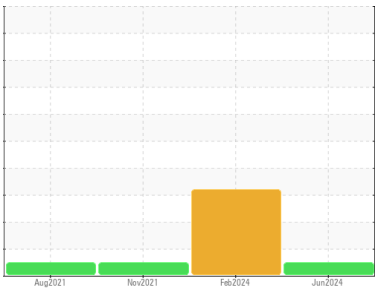
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Area
GM Seattle Off Raod Shop
Machine Id
[GM Seattle Off Raod Shop] 28-433
Component
Transmission (Auto)
Fluid
LIEBHERR GEAR MF 80W (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor. (Customer Sample Comment:
Top Up Amount: 3 gallons)

Wear
All component wear rates are normal.

Contamination
There is no indication of any contamination in the fluid. The amount and size of particulates present in the system are acceptable.

Fluid Condition
The AN level is acceptable for this fluid. The condition of the fluid is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PE0003028**	PE0003374	PE12291090
Sample Date		Client Info		**04 Jun 2024**	13 Feb 2024	02 Nov 2021
Machine Age	hrs	Client Info		**5353**	4699	1165
Oil Age	hrs	Client Info		**654**	4699	1165
Oil Changed		Client Info		**Oil Added**	Changed	Not Changd
Sample Status				**NORMAL**	ATTENTION	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184	>50	**21**	17	---
Iron	ppm	ASTM D5185m	>160	**15**	17	14
Chromium	ppm	ASTM D5185m	>5	**<1**	<1	0
Nickel	ppm	ASTM D5185m	>5	**0**	0	0
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m	>5	**0**	0	<1
Aluminum	ppm	ASTM D5185m	>50	**2**	2	1
Lead	ppm	ASTM D5185m	>50	**0**	8	1
Copper	ppm	ASTM D5185m	>225	**1**	5	3
Tin	ppm	ASTM D5185m	>10	**0**	0	0
Antimony	ppm	ASTM D5185m		**---**	---	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**22**	0	108
Barium	ppm	ASTM D5185m		**<1**	0	0
Molybdenum	ppm	ASTM D5185m		**<1**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	---
Magnesium	ppm	ASTM D5185m		**16**	6	7
Calcium	ppm	ASTM D5185m		**3430**	829	3829
Phosphorus	ppm	ASTM D5185m		**1345**	464	1295
Zinc	ppm	ASTM D5185m		**1577**	500	1642
Sulfur	ppm	ASTM D5185m		**7434**	2491	---

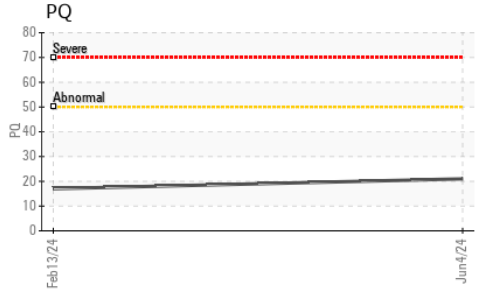
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	**5**	6	8
Sodium	ppm	ASTM D5185m		**0**	1	8
Potassium	ppm	ASTM D5185m	>20	**2**	<1	2

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	**1901**	12693	---
Particles >6µm		ASTM D7647	>2500	**321**	2779	---
Particles >14µm		ASTM D7647	>320	**16**	246	---
Particles >21µm		ASTM D7647	>80	**3**	74	---
Particles >38µm		ASTM D7647	>20	**0**	3	---
Particles >71µm		ASTM D7647	>4	**0**	0	---
Oil Cleanliness		ISO 4406 (c)	>20/18/15	**18/16/11**	21/19/15	20/16/11

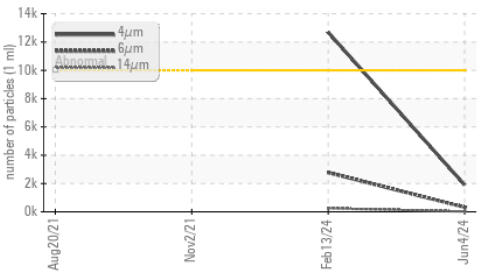
OIL ANALYSIS REPORT

PetroCard MORE THAN JUST FUEL.

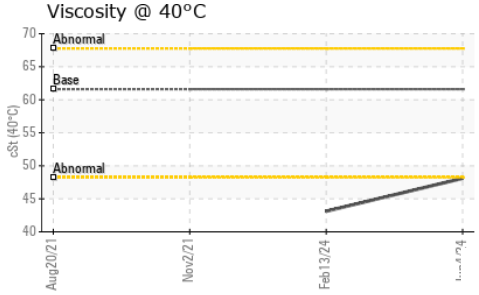
PQ



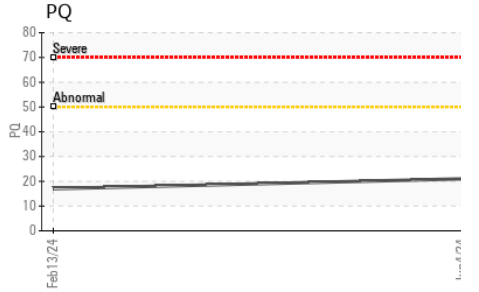
Particle Trend



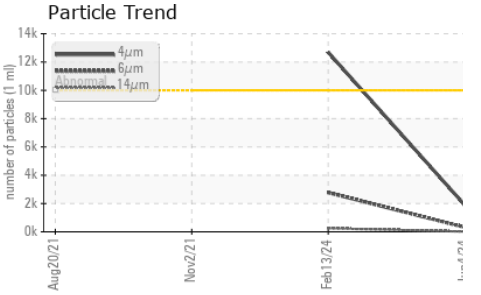
Viscosity @ 40°C



PQ



Particle Trend



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**1.951**	0.69	1.68

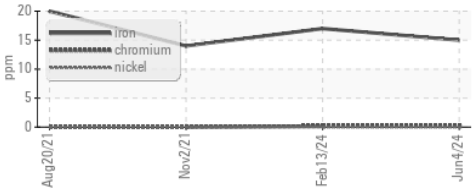
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	---
Silt	scalar	*Visual	NONE	**NONE**	NONE	---
Debris	scalar	*Visual	NONE	**NONE**	NONE	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	---
Appearance	scalar	*Visual	NORML	**NORML**	NORML	---
Odor	scalar	*Visual	NORML	**NORML**	NORML	---
Emulsified Water	scalar	*Visual	>0.1	**NEG**	NEG	---
Free Water	scalar	*Visual		**NEG**	NEG	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	61.6	**48.1**	43.12	---

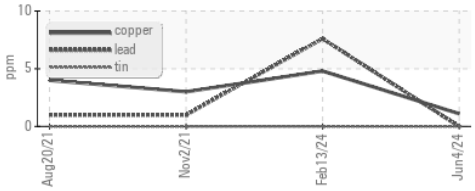
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					*no image*
Bottom					*no image*

GRAPHS

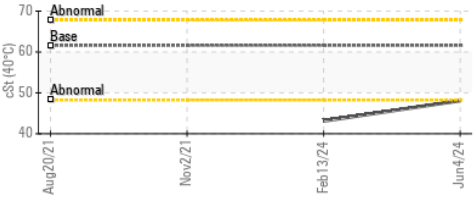
Ferrous Alloys



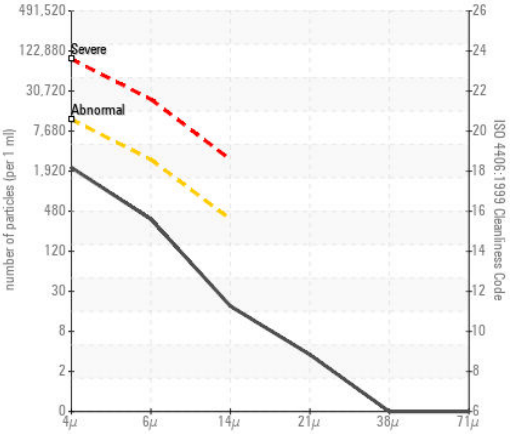
Non-ferrous Metals



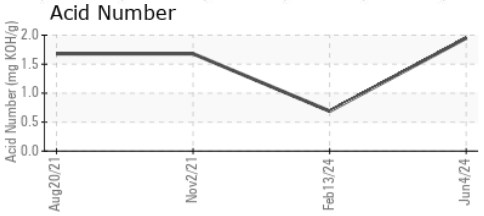
Viscosity @ 40°C



Particle Count



Acid Number



ANAB ACCREDITED TESTING LABORATORY
Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PE0003028
Lab Number : 06210676
Unique Number : 11083540
Test Package : CONST (Additional Tests: ICP, KV40, PQ, PrtCount, SCREEN)

Received : 14 Jun 2024
Tested : 18 Jun 2024
Diagnosed : 18 Jun 2024 - Angela Borella

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)

Gary Merlino Construction - Off Road Shop
9125 10TH AVE SOUTH
SEATTLE, WA
US 98108
Contact: Jesse Patterson
oilsamples@gmccinc.com
T: 1(866)292-1303
F:

Report Id: GARSEA [WUSCAR] 06210676 (Generated: 06/22/2024 04:34:02) Rev: 1

Submitted By: Stoneway Concrete - Seattle - Jesse Patterson