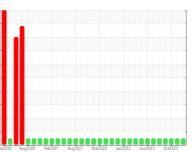


# **OIL ANALYSIS REPORT**

### Sample Rating Trend



NORMAL



# CATERPILLAR D10T 15105050 (S/N CATOD10TCRJG01497)

Left Final Drive

**CHEVRON 50WT (--- GAL)** 

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

#### Wear

All component wear rates are normal.

#### Contamination

The water content is negligible. 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.

Sample Number   Client Info   RP0037012   RP0036202   RP0033491   Sample Date   Client Info   So Jan 2024   27 Dec 2023   24 Oct 2023   Act 2	(GAL)							
Client Info	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2	
Machine Age	Sample Number		Client Info		RP0037012	RP0036202	RP0033491	
Dil Changed	Sample Date		Client Info		30 Jan 2024	27 Dec 2023	24 Oct 2023	
Oil Changed   Client Info   Not Changd   NORMAL   NORMA	Machine Age	hrs	Client Info		76883	76448	75707	
NORMAL   NORMAL   NORMAL   NORMAL   WEAR METALS   method   limit/base   current   history1   history2   history2   limit/base   current   history1   history2   history2   limit/base   current   history1   history2   limit/base   current   history2   history2   limit/base   current   history2   limit/base   current   history2   limit/base   current   history2   limit/base   current   history2   history2   limit/base   current   history2   limit/base   limit/base   current   history2   limit/base   lim	Oil Age	hrs	Client Info		1472	1037	296	
WEAR METALS	Oil Changed		Client Info		Not Changd	Not Changd	N/A	
Chromium	Sample Status				NORMAL	NORMAL	NORMAL	
Chromium	WEAR METALS		method	limit/base	current	history1	history2	
Nickel ppm ASTM D5185m >5 0 0 0 0 0 1 Titanium ppm ASTM D5185m >15 0 0 0 0 1 Silver ppm ASTM D5185m >2 0 0 0 0 0 0 Aluminum ppm ASTM D5185m >2 0 0 0 0 0 0 Aluminum ppm ASTM D5185m >75 < 1 1 < 1 1 1 Lead ppm ASTM D5185m >75 < 1 < 1 0 0 0 1 Copper ppm ASTM D5185m >75 < 1 < 1 0 0 0 0 1 Copper ppm ASTM D5185m >75 < 1 < 1 0 0 0 0 0 0 Cadmium ppm ASTM D5185m >8 0 0 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 0 0 Magnesium ppm ASTM D5185m 19 18 18 18 Calcium ppm ASTM D5185m 19 18 19 18 18 18 Calcium ppm ASTM D5185m 19 18 19 18 18 18 Calcium ppm ASTM D5185m 19 18 19 18 19 18 18 18 CONTAMINANTS ppm ASTM D5185m 19 1057 1085 1124  CONTAMINANTS reethod limit/base current history1 history2 Water ppm ASTM D5185m 20 0 0 2 2 Water % ASTM D5185m 20 0 0 2 2 Water % ASTM D5185m 20 0 0 2 2 Water % ASTM D5185m 20 0 0 2 2 Water % ASTM D5185m 20 0 0 2 2 Water % ASTM D5185m 20 0 0 2 2 Water % ASTM D5185m 20 0 0 2 2 Water % ASTM D5185m 20 0 0 2 2 Water % ASTM D5185m 20 0 0 0 2 2 Water % ASTM D5185m 20 0 0 0 2 2 Water % ASTM D5185m 20 0 0 0 2 2 Water % ASTM D5185m 20 0 0 0 2 2 Water % ASTM D5185m 20 0 0 0 2 2 Water % ASTM D5185m 20 0 0 0 2 2 Water % ASTM D5185m 20 0 0 0 2 2 Water % ASTM D5185m 20 0 0 0 2 2 Water % ASTM D5185m 20 0 0 0 2 2 Water % ASTM D5185m 20 0 0 0 2 2 Water % ASTM D5185m 20 0 0 0 2 2 Water % ASTM D5185m 20 0 0 0 2 2 Water % ASTM D5185m 20 0 0 0 2 2 Water % ASTM D5185m 20 0 0 0 2 2 Water % ASTM D5185m 20 0 0 0 2 2 Water % ASTM D5185m 20 0 0 0 2 2 Water % ASTM D5185m 20 0 0 0 2 2 Water % ASTM D5185m 20 0 0 0 0 2 2 Water % ASTM D5185m 20 0 0 0 0 2 2	Iron	ppm	ASTM D5185m	>800	15	13	8	
Titanium         ppm         ASTM D5185m         >15         0         0         <1           Silver         ppm         ASTM D5185m         >2         0         0         0           Aluminum         ppm         ASTM D5185m         >2         0         0         0           Lead         ppm         ASTM D5185m         >10         0         0         <1	Chromium	ppm	ASTM D5185m	>10	<1	0	<1	
Silver	Nickel	ppm	ASTM D5185m	>5	0	0	0	
Alluminum	Titanium	ppm	ASTM D5185m	>15	0	0	<1	
Lead	Silver	ppm	ASTM D5185m	>2	0	0	0	
Lead	Aluminum	ppm	ASTM D5185m	>75	<1	<1	1	
Copper	Lead	ppm		>10	0	0	<1	
Name	Copper		ASTM D5185m	>75	<1	<1	0	
Vanadium         ppm         ASTM D5185m         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         <1           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         2         <1         <1           Barium         ppm         ASTM D5185m         3         2         3           Molybdenum         ppm         ASTM D5185m         3         2         3           Magnesium         ppm         ASTM D5185m         19         18         18         18           Calcium         ppm         ASTM D5185m         3419         3267         3365         3365         3419         3267         3365         333         2         333         333         333         333         333         333         333         333         333         333         33419         3267         3365         3419         3267         3365         3419         3267         3365         3419         3267         3365         1124           CONTAMINANTS         method         limit/base         current         history1<	Tin		ASTM D5185m	>8	0	0	0	
Cadmium         ppm         ASTM D5185m         0         0         <1           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         2         <1	Vanadium		ASTM D5185m		0	0	0	
Boron   ppm   ASTM D5185m   2	Cadmium		ASTM D5185m		0		<1	
Boron   ppm   ASTM D5185m   2	ADDITIVES		method	limit/base	current	historv1	historv2	
Barium		nnm				,	•	
Molybdenum         ppm         ASTM D5185m         3         2         3           Manganese         ppm         ASTM D5185m         <1								
Manganese         ppm         ASTM D5185m         <1         0         0           Magnesium         ppm         ASTM D5185m         19         18         18           Calcium         ppm         ASTM D5185m         3419         3267         3365           Phosphorus         ppm         ASTM D5185m         904         870         933           Zinc         ppm         ASTM D5185m         1057         1085         1124           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >400         15         15         16           Sodium         ppm         ASTM D5185m         >400         15         15         16           Sodium         ppm         ASTM D5185m         >20         0         0         2           Water         %					-			
Magnesium         ppm         ASTM D5185m         19         18         18           Calcium         ppm         ASTM D5185m         3419         3267         3365           Phosphorus         ppm         ASTM D5185m         904         870         933           Zinc         ppm         ASTM D5185m         1057         1085         1124           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >400         15         15         16           Sodium         ppm         ASTM D5185m         >400         15         15         16           Sodium         ppm         ASTM D5185m         >20         0         0         2           Water         %         ASTM D6304         >0.2         0.047         0.037         0.036           ppm Water         ppm         ASTM D6304         >2000         475         375         366.1           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOHg         ASTM D8045         1.34         1.35         1	•							
Calcium         ppm         ASTM D5185m         3419         3267         3365           Phosphorus         ppm         ASTM D5185m         904         870         933           Zinc         ppm         ASTM D5185m         1057         1085         1124           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >400         15         15         16           Sodium         ppm         ASTM D5185m         >400         15         15         16           Sodium         ppm         ASTM D5185m         >20         0         0         2           Water         %         ASTM D6304         >0.2         0.047         0.037         0.036           ppm Water         ppm         ASTM D6304         >2000         475         375         366.1           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOHlg         ASTM D8045         1.34         1.35         1.16           VISUAL         method         limit/base         current         hi	-						-	
Phosphorus         ppm         ASTM D5185m         904         870         933           Zinc         ppm         ASTM D5185m         1057         1085         1124           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >400         15         15         16           Sodium         ppm         ASTM D5185m         >400         15         15         16           Sodium         ppm         ASTM D5185m         >400         0         0         2           Water         %         ASTM D5185m         >20         0         0         0         2           Water         %         ASTM D5185m         >20         0         0         0         <	-							
Zinc         ppm         ASTM D5185m         1057         1085         1124           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >400         15         15         16           Sodium         ppm         ASTM D5185m         >400         15         1         0           Potassium         ppm         ASTM D5185m         >20         0         0         2           Water         %         ASTM D6304         >0.2         0.047         0.037         0.036           ppm Water         ppm         ASTM D6304         >2000         475         375         366.1           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         1.34         1.35         1.16           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >400         15         15         16           Sodium         ppm         ASTM D5185m         <1								
Silicon	-			limit/hase				
Sodium								
Potassium         ppm         ASTM D5185m         >20         0         0         2           Water         %         ASTM D6304         >0.2         0.047         0.037         0.036           ppm Water         ppm         ASTM D6304         >2000         475         375         366.1           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         1.34         1.35         1.16           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE         NONE           Precipitate         scalar         *Visual         NONE         NONE         NONE         NONE           Silt         scalar         *Visual         NONE         NONE         NONE         NONE           Debris         scalar         *Visual         NONE         NONE         NONE         NONE           Sand/Dirt         sca				7 100	-			
Water % ASTM D6304 >0.2 0.047 0.037 0.036 ppm Water ppm ASTM D6304 >2000 475 375 366.1  FLUID DEGRADATION method limit/base current history1 history2  Acid Number (AN) mg KOH/g ASTM D8045 1.34 1.35 1.16  VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE NONE NONE NONE Scalar *Visual NONE NONE NONE NONE NONE NONE NONE Scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON				>20				
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Acid Number (AN) mg KOH/g ASTM D8045 1.34 1.35 1.16  VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE NONE NONE NONE NONE  Yellow Metal scalar *Visual NONE NONE NONE NONE NONE  Precipitate scalar *Visual NONE NONE NONE NONE NONE  Silt scalar *Visual NONE NONE NONE NONE NONE  Debris scalar *Visual NONE NONE NONE NONE NONE  Sand/Dirt scalar *Visual NONE NONE NONE NONE  Appearance scalar *Visual NORML NORML NORML NORML  Odor scalar *Visual NORML NORML NORML NORML	ppm Water				010 11			
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Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORML	White Metal	scalar	*Visual	NONE			NONE	
Precipitate scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE	
Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML	Precipitate							
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Odor scalar *Visual NORML NORML NORML NORML								
	Odor							

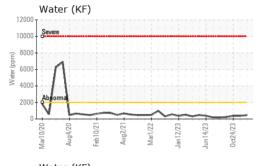
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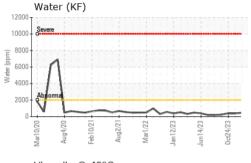
scalar \*Visual

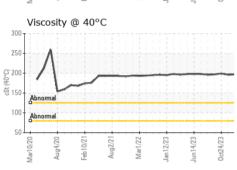


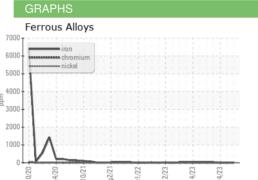
## **OIL ANALYSIS REPORT**

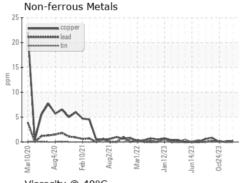


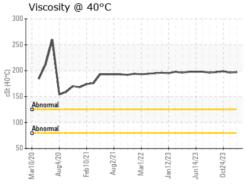


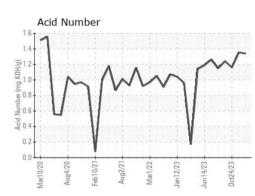
















Certificate L2367

Laboratory Sample No.

Test Package : IND 2

: RP0037012 Lab Number : 06101722 Unique Number : 10899952

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received

**Tested** Diagnosed

: 28 Feb 2024 : 28 Feb 2024 - Wes Davis

: 27 Feb 2024

3784 FM 39 SOUTH JEWETT, TX US 75846

Contact: JURGEN THOMPSON

JThompson@ecomaterial.com T: (903)626-9528

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)

F: (903)626-9772

**NRG TEXAS LLC**