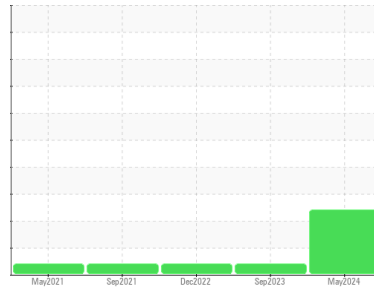




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Area

Stoneway Concrete Renton

Machine Id

[Stoneway Concrete Renton] 10-534

Component

Hydraulic System

Fluid

CASTROL DUAL RANGE HV HYD OIL ISO 46 (--- GAL)

DIAGNOSIS

▲ Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

▲ Contamination

There is a high amount of particulates present in the oil.

● Fluid Condition

The oil viscosity is higher than normal. Confirm oil type. The AN level is acceptable for this fluid.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PE0003286	PE0002288	PE0000335
Sample Date	Client Info		30 May 2024	20 Sep 2023	21 Dec 2022
Machine Age	hrs	Client Info	4562	4562	3182
Oil Age	hrs	Client Info	4562	4562	3182
Oil Changed	Client Info		N/A	Not Changd	Not Changd
Sample Status			ABNORMAL	MARGINAL	MARGINAL

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		14	11	9
Iron	ppm	ASTM D5185m >20	6	5	<1
Chromium	ppm	ASTM D5185m >10	0	<1	0
Nickel	ppm	ASTM D5185m >10	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	<1	0
Aluminum	ppm	ASTM D5185m >10	0	0	0
Lead	ppm	ASTM D5185m >10	0	0	0
Copper	ppm	ASTM D5185m >75	10	10	9
Tin	ppm	ASTM D5185m >10	0	<1	0
Antimony	ppm	ASTM D5185m	---	---	---
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	0	<1	0
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	<1	2	0
Calcium	ppm	ASTM D5185m	23	24	20
Phosphorus	ppm	ASTM D5185m	330	337	343
Zinc	ppm	ASTM D5185m	416	439	443
Sulfur	ppm	ASTM D5185m	912	971	1003

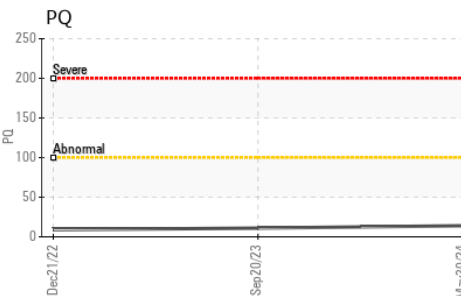
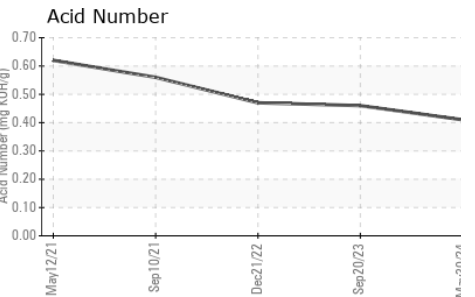
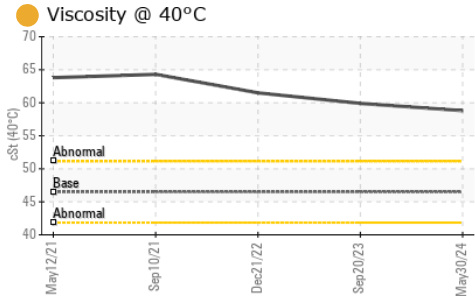
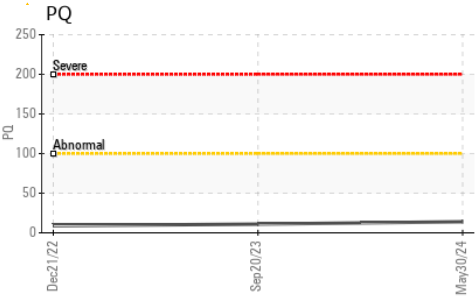
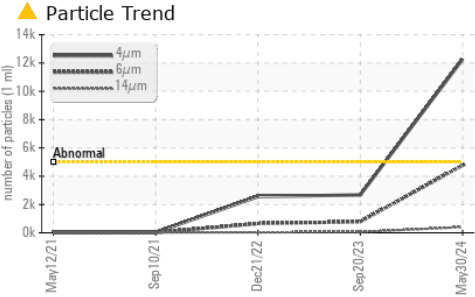
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	1	1	<1
Sodium	ppm	ASTM D5185m	1	3	0
Potassium	ppm	ASTM D5185m >20	1	1	0

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 12261	2678	2562
Particles >6µm	ASTM D7647	>1300	▲ 4772	781	656
Particles >14µm	ASTM D7647	>160	▲ 407	54	35
Particles >21µm	ASTM D7647	>40	● 78	15	7
Particles >38µm	ASTM D7647	>10	2	0	0
Particles >71µm	ASTM D7647	>3	1	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 21/19/16	19/17/13	19/17/12

OIL ANALYSIS REPORT

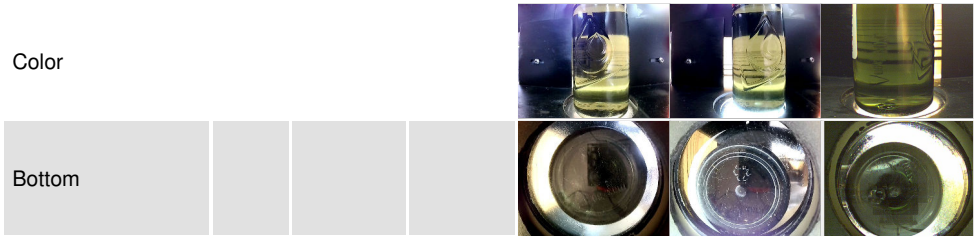


FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.41	0.46	0.47

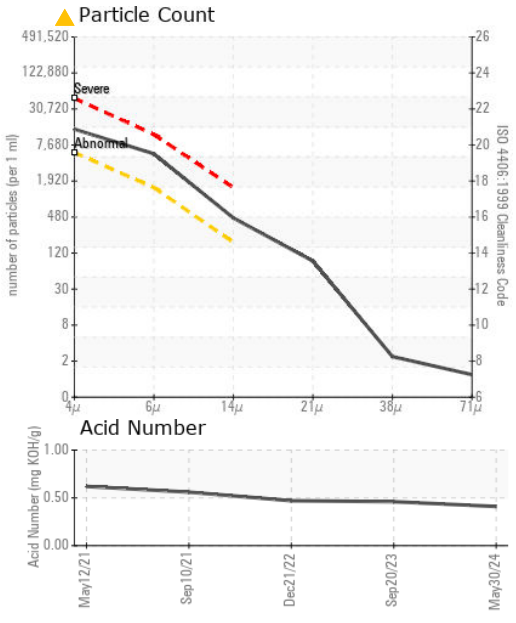
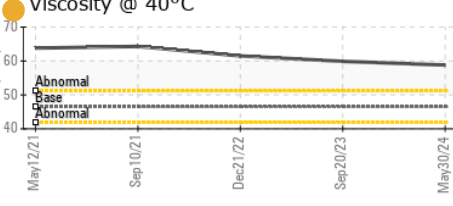
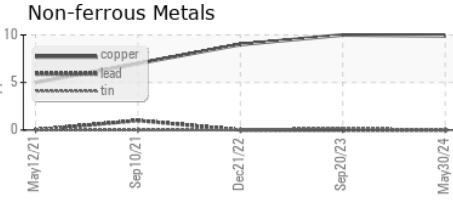
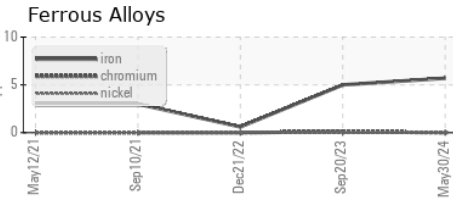
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	46.5	58.8	59.9	61.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PE0003286 **Received** : 25 Jun 2024
Lab Number : **06220349** **Tested** : 26 Jun 2024
Unique Number : 11098546 **Diagnosed** : 27 Jun 2024 - Doug Bogart
Test Package : CONST (Additional Tests: ICP, KV40, PQ, PrtCount, SCREEN)

Gary Merlino Construction - Off Road Shop
 9125 10TH AVE SOUTH
 SEATTLE, WA
 US 98108
 Contact: Tony Wytko
 oilsamples@gmccinc.com

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)