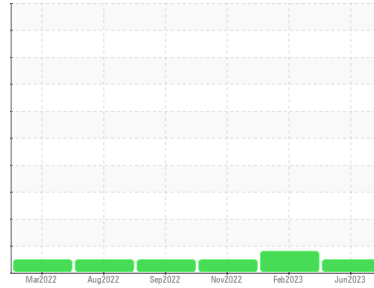




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**420061**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)**

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### 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.

#### 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.

### SAMPLE INFORMATION

method	limit/base	current	history 1	history 2	
Sample Number	Client Info	<b>GFL0077586</b>	GFL0070731	GFL0063702	
Sample Date	Client Info	<b>29 Jun 2023</b>	28 Feb 2023	29 Nov 2022	
Machine Age	hrs	Client Info	<b>4440</b>	3946	3476
Oil Age	hrs	Client Info	<b>494</b>	470	476
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed	
Sample Status		<b>NORMAL</b>	MARGINAL	NORMAL	

### CONTAMINATION

method	limit/base	current	history 1	history 2
Fuel	WC Method >5	<b>&lt;1.0</b>	▲ 2.7	<1.0
Glycol	WC Method	<b>NEG</b>	NEG	NEG

### WEAR METALS

method	limit/base	current	history 1	history 2
Iron	ppm ASTM D5185(m) >100	<b>46</b>	31	28
Chromium	ppm ASTM D5185(m) >20	<b>2</b>	1	1
Nickel	ppm ASTM D5185(m) >4	<b>&lt;1</b>	<1	<1
Titanium	ppm ASTM D5185(m)	<b>0</b>	<1	<1
Silver	ppm ASTM D5185(m) >3	<b>&lt;1</b>	0	0
Aluminum	ppm ASTM D5185(m) >20	<b>13</b>	14	13
Lead	ppm ASTM D5185(m) >40	<b>&lt;1</b>	0	<1
Copper	ppm ASTM D5185(m) >330	<b>7</b>	2	2
Tin	ppm ASTM D5185(m) >15	<b>&lt;1</b>	<1	<1
Antimony	ppm ASTM D5185(m)	<b>0</b>	<1	<1
Vanadium	ppm ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm ASTM D5185(m)	<b>0</b>	0	0

### ADDITIVES

method	limit/base	current	history 1	history 2
Boron	ppm ASTM D5185(m) 1	<b>2</b>	2	3
Barium	ppm ASTM D5185(m) 1	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185(m) 60	<b>56</b>	55	57
Manganese	ppm ASTM D5185(m) 1	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185(m) 1010	<b>910</b>	876	905
Calcium	ppm ASTM D5185(m) 1070	<b>990</b>	1042	1090
Phosphorus	ppm ASTM D5185(m) 1150	<b>980</b>	1015	1041
Zinc	ppm ASTM D5185(m) 1270	<b>1111</b>	1082	1167
Sulfur	ppm ASTM D5185(m) 2060	<b>2223</b>	2332	2506
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1

### CONTAMINANTS

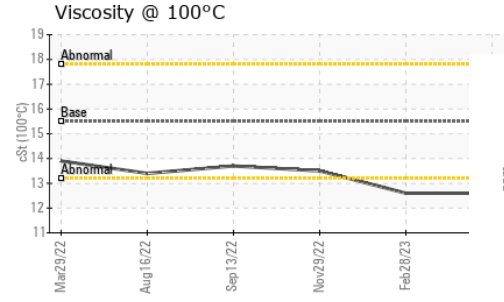
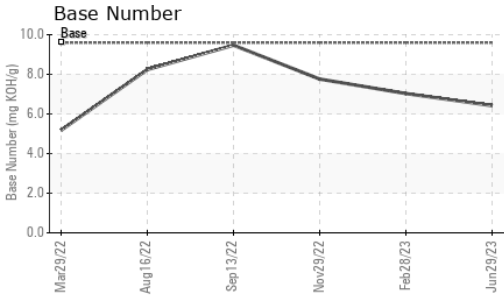
method	limit/base	current	history 1	history 2
Silicon	ppm ASTM D5185(m) >25	<b>7</b>	4	4
Sodium	ppm ASTM D5185(m)	<b>7</b>	5	6
Potassium	ppm ASTM D5185(m) >20	<b>17</b>	17	21

### INFRA-RED

method	limit/base	current	history 1	history 2
Soot %	% ASTM D7844* >3	<b>0.8</b>	0.5	0.4
Nitration	Abs/cm ASTM D7624* >20	<b>10.8</b>	10.5	10.0
Sulfation	Abs/.1mm ASTM D7415* >30	<b>23.0</b>	23.5	21.6



# OIL ANALYSIS REPORT

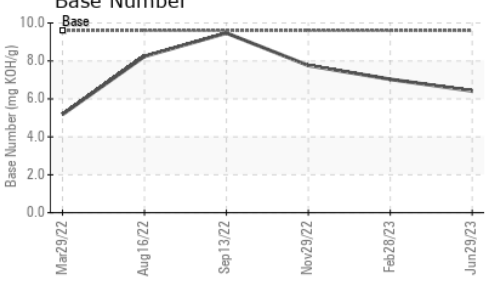
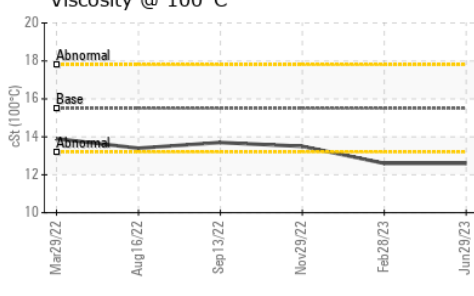
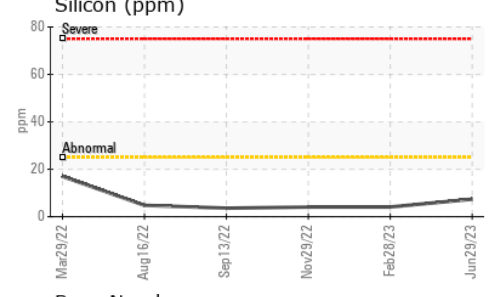
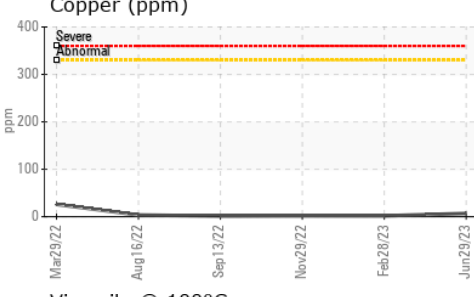
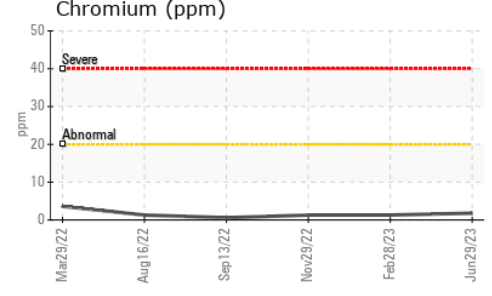
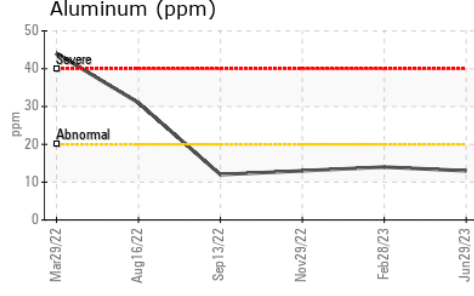
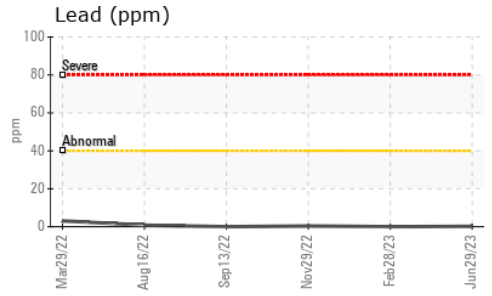
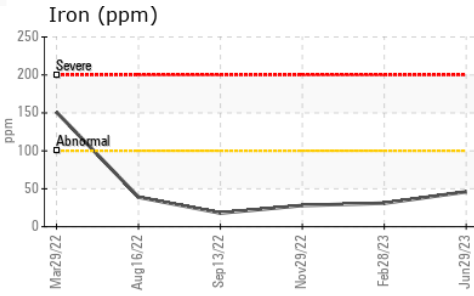


FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>21.2</b>	18.5	18.1
Base Number (BN)	mg KOH/g	ASTM D2896*	9.6	<b>6.42</b>	7.03	7.76

VISUAL		method	limit/base	current	history 1	history 2
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	<b>12.6</b>	12.6	13.5

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County  
**Sample No.** : GFL0077586 **Received** : 06 Jul 2023  
**Lab Number** : 02568176 **Diagnosed** : 07 Jul 2023  
**Unique Number** : 5605222 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2

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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