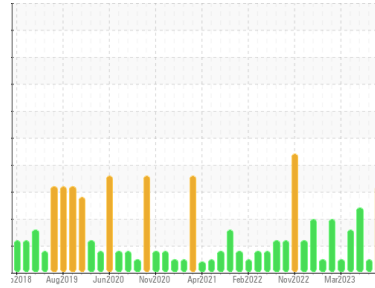


PROBLEM SUMMARY

Sample Rating Trend



VISUAL METAL

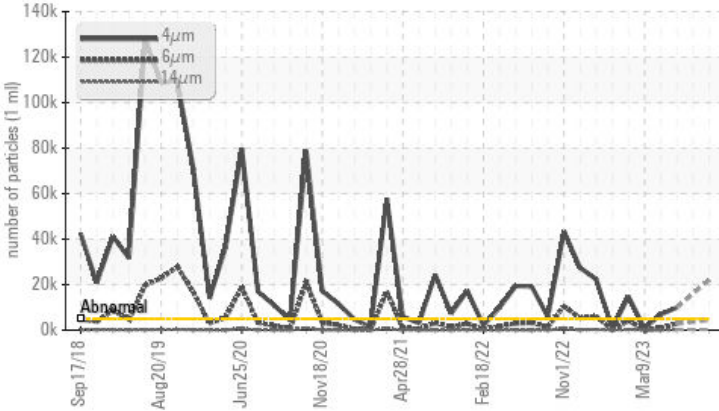


Area
TEAM 15
Machine Id
156319

Component
Hydraulic System
Fluid
PETRO CANADA HYDREX AW 46 (110 GAL)

COMPONENT CONDITION SUMMARY


▲ Particle Trend



RECOMMENDATION

We advise that you check for visible metal particles in the oil. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	NORMAL	ABNORMAL
Particles >4µm	ASTM D7647	>5000	▲ 22075	---	▲ 9931	
Particles >6µm	ASTM D7647	>1300	▲ 4575	---	▲ 2835	
Particles >14µm	ASTM D7647	>160	▲ 280	---	▲ 196	
Particles >21µm	ASTM D7647	>40	▲ 67	---	48	
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 22/19/15	---	▲ 20/19/15	
White Metal	scalar	Visual*	NONE	▲ VLITE	NONE	NONE
PrtFilter					no image	no image

Customer Id: CANDRY
Sample No.: PC0070440
Lab Number: 02574034
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	---	---	?	We recommend an early resample to monitor this condition.
Check For Visual Metal	---	---	?	We advise that you check for visible metal particles in the oil.

HISTORICAL DIAGNOSIS

20 Jun 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report



25 Apr 2023 Diag: Kevin Marson

WEAR



We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Copper ppm levels are abnormal. Oil cooler core leaching or motor piston wear is indicated. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report



29 Mar 2023 Diag: Kevin Marson

WEAR

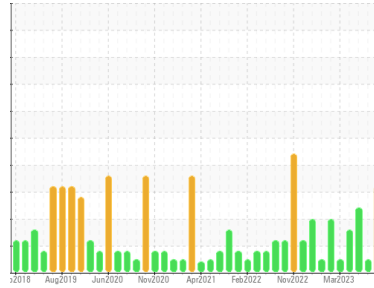


We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Copper ppm levels are abnormal. A sharp increase in the copper level is noted. Oil cooler core leaching or motor piston wear is indicated. There is a light amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



Area
TEAM 15
Machine Id
156319
Component
Hydraulic System
Fluid
PETRO CANADA HYDREX AW 46 (110 GAL)



DIAGNOSIS

- Recommendation**
We advise that you check for visible metal particles in the oil. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.
- Wear**
Light concentration of visible metal present.
- Contamination**
There is a moderate 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	PC0070440	PC0074858	PC0070218
Sample Date	Client Info	19 Jul 2023	20 Jun 2023	25 Apr 2023
Machine Age	days	0	0	0
Oil Age	days	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	NORMAL	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >20	<1	<1	2
Chromium	ppm	ASTM D5185(m) >20	0	0	<1
Nickel	ppm	ASTM D5185(m) >20	<1	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	<1	<1	<1
Copper	ppm	ASTM D5185(m) >20	1	4	▲ 29
Tin	ppm	ASTM D5185(m) >20	0	0	0
Antimony	ppm	ASTM D5185(m)	0	0	0
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	<1	0	<1

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m) 0	0	0	0
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	<1	0
Calcium	ppm	ASTM D5185(m) 50	54	50	3
Phosphorus	ppm	ASTM D5185(m) 330	470	363	343
Zinc	ppm	ASTM D5185(m) 430	566	437	303
Sulfur	ppm	ASTM D5185(m) 760	979	752	709
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

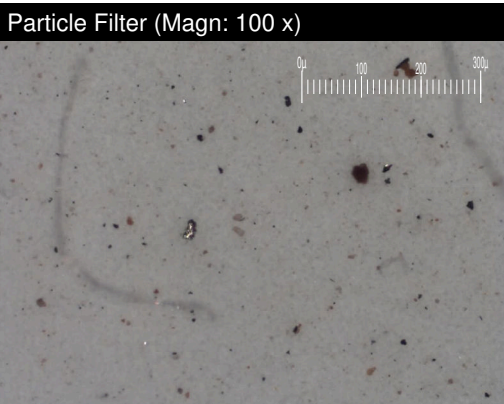
method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >15	<1	0	0
Sodium	ppm	ASTM D5185(m)	3	<1	14
Potassium	ppm	ASTM D5185(m) >20	0	0	<1

FLUID CLEANLINESS

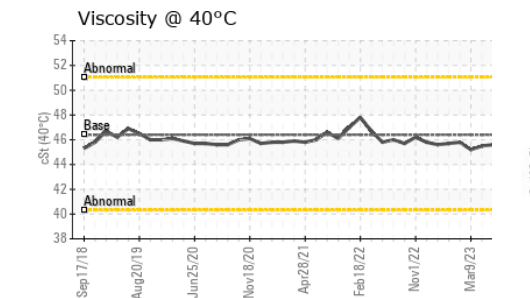
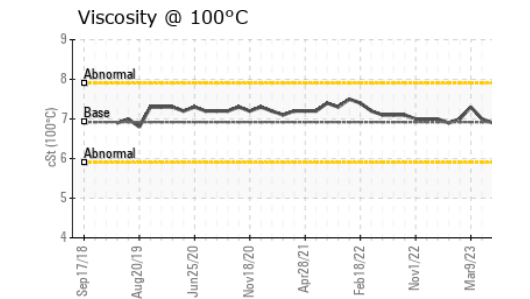
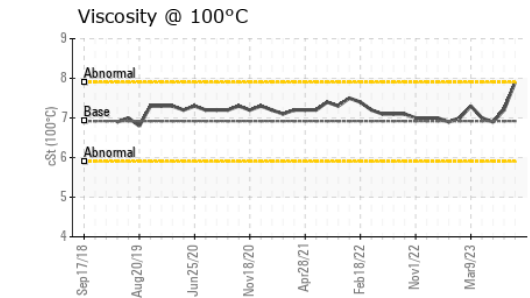
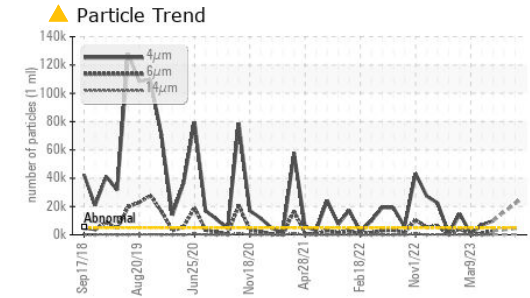
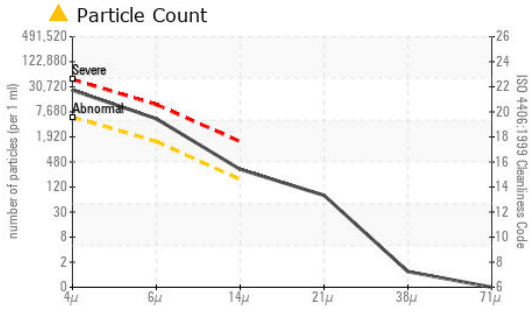
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	▲ 22075	---	▲ 9931
Particles >6µm	ASTM D7647 >1300	▲ 4575	---	▲ 2835
Particles >14µm	ASTM D7647 >160	▲ 280	---	▲ 196
Particles >21µm	ASTM D7647 >40	▲ 67	---	48
Particles >38µm	ASTM D7647 >10	1	---	2
Particles >71µm	ASTM D7647 >3	0	---	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	▲ 22/19/15	---	▲ 20/19/15

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D974* 0.70	0.52	---	0.35



OIL ANALYSIS REPORT



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0070440 **Received** : 03 Aug 2023
Lab Number : **02574034** **Diagnosed** : 04 Aug 2023
Unique Number : 5619085 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: Bottom, BottomAnalysis, FilterPatch, KV100, PrtFilter, VI)

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.

Domtar Inc.
 Box 3001, 1 Duke Street
 Dryden, ON
 CA P8N 2Z7
 Contact: Yvon St. Laurent
 yvon.stlaurent@domtar.com
 T: (807)223-9838
 F: (807)223-9176

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	▲ VLITE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	VLITE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.05	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46.4	45.2	45.6
Visc @ 100°C	cSt	ASTM D7279(m)	6.92	7.9	7.2
Viscosity Index (VI)	Scale	ASTM D2270*	104	146	118

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

GRAPHS

