



CATERPILLAR 299D3 5123

Component Hydraulic System Fluid TRACTOR HYD (--- QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

The iron level is marginal.

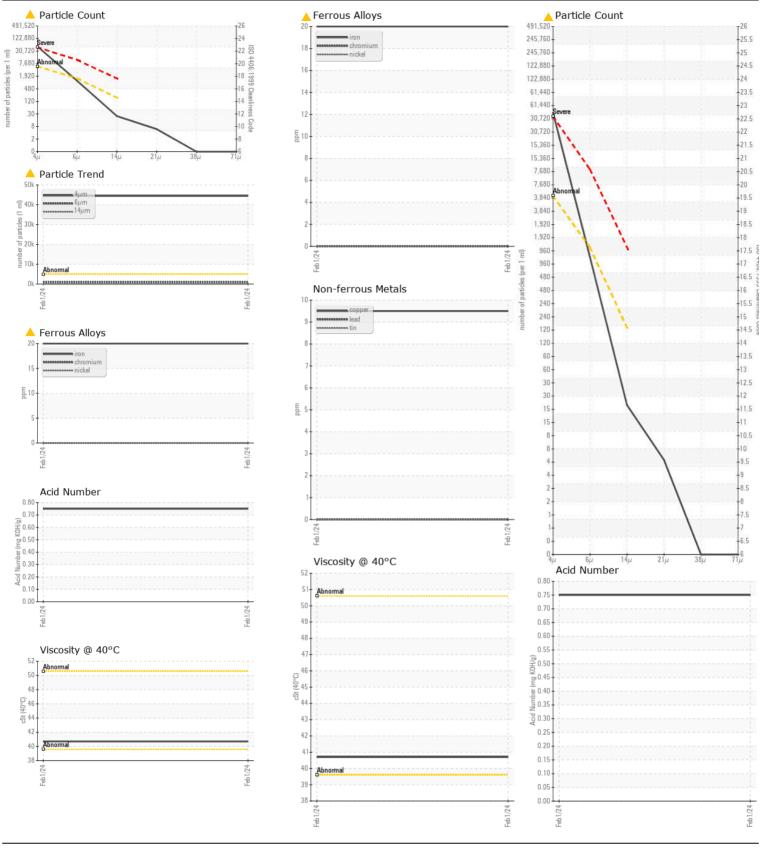
CONTAMINATION

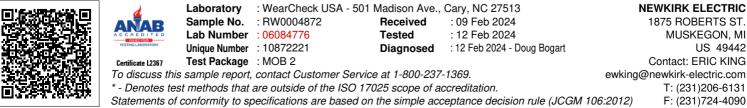
There is a high amount of silt (particulates < 6 microns in size) present in the oil.

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Test UOM Method Limit/An Current History1 History2 Sample Number Client Info 0 Feb 202 Machine Age hrs Client Info 744 Machine Age hrs Client Info 744 Filter Age hrs Client Info 744 Oil Changed Client Info Changed Sample Status ASTM D5185m<>-20 Changed Iron ppm ASTM D5185m<>-10 0 Nickel ppm ASTM D5185m<>-10 0 Aluminum pm ASTM D5185m >10 0 Aluminum ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m 20 0							
Sample Date Client Info 01 Feb 2024 Machine Age hrs Client Info 744 Oil Age hrs Client Info 744 Filter Age hrs Client Info 744 Gil Changed Client Info Changed Sample Status SiMo 5185m >20 Iron ppm ASTM 55185m >10 0 Nickel ppm ASTM 55185m 10 0 Silver ppm ASTM 55185m 10 Lead ppm ASTM 55185m >10 0 Vanadium ppm ASTM 55185m >10 0 Vanadium ppm ASTM 55185m >20 0 Vanadium ppm ASTM 55185		UOM		Limit/Abn		History1	History2
Machine Age hrs Client Info 744 Cil Age hrs Client Info 744 Filter Age hrs Client Info 744 Cil Changed Client Info Changed Sample Status ABNORMAL Iron ppm ASTM D5185m >20 ▲ 20 Nickel ppm ASTM D5185m 10 0 Silver ppm ASTM D5185m 10 0 Copper ppm ASTM D5185m 10 -1 Tin ppm ASTM D5185m 10 0 Vanadium ppm ASTM D5185m 20 0 Yellow Metal scalar Yuisual NONE NONE Yellow Metal scalar <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<>							
Oil Age hrs Client Info 744 Filter Age hrs Client Info 744 Oil Changed Client Info Changed Filter Changed Client Info Changed Sample Status ASTM D5185m >20 A 20 Iron ppm ASTM D5185m >10 0 Nickel ppm ASTM D5185m >10 0 Aluminum ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >20 0 Vanadium ppm ASTM D5185m >20 0							
Filter Age hrs Client Info 744 Cil Changed Client Info Changed Sample Status ASTM D5185m >20 Iron ppm ASTM D5185m >10 0 Chromium ppm ASTM D5185m >10 0 Nickel ppm ASTM D5185m 10 0 Silver ppm ASTM D5185m 10 0 Aluminum ppm ASTM D5185m 510 0 Vanadium ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >20 2 Vanadium ppm ASTM D5185m >20 0	Ũ	-					
Oil Changed Client Info Changed Filter Changed Client Info Changed Sample Status ABNORMAL Iron ppm ASTM D5185m >20 Nickel ppm ASTM D5185m 0 Nickel ppm ASTM D5185m 0 Silver ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m 0 Auminum ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >20 0 Vanadium ppm ASTM D5185m >20 2 Vellow Metal scalar *Visual NONE NONE Silicon ppm ASTM D7647 >500 0 <t< th=""><th>Ū</th><th></th><th></th><th></th><th></th><th></th><th></th></t<>	Ū						
Filter Changed Sample Status Client Info Changed ABNORMAL Iron ppm ASTM D5185m >20 Iron ppm ASTM D5185m >10 0 Nickel ppm ASTM D5185m 0 0 Nickel ppm ASTM D5185m 0 0 Aluminum ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >20 0 Vallow Metal scalar *Visual NONE NONE Silicon ppm ASTM D5185m >20 0 Particles >4µm ASTM D7647 >100	J	hrs					
Sample Status ABNORMAL Iron ppm ASTM D5185m<>20 ▲ 20 Chromium ppm ASTM D5185m<>10 0 Nickel ppm ASTM D5185m 0 Silver ppm ASTM D5185m 0 Silver ppm ASTM D5185m 0 Lead ppm ASTM D5185m >10 Lead ppm ASTM D5185m >10 Vanadium ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >20 0 Vanadium ppm ASTM D5185m >20 0 Valate scalar *Visual NONE NONE Particles >4µm ASTM D7647 >100 <t< th=""><th></th><th></th><th></th><th></th><th>•</th><th></th><th></th></t<>					•		
Iron ppm ASTM D5185m >20 ▲ 20 Chromium ppm ASTM D5185m >10 0 Nickel ppm ASTM D5185m >10 0 Titanium ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m >10 0 Lead ppm ASTM D5185m >10 0 Copper ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >20 0 Yellow Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Yellow Metal scalar *IM D7647	J J		Client Info		-		
Chromium ppm ASTM D5185m >10 0 Nickel ppm ASTM D5185m 0 0 Titanium ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m 10 <1 Aluminum ppm ASTM D5185m >10 0 Lead ppm ASTM D5185m >10 0 Copper ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m 0 0 Yellow Metal scalar *Visual NONE Yellow Metal scalar *Visual NONE 0 Particles >4µm ASTM D5185m >20 0 Particles >4µm ASTM D7647 >1300 1010 Particles >38µm ASTM D7647	Sample Status				ABNORMAL		
Chromium ppm ASTM D5185m >10 0 Nickel ppm ASTM D5185m 0 0 Titanium ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m 10 <1 Aluminum ppm ASTM D5185m >10 0 Lead ppm ASTM D5185m >10 0 Copper ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m 0 0 Yellow Metal scalar *Visual NONE Yellow Metal scalar *Visual NONE 0 Particles >4µm ASTM D5185m >20 0 Particles >4µm ASTM D7647 >1300 1010 Particles >38µm ASTM D7647	Iron	nnm	ASTM D5185m	>20	A 20		
Nickel ppm ASTM D5185m >10 0 Titanium ppm ASTM D5185m 0 Silver ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m >10 0 Lead ppm ASTM D5185m >75 10 Copper ppm ASTM D5185m 0 0 Vanadium ppm ASTM D5185m 0 0 Vanadium ppm ASTM D5185m >20 2 Vanadium ppm ASTM D5185m >20 2 Vellow Metal scalar *Visual NONE Silicon ppm ASTM D7647 >20 2 Particles >4µm ASTM D7647 >100 0 </th <th>-</th> <th></th> <th></th> <th></th> <th>-</th> <th></th> <th></th>	-				-		
Titanium ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m 10 <1 Aluminum ppm ASTM D5185m >10 0 Lead ppm ASTM D5185m >10 0 Copper ppm ASTM D5185m 0 0 Vanadium ppm ASTM D5185m 0 0 Vanadium ppm ASTM D5185m 0 0 Vanadium ppm ASTM D5185m 20 0 Yellow Metal scalar "Visual NONE Patricles >4µm ASTM D7647 >20 0 Particles >14µm ASTM D7647 >30 Particles >4µm ASTM D7647 >3 0 <					-		
Silver ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m<>10 <1 Lead ppm ASTM D5185m<>10 0 Copper ppm ASTM D5185m<>75 10 Yanadium ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >20 0 Yellow Metal scalar *Visual NONE NONE Potassium ppm ASTM D5185m<>20 0 Particles >4µm ASTM D7647 >5000 ▲ 44448 Particles >4µm ASTM D7647 >10 0 Particles >71µm ASTM D7647 >3 0 <t< th=""><th></th><th></th><th></th><th>210</th><th>-</th><th></th><th></th></t<>				210	-		
Aluminum ppm ASTM D5185m >10 <1					-		
Lead ppm ASTM D5185m >10 0 Copper ppm ASTM D5185m >75 10 Tin ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >10 0 White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Silicon ppm ASTM D5185m >20 0 Water WC Method >0.1 NEG Particles >4µm ASTM D7647 >100 Particles >4µm ASTM D7647 >100 1010 Particles >14µm ASTM D7647 >10 0 Particles >21µm ASTM D7647 >10 0 Particl				>10	-		
Copper ppm ASTM D5185m >75 10 Tin ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m 0 White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Silicon ppm ASTM D5185m<>20 2 Potassium ppm ASTM D5185m<>20 0 Water WC Method >0.1 NEG Particles >4µm ASTM D7647 >100 1010 Particles >21µm ASTM D7647 >40 5 Particles >21µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/1714 A 23/17/12							
Tin ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m 0 White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE Potassium ppm ASTM D5185m >20 0 Water WC Method >0.1 NEG Particles >4µm ASTM D7647 >100 Particles >4µm ASTM D7647 >10 0 Particles >21µm ASTM D7647 >10 0 Particles >21µm ASTM D7647 >0 0 Particles >21µm ASTM D7647 >3 0					-		
Vanadium ppm ASTM D5185m 0 White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Silicon ppm ASTM D5185m<>20 0 Potassium ppm ASTM D5185m<>20 0 Patticles >4µm ASTM D7647 >5000 A 44448 Particles >6µm ASTM D7647 >100 Particles >4µm ASTM D7647 >10 0 Particles >1µm ASTM D7647 >10 0 Particles >38µm ASTM D7647 >30 0 Particles >71µm ASTM D7647 >30 0 Silt Scalar *Visual NONE NONE Sodt06 (c)					-		
White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Silicon ppm ASTM D5185m >20 0 Potassium ppm ASTM D5185m >20 0 Water WC Method >0.1 NEG Particles >4µm ASTM D7647 >100 Particles >14µm ASTM D7647 >100 1010 Particles >14µm ASTM D7647 >10 0 Particles >38µm ASTM D7647 >10 0 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >1917/14 23/17/12 Silt scalar *Visual NONE NONE Debris scalar *Visual	Vanadium		ASTM D5185m	-	-		
Silicon ppm ASTM D5185m >20 2 Potassium ppm ASTM D5185m >20 0 Water WC Method >0.1 NEG Particles >4µm ASTM D7647 >5000 ▲ 44448 Particles >6µm ASTM D7647 >100 Particles >14µm ASTM D7647 >100 21 Particles >38µm ASTM D7647 >10 0 Particles >71µm ASTM D7647 >10 0 Particles >71µm ASTM D7647 >10 0 Soli Cleanliness ISO 4406 (c) >19/17/14 23/17/12 Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML				NONE	NONE		
Potassium ppm ASTM D5185m >20 0 Water WC Method >0.1 NEG Particles >4µm ASTM D7647 >5000 ▲ 44448 Particles >6µm ASTM D7647 >100 Particles >14µm ASTM D7647 >160 21 Particles >21µm ASTM D7647 >10 0 Particles >38µm ASTM D7647 >10 0 Particles >71µm ASTM D7647 >3 0 Particles >71µm ASTM D7647 >3 0 Silt scalar *Visual NONE NONE Silt scalar *Visual NORM NORM Appearance scalar *Visual NORM NORM	Yellow Metal	scalar	*Visual	NONE	NONE		
Potassium ppm ASTM D5185m >20 0 Water WC Method >0.1 NEG Particles >4µm ASTM D7647 >5000 ▲ 44448 Particles >6µm ASTM D7647 >100 Particles >14µm ASTM D7647 >160 21 Particles >21µm ASTM D7647 >10 0 Particles >38µm ASTM D7647 >10 0 Particles >71µm ASTM D7647 >3 0 Particles >71µm ASTM D7647 >3 0 Silt scalar *Visual NONE NONE Silt scalar *Visual NORM NORM Appearance scalar *Visual NORM NORM							
Water WC Method >0.1 NEG Particles >4µm ASTM D7647 >5000 ▲ 44448 Particles >6µm ASTM D7647 >1300 1010 Particles >51µm ASTM D7647 >160 21 Particles >21µm ASTM D7647 >40 5 Particles >71µm ASTM D7647 >3 0 Particles >71µm ASTM D7647 >3 0 Silt scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Sand/Dirt scalar *Visual NORM NORML Appearance scalar *Visual NORM NORML Godo scalar *Visual NORM NORML <th>Silicon</th> <th>ppm</th> <th></th> <th></th> <th></th> <th></th> <th></th>	Silicon	ppm					
Particles >4µm ASTM 07647 >5000 ▲ 44448 Particles >6µm ASTM 07647 >1300 1010 Particles >14µm ASTM 07647 >160 21 Particles >21µm ASTM 07647 >40 5 Particles >21µm ASTM 07647 >10 0 Particles >71µm ASTM 07647 >3 0 Particles >71µm ASTM 07647 >3 0 Silt scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Sand/Dirt scalar *Visual NORML NORML Appearance scalar *Visual NORML NORML Godo scalar *Visual NORML NORML <		ppm			-		
Particles >6µm ASTM D7647 >1300 1010 Particles >14µm ASTM D7647 >160 21 Particles >21µm ASTM D7647 >40 5 Particles >38µm ASTM D7647 >10 0 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >191714 23/17/12 Silt scalar *Visual NONE NONE Debris scalar *Visual NORM NORML Appearance scalar *Visual NORML NORML Godor scalar *Visual NORML NORML							
Particles >14µm ASTM D7647 >160 21 Particles >21µm ASTM D7647 >40 5 Particles >38µm ASTM D7647 >10 0 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 23/17/12 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Appearance scalar *Visual NORM NORML Appearance scalar *Visual NORM NORML Godor scalar *Visual NORM NORML Sodium ppm ASTM D5185m 2 Boron ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 0 <t< th=""><th></th><th></th><th></th><th></th><th>_</th><th></th><th></th></t<>					_		
Particles >21µm ASTM D7647 >40 5 Particles >38µm ASTM D7647 >10 0 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Agpearance scalar *Visual NORML NORML Sodium ppm ASTM D5185m 2 Boron ppm ASTM D5185m 0 Malganese ppm ASTM D5185m 0 <th>·</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	·						
Particles >38µm ASTM D7647 >10 0 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 23/17/12 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Molybdenum ppm ASTM D5185m 2 Barium ppm ASTM D5185m 0 Maganese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 2 Magnesium ppm ASTM D5185m 2							
Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 ▲ 23/17/12 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Sodium ppm ASTM D5185m 2 Boron ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Maganesium ppm ASTM D5185m 2 Magnesium ppm ASTM D5185m 2							
Oil Cleanliness ISO 4406 (c) >19/17/14 23/17/12 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Godor scalar *Visual >0.1 NEG Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Maganese ppm ASTM D5185m 2 Magnesium ppm ASTM D5185m					-		
Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLCdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m2BoronppmASTM D5185m0BariumppmASTM D5185m0MolybdenumppmASTM D5185m0MagnesiumppmASTM D5185m2MagnesiumppmASTM D5185m2PhosphorusppmASTM D5185m1188ZincppmASTM D5185m901SulfurppmASTM D5185m1741Acid Number (AN)mg KOHgASTM D80450.75	· ·				-		
Debrisscalar*VisualNONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m2BoronppmASTM D5185m0BariumppmASTM D5185m0MolybdenumppmASTM D5185m0MagnesiumppmASTM D5185m2PhosphorusppmASTM D5185m2ZincppmASTM D5185m188SulfurppmASTM D5185m901Acid Number (AN)mg KOHgASTM D5185m1741		a a a la v	()				
Sand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m2BoronppmASTM D5185m0BariumppmASTM D5185m0MolybdenumppmASTM D5185m0MagnesiumppmASTM D5185m1MagnesiumppmASTM D5185m2PhosphorusppmASTM D5185m188ZincppmASTM D5185m901SulfurppmASTM D5185m1741Acid Number (AN)mg KOHgASTM D80450.75					-		
Appearance scalar *Visual NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.1 NEG Sodium ppm ASTM D5185m 2 Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 2 Calcium ppm ASTM D5185m 0 Phosphorus ppm ASTM D5185m 2 Zinc ppm ASTM D5185m 188 Sulfur ppm ASTM D5185m 901 Sulfur ppm ASTM D5185m 901							
Odorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m2BoronppmASTM D5185m0BariumppmASTM D5185m0MolybdenumppmASTM D5185m0MagneseppmASTM D5185m0MagnesiumppmASTM D5185m2PhosphorusppmASTM D5185m188ZincppmASTM D5185m669SulfurppmASTM D5185m1741Acid Number (AN)mg KOHgASTM D80450.75					-		
Emulsified Water scalar *Visual >0.1 NEG Sodium ppm ASTM D5185m 2 Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Maganese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 2 Calcium ppm ASTM D5185m 2 Phosphorus ppm ASTM D5185m 188 Zinc ppm ASTM D5185m 901 Sulfur ppm ASTM D5185m 1741 Acid Number (AN) mg KOHg ASTM D8045 0.75					-		
Sodium ppm ASTM D5185m 2 Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m 2 Calcium ppm ASTM D5185m 188 Phosphorus ppm ASTM D5185m 669 Zinc ppm ASTM D5185m 901 Sulfur ppm ASTM D5185m 1741 Acid Number (AN) mg KOHg ASTM D8045 0.75							
Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Magnese ppm ASTM D5185m Magnesium ppm ASTM D5185m Calcium ppm ASTM D5185m 2 Phosphorus ppm ASTM D5185m 188 Zinc ppm ASTM D5185m 669 Sulfur ppm ASTM D5185m 901 Acid Number (AN) mg KOH/g ASTM D8045 0.75		Sudiai	visual	20.1	NEG		
Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Manganese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m c1 Calcium ppm ASTM D5185m 2 Phosphorus ppm ASTM D5185m 669 Zinc ppm ASTM D5185m 901 Sulfur ppm ASTM D5185m 1741 Acid Number (AN) mg KOHg ASTM D8045 0.75	Sodium	ppm	ASTM D5185m		2		
Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Manganese ppm ASTM D5185m c1 Magnesium ppm ASTM D5185m 2 Calcium ppm ASTM D5185m 188 Phosphorus ppm ASTM D5185m 669 Zinc ppm ASTM D5185m 901 Sulfur ppm ASTM D5185m 1741 Acid Number (AN) mg KOHg ASTM D8045 0.75	Boron				0		
Manganese ppm ASTM D5185m <1	Barium		ASTM D5185m		0		
Manganese ppm ASTM D5185m <1	Molybdenum	ppm	ASTM D5185m		0		
Calcium ppm ASTM D5185m 188 Phosphorus ppm ASTM D5185m 669 Zinc ppm ASTM D5185m 901 Sulfur ppm ASTM D5185m 1741 Acid Number (AN) mg KOH/g ASTM D8045 0.75		ppm	ASTM D5185m		<1		
Phosphorus ppm ASTM D5185m 669 Zinc ppm ASTM D5185m 901 Sulfur ppm ASTM D5185m 1741 Acid Number (AN) mg KOH/g ASTM D8045 0.75	Magnesium	ppm	ASTM D5185m		2		
Zinc ppm ASTM D5185m 901 Sulfur ppm ASTM D5185m 1741 Acid Number (AN) mg KOH/g ASTM D8045 0.75	Calcium	ppm	ASTM D5185m		188		
Sulfur ppm ASTM D5185m 1741 Acid Number (AN) mg KOH/g ASTM D8045 0.75	Phosphorus	ppm	ASTM D5185m		669		
Acid Number (AN) mg KOH/g ASTM D8045 0.75	Zinc	ppm			901		
	Sulfur	ppm	ASTM D5185m		1741		
Visc @ 40°C cSt ASTM D445 40.7					0.75		
	Visc @ 40°C	cSt	ASTM D445		40.7		





Contact/Location: ERIC KING - NEWMUS