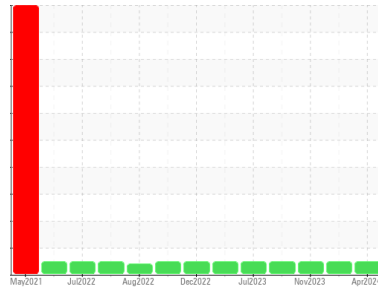




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
CONSTRUCTORS, INC
 Machine Id
040663
 Component
Gasoline Engine
 Fluid
MOBIL 1 5W30 (--- 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		SBP0005769	SBP0006345	SBP0004963
Sample Date	Client Info		18 Apr 2024	14 Feb 2024	20 Nov 2023
Machine Age	hrs	Client Info	5398	5051	4874
Oil Age	hrs	Client Info	347	177	345
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>4.0	<1.0	<1.0	<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 >150	59	87	62
Chromium	ppm	ASTM D5185m >20	3	3	2
Nickel	ppm	ASTM D5185m >5	1	1	<1
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >40	4	4	4
Lead	ppm	ASTM D5185m >50	<1	0	0
Copper	ppm	ASTM D5185m >155	16	13	15
Tin	ppm	ASTM D5185m >10	<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 94	41	40	24
Barium	ppm	ASTM D5185m 0.0	<1	0	0
Molybdenum	ppm	ASTM D5185m 0.0	70	66	68
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m 1388	490	486	506
Calcium	ppm	ASTM D5185m 820	1212	1076	1229
Phosphorus	ppm	ASTM D5185m 720	630	650	687
Zinc	ppm	ASTM D5185m 780	766	733	804
Sulfur	ppm	ASTM D5185m 2240	2761	2471	2667

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	10	11	10
Sodium	ppm	ASTM D5185m >400	6	4	3
Potassium	ppm	ASTM D5185m >20	3	1	1

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0.1	0	0
Nitration	Abs/cm	*ASTM D7624 >20	10.9	10.9	11.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	22.1	22.3	22.3

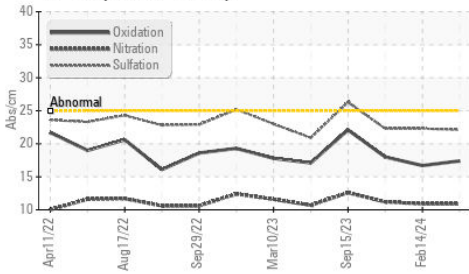
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	17.4	16.7	18.0
Base Number (BN)	mg KOH/g	ASTM D2896	3.4	2.9	3.7

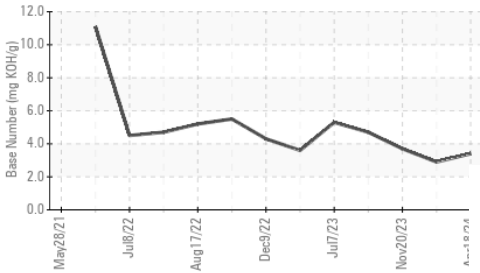


OIL ANALYSIS REPORT

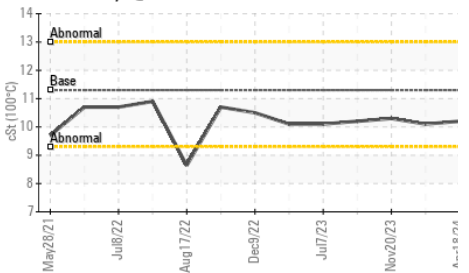
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

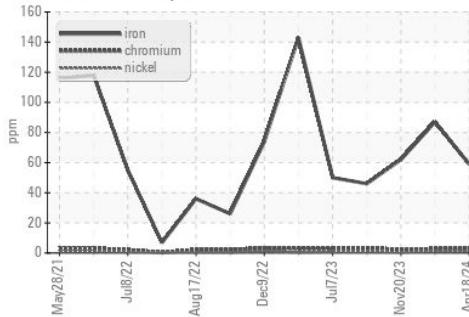


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

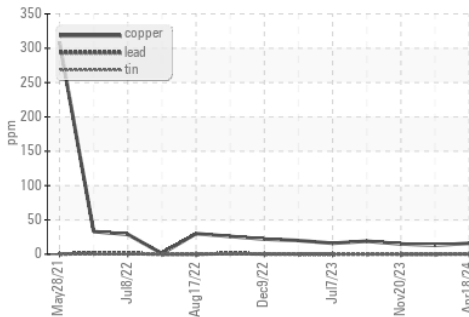
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	11.3	10.2	10.1

GRAPHS

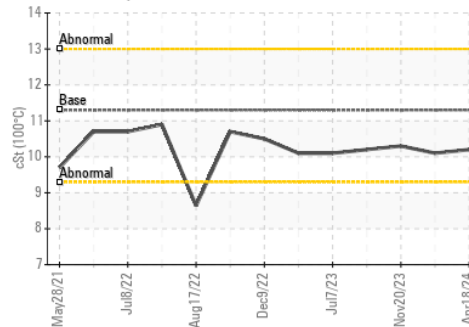
Ferrous Alloys



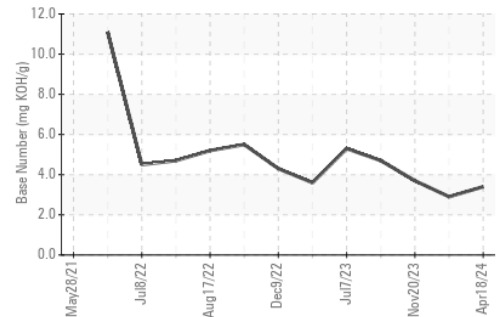
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : SBP0005769 **Received** : 22 Apr 2024
Lab Number : 06156632 **Tested** : 23 Apr 2024
Unique Number : 10992055 **Diagnosed** : 23 Apr 2024 - Wes Davis
Test Package : FLEET

Constructors Inc. - 603659
 1815 Y Street
 Lincoln, NE
 US 68508
 Contact: Loren Michael
 LorenM@constructorslincoln.com
 T: (402)434-2157
 F:

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)