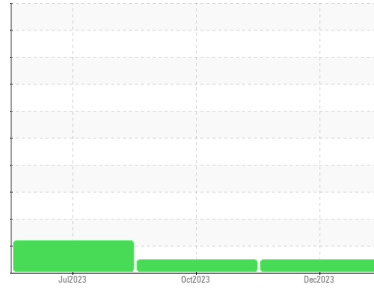




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**413105**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON HP 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

Metal levels are typical for a new component breaking in.

### 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>GFL0099602</b>	GFL0091555	GFL0084292	
Sample Date	Client Info	<b>19 Dec 2023</b>	03 Oct 2023	26 Jul 2023	
Machine Age	kms	Client Info	<b>65004</b>	0	213908
Oil Age	kms	Client Info	<b>0</b>	46601	0
Oil Changed	Client Info	<b>Changed</b>	Changed	N/A	
Sample Status		<b>NORMAL</b>	NORMAL	ABNORMAL	

## CONTAMINATION

method	limit/base	current	history1	history2	
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	1.4
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185(m)	>80	<b>20</b>	20	▲ 81
Chromium	ppm	ASTM D5185(m)	>5	<b>1</b>	<1	3
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>30	<b>12</b>	10	13
Lead	ppm	ASTM D5185(m)	>30	<b>0</b>	0	<1
Copper	ppm	ASTM D5185(m)	>150	<b>&lt;1</b>	1	6
Tin	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	0
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)	0	<b>3</b>	4	31
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	<1	5
Molybdenum	ppm	ASTM D5185(m)	60	<b>56</b>	57	43
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	3
Magnesium	ppm	ASTM D5185(m)	1010	<b>908</b>	896	557
Calcium	ppm	ASTM D5185(m)	1070	<b>1026</b>	1060	1575
Phosphorus	ppm	ASTM D5185(m)	1150	<b>952</b>	954	786
Zinc	ppm	ASTM D5185(m)	1270	<b>1117</b>	1148	868
Sulfur	ppm	ASTM D5185(m)	2060	<b>2506</b>	2425	1927
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

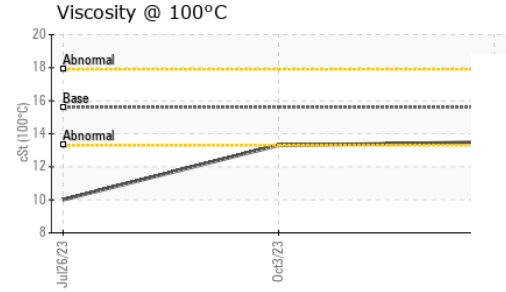
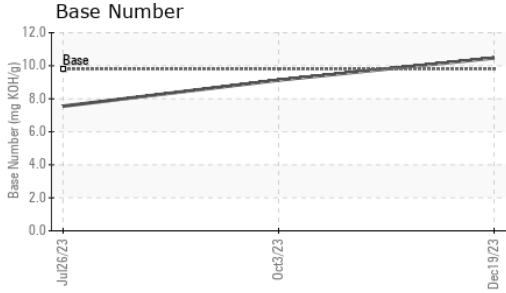
method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185(m)	>20	<b>2</b>	3	15
Sodium	ppm	ASTM D5185(m)		<b>3</b>	4	4
Potassium	ppm	ASTM D5185(m)	>20	<b>18</b>	20	44

## INFRA-RED

method	limit/base	current	history1	history2		
Soot %	%	ASTM D7844*	>3	<b>0.5</b>	0.3	0.4
Nitration	Abs/cm	ASTM D7624*	>20	<b>6.8</b>	7.2	9.3
Sulfation	Abs./1mm	ASTM D7415*	>30	<b>19.7</b>	20.3	24.0



# OIL ANALYSIS REPORT

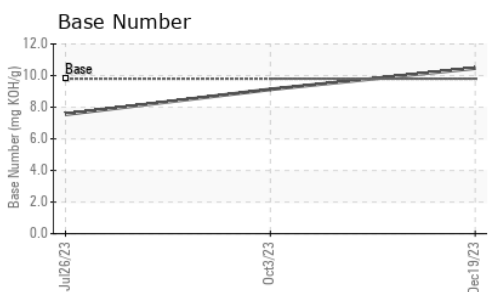
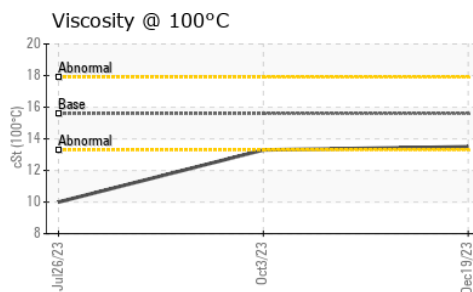
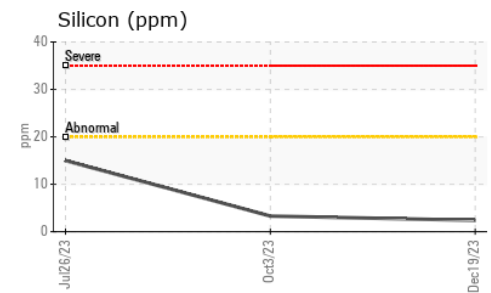
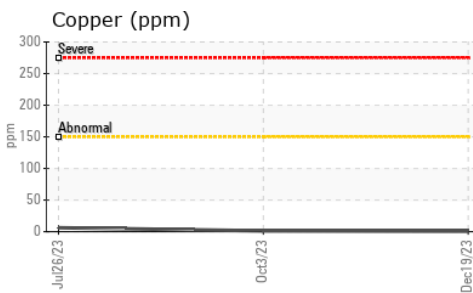
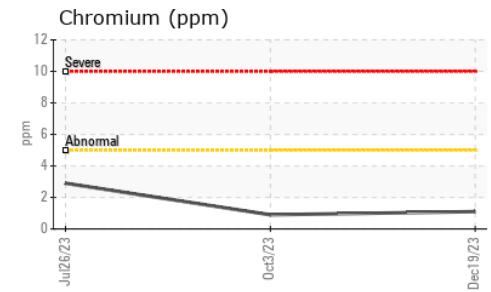
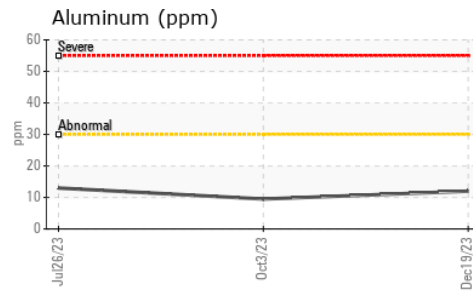
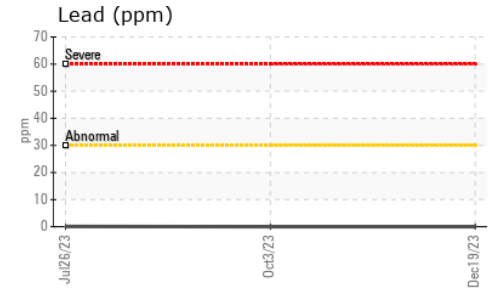
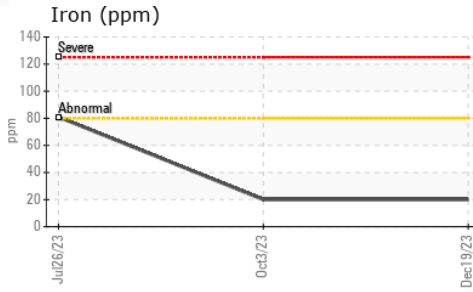


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>14.2</b>	16.2	22.5
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	<b>10.47</b>	9.13	7.55

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)	15.6	<b>13.5</b>	13.3	▲ 10.0

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County  
**Sample No.** : GFL0099602 **Received** : 02 Jan 2024  
**Lab Number** : **02605732** **Diagnosed** : 04 Jan 2024  
**Unique Number** : 5698817 **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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