



ASCENDUM

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
[VORTEX]
Machine Id
VOLVO EC200 314626
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0006188	VCP0005005	VCP367007
Sample Date		Client Info		29 Jan 2024	17 Jan 2023	10 Aug 2022
Machine Age	hrs	Client Info		1974	1042	555
Oil Age	hrs	Client Info		1974	0	0
Filter Age	hrs	Client Info		974	0	0
Oil Changed		Client Info		Not Changed	N/A	Not Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>25	1	2	2
Chromium	ppm	ASTM D5185m	>10	1	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	0	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	0	0
Lead	ppm	ASTM D5185m	>20	0	<1	0
Copper	ppm	ASTM D5185m	>150	19	16	11
Tin	ppm	ASTM D5185m	>10	<1	0	<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

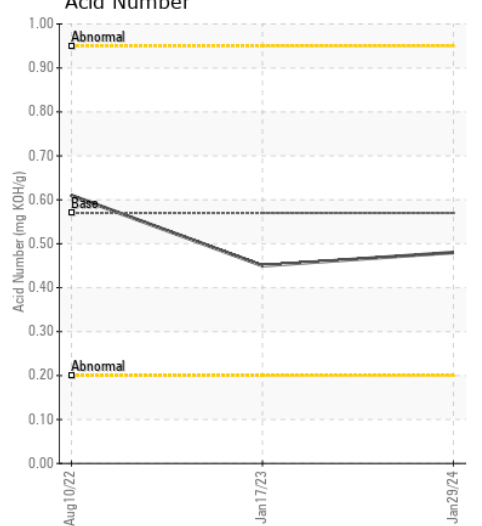
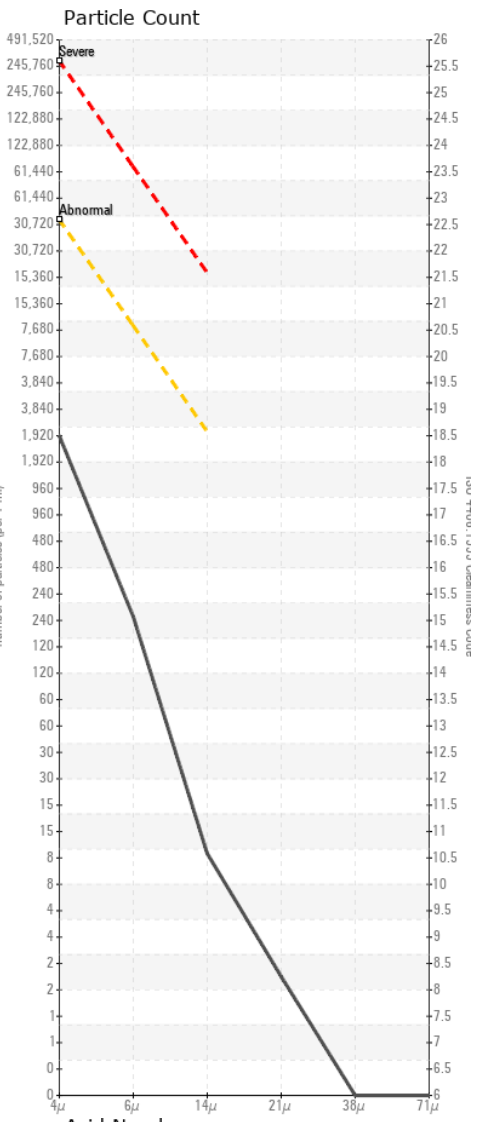
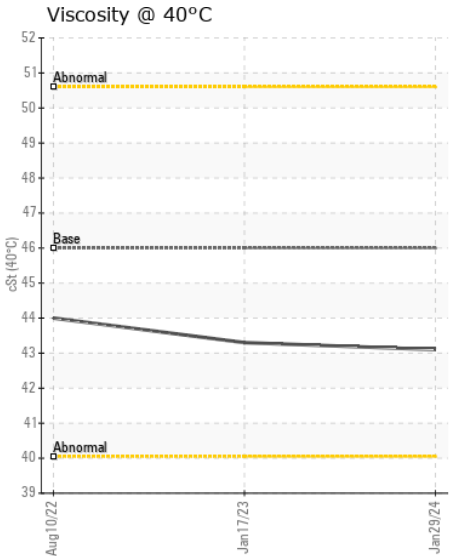
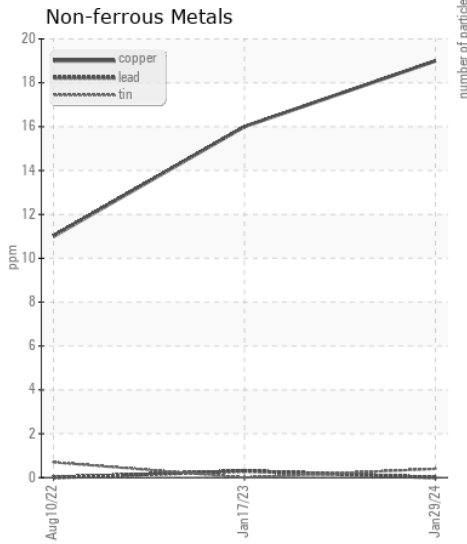
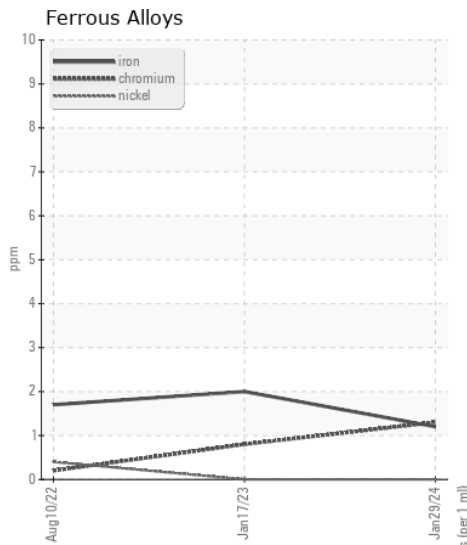
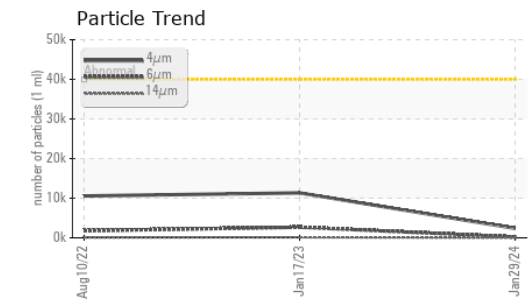
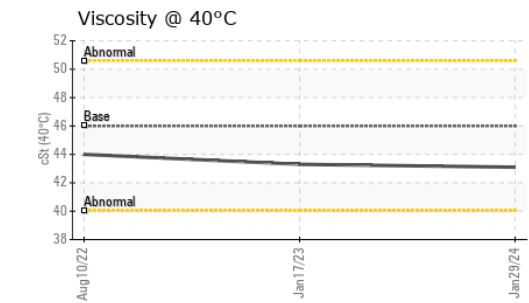
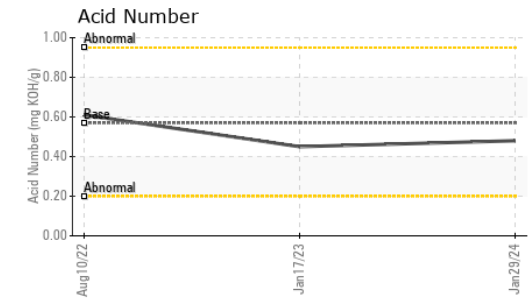
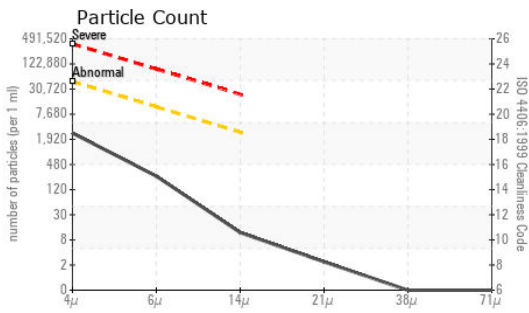
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>50	5	6	4
Potassium	ppm	ASTM D5185m	>20	0	<1	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>40000	2370	11345	10570
Particles >6µm		ASTM D7647	>10000	222	2684	1787
Particles >14µm		ASTM D7647	>2500	10	131	88
Particles >21µm		ASTM D7647	>640	2	40	18
Particles >38µm		ASTM D7647	>160	0	1	1
Particles >71µm		ASTM D7647	>40	0	0	0
Oil Cleanliness		ISO 4406 (c)	>22/20/18	18/15/10	21/19/14	21/18/14
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		1	0	1
Boron	ppm	ASTM D5185m	5	0	0	<1
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	5	0	0	<1
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m	25	0	<1	0
Calcium	ppm	ASTM D5185m	200	59	80	82
Phosphorus	ppm	ASTM D5185m	300	373	400	402
Zinc	ppm	ASTM D5185m	370	464	536	500
Sulfur	ppm	ASTM D5185m	2500	931	1084	956
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.48	0.45	0.61
Visc @ 40°C	cSt	ASTM D445	46	43.1	43.3	44.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0006188 **Received** : 31 Jan 2024
Lab Number : 06075642 **Diagnosed** : 01 Feb 2024
Unique Number : 10857733 **Diagnostician** : Wes Davis
Test Package : CONST

113 - ASCENDUM MACHINERY INC - GARNER
 3561 JONES SAUSAGE ROAD
 GARNER, NC
 US 27529
 Contact: TRENT BROADWELL
 trent.broadwell@ascendummachinery.com
 T: (919)661-8817
 F: (919)661-9038

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)