



THE G. W. VAN KEPPEL CO.  
Construction Equipment

# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area

**[E&B RORK]**

Machine Id

**VOLVO EC380E 29218 (S/N 314103)**

Component

**Diesel Engine**

Fluid

**VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VKC0001091</b>	VKC0000864	VKC0000664
Sample Date		Client Info		<b>06 Feb 2024</b>	13 Oct 2023	07 Jun 2023
Machine Age	hrs	Client Info		<b>5993</b>	5571	4989
Oil Age	hrs	Client Info		<b>0</b>	0	500
Filter Age	hrs	Client Info		<b>0</b>	0	500
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>8</b>	6	4
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	>2	<b>3</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	3
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>&lt;1</b>	1	7
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	2	0
Copper	ppm	ASTM D5185m	>330	<b>6</b>	2	1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

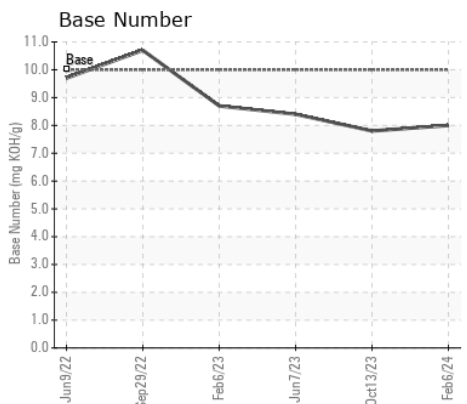
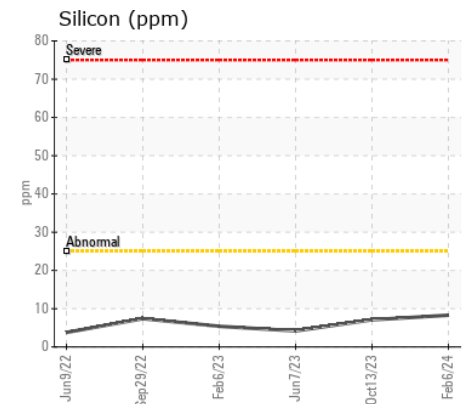
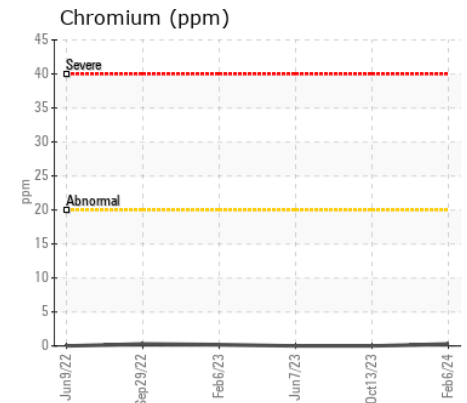
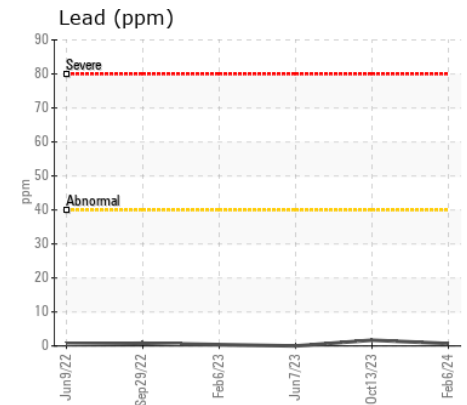
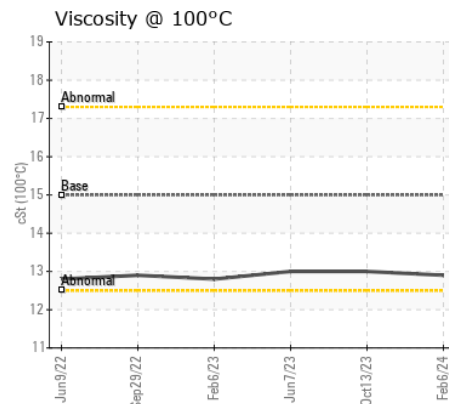
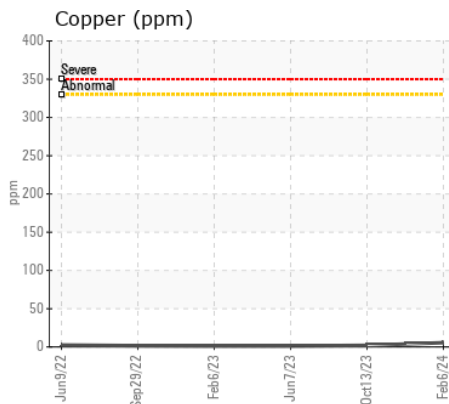
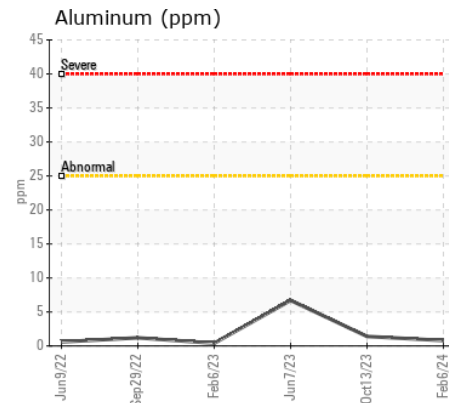
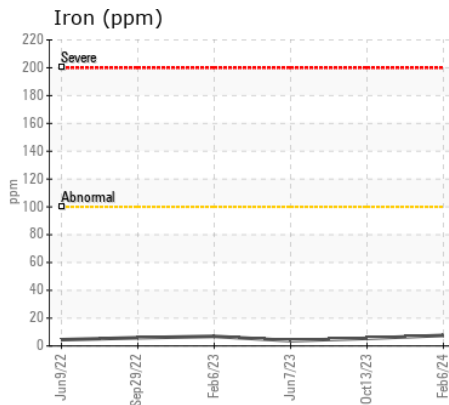
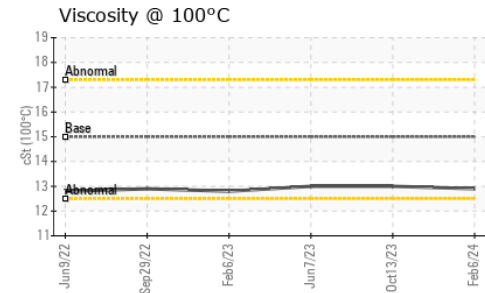
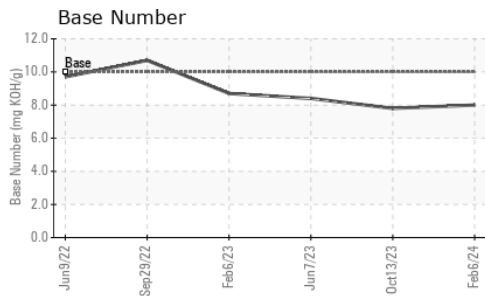
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>8</b>	7	4
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	0
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.2</b>	10.8	11.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.5</b>	23.6	23.0
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	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		<b>2</b>	4	3
Boron	ppm	ASTM D5185m	2.5	<b>22</b>	22	26
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0.7	<b>51</b>	46	43
Manganese	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	256	<b>627</b>	593	634
Calcium	ppm	ASTM D5185m	2057	<b>1639</b>	1811	1711
Phosphorus	ppm	ASTM D5185m	935	<b>905</b>	985	992
Zinc	ppm	ASTM D5185m	1223	<b>1202</b>	1245	1235
Sulfur	ppm	ASTM D5185m	4079	<b>2853</b>	2908	3526
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>24.4</b>	24.4	22.9
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>8.0</b>	7.8	8.4
Visc @ 100°C	cSt	ASTM D445	15.0	<b>12.9</b>	13.0	13.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VKC0001091 **Received** : 14 Feb 2024  
**Lab Number** : 06089234 **Tested** : 15 Feb 2024  
**Unique Number** : 10876679 **Diagnosed** : 16 Feb 2024 - Sean Felton  
**Test Package** : MOBCE ( 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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