



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
MACK MR688S 140
Component
Diesel Engine
Fluid
DURALENE Dura-Max 15W40 (52 QTS)

RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DC0035874	DC0016300	DC0027566
Sample Date		Client Info		22 May 2024	13 Feb 2024	30 Mar 2023
Machine Age	hrs	Client Info		31374	0	30321
Oil Age	hrs	Client Info		0	0	30321
Filter Age	hrs	Client Info		0	0	30321
Oil Changed		Client Info		N/A	N/A	Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				ABNORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	11	4	11
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	<1	<1
Lead	ppm	ASTM D5185m	>40	0	<1	<1
Copper	ppm	ASTM D5185m	>330	3	<1	2
Tin	ppm	ASTM D5185m	>15	0	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

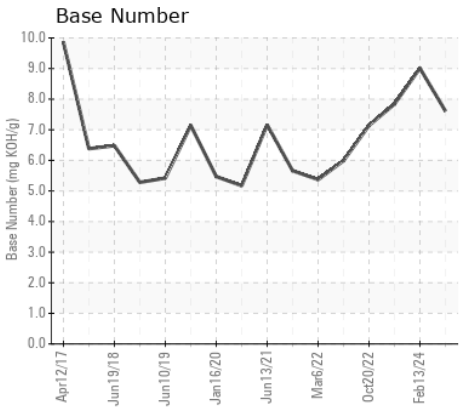
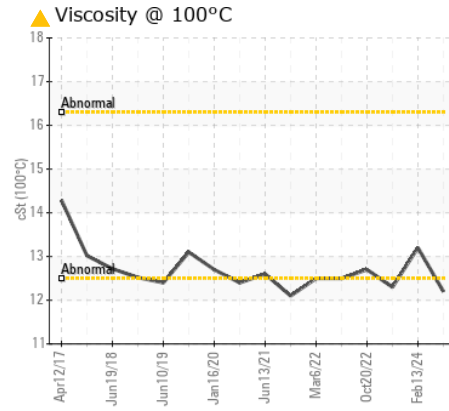
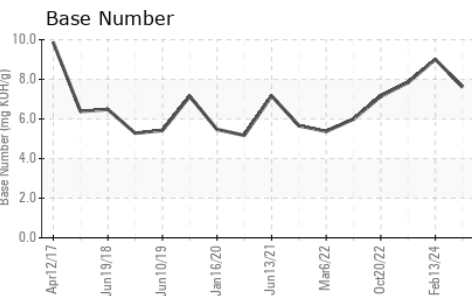
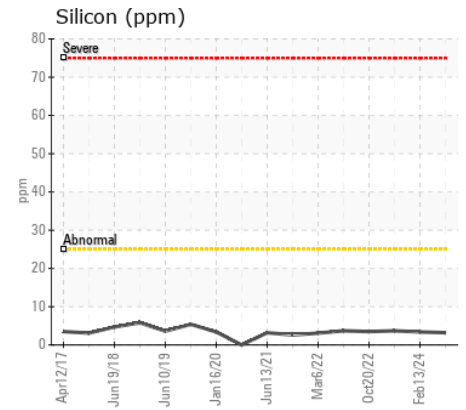
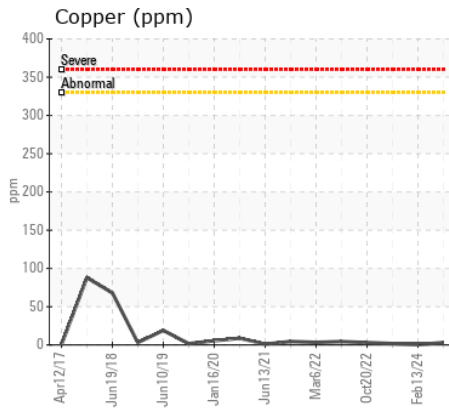
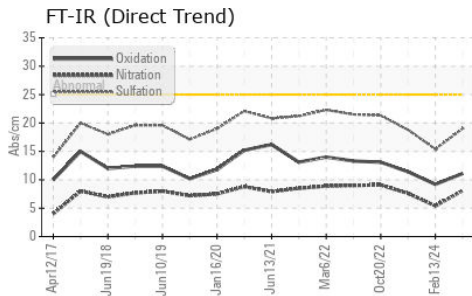
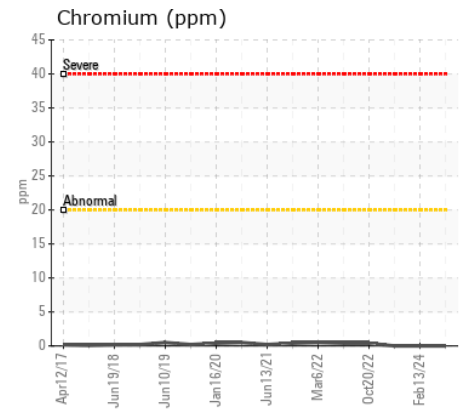
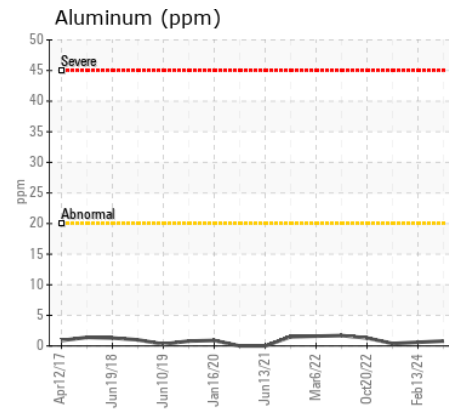
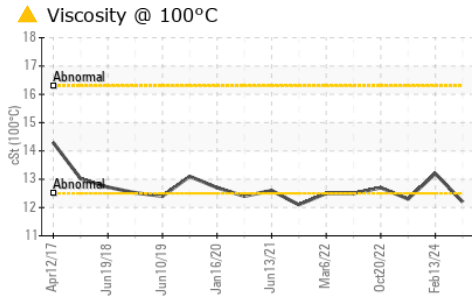
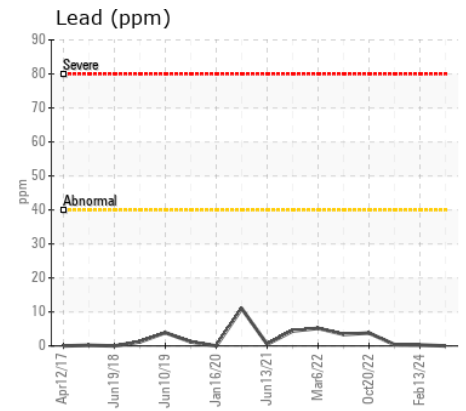
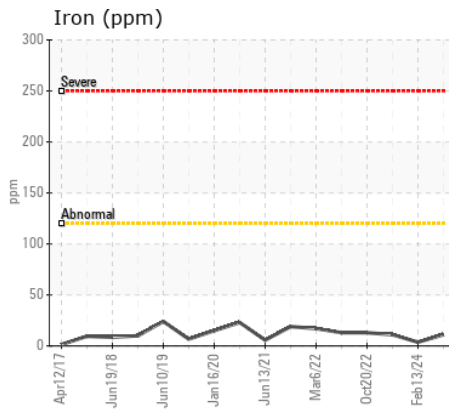
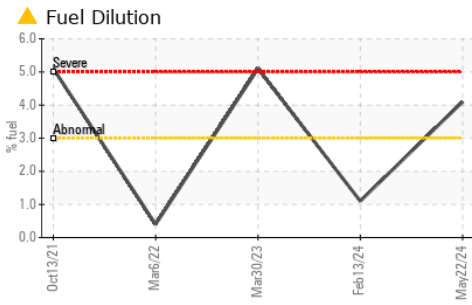
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185m	>25	3	3	4
Potassium	ppm	ASTM D5185m	>20	1	0	<1
Fuel	%	ASTM D3524	>3.0	▲ 4.1	1.1	▲ 5.1
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.3	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	8.1	5.4	7.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.0	15.4	18.8
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. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		2	0	1
Boron	ppm	ASTM D5185m		6	4	2
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		5	4	3
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		71	63	57
Calcium	ppm	ASTM D5185m		2326	2024	2309
Phosphorus	ppm	ASTM D5185m		890	804	856
Zinc	ppm	ASTM D5185m		1056	1043	1052
Sulfur	ppm	ASTM D5185m		4095	3441	3921
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.1	9.2	11.4
Base Number (BN)	mg KOH/g	ASTM D2896		7.61	9.01	7.84
Visc @ 100°C	cSt	ASTM D445		▲ 12.2	13.2	▲ 12.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DC0035874 **Received** : 16 Jul 2024
Lab Number : 06238008 **Tested** : 18 Jul 2024
Unique Number : 11126842 **Diagnosed** : 18 Jul 2024 - Wes Davis
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

BLANCHET CONCRETE PUMPING
 9585 LYNN BUFF CT
 LAUREL, MD
 US 20723
 Contact: ED BAILEY
 EBAILEY@PUMPCONCRETE.COM
 T: (301)708-1159
 F: (301)206-4470

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)