



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
INTERNATIONAL 8012852
Component
Diesel Engine
Fluid
VALVOLINE 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		IL0036663	IL05828613	IL05679794
Sample Date		Client Info		20 Jun 2024	24 Apr 2023	21 Oct 2022
Machine Age	mls	Client Info		293160	205492	169413
Oil Age	mls	Client Info		40000	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	N/A
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	6	27	40
Chromium	ppm	ASTM D5185m	>20	<1	2	2
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	<1	3
Lead	ppm	ASTM D5185m	>40	1	7	7
Copper	ppm	ASTM D5185m	>330	<1	1	2
Tin	ppm	ASTM D5185m	>15	<1	1	1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

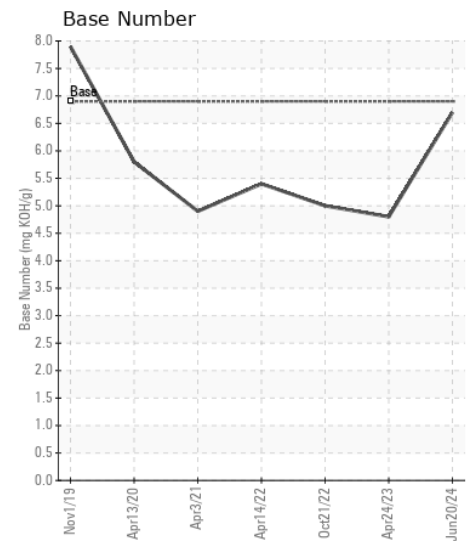
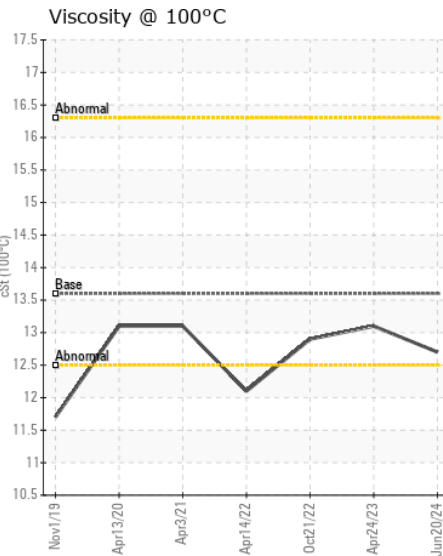
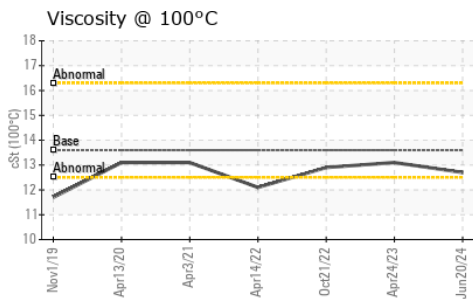
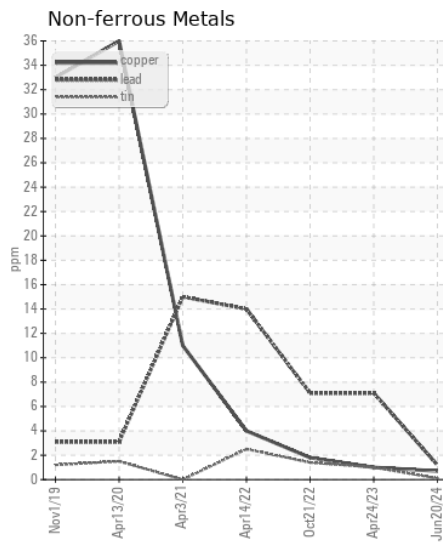
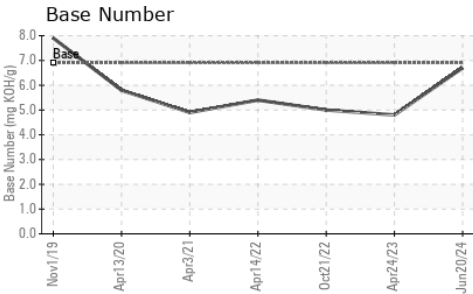
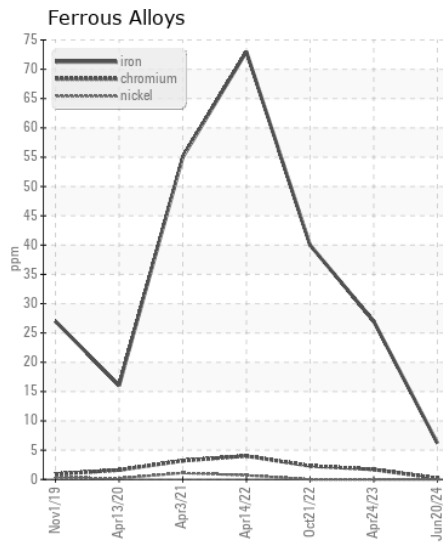
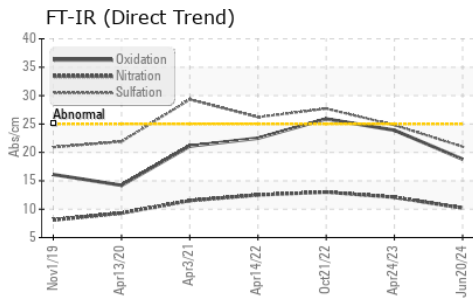
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	6	6
Potassium	ppm	ASTM D5185m	>20	2	1	2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.5	0.6
Nitration	Abs/cm	*ASTM D7624	>20	10.2	12.1	13.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.0	24.8	27.7
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	>0.2	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	<1
Boron	ppm	ASTM D5185m	39	20	16	18
Barium	ppm	ASTM D5185m	1	0	0	<1
Molybdenum	ppm	ASTM D5185m	49	55	79	74
Manganese	ppm	ASTM D5185m	1	<1	<1	1
Magnesium	ppm	ASTM D5185m	616	759	744	647
Calcium	ppm	ASTM D5185m	1554	1157	1200	1304
Phosphorus	ppm	ASTM D5185m	899	681	718	675
Zinc	ppm	ASTM D5185m	1069	874	937	905
Sulfur	ppm	ASTM D5185m	2624	2682	2522	2450
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.8	23.9	25.9
Base Number (BN)	mg KOH/g	ASTM D2896	6.9	6.7	4.8	5.0
Visc @ 100°C	cSt	ASTM D445	13.6	12.7	13.1	12.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : IL0036663

Lab Number : 06220677

Unique Number : 11098874

Test Package : FLEET

Received : 26 Jun 2024

Tested : 27 Jun 2024

Diagnosed : 27 Jun 2024 - Wes Davis

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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)