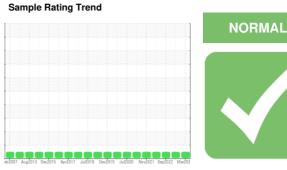


OIL ANALYSIS REPORT

Area COLORADO/443/EG - OTHER SERVICE 20.06W [COLORADO^443^EG - OTHER SERVICE] Diesel Engine Fluid

MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

SAMPLE INFORMATION method





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.

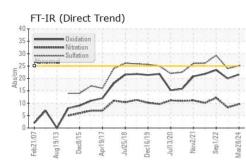
Fluid Condition

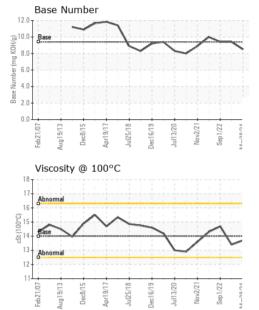
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

		method	iimii/base	current	riistory i	nistory2
Sample Number		Client Info		WC0883975	WC0823152	WC0718203
Sample Date		Client Info		28 Mar 2024	29 Jun 2023	01 Sep 2022
Machine Age	hrs	Client Info		4743	4487	4259
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
				Nonmae	NOTIVIAL	
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	ppm	ASTM D5185m	>100	11	8	11
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m		3	0	3
Lead	ppm	ASTM D5185m	>40	<1	<1	<1
		ASTM D5185m		<1	<1	<1
Copper Tin	ppm					
	ppm		>15	0	<1	<1
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 57	history1 74	history2 74
	ppm ppm	ASTM D5185m				
Boron		ASTM D5185m	0	57	74	74
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0	57 0	74 0	74 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0	57 0 42	74 0 43	74 0 40
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	57 0 42 <1	74 0 43 <1	74 0 40 <1
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	57 0 42 <1 539	74 0 43 <1 526	74 0 40 <1 493
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	57 0 42 <1 539 1859	74 0 43 <1 526 1757	74 0 40 <1 493 1602
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	57 0 42 <1 539 1859 810	74 0 43 <1 526 1757 750	74 0 40 <1 493 1602 708
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	0 0 0 0 0	57 0 42 <1 539 1859 810 988 3075	74 0 43 <1 526 1757 750 924 2980	74 0 40 <1 493 1602 708 910 2321
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 ASTM D5185m	0 0 0 0 Imit/base	57 0 42 <1 539 1859 810 988 3075 current	74 0 43 <1 526 1757 750 924 2980 history1	74 0 40 <1 493 1602 708 910 2321 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	0 0 0 0 Imit/base	57 0 42 <1 539 1859 810 988 3075 current 7	74 0 43 <1 526 1757 750 924 2980 history1 7	74 0 40 <1 493 1602 708 910 2321 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	0 0 0 0 limit/base >25	57 0 42 <1 539 1859 810 988 3075 <u>current</u> 7 2	74 0 43 <1 526 1757 750 924 2980 history1 7 2	74 0 40 <1 493 1602 708 910 2321 history2 4 3
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	0 0 0 0 limit/base >25 >20	57 0 42 <1 539 1859 810 988 3075 current 7 2 2 <1	74 0 43 <1 526 1757 750 924 2980 history1 7 2 2 2	74 0 40 <1 493 1602 708 910 2321 history2 4 3 0
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	0 0 0 0 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	57 0 42 <1 539 1859 810 988 3075 current 7 2 <1 2 <1	74 0 43 <1 526 1757 750 924 2980 history1 7 2 2 2 history1	74 0 40 <1 493 1602 708 910 2321 history2 4 3 0 history2
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	0 0 0 0 limit/base >25 >20	57 0 42 <1 539 1859 810 988 3075 <u>current</u> 7 2 <1 2 <1	74 0 43 <1 526 1757 750 924 2980 history1 7 2 2 2 history1 1.3	74 0 40 <1 493 1602 708 910 2321 history2 4 3 0 history2 2.7
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	0 0 0 0 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	57 0 42 <1 539 1859 810 988 3075 current 7 2 <1 2 <1	74 0 43 <1 526 1757 750 924 2980 history1 7 2 2 2 history1	74 0 40 <1 493 1602 708 910 2321 history2 4 3 0 history2
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	0 0 0 0 limit/base >25 >20 limit/base >3	57 0 42 <1 539 1859 810 988 3075 <u>current</u> 7 2 <1 2 <1	74 0 43 <1 526 1757 750 924 2980 history1 7 2 2 2 history1 1.3	74 0 40 <1 493 1602 708 910 2321 history2 4 3 0 history2 2.7
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 ASTM D5185m	0 0 0 0 limit/base >25 >20 limit/base >3 >20	57 0 42 <1 539 1859 810 988 3075 <u>current</u> 7 2 <1 7 2 <1 <i>current</i> 1.7 9.6 25.1	74 0 43 <1 526 1757 750 924 2980 history1 7 2 2 2 history1 1.3 8.3	74 0 40 <1 493 1602 708 910 2321 history2 4 3 0 history2 2.7 12.2
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	0 0 0 0 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	57 0 42 <1 539 1859 810 988 3075 <i>current</i> 7 2 <1 <i>current</i> 1.7 9.6 25.1 <i>current</i>	74 0 43 <1 526 1757 750 924 2980 history1 7 2 2 2 history1 1.3 8.3 24.0 history1	74 0 40 <1 493 1602 708 910 2321 history2 4 3 0 bistory2 2.7 12.2 29.3 history2
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 D7844	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	57 0 42 <1 539 1859 810 988 3075 <u>current</u> 7 2 <1 7 2 <1 <i>current</i> 1.7 9.6 25.1	74 0 43 <1 526 1757 750 924 2980 history1 7 2 2 2 history1 1.3 8.3 24.0	74 0 40 <1 493 1602 708 910 2321 history2 4 3 0 history2 2.7 12.2 29.3

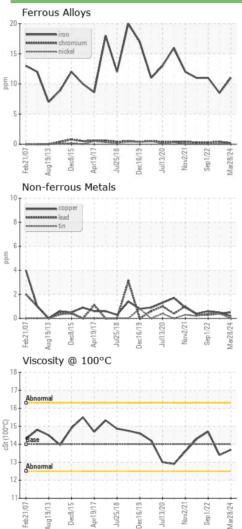


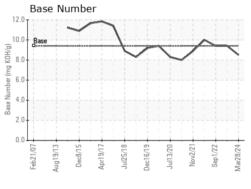
OIL ANALYSIS REPORT





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	13.7	13.4	14.7
GRAPHS						





SHERWOOD CONSTRUCTION CO INC Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : WC0883975 Received : 08 Apr 2024 3219 WEST MAY ST Lab Number : 06142035 Tested : 09 Apr 2024 WICHITA, KS Unique Number : 10966843 Diagnosed : 09 Apr 2024 - Wes Davis US 67213 Test Package : CONST (Additional Tests: TBN) Contact: DOUG KING Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. doug.king@sherwood.net T: (316)617-3161 * - 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) F: x:

Submitted By: BRANDEN JAQUIAS

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