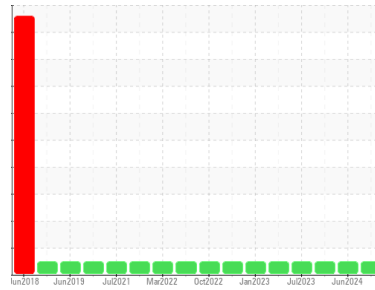




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
201064
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)

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 | | GFL0128174 | GFL0117260 | GFL0084301 |
| Sample Date | Client Info | | 15 Jul 2024 | 11 Jun 2024 | 16 Jan 2024 |
| Machine Age | kms | Client Info | 245537 | 242767 | 9993 |
| Oil Age | kms | 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 | >5 | <1.0 | <1.0 | <1.0 |
| Water | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | WC Method | | NEG | NEG | NEG |

WEAR METALS

| | method | limit/base | current | history1 | history2 | |
|-----------|--------|---------------|---------|--------------|----------|----|
| Iron | ppm | ASTM D5185(m) | >80 | 6 | 23 | 12 |
| Chromium | ppm | ASTM D5185(m) | >5 | 0 | <1 | <1 |
| Nickel | ppm | ASTM D5185(m) | >2 | 0 | <1 | <1 |
| Titanium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >30 | 1 | 5 | 3 |
| Lead | ppm | ASTM D5185(m) | >30 | <1 | 0 | 0 |
| Copper | ppm | ASTM D5185(m) | >150 | 13 | <1 | <1 |
| Tin | ppm | ASTM D5185(m) | >5 | 0 | 0 | 0 |
| Antimony | ppm | ASTM D5185(m) | | 0 | 0 | 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 | 5 | 3 | 3 |
| Barium | ppm | ASTM D5185(m) | 1 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 60 | 56 | 56 | 57 |
| Manganese | ppm | ASTM D5185(m) | 1 | <1 | <1 | 0 |
| Magnesium | ppm | ASTM D5185(m) | 1010 | 893 | 884 | 906 |
| Calcium | ppm | ASTM D5185(m) | 1070 | 1005 | 1014 | 1023 |
| Phosphorus | ppm | ASTM D5185(m) | 1150 | 1118 | 943 | 991 |
| Zinc | ppm | ASTM D5185(m) | 1270 | 1151 | 1151 | 1162 |
| Sulfur | ppm | ASTM D5185(m) | 2060 | 2620 | 2354 | 2690 |
| Lithium | ppm | ASTM D5185(m) | | <1 | <1 | <1 |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 | |
|-----------|--------|---------------|---------|--------------|----------|----|
| Silicon | ppm | ASTM D5185(m) | >20 | 3 | 3 | 7 |
| Sodium | ppm | ASTM D5185(m) | | 1 | 1 | <1 |
| Potassium | ppm | ASTM D5185(m) | >20 | <1 | <1 | <1 |

INFRA-RED

| | method | limit/base | current | history1 | history2 | |
|-----------|----------|-------------|---------|-------------|----------|------|
| Soot % | % | ASTM D7844* | >3 | 0.2 | 1.6 | 1 |
| Nitration | Abs/cm | ASTM D7624* | >20 | 5.5 | 11.1 | 8.5 |
| Sulfation | Abs./1mm | ASTM D7415* | >30 | 18.2 | 23.4 | 20.4 |

