



ASCENDUM

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
[SCM]
 Machine Id
VOLVO EC250E 314064
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0011146	ASC0006499	VCP391470
Sample Date		Client Info		29 Jun 2024	14 Dec 2023	25 May 2023
Machine Age	hrs	Client Info		4554	3507	2024
Oil Age	hrs	Client Info		600	1483	0
Filter Age	hrs	Client Info		600	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	11	4	13
Chromium	ppm	ASTM D5185m	>10	<1	0	<1
Nickel	ppm	ASTM D5185m	>10	<1	0	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>10	4	3	4
Lead	ppm	ASTM D5185m	>20	5	1	1
Copper	ppm	ASTM D5185m	>15	3	1	2
Tin	ppm	ASTM D5185m	>10	2	<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

CONTAMINATION

There is no indication of any contamination in the oil.

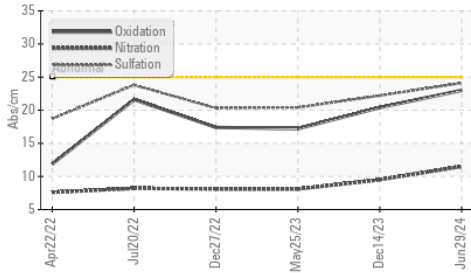
Silicon	ppm	ASTM D5185m	>20	6	4	5
Potassium	ppm	ASTM D5185m	>20	6	11	3
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	11.5	9.5	8.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.1	22.2	20.4
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

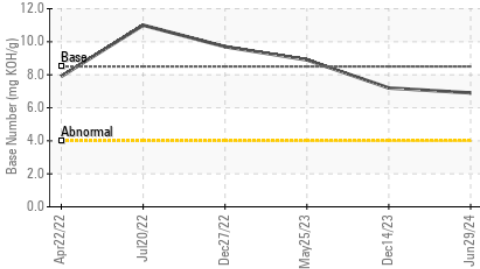
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>216	2	2	0
Boron	ppm	ASTM D5185m	250	40	98	4
Barium	ppm	ASTM D5185m	10	<1	0	2
Molybdenum	ppm	ASTM D5185m	100	50	17	62
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m	450	418	205	931
Calcium	ppm	ASTM D5185m	3000	1963	2030	1222
Phosphorus	ppm	ASTM D5185m	1150	1020	988	1032
Zinc	ppm	ASTM D5185m	1350	1287	1325	1266
Sulfur	ppm	ASTM D5185m	4250	2877	3280	3319
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.0	20.4	17.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.9	7.2	8.9
Visc @ 100°C	cSt	ASTM D445	14.4	15.2	14.6	14.1

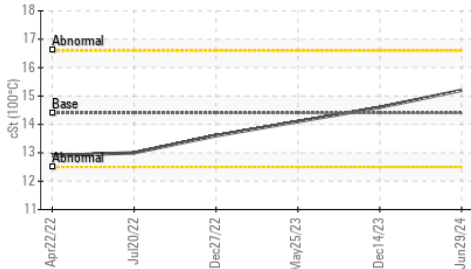
FT-IR (Direct Trend)



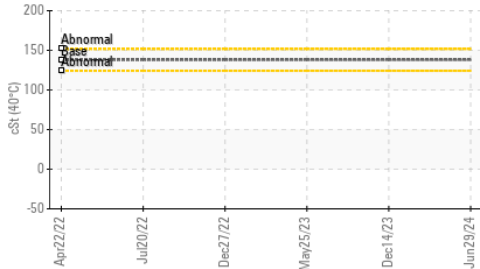
Base Number



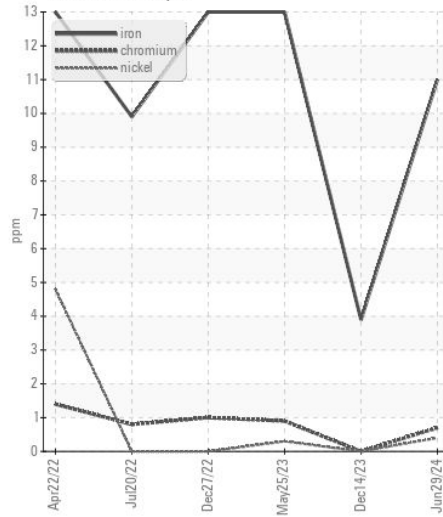
Viscosity @ 100°C



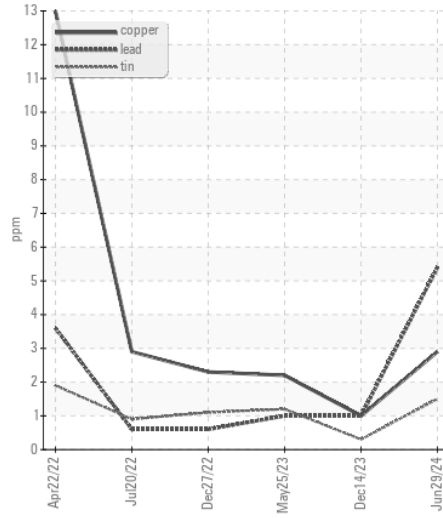
Viscosity @ 40°C



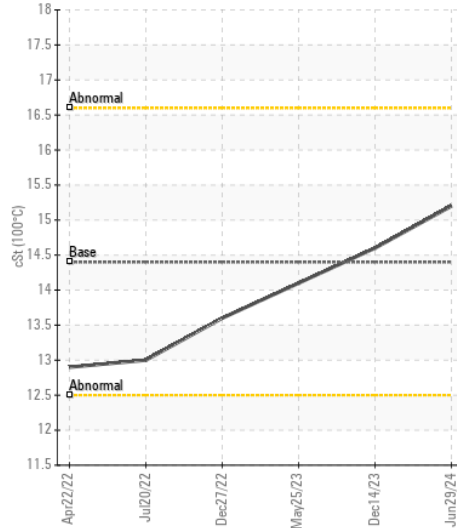
Ferrous Alloys



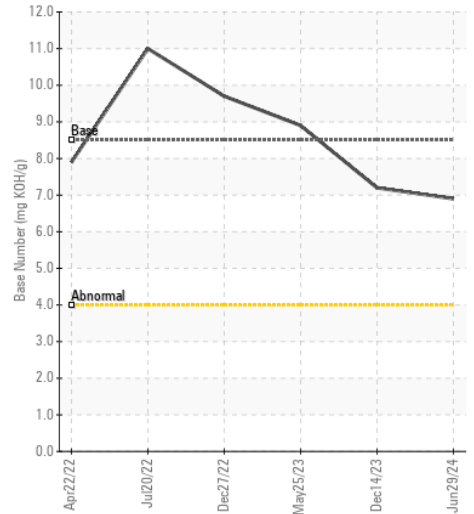
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0011146 **Received** : 02 Jul 2024
Lab Number : 06225975 **Tested** : 05 Jul 2024
Unique Number : 11109468 **Diagnosed** : 05 Jul 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: TBN, KV40)

113 - ASCENDUM MACHINERY INC - GARNER
 3561 JONES SAUSAGE ROAD
 GARNER, NC
 US 27529

Contact: TRENT BROADWELL
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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)

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