

OIL ANALYSIS REPORT

NORMAL



Stoneway Concrete Renton [Stoneway Concrete Renton] 10-500

CASTROL Vecton LD 10W30 (--- GAL)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

Fluid Condition

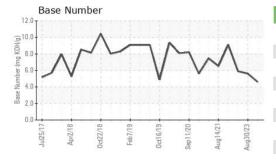
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

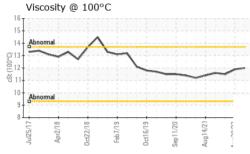


Sample Number		Client Info		PE0002064	PE0002239	PE0001765
Sample Date		Client Info		22 Dec 2023	30 Aug 2023	12 Apr 2023
Machine Age	hrs	Client Info		11759	11182	10423
Oil Age	hrs	Client Info		1336	759	1417
Oil Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	٧	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	12	6	12
Chromium	ppm	ASTM D5185m	>4	<1	0	1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	3	<1	4
Lead	ppm	ASTM D5185m	>45	0	<1	0
Copper	ppm	ASTM D5185m	>85	4	1	2
Tin	ppm	ASTM D5185m	>4	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 32	history1 113	history2 24
	ppm ppm		limit/base			•
Boron		ASTM D5185m	limit/base	32	113	24
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	32 0	113 0	24
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	32 0 8	113 0 7	24 0 52
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	32 0 8 <1	113 0 7 <1	24 0 52 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	32 0 8 <1 61	113 0 7 <1 55	24 0 52 <1 475
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	32 0 8 <1 61 2053	113 0 7 <1 55 2330	24 0 52 <1 475 1571
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	32 0 8 <1 61 2053 1004	113 0 7 <1 55 2330 992	24 0 52 <1 475 1571 944
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	32 0 8 <1 61 2053 1004 1197	113 0 7 <1 55 2330 992 1287	24 0 52 <1 475 1571 944 1197
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	32 0 8 <1 61 2053 1004 1197 3221	113 0 7 <1 55 2330 992 1287 4138	24 0 52 <1 475 1571 944 1197 3276
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >30	32 0 8 <1 61 2053 1004 1197 3221 current	113 0 7 <1 55 2330 992 1287 4138 history1	24 0 52 <1 475 1571 944 1197 3276 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >30	32 0 8 <1 61 2053 1004 1197 3221 current	113 0 7 <1 55 2330 992 1287 4138 history1	24 0 52 <1 475 1571 944 1197 3276 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >30	32 0 8 <1 61 2053 1004 1197 3221 current 4	113 0 7 <1 55 2330 992 1287 4138 history1 3	24 0 52 <1 475 1571 944 1197 3276 history2 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >30 >20	32 0 8 <1 61 2053 1004 1197 3221 current 4 4	113 0 7 <1 55 2330 992 1287 4138 history1 3 1	24 0 52 <1 475 1571 944 1197 3276 history2 3 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >30 >20 limit/base	32 0 8 <1 61 2053 1004 1197 3221 current 4 4 2	113 0 7 <1 55 2330 992 1287 4138 history1 3 1 4	24 0 52 <1 475 1571 944 1197 3276 history2 3 1 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >30 >20 limit/base >3	32 0 8 <1 61 2053 1004 1197 3221 current 4 2 current 0.5	113 0 7 <1 55 2330 992 1287 4138 history1 3 1 4 history1 0.3	24 0 52 <1 475 1571 944 1197 3276 history2 3 1 3 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >30 >20 limit/base >3 >20	32 0 8 <1 61 2053 1004 1197 3221 current 4 4 2 current 0.5 9.7	113 0 7 <1 55 2330 992 1287 4138 history1 3 1 4 history1 0.3 8.8	24 0 52 <1 475 1571 944 1197 3276 history2 3 1 3 history2 0.4 8.9
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7415	limit/base >30 >20 limit/base >3 >20 >3 >20 simit/base	32 0 8 <1 61 2053 1004 1197 3221 current 4 4 2 current 0.5 9.7 25.8	113 0 7 <1 55 2330 992 1287 4138 history1 3 1 4 history1 0.3 8.8 21.6	24 0 52 <1 475 1571 944 1197 3276 history2 3 1 3 history2 0.4 8.9 21.5



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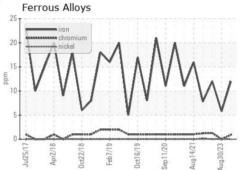


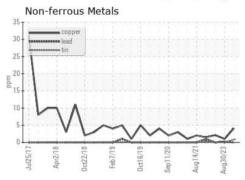


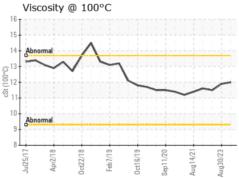
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

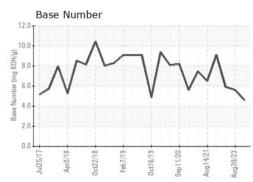
FLUID PROPERTIES		method			history2
Visc @ 100°C	cSt	ASTM D445	12.0	11.9	11.5

GRAPHS













Certificate L2367

Report Id: GARSEA [WUSCAR] 06060118 (Generated: 01/16/2024 10:37:02) Rev: 1

Laboratory Sample No. Lab Number **Unique Number**

: PE0002064 : 06060118 : 10831500

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

: 12 Jan 2024 : 16 Jan 2024 Diagnostician : Doug Bogart

Test Package : CONST (Additional Tests: FT-IR, ICP, KV100, SCREEN, TBN)

Gary Merlino Construction - Off Road Shop 9125 10TH AVE SOUTH SEATTLE, WA

US 98108 Contact: Tony oilsamples@gmccinc.com

T:

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)