

**NORMAL**



Machine Id  
**IMM #24 (S/N 5142161)**  
Component  
**Hydraulic System**  
Fluid  
**PETRO CANADA HYDREX AW 46 (1000 LTR)**

**DIAGNOSIS**

**Recommendation**

Resample at the next service interval to monitor.

**Wear**

All component wear rates are normal.

**Contamination**

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

**Fluid Condition**

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>PC0087478</b>	PC0080870	PC0076926
Sample Date	Client Info			<b>20 Jun 2024</b>	15 Jan 2024	11 Jul 2023
Machine Age	mths	Client Info		<b>0</b>	0	0
Oil Age	mths	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>Not Changed</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	SEVERE	ABNORMAL

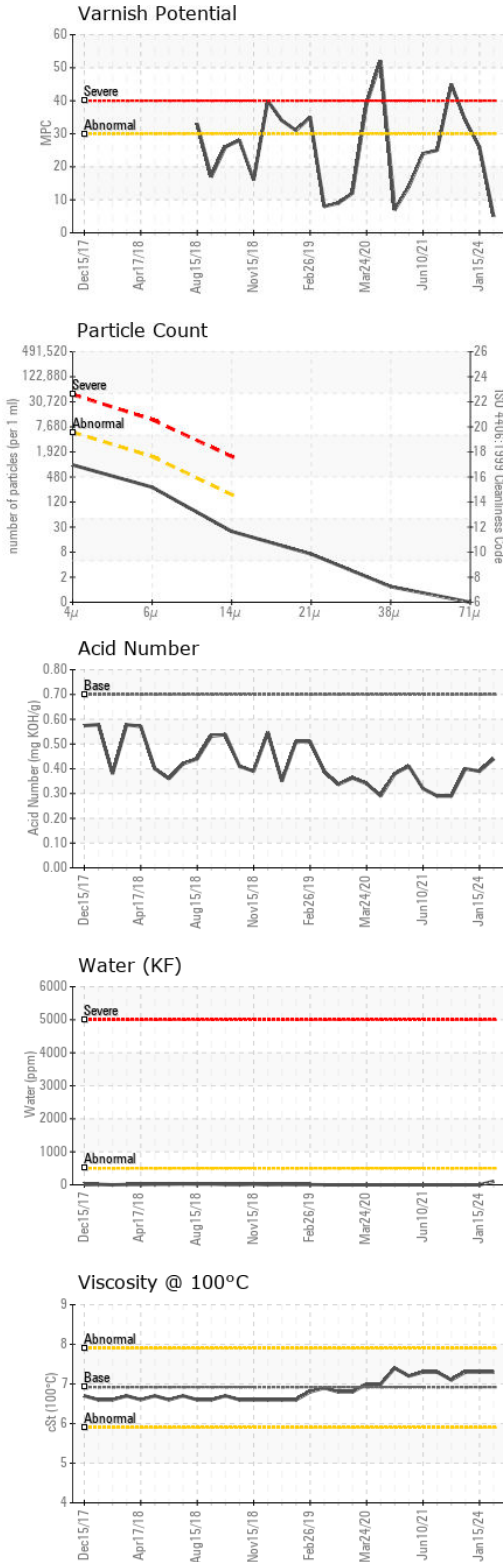
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	<b>2</b>	<1	<1
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)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

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	<1
Barium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	0	<b>2</b>	7	6
Calcium	ppm	ASTM D5185(m)	50	<b>44</b>	46	26
Phosphorus	ppm	ASTM D5185(m)	330	<b>310</b>	388	383
Zinc	ppm	ASTM D5185(m)	430	<b>327</b>	412	333
Sulfur	ppm	ASTM D5185(m)	760	<b>699</b>	914	780
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	<b>1</b>	<1	0
Sodium	ppm	ASTM D5185(m)		<b>1</b>	0	<1
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Water	%	ASTM D6304*	>0.05	<b>0.010</b>	---	---
ppm Water	ppm	ASTM D6304*	>500	<b>105</b>	---	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	<b>820</b>	▲ 62898	2770
Particles >6µm		ASTM D7647	>1300	<b>240</b>	▲ 15026	594
Particles >14µm		ASTM D7647	>160	<b>21</b>	● 297	34
Particles >21µm		ASTM D7647	>40	<b>6</b>	36	9
Particles >38µm		ASTM D7647	>10	<b>1</b>	2	1
Particles >71µm		ASTM D7647	>3	<b>0</b>	1	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>17/15/12</b>	▲ 23/21/15	19/16/12

# OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.70	<b>0.44</b>	0.39	0.40
MPC Varnish Potential	Scale	ASTM D7843(m)*	>15	<b>5</b>	▲ 26	▲ 34

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>VLITE</b>	NONE	VLITE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	VLITE
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>.2%</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46.4	<b>46.0</b>	45.5	45.5
Visc @ 100°C	cSt	ASTM D7279(m)	6.92	<b>7.3</b>	7.3	7.3
Viscosity Index (VI)	Scale	ASTM D2270*	104	<b>120</b>	122	122

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



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0087478  
**Lab Number** : 02647643  
**Unique Number** : 5813195  
**Test Package** : IND 2 ( Additional Tests: Bottom, KF, KV100, MPC, TAN Man, VI )

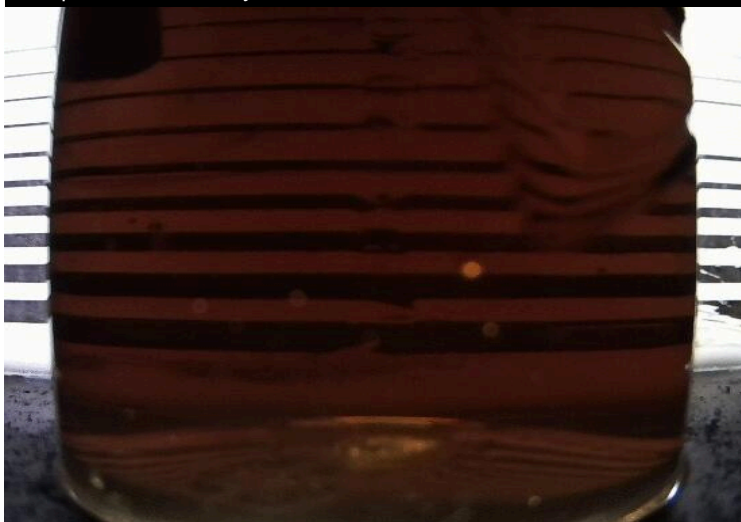
**ROPAK PACKAGING CANADA**  
 2240 WYECROFT RD  
 OAKVILLE, ON  
 CA L6L 6M1  
 Contact: Frank Maio  
 Frank.Maio@mauserpackaging.com  
 T: (905)465-9019  
 F:

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.

MPC (Varnish Test)



Sample Color & Clarity



*This page left intentionally blank*