

# **GREASE ANALYSIS**

### Area Turret [21051511 1000657470] GS02 - Torque Tube Brg Grease (S/N Sample Tag: NC-05603) Grease

Fluid PETRO CANADA PRECISION SYNTHETIC (--- GAL)

#### DIAGNOSIS

#### Recommendation

Confirm the source of the grease being utilized for lubrication servicing. This appears to be a mixture of Petro-Canada Precision Synthetic and OG-1 grease. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Grease Condition

Additive levels indicate the addition of a different brand, or type of grease. The condition of the grease is acceptable for the time in service.

#### Contaminants

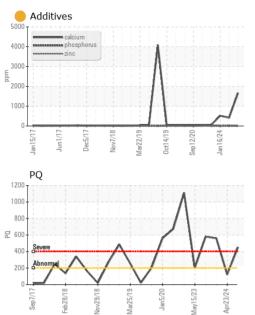
There is no indication of any contamination in the grease.

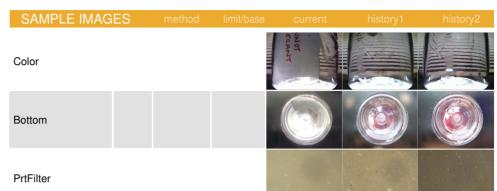


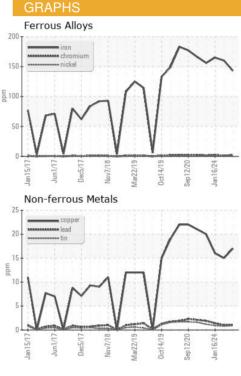
| Sample Number    |            | Client Info   |            | PC                | PC          | PC          |
|------------------|------------|---------------|------------|-------------------|-------------|-------------|
| Sample Date      |            | Client Info   |            | 15 Jul 2024       | 23 Apr 2024 | 16 Jan 2024 |
| Machine Age      | hrs        | Client Info   |            | 0                 | 0           | 0           |
| Grease Age       | hrs        | Client Info   |            | 0                 | 0           | 0           |
| Grease Serviced  |            | Client Info   |            | N/A               | N/A         | N/A         |
| Sample Status    |            |               |            | ATTENTION         | NORMAL      | ATTENTION   |
| CONTAMINAT       | ION        | method        | limit/base | current           | history1    | history2    |
| Water            |            | WC Method     | >0.1       | NEG               | NEG         | NEG         |
| WEAR METAL       | .S         | method        | limit/base | current           | history1    | history2    |
| PQ               |            | ASTM D8184*   | >200       | 450               | 120         | 560         |
| Iron             | ppm        | ASTM D5185(m) | >250       | 143               | 160         | 165         |
| Chromium         | ppm        | ASTM D5185(m) | >10        | 2                 | 2           | 2           |
| Nickel           | ppm        | ASTM D5185(m) | >5         | <1                | <1          | <1          |
| Cadmium          | ppm        | ASTM D5185(m) |            | 0                 | 0           | 0           |
| Titanium         | ppm        | ASTM D5185(m) |            | 0                 | 0           | 0           |
| Vanadium         | ppm        | ASTM D5185(m) |            | 0                 | 0           | 0           |
| Lead             | ppm        | ASTM D5185(m) | >25        | 1                 | 1           | 1           |
| Copper           | ppm        | ASTM D5185(m) | >75        | 17                | 15          | 16          |
| Tin              | ppm        | ASTM D5185(m) | >5         | <1                | <1          | <1          |
| Silver           | ppm        | ASTM D5185(m) | >5         | 0                 | 0           | 0           |
| ADDITIVES        |            | method        | limit/base | current           | history1    | history2    |
| Boron            | ppm        | ASTM D5185(m) |            | <b>5</b> 8        | 12          | 13          |
| Magnesium        | ppm        | ASTM D5185(m) |            | 10                | 6           | 7           |
| Manganese        | ppm        | ASTM D5185(m) |            | 2                 | 2           | 2           |
| Molybdenum       | ppm        | ASTM D5185(m) |            | 0                 | 0           | 0           |
| Phosphorus       | ppm        | ASTM D5185(m) |            | 6                 | 7           | 6           |
| Zinc             | ppm        | ASTM D5185(m) |            | <mark> </mark> 43 | 14          | 15          |
| Antimony         | ppm        | ASTM D5185(m) |            | 0                 | 0           | 0           |
| THICKENER/S      | SOAP       | method        | limit/base | current           | history1    | history2    |
| Aluminum         | ppm        | ASTM D5185(m) |            | 1                 | <1          | <1          |
| Barium           | ppm        | ASTM D5185(m) |            | <1                | <1          | 0           |
| Calcium          | ppm        | ASTM D5185(m) |            | <b>e</b> 1658     | 413         | 511         |
| Sodium           | ppm        | ASTM D5185(m) |            | 12                | 12          | 13          |
| Lithium          | ppm        | ASTM D5185(m) |            | 23                | 38          | 38          |
| Sulfur           | ppm        | ASTM D5185(m) |            | 498               | 391         | 411         |
| CONTAMINAN       | ITS        | method        | limit/base | current           | history1    | history2    |
| Silicon          | ppm        | ASTM D5185(m) | >150       | 2                 | <1          | 1           |
| Potassium        | ppm        | ASTM D5185(m) |            | 1                 | <1          | 2           |
| GREASE CON       |            | method        | limit/base | current           | history1    | history2    |
| Grease Color     |            | Visual*       | Gold       | Tan               | Gold        | Brown       |
| Texture          |            | In-house*     | Buttery    | Buttery           | Stringy     | Stringy     |
| NLGI Consistency | NLGI Scale | SKF Method*   | 1          | 1                 | 0           | 0           |
|                  |            |               |            | -                 | -           | -           |

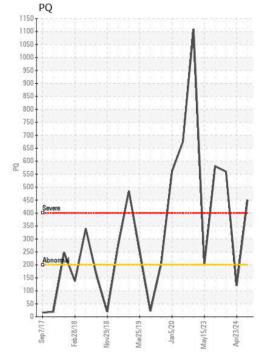


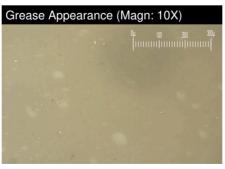
## **GREASE ANALYSIS**











: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Received

Diagnosed

Tested

: 16 Jul 2024

: 17 Jul 2024

: 18 Jul 2024 - Bill Quesnel

Suncor - Terra Nova Projects Scotia Centre, 235 Water Strret St. John`s, NL CA A1C 1B6 Contact: Josh Hynes joshynes@suncor.com T: (709)778-3575 F: (709)724-2835



Lab Number : 02648278 ISO 17025:2017 Accredited Laboratory Unique Number : 5813830 Test Package : GRS 1 (Additional Tests: BottomAnalysis)

Laboratory

Sample No.

: PC

To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

Report Id: TERHAM [WCAMIS] 02648278 (Generated: 07/18/2024 17:01:06) Rev: 1

CALA

Contact/Location: Josh Hynes - TERHAM Page 2 of 2