

Machine Id  
**ADV MIXER 187**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (10 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>PCA0109573</b>  | PCA0109803  | WC0721067   |
| Sample Date    |     | Client Info |           | <b>06 Mar 2024</b> | 03 Nov 2023 | 11 Jul 2023 |
| Machine Age    | hrs | Client Info |           | <b>40000</b>       | 40000       | 40000       |
| Oil Age        | hrs | Client Info |           | <b>500</b>         | 500         | 500         |
| Filter Age     | hrs | Client Info |           | <b>500</b>         | 500         | 500         |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

**WEAR**

All component wear rates are normal.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >90  | <b>9</b>     | 28   | 20   |
| Chromium     | ppm    | ASTM D5185m | >4   | <b>&lt;1</b> | 2    | 2    |
| Nickel       | ppm    | ASTM D5185m | >4   | <b>0</b>     | 0    | 0    |
| Titanium     | ppm    | ASTM D5185m | >2   | <b>&lt;1</b> | 0    | 0    |
| Silver       | ppm    | ASTM D5185m | >2   | <b>0</b>     | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >15  | <b>3</b>     | 3    | 2    |
| Lead         | ppm    | ASTM D5185m | >50  | <b>&lt;1</b> | 7    | 3    |
| Copper       | ppm    | ASTM D5185m | >55  | <b>&lt;1</b> | 0    | <1   |
| Tin          | ppm    | ASTM D5185m | >4   | <b>&lt;1</b> | <1   | <1   |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

**CONTAMINATION**

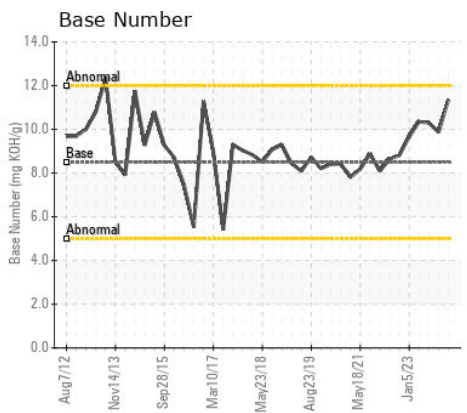
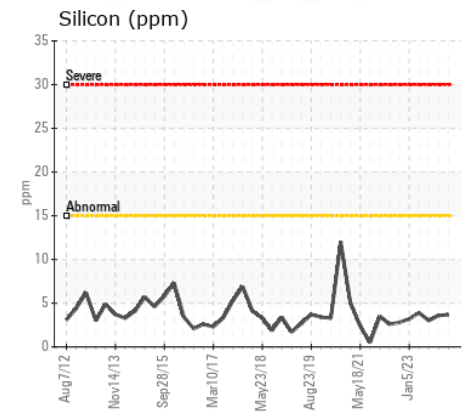
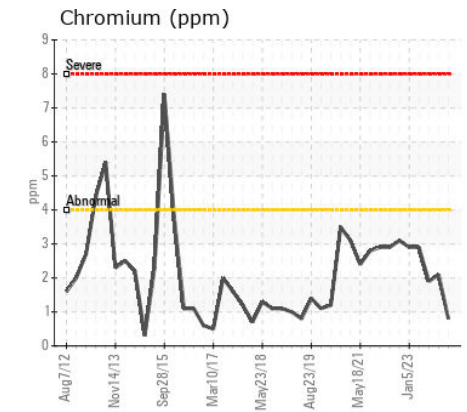
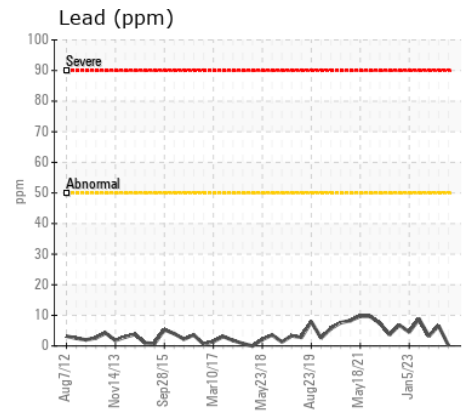
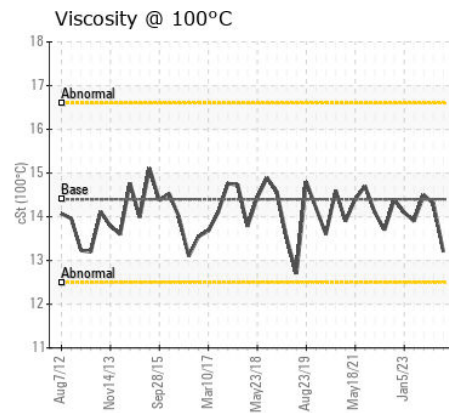
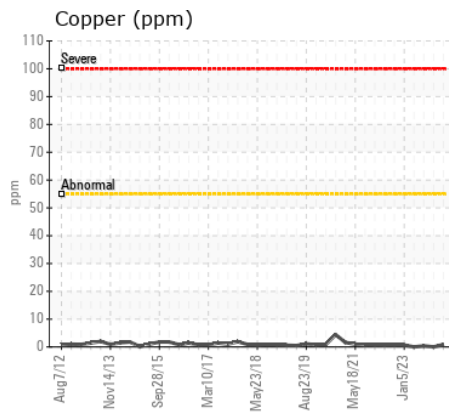
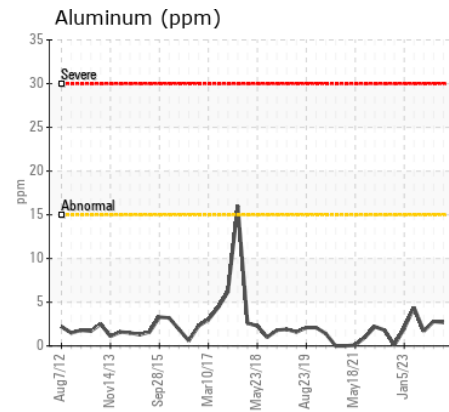
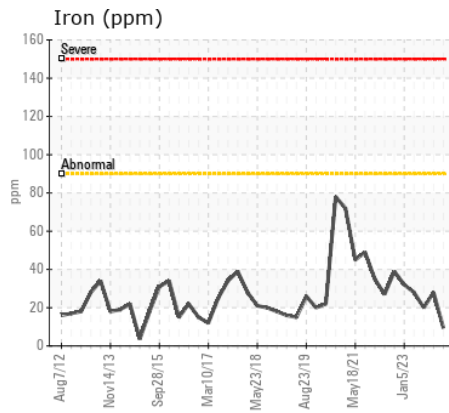
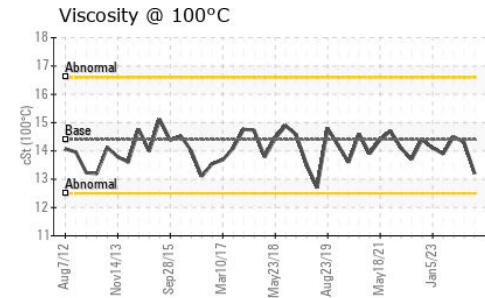
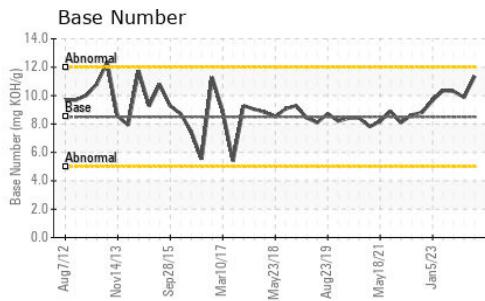
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >15   | <b>4</b>       | 4     | 3     |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>2</b>       | 0     | <1    |
| 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>0.8</b>     | 2.4   | 1.9   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>7.1</b>     | 10.0  | 8.4   |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>16.9</b>    | 23.2  | 22.0  |
| 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 | >158 | <b>1</b>     | 0    | 2     |
| Boron            | ppm      | ASTM D5185m | 250  | <b>17</b>    | 14   | 8     |
| Barium           | ppm      | ASTM D5185m | 10   | <b>0</b>     | 0    | 0     |
| Molybdenum       | ppm      | ASTM D5185m | 100  | <b>18</b>    | 59   | 64    |
| Manganese        | ppm      | ASTM D5185m |      | <b>0</b>     | <1   | <1    |
| Magnesium        | ppm      | ASTM D5185m | 450  | <b>73</b>    | 755  | 806   |
| Calcium          | ppm      | ASTM D5185m | 3000 | <b>2188</b>  | 1419 | 1201  |
| Phosphorus       | ppm      | ASTM D5185m | 1150 | <b>977</b>   | 1076 | 1038  |
| Zinc             | ppm      | ASTM D5185m | 1350 | <b>1063</b>  | 1303 | 1241  |
| Sulfur           | ppm      | ASTM D5185m | 4250 | <b>3802</b>  | 3207 | 3343  |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>9.8</b>   | 15.4 | 15.1  |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 8.5  | <b>11.36</b> | 9.87 | 10.30 |
| Visc @ 100°C     | cSt      | ASTM D445   | 14.4 | <b>13.2</b>  | 14.3 | 14.5  |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0109573  
**Lab Number** : 06121743  
**Unique Number** : 10930576  
**Test Package** : MOB 2

**Received** : 18 Mar 2024  
**Tested** : 19 Mar 2024  
**Diagnosed** : 19 Mar 2024 - Wes Davis

**TRESCA BROS SAND & GRAVEL INC**  
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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)