



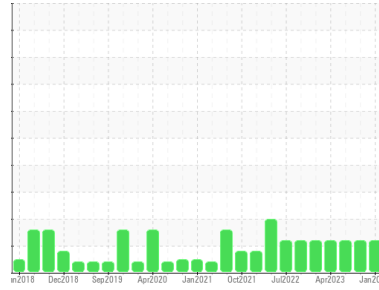
# OIL ANALYSIS REPORT

Sample Rating Trend

ISO



Area  
**Utilities**  
 Machine Id  
**Truck Dump**  
 Component  
**Reservoir Pump**  
 Fluid  
**PETRO CANADA HYDREX AW 32 (150 GAL)**



## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

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

### 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>WC0886194</b>	WC0816915	WC0635841
Sample Date	Client Info		<b>24 Jan 2024</b>	30 Oct 2023	26 Jul 2023
Machine Age	mths	Client Info	<b>0</b>	0	0
Oil Age	mths	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>.1	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >90	<b>38</b>	37	25
Chromium	ppm	ASTM D5185m >5	<b>3</b>	3	2
Nickel	ppm	ASTM D5185m >5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m >3	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >7	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185m >12	<b>0</b>	<1	2
Copper	ppm	ASTM D5185m >30	<b>4</b>	4	0
Tin	ppm	ASTM D5185m >9	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 0	<b>0</b>	<1	3
Calcium	ppm	ASTM D5185m 50	<b>46</b>	51	38
Phosphorus	ppm	ASTM D5185m 330	<b>460</b>	480	354
Zinc	ppm	ASTM D5185m 430	<b>532</b>	611	529
Sulfur	ppm	ASTM D5185m 760	<b>1501</b>	1579	1953

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >60	<b>2</b>	2	<1
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Potassium	ppm	ASTM D5185m >20	<b>0</b>	<1	<1

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>▲ 149812</b>	▲ 95621	▲ 110372
Particles >6µm	ASTM D7647	>1300	<b>▲ 5887</b>	▲ 5504	▲ 4916
Particles >14µm	ASTM D7647	>160	<b>49</b>	56	81
Particles >21µm	ASTM D7647	>40	<b>1</b>	8	18
Particles >38µm	ASTM D7647	>10	<b>0</b>	0	0
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>▲ 24/20/13</b>	▲ 24/20/13	▲ 24/19/14

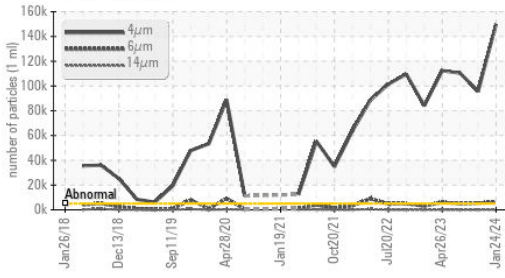
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.50	<b>0.37</b>	0.31	0.34

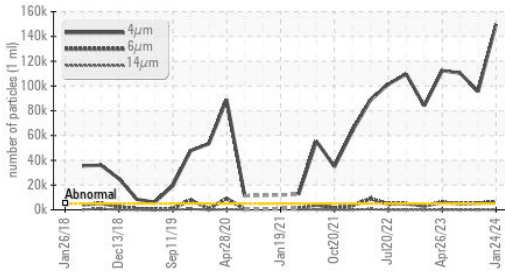


# OIL ANALYSIS REPORT

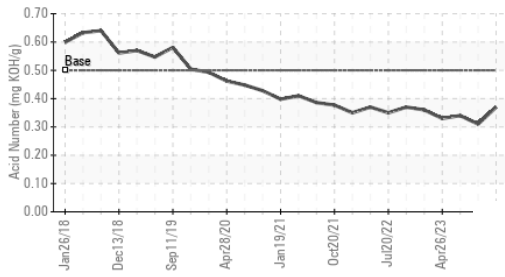
▲ Particle Trend



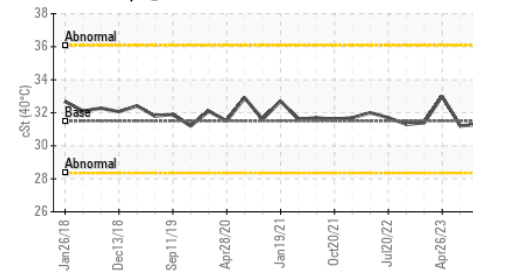
▲ Particle Trend



Acid Number



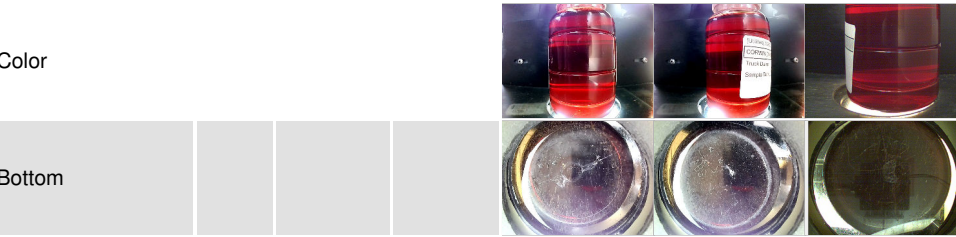
Viscosity @ 40°C



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	>.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

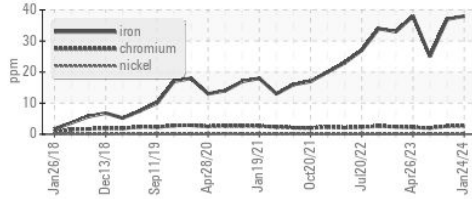
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	31.5	31.3	31.2

SAMPLE IMAGES	method	limit/base	current	history1	history2
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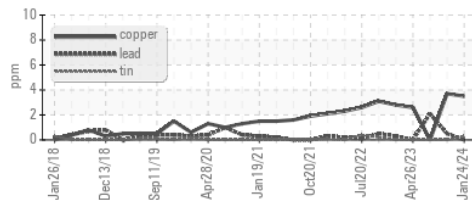


## GRAPHS

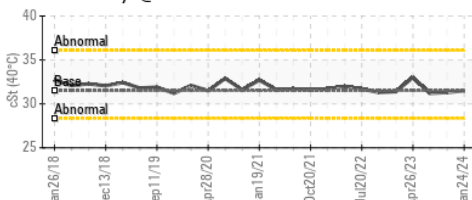
Ferrous Alloys



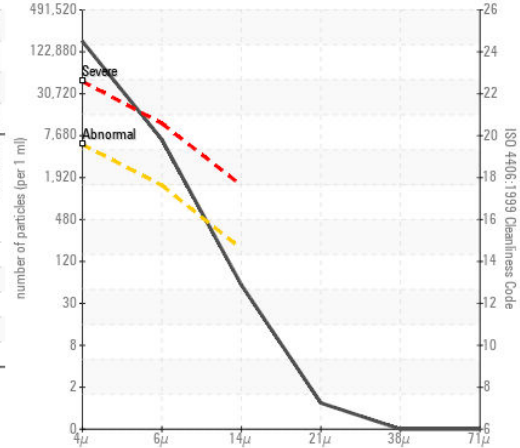
Non-ferrous Metals



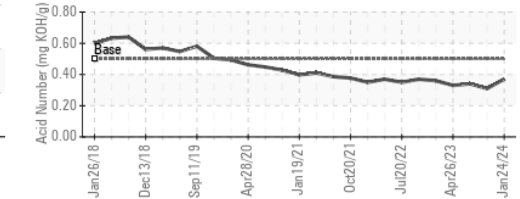
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0886194 **Received** : 31 Jan 2024  
**Lab Number** : 06075711 **Diagnosed** : 01 Feb 2024  
**Unique Number** : 10857802 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: PrtCount )

**INGREDION INC**  
 WINSTON SALEM PLANT, 4501 OVERDALE ROAD  
 WINSTON SALEM, NC  
 US 27107  
 Contact: MATTHEW KING  
 matthew.king@ingredion.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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