



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
Store 9 - Marietta
Machine Id
516
Component
Diesel Engine
Fluid
LYDEN 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0034731	LEC0028920	LEC0024477
Sample Date		Client Info		27 Apr 2023	24 May 2022	01 Oct 2021
Machine Age	hrs	Client Info		2463	2188	1922
Oil Age	hrs	Client Info		275	266	201
Filter Age	hrs	Client Info		275	266	201
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	20	16	14
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	<1
Titanium	ppm	ASTM D5185m		49	79	77
Silver	ppm	ASTM D5185m	>3	<1	1	<1
Aluminum	ppm	ASTM D5185m	>20	1	2	6
Lead	ppm	ASTM D5185m	>40	2	<1	<1
Copper	ppm	ASTM D5185m	>330	<1	<1	1
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		<1	<1	1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

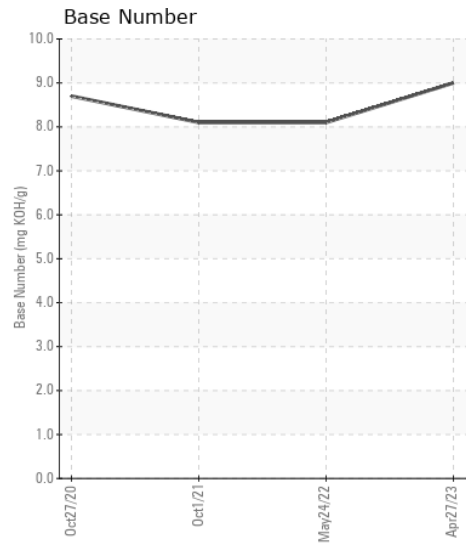
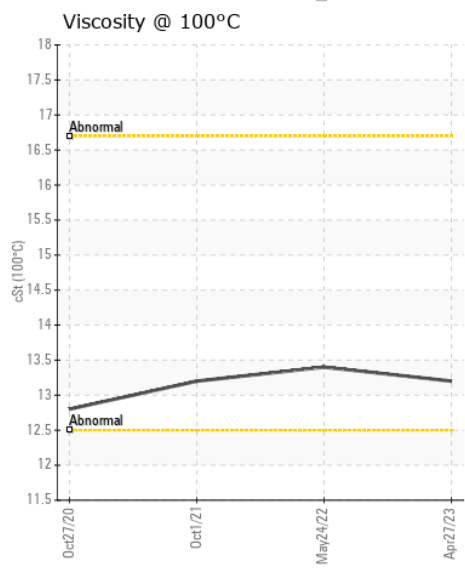
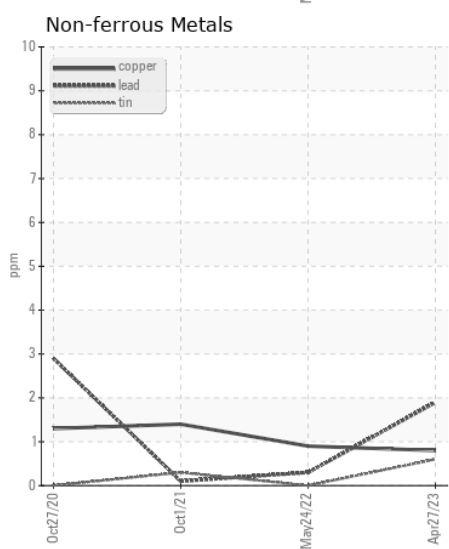
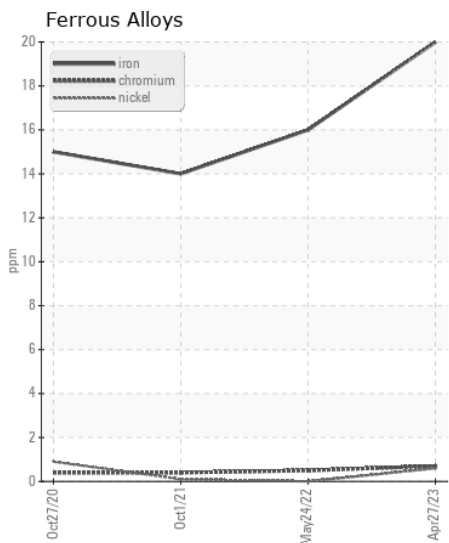
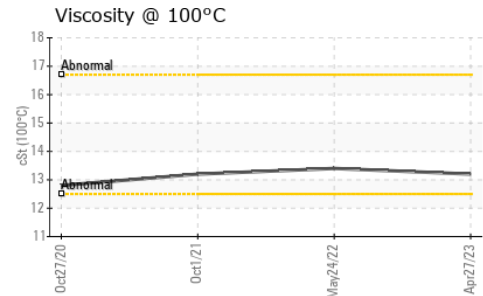
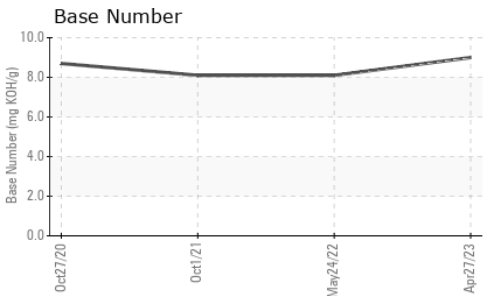
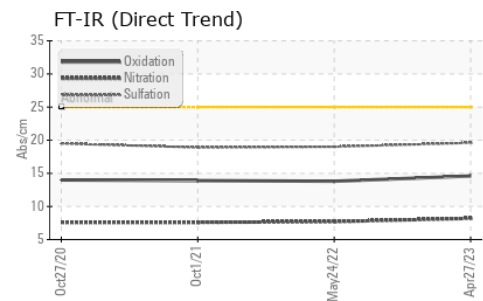
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>120	4	3	2
Potassium	ppm	ASTM D5185m	>20	3	3	6
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	0.5	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	8.2	7.7	7.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.6	19.0	18.9
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		2	2	3
Boron	ppm	ASTM D5185m		67	135	130
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		29	6	12
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		634	414	405
Calcium	ppm	ASTM D5185m		1522	1734	1661
Phosphorus	ppm	ASTM D5185m		1060	979	978
Zinc	ppm	ASTM D5185m		1282	1153	1088
Sulfur	ppm	ASTM D5185m		4518	3816	3246
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.6	13.8	13.9
Base Number (BN)	mg KOH/g	ASTM D2896		9.0	8.1	8.1
Visc @ 100°C	cSt	ASTM D445		13.2	13.4	13.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0034731 **Received** : 31 May 2023
Lab Number : 05860575 **Tested** : 31 May 2023
Unique Number : 10495040 **Diagnosed** : 01 Jun 2023 - Sean Felton
Test Package : CONST (Additional Tests: TBN)

LAROCHE TREE SERVICE
 7 COMMERCE PKWY
 BELLAIRE, OH
 US 43906
 Contact: GLEN VARGO
 glen.vargo@larochetree.com
 T:
 F:

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)