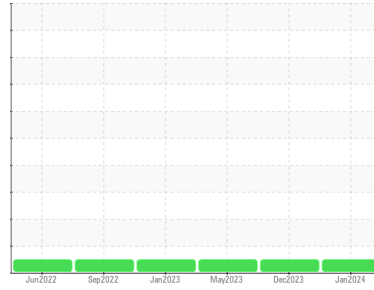




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**352035**

Component  
**Gasoline Engine**

Fluid  
**PETRO CANADA DURON UHP 5W30 (--- 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>GFL0092885</b>	GFL0097479	GFL0067576
Sample Date	Client Info		<b>25 Jan 2024</b>	11 Dec 2023	30 May 2023
Machine Age	mls	Client Info	<b>197637</b>	195330	186430
Oil Age	mls	Client Info	<b>186430</b>	0	5000
Oil Changed	Client Info		<b>N/A</b>	N/A	Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
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 D5185m >150	<b>14</b>	7	21
Chromium	ppm	ASTM D5185m >20	<b>1</b>	<1	1
Nickel	ppm	ASTM D5185m >5	<b>&lt;1</b>	0	1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >40	<b>3</b>	1	3
Lead	ppm	ASTM D5185m >50	<b>0</b>	0	1
Copper	ppm	ASTM D5185m >155	<b>&lt;1</b>	<1	0
Tin	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>15</b>	17	30
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 64	<b>69</b>	62	141
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m 1160	<b>435</b>	379	574
Calcium	ppm	ASTM D5185m 820	<b>979</b>	966	1099
Phosphorus	ppm	ASTM D5185m 1160	<b>662</b>	582	751
Zinc	ppm	ASTM D5185m 1260	<b>731</b>	694	951
Sulfur	ppm	ASTM D5185m 3000	<b>2168</b>	1507	2382

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	<b>10</b>	8	11
Sodium	ppm	ASTM D5185m >400	<b>2</b>	0	2
Potassium	ppm	ASTM D5185m >20	<b>1</b>	<1	3

## INFRA-RED

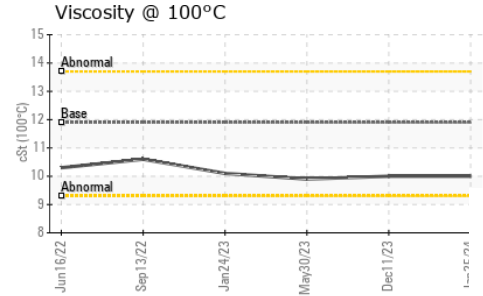
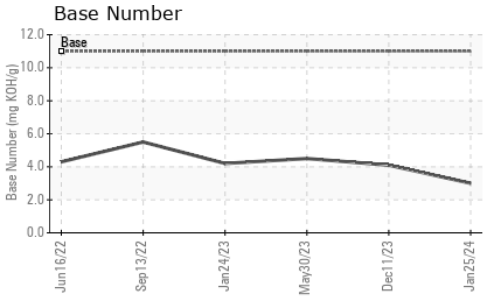
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>0</b>	0	0
Nitration	Abs/cm	*ASTM D7624 >20	<b>11.2</b>	9.5	10.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>21.6</b>	18.7	23.3

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.5</b>	12.1	16.7
Base Number (BN)	mg KOH/g	ASTM D2896 11.0	<b>3.0</b>	4.1	4.5



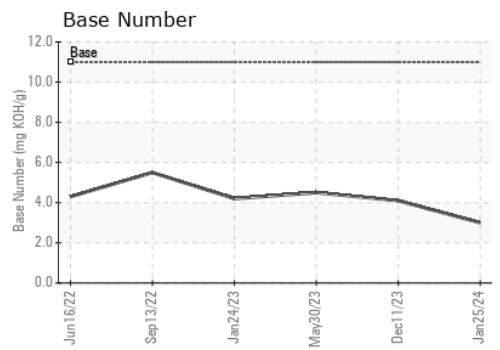
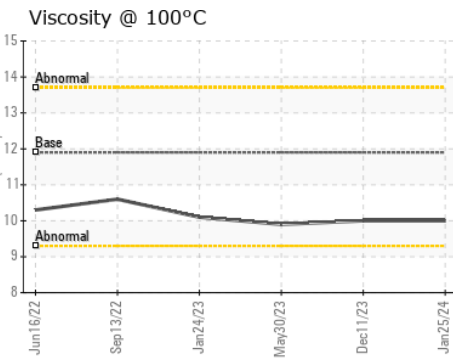
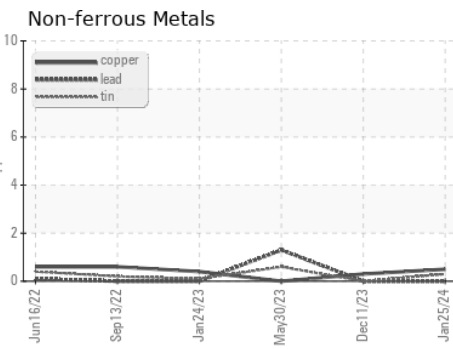
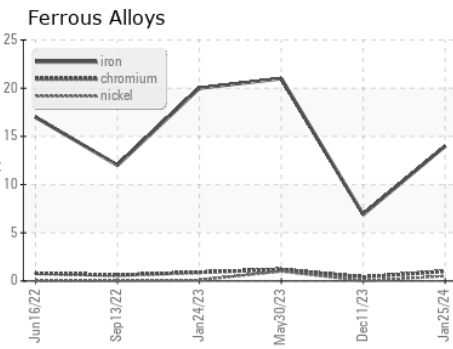
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
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 D445	11.9	10.0	9.9

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0092885 **Received** : 01 Mar 2024  
**Lab Number** : 06105740 **Tested** : 02 Mar 2024  
**Unique Number** : 10903970 **Diagnosed** : 04 Mar 2024 - Sean Felton  
**Test Package** : FLEET

**GFL Environmental - 641 - Alpena**  
 1241 KING SETTLEMENT RD  
 ALPENA, MI  
 US 49707  
 Contact: DYLAN TOLAN  
 dylan.tolan@gflenv.com  
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To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)