



# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**4448**

Component  
**Diesel Engine**

Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

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>GFL0099605</b>	---	---
Sample Date	Client Info	<b>19 Dec 2023</b>	---	---
Machine Age	hrs Client Info	<b>243297</b>	---	---
Oil Age	hrs Client Info	<b>0</b>	---	---
Oil Changed	Client Info	<b>Changed</b>	---	---
Sample Status		<b>NORMAL</b>	---	---

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >6.0	<b>&lt;1.0</b>	---	---
Water	WC Method >0.2	<b>NEG</b>	---	---
Glycol	WC Method	<b>NEG</b>	---	---

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >100	<b>10</b>	---	---
Chromium	ppm ASTM D5185(m) >20	<b>0</b>	---	---
Nickel	ppm ASTM D5185(m) >2	<b>&lt;1</b>	---	---
Titanium	ppm ASTM D5185(m)	<b>0</b>	---	---
Silver	ppm ASTM D5185(m) >2	<b>0</b>	---	---
Aluminum	ppm ASTM D5185(m) >25	<b>2</b>	---	---
Lead	ppm ASTM D5185(m) >40	<b>&lt;1</b>	---	---
Copper	ppm ASTM D5185(m) >330	<b>2</b>	---	---
Tin	ppm ASTM D5185(m) >15	<b>0</b>	---	---
Antimony	ppm ASTM D5185(m)	<b>0</b>	---	---
Vanadium	ppm ASTM D5185(m)	<b>0</b>	---	---
Beryllium	ppm ASTM D5185(m)	<b>0</b>	---	---
Cadmium	ppm ASTM D5185(m)	<b>0</b>	---	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 250	<b>2</b>	---	---
Barium	ppm ASTM D5185(m) 10	<b>0</b>	---	---
Molybdenum	ppm ASTM D5185(m) 100	<b>56</b>	---	---
Manganese	ppm ASTM D5185(m)	<b>0</b>	---	---
Magnesium	ppm ASTM D5185(m) 450	<b>922</b>	---	---
Calcium	ppm ASTM D5185(m) 3000	<b>1030</b>	---	---
Phosphorus	ppm ASTM D5185(m) 1150	<b>978</b>	---	---
Zinc	ppm ASTM D5185(m) 1350	<b>1142</b>	---	---
Sulfur	ppm ASTM D5185(m) 4250	<b>2542</b>	---	---
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	---	---

## CONTAMINANTS

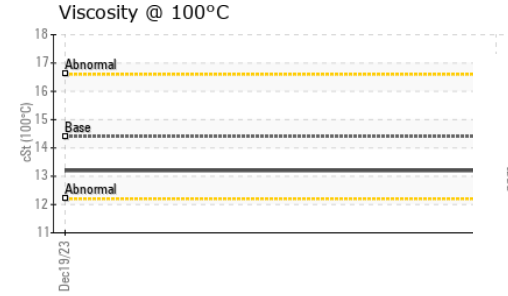
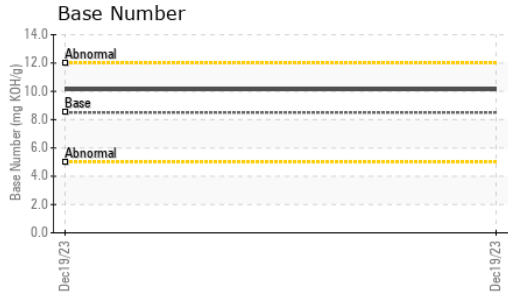
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	<b>6</b>	---	---
Sodium	ppm ASTM D5185(m) >158	<b>14</b>	---	---
Potassium	ppm ASTM D5185(m) >20	<b>3</b>	---	---

## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	<b>0.1</b>	---	---
Nitration	Abs/cm ASTM D7624* >20	<b>7.5</b>	---	---
Sulfation	Abs./1mm ASTM D7415* >30	<b>18.7</b>	---	---



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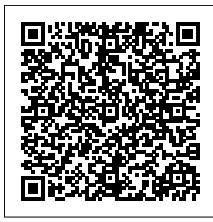
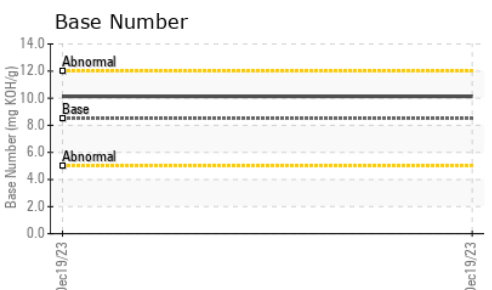
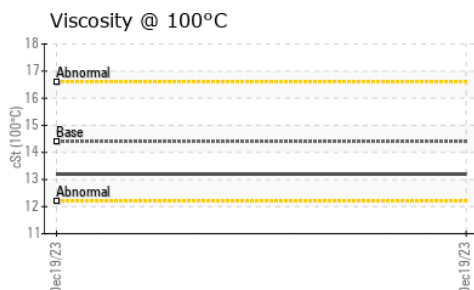
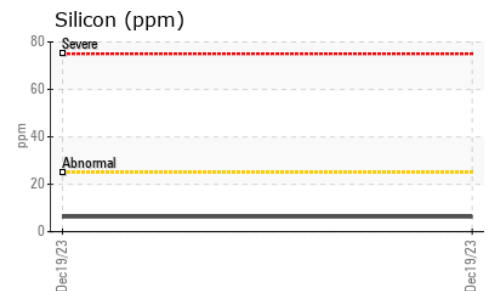
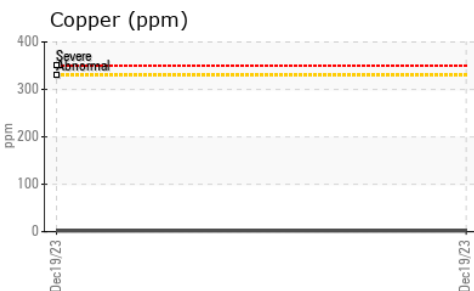
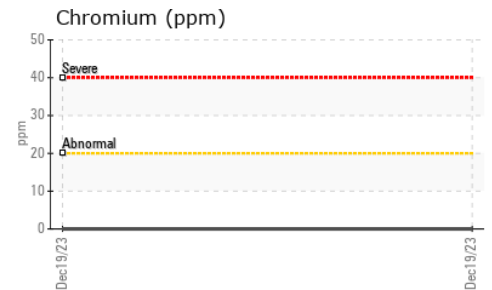
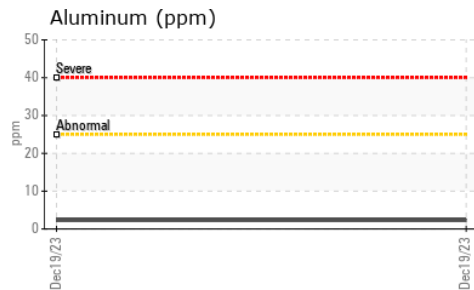
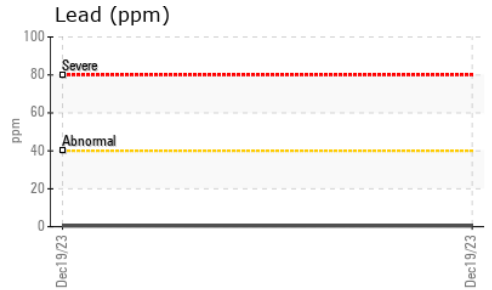
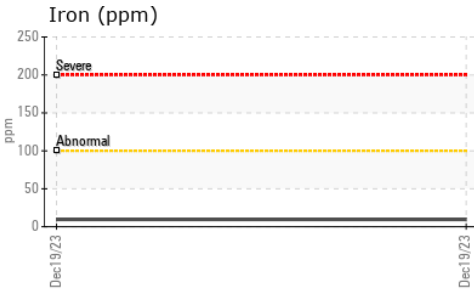


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>15.5</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896*	8.5	<b>10.13</b>	---	---

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	---	---
Free Water	scalar	Visual*		<b>NEG</b>	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	<b>13.2</b>	---	---

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County  
**Sample No.** : GFL0099605 **Received** : 02 Jan 2024  
**Lab Number** : **02605737** **Diagnosed** : 04 Jan 2024  
**Unique Number** : 5698822 **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.  
 Contact: GFL Calgary calgarymaintenance@gflenv.com  
 T: (403)369-6163