



VOLVO

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Area
[10160 ENVIROVANTAGRE]
Machine Id
VOLVO EC380E 314814
Component
Rear Right Final Drive
Fluid
CHEVRON DELO GEAR ESI OIL 85W140 (--- GAL)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP409447	VCP413933	VCP360329
Sample Date		Client Info		03 Jan 2024	13 Dec 2023	18 Mar 2022
Machine Age	hrs	Client Info		2142	2128	607
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changed	Changed	Changed
Filter Changed		Client Info		Not Changed	Not Changed	Not Changed
Sample Status				ABNORMAL	SEVERE	ABNORMAL

WEAR

Gear wear is indicated.

Iron	ppm	ASTM D5185m	>500	▲ 981	● 3931	135
Chromium	ppm	ASTM D5185m	>10	10	● 41	5
Nickel	ppm	ASTM D5185m	>10	1	4	0
Titanium	ppm	ASTM D5185m		4	18	2
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>25	▲ 35	▲ 157	▲ 29
Lead	ppm	ASTM D5185m	>25	<1	1	0
Copper	ppm	ASTM D5185m	>50	2	7	0
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

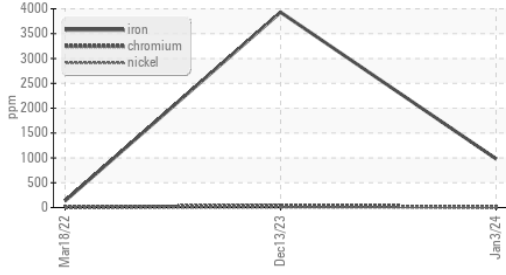
Silicon	ppm	ASTM D5185m	>75	▲ 286	● 1225	▲ 102
Potassium	ppm	ASTM D5185m	>20	12	34	4
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	LIGHT	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

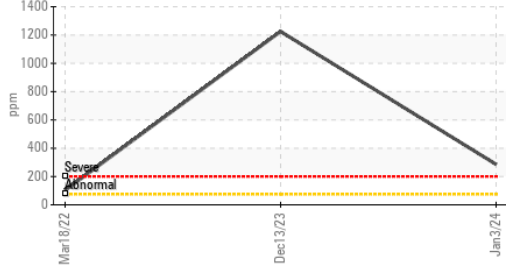
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		0	5	2
Boron	ppm	ASTM D5185m		172	84	8
Barium	ppm	ASTM D5185m		8	11	2
Molybdenum	ppm	ASTM D5185m		2	5	<1
Manganese	ppm	ASTM D5185m		8	32	3
Magnesium	ppm	ASTM D5185m		6	25	3
Calcium	ppm	ASTM D5185m		16	51	16
Phosphorus	ppm	ASTM D5185m		927	823	354
Zinc	ppm	ASTM D5185m		0	10	0
Sulfur	ppm	ASTM D5185m		20551	24832	13196
Visc @ 40°C	cSt	ASTM D445	341	321	289	178

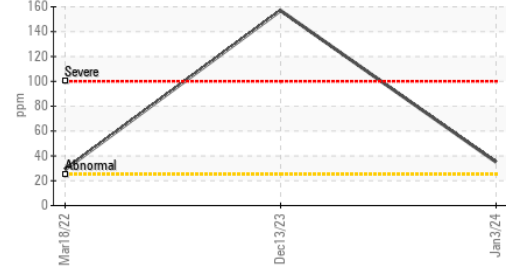
▲ Ferrous Alloys



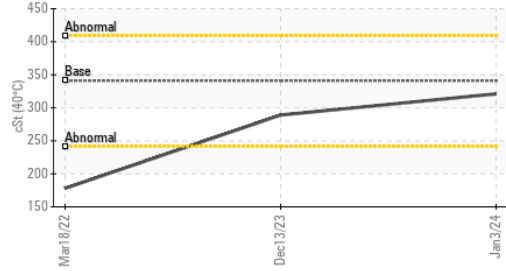
▲ Silicon (ppm)



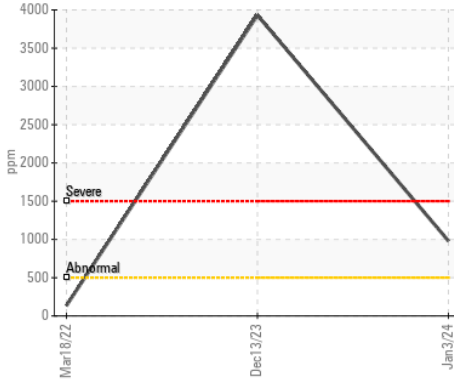
▲ Aluminum (ppm)



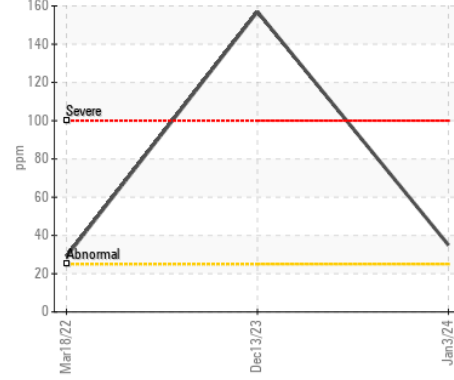
Viscosity @ 40°C



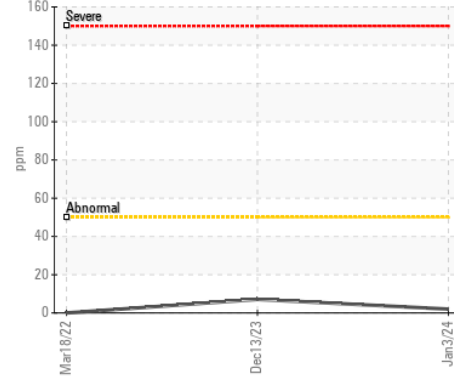
▲ Iron (ppm)



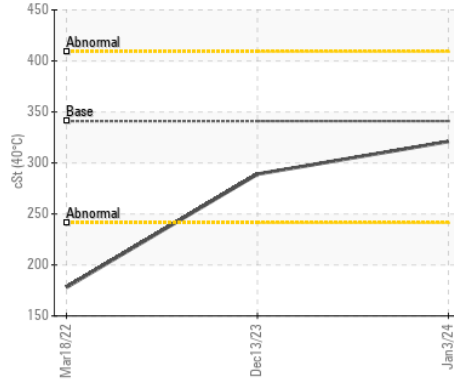
▲ Aluminum (ppm)



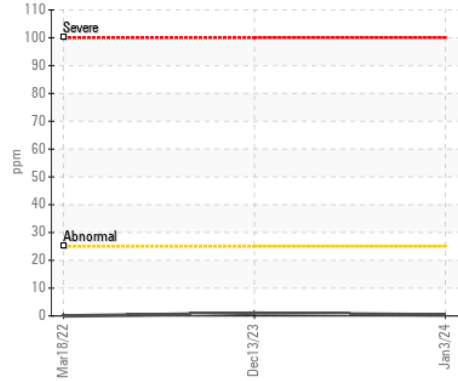
▲ Copper (ppm)



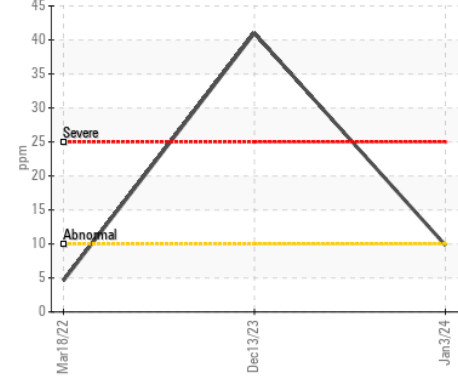
Viscosity @ 40°C



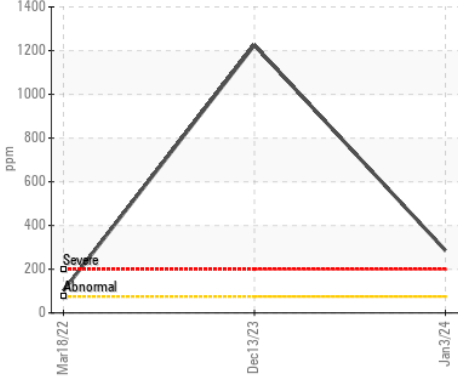
▲ Lead (ppm)



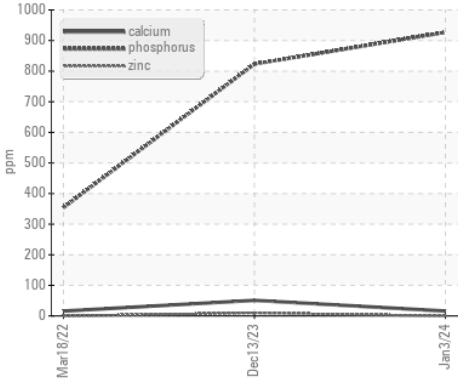
▲ Chromium (ppm)



▲ Silicon (ppm)



▲ Additives



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP409447 **Received** : 08 Jan 2024
Lab Number : 06054338 **Diagnosed** : 10 Jan 2024
Unique Number : 10820287 **Diagnostician** : Jonathan Hester
Test Package : MOB 1

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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)