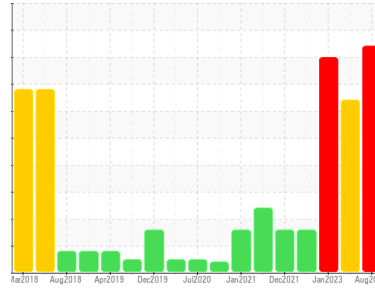


Area
KEMP QUARRIES / BCS - GRAVETTE
Machine Id
WL117
Component
Gear Drive
Fluid
PETRO CANADA TRAXON 80W90 (--- GAL)



DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. (Customer Sample Comment: PM-4 changed fluid)

Wear

All component wear rates are normal.

Contamination

Appearance is milky. There is a moderate concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. Moderate concentration of visible dirt/debris present in the oil.

Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

| method | limit/base | current | history1 | history2 |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | PCA0086418 | PCA0085788 | PCA0086724 |
| Sample Date | Client Info | 01 Aug 2023 | 09 Jun 2023 | 27 Jan 2023 |
| Machine Age | hrs | Client Info | 5552 | 4875 |
| Oil Age | hrs | Client Info | 5552 | 4875 |
| Oil Changed | Client Info | Changed | N/A | Changed |
| Sample Status | | SEVERE | SEVERE | SEVERE |

WEAR METALS

| method | limit/base | current | history1 | history2 | |
|----------|------------|------------------|------------|----------|-----------|
| Iron | ppm | ASTM D5185m >500 | 201 | 131 | 380 |
| Chromium | ppm | ASTM D5185m >5 | <1 | <1 | 2 |
| Nickel | ppm | ASTM D5185m >8 | <1 | <1 | 1 |
| Titanium | ppm | ASTM D5185m | 1 | 1 | 2 |
| Silver | ppm | ASTM D5185m | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >20 | 20 | 16 | 30 |
| Lead | ppm | ASTM D5185m >20 | 0 | <1 | 0 |
| Copper | ppm | ASTM D5185m >500 | 0 | <1 | 4 |
| Tin | ppm | ASTM D5185m >75 | <1 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | 0 | <1 | 0 |
| Cadmium | ppm | ASTM D5185m | <1 | <1 | <1 |

ADDITIVES

| method | limit/base | current | history1 | history2 | |
|------------|------------|-------------------|--------------|----------|-------|
| Boron | ppm | ASTM D5185m 243 | 194 | 131 | 157 |
| Barium | ppm | ASTM D5185m 1 | 0 | 0 | <1 |
| Molybdenum | ppm | ASTM D5185m | 0 | <1 | <1 |
| Manganese | ppm | ASTM D5185m | 3 | 2 | 5 |
| Magnesium | ppm | ASTM D5185m 2 | 16 | 9 | 18 |
| Calcium | ppm | ASTM D5185m 6 | 386 | 516 | 593 |
| Phosphorus | ppm | ASTM D5185m 987 | 960 | 921 | 855 |
| Zinc | ppm | ASTM D5185m 1 | 53 | 216 | 84 |
| Sulfur | ppm | ASTM D5185m 21530 | 21478 | 21419 | 21460 |

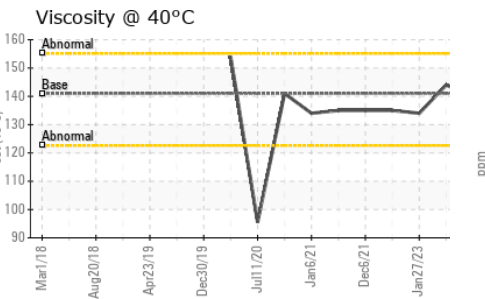
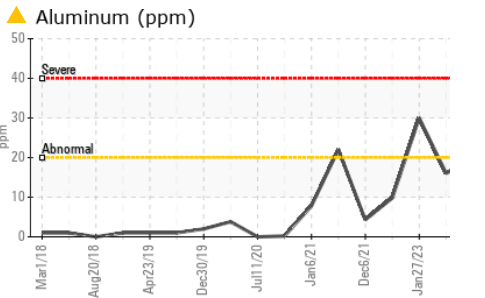
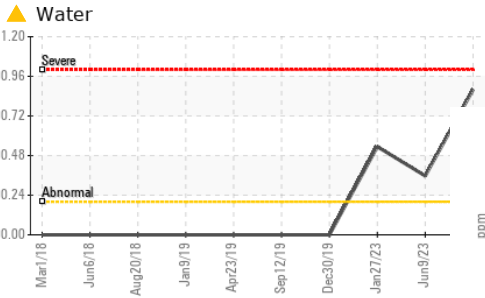
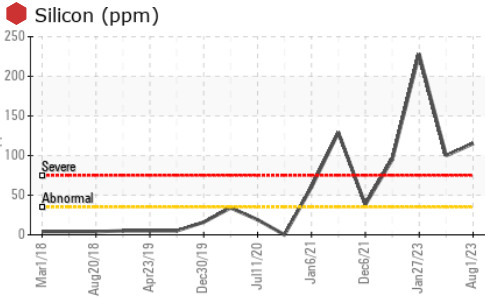
CONTAMINANTS

| method | limit/base | current | history1 | history2 | |
|-----------|------------|------------------|--------------|----------|-------|
| Silicon | ppm | ASTM D5185m >35 | 115 | 100 | 228 |
| Sodium | ppm | ASTM D5185m | 1 | 1 | 2 |
| Potassium | ppm | ASTM D5185m >20 | 9 | 8 | 11 |
| Water | % | ASTM D6304 >0.2 | 0.880 | 0.357 | 0.534 |
| ppm Water | ppm | ASTM D6304 >2000 | 8800 | 3570 | 5340 |

VISUAL

| method | limit/base | current | history1 | history2 | |
|------------------|------------|---------------|--------------|----------|-------------|
| White Metal | scalar | *Visual NONE | NONE | MODER | 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 | MODER | NONE | NONE |
| Sand/Dirt | scalar | *Visual NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual NORML | MILKY | NORML | HAZY |
| Odor | scalar | *Visual NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual >0.2 | 0.2% | 0.2% | 0.2% |
| Free Water | scalar | *Visual | NEG | NEG | NEG |

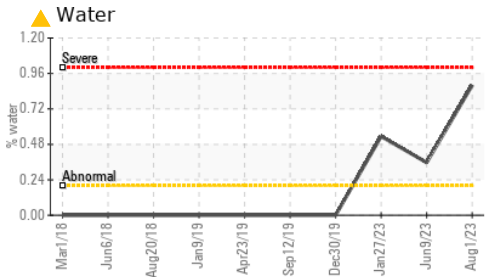
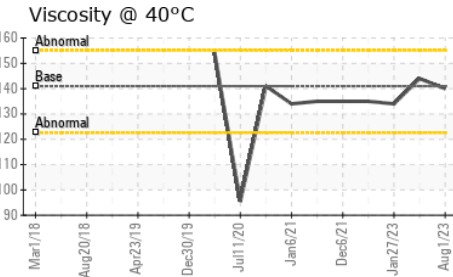
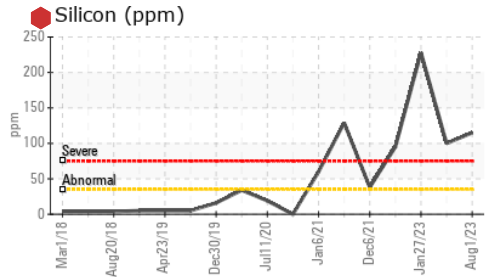
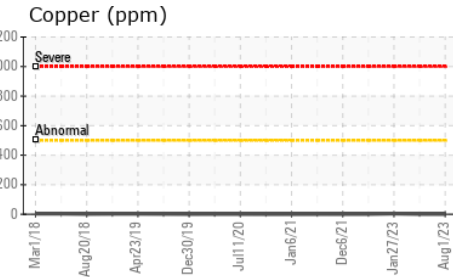
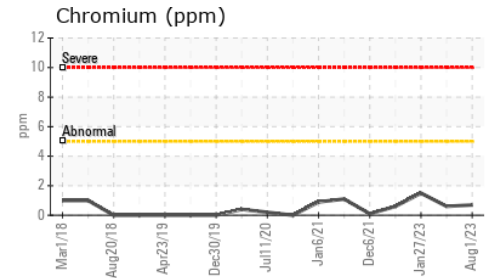
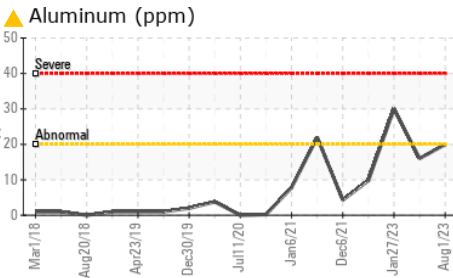
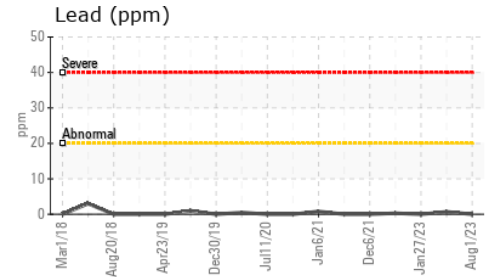
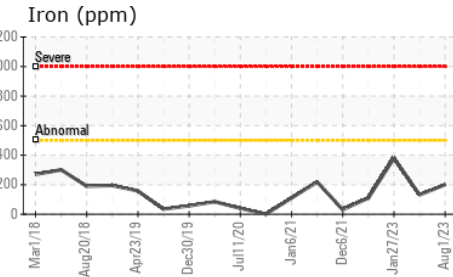
OIL ANALYSIS REPORT



| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|------------------|-----|-----------|------------|------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 141.0 | 140 | 144 | 134 |

| 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. : PCA0086418
Lab Number : 05926906
Unique Number : 10606853
Test Package : MOB 1 (Additional Tests: KF)

Kemp Quarries - Benton County Stone - Gravette
 15100 N Hwy 59
 Sulphur Springs, AR
 US 72768

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)

gravette@bentoncountystone.com

T:

F: