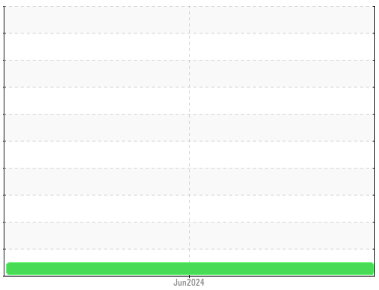
# OIL ANALYSIS REPORT

Sample Rating Trend




NORMAL

Machine Id
## HPL PCMO 5W30
Component
**New (Unused) Oil**
Fluid
**{not provided} (--- GAL)**

## DIAGNOSIS

**Recommendation**
This is a baseline read-out on the submitted sample.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **HPL0003961** | --- | --- |
| Sample Date | | Client Info | | **02 Jun 2024** | --- | --- |
| Machine Age | mls | Client Info | | **0** | --- | --- |
| Oil Age | mls | Client Info | | **0** | --- | --- |
| Oil Changed | | Client Info | | **N/A** | --- | --- |
| Sample Status | | | | **NORMAL** | --- | --- |

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

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | | **0** | --- | --- |
| Chromium | ppm | ASTM D5185m | | **<1** | --- | --- |
| Nickel | ppm | ASTM D5185m | | **0** | --- | --- |
| Titanium | ppm | ASTM D5185m | | **0** | --- | --- |
| Silver | ppm | ASTM D5185m | | **0** | --- | --- |
| Aluminum | ppm | ASTM D5185m | | **5** | --- | --- |
| Lead | ppm | ASTM D5185m | | **0** | --- | --- |
| Copper | ppm | ASTM D5185m | | **0** | --- | --- |
| Tin | ppm | ASTM D5185m | | **0** | --- | --- |
| Vanadium | ppm | ASTM D5185m | | **0** | --- | --- |
| Cadmium | ppm | ASTM D5185m | | **0** | --- | --- |

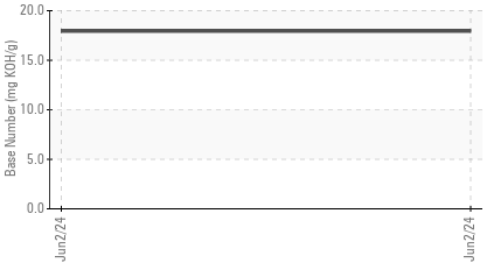
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **17** | --- | --- |
| Barium | ppm | ASTM D5185m | | **0** | --- | --- |
| Molybdenum | ppm | ASTM D5185m | | **579** | --- | --- |
| Manganese | ppm | ASTM D5185m | | **0** | --- | --- |
| Magnesium | ppm | ASTM D5185m | | **2068** | --- | --- |
| Calcium | ppm | ASTM D5185m | | **1138** | --- | --- |
| Phosphorus | ppm | ASTM D5185m | | **717** | --- | --- |
| Zinc | ppm | ASTM D5185m | | **852** | --- | --- |
| Sulfur | ppm | ASTM D5185m | | **7864** | --- | --- |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | | **13** | --- | --- |
| Sodium | ppm | ASTM D5185m | | **0** | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | **1** | --- | --- |

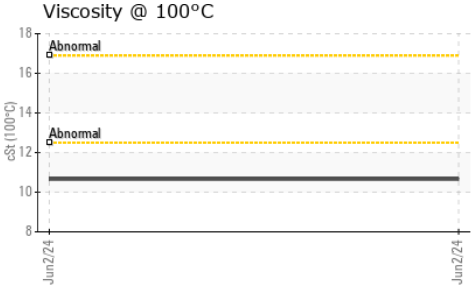
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Base Number (BN) | mg KOH/g | ASTM D2896 | | **17.94** | --- | --- |

# OIL ANALYSIS REPORT

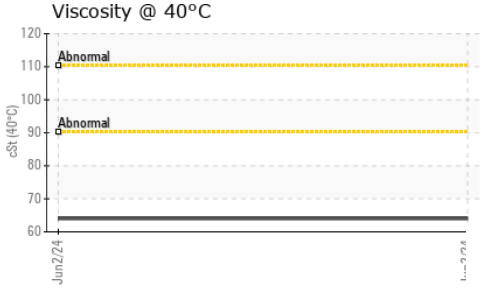
Base Number




Viscosity @ 100°C




Viscosity @ 40°C



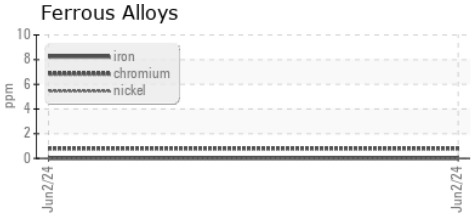

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Precipitate | scalar | *Visual | NONE | **NONE** | --- | --- |
| Silt |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

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | | **64.01** | --- | --- |
| Visc @ 100°C | cSt | ASTM D445 | | **10.66** | --- | --- |
| Viscosity Index (VI) | Scale | ASTM D2270 | | **156** | --- | --- |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | | | *no image* | *no image* |
| Bottom | | | | *no image* | *no image* |

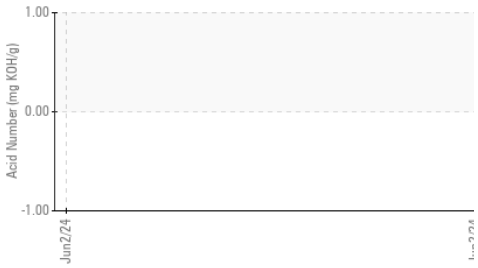
GRAPHS

Ferrous Alloys

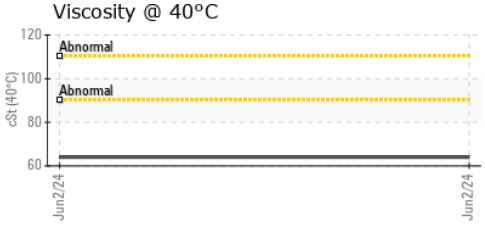



Non-ferrous Metals

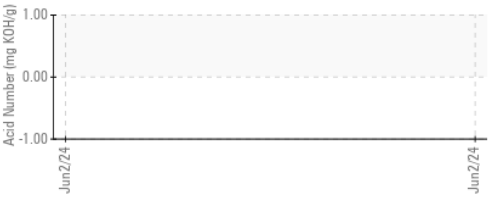
Acid Number




Viscosity @ 40°C




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : HPL0003961 **Received** : 10 Jun 2024
**Lab Number** : 06205247 **Tested** : 10 Jul 2024
**Unique Number** : 11072708 **Diagnosed** : 10 Jul 2024 - Sean Felton
**Test Package** : MOB 2 ( Additional Tests: FT-IR, ICP-NewOil, KV100, PrtCount, TBN, VI )

*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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