

SHAMS POWER COMPANY

ENGINEERING DIVISION

INSPECTION & CORROSION SECTION

SHAMS 1

LOCATION : R2JB41-BR001 & R2JB51-BR001

KKS : R2JB41-BR001 & R2JB51-BR001

GRADE & CLASSIFICATION : B2

CERTIFICATE OF INSPECTION

The equipment detailed below was examined in accordance with the SHAMS code of practice for plant inspection

ITEM : HTF Piping System - Header

LOCATION : Shams-1 plant

TYPE OF INSPECTION : MAJOR

**DATE OF
INSPECTION :** March, 2020

PLACE OF INSPECTION : IN-SITU

DATE OF LAST INSPECTION N/A

REPORT:

1. Summary

A Major Inspection was carried out for header sections B4, A1 to A4 of the HTF piping system. The pipe system was found to be in order for further service.

2. Description

This is fully welded pipe and insulated system that serves as HTF carrying piping system. Piping Specification as follows:

Diameter: 2" to 34" Dia with Sch.40 to Sch.80 based on size of diameter.

Material: carbon steel A 106 GrB pipe work to class A 105 SW/RF Flanges.

Piping Class: 300

Design pressure: 14 to 34 barg

Design temperature: 100 to 400 C

Inspection isometric drawings consisting of 61nos. sheets were available.

3. History

The plant Shams-1 commissioned in Sep. 2013. This is the first major inspection of the line.

4. Scope of Inspection

A Major Inspection was carried out in accordance with Shams power company inspection strategy and scheme of examination. This included:

- UT surveys on 100% of the CMLs.
- Line walk-through visual inspection.

.....
The above equipment is/ is not considered suitable for further service under the present operating conditions

Next Major Inspection Due: March 2024

Inspected: Osman Ismail
Integrity engineer

Endorsement: 48 Months

Reviewed: Ali Al Masabai
Engineering Manager

5. Conditions Found

5.1 External Piping Wall

5.1.1. External insulation of the System pipework was found generally in good condition with no evidence of damage and the metallic sheeting has no signs of damage. Except in some location insulation cover deformed but in good condition which not required interference FIG [5].

5.2 Thickness survey

Thickness measurement was carried out at specified TML's of section A1-A4 found satisfactory without any evidence of internal or external corrosion. Detailed thickness reading available in attached ultrasonic report.

5.4 Flanges and Fittings

All accessible flanges faces along with bolts and nuts have been visually inspected found in good condition.

5.5 Valves

5.5.1 Many of valves in HTF Heaters area found leaking. See attached.

5.6 Small Bore Fittings

All drains found in satisfactory conditions without sing of any leakage, apart from some drains found with leakage sings FIG [4, 3]

5.7 Supports

5.7.1 All supports were in position.

5.7 Pressure gauges

All pressure gauges found with no label for calibration dates or need to be calibrated.

6. RECOMMENDATIONS

- Maintenance division to repair / replace all leaked valves.
- HTF header to be inspected after 4 years as per SHAMS Code of Practice.

8. Conclusion

The pipe system was found to be in order for further service.

9. Inspection grade and interval

In accordance with the latest revision of Shams Power Company Code of Practice this piping system is endorsed for 48 months endorsement under

FREQUENCY : 48 MONTHS.
ENDORSEMENT : 48MONTHS.

Next Major Insp. Due : March, 2024

10. Appendix:

Photos:

Figure [1]:



Figure [2]:



Figure [3]:



Figure [4]:



Figure [5]:



Form No.: IN-QSF-36 Rev. 05E Dtd.: 20-10-2018

ULTRASONIC THICKNESS GAUGING REPORT

Client: SHAMS POWER COMPANY

Date:	06.03.2020	Report No.:	AD / 467		
Project:	SHAMS OUTAGE MARCH 2020	Job No.:	N/A		
Location:	MADINAT ZAYED	Drawing No.:	N/A		
Item ID:	HTF HEADER - RZJB51-BR001	Material:	CS		
Ref/ Procedure No:	INSPEC/UTG/001 Rev.10	Ref. Standard:	ASME SEC V		
UTG Equipment Model/ Manufacturer:	USM 35 X DAC / GE	Serial No.:	7292a		
Calibration Block No. :	STEP WEDGE, IIW V2 BLOCK	EQPT Calibration Certificate & Due Date:	INS/UT/CAL-043/19/AUH		
Probe Type/ Size/Frequency:	WK TR 0° PROBE/ 10mm DIA / 5 MHz	Couplant Brand Name & Type:	POLYCELL + WATER		
Connecting Cable Type & Length:	LEMO TO MICRODOT & 2 MTR	Special Attachment/ Equipment/ Block:	STEP WEDGE BLOCK (SL NO : AZB270)		
Test Temperature:	AMBIENT	Surface Condition:	AS CLEANED		
Inspection Date:	06.03.2020	Page:	1	of	6

Description:

ULTRASONIC THICKNESS GAUGING WAS CARRIED OUT ON THE FOLLOWING ITEM

FOR THICKNESS DETAILS REFER CONTINUATION SHEET

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LEVEL II TECHNICIAN		CLIENT REPRESENTATIVE		AI / TPI
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Sign :		Sign :		
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ULTRASONIC THICKNESS SCANNING REPORT

(CONTINUATION SHEET)

Date:	06.03.2020		Report No.:	AD- 467		Page:	2	Of	6
LOCATION	LOCATION	ORIENTATION	ORIGINAL THICKNESS	MEASURED THICKNESS MINIMUM (mm)	DIMINUTION IN mm	DIMINUTION IN %	REMARK		
1	-	-	-	15.74	-	-	-	-	-
2	-	-	-	15.63	-	-	-	-	-
3	-	-	-	15.23	-	-	-	-	-
4	-	-	-	13.64	-	-	-	-	-
5	-	-	-	16.20	-	-	-	-	-
6	-	-	-	15.60	-	-	-	-	-
7	-	-	-	14.80	-	-	-	-	-
8	-	-	-	13.98	-	-	-	-	-
9	-	-	-	15.20	-	-	-	-	-
10	-	-	-	15.00	-	-	-	-	-
11	-	-	-	15.47	-	-	-	-	-
12	-	-	-	15.30	-	-	-	-	-
13	-	-	-	15.68	-	-	-	-	-
14	-	-	-	14.00	-	-	-	-	-
15	-	-	-	15.87	-	-	-	-	-
16	-	-	-	14.45	-	-	-	-	-
17	-	-	-	14.09	-	-	-	-	-
18	-	-	-	15.60	-	-	-	-	-
19	-	-	-	15.45	-	-	-	-	-
20	-	-	-	14.38	-	-	-	-	-
21	-	-	-	14.75	-	-	-	-	-
22	-	-	-	16.50	-	-	-	-	-
23	-	-	-	15.74	-	-	-	-	-
24	-	-	-	15.00	-	-	-	-	-
25	-	-	-	15.24	-	-	-	-	-
26	-	-	-	15.35	-	-	-	-	-
27	-	-	-	14.33	-	-	-	-	-
28	-	-	-	16.40	-	-	-	-	-
29	-	-	-	14.20	-	-	-	-	-
30	-	-	-	15.20	-	-	-	-	-
31	-	-	-	14.68	-	-	-	-	-
32	-	-	-	14.48	-	-	-	-	-
33	-	-	-	16.16	-	-	-	-	-
34	-	-	-	15.08	-	-	-	-	-
35	-	-	-	14.80	-	-	-	-	-
36	-	-	-	14.40	-	-	-	-	-

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ULTRASONIC THICKNESS SCANNING REPORT
(CONTINUATION SHEET)

Date:	06.03.2020	Report No.:	AD- 467		Page:	3	Of	6
LOCATION	ORIENTATION	ORIGINAL THICKNESS	MEASURED THICKNESS MINIMUM (mm)	DIMINUTION IN mm	DIMINUTION IN %	REMARK		
37	-	-	15.20	-	-	-	-	-
38	-	-	13.90	-	-	-	-	-
39	-	-	14.45	-	-	-	-	-
40	-	-	15.23	-	-	-	-	-
41	-	-	15.23	-	-	-	-	-
42	-	-	14.98	-	-	-	-	-
43	-	-	15.00	-	-	-	-	-
44	-	-	13.65	-	-	-	-	-
45	-	-	13.85	-	-	-	-	-
46	-	-	13.65	-	-	-	-	-
47	-	-	12.80	-	-	-	-	-
48	-	-	12.95	-	-	-	-	-
49	-	-	12.90	-	-	-	-	-
50	-	-	13.15	-	-	-	-	-
51	-	-	13.35	-	-	-	-	-
52	-	-	13.50	-	-	-	-	-
53	-	-	13.55	-	-	-	-	-
54	-	-	13.95	-	-	-	-	-
55	-	-	13.15	-	-	-	-	-
56	-	-	13.20	-	-	-	-	-
57	-	-	13.60	-	-	-	-	-
58	-	-	13.25	-	-	-	-	-
59	-	-	13.60	-	-	-	-	-
60	-	-	13.25	-	-	-	-	-
61	-	-	13.65	-	-	-	-	-
62	-	-	12.60	-	-	-	-	-
63	-	-	12.45	-	-	-	-	-
64	-	-	12.57	-	-	-	-	-
65	-	-	13.10	-	-	-	-	-
66	-	-	13.20	-	-	-	-	-
67	-	-	13.55	-	-	-	-	-
68	-	-	13.35	-	-	-	-	-
69	-	-	12.45	-	-	-	-	-
70	-	-	12.95	-	-	-	-	-
71	-	-	13.60	-	-	-	-	-
72	-	-	11.55	-	-	-	-	-

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**ULTRASONIC THICKNESS SCANNING REPORT
(CONTINUATION SHEET)**

Date:	06.03.2020	Report No.:	AD- 467		Page:	4	Of	6
LOCATION	ORIENTATION	ORIGINAL THICKNESS	MEASURED THICKNESS MINIMUM (mm)	DIMINUTION IN mm	DIMINUTION IN %	REMARK		
73	-	-	12.65	-	-	-	-	-
74	-	-	10.95	-	-	-	-	-
75	-	-	12.05	-	-	-	-	-
76	-	-	11.50	-	-	-	-	-
77	-	-	12.15	-	-	-	-	-
78	-	-	12.30	-	-	-	-	-
79	-	-	13.20	-	-	-	-	-
80	-	-	13.45	-	-	-	-	-
81	-	-	11.65	-	-	-	-	-
82	-	-	11.70	-	-	-	-	-
83	-	-	12.85	-	-	-	-	-
84	-	-	12.35	-	-	-	-	-
85	-	-	12.80	-	-	-	-	-
86	-	-	11.60	-	-	-	-	-
87	-	-	12.55	-	-	-	-	-
88	-	-	11.80	-	-	-	-	-
89	-	-	11.35	-	-	-	-	-
90	-	-	10.65	-	-	-	-	-
91	-	-	10.65	-	-	-	-	-
92	-	-	11.35	-	-	-	-	-
93	-	-	11.45	-	-	-	-	-
94	-	-	10.35	-	-	-	-	-
95	-	-	11.40	-	-	-	-	-
96	-	-	11.75	-	-	-	-	-
97	-	-	11.75	-	-	-	-	-
98	-	-	11.60	-	-	-	-	-
99	-	-	11.76	-	-	-	-	-
100	-	-	12.25	-	-	-	-	-
101	-	-	12.05	-	-	-	-	-
102	-	-	11.25	-	-	-	-	-
103	-	-	11.75	-	-	-	-	-
104	-	-	11.35	-	-	-	-	-
105	-	-	11.65	-	-	-	-	-
106	-	-	11.45	-	-	-	-	-
107	-	-	11.15	-	-	-	-	-
108	-	-	11.05	-	-	-	-	-

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ULTRASONIC THICKNESS SCANNING REPORT

(CONTINUATION SHEET)

Date:	06.03.2020	Report No.:	AD- 467		Page:	5	Of	6
LOCATION	ORIENTATION	ORIGINAL THICKNESS	MEASURED THICKNESS MINIMUM (mm)	DIMINUTION IN mm	DIMINUTION IN %	REMARK		
109	-	-	11.45	-	-	-	-	-
110	-	-	11.65	-	-	-	-	-
111	-	-	11.75	-	-	-	-	-
112	-	-	11.65	-	-	-	-	-
113	-	-	11.85	-	-	-	-	-
114	-	-	9.63	-	-	-	-	-
115	-	-	9.50	-	-	-	-	-
116	-	-	9.20	-	-	-	-	-
117	-	-	7.32	-	-	-	-	-
118	-	-	11.54	-	-	-	-	-
119	-	-	10.70	-	-	-	-	-
120	-	-	10.13	-	-	-	-	-
121	-	-	9.80	-	-	-	-	-
122	-	-	9.50	-	-	-	-	-
123	-	-	9.50	-	-	-	-	-
124	-	-	10.80	-	-	-	-	-
125	-	-	9.71	-	-	-	-	-
126	-	-	8.10	-	-	-	-	-
127	-	-	10.16	-	-	-	-	-
128	-	-	10.40	-	-	-	-	-
129	-	-	9.95	-	-	-	-	-
130	-	-	10.12	-	-	-	-	-
131	-	-	7.81	-	-	-	-	-
132	-	-	10.31	-	-	-	-	-
133	-	-	9.43	-	-	-	-	-
134	-	-	9.74	-	-	-	-	-
135	-	-	9.71	-	-	-	-	-
136	-	-	10.10	-	-	-	-	-
137	-	-	9.89	-	-	-	-	-
138	-	-	10.49	-	-	-	-	-
139	-	-	10.06	-	-	-	-	-
140	-	-	8.34	-	-	-	-	-
141	-	-	9.74	-	-	-	-	-
142	-	-	9.36	-	-	-	-	-
143	-	-	8.95	-	-	-	-	-
144	-	-	8.51	-	-	-	-	-

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LEVEL II TECHNICIAN



CLIENT REP.

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Sign :

Date :

AI/TPI

Name :

Sign :

Date :

Name :

Sign :

Date :

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ULTRASONIC THICKNESS SCANNING REPORT

(CONTINUATION SHEET)

Date:	06.03.2020	Report No.:	AD- 467		Page:	6	Of	6
LOCATION	ORIENTATION	ORIGINAL THICKNESS	MEASURED THICKNESS MINIMUM (mm)	DIMINUTION IN mm	DIMINUTION IN %	REMARK		
145	-	-	7.91	-	-			
146	-	-	9.36	-	-			
147	-	-	8.57	-	-			
148	-	-	8.62	-	-			
149	-	-	9.20	-	-			
150	-	-	9.95	-	-			
151	-	-	8.69	-	-			
152	-	-	9.48	-	-			
153	-	-	9.26	-	-			
154	-	-	8.21	-	-			
155	-	-	8.50	-	-			

Form No.: IN-QSF-36 Rev. 05E Dtd.: 20-10-2018

ULTRASONIC THICKNESS GAUGING REPORT

Client:	SHAMS POWER COMPANY		
Date:	06.03.2020	Report No.:	AD / 468
Project:	SHAMS OUTAGE MARCH 2020	Job No.:	N/A
Location:	MADINAT ZAYED	Drawing No.:	N/A
Item ID:	HTF HEADER - R2JB41-BR001	Material:	CS
Ref/ Procedure No:	INSPEC/UTG/001 Rev.10	Ref. Standard:	ASME SEC V
UTG Equipment Model/ Manufacturer:	USM 35 X DAC / GE	Serial No.:	7292a
Calibration Block No.:	STEP WEDGE, IIW V2 BLOCK	EQPT Calibration Certificate & Due Date:	INS/UT/CAL-043/19/AUH
Probe Type/ Size/Frequency:	WK TR 0° PROBE/ 10mm DIA / 5 MHz	Couplant Brand Name & Type:	POLYCELL + WATER
Connecting Cable Type & Length:	LEMO TO MICRODOT & 2 MTR	Special Attachment/ Equipment/ Block:	STEP WEDGE BLOCK (SL NO : AZB270)
Test Temperature:	AMBIENT	Surface Condition:	AS CLEANED
Inspection Date:	06.03.2020	Page:	1 of 6
Description:			

ULTRASONIC THICKNESS GAUGING WAS CARRIED OUT ON THE FOLLOWING ITEM

FOR THICKNESS DETAILS REFER CONTINUATION SHEET

REPORT FORMAT APPLICABLE ONLY FOR AUH & FUI FACILITY

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Form No.: IN-QSF-36A Rev. 05E Dtd.: 20-10-2018

ULTRASONIC THICKNESS SCANNING REPORT

(CONTINUATION SHEET)

Date:	06.03.2020	Report No.:	AD- 468		Page:	2	Of	6
LOCATION	ORIENTATION	ORIGINAL THICKNESS	MEASURED THICKNESS MINIMUM (mm)	DIMINUTION IN mm	DIMINUTION IN %	REMARK		
1	-	-	15.76	-	-	-	-	-
2	-	-	15.72	-	-	-	-	-
3	-	-	15.50	-	-	-	-	-
4	-	-	15.00	-	-	-	-	-
5	-	-	14.76	-	-	-	-	-
6	-	-	15.56	-	-	-	-	-
7	-	-	14.00	-	-	-	-	-
8	-	-	16.00	-	-	-	-	-
9	-	-	15.78	-	-	-	-	-
10	-	-	15.72	-	-	-	-	-
11	-	-	14.65	-	-	-	-	-
12	-	-	16.60	-	-	-	-	-
13	-	-	14.20	-	-	-	-	-
14	-	-	15.13	-	-	-	-	-
15	-	-	15.78	-	-	-	-	-
16	-	-	14.75	-	-	-	-	-
17	-	-	15.40	-	-	-	-	-
18	-	-	15.83	-	-	-	-	-
19	-	-	16.50	-	-	-	-	-
20	-	-	15.25	-	-	-	-	-
21	-	-	16.40	-	-	-	-	-
22	-	-	15.25	-	-	-	-	-
23	-	-	16.20	-	-	-	-	-
24	-	-	15.45	-	-	-	-	-
25	-	-	14.83	-	-	-	-	-
26	-	-	15.68	-	-	-	-	-
27	-	-	14.91	-	-	-	-	-
28	-	-	15.55	-	-	-	-	-
29	-	-	15.42	-	-	-	-	-
30	-	-	14.78	-	-	-	-	-
31	-	-	14.20	-	-	-	-	-
32	-	-	14.20	-	-	-	-	-
33	-	-	15.70	-	-	-	-	-
34	-	-	14.82	-	-	-	-	-
35	-	-	14.36	-	-	-	-	-
36	-	-	15.95	-	-	-	-	-

REPORT FORMAT APPLICABLE ONLY FOR AUH & FUJ FACILITY

LEVEL II TECHNICIAN


Name :

Sign :

Date :

Dubai Branch
Sharjah Branch
Abu Dhabi Branch
Fujairah Branch
Oman Branch
Registered Office

Tel: 04 3241955
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:33-37 Athol Street, Douglas, IM1, 1LB, Isle of Man. Company Number 010728V.

CLIENT REP.

Name :

Sign :

Date :

Name :

Sign :

Date :

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Form No.: IN-QSF-36A Rev. 05E Dtd.: 20-10-2018

ULTRASONIC THICKNESS SCANNING REPORT

(CONTINUATION SHEET)

Date:	06.03.2020	Report No.:	AD- 468		Page:	3	Of	6
LOCATION	ORIENTATION	ORIGINAL THICKNESS	MEASURED THICKNESS MINIMUM (mm)	DIMINUTION IN mm	DIMINUTION IN %	REMARK		
37	-	-	15.77	-	-	-	-	-
38	-	-	15.72	-	-	-	-	-
39	-	-	15.28	-	-	-	-	-
40	-	-	16.71	-	-	-	-	-
41	-	-	14.98	-	-	-	-	-
42	-	-	16.13	-	-	-	-	-
43	-	-	14.00	-	-	-	-	-
44	-	-	13.14	-	-	-	-	-
45	-	-	14.03	-	-	-	-	-
46	-	-	13.90	-	-	-	-	-
47	-	-	13.20	-	-	-	-	-
48	-	-	13.25	-	-	-	-	-
49	-	-	13.30	-	-	-	-	-
50	-	-	13.32	-	-	-	-	-
51	-	-	13.57	-	-	-	-	-
52	-	-	13.75	-	-	-	-	-
53	-	-	12.60	-	-	-	-	-
54	-	-	13.25	-	-	-	-	-
55	-	-	13.30	-	-	-	-	-
56	-	-	13.18	-	-	-	-	-
57	-	-	13.75	-	-	-	-	-
58	-	-	13.36	-	-	-	-	-
59	-	-	12.13	-	-	-	-	-
60	-	-	12.85	-	-	-	-	-
61	-	-	13.60	-	-	-	-	-
62	-	-	12.65	-	-	-	-	-
63	-	-	13.50	-	-	-	-	-
64	-	-	12.90	-	-	-	-	-
65	-	-	13.65	-	-	-	-	-
66	-	-	13.65	-	-	-	-	-
67	-	-	13.00	-	-	-	-	-
68	-	-	13.70	-	-	-	-	-
69	-	-	14.60	-	-	-	-	-
70	-	-	13.00	-	-	-	-	-
71	-	-	13.75	-	-	-	-	-
72	-	-	12.60	-	-	-	-	-

REPORT FORMAT APPLICABLE ONLY FOR AUH & FUJ FACILITY

LEVEL II TECHNICIAN


Name : AFZAL ANSARI & SHYMAL PAL
 Sign :
 Date : 05.03.2020
 Level II No. 05.03.2020

Dubai Branch P.O BOX: 1661, Dubai, U.A.E Tel: 04 3241955
 Sharjah Branch P.O BOX: 6166, Sharjah, U.A.E Tel: 06 5361300
 Abu Dhabi Branch P.O BOX: 11424, Abu Dhabi, U.A.E Tel: 02 6225820
 Fujairah Branch P.O BOX: 7507, Fujairah, U.A.E Tel: 09 2238754
 Oman Branch P.O BOX: 193, P.O. 131, Sultanate of Oman Tel: 00968 2448 2391
 Registered Office :33-37 Athol Street, Douglas, IM1, 1LB, Isle of Man. Company Number 010728V.

CLIENT REP.

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 Sign :
 Date :

Tel: 04 3241957
 Fax: 04 3241957
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 Fax: 06 5361173
 Email: inspec.shcoor@intertek.com
 Tel: 02 6225830
 Fax: 02 6225830
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 Tel: 09 2238754
 Fax: 09 2238754
 Email: inspec.fujcoor@intertek.com
 Tel: 00968 2448 5855
 Fax: 00968 2448 5855
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Form No.: IN-QSF-36A Rev. 05E Dtd.: 20-10-2018

ULTRASONIC THICKNESS SCANNING REPORT

(CONTINUATION SHEET)

Date:	06.03.2020	Report No.:	AD-468		Page:	4	Of	6
LOCATION	ORIENTATION	ORIGINAL THICKNESS	MEASURED THICKNESS MINIMUM (mm)	DIMINUTION IN mm	DIMINUTION IN %	REMARK		
73	-	-	12.65	-	-	-	-	-
74	-	-	12.30	-	-	-	-	-
75	-	-	12.20	-	-	-	-	-
76	-	-	12.25	-	-	-	-	-
77	-	-	12.45	-	-	-	-	-
78	-	-	12.90	-	-	-	-	-
79	-	-	11.70	-	-	-	-	-
80	-	-	12.35	-	-	-	-	-
81	-	-	12.55	-	-	-	-	-
82	-	-	12.35	-	-	-	-	-
83	-	-	11.70	-	-	-	-	-
84	-	-	11.95	-	-	-	-	-
85	-	-	11.70	-	-	-	-	-
86	-	-	12.30	-	-	-	-	-
87	-	-	11.55	-	-	-	-	-
88	-	-	11.95	-	-	-	-	-
89	-	-	11.55	-	-	-	-	-
90	-	-	11.95	-	-	-	-	-
91	-	-	11.85	-	-	-	-	-
92	-	-	11.15	-	-	-	-	-
93	-	-	11.65	-	-	-	-	-
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100	-	-	10.95	-	-	-	-	-
101	-	-	11.75	-	-	-	-	-
102	-	-	10.45	-	-	-	-	-
103	-	-	11.60	-	-	-	-	-
104	-	-	11.62	-	-	-	-	-
105	-	-	11.65	-	-	-	-	-
106	-	-	11.35	-	-	-	-	-
107	-	-	11.40	-	-	-	-	-
108	-	-	11.15	-	-	-	-	-

REPORT FORMAT APPLICABLE ONLY FOR AUH & FUJ FACILITY

LEVEL II TECHNICIAN


Delivering a High Level Test

Level II No: 05.03.2020

Date

Name :

Sign :

Date :

Dubai Branch : P.O.Box: 98355, DUBAI FREE ZONE
 Sharjah Branch : P.O.Box: 110, Sharjah Free Zone
 Abu Dhabi Branch : P.O.Box: 411, Abu Dhabi, U.A.E.
 Fujairah Branch : P.O.Box: 7907, Fujairah, U.A.E.
 Oman Branch : P.O.Box: 193, P.O. Box 131, Sultanate of Oman
 Registered Office : 33-37 Athol Street, Douglas, IM1, 1LB, Isle of Man. Company Number 010728V.

CLIENT REP.

Name :

Sign :

Date :

Tel: 01 5241955
 Tel: 06 5361300
 Tel: 02 6225820
 Tel: 09 2238754
 Tel: 00968 2448 2391
 Fax: 04 3241957
 Fax: 06 5361173
 Fax: 02 6225830
 Fax: 09 2238754
 Fax: 00968 2448 5855

AI/TPI

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Sign :

Date :

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Form No.: IN-QSF-36A Rev. 05E Dtd.: 20-10-2018

ULTRASONIC THICKNESS SCANNING REPORT

(CONTINUATION SHEET)

Date:	06.03.2020	Report No.:	AD- 468		Page:	5	Of	6
LOCATION	ORIENTATION	ORIGINAL THICKNESS	MEASURED THICKNESS MINIMUM (mm)	DIMINUTION IN mm	DIMINUTION IN %	REMARK		
109	-	-	11.35	-	-	-	-	-
110	-	-	13.40	-	-	-	-	-
111	-	-	12.35	-	-	-	-	-
112	-	-	11.25	-	-	-	-	-
113	-	-	11.50	-	-	-	-	-
114	-	-	10.15	-	-	-	-	-
115	-	-	9.95	-	-	-	-	-
116	-	-	10.05	-	-	-	-	-
117	-	-	10.03	-	-	-	-	-
118	-	-	11.00	-	-	-	-	-
119	-	-	11.91	-	-	-	-	-
120	-	-	11.60	-	-	-	-	-
121	-	-	11.10	-	-	-	-	-
122	-	-	10.45	-	-	-	-	-
123	-	-	11.70	-	-	-	-	-
124	-	-	9.63	-	-	-	-	-
125	-	-	9.59	-	-	-	-	-
126	-	-	11.18	-	-	-	-	-
127	-	-	10.26	-	-	-	-	-
128	-	-	10.32	-	-	-	-	-
129	-	-	10.92	-	-	-	-	-
130	-	-	9.54	-	-	-	-	-
131	-	-	10.69	-	-	-	-	-
132	-	-	9.89	-	-	-	-	-
133	-	-	9.96	-	-	-	-	-
134	-	-	9.90	-	-	-	-	-
135	-	-	10.97	-	-	-	-	-
136	-	-	10.03	-	-	-	-	-
137	-	-	10.08	-	-	-	-	-
138	-	-	10.54	-	-	-	-	-
139	-	-	9.90	-	-	-	-	-
140	-	-	10.29	-	-	-	-	-
141	-	-	9.64	-	-	-	-	-
142	-	-	9.17	-	-	-	-	-
143	-	-	9.57	-	-	-	-	-
144	-	-	9.10	-	-	-	-	-

REPORT FORMAT APPLICABLE ONLY FOR AUH & FUJ FACILITY

LEVEL II TECHNICIAN

AFZAL ANSARI & SHER ALI



Name :

Sign :

Date :

 Dubai Branch
 Sharjah Branch
 Abu Dhabi Branch
 Fujairah Branch
 Oman Branch
 Registered Office

 P.O. Box: 985 P.O. Box: 6207, Sharjah, U.A.E.
 P.O. Box: 4227, Abu Dhabi, U.A.E.
 P.O. Box: 7107, Fujairah, U.A.E.
 P.O. Box: 1521, Oman
 :33-37 Athol Street, Douglas, IM1, 1LB, Isle of Man. Company Number 010728V.

CLIENT REP.

Name :

Sign :

Date :

 Tel: 04 3211955
 Fax: 04 3211955
 Tel: 06 5361300
 Fax: 06 5361300
 Tel: 02 6225820
 Fax: 02 6225820
 Tel: 09 2233754
 Fax: 09 2233754
 Tel: 00968 2448 2391
 Fax: 00968 2448 5855

AI/TPI

Name :

Sign :

Date :

 Email: inspec.dxbcoor@intertek.com
 Email: inspec.shjcoor@intertek.com
 Email: inspec.adhcoor@intertek.com
 Email: inspec.fujcoor@intertek.com
 Email: inspec.muscat@intertek.com

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Form No.: IN-QSF-36A Rev. 05E Dtd.: 20-10-2018

ULTRASONIC THICKNESS SCANNING REPORT

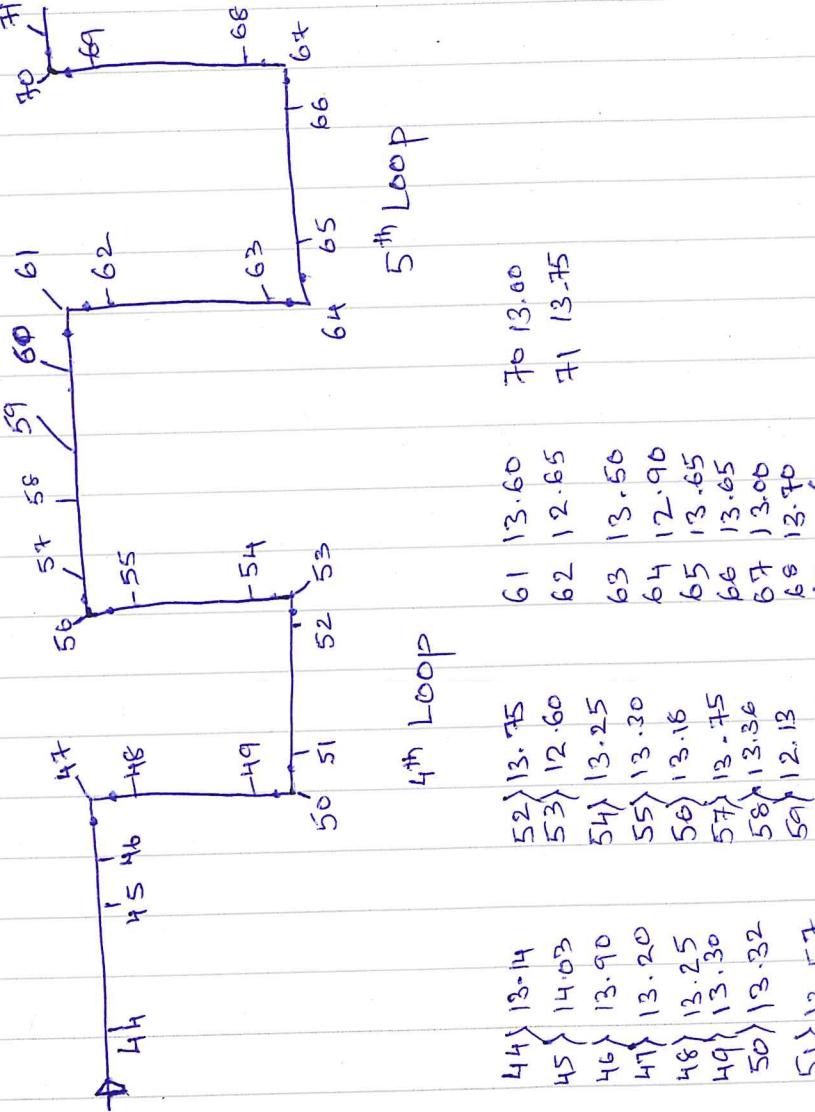
(CONTINUATION SHEET)

REPORT FORMAT APPLICABLE ONLY FOR AUH & FUJ FACILITY

LEVEL II TECHNICIAN		CLIENT REP.	AI/TPI
Name :	AFZAL ANSARI & SHER ALI <i>[Signature]</i>	Name :	
Sign :	<i>[Signature]</i>	Sign :	
Date :	Level II No. 05.03.2020 <i>[Signature]</i>	Date :	
Dubai Branch	T.P.O Box: 96125, Umm Suqeim, U.A.E Tel: 04 341955	Fax: 04 3241957 Email: Inspec.dxbcoor@intertek.com	INSPEC IS PART OF INTERTEK GROUP
Sharjah Branch	T.P.O Box: 611, Sharjah, U.A.E Tel: 06 5361300	Fax: 06 5561173 Email: Inspec.shjcoor@intertek.com	
Abu Dhabi Branch	T.P.O Box: 41227, Abu Dhabi, U.A.E Tel: 02 6225820	Fax: 02 6225830 Email: Inspec.adhcoor@intertek.com	
Fujairah Branch	T.P.O Box: 7907, Fujairah, U.A.E Tel: 09 2338754	Fax: 09 2338754 Email: Inspec.fujcoor@intertek.com	
Oman Branch	T.P.O Box: 195, P.C. 151, Sultante of Oman Tel: 00968 2448 2391	Fax: 00968 2448 5855 Email: Inspec.muscat@intertek.com	
Registered Office	33-37 Athel Street, Douglas, IM1, 1LB, Isle of Man, Company Number 010728V.		
		For Complaints & Suggestions Please email to Inspec.Complaints@intertek.com	

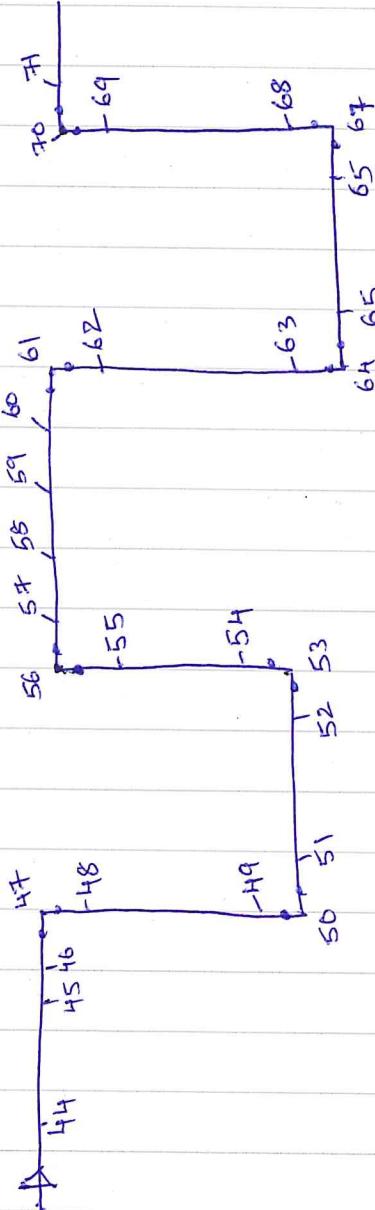
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07/03/20



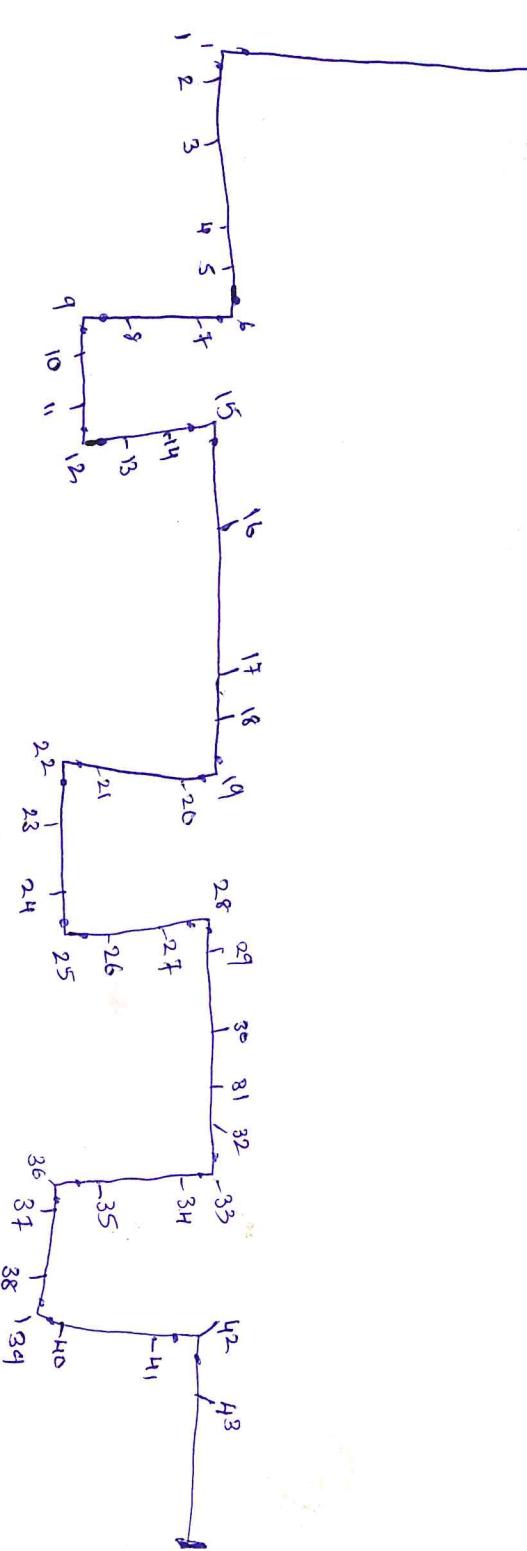
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07/03/20

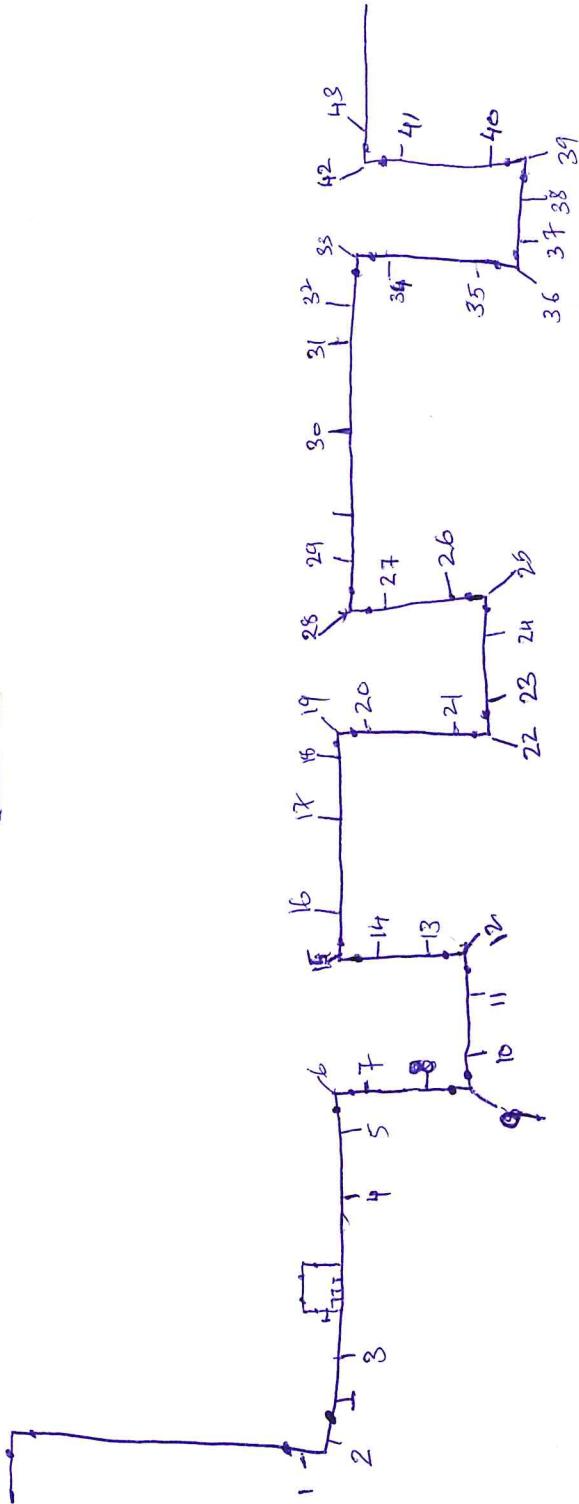


44	13.65	52	13.95	61	12.45
45	13.85	53	13.15	62	12.55
46	13.65	54	13.20	63	13.10
47	12.80	55	13.60	64	13.20
48	12.95	56	13.25	65	13.55
49	12.90	57	13.60	66	13.35
50	13.15	58	13.25	67	12.45
51	13.35	59	13.05	68	12.95
52	13.50	60	12.60	69	13.60
53	13.55				

HTF
R2JB51 - BR001

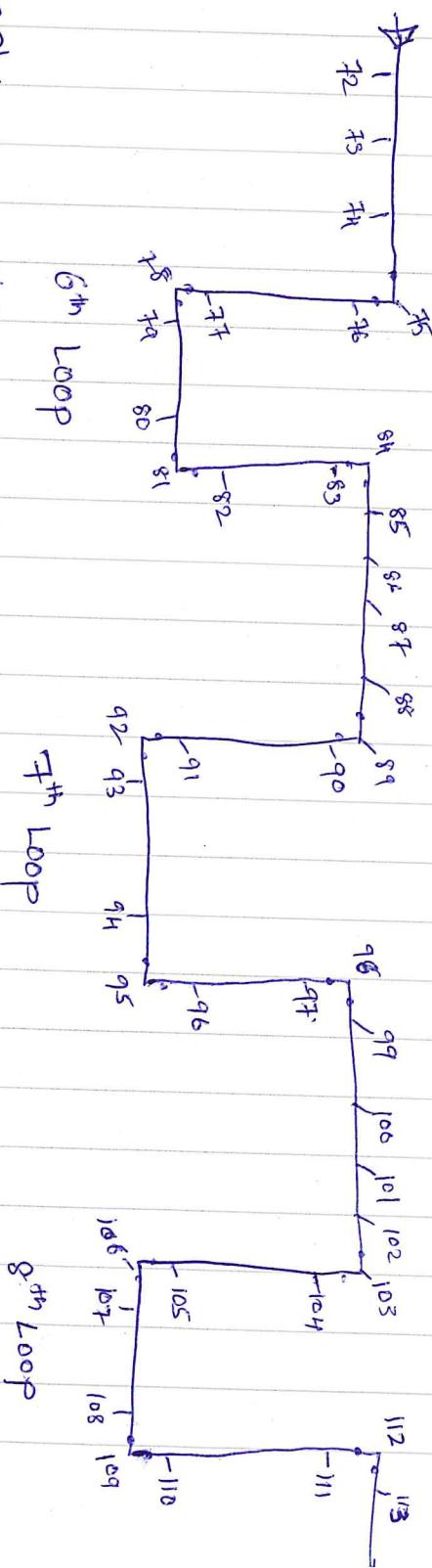


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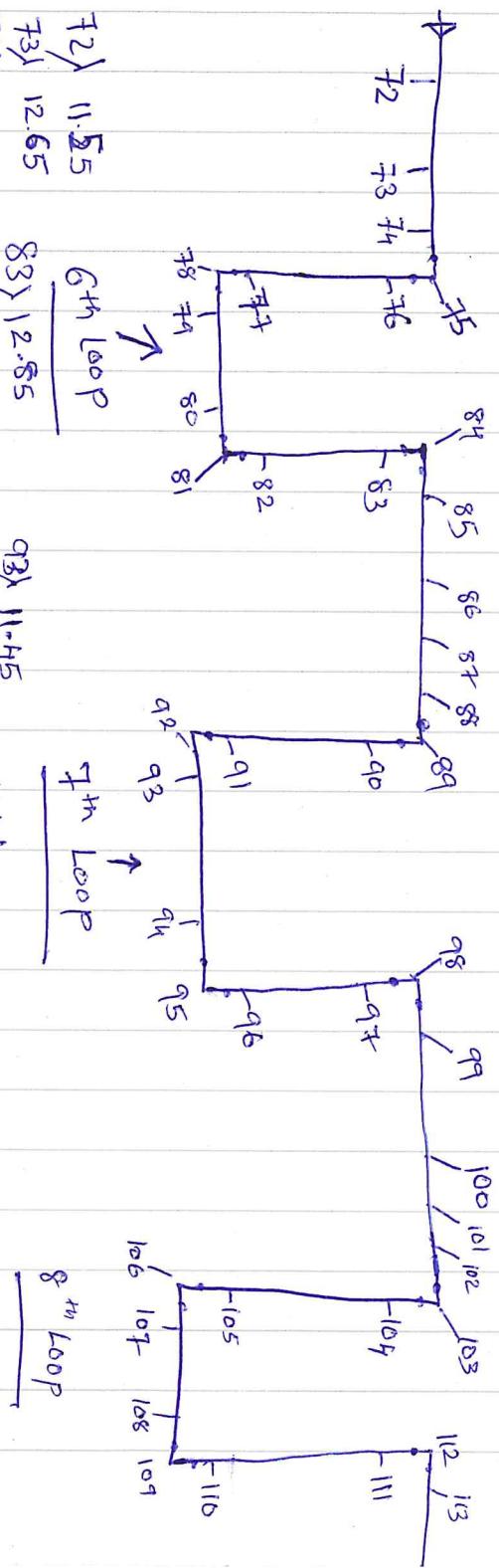
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10	15.72	10	15.72	18	15.83	27	14.91	36	15.95
11	15.50	11	14.65	19	16.50	28	15.55	37	15.74
12	16.60	20	15.25	29	15.42	38	15.72		
13	14.46	13	14.20	30	14.78	39	15.28		
14	15.56	14	15.13	21	16.40	40	16.71		
15	14.00	15	15.78	22	15.25	9	14.20		
16	14.00	16	14.83	23	16.20	32	14.20	41	14.98
17	14.75	25	14.75	24	15.46	33	15.90	42	16.13
18	14.82	25	14.82	34	14.82	43	14.00		

08/03/20



- | | |
|-----|-------|
| 72 | 12.60 |
| 73 | 12.65 |
| 74 | 12.30 |
| 75 | 12.20 |
| 76 | 12.25 |
| 77 | 12.45 |
| 78 | 12.90 |
| 79 | 11.70 |
| 80 | 12.35 |
| 81 | 12.55 |
| 82 | 12.35 |
| 83 | 11.70 |
| 84 | 12.95 |
| 85 | 11.70 |
| 86 | 12.30 |
| 87 | 11.55 |
| 88 | 11.95 |
| 89 | 11.55 |
| 90 | 11.85 |
| 91 | 11.95 |
| 92 | 11.15 |
| 93 | 11.60 |
| 94 | 11.05 |
| 95 | 11.65 |
| 96 | 11.35 |
| 97 | 12.05 |
| 98 | 11.35 |
| 99 | 11.25 |
| 100 | 10.95 |
| 101 | 11.75 |
| 102 | 10.45 |
| 103 | 11.25 |

08/03/20



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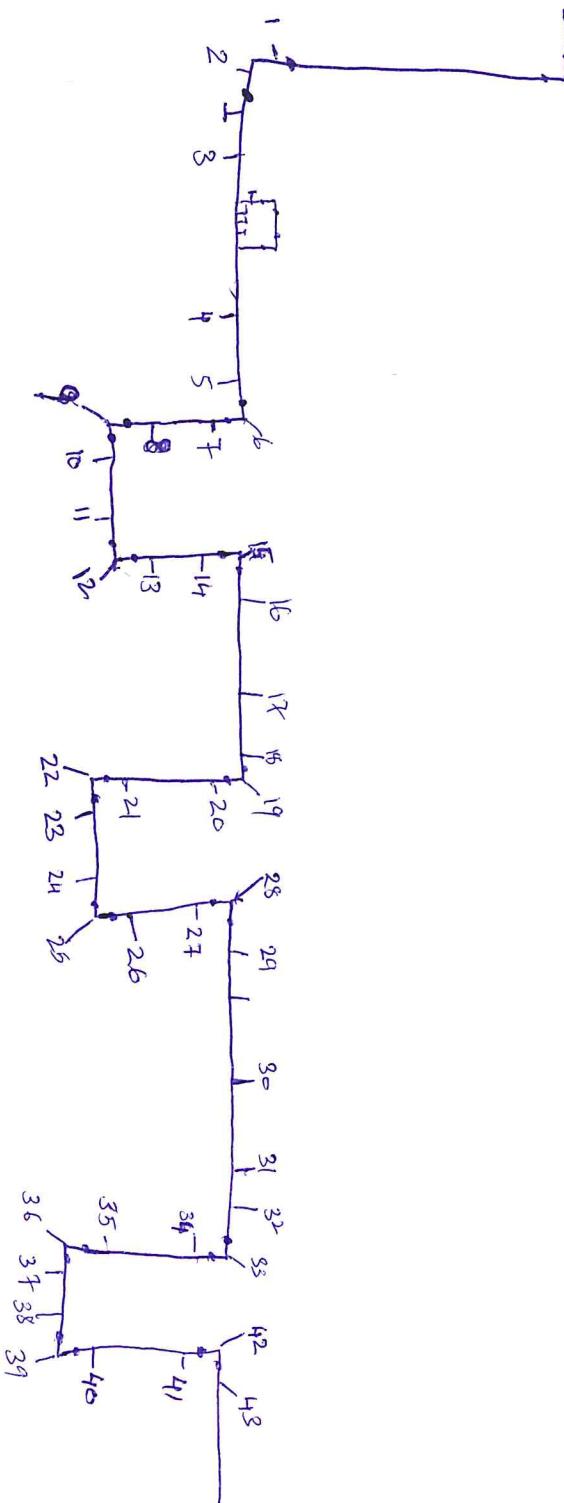
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1 st Loop	72	11.25
	73	12.65
2 nd Loop	83	12.85
	84	12.35
3 rd Loop	93	11.45
	94	10.35
4 th Loop	95	11.40
	96	11.75
72	11.50	
73	12.05	
74	12.80	
75	11.80	
76	12.30	
77	12.15	
78	12.55	
79	13.20	
80	13.45	
81	11.65	
82	11.70	
83	11.35	
91	10.65	
92	10.65	
93	10.25	
94	10.25	
95	11.65	
96	11.65	
97	11.75	
98	11.60	
99	11.76	
100	12.25	
101	12.05	
102	11.25	
103	11.75	

Date 06/03/2020

Date	06/03/2020	19.24	19.39	19.40	19.51
		13.9.85	17.2.	16.30	16.30
		17.6.73	17.2.	16.30	16.30
		17.4.53	17.2.	16.31	16.31
		17.3.43	17.2.	16.21	16.21
		17.3.33	17.2.	16.20	16.20
		17.3.23	17.2.	16.20	16.20

Acc Blower

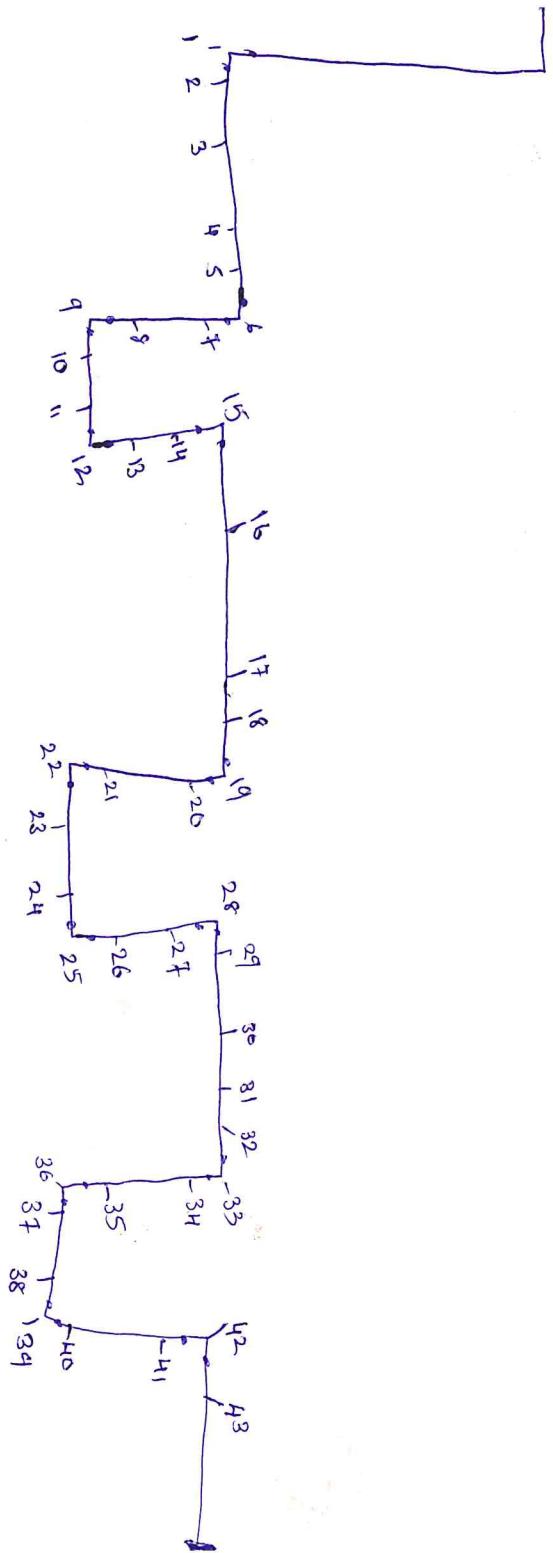
HTF
R2JB41-BR001
Date 03/2020



1) 15.76
2) 15.78
3) 15.42
4) 15.50
5) 14.65
6) 16.60
7) 14.20
8) 15.13
9) 15.38
10) 15.40
11) 15.83
12) 16.50
13) 15.25
14) 15.25
15) 15.56
16) 15.36
17) 15.40
18) 15.83
19) 16.50
20) 15.42
21) 16.40
22) 15.25
23) 16.20
24) 15.46
25) 15.40
26) 14.83
27) 14.82
28) 14.00
29) 14.75
30) 15.40
31) 15.40
32) 15.40
33) 15.40
34) 16.13
35) 14.00
36) 14.00
37) 14.00
38) 14.00
39) 14.00
40) 14.00
41) 14.00
42) 14.00
43) 14.00

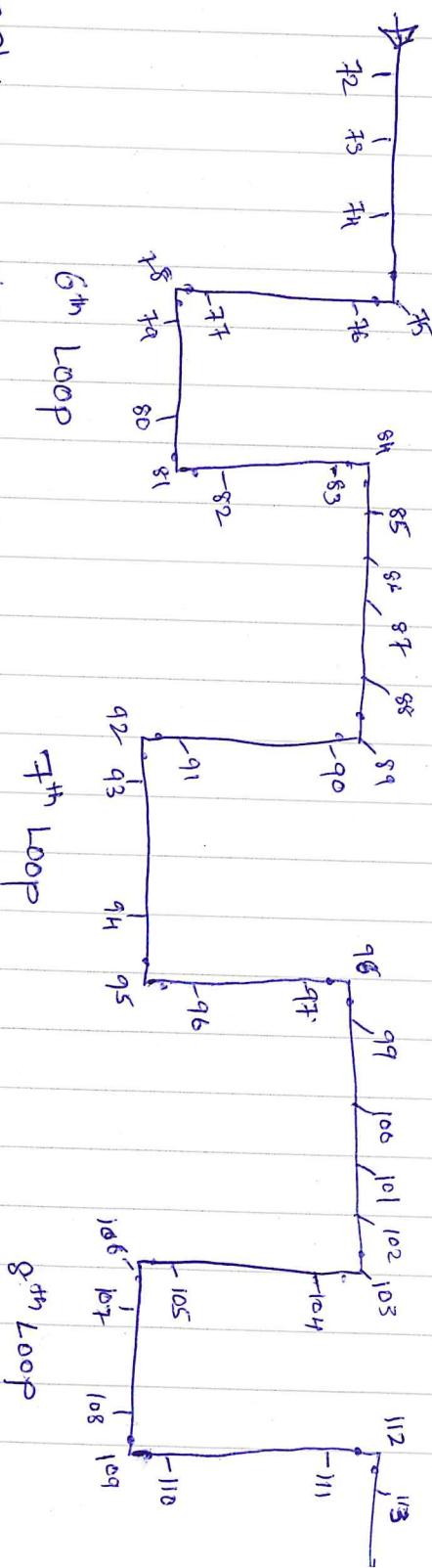
Date 06/03/2020

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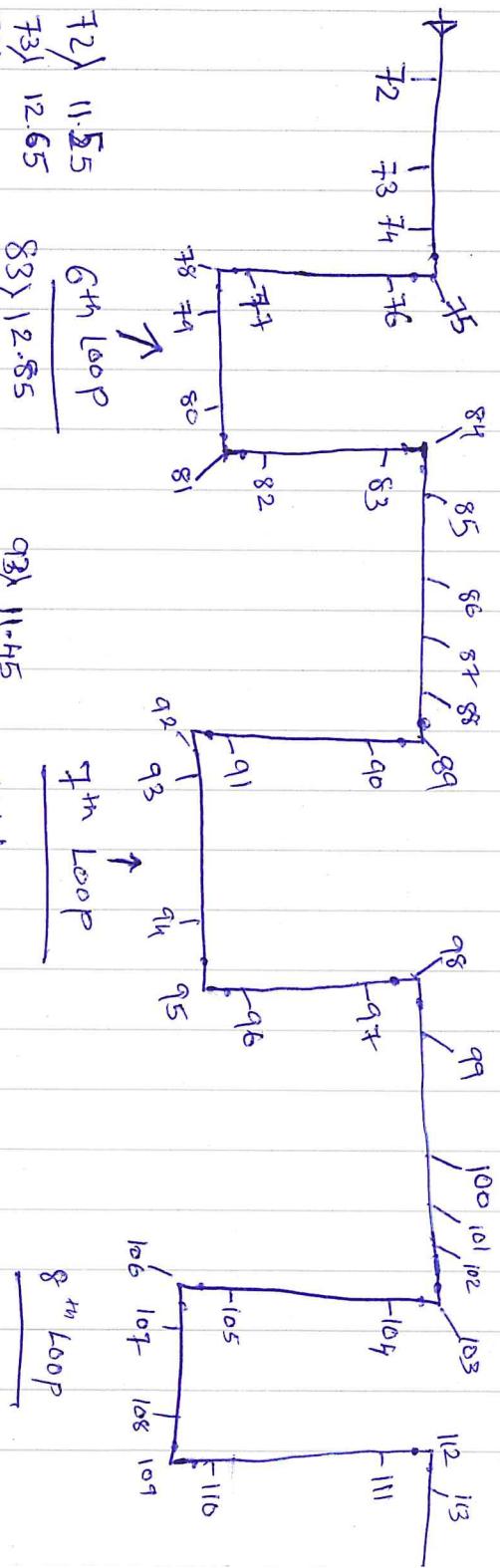
13 15.74
21 15.63
31 15.23
41 13.64
51 16.2
61 15.6
71 14.80
81 13.98
14 15.20
15 15.87
16 14.45
24 15.45
25 15.00
26 15.20
27 15.47
28 15.30
29 15.68
30 14.00
31 15.20
32 14.68
33 14.48
34 15.00
35 14.45
36 15.23
37 15.08
38 14.98
39 15.00
40 15.00

08/03/20



- | | |
|-----|-------|
| 72 | 12.60 |
| 73 | 12.65 |
| 74 | 12.30 |
| 75 | 12.20 |
| 76 | 12.25 |
| 77 | 12.45 |
| 78 | 12.90 |
| 79 | 11.70 |
| 80 | 12.35 |
| 81 | 12.55 |
| 82 | 12.35 |
| 83 | 11.70 |
| 84 | 12.95 |
| 85 | 11.70 |
| 86 | 12.30 |
| 87 | 11.55 |
| 88 | 11.95 |
| 89 | 11.55 |
| 90 | 11.95 |
| 91 | 11.85 |
| 92 | 11.15 |
| 93 | 11.60 |
| 94 | 11.05 |
| 95 | 11.65 |
| 96 | 11.35 |
| 97 | 12.05 |
| 98 | 11.35 |
| 99 | 11.25 |
| 100 | 10.95 |
| 101 | 11.75 |
| 102 | 10.45 |
| 103 | 11.25 |

08/03/20



Handwritten data points for the loops:

Loop	Point	Value
1 st Loop	72	11.25
	73	12.65
2 nd Loop	83	12.85
	84	12.35
3 rd Loop	93	11.45
	94	10.35
4 th Loop	95	11.40
	96	11.75
72	11.50	
73	12.05	
74	12.80	
75	11.80	
76	12.30	
77	12.15	
78	12.55	
79	13.20	
80	13.45	
81	11.05	
82	10.65	
83	10.65	
84	11.25	
85	11.35	