



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
Store 5 - Cross Lanes

Machine Id
KOMATSU E-40

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0046382	LEC0039483	---
Sample Date		Client Info		04 Jun 2024	17 May 2023	---
Machine Age	hrs	Client Info		3825	3406	---
Oil Age	hrs	Client Info		400	306	---
Filter Age	hrs	Client Info		400	306	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	21	17	---
Chromium	ppm	ASTM D5185m	>20	<1	0	---
Nickel	ppm	ASTM D5185m	>4	0	0	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m	>3	<1	0	---
Aluminum	ppm	ASTM D5185m	>20	3	4	---
Lead	ppm	ASTM D5185m	>40	0	0	---
Copper	ppm	ASTM D5185m	>330	4	16	---
Tin	ppm	ASTM D5185m	>15	<1	0	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

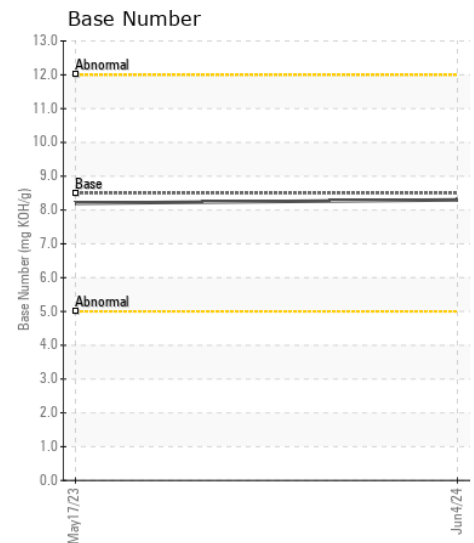
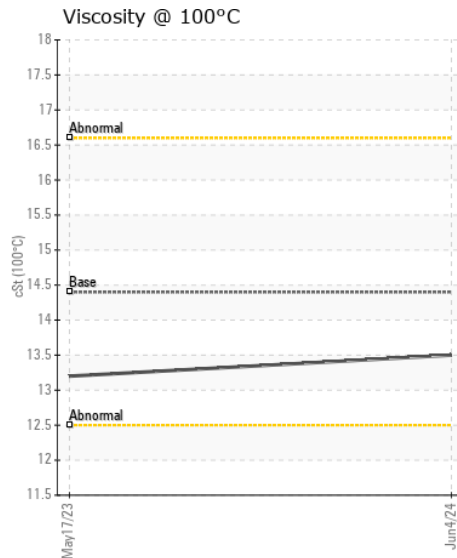
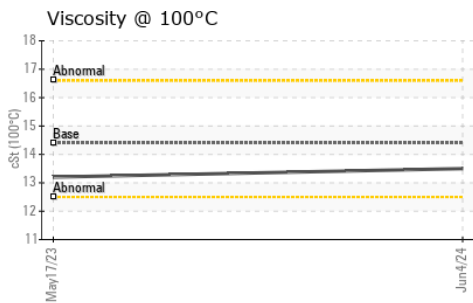
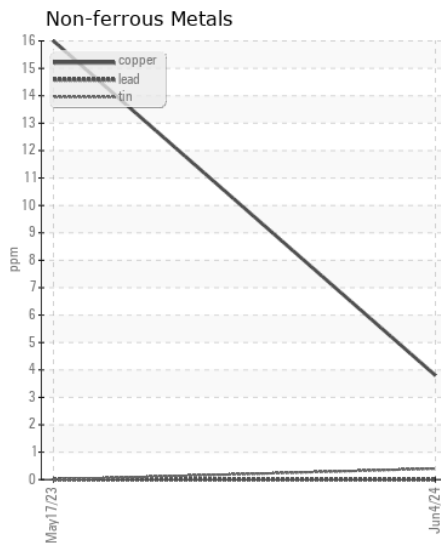
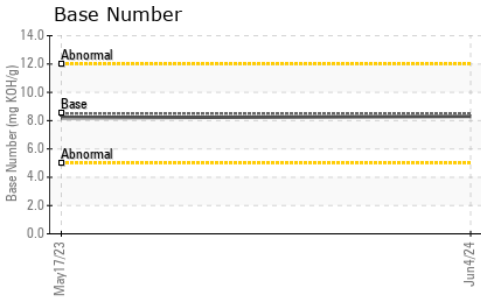
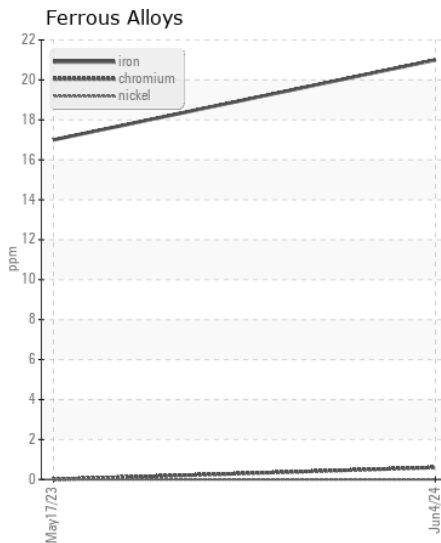
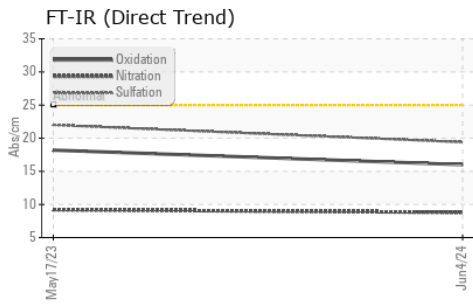
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>120	6	8	---
Potassium	ppm	ASTM D5185m	>20	5	0	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.3	0.3	---
Nitration	Abs/cm	*ASTM D7624	>20	8.8	9.2	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.4	22.0	---
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	>158	2	4	---
Boron	ppm	ASTM D5185m	250	27	361	---
Barium	ppm	ASTM D5185m	10	0	<1	---
Molybdenum	ppm	ASTM D5185m	100	65	119	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m	450	894	504	---
Calcium	ppm	ASTM D5185m	3000	1076	1478	---
Phosphorus	ppm	ASTM D5185m	1150	1005	870	---
Zinc	ppm	ASTM D5185m	1350	1217	1110	---
Sulfur	ppm	ASTM D5185m	4250	3338	3004	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.0	18.2	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.3	8.2	---
Visc @ 100°C	cSt	ASTM D445	14.4	13.5	13.2	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0046382 **Received** : 19 Jun 2024
Lab Number : 06214377 **Tested** : 20 Jun 2024
Unique Number : 11087241 **Diagnosed** : 20 Jun 2024 - Wes Davis
Test Package : CONST (Additional Tests: TBN)

APEX PIPELINE
P.O. BOX 580
NITRO, WV
US 25143

Contact: KELLY TUCKER

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)

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