

OIL ANALYSIS REPORT

PETRO CANADA HYDREX AW 46 (50 GAL)

Sample Rating Trend



DIAGNOSIS

A Recommendation

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Area

(546HPY)

Component Hydraulic System

1034A

Wear

All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

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

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0118778	GFL0001876	GFLI-601810
Sample Date		Client Info		07 May 2024	24 Nov 2019	05 Jun 2019
Machine Age	hrs	Client Info		17676	8273	6773
Oil Age	hrs	Client Info		17556	0	1500
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL
CONTAMINATI	ON	method	limit/base	current	historv1	historv2
Water		WC Method	<u>⊳0 1</u>	NEG	NEG	NEG
	`		20.1	NEG	NEG	NEG
	>	method	limit/base	current	nistory i	nistory2
Iron	ppm	ASTM D5185m	>30	15	3	2
Chromium	ppm	ASTM D5185m	>2	<1	<1	0
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>2	2	<1	0
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>25	1	<1	0
Tin	ppm	ASTM D5185m	>20	<1	0	0
Antimony	ppm	ASTM D5185m			0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 4	history1 1	history2 0
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base 0 0	current 4 0	history1 1 0	history2 0 0
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 0	current 4 0 4	history1 1 0 1	history2 0 0 0
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 0 0	current 4 0 4 <1	history1 1 0 1 <1	history2 0 0 0 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 0 0 0 0	Current 4 0 4 <1 28	history1 1 0 1 / 1	history2 0 0 0 0 0 6
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 0 0 0 0 50	Current 4 0 4 <1 28 136	history1 1 0 1 / 1 1 8 67	history2 0 0 0 0 6 59
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 0 0 0 0 50 330	Current 4 0 4 <1 28 136 378	history1 1 0 1 <1 8 67 326 	history2 0 0 0 0 6 59 296
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 0 0 0 50 330 430	Current 4 0 4 <1 28 136 378 464	history1 1 0 1 1 21 8 67 326 429 	history2 0 0 0 0 6 59 296 384
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 0 0 0 50 330 430 760	Current 4 0 4 <1 28 136 378 464 1010	history1 1 0 1 1 4 1 8 67 326 429 759 	history2 0 0 0 0 0 6 59 296 384
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 0 0 0 50 330 430 760	Current 4 0 4 <1 28 136 378 464 1010	history1 1 0 1 1 0 1 <1 8 67 326 429 759	history2 0 0 0 0 6 59 296 384 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 0 0 0 50 330 430 760 limit/base	current 4 0 4 <1 28 136 378 464 1010 current	history1	history2 0 0 0 0 0 0 0 0 0 0 0 0 6 59 296 384 0 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 0 0 0 30 430 760 limit/base >25	current 4 0 4 <1 28 136 378 464 1010 current 2	history1 1 0 1 <1 8 67 326 429 759 history1	history2 0 0 0 0 0 6 59 296 384 0 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium	ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 0 0 0 0 0 50 330 430 760 limit/base >25	current 4 0 4 <1 28 136 378 464 1010 current 2 1	history1 1 0 1 <1 8 67 326 429 759 history1 <1 <1	history2 0 0 0 0 0 6 59 296 384 0 history2 1 1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon Sodium Potassium	ppm	method ASTM D5185m	limit/base 0 0 0 0 50 330 430 760 limit/base >25 >20	current 4 0 4 <1 28 136 378 464 1010 current 2 1 2 1 2 1 2 1 2	history1 1 0 1 <1 8 67 326 429 759 history1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	history2 0 0 0 0 0 0 6 59 296 384 0 history2 1 1 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base 0 0 0 0 50 330 430 760 limit/base >25 >20	current 4 0 4 <1 28 136 378 464 1010 current 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 Current	history1 1 0 1 <1 8 67 326 429 759 history1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 history1	history2 0 0 0 0 0 59 296 384 0 history2 1 1 0 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4um	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base 0 0 0 0 0 50 330 430 760 limit/base >25 -20 limit/base >5000	current 4 0 4 <1 28 136 378 464 1010 current 2 1 2 1 2 1 2 1 2 38505	history1 1 0 1 <1 8 67 326 429 759 history1 <1 <1 <1 <1 <1 <1 41 429	history2 0 0 0 0 0 6 59 296 384 0 history2 1 1 0 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base 0 0 0 0 0 0 30 430 760 limit/base >20 limit/base >5000 >1300	current 4 0 4 <1 28 136 378 464 1010 current 2 1 2 1 2 1 2 1 2 1 2 1419	history1 1 0 1 <1 8 67 326 429 759 history1 <1 <1 <1 <1 <1 4996 1230	history2 0 0 0 0 0 6 59 296 384 0 history2 1 1 0 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m	limit/base 0 0 0 0 0 50 330 430 760 limit/base >25 limit/base >20 limit/base >5000 >1300 >160	current 4 0 4 <1 28 136 378 464 1010 current 2 1 2 1 2 1 2 1 2 1 2 1 2 1419 26	history1 1 0 1 <1 8 67 326 429 759 history1 <1 <1 <1 <1 41 <1 <1 41 <1 <1 4396 1230 63	history2 0 0 0 0 0 6 59 296 384 0 history2 1 1 0 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m	limit/base 0 0 0 0 0 0 30 430 760 limit/base >25 limit/base >20 limit/base >5000 >1300 >160	current 4 0 4 <1 28 136 378 464 1010 current 2 1 2 1 2 1 2 1 2 1 2 1419 26 6	history1 1 0 1 <1 8 67 326 429 759 history1 <1 <1 <1 <1 41 429 759 history1 <1 <1 <130 63 17	history2 0 0 0 0 0 6 59 296 384 0 history2 1 0 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m	limit/base 0 0 0 0 0 50 330 430 760 Imit/base >25 limit/base >5000 >1300 >160 >40 >10	current 4 0 4 <1 28 136 378 464 1010 current 2 1 2 1 2 1 2 1 2 current 38505 1419 26 6 0	history1 1 0 1 <1 8 67 326 429 759 history1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 4996 1230 63 17 4	history2 0 0 0 0 0 59 296 384 0 history2 1 1 0 history2 1 1 0 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >14µm Particles >38µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base 0 0 0 0 0 30 430 760 Imit/base >25 >20 limit/base >5000 >1300 >160 >40 >10	Current 4 0 4 <1 28 136 378 464 1010 current 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 0 0 0	history1 1 0 1 <1 8 67 326 429 759 history1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 4996 1230 63 17 4 0	history2 0 0 0 0 59 296 384 0 history2 1 1 0 history2 1 </th



OIL ANALYSIS REPORT

FLUID DEGRADATION method

scalar

scalar

scalar

scalar

scalar

scalar

scalar

mg KOH/g ASTM D8045

method

*Visual

*Visual

*Visual

*Visual

*Visual

*Visual

*Visual

Acid Number (AN)

VISUAL

White Metal

Yellow Metal

Precipitate

Silt

50 Ba 45

35

Abnorma 40

: GFL0118778

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Test Package : FLEET (Additional Tests: PrtCount)

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Nov24/19

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Received

Diagnosed

Tested

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Lab Number : 06175392

Unique Number : 11021445

Laboratory

Sample No.

Debris

Sand/Dirt

Appearance





0.40

≣ 0.20 0.00

May7/24 -

: 10 May 2024

: 13 May 2024

: 14 May 2024 - Don Baldridge

limit/base

limit/base

0.70

NONE

NONE

NONE

NONE

NONE

NONE

NORML

current

current

0.34

NONE

NONE

NONE

NONE

NONE

NONE

NORML

history1

history⁻

0.391

NONE

NONE

NONE

NONE

NONE

NONE

NORML

history2

history2

0.34





Certificate 12367

Submitted By: JEREMY BROWN

Vov24/19

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