



VOLVO

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
[20321]
Machine Id
VOLVO A45G 352990
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 30 (--- 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		VCP441371	VCP435331	VCP405940
Sample Date		Client Info		12 Dec 2023	29 Aug 2023	13 Jun 2023
Machine Age	hrs	Client Info		5694	4779	3902
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

Exhaust valve wear is indicated.

Iron	ppm	ASTM D5185m	>100	22	22	13
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	▲ 7	4	4
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	3	<1	0
Lead	ppm	ASTM D5185m	>40	1	2	1
Copper	ppm	ASTM D5185m	>330	2	2	2
Tin	ppm	ASTM D5185m	>15	<1	1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

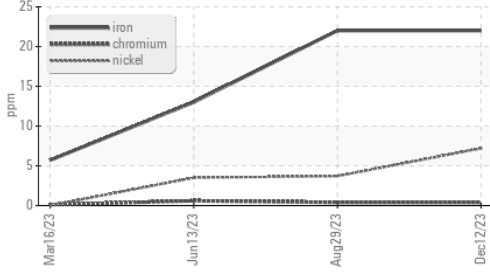
Silicon	ppm	ASTM D5185m	>25	5	5	4
Potassium	ppm	ASTM D5185m	>20	0	0	<1
Fuel		WC Method	>6.0	<1.0	0.7	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.8	0.9	0.6
Nitration	Abs/cm	*ASTM D7624	>20	10.1	9.6	9.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.5	20.7	20.0
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	>0.2	NEG	NEG	NEG

FLUID CONDITION

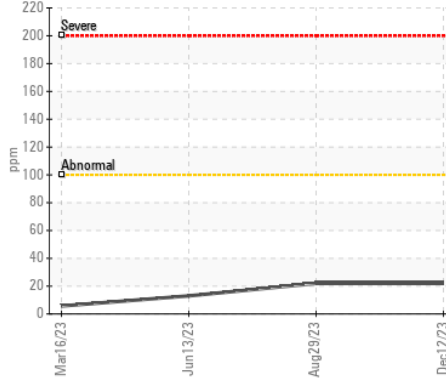
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>75	1	2	<1
Boron	ppm	ASTM D5185m	250	2	1	3
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	58	66	62
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	450	900	1011	905
Calcium	ppm	ASTM D5185m	3000	1084	1216	1112
Phosphorus	ppm	ASTM D5185m	1150	967	1043	1013
Zinc	ppm	ASTM D5185m	1350	1256	1333	1239
Sulfur	ppm	ASTM D5185m	4250	2803	3594	3217
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.1	15.3	16.5
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.0	6.7	7.4
Visc @ 100°C	cSt	ASTM D445	10.9	12.5	12.3	12.8

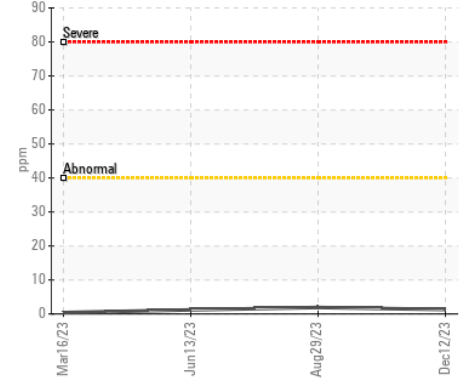
▲ Ferrous Alloys



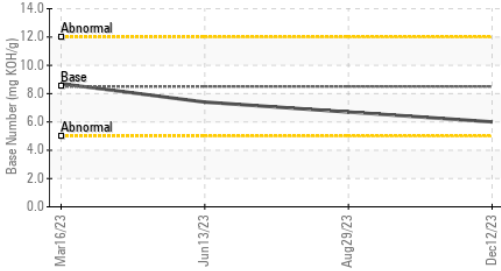
Iron (ppm)



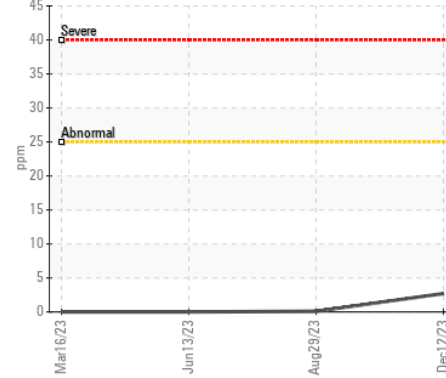
Lead (ppm)



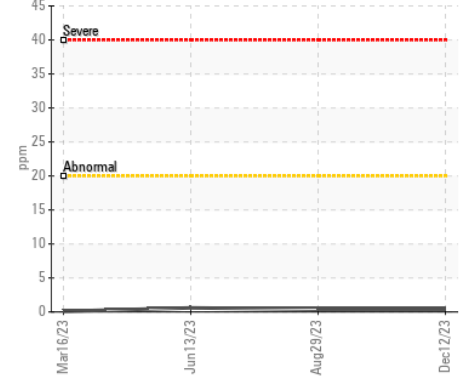
Base Number



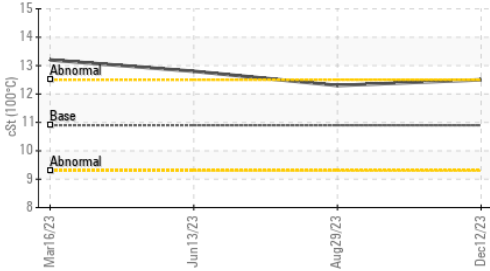
Aluminum (ppm)



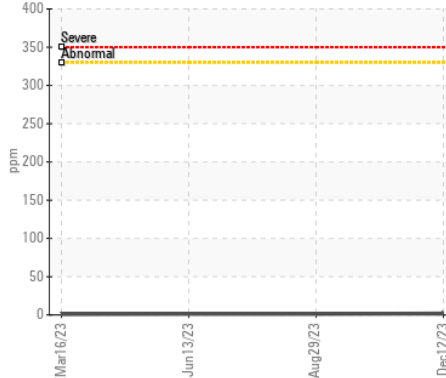
Chromium (ppm)



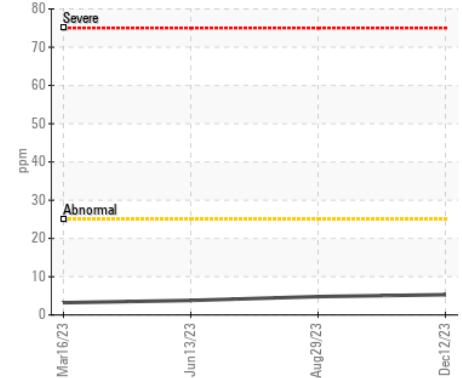
Viscosity @ 100°C



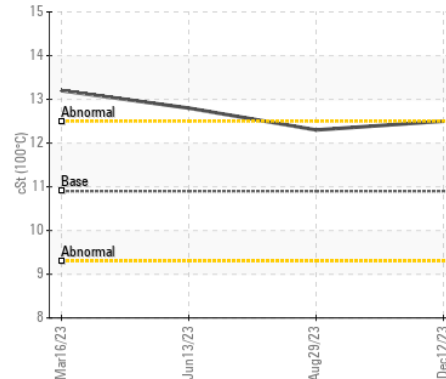
Copper (ppm)



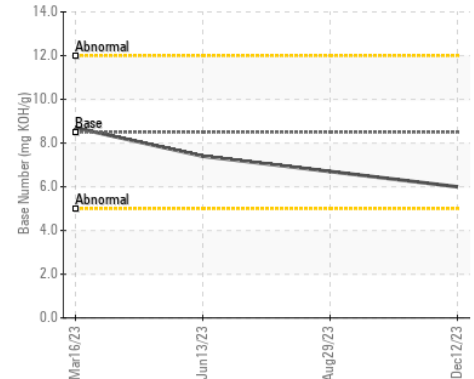
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP441371 **Received** : 11 Jan 2024
Lab Number : 06057644 **Diagnosed** : 12 Jan 2024
Unique Number : 10823593 **Diagnostician** : Sean Felton
Test Package : MOB 1 (Additional Tests: TBN)

TRADER CONSTRUCTION-VC
 P.O. DRAWER 1578
 NEW BERN, NC
 US 28563
 Contact: JOSH HUMPHREYS

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)

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