

OIL ANALYSIS REPORT

Area SHARP BUS LINES Machine Id INTERNATIONAL 1364

Component Diesel Engine Fluid

PETRO CANADA 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 condition of the oil is acceptable for the time in service.

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Sample Rating Trend



NORMAL

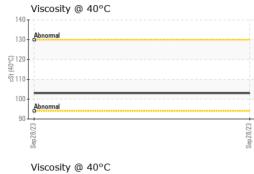
| SAMPLE INFORM | MATION | method | limit/base | current | history1 | history2 |
|---|--|---|--|--|--|--|
| Sample Number | | Client Info | | PC0081404 | | |
| Sample Date | | Client Info | | 28 Sep 2023 | | |
| Machine Age | hrs | Client Info | | 242433 | | |
| Oil Age | hrs | Client Info | | 2000 | | |
| Oil Changed | | Client Info | | Changed | | |
| Sample Status | | | | NORMAL | | |
| CONTAMINAT | ION | method | limit/base | current | history1 | history2 |
| Fuel | | WC Method | >2.0 | <1.0 | | |
| Glycol | | WC Method | | NEG | | |
| WEAR METAL | S | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185(m) | >100 | 16 | | |
| Chromium | ppm | ASTM D5185(m) | >20 | <1 | | |
| Nickel | ppm | ASTM D5185(m) | >4 | <1 | | |
| Titanium | ppm | ASTM D5185(m) | | 0 | | |
| Silver | ppm | ASTM D5185(m) | >3 | <1 | | |
| Aluminum | ppm | ASTM D5185(m) | >20 | 6 | | |
| Lead | ppm | ASTM D5185(m) | >40 | <1 | | |
| Copper | ppm | ASTM D5185(m) | >330 | <1 | | |
| Tin | ppm | ASTM D5185(m) | >15 | 0 | | |
| Antimony | ppm | ASTM D5185(m) | | 0 | | |
| Vanadium | ppm | ASTM D5185(m) | | 0 | | |
| Beryllium | ppm | ASTM D5185(m) | | 0 | | |
| Cadmium | ppm | ASTM D5185(m) | | 0 | | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185(m) | | <1 | | |
| Barium | ppm | ASTM D5185(m) | | <1 | | |
| Molybdenum | ppm | ASTM D5185(m) | | 56 | | |
| Manganese | ppm | ASTM D5185(m) | | - | | |
| | ppin | ASTIVI DOTOD(III) | | 0 | | |
| Magnesium | ppm | ASTM D5185(m) | | 0 909 | | |
| Magnesium Calcium | | | | | | |
| - | ppm | ASTM D5185(m) | | 909 | | |
| Calcium | ppm ppm | ASTM D5185(m) ASTM D5185(m) | | 909 966 | | |
| Calcium Phosphorus | ppm ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | | 909 966 959 | | |
| Calcium Phosphorus Zinc | ppm ppm ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | | 909 966 959 1116 | | |
| Calcium Phosphorus Zinc Sulfur | ppm ppm ppm ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | limit/base | 909 966 959 1116 2470 <1 | | |
| Calcium Phosphorus Zinc Sulfur Lithium | ppm ppm ppm ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | | 909 966 959 1116 2470 <1 | | |
| Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN | ppm ppm ppm ppm ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method | limit/base | 909 966 959 1116 2470 <1 current | | history2 |
| Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon | ppm ppm ppm ppm ppm ppm TS | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) Method ASTM D5185(m) | limit/base | 909 966 959 1116 2470 <1 current 3 | history1 | history2 |
| Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium | ppm ppm ppm ppm ppm ppm TS | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | limit/base >25 | 909 966 959 1116 2470 <1 current 3 2 | history1 | history2 |
| Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm TS | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | limit/base >25 >20 | 909 966 959 1116 2470 <1 current 3 2 6 | history1 | history2 |
| Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED | ppm ppm ppm ppm ppm ppm TS ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | limit/base >25 >20 limit/base | 909 966 959 1116 2470 <1 current 3 2 6 Current | history1 | history2 |
| Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % | ppm ppm ppm ppm ppm ppm TS ppm ppm | ASTM D5185(m) ASTM D5185(m) | limit/base >25 >20 limit/base >3 | 909 966 959 1116 2470 <1 current 3 2 6 current 0.8 | history1 history1 | history2 history2 |
| Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration | ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm | ASTM D5185(m) ASTM D7844* ASTM D7844* ASTM D7624* | limit/base >25 >20 limit/base >3 >20 | 909 966 959 1116 2470 <1 current 3 2 6 current 0.8 6.7 | history1 history1 | history2 history2 |
| Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation | ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm | ASTM D5185(m) ASTM D7844* ASTM D7844* ASTM D7624* | limit/base >25 >20 limit/base >3 >20 >30 | 909 966 959 1116 2470 <1 current 3 2 6 current 0.8 6.7 20.2 | history1 history1 history1 | history2 history2 history2 |

Contact/Location: Doug Hall - ICSB902



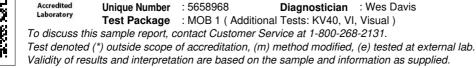
OIL ANALYSIS REPORT

VISUAL





White Metal NONE NONE scalar Visual* Yellow Metal NONE NONE scalar Visual* Precipitate scalar Visual* NONE NONE Silt scalar Visual* NONE LIGHT Debris NONE Visual* NONE scalar NONE Sand/Dirt scalar Visual* NONE NORML Appearance scalar Visual* NORML Odor NORML NORML scalar Visual* **Emulsified Water** scalar Visual* >0.2 NEG Free Water scalar Visual* NEG **FLUID PROPERTIES** Visc @ 40°C cSt ASTM D7279(m) 103 Visc @ 100°C cSt ASTM D7279(m) 14.3 Viscosity Index (VI) Scale ASTM D2270' 142 GRAPHS Iron (ppm) Lead (ppm) 250 100 200 Severe 80 150 60 특 100 ppm Abnorma 40 50 20 0 Chromium (ppm) Aluminum (ppm) 51 40 40 30 21 Abr Ab 20 20 10 10 0. 0 en28/23 Copper (ppm) Silicon (ppm) 40 80 Se 300 60 E 200 E 40 100 20 Sep28/23 Viscosity @ 100°C Soot % 20 6.0 Severe 18 cSt (100°C) 16 Soot Abnormal 12 10 0.0 Sep28/23 -Sep28/23 : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **ICSB - Brantford** : PC0081404 Received : 18 Oct 2023 567 Oak Park Rd. : 02589902 Brantford, ON Diagnosed : 19 Oct 2023 : 5658968 CA N3T 5L8 Diagnostician : Wes Davis



CA N3T 5L8 Contact: Doug Hall Djhall@sharpbus.com T: (519)751-3434 F:

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CALA

ISO 17025:2017

Laboratory

Sample No.

Lab Number