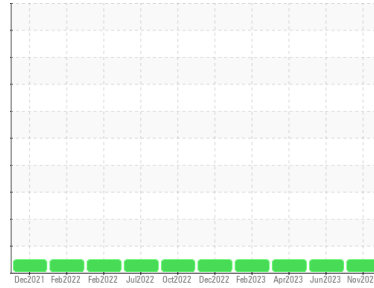




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
On-Road Units
 Machine Id
FREEDOM ONE

Component
Diesel Engine
 Fluid
MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: Added 4 gallons top off.)

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0788152	WC0788151	WC0788150
Sample Date	Client Info			15 Nov 2023	02 Jun 2023	14 Apr 2023
Machine Age	mls	Client Info		753000	702000	683200
Oil Age	mls	Client Info		19000	18800	20300
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>165	20	17	23
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	1	1	0
Lead	ppm	ASTM D5185m	>150	9	6	5
Copper	ppm	ASTM D5185m	>90	<1	<1	<1
Tin	ppm	ASTM D5185m	>5	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	53	46	43
Barium	ppm	ASTM D5185m	0	<1	0	0
Molybdenum	ppm	ASTM D5185m	0	59	50	49
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	0	644	626	569
Calcium	ppm	ASTM D5185m		1918	2151	1975
Phosphorus	ppm	ASTM D5185m		860	889	875
Zinc	ppm	ASTM D5185m		1101	1141	1071
Sulfur	ppm	ASTM D5185m		3013	3398	2865

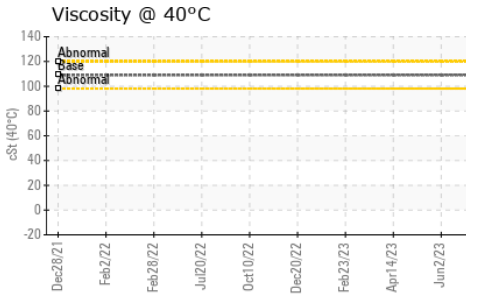
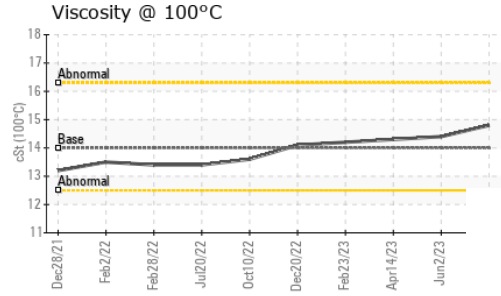
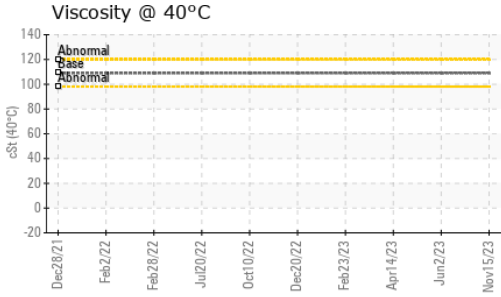
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>35	10	6	10
Sodium	ppm	ASTM D5185m		1	4	1
Potassium	ppm	ASTM D5185m	>20	3	2	2

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>7.5	0.5	0.5	0.6
Nitration	Abs/cm	*ASTM D7624	>20	13.3	13.0	11.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	31.3	27.9	24.4

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	35.0	28.4	25.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.4	8.1	9.2	8.5



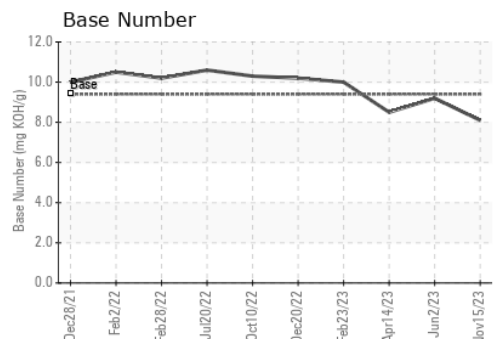
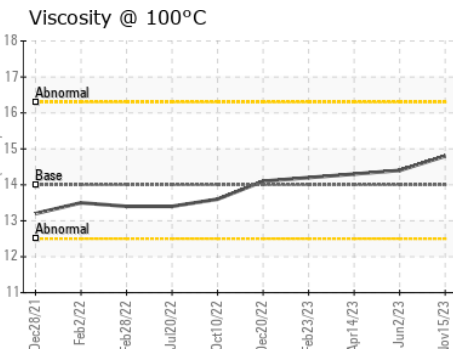
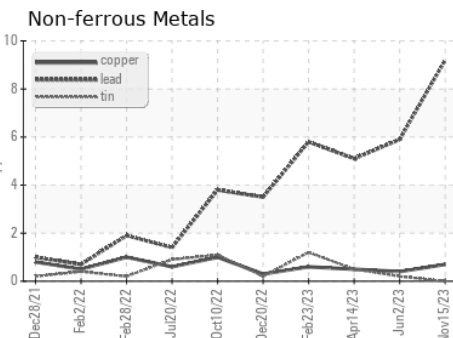
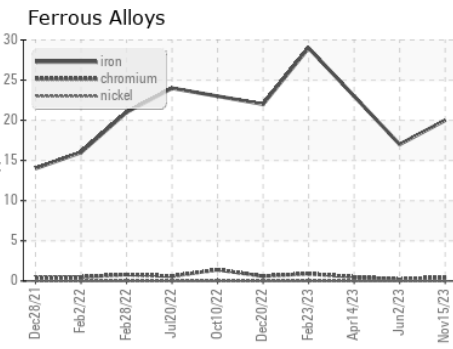
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445 14	14.8	14.4	14.3

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0788152 **Received** : 17 Nov 2023
Lab Number : 06011237 **Diagnosed** : 21 Nov 2023
Unique Number : 10750381 **Diagnostician** : Sean Felton
Test Package : FLEET (Additional Tests: KV40)

JRC3 TRUCKING LLC
 142 WINCHESTER RD
 ADVANCE, NC
 US 27006
 Contact: JAMES CHESSON
 jrc3trucking@gmail.com
 T: (424)250-6668
 F:

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)