

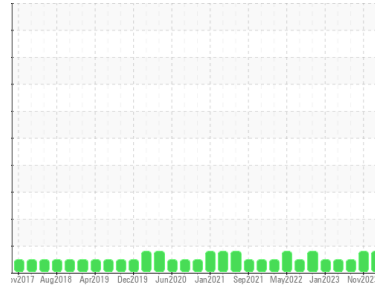
OIL ANALYSIS REPORT

Sample Rating Trend

SOOT



Area
G.LOPES CONSTRUCTION INC./On-Road
 Machine Id
306
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)



DIAGNOSIS

- Recommendation**
We recommend that you drain the oil from the component if this has not already been done.
- Wear**
All component wear rates are normal.
- Contamination**
Light concentration of carbon/soot present in the oil.
- Fluid Condition**
The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0109674	PCA0083390	PCA0104704
Sample Date	Client Info		30 Jan 2024	15 Nov 2023	30 Aug 2023
Machine Age	mls	Client Info	396000	388000	380000
Oil Age	mls	Client Info	309000	309000	317000
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	ABNORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >120	22	22	14
Chromium	ppm	ASTM D5185m >20	1	<1	<1
Nickel	ppm	ASTM D5185m >5	<1	0	0
Titanium	ppm	ASTM D5185m >2	<1	<1	<1
Silver	ppm	ASTM D5185m >2	<1	0	0
Aluminum	ppm	ASTM D5185m >20	2	2	<1
Lead	ppm	ASTM D5185m >40	4	2	2
Copper	ppm	ASTM D5185m >330	7	5	5
Tin	ppm	ASTM D5185m >15	1	0	<1
Vanadium	ppm	ASTM D5185m	<1	0	<1
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	7	5	7
Barium	ppm	ASTM D5185m 0	0	<1	0
Molybdenum	ppm	ASTM D5185m 60	59	57	57
Manganese	ppm	ASTM D5185m 0	2	0	<1
Magnesium	ppm	ASTM D5185m 1010	880	864	931
Calcium	ppm	ASTM D5185m 1070	981	980	1217
Phosphorus	ppm	ASTM D5185m 1150	974	925	988
Zinc	ppm	ASTM D5185m 1270	1173	1117	1238
Sulfur	ppm	ASTM D5185m 2060	2818	2879	3807

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	4	3	4
Sodium	ppm	ASTM D5185m	3	0	2
Potassium	ppm	ASTM D5185m >20	4	2	<1

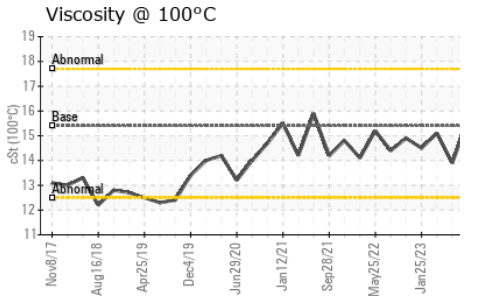
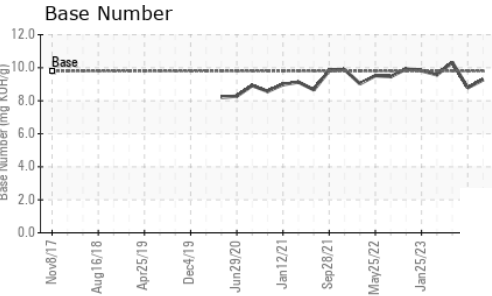
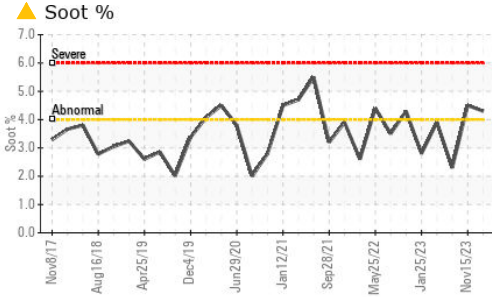
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	▲ 4.3	▲ 4.5	2.3
Nitration	Abs/cm	*ASTM D7624 >20	9.6	10.2	8.0
Sulfation	Abs/.1mm	*ASTM D7415 >30	26.8	28.2	23.2

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	16.5	17.0	16.0
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	9.27	8.79	10.32

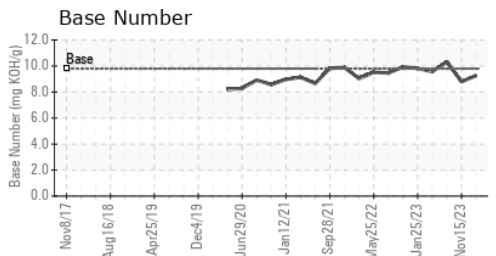
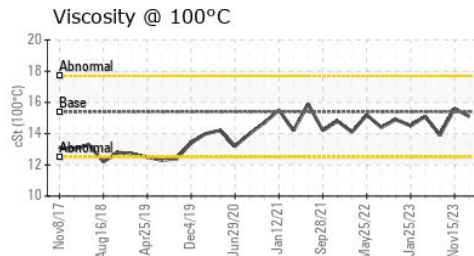
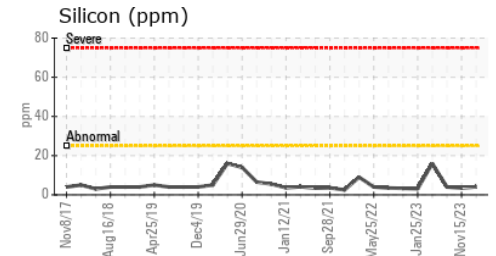
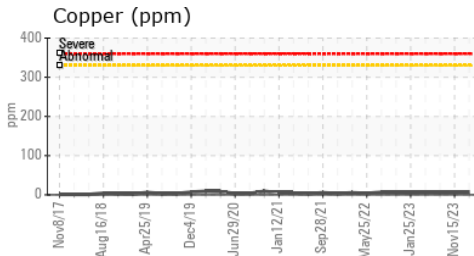
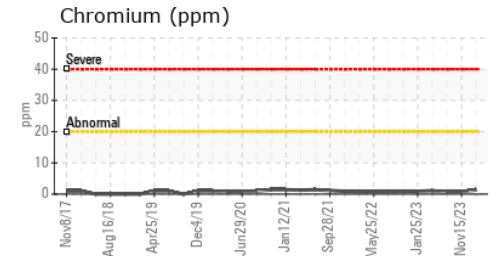
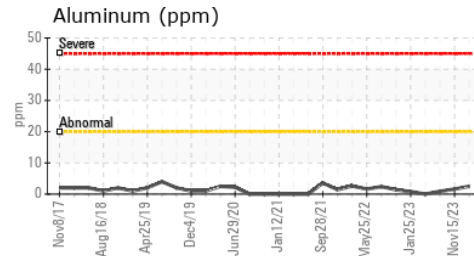
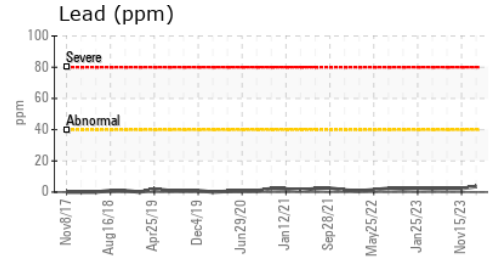
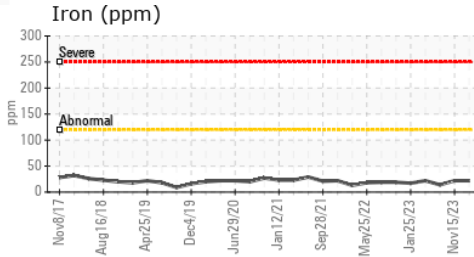
OIL ANALYSIS REPORT



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	15.1	15.6

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0109674 **Received** : 02 Feb 2024
Lab Number : 06078444 **Diagnosed** : 05 Feb 2024
Unique Number : 10860535 **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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