

JOHN DEERE 331G 1T0331GKLNF424449

Hydraulic System

{not provided} (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

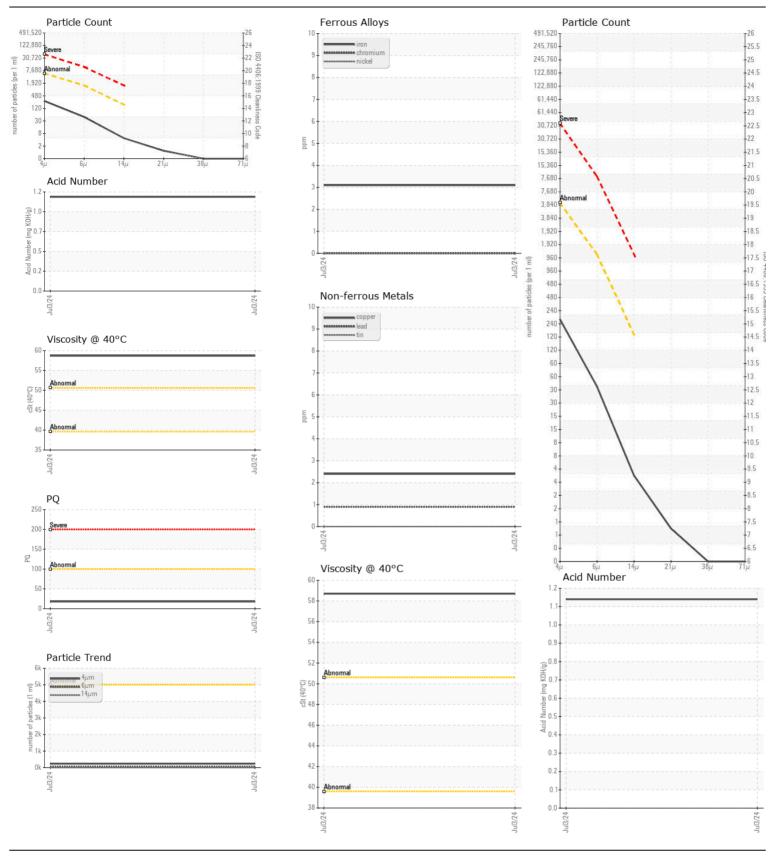
CONTAMINATION

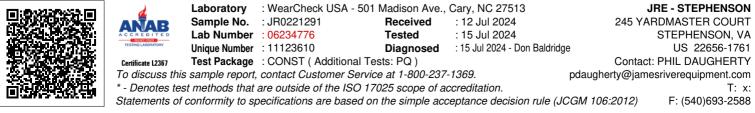
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

FLUID CONDITION

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

Test UOM Method Limit/abs Current History1 History2 Sample Dumber Client Info 0 JR0221291 Machine Age hrs Client Info 0 Oil Age hrs Client Info 0 Oil Changed Client Info 0 Sample Status Client Info Not Changed Filter Age hrs Client Info Not Changed Sample Status Vision 10 PQ ASTM D8185 >10 0 Iron ppm ASTM D5185 >10 0 Silver ppm ASTM D5185 >10 0 Silver ppm ASTM D5185 >10 0 Silver ppm ASTM D5185 <							
Sample Date Client Info 03 Jul 2024 Machine Age hrs Client Info 0 Oil Age hrs Client Info 0 Oil Changed Client Info 0 Oil Changed Client Info Not Changed Filter Changed Client Info Not Changed Sample Status NRM PQ ASTM D5185m<>10 0 Chromium ppm ASTM D5185m<>10 0 Silver ppm ASTM D5185m<>10 0 Silver ppm ASTM D5185m<>75 2 Vanadium ppm ASTM D5185m<>20 4 Yellow Metal scalar Yisual NONE	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine Age Oil Age Filter Age hrs Nrs Client Info 559 Filter Age Oil Changed Client Info 0 Sample Status Client Info Not Changed Sample Status NORMAL PQ ASTM D8184 18 PC ASTM D8185m<>20 3 Norein ppm ASTM D8185m<>10 0 Nickel ppm ASTM D5185m< 0 Nickel ppm ASTM D5185m< 0 0 Aluminum ppm ASTM D5185m 10 0 Vanadium ppm ASTM D5185m 10 0 Vanadium ppm ASTM D5185m 20 4 Veladu scalar *Visual NONE <th>Sample Number</th> <th></th> <th>Client Info</th> <th></th> <th>JR0221291</th> <th></th> <th></th>	Sample Number		Client Info		JR0221291		
Machine Age Oil Age Filter Age hrs Nrs Client Info 559 Filter Age Oil Changed Client Info 0 Sample Status Client Info Not Changed Sample Status NORMAL PQ ASTM D8184 18 PC ASTM D8185m<>20 3 Norein ppm ASTM D8185m<>10 0 Nickel ppm ASTM D5185m< 0 Nickel ppm ASTM D5185m< 0 0 Aluminum ppm ASTM D5185m 10 0 Vanadium ppm ASTM D5185m 10 0 Vanadium ppm ASTM D5185m 20 4 Veladu scalar *Visual NONE <th>Sample Date</th> <th></th> <th>Client Info</th> <th></th> <th>03 Jul 2024</th> <th></th> <th></th>	Sample Date		Client Info		03 Jul 2024		
Filter Åge hrs Client Info 0 Oli Changed Client Info Not Changed Filter Changed Client Info Nor Changed Sample Status NORMAL PQ ASTM D8185m >20 3 Chromium ppm ASTM D5185m >10 0 Nickel ppm ASTM D5185m >10 0 Aluminum ppm ASTM D5185m 10 0 Itanium ppm ASTM D5185m 10 0 Aluminum ppm ASTM D5185m 10 0 Vanadum ppm ASTM D5185m 20 4 Vellow Metal scalar *Visual NONE NONE Vellow Metal scalar *V	Machine Age	hrs	Client Info		559		
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Filter Changed Sample Status Client Info Changed NORMAL PQ ASTM D8184 18 Iron ppm ASTM D5185m >20 3 Nickel ppm ASTM D5185m >10 0 Nickel ppm ASTM D5185m 0 Nickel ppm ASTM D5185m 0 Nickel ppm ASTM D5185m 10 0 Aluminum ppm ASTM D5185m >10 0 Copper ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >10 0 Vellow Metal scalar *Visual NONE NONE Silicon ppm ASTM D5185m >20 4 Particles >4µm ASTM D7647	0		Client Info		Not Changd		
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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 <1 Lead ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >0 Vanadium ppm ASTM D5185m >20 4 Vellow Metal scalar *Visual NONE NONE Silicon ppm ASTM D7647 >100 238 Particles >4µm ASTM D7647 >100 1 </th <th>PQ</th> <th></th> <th>ASTM D8184</th> <th></th> <th>18</th> <th></th> <th></th>	PQ		ASTM D8184		18		
Nickel ppm ASTM D5185m >10 0 Titanium ppm ASTM D5185m 0 Silver ppm ASTM D5185m 10 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 4 Vellow Metal scalar "Visual NONE NONE Silicon ppm ASTM D7647 >180 4 Particles >4µm ASTM D7647 >10 0 Particles >8µm ASTM D7647 30 0	Iron	ppm	ASTM D5185m	>20	3		
Titanium ppm ASTM D5185m 0 Silver ppm ASTM D5185m >10 0 Aluminum ppm ASTM D5185m >10 0 Lead ppm ASTM D5185m >10 <1 Copper ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m >20 4 Vanadium ppm ASTM D5185m >20 <1 Vellow Metal scalar *Visual NONE Silicon ppm ASTM D7647 >100 41 Particles >4µm ASTM D7647 >30 -	Chromium	ppm	ASTM D5185m	>10	0		
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Aluminum ppm ASTM D5185m >10 0 Lead ppm ASTM D5185m >10 <1 Copper ppm ASTM D5185m >75 2 Vanadium ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >20 4 Yellow Metal scalar *Visual NONE Paticles >4µm ASTM D7647 >5000 238 Particles >4µm ASTM D7647 >100 41 Particles >4µm ASTM D7647 >40 1 Particles >4µm ASTM D7647 >10	Silver	ppm	ASTM D5185m		0		
Lead ppm ASTM D5185m >10 <1	Aluminum	ppm	ASTM D5185m	>10	0		
Copper ppm ASTM D5185m >75 2 Tin ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m 0 White Metal scalar *Visual NONE Yellow Metal scalar *Visual NONE Silicon ppm ASTM D5185m<>20 4 Potassium ppm ASTM D5185m<>20 <1 Water WC Method >0.1 NEG Particles >4µm ASTM D7647 >160 4 Particles >21µm ASTM D7647 >10 0 Particles >21µm ASTM D7647 >3 0 Particles >21µm ASTM D7647 >3 0 Solite scalar *Visual	Lead		ASTM D5185m	>10	<1		
Tin ppm ASTM D5185m >10 0 White Metal scalar *Visual NONE NONE White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Silicon ppm ASTM D5185m >20 4 Potassium ppm ASTM D5185m >20 <1 Patricles >4µm ASTM D7647 >5000 238 Particles >6µm ASTM D7647 >100 41 Particles >6µm ASTM D7647 >10 0 Particles >71µm ASTM D7647 >10 0 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE	Copper		ASTM D5185m	>75	2		
Vanadium ppm ASTM D5185m 0 White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Silicon ppm ASTM D5185m >20 4 Potassium ppm ASTM D5185m >20 <1 Patticles >4µm ASTM D7647 >5000 238 Particles >6µm ASTM D7647 >100 41 Particles >14µm ASTM D7647 >10 0 Particles >38µm ASTM D7647 >10 0 Particles >314 ASTM D7647 3 0 Particles >21µm ASTM D7647 3 0 Sold Leanliness scalar *Visual NONE			ASTM D5185m	>10	0		
White Metal scalar *Visual NONE Yellow Metal scalar *Visual NONE Silicon ppm ASTM D5185m >20 4 Potassium ppm ASTM D5185m >20 <1 Water WC Method >0.1 NEG Particles >4µm ASTM D7647 >100 41 Particles >6µm ASTM D7647 >100 44 Particles >14µm ASTM D7647 >10 0 Particles >38µm ASTM D7647 >1 0 Particles >71µm ASTM D7647 >3 0 Silt scalar *Visual NONE NONE Sold Cleanliness scalar *Visual NORE <	Vanadium		ASTM D5185m		0		
Silicon ppm ASTM D5185m >20 4 Potassium ppm ASTM D5185m >20 <1 Water WC Method >0.1 NEG Particles >4µm ASTM D7647 >5000 238 Particles >6µm ASTM D7647 >1300 41 Particles >6µm ASTM D7647 >160 4 Particles >1µm ASTM D7647 >10 0 Particles >38µm ASTM D7647 >10 0 Solt scalar *Visual NONE Debris scalar </th <th>White Metal</th> <th>scalar</th> <th>*Visual</th> <th>NONE</th> <th>NONE</th> <th></th> <th></th>	White Metal	scalar	*Visual	NONE	NONE		
Potassium ppm ASTM D5185m >20 <1	Yellow Metal	scalar	*Visual	NONE	NONE		
Potassium ppm ASTM D5185m >20 <1							
Water WC Method >0.1 NEG Particles >4µm ASTM D7647 >5000 238 Particles >6µm ASTM D7647 >1300 41 Particles >14µm ASTM D7647 >160 4 Particles >21µm ASTM D7647 >40 1 Particles >38µm ASTM D7647 >40 1 Particles >38µm ASTM D7647 >3 0 Particles >31µm ASTM D7647 >3 0 Particles >31µm ASTM D7647 >3 0 Particles >32µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) 1917/14 15/13/9 Sand/Dirt scalar *Visual NOR NORML Appearance scalar	Silicon	ppm	ASTM D5185m	>20	4		
Particles >4µm ASTM D7647 >5000 238 Particles >6µm ASTM D7647 >1300 41 Particles >14µm ASTM D7647 >160 4 Particles >21µm ASTM D7647 >40 1 Particles >38µm ASTM D7647 >10 0 Particles >71µm ASTM D7647 >3 0 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) 19/17/14 15/13/9 Silt scalar *Visual NONE Sodiur scalar *Visual NORML NORML Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Maganese <	Potassium	ppm	ASTM D5185m	>20	<1		
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Particles >14µm ASTM D7647 >160 4 Particles >21µm ASTM D7647 >40 1 Particles >38µm ASTM D7647 >10 0 Particles >38µm ASTM D7647 >10 0 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 15/13/9 Silt scalar *Visual NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORM NORML Appearance scalar *Visual NORM NORML Odor scalar *Visual NORM NORML Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 <td< th=""><th>Particles >4µm</th><th></th><th>ASTM D7647</th><th>>5000</th><th>238</th><th></th><th></th></td<>	Particles >4µm		ASTM D7647	>5000	238		
Particles >21µm ASTM D7647 >40 1 Particles >38µm ASTM D7647 >10 0 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 15/13/9 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NORE NONE Appearance scalar *Visual NORM NORML Odor scalar *Visual NORM NORML Boron ppm ASTM D5185m 5 Barium ppm ASTM D5185m 0 Magnese ppm ASTM D5185m 0	Particles >6µm		ASTM D7647	>1300	41		
Particles >38µm ASTM D7647 >10 0 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 15/13/9 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NORE NONE Appearance scalar *Visual NORM NORML Odor scalar *Visual NORM NORML Molybenum ppm ASTM D5185m 5 Barium ppm ASTM D5185m 0 Magnese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 7	Particles >14µm		ASTM D7647	>160	4		
Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 15/13/9 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 Emulsified Water scalar *Visual NOR NORML Sodium ppm ASTM D5185m 5 Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Magnese ppm ASTM D5185m 7	Particles >21µm		ASTM D7647	>40	1		
Oil CleanlinessISO 4406 (c)\$19/17/1415/13/9Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m5BoronppmASTM D5185m0BariumppmASTM D5185m0MolybdenumppmASTM D5185m0MagnesiumppmASTM D5185m220PhosphorusppmASTM D5185m220ZincppmASTM D5185m963SulfurppmASTM D5185m963Acid Number (AN)mg KOH/gASTM D5185m3605Acid Number (AN)mg KOH/gASTM D5185m1.14	Particles >38µm		ASTM D7647	>10	0		
Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLCodorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m5BoronppmASTM D5185m0BariumppmASTM D5185m0MolybdenumppmASTM D5185m0MagneseppmASTM D5185m7MagnesiumppmASTM D5185m220PhosphorusppmASTM D5185m963ZincppmASTM D5185m963SulfurppmASTM D5185m3605Acid Number (AN)mg KOH/gASTM D5185m1.14	Particles >71µm		ASTM D7647	>3	0		
Debrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m5BoronppmASTM D5185m0BariumppmASTM D5185m0MolybdenumppmASTM D5185m0MagneseppmASTM D5185m7MagnesiumppmASTM D5185m220PhosphorusppmASTM D5185m556ZincppmASTM D5185m963SulfurppmASTM D5185m3605Acid Number (AN)mg KOH/gASTM D80451.14	Oil Cleanliness		ISO 4406 (c)	>19/17/14	15/13/9		
Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.1 NEG Sodium ppm ASTM D5185m 5 Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 0 Phosphorus ppm ASTM D5185m 0 Phosphorus ppm ASTM D5185m 220 Zinc ppm A	Silt	scalar	*Visual	NONE	NONE		
Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.1 NEG Sodium ppm ASTM D5185m 5 Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Magnese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 0 Phosphorus ppm ASTM D5185m 220 Phosphorus ppm ASTM D5185m 963 Zinc ppm ASTM D5185m 3605 Sulfur ppm ASTM D51	Debris	scalar	*Visual	NONE	NONE		
Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.1 NEG Sodium ppm ASTM D5185m 5 Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Manganese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 7 Phosphorus ppm ASTM D5185m 220 Phosphorus ppm ASTM D5185m 963 Zinc ppm ASTM D5185m 963 Sulfur ppm ASTM D5185m 3605 Acid Number (AN) mg KOH/g ASTM D5185	Sand/Dirt	scalar	*Visual	NONE	NONE		
Emulsified Water scalar *Visual >0.1 NEG Sodium ppm ASTM D5185m 5 Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Magnese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 7 Calcium ppm ASTM D5185m 220 Phosphorus ppm ASTM D5185m 556 Zinc ppm ASTM D5185m 963 Sulfur ppm ASTM D5185m 3605 Acid Number (AN) mg KOH/g ASTM D545 1.14	Appearance	scalar	*Visual	NORML	NORML		
Sodium ppm ASTM D5185m 5 Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Magnese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 7 Calcium ppm ASTM D5185m 220 Phosphorus ppm ASTM D5185m 5566 Zinc ppm ASTM D5185m 963 Sulfur ppm ASTM D5185m 36055 Acid Number (AN) mg KOH/g ASTM D545 1.14	Odor	scalar	*Visual	NORML	NORML		
Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Manganese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 7 Calcium ppm ASTM D5185m 220 Phosphorus ppm ASTM D5185m 556 Zinc ppm ASTM D5185m 963 Sulfur ppm ASTM D5185m 3605 Acid Number (AN) mg KOH/g ASTM D8045 1.14	Emulsified Water	scalar	*Visual	>0.1	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 7 Calcium ppm ASTM D5185m 220 Phosphorus ppm ASTM D5185m 556 Zinc ppm ASTM D5185m 963 Sulfur ppm ASTM D5185m 3605 Acid Number (AN) mg KOH/g ASTM D8045 1.14							
Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m <1 Manganese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 0 Calcium ppm ASTM D5185m 220 Phosphorus ppm ASTM D5185m 556 Zinc ppm ASTM D5185m 963 Sulfur ppm ASTM D5185m 3605 Acid Number (AN) mg KOH/g ASTM D8045 1.14		ppm					
Molybdenum ppm ASTM D5185m <1		ppm			0		
Manganese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 7 Calcium ppm ASTM D5185m 220 Phosphorus ppm ASTM D5185m 556 Zinc ppm ASTM D5185m 963 Sulfur ppm ASTM D5185m 3605 Acid Number (AN) mg KOH/g ASTM D8045 1.14		ppm			0		
Magnesium ppm ASTM D5185m 7 Calcium ppm ASTM D5185m 220 Phosphorus ppm ASTM D5185m 556 Zinc ppm ASTM D5185m 963 Sulfur ppm ASTM D5185m 3605 Acid Number (AN) mg KOH/g ASTM D8045 1.14	•						
Calcium ppm ASTM D5185m 220 Phosphorus ppm ASTM D5185m 556 Zinc ppm ASTM D5185m 963 Sulfur ppm ASTM D5185m 3605 Acid Number (AN) mg KOH/g ASTM D8045 1.14	U						
Phosphorus ppm ASTM D5185m 556 Zinc ppm ASTM D5185m 963 Sulfur ppm ASTM D5185m 3605 Acid Number (AN) mg KOH/g ASTM D8045 1.14	0	ppm					
Zinc ppm ASTM D5185m 963 Sulfur ppm ASTM D5185m 3605 Acid Number (AN) mg KOH/g ASTM D8045 1.14		ppm					
Sulfur ppm ASTM D5185m 3605 Acid Number (AN) mg KOH/g ASTM D8045 1.14		ppm	ASTM D5185m		556		
Acid Number (AN) mg KOH/g ASTM D8045 1.14		ppm	ASTM D5185m		963		
() 0 0			ASTM D5185m		3605		
Visc @ 40°C cSt ASTM D445 58.7		mg KOH/g			1.14		
	Visc @ 40°C	cSt	ASTM D445		58.7		





Contact/Location: PHIL DAUGHERTY - JAMWIN

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