



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
CATES FG2
Component
Compressor
Fluid
MOBIL SHC 627 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

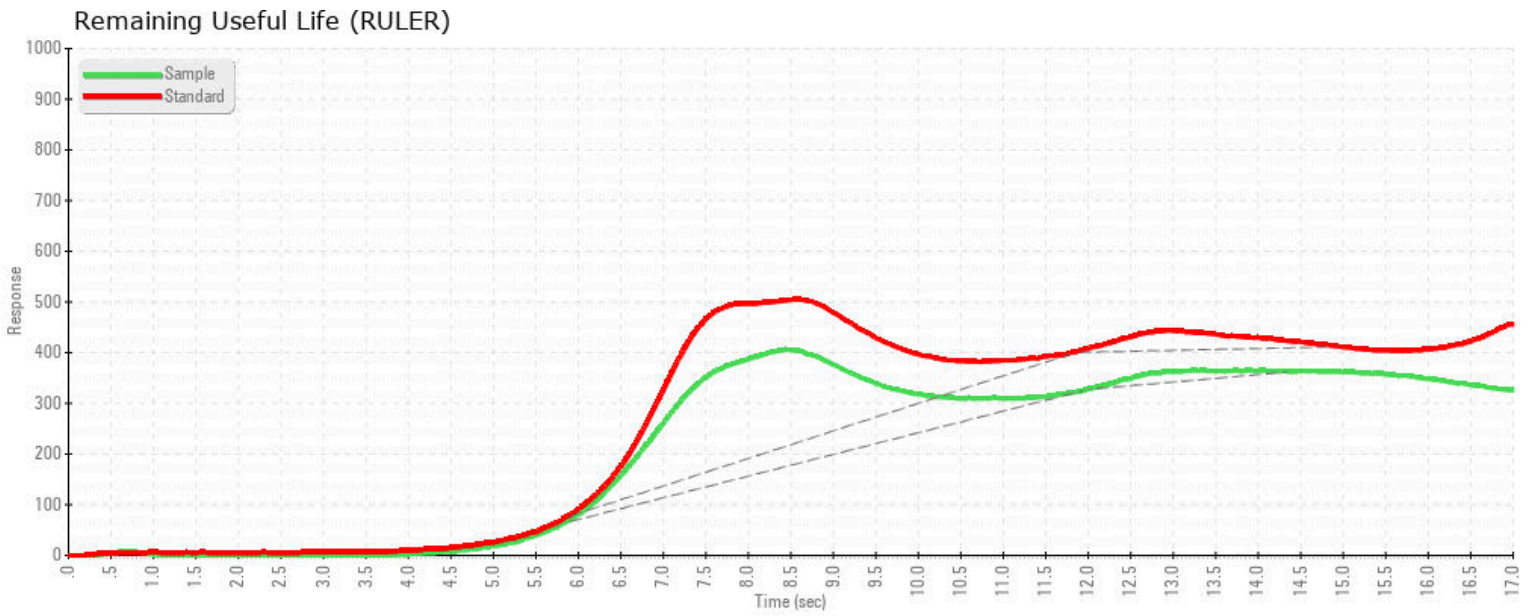
CONTAMINATION

MPC (Membrane Patch Colorimetry) test indicates a moderate concentration of varnish present. The amount and size of particulates present in the system are acceptable.

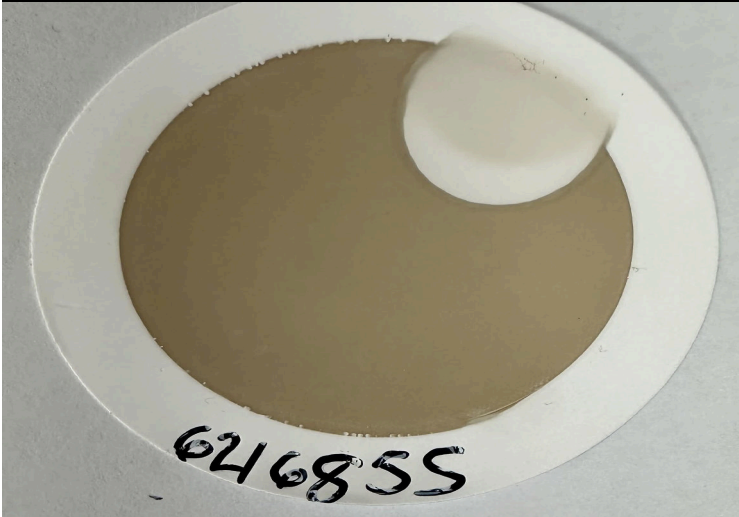
FLUID CONDITION

Linear Sweep Voltammetry (RULER – ASTM D6971) testing indicates normal levels of anti-oxidants present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0896680	WC0896683	WC0896670
Sample Date		Client Info		20 Jun 2024	30 Apr 2024	16 Jan 2024
Machine Age	hrs	Client Info		143000	230000	143000
Oil Age	hrs	Client Info		143000	143000	143000
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	MARGINAL	NORMAL
Iron	ppm	ASTM D5185m	>50	1	<1	0
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m		<1	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>15	3	1	2
Lead	ppm	ASTM D5185m	>65	<1	<1	0
Copper	ppm	ASTM D5185m	>65	1	<1	<1
Tin	ppm	ASTM D5185m	>10	<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
Silicon	ppm	ASTM D5185m	>35	1	<1	0
Potassium	ppm	ASTM D5185m	>20	2	1	1
Water	%	ASTM D6304	>0.1	0.002	0.001	0.020
ppm Water	ppm	ASTM D6304	>1000	16	8	200
MPC Varnish Potential	Scale	ASTM D7843	>15	▲ 34	▲ 25	4
Particles >4µm		ASTM D7647	>10000	230	377	322
Particles >6µm		ASTM D7647	>2500	104	97	77
Particles >14µm		ASTM D7647	>320	18	20	7
Particles >21µm		ASTM D7647	>80	6	9	2
Particles >38µm		ASTM D7647	>20	1	1	1
Particles >71µm		ASTM D7647	>4	0	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	15/14/11	16/14/11	16/13/10
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	>0.1	NEG	NEG	0.2%
Sodium	ppm	ASTM D5185m		0	0	0
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		<1	0	0
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m		4	0	0
Calcium	ppm	ASTM D5185m		92	5	0
Phosphorus	ppm	ASTM D5185m		164	138	148
Zinc	ppm	ASTM D5185m		28	0	0
Sulfur	ppm	ASTM D5185m		516	215	198
Acid Number (AN)	mg KOH/g	ASTM D8045		0.10	0.11	0.12
Visc @ 40°C	cSt	ASTM D445	99.1	120	118	119
Anti-Oxidant 1	%	ASTM D6971	<25	76	73	98
Anti-Oxidant 2	%	ASTM D6971	<25	43	49	95



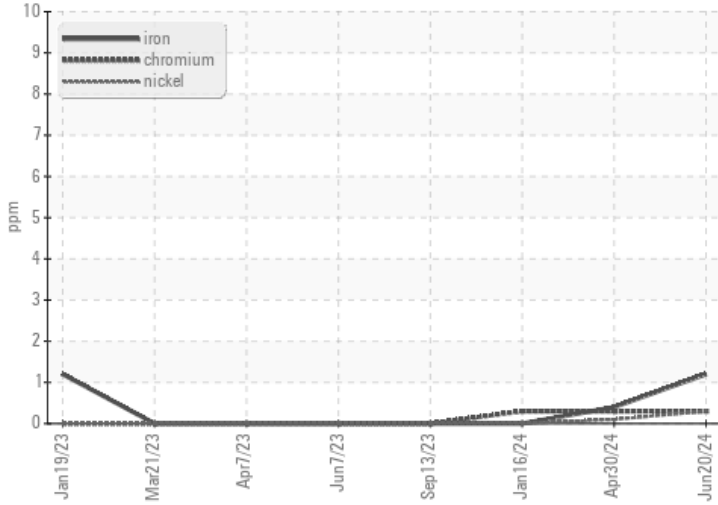
MPC (Varnish Test)



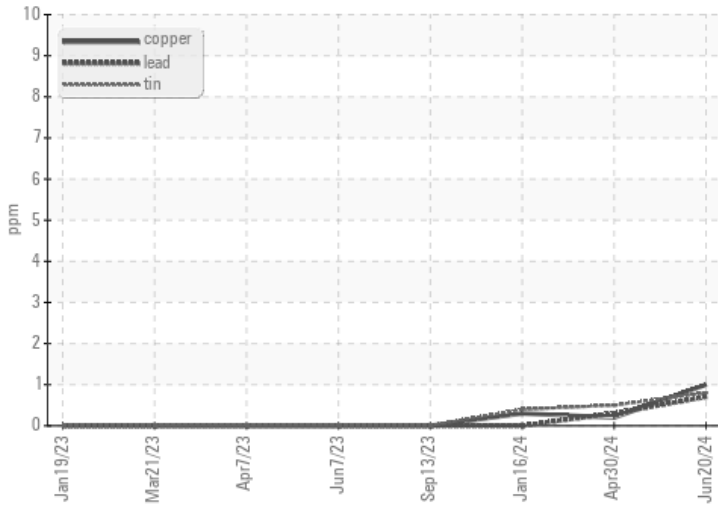
Sample Color & Clarity



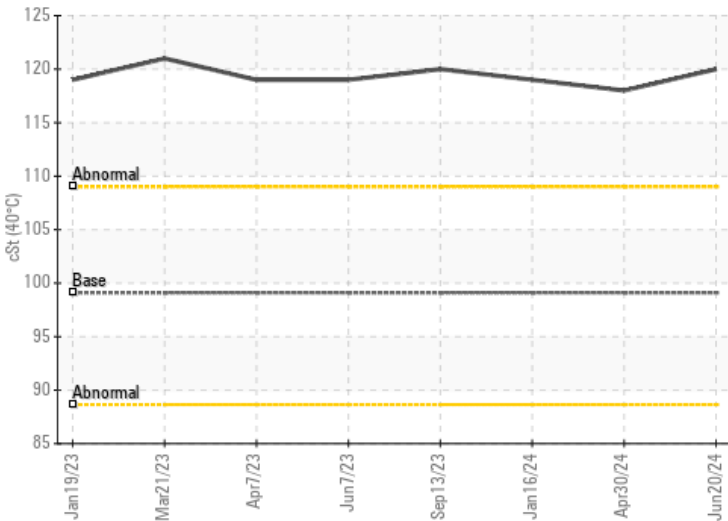
Ferrous Alloys



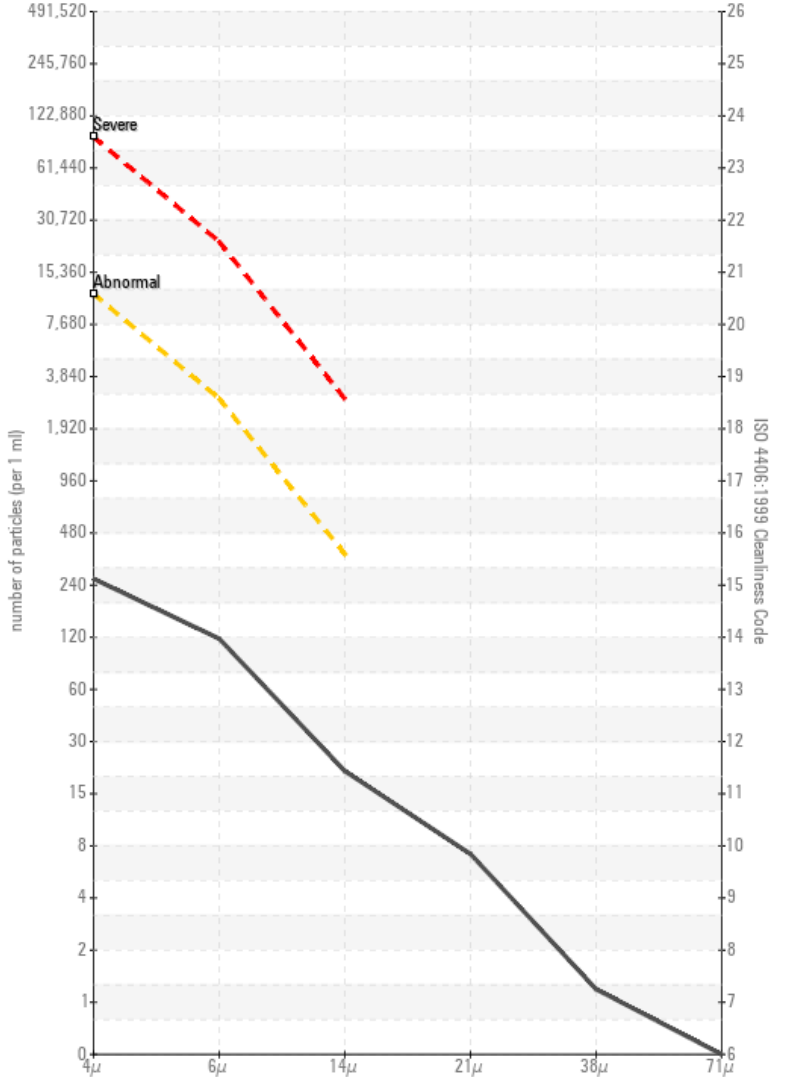
Non-ferrous Metals



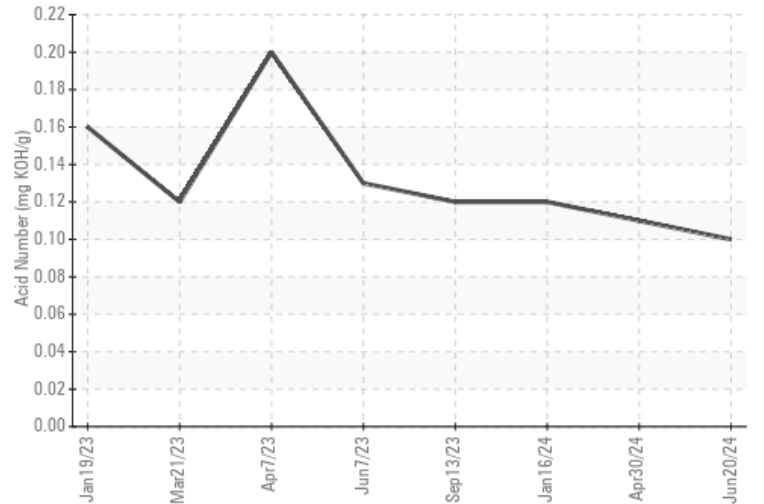
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0896680
Lab Number : 06216855
Unique Number : 11089719
Test Package : AOM 1 (Additional Tests: KF)

NORTH CAROLINA STATE UNIVERSITY
 621 MOTOR POOL DR, FACILITIES DIVISION WAREHOUSE
 RALEIGH, NC
 US 27607

Contact: PAUL WALKER
 apwalke3@ncsu.edu

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)

T: (919)513-3646

F:

This page left intentionally blank