



# ASCENDUM

## OIL ANALYSIS REPORT

WEAR **NORMAL**

CONTAMINATION **NORMAL**

FLUID CONDITION **NORMAL**



Area  
**Ascendum Machinery/250 Hour CSA**  
 Machine Id  
**CATERPILLAR D5 2140 (S/N Z6A00209)**  
 Component  
**Diesel Engine**  
 Fluid  
**VOLVO VDS-4.5 Premium Motor Oil 15W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0007817	---	---
Sample Date		Client Info		19 Mar 2024	---	---
Machine Age	hrs	Client Info		3881	---	---
Oil Age	hrs	Client Info		3881	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				NORMAL	---	---

### WEAR

Metal levels are typical for a components first oil change.

Iron	ppm	ASTM D5185m	>100	12	---	---
Chromium	ppm	ASTM D5185m	>20	<1	---	---
Nickel	ppm	ASTM D5185m	>2	0	---	---
Titanium	ppm	ASTM D5185m	>2	<1	---	---
Silver	ppm	ASTM D5185m	>2	0	---	---
Aluminum	ppm	ASTM D5185m	>25	5	---	---
Lead	ppm	ASTM D5185m	>40	<1	---	---
Copper	ppm	ASTM D5185m	>330	2	---	---
Tin	ppm	ASTM D5185m	>15	<1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

### CONTAMINATION

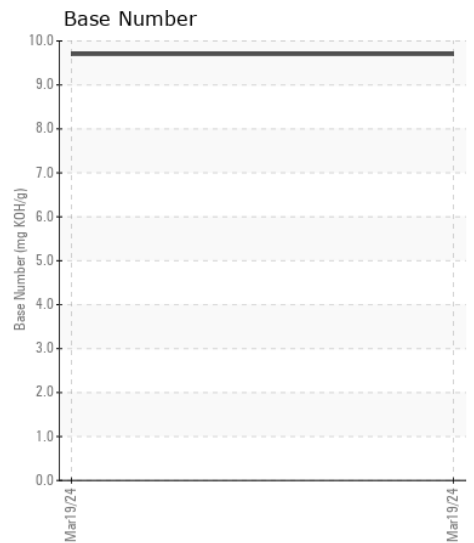
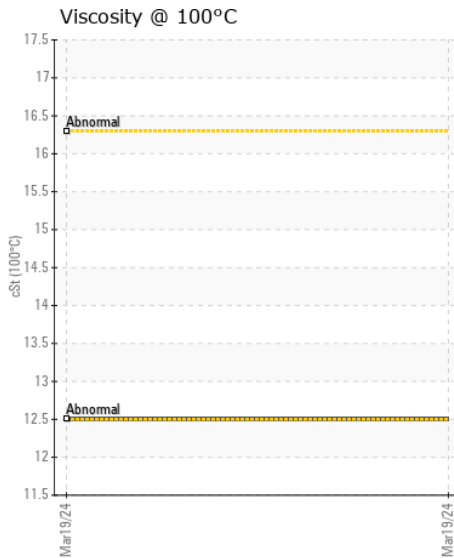
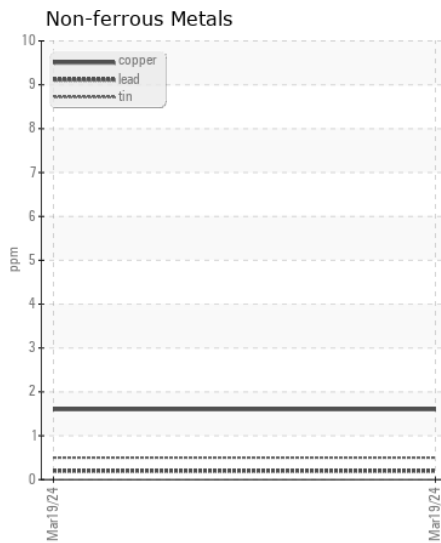
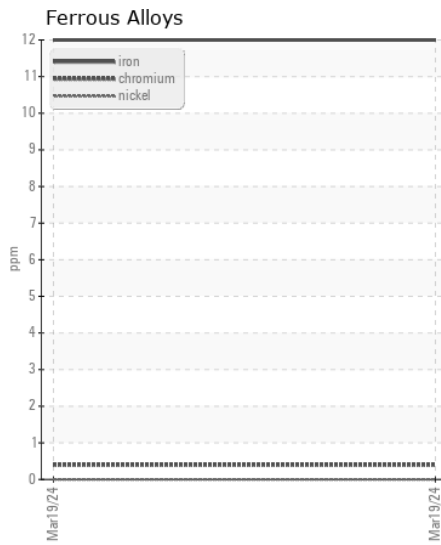
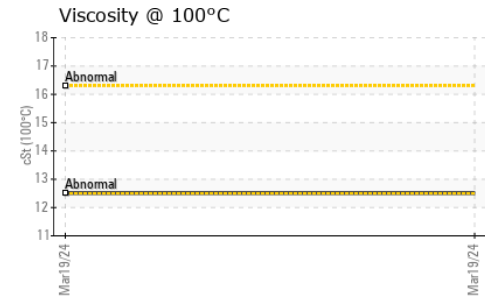
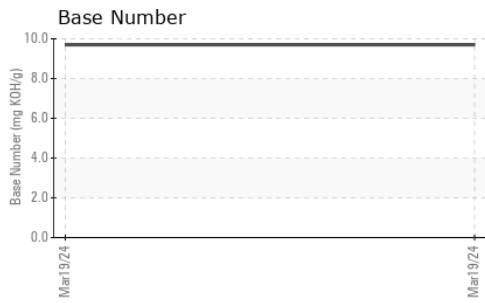
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.2	---	---
Nitration	Abs/cm	*ASTM D7624	>20	7.1	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.1	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	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		0	---	---
Boron	ppm	ASTM D5185m		50	---	---
Barium	ppm	ASTM D5185m		2	---	---
Molybdenum	ppm	ASTM D5185m		59	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		487	---	---
Calcium	ppm	ASTM D5185m		1773	---	---
Phosphorus	ppm	ASTM D5185m		918	---	---
Zinc	ppm	ASTM D5185m		1109	---	---
Sulfur	ppm	ASTM D5185m		3214	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.7	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		9.7	---	---
Visc @ 100°C	cSt	ASTM D445		12.5	---	---



Certificate L2367

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

**Sample No.** : ASC0007817

**Lab Number** : 06124750

**Unique Number** : 10938901

**Test Package** : CONST ( Additional Tests: TBN )

**Received** : 21 Mar 2024

**Tested** : 22 Mar 2024

**Diagnosed** : 22 Mar 2024 - Wes Davis

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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)