



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
77061
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 5W30 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0903076	WC0903194	WC0852267
Sample Date		Client Info		14 Jun 2024	15 Mar 2024	01 Sep 2023
Machine Age	mls	Client Info		43193	40357	33704
Oil Age	mls	Client Info		60000	0	0
Filter Age	mls	Client Info		60000	0	0
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	1	24	19
Chromium	ppm	ASTM D5185m	>20	0	0	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	6	8
Lead	ppm	ASTM D5185m	>40	0	2	0
Copper	ppm	ASTM D5185m	>330	1	11	1
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

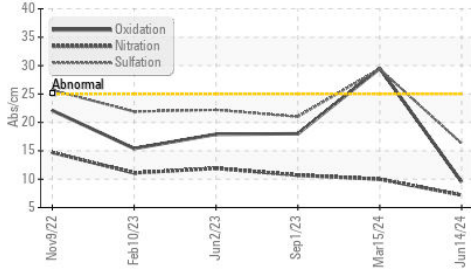
Silicon	ppm	ASTM D5185m	>25	5	6	7
Potassium	ppm	ASTM D5185m	>20	3	3	5
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0	0.1	0.7
Nitration	Abs/cm	*ASTM D7624	>20	7.2	10.0	10.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.3	29.4	21.0
Silt	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	>0.2	NEG	NEG	NEG

FLUID CONDITION

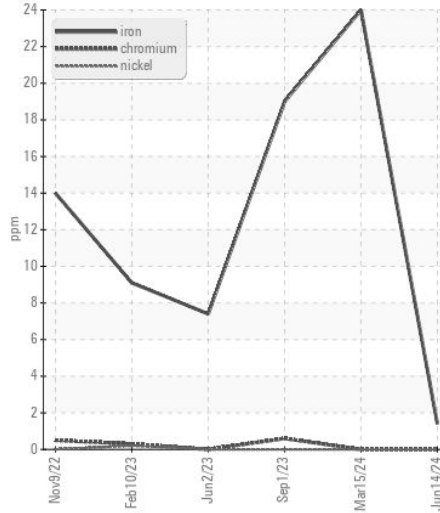
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		1	5	2
Boron	ppm	ASTM D5185m	250	64	92	12
Barium	ppm	ASTM D5185m	10	0	0	<1
Molybdenum	ppm	ASTM D5185m	100	77	78	70
Manganese	ppm	ASTM D5185m		5	6	<1
Magnesium	ppm	ASTM D5185m	450	535	485	851
Calcium	ppm	ASTM D5185m	3000	969	935	982
Phosphorus	ppm	ASTM D5185m	1150	795	681	900
Zinc	ppm	ASTM D5185m	1350	670	777	1116
Sulfur	ppm	ASTM D5185m	4250	3273	2547	3155
Oxidation	Abs/.1mm	*ASTM D7414	>25	9.5	29.5	18.0
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.2	▲ 2.5	7.7
Visc @ 100°C	cSt	ASTM D445	10.9	9.6	9.8	12.0

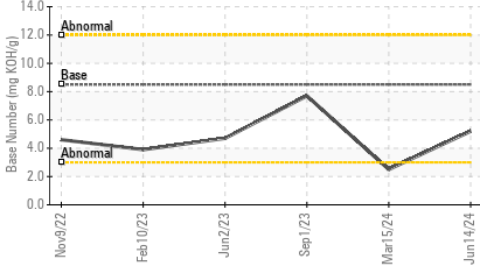
FT-IR (Direct Trend)



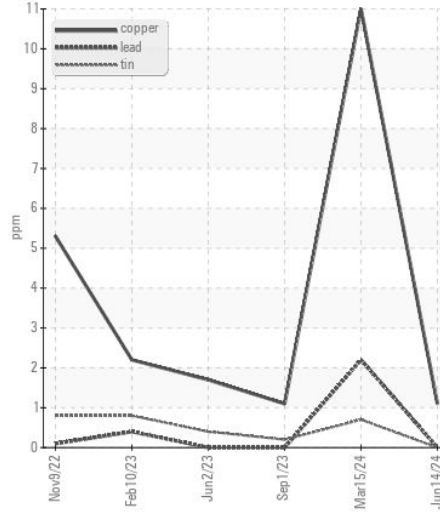
Ferrous Alloys



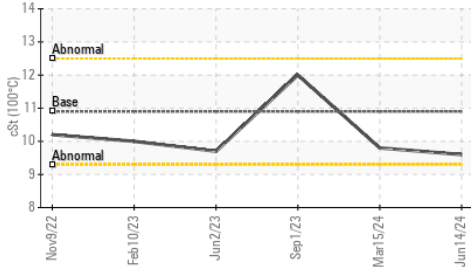
Base Number



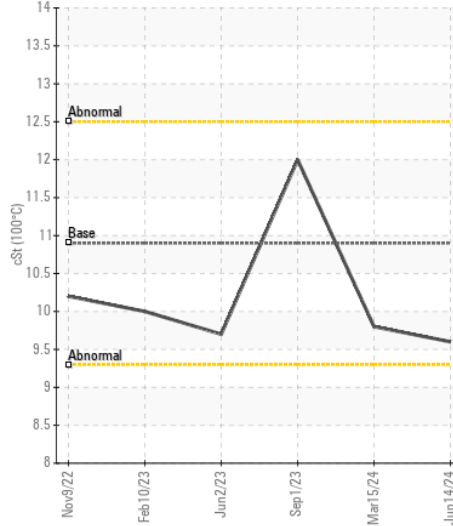
Non-ferrous Metals



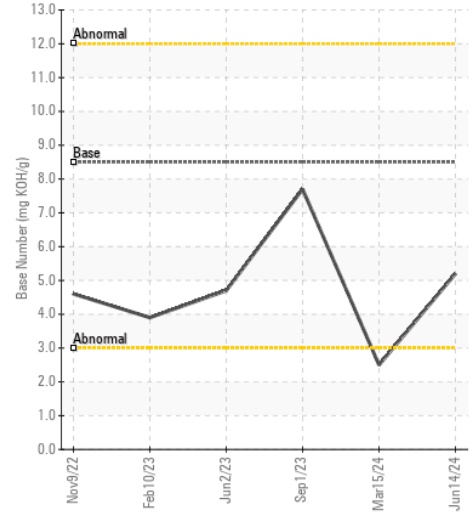
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0903076
Lab Number : 06220535
Unique Number : 11098732
Test Package : FLEET
Received : 25 Jun 2024
Tested : 26 Jun 2024
Diagnosed : 27 Jun 2024 - Don Baldrige

SALEM NATIONALEASE CORPORATION
 198 PARK PLAZA DRIVE
 WINSTON SALEM, NC
 US 27105
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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)