

OIL ANALYSIS REPORT

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CATERPILLAR 320B EXC01

Component
Left Planetary

Fluid
GEAR OIL SAE 80W90 (--- GAL)

DIAGNOSIS

Recommendation

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

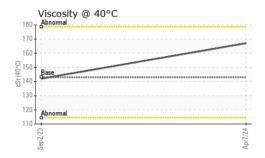
Fluid Condition

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

(GAL)			Sep2023	Apr2024		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0920170	WC0835172	
Sample Date		Client Info		07 Apr 2024	02 Sep 2023	
Machine Age	hrs	Client Info		19178	18936	
Oil Age	hrs	Client Info		0	0	
Oil Changed		Client Info		Not Changd	Changed	
Sample Status				NORMAL	SEVERE	
CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
ron	ppm	ASTM D5185(m)	>500	33	198	
Chromium	ppm	ASTM D5185(m)	>10	<1	2	
Nickel	ppm	ASTM D5185(m)	>10	0	<1	
Titanium	ppm	ASTM D5185(m)		<1	2	
Silver	ppm	ASTM D5185(m)		0	<1	
Aluminum	ppm	ASTM D5185(m)	>25	<1	43	
_ead	ppm	ASTM D5185(m)	>25	0	<1	
Copper	ppm	ASTM D5185(m)	>75	<1	1	
Tin	ppm	ASTM D5185(m)	>10	0	0	
Antimony	ppm	ASTM D5185(m)	>5	0	0	
Vanadium	ppm	ASTM D5185(m)		0	<1	
Beryllium	ppm	ASTM D5185(m)		0	0	
Cadmium	ppm	ASTM D5185(m)		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	400	186	147	
Barium	ppm	ASTM D5185(m)	200	1	1	
Molybdenum	ppm	ASTM D5185(m)	12	0	<1	
Manganese	ppm	ASTM D5185(m)		2	2	
Magnesium	ppm	ASTM D5185(m)	12	6	24	
Calcium	ppm	ASTM D5185(m)	150	209	44	
Phosphorus	ppm	ASTM D5185(m)	1650	1349	1091	
Zinc	ppm	ASTM D5185(m)	125	81	28	
Sulfur	ppm	ASTM D5185(m)	22500	19465	18499	
Lithium	ppm	ASTM D5185(m)		<1	<1	
CONTAMINANT	S	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>75	88	<u> </u>	
Sodium	ppm	ASTM D5185(m)	>170	4	15	
Potassium	ppm	ASTM D5185(m)	>20	2	19	



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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	
Precipitate	scalar	Visual*	NONE	NONE	NONE	
Silt	scalar	Visual*	NONE	NONE	VLITE	
Debris	scalar	Visual*	NONE	VLITE	NONE	
Sand/Dirt	scalar	Visual*	NONE	VLITE	NONE	
Appearance	scalar	Visual*	NORML	NORML	NORML	
Odor	scalar	Visual*	NORML	NORML	NORML	
Emulsified Water	scalar	Visual*	>0.2	NEG	<u> </u>	
Free Water	scalar	Visual*		NEG	NEG	
FLUID PROPERT	TIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	143	167	142	
SAMPLE IMAGES	5	method	limit/base	current	history1	history2
Color			1			no image
Bottom						no image
GRAPHS						
Iron (ppm)				Lead (ppm)		
Severe			150	Severe		
Abnormal			≣ ¹⁰⁰			1
0			- 0	Abnormal		
Sep2/23			Арт7/24	Sep 2/23		Apr7/24
Sep			Apı	Sep		Apı
Aluminum (ppm)				Chromium (opm)	
100 Severe 30 Severe						
Abnormal Abnormal			E 20	Abnormal		
0			0			
Sep 2/23			Apr7/24	Sep 2/23		Apr7/24
S			Ap	S		Ap
Copper (ppm)			300	Silicon (ppm)	
Severe				Severe		
100 - Abnormal			E 200 100	Abnormal		
0			- 0	2		No.
Sep 2/23			Apr7/24	Sep 2/23		Apr7/24
Viscosity @ 40°C				Additives		
Abnormal Abnormal			1500	calcium		***************************************
150 Base Abnormal			E 1000	**************************************	rus	
Abnormal			500	ZITIC		
100			O			***************************************
7/23			Apr7/24 +	2/23		Apr7/24



CALA ISO 17025:2017 Accredited Laboratory

Sample No.

: WC0920170 Lab Number : 02628559 Unique Number : 5761691

Test Package : MOB 1

mdd

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Received : 12 Apr 2024 **Tested** : 12 Apr 2024 : 12 Apr 2024 - Kevin Marson Diagnosed

Agnico Eagle Canada 1350 Government Rd. W, MACASSA COMPLEX Kirkland Lake, ON

CA P2N 3J1 Contact: Mitch Lamontagne AEM_KL_macassaoilsampleresults@agnicoeagle.com

To discuss this sample report, contact Customer Service at 1-800-268-2131. 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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