

OIL ANALYSIS REPORT

Area **4 Calender Line 38-0062 Dropmill**

Bearing

Fluid DOW CHEMICAL UCON CALENDAR OIL 51 (50 GAL)

DIAGNOSIS

Recommendation

The oil is near the end of it's useful service life, recommend schedule an oil change. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

The AN level is above the recommended limit. Viscosity of sample indicates oil is within SAE 80W140 range, advise investigate. The oil is no longer serviceable.



SAMPLE INFORM	IATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		WC0892244	WC0744105	WC0808269	
Sample Date		Client Info		20 Mar 2024 03 Jan 20		4 03 Oct 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	SEVERE	SEVERE	
CONTAMINATION	N	method	limit/base	current	history1	history2	
Water		WC Method	>2	NEG	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>20	<1	0	1	
Chromium	ppm	ASTM D5185(m)	>20	0	0	0	
Nickel	ppm	ASTM D5185(m)	>20	0	0	0	
Titanium	ppm	ASTM D5185(m)		0	0	0	
Silver	ppm	ASTM D5185(m)		0	0	<1	
Aluminum	ppm	ASTM D5185(m)	>20	0	<1	0	
Lead	ppm	ASTM D5185(m)	>20	0	0	0	
Copper	ppm	ASTM D5185(m)	>20	1	0	6	
Tin	ppm	ASTM D5185(m)	>20	0	0	0	
Antimony	ppm	ASTM D5185(m)		0	0	1	
Vanadium	ppm	ASTM D5185(m)		0	0	0	
Beryllium	ppm	ASTM D5185(m)		0	0	0	
Cadmium	ppm	ASTM D5185(m)		0	0	0	
ADDITIVES		method	limit/base	current	history1	history2	
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base	current <1	history1 0	history2 0	
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185(m) ASTM D5185(m)	limit/base	current <1 0	history1 0 0	history2 0 <1	
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	current <1 0 0	history1 0 0 0	history2 0 <1 0	
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	current <1 0 0 0	history1 0 0 0 0	history2 0 <1 0 0	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	current <1 0 0 0 0 0	history1 0 0 0 0 <1	history2 0 <1 0 0 0 0	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	current <1 0 0 0 0 0 0 0	history1 0 0 0 0 <1 0	history2 0 <1 0 0 0 0 <1	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	current <1 0 0 0 0 0 0 <1	history1 0 0 0 0 <1 0 0 0	history2 0 <1 0 0 0 <1 0	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	Current <1 0 0 0 0 0 <1 0	history1 0 0 0 0 <1 0 0 0 <1	history2 0 <1 0 0 0 <1 0 0 0	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	limit/base	 current <1 0 0 0 0 <1 0 36 	history1 0 0 0 0 <1 0 0 0 <1 26	history2 0 <1 0 0 0 <1 0 0 0 461	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	limit/base	<1 0 0 0 0 0 0 0 36 <1	history1 0 0 0 0 <1 0 0 0 <1 26 <1	history2 0 <1 0 0 0 <1 0 <1 0 0 461 <1	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	limit/base	<1 0 0 0 0 0 0 <1 0 <1 0 <1 0 36 <1 current	history1 0 0 0 0 - 0 - 26 <1 26 <1 history1	history2 0 <1 0 0 0 <1 0 0 461 <1 history2	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	limit/base limit/base >15	<1 0 0 0 0 0 0 <1 0 <1 0 36 <1 current	history1 0 0 0 0 0 <1 26 <1 history1 0	history2 0 <1 0 0 0 0 <1 0 461 <1 history2	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	limit/base	current <1 0 0 0 0 0 <1 0 <1 0 <1 0 36 <1 current 0	history1 0 0 0 0 <1 0 <1 26 <1 26 <1 0 26 <1 0 22	history2 0 <1 0 0 0 <1 0 461 <1 history2 <1	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	limit/base limit/base limit/base >15 >20	current <1 0 0 0 0 <1 0 36 <1 0 36 <1 0 36 <1 0 0 0 1 0 1 0 1 0 1	history1 0 0 0 0 <1 0 <1 26 <1 26 <1 0 <1 26 <1 0 21 26 <2 2 2 2	history2 0 <1 0 0 0 <1 0 461 <1 history2 <1 2	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	limit/base	current <1 0 0 0 0 <1 0 <1 0 36 <1 0 36 <1 0 36 <1 0 0 1 0	history1 0 0 0 0 <1 0 <1 0 <1 26 <1 history1 0 2 2 history1	history2 0 <1 0 0 0 <1 0 461 <1 history2 <1 461 <2 history2	
ADDITIVES 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 ppm	method ASTM D5185(m)	limit/base	<1 0 0 0 0 0 36 <1 0 36 <1 0 36 <1 0 36 <1 0	history1 0 0 0 0 <1 0 <1 0 <1 26 <1 <1 <1 <1 <1 <26 <1 <1 <1 <26 <1 <1 <2 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 </th <th>history2 0 <1 0 0 0 <1 0 4 1 0 4 61 <1 history2 <1 4 2 history2 ▲ 2472256</th>	history2 0 <1 0 0 0 <1 0 4 1 0 4 61 <1 history2 <1 4 2 history2 ▲ 2472256	
ADDITIVES 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 ppm	method ASTM D5185(m)	limit/base >15 >20 limit/base >20 limit/base >10000 >2500	<1 0 0 0 0 0 <1 0 <1 0 36 <1 0 36 <1 0 36 <1 0 13 46113 * 13	history1 0 0 0 0 - 0 - 0 - 0 - 0 - <	history2 0 <1 0 0 <1 0 <1 0 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <2 history2 <1 <3 <1 <1 <2 <1 <2 <1 <2 <1 <2 <1 <2 <1 <2 <1 <2 <1 <2 <2 <2 <2 <2 <2 <3 <3 <3 <3 <3 <3	
ADDITIVES 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 ppm	method ASTM D5185(m)	limit/base 	<1 0 0 0 0 0 0 <1 0 <1 0 36 <1 0 36 <1 0 36 <1 0 36 <1 0 13 46113 200	history1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 26 <1 0 21 history1 0 2 history1 0 204658 73928 2711	history2 0 <1 0 0 0 <1 0 <1 0 <1 0 461 <1 history2 <1 42 history2 history2 <1 4 2 history2 <1 4 2	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Potassium Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	limit/base 	<1 0 0 0 0 0 0 <1 0 <1 0 36 <1 0 36 <1 0	history1 0 0 0 0 0 <1 0 <1 0 <1 0 <1 26 <1 0 21 bistory1 0 2 history1 0 2 history1 0 2 0 2 0 2 0 2 0 2 0 2 0 2 1 2 1 2 2 1 2 2 3 3	history2 0 <1 0 0 0 0 <1 0 <1 0 <1 0 461 <1 history2 <1 42 history2 history2 <1 4 2 history2 <1 4 2 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <t></t>	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base	<1 0 0 0 0 0 <1 0 <1 0 36 <1 0 36 <1 0 0 0 0 <11 0 <11 0 <11 0 <11 0 <21	history1 0 0 0 0 <1 0 <1 0 <1 0 <1 0 <1 0 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	history2 0 <1 0 0 0 <1 0 <1 0 <1 0 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <2 <1 <2 <1 <1 <1 <1 <1 <1 <2 <1 <2 <1 <2 <1 <2 <2 <2 <2 <2 <2 <36047	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >4µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base 	<1 0 0 0 0 0 <1 0 <1 0 36 <1 0 36 <1 0 <1 0 <1 0 <1 0 <1 <1 <1 <21 <200 35 <2 <2	history1 0 0 0 0 - 0 - 0 - 0 - 0 - 0 - -	history2 0 <1 0 0 0 <1 0 <1 0 461 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	

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A Par	ticle T	rend							FL
350k	4μ 6μ	im Im					1		Acid
월 250k					1		1	1	VIS
200k		T						1	Whit
100k		1		- []	-//\		MV.	1	Yello
50k Abit	- April	V	4	A	1	31	\mathbf{V}	1	Prec
Uk +	/15	1/17	/18	61/	/20	5/21	//23		Silt
Dec18	Dec16	Mar23	Mar22	Jun20	Sep21	Decl	Mar29		Debi
									San
Acio	d Nun	nber							Appe
7.0-								1	Odo
B/H0)		A						N	Emu
B 5.0 10 4.0 ►	~	٧,	1	Λ	٨	Λ.	1		Free
quin 3.0 1	V			VV	\sim	V	W		FL
1.0			V	occor					Visc
c18/14	c16/15	ar23/17	rr22/18	n20/19	p21/20	c15/21-	ir29/23	101010	SA
De	De	Mé	Ma	Jur	Sel	De	Ma		





FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		A 7.01	5.65	6.26
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	NONE	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*	>2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	1150	4 257	2 95	2 99
SAMPLE IMAGES	3	method	limit/base	current	history1	history2
Color						
Bottom						

Es



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CANADIAN GENERAL TOWER LTD. CALA Sample No. : WC0892244 Received : 04 Apr 2024 52 MIDDLETON STREET, P.O. BOX 160 Lab Number : 02626750 Tested : 05 Apr 2024 CAMBRIDGE, ON ISO 17025:2017 Accredited Laboratory Unique Number : 5759882 Diagnosed : 05 Apr 2024 - Kevin Marson CA N1S 2R4 Test Package : IND 2 (Additional Tests: PrtCount, TAN Man) Contact: Bob Abell To discuss this sample report, contact Customer Service at 1-800-268-2131. bob.abell@cgtower.com Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: (519)623-1630 Validity of results and interpretation are based on the sample and information as supplied. F: (519)623-7018

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Contact/Location: Bob Abell - CAN52CAM