



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ATTENTION

Area
GUAY SON [CONHER]
Machine Id
BM NAINARI AUX-1 IBACO BM NAINARI AUX-1
Component
Diesel Engine
Fluid
RALOY 15W40 (8 LTR)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: Fluid: Raloy 15W40)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0014525	KL0014139	KL0013406
Sample Date		Client Info		20 Mar 2024	06 Feb 2024	14 Nov 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		216	240	15
Filter Age	hrs	Client Info		216	240	15
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	7	3	3
Chromium	ppm	ASTM D5185m	>20	0	0	<1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	1
Lead	ppm	ASTM D5185m	>40	1	<1	<1
Copper	ppm	ASTM D5185m	>330	1	0	<1
Tin	ppm	ASTM D5185m	>15	1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

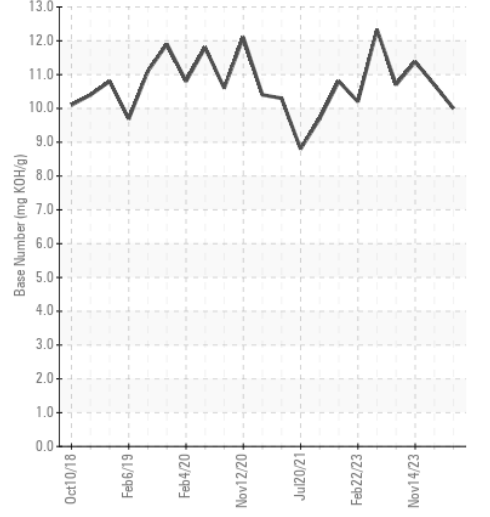
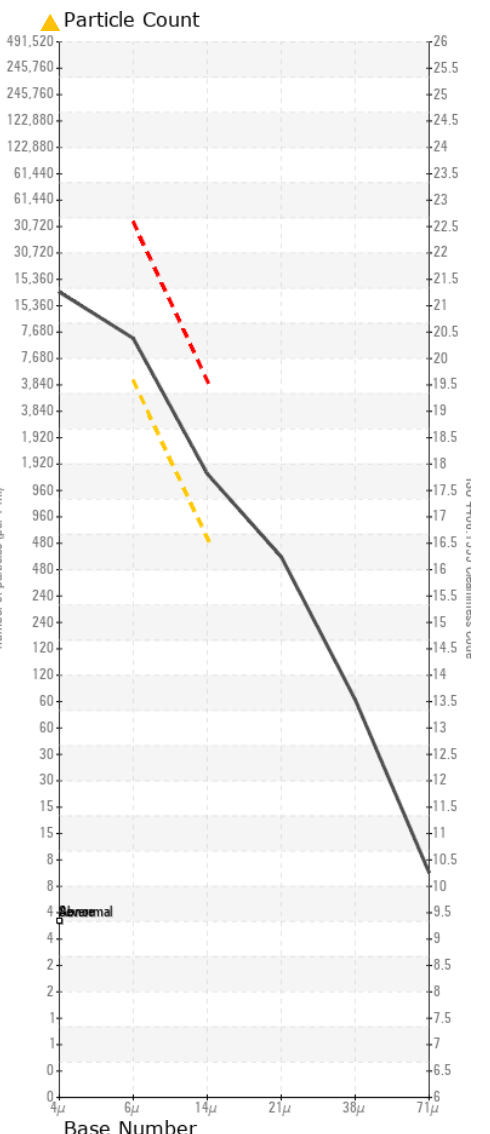
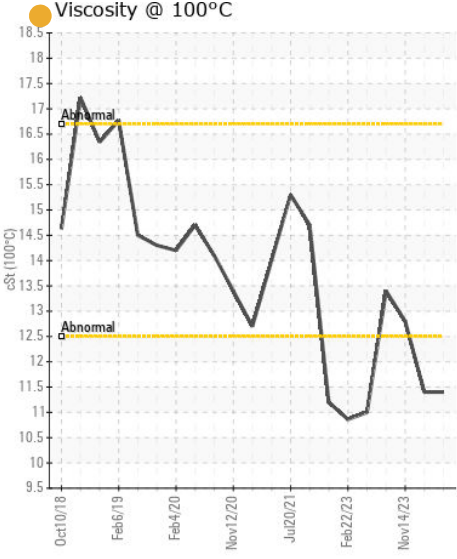
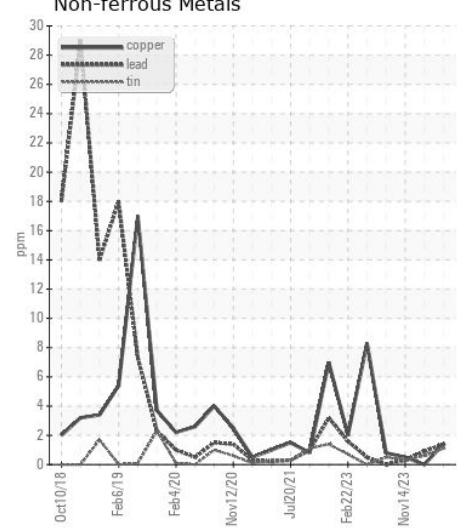
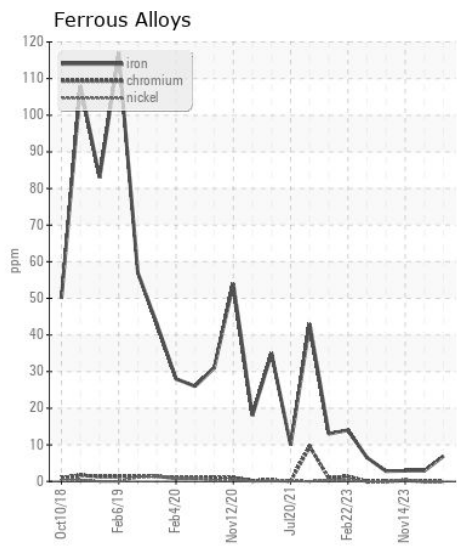
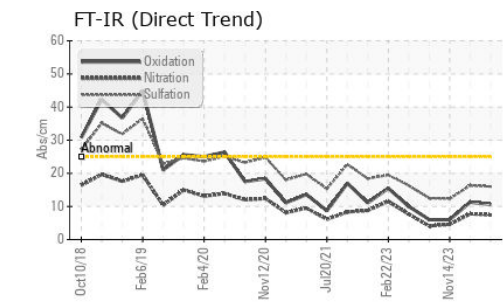
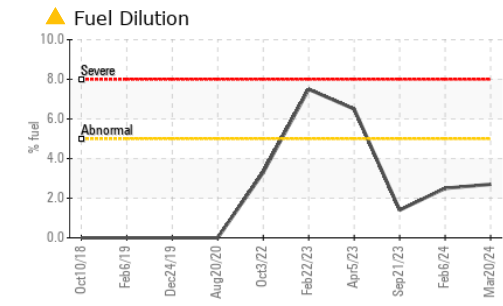
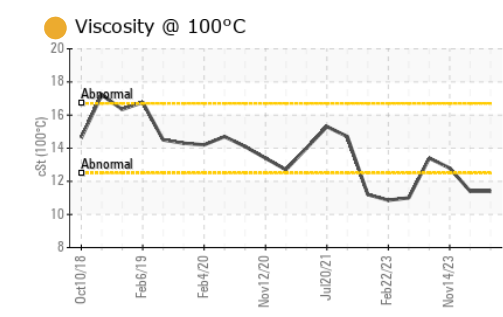
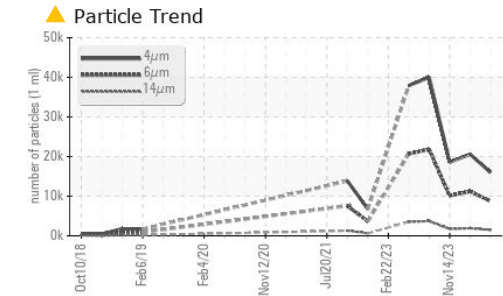
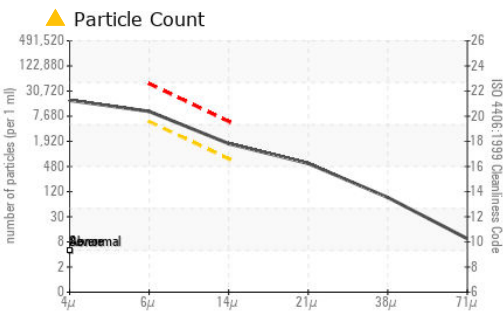
There is a high amount of particulates present in the oil. There is a light concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>25	10	9	11
Potassium	ppm	ASTM D5185m	>20	2	2	5
Fuel	%	ASTM D3524	>5	▲ 2.7	▲ 2.5	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.1	0
Nitration	Abs/cm	*ASTM D7624	>20	7.4	7.8	4.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.0	16.3	12.3
Particles >4µm		ASTM D7647		15973	20592	18574
Particles >6µm		ASTM D7647	>5000	▲ 8701	▲ 11218	▲ 10118
Particles >14µm		ASTM D7647	>640	▲ 1481	▲ 1909	▲ 1722
Particles >21µm		ASTM D7647	>160	▲ 499	▲ 643	▲ 580
Particles >38µm		ASTM D7647	>40	▲ 77	▲ 99	▲ 90
Particles >71µm		ASTM D7647	>10	8	10	9
Oil Cleanliness		ISO 4406 (c)	>19/16	▲ 20/18	▲ 21/18	▲ 21/18
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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		2	0	2
Boron	ppm	ASTM D5185m		0	13	<1
Barium	ppm	ASTM D5185m		0	0	<1
Molybdenum	ppm	ASTM D5185m		2	6	1
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		5	30	5
Calcium	ppm	ASTM D5185m		2669	2457	2652
Phosphorus	ppm	ASTM D5185m		1131	1065	1095
Zinc	ppm	ASTM D5185m		1302	1265	1257
Sulfur	ppm	ASTM D5185m		3920	3084	3675
Oxidation	Abs/.1mm	*ASTM D7414	>25	10.6	11.3	6.0
Base Number (BN)	mg KOH/g	ASTM D2896		10.00	10.70	11.38
Visc @ 100°C	cSt	ASTM D445		11.4	11.4	12.8



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0014525 **Received** : 18 Apr 2024
Lab Number : 06153306 **Tested** : 23 Apr 2024
Unique Number : 10983384 **Diagnosed** : 23 Apr 2024 - Jonathan Hester
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel, PrtCount)
 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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