McCLUNG-LOGAN EQUIPMENT COMPANY, INC.

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
VOLVO L180G 19399
Component
Hydraulic System
Fluid
CHEVRON HYDRAULIC OIL AW ISO 46 (40 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

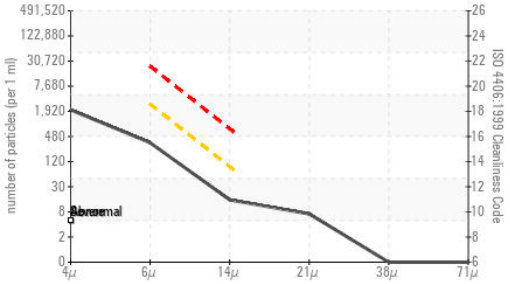
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

FLUID CONDITION

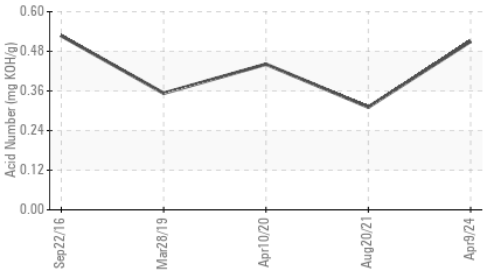
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ML0001155	VCP318151	VCP276642
Sample Date		Client Info		09 Apr 2024	20 Aug 2021	10 Apr 2020
Machine Age	hrs	Client Info		15712	13690	11177
Oil Age	hrs	Client Info		4000	0	0
Filter Age	hrs	Client Info		2000	0	0
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185m	>50	<1	3	3
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	1	<1	<1
Lead	ppm	ASTM D5185m	>20	1	0	<1
Copper	ppm	ASTM D5185m	>150	<1	1	1
Tin	ppm	ASTM D5185m	>20	1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>20	<1	2	3
Potassium	ppm	ASTM D5185m	>20	<1	3	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647		1831	6285	1281
Particles >6µm		ASTM D7647	>2500	299	▲ 3004	293
Particles >14µm		ASTM D7647	>80	13	▲ 969	22
Particles >21µm		ASTM D7647	>20	6	▲ 422	6
Particles >38µm		ASTM D7647	>4	0	▲ 16	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>--/18/13	18/15/11	▲ 20/19/17	17/15/12
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	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
Sodium	ppm	ASTM D5185m		0	2	<1
Boron	ppm	ASTM D5185m		0	6	78
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		1	<1	2
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m		6	6	11
Calcium	ppm	ASTM D5185m		69	166	187
Phosphorus	ppm	ASTM D5185m		382	351	344
Zinc	ppm	ASTM D5185m		435	394	437
Sulfur	ppm	ASTM D5185m		2522	3370	2056
Acid Number (AN)	mg KOH/g	ASTM D8045		0.51	0.311	0.441
Visc @ 40°C	cSt	ASTM D445	43.7	46.5	45.3	45.0

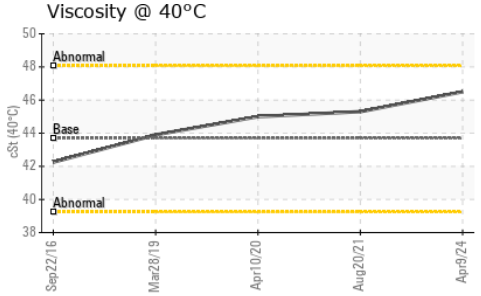
Particle Count



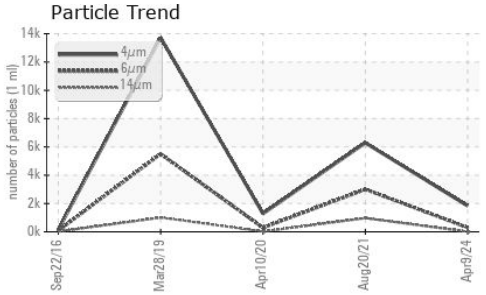
Acid Number



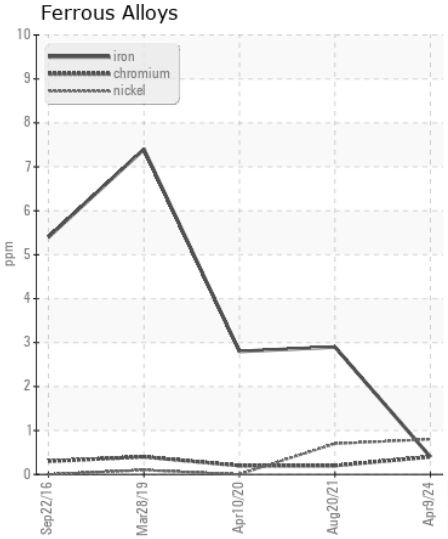
Viscosity @ 40°C



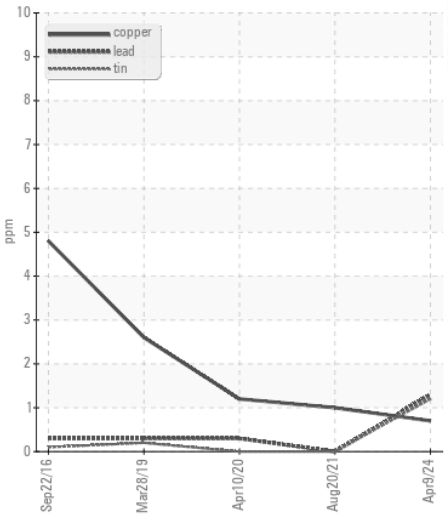
Particle Trend



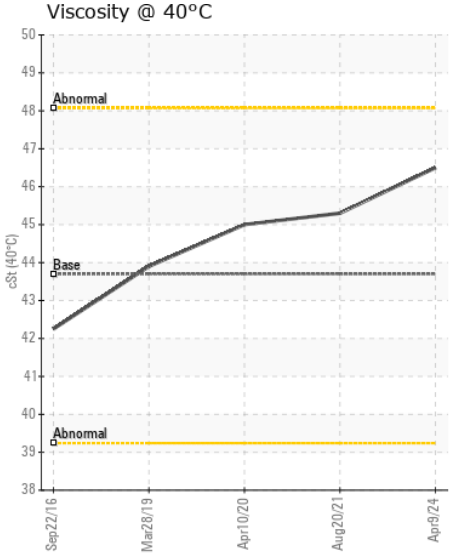
Ferrous Alloys



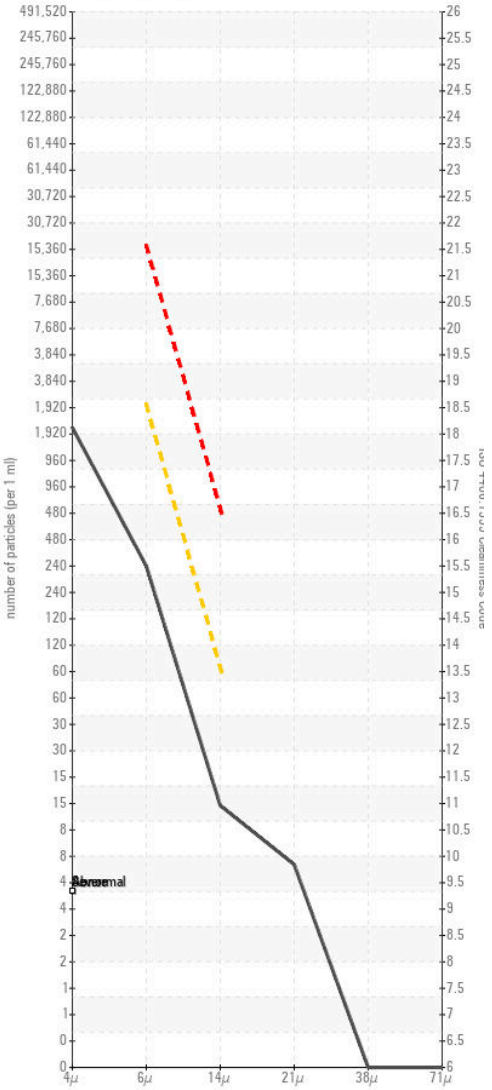
Non-ferrous Metals



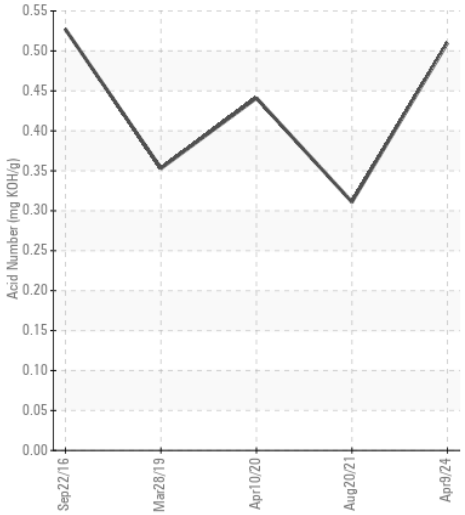
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ML0001155
Lab Number : 06147260
Unique Number : 10977338
Test Package : CONST

Received : 12 Apr 2024
Tested : 15 Apr 2024
Diagnosed : 16 Apr 2024 - Don Baldridge

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)

RELIABLE CONTRACTING
2410 EVERGREEN RD SUITE 200
GAMBRILLS, MD
US 21054
Contact: RUSSELL HATFIELD
RHATFIELD@RELIABLECONTRACTING.COM
T: (410)987-1851
F: