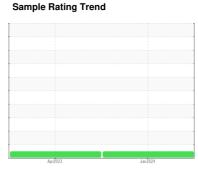


OIL ANALYSIS REPORT

RONI **379**

Component **Hydraulic System**

PETRO CANADA HYDREX AW 46 (--- GAL)





Recommendation

Resample at the next service interval to monitor.

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.

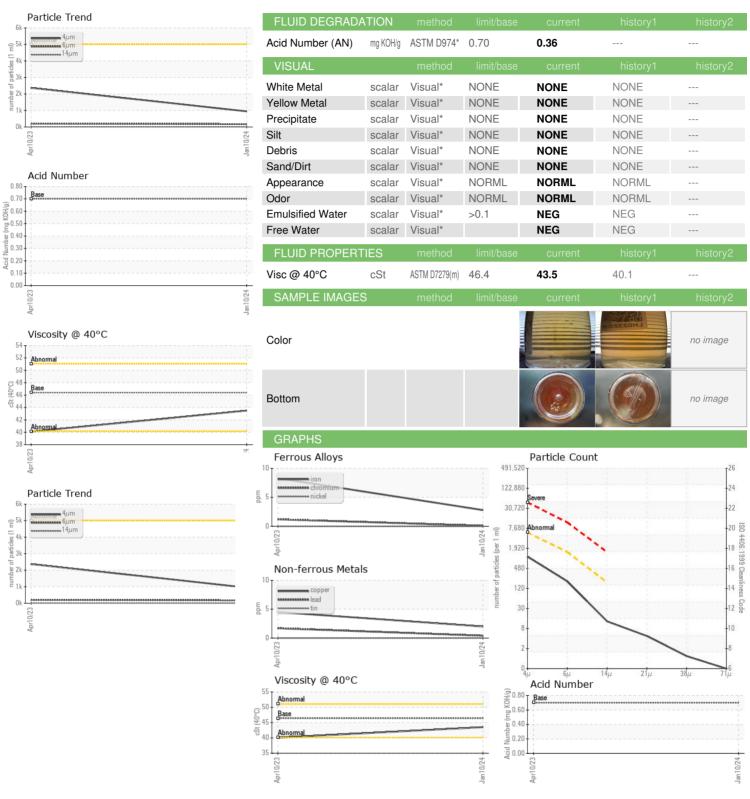
Fluid Condition

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

)			Apr2023	Jan 2024		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0888469	LH0232502	
Sample Date		Client Info		10 Jan 2024	10 Apr 2023	
Machine Age	hrs	Client Info		0	2000	
Oil Age	hrs	Client Info		0	0	
Oil Changed	0	Client Info		Not Changd	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINATION	V	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	3	8	
Chromium	ppm	ASTM D5185(m)	>10	<1	1	
Nickel	ppm	ASTM D5185(m)	>10	0	0	
Titanium	ppm	ASTM D5185(m)		0	0	
Silver	ppm	ASTM D5185(m)		0	0	
Aluminum	ppm	ASTM D5185(m)	>10	<1	<1	
Lead	ppm	ASTM D5185(m)	>10	<1	2	
Copper	ppm	ASTM D5185(m)	>75	2	4	
Tin	ppm	ASTM D5185(m)	>10	0	0	
Antimony	ppm	ASTM D5185(m)		0	0	
Vanadium	ppm	ASTM D5185(m)		0	0	
Beryllium	ppm	ASTM D5185(m)		0	0	
Cadmium	ppm	ASTM D5185(m)		0	0	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base	current	history1 <1	history2
	ppm		0			
Boron	• •	ASTM D5185(m)	0	<1	<1	
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)	0	<1 0	<1	
Boron Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0	<1 0 0	<1 0 0	
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0	<1 0 0 0	<1 0 0 0 <1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 0	<1 0 0 0 0 <1	<1 0 0 0 <1	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 0 0 0 50	<1 0 0 0 0 <1 50	<1 0 0 0 <1 1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 0 0 50 330	<1 0 0 0 0 <1 50 305	<1 0 0 <1 1 59 280	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 0 0 0 50 330 430	<1 0 0 0 0 <1 50 305 367	<1 0 0 <1 1 59 280 300	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 0 0 0 50 330 430	<1 0 0 0 0 <1 50 305 367 2554	<1 0 0 <1 1 59 280 300 5264	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 0 0 50 330 430 760	<1 0 0 0 <1 50 305 367 2554 <1	<1 0 0 <1 1 59 280 300 5264 <1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 0 0 50 330 430 760	<1 0 0 0 <1 50 305 367 2554 <1	<1 0 0 <1 1 59 280 300 5264 <1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) method ASTM D5185(m)	0 0 0 0 0 50 330 430 760	<1 0 0 0 <1 50 305 367 2554 <1 current	<1 0 0 <1 1 59 280 300 5264 <1 history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 0 0 50 330 430 760	<1 0 0 0 <1 50 305 367 2554 <1 current <1	<1 0 0 <1 1 59 280 300 5264 <1 history1 1 <1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 0 0 50 330 430 760	<1 0 0 0 <1 50 305 367 2554 <1 current <1 0	<1 0 0 0 <1 1 1 59 280 300 5264 <1 history1 1 <1 <1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 0 0 50 330 430 760 limit/base >20	<1 0 0 0 <1 50 305 367 2554 <1 current <1 0 0	<1 0 0 0 <1 1 1 59 280 300 5264 <1 history1 1 <1 <1 history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) METHOD ASTM D5185(m)	0 0 0 0 0 50 330 430 760 limit/base >20 limit/base >5000	<1 0 0 0 0 <1 50 305 367 2554 <1 current <1 0 0 current 947	<1 0 0 0 <1 1 1 59 280 300 5264 <1 history1 1 <1 <1 2366	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) METHOD ASTM D5185(m)	0 0 0 0 0 50 330 430 760 limit/base >20 limit/base >5000 >1300	<1 0 0 0 0 <1 50 305 367 2554 <1 current <1 0 current 947 173	<1 0 0 0 <1 1 1 59 280 300 5264 <1 history1 1 <1 <1 2366 202	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) METHOD ASTM D5185(m) ASTM D7647 ASTM D7647	0 0 0 0 0 50 330 430 760 limit/base >20 >20 limit/base >5000 >1300 >160	<1 0 0 0 0 <1 50 305 367 2554 <1 current <1 0 current 947 173 11	<1 0 0 0 <1 1 1 59 280 300 5264 <1 history1 1 <1 <1 2366 202 14	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) MASTM D5185(m) MASTM D5185(m) METHOD ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	0 0 0 0 0 50 330 430 760 limit/base >20 >20 limit/base >5000 >1300 >160 >40	<1 0 0 0 0 <1 50 305 367 2554 <1 current <1 0 0 current 947 173 11 4	<1 0 0 0 <1 1 1 59 280 300 5264 <1 history1 1 <1 <1 2366 202 14 5	history2 history2



OIL ANALYSIS REPORT





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number **Unique Number** Test Package : MOBCE

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 RONI/IRON SHORE EXCAVATING LTD.

: WC0888469 : 02609425

Recieved : 5710511

Diagnosed Diagnostician

: 17 Jan 2024 : 19 Jan 2024

: Wes Davis

100 MACINTOSH BLVD VAUGHAN, ON **CA L4K 4P3**

Contact: Service Team service.team@roni.ca T:

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: