

**INITIAL UPLIFT/PULLOUT PILE LOAD TEST ON 600MM DIA PILE FOR  
FOR IMPROVEMENT OF SEWAGE MANAGEMENT SYSTEM IN NASHIK  
TO PREVENT IN RIVER GODAVARI BASED ON PPP/HAM MODEL.**

**TEST LOAD:- 197.5MT**  
**(INITIAL TEST PILE AGARTAKLI 97 MLD STP-TP-03)**



Submitted to

**CLIENT :- NMC.**  
**PMC:- CS TECH**  
**CONTRACTOR :- KUMBH WASTE WATER**  
**MANAGEMENT Pvt Ltd.**

**QCC**

**QCC LAB SOLUTIONS PVT. LTD., Mumbai.**

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**Website:- www.qcclabsolutions.com**

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(INITIAL TEST PILE AGARTAKLI 97 MLD STP-TP-03)**

**1.0 GENERAL**

- 1.1 Clients decided to carry out static pile testing work on 600mm diameter pile to estimate load carrying capacity in vertical direction and settlement. M/s ZedGeo Systems Private Limited, Mumbai was entrusted with work of static pile load test.
- 1.2 This report covers data for one Uplift/pullout pile load test and calculation of safe load capacity for pile based on data collected during fieldwork.
- 1.3 The following codes of practices have been adopted.
  - IS 2911 (Part 4) –1985 – (Reaffirmed 2013) “Code of Practice for Design and Construction of Pile Foundations -Concrete Piles -Bored Cast – In – situ piles - Load Tests on Piles”.
  - IS: 14593 – 1998 (Reaffirmed 2003). "Design and Construction of Bored Cast-in-Situ Piles Founded on Rocks – Guidelines."

**2.0 SCOPE OF WORK**

Pile details are tabulated as below.

**2.1 Pile details for Initial Pile (For Pullout Load Test)**

**Location :- AGARTAKLI 97 MLD STP.**

The details of the pile are as given below:

**Initial pile No =TP-03**

**Maximum Safe Uplift capacity of Pile =79 MT**

**Test Load = 197.5MT**

**Diameter of Pile = 600mm**

**Grade of Concrete = M-25**

**Pile Depth = 8.50 m at Test level.**

### **3.0 METHODOLOGY**

3.1 The load testing on piles was conducted as per IS: 2911 (Part 4) – 1985 (Reaffirmed 2013).

#### **Uplift Load Test On Piles**

##### **3.2 Test Load**

The Initial pile pullout load test was carried out to a test load of minimum 2.5 times the design load as per IS:2911. The design/safe load was 79T and the maximum test load was 197.5T for test pile.

##### **3.3 Uplift Resistance Test on Piles**

The pile load test was conducted by applying a series of Uplift loads on the test pile. The test pile was Lifted in increments close to 20% of the designed load till the test load was achieved i.e 197.5T and then unloaded as given in Table 3-1.is done The load was applied by means of 2 secondary girders resting on ground and The primary girders were resting on the 2 supporting secondary girders. 1 jack of 500MT were placed on the centre of the primary girder and one MS plate box was placed on top the jack. After placing the girder, jack and MS plate box pile reinforcement weld onto the MS plate box. The pile was dressed to a well-levelled surface then glasses was fixed onto the Pile on which the plunger of the dial gauges were rested and the magnetic base of the dial gauge was rested on the datum bar. The jacks were connected and operated by one pump.

The testing agency had submitted calibration charts showing the correctness of the calibration of the pressure gauges and the dial gauges before use. Readings of uplift and Elastic Rebound were recorded with the help four dial gauges of 0.01 mm sensitivity and resting on diametrically opposite ends of the pile. The dial gauges were fixed to a support at least 3 times the diameter of the pile or a minimum of 1.50 m away clear from the edge of pile. Readings on the dial gauges were observed immediately before and after application of loads, and immediately before and after release of loads.

**LOADING AND UNLOADING SHEET**

1 jack of 500T of Ram area = 706cm<sup>2</sup>.

So Effective Ram area is = 706cm<sup>2</sup>.

Design Load=79MT. Test Load = 197.5MT.

Load Increment shall be 20% of Design load (79T), so 15T

Increments shall be selected close to 15T.

Least Count of Pressure gauge is 10 kg/cm<sup>2</sup>

Table 1 – Load Sequence

<b>Pressure Gauge (kg/cm<sup>2</sup>)</b>	<b>Load (MT)</b>	<b>Reading Time(Mins)</b>
0	0	0
30	21.18	1,15,30,45,60 <sup>th</sup> minute
60	42.36	1,15,30,45,60 <sup>th</sup> minute
90	63.54	1,15,30,45,60 <sup>th</sup> minute
120	84.72	1,15,30,45,60 <sup>th</sup> minute
150	105.90	1,15,30,45,60 <sup>th</sup> minute
180	127.08	1,15,30,45,60 <sup>th</sup> minute
210	148.26	1,15,30,45,60 <sup>th</sup> minute
240	169.44	1,15,30,45,60 <sup>th</sup> minute
270	190.62	1,15,30,45,60 <sup>th</sup> minute
300	211.80	24 hours Holding
Unloading		
270	190.62	1,5,15 mins
240	169.44	1,5,15 mins
210	148.26	1,5,15 mins
180	127.08	1,5,15 mins
150	105.90	1,5,15 mins
120	84.72	1,5,15 mins
90	63.54	1,5,15 mins
60	42.36	1,5,15 mins
30	21.18	1,5,15 mins
0	0	1,5,15 mins

The final load was maintained for 24 hrs and the corresponding Uplift was observed at 1hr interval. During the unloading stages, the load on the pile was maintained for a minimum of 15 minutes and the subsequent elastic rebound in the pile was measured with the help of 4 dial gauges.

### **3.4 Plant and Equipment**

All temporary work plant, equipment, reaction system, Primary and secondary girders and all necessary instruments for measurements of loads, deflection etc. was provided by the testing agency. The equipment provided was capable to apply slowly and smoothly and to maintain the load at any required value. The load was measured by a single Pressure Gauge.

## **4.0 RESULTS**

### **4.1 Acceptance Criteria for Uplift Load Test on Pile.**

The Safe Capacity of Piles is considered to be the least of the following as per IS: 2911, (Part 4):2013

- 2/3rd of the load corresponding to 12 mm Displacement/Uplift or maximum of 2 percent of pile diameter which in this case works out to be 12 mm, whichever is less.
- Half the load at which the load displacement curve shows a clear break (downward trend).

So as per the Test data and the graph the pile has shown more Uplift capacity than **79T**.

The maximum Deflection/Uplift observed as per our field record at **211.8T = 9.34mm**.

Which is less than 12mm .

Total Elastic Rebound = **3.51mm**

The Net Deflection/Uplift= **5.83mm**

**18<sup>th</sup> Nov 2025.**

**QCC LAB SOLUTIONS Pvt Ltd, Mumbai.**

  
(Authorized Signatory)

## **READINGS AND GRAPH**



**QCC LAB SOLUTIONS Pvt Ltd, Mumbai..**



**QCC LAB SOLUTIONS Pvt Ltd, Mumbai.**

RECORD OF FOOTING LOAD TEST NO:- TP-03

**PROJECT:- IMPROVEMENT OF SEWAGE MANAGEMENT SYSTEM IN NASHIK TO PREVENT IN RIVER GODAVARI BASED ON PPP/HAM MODEL.**

**LOCATION - AGARTAKLI 97 MLD STP**

**CONSULTANT :- CS TECH**

**CLIENT:- NASHIK MUNICIPAL CORPORATION.**

Page:-1

Ic of dial gauge:- 0.01mm

Ram Area :- 706cm<sup>2</sup>

Type of Test:- Uplift Pile Load

Date of Casting :- 05-09-2025.

Test

Pile Length :- 8.5mtr

Design Load :- 79 MT

Test Load :- 197.5 MT

Mixed Design :- M25

Pile Diameter : - 600mm

DATE (Hrs)	TIME	PRESSURE GAUGE READING kg/cm <sup>2</sup>	LOAD IN MT	Dial Gauge				AVERAGE SETTLEMENT IN MM	REMARK
				Reading 1	Reading 2	Reading 3	Reading 4		
LOADING									
04-11-2025	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	15.01	30.00	21.18	0.10	0.12	0.15	0.11	0.12	
	15.15			0.12	0.15	0.16	0.12	0.14	
	15.30			0.12	0.15	0.16	0.12	0.14	
	15.45			0.12	0.15	0.16	0.12	0.14	
	16.00			0.12	0.15	0.16	0.12	0.14	
	16.01	60.00	42.36	0.37	0.38	0.49	0.52	0.44	
	16.15			0.37	0.38	0.49	0.52	0.44	
	16.30			0.37	0.38	0.49	0.52	0.44	
	16.45			0.37	0.38	0.49	0.52	0.44	
	17.00			0.37	0.38	0.49	0.52	0.44	
	17.01	90.00	63.54	0.58	0.65	0.99	1.00	0.81	
	17.15			0.63	0.67	0.99	1.00	0.82	
	17.30			0.63	0.67	0.99	1.00	0.82	
	17.45			0.63	0.67	0.99	1.00	0.82	
	18.00			0.63	0.67	0.99	1.00	0.82	
	18.01	120.00	84.72	1.88	1.70	2.09	2.10	1.94	
	18.15			1.89	1.71	2.09	2.11	1.95	
	18.30			1.89	1.71	2.09	2.11	1.95	
	18.45			1.89	1.71	2.09	2.11	1.95	
	19.00			1.89	1.71	2.09	2.11	1.95	



**QCC LAB SOLUTIONS Pvt Ltd, Mumbai.**

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NASHIK TO PREVENT IN RIVER GODAVARI BASED ON  
PPP/HAM MODEL.

LOCATION - AGARTAKLI 97 MLD STP

CONSULTANT :- CS TECH

CLIENT:- NASHIK MUNICIPAL CORPORATION.

Page:-2

Ram Area :- 706cm<sup>2</sup>

Date of Casting :- 05-09-2025.

Pile Length :- 8.5mtr

Ic of dial gauge:- 0.01mm

Type of Test:- Uplift Pile Load Test

Design Load :- 79 MT

Test Load :- 197.5 MT

Mixed Design :- M25

Pile Diameter :- 600mm

DATE (Hrs)	TIME	PRESSURE GAUGE READING kg/cm <sup>2</sup>	LOAD IN MT	Dial Gauge				AVERAGE SETTLEMENT IN MM	REMARK
				Reading 1	Reading 2	Reading 3	Reading 4		
<b>LOADING</b>									
04-11-2025	19.01	150.00	105.90	2.78	2.80	3.15	3.40	3.03	
	19.15			2.80	2.81	3.15	3.40	3.04	
	19.30			2.80	2.81	3.15	3.40	3.04	
	19.45			2.80	2.81	3.15	3.40	3.04	
	20.00			2.80	2.81	3.15	3.40	3.04	
	20.01	180.00	127.08	3.84	3.87	4.80	4.50	4.25	
	20.15			3.85	3.87	4.81	4.52	4.26	
	20.30			3.86	3.88	4.83	4.53	4.28	
	20.45			3.86	3.88	4.83	4.53	4.28	
	21.00			3.86	3.88	4.83	4.53	4.28	
	21.01	210.00	148.26	4.58	4.65	5.70	5.48	5.10	
	21.15			4.60	4.67	5.72	5.50	5.12	
	21.30			4.61	4.69	5.73	5.52	5.14	
	21.45			4.61	4.70	5.74	5.52	5.14	
	22.00			4.61	4.70	5.74	5.52	5.14	
	22.01	240.00	169.44	5.82	5.73	6.81	6.80	6.29	
	22.15			5.84	5.76	6.85	6.84	6.32	
	22.30			5.84	5.76	6.85	6.84	6.32	
	22.45			5.84	5.76	6.85	6.84	6.32	
	23.00			5.85	5.76	6.85	6.84	6.33	
	23.01	270.00	190.62	6.91	6.95	7.90	7.93	7.42	
	23.15			6.94	6.98	7.95	7.99	7.47	
	23.30			6.95	6.99	7.97	8.01	7.48	
	23.45			6.96	7.00	7.98	8.03	7.49	
05-11-2025	0.00			6.96	7.00	7.98	8.03	7.49	



**QCC LAB SOLUTIONS Pvt Ltd, Mumbai.**

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PPP/HAM MODEL.

LOCATION - AGARTAKLI 97 MLD STP

CONSULTANT :- CS TECH

CLIENT:- NASHIK MUNICIPAL CORPORATION.

Page:-3

Ic of dial gauge:- 0.01mm Ram Area :- 706cm<sup>2</sup>

Type of Test:- Uplift Pile Load Test Date of Casting :- 05-09-2025.

Pile Length :- 8.5mtr

Design Load :- 79 MT

Test Load :- 197.5 MT

Mixed Design :- M25

Pile Diameter :- 600mm

DATE	TIME (Hrs)	PRESSURE GAUGE READING kg/cm <sup>2</sup>	LOAD IN MT	Dial Gauge				AVERAGE SETTLEMENT IN MM	REMARK
				Reading 1	Reading 2	Reading 3	Reading 4		
<b>HOLDING</b>									
05-11-2025	0.01	290.00	211.80	8.05	9.04	9.60	9.95	9.19	
	1.00			8.15	9.10	9.67	10.01	9.24	
	2.00			8.17	9.11	9.69	10.03	9.25	
	3.00			8.17	9.11	9.69	10.03	9.25	
	4.00			8.17	9.11	9.69	10.03	9.25	
	5.00			8.17	9.11	9.69	10.03		
	6.00			8.20	9.15	9.74	10.08	9.29	
	7.00			8.21	9.20	9.76	10.09	9.32	
	8.00			8.24	9.22	9.78	10.11	9.34	
	9.00			8.24	9.22	9.78	10.11	9.34	
	10.00			8.24	9.22	9.78	10.11	9.34	
	11.00			8.24	9.22	9.78	10.11	9.34	
	12.00			8.24	9.22	9.78	10.11	9.34	
	13.00			8.24	9.23	9.78	10.11	9.34	
	14.00			8.24	9.23	9.78	10.11	9.34	
	15.00			8.24	9.23	9.78	10.11	9.34	
	16.00			8.24	9.23	9.78	10.11	9.34	
	17.00			8.24	9.23	9.78	10.11	9.34	
	18.00			8.24	9.23	9.78	10.11	9.34	
	19.00			8.24	9.23	9.78	10.11	9.34	
	20.00			8.24	9.23	9.78	10.11	9.34	
	21.00			8.24	9.23	9.78	10.11	9.34	
	22.00			8.24	9.23	9.78	10.11	9.34	
	23.00			8.24	9.23	9.78	10.11	9.34	
06-11-2025	0.00			8.24	9.23	9.78	10.11	9.34	



**QCC LAB SOLUTIONS Pvt Ltd, Mumbai.**

RECORD OF FOOTING LOAD TEST NO:- TP-03  
**PROJECT:- IMPROVEMENT OF SEWAGE MANAGEMENT SYSTEM IN NASHIK TO PREVENT IN RIVER GODAVARI BASED ON PPP/HAM MODEL.**  
**LOCATION - AGARTAKLI 97 MLD STP**  
**CONSULTANT : CS TECH**  
**CLIENT:- NASHIK MUNICIPAL CORPORATION.**

Page:4  
**Ic of dial gauge:- 0.01mm**  
**Ram Area :- 706cm<sup>2</sup>**  
**Type of Test:- Uplift Pile Load Test**  
**Date of Casting :- 05-09-2025.**  
**Pile Length :- 8.5mtr**

**Design Load :- 79 MT**  
**Test Load :- 197.5 MT**  
**Mixed Design :- M25**  
**Pile Diameter :- 600mm**

DATE (Hrs)	TIME	PRESSURE GAUGE READING kg/cm <sup>2</sup>	LOAD IN MT	Dial Gauge				AVERAGE SETTLEMENT IN MM	REMARK
				Reading 1	Reading 2	Reading 3	Reading 4		
<b>UNLOADING</b>									
06.11.2025	0.01	270.00	190.62	8.24	9.23	9.78	10.11	9.34	
	0.05			8.24	9.23	9.78	10.11	9.34	
	0.15			8.24	9.23	9.78	10.11	9.34	
	0.16	240.00	169.44	8.24	9.23	9.78	10.11	9.34	
	0.20			8.24	9.23	9.78	10.11	9.34	
	0.30			8.24	9.23	9.78	10.11	9.34	
	0.31	210.00	148.26	8.23	9.22	9.76	10.11	9.33	
	0.35			8.23	9.22	9.76	10.11	9.33	
	0.45			8.23	9.22	9.76	10.11	9.33	
	0.46	180.00	127.08	8.20	9.19	9.74	10.10	9.31	
	0.50			8.20	9.19	9.74	10.10	9.31	
	1.00			8.20	9.19	9.74	10.10	9.31	
	1.01	150.00	105.90	8.17	9.18	9.70	10.09	9.29	
	1.05			8.16	9.16	9.68	10.07	9.27	
	1.15			8.16	9.16	9.68	10.07	9.27	
	1.16	120.00	84.72	8.11	9.12	9.62	10.02	9.22	
	1.20			8.08	9.09	9.60	10.00	9.19	
	1.30			8.08	9.09	9.60	10.00	9.19	
	1.31	90.00	63.54	7.35	8.48	8.76	9.20	8.45	
	1.35			7.33	8.45	7.75	9.19	8.18	
	1.45			7.32	8.43	8.74	9.19	8.42	
	1.46	60.00	42.36	6.81	7.60	7.90	8.86	7.79	
	1.50			6.77	7.58	7.87	8.63	7.71	
	2.00			6.77	7.58	7.87	8.63	7.71	
	2.01	30.00	21.18	6.10	7.07	7.20	7.90	7.07	
	2.05			6.08	7.06	7.20	7.88	7.06	
	2.15			6.08	7.06	7.20	7.88	7.06	
	2.16	0.00	0.00	5.21	6.08	6.17	6.07	5.88	
	2.20			5.18	6.03	6.10	6.01	5.83	
	2.30			5.18	6.03	6.10	6.01	5.83	

**QCC LAB SOLUTIONS Pvt Ltd, Mumbai**

**RECORD OF FOOTING LOAD TEST NO:- TP-03**  
**PROJECT:- IMPROVEMENT OF SEWAGE MANAGEMENT SYSTEM**  
**IN NASHIK TO PREVENT IN RIVER GODAVARI BASED ON**

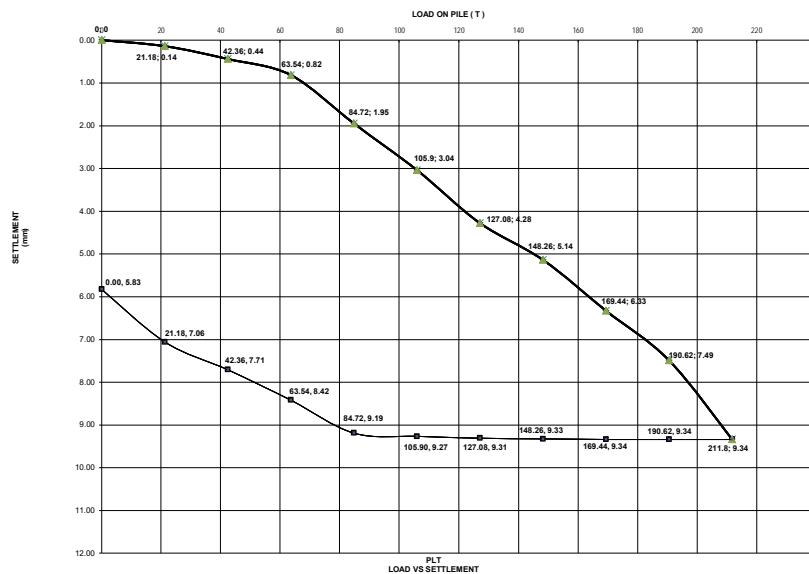
**IN NASHIK TO PREVENT IN RIVER GO  
PPP/HAM MODEL.**

**LOCATION - AGARTAKLI 97 MLD STP**

CONSULTANT :- CS TECH

**CLIENT:- NASHIK MUNICIPAL CORPORATION**

**LOADING**



Maximum Settlement at 211.8T: 9.34 mm

Total Rebound : 3.51 mm

Net Settlement: 5.83 mm

**QCC LAB SOLUTIONS Pvt Ltd, Mumbai**  
**NMC/VEL/QCC.**

NMC/NEL/OCG

## **FIELD READINGS**



**QCC LAB SOLUTIONS Pvt Ltd, Mumbai.**

**Tel:- 9452200078,8369458583**

**E-mail:-calibration@qcclabsolutions.com**

**Website:- www.qcclabsolutions.com**



ZedGeo Systems Private Limited., Mumbai

**RECORD OF PILE LOAD TEST NO**

PROJECT KIWINMPL

LOCATION - Agartakli  
CONTRACTOR:- VEL  
CLIENTS NAME:- NMC

#### L.C OF DIAL GAUGE:-

### Type of Test:

### Design load on $\mu$

**Test Load :-**

### **Mixed Design :-**

Pile Diameter :-

Ram Area :-

Date of Casting :-

Pile Depth :-

Page 1

INITIAL PILE LOAD TEST

DATE	TIME	PRESSURE	LOAD IN MT	SINGLE NEL LOAD TEST							REMARK	
				GAUGE READING kg/cm <sup>2</sup>	Reading				Average settlement mm Test Pile	SIGNATURE		
(Hrs)					Reading 1	Reading 2	Reading 3	Reading 4				
17/25		0	0	0	0	0	0	0				
15.01	30	21.18	0.10	0.12	0.15	0.11	0.12	0.12	8	✓		
15.15			0.12	0.15	0.16	0.12	0.13	0.13	8	✓		
15.30			0.12	0.15	0.16	0.12	0.13	0.13	8	✓		
15.45			0.12	0.15	0.16	0.12	0.13	0.13	8	✓		
16.00			0.12	0.15	0.16	0.12	0.13	0.13	8	✓		
16.01	60	42.36	0.37	0.38	0.49	0.52	0.44	0.44	8	✓		
16.15			0.37	0.38	0.49	0.52	0.44	0.44	8	✓		
16.30			0.37	0.38	0.49	0.52	0.44	0.44	8	✓		
16.45			0.37	0.38	0.49	0.52	0.44	0.44	8	✓		
17.00			0.37	0.38	0.49	0.52	0.44	0.44	8	✓		
17.01	90	63.54	0.58	0.65	0.99	1.00	0.80					
17.15			0.63	0.67	0.99	1.00	0.82	0.82	8	✓		
17.30			0.63	0.67	0.99	1.00	0.82	0.82	8	✓		
17.45			0.63	0.67	0.99	1.00	0.82	0.82	8	✓		
18.00			0.63	0.67	0.99	1.00	0.82	0.82	8	✓		
18.01	120	48.72	1.88	1.70	2.09	2.10	1.99					
18.15			1.89	1.71	2.09	2.11	1.95					
18.30			1.89	1.71	2.09	2.11	1.95	1.95	8	✓		
18.45			1.89	1.71	2.09	2.11	1.95	1.95	8	✓		
19.00			1.89	1.71	2.09	2.11	1.95	1.95	8	✓		



**ZedGeo Systems Private Limited., Mumbai**

RECORD OF PILE LOAD TEST NO:-  
PROJECT:-.

LOCATION :-  
CLIENTS NAME:-  
CONSULTANT:-  
CONTRACTOR:-

L.C OF DIAL GAUGE:-  
TYPE OF TEST:-  
DESIGN LOAD:-  
TEST LOAD :-  
MIXED DESIGN :-  
PILE DIAMETER :-

PAGE:- 2

RAM AREA :-  
DATE OF CASTING :-  
PILE DEPTH :-

**INITIAL PILE UPLIFT LOAD TEST**

DATE	TIME	PRESSURE	LOAD IN MT	Reading				Average Deflection	SIGNATURE			REMARK
				Reading 1	Reading 2	Reading 3	Reading 4		Test Pile			
4/11/25	19.01	150	105.90	2.78	2.80	3.15	3.40	3.032				
	19.15			2.80	2.81	3.15	3.40	3.04				
	19.30			2.80	2.81	3.15	3.40	3.04				
	19.45			2.80	2.81	3.15	3.40	3.04				
	20.00			2.80	2.81	3.15	3.40	3.04				
	20.01	180	127.08	3.84	3.87	4.80	4.50	4.25				
	20.15			3.85	3.87	4.81	4.52	4.26				
	20.30			3.86	3.88	4.83	4.53	4.275				
	20.45			3.86	3.88	4.83	4.53	4.275				
	21.00			3.86	3.88	4.83	4.53	4.275				
21.01	21.0	210	148.26	4.58	4.65	5.70	5.48	5.102				
	21.15			4.60	4.67	5.72	5.50	5.122				
	21.30			4.61	4.69	5.73	5.52	5.13				
	21.45			4.61	4.70	5.74	5.52	5.14				
	22.00			4.61	4.70	5.74	5.52	5.14				
22.01	22.0	240	169.44	5.82	5.73	6.81	6.80	6.29				
	22.15			5.84	5.76	6.85	6.84	6.32				
	22.30			5.84	5.76	6.85	6.84	6.32				
	22.45			5.84	5.76	6.85	6.84	6.32				
	23.00			5.85	5.76	6.85	6.84	6.32				



**ZedGeo Systems Private Limited., Mumbai**

RECORD OF PILE LOAD TEST NO:-  
PROJECT:-

LOCATION :-  
CLIENTS NAME:-  
CONSULTANT:-  
CONTRACTOR:-

L.C OF DIAL GAUGE:-  
TYPE OF TEST:-  
DESIGN LOAD:-  
TEST LOAD :-  
MIXED DESIGN :-  
PILE DIAMETER :-

PAGE:- 3

RAM AREA :-  
DATE OF CASTING :-  
PILE DEPTH :-

**INITIAL PILE UPLIFT LOAD TEST**

DATE	TIME	PRESSURE	LOAD IN MT	Reading				Average Deflection	SIGNATURE			REMARK
				1	2	3	4					
4/11/25				6.91	6.95	7.90	7.93	7.42				
	23.01	270	190.82	6.94	6.98	7.95	7.99	7.46				
	23.15			6.95	6.99	7.97	8.01	7.48	R	SNJ	RP	
	23.30			6.96	7.00	7.98	8.03	7.49				
	23.45			6.96	7.00	7.98	8.03	7.49				
	00.00			6.96	7.00	7.98	8.03	7.49				
5/11/25	00.01	290	211.80	8.05	8.04	9.60	9.95	9.16	R	SNJ	RP	
				8.15	9.10	9.7						
	1.00			8.15	9.10	9.67	10.01	9.23				
	2.00			8.17	9.11	9.69	10.03	9.25				
	3.00			8.17	9.11	9.69	10.03	9.25	R	SNJ	RP	
	4.00			8.17	9.11	9.69	10.03	9.25				
	5.00			8.17	9.11	9.69	10.03	9.25				
	6.00			8.20	9.15	9.75	10.08	9.29				
	7.00			8.21	9.20	9.76	10.09	9.31				
	8.00			8.24	9.22	9.78	10.11	9.33	R	SNJ	RP	
	9.00			8.24	9.22	9.78	10.11	9.33				
	10.00			8.24	9.22	9.78	10.11	9.33				
	11.00			8.24	9.22	9.78	10.11	9.33				
	12.00			8.24	9.22	9.78	10.11	9.33				
	13.00			8.24	9.23	9.78	10.11	9.34				
	14.00			8.24	9.23	9.78	10.11	9.34				
	15.00			8.24	9.23	9.78	10.11	9.34	R	SNJ	RP	
	16.00			8.24	9.23	9.78	10.11	9.34				
	17.00			8.24	9.23	9.78	10.11	9.34				



**ZedGeo Systems Private Limited., Mumbai**

RECORD OF PILE LOAD TEST NO:-  
PROJECT:-.

LOCATION :-  
CLIENTS NAME:-  
CONSULTANT:-  
CONTRACTOR:-

L.C OF DIAL GAUGE:-  
TYPE OF TEST:-  
DESIGN LOAD:-  
TEST LOAD :-  
MIXED DESIGN :-  
PILE DIAMETER :-

PAGE: 4

RAM AREA :-  
DATE OF CASTING :-  
PILE DEPTH :-

**INITIAL PILE UPLIFT LOAD TEST**

DATE	TIME	PRESSURE	LOAD IN MT	Reading				Average Deflection	Test Pile	SIGNATURE	REMARK
				Reading 1	Reading 2	Reading 3	Reading 4				
5/11/25				8.24	9.23	9.78	10.11	9.34			
	18.00			8.24	9.23	9.78	10.11	9.34			
	19.00			8.24	9.23	9.78	10.11	9.34			
	20.00			8.24	9.23	9.78	10.11	9.34	A	BW	R
	21.00			8.24	9.23	9.78	10.11	9.34			
	22.00			8.24	9.23	9.78	10.11	9.34			
	23.00			8.24	9.23	9.78	10.11	9.34			
6/11/25	0.00			8.24	9.23	9.78	10.11	9.34			
	0.01	270	190.62	8.24	9.23	9.78	10.11	9.34			
	0.05			8.24	9.23	9.78	10.11	9.34	A	BW	R
	0.15			8.24	9.23	9.78	10.11	9.34			
	0.16	240	169.44	8.24	9.23	9.78	10.11	9.34			
	0.20			8.24	9.23	9.78	10.11	9.34	A	BW	
	0.30			8.24	9.23	9.78	10.11	9.34			
	0.31	210	148.26	8.23	9.22	9.76	10.11	9.33			
	0.35			8.23	9.22	9.76	10.11	9.33	A	BW	
	0.45			8.23	9.22	9.76	10.11	9.33			
	0.46	180	127.08	8.20	9.19	9.74	10.10	9.30			
	0.50			8.20	9.19	9.74	10.10	9.30	A	BW	R
	1.00			8.20	9.19	9.74	10.10	9.30			



**ZedGeo Systems Private Limited., Mumbai**

RECORD OF PILE LOAD TEST NO:-  
PROJECT:- .

LOCATION :-  
CLIENTS NAME:-  
CONSULTANT:-  
CONTRACTOR:-

L.C OF DIAL GAUGE:-  
TYPE OF TEST:-  
DESIGN LOAD:-  
TEST LOAD :-  
MIXED DESIGN :-  
PILE DIAMETER :-

PAGE: (5)

RAM AREA :-  
DATE OF CASTING :-  
PILE DEPTH :-

DATE	TIME	PRESSURE	LOAD IN MT	INITIAL PILE UPLIFT LOAD TEST								REMARK	
				Reading				Average Deflection	SIGNATURE				
				Reading 1	Reading 2	Reading 3	Reading 4		Test Pile				
(Hrs)		GAUGE READING kg/cm <sup>2</sup>											
5/11/25	1.01	150	105.90	8.17	9.18	9.20	10.09	9.28					
	1.05			8.16	9.16	9.68	10.07	9.26					
	1.15			8.16	9.16	9.68	10.07	9.26					
	1.16	120	86.72	8.11	9.12	9.62	10.02	9.21					
	1.20			8.08	9.09	9.60	10.00	9.19					
	1.30			8.08	9.09	9.60	10.00	9.19					
	1.31	90	63.54	7.35	8.48	8.76	9.20	8.44					
	1.35			7.33	8.45	8.75	9.19	8.43					
	1.45			7.32	8.43	8.76	9.19	8.62					
	1.46	60	42.36	6.81	7.60	7.90	8.86	7.79					
	1.50			6.77	7.58	7.87	8.63	7.71					
	2.00			6.77	7.58	7.87	8.63	7.71					
	2.01	30	21.18	6.10	7.07	7.20	7.90	7.06					
	2.05			6.08	7.06	7.20	7.88	7.05					
	2.15			6.08	7.06	7.20	7.88	7.05					
	2.16	0	5.21	5.08	6.17	8.07	6.63						
	2.20		5.18	6.03	6.10	6.01	5.83						
	2.30		5.18	6.03	6.10	6.01	5.83						

# **CALIBRATION CERTIFICATES**



**Qcc lab solutions private limited, Mumbai.**



Format No: PLTJ/01

Rev. No.- 00

### CALIBRATION CERTIFICATE

<b>CALIBRATION CERTIFICATE NO</b>	: QCC-102-CR-01				
<b>CALIBRATION REPORT DATE</b>	: 23/03/2025				
<b>NAME OF CUSTOMER</b>	: M/s. ZEDZEO SYSTEMS PRIVET LIMITED				
<b>PROJECT SITE ADDRESS</b>	: NAVI MUMBAI				
<b>DATE OF CALIBRATION</b>	: 23/03/2025				
<b>SUGGESTED NEXT CALIBRATION DUE DATE ( As customer Requested)</b>	23/03/2026				
<b>Details of Device Under Calibration (DUC)</b>					
Instrument Description : 500T X 250 mm Stroke Single Acting Ram Jam	Port Size : 3/8" NPT				
Capacity (Ton) : 500					
Tag / ID No : ----					
Sr. No. : 12607					
Effective Area Ram (cm <sup>2</sup> ) : 706.9					
<b>Technical Details of Hydraulic Jack</b>					
Cylinder OD	Ram, OD	Stroke	Retracted Height		
399.86	299.97	250	557.2		
<b>DETAIL OF MASTER EQUIPMENT USED FOR CALIBRATION</b>					
Id of Instrument	Range of Master	Calibrated By	Calibration Certificate No.	Calibration Date	Calibration Due Date
QCC/PGC/01	0- 700 bar	IDEMI , Mumabi	CC/PRL/ 0305 /24-25	19/08/2024	18/08/2025
<b>CALIBRATION RESULTS</b>					
Calibration Method : DKD R-6 : 2016, SOP-CAL-10	Calibration done at Room Temp(° C) : 27.8				
Calibration Done at Location : At Lab	Calibration done at Humidity(% RH) : 56				
Pressure Transmitting Medium : Hydraulic	Certified Range of Hydraulic Jack (Ton) : 494.83				
Reading on DUC (kg/cm <sup>2</sup> )	Effective Ram Area (cm <sup>2</sup> ), (F=PXA)				Pressure in (Tons)
P ( ACT )					
0	706.9				0.00
60	706.9				42.41
120	706.9				84.83
180	706.9				127.24
240	706.9				169.66





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300	706.9	212.07
360	706.9	254.48
420	706.9	296.90
480	706.9	339.31
540	706.9	381.73
580	706.9	410.00
650	706.9	459.49
700	706.9	494.83

**Remarks:**

1. The Reported Expended uncertainty is stated as a standard uncertainty multiplied by a coverage confidance level factor k=2 at ± 95%

**Note:**

2. DUC stands for device under calibration.

3. The certificate shall refers only to the perticular item submitted for calibration .

4. The certificate shall not be reproduced except in full unless written permission for the publication of an approved abstract has been obtained from the technical manager of QCC lab solution Pvt. Ltd. Navi Mumbai.

5. As found ;As left

6. The calibration results reported in the certificate are valid at the time of and under the stated conditions of measurement.

7. Calibration point don as per customer request

Calibrated by



Authorised Signatory




# QCC LAB

SOLUTIONS PVT. LTD.

Equipment Sales & Calibration Services

Format No: QCC/DG/01

Rev. No.- 00

## CALIBRATION CERTIFICATE

Calibration Certificate No.	: QCC-2303-16030
Calibration Report Date	: 01/12/2025
Customer Name	: M/s. ZEDZEO SYSTEMS PRIVET LIMITED
Site Address	: Navi Mumbai
Date of Calibration	: 01/04/2025
Calibration Due Date ( as per customer requirement)	: 01/04/2026
<b>DETAILS OF UNIT UNDER CALIBRATION</b>	
Equipement Description	: Analog Dial Gauge
Id of UUC	: ZSPL/DG/02
Make.	: BAKER
Model No.	: FJA452
Range (mm)	: 0-25 mm
Resolution (mm)	: 0.01

## DETAIL OF MASTER EQUIPMENT USED FOR CALIBRATION

Master Equipment Description	Range	Calibration Certificate No.	Make	Calibration Date	Calibration Date
Dial calibration Tester	0-25 mm	M-210209-25-1	Reddy Instruments	05/09/2024	05/09/2025
Calibration Method	: IS 2092 -1983, QCC/SOP/15				
Calibration Done on Location	: AT LAB				
Room Temp. (°C) & Humadity (%RH)	: 20.1 & 56				
Unit of Measurement : mm					
Sr.No.	Set point on DUC	Reading on master (Avg.)	Deviation/Error	Expanded Uncertainty in ±	
1	0.0	0.0000	0.0000		
2	2.5	2.5003	0.0003		
3	5.0	5.0009	0.0009		
4	7.5	7.5085	0.0085		
5	10.0	10.0013	0.0013		
6	12.5	12.5019	0.0019		
7	15.0	15.0064	0.0064		
8	17.5	17.5068	0.0068		
9	20.0	20.0084	0.0084		
10	22.5	22.5093	0.0093		
11	25.0	25.0092	0.0092		

Remarks:

1. DUC stands for device under calibration.
2. The certificate shall refers only to the particuler item submitted for calibration .
3. The certificate shall not be reproduced except in full unless written permission for the publication of an approved abstract has been obtained from the technical manager of QCC lab solution Pvt. Ltd. Navi Mumbai.
4. As found ;As left
5. The calibration results reported in the certificate are valid at the time of and under the stated conditions of measurement.
6. Calibration point don as per customer request

(Calibrated By)



(Authorised Signatory)




# QCC LAB SOLUTIONS PVT. LTD.

Equipment Sales & Calibration Services

Format No: QCC/DG/01

Rev. No.- 00

## CALIBRATION CERTIFICATE

Calibration Certificate No.	: QCC-2303-16031
Calibration Report Date	: 01/04/2025
Customer Name	: M/s. ZEDZEO SYSTEMS PRIVET LIMITED
Site Address	: Navi Mumbai
Date of Calibration	: 01/04/2025
Calibration Due Date ( as per customer requirment)	: 01/04/2026
<b>DETAILS OF UNIT UNDER CALIBRATION</b>	
Equipement Description	: Analog Dial Gauge
Id of UUC	: ZSPL/DG/01
Make.	: BAKER
Model No.	: FIB564
Range (mm)	: 0-25 mm
Resolution (mm)	: 0.01

## DETAIL OF MASTER EQUIPMENT USED FOR CALIBRATION

Master Equipement Description	Range	Calibration Certificate No.	Make	Calibration Date	Calibration Date
Dial calibration Tester	0-25 mm	M-210209-25-1	Reddy Instruments	05/09/2024	05/09/2025
Calibration Method	: IS 2092 -1983, QCC/SOP/15				
Calibration Done on Location	: AT LAB				
Room Temp. (°C) & Humadity (%RH)	: 20.4 & 53				
Unit of Measurement : mm					
Sr.No.	Set point on DUC	Reading on master (Avg.)	Deviation/Error	Expanded Uncertainty in ±	
1	0.0	0.0000	0.0000		
2	2.5	2.4984	-0.0016		
3	5.0	4.9992	-0.0008		
4	7.5	7.4968	-0.0032		
5	10.0	9.9983	-0.0017		
6	12.5	12.4846	-0.0154		
7	15.0	14.9854	-0.0146		
8	17.5	17.4837	-0.0163		
9	20.0	19.9914	-0.0086		
10	22.5	22.4911	-0.0089		
11	25.0	24.9930	-0.0070	0.007	

### Remarks:

1. DUC stands for device under calibration.
2. The certificate shall refers only to the particuler item submitted for calibration .
3. The certificate shall not be reproduced exceptt in full unless written permission for the publication of an approved abstract has been obtained from the the technical manager of QCC lab solution Pvt. Ltd. Navi Mumbaiii.
4. As found ;As left
5. The calibration results reported in the certificate are valid at the time of and under the stated conditions of measurement.
6. Calibration point don as per customer request

(Calibrated By)



(Authorised Signatory)




# QCC LAB SOLUTIONS PVT. LTD.

Equipment Sales & Calibration Services

Format No: QCC/DG/01

Rev. No.- 00

## CALIBRATION CERTIFICATE

Calibration Certificate No.	: QCC-2303-16032
Calibration Report Date	: 01/04/2025
Customer Name	: M/s. ZEDZEO SYSTEMS PRIVET LIMITED
Site Address	: Navi Mumbai
Date of Calibration	: 01/4/2025
Calibration Due Date ( as per customer requirement)	: 01/04/2026
<b>DETAILS OF UNIT UNDER CALIBRATION</b>	
Equipement Description	: Analog Dial Gauge
Id of UUC	: ZSPL/DG/02
Make.	: BAKER
Model No.	: 215357
Range (mm)	: 0-25 mm
Resolution (mm)	: 0.01

## DETAIL OF MASTER EQUIPMENT USED FOR CALIBRATION

Master Equipment Description	Range	Calibration Certificate No.	Make	Calibration Date	Calibration Date
Dial calibration Tester	0-25 mm	M-210209-25-1	Reddy Instruments	05/09/2024	05/09/2025
Calibration Method	: IS 2092 -1983, QCC/SOP/15				
Calibration Done on Location	: AT LAB				
Room Temp. (°C) & Humadity (%RH)	: 20.1 & 56				
Unit of Measurement : mm					
Sr.No.	Set point on DUC	Reading on master (Avg.)	Deviation/Error	Expanded Uncertainty in ±	
1	0.0	0.0000	0.0000		
2	2.5	2.5003	0.0003		
3	5.0	5.0009	0.0009		
4	7.5	7.5085	0.0085		
5	10.0	10.0013	0.0013		
6	12.5	12.5019	0.0019		
7	15.0	15.0064	0.0064		
8	17.5	17.5068	0.0068		
9	20.0	20.0084	0.0084		
10	22.5	22.5093	0.0093		
11	25.0	25.0092	0.0092		

Remarks:

1. DUC stands for device under calibration.
2. The certificate shall refers only to the particuler item submitted for calibration .
3. The certificate shall not be reproduced except in full unless written permission for the publication of an approved abstract has been obtained from the technical manager of QCC lab solution Pvt. Ltd. Navi Mumbai.
4. As found ;As left
5. The calibration results reported in the certificate are valid at the time of and under the stated conditions of measurement.
6. Calibration point don as per customer request

(Calibrated By)





(Authorised Signatory)




# QCC LAB

SOLUTIONS PVT. LTD.

Equipment Sales & Calibration Services

Format No: QCC/DG/01

Rev. No.- 00

## CALIBRATION CERTIFICATE

Calibration Certificate No.	: QCC-2303-16034
Calibration Report Date	: 01/04/2025
Customer Name	: M/s. ZEDZEO SYSTEMS PRIVET LIMITED
Site Address	: Navi Mumbai
Date of Calibration	: 01/04/2025
Calibration Due Date ( as per customer requirment)	: 01/04/2026
DETAILS OF UNIT UNDER CALIBRATION	
Equipement Description	: Analog Dial Gauge
Id of UUC	: ZSPL/DG/04
Make.	: BAKER
Model No.	: 214954
Range (mm)	: 0-25 mm
Resolution (mm)	: 0.01

## DETAIL OF MASTER EQUIPMENT USED FOR CALIBRATION

Master Equipement Description	Range	Calibration Certificate No.	Make	Calibration Date	Calibration Date
Dial calibration Tester	0-25 mm	M-210209-25-1	Reddy Instruments	05/09/2024	05/09/2025
Calibration Method	: IS 2092 -1983, QCC/SOP/15				
Calibration Done on Location	: AT LAB				
Room Temp. (°C) & Humadity (%RH)	: 20.3 & 56				
Unit of Measurement : mm					
Sr.No.	Set point on DUC	Reading on master (Avg.)	Deviation/Error	Expanded Uncertainty in ±	
1	0.0	0.0000	0.0000	0.007	
2	2.5	2.4991	-0.0011		
3	5.0	4.9995	-0.0005		
4	7.5	7.4976	-0.0024		
5	10.0	9.9997	-0.0003		
6	12.5	12.4967	-0.0033		
7	15.0	14.9941	-0.0059		
8	17.5	17.4936	-0.0064		
9	20.0	19.9985	-0.0015		
10	22.5	22.4969	-0.0031		
11	25.0	24.9990	-0.0010		

### Remarks:

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2. The certificate shall refers only to the perticular item submitted for calibration .
3. The certificate shall not be reproduced except in full unless written permission for the publication of an approved abstract has been obtained from the technical manager of QCC lab solution Pvt. Ltd. Navi Mumbai.
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5. The calibration results reported in the certificate are valid at the time of and under the stated conditions of measurement.
6. Calibration point don as per customer request

(Calibrated By)



(Authorised Signatory)