



WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL

Machine Id
15297
Component
Diesel Engine
Fluid
EXXON 15W40 (--- QTS)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0815964	WC0885652	WC0885633
Sample Date		Client Info		05 Jan 2024	28 Nov 2023	17 Oct 2023
Machine Age	mls	Client Info		378888	356887	335618
Oil Age	mls	Client Info		0	21269	39916
Filter Age	mls	Client Info		0	21269	39916
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	MARGINAL	MARGINAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	30	24	20
Chromium	ppm	ASTM D5185m	>20	<1	<1	<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	3	2	1
Lead	ppm	ASTM D5185m	>40	<1	2	0
Copper	ppm	ASTM D5185m	>330	4	4	4
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

Light fuel dilution occurring.

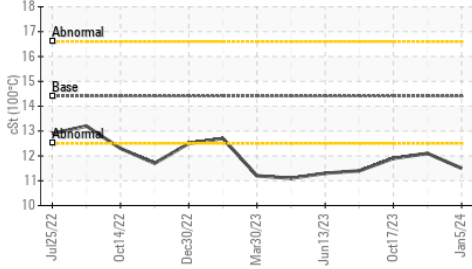
Silicon	ppm	ASTM D5185m	>25	7	8	7
Potassium	ppm	ASTM D5185m	>20	1	1	2
Fuel	%	ASTM D3524	>5	▲ 3.7	▲ 4.3	▲ 4.4
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	7.9	8.4	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.4	20.5	20.0
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

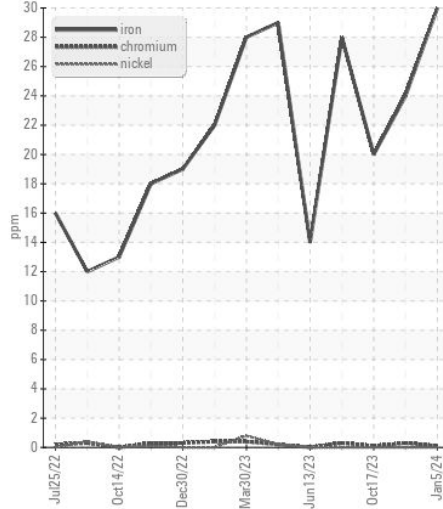
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	2	2
Boron	ppm	ASTM D5185m		113	1	2
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		89	60	58
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		734	934	920
Calcium	ppm	ASTM D5185m		1306	1057	1099
Phosphorus	ppm	ASTM D5185m		1070	921	978
Zinc	ppm	ASTM D5185m		1267	1223	1199
Sulfur	ppm	ASTM D5185m		3204	3083	3094
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.4	16.9	15.7
Base Number (BN)	mg KOH/g	ASTM D2896		6.9	8.4	8.3
Visc @ 100°C	cSt	ASTM D445	14.4	▲ 11.5	12.1	11.9

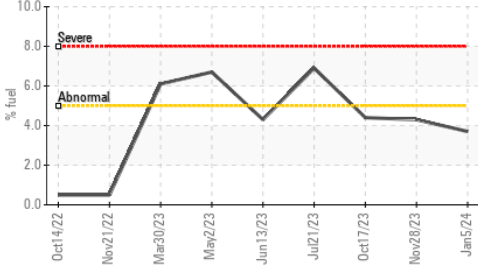
▲ Viscosity @ 100°C



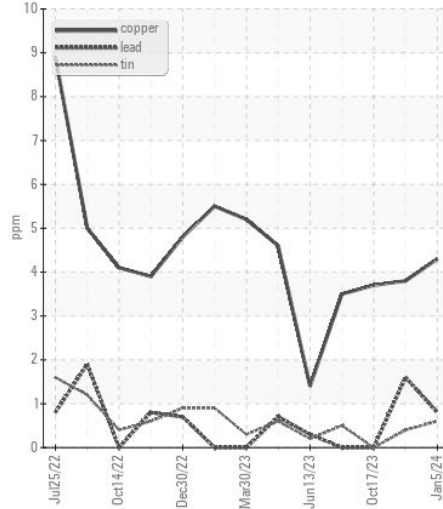
Ferrous Alloys



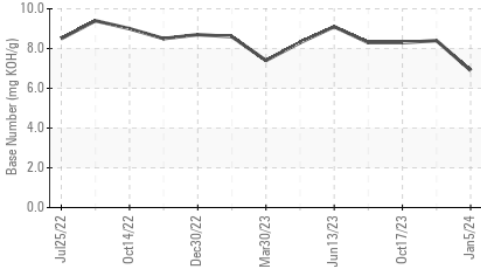
▲ Fuel Dilution



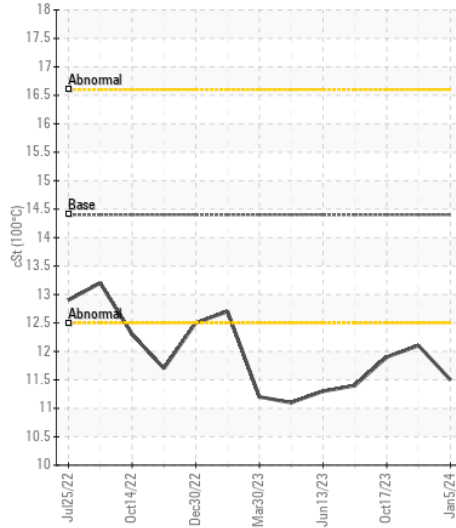
Non-ferrous Metals



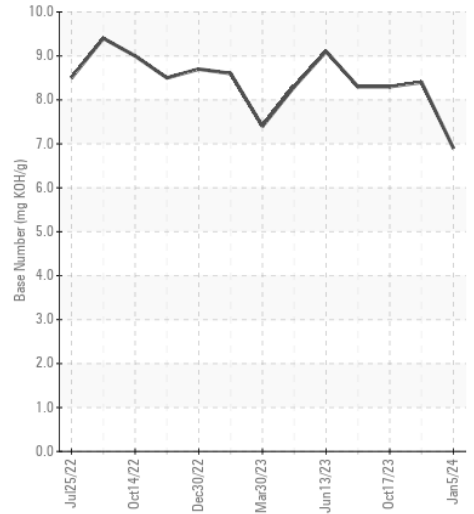
Base Number



▲ Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : WC0815964

Lab Number : 06103518

Unique Number : 10901748

Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

Received : 28 Feb 2024

Tested : 04 Mar 2024

Diagnosed : 04 Mar 2024 - Wes Davis

SALEM NATIONALEASE CORPORATION

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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)