

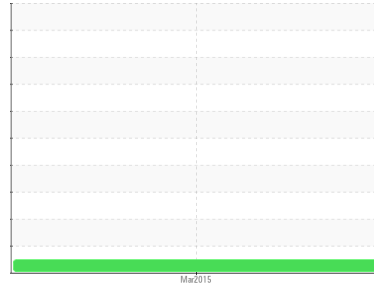
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**CATERPILLAR 775D 6441 (S/N 8AS00350)**  
 Component  
**Differential**  
 Fluid  
**TULCO LUBSOIL TO 430 (--- GAL)**



## 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 component.

### Fluid Condition

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

## SAMPLE INFORMATION

|               | method      | limit/base  | current            | history1 | history2 |
|---------------|-------------|-------------|--------------------|----------|----------|
| Sample Number | Client Info |             | <b>TO1004267</b>   | ---      | ---      |
| Sample Date   | Client Info |             | <b>19 Mar 2015</b> | ---      | ---      |
| Machine Age   | hrs         | Client Info | <b>28464</b>       | ---      | ---      |
| Oil Age       | hrs         | Client Info | <b>0</b>           | ---      | ---      |
| Oil Changed   | Client Info |             | <b>Not Chngd</b>   | ---      | ---      |
| Sample Status |             |             | <b>NORMAL</b>      | ---      | ---      |

## WEAR METALS

|          | method     | limit/base       | current      | history1 | history2 |
|----------|------------|------------------|--------------|----------|----------|
| PQ       | ASTM D8184 |                  | <b>14.0</b>  | ---      | ---      |
| Iron     | ppm        | ASTM D5185m >500 | <b>8</b>     | ---      | ---      |
| Chromium | ppm        | ASTM D5185m >3   | <b>&lt;1</b> | ---      | ---      |
| Nickel   | ppm        | ASTM D5185m >3   | <b>&lt;1</b> | ---      | ---      |
| Titanium | ppm        | ASTM D5185m >2   | <b>&lt;1</b> | ---      | ---      |
| Silver   | ppm        | ASTM D5185m >2   | <b>0</b>     | ---      | ---      |
| Aluminum | ppm        | ASTM D5185m >30  | <b>1</b>     | ---      | ---      |
| Lead     | ppm        | ASTM D5185m >13  | <b>&lt;1</b> | ---      | ---      |
| Copper   | ppm        | ASTM D5185m >103 | <b>2</b>     | ---      | ---      |
| Tin      | ppm        | ASTM D5185m >5   | <b>0</b>     | ---      | ---      |
| Antimony | ppm        | ASTM D5185m      | <b>0</b>     | ---      | ---      |
| Vanadium | ppm        | ASTM D5185m      | <b>0</b>     | ---      | ---      |
| Cadmium  | ppm        | ASTM D5185m      | <b>0</b>     | ---      | ---      |

## ADDITIVES

|            | method | limit/base  | current      | history1 | history2 |
|------------|--------|-------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185m | <b>2</b>     | ---      | ---      |
| Barium     | ppm    | ASTM D5185m | <b>0</b>     | ---      | ---      |
| Molybdenum | ppm    | ASTM D5185m | <b>2</b>     | ---      | ---      |
| Manganese  | ppm    | ASTM D5185m | <b>&lt;1</b> | ---      | ---      |
| Magnesium  | ppm    | ASTM D5185m | <b>10</b>    | ---      | ---      |
| Calcium    | ppm    | ASTM D5185m | <b>2454</b>  | ---      | ---      |
| Phosphorus | ppm    | ASTM D5185m | <b>757</b>   | ---      | ---      |
| Zinc       | ppm    | ASTM D5185m | <b>853</b>   | ---      | ---      |
| Sulfur     | ppm    | ASTM D5185m | <b>4270</b>  | ---      | ---      |

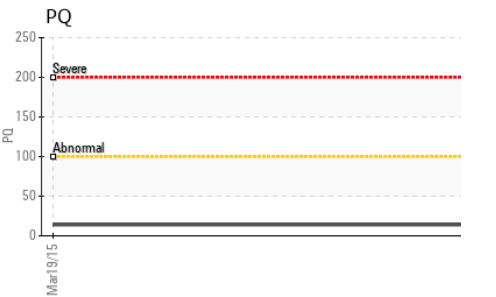
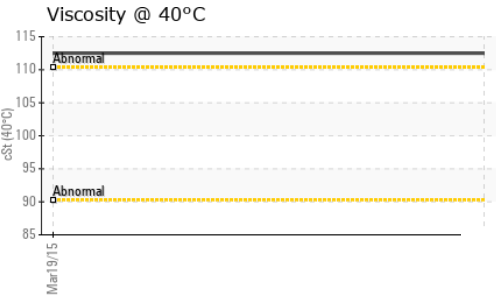
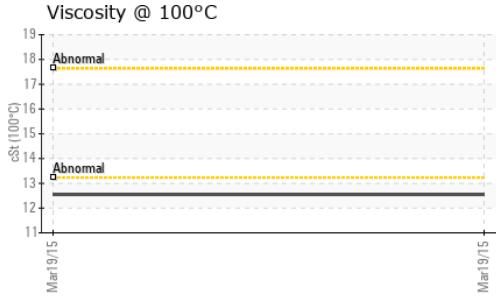
## CONTAMINANTS

|           | method | limit/base       | current      | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >100 | <b>11</b>    | ---      | ---      |
| Sodium    | ppm    | ASTM D5185m      | <b>&lt;1</b> | ---      | ---      |
| Potassium | ppm    | ASTM D5185m >20  | <b>5</b>     | ---      | ---      |

## FLUID DEGRADATION

|                  | method   | limit/base | current     | history1 | history2 |
|------------------|----------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | <b>1.31</b> | ---      | ---      |

# OIL ANALYSIS REPORT

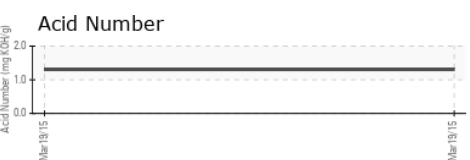
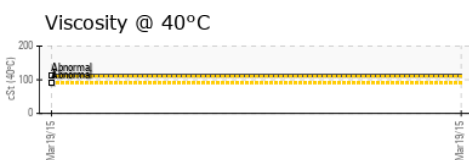
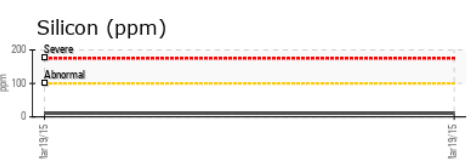
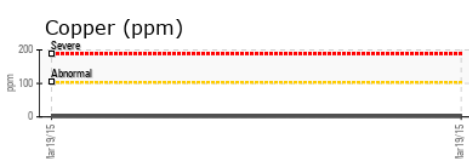
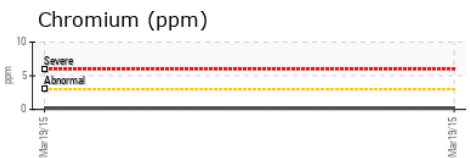
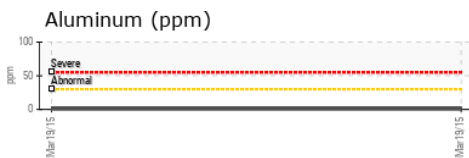
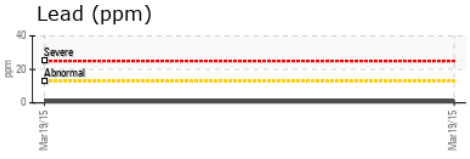
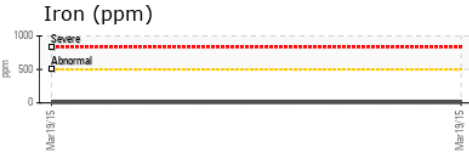


| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | ---      | ---      |
| Yellow Metal     | scalar | *Visual    | NONE    | ---      | ---      |
| Precipitate      | scalar | *Visual    | NONE    | ---      | ---      |
| Silt             | scalar | *Visual    | NONE    | ---      | ---      |
| Debris           | scalar | *Visual    | NONE    | ---      | ---      |
| Sand/Dirt        | scalar | *Visual    | NONE    | ---      | ---      |
| Appearance       | scalar | *Visual    | NORML   | ---      | ---      |
| Odor             | scalar | *Visual    | NORML   | ---      | ---      |
| Emulsified Water | scalar | *Visual    | >.2     | ---      | ---      |
| Free Water       | scalar | *Visual    | ---     | ---      | ---      |

| FLUID PROPERTIES     | method | limit/base | current | history1 | history2 |
|----------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C          | cSt    | ASTM D445  | 112.5   | ---      | ---      |
| Visc @ 100°C         | cSt    | ASTM D445  | 12.55   | ---      | ---      |
| Viscosity Index (VI) | Scale  | ASTM D2270 | 103     | ---      | ---      |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
| Color         |        |            |         | no image | no image |
| Bottom        |        |            |         | no image | no image |

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO1004267 **Received** : 01 Jun 2015  
**Lab Number** : 03752513 **Diagnosed** : 02 Jun 2015  
**Unique Number** : 7020526 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: KV100, PQ, VI )

**ANCHOR STONE TULSA ROCK**  
 TULSA ROCK QUARRY, 66TH ST N 145TH AVENUE  
 TULSA, OK  
 US 74137

Contact: MIKE SNYDER  
 msnyder@anchorstoneco.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)

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F: