



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
RASA 60 IN MTBM 60 IN RASA MTBM

Component
Hydraulic System

Fluid
{not provided} (--- GAL)

RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. We were unable to perform a particle count due to a high concentration of particles present in this sample.

WEAR

All component wear rates are normal.

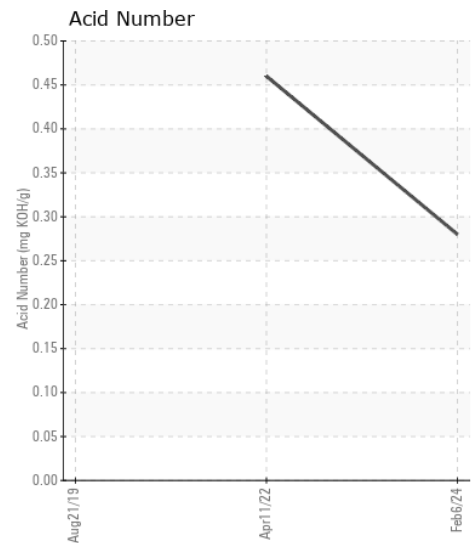
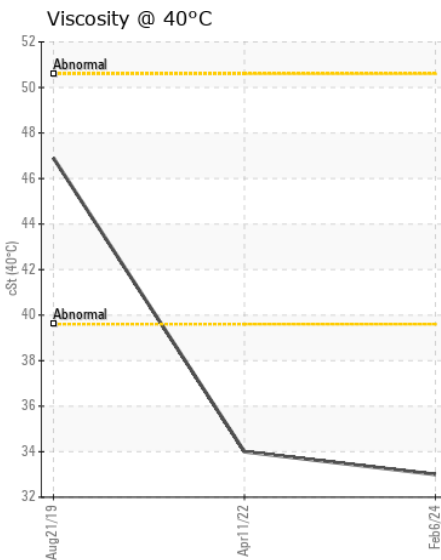
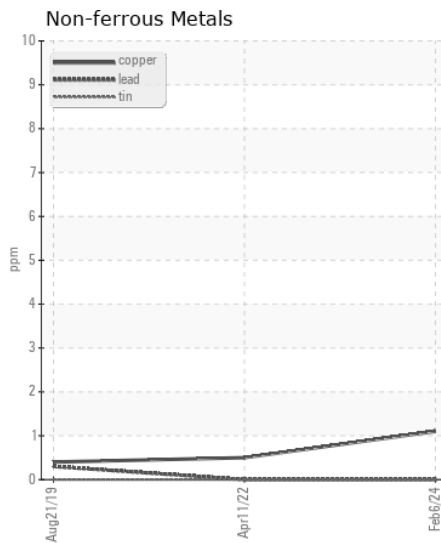
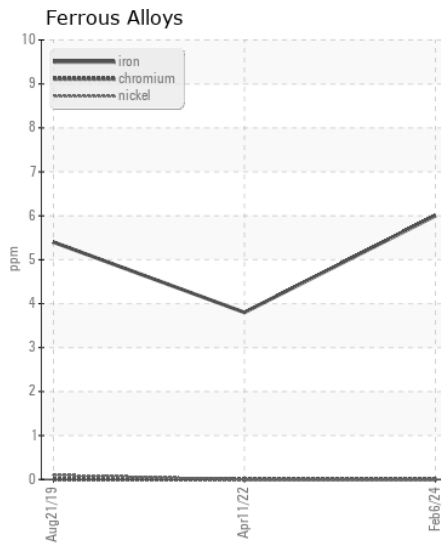
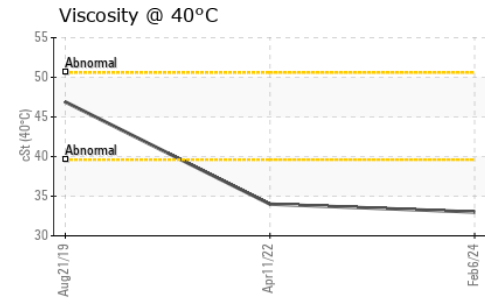
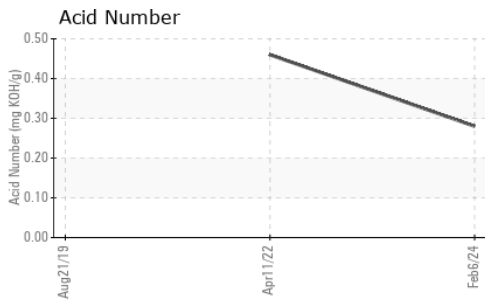
CONTAMINATION

Moderate concentration of visible dirt/debris present in the oil.

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DC0021928	DC0018401	DC0000656
Sample Date		Client Info		06 Feb 2024	11 Apr 2022	21 Aug 2019
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>20	6	4	5
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>10	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	<1	<1
Aluminum	ppm	ASTM D5185m	>10	0	<1	2
Lead	ppm	ASTM D5185m	>10	0	0	<1
Copper	ppm	ASTM D5185m	>75	1	<1	<1
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>20	<1	<1	8
Potassium	ppm	ASTM D5185m	>20	0	0	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	---	▲ 58217	---
Particles >6µm		ASTM D7647	>1300	---	▲ 7093	---
Particles >14µm		ASTM D7647	>160	---	▲ 202	---
Particles >21µm		ASTM D7647	>40	---	24	---
Particles >38µm		ASTM D7647	>10	---	0	---
Particles >71µm		ASTM D7647	>3	---	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	---	▲ 23/20/15	---
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	VLITE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	▲ MILKY
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	0.2%
Sodium	ppm	ASTM D5185m		1	1	2
Boron	ppm	ASTM D5185m		0	3	1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	2	<1
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		27	64	4
Calcium	ppm	ASTM D5185m		29	89	15
Phosphorus	ppm	ASTM D5185m		214	304	166
Zinc	ppm	ASTM D5185m		198	343	65
Sulfur	ppm	ASTM D5185m		3597	3547	5664
Acid Number (AN)	mg KOH/g	ASTM D8045		0.28	0.46	---
Visc @ 40°C	cSt	ASTM D445		33.0	34.0	46.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : DC0021928

Lab Number : 06084750

Unique Number : 10872195

Test Package : MOB 2

Received : 09 Feb 2024

Tested : 12 Feb 2024

Diagnosed : 12 Feb 2024 - Doug Bogart

SECA UNDERGROUND

8228 FISCHER RD, PO BOX 656

DUNDALK, MD

US 21222

Contact: SEAN-PAUL WARNICK

seanpaul.warnick@seca-tunnel.com

T: (443)740-1527

F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

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