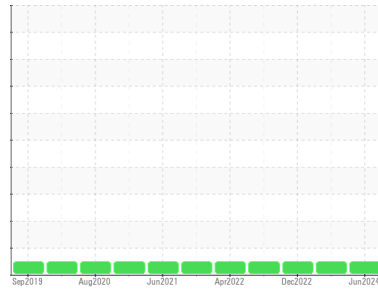


# OIL ANALYSIS REPORT

Area  
**G. LOPES CONSTRUCTION INC./On-Road**  
 Machine Id  
**329**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

Sample Rating Trend



## 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>PCA0122960</b>	PCA0083074	PCA0083321
Sample Date	Client Info		<b>12 Jun 2024</b>	29 Mar 2023	06 Dec 2022
Machine Age	mls	Client Info	<b>220000</b>	212000	192000
Oil Age	mls	Client Info	<b>120000</b>	132000	132000
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	>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 >65	<b>18</b>	27	20
Chromium	ppm	ASTM D5185m >5	<b>1</b>	2	2
Nickel	ppm	ASTM D5185m >3	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m >5	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >35	<b>6</b>	18	13
Lead	ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m >180	<b>4</b>	7	9
Tin	ppm	ASTM D5185m >8	<b>&lt;1</b>	<1	2
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>4</b>	3	3
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>61</b>	62	62
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>986</b>	1066	1048
Calcium	ppm	ASTM D5185m 1070	<b>1105</b>	1170	1209
Phosphorus	ppm	ASTM D5185m 1150	<b>1033</b>	1021	1057
Zinc	ppm	ASTM D5185m 1270	<b>1278</b>	1397	1380
Sulfur	ppm	ASTM D5185m 2060	<b>3064</b>	3216	3270

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>6</b>	5	5
Sodium	ppm	ASTM D5185m	<b>3</b>	1	0
Potassium	ppm	ASTM D5185m >20	<b>2</b>	4	6

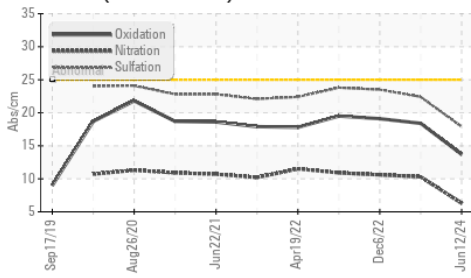
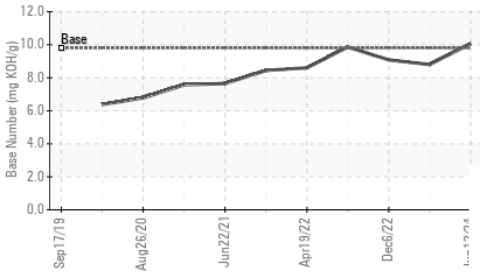
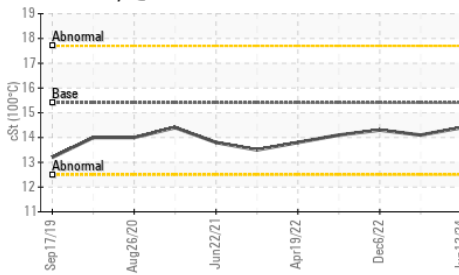
## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.2</b>	0.7	0.8
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.3</b>	10.3	10.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>17.9</b>	22.4	23.5

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>13.7</b>	18.4	19.1
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>10.06</b>	8.80	9.08

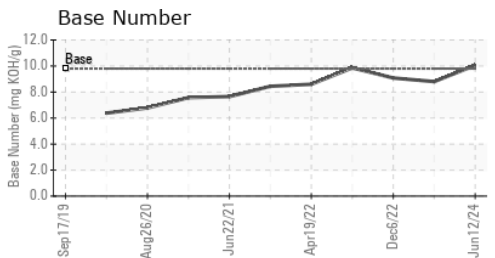
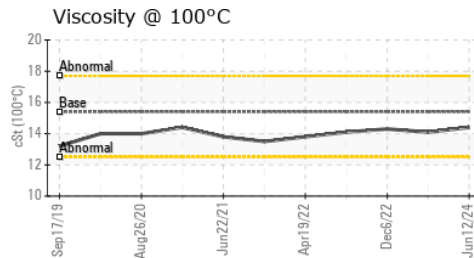
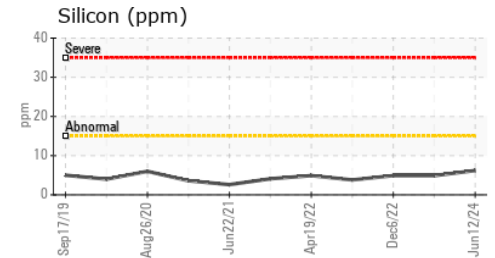
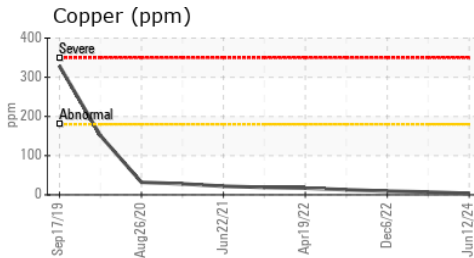
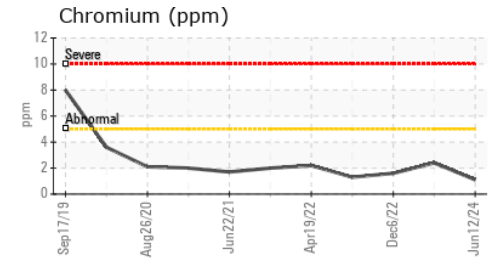
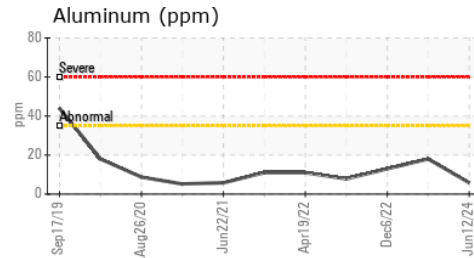
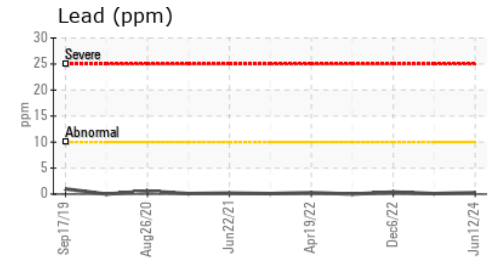
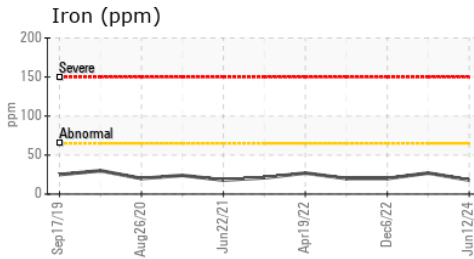
# OIL ANALYSIS REPORT

**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	<b>14.4</b>	14.1	14.3

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0122960      **Received** : 14 Jun 2024  
**Lab Number** : **06210356**      **Tested** : 17 Jun 2024  
**Unique Number** : 11083220      **Diagnosed** : 17 Jun 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: