



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
376
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (16 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0870858	WC0821247	WC0793014
Sample Date		Client Info		06 Feb 2024	02 Jun 2023	22 Feb 2023
Machine Age	mls	Client Info		288937	279200	274216
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	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	10	35	12
Chromium	ppm	ASTM D5185m	>20	<1	2	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	6	9	4
Lead	ppm	ASTM D5185m	>40	0	1	<1
Copper	ppm	ASTM D5185m	>330	<1	5	4
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

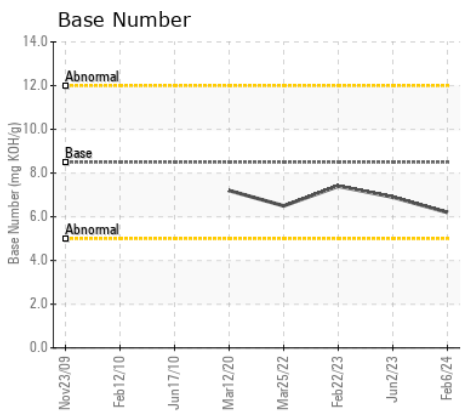
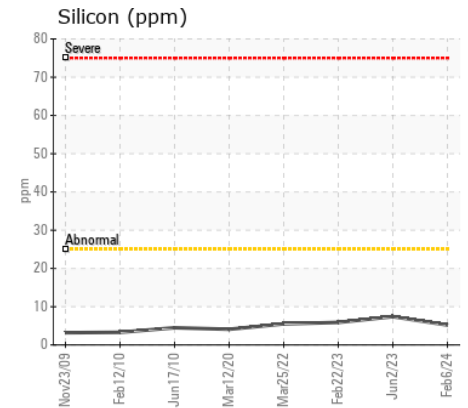
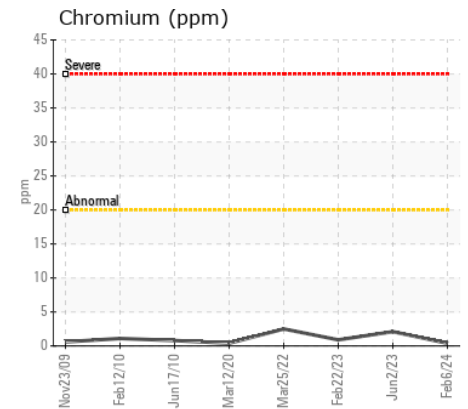
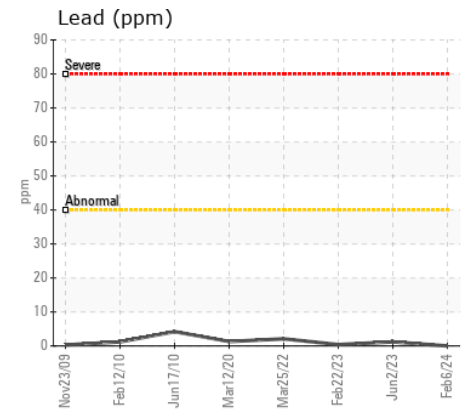
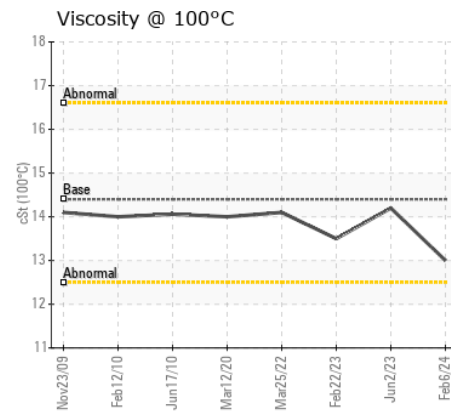
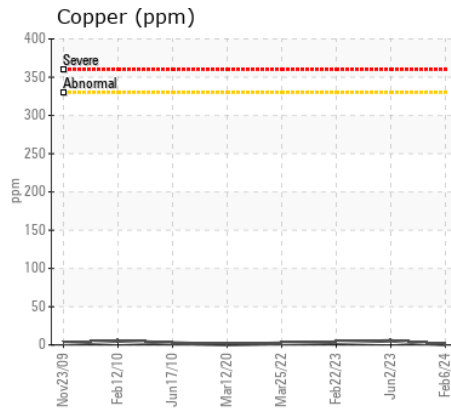
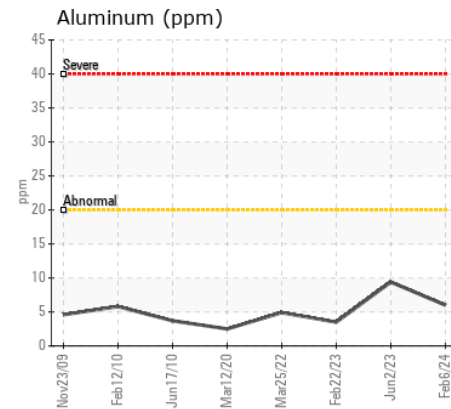
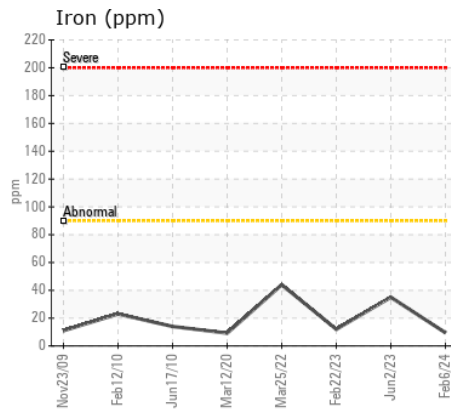
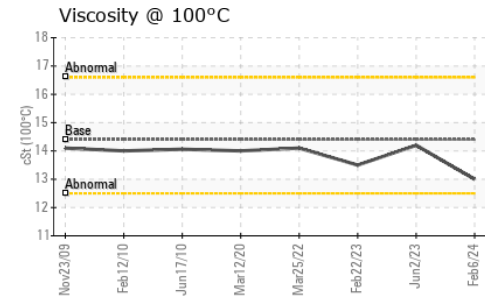
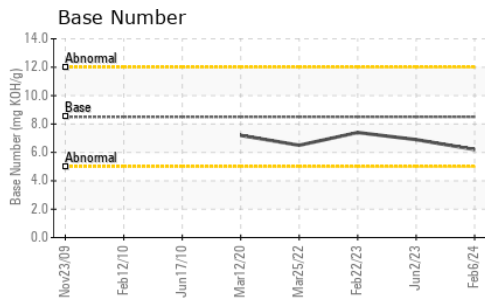
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	7	6
Potassium	ppm	ASTM D5185m	>20	5	4	2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.4	1.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	9.6	12.5	8.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.7	23.8	18.0
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	>158	2	2	3
Boron	ppm	ASTM D5185m	250	44	25	38
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	89	89	76
Manganese	ppm	ASTM D5185m		0	<1	1
Magnesium	ppm	ASTM D5185m	450	116	90	71
Calcium	ppm	ASTM D5185m	3000	2078	2412	1958
Phosphorus	ppm	ASTM D5185m	1150	1059	1087	904
Zinc	ppm	ASTM D5185m	1350	1279	1346	1137
Sulfur	ppm	ASTM D5185m	4250	4043	4629	3621
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.5	17.9	13.7
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.2	6.9	7.4
Visc @ 100°C	cSt	ASTM D445	14.4	13.0	14.2	13.5



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0870858
Lab Number : 06104829
Unique Number : 10903059
Test Package : MOB 1 (Additional Tests: TBN)

Received : 29 Feb 2024
Tested : 01 Mar 2024
Diagnosed : 01 Mar 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)

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