Save 800 mil dollars we explain

COST AVOIDANCE

We prevented about 20 hours of downtime, saving around **$800,000!**

0.8M USD

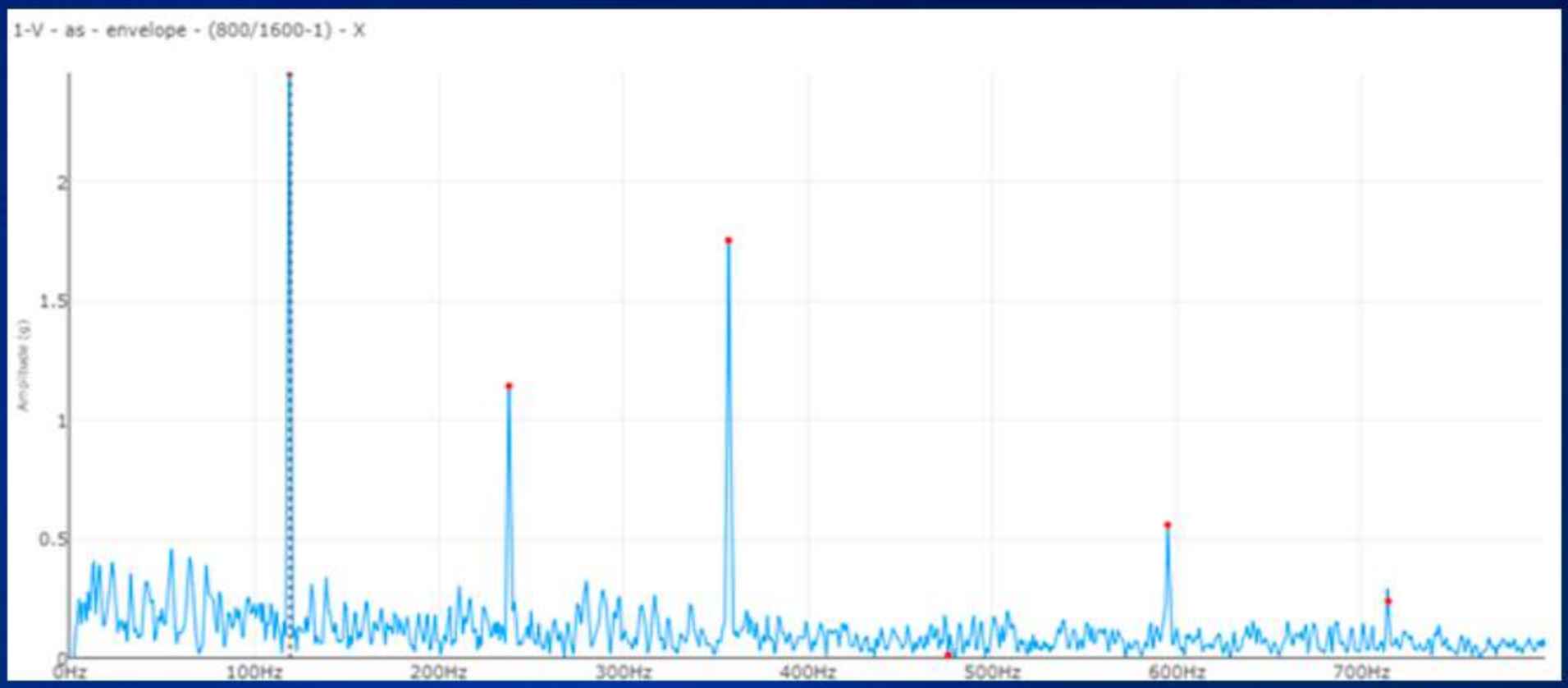
SAVINGS

SEEQ

ONLINE SYSTEM

We installed Axon HD vibration wireless sensors and the Elektron MCA 460V sensor to monitor the mechanical and electrical conditions of the electric motor and gearbox.

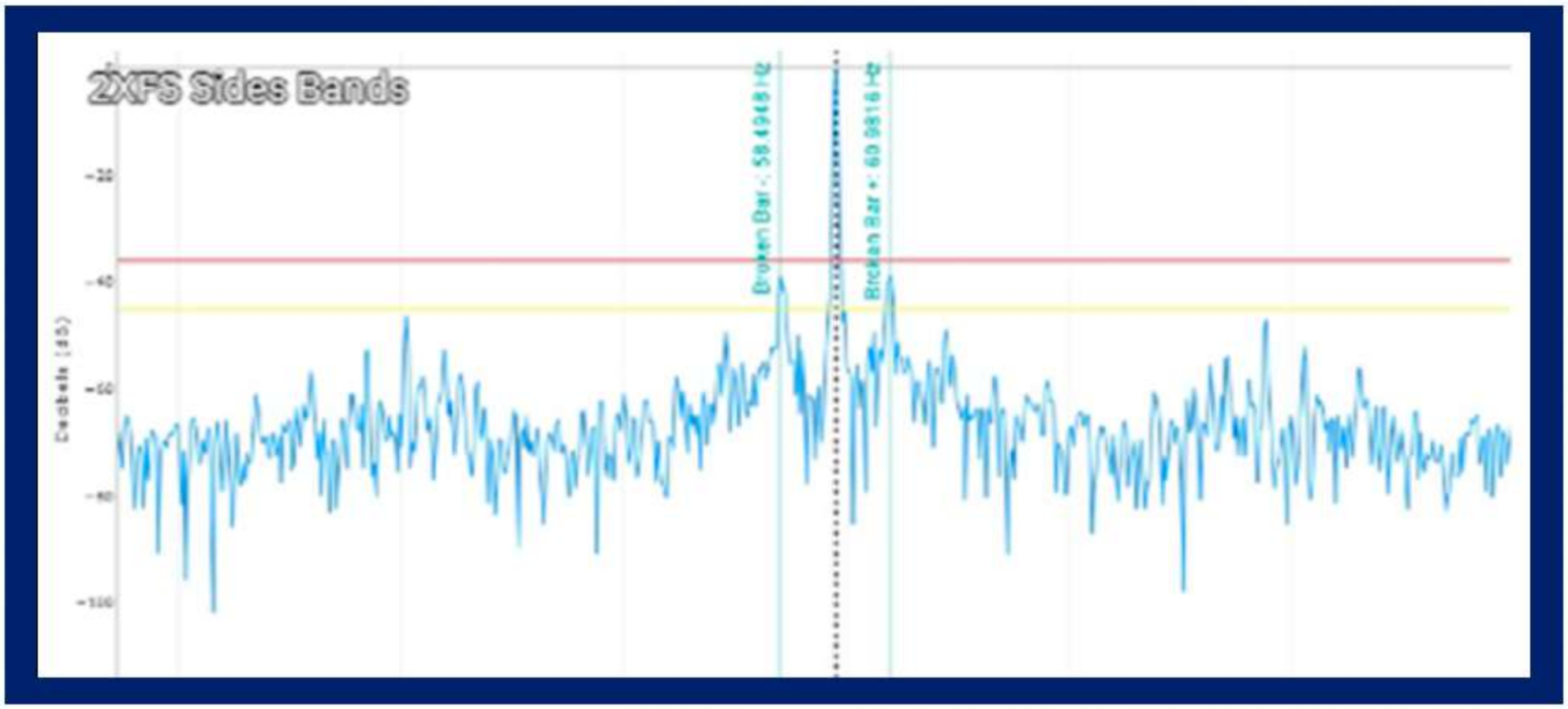
SEMEQ



ELECTRICAL ISSUES

The vibration system identified an electrical frequency of 120 Hz—twice line frequency—suggesting an electrical issue. We observed an amplitude of around 2.5g in the envelope for the main motor. Let's explore this further together!

SE///EQ

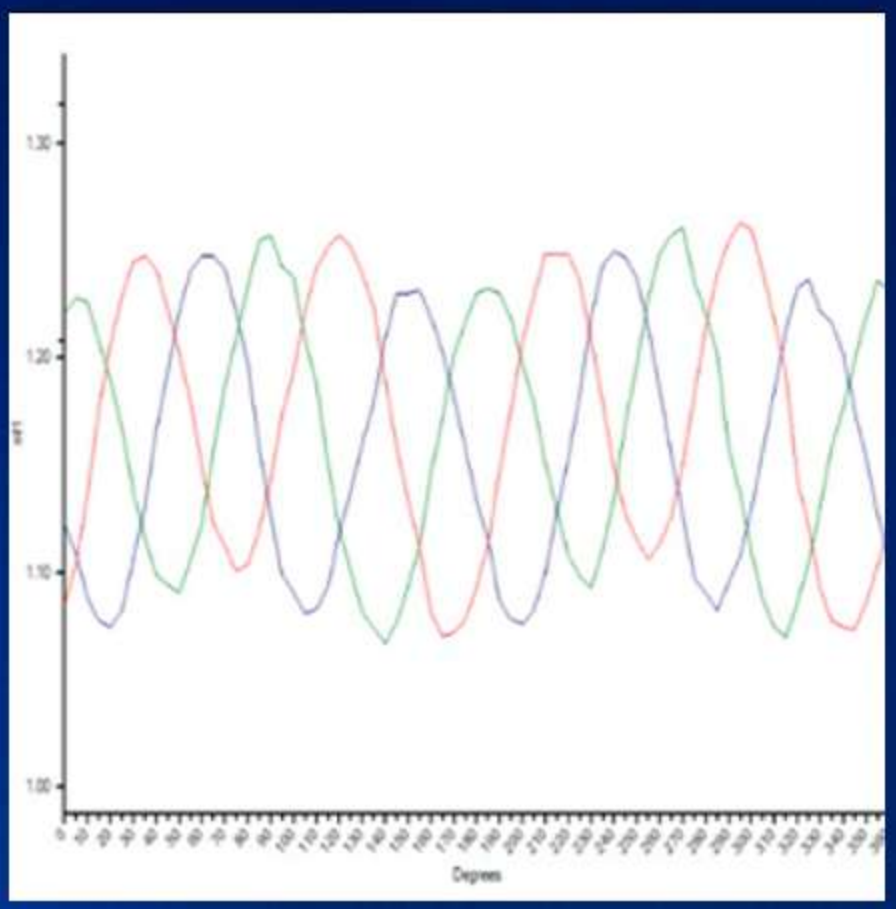


ELEKTRON MCA

We checked over the Elektron MCA for a deeper insight into electrical frequency! We've identified the Short Circuit Frequency (SCF) and the Broken Bar Frequency (BBF), enhancing our understanding.

SEMEQ

	A	B	C
Test Date	04/06/18	02/14/19	09/18/24
Test Time	6:18 AM	12:25 PM	2:10 PM
Test Location	Motor Leads	Motor Leads	Junction Box
User	Administrator	Administrator	Administrator
Tester Serial	5904	5904	5904
MTAP ID			
	Baseline		
Frequency	1200	1200	1200
Charge Time	600	600	600
Voltage	500	500	500
Motor Temp °F	104	59	90
Measured Mohm	3,830.82	3,704.53	
Corrected Mohm	3,830.82	650.00	83.90
pF Ph 1 to Ground	128.200	131.800	
ohm Ph 1 to 2	0.00334	0.00336	0.00358
ohm Ph 2 to 3	0.00337	0.00344	0.00360
ohm Ph 3 to 1	0.00327	0.00328	
mH Ph 1 to 2	1.060	1.050	
mH Ph 2 to 3	0.980	0.995	0.895
mH Ph 3 to 1	1.035	0.960	
Average Inductance	1.025	1.000	0.890
% Res. Imbalance	1.70	2.34	0.39
% Ind. Imbalance	4.39	4.83	4.67



MCA TEST RESULTS

We conducted the complimentary MCA test
and found some interesting insights!
It revealed that the Main Motor Saw 1
has poor isolation and there is notable
rotor eccentricity in Main Motor Saw 2.
Exciting opportunities for improvement!

SE///EQ

ACTION REQUIRED

We have two important reports! Monitor the online data for the Main Motor Saw 2 and prioritize rebuilding the Main Motor Saw 1. These actions had a significant impact!

SEEQ

ASSESS DAMAGE PARTS

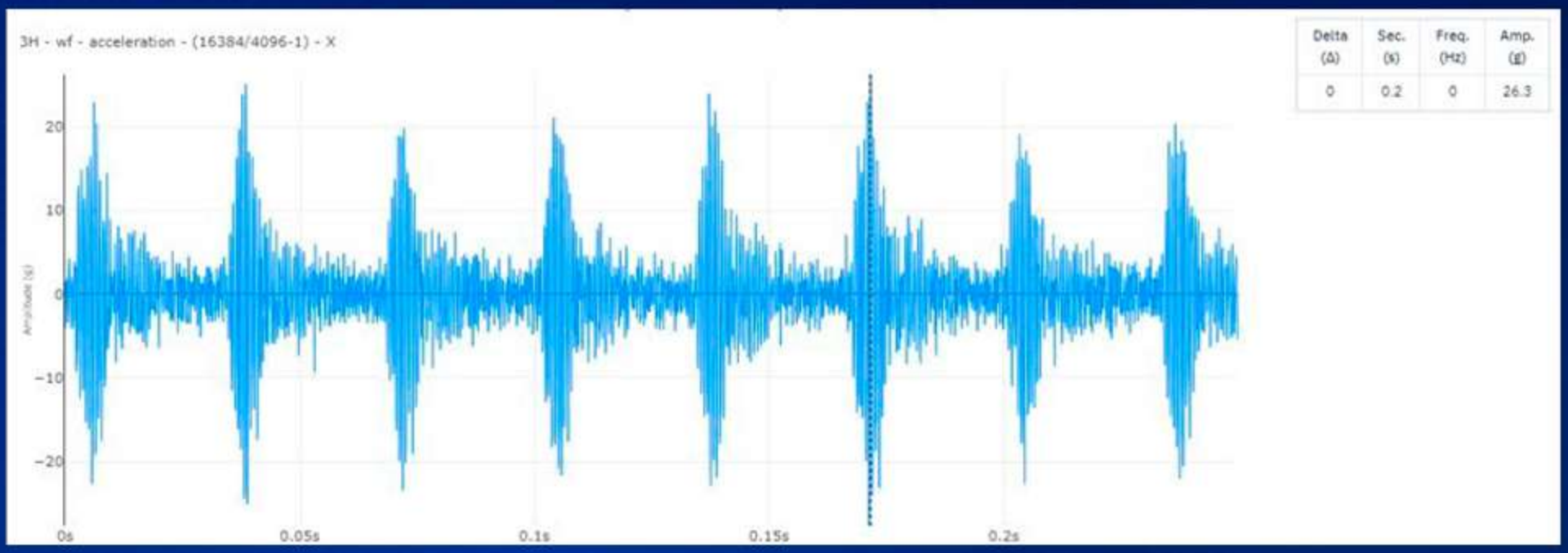
After maintenance, the assessment of the motor revealed cracks in the rotor bars, excessive dust, and the presence of water in the stator, which were diagnosed using the sensors.

Rotor crack

Excessive dust

Water presence

SEMEQ



GEARBOX ISSUES

We observed some rotational looseness in the input bearing. After monitoring the data closely, we recommended a gearbox overhaul once the amplitude levels rose, ensuring optimal performance!

SE///EQ

ASSESS GEARBOX

It was discovered during the assessment that there was excessive clearance between the shaft and the housing.

SEMEQ

FOLLOW FOR MORE GREAT CASES LIKE THAT!

SE///EQ