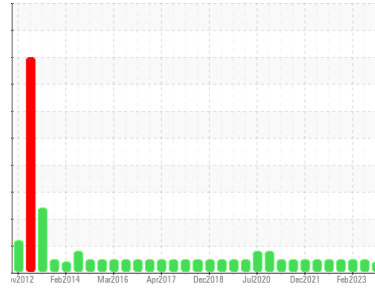




# PROBLEM SUMMARY

Sample Rating Trend



VIS DEBRIS



Area  
**[604094593 SR]**  
 Machine Id  
**CONCHE 5 MD (S/N 20060624)**  
 Component  
**Gearbox**  
 Fluid  
**GEAR OIL ISO 460 (--- GAL)**

## COMPONENT CONDITION SUMMARY

No relevant graphs to display

## RECOMMENDATION

We suspect abnormal contamination may be due to sampling method. No corrective action is recommended at this time. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status		ABNORMAL	NORMAL	NORMAL
Debris	scalar *Visual	▲ MODER	NONE	NONE

Customer Id: MARSCHI  
 Sample No.: WC0854363  
 Lab Number: 05982516  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Jonathan Hester +1 919-379-4092 x4092  
[jhester@wearcheckusa.com](mailto:jhester@wearcheckusa.com)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

### 27 Apr 2023 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 09 Feb 2023 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 11 Aug 2022 Diag: Angela Borella

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the component. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



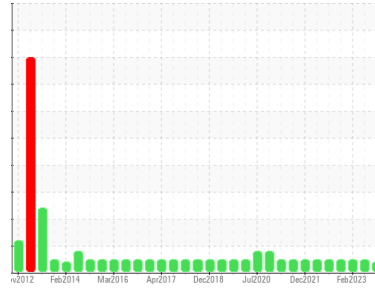


# OIL ANALYSIS REPORT

Sample Rating Trend

VIS DEBRIS

Area  
**[604094593 SR]**  
 Machine Id  
**CONCHE 5 MD (S/N 20060624)**  
 Component  
**Gearbox**  
 Fluid  
**GEAR OIL ISO 460 (--- GAL)**



## DIAGNOSIS

### Recommendation

We suspect abnormal contamination may be due to sampling method. No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

Moderate concentration of visible dirt/debris present 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>WC0854363</b>	WC0605505	WC0562083
Sample Date	Client Info		<b>13 Oct 2023</b>	27 Apr 2023	09 Feb 2023
Machine Age	mls	Client Info	<b>0</b>	0	0
Oil Age	mls	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Sample Status			<b>ABNORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >200	<b>2</b>	3	3
Chromium	ppm	ASTM D5185m >15	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m >15	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>0</b>	0	0
Lead	ppm	ASTM D5185m >100	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >200	<b>0</b>	<1	<1
Tin	ppm	ASTM D5185m >25	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 15	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m 15	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m 50	<b>4</b>	<1	<1
Calcium	ppm	ASTM D5185m 50	<b>146</b>	98	117
Phosphorus	ppm	ASTM D5185m 350	<b>124</b>	120	125
Zinc	ppm	ASTM D5185m 100	<b>32</b>	20	30
Sulfur	ppm	ASTM D5185m 12500	<b>2053</b>	2151	2295

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	<b>1</b>	2	1
Sodium	ppm	ASTM D5185m	<b>0</b>	0	<1
Potassium	ppm	ASTM D5185m >20	<b>0</b>	<1	<1

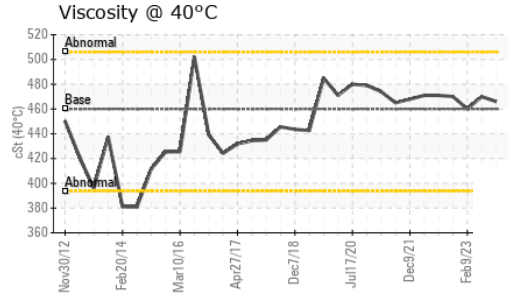
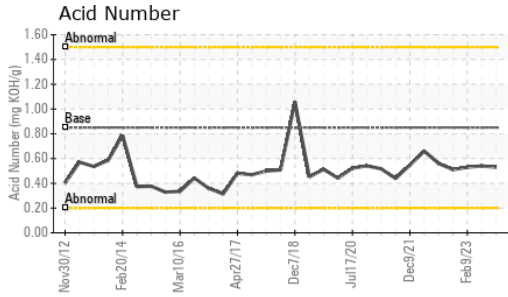
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.85	<b>0.53</b>	0.54	0.53

## VISUAL

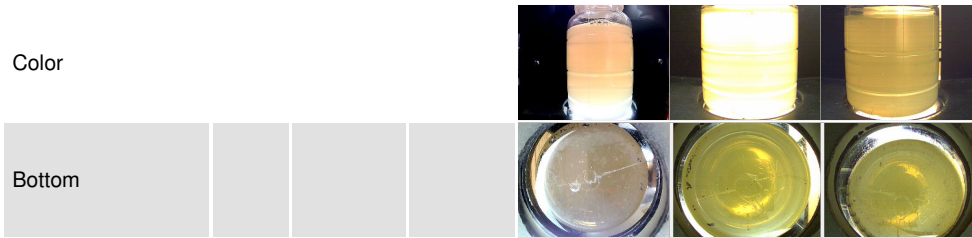
	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	<b>NONE</b>	LIGHT	LIGHT
Yellow Metal	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual NONE	<b>▲ MODER</b>	NONE	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>	NEG	NEG

# OIL ANALYSIS REPORT

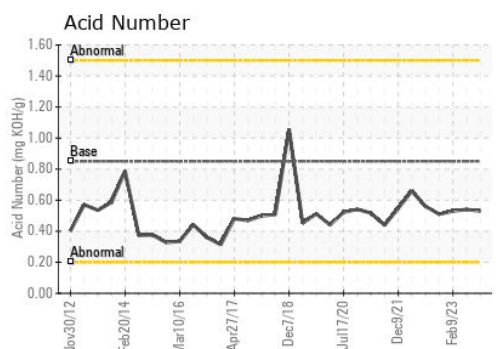
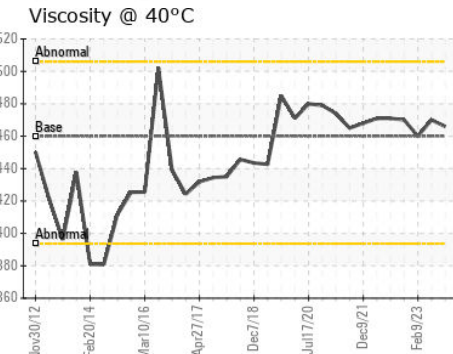
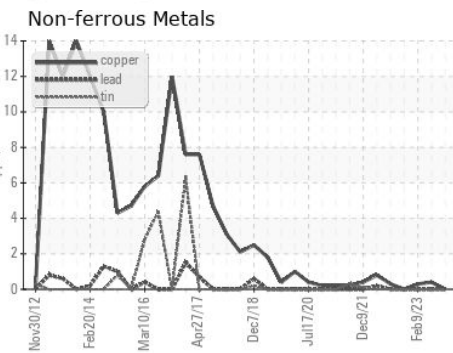
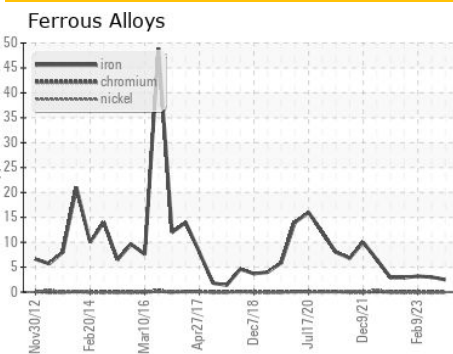


FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	460	<b>466</b>	470	460

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0854363 **Received** : 18 Oct 2023  
**Lab Number** : **05982516** **Diagnosed** : 20 Oct 2023  
**Unique Number** : 10699811 **Diagnostician** : Jonathan Hester  
**Test Package** : IND 2

**MARS CHOCOLATE**  
 2019 NORTH OAK PARK  
 CHICAGO, IL  
 US 60707  
 Contact: TONY FIORE  
 tony.fiore@effem.com  
 T: (773)745-2279  
 F:

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)