



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
11171
Component
Front Diesel Engine
Fluid

CASTROL HYPURON ADVANCED FORMULA (40 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0071323	PC0061050	PC0061055
Sample Date		Client Info		05 Mar 2024	28 Sep 2022	20 Jul 2022
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	18	50	8
Chromium	ppm	ASTM D5185(m)	>20	<1	1	0
Nickel	ppm	ASTM D5185(m)	>5	<1	4	<1
Titanium	ppm	ASTM D5185(m)	>2	0	<1	<1
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	2	4	<1
Lead	ppm	ASTM D5185(m)	>40	1	2	<1
Copper	ppm	ASTM D5185(m)	>330	<1	1	<1
Tin	ppm	ASTM D5185(m)	>15	<1	2	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

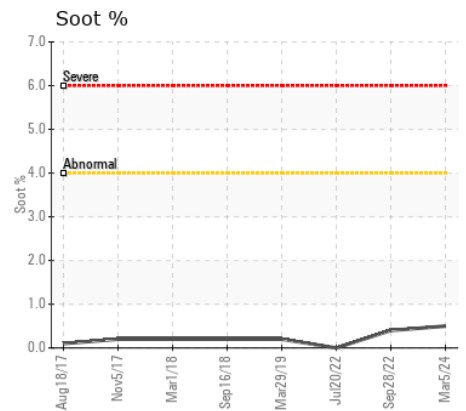
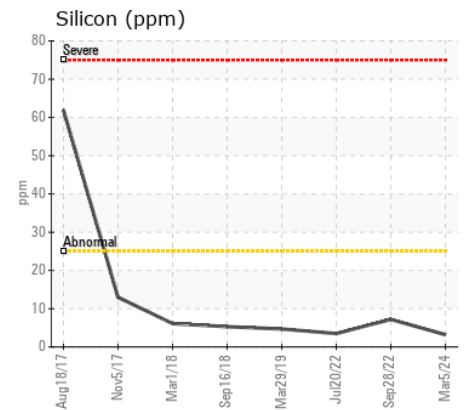
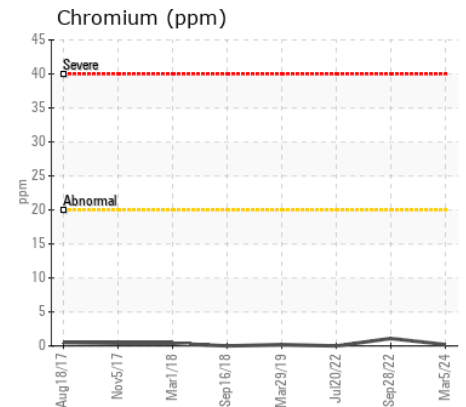
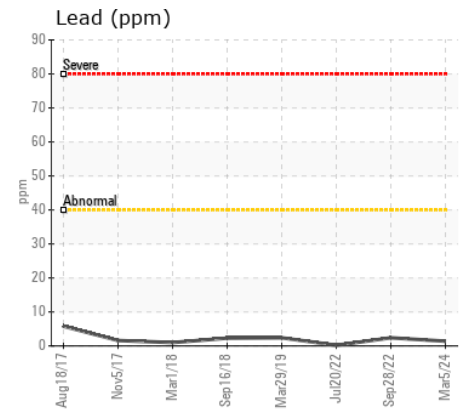
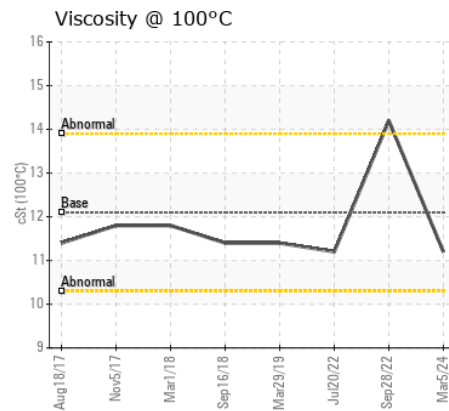
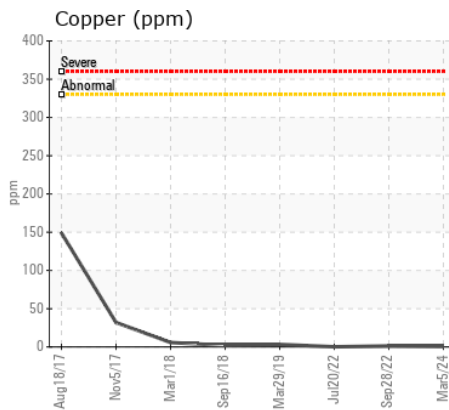
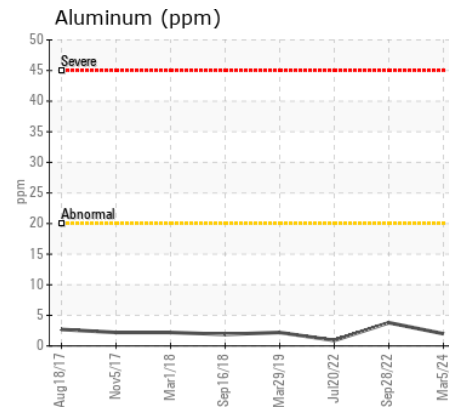
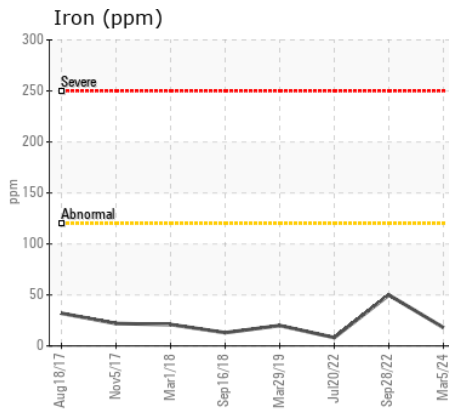
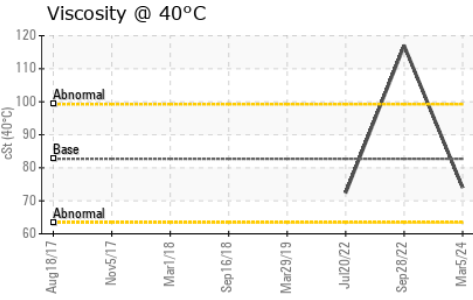
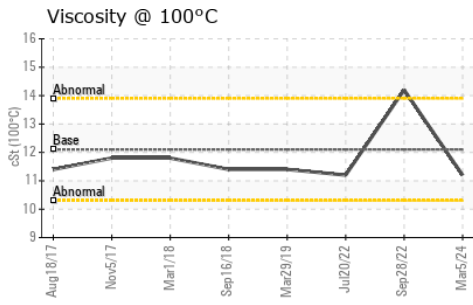
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	3	7	4
Potassium	ppm	ASTM D5185(m)	>20	1	<1	0
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>4	0.5	0.4	0
Nitration	Abs/cm	ASTM D7624*	>20	11.6	20.4	7.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	23.7	32.0	19.3
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		10	13	5
Boron	ppm	ASTM D5185(m)		3	27	29
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		61	60	58
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)		993	1076	916
Calcium	ppm	ASTM D5185(m)		1100	981	1084
Phosphorus	ppm	ASTM D5185(m)		1042	1074	955
Zinc	ppm	ASTM D5185(m)		1215	1233	1153
Sulfur	ppm	ASTM D5185(m)		2569	2138	2622
Oxidation	Abs/.1mm	ASTM D7414*	>25	22.1	39.2	15.9
Visc @ 40°C	cSt	ASTM D7279(m)	82.7	74.0	117	72.4
Visc @ 100°C	cSt	ASTM D7279(m)	12.1	11.2	14.2	11.2
Viscosity Index (VI)	Scale	ASTM D2270*	142	142	121	146



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0071323 **Received** : 06 Mar 2024
Lab Number : **02620127** **Tested** : 06 Mar 2024
Unique Number : 5737237 **Diagnosed** : 06 Mar 2024 - Wes Davis
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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