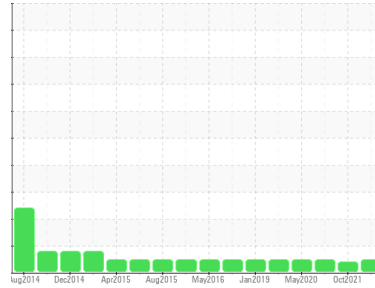


OIL ANALYSIS REPORT



Area
KEMP QUARRIES / BCS - MILL CREEK [68018]
Machine Id
WL087
Component
Hydraulic System
Fluid
PETRO CANADA HYDREX AW 68 (--- GAL)

Sample Rating Trend



NORMAL



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: PM-2 changed filters)

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the fluid.

Fluid Condition

The condition of the fluid is acceptable for the time in service.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | PCA0070583 | PCA0038169 | PCA0037961 |
| Sample Date | Client Info | | 01 Dec 2023 | 25 Oct 2021 | 19 May 2021 |
| Machine Age | hrs | Client Info | 16002 | 15752 | 15377 |
| Oil Age | hrs | Client Info | 16002 | 0 | 0 |
| Oil Changed | Client Info | | N/A | Not Changd | Not Changd |
| Sample Status | | | NORMAL | ABNORMAL | NORMAL |

CONTAMINATION

| | method | limit/base | current | history1 | history2 |
|-------|-----------|------------|------------|----------|----------|
| Water | WC Method | >0.1 | NEG | NEG | NEG |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >20 | 4 | 8 | 3 |
| Chromium | ppm | ASTM D5185m >10 | 0 | <1 | <1 |
| Nickel | ppm | ASTM D5185m >10 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m >10 | 0 | 2 | 1 |
| Lead | ppm | ASTM D5185m >10 | <1 | <1 | 0 |
| Copper | ppm | ASTM D5185m >75 | 8 | 1 | 1 |
| Tin | ppm | ASTM D5185m >10 | 0 | 0 | 0 |
| Antimony | ppm | ASTM D5185m | --- | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | 0 | 0 | 0 |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|-----------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m 0 | <1 | 5 | 7 |
| Barium | ppm | ASTM D5185m 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m 0 | 2 | 6 | 8 |
| Manganese | ppm | ASTM D5185m 0 | 0 | <1 | 0 |
| Magnesium | ppm | ASTM D5185m 0 | 32 | 83 | 102 |
| Calcium | ppm | ASTM D5185m 50 | 125 | 243 | 262 |
| Phosphorus | ppm | ASTM D5185m 330 | 360 | 367 | 397 |
| Zinc | ppm | ASTM D5185m 430 | 434 | 466 | 508 |
| Sulfur | ppm | ASTM D5185m 760 | 984 | 2187 | 1165 |

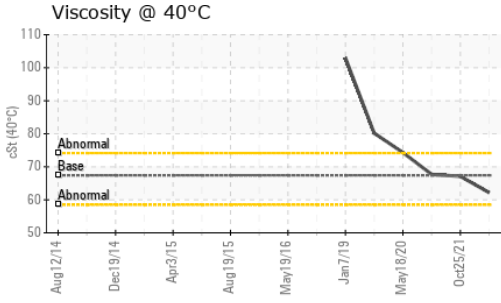
CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|-----------------|----------|----------|----------|
| Silicon | ppm | ASTM D5185m >20 | 1 | 4 | 3 |
| Sodium | ppm | ASTM D5185m | 0 | <1 | 0 |
| Potassium | ppm | ASTM D5185m >20 | 0 | 0 | 0 |

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 | NONE | NONE | NONE |
| Debris | scalar | *Visual NONE | NONE | ▲ MODER | 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 >0.1 | NEG | NEG | NEG |
| Free Water | scalar | *Visual | NEG | NEG | NEG |

OIL ANALYSIS REPORT

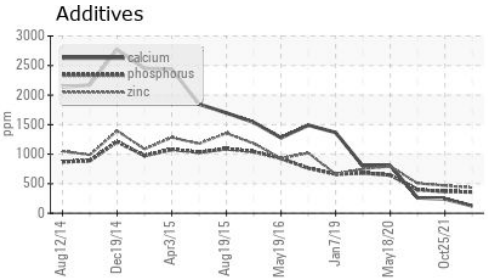
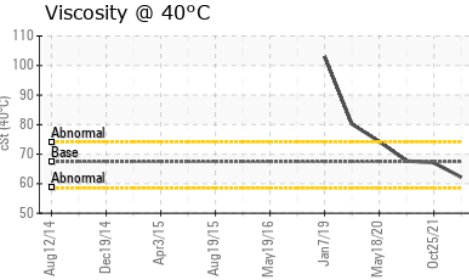
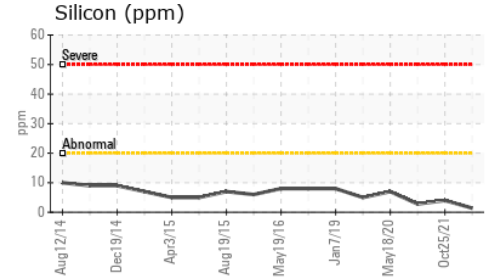
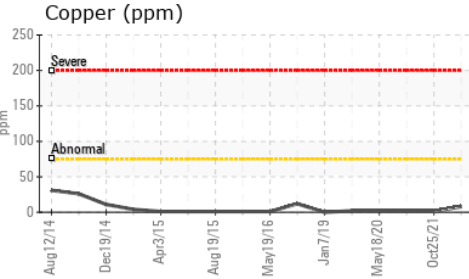
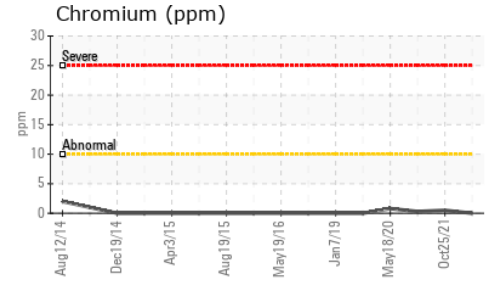
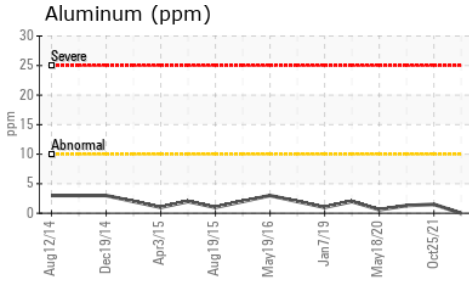
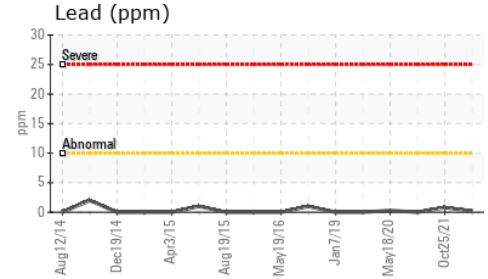
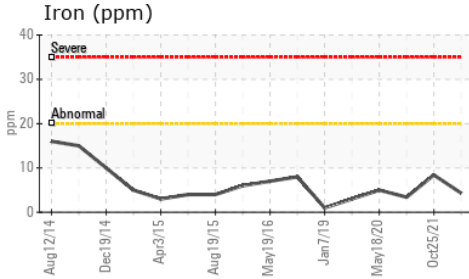


| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|------------------|-----|-----------|------------|-------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 67.4 | 62.2 | 67.1 | 67.7 |

| 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. : PCA0070583 **Received** : 12 Dec 2023
Lab Number : 06032972 **Diagnosed** : 15 Dec 2023
Unique Number : 10782763 **Diagnostician** : Don Baldrige
Test Package : MOB 1

Kemp Quarries - BCS-Mill Creek
 609 Lazy E Rd
 Noel, MO
 US 64854
 Contact: TRAVIS ELLIS
 tellis@kempquarries.com

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)

T:
F: