

KEMP QUARRIES / RIVER VALLEY OZARK
WL112
Front Left Final Drive
PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)

## Sample Rating Trend



## 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 condition of the oil is acceptable for the time in service.

| SAMPLE INFORMATION |  | method | limitbase | current | history1 | history2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sample Number |  | Client Info |  | PCA0109107 | PCA0086924 | PCA0084499 |
| Sample Date |  | Client Info |  | 17 May 2024 | 19 Mar 2024 | 09 Feb 2024 |
| Machine Age | hrs | Client Info |  | 36272 | 35919 | 35658 |
| Oil Age | hrs | Client Info |  | 31552 | 31552 | 31552 |
| Oil Changed |  | Client Info |  | N/A | N/A | N/A |
| Sample Status |  |  |  | NORMAL | NORMAL | NORMAL |
| CONTAMINATION |  | method | limitbase | current | history1 | history2 |
| Water |  | WC Method | >0.2 | NEG | NEG | NEG |
| WEAR METALS |  | method | limitbase | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >800 | 104 | 123 | 60 |
| Chromium | ppm | ASTM D5185m | $>10$ | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >5 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | $>15$ | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >75 | <1 | 3 | 2 |
| Lead | ppm | ASTM D5185m | $>10$ | 0 | 1 | 0 |
| Copper | ppm | ASTM D5185m | >75 | 8 | 8 | 4 |
| Tin | ppm | ASTM D5185m | >8 | 0 | 1 | 0 |
| Vanadium | ppm | ASTM D5185m |  | 0 | <1 | 0 |
|  | ppm | ASTM D5185m |  | 0 | <1 | 0 |


| ADDITIVES |  | method | limitbase | current | history1 | history2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Boron | ppm | ASTM D5185m | 2 | 3 | <1 | 1 |
| Barium | ppm | ASTM D5185m | 0 | 0 | <1 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | 2 | 2 | <1 |
| Manganese | ppm | ASTM D5185m | 0 | 1 | 2 | 0 |
| Magnesium | ppm | ASTM D5185m | 9 | 16 | 22 | 14 |
| Calcium | ppm | ASTM D5185m | 3114 | 3583 | 5569 | 3323 |
| Phosphorus | ppm | ASTM D5185m | 1099 | 1076 | 1475 | 1061 |
| Zinc | ppm | ASTM D5185m | 1245 | 1287 | 1886 | 1185 |
| Sulfur | ppm | ASTM D5185m | 7086 | 5126 | 6934 | 5166 |
| CONTAMINANTS |  | method | limitbase | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >400 | 23 | 31 | 20 |
| Sodium | ppm | ASTM D5185m |  | 2 | <1 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 3 | 2 |


| VISUAL |  |  | method | limit/base | current | history1 | history2 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| White Metal | scalar | *Visual | NONE | NONE | NONE | MODER |  |
| 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 | $>0.2$ | NEG | NEG | NEG |  |
| Free Water | scalar | *Visual |  | NEG | NEG | NEG |  |

OIL
DIAGNOSTICS

## OIL ANALYSIS REPORT



| FLUID PROPERTIES | method | limitbase | current | history1 | history2 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Visc @ 40 ${ }^{\circ} \mathrm{C}$ cSt | ASTM D445 | 213.9 | 181 | 183 | 184 |
| SAMPLE IMAGES | method | limitbase | current | history 1 | history2 |
| Color |  |  | no image | no image | no image |
| Bottom |  |  | no image | no image | no image |




Aluminum (ppm)




Silicon (ppm)


 Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Received : 24 May 2024 Tested : 28 May 2024 Diagnosed : 28 May 2024 - Wes Davis Unique Number : 11048100 Test Package : MOB 1
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)

