



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[SPM716819]

Machine Id
VOLVO EC160D 210090

Component
Hydraulic System

Fluid
VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP446755	VCP415257	VCP422725
Sample Date		Client Info		24 May 2024	28 Aug 2023	26 Apr 2023
Machine Age	hrs	Client Info		9689	8565	7910
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				NORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>25	10	13	11
Chromium	ppm	ASTM D5185m	>10	3	1	<1
Nickel	ppm	ASTM D5185m	>10	<1	<1	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	<1	<1	0
Copper	ppm	ASTM D5185m	>150	23	24	19
Tin	ppm	ASTM D5185m	>10	2	3	3
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	LIGHT	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

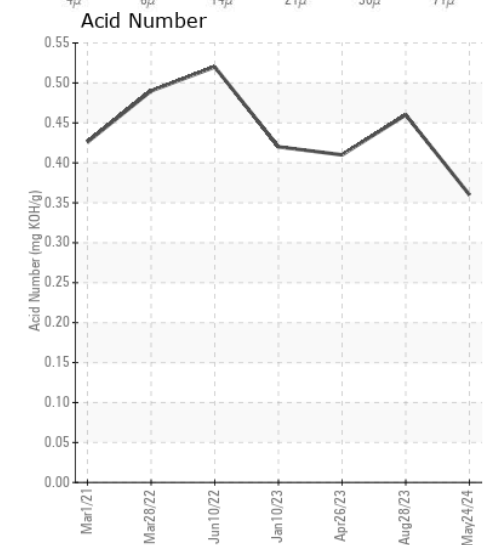
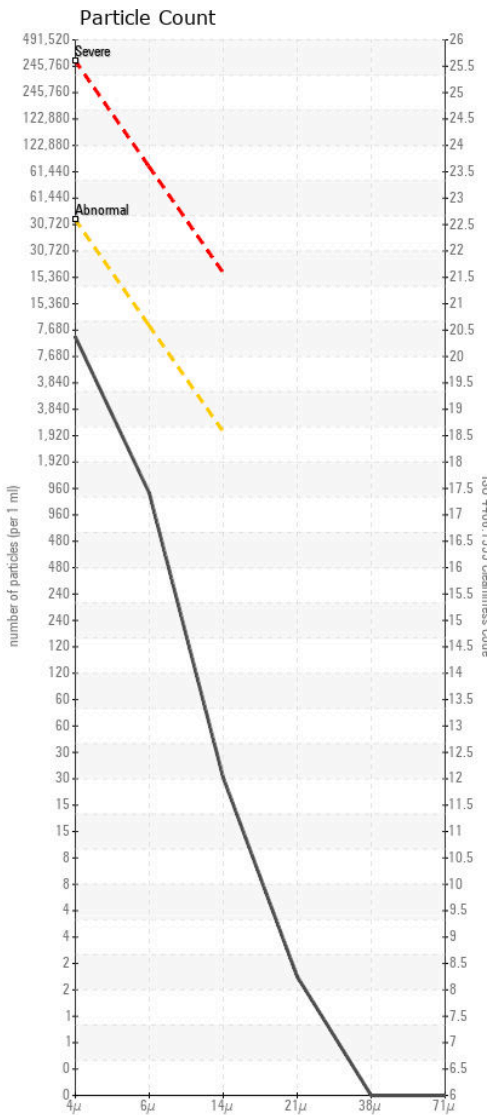
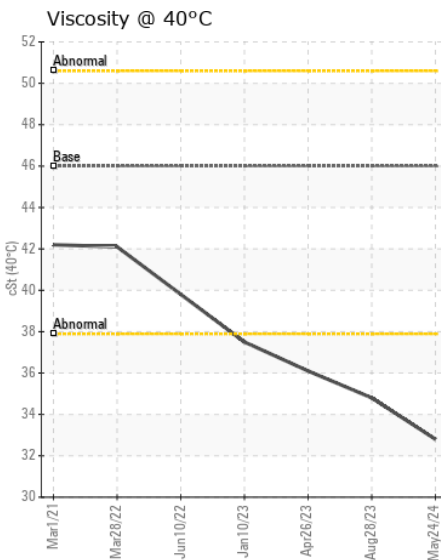
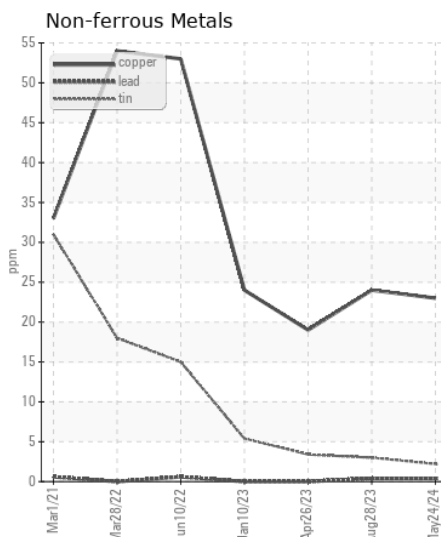
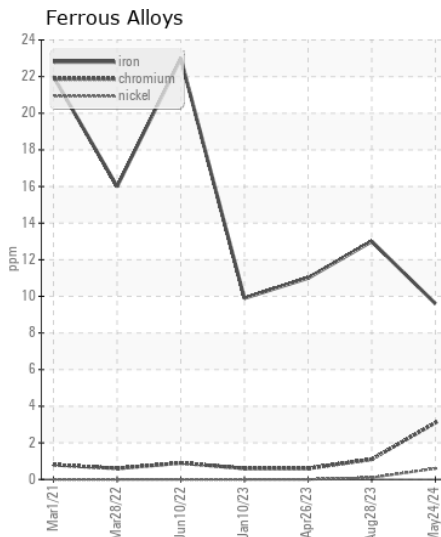
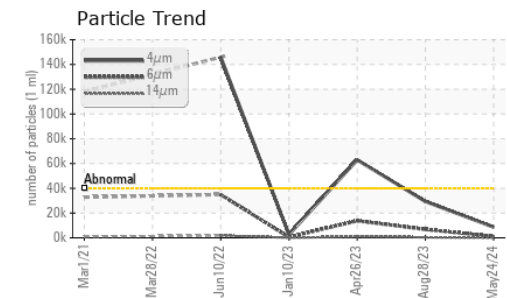
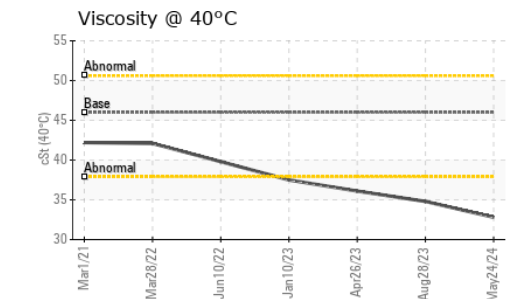
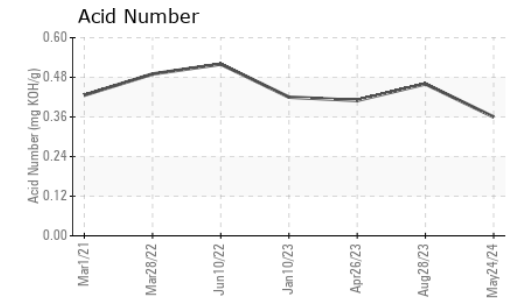
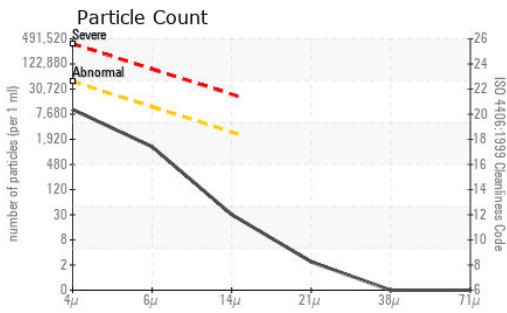
The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>50	48	▲ 80	▲ 97
Potassium	ppm	ASTM D5185m	>20	<1	1	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>40000	8646	29374	● 62945
Particles >6µm		ASTM D7647	>10000	1118	6805	● 13694
Particles >14µm		ASTM D7647	>2500	27	363	998
Particles >21µm		ASTM D7647	>640	2	59	156
Particles >38µm		ASTM D7647	>160	0	1	5
Particles >71µm		ASTM D7647	>40	0	0	0
Oil Cleanliness		ISO 4406 (c)	>22/20/18	20/17/12	22/20/16	● 23/21/17
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
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 acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<1	0	<1
Boron	ppm	ASTM D5185m	14	2	2	3
Barium	ppm	ASTM D5185m	0.0	0	2	0
Molybdenum	ppm	ASTM D5185m	0.0	2	2	2
Manganese	ppm	ASTM D5185m	0.0	<1	0	<1
Magnesium	ppm	ASTM D5185m	2.6	5	4	4
Calcium	ppm	ASTM D5185m	49	84	148	174
Phosphorus	ppm	ASTM D5185m	354	288	333	335
Zinc	ppm	ASTM D5185m	419	335	392	375
Sulfur	ppm	ASTM D5185m	3719	1431	1850	1941
Acid Number (AN)	mg KOH/g	ASTM D8045		0.36	0.46	0.41
Visc @ 40°C	cSt	ASTM D445	46	32.8	34.8	36.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP446755
Lab Number : 06211531
Unique Number : 11084395
Test Package : MOB 2

Received : 17 Jun 2024
Tested : 18 Jun 2024
Diagnosed : 18 Jun 2024 - Angela Borella

CALUMET CITY AUTO WRECKERS
 630 E STATE ST
 CALUMET CITY, IL
 US 60409
 Contact: GARY

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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