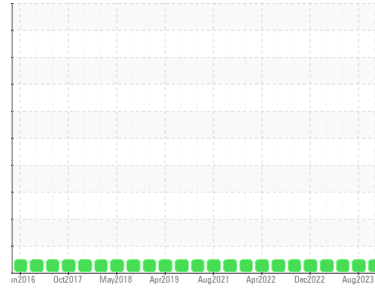




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**4514**

Component  
**Front Diesel Engine**

Fluid  
**PETRO CANADA DURON XL SYN BLEND 15W40 (37 LTR)**

## 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	history1	history2
Sample Number	Client Info	<b>GFL0091585</b>	GFL0084321	GFL0070692
Sample Date	Client Info	<b>06 Nov 2023</b>	08 Aug 2023	23 May 2023
Machine Age	kms	Client Info	<b>0</b>	22379
Oil Age	kms	Client Info	<b>123691</b>	600
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method	>6.0	<b>&lt;1.0</b>	<1.0
Glycol	WC Method		<b>NEG</b>	NEG

## WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185(m)	>100	<b>10</b>	14	8
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>25	<b>4</b>	4	2
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	2	<1
Copper	ppm	ASTM D5185(m)	>330	<b>1</b>	1	1
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	<1	<1
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	<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	history1	history2		
Boron	ppm	ASTM D5185(m)	1	<b>2</b>	2	2
Barium	ppm	ASTM D5185(m)	1	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>56</b>	59	56
Manganese	ppm	ASTM D5185(m)	1	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	<b>911</b>	983	936
Calcium	ppm	ASTM D5185(m)	1070	<b>1075</b>	1076	1092
Phosphorus	ppm	ASTM D5185(m)	1150	<b>938</b>	1035	1025
Zinc	ppm	ASTM D5185(m)	1270	<b>1137</b>	1198	1153
Sulfur	ppm	ASTM D5185(m)	2060	<b>2302</b>	2415	2459
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

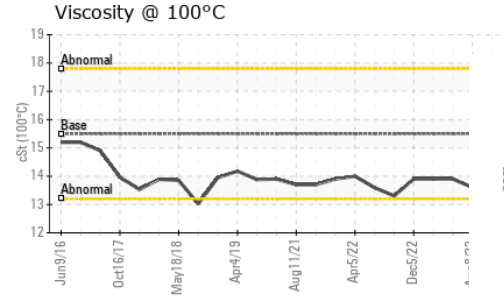
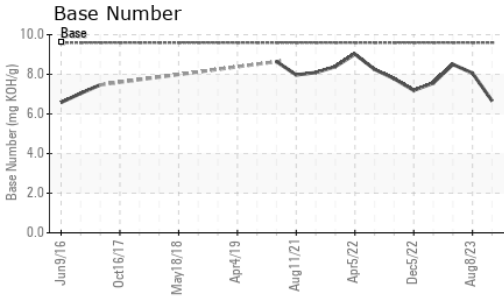
method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185(m)	>25	<b>6</b>	7	4
Sodium	ppm	ASTM D5185(m)		<b>3</b>	6	4
Potassium	ppm	ASTM D5185(m)	>20	<b>5</b>	5	1

## INFRA-RED

method	limit/base	current	history1	history2		
Soot %	%	ASTM D7844*	>3	<b>0.2</b>	0.2	0.1
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.7</b>	8.3	7.7
Sulfation	Abs/1mm	ASTM D7415*	>30	<b>20.2</b>	21.1	19.4



# OIL ANALYSIS REPORT

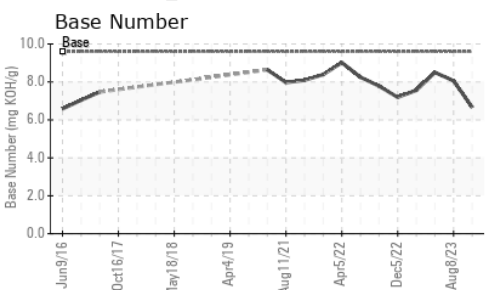
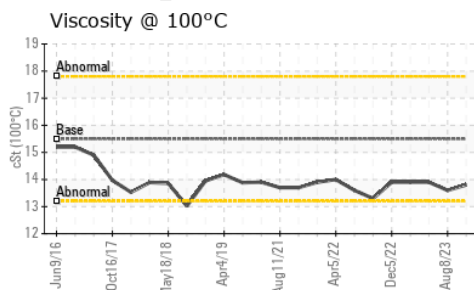
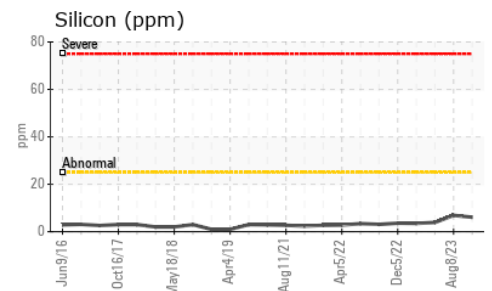
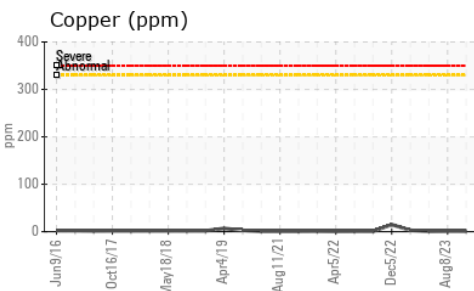
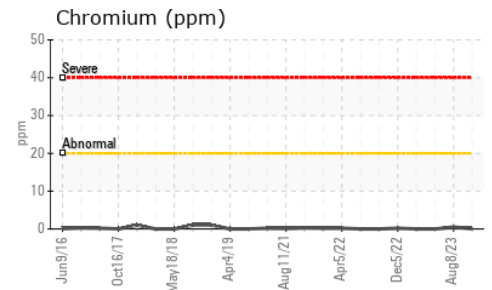
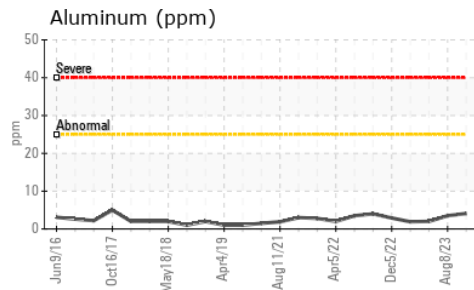
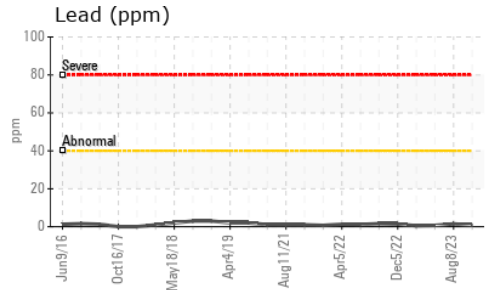
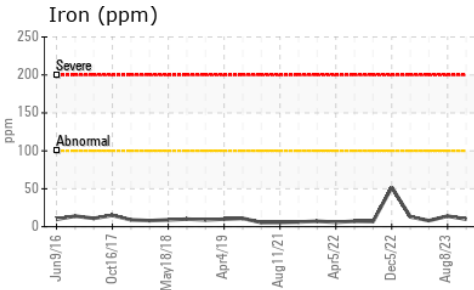


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>16.8</b>	16.9	16.0
Base Number (BN)	mg KOH/g	ASTM D2896*	9.6	<b>6.66</b>	8.06	8.50

VISUAL		method	limit/base	current	history1	history2
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	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	<b>13.8</b>	13.6	13.9

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County  
**Sample No.** : GFL0091585 **Received** : 15 Nov 2023  
**Lab Number** : **02596508** **Diagnosed** : 16 Nov 2023  
**Unique Number** : 5681588 **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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