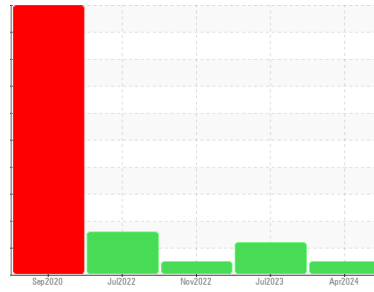




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
CONSTRUCTORS, INC

Machine Id
030347

Component
Diesel Engine

Fluid
MOBIL DELVAC 1300 SUPER15W40 (--- 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	SBP0005772	SBP0004765	SBP0001354
Sample Date	Client Info	18 Apr 2024	21 Jul 2023	08 Nov 2022
Machine Age	hrs	3678	3142	2525
Oil Age	hrs	536	617	526
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		NORMAL	ABNORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<1.0	▲ 2.1	<1.0
Water	WC Method >0.2	NEG	NEG	NEG
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >90	45	75	60
Chromium	ppm ASTM D5185m >20	1	<1	<1
Nickel	ppm ASTM D5185m >2	<1	<1	<1
Titanium	ppm ASTM D5185m >2	<1	<1	<1
Silver	ppm ASTM D5185m >2	0	0	0
Aluminum	ppm ASTM D5185m >20	11	15	8
Lead	ppm ASTM D5185m >40	0	0	<1
Copper	ppm ASTM D5185m >330	4	2	5
Tin	ppm ASTM D5185m >15	<1	<1	<1
Vanadium	ppm ASTM D5185m	<1	<1	<1
Cadmium	ppm ASTM D5185m	<1	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	2	3	6
Barium	ppm ASTM D5185m 0	<1	0	0
Molybdenum	ppm ASTM D5185m 0	61	60	51
Manganese	ppm ASTM D5185m	<1	1	<1
Magnesium	ppm ASTM D5185m 0	940	981	879
Calcium	ppm ASTM D5185m	1098	1172	1079
Phosphorus	ppm ASTM D5185m	1000	1003	945
Zinc	ppm ASTM D5185m	1274	1260	1156
Sulfur	ppm ASTM D5185m	3231	3495	3335

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	6	5	6
Sodium	ppm ASTM D5185m	3	3	3
Potassium	ppm ASTM D5185m >20	7	9	8

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >6	1	1.2	1
Nitration	Abs/cm *ASTM D7624 >20	12.4	12.6	12.7
Sulfation	Abs/.1mm *ASTM D7415 >30	22.1	22.7	24.6

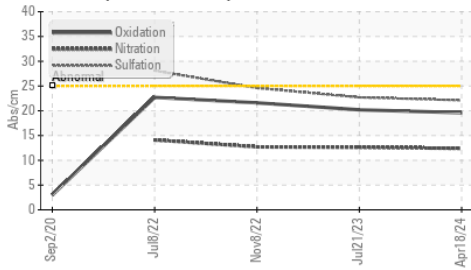
FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	19.6	20.2	21.6
Base Number (BN)	mg KOH/g ASTM D2896 9.4	6.3	6.5	7.9

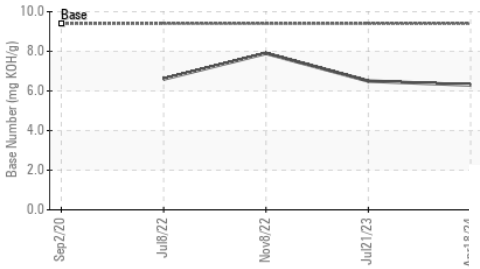


OIL ANALYSIS REPORT

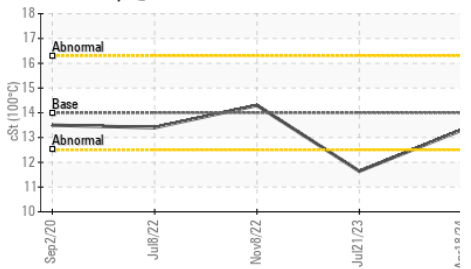
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

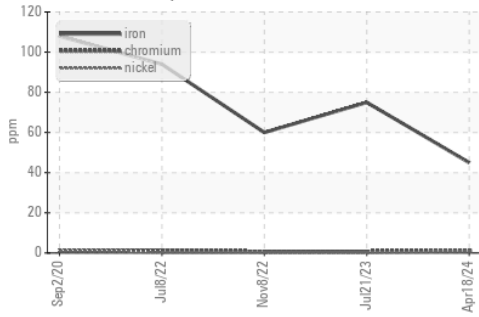


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

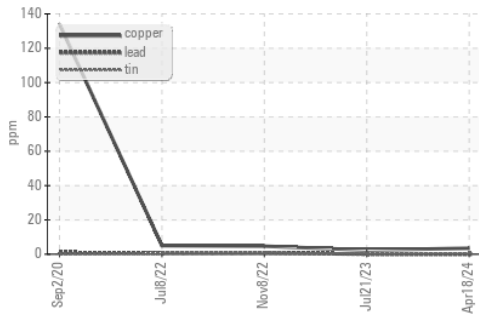
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445 14	13.3	▲ 11.64	14.3

GRAPHS

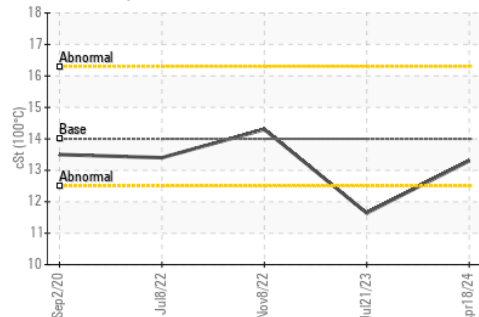
Ferrous Alloys



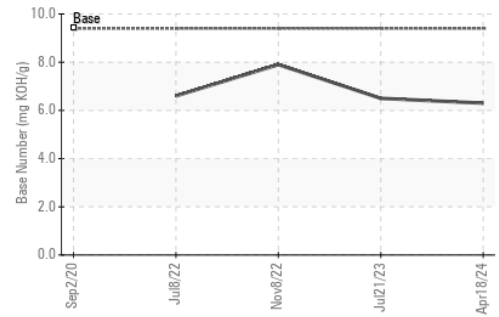
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : SBP0005772 **Received** : 22 Apr 2024
Lab Number : **06156635** **Tested** : 23 Apr 2024
Unique Number : 10992058 **Diagnosed** : 24 Apr 2024 - Sean Felton
Test Package : FLEET

Constructors Inc. - 603659
 1815 Y Street
 Lincoln, NE
 US 68508
 Contact: Loren Michael
 LorenM@constructorslincoln.com

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)

T: (402)434-2157

F: