



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

Machine Id  
**142213**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 40 (--- QTS)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>IL06217738</b>	IL06139615	IL06101390
Sample Date		Client Info		<b>10 Jun 2024</b>	12 Mar 2024	15 Feb 2024
Machine Age	hrs	Client Info		<b>2201</b>	1733	3540
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	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>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>48</b>	63	36
Chromium	ppm	ASTM D5185m	>20	<b>3</b>	4	4
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	1	1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>16</b>	20	47
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>3</b>	4	3
Tin	ppm	ASTM D5185m	>15	<b>0</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.

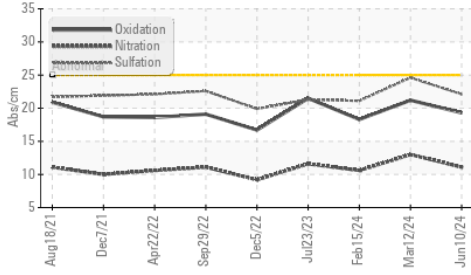
Silicon	ppm	ASTM D5185m	>25	<b>8</b>	10	7
Potassium	ppm	ASTM D5185m	>20	<b>10</b>	9	79
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	*ASTM D2982		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.9</b>	1.6	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.1</b>	13.0	10.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.1</b>	24.6	21.1
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

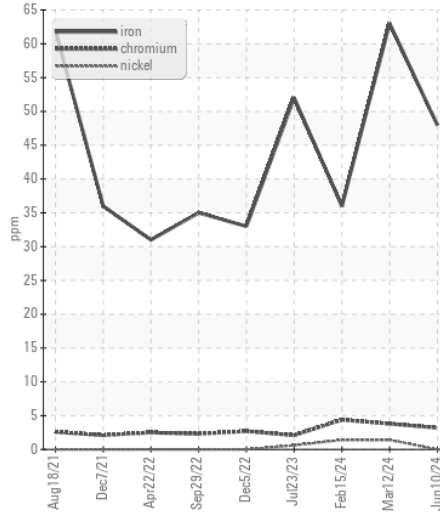
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>216	<b>2</b>	2	5
Boron	ppm	ASTM D5185m	250	<b>4</b>	3	3
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	1
Molybdenum	ppm	ASTM D5185m	100	<b>68</b>	62	63
Manganese	ppm	ASTM D5185m		<b>1</b>	2	1
Magnesium	ppm	ASTM D5185m	450	<b>1038</b>	945	895
Calcium	ppm	ASTM D5185m	3000	<b>1291</b>	1116	1028
Phosphorus	ppm	ASTM D5185m	1150	<b>1103</b>	1078	985
Zinc	ppm	ASTM D5185m	1350	<b>1390</b>	1336	1241
Sulfur	ppm	ASTM D5185m	4250	<b>3566</b>	3260	3195
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.3</b>	21.2	18.3
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>8.4</b>	7.3	7.8
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.1</b>	12.8	12.3

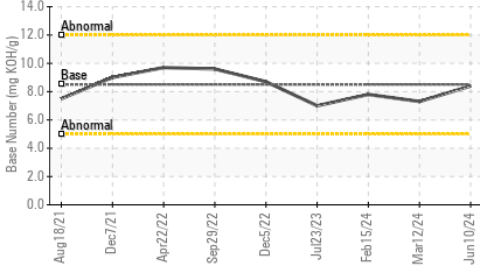
**FT-IR (Direct Trend)**



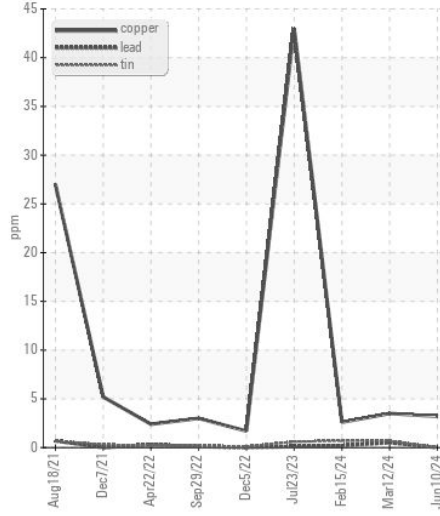
**Ferrous Alloys**



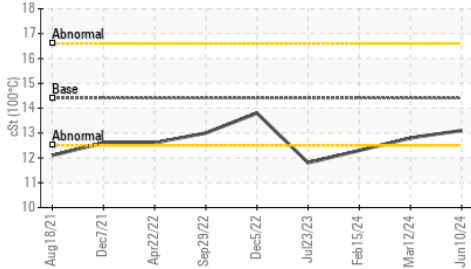
**Base Number**



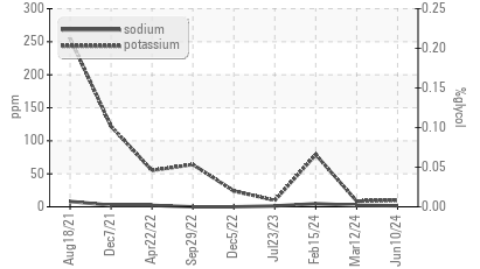
**Non-ferrous Metals**



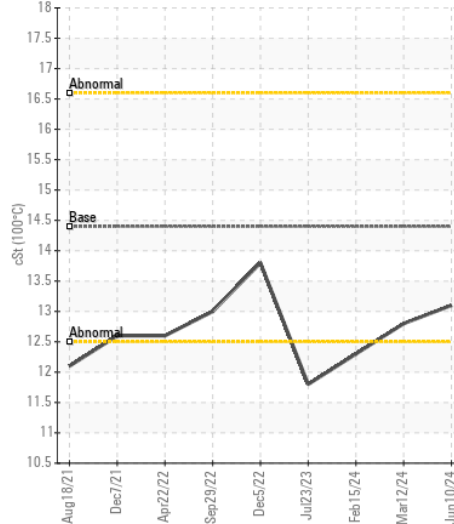
**Viscosity @ 100°C**



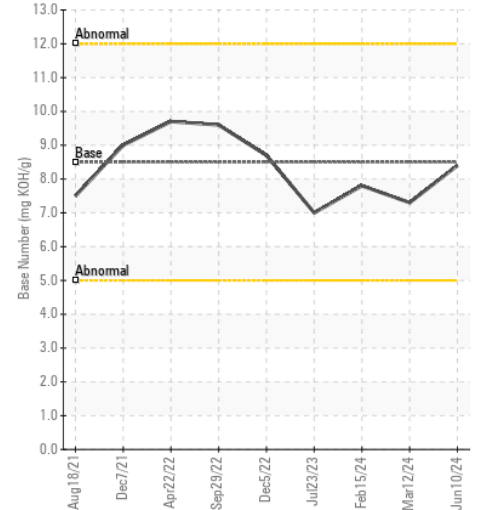
**Glycol Contamination**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : IL06217738  
**Lab Number** : 06217738  
**Unique Number** : 11090602  
**Test Package** : FLEET ( Additional Tests: Glycol )

**RUSH TRUCK LEASING - CINCINNATI IDEALEASE**  
 11777 HIGHWAY DRIVE  
 CINCINNATI, OH  
 US 45241  
 Contact: ROBERT BAIER  
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 T: (513)657-7901  
 F: (513)733-0537

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)