



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	SEVERE

Area
[02618664]
 Machine Id
SCRAPPER HPU CP12
 Component
Hydraulic System
 Fluid
{not provided} (--- 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 advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this oil. We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. Resample in 30-45 days to monitor this situation. 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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PP	---	---
Sample Date		Client Info		23 Feb 2024	---	---
Machine Age	yrs	Client Info		0	---	---
Oil Age	yrs	Client Info		1	---	---
Filter Age	yrs	Client Info		1	---	---
Oil Changed		Client Info		Not Chngd	---	---
Filter Changed		Client Info		Not Chngd	---	---
Sample Status				SEVERE	---	---

WEAR

Iron ppm levels are abnormal. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

Test	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184*		0	---	---
Iron	ppm	ASTM D5185(m)	>20	45	---	---
Chromium	ppm	ASTM D5185(m)	>20	8	---	---
Nickel	ppm	ASTM D5185(m)	>20	0	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)		0	---	---
Aluminum	ppm	ASTM D5185(m)	>20	1	---	---
Lead	ppm	ASTM D5185(m)	>20	<1	---	---
Copper	ppm	ASTM D5185(m)	>20	2	---	---
Tin	ppm	ASTM D5185(m)	>20	0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

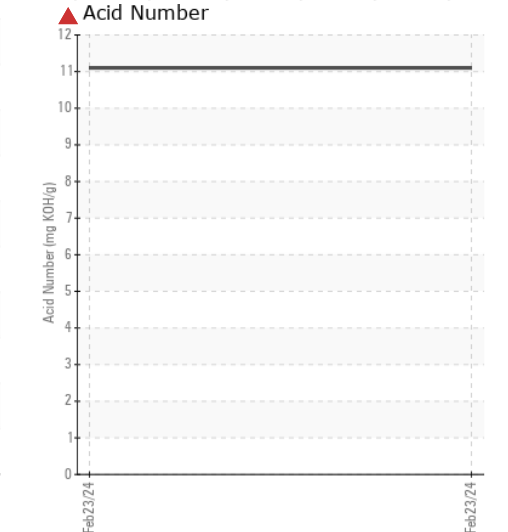
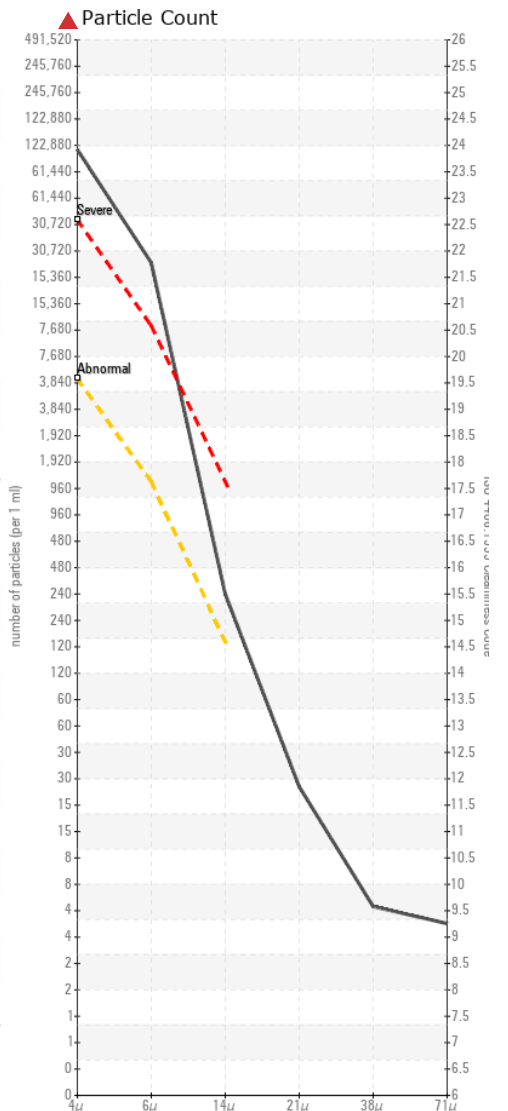
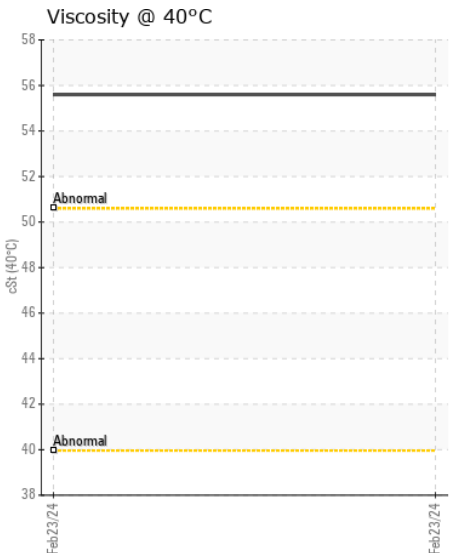
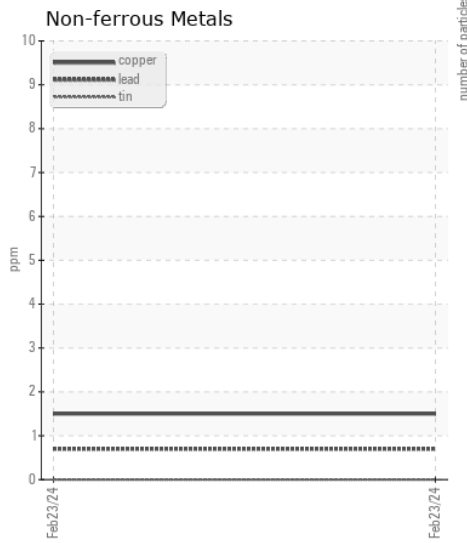
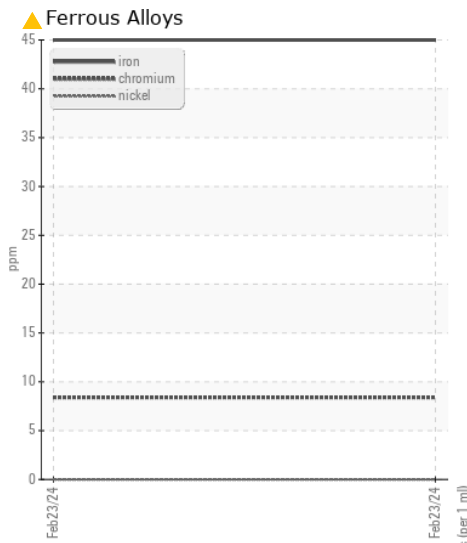
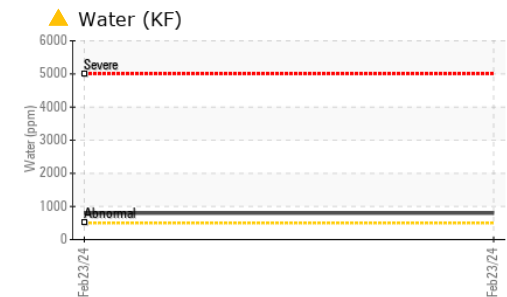
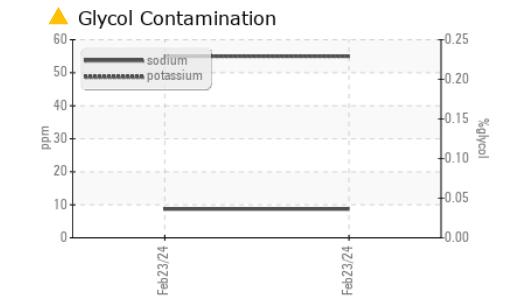
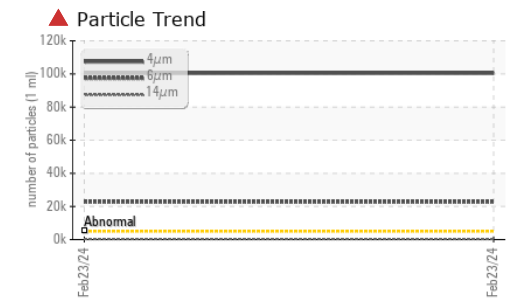
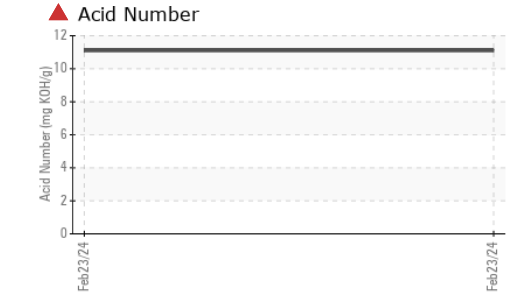
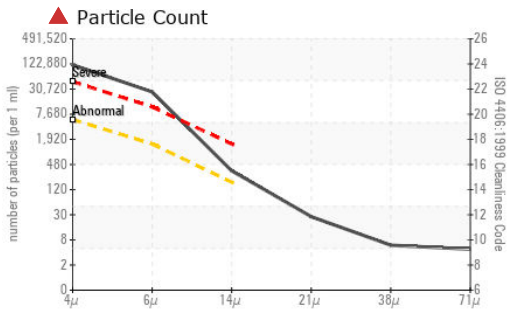
There is a high amount of silt (particulates < 14 microns in size) present in the oil. There is a moderate concentration of water present in the oil.

Silicon	ppm	ASTM D5185(m)	>15	2	---	---
Potassium	ppm	ASTM D5185(m)	>20	55	---	---
Water	%	ASTM D6304*	>0.05	0.079	---	---
ppm Water	ppm	ASTM D6304*	>500	797	---	---
Particles >4µm		ASTM D7647	>5000	100420	---	---
Particles >6µm		ASTM D7647	>1300	22794	---	---
Particles >14µm		ASTM D7647	>160	299	---	---
Particles >21µm		ASTM D7647	>40	24	---	---
Particles >38µm		ASTM D7647	>10	5	---	---
Particles >71µm		ASTM D7647	>3	4	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	24/22/15	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	VLITE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.05	NEG	---	---

FLUID CONDITION

indicate a difference in the oil formulation as compared to the reference oil. Additive levels indicate the addition of a different brand, or type of oil. The high AN level of the oil indicates the presence of oxipolymerized products. The AN level is much higher than the recommended limit. The pH level of this fluid is within the acceptable limits. The reserve alkalinity of this fluid is acceptable. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		9	---	---
Boron	ppm	ASTM D5185(m)		<1	---	---
Barium	ppm	ASTM D5185(m)		0	---	---
Molybdenum	ppm	ASTM D5185(m)		0	---	---
Manganese	ppm	ASTM D5185(m)		0	---	---
Magnesium	ppm	ASTM D5185(m)		2	---	---
Calcium	ppm	ASTM D5185(m)		36	---	---
Phosphorus	ppm	ASTM D5185(m)		97	---	---
Zinc	ppm	ASTM D5185(m)		5	---	---
Sulfur	ppm	ASTM D5185(m)		811	---	---
Acid Number (AN)	mg KOH/g	ASTM D974*		11.1	---	---
Visc @ 40°C	cSt	ASTM D7279(m)		55.6	---	---



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PP **Received** : 28 Feb 2024
Lab Number : 02618667 **Tested** : 01 Mar 2024
Unique Number : 5735777 **Diagnosed** : 01 Mar 2024 - Kevin Marson
Test Package : IND 2 (Additional Tests: KF, pH, PQ, ReserveAlk, TAN Man)

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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