



OIL ANALYSIS REPORT

|                 |        |
|-----------------|--------|
| WEAR            | NORMAL |
| CONTAMINATION   | NORMAL |
| FLUID CONDITION | NORMAL |

Machine Id  
**CASE IH 535 Z8F109453**  
 Component  
**Diesel Engine**  
 Fluid  
**SCHAEFFER OTR PLUS (12 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>KLM2305791</b>  | KLM2340160  | KLM2338884  |
| Sample Date    |     | Client Info |           | <b>25 Apr 2024</b> | 14 Apr 2022 | 30 Mar 2022 |
| Machine Age    | hrs | Client Info |           | <b>9570</b>        | 7040        | 6990        |
| Oil Age        | hrs | Client Info |           | <b>138</b>         | 111         | 67          |
| Filter Age     | hrs | Client Info |           | <b>138</b>         | 44          | 67          |
| Oil Changed    |     | Client Info |           | <b>Not Changd</b>  | Not Changd  | Not Changd  |
| Filter Changed |     | Client Info |           | <b>Not Changd</b>  | Not Changd  | Changed     |
| Sample Status  |     |             |           | <b>NORMAL</b>      | ABNORMAL    | NORMAL      |

**WEAR**

All component wear rates are normal.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >90  | <b>29</b>    | 6    | 3    |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>4</b>     | <1   | <1   |
| Nickel       | ppm    | ASTM D5185m | >2   | <b>0</b>     | 0    | 0    |
| Titanium     | ppm    | ASTM D5185m | >2   | <b>0</b>     | <1   | 0    |
| Silver       | ppm    | ASTM D5185m | >2   | <b>0</b>     | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >20  | <b>2</b>     | 2    | 1    |
| Lead         | ppm    | ASTM D5185m | >40  | <b>&lt;1</b> | 2    | 2    |
| Copper       | ppm    | ASTM D5185m | >330 | <b>0</b>     | <1   | <1   |
| Tin          | ppm    | ASTM D5185m | >15  | <b>1</b>     | 2    | <1   |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | <1   | 0    |
| White Metal  | scalar | *Visual     | NONE | <b>LIGHT</b> | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

**CONTAMINATION**

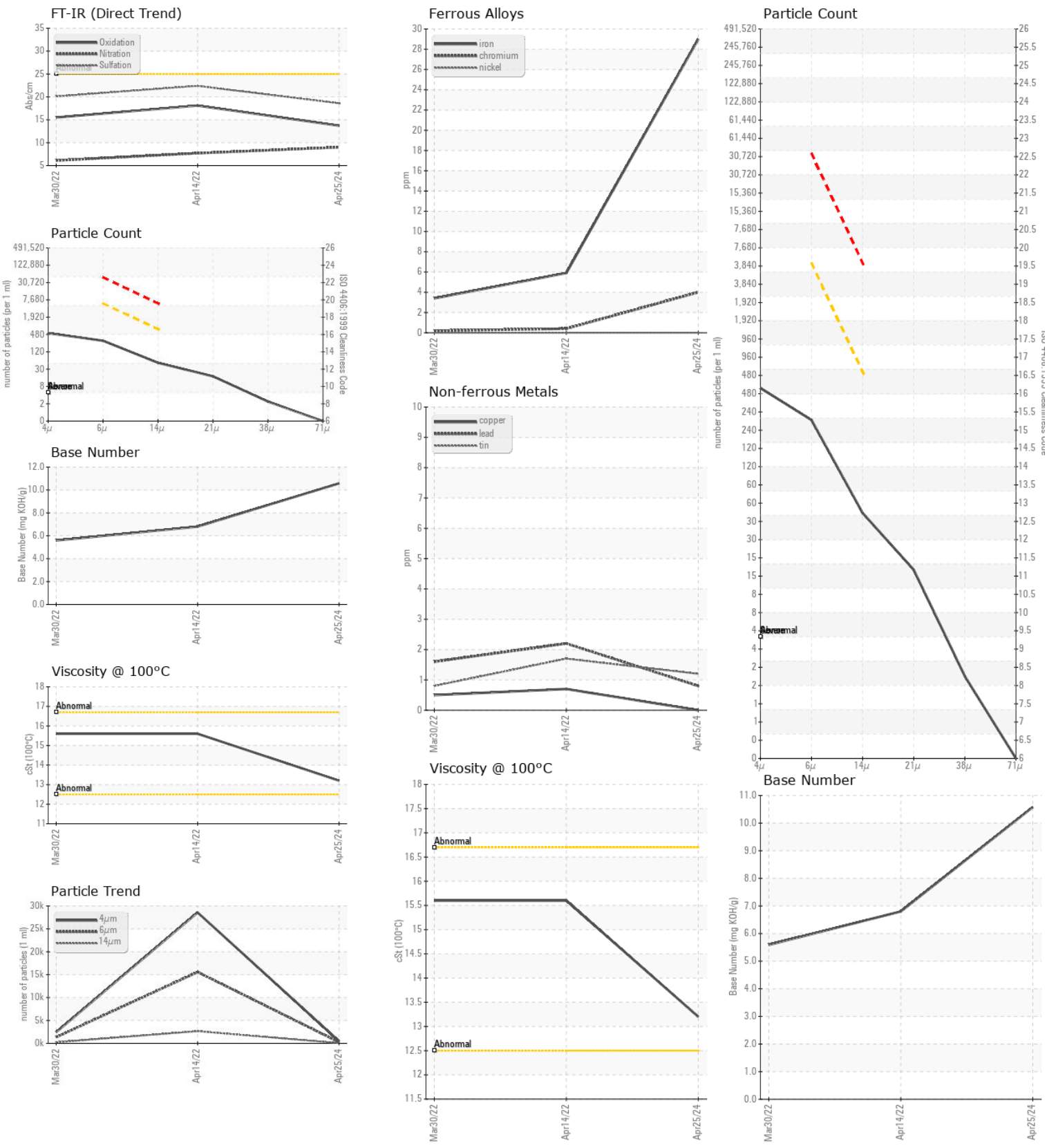
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

|                  |          |              |        |                |         |       |
|------------------|----------|--------------|--------|----------------|---------|-------|
| Silicon          | ppm      | ASTM D5185m  | >25    | <b>5</b>       | 17      | 12    |
| Potassium        | ppm      | ASTM D5185m  | >20    | <b>0</b>       | 4       | 5     |
| Fuel             |          | WC Method    | >3.0   | <b>&lt;1.0</b> | <1.0    | <1.0  |
| Water            |          | WC Method    | >0.2   | <b>NEG</b>     | NEG     | NEG   |
| Glycol           |          | WC Method    |        | <b>NEG</b>     | NEG     | NEG   |
| Soot %           | %        | *ASTM D7844  | >6     | <b>0.7</b>     | 0.2     | 0.2   |
| Nitration        | Abs/cm   | *ASTM D7624  | >20    | <b>9.0</b>     | 7.7     | 6.1   |
| Sulfation        | Abs/.1mm | *ASTM D7415  | >30    | <b>18.6</b>    | 22.4    | 20.1  |
| Particles >4µm   |          | ASTM D7647   |        | <b>470</b>     | 28570   | 2445  |
| Particles >6µm   |          | ASTM D7647   | >5000  | <b>256</b>     | ▲ 15564 | 1332  |
| Particles >14µm  |          | ASTM D7647   | >640   | <b>44</b>      | ▲ 2649  | 227   |
| Particles >21µm  |          | ASTM D7647   | >160   | <b>15</b>      | ▲ 892   | 76    |
| Particles >38µm  |          | ASTM D7647   | >40    | <b>2</b>       | ▲ 138   | 12    |
| Particles >71µm  |          | ASTM D7647   | >10    | <b>0</b>       | 14      | 1     |
| Oil Cleanliness  |          | ISO 4406 (c) | >19/16 | <b>15/13</b>   | ▲ 21/19 | 18/15 |
| 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      | >0.2   | <b>NEG</b>     | NEG     | NEG   |

**FLUID CONDITION**

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

|                  |          |             |     |              |      |      |
|------------------|----------|-------------|-----|--------------|------|------|
| Sodium           | ppm      | ASTM D5185m |     | <b>2</b>     | 2    | 3    |
| Boron            | ppm      | ASTM D5185m |     | <b>44</b>    | 185  | 186  |
| Barium           | ppm      | ASTM D5185m |     | <b>1</b>     | 0    | 0    |
| Molybdenum       | ppm      | ASTM D5185m |     | <b>73</b>    | 13   | 11   |
| Manganese        | ppm      | ASTM D5185m |     | <b>&lt;1</b> | <1   | 0    |
| Magnesium        | ppm      | ASTM D5185m |     | <b>29</b>    | 77   | 44   |
| Calcium          | ppm      | ASTM D5185m |     | <b>2410</b>  | 2083 | 1812 |
| Phosphorus       | ppm      | ASTM D5185m |     | <b>1027</b>  | 1006 | 881  |
| Zinc             | ppm      | ASTM D5185m |     | <b>1154</b>  | 1224 | 1037 |
| Sulfur           | ppm      | ASTM D5185m |     | <b>5079</b>  | 3438 | 2574 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25 | <b>13.7</b>  | 18.1 | 15.5 |
| Base Number (BN) | mg KOH/g | ASTM D2896  |     | <b>10.58</b> | 6.80 | 5.59 |
| Visc @ 100°C     | cSt      | ASTM D445   |     | <b>13.2</b>  | 15.6 | 15.6 |



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KLM2305791 **Received** : 13 May 2024  
**Lab Number** : 06177871 **Tested** : 15 May 2024  
**Unique Number** : 11029197 **Diagnosed** : 15 May 2024 - Wes Davis  
**Test Package** : MOB 2 ( 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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