



PROBLEM SUMMARY

Sample Rating Trend



VISCOSITY



Machine Id
11646125

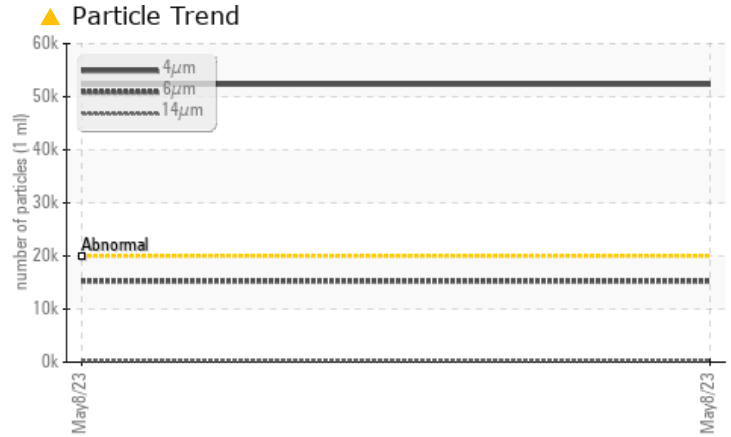
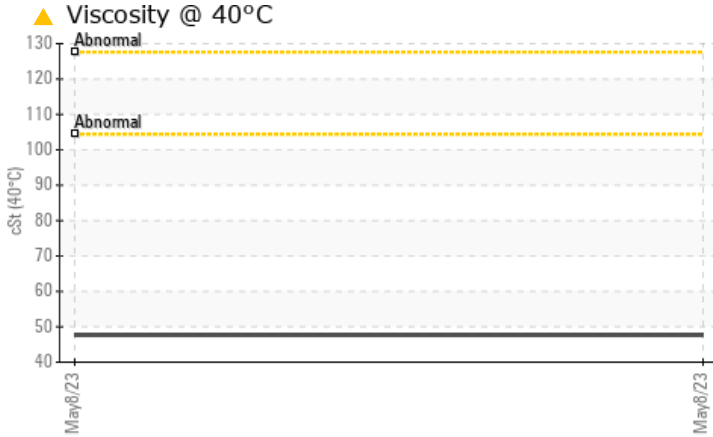
Component

Brake

Fluid

SHELL TELLUS 37 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the component make and model with your next sample.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	---	---
Particles >4µm	ASTM D7647	>20000	▲ 52311	---	---
Particles >6µm	ASTM D7647	>5000	▲ 15259	---	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ 23/21/15	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	▲ 47.7	---	---

Customer Id: INCOOLE
 Sample No.: WC0754987
 Lab Number: 02557017
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

To change component or sample information:
 Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the component make and model with your next sample.

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY

Machine Id
11646125

Component

Brake

Fluid

SHELL TELLUS 37 (--- GAL)



DIAGNOSIS

Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

Viscosity of sample indicates oil is within ISO 46 range, advise investigate. The AN level is acceptable for this fluid. The fluid is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC0754987	---	---
Sample Date	Client Info	08 May 2023	---	---
Machine Age	hrs	Client Info	0	---
Oil Age	hrs	Client Info	0	---
Oil Changed	Client Info	N/A	---	---
Sample Status		ABNORMAL	---	---

WEAR METALS

method	limit/base	current	history1	history2	
PQ	ASTM D8184*	0	---	---	
Iron	ppm	ASTM D5185(m)	>350	<1	---
Chromium	ppm	ASTM D5185(m)	>5	0	---
Nickel	ppm	ASTM D5185(m)	>5	0	---
Titanium	ppm	ASTM D5185(m)		0	---
Silver	ppm	ASTM D5185(m)		0	---
Aluminum	ppm	ASTM D5185(m)	>8	<1	---
Lead	ppm	ASTM D5185(m)	>10	0	---
Copper	ppm	ASTM D5185(m)	>150	<1	---
Tin	ppm	ASTM D5185(m)	>5	0	---
Antimony	ppm	ASTM D5185(m)	>5	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)		0	---
Molybdenum	ppm	ASTM D5185(m)		0	---
Manganese	ppm	ASTM D5185(m)		0	---
Magnesium	ppm	ASTM D5185(m)		12	---
Calcium	ppm	ASTM D5185(m)		89	---
Phosphorus	ppm	ASTM D5185(m)		280	---
Zinc	ppm	ASTM D5185(m)		283	---
Sulfur	ppm	ASTM D5185(m)		3169	---
Lithium	ppm	ASTM D5185(m)		<1	---

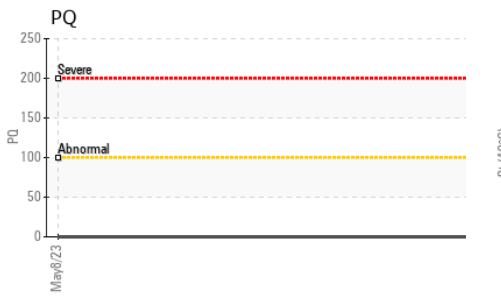
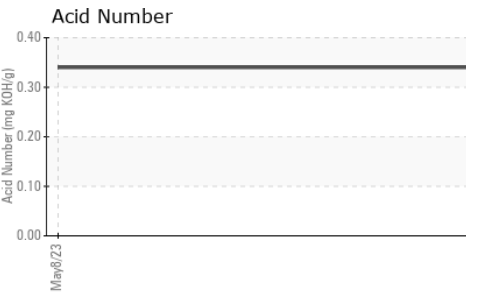
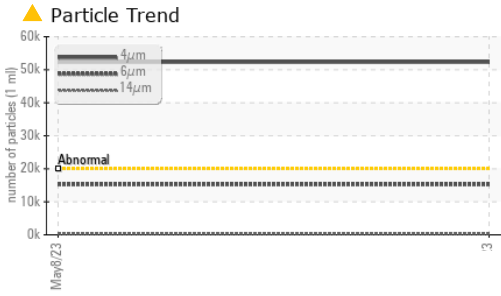
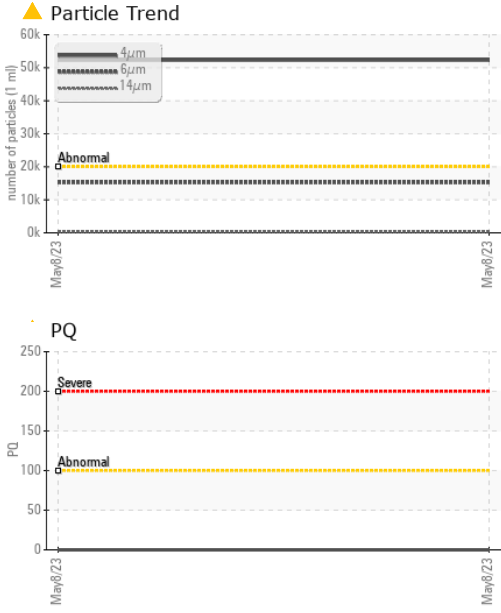
CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>400	<1	---
Sodium	ppm	ASTM D5185(m)		<1	---
Potassium	ppm	ASTM D5185(m)	>20	<1	---

FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	▲ 52311	---
Particles >6µm	ASTM D7647	>5000	▲ 15259	---
Particles >14µm	ASTM D7647	>640	313	---
Particles >21µm	ASTM D7647	>160	28	---
Particles >38µm	ASTM D7647	>40	1	---
Particles >71µm	ASTM D7647	>10	0	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ 23/21/15	---

OIL ANALYSIS REPORT

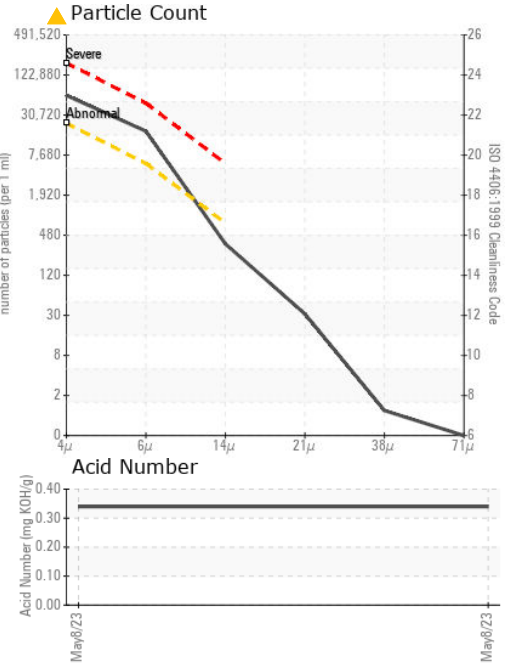
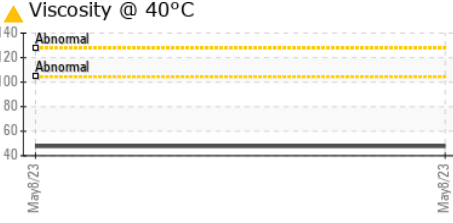
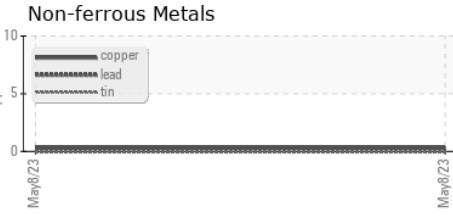
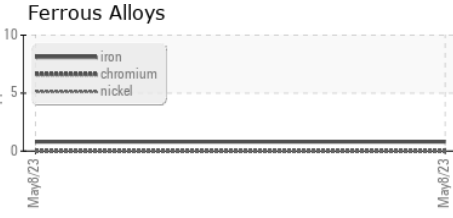


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		0.34	---	---
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	VLITE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---
Free Water	scalar	Visual*		NEG	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)		▲ 47.7	---	---

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color				no image	no image	
Bottom				no image	no image	

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0754987 **Received** : 11 May 2023
Lab Number : **02557017** **Diagnosed** : 15 May 2023
Unique Number : 5578057 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: PrtCount)

Vale - Coleman Mine
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 LEVACK, ON
 CA P0M 2C0
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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.