



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area Machine Id **NSE-AL-TRACTOR (NEW SOUTH EXPRESS)**

Component **AUTOCAR NSE21010**

Fluid **Diesel Engine**

DIESEL ENGINE OIL SAE 40 (17 QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		NL0002279	NL0002044	NL0001938
Sample Date		Client Info		19 Jun 2024	01 Apr 2024	13 Dec 2023
Machine Age	mls	Client Info		12846	10270	10270
Oil Age	mls	Client Info		469	11728	10270
Filter Age	mls	Client Info		0	1634	1634
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	41	42	40
Chromium	ppm	ASTM D5185m	>20	1	2	2
Nickel	ppm	ASTM D5185m	>4	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	5	5	5
Lead	ppm	ASTM D5185m	>40	2	<1	0
Copper	ppm	ASTM D5185m	>330	1	1	1
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

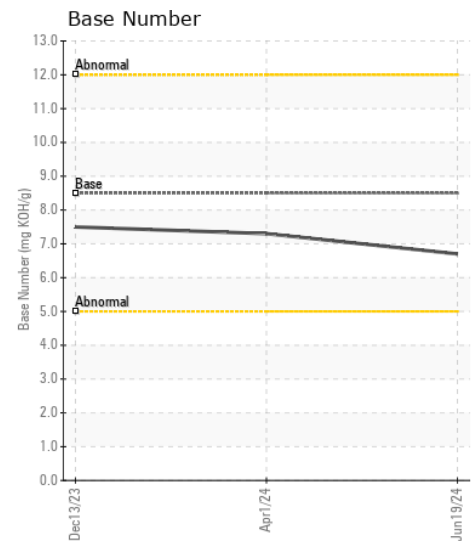
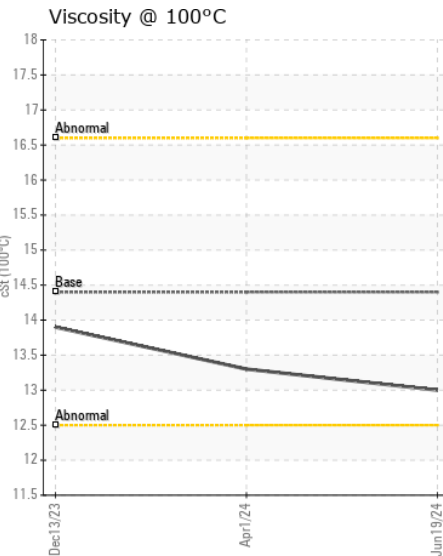
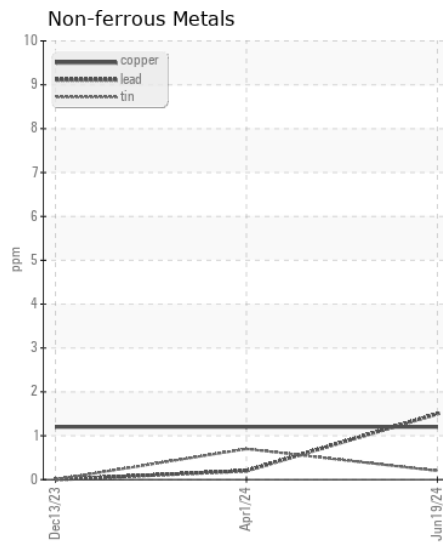
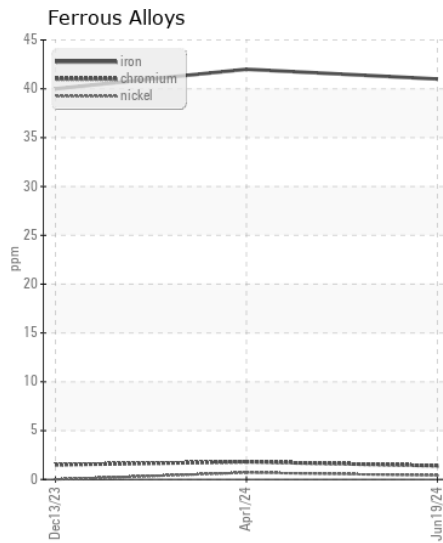
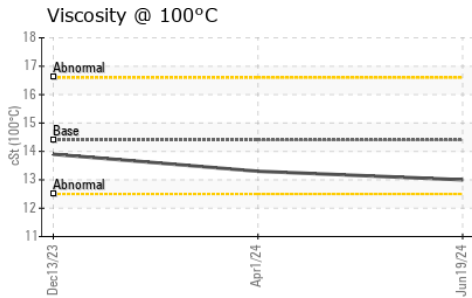
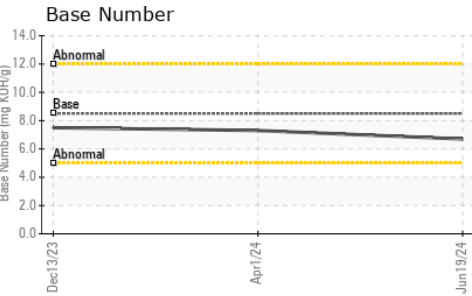
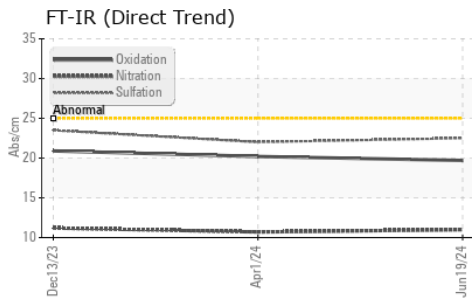
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	5	4
Potassium	ppm	ASTM D5185m	>20	6	5	<1
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	1.2	1.1	1.4
Nitration	Abs/cm	*ASTM D7624	>20	11.0	10.7	11.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.5	22.0	23.5
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

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	>216	2	<1	1
Boron	ppm	ASTM D5185m	250	2	2	<1
Barium	ppm	ASTM D5185m	10	0	1	0
Molybdenum	ppm	ASTM D5185m	100	61	60	57
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m	450	958	908	939
Calcium	ppm	ASTM D5185m	3000	1182	1076	1001
Phosphorus	ppm	ASTM D5185m	1150	1058	978	1018
Zinc	ppm	ASTM D5185m	1350	1342	1186	1245
Sulfur	ppm	ASTM D5185m	4250	3520	2884	2822
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.7	20.2	20.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.7	7.3	7.5
Visc @ 100°C	cSt	ASTM D445	14.4	13.0	13.3	13.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : NL0002279
Lab Number : 06219035
Unique Number : 11097232
Test Package : FLEET

Received : 24 Jun 2024
Tested : 25 Jun 2024
Diagnosed : 25 Jun 2024 - Wes Davis

KIRK NATIONALEASE - SHOP 49
 601 England Rd.
 Lincoln, AL
 US 35096

Contact: Skip Womack
 shop49@knl.cc

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)

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