



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
G. LOPES CONSTRUCTION INC./ON-ROAD

Machine Id

376

Component

Diesel Engine

Fluid

PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0110069	PCA0109750	PCA0098574
Sample Date		Client Info		22 May 2024	11 Dec 2023	02 Aug 2023
Machine Age	hrs	Client Info		56000	44000	32000
Oil Age	hrs	Client Info		56000	44000	32000
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	15	35	6
Chromium	ppm	ASTM D5185m	>20	2	2	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	1	0	0
Aluminum	ppm	ASTM D5185m	>20	8	4	3
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	3	2	<1
Tin	ppm	ASTM D5185m	>15	1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

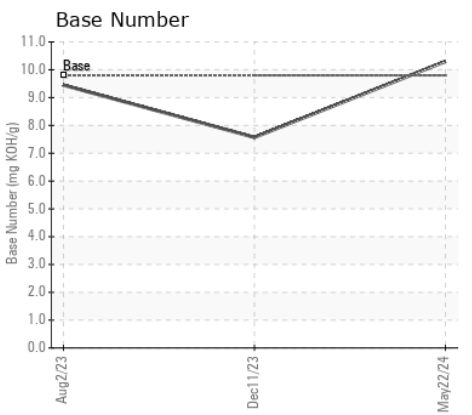
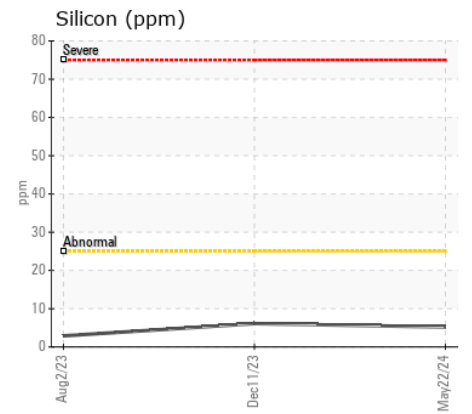
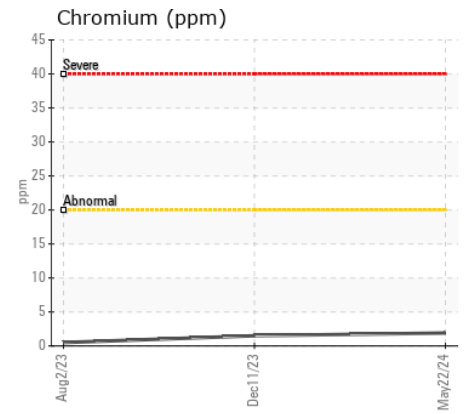
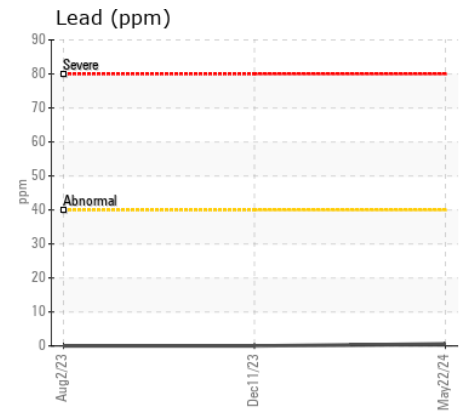
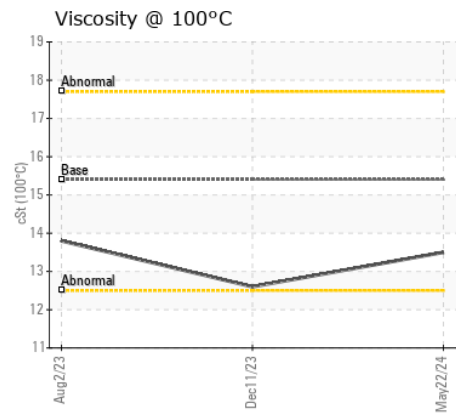
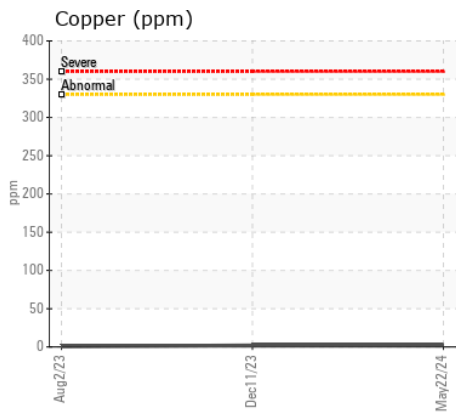
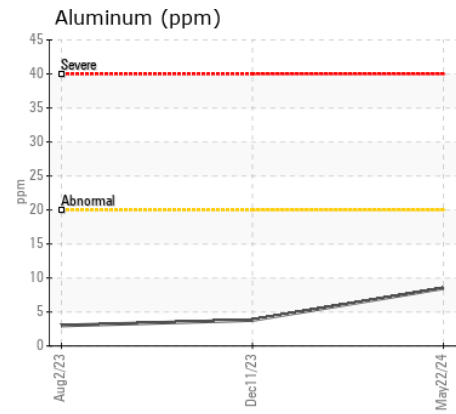
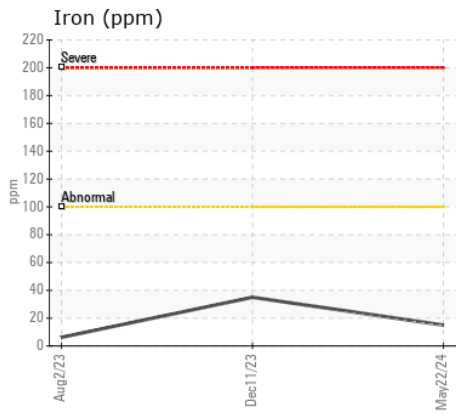
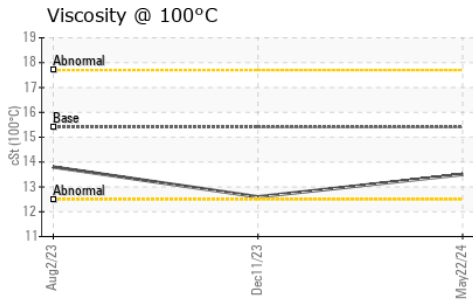
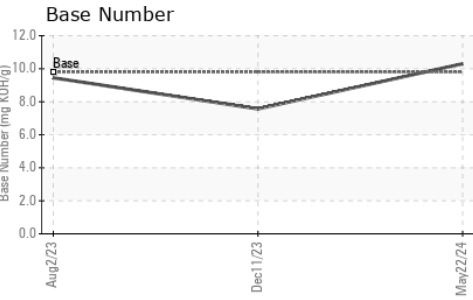
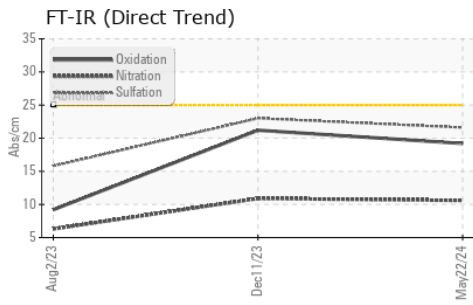
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	6	3
Potassium	ppm	ASTM D5185m	>20	4	8	6
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.9	0.7	0.2
Nitration	Abs/cm	*ASTM D7624	>20	10.6	10.9	6.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.6	23.0	15.8
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

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.

Sodium	ppm	ASTM D5185m		9	4	5
Boron	ppm	ASTM D5185m	0	1	13	<1
Barium	ppm	ASTM D5185m	0	<1	0	0
Molybdenum	ppm	ASTM D5185m	60	49	56	<1
Manganese	ppm	ASTM D5185m	0	<1	1	<1
Magnesium	ppm	ASTM D5185m	1010	806	823	9
Calcium	ppm	ASTM D5185m	1070	912	1096	2179
Phosphorus	ppm	ASTM D5185m	1150	753	918	830
Zinc	ppm	ASTM D5185m	1270	1067	1142	1005
Sulfur	ppm	ASTM D5185m	2060	2319	2956	3641
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.2	21.2	9.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	10.30	7.57	9.45
Visc @ 100°C	cSt	ASTM D445	15.4	13.5	12.6	13.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0110069 **Received** : 24 May 2024
Lab Number : 06191239 **Tested** : 29 May 2024
Unique Number : 11047991 **Diagnosed** : 29 May 2024 - Wes Davis
Test Package : MOB 2

G LOPES CONSTRUCTION
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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)