

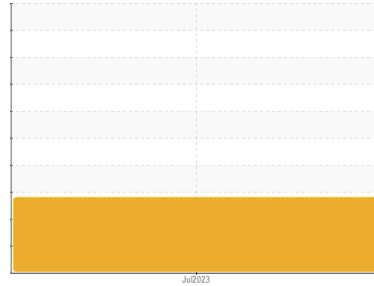
PROBLEM SUMMARY

Sample Rating Trend

GLYCOL

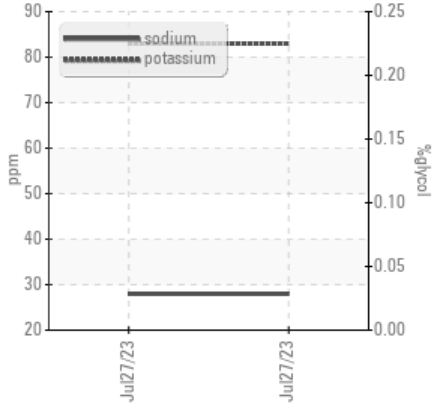


Area
STONWAY CONCRETE RENTON
 Machine Id
[STONWAY CONCRETE RENTON] 16-336
 Component
1 Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

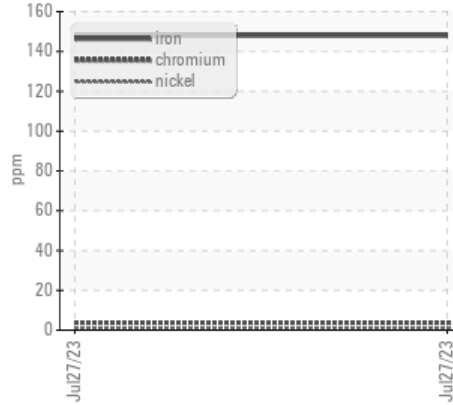


COMPONENT CONDITION SUMMARY

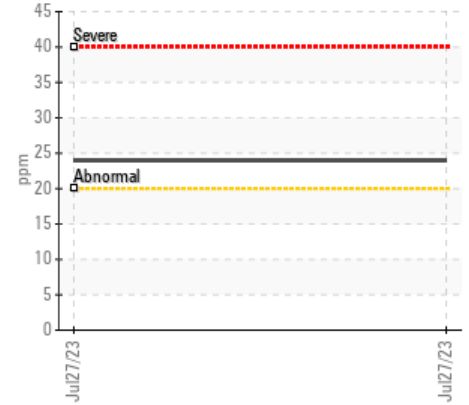
▲ Glycol Contamination



▲ Ferrous Alloys



▲ Aluminum (ppm)



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	---	---
Iron	ppm	ASTM D5185m	>100	▲ 148	---	---
Aluminum	ppm	ASTM D5185m	>20	▲ 24	---	---
Potassium	ppm	ASTM D5185m	>20	▲ 83	---	---

Customer Id: GARSEA
 Sample No.: PE0001161
 Lab Number: 05922649
 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

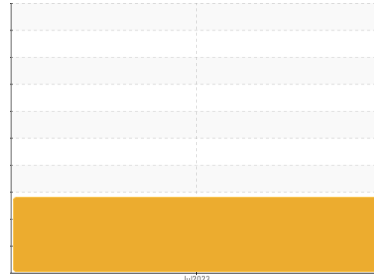
RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

Area
STONEWAY CONCRETE RENTON
 Machine Id
[STONEWAY CONCRETE RENTON] 16-336

Component
1 Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)



DIAGNOSIS

▲ **Recommendation**
 Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

▲ **Wear**
 Piston and cylinder wear is indicated.

▲ **Contamination**
 Sodium and/or potassium levels are high. Test for glycol is negative.

Fluid Condition
 The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION	method	limit/base	current	history1	history2
Sample Number	Client Info		PE0001161	---	---
Sample Date	Client Info		27 Jul 2023	---	---
Machine Age	hrs	Client Info	13537	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	---	---

WEAR METALS	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	▲ 148	---	---
Chromium	ppm	ASTM D5185m >20	4	---	---
Nickel	ppm	ASTM D5185m >4	1	---	---
Titanium	ppm	ASTM D5185m	<1	---	---
Silver	ppm	ASTM D5185m >3	0	---	---
Aluminum	ppm	ASTM D5185m >20	▲ 24	---	---
Lead	ppm	ASTM D5185m >40	4	---	---
Copper	ppm	ASTM D5185m >330	13	---	---
Tin	ppm	ASTM D5185m >15	1	---	---
Vanadium	ppm	ASTM D5185m	<1	---	---
Cadmium	ppm	ASTM D5185m	0	---	---

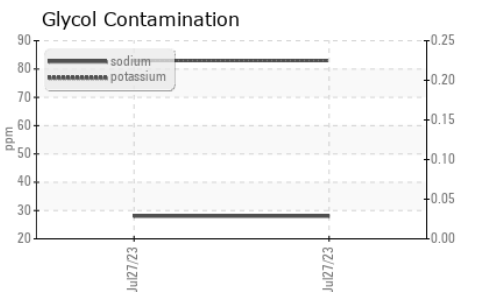
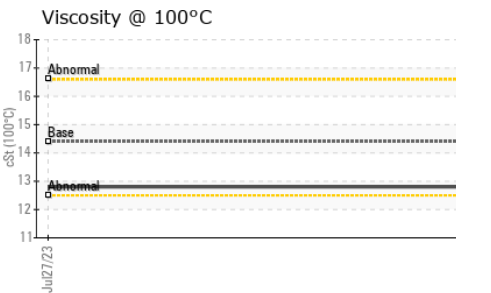
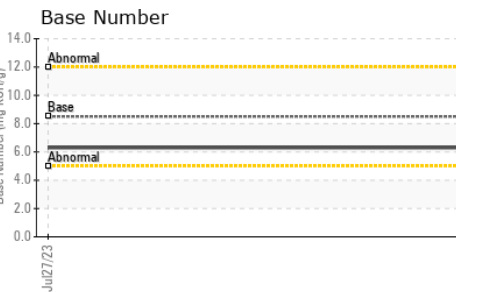
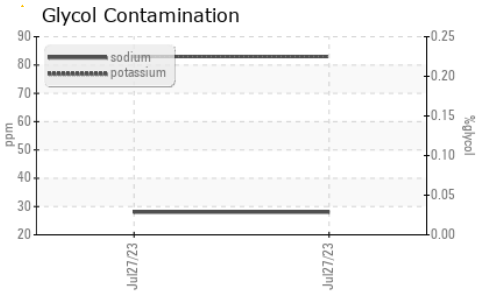
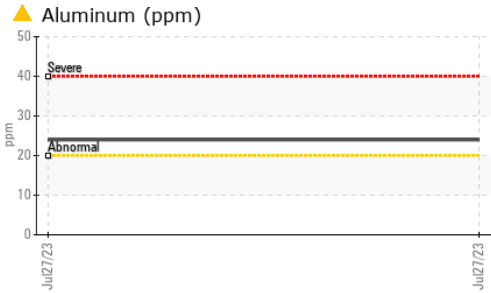
ADDITIVES	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 250	58	---	---
Barium	ppm	ASTM D5185m 10	0	---	---
Molybdenum	ppm	ASTM D5185m 100	12	---	---
Manganese	ppm	ASTM D5185m	2	---	---
Magnesium	ppm	ASTM D5185m 450	181	---	---
Calcium	ppm	ASTM D5185m 3000	2027	---	---
Phosphorus	ppm	ASTM D5185m 1150	896	---	---
Zinc	ppm	ASTM D5185m 1350	1155	---	---
Sulfur	ppm	ASTM D5185m 4250	3671	---	---

CONTAMINANTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	14	---	---
Sodium	ppm	ASTM D5185m >158	28	---	---
Potassium	ppm	ASTM D5185m >20	▲ 83	---	---
Glycol	%	*ASTM D2982	NEG	---	---

INFRA-RED	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	1.7	---	---
Nitration	Abs/cm	*ASTM D7624 >20	18.1	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	33.4	---	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	35.6	---	---
Base Number (BN)	mg KOH/g	ASTM D2896 8.5	6.3	---	---

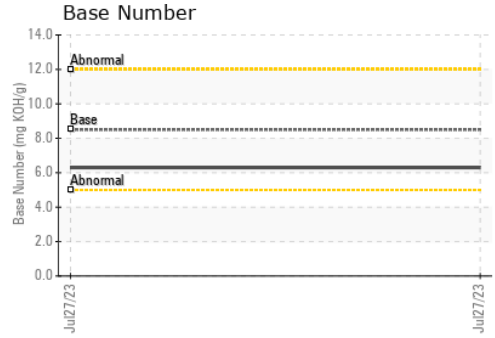
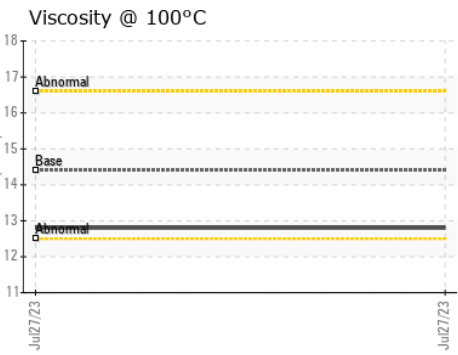
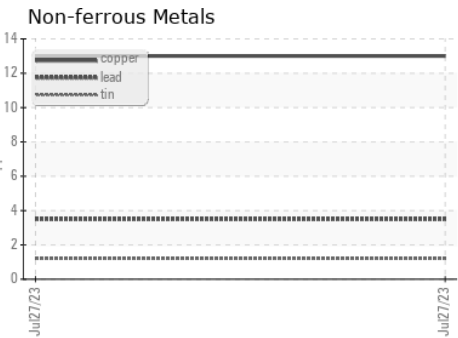
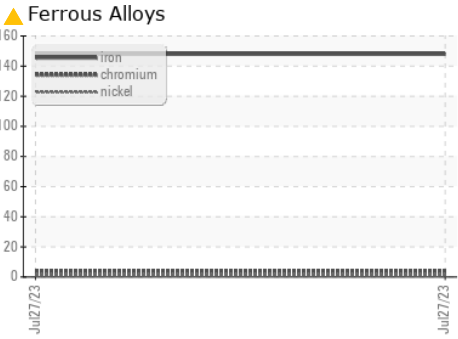
OIL ANALYSIS REPORT



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	NONE	---
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 @ 100°C	cSt	ASTM D445	14.4	12.8	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PE0001161 **Received** : 11 Aug 2023
Lab Number : 05922649 **Diagnosed** : 14 Aug 2023
Unique Number : 10602596 **Diagnostician** : Jonathan Hester
Test Package : CONST (Additional Tests: FT-IR, Glycol, ICP, KV100, SCREEN, TBN)
 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: