



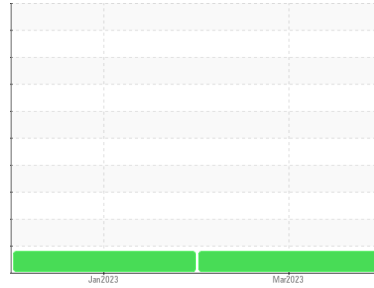
# OIL ANALYSIS REPORT

Sample Rating Trend

**WEAR**



Area  
**Coloring**  
Machine Id  
**LN2 Cooler**  
Component  
**Drive End Gearbox**  
Fluid  
**293A (4 GAL)**



## DIAGNOSIS

- Recommendation**  
No corrective action is recommended at this time. Resample at the next service interval to monitor.
- Wear**  
The iron level has decreased, but is still abnormal. Gear wear is indicated. All other 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 acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0782542</b>	WC0738820	---
Sample Date	Client Info		<b>22 Mar 2023</b>	14 Jan 2023	---
Machine Age	Client Info		<b>0</b>	0	---
Oil Age	Client Info		<b>0</b>	0	---
Oil Changed	Client Info		<b>N/A</b>	N/A	---
Sample Status			<b>ABNORMAL</b>	ABNORMAL	---

## CONTAMINATION

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

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m	>200	<b>▲ 341</b>	▲ 425	---
Chromium	ppm ASTM D5185m	>15	<b>2</b>	3	---
Nickel	ppm ASTM D5185m	>15	<b>0</b>	<1	---
Titanium	ppm ASTM D5185m		<b>&lt;1</b>	<1	---
Silver	ppm ASTM D5185m		<b>0</b>	<1	---
Aluminum	ppm ASTM D5185m	>25	<b>2</b>	2	---
Lead	ppm ASTM D5185m	>100	<b>0</b>	<1	---
Copper	ppm ASTM D5185m	>200	<b>9</b>	11	---
Tin	ppm ASTM D5185m	>25	<b>0</b>	1	---
Vanadium	ppm ASTM D5185m		<b>0</b>	0	---
Cadmium	ppm ASTM D5185m		<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m		<b>78</b>	77	---
Barium	ppm ASTM D5185m		<b>9</b>	2	---
Molybdenum	ppm ASTM D5185m		<b>333</b>	360	---
Manganese	ppm ASTM D5185m		<b>3</b>	4	---
Magnesium	ppm ASTM D5185m		<b>&lt;1</b>	2	---
Calcium	ppm ASTM D5185m		<b>28</b>	32	---
Phosphorus	ppm ASTM D5185m		<b>913</b>	922	---
Zinc	ppm ASTM D5185m		<b>25</b>	22	---
Sulfur	ppm ASTM D5185m		<b>22135</b>	21788	---

## CONTAMINANTS

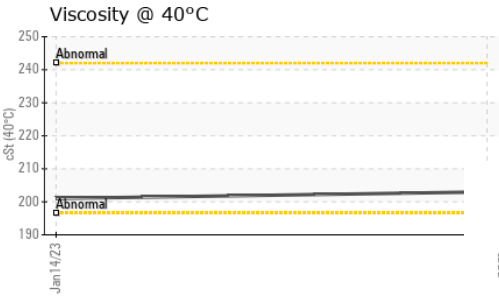
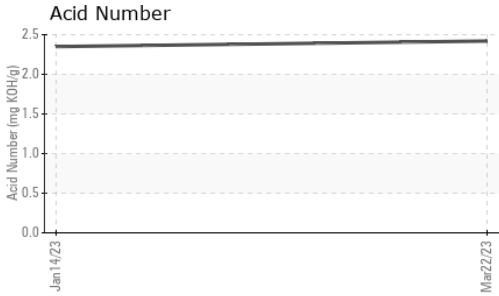
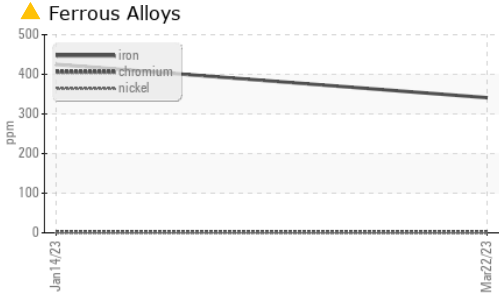
	method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m	>50	<b>14</b>	19	---
Sodium	ppm ASTM D5185m		<b>5</b>	4	---
Potassium	ppm ASTM D5185m	>20	<b>0</b>	0	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D8045		<b>2.42</b>	2.35	---



# OIL ANALYSIS REPORT



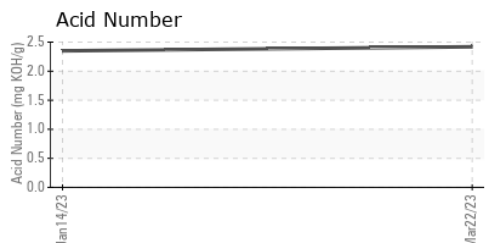
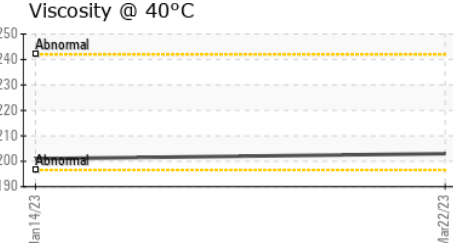
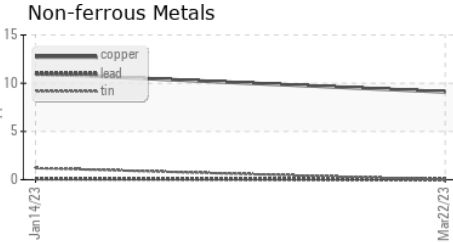
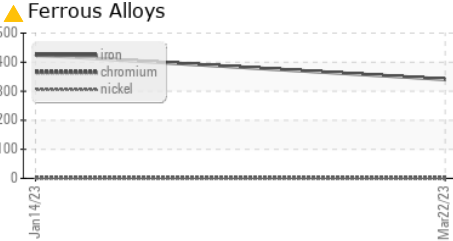
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	LIGHT	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	203	201	---

### SAMPLE IMAGES

method	limit/base	current	history1	history2	
Color					no image
Bottom					no image

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0782542 **Received** : 23 Mar 2023  
**Lab Number** : 05799834 **Diagnosed** : 28 Mar 2023  
**Unique Number** : 10389518 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2

**3M - PITTSBORO**  
 4191 NC 87 S  
 MONCURE, NC  
 US 27559  
 Contact: CHARLES JARRELL  
 cjarrell@mmm.com

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)