

OIL ANALYSIS REPORT

Stoneway Concrete Renton [Stoneway Concrete Renton] 10-487 Component

Diesel Engine

CASTROL Vecton LD 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

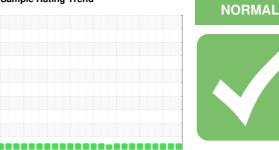
All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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.



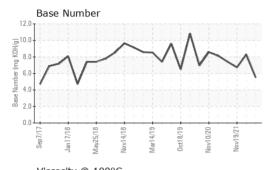
2017 In 2018 Mar2018 Mar2019 0 - 2019 Mar2020 Mar2021

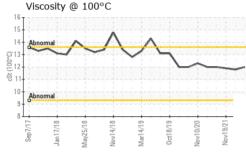
Sample Rating Trend

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PE0001150	PE0000165	PE12292678
Sample Date		Client Info		06 Jul 2023	11 Oct 2022	19 Nov 2021
Machine Age	hrs	Client Info		15181	13914	12668
Oil Age	hrs	Client Info		1287	1246	1248
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	٧	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	12	30	12
Chromium	ppm	ASTM D5185m	>4	<1	<1	0
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>25	2	3	2
Lead	ppm	ASTM D5185m	>45	0	<1	0
Copper	ppm	ASTM D5185m	>85	2	12	2
Tin	ppm	ASTM D5185m	>4	<1	<1	0
Antimony	ppm	ASTM D5185m				1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES	ppm	ASTM D5185m method	limit/base	0 current	0 history1	 history2
	ppm ppm		limit/base			
ADDITIVES		method	limit/base	current 52 0	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current	history1 38 2 59	history2 25
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base	current 52 0	history1 38 2 59 <1	history2 25 0 66
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 52 0 11 <1 152	history1 38 2 59 <1 924	history2 25 0 66 1125
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	Current 52 0 11 <1 152 2190	history1 38 2 59 <1 924 1097	history2 25 0 66 1125 1034
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	Current 52 0 11 <1 152 2190 993	history1 38 2 59 <1 924 1097 967	history2 25 0 66 1125 1034 1099
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	Current 52 0 11 <1 152 2190 993 1269	history1 38 2 59 <1 924 1097 967 1211	history2 25 0 66 1125 1034
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		Current 52 0 11 <1 152 2190 993	history1 38 2 59 <1 924 1097 967	history2 25 0 66 1125 1034 1099 1304
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	Current 52 0 11 <1 152 2190 993 1269	history1 38 2 59 <1 924 1097 967 1211	history2 25 0 66 1125 1034 1099 1304
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	methodASTM D5185mASTM D5185m	limit/base	current 52 0 11 <1 152 2190 993 1269 4194 current 5	history1 38 2 59 <1 924 1097 967 1211 3419 history1 5	history2 25 0 66 1125 1034 1099 1304
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	Current 52 0 11 <1 52 2190 993 1269 4194 Current	history1 38 2 59 <1 924 1097 967 1211 3419 history1	history2 25 0 66 1125 1034 1099 1304 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	methodASTM D5185mASTM D5185m	limit/base >30	current 52 0 11 <1 152 2190 993 1269 4194 current 5	history1 38 2 59 <1 924 1097 967 1211 3419 history1 5	history2 25 0 66 1125 1034 1099 1304 history2 6
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	methodASTM D5185mASTM D5185m	limit/base >30	current 52 0 11 <1 152 2190 993 1269 4194 current 5 3	history1 38 2 59 <1 924 1097 967 1211 3419 history1 5 0 8 history1	history2 25 0 66 1125 1034 1099 1304 history2 6 2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >30 >20	current 52 0 11 <1 152 2190 993 1269 4194 current 5 3 5	history1 38 2 59 <1 924 1097 967 1211 3419 history1 5 0 8	history2 25 0 66 1125 1034 1099 1304 history2 6 2 3
ADDITIVES 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	method ASTM D5185m	limit/base >30 >20 limit/base >3	Current 52 0 11 <152 2190 993 1269 4194 Current 5 3 5 5 Current	history1 38 2 59 <1 924 1097 967 1211 3419 history1 5 0 8 history1	history2 25 0 66 1125 1034 1099 1304 history2 6 2 3 history2
ADDITIVES 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	method ASTM D5185m	limit/base >30 >20 limit/base >3 >20	current 52 0 11 <1 152 2190 993 1269 4194 current 5 3 5 current 0.4	history1 38 2 59 <1 924 1097 967 1211 3419 history1 5 0 8 history1 0.5	history2 25 0 66 1125 1034 1099 1304 history2 6 2 3 history2 0.2
ADDITIVES 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	method ASTM D5185m	limit/base >30 >20 limit/base >3 >20	current 52 0 11 <1 152 2190 993 1269 4194 current 5 3 5 current 0.4 9.4	history1 38 2 59 <1 924 1097 967 1211 3419 history1 5 0 8 history1 0.5 10.4	history2 25 0 66 1125 1034 1099 1304 history2 6 2 3 history2 0.2 11
ADDITIVES 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	method ASTM D5185m ASTM D5185m	limit/base >30 >20 limit/base >3 >20 >30 >30 >30	current 52 0 11 <1 152 2190 993 1269 4194 current 5 3 5 current 0.4 9.4 23.5	history1 38 2 59 <1 924 1097 967 1211 3419 history1 5 0 8 history1 0.5 10.4 22.9	history2 25 0 66 1125 1034 1099 1304 history2 6 2 3 history2 0.2 11

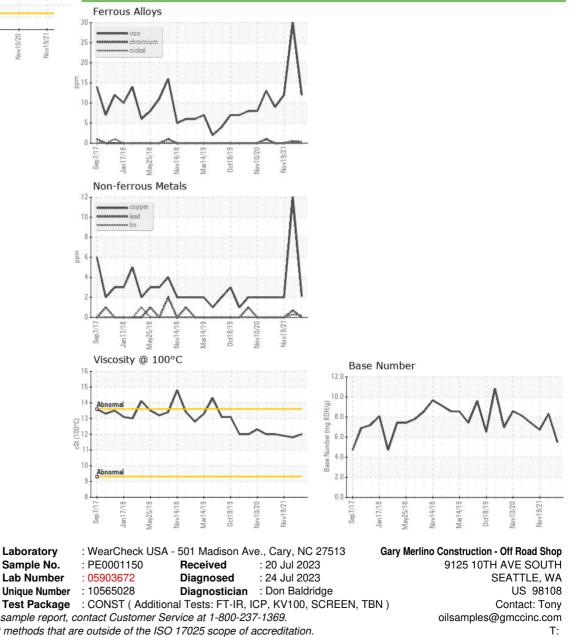


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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Precipitate	scalar	*Visual	NONE	NONE	NONE	
Silt	scalar	*Visual	NONE	NONE	NONE	
Debris	scalar	*Visual	NONE	NONE	NONE	
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Appearance	scalar	*Visual	NORML	NORML	NORML	
Odor	scalar	*Visual	NORML	NORML	NORML	
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
Free Water	scalar	*Visual		NEG	NEG	
FLUID PROPER	TIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445		12.0	11.8	11.9
GRAPHS						





Certificate L2367

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