



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
LEB BH
 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		TR06187859	TR05936283	---
Sample Date		Client Info		15 May 2024	01 Jun 2023	---
Machine Age	yrs	Client Info		0	0	---
Oil Age	yrs	Client Info		2	1	---
Filter Age	yrs	Client Info		0	0	---
Oil Changed		Client Info		N/A	N/A	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				SEVERE	NORMAL	---

WEAR

The iron level is severe. Gear wear is indicated.

Iron	ppm	ASTM D5185m	>200	▲ 1692	159	---
Chromium	ppm	ASTM D5185m	>10	▲ 23	2	---
Nickel	ppm	ASTM D5185m	>10	2	0	---
Titanium	ppm	ASTM D5185m		2	1	---
Silver	ppm	ASTM D5185m		<1	0	---
Aluminum	ppm	ASTM D5185m	>25	5	1	---
Lead	ppm	ASTM D5185m	>50	<1	0	---
Copper	ppm	ASTM D5185m	>200	5	<1	---
Tin	ppm	ASTM D5185m	>10	0	0	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

There is a high amount of visible silt present in the sample. Elemental level of silicon (Si) above normal.

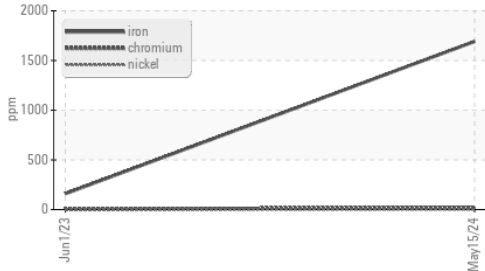
Silicon	ppm	ASTM D5185m	>50	▲ 72	21	---
Potassium	ppm	ASTM D5185m	>20	2	0	---
Water		WC Method	>0.2	NEG	NEG	---
Silt	scalar	*Visual	NONE	▲ HEAVY	MODER	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---

FLUID CONDITION

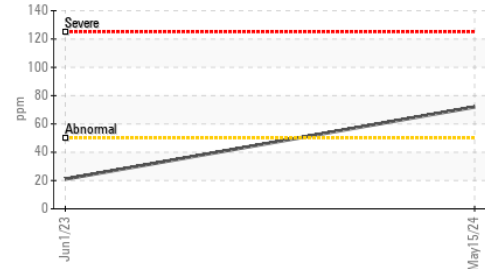
The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185m		4	2	---
Boron	ppm	ASTM D5185m		388	303	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		<1	0	---
Manganese	ppm	ASTM D5185m		10	2	---
Magnesium	ppm	ASTM D5185m		<1	1	---
Calcium	ppm	ASTM D5185m		17	10	---
Phosphorus	ppm	ASTM D5185m		1319	964	---
Zinc	ppm	ASTM D5185m		24	7	---
Sulfur	ppm	ASTM D5185m		28157	22509	---
Acid Number (AN)	mg KOH/g	ASTM D8045		1.51	1.55	---
Visc @ 40°C	cSt	ASTM D445	186	155	155	---
Visc @ 100°C	cSt	ASTM D445	19.3	17.1	17.1	---
Viscosity Index (VI)	Scale	ASTM D2270	125	119	119	---

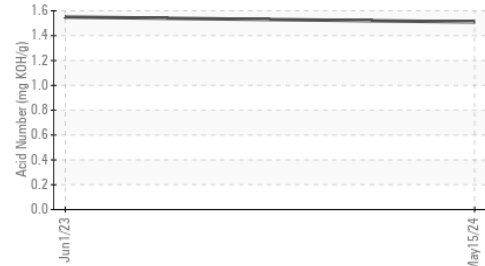
▲ Ferrous Alloys



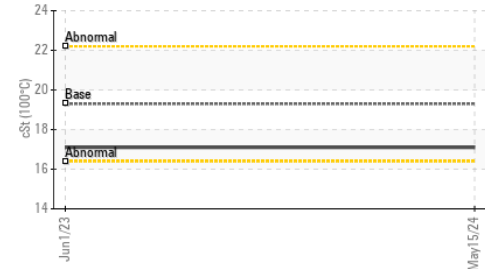
▲ Silicon (ppm)



Acid Number



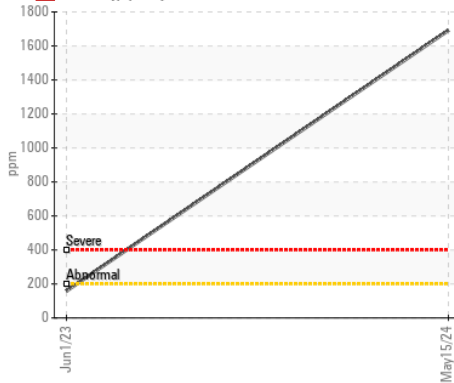
Viscosity @ 100°C



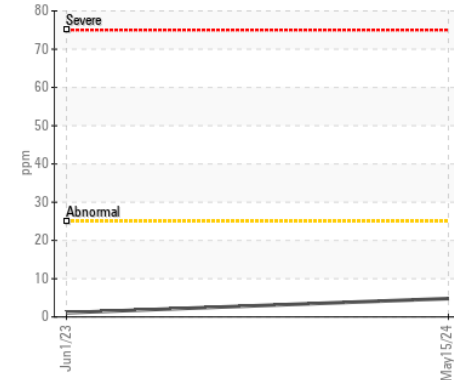
Viscosity @ 40°C



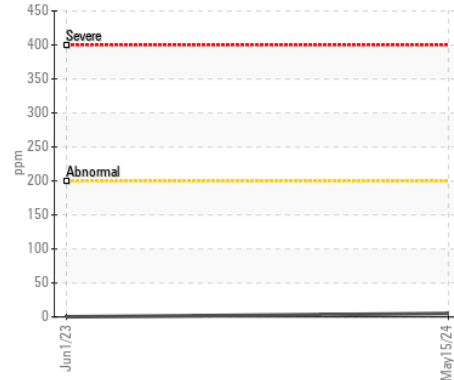
▲ Iron (ppm)



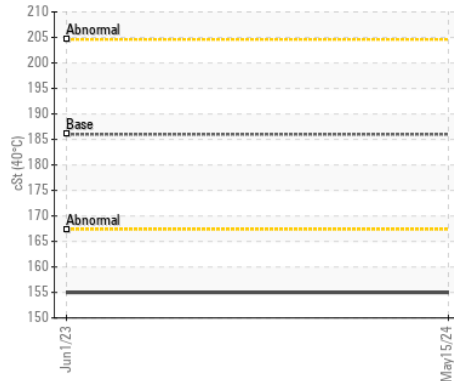
Aluminum (ppm)



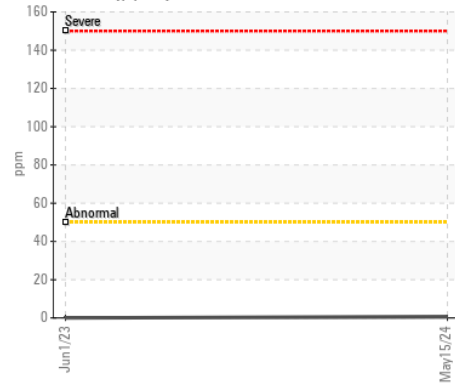
Copper (ppm)



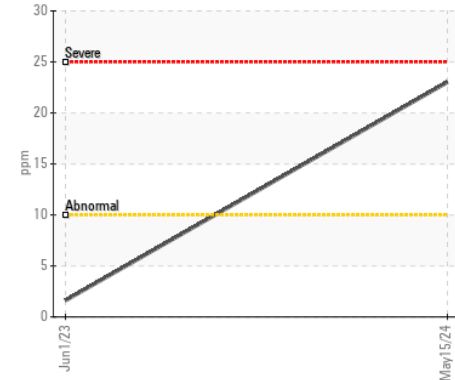
Viscosity @ 40°C



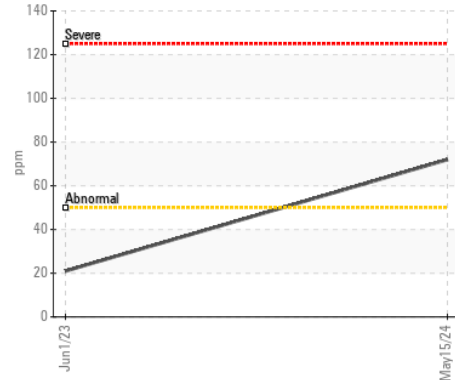
Lead (ppm)



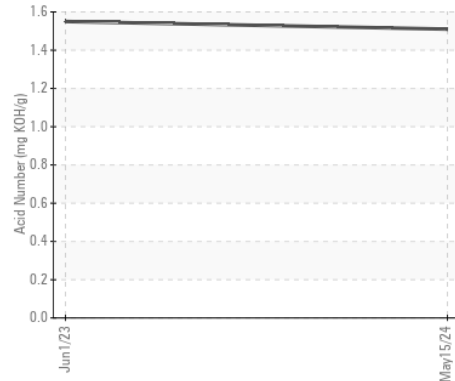
▲ Chromium (ppm)



▲ Silicon (ppm)



Acid Number



Certificate L2367

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

Sample No. : TR06187859

Lab Number : 06187859

Unique Number : 11044611

Test Package : MOB 2 (Additional Tests: KV100, VI)

Received : 22 May 2024

Tested : 23 May 2024

Diagnosed : 24 May 2024 - Don Baldrige

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: