



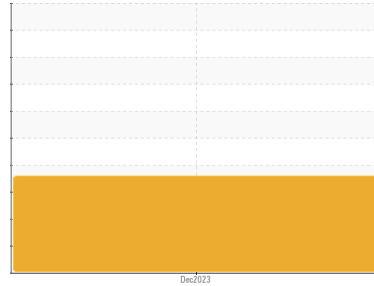
PROBLEM SUMMARY

Sample Rating Trend

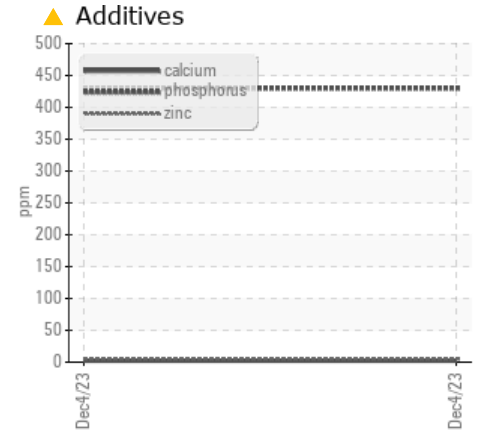
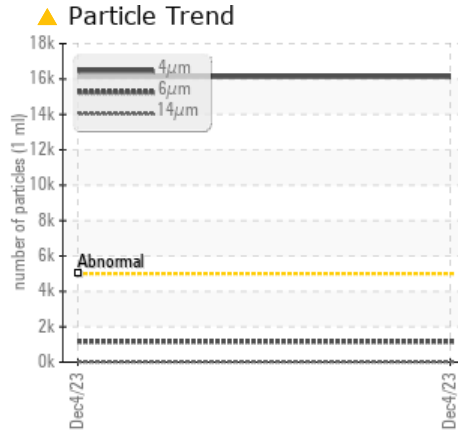
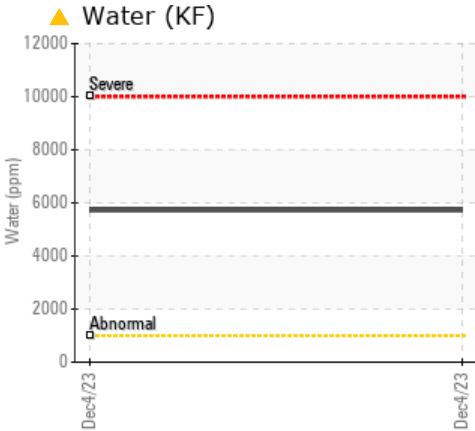
WATER



Area
[126588]
Machine Id
NOVAMAX
Component
Circulating Hydraulic System
Fluid
PETRO CANADA HYDREX AW 32 (10 GAL)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

The component was not specified so we have determined that this is a hydraulic system based on the fluid type in use. Please specify the correct component type on your next sample. Check seals and/or filters for points of contaminant entry. We advise that you check for the source of water entry. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	---	---
Calcium	ppm	ASTM D5185(m)	50	▲ 2	---	---
Zinc	ppm	ASTM D5185(m)	430	▲ 5	---	---
Sulfur	ppm	ASTM D5185(m)	760	▲ 457	---	---
Water	%	ASTM D6304*	>0.1	▲ 0.572	---	---
ppm Water	ppm	ASTM D6304*	>1000	▲ 5722	---	---
Particles >4µm		ASTM D7647	>5000	▲ 16135	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 21/17/12	---	---
Emulsified Water	scalar	Visual*	>0.1	▲ 1%	---	---

Customer Id: GRA685CAM
 Sample No.: WC0869271
 Lab Number: 02601840
 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 Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Alert	---	---	?	The component was not specified so we have determined that this is a hydraulic system based on the fluid type in use. Please specify the correct component type on your next sample.
Information Required	---	---	?	Please specify the component make and model with your next sample.
Check Fluid Source	---	---	?	Confirm the source of the lubricant being utilized for top-up/fill.
Check Water Access	---	---	?	We advise that you check for the source of water entry.
Check Seals	---	---	?	Check seals and/or filters for points of contaminant entry.

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend

WATER



Area
[126588]
 Machine Id
NOVAMAX
 Component
Circulating Hydraulic System
 Fluid
PETRO CANADA HYDREX AW 32 (10 GAL)



DIAGNOSIS

Recommendation

The component was not specified so we have determined that this is a hydraulic system based on the fluid type in use. Please specify the correct component type on your next sample. Check seals and/or filters for points of contaminant entry. We advise that you check for the source of water entry. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. Please specify the component make and model with 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. There is a moderate concentration of water present in the oil.

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC0869271	---	---
Sample Date	Client Info	04 Dec 2023	---	---
Machine Age	hrs Client Info	0	---	---
Oil Age	hrs Client Info	0	---	---
Oil Changed	Client Info	N/A	---	---
Sample Status		ABNORMAL	---	---

WEAR METALS

method	limit/base	current	history1	history2
Iron ppm ASTM D5185(m)	>20	2	---	---
Chromium ppm ASTM D5185(m)	>10	0	---	---
Nickel ppm ASTM D5185(m)	>10	<1	---	---
Titanium ppm ASTM D5185(m)		0	---	---
Silver ppm ASTM D5185(m)		<1	---	---
Aluminum ppm ASTM D5185(m)	>10	<1	---	---
Lead ppm ASTM D5185(m)	>10	<1	---	---
Copper ppm ASTM D5185(m)	>75	<1	---	---
Tin ppm ASTM D5185(m)	>10	<1	---	---
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)	0	<1	---	---
Barium ppm ASTM D5185(m)	0	<1	---	---
Molybdenum ppm ASTM D5185(m)	0	0	---	---
Manganese ppm ASTM D5185(m)	0	0	---	---
Magnesium ppm ASTM D5185(m)	0	0	---	---
Calcium ppm ASTM D5185(m)	50	▲ 2	---	---
Phosphorus ppm ASTM D5185(m)	330	430	---	---
Zinc ppm ASTM D5185(m)	430	▲ 5	---	---
Sulfur ppm ASTM D5185(m)	760	▲ 457	---	---
Lithium ppm ASTM D5185(m)		<1	---	---

CONTAMINANTS

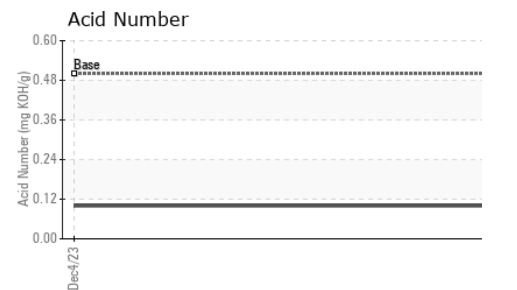
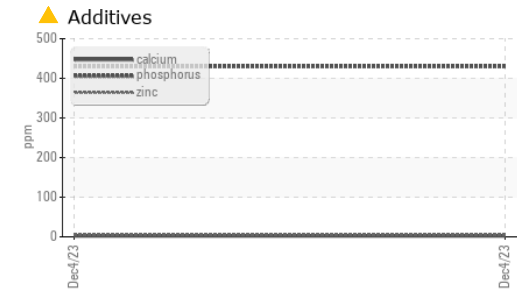
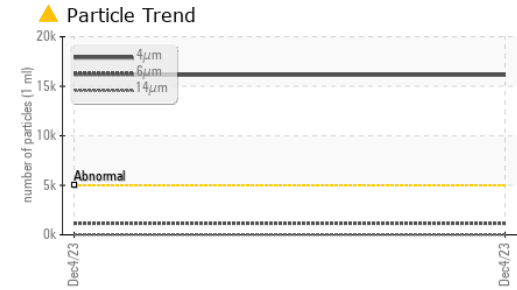
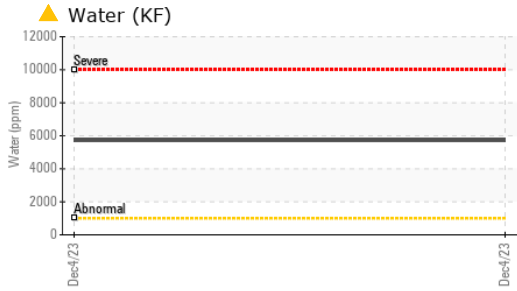
method	limit/base	current	history1	history2
Silicon ppm ASTM D5185(m)	>20	2	---	---
Sodium ppm ASTM D5185(m)		<1	---	---
Potassium ppm ASTM D5185(m)	>20	0	---	---
Water % ASTM D6304*	>0.1	▲ 0.572	---	---
ppm Water ppm ASTM D6304*	>1000	▲ 5722	---	---

FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm ASTM D7647	>5000	▲ 16135	---	---
Particles >6µm ASTM D7647	>1300	1167	---	---
Particles >14µm ASTM D7647	>160	21	---	---
Particles >21µm ASTM D7647	>40	4	---	---
Particles >38µm ASTM D7647	>10	1	---	---
Particles >71µm ASTM D7647	>3	1	---	---
Oil Cleanliness ISO 4406 (c)	>19/17/14	▲ 21/17/12	---	---



OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.50	0.10	---	---

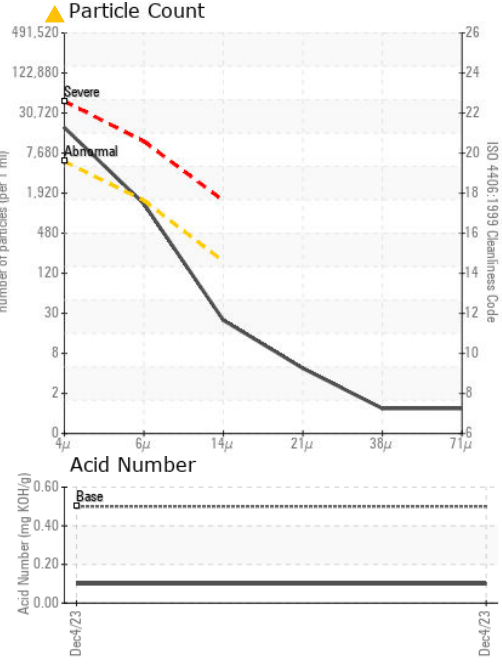
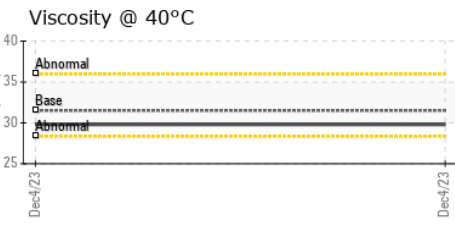
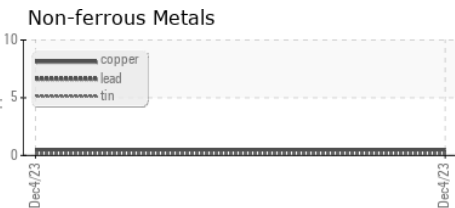
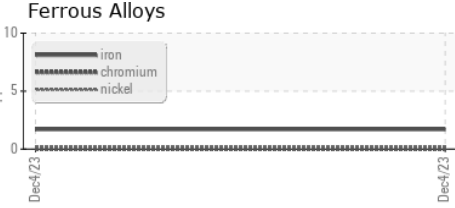
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.1	▲ 1%	---	---
Free Water	scalar	Visual*		NEG	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	31.5	29.8	---	---

SAMPLE IMAGES

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

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0869271 **Received** : 08 Dec 2023
Lab Number : 02601840 **Diagnosed** : 11 Dec 2023
Unique Number : 5694925 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: KF)

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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