



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL

Area

Contracting

Machine Id

4404 4404

Component

Diesel Engine

Fluid

DIESEL ENGINE OIL SAE 10W30 (5 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0918703	WC0867156	WC0834930
Sample Date		Client Info		22 Apr 2024	10 Nov 2023	19 Jul 2023
Machine Age	hrs	Client Info		12713	12243	11828
Oil Age	hrs	Client Info		518	415	580
Filter Age	hrs	Client Info		518	415	580
Oil Changed		Client Info		Changed	Changed	Not Chngd
Filter Changed		Client Info		Changed	Changed	Not Chngd
Sample Status				ATTENTION	ABNORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>130	31	21	30
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	6	10	10
Lead	ppm	ASTM D5185m	>20	0	0	0
Copper	ppm	ASTM D5185m	>125	1	0	<1
Tin	ppm	ASTM D5185m	>4	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

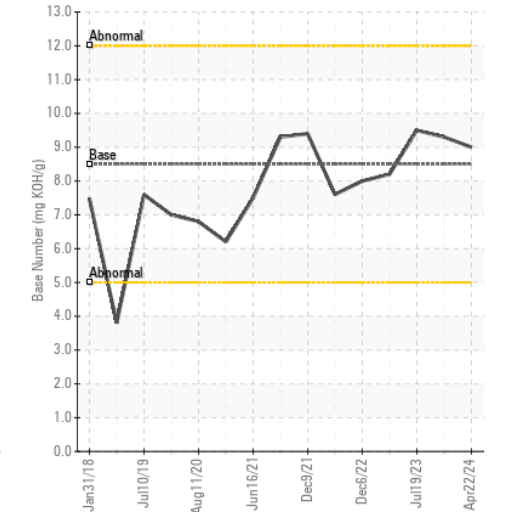
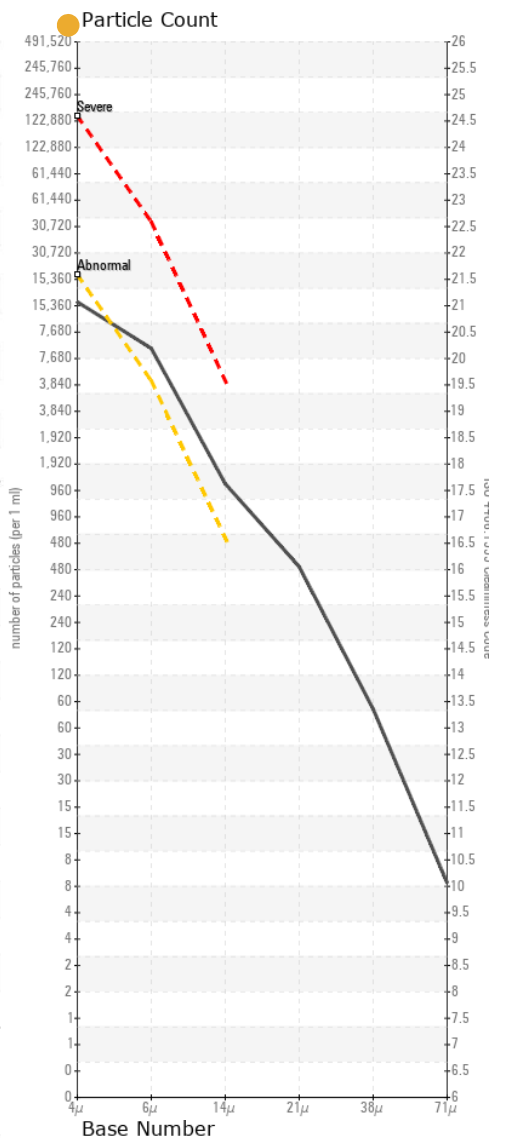
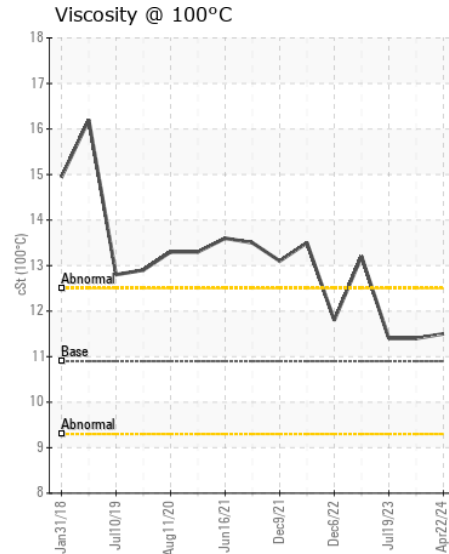
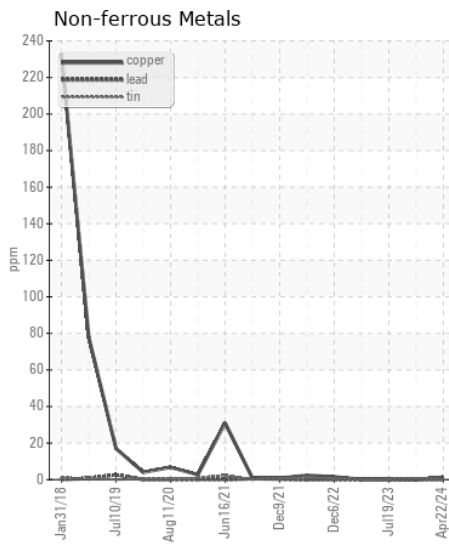
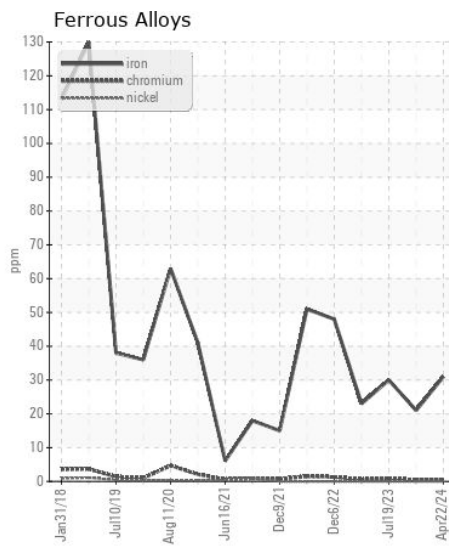
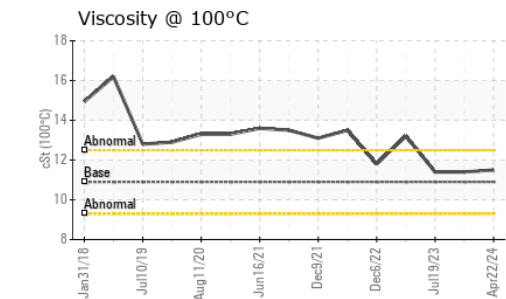
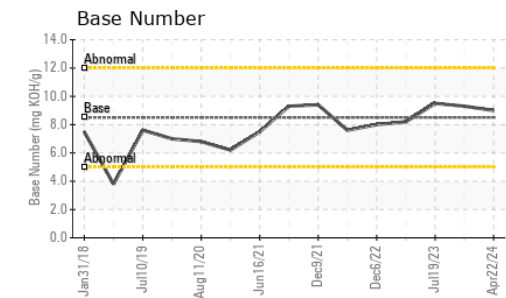
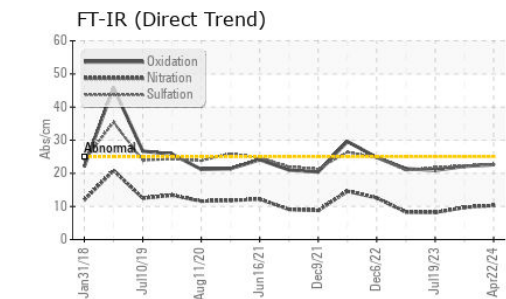
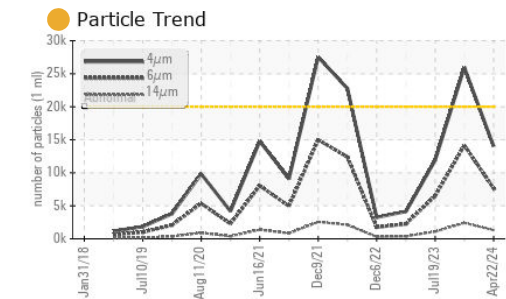
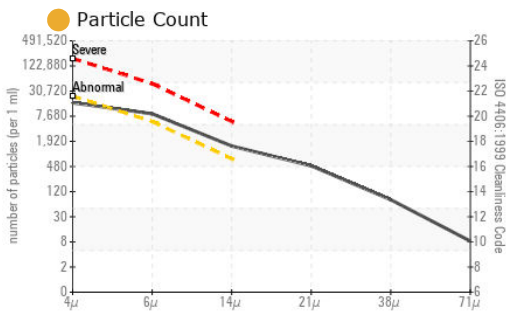
There is a moderate amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>25	9	8	6
Potassium	ppm	ASTM D5185m	>20	1	8	13
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	1	0.7	0.5
Nitration	Abs/cm	*ASTM D7624	>20	10.3	9.7	8.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.7	22.3	21.8
Particles >4µm		ASTM D7647	>20000	14015	▲ 25951	● 11875
Particles >6µm		ASTM D7647	>5000	● 7635	▲ 14137	● 6469
Particles >14µm		ASTM D7647	>640	● 1299	▲ 2406	● 1101
Particles >21µm		ASTM D7647	>160	● 438	▲ 810	● 371
Particles >38µm		ASTM D7647	>40	● 68	▲ 125	● 57
Particles >71µm		ASTM D7647	>10	● 7	▲ 13	● 6
Oil Cleanliness		ISO 4406 (c)	>21/19/16	● 21/20/17	▲ 22/21/18	● 21/20/17
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		1	1	3
Boron	ppm	ASTM D5185m	250	41	32	41
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	53	42	50
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	544	502	552
Calcium	ppm	ASTM D5185m	3000	1788	1552	1845
Phosphorus	ppm	ASTM D5185m	1150	789	744	802
Zinc	ppm	ASTM D5185m	1350	944	911	1010
Sulfur	ppm	ASTM D5185m	4250	2649	2430	3167
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.6	22.1	20.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.0	9.3	9.5
Visc @ 100°C	cSt	ASTM D445	10.9	11.5	11.4	11.4



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0918703
Lab Number : 06158955
Unique Number : 10994378
Test Package : CONST (Additional Tests: PrtCount, TBN)

Received : 24 Apr 2024
Tested : 25 Apr 2024
Diagnosed : 25 Apr 2024 - Don Baldrige

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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)