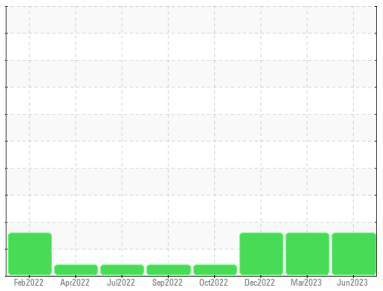
OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Area
FINISHING/1830 COATING LINE
Machine Id
1830-006-0500 - HSCCL LEVELER DIFFERENTIAL 1830-006-0500
Component
Gearbox
Fluid
CITGO COMPOUND EP 320 (--- 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 moderate amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition
Viscosity of sample indicates oil is within ISO 220 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**KFS0002110**	KFS0003458	KFS0002171
Sample Date		Client Info		**19 Jun 2023**	09 Mar 2023	22 Dec 2022
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				**ATTENTION**	ABNORMAL	ATTENTION

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	**2**	5	1
Chromium	ppm	ASTM D5185m	>15	**<1**	<1	0
Nickel	ppm	ASTM D5185m	>15	**0**	0	0
Titanium	ppm	ASTM D5185m		**<1**	<1	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**<1**	<1	0
Lead	ppm	ASTM D5185m	>100	**<1**	0	0
Copper	ppm	ASTM D5185m	>200	**<1**	<1	0
Tin	ppm	ASTM D5185m	>25	**<1**	0	0
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**<1**	0	0
Barium	ppm	ASTM D5185m		**0**	1	0
Molybdenum	ppm	ASTM D5185m		**0**	<1	2
Manganese	ppm	ASTM D5185m		**<1**	<1	0
Magnesium	ppm	ASTM D5185m		**2**	3	0
Calcium	ppm	ASTM D5185m		**0**	7	4
Phosphorus	ppm	ASTM D5185m		**131**	122	126
Zinc	ppm	ASTM D5185m		**0**	6	0
Sulfur	ppm	ASTM D5185m		**6501**	4541	5709

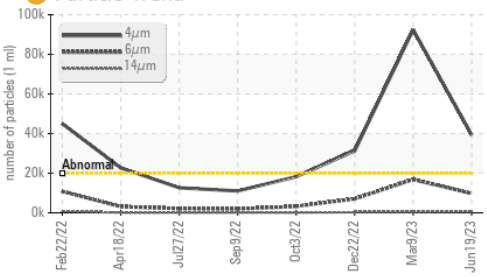
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**<1**	<1	<1
Sodium	ppm	ASTM D5185m		**0**	<1	0
Potassium	ppm	ASTM D5185m	>20	**2**	<1	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	**39301**	92400	31258
Particles >6µm		ASTM D7647	>5000	**9779**	16871	7045
Particles >14µm		ASTM D7647	>640	**565**	360	299
Particles >21µm		ASTM D7647	>160	**138**	38	58
Particles >38µm		ASTM D7647	>40	**9**	1	5
Particles >71µm		ASTM D7647	>10	**1**	0	1
Oil Cleanliness		ISO 4406 (c)	>21/19/16	**22/20/16**	24/21/16	22/20/15

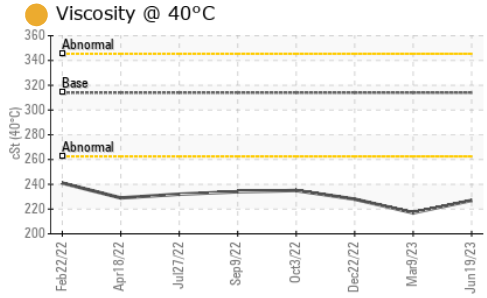
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.43**	0.45	0.45

OIL ANALYSIS REPORT

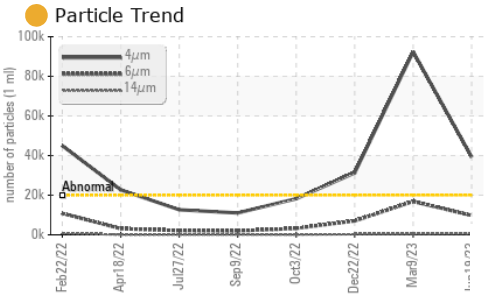
Particle Trend



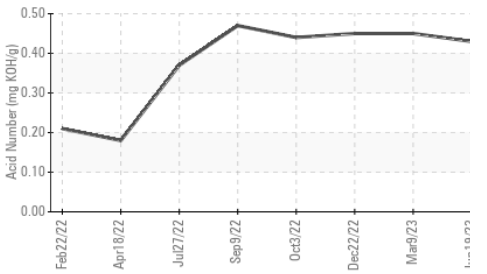
Viscosity @ 40°C



Particle Trend

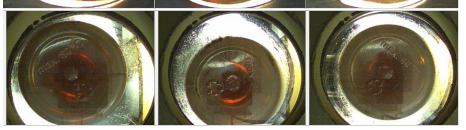


Acid Number



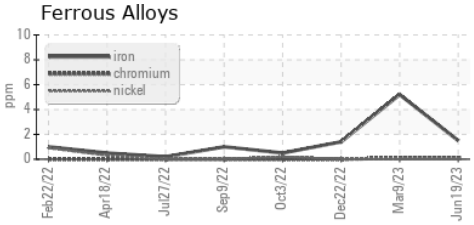
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**LIGHT**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	314	**227**	217	228

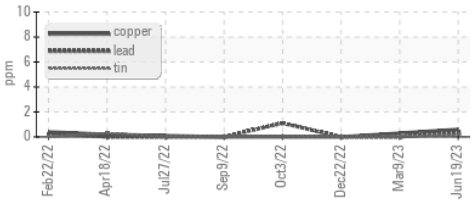
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

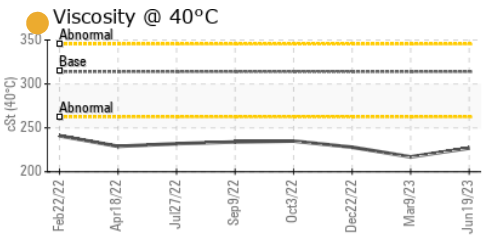
Ferrous Alloys



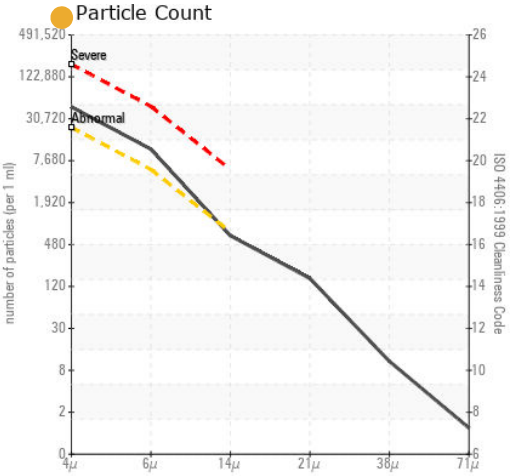
Non-ferrous Metals



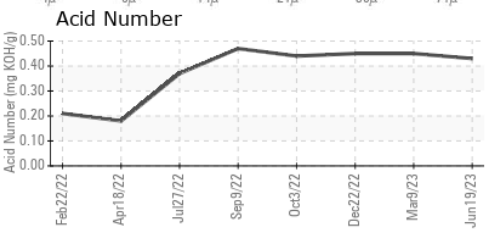
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KFS0002110
Lab Number : 05878052
Unique Number : 10523155
Test Package : IND 2 (Additional Tests: PrtCount)

Received : 20 Jun 2023
Tested : 22 Jun 2023
Diagnosed : 22 Jun 2023 - Don Baldridge

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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