

Area
MISCELLANEOUS
Machine Id
HM Lopes 317
Component
Diesel Engine
Fluid
{not provided} (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: Hm lopes 317)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0109892	PCA0109773	---
Sample Date		Client Info		10 Apr 2024	15 Nov 2023	---
Machine Age	hrs	Client Info		1157	1157	---
Oil Age	hrs	Client Info		1157	1157	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		N/A	N/A	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	73	47	---
Chromium	ppm	ASTM D5185m	>20	4	4	---
Nickel	ppm	ASTM D5185m	>4	<1	0	---
Titanium	ppm	ASTM D5185m		<1	2	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>20	4	14	---
Lead	ppm	ASTM D5185m	>40	35	3	---
Copper	ppm	ASTM D5185m	>330	3	5	---
Tin	ppm	ASTM D5185m	>15	3	1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

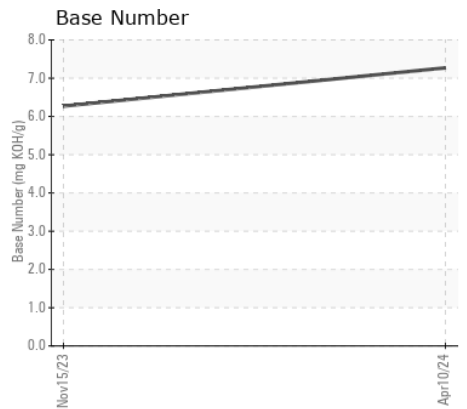
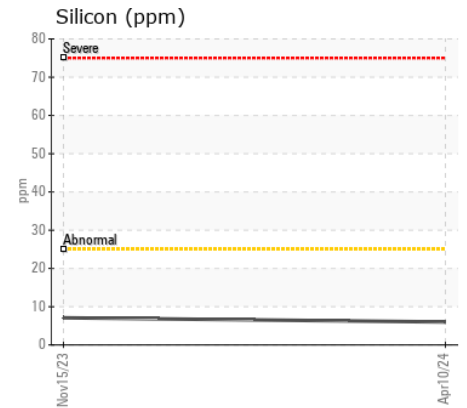
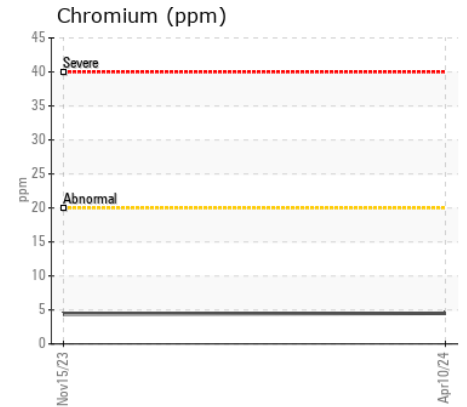
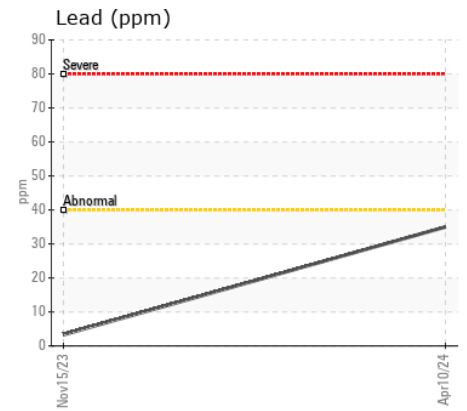
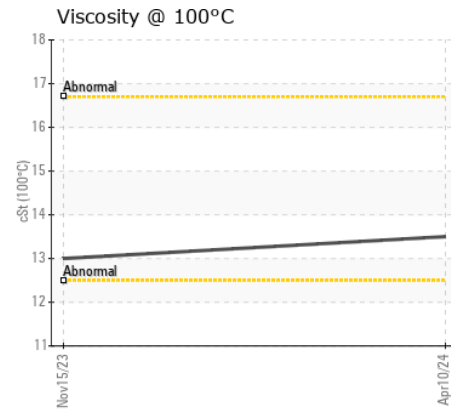
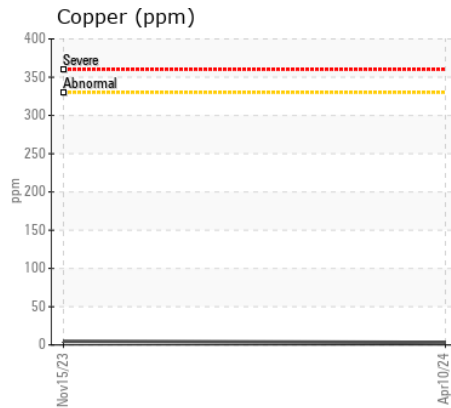
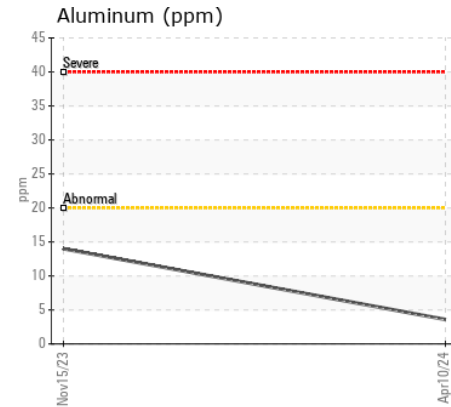
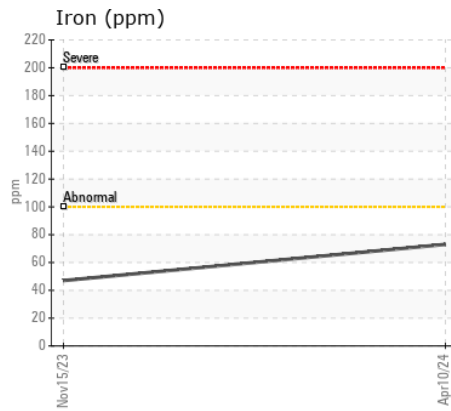
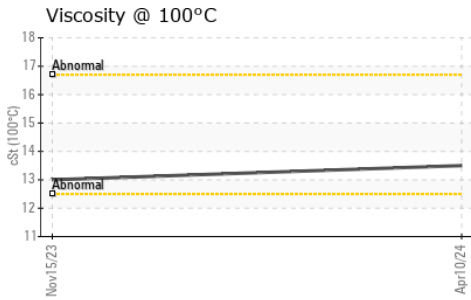
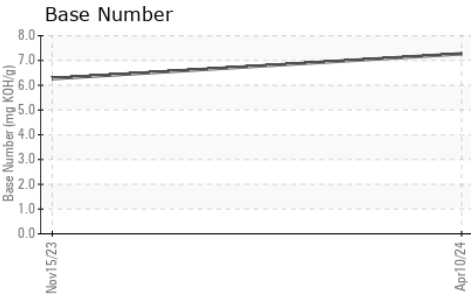
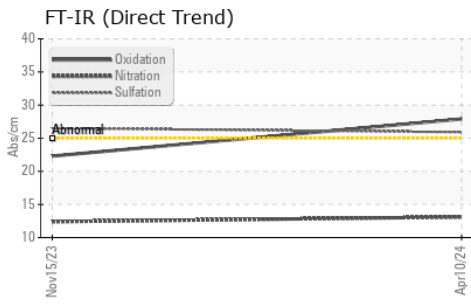
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	7	---
Potassium	ppm	ASTM D5185m	>20	2	57	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	0.0	---
Soot %	%	*ASTM D7844	>3	0.5	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	13.1	12.4	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.9	26.5	---
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	---

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	1	---
Boron	ppm	ASTM D5185m		6	7	---
Barium	ppm	ASTM D5185m		0	<1	---
Molybdenum	ppm	ASTM D5185m		67	63	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m		1094	935	---
Calcium	ppm	ASTM D5185m		1308	1187	---
Phosphorus	ppm	ASTM D5185m		1168	1003	---
Zinc	ppm	ASTM D5185m		1475	1248	---
Sulfur	ppm	ASTM D5185m		3569	3089	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	27.9	22.3	---
Base Number (BN)	mg KOH/g	ASTM D2896		7.27	6.27	---
Visc @ 100°C	cSt	ASTM D445		13.5	13.0	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0109892 **Received** : 12 Apr 2024
Lab Number : 06147566 **Tested** : 15 Apr 2024
Unique Number : 10977644 **Diagnosed** : 16 Apr 2024 - Don Baldrige
Test Package : MOB 2

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: