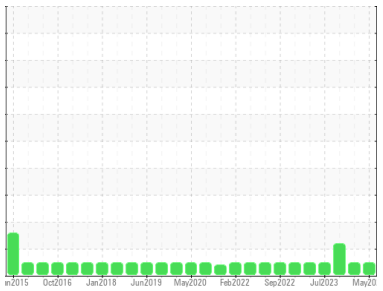
# OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
## GF-1 WATER PUMP B
Component
**Turbine**
Fluid
**MOBIL DTE 732 (--- GAL)**

## DIAGNOSIS

**Recommendation**
Resample at the next service interval to monitor.

**Wear**
All component wear rates are normal.

**Contamination**
The amount and size of particulates present in the system are acceptable. 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 | | **USP0012893** | USP0007082 | USP255348 |
| Sample Date | | Client Info | | **30 May 2024** | 13 Feb 2024 | 09 Nov 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 | ATTENTION |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >15 | **<1** | 0 | 0 |
| Chromium | ppm | ASTM D5185m | >4 | **0** | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >2 | **0** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Silver | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | **0** | <1 | 0 |
| Lead | ppm | ASTM D5185m | | **<1** | <1 | 0 |
| Copper | ppm | ASTM D5185m | >5 | **0** | 0 | 0 |
| Tin | ppm | ASTM D5185m | >5 | **0** | <1 | 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** | <1 | 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 | | **1** | 0 | 0 |
| Calcium | ppm | ASTM D5185m | | **16** | 12 | 12 |
| Phosphorus | ppm | ASTM D5185m | | **10** | 8 | 5 |
| Zinc | ppm | ASTM D5185m | | **9** | 10 | 0 |
| Sulfur | ppm | ASTM D5185m | | **244** | 238 | 208 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >15 | **<1** | <1 | 0 |
| Sodium | ppm | ASTM D5185m | | **2** | <1 | 1 |
| Potassium | ppm | ASTM D5185m | >20 | **<1** | 1 | 0 |
| Water | % | ASTM D6304 | >0.03 | **0.001** | 0.002 | 0.004 |
| ppm Water | ppm | ASTM D6304 | >300 | **1** | 19 | 42.8 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >2500 | **1188** | 1268 | 2655 |
| Particles >6µm | | ASTM D7647 | >640 | **306** | 352 | 745 |
| Particles >14µm | | ASTM D7647 | >80 | **29** | 38 | 63 |
| Particles >21µm | | ASTM D7647 | >20 | **8** | 11 | 23 |
| Particles >38µm | | ASTM D7647 | >4 | **1** | 1 | 1 |
| Particles >71µm | | ASTM D7647 | >3 | **0** | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >18/16/13 | **17/15/12** | 17/16/12 | 19/17/13 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.10 | **0.16** | 0.07 | 0.073 |

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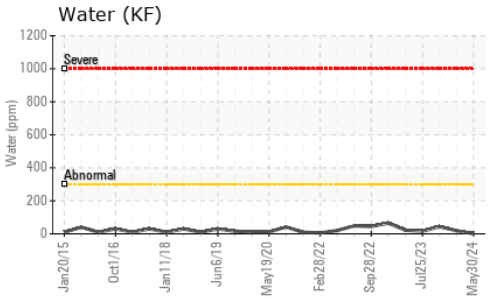
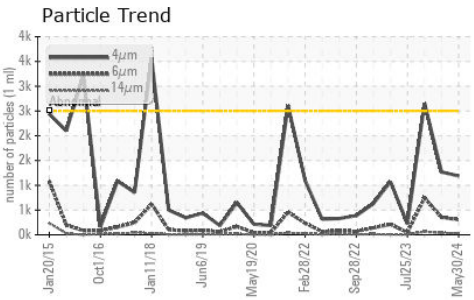
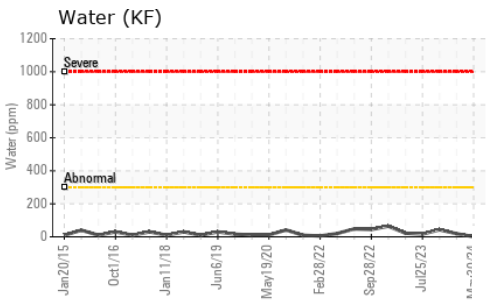
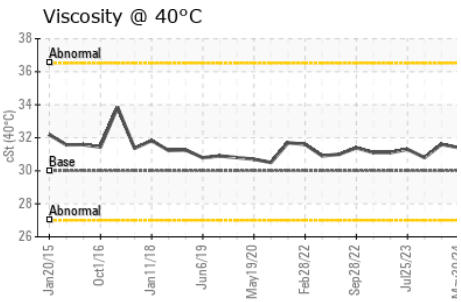
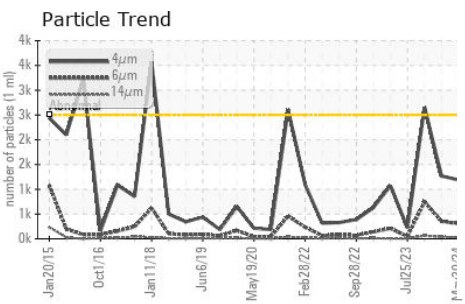


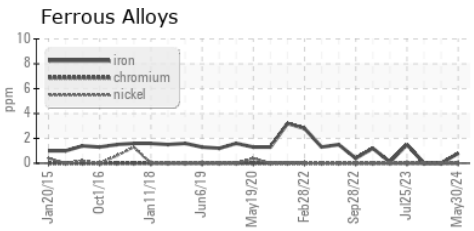



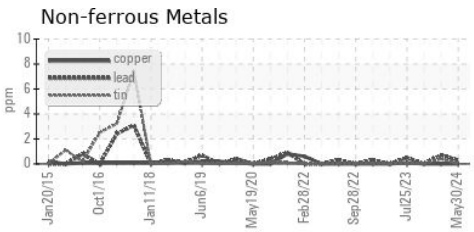

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| 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 | >0.03 | **NEG** | NEG | NEG |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

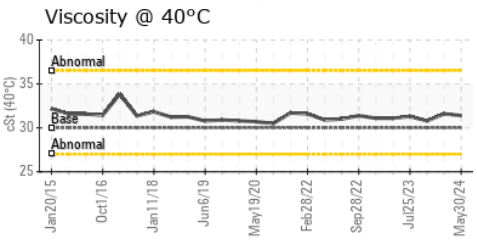
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 30.0 | **31.4** | 31.6 | 30.8 |

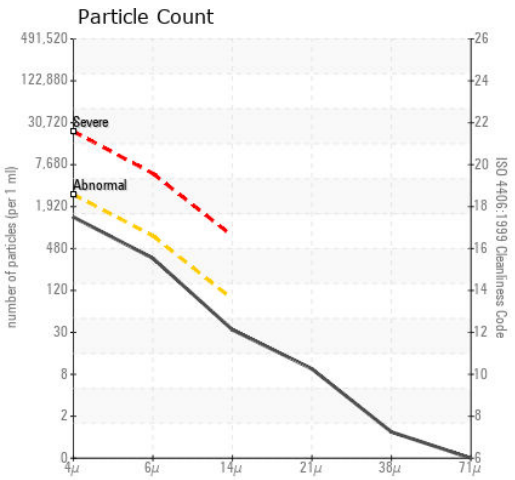
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | | | | |
| Bottom | | | | | |

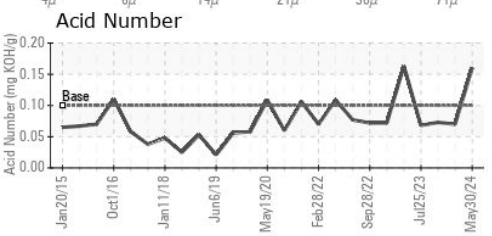
## GRAPHS




**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : USP0012893
**Lab Number** : 06196708
**Unique Number** : 11058831
**Test Package** : IND 2

**Received** : 31 May 2024
**Tested** : 03 Jun 2024
**Diagnosed** : 03 Jun 2024 - Doug Bogart

Certificate L2367

*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)*

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