

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



PETRO CANADA HYDREX AW 68 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: Pm2 performed. All oil samples taken. Engine oil, transmission oil, and all filters changed.)

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

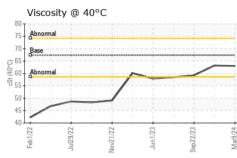
Fluid Condition

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

		Feb2022	Jul2022 Nov2022	Jun2023 Sep2023	Mar2024	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0086603	PCA0084344	PCA0084279
Sample Date		Client Info		09 Mar 2024	28 Nov 2023	22 Sep 2023
Machine Age	hrs	Client Info		9946	9324	8861
Oil Age	hrs	Client Info		1075	463	1977
Oil Changed		Client Info		Oil Added	Oil Added	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATI	ON	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	2	1	3
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	<1	0	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	3	1	0
Lead	ppm	ASTM D5185m	>10	1	0	0
Copper	ppm	ASTM D5185m	>75	2	1	2
Tin	ppm	ASTM D5185m	>10	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	2	0	0
Barium	ppm	ASTM D5185m	0	1	0	0
Molybdenum	ppm	ASTM D5185m	0	<1	<1	0
Manganese	ppm	ASTM D5185m	0	<1	0	0
Magnesium	ppm	ASTM D5185m	0	2	<1	<1
Calcium	ppm	ASTM D5185m	50	150	72	58
Phosphorus	ppm	ASTM D5185m	330	406	348	356
Zinc	ppm	ASTM D5185m	430	477	445	433
Sulfur	ppm	ASTM D5185m	760	1253	1172	1234
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	4	2	4
Sodium	ppm	ASTM D5185m		0	0	3
Potassium	ppm	ASTM D5185m	>20	2	1	0
		method				history2
VISUAL		method	mmbase	ourront	,	
	scalar	*Visual	NONE	NONE	NONE	NONE
	scalar scalar					NONE NONE
White Metal		*Visual	NONE	NONE	NONE	
White Metal Yellow Metal	scalar	*Visual *Visual	NONE NONE	NONE NONE	NONE NONE	NONE
White Metal Yellow Metal Precipitate	scalar scalar	*Visual *Visual *Visual	NONE NONE NONE	NONE NONE NONE	NONE NONE NONE	NONE NONE
White Metal Yellow Metal Precipitate Silt	scalar scalar scalar	*Visual *Visual *Visual *Visual	NONE NONE NONE	NONE NONE NONE NONE	NONE NONE NONE NONE	NONE NONE NONE
White Metal Yellow Metal Precipitate Silt Debris	scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual	NONE NONE NONE NONE	NONE NONE NONE NONE NONE	NONE NONE NONE NONE	NONE NONE NONE
White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual *Visual	NONE NONE NONE NONE NONE	NONE NONE NONE NONE NONE	NONE NONE NONE NONE NONE	NONE NONE NONE NONE
White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual *Visual *Visual	NONE NONE NONE NONE NONE NONE	NONE NONE NONE NONE NONE NORE	NONE NONE NONE NONE NONE NORML	NONE NONE NONE NONE NONE
White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	scalar scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual *Visual *Visual	NONE NONE NONE NONE NONE NORML NORML	NONE NONE NONE NONE NONE NORML NORML	NONE NONE NONE NONE NONE NORML NORML	NONE NONE NONE NONE NONE NORML NORML



OIL ANALYSIS REPORT



		Visc @ 40°C	cSt	ASTM	D445 6	7.4	63.0	63.2		59.2	
~		SAMPLE	IMAGES	meth	nod	limit/base	current	hist	ory1	histo	ory2
23	Color					no image	no im	age	no ima	ige	
Jun1/23	Sep22/23 Mar9/24	Bottom					no image	no im	age	no ima	ige
		GRAPHS						•	÷		
		Iron (ppm)				30					
		30				25					
		abnormal				E 15					
		10				10					
				23 -	23	24	22	22	23	23	
		Feb1/22 Jul29/22	Nov21/22	Jun1/23	Sep22/23	Mar9/24	Feb1/22 Jul29/22	Nov21/22	Jun1/23	Sep 22/23	AC Production
		Aluminum (opm)			30	Chromium (p	pm)			
		25 - Severe				- 25					
		20 - 특 15 -				20 គ្គ 19	;				
		10 - Abnormal				10					
					53	24	22	22	23	23	č
	Feb1/22 Jul29/22	Nov21/22	Jun1/23	Sep22/23	Mar9/24	Feb1/22 Jul29/22	Nov21/22	Jun1/23	Sep22/23	10.0-14	
	Copper (ppr	n)			60	Silicon (ppm)					
	200 - Severe				50						
	150				40 គ_30						
	Abnormal				20	Abnormal					
	0	2	~	~	- (2	3			
	Feb 1/22 Jul29/22	Nov21/22	Jun1/23	Sep 22/23	Mar9/24	Feb 1/22 Jul29/22	Nov21/22	Jun1/23	Sep22/23	A CLOWEN	
	Viscosity @	40°C			600	Additives					
	Abnormal 70 - Base				500	(and then	IS		The state of the s	144444888887	
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		Feb 1/22 Jul2 9/22	Nov21/22	Jun1/23	Sep 22/23	Mar9/24	Feb 1/22 Jul2 9/22	Nov21/22	Jun1/23	Sep 22/23	A CLOW A
ADDIATORY ADDIATORY ADDIATORY ADDIATORY	Laboratory Sample No. Lab Number Unique Number Test Package s sample report,	: 10942458	A - 501 Ma R To D	dison Ave., eceived ested iagnosed	Cary, N : 25 N : 26 N : 28 Ma	IC 27513 Iar 2024 Iar 2024 Iar 2024 - Jonat	-	Quarries	1	1050 E 52 Pryc US 7	20 R or, Ol 7436 ntact
		are outside of the		scope of a	ccredita		rule (JCGM 10		oryor@p	iyorotone	T: F: