEG      | NEG      |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445  | 31.5    | 29.0     | 29.8     |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
|---------------|--------|------------|---------|----------|----------|

Color

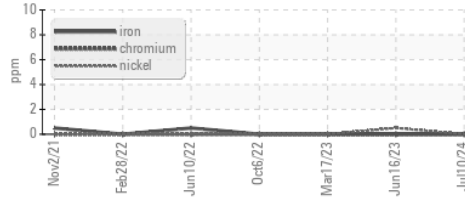


Bottom

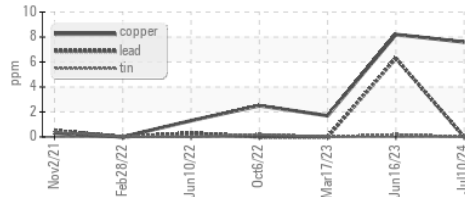


## GRAPHS

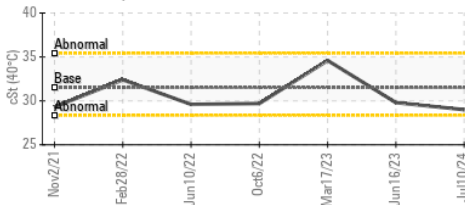
Ferrous Alloys



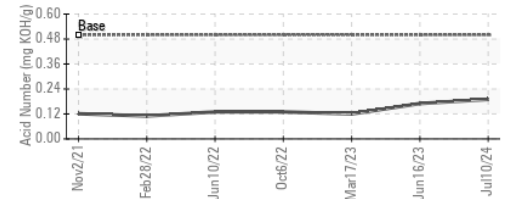
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0839388

Lab Number : 06239609

Unique Number : 11128443

Test Package : IND 2

Received : 17 Jul 2024

Tested : 18 Jul 2024

Diagnosed : 19 Jul 2024 - Don Baldrige

VEOLIA ENERGY - FRANKLIN

3465 HWY 198

CARNESVILLE, GA

US 30521

Contact: JOHNNY STONE

johnny.stone@veolia.com

T:

F:

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)