



# ASCENDUM

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Area  
**Ascendum Machinery**  
Machine Id  
**VOLVO L120H RL69 (S/N L120HV632870)**  
Component  
**Hydraulic System**  
Fluid  
**VOLVO SUPER HYDRAULIC OIL 46 (37 GAL)**

### RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0001995	ASC0005369	ASC0001329
Sample Date		Client Info		22 Feb 2024	30 Oct 2023	18 Sep 2023
Machine Age	hrs	Client Info		12092	11087	10593
Oil Age	hrs	Client Info		8915	8404	2683
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				ATTENTION	ABNORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	0	7	0
Chromium	ppm	ASTM D5185m	>20	<1	5	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	0	<1	3
Lead	ppm	ASTM D5185m	>20	0	0	0
Copper	ppm	ASTM D5185m	>150	<1	5	0
Tin	ppm	ASTM D5185m	>20	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

### CONTAMINATION

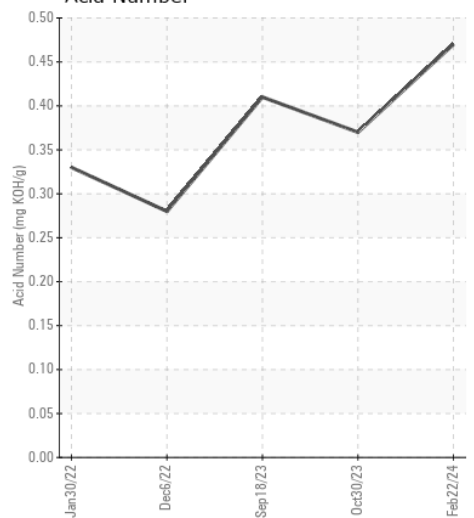
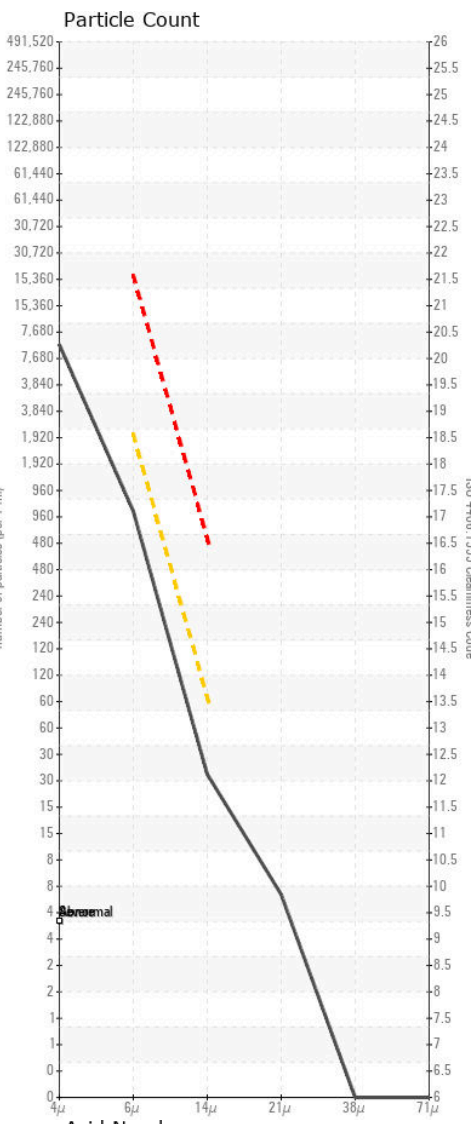
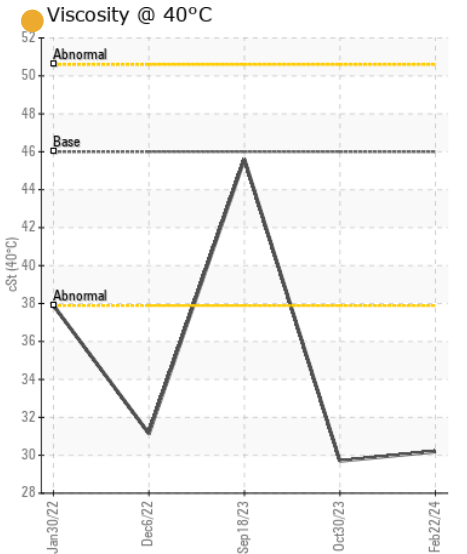
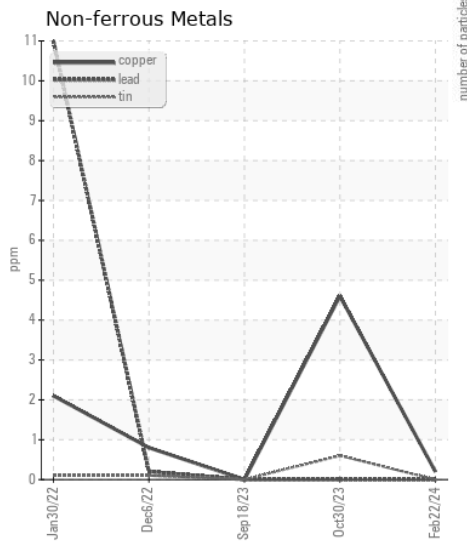
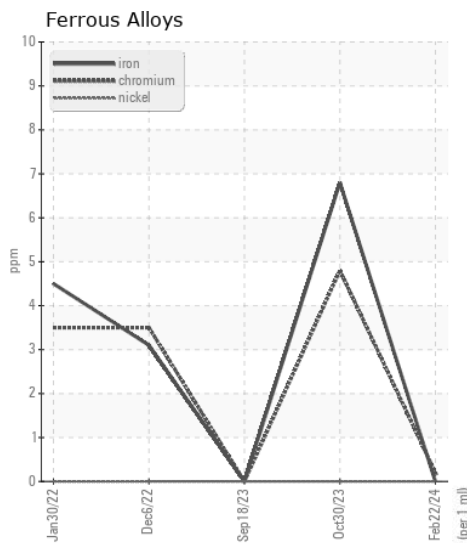
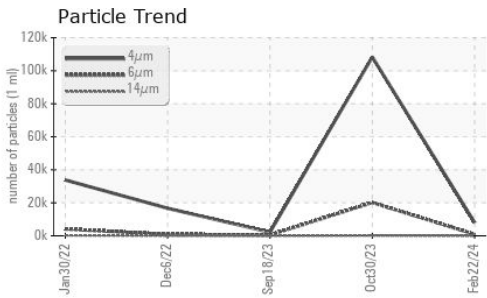
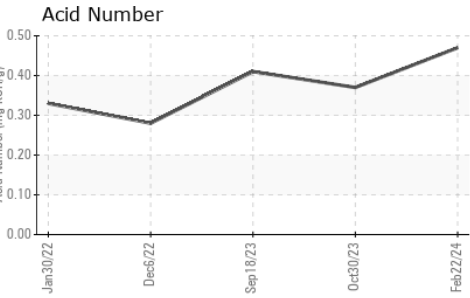
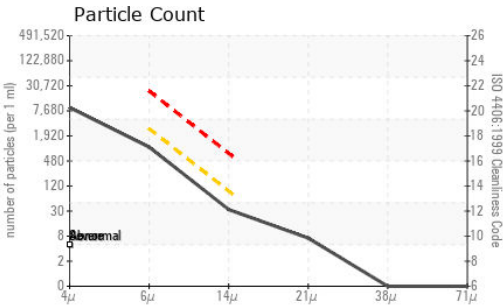
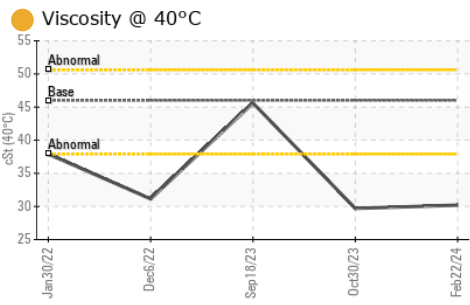
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>20	0	2	<1
Potassium	ppm	ASTM D5185m	>20	0	0	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647		8024	108307	2196
Particles >6µm		ASTM D7647	>2500	908	▲ 20165	491
Particles >14µm		ASTM D7647	>80	29	▲ 198	34
Particles >21µm		ASTM D7647	>20	6	▲ 24	8
Particles >38µm		ASTM D7647	>4	0	1	1
Particles >71µm		ASTM D7647	>3	0	1	0
Oil Cleanliness		ISO 4406 (c)	>-/18/13	20/17/12	▲ 24/22/15	18/16/12
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG

### FLUID CONDITION

Viscosity of sample indicates oil is within ISO 32 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		0	3	2
Boron	ppm	ASTM D5185m	14	0	0	0
Barium	ppm	ASTM D5185m	0.0	0	19	0
Molybdenum	ppm	ASTM D5185m	0.0	0	<1	0
Manganese	ppm	ASTM D5185m	0.0	<1	<1	0
Magnesium	ppm	ASTM D5185m	2.6	<1	0	4
Calcium	ppm	ASTM D5185m	49	49	43	64
Phosphorus	ppm	ASTM D5185m	354	269	354	357
Zinc	ppm	ASTM D5185m	419	383	415	430
Sulfur	ppm	ASTM D5185m	3719	693	1068	2568
Acid Number (AN)	mg KOH/g	ASTM D8045		0.47	0.37	0.41
Visc @ 40°C	cSt	ASTM D445	46	30.2	29.7	45.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ASC0001995 **Received** : 27 Feb 2024  
**Lab Number** : 06101541 **Tested** : 28 Feb 2024  
**Unique Number** : 10899771 **Diagnosed** : 29 Feb 2024 - Jonathan Hester  
**Test Package** : MOBCE

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)

**HILCO TRANSPORT**  
 7700 KENMONT RD  
 GREENSBORO, NC  
 US 27409  
 Contact: MIKE LAUGHEAD  
 mlaughead@hilcotransport.com  
 T: (336)273-9441  
 F: (336)273-9701