

Area  
**[1211443]**  
Machine Id  
**112019**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0110702</b>	GFL0094523	GFL0088989
Sample Date		Client Info		<b>17 Jan 2024</b>	01 Nov 2023	17 Aug 2023
Machine Age	hrs	Client Info		<b>3415</b>	2825	2207
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>	N/A	N/A
Filter Changed		Client Info		<b>Changed</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>65	<b>9</b>	12	13
Chromium	ppm	ASTM D5185(m)	>5	<b>1</b>	2	2
Nickel	ppm	ASTM D5185(m)	>3	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>35	<b>9</b>	14	11
Lead	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	2	8
Copper	ppm	ASTM D5185(m)	>180	<b>32</b>	90	▲ 324
Tin	ppm	ASTM D5185(m)	>8	<b>2</b>	2	3
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

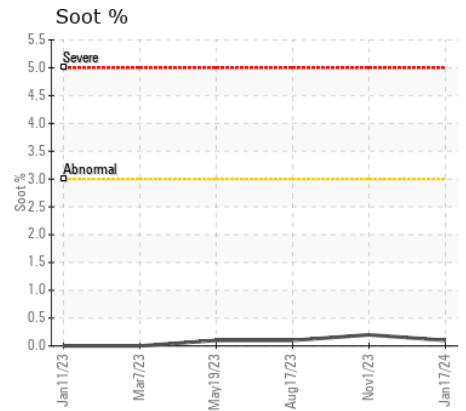
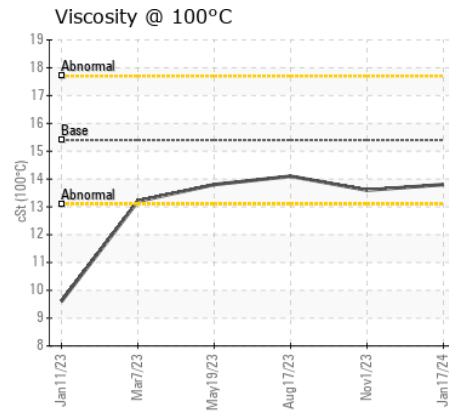
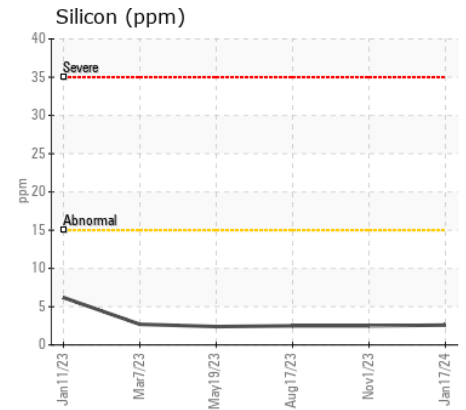
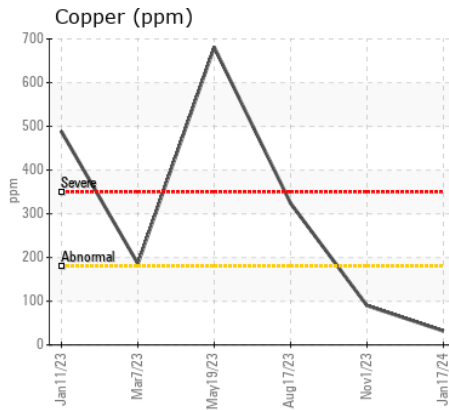
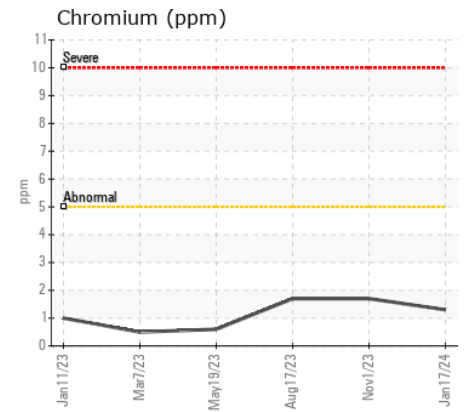
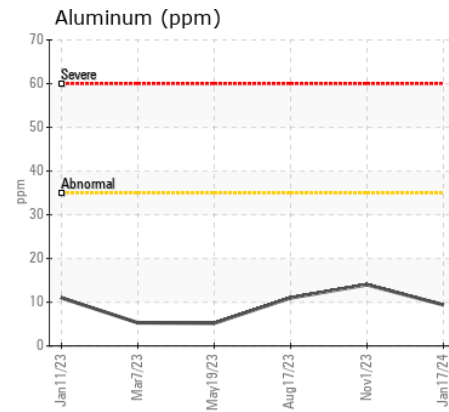
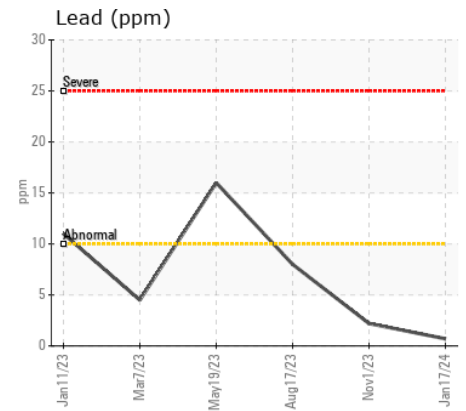
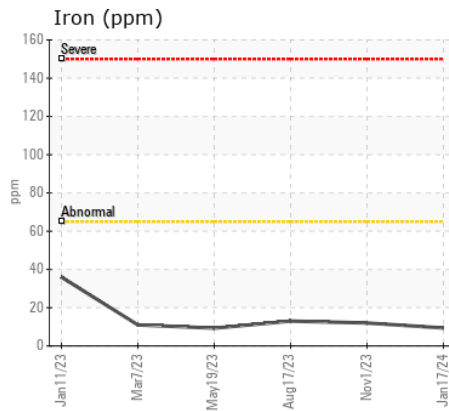
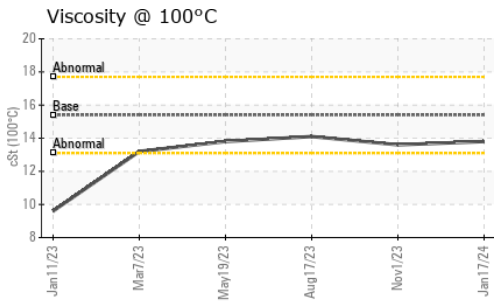
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	<b>3</b>	2	2
Potassium	ppm	ASTM D5185(m)	>20	<b>14</b>	26	24
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*	>3	<b>0.1</b>	0.2	0.1
Nitration	Abs/cm	ASTM D7624*	>20	<b>6.2</b>	6.9	7.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>18.6</b>	19.1	19.8
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>1</b>	2	2
Boron	ppm	ASTM D5185(m)	0	<b>1</b>	2	4
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>58</b>	58	60
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	<b>963</b>	966	980
Calcium	ppm	ASTM D5185(m)	1070	<b>1086</b>	1055	1045
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1005</b>	991	1038
Zinc	ppm	ASTM D5185(m)	1270	<b>1185</b>	1217	1184
Sulfur	ppm	ASTM D5185(m)	2060	<b>2631</b>	2286	2259
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>13.8</b>	14.7	14.8
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	<b>13.8</b>	13.6	14.1



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 207 - Pickering SW**  
**Sample No.** : GFL0110702 **Received** : 22 Jan 2024 **1034 TOY AVENUE, PICKERING YARD**  
**Lab Number** : 02610118 **Diagnosed** : 22 Jan 2024 **PICKERING, ON**  
**Unique Number** : 5711204 **Diagnostician** : Wes Davis **CA L1W 3P1**  
**Test Package** : MOB 1

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.

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