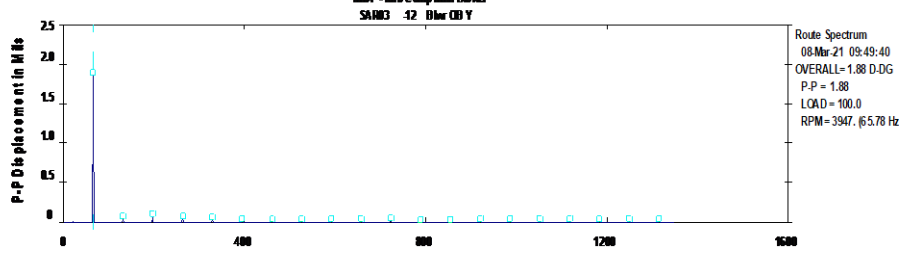
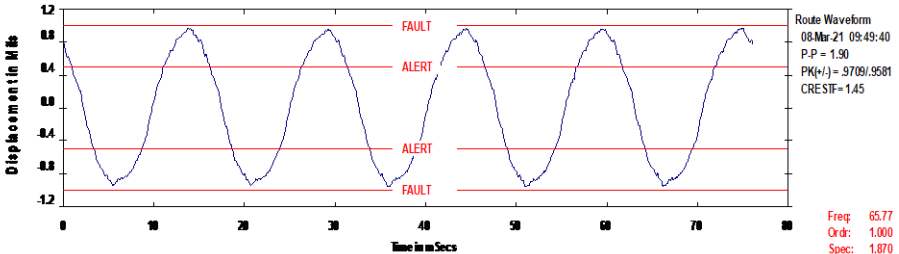
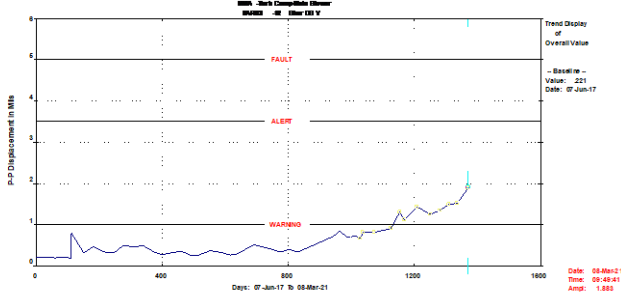




Client	Lucite	Survey Date	3-8-21
Location	Memphis, TN	Report Date	3-10-21
Machine	SAR 03 turbine compressor main blower	QMS No.	144639
Component		Analyst	DWS

Defect Rating for this machine	Class II
Defect Rating System	
Class I: Defect is present, but effect on reliability is not clear; no immediate action is required. Continue normal monitoring.	Class III: Defect (s) present that may cause failure in short term (less than 2 mos.). Should be addressed as soon as practical, with a high maintenance priority. Increase monitoring frequency.
Class II: Defect (s) present that may cause problem in long term (2-6 mos.). Repair during normal maintenance scheduling. Continue to monitor.	Class IV: Defect (s) present that makes continued reliability unpredictable, and possibility of secondary damage is high. Repairs should be made ASAP. An unscheduled shutdown should be considered for repairs.

Vibration Data	Analysis
<p>MMR - Turb Comp Main Blower SAR03 - 42 Blue OR Y</p>  	<p>Point 12 proximity probe vibration continues to slowly climb in amplitude.</p>

Discussion / Repair recommendations	Trend Data
<p>Proximity probe 12 data shows a dominant shaft speed vibration in the data. The vibration amplitude continues to slowly increase in amplitude. A motion amplification survey might be helpful in determining the root cause of the vibration. Rated a Class II Defect.</p>	



Client	Lucite	Survey Date	3-8-21
Location	Memphis, TN	Report Date	3-10-21
Machine	SAR 137A Containment Pit Pump North	QMS No.	144639
Component	Motor	Analyst	DWS

Defect Rating for this machine	Class III
Defect Rating System	
Class I: Defect is present, but effect on reliability is not clear; no immediate action is required. Continue normal monitoring.	Class III: Defect (s) present that may cause failure in short term (less than 2 mos.). Should be addressed as soon as practical, with a high maintenance priority. Increase monitoring frequency.
Class II: Defect (s) present that may cause problem in long term (2-6 mos.). Repair during normal maintenance scheduling. Continue to monitor.	Class IV: Defect (s) present that makes continued reliability unpredictable, and possibility of secondary damage is high. Repairs should be made ASAP. An unscheduled shutdown should be considered for repairs.

Vibration Data

Route Spectrum
04-Mar-21 09:44:43
OVERALL= 1.17 V-DG
PK = 1.17
LOAD = 100.0
RPM = 1781. (29.68 Hz)

Route Waveform
04-Mar-21 09:44:43
PK = 1.29
PK(Hz) = 1.44/1.58
CRESTF= 1.73

Freq: 12.46
Ord: .420
Spec: 1.147

Analysis

Discussion / Repair recommendations

This unit runs infrequently; however, it has an extremely large resonant sub-synchronous vibration over 1.1"/second velocity peak overall at 12.46 Hz. Inspect the unit for defects in structure or fasteners soon. **Rated a Class III Defect.**

Trend Data

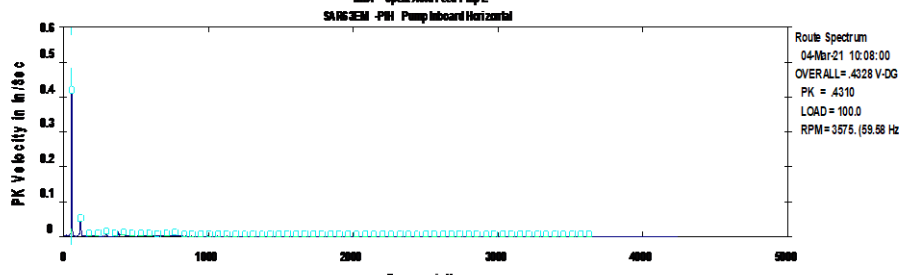
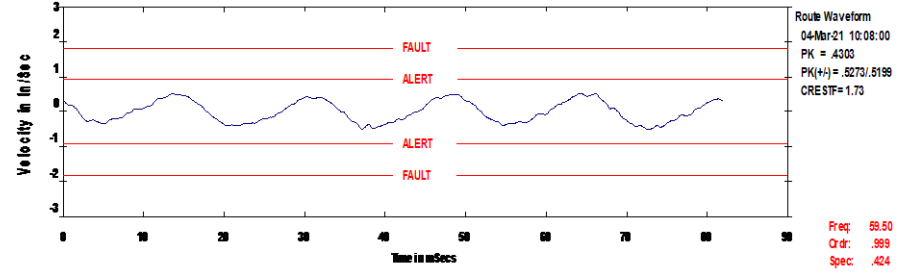
Trend Display of Overall Value
-- Baseline --
Value: .9768
Date: 09-Oct-18

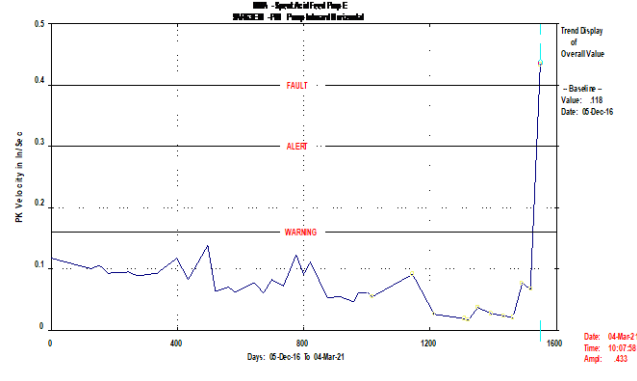
04-Mar-21
Time: 09:44:43
Ampl: 1.174



Client	Lucite	Survey Date	3-8-21
Location	Memphis, TN	Report Date	3-10-21
Machine	SAR 63 EM Spent Acid Feed Pump E	QMS No.	144639
Component	Pump/coupling	Analyst	DWS

Defect Rating for this machine	Class III
Defect Rating System	
Class I: Defect is present, but effect on reliability is not clear; no immediate action is required. Continue normal monitoring.	Class III: Defect (s) present that may cause failure in short term (less than 2 mos.). Should be addressed as soon as practical, with a high maintenance priority. Increase monitoring frequency.
Class II: Defect (s) present that may cause problem in long term (2-6 mos.). Repair during normal maintenance scheduling. Continue to monitor.	Class IV: Defect (s) present that makes continued reliability unpredictable, and possibility of secondary damage is high. Repairs should be made ASAP. An unscheduled shutdown should be considered for repairs.

Vibration Data	Analysis
<p>MMN - Spent Acid Feed Pump E SAR63EM -PH Pump Inboard Horizontal</p>  <p>Route Spectrum 04-Mar-21 10:08:00 OVERALL = .4328 V-DG PK = .4310 LOAD = 100.0 RPM = 3575, (59.58 Hz)</p>  <p>Route Waveform 04-Mar-21 10:08:00 PK = .4303 PK(+) = .5273/.5199 CRESTF = 1.73</p> <p>Freq: 59.50 Ord: .999 Spec: .424</p>	<p>Dominant shaft speed vibration in the pump inboard horizontal.</p>

Discussion / Repair recommendations	Trend Data
<p>The inboard pump 1x RPM vibration has jumped up considerably since the last survey. Inspect the coupling, unit fasteners and the alignment at the next opportunity.</p> <p>Rated a Class III Defect due to the large increase in amplitude.</p>	 <p>Trend Display of Overall Value</p> <p>Baseline Value: .118 Date: 05-Dec-16</p> <p>Date: 04-Mar-21 Time: 10:07:58 Ampl: .433</p>