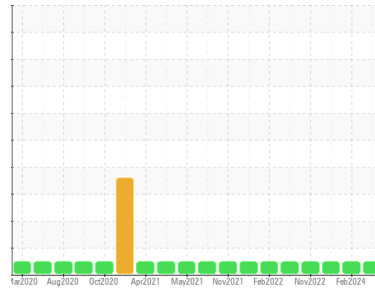




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area

(YA154608)

Machine Id

**AUTOCAR 3871-929151**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON SHP 15W40 (10 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>GFL0128320</b>	GFL0111361	GFL0072241
Sample Date	Client Info		<b>10 Jul 2024</b>	03 Feb 2024	12 Jul 2023
Machine Age	hrs	Client Info	<b>13823</b>	0	8338
Oil Age	hrs	Client Info	<b>0</b>	0	11303
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	>3.0	<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 >165	<b>11</b>	10	10
Chromium	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >4	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>1</b>	<1	<1
Lead	ppm	ASTM D5185m >150	<b>&lt;1</b>	2	2
Copper	ppm	ASTM D5185m >90	<b>3</b>	2	<1
Tin	ppm	ASTM D5185m >5	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	<1	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>11</b>	5	9
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>58</b>	62	62
Manganese	ppm	ASTM D5185m 0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>928</b>	939	878
Calcium	ppm	ASTM D5185m 1070	<b>1065</b>	1023	1098
Phosphorus	ppm	ASTM D5185m 1150	<b>1031</b>	967	1002
Zinc	ppm	ASTM D5185m 1270	<b>1261</b>	1213	1168
Sulfur	ppm	ASTM D5185m 2060	<b>3535</b>	3020	3107

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >35	<b>4</b>	4	4
Sodium	ppm	ASTM D5185m	<b>11</b>	4	<1
Potassium	ppm	ASTM D5185m >20	<b>2</b>	4	1

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >7.5	<b>0.4</b>	0.4	0.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.2</b>	7.0	6.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.9</b>	18.3	18.8

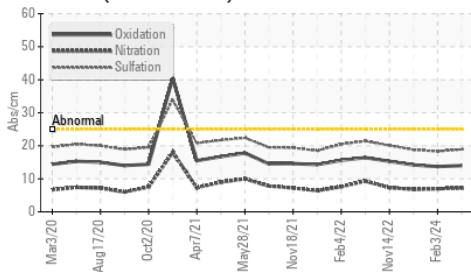
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.0</b>	13.7	14.2
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.1</b>	8.5	8.5

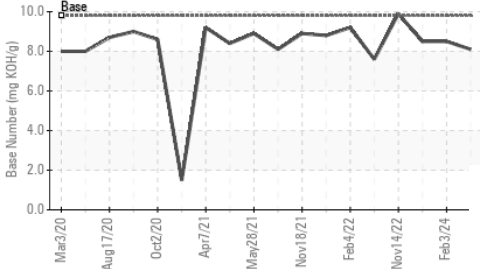


# OIL ANALYSIS REPORT

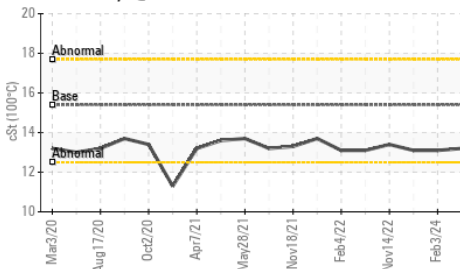
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

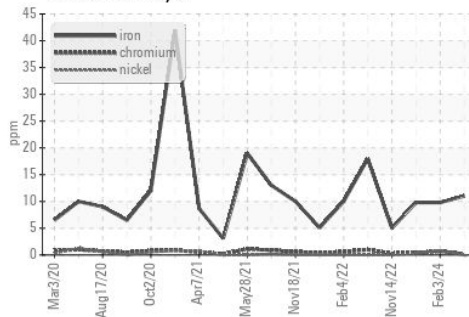


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

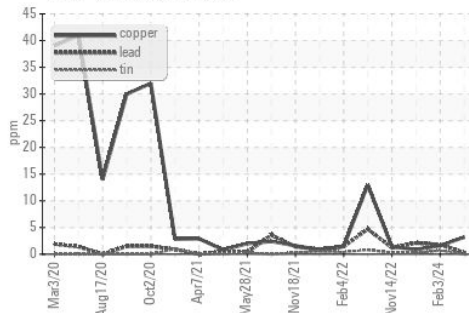
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.2	13.1

## GRAPHS

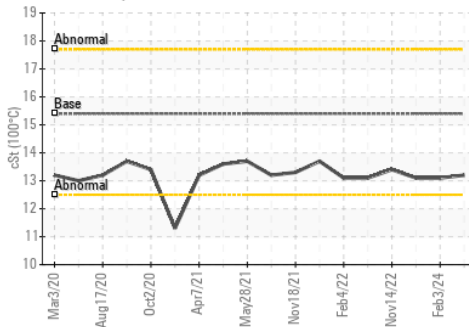
Ferrous Alloys



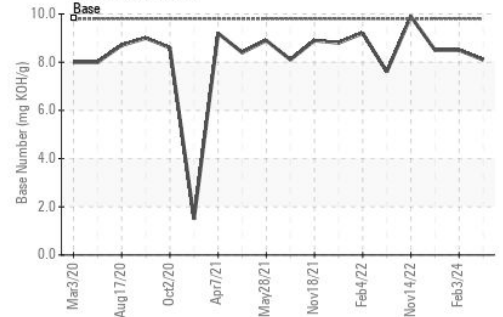
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0128320  
 Lab Number : 06239799  
 Unique Number : 11128633  
 Test Package : FLEET

Received : 17 Jul 2024  
 Tested : 18 Jul 2024  
 Diagnosed : 18 Jul 2024 - Wes Davis

GFL Environmental - 004 - Newport - Central Coast  
 427 Roberts Road  
 Newport, NC  
 US 28570

Contact: Marquis Williams  
 marquis.williams@gflenv.com

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)

T: F: (252)223-6010