



OIL ANALYSIS REPORT

| | |
|-----------------|---------------|
| WEAR | NORMAL |
| CONTAMINATION | NORMAL |
| FLUID CONDITION | NORMAL |

Machine Id
24E2302 PCMO-853
 Component
New (Unused) Oil
 Fluid
Gasoline Engine Oil (--- GAL)

RECOMMENDATION

This is a baseline read-out on the submitted sample. (Customer Sample Comment: Please Run a TBN)

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|----------|----------|
| Sample Number | | Client Info | | HPL0004360 | --- | --- |
| Sample Date | | Client Info | | 23 May 2024 | --- | --- |
| Machine Age | hrs | Client Info | | 0 | --- | --- |
| Oil Age | hrs | Client Info | | 0 | --- | --- |
| Filter Age | hrs | Client Info | | 0 | --- | --- |
| Oil Changed | | Client Info | | Not Changd | --- | --- |
| Filter Changed | | Client Info | | N/A | --- | --- |
| Sample Status | | | | NORMAL | --- | --- |

WEAR

| | | | | | | |
|--------------|--------|-------------|------|--------------|-----|-----|
| Iron | ppm | ASTM D5185m | | 0 | --- | --- |
| Chromium | ppm | ASTM D5185m | | 0 | --- | --- |
| Nickel | ppm | ASTM D5185m | | 0 | --- | --- |
| Titanium | ppm | ASTM D5185m | | 1 | --- | --- |
| Silver | ppm | ASTM D5185m | | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185m | | 9 | --- | --- |
| Lead | ppm | ASTM D5185m | | <1 | --- | --- |
| Copper | ppm | ASTM D5185m | | 0 | --- | --- |
| Tin | ppm | ASTM D5185m | | <1 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | <1 | --- | --- |
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |

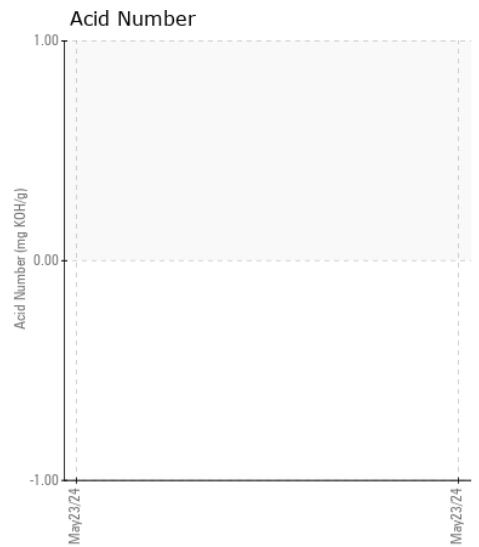
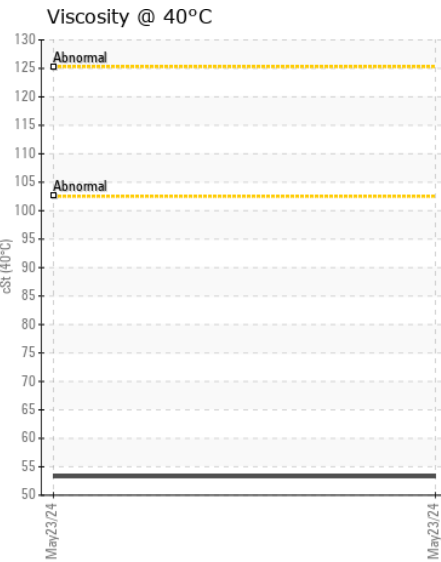
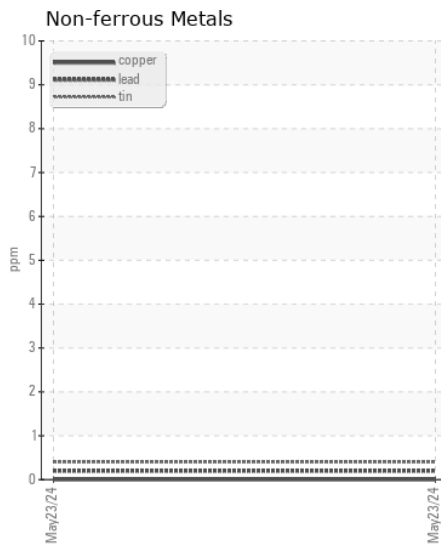
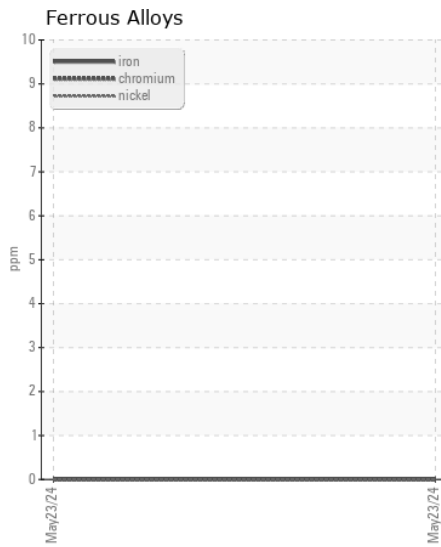
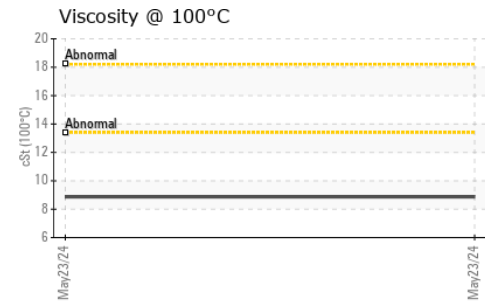
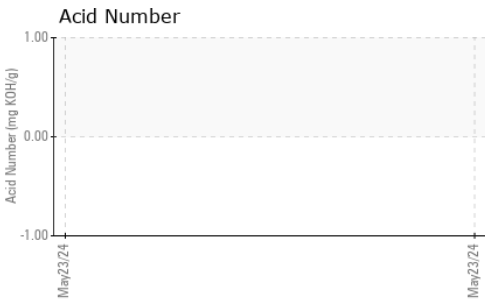
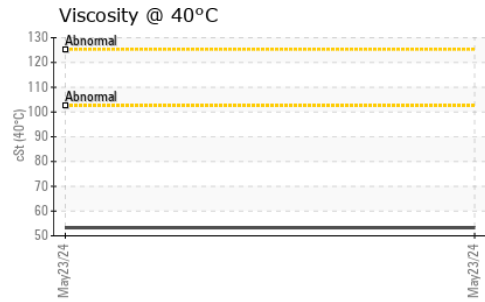
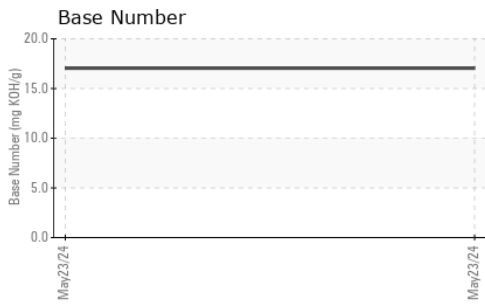
CONTAMINATION

| | | | | | | |
|------------------|--------|-------------|-------|--------------|-----|-----|
| Silicon | ppm | ASTM D5185m | | 13 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | 1 | --- | --- |
| Water | | WC Method | | NEG | --- | --- |
| 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 | | NEG | --- | --- |

FLUID CONDITION

BN confirmed.

| | | | | | | |
|----------------------|----------|-------------|--|--------------|-----|-----|
| Sodium | ppm | ASTM D5185m | | 2 | --- | --- |
| Boron | ppm | ASTM D5185m | | 18 | --- | --- |
| Barium | ppm | ASTM D5185m | | <1 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | | 561 | --- | --- |
| Manganese | ppm | ASTM D5185m | | <1 | --- | --- |
| Magnesium | ppm | ASTM D5185m | | 1939 | --- | --- |
| Calcium | ppm | ASTM D5185m | | 1208 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | | 751 | --- | --- |
| Zinc | ppm | ASTM D5185m | | 829 | --- | --- |
| Sulfur | ppm | ASTM D5185m | | 7834 | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 17.04 | --- | --- |
| Visc @ 40°C | cSt | ASTM D445 | | 53.29 | --- | --- |
| Visc @ 100°C | cSt | ASTM D445 | | 8.87 | --- | --- |
| Viscosity Index (VI) | Scale | ASTM D2270 | | 145 | --- | --- |



Certificate L2367

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

Sample No. : HPL0004360

Lab Number : 06192682

Unique Number : 11049434

Test Package : MOB 2 (Additional Tests: FT-IR, ICP-NewOil, KV100, PrtCount, TBN, VI)

Received : 28 May 2024

Tested : 04 Jun 2024

Diagnosed : 04 Jun 2024 - Doug Bogart

HIGH PERFORMANCE LUBRICANTS LLC

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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)