



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area  
**[CITY OF TAMPA]**

Machine Id  
**VOLVO EW160 323426**

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		VCP449945	VCP437934	VCP428686
Sample Date		Client Info		22 May 2024	28 Feb 2024	08 Dec 2023
Machine Age	hrs	Client Info		6734	5275	5787
Oil Age	hrs	Client Info		0	2000	1700
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				NORMAL	ABNORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>25	4	5	3
Chromium	ppm	ASTM D5185m	>10	1	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	1	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	1	0
Lead	ppm	ASTM D5185m	>20	<1	0	<1
Copper	ppm	ASTM D5185m	>150	6	9	8
Tin	ppm	ASTM D5185m	>10	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

## CONTAMINATION

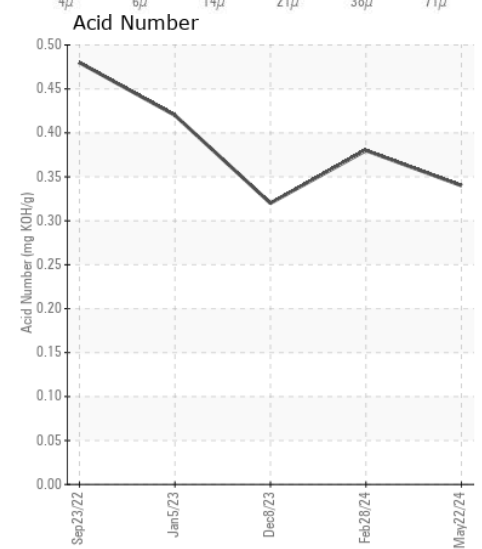
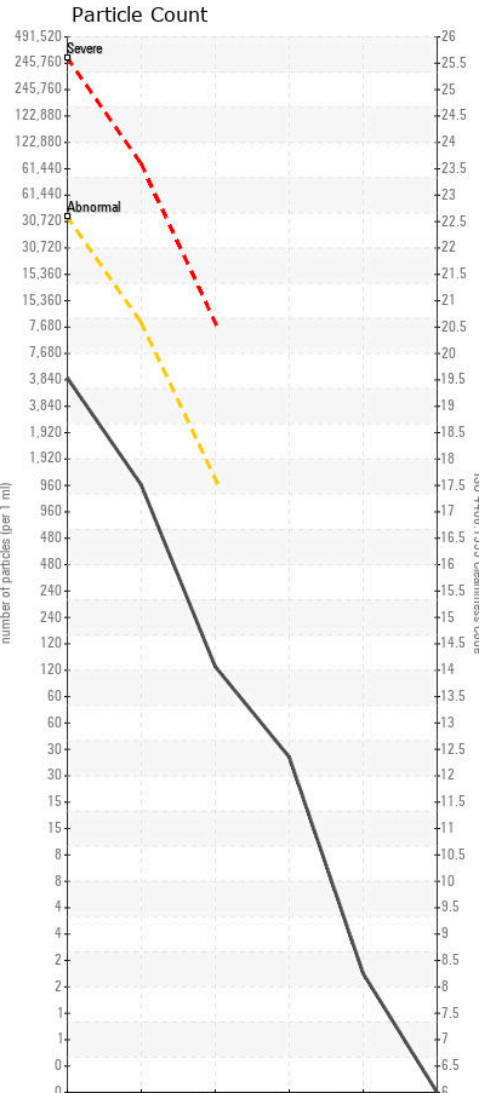
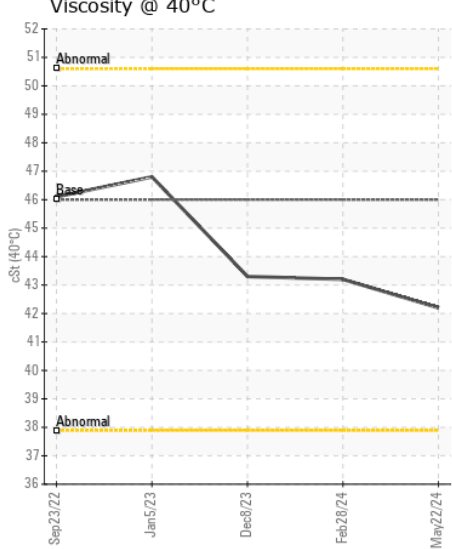
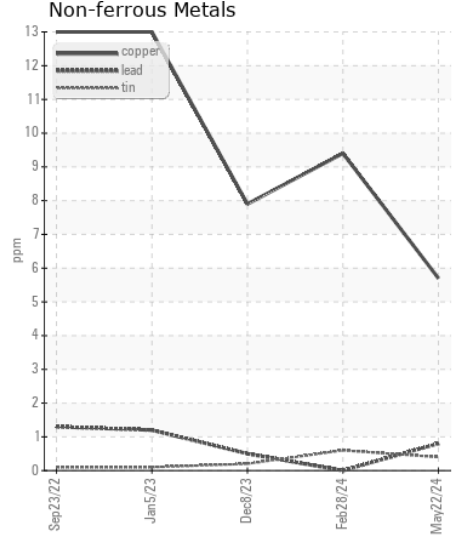
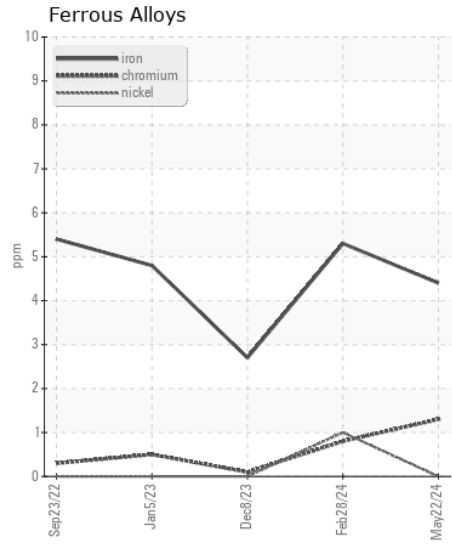
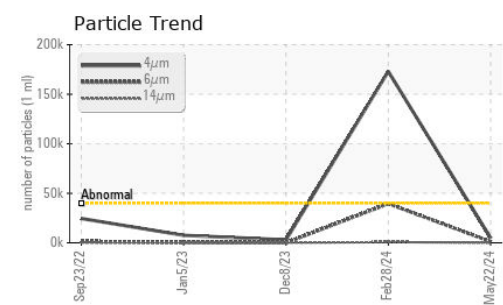
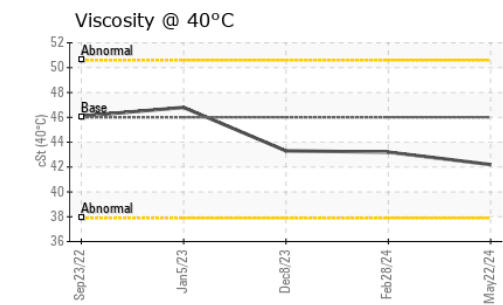
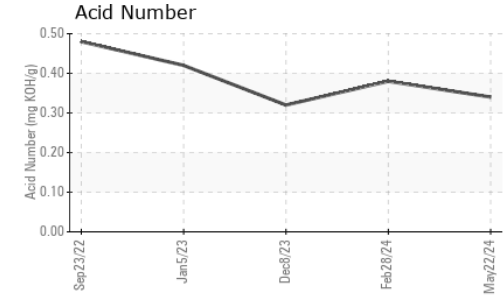
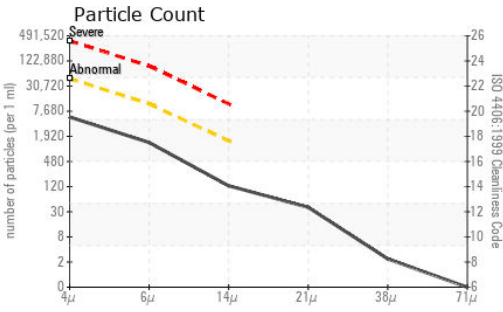
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>50	2	3	3
Potassium	ppm	ASTM D5185m	>20	3	2	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>40000	4860	▲ 173043	2966
Particles >6µm		ASTM D7647	>10000	1195	▲ 39530	71
Particles >14µm		ASTM D7647	>1300	111	712	15
Particles >21µm		ASTM D7647	>320	34	157	7
Particles >38µm		ASTM D7647	>80	2	2	0
Particles >71µm		ASTM D7647	>20	0	0	0
Oil Cleanliness		ISO 4406 (c)	>22/20/17	19/17/14	▲ 25/22/17	19/13/11
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		3	3	2
Boron	ppm	ASTM D5185m	14	0	3	2
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.0	1	2	1
Manganese	ppm	ASTM D5185m	0.0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	2.6	4	10	8
Calcium	ppm	ASTM D5185m	49	84	106	88
Phosphorus	ppm	ASTM D5185m	354	338	273	327
Zinc	ppm	ASTM D5185m	419	414	417	402
Sulfur	ppm	ASTM D5185m	3719	1719	2224	1647
Acid Number (AN)	mg KOH/g	ASTM D8045		0.34	0.38	0.32
Visc @ 40°C	cSt	ASTM D445	46	42.2	43.2	43.3



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP449945  
**Lab Number** : 06193922  
**Unique Number** : 11056045  
**Test Package** : MOB 2  
**Received** : 29 May 2024  
**Tested** : 30 May 2024  
**Diagnosed** : 30 May 2024 - Wes Davis

**ALTA EQUIPMENT/FLAGLER CONSTRUCTION EQUIPMENT LLC**  
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Certificate L2367  
 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)