

## **OIL ANALYSIS REPORT**

#### Sample Rating Trend







Machine Id 875 Component Diesel Engine Fluid DIESEL ENGINE OIL SAE 40 (--- QTS)

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm. Please specify the component make and model with your next sample.

#### 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.

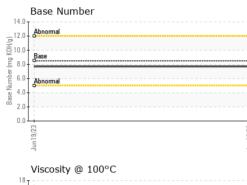
	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0099800		
Sample Date		Client Info		19 Jun 2023		
Machine Age	mls	Client Info		100046		
Oil Age	mls	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
CONTAMINAT		ام مالم می			la la tamurt	la i a ta muQ
	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Glycol		WC Method		NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	40		
Chromium	ppm	ASTM D5185m	>20	2		
Nickel	ppm	ASTM D5185m	>4	0		
Titanium	ppm	ASTM D5185m	- 1	۰ <1		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	4		
Lead	ppm	ASTM D5185m	>40	4 <1		
Copper	ppm	ASTM D5185m	>330	2		
Tin	ppm		>15	<1		
Vanadium	ppm	ASTM D5185m	>15	0		
Cadmium	ppm	ASTM D5185m		0		
	ppin			-		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	28		
Barium	ppm	ASTM D5185m	10	0		
Molybdenum	ppm	ASTM D5185m	100	49		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m	450	802		
Calcium	ppm	ASTM D5185m	0000			
Dhaamhauua		AO INI DO IODIII	3000	1749		
Phosphorus	ppm	ASTM D5185m	3000 1150	1749 1175		
Zinc	ppm ppm			-		
		ASTM D5185m	1150	1175		
Zinc	ppm ppm	ASTM D5185m ASTM D5185m	1150 1350	1175 1480		
Zinc Sulfur CONTAMINAN	ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m method	1150 1350 4250 limit/base	1175 1480 4167 current		
Zinc Sulfur	ppm ppm TS ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	1150 1350 4250 limit/base >25	1175 1480 4167	  history1	
Zinc Sulfur CONTAMINAN Silicon	ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m method	1150 1350 4250 <b>limit/base</b> >25 >216	1175 1480 4167 current 9	  history1	
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m	1150 1350 4250 <b>limit/base</b> >25 >216 >20	1175 1480 4167 current 9 3 4	  history1  	  history2  
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m	1150 1350 4250 <i>limit/base</i> >25 >216 >20 <i>limit/base</i>	1175 1480 4167 current 9 3 4 current	  history1   history1	  history2   history2
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> *ASTM D7844	1150 1350 4250 <i>limit/base</i> >25 >216 >20 <i>limit/base</i> >3	1175 1480 4167 <i>current</i> 9 3 4 <i>current</i> 0.4	  history1  	  history2  
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> *ASTM D7844 *ASTM D7624	1150 1350 4250 <b>imit/base</b> >25 >216 >20 <b>imit/base</b> >3 >20	1175 1480 4167 <u>current</u> 9 3 4 <u>current</u> 0.4 10.4	  history1   history1  history1	  history2   history2  history2
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> *ASTM D7844	1150 1350 4250 <i>limit/base</i> >25 >216 >20 <i>limit/base</i> >3	1175 1480 4167 <i>current</i> 9 3 4 <i>current</i> 0.4	  history1   history1 	  history2   history2
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm TS ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7844 *ASTM D7624	1150 1350 4250 <b>imit/base</b> >25 >216 >20 <b>imit/base</b> >3 >20	1175 1480 4167 <u>current</u> 9 3 4 <u>current</u> 0.4 10.4	  history1   history1  history1	  history2   history2  history2
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm TS ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7844 *ASTM D7624	1150 1350 4250 <b>imit/base</b> >25 >216 >20 <b>imit/base</b> >3 >20 >30	1175 1480 4167 current 9 3 4 current 0.4 10.4 20.2	  history1  history1  history1 	  history2  history2  history2  
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE	ppm ppm TS ppm ppm ppm ppm % Abs/cm Abs/cm Abs/1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7844 *ASTM D7844 *ASTM D7415	1150 1350 4250 >25 >216 >20 <b>limit/base</b> >3 >20 >30 <b>limit/base</b>	1175 1480 4167 <b>current</b> 9 3 4 <b>current</b> 0.4 10.4 20.2 <b>current</b>	  history1  history1  history1   history1	  history2  history2  history2  



17 Abno 16 (0.001) 14 Base

13 Abnormal 12 11 Jun19/23

# **OIL ANALYSIS REPORT**



	VISUAL		method	limit/base	current	history1	history2
	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		
Jun 19/23	Appearance	scalar	*Visual	NORML	NORML		
- In the second s	0001	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.2	NEG		
	Free Water	scalar	*Visual		NEG		
	FLUID PROPE	ERTIES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	14.4	13.2		
	GRAPHS						
	Ferrous Alloys						
	40 iron i			1			
	35 - chromium						
	30 - 25						
	Ē 20						
	15						
	10						
	5						
	9/23 .			9/23 .			
	Jun 19/23			Jun 19/23			
	Non-ferrous Meta	ls					
	10 copper ]						
	8						
	tin						
	6						
	E d						
	2-			-			
	9/23			/23			
	Jun 19			Jun 19/23			
	Viscosity @ 100°	С		7			
	18 T			14.0	Base Number		
	1				T		
	17 Abnormal						
	- Abrionnai			12.0	Abnormal		
	16 -			12.0	Abnormal		
	16 -			12.0	Abnormal		
	16			12.0	Abnormal		
	16 6 15 8 8 8 14 12			12.0	Abnormal		
	16 6 15 8 8 8 8 8 14				Abnormal Abnormal		
	16 2010 15 Base 314 13 Abnormal 12 11			12.0 (PHO) DU DU DU DU DU DU DU DU DU DU DU DU DU D	Abnormal Base Abnormal		
	16 2010 15 Base 314 13 Abnormal 12 11			12.0 (PHO) DU DU DU DU DU DU DU DU DU DU DU DU DU D	Abnormal Base Abnormal		
	Abnormal			12.0 () () () () () () () () () ()	Abnormal Abnormal		
Laboratory	Abnormal	501 Madia	son Ave. Ca	12.0 (0)HOX Buy Jack 6.0 2.0 2.0 0.0 520(1 June 12.0 0.0	Abnormal Abnormal Abnormal	GAS FIFI D	
Laboratory Sample No.	Abnormal Base Base Base Base Base Base Control of the second seco			12.0 (PHO) Du 340 (PHO) DU 340	Abnormal Abnormal Abnormal	GAS FIELD	SPECIALIST
Laboratory Sample No. Lab Number	Abnormal	501 Madia Received Diagnose	<b>d</b> :147	12.0 (0)HOX Buy Jack 6.0 2.0 2.0 0.0 520(1 June 12.0 0.0	Abnormal Abnormal Abnormal		SPECIALIST 114 PA-66
Sample No. Lab Number Unique Number	: WearCheck USA - PCA0099800 : 05923907 r : 10603854	Received	d : 147 ed : 157	12.0 (PHO) Du and 6.0 2.0 	Abnormal Abnormal Abnormal	M	SPECIALIST 114 PA-66 ANSFIELD, P US 1693
Sample No. Lab Number Unique Number Test Package	E WearCheck USA - PCA0099800 : 05923907 r : 10603854 e : FLEET	Received Diagnose Diagnost	d : 147 ed : 157 iician : We	ry, NC 27513 Aug 2023 s Davis	Abnormal Abnormal Abnormal	M/ Contact: TAF	
Sample No. Lab Number Unique Number Test Package s this sample report,	: WearCheck USA - PCA0099800 : 05923907 r : 10603854	Received Diagnose Diagnost	d : 147 ed : 157 ician : Wes	ry, NC 27513 Aug 2023 s Davis	Abnormal Abnormal Abnormal	M/ Contact: TAF	SPECIALIST 114 PA-66 ANSFIELD, P US 1693

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