

OIL ANALYSIS REPORT

Area (89931X) Walgreens - Tractor [Walgreens - Tractor] 136A68137

Diesel Engine

Fluid PETRO CANADA DURON SHP 10W30 (11 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

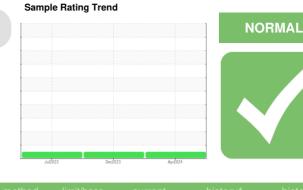
All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

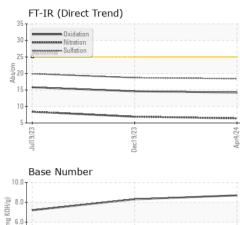
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

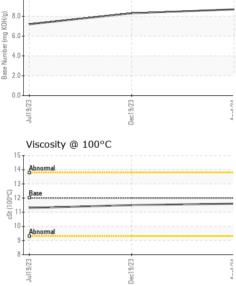


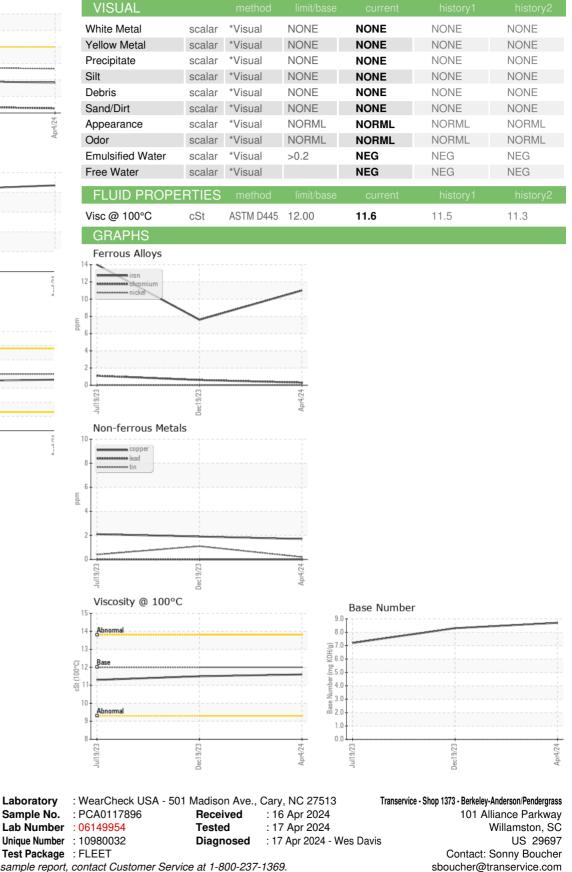
| SAMPLE INFORI | MATION | method | limit/base | current | history1 | history2 |
|---|---|---|---|--|--|---|
| Sample Number | | Client Info | | PCA0117896 | PCA0105405 | PCA0093797 |
| Sample Date | | Client Info | | 04 Apr 2024 | 19 Dec 2023 | 19 Jul 2023 |
| Machine Age | mls | Client Info | | 600209 | 484845 | 463675 |
| Oil Age | mls | Client Info | | 25000 | 50000 | 25000 |
| Oil Changed | | Client Info | | Not Changd | Changed | Not Changd |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| - | | | | | | |
| CONTAMINAT | ION | 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 METAL | S | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >80 | 11 | 8 | 14 |
| Chromium | ppm | ASTM D5185m | >5 | <1 | <1 | 1 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Silver | ppm | | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >30 | 7 | 5 | 6 |
| Lead | ppm | ASTM D5185m | >30 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m | | 2 | 2 | 2 |
| Tin | ppm | | >5 | _ <1 | 1 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| | | | | | | |
| ADDITIVES | | method | limit/base | | | historv2 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | 2 | current 5 | history1 7 | 2 |
| Boron Barium | ppm ppm | ASTM D5185m ASTM D5185m | 2 0 | current 5 0 | history1 7 0 | 2 0 |
| Boron Barium Molybdenum | ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m | 2 0 50 | current 5 0 65 | history1 7 0 62 | 2 0 65 |
| Boron Barium Molybdenum Manganese | ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 2 0 50 0 | current 5 0 65 <1 | history1 7 0 62 <1 | 2 0 65 <1 |
| Boron Barium Molybdenum Manganese Magnesium | ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 2 0 50 0 950 | current 5 0 65 <1 1085 | history1 7 0 62 <1 1058 | 2 0 65 <1 1026 |
| Boron Barium Molybdenum Manganese Magnesium Calcium | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 2 0 50 0 950 1050 | Current 5 0 65 <1 1085 1183 | history1 7 0 62 <1 1058 1139 | 2 0 65 <1 1026 1126 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus | ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 2 0 50 0 950 1050 995 | Current 5 0 65 <1 1085 1183 1198 | history1 7 0 62 <1 1058 1139 1118 | 2 0 65 <1 1026 1126 1063 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc | ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 2 0 50 950 1050 995 1180 | current 5 0 65 <1 1085 1183 1198 1395 | history1 7 0 62 <1 1058 1139 1118 1288 | 2 0 65 <1 1026 1126 1063 1302 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 2 0 50 0 950 1050 995 | current 5 0 65 <1 1085 1183 1198 | history1 7 0 62 <1 1058 1139 1118 | 2 0 65 <1 1026 1126 1063 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 2 0 50 950 1050 995 1180 | current 5 0 65 <1 1085 1183 1198 1395 | history1 7 0 62 <1 1058 1139 1118 1288 | 2 0 65 <1 1026 1126 1063 1302 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 2 0 50 0 950 1050 995 1180 2600 | Current 5 0 65 <1 1085 1183 1198 1395 3945 | history1 7 0 62 <1 1058 1139 1118 1288 3254 | 2 0 65 <1 1026 1126 1063 1302 3553 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 2 0 50 950 1050 995 1180 2600 | current 5 0 65 <1 1085 1183 1198 1395 3945 current | history1 7 0 62 <1 1058 1139 1118 1288 3254 history1 | 2 0 65 <1 1026 1126 1063 1302 3553 history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 2 0 50 950 1050 995 1180 2600 | current 5 0 65 <1 1085 1183 1198 1395 3945 current 6 | history1 7 0 62 <1 1058 1139 1118 1288 3254 history1 4 | 2 0 65 <1 1026 1126 1063 1302 3553 history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 2 0 50 0 950 1050 995 1180 2600 limit/base >20 | current 5 0 65 <1 1085 1183 1198 1395 3945 current 6 1 | history1 7 0 62 <1 1058 1139 1118 1288 3254 history1 4 <1 | 2 0 65 <1 1026 1126 1063 1302 3553 history2 5 1 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m | 2 0 50 950 1050 995 1180 2600 limit/base >20 | current 5 0 65 <1 1085 1183 1395 3945 current 6 1 3 | history1 7 0 62 <1 1058 1139 1118 1288 3254 history1 4 <1 <1 <1 history1 | 2 0 65 <1 1026 1126 1063 1302 3553 history2 5 1 2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED | ppm ppm ppm ppm ppm ppm ppm ppm ppm TS | ASTM D5185m ASTM D5185m | 2 0 50 0 950 1050 995 1180 2600 Imit/base >20 | current 5 0 65 <1 1085 1183 1198 1395 3945 current 6 1 3 current | history1 7 0 62 <1 1058 1139 1118 1288 3254 history1 4 <1 4 <1 | 2 0 65 <1 1026 1126 1063 1302 3553 history2 5 1 2 2 history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % | ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm | ASTM D5185m ASTM D5185m | 2 0 50 0 950 1050 995 1180 2600 limit/base >20 20 limit/base >20 | current 5 0 65 <1 1085 1183 1198 1395 3945 current 6 1 3 current 0.3 | history1 7 0 62 <1 1058 1139 1118 1288 3254 history1 4 <1 <1 <1 0.3 | 2 0 65 <1 1026 1126 1063 1302 3553 history2 5 1 2 bistory2 0.5 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m | 2 0 50 0 950 1050 995 1180 2600 imit/base >20 imit/base >3 >20 >30 | current 5 0 65 <1 1085 1183 1198 1395 3945 current 6 1 3 current 0.3 6.4 18.4 | history1 7 0 62 <1 1058 1139 1118 1288 3254 history1 4 <1 <1 0.3 6.9 18.7 | 2 0 65 <1 1026 1126 1063 1302 3553 history2 5 1 2 bistory2 0.5 8.4 19.9 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation | ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm | ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844 | 2 0 0 50 0 950 1050 995 1180 2600 2600 20 20 20 20 20 20 20 20 20 20 20 20 2 | current 5 0 65 <1 1085 1183 1395 3945 current 6 1 3 current 0.3 6.4 18.4 current | history1 7 0 62 <1 1058 1139 1118 1288 3254 history1 4 <1 4 <1 0.3 6.9 18.7 history1 | 2 0 65 <1 1026 1126 1063 1302 3553 history2 5 1 2 5 1 2 5 5 1 2 5 8.4 19.9 8.4 19.9 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m | 2 0 50 0 950 1050 995 1180 2600 imit/base >20 imit/base >3 >20 >30 | current 5 0 65 <1 1085 1183 1198 1395 3945 current 6 1 3 current 0.3 6.4 18.4 | history1 7 0 62 <1 1058 1139 1118 1288 3254 history1 4 <1 <1 0.3 6.9 18.7 | 2 0 65 <1 1026 1126 1063 1302 3553 history2 5 1 2 bistory2 0.5 8.4 19.9 |



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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)

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Certificate 12367

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