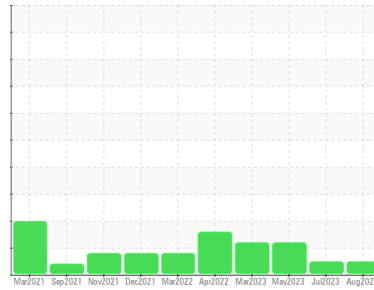




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**MHTF\_1B MHTF\_1B\_P1**  
 Component  
**Non-Drive End Pump**  
 Fluid  
**ROYAL PURPLE SYNFILM GT 32 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

The water content is negligible. There is no indication of any contamination in the oil.

### Fluid Condition

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

| SAMPLE INFORMATION |             | method      | limit/base | current            | history1    | history2    |
|--------------------|-------------|-------------|------------|--------------------|-------------|-------------|
| Sample Number      | Client Info |             |            | <b>RP0031942</b>   | RP0031951   | RP0027455   |
| Sample Date        | Client Info |             |            | <b>11 Aug 2023</b> | 12 Jul 2023 | 10 May 2023 |
| Machine Age        | hrs         | Client Info |            | <b>0</b>           | 0           | 0           |
| Oil Age            | hrs         | Client Info |            | <b>0</b>           | 0           | 0           |
| Oil Changed        | Client Info |             |            | <b>N/A</b>         | N/A         | N/A         |
| Sample Status      |             |             |            | <b>NORMAL</b>      | NORMAL      | ABNORMAL    |

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >90        | <b>7</b>     | 17       | 17       |
| Chromium    | ppm | ASTM D5185m | >5         | <b>0</b>     | 0        | <1       |
| Nickel      | ppm | ASTM D5185m | >5         | <b>0</b>     | <1       | <1       |
| Titanium    | ppm | ASTM D5185m | >3         | <b>0</b>     | 0        | <1       |
| Silver      | ppm | ASTM D5185m | >3         | <b>0</b>     | 0        | 0        |
| Aluminum    | ppm | ASTM D5185m | >7         | <b>&lt;1</b> | 1        | <1       |
| Lead        | ppm | ASTM D5185m | >12        | <b>&lt;1</b> | 2        | 2        |
| Copper      | ppm | ASTM D5185m | >30        | <b>13</b>    | 19       | 27       |
| Tin         | ppm | ASTM D5185m | >9         | <b>0</b>     | 2        | 2        |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |

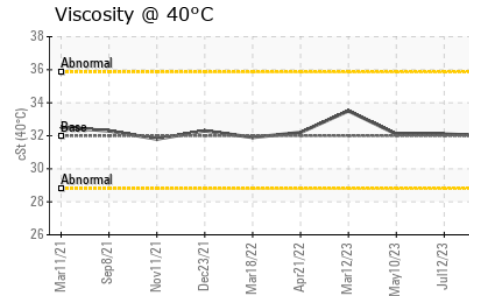
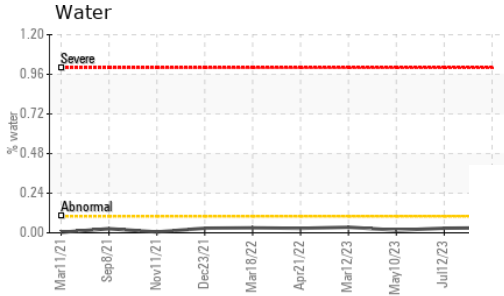
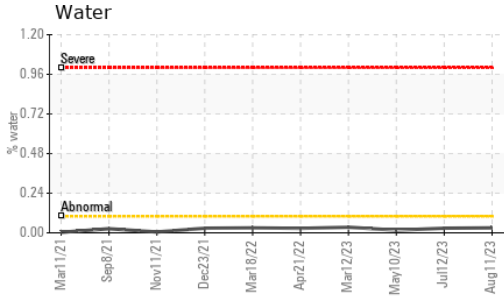
| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Barium     | ppm | ASTM D5185m |            | <b>0</b>     | 2        | 0        |
| Molybdenum | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Manganese  | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | <1       |
| Magnesium  | ppm | ASTM D5185m |            | <b>98</b>    | 96       | 101      |
| Calcium    | ppm | ASTM D5185m |            | <b>0</b>     | <1       | 0        |
| Phosphorus | ppm | ASTM D5185m |            | <b>2</b>     | <1       | 0        |
| Zinc       | ppm | ASTM D5185m |            | <b>0</b>     | 3        | 11       |

| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >60        | <b>3</b>     | 5        | 7        |
| Sodium       | ppm | ASTM D5185m |            | <b>2</b>     | 2        | 3        |
| Potassium    | ppm | ASTM D5185m | >20        | <b>2</b>     | <1       | 4        |
| Water        | %   | ASTM D6304  |            | <b>0.030</b> | 0.028    | 0.016    |
| ppm Water    | ppm | ASTM D6304  | >.1        | <b>301.1</b> | 289.0    | 164.1    |

| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 |            | <b>0.44</b> | 0.36     | 0.41     |

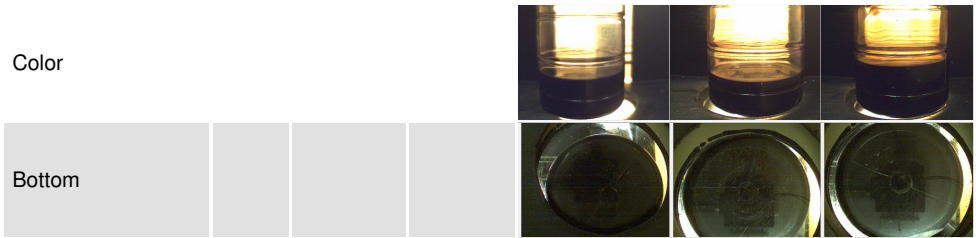
| VISUAL           |        | method  | limit/base | current      | history1 | history2      |
|------------------|--------|---------|------------|--------------|----------|---------------|
| White Metal      | scalar | *Visual | NONE       | <b>NONE</b>  | NONE     | NONE          |
| Yellow Metal 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

# OIL ANALYSIS REPORT

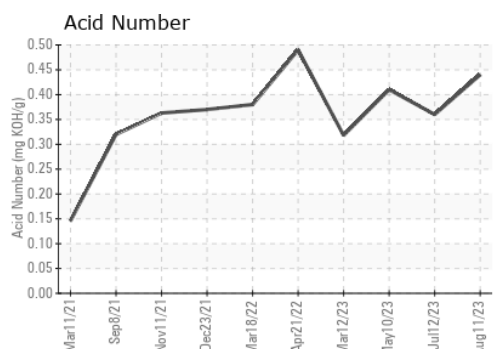
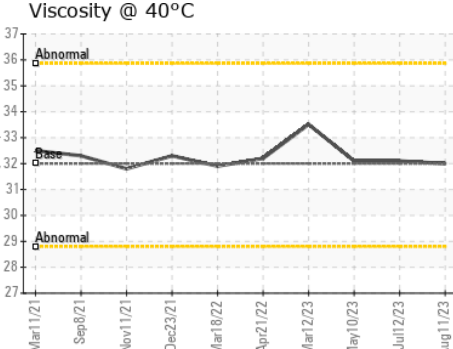
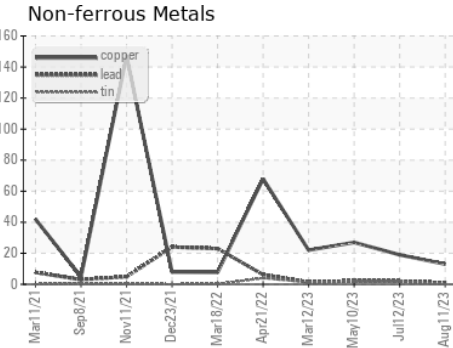
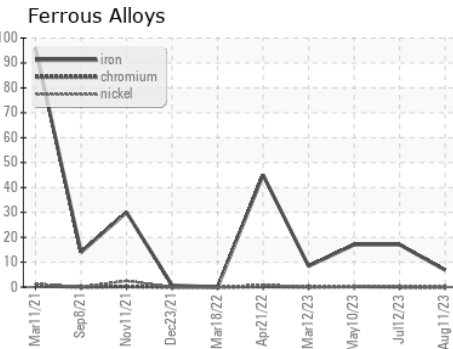


| FLUID PROPERTIES |     | method    | limit/base | current     | history1 | history2 |
|------------------|-----|-----------|------------|-------------|----------|----------|
| Visc @ 40°C      | cSt | ASTM D445 | 32         | <b>32.0</b> | 32.1     | 32.1     |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RP0031942 **Received** : 14 Aug 2023  
**Lab Number** : **05924409** **Diagnosed** : 16 Aug 2023  
**Unique Number** : 10604356 **Diagnostician** : Angela Borella  
**Test Package** : IND 2

**ENERGY TRANSFER - MARCUS HOOK TF**  
 7 COMMERCE DRIVE  
 ASTON, PA  
 US 19014  
 Contact: QUITA MORGAN

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)

T: (610)220-8386  
 F: