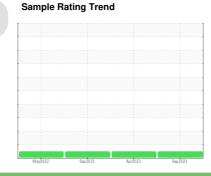
COOLANT REPORT





NORMAL

CATERPILLAR ELC (--- GAL)

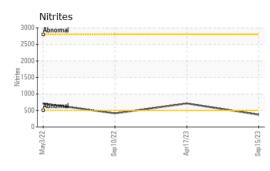
OKLAHOMA/102

Sample DateClient Info15 Sep 202317 Apr 202310 Sep 2022The fluid is suitable for further service.Machine AgehrsClient Info22001653692CorrosionMachine AgehrsClient Info6001653692Machine AgehrsClient Info6001653692Oil AgehrsClient InfoN/ANot ChangdNot ChangdMachine AgeMachine AgeMachine AgeN/ANot ChangdNot ChangdMachine AgeMachine AgeMachine AgeN/ANot ChangdNot ChangdMachine AgeMachine AgeMachine AgeN/ANot ChangdNot ChangdMachine AgeMachine AgeMachine AgeNorMALNorMALNorMALMachine AgeMachine AgeMachine AgeMachine AgeNorMALNorMALMachine AgeMachine AgeMachine AgeMachine AgeNorMALNorMALMachine AgeMachine AgeMachine AgeMachine AgeNorMALNorMALMachine AgeMachine AgeMachine AgeMachine AgeMachine AgeNorMALContaminantsPHYSICAL TEST RESULTSMethodlimit/basecurrenthistory1	DIAGNOSIS	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
The fluid is suitable for further service. Machine Age hrs Client Info 2200 1653 692 Dil Age hrs Client Info 600 1653 692 Dil Age hrs Client Info 600 1653 692 Dil Age hrs Client Info N/A Not Changd 692 Dottaminants Normal Normal Normal Normal Normal Normal Normal Normal 692 692 01 692	Recommendation	Sample Number		Client Info		WC0848978	WC0800851	WC0662424
Sorrosion Ull metal levels are normal indicating no corrosion the cooling system. Oil Anaged Client Info Gol 1653 682 Sortaminants Ner is no indication of any contamination in the cooling system. NORMAL NORMAL NORMAL NORMAL NORMAL Sortaminants Here is no indication of any contamination in the cooling system. NORMAL N	No corrective action is recommended at this time.	Sample Date		Client Info		15 Sep 2023	17 Apr 2023	10 Sep 2022
III meta levels are normal indicating no corrosion in the cooling system. Sourbarnination the cooling system. Oil Changed Cilent Info N/A Not Changd Not And PHYSICAL TEST RESULTS method Initbase current History1 Not And Sociant Condition associant is containination in the coolant. Sample Status 1.069 1.069 1.068 7.72 Sociant Condition associant is containination in the coolant. Not Readed 7.78 7.72 7.12 4.12 Sociant Condition associal test failed. This glycol level is cooptable. The glycol level is	The fluid is suitable for further service.	Machine Age	hrs	Client Info		2200	1653	692
Sample Status NORMAL NORMAL NORMAL NORMAL Softaminants Phere is no indication of any contamination in the colant. PHYSICAL TEST RESULTS method limit/base current history1 history2 Softaminants Specific Gravity 'ASTM D128 1.069 1.06	Corrosion	Oil Age	hrs	Client Info		600	1653	692
Contaminants Prevision Recense Control Recense		Oil Changed		Client Info		N/A	Not Changd	Not Changd
Phres is no indication of any contamination in the oplant. PHYSICAL TEST RESULTS method Imit/base numerical Nistory1 Nistory2 Specific Gravity 'ASTM D1236 1.069 1.069 1.069 1.069 1.069 1.068 Sociant Condition SateVit ASTM D1237 'ASTM D1237 7.68 7.72 412 Cocapitable. The pH level of this fluid is within the cocapitable limits. Seciefic Gravity 'ASTM D1237 7.68 7.60 7.72 Nitrites ppm AP-0532009 372 7.12 412 Reserve Alkalinity SateVit ASTM D1237 <t< th=""><th>in the cooling system.</th><th>Sample Status</th><th></th><th></th><th></th><th>NORMAL</th><th>NORMAL</th><th>NORMAL</th></t<>	in the cooling system.	Sample Status				NORMAL	NORMAL	NORMAL
PH Scale 014 ASTM D1287 7.68 7.80 7.72 Darboxylate test failed. The glycol level is fucceptable. The pH level of this fluid is within the coeptable limits. Nitrites ppm AP 053209 372 712 412 Reserve Alkalinity Scale 020 YATM D121 Percentage Glycol % ASTM D321 51.2 51.0 50.5 Freezing Point ?F ASTM D321 -38 -38 -35 Total Dissolved Solids	Contaminants There is no indication of any contamination in the coolant.	PHYSICAL TEST F	RESULTS	s method	limit/base	current	history1	history2
Ditrites pm AP-053:200 372 712 412 Coceptable The pH level of this fluid is within the coceptable limits. Reserve Alkalinity Sale/00 YaSTM D0321 Percentage Glycol % ASTM D0321 51.2 51.0 50.5 Total Dissolved Solids Imit Percentage Glycol % ASTM D0321		Specific Gravity		*ASTM D1298		1.069	1.069	1.068
cceptable. The pH level of this fluid is within the cceptable limits. Reserve Alkalinity Scale 20 'ASTM D1121 Percentage Glycol % ASTM D321 51.2 51.0 50.5 Freezing Point 'F ASTM D321 -38 -38 -35 Total Dissolve Solids 376.0 376.0 402.0 Carboxylate Imil/base current history1 history2 Silicon pp ASTM D6130 0 108 174 141 Phosphorus ppm ASTM D6130 0 0 <1 189 Boron ppm ASTM D6130 0 0 <1 189 CORROSION method imit/base current history1 history2 Iron pp ASTM D6130 >15 0 2 13 Aluminum pp ASTM D6130 >10 0 <1 2 Copper pp ASTM D6130 >10 0 <1	coolant Condition	рН	Scale 0-14	ASTM D1287		7.68	7.80	7.72
ccceptable limits. Percentage Glycol % ASTM D3321 51.2 51.0 50.5 Freezing Point *F ASTM D3321 -38 -38 -36 Total Dissolved Solids 376.0 376.0 402.0 Carboxylatie Imit/Dase current history1 history2 Silicon ppm ASTM D6130 0 108 174 141 Phosphorus ppm ASTM D6130 0 2 <1 0 Boron ppm ASTM D6130 0 1200 1189 CORROSION ppm ASTM D6130 0 2 <1 0 Molybdenum ppm ASTM D6130 >1066 1200 1189 CORPOSION ppm ASTM D6130 >10 0 <1 2 Iron ppm ASTM D6130 >10 0 <1 2 2 13 Aluminum ppm ASTM D6130 >10 0 <1 0 1 1 1 Copper ppm ASTM D6130 >10		Nitrites	ppm	AP-053:2009		372	712	412
Freezing Point 1/2 51.2 51.3 50.3 Freezing Point 1/2 ASTM 03321 -38 -38 -38 Total Dissolved Solids 376.0 376.0 402.0 Carboxylate Imit/base current history1 history2 Silicon ppm ASTM 06130 0 108 17.4 141 Phosphorus ppm ASTM 06130 0 0 <1 19 Boron ppm ASTM 06130 0 2 <1 0 Molybdenum ppm ASTM 06130 950 1066 1200 1189 CORROSION method limit/base current history1 history2 Iron ppm ASTM 06130<>10 0 <1 2 2 Iron ppm ASTM 06130<>10 0 <1 2 2 Iron ppm ASTM 06130<>10 0 <1 1 1 Copper ppm ASTM 06130<>10 0 <1 1 1 Contraminum ppm		Reserve Alkalinity	Scale 0-20	*ASTM D1121				
Total Dissolved Solids376.0376.0402.0CarboxylateImImfailpasspassCORROSION INHIBITORSmethodlimit/basecurrenthistory1history2SiliconppmASTM D61300108174141PhosphorusppmASTM D613000<119BoronppmASTM D613002<10MolybdenumppmASTM D6130950106612001189CORROSIONmethodimit/basecurrenthistory1history2IronppmASTM D6130>100213AluminumppmASTM D6130>100<12CopperppmASTM D6130>10344LeadppmASTM D6130>100<10ZincppmASTM D6130>100<10ZincppmASTM D6130>100111CONTAMINANTSmethodlimit/basecurrenthistory1history2ChlorineppmASTM D613015565458272754SodiumppmASTM D6130565458272754PotassiumppmASTM D6130341425188SCALE POTENTILmethodlimit/basecurrenthistory1history2CalciumppmASTM D61305051541518010 <th>cceptable limits.</th> <th>Percentage Glycol</th> <th>%</th> <th>ASTM D3321</th> <th></th> <th>51.2</th> <th>51.0</th> <th>50.5</th>	cceptable limits.	Percentage Glycol	%	ASTM D3321		51.2	51.0	50.5
CarboxylateImitpasspassCORROSION INHIBITORSmethodlimit/basecurrenthistory1SiliconppmASTM D61300108174141PhosphorusppmASTM D613000<119BoronppmASTM D613002<10MolybdenumppmASTM D6130950106612001189CORROSIONmethodlimit/basecurrenthistory1history2IronppmASTM D6130>150213AluminumppmASTM D6130>100<12CopperppmASTM D6130>100<10TinppmASTM D6130>100<10ZincppmASTM D6130>100<11CONTAMINANTSmethodlimit/basecurrenthistory1history2ChlorineppmASTM D6130152713CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D6130565458272754PotassiumppmASTM D6130341425188SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D613011<1<1		Freezing Point	°F	ASTM D3321		-38	-38	-35
ORROSION INHIBITORSmethodlimit/basecurrenthistory1history2SiliconppmASTM D61300108174141PhosphorusppmASTM D613000<119BoronppmASTM D613002<10MolybdenumppmASTM D6130950106612001189CORROSIONmethodlimit/basecurrenthistory1history2IronppmASTM D6130>150213AluminumppmASTM D6130>100<12CopperppmASTM D6130>100<10TinppmASTM D6130>100<10TinppmASTM D6130>100<10ZincppmASTM D6130>100<11CONTAMINANTSmethodlimit/basecurrenthistory1history2ChlorineppmASTM D6130152713CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D6130565458272754PotassiumppmASTM D6130341425188SCALE POTENTILImethodlimit/basecurrenthistory1history2CalciumppmASTM D6130<11<1		Total Dissolved Solids				376.0	376.0	402.0
Silicon ppm ASTM D6130 0 108 174 141 Phosphorus ppm ASTM D6130 0 0 <1 19 Boron ppm ASTM D6130 0 2 <1 0 Molybdenum ppm ASTM D6130 950 1066 1200 1189 CORROSION method imit/base current history1 history2 Iron ppm ASTM D6130 >15 0 2 13 Aluminum ppm ASTM D6130 >10 0 <1 2 Copper ppm ASTM D6130 >10 0 <1 0 1 Lead ppm ASTM D6130 >10 0 <1 1 1 CONTAMINANT method imit/base current history1 history2 Chorine ppm ASTM D6130 10 0 1 1 CONTAMINANT method limit/base current history1 history2 Chorine ppm ASTM D6130		Carboxylate				fail	pass	pass
Phosphorus ppm ASTM D6130 0 0 <1		CORROSION INF	IIBITORS	s method	limit/base	current	history1	history2
BoronppmASTM D613002<1		Silicon	ppm	ASTM D6130	0	108	174	141
Molybdenum ppm ASTM D6130 950 1066 1200 1189 CORROSION method limit/base current history1 history2 Iron ppm ASTM D6130 >15 0 2 13 Aluminum ppm ASTM D6130 >10 0 <1		Phosphorus	ppm	ASTM D6130	0	0	<1	19
CORROSIONmethodimit/basecurrenthistory1history2IronppmASTM D6130<>150213AluminumppmASTM D6130<>100<12CopperppmASTM D6130<>10344LeadppmASTM D6130<>100<10TinppmASTM D6130<>100<10ZincppmASTM D6130<>10011CONTAMINANTSmethodimit/basecurrenthistory1history2ChlorineppmASTM D613015565458272754SodiumppmASTM D6130565458272754PotassiumppmASTM D61301425188SCALE POTENTI-Lmethodimit/basecurrenthistory1history2CalciumppmASTM D613011<1		Boron	ppm	ASTM D6130	0	2	<1	0
IronppmASTM D6130>150213AluminumppmASTM D6130>100<12CopperppmASTM D6130>10344LeadppmASTM D6130>100<10TinppmASTM D6130>100<10ZincppmASTM D6130>100<11CONTAMINANTSmethodlimit/basecurrenthistory1history2ChlorineppmASTM D613011313CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D6130-341425188SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130-11<1		Molybdenum	ppm	ASTM D6130	950	1066	1200	1189
AluminumppmASTM D6130>100<1		CORROSION		method	limit/base	current	history1	history2
CopperppmASTM D6130>10344LeadppmASTM D6130>100<1		Iron	ppm	ASTM D6130	>15	0	2	13
LeadppmASTM D6130>100<1		Aluminum	ppm	ASTM D6130	>10	0	<1	2
TinppmASTM D6130>100<1		Copper	ppm	ASTM D6130	>10	3	4	4
ZincppmASTM D6130011CONTAMINANTSmethodlimit/basecurrenthistory1history2ChlorineppmASTM D6130152713CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D6130565458272754PotassiumppmASTM D6130341425188SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130<11<1		Lead	ppm	ASTM D6130	>10	0	<1	0
CONTAMINANTSmethodlimit/basecurrenthistory1history2ChlorineppmASTM D6130152713CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D6130565458272754PotassiumppmASTM D6130341425188SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130<11<1		Tin	ppm	ASTM D6130	>10	0	<1	0
ChlorineppmASTM D6130152713CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D6130565458272754PotassiumppmASTM D6130341425188SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130<11<1		Zinc	ppm	ASTM D6130		0	1	1
CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D6130565458272754PotassiumppmASTM D6130341425188SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130<11<1		CONTAMINANTS	6	method	limit/base	current	history1	history2
SodiumppmASTM D6130565458272754PotassiumppmASTM D6130341425188SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130<1		Chlorine	ppm	ASTM D6130		15	27	13
PotassiumppmASTM D6130341425188SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130<11<1		CARRIER SALTS	3	method	limit/base	current	,	history2
SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130<11<1		Sodium	ppm	ASTM D6130		5654	5827	2754
Calcium ppm ASTM D6130 <1		Potassium	ppm	ASTM D6130		341	425	188
been been been been been been been been		SCALE POTENT	IAL	method	limit/base	current	history1	history2
Magnesium ppm ASTM D6130 <1		Calcium	ppm	ASTM D6130		<1	1	<1
		Magnesium	ppm	ASTM D6130		<1	<1	<1

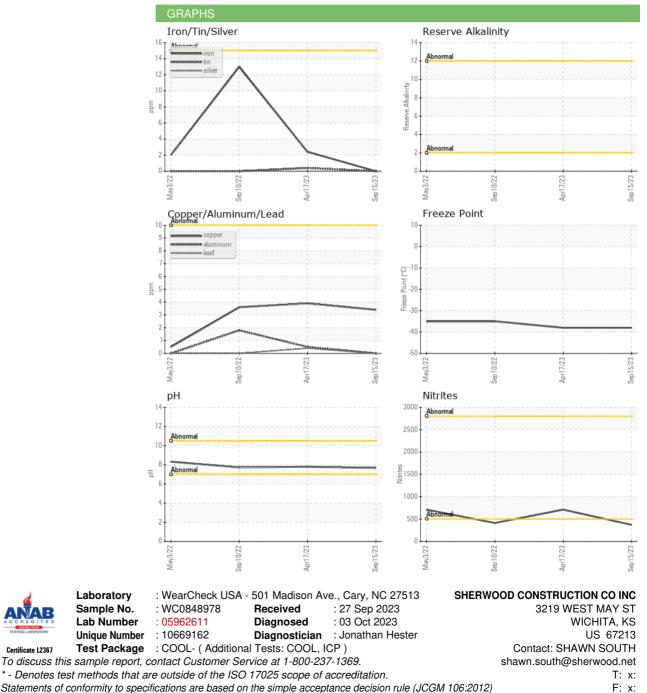
74.30 [OKLAHOMA^102] Coolant Fluid



COOLANT REPORT







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

Page 2 of 2