

OIL ANALYSIS REPORT

Sample Rating Trend





Machine Id **425126** Component **Diesel Engine** Fluid

MOBIL DELVAC ELITE 15W40 (--- 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

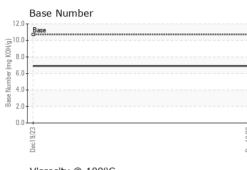
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

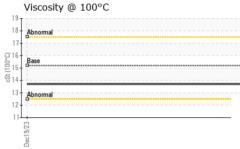
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0095478		
Sample Date		Client Info		19 Dec 2023		
Machine Age	hrs	Client Info		5698		
Oil Age	hrs	Client Info		500		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	10		
Chromium	ppm	ASTM D5185m	>5	<1		
Nickel	ppm	ASTM D5185m	>2	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>30	5		
Lead	ppm	ASTM D5185m	>30	0		
Copper	ppm	ASTM D5185m	>150	1		
Tin	ppm	ASTM D5185m	>5	<1		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
Cadmium ADDITIVES	ppm	ASTM D5185m method	limit/base	0 current	 history1	 history2
	ppm ppm		limit/base	-		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 116	history1	history2
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base	current 116 0	history1 	history2
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 116 0 112	history1 	history2
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 116 0 112 0	history1 	history2
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 116 0 112 0 656	history1 	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 116 0 112 0 656 1191	history1	history2
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 116 0 112 0 656 1191 700	history1	history2
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 116 0 112 0 656 1191 700 775	history1	history2
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 116 0 112 0 656 1191 700 775 3097	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm 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 116 0 112 0 656 1191 700 775 3097 current	history1	history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current 116 0 112 0 656 1191 700 775 3097 current 6	history1 history1	history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS	method ASTM D5185m	limit/base >20 >20 limit/base	current 116 0 112 0 656 1191 700 775 3097 current 6 1 3 current	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >20 >20 limit/base >3	current 116 0 112 0 656 1191 700 775 3097 current 6 1 3 current 0.2	history1 history1 history1	history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	method ASTM D5185m	limit/base >20 >20 limit/base >3 >20	current 116 0 112 0 656 1191 700 775 3097 current 6 1 3 current 0.2 7.9	history1 history1 history1 history1 history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >20 >20 limit/base >3	current 116 0 112 0 656 1191 700 775 3097 current 6 1 3 current 0.2	history1 history1 history1 history1	history2 history2 history2 history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >20 >20 limit/base >3 >20	current 116 0 112 0 656 1191 700 775 3097 current 6 1 3 current 0.2 7.9	history1 history1 history1 history1 history1 history1	history2 history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN 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 >20 >20 Imit/base >20 3 >20 >30	current 116 0 112 0 656 1191 700 775 3097 current 6 1 3 current 0.2 7.9 17.7	history1 history1 history1 history1 history1	history2 history2 history2



OIL ANALYSIS REPORT

VISUAL





	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
	Precipitate	scalar	*Visual	NONE	NONE		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
9/23	Appearance	scalar	*Visual	NORML	NORML		
Dec19/23	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.2	NEG		
	Free Water	scalar	*Visual		NEG		
				11 11 11			
	FLUID PROPE		method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	15.2	13.7		
	GRAPHS						
	Ferrous Alloys						
	10 iron]			-			
	8 - newsease chromium						
	E .						
	4						
	2-						
	0						
	Dec19/23			Dec19/23			
	Deci			Deci			
	Non-ferrous Meta	ls					
	10 copper 1						
	8						
	second tin						
	6						
	E						
	E 4						
	Ed 4						
	4						
	E 4 2-						
				526			
	udd 4 2 0 52/6 1390			Dect 9/23			
					Dago Nuerbarr		
	4 2 0 5 2 6 5 2 6 5 3 0 9	2			Base Number		
	Viscosity @ 100°C			12.0	Base Number		
	Viscosity @ 100°C	2		12.0 10.0	Base Number		
	Viscosity @ 100°C	2		12.0 10.0	Base Number		
	Viscosity @ 100°C			12.0 10.0	Base Number		
	4 2 0 EZ 19 100°C 19 18 Abnormal	2		12.0 10.0	Base Number		
	Viscosity @ 100°C	2		12.0 10.0- (0)H(0) 8.0- 10, 10, 10, 10, 10, 10, 10, 10, 10, 10,	Base Number		
	Viscosity @ 100°C	2		12.0 10.0	Base Number		
	Viscosity @ 100°C	2		12.0 10.0- (0)HQ 8.0- 10,HQ	Base		
	Viscosity @ 100°C	2		12.0 10.0- (0)HQ 8.0- 10,HQ	Base Number		
	Viscosity @ 100°C	501 Madia Recievec Diagnost	l : 24 . ed : 26 . ician : Dor	12.0 10.0	Base EZ/61	Contact: C	972 - Westla 22 Highway 1 Westlake, I US 706 Corey Buffingt on@gflenv.cc

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

Contact/Location: Corey Buffington - GFL972

F: