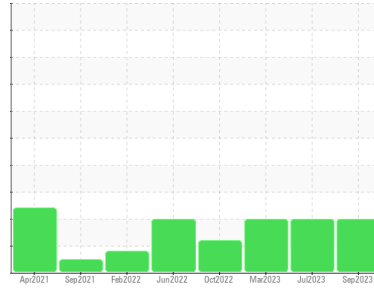




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area
DICK LAVY
 Machine Id
DICK LAVY 4831
 Component
Transmission (Manual)
 Fluid
Transmission (Manual) Oil (--- 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

There is a high amount of silt (particulates < 14 microns in size) present in the fluid.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0853950	WC0843165	WC0797158
Sample Date	Client Info		24 Sep 2023	19 Jul 2023	11 Mar 2023
Machine Age	mls	Client Info	375533	349288	301362
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 >200	124	137	144
Chromium	ppm	ASTM D5185m >5	2	2	2
Nickel	ppm	ASTM D5185m >5	<1	<1	<1
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m >7	0	0	0
Aluminum	ppm	ASTM D5185m >25	8	8	10
Lead	ppm	ASTM D5185m >45	13	0	0
Copper	ppm	ASTM D5185m >225	▲ 516	▲ 553	▲ 427
Tin	ppm	ASTM D5185m >10	<1	<1	0
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	237	214	232
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	3	<1	3
Manganese	ppm	ASTM D5185m	22	26	26
Magnesium	ppm	ASTM D5185m	1	<1	4
Calcium	ppm	ASTM D5185m	163	199	199
Phosphorus	ppm	ASTM D5185m	1027	1184	1180
Zinc	ppm	ASTM D5185m	128	145	81
Sulfur	ppm	ASTM D5185m	807	1112	1194

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >125	20	27	8
Sodium	ppm	ASTM D5185m	3	2	2
Potassium	ppm	ASTM D5185m >20	4	<1	0
Water	%	ASTM D6304 >0.1	0.038	0.053	0.042
ppm Water	ppm	ASTM D6304 >1000	388.6	531.6	421.8

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	▲ 38764	---	▲ 18081
Particles >6µm	ASTM D7647	>2500	▲ 4276	---	▲ 3493
Particles >14µm	ASTM D7647	>320	201	---	200
Particles >21µm	ASTM D7647	>80	51	---	46
Particles >38µm	ASTM D7647	>20	2	---	1
Particles >71µm	ASTM D7647	>4	0	---	0
Oil Cleanliness	ISO 4406 (c)	>20/18/15	▲ 22/19/15	---	▲ 21/19/15

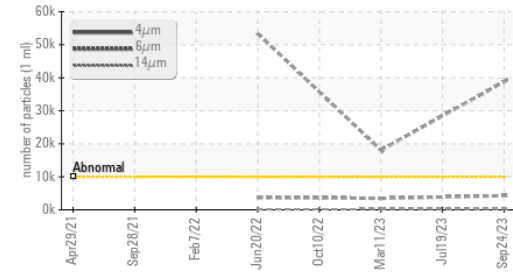
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	2.78	3.23	2.71

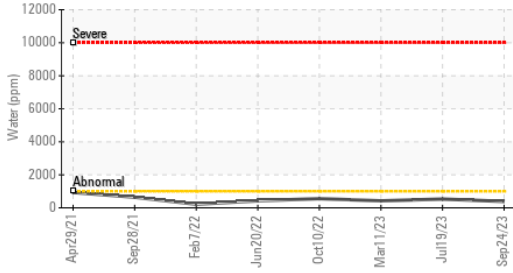


OIL ANALYSIS REPORT

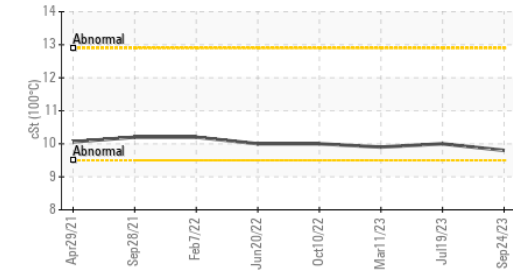
Particle Trend



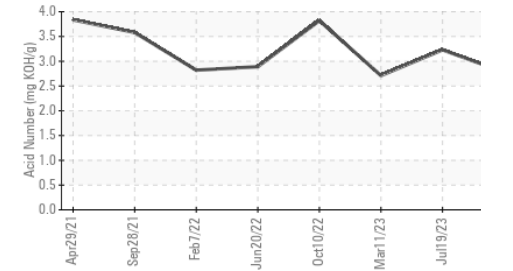
Water (KF)



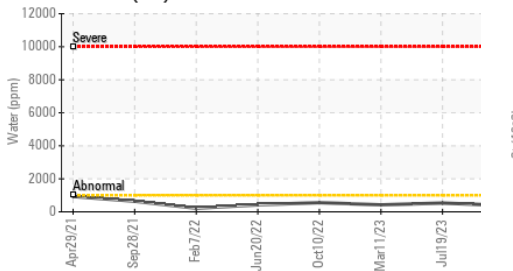
Viscosity @ 100°C



Acid Number



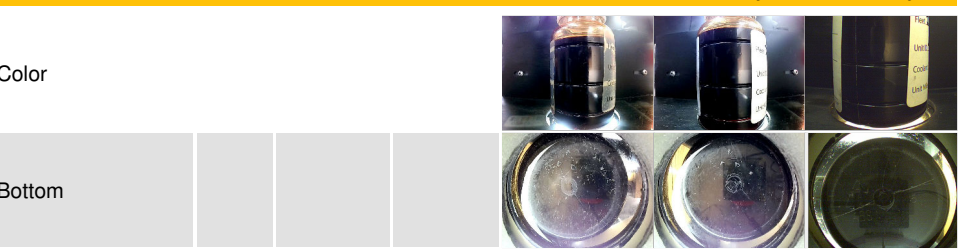
Water (KF)



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	▲ MODER	LIGHT
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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

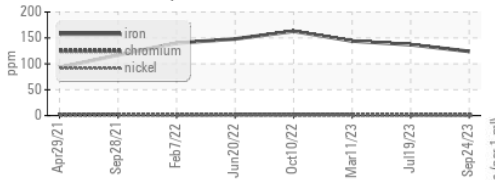
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	57.2	57.7	57.8
Visc @ 100°C	cSt	ASTM D445	9.8	10.0	9.9
Viscosity Index (VI)	Scale	ASTM D2270	157	161	158

SAMPLE IMAGES

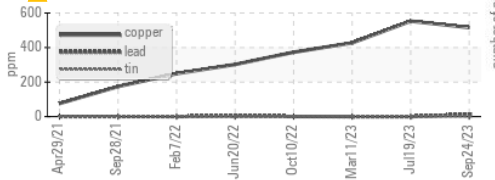


GRAPHS

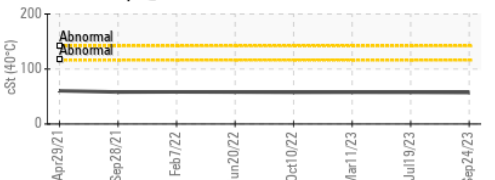
Ferrous Alloys



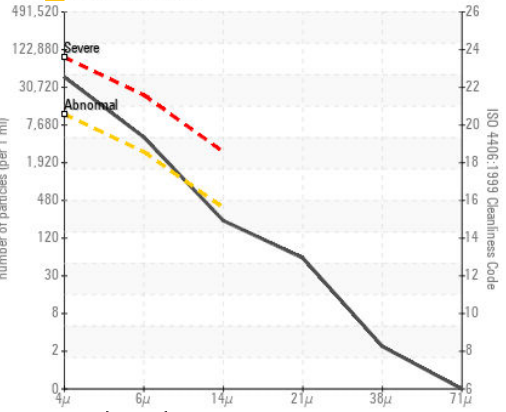
Non-ferrous Metals



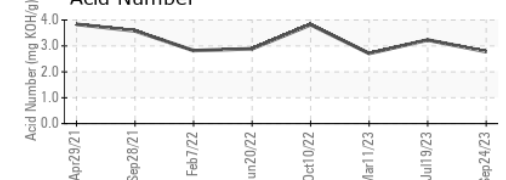
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0853950
Lab Number : 05996290
Unique Number : 10724650
Test Package : MOB 2 (Additional Tests: KF, KV100, PrtCount, VI)

BASF - GIANNA CREDAROLI
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 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)