

OIL ANALYSIS REPORT



Machine Id W1 Component Diesel Engine Fluid DIESEL ENGINE OIL SAE 15W40 (--- QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. 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.

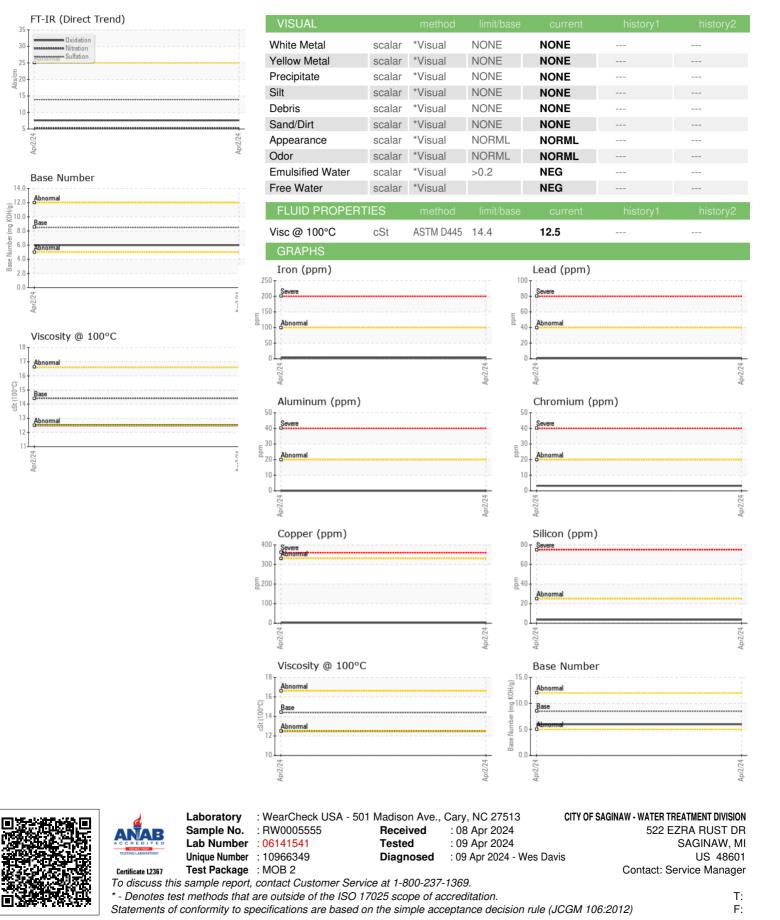
Fluid Condition

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

Sample Number Client Info RW0005555 Sample Date Client Info 02 Apr 2024 Machine Age hrs Client Info 2191 Oil Age hrs Client Info 167 Oil Changed Client Info N/A Sample Status Imathematical Status Sample Status Imathematical Status Imathematical Status Sample Xeatus Imathematical Status Imathe						la i a ta mud	bists w.O
Sample Date Client Into 02 Apr 2024 Machine Age hrs Client Info 2191 Oil Age hrs Client Info 167 Sample Status Client Info NA CONTAMINATION method Imit/base current history1 history2 Fuel WC Method >5 <1.0 Qontaminum WC Method >0.2 NEG Water WC Method >0.2 NEG Water ppm ASTM05185m >100 4 Water ppm ASTM05185m >20 3 Itanium ppm ASTM05185m >40 Sliver ppm ASTM05185m >30 4 Gopper ppm ASTM0518		ATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 2191 Oil Age hrs Client Info 167 Sample Status Client Info N/A CONTAMINATION method Imit/base current history1 Water Imit/base current history1 Glycol WC Method >5 <1.0							
Oli Age hrs Client Info 167 Oil Changed Client Info N/A Sample Status C Imit/bass current history1 CONTAMINATION method imit/bass current history1 history2 Fuel WC Method >5 <1.0 Water WC Method >0 WeAR METALS method imit/bass current history1 history2 Iron ppm ASTM D5185m >100 4 Mickel ppm ASTM D5185m >4 0 Silver ppm ASTM D5185m >20 0 Copper ppm ASTM D5185m >30 Cadmium ppm ASTM D5185m >40 Cadmium <					-		
Oli Changed Client Info N/A Sample Status I Nethod NorRMAL CONTAMINATION method limit/base current history1 history2 Fuel WC Method >5.2 <1.0	-				-		
Sample Status method imit/base current history1 history2 Fuel WC Method >5 <1.0 Water WC Method >0.2 NEG Glycol WC Method >0.2 NEG WeAR METALS method imit/base current history1 history2 Iron ppm ASTM D5185 >100 4 Okcel ppm ASTM D5185 >20 3 Nockel ppm ASTM D5185 >4 0 Auminum ppm ASTM D5185 >4 0 Lead ppm ASTM D5185 >20 0 Adminum ppm ASTM D5185 20 0 Vanadium ppm ASTM D5185 0	-	hrs			-		
CONTAMINATION method limit/base current history1 history2 Fuel WC Method >5 <1.0 Water WC Method >0.2 NEG Glycol WC Method NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >4 0 Nickel ppm ASTM D5185m >4 0 Silver ppm ASTM D5185m >3 0 Lead ppm ASTM D5185m >30 4 Vanadium ppm ASTM D5185m >15 <1 Copper ppm ASTM D5185m 10 0 Aduminum ppm ASTM D5185m 11 Aduminum	U		Client Info				
Fuel WC Method >5 <1.0	Sample Status				NORMAL		
Water WC Method >0.2 NEG Glycol WC Method NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 4 Chromium ppm ASTM D5185m >20 3 Nickel ppm ASTM D5185m >4 0 Aluminum ppm ASTM D5185m >20 0 Silver ppm ASTM D5185m >20 0 Aluminum ppm ASTM D5185m >20 0 Copper ppm ASTM D5185m >10 <11 Vanadium ppm ASTM D5185m 10 0 Addition ppm ASTM D5185m 100 7 </th <th>CONTAMINATION</th> <th>۷</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	CONTAMINATION	۷	method	limit/base	current	history1	history2
Glycol WC Method NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 3 Chromium ppm ASTM D5185m >20 3 Nickel ppm ASTM D5185m >4 0 Silver ppm ASTM D5185m >3 0 Lead ppm ASTM D5185m >20 0 Copper ppm ASTM D5185m >30 4 Adaminum ppm ASTM D5185m >10 Vanadium ppm ASTM D5185m 10 ADDITVES method limit/base current history1 history1 history2 Barium ppm ASTM D5185m 100	Fuel		WC Method	>5	<1.0		
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 4 Chromium ppm ASTM D5185m >20 3 Nickel ppm ASTM D5185m >4 0 Titanium ppm ASTM D5185m >3 0 Aluminum ppm ASTM D5185m >3 0 Lead ppm ASTM D5185m >20 0 Copper ppm ASTM D5185m >15 <1	Water		WC Method	>0.2	NEG		
Iron ppm ASTM D5185m >100 4 Chromium ppm ASTM D5185m >20 3 Nickel ppm ASTM D5185m >4 0 Silver ppm ASTM D5185m >3 0 Aluminum ppm ASTM D5185m >30 0 Copper ppm ASTM D5185m >20 0 Copper ppm ASTM D5185m >40 <1 Cadmium ppm ASTM D5185m >330 4 Vanadium ppm ASTM D5185m >330 4 Cadmium ppm ASTM D5185m 0	Glycol		WC Method		NEG		
Chromium ppm ASTM D5185m >20 3 Nickel ppm ASTM D5185m >4 0 Titanium ppm ASTM D5185m >3 0 Silver ppm ASTM D5185m >3 0 Lead ppm ASTM D5185m >20 0 Copper ppm ASTM D5185m >40 <1 Copper ppm ASTM D5185m >30 4 Cadmium ppm ASTM D5185m >15 <1 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 10 0 Magnesium ppm ASTM D5185m 150 90 Calcium ppm ASTM D5185m 1	WEAR METALS		method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >4 0 Titanium ppm ASTM D5185m >3 0 Silver ppm ASTM D5185m >3 0 Aluminum ppm ASTM D5185m >20 0 Lead ppm ASTM D5185m >330 4 Copper ppm ASTM D5185m >40 Vanadium ppm ASTM D5185m >30 4 Vanadium ppm ASTM D5185m >30 4 Vanadium ppm ASTM D5185m 0 Addminum ppm ASTM D5185m 10 0 ADDITVES method limit/base current history1 Molydenum ppm ASTM D5185m 100	Iron	ppm	ASTM D5185m	>100	4		
Nickel ppm ASTM D5185m >4 0 Titanium ppm ASTM D5185m >3 0 Silver ppm ASTM D5185m >3 0 Aluminum ppm ASTM D5185m >20 0 Lead ppm ASTM D5185m >20 0 Copper ppm ASTM D5185m >330 4 Tin ppm ASTM D5185m >15 <1	Chromium		ASTM D5185m	>20	3		
Titanium ppm ASTM D5185m 1 Silver ppm ASTM D5185m >3 0 Aluminum ppm ASTM D5185m >20 0 Lead ppm ASTM D5185m >30 4 Copper ppm ASTM D5185m >330 4 Vanadium ppm ASTM D5185m >330 4 Vanadium ppm ASTM D5185m >15 <1	Nickel		ASTM D5185m	>4	0		
Silver ppm ASTM D5185m >3 0 Aluminum ppm ASTM D5185m >20 0 Lead ppm ASTM D5185m >40 <1	Titanium		ASTM D5185m		1		
Lead ppm ASTM D5185m >40 <1 Copper ppm ASTM D5185m >330 4 Tin ppm ASTM D5185m >15 <1	Silver		ASTM D5185m	>3	0		
Copper ppm ASTM D5185m >330 4 Tin ppm ASTM D5185m >15 <1	Aluminum	ppm	ASTM D5185m	>20	0		
Copper ppm ASTM D5185m >330 4 Tin ppm ASTM D5185m >15 <1	Lead		ASTM D5185m	>40	<1		
Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 250 11 Barium ppm ASTM D5185m 10 0 Molybdenum ppm ASTM D5185m 100 7 Maganese ppm ASTM D5185m 100 7 Magnesium ppm ASTM D5185m 100 7 Magnesium ppm ASTM D5185m 100 719 Calcium ppm ASTM D5185m 1350 801 Sulfur ppm ASTM D5185m 1450 719 Sulfur ppm ASTM D5185m 255 4	Copper	ppm	ASTM D5185m	>330	4		
Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 250 11 Barium ppm ASTM D5185m 10 0 Molybdenum ppm ASTM D5185m 100 7 Magnesse ppm ASTM D5185m 100 7 Magnesium ppm ASTM D5185m 100 7 Calcium ppm ASTM D5185m 450 90 Calcium ppm ASTM D5185m 3000 2186 Sulfur ppm ASTM D5185m 1350 801 Sulfur ppm ASTM D5185m 250 3110 Sulfur ppm ASTM D5185m >22 0<	Tin	ppm	ASTM D5185m	>15	<1		
ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m25011BariumppmASTM D5185m100MolybdenumppmASTM D5185m1007ManganeseppmASTM D5185m1007MagnesiumppmASTM D5185m45090CalciumppmASTM D5185m300021866PhosphorusppmASTM D5185m1350801SulfurppmASTM D5185m1350801SulfurppmASTM D5185m2503110CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>254NotassiumppmASTM D5185m>200INFRA-REDmethodlimit/basecurrenthistory1history2Soot %%*ASTM D7644>30.1NitrationAbs/.tmm*ASTM D7645>3013.9SulfationAbs/.tmm*ASTM D7644>30.1FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2CxidationAbs/.tmm*ASTM D7145>30	Vanadium	ppm	ASTM D5185m		0		
Boron ppm ASTM D5185m 250 11 Barium ppm ASTM D5185m 10 0 Molybdenum ppm ASTM D5185m 100 7 Manganese ppm ASTM D5185m 100 7 Magnesium ppm ASTM D5185m 100 7 Magnesium ppm ASTM D5185m 100 7 Calcium ppm ASTM D5185m 450 90 Calcium ppm ASTM D5185m 3000 2186 Calcium ppm ASTM D5185m 1150 719 Sulfur ppm ASTM D5185m 1350 801 Solium ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m <t< th=""><th>Cadmium</th><th>nnm</th><th>ASTM D5185m</th><th></th><th>•</th><th></th><th></th></t<>	Cadmium	nnm	ASTM D5185m		•		
Barium ppm ASTM D5185m 10 0 Molybdenum ppm ASTM D5185m 100 7 Manganese ppm ASTM D5185m 100 7 Magnesium ppm ASTM D5185m 450 90 Calcium ppm ASTM D5185m 3000 2186 Phosphorus ppm ASTM D5185m 1150 719 Zinc ppm ASTM D5185m 1350 801 Sulfur ppm ASTM D5185m 1350 801 Sulfur ppm ASTM D5185m 14250 3110 Sulfur ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m >158 1 INFRA-RED method	odamiani	ppm	ASTIVI DJ10JIII		U		
Molybdenum ppm ASTM D5185m 100 7 Manganese ppm ASTM D5185m 450 90 Magnesium ppm ASTM D5185m 450 90 Calcium ppm ASTM D5185m 3000 2186 Phosphorus ppm ASTM D5185m 1150 719 Zinc ppm ASTM D5185m 1350 801 Sulfur ppm ASTM D5185m 1350 801 Sulfur ppm ASTM D5185m 14250 3110 Sulfur ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m >158 1 Potassium ppm ASTM D7844 >3 0.1 Nitration Abs/cm		ppin		limit/base	-		
Manganese ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m 450 90 Calcium ppm ASTM D5185m 3000 2186 Phosphorus ppm ASTM D5185m 1150 719 Zinc ppm ASTM D5185m 1350 801 Sulfur ppm ASTM D5185m 1350 801 Sulfur ppm ASTM D5185m 4250 3110 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m >20 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3	ADDITIVES		method		current	history1	history2
Manganese ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m 450 90 Calcium ppm ASTM D5185m 3000 2186 Phosphorus ppm ASTM D5185m 1150 719 Zinc ppm ASTM D5185m 1350 801 Sulfur ppm ASTM D5185m 4250 3110 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m >158 1 Potassium ppm ASTM D5185m >20 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 <td< td=""><td>ADDITIVES Boron</td><td>ppm</td><td>method ASTM D5185m</td><td>250</td><th>current</th><td>history1</td><td>history2</td></td<>	ADDITIVES Boron	ppm	method ASTM D5185m	250	current	history1	history2
Magnesium ppm ASTM D5185m 450 90 Calcium ppm ASTM D5185m 3000 2186 Phosphorus ppm ASTM D5185m 1150 719 Zinc ppm ASTM D5185m 1350 801 Sulfur ppm ASTM D5185m 4250 3110 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m >20 0 Ntrassium ppm ASTM D5185m >20 0 Ntrassium ppm ASTM D5185m >20 5.3 Nitration Abs/cm *ASTM D7614 <td>ADDITIVES Boron Barium</td> <td>ppm ppm</td> <td>method ASTM D5185m ASTM D5185m</td> <td>250 10</td> <th>current 11 0</th> <td>history1 </td> <td>history2 </td>	ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	250 10	current 11 0	history1 	history2
Calcium ppm ASTM D5185m 3000 2186 Phosphorus ppm ASTM D5185m 1150 719 Zinc ppm ASTM D5185m 1350 801 Sulfur ppm ASTM D5185m 1350 801 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m >20 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 Nitration Abs/1mm *ASTM D7624	ADDITIVES Boron Barium	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	250 10	current 11 0 7	history1 	history2
Zinc ppm ASTM D5185m 1350 801 Sulfur ppm ASTM D5185m 4250 3110 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m >158 1 Potassium ppm ASTM D5185m >20 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 Nitration Abs/cm *ASTM D7624 >20 5.3 Sulfation Abs/1mm *ASTM D7415 >30 13.9 FLUID DEGRADATION method	ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100	current 11 0 7 <1	history1 	history2
Zinc ppm ASTM D5185m 1350 801 Sulfur ppm ASTM D5185m 4250 3110 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m >158 1 Potassium ppm ASTM D5185m >20 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 Nitration Abs/cm *ASTM D7624 >20 5.3 Sulfation Abs/.1mm *ASTM D7415 >30 13.9 Qxidation Abs/.1mm	ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450	current 11 0 7 <1 90	history1 	history2
CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>254SodiumppmASTM D5185m>1581PotassiumppmASTM D5185m>200INFRA-REDmethodlimit/basecurrenthistory1history2Soot %%*ASTM D7844>30.1NitrationAbs/cm*ASTM D7624>205.3SulfationAbs/.imm*ASTM D7415>3013.9FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2OxidationAbs/.imm*ASTM D7414>257.6	ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000	current 11 0 7 <1 90 2186	history1	history2
Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m >158 1 Potassium ppm ASTM D5185m >20 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 Nitration Abs/cm *ASTM D7624 >20 5.3 Sulfation Abs/.tmm *ASTM D7415 >30 13.9 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.tmm *ASTM D7414 >25 7.6	ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150	Current 11 0 7 <1 90 2186 719	history1	history2
Sodium ppm ASTM D5185m >158 1 Potassium ppm ASTM D5185m >20 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 Nitration Abs/cm *ASTM D7624 >20 5.3 Sulfation Abs/.1mm *ASTM D7415 >30 13.9 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 7.6	ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	250 10 100 450 3000 1150 1350	Current 11 0 7 <1 90 2186 719 801	history1	history2
Potassium ppm ASTM D5185m >20 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 Nitration Abs/cm *ASTM D7624 >20 5.3 Sulfation Abs/.1mm *ASTM D7415 >30 13.9 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 7.6	ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	250 10 100 450 3000 1150 1350 4250	Current 11 0 7 <1 90 2186 719 801 3110	history1	history2
INFRA-REDmethodlimit/basecurrenthistory1history2Soot %%*ASTM D7844>30.1NitrationAbs/cm*ASTM D7624>205.3SulfationAbs/.1mm*ASTM D7415>3013.9FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2OxidationAbs/.1mm*ASTM D7414>257.6	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	250 10 100 450 3000 1150 1350 4250	Current 11 0 7 <1 90 2186 719 801 3110 Current	history1	history2
Soot % % *ASTM D7844 >3 0.1 Nitration Abs/cm *ASTM D7624 >20 5.3 Sulfation Abs/.1mm *ASTM D7415 >30 13.9 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 7.6	ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Chosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25	current 11 0 7 <1 90 2186 719 801 3110 current 4	history1 history1	history2 history2
Nitration Abs/cm *ASTM D7624 >20 5.3 Sulfation Abs/.1mm *ASTM D7615 >30 13.9 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 7.6	ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >158	current 11 0 7 <1 90 2186 719 801 3110 current 4 1	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 13.9 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 7.6	ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >158 >20	current 11 0 7 <1 90 2186 719 801 3110 current 4 1 0	history1 history1 history1	history2 history2
SulfationAbs/.1mm*ASTM D7415>3013.9FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2OxidationAbs/.1mm*ASTM D7414>257.6	ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	250 10 100 450 3000 1150 1350 4250 Iinit/base >25 >158 >20 Iinit/base	current 11 0 7 <1 90 2186 719 801 3110 current 4 1 0 current	history1 history1 history1 history1	history2
Oxidation Abs/.1mm *ASTM D7414 >25 7.6	ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	250 10 100 450 3000 1150 1350 4250 Imit/base >25 >158 >20 Imit/base >3	current 11 0 7 <1 90 2186 719 801 3110 current 4 1 0 current 0 current 0.1	history1 history1 history1 history1	history2
	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	250 10 100 450 3000 1150 1350 4250 Iimit/base >25 >158 >20 Iimit/base >3 >20	current 11 0 7 <1 90 2186 719 801 3110 current 4 1 0 current 0 current 0.1 5.3	history1 history1 history1 history1	history2 history2 history2
	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	250 10 100 450 3000 1150 1350 4250 imit/base >25 >158 >20 imit/base >3 >20	current 11 0 7 <1 90 2186 719 801 3110 current 4 1 0 current 0.1 5.3 13.9	history1 history1 history1	history2 history2 history2 history2 history2 </td
	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 D76185m *ASTM D7624 *ASTM D7624 *ASTM D7415 method	250 10 100 450 3000 1150 1350 4250 bimit/base >25 >158 >20 bimit/base >3 >20 >30	current 11 0 7 <1 90 2186 719 801 3110 current 4 1 0 current 0 current 1.3.9 current	history1 history1 history1	history2 history2 history2 history2 history2 history2 history2



OIL ANALYSIS REPORT



Contact/Location: Service Manager - CITSAGMI