



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Area
[SPM661220]
 Machine Id
VOLVO L180H 5412
 Component
Hydraulic System
 Fluid
VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)

RECOMMENDATION

The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP442820	VCP396101	VCP374135
Sample Date		Client Info		07 Feb 2024	01 Feb 2023	18 Jun 2022
Machine Age	hrs	Client Info		7046	6657	4250
Oil Age	hrs	Client Info		0	6657	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	Not Changed
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	9	9	5
Chromium	ppm	ASTM D5185m	>20	1	4	3
Nickel	ppm	ASTM D5185m	>10	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	<1	1
Lead	ppm	ASTM D5185m	>20	2	<1	1
Copper	ppm	ASTM D5185m	>20	4	5	4
Tin	ppm	ASTM D5185m	>20	<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

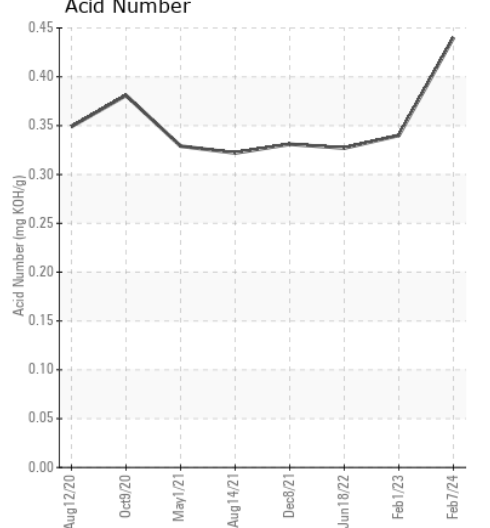
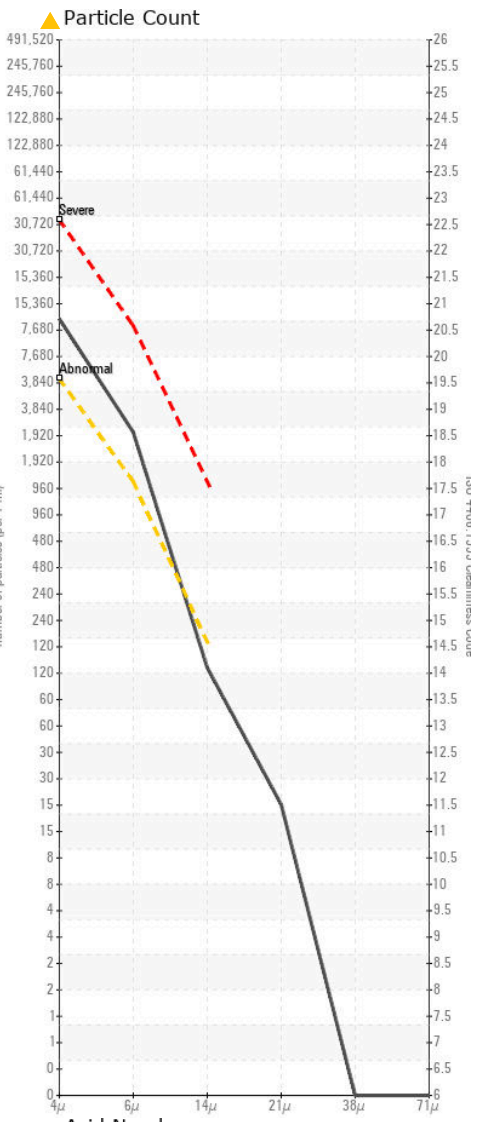
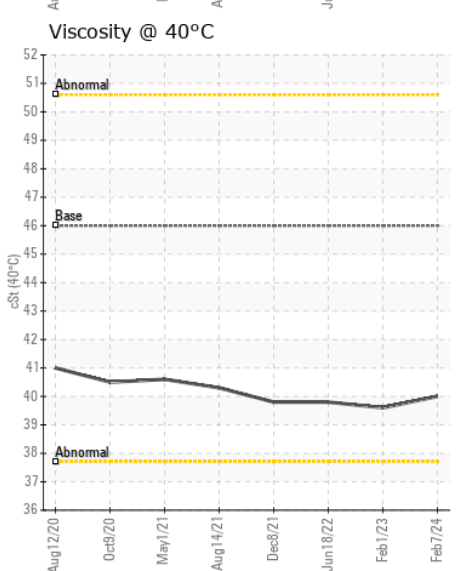
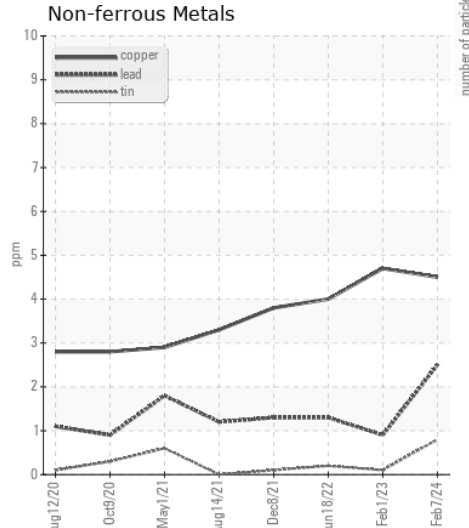
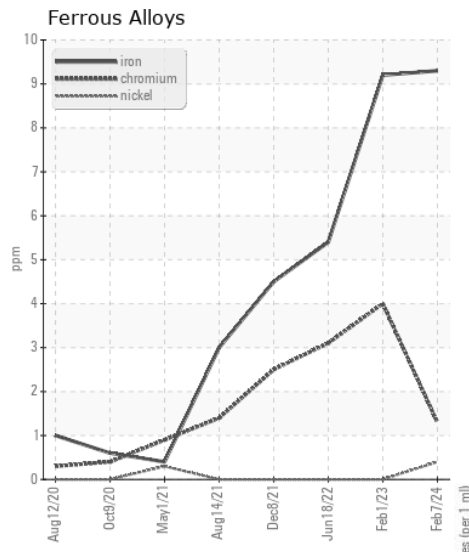
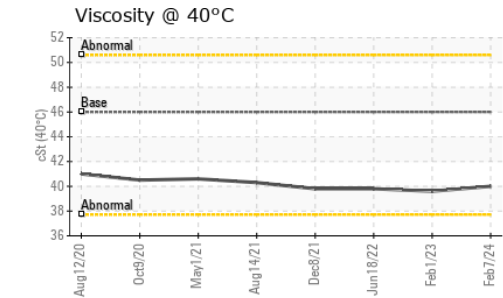
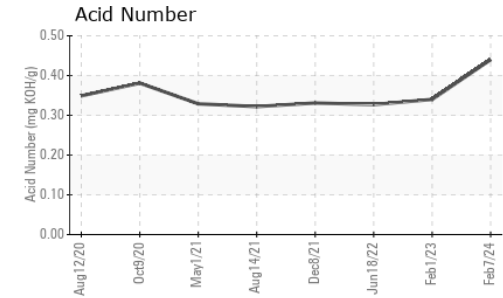
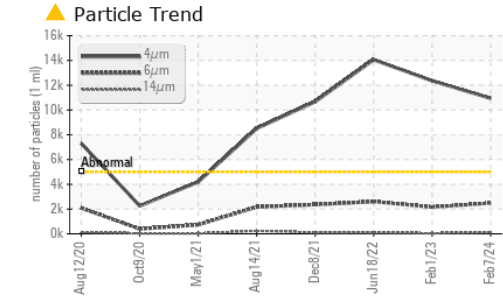
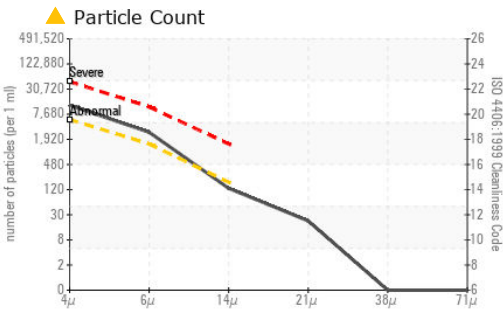
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	4	4	2
Potassium	ppm	ASTM D5185m	>20	2	0	<1
Water		WC Method	>0.2	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	▲ 10944	▲ 12359	▲ 14058
Particles >6µm		ASTM D7647	>1300	▲ 2482	▲ 2153	▲ 2606
Particles >14µm		ASTM D7647	>160	114	37	89
Particles >21µm		ASTM D7647	>40	19	7	22
Particles >38µm		ASTM D7647	>10	0	0	1
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 21/18/14	▲ 21/18/12	▲ 21/19/14
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 AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sodium	ppm	ASTM D5185m		0	3	2
Boron	ppm	ASTM D5185m	14	3	0	2
Barium	ppm	ASTM D5185m	0.0	13	0	0
Molybdenum	ppm	ASTM D5185m	0.0	1	0	0
Manganese	ppm	ASTM D5185m	0.0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	2.6	5	<1	<1
Calcium	ppm	ASTM D5185m	49	315	39	40
Phosphorus	ppm	ASTM D5185m	354	406	294	319
Zinc	ppm	ASTM D5185m	419	485	359	406
Sulfur	ppm	ASTM D5185m	3719	1313	663	1030
Acid Number (AN)	mg KOH/g	ASTM D8045		0.44	0.34	0.327
Visc @ 40°C	cSt	ASTM D445	46	40.0	39.6	39.8



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP442820 **Received** : 12 Feb 2024
Lab Number : 06086014 **Tested** : 13 Feb 2024
Unique Number : 10873459 **Diagnosed** : 13 Feb 2024 - Wes Davis
Test Package : MOB 2

CALLANAN
 RT 32 677 FLATBUSH RD
 EAST KINGSTON, NY
 US 12401
 Contact:

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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F: