



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

Machine Id  
**ST235**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON UHP 5W40 (6 LTR)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PC0088289</b>	PC0078296	PC0056426
Sample Date		Client Info		<b>07 May 2024</b>	08 Mar 2024	21 Oct 2021
Machine Age	hrs	Client Info		<b>1171</b>	1121	736
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	<b>6</b>	17	16
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	1
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>4</b>	10	7
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	1	1
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>VLITE</b>	---	---

**CONTAMINATION**

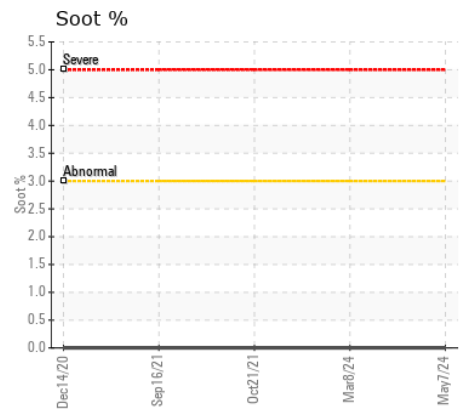
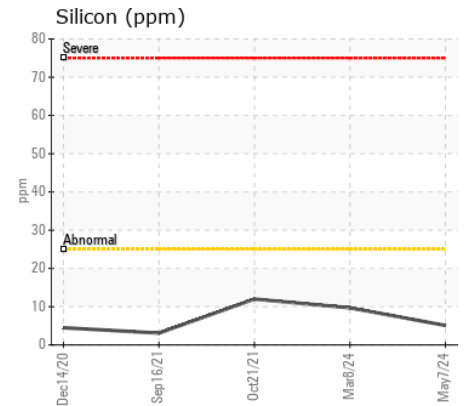
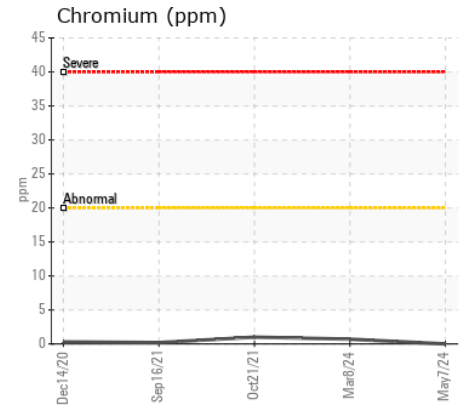
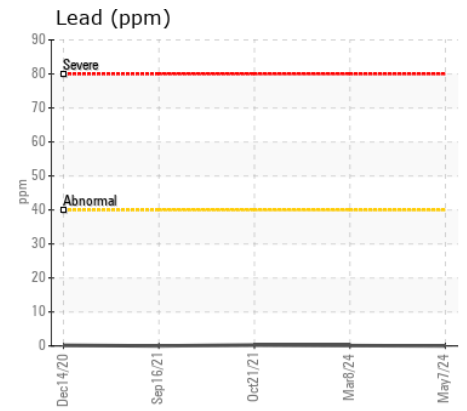
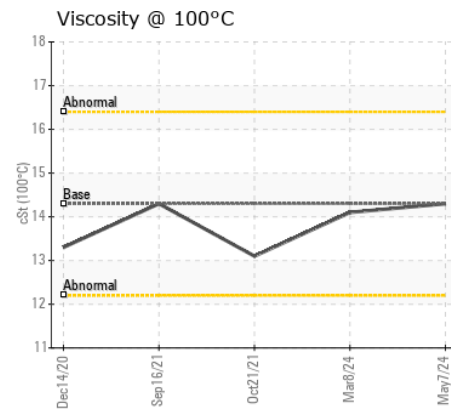
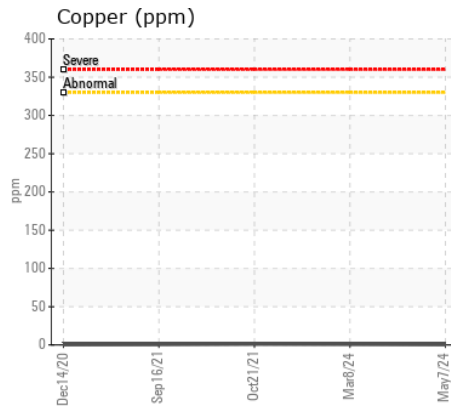
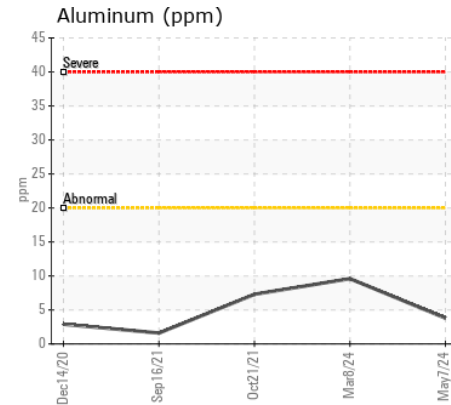
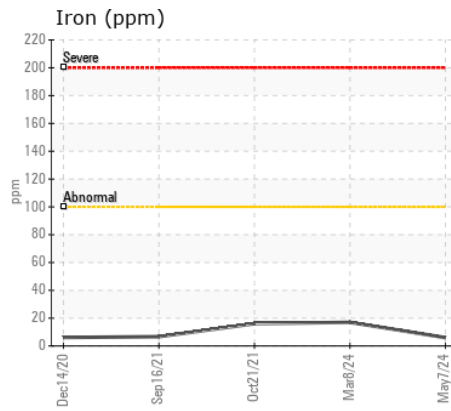
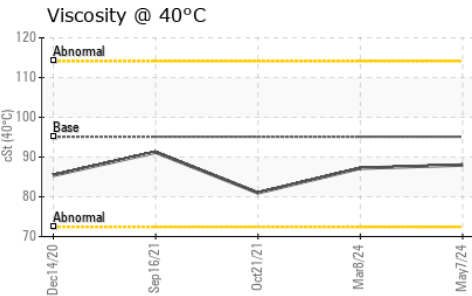
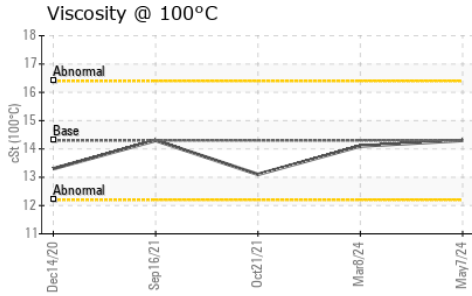
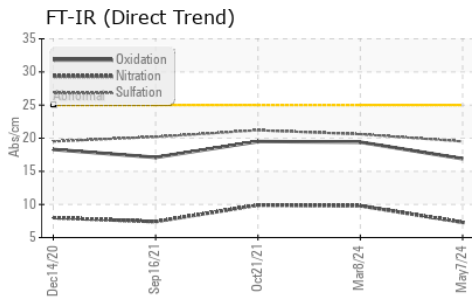
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>5</b>	10	12
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	1	2
Fuel		WC Method	>5	<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*	>3	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>7.3</b>	9.8	9.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>19.5</b>	20.6	21.2
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
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>4</b>	5	6
Boron	ppm	ASTM D5185(m)	65	<b>50</b>	45	44
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	65	<b>53</b>	59	63
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	1160	<b>1037</b>	1153	1256
Calcium	ppm	ASTM D5185(m)	820	<b>801</b>	895	919
Phosphorus	ppm	ASTM D5185(m)	1160	<b>946</b>	1044	1194
Zinc	ppm	ASTM D5185(m)	1260	<b>1093</b>	1240	1369
Sulfur	ppm	ASTM D5185(m)	3000	<b>2605</b>	2965	3022
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>16.9</b>	19.4	19.5
Visc @ 40°C	cSt	ASTM D7279(m)	95.1	<b>88.0</b>	87.2	81.0
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	<b>14.3</b>	14.1	13.1
Viscosity Index (VI)	Scale	ASTM D2270*	169	<b>168</b>	167	163



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0088289  
**Lab Number** : 02636338  
**Unique Number** : 5785500  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI, Visual )

Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations  
 151 Ram Forest Rd,  
 Stouffville, ON  
 CA L4A 2G8  
 Contact: Bill Acton  
 bacton@gipi.com

**Received** : 17 May 2024  
**Tested** : 17 May 2024  
**Diagnosed** : 17 May 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.

T:  
F: