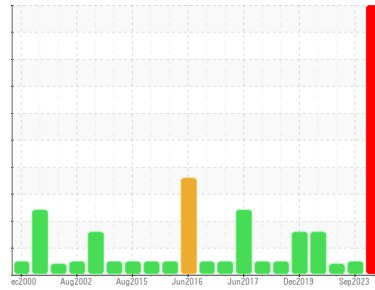




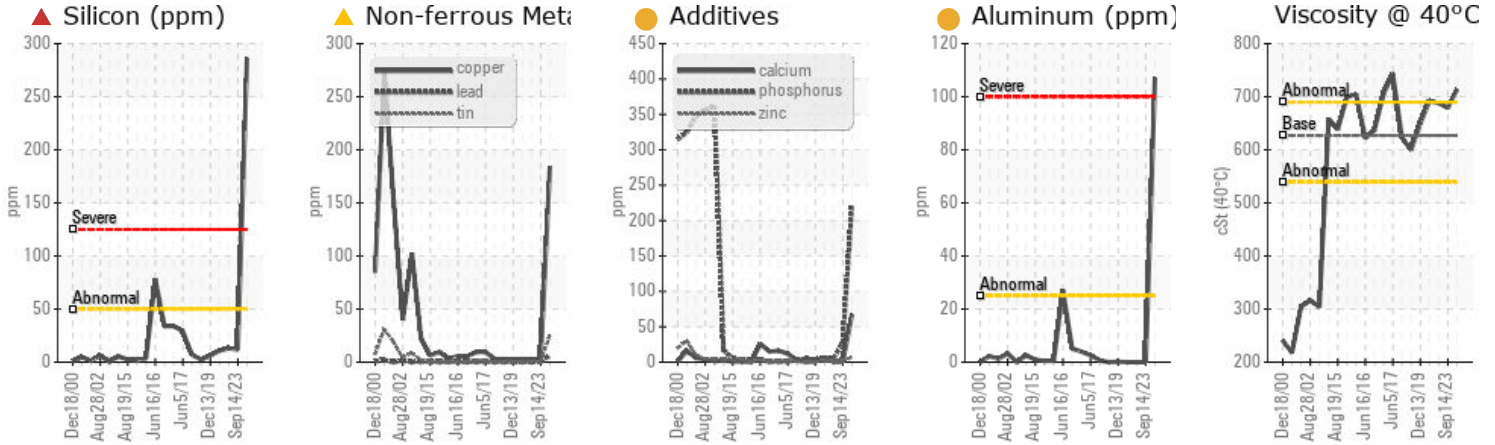
PROBLEM SUMMARY

Area
11
 Machine Id
11-0040-010-050 SANDER#2 GEARBOX#5
 Component
11 Gearbox
 Fluid
ESSO CYLESSTIC TK 680 (1 LTR)

Sample Rating Trend



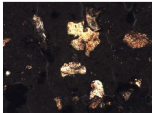
COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We advise that you check for visible metal particles in the oil. We recommend that you drain the oil from the component if this has not already been done. 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. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	ABNORMAL
Copper	ppm	ASTM D5185(m)	>200	▲ 184	3	2
Tin	ppm	ASTM D5185(m)	>25	▲ 25	<1	<1
Silicon	ppm	ASTM D5185(m)	>50	▲ 286	12	13
Yellow Metal	scalar	Visual*	NONE	▲ LIGHT	NONE	NONE
PrtFilter					no image	no image

Customer Id: MACPEM
 Sample No.: WC0857971
 Lab Number: 02630010
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

To change component or sample information:
 Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.
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 dirt can enter the system.
Check Fluid Source	---	---	?	Confirm the source of the lubricant being utilized for top-up/fill.
Check For Visual Metal	---	---	?	We advise that you check for visible metal particles in the oil.

HISTORICAL DIAGNOSIS

NORMAL



14 Sep 2023 Diag: Bill Quesnel

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



VISCOSITY



15 Jun 2023 Diag: Kevin Marson

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within ISO 680 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



DEGRADATION



11 Jan 2023 Diag: Kevin Marson

We recommend that you drain the oil from the component if this has not already been done. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The AN level is above the recommended limit. The oil viscosity is higher than normal. Viscosity of sample indicates oil is within ISO 680 range, advise investigate. The oil is no longer serviceable.

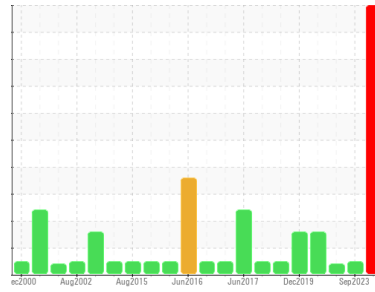
[view report](#)





OIL ANALYSIS REPORT

Sample Rating Trend



Area

11

Machine Id

11-0040-010-050 SANDER#2 GEARBOX#5

Component

11 Gearbox

Fluid

ESSO CYLESSTIC TK 680 (1 LTR)

DIAGNOSIS

Recommendation

We advise that you check all areas where dirt can enter the system. We advise that you check for visible metal particles in the oil. We recommend that you drain the oil from the component if this has not already been done. 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. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

Wear

Tin and copper ppm levels are abnormal. Aluminum ppm levels are noted. Light concentration of visible metal present. Bearing and/or bushing wear is indicated.

Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. High amount of ingressed dirt has caused abrasive wear to the component.

Fluid Condition

The oil viscosity is higher than typical. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0857971	WC0820658	WC0820643
Sample Date	Client Info		13 Mar 2024	14 Sep 2023	15 Jun 2023
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			SEVERE	NORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		96	0	0
Iron	ppm	ASTM D5185(m) >200	139	10	6
Chromium	ppm	ASTM D5185(m) >15	<1	0	0
Nickel	ppm	ASTM D5185(m) >15	2	0	<1
Titanium	ppm	ASTM D5185(m)	1	0	0
Silver	ppm	ASTM D5185(m)	0	0	0
Aluminum	ppm	ASTM D5185(m) >25	107	0	0
Lead	ppm	ASTM D5185(m) >100	7	<1	0
Copper	ppm	ASTM D5185(m) >200	184	3	2
Tin	ppm	ASTM D5185(m) >25	25	<1	<1
Antimony	ppm	ASTM D5185(m) >5	0	0	<1
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)	<1	<1	2
Barium	ppm	ASTM D5185(m)	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0
Manganese	ppm	ASTM D5185(m)	<1	0	0
Magnesium	ppm	ASTM D5185(m)	18	0	0
Calcium	ppm	ASTM D5185(m)	67	<1	<1
Phosphorus	ppm	ASTM D5185(m)	221	27	6
Zinc	ppm	ASTM D5185(m)	7	1	1
Sulfur	ppm	ASTM D5185(m)	3658	2360	2653
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

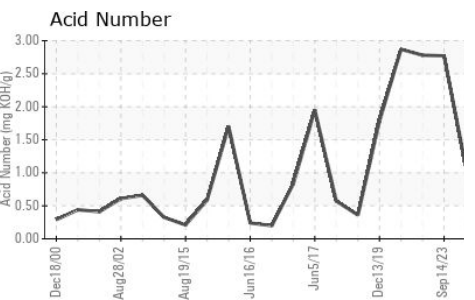
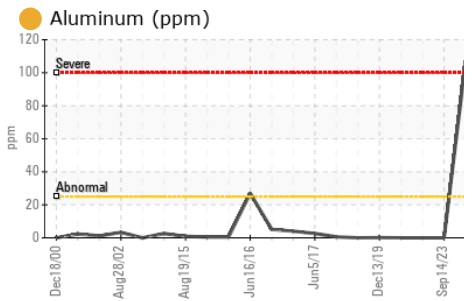
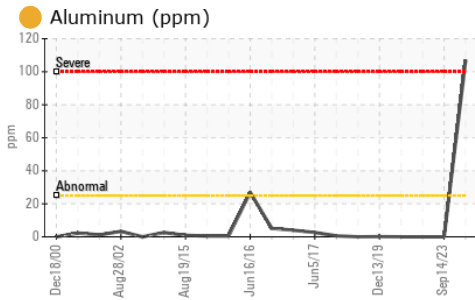
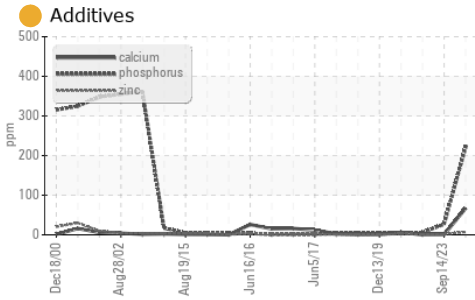
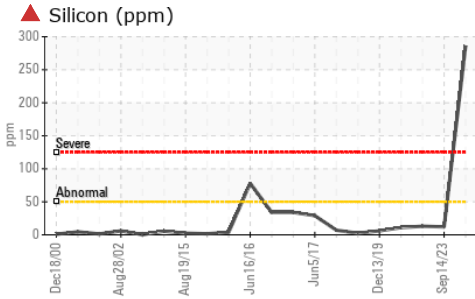
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >50	286	12	13
Sodium	ppm	ASTM D5185(m)	44	<1	0
Potassium	ppm	ASTM D5185(m) >20	2	0	<1

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	1.11	2.77	2.78



OIL ANALYSIS REPORT



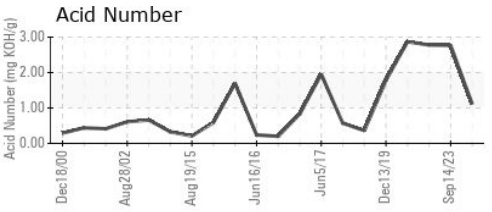
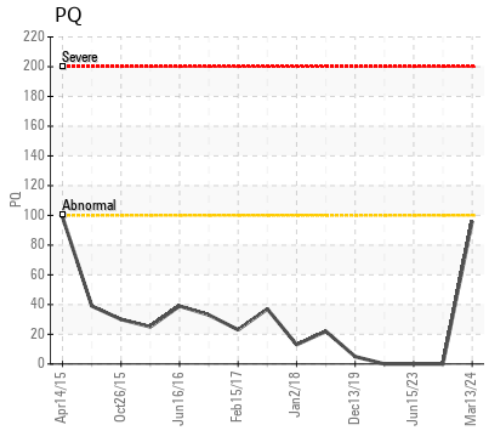
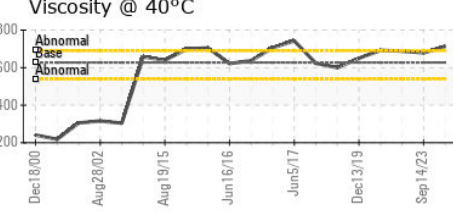
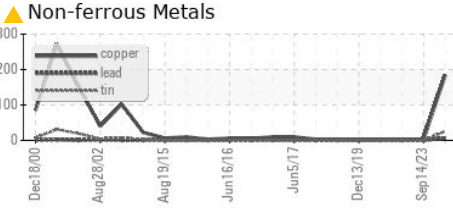
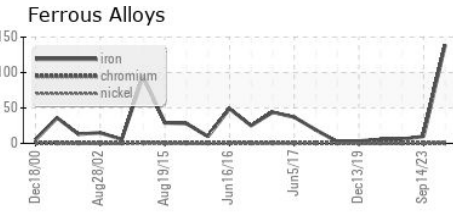
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	VLITE	NONE
Yellow Metal	scalar	Visual*	NONE	▲ LIGHT	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	LIGHT	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	627	714	679 ▲ 688

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0857971
Lab Number : 02630010
Unique Number : 5763142
Test Package : IND 2 (Additional Tests: BottomAnalysis, FILTERPATCH, TAN Man)

Roseburg Pembroke MDF Inc.
 777 Fibreboard Drive
 Pembroke, ON
 CA K8A 6W5
 Contact: Dan Havis
 danielh@rfpco.com
 T: (613)732-3939
 F: (613)732-2869

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.