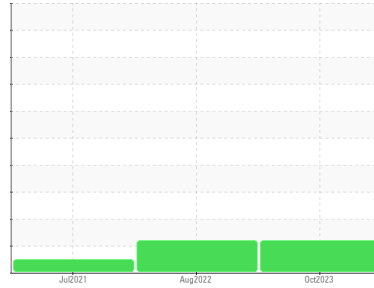


OIL ANALYSIS REPORT

Sample Rating Trend

FUEL



Area
G.LOPES CONSTRUCTION INC./Off-Road
 Machine Id
T-79
 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. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PCA0104584	PCA0078352	WC0594653
Sample Date	Client Info	18 Oct 2023	31 Aug 2022	13 Jul 2021
Machine Age	hrs	8158	7656	6567
Oil Age	hrs	7069	1089	0
Oil Changed	Client Info	N/A	N/A	Changed
Sample Status		ABNORMAL	ABNORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >200	10	24	16
Chromium	ppm	ASTM D5185m >20	<1	<1	<1
Nickel	ppm	ASTM D5185m >10	<1	<1	<1
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m >2	0	1	<1
Aluminum	ppm	ASTM D5185m >30	2	5	2
Lead	ppm	ASTM D5185m >40	<1	<1	<1
Copper	ppm	ASTM D5185m >20	<1	2	1
Tin	ppm	ASTM D5185m >20	<1	<1	<1
Antimony	ppm	ASTM D5185m	---	---	0
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 0	10	34	841
Barium	ppm	ASTM D5185m 0	0	<1	0
Molybdenum	ppm	ASTM D5185m 60	63	63	120
Manganese	ppm	ASTM D5185m 0	0	<1	<1
Magnesium	ppm	ASTM D5185m 1010	923	812	631
Calcium	ppm	ASTM D5185m 1070	1114	1058	1521
Phosphorus	ppm	ASTM D5185m 1150	1126	882	698
Zinc	ppm	ASTM D5185m 1270	1234	1114	796
Sulfur	ppm	ASTM D5185m 2060	3639	2717	2140

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >20	4	4	6
Sodium	ppm	ASTM D5185m	0	2	1
Potassium	ppm	ASTM D5185m >20	1	<1	0
Fuel	%	ASTM D3524 >3.0	▲ 3.8	▲ 4.5	<1.0

INFRA-RED

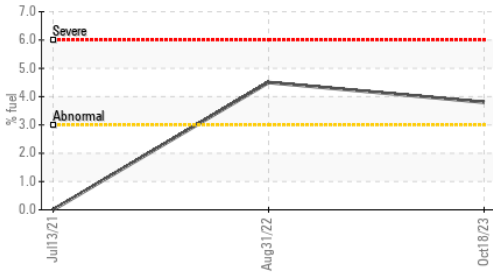
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >3	0.1	0.3	0.2
Nitration	Abs/cm	*ASTM D7624 >20	6.9	9.3	6.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	17.8	20.5	23.9

FLUID DEGRADATION

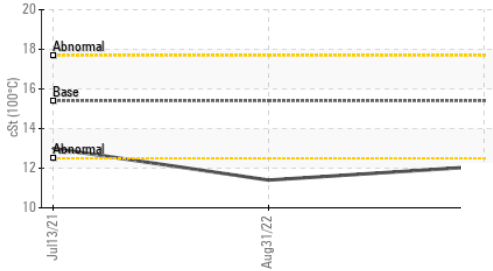
method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	14.6	16.6	16.8
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	9.70	7.96	9.37

OIL ANALYSIS REPORT

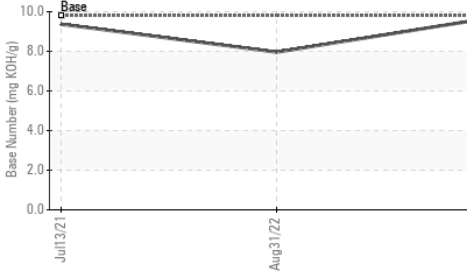
▲ Fuel Dilution



▲ Viscosity @ 100°C



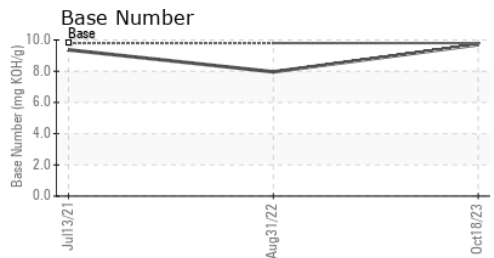
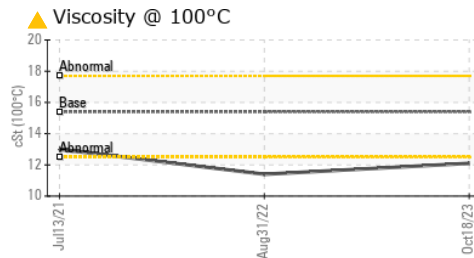
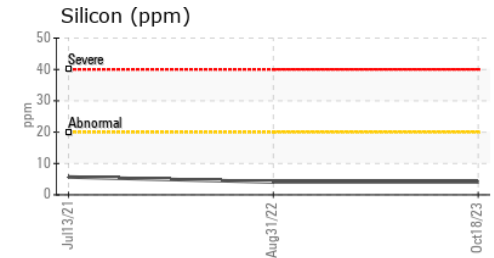
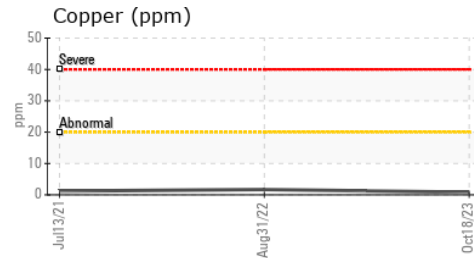
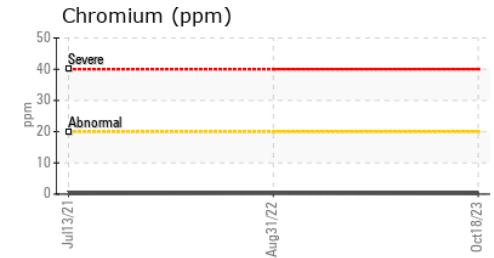
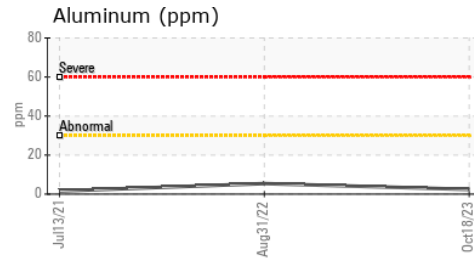
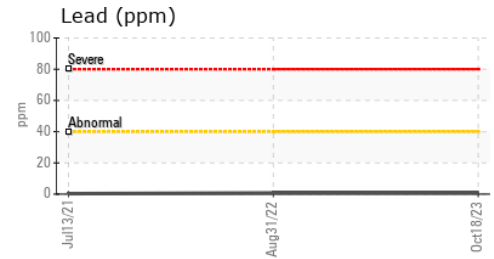
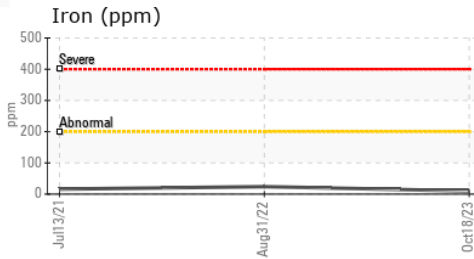
Base Number



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	▲ 12.1	▲ 11.4	13.0

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0104584 **Received** : 20 Oct 2023
Lab Number : 05985759 **Diagnosed** : 23 Oct 2023
Unique Number : 10708421 **Diagnostician** : Wes Davis
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)

T:
F: