CONST

McCLUNG-LOGAN EQUIPMENT COMPANY, INC.

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	MARGINAL

Area
[W/O 11059]
Machine Id
VOLVO L180H 5100
Component
Diesel Engine
Fluid
CHEVRON 15W40 (13 GAL)

RECOMMENDATION

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

WEAR

All component wear rates are normal.

CONTAMINATION

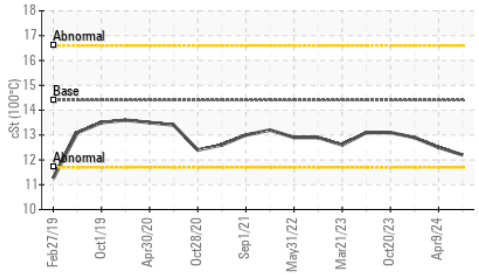
Fuel content negligible. There is no indication of any contamination in the oil.

FLUID CONDITION

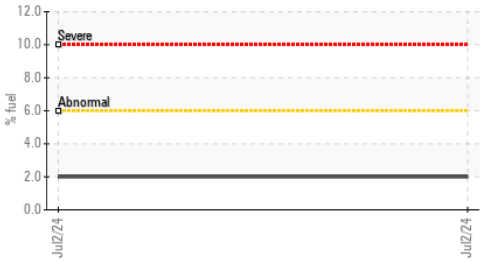
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**ML0002026**	ML0001170	ML0000128
Sample Date		Client Info		**02 Jul 2024**	09 Apr 2024	23 Jan 2024
Machine Age	hrs	Client Info		**14101**	13489	13139
Oil Age	hrs	Client Info		**612**	500	515
Filter Age	hrs	Client Info		**612**	500	515
Oil Changed		Client Info		**Changed**	Changed	Changed
Filter Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**MARGINAL**	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	**4**	5	4
Chromium	ppm	ASTM D5185m	>10	**0**	<1	0
Nickel	ppm	ASTM D5185m	>10	**0**	1	0
Titanium	ppm	ASTM D5185m		**0**	1	2
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>10	**2**	2	2
Lead	ppm	ASTM D5185m	>20	**0**	1	<1
Copper	ppm	ASTM D5185m	>15	**<1**	<1	<1
Tin	ppm	ASTM D5185m	>10	**0**	1	<1
Vanadium	ppm	ASTM D5185m		**0**	<1	0
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silicon	ppm	ASTM D5185m	>20	**5**	5	5
Potassium	ppm	ASTM D5185m	>20	**0**	2	<1
Fuel	%	ASTM D3524	>6.0	**2.0**	<1.0	<1.0
Water		WC Method	>0.1	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG
Soot %	%	*ASTM D7844	>3	**0.1**	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	**7.1**	6.2	6.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	**21.3**	21.6	21.2
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
Sodium	ppm	ASTM D5185m	>50	**3**	0	2
Boron	ppm	ASTM D5185m		**74**	314	418
Barium	ppm	ASTM D5185m		**0**	<1	0
Molybdenum	ppm	ASTM D5185m		**53**	91	84
Manganese	ppm	ASTM D5185m		**<1**	1	<1
Magnesium	ppm	ASTM D5185m		**495**	511	413
Calcium	ppm	ASTM D5185m		**1738**	1444	1450
Phosphorus	ppm	ASTM D5185m		**915**	870	994
Zinc	ppm	ASTM D5185m		**1046**	944	1262
Sulfur	ppm	ASTM D5185m		**3203**	2817	3295
Oxidation	Abs/.1mm	*ASTM D7414	>25	**18.0**	16.5	14.7
Base Number (BN)	mg KOH/g	ASTM D2896		**8.9**	8.7	7.0
Visc @ 100°C	cSt	ASTM D445	14.4	▲ **12.2**	12.5	12.9

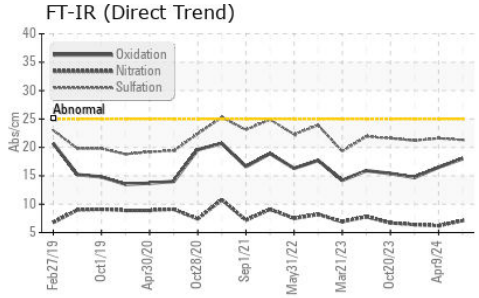
Viscosity @ 100°C



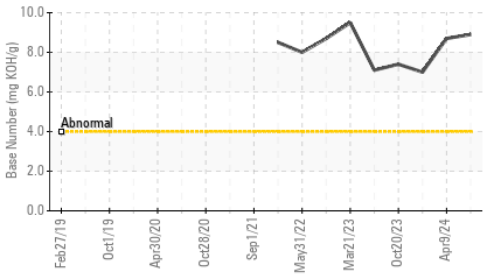
Fuel Dilution



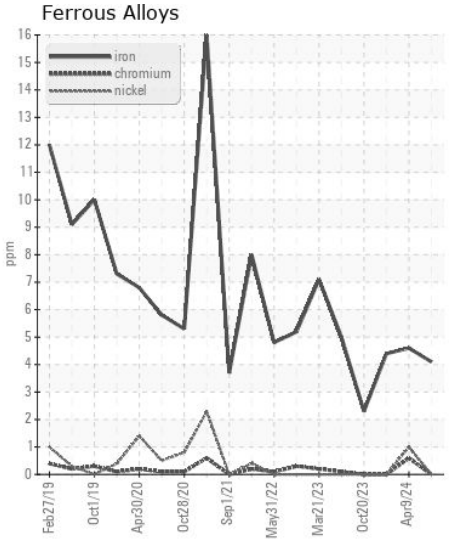
FT-IR (Direct Trend)



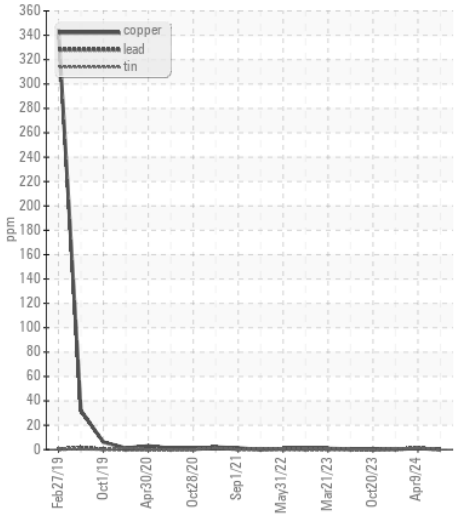
Base Number



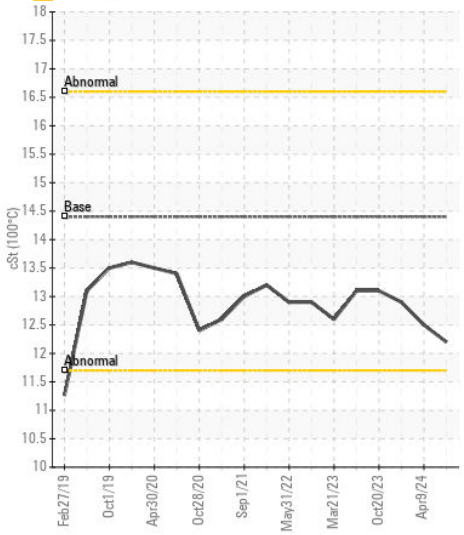
Ferrous Alloys



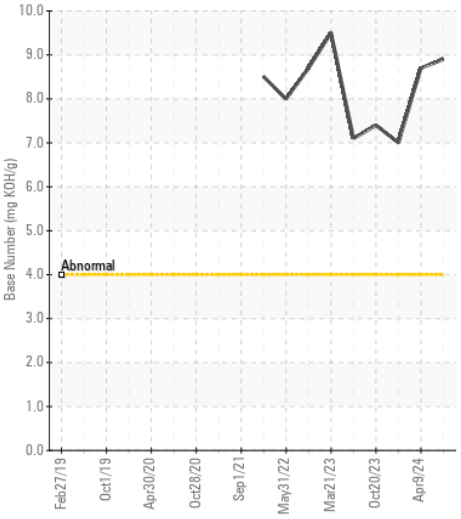
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ML0002026
Lab Number : 06234224
Unique Number : 11123058
Test Package : CONST (Additional Tests: FUELDILUTION, PercentFuel, TBN)

Received : 11 Jul 2024
Tested : 16 Jul 2024
Diagnosed : 16 Jul 2024 - Jonathan Hester

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: