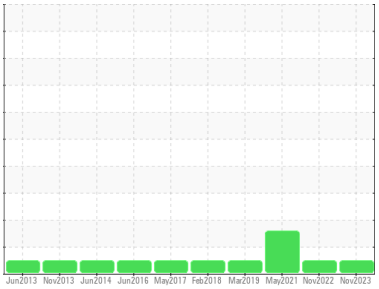
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
ATI 330311 P26
Component
Front Diesel Engine
Fluid
SAFETY-KLEEN ECOPOWER 15W40 CJ-4 (25 LTR)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
Metal levels are typical for a new component breaking in.

Contamination
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Fluid Condition
The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC0078200**	PC0054321	PC0028982
Sample Date		Client Info		**06 Nov 2023**	03 Nov 2022	16 May 2021
Machine Age	kms	Client Info		**10613**	8436	0
Oil Age	kms	Client Info		**2000**	4000	0
Oil Changed		Client Info		**Not Changd**	Changed	N/A
Sample Status				**NORMAL**	NORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	**<1.0**	<1.0	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	0.0	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>75	**13**	28	25
Chromium	ppm	ASTM D5185(m)	>5	**<1**	<1	2
Nickel	ppm	ASTM D5185(m)	>4	**<1**	0	<1
Titanium	ppm	ASTM D5185(m)	>2	**0**	<1	0
Silver	ppm	ASTM D5185(m)	>2	**1**	1	<1
Aluminum	ppm	ASTM D5185(m)	>15	**2**	5	1
Lead	ppm	ASTM D5185(m)	>25	**<1**	<1	2
Copper	ppm	ASTM D5185(m)	>100	**3**	6	3
Tin	ppm	ASTM D5185(m)	>4	**0**	<1	<1
Antimony	ppm	ASTM D5185(m)		**0**	0	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	**4**	15	2
Barium	ppm	ASTM D5185(m)	0	**<1**	0	0
Molybdenum	ppm	ASTM D5185(m)	50	**57**	53	58
Manganese	ppm	ASTM D5185(m)		**0**	1	<1
Magnesium	ppm	ASTM D5185(m)	825	**931**	848	992
Calcium	ppm	ASTM D5185(m)	925	**1042**	1179	1056
Phosphorus	ppm	ASTM D5185(m)	850	**1000**	1090	1017
Zinc	ppm	ASTM D5185(m)	1000	**1160**	1192	1267
Sulfur	ppm	ASTM D5185(m)	2250	**2511**	2654	2756
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**4**	10	▲ 33
Sodium	ppm	ASTM D5185(m)		**2**	2	2
Potassium	ppm	ASTM D5185(m)	>20	**10**	23	<1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	**0.2**	0.2	0.5
Nitration	Abs/cm	ASTM D7624*	>20	**6.7**	8.9	6.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	**19.2**	20.9	19.4

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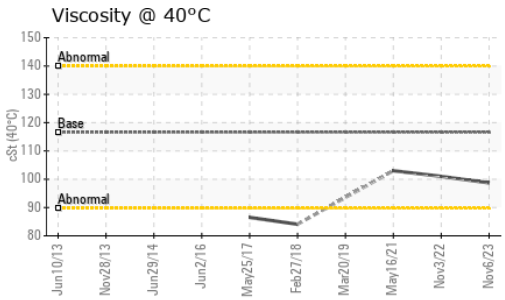
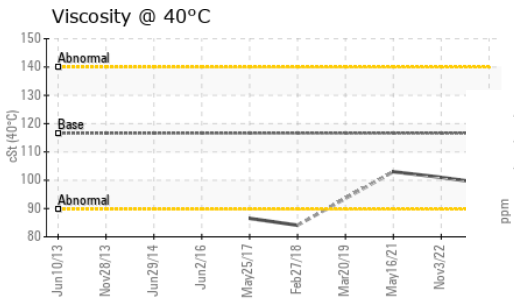


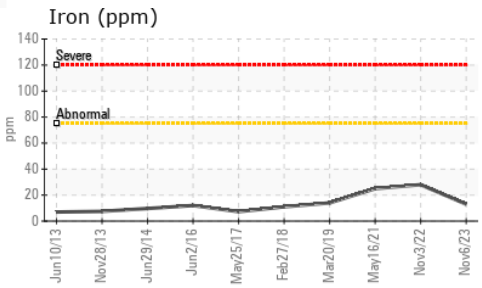


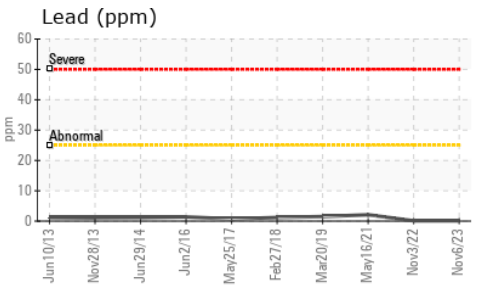
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**15.1**	16.3	14.1

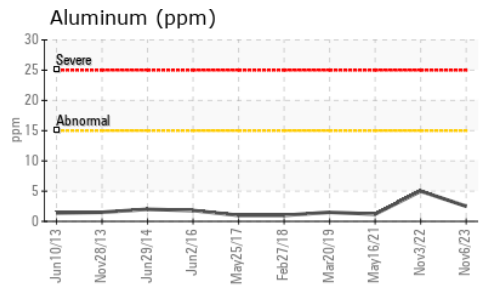
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

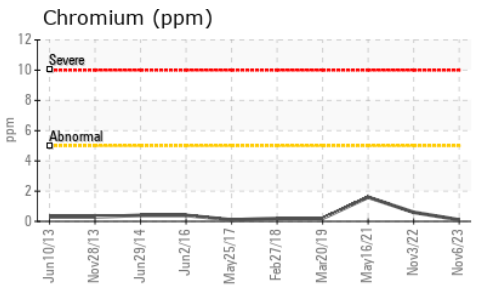
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	116.6	**98.7**	101	103
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	**13.6**	13.8	14.1
Viscosity Index (VI)	Scale	ASTM D2270*	141	**138**	137	139

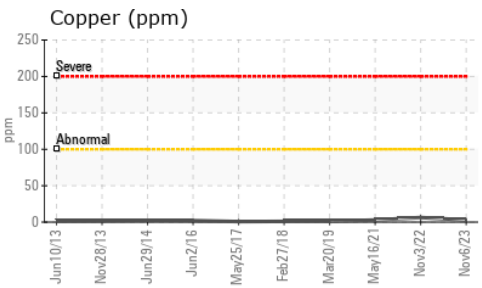
GRAPHS

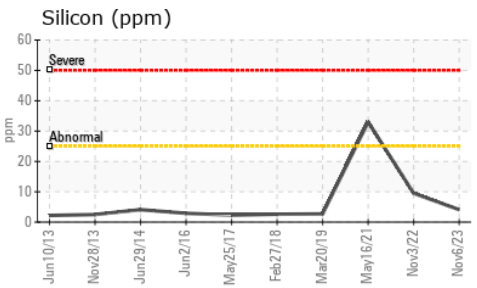


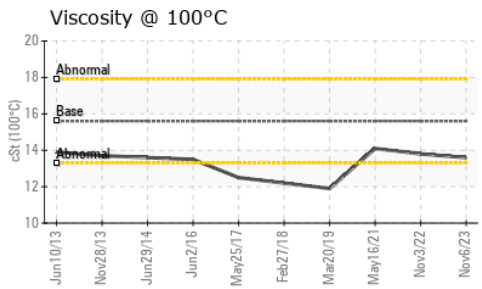


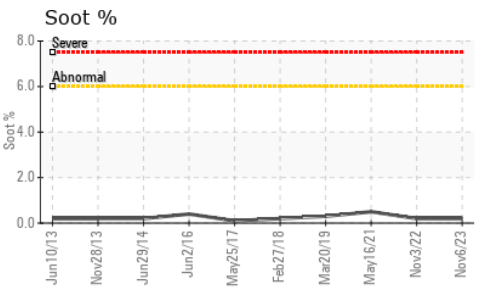












ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0078200 **Received** : 20 Nov 2023
Lab Number : 02597433 **Diagnosed** : 20 Nov 2023
Unique Number : 5682513 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: KV40, VI)

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.

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