



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[139179 DOLESE]
 Machine Id
VOLVO EC220D 210447
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP413733	VCP171667	VCP165948
Sample Date		Client Info		14 Jun 2024	10 Feb 2015	15 Jul 2014
Machine Age	hrs	Client Info		7249	1650	1025
Oil Age	hrs	Client Info		0	461	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Changed	Changed
Filter Changed		Client Info		Not Changd	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	77	83	15
Chromium	ppm	ASTM D5185m	>10	<1	7	<1
Nickel	ppm	ASTM D5185m	>10	0	<1	2
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	6	24	5
Lead	ppm	ASTM D5185m	>20	0	1	<1
Copper	ppm	ASTM D5185m	>15	2	7	3
Tin	ppm	ASTM D5185m	>10	<1	2	<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

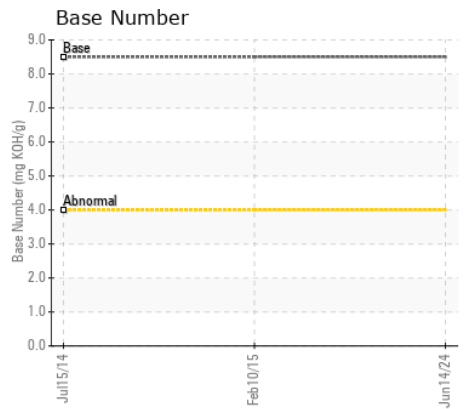
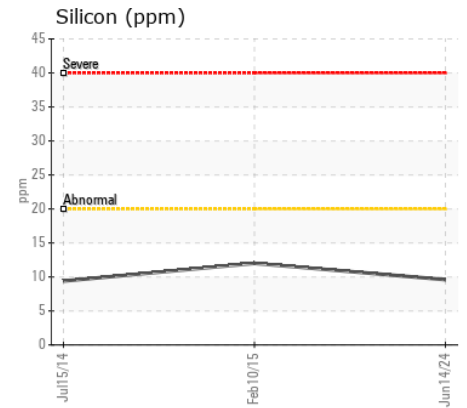
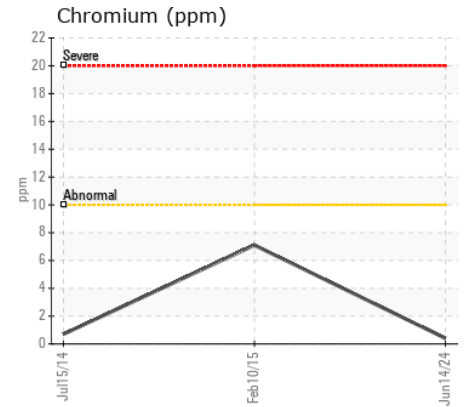
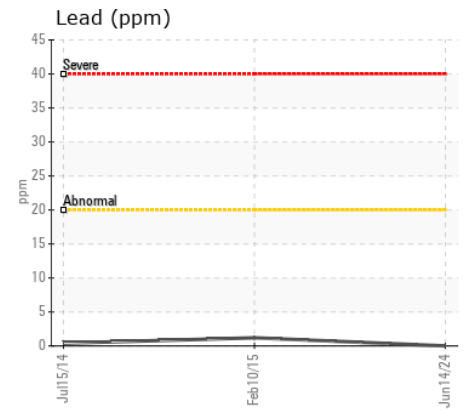
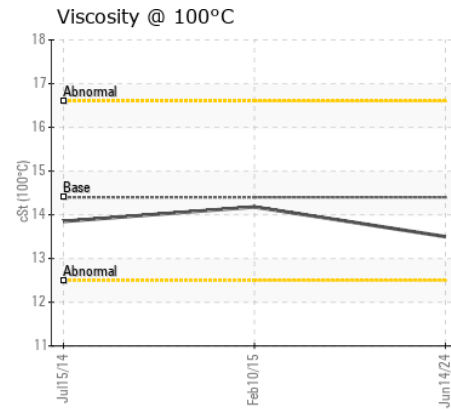
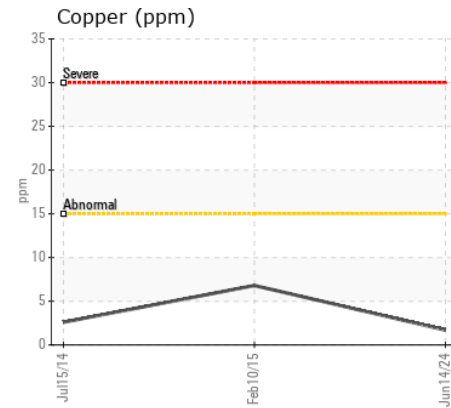
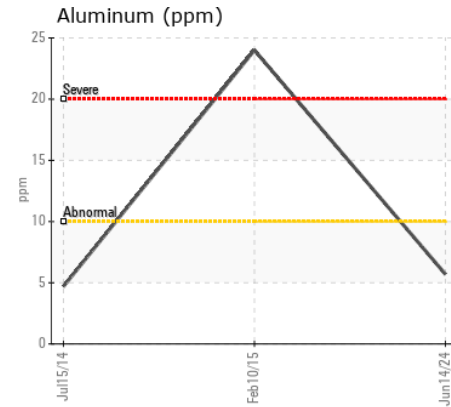
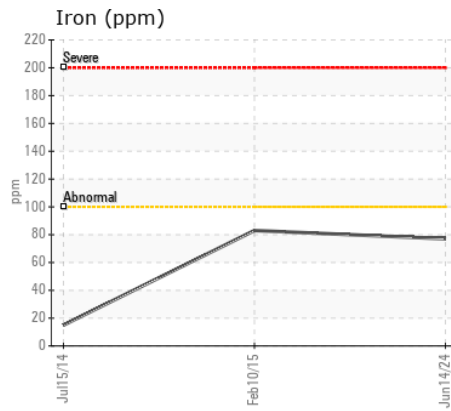
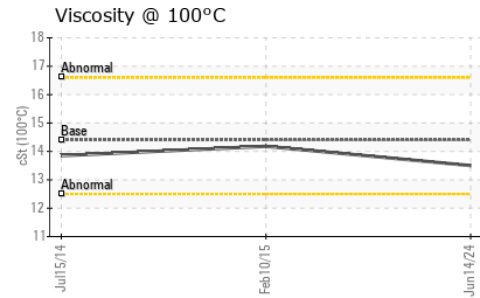
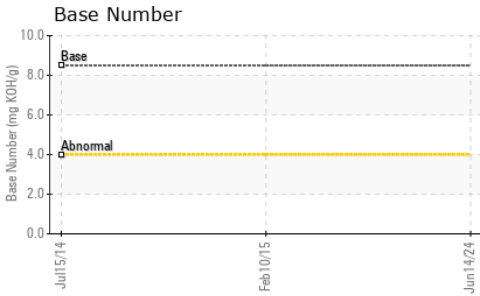
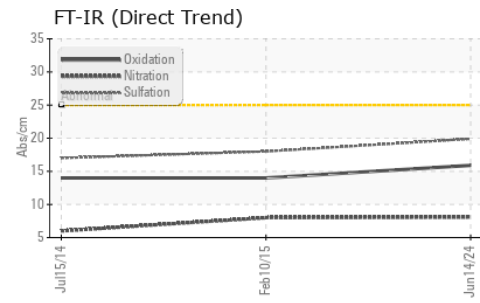
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	10	12	9
Potassium	ppm	ASTM D5185m	>20	2	0	<1
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.3	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.1	8.	6.
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.9	18.	17.
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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>216	2	4	2
Boron	ppm	ASTM D5185m	250	81	33	1
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	58	45	<1
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	450	498	814	12
Calcium	ppm	ASTM D5185m	3000	2070	1415	2317
Phosphorus	ppm	ASTM D5185m	1150	1258	877	932
Zinc	ppm	ASTM D5185m	1350	1493	1136	1056
Sulfur	ppm	ASTM D5185m	4250	4645	1370	5011
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.9	14.	14.
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.4	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	13.5	14.18	13.85



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP413733 **Received** : 17 Jun 2024
Lab Number : 06211227 **Tested** : 19 Jun 2024
Unique Number : 11084091 **Diagnosed** : 19 Jun 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: TBN)

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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)