



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
1333
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

No corrective action is recommended at this time. 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		WC0905788	WC0772963	WC0743006
Sample Date		Client Info		18 Mar 2024	27 Jan 2023	23 Sep 2022
Machine Age	mls	Client Info		190288	173037	169186
Oil Age	mls	Client Info		0	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	SEVERE	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	11	38	18
Chromium	ppm	ASTM D5185m	>20	0	1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	7	3
Lead	ppm	ASTM D5185m	>40	0	1	<1
Copper	ppm	ASTM D5185m	>330	0	57	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

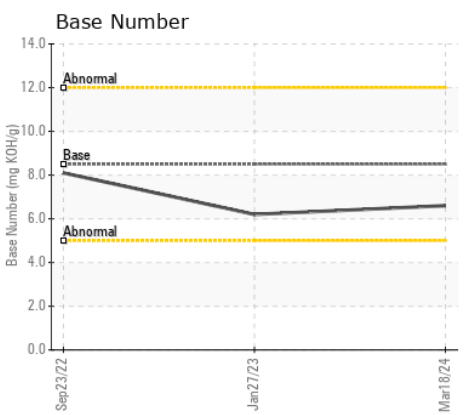
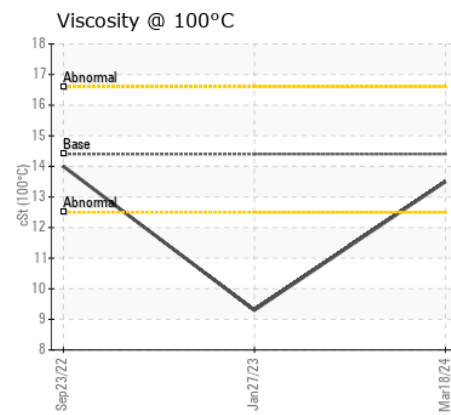
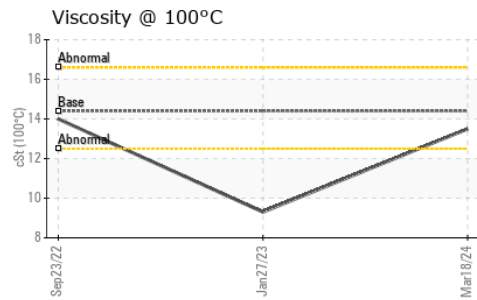
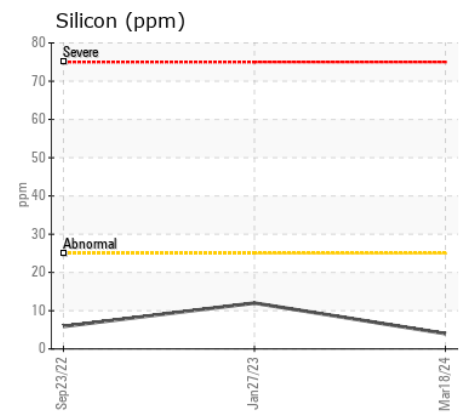
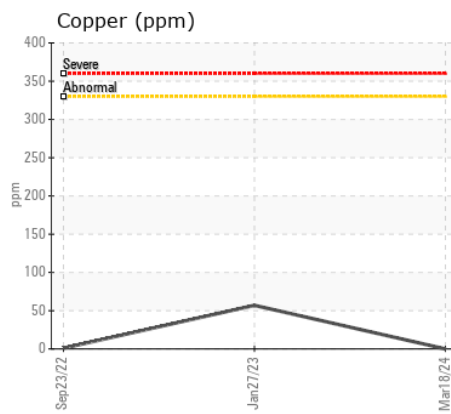
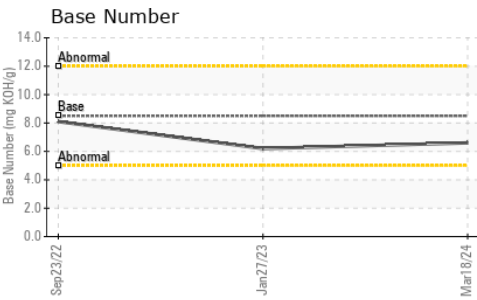
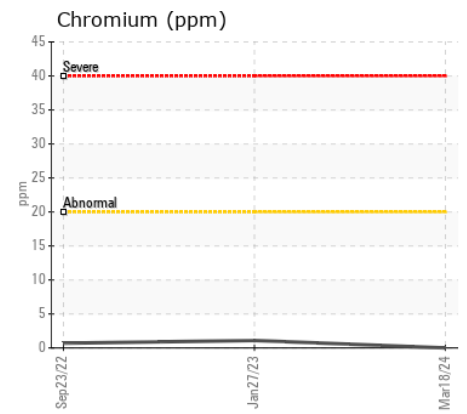
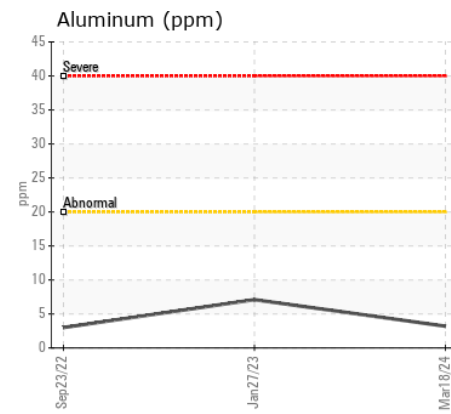
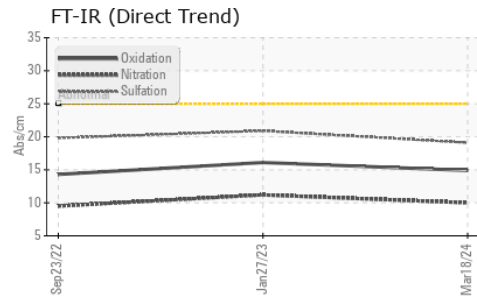
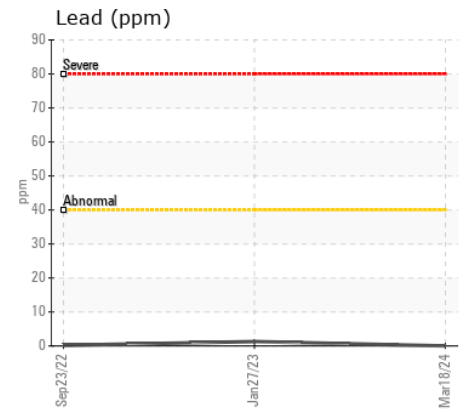
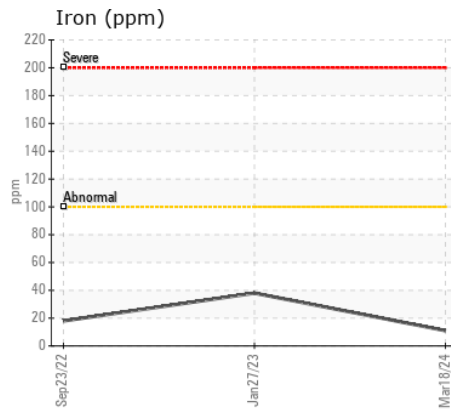
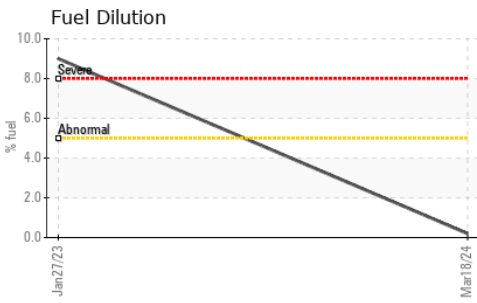
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	12	6
Potassium	ppm	ASTM D5185m	>20	0	16	2
Fuel	%	ASTM D3524	>5	0.2	▲ 9.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.5	0.3
Nitration	Abs/cm	*ASTM D7624	>20	10.0	11.2	9.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.1	20.9	19.8
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	2	23	2
Boron	ppm	ASTM D5185m	250	37	29	18
Barium	ppm	ASTM D5185m	10	0	0	2
Molybdenum	ppm	ASTM D5185m	100	83	66	56
Manganese	ppm	ASTM D5185m		0	2	<1
Magnesium	ppm	ASTM D5185m	450	108	181	117
Calcium	ppm	ASTM D5185m	3000	2052	1641	2135
Phosphorus	ppm	ASTM D5185m	1150	1004	767	958
Zinc	ppm	ASTM D5185m	1350	1185	925	1161
Sulfur	ppm	ASTM D5185m	4250	3936	3297	4023
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.9	16.1	14.3
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.6	6.2	8.1
Visc @ 100°C	cSt	ASTM D445	14.4	13.5	▲ 9.3	14.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0905788
Lab Number : 06195165
Unique Number : 11057288
Test Package : MOB 1 (Additional Tests: PercentFuel, TBN)

Received : 30 May 2024
Tested : 04 Jun 2024
Diagnosed : 04 Jun 2024 - Wes Davis

WAKE COUNTY PUBLIC SCHOOL SYSTEM
 1551 ROCK QUARRY ROAD
 RALEIGH, NC
 US 27610

Contact: DEVIN WEBER
 dweber@wcpss.net
 T: (919)856-8076

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)

F: x: