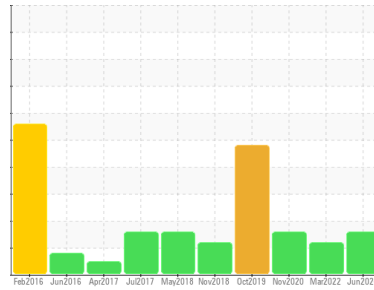




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id

VILTER COMP 1 VSS1801K

Component

Refrigeration Compressor

Fluid

VILTER 717 COMPRESSOR OIL ISO 68 (100 GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible.

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		WC0931381	WC0592166	WC0525881
Sample Date	Client Info		13 Jun 2024	01 Mar 2022	04 Nov 2020
Machine Age	hrs	Client Info	6346	49621	39850
Oil Age	hrs	Client Info	641	10000	8000
Oil Changed	Client Info		Filtered	Filtered	Not Changd
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >8	<1	1	3
Chromium	ppm	ASTM D5185(m) >2	0	0	0
Nickel	ppm	ASTM D5185(m)	0	0	0
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m) >2	0	0	<1
Aluminum	ppm	ASTM D5185(m) >3	<1	0	0
Lead	ppm	ASTM D5185(m) >2	0	0	0
Copper	ppm	ASTM D5185(m) >8	<1	<1	<1
Tin	ppm	ASTM D5185(m) >4	0	0	0
Antimony	ppm	ASTM D5185(m)	<1	<1	0
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	<1	<1
Barium	ppm	ASTM D5185(m) 0	0	0	<1
Molybdenum	ppm	ASTM D5185(m) 0	0	0	0
Manganese	ppm	ASTM D5185(m)	0	0	0
Magnesium	ppm	ASTM D5185(m) 0	0	0	0
Calcium	ppm	ASTM D5185(m) 0	<1	<1	<1
Phosphorus	ppm	ASTM D5185(m) 0	<1	0	0
Zinc	ppm	ASTM D5185(m) 0	<1	2	1
Sulfur	ppm	ASTM D5185(m)	7	6	12
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	2	1	2
Sodium	ppm	ASTM D5185(m)	0	0	<1
Potassium	ppm	ASTM D5185(m) >20	0	<1	0
Water	%	ASTM D6304* >0.01	0.00	0.001	0.00
ppm Water	ppm	ASTM D6304* >100	0	10.7	0.00

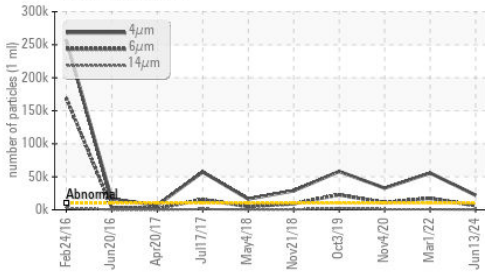
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	▲ 22040	▲ 55758	▲ 32864
Particles >6µm	ASTM D7647	>2500	▲ 6296	▲ 17471	▲ 10737
Particles >14µm	ASTM D7647	>320	● 371	▲ 805	▲ 773
Particles >21µm	ASTM D7647	>80	88	97	● 139
Particles >38µm	ASTM D7647	>20	7	2	4
Particles >71µm	ASTM D7647	>4	1	0	0
Oil Cleanliness	ISO 4406 (c)	>20/18/15	▲ 22/20/16	▲ 23/21/17	▲ 22/21/17

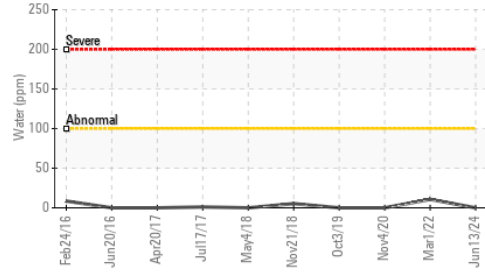


OIL ANALYSIS REPORT

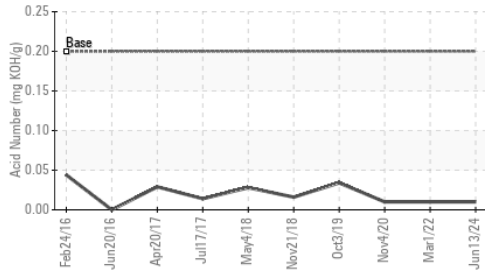
Particle Trend



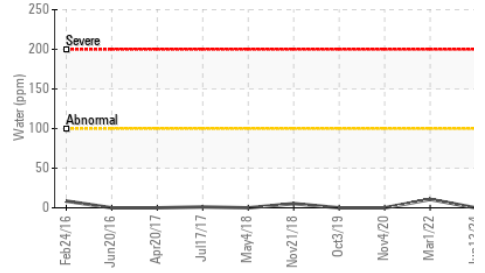
Water (KF)



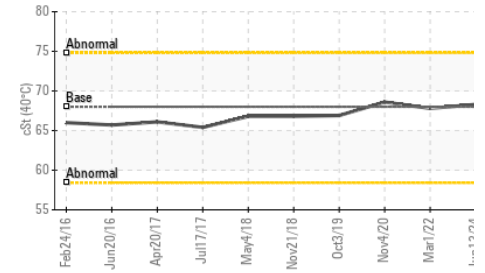
Acid Number



Water (KF)



Viscosity @ 40°C



FLUID DEGRADATION

method	limit/base	current	history1	history2		
Acid Number (AN)	mg KOH/g	ASTM D974*	0.2	0.01	0.01	0.01

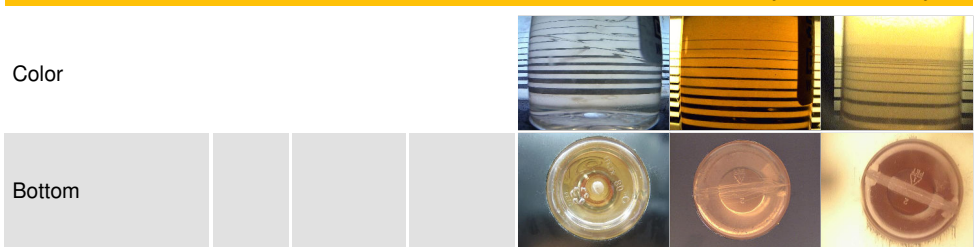
VISUAL

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	VLITE	VLITE	VLITE
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*	>0.01	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES

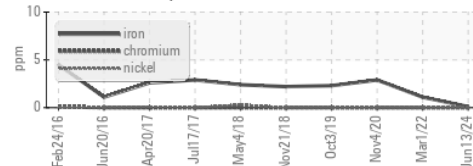
method	limit/base	current	history1	history2		
Visc @ 40°C	cSt	ASTM D7279(m)	68	68.3	67.8	68.6

SAMPLE IMAGES

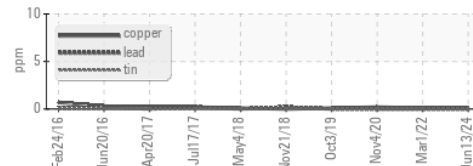


GRAPHS

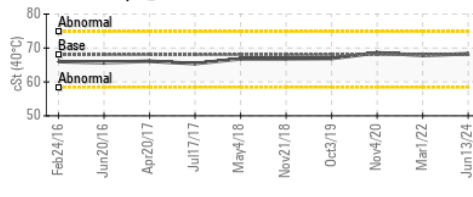
Ferrous Alloys



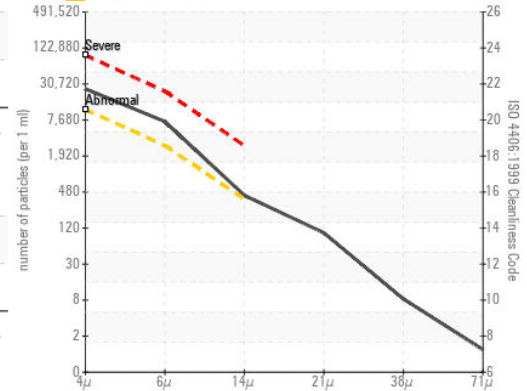
Non-ferrous Metals



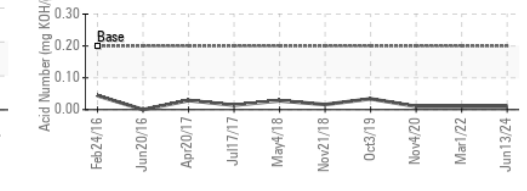
Viscosity @ 40°C



Particle Count



Acid Number



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Sample No. : WC0931381

Lab Number : 02642601

Unique Number : 5800140

Test Package : IND 2 (Additional Tests: TAN Man)

Received : 18 Jun 2024

Tested : 19 Jun 2024

Diagnosed : 19 Jun 2024 - Wes Davis

CONESTOGA COLD STORAGE

299 TRILLIUM DR.

KITCHENER, ON

CA N2E 1W9

Contact: Geoff Ditner

gditner@coldstorage.com

T: (519)748-5892

F: (519)748-5208

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.