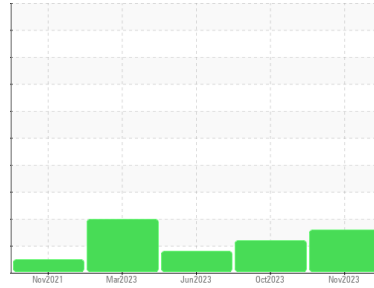




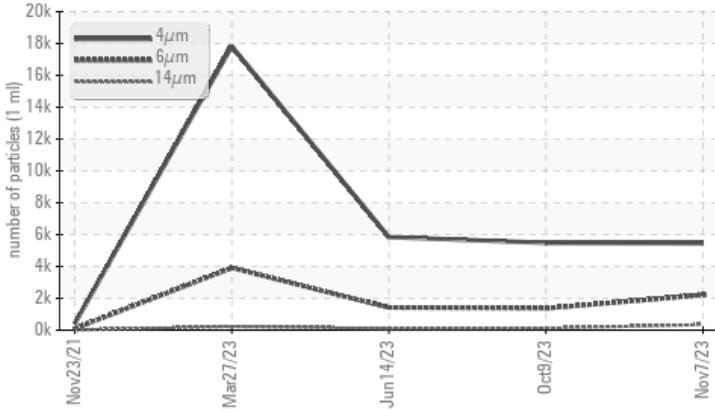
Area
Ascendum Machinery
 Machine Id
VOLVO L180H 15 (S/N 5263)
 Component
Hydraulic System
 Fluid
VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)

Sample Rating Trend



COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ATTENTION	ATTENTION
Particles >14µm	ASTM D7647	>80	▲ 350	▲ 116	▲ 101
Particles >21µm	ASTM D7647	>20	▲ 138	▲ 40	26
Particles >38µm	ASTM D7647	>4	▲ 9	3	1
Oil Cleanliness	ISO 4406 (c)	>--/18/13	▲ 20/18/16	▲ 20/18/14	▲ 20/18/14

Customer Id: EGGLIN
 Sample No.: ASC0005329
 Lab Number: 06006970
 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Filter Fluid	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

HISTORICAL DIAGNOSIS

09 Oct 2023 Diag: Wes Davis

ISO



We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



14 Jun 2023 Diag: Wes Davis

ISO



The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



27 Mar 2023 Diag: Don Baldrige

ISO



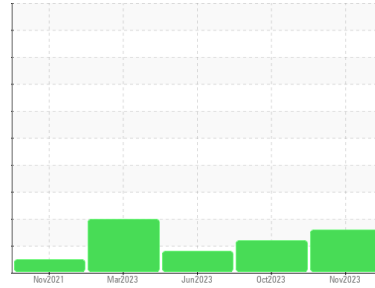
We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report





Area
Ascendum Machinery
 Machine Id
VOLVO L180H 15 (S/N 5263)
 Component
Hydraulic System
 Fluid
VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)



DIAGNOSIS

Recommendation

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of particulates (2 to 100 microns in size) present in the oil.

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.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	ASC0005329	ASC0005023	ASC0000128
Sample Date	Client Info	07 Nov 2023	09 Oct 2023	14 Jun 2023
Machine Age	hrs	10011	9558	8015
Oil Age	hrs	8468	1543	4475
Oil Changed	Client Info	Not Chngd	Not Chngd	Changed
Sample Status		ABNORMAL	ATTENTION	ATTENTION

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	4	4	1
Chromium	ppm	ASTM D5185m >20	2	1	<1
Nickel	ppm	ASTM D5185m >10	0	0	0
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >20	1	0	<1
Lead	ppm	ASTM D5185m >20	<1	0	0
Copper	ppm	ASTM D5185m >150	2	2	2
Tin	ppm	ASTM D5185m >20	0	0	0
Vanadium	ppm	ASTM D5185m	0	0	<1
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 14	0	0	0
Barium	ppm	ASTM D5185m 0.0	0	1	0
Molybdenum	ppm	ASTM D5185m 0.0	<1	0	0
Manganese	ppm	ASTM D5185m 0.0	0	0	0
Magnesium	ppm	ASTM D5185m 2.6	17	11	4
Calcium	ppm	ASTM D5185m 49	63	54	64
Phosphorus	ppm	ASTM D5185m 354	336	313	353
Zinc	ppm	ASTM D5185m 419	415	378	455
Sulfur	ppm	ASTM D5185m 3719	1815	1743	2467

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >20	2	<1	<1
Sodium	ppm	ASTM D5185m	2	3	1
Potassium	ppm	ASTM D5185m >20	<1	0	0

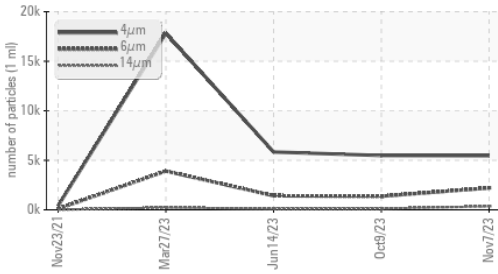
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	5454	5482	5842
Particles >6µm	ASTM D7647 >2500	2210	1369	1416
Particles >14µm	ASTM D7647 >80	▲ 350	▲ 116	▲ 101
Particles >21µm	ASTM D7647 >20	▲ 138	▲ 40	26
Particles >38µm	ASTM D7647 >4	▲ 9	3	1
Particles >71µm	ASTM D7647 >3	0	0	0
Oil Cleanliness	ISO 4406 (c) >--/18/13	▲ 20/18/16	▲ 20/18/14	▲ 20/18/14

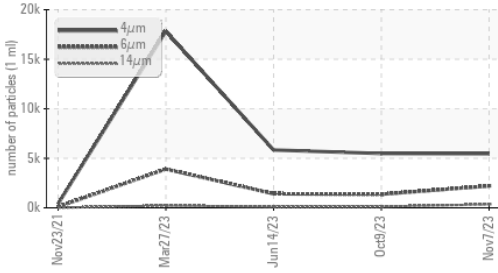
FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	0.28	0.36	0.38

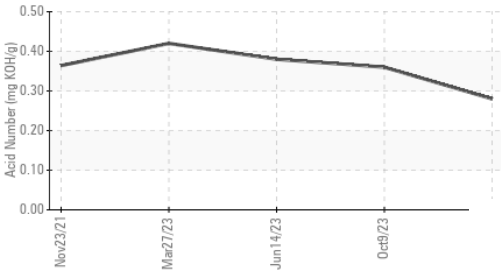
▲ Particle Trend



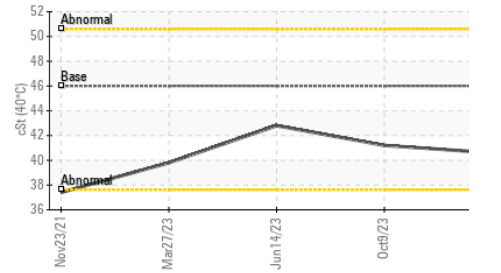
▲ Particle Trend



Acid Number



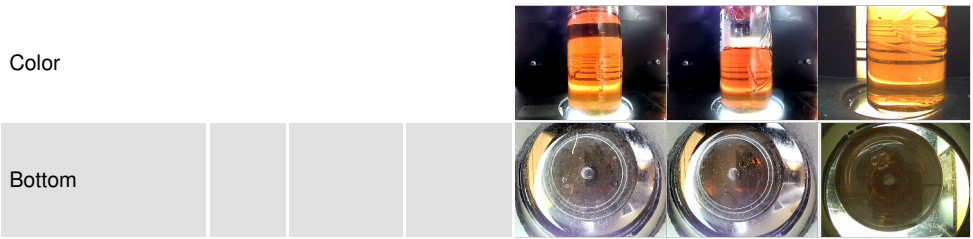
Viscosity @ 40°C



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	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
Free Water	scalar	*Visual		NEG	NEG

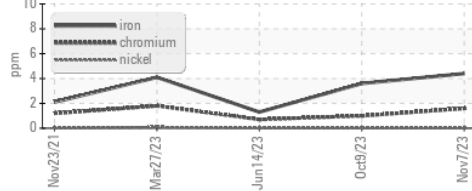
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	40.6	41.2	42.8

SAMPLE IMAGES	method	limit/base	current	history1	history2
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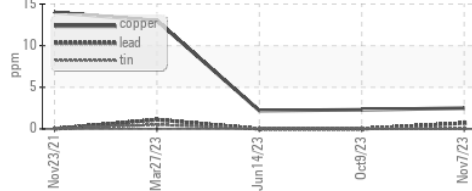


GRAPHS

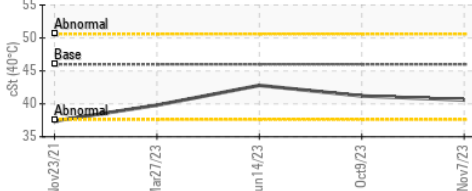
Ferrous Alloys



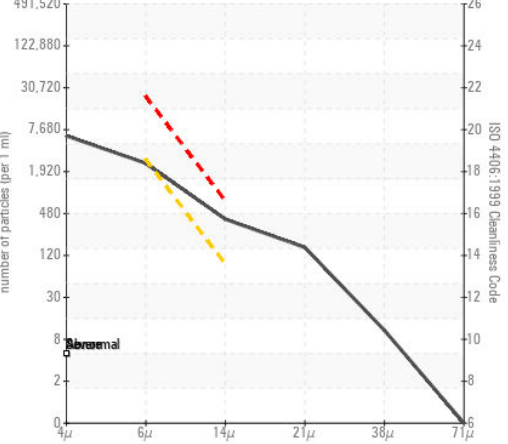
Non-ferrous Metals



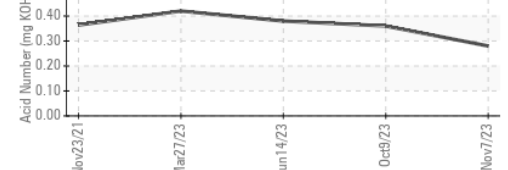
Viscosity @ 40°C



▲ Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : ASC0005329 Received : 14 Nov 2023
 Lab Number : 06006970 Diagnosed : 15 Nov 2023
 Unique Number : 10740732 Diagnostician : Wes Davis
 Test Package : CONST

EGGER WOOD PRODUCTS
 300 EGGER PARKWAY
 LINWOOD, NC
 US 27299
 Contact: HELMUT THOMAY
 helmut.thomay@egger.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)