

OIL ANALYSIS REPORT

Area CONSTRUCTORS, INC 040608

Gasoline Engine

MOBIL DELVAC 1300 SUPER 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

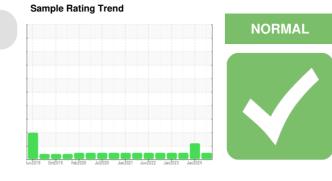
All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

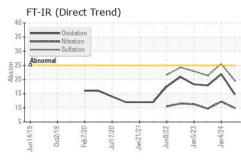
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

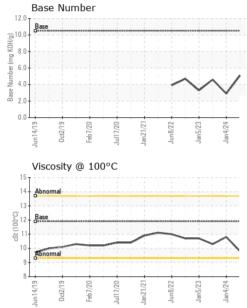


SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		SBP0005768	SBP0005705	SBP0004522
Sample Date		Client Info		18 Apr 2024	04 Jan 2024	28 Jun 2023
Machine Age	hrs	Client Info		7000	6767	6116
Oil Age	hrs	Client Info		233	651	299
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ABNORMAL	NORMAL
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>4.0	<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	>150	30	49	46
Chromium	ppm	ASTM D5185m	>20	2	2	2
Nickel	ppm	ASTM D5185m	>5	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>40	5	6	2
Lead	ppm	ASTM D5185m	>50	0	<1	0
Copper	ppm	ASTM D5185m	>155	22	20	22
Tin	ppm	ASTM D5185m	>10	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	<1
A						
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES	ppm	ASTM D5185m method	limit/base	<1 current	0 history1	0 history2
	ppm ppm		limit/base			-
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 109	history1 20	history2 58
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base	current 109 <1	history1 20 0	history2 58 0
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 109 <1 69	history1 20 0 70	history2 58 0 69
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 109 <1 69 <1	history1 20 0 70 1	history2 58 0 69 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 109 <1 69 <1 484	history1 20 0 70 1 543	history2 58 0 69 <1 512
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	methodASTM D5185mASTM D5185mASTM D5185mASTM D5185mASTM D5185mASTM D5185m	limit/base	current 109 <1 69 <1 484 1148	history1 20 0 70 1 543 1225	history2 58 0 69 <1 512 1228
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 109 <1 69 <1 484 1148 619	history1 20 0 70 1 543 1225 715	history2 58 0 69 <1 512 1228 669
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	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 109 <1 69 <1 484 1148 619 755	history1 20 0 70 1 543 1225 715 873	history2 58 0 69 <1 512 1228 669 807
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 ASTM D5185m ASTM D5185m		Current 109 <1 69 <1 484 1148 619 755 2699	history1 20 0 70 1 543 1225 715 873 2832	history2 58 0 69 <1 512 1228 669 807 3289
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 109 <1 69 <1 484 1148 619 755 2699 current	history1 20 0 70 1 543 1225 715 873 2832 history1	history2 58 0 69 <1 512 1228 669 807 3289 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current 109 <1 69 <1 484 1148 619 755 2699 current 11	history1 20 0 70 1 543 1225 715 873 2832 history1 12	history2 58 0 69 <1 512 1228 669 807 3289 history2 10
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >30 >400	current 109 <1 69 <1 484 1148 619 755 2699 current 11 4	history1 20 0 70 1 543 1225 715 873 2832 history1 12 4	history2 58 0 69 <1 512 1228 669 807 3289 history2 10 3
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >30 >400 >20	current 109 <1 69 <1 484 1148 619 755 2699 current 11 4 2	history1 20 0 70 1 543 1225 715 873 2832 history1 12 4 1	history2 58 0 69 <1 512 1228 669 807 3289 history2 10 3 2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >30 >400 >20 limit/base	current 109 <1 69 <1 484 1148 619 755 2699 current 11 4 2 current	history1 20 0 70 1 543 1225 715 873 2832 history1 12 4 1 history1	history2 58 0 69 <1 512 1228 669 807 3289 history2 10 3 2 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	method ASTM D5185m	limit/base >30 >400 >20 limit/base	current 109 <1 69 <1 484 1148 619 755 2699 current 11 4 2 current 0.3	history1 20 0 70 1 543 1225 715 873 2832 history1 12 4 1 history1 0.1	history2 58 0 69 <1 512 1228 669 807 3289 history2 10 3 2 history2 0.1
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 >400 >20 limit/base >20	current 109 <1 69 <1 484 1148 619 755 2699 current 11 4 2 current 0.3 9.9	history1 20 0 70 1 543 1225 715 873 2832 history1 12 4 1 history1 0.1 12.2	history2 58 0 69 <1 512 1228 669 807 3289 history2 10 3 2 history2 0.1 9.7
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	Imit/base >30 >400 >20 Imit/base >20 S20 >20 >30	current 109 <1 69 <1 484 1148 619 755 2699 current 11 4 2 current 0.3 9.9 19.5	history1 20 0 70 1 543 1225 715 873 2832 history1 12 4 1 history1 0.1 12.2 25.5	history2 58 0 69 <1 512 1228 669 807 3289 history2 10 3 2 history2 0.1 9.7 21.4



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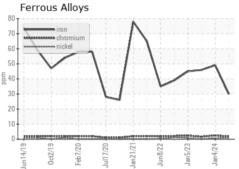
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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 PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	11.9	9.8	10.8	10.3
GRAPHS						

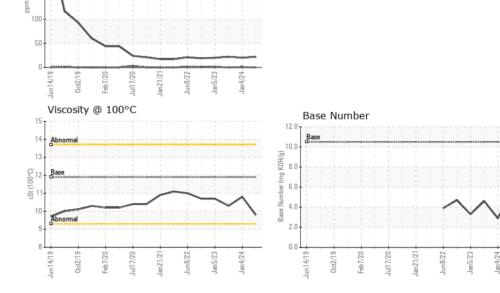
Non-ferrous Metals

lead

250

200





Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Constructors Inc. - 603659 Sample No. : SBP0005768 Received : 22 Apr 2024 1815 Y Street Lab Number : 06156636 Tested : 23 Apr 2024 Lincoln, NE US 68508 Unique Number : 10992059 Diagnosed : 24 Apr 2024 - Sean Felton Test Package : FLEET Contact: Loren Michael Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. LorenM@constructorslincoln.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (402)434-2157 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F:

Report Id: CONLINNE [WUSCAR] 06156636 (Generated: 04/24/2024 16:47:37) Rev: 1

Submitted By: Loren Michael

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