



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Area
Store 9 - Marietta
Machine Id
522
Component
Diesel Engine
Fluid
LYDEN 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0049537	LEC0034723	LEC0035151
Sample Date		Client Info		10 Apr 2024	13 Apr 2023	10 Nov 2022
Machine Age	hrs	Client Info		1949	1670	1434
Oil Age	hrs	Client Info		279	236	228
Filter Age	hrs	Client Info		279	236	228
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	28	24	25
Chromium	ppm	ASTM D5185m	>20	<1	1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		65	61	73
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	0	2
Lead	ppm	ASTM D5185m	>40	10	<1	1
Copper	ppm	ASTM D5185m	>330	6	3	<1
Tin	ppm	ASTM D5185m	>15	1	<1	<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

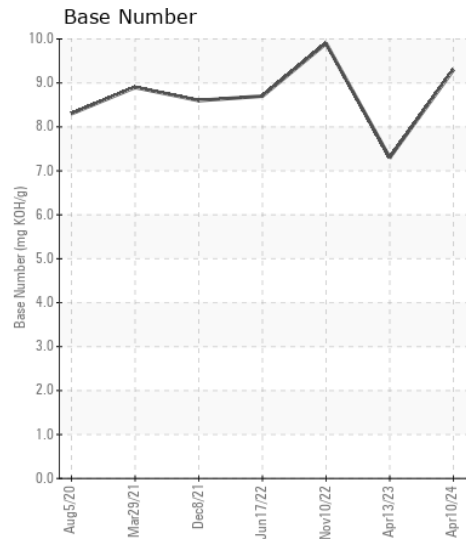
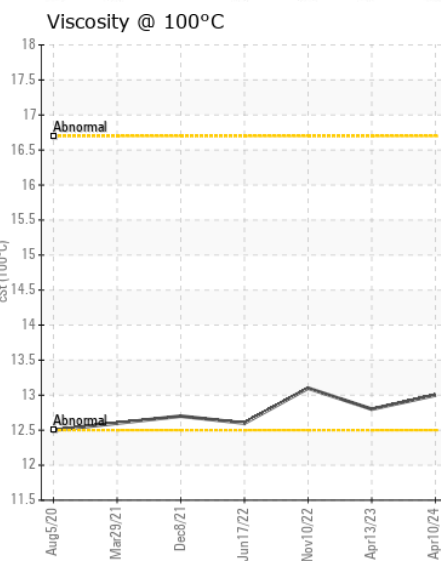
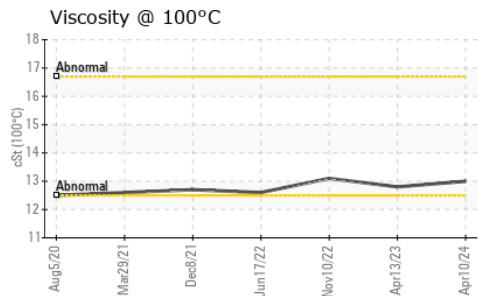
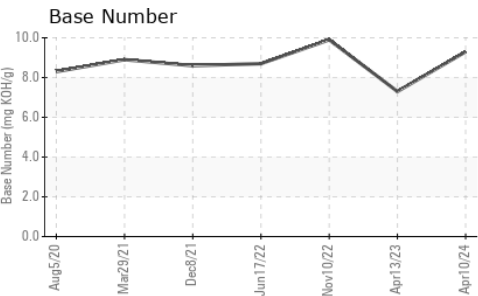
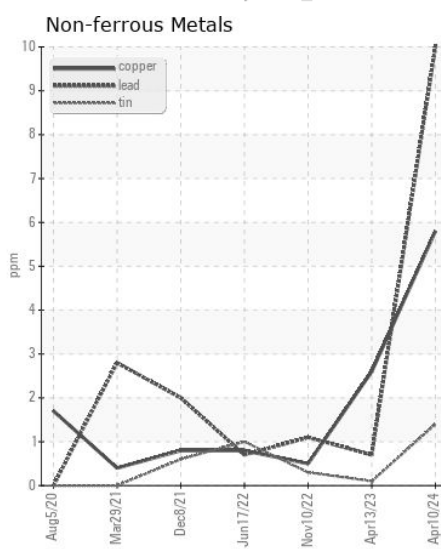
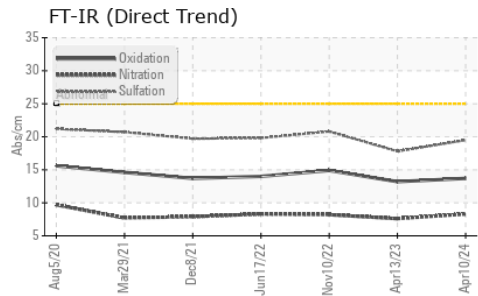
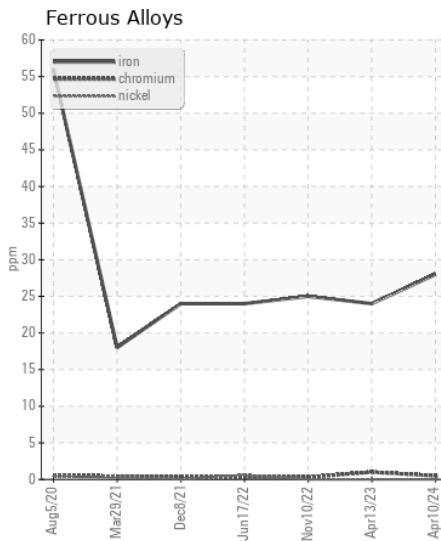
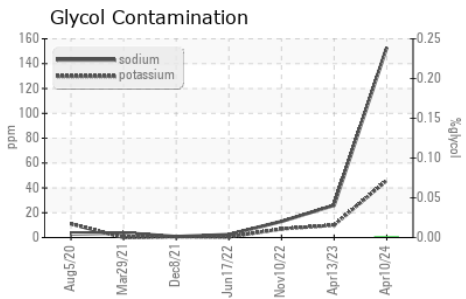
Sodium and/or potassium levels are high. Test for glycol is negative.

Silicon	ppm	ASTM D5185m	>120	6	4	4
Potassium	ppm	ASTM D5185m	>20	▲ 46	10	7
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		0.0	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.7	0.6	0.6
Nitration	Abs/cm	*ASTM D7624	>20	8.3	7.6	8.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.5	17.8	20.8
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. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		▲ 153	26	13
Boron	ppm	ASTM D5185m		100	104	112
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		14	17	18
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		444	409	497
Calcium	ppm	ASTM D5185m		1688	1558	1766
Phosphorus	ppm	ASTM D5185m		939	909	1064
Zinc	ppm	ASTM D5185m		1114	1135	1260
Sulfur	ppm	ASTM D5185m		4330	3463	4714
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.7	13.2	14.9
Base Number (BN)	mg KOH/g	ASTM D2896		9.3	7.3	9.9
Visc @ 100°C	cSt	ASTM D445		13.0	12.8	13.1



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0049537 **Received** : 16 Apr 2024
Lab Number : 06150160 **Tested** : 17 Apr 2024
Unique Number : 10980238 **Diagnosed** : 18 Apr 2024 - Don Baldrige
Test Package : CONST (Additional Tests: Glycol, TBN)

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Certificate L2367
 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)