

### **OIL ANALYSIS REPORT**

Sample Rating Trend

NORMAL

# HIAB 63335 - JRS DISTRIUBUTION

Hydraulic System Fluid NOT GIVEN (--- GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

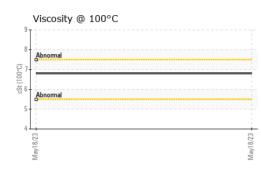
#### Fluid Condition

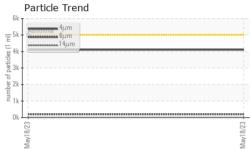
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

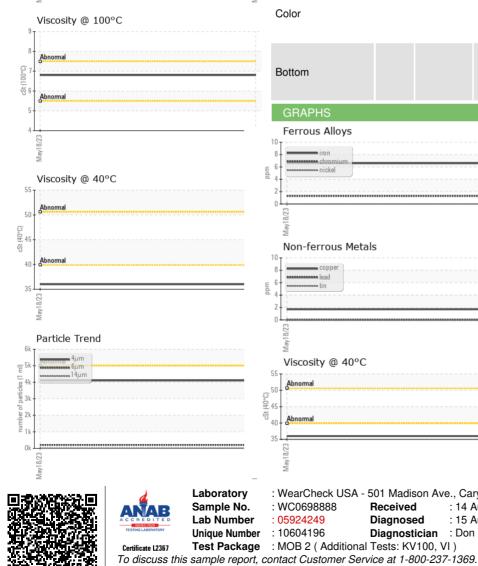
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0698888		
Sample Date		Client Info		18 May 2023		
Machine Age	yrs	Client Info		0		
Oil Age	yrs	Client Info		0		
Oil Changed		Client Info		Not Changd		
Sample Status				NORMAL		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	7		
Chromium	ppm	ASTM D5185m	>10	1		
Nickel	ppm	ASTM D5185m	>10	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>10	0		
Lead	ppm	ASTM D5185m	>10	0		
Copper	ppm		>75	2		
Tin	ppm	ASTM D5185m	>10	0		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0		
Barium	ppm	ASTM D5185m		0		
Molybdenum	ppm	ASTM D5185m		0		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m		<1		
Calcium	ppm	ASTM D5185m		44		
Phosphorus	ppm	ASTM D5185m		378		
Zinc	ppm	ASTM D5185m		384		
Sulfur	ppm	ASTM D5185m		5716		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	<1		
Sodium	ppm	ASTM D5185m		<1		
Potassium	ppm	ASTM D5185m	>20	0		
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	4105		
Particles >6µm		ASTM D7647	>1300	203		
Particles >14µm		ASTM D7647	>160	13		
Particles >21µm		ASTM D7647	>40	4		
Particles >38µm		ASTM D7647	>10	0		
Particles >71µm		ASTM D7647	>3	0		
Oil Cleanliness		ISO 4406 (c)	>19/17/14	19/15/11		
FLUID DEGRADA		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.33		



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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE		
ellow Metal	scalar	*Visual	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Ddor	scalar	*Visual	NORML	NORML		
Emulsified Water	scalar	*Visual	>0.1	NEG		
Free Water	scalar	*Visual		NEG		
FLUID PROPERT	IES	method	limit/base	current	history1	history2
/isc @ 40°C	cSt	ASTM D445		36.0		
/isc @ 100°C	cSt	ASTM D445		6.8		
/iscosity Index (VI)	Scale	ASTM D2270		149		
SAMPLE IMAGES	2	method	limit/base	current	history1	history2
OAM LE MACLO		method	mmybase		Thistory	- Historyz
Color					no image	no image
Bottom					no image	no image
GRAPHS						
Ferrous Alloys			491,520	Particle Count		<b>T</b> 26
iron						
nickel			122,880	Severe		-24
			30,720			-22
		****		Abnormal		-20
May18/23			May18/23 s (per 1 m	N		10
May			1,920 les (ber			+10
Non-ferrous Metals	5		May18/23 May			+20 +18 +16 +14
copper			b 120			-14
sessesses tin			30			-12
			30	· · · · · · · · · · · · · · · · · · ·		12
			8	†	1	-10
18/23			8/23			-8
May1			May18/23			
– Viscosity @ 40°C				ونام Acid Number	14μ 21μ	38µ 71µ
Abnormal			 ₽ <sup>0.40</sup>			
			9 0.30			
			는 늘 0.20			
Abnormal			0.00 0.20 0.20 0.10 0.10 0.10			
~			0.00 PC	L <u>.</u>		
May18/23			May18/23	May18/23		
Ma			Ma	Ma		:
05924249	Receiveo Diagnos Diagnos	d : 14 / ed : 15 / ti <b>cian</b> : Dor	ry, NC 27513 Aug 2023 Aug 2023 n Baldridge		HIAB USA - H VESTERN MAR HAGE Contact: CHU	YLAND PKW RSTOWN, M US 2174

\* - 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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