



WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL

Machine Id
INTERNATIONAL 441348

Component
Diesel Engine

Fluid
MOBIL 15W40 (20 QTS)

RECOMMENDATION

The oil is near the end of its useful service life, recommend schedule an oil change. 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		IL0030600	IL0030497	IL0030450
Sample Date		Client Info		11 Feb 2024	23 Oct 2023	28 Jul 2023
Machine Age	hrs	Client Info		2739	338661	316358
Oil Age	hrs	Client Info		0	198566	200335
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>130	29	28	19
Chromium	ppm	ASTM D5185m	>10	1	1	1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	11	6	8
Lead	ppm	ASTM D5185m	>20	<1	2	0
Copper	ppm	ASTM D5185m	>125	47	▲ 173	6
Tin	ppm	ASTM D5185m	>4	1	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

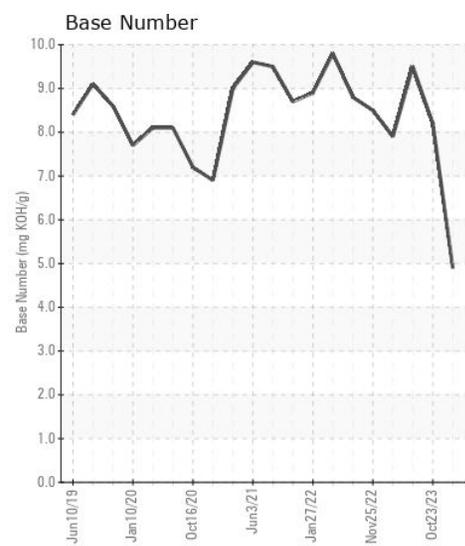
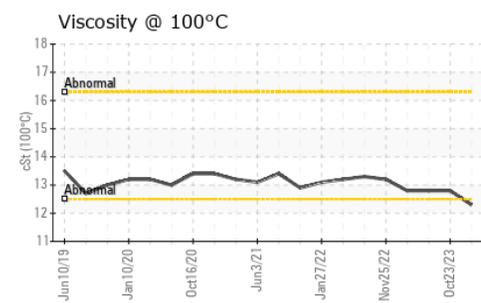
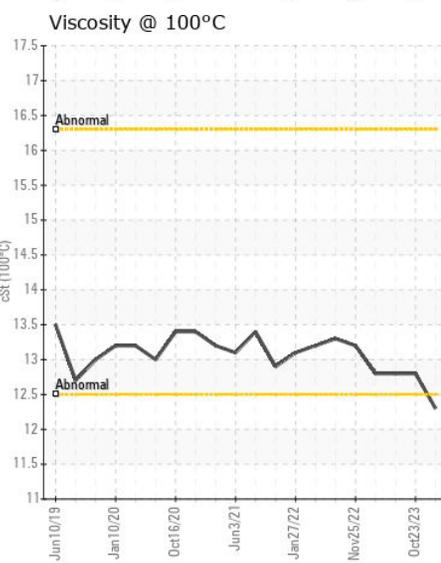
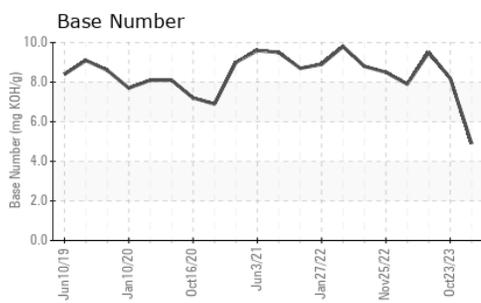
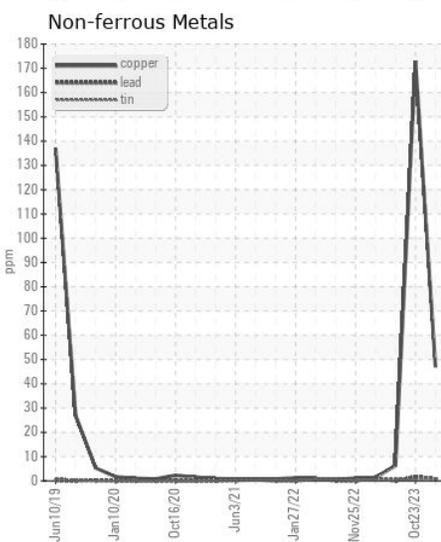
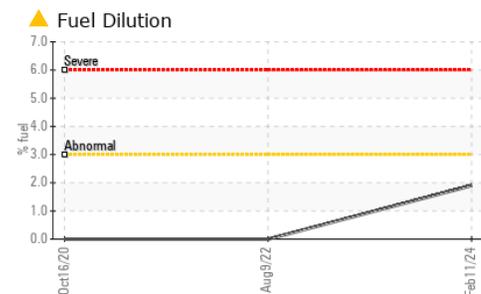
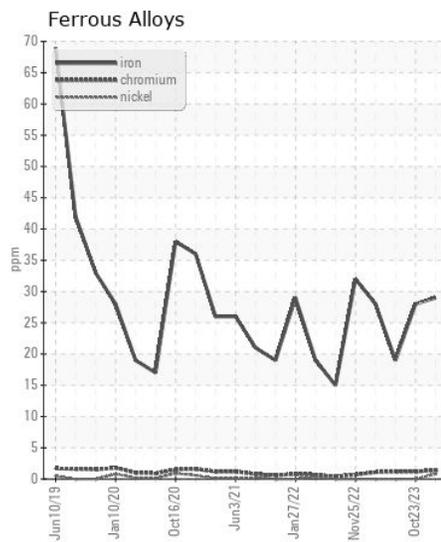
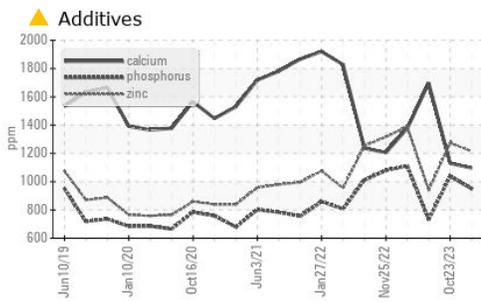
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>25	11	25	▲ 62
Potassium	ppm	ASTM D5185m	>20	5	4	3
Fuel	%	ASTM D3524	>3.0	▲ 1.9	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.8	0.6	0.3
Nitration	Abs/cm	*ASTM D7624	>20	9.3	9.6	6.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.8	20.9	21.5
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

Barium ppm levels are abnormally high. Calcium ppm levels are abnormally low. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m	>118	0	2	4
Boron	ppm	ASTM D5185m		2	5	49
Barium	ppm	ASTM D5185m		▲ 14	2	<1
Molybdenum	ppm	ASTM D5185m		70	62	41
Manganese	ppm	ASTM D5185m		1	1	3
Magnesium	ppm	ASTM D5185m		917	972	496
Calcium	ppm	ASTM D5185m		▲ 1097	1129	1697
Phosphorus	ppm	ASTM D5185m		950	1039	732
Zinc	ppm	ASTM D5185m		1215	1273	941
Sulfur	ppm	ASTM D5185m		2924	2920	2883
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.5	18.3	19.5
Base Number (BN)	mg KOH/g	ASTM D2896		4.9	8.2	9.5
Visc @ 100°C	cSt	ASTM D445		12.3	12.8	12.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IL0030600
Lab Number : 06086556
Unique Number : 10874001
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

Received : 12 Feb 2024
Tested : 14 Feb 2024
Diagnosed : 14 Feb 2024 - Wes Davis

RUSH TRUCK LEASING - CHARLOTTE IDEALEASE
 1333 AMERON DR
 CHARLOTTE, NC
 US 28206
 Contact: JERRY DIXON
 dixonj@rushenterprises.com
 T: (704)333-4507
 F: (704)333-4508

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)