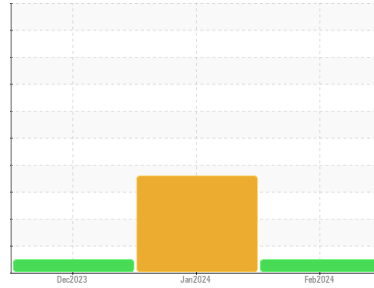




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**(BC16368)**  
Machine Id  
**840M**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 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>GFL0108827</b>	GFL0108840	GFL0105699
Sample Date	Client Info		<b>03 Feb 2024</b>	16 Jan 2024	20 Dec 2023
Machine Age	hrs	Client Info	<b>10832</b>	10642	10446
Oil Age	hrs	Client Info	<b>600</b>	10446	7361
Oil Changed	Client Info		<b>Changed</b>	Changed	Not Changed
Sample Status			<b>NORMAL</b>	ABNORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	▲ 2.1	<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 >80	<b>58</b>	80	0
Chromium	ppm	ASTM D5185m >5	<b>2</b>	2	0
Nickel	ppm	ASTM D5185m >2	<b>3</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m >3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m >30	<b>6</b>	▲ 6	<1
Lead	ppm	ASTM D5185m >30	<b>5</b>	<1	0
Copper	ppm	ASTM D5185m >150	<b>6</b>	71	<1
Tin	ppm	ASTM D5185m >5	<b>1</b>	1	0
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>&lt;1</b>	36	4
Barium	ppm	ASTM D5185m 0	<b>0</b>	9	<1
Molybdenum	ppm	ASTM D5185m 60	<b>61</b>	44	59
Manganese	ppm	ASTM D5185m 0	<b>2</b>	4	<1
Magnesium	ppm	ASTM D5185m 1010	<b>936</b>	564	938
Calcium	ppm	ASTM D5185m 1070	<b>1057</b>	1720	1035
Phosphorus	ppm	ASTM D5185m 1150	<b>1018</b>	826	1106
Zinc	ppm	ASTM D5185m 1270	<b>1304</b>	997	1284
Sulfur	ppm	ASTM D5185m 2060	<b>2338</b>	2436	3204

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	<b>5</b>	▲ 36	6
Sodium	ppm	ASTM D5185m	<b>8</b>	4	2
Potassium	ppm	ASTM D5185m >20	<b>5</b>	1	<1

## INFRA-RED

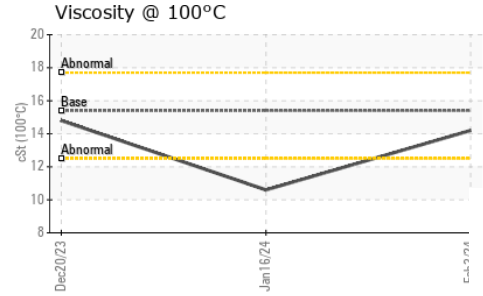
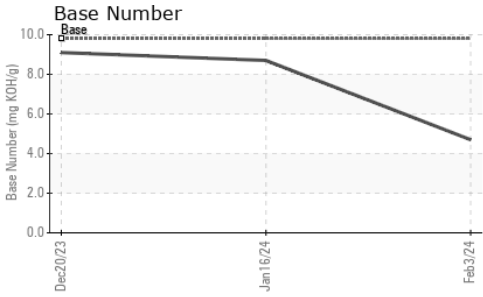
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>1.5</b>	1	0
Nitration	Abs/cm	*ASTM D7624 >20	<b>11.2</b>	9.9	4.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>25.0</b>	23.1	17.2

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>22.1</b>	20.9	12.8
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>4.7</b>	8.7	9.1



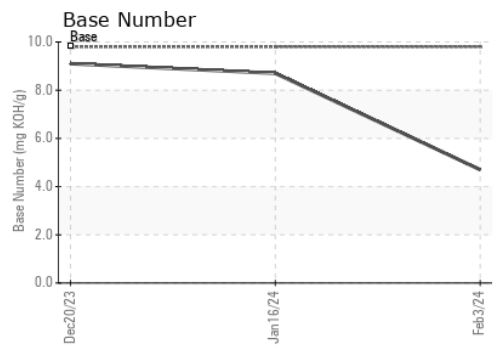
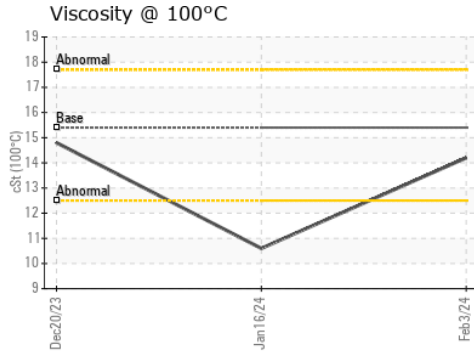
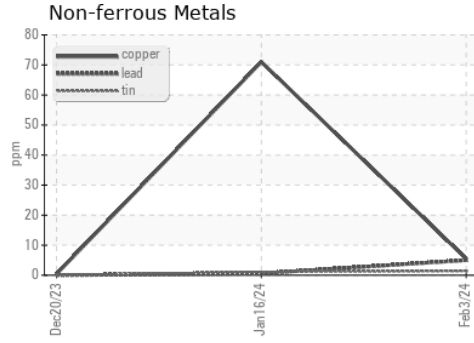
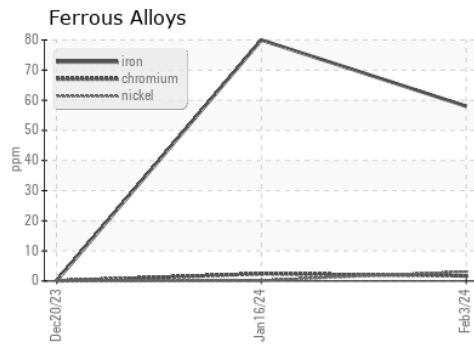
# OIL ANALYSIS REPORT



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	15.4	<b>14.2</b> ▲	10.6	14.8

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0108827 **Received** : 06 Feb 2024  
**Lab Number** : **06081909** **Tested** : 07 Feb 2024  
**Unique Number** : 10869354 **Diagnosed** : 08 Feb 2024 - Sean Felton  
**Test Package** : FLEET

**GFL Environmental - 415 - Michigan East**  
 6200 Elmridge  
 Sterling Heights, MI  
 US 48313  
 Contact: Frank Wolak  
 fwolak@gflenv.com  
 T: (586)825-9514  
 F:

Certificate L2367  
 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)