



# ASCENDUM

## OIL ANALYSIS REPORT

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



Area  
**Ascendum Machinery/500 Hour CSA**  
Machine Id  
**VOLVO L150H 2328 (S/N L150HV7200)**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ASC0009463</b>	ASC0011447	ASC0008955
Sample Date		Client Info		<b>01 Jul 2024</b>	17 May 2024	31 Jan 2024
Machine Age	hrs	Client Info		<b>4515</b>	4104	3550
Oil Age	hrs	Client Info		<b>500</b>	500	1550
Filter Age	hrs	Client Info		<b>500</b>	500	1550
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>7</b>	11	33
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>2</b>	3	4
Lead	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>15	<b>2</b>	13	8
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	1	<1
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 no indication of any contamination in the oil.

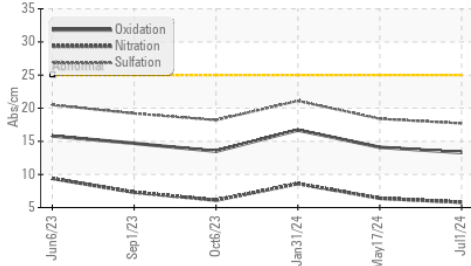
Silicon	ppm	ASTM D5185m	>20	<b>7</b>	8	23
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	1	2
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.8</b>	6.4	8.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.7</b>	18.4	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	>0.1	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

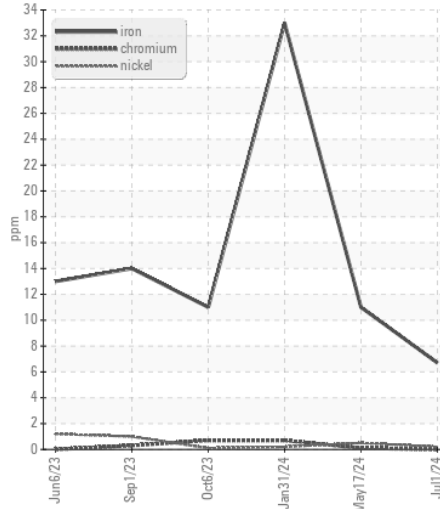
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>216	<b>2</b>	2	0
Boron	ppm	ASTM D5185m	250	<b>3</b>	2	2
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	5
Molybdenum	ppm	ASTM D5185m	100	<b>58</b>	60	68
Manganese	ppm	ASTM D5185m		<b>0</b>	1	0
Magnesium	ppm	ASTM D5185m	450	<b>936</b>	980	1000
Calcium	ppm	ASTM D5185m	3000	<b>1076</b>	1097	1106
Phosphorus	ppm	ASTM D5185m	1150	<b>1087</b>	1061	823
Zinc	ppm	ASTM D5185m	1350	<b>1284</b>	1295	1255
Sulfur	ppm	ASTM D5185m	4250	<b>3766</b>	3625	2553
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.3</b>	14.1	16.7
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>8.8</b>	8.2	5.4
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.8</b>	13.7	12.7

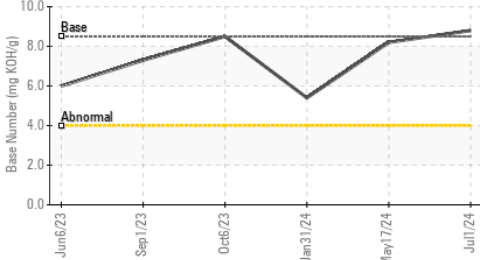
**FT-IR (Direct Trend)**



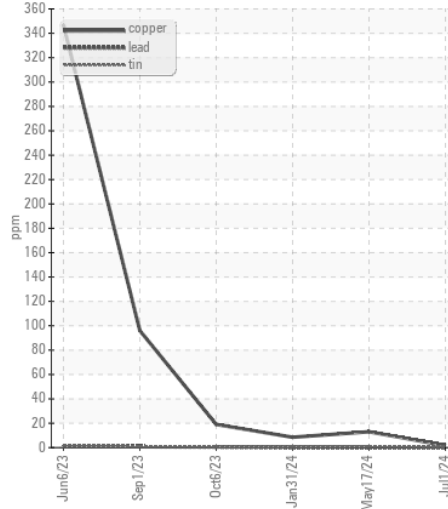
**Ferrous Alloys**



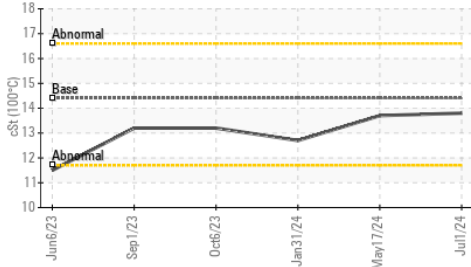
**Base Number**



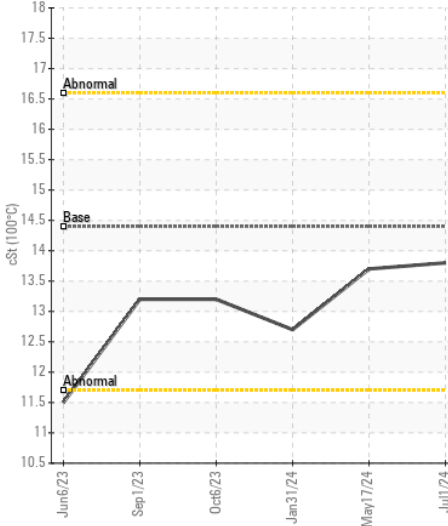
**Non-ferrous Metals**



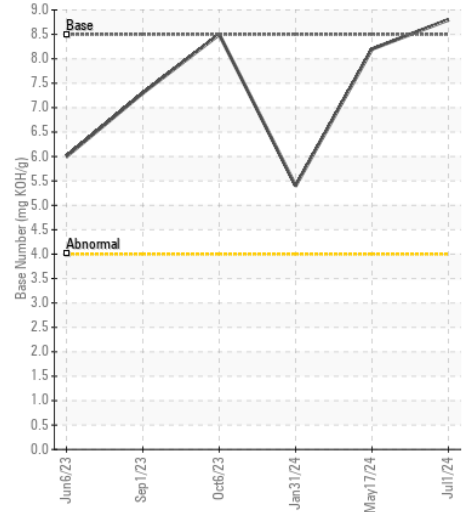
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ASC0009463 **Received** : 10 Jul 2024  
**Lab Number** : 06231921 **Tested** : 10 Jul 2024  
**Unique Number** : 11115414 **Diagnosed** : 10 Jul 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**G S MATERIALS INC**  
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 US 27216

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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)