James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
CATERPILLAR 950K C236293 (S/N R4A02277)
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (20 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

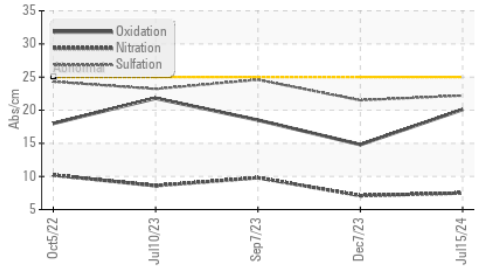
There is no indication of any contamination in the oil.

FLUID CONDITION

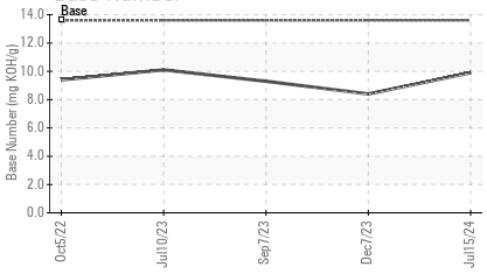
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0225424	JR0195997	JR0184031
Sample Date		Client Info		15 Jul 2024	07 Dec 2023	07 Sep 2023
Machine Age	hrs	Client Info		21248	21248	20744
Oil Age	hrs	Client Info		21248	504	444
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	15	16	12
Chromium	ppm	ASTM D5185m	>20	<1	1	<1
Nickel	ppm	ASTM D5185m	>2	0	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	11	8	6
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	5	164	9
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	8	9	11
Potassium	ppm	ASTM D5185m	>20	2	2	2
Fuel		WC Method	>5	<1.0	0.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.4	0
Nitration	Abs/cm	*ASTM D7624	>20	7.5	7.1	9.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.2	21.5	24.6
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		4	2	12
Boron	ppm	ASTM D5185m		38	116	190
Barium	ppm	ASTM D5185m		<1	11	0
Molybdenum	ppm	ASTM D5185m		60	142	259
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		542	476	798
Calcium	ppm	ASTM D5185m		2064	2418	1539
Phosphorus	ppm	ASTM D5185m		1040	976	936
Zinc	ppm	ASTM D5185m		1230	1180	1123
Sulfur	ppm	ASTM D5185m		3882	3715	3649
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.1	14.8	18.5
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	9.9	8.4	9.3
Visc @ 100°C	cSt	ASTM D445	15.4	13.3	11.4	14.1

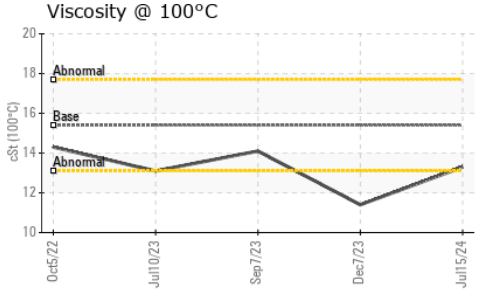
FT-IR (Direct Trend)



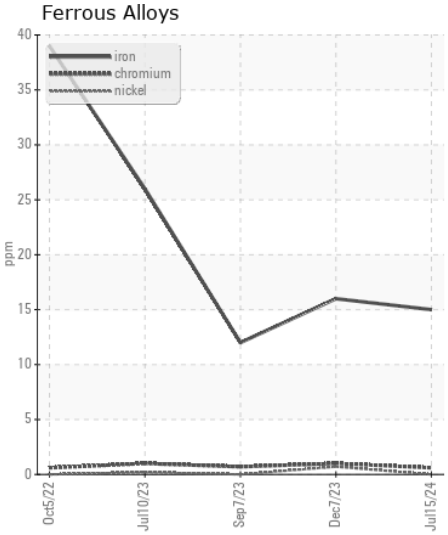
Base Number



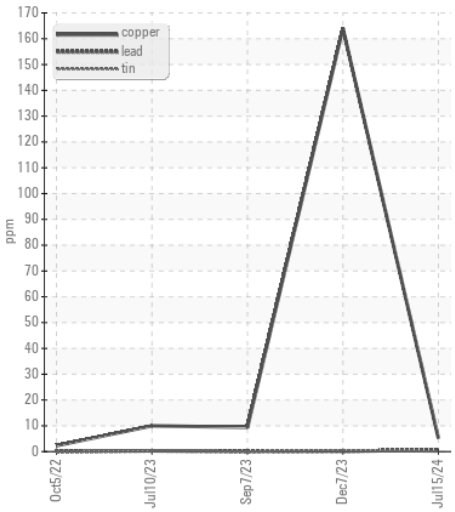
Viscosity @ 100°C



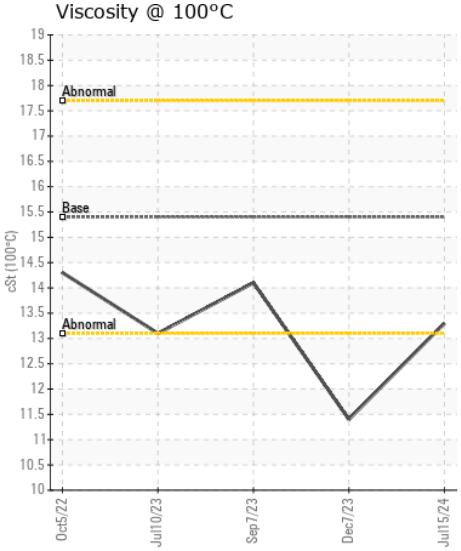
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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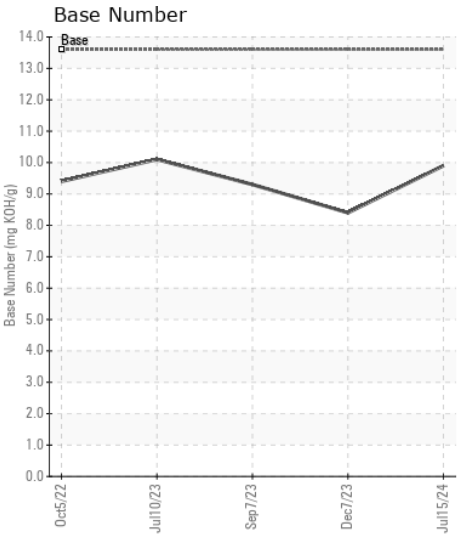

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0225424
Lab Number : 06240146
Unique Number : 11128980
Test Package : CONST (Additional Tests: TBN)

Received : 18 Jul 2024
Tested : 19 Jul 2024
Diagnosed : 19 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)

TITAN VIRGINIA READY MIX LLC
5700 LAKEWRIGHT DR, SUITE 300
NORFOLK, VA
US 23502
Contact: ROBERT TAUBER
rtauber@titanamerica.com
T: (571)436-2579
F: