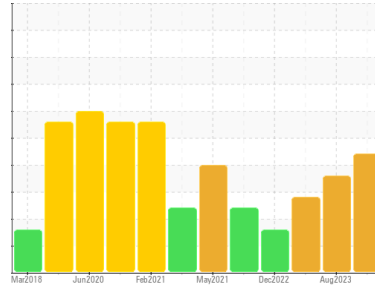


OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Machine Id
VILTER B
 Component
Compressor
 Fluid
SYNTHX 3100 (--- GAL)

DIAGNOSIS

Recommendation

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

Wear

All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil. There is a light concentration of water present in the oil. Elemental level of silicon (Si) above normal.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION	method	limit/base	current	history1	history2
Sample Number	Client Info		TO60002189	TO60001323	TO60000430
Sample Date	Client Info		12 Jun 2024	09 Aug 2023	19 Jul 2023
Machine Age	days	Client Info	0	0	0
Oil Age	days	Client Info	0	0	0
Oil Changed	Client Info		N/A	Filtered	Filtered
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<1	3	6
Chromium	ppm	ASTM D5185m >10	0	0	0
Nickel	ppm	ASTM D5185m	0	0	<1
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m	0	0	<1
Aluminum	ppm	ASTM D5185m >25	<1	<1	0
Lead	ppm	ASTM D5185m >25	0	0	0
Copper	ppm	ASTM D5185m >50	<1	0	<1
Tin	ppm	ASTM D5185m >15	<1	<1	<1
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

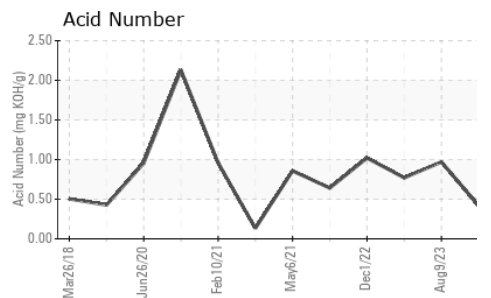
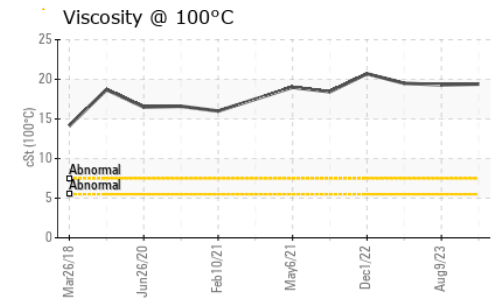
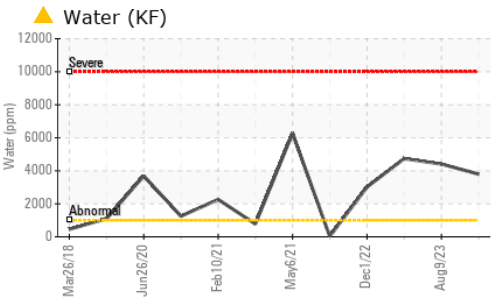
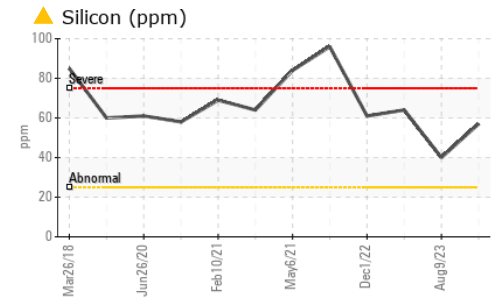
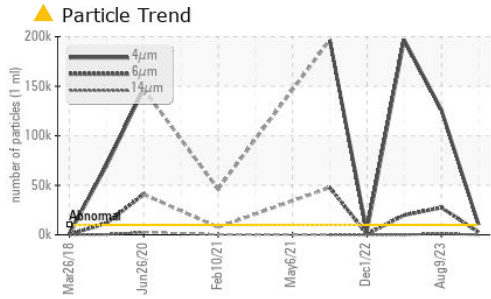
ADDITIVES	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0
Barium	ppm	ASTM D5185m	0	0	<1
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	<1	0	0
Magnesium	ppm	ASTM D5185m	1	5	0
Calcium	ppm	ASTM D5185m	0	0	0
Phosphorus	ppm	ASTM D5185m	2	4	0
Zinc	ppm	ASTM D5185m	1	0	0
Sulfur	ppm	ASTM D5185m	11924	11990	15649

CONTAMINANTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	▲ 57	▲ 40	▲ 64
Sodium	ppm	ASTM D5185m	0	0	0
Potassium	ppm	ASTM D5185m >20	1	1	<1
Water	%	ASTM D6304 >0.1	▲ 0.379	0.440	0.473
ppm Water	ppm	ASTM D6304 >1000	▲ 3798	4407.7	4736.8

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	● 10363	▲ 126390	▲ 196882
Particles >6µm	ASTM D7647	>1300	▲ 2541	▲ 27455	▲ 19816
Particles >14µm	ASTM D7647	>320	59	▲ 1153	74
Particles >21µm	ASTM D7647	>80	6	▲ 227	16
Particles >38µm	ASTM D7647	>20	0	4	1
Particles >71µm	ASTM D7647	>4	0	0	0
Oil Cleanliness	ISO 4406 (c)	>20/17/15	▲ 21/19/13	▲ 24/22/17	▲ 25/21/13

FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.419	0.97	0.77

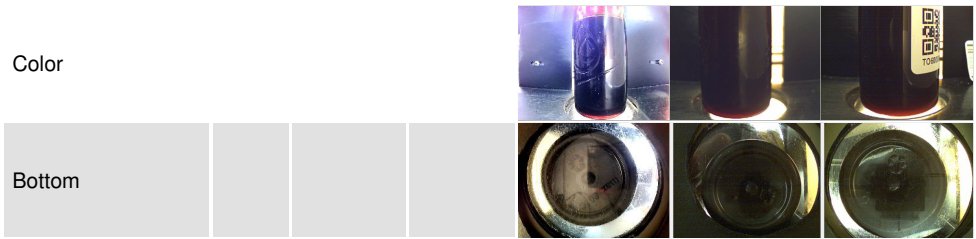
OIL ANALYSIS REPORT



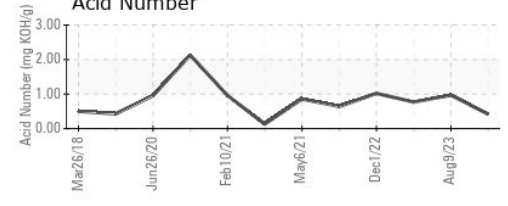
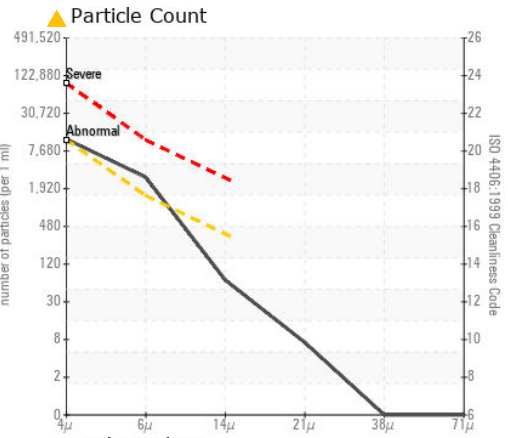
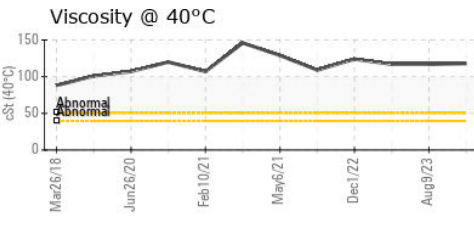
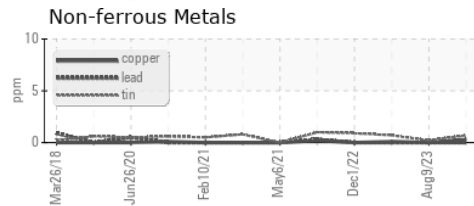
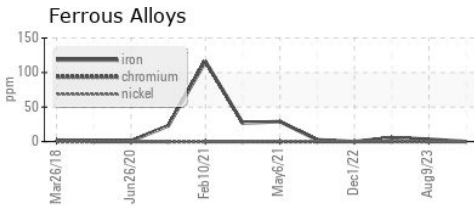
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	LIGHT
Debris	scalar	*Visual	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	118	117	117
Visc @ 100°C	cSt	ASTM D445	19.4	19.3	19.5
Viscosity Index (VI)	Scale	ASTM D2270	186	186	189

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO60002189 **Received** : 17 Jun 2024
Lab Number : 06211730 **Tested** : 18 Jun 2024
Unique Number : 11084594 **Diagnosed** : 18 Jun 2024 - Don Baldrige
Test Package : IND 2 (Additional Tests: KF, KV100, PrtCount, VI)

MELISSA RENEWABLES
 3820 SAM RAYBURN HWY
 MELISSA, TX 75454
 Contact: BILL PALMER
 bpalmer@morrowenergy.com
 T: (972)529-8442
 F:

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)