



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
IRR T 001346
Component
Diesel Engine
Fluid
CASTROL VECTON 15W40 CK4 (1 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0856187	WC0497677	WC0325792
Sample Date		Client Info		02 Jul 2024	08 Mar 2021	12 Aug 2019
Machine Age	hrs	Client Info		863	746	647
Oil Age	hrs	Client Info		117	100	100
Filter Age	hrs	Client Info		117	100	100
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	22	23	13
Chromium	ppm	ASTM D5185m	>20	2	3	2
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	6	<1	3
Lead	ppm	ASTM D5185m	>40	0	<1	<1
Copper	ppm	ASTM D5185m	>330	<1	1	<1
Tin	ppm	ASTM D5185m	>15	2	4	2
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

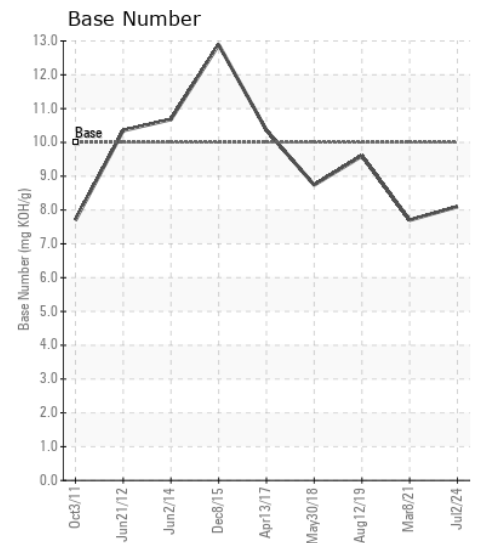
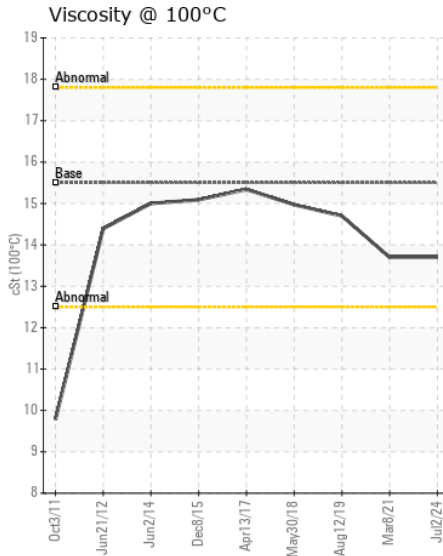
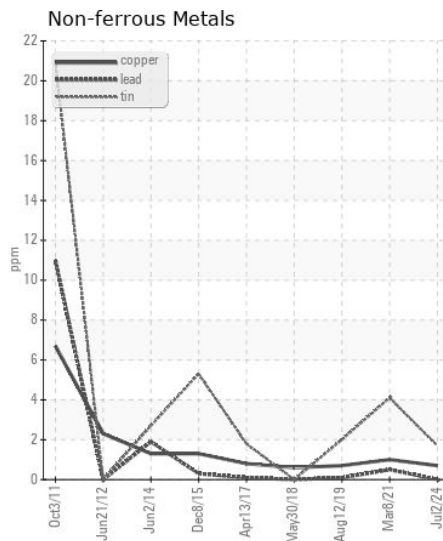
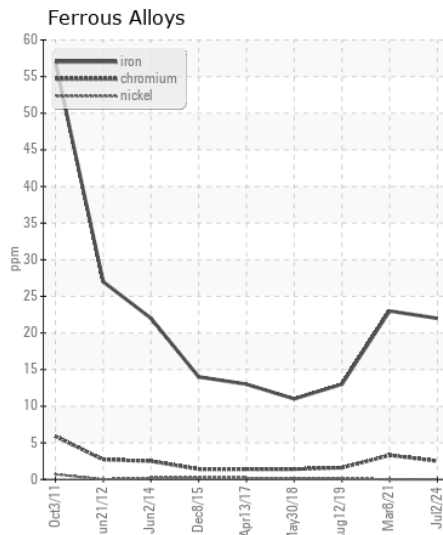
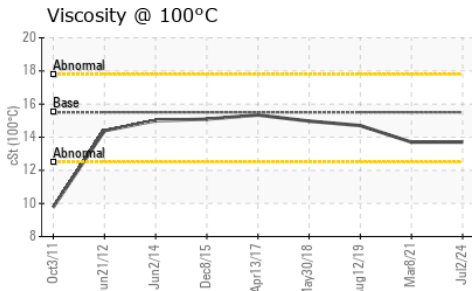
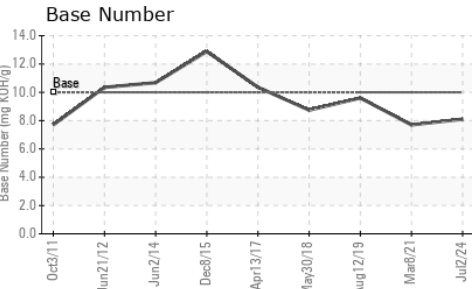
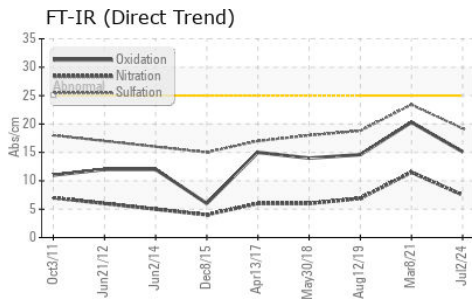
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	19	18	17
Potassium	ppm	ASTM D5185m	>20	1	<1	<1
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	7.5	11.5	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.2	23.4	18.8
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. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	2	3
Boron	ppm	ASTM D5185m		103	131	62
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		68	66	56
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		397	536	958
Calcium	ppm	ASTM D5185m		2111	1755	1097
Phosphorus	ppm	ASTM D5185m		1077	990	953
Zinc	ppm	ASTM D5185m		1309	1186	1089
Sulfur	ppm	ASTM D5185m		3920	2626	3306
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.1	20.3	14.6
Base Number (BN)	mg KOH/g	ASTM D2896	10	8.1	7.7	9.6
Visc @ 100°C	cSt	ASTM D445	15.5	13.7	13.7	14.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0856187 **Received** : 09 Jul 2024
Lab Number : 06231336 **Tested** : 10 Jul 2024
Unique Number : 11114829 **Diagnosed** : 10 Jul 2024 - Wes Davis
Test Package : CONST (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)

CJ MILLER LLC
 2903 DEDE RD
 FINKSBURG, MD
 US 21048

Contact: JOE ROSS
 jross@cjmillerllc.com

T: (410)239-8006
 F: (410)239-1051