



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**LL353214**  
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		<b>IL0035111</b>	IL05900957	IL05665412
Sample Date		Client Info		<b>04 Jan 2024</b>	01 Jul 2023	05 Oct 2022
Machine Age	mls	Client Info		<b>127040</b>	162792	81971
Oil Age	mls	Client Info		<b>0</b>	109203	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	N/A	N/A
Filter Changed		Client Info		<b>Changed</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>35</b>	58	16
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>8</b>	12	6
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>1</b>	2	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

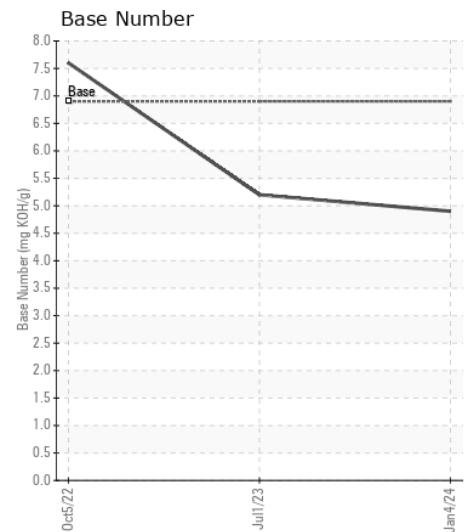
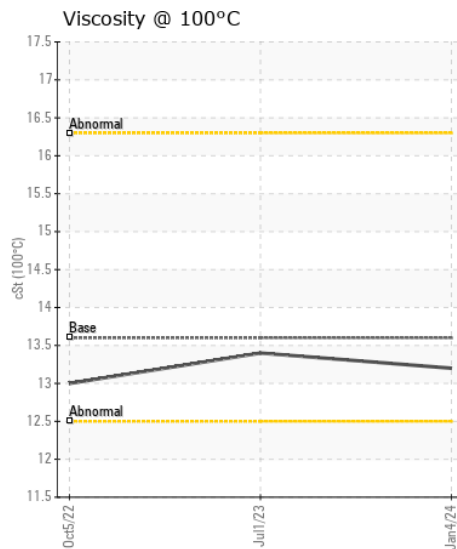
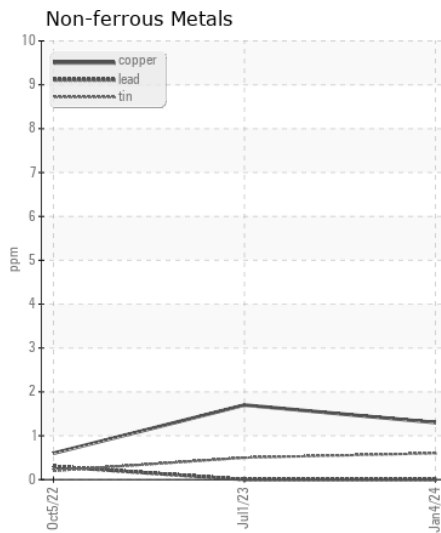
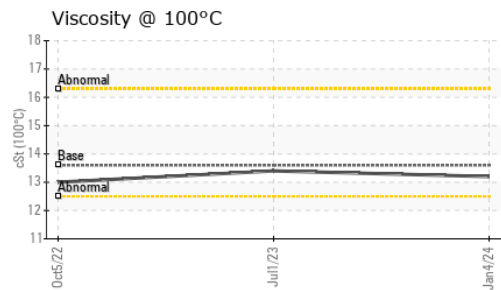
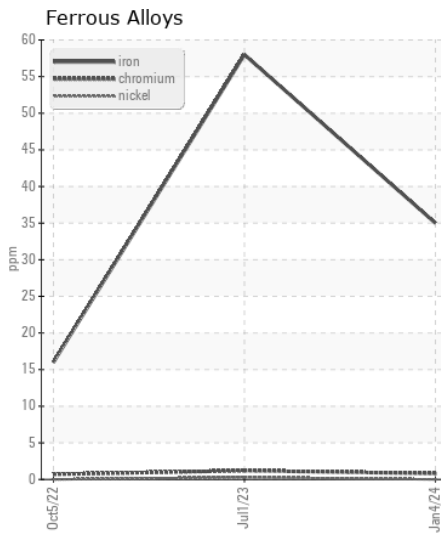
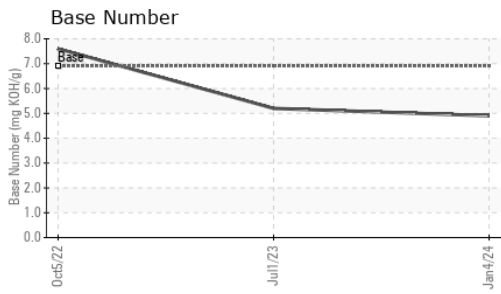
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>8</b>	10	9
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	9	7
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>0.8</b>	1	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>13.2</b>	14.5	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.6</b>	28.9	22.8
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>4</b>	3	1
Boron	ppm	ASTM D5185m	39	<b>31</b>	42	271
Barium	ppm	ASTM D5185m	1	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	49	<b>63</b>	71	87
Manganese	ppm	ASTM D5185m	1	<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m	616	<b>720</b>	753	384
Calcium	ppm	ASTM D5185m	1554	<b>1283</b>	1467	1396
Phosphorus	ppm	ASTM D5185m	899	<b>782</b>	838	990
Zinc	ppm	ASTM D5185m	1069	<b>987</b>	1082	1201
Sulfur	ppm	ASTM D5185m	2624	<b>2491</b>	3227	3497
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>25.3</b>	28.2	16.9
Base Number (BN)	mg KOH/g	ASTM D2896	6.9	<b>4.9</b>	5.2	7.6
Visc @ 100°C	cSt	ASTM D445	13.6	<b>13.2</b>	13.4	13.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : IL0035111 **Received** : 10 Jan 2024  
**Lab Number** : 06056414 **Diagnosed** : 11 Jan 2024  
**Unique Number** : 10822363 **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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