



VOLVO

OIL ANALYSIS REPORT

WEAR**NORMAL****CONTAMINATION****ABNORMAL****FLUID CONDITION****ABNORMAL**

Area

Ascendum Machinery [1145-CSA]

Machine Id

VOLVO A30G ORT-23 (S/N A30GV742551)

Component

Diesel Engine

Fluid

VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (9 GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP370365	VCP0002888	VCP343375
Sample Date		Client Info		31 May 2023	24 Jun 2022	26 Oct 2021
Machine Age	hrs	Client Info		2926	2015	1466
Oil Age	hrs	Client Info		0	549	0
Filter Age	hrs	Client Info		0	549	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	4	8	9
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	<1	<1	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>30	2	2	1
Lead	ppm	ASTM D5185m	>40	0	<1	1
Copper	ppm	ASTM D5185m	>20	0	2	10
Tin	ppm	ASTM D5185m	>20	<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

CONTAMINATION

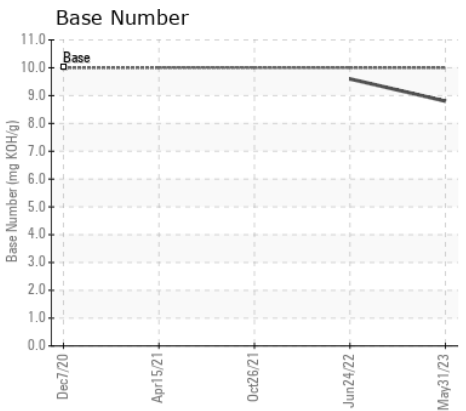
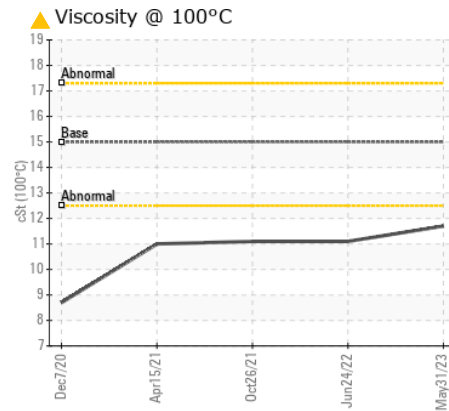
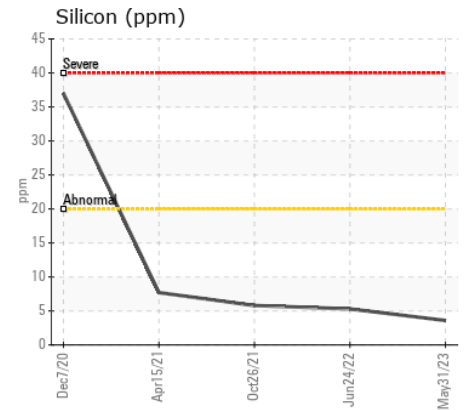
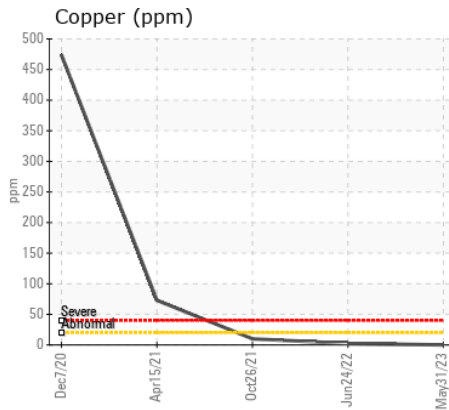
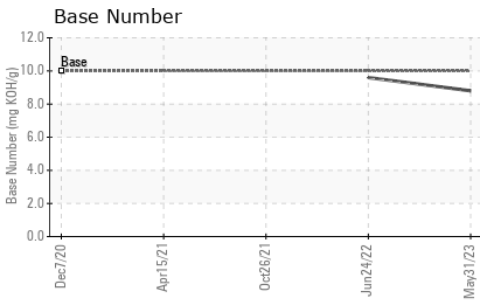
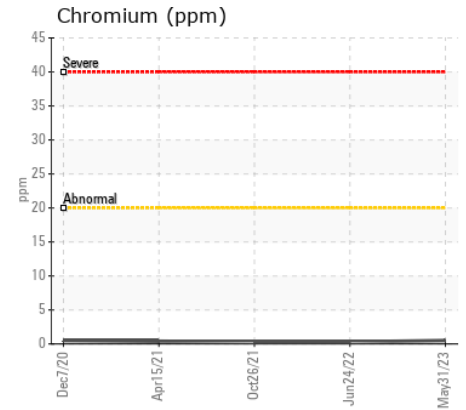
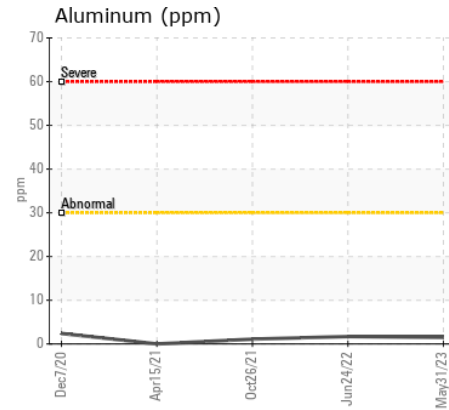
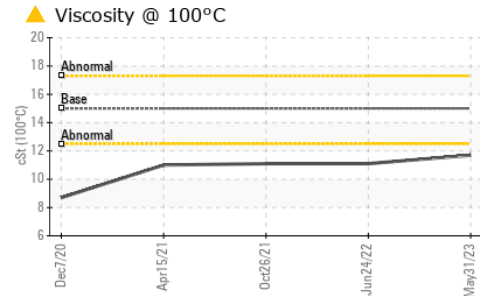
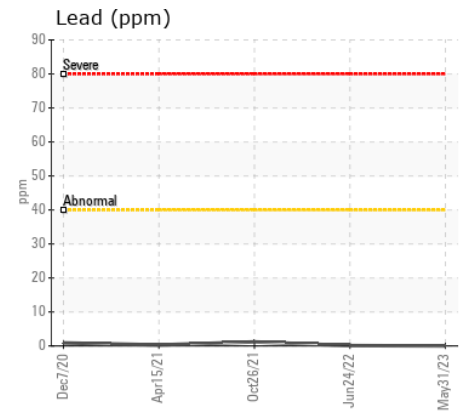
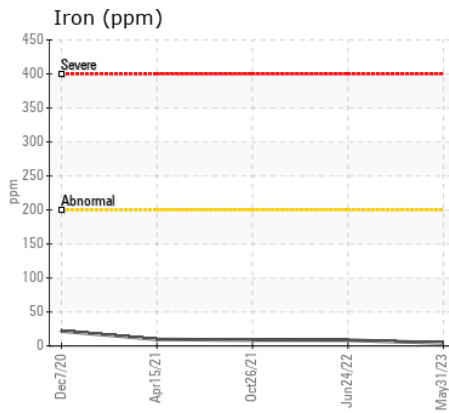
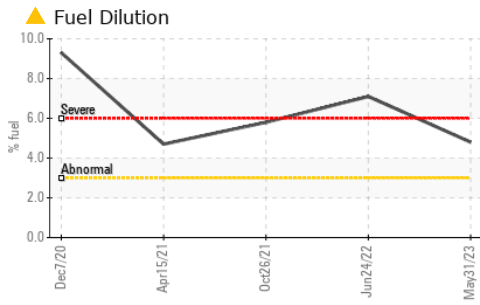
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185m	>20	4	5	6
Potassium	ppm	ASTM D5185m	>20	2	0	0
Fuel	%	ASTM D3524	>3.0	▲ 4.8	▲ 7.1	▲ 5.8
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	6.7	7.8	7.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.1	22.1	22.1
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	>0.2	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		2	1	2
Boron	ppm	ASTM D5185m	2.5	4	53	39
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.7	58	40	48
Manganese	ppm	ASTM D5185m	0.0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	256	964	468	495
Calcium	ppm	ASTM D5185m	2057	1084	1622	1546
Phosphorus	ppm	ASTM D5185m	935	1060	840	864
Zinc	ppm	ASTM D5185m	1223	1297	1038	1011
Sulfur	ppm	ASTM D5185m	4079	3425	2695	2392
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.8	19.5	18.8
Base Number (BN)	mg KOH/g	ASTM D2896	10	8.8	9.6	---
Visc @ 100°C	cSt	ASTM D445	15.0	▲ 11.7	▲ 11.1	▲ 11.1



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP370365 **Received** : 02 Jun 2023
Lab Number : 05862732 **Tested** : 05 Jun 2023
Unique Number : 10497197 **Diagnosed** : 05 Jun 2023 - Wes Davis
Test Package : MOB 1 (Additional Tests: PercentFuel, TBN)

PEDULLA EXCAVATING & PAVING
 1275 SHINN FARM RD
 MOORESVILLE, NC
 US 28115
 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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