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VOLVO

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ATTENTION

Area
[728449]
Machine Id
VOLVO EC480 314300
Component
Diesel Engine
Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

The copper level is abnormal. All other component wear rates are normal.

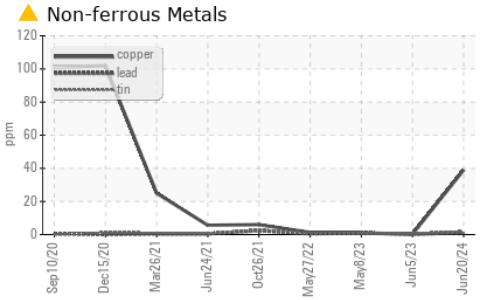
CONTAMINATION

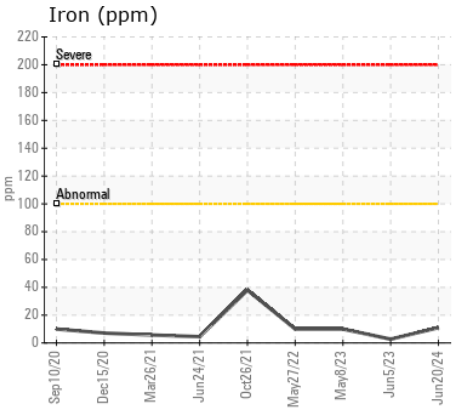
Fuel content negligible. Elemental level of silicon (Si) above normal.

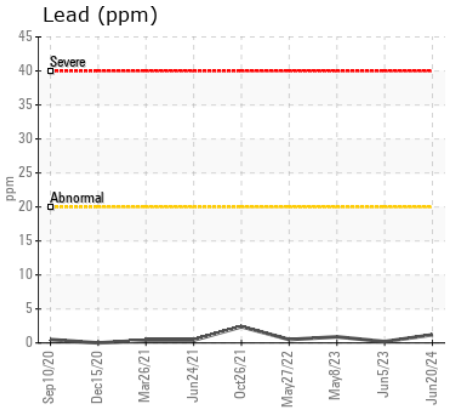
FLUID CONDITION

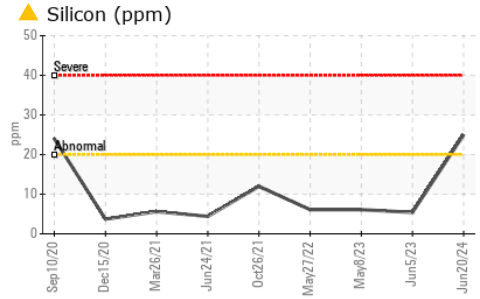
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

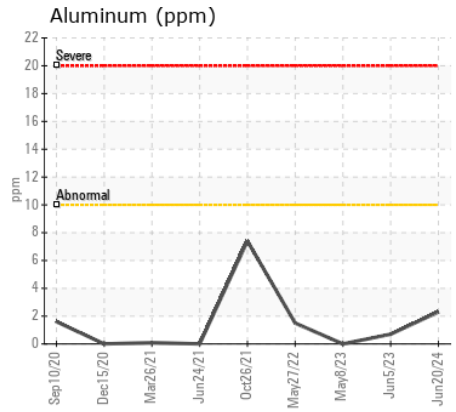
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP439825	VCP395899	VCP418985
Sample Date		Client Info		20 Jun 2024	05 Jun 2023	08 May 2023
Machine Age	hrs	Client Info		6215	5483	5393
Oil Age	hrs	Client Info		0	100	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				ABNORMAL	ATTENTION	NORMAL
Iron	ppm	ASTM D5185m	>100	11	3	10
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	6	<1	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	<1	0
Lead	ppm	ASTM D5185m	>20	1	<1	<1
Copper	ppm	ASTM D5185m	>15	▲ 39	<1	1
Tin	ppm	ASTM D5185m	>10	2	<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
Silicon	ppm	ASTM D5185m	>20	▲ 25	5	6
Potassium	ppm	ASTM D5185m	>20	4	2	<1
Fuel	%	ASTM D3524	>6.0	0.2	<1.0	1.6
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	9.7	5.8	10.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.5	22.1	22.8
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
Sodium	ppm	ASTM D5185m		1	2	3
Boron	ppm	ASTM D5185m	2.5	11	48	10
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.7	44	43	54
Manganese	ppm	ASTM D5185m	0.0	1	<1	<1
Magnesium	ppm	ASTM D5185m	256	487	541	583
Calcium	ppm	ASTM D5185m	2057	1777	1699	1543
Phosphorus	ppm	ASTM D5185m	935	949	982	907
Zinc	ppm	ASTM D5185m	1223	1234	1214	1127
Sulfur	ppm	ASTM D5185m	4079	2876	3788	2746
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.0	20.9	21.9
Base Number (BN)	mg KOH/g	ASTM D2896	10	7.3	9.8	7.0
Visc @ 100°C	cSt	ASTM D445	15.0	● 11.6	● 12.4	12.1

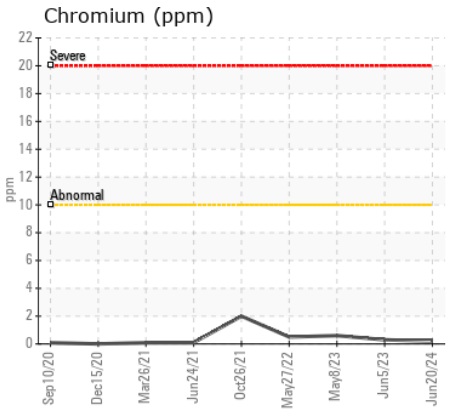


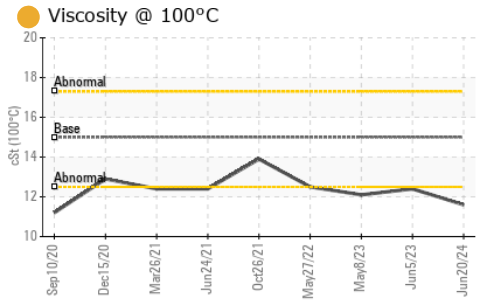


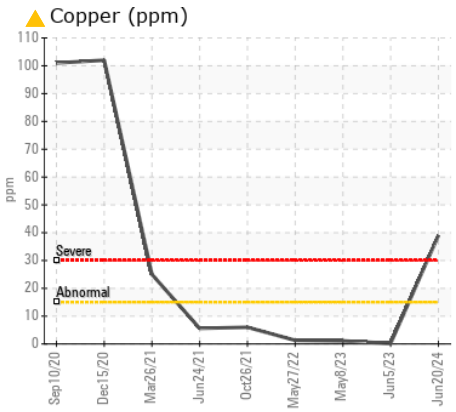


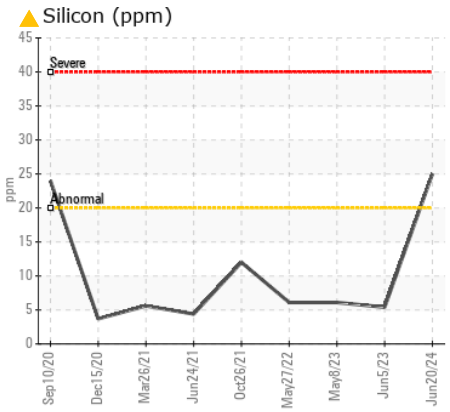


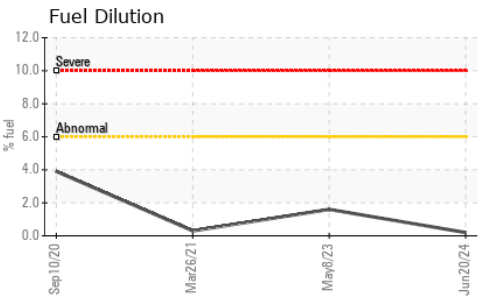


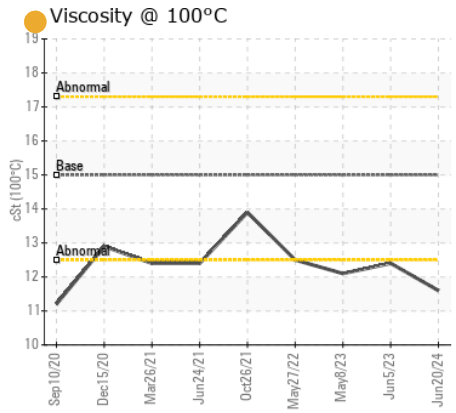


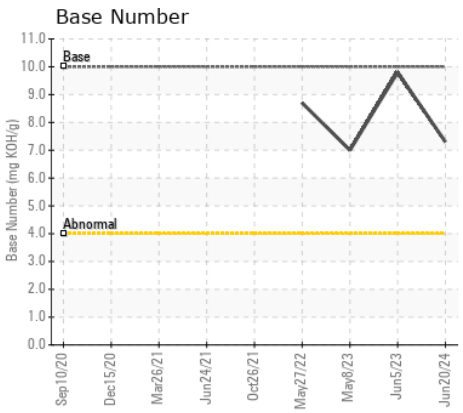


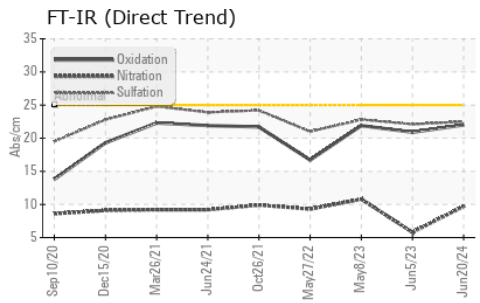












Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP439825 **Received** : 26 Jun 2024
Lab Number : 06220748 **Tested** : 29 Jun 2024
Unique Number : 11098945 **Diagnosed** : 29 Jun 2024 - Don Baldridge
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, TBN)

Certificate L2367

FIVE STONES MINE
MORNING STAR FARM RD
CANAL POINT, FL
US 33430
Contact: Service Manager

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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