IND II

ROYAL PURPLE PERFORMANCE UNDER PRESSURE

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
MELT SHOP - CRANES
Machine Id
UPPER HYD UNIT E-CRANE
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (--- 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 recommend you service the filters on this component. We recommend an early resample to monitor this condition. 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

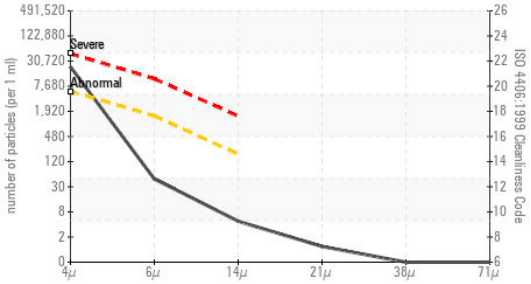
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible.

FLUID CONDITION

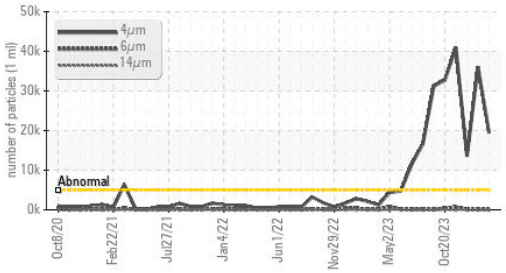
The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RP0039209	RP0038036	RP0038066
Sample Date		Client Info		31 Jan 2024	04 Jan 2024	06 Dec 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				ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>20	5	5	3
Chromium	ppm	ASTM D5185m	>20	2	2	2
Nickel	ppm	ASTM D5185m	>20	<1	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	1	0
Lead	ppm	ASTM D5185m	>20	3	<1	0
Copper	ppm	ASTM D5185m	>20	3	1	2
Tin	ppm	ASTM D5185m	>20	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>15	3	2	2
Potassium	ppm	ASTM D5185m	>20	4	1	<1
Water	%	ASTM D6304	>0.05	0.007	0.007	0.003
ppm Water	ppm	ASTM D6304	>500	71	72	32
Particles >4µm		ASTM D7647	>5000	▲ 19382	▲ 36086	▲ 13501
Particles >6µm		ASTM D7647	>1300	41	81	57
Particles >14µm		ASTM D7647	>160	4	5	3
Particles >21µm		ASTM D7647	>40	1	2	0
Particles >38µm		ASTM D7647	>10	0	0	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 21/13/9	▲ 22/14/10	▲ 21/13/9
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		2	0	2
Boron	ppm	ASTM D5185m	5	0	0	0
Barium	ppm	ASTM D5185m	5	0	10	0
Molybdenum	ppm	ASTM D5185m	5	<1	<1	0
Manganese	ppm	ASTM D5185m		2	0	<1
Magnesium	ppm	ASTM D5185m	25	3	2	<1
Calcium	ppm	ASTM D5185m	200	50	52	50
Phosphorus	ppm	ASTM D5185m	300	336	349	332
Zinc	ppm	ASTM D5185m	370	439	417	420
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.46	0.40	0.37
Visc @ 40°C	cSt	ASTM D445	46	47.5	47.00	49.9

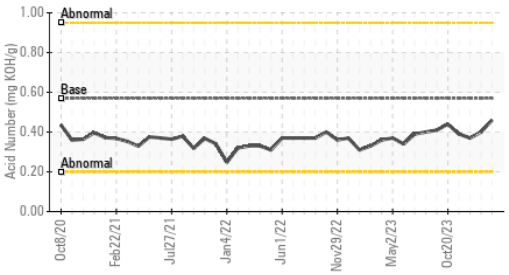
Particle Count



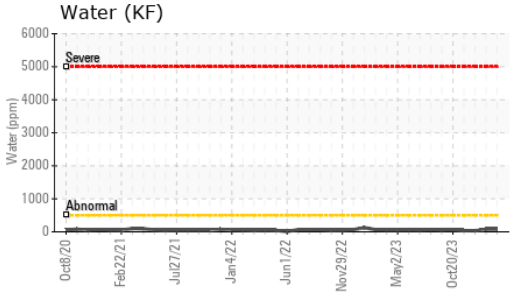
Particle Trend



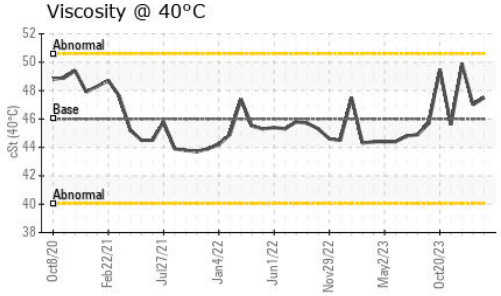
Acid Number



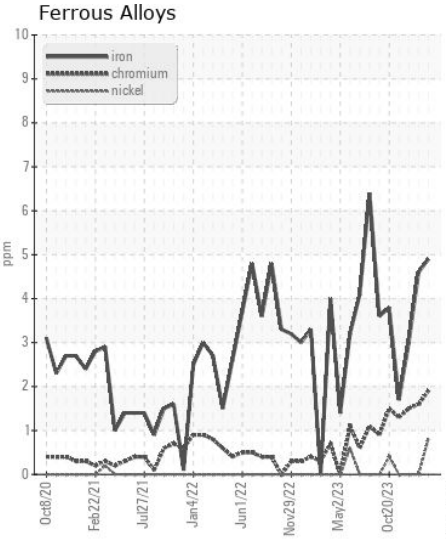
Water (KF)



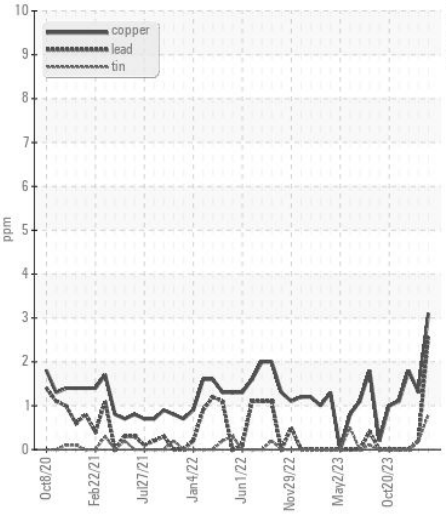
Viscosity @ 40°C



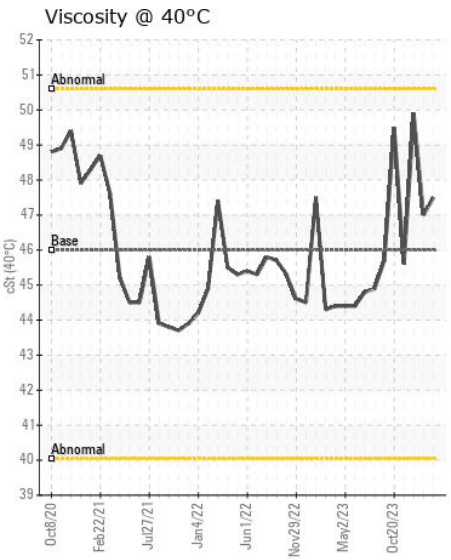
Ferrous Alloys



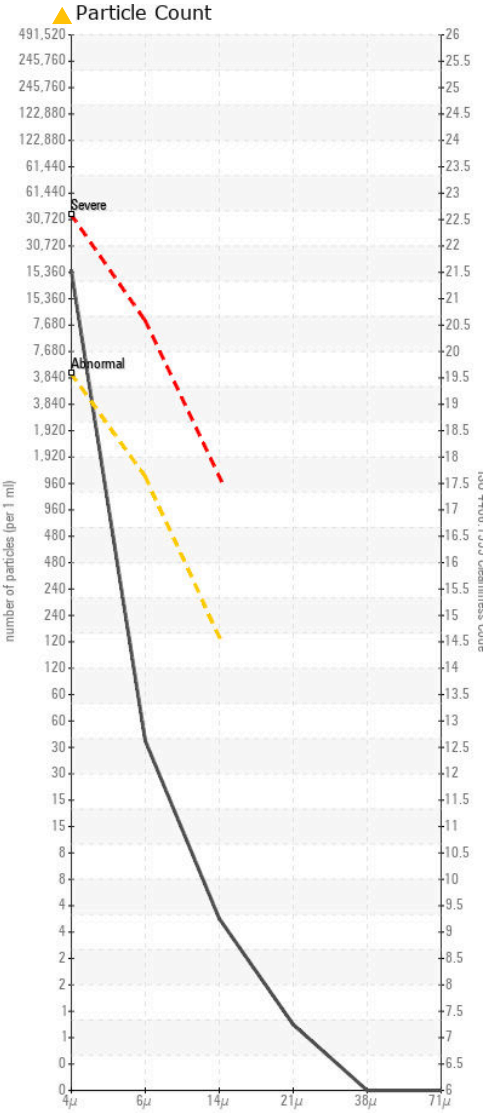
Non-ferrous Metals



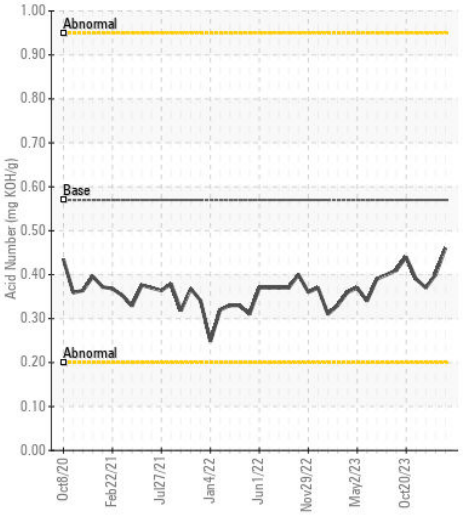
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: RP0039209	**Recieved**	: 01 Feb 2024
Lab Number	: 06077671	**Diagnosed**	: 02 Feb 2024
Unique Number	: 10859762	**Diagnostician**	: Wes Davis
Test Package	: IND 2		

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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