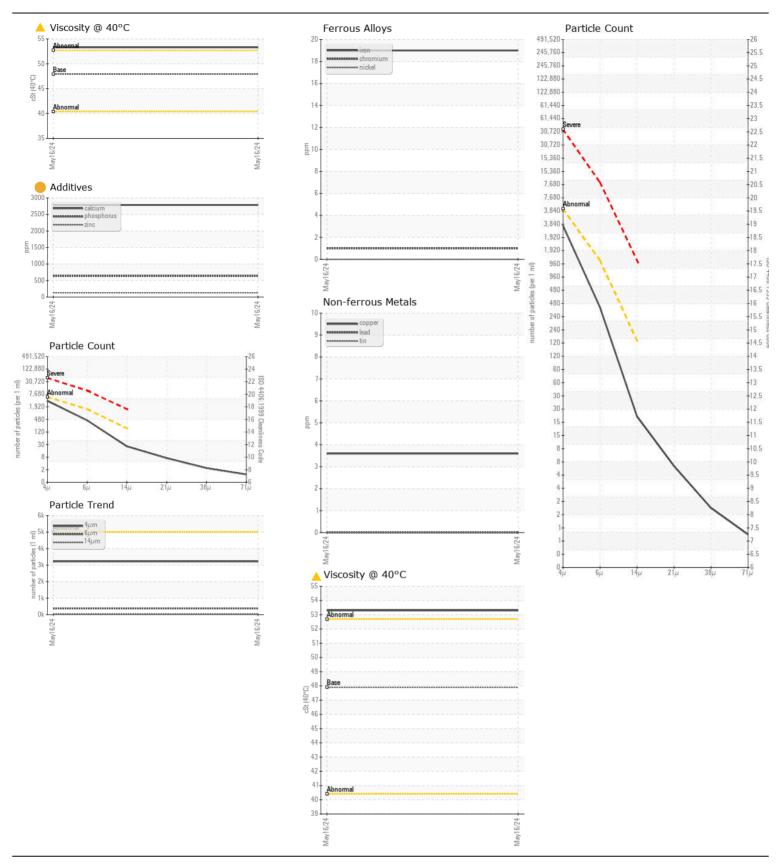
WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL ABNORMAL



Machine Id
EX0358
Component
Hydraulic System

PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL (LTR)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. (Customer Sample Comment: Might have mix of hytran ultra and hydrex xv)	Sample Number		Client Info		GFL0113348		
	Sample Date		Client Info		16 May 2024		
	Machine Age	hrs	Client Info		22386		
	Oil Age	hrs	Client Info		1500		
	Filter Age	hrs	Client Info		1500		
	Oil Changed		Client Info		Not Changd		
	Filter Changed		Client Info		N/A		
	Sample Status				ABNORMAL		
WEAR	Iron	ppm	ASTM D5185(m)	>20	19		
All component wear rates are normal.	Chromium	ppm	ASTM D5185(m)	>10	1		
	Nickel	ppm	ASTM D5185(m)	>10	0		
	Titanium	ppm	ASTM D5185(m)		0		
	Silver	ppm	ASTM D5185(m)		0		
	Aluminum	ppm	ASTM D5185(m)	>10	<1		
	Lead	ppm	ASTM D5185(m)	>10	0		
	Copper	ppm	ASTM D5185(m)	>75	4		
	Tin	ppm	ASTM D5185(m)	>10	0		
	Vanadium	ppm	ASTM D5185(m)		0		
	White Metal	scalar	Visual*	NONE	NONE		
	Yellow Metal	scalar	Visual*	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	2		
	Potassium	ppm	ASTM D5185(m)	>20	2		
	Water		WC Method	>0.1	NEG		
	Particles >4µm		ASTM D7647	>5000	3227		
	Particles >6µm		ASTM D7647	>1300	381		
	Particles >14µm		ASTM D7647	>160	22		
	Particles >21µm		ASTM D7647	>40	6		
	Particles >38µm		ASTM D7647	>10	2		
	Particles >71µm		ASTM D7647	>3	1		
	Oil Cleanliness		ISO 4406 (c)	>19/17/14	19/16/12		
	Silt	scalar	Visual*	NONE	NONE		
	Debris	scalar	Visual*	NONE	VLITE		
	Sand/Dirt	scalar	Visual*	NONE	NONE		
	Appearance	scalar	Visual*	NORML	NORML		
	Odor	scalar	Visual*	NORML	NORML		
	Emulsified Water	scalar	Visual*	>0.1	NEG		
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		2		
The oil viscosity is higher than typical. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185(m)		73		
	Barium	ppm	ASTM D5185(m)		0		
	Molybdenum	ppm	ASTM D5185(m)		0		
	Manganese	ppm	ASTM D5185(m)		<1		
	Magnesium	ppm	ASTM D5185(m)		14		
	Calcium	ppm	ASTM D5185(m)	100	2787		
	Phosphorus	ppm	ASTM D5185(m)	670	636		
	Zinc	ppm	ASTM D5185(m)	850	129		
	Sulfur	ppm	ASTM D5185(m)	1600	2598		
	Visc @ 40°C	cSt	ASTM D7279(m)	47.9	53.3		





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

Lab Number : 02636955 Unique Number : 5786117

: GFL0113348

Received **Tested** Test Package : MOB 1 (Additional Tests: PrtCount)

: 22 May 2024 : 23 May 2024 Diagnosed

: 23 May 2024 - Kevin Marson

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 720 - Lafleche - Landfill 17125 Lafleche Road, Moose Creek, ON CA K0C 1W0 Contact: Charles Bergeron cbergeron@gflenv.com T: (613)538-4853

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.

F: Submitted By: Charles Bergeron