

OIL ANALYSIS REPORT

Sample Rating Trend



Area SCHTRUCK 6368 [SCHTRUCK] Component

Diesel Engine

PETRO CANADA DURON SHP 15W40 (--- 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.

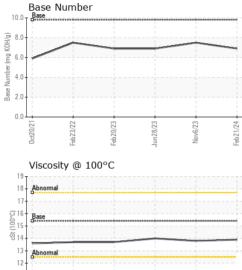
| SAMPLE INFORM | ATION | method | limit/base | current | history1 | history2 |
|--|--|--|--|---|---|--|
| Sample Number | | Client Info | | SBP0006659 | SBP0005932 | SBP0004701 |
| Sample Date | | Client Info | | 21 Feb 2024 | 06 Nov 2023 | 28 Jun 2023 |
| Machine Age | mls | Client Info | | 321078 | 286826 | 250368 |
| Oil Age | mls | Client Info | | 34252 | 36458 | 36908 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| CONTAMINATIO | N | 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 METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >80 | 9 | 15 | 11 |
| Chromium | ppm | ASTM D5185m | >5 | 2 | 1 | <1 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >30 | 7 | 5 | 4 |
| Lead | ppm | ASTM D5185m | >30 | 1 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >150 | 5 | 6 | 8 |
| Tin | ppm | ASTM D5185m | >5 | 0 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| | | | | | | |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| ADDITIVES | ppm | ASTM D5185m method | limit/base | 0 current | 0 history1 | 0 history2 |
| | ppm ppm | | limit/base | | - | |
| ADDITIVES | | method ASTM D5185m | | current | history1 | history2 |
| ADDITIVES Boron | ppm | method ASTM D5185m | 0 | current 0 | history1 0 | history2 3 |
| ADDITIVES Boron Barium | ppm ppm | method ASTM D5185m ASTM D5185m | 0 0 60 | current 0 0 | history1 0 0 | history2 3 2 |
| ADDITIVES Boron Barium Molybdenum | ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m | 0 0 60 | current 0 0 62 | history1 0 0 60 | history2 3 2 61 |
| ADDITIVES Boron Barium Molybdenum Manganese | ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 0 0 60 0 | ourrent 0 0 62 <1 | history1 0 0 60 <1 | history2 3 2 61 <1 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium | ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 0 0 60 0 1010 | current 0 0 62 <1 1025 | history1 0 0 60 <1 961 | history2 3 2 61 <1 830 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium | ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 0 0 60 0 1010 1070 | Current 0 0 62 <1 1025 1198 | history1 0 0 60 <1 961 1133 | history2 3 2 61 <1 830 1199 |
| 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 | 0 0 60 0 1010 1070 1150 | Current 0 0 62 <1 1025 1198 1088 | history1 0 0 60 <1 961 1133 995 | history2 3 2 61 <1 830 1199 970 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc | ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 0 0 60 0 1010 1070 1150 1270 | current 0 0 62 <1 1025 1198 1088 1351 | history1 0 0 60 <1 961 1133 995 1317 | history2 3 2 61 <1 830 1199 970 1163 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur | ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 0 0 60 1010 1070 1150 1270 2060 | Current 0 0 62 <1 1025 1198 1088 1351 2791 | history1 0 0 60 <1 961 1133 995 1317 2605 | history2 3 2 61 <1 830 1199 970 1163 2551 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS | ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 0 0 60 1010 1070 1150 1270 2060 | Current 0 62 <1 1025 1198 1088 1351 2791 Current | history1 0 0 60 <1 961 1133 995 1317 2605 history1 | history2 3 2 61 <1 830 1199 970 1163 2551 history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon | ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method | 0 0 60 1010 1070 1150 1270 2060 kimit/base >20 | current 0 0 62 <1 1025 1198 1088 1351 2791 current 4 | history1 0 0 60 <1 961 1133 995 1317 2605 history1 4 | history2 3 2 61 <1 830 1199 970 1163 2551 history2 4 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium | ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m | 0 0 60 1010 1070 1150 1270 2060 kimit/base >20 | current 0 0 62 <1 1025 1198 1088 1351 2791 current 4 3 | history1 0 0 60 <1 961 1133 995 1317 2605 history1 4 1 | history2 3 2 61 <1 830 1199 970 1163 2551 history2 4 0 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m | 0 0 0 1010 1070 1150 1270 2060 limit/base >20 | current 0 0 62 <1 1025 1198 1088 1351 2791 current 4 3 5 | history1 0 0 60 <1 961 1133 995 1317 2605 history1 4 1 5 | history2 3 2 61 <1 830 1199 970 1163 2551 history2 4 0 4 0 4 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m | 0 0 0 1010 1070 1150 1270 2060 2060 2060 220 20 20 20 20 20 20 | current 0 62 <1 1025 1198 1088 1351 2791 current 4 3 5 current | history1 0 0 60 <1 961 1133 995 1317 2605 history1 4 1 5 history1 | history2 3 2 61 <1 830 1199 970 1163 2551 history2 4 0 4 0 4 history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m | 0 0 0 1010 1070 1150 1270 2060 2060 2060 220 20 20 20 20 20 20 | current 0 0 62 <1 1025 1198 1088 1351 2791 current 4 3 5 current 0.6 | history1 0 0 60 <1 961 1133 995 1317 2605 history1 4 1 5 history1 0.4 | history2 3 2 61 <1 830 1199 970 1163 2551 history2 4 0 4 0 4 0.6 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Sulfur Silicon Sodium Potassium INFRA-RED Soot % Nitration | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m | 0 0 0 1010 1070 1150 1270 2060 <i>limit/base</i> >20 <i>limit/base</i> >20 | current 0 0 62 <1 1025 1198 1088 1351 2791 current 4 3 5 current 0.6 9.1 | history1 0 0 60 <1 961 1133 995 1317 2605 history1 4 1 5 history1 0.4 13.8 | history2 3 2 61 <1 830 1199 970 1163 2551 history2 4 0 4 0 4 0.6 9.4 |
| 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 D5185m | 0 0 0 1010 1070 1150 1270 2060 imit/base >20 imit/base >3 >20 >3 >20 | current 0 62 <1 1025 1198 1088 1351 2791 current 4 3 5 current 0.6 9.1 21.1 | history1 0 0 60 <1 961 1133 995 1317 2605 history1 4 1 5 history1 0.4 13.8 26.4 | history2 3 2 61 <1 830 1199 970 1163 2551 history2 4 0 4 0.6 9.4 21.9 |



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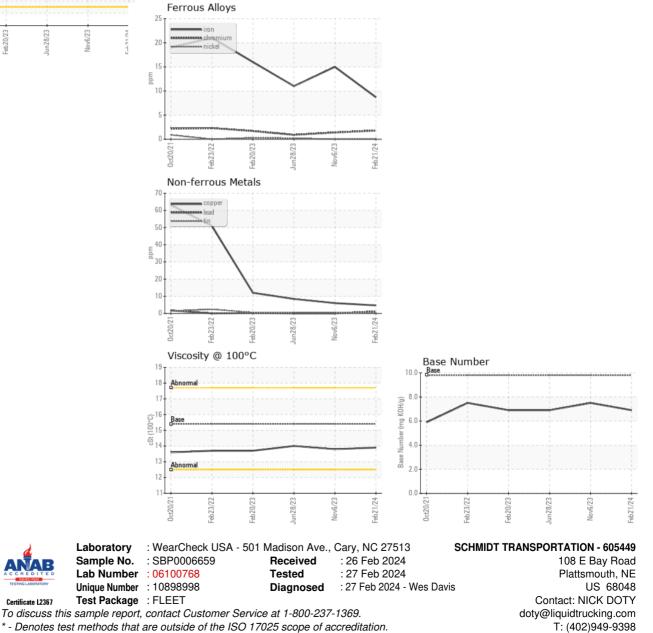
Feb23/22

OIL ANALYSIS REPORT



eb20/23

| 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 |
| FLUID PROPERT | IES | method | limit/base | current | history1 | history2 |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | 13.9 | 13.8 | 14.0 |
| CDADUS | | | | | | |



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

Certificate L2367

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