

# PdM Solutions of San Antonio, Inc

## Vibration & Oil Data Summary

PLANT	H.E.B. Seasonal Plant
Location	San Antonio, TX
Date	Apr 22, 2024

### 1. Vibration Analysis

<u>Unit ID#</u>	<u>Equipment</u>		<u>Note</u>
C-1	Frick TDSH 193S	■	
	Motor 250 HP		
C-2	Frick TDSH163L	■	
	Motor 200 HP		
C-3	Frick TDSH 193S	■	
	Motor 250HP		
C-4	Frick TDSH 193S	■	
	Motor 250HP		

### 2. Oil Analysis

<u>Unit ID#</u>	<u>Type of Oil</u>		<u>Note</u>
C-1	RC-717/ISO-68	■	
C-2	RC-717/ISO-68	■	Slightly high iron, otherwise the sample is normal.
C-3	RC-717/ISO-68	■	
C-4	RC-717/ISO-68	■	

#### Warning Flag Notation

Flag Type	Reliability Assessments
■ Normal	Reliable
■ Showed sign of problem(s)	Reliable, but concern(s) existed.
■ Progresses problem(s)	Not reliable for continuous operation.
■ Critical	Unsafe to operate

**Next Inspection: In 6 months. Oct 2024**



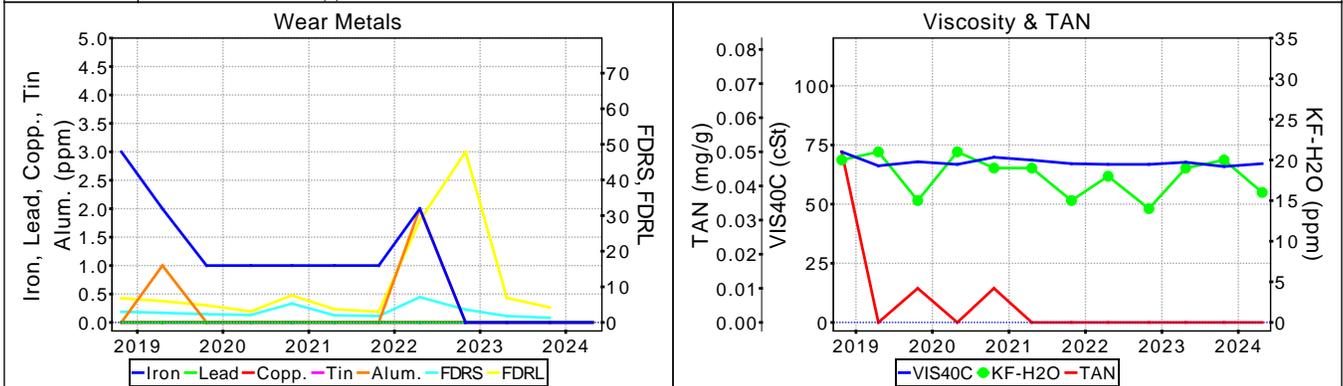
<b>Unit</b>	#1 LOW SIDE	<b>Point ID</b>	750107
<b>Location</b>	HEB/SA-SEASONAL	<b>Serial No</b>	1993C
<b>Description</b>	FRICK TDSH193S	<b>Latest Oil</b>	RC-717

Lab No.	Oil Use				Dates		Additive Metals						
	Exc.	Oil Usage	Oil Added	Unit Usage	Sample Date	Received Date	Phos ppm	Zinc ppm	Calc ppm	Barium ppm	Magn ppm	Moly ppm	Antim ppm
D1811		N/A	N/A	N/A	04/24/24	04/26/24	0	0	0	0	0	0	0
J1654		N/A	N/A	N/A	10/25/23	10/26/23	0	0	0	0	0	0	0
D1569		N/A	N/A	N/A	04/25/23	04/27/23	0	0	0	0	0	0	0
K0091	**	N/A	N/A	N/A	10/31/22	11/02/22	0	0	0	0	0	0	0
D1443		N/A	N/A	N/A	04/19/22	04/21/22	0	0	0	0	0	0	0

Lab No.	Wear Metals										Contaminant Metals			
	Iron ppm	Lead ppm	Copper ppm	Tin ppm	Alum ppm	Chrom ppm	Nickel ppm	Silver ppm	Titan ppm	Silicon ppm	Boron ppm	Sodium ppm	Potass ppm	
D1811	0	0	0	0	0	0	0	0	0	0	0	0	0	
J1654	0	0	0	0	0	0	0	0	0	0	0	0	0	
D1569	0	0	0	0	0	0	0	0	0	0	0	0	0	
K0091	0	0	0	0	0	0	0	0	0	0	0	0	0	
D1443	2	0	0	0	2	0	4	0	0	0	0	0	0	
<b>ALARM</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>15</b>	<b>10</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>3</b>	<b>30</b>	<b>20</b>	<b>20</b>	<b>30</b>	

Physical Properties					
Lab No.	TAN mg/g	VIS40 cSt	KF-H2O ppm	FDRS	FDRL
D1811	0.00	67.1	16		
J1654	0.00	65.9	20	1.3	4.2
D1569	0.00	67.7	19	1.8	6.9
K0091	0.00	66.8	14	3.6	<b>[47.9]</b>
D1443	0.00	66.8	18	7.1	28.6
<b>ALARM</b>	<b>0.2</b>	<b>57.8-78.2</b>	<b>100</b>	<b>15</b>	<b>30</b>

Analysis Comments	
Lab No.	Comments
D1811	• Machine and oil appears normal.





## Exception Report

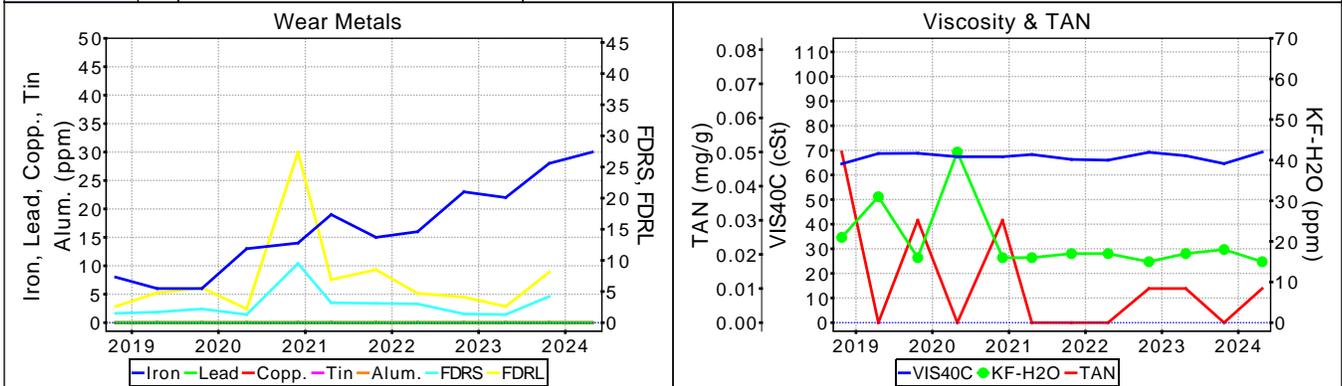
<b>Unit</b>	#2 HIGH/LOW SWI	<b>Point ID</b>	750108
<b>Location</b>	HEB/SA-SEASONAL	<b>Serial No</b>	21818
<b>Description</b>	FRICK TDSH163S	<b>Latest Oil</b>	RC-717

Lab No.	Oil Use				Dates		Additive Metals						
	Exc.	Oil Usage	Oil Added	Unit Usage	Sample Date	Received Date	Phos ppm	Zinc ppm	Calc ppm	Barium ppm	Magn ppm	Moly ppm	Antim ppm
D1812	**	N/A	N/A	N/A	04/24/24	04/26/24	0	3	0	0	0	0	0
J1653	**	N/A	N/A	N/A	10/25/23	10/26/23	0	2	0	0	0	0	0
D1570	**	N/A	N/A	N/A	04/25/23	04/27/23	0	3	0	0	0	0	0
K0090	**	N/A	N/A	N/A	10/31/22	11/02/22	0	0	0	0	0	0	0
D1440	**	N/A	N/A	N/A	04/19/22	04/21/22	0	0	0	0	0	0	0

Lab No.	Wear Metals									Contaminant Metals			
	Iron ppm	Lead ppm	Copper ppm	Tin ppm	Alum ppm	Chrom ppm	Nickel ppm	Silver ppm	Titan ppm	Silicon ppm	Boron ppm	Sodium ppm	Potass ppm
D1812	[30]	0	0	0	0	0	0	0	0	0	0	0	0
J1653	[28]	0	0	0	0	0	0	0	0	0	0	0	0
D1570	[22]	0	0	0	0	0	0	0	0	0	0	0	0
K0090	[23]	0	0	0	0	0	0	0	0	0	0	0	0
D1440	[16]	0	0	0	0	0	0	0	0	0	0	0	0
<b>ALARM</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>15</b>	<b>10</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>3</b>	<b>30</b>	<b>20</b>	<b>20</b>	<b>30</b>

Physical Properties					
Lab No.	TAN mg/g	VIS40 cSt	KF-H2O ppm	FDRS	FDRL
D1812	0.01	69.3	15		
J1653	0.00	64.6	18	4.2	8.1
D1570	0.01	67.8	17	1.3	2.6
K0090	0.01	69.2	15	1.4	4.1
D1440	0.00	66.0	17	3.0	4.7
<b>ALARM</b>	<b>0.2</b>	<b>57.8-78.2</b>	<b>100</b>	<b>15</b>	<b>30</b>

Analysis Comments	
Lab No.	Comments
D1812	• Note iron content; probable source: gear teeth, shaft, housing, oil pump and/or water. Recommendation: check for suspicious vibration, noise, thermal and performance condition.





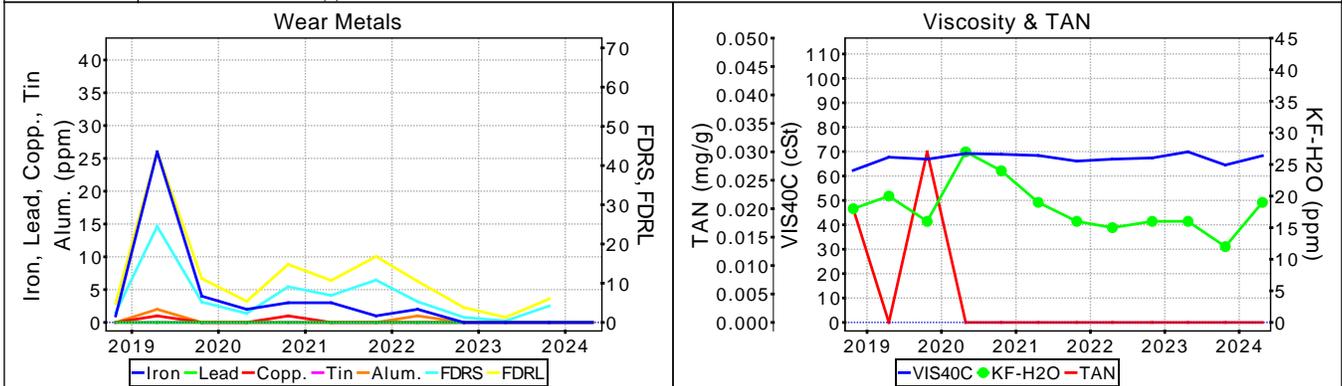
<b>Unit</b>	#3 HIGH/LOW SWI	<b>Point ID</b>	750109
<b>Location</b>	HEB/SA-SEASONAL	<b>Serial No</b>	19950
<b>Description</b>	FRICK TDSH193S	<b>Latest Oil</b>	RC-717

Lab No.	Oil Use			Dates		Additive Metals							
	Exc.	Oil Usage	Oil Added	Unit Usage	Sample Date	Received Date	Phos ppm	Zinc ppm	Calc ppm	Barium ppm	Magn ppm	Moly ppm	Antim ppm
D1813		N/A	N/A	N/A	04/24/24	04/26/24	0	0	0	0	0	0	0
J1655		N/A	N/A	N/A	10/25/23	10/26/23	0	0	0	0	0	0	0
D1571		N/A	N/A	N/A	04/25/23	04/27/23	0	0	0	0	0	0	0
K0089		N/A	N/A	N/A	10/31/22	11/02/22	0	0	0	0	0	0	0
D1441		N/A	N/A	N/A	04/19/22	04/21/22	0	0	0	0	0	0	0

Lab No.	Wear Metals									Contaminant Metals			
	Iron ppm	Lead ppm	Copper ppm	Tin ppm	Alum ppm	Chrom ppm	Nickel ppm	Silver ppm	Titan ppm	Silicon ppm	Boron ppm	Sodium ppm	Potass ppm
D1813	0	0	0	0	0	0	0	0	0	0	0	0	2
J1655	0	0	0	0	0	0	0	0	0	0	0	0	0
D1571	0	0	0	0	0	0	0	0	0	0	0	0	0
K0089	0	0	0	0	0	0	0	0	0	0	0	0	0
D1441	2	0	0	0	1	0	1	0	0	0	0	0	0
<b>ALARM</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>15</b>	<b>10</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>3</b>	<b>30</b>	<b>20</b>	<b>20</b>	<b>30</b>

Physical Properties					
Lab No.	TAN mg/g	VIS40 cSt	KF-H2O ppm	FDRS	FDRL
D1813	0.00	68.3	19		
J1655	0.00	64.5	12	4.2	6.0
D1571	0.00	69.9	16	0.4	1.3
K0089	0.00	67.4	16	1.3	3.8
D1441	0.00	66.9	15	5.3	10.5
<b>ALARM</b>	<b>0.2</b>	<b>57.8-78.2</b>	<b>100</b>	<b>15</b>	<b>30</b>

Analysis Comments	
Lab No.	Comments
D1813	• Machine and oil appears normal.





<b>Unit</b>	#4 HIGH SIDE	<b>Point ID</b>	750110
<b>Location</b>	HEB/SA-SEASONAL	<b>Serial No</b>	1992C
<b>Description</b>	FRICK TDSH193S	<b>Latest Oil</b>	RC-717

Lab No.	Oil Use			Dates		Additive Metals							
	Exc.	Oil Usage	Oil Added	Unit Usage	Sample Date	Received Date	Phos ppm	Zinc ppm	Calc ppm	Barium ppm	Magn ppm	Moly ppm	Antim ppm
D1810		N/A	N/A	N/A	04/24/24	04/26/24	0	0	0	0	0	0	0
J1656		N/A	N/A	N/A	10/25/23	10/26/23	0	0	0	0	0	0	0
K0088		N/A	N/A	N/A	10/31/22	11/02/22	0	0	0	0	0	0	0
D1442		N/A	N/A	N/A	04/19/22	04/21/22	0	0	0	0	0	0	0
D1591		N/A	N/A	N/A	04/20/21	04/22/21	0	1	1	0	0	0	0

Lab No.	Wear Metals									Contaminant Metals			
	Iron ppm	Lead ppm	Copper ppm	Tin ppm	Alum ppm	Chrom ppm	Nickel ppm	Silver ppm	Titan ppm	Silicon ppm	Boron ppm	Sodium ppm	Potass ppm
D1810	0	0	0	0	0	0	0	0	0	0	0	0	0
J1656	0	0	0	0	0	0	0	0	0	2	0	0	0
K0088	0	0	0	0	0	0	0	0	0	2	0	0	0
D1442	3	0	4	0	0	0	0	0	0	0	0	0	0
D1591	7	1	1	0	0	0	1	0	0	0	0	0	0
<b>ALARM</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>15</b>	<b>10</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>3</b>	<b>30</b>	<b>20</b>	<b>20</b>	<b>30</b>

Physical Properties					
Lab No.	TAN mg/g	VIS40 cSt	KF-H2O ppm	FDRS	FDRL
D1810	0.00	64.6	16		
J1656	0.00	66.2	15	4.6	12.5
K0088	0.00	66.8	18	2.0	4.6
D1442	0.00	66.1	13	8.5	11.1
D1591	0.00	67.7	12	6.5	16.5
<b>ALARM</b>	<b>0.2</b>	<b>57.8-78.2</b>	<b>100</b>	<b>15</b>	<b>30</b>

Analysis Comments	
Lab No.	Comments
D1810	• Machine and oil appears normal.

