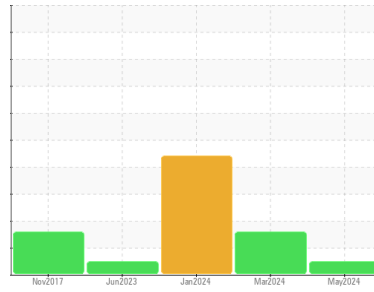


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**[450339527]**  
Machine Id  
**TB-42163**  
Component  
**Hydraulic System**  
Fluid  
**PETRO CANADA HYDREX MV ARCTIC 15 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.  
NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

### Wear

All component wear rates are normal.

### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. 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>PC0080146</b>	PC	PC0052503
Sample Date	Client Info			<b>20 May 2024</b>	27 Mar 2024	05 Jan 2024
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	ABNORMAL	SEVERE

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

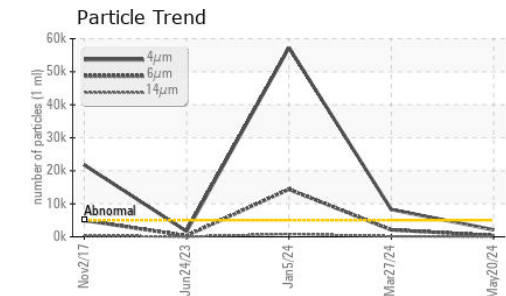
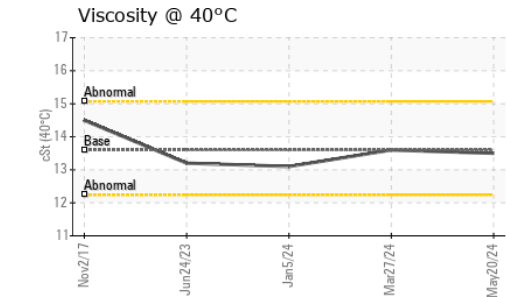
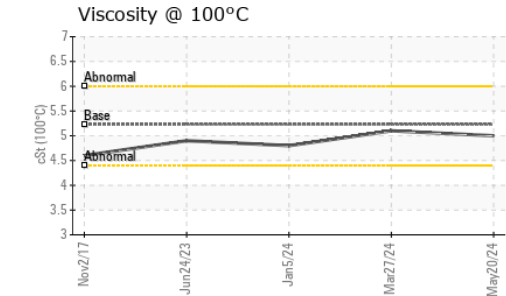
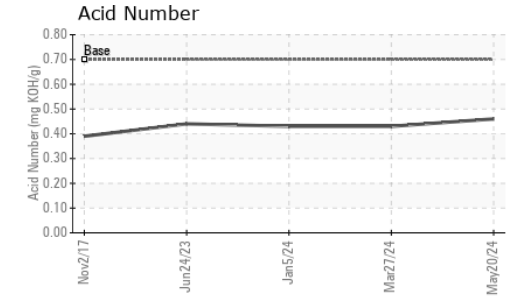
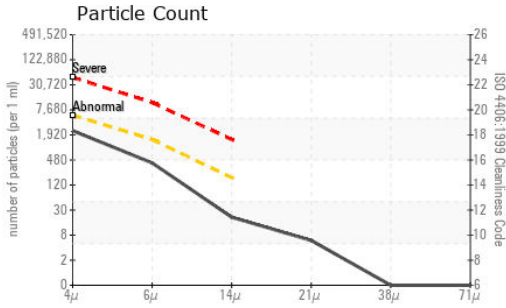
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Chromium	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>10	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>10	<b>0</b>	0	<1
Lead	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	2
Tin	ppm	ASTM D5185(m)	>10	<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>	1	<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)	0	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	<1
Calcium	ppm	ASTM D5185(m)	50	<b>48</b>	48	50
Phosphorus	ppm	ASTM D5185(m)	330	<b>319</b>	311	355
Zinc	ppm	ASTM D5185(m)	430	<b>399</b>	399	431
Sulfur	ppm	ASTM D5185(m)	760	<b>782</b>	731	901
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>0</b>	0	0
Sodium	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	0	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	<b>2124</b>	● 8267	▲ 57286
Particles >6µm		ASTM D7647	>1300	<b>358</b>	● 2117	▲ 14385
Particles >14µm		ASTM D7647	>160	<b>18</b>	● 136	▲ 856
Particles >21µm		ASTM D7647	>40	<b>5</b>	● 41	▲ 165
Particles >38µm		ASTM D7647	>10	<b>0</b>	● 6	▲ 9
Particles >71µm		ASTM D7647	>3	<b>0</b>	● 1	▲ 1
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>18/16/11</b>	● 20/18/14	▲ 23/21/17

# OIL ANALYSIS REPORT

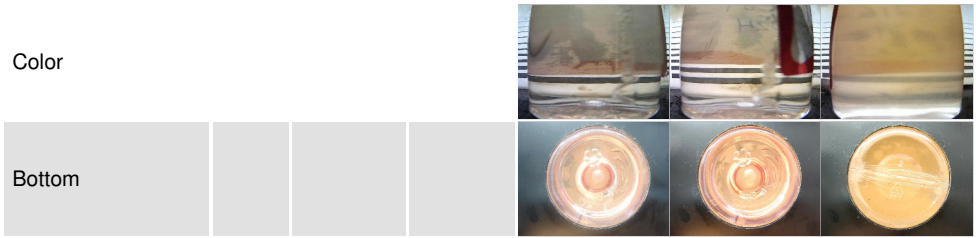


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.70	<b>0.46</b>	0.43	0.43

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
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	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
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	13.6	<b>13.5</b>	13.6	13.1
Visc @ 100°C	cSt	ASTM D7279(m)	5.23	<b>5.0</b>	5.1	4.8
Viscosity Index (VI)	Scale	ASTM D2270*	394	<b>367</b>	▲ 377	355

### SAMPLE IMAGES



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0080146  
**Lab Number** : **02640246**  
**Unique Number** : 5789408  
**Test Package** : MAR 2 ( Additional Tests: KV100, VI )  
**Received** : 06 Jun 2024  
**Tested** : 07 Jun 2024  
**Diagnosed** : 07 Jun 2024 - Kevin Marson

**Suncor - Terra Nova Projects**  
 Scotia Centre, 235 Water Street  
 St. John's, NL  
 CA A1C 1B6  
 Contact: Josh Hynes  
 joshynes@suncor.com  
 T: (709)778-3575  
 F: (709)724-2835

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.