



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
LOG YARD
Machine Id
PORTAL CRANE GRAPPLE (S/N LY105B1)
Component
Hydraulic System
Fluid
VALVOLINE AW HYDRAULIC 68 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0783045	WC0783036	WC0834647
Sample Date		Client Info		23 May 2024	19 Mar 2024	15 Feb 2024
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				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<1	0	0
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>20	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	0	<1	0
Lead	ppm	ASTM D5185m	>20	0	0	<1
Copper	ppm	ASTM D5185m	>20	<1	1	2
Tin	ppm	ASTM D5185m	>20	0	<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

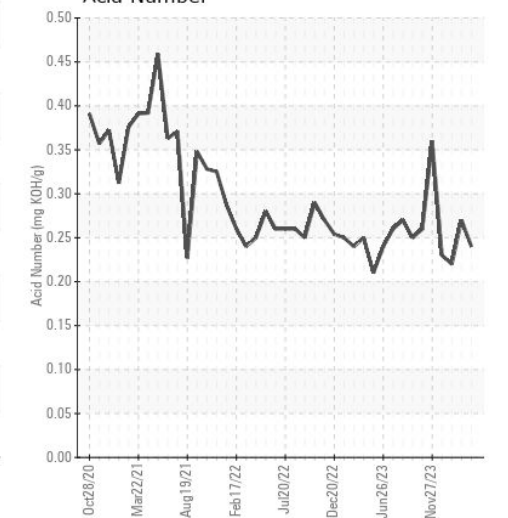
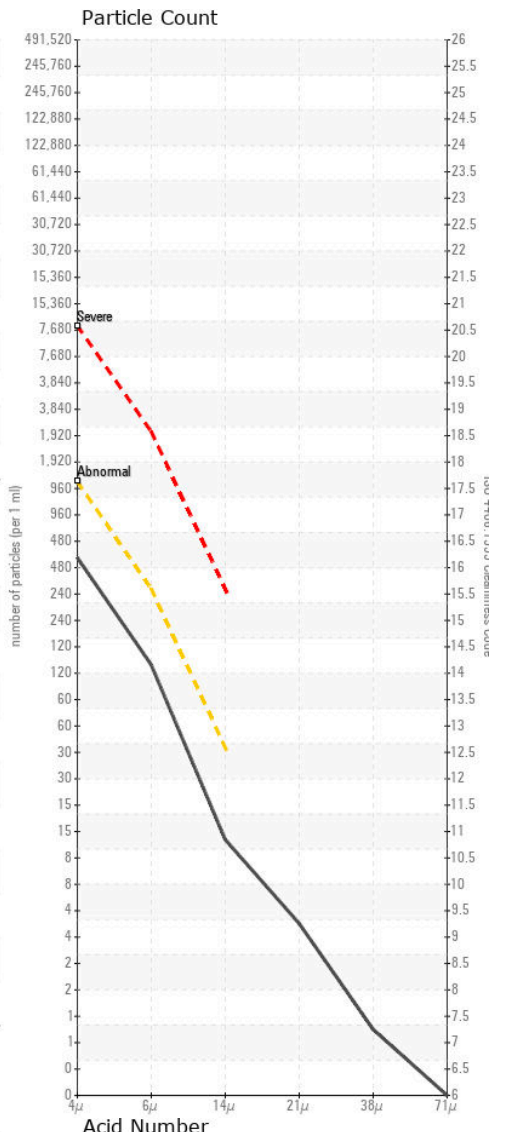
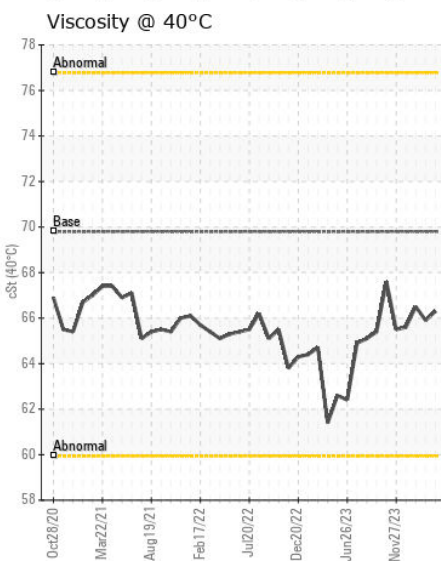
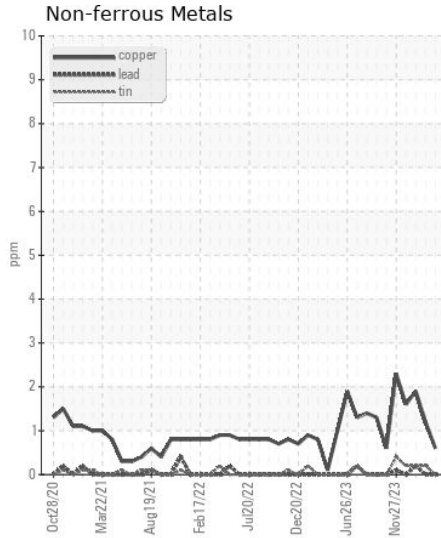
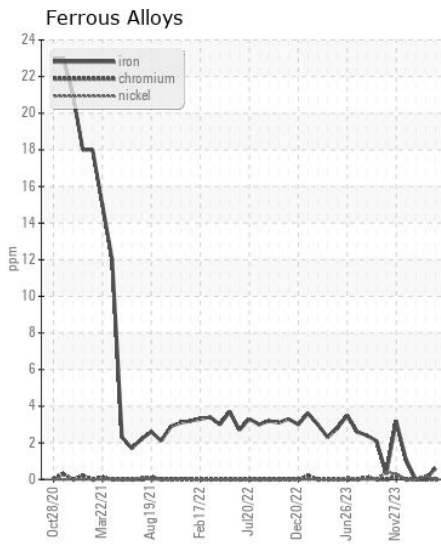
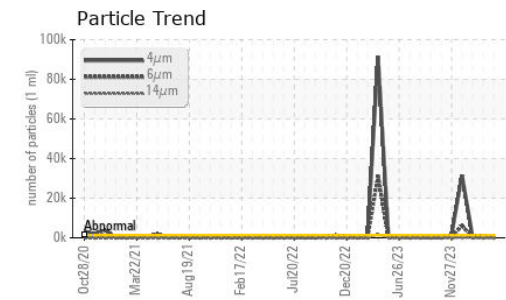
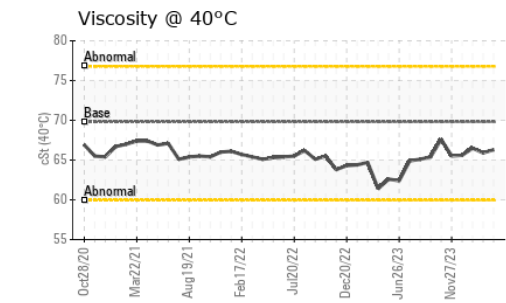
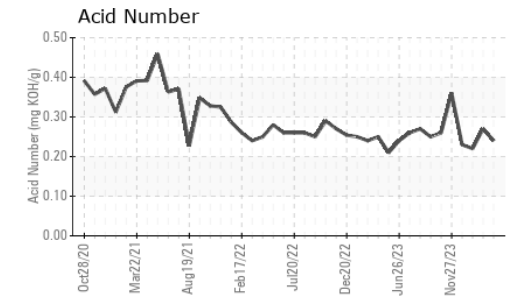
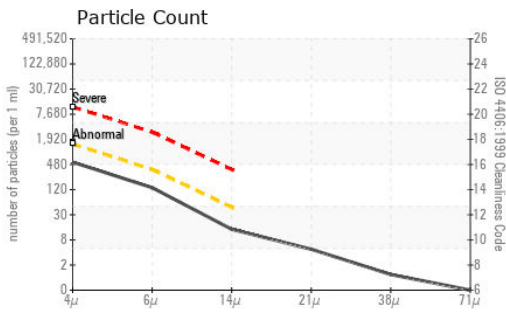
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>15	<1	<1	<1
Potassium	ppm	ASTM D5185m	>20	0	0	<1
Water		WC Method	>0.05	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>1300	481	917	614
Particles >6µm		ASTM D7647	>320	118	249	199
Particles >14µm		ASTM D7647	>40	12	35	16
Particles >21µm		ASTM D7647	>10	4	10	2
Particles >38µm		ASTM D7647	>3	1	1	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>17/15/12	16/14/11	17/15/12	16/15/11
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

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		1	2	2
Boron	ppm	ASTM D5185m	2.6	1	2	2
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	2	2	2
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m	1.9	10	14	13
Calcium	ppm	ASTM D5185m	81	87	88	82
Phosphorus	ppm	ASTM D5185m	350	338	347	322
Zinc	ppm	ASTM D5185m	445	448	442	447
Sulfur	ppm	ASTM D5185m	1850	992	992	868
Acid Number (AN)	mg KOH/g	ASTM D8045		0.24	0.27	0.22
Visc @ 40°C	cSt	ASTM D445	69.8	66.3	65.9	66.5



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0783045 **Received** : 30 May 2024
Lab Number : 06195881 **Tested** : 02 Jun 2024
Unique Number : 11058004 **Diagnosed** : 02 Jun 2024 - Wes Davis
Test Package : IND 2

J.M. Huber Corporation
 PO BOX 38
 CRYSTAL HILL, VA
 US 24539
 Contact: Ted Hudson
 ted.hudson@huber.com
 T: (434)476-6628
 F: (434)476-8133

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)