



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
HITACHI E-6
Component
Diesel Engine
Fluid
FLEET GUARD 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LP0001002	LP0000646	WC0570361
Sample Date		Client Info		25 Jan 2024	17 Oct 2023	07 Jul 2021
Machine Age	hrs	Client Info		12147	11540	0
Oil Age	hrs	Client Info		250	273	0
Filter Age	hrs	Client Info		250	273	0
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	2	5	12
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	2
Lead	ppm	ASTM D5185m	>40	0	<1	2
Copper	ppm	ASTM D5185m	>330	<1	5	<1
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

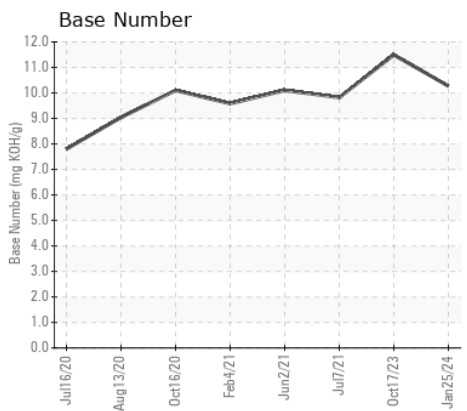
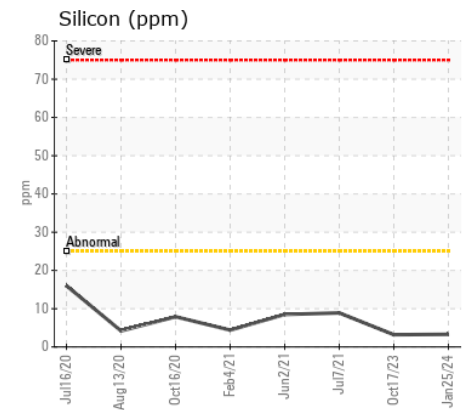
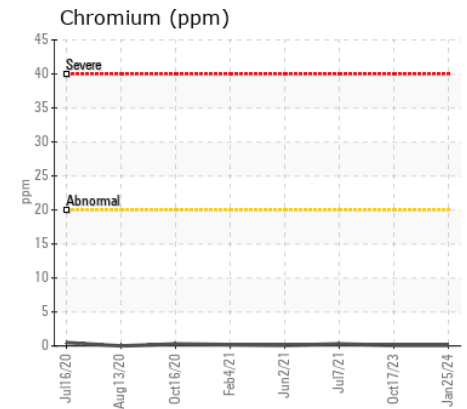
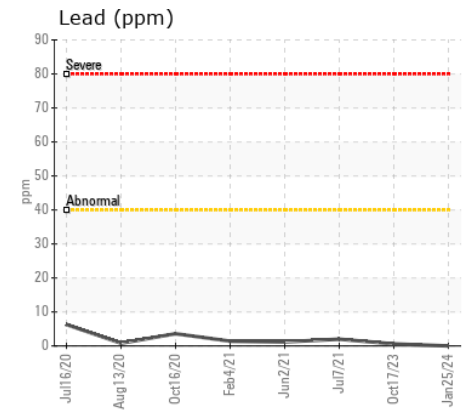
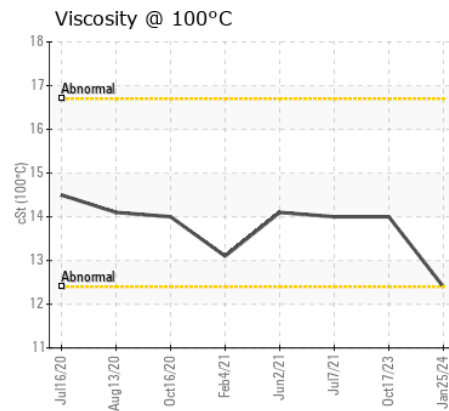
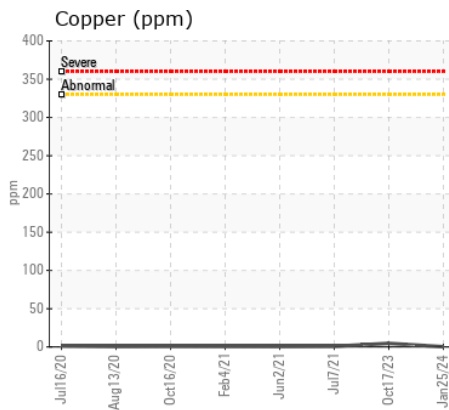
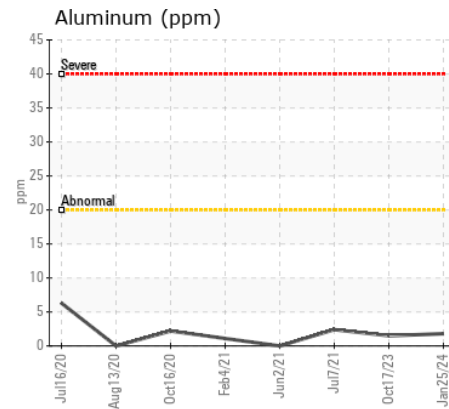
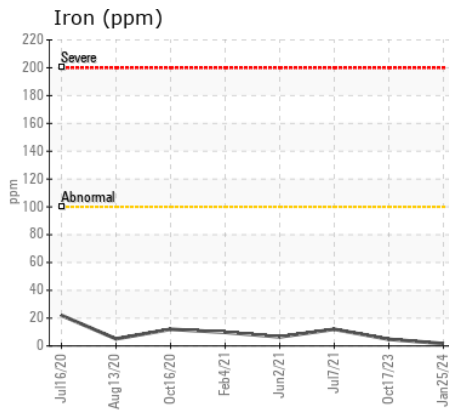
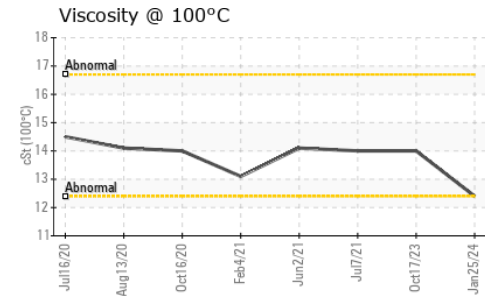
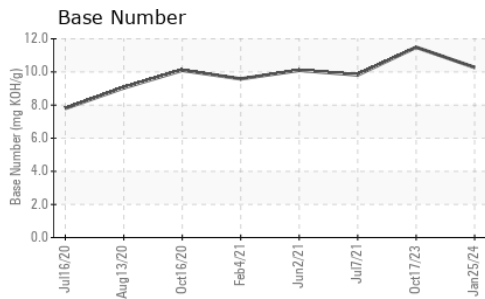
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	3	3	9
Potassium	ppm	ASTM D5185m	>20	0	3	▲ 142
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	0.1	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	6.2	5.9	8.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	15.4	17.9	21.8
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		0	4	▲ 147
Boron	ppm	ASTM D5185m		7	13	218
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		16	69	224
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		175	978	876
Calcium	ppm	ASTM D5185m		1915	1176	1425
Phosphorus	ppm	ASTM D5185m		800	1109	949
Zinc	ppm	ASTM D5185m		1048	1338	1088
Sulfur	ppm	ASTM D5185m		3185	3351	2749
Oxidation	Abs/.1mm	*ASTM D7414	>25	9.2	13.9	16.3
Base Number (BN)	mg KOH/g	ASTM D2896		10.27	11.49	9.82
Visc @ 100°C	cSt	ASTM D445		12.4	14.0	14.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : LP0001002

Lab Number : 06101144

Unique Number : 10899374

Test Package : MOB 2

Received : 26 Feb 2024

Tested : 28 Feb 2024

Diagnosed : 28 Feb 2024 - Wes Davis

S.M. LORUSSO & SONS

10 GROVE ST

WEST ROXBURY, MA

US 02132

Contact: MARK ERWIN

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T:

F:

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)