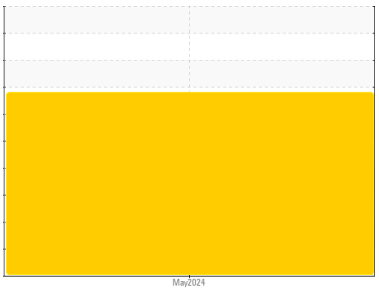
OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Machine Id
MANITOU 1
Component
Hydraulic System
Fluid
{not provided} (--- LTR)

DIAGNOSIS

Recommendation

Check seals and/or filters for points of contaminant entry. We advise that you check all areas where contaminants can enter the system. We advise that you check for visible metal particles in the oil. 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. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. Please specify the brand, type, and viscosity of the oil on your next sample. We suspect that the abnormal contaminant(s) is the result of incorrect sampling technique. DISCLAIMER: Interpretation of results is based on the sample as received from the customer. The condition of the sample and the method of sampling cannot be verified.

Wear

Light concentration of visible metal present. Bearing and/or bushing wear is indicated.

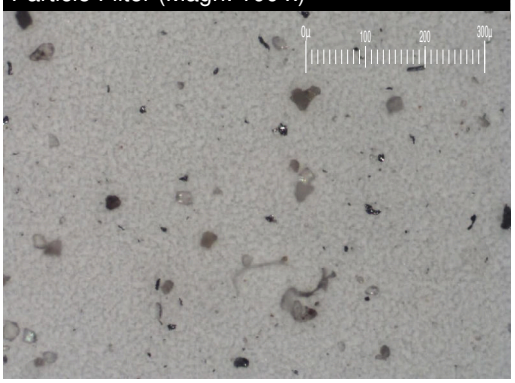
Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil. Moderate concentration of visible dirt/debris present in the oil.

Fluid Condition

Viscosity of sample indicates oil is within SAE 5W20 range, advise investigate. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Particle Filter (Magn: 100 x)



SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC0008609**	---	---
Sample Date		Client Info		**27 May 2024**	---	---
Machine Age	kms	Client Info		**2500**	---	---
Oil Age	kms	Client Info		**0**	---	---
Oil Changed		Client Info		**Not Changd**	---	---
Sample Status				**SEVERE**	---	---

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	**18**	---	---
Chromium	ppm	ASTM D5185(m)	>10	**0**	---	---
Nickel	ppm	ASTM D5185(m)	>10	**<1**	---	---
Titanium	ppm	ASTM D5185(m)		**<1**	---	---
Silver	ppm	ASTM D5185(m)		**0**	---	---
Aluminum	ppm	ASTM D5185(m)	>10	**4**	---	---
Lead	ppm	ASTM D5185(m)	>10	▲ **15**	---	---
Copper	ppm	ASTM D5185(m)	>75	**17**	---	---
Tin	ppm	ASTM D5185(m)	>10	**0**	---	---
Antimony	ppm	ASTM D5185(m)		**0**	---	---
Vanadium	ppm	ASTM D5185(m)		**0**	---	---
Beryllium	ppm	ASTM D5185(m)		**0**	---	---
Cadmium	ppm	ASTM D5185(m)		**0**	---	---

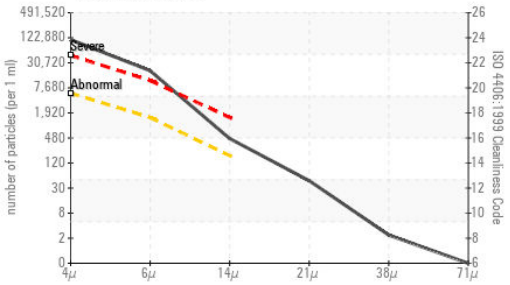
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**63**	---	---
Barium	ppm	ASTM D5185(m)		**<1**	---	---
Molybdenum	ppm	ASTM D5185(m)		**0**	---	---
Manganese	ppm	ASTM D5185(m)		**2**	---	---
Magnesium	ppm	ASTM D5185(m)		**306**	---	---
Calcium	ppm	ASTM D5185(m)		**532**	---	---
Phosphorus	ppm	ASTM D5185(m)		**510**	---	---
Zinc	ppm	ASTM D5185(m)		**607**	---	---
Sulfur	ppm	ASTM D5185(m)		**2271**	---	---
Lithium	ppm	ASTM D5185(m)		**<1**	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	**3**	---	---
Sodium	ppm	ASTM D5185(m)		**3**	---	---
Potassium	ppm	ASTM D5185(m)	>20	**1**	---	---

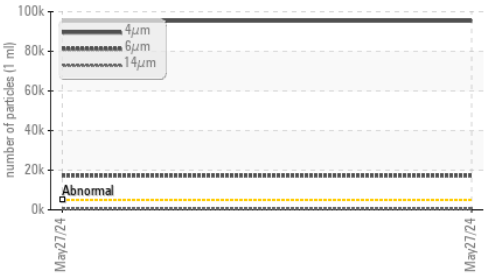
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **95331**	---	---
Particles >6µm		ASTM D7647	>1300	▲ **17227**	---	---
Particles >14µm		ASTM D7647	>160	▲ **408**	---	---
Particles >21µm		ASTM D7647	>40	**40**	---	---
Particles >38µm		ASTM D7647	>10	**2**	---	---
Particles >71µm		ASTM D7647	>3	**0**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **24/21/16**	---	---

OIL ANALYSIS REPORT

Particle Count

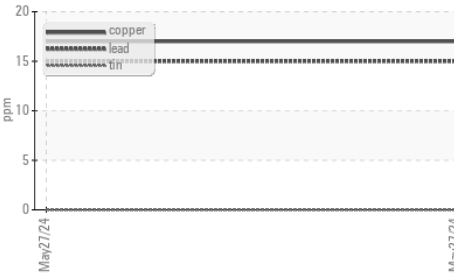


Particle Trend

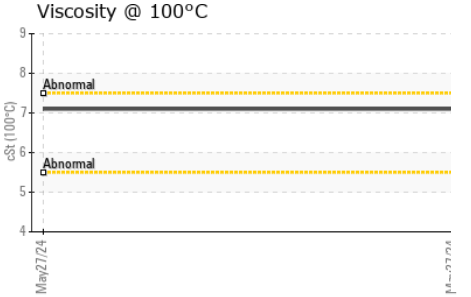


Viscosity @ 100°C

Non-ferrous Metals

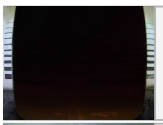


Viscosity @ 100°C



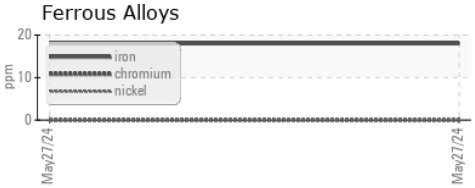
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	▲ **VLITE**	---	---
Yellow Metal	scalar	Visual*	NONE	**VLITE**	---	---
Precipitate	scalar	Visual*	NONE	**NONE**	---	---
Silt	scalar	Visual*	NONE	**NONE**	---	---
Debris	scalar	Visual*	NONE	▲ **LIGHT**	---	---
Sand/Dirt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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)		▲ **34.4**	---	---
Visc @ 100°C	cSt	ASTM D7279(m)		**7.1**	---	---
Viscosity Index (VI)	Scale	ASTM D2270*		**175**	---	---

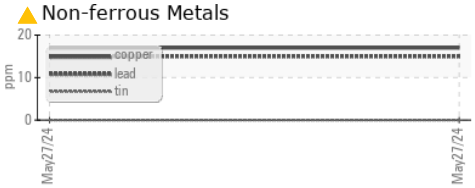
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	*no image*
Bottom				*no image*	*no image*
PrtFilter				*no image*	*no image*

GRAPHS

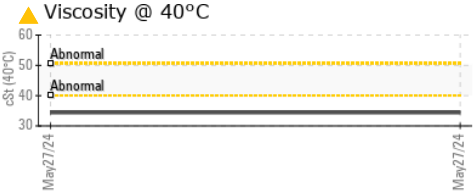
Ferrous Alloys



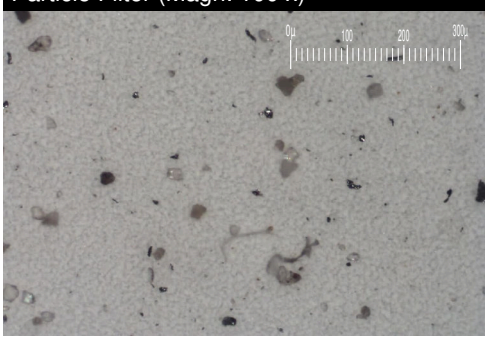
Non-ferrous Metals



Viscosity @ 40°C



Particle Filter (Magn: 100 x)



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0008609
Lab Number : 02638131
Unique Number : 5787293
Test Package : MOB 2 (Additional Tests: Bottom, BottomAnalysis, FilterPatch, KV100, PrtFilter, VI)

Received : 28 May 2024
Tested : 30 May 2024
Diagnosed : 30 May 2024 - Kevin Marson

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

DISTRIBUTION MARCEL ET FILS
2287 BOUL. ST PAUL
CHICOUTIMI, QC
CA G7K 1E5
Contact: Service Manager
jeanpaul@distributionmarceletfils.com
T: (418)543-4858
F: