



TRAAP

Texas Refinery Advanced Analysis Program

# OIL ANALYSIS REPORT

WEAR	<b>SEVERE</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**LEB DRAG 2**

Component  
**Gearbox**

Fluid  
**TRC MOLY ULTRA-TEC GEAR OIL 80W90 (--- GAL)**

## RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06187860	---	---
Sample Date		Client Info		15 May 2024	---	---
Machine Age	yrs	Client Info		0	---	---
Oil Age	yrs	Client Info		4	---	---
Filter Age	yrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				<b>SEVERE</b>	---	---

## WEAR

The iron level is severe. Gear wear is indicated.

Iron	ppm	ASTM D5185m	>200	<b>▲ 1126</b>	---	---
Chromium	ppm	ASTM D5185m	>10	<b>5</b>	---	---
Nickel	ppm	ASTM D5185m	>10	<b>4</b>	---	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Aluminum	ppm	ASTM D5185m	>25	<b>1</b>	---	---
Lead	ppm	ASTM D5185m	>50	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185m	>200	<b>4</b>	---	---
Tin	ppm	ASTM D5185m	>10	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

## CONTAMINATION

There is no indication of any contamination in the oil.

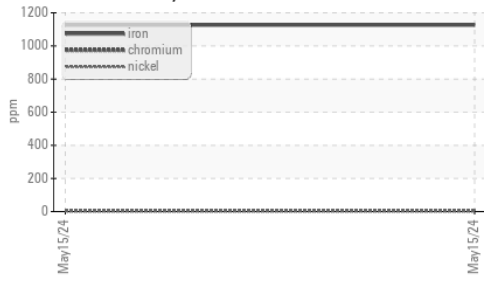
Silicon	ppm	ASTM D5185m	>50	<b>41</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	---	---
Water		WC Method	>0.2	<b>NEG</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	---	---

## FLUID CONDITION

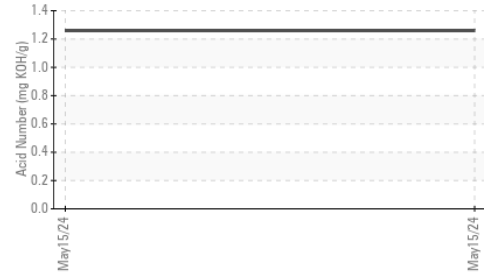
The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Boron	ppm	ASTM D5185m		<b>176</b>	---	---
Barium	ppm	ASTM D5185m		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>4</b>	---	---
Manganese	ppm	ASTM D5185m		<b>10</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Calcium	ppm	ASTM D5185m		<b>28</b>	---	---
Phosphorus	ppm	ASTM D5185m		<b>911</b>	---	---
Zinc	ppm	ASTM D5185m		<b>20</b>	---	---
Sulfur	ppm	ASTM D5185m		<b>20378</b>	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.26</b>	---	---
Visc @ 40°C	cSt	ASTM D445	186	<b>154</b>	---	---
Visc @ 100°C	cSt	ASTM D445	19.3	<b>16.6</b>	---	---
Viscosity Index (VI)	Scale	ASTM D2270	125	<b>114</b>	---	---

▲ Ferrous Alloys



Acid Number



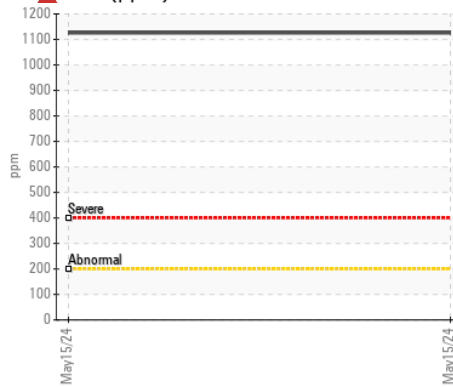
Viscosity @ 100°C



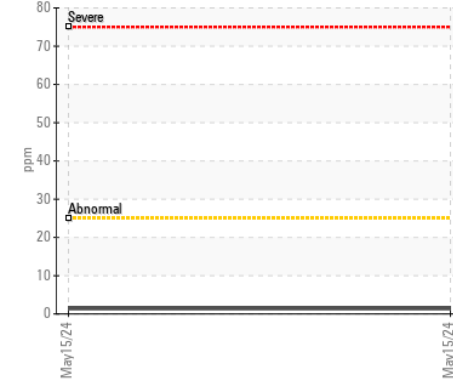
Viscosity @ 40°C



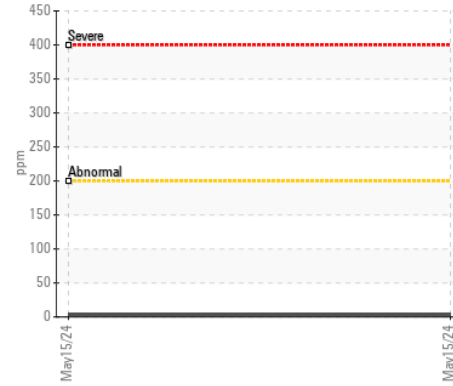
▲ Iron (ppm)



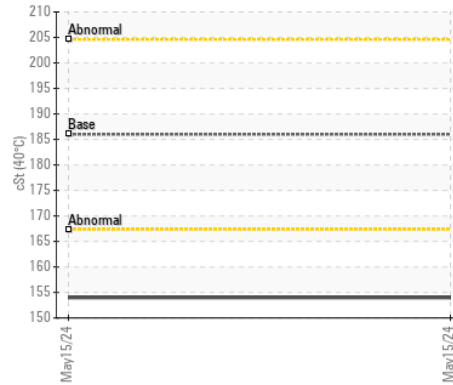
Aluminum (ppm)



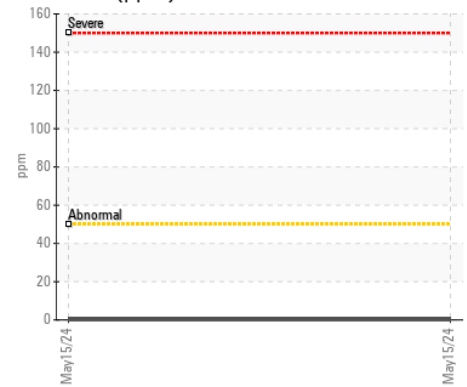
Copper (ppm)



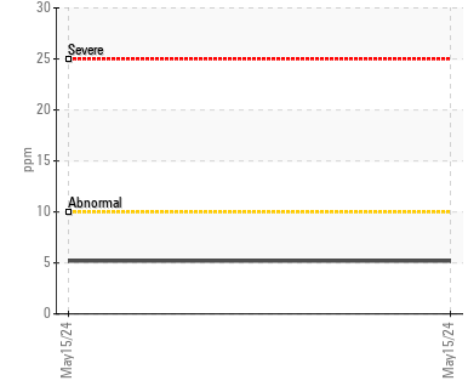
Viscosity @ 40°C



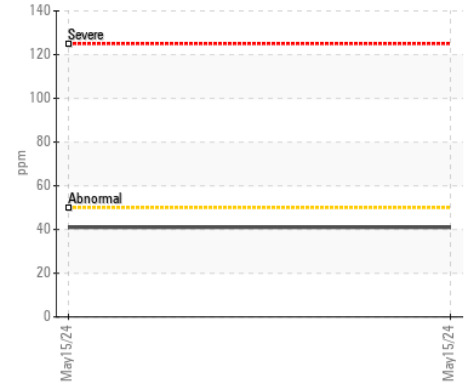
Lead (ppm)



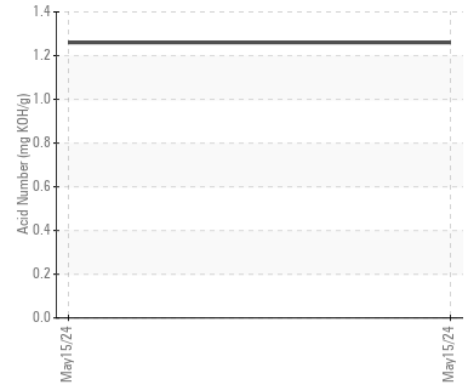
Chromium (ppm)



Silicon (ppm)



Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR06187860 **Received** : 22 May 2024  
**Lab Number** : 06187860 **Tested** : 24 May 2024  
**Unique Number** : 11044612 **Diagnosed** : 24 May 2024 - Don Baldrige  
**Test Package** : MOB 2 ( Additional Tests: KV100, VI )

**CHRIST BROTHERS PRODUCTS**  
 820 S FRITZ  
 LEBANON, IL  
 US 62254  
 Contact: BRUCE COWELL

To discuss this sample report, contact Customer Service at 1-800-827-0711.

\* - 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)

T:  
F: