



PROBLEM SUMMARY

Sample Rating Trend

WEAR



Area

[114101]

Machine Id

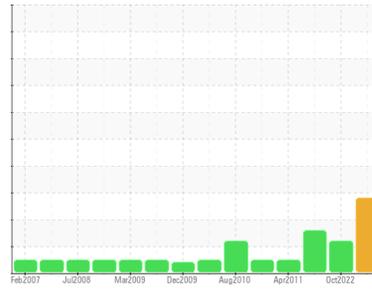
PRESS #2 BEFORE FILTERS

Component

Hydraulic System

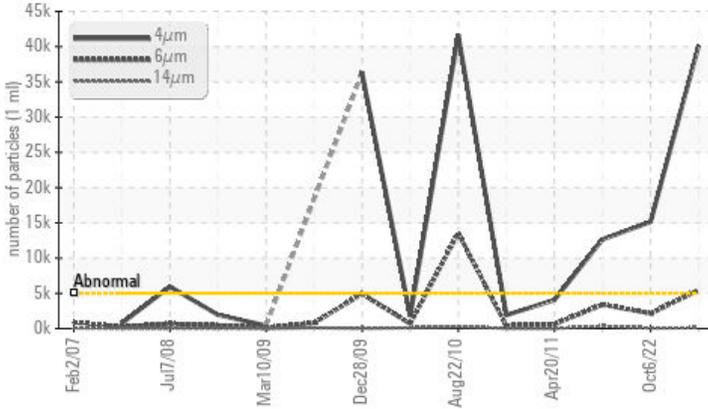
Fluid

PETRO CANADA HYDREX AW 68 (20000 LTR)

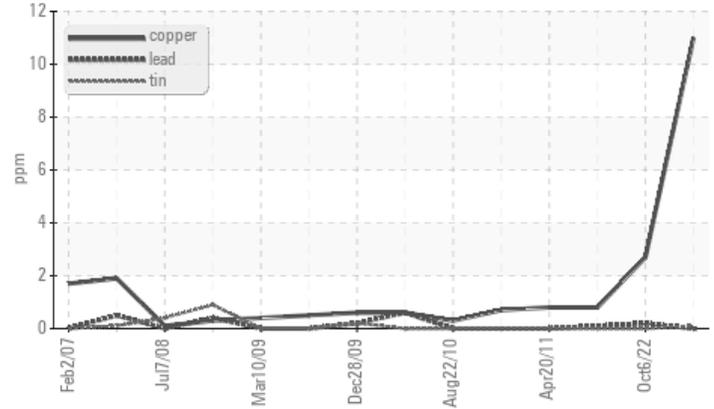


COMPONENT CONDITION SUMMARY

▲ Particle Trend



● Non-ferrous Metals



RECOMMENDATION

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. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	ABNORMAL	ABNORMAL
Particles >4µm	ASTM D7647	>5000	▲ 40135	▲ 15136	12655
Particles >6µm	ASTM D7647	>1300	▲ 5467	● 2143	▲ 3399
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 23/20/14	▲ 21/18/13	▲ 21/19/16

Customer Id: SPE95BRA
 Sample No.: WC0796130
 Lab Number: 02627363
 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.
Contact Required	---	---	?	Please contact your representative for information regarding the proper sampling kits for your service.
Alert	---	---	?	NOTE: We recommend using IND 3 test kits,
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



06 Oct 2022 Diag: Wes Davis

The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. Oil Cleanliness are abnormally high. Particles >4µm are abnormally high. Particles >6µm are notably high. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.



29 Aug 2011 Diag: Bill Quesnel

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. All component wear rates are normal. Particles >14µm, particles >21µm, particles >38µm and particles >6µm are abnormally high. The condition of oil is suitable for further service.



20 Apr 2011 Diag: Wes Davis

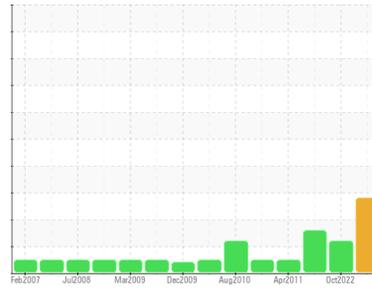
Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The condition of oil is suitable for further service.





OIL ANALYSIS REPORT

Sample Rating Trend



Area
[114101]

Machine Id
PRESS #2 BEFORE FILTERS

Component
Hydraulic System

Fluid
PETRO CANADA HYDREX AW 68 (20000 LTR)

DIAGNOSIS

Recommendation

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. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

Wear

Copper ppm levels are noted. 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		WC0796130	WC0616923	WC22091247
Sample Date	Client Info		04 Apr 2024	06 Oct 2022	29 Aug 2011
Machine Age	yrs	Client Info	0	6	0
Oil Age	yrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	Filtered	N/A
Sample Status			SEVERE	ABNORMAL	ABNORMAL

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>20	2	4	<1
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>20	0	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	0	0	0
Lead	ppm	ASTM D5185(m)	>20	0	<1	<1
Copper	ppm	ASTM D5185(m)	>20	11	3	<1
Tin	ppm	ASTM D5185(m)	>20	<1	0	0
Antimony	ppm	ASTM D5185(m)		0	<1	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	0	<1	<1	<1
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	0	<1	0	0
Calcium	ppm	ASTM D5185(m)	50	19	26	131
Phosphorus	ppm	ASTM D5185(m)	330	287	328	235
Zinc	ppm	ASTM D5185(m)	430	262	285	308
Sulfur	ppm	ASTM D5185(m)	760	540	602	620
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

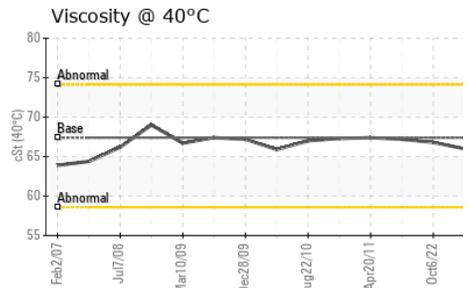
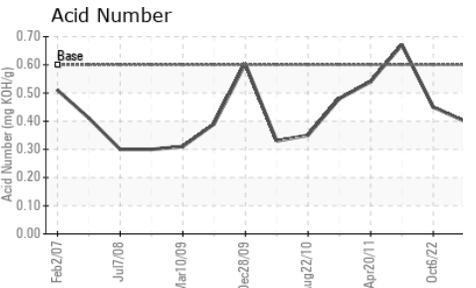
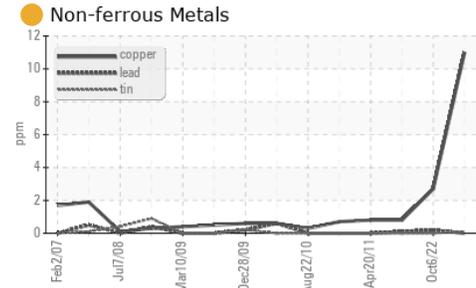
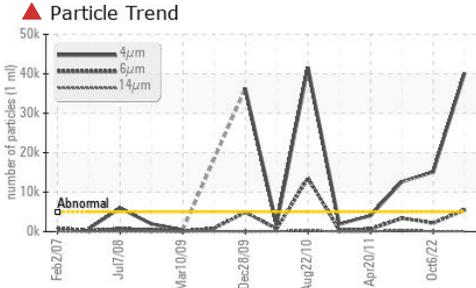
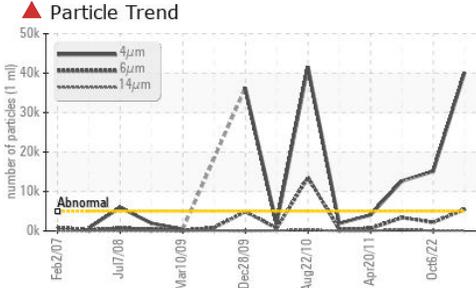
CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>15	0	0	0
Sodium	ppm	ASTM D5185(m)		0	0	1
Potassium	ppm	ASTM D5185(m)	>20	0	<1	0

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 40135	▲ 15136	12655
Particles >6µm	ASTM D7647	>1300	▲ 5467	● 2143	▲ 3399
Particles >14µm	ASTM D7647	>160	116	69	▲ 354
Particles >21µm	ASTM D7647	>40	20	25	▲ 105
Particles >38µm	ASTM D7647	>10	1	1	▲ 8
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 23/20/14	▲ 21/18/13	▲ 21/19/16

OIL ANALYSIS REPORT

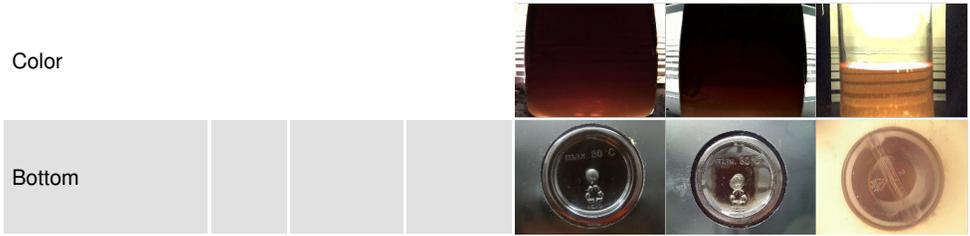


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.60	0.40	0.45	0.671

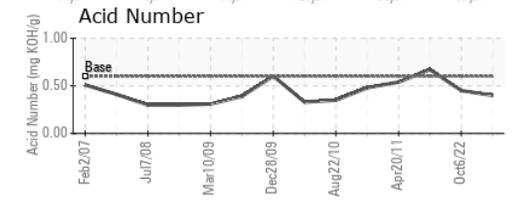
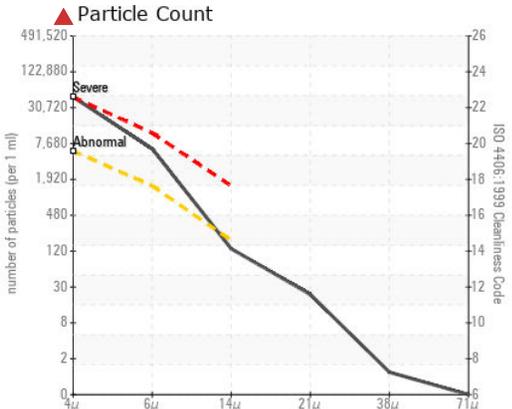
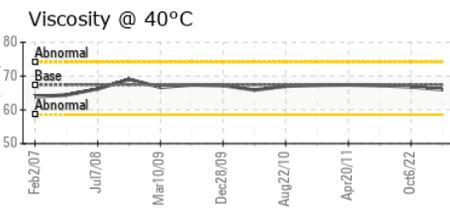
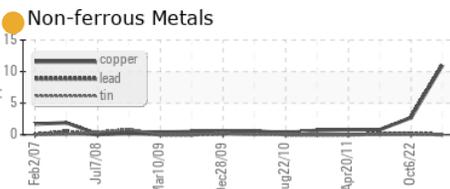
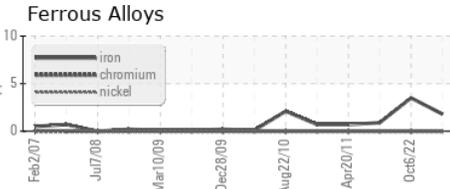
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	VLITE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	VLITE
Sand/Dirt	scalar	Visual*	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
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	67.4	66.0	66.8	67.2

SAMPLE IMAGES		method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0796130
Lab Number : 02627363
Unique Number : 5760495
Test Package : IND 2

SPECTRA ALUMINUM PRODUCTS INC.
 95 REAGENS INDUSTRIAL PKWY
 BRADFORD, ON
 CA L3Z 2A4
 Contact: Chris Mayr
 cmayr@spectraaluminum.com
 T: (905)778-8093
 F: (905)778-8054

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.