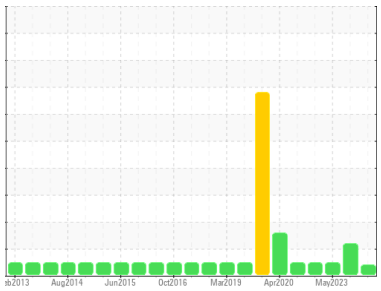
OIL ANALYSIS REPORT

Sample Rating Trend



VIS DEBRIS

Area
AMR-Cheyenne
Machine Id
17529 VOLVO EC460CL 110459
Component
Hydraulic System
Fluid
VOLVO SUPER HYDRAULIC OIL 46 (139 GAL)

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear
All component wear rates are normal.

Contamination
Moderate concentration of visible dirt/debris present in the oil.

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**DJJ028501**	DJJ0012256	DJJ0019219
Sample Date		Client Info		**14 Mar 2024**	06 Oct 2023	18 May 2023
Machine Age	hrs	Client Info		**8269**	14810	14362
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Changed**	Not Changd	Not Changd
Sample Status				**ABNORMAL**	ABNORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>25	**1**	2	3
Chromium	ppm	ASTM D5185m	>10	**0**	<1	<1
Nickel	ppm	ASTM D5185m	>10	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**2**	0	0
Lead	ppm	ASTM D5185m	>20	**0**	<1	0
Copper	ppm	ASTM D5185m	>150	**2**	2	3
Tin	ppm	ASTM D5185m	>10	**<1**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	14	**0**	0	0
Barium	ppm	ASTM D5185m	0.0	**0**	3	0
Molybdenum	ppm	ASTM D5185m	0.0	**3**	<1	<1
Manganese	ppm	ASTM D5185m	0.0	**0**	0	0
Magnesium	ppm	ASTM D5185m	2.6	**36**	1	<1
Calcium	ppm	ASTM D5185m	49	**110**	126	87
Phosphorus	ppm	ASTM D5185m	354	**339**	361	362
Zinc	ppm	ASTM D5185m	419	**398**	454	456
Sulfur	ppm	ASTM D5185m	3719	**974**	1013	1146

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**0**	<1	<1
Sodium	ppm	ASTM D5185m		**0**	<1	<1
Potassium	ppm	ASTM D5185m	>20	**1**	1	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>40000	**---**	▲ 94015	7297
Particles >6µm		ASTM D7647	>10000	**---**	▲ 30917	801
Particles >14µm		ASTM D7647	>2500	**---**	1678	38
Particles >21µm		ASTM D7647	>640	**---**	379	10
Particles >38µm		ASTM D7647	>160	**---**	8	1
Particles >71µm		ASTM D7647	>40	**---**	1	0
Oil Cleanliness		ISO 4406 (c)	>22/20/18	**---**	▲ 24/22/18	20/17/12

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.49**	0.32	0.34

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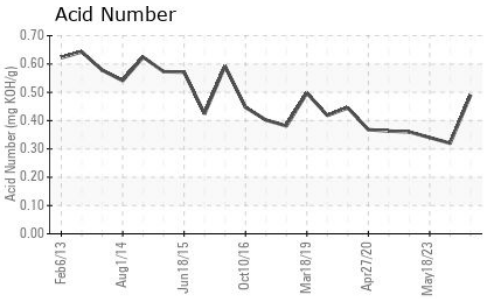
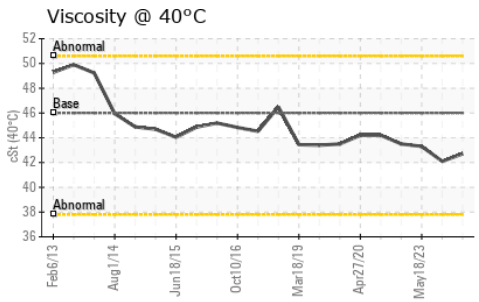


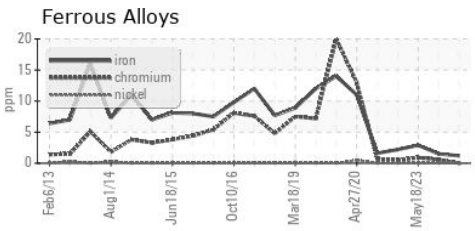


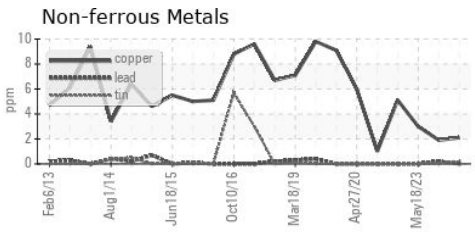
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	▲ **MODER**	LIGHT	NONE
Sand/Dirt	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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

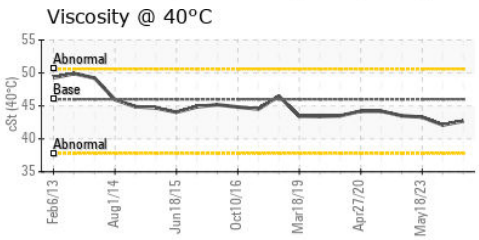
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	**42.7**	42.1	43.3

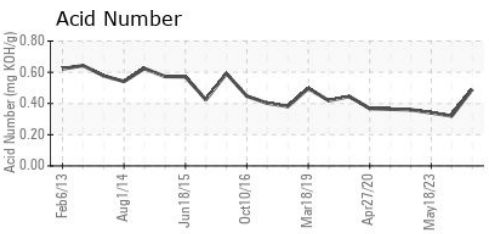
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS









Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DJJ028501
Lab Number : 06145257
Unique Number : 10970065
Test Package : MOB 2

Received : 10 Apr 2024
Tested : 13 Apr 2024
Diagnosed : 13 Apr 2024 - Don Baldridge

ADVANTAGE METALS RECYCLING - CHEYENNE
1015 S. PACKARD ST
KANSAS CITY, KS
US 66105
Contact: BRIAN JACOBS
BRIAN.JACOBS@ADVANTAGERECYCLING.COM
T: (816)808-4711
F:

Certificate L2367

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)