OIL DIAGNOSTICS

# OIL ANALYSIS REPORT

Sample Rating Trend


VISCOSITY

Machine Id
## DODGE RAP FEEDER 2
Component
**Gearbox**
Fluid
**PETRO CANADA 220 (--- 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.

**Fluid Condition**
The oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Confirm oil type. The AN level is acceptable for this fluid.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **PCA0087850** | --- | --- |
| Sample Date | | Client Info | | **04 Mar 2024** | --- | --- |
| Machine Age | yrs | Client Info | | **4** | --- | --- |
| Oil Age | yrs | Client Info | | **2** | --- | --- |
| Oil Changed | | Client Info | | **Changed** | --- | --- |
| Sample Status | | | | **ATTENTION** | --- | --- |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Water | | WC Method | >0.2 | **NEG** | --- | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >200 | **0** | --- | --- |
| Chromium | ppm | ASTM D5185m | >10 | **0** | --- | --- |
| Nickel | ppm | ASTM D5185m | >10 | **0** | --- | --- |
| Titanium | ppm | ASTM D5185m | | **0** | --- | --- |
| Silver | ppm | ASTM D5185m | | **0** | --- | --- |
| Aluminum | ppm | ASTM D5185m | >25 | **0** | --- | --- |
| Lead | ppm | ASTM D5185m | >50 | **0** | --- | --- |
| Copper | ppm | ASTM D5185m | >200 | **0** | --- | --- |
| Tin | ppm | ASTM D5185m | >10 | **<1** | --- | --- |
| Vanadium | ppm | ASTM D5185m | | **0** | --- | --- |
| Cadmium | ppm | ASTM D5185m | | **0** | --- | --- |

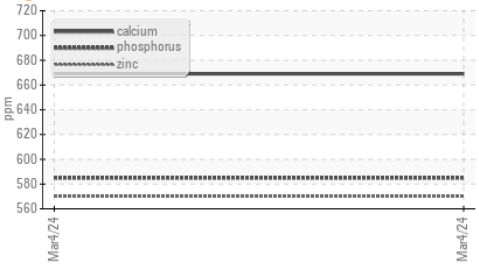
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **21** | --- | --- |
| Barium | ppm | ASTM D5185m | | **0** | --- | --- |
| Molybdenum | ppm | ASTM D5185m | | **0** | --- | --- |
| Manganese | ppm | ASTM D5185m | | **<1** | --- | --- |
| Magnesium | ppm | ASTM D5185m | | **549** | --- | --- |
| Calcium | ppm | ASTM D5185m | | **669** | --- | --- |
| Phosphorus | ppm | ASTM D5185m | | **585** | --- | --- |
| Zinc | ppm | ASTM D5185m | | **570** | --- | --- |
| Sulfur | ppm | ASTM D5185m | | **3624** | --- | --- |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >50 | **15** | --- | --- |
| Sodium | ppm | ASTM D5185m | | **10** | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | **<1** | --- | --- |

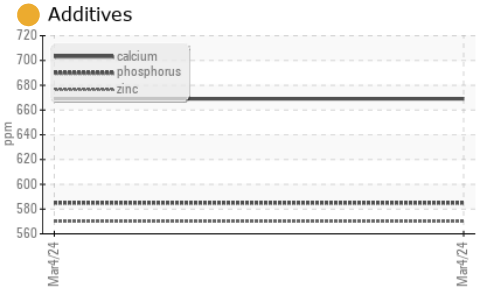
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | **0.96** | --- | --- |

# OIL ANALYSIS REPORT

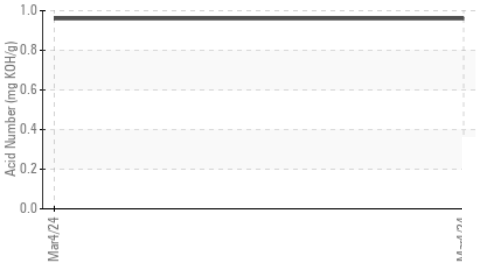
Additives




Additives




Acid Number



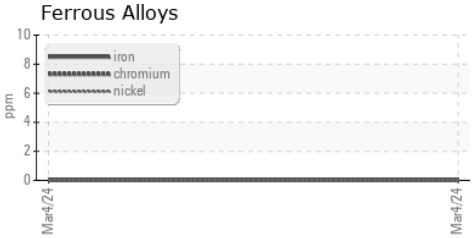

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Precipitate | scalar | *Visual | NONE | **NONE** | --- | --- |
| Silt | 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 | >0.2 | **NEG** | --- | --- |
| Free Water | scalar | *Visual | | **NEG** | --- | --- |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | | **96.1** | --- | --- |

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

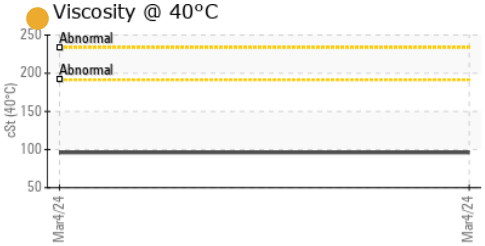
## GRAPHS

Ferrous Alloys

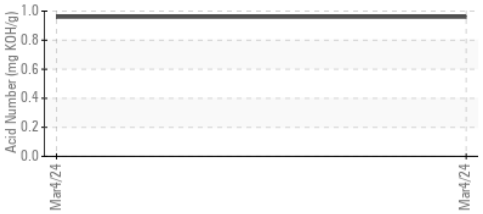



Non-ferrous Metals


Viscosity @ 40°C




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : PCA0087850
**Lab Number** : 06142382
**Unique Number** : 10967190
**Test Package** : IND 2

**Received** : 08 Apr 2024
**Tested** : 11 Apr 2024
**Diagnosed** : 11 Apr 2024 - Don Baldridge

*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)*

**KARTECHNERS**
N11829 COUNTY RD I
WAUPUN, WI
US 53963
Contact: DAVE KARTECHNER
dave@kartechnerbrothers.com
T: (920)324-2874
F: