



# ASCENDUM

## OIL ANALYSIS REPORT



Area

**Ascendum Machinery/250 Hour CSA**

Machine Id

**CATERPILLAR IT38G II 1352 (S/N CSX00319)**

Component

**Hydraulic System**

Fluid

**VOLVO SUPER HYDRAULIC OIL 46 (20 GAL)**

WEAR

**NORMAL**

CONTAMINATION

**ABNORMAL**

FLUID CONDITION

**NORMAL**

### RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ASC0007470</b>	ASC0001229	VCP0007303
Sample Date		Client Info		<b>16 Apr 2024</b>	08 Sep 2023	24 Feb 2023
Machine Age	hrs	Client Info		<b>16370</b>	16133	16070
Oil Age	hrs	Client Info		<b>16370</b>	16133	16070
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Filter Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<b>11</b>	3	1
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>2</b>	2	1
Lead	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>75	<b>6</b>	4	2
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

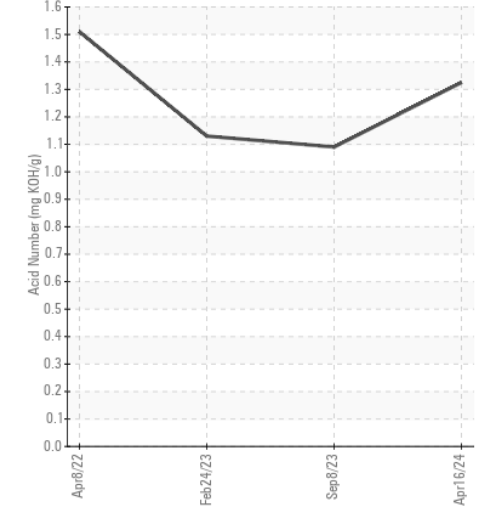
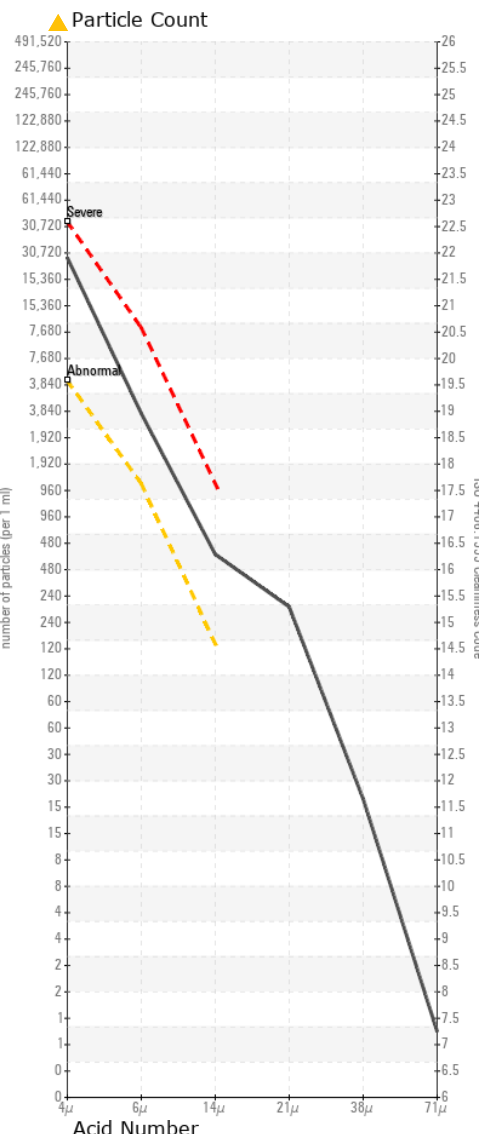
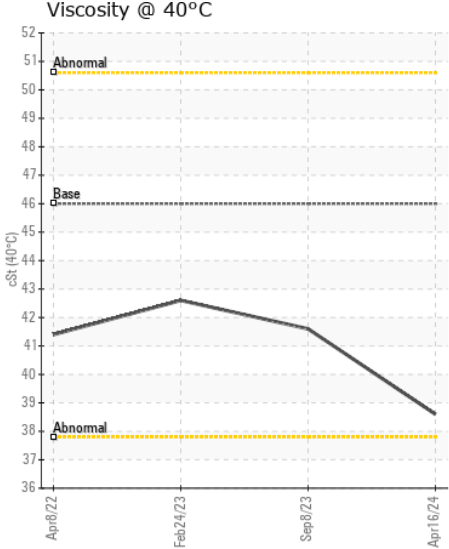
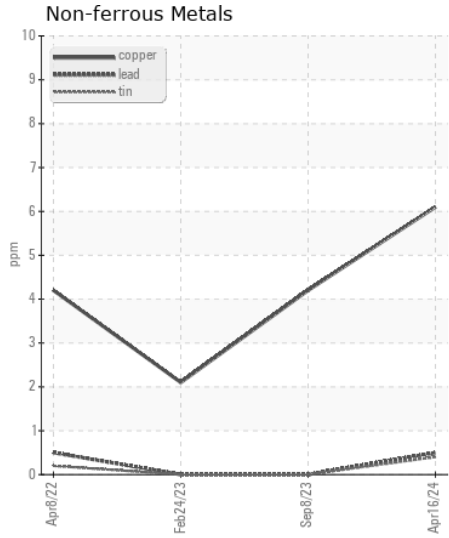
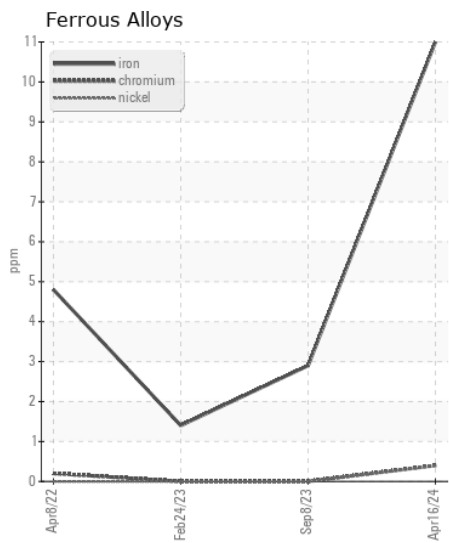
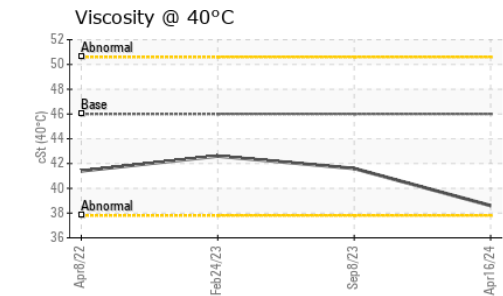
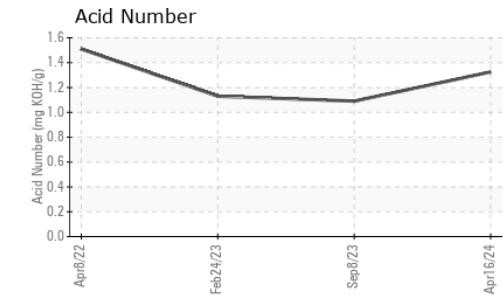
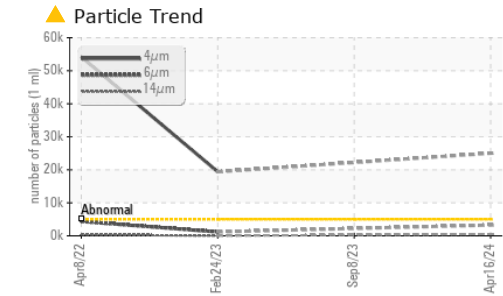
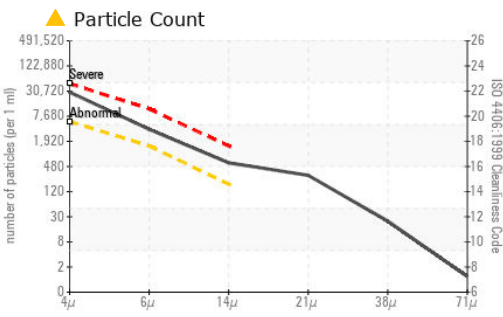
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>9</b>	5	4
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>5000	<b>▲ 25012</b>	---	▲ 19393
Particles >6µm		ASTM D7647	>1300	<b>▲ 3258</b>	---	1178
Particles >14µm		ASTM D7647	>160	<b>▲ 516</b>	---	17
Particles >21µm		ASTM D7647	>40	<b>▲ 259</b>	---	3
Particles >38µm		ASTM D7647	>10	<b>▲ 21</b>	---	0
Particles >71µm		ASTM D7647	>3	<b>1</b>	---	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>▲ 22/19/16</b>	---	▲ 21/17/11
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>	▲ MODER	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Boron	ppm	ASTM D5185m	14	<b>4</b>	1	2
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0.0	<b>2</b>	1	2
Manganese	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	2.6	<b>165</b>	226	184
Calcium	ppm	ASTM D5185m	49	<b>1798</b>	1470	1322
Phosphorus	ppm	ASTM D5185m	354	<b>899</b>	711	584
Zinc	ppm	ASTM D5185m	419	<b>952</b>	841	661
Sulfur	ppm	ASTM D5185m	3719	<b>3698</b>	2866	1990
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.325</b>	1.09	1.13
Visc @ 40°C	cSt	ASTM D445	46	<b>38.6</b>	41.6	42.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ASC0007470  
**Lab Number** : 06158056  
**Unique Number** : 10993479  
**Test Package** : CONST  
**Received** : 23 Apr 2024  
**Tested** : 29 Apr 2024  
**Diagnosed** : 29 Apr 2024 - Jonathan Hester

**TRIANGLE GRADING AND PAVING INC**  
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 BURLINGTON, NC  
 US 27216  
 Contact: ADAM CORBETT  
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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)