



# OIL ANALYSIS REPORT

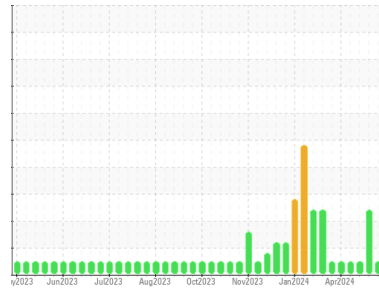
Area

**5**  
Machine Id  
**5-3-241 Pump Station for Atox GBOX Lube**

Component  
**Gearbox**

Fluid  
**MOBIL MOBILGEAR 600 XP 320 (4400 LTR)**

Sample Rating Trend



**NORMAL**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

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

### 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>WC0902027</b>   | WC0925328   | WC0912461   |
| Sample Date        | Client Info |             |            | <b>17 Jun 2024</b> | 03 Jun 2024 | 29 May 2024 |
| 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>      | ABNORMAL    | NORMAL      |

| CONTAMINATION |           | method | limit/base | current    | history1 | history2 |
|---------------|-----------|--------|------------|------------|----------|----------|
| Water         | WC Method |        | >0.2       | <b>NEG</b> | NEG      | NEG      |

| WEAR METALS |     | method        | limit/base | current      | history1 | history2 |
|-------------|-----|---------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185(m) | >200       | <b>4</b>     | 14       | 12       |
| Chromium    | ppm | ASTM D5185(m) | >15        | <b>0</b>     | 0        | 0        |
| Nickel      | ppm | ASTM D5185(m) | >15        | <b>&lt;1</b> | 0        | 0        |
| Titanium    | ppm | ASTM D5185(m) |            | <b>0</b>     | <1       | <1       |
| Silver      | ppm | ASTM D5185(m) |            | <b>&lt;1</b> | 0        | 0        |
| Aluminum    | ppm | ASTM D5185(m) | >25        | <b>1</b>     | 5        | 4        |
| Lead        | ppm | ASTM D5185(m) | >100       | <b>&lt;1</b> | 0        | 0        |
| Copper      | ppm | ASTM D5185(m) | >200       | <b>4</b>     | <1       | <1       |
| Tin         | ppm | ASTM D5185(m) | >25        | <b>0</b>     | 0        | 0        |
| Antimony    | ppm | ASTM D5185(m) | >5         | <b>0</b>     | 0        | 0        |
| Vanadium    | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | 0        |
| Beryllium   | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | 0        |
| Cadmium     | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | 0        |

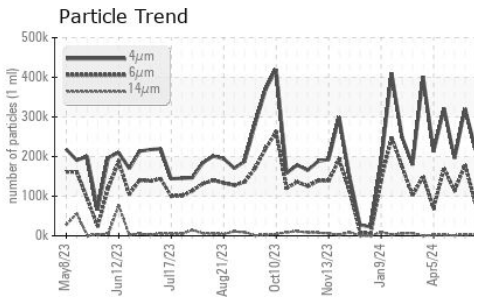
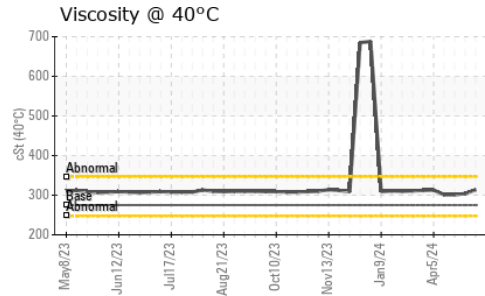
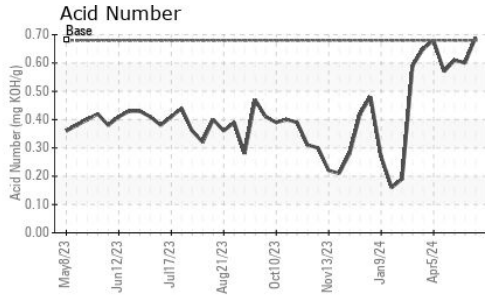
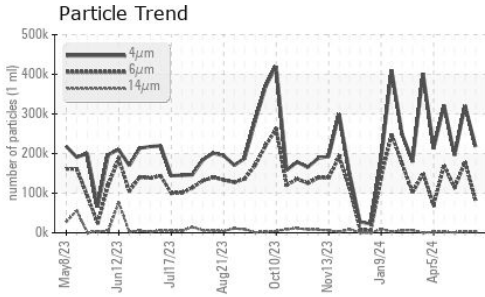
| ADDITIVES  |     | method        | limit/base | current      | history1 | history2 |
|------------|-----|---------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185(m) | 57         | <b>10</b>    | 18       | 20       |
| Barium     | ppm | ASTM D5185(m) | 0.0        | <b>1</b>     | 0        | 0        |
| Molybdenum | ppm | ASTM D5185(m) | 2.0        | <b>0</b>     | 0        | 0        |
| Manganese  | ppm | ASTM D5185(m) | 0.0        | <b>0</b>     | 0        | 0        |
| Magnesium  | ppm | ASTM D5185(m) | 0.0        | <b>2</b>     | 7        | 8        |
| Calcium    | ppm | ASTM D5185(m) | 42         | <b>16</b>    | 70       | 70       |
| Phosphorus | ppm | ASTM D5185(m) | 399        | <b>303</b>   | 322      | 314      |
| Zinc       | ppm | ASTM D5185(m) | 13         | <b>8</b>     | 17       | 20       |
| Sulfur     | ppm | ASTM D5185(m) | 13649      | <b>14943</b> | 14638    | 14835    |
| Lithium    | ppm | ASTM D5185(m) |            | <b>&lt;1</b> | <1       | <1       |

| CONTAMINANTS |     | method        | limit/base | current      | history1 | history2 |
|--------------|-----|---------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185(m) | >50        | <b>3</b>     | 13       | 13       |
| Sodium       | ppm | ASTM D5185(m) |            | <b>&lt;1</b> | <1       | <1       |
| Potassium    | ppm | ASTM D5185(m) | >20        | <b>&lt;1</b> | 2        | 2        |

| FLUID CLEANLINESS |  | method       | limit/base | current         | history1 | history2 |
|-------------------|--|--------------|------------|-----------------|----------|----------|
| Particles >4µm    |  | ASTM D7647   |            | <b>217589</b>   | 320810   | 195538   |
| Particles >6µm    |  | ASTM D7647   | >320000    | <b>81909</b>    | 178793   | 113617   |
| Particles >14µm   |  | ASTM D7647   | >160000    | <b>2792</b>     | 2913     | 1154     |
| Particles >21µm   |  | ASTM D7647   | >40000     | <b>522</b>      | 139      | 84       |
| Particles >38µm   |  | ASTM D7647   | >10000     | <b>19</b>       | 2        | 2        |
| Particles >71µm   |  | ASTM D7647   | >2500      | <b>1</b>        | 0        | 1        |
| Oil Cleanliness   |  | ISO 4406 (c) | >--/25/24  | <b>25/24/19</b> | 26/25/19 | 25/24/17 |



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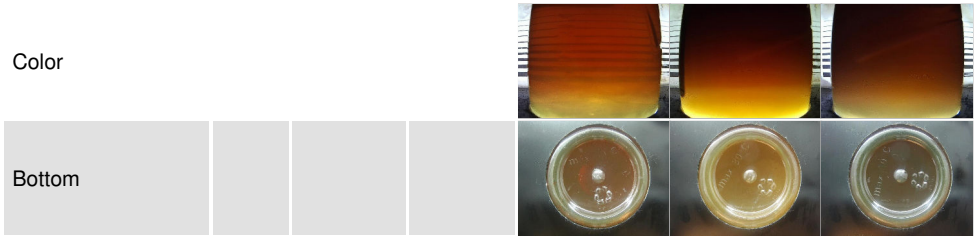


| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D974* | 0.68       | <b>0.69</b> | 0.60     | 0.61     |

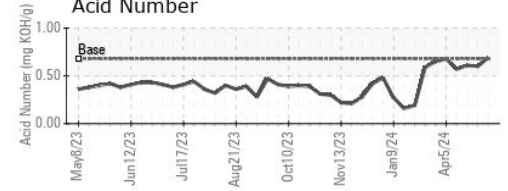
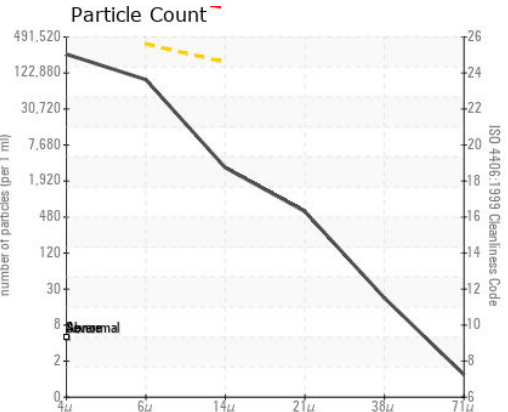
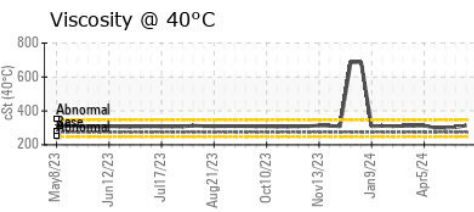
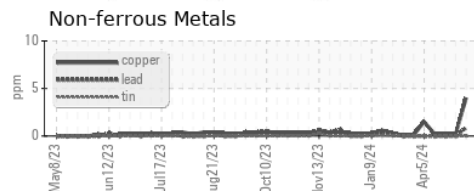
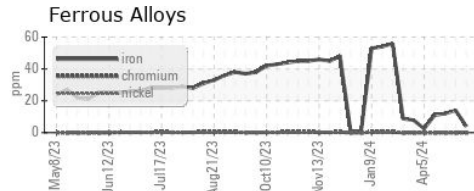
| VISUAL           |        | method  | limit/base | current      | history1 | history2 |
|------------------|--------|---------|------------|--------------|----------|----------|
| White Metal      | scalar | Visual* | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Yellow Metal     | scalar | Visual* | 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>VLITE</b> | VLITE    | NONE     |
| Sand/Dirt        | scalar | Visual* | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Appearance       | scalar | Visual* | NORML      | <b>NORML</b> | ▲ HAZY   | NORML    |
| Odor             | scalar | Visual* | NORML      | <b>NORML</b> | NORML    | NORML    |
| Emulsified Water | scalar | Visual* | >0.2       | <b>NEG</b>   | ▲ .2%    | NEG      |
| Free Water       | scalar | Visual* |            | <b>NEG</b>   | NEG      | NEG      |

| FLUID PROPERTIES |     | method        | limit/base | current    | history1 | history2 |
|------------------|-----|---------------|------------|------------|----------|----------|
| Visc @ 40°C      | cSt | ASTM D7279(m) | 275        | <b>314</b> | 304      | 301      |

## SAMPLE IMAGES



## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0902027 **Received** : 21 Jun 2024  
**Lab Number** : **02643488** **Tested** : 24 Jun 2024  
**Unique Number** : 5801027 **Diagnosed** : 24 Jun 2024 - Wes Davis  
**Test Package** : IND 2 ( Additional Tests: TAN Man )

**ST. MARYS CEMENT CO.**  
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 T: (905)440-5874  
 F: (905)623-4695

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.