

OIL ANALYSIS REPORT

Sample Rating Trend

SEDIMENT

Machine Id 749012-310059

Component Transmission (Auto)

Fluic

PETRO CANADA DuraDrive HD Synthetic 668 (32 QTS)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of visible silt present in the sample.

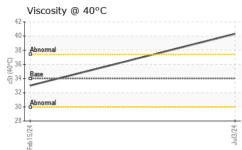
Fluid Condition

The condition of the fluid is acceptable for the time in service.

| SAMPLE INFORM | MATION | method | limit/base | current | history1 | history2 |
|--|---|---|--|---|---|---|
| Sample Number | | Client Info | | GFL0121886 | GFL0092064 | |
| Sample Date | | Client Info | | 03 Jul 2024 | 15 Feb 2024 | |
| Machine Age | hrs | Client Info | | 16254 | 15036 | |
| Oil Age | hrs | Client Info | | 605 | 0 | |
| Oil Changed | | Client Info | | Changed | Changed | |
| Sample Status | | - | | ABNORMAL | NORMAL | |
| CONTAMINAT | ION | method | limit/base | current | history1 | history2 |
| Water | | WC Method | | NEG | NEG | |
| WEAR METAL | S | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >325 | 8 | 59 | |
| Chromium | ppm | ASTM D5185m | >2 | 0 | 0 | |
| Nickel | ppm | ASTM D5185m | >2 | 0 | 0 | |
| Titanium | ppm | ASTM D5185m | >3 | 0 | 0 | |
| Silver | ppm | ASTM D5185m | >5 | 0 | 0 | |
| Aluminum | ppm | ASTM D5185m | >75 | 6 | 37 | |
| Lead | ppm | ASTM D5185m | >40 | 0 | 1 | |
| | | ASTM D5185m | >40 >50 | 2 | 15 | |
| Copper Tin | ppm | ASTM D5185m | | 0 | 2 | |
| | ppm | | >10 | - | | |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | |
| Cadmium | ppm | ASTM D5185m | | <1 | 0 | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | | 48 | 61 | |
| Barium | ppm | ASTM D5185m | | 0 | <1 | |
| | | | | | | |
| Molybdenum | ppm | ASTM D5185m | | 0 | <1 | |
| - | ppm ppm | ASTM D5185m ASTM D5185m | | 0 <1 | <1 <1 | |
| Manganese | | | | | | |
| Manganese Magnesium | ppm | ASTM D5185m | | <1 | <1 | |
| Molybdenum Manganese Magnesium Calcium Phosphorus | ppm ppm | ASTM D5185m ASTM D5185m | | <1 4 | <1 6 | |
| Manganese Magnesium Calcium | ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m | | <1 4 112 | <1 6 41 | |
| Manganese Magnesium Calcium Phosphorus | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | | <1 4 112 266 | <1 6 41 195 | |
| Manganese Magnesium Calcium Phosphorus Zinc | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | limit/base | <1 4 112 266 133 | <1 6 41 195 0 | |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | limit/base >20 | <1 4 112 266 133 1754 | <1 6 41 195 0 997 | |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon | ppm ppm ppm ppm ppm ppm TS | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | | <1 4 112 266 133 1754 current | <1 6 41 195 0 997 history1 | history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur | ppm ppm ppm ppm ppm ppm TS | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m | | <1 4 112 266 133 1754 current 3 | <1 6 41 195 0 997 history1 7 | history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium | ppm ppm ppm ppm ppm ppm TS ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | >20 | <1 4 112 266 133 1754 <u>current</u> 3 2 | <1 6 41 195 0 997 history1 7 6 | history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL | ppm ppm ppm ppm ppm ppm TS ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | >20 >20 | <1 4 112 266 133 1754 <u>current</u> 3 2 1 | <1 6 41 195 0 997 history1 7 6 3 | history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal | ppm ppm ppm ppm ppm ppm TS ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | >20 >20 limit/base | <1 4 112 266 133 1754 current 3 2 1 current | <1 6 41 195 0 997 history1 7 6 3 3 history1 | history2 history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal | ppm ppm ppm ppm ppm ppm TS ppm ppm ppm scalar | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m XSTM D5185m | >20 >20 limit/base NONE | <1 4 112 266 133 1754 current 3 2 1 current NONE | <1 6 41 195 0 997 history1 7 6 3 3 history1 NONE | history2 history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate | ppm ppm ppm ppm ppm ppm TS ppm ppm ppm scalar scalar | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Yisual | >20 >20 limit/base NONE NONE | <1 4 112 266 133 1754 current 3 2 1 current NONE NONE NONE | <1 6 41 195 0 997 history1 7 6 3 3 history1 NONE NONE | history2 history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt | ppm ppm ppm ppm ppm ppm TS ppm ppm ppm scalar scalar scalar | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual | >20 >20 limit/base NONE NONE NONE | <1 4 112 266 133 1754 current 3 2 1 current NONE NONE NONE NONE | <1 6 41 195 0 997 history1 7 6 3 3 history1 NONE NONE NONE NONE | history2 history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris | ppm ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual | >20 >20 limit/base NONE NONE NONE NONE | <1 4 112 266 133 1754 Current 3 2 1 Current NONE NONE NONE NONE MODER | <1 6 41 195 0 997 history1 7 6 3 3 history1 NONE NONE NONE NONE NONE | history2 history2 history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt | ppm ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual | >20 >20 limit/base NONE NONE NONE NONE NONE | <1 4 112 266 133 1754 Current 3 2 1 Current NONE NONE NONE NONE NONE NONE NONE NO | <1 6 41 195 0 997 history1 7 6 3 7 6 3 3 history1 NONE NONE NONE NONE NONE NONE | history2 history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance | ppm ppm ppm ppm ppm ppm TS ppm ppm ppm scalar scalar scalar scalar scalar scalar | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual | >20 Imit/base NONE NONE NONE NONE NONE NONE NONE NON | <1 4 112 266 133 1754 | <1 6 41 195 0 997 history1 7 6 3 history1 NONE NORML NORML NORML NORML NORML NORML NORML NORME NORML NORME NORML NORME NORML NORML NORME NORME NORML NORML | history2 history2 history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor | ppm ppm ppm ppm ppm ppm TS ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual | >20 >20 Iimit/base NONE NONE NONE NONE NONE NONE NONE NONE NONE | <1 4 112 266 133 1754 Current 3 2 1 Current 3 2 1 Current NONE NONE NONE NONE NONE NONE NONE NON | <1 6 41 195 0 997 history1 7 6 3 history1 NONE NORML NO | history2 history2 history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm TS ppm ppm ppm scalar scalar scalar scalar scalar scalar | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual | >20 Imit/base NONE NONE NONE NONE NONE NONE NONE NON | <1 4 112 266 133 1754 | <1 6 41 195 0 997 history1 7 6 3 history1 NONE NORML NORML NORML NORML NORML NORML NORML NORME NORML NORME NORML NORME NORML NORML NORME NORME NORML NORML | history2 |



OIL ANALYSIS REPORT



| FLUID PROPE | ERTIES | method | limit/base | current | history1 | history2 |
|---------------------------------------|----------------|-----------------------------|---------------------------|-----------|-------------------|--------------|
| Visc @ 40°C | cSt | ASTM D445 | 34 | 40.3 | 33.0 | |
| SAMPLE IMA | GES | method | limit/base | current | history1 | history2 |
| Color | | | | no image | no image | no image |
| | | | | | | |
| Bottom | | | | no image | no image | no image |
| GRAPHS | | | | | | |
| Ferrous Alloys | | | | | | |
| 50 - iron chromium | | | | | | |
| 40 | | | | | | |
| Ē_30 - | \searrow | | | | | |
| 20 | | | | | | |
| 10 | | | | | | |
| | | | | | | |
| Feb15/24 | | | Jul3/24 . | | | |
| Non-ferrous Meta | als | | , | | | |
| 16 copper 1 | | | | | | |
| 14 12 | | | | | | |
| 10- | | | | | | |
| Ed 8- | | | | | | |
| 6 | | | | | | |
| 2 | | | | | | |
| | ******* | Construction Charles Vicely | 24 | | | |
| Feb15/24 | | | Jul3/24 | | | |
| Viscosity @ 40°C | | | | | | |
| 40 | | | | | | |
| 38 - Abnormal | | | | | | |
| | | | | | | |
| ()- 36 36 34 - B ase | | | | | | |
| 32 - | | | | | | |
| 30 - Abnormal | | | | | | |
| 28 + + 2% | | | Jul3/24 + | | | |
| Feb 15/24 | | | Jul | | | |
| WaarChaak USA E | 01 Madiaa | | NO 07512 | CEL En | vironmental - 856 | Houston So |
| : WearCheck USA - 50 : GFL0121886 | Recei | ved : 05 | 5 Jul 2024 | | | ighway 6 Soι |
| : <mark>06229015</mark> : 11112508 | Teste Diagn | | Jul 2024 Jul 2024 - Se | an Felton | | Houston, 7 |
| | | | JUI 2024 - 0P | | | US 7708 |

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)

Certificate L2367

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