



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**63003**  
 Component  
**Diesel Engine**  
 Fluid  
**CASTROL VECTON 15W40 CK4 (--- QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0813383</b>	WC0666216	WC0666258
Sample Date		Client Info		<b>16 Jan 2024</b>	21 Mar 2023	27 Nov 2022
Machine Age	hrs	Client Info		<b>1954</b>	1299	969
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>10</b>	9	6
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	4	2
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	1	1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

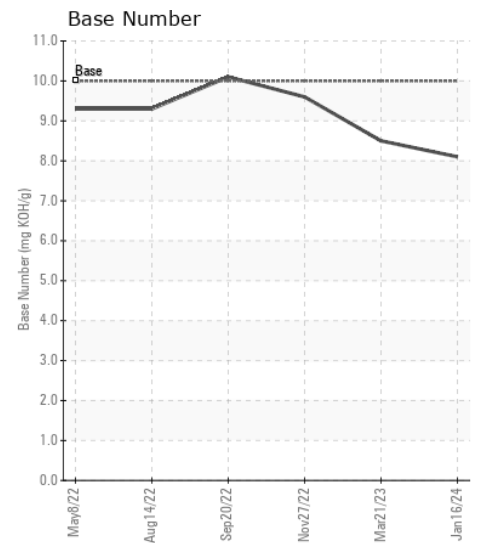
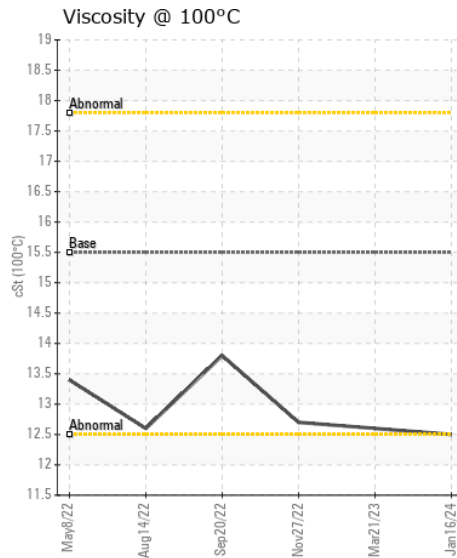
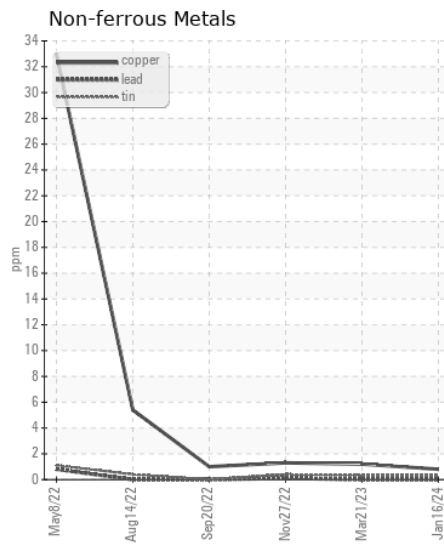
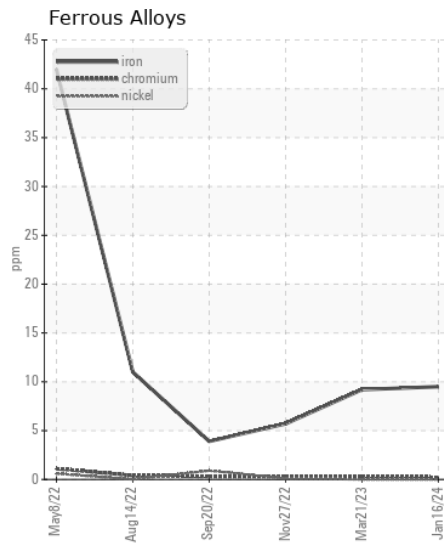
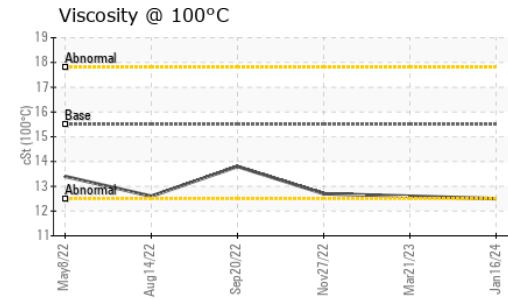
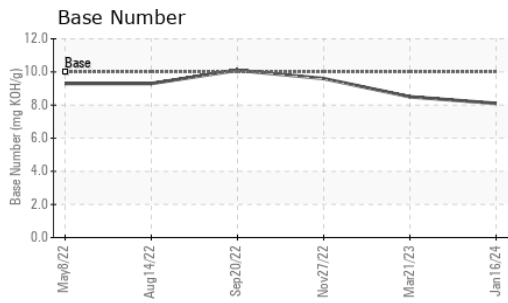
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	5	5
Potassium	ppm	ASTM D5185m	>20	<b>12</b>	7	2
Fuel		WC Method	>5	<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>0.4</b>	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.5</b>	8.0	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.0</b>	19.2	20.2
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>10</b>	0	5
Boron	ppm	ASTM D5185m		<b>29</b>	42	43
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>44</b>	49	49
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>534</b>	560	536
Calcium	ppm	ASTM D5185m		<b>1396</b>	1503	1493
Phosphorus	ppm	ASTM D5185m		<b>755</b>	765	748
Zinc	ppm	ASTM D5185m		<b>915</b>	970	904
Sulfur	ppm	ASTM D5185m		<b>2316</b>	2246	2618
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.6</b>	15.5	16.1
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>8.1</b>	8.5	9.6
Visc @ 100°C	cSt	ASTM D445	15.5	<b>12.5</b>	12.6	12.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0813383 **Received** : 18 Jan 2024  
**Lab Number** : 06064782 **Diagnosed** : 21 Jan 2024  
**Unique Number** : 10836164 **Diagnostician** : Don Baldrige  
**Test Package** : FLEET

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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