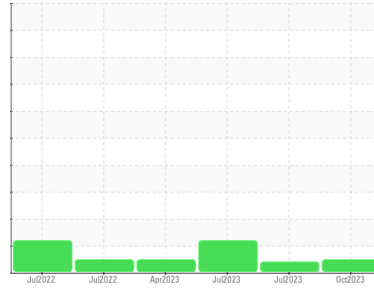




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area

**Preparation-Prep NAR 650**

Machine Id

**[Preparation-Prep NAR 650] 360008011 - NAR 650 PLASTIFIER**

Component

**Gearbox**

Fluid

**SHELL OMALA S2 GX 320 (280 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| SAMPLE INFORMATION |             | method      | limit/base | current            | history1    | history2    |
|--------------------|-------------|-------------|------------|--------------------|-------------|-------------|
| Sample Number      | Client Info |             |            | <b>TLC0001326</b>  | TLC0001319  | TLC0001318  |
| Sample Date        | Client Info |             |            | <b>19 Oct 2023</b> | 11 Jul 2023 | 11 Jul 2023 |
| Machine Age        | hrs         | Client Info |            | <b>0</b>           | 0           | 0           |
| Oil Age            | hrs         | Client Info |            | <b>0</b>           | 0           | 0           |
| Oil Changed        | Client Info |             |            | <b>N/A</b>         | N/A         | N/A         |
| Sample Status      |             |             |            | <b>NORMAL</b>      | MARGINAL    | ABNORMAL    |

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| PQ          |     | ASTM D8184  |            | <b>20</b>    | 16       | ---      |
| Iron        | ppm | ASTM D5185m | >200       | <b>103</b>   | 51       | 6        |
| Chromium    | ppm | ASTM D5185m | >15        | <b>&lt;1</b> | <1       | 0        |
| Nickel      | ppm | ASTM D5185m | >15        | <b>&lt;1</b> | 0        | 0        |
| Titanium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | <1       |
| Silver      | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Aluminum    | ppm | ASTM D5185m | >25        | <b>2</b>     | <1       | <1       |
| Lead        | ppm | ASTM D5185m | >100       | <b>&lt;1</b> | 0        | 0        |
| Copper      | ppm | ASTM D5185m | >200       | <b>2</b>     | 2        | 1        |
| Tin         | ppm | ASTM D5185m | >25        | <b>0</b>     | 0        | 0        |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | <1       |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |

| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m | 6.2        | <b>&lt;1</b> | <1       | 0        |
| Barium     | ppm | ASTM D5185m | 0.0        | <b>19</b>    | 0        | 0        |
| Molybdenum | ppm | ASTM D5185m | 0          | <b>0</b>     | <1       | 0        |
| Manganese  | ppm | ASTM D5185m |            | <b>&lt;1</b> | 1        | 0        |
| Magnesium  | ppm | ASTM D5185m | 0          | <b>1</b>     | <1       | 55       |
| Calcium    | ppm | ASTM D5185m | 0.0        | <b>7</b>     | 4        | 12       |
| Phosphorus | ppm | ASTM D5185m | 290        | <b>272</b>   | 206      | 259      |
| Zinc       | ppm | ASTM D5185m | 3.8        | <b>18</b>    | 4        | 316      |
| Sulfur     | ppm | ASTM D5185m | 8167       | <b>13625</b> | 14552    | 1043     |

| CONTAMINANTS |     | method      | limit/base | current  | history1 | history2 |
|--------------|-----|-------------|------------|----------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >50        | <b>3</b> | 5        | <1       |
| Sodium       | ppm | ASTM D5185m |            | <b>1</b> | 1        | 2        |
| Potassium    | ppm | ASTM D5185m | >20        | <b>1</b> | 2        | 3        |

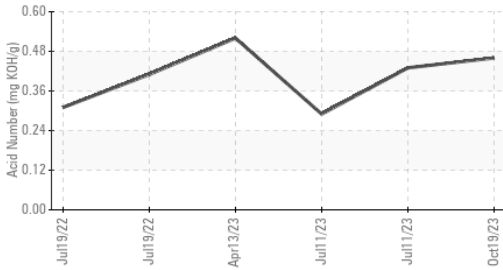
| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 |            | <b>0.46</b> | 0.43     | 0.29     |

| VISUAL           |        | method  | limit/base | current      | history1 | history2 |
|------------------|--------|---------|------------|--------------|----------|----------|
| White Metal      | scalar | *Visual | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Precipitate      | scalar | *Visual | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Silt             | scalar | *Visual | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Debris           | scalar | *Visual | NONE       | <b>NONE</b>  | ▲ MODER  | 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      |
| Free Water       | scalar | *Visual |            | <b>NEG</b>   | Sub      | Sub      |

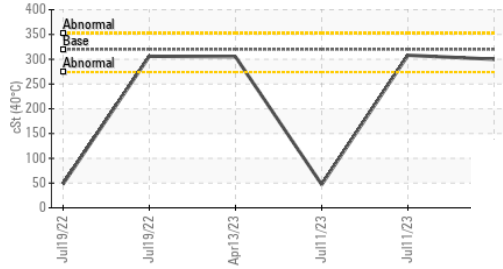


# OIL ANALYSIS REPORT

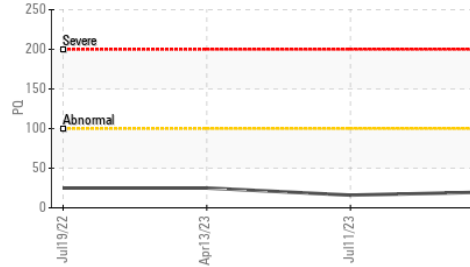
## Acid Number



## Viscosity @ 40°C



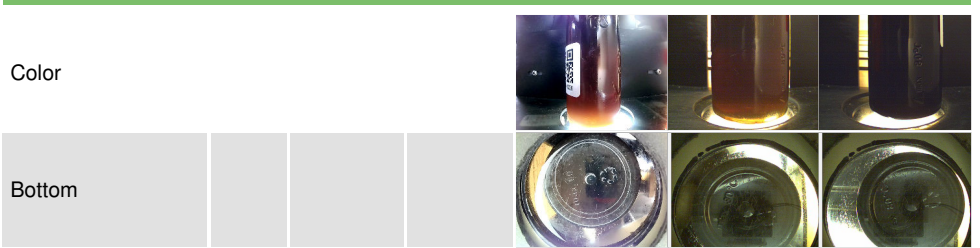
## PQ



## FLUID PROPERTIES

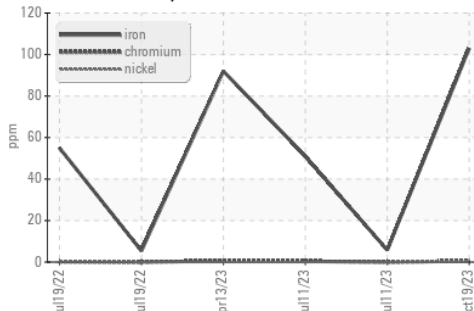
| method      | limit/base        | current    | history1 | history2 |
|-------------|-------------------|------------|----------|----------|
| Visc @ 40°C | cSt ASTM D445 320 | <b>300</b> | 308      | 47.0     |

## SAMPLE IMAGES

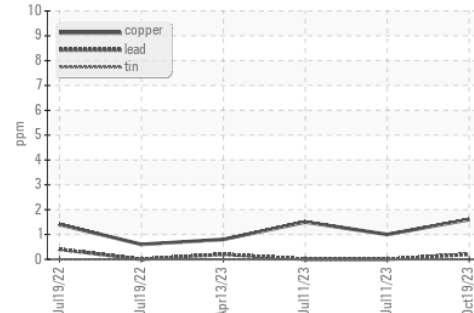


## GRAPHS

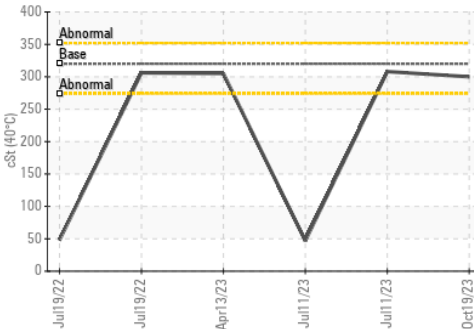
### Ferrous Alloys



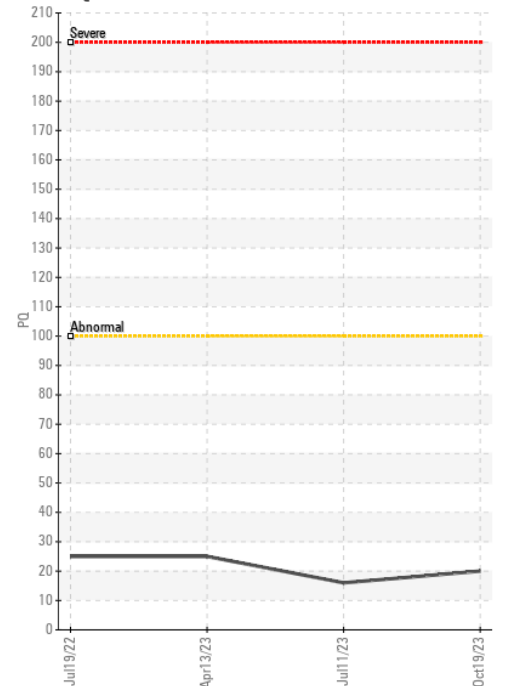
### Non-ferrous Metals



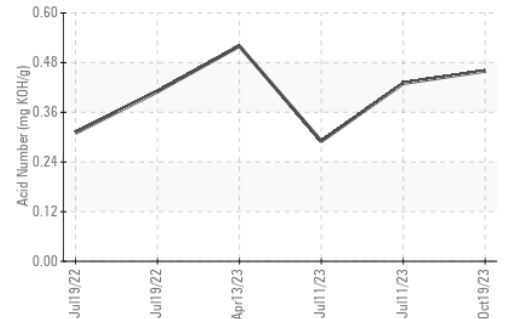
### Viscosity @ 40°C



### PQ



### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TLC0001326 **Received** : 03 Nov 2023  
**Lab Number** : **05998157** **Diagnosed** : 06 Nov 2023  
**Unique Number** : 10726517 **Diagnostician** : Wes Davis  
**Test Package** : PLANT

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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