



Area

[85482]

Machine Id

1720 ELLESMERE RD SCARBOROUGH TTC SUBWAY TTC SUBWAY

Component

Rear Diesel Engine

Fluid

ESSO XD-3 EXTRA 15W40 (10 LTR)

**RECOMMENDATION**

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PN0006104	---	---
Sample Date		Client Info		22 Apr 2024	---	---
Machine Age	hrs	Client Info		658	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Not Changd	---	---
Sample Status				ABNORMAL	---	---

**WEAR**

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>100	3	---	---
Chromium	ppm	ASTM D5185(m)	>20	0	---	---
Nickel	ppm	ASTM D5185(m)	>4	0	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)	>3	0	---	---
Aluminum	ppm	ASTM D5185(m)	>20	2	---	---
Lead	ppm	ASTM D5185(m)	>40	<1	---	---
Copper	ppm	ASTM D5185(m)	>330	2	---	---
Tin	ppm	ASTM D5185(m)	>15	0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---

**CONTAMINATION**

Light fuel dilution occurring.

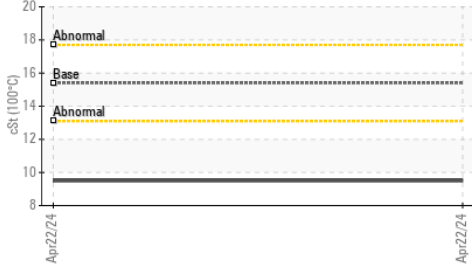
Silicon	ppm	ASTM D5185(m)	>25	11	---	---
Potassium	ppm	ASTM D5185(m)	>20	<1	---	---
Fuel	%	ASTM D7593*	>5	▲ 2.5	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	ASTM D7844*	>3	0	---	---
Nitration	Abs/cm	ASTM D7624*	>20	5.2	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	15.3	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---

**FLUID CONDITION**

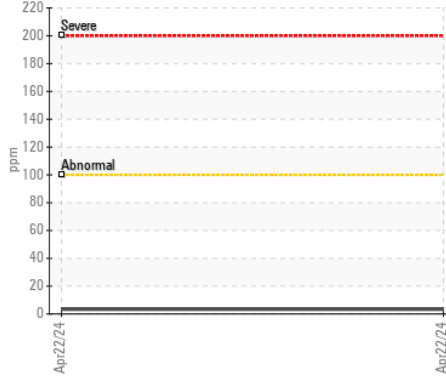
Zinc ppm levels are abnormally low. Visc @ 100°C is abnormally low. Fuel is present in the oil and is lowering the viscosity.

Sodium	ppm	ASTM D5185(m)	>192	4	---	---
Boron	ppm	ASTM D5185(m)		118	---	---
Barium	ppm	ASTM D5185(m)		0	---	---
Molybdenum	ppm	ASTM D5185(m)		71	---	---
Manganese	ppm	ASTM D5185(m)		<1	---	---
Magnesium	ppm	ASTM D5185(m)		457	---	---
Calcium	ppm	ASTM D5185(m)	3780	1226	---	---
Phosphorus	ppm	ASTM D5185(m)	1370	709	---	---
Zinc	ppm	ASTM D5185(m)	1500	▲ 790	---	---
Sulfur	ppm	ASTM D5185(m)	3800	2409	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	9.0	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ 9.5	---	---

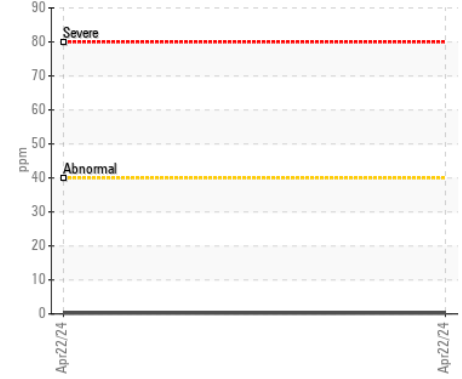
▲ Viscosity @ 100°C



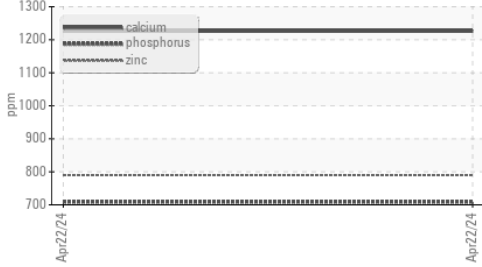
Iron (ppm)



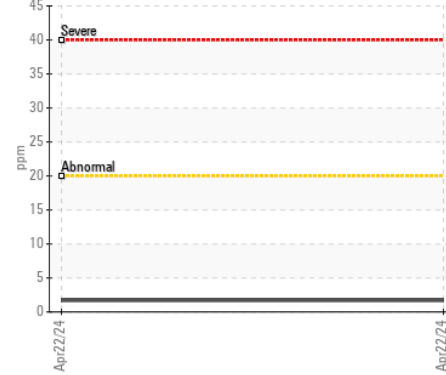
Lead (ppm)



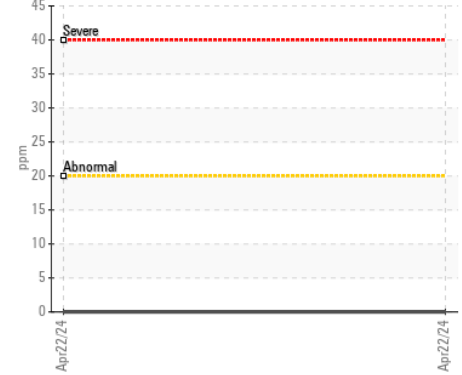
▲ Additives



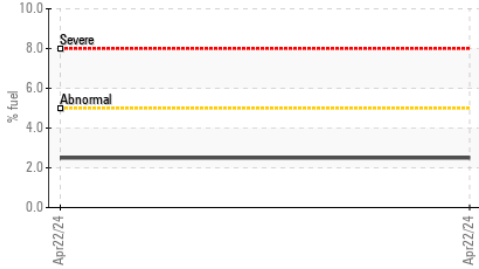
Aluminum (ppm)



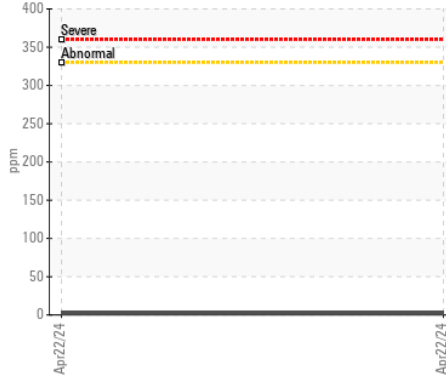
Chromium (ppm)



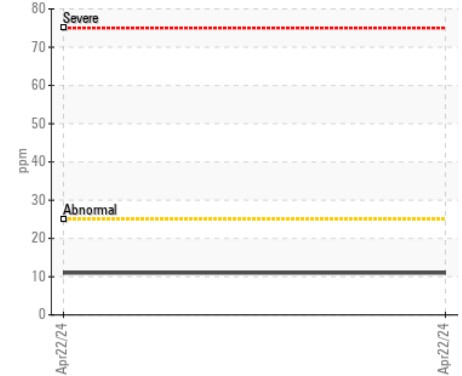
▲ Fuel Dilution



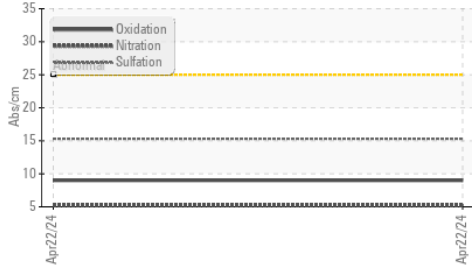
Copper (ppm)



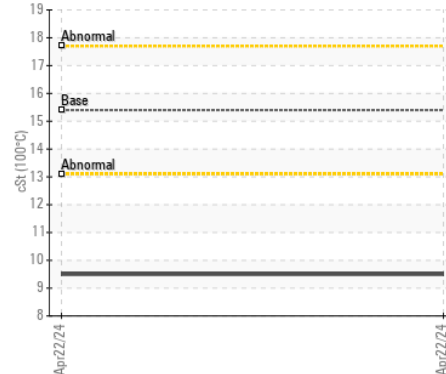
Silicon (ppm)



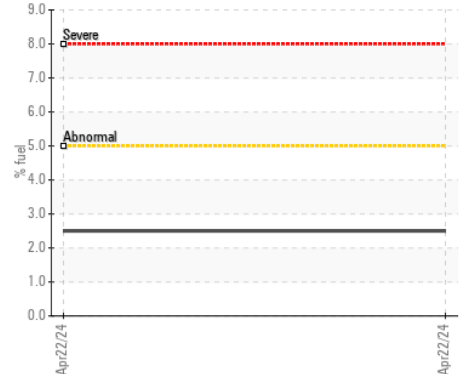
FT-IR (Direct Trend)



▲ Viscosity @ 100°C



▲ Fuel Dilution



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

**Sample No.** : PN0006104

**Lab Number** : 02631522

**Unique Number** : 5772675

**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel )

**Received** : 26 Apr 2024

**Tested** : 29 Apr 2024

**Diagnosed** : 29 Apr 2024 - Wes Davis

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.

**POWER STATION INC.**

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