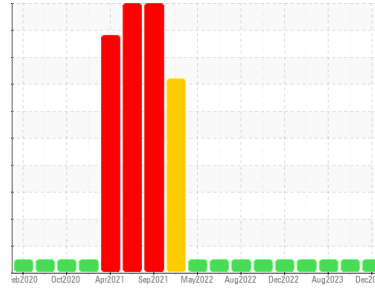


OIL ANALYSIS REPORT



Area
KEMP QUARRIES / RIVER VALLEY BACKBONE
Machine Id
WL135
Component
Front Left Final Drive
Fluid
PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)

Sample Rating Trend



NORMAL

✓

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 | limit/base | current | history1 | history2 |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | PCA0069887 | PCA0084854 | PCA0084839 |
| Sample Date | Client Info | 28 Dec 2023 | 25 Oct 2023 | 12 Aug 2023 |
| Machine Age | hrs | 52934 | 52934 | 52602 |
| Oil Age | hrs | 900 | 900 | 900 |
| Oil Changed | Client Info | Not Chngd | Not Chngd | Not Chngd |
| Sample Status | | NORMAL | NORMAL | NORMAL |

CONTAMINATION

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

WEAR METALS

| method | limit/base | current | history1 | history2 |
|----------|----------------------|--------------|----------|----------|
| Iron | ppm ASTM D5185m >800 | 225 | 207 | 224 |
| Chromium | ppm ASTM D5185m >10 | 2 | 1 | 1 |
| Nickel | ppm ASTM D5185m >5 | 1 | 0 | 0 |
| Titanium | ppm ASTM D5185m >15 | <1 | <1 | <1 |
| Silver | ppm ASTM D5185m >2 | 0 | 0 | 0 |
| Aluminum | ppm ASTM D5185m >75 | 5 | 6 | 8 |
| Lead | ppm ASTM D5185m >10 | 1 | 0 | <1 |
| Copper | ppm ASTM D5185m >75 | 14 | 12 | 13 |
| Tin | ppm ASTM D5185m >8 | <1 | <1 | <1 |
| Vanadium | ppm ASTM D5185m | 0 | 0 | 0 |
| Cadmium | ppm ASTM D5185m | <1 | 0 | 0 |

ADDITIVES

| method | limit/base | current | history1 | history2 |
|------------|----------------------|-------------|----------|----------|
| Boron | ppm ASTM D5185m 2 | 1 | <1 | 2 |
| Barium | ppm ASTM D5185m 0 | 0 | 0 | 0 |
| Molybdenum | ppm ASTM D5185m 0 | 2 | 1 | 2 |
| Manganese | ppm ASTM D5185m 0 | 3 | 2 | 2 |
| Magnesium | ppm ASTM D5185m 9 | 26 | 26 | 42 |
| Calcium | ppm ASTM D5185m 3114 | 3108 | 2933 | 2970 |
| Phosphorus | ppm ASTM D5185m 1099 | 982 | 921 | 943 |
| Zinc | ppm ASTM D5185m 1245 | 1191 | 1201 | 1181 |
| Sulfur | ppm ASTM D5185m 7086 | 8335 | 6483 | 7955 |

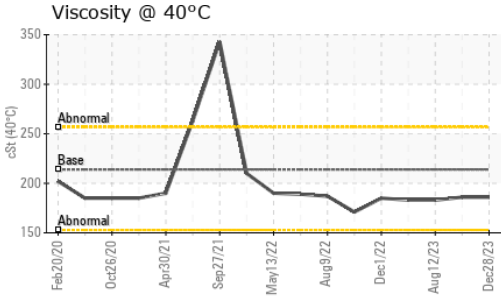
CONTAMINANTS

| method | limit/base | current | history1 | history2 |
|-----------|----------------------|-----------|----------|----------|
| Silicon | ppm ASTM D5185m >400 | 59 | 57 | 73 |
| Sodium | ppm ASTM D5185m | 0 | 2 | 1 |
| Potassium | ppm ASTM D5185m >20 | 3 | <1 | <1 |

VISUAL

| method | limit/base | current | history1 | history2 |
|------------------|----------------------|--------------|----------|----------|
| White Metal | scalar *Visual NONE | NONE | NONE | NONE |
| Yellow Metal | scalar *Visual NONE | NONE | NONE | NONE |
| Precipitate | scalar *Visual NONE | NONE | NONE | NONE |
| Silt | scalar *Visual NONE | LIGHT | NONE | NONE |
| Debris | scalar *Visual NONE | NONE | LIGHT | 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 ANALYSIS REPORT

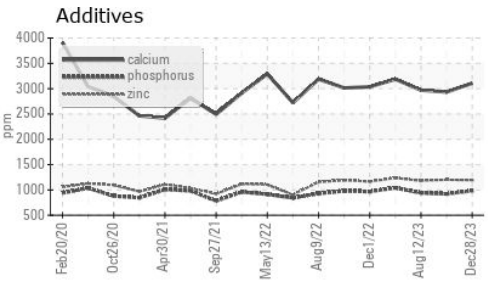
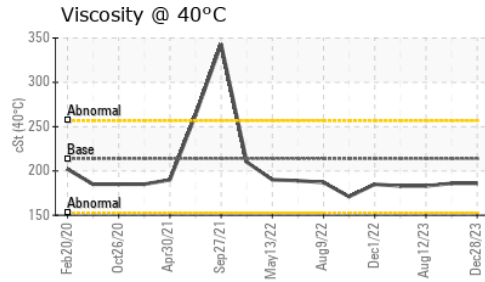
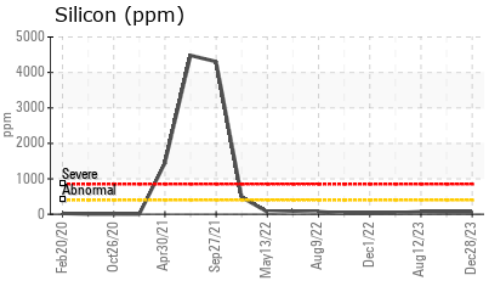
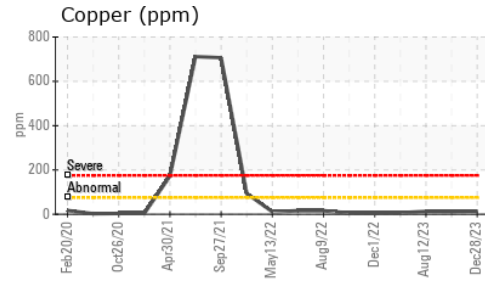
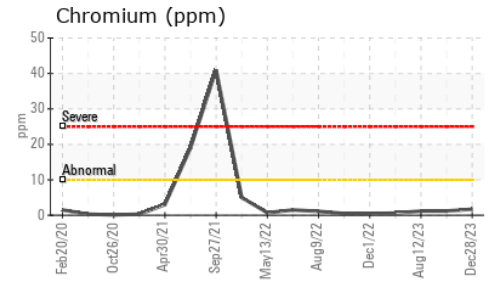
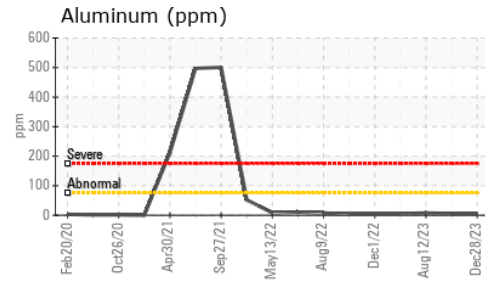
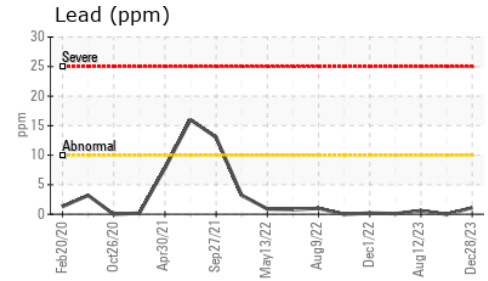
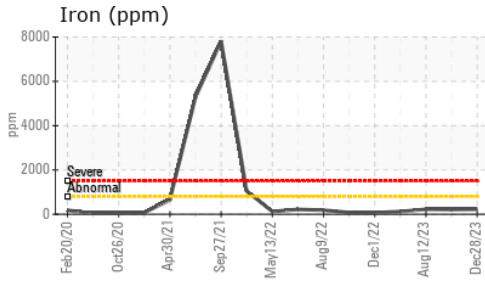


| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|------------------|-----|-----------|------------|------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 213.9 | 186 | 186 | 183 |

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

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

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0069887
Lab Number : 06054438
Unique Number : 10820387
Test Package : MOB 1

Kemp Quarries - River Valley - Backbone
 5600 S Hwy 253
 Huntington, AR
 US 72940

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)

Contact: backbone@rivervalleyquarries.com

T:
F: