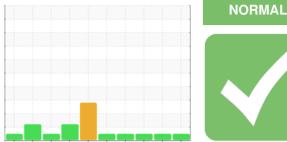


OIL ANALYSIS REPORT

SAMPLE INFORMATION method

Sample Rating Trend



Machine Id

FSP141629 Component Diesel Engine Fluid EXXON 15W40 (--- QTS)

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.

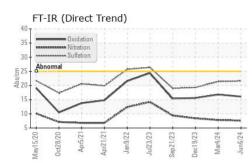
Fluid Condition

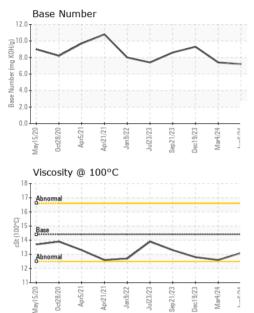
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM		method	limit/base	current	nistory i	nistory2
Sample Number		Client Info		WC0875932	WC0903191	WC0875670
Sample Date		Client Info		06 Jun 2024	04 Mar 2024	19 Dec 2023
Machine Age	mls	Client Info		96348	91036	87112
Oil Age	mls	Client Info		0	10000	0
Oil Changed		Client Info		N/A	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
						-
CONTAMINATIO	N	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	nnm	ASTM D5185m	>100	16	8	16
Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Nickel	ppm	ASTM D5185m	>20	<1	0	0
	ppm	ASTM D5185m	>4	2	0	0
Titanium Silver	ppm	ASTM D5185m	. 0		0	0
	ppm			0	5	7
Aluminum	ppm	ASTM D5185m	>20	7		
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m		1	0	<1
Tin	ppm		>15	0	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 327	history1 402	history2 6
	ppm ppm		limit/base			
Boron		ASTM D5185m	limit/base	327	402	6
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	327 <1	402 0	6 0
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	327 <1 80	402 0 80	6 0 66
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	327 <1 80 <1	402 0 80 <1	6 0 66 <1
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	327 <1 80 <1 428	402 0 80 <1 431	6 0 66 <1 908
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	327 <1 80 <1 428 1315	402 0 80 <1 431 1370	6 0 66 <1 908 1169
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	327 <1 80 <1 428 1315 998	402 0 80 <1 431 1370 1052	6 0 66 <1 908 1169 958
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		327 <1 80 <1 428 1315 998 1131 2857	402 0 80 <1 431 1370 1052 1208 3642	6 0 66 <1 908 1169 958 1200 2939
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	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	327 <1 80 <1 428 1315 998 1131 2857 current	402 0 80 <1 431 1370 1052 1208 3642 history1	6 0 66 <1 908 1169 958 1200 2939 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm 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	327 <1 80 <1 428 1315 998 1131 2857 current 6	402 0 80 <1 431 1370 1052 1208 3642 history1 4	6 0 66 <1 908 1169 958 1200 2939 history2 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm 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 ASTM D5185m	limit/base >25	327 <1 80 <1 428 1315 998 1131 2857 Current 6 1	402 0 80 <1 431 1370 1052 1208 3642 history1 4 1	6 0 66 <1 908 1169 958 1200 2939 history2 4 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm 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 ASTM D5185m	limit/base	327 <1 80 <1 428 1315 998 1131 2857 current 6	402 0 80 <1 431 1370 1052 1208 3642 history1 4	6 0 66 <1 908 1169 958 1200 2939 history2 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm 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 ASTM D5185m	limit/base >25	327 <1 80 <1 428 1315 998 1131 2857 Current 6 1 5	402 0 80 <1 431 1370 1052 1208 3642 history1 4 1	6 0 66 <1 908 1169 958 1200 2939 history2 4 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20	327 <1 80 <1 428 1315 998 1131 2857 Current 6 1 5	402 0 80 <1 431 1370 1052 1208 3642 history1 4 1 3	6 0 66 <1 908 1169 958 1200 2939 history2 4 1 8
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3	327 <1 80 <1 428 1315 998 1131 2857 current 6 1 5 current 0.3	402 0 80 <1 431 1370 1052 1208 3642 history1 4 1 3 history1 0.4	6 0 66 <1 908 1169 958 1200 2939 history2 4 1 8 <i>history2</i>
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 ASTM D5185m	limit/base >25 >20 limit/base >3	327 <1 80 <1 428 1315 998 1131 2857 current 6 1 5 S	402 0 80 <1 431 1370 1052 1208 3642 history1 4 1 3 3 history1	6 0 66 <1 908 1169 958 1200 2939 history2 4 1 8 <i>history2</i> 0.4
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 ASTM D5185m	Iimit/base >25 >20 Iimit/base >3 >20 >30	327 <1 80 <1 428 1315 998 1131 2857 current 6 1 5 current 0.3 7.6 21.6	402 0 80 <1 431 1370 1052 1208 3642 history1 4 1 3 history1 0.4 7.8 21.4	6 0 66 <1 908 1169 958 1200 2939 history2 4 1 8 history2 0.4 8.4 19.3
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 ASTM D7844 *ASTM D7624	limit/base >25 >20 limit/base >3 >20 >30 >30	327 <1 80 <1 428 1315 998 1131 2857 Current 6 1 5 Current 0.3 7.6 21.6 Current	402 0 80 <1 431 1370 1052 1208 3642 history1 4 1 3 history1 0.4 7.8 21.4 history1	6 0 66 <1 908 1169 958 1200 2939 history2 4 1 8 history2 0.4 8.4 19.3 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA Oxidation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7414	Iimit/base >25 >20 Iimit/base >3 >20 >30	327 <1 80 <1 428 1315 998 1131 2857 Current 6 1 5 Current 0.3 7.6 21.6 Current 16.1	402 0 80 <1 431 1370 1052 1208 3642 history1 4 1 3 history1 0.4 7.8 21.4 history1 16.8	6 0 66 <1 908 1169 958 1200 2939 history2 4 1 8 history2 0.4 8.4 19.3 history2 15.6
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 ASTM D7844 *ASTM D7624	limit/base >25 >20 limit/base >3 >20 >30 >30	327 <1 80 <1 428 1315 998 1131 2857 Current 6 1 5 Current 0.3 7.6 21.6 Current	402 0 80 <1 431 1370 1052 1208 3642 history1 4 1 3 history1 0.4 7.8 21.4 history1	6 0 66 <1 908 1169 958 1200 2939 history2 4 1 8 history2 0.4 8.4 19.3 history2

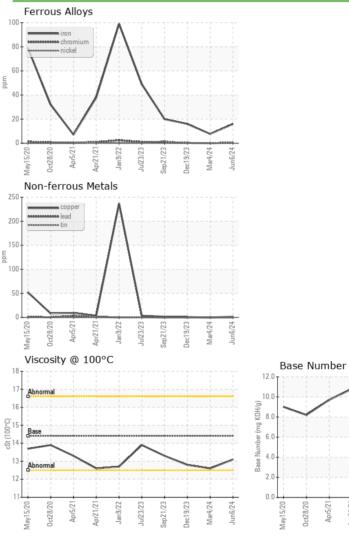


OIL ANALYSIS REPORT

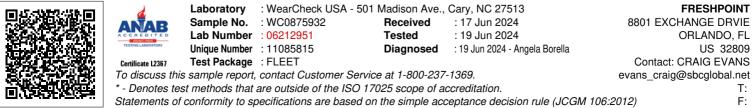




VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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	14.4	13.1	12.6	12.8
GRAPHS						



FRESHPOINT S801 EXCHANGE DRVIE



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