



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

BROWN PAMELA - TLD O/O

Machine Id

NAVISTAR 3018619

Component

Diesel Engine

Fluid

DIESEL ENGINE OIL SAE 15W40 (50 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		NL0002180	NL0001630	NL0000880
Sample Date		Client Info		18 Jun 2024	22 Dec 2023	31 Jan 2023
Machine Age	mls	Client Info		552959	503465	446893
Oil Age	mls	Client Info		446893	503465	446893
Filter Age	mls	Client Info		0	0	446893
Oil Changed		Client Info		N/A	N/A	Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	94	35	32
Chromium	ppm	ASTM D5185m	>20	6	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	5	3	2
Lead	ppm	ASTM D5185m	>40	5	2	<1
Copper	ppm	ASTM D5185m	>330	2	<1	0
Tin	ppm	ASTM D5185m	>15	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

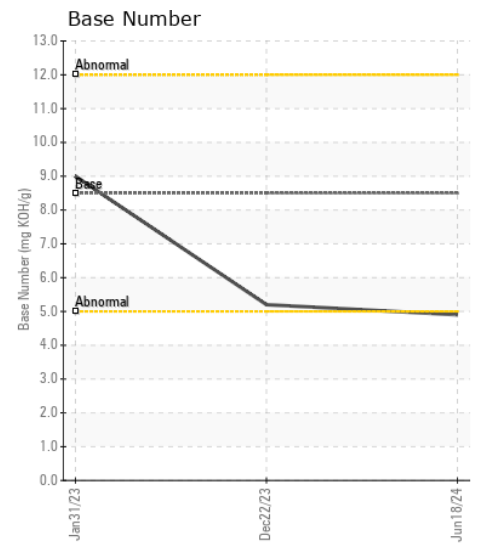
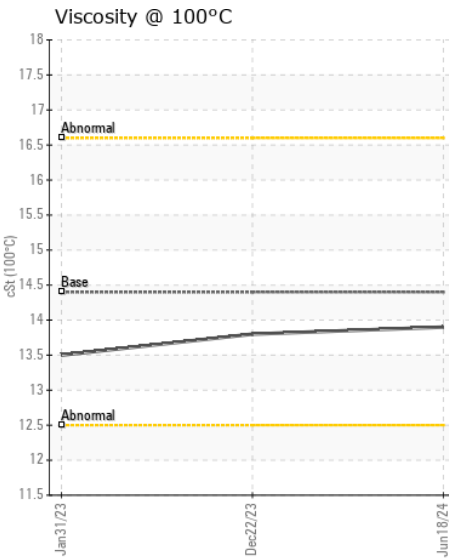
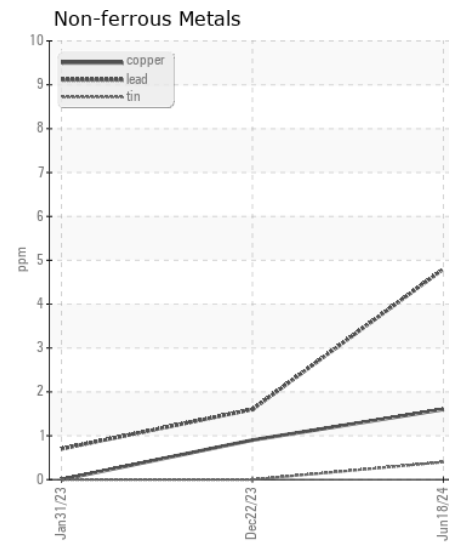
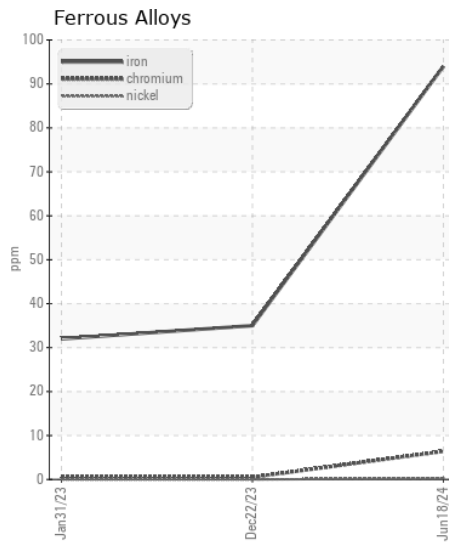
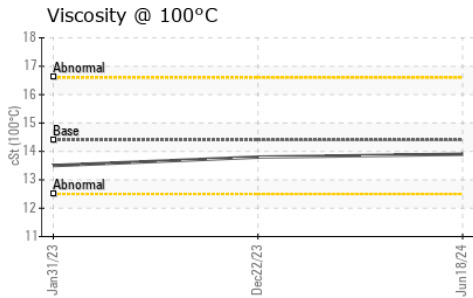
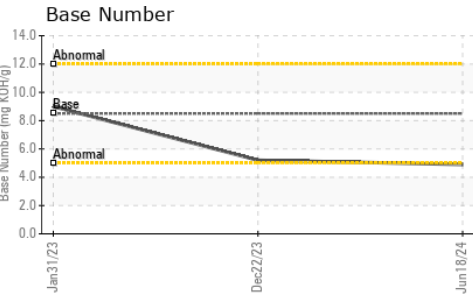
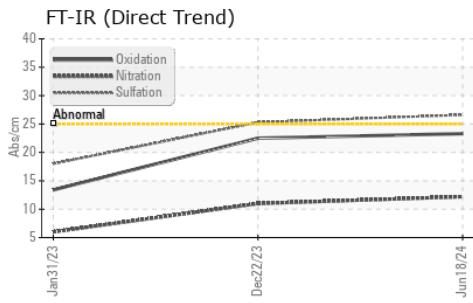
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	10	4	4
Potassium	ppm	ASTM D5185m	>20	7	4	4
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	0.9	0.4	0.2
Nitration	Abs/cm	*ASTM D7624	>20	12.2	11.0	6.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.6	25.3	18.0
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	>158	0	1	<1
Boron	ppm	ASTM D5185m	250	3	6	16
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	64	59	65
Manganese	ppm	ASTM D5185m		1	0	1
Magnesium	ppm	ASTM D5185m	450	952	794	935
Calcium	ppm	ASTM D5185m	3000	1118	1318	1224
Phosphorus	ppm	ASTM D5185m	1150	952	922	996
Zinc	ppm	ASTM D5185m	1350	1282	1277	1262
Sulfur	ppm	ASTM D5185m	4250	2772	3071	3584
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.3	22.5	13.4
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	4.9	5.20	9.0
Visc @ 100°C	cSt	ASTM D445	14.4	13.9	13.8	13.5



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : NL0002180

Lab Number : 06216493

Unique Number : 11089357

Test Package : FLEET

Received : 20 Jun 2024

Tested : 22 Jun 2024

Diagnosed : 23 Jun 2024 - Don Baldrige

KIRK NATIONALEASE - SHOP 51

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US 29405

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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)