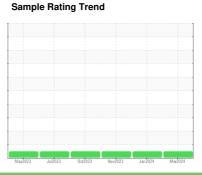


OIL ANALYSIS REPORT

(ZSZ1658) Walgreens - Yard Horse [Walgreens - Yard Horse] 136A81262

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GAL)





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

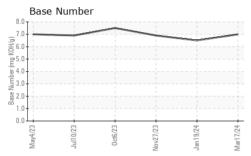
Fluid Condition

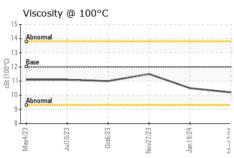
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| Sample Date | SAMPLE INFORM | MATION | method | limit/base | current | history1 | history2 |
|--|-------------------------|----------|-------------|------------|--------------|-------------|-------------|
| Machine Age hrs Client Info 6901 6640 6089 Oil Olange hrs Client Info 260 551 466 Oil Changed Client Info Changed Changed Changed Sample Status NORMAL NORMAL NORMAL NORMAL CONTAMINATION method limit/base current history1 his Fuel WC Method >5 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 | Sample Number | | Client Info | | PCA0103662 | PCA0103634 | PCA0103677 |
| Oil Age hrs Client Info 260 551 466 Oil Changed Client Info Changed Changed< | Sample Date | | Client Info | | 17 Mar 2024 | 19 Jan 2024 | 27 Nov 2023 |
| Oil Changed Sample Status Client Info Changed NORMAL 1.0 <th< th=""><th>Machine Age</th><th>hrs</th><th>Client Info</th><th></th><th>6901</th><th>6640</th><th>6089</th></th<> | Machine Age | hrs | Client Info | | 6901 | 6640 | 6089 |
| Sample Status | Oil Age | hrs | Client Info | | 260 | 551 | 466 |
| CONTAMINATION method limit/base current history1 his Fuel WC Method >5 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <t< th=""><th>Oil Changed</th><th></th><th>Client Info</th><th></th><th>Changed</th><th>Changed</th><th>Changed</th></t<> | Oil Changed | | Client Info | | Changed | Changed | Changed |
| Fuel | Sample Status | | | | NORMAL | NORMAL | NORMAL |
| Water WC Method >0.2 NEG NEG NEG Glycol WC Method NEG NEG NEG WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >100 13 22 2 Chromium ppm ASTM D5185m >20 <1 1 0 Nickel ppm ASTM D5185m >4 <1 0 0 Silver ppm ASTM D5185m >3 0 0 0 Aluminum ppm ASTM D5185m >3 0 0 0 Aluminum ppm ASTM D5185m >40 <1 <1 0 Copper ppm ASTM D5185m >40 <1 <1 0 Cadead ppm ASTM D5185m >15 <1 <1 <1 0 Vanadium ppm ASTM D5185m >0 0 0 0 | CONTAMINATI | ON | method | limit/base | current | history1 | history2 |
| Second S | Fuel | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| WEAR METALS | Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Iron | Glycol | | WC Method | | NEG | NEG | NEG |
| Chromium ppm ASTM D5185m >20 <1 | WEAR METALS | S | method | limit/base | current | history1 | history2 |
| Nickel | Iron | ppm | ASTM D5185m | >100 | 13 | 22 | 2 |
| Titanium ppm ASTM D5185m 16 -1 0 Silver ppm ASTM D5185m -3 0 0 0 Aluminum ppm ASTM D5185m >20 2 1 1 Lead ppm ASTM D5185m >40 <1 | Chromium | ppm | ASTM D5185m | >20 | <1 | 1 | 0 |
| Silver ppm ASTM D5185m >3 0 0 0 Aluminum ppm ASTM D5185m >20 2 1 1 Lead ppm ASTM D5185m >40 <1 <1 0 Copper ppm ASTM D5185m >330 0 <1 2 Tin ppm ASTM D5185m >15 <1 <1 0 Vanadium ppm ASTM D5185m >15 <1 <1 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 his Boron ppm ASTM D5185m 0 0 0 0 0 ADDITIVES method limit/base current history1 his Boron ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current his 1 | Nickel | ppm | ASTM D5185m | >4 | <1 | 0 | 0 |
| Silver ppm ASTM D5185m >3 0 0 0 Aluminum ppm ASTM D5185m >20 2 1 1 Lead ppm ASTM D5185m >40 <1 <1 0 Copper ppm ASTM D5185m >330 0 <1 2 Tin ppm ASTM D5185m >15 <1 <1 0 Vanadium ppm ASTM D5185m <1 <1 <1 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 his Boron ppm ASTM D5185m 2 36 8 <1 Barium ppm ASTM D5185m 0 0 0 0 0 Manganese ppm ASTM D5185m 50 40 46 54 Manganesium ppm ASTM D5185m 950 672 < | Titanium | ppm | ASTM D5185m | | 16 | <1 | 0 |
| Aluminum ppm ASTM D5185m >20 2 1 1 Lead ppm ASTM D5185m >40 <1 | Silver | | ASTM D5185m | >3 | 0 | 0 | 0 |
| Lead ppm ASTM D5185m >40 <1 <1 0 Copper ppm ASTM D5185m >330 0 <1 2 Tin ppm ASTM D5185m >15 <1 <1 0 Vanadium ppm ASTM D5185m <1 <1 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 his Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 0 Molybdenum ppm ASTM D5185m 0 40 46 54 Manganese ppm ASTM D5185m 950 672 689 901 Calcium ppm ASTM D5185m 950 672 689 963 Zinc ppm ASTM D5185m 995 963 | Aluminum | ppm | ASTM D5185m | >20 | 2 | 1 | 1 |
| Copper ppm ASTM D5185m >330 0 <1 2 Tin ppm ASTM D5185m >15 <1 | Lead | ppm | | >40 | <1 | <1 | 0 |
| Tin ppm ASTM D5185m >15 <1 <1 0 Vanadium ppm ASTM D5185m <1 <1 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 his Boron ppm ASTM D5185m 2 36 8 <1 Barium ppm ASTM D5185m 0 0 0 0 0 Molybdenum ppm ASTM D5185m 0 40 46 54 Manganese ppm ASTM D5185m 0 0 <1 <1 Magnesium ppm ASTM D5185m 950 672 689 901 Calcium ppm ASTM D5185m 995 963 856 983 Zinc ppm ASTM D5185m 995 963 856 983 Zinc ppm ASTM D5185m 2600 3451 2587 <th< td=""><td>Copper</td><td></td><td>ASTM D5185m</td><td>>330</td><th>0</th><td><1</td><td>2</td></th<> | Copper | | ASTM D5185m | >330 | 0 | <1 | 2 |
| Vanadium ppm ASTM D5185m <1 <1 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 his Boron ppm ASTM D5185m 2 36 8 <1 | | | ASTM D5185m | >15 | <1 | <1 | 0 |
| Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 his Boron ppm ASTM D5185m 2 36 8 <1 | Vanadium | | ASTM D5185m | | <1 | <1 | 0 |
| Boron ppm ASTM D5185m 2 36 8 <1 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 50 40 46 54 Manganese ppm ASTM D5185m 0 0 <1 <1 Magnesium ppm ASTM D5185m 950 672 689 901 Calcium ppm ASTM D5185m 1050 1321 1126 1000 Phosphorus ppm ASTM D5185m 995 963 856 983 Zinc ppm ASTM D5185m 2600 3451 2587 2864 CONTAMINANTS method limit/base current history1 his Silicon ppm ASTM D5185m >25 4 3 2 Sodium ppm ASTM D5185m >20 2 4 1 INFRA-RED method limit/base current | Cadmium | | | | 0 | 0 | 0 |
| Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 50 40 46 54 Manganese ppm ASTM D5185m 0 0 <1 <1 Magnesium ppm ASTM D5185m 950 672 689 901 Calcium ppm ASTM D5185m 1050 1321 1126 1007 Phosphorus ppm ASTM D5185m 995 963 856 983 Zinc ppm ASTM D5185m 2600 3451 2587 2864 CONTAMINANTS method limit/base current history1 his Silicon ppm ASTM D5185m >25 4 3 2 Sodium ppm ASTM D5185m >20 2 4 1 INFRA-RED method limit/base current history1 his Soot % % *ASTM D7844 >3 0.6 | ADDITIVES | | method | limit/base | current | history1 | history2 |
| Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 50 40 46 54 Manganese ppm ASTM D5185m 0 0 <1 | Boron | ppm | ASTM D5185m | 2 | 36 | 8 | <1 |
| Manganese ppm ASTM D5185m 0 0 <1 <1 Magnesium ppm ASTM D5185m 950 672 689 901 Calcium ppm ASTM D5185m 950 1321 1126 1000 Phosphorus ppm ASTM D5185m 1050 1321 1126 1000 Phosphorus ppm ASTM D5185m 995 963 856 983 Zinc ppm ASTM D5185m 1180 1145 1040 1176 Sulfur ppm ASTM D5185m 2600 3451 2587 2864 CONTAMINANTS method limit/base current history1 his Silicon ppm ASTM D5185m >25 4 3 2 Sodium ppm ASTM D5185m >20 2 4 1 INFRA-RED method limit/base current history1 his Soot % *ASTM D7844 >3 0.6 | Barium | | ASTM D5185m | 0 | 0 | 0 | 0 |
| Magnesium ppm ASTM D5185m 950 672 689 901 Calcium ppm ASTM D5185m 1050 1321 1126 100° Phosphorus ppm ASTM D5185m 995 963 856 983 Zinc ppm ASTM D5185m 1180 1145 1040 1176 Sulfur ppm ASTM D5185m 2600 3451 2587 2864 CONTAMINANTS method limit/base current history1 his Silicon ppm ASTM D5185m >25 4 3 2 Sodium ppm ASTM D5185m 2 1 4 Potassium ppm ASTM D5185m >20 2 4 1 INFRA-RED method limit/base current history1 his Soot % % *ASTM D7844 >3 0.6 1.1 1 Nitration Abs/cm *ASTM D7624 >20 8.7 | Molybdenum | ppm | ASTM D5185m | 50 | 40 | 46 | 54 |
| Magnesium ppm ASTM D5185m 950 672 689 901 Calcium ppm ASTM D5185m 1050 1321 1126 100° Phosphorus ppm ASTM D5185m 995 963 856 983 Zinc ppm ASTM D5185m 1180 1145 1040 1176 Sulfur ppm ASTM D5185m 2600 3451 2587 2864 CONTAMINANTS method limit/base current history1 his Silicon ppm ASTM D5185m >25 4 3 2 Sodium ppm ASTM D5185m 2 1 4 Potassium ppm ASTM D5185m >20 2 4 1 INFRA-RED method limit/base current history1 his Soot % % *ASTM D7844 >3 0.6 1.1 1 Nitration Abs/cm *ASTM D7624 >20 8.7 | Manganese | | ASTM D5185m | 0 | 0 | <1 | <1 |
| Calcium ppm ASTM D5185m 1050 1321 1126 1000 Phosphorus ppm ASTM D5185m 995 963 856 983 Zinc ppm ASTM D5185m 1180 1145 1040 1176 Sulfur ppm ASTM D5185m 2600 3451 2587 2864 CONTAMINANTS method limit/base current history1 his Silicon ppm ASTM D5185m >25 4 3 2 Sodium ppm ASTM D5185m 20 2 4 1 Potassium ppm ASTM D5185m >20 2 4 1 INFRA-RED method limit/base current history1 his Soot % % *ASTM D7844 >3 0.6 1.1 1 Nitration Abs/cm *ASTM D7624 >20 8.7 9.7 9.0 Sulfation Abs/.1mm *ASTM D7415 | Magnesium | | ASTM D5185m | 950 | 672 | 689 | 901 |
| Zinc ppm ASTM D5185m 1180 1145 1040 1176 Sulfur ppm ASTM D5185m 2600 3451 2587 2864 CONTAMINANTS method limit/base current history1 his Silicon ppm ASTM D5185m >25 4 3 2 Sodium ppm ASTM D5185m 2 1 4 Potassium ppm ASTM D5185m >20 2 4 1 INFRA-RED method limit/base current history1 his Soot % % *ASTM D7844 >3 0.6 1.1 1 Nitration Abs/cm *ASTM D7624 >20 8.7 9.7 9.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.9 21.5 20.2 | - | | ASTM D5185m | 1050 | 1321 | 1126 | 1001 |
| Zinc ppm ASTM D5185m 1180 1145 1040 1176 Sulfur ppm ASTM D5185m 2600 3451 2587 2864 CONTAMINANTS method limit/base current history1 his Silicon ppm ASTM D5185m >25 4 3 2 Sodium ppm ASTM D5185m 20 2 1 4 Potassium ppm ASTM D5185m >20 2 4 1 INFRA-RED method limit/base current history1 his Soot % % *ASTM D7844 >3 0.6 1.1 1 Nitration Abs/cm *ASTM D7624 >20 8.7 9.7 9.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.9 21.5 20.2 | Phosphorus | | ASTM D5185m | 995 | 963 | 856 | 983 |
| Sulfur ppm ASTM D5185m 2600 3451 2587 2864 CONTAMINANTS method limit/base current history1 his Silicon ppm ASTM D5185m >25 4 3 2 Sodium ppm ASTM D5185m 2 1 4 Potassium ppm ASTM D5185m >20 2 4 1 INFRA-RED method limit/base current history1 his Soot % % *ASTM D7844 >3 0.6 1.1 1 Nitration Abs/cm *ASTM D7624 >20 8.7 9.7 9.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.9 21.5 20.2 | | | ASTM D5185m | 1180 | 1145 | 1040 | 1176 |
| Silicon ppm ASTM D5185m >25 4 3 2 Sodium ppm ASTM D5185m 2 1 4 Potassium ppm ASTM D5185m >20 2 4 1 INFRA-RED method limit/base current history1 his Soot % % *ASTM D7844 >3 0.6 1.1 1 Nitration Abs/cm *ASTM D7624 >20 8.7 9.7 9.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.9 21.5 20.2 | Sulfur | | ASTM D5185m | 2600 | 3451 | 2587 | 2864 |
| Sodium ppm ASTM D5185m 2 1 4 Potassium ppm ASTM D5185m >20 2 4 1 INFRA-RED method limit/base current history1 his Soot % % *ASTM D7844 >3 0.6 1.1 1 Nitration Abs/cm *ASTM D7624 >20 8.7 9.7 9.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.9 21.5 20.2 | CONTAMINAN [*] | TS | method | limit/base | current | history1 | history2 |
| Potassium ppm ASTM D5185m >20 2 4 1 INFRA-RED method limit/base current history1 his Soot % % *ASTM D7844 >3 0.6 1.1 1 Nitration Abs/cm *ASTM D7624 >20 8.7 9.7 9.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.9 21.5 20.2 | Silicon | ppm | ASTM D5185m | >25 | 4 | 3 | 2 |
| Potassium ppm ASTM D5185m >20 2 4 1 INFRA-RED method limit/base current history1 his Soot % % *ASTM D7844 >3 0.6 1.1 1 Nitration Abs/cm *ASTM D7624 >20 8.7 9.7 9.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.9 21.5 20.2 | Sodium | | | | 2 | | 4 |
| Soot % % *ASTM D7844 >3 0.6 1.1 1 Nitration Abs/cm *ASTM D7624 >20 8.7 9.7 9.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.9 21.5 20.2 | Potassium | ppm | ASTM D5185m | >20 | 2 | 4 | 1 |
| Nitration Abs/cm *ASTM D7624 >20 8.7 9.7 9.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.9 21.5 20.2 | INFRA-RED | | method | limit/base | current | history1 | history2 |
| Sulfation Abs/.1mm *ASTM D7415 >30 19.9 21.5 20.2 | Soot % | % | *ASTM D7844 | >3 | 0.6 | 1.1 | 1 |
| Sulfation Abs/.1mm *ASTM D7415 >30 19.9 21.5 20.2 | Nitration | Abs/cm | *ASTM D7624 | >20 | 8.7 | 9.7 | 9.0 |
| FLUID DEGRADATION method limit/base current history1 his | Sulfation | Abs/.1mm | *ASTM D7415 | >30 | | | 20.2 |
| | FLUID DEGRAD | ATION | method | limit/base | current | history1 | history2 |
| Oxidation | Ovidation | Abs/.1mm | *ASTM D7414 | >25 | 17.5 | 20.3 | 16.9 |
| Base Number (BN) mg KOH/g ASTM D2896 7.0 6.5 6.9 | Oxidation | | | | - | | |



OIL ANALYSIS REPORT

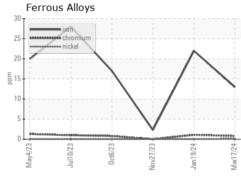


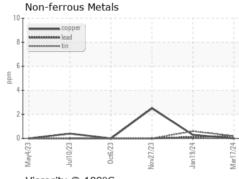


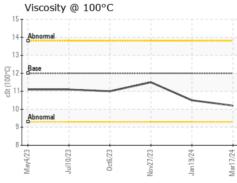
| VISUAL | | method | | | | history2 |
|-------------------------|--------|---------|-------|-------|-------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE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

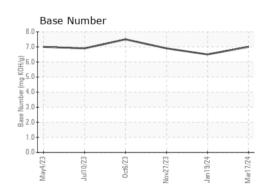
| FLUID PROPERTIES | | method | | | | history2 |
|------------------|-----|-----------|-------|------|------|----------|
| Visc @ 100°C | cSt | ASTM D445 | 12.00 | 10.2 | 10.5 | 11.5 |

GRAPHS











Laboratory Sample No.

: PCA0103662 Lab Number : 06121385 Unique Number : 10930218 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 18 Mar 2024 **Tested** : 19 Mar 2024

Diagnosed : 19 Mar 2024 - Wes Davis

Transervice - Shop 1365 - Berkeley-Nazareth

6813 Chrisphalt Drive Bath Borough, PA

US 18014 Contact: Stephen Mackes smackes@transervice.com

T: (610)837-8103

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)

F: (610)837-8105