

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

Component **Diesel Engine**

Fluid

MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

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		IL0033135	IL0029424	IL0024720
Sample Date		Client Info		29 Nov 2023	16 Mar 2023	28 Dec 2022
Machine Age	mls	Client Info	148260 132777		0	
Oil Age	mls	Client Info	15483 0		0	
Oil Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	J	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	1.7	<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	59	20	28
Chromium	ppm	ASTM D5185m	>20	20	1	20
Nickol	ppm	AGTM D5105m	>20	2	0	~1
Titanium	ppm	ASTM D5105III	~7	0	<1	-1
Silvor	ppill	ASTM D5105III	<u>_</u> 2	0	< 1	< 1
Aluminum	ppm	ASTM D5195m	>20	40	37	43
Lood	ppm	ASTM D5185m	>20	40	0	43
Connor	ppin	ASTM D5105III	>40	0	-1	1
Tin	ppill	ASTM D5105III	>330	2	<1	-1
Vanadium	ppill	ASTM DE105m	>10	0	< 1	< 1
Codmium	ppill	ASTM D5105III		0	0	0
Caumun	DDIII	ACTIVED. FOULD				1
	le le			Ū	0	Ŭ
ADDITIVES	h h	method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base 0	current 30	history1 54	history2 54
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base 0 0	current 30 0	history1 54 0	history2 54 0
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 0	current 30 0 80	history1 54 0 78	history2 54 0 62
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 0	C current 30 0 80 1	history1 54 0 78 <1	history2 54 0 62 <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 0 0 0 0	C Current 30 0 80 1 720	history1 54 0 78 <1 767	history2 54 0 62 <1 759
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 0 0	C current 30 0 80 1 720 1251	history1 54 0 78 <1 767 1524	history2 54 0 62 <1 759 1469
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 0 0	C Current 30 0 80 1 720 1251 822	history1 54 0 78 <1 767 1524 914	history2 54 0 62 <1 759 1469 983
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 ASTM D5185m	limit/base 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	current 30 0 80 1 720 1251 822 991	history1 54 0 78 <1 767 1524 914 1083	history2 54 0 62 <1 759 1469 983 1206
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	limit/base 0 0 0 0	Current 30 0 80 1 720 1251 822 991 2712	history1 54 0 78 <1 767 1524 914 1083 3344	history2 54 0 62 <1 759 1469 983 1206 2632
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 0 0 0 0 0 0 limit/base	C Current 30 0 80 1 720 1251 822 991 2712 Current	history1 54 0 78 <1 767 1524 914 1083 3344 history1	history2 54 0 62 <1 759 1469 983 1206 2632 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	current 30 0 80 1 720 1251 822 991 2712 current 8	history1 54 0 78 <1 767 1524 914 1083 3344 history1 5	history2 54 0 62 <1 759 1469 983 1206 2632 history2 6
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm	method ASTM D5185m	limit/base 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	C Current 30 0 80 1 720 1251 822 991 2712 Current 8 3	history1 54 0 78 <1 767 1524 914 1083 3344 history1 5 <1	history2 54 0 62 <1 759 1469 983 1206 2632 history2 6 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base 0 0 0 0 0 0 1 0 1 0 1 0 1 0 1 0 1 0 1	current 30 0 80 1 720 1251 822 991 2712 current 8 3 60	history1 54 0 78 <1 767 1524 914 1083 3344 history1 5 <1 62	history2 54 0 62 <1 759 1469 983 1206 2632 history2 6 0 759
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 ppm	method ASTM D5185m	limit/base 0 0 0 0 0 0 1 0 1 0 0 0 0 0 0 0 0 0 0	C current 30 0 80 1 720 1251 822 991 2712 current 8 3 60 current	history1 54 0 78 <1 767 1524 914 1083 3344 history1 5 <1 62 history1	history2 54 0 62 <1 759 1469 983 1206 2632 history2 6 0 75
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm	method ASTM D5185m	limit/base 0 0 0 0 0 0 1 0 1 0 1 0 0 0 0 0 0 0 0	current 30 0 80 1 720 1251 822 991 2712 current 8 3 60 current 1.3	history1 54 0 78 <1 767 1524 914 1083 3344 history1 5 <1 62 history1 0.5	history2 54 0 62 <1 759 1469 983 1206 2632 history2 6 0 75 history2 0.7
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 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	current 30 0 80 1 720 1251 822 991 2712 current 8 3 60 current 1.3 14.1	history1 54 0 78 <1 767 1524 914 1083 3344 history1 5 <1 62 history1 0.5 9.4	history2 54 0 62 <1 759 1469 983 1206 2632 history2 6 0 75 history2 0 75 10.7 10.2
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 D7844 *ASTM D7624	limit/base 0	current 30 0 80 1 720 1251 822 991 2712 current 8 3 60 current 1.3 14.1 26.2	history1 54 0 78 <1 767 1524 914 1083 3344 history1 5 <1 62 history1 0.5 9.4 18.6	history2 54 0 62 <1 759 1469 983 1206 2632 history2 6 0 75 history2 0.7 10.2 21.7
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7415 method	limit/base 0 <t< th=""><th>current 30 0 80 1 720 1251 822 991 2712 current 8 3 60 current 1.3 14.1 26.2 current</th><th>history1 54 0 78 <1 767 1524 914 1083 3344 history1 5 <1 62 history1 0.5 9.4 18.6 history1</th><th>history2 54 0 62 <1 759 1469 983 1206 2632 history2 6 0 755 history2 0.7 10.2 21.7 history2</th></t<>	current 30 0 80 1 720 1251 822 991 2712 current 8 3 60 current 1.3 14.1 26.2 current	history1 54 0 78 <1 767 1524 914 1083 3344 history1 5 <1 62 history1 0.5 9.4 18.6 history1	history2 54 0 62 <1 759 1469 983 1206 2632 history2 6 0 755 history2 0.7 10.2 21.7 history2
ADDITIVES 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	method ASTM D5185m ASTM D7185m ASTM D7624 *ASTM D7624 *ASTM D7415 method *ASTM D7414	imit/base 0 <tr< th=""><th>current 30 0 80 1 720 1251 822 991 2712 current 8 3 60 current 1.3 14.1 26.2 current 25.1</th><th>history1 54 0 78 <1 767 1524 914 1083 3344 history1 5 <1 62 history1 0.5 9.4 18.6 history1 17.0</th><th>history2 54 0 62 <1 759 1469 983 1206 2632 history2 6 0 755 history2 0.7 10.2 21.7 history2 18.7</th></tr<>	current 30 0 80 1 720 1251 822 991 2712 current 8 3 60 current 1.3 14.1 26.2 current 25.1	history1 54 0 78 <1 767 1524 914 1083 3344 history1 5 <1 62 history1 0.5 9.4 18.6 history1 17.0	history2 54 0 62 <1 759 1469 983 1206 2632 history2 6 0 755 history2 0.7 10.2 21.7 history2 18.7

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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	
1	Silt	scalar	*Visual	NONE	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE	
6/23	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML	
Mar1	Odor	scalar	*Visual	NORML	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG	
	Free Water	scalar	*Visual		NEG	NEG	NEG	
			method	limit/baco	ourrent	history1	history?	
	Visc @ 100°C	cSt	ASTM D445	14	13.2	12.4	12.7	
	GRAPHS	001	A3110 D443	14	13.2	12.4	12.7	
	60 T							
23	iron							
Vlar16,	SU- chomun							
~	40							
	툍 30		/					
	20	_/						
	10-							
		en en		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				
	c28/2	ar 1 6/2		v29/2				
		×.		No				
23	Non-ferrous Meta	als						
lar16/	copper							
2	8 - tin							
	6-							
	Ed							
	4							
	2							
	2							
				~				
	c28/2	r16/2		129/2				
	D	Ma		No				
	Viscosity @ 100°	С			Base Number			
	17			10.0	Base			
	Abnormal			- 8.0				
	16-			KOH/6				
	S 15-			E 6.0)			
	ti 14 Base)			
				ase N				
	12-			⁶⁰ 2.0)			
	11				,			
	28/22	6/23		29/23	28/22	16/23	9/23 .	
	Deci	Marl		Novž	Deci	Marl	Nov2	
	. M/ 011-1-10 A							
Labo	Dratory : WearCheck USA -	501 Madi	son Ave., Ca	ry, NC 27513	B RUSH TI	NUCK LEASING - B		
ANAB Jah	Number : 06027088	Diagnos	a .∪o. ed :12 ∣	Dec 2023		//U WEST	BOISE ID	
	ue Number : 10776879	Diagnos	tician : Jon	athan Hester	•		US 83705	
Certificate L2367 Test	Package : FLEET	-			Contact: MATT BORCHARDT			
To discuss this samp	ole report, contact Customer Ser	vice at 1-8	300-237-1369	9.	bor	chardtm@rushe	nterprises.com	
* - Denotes test meth	hods that are outside of the ISO	17025 sco	pe of accrea	litation.		. –	(200)620 4050	
statements of conforn	muy to specifications are based on	uie simple	acceptance (Jecision ruie (JUGIVI 106:2012) F:	(∠U8)039-4859	

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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Contact/Location: MATT BORCHARDT - IDEBOI