

Area
G. LOPES CONSTRUCTION INC./On-Road
Machine Id
328
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		PCA0122636	PCA0083391	PCA0098532
Sample Date		Client Info		23 Apr 2024	15 Nov 2023	07 Jun 2023
Machine Age	mls	Client Info		312000	292000	272000
Oil Age	mls	Client Info		204000	212000	232000
Filter Age	mls	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	>65	24	25	23
Chromium	ppm	ASTM D5185m	>5	2	2	2
Nickel	ppm	ASTM D5185m	>3	0	<1	0
Titanium	ppm	ASTM D5185m	>5	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>35	13	10	9
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>180	4	5	5
Tin	ppm	ASTM D5185m	>8	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

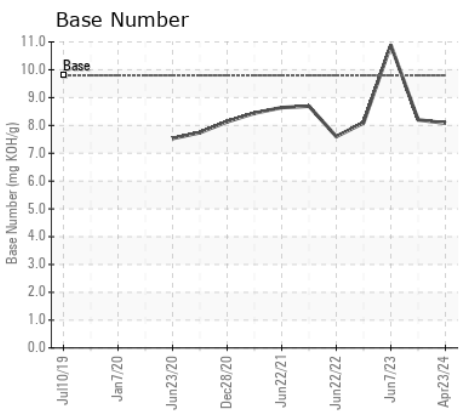
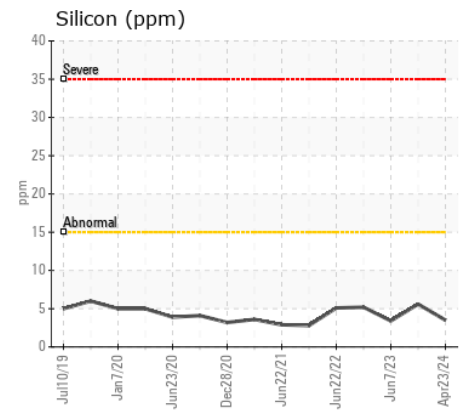
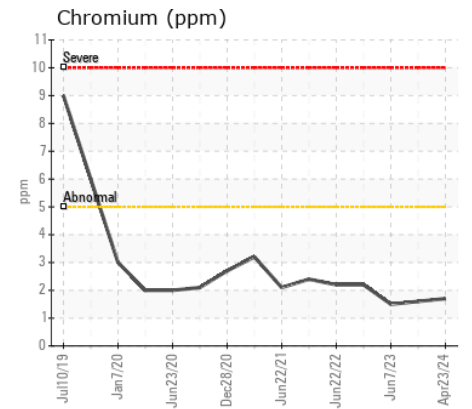
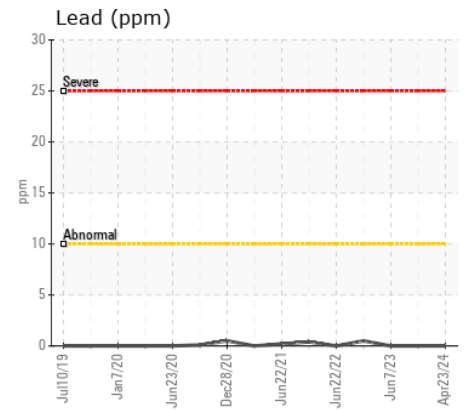
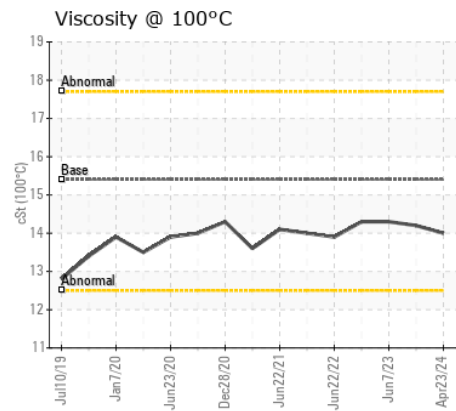
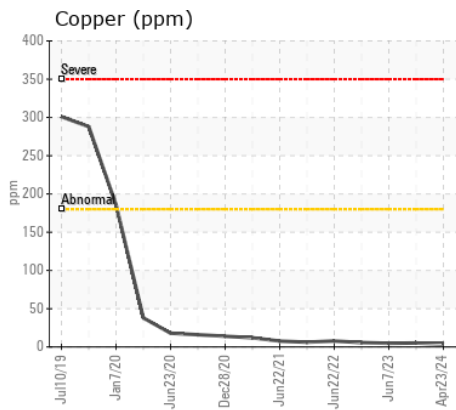
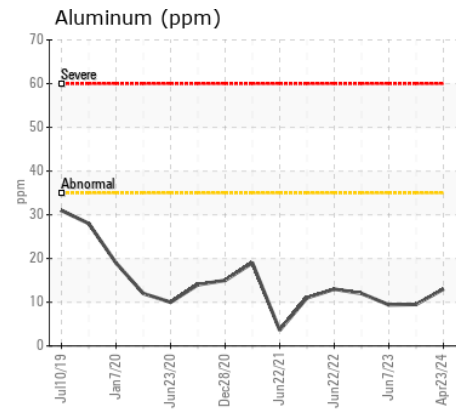
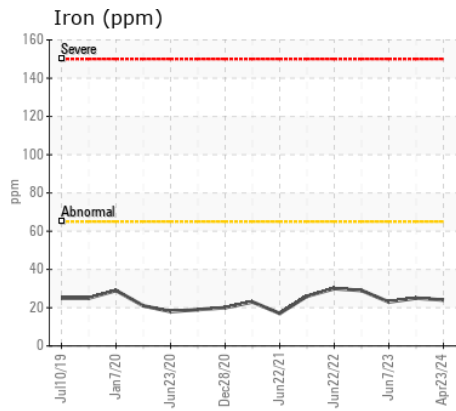
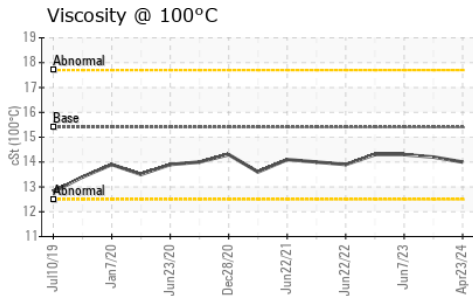
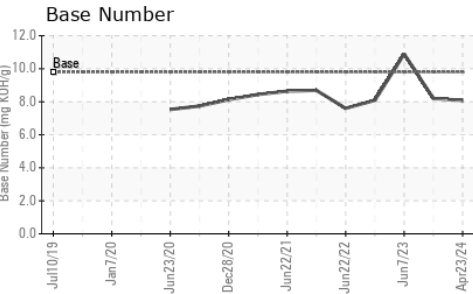
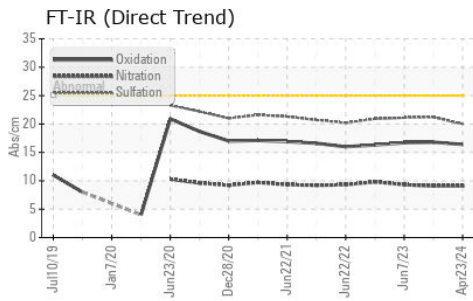
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>15	4	6	3
Potassium	ppm	ASTM D5185m	>20	1	5	<1
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
Soot %	%	*ASTM D7844	>3	0.6	0.8	0.7
Nitration	Abs/cm	*ASTM D7624	>20	9.1	9.1	9.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.0	21.2	21.1
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		3	2	2
Boron	ppm	ASTM D5185m	0	<1	2	<1
Barium	ppm	ASTM D5185m	0	0	<1	0
Molybdenum	ppm	ASTM D5185m	60	62	78	62
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	1004	1203	1038
Calcium	ppm	ASTM D5185m	1070	1164	1318	1188
Phosphorus	ppm	ASTM D5185m	1150	1056	1229	1058
Zinc	ppm	ASTM D5185m	1270	1274	1571	1306
Sulfur	ppm	ASTM D5185m	2060	3387	3817	3473
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.4	16.8	16.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.08	8.20	10.89
Visc @ 100°C	cSt	ASTM D445	15.4	14.0	14.2	14.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0122636
Lab Number : 06161703
Unique Number : 10997126
Test Package : MOB 2
Received : 26 Apr 2024
Tested : 28 Apr 2024
Diagnosed : 28 Apr 2024 - Wes Davis

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)