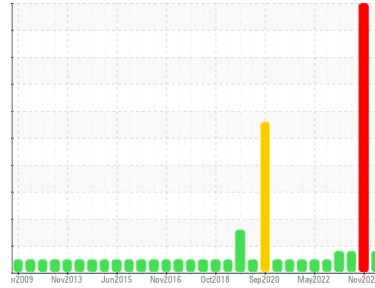


Area
G.LOPES CONSTRUCTION INC./On-Road
Machine Id
122
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)



DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. No other contaminants were detected 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	PCA0078197	PCA0078197	PCA0098320
Sample Date	Client Info	15 Nov 2023	15 Nov 2023	12 Jul 2023
Machine Age	mls	Client Info	535000	535000
Oil Age	mls	Client Info	535000	535000
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		MARGINAL	SEVERE	ABNORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG
Glycol	WC Method		NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185m	>100	35	▲ 192	40
Chromium	ppm	ASTM D5185m	>20	<1	<1	1
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	⬮ 60	8
Lead	ppm	ASTM D5185m	>40	3	▲ 58	2
Copper	ppm	ASTM D5185m	>330	81	36	▲ 584
Tin	ppm	ASTM D5185m	>15	<1	▲ 8	1
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		<1	<1	0

ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185m	0	13	▲ 75	2
Barium	ppm	ASTM D5185m	0	<1	<1	2
Molybdenum	ppm	ASTM D5185m	60	50	▲ 0	61
Manganese	ppm	ASTM D5185m	0	0	2	<1
Magnesium	ppm	ASTM D5185m	1010	755	▲ 2	917
Calcium	ppm	ASTM D5185m	1070	1246	▲ 57	1124
Phosphorus	ppm	ASTM D5185m	1150	934	▲ 245	984
Zinc	ppm	ASTM D5185m	1270	1153	▲ 0	1258
Sulfur	ppm	ASTM D5185m	2060	2935	▲ 950	3133

CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>25	7	11	9
Sodium	ppm	ASTM D5185m		<1	8	2
Potassium	ppm	ASTM D5185m	>20	2	7	1
Fuel	%	ASTM D3524	>5	▲ 2.2	0.9	<1.0

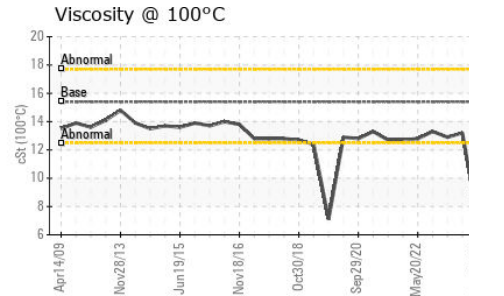
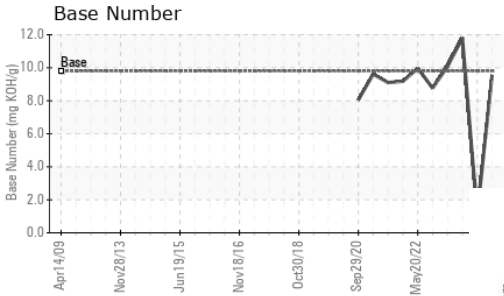
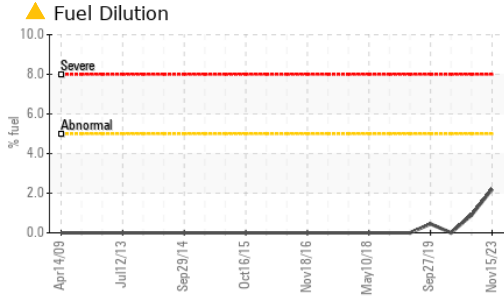
INFRA-RED

method	limit/base	current	history1	history2		
Soot %	%	*ASTM D7844	>3	0.7	0.1	0.7
Nitration	Abs/cm	*ASTM D7624	>20	6.6	5.6	7.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.1	▲ 52.7	21.0

FLUID DEGRADATION

method	limit/base	current	history1	history2		
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.1	⬮ 69.5	16.5
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.53	⬮ 1.15	11.79

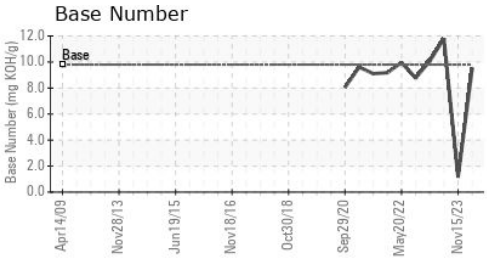
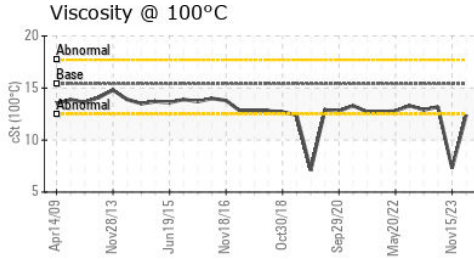
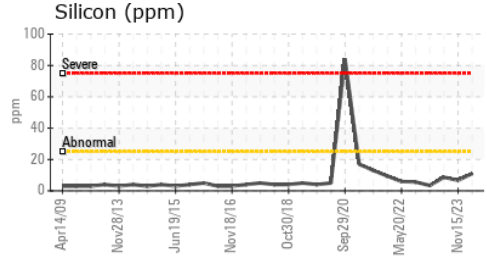
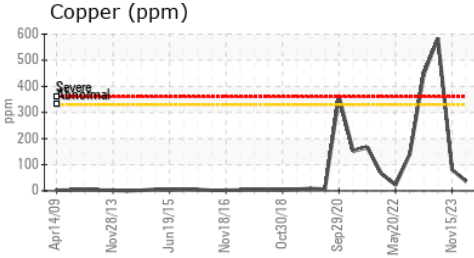
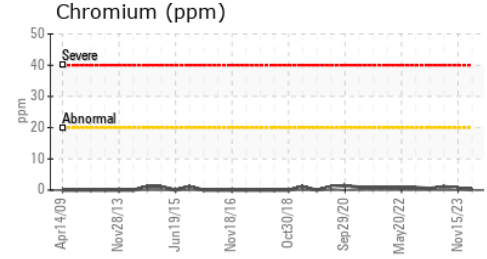
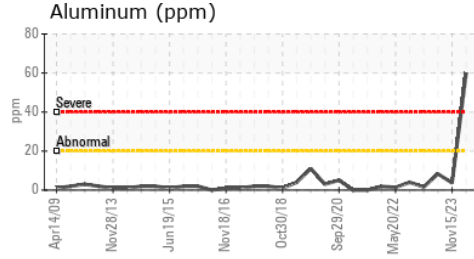
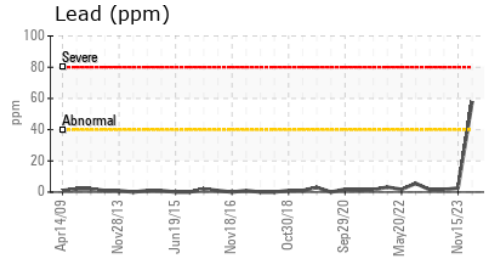
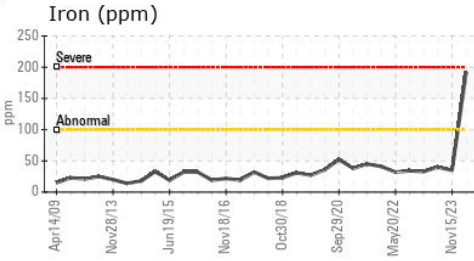
OIL ANALYSIS REPORT



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	12.4	▲ 7.3	13.2

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0078197 **Received** : 17 Nov 2023
Lab Number : 06011100 **Diagnosed** : 21 Nov 2023
Unique Number : 10750244 **Diagnostician** : Wes Davis
Test Package : MOB 2 (Additional Tests: FuelDilution, 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: