



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**INTERNATIONAL 5919028**  
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>IL0035430</b>	IL0035060	IL0033226
Sample Date		Client Info		<b>02 May 2024</b>	01 Feb 2024	31 Oct 2023
Machine Age	mls	Client Info		<b>323039</b>	315133	0
Oil Age	mls	Client Info		<b>0</b>	0	308371
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>14</b>	15	4
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>2</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>1</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	2	2
Lead	ppm	ASTM D5185m	>40	<b>1</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>1</b>	<1	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<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.

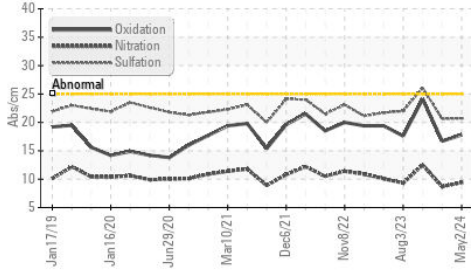
Silicon	ppm	ASTM D5185m	>25	<b>8</b>	5	3
Potassium	ppm	ASTM D5185m	>20	<b>25</b>	44	2
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.2	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.4</b>	8.7	12.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.7</b>	20.6	26.1
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

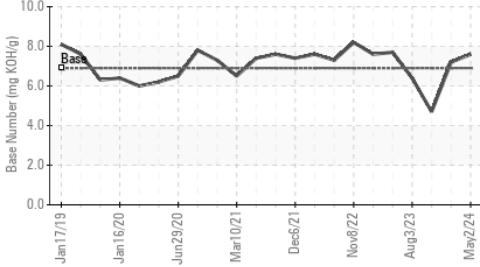
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>7</b>	2	2
Boron	ppm	ASTM D5185m	39	<b>66</b>	124	6
Barium	ppm	ASTM D5185m	1	<b>0</b>	25	0
Molybdenum	ppm	ASTM D5185m	49	<b>63</b>	75	59
Manganese	ppm	ASTM D5185m	1	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	616	<b>695</b>	596	904
Calcium	ppm	ASTM D5185m	1554	<b>1265</b>	1274	1049
Phosphorus	ppm	ASTM D5185m	899	<b>777</b>	868	1017
Zinc	ppm	ASTM D5185m	1069	<b>929</b>	1002	1215
Sulfur	ppm	ASTM D5185m	2624	<b>2675</b>	2765	3040
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.8</b>	16.7	24.1
Base Number (BN)	mg KOH/g	ASTM D2896	6.9	<b>7.6</b>	7.2	4.7
Visc @ 100°C	cSt	ASTM D445	13.6	<b>12.8</b>	12.6	13.5

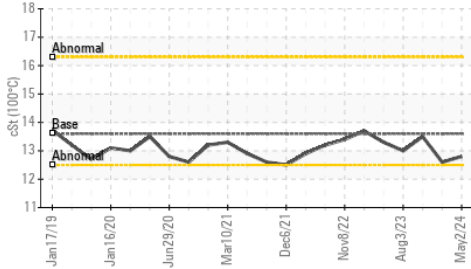
**FT-IR (Direct Trend)**



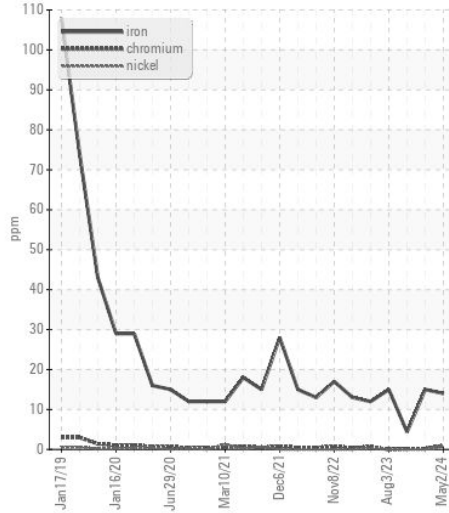
**Base Number**



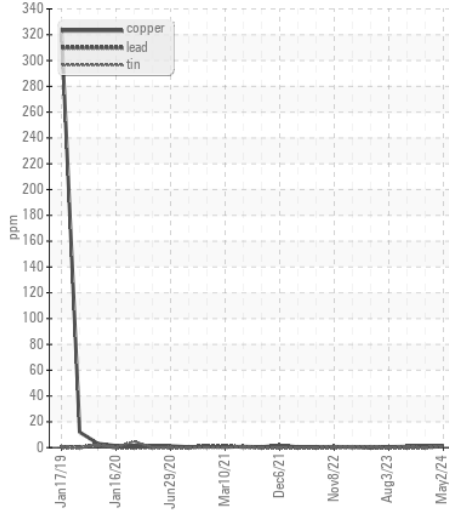
**Viscosity @ 100°C**



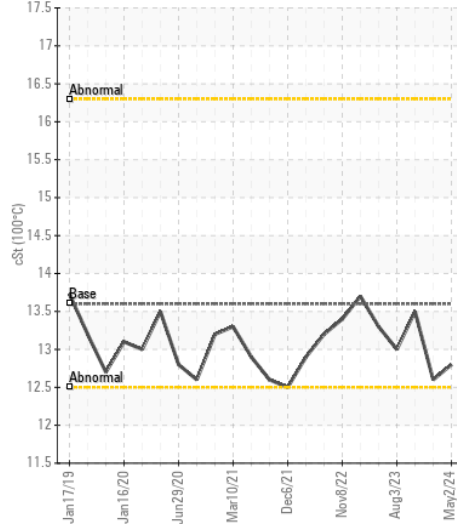
**Ferrous Alloys**



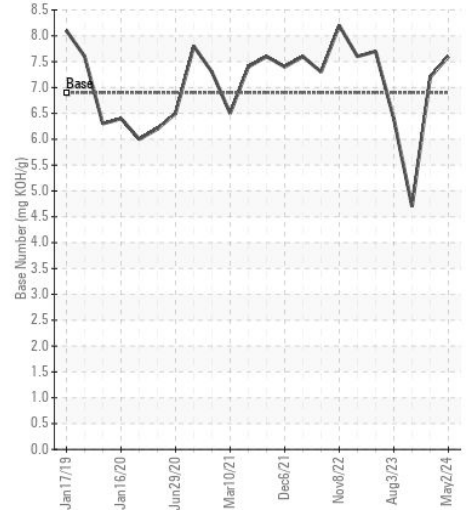
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

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

**Sample No.** : IL0035430

**Lab Number** : 06193654

**Unique Number** : 11050406

**Test Package** : FLEET

**Received** : 29 May 2024

**Tested** : 30 May 2024

**Diagnosed** : 30 May 2024 - Wes Davis

**TAMPA IDEALEASE**

5951 ORIENT ROAD

TAMPA, FL

US 33610-9565

Contact: Russ Cook

russcook@idealease.com

T: (813)626-9285

F: (844)270-1356

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)