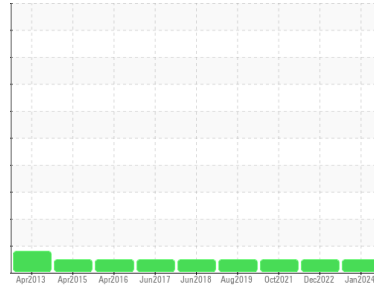


OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
HAMPTON INN [6100230771]
Machine Id
JOHN DEERE PE4045D844672
Component
Diesel Engine
Fluid
PETRO CANADA DURON SAE 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|--------------------|-------------|-------------|------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | | WA0020867 | WA0018581 | WA0016308 |
| Sample Date | Client Info | | | 18 Jan 2024 | 08 Dec 2022 | 08 Oct 2021 |
| Machine Age | hrs | Client Info | | 56 | 0 | 31 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | Client Info | | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---------------|-----------|--------|----------------|---------|----------|----------|
| Fuel | WC Method | >2.1 | <1.0 | <1.0 | <1.0 | |
| Water | WC Method | >0.21 | NEG | NEG | NEG | |
| Glycol | WC Method | | NEG | 0.0 | 0.0 | |

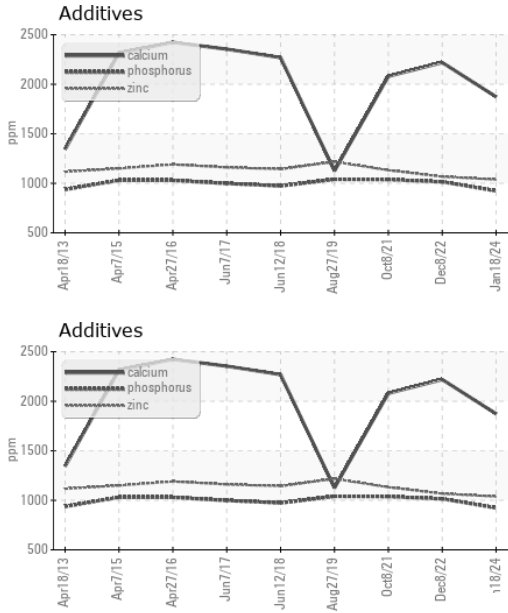
| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|---------------|------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185(m) | >51 | 1 | 2 | 2 |
| Chromium | ppm | ASTM D5185(m) | >11 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) | >5 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185(m) | | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185(m) | >3 | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185(m) | >31 | 1 | <1 | <1 |
| Lead | ppm | ASTM D5185(m) | >26 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185(m) | >26 | <1 | <1 | <1 |
| Tin | ppm | ASTM D5185(m) | >4 | 0 | 0 | <1 |
| Antimony | ppm | ASTM D5185(m) | | 0 | <1 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Beryllium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|---------------|------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185(m) | 1 | 12 | 133 | 178 |
| Barium | ppm | ASTM D5185(m) | 1 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 60 | 19 | <1 | 4 |
| Manganese | ppm | ASTM D5185(m) | 1 | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185(m) | 1010 | 312 | 18 | 67 |
| Calcium | ppm | ASTM D5185(m) | 1070 | 1873 | 2219 | 2080 |
| Phosphorus | ppm | ASTM D5185(m) | 1150 | 923 | 1014 | 1037 |
| Zinc | ppm | ASTM D5185(m) | 1270 | 1038 | 1067 | 1132 |
| Sulfur | ppm | ASTM D5185(m) | 2060 | 3057 | 3108 | 3060 |
| Lithium | ppm | ASTM D5185(m) | | <1 | <1 | <1 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|---------------|------------|----------|----------|----------|
| Silicon | ppm | ASTM D5185(m) | >22 | 3 | 4 | 5 |
| Sodium | ppm | ASTM D5185(m) | >31 | 1 | 2 | 2 |
| Potassium | ppm | ASTM D5185(m) | >20 | 2 | 5 | 7 |

| INFRA-RED | | method | limit/base | current | history1 | history2 |
|-----------|----------|-------------|------------|-------------|----------|----------|
| Soot % | % | ASTM D7844* | >3 | 0 | 0 | 0 |
| Nitration | Abs/cm | ASTM D7624* | >20 | 5.2 | 4.3 | 6.0 |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 16.6 | 16.4 | 21.1 |

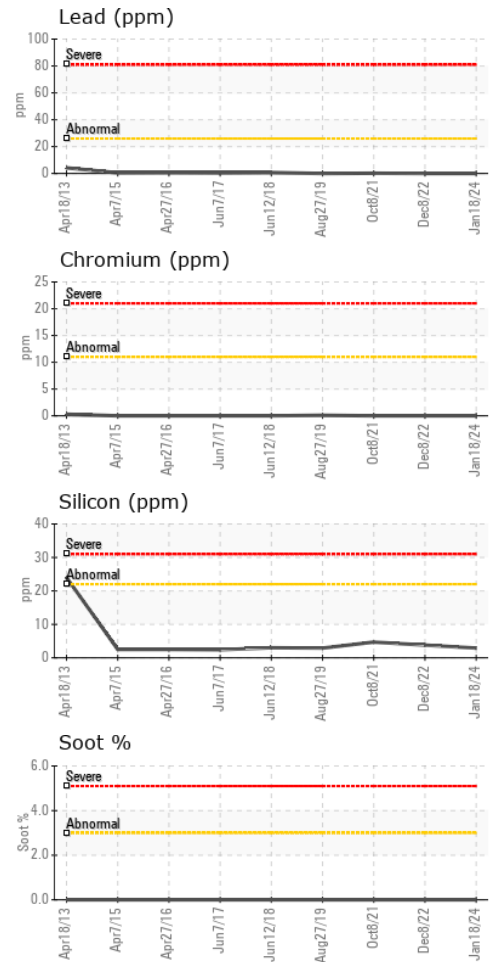
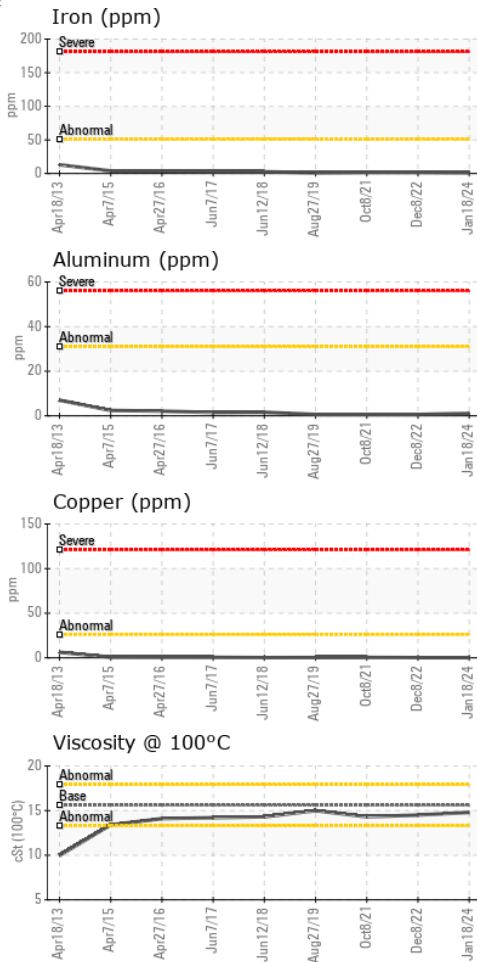
OIL ANALYSIS REPORT



| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|-------------|------------|--------------|----------|----------|
| Oxidation | Abs./1mm | ASTM D7414* | >25 | 10.5 | 9.4 | 16.6 |
| VISUAL | | method | limit/base | current | history1 | history2 |
| White Metal | scalar | Visual* | NONE | NONE | --- | --- |
| Yellow Metal | scalar | Visual* | NONE | NONE | --- | --- |
| Precipitate | scalar | Visual* | NONE | NONE | --- | --- |
| Silt | scalar | Visual* | NONE | NONE | --- | --- |
| Debris | scalar | Visual* | NONE | VLITE | --- | --- |
| Sand/Dirt | scalar | Visual* | NONE | NONE | --- | --- |
| Appearance | scalar | Visual* | NORML | NORML | --- | --- |
| Odor | scalar | Visual* | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | Visual* | >0.21 | NEG | NEG | NEG |
| Free Water | scalar | Visual* | | NEG | NEG | NEG |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|------------------|-----|---------------|------------|-------------|----------|----------|
| Visc @ 100°C | cSt | ASTM D7279(m) | 15.6 | 14.8 | 14.5 | 14.3 |

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WA0020867 **Received** : 23 Jan 2024
Lab Number : **02610525** **Diagnosed** : 23 Jan 2024
Unique Number : 5711611 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: Visual)

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 Dartmouth, NS
 CA B3B 1T7
 Contact: Danelle Hoffman
 dhoffman@wajax.com
 T: (902)468-6200
 F: (902)468-3325

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.