



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
HL27331 Bubbler - Port

Component
Port Gearbox

Fluid
PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL (620 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0929744	WC0807859	WC0709117
Sample Date		Client Info		30 May 2024	17 Oct 2023	21 Mar 2023
Machine Age	hrs	Client Info		1787	1567	1144
Oil Age	hrs	Client Info		0	0	614
Filter Age	hrs	Client Info		0	0	614
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>150	0	0	0
Chromium	ppm	ASTM D5185(m)	>10	0	0	0
Nickel	ppm	ASTM D5185(m)	>10	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	<1	0
Aluminum	ppm	ASTM D5185(m)	>5	0	0	0
Lead	ppm	ASTM D5185(m)	>65	0	<1	<1
Copper	ppm	ASTM D5185(m)	>80	<1	<1	0
Tin	ppm	ASTM D5185(m)	>8	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

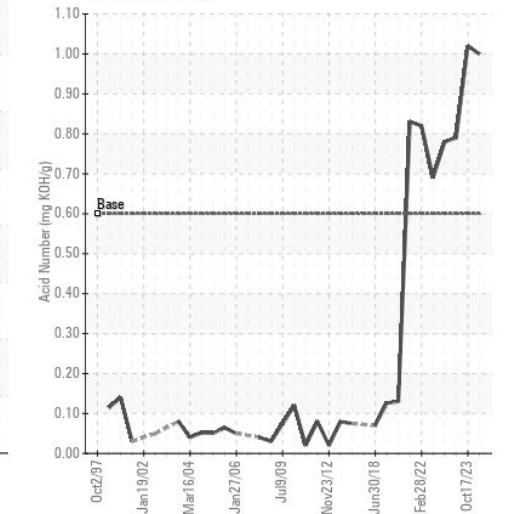
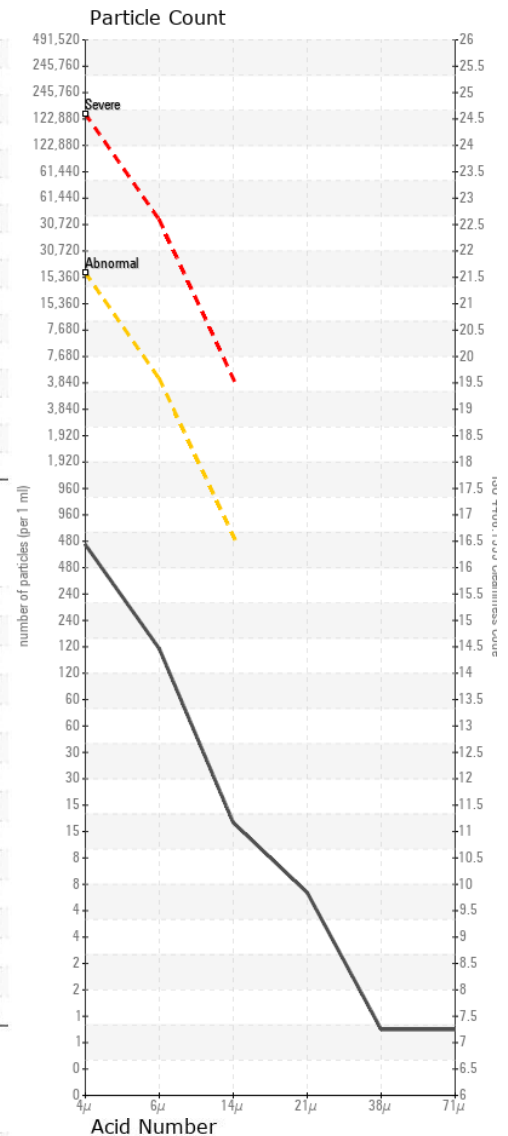
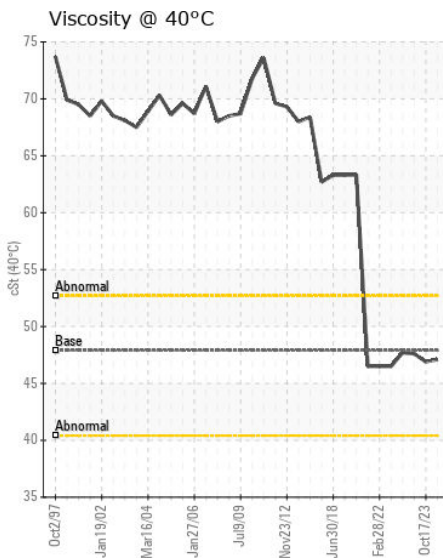
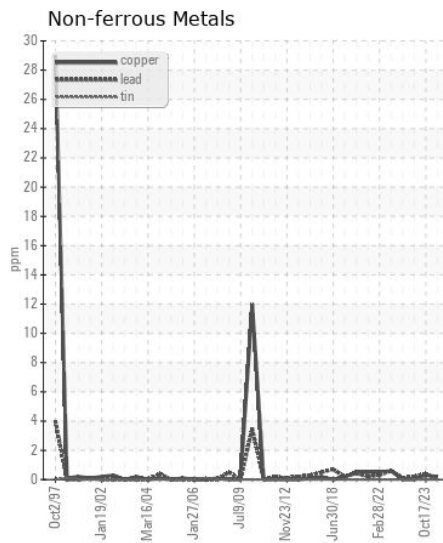
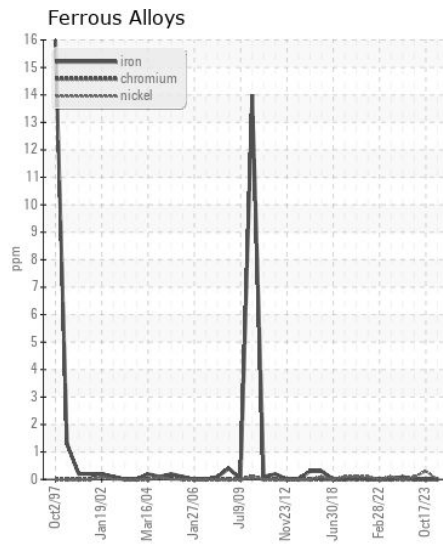
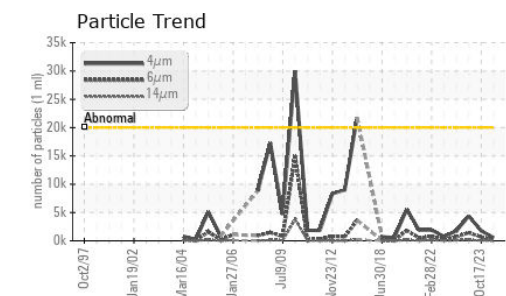
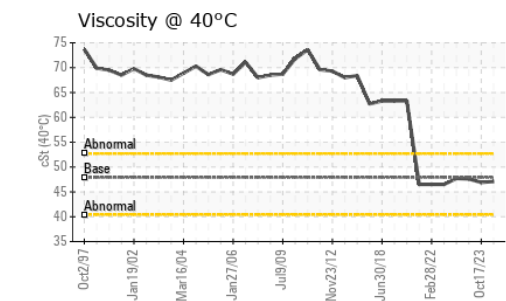
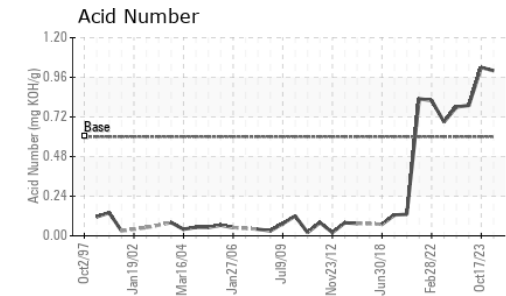
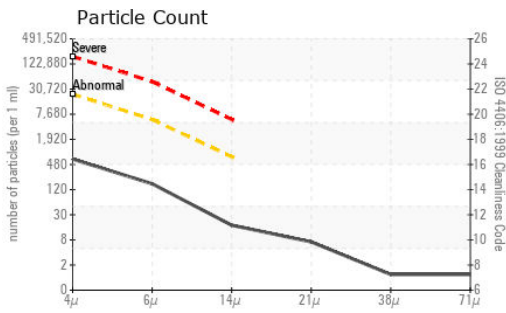
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185(m)	>20	0	<1	0
Potassium	ppm	ASTM D5185(m)	>20	0	<1	0
Water		WC Method	>0.2	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	570	1748	4376
Particles >6µm		ASTM D7647	>5000	146	658	1434
Particles >14µm		ASTM D7647	>640	15	62	147
Particles >21µm		ASTM D7647	>160	6	14	42
Particles >38µm		ASTM D7647	>40	1	2	3
Particles >71µm		ASTM D7647	>10	1	1	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	16/14/11	18/17/13	19/18/14
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	VLITE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	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)		0	0	0
Boron	ppm	ASTM D5185(m)	0	<1	<1	0
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)	1	0	0	0
Magnesium	ppm	ASTM D5185(m)	0	1	0	<1
Calcium	ppm	ASTM D5185(m)	100	100	104	103
Phosphorus	ppm	ASTM D5185(m)	670	649	660	687
Zinc	ppm	ASTM D5185(m)	850	810	859	824
Sulfur	ppm	ASTM D5185(m)	1600	1488	1551	1531
Acid Number (AN)	mg KOH/g	ASTM D974*	0.60	1.00	1.02	0.79
Visc @ 40°C	cSt	ASTM D7279(m)	47.9	47.1	46.9	47.6



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0929744
Lab Number : 02639997
Unique Number : 5789159
Test Package : MAR 2 (Additional Tests: TAN Man)
Received : 05 Jun 2024
Tested : 06 Jun 2024
Diagnosed : 06 Jun 2024 - Kevin Marson

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