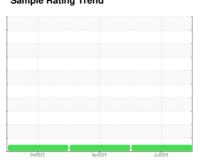


OIL ANALYSIS REPORT

Sample Rating Trend









Machine Id **BM-116** Component

Diesel Engine

PETRO CANADA DURON SHP 10W30 (10 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

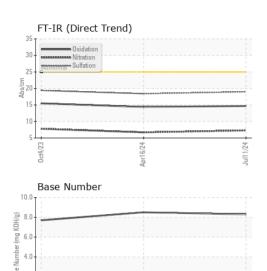
Fluid Condition

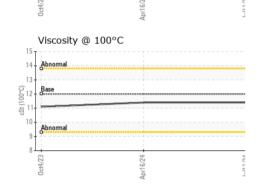
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| Sample Number Client Info PCA0130570 PCA0117740 PCA01051 Sample Date Client Info 11 Jul 2024 16 Apr 2024 04 Oct 202 Machine Age mls Client Info 16065 217765 201700 178772 178 | 11 0111 101100 (1 | , | | | | | |
|--|-------------------|----------|-------------|------------|-------------|-------------|-------------|
| Sample Date Client Info 11 Jul 2024 16 Apr 2024 04 Oct 202 | SAMPLE INFOR | MATION | method | limit/base | current | history1 | history2 |
| Machine Age mls Client Info 16065 22928 17496 | Sample Number | | Client Info | | PCA0130570 | PCA0117740 | PCA0105196 |
| Oil Age | Sample Date | | Client Info | | 11 Jul 2024 | 16 Apr 2024 | 04 Oct 2023 |
| Client Info | Machine Age | mls | Client Info | | 217765 | 201700 | 178772 |
| NORMAL NORMAL NORMAL NORMAL CONTAMINATION method limit/base current history1 history | Oil Age | mls | Client Info | | 16065 | 22928 | 17496 |
| CONTAMINATION | Oil Changed | | Client Info | | Changed | Changed | Changed |
| Water | Sample Status | | | | NORMAL | NORMAL | NORMAL |
| Water WC Method >0.2 NEG Ned Ned <t< td=""><td>CONTAMINAT</td><td>ION</td><td>method</td><td>limit/base</td><th>current</th><td>history1</td><td>history2</td></t<> | CONTAMINAT | ION | method | limit/base | current | history1 | history2 |
| WEAR METALS | Fuel | | WC Method | >3.0 | <1.0 | <1.0 | <1.0 |
| WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >120 13 10 11 Chromium ppm ASTM D5185m >20 <1 | Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Chromium | Glycol | | WC Method | | NEG | NEG | NEG |
| Chromium | WEAR METAL | S | method | limit/base | current | history1 | history2 |
| Nickel | Iron | ppm | ASTM D5185m | >120 | 13 | 10 | 11 |
| Silver | Chromium | ppm | ASTM D5185m | >20 | <1 | <1 | <1 |
| Silver | Nickel | ppm | ASTM D5185m | >5 | <1 | 0 | <1 |
| Aluminum | Titanium | ppm | ASTM D5185m | >2 | <1 | 0 | 0 |
| Lead | Silver | ppm | ASTM D5185m | >2 | <1 | 0 | 0 |
| Copper ppm ASTM D5185m >330 4 2 2 Tin ppm ASTM D5185m >15 1 0 <1 | Aluminum | ppm | ASTM D5185m | >20 | 3 | 3 | 4 |
| Tin | _ead | ppm | ASTM D5185m | >40 | 0 | 0 | 0 |
| Vanadium ppm ASTM D5185m <1 0 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 2 <1 1 2 Barium ppm ASTM D5185m 0 <1 0 0 Molybdenum ppm ASTM D5185m 50 64 64 60 Manganese ppm ASTM D5185m 0 0 <1 <1 Magnesium ppm ASTM D5185m 950 960 992 998 Calcium ppm ASTM D5185m 905 938 1086 984 Zinc ppm ASTM D5185m 995 938 1086 984 Zinc ppm ASTM D5185m 2600 2802 3513 3016 CONTAMINANTS method limit/base current history1 history | Copper | ppm | ASTM D5185m | >330 | 4 | 2 | 2 |
| Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 2 <1 | Tin | ppm | ASTM D5185m | >15 | 1 | 0 | <1 |
| ADDITIVES | Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Boron ppm ASTM D5185m 2 <1 1 2 | Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Barium ppm ASTM D5185m 0 <1 | ADDITIVES | | method | limit/base | current | history1 | history2 |
| Molybdenum ppm ASTM D5185m 50 64 64 60 Manganese ppm ASTM D5185m 0 0 <1 <1 Magnesium ppm ASTM D5185m 950 960 992 998 Calcium ppm ASTM D5185m 1050 1128 1120 1109 Phosphorus ppm ASTM D5185m 995 938 1086 984 Zinc ppm ASTM D5185m 995 938 1086 984 Zinc ppm ASTM D5185m 2600 2802 3513 3016 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 6 5 7 Sodium ppm ASTM D5185m >20 5 <1 8 INFRA-RED method limit/base current history1 history1 Soot % % *ASTM D7844 | Boron | ppm | ASTM D5185m | 2 | <1 | 1 | 2 |
| Manganese ppm ASTM D5185m 0 0 <1 <1 Magnesium ppm ASTM D5185m 950 960 992 998 Calcium ppm ASTM D5185m 1050 1128 1120 1109 Phosphorus ppm ASTM D5185m 1050 1128 120 1109 Phosphorus ppm ASTM D5185m 995 938 1086 984 Zinc ppm ASTM D5185m 1180 1243 1286 1329 Sulfur ppm ASTM D5185m 2600 2802 3513 3016 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 6 5 7 Sodium ppm ASTM D5185m >20 5 <1 | Barium | ppm | ASTM D5185m | 0 | <1 | 0 | 0 |
| Magnesium ppm ASTM D5185m 950 960 992 998 Calcium ppm ASTM D5185m 1050 1128 1120 1109 Phosphorus ppm ASTM D5185m 995 938 1086 984 Zinc ppm ASTM D5185m 1180 1243 1286 1329 Sulfur ppm ASTM D5185m 2600 2802 3513 3016 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 6 5 7 Sodium ppm ASTM D5185m >20 5 <1 | Molybdenum | ppm | ASTM D5185m | 50 | 64 | 64 | 60 |
| Calcium ppm ASTM D5185m 1050 1128 1120 1109 Phosphorus ppm ASTM D5185m 995 938 1086 984 Zinc ppm ASTM D5185m 1180 1243 1286 1329 Sulfur ppm ASTM D5185m 2600 2802 3513 3016 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 6 5 7 Sodium ppm ASTM D5185m >20 5 <1 | Manganese | ppm | ASTM D5185m | 0 | 0 | <1 | <1 |
| Phosphorus ppm ASTM D5185m 995 938 1086 984 Zinc ppm ASTM D5185m 1180 1243 1286 1329 Sulfur ppm ASTM D5185m 2600 2802 3513 3016 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 6 5 7 Sodium ppm ASTM D5185m >20 5 <1 | Magnesium | ppm | ASTM D5185m | 950 | 960 | 992 | 998 |
| Zinc ppm ASTM D5185m 1180 1243 1286 1329 Sulfur ppm ASTM D5185m 2600 2802 3513 3016 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 6 5 7 Sodium ppm ASTM D5185m 0 1 4 Potassium ppm ASTM D5185m >20 5 <1 | Calcium | ppm | ASTM D5185m | 1050 | 1128 | 1120 | 1109 |
| Sulfur ppm ASTM D5185m 2600 2802 3513 3016 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 6 5 7 Sodium ppm ASTM D5185m 0 1 4 Potassium ppm ASTM D5185m >20 5 <1 | Phosphorus | ppm | ASTM D5185m | 995 | 938 | 1086 | 984 |
| CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 5 7 Sodium ppm ASTM D5185m 0 1 4 Potassium ppm ASTM D5185m >20 5 <1 | Zinc | ppm | ASTM D5185m | 1180 | 1243 | 1286 | 1329 |
| Silicon ppm ASTM D5185m >25 6 5 7 Sodium ppm ASTM D5185m 0 1 4 Potassium ppm ASTM D5185m >20 5 <1 8 INFRA-RED method limit/base current history1 history1 Soot % % *ASTM D7844 >4 0.3 0.2 0.4 Nitration Abs/cm *ASTM D7624 >20 7.3 6.7 7.8 Sulfation Abs/.1mm *ASTM D7415 >30 19.0 18.4 19.4 FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 >25 14.7 14.4 15.5 | Sulfur | ppm | ASTM D5185m | 2600 | 2802 | 3513 | 3016 |
| Sodium ppm ASTM D5185m 0 1 4 Potassium ppm ASTM D5185m >20 5 <1 | CONTAMINAN | ITS | method | limit/base | current | history1 | history2 |
| Potassium ppm ASTM D5185m >20 5 <1 8 INFRA-RED method limit/base current history1 history1 Soot % % *ASTM D7844 >4 0.3 0.2 0.4 Nitration Abs/cm *ASTM D7624 >20 7.3 6.7 7.8 Sulfation Abs/.1mm *ASTM D7415 >30 19.0 18.4 19.4 FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 >25 14.7 14.4 15.5 | Silicon | ppm | ASTM D5185m | >25 | 6 | 5 | 7 |
| INFRA-RED | Sodium | ppm | ASTM D5185m | | 0 | 1 | 4 |
| Soot % % *ASTM D7844 >4 0.3 0.2 0.4 Nitration Abs/cm *ASTM D7624 >20 7.3 6.7 7.8 Sulfation Abs/.1mm *ASTM D7415 >30 19.0 18.4 19.4 FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 >25 14.7 14.4 15.5 | Potassium | ppm | ASTM D5185m | >20 | 5 | <1 | 8 |
| Nitration Abs/cm *ASTM D7624 >20 7.3 6.7 7.8 Sulfation Abs/.1mm *ASTM D7415 >30 19.0 18.4 19.4 FLUID DEGRADATION method limit/base current history1 history1 history1 Oxidation Abs/.1mm *ASTM D7414 >25 14.7 14.4 15.5 | INFRA-RED | | method | limit/base | current | history1 | history2 |
| Sulfation Abs/.1mm *ASTM D7415 >30 19.0 18.4 19.4 FLUID DEGRADATION method limit/base current history1 history1 history1 history1 Oxidation Abs/.1mm *ASTM D7414 >25 14.7 14.4 15.5 | Soot % | % | *ASTM D7844 | >4 | 0.3 | 0.2 | 0.4 |
| FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 >25 14.7 14.4 15.5 | Nitration | Abs/cm | *ASTM D7624 | >20 | 7.3 | 6.7 | 7.8 |
| Oxidation Abs/.1mm *ASTM D7414 >25 14.7 14.4 15.5 | Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 19.0 | 18.4 | 19.4 |
| | FLUID DEGRAI | OATION | method | limit/base | current | history1 | history2 |
| | Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 14.7 | 14.4 | 15.5 |
| Dago Harrison (DIT) highority hornin Debbo U.D 0.0 /./ | Base Number (BN) | mg KOH/g | ASTM D2896 | | 8.3 | 8.5 | 7.7 |



OIL ANALYSIS REPORT

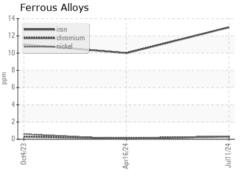


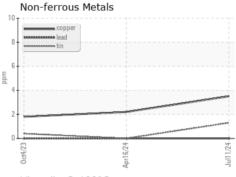


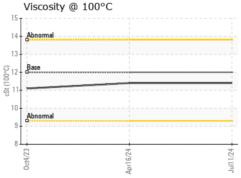
| VISUAL | | method | limit/base | current | history1 | history2 |
|-------------------------|--------|---------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | 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 |
| | | | 70.L | | | |

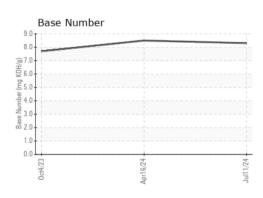
| L LOID FUOL | | memou | | | HISTOLAL | HISTOLA |
|--------------|-----|-----------|-------|------|----------|---------|
| Visc @ 100°C | cSt | ASTM D445 | 12.00 | 11.4 | 11.4 | 11.1 |

GRAPHS













Certificate 12367

Laboratory Sample No.

Lab Number : 06235566 Unique Number : 11124400 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0130570

Received : 15 Jul 2024 **Tested** Diagnosed

: 15 Jul 2024 : 15 Jul 2024 - Wes Davis **BLUE MAX TRUCKING**

1015 E. WESTINGHOUSE BLVD. CHARLOTTE, NC

US 28273 Contact: Jody Greer jgreer@bluemaxtrucking.com

To discuss this sample report, contact Customer Service at 1-800-237-1369. T: (980)225-9968 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. F: (704)588-2901 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Report Id: BLUCHA [WUSCAR] 06235566 (Generated: 07/15/2024 16:45:35) Rev: 1

Submitted By: Jody Greer