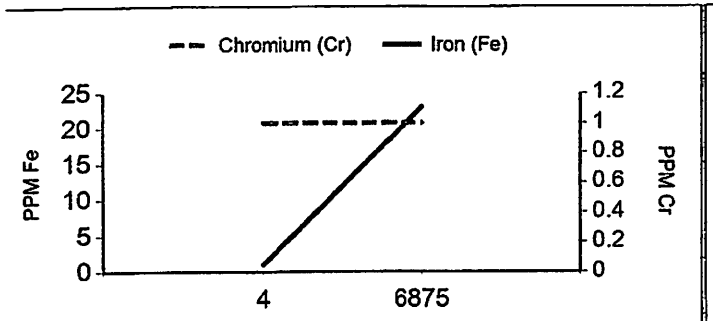
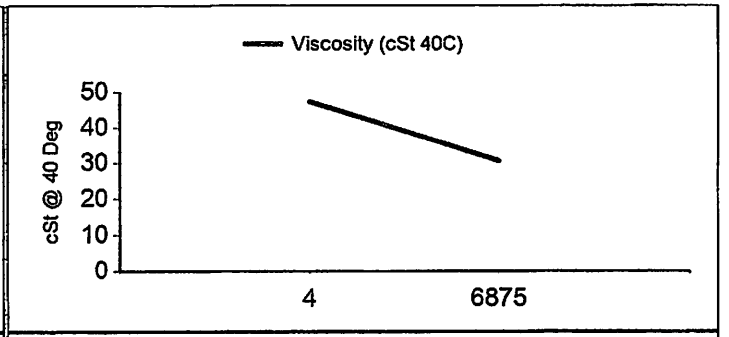
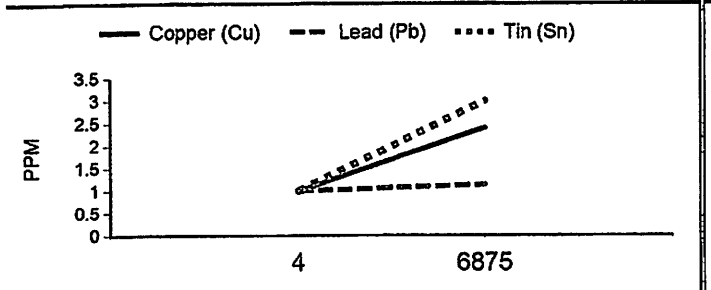
D16-11
MAY

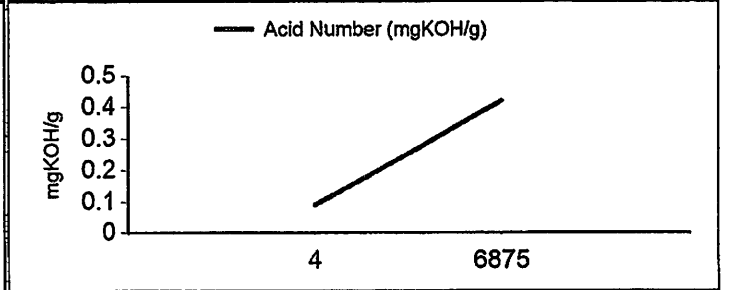
FLUID ANALYSIS

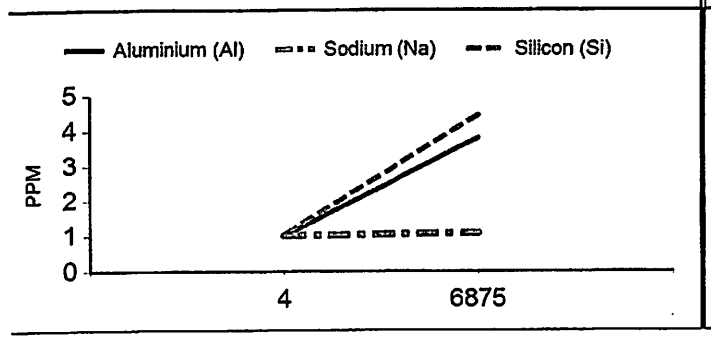
UIN 05136A5











Filter Image

Filter patch test is not performed Contact laboratory for more information

Since services are based on samples and information supplied by others, and since corrective actions, if any, are necessarily taken by others, these services are rendered without any warranty or liability of any kind beyond the actual amount paid to ALS Tribology for the services. Reported recommendations are based on interpretations of the generated test results and historical data. Certain test results appearing in this report may have been tested at other ALS laboratories within the Tribology divisional network.

0003 v1.5

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Norcross, GA 30093
800.394.3669

Valley View, Ohio - 410
6180 Halle Dr. Suite D
Valley View, OH 44125
800.726.5400

Kansas City, Kansas - 430
935 Sunshine Road
Kansas City, KS 66115
800.332.8055

Phoenix, Arizona - 440
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Phoenix, AZ 85017
800.445.7930

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Portland, OR 97210
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Australia
Brisbane, Perth, Sydney, Muswellbrook

South America
Santiago de Chile, Belo Horizonte, Brazil

New Zealand
Wellington

Southeast Asia
Kuala Lumpur, Singapore

Europe
Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method

FLUID ANALYSIS

UIN 05136A5

Hydraulic System

Unit No. 1FF350GXHGD811162

Unit:
Make John Deere
Model 350G
Serial No. 1FF350GXHGD811162

Site

Compartment:
Name Hydraulic System
Make
Model
Serial No.
Capacity: Ltrs

Customer:
BRANDT TRACTOR LTD - EDMONTON
10630 176 St Nw
Edmonton AB T5S 1M2
Canada

DIAGNOSIS

Zinc level high for type of oil indicated on form from possible mixing of oils or incorrect oil identification. Mixing zinc-free oils with other oils can cause performance issues. Recommend close monitoring. Viscosity low for specified oil grade. Please confirm type and grade of oil used in this component.

ANALYST: Pat.Libutti

Caution

LEGEND: Severe, Abnormal, Caution, Normal

DATE SAMPLED		01-Sep-23	03-Mar-16
DATE RECEIVED		06-Sep-23	02-May-16
DATE REPORTED		07-Sep-23	04-May-16
LAB NO.		40210620518	40210248767
SIF NO.		702578533	16709324
TIME ON UNIT	Hrs	6875	4
TIME ON OIL	Hrs		4
OIL BRAND		John Deere	Hitachi
OIL TYPE		ZF Hydraulic Oil	Super EX HN46
OIL GRADE		ISO 46	ISO 46
OIL ADDED			
FILTER		Not Applicable	0
OIL CHANGED		Not Changed	Not Changed
WO NUMBER			5170
Metals (ppm)			
Iron (Fe)		23	<1
Chromium (Cr)		<1	<1
Lead (Pb)		1	<1
Copper (Cu)		2	<1
Tin (Sn)		3	<1
Aluminium (Al)		4	<1
Nickel (Ni)		<1	<1
Silver (Ag)		<1	<1
Titanium (Ti)		<1	<1
Vanadium (V)		<1	<1
Contaminants (ppm)			
Silicon (Si)		4	1
Sodium (Na)		1	<1
Potassium (K)		<1	<1
Water by Karl Fischer % (E203/D6304)		0.010	0.01
Solids (%)		0.1	<0.1
Additives (ppm)			
Magnesium (Mg)		4	<1
Calcium (Ca)		135	6
Barium (Ba)		<1	<1
Phosphorus (P)		496	622
Zinc (Zn)		205	52
Molybdenum (Mo)		<1	<1
Boron (B)		<5	<5
Physical Tests			
Viscosity (cSt 40C)		30.6	47.3
Physical / Chemical			
Acid Number (mgKOH/g)		0.42	0.09
Particle Count			
ISO 4406 Rating		22/18/13	21/18/10
> 4 Micron (particles/ml)		21195	18863
> 6 Micron (particles/ml)		2102	1624
> 14 Micron (particles/ml)		66	9
> 21 Micron (particles/ml)		17	
> 38 Micron (particles/ml)		2	