



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
VOLVO SD-100D 001697 (S/N 198137)
 Component
Hydraulic System
 Fluid
CASTROL HYPURON 15W40 (4 GAL)

RECOMMENDATION

No corrective action is recommended at this time. 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		WC0856140	WC0701114	WC0604469
Sample Date		Client Info		16 Apr 2024	01 Sep 2022	17 Sep 2021
Machine Age	hrs	Client Info		6297	5707	5703
Oil Age	hrs	Client Info		590	4	1500
Filter Age	hrs	Client Info		590	4	500
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	4	3	5
Chromium	ppm	ASTM D5185m	>10	<1	0	<1
Nickel	ppm	ASTM D5185m	>10	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>10	2	<1	0
Lead	ppm	ASTM D5185m	>10	2	<1	2
Copper	ppm	ASTM D5185m	>75	4	3	5
Tin	ppm	ASTM D5185m	>10	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

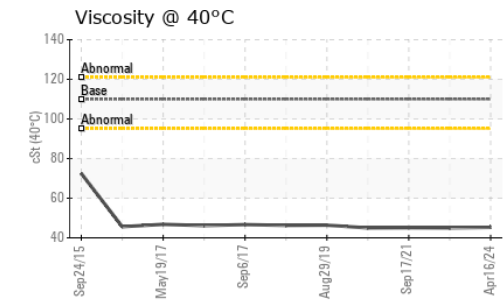
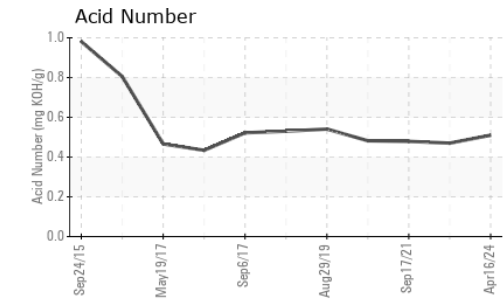
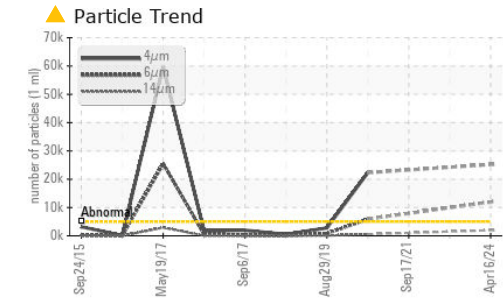
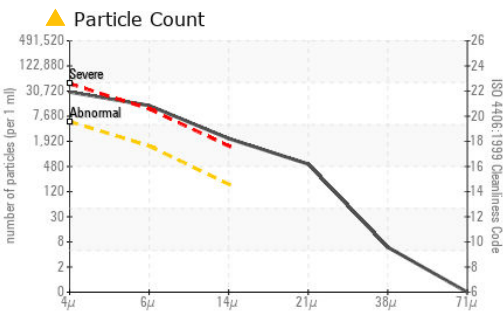
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>20	3	1	4
Potassium	ppm	ASTM D5185m	>20	1	0	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	▲ 25209	---	---
Particles >6µm		ASTM D7647	>1300	▲ 11979	---	---
Particles >14µm		ASTM D7647	>160	▲ 1955	---	---
Particles >21µm		ASTM D7647	>40	▲ 481	---	---
Particles >38µm		ASTM D7647	>10	5	---	---
Particles >71µm		ASTM D7647	>3	0	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 22/21/18	---	---
Silt	scalar	*Visual	NONE	LIGHT	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER	▲ MODER
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		0	0	0
Boron	ppm	ASTM D5185m		<1	0	7
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		3	2	4
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		24	9	21
Calcium	ppm	ASTM D5185m		236	251	502
Phosphorus	ppm	ASTM D5185m		372	350	649
Zinc	ppm	ASTM D5185m		424	401	791
Sulfur	ppm	ASTM D5185m		1394	1373	2321
Acid Number (AN)	mg KOH/g	ASTM D8045		0.51	0.47	0.479
Visc @ 40°C	cSt	ASTM D445	110	45.3	45.0	45.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0856140
Lab Number : 06158428
Unique Number : 10993851
Test Package : CONST

Received : 23 Apr 2024
Tested : 24 Apr 2024
Diagnosed : 25 Apr 2024 - Don Baldrige

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)

