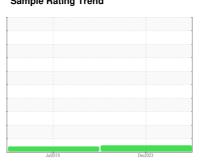


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id **Chevrolet 2469**

Component

Diesel Engine

PETRO CANADA DURON SHP 10W30 (---

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

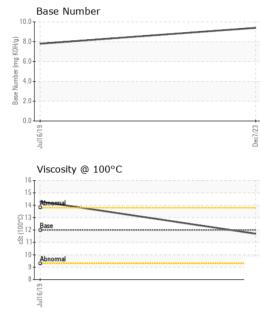
Fluid Condition

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

| Client Info PCA0091703 PCA0004657 PC | iAL) | | | Jul2019 | Dec2023 | | |
|--|------------------|----------|-------------|------------|-------------|-------------|----------|
| Client Info O7 Dec 2023 16 Jul 2019 Machine Age mls Client Info 12987 119640 Client Info 10217 8022 Client Info 10217 8022 Client Info Changed NORMAL ATTENTION Changed NORMAL ATTENTION CONTAMINATION method Sample Status | SAMPLE INFOR | RMATION | method | limit/base | current | history1 | history2 |
| Client Info O7 Dec 2023 16 Jul 2019 Machine Age mls Client Info 12987 119640 Client Info 10217 8022 Client Info 10217 8022 Client Info Changed NORMAL ATTENTION Changed NORMAL ATTENTION CONTAMINATION method Sample Status | Sample Number | | Client Info | | PCA0091703 | PCA0004657 | |
| Dil Age | | | Client Info | | 07 Dec 2023 | 16 Jul 2019 | |
| Contamper Client Info Changed Not Changed Normal ATTENTION CONTAMINATION method Imit/base current history1 history2 Magnesium ppm ASTM 05185m 20 cl. 0 cl. | Machine Age | mls | Client Info | | 129857 | 119640 | |
| CONTAMINATION method limit/base current history1 history2 history3 history4 history4 history4 history4 history5 histo | Oil Age | mls | Client Info | | 10217 | 8022 | |
| CONTAMINATION method limit/base current history1 history2 | Oil Changed | | Client Info | | Changed | Not Changd | |
| Fuel | Sample Status | | | | NORMAL | ATTENTION | |
| Water WC Method >0.2 NEG NEG Glycol WC Method Imit/base current history1 history1 WEAR METALS method limit/base current history1 history2 ron ppm ASTM D5185m >100 6 28 Chromium ppm ASTM D5185m >20 <1 | CONTAMINA | TION | method | limit/base | current | history1 | history2 |
| WEAR METALS | Fuel | | WC Method | >5 | <1.0 | <1.0 | |
| WEAR METALS method limit/base current history1 history2 ron ppm ASTM D5185m >100 6 28 | Nater | | WC Method | >0.2 | NEG | NEG | |
| Chromium | Glycol | | WC Method | | NEG | NEG | |
| Chromium | WEAR META | LS | method | limit/base | current | history1 | history2 |
| Nickel | ron | ppm | ASTM D5185m | >100 | 6 | 28 | |
| Description | Chromium | ppm | ASTM D5185m | >20 | <1 | <1 | |
| Silver | Nickel | ppm | ASTM D5185m | >4 | 0 | 0 | |
| Aluminum | Titanium | ppm | ASTM D5185m | | 0 | 0 | |
| Lead | Silver | ppm | ASTM D5185m | >3 | 0 | 0 | |
| Copper ppm ASTM D5185m >330 <1 2 Tin ppm ASTM D5185m >15 0 <1 | Aluminum | ppm | ASTM D5185m | >20 | 2 | <1 | |
| Tin | Lead | ppm | ASTM D5185m | >40 | 0 | 5 | |
| Antimony | Copper | ppm | ASTM D5185m | >330 | <1 | 2 | |
| Vanadium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 1 5 Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 0 0 2 Magnesium ppm ASTM D5185m 950 923 906 Calcium ppm ASTM D5185m 950 923 906 Phosphorus ppm ASTM D5185m 1050 1006 967 Phosphorus ppm ASTM D5185m 995 872 893 Zinc ppm ASTM D5185m 2600 2856 2385 | Tin | ppm | ASTM D5185m | >15 | 0 | <1 | |
| ADDITIVES | Antimony | ppm | ASTM D5185m | | | 0 | |
| ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 1 5 Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 50 59 54 Manganese ppm ASTM D5185m 0 0 2 Magnesium ppm ASTM D5185m 950 923 906 Calcium ppm ASTM D5185m 1050 1006 967 Phosphorus ppm ASTM D5185m 1180 1176 1116 Sulfur ppm ASTM D5185m 2600 2856 2385 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 3 Potassium ppm ASTM D5185m >2 | Vanadium | ppm | ASTM D5185m | | 0 | 0 | |
| Boron ppm ASTM D5185m 2 | Cadmium | | ASTM D5185m | | 0 | 0 | |
| Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 50 59 54 Manganese ppm ASTM D5185m 0 0 2 Magnesium ppm ASTM D5185m 950 923 906 Calcium ppm ASTM D5185m 1050 1006 967 Phosphorus ppm ASTM D5185m 1050 1006 967 Zinc ppm ASTM D5185m 995 872 893 Zinc ppm ASTM D5185m 2600 2856 2385 Sulfur ppm ASTM D5185m 2600 2856 2385 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 3 Sodium ppm ASTM D5185m <t< td=""><td>ADDITIVES</td><td></td><td>method</td><td>limit/base</td><th>current</th><td>history1</td><td>history2</td></t<> | ADDITIVES | | method | limit/base | current | history1 | history2 |
| Molybdenum ppm ASTM D5185m 50 59 54 Manganese ppm ASTM D5185m 0 0 2 Magnesium ppm ASTM D5185m 950 923 906 Calcium ppm ASTM D5185m 1050 1006 967 Phosphorus ppm ASTM D5185m 995 872 893 Zinc ppm ASTM D5185m 995 872 893 Zinc ppm ASTM D5185m 2600 2856 2385 Sulfur ppm ASTM D5185m 2600 2856 2385 CONTAMINANTS method limit/base current history1 history2 Scilicon ppm ASTM D5185m >25 6 3 Potassium ppm ASTM D5185m >20 1 8 INFRA-RED method limit/base | Boron | ppm | ASTM D5185m | 2 | 1 | 5 | |
| Manganese ppm ASTM D5185m 0 0 2 Magnesium ppm ASTM D5185m 950 923 906 Calcium ppm ASTM D5185m 1050 1006 967 Phosphorus ppm ASTM D5185m 995 872 893 Zinc ppm ASTM D5185m 1180 1176 1116 Sulfur ppm ASTM D5185m 2600 2856 2385 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 3 Sodium ppm ASTM D5185m >20 1 8 Potassium ppm ASTM D5185m >20 1 8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >2 | Barium | ppm | ASTM D5185m | 0 | 0 | 0 | |
| Magnesium ppm ASTM D5185m 950 923 906 Calcium ppm ASTM D5185m 1050 1006 967 Phosphorus ppm ASTM D5185m 995 872 893 Zinc ppm ASTM D5185m 1180 1176 1116 Sulfur ppm ASTM D5185m 2600 2856 2385 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 3 Sodium ppm ASTM D5185m >20 1 8 Potassium ppm ASTM D5185m >20 1 8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.5 Sulfation Abs/.1mm *ASTM D7624 | Molybdenum | ppm | ASTM D5185m | 50 | 59 | 54 | |
| Calcium ppm ASTM D5185m 1050 1006 967 Phosphorus ppm ASTM D5185m 995 872 893 Zinc ppm ASTM D5185m 1180 1176 1116 Sulfur ppm ASTM D5185m 2600 2856 2385 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 3 Sodium ppm ASTM D5185m >20 1 8 Potassium ppm ASTM D5185m >20 1 8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.5 Sulfation Abs/.1mm *ASTM D7415 >30 17.7 22.2 FLUID DEGRADATION method limit/ba | Manganese | ppm | ASTM D5185m | 0 | 0 | 2 | |
| Phosphorus ppm ASTM D5185m 995 872 893 Zinc ppm ASTM D5185m 1180 1176 1116 Sulfur ppm ASTM D5185m 2600 2856 2385 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 3 Sodium ppm ASTM D5185m 0 6 Potassium ppm ASTM D5185m >20 1 8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.5 Nitration Abs/cm *ASTM D7415 >30 17.7 22.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 | Magnesium | ppm | ASTM D5185m | 950 | 923 | 906 | |
| Zinc ppm ASTM D5185m 1180 1176 1116 Sulfur ppm ASTM D5185m 2600 2856 2385 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 3 Sodium ppm ASTM D5185m 0 6 Potassium ppm ASTM D5185m >20 1 8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.5 Nitration Abs/cm *ASTM D7624 >20 6.4 13 Sulfation Abs/.1mm *ASTM D7415 >30 17.7 22.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >2 | Calcium | ppm | ASTM D5185m | 1050 | 1006 | 967 | |
| Sulfur ppm ASTM D5185m 2600 2856 2385 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 3 Sodium ppm ASTM D5185m 0 6 Potassium ppm ASTM D5185m >20 1 8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.5 Nitration Abs/cm *ASTM D7624 >20 6.4 13 Sulfation Abs/.1mm *ASTM D7415 >30 17.7 22.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.2 22.9 | Phosphorus | ppm | ASTM D5185m | 995 | 872 | 893 | |
| CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 3 Sodium ppm ASTM D5185m 0 6 Potassium ppm ASTM D5185m >20 1 8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.5 Nitration Abs/cm *ASTM D7624 >20 6.4 13 Sulfation Abs/.1mm *ASTM D7415 >30 17.7 22.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.2 22.9 | Zinc | ppm | ASTM D5185m | 1180 | 1176 | 1116 | |
| Silicon ppm ASTM D5185m >25 6 3 Sodium ppm ASTM D5185m 0 6 Potassium ppm ASTM D5185m >20 1 8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.5 Nitration Abs/cm *ASTM D7624 >20 6.4 13 Sulfation Abs/.1mm *ASTM D7415 >30 17.7 22.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.2 22.9 | Sulfur | ppm | ASTM D5185m | 2600 | 2856 | 2385 | |
| Sodium ppm ASTM D5185m 0 6 Potassium ppm ASTM D5185m >20 1 8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.5 Nitration Abs/cm *ASTM D7624 >20 6.4 13 Sulfation Abs/.1mm *ASTM D7415 >30 17.7 22.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.2 22.9 | CONTAMINA | NTS | method | limit/base | current | history1 | history2 |
| Potassium ppm ASTM D5185m >20 1 8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.5 Nitration Abs/cm *ASTM D7624 >20 6.4 13 Sulfation Abs/.1mm *ASTM D7415 >30 17.7 22.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.2 22.9 | Silicon | ppm | ASTM D5185m | >25 | 6 | 3 | |
| INFRA-RED | Sodium | ppm | ASTM D5185m | | 0 | 6 | |
| Soot % % *ASTM D7844 >3 0.1 0.5 Nitration Abs/cm *ASTM D7624 >20 6.4 13 Sulfation Abs/.1mm *ASTM D7415 >30 17.7 22.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.2 22.9 | Potassium | ppm | ASTM D5185m | >20 | 1 | 8 | |
| Nitration Abs/cm *ASTM D7624 >20 6.4 13 Sulfation Abs/.1mm *ASTM D7415 >30 17.7 22.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.2 22.9 | INFRA-RED | | method | limit/base | current | history1 | history2 |
| Sulfation Abs/.1mm *ASTM D7415 >30 17.7 22.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.2 22.9 | Soot % | % | *ASTM D7844 | >3 | 0.1 | 0.5 | |
| FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.2 22.9 | Nitration | Abs/cm | *ASTM D7624 | >20 | 6.4 | 13 | |
| Oxidation | Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 17.7 | 22.2 | |
| | FLUID DEGRA | ADATION | method | limit/base | current | history1 | history2 |
| Base Number (BN) mg KOH/g ASTM D2896 9.4 7.8 | Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 14.2 | 22.9 | |
| | Base Number (BN) | mg KOH/g | ASTM D2896 | | 9.4 | 7.8 | |



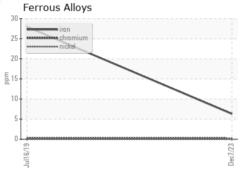
OIL ANALYSIS REPORT

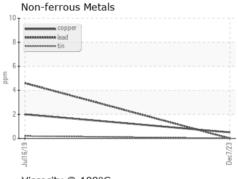


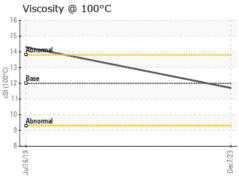
| VISUAL | | method | limit/base | current | history1 | history2 |
|-------------------------|--------|---------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | |
| Precipitate | scalar | *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 | |
| | | | | | | |

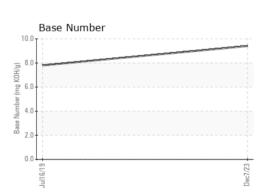
| FLUID PROPI | ERITES | method | limit/base | | history1 | history2 |
|--------------|--------|-----------|------------|------|-------------|----------|
| Visc @ 100°C | cSt | ASTM D445 | 12.00 | 11.7 | 14.3 | |

GRAPHS











Laboratory Sample No. Lab Number Unique Number : 10795479

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0091703 : 06040250

Recieved

: 20 Dec 2023 Diagnosed : 21 Dec 2023

Diagnostician : Sean Felton

Test Package : FLEET (Additional Tests: FT-IR(Diff)) 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)

ICSB530 - Mllwaukee 200 West Oklahoma Avenue Milwaukee, WI US 53207

Contact: Matt Bahling m.bahling@illinois-central.com

T: (414)481-1000