



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

Area

[85500]

Machine Id

4171 SHEPPARD AVE E SCARBOROUGH UNIT#1 -481256 BELL CANADA 16VA017409

Component

Right Diesel Engine

Fluid

ESSO XD-3 EXTRA SAE 40 (80 LTR)

**RECOMMENDATION**

Confirm the source of the lubricant being utilized for top-up/fill.  
 Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PN0005913</b>	PN0004626	PN0003237
Sample Date		Client Info		<b>04 Apr 2024</b>	29 Mar 2023	22 Apr 2022
Machine Age	hrs	Client Info		<b>872</b>	859	840
Oil Age	hrs	Client Info		<b>14</b>	0	19
Filter Age	hrs	Client Info		<b>14</b>	0	19
Oil Changed		Client Info		<b>Changed</b>	Not Chngd	Changed
Filter Changed		Client Info		<b>Changed</b>	Not Chngd	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	SEVERE

**WEAR**

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>200	<b>3</b>	4	4
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>30	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185(m)	>30	<b>&lt;1</b>	2	1
Copper	ppm	ASTM D5185(m)	>30	<b>2</b>	3	4
Tin	ppm	ASTM D5185(m)	>15	<b>1</b>	3	5
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

There is no indication of any contamination in the oil.

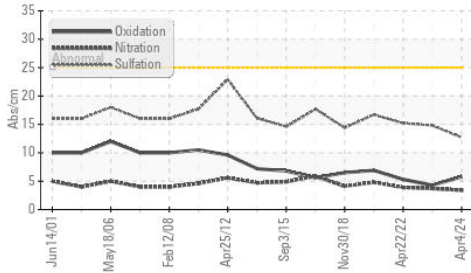
Silicon	ppm	ASTM D5185(m)	>30	<b>6</b>	7	8
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	0
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	▲ 4.9	▲ 5.9
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>3	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>3.4</b>	3.7	3.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>12.7</b>	14.8	15.2
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

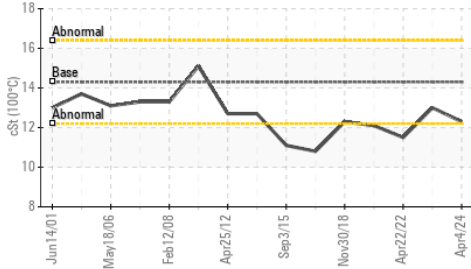
Additive levels indicate the addition of a different brand, or type of oil.  
 The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	2	2
Boron	ppm	ASTM D5185(m)		<b>1</b>	2	8
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	2	7
Manganese	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)		<b>947</b>	▲ 1139	75
Calcium	ppm	ASTM D5185(m)	2550	<b>912</b>	▲ 730	3167
Phosphorus	ppm	ASTM D5185(m)	1000	<b>1009</b>	▲ 1087	683
Zinc	ppm	ASTM D5185(m)	1120	<b>1162</b>	1136	727
Sulfur	ppm	ASTM D5185(m)		<b>3729</b>	▲ 8217	2152
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>5.8</b>	4.3	5.3
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	<b>12.3</b>	13.0	▲ 11.5

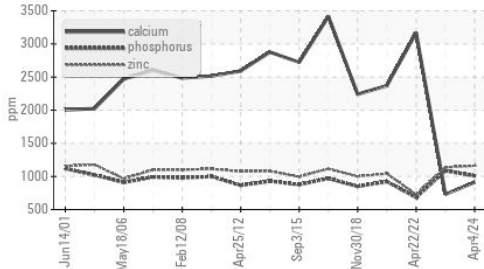
**FT-IR (Direct Trend)**



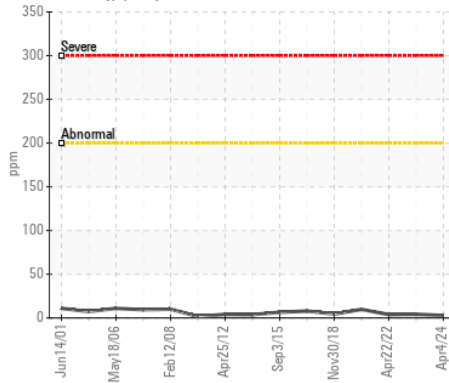
**Viscosity @ 100°C**



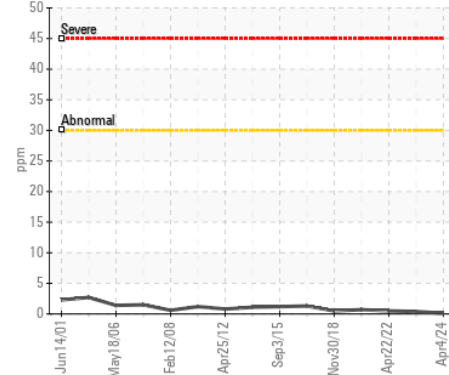
**Additives**



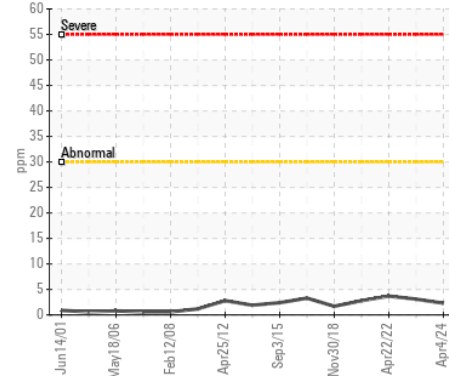
**Iron (ppm)**



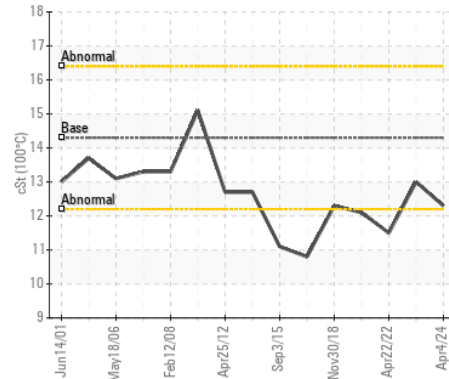
**Aluminum (ppm)**



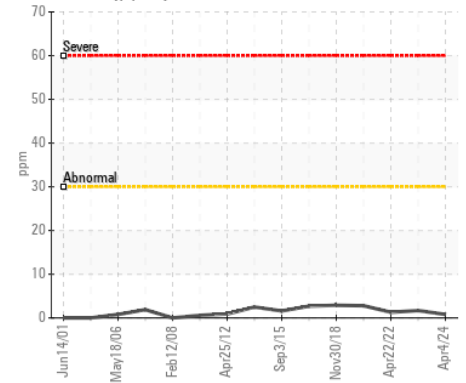
**Copper (ppm)**



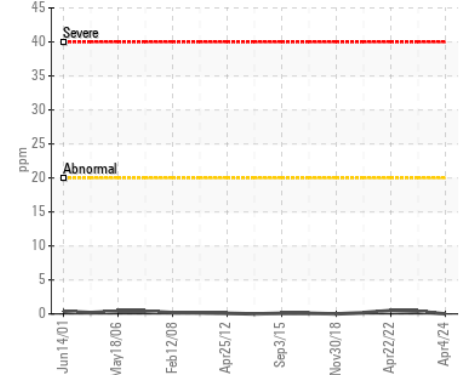
**Viscosity @ 100°C**



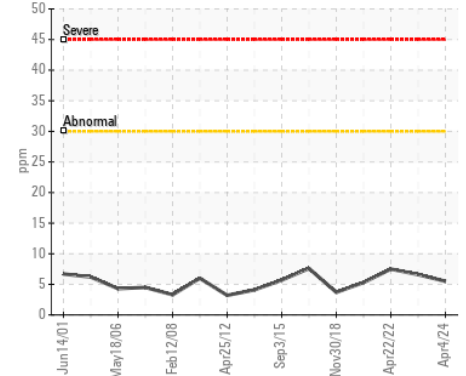
**Lead (ppm)**



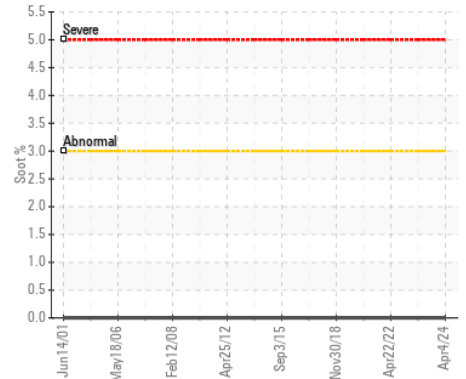
**Chromium (ppm)**



**Silicon (ppm)**



**Soot %**



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PN0005913  
**Lab Number** : 02627561  
**Unique Number** : 5760693  
**Test Package** : MOB 1

**Received** : 09 Apr 2024  
**Tested** : 09 Apr 2024  
**Diagnosed** : 09 Apr 2024 - Kevin Marson

**POWER STATION INC.**  
 1050 JAYSON COURT  
 MISSISSAUGA, ON  
 CA L4W 2V5  
 Contact: Ryan Udall  
 rudall@pwrstn.com  
 T: (905)565-1621  
 F: (905)629-1499

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.