



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
HAMM 001770
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (12 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		WC0800482	WC0664905	WC0497705
Sample Date		Client Info		18 Dec 2023	16 Jun 2022	22 Mar 2021
Machine Age	hrs	Client Info		4878	3885	3359
Oil Age	hrs	Client Info		993	1000	500
Filter Age	hrs	Client Info		993	526	500
Oil Changed		Client Info		Changed	Changed	Not Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	6	4	2
Chromium	ppm	ASTM D5185m	>10	<1	0	0
Nickel	ppm	ASTM D5185m	>10	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	<1	0
Aluminum	ppm	ASTM D5185m	>10	2	2	0
Lead	ppm	ASTM D5185m	>10	<1	2	<1
Copper	ppm	ASTM D5185m	>75	3	2	2
Tin	ppm	ASTM D5185m	>10	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

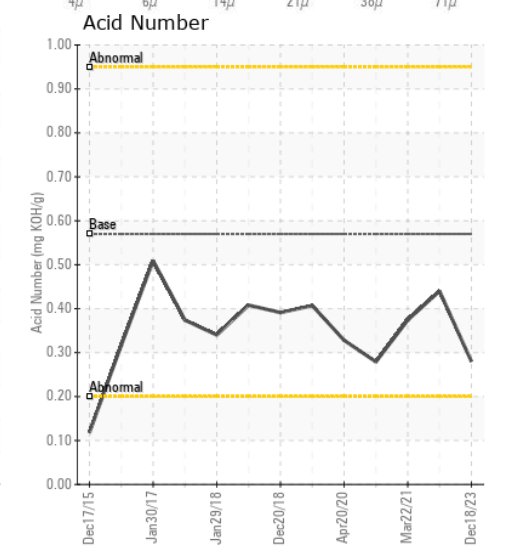
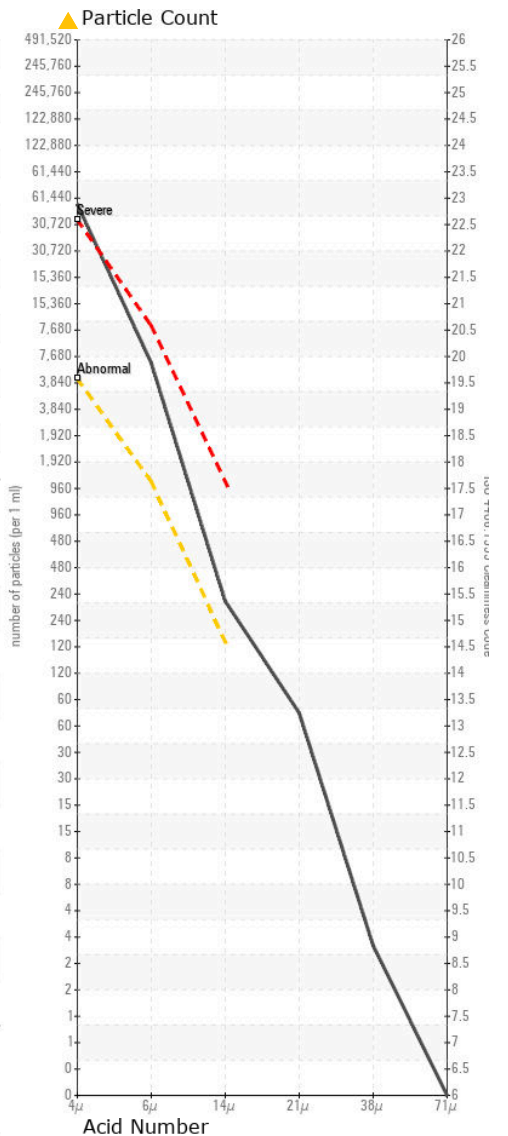
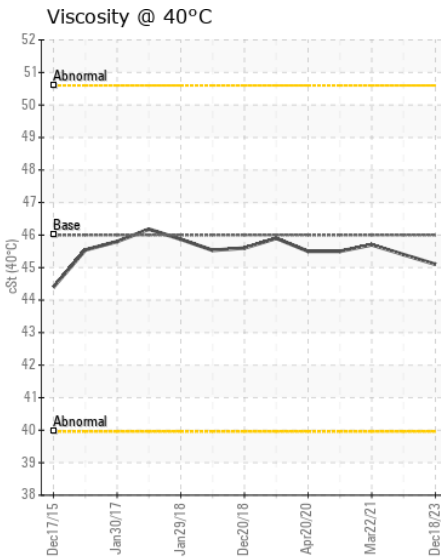
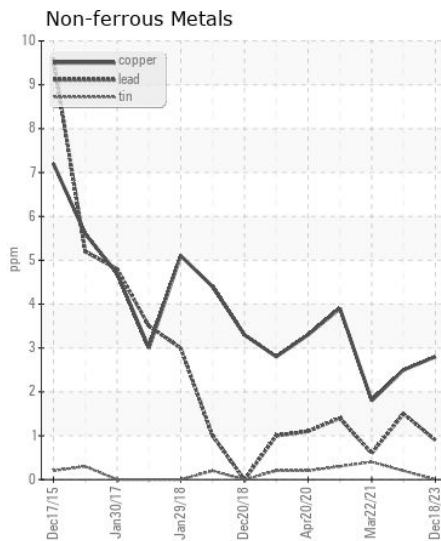
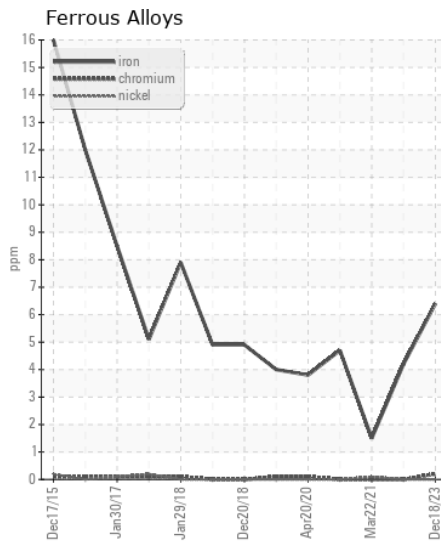
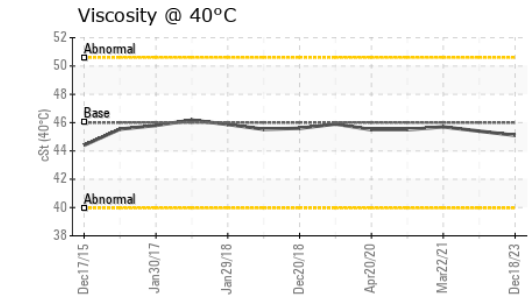
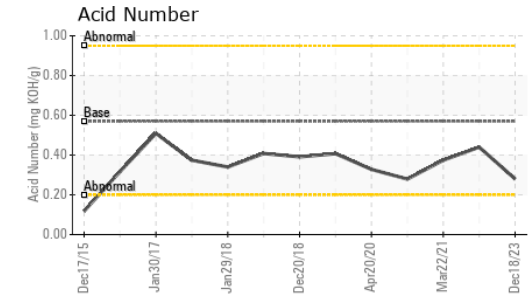
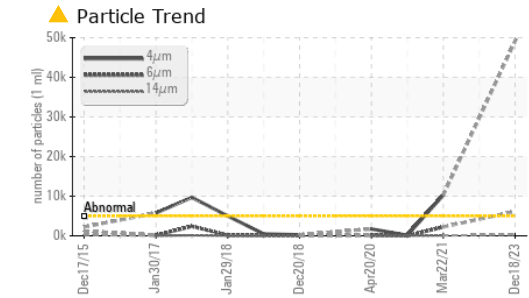
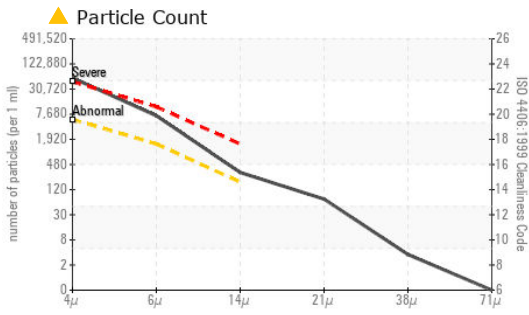
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>20	1	1	0
Potassium	ppm	ASTM D5185m	>20	2	1	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	▲ 49122	---	▲ 10252
Particles >6µm		ASTM D7647	>1300	▲ 6145	---	▲ 2235
Particles >14µm		ASTM D7647	>160	▲ 272	---	81
Particles >21µm		ASTM D7647	>40	▲ 63	---	13
Particles >38µm		ASTM D7647	>10	3	---	0
Particles >71µm		ASTM D7647	>3	0	---	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 23/20/15	---	▲ 21/18/14
Silt	scalar	*Visual	NONE	LIGHT	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER	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	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		0	0	0
Boron	ppm	ASTM D5185m	5	3	7	6
Barium	ppm	ASTM D5185m	5	0	2	0
Molybdenum	ppm	ASTM D5185m	5	3	4	6
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m	25	63	35	25
Calcium	ppm	ASTM D5185m	200	182	207	209
Phosphorus	ppm	ASTM D5185m	300	372	344	349
Zinc	ppm	ASTM D5185m	370	420	435	451
Sulfur	ppm	ASTM D5185m	2500	1082	1440	1174
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.28	0.44	0.374
Visc @ 40°C	cSt	ASTM D445	46	45.1	45.4	45.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0800482 **Received** : 12 Jan 2024
Lab Number : 06060160 **Diagnosed** : 16 Jan 2024
Unique Number : 10831542 **Diagnostician** : Don Baldrige
Test Package : CONST

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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