



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Area
[646159 DIPRO]
Machine Id
CATERPILLAR 972 2686
Component
Hydraulic System
Fluid
VOLVO SUPER HYDRAULIC OIL 46 (--- 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.

WEAR

All component wear rates are normal.

CONTAMINATION

Moderate concentration of visible dirt/debris present in the oil.

FLUID CONDITION

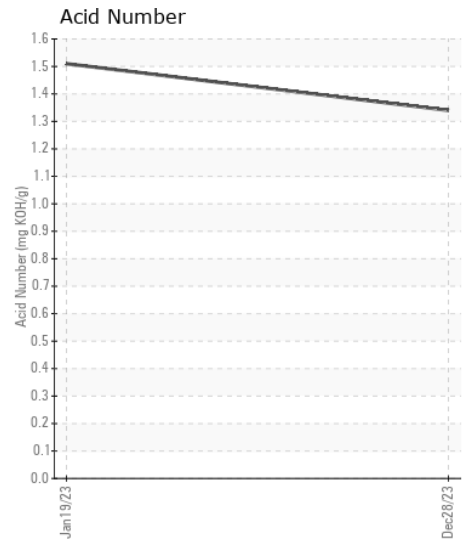
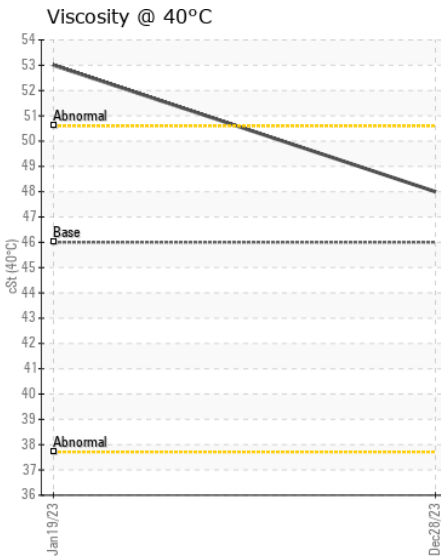
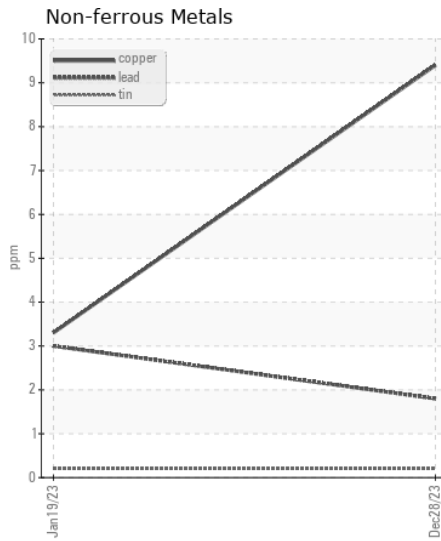
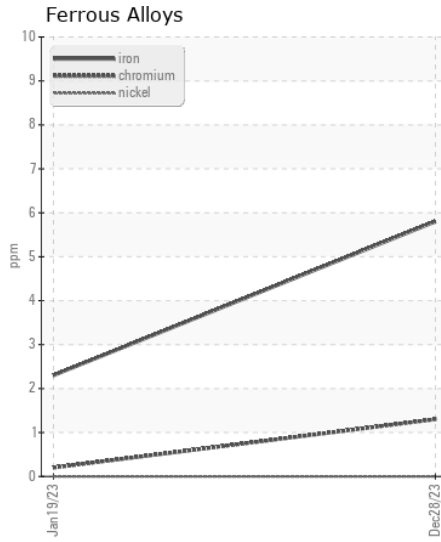
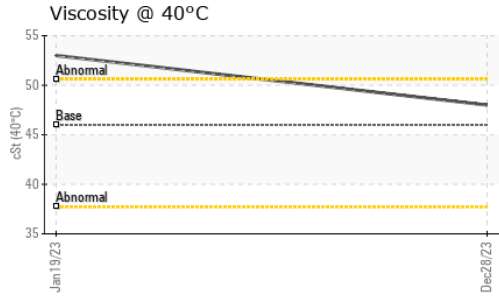
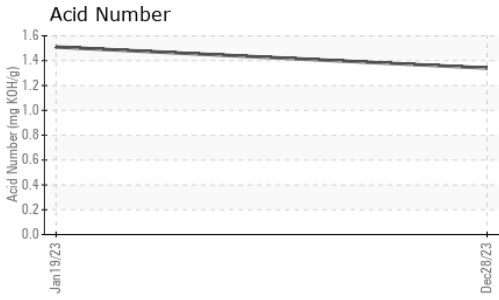
The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP452302	VCP383064	---
Sample Date		Client Info		28 Dec 2023	19 Jan 2023	---
Machine Age	hrs	Client Info		12902	10401	---
Oil Age	hrs	Client Info		4000	2000	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Not Changd	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ABNORMAL	ABNORMAL	---

Iron	ppm	ASTM D5185m	>20	6	2	---
Chromium	ppm	ASTM D5185m	>10	1	<1	---
Nickel	ppm	ASTM D5185m	>10	0	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>10	<1	<1	---
Lead	ppm	ASTM D5185m	>10	2	3	---
Copper	ppm	ASTM D5185m	>75	9	3	---
Tin	ppm	ASTM D5185m	>10	<1	<1	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

Silicon	ppm	ASTM D5185m	>20	12	14	---
Potassium	ppm	ASTM D5185m	>20	1	0	---
Water		WC Method	>0.1	NEG	NEG	---
Silt	scalar	*Visual	NONE	NONE	▲ MODER	---
Debris	scalar	*Visual	NONE	▲ MODER	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	---

Sodium	ppm	ASTM D5185m		3	4	---
Boron	ppm	ASTM D5185m	14	<1	0	---
Barium	ppm	ASTM D5185m	0.0	0	0	---
Molybdenum	ppm	ASTM D5185m	0.0	0	0	---
Manganese	ppm	ASTM D5185m	0.0	<1	0	---
Magnesium	ppm	ASTM D5185m	2.6	6	2	---
Calcium	ppm	ASTM D5185m	49	160	144	---
Phosphorus	ppm	ASTM D5185m	354	542	496	---
Zinc	ppm	ASTM D5185m	419	790	686	---
Sulfur	ppm	ASTM D5185m	3719	1584	1882	---
Acid Number (AN)	mg KOH/g	ASTM D8045		1.34	1.51	---
Visc @ 40°C	cSt	ASTM D445	46	48.0	53.0	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP452302 **Received** : 10 Jan 2024
Lab Number : 06056604 **Diagnosed** : 11 Jan 2024
Unique Number : 10822553 **Diagnostician** : Doug Bogart
Test Package : MOB 2

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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)