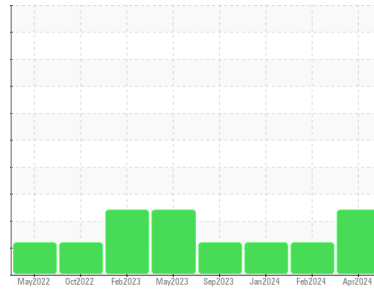


# OIL ANALYSIS REPORT

Area  
**G. LOPES CONSTRUCTION INC./ON-ROAD**  
 Machine Id  
**PU309**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

Sample Rating Trend



## DIAGNOSIS

**Recommendation**  
 We advise that you check the fuel injection system. We recommend an early resample to monitor this condition.

**Wear**  
 All component wear rates are normal.

**Contamination**  
 There is a high amount of fuel present in the oil.

**Fluid Condition**  
 Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>PCA0109890</b>	PCA0109851	PCA0109651
Sample Date	Client Info	<b>10 Apr 2024</b>	14 Feb 2024	09 Jan 2024
Machine Age	mls	<b>35700</b>	32500	31852
Oil Age	mls	<b>8200</b>	5648	10852
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>SEVERE</b>	ABNORMAL	ABNORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
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>9</b>	8	14
Chromium	ppm ASTM D5185m >20	<b>2</b>	<1	2
Nickel	ppm ASTM D5185m >4	<b>&lt;1</b>	0	2
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	<1	0
Silver	ppm ASTM D5185m >3	<b>0</b>	0	<1
Aluminum	ppm ASTM D5185m >20	<b>2</b>	2	3
Lead	ppm ASTM D5185m >40	<b>2</b>	0	<1
Copper	ppm ASTM D5185m >330	<b>1</b>	1	2
Tin	ppm ASTM D5185m >15	<b>1</b>	0	0
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	0	<1
Cadmium	ppm ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>2</b>	4	0
Barium	ppm ASTM D5185m 0	<b>0</b>	10	0
Molybdenum	ppm ASTM D5185m 60	<b>55</b>	57	54
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	0	<1
Magnesium	ppm ASTM D5185m 1010	<b>939</b>	882	881
Calcium	ppm ASTM D5185m 1070	<b>1125</b>	1017	1005
Phosphorus	ppm ASTM D5185m 1150	<b>1095</b>	1021	964
Zinc	ppm ASTM D5185m 1270	<b>1298</b>	1154	1222
Sulfur	ppm ASTM D5185m 2060	<b>3656</b>	3255	3070

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>5</b>	5	5
Sodium	ppm ASTM D5185m	<b>&lt;1</b>	0	0
Potassium	ppm ASTM D5185m >20	<b>2</b>	2	0
Fuel	% ASTM D3524 >5	<b>▲ 8.8</b>	▲ 6.4	▲ 7.9

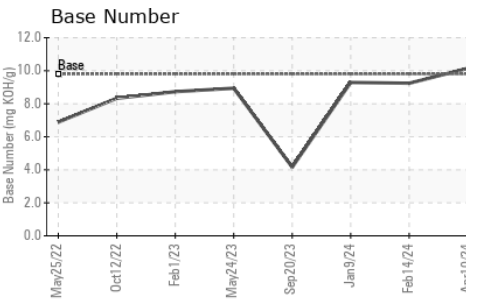
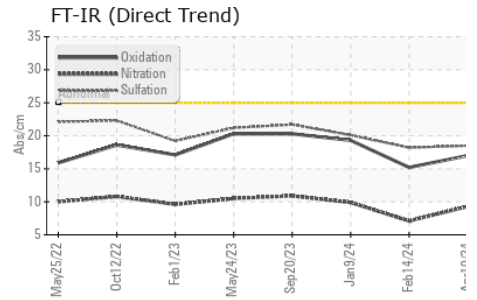
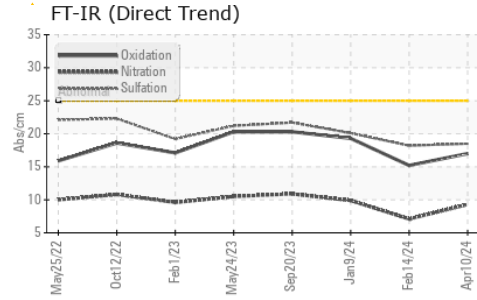
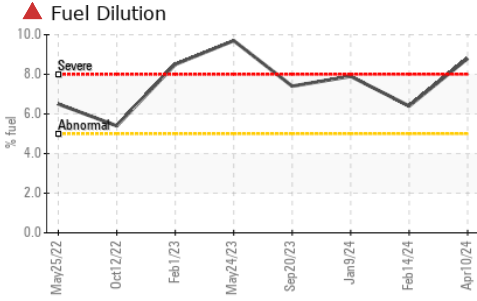
## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.2</b>	0.2	0.3
Nitration	Abs/cm *ASTM D7624 >20	<b>9.3</b>	7.1	9.9
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>18.5</b>	18.2	20.1

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>17.0</b>	15.2	19.3
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>10.14</b>	9.24	9.29

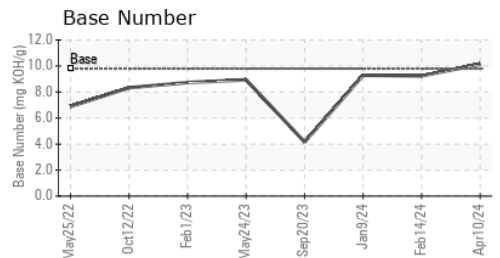
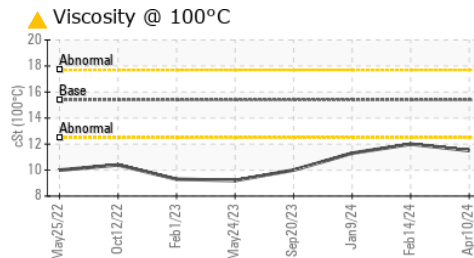
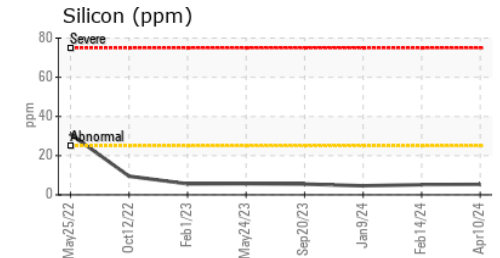
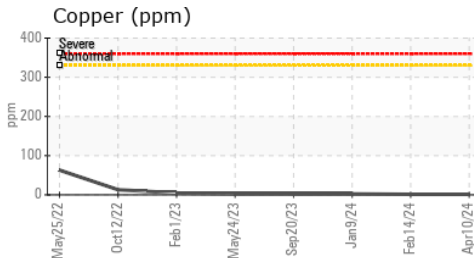
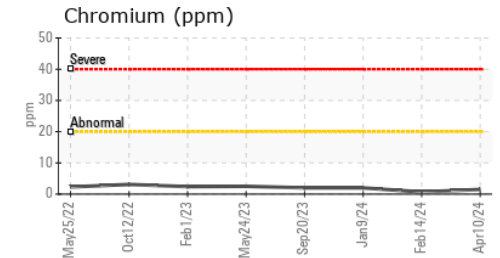
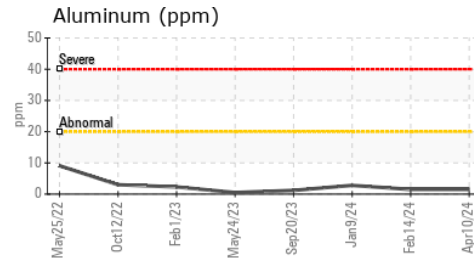
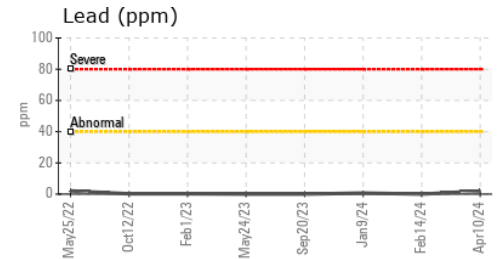
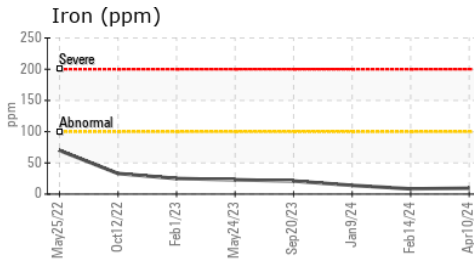
# OIL ANALYSIS REPORT



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	▲ 11.5	▲ 12.0

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0109890 **Received** : 12 Apr 2024  
**Lab Number** : 06147560 **Tested** : 17 Apr 2024  
**Unique Number** : 10977638 **Diagnosed** : 17 Apr 2024 - Jonathan Hester  
**Test Package** : MOB 2 ( Additional Tests: PercentFuel )

**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: