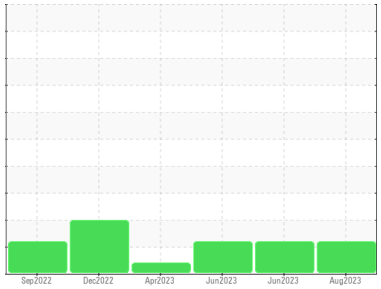
OIL ANALYSIS REPORT

Sample Rating Trend



VISUAL METAL

Area
WALPOLE
Machine Id
943 - WALPOLE
Component
Rear Differential
Fluid
NOT GIVEN (--- GAL)

DIAGNOSIS

Recommendation
We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. We were unable to perform a particle count due to metal particles present in this sample.

Wear
Moderate concentration of visible metal present. All 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 suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0843158**	WC0828726	WC0828703
Sample Date		Client Info		**01 Aug 2023**	29 Jun 2023	02 Jun 2023
Machine Age	mls	Client Info		**125562**	116673	106319
Oil Age	mls	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	>500	**167**	151	136
Chromium	ppm	ASTM D5185m	>10	**3**	3	3
Nickel	ppm	ASTM D5185m	>10	**<1**	<1	1
Titanium	ppm	ASTM D5185m		**0**	<1	<1
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**7**	8	7
Lead	ppm	ASTM D5185m	>25	**0**	0	<1
Copper	ppm	ASTM D5185m	>100	**2**	<1	<1
Tin	ppm	ASTM D5185m	>10	**<1**	<1	<1
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**73**	78	70
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**<1**	0	0
Manganese	ppm	ASTM D5185m		**7**	7	6
Magnesium	ppm	ASTM D5185m		**208**	199	207
Calcium	ppm	ASTM D5185m		**6**	8	7
Phosphorus	ppm	ASTM D5185m		**1781**	1674	1820
Zinc	ppm	ASTM D5185m		**9**	11	0
Sulfur	ppm	ASTM D5185m		**29138**	27481	31756

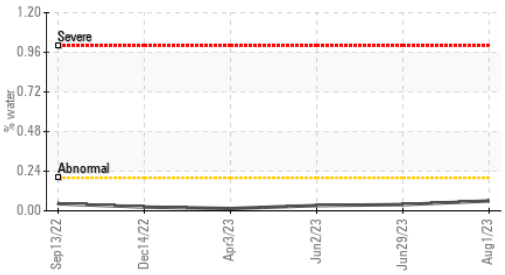
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>75	**49**	48	44
Sodium	ppm	ASTM D5185m		**5**	<1	3
Potassium	ppm	ASTM D5185m	>20	**<1**	1	3
Water	%	ASTM D6304	>.2	**0.060**	0.038	0.032
ppm Water	ppm	ASTM D6304	>2000	**607.9**	382.2	324.1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	**---**	▲ 95728	▲ 106340
Particles >6µm		ASTM D7647	>5000	**---**	▲ 7446	▲ 13504
Particles >14µm		ASTM D7647	>640	**---**	45	435
Particles >21µm		ASTM D7647	>160	**---**	10	92
Particles >38µm		ASTM D7647	>40	**---**	1	8
Particles >71µm		ASTM D7647	>10	**---**	0	2
Oil Cleanliness		ISO 4406 (c)	>21/19/16	**---**	▲ 24/20/13	▲ 24/21/16

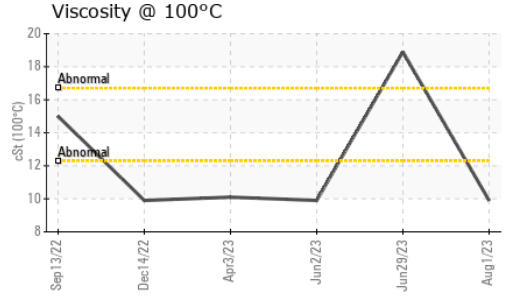
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.51**	0.49	0.45

OIL ANALYSIS REPORT

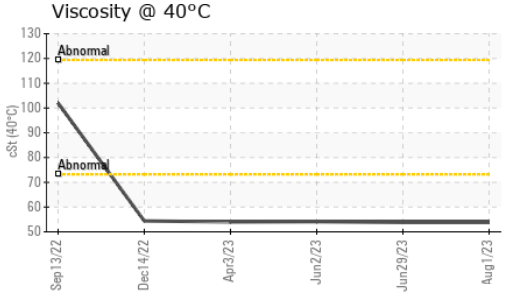
Water



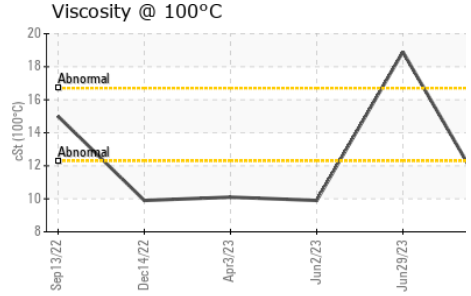
Viscosity @ 100°C



Viscosity @ 40°C

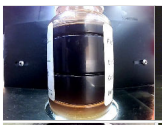
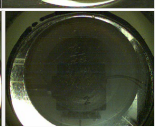


Viscosity @ 100°C



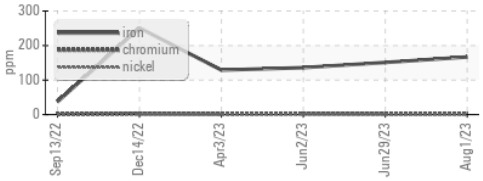
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	▲ **MODER**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**53.8**	53.8	54.1
Visc @ 100°C	cSt	ASTM D445		**9.9**	18.9	9.9
Viscosity Index (VI)	Scale	ASTM D2270		**172**	368	171

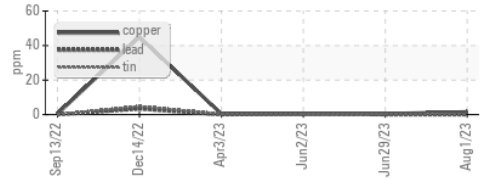
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

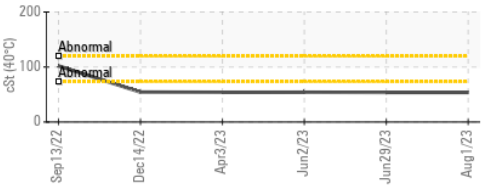
Ferrous Alloys



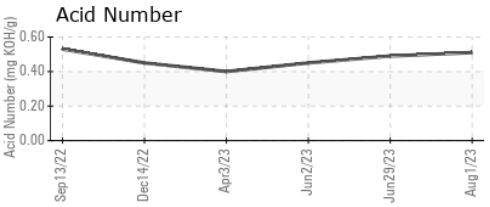
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0843158 **Received** : 21 Aug 2023
Lab Number : 05930340 **Diagnosed** : 23 Aug 2023
Unique Number : 10615611 **Diagnostician** : Jonathan Hester
Test Package : MOB 2 (Additional Tests: KF, KV100, PrtCount, VI)

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)

BASF - GIANNA CREDAROLI
500 WHITE PLAINS RD
TARRYTOWN, NY
US 10591
Contact: GIANNA CREDAROLI
gianna.credaroli@basf.com
T:
F: