



# OIL ANALYSIS REPORT

|                 |               |
|-----------------|---------------|
| WEAR            | <b>NORMAL</b> |
| CONTAMINATION   | <b>NORMAL</b> |
| FLUID CONDITION | <b>NORMAL</b> |

Machine Id  
**PIERCE 1958**  
 Component  
**Transmission (Auto)**  
 Fluid  
**BG PRODUCTS Universal Synthetic Trans Oil 312 (--- QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>WC0771939</b>   | WC0708743   | WC0646961   |
| Sample Date    |     | Client Info |           | <b>20 Feb 2023</b> | 21 Jun 2022 | 06 Dec 2021 |
| Machine Age    | hrs | Client Info |           | <b>11526</b>       | 11346       | 11165       |
| Oil Age        | hrs | Client Info |           | <b>639</b>         | 459         | 278         |
| Filter Age     | hrs | Client Info |           | <b>639</b>         | 459         | 278         |
| Oil Changed    |     | Client Info |           | <b>Not Changd</b>  | Not Changd  | Not Changd  |
| Filter Changed |     | Client Info |           | <b>Not Changd</b>  | Not Changd  | Not Changd  |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## WEAR

All component wear rates are normal.

|              |        |             |      |              |      |       |
|--------------|--------|-------------|------|--------------|------|-------|
| Iron         | ppm    | ASTM D5185m | >160 | <b>25</b>    | 17   | 9     |
| Chromium     | ppm    | ASTM D5185m | >5   | <b>0</b>     | 0    | 0     |
| Nickel       | ppm    | ASTM D5185m | >5   | <b>0</b>     | 0    | 0     |
| Titanium     | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | 0     |
| Silver       | ppm    | ASTM D5185m | >5   | <b>0</b>     | 0    | 0     |
| Aluminum     | ppm    | ASTM D5185m | >50  | <b>12</b>    | 8    | 4     |
| Lead         | ppm    | ASTM D5185m | >50  | <b>1</b>     | 1    | <1    |
| Copper       | ppm    | ASTM D5185m | >225 | <b>7</b>     | 5    | 3     |
| Tin          | ppm    | ASTM D5185m | >10  | <b>&lt;1</b> | <1   | <1    |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | 0     |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | LIGHT |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE  |

## CONTAMINATION

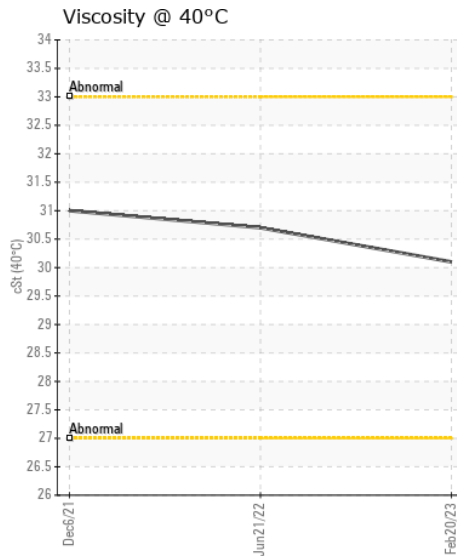
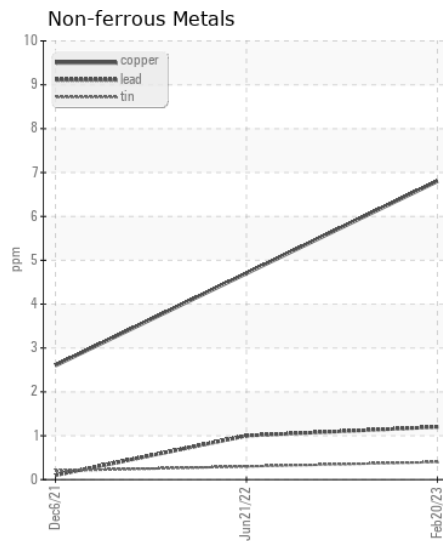
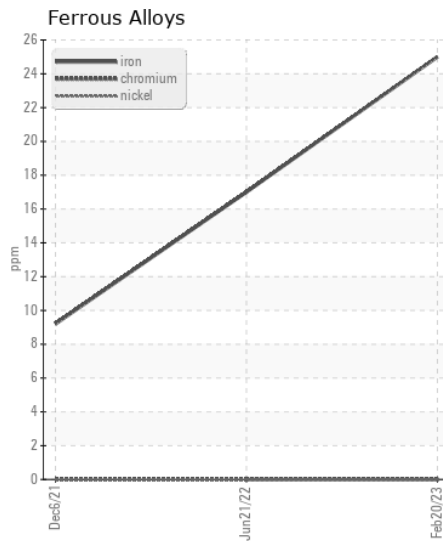
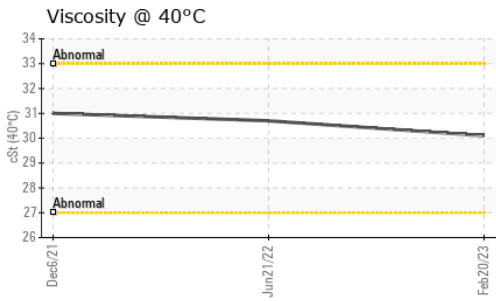
There is no indication of any contamination in the oil.

|                  |        |             |       |              |       |       |
|------------------|--------|-------------|-------|--------------|-------|-------|
| Silicon          | ppm    | ASTM D5185m | >20   | <b>9</b>     | 6     | 6     |
| Potassium        | ppm    | ASTM D5185m | >20   | <b>1</b>     | 2     | 0     |
| Water            |        | WC Method   | >0.1  | <b>NEG</b>   | NEG   | NEG   |
| Silt             | scalar | *Visual     | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Debris           | scalar | *Visual     | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Sand/Dirt        | scalar | *Visual     | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Appearance       | scalar | *Visual     | NORML | <b>NORML</b> | NORML | NORML |
| Odor             | scalar | *Visual     | NORML | <b>NORML</b> | NORML | NORML |
| Emulsified Water | scalar | *Visual     | >0.1  | <b>NEG</b>   | NEG   | NEG   |

## FLUID CONDITION

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

|             |     |             |  |              |      |      |
|-------------|-----|-------------|--|--------------|------|------|
| Sodium      | ppm | ASTM D5185m |  | <b>5</b>     | 2    | 4    |
| Boron       | ppm | ASTM D5185m |  | <b>287</b>   | 318  | 196  |
| Barium      | ppm | ASTM D5185m |  | <b>1</b>     | 0    | 0    |
| Molybdenum  | ppm | ASTM D5185m |  | <b>0</b>     | 0    | 0    |
| Manganese   | ppm | ASTM D5185m |  | <b>&lt;1</b> | <1   | <1   |
| Magnesium   | ppm | ASTM D5185m |  | <b>2</b>     | 2    | 1    |
| Calcium     | ppm | ASTM D5185m |  | <b>251</b>   | 214  | 184  |
| Phosphorus  | ppm | ASTM D5185m |  | <b>641</b>   | 551  | 453  |
| Zinc        | ppm | ASTM D5185m |  | <b>7</b>     | 4    | 0    |
| Sulfur      | ppm | ASTM D5185m |  | <b>2321</b>  | 1974 | 1880 |
| Visc @ 40°C | cSt | ASTM D445   |  | <b>30.1</b>  | 30.7 | 31.0 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0771939 **Received** : 03 Mar 2023  
**Lab Number** : **05783436** **Diagnosed** : 07 Mar 2023  
**Unique Number** : 10363106 **Diagnostician** : Sean Felton  
**Test Package** : CONST

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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)