

OIL ANALYSIS REPORT



Sample Rating Trend



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is SAE 30

NOT GIVEN (--- GAL)

Transmission/Drive Train Oil. Please confirm the oil type and grade, and specify the brand of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

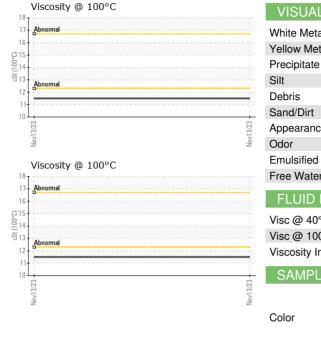
Fluid Condition

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

		Nev2023					
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		PC0075017			
Sample Date		Client Info		13 Nov 2023			
Machine Age	hrs	Client Info		3423			
Oil Age	hrs	Client Info		0			
Oil Changed		Client Info		N/A			
Sample Status				NORMAL			
CONTAMINAT	ION	method	limit/base	current	history1	history2	
Water		WC Method	>0.2	NEG			
WEAR METAL	S	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>800	86			
Chromium	ppm	ASTM D5185(m)	>10	0			
Nickel	ppm	ASTM D5185(m)	>5	0			
Titanium	ppm	ASTM D5185(m)	>15	0			
Silver	ppm	ASTM D5185(m)	>2	<1			
Aluminum	ppm	ASTM D5185(m)	>75	1			
Lead	ppm	ASTM D5185(m)	>10	<1			
Copper	ppm	ASTM D5185(m)	>75	<1			
Tin	ppm	ASTM D5185(m)	>8	0			
Antimony	ppm	ASTM D5185(m)	>50	0			
Vanadium	ppm	ASTM D5185(m)		0			
Beryllium	ppm	ASTM D5185(m)		0			
Cadmium	ppm	ASTM D5185(m)		0			
ADDITIVES		method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		<1			
Barium	ppm	ASTM D5185(m)		<1			
Molybdenum	ppm	ASTM D5185(m)		<1			
Manganese	ppm	ASTM D5185(m)		<1			
Magnesium	ppm	ASTM D5185(m)		10			
Calcium	ppm	ASTM D5185(m)		3111			
Phosphorus	ppm	ASTM D5185(m)		1026			
Zinc	ppm	ASTM D5185(m)		1261			
Sulfur	ppm	ASTM D5185(m)		10412			
Lithium	ppm	ASTM D5185(m)		<1			
CONTAMINAN	ITS	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>400	4			
Sodium	ppm	ASTM D5185(m)		3			
Potassium	ppm	ASTM D5185(m)	>20	1			



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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Precipitate	scalar	Visual*	NONE	NONE		
Silt	scalar	Visual*	NONE	NONE		
Debris	scalar	Visual*	NONE	VLITE		
Sand/Dirt		Visual*	NONE	NONE		
Appearance	scalar	Visual*	NORML	NORML		
Odor		Visual*	NORML	NORML		
Emulsified Water	scalar	Visual*	>0.2	NEG		
Free Water	scalar	Visual*		NEG		
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)		104		
Visc @ 100°C	cSt	ASTM D7279(m)		11.5		
Viscosity Index (VI)	Scale	ASTM D2270*		97		
SAMPLE IMAG	ES	method	limit/base	current	history1	history2
Color					no image	no image
Bottom					no image	no image
GRAPHS			_			
Iron (ppm)				Lead (ppm)		
Severe Q			40	Severe		
Abnormal			E 20	Abnormal		
1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			- E			
Nov13/23			Nov13/23	Nov13/23		
Aluminum (ppm)	Chromium (pp	m)				
Severe			40			
Abnormal			<u>E</u> . x	Abnormal		
2			- E	23		
Nov13			Nov13	Nov13		
Copper (ppm)				Silicon (ppm)		
Severe			1000			
Abnormal			E 500	Abnormal		
			- E	22		
Nov13/22			Nov13/22	Nov13/22		
Viscosity @ 40°C				Additives		
Abnormal			4000	calcium		
Abnormal			<u>E</u> 2000	**************************************		
L;				23		



CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number Unique Number : 5694377

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

: PC0075017

: 02601292

Received

Diagnosed : 07 Dec 2023

Diagnostician : Bill Quesnel

Test Package : MOB 1 (Additional Tests: KV100, VI)

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

: 06 Dec 2023

Contact: Dale Arseneau darseneau@ca.panamericansilver.com

Lakeshore Gold Timmins West

T: (705)269-4344

Timmins, ON

CA

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.