



CONSTRUCTION EQUIPMENT

02586139 GROVE GRT8120 237293 - HYDRAULIC SYSTEM



Sample No: VCP394728
Oil Type: SHELL NATURELLE S2 32
Job No: 02586139



SAMPLE INFORMATION

Sample Number	VCP394728	VCP352463	---	---
Sample Date	28 Jul 2023	09 Dec 2022	---	---
Machine Hours	700	498	---	---
Oil Hours	40	498	---	---
Oil Changed	Not Chngd	Not Chngd	---	---
Sample Status	ABNORMAL	NORMAL	---	---

STRONGCO EQUIPMENT INC.

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CA J4B 6Z6
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OIL CONDITION

Visc @ 40°C	cSt	32.2	47.2	---	---
Visc @ 100°C	cSt	6.9	---	---	---
Viscosity Index (VI)	Scale	182	---	---	---

Diagnosis

We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. There is a moderate concentration (6.8%) of mineral oil present in the fluid. Additive levels indicate the addition of a different brand, or type of oil.



CONTAMINATION

Water	%	NEG	NEG	---	---
Particles >4µm		7135	2119	---	---
Particles >6µm		1860	617	---	---
Particles >14µm		138	44	---	---
ISO 4406:1999 (c)		20/18/14	18/16/13	---	---
Silicon	ppm	2	14	---	---
Sodium	ppm	<1	2	---	---
Potassium	ppm	<1	1	---	---



WEAR METALS

Iron	ppm	<1	2	---	---
Copper	ppm	<1	1	---	---
Lead	ppm	0	<1	---	---
Tin	ppm	0	0	---	---
Aluminum	ppm	1	<1	---	---
Chromium	ppm	0	0	---	---
Molybdenum	ppm	<1	2	---	---
Nickel	ppm	0	0	---	---
Titanium	ppm	1	<1	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	0	<1	---	---
Vanadium	ppm	0	0	---	---



ADDITIVES

Calcium	ppm	454	3191	---	---
Magnesium	ppm	3	21	---	---
Zinc	ppm	191	1279	---	---
Phosphorus	ppm	324	1097	---	---
Barium	ppm	0	0	---	---
Boron	ppm	13	91	---	---

Depot: SHEBOU
Unique No: 5620784
Signed: Bill Quesnel
Report Date: 02 Oct 2023

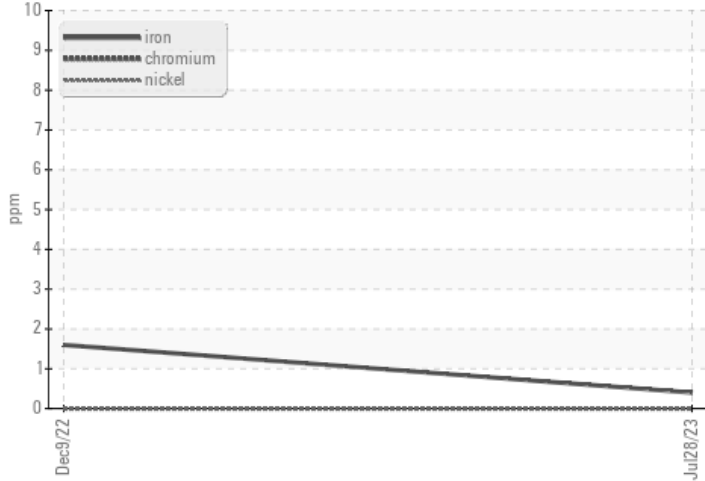


CONSTRUCTION EQUIPMENT

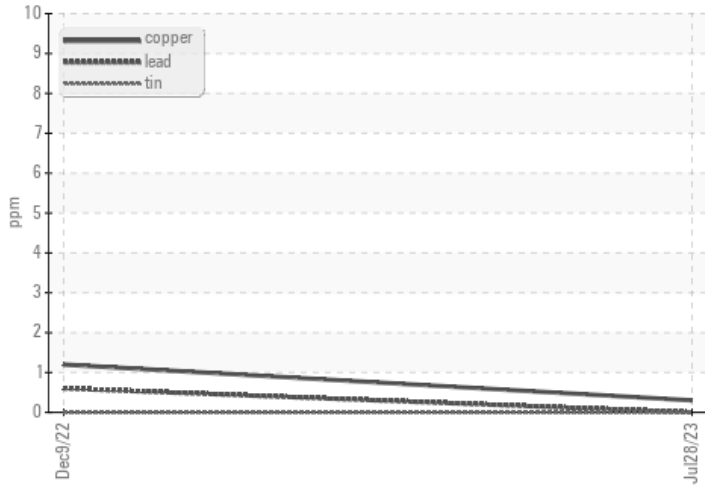


VOLVO GRAPHS

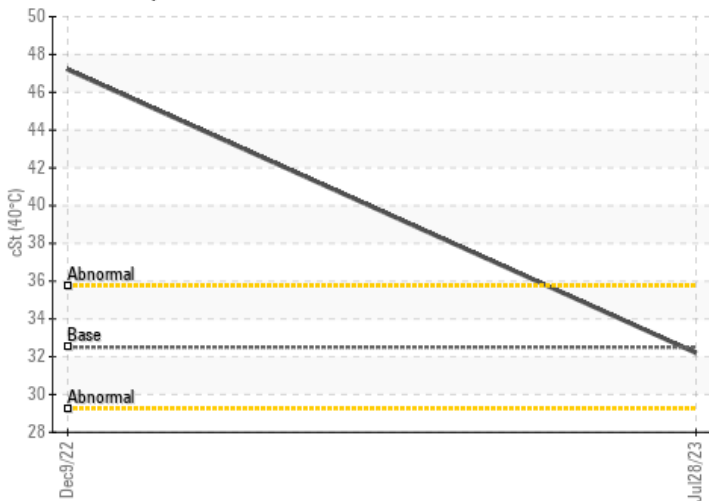
Ferrous Alloys



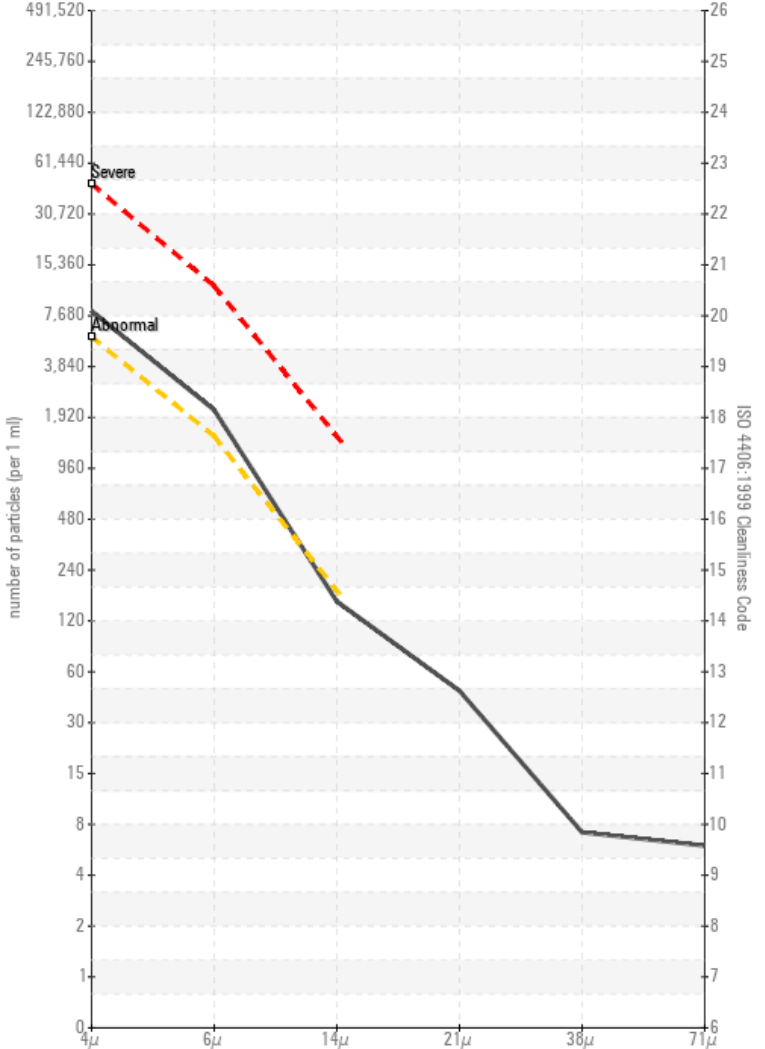
Non-ferrous Metals



Viscosity @ 40°C



Particle Count





Area

Machine Id

Component

Hydraulic System

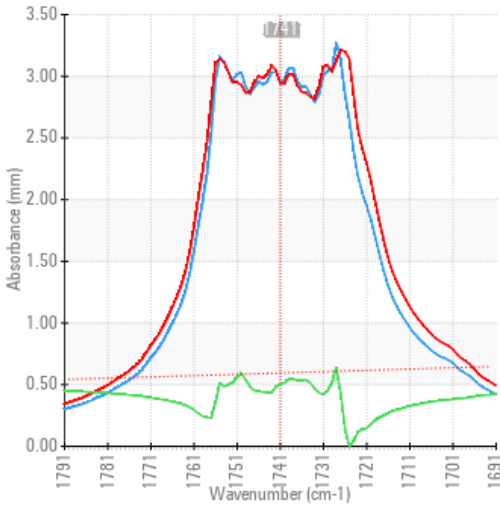
Fluid

SHELL NATURELLE S2 32 (--- GAL)

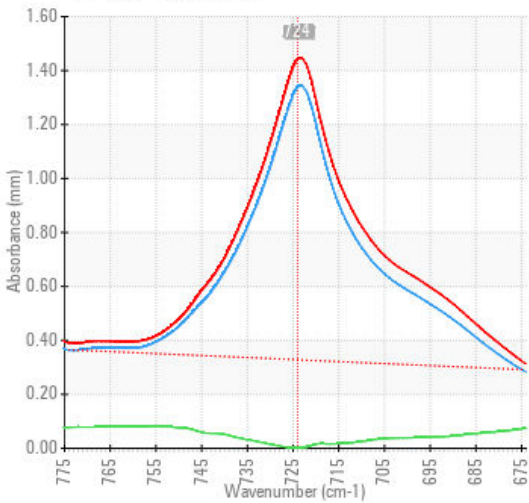
SPECTRAL ANALYSIS



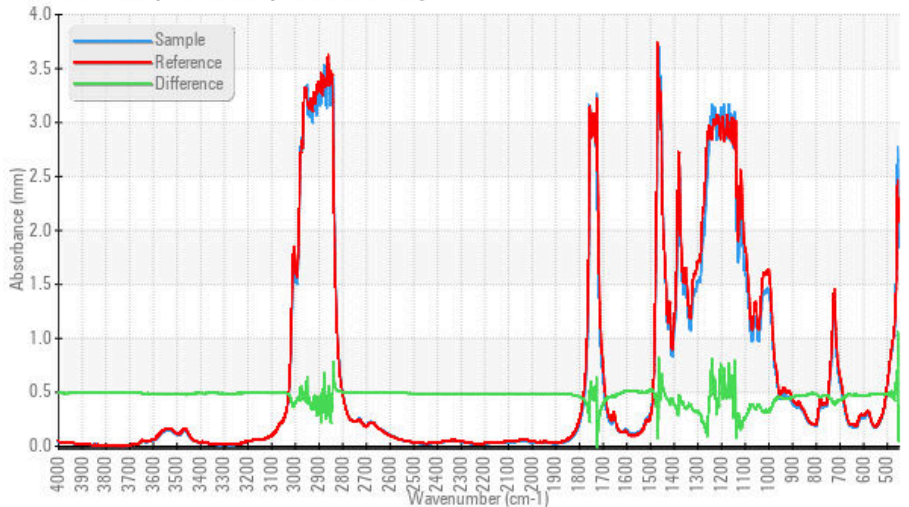
FT-IR - Esters I



FT-IR - Esters II



FT-IR Spectrum (Absorbance)



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : VCP394728 **Received** : 14 Aug 2023
Lab Number : 02575733 **Tested** : 02 Oct 2023
Unique Number : 5620784 **Diagnosed** : 02 Oct 2023 - Bill Quesnel
Test Package : MOB 1 (Additional Tests: FT-IR, KV100, Mineral Oil Content, PrtCount, VI)

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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