



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

Machine Id  
**HAMM HC 200I C WGH0H256KHAA00116**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0208314</b>	---	---
Sample Date		Client Info		<b>15 Apr 2024</b>	---	---
Machine Age	hrs	Client Info		<b>298</b>	---	---
Oil Age	hrs	Client Info		<b>0</b>	---	---
Filter Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>Not Changd</b>	---	---
Filter Changed		Client Info		<b>N/A</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

### WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	<b>16</b>	---	---
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	---	---
Nickel	ppm	ASTM D5185m	>4	<b>2</b>	---	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	---	---
Aluminum	ppm	ASTM D5185m	>20	<b>5</b>	---	---
Lead	ppm	ASTM D5185m	>40	<b>3</b>	---	---
Copper	ppm	ASTM D5185m	>330	<b>10</b>	---	---
Tin	ppm	ASTM D5185m	>15	<b>4</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

### CONTAMINATION

There is no indication of any contamination in the oil.

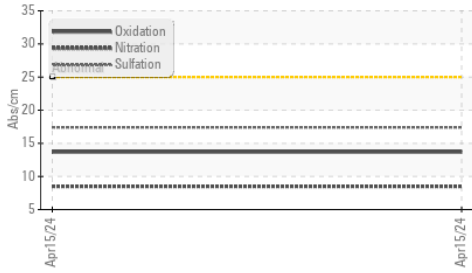
Silicon	ppm	ASTM D5185m	>25	<b>21</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	---	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	---	---
Water		WC Method	>0.2	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.5</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.4</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	---	---

### FLUID CONDITION

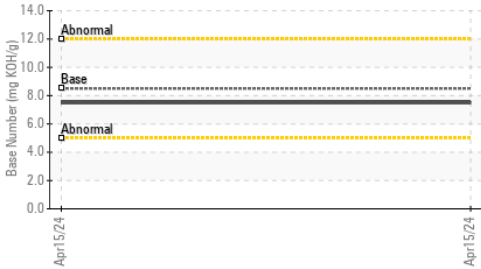
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>216	<b>4</b>	---	---
Boron	ppm	ASTM D5185m	250	<b>83</b>	---	---
Barium	ppm	ASTM D5185m	10	<b>2</b>	---	---
Molybdenum	ppm	ASTM D5185m	100	<b>75</b>	---	---
Manganese	ppm	ASTM D5185m		<b>4</b>	---	---
Magnesium	ppm	ASTM D5185m	450	<b>209</b>	---	---
Calcium	ppm	ASTM D5185m	3000	<b>1948</b>	---	---
Phosphorus	ppm	ASTM D5185m	1150	<b>1047</b>	---	---
Zinc	ppm	ASTM D5185m	1350	<b>1121</b>	---	---
Sulfur	ppm	ASTM D5185m	4250	<b>4529</b>	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.7</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>7.5</b>	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	<b>12.8</b>	---	---

FT-IR (Direct Trend)



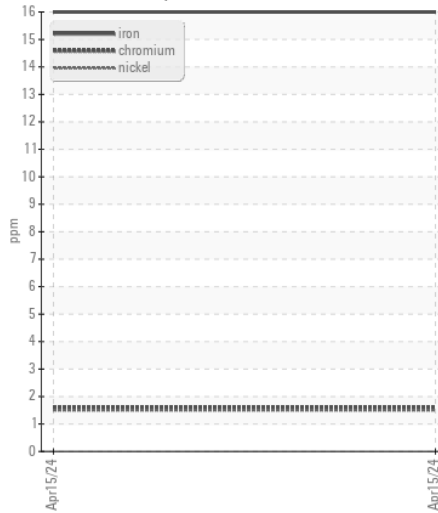
Base Number



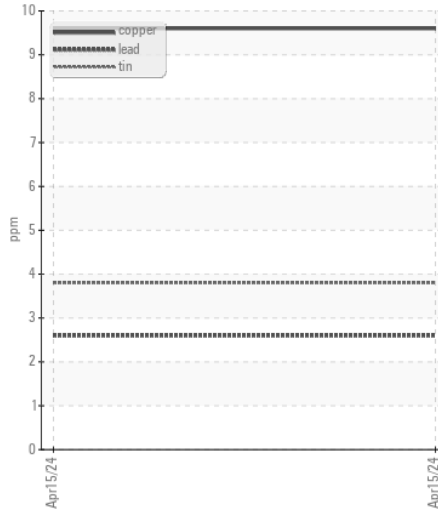
Viscosity @ 100°C



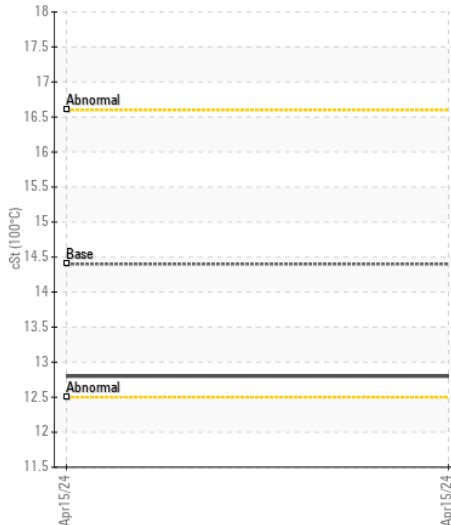
Ferrous Alloys



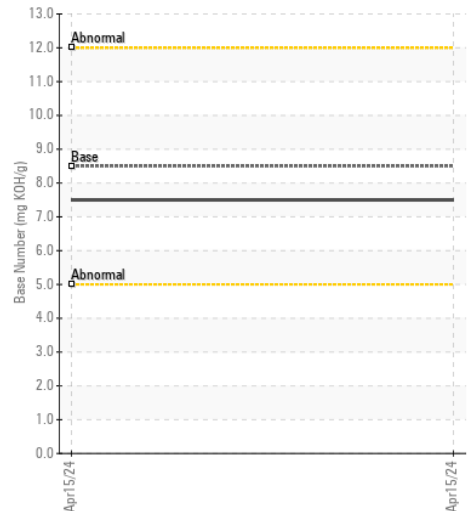
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : JR0208314

Lab Number : 06152906

Unique Number : 10982984

Test Package : CONST ( Additional Tests: TBN )

Received : 18 Apr 2024

Tested : 19 Apr 2024

Diagnosed : 19 Apr 2024 - Wes Davis

JRE - STEPHENSON

245 YARDMASTER COURT

STEPHENSON, VA

US 22656-1761

Contact: PHIL DAUGHERTY

pdaugherty@jamesriverequipment.com

T: x:

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)

F: (540)693-2588