



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
VOLVO VHD64B T-41 (S/N 5KN216295)
Component
Diesel Engine
Fluid
CHEVRON DELO 400 SDE SAE 15W40 (10 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0849501	WC0692205	WC0723290
Sample Date		Client Info		13 Jan 2024	14 Jan 2023	22 Aug 2022
Machine Age	mls	Client Info		247791	197020	178140
Oil Age	mls	Client Info		17436	18880	13863
Filter Age	mls	Client Info		17436	18880	13863
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	18	18	9
Chromium	ppm	ASTM D5185m	>6	0	<1	0
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m	>2	72	81	91
Silver	ppm	ASTM D5185m	>2	<1	<1	<1
Aluminum	ppm	ASTM D5185m	>20	2	2	2
Lead	ppm	ASTM D5185m	>95	2	<1	<1
Copper	ppm	ASTM D5185m	>85	3	3	2
Tin	ppm	ASTM D5185m	>9	<1	1	<1
Vanadium	ppm	ASTM D5185m		<1	1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

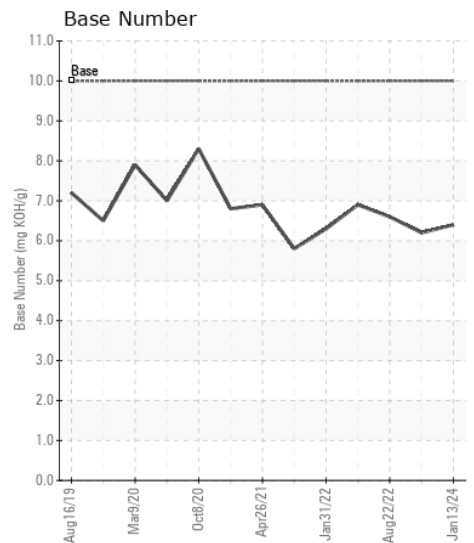
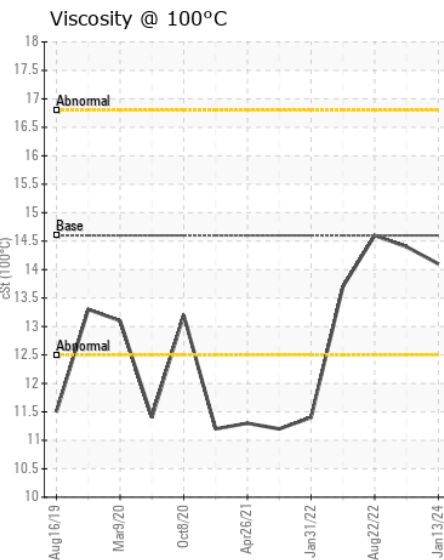
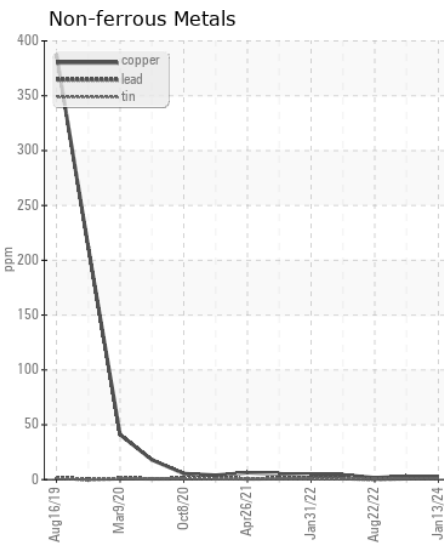
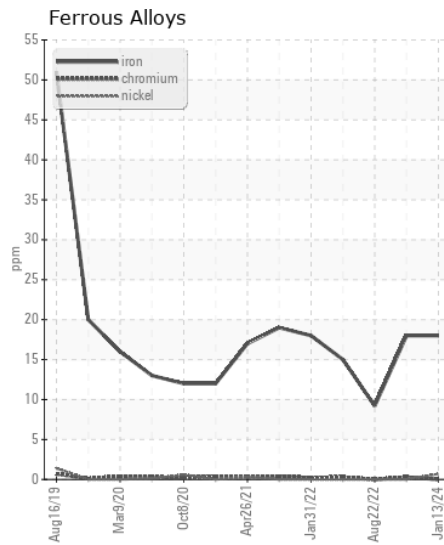
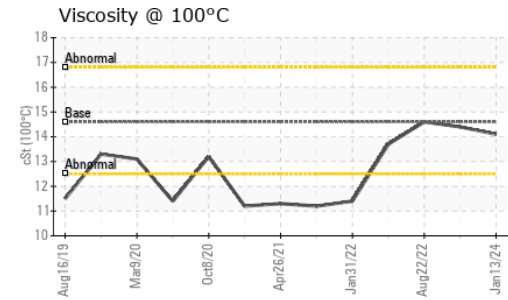
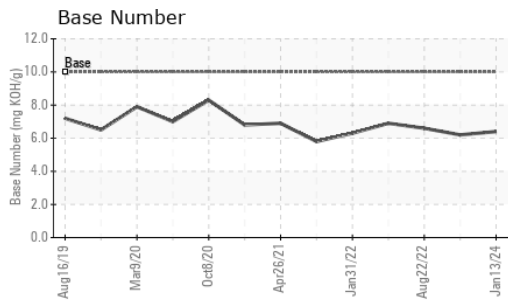
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	5	4
Potassium	ppm	ASTM D5185m	>20	5	3	6
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.4	0.5	0.4
Nitration	Abs/cm	*ASTM D7624	>20	9.6	10.2	9.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.0	24.6	22.7
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		4	4	2
Boron	ppm	ASTM D5185m		36	35	81
Barium	ppm	ASTM D5185m		0	2	0
Molybdenum	ppm	ASTM D5185m		12	2	4
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		504	351	359
Calcium	ppm	ASTM D5185m		1567	1598	1697
Phosphorus	ppm	ASTM D5185m	760	1040	843	981
Zinc	ppm	ASTM D5185m	800	1240	1073	1160
Sulfur	ppm	ASTM D5185m	3000	3640	3742	3763
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.1	19.2	17.5
Base Number (BN)	mg KOH/g	ASTM D2896	10	6.4	6.2	6.6
Visc @ 100°C	cSt	ASTM D445	14.6	14.1	14.4	▲ 14.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0849501 **Received** : 31 Jan 2024
Lab Number : 06075512 **Diagnosed** : 01 Feb 2024
Unique Number : 10857603 **Diagnostician** : Don Baldridge
Test Package : CONST (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)