



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

Machine Id  
**8921499**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 10W30 (--- QTS)**

### RECOMMENDATION

We advise that you check the fuel injection system. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>IL06217764</b>	IL05208184	IL05116124
Sample Date		Client Info		<b>23 Jun 2024</b>	17 Mar 2021	13 Oct 2020
Machine Age	mls	Client Info		<b>0</b>	0	82726
Oil Age	mls	Client Info		<b>0</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>57</b>	69	84
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	3	8
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>6</b>	20	▲ 32
Lead	ppm	ASTM D5185m	>40	<b>11</b>	▲ 47	7
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	7	4
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

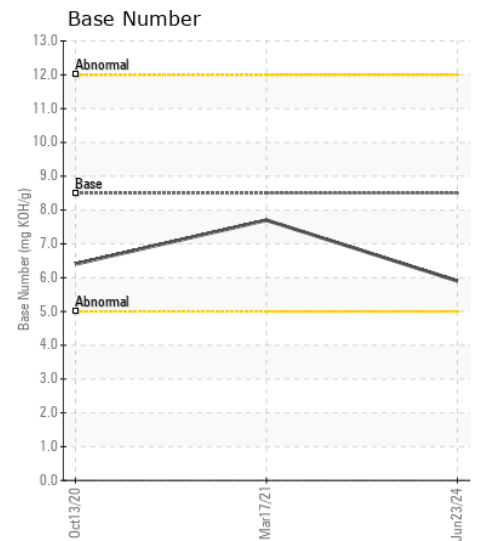
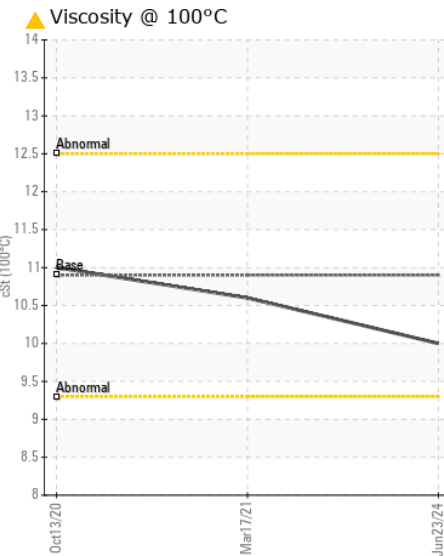
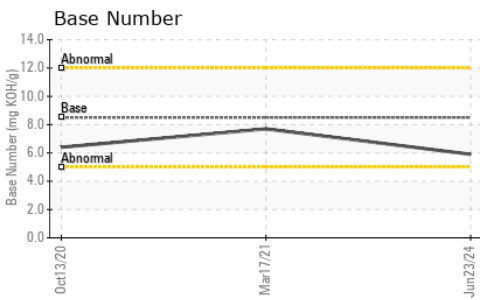
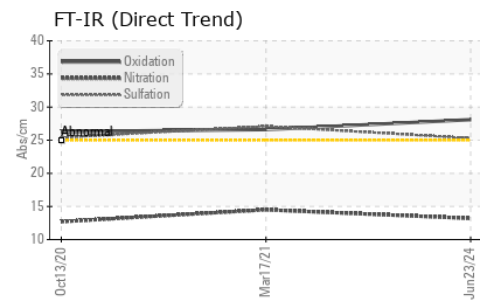
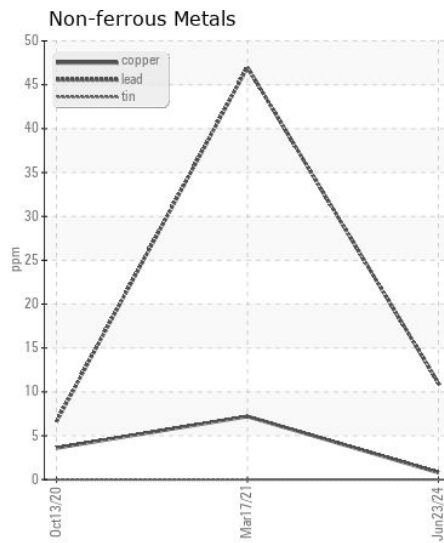
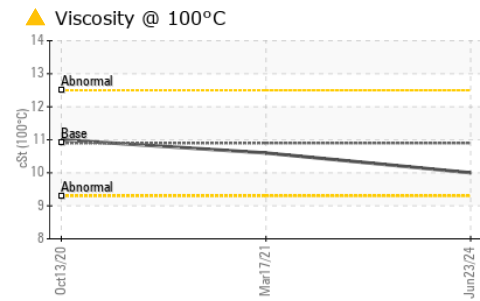
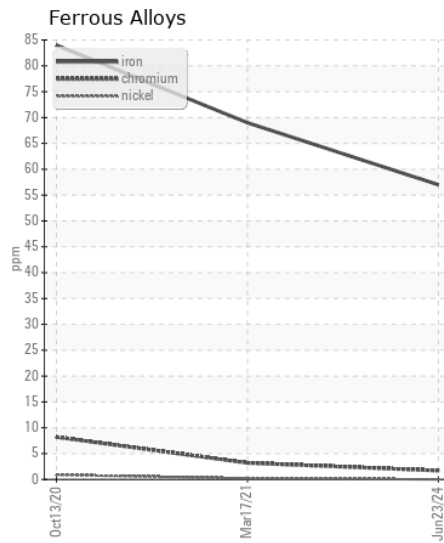
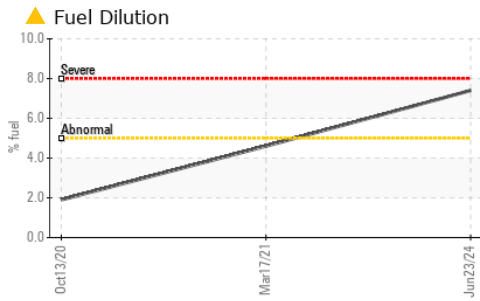
There is a moderate amount of fuel present in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>11</b>	10	11
Potassium	ppm	ASTM D5185m	>20	<b>9</b>	▲ 57	▲ 70
Fuel	%	ASTM D3524	>5	▲ <b>7.4</b>	▲ 4.6	1.9
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>	0.9	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>13.2</b>	14.5	12.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.3</b>	27.1	25.4
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

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m		<b>2</b>	7	4
Boron	ppm	ASTM D5185m	250	<b>21</b>	38	17
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m	100	<b>40</b>	52	33
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	2
Magnesium	ppm	ASTM D5185m	450	<b>459</b>	658	480
Calcium	ppm	ASTM D5185m	3000	<b>1707</b>	1891	1654
Phosphorus	ppm	ASTM D5185m	1150	<b>738</b>	795	702
Zinc	ppm	ASTM D5185m	1350	<b>889</b>	1084	837
Sulfur	ppm	ASTM D5185m	4250	<b>2595</b>	2261	1766
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>28.1</b>	26.6	26.3
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>5.9</b>	7.7	6.4
Visc @ 100°C	cSt	ASTM D445	10.9	▲ <b>10.0</b>	▲ 10.6	11.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : IL06217764  
**Lab Number** : 06217764  
**Unique Number** : 11090628  
**Test Package** : FLEET ( Additional Tests: PercentFuel )

**Received** : 24 Jun 2024  
**Tested** : 27 Jun 2024  
**Diagnosed** : 27 Jun 2024 - Jonathan Hester

**IDEALASE-NORCROSS**  
 4571 NORTH BUFORD HWY  
 NORCROSS, GA  
 US 30071-2808  
 Contact: RICK MARKS

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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