



WEAR CHECK

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
INTERNATIONAL 7150

Component
Diesel Engine

Fluid
SHELL ROTELLA T 15W40 (18 QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0691322	WC0691405	WC0691420
Sample Date		Client Info		26 Apr 2023	09 Jan 2023	09 Nov 2022
Machine Age	mls	Client Info		434932	412549	401036
Oil Age	mls	Client Info		0	11512	13840
Filter Age	mls	Client Info		0	11512	13840
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	ABNORMAL

WEAR

The aluminum level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>130	84	37	32
Chromium	ppm	ASTM D5185m	>10	4	2	1
Nickel	ppm	ASTM D5185m	>4	1	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	▲ 25	17	▲ 23
Lead	ppm	ASTM D5185m	>20	0	0	0
Copper	ppm	ASTM D5185m	>125	30	90	1
Tin	ppm	ASTM D5185m	>4	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

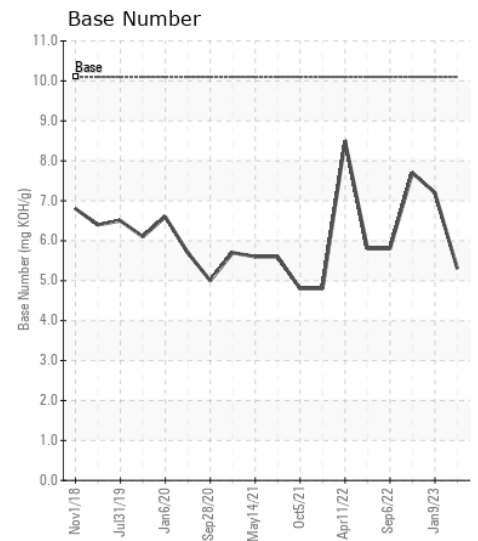
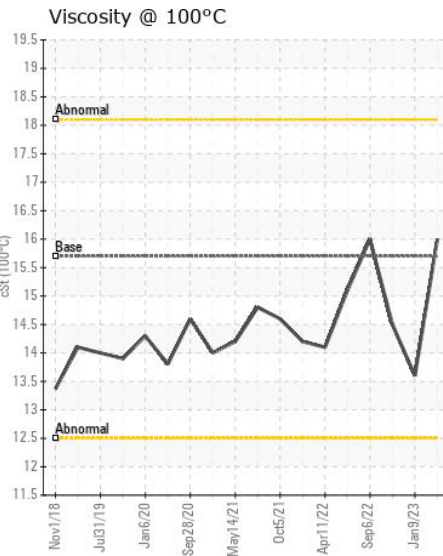
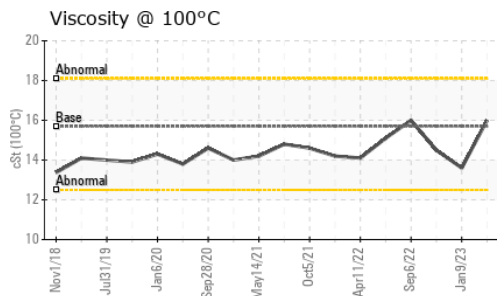
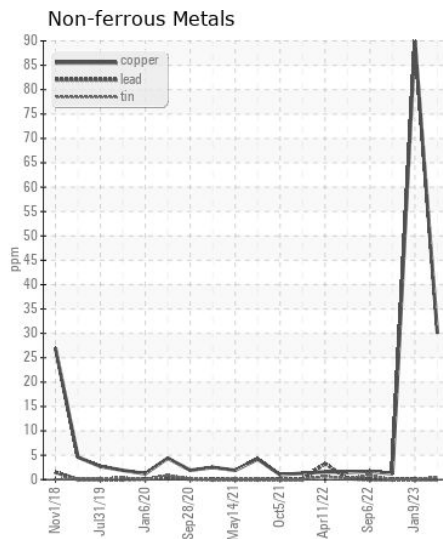
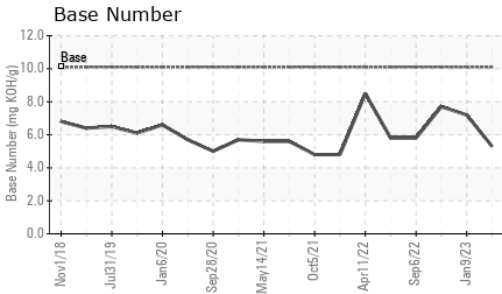
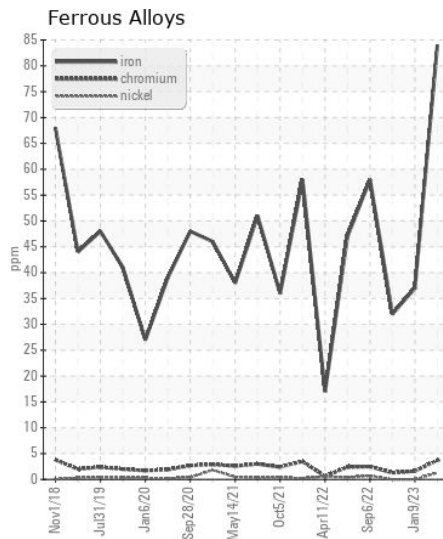
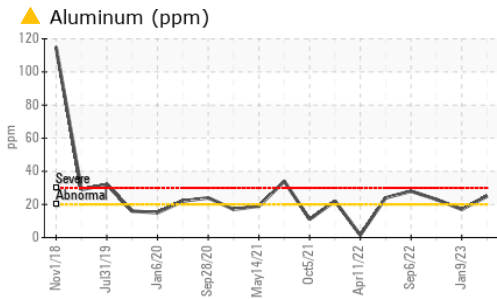
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	8	7	6
Potassium	ppm	ASTM D5185m	>20	4	3	4
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	2.5	1.6	1.3
Nitration	Abs/cm	*ASTM D7624	>20	16.7	12.5	13.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	33.2	25.6	28.8
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		4	0	0
Boron	ppm	ASTM D5185m	316	35	51	38
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	1.2	84	62	67
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m	24	526	340	368
Calcium	ppm	ASTM D5185m	2292	2357	1860	2107
Phosphorus	ppm	ASTM D5185m	1064	1255	971	1078
Zinc	ppm	ASTM D5185m	1160	1620	1174	1315
Sulfur	ppm	ASTM D5185m	4996	3580	2894	4010
Oxidation	Abs/.1mm	*ASTM D7414	>25	32.9	22.3	25.8
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	5.3	7.2	7.7
Visc @ 100°C	cSt	ASTM D445	15.7	16.0	13.6	14.5



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0691322 **Received** : 08 May 2023
Lab Number : 05840420 **Diagnosed** : 10 May 2023
Unique Number : 10459223 **Diagnostician** : Jonathan Hester
Test Package : FLEET

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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)