CHALMERS Lubrication Service
(704) 660-LUBE(5823)

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
VOLVO EC160EL 3034
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

There is no indication of any contamination in the oil.

FLUID CONDITION

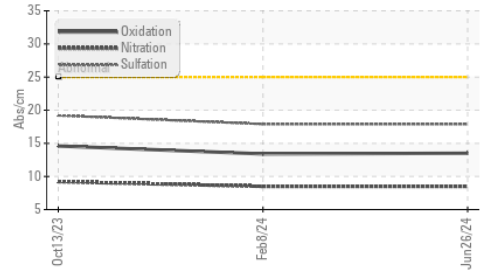
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		CL0005588	CL0005153	CL0004789
Sample Date		Client Info		26 Jun 2024	08 Feb 2024	13 Oct 2023
Machine Age	hrs	Client Info		935	670	345
Oil Age	hrs	Client Info		265	325	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				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	34	12	35
Chromium	ppm	ASTM D5185m	>10	2	<1	<1
Nickel	ppm	ASTM D5185m	>10	1	1	<1
Titanium	ppm	ASTM D5185m		1	0	1
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>10	7	5	4
Lead	ppm	ASTM D5185m	>20	<1	<1	3
Copper	ppm	ASTM D5185m	>15	2	2	<1
Tin	ppm	ASTM D5185m	>10	1	1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>20	9	8	9
Potassium	ppm	ASTM D5185m	>20	3	<1	3
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	0.1	0.1	0.3
Nitration	Abs/cm	*ASTM D7624	>20	8.5	8.5	9.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.9	17.9	19.2
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	>216	3	1	<1
Boron	ppm	ASTM D5185m	250	62	53	58
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	92	83	96
Manganese	ppm	ASTM D5185m		1	<1	0
Magnesium	ppm	ASTM D5185m	450	17	23	37
Calcium	ppm	ASTM D5185m	3000	2381	2137	2421
Phosphorus	ppm	ASTM D5185m	1150	1107	1050	1017
Zinc	ppm	ASTM D5185m	1350	1331	1266	1306
Sulfur	ppm	ASTM D5185m	4250	4120	3852	4300
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.5	13.4	14.6
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.0	7.3	7.1
Visc @ 100°C	cSt	ASTM D445	14.4	13.8	13.6	14.3

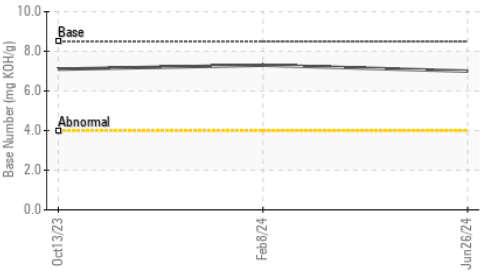
Report Id: PURCHA [WUSCAR] 06229735 (Generated: 07/09/2024 22:41:23) Rev: 1

Submitted By: JEFF CHALMERS

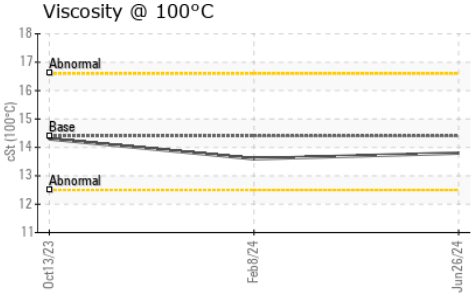
FT-IR (Direct Trend)



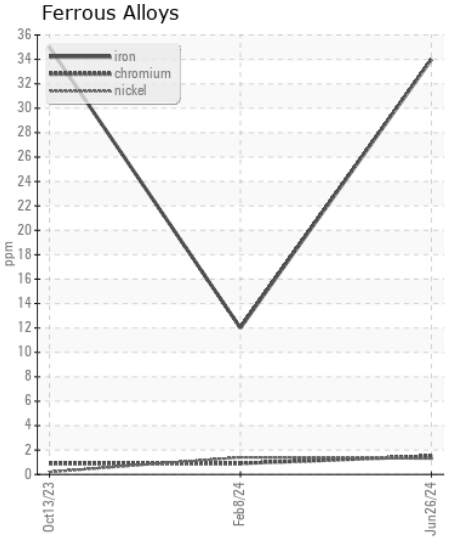
Base Number



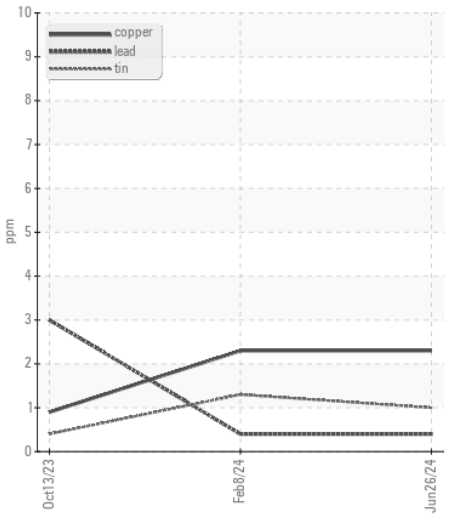
Viscosity @ 100°C



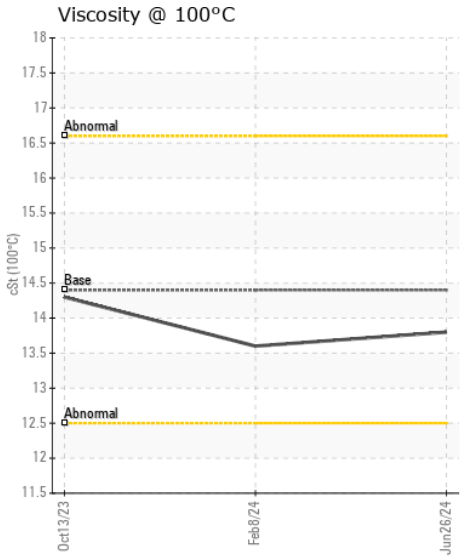
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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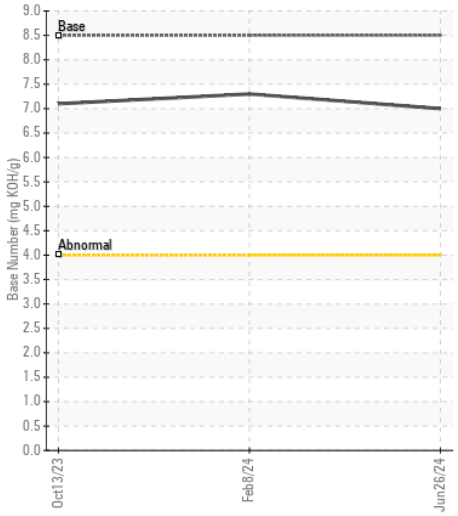

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : CL0005588 **Received** : 08 Jul 2024
Lab Number : 06229735 **Tested** : 09 Jul 2024
Unique Number : 11113228 **Diagnosed** : 09 Jul 2024 - Wes Davis
Test Package : CONST (Additional Tests: TBN)

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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