

## Machine Id JOHN DEERE 770P 1N0C770PVN4220679 Component Hydraulic System Fluid

TDH FLUID SAE 75W80 (--- GAL)

## RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) TDH FLUID SAE 75W80. Please confirm.



All component wear rates are normal.

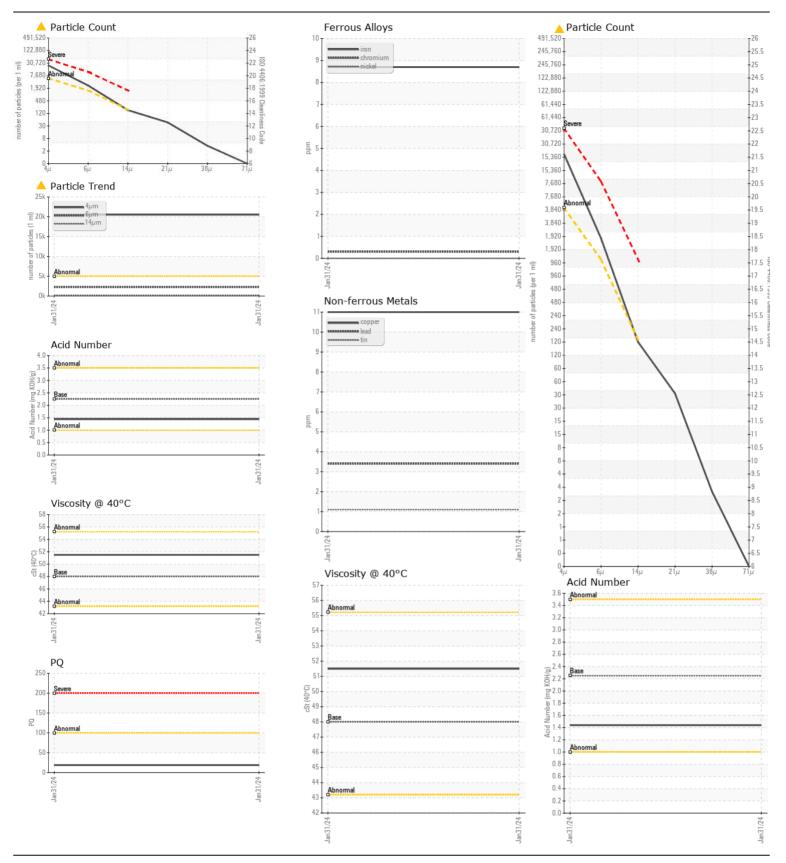
## CONTAMINATION

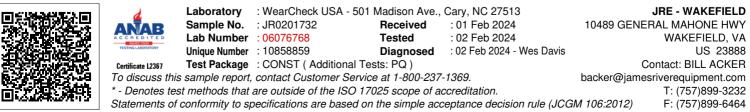
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

## FLUID CONDITION

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Test         UOM         Method         Limit/Ab         Current         History1         History2           Sample Dumber         Client Info         3J Jano24             Machine Age         hrs         Client Info         0             Oil Age         hrs         Client Info         0             Oil Changed         Client Info         N/A             Gil Changed         Client Info         N/A             Sample Status          ASTM D8184         19             PQ         ASTM D8185         >10         <1             Nickel         ppm         ASTM D8185         >10         0             Silver         ppm         ASTM D5185         >10              Silver         ppm         ASTM D5185         >10         3             Silver         ppm         ASTM D5185         >10         3             Silver         ppm         ASTM D5185         >10 <th></th> <th></th> <th></th> <th></th> <th>~~~~~</th> <th></th> <th></th>					~~~~~		
Sample Date         Client Info         31 Jan 2024             Machine Age         hrs         Client Info         0             Oil Age         hrs         Client Info         0             Oil Changed         Client Info         N/A             Oil Changed         Client Info         N/A             Sample Status          ASTM D5185m         20         9             PQ         ASTM D5185m         >10         <-1             Chromium         ppm         ASTM D5185m         >10         <-1             Silver         ppm         ASTM D5185m         >10         <-1             Silver         ppm         ASTM D5185m         >10         3             Silver         ppm         ASTM D5185m         >10         3             Silver         ppm         ASTM D5185m         >20         1             Silver         ppm         ASTM D5185m	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine Age         hrs         Client Info         321             Filter Age         hrs         Client Info         0             Filter Age         hrs         Client Info         N/A             Filter Changed         Client Info         N/A             Sample Status         Client Info         N/A             PQ         ASTM D5185m         >20         9             Chromium         ppm         ASTM D5185m         >10             Nickel         ppm         ASTM D5185m         >10        1            Silver         ppm         ASTM D5185m         >10         -1            Aluminum         ppm         ASTM D5185m         >10         1             Lead         ppm         ASTM D5185m         >10         1             Vanadium         ppm         ASTM D5185m         >20         1             Vanadium         ppm         ASTM D5185m         >20         1	Sample Number		Client Info		JR0201732		
Oil Age         hrs         Client Info         0             Filter Age         hrs         Client Info         N/A             Oil Changed         Client Info         N/A             Sample Status         Client Info         N/A             PQ         ASTM D5185m         >20         9             Iron         ppm         ASTM D5185m         >10         <1             Nickel         ppm         ASTM D5185m         >10         <1             Silver         ppm         ASTM D5185m         >10         <1             Copper         ppm         ASTM D5185m         >10         3             Vanadum         ppm         ASTM D5185m         >10         3             Vanadum         ppm         ASTM D5185m         >10         3             Vanadum         ppm         ASTM D5185m         >20         1             Yellow Metal         scalar	Sample Date		Client Info		31 Jan 2024		
Filter Age         hrs         Client Info         0             Oil Changed         Client Info         N/A             Filter Changed         Client Info         N/A             Sample Status         ABNORMAL             PQ         ASTM D8184         19             Iron         ppm         ASTM D5185m<>10         <1             Chromium         ppm         ASTM D5185m<         10         0             Nickel         ppm         ASTM D5185m         10         <1             Silver         ppm         ASTM D5185m         10         <1             Copper         ppm         ASTM D5185m         0         1             Vanaduum         ppm         ASTM D5185m         20         1             Vellow Metal         scalar         *Visual         NONE              Vellow Metal         scalar         *Visual         NONE	Machine Age	hrs	Client Info		321		
Oil Changed         Client Info         N/A             Filter Changed         Client Info         N/A             Sample Status         ABNORMAL             PQ         ASTM D5185m         >20         9            Chromium         ppm         ASTM D5185m         >10             Nickel         ppm         ASTM D5185m         >10         0             Nickel         ppm         ASTM D5185m         >10         1             Silver         ppm         ASTM D5185m         >10         3             Lead         ppm         ASTM D5185m         >10         1             Vanadium         ppm         ASTM D5185m         >10         1             Vanadum         ppm         ASTM D5185m         >20         11             Vanadum         ppm         ASTM D5185m         >20         1             Vanadum         ppm         ASTM D5185m         >20 <td< th=""><th>Oil Age</th><th>hrs</th><th>Client Info</th><th></th><th>0</th><th></th><th></th></td<>	Oil Age	hrs	Client Info		0		
Filter Changed Sample Status         Client Info         N/A          ABNORMAL            PQ         ASTM D8184         19             Iron         ppm         ASTM D5185m         >20         9            Nickel         ppm         ASTM D5185m         >10         <1            Nickel         ppm         ASTM D5185m         >10         0            Titanium         ppm         ASTM D5185m         0             Aluminum         ppm         ASTM D5185m         >10         3             Lead         ppm         ASTM D5185m         >10         1             Vanadium         ppm         ASTM D5185m         >10         1             Vanadium         ppm         ASTM D5185m         >10         1             Vanadium         ppm         ASTM D5185m         >20         12             Vanadium         ppm         ASTM D5185m         >20         1             Vellow Metal         s	Filter Age	hrs	Client Info		0		
Sample Status         ABNORMAL	Oil Changed		Client Info		N/A		
PQ         ASTM D8184         19             Iron         ppm         ASTM D5185m         >20         9            Chromium         ppm         ASTM D5185m         >10         <1            Nickel         ppm         ASTM D5185m         >10         0             Silver         ppm         ASTM D5185m         >10         1             Lead         ppm         ASTM D5185m         >10         3             Lead         ppm         ASTM D5185m         >10         1             Vanadium         ppm         ASTM D5185m         >10         1             Vanadium         ppm         ASTM D5185m         >20         11             Vanadium         ppm         ASTM D5185m         >20         12             Vanadium         ppm         ASTM D5185m         >20         1             Vellow Metal         scalar         *Visual         NONE         NONE	Filter Changed		Client Info		N/A		
Iron         ppm         ASTM D5185m         >20         9             Nickel         ppm         ASTM D5185m         >10         0             Titanium         ppm         ASTM D5185m         >10         0             Aluminum         ppm         ASTM D5185m         >10         <1             Aluminum         ppm         ASTM D5185m         >10         3             Aluminum         ppm         ASTM D5185m         >10         1             Lead         ppm         ASTM D5185m         >10         1             Vanadium         ppm         ASTM D5185m         >10         1             Vanatium         ppm         ASTM D5185m         >20         12             Vallow Metal         scalar         *Visual         NONE         NONE            Particles >4µm         ASTM D7647         >100         20520             Particles >5µm         ASTM D7647         >10         3        <	Sample Status				ABNORMAL		
Iron         ppm         ASTM D5185m         >20         9             Nickel         ppm         ASTM D5185m         >10         0             Titanium         ppm         ASTM D5185m         >10         0             Aluminum         ppm         ASTM D5185m         >10         <1             Aluminum         ppm         ASTM D5185m         >10         3             Aluminum         ppm         ASTM D5185m         >10         1             Lead         ppm         ASTM D5185m         >10         1             Vanadium         ppm         ASTM D5185m         >10         1             Vanatium         ppm         ASTM D5185m         >20         12             Vallow Metal         scalar         *Visual         NONE         NONE            Particles >4µm         ASTM D7647         >100         20520             Particles >5µm         ASTM D7647         >10         3        <							
Chromium         ppm         ASTM D5185m         >10         <1					-		
Nickel         ppm         ASTM D5185m         >10         0             Titanium         ppm         ASTM D5185m          0             Silver         ppm         ASTM D5185m         >10         <1             Aluminum         ppm         ASTM D5185m         >10         3             Lead         ppm         ASTM D5185m         >10         1             Copper         ppm         ASTM D5185m         >10         1             Vanadium         ppm         ASTM D5185m         >10         1             Vanadium         ppm         ASTM D5185m         >20         12             Vellow Metal         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D7647         >20         12             Particles >4µm         ASTM D7647         >10         3             Particles >8µm         ASTM D7647         >3		ppm	ASTM D5185m	-	9		
Titanium       ppm       ASTM D5185m       <1				10			
Silver         ppm         ASTM D5185m         0             Aluminum         ppm         ASTM D5185m         >10         3             Lead         ppm         ASTM D5185m         >10         3             Copper         ppm         ASTM D5185m         >10         1             Tin         ppm         ASTM D5185m         >10         1             Wanadium         ppm         ASTM D5185m         >10         1             White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Paticles >4µm         ASTM D7647         >5000         20520             Particles >4µm         ASTM D7647         >100         150             Particles >4µm         ASTM D7647         >100         3             Particles >4µm         ASTM D7647         >10         3       <		ppm		>10	-		
Aluminum         ppm         ASTM D5185m         >10         <1							
Lead         ppm         ASTM D5185m         >10         3             Copper         ppm         ASTM D5185m         >75         11             Tin         ppm         ASTM D5185m         >10         1             White Metal         scalar         *Visual         NONE             Yellow Metal         scalar         *Visual         NONE             Silicon         ppm         ASTM D5185m         >20         12             Potassium         ppm         ASTM D5185m         >20         1             Paticles >4µm         ASTM D7647         >5000         ▲ 2265             Particles >4µm         ASTM D7647         >400         39             Particles >4µm         ASTM D7647         >100         3             Particles >21µm         ASTM D7647         >10         3             Particles >38µm         ASTM D7647         >10         3					-		
Copper         ppm         ASTM D5185m         >75         11             Tin         ppm         ASTM D5185m         0             Vanadium         ppm         ASTM D5185m         0             White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Solicon         ppm         ASTM D5185m<>20         12             Potassium         ppm         ASTM D5185m<>20         1             Patricles >4µm         ASTM D7647         >5000         ▲ 2265             Particles >1µm         ASTM D7647         >100         3             Particles >21µm         ASTM D7647         >40         39             Particles >21µm         ASTM D7647         >10         3             OIl Cleanliness         ISO 4406 (c)         >19/1714         ▲ 22/18/14             Sand/Dirt							
Tin         ppm         ASTM D5185m         >10         1             Vanadium         ppm         ASTM D5185m         0             White Metal         scalar         *Visual         NONE         NONE            Yellow Metal         scalar         *Visual         NONE         NONE            Silicon         ppm         ASTM D5185m         >20         12             Potassium         ppm         ASTM D5185m         >20         1             Paticles >4µm         ASTM D7647         >5000         ▲ 2265             Particles >6µm         ASTM D7647         >100         3             Particles >6µm         ASTM D7647         >10         3             Particles >38µm         ASTM D7647         >10         3             Particles >71µm         ASTM D7647         >10         3             Oll Cleanliness         scalar         *Visual         NONE             Silt				-	-		
Vanadium         ppm         ASTM D5185m         0             White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D5185m         >20         12             Potassium         ppm         ASTM D5185m         >20         1             Paticles >4µm         ASTM D7647         >5000         A 2265             Particles >6µm         ASTM D7647         >160         150             Particles >6µm         ASTM D7647         >10         3             Particles >38µm         ASTM D7647         >10         3             Particles >38µm         ASTM D7647         >30              Silt         scalar         *Visual         NONE         NONE             Debris         scalar         *Visual         NORL         NORL							
White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D5185m         >20         1             Potassium         ppm         ASTM D565m         >20         1             Water         WC Method         >0.1         NEG             Particles >4µm         ASTM D7647         >5000         ▲ 22650             Particles >21µm         ASTM D7647         >100         3             Particles >21µm         ASTM D7647         >10         3             Particles >21µm         ASTM D7647         >10         3             Particles >21µm         ASTM D7647         >3         0             Silt         scalar         *Visual         NONE         NONE             Silt         scalar         *Visual         NORE				>10	-		
Yellow Metal         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D5185m         >20         1             Potassium         ppm         ASTM D5185m         >20         1             Water         WC Method         >0.1         NEG             Particles >4µm         ASTM D7647         >5000         ▲ 2265             Particles >21µm         ASTM D7647         >100         39             Particles >38µm         ASTM D7647         >40         39             Particles >38µm         ASTM D7647         >10         3             Particles >38µm         ASTM D7647         >3         0             Particles >38µm         ASTM D7647         >3         0             Particles >38µm         ASTM D7647         >3         0             Silt         scalar         *Visual         NONE         NONE	. anadiani				•		
Silicon         ppm         ASTM D5185m< >20         12             Potassium         ppm         ASTM D5185m         >20         1             Water         WC Method         >0.1         NEG             Particles >4µm         ASTM D7647         >5000         ▲ 20520             Particles >6µm         ASTM D7647         >1300         ▲ 2265             Particles >14µm         ASTM D7647         >160         150             Particles >38µm         ASTM D7647         >10         3             Particles >71µm         ASTM D7647         >10         3             Oil Cleanliness         ISO 4406 (c)         >19/17/1         4         22/18/14             Sand/Dirt         scalar         *Visual         NONE         NONE             Debris         scalar         *Visual         NORML         NORML             Appearance         scalar         *Visual         NORML         NORML         -				-			
Potassium         ppm         ASTM D5185m         >20         1             Water         WC Method         >0.1         NEG             Particles >4µm         ASTM D7647         >5000         ▲ 20520             Particles >6µm         ASTM D7647         >160         150             Particles >14µm         ASTM D7647         >10         3             Particles >21µm         ASTM D7647         >10         3             Particles >38µm         ASTM D7647         >10         3             Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         ▲ 22/18/14             Silt         scalar         *Visual         NONE              Debris         scalar         *Visual         NONE         I             Appearance         scalar         *Visual         NORM         NORML	Yellow Metal	scalar	*Visual	NONE	NONE		
Potassium         ppm         ASTM D5185m         >20         1             Water         WC Method         >0.1         NEG             Particles >4µm         ASTM D7647         >5000         ▲ 20520             Particles >6µm         ASTM D7647         >160         150             Particles >14µm         ASTM D7647         >10         3             Particles >21µm         ASTM D7647         >10         3             Particles >38µm         ASTM D7647         >10         3             Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         ▲ 22/18/14             Silt         scalar         *Visual         NONE              Debris         scalar         *Visual         NONE         I             Appearance         scalar         *Visual         NORM         NORML	Silicon	000	ACTM DE105m	. 20	10		
Water         WC Method         >0.1         NEG            Particles >4µm         ASTM D7647         >5000         ▲ 20520             Particles >6µm         ASTM D7647         >1300         ▲ 2265             Particles >14µm         ASTM D7647         >160         150             Particles >21µm         ASTM D7647         >40         39             Particles >38µm         ASTM D7647         >40         39             Particles >71µm         ASTM D7647         >3         0             Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         51917/14         ▲ 22/18/14             Silt         scalar         *Visual         NONE         NONE             Sand/Dirt         scalar         *Visual         NORM         NORML             Appearance         scalar         *Visual         NORM         NORML							
Particles >4µm         ASTM D7647         >5000         ▲ 20520             Particles >6µm         ASTM D7647         >1300         ▲ 2655             Particles >14µm         ASTM D7647         >160         150             Particles >21µm         ASTM D7647         >40         39             Particles >38µm         ASTM D7647         >10         3             Particles >71µm         ASTM D7647         >3         0             Particles >71µm         ASTM D7647         >3         0             Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         5191714         ▲ 22/18/14             Silt         scalar         *Visual         NONE         NORE             Sand/Dirt         scalar         *Visual         NORM         NORML             Appearance         scalar         *Visual         NORM         NORML		ррп			-		
Particles >6μm         ASTM D7647         >1300         ▲ 2265            Particles >14μm         ASTM D7647         >160         150            Particles >21μm         ASTM D7647         >40         39            Particles >38µm         ASTM D7647         >10         3            Particles >38µm         ASTM D7647         >10         3            Particles >71µm         ASTM D7647         >3         0            Oil Cleanliness         ISO 4406 (c)         >19/17/14         22/18/14            Silt         scalar         *Visual         NONE             Sand/Dirt         scalar         *Visual         NONE             Appearance         scalar         *Visual         NORML         NORML             Odor         scalar         *Visual         NORM         NORML             Boron         ppm         ASTM D5185m         10         <1             Barium         ppm         ASTM D5185m         10         1							
Particles >14µm         ASTM D7647         >160         150            Particles >21µm         ASTM D7647         >40         39            Particles >38µm         ASTM D7647         >10         3            Particles >71µm         ASTM D7647         >3         0            Oil Cleanliness         ISO 4406 (c)         >19/17/14         22/18/14            Silt         scalar         *Visual         NONE         NONE            Sand/Dirt         scalar         *Visual         NONE         ILIGHT            Appearance         scalar         *Visual         NORE         NORE            Odor         scalar         *Visual         NOR         NORML            Appearance         scalar         *Visual         NORML         NORML            Odor         scalar         *Visual         NOR         NORML             Boron         ppm         ASTM D5185m         10         <1             Barium         ppm         ASTM D5185m         10         <1							
Particles >21µmASTM D7647>40 <b>39</b> Particles >38µmASTM D7647>10 <b>3</b> Particles >71µmASTM D7647>3 <b>0</b> Oil CleanlinessISO 4406 (c)>19/17/14 <b>22/18/14</b> Siltscalar*VisualNONENONEDebrisscalar*VisualNONELIGHTSand/Dirtscalar*VisualNORENONEAppearancescalar*VisualNORMNORMLOdorscalar*VisualNORMNORMLBoronppmASTM D5185m10BariumppmASTM D5185m101MagneseppmASTM D5185m101MagnesiumppmASTM D5185m100100MagnesiumppmASTM D5185m100100PhosphorusppmASTM D5185m1001013PhosphorusppmASTM D5185m11501234ZincppmASTM D5185m15003431Acid Number (AN)mg KOHgASTM D5185m50003431	· · ·						
Particles >38µm         ASTM D7647         >10         3             Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         22/18/14             Silt         scalar         *Visual         NONE         NONE             Debris         scalar         *Visual         NONE         LIGHT             Sand/Dirt         scalar         *Visual         NORE         NONE             Appearance         scalar         *Visual         NORM         NORML             Odor         scalar         *Visual         NOR         NORML             Odor         scalar         *Visual         NORM         NORML             Boron         ppm         ASTM D5185m         10         <-1             Barium         ppm         ASTM D5185m         10         1             Magnesium         ppm         ASTM D5185m         10							
Particles >71µmASTM D7647>30Oil CleanlinessISO 4406 (c)>19/17/14▲ 22/18/14Siltscalar*VisualNONENONEDebrisscalar*VisualNONELIGHTSand/Dirtscalar*VisualNORENONEAppearancescalar*VisualNORLNORMLOdorscalar*VisualNORLNORMLEmulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m10<1BoronppmASTM D5185m101BariumppmASTM D5185m101MagneseppmASTM D5185m101MagnesiumppmASTM D5185m100100PhosphorusppmASTM D5185m1001013ZincppmASTM D5185m11501234SulfurppmASTM D5185m50003431Acid Number (AN)mg KOHgASTM D50452.251.44							
Oil CleanlinessISO 4406 (c)\$19/17/14▲ 22/18/14Siltscalar*VisualNONENONEDebrisscalar*VisualNONELIGHTSand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMNORMLEmulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m10<1BoronppmASTM D5185m101BariumppmASTM D5185m101MolybdenumppmASTM D5185m101MagnesiumppmASTM D5185m100100MagnesiumppmASTM D5185m35003203PhosphorusppmASTM D5185m11501013ZincppmASTM D5185m11501234SulfurppmASTM D5185m50003431Acid Number (AN)mg KOHgASTM D50452.251.44				-	-		
Siltscalar*VisualNONENONEDebrisscalar*VisualNONELIGHTSand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLCdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m10BoronppmASTM D5185m101BariumppmASTM D5185m101MolybdenumppmASTM D5185m101MagneseppmASTM D5185m100100MagnesiumppmASTM D5185m35003203PhosphorusppmASTM D5185m11501013ZincppmASTM D5185m11501234SulfurppmASTM D5185m50003431Acid Number (AN)mg KOHgASTM D50452.251.44					-		
Debrisscalar*VisualNONELIGHTSand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m3BoronppmASTM D5185m101BariumppmASTM D5185m101MolybdenumppmASTM D5185m100MagneseppmASTM D5185m100100MagnesiumppmASTM D5185m35003203PhosphorusppmASTM D5185m11501013ZincppmASTM D5185m11501234SulfurppmASTM D5185m50003431Acid Number (AN)mg KOHgASTM D50452.251.44		scalar					
Sand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m3BoronppmASTM D5185m10<1BariumppmASTM D5185m101MolybdenumppmASTM D5185m100MagneseppmASTM D5185m100MagnesiumppmASTM D5185m100100PhosphorusppmASTM D5185m11501013ZincppmASTM D5185m11501234SulfurppmASTM D5185m50003431Acid Number (AN)mg KOHgASTM D8452.251.44					-		
Appearance         scalar         *Visual         NORML         NORML             Odor         scalar         *Visual         NORML         NORML             Emulsified Water         scalar         *Visual         >0.1         NEG             Sodium         ppm         ASTM D5185m         3             Boron         ppm         ASTM D5185m         10         <1             Barium         ppm         ASTM D5185m         10         1             Molybdenum         ppm         ASTM D5185m         10         0             Magnesium         ppm         ASTM D5185m         10         0             Magnesium         ppm         ASTM D5185m         100         100             Phosphorus         ppm         ASTM D5185m         3500         3203             Zinc         ppm         ASTM D5185m         1150         1013        Sulfur         ppm         ASTM D5185m5				-			
Odor         scalar         *Visual         NORML         NORML            Emulsified Water         scalar         *Visual         >0.1         NEG             Sodium         ppm         ASTM D5185m         3             Boron         ppm         ASTM D5185m         10         <1             Barium         ppm         ASTM D5185m         10         1             Molybdenum         ppm         ASTM D5185m         10         0             Magnesium         ppm         ASTM D5185m         10         0             Magnesium         ppm         ASTM D5185m         100         100             Phosphorus         ppm         ASTM D5185m         100         100             Zinc         ppm         ASTM D5185m         1150         1013             Sulfur         ppm         ASTM D5185m         1500         3431             Kinck         ppm         ASTM D5185m         5000							
Emulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m3BoronppmASTM D5185m10BariumppmASTM D5185m101MolybdenumppmASTM D5185m100MagneseppmASTM D5185m100100MagnesiumppmASTM D5185m100100CalciumppmASTM D5185m35003203PhosphorusppmASTM D5185m11501013ZincppmASTM D5185m11501234SulfurppmASTM D5185m50003431Acid Number (AN)mg KOHgASTM D8452.251.44							
Sodium         ppm         ASTM D5185m         3             Boron         ppm         ASTM D5185m         10         <1             Barium         ppm         ASTM D5185m         10         <1             Molybdenum         ppm         ASTM D5185m         10         1             Maganese         ppm         ASTM D5185m         100         0             Magnesium         ppm         ASTM D5185m         100         100             Calcium         ppm         ASTM D5185m         3500         3203             Phosphorus         ppm         ASTM D5185m         1150         1013             Zinc         ppm         ASTM D5185m         1150         1234             Sulfur         ppm         ASTM D5185m         5000         3431             Acid Number (AN)         mg KOHg         ASTM D5185m         5000         3431					-		
Boron         ppm         ASTM D5185m         10         <1							
Barium         ppm         ASTM D5185m         10         1             Molybdenum         ppm         ASTM D5185m         10         0             Manganese         ppm         ASTM D5185m         10         1             Magnesium         ppm         ASTM D5185m         100         100             Calcium         ppm         ASTM D5185m         3500         3203             Phosphorus         ppm         ASTM D5185m         1150         1013             Zinc         ppm         ASTM D5185m         1150         1234             Sulfur         ppm         ASTM D5185m         5000         3431             Acid Number (AN)         mg KOHg         ASTM D8045         2.25         1.44	Sodium	ppm	ASTM D5185m		3		
Molybdenum         ppm         ASTM D5185m         10         0             Manganese         ppm         ASTM D5185m         1             Magnesium         ppm         ASTM D5185m         100         100             Calcium         ppm         ASTM D5185m         3500         3203             Phosphorus         ppm         ASTM D5185m         1150         1013             Zinc         ppm         ASTM D5185m         1150         1234             Sulfur         ppm         ASTM D5185m         5000         3431             Acid Number (AN)         mg KOH/g         ASTM D8045         2.25         1.44	Boron	ppm	ASTM D5185m	10	<1		
Manganese         ppm         ASTM D5185m         1             Magnesium         ppm         ASTM D5185m         100         100             Calcium         ppm         ASTM D5185m         3500         3203             Phosphorus         ppm         ASTM D5185m         1150         1013             Zinc         ppm         ASTM D5185m         1150         1234             Sulfur         ppm         ASTM D5185m         5000         3431             Acid Number (AN)         mg KOHg         ASTM D8045         2.25         1.44	Barium	ppm	ASTM D5185m	10			
Magnesium         ppm         ASTM D5185m         100         100             Calcium         ppm         ASTM D5185m         3500         3203             Phosphorus         ppm         ASTM D5185m         1150         1013             Zinc         ppm         ASTM D5185m         1150         1234             Sulfur         ppm         ASTM D5185m         5000         3431             Acid Number (AN)         mg KOH/g         ASTM D8045         2.25         1.44	Molybdenum	ppm	ASTM D5185m	10	0		
Calcium         ppm         ASTM D5185m         3500 <b>3203</b> Phosphorus         ppm         ASTM D5185m         1150 <b>1013</b> Zinc         ppm         ASTM D5185m         1150 <b>1234</b> Sulfur         ppm         ASTM D5185m         5000 <b>3431</b> Acid Number (AN)         mg KOHg         ASTM D8045         2.25 <b>1.44</b>	Manganese	ppm	ASTM D5185m		1		
Phosphorus         ppm         ASTM D5185m         1150         1013             Zinc         ppm         ASTM D5185m         1150         1234             Sulfur         ppm         ASTM D5185m         5000         3431             Acid Number (AN)         mg KOHg         ASTM D8045         2.25         1.44	Magnesium	ppm	ASTM D5185m	100	100		
Zinc         ppm         ASTM D5185m         1150         1234             Sulfur         ppm         ASTM D5185m         5000         3431             Acid Number (AN)         mg KOH/g         ASTM D8045         2.25         1.44	Calcium	ppm	ASTM D5185m	3500	3203		
Sulfur         ppm         ASTM D5185m         5000         3431             Acid Number (AN)         mg KOH/g         ASTM D8045         2.25         1.44	Phosphorus	ppm	ASTM D5185m	1150	1013		
Acid Number (AN) mg KOH/g ASTM D8045 2.25 1.44		ppm	ASTM D5185m	1150	1234		
	Sulfur	ppm	ASTM D5185m	5000	3431		
Visc @ 40°C cSt ASTM D445 48 51.5	Acid Number (AN)	mg KOH/g	ASTM D8045	2.25	1.44		
	Visc @ 40°C	cSt	ASTM D445	48	51.5		





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Contact/Location: BILL ACKER - JAMWAK

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