



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**PROPULSION MOTOR SN 370952/01-17**

Component  
**Drive End Hydraulic System**

Fluid  
**PETRO CANADA HYDREX MV 68 (46 LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0883758</b>	WC0757640	WC0757657
Sample Date		Client Info		<b>10 Feb 2024</b>	04 Sep 2023	24 Jan 2023
Machine Age	hrs	Client Info		<b>11408</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Chromium	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	0	0
Lead	ppm	ASTM D5185(m)	>20	<b>0</b>	0	<1
Copper	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

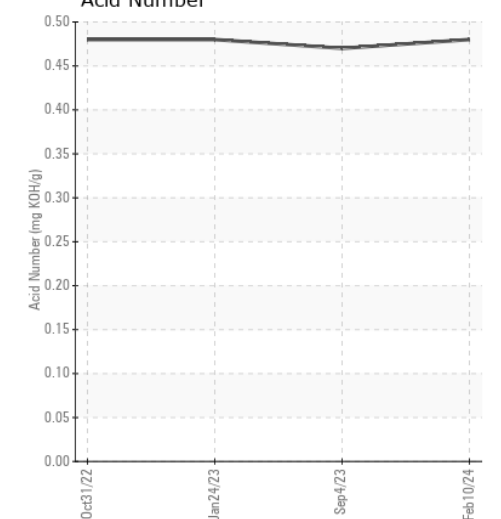
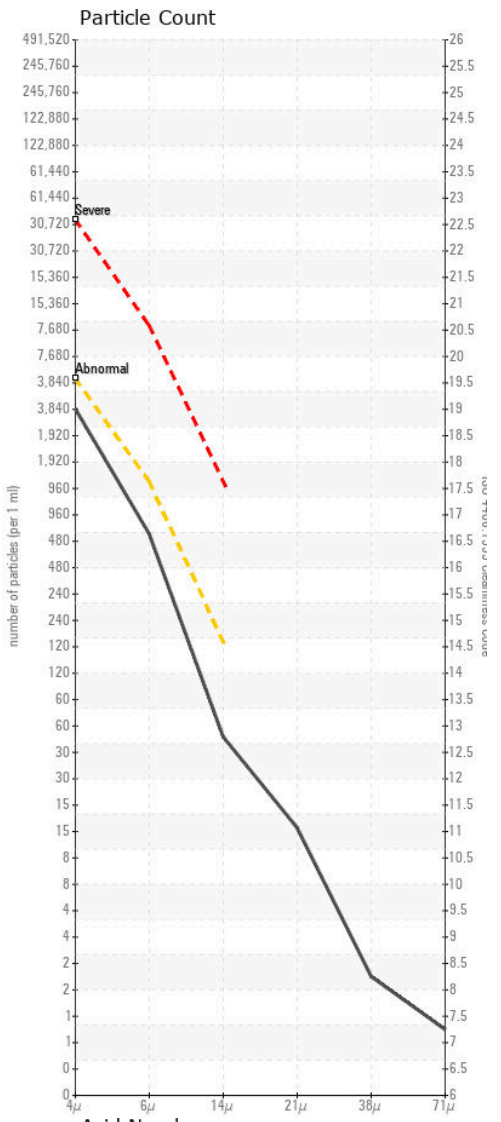
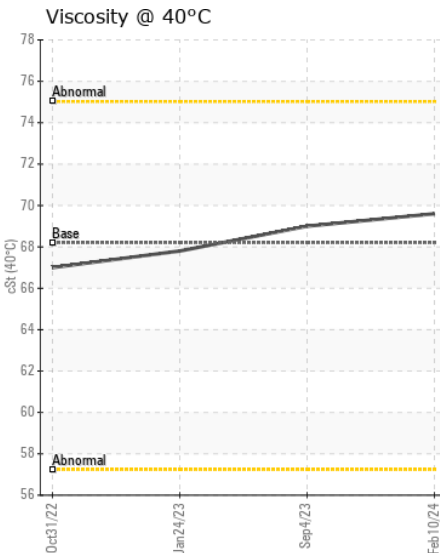
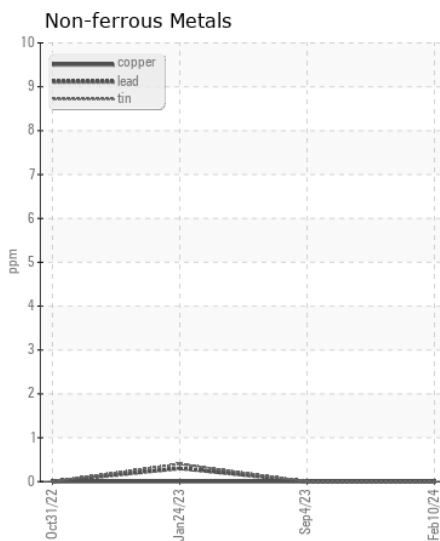
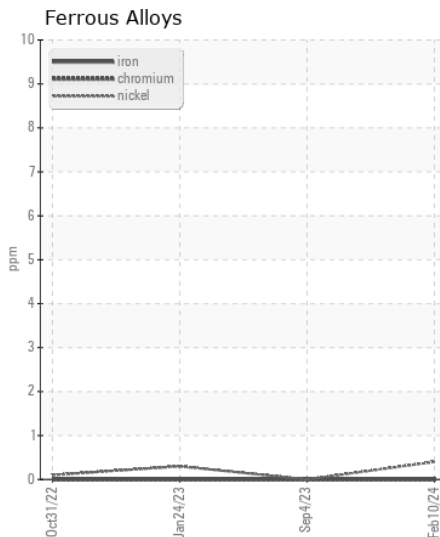
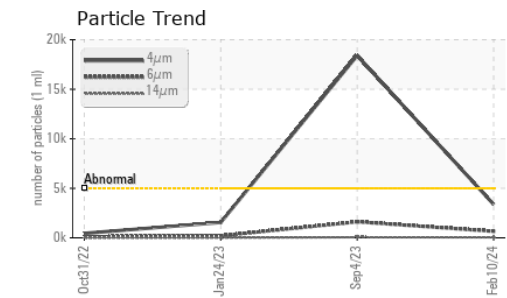
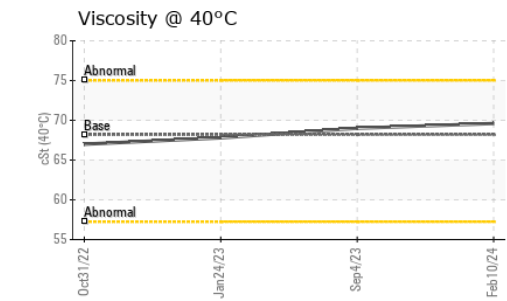
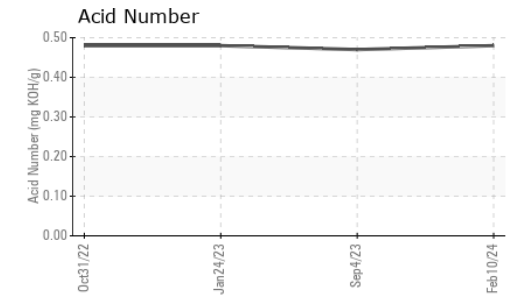
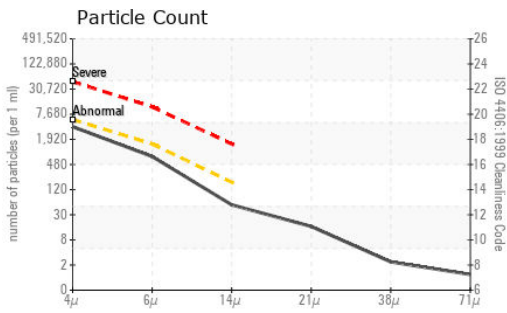
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185(m)	>15	<b>0</b>	0	0
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Water		WC Method	>0.05	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>5000	<b>3374</b>	▲ 18404	1553
Particles >6µm		ASTM D7647	>1300	<b>654</b>	● 1613	203
Particles >14µm		ASTM D7647	>160	<b>46</b>	60	8
Particles >21µm		ASTM D7647	>40	<b>14</b>	17	2
Particles >38µm		ASTM D7647	>10	<b>2</b>	1	0
Particles >71µm		ASTM D7647	>3	<b>1</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>19/17/13</b>	▲ 21/18/13	18/15/10
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.05	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Boron	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)	1	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	<1
Calcium	ppm	ASTM D5185(m)	50	<b>52</b>	52	54
Phosphorus	ppm	ASTM D5185(m)	330	<b>337</b>	359	362
Zinc	ppm	ASTM D5185(m)	430	<b>400</b>	417	406
Sulfur	ppm	ASTM D5185(m)	760	<b>828</b>	795	804
Acid Number (AN)	mg KOH/g	ASTM D974*		<b>0.48</b>	0.47	0.48
Visc @ 40°C	cSt	ASTM D7279(m)	68.2	<b>69.6</b>	69.0	67.8



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0883758  
**Lab Number** : 02618960  
**Unique Number** : 5736070  
**Test Package** : MAR 2  
**Received** : 29 Feb 2024  
**Tested** : 01 Mar 2024  
**Diagnosed** : 01 Mar 2024 - Wes Davis

**Canadian Coast Guard - John Cabot**  
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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.