



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
VOLVO ECR145EL 314199

Component
Hydraulic System

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

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP432019	VCP335392	VCP291303
Sample Date		Client Info		05 Feb 2024	22 Sep 2021	04 Dec 2020
Machine Age	hrs	Client Info		1932	960	449
Oil Age	hrs	Client Info		0	960	449
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Not Changd	Not Changd
Filter Changed		Client Info		N/A	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>25	5	2	2
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	<1	0
Lead	ppm	ASTM D5185m	>20	2	1	<1
Copper	ppm	ASTM D5185m	>150	34	46	39
Tin	ppm	ASTM D5185m	>10	<1	<1	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

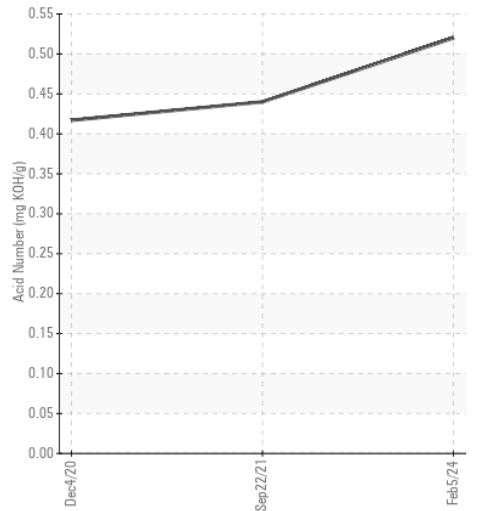
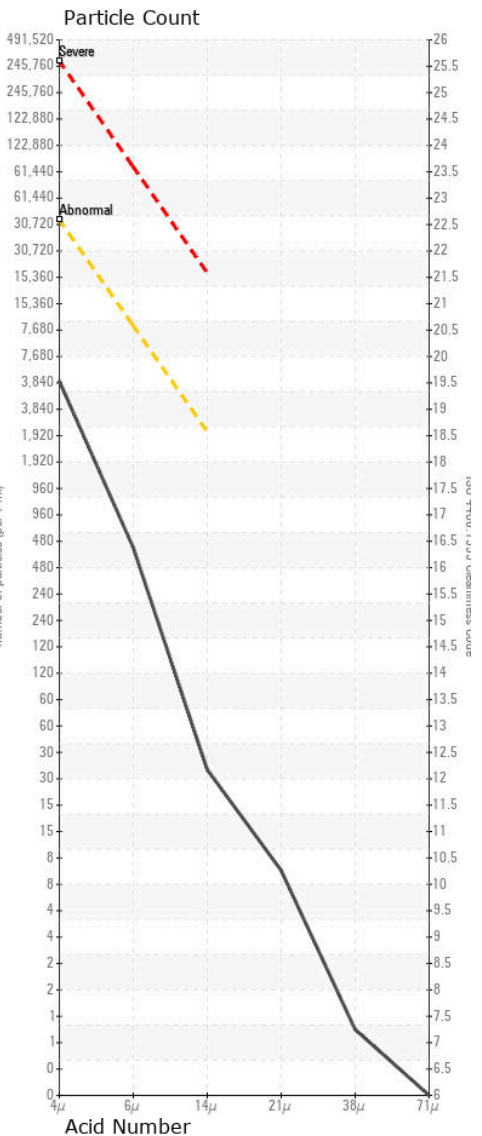
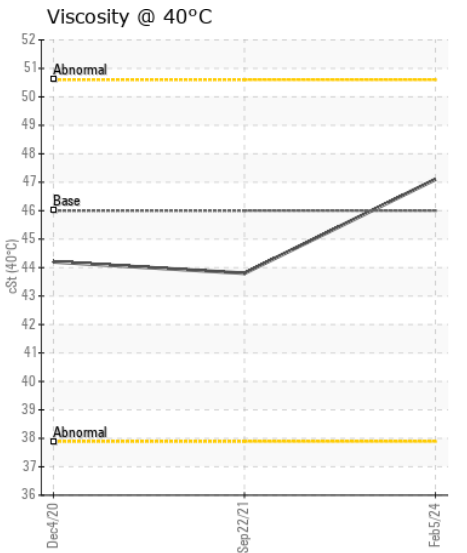
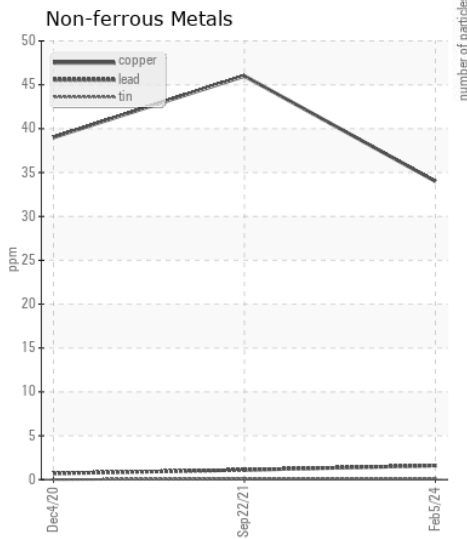
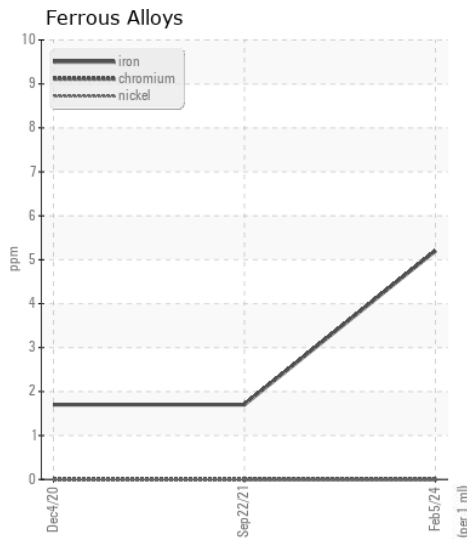
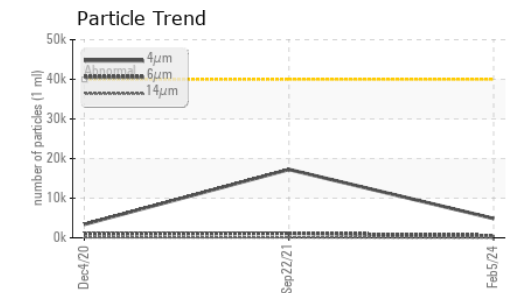
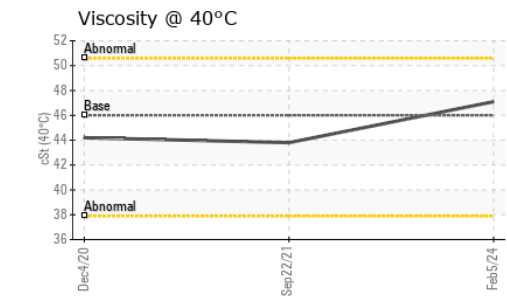
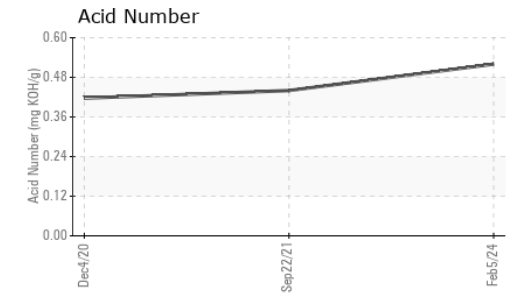
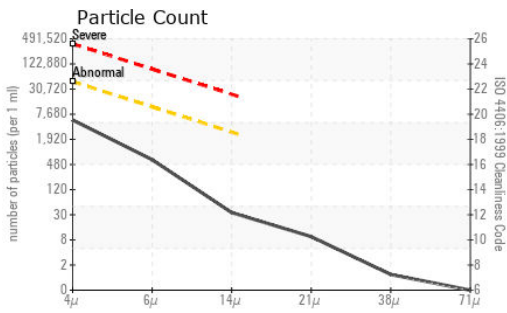
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>50	8	2	2
Potassium	ppm	ASTM D5185m	>20	6	0	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>40000	4861	17246	3387
Particles >6µm		ASTM D7647	>10000	548	1102	987
Particles >14µm		ASTM D7647	>2500	30	102	113
Particles >21µm		ASTM D7647	>640	8	28	37
Particles >38µm		ASTM D7647	>160	1	3	1
Particles >71µm		ASTM D7647	>40	0	0	0
Oil Cleanliness		ISO 4406 (c)	>22/20/18	19/16/12	21/17/14	19/17/14
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	>0.1	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		5	0	<1
Boron	ppm	ASTM D5185m	14	6	<1	1
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.0	6	<1	0
Manganese	ppm	ASTM D5185m	0.0	0	0	0
Magnesium	ppm	ASTM D5185m	2.6	8	0	<1
Calcium	ppm	ASTM D5185m	49	196	69	75
Phosphorus	ppm	ASTM D5185m	354	352	373	353
Zinc	ppm	ASTM D5185m	419	429	466	487
Sulfur	ppm	ASTM D5185m	3719	1156	879	864
Acid Number (AN)	mg KOH/g	ASTM D8045		0.52	0.44	0.417
Visc @ 40°C	cSt	ASTM D445	46	47.1	43.8	44.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : VCP432019

Lab Number : 06102421

Unique Number : 10900651

Test Package : MOB 2

Received : 27 Feb 2024

Tested : 28 Feb 2024

Diagnosed : 28 Feb 2024 - Wes Davis

RIPA AND ASSOCIATES

10149 FISHER AVENUE

TAMPA, FL

US 33619

Contact: ROBERT TURNER

rturner@ripatampa.com

T:

F:

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)