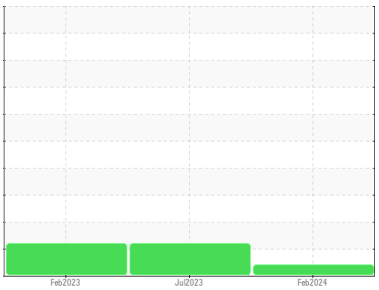
OIL ANALYSIS REPORT

Sample Rating Trend



VIS DEBRIS

Area
TSI
Machine Id
TSI 12855
Component
Rear Differential
Fluid
GEAR OIL SAE 75W90 (--- 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 a high concentration of particles present in this sample.

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		**WC0934512**	WC0771188	WC0771173
Sample Date		Client Info		**29 Feb 2024**	20 Jul 2023	05 Feb 2023
Machine Age	mls	Client Info		**142245**	83566	0
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	**110**	77	16
Chromium	ppm	ASTM D5185m	>10	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>10	**<1**	0	0
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m		**<1**	<1	0
Aluminum	ppm	ASTM D5185m	>25	**2**	0	0
Lead	ppm	ASTM D5185m	>25	**<1**	0	0
Copper	ppm	ASTM D5185m	>100	**1**	0	<1
Tin	ppm	ASTM D5185m	>10	**<1**	0	0
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	400	**252**	232	270
Barium	ppm	ASTM D5185m	200	**0**	0	2
Molybdenum	ppm	ASTM D5185m	12	**<1**	0	0
Manganese	ppm	ASTM D5185m		**7**	7	6
Magnesium	ppm	ASTM D5185m	12	**2**	<1	<1
Calcium	ppm	ASTM D5185m	150	**3**	2	4
Phosphorus	ppm	ASTM D5185m	1650	**1715**	1530	1283
Zinc	ppm	ASTM D5185m	125	**2**	0	5
Sulfur	ppm	ASTM D5185m	22500	**29486**	28865	22257

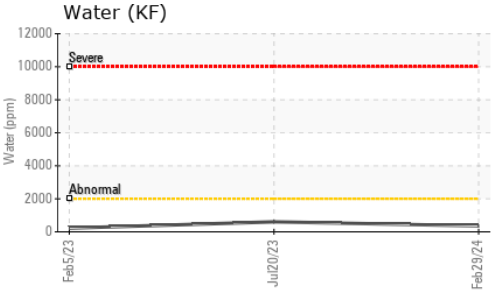
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>75	**13**	11	13
Sodium	ppm	ASTM D5185m		**4**	2	4
Potassium	ppm	ASTM D5185m	>20	**2**	0	<1
Water	%	ASTM D6304	>.2	**0.035**	0.060	0.022
ppm Water	ppm	ASTM D6304	>2000	**359**	606.4	223.2

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	**---**	▲ 130582	▲ 133004
Particles >6µm		ASTM D7647	>5000	**---**	▲ 23450	▲ 26082
Particles >14µm		ASTM D7647	>640	**---**	99	108
Particles >21µm		ASTM D7647	>160	**---**	10	13
Particles >38µm		ASTM D7647	>40	**---**	2	1
Particles >71µm		ASTM D7647	>10	**---**	2	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	**---**	▲ 24/22/14	▲ 24/22/14

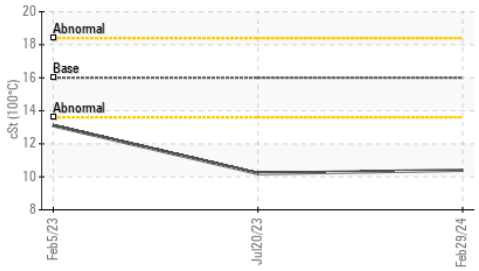
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	2.00	**2.23**	2.42	2.72

OIL ANALYSIS REPORT

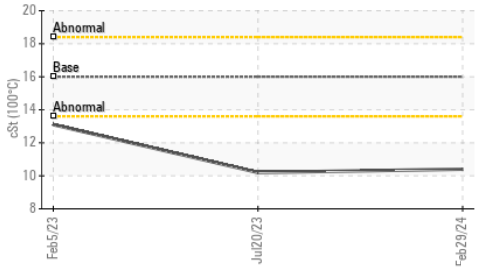
Water (KF)



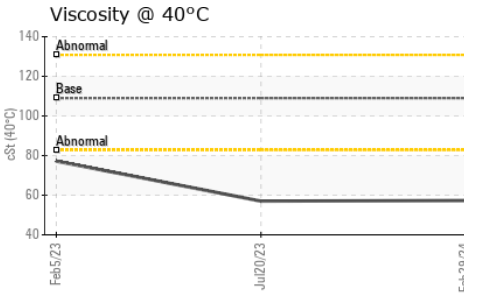
Viscosity @ 100°C



Viscosity @ 100°C

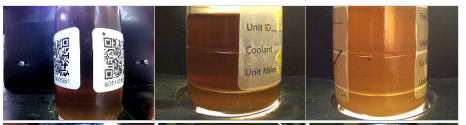
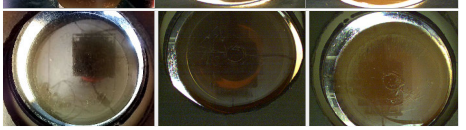


Viscosity @ 40°C



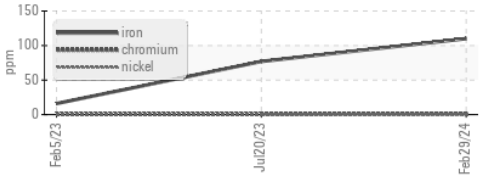
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	▲ **MODER**	LIGHT	NONE
Sand/Dirt	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	109	**57.3**	57.0	77.2
Visc @ 100°C	cSt	ASTM D445	16.0	**10.4**	10.2	13.1
Viscosity Index (VI)	Scale	ASTM D2270	157	**172**	168	172

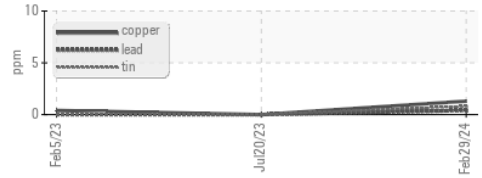
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

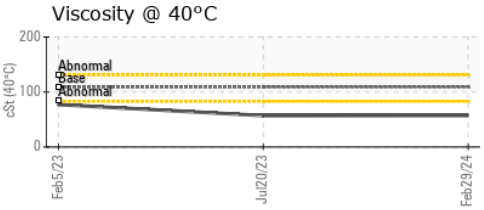
Ferrous Alloys



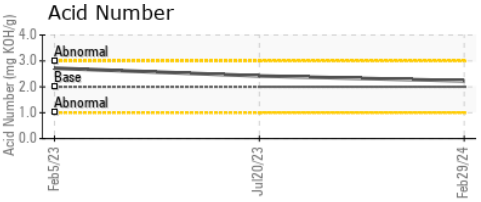
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0934512 **Received** : 15 May 2024
Lab Number : 06180654 **Tested** : 18 May 2024
Unique Number : 11031980 **Diagnosed** : 18 May 2024 - 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)

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Report Id: bastarhd [WUSCAR] 06180654 (Generated: 05/18/2024 17:01:04) Rev: 2

Contact/Location: GIANNA CREDAROLI - BASTARHD