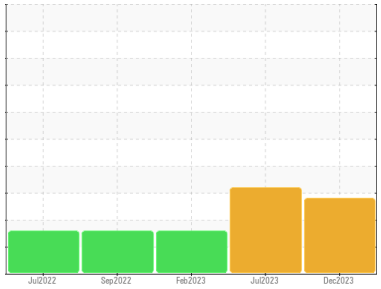
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Area
Front Load
Machine Id
FEL215598
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 32 (--- GAL)

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

Wear
The iron level is abnormal. The chromium level is abnormal.

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		**PCA0110030**	PCA0090699	PCA0083091
Sample Date		Client Info		**12 Dec 2023**	03 Jul 2023	20 Feb 2023
Machine Age	hrs	Client Info		**4865**	3828	1945
Oil Age	hrs	Client Info		**3828**	3462	1945
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	▲ **75**	▲ 70	▲ 74
Chromium	ppm	ASTM D5185m	>10	▲ **18**	▲ 14	9
Nickel	ppm	ASTM D5185m	>4	**<1**	0	<1
Titanium	ppm	ASTM D5185m		**<1**	0	<1
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>5	**2**	0	1
Lead	ppm	ASTM D5185m	>4	**<1**	0	0
Copper	ppm	ASTM D5185m	>15	**12**	10	11
Tin	ppm	ASTM D5185m	>4	**1**	<1	<1
Vanadium	ppm	ASTM D5185m		**<1**	<1	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	**<1**	0	0
Barium	ppm	ASTM D5185m	5	**7**	0	0
Molybdenum	ppm	ASTM D5185m	5	**<1**	<1	<1
Manganese	ppm	ASTM D5185m		**2**	1	1
Magnesium	ppm	ASTM D5185m	25	**47**	49	50
Calcium	ppm	ASTM D5185m	200	**47**	28	24
Phosphorus	ppm	ASTM D5185m	300	**387**	302	279
Zinc	ppm	ASTM D5185m	370	**375**	337	319
Sulfur	ppm	ASTM D5185m	2500	**1050**	972	772

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**7**	4	4
Sodium	ppm	ASTM D5185m		**11**	8	5
Potassium	ppm	ASTM D5185m	>20	**4**	2	2

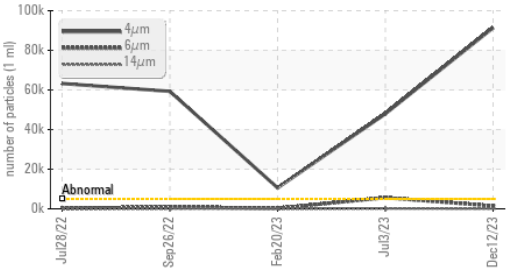
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **91381**	▲ 47958	▲ 10578
Particles >6µm		ASTM D7647	>1300	▲ **1447**	▲ 5631	252
Particles >14µm		ASTM D7647	>160	**25**	▲ 165	18
Particles >21µm		ASTM D7647	>40	**9**	28	6
Particles >38µm		ASTM D7647	>10	**0**	0	0
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **24/18/12**	▲ 23/20/15	▲ 21/15/11

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	**0.32**	0.31	0.31

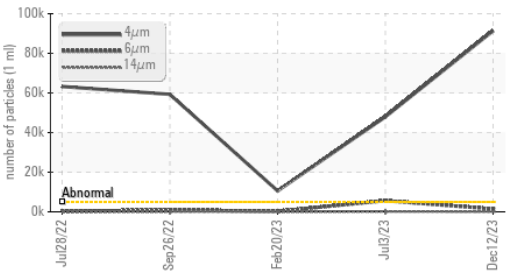
OIL DIAGNOSTICS

OIL ANALYSIS REPORT

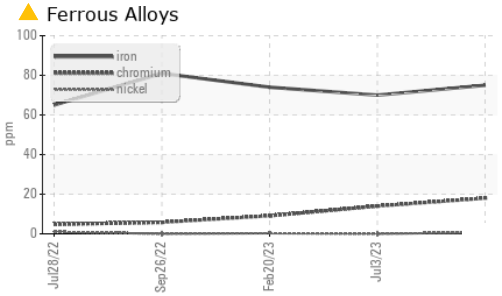
Particle Trend



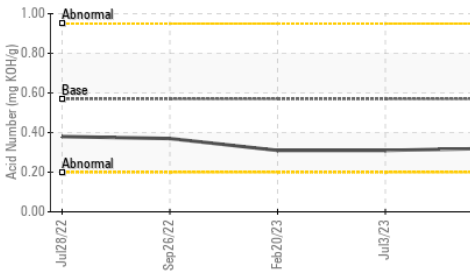
Particle Trend



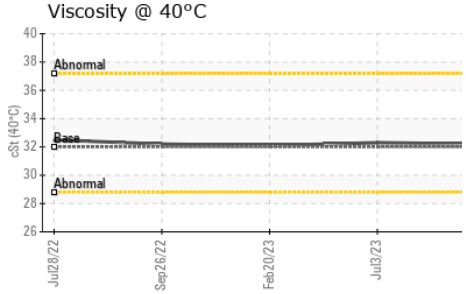
Ferrous Alloys



Acid Number



Viscosity @ 40°C



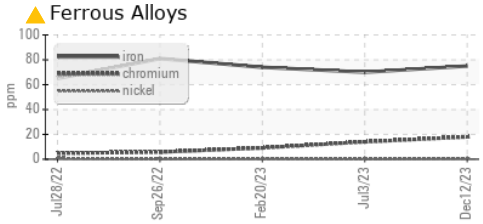
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	32	**32.2**	32.3	32.1

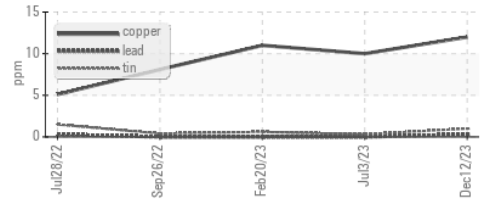
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

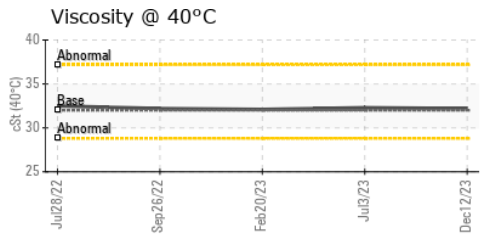
Ferrous Alloys



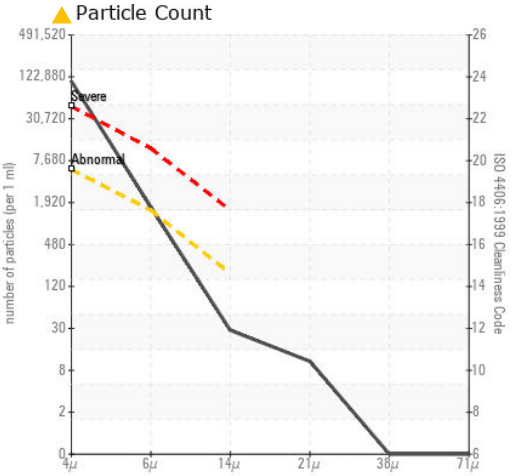
Non-ferrous Metals



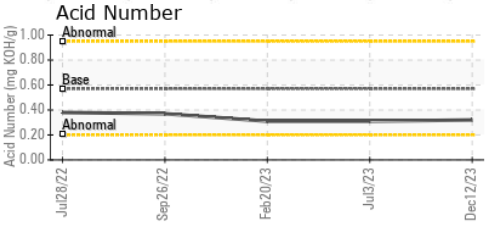
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0110030
Lab Number : 06043162
Unique Number : 10803770
Test Package : MOB 2

Recieved : 22 Dec 2023
Diagnosed : 27 Dec 2023
Diagnostician : Jonathan Hester

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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