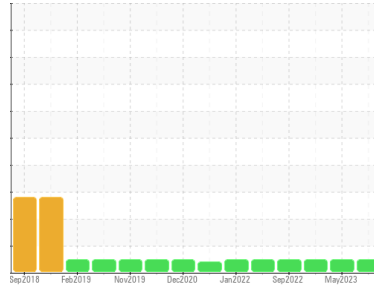


# OIL ANALYSIS REPORT



Area  
**G.LOPES CONSTRUCTION INC./Off-Road**  
 Machine Id  
**E60**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

Sample Rating Trend



**NORMAL**



## 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>PCA0104748</b>	PCA0098554	PCA0083072
Sample Date	Client Info		<b>20 Sep 2023</b>	17 May 2023	29 Mar 2023
Machine Age	hrs	Client Info	<b>12200</b>	11861	11589
Oil Age	hrs	Client Info	<b>10298</b>	10231	10298
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>	<1.0	<1.0
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>28</b>	37	18
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	2	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m >25	<b>1</b>	2	0
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	1	2
Copper	ppm	ASTM D5185m >330	<b>3</b>	4	5
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	1	<1
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>54</b>	62	5
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>67</b>	71	63
Manganese	ppm	ASTM D5185m 0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>952</b>	909	1095
Calcium	ppm	ASTM D5185m 1070	<b>1299</b>	1283	1214
Phosphorus	ppm	ASTM D5185m 1150	<b>1036</b>	1001	1069
Zinc	ppm	ASTM D5185m 1270	<b>1364</b>	1251	1418
Sulfur	ppm	ASTM D5185m 2060	<b>3538</b>	3136	3591

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>9</b>	12	8
Sodium	ppm	ASTM D5185m	<b>3</b>	13	2
Potassium	ppm	ASTM D5185m >20	<b>2</b>	4	2

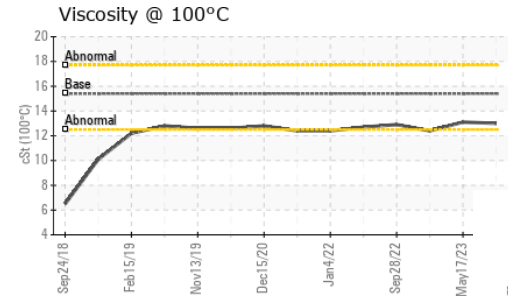
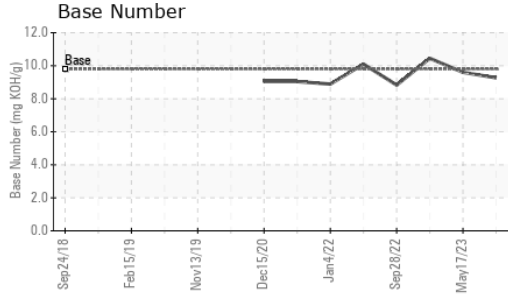
## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.9</b>	1.3	0.4
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.1</b>	8.9	8.7
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>22.2</b>	22.9	20.8

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>19.0</b>	18.0	17.2
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>9.27</b>	9.60	10.45

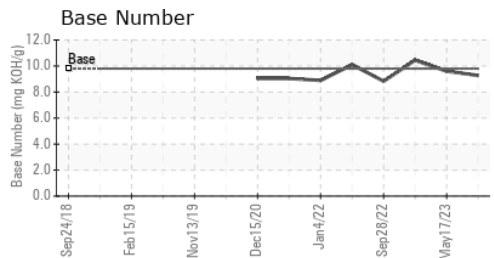
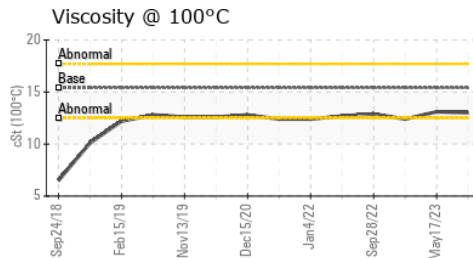
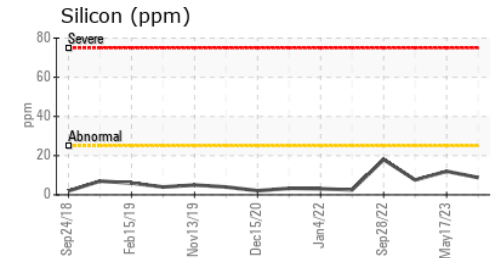
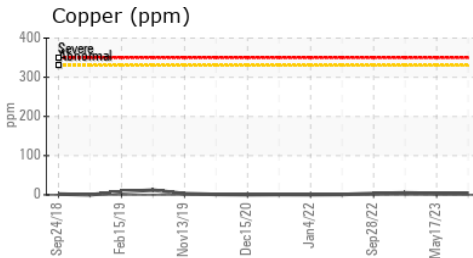
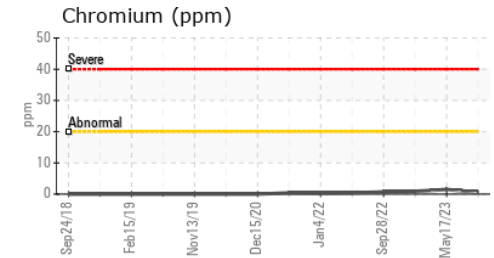
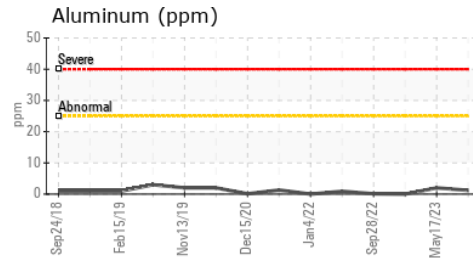
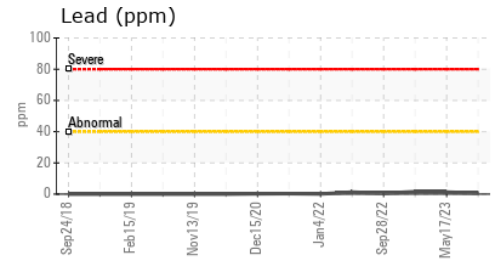
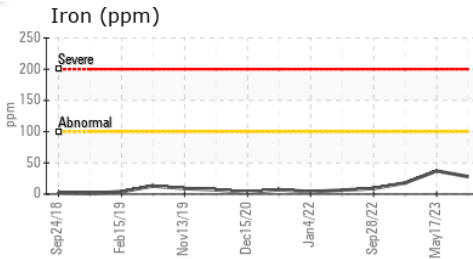
# OIL ANALYSIS REPORT



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>13.0</b>	13.1	12.4

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0104748 **Received** : 22 Sep 2023  
**Lab Number** : 05958738 **Diagnosed** : 25 Sep 2023  
**Unique Number** : 10659951 **Diagnostician** : 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: