



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

Machine Id  
**361911**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 40 (--- QTS)**

### RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>IL06217722</b>	IL05188007	---
Sample Date		Client Info		<b>14 May 2024</b>	27 Jan 2021	---
Machine Age	hrs	Client Info		<b>8487</b>	3083	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>N/A</b>	N/A	---
Filter Changed		Client Info		<b>N/A</b>	N/A	---
Sample Status				<b>ABNORMAL</b>	NORMAL	---

### WEAR

The aluminum level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>36</b>	39	---
Chromium	ppm	ASTM D5185m	>20	<b>3</b>	3	---
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	1	---
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	---
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	---
Aluminum	ppm	ASTM D5185m	>20	<b>▲ 21</b>	11	---
Lead	ppm	ASTM D5185m	>40	<b>6</b>	2	---
Copper	ppm	ASTM D5185m	>330	<b>2</b>	3	---
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

There is no indication of any contamination in the oil.

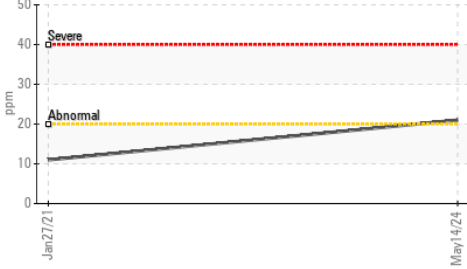
Silicon	ppm	ASTM D5185m	>25	<b>7</b>	8	---
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	38	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>3	<b>2</b>	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>13.2</b>	10.5	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.9</b>	23.8	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	---

### FLUID CONDITION

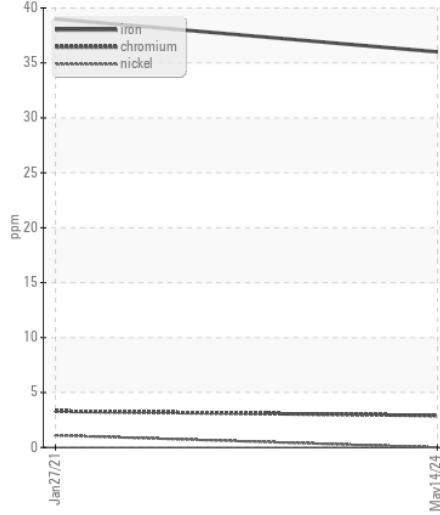
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>216	<b>2</b>	4	---
Boron	ppm	ASTM D5185m	250	<b>27</b>	18	---
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	100	<b>100</b>	16	---
Manganese	ppm	ASTM D5185m		<b>1</b>	1	---
Magnesium	ppm	ASTM D5185m	450	<b>686</b>	670	---
Calcium	ppm	ASTM D5185m	3000	<b>1556</b>	1414	---
Phosphorus	ppm	ASTM D5185m	1150	<b>821</b>	679	---
Zinc	ppm	ASTM D5185m	1350	<b>978</b>	803	---
Sulfur	ppm	ASTM D5185m	4250	<b>3307</b>	2071	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>21.5</b>	17.1	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>6.4</b>	6	---
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.8</b>	12.6	---

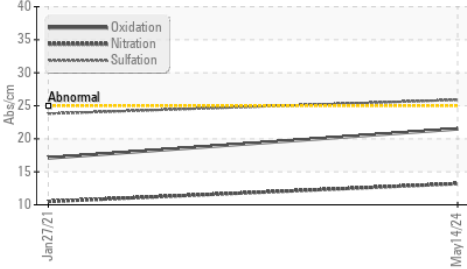
▲ Aluminum (ppm)



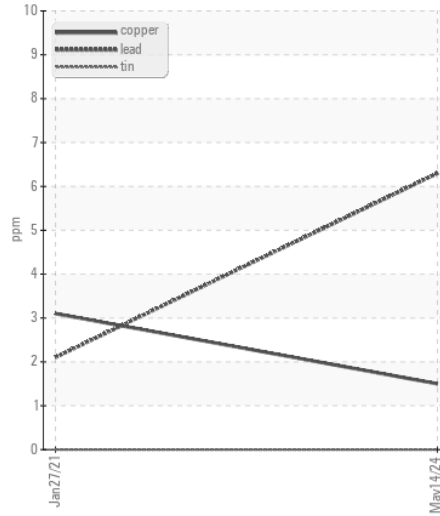
Ferrous Alloys



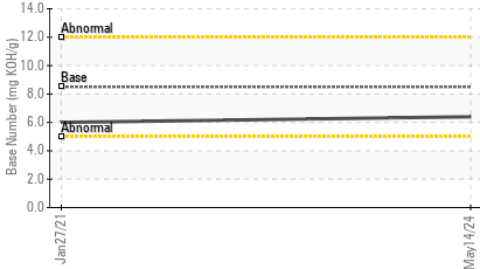
FT-IR (Direct Trend)



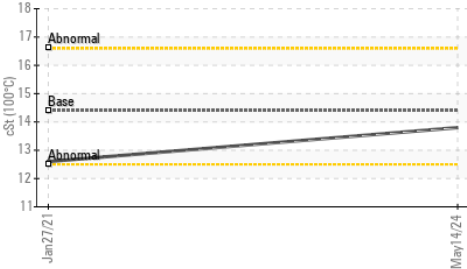
Non-ferrous Metals



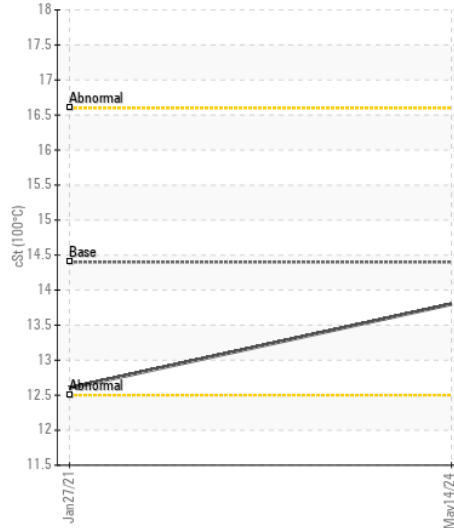
Base Number



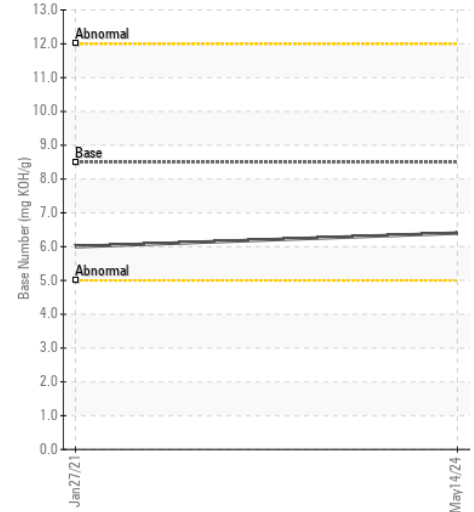
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : IL06217722  
**Lab Number** : 06217722  
**Unique Number** : 11090586  
**Test Package** : FLEET

**Received** : 24 Jun 2024  
**Tested** : 25 Jun 2024  
**Diagnosed** : 25 Jun 2024 - Don Baldrige

**RUSH TRUCK LEASING - CINCINNATI IDEALEASE**  
 11777 HIGHWAY DRIVE  
 CINCINNATI, OH  
 US 45241

Contact: ROBERT BAIER  
 baierr@rushenterprises.com

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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