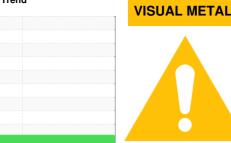


## **OIL ANALYSIS REPORT**

Sample Rating Trend



# 000023 LOADER STAND

Component

Hydraulic System

**ROYAL ROYCO 717 (77 GAL)** 

### DIAGNOSIS

#### Recommendation

We were unable to perform a particle count due to metal particles present in this sample. We recommend you check the filters on this component. Resample at the next service interval to monitor.

#### Wear

Light concentration of visible metal present. All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the component.

#### **Fluid Condition**

The condition of oil is suitable for further service.

Sample Date         Client Info         14 Aug 2007             Machine Age         hrs         Client Info         0             Oil Age         hrs         Client Info         0             Oil Changed         Client Info         N/A             Sample Status         ABNORMAL             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         <1             Iron         ppm         ASTM D5185m         <1             Nickel         ppm         ASTM D5185m         0             Silver         ppm         ASTM D5185m         0             Aluminum         ppm         ASTM D5185m         0             Lead         ppm         ASTM D5185m         0             Copper         ppm         ASTM D5185m         0             Tin         pm         ASTM D518					Aug2007		
Sample Date         Client Info         14 Aug 2007            Machine Age         hrs         Client Info         0            Oil Age         hrs         Client Info         0            Oil Changed         Client Info         N/A            Sample Status         ABNORMAL             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         <1             Chromium         ppm         ASTM D5185m         <1             Nickel         ppm         ASTM D5185m         0             Nickel         ppm         ASTM D5185m         0             Oil very         ppm         ASTM D5185m         0             Aluminum         ppm         ASTM D5185m         0             Lead         ppm         ASTM D5185m         0             Copper         ppm         ASTM D5185m         0	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age         hrs         Client Info         0	Sample Number		Client Info		WC02010140		
Oil Age         hrs         Client Info         0             Oil Changed         Client Info         N/A             Sample Status         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         <1             Chromium         ppm         ASTM D5185m         <1             Nickel         ppm         ASTM D5185m         0             Silver         ppm         ASTM D5185m         0             Aluminum         ppm         ASTM D5185m         0             Lead         ppm         ASTM D5185m         0             Copper         ppm         ASTM D5185m         0             Antimony         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         0             Bar	Sample Date		Client Info		14 Aug 2007		
Oil Changed Sample Status         Client Info         N/A	Machine Age	hrs	Client Info		0		
ABNORMAL            WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         <1	Oil Age	hrs	Client Info		0		
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         <1	Oil Changed		Client Info		N/A		
Chromium	Sample Status				ABNORMAL		
Chromium         ppm         ASTM D5185m         <1             Nickel         ppm         ASTM D5185m         <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m		<1		
Titanium	Chromium	ppm	ASTM D5185m		<1		
Silver	Nickel	ppm	ASTM D5185m		<1		
Aluminum         ppm         ASTM D5185m         <1	Titanium	ppm	ASTM D5185m		0		
Lead         ppm         ASTM D5185m         0             Copper         ppm         ASTM D5185m         <1	Silver	ppm	ASTM D5185m		0		
Copper         ppm         ASTM D5185m         <1             Tin         ppm         ASTM D5185m         0             Antimony         ppm         ASTM D5185m         0             Vanadium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         <1	Aluminum	ppm	ASTM D5185m		<1		
Tin	Lead	ppm	ASTM D5185m		0		
Antimony         ppm         ASTM D5185m         0             Vanadium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         <1             Barium         ppm         ASTM D5185m         <1             Molybdenum         ppm         ASTM D5185m         0             Magnese         ppm         ASTM D5185m         <1             Magnesium         ppm         ASTM D5185m         <1             Calcium         ppm         ASTM D5185m         764             Phosphorus         ppm         ASTM D5185m         2             Sulfur         ppm         ASTM D5185m         151             CONTAMINANTS         method         limit/base         current         history1	Copper	ppm	ASTM D5185m		<1		
Vanadium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         <1             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         0             Manganese         ppm         ASTM D5185m         0             Magnesium         ppm         ASTM D5185m         <1             Calcium         ppm         ASTM D5185m         764             Phosphorus         ppm         ASTM D5185m         2             Zinc         ppm         ASTM D5185m         2             Sulfur         ppm         ASTM D5185m         2             CONTAMINANTS         method         limit/base         current         history1         hi	Tin	ppm	ASTM D5185m		0		
Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         <1	Antimony	ppm	ASTM D5185m		0		
ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         <1	Vanadium	ppm	ASTM D5185m		0		
Boron   ppm   ASTM D5185m   <1             Barium   ppm   ASTM D5185m   <1           Molybdenum   ppm   ASTM D5185m   0           Manganese   ppm   ASTM D5185m   0           Magnesium   ppm   ASTM D5185m   0           Calcium   ppm   ASTM D5185m   <1           Phosphorus   ppm   ASTM D5185m   764           Zinc   ppm   ASTM D5185m   2           Sulfur   ppm   ASTM D5185m   151           CONTAMINANTS   method   limit/base   current   history1   history2       Sodium   ppm   ASTM D5185m   27           Sodium   ppm   ASTM D5185m   1           Potassium   ppm   ASTM D5185m   1           Water   %   ASTM D6304   0.011	Cadmium	ppm	ASTM D5185m		0		
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         0             Manganese         ppm         ASTM D5185m         0             Magnesium         ppm         ASTM D5185m         <1             Calcium         ppm         ASTM D5185m         764             Phosphorus         ppm         ASTM D5185m         2             Zinc         ppm         ASTM D5185m         2             Sulfur         ppm         ASTM D5185m         151             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         27             Sodium         ppm         ASTM D5185m         1             Potassium         ppm         ASTM D5185m         <1             Water         %         ASTM D6304         0.011	Boron	ppm	ASTM D5185m		<1		
Manganese         ppm         ASTM D5185m         0             Magnesium         ppm         ASTM D5185m         <1	Barium	ppm	ASTM D5185m		<1		
Magnesium         ppm         ASTM D5185m         <1             Calcium         ppm         ASTM D5185m         <1	Molybdenum	ppm	ASTM D5185m		0		
Calcium         ppm         ASTM D5185m         <1             Phosphorus         ppm         ASTM D5185m         764             Zinc         ppm         ASTM D5185m         2             Sulfur         ppm         ASTM D5185m         151             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         27             Sodium         ppm         ASTM D5185m         1             Potassium         ppm         ASTM D6304         0.011             Water         %         ASTM D6304         0.011	Manganese	ppm	ASTM D5185m		0		
Phosphorus         ppm         ASTM D5185m         764             Zinc         ppm         ASTM D5185m         2             Sulfur         ppm         ASTM D5185m         151             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         27             Sodium         ppm         ASTM D5185m         1             Potassium         ppm         ASTM D5185m         <1             Water         %         ASTM D6304         0.011	Magnesium	ppm	ASTM D5185m		<1		
Zinc         ppm         ASTM D5185m         2             Sulfur         ppm         ASTM D5185m         151             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         27             Sodium         ppm         ASTM D5185m         1             Potassium         ppm         ASTM D5185m         <1	Calcium	ppm	ASTM D5185m		<1		
Sulfur         ppm         ASTM D5185m         151             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         27             Sodium         ppm         ASTM D5185m         1             Potassium         ppm         ASTM D5185m         <1	Phosphorus	ppm	ASTM D5185m		764		
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         27             Sodium         ppm         ASTM D5185m         1             Potassium         ppm         ASTM D5185m         <1	Zinc	ppm	ASTM D5185m		2		
Silicon         ppm         ASTM D5185m         27             Sodium         ppm         ASTM D5185m         1             Potassium         ppm         ASTM D5185m         <1             Water         %         ASTM D6304         0.011	Sulfur	ppm	ASTM D5185m		151		
Sodium         ppm         ASTM D5185m         1             Potassium         ppm         ASTM D5185m         <1	CONTAMINANTS	}	method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185m         <1             Water         %         ASTM D6304         0.011	Silicon	ppm	ASTM D5185m		27		
Water % ASTM D6304 0.011	Sodium	ppm	ASTM D5185m		1		
Water % ASTM D6304 0.011	Potassium	ppm	ASTM D5185m		<1		
FLUID DEGRADATION method limit/base current history1 history2	Water	%	ASTM D6304		0.011		
	FLUID DEGRADA	ATION	method	limit/base	current	history1	history2

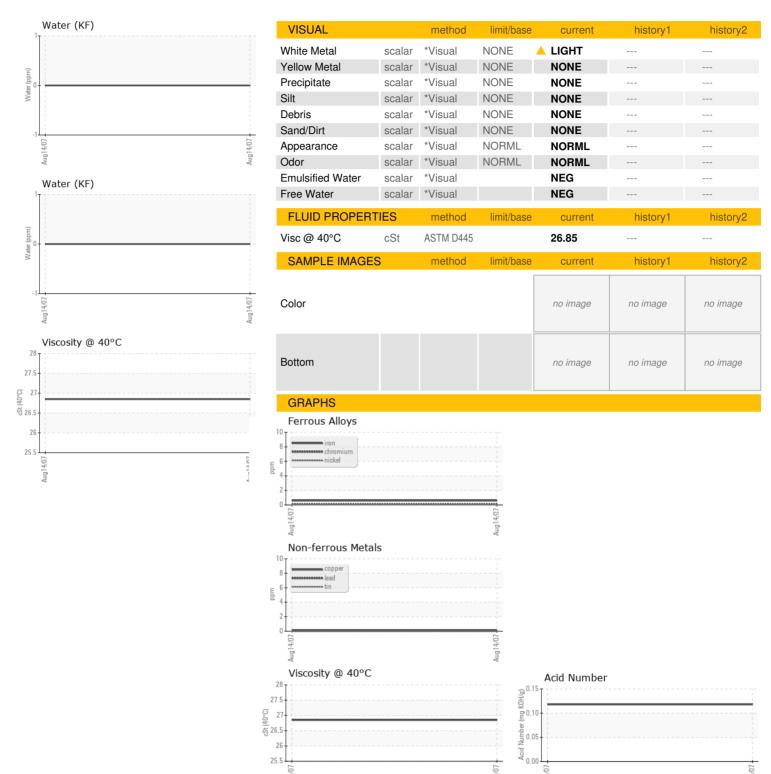
0.118

mg KOH/g ASTM D8045

Acid Number (AN)



## **OIL ANALYSIS REPORT**







Laboratory Sample No.

: WC02010140 Lab Number : 02010140 Unique Number : 4188893

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 14 Aug 2007 : 16 Aug 2007 **Tested** 

Diagnosed Test Package: IND 2 (Additional Tests: Bottom, KF)

: 16 Aug 2007 - Doug Bogart

**BAE SYSTEMS** 163 ROCHESTER DR LOUISVILLE, KY US 40214

Contact: KEN MAHONEY ken.mahoney@baesystems.com

Contact/Location: KEN MAHONEY - BAELOU

T: (502)364-6439 F: (502)364-5973

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)