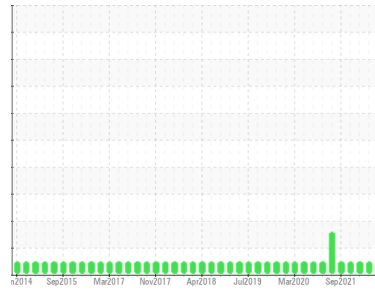




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area

MACHINE SHOP

Machine Id

0-6500-2101 KATOLIGHT GENERATOR

Component

Diesel Engine

Fluid

SHELL ROTELLA S 10W40 (12 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		WC0941242	WC0867041	WC0770096
Sample Date	Client Info		10 Jul 2024	03 Jan 2024	03 Apr 2023
Machine Age	hrs	Client Info	558	543	519
Oil Age	hrs	Client Info	558	543	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<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 >100	6	2	5
Chromium	ppm	ASTM D5185m >20	0	0	1
Nickel	ppm	ASTM D5185m >4	0	0	<1
Titanium	ppm	ASTM D5185m	0	0	<1
Silver	ppm	ASTM D5185m >3	0	0	<1
Aluminum	ppm	ASTM D5185m >20	1	<1	<1
Lead	ppm	ASTM D5185m >40	6	6	6
Copper	ppm	ASTM D5185m >330	3	2	3
Tin	ppm	ASTM D5185m >15	2	2	2
Vanadium	ppm	ASTM D5185m	0	0	1
Cadmium	ppm	ASTM D5185m	0	0	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	172	166	189
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m 0	2	0	3
Manganese	ppm	ASTM D5185m	0	<1	2
Magnesium	ppm	ASTM D5185m 291	9	11	20
Calcium	ppm	ASTM D5185m 392	2243	2107	2005
Phosphorus	ppm	ASTM D5185m 535	1033	997	882
Zinc	ppm	ASTM D5185m 557	1241	1173	1125
Sulfur	ppm	ASTM D5185m	4459	3587	3828

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	8	7	8
Sodium	ppm	ASTM D5185m	3	4	4
Potassium	ppm	ASTM D5185m >20	8	6	9

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	6.9	6.6	6.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.9	19.9	17.9

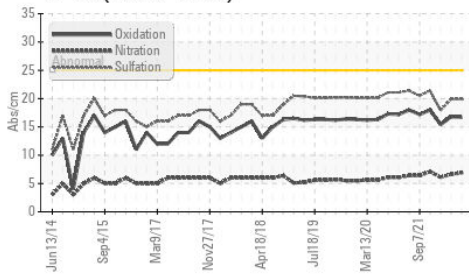
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	16.7	16.8	15.4
Base Number (BN)	mg KOH/g	ASTM D2896 5.2	9.40	7.54	12.16

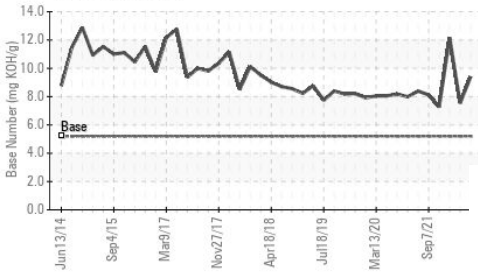


OIL ANALYSIS REPORT

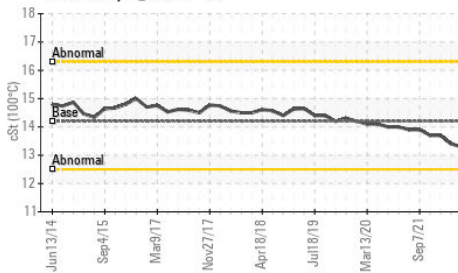
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

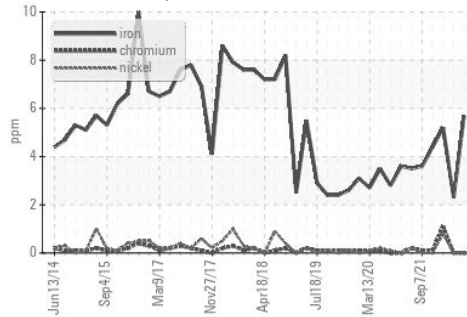


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

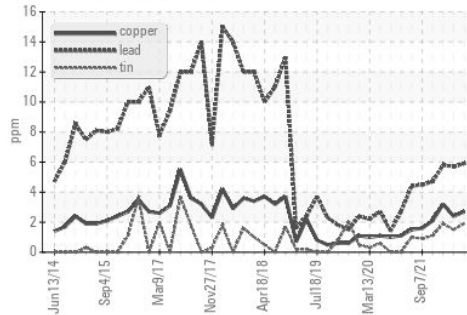
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.2	13.3	13.4

GRAPHS

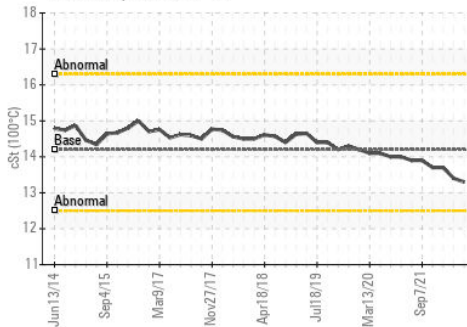
Ferrous Alloys



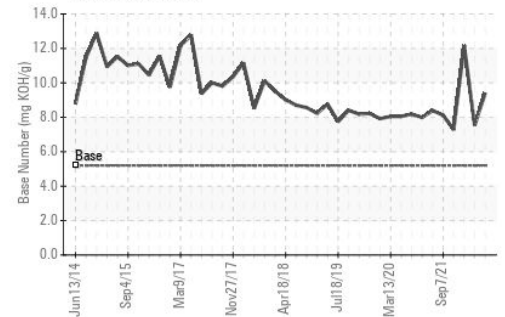
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0941242

Lab Number : 06235140

Unique Number : 11123974

Test Package : IND 2

Received : 12 Jul 2024

Tested : 15 Jul 2024

Diagnosed : 15 Jul 2024 - Sean Felton

ALLVAC - MACHINE SHOP

2020 ASHCRAFT AVE

MONROE, NC

US 28110

Contact: mark eilerman

mark.eilerman@atimaterials.com

T: (704)292-4051

F: (704)282-0665

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)