



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL

Machine Id
SM312/013 FEED WORKS OPTIMIL (S/N 0238-32110-00180-04801)

Component
Hydraulic System

Fluid
AW HYDRAULIC OIL ISO 68 (--- GAL)

RECOMMENDATION

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

WEAR

All component wear rates are normal.

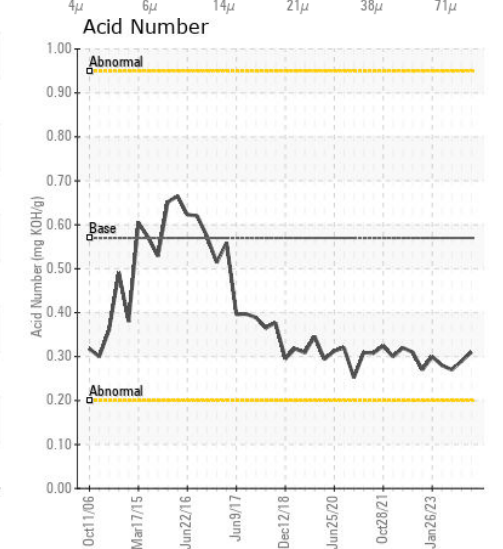
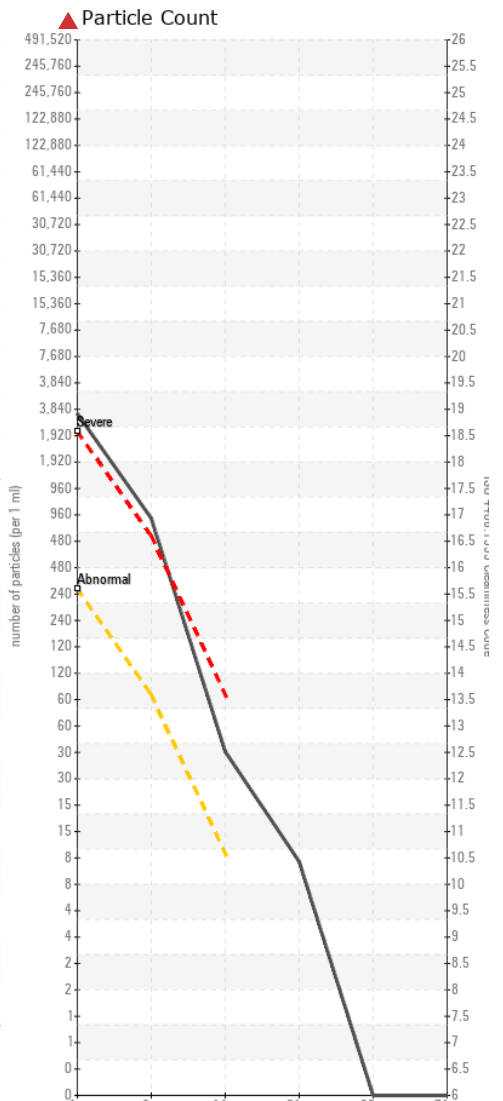
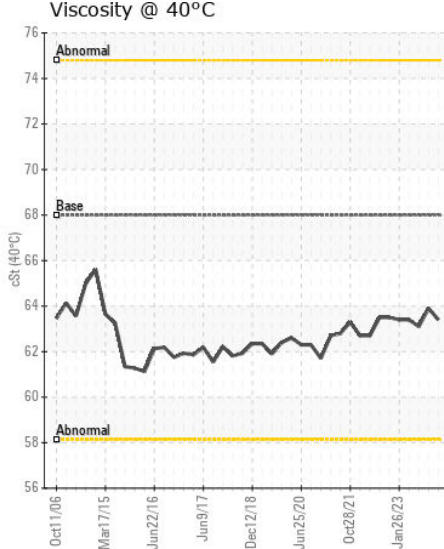
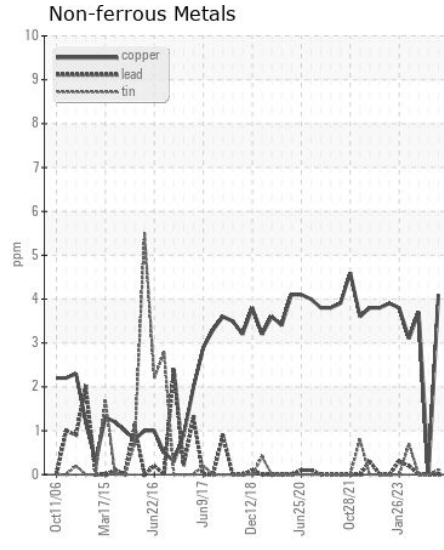
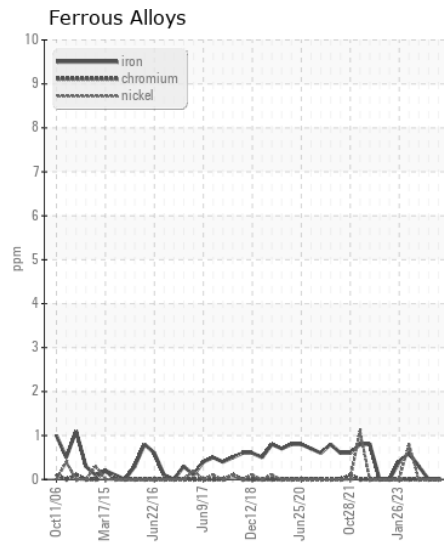
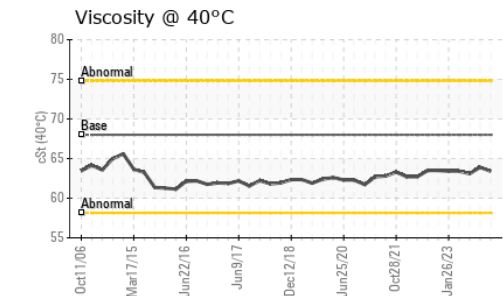
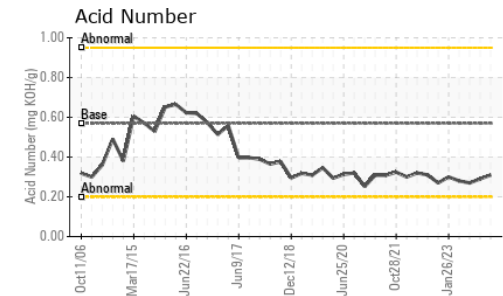
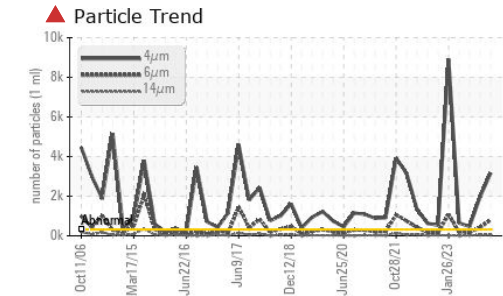
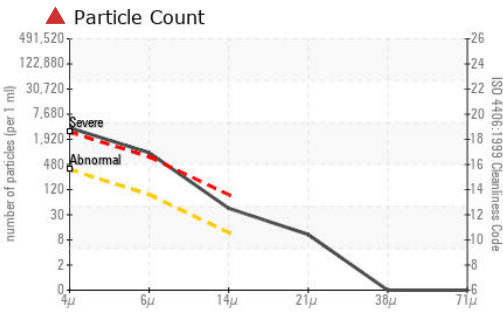
CONTAMINATION

There is a high amount of particulates (2 to 100 microns in size) present in the oil. The system cleanliness code is much higher than the acceptable limit for the target ISO 4406 cleanliness code.

FLUID CONDITION

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		FC006220	FC006179	FC0000568
Sample Date		Client Info		17 May 2024	27 Feb 2024	15 Aug 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
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				SEVERE	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>20	0	0	<1
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>20	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	0	0	<1
Lead	ppm	ASTM D5185m	>20	0	0	0
Copper	ppm	ASTM D5185m	>20	4	0	4
Tin	ppm	ASTM D5185m	>20	<1	0	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	>15	3	<1	2
Potassium	ppm	ASTM D5185m	>20	<1	0	0
Water		WC Method	>0.05	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>320	▲ 3167	▲ 1968	● 470
Particles >6µm		ASTM D7647	>80	▲ 803	▲ 414	▲ 169
Particles >14µm		ASTM D7647	>10	▲ 38	▲ 34	▲ 25
Particles >21µm		ASTM D7647	>3	▲ 9	▲ 10	▲ 9
Particles >38µm		ASTM D7647	>3	0	1	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>15/13/10	▲ 19/17/12	▲ 18/16/12	▲ 16/15/12
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	>0.05	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		1	0	0
Boron	ppm	ASTM D5185m	5	0	0	0
Barium	ppm	ASTM D5185m	5	0	1	0
Molybdenum	ppm	ASTM D5185m	5	<1	0	<1
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m	25	3	5	2
Calcium	ppm	ASTM D5185m	200	63	64	65
Phosphorus	ppm	ASTM D5185m	300	329	321	321
Zinc	ppm	ASTM D5185m	370	378	379	371
Sulfur	ppm	ASTM D5185m	2500	3639	2917	3546
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.31	0.29	0.27
Visc @ 40°C	cSt	ASTM D445	68	63.4	63.9	63.1



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : FC006220
Lab Number : 06187621
Unique Number : 11044373
Test Package : IND 2
Received : 22 May 2024
Tested : 23 May 2024
Diagnosed : 23 May 2024 - Wes Davis

FLUID CONTROL SERVICES, INC.
 1155 ALLGOOD ROAD, SUITE 15
 MARIETTA, GA
 US 30062
 Contact: Duane Smith
 dsmith.fcs@sealsaver.com
 T: (770)509-5833
 F: (770)509-5832

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)