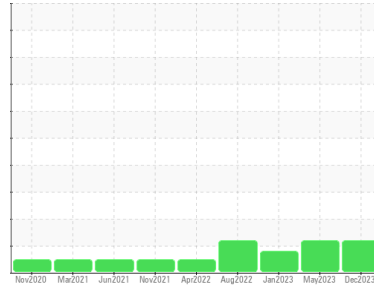




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
DICK LAVY
Machine Id
DICK LAVY 4823

Component
Front Differential
Fluid
GEAR OIL SAE 75W90 (--- GAL)

DIAGNOSIS

Recommendation

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

Wear

All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) 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		WC0876051	WC0815594	WC0771205
Sample Date	Client Info		11 Dec 2023	11 May 2023	09 Jan 2023
Machine Age	mls	Client Info	381459	322081	271184
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	180	159	143
Chromium	ppm	ASTM D5185m >10	1	1	<1
Nickel	ppm	ASTM D5185m >10	0	<1	<1
Titanium	ppm	ASTM D5185m	0	<1	<1
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	<1	1	1
Lead	ppm	ASTM D5185m >25	0	0	0
Copper	ppm	ASTM D5185m >100	2	2	2
Tin	ppm	ASTM D5185m >10	<1	0	<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 400	301	299	325
Barium	ppm	ASTM D5185m 200	0	<1	1
Molybdenum	ppm	ASTM D5185m 12	0	<1	<1
Manganese	ppm	ASTM D5185m	14	14	12
Magnesium	ppm	ASTM D5185m 12	0	1	2
Calcium	ppm	ASTM D5185m 150	2	11	10
Phosphorus	ppm	ASTM D5185m 1650	1331	1347	1177
Zinc	ppm	ASTM D5185m 125	4	13	16
Sulfur	ppm	ASTM D5185m 22500	21192	25780	22962

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >75	66	48	47
Sodium	ppm	ASTM D5185m	4	4	5
Potassium	ppm	ASTM D5185m >20	69	73	73
Water	%	ASTM D6304 >.2	0.041	0.021	0.021
ppm Water	ppm	ASTM D6304 >2000	417	216.3	214.1

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	▲ 80023	▲ 104106	▲ 73174
Particles >6µm	ASTM D7647	>5000	▲ 8518	▲ 15204	4079
Particles >14µm	ASTM D7647	>640	56	74	15
Particles >21µm	ASTM D7647	>160	7	9	3
Particles >38µm	ASTM D7647	>40	0	1	0
Particles >71µm	ASTM D7647	>10	0	0	0
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ 24/20/13	▲ 24/21/13	▲ 23/19/11

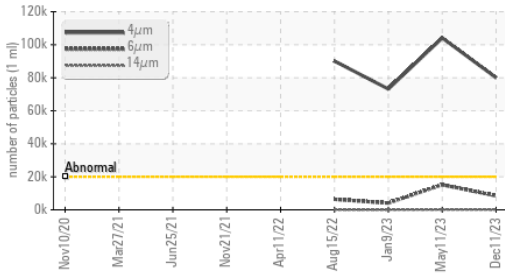
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 2.00	2.57	1.76	1.81

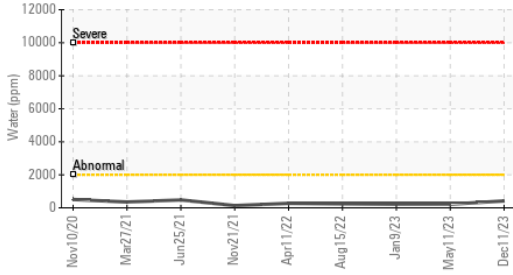


OIL ANALYSIS REPORT

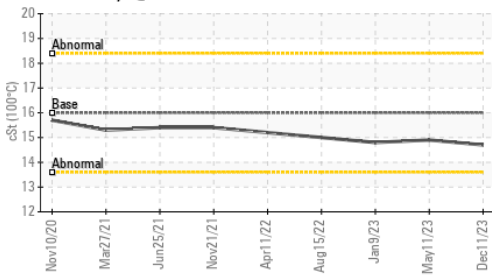
Particle Trend



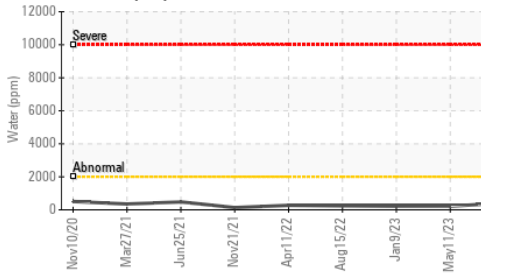
Water (KF)



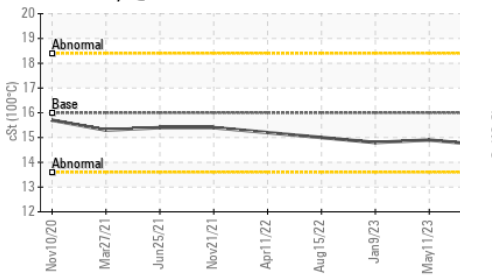
Viscosity @ 100°C



Water (KF)



Viscosity @ 100°C



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
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	>.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	109	110	111
Visc @ 100°C	cSt	ASTM D445	16.0	14.9	14.8
Viscosity Index (VI)	Scale	ASTM D2270	157	140	137

SAMPLE IMAGES

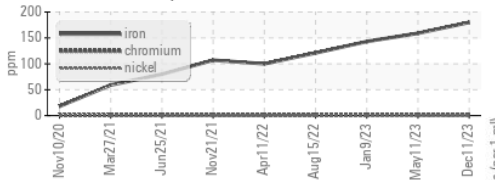
Color

Bottom

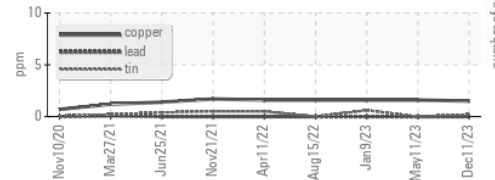


GRAPHS

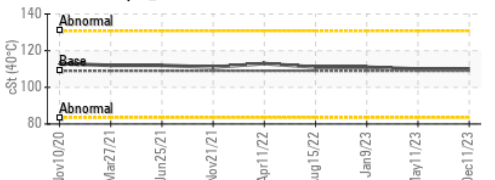
Ferrous Alloys



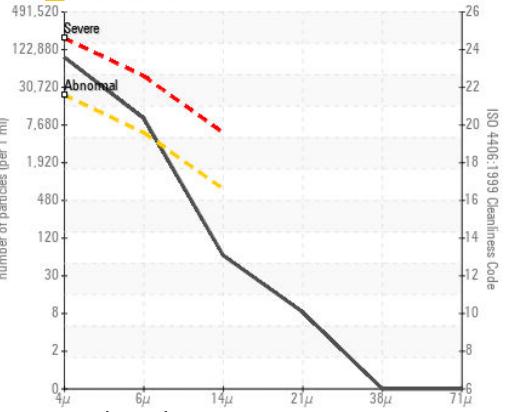
Non-ferrous Metals



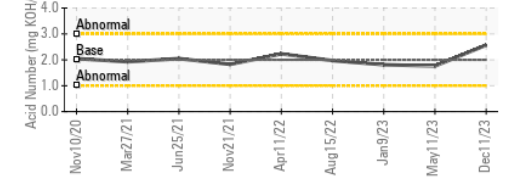
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0876051 **Received** : 16 Jan 2024
Lab Number : 06061056 **Diagnosed** : 17 Jan 2024
Unique Number : 10832438 **Diagnostician** : Don Baldrige
Test Package : MOB 2 (Additional Tests: KF, KV100, PrtCount, VI)

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

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)

T:
F: