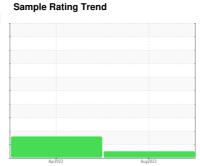


OIL ANALYSIS REPORT





801157

Component

Front Hydraulic System

PETRO CANADA HYDREX MV 32 (--- GAL)

DIAGNOSIS

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 condition of the oil is acceptable for the time in service.

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			Apr2022	Aug ² 023		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0084180	GFL0039227	
Sample Date		Client Info		17 Aug 2023	05 Apr 2022	
Machine Age	hrs	Client Info		2438	12267	
Oil Age	hrs	Client Info		1200	1200	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	ATTENTION	
WEAR METAL	.S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	5	4	
Chromium	ppm	ASTM D5185(m)	>10	0	0	
Nickel	ppm	ASTM D5185(m)	>10	0	<1	
Titanium	ppm	ASTM D5185(m)		0	0	
Silver	ppm	ASTM D5185(m)		0	0	
Aluminum	ppm	ASTM D5185(m)	>10	0	0	
Lead	ppm	ASTM D5185(m)	>10	2	<1	
Copper	ppm	ASTM D5185(m)	>75	12	1	
Tin	ppm	ASTM D5185(m)	>10	<1	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	PP		limit/base			history2
	nnm	method		current	history1	
Boron	ppm	ASTM D5185(m)	0	<1	<1	
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)	0	<1 0	<1 0	
Boron Barium Molybdenum	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	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 1	<1 0 0 0 0 <1	<1 0 0 0 0 <1	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 1 0 50	<1 0 0 0 0 <1 44	<1 0 0 0 0 <1 48	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 1 0 50 330	<1 0 0 0 0 <1 44 341	<1 0 0 0 0 <1 48 346	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 1 0 50 330 430	<1 0 0 0 0 <1 44 341 392	<1 0 0 0 0 <1 48 346 402	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 1 0 50 330	<1 0 0 0 0 <1 44 341 392 778	<1 0 0 0 0 <1 48 346 402 797	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 1 0 50 330 430 760	<1 0 0 0 0 <1 44 341 392	<1 0 0 0 0 <1 48 346 402	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 1 0 50 330 430 760	<1 0 0 0 <1 44 341 392 778 <1	<1 0 0 0 <1 48 346 402 797 <1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 1 0 50 330 430 760	<1 0 0 0 <1 44 341 392 778 <1 current	<1 0 0 0 0 <1 48 346 402 797 <1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 1 0 50 330 430 760	<1 0 0 0 <1 44 341 392 778 <1	<1 0 0 0 <1 48 346 402 797 <1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 1 0 50 330 430 760	<1 0 0 0 <1 44 341 392 778 <1 current	<1 0 0 0 <1 48 346 402 797 <1 history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium	ppm	ASTM D5185(m)	0 0 0 1 0 50 330 430 760	<1 0 0 0 0 <1 44 341 392 778 <1 current	<1 0 0 0 0 <1 48 346 402 797 <1 history1 1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium	ppm	ASTM D5185(m)	0 0 0 1 0 50 330 430 760	<1 0 0 0 <1 44 341 392 778 <1 current 2 1 <1	<1 0 0 0 0 <1 48 346 402 797 <1 history1 1 1 <1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEAN	ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 1 0 50 330 430 760 limit/base >20	<1 0 0 0 0 <1 44 341 392 778 <1 current 2 1 <urrent< th=""><th><1 0 0 0 0 <1 48 346 402 797 <1 history1 1 1 1 1</th><th> history2 history2</th></urrent<>	<1 0 0 0 0 <1 48 346 402 797 <1 history1 1 1 1 1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >4µm	ppm	ASTM D5185(m)	0 0 0 1 0 50 330 430 760 limit/base >20 limit/base	<1 0 0 0 0 <1 44 341 392 778 <1 current 2 1 <1 current 497	<1 0 0 0 48 346 402 797 <1 history1 1 1 1 5124	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >4µm Particles >6µm	ppm	ASTM D5185(m)	0 0 0 1 0 50 330 430 760 limit/base >20 >20 limit/base >5000 >1300 >160	<1 0 0 0 44 341 392 778 <1 current 2 1 current 497 60	<1 0 0 0 0 <1 48 346 402 797 <1 history1 1 1 <1 <1 history1 1 1 3 5124 1379	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium Ptuld CLEANI Particles >4µm Particles >14µm	ppm	ASTM D5185(m) ASTM D7647 ASTM D7647	0 0 0 1 0 50 330 430 760 limit/base >20 >20 limit/base >5000 >1300 >160	<1 0 0 0 44 341 392 778 <1 current 2 1 <ur> 1 current 497 60 8</ur>	<1 0 0 0 0 <1 48 346 402 797 <1 history1 1 1 <1 <1 history1 1 1 <1 43 1379 198	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEAN Particles >4µm Particles >14µm Particles >21µm	ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	0 0 0 1 0 50 330 430 760 limit/base >20	<1 0 0 0 0 <1 44 341 392 778 <1 current 2 1 <1 current 497 60 8 3	<1 0 0 0 0 <1 48 346 402 797 <1 history1 1 1 <1	history2 history2



OIL ANALYSIS REPORT





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number **Unique Number**

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 573 - Vancouver Hauling : GFL0084180

Received : 02581172 : 5642237

Diagnosed Diagnostician

: 08 Sep 2023 : 11 Sep 2023 : Wes Davis

70 Golden Drive, Coquitlam, BC CA V3K 6B5 Contact: Catia Klagenberg Alves

Test Package : MOB 1 (Additional Tests: PrtCount) To discuss this sample report, contact Customer Service at 1-800-268-2131.

cklagenbergalves@gflenv.com

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.

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