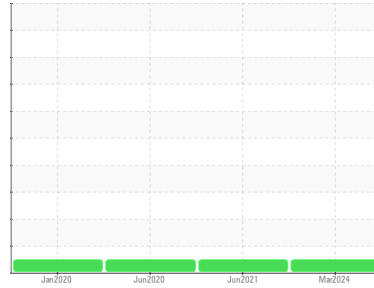


OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id

ST250

Component

Diesel Engine

Fluid

PETRO CANADA DURON UHP 5W40 (--- GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Wear

An increase in the chromium level is noted. All other component wear rates are normal.

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		PC0082693	PC0047889	PC0026252
Sample Date	Client Info		22 Mar 2024	01 Jun 2021	30 Jun 2020
Machine Age	hrs	Client Info	3677	2640	2165
Oil Age	hrs	Client Info	0	2165	0
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >100	28	9	6
Chromium	ppm	ASTM D5185(m) >20	17	<1	<1
Nickel	ppm	ASTM D5185(m) >4	0	<1	0
Titanium	ppm	ASTM D5185(m)	<1	0	0
Silver	ppm	ASTM D5185(m) >3	0	<1	0
Aluminum	ppm	ASTM D5185(m) >20	8	2	2
Lead	ppm	ASTM D5185(m) >40	0	0	0
Copper	ppm	ASTM D5185(m) >330	4	<1	<1
Tin	ppm	ASTM D5185(m) >15	1	<1	<1
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) 65	46	43	61
Barium	ppm	ASTM D5185(m) 0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 65	69	58	61
Manganese	ppm	ASTM D5185(m) 0	0	<1	<1
Magnesium	ppm	ASTM D5185(m) 1160	1386	1104	1202
Calcium	ppm	ASTM D5185(m) 820	1042	878	876
Phosphorus	ppm	ASTM D5185(m) 1160	1124	1023	1128
Zinc	ppm	ASTM D5185(m) 1260	1439	1284	1316
Sulfur	ppm	ASTM D5185(m) 3000	2787	2897	3044
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

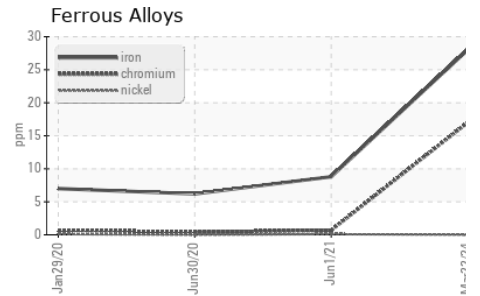
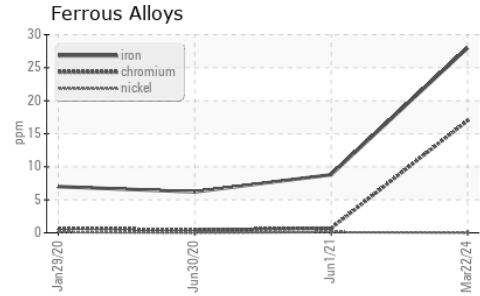
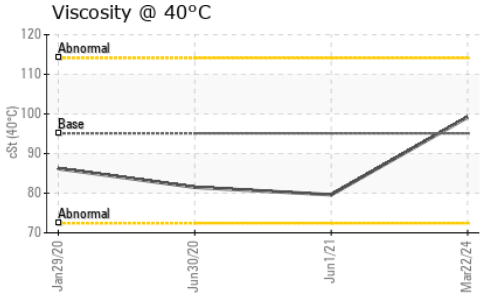
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	13	4	5
Sodium	ppm	ASTM D5185(m)	5	4	<1
Potassium	ppm	ASTM D5185(m) >20	1	<1	1

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	0.4	0.1	0
Nitration	Abs/cm	ASTM D7624* >20	13.7	9.6	8.7
Sulfation	Abs./1mm	ASTM D7415* >30	23.4	20.4	23.9

OIL ANALYSIS REPORT

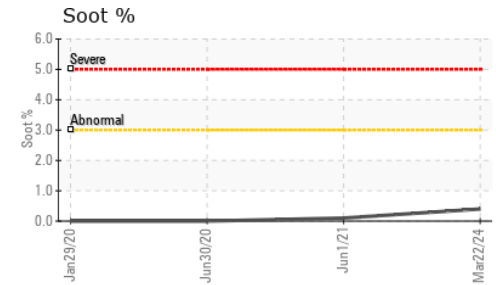
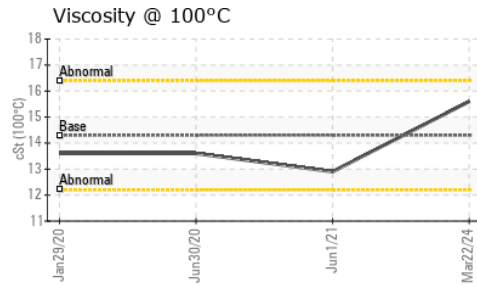
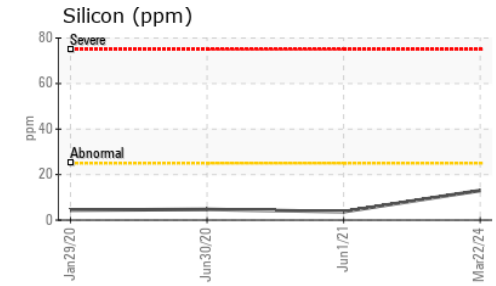
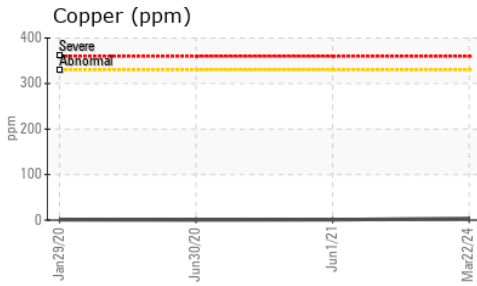
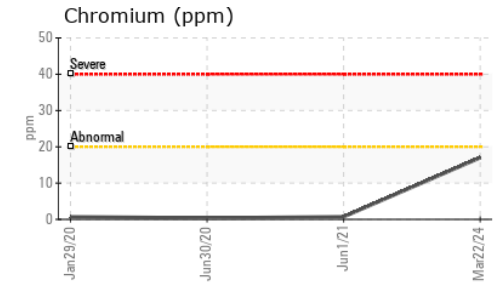
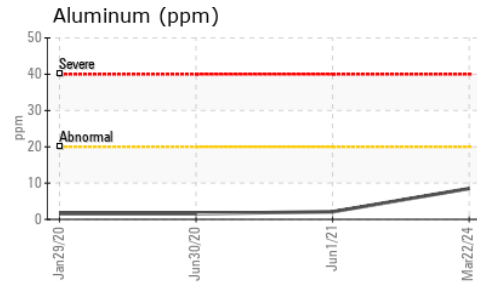
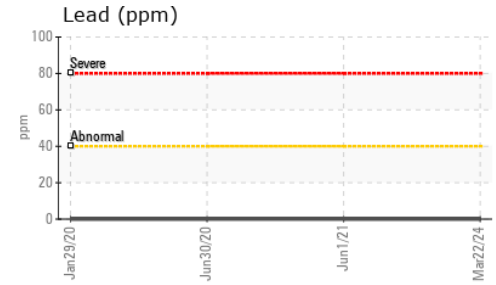
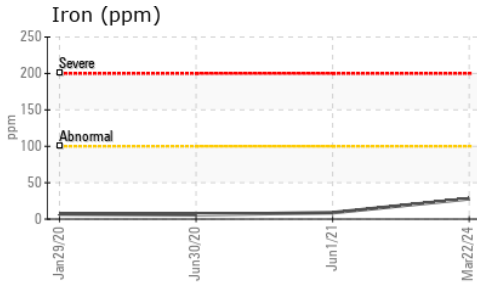


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	24.9	19.2	17.2

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)	95.1	99.2	79.6	81.5
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	15.6	12.9	13.6
Viscosity Index (VI)	Scale	ASTM D2270*	169	167	162	170

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0082693
Lab Number : **02624908**
Unique Number : 5750027
Test Package : MOB 1 (Additional Tests: KV40, VI)

Green Infrastructure and Partners Inc (GPI) - 286 - Shoring & Foundations
 151 Ram Forest Rd,
 Stouffville, ON
 CA L4A 2G8
 Contact: Shannon Abbott
 sabbott@gipi.com
 T: (905)750-5900
 F:

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.