



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
12954
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0912556	WC0841982	WC0841797
Sample Date		Client Info		08 Mar 2024	18 Dec 2023	18 Sep 2023
Machine Age	mls	Client Info		209628	198319	187196
Oil Age	mls	Client Info		0	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	54	32	36
Chromium	ppm	ASTM D5185m	>20	2	2	1
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	6	5	4
Lead	ppm	ASTM D5185m	>40	<1	<1	6
Copper	ppm	ASTM D5185m	>330	2	2	5
Tin	ppm	ASTM D5185m	>15	0	<1	2
Vanadium	ppm	ASTM D5185m		<1	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.

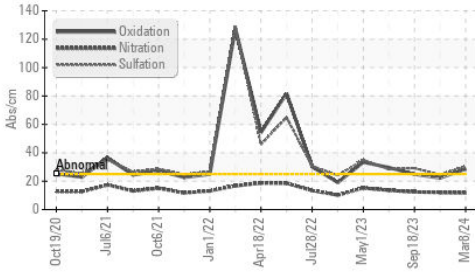
Silicon	ppm	ASTM D5185m	>25	13	20	8
Potassium	ppm	ASTM D5185m	>20	3	2	14
Fuel		WC Method	>5	<1.0	<1.0	1.3
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.6	0.4	0.6
Nitration	Abs/cm	*ASTM D7624	>20	11.8	12.0	12.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	30.4	24.5	29.2
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

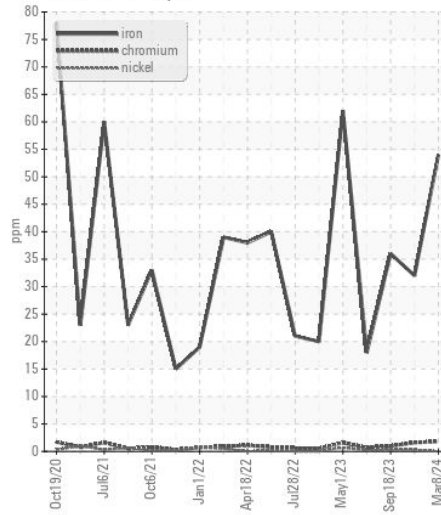
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	14	10	18
Boron	ppm	ASTM D5185m	250	189	41	24
Barium	ppm	ASTM D5185m	10	0	10	0
Molybdenum	ppm	ASTM D5185m	100	99	82	6
Manganese	ppm	ASTM D5185m		1	2	2
Magnesium	ppm	ASTM D5185m	450	553	197	44
Calcium	ppm	ASTM D5185m	3000	1810	2098	2146
Phosphorus	ppm	ASTM D5185m	1150	1210	1073	920
Zinc	ppm	ASTM D5185m	1350	1483	1314	1235
Sulfur	ppm	ASTM D5185m	4250	3894	3875	3080
Oxidation	Abs/.1mm	*ASTM D7414	>25	28.6	22.3	24.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.0	6.0	12.3
Visc @ 100°C	cSt	ASTM D445	14.4	13.9	14.3	12.0

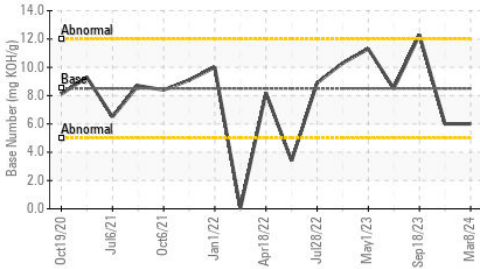
FT-IR (Direct Trend)



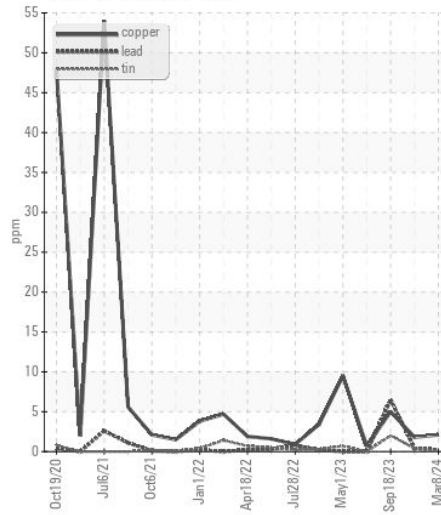
Ferrous Alloys



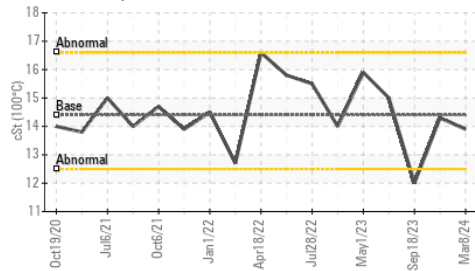
Base Number



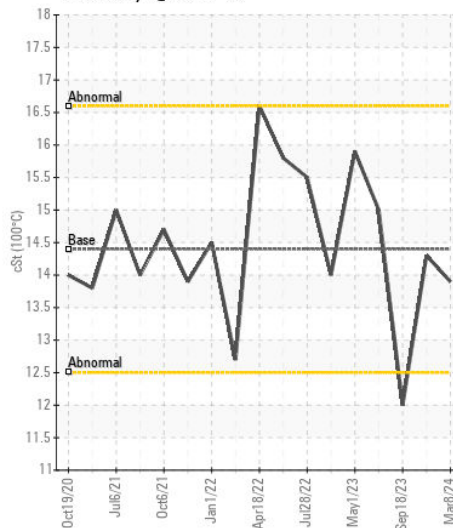
Non-ferrous Metals



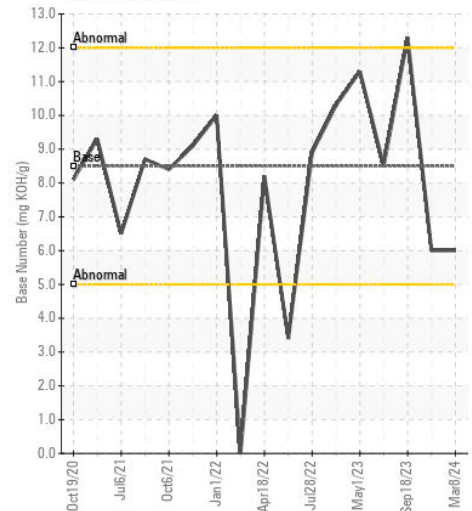
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : WC0912556

Lab Number : 06191543

Unique Number : 11048295

Test Package : FLEET

Received : 24 May 2024

Tested : 29 May 2024

Diagnosed : 29 May 2024 - Angela Borella

SALEM NATIONALEASE CORPORATION

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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)