



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
MACK 18-SIMP-01-001-M

Component
Front Diesel Engine

Fluid
SHELL ROTELLA T4 15W40 (36 LTR)

PRODUIT : ZP-700 ADDITIF MOTEUR - Cas d'étude #13-a / 4de4



RECOMMENDATION

Texte & Soulignement en bleu par Adrenalube

Confirm the source of the lubricant being utilized for top-up/fill.
Resample at the next service interval to monitor. (Customer Sample
Comment: Use engine oil additive ADRENALUBE ZP-700. Match
history: 0479985 & 0416890)

Commentaires :

History1

L'huile a atteint une durée de vie utile et sécuritaire de près de 1000 h.

WEAR

All component wear rates are normal.

CONTAMINATION

There is no indication of any contamination in the oil.

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil.
The condition of the oil is acceptable for the time in service.

Commentaires :

Current :

Contamination externe acceptable.

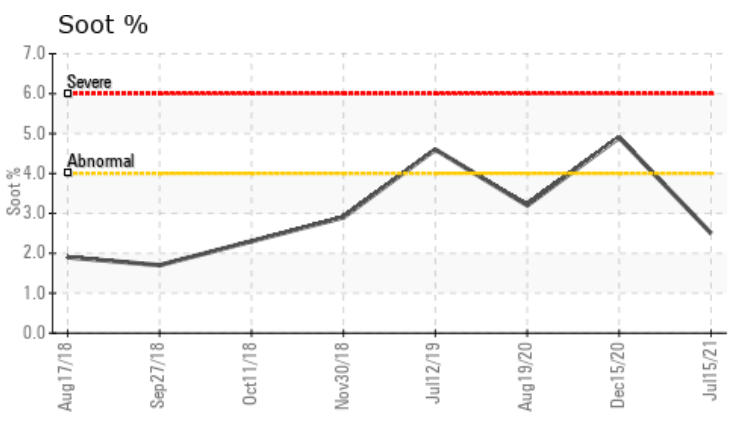
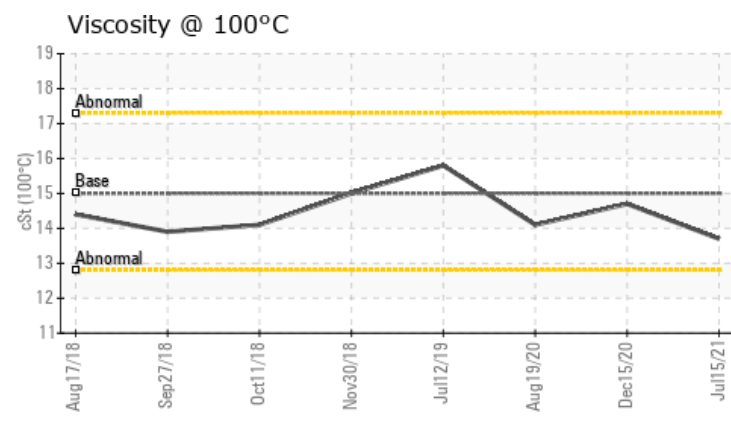
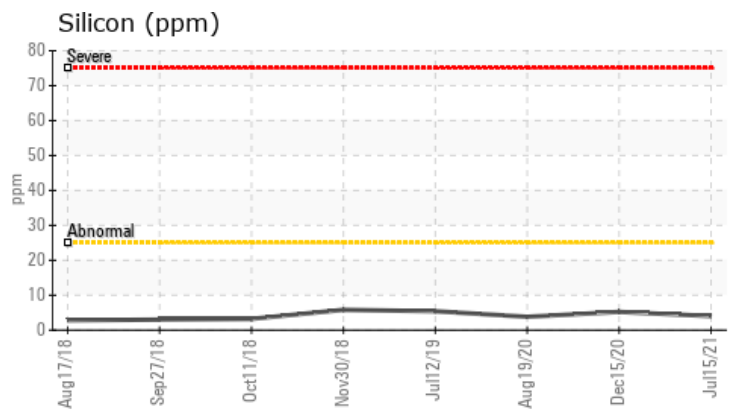
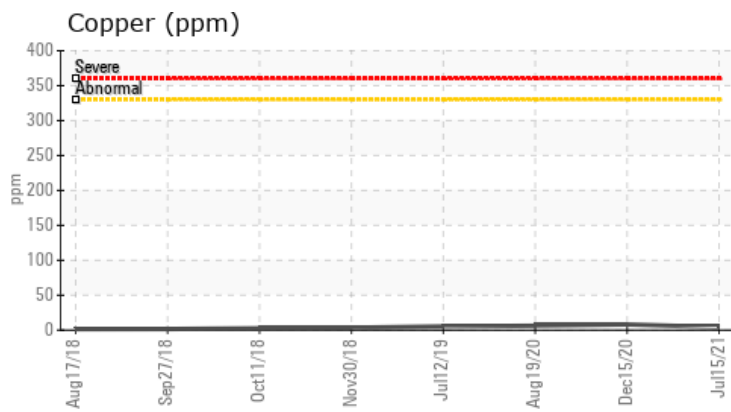
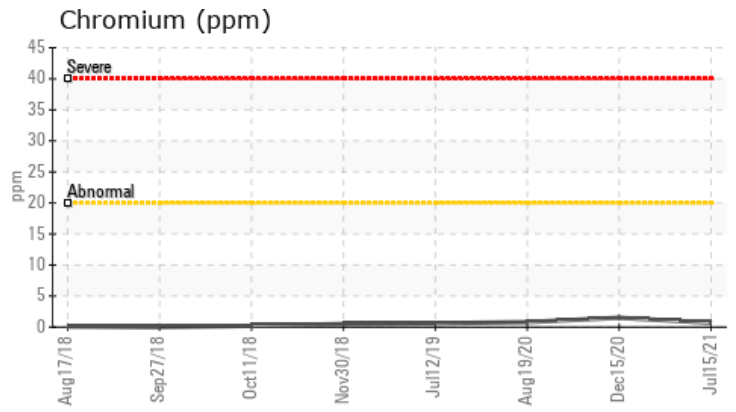
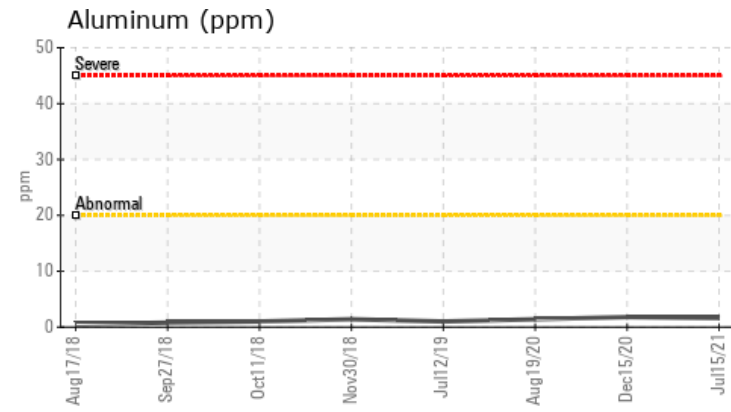
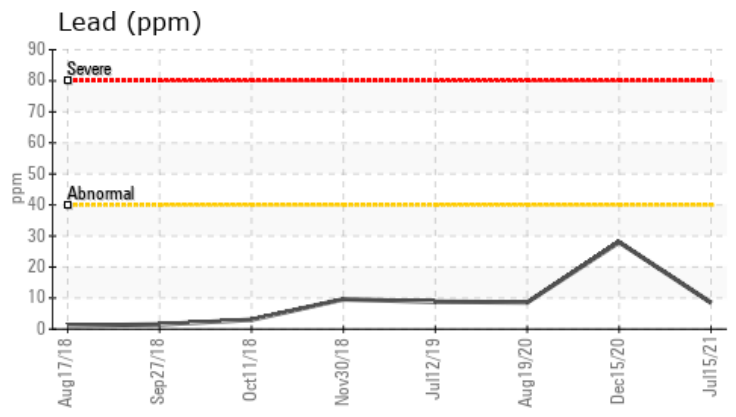
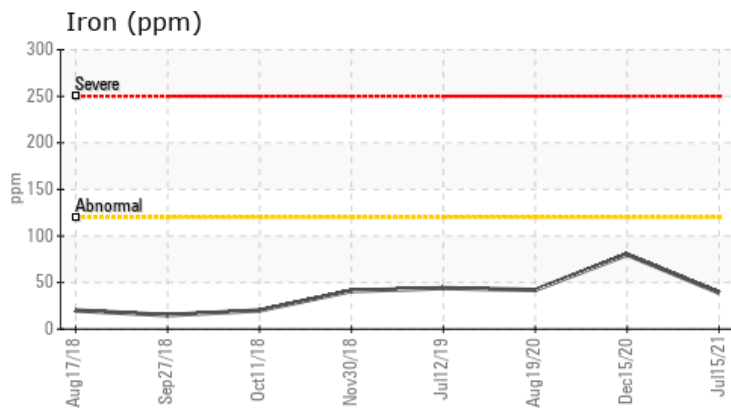
Taux d'usure acceptable.

Concentration des métaux d'usure acceptables.

État de l'huile acceptable.

Échantillonner de nouveau dans 700h.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number				WC0479995	WC0479993	WC0479985
Sample Date				15 Jul 2021	15 Dec 2020	19 Aug 2020
Machine Age	hrs			7411	6901	6895
Oil Age	hrs			510	994	494
Filter Age	hrs			510	994	494
Oil Changed				Not Changed	Not Changed	Not Changed
Filter Changed				Not Changed	Not Changed	Not Changed
Sample Status				NORMAL	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>120	39	80	42
Chromium	ppm	ASTM D5185(m)	>20	<1	2	<1
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	<1
Silver	ppm	ASTM D5185(m)	>2	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	2	2	1
Lead	ppm	ASTM D5185(m)	>40	8	28	9
Copper	ppm	ASTM D5185(m)	>330	4	8	6
Tin	ppm	ASTM D5185(m)	>15	<1	2	<1
Vanadium	ppm	ASTM D5185(m)		0	<1	0
White Metal	scalar	Visual	NONE	VLITE	---	---
Yellow Metal	scalar	Visual	NONE	NONE	---	---
Silicon	ppm	ASTM D5185(m)	>25	4	5	4
Potassium	ppm	ASTM D5185(m)	>20	16	24	21
Fuel		ASTM D3524	>3.0	<1.0	2.6	<1.0
Glycol	%	ASTM D2982(m)		0.0	0.0	0.0
Soot %	%	ASTM D7686	>4	2.5	4.9	3.2
Nitration	Abs/cm	ASTM D7624	>20	11.3	14.0	11.8
Sulfation	Abs/.1mm	ASTM D7415	>30	27.2	34.9	28.1
Silt	scalar	Visual	NONE	NONE	---	---
Debris	scalar	Visual	NONE	NONE	---	---
Sand/Dirt	scalar	Visual	NONE	NONE	---	---
Appearance	scalar	Visual	NORML	NORML	---	---
Odor	scalar	Visual	NORML	NORML	---	---
Emulsified Water	scalar	Visual	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185(m)		87	137	107
Boron	ppm	ASTM D5185(m)		31	27	33
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		15	27	25
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)		12	12	11
Calcium	ppm	ASTM D5185(m)		2068	2177	2149
Phosphorus	ppm	ASTM D5185(m)		889	876	915
Zinc	ppm	ASTM D5185(m)		1076	1155	1130
Sulfur	ppm	ASTM D5185(m)		2674	2739	2748
Oxidation	Abs/.1mm	ASTM D7414	>25	21.1	23.2	20.2
Visc @ 100°C	cSt	ASTM D7279(m)	15	13.7	14.7	14.1



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0479995 **Received** : 04 Aug 2021
Lab Number : 02436619 **Diagnosed** : 04 Aug 2021
Unique Number : 5264150 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: Glycol, Visual)
 To discuss this sample report, contact Customer Service at 1-800-268-2131.
 (m) Denotes a modified test method, (e) Denotes a test conducted using an external laboratory.

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