



Machine Id
CATERPILLAR 305E2 40.004 (S/N H5M02566)
 Component
Hydraulic System
 Fluid
{not provided} (--- GAL)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0191539	---	---
Sample Date		Client Info		07 Feb 2024	---	---
Machine Age	hrs	Client Info		6066	---	---
Oil Age	hrs	Client Info		2000	---	---
Filter Age	hrs	Client Info		2000	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				SEVERE	---	---

WEAR

The iron level is severe.

Test	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		29	---	---
Iron	ppm	ASTM D5185m	>20	239	---	---
Chromium	ppm	ASTM D5185m	>10	3	---	---
Nickel	ppm	ASTM D5185m	>10	0	---	---
Titanium	ppm	ASTM D5185m		1	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>10	19	---	---
Lead	ppm	ASTM D5185m	>10	<1	---	---
Copper	ppm	ASTM D5185m	>75	19	---	---
Tin	ppm	ASTM D5185m	>10	<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

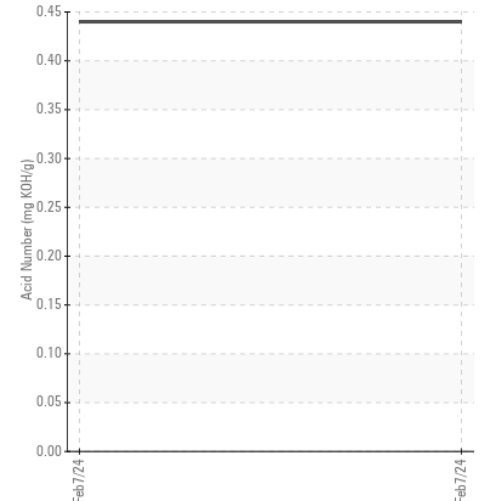
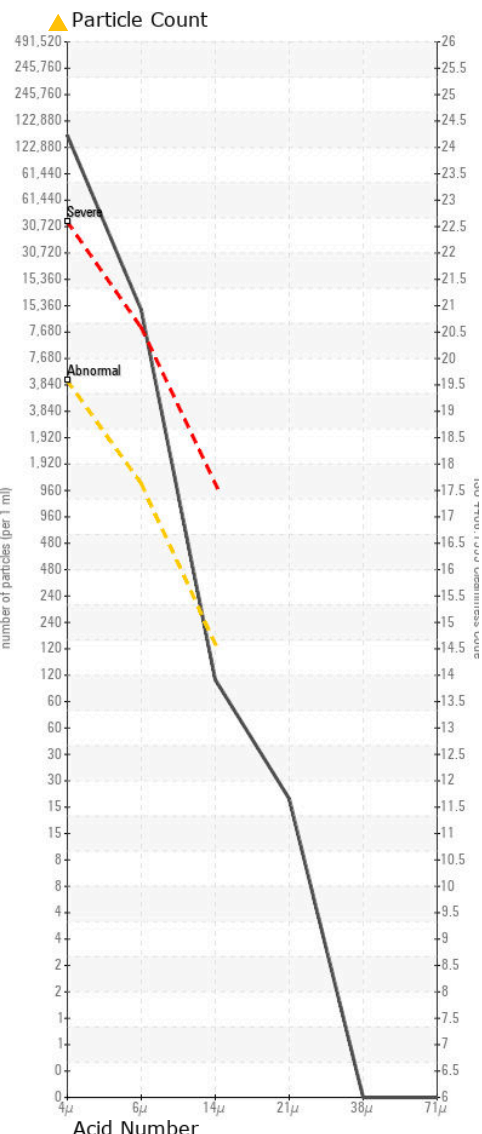
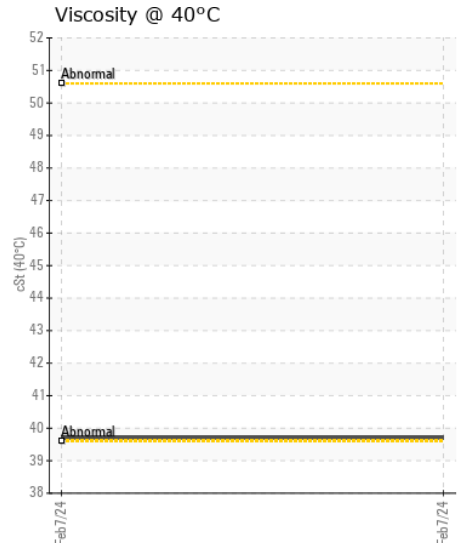
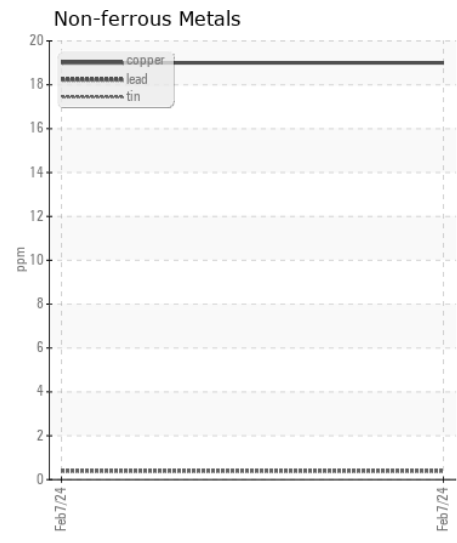
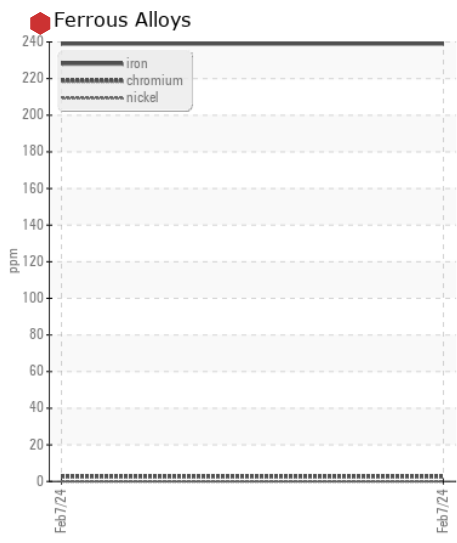
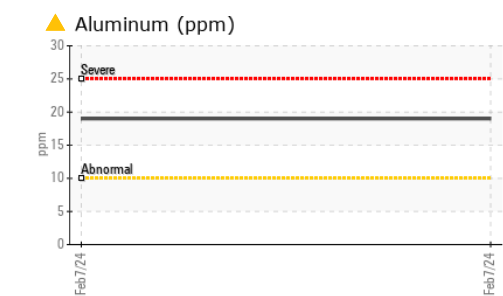
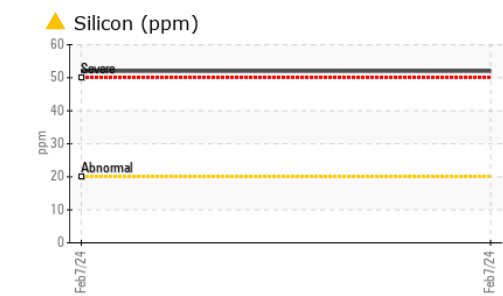
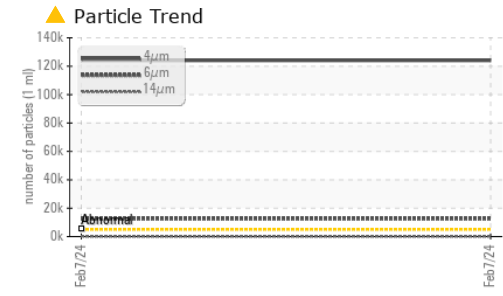
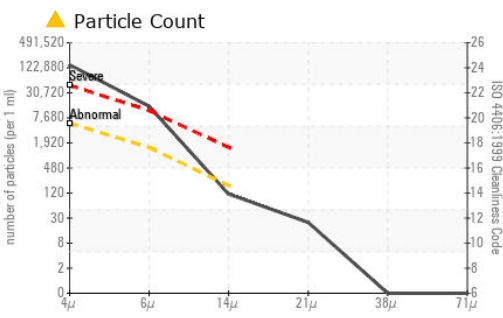
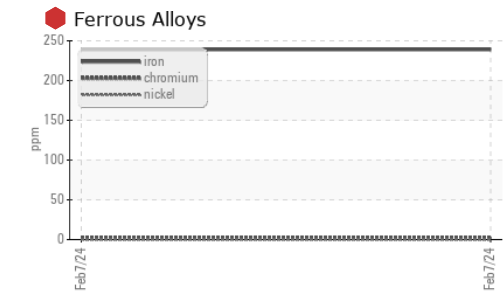
There is a high amount of silt (particulates < 14 microns in size) present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>20	52	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
Water		WC Method	>0.1	NEG	---	---
Particles >4µm		ASTM D7647	>5000	124044	---	---
Particles >6µm		ASTM D7647	>1300	12611	---	---
Particles >14µm		ASTM D7647	>160	100	---	---
Particles >21µm		ASTM D7647	>40	21	---	---
Particles >38µm		ASTM D7647	>10	0	---	---
Particles >71µm		ASTM D7647	>3	0	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	24/21/14	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---	---

FLUID CONDITION

The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		3	---	---
Boron	ppm	ASTM D5185m		<1	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		<1	---	---
Manganese	ppm	ASTM D5185m		2	---	---
Magnesium	ppm	ASTM D5185m		0	---	---
Calcium	ppm	ASTM D5185m		111	---	---
Phosphorus	ppm	ASTM D5185m		463	---	---
Zinc	ppm	ASTM D5185m		583	---	---
Sulfur	ppm	ASTM D5185m		1470	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.44	---	---
Visc @ 40°C	cSt	ASTM D445		39.7	---	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0191539 **Received** : 13 Feb 2024
Lab Number : 06087146 **Tested** : 14 Feb 2024
Unique Number : 10874591 **Diagnosed** : 14 Feb 2024 - Don Baldrige
Test Package : MOBCE (Additional Tests: PQ)

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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)