



OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
TORO 41394 5800-G ROVER 115631 (S/N 181110RSP1023)
 Component
Hydraulic System
 Fluid
TORO PX EXTENDED LIFE (14 GAL)

DIAGNOSIS

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 oil. The amount and size of particulates present in the system are acceptable.

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 | | | TR06179350 | --- | --- |
| Sample Date | Client Info | | | 13 May 2024 | --- | --- |
| Machine Age | hrs | Client Info | | 770 | --- | --- |
| Oil Age | hrs | Client Info | | 770 | --- | --- |
| Oil Changed | Client Info | | | Not Changed | --- | --- |
| Sample Status | | | | NORMAL | --- | --- |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---------------|-----------|--------|------------|------------|----------|----------|
| Water | WC Method | | >0.1 | NEG | --- | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m | >20 | <1 | --- | --- |
| Chromium | ppm | ASTM D5185m | >10 | 0 | --- | --- |
| Nickel | ppm | ASTM D5185m | >10 | <1 | --- | --- |
| Titanium | ppm | ASTM D5185m | | 0 | --- | --- |
| Silver | ppm | ASTM D5185m | | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185m | >10 | <1 | --- | --- |
| Lead | ppm | ASTM D5185m | >10 | <1 | --- | --- |
| Copper | ppm | ASTM D5185m | >75 | 28 | --- | --- |
| Tin | ppm | ASTM D5185m | >10 | <1 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | --- | --- |
| Cadmium | ppm | ASTM D5185m | | 0 | --- | --- |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | | 3 | --- | --- |
| Barium | ppm | ASTM D5185m | | <1 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | | 0 | --- | --- |
| Manganese | ppm | ASTM D5185m | | <1 | --- | --- |
| Magnesium | ppm | ASTM D5185m | | 5 | --- | --- |
| Calcium | ppm | ASTM D5185m | | 230 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | | 508 | --- | --- |
| Zinc | ppm | ASTM D5185m | | 67 | --- | --- |
| Sulfur | ppm | ASTM D5185m | | 2039 | --- | --- |

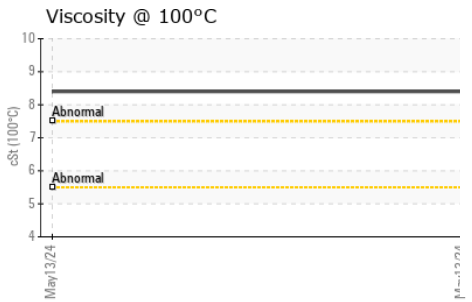
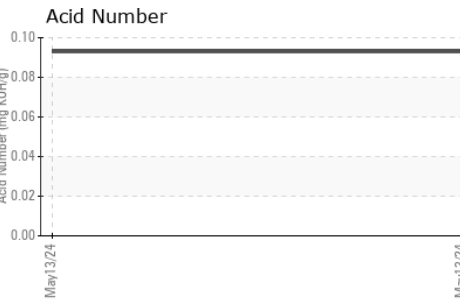
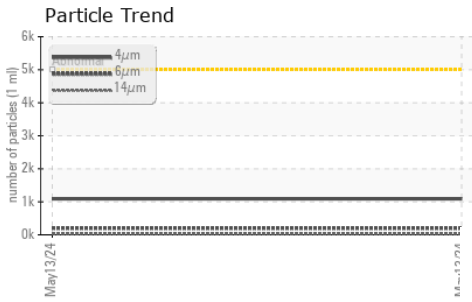
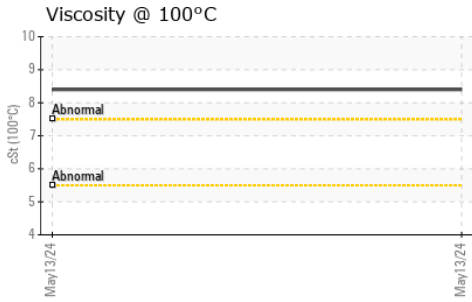
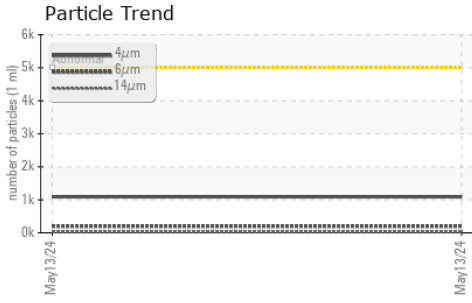
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >20 | <1 | --- | --- |
| Sodium | ppm | ASTM D5185m | | 3 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | 2 | --- | --- |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|-------------------|--|--------------|------------|-----------------|----------|----------|
| Particles >4µm | | ASTM D7647 | >5000 | 1090 | --- | --- |
| Particles >6µm | | ASTM D7647 | >1300 | 200 | --- | --- |
| Particles >14µm | | ASTM D7647 | >160 | 26 | --- | --- |
| Particles >21µm | | ASTM D7647 | >40 | 9 | --- | --- |
| Particles >38µm | | ASTM D7647 | >10 | 1 | --- | --- |
| Particles >71µm | | ASTM D7647 | >3 | 0 | --- | --- |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | 17/15/12 | --- | --- |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|--------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.093 | --- | --- |





OIL ANALYSIS REPORT



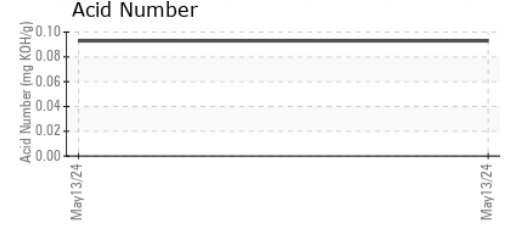
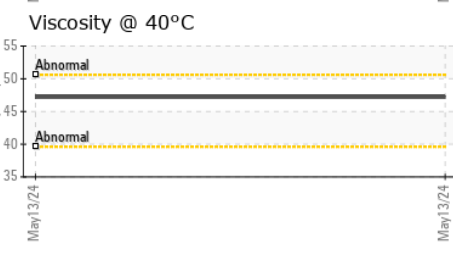
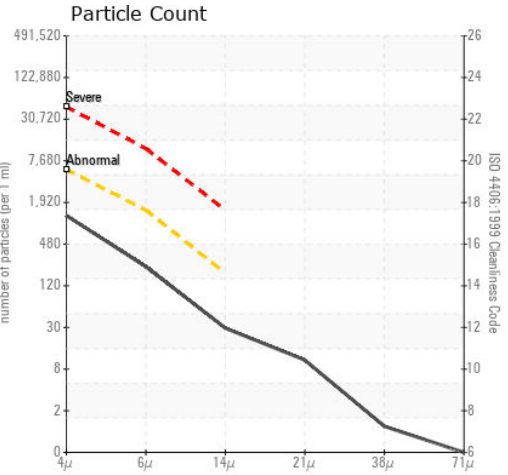
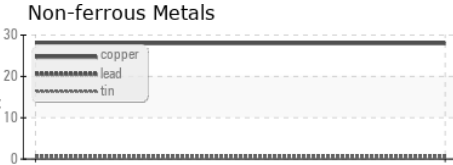
| VISUAL | method | limit/base | current | history1 | history2 | |
|------------------|--------|------------|---------|----------|----------|-----|
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Precipitate | scalar | *Visual | NONE | NONE | --- | --- |
| Silt | scalar | *Visual | NONE | NONE | --- | --- |
| Debris | scalar | *Visual | NONE | NONE | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- | --- |
| Appearance | scalar | *Visual | NORML | NORML | --- | --- |
| Odor | scalar | *Visual | NORML | NORML | --- | --- |
| Emulsified Water | scalar | *Visual | >0.1 | NEG | --- | --- |
| Free Water | scalar | *Visual | | NEG | --- | --- |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|----------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 47.2 | --- | --- |
| Visc @ 100°C | cSt | ASTM D445 | 8.4 | --- | --- |
| Viscosity Index (VI) | Scale | ASTM D2270 | 155 | --- | --- |

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

| | | | | | |
|--------|--|--|--|----------|----------|
| Color | | |  | no image | no image |
| Bottom | | |  | no image | no image |

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06179350 **Received** : 14 May 2024
Lab Number : 06179350 **Tested** : 03 Jun 2024
Unique Number : 11030676 **Diagnosed** : 03 Jun 2024 - Doug Bogart
Test Package : MOB 2 (Additional Tests: KV100, VI)

OVERLAND PARK GC CCD
 1801 S HURON ST
 DENVER, CO
 US 80223
 Contact: JAMES WEST

To discuss this sample report, contact Customer Service at 1-800-827-0711.

* - 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:
F: