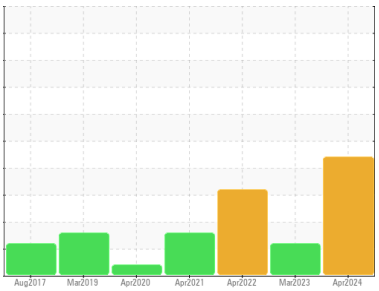
PROBLEM SUMMARY

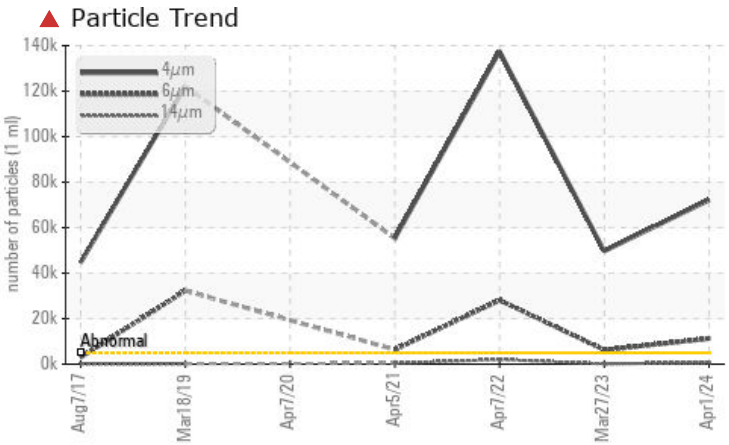
Sample Rating Trend



ISO

Machine Id
MACHINE 10 (S/N 2866)
Component
Hydraulic System
Fluid
SAFETY-KLEEN PERFORMANCE PLUS HYDRAULIC AW 46 (55 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. The oil change at the time of sampling has been noted. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	ABNORMAL
Particles >4µm		ASTM D7647	>5000	▲ **72107**	▲ 49656	▲ 137413
Particles >6µm		ASTM D7647	>1300	▲ **11235**	▲ 6234	▲ 28122
Particles >14µm		ASTM D7647	>160	▲ **669**	117	▲ 2007
Particles >21µm		ASTM D7647	>40	▲ **186**	23	▲ 527
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **23/21/17**	▲ 23/20/14	▲ 24/22/18

Customer Id: CONSAM
Sample No.: WC0910096
Lab Number: 06147297
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Check Breathers	---	---	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Dirt Access	---	---	?	We advise that you check all areas where contaminants can enter the system.

HISTORICAL DIAGNOSIS

ISO

27 Mar 2023 Diag: Don Baldridge
Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

VISUAL METAL

07 Apr 2022 Diag: Angela Borella
We recommend you service the filters on this component. Resample at the next service interval to monitor.Light concentration of visible metal present. All component wear rates are normal. There is a high amount of particulates present in the oil. The condition of the oil is acceptable for the time in service.

view report

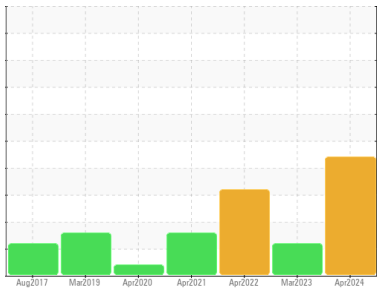
ISO

05 Apr 2021 Diag: Don Baldridge
We recommend you service the filters on this component. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Machine Id
MACHINE 10 (S/N 2866)
Component
Hydraulic System
Fluid
SAFETY-KLEEN PERFORMANCE PLUS HYDRAULIC AW 46 (55 GAL)

DIAGNOSIS

▲ Recommendation
We advise that you check all areas where contaminants can enter the system. The oil change at the time of sampling has been noted. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation.

Wear
All component wear rates are normal.

▲ Contamination
There is a high amount of particulates (2 to 100 microns in size) present in the oil.

Fluid Condition
The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0910096**	WC0800144	WC0668624
Sample Date		Client Info		**01 Apr 2024**	27 Mar 2023	07 Apr 2022
Machine Age	mths	Client Info		**0**	0	0
Oil Age	mths	Client Info		**0**	0	0
Oil Changed		Client Info		**Changed**	Changed	Filtered
Sample Status				**SEVERE**	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.05	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**4**	1	5
Chromium	ppm	ASTM D5185m	>20	**<1**	0	<1
Nickel	ppm	ASTM D5185m	>20	**1**	0	0
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m		**<1**	0	0
Aluminum	ppm	ASTM D5185m	>20	**1**	0	<1
Lead	ppm	ASTM D5185m	>20	**1**	0	<1
Copper	ppm	ASTM D5185m	>20	**5**	2	5
Tin	ppm	ASTM D5185m	>20	**1**	0	0
Antimony	ppm	ASTM D5185m		**---**	---	---
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**1**	0	0

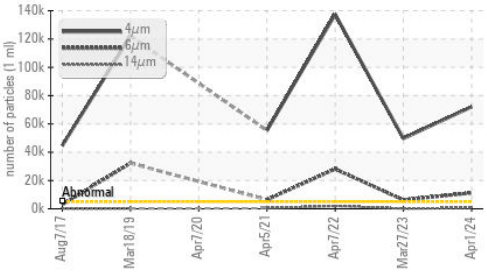
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	<1
Barium	ppm	ASTM D5185m		**<1**	0	0
Molybdenum	ppm	ASTM D5185m		**2**	1	<1
Manganese	ppm	ASTM D5185m		**<1**	<1	0
Magnesium	ppm	ASTM D5185m		**13**	22	6
Calcium	ppm	ASTM D5185m	48	**70**	69	75
Phosphorus	ppm	ASTM D5185m	340	**366**	348	394
Zinc	ppm	ASTM D5185m	430	**447**	453	512
Sulfur	ppm	ASTM D5185m		**914**	1021	879

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**2**	2	<1
Sodium	ppm	ASTM D5185m		**0**	0	0
Potassium	ppm	ASTM D5185m	>20	**<1**	0	1

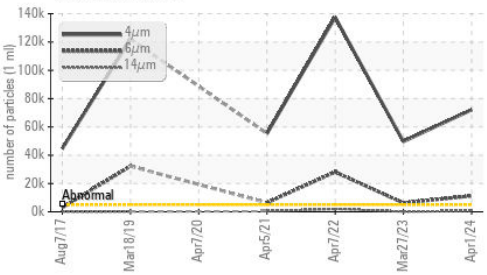
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ **72107**	▲ 49656	▲ 137413
Particles >6µm	ASTM D7647	>1300	▲ **11235**	▲ 6234	▲ 28122
Particles >14µm	ASTM D7647	>160	▲ **669**	117	▲ 2007
Particles >21µm	ASTM D7647	>40	▲ **186**	23	▲ 527
Particles >38µm	ASTM D7647	>10	**8**	0	▲ 44
Particles >71µm	ASTM D7647	>3	**0**	0	1
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ **23/21/17**	▲ 23/20/14	▲ 24/22/18

OIL ANALYSIS REPORT

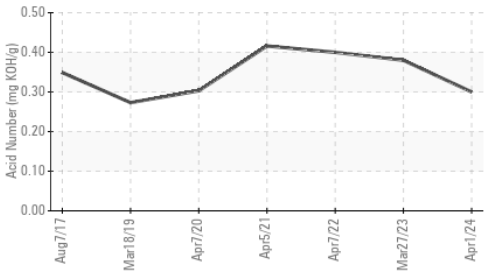
Particle Trend



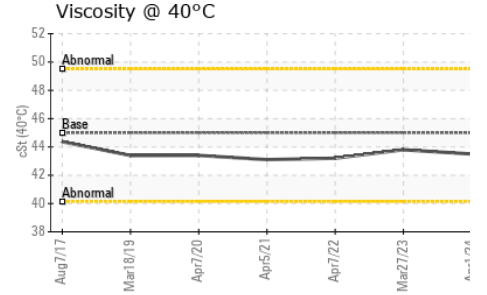
Particle Trend



Acid Number



Viscosity @ 40°C

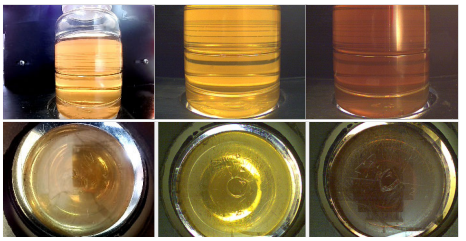


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.30**	0.38	0.40

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
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	>0.05	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

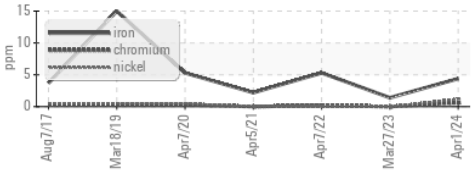
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45.0	**43.5**	43.8	43.2

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

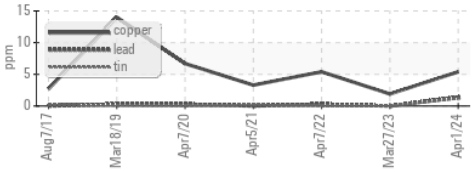


GRAPHS

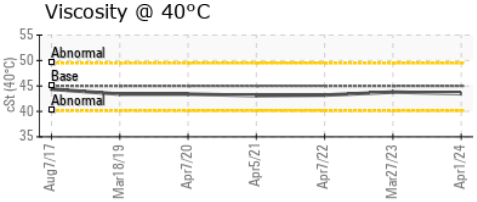
Ferrous Alloys



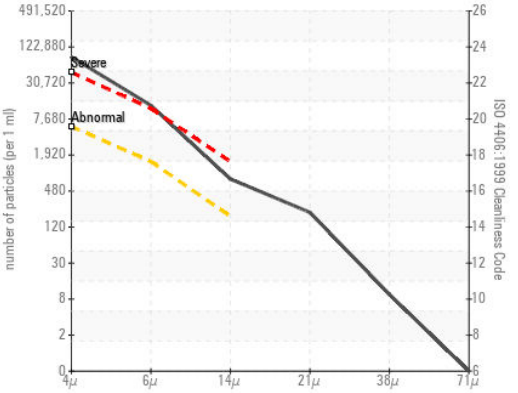
Non-ferrous Metals



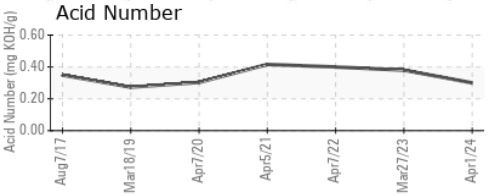
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0910096
Lab Number : 06147297
Unique Number : 10977375
Test Package : IND 2

Received : 12 Apr 2024
Tested : 15 Apr 2024
Diagnosed : 15 Apr 2024 - Wes Davis

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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