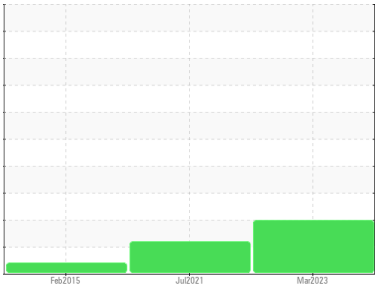
OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Machine Id
3220969
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 32 (--- GAL)

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. The filter change at the time of sampling has been noted. 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
Viscosity of sample indicates oil is within ISO 46 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		**WC0646101**	WC0591513	WCM2259302
Sample Date		Client Info		**17 Mar 2023**	06 Jul 2021	22 Feb 2015
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Not Changd**	Not Changd	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**11**	9	2
Chromium	ppm	ASTM D5185m	>10	**6**	4	1
Nickel	ppm	ASTM D5185m	>10	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	<1	0
Silver	ppm	ASTM D5185m		**0**	<1	0
Aluminum	ppm	ASTM D5185m	>10	**0**	<1	<1
Lead	ppm	ASTM D5185m	>10	**0**	0	<1
Copper	ppm	ASTM D5185m	>75	**2**	2	<1
Tin	ppm	ASTM D5185m	>10	**0**	<1	2
Antimony	ppm	ASTM D5185m		**---**	0	0
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	5	**0**	4	0
Barium	ppm	ASTM D5185m	5	**0**	0	0
Molybdenum	ppm	ASTM D5185m	5	**1**	2	<1
Manganese	ppm	ASTM D5185m		**0**	<1	0
Magnesium	ppm	ASTM D5185m	25	**18**	16	0
Calcium	ppm	ASTM D5185m	200	**106**	109	73
Phosphorus	ppm	ASTM D5185m	300	**337**	314	346
Zinc	ppm	ASTM D5185m	370	**419**	374	414
Sulfur	ppm	ASTM D5185m	2500	**2212**	1330	2113

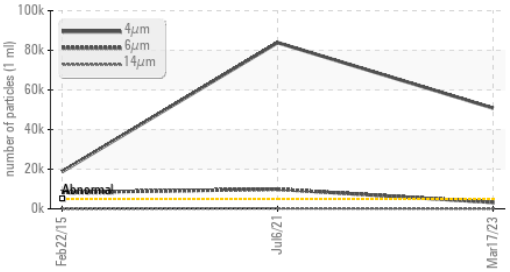
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	**1**	<1	2
Sodium	ppm	ASTM D5185m		**2**	1	<1
Potassium	ppm	ASTM D5185m	>20	**0**	0	2

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **50826**	▲ 83873	18760
Particles >6µm		ASTM D7647	>1300	▲ **3227**	▲ 9874	▲ 8281
Particles >14µm		ASTM D7647	>160	**79**	▲ 203	5
Particles >21µm		ASTM D7647	>40	**15**	31	1
Particles >38µm		ASTM D7647	>10	**0**	3	0
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **23/19/13**	▲ 24/20/15	▲ 21/20/10

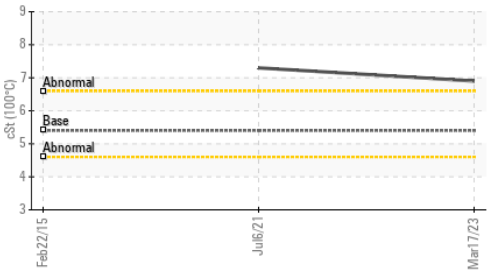
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	**0.26**	0.263	0.579

OIL ANALYSIS REPORT

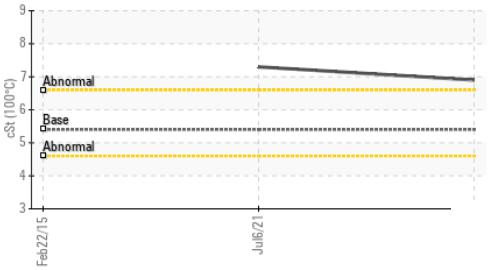
Particle Trend



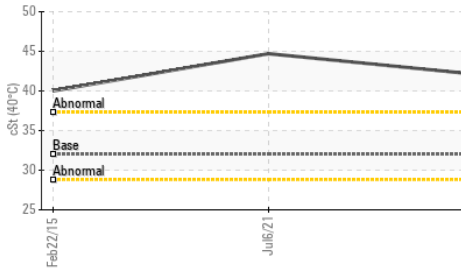
Viscosity @ 100°C



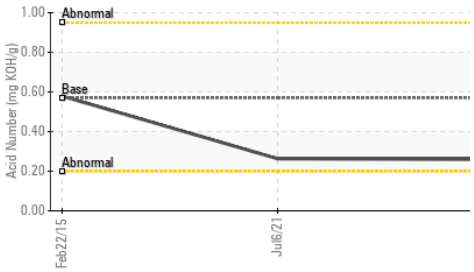
Viscosity @ 100°C



Viscosity @ 40°C

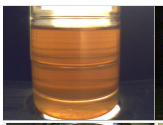
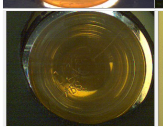


Acid Number



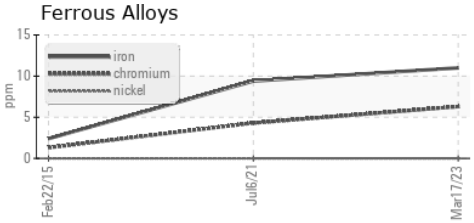
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>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	▲ **42.0**	44.7	40.01
Visc @ 100°C	cSt	ASTM D445	5.4	▲ **6.9**	7.3	---
Viscosity Index (VI)	Scale	ASTM D2270	102	**122**	125	---

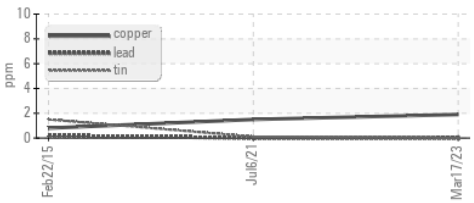
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					*no image*
Bottom					*no image*

GRAPHS

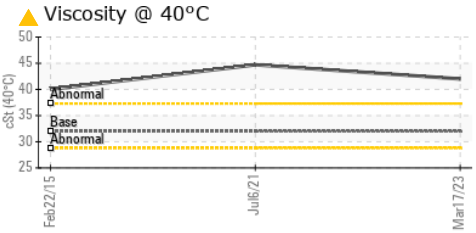
Ferrous Alloys



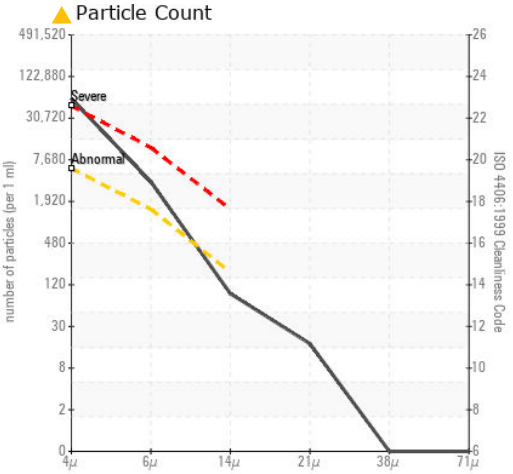
Non-ferrous Metals



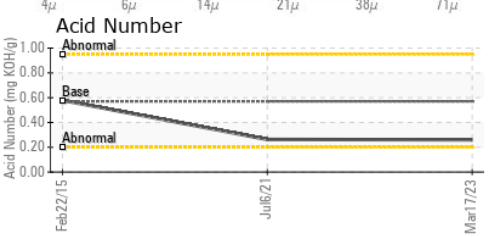
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0646101 **Received** : 14 Aug 2023
Lab Number : 05924207 **Diagnosed** : 15 Aug 2023
Unique Number : 10604154 **Diagnostician** : Don Baldridge
Test Package : MOB 2 (Additional Tests: KV100, 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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