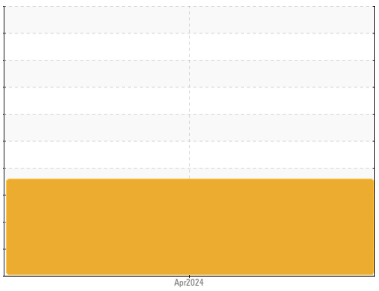
OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Area
{UNASSIGNED} [3]
Machine Id
YORK Old Main Chiller 3 (S/N SHDM-675630)
Component
Screw Compressor
Fluid
YORK TYPE C (8 GAL)

DIAGNOSIS

Recommendation
We recommend you service the filters on this component. We recommend an early resample to monitor this condition. (Customer Sample Comment: Routine maintenance)

Wear
The iron level is abnormal. All other component wear rates are normal.

Contamination
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. There is a light concentration of water present in the oil.

Fluid Condition
The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0827228**	---	---
Sample Date		Client Info		**15 Apr 2024**	---	---
Machine Age	hrs	Client Info		**40100**	---	---
Oil Age	hrs	Client Info		**40100**	---	---
Oil Changed		Client Info		**Not Changd**	---	---
Sample Status				**ABNORMAL**	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>60	▲ **94**	---	---
Chromium	ppm	ASTM D5185m	>4	**0**	---	---
Nickel	ppm	ASTM D5185m		**0**	---	---
Titanium	ppm	ASTM D5185m		**0**	---	---
Silver	ppm	ASTM D5185m		**0**	---	---
Aluminum	ppm	ASTM D5185m	>5	**0**	---	---
Lead	ppm	ASTM D5185m	>10	**<1**	---	---
Copper	ppm	ASTM D5185m	>30	**10**	---	---
Tin	ppm	ASTM D5185m	>15	**10**	---	---
Vanadium	ppm	ASTM D5185m		**0**	---	---
Cadmium	ppm	ASTM D5185m		**0**	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**0**	---	---
Barium	ppm	ASTM D5185m	0	**0**	---	---
Molybdenum	ppm	ASTM D5185m	0	**0**	---	---
Manganese	ppm	ASTM D5185m	0	**3**	---	---
Magnesium	ppm	ASTM D5185m	0	**<1**	---	---
Calcium	ppm	ASTM D5185m	0	**0**	---	---
Phosphorus	ppm	ASTM D5185m	0	**0**	---	---
Zinc	ppm	ASTM D5185m	0	**0**	---	---
Sulfur	ppm	ASTM D5185m	200	**19**	---	---

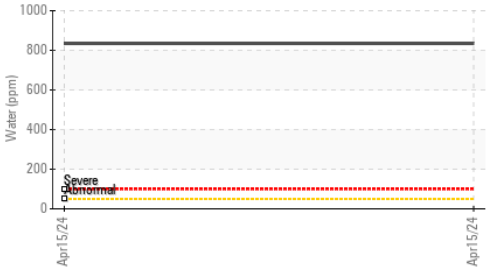
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**0**	---	---
Sodium	ppm	ASTM D5185m		**<1**	---	---
Potassium	ppm	ASTM D5185m	>20	**2**	---	---
Water	%	ASTM D6304	>0.005	▲ **0.083**	---	---
ppm Water	ppm	ASTM D6304	>50	▲ **835**	---	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	● **13316**	---	---
Particles >6µm		ASTM D7647	>2500	● **2645**	---	---
Particles >14µm		ASTM D7647	>320	**44**	---	---
Particles >21µm		ASTM D7647	>80	**6**	---	---
Particles >38µm		ASTM D7647	>20	**0**	---	---
Particles >71µm		ASTM D7647	>4	**0**	---	---
Oil Cleanliness		ISO 4406 (c)	>20/18/15	● **21/19/13**	---	---

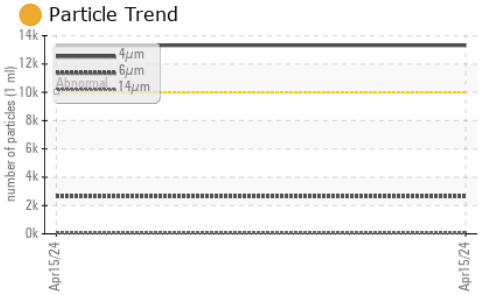
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.11	**0.084**	---	---

OIL ANALYSIS REPORT

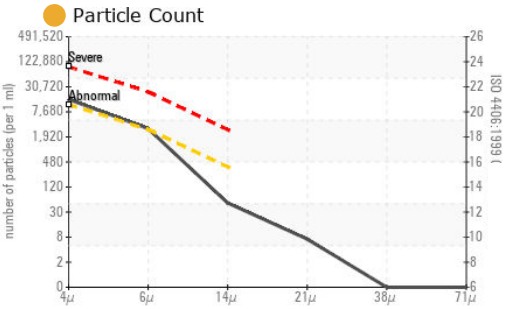
Water (KF)



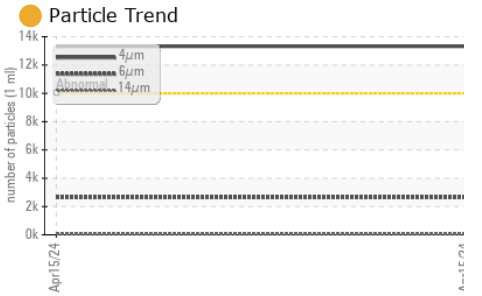
Particle Trend



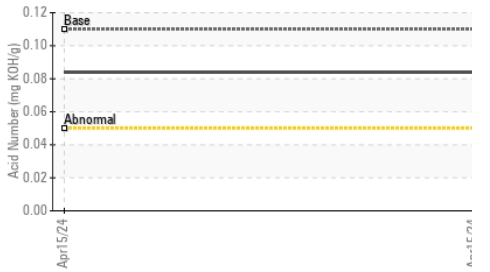
Particle Count



Particle Trend



Acid Number



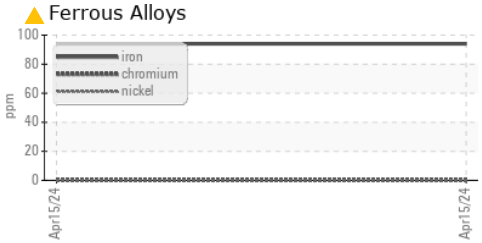
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	---	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	---	---
Precipitate	scalar	*Visual	NONE	**NONE**	---	---
Silt	scalar	*Visual	NONE	**NONE**	---	---
Debris	scalar	*Visual	NONE	**NONE**	---	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	---	---
Appearance	scalar	*Visual	NORML	**NORML**	---	---
Odor	scalar	*Visual	NORML	**NORML**	---	---
Emulsified Water	scalar	*Visual	>0.005	**NEG**	---	---
Free Water	scalar	*Visual		**NEG**	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	63.8	**63.9**	---	---

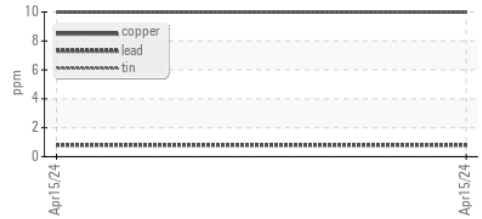
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	*no image*
Bottom				*no image*	*no image*

GRAPHS

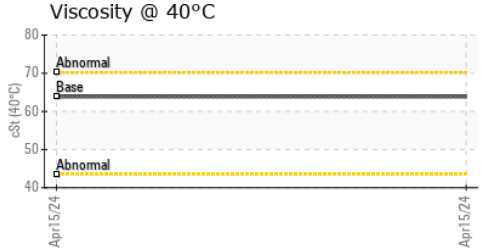
Ferrous Alloys



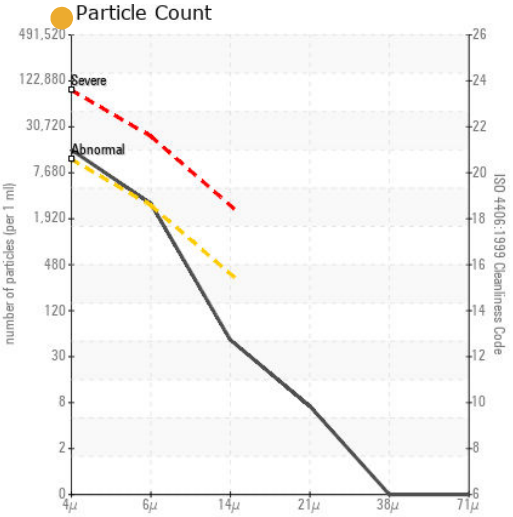
Non-ferrous Metals



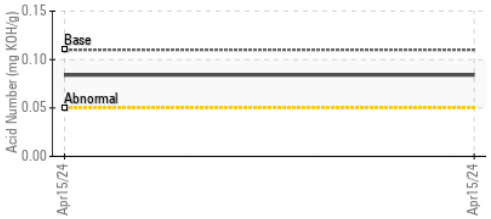
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0827228
Lab Number : 06153201
Unique Number : 10983279
Test Package : PLANT

Received : 18 Apr 2024
Tested : 19 Apr 2024
Diagnosed : 22 Apr 2024 - Angela Borella

Certificate L2367

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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