

OIL ANALYSIS REPORT

WH-100 B25970 - STORK GEARBOX #9 (4TH ON CHILL SECTION) Component

Gearbox Fluic

PETRO CANADA ENDURATEX WG 680 (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

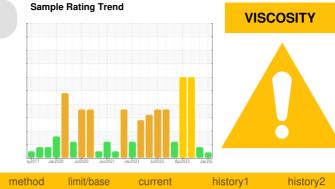
All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition

The oil viscosity is higher than normal. The AN level is acceptable for this fluid.



SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0880595	WC0856022	WC0826083
Sample Date		Client Info		10 Jan 2024	29 Nov 2023	25 Jul 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	SEVERE
-	NI	un ette e el	line it //s a s a			
	IN	method	limit/base		history1	history2
Water		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	18	7	6
Chromium	ppm	ASTM D5185m	>15	<1	0	0
Nickel	ppm	ASTM D5185m	>15	<1	<1	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	0	0
Lead	ppm	ASTM D5185m	>100	0	0	0
Copper	ppm	ASTM D5185m	>200	13	8	8
Tin	ppm	ASTM D5185m	>25	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	1	0	0	0
Barium	ppm	ASTM D5185m	1	3	0	0
Molybdenum	ppm	ASTM D5185m	1	0	0	0
Manganese	ppm	ASTM D5185m	1	0	<1	0
Magnesium	ppm	ASTM D5185m	1	0	0	0
Calcium	ppm	ASTM D5185m	1	1	4	0
Phosphorus	ppm	ASTM D5185m	1	51	<1	0
Zinc	ppm	ASTM D5185m	1	0	14	0
Sulfur	ppm	ASTM D5185m	3114	3738	2455	3178
CONTAMINANTS	6	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	2	<1	1
Sodium	ppm	ASTM D5185m		0	1	<1
Potassium	ppm	ASTM D5185m	>20	<1	0	<1
FLUID CLEANLIN	NESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	2840		296250
Particles >6µm		ASTM D7647	>2500	715		182458
Particles >14µm		ASTM D7647	>320	95		0 7096
Particles >21µm		ASTM D7647	>80	33		A 201
Particles >38µm		ASTM D7647	>20	4		5
Particles >71µm		ASTM D7647	>4	0		1
Oil Cleanliness		ISO 4406 (c)	>20/18/15	19/17/14		• 25/25/20
FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.43	1.29	1.20	1.11

Contact/Location: RYAN LOWE - HORAUS



0.0

300

____250k

200

Te 150

a 100

50

01

May21/

May21/

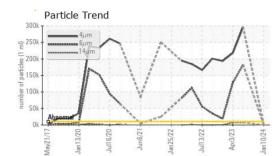
Jan 13/20

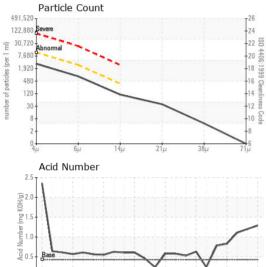
Particle Trend

lan 13/7

ul16/20

OIL ANALYSIS REPORT

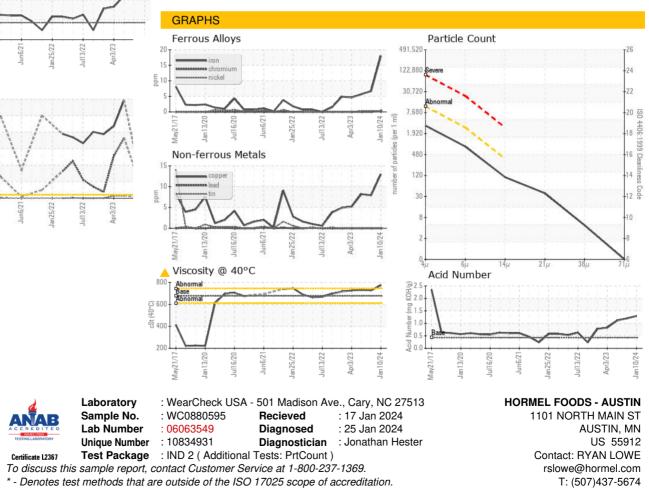




VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	A MODER	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	676.7	A 773.7	727	731
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color				. 6		



Bottom



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

Contact/Location: RYAN LOWE - HORAUS

F: (507)437-9805