

Test Report No. (14 / 2021)

Client Name: Engicon
Client Address: Amman
No. of samples: 2 Sites
Location: Wadi Rum, Sahab
Page No.: 9

Date: 5/10/2021
Methodology of test: Sound level meter/
ANSI/ASA S1.4-2014/Part 2, IEC 61672-
2:2013
Conditions: Temp.32C° ,Humidity : 41%

Attached you will find the results of Noise Measurement conducted on Wadi Rum, Sahab in Sep. 2021

Please See Attached Result

Notes:

- Test Report is only valid with the division stamp and signature.
- The test results relate only to the items tested.

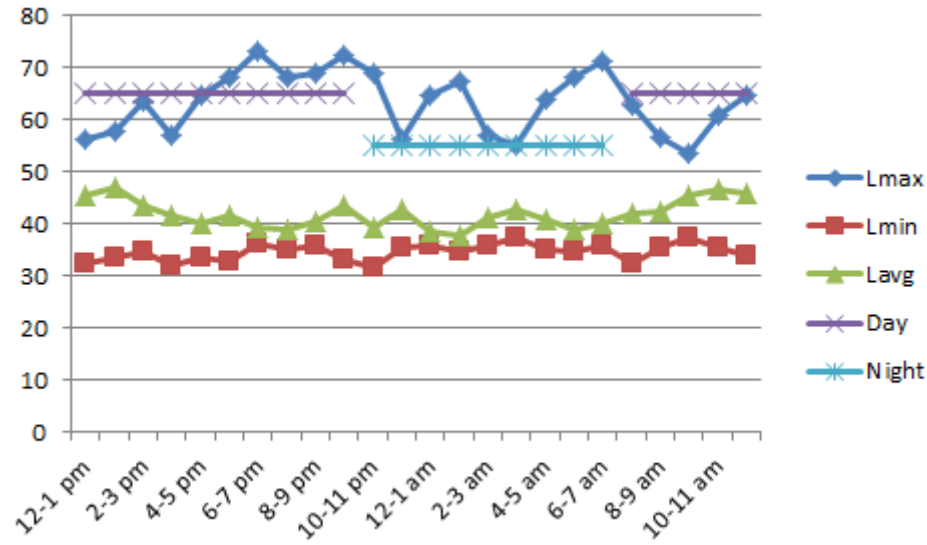
REV. (1)

Location 1: Wadi Rum
Noise Levels Monitoring Results (dB(A))

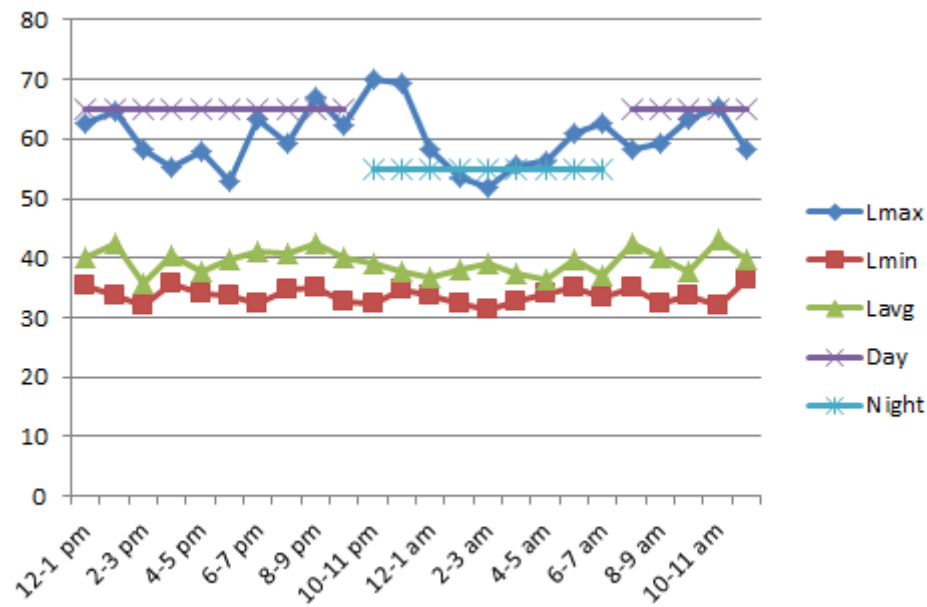
Day 1				Day 2			Day 3		
Time	Lmax	Lmin	Lavg	Lmax	Lmin	Lavg	Lmax	Lmin	Lavg
12-1 pm	56.3	32.6	45.5	62.5	35.4	40.1	57.3	34.6	42.7
1-2 pm	57.8	33.7	47.2	64.8	33.8	42.3	62.8	33.8	39.8
2-3 pm	63.6	34.8	43.5	58.2	32.1	35.8	59.6	31.3	42.6
3-4 pm	56.9	32.1	41.8	55.3	35.7	40.5	63.9	34.2	47.1
4-5 pm	64.9	33.4	40.2	57.8	34.2	37.8	69.4	36.4	43.7
5-6 pm	68.3	32.8	41.5	52.9	33.6	39.6	71.3	32.5	38.7
6-7 pm	73.2	36.4	39.2	63.2	32.4	41.1	58.6	35.7	41.2
7-8 pm	68.2	35.2	38.9	59.1	34.8	40.6	56.1	32.4	42.5
8-9 pm	69.1	35.7	40.6	66.9	35.2	42.5	58.2	37.6	43.7
9-10 pm	72.6	33.2	43.6	62.4	32.7	40.1	53.1	34.2	44.2
10-11 pm	68.9	31.6	39.2	70.1	32.5	39.2	62.5	33.7	37.7
11-12 pm	56.2	35.3	42.8	69.4	34.8	37.7	56.3	35.7	35.9
12-1 am	64.8	35.9	38.5	58.3	33.6	36.8	68.1	32.9	36.8
1-2 am	67.4	34.6	37.7	53.6	32.5	38.1	62.3	33.1	40.1
2-3 am	56.9	35.8	41.1	51.9	31.4	39.2	57.2	35.7	36.8
3-4 am	55.2	37.4	42.9	55.7	32.8	37.5	52.9	34.7	39.5
4-5 am	63.8	35.2	40.7	56.3	34.2	36.4	55.3	35.1	38.2
5-6 am	68.2	34.8	38.8	60.8	35.1	39.6	61.4	32.6	41.9
6-7 am	71.4	35.9	40.2	62.5	33.5	37.1	57.8	33.8	40.2
7-8 am	62.9	32.3	41.9	58.1	34.9	42.3	66.5	34.1	38.5
8-9 am	56.8	35.4	42.3	59.3	32.5	40.1	69.2	36.4	43.7
9-10 am	53.4	37.4	45.6	63.4	33.7	37.9	68.7	37.2	39.5
10-11 am	60.7	35.3	46.7	65.2	32.1	43.2	59.2	32.6	42.3
11-12 am	64.7	33.8	45.9	58.1	36.3	39.6	63.9	34.2	41.8

⁽¹⁾ Maximum Allowable Day Limit (Leq) (Jordanian Noise Instructions 2003): 65 dB(A)

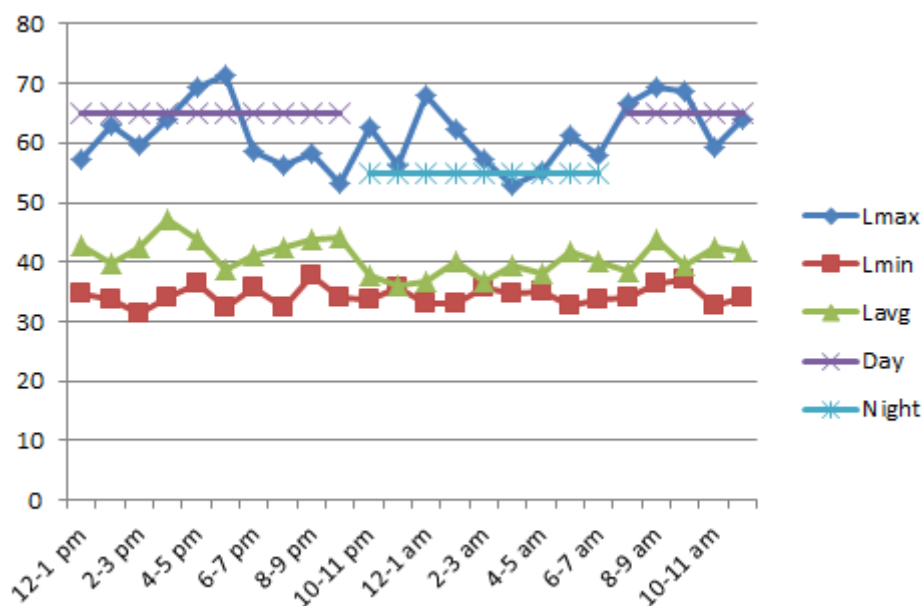
⁽²⁾ Maximum Allowable Night Limit (Leq) (Jordanian Noise Instructions 2003): 55 dB(A)



الشكل 1: اليوم الاول في موقع رم



الشكل 2: اليوم الثاني في موقع رم



الشكل 3: اليوم الثالث في موقع رم

Equivalent Noise Levels (Leq) results (dB(A))

Day (7am – 10pm)	Night (10pm – 7am)
Day1 42.2 (dB(A)) (19/9/2021 (12 pm- 10 pm) 44.48 (dB(A)) 20/9/2021 7 AM – 12 PM)	40.21 (dB(A)) (19/9/2021 10 PM- 20/9/2021 7 AM)
Day2 40.04 (dB(A)) (20/9/2021 (12 pm- 10 pm) 40.62 (dB(A)) 21/9/2021 7 AM – 12 PM)	37.956 (dB(A)) (20/9/2021 10 PM- 21/9/2021 7 AM)
Day3 42.62 (dB(A)) (21/9/2021 (12 pm- 10 pm) 41.16 (dB(A)) 22/9/2021 7 AM – 12 PM)	38.567 (dB(A)) (21/9/2021 10 PM- 22/9/2021 7 AM)
⁽¹⁾ 65	⁽²⁾ 55

⁽¹⁾ Maximum Allowable Day Limit (Leq) (Jordanian Noise Instructions 2003): 65 dB(A)

⁽²⁾ Maximum Allowable Night Limit (Leq) (Jordanian Noise Instructions 2003): 55 dB(A)

Location 2: Sahab Municipality
Noise Levels Monitoring Results (dB(A))

Day 1

Time	Lmax	Lmin	Lavg
12-1 pm	57.2	37.7	50.9
1-2 pm	58.3	37.8	51.5
2-3 pm	56.1	37.7	50.6
3-4 pm	59.6	37.9	52.3
4-5 pm	62.5	38.5	58.6
5-6 pm	69.3	37.7	61.2
6-7 pm	70.2	37.7	63.7
7-8 pm	73.6	37.8	59.4
8-9 pm	74.5	40.1	53.3
9-10 pm	77.8	37.7	59.7
10-11 pm	74.3	37.8	56.3
11-12 pm	76.8	36.9	48.2
12-1 am	79.7	37.8	45.4
1-2 am	75.6	37.7	43.7
2-3 am	76.2	37.5	44.3
3-4 am	73.1	37.4	43.6
4-5 am	75.3	37.7	47.8
5-6 am	69.4	37.9	50.1
6-7 am	70.1	37.9	52.3
7-8 am	68.2	37.2	56.7
8-9 am	65.8	38.5	53.8
9-10 am	70.5	37.9	54.6
10-11 am	68.6	37.7	52.8
11-12 am	67.5	37.7	51.9

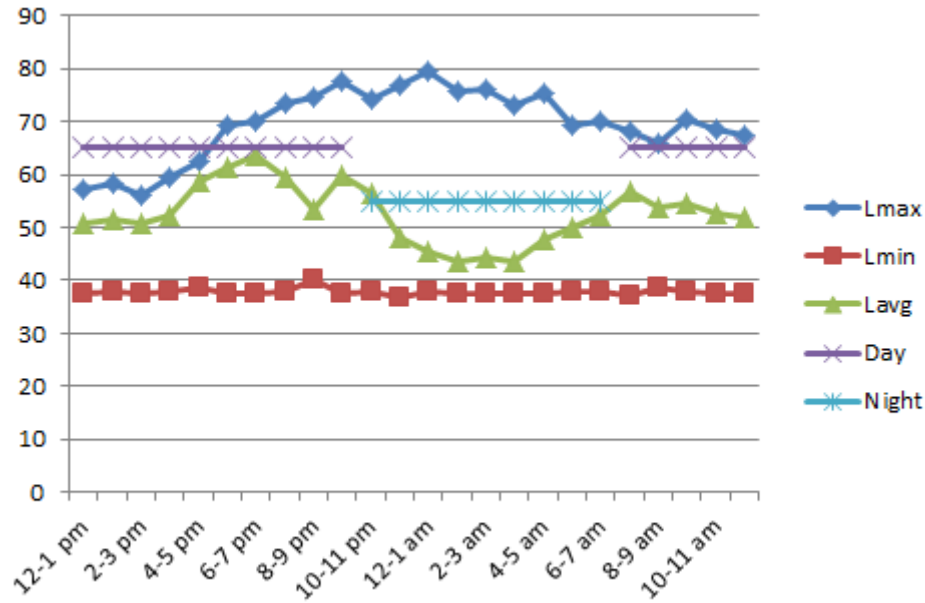
Day 2

Lmax	Lmin	Lavg
66.3	37.7	50.2
71.9	38.1	51.7
64.2	37.7	50.3
67.4	37.4	52.6
74.9	38.4	55.2
73.2	36.8	57.4
72.5	37.5	60.2
75.4	37.8	59.6
76.1	37.7	65.8
79.5	37.7	57.4
77.4	37.9	53.2
75.8	37.6	49.7
77.2	38.4	44.3
75.4	37.7	47.8
74.8	37.9	42.6
77.6	38.2	46.3
73.8	37.7	44.2
75.8	37.6	43.1
73.1	38.1	45.8
74.6	37.5	52.7
69.1	37.7	51.9
68.7	37.9	55.3
66.4	37.4	57.6
68.9	39.6	52.7

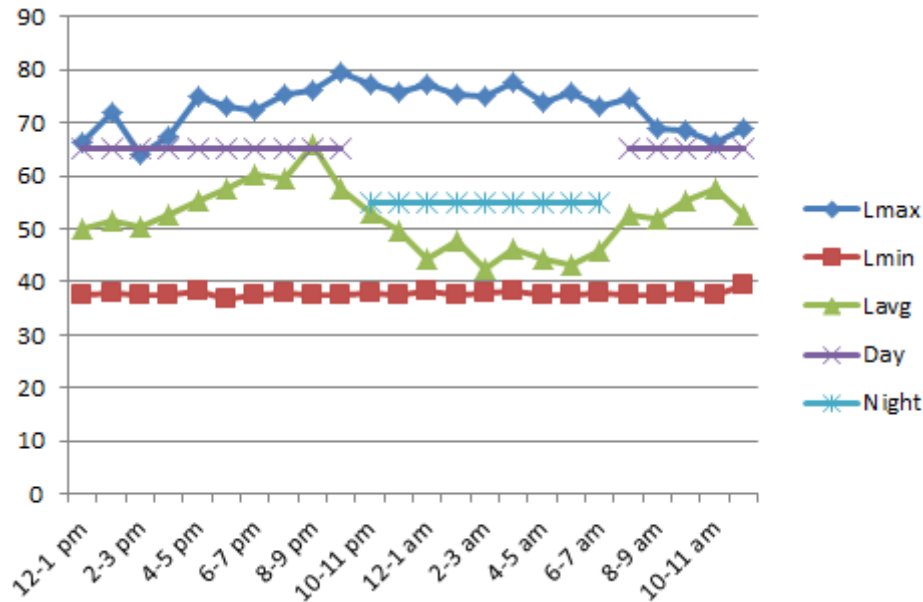
Day 3

Lmax	Lmin	Lavg
74.2	37.7	51.7
76.5	37.6	50.7
78.6	37.7	51.2
77.6	37.7	52.6
75.6	37.8	54.1
77.9	38.5	57.6
72.3	37.7	63.1
74.2	38.2	56.3
71.9	37.7	53.4
68.5	37.8	54.2
65.2	37.7	49.3
63.7	36.8	45.1
65.6	37.9	40.8
68.2	37.7	42.3
70.1	37.7	47.6
69.8	37.8	44.8
71.2	38.4	43.7
72.4	37.3	42.1
75.6	37.7	43.9
74.8	38.5	46.4
76.4	39.8	47.8
78.7	37.7	52.9
76.9	37.8	53.8
77.5	37.7	52.6

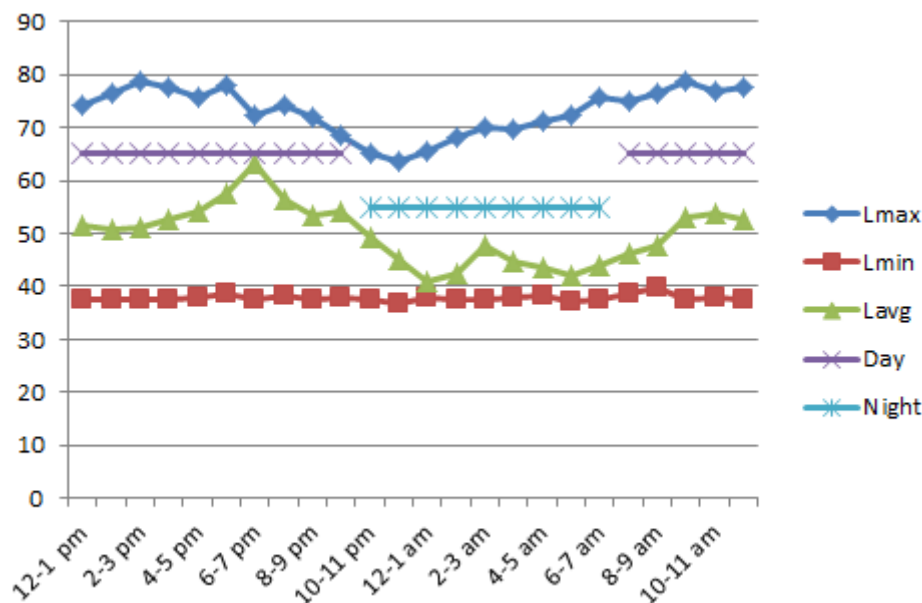
(1) Maximum Allowable Day Limit (Leq) (Jordanian Noise Instructions 2003): 65 dB(A)
 (2) Maximum Allowable Night Limit (Leq) (Jordanian Noise Instructions 2003): 55 dB(A)



الشكل 4: اليوم الاول في موقع سحاب



الشكل 5: اليوم الثاني في موقع سحاب



الشكل 6: اليوم الثالث في موقع سحاب

Equivalent Noise Levels (Leq) results (dB(A))

Day (7am – 10pm)	Night (10pm – 7am)
Day1 56.12(dB(A)) (26/9/2021 (12 pm- 10 pm) 53.96(dB(A)) 27/9/2021 7 AM – 12 PM)	47.967(dB(A)) (26/9/2021 10 PM- 27/9/2021 7 AM)
Day2 56.04(dB(A)) (27/9/2021 (12 pm- 10 pm) 54.04(dB(A)) 28/9/2021 7 AM – 12 PM)	46.333(dB(A)) (27/9/2021 10 PM- 28/9/2021 7 AM)
Day3 54.49(dB(A)) (28/9/2021 (12 pm- 10 pm) 50.7(dB(A)) 29/9/2021 7 AM – 12 PM)	44.4(dB(A)) (28/9/2021 10 PM-29/9/2021 7 AM)
⁽¹⁾ 65	⁽²⁾ 55

⁽¹⁾ Maximum Allowable Day Limit (Leq) (Jordanian Noise Instructions 2003): 65 dB(A)

⁽²⁾ Maximum Allowable Night Limit (Leq) (Jordanian Noise Instructions 2003): 55 dB(A)

PORTABLE SOUND LEVEL METERS

300 Series Type 2 SLM

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Monarch Sound Level Meters are ideal for making noise measurements in the workplace. While Noise is mainly a problem in manufacturing industries, the assessment of personal noise exposure at work must be carried out in all companies to be sure that harmful noise levels are not being exceeded. National regulations exist in almost all industrialized countries which give actual noise limits on the amount of noise allowed in the workplace. With simple operation and powerful features, the 300 Series provides an affordable method to ensure workplace safety. All the 300 Series meet the IEC 651 Type 2 standards. Monarch 322 is capable of datalogging 32,000 records. Models 321 and 322 will communicate in "real-time" with the SE322 Windows software.



Series 300 Sound Level Meters

Monarch 322 SLM Features:

- 32,000 Record Datalogger
- IEC 651 Type 2
- 4 Digit and Bargraph Display
- A and C Weighting
- RS-232 Interface
- Windows Software

Common Applications:

- OSHA compliance
- R&D
- Environmental noise
- Residential noise
- Data Acquisition

Model 322 Sound Level Meter,
 SE-322 Windows Software, RS-
 232 Communication Cable and
 Calibration Screwdriver (Calibrating
 Case not pictured)



SE-322 Windows Software provides support
 for PC datalogging and "real-time" recording
 for the Model 322. SE-322 Software is
 optional for Model 321.



Why use a Sound Level Meter?

To identify hazardous sound levels in environments per 29 CFR OSHA 1910.95 and in the design of equipment or environments.

What features are important?

Selectable weighting. Filter algorithms which determine the frequencies the meter will measure. A-weighting most closely models human hearing which is less efficient at high and low frequencies. C-weighting allows a flatter frequency response than A-weighting. A-weighting is used for compliance to OSHA standards.

Response time. How quickly the meter responds to fluctuating sounds. Slow setting (required by OSHA regulations) responds in 1000 milliseconds. Fast setting responds in 125 milliseconds-quick enough to capture "transient peaks" in the noise levels.

Data Logging. Record your findings.

Software. Upload your readings to a PC.



Specifications	Monarch 325	Monarch 321	Monarch 322
Level Range	Lo = 32 to 80 dB	Lo = 30 to 80 dB Mid = 50 to 100 dB Hi = 80 to 150 dB	
Frequency Range		31.5 Hz to 8 kHz	
Dynamic Range	50 dB	50 dB (100 dB in Autorange Mode)	
Accuracy/Resolution	± 1.5 dB (ref 94 dB @ 1 kHz) / 0.1 dB		
Display	4 digit LCD	4 digit LCD with Bargraph	
Frequency Weighting		A and C User selectable	
Time Weighting		Fast and Slow User selectable	
Microphone		1/2" Electret Condenser	
Auxiliary Outputs	AC signal	AC/DC signals	
Power		9V Battery	
Memory	None	None	32,000 records
RS-232 Interface	None	SE322 (Optional)	SE322 included

Ordering Information

Monarch 325 Min-Size SLM, Type 2, Meter,
 Windscreen and Calibration Screwdriver, 9V
 Battery.
 Monarch 321 Autoranging SLM, Type 2, Meter,
 Windscreen, Carrying Case, Calibration
 Screwdriver, 9V Battery.
 Monarch 322 Datalogging SLM, Type 2, Meter,
 Windscreen, Carrying Case, Calibration
 Screwdriver, 9V Battery, SE-322 Software for
 Windows, RS-232 Communications Cable,
 SE-322 Windows Software and RS-232
 Communications Cable. Option for Model 321

Measurements Conducted By: Anas Ajarmeh

Signature: 

Technical Manager: Ayat Ajarmeh

Signature: 