COOLANT REPORT

Sample Rating Trend



Fluid

OKLAHOMA/102 38.86 [OKLAHOMA^102] Coolant





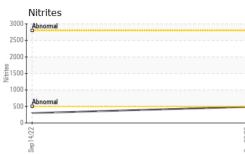
NORMAL

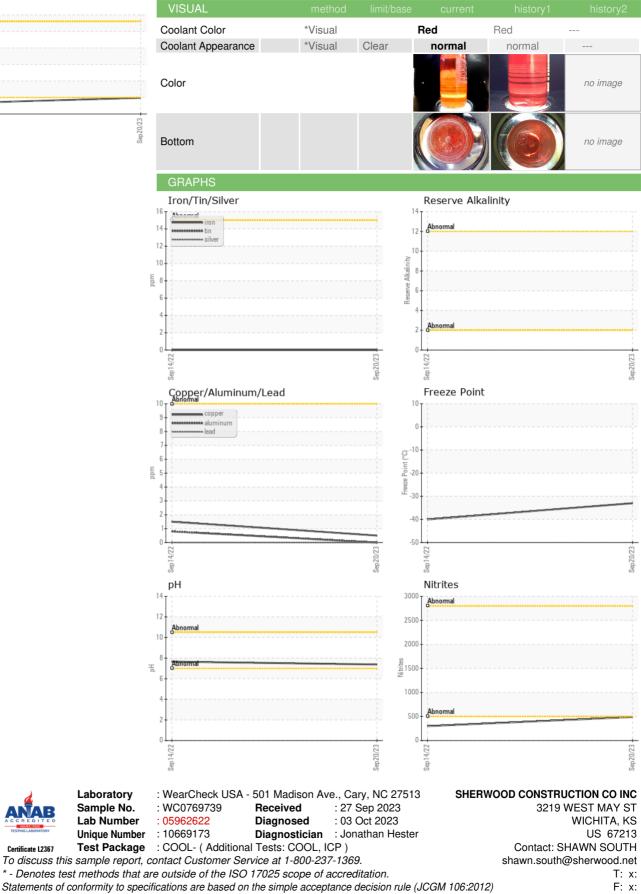
CATERPILLAR ELC (11 GAL)

Sample Number Client Info WC0769739 WC07169739 WC07	DIAGNOSIS	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
The fluid is suitable for further service. Machine Age hrs Cilent Info 4830 3170 Corrosion All metal levels are normal indicating no corrosion in the coolant. Cilent Info N/A Not Changed Contaminants There is no indication of any contamination in the coolant. NORMAL NORMAL NORMAL NORMAL NORMAL Cotant Condition Catcoxylate test failed. The glycol level is acceptable. The pH level of this fluid is within the acceptable limits. Sample Status 1.067 1.070 PHSICAL TEST RESULTS method Imit/base current History1 History2 Specific Gravity %StM 01287 7.766 Cotant Condition Reserve Alkalinity Sub029 MNI 10121 Reserve Alkalinity Sub029 MNI 10127 7.735 Reserve Alkalinity %Sub029 MSI 103030 0 17 37 Reserve Alkalinity %Sub029 MSI 10121 Silicon ppm ASTM 05130 0 </th <th>Recommendation</th> <th>Sample Number</th> <th></th> <th>Client Info</th> <th></th> <th>WC0769739</th> <th>WC0741084</th> <th></th>	Recommendation	Sample Number		Client Info		WC0769739	WC0741084	
Corrosion Nach me Age Inis Client Initio 1000 Inition All metal levels are normal indicating no corrosion in the cooling system. Oil Changed Client Info NA Not Changed	No corrective action is recommended at this time.	Sample Date		Client Info		20 Sep 2023	14 Sep 2022	
All metal levels are normal indicating no corrorsion in the cooling system. Contaminants N/A No Chand Containants There is no indication of any contamination in the coolant. Millosse Containants No RMAL Colonal Condition Catoxylate test failed. The dytool level is acceptable limits. No RMAL No RMAL Catoxylate test failed. The dytool level is acceptable limits. Sample Status No RMAL PH Sample Status No RMAL No RMAL Catoxylate test failed. The dytool level is acceptable limits. No RMAL No RMAL	The fluid is suitable for further service.	Machine Age	hrs	Client Info		4830	3170	
Contaminants Sample Status NORMAL Contaminants There is no indication of any contamination in the colant. Specific Gravity 'ASTM D1283 LOG 7 1.00 Carboxylate test tailed. The glycol level is acceptable. The pH level of this fluid is within tha acceptable limits. NItrites pm AP453 2009 488 300 Precentage Glycol % ASTM D1237	Corrosion	Oil Age	hrs	Client Info		2000	1000	
Contaminants Prevention Income Income There is no indication of any contamination in the column. PHYSICAL TEST RESULTS method imit/base current history1 history1 history2 Coolant Condition Carboxylate test tailed. The glycol level is acceptable limits. Sceptable Stringe Status YSTM D128 1.067 1.070 Carboxylate test tailed. The glycol level is acceptable limits. Sceptable Stringe Status Scel291 XMD D128	All metal levels are normal indicating no corrosion	Oil Changed		Client Info		N/A	Not Changd	
There is no indication of any contamination in the coolant. ImitDease current history1 history2 Specific Gravity ''ASTM D1287 7.38 7.66 Coolant Condition Saceptable. The pH level of this fluid is within the acceptable limits. %ASTM D1287 7.38 7.66 Nitrites ppm AP.053.2009 488 30.0 PH evel of this fluid is within the acceptable limits. precentage Glycol % ASTM D1287 <td< td=""><td>in the cooling system.</td><th>Sample Status</th><td></td><td></td><td></td><th>NORMAL</th><td>NORMAL</td><td></td></td<>	in the cooling system.	Sample Status				NORMAL	NORMAL	
coolant.Specific Gravity%STM D1281.0671.070Colant Condition Carboxytate tstalied. The glycol level is acceptable. The pH level of this fluid is within the acceptable limits.Specific Gravity%STM D121	There is no indication of any contamination in the	PHYSICAL TEST F	RESULTS	method	limit/base	current	history1	history2
Carboxylate test failed. The glycol level is acceptable. The pH level of this fluid is within the acceptable limits. Nitrites ppm AP-9532009 488 300 Reserve Alkalinity Stale 020 ASTM D112 Percentage Glycol % ASTM D3321 490.7 52.1 Percentage Glycol % ASTM D3321 490.7 52.1 Total Dissolved Solids 355.5 399.5 Total Dissolved Solids 355.5 399.5 CORROSION INHIBITORS method limit/base current history1 history2 Silicon ppm ASTM D6130 0 17 37 Boron ppm ASTM D6130 0 17 37 Iron ppm ASTM D6130 0 17 37 Boron ppm ASTM D6130 0 30 Qopper ppm ASTM D6130 10 0		Specific Gravity		*ASTM D1298		1.067	1.070	
acceptable. The pH level of this fluid is within the acceptable limits. Reserve Alkalinity Safe 420 *ASTM D1321 Percentage Glycol % ASTM D321 49.7 52.1 Freezing Point °F ASTM D321 -33 40 Total Dissolved Solids 355.5 399.5 CORROSION INHIBITORS method limit/base current history1 history2 Silicon pm ASTM D6130 0 17 37 Phosphorus ppm ASTM D6130 0 17 37 Boron ppm ASTM D6130 0 3 30 AORROSION mpm ASTM D6130 955 1055 Boron ppm ASTM D6130 >15 0 0 Aluminum pm ASTM D6130 >10 0 Aluminum p	Coolant Condition	pН	Scale 0-14	ASTM D1287		7.38	7.66	
acceptable limits. Percentage Giycel % ASTM D3321 49.7 52.1 Freezing Point °F ASTM D3321 -33 -40 Total Dissolved Solids 355.5 399.5 Garboxylate Imit Dassol Imit Dassol CORROSION INHERDS method Imit Dassol 0 17 37 Phosphorus ppm ASTM D6130 0 17 37 Boron ppm ASTM D6130 0 3 30.4 Molybdenum ppm ASTM D6130 0 3 30.4 CORROSION ppm ASTM D6130 0 3 30.4 Molybdenum ppm ASTM D6130 950 995 1055 CORROSION ppm ASTM D6130 >10 0 Corrent ppm ASTM D6130 >10 0 Copp	Carboxylate test failed. The glycol level is	Nitrites	ppm	AP-053:2009		488	300	
acceptable limits. Percentage Giycol % ASTM D3321 49,7 52.1 Freezing Point °F ASTM D3321 -33 40 Total Dissolved Solids 355. 399.5 Carboxylati I I fail pass Silicon pm ASTM D6130 0 17 37.0 Phosphorus ppm ASTM D6130 0 17 37.0 Boron ppm ASTM D6130 0 17 37.0 Molybdenum ppm ASTM D6130 0 30.0 CORROSION ppm ASTM D6130 0 30.0 Molybdenum pm ASTM D6130 9.0 30.0 CORROSION ppm ASTM D6130 >10 0 Aluminum pm ASTM D6130 >10 0 Copper pm ASTM D6130 >10 0	acceptable. The pH level of this fluid is within the	Reserve Alkalinity	Scale 0-20	*ASTM D1121				
Freezing Point °F ASTM D3321 33 -40 Total Dissolved Solids 355.5 399.5 Carboxylate Imit bass fail pass CORROSION INHIBITORS method limit/bass current history1 history2 Silicon ppm ASTM D6130 0 17 37 Phosphorus ppm ASTM D6130 0 30 Boron ppm ASTM D6130 0 3 30 Molybdenum ppm ASTM D6130 0 3 30 Iron ppm ASTM D6130 950 9951 1055 Aluminum ppm ASTM D6130 >10 0 Aluminum ppm ASTM D6130 >10 0 COPPer ppm ASTM D6130 >10 0 Copper ppm ASTM D6130 >10 0 0 Contratin ppm </td <th>Percentage Glycol</th> <td>%</td> <td>ASTM D3321</td> <td></td> <th>49.7</th> <td>52.1</td> <td></td>		Percentage Glycol	%	ASTM D3321		49.7	52.1	
Total Dissolved Solids355.5399.5CarboxylateIIIpassICORROSION INHEITORSmethodImit/basecurrenthistory1history2SiliconppmASTM D613001737PhosphorusppmASTM D61300035IBoronppmASTM D61300330.0IMolybdenumppmASTM D61309509951055ICORROSIONmethodImit/basecurrenthistory1History2IronppmASTM D6130>1500IAluminumppmASTM D6130>100IILeadppmASTM D6130>100IICONTAMINANTSmethodImit/basecurrenthistory1History2ChorineppmASTM D6130>100ICARRIER SALTSmethodImit/basecurrenthistory1history2SodiumppmASTM D6130I0IISCALE POTENTILImethodImit/basecurrenthistory1CalciumppmASTM D6130IIIIContrastingppmASTM D6130IIIIContrastingppmASTM D6130IIIIContrastingppmASTM D6130IIII			°F	ASTM D3321		-33	-40	
CORROSION INHIBITORSmethodlimit/basecurrenthistory1history2SiliconppmASTM D613001737PhosphorusppmASTM D61300330BoronppmASTM D61309509951055MolybdenumppmASTM D61309509951055CORROSIONmethodlimit/basecurrenthistory1history2IronppmASTM D6130>100<		Total Dissolved Solids				355.5	399.5	
SiliconppmASTM D613001737PhosphorusppmASTM D61300035BoronppmASTM D61300330MolybdenumppmASTM D61309509951055CORROSIONmethodlimit/basecurrenthistory1history2IronppmASTM D6130>1500AluminumppmASTM D6130>100<1CopperppmASTM D6130>1000LeadppmASTM D6130>1000ZincppmASTM D6130>1000CONTAMINANTSmethodlimit/basecurrenthistory1history2ChlorineppmASTM D61302035CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D6130C0SodiumppmASTM D6130Currenthistory1history2SodiumppmASTM D6130Currenthistory1history2SodiumppmASTM D6130Currenthistory1history2SodiumppmASTM D6130Currenthistory1history2SodiumppmASTM D6130Currenthistory1history2SodiumppmASTM D6130Currenthi		Carboxylate				fail	pass	
Phosphorus ppm ASTM D6130 0 0 35 Boron ppm ASTM D6130 0 3 30 Molybdenum ppm ASTM D6130 950 995 1055 CORROSION method limit/bass current history1 history2 Iron ppm ASTM D6130 >15 0 0 Aluminum ppm ASTM D6130 >10 0 <11 Aluminum ppm ASTM D6130 >10 0 <11 Aluminum ppm ASTM D6130 >10 0 <11 Lead ppm ASTM D6130 >10 0 < Zinc ppm ASTM D6130 >10 0 < CONTAMINANTS method imit/bass current history1 history2 Chorine ppm ASTM D6130 Current		CORROSION INH	IIBITORS	method	limit/base	current	history1	history2
BoronppmASTM D61300330MolybdenumppmASTM D61309509951055CORROSIONmethodlimit/basecurrenthistory1history2IronppmASTM D6130>1500AluminumppmASTM D6130>100<1		Silicon	ppm	ASTM D6130	0	17	37	
BoronppmASTM D61300330MolybdenumppmASTM D61309509951055CORROSIONmethodlimit/basecurrenthistory1history2IronppmASTM D6130>1500AluminumppmASTM D6130>100<1CopperppmASTM D6130>10<12LeadppmASTM D6130>1000TinppmASTM D6130>1000ZincppmASTM D6130>1000CONTAMINANTSmethodlimit/basecurrenthistory1history2ChlorineppmASTM D6130Currenthistory1history2SodiumppmASTM D6130Currenthistory1history2SodiumppmASTM D6130Currenthistory1history2SodiumppmASTM D6130Currenthistory1history2SodiumppmASTM D6130Currenthistory1history2SCALE POTENTI-Lmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130Currenthistory1history2SCALE POTENTI-Lmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130Currenthistory1history2		Phosphorus	ppm	ASTM D6130	0	0	35	
MolybdenumppmASTM D61309509951055CORROSIONmethodlimit/basecurrenthistory1history2IronppmASTM D6130>1500AluminumppmASTM D6130>100<1CopperppmASTM D6130>10<12LeadppmASTM D6130>1000TinppmASTM D6130>1000ZincppmASTM D6130>1000CONTAMINANTmethodlimit/basecurrenthistory1history2ChlorineppmASTM D61302035SodiumppmASTM D613054493187PotassiumppmASTM D613000SCALE POTENTI-Lmethodlimit/basecurrenthistory1history2CalciumppmASTM D613023PotassiumppmASTM D613023187Scale POTENTI-Lmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130233						3		
IronppmASTM D6130>1500AluminumppmASTM D6130>100<1CopperppmASTM D6130>10<12LeadppmASTM D6130>1000TinppmASTM D6130>1000ZincppmASTM D6130>1000CONTAMINANTSmethodlimit/basecurrenthistory1history2ChlorineppmASTM D61302035SodiumppmASTM D613054493187PotassiumppmASTM D61300160SCALE POTENTI-Lmethodlimit/basecurrenthistory1history2CalciumppASTM D613023PotassiumppASTM D613023SCALE POTENTI-Lmethodlimit/basecurrenthistory1history2CalciumppASTM D613023		Molybdenum		ASTM D6130	950	995	1055	
AluminumppmASTM D6130>100<1		CORROSION		method	limit/base	current	history1	history2
AluminumppmASTM D6130>100<1CopperppmASTM D6130>10<1		Iron	ppm	ASTM D6130	>15	0	0	
CopperppmASTM D6130>10<1		Aluminum						
LeadppmASTM D6130>1000TinppmASTM D6130>1000ZincppmASTM D6130>1000CONTAMINANTSmethodlimit/basecurrenthistory1history2ChlorineppmASTM D61302035CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D613054493187PotassiumppmASTM D61300160SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D613023		Copper						
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ZincppmASTM D61300CONTAMINANTSmethodlimit/basecurrenthistory1history2ChlorineppmASTM D61302035CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D613054493187PotassiumppmASTM D61300160SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D613023						-		
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SodiumppmASTM D613054493187PotassiumppmASTM D61300160SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D613023		Chlorine	ppm	ASTM D6130		20	35	
PotassiumppmASTM D61300160SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D613023		CARRIER SALTS	;	method	limit/base	current	history1	history2
SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D613023		Sodium	ppm	ASTM D6130		5449	3187	
Calcium ppm ASTM D6130 2 3		Potassium	ppm	ASTM D6130		0	160	
		SCALE POTENT	IAL	method	limit/base	current	history1	history2
		Calcium	ppm	ASTM D6130		2	3	
		Magnesium		ASTM D6130				



COOLANT REPORT





Certificate L2367

Submitted By: BOBBY JONES

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