



# CONSTRUCTION EQUIPMENT

## SWO64387 HITACHI ZX35U-5N HCMADG60P00302013 - HYDRAULIC SYSTEM



**Sample No:** VCP433916  
**Oil Type:** HITACHI HYDRAULIC SUPER EX 46HN  
**Job No:** SWO64387



### SAMPLE INFORMATION

Sample Number	VCP433916	VCP365989	---	---
Sample Date	06 Oct 2023	25 Jul 2023	---	---
Machine Hours	212	159	---	---
Oil Hours	0	0	---	---
Oil Changed	Not Chngd	N/A	---	---
Sample Status	ABNORMAL	ABNORMAL	---	---

### COWIN EQUIPMENT - ATLANTA

5710 RIVERVIEW RD  
 MABLETON, GA  
 US 30126

Contact: MIKE ANDREWS  
 mandrews@cowin.com  
 T: (404)690-7210  
 F:



### OIL CONDITION

Visc @ 40°C	cSt	█ 46.6	█ 45.3	---	---
Acid Number (AN)	mg KOH/g	█ 0.07	0.045	---	---



### CONTAMINATION

Particles >4µm		▲ 13828	---	---	---
Particles >6µm		▲ 4614	---	---	---
Particles >14µm		▲ 305	---	---	---
ISO 4406:1999 (c)		21/19/15	---	---	---
Silicon	ppm	█ <1	█ 1	---	---
Sodium	ppm	█ 0	█ 0	---	---
Potassium	ppm	█ <1	█ <1	---	---

### Diagnosis

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. No abnormal wear or visible detected. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



### WEAR METALS

Iron	ppm	█ 2	█ 4	---	---
Copper	ppm	█ 2	█ 4	---	---
Lead	ppm	█ <1	█ <1	---	---
Tin	ppm	█ <1	█ <1	---	---
Aluminum	ppm	█ 0	█ 0	---	---
Chromium	ppm	█ 0	█ 0	---	---
Molybdenum	ppm	█ 0	0	---	---
Nickel	ppm	█ <1	█ 0	---	---
Titanium	ppm	0	0	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	█ 0	0	---	---
Vanadium	ppm	0	0	---	---



### ADDITIVES

Calcium	ppm	█ 1	4	---	---
Magnesium	ppm	█ 5	16	---	---
Zinc	ppm	█ 24	39	---	---
Phosphorus	ppm	█ 408	356	---	---
Barium	ppm	█ 0	3	---	---
Boron	ppm	█ 0	0	---	---

**Depot:** COWMAB  
**Unique No:** 10689629  
**Signed:** Don Baldrige  
**Report Date:** 16 Oct 2023

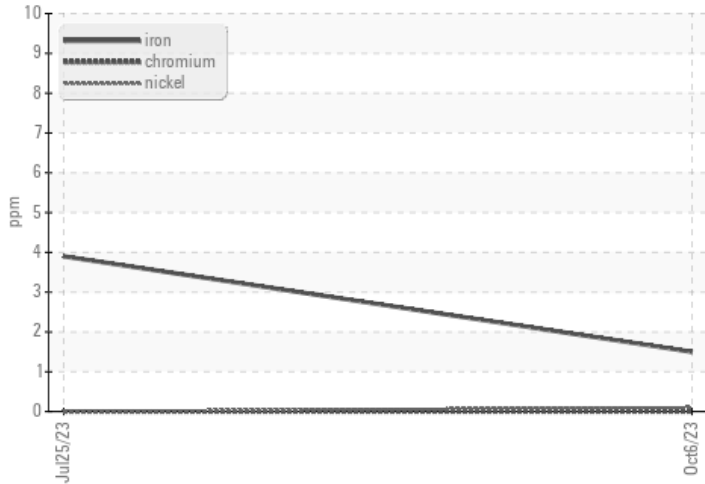


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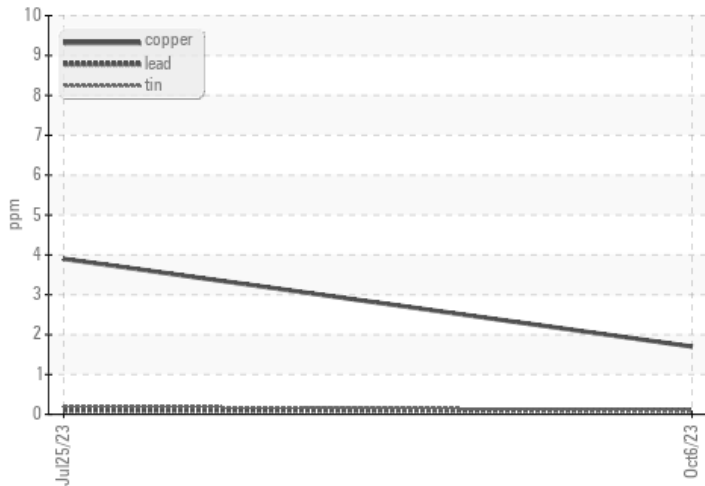


## GRAPHS

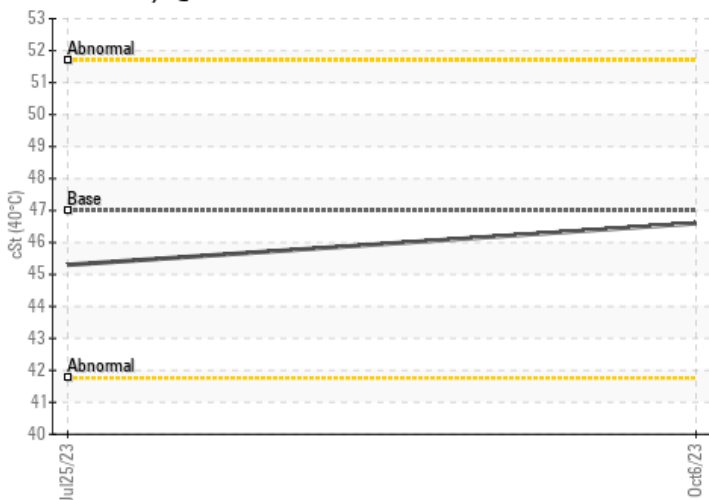
### Ferrous Alloys



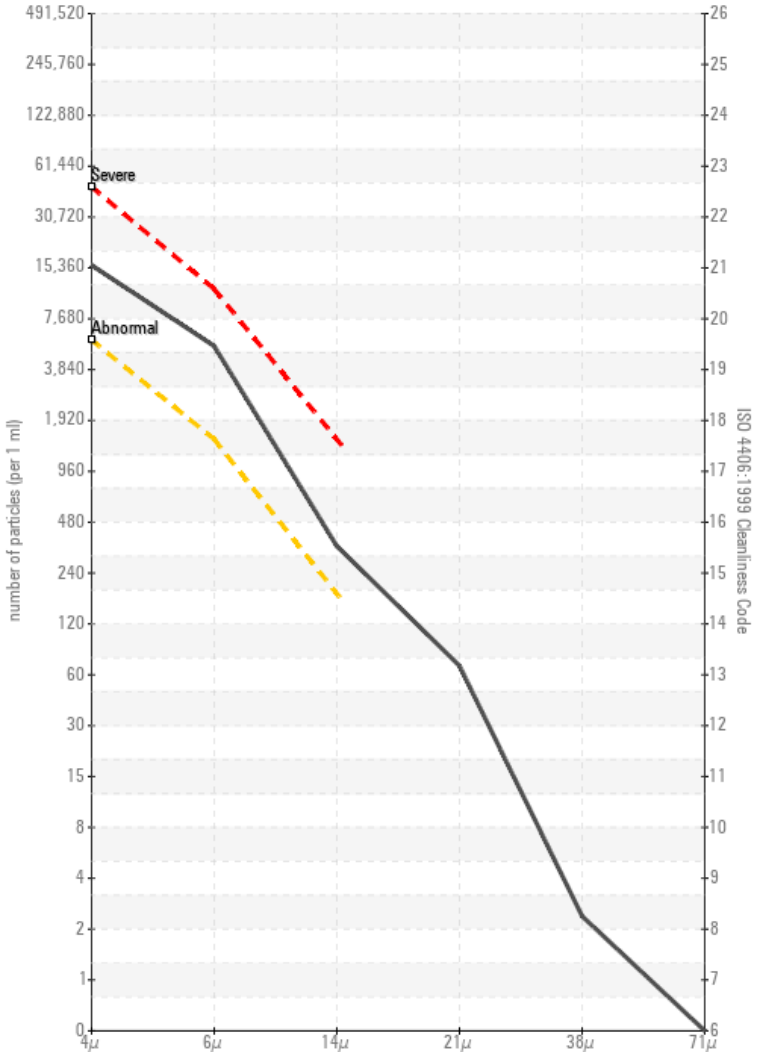
### Non-ferrous Metals



### Viscosity @ 40°C



### Particle Count



### Acid Number

