



Machine Id  
**413110**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON XL SYN BLEND 15W40 (40 LTR)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0112449</b>	GFL0112455	GFL0099572
Sample Date		Client Info		<b>19 Jun 2024</b>	21 Mar 2024	20 Nov 2023
Machine Age	hrs	Client Info		<b>2835</b>	0	35325
Oil Age	hrs	Client Info		<b>690</b>	51093	0
Filter Age	hrs	Client Info		<b>690</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>	MARGINAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>80	<b>15</b>	19	14
Chromium	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>30	<b>8</b>	2	2
Lead	ppm	ASTM D5185(m)	>30	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>150	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

### CONTAMINATION

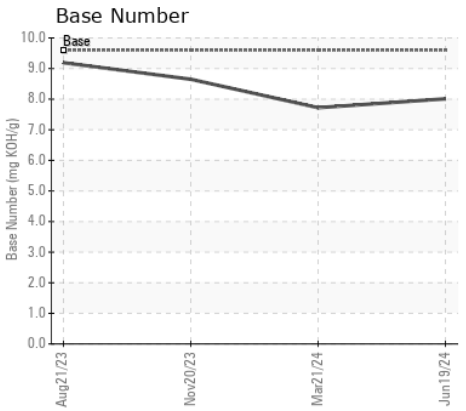
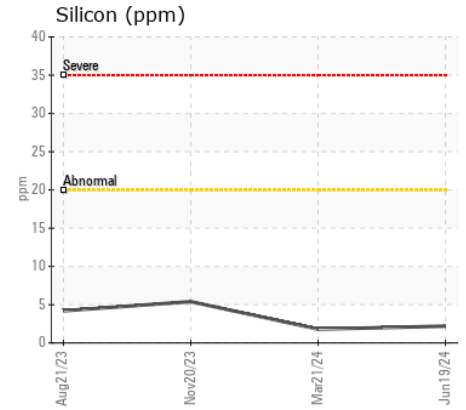
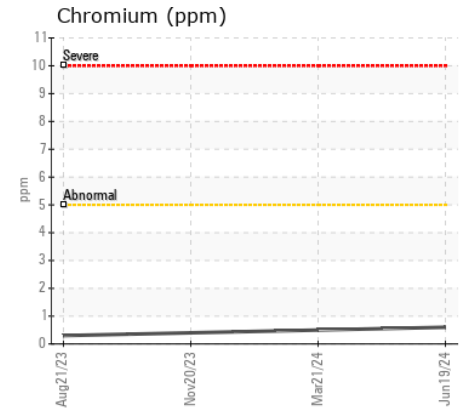
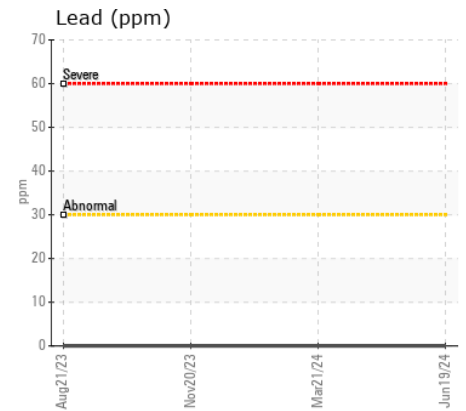
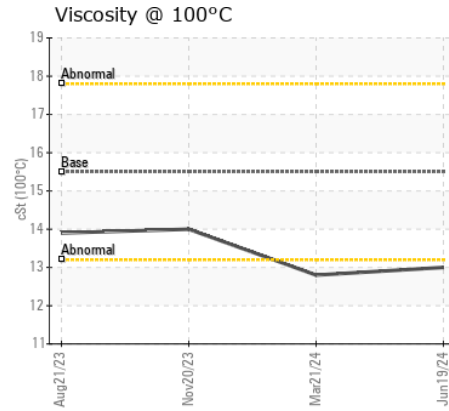
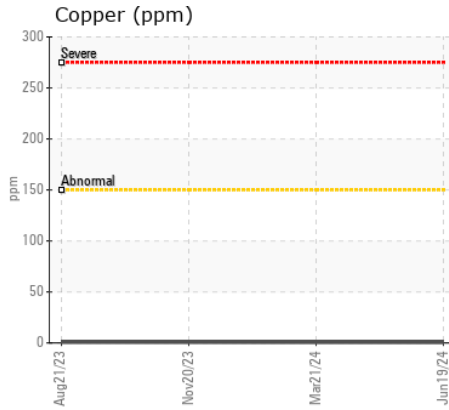
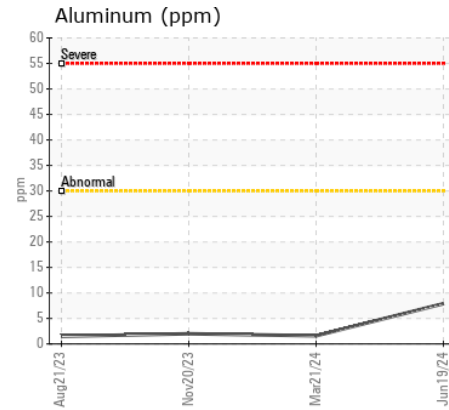
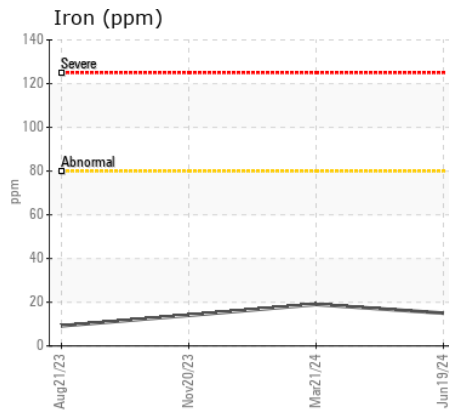
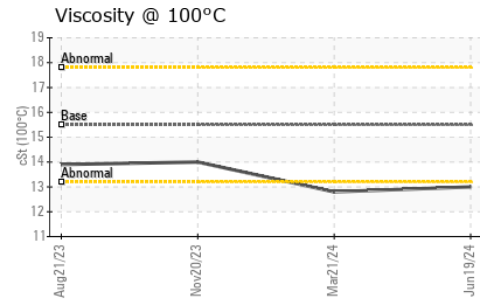
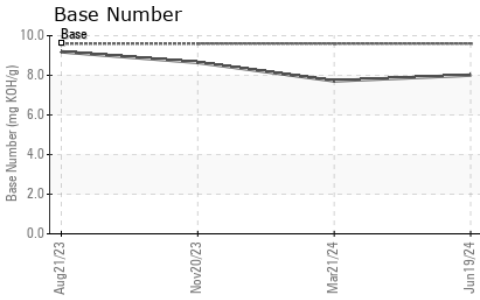
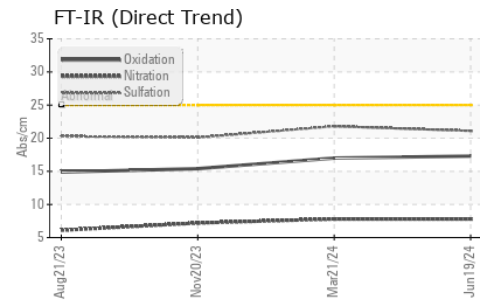
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>20	<b>2</b>	2	5
Potassium	ppm	ASTM D5185(m)	>20	<b>17</b>	2	4
Fuel		WC Method	>5	<b>&lt;1.0</b>	▲ 2	<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>0.3</b>	0.7	0.4
Nitration	Abs/cm	ASTM D7624*	>20	<b>7.8</b>	7.8	7.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>21.1</b>	21.8	20.1
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)		<b>4</b>	4	4
Boron	ppm	ASTM D5185(m)	1	<b>9</b>	2	4
Barium	ppm	ASTM D5185(m)	1	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	<b>57</b>	53	55
Manganese	ppm	ASTM D5185(m)	1	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185(m)	1010	<b>934</b>	884	907
Calcium	ppm	ASTM D5185(m)	1070	<b>1047</b>	1003	1030
Phosphorus	ppm	ASTM D5185(m)	1150	<b>920</b>	890	943
Zinc	ppm	ASTM D5185(m)	1270	<b>1070</b>	1050	1131
Sulfur	ppm	ASTM D5185(m)	2060	<b>2246</b>	2080	2395
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>17.3</b>	17.0	15.4
Base Number (BN)	mg KOH/g	ASTM D2896*	9.6	<b>8.01</b>	7.72	8.65
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	<b>13.0</b>	12.8	14.0



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0112449  
**Lab Number** : 02643948  
**Unique Number** : 5801487  
**Test Package** : MOB 2  
**Received** : 25 Jun 2024  
**Tested** : 26 Jun 2024  
**Diagnosed** : 26 Jun 2024 - Wes Davis

**GFL Environmental - 550 - Rocky View County**  
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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.