

OIL ANALYSIS REPORT

Galy Line [Galv Line] 670075-# 4 BRIDLE ROLL # 1 Component

Gearbox Fluic

PETRO CANADA ENDURATEX EP 220 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

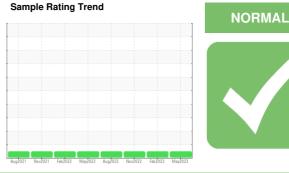
All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



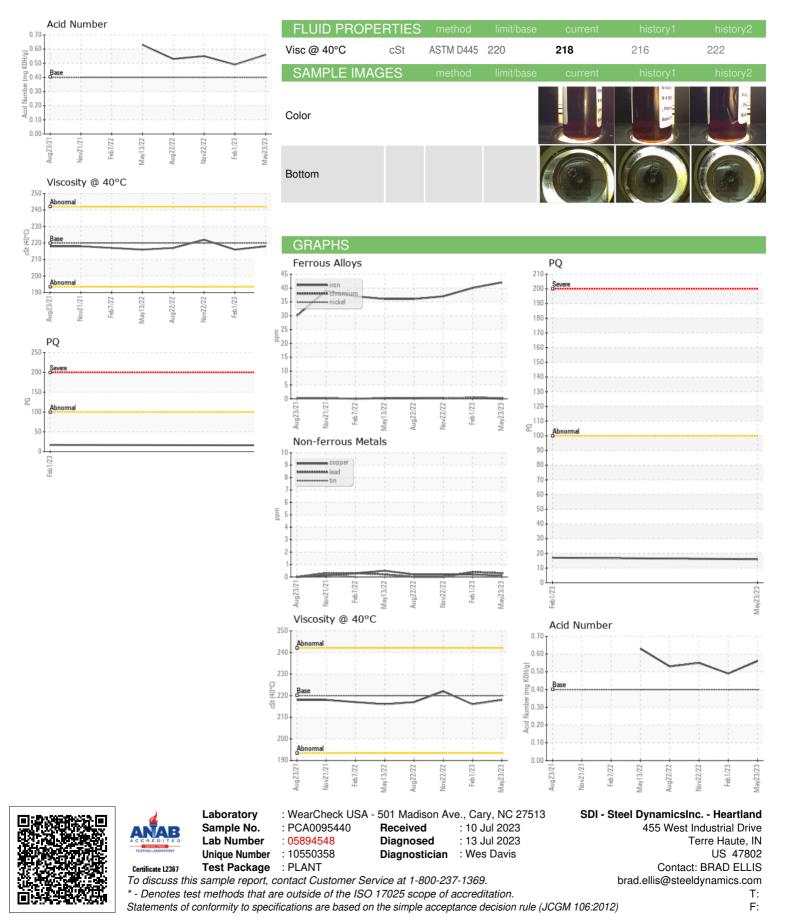


| · | | Aug2021 1 | Nov2021 Feb2022 May20 | 22 Aug2022 Nov2022 Feb20 | 23 May2023 | |
|------------------|----------|-------------|-----------------------|--------------------------|--------------|--------------|
| SAMPLE INFOR | MATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | PCA0095440 | PCA0089478 | PCA0081713 |
| Sample Date | | Client Info | | 23 May 2023 | 01 Feb 2023 | 22 Nov 2022 |
| Machine Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Not Changd | Not Changd | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| WEAR METAL | .S | method | limit/base | current | history1 | history2 |
| PQ | | ASTM D8184 | | 16 | 17 | |
| Iron | ppm | ASTM D5185m | >200 | 42 | 40 | 37 |
| Chromium | ppm | ASTM D5185m | >15 | 0 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >15 | <1 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | <1 | 0 | <1 |
| Lead | ppm | ASTM D5185m | >100 | <1 | <1 | 0 |
| Copper | ppm | ASTM D5185m | >200 | <1 | <1 | <1 |
| Tin | ppm | ASTM D5185m | >25 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| ADDITIVES | 1.1 | method | limit/base | current | history1 | history2 |
| | | | | 12 | | |
| Boron | ppm | ASTM D5185m | 60 | | 13 0 | 13 |
| Barium | ppm | ASTM D5185m | | 0 | | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | <1 | <1 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 0 | 3 | <1 | 0 |
| Calcium | ppm | ASTM D5185m | | 17 | 16 | 17 |
| Phosphorus | ppm | ASTM D5185m | 270 | 233 | 212 | 224 |
| Zinc | ppm | ASTM D5185m | | 11 | 23 | 14 |
| Sulfur | ppm | ASTM D5185m | 11200 | 10201 | 9319 | 9152 |
| CONTAMINAN | ITS | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >50 | 12 | 12 | 12 |
| Sodium | ppm | ASTM D5185m | | 1 | <1 | <1 |
| Potassium | ppm | ASTM D5185m | >20 | 4 | 0 | 0 |
| FLUID DEGRAI | DATION | method | limit/base | current | history1 | history2 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.40 | 0.56 | 0.49 | 0.55 |
| 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 | LIGHT | 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 | ocation BRAD | LLISIESDITER |
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Contact/Location: BRAD ELLIS - SDITER