LEAHY·WOLF
Lubricating specialists since 1946

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
330
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (10 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

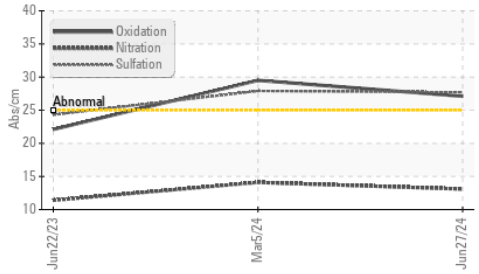
There is no indication of any contamination in the oil.

FLUID CONDITION

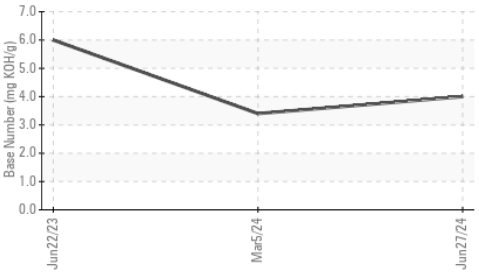
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**LW0009400**	LW0008986	LW0007106
Sample Date		Client Info		**27 Jun 2024**	05 Mar 2024	22 Jun 2023
Machine Age	mls	Client Info		**858442**	801113	677094
Oil Age	mls	Client Info		**57329**	50000	677094
Filter Age	mls	Client Info		**25000**	25000	677094
Oil Changed		Client Info		**Changed**	Changed	Changed
Filter Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**NORMAL**	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	**56**	92	54
Chromium	ppm	ASTM D5185m	>20	**1**	2	<1
Nickel	ppm	ASTM D5185m	>4	**<1**	4	6
Titanium	ppm	ASTM D5185m		**<1**	<1	0
Silver	ppm	ASTM D5185m	>3	**<1**	<1	<1
Aluminum	ppm	ASTM D5185m	>20	**10**	12	5
Lead	ppm	ASTM D5185m	>40	**<1**	2	1
Copper	ppm	ASTM D5185m	>330	**3**	6	29
Tin	ppm	ASTM D5185m	>15	**1**	2	<1
Vanadium	ppm	ASTM D5185m		**0**	<1	0
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	**9**	20	11
Potassium	ppm	ASTM D5185m	>20	**16**	17	7
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	>3	**0.8**	0.7	0.5
Nitration	Abs/cm	*ASTM D7624	>20	**13.1**	14.1	11.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	**27.7**	27.9	24.3
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
Sodium	ppm	ASTM D5185m		**21**	25	8
Boron	ppm	ASTM D5185m	2	**9**	4	8
Barium	ppm	ASTM D5185m	0	**0**	0	<1
Molybdenum	ppm	ASTM D5185m	50	**55**	67	78
Manganese	ppm	ASTM D5185m	0	**<1**	2	2
Magnesium	ppm	ASTM D5185m	950	**925**	1060	445
Calcium	ppm	ASTM D5185m	1050	**1287**	1155	1794
Phosphorus	ppm	ASTM D5185m	995	**1115**	1130	963
Zinc	ppm	ASTM D5185m	1180	**1363**	1324	1198
Sulfur	ppm	ASTM D5185m	2600	**2855**	3110	2764
Oxidation	Abs/.1mm	*ASTM D7414	>25	**27.1**	29.5	22.1
Base Number (BN)	mg KOH/g	ASTM D2896		**4.0**	3.4	6.0
Visc @ 100°C	cSt	ASTM D445	12.00	**11.9**	11.8	13.5

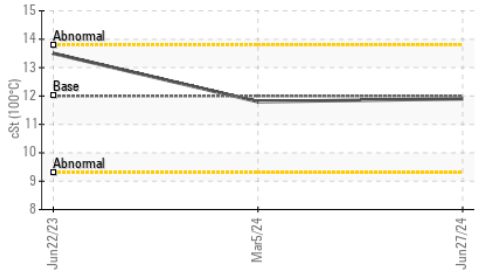
FT-IR (Direct Trend)



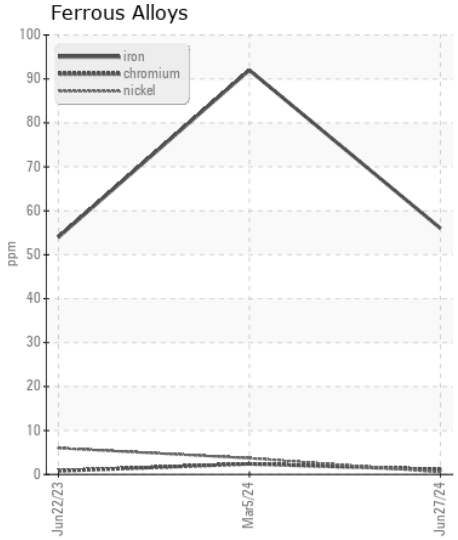
Base Number



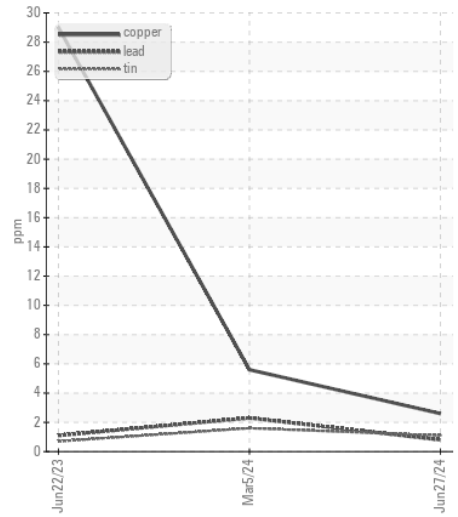
Viscosity @ 100°C



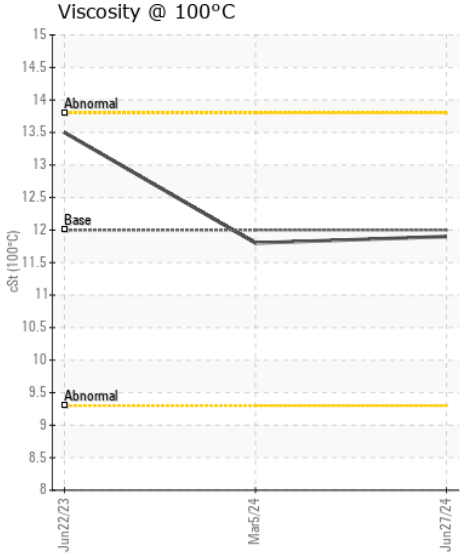
Ferrous Alloys



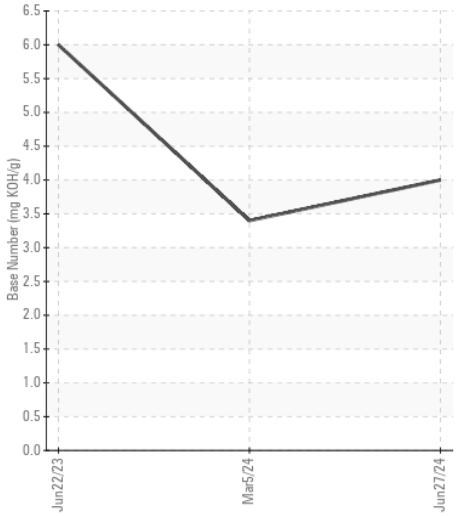
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LW0009400
Lab Number : 06225593
Unique Number : 11103790
Test Package : FLEET

Received : 01 Jul 2024
Tested : 03 Jul 2024
Diagnosed : 03 Jul 2024 - Don Baldridge

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)

LIV TRANSPORTATION, INC
9809 INDUSTRIAL DRIVE
BRIDGEVIEW, IL
US 60455
Contact: BART KORLAGA
BART@LIVTRANSPORTATION.COM
T: (224)875-1049
F: