



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL



Machine Id
CATERPILLAR 963K TL3631 (S/N 0LBL00127)
 Component
Hydraulic System
 Fluid
CAT TDTO 10W (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DC0033840	---	---
Sample Date		Client Info		16 Apr 2024	---	---
Machine Age	hrs	Client Info		2543	---	---
Oil Age	hrs	Client Info		500	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Not Chngd	---	---
Filter Changed		Client Info		Not Chngd	---	---
Sample Status				ATTENTION	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	22	---	---
Chromium	ppm	ASTM D5185m	>10	<1	---	---
Nickel	ppm	ASTM D5185m	>10	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>10	1	---	---
Lead	ppm	ASTM D5185m	>10	<1	---	---
Copper	ppm	ASTM D5185m	>75	4	---	---
Tin	ppm	ASTM D5185m	>10	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

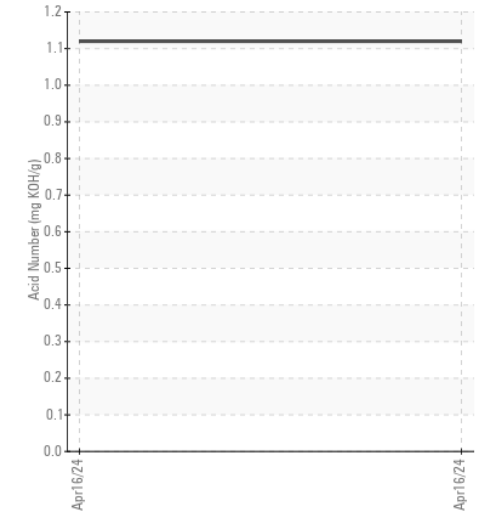
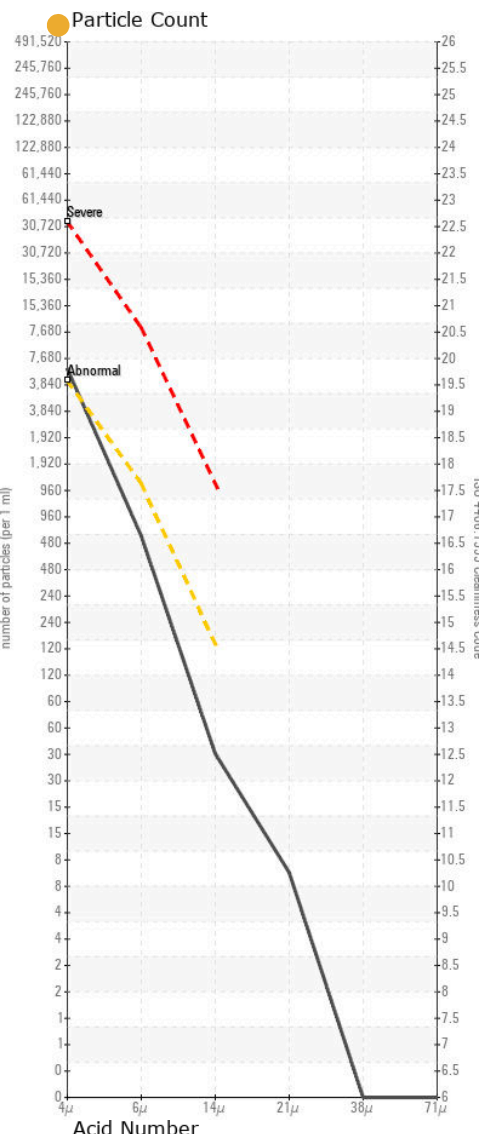
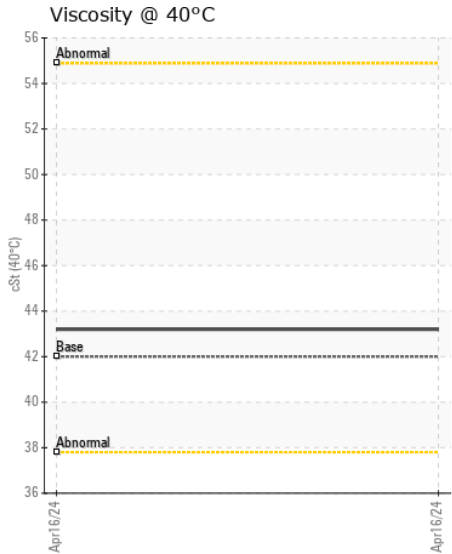
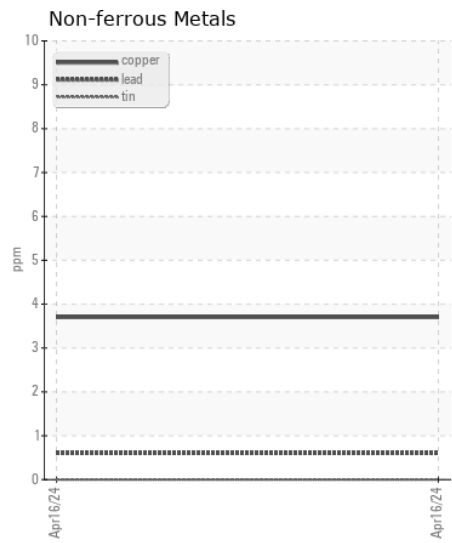
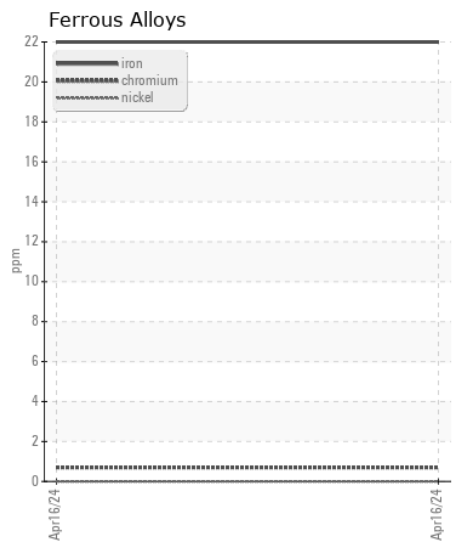
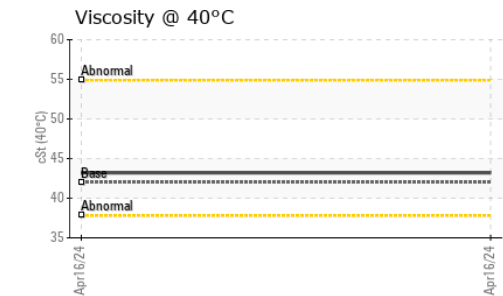
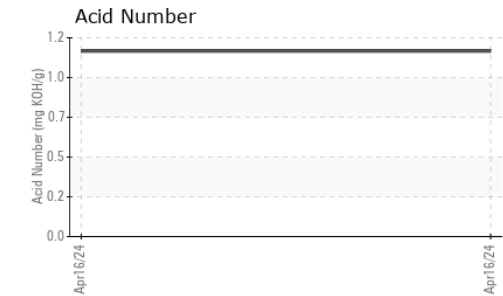
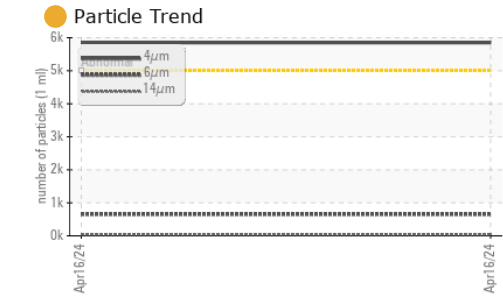
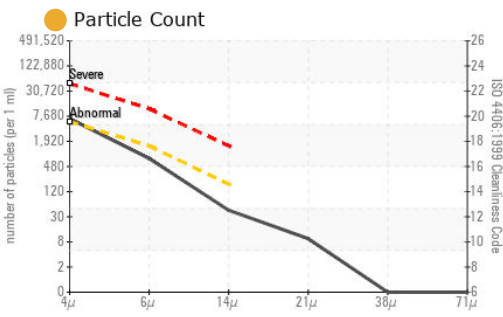
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	3	---	---
Potassium	ppm	ASTM D5185m	>20	12	---	---
Water		WC Method	>0.1	NEG	---	---
Particles >4µm		ASTM D7647	>5000	5850	---	---
Particles >6µm		ASTM D7647	>1300	655	---	---
Particles >14µm		ASTM D7647	>160	38	---	---
Particles >21µm		ASTM D7647	>40	8	---	---
Particles >38µm		ASTM D7647	>10	0	---	---
Particles >71µm		ASTM D7647	>3	0	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	20/17/12	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	LIGHT	---	---
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. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		5	---	---
Boron	ppm	ASTM D5185m		3	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		1	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		15	---	---
Calcium	ppm	ASTM D5185m	2980	341	---	---
Phosphorus	ppm	ASTM D5185m	1100	605	---	---
Zinc	ppm	ASTM D5185m	1270	737	---	---
Sulfur	ppm	ASTM D5185m		1938	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		1.12	---	---
Visc @ 40°C	cSt	ASTM D445	42.0	43.2	---	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DC0033840
Lab Number : 06151933
Unique Number : 10982011
Test Package : MOB 2
Received : 17 Apr 2024
Tested : 18 Apr 2024
Diagnosed : 19 Apr 2024 - Don Baldrige

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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)