

### **OIL ANALYSIS REPORT**

# Area SAB1 SAB1 G9 Governor Sump

### Component **Hydraulic System** ESSO TERESSO ISO 46 (1600 LTR)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

#### Wear

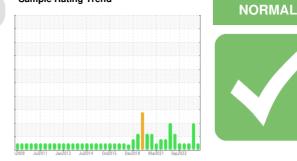
Component wear rates appear to be normal (unconfirmed).

#### 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.

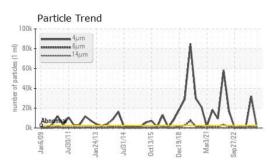


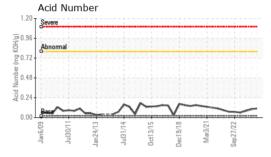
Sample Rating Trend

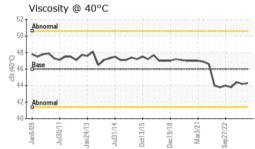
|   |   | mothed   | limit/bose   | outropt  | biotomut   | bistory  |
|---|---|--|--|--|--|--|
| SAMPLE INFORM   |   | method   | limit/base   | current  | history1   | history2   |
| Sample Number   |   | Client Info  |  | WC0864638  | WC0828633  | WC0642885  |
| Sample Date   |   | Client Info  |  | 21 Dec 2023  | 27 Aug 2023  | 27 Mar 2023  |
| Machine Age   | hrs   | Client Info  |  | 0  | 0  | 0  |
| Oil Age   | hrs   | Client Info  |  | 0  | 0  | 0  |
| Oil Changed   |   | Client Info  |  | N/A  | N/A  | N/A  |
| Sample Status   |   |  |  | NORMAL   | SEVERE   | NORMAL   |
| CONTAMINATION   | N   | method   | limit/base   | current  | history1   | history2   |
| Water   |   | WC Method  | >0.05  | NEG  | NEG  | NEG  |
| WEAR METALS   |   | method   | limit/base   | current  | history1   | history2   |
| Iron  | ppm   | ASTM D5185(m)  | >20  | <1   | 2  | <1   |
| Chromium  | ppm   | ASTM D5185(m)  | >20  | 0  | 0  | 0  |
| Nickel  | ppm   | ASTM D5185(m)  | >20  | 0  | <1   | <1   |
| Titanium  | ppm   | ASTM D5185(m)  |  | 0  | 0  | 0  |
| Silver  | ppm   | ASTM D5185(m)  |  | 0  | 0  | 0  |
| Aluminum  | ppm   | ASTM D5185(m)  | >20  | <1   | <1   | 0  |
| Lead  | ppm   | ASTM D5185(m)  | >20  | <1   | <1   | <1   |
| Copper  | ppm   | ASTM D5185(m)  | >20  | <1   | 1  | <1   |
| Tin   | ppm   | ASTM D5185(m)  | >20  | 0  | 0  | 0  |
| Antimony  | ppm   | ASTM D5185(m)  |  | 0  | 0  | <1   |
| Vanadium  | ppm   | ASTM D5185(m)  |  | 0  | 0  | 0  |
| Beryllium   | ppm   | ASTM D5185(m)  |  | 0  | 0  | 0  |
| Cadmium   | ppm   | ASTM D5185(m)  |  | 0  | 0  | 0  |
|   |   |  |  |  |  |  |
| ADDITIVES   |   | method   |  |  |  | history2   |
| ADDITIVES<br>Boron  | maa   |  |  |  | history1<br>0  |  |
| Boron   | ppm<br>pom  | ASTM D5185(m)  | limit/base<br>0  | current<br>0<br>0  | · · · · · · · · · · · · · · · · · · ·  | history2<br><1<br>0  |
| Boron<br>Barium   | ppm   | ASTM D5185(m)<br>ASTM D5185(m)   | 0  | 0<br>0   | 0  | <1   |
| Boron<br>Barium<br>Molybdenum   | ppm<br>ppm  | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)  | 0  | 0  | 0  | <1<br>0  |
| Boron<br>Barium<br>Molybdenum<br>Manganese  | ppm<br>ppm<br>ppm   | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)   | 0  | 0<br>0<br>0  | 0<br>0<br>0  | <1<br>0<br>0   |
| Boron<br>Barium<br>Molybdenum   | ppm<br>ppm<br>ppm<br>ppm                                    | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)  | 0<br>0<br>0  | 0<br>0<br>0  | 0<br>0<br>0<br>0<br>0  | <1<br>0<br>0<br>0  |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium  | ppm<br>ppm<br>ppm<br>ppm<br>ppm                             | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)   | 0<br>0<br>0  | 0<br>0<br>0<br>0   | 0<br>0<br>0<br>0   | <1<br>0<br>0<br>0<br><1  |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                      | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)  | 0<br>0<br>0<br>0<br>2.4  | 0<br>0<br>0<br>0<br>0<br>2   | 0<br>0<br>0<br>0<br>0<br><1  | <1<br>0<br>0<br>0<br><1<br>0   |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                      | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)   | 0<br>0<br>0<br>0<br>2.4  | 0<br>0<br>0<br>0<br>0<br>2<br><1   | 0<br>0<br>0<br>0<br>0<br><1<br>2   | <1<br>0<br>0<br>0<br><1<br>0<br><1<br><1<br><1   |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                      | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)  | 0<br>0<br>0<br>0<br>2.4  | 0<br>0<br>0<br>0<br>0<br>2   | 0<br>0<br>0<br>0<br>0<br><1<br>2<br>2  | <1<br>0<br>0<br><1<br>0<br><1  |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>Lithium   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm        | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)  | 0<br>0<br>0<br>0<br>2.4  | 0<br>0<br>0<br>0<br>0<br>2<br><1<br>685  | 0<br>0<br>0<br>0<br>0<br>0<br>2<br>2<br>641<br><1  | <1<br>0<br>0<br><1<br>0<br><1<br><1<br><1<br>653<br><1   |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>Lithium<br>CONTAMINANTS   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm        | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)   | 0<br>0<br>0<br>0<br>2.4<br>0<br>   | 0<br>0<br>0<br>0<br>2<br><1<br>685<br><1   | 0<br>0<br>0<br>0<br><1<br>2<br>2<br>641<br><1<br><1<br>history1  | <1<br>0<br>0<br><1<br>0<br><1<br>0<br><1<br>653<br><1<br>history2  |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>Lithium<br>CONTAMINANTS<br>Silicon  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm        | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br><b>method</b><br>ASTM D5185(m)  | 0<br>0<br>0<br>2.4<br>0  | 0<br>0<br>0<br>0<br>0<br>2<br><1<br>685<br><1  | 0<br>0<br>0<br>0<br><1<br>2<br>2<br>641<br><1<br>history1<br>0   | <1<br>0<br>0<br><1<br>0<br><1<br><1<br><1<br>653<br><1<br>history2<br>0  |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>Lithium<br>CONTAMINANTS<br>Silicon<br>Sodium  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm        | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br><b>method</b><br>ASTM D5185(m)<br>ASTM D5185(m)   | 0<br>0<br>0<br>2.4<br>0<br>!///////////////////////////////////  | 0<br>0<br>0<br>0<br>0<br>2<br><1<br>685<br><1<br>Current<br>0<br>0   | 0<br>0<br>0<br>0<br>0<br>2<br>2<br>641<br><1<br>*1<br>history1<br>0<br>0   | <1<br>0<br>0<br><1<br>0<br><1<br><1<br><1<br>653<br><1<br>history2<br>0<br>0   |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>Lithium<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185(m)<br>ASTM D5185(m)   | 0<br>0<br>0<br>2.4<br>0<br>1<br>1<br>1<br>1<br>1<br>5<br>5<br>20   | 0<br>0<br>0<br>0<br>2<br><1<br>685<br><1<br><i>current</i><br>0<br>0<br>2                                    | 0<br>0<br>0<br>0<br>0<br>1<br>2<br>2<br>641<br><1<br>2<br>641<br><1<br><b>history1</b><br>0<br>0<br>0<br><1  | <1<br>0<br>0<br><1<br>0<br><1<br><1<br><1<br>653<br><1<br>history2<br>0<br>0<br>0<br>0   |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>Lithium<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185(m)<br>ASTM D5185(m)  | 0<br>0<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>2.4<br>0<br>0<br>0<br>0<br>2.4<br>0<br>2.4<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 0<br>0<br>0<br>0<br>2<br><1<br>685<br><1   | 0<br>0<br>0<br>0<br>0<br>1<br>2<br>2<br>641<br><1<br>2<br>641<br><1<br>1<br>history1<br>0<br>0<br>0<br><1<br>history1  | <1<br>0<br>0<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()   |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>Lithium<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>FLUID CLEANLIN<br>Particles >4µm                                       | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185(m)<br>ASTM D5185(m)   | 0<br>0<br>0<br>2.4<br>0<br>2.4<br>0<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1  | 0<br>0<br>0<br>0<br>2<br><1<br>685<br><1   | 0<br>0<br>0<br>0<br>0<br>2<br>2<br>641<br><1<br>2<br>641<br><1<br>0<br>0<br>0<br>4<br>1<br>0<br>0<br>0<br>4<br>1<br>history1<br>0<br>0<br>0<br>3<br>1972   | <1<br>0<br>0<br>0<br><1<br>0<br><1<br>653<br><1<br>history2<br>0<br>0<br>0<br>history2<br>430  |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>Lithium<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>FLUID CLEANLIN<br>Particles >4µm<br>Particles >6µm                     | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185(m)<br>ASTM D5185(m)   | 0<br>0<br>0<br>2.4<br>0<br>1<br>1<br>1<br>1<br>5<br>20<br>1<br>1<br>1<br>2<br>2<br>0<br>1<br>1<br>2<br>2<br>0<br>2<br>2<br>1<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2  | 0<br>0<br>0<br>0<br>2<br><1<br>685<br><1   | 0<br>0<br>0<br>0<br>0<br>2<br>2<br>641<br><1<br>2<br>641<br><1<br>0<br>0<br>0<br><1<br>0<br>0<br>1<br>0<br>1<br>0<br>0<br>0<br>1<br>1<br>0<br>0<br>0<br>1<br>1<br>0<br>0<br>0<br>1<br>1<br>0<br>0<br>0<br>1<br>1<br>0<br>0<br>0<br>1<br>1<br>1<br>2<br>2<br>1<br>1<br>2<br>1<br>1<br>2<br>1<br>1<br>1<br>1                                 | <1<br>0<br>0<br>0<br><1<br>0<br><1<br><1<br>653<br><1<br>history2<br>0<br>0<br>0<br>history2<br>430<br>91  |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>Lithium<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>FLUID CLEANLIN<br>Particles >4µm<br>Particles >14µm                    | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185(m)<br>ASTM D7647<br>ASTM D7647<br>ASTM D7647 | 0<br>0<br>0<br>2.4<br>0<br>2.4<br>0<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>2<br>0<br>1<br>2<br>1<br>1<br>1<br>1<br>1<br>1   | 0<br>0<br>0<br>0<br>2<br><1<br>685<br><1<br>0<br>0<br>0<br><1<br>0<br>1<br>597<br>288<br>25                  | 0<br>0<br>0<br>0<br>0<br>2<br>2<br>641<br><1<br>2<br>2<br>641<br><1<br>0<br>0<br>0<br><1<br>0<br>0<br>0<br><1<br>0<br>0<br>0<br><1<br>0<br>0<br>0<br><1<br>0<br>0<br>0<br>1<br>0<br>0<br>0<br>0  | <1<br>0<br>0<br>0<br><1<br>0<br><1<br>(1<br>653<br><1<br>history2<br>0<br>0<br>0<br>0<br>history2<br>430<br>91<br>8  |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>Lithium<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>FLUID CLEANLIN<br>Particles >4µm<br>Particles >14µm<br>Particles >21µm | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185(m)<br>ASTM D5185(m)   | 0<br>0<br>0<br>2.4<br>0<br>2.4<br>0<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>2<br>0<br>1<br>2<br>1<br>1<br>1<br>1<br>1<br>1   | 0<br>0<br>0<br>0<br>2<br><1<br>685<br><1   | 0<br>0<br>0<br>0<br>0<br>2<br>2<br>641<br><1<br>2<br>641<br><1<br>0<br>0<br>0<br><1<br>0<br>0<br>1<br>0<br>1<br>0<br>0<br>0<br>1<br>1<br>0<br>0<br>0<br>1<br>1<br>0<br>0<br>0<br>1<br>1<br>0<br>0<br>0<br>1<br>1<br>0<br>0<br>0<br>1<br>1<br>1<br>2<br>2<br>1<br>1<br>2<br>1<br>1<br>2<br>1<br>1<br>1<br>1                                 | <1<br>0<br>0<br>0<br><1<br>0<br><1<br><1<br>653<br><1<br>history2<br>0<br>0<br>0<br>history2<br>430<br>91  |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>Lithium<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>FLUID CLEANLIN<br>Particles >4µm<br>Particles >14µm                    | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185(m)<br>ASTM D7647<br>ASTM D7647<br>ASTM D7647 | 0<br>0<br>0<br>2.4<br>0<br>2.4<br>0<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>2<br>0<br>1<br>2<br>1<br>1<br>1<br>1<br>1<br>1   | 0<br>0<br>0<br>0<br>2<br><1<br>685<br><1<br>0<br>0<br>0<br><1<br>0<br>0<br><1<br>1597<br>288<br>25<br>5<br>1 | 0<br>0<br>0<br>0<br>0<br>2<br>2<br>641<br><1<br>2<br>2<br>641<br><1<br>0<br>0<br>0<br><1<br>0<br>0<br>0<br><1<br>0<br>0<br>0<br><1<br>0<br>0<br>0<br><1<br>0<br>0<br>0<br>1<br>0<br>0<br>0<br>0  | <1<br>0<br>0<br>0<br><1<br>0<br><1<br>(1<br>653<br><1<br>history2<br>0<br>0<br>0<br>0<br>history2<br>430<br>91<br>8  |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>Lithium<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>FLUID CLEANLIN<br>Particles >4µm<br>Particles >14µm<br>Particles >21µm | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185(m)<br>ASTM D7647<br>ASTM D7647<br>ASTM D7647<br>ASTM D7647    | 0<br>0<br>0<br>2.4<br>0<br>2.4<br>0<br>3<br>3<br>5<br>4<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3  | 0<br>0<br>0<br>0<br>2<br><1<br>685<br><1   | 0<br>0<br>0<br>0<br>2<br>1<br>2<br>2<br>641<br><1<br>2<br>641<br><1<br>0<br>0<br>0<br><1<br>0<br>0<br><1<br>0<br>31972<br>↓1906<br>12<br>2<br>2  | <1<br>0<br>0<br>0<br><1<br>0<br><1<br><1<br>653<br><1<br>history2<br>0<br>0<br>0<br>0<br>0<br>history2<br>430<br>91<br>8<br>1<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>Lithium<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>FLUID CLEANLIN<br>Particles >4µm<br>Particles >14µm<br>Particles >38µm | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185(m)<br>ASTM D7647<br>ASTM D7647<br>ASTM D7647<br>ASTM D7647    | 0<br>0<br>0<br>2.4<br>0<br>2.4<br>0<br>3<br>3<br>5<br>4<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3  | 0<br>0<br>0<br>0<br>2<br><1<br>685<br><1<br>0<br>0<br>0<br><1<br>0<br>0<br><1<br>1597<br>288<br>25<br>5<br>1 | 0<br>0<br>0<br>0<br>2<br>3<br>2<br>2<br>641<br>2<br>2<br>641<br>3<br>1<br>1<br>0<br>0<br>3<br>1<br>1<br>1<br>1<br>1<br>1<br>2<br>1<br>1<br>1<br>1<br>1<br>2<br>1<br>1<br>1<br>1<br>2<br>1<br>1<br>1<br>1<br>2<br>1<br>1<br>1<br>1<br>2<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | <1<br>0<br>0<br>0<br><1<br>0<br><1<br><1<br>653<br><1<br>history2<br>0<br>0<br>0<br>0<br>0<br>history2<br>430<br>91<br>8<br>1<br>0<br>0<br>0   |



## **OIL ANALYSIS REPORT**



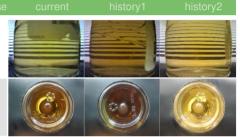


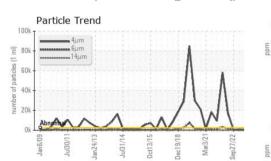


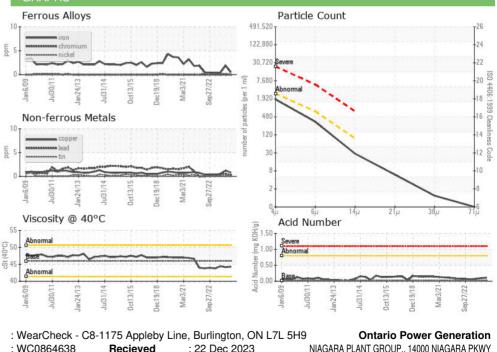
| FLUID DEGRADATION |          | method        | limit/base | current    | history1 | history2 |
|-------------------|----------|---------------|------------|------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D974*    | 0.02       | 0.11       | 0.10     | 0.08     |
| VISUAL            |          | method        | limit/base | current    | history1 | history2 |
| White Metal       | scalar   | Visual*       | NONE       | NONE       | NONE     | NONE     |
| Yellow Metal      | scalar   | Visual*       | NONE       | NONE       | NONE     | NONE     |
| Precipitate       | scalar   | Visual*       | NONE       | NONE       | NONE     | NONE     |
| Silt              | scalar   | Visual*       | NONE       | NONE       | NONE     | NONE     |
| Debris            | scalar   | Visual*       | NONE       | NONE       | VLITE    | NONE     |
| Sand/Dirt         | scalar   | Visual*       | NONE       | NONE       | NONE     | NONE     |
| Appearance        | scalar   | Visual*       | NORML      | NORML      | NORML    | NORML    |
| Odor              | scalar   | Visual*       | NORML      | NORML      | NORML    | NORML    |
| Emulsified Water  | scalar   | Visual*       | >0.05      | NEG        | NEG      | NEG      |
| Free Water        | scalar   | Visual*       |            | NEG        | NEG      | NEG      |
| FLUID PROPERTIES  |          | method        | limit/base | current    | history1 | history2 |
| Visc @ 40°C       | cSt      | ASTM D7279(m) | 46         | 44.3       | 44.2     | 44.4     |
| SAMPLE IMAGES     |          | method        | limit/base | current    | history1 | history2 |
|                   |          |               |            | III MARKEN |          | 1        |



Bottom







Laboratory CALA Sample No. : WC0864638 Recieved : 22 Dec 2023 Lab Number : 02604962 : 27 Dec 2023 Diagnosed ISO 17025:2017 Accredited Laboratory : 5698047 Diagnostician : Kevin Marson Unique Number Test Package : IND 2 (Additional Tests: TAN Man) 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.

NIAGARA PLANT GROUP,, 14000 NIAGARA PKWY NIAGARA ON THE LAKE, ON CA LOS 1J0 Contact: Michael Brochu mike.brochu@opg.com T: (905)357-0322 F: (905)374-5466