



Area
G.LOPES CONSTRUCTION INC./Off-Road
Machine Id
L43
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0109895	PCA0109645	PCA0109784
Sample Date		Client Info		10 Apr 2024	21 Feb 2024	26 Dec 2023
Machine Age	hrs	Client Info		24210	24210	24210
Oil Age	hrs	Client Info		18062	18062	18062
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	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	45	48	67
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>25	1	<1	1
Lead	ppm	ASTM D5185m	>40	12	1	7
Copper	ppm	ASTM D5185m	>330	264	▲ 579	▲ 769
Tin	ppm	ASTM D5185m	>15	1	1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	LIGHT	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

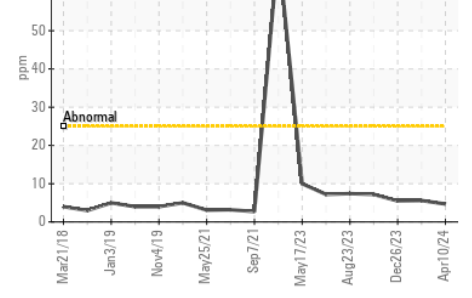
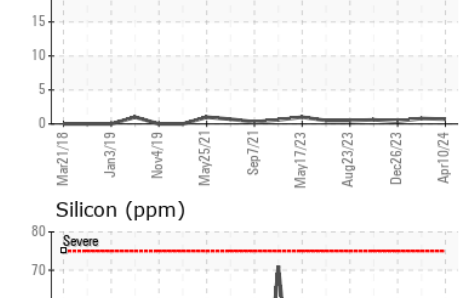
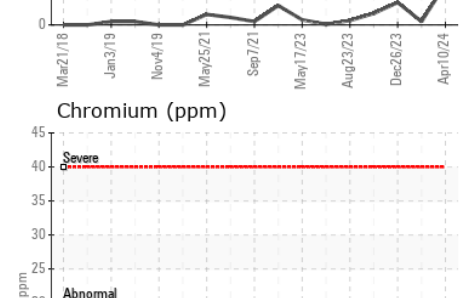
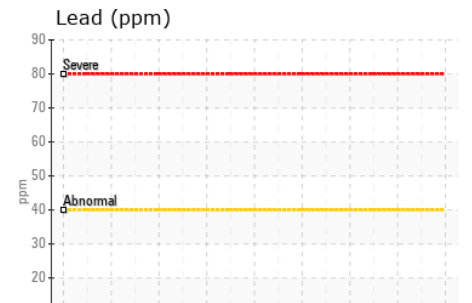
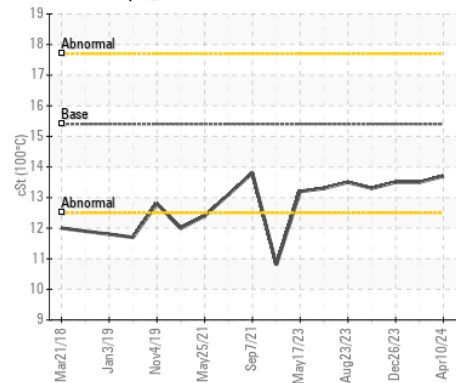
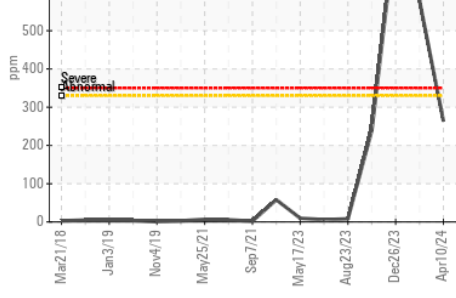
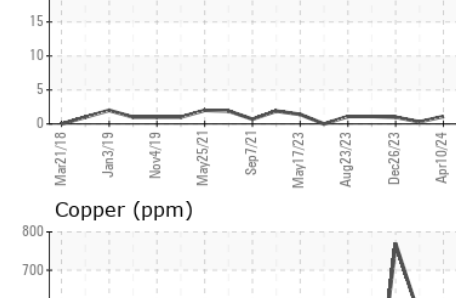
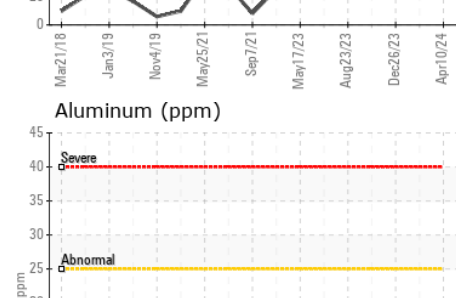
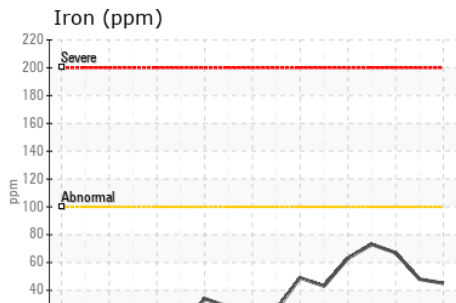
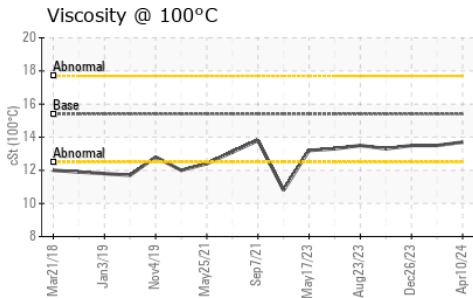
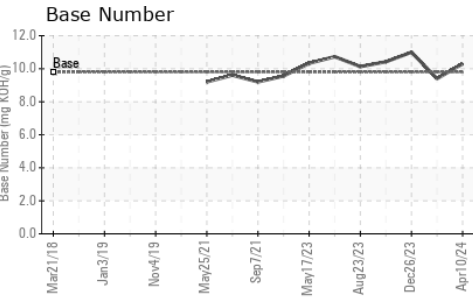
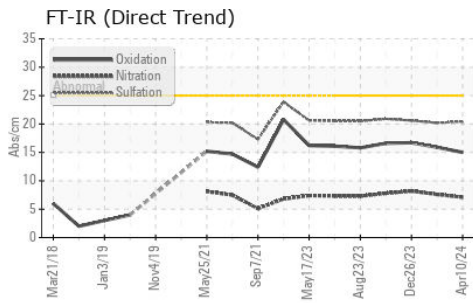
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	6	6
Potassium	ppm	ASTM D5185m	>20	2	1	0
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	0.0
Soot %	%	*ASTM D7844	>3	0.8	0.7	0.9
Nitration	Abs/cm	*ASTM D7624	>20	7.1	7.6	8.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.4	20.2	20.6
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		<1	0	0
Boron	ppm	ASTM D5185m	0	3	8	38
Barium	ppm	ASTM D5185m	0	0	5	0
Molybdenum	ppm	ASTM D5185m	60	59	60	61
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	1024	869	844
Calcium	ppm	ASTM D5185m	1070	1221	1001	1132
Phosphorus	ppm	ASTM D5185m	1150	1167	864	932
Zinc	ppm	ASTM D5185m	1270	1406	1174	1145
Sulfur	ppm	ASTM D5185m	2060	3668	2657	2632
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.0	15.9	16.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	10.30	9.40	11.00
Visc @ 100°C	cSt	ASTM D445	15.4	13.7	13.5	13.5



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0109895 **Received** : 12 Apr 2024
Lab Number : 06147557 **Tested** : 15 Apr 2024
Unique Number : 10977635 **Diagnosed** : 15 Apr 2024 - Wes Davis
Test Package : MOB 2

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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)