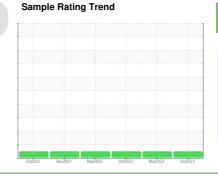
## **COOLANT REPORT**

## Area COLORADO/443/EG - LOADER Machine Id 45.52L [COLORADO^443^EG - LOADER] Component Coolant





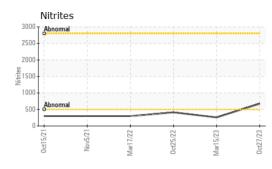
NORMAL

## Fluid CAT EXTENDED LIFE COOLANT (ELC) (9 GAL)

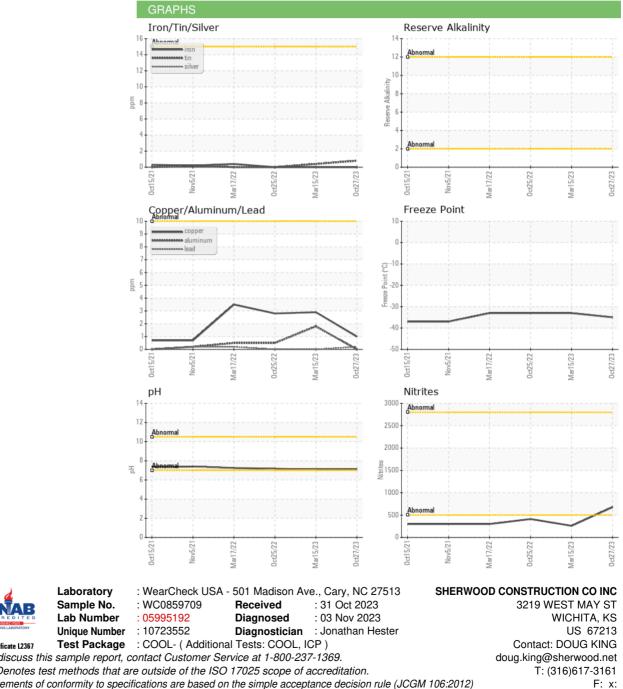
Recommendation   Sample Number   Client Info   WC0768709   WC076159   WC074970     The ful is suitable for further service.   Sample Date   Client Info   4065   3220   2750     All metal levels are normal indicating no corosing in the cooling system.   Old Age   hrs   Client Info   4065   3220   2750     Contaminants   There is no indication of any contamination in the coolent.   Sample Status   Immethane   NORMAL	DIAGNOSIS	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Corrosion Machine Age hrs Client Info 4065 3220 2750   All metal levels are normal indicating no corrosion Oil Age hrs Client Info No Changd 2750   Contaminants There is no indication of any contamination in the cooling system. No RMAL <th>Recommendation</th> <th>Sample Number</th> <th></th> <th>Client Info</th> <th></th> <th>WC0859709</th> <th>WC0766159</th> <th>WC0749970</th>	Recommendation	Sample Number		Client Info		WC0859709	WC0766159	WC0749970
All metal levels are normal indicating no corrosion in the cooling system. Oil Age hrs Client Info M065 3220 2750   Contaminants Not Changd Not Shat Not Shat<	The fluid is suitable for further service.	Sample Date		Client Info		27 Oct 2023	15 Mar 2023	25 Oct 2022
in the cooling system: Not Changed Not C	Corrosion	Machine Age	hrs	Client Info		4065		
Sample Status NORMAL NORMAL NORMAL NORMAL   There is no indication of any contamination in the colorant. PHYSICAL TEST RESULTS method Imit/base current history1 history2   Specific Gravity 'ASTM D1287 7.12 7.09 7.17   Reserve Atkalinity Swelf Mi ATM D1287 5.07 49.9 49.7   Norentage Gravity 'KATM D1287 5.07 49.9 49.7   Reserve Atkalinity Swelf Mi ATM D1321 50.7 49.9 49.7   Reserve Atkalinity Swelf Mi ATM D1321 50.7 49.9 49.7   Carboxylate 'F ASTM D1321 50.7 49.9 49.7   Carboxylate 'Stat D1332 -35 33.4 33.0 33.0   Total Dissolved Solidis -	All metal levels are normal indicating no corrosion	Oil Age	hrs	Client Info		4065	3220	2750
PHYSICAL TEST RESULTS   method   imit/base   current   history1   history2     Coolant Condition   Giyool and nitrite levels are acceptable. The pH level of this fluid is within the acceptable limits.   Specific Gravity   'ASTM D1237   T.068   1.067   1.067     PH   Specific Gravity   'ASTM D1237   T.12   7.09   7.17     Reserve Alkalinity   Specific Gravity   'ASTM D1237        Percentage Glycol   %   ASTM D1321          Percentage Glycol   %   ASTM D1321          Percentage Glycol   %   ASTM D1321	in the cooling system.	Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Coolant.   PHYSIAL TEST RESOLTS   method   immtobase   current   instory1   instory2     Specific Gravity   'ASTM Di280   1.068   1.067   1.067     Glycol and nitrite levels are acceptable limits.   'PH   Sale 01   ASTM Di287   7.12   7.09   7.17     By eventage Glycol and nitrite levels are acceptable limits.   'PH   Sale 020   'ASTM Di287   7.12   7.09   7.17     Nitrites   ppm   AP-0532009   676   260   412     Percentage Glycol %   ASTM Di287   50.7   49.9   49.7     Freezing Point   'FF   ASTM D3321   -35   -33   33     Total Dissolved Solids   Sale 01   fail   pass   pass     CORROSION INHEITORS   method   imit/base   current   history1   history2     Silicon   ppm   ASTM D6130   0   1   3   3     OCRROSION   method   imit/base   current   history1   history2     Iron   ppm   ASTM D61	Contaminants	Sample Status				NORMAL	NORMAL	NORMAL
Correction of initial elawels are acceptable. The pH level of this fluid is within the acceptable limits.   pH   Scale 041   ASTM D1227   7.12   7.09   7.17     Reserve Alkalinity   Scale 041   ASTM D1227        Percentage Glycol   % ASTM D1227         Percentage Glycol   % ASTM D3221         Percentage Glycol   % ASTM D3221        Percentage Glycol   % ASTM D5321	2	PHYSICAL TEST F	RESULTS	s method	limit/base	current	history1	history2
Bit of this fluid is within the acceptable limits.   Nitrites   ppm   AP-0532009   676   260   412     Reserve Alkalinity   Scale 200   %5   ASTM D1121        Percentage Glycol   %   ASTM D3321   50.7   49.9   49.7     Precering Point   *F   ASTM D3321   -33   -33   -33     Total Dissolved Solids    fall   pass   pass   pass     CORROSION INHIBITORS   method   imit/base   current   history1   history2     Silicon   ppm   ASTM D6130   0   12   40   39     Phosphorus   ppm   ASTM D6130   0   10   0   11   1065     CORROSION   ppm   ASTM D6130   0   0   0   1111   1065     Copper   ppm   ASTM D6130   50   0   0   1   3     Lead   ppm   ASTM D6130   10   1   3   3     Lea	Coolant Condition	Specific Gravity		*ASTM D1298		1.068	1.067	1.067
Reserve Alkalinity Scale 020 *ASTM D1121      Percentage Glycol % ASTM D3221 50.7 49.9 49.7   Freezing Point °F ASTM D3221 -35 -33 -33   Total Dissolved Solids  fail pass pass   CORROSION INHIBITORS method limit/base current history2   Silicon ppm ASTM D6130 0 12 40.0 39   Phosphorus ppm ASTM D6130 0 12 40.0 39   Boron ppm ASTM D6130 0 8 10 0   Boron ppm ASTM D6130 950 600 1111 1065   CORROSION method imit/base current history2 <1   Iron ppm ASTM D6130 >10 0 2 <1   Copper ppm ASTM D6130 >10 1 3 3   Lead ppm ASTM D6130 >10 <1 0 0	Glycol and nitrite levels are acceptable. The pH	рН	Scale 0-14	ASTM D1287		7.12	7.09	7.17
Percentage Glycol% Freezing PointFF FFASTM D332150,749.949.7Freezing Point°FASTM D3321-33	level of this fluid is within the acceptable limits.	Nitrites	ppm	AP-053:2009		676	260	412
Freezing Point °F ASTM D3321 -35 -33 -33   Total Dissolved Solids 348.5 364.0 382.0   Carboxylate Imit Dass fail pass pass   CORROSION INHIBITORS Imit/bass current history1 history2   Silicon ppm ASTM D6130 0 12 40 39   Phosphorus ppm ASTM D6130 0 0 0 <1 1065   Boron ppm ASTM D6130 0 0 0 <1 1065   CORROSION ppm ASTM D6130 0 0 <1 1111 1065   CORROSION ppm ASTM D6130 >15 0 0 <1 1   Iron ppm ASTM D6130 >10 1 3 3 3   Lead ppm ASTM D6130 >10 <1 <1 0 0   Zinc ppm ASTM D6130 >10 <1 <1 20 20   Chorine ppm ASTM D6130 10		Reserve Alkalinity	Scale 0-20	*ASTM D1121				
Total Dissolved Solids348.5364.0382.0CarboxylateIIfailpasspassCORROSION INHIBITORSmethodimit/basecurrenthistory1history2SiliconppmASTM D61300124039PhosphorusppmASTM D613008100BoronppmASTM D61300600111111065CORROSIONmethodimit/basecurrenthistory1history2IronppmASTM D6130>15000AluminumppmASTM D6130>10133LeadppmASTM D6130>10136CONTAMINANTSmethodimit/basecurrenthistory1history2ChorineppmASTM D6130>101486CONTAMINANTSmethodimit/basecurrenthistory1history2ChorineppmASTM D6130171220CARRIER SALTSmethodimit/basecurrenthistory1history2SodiumppmASTM D61306651409121121SCALE POTENTILImethodimit/basecurrenthistory1history2CalciumppmASTM D613066514091221		Percentage Glycol		ASTM D3321		50.7	49.9	49.7
CarboxylateImilpasspassCORROSION INHIBITORSnethodimil/basecurrenthistory1SiliconppASTM D61300124039PhosphorusppmASTM D613008100BoronppmASTM D6130000<1MolybdenumppmASTM D613095060011111065CORROSIONnethod1mil/basecurrenthistory1history2IronppmASTM D6130>1002<1CoppeppmASTM D6130>10133LeadppmASTM D6130>10<100TinppmASTM D6130>10<136CONTAMINANTSmethod1mil/basecurrenthistory1history2ChlorineppmASTM D6130>10<1202CARRIER SALTSmethod1mil/basecurrenthistory1history2SodiumppmASTM D6130506651409121SCALE POTENTI-Lmethod1mil/basecurrenthistory1history2CalciumppmASTM D61305066514091221ScalueppmASTM D61305066514091221ScalueppmASTM D613066514091221ScalueppmASTM D613066514091221Scalueppm <th></th> <th>Freezing Point</th> <th>°F</th> <th>ASTM D3321</th> <th></th> <th>-35</th> <th>-33</th> <th>-33</th>		Freezing Point	°F	ASTM D3321		-35	-33	-33
CORROSION INHIBITORS methodSiliconppmASTM D61300124039PhosphorusppmASTM D613008100BoronppmASTM D6130000<		Total Dissolved Solids				348.5	364.0	382.0
SiliconppmASTM D61300124039PhosphorusppmASTM D613008100BoronppmASTM D6130000<1MolybdenumppmASTM D613095060011111065CORROSIONmethodlimit/basecurrenthistory1history2IronppmASTM D6130>150000AluminumppmASTM D6130>101333LeadppmASTM D6130>1013336ZincppmASTM D6130>10<1<100ZincppmASTM D6130>10<1202020CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D61301364857585000PotassiumppmASTM D6130G6514091221SCALE POTENTILImethodlimit/basecurrenthistory1history2CalciumppmASTM D6130G6514091221ScalueppmASTM D6130G6514091221ScalueppmASTM D6130G6514091221ScalueppmASTM D6130G6514091221ScalueppmASTM D6130G6514091221ScalueppmASTM D6130G6514091		Carboxylate				fail	pass	pass
Phosphorus   ppm   ASTM D6130   0   8   10   0     Boron   ppm   ASTM D6130   0   0   0   <1     Molybdenum   ppm   ASTM D6130   950   600   1111   1065     CORROSION   method   limit/base   current   history1   history2     Iron   ppm   ASTM D6130   >15   0   0   0     Aluminum   ppm   ASTM D6130   >10   1   3   3     Lead   ppm   ASTM D6130   >10   <1   0   0     Zinc   ppm   ASTM D6130   >10   <1   0   0     CONTAMINANTS   method   limit/base   current   history1   history2     Chlorine   ppm   ASTM D6130   >10   <1   0   20     CARRIER SALTS   method   limit/base   current   history1   history2     Sodium   ppm   ASTM D6130   G655   1409 <t< th=""><th></th><th>CORROSION INH</th><th>IIBITORS</th><th>s method</th><th>limit/base</th><th>current</th><th>history1</th><th>history2</th></t<>		CORROSION INH	IIBITORS	s method	limit/base	current	history1	history2
BoronppmASTM D6130000<1		Silicon	ppm	ASTM D6130	0	12	40	39
MolybdenumppmASTM D613095060011111065CORROSIONmethodlimit/basecurrenthistory1history2IronppmASTM D6130>15000AluminumppmASTM D6130>1002<1CopperppmASTM D6130>10133LeadppmASTM D6130>10<100TinppmASTM D6130>10<100TincppmASTM D6130>10<186CONTAMINANT>methodlimit/basecurrenthistory1history2ChlorineppmASTM D6130171220CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D6130364857585000PotassiumppmASTM D613066514091221SCALE POTENTI-Lmethodlimit/basecurrenthistory1history2CalciumppmASTM D61303322		Phosphorus	ppm	ASTM D6130	0	8	10	0
CORROSIONmethodlimit/basecurrenthistory1history2IronppmASTM D6130>15000AluminumppmASTM D6130>1002<1CopperppmASTM D6130>10133LeadppmASTM D6130>10<100TinppmASTM D6130>10<100TinppmASTM D6130>10<166CONTAMINANTSnethodlimit/basecurrenthistory1history2ChorineppmASTM D61301771220CARRIER SALTSnethodlimit/basecurrenthistory1history2SodiumppmASTM D6130364857585000PotassiumppmASTM D613066514091221SCALE POTENTI-Lnethodlimit/basecurrenthistory1history2CalciumppmASTM D6130364857585000PotassiumppmASTM D6130364857585000CalciumppmASTM D6130364857585000CalciumppmASTM D6130364857585000SCALE POTENTI-Lnethodlimit/basecurrenthistory1history2CalciumppmASTM D61303322		Boron	ppm	ASTM D6130	0	0	0	<1
IronppmASTM D6130>15000AluminumppmASTM D6130>1002<1CopperppmASTM D6130>10133LeadppmASTM D6130>10<100TinppmASTM D6130>10<1<10ZincppmASTM D6130>10<1<10ZincppmASTM D6130<1486CONTAMINANTSmethodlimit/basecurrenthistory1history2ChlorineppmASTM D6130171220CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D6130364857585000PotassiumppmASTM D613066514091221SCALE POTENTI-Lmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130332		Molybdenum	ppm	ASTM D6130	950	600	1111	1065
Aluminumpm pmASTM D6130>1002<1		CORROSION		method	limit/base	current	history1	history2
CopperppmASTM D6130>10133LeadppmASTM D6130>10<1		Iron	ppm	ASTM D6130	>15	0	0	0
LeadppmASTM D6130>10<1		Aluminum	ppm	ASTM D6130	>10	0	2	<1
TinppmASTM D6130>10<1		Copper	ppm	ASTM D6130	>10	1	3	3
ZincppmASTM D61301486CONTAMINANTSmethodlimit/basecurrenthistory1history2ChlorineppmASTM D6130171220CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D6130364857585000PotassiumppmASTM D613066514091221SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130332		Lead	ppm	ASTM D6130	>10	<1	0	0
CONTAMINANTSmethodlimit/basecurrenthistory1history2ChlorineppmASTM D6130171220CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D6130364857585000PotassiumppmASTM D613066514091221SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130332		Tin	ppm	ASTM D6130	>10	<1	<1	0
ChlorineppmASTM D6130171220CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D6130364857585000PotassiumppmASTM D613066514091221SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130332		Zinc	ppm	ASTM D6130		14	8	6
CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D6130364857585000PotassiumppmASTM D613066514091221SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130332		CONTAMINANTS	\$	method	limit/base	current	history1	history2
SodiumppmASTM D6130364857585000PotassiumppmASTM D613066514091221SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130332		Chlorine	ppm	ASTM D6130		17	12	20
PotassiumppmASTM D613066514091221SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130332			3		limit/base	current	· · · · ·	
SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130332		Sodium	ppm	ASTM D6130		3648	5758	5000
Calcium   ppm   ASTM D6130   3   3   2		Potassium	ppm	ASTM D6130		665	1409	1221
		SCALE POTENT	IAL	method	limit/base	current	history1	history2
		Calcium	ppm	ASTM D6130		3	3	2
		Magnesium		ASTM D6130		<1	0	



## **COOLANT REPORT**









Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)