

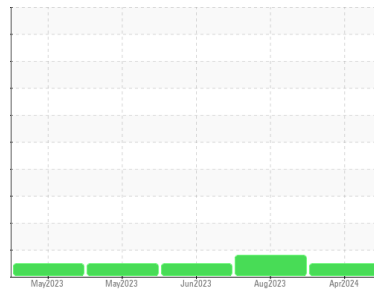


# OIL ANALYSIS REPORT



Machine Id  
**CATERPILLAR HCU-25 - LT-19**  
 Component  
**Diesel Engine**  
 Fluid  
**CHEVRON 15W40 (--- GAL)**

Sample Rating Trend



**NORMAL**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>AO0000248</b>	AO0000267	AO0000066
Sample Date	Client Info		<b>26 Apr 2024</b>	18 Aug 2023	02 Jun 2023
Machine Age	hrs	Client Info	<b>17541</b>	13280	12600
Oil Age	hrs	Client Info	<b>300</b>	230	250
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	ABNORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>5</b>	9	4
Chromium	ppm	ASTM D5185m >6	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m >4	<b>0</b>	0	1
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >30	<b>2</b>	0	3
Lead	ppm	ASTM D5185m >10	<b>&lt;1</b>	2	0
Copper	ppm	ASTM D5185m >150	<b>0</b>	▲ 118	<1
Tin	ppm	ASTM D5185m >4	<b>0</b>	<1	1
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>2</b>	0	<1
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>62</b>	250	56
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	<b>946</b>	1176	424
Calcium	ppm	ASTM D5185m	<b>1073</b>	1265	1782
Phosphorus	ppm	ASTM D5185m	<b>1057</b>	1212	1098
Zinc	ppm	ASTM D5185m	<b>1236</b>	1450	1379
Sulfur	ppm	ASTM D5185m	<b>3513</b>	3980	4559

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	<b>3</b>	5	5
Sodium	ppm	ASTM D5185m >50	<b>1</b>	2	<1
Potassium	ppm	ASTM D5185m >20	<b>1</b>	2	2

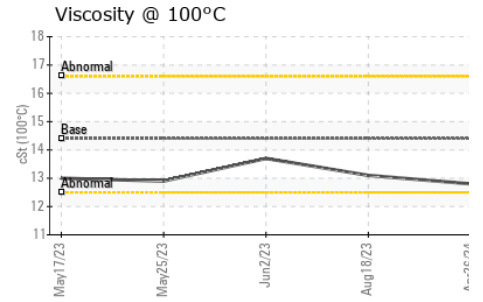
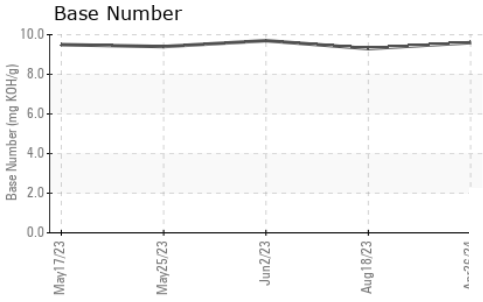
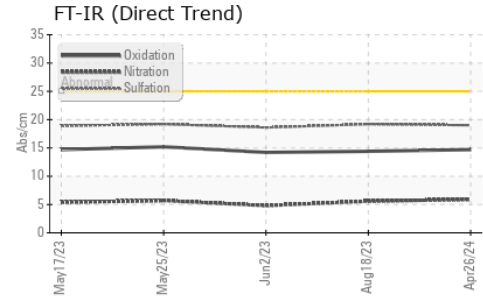
## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>5.9</b>	5.6	4.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.0</b>	19.2	18.6

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.7</b>	14.4	14.2
Base Number (BN)	mg KOH/g	ASTM D2896	<b>9.6</b>	9.3	9.7

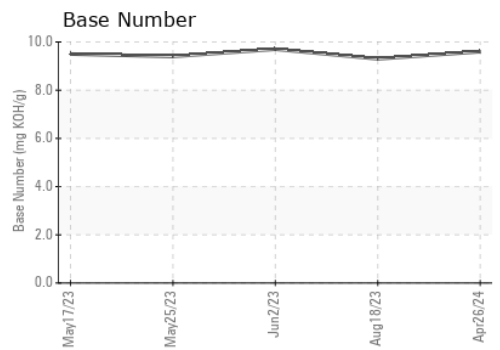
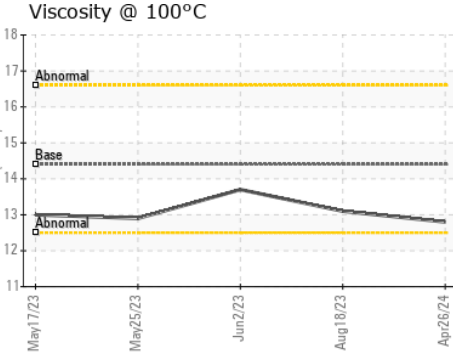
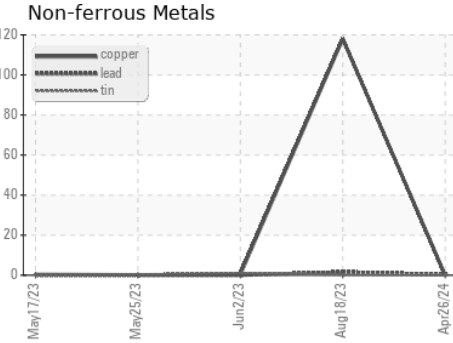
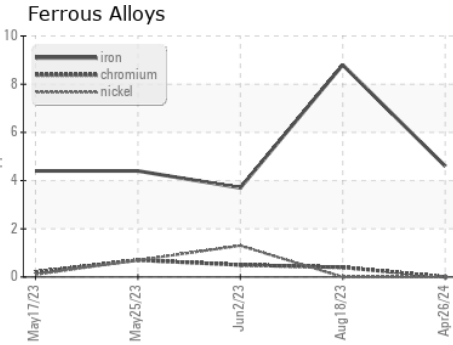
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	14.4	<b>12.8</b>	13.1	13.7

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : AO0000248      **Received** : 10 May 2024  
**Lab Number** : **06175207**      **Tested** : 13 May 2024  
**Unique Number** : 11021260      **Diagnosed** : 13 May 2024 - Wes Davis  
**Test Package** : FLEET

**DEEP WELL SERVICES**  
 10218 WEST CR 148  
 MIDLAND, TX  
 US 79706  
 Contact: ADRIAN GARCIA  
 agarcia@deepwellservices.com

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)