



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id
CATERPILLAR 953D 002160 (S/N CAT0953DALBP01704)
Component
Hydraulic System
Fluid
CASTROL VECTON 15W40 CK4 (20 GAL)

RECOMMENDATION

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0800509	WC0701092	WC0583958
Sample Date		Client Info		08 Dec 2023	06 Sep 2022	16 Jul 2021
Machine Age	hrs	Client Info		4639	4068	3554
Oil Age	hrs	Client Info		1500	514	1500
Filter Age	hrs	Client Info		571	514	500
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	14	11	9
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	0	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	3	2
Lead	ppm	ASTM D5185m	>10	0	0	4
Copper	ppm	ASTM D5185m	>75	2	2	1
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

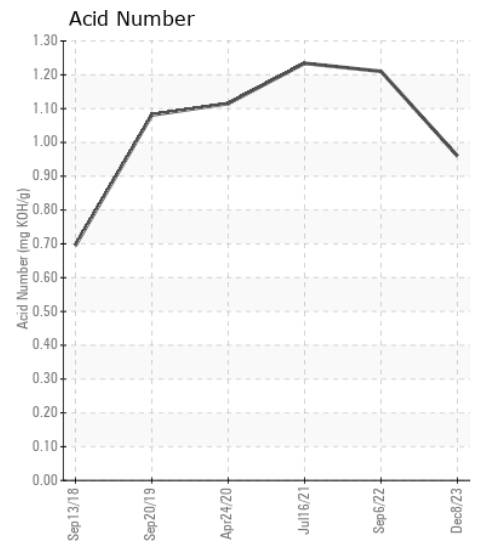
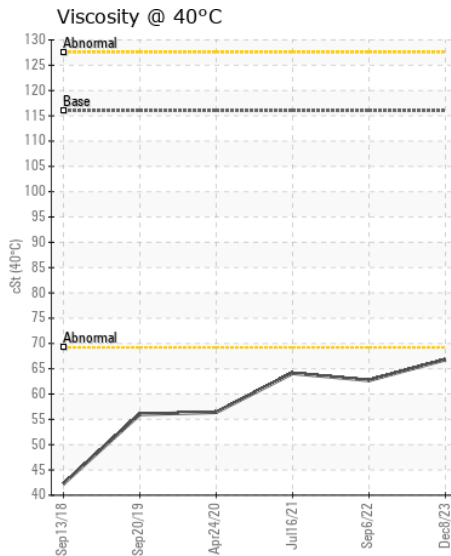
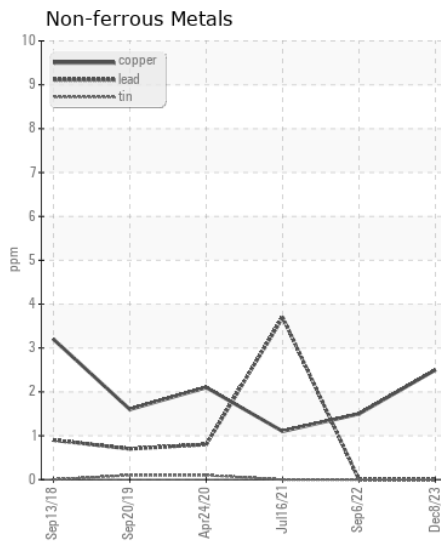
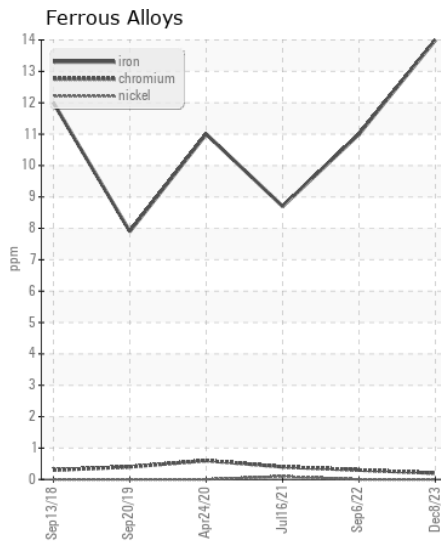
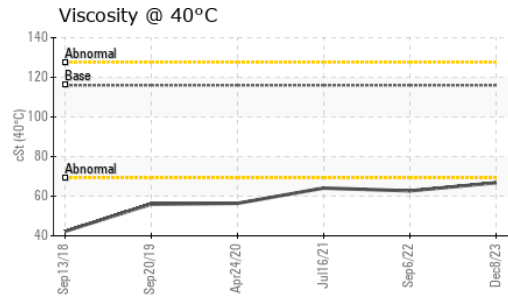
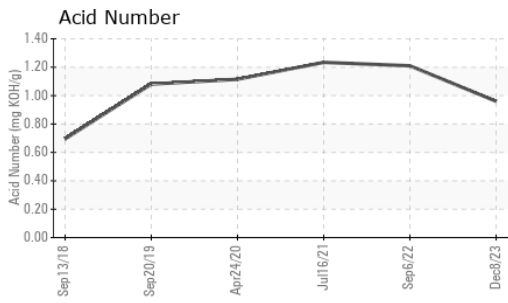
There is a moderate amount of visible silt present in the sample.

Silicon	ppm	ASTM D5185m	>20	11	6	7
Potassium	ppm	ASTM D5185m	>20	3	0	13
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	---	▲ 62129	---
Particles >6µm		ASTM D7647	>1300	---	▲ 8970	---
Particles >14µm		ASTM D7647	>160	---	▲ 596	---
Particles >21µm		ASTM D7647	>40	---	▲ 113	---
Particles >38µm		ASTM D7647	>10	---	4	---
Particles >71µm		ASTM D7647	>3	---	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	---	▲ 23/20/16	---
Silt	scalar	*Visual	NONE	▲ MODER	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	▲ MODER
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	>0.1	NEG	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		0	<1	2
Boron	ppm	ASTM D5185m		87	84	83
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		50	44	46
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		273	268	383
Calcium	ppm	ASTM D5185m		1319	1139	1168
Phosphorus	ppm	ASTM D5185m		885	804	860
Zinc	ppm	ASTM D5185m		1050	917	1018
Sulfur	ppm	ASTM D5185m		3466	2720	2903
Acid Number (AN)	mg KOH/g	ASTM D8045		0.96	1.21	1.234
Visc @ 40°C	cSt	ASTM D445	116	66.8	62.7	64.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0800509 **Received** : 12 Jan 2024
Lab Number : 06060170 **Diagnosed** : 16 Jan 2024
Unique Number : 10831552 **Diagnostician** : Jonathan Hester
Test Package : CONST

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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