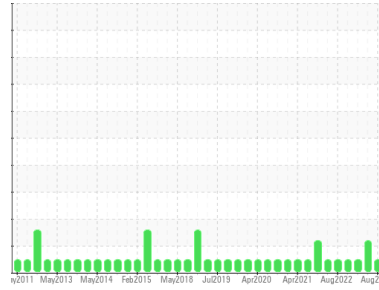


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
KEMP QUARRIES / MUSKOGEE SAND

Machine Id
WL056

Component
Transmission (Manual)

Fluid
NOT GIVEN (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

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 | PCA0087099 | PCA0087160 | PCA0087169 |
| Sample Date | Client Info | 10 Aug 2023 | 06 Jun 2023 | 28 Feb 2023 |
| Machine Age | hrs | 33775 | 33310 | 32585 |
| Oil Age | hrs | 1190 | 725 | 1000 |
| Oil Changed | Client Info | Changed | Not Changd | Changed |
| Sample Status | | NORMAL | ABNORMAL | NORMAL |

WEAR METALS

| method | limit/base | current | history1 | history2 | |
|----------|------------|------------------|--------------|----------|----|
| Iron | ppm | ASTM D5185m >200 | 32 | 21 | 19 |
| Chromium | ppm | ASTM D5185m >5 | 3 | 2 | 2 |
| Nickel | ppm | ASTM D5185m >5 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m >7 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >25 | 1 | 4 | 2 |
| Lead | ppm | ASTM D5185m >45 | <1 | 0 | 0 |
| Copper | ppm | ASTM D5185m >225 | 21 | 21 | 24 |
| Tin | ppm | ASTM D5185m >10 | <1 | 1 | 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 | 0 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 2 | 2 | 2 |
| Manganese | ppm | ASTM D5185m | <1 | 1 | <1 |
| Magnesium | ppm | ASTM D5185m | 21 | 25 | 32 |
| Calcium | ppm | ASTM D5185m | 727 | 1242 | 1160 |
| Phosphorus | ppm | ASTM D5185m | 535 | 651 | 599 |
| Zinc | ppm | ASTM D5185m | 640 | 805 | 767 |
| Sulfur | ppm | ASTM D5185m | 1733 | 2791 | 2703 |

CONTAMINANTS

| method | limit/base | current | history1 | history2 | |
|-----------|------------|------------------|--------------|----------|----|
| Silicon | ppm | ASTM D5185m >125 | 11 | 12 | 6 |
| Sodium | ppm | ASTM D5185m | <1 | 1 | 1 |
| Potassium | ppm | ASTM D5185m >20 | 0 | 2 | <1 |

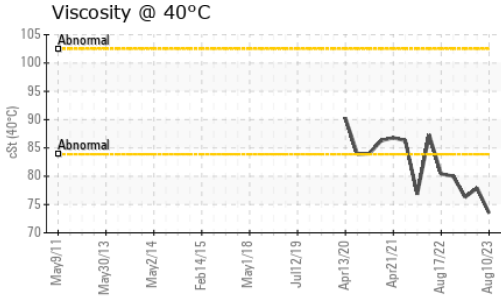
VISUAL

| method | limit/base | current | history1 | history2 | |
|------------------|------------|---------------|--------------|----------|-------|
| White Metal | scalar | *Visual NONE | NONE | ▲ MODER | 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 | 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 >0.1 | NEG | NEG | NEG |
| Free Water | scalar | *Visual | NEG | NEG | NEG |

FLUID PROPERTIES

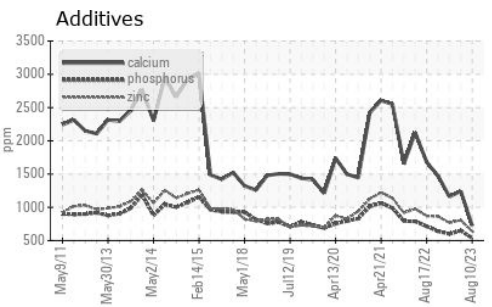
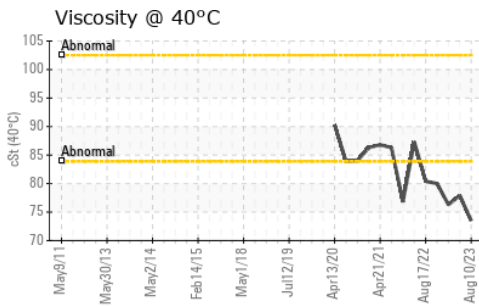
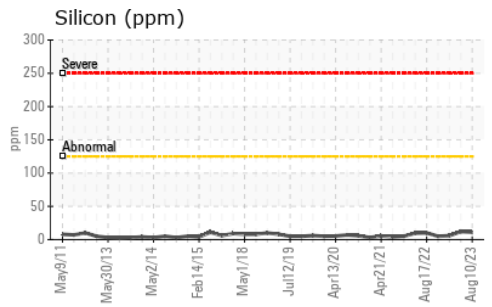
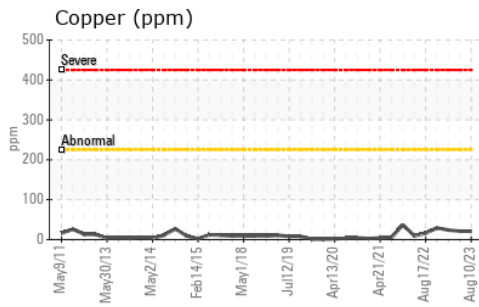
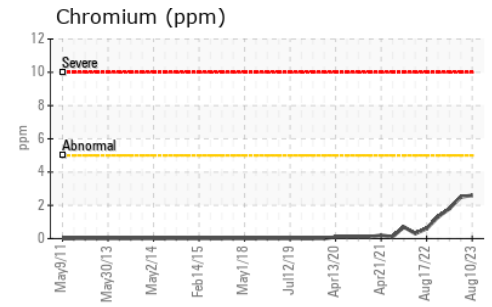
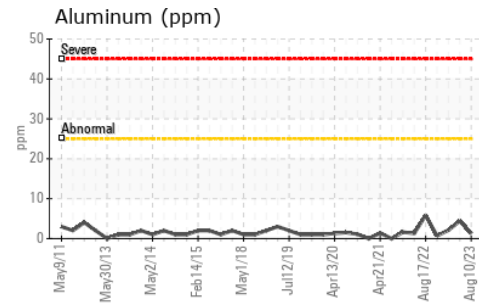
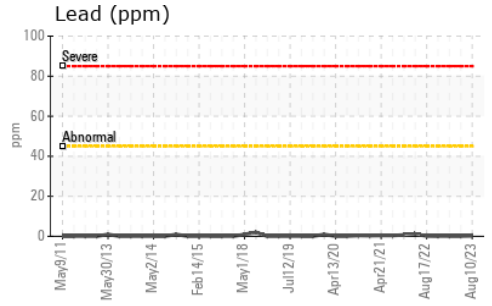
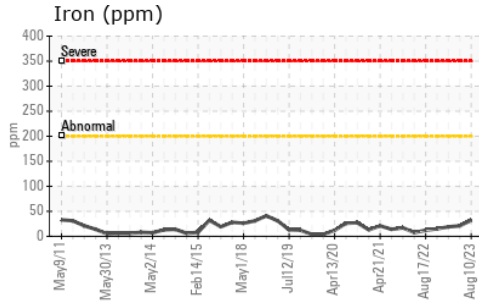
| method | limit/base | current | history1 | history2 | |
|-------------|------------|-----------|-------------|----------|------|
| Visc @ 40°C | cSt | ASTM D445 | 73.5 | 77.9 | 76.3 |

OIL ANALYSIS REPORT



| 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. : PCA0087099 **Received** : 04 Oct 2023
Lab Number : 05969959 **Diagnosed** : 05 Oct 2023
Unique Number : 10681909 **Diagnostician** : Wes Davis
Test Package : MOB 1

Kemp Quarries - Muskogee Sand
 3395 W 50th St N
 Porter, OK
 US 74454
 Contact: MUSCOGEE NOTIFICATIONS
 muskogee@muskogeessand.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: