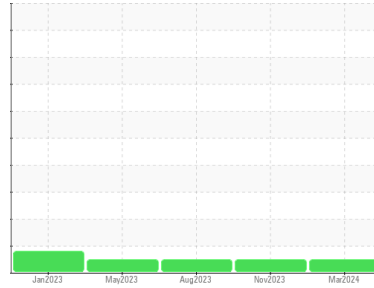


# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**G. LOPES CONSTRUCTION INC./ON-ROAD**  
 Machine Id  
**359**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

### 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>PCA0109542</b>	PCA0109775	PCA0098393
Sample Date	Client Info		<b>06 Mar 2024</b>	20 Nov 2023	23 Aug 2023
Machine Age	hrs	Client Info	<b>112000</b>	92000	72000
Oil Age	hrs	Client Info	<b>112000</b>	92000	72000
Oil Changed		Client Info	<b>N/A</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	0.2	<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 >100	<b>18</b>	27	35
Chromium	ppm	ASTM D5185m >20	<b>2</b>	4	6
Nickel	ppm	ASTM D5185m >4	<b>0</b>	<1	1
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	2
Silver	ppm	ASTM D5185m >3	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m >20	<b>9</b>	17	26
Lead	ppm	ASTM D5185m >40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m >330	<b>15</b>	34	64
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	2
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>4</b>	12	1
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m 60	<b>57</b>	57	85
Manganese	ppm	ASTM D5185m 0	<b>0</b>	<1	1
Magnesium	ppm	ASTM D5185m 1010	<b>868</b>	815	1280
Calcium	ppm	ASTM D5185m 1070	<b>1051</b>	1215	1518
Phosphorus	ppm	ASTM D5185m 1150	<b>948</b>	1006	1267
Zinc	ppm	ASTM D5185m 1270	<b>1076</b>	1169	1655
Sulfur	ppm	ASTM D5185m 2060	<b>2695</b>	2406	3320

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>6</b>	9	11
Sodium	ppm	ASTM D5185m	<b>4</b>	3	<1
Potassium	ppm	ASTM D5185m >20	<b>15</b>	40	53

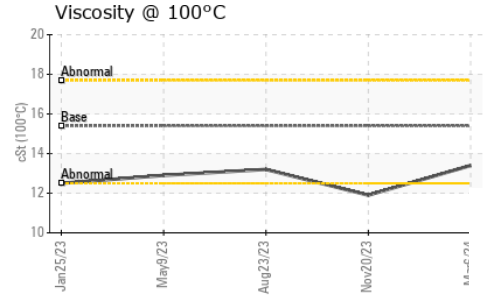
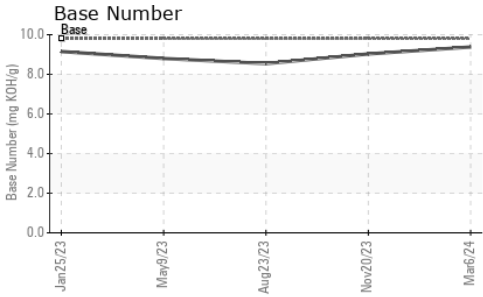
## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.3</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.2</b>	8.0	8.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.5</b>	19.7	20.2

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.4</b>	15.5	17.3
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>9.38</b>	9.03	8.54

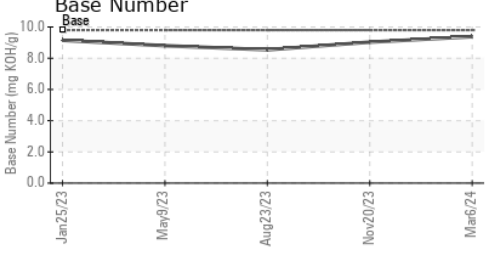
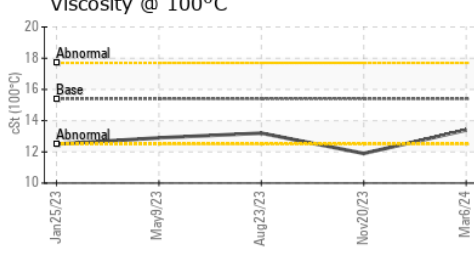
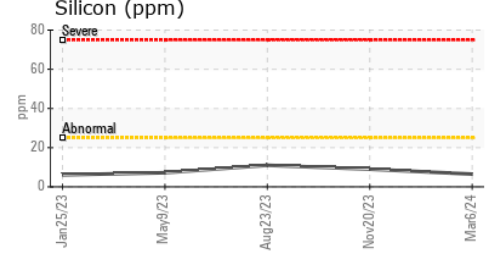
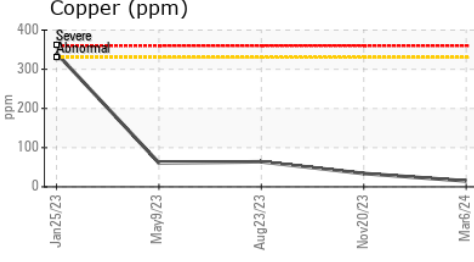
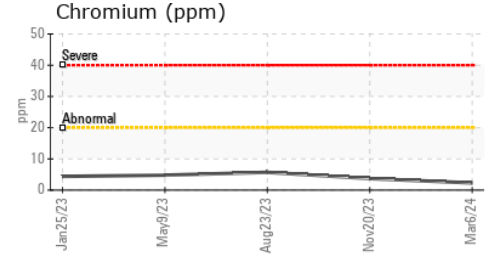
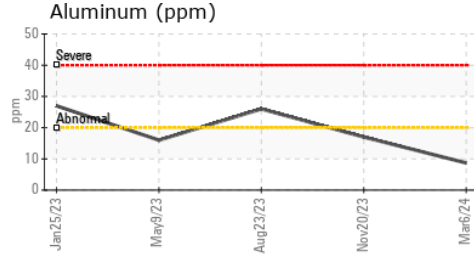
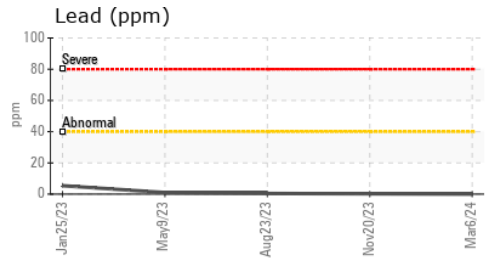
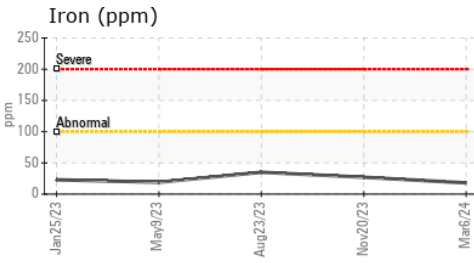
# OIL ANALYSIS REPORT



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>13.4</b>	11.9	13.2

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0109542 **Received** : 11 Mar 2024  
**Lab Number** : **06115450** **Tested** : 13 Mar 2024  
**Unique Number** : 10924283 **Diagnosed** : 13 Mar 2024 - Wes Davis  
**Test Package** : MOB 2

**G LOPES CONSTRUCTION**  
 565 WINTHROP ST  
 TAUNTON, MA  
 US 02780  
 Contact: BUTCH MCGRATH  
 bmcgrath@glopes.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)

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F: