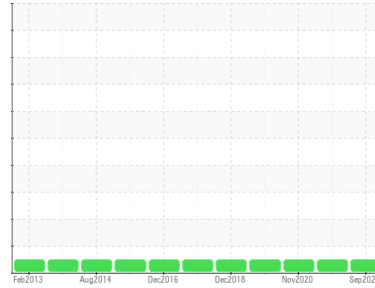


Machine Id
PIERCE 310728

Component
Front Diesel Engine

Fluid
SAFETY-KLEEN ECOPOWER 15W40 CJ-4 (18 LTR)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

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			PC0078194	PC0050492	PC0029071
Sample Date	Client Info			20 Sep 2023	06 Dec 2021	27 Nov 2020
Machine Age	kms	Client Info		58493	46480	42616
Oil Age	kms	Client Info		0	0	0
Oil Changed	Client Info			Changed	Changed	Not Changed
Sample Status				NORMAL	NORMAL	NORMAL

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>90	27	19	8
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	0	<1	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>20	1	2	2
Lead	ppm	ASTM D5185(m)	>40	10	2	1
Copper	ppm	ASTM D5185(m)	>330	119	4	2
Tin	ppm	ASTM D5185(m)	>15	0	<1	0
Antimony	ppm	ASTM D5185(m)		0	<1	<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

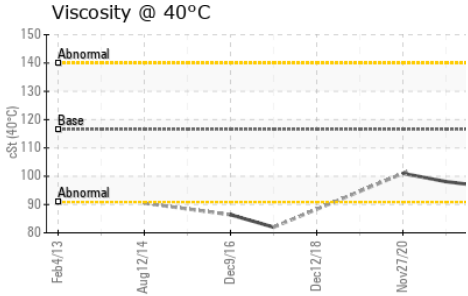
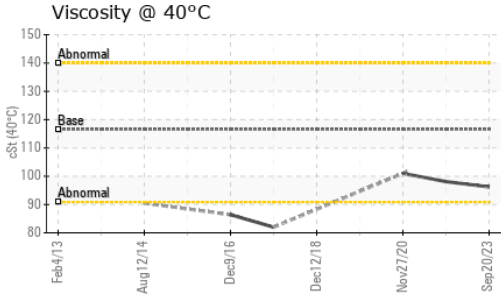
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	2	1	1
Barium	ppm	ASTM D5185(m)	0	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	50	60	59	56
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)	825	969	1031	964
Calcium	ppm	ASTM D5185(m)	925	1035	1047	1022
Phosphorus	ppm	ASTM D5185(m)	850	990	1049	989
Zinc	ppm	ASTM D5185(m)	1000	1191	1237	1227
Sulfur	ppm	ASTM D5185(m)	2250	2415	2607	2712
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	3	3	4
Sodium	ppm	ASTM D5185(m)		3	1	1
Potassium	ppm	ASTM D5185(m)	>20	0	<1	<1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	0.8	0.5	0.2
Nitration	Abs/cm	ASTM D7624*	>20	7.3	6.9	5.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.8	20.6	18.2

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.8	14.4	13.5

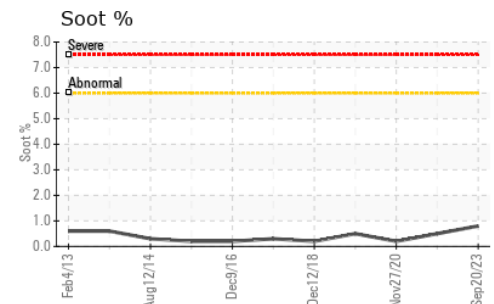
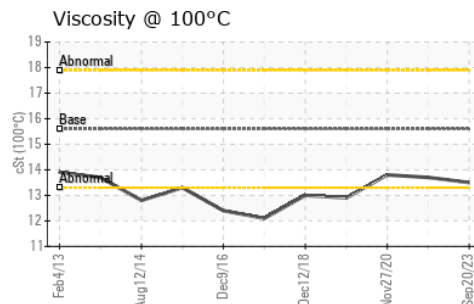
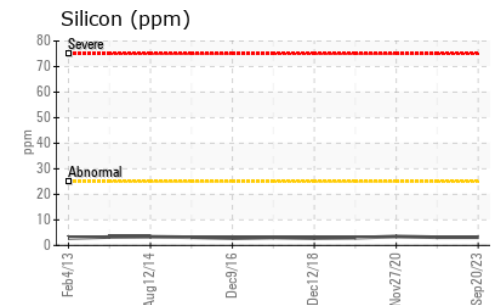
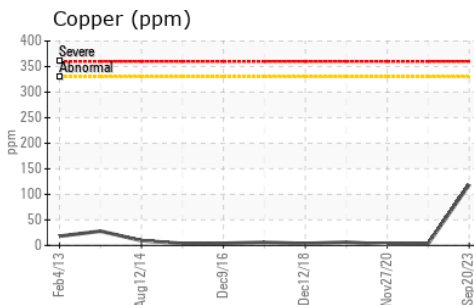
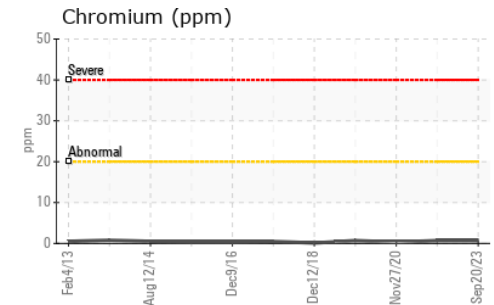
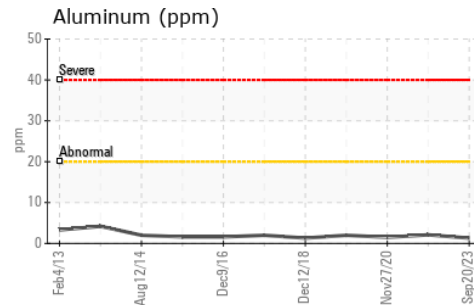
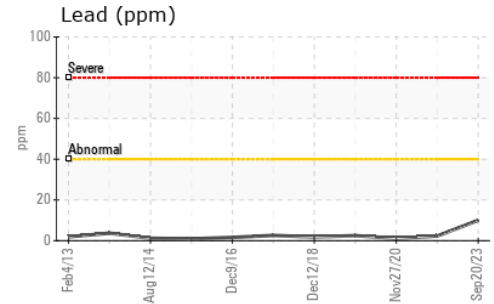
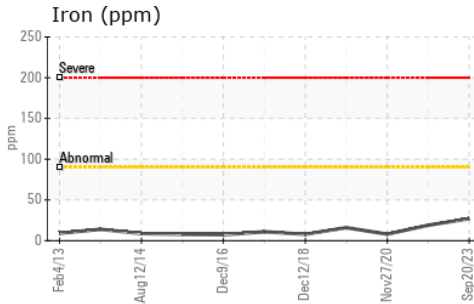
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
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)	116.6	96.2	98.1
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	13.5	13.7
Viscosity Index (VI)	Scale	ASTM D2270*	141	140	137

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0078194
Lab Number : 02587475
Unique Number : 5656541
Test Package : MOB 1 (Additional Tests: KV40, VI)

HAMILTON FIRE DEPT
 MECHANICAL DIV., 177 BAY STREET NORTH
 HAMILTON, ON
 CA L8R 2P8
 Contact: Jenny-Lynn Pellegrino
 jenny-lynn.pellegrino@hamilton.ca
 T: (905)546-2424
 F: (905)961-9116

*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.*