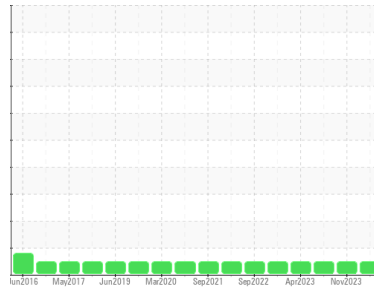


# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Area  
**US ELECTRICAL SVC-KEARNY**  
 Machine Id  
**ISUZU 160671**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 10W30 (10 QTS)**

### 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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| SAMPLE INFORMATION |             | method      | limit/base | current            | history1    | history2    |
|--------------------|-------------|-------------|------------|--------------------|-------------|-------------|
| Sample Number      | Client Info |             |            | <b>PCA0120683</b>  | PCA0113387  | PCA0103045  |
| Sample Date        | Client Info |             |            | <b>25 Mar 2024</b> | 30 Nov 2023 | 08 Aug 2023 |
| Machine Age        | mls         | Client Info |            | <b>112014</b>      | 108074      | 105121      |
| Oil Age            | mls         | Client Info |            | <b>0</b>           | 0           | 0           |
| Oil Changed        | Client Info |             |            | <b>Changed</b>     | Changed     | Changed     |
| Sample Status      |             |             |            | <b>NORMAL</b>      | NORMAL      | NORMAL      |

| CONTAMINATION |           | method | limit/base | current        | history1 | history2 |
|---------------|-----------|--------|------------|----------------|----------|----------|
| Fuel          | WC Method | >5     |            | <b>&lt;1.0</b> | <1.0     | <1.0     |
| Water         | WC Method | >0.2   |            | <b>NEG</b>     | NEG      | NEG      |
| Glycol        | WC Method |        |            | <b>NEG</b>     | NEG      | NEG      |

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >100       | <b>48</b>    | 59       | 35       |
| Chromium    | ppm | ASTM D5185m | >20        | <b>&lt;1</b> | <1       | <1       |
| Nickel      | ppm | ASTM D5185m | >4         | <b>0</b>     | 0        | 0        |
| Titanium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Silver      | ppm | ASTM D5185m | >3         | <b>0</b>     | 0        | 0        |
| Aluminum    | ppm | ASTM D5185m | >20        | <b>2</b>     | 2        | <1       |
| Lead        | ppm | ASTM D5185m | >40        | <b>&lt;1</b> | 0        | <1       |
| Copper      | ppm | ASTM D5185m | >330       | <b>4</b>     | <1       | 1        |
| Tin         | ppm | ASTM D5185m | >15        | <b>0</b>     | <1       | <1       |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | <1       |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |

| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m | 2          | <b>3</b>     | 11       | 12       |
| Barium     | ppm | ASTM D5185m | 0          | <b>0</b>     | 0        | 0        |
| Molybdenum | ppm | ASTM D5185m | 50         | <b>66</b>    | 63       | 61       |
| Manganese  | ppm | ASTM D5185m | 0          | <b>&lt;1</b> | <1       | <1       |
| Magnesium  | ppm | ASTM D5185m | 950        | <b>1023</b>  | 900      | 925      |
| Calcium    | ppm | ASTM D5185m | 1050       | <b>1208</b>  | 1105     | 1127     |
| Phosphorus | ppm | ASTM D5185m | 995        | <b>1165</b>  | 1057     | 1011     |
| Zinc       | ppm | ASTM D5185m | 1180       | <b>1331</b>  | 1284     | 1258     |
| Sulfur     | ppm | ASTM D5185m | 2600       | <b>3922</b>  | 3176     | 3661     |

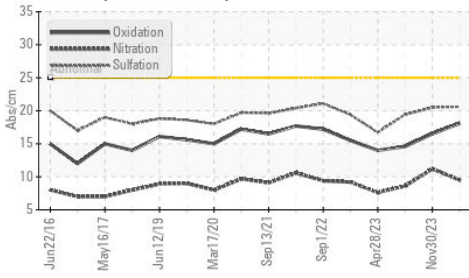
| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >25        | <b>4</b>     | 5        | 4        |
| Sodium       | ppm | ASTM D5185m |            | <b>&lt;1</b> | 1        | 3        |
| Potassium    | ppm | ASTM D5185m | >20        | <b>&lt;1</b> | <1       | 1        |

| INFRA-RED |          | method      | limit/base | current     | history1 | history2 |
|-----------|----------|-------------|------------|-------------|----------|----------|
| Soot %    | %        | *ASTM D7844 | >3         | <b>0.8</b>  | 1.6      | 1.2      |
| Nitration | Abs/cm   | *ASTM D7624 | >20        | <b>9.5</b>  | 11.2     | 8.6      |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30        | <b>20.6</b> | 20.5     | 19.4     |

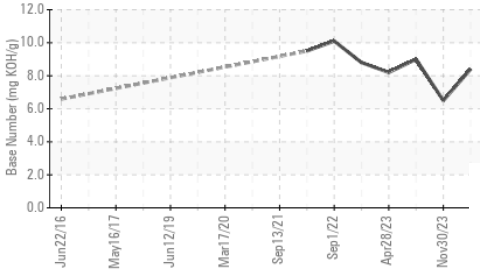
| FLUID DEGRADATION |          | method      | limit/base | current     | history1 | history2 |
|-------------------|----------|-------------|------------|-------------|----------|----------|
| Oxidation         | Abs/.1mm | *ASTM D7414 | >25        | <b>18.1</b> | 16.5     | 14.6     |
| Base Number (BN)  | mg KOH/g | ASTM D2896  |            | <b>8.4</b>  | 6.5      | 9.0      |

# OIL ANALYSIS REPORT

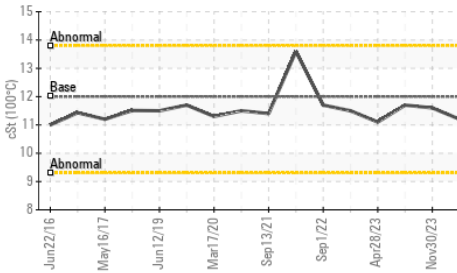
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

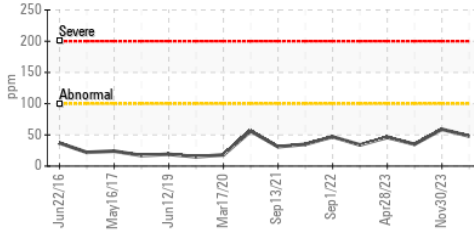


| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | NONE     | NONE     |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | NONE     |
| Appearance       | scalar | *Visual    | NORML   | NORML    | NORML    |
| Odor             | scalar | *Visual    | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual    | >0.2    | NEG      | NEG      |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

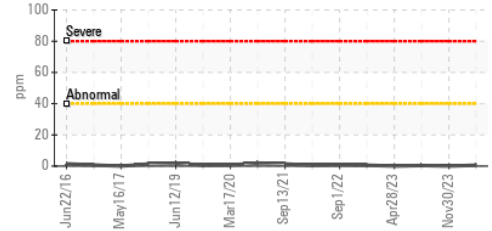
| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 100°C     | cSt    | ASTM D445  | 12.00   | 11.2     | 11.6     |

## GRAPHS

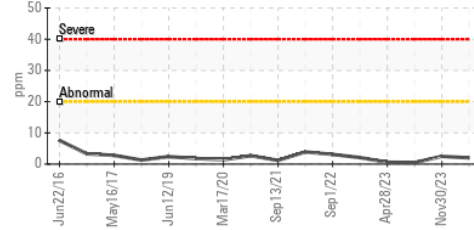
Iron (ppm)



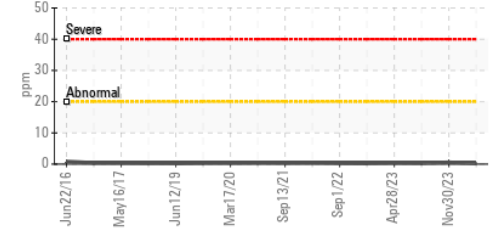
Lead (ppm)



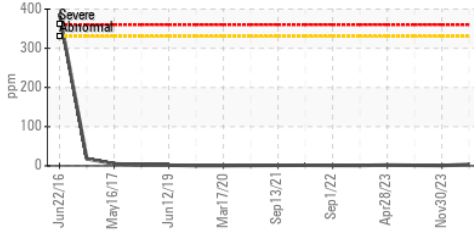
Aluminum (ppm)



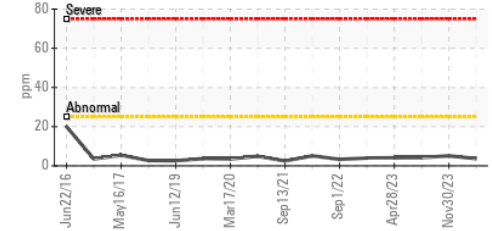
Chromium (ppm)



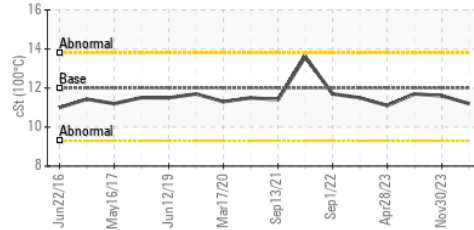
Copper (ppm)



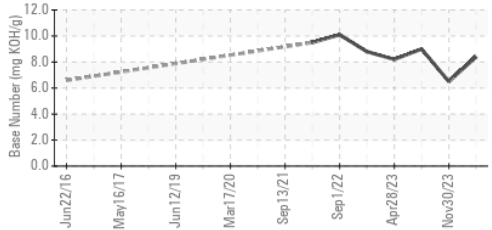
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : PCA0120683

**Lab Number** : 06142706

**Unique Number** : 10967514

**Test Package** : MOB 1 ( Additional Tests: TBN )

**Received** : 09 Apr 2024

**Tested** : 09 Apr 2024

**Diagnosed** : 09 Apr 2024 - Wes Davis

**MILLER TRUCK LEASING #119**

39 INDUSTRIAL AVE

HASBROUCK HEIGHTS, NJ

US 07604

Contact: MIKE LONGETTE

mlongette@millertransgroup.com

T:

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)

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