



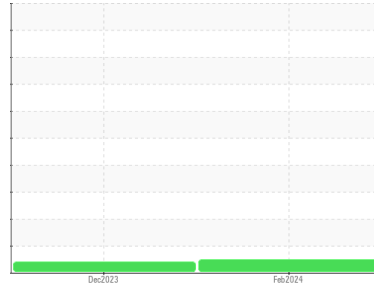
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**414022**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 15W40 (36 LTR)**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

Metal levels are typical for a new component breaking in.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0086779</b>	GFL0086778	---
Sample Date	Client Info		<b>21 Feb 2024</b>	22 Dec 2023	---
Machine Age	hrs	Client Info	<b>792</b>	622	---
Oil Age	hrs	Client Info	<b>792</b>	600	---
Oil Changed	Client Info		<b>Changed</b>	Changed	---
Sample Status			<b>NORMAL</b>	ABNORMAL	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	1	---
Water	WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol	WC Method		<b>NEG</b>	NEG	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >120	<b>10</b>	29	---
Chromium	ppm	ASTM D5185(m) >20	<b>0</b>	<1	---
Nickel	ppm	ASTM D5185(m) >5	<b>1</b>	2	---
Titanium	ppm	ASTM D5185(m) >2	<b>&lt;1</b>	0	---
Silver	ppm	ASTM D5185(m) >2	<b>1</b>	<1	---
Aluminum	ppm	ASTM D5185(m) >20	<b>4</b>	6	---
Lead	ppm	ASTM D5185(m) >40	<b>11</b>	13	---
Copper	ppm	ASTM D5185(m) >330	<b>455</b>	415	---
Tin	ppm	ASTM D5185(m) >15	<b>&lt;1</b>	3	---
Antimony	ppm	ASTM D5185(m)	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	0	---
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	0	---
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 250	<b>84</b>	258	---
Barium	ppm	ASTM D5185(m) 10	<b>0</b>	<1	---
Molybdenum	ppm	ASTM D5185(m) 100	<b>90</b>	117	---
Manganese	ppm	ASTM D5185(m)	<b>&lt;1</b>	4	---
Magnesium	ppm	ASTM D5185(m) 450	<b>153</b>	687	---
Calcium	ppm	ASTM D5185(m) 3000	<b>2039</b>	1421	---
Phosphorus	ppm	ASTM D5185(m) 1150	<b>974</b>	661	---
Zinc	ppm	ASTM D5185(m) 1350	<b>1081</b>	767	---
Sulfur	ppm	ASTM D5185(m) 4250	<b>3129</b>	2014	---
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	---

## CONTAMINANTS

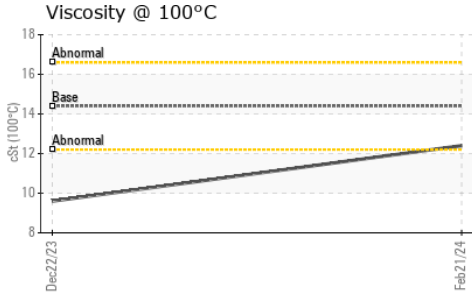
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	<b>16</b>	55	---
Sodium	ppm	ASTM D5185(m) >158	<b>2</b>	3	---
Potassium	ppm	ASTM D5185(m) >20	<b>7</b>	10	---

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >4	<b>0</b>	0.1	---
Nitration	Abs/cm	ASTM D7624* >20	<b>9.9</b>	10.2	---
Sulfation	Abs./1mm	ASTM D7415* >30	<b>18.9</b>	24.3	---



# OIL ANALYSIS REPORT



### FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	15.2	22.6

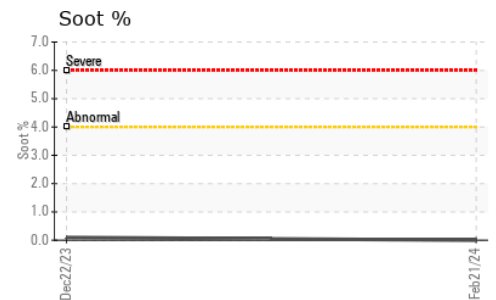
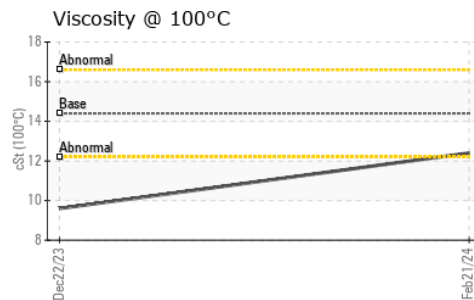
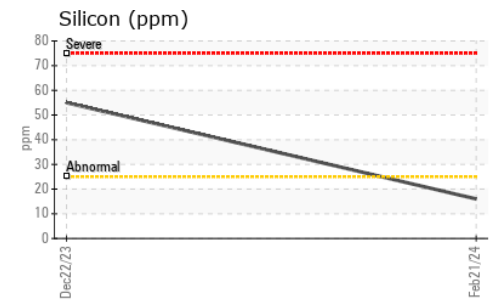
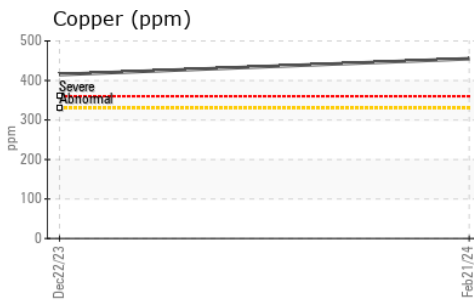
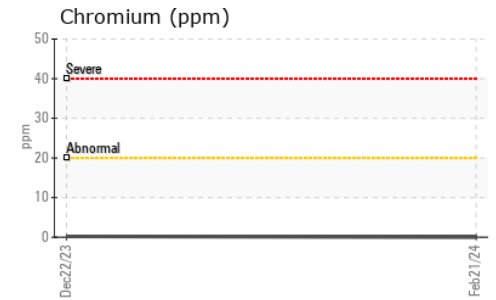
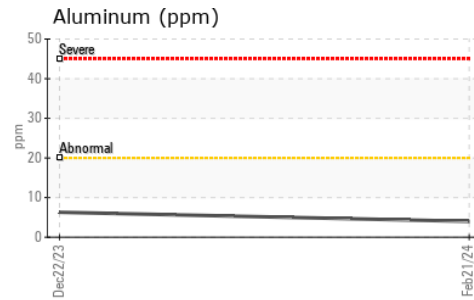
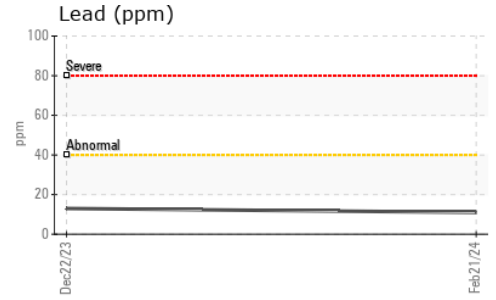
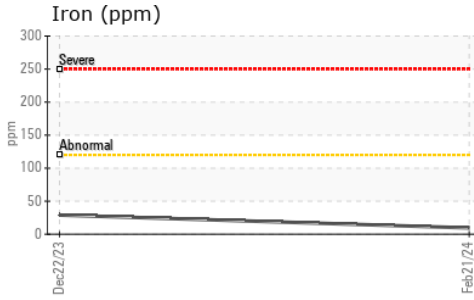
### VISUAL

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

### FLUID PROPERTIES

	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	12.4	▲ 9.6

### GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0086779  
**Lab Number** : 02617340  
**Unique Number** : 5734450  
**Test Package** : MOB 1

**Received** : 22 Feb 2024  
**Tested** : 22 Feb 2024  
**Diagnosed** : 22 Feb 2024 - Wes Davis

**GFL Environmental - 222 - Sandhill**  
 SANDHILL DISPOSAL & RECYCLING DIVIS, 19 COMMERCE ROAD  
 ORANGEVILLE, ON  
 CA L9W 3X5  
 Contact: GLENN COOK  
 gcook@gflenv.com  
 T: (519)940-4167  
 F:

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.