



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**14140**  
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		<b>PC0071328</b>	PC0061031	AP107061
Sample Date		Client Info		<b>05 Mar 2024</b>	06 Nov 2022	05 Feb 2019
Machine Age	hrs	Client Info		<b>0</b>	0	22482
Oil Age	hrs	Client Info		<b>0</b>	0	722
Filter Age	hrs	Client Info		<b>0</b>	0	722
Oil Changed		Client Info		<b>N/A</b>	N/A	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	<b>18</b>	19	12
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<b>1</b>	1	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	1	<1
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>5</b>	2	2
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	1	<1
Copper	ppm	ASTM D5185(m)	>330	<b>6</b>	17	5
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

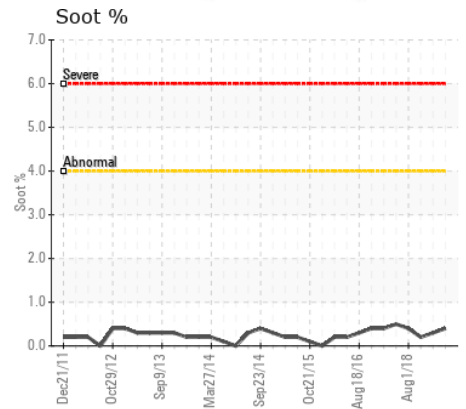
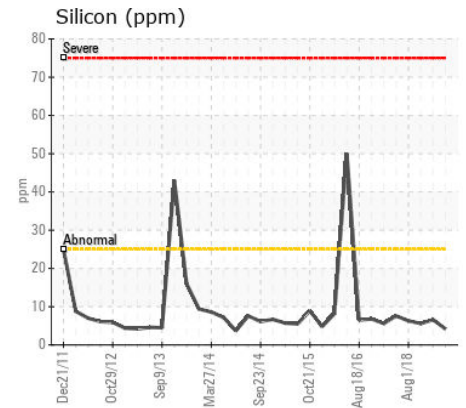
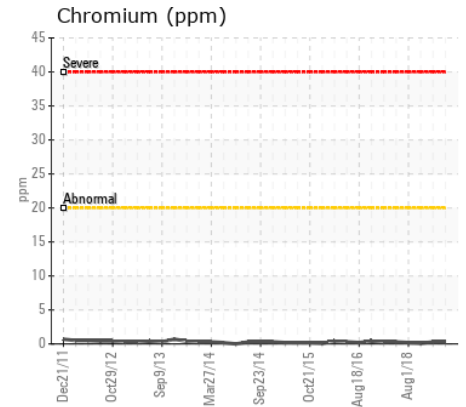
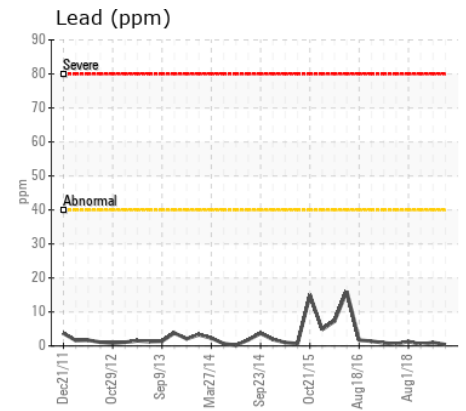
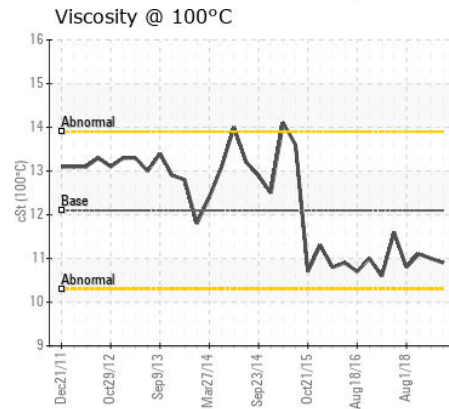
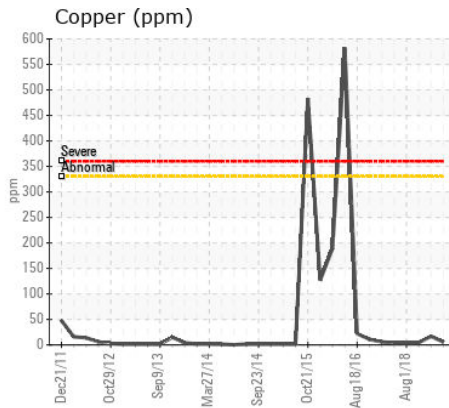
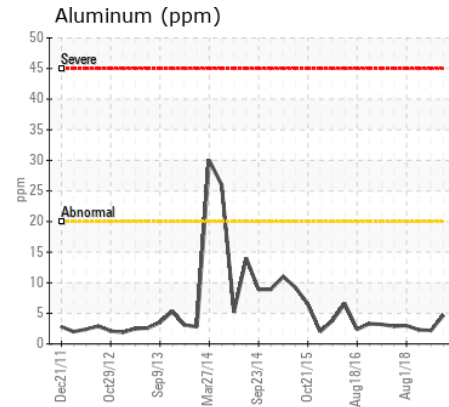
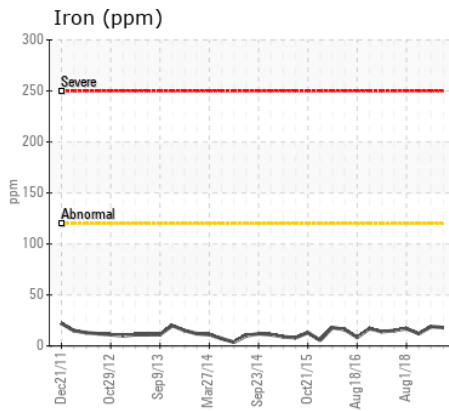
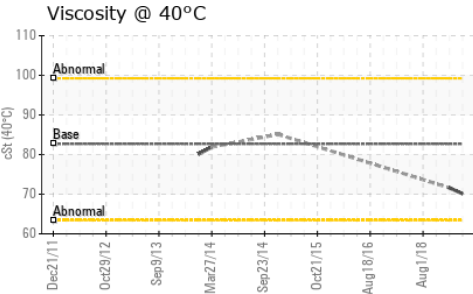
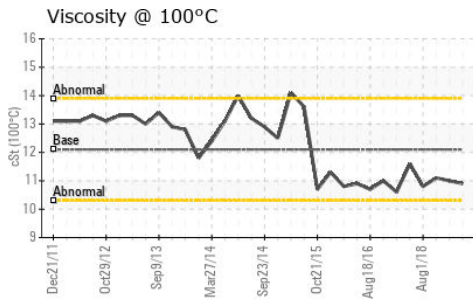
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>4</b>	7	6
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	<1	1
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>4	<b>0.4</b>	0.3	0.2
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.1</b>	10.0	11.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>20.2</b>	22.0	22.8
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

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

Sodium	ppm	ASTM D5185(m)		<b>27</b>	29	11
Boron	ppm	ASTM D5185(m)		<b>5</b>	8	27
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>63</b>	60	54
Manganese	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)		<b>863</b>	946	914
Calcium	ppm	ASTM D5185(m)		<b>1036</b>	1045	995
Phosphorus	ppm	ASTM D5185(m)		<b>841</b>	965	848
Zinc	ppm	ASTM D5185(m)		<b>1074</b>	1126	1128
Sulfur	ppm	ASTM D5185(m)		<b>2492</b>	2322	2702
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>16.0</b>	17.7	17.8
Visc @ 40°C	cSt	ASTM D7279(m)	82.7	<b>70.1</b>	71.6	---
Visc @ 100°C	cSt	ASTM D7279(m)	12.1	<b>10.9</b>	11.0	11.1
Viscosity Index (VI)	Scale	ASTM D2270*	142	<b>145</b>	143	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0071328  
**Lab Number** : 02620126  
**Unique Number** : 5737236  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI )  
**Received** : 06 Mar 2024  
**Tested** : 06 Mar 2024  
**Diagnosed** : 06 Mar 2024 - Wes Davis

**Wasteco**  
 161 Bridgeland Ave.  
 Toronto, ON  
 CA M6A 1Z1  
 Contact: Steve Andrade  
 sandrade@wasteco.com  
 T: (416)787-5000  
 F: (416)787-6210

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.