

WEAR CONTAMINATION FLUID CONDITION

NORMAL

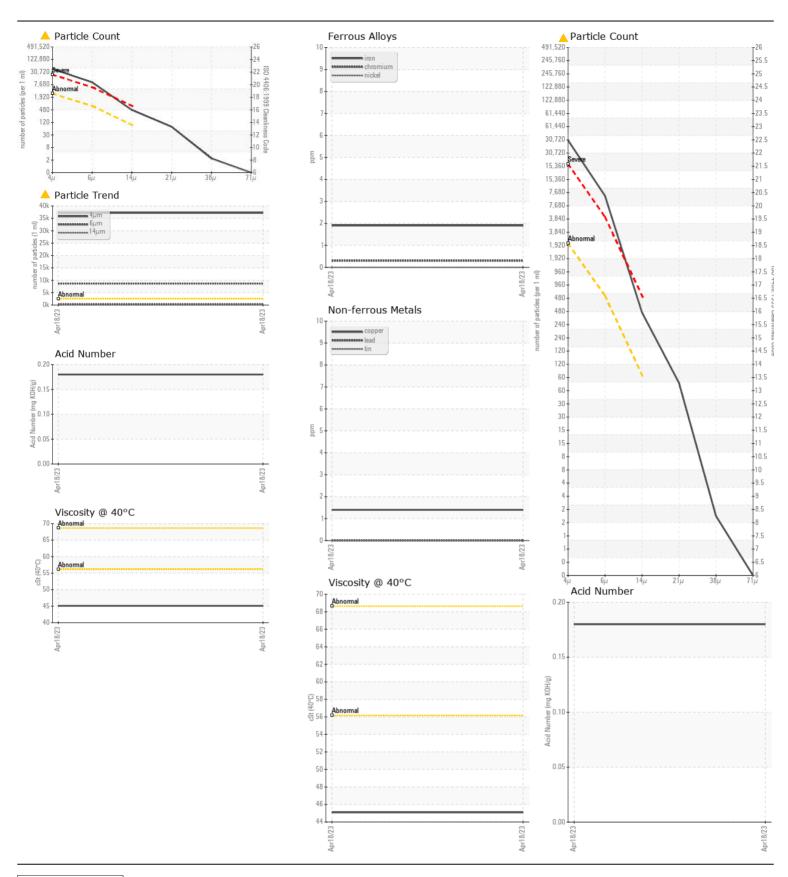
ABNORMAL

NORMAL

Machine Id
EILEEN C
Component
Steering

Steering Oil (--- GAL)

Resample at the next service interval to monitor.  Test UOM Method Limit/Abn Current MW0034964 Sample Number Sample Date Machine Age hrs Client Info O Filter Age hrs Client Info O Oil Changed Client Info O Filter Changed Sample Status  Test UOM Method Limit/Abn Current MW0034964  MW0034964  18 Apr 2023  0 Oil Age hrs Client Info O  Filter Changed Client Info N/A  Sample Status  ABNORMAL	History2
We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.  Sample Number  Client Info  MW0034964  Client Info  Machine Age  Machine Age  Miss Client Info  O  Cilent Info  O  ABNORMAL  Cilent Info  N/A  Cilent	
Resample at the next service interval to monitor.  Machine Age hrs Client Info 0 Oil Age hrs Client Info 0 Filter Age hrs Client Info 0 Oil Changed Client Info N/A Filter Changed Client Info N/A Sample Status ABNORMAL	
Oil Age hrs Client Info 0  Filter Age hrs Client Info 0  Filter Age hrs Client Info 0  Oil Changed Client Info N/A  Filter Changed Client Info N/A  Sample Status ABNORMAL	
Filter Age hrs Client Info 0 Oil Changed Client Info N/A Filter Changed Client Info N/A Sample Status ABNORMAL	
Oil Changed Client Info N/A Filter Changed Client Info N/A Sample Status ABNORMAL	
Filter Changed Client Info N/A Sample Status ABNORMAL	
Sample Status ABNORMAL	
WEAR   Iron   ppm   ASTM D5185m > 60   2	
Chromium ppm ASTM D5185m >12 <1	
All component wear rates are normal.  Nickel ppm ASTM D5185m >6 0	
Titanium ppm ASTM D5185m <b>0</b>	
Silver ppm ASTM D5185m <b>0</b>	
Aluminum ppm ASTM D5185m >4 0	
Lead ppm ASTM D5185m >12 <b>0</b>	
Copper ppm ASTM D5185m >30 <b>1</b>	
Tin ppm ASTM D5185m <b>0</b>	
Vanadium ppm ASTM D5185m <b>0</b>	
White Metal scalar *Visual NONE NONE	
Yellow Metal scalar *Visual NONE NONE	
CONTAMINATION Silicon ppm ASTM D5185m >10 0	
Potassium ppm ASTM D5185m >20 0  There is a high amount of particulates present in the fluid. Moderate  Water WC Method NFG	
concentration of visible dirt/debris present in the fluid	
Particles >4μm	
Particles >6μm ASTM D7647 >640 <b>A 8676</b>	
Particles >14µm ASTM D7647 >80 411	
Particles > 21μm       ASTM D7647       >20       ▲ 65          Particles > 38μm       ASTM D7647       >4       2	
Particles >38μm       ASTM D7647       >4       2          Particles >71μm       ASTM D7647       >3       0	
Oil Cleanliness ISO 4406 (c) >18/16/13 ▲ 22/20/16	
Silt scalar *Visual NONE NONE	
Debris scalar *Visual NONE A MODER	
Sand/Dirt scalar *Visual NONE NONE	
Appearance scalar *Visual NORML	
Odor scalar *Visual NORML	
Emulsified Water scalar *Visual NEG	
FLUID CONDITION Sodium ppm ASTM D5185m 2	
Viscosity of sample indicates oil is within ISO 46 range, advise  Boron ppm ASTM D5185m 2  Viscosity of sample indicates oil is within ISO 46 range, advise  Barium ppm ASTM D5185m 0	
investigate. The AN level is acceptable for this fluid	
Molybdenam ppm Asim Datonii <1	
Manganese ppm ASTM D5185m <1	
Magnesium ppm ASTM D5185m 4	
Calcium ppm ASTM D5185m 180	
Phosphorus ppm ASTM D5185m 178	
Zinc         ppm         ASTM D5185m         104            Sulfur         ppm         ASTM D5185m         828	
Sulfur         ppm         ASTM D5185m         828            Acid Number (AN)         mg KOH/g         ASTM D8045         0.18	
NII O 1010	
Visc @ 40°C   CSt   ASTM D445   45.1	





Certificate L2367

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

: MW0034964 Lab Number : 05823944 Unique Number : 10432027

Received **Tested** Diagnosed

: 19 Apr 2023

: 21 Apr 2023

: 21 Apr 2023 - Angela Borella

Test Package : MAR 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)

**ILLINOIS MARINE TOWING** 

PO BOX 391 LEMONT, IL US 60439

Contact: RHETT DANIEL rdaniel@imtowing.com T: (630)280-4926

F: (630)739-2041