



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	ATTENTION

Machine Id
1701
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

Check for low coolant level. We advise that you check for the source of the coolant leak. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0905829	WC0870789	WC0821392
Sample Date		Client Info		22 Mar 2024	11 Jan 2024	30 Jun 2023
Machine Age	mls	Client Info		84122	79274	69518
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				ATTENTION	NORMAL	MARGINAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	48	13	28
Chromium	ppm	ASTM D5185m	>20	2	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	7	7	12
Lead	ppm	ASTM D5185m	>40	1	0	0
Copper	ppm	ASTM D5185m	>330	5	1	2
Tin	ppm	ASTM D5185m	>15	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

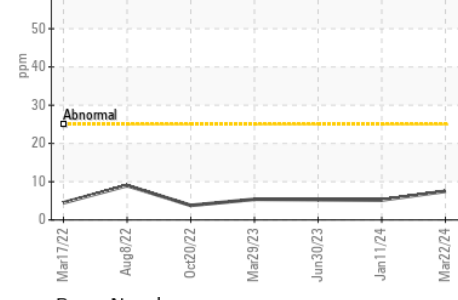
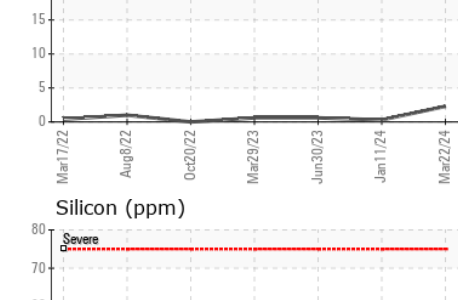
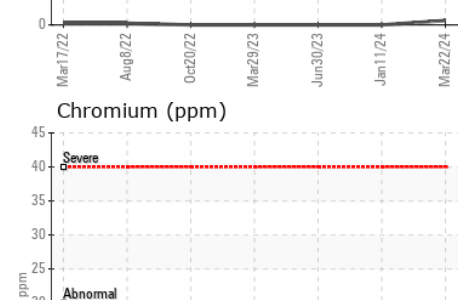
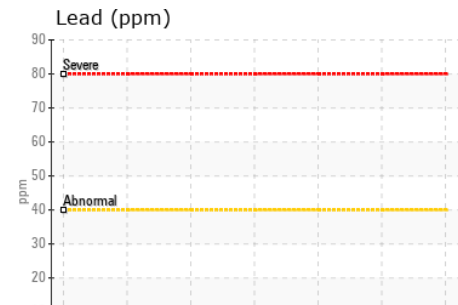
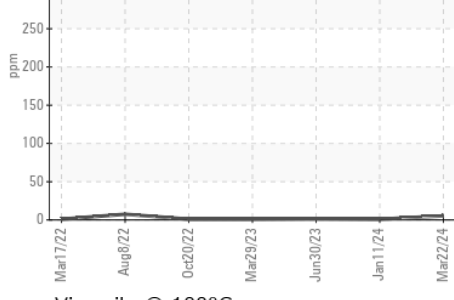
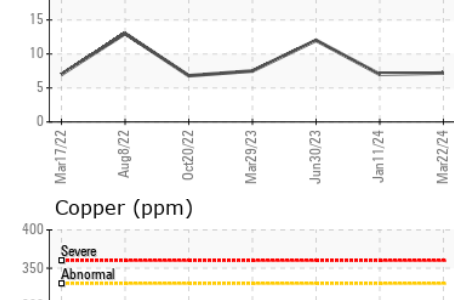
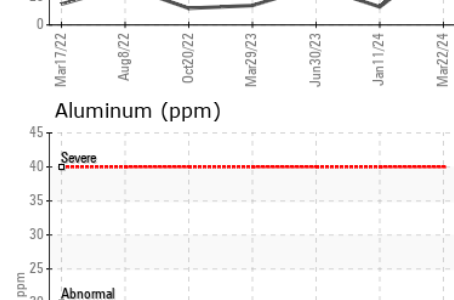
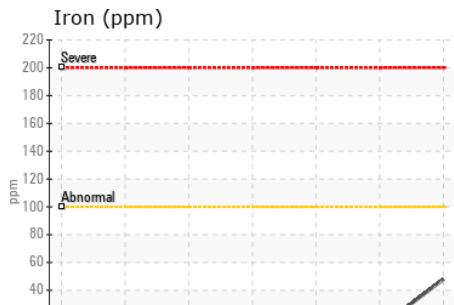
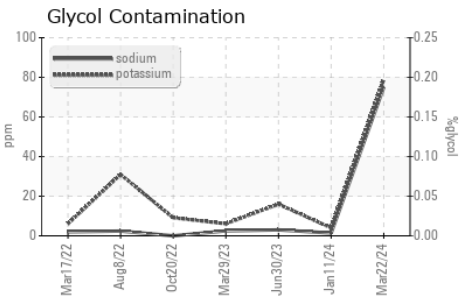
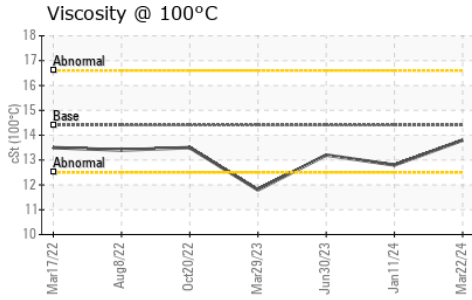
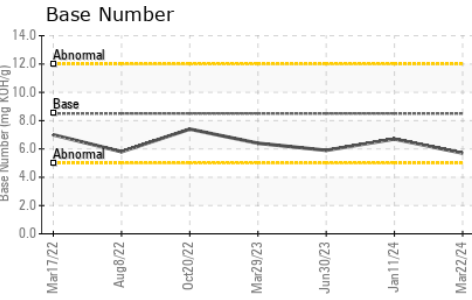
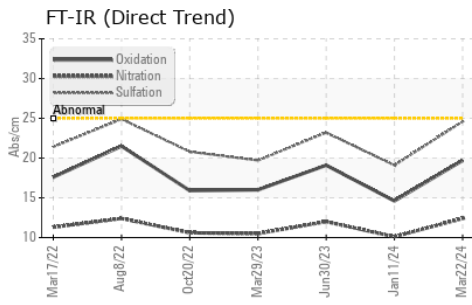
Sodium and/or potassium levels are high.

Silicon	ppm	ASTM D5185m	>25	8	5	5
Potassium	ppm	ASTM D5185m	>20	79	4	16
Fuel		WC Method	>5	<1.0	<1.0	▲ 2.9
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.5	0.6	0.8
Nitration	Abs/cm	*ASTM D7624	>20	12.4	10.1	12.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.6	19.1	23.2
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.

Sodium	ppm	ASTM D5185m	>158	75	1	3
Boron	ppm	ASTM D5185m	250	30	38	24
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	94	83	87
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	119	102	66
Calcium	ppm	ASTM D5185m	3000	2040	2006	2233
Phosphorus	ppm	ASTM D5185m	1150	953	1012	938
Zinc	ppm	ASTM D5185m	1350	1177	1186	1148
Sulfur	ppm	ASTM D5185m	4250	3707	3587	4154
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.7	14.6	19.1
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.7	6.7	5.9
Visc @ 100°C	cSt	ASTM D445	14.4	13.8	12.8	13.2



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0905829 **Received** : 23 May 2024
Lab Number : **06188981** **Tested** : 28 May 2024
Unique Number : 11045733 **Diagnosed** : 28 May 2024 - Sean Felton
Test Package : MOB 1 (Additional Tests: Glycol, TBN)
 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)

WAKE COUNTY PUBLIC SCHOOL SYSTEM
 1551 ROCK QUARRY ROAD
 RALEIGH, NC
 US 27610
 Contact: DEVIN WEBER
 dweber@wcpss.net
 T: (919)856-8076
 F: x: