



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

[8010]

Machine Id

TAKEUCHI 410001658

Component

Diesel Engine

Fluid

CAT DIESEL ENGINE OIL 10W30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP434848	VCP351231	VCP279486
Sample Date		Client Info		25 Jun 2024	31 Mar 2022	22 Jun 2021
Machine Age	hrs	Client Info		3950	2400	1850
Oil Age	hrs	Client Info		0	500	500
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	25	46	48
Chromium	ppm	ASTM D5185m	>20	<1	3	2
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	<1
Aluminum	ppm	ASTM D5185m	>20	5	11	8
Lead	ppm	ASTM D5185m	>40	<1	0	<1
Copper	ppm	ASTM D5185m	>330	4	19	33
Tin	ppm	ASTM D5185m	>15	<1	<1	<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

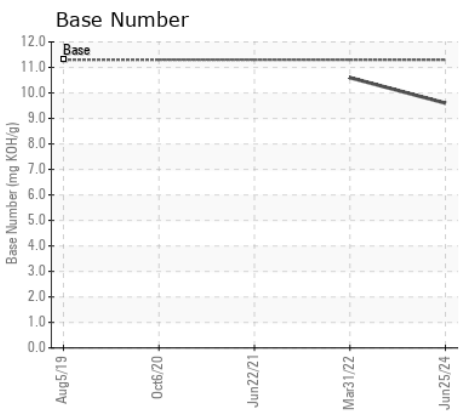
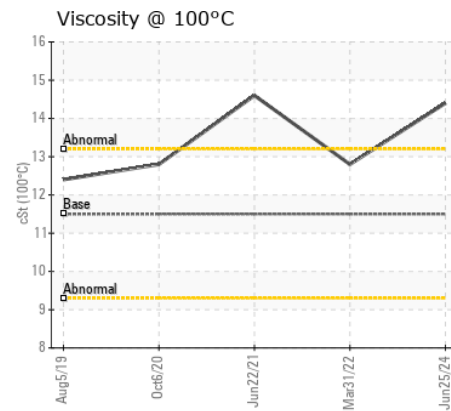
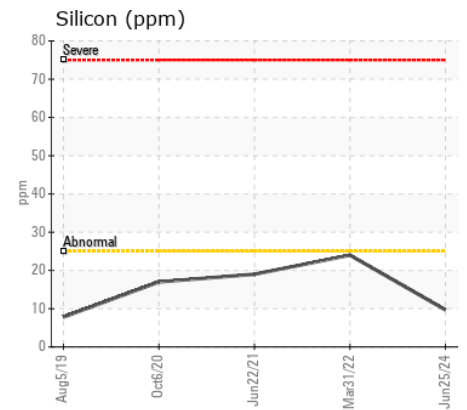
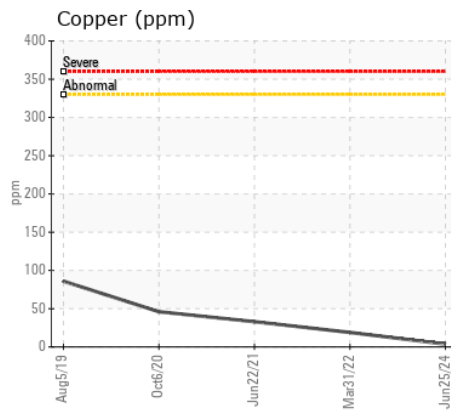
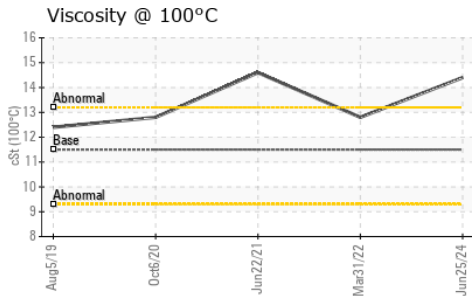
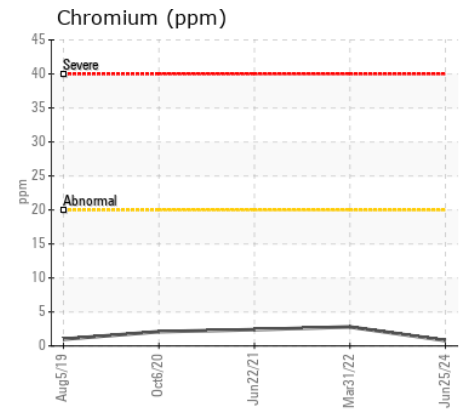
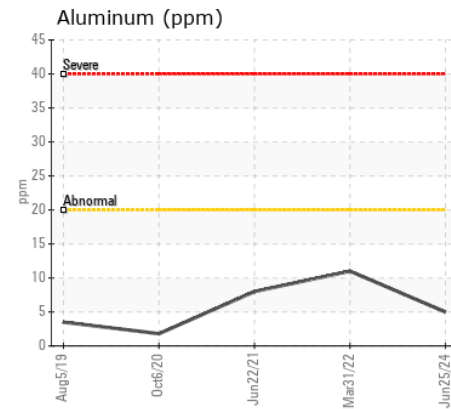
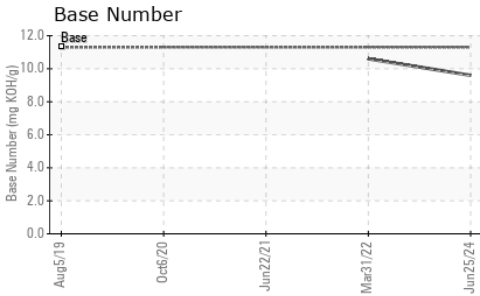
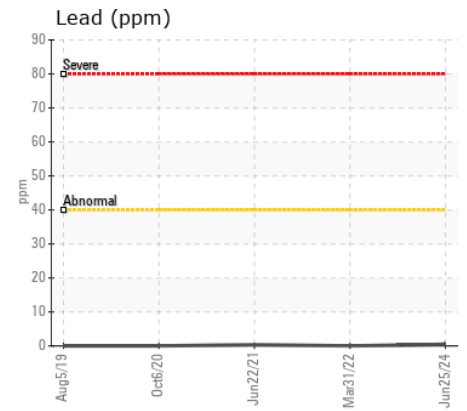
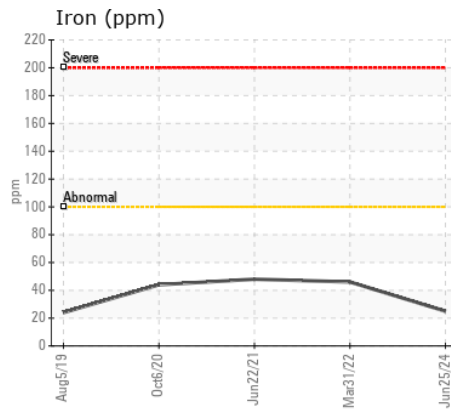
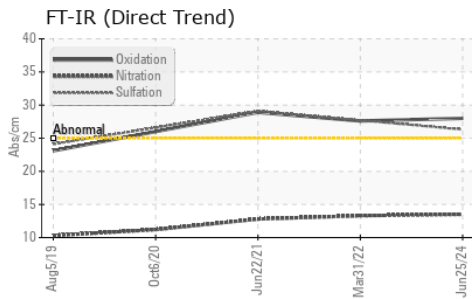
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	10	24	19
Potassium	ppm	ASTM D5185m	>20	4	4	1
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	0.5	0.4	0.6
Nitration	Abs/cm	*ASTM D7624	>20	13.5	13.3	12.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.3	27.7	29.1
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		4	4	4
Boron	ppm	ASTM D5185m	145	68	134	48
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.0	46	122	48
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m	248	570	698	584
Calcium	ppm	ASTM D5185m	2203	2304	2013	2005
Phosphorus	ppm	ASTM D5185m	731	1201	1107	1026
Zinc	ppm	ASTM D5185m	1460	1439	1339	1302
Sulfur	ppm	ASTM D5185m	5088	3708	2560	2367
Oxidation	Abs/.1mm	*ASTM D7414	>25	28.0	27.6	28.9
Base Number (BN)	mg KOH/g	ASTM D2896	11.3	9.6	10.6	---
Visc @ 100°C	cSt	ASTM D445	11.5	14.4	12.8	14.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP434848 **Received** : 08 Jul 2024
Lab Number : 06229794 **Tested** : 09 Jul 2024
Unique Number : 11113287 **Diagnosed** : 09 Jul 2024 - Sean Felton
Test Package : MOB 1 (Additional Tests: TBN)

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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