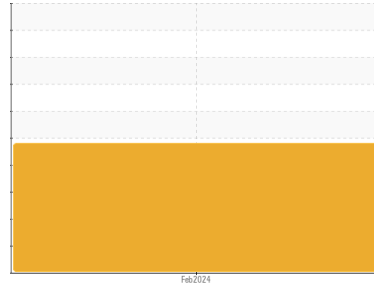
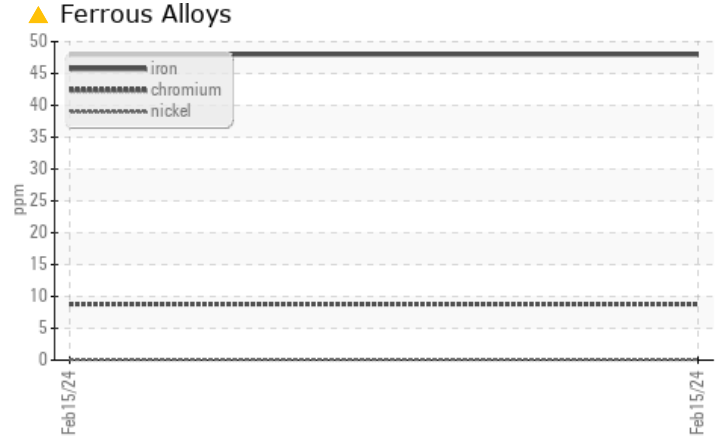
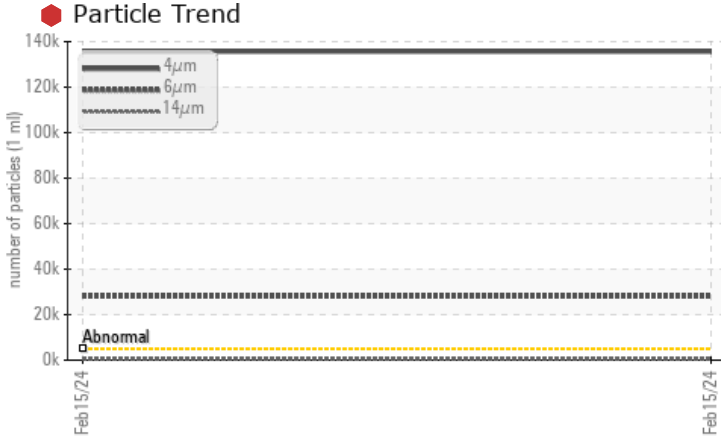




Machine Id
SCRAPPER HPU PC12
Component
Hydraulic System
Fluid
{not provided} (--- GAL)



COMPONENT CONDITION SUMMARY



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. 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 recommend you service the filters on this component. 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. Please specify the component make and model with your next sample.

PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	---	---
Particles >4µm	ASTM D7647	>5000	135656	---	---
Particles >6µm	ASTM D7647	>1300	28020	---	---
Particles >14µm	ASTM D7647	>160	486	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	24/22/16	---	---

Customer Id: PCA_129713
Sample No.: PC
Lab Number: 02616228
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Alert	---	---	?	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.
Information Required	---	---	?	Please specify the brand, type, and viscosity of the oil on your next sample. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the component make and model with your next sample.
Check Breathers	---	---	?	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.
Check Seals	---	---	?	Check seals and/or filters for points of contaminant entry.

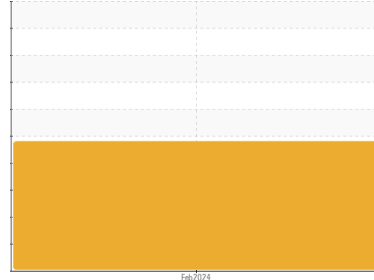
HISTORICAL DIAGNOSIS



Machine Id
SCRAPPER HPU PC12

Component
Hydraulic System

Fluid
{not provided} (--- GAL)



DIAGNOSIS

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. 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 recommend you service the filters on this component. 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. Please specify the component make and model with your next sample.

Wear

Iron ppm levels are noted. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. All other component wear rates are normal.

Contamination

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

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.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PC	---	---
Sample Date	Client Info		15 Feb 2024	---	---
Machine Age	hrs	Client Info	0	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		N/A	---	---
Sample Status			SEVERE	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.05	NEG	---	---

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		0	---	---
Iron	ppm	ASTM D5185(m) >20	▲ 48	---	---
Chromium	ppm	ASTM D5185(m) >20	9	---	---
Nickel	ppm	ASTM D5185(m) >20	<1	---	---
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	1	---	---
Tin	ppm	ASTM D5185(m) >20	0	---	---
Antimony	ppm	ASTM D5185(m)	0	---	---
Vanadium	ppm	ASTM D5185(m)	0	---	---
Beryllium	ppm	ASTM D5185(m)	0	---	---
Cadmium	ppm	ASTM D5185(m)	0	---	---

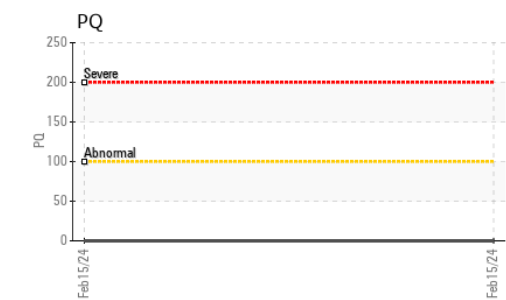
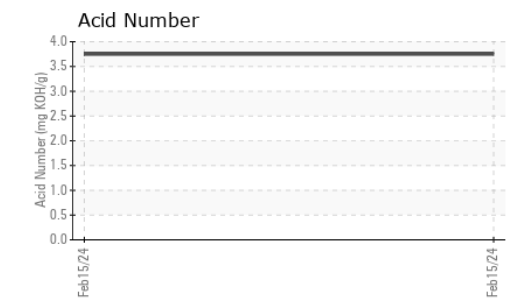
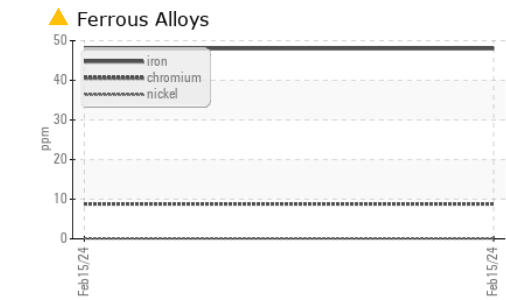
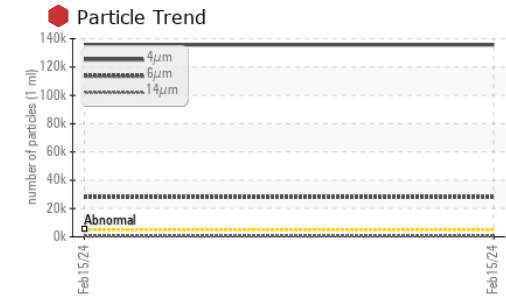
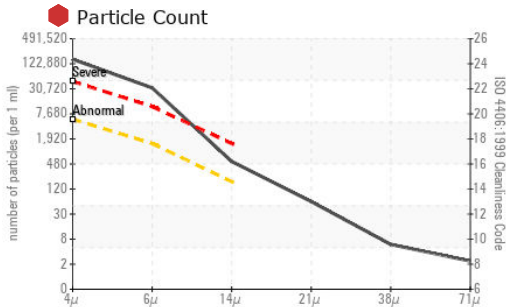
ADDITIVES

	method	limit/base	current	history1	history2
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)	39	---	---
Phosphorus	ppm	ASTM D5185(m)	97	---	---
Zinc	ppm	ASTM D5185(m)	6	---	---
Sulfur	ppm	ASTM D5185(m)	894	---	---
Lithium	ppm	ASTM D5185(m)	<1	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	2	---	---
Sodium	ppm	ASTM D5185(m)	3	---	---
Potassium	ppm	ASTM D5185(m) >20	2	---	---

OIL ANALYSIS REPORT



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC
Lab Number : 02616228
Unique Number : 5733338
Test Package : IND 2 (Additional Tests: KV100, PQ, TAN Man, VI)

Petro-Canada Technical/Behshad Sabah
 Received : 16 Feb 2024
 Tested : 20 Feb 2024
 Diagnosed : 20 Feb 2024 - Kevin Marson
 Mississauga, ON
 CA L5J 1K2
 Contact: Behshad Sabah
 Behshad.Sabah@hfsinclair.com
 T: (905)716-2158
 F: (905)403-6740

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.

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	135656	---	---	
Particles >6µm	ASTM D7647	>1300	28020	---	---	
Particles >14µm	ASTM D7647	>160	486	---	---	
Particles >21µm	ASTM D7647	>40	53	---	---	
Particles >38µm	ASTM D7647	>10	5	---	---	
Particles >71µm	ASTM D7647	>3	2	---	---	
Oil Cleanliness	ISO 4406 (c)	>19/17/14	24/22/16	---	---	

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		3.75	---	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow 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	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.05	NEG	---	---
Free Water	scalar	Visual*		NEG	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)		55.5	---	---
Visc @ 100°C	cSt	ASTM D7279(m)		10.4	---	---
Viscosity Index (VI)	Scale	ASTM D2270*		179	---	---

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color					no image	no image
Bottom					no image	no image