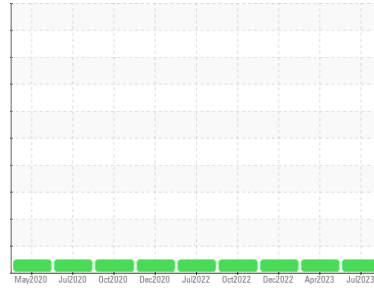




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
CONSTRUCTORS, INC
 Machine Id
VOLVO D13 SCR 121265

Component
Diesel Engine
 Fluid
MOBIL DELVAC 1300 SUPER 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	SBP0000692	SBP0003755	SBP0002291
Sample Date	Client Info	07 Jul 2023	28 Apr 2023	16 Dec 2022
Machine Age	hrs	9738	9098	8525
Oil Age	hrs	640	573	559
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		NORMAL	NORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >6.0	<1.0	<1.0	<1.0
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	4	6	4
Chromium	ppm ASTM D5185m >20	<1	<1	<1
Nickel	ppm ASTM D5185m >2	<1	0	0
Titanium	ppm ASTM D5185m	<1	<1	0
Silver	ppm ASTM D5185m >2	0	0	<1
Aluminum	ppm ASTM D5185m >25	<1	2	<1
Lead	ppm ASTM D5185m >40	<1	0	<1
Copper	ppm ASTM D5185m >330	4	3	1
Tin	ppm ASTM D5185m >15	<1	<1	<1
Vanadium	ppm ASTM D5185m	<1	0	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	2	8	4
Barium	ppm ASTM D5185m	1	0	0
Molybdenum	ppm ASTM D5185m	57	57	55
Manganese	ppm ASTM D5185m	<1	<1	<1
Magnesium	ppm ASTM D5185m	967	984	901
Calcium	ppm ASTM D5185m	1169	1194	1106
Phosphorus	ppm ASTM D5185m	1027	1040	995
Zinc	ppm ASTM D5185m	1283	1256	1212
Sulfur	ppm ASTM D5185m	3792	3609	3263

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	4	5	2
Sodium	ppm ASTM D5185m	2	2	2
Potassium	ppm ASTM D5185m >20	2	2	<1

INFRA-RED

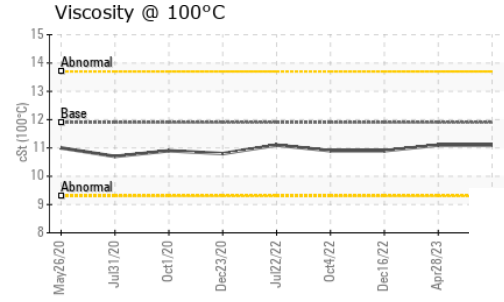
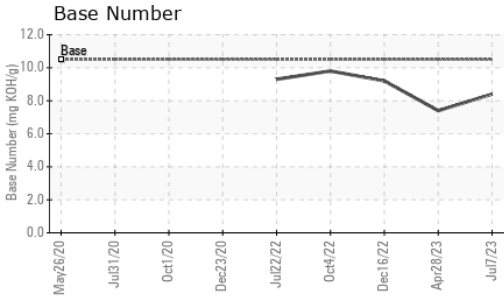
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.1	0.1	0.1
Nitration	Abs/cm *ASTM D7624 >20	6.7	6.4	7.3
Sulfation	Abs/.1mm *ASTM D7415 >30	17.8	16.4	19.3

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	14.1	13.6	14.8
Base Number (BN)	mg KOH/g ASTM D2896 10.5	8.4	7.4	9.2



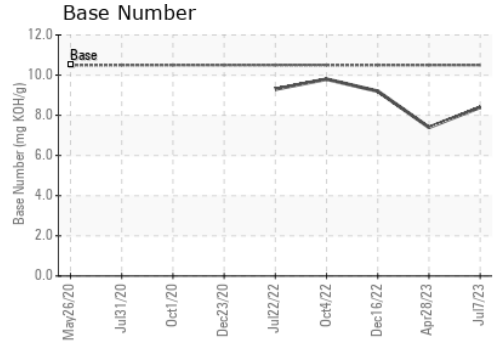
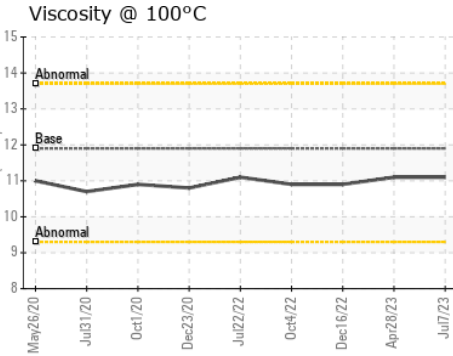
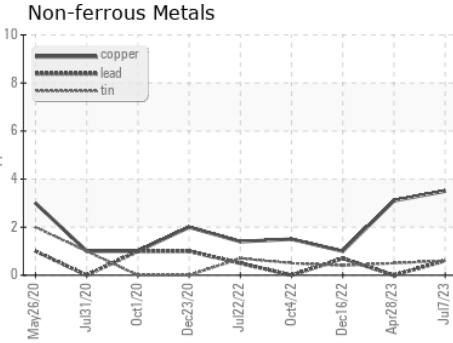
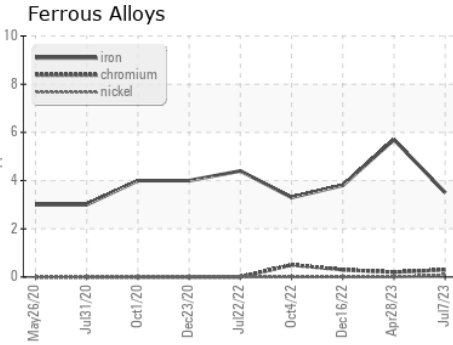
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	11.9	11.1	10.9

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : SBP0000692 **Received** : 17 Jul 2023
Lab Number : 05900662 **Diagnosed** : 19 Jul 2023
Unique Number : 10562018 **Diagnostician** : Doug Bogart
Test Package : FLEET

Constructors Inc. - 603659
 1815 Y Street
 Lincoln, NE
 US 68508
 Contact: Jack Linhart
 jackl@constructorslincoln.com
 T: (402)434-2157
 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)