

OIL ANALYSIS REPORT

Sample Rating Trend





PETRO CANADA DURON HP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

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 INFORM | IATION | method | limit/base | current | history1 | history2 |
|--|--|--|---|--|---|--|
| Sample Number | | Client Info | | WC0867928 | WC0740582 | |
| Sample Date | | Client Info | | 15 Dec 2023 | 07 Mar 2023 | |
| Machine Age | mls | Client Info | | 49677 | 35297 | |
| Oil Age | mls | Client Info | | 0 | 0 | |
| Oil Changed | | Client Info | | N/A | N/A | |
| Sample Status | | | | NORMAL | NORMAL | |
| CONTAMINATION | J | method | limit/base | current | history1 | history2 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | |
| Water | | WC Method | >0.2 | NEG | NEG | |
| Glycol | | WC Method | | NEG | NEG | |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >100 | 10 | 13 | |
| Chromium | ppm | ASTM D5185m | >20 | <1 | <1 | |
| Nickel | ppm | ASTM D5185m | >4 | 0 | 0 | |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | |
| Silver | ppm | ASTM D5185m | >3 | 0 | <1 | |
| Aluminum | ppm | ASTM D5185m | >20 | 4 | 7 | |
| Lead | ppm | ASTM D5185m | >40 | 0 | 0 | |
| Copper | ppm | ASTM D5185m | >330 | 1 | 4 | |
| Tin | ppm | ASTM D5185m | >15 | 0 | <1 | |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | |
| | | | | • | • | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| ADDITIVES Boron | ppm | method ASTM D5185m | limit/base | current 6 | history1 27 | history2 |
| ADDITIVES Boron Barium | ppm ppm | method ASTM D5185m ASTM D5185m | limit/base | current 6 0 | history1 27 0 | history2 |
| ADDITIVES Boron Barium Molybdenum | ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m | limit/base | current 6 0 57 | history1 27 0 70 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese | ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m | limit/base | current 6 0 57 <1 | history1 27 0 70 1 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium | ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | limit/base | current 6 0 57 <1 860 | history1 27 0 70 1 454 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium | ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | limit/base | current 6 0 57 <1 860 1225 | history1 27 0 70 1 454 1628 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus | ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | limit/base | current 6 0 57 <1 860 1225 987 | history1 27 0 70 1 454 1628 945 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc | ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m | limit/base | current 6 0 57 <1 860 1225 987 1215 | history1 27 0 70 1 454 1628 945 1171 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur | ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m | limit/base | current 6 0 57 <1 860 1225 987 1215 3222 | history1 27 0 70 1 454 1628 945 1171 3450 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS | ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m | limit/base | current 6 0 57 <1 860 1225 987 1215 3222 current | history1 27 0 70 1 454 1628 945 1171 3450 history1 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon | ppm | method ASTM D5185m | limit/base | current 6 0 57 <1 860 1225 987 1215 3222 current 4 | history1 27 0 70 1 454 1628 945 1171 3450 history1 7 | history2 history2 history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Chosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium | ppm | method ASTM D5185m | limit/base limit/base >25 | current 6 0 57 <1 860 1225 987 1215 3222 current 4 2 | history1 27 0 70 1 454 1628 945 1171 3450 history1 7 2 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium | ppm | method ASTM D5185m | limit/base | current 6 0 57 <1 860 1225 987 1215 3222 current 4 2 6 | history1 27 0 70 1 454 1628 945 1171 3450 history1 7 2 12 | history2 history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Chosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m | limit/base | current 6 0 57 <1 860 1225 987 1215 3222 current 4 2 6 current | history1 27 0 70 1 454 1628 945 1171 3450 history1 7 2 12 history1 | history2 history2 history2 history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % | ppm | method ASTM D5185m | limit/base | current 6 0 57 <1 860 1225 987 1215 3222 current 4 2 6 current 0.2 | history1 27 0 70 1 454 1628 945 1171 3450 history1 7 2 12 history1 0.2 | history2 history2 history2 history2 history2 history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m | limit/base //////////////////////////////////// | current 6 0 57 <1 860 1225 987 1215 3222 current 4 2 6 current 0.2 6.9 | history1 27 0 70 1 454 1628 945 1171 3450 history1 7 2 12 history1 0.2 8.1 | history2 history2 history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Chosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D71824 *ASTM D7624 | limit/base limit/base >25 >20 limit/base >3 >20 >30 | current 6 0 57 <1 860 1225 987 1215 3222 current 4 2 6 current 0.2 6.9 18.6 | history1 27 0 70 1 454 1628 945 1171 3450 history1 7 2 12 history1 0.2 8.1 18.5 | history2 history2 history2 history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415 method | limit/base >25 >20 limit/base >3 >20 >30 limit/base | current 6 0 57 <1 860 1225 987 1215 3222 current 4 2 6 current 0.2 6.9 18.6 current | history1 27 0 70 1 454 1628 945 1171 3450 history1 7 2 12 history1 0.2 8.1 18.5 history1 | history2 history2 history2 history2 history2 history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA Oxidation | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D7185M ASTM D7844 *ASTM D7415 method *ASTM D7414 | limit/base | current 6 0 57 <1 860 1225 987 1215 3222 current 4 2 6 current 0.2 6.9 18.6 current 15.0 | history1 27 0 70 1 454 1628 945 1171 3450 history1 7 2 12 history1 0.2 8.1 18.5 history1 14.4 | history2 history2 history2 history2 history2 history2 |



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Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Certificate L2367

Laboratory

Sample No.