



**LOAD TEST SHEETS**

**General Information Sheet**

**Piletech Branch:**

**Site Address:**   
**Client:**

**Piletech Branch Job No.**   
**Piletech Engineering Job No.**

**Date of load test:**   
**Person(s) in charge of load test:**

**Test No.**

**Compression or Tension Test?**  C/T

**Type of load test:**

*(ISL) -Incremental Sustained Load test  
 (QML) -Quick Maintained Load test*

**Site Map Attached:**  
 - A Site Map showing the location of the geotechnical Borehole/CPT locations and the location of the pile load test **has to be attached**.

**Photos Attached:**  
 - A set of digital photos of the load test setup from different angles **is to be attached**.

General Remarks/Information:

Load test carried out between M2 and M5

**Authorised and checked by:** GAB

**PILE INSTALLATION RECORDS**

**TESTPILE INSTALLATION INFORMATION**

Install Date:	21/07/2007
Plant Operator:	DG
Excavator:	SH350
Drive Unit:	PD153
Ratio psi : Nm	Variable

**TEST PILE SPECIFICATIONS**

**Pile Shaft:** 273mm OD

**Helix Size:** 700mm OD

Depth [m]	Test Pile		No of Revs
	Pressure [psi]	Torque [Nm]	
0.5	600	6733	
1.0	600	6733	
1.5	600	6733	
2.0	600	6733	
2.5	600	6733	
3.0	600	6733	
3.5	600	6733	
4.0	600	6733	
4.5	600	6733	
5.0	600	6733	
5.5	1000	20067	
6.0	1100	23400	
6.5	1100	23400	
7.0	1500	36733	
7.5	1600	40067	
8.0	2200	60067	
8.5	4000	120067	
8.70	5000	153400	
9.50			
10.00			
10.50			
11.00			
11.50			
12.00			
12.50			

**INSTALLATION NOTES**

# SUSTAINED STATIC LOAD TEST - COMPRESSION TEST

In accordance with the requirements of AS 2159 - 1995

ULTIMATE LIMIT STATE LOAD **2150.00** kN

Effective Area of 1 No. 50T solid = 71.63 cm<sup>2</sup>

EFFECTIVE AREA OF HYDRAULIC JACK **586.2** cm<sup>2</sup>

Effective Area of 1 No. 60T hollow = 79.4 cm<sup>2</sup>

Effective Area of 1 No. 100T double acting = 146.55 cm<sup>2</sup>

LOADING			READING INCREMENTS												
S*	APPLIED TEST LOAD	GAUGE VALUE	PILE HEAD											TOTAL	
%	kN	kg / cm <sup>2</sup>	ZERO	1 MIN	2 MINS	5 MINS	10 MINS	15 MINS						mm	
0%	0	0	45.5	45.5	45.5	45.5	45.5	45.5						0	
5%	108	19	45.6	45.6	45.6	45.6	45.6	45.6						0.1	
15%	323	56	46.5	46.5	46.5	46.5	46.5	46.5						1	
30%	645	112	48.5	48.5	48.5	48.5	48.5	48.5						3	
45%	968	168	51	51.1	51.1	51.1	51.2	51.2						5.7	
60%	1290	224	53.6	54.2	54.5	54.5	54.7	54.7						9.2	
75%	1613	280	ZERO	1 MIN	2 MINS	5 MINS	10 MINS	15 MINS	30 MINS	45 MINS	60 MINS	75 MINS	90 MINS	13.9	
			57.5	58	58.1	58.5	58.5	58.6	58.9	59.2	59.2	59.4	59.4		
Design Serviceability Load															
37%	796	138	55.4	55.4	55.4	55.4							9.9		
0%	0	0	50	49.9	49.9	49.9							4.4		
37%	796	138	53.8	53.9	53.9	53.9	53.9	53.9						8.4	
75%	1612.5	280	59.8	60	60.1	60.1	60.1	60.1						14.6	
90%	1935	337	62.2	62.6	62.7	62.7	62.7	62.7						17.2	
105%	2257.5	393	65	66.3	66.5	66.7	66.7	66.7						21.2	
120%	2580	449	71	72	75.5	72.8	73.3	73.8	73.9						30
135%	2902.5	505	78	79.1	80	81	82	82						36.5	
150%	3225	561	ZERO	1 MIN	2 MINS	5 MINS	10 MINS	15 MINS	30 MINS	45 MINS	60 MINS	75 MINS	90 MINS	51.8	
			86.6	88.5	89.8	92	93.5	94	95.5	96.2	97	97.3	95.5		
Twice design serviceability load															
105%	2257.5	393	94	93.9	93.9	93.9							48.4		
75%	1612.5	280	89.8	89.7	89.7	89.7							44.2		
37%	796	138	83	82.9	82.8	82.8							37.3		
0%	0	0	75	74.9	74.8	74.8							29.3		

# SUSTAINED STATIC LOAD TEST - COMPRESSION TEST

In accordance with the requirements of AS 2159 - 1995

ULTIMATE LIMIT STATE LOAD 2150 kN

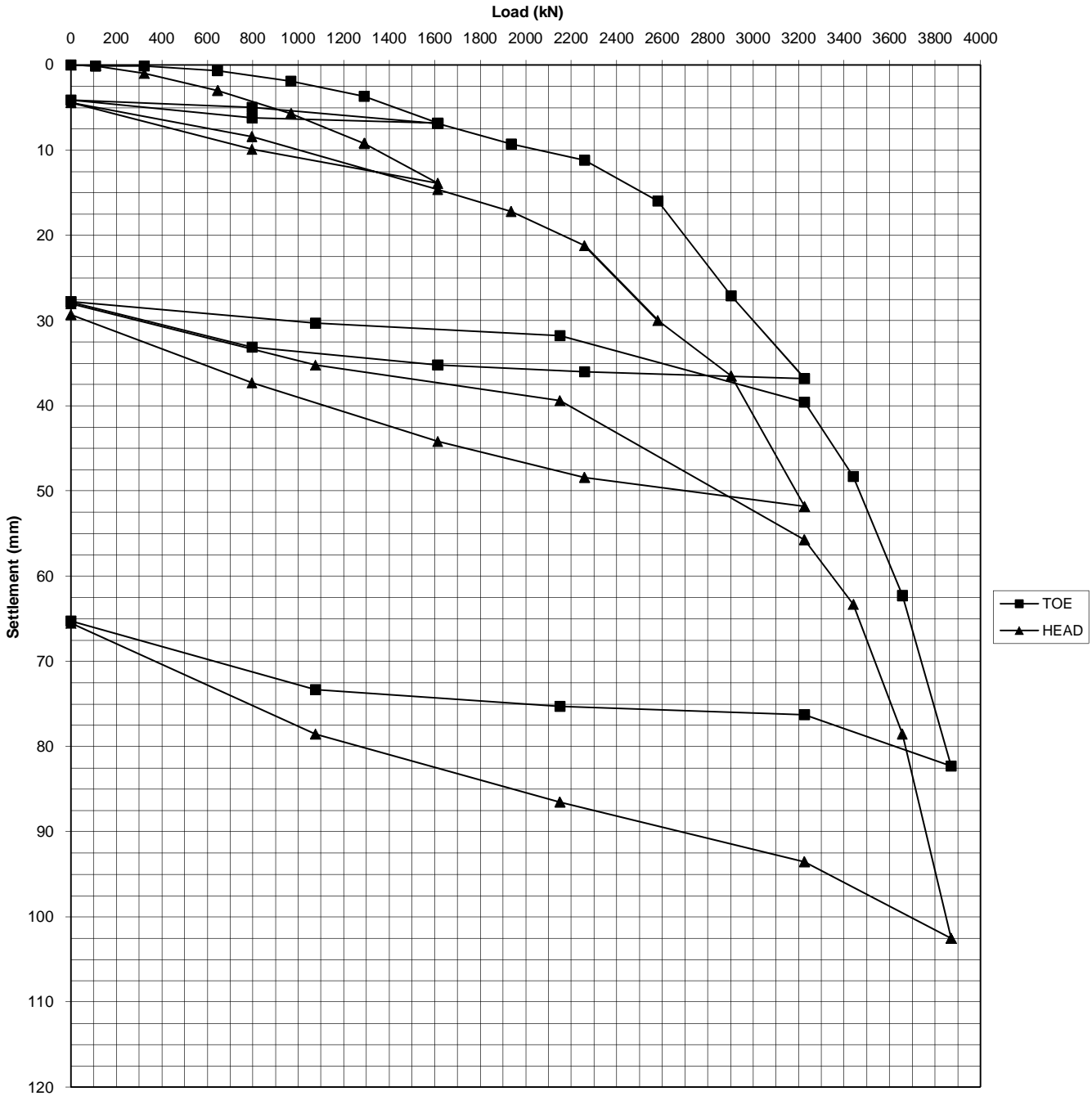
EFFECTIVE AREA OF HYDRAULIC JACK 586.2 cm<sup>2</sup>

LOADING			READING INCREMENTS												
S*	APPLIED TEST LOAD	GAUGE VALUE	PILE TOE											TOTAL	
%	kN	kg / cm <sup>2</sup>	ZERO	1 MIN	2 MINS	5 MINS	10 MINS	15 MINS						mm	
0%	0	0	21.7	21.7	21.7	21.7	21.7	21.7						0	
5%	108	19	21.8	21.8	21.8	21.8	21.8	21.8						0.1	
15%	323	56	21.8	21.8	21.8	21.8	21.8	21.8						0.1	
30%	645	112	22.4	22.4	22.4	22.4	22.4	22.4						0.7	
45%	968	168	23.4	23.5	23.5	23.5	23.6	23.6						1.9	
60%	1290	224	24.5	25	25.2	25.3	25.4	25.4						3.7	
75%	1613	280	ZERO	1 MIN	2 MINS	5 MINS	10 MINS	15 MINS	30 MINS	45 MINS	60 MINS	75 MINS	90 MINS	6.8	
			26.7	27.4	27.5	27.6	27.9	28	28.4	28.5	28.5	28.5	28.5		
Design Serviceability Load															
37%	796	138	27.9	27.9	27.9	27.9						6.2			
0%	0	0	26	26	25.9	25.8	25.8	28.8						4.1	
37%	796	138	26.6	26.7	26.7	26.7	26.7	26.7						5	
75%	1613	280	28.2	28.3	28.6	28.6	28.6	28.6						6.9	
90%	1935	337	30.5	30.7	31	31	31	31						9.3	
105%	2258	393	31.8	32.8	32.9	32.9	32.9	32.9						11.2	
120%	2580	449	35.1	36	36.6	36.7	37.1	37.6	37.7						16
135%	2903	505	48.8	47.7	42.5	43	44	44						27.1	
150%	3225	561	ZERO	1 MIN	2 MINS	5 MINS	10 MINS	15 MINS	30 MINS	45 MINS	60 MINS	75 MINS	90 MINS	36.8	
			48.1	49.2	50.5	53.1	54.5	55	56.5	57.2	58	58.3	58.5		
Twice design serviceability load															
105%	2258	393	57.8	57.7	57.7	57.7						36			
75%	1613	280	57	57	56.9	56.9						35.2			
37%	796	138	55	54.9	54.8	54.8						33.1			
0%	0	0	51	50.9	50.8	50.8	49.5						27.8		

**STATIC LOAD TEST TO PILE / GROUND FAILURE - COMPRESSION TEST**

LOADING			READING INCREMENTS								SETTLEMENT	
S*	APPLIED TEST LOAD	GAUGE VALUE	PILE HEAD				PILE TOE				HEAD	TOE
%	kN	kg / cm <sup>2</sup>	ZERO	5 MINS	15 MINS		ZERO	5 MINS			mm	mm
0%	0	0	73.5	73.5			49.5	49.5			28	27.8
50%	1075	187	80.2	80.7			51.5	52			35.2	30.3
100%	2150	374	84.5	84.9			53	53.5			39.4	31.8
150%	3225	561	99.5	101.2			61.3	53.5			55.7	39.6
160%	3440	598	106.5	108.8			68	70			63.3	48.3
170%	3655	636	117.5	124			75.8	84			78.5	62.3
180%	3870	673	142	148			98	104			102.5	82.3
190%	4085	711									-	-
200%	4300	748									-	-
240%	5160	898									-	-
250%	5375	935									-	-
200%	4300	748									-	-
150%	3225	561	139	139			98	98			93.5	76.3
100%	2150	374	132	132			97	97			86.5	75.3
50%	1075	187	124	124			95	95			78.5	73.3
0%	0	0	111	111			87	87			65.5	65.3

STATIC LOAD TEST



COMPRESSION LOAD TEST ACCEPTANCE CRITERIA AS 2159 - 1995

LOAD	MAX: DEFLECTION mm
Serviceability load	15 *
Zero load after removing serviceability load	7 *
1.5 x Design action effect [S*]	the greater of 50mm or 10% of the Helix diameter
Zero load after removing 1.5 x [S*]	30

\* Movement to include no more than 3 mm creep

### TORQUE PROFILES

