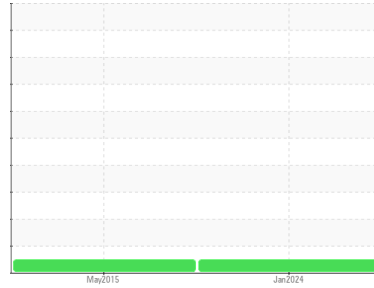


# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**24153 P432**

Component  
**Rear Diesel Engine**

Fluid  
**CASTROL HYPURON 15W40 (20 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All 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			<b>PC0083813</b>	AP98577	---
Sample Date	Client Info			<b>24 Jan 2024</b>	05 May 2015	---
Machine Age	mths	Client Info		<b>0</b>	104845	---
Oil Age	mths	Client Info		<b>6</b>	0	---
Oil Changed	Client Info			<b>N/A</b>	N/A	---
Sample Status				<b>NORMAL</b>	NORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>3.0		<b>&lt;1.0</b>	<1.0	---
Water	WC Method	>0.2		<b>NEG</b>	NEG	---
Glycol	WC Method			<b>NEG</b>	NEG	---

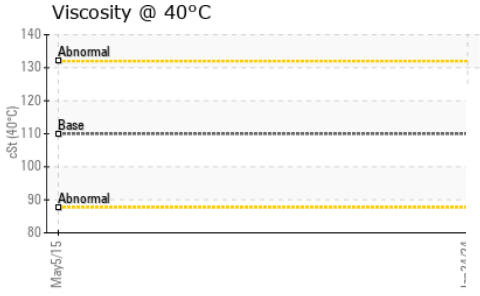
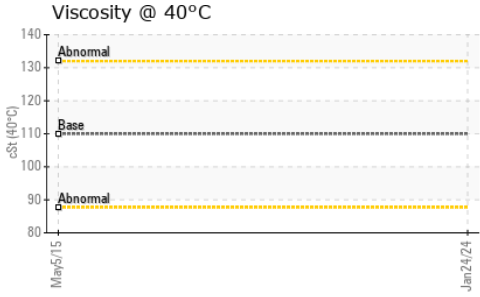
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>75	<b>27</b>	28	---
Chromium	ppm	ASTM D5185(m)	>5	<b>1</b>	2	---
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	---
Silver	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	---
Aluminum	ppm	ASTM D5185(m)	>15	<b>2</b>	3	---
Lead	ppm	ASTM D5185(m)	>25	<b>2</b>	2	---
Copper	ppm	ASTM D5185(m)	>100	<b>4</b>	5	---
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	---
Antimony	ppm	ASTM D5185(m)		<b>0</b>	1	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	<1	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<b>3</b>	34	---
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185(m)		<b>61</b>	<1	---
Manganese	ppm	ASTM D5185(m)		<b>0</b>	<1	---
Magnesium	ppm	ASTM D5185(m)		<b>963</b>	14	---
Calcium	ppm	ASTM D5185(m)		<b>1065</b>	2329	---
Phosphorus	ppm	ASTM D5185(m)		<b>1016</b>	1006	---
Zinc	ppm	ASTM D5185(m)		<b>1163</b>	1170	---
Sulfur	ppm	ASTM D5185(m)		<b>2676</b>	3525	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	<b>3</b>	6	---
Sodium	ppm	ASTM D5185(m)		<b>1</b>	2	---
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	<b>2.7</b>	2.6	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.9</b>	12.3	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>25.5</b>	27.4	---

# OIL ANALYSIS REPORT

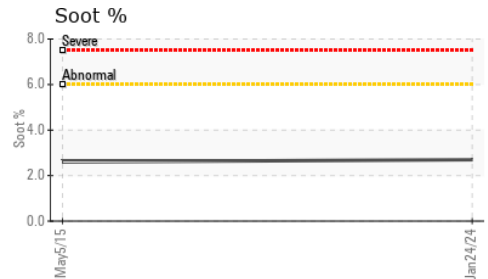
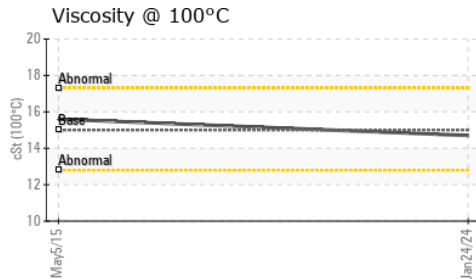
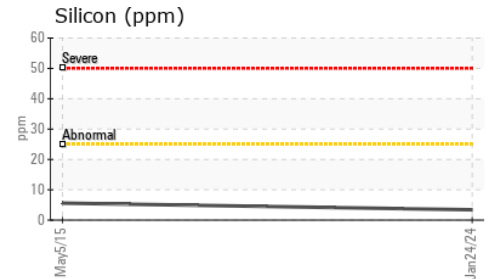
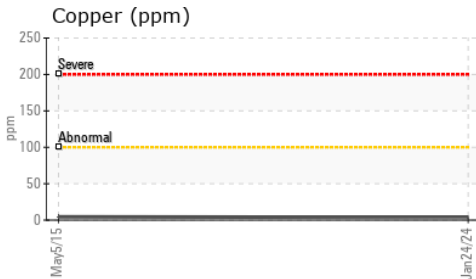
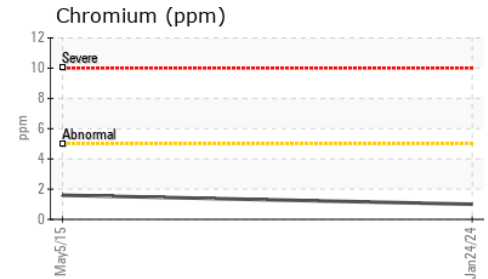
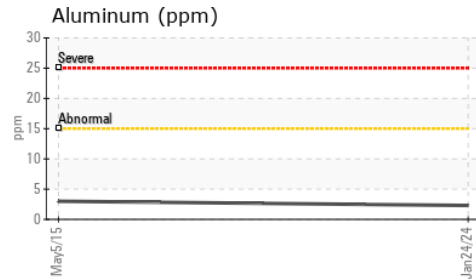
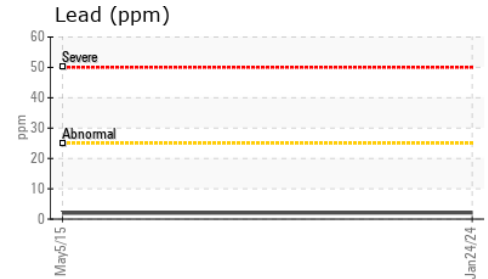
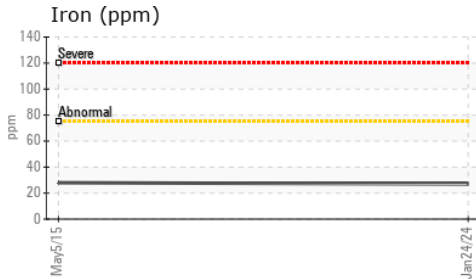


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>17.9</b>	20.1	---

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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	110	<b>108</b>	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.0	<b>14.7</b>	15.6	---
Viscosity Index (VI)	Scale	ASTM D2270*	140	<b>140</b>	---	---

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0083813 **Received** : 01 Mar 2024  
**Lab Number** : **02619205** **Tested** : 01 Mar 2024  
**Unique Number** : 5736315 **Diagnosed** : 01 Mar 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI )

**TORONTO FIRE SERVICES**  
 40 TORYORK DRIVE  
 TORONTO, ON  
 CA M9L 1X6  
 Contact: Antonio Rodrigues  
 antonio.rodrigues@toronto.ca  
 T:  
 F: (416)338-9207

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.