



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
6396
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		WC0813316	WC0813367	WC0666202
Sample Date		Client Info		17 Jan 2024	16 Jan 2024	14 May 2023
Machine Age	hrs	Client Info		3636	3305	3022
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ATTENTION	ATTENTION	ATTENTION

WEAR

All component wear rates are normal.

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

CONTAMINATION

Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil.

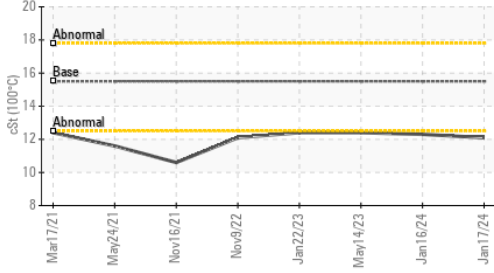
Silicon	ppm	ASTM D5185m	>25	5	4	4
Potassium	ppm	ASTM D5185m	>20	5	5	6
Fuel	%	ASTM D3524	>5	0.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	8.6	8.4	9.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.0	19.0	19.6
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

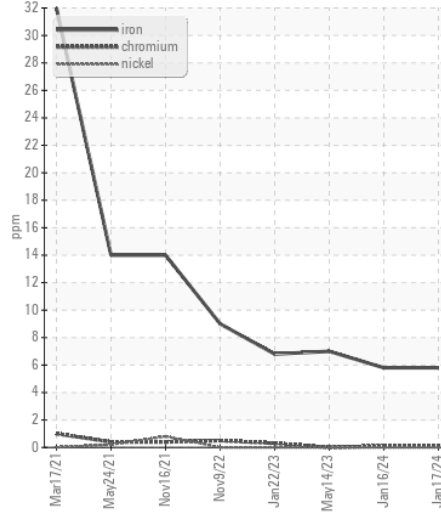
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		3	3	4
Boron	ppm	ASTM D5185m		31	34	28
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		46	43	46
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		535	528	536
Calcium	ppm	ASTM D5185m		1390	1379	1549
Phosphorus	ppm	ASTM D5185m		760	755	736
Zinc	ppm	ASTM D5185m		910	907	930
Sulfur	ppm	ASTM D5185m		2330	2323	2579
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.0	15.9	16.6
Base Number (BN)	mg KOH/g	ASTM D2896	10	8.0	8.2	7.5
Visc @ 100°C	cSt	ASTM D445	15.5	▲ 12.1	▲ 12.3	▲ 12.4

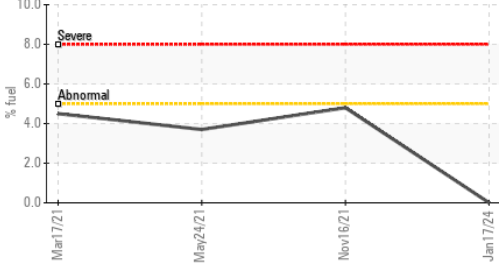
▲ Viscosity @ 100°C



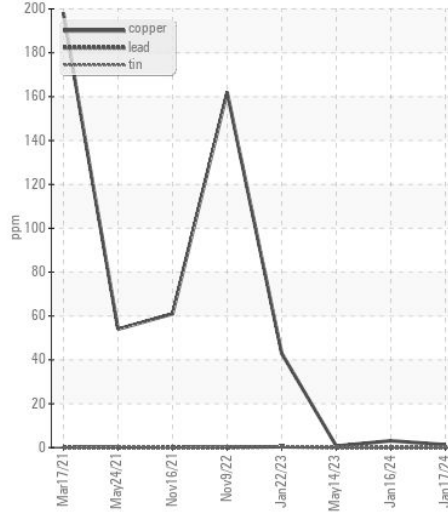
Ferrous Alloys



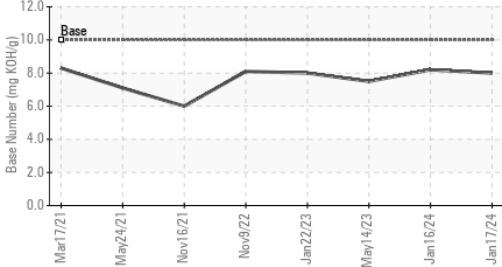
Fuel Dilution



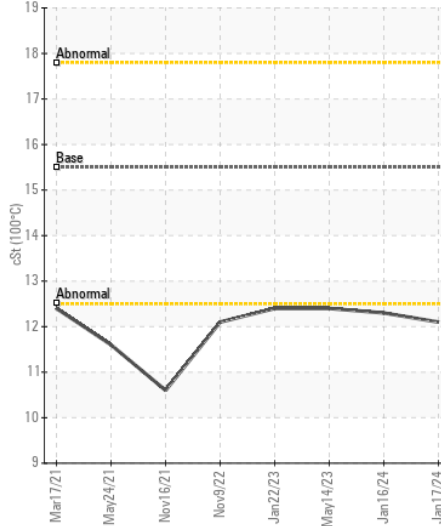
Non-ferrous Metals



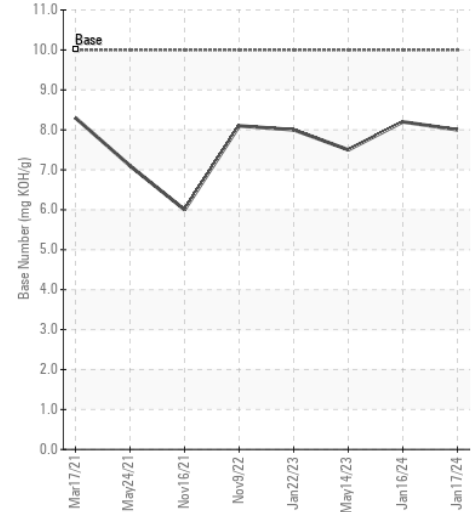
Base Number



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0813316 **Received** : 18 Jan 2024
Lab Number : 06064758 **Diagnosed** : 24 Jan 2024
Unique Number : 10836140 **Diagnostician** : Angela Borella
Test Package : FLEET (Additional Tests: FUELDILUTION, PercentFuel)

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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