

Machine Id **24867/54129 - ABC590** Component **Hydraulic System** Fluid **AW HYDRAULIC OIL ISO 32 (55 GAL)**

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.



All component wear rates are normal.

CONTAMINATION

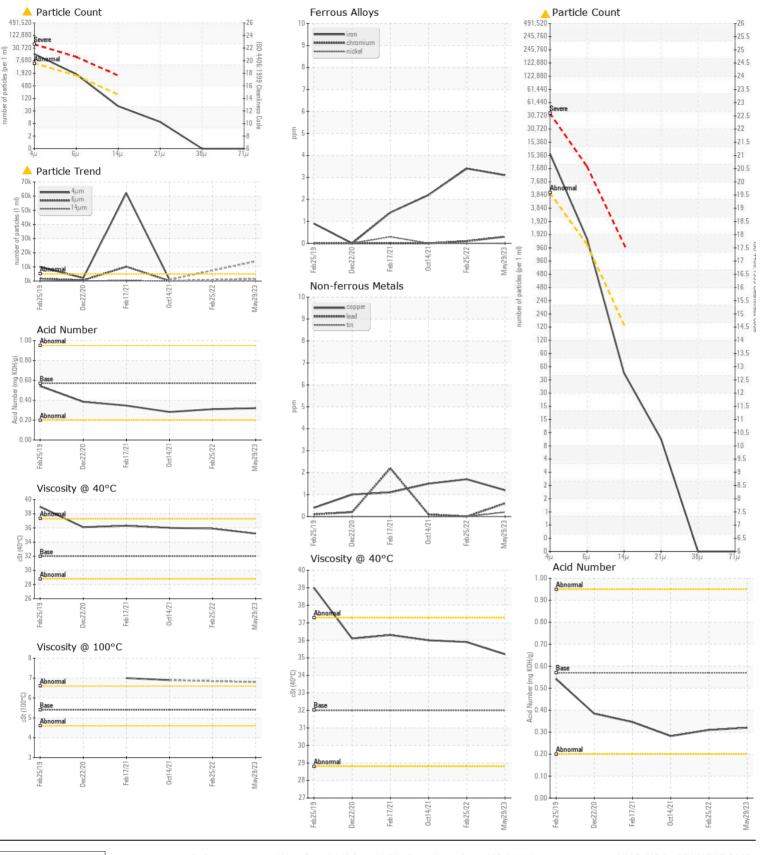
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

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FLUID CONDITION

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		WC0698785	WC0636267	WC0585292
	Sample Date		Client Info		29 May 2023	25 Feb 2022	14 Oct 2021
	Machine Age	yrs	Client Info		0	0	0
	Oil Age	yrs	Client Info		0	0	0
	Filter Age	yrs	Client Info		1	1	0
	Oil Changed	,	Client Info		Not Changd	Not Changd	Not Changd
	Filter Changed		Client Info		Changed	Changed	Not Changd
	Sample Status				ABNORMAL	ABNORMAL	NORMAL
	Iron	ppm	ASTM D5185m	>20	3	3	2
	Chromium	ppm	ASTM D5185m	>10	<1	<1	0
	Nickel	ppm	ASTM D5185m	>10	0	0	0
	Titanium	ppm	ASTM D5185m		0	0	0
	Silver	ppm	ASTM D5185m		<1	0	0
	Aluminum	ppm	ASTM D5185m	>10	<1	<1	0
	Lead	ppm	ASTM D5185m	>10	<1	0	<1
	Copper	ppm	ASTM D5185m	>75	1	2	2
	Tin	ppm	ASTM D5185m	>10	<1	0	0
	Vanadium White Metal	ppm	ASTM D5185m				
		scalar	*Visual	NONE	NONE	MODER NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Silicon	ppm	ASTM D5185m	>20	2	1	1
	Potassium	ppm	ASTM D5185m	>20	1	<1	0
	Water	T-T-	WC Method	>0.1	NEG	NEG	NEG
	Particles >4µm		ASTM D7647	>5000	A 13956		982
	Particles >6µm		ASTM D7647	>1300	1512		136
	Particles >14µm		ASTM D7647	>160	45		16
	Particles >21µm		ASTM D7647	>40	8		5
	Particles >38µm		ASTM D7647	>10	0		0
	Particles >71µm		ASTM D7647	>3	0		0
	Oil Cleanliness		ISO 4406 (c)	>19/17/14	🔺 21/18/13		17/14/11
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	LIGHT	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	0.2%	NEG
	Sodium	ppm	ASTM D5185m		1	0	0
	Boron	ppm	ASTM D5185m	5	0	0	1
	Barium	ppm	ASTM D5185m	5	0	0	0
	Molybdenum	ppm	ASTM D5185m	5	<1	<1	<1
	Manganese	ppm	ASTM D5185m		<1	<1	<1
	Magnesium	ppm	ASTM D5185m	25	10	<1	<1
	Calcium	ppm	ASTM D5185m	200	62	59	58
	Phosphorus	ppm	ASTM D5185m	300	363	350	364
	Zinc	ppm	ASTM D5185m	370	451	468	478
	Sulfur	ppm	ASTM D5185m	2500	4224	3847	3830
	Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.32	0.31	0.282
	Visc @ 40°C	cSt	ASTM D445	32	35.2	35.9	36.0
	Visc @ 100°C	cSt	ASTM D445	5.4	6.8		6.9
	Viscosity Index (VI)	Scale	ASTM D2270	102	155		154



HIAB USA - MINNEAPOLIS Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0698785 : 26 May 2023 10974 CLARK RD Sample No. Recieved : 05858536 INVER GROVE HEIGHTS, MN Lab Number Diagnosed : 31 May 2023 : 10493001 Diagnostician : Jonathan Hester US 55077 **Unique Number** Test Package : MOB 2 (Additional Tests: KV100, VI) Contact: MAT ENGLER Certificate L2367 MAT.ENGLER@HIAB.COM 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. T: F:

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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Contact/Location: MAT ENGLER - CARBLOMN