



# OIL ANALYSIS REPORT

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



Area  
**Contracting**  
Machine Id  
**5536 5536**  
Component  
**Swing Drive**  
Fluid  
**GEAR OIL SAE 85W140 (2 GAL)**

## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>WC0902861</b>   | WC0819182   | WC0740746   |
| Sample Date    |     | Client Info |           | <b>27 Feb 2024</b> | 09 Aug 2023 | 21 Sep 2022 |
| Machine Age    | hrs | Client Info |           | <b>1208</b>        | 651         | 10          |
| Oil Age        | hrs | Client Info |           | <b>1208</b>        | 651         | 10          |
| Filter Age     | hrs | Client Info |           | <b>1208</b>        | 651         | 10          |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Not Changd  | Not Changd  |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Not Changd  | Not Changd  |
| Sample Status  |     |             |           | <b>ABNORMAL</b>    | ABNORMAL    | ATTENTION   |

## WEAR

All component wear rates are normal.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >151 | <b>94</b>    | 85   | 10   |
| Chromium     | ppm    | ASTM D5185m | >11  | <b>3</b>     | 2    | <1   |
| Nickel       | ppm    | ASTM D5185m | >10  | <b>&lt;1</b> | 0    | 0    |
| Titanium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | <1   | 0    |
| Silver       | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >21  | <b>1</b>     | 2    | <1   |
| Lead         | ppm    | ASTM D5185m | >51  | <b>0</b>     | 0    | 0    |
| Copper       | ppm    | ASTM D5185m | >51  | <b>&lt;1</b> | <1   | <1   |
| Tin          | ppm    | ASTM D5185m | >10  | <b>&lt;1</b> | 0    | 0    |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | <1   | 0    |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

## CONTAMINATION

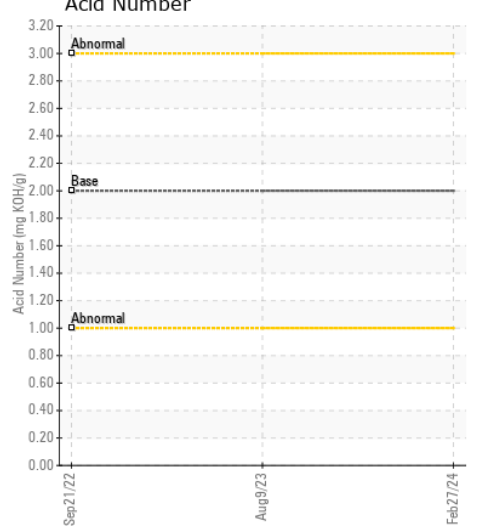
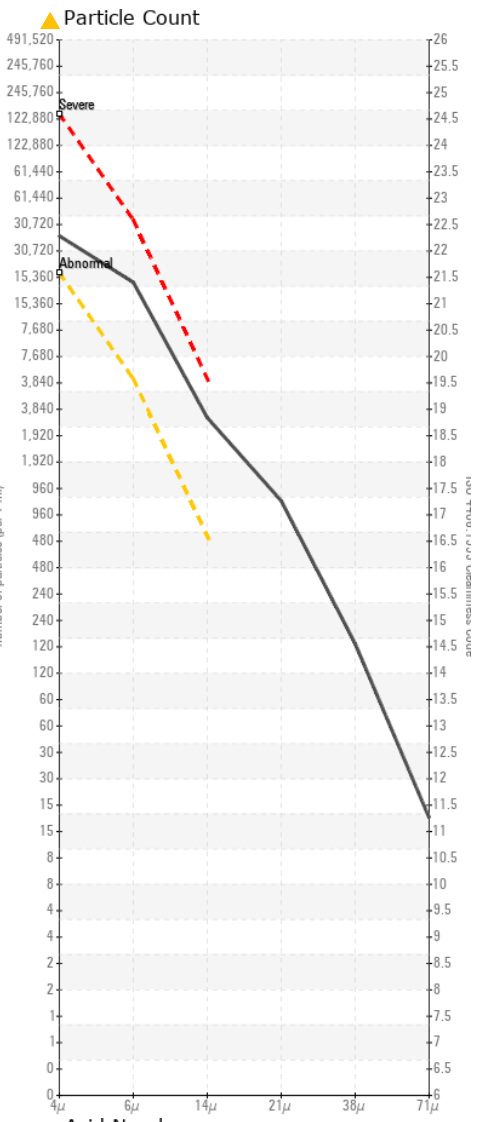
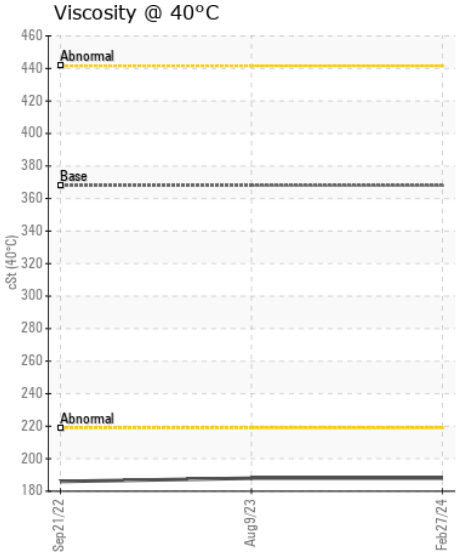
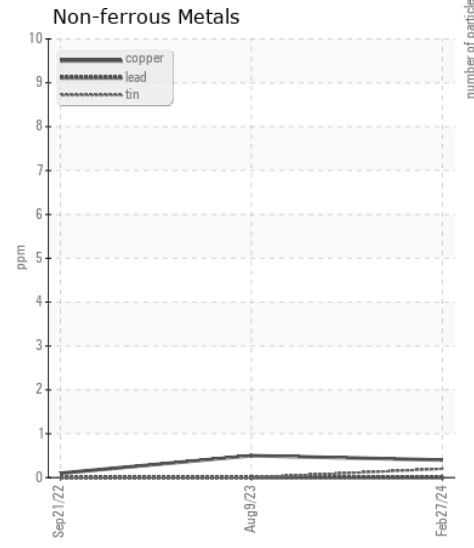
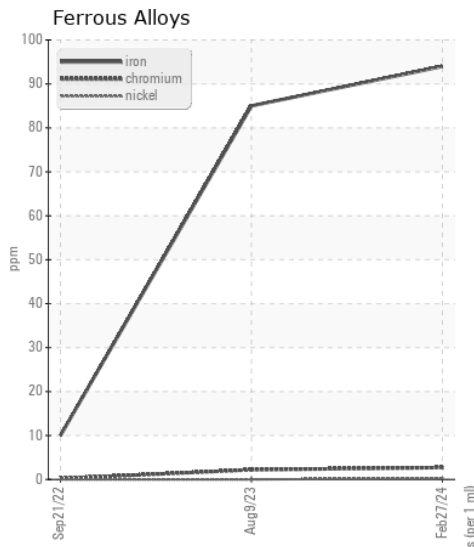
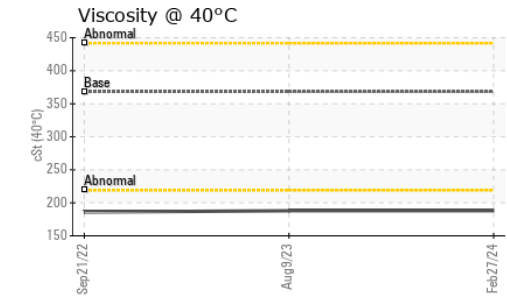
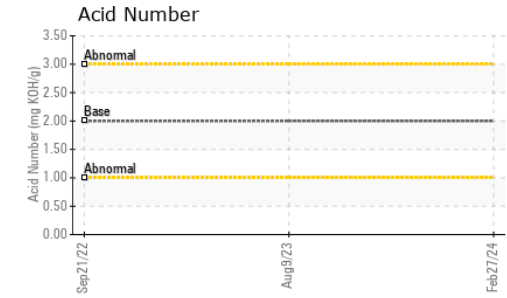
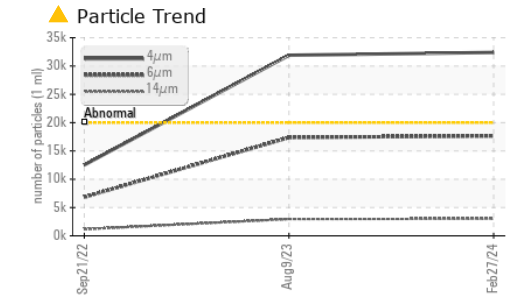
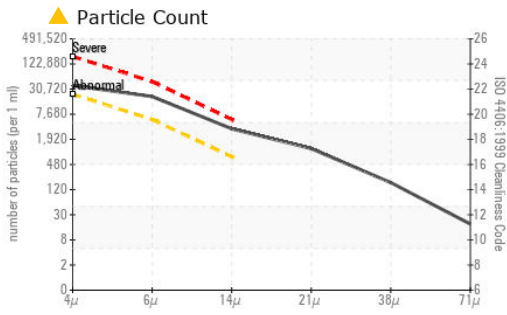
There is a high amount of particulates present in the oil.

|                  |        |              |           |                   |            |          |
|------------------|--------|--------------|-----------|-------------------|------------|----------|
| Silicon          | ppm    | ASTM D5185m  | >31       | <b>15</b>         | 14         | 9        |
| Potassium        | ppm    | ASTM D5185m  | >20       | <b>1</b>          | <1         | 0        |
| Water            |        | WC Method    | >0.1      | <b>NEG</b>        | NEG        | NEG      |
| Particles >4µm   |        | ASTM D7647   | >20000    | <b>▲ 32397</b>    | ▲ 31902    | 12525    |
| Particles >6µm   |        | ASTM D7647   | >5000     | <b>▲ 17649</b>    | ▲ 17379    | 6823     |
| Particles >14µm  |        | ASTM D7647   | >640      | <b>▲ 3004</b>     | ▲ 2958     | 1161     |
| Particles >21µm  |        | ASTM D7647   | >160      | <b>▲ 1012</b>     | ▲ 996      | 391      |
| Particles >38µm  |        | ASTM D7647   | >40       | <b>▲ 156</b>      | ▲ 154      | 60       |
| Particles >71µm  |        | ASTM D7647   | >10       | <b>▲ 16</b>       | ▲ 16       | 6        |
| Oil Cleanliness  |        | ISO 4406 (c) | >21/19/16 | <b>▲ 22/21/19</b> | ▲ 22/21/19 | 21/20/17 |
| 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 | >51   | <b>&lt;1</b> | 2     | <1    |
| Boron       | ppm | ASTM D5185m | 400   | <b>64</b>    | 74    | 93    |
| Barium      | ppm | ASTM D5185m | 200   | <b>5</b>     | 0     | 6     |
| Molybdenum  | ppm | ASTM D5185m | 12    | <b>2</b>     | 0     | 2     |
| Manganese   | ppm | ASTM D5185m |       | <b>3</b>     | 3     | <1    |
| Magnesium   | ppm | ASTM D5185m | 12    | <b>2</b>     | 0     | 4     |
| Calcium     | ppm | ASTM D5185m | 150   | <b>52</b>    | 11    | 4     |
| Phosphorus  | ppm | ASTM D5185m | 1650  | <b>527</b>   | 523   | 548   |
| Zinc        | ppm | ASTM D5185m | 125   | <b>20</b>    | <1    | 8     |
| Sulfur      | ppm | ASTM D5185m | 22500 | <b>17007</b> | 18099 | 19025 |
| Visc @ 40°C | cSt | ASTM D445   | 368   | <b>188</b>   | 188   | 186   |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0902861 **Received** : 29 Feb 2024  
**Lab Number** : 06104223 **Tested** : 05 Mar 2024  
**Unique Number** : 10902453 **Diagnosed** : 05 Mar 2024 - Jonathan Hester  
**Test Package** : CONST ( Additional Tests: PrtCount )

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)

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