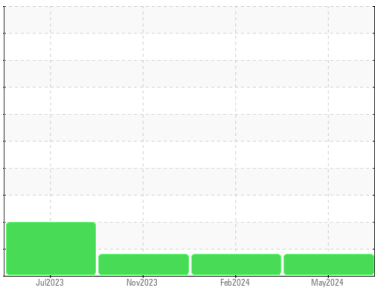
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
HEB_MLU1
Component
Outboard Pump
Fluid
{not provided} (--- GAL)

DIAGNOSIS

▲ Recommendation
No corrective action is recommended at this time. Resample at the next service interval to monitor.

▲ Wear
The copper level is abnormal. All other component wear rates are normal.

Contamination
The water content is negligible. 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 suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**RP0036061**	RP0039984	RP0036148
Sample Date		Client Info		**30 May 2024**	27 Feb 2024	16 Nov 2023
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	**4**	2	4
Chromium	ppm	ASTM D5185m	>5	**0**	0	0
Nickel	ppm	ASTM D5185m	>5	**0**	0	0
Titanium	ppm	ASTM D5185m	>3	**0**	0	<1
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>7	**0**	0	0
Lead	ppm	ASTM D5185m	>12	**0**	0	0
Copper	ppm	ASTM D5185m	>30	▲ **39**	▲ 40	▲ 52
Tin	ppm	ASTM D5185m	>9	**1**	2	2
Vanadium	ppm	ASTM D5185m		**<1**	0	<1
Cadmium	ppm	ASTM D5185m		**0**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	0
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	0
Magnesium	ppm	ASTM D5185m		**17**	22	0
Calcium	ppm	ASTM D5185m		**0**	0	0
Phosphorus	ppm	ASTM D5185m		**59**	53	66
Zinc	ppm	ASTM D5185m		**43**	29	30

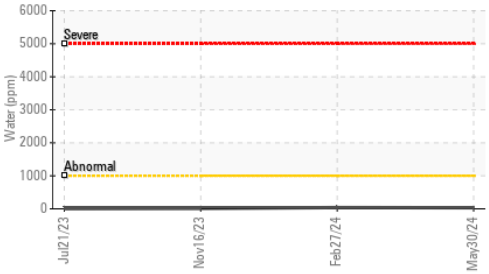
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>60	**1**	<1	1
Sodium	ppm	ASTM D5185m		**<1**	0	2
Potassium	ppm	ASTM D5185m	>20	**0**	0	0
Water	%	ASTM D6304	>.1	**0.003**	0.003	0.001
ppm Water	ppm	ASTM D6304	>1000	**33**	38	12

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.17**	0.16	0.08

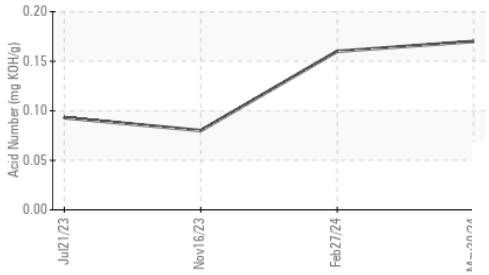
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

OIL ANALYSIS REPORT

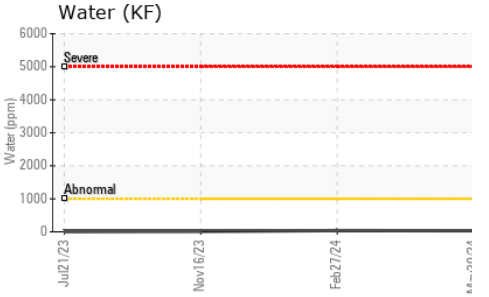
Water (KF)



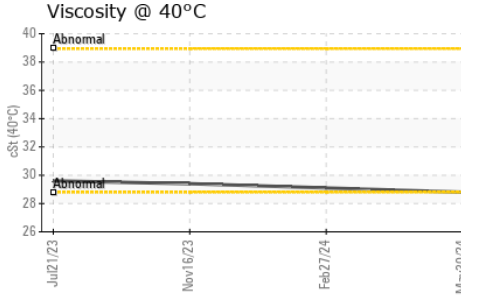
Acid Number



Water (KF)



Viscosity @ 40°C

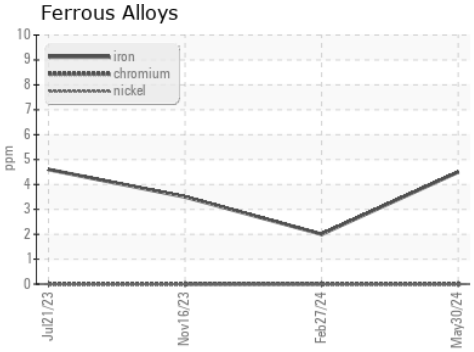


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**28.8**	29.1	29.4

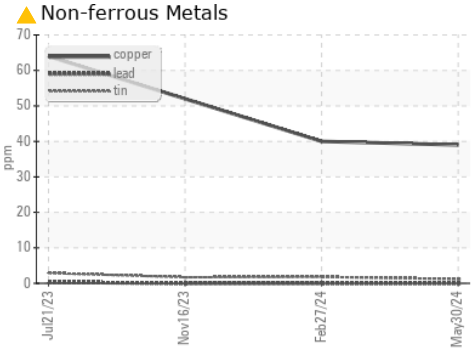
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

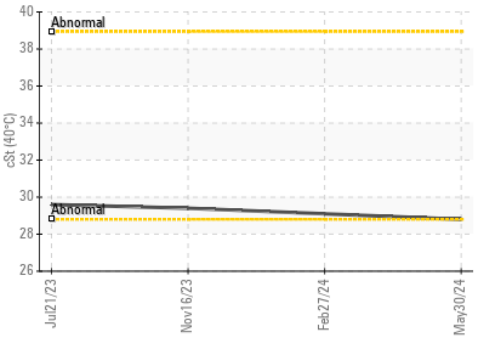
Ferrous Alloys



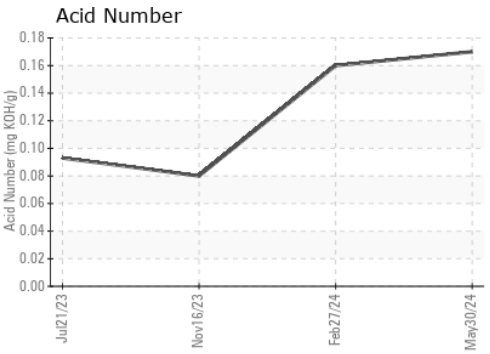
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0036061
Lab Number : 06202837
Unique Number : 11070298
Test Package : IND 2

Received : 07 Jun 2024
Tested : 10 Jun 2024
Diagnosed : 10 Jun 2024 - Don Baldridge

ENERGY TRANSFER - HEBRON

HEBRON, KY
US 41048
Contact: Service Manager
T:
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)