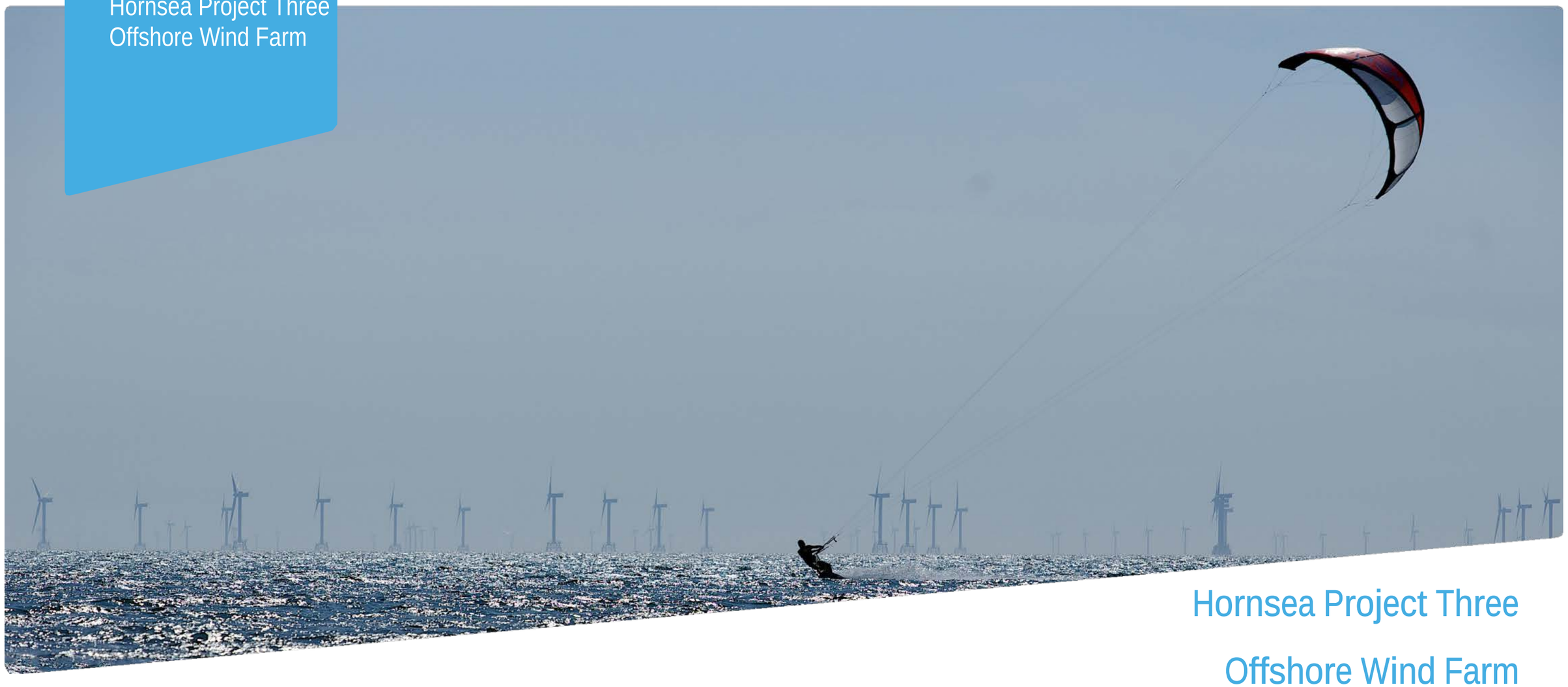
Hornsea Project Three
Offshore Wind Farm



Hornsea Project Three

Offshore Wind Farm

Preliminary Environmental Information Report:
Annex 1.1 – Borehole Logs (Part 2)

Date: July 2017

Hornsea 3
Offshore Wind Farm

DONG energy

Environmental Impact Assessment

Preliminary Environmental Information Report

Volume 6

Annex 1.1 – Borehole Logs

Report Number: P6.6.1.1

Version: Final

Date: July 2017

This report is also downloadable from the Hornsea Project Three offshore wind farm website at:
www.dongenergy.co.uk/hornseaproject3

DONG Energy Power (UK) Ltd.

5 Howick Place,

London, SW1P 1WG

Front cover picture: Kite surfer near one of DONG Energy's UK offshore wind farms © DONG Energy Hornsea Project Three (UK) Ltd., 2016.

Prepared by: RPS

Checked by: Tracey Siddle and Jennifer Brack

Accepted by: Sophie Banham

Approved by: Sophie Banham

Appendix A: Borehole Records

NGRC

BOREHOLE RECORDS

ADJUSTMENT FORM

QUARTER SHEET TG14SW

BH REGISTRATION NUMBER 23-26

RECORDS ENTERED AND HELD BY WALLINGFORD

BH REGISTRATION NUMBER(S)

131/47 Ministry of Defence, Royal Air Force Station, Weybourne TG14/9

(a) (Disused). Surface +85. Bore 208. Lining tubes: 90 × 6 in; 80 × 6½ in from 65 down. Ck -55. R.W.L. +39. *Buckingham, 1937.* A TG 1039 4344

Yield 2,000 g.p.h. (72 h. test). Sand entered. *1938.*

(b) (Disused). Surface +93. Bore 224. Lining tubes: 197½ × 6 in. Ck -89. R.W.L. +25. Yield 2,350 g.p.h. *Buckingham, 1938.* B TG 1039 4333

Yield 1,500 g.p.h. *Aug. 1947.* R.W.L. +34¾. P.W.L. +21¼. Yield 2,500 g.p.h. *Aug. 1953.* R.W.L. +34. P.W.L. +7. Yield 1,666 g.p.h. *Nov. 1956.* R.W.L. +38. P.W.L. +33¾. Yield 2,600 g.p.h. *Oct. 1960.*

(c) (? Disused). Surface +100. Bore 222 × 6 in. Ck -83. R.W.L. +28. P.W.L. +16. Yield 1,800 g.p.h. (test). *Buckingham, 1939.* C TG 1039 4325

Yield 600 g.p.h. *Aug. 1947.*

(d) Surface +100. Lining tubes: 153¼ × 6 in. Ck -22. Water struck at -40. R.W.L. +18. *R.E., Mar. 1942.* D TG 1036 4317

Yield 1,200 g.p.h. *Aug. 1947.* R.W.L. +32. P.W.L. +19¼. Yield 4,500 g.p.h. *Oct. 1952.* R.W.L. +38. P.W.L. +19¾. Yield 4,000 g.p.h. *Oct. 1960.* R.W.L. +44. *Oct. 1964.*

(e) Surface +45. Bore 250 × 10 in reduced to 8 in at depth. Lining tubes: × 15 in to 51¾; × 12 in to 128¾; × 10 in to 182¼; 76 × 8 in from 174 down (perforated). Ck -73. Water struck at -21 and -c.155. R.W.L. -10. P.W.L. -40. Recovered to -10 in 65 min. Suction -112. Yield 7,060 g.p.h. (14 d. test). *Dando, Apr. 1952.* E TG 1008 4380

R.W.L. -13. P.W.L. -21. Yield 6,300 g.p.h. *Nov. 1956.* R.W.L. -7½. P.W.L. -12¾. Yield 6,000 g.p.h. *Oct. 1960.*

GEOLOGICAL CLASSIFICATION	NATURE OF STRATA	THICKNESS ft.	DEPTH ft.
(d)	Topsoil ...	2	2
Boulder Clay (Buried channel) 75	Rubble sandy chalk and flints	8	10
	Sandy chalk flints and stones	14	24
	Grey chalk flints and stones	41	65
	Light brown clay, chalk stones and flints ...	10	75
Sand and Gravel (Buried channel) 47	Sand (blowing) and gravel	46½	121½
	Flints	½	122
UCk 128	Chalk and flints (top 25 ft very soft)	128	250

pp. W.M. Edmunds 17.2.67

RECORD OF WELL (SHAFT OR BORE)

131

TG14/9

131/47A

At Weybourne Camp R.A.F. Station

Town or Village Weybourne County Norfolk. Six-inch quarter sheet 10 N.W.E.

Exact site (A rough sketch-map or a tracing from a map is very desirable)

in parish of

Level of ground surface above sea-level (O.D.) 85. ft. If well starts below ground surface, state how far ft.

Shaft ft., diameter ft. Bore ft. Diameter of bore: at top ins.; at bottom ins.

Details of permanent lining tubes (internal diameters preferred) 90 ft. × 6 in.; 80 ft. × 4½ in. from 65 ft. down

Water struck at depths of (feet)

Rest-level of water ~~below~~ above top of well 46 feet. Suction at feet. Yield on hours' ~~days'~~ test

gallons per (with pump of capacity g.p.h.); depressing water level to feet below top. Time of recovery hrs. Amount normally pumped daily g.p.h. for hours.

Quality (attach copy of analysis if available)

Sunk by F. H. Buckingham for Mr. Date of well 1934

Information from Do.

(For Survey use only). GEOLOGICAL CLASSIFICATION.	NATURE OF STRATA (and any additional remarks).	THICKNESS Feet.	THICKNESS Inches.	DEPTH Feet.	DEPTH Inches.
Boulder Clay	Yellow clay	12		12	
125	Boulder clay	113		125	~~40~~
Buried channel — Sand and gravel	Hard pan of sand + shingle	15		140	~~65~~
Vck	Chalk	68		208	
Wfe dec 68	In 1938 this borehole was tested at 2000 gls per hour after 72 hours test fine sand checked the borehole in attempt to shut out the sand failed & the bore was abandoned.				
	a.b.c.o.d visited & sited Mar. 1954.				
	Visited. Checked site and O.D. Camp deserted. MJC 23/7/60.				

For Survey use only

Date received	G.S.M. Office File No.	Site marked on 1" map (use symbol)

GEOLOGICAL SURVEY AND MUSEUM, SOUTH KENSINGTON, LONDON, S.W.7.

(*11815) Wt.29051/O.369 10,000 9/39 A.& E.W.Ltd. Gp.686

ADDITIONAL INFORMATION SHEET

Licence No. TG14/9

131/47

Date of completion of well catalogue

Date of publication

Additional Sheet No.

DATE	*	ADDITIONAL INFORMATION			INIT.
2/10/70	A	Boulder clay (Buried channel) Yellow clay	12	12	
		125 Boulder clay	113	125	
		Sand and gravel (Buried channel) Hard pan of sand and shingle	15	140	
		15			
		Vck Chalk	68	208	
		68			
	B	Soil	4	4	
		Yellow clay	12	16	
		Coarse red sand	36	52	
		Pleist. Drift Yellow clay & sand	8	60	
		(Buried channel) Dark red coarse sand	40	100	
		182 Light yellow sand	10	110	
		Fine grey sand	16	126	
		Boulder clay	39	165	
		Shingle & big stone	17	182	
		Vck Chalk, very hard & hard	42	224	
		42			
	C	Soil	3	3	
		Pleist. Drift Clay	16	19	
		(Buried channel) Sand	40	59	
		183 Dark sand	46	105	
		Clay mixed with sand	22	127	

FILMED

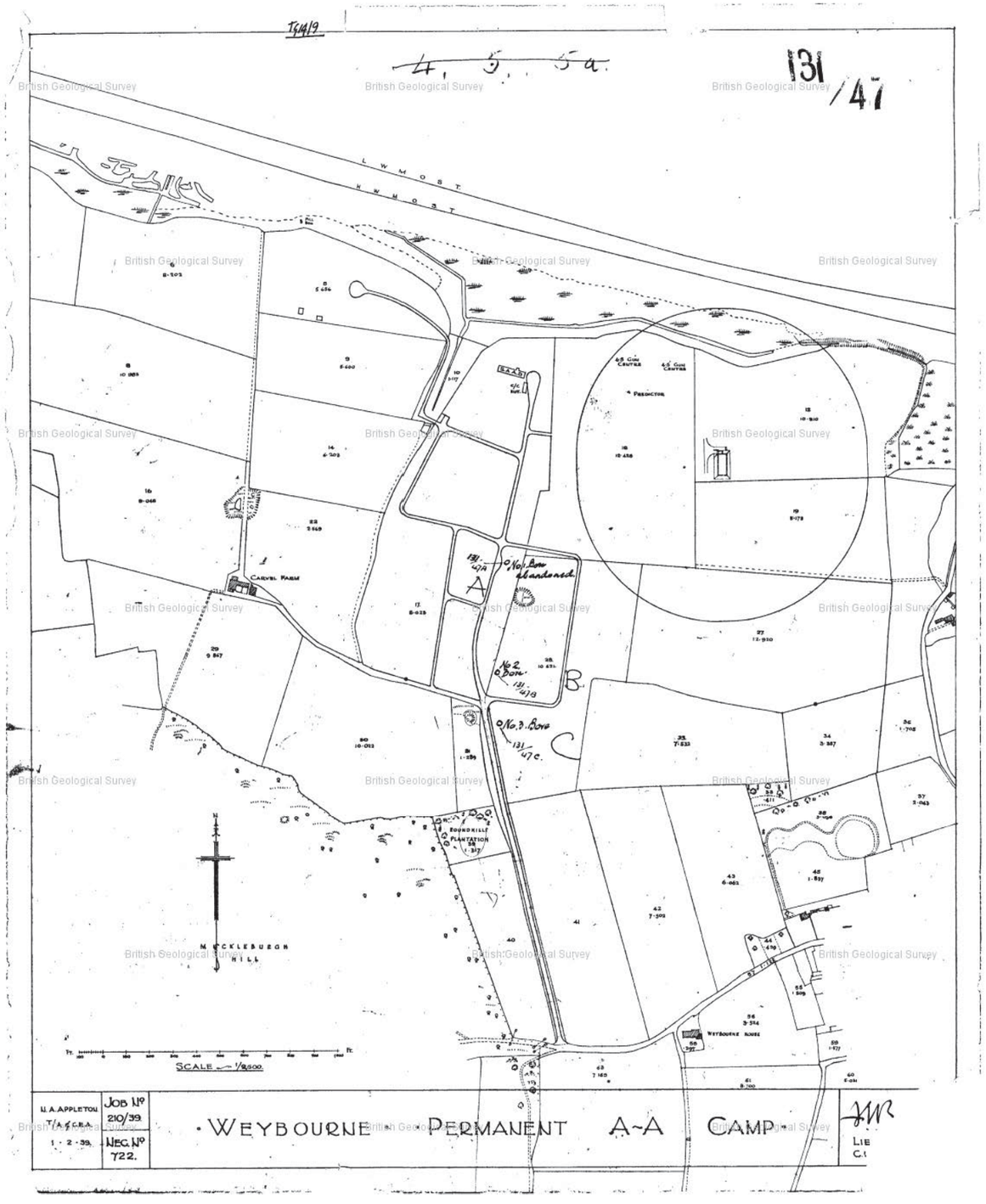
* Insert Well Reference Letter, If More Than One Well At Site

P.T.O.

Section 6	Pumping test	Observ. well	Recorder	E.R. log

GEOLOGICAL SURVEY, WATER DEPARTMENT SOUTH KENSINGTON, LONDON, S.W.7.

(4130) Wt.34984/P.S.127 5m 9/63 G.W.B.Ltd. Gp.863



NGRC

BOREHOLE RECORDS

ADJUSTMENT FORM

QUARTER SHEET TG14SW

BH REGISTRATION NUMBER 23-26

RECORDS ENTERED AND HELD BY WALLINGFORD

BH REGISTRATION NUMBER(S)

131/47 Ministry of Defence, Royal Air Force Station, Weybourne TG14/9

(a) (Disused). Surface +85. Bore 208. Lining tubes: 90 × 6 in; 80 × 4½ in from 65 down. Ck -55. R.W.L. +39. *Buckingham, 1937.* A TG 1039 4344
Yield 2,000 g.p.h. (72 h. test). Sand entered. *1938.*

(b) (Disused). Surface +93. Bore 224. Lining tubes: 197½ × 6 in. Ck -89. R.W.L. +25. Yield 2,350 g.p.h. *Buckingham, 1938.* B TG 1039 4333
Yield 1,500 g.p.h. *Aug. 1947.* R.W.L. +34¼. P.W.L. +21¼. Yield 2,500 g.p.h. *Aug. 1953.* R.W.L. +34. P.W.L. +7. Yield 1,666 g.p.h. *Nov. 1956.* R.W.L. +38. P.W.L. +33¾. Yield 2,600 g.p.h. *Oct. 1960.*

(c) (? Disused). Surface +100. Bore 222 × 6 in. Ck -83. R.W.L. +28. P.W.L. +16. Yield 1,800 g.p.h. (test). *Buckingham, 1939.* C TG 1039 4325
Yield 600 g.p.h. *Aug. 1947.*

(d) Surface +100. Lining tubes: 153¼ × 6 in. Ck -22. Water struck at -40. R.W.L. +18. *R.E., Mar. 1942.* D TG 1036 4317
Yield 1,200 g.p.h. *Aug. 1947.* R.W.L. +32. P.W.L. +19½. Yield 4,500 g.p.h. *Oct. 1952.* R.W.L. +38. P.W.L. +19¾. Yield 4,000 g.p.h. *Oct. 1960.* R.W.L. +44. *Oct. 1964.*

(e) Surface +45. Bore 250 × 10 in reduced to 8 in at depth. Lining tubes: × 15 in to 51¼; × 12 in to 128¾; × 10 in to 182¼; 76 × 8 in from 174 down (perforated). Ck -73. Water struck at -21 and -c.155. R.W.L. -10. P.W.L. -40. Recovered to -10 in 65 min. Suction -112. Yield 7,060 g.p.h. (14 d. test). *Dando, Apr. 1952.* E TG 1038 4380
R.W.L. -13. P.W.L. -21. Yield 6,300 g.p.h. *Nov. 1956.* R.W.L. -7½. P.W.L. -12¾. Yield 6,000 g.p.h. *Oct. 1960.*

(d)	Topsoil ...	2	2
Boulder Clay (Buried channel) 75	Rubble sandy chalk and flints	8	10
	Sandy chalk flints and stones	14	24
	Grey chalk flints and stones	41	65
	Light brown clay, chalk stones and flints ...	10	75
Sand and Gravel (Buried channel) 47	Sand (blowing) and gravel	46½	121½
	Flints	½	122
UCk 128	Chalk and flints (top 25 ft very soft)	128	250

pp. W.M. Edmunds 17.2.67

GEOLOGICAL CLASSIFICATION	NATURE OF STRATA	THICKNESS ft.	DEPTH ft.

RECORD OF WELL (SHAFT OR BORE) 131

1" N.S. TG14/9
1" O.S.
Grid
F

At A. A. Camp No 2 Bore.
Town or Village Weybourne County Norfolk. Six-inch map 10 N.W. S.E.
Exact site (Sketch-map reference from a 1/2500 map is very desirable)
in parish of
Level of ground surface above sea-level (O.D.) c 93 ft. If well starts below ground surface, state how far ft.
Shaft ft., diameter ft. Bore ft. Diameter of bore: at top 6 ins.; at bottom ins.
Details of permanent lining tubes (internal diameters preferred) 197½ ft. × 6 in
Water struck at depths of (feet)
Rest-level of water ~~below~~ above top of well 68 feet. Suction at feet. Yield on hours' days' test 2350 gallons per hour. (with pump of capacity g.p.h.); depressing water level to feet below top. Time of recovery hrs. Amount normally pumped daily g.p.h. for hours.
Quality (attach copy of analysis if available)
Sunk by F. H. Buckingham or Mr. Date of well 1935
Information from Do.

(For Survey use only). GEOLOGICAL CLASSIFICATION.	NATURE OF STRATA (and any additional remarks).	THICKNESS Feet.	THICKNESS Inches.	DEPTH Feet.	DEPTH Inches.
	Soil	4		4	
	Yellow clay	12		16	
	Coarse red sand	36		52	
	Yellow clay round	8		60	
	Dark red coarse sand	40		100	
	Light yellow sand	10		110	
	Fine grey sand	16		126	
	Boulder clay	39		165	
	Shingle & big stone	17		182	
	Chalk, very good & hard	42		224	
	Yield 1500 g.p.h. 1947. Wt. 15.8.47.				
	Consumption from b.c.d 40,000 g.p.d on the average.				
	Disused as from 1963 (see Sect. 6 card).				

GEOLOGICAL SURVEY AND MUSEUM, SOUTH KENSINGTON, LONDON, S.W.7.

For Survey use only

Date received	G.S.M. Office File No.	Site marked on 1" map (use symbol)

(*11815) Wt.29051/O.369 10,000 9/39 A.& E.W.Ltd. Gp.686

ADDITIONAL INFORMATION SHEET

Licence No. TG 41 9

131/47

Date of completion of well catalogue .....

Date of publication .....

Additional Sheet No. .....

DATE	*	ADDITIONAL INFORMATION			INIT.
2/10/70	A	Boulder clay (Buried channel) Yellow clay	12	12	
		125 Boulder clay	113	125	
		Sand and gravel (Buried channel) Hard pan & sand and shingle	15	140	
		15			
		Vck Chalk	68	208	
		68			
	B	Soil	4	4	
		Yellow clay	12	16	
		Coarse red sand	36	52	
		Pleist. Drift Yellow clay & sand	8	60	
		(Buried channel) Dark red coarse sand	40	100	
		182 Light yellow sand	10	110	
		Fine grey sand	16	126	
		Boulder clay	39	165	
		Shingle & big stone	17	182	
		Vck Chalk, very good & hard	42	224	
		42			
	C	Soil	3	3	
		Pleist. Drift Clay	16	19	
		(Buried channel) Sand	40	59	
		183 Dark sand	46	105	
		Clay mixed with sand	22	127	

FILMED .....

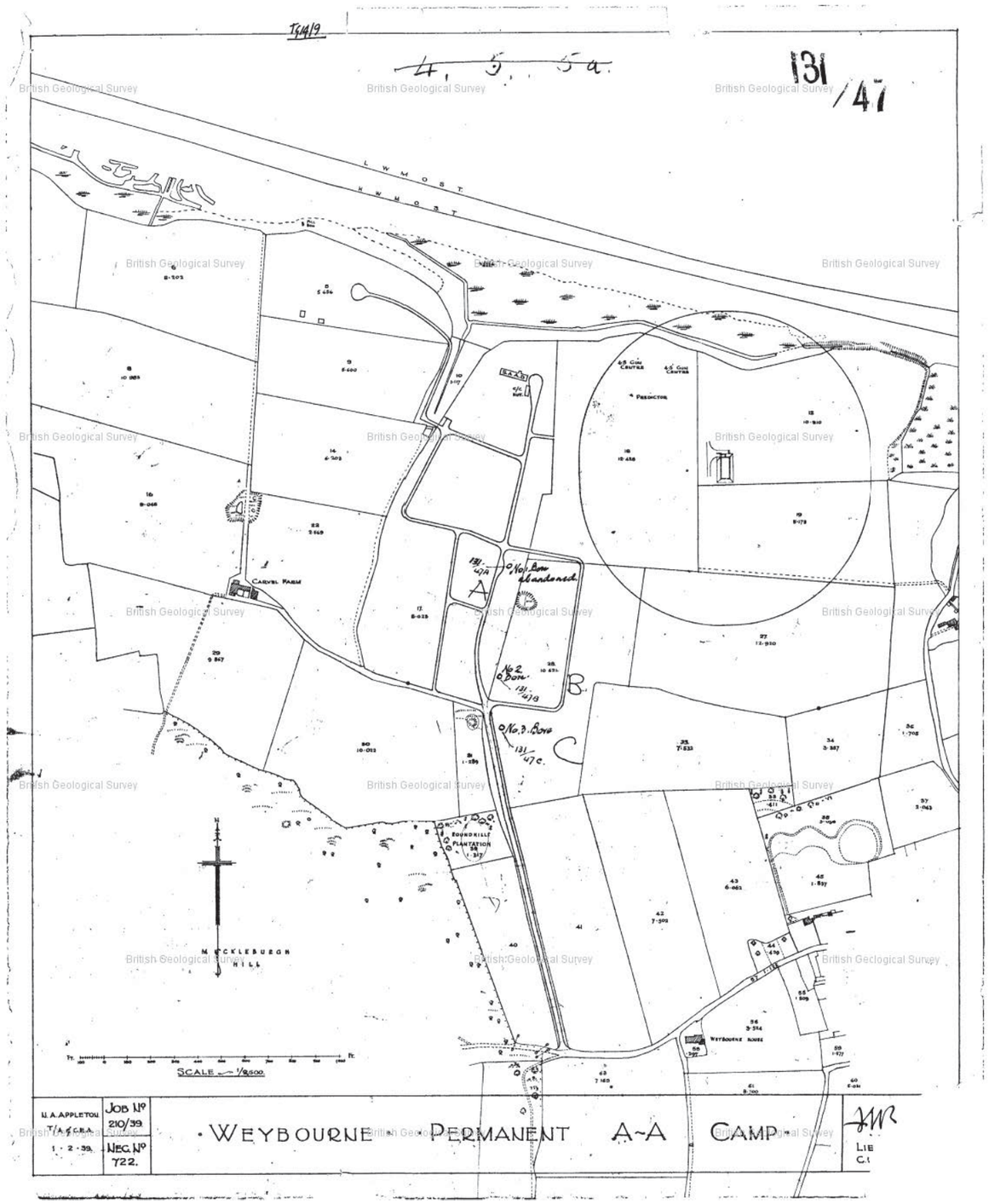
* Insert Well Reference Letter, If More Than One Well At Site

P.T.O.

Section 6	Pumping test	Observ. well	Recorder	E.R. log

Geological Survey, Water Department South Kensington, London, S.W.7.

(4130) Wt.34984/P.S.127 5m 9/63 G.W.B.Ltd. Gp.863



NGRC

BOREHOLE RECORDS

ADJUSTMENT FORM

QUARTER SHEET TG14SW

BH REGISTRATION NUMBER 23-26

RECORDS ENTERED AND HELD BY WALLINGFORD

BH REGISTRATION NUMBER(S)

131/47 Ministry of Defence, Royal Air Force Station, Weybourne TG14/9

(a) (Disused). Surface +85. Bore 208. Lining tubes: 90 × 6 in; 80 × 6½ in from 65 down. Ck -55. R.W.L. +39. *Buckingham, 1937.* A TG 1039 4344

Yield 2,000 g.p.h. (72 h. test). Sand entered. *1938.*

(b) (Disused). Surface +93. Bore 224. Lining tubes: 197½ × 6 in. Ck -89. R.W.L. +25. Yield 2,350 g.p.h. *Buckingham, 1938.* B TG 1039 4333

Yield 1,500 g.p.h. *Aug. 1947.* R.W.L. +34¾. P.W.L. +21¼. Yield 2,500 g.p.h. *Aug. 1953.* R.W.L. +34. P.W.L. +7. Yield 1,666 g.p.h. *Nov. 1956.* R.W.L. +38. P.W.L. +33¾. Yield 2,600 g.p.h. *Oct. 1960.*

(c) (? Disused). Surface +100. Bore 222 × 6 in. Ck -83. R.W.L. +28. P.W.L. +16. Yield 1,800 g.p.h. (test). *Buckingham, 1939.* C TG 1039 4325

Yield 600 g.p.h. *Aug. 1947.*

(d) Surface +100. Lining tubes: 153¼ × 6 in. Ck -22. Water struck at -40. R.W.L. +18. *R.E., Mar. 1942.* D TG 1036 4317

Yield 1,200 g.p.h. *Aug. 1947.* R.W.L. +32. P.W.L. +19¼. Yield 4,500 g.p.h. *Oct. 1952.* R.W.L. +38. P.W.L. +19¾. Yield 4,000 g.p.h. *Oct. 1960.* R.W.L. +44. *Oct. 1964.*

(e) Surface +45. Bore 250 × 10 in reduced to 8 in at depth. Lining tubes: × 15 in to 51¾; × 12 in to 128¾; × 10 in to 182¼; 76 × 8 in from 174 down (perforated). Ck -73. Water struck at -21 and -c.155. R.W.L. -10. P.W.L. -40. Recovered to -10 in 65 min. Suction -112. Yield 7,060 g.p.h. (14 d. test). *Dando, Apr. 1952.* E TG 1008 4380

R.W.L. -13. P.W.L. -21. Yield 6,300 g.p.h. *Nov. 1956.* R.W.L. -7½. P.W.L. -12¾. Yield 6,000 g.p.h. *Oct. 1960.*

GEOLOGICAL CLASSIFICATION	NATURE OF STRATA	THICKNESS ft.	DEPTH ft.
(d)	Topsoil ...	2	2
Boulder Clay (Buried channel) 75	Rubble sandy chalk and flints	8	10
	Sandy chalk flints and stones	14	24
	Grey chalk flints and stones	41	65
	Light brown clay, chalk stones and flints ...	10	75
Sand and Gravel (Buried channel) 47	Sand (blowing) and gravel	46½	121½
	Flints	½	122
UCk 128	Chalk and flints (top 25 ft very soft)	128	250

pp. W.M. Edmunds 17.2.67

RECORD OF WELL (SHAFT OR BORE)

131/47C

At A.A. Camp No 3 Bore

Town or Village Weybourne, Holt

County Norfolk Six-inch quarter sheet 10 N.W.E.

For Mr. W.O.

Exact site of well

Attach a tracing from a map, or a sketch-map, if possible.

Level of ground surface above sea-level (O.D.) 100 feet.

Is well-top at ground level ? If not, state how far above ; below ; feet.

Shaft ft., diameter ft. Details of headings

Bore 222 ft. ; diameter of bore : at top 6 ins. ; at bottom ins.

Lengths, diameters, perforations, etc., of lining tubes

Water struck at depths, below well-top, of (feet)

TEST DETAILS — Month / Year

Rest-level of water 72 ft. ~~above~~ below well-top. Suction at ft. Yield on hours' days'

pumping 1800 gallons per hour (max. capacity of pump g.p.h.),

with depression of 12 feet. Recovery to 72' in mins. hours.

WORKING CONDITIONS

Rest-level of water in (month), (year), ft. above below well-top.

Highest " in (month), (year), ft. above below "

Lowest " in (month), (year), ft. above below "

Suction at ft. Rate of pumping galls. per for hours per day.

with average depression of ft. Recovery to in mins. hours

Quality of water (*attach copy of analysis if available*)

Well made by Buckingham Date of well 1939

Information from

ADDITIONAL NOTES.

Yield 600 g.p.h. 1947. JW. 15.8.47.

LOG OF STRATA OVERLEAF.

GEOLOGICAL SURVEY AND MUSEUM, SOUTH KENSINGTON, LONDON, S.W.7.

Date received.	G.S.M. Office File No.	1" N.S. Map No.	1" O.S. Map No.	Site marked (use symbol) on 1" Map.	on 6" Map.

(17208) Wt.42901/0377 10,000 2/41 A.& E.W.Ltd. Gp.686

(For Survey use only) GEOLOGICAL CLASSIFICATION (5)

NATURE OF STRATA — If measurements start below ground surface, state how far...	Thickness Feet	Thickness Inches	Depth Feet	Depth Inches	
Soil	3	–			
Clay	16	–	19	–	381
Sand	40	–	59	–	441
Dark sand	46	–	105	–	-5
Clay mixed with sand	22	–	127	–	-7
Boulder clay	37	–	164	–	-64
Shingle & stone	19	–	183	–	-83
Chalk	39	–	222	–	

ADDITIONAL INFORMATION SHEET

Licence No. TG 41 9

131/47

Date of completion of well catalogue .....

Date of publication .....

Additional Sheet No. .....

DATE	*	ADDITIONAL INFORMATION			INIT.
2/10/70	A	Boulder clay (Buried channel) Yellow clay	12	12	
		125 Boulder clay	113	125	
		Sand and gravel (Buried channel) Hard pan & sand and shingle	15	140	
		15			
		Vck Chalk	68	208	
		68			
	B	Soil	4	4	
		Yellow clay	12	16	
		Coarse red sand	36	52	
		Pleist. Drift Yellow clay & sand	8	60	
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		42			
	C	Soil	3	3	
		Pleist. Drift Clay	16	19	
		(Buried channel) Sand	40	59	
		183 Dark sand	46	105	
		Clay mixed with sand	22	127	

FILMED .....

* Insert Well Reference Letter, If More Than One Well At Site

P.T.O.

Section 6	Pumping test	Observ. well	Recorder	E.R. log

(4130) Wt.34984/P.S.127 5m 9/63 G.W.B.Ltd. Gp.863

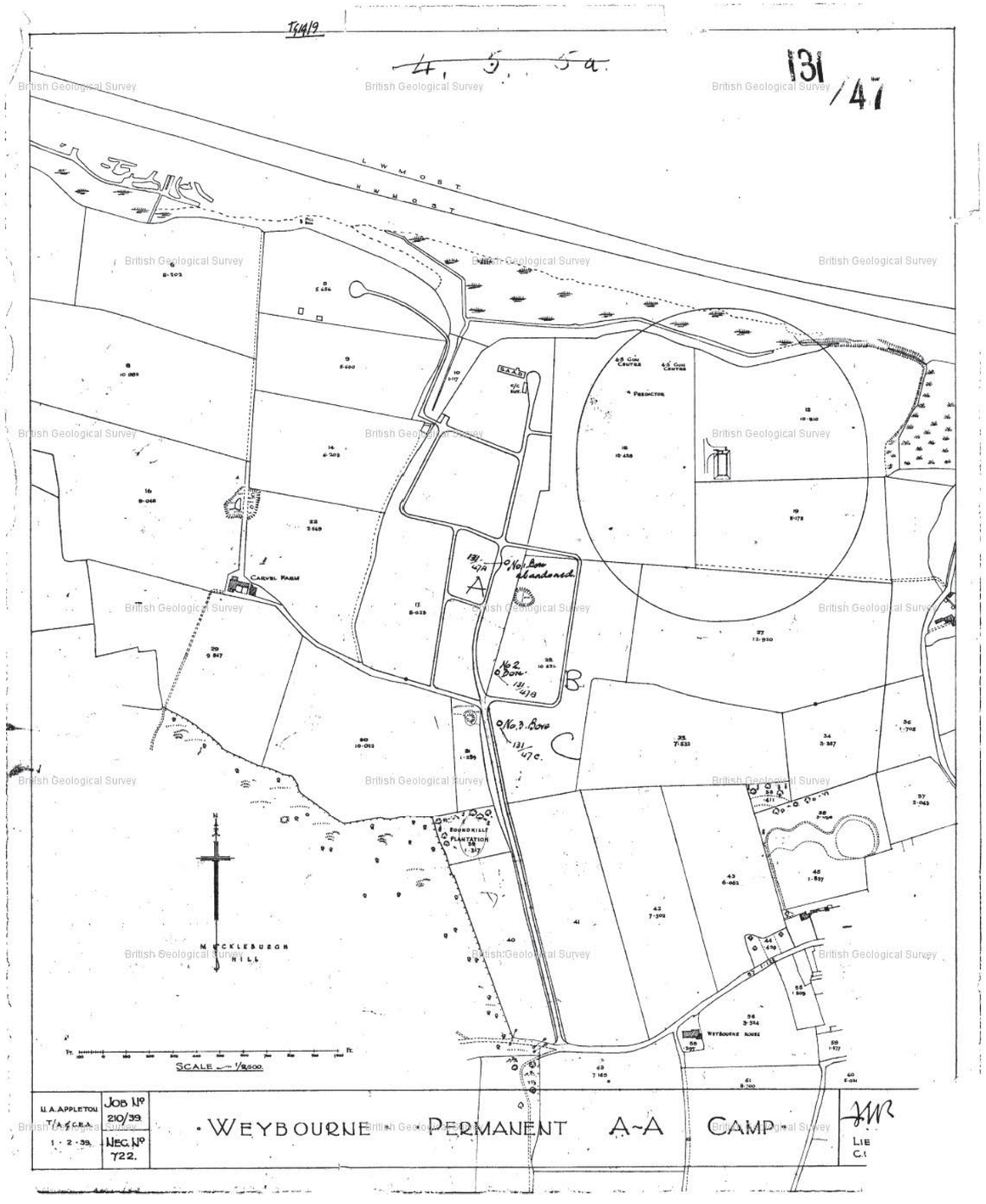
Geological Survey, Water Department South Kensington, London, S.W.7.

DATE	*	ADDITIONAL INFORMATION			INIT.
		Boulder clay	37	164	
		Shingle & stone	19	183	
		Vck Chalk	39	222	
		39			
	E	Sand and sandy clay	25	25	
		Sand	13	38	
		Sand and sandy clay	13	51	
		Pleist. Drift Gravel	7	58	
		(Buried channel) Gravel & some clay	7	65	
		118 Sandstone & sand	16	81	
		Sand	9	90	
		Sand & gravel	28	118	
		~~Stiff grey~~			
		Vck Stiff grey plastic chalk	52	170	
		132 Chalk and flints	80	250	MJK
		DATA Bank			

FILMED .....

Insert Well Reference Letter, If More Than One Well At Site

Additional Information Sheet No. ..... Commenced .....



NGRC

BOREHOLE RECORDS

ADJUSTMENT FORM

QUARTER SHEET TG14SW

BH REGISTRATION NUMBER 23-26

RECORDS ENTERED AND HELD BY WALLINGFORD

BH REGISTRATION NUMBER(S)

131/47 Ministry of Defence, Royal Air Force Station, Weybourne TG14/9

(a) (Disused). Surface +85. Bore 208. Lining tubes: 90 × 6 in; 80 × 4½ in from 65 down. Ck -55. R.W.L. +39. *Buckingham, 1937.* A TG 1039 4344
Yield 2,000 g.p.h. (72 h. test). Sand entered. *1938.*

(b) (Disused). Surface +93. Bore 224. Lining tubes: 197½ × 6 in. Ck -89. R.W.L. +25. Yield 2,350 g.p.h. *Buckingham, 1938.* B TG 1039 4383
Yield 1,500 g.p.h. *Aug. 1947.* R.W.L. +34¾. P.W.L. +21¼. Yield 2,500 g.p.h. *Aug. 1953.* R.W.L. +34. P.W.L. +7. Yield 1,666 g.p.h. *Nov. 1956.* R.W.L. +38. P.W.L. +33¾. Yield 2,600 g.p.h. *Oct. 1960.*

(c) (? Disused). Surface +100. Bore 222 × 6 in. Ck -83. R.W.L. +28. P.W.L. +16. Yield 1,800 g.p.h. (test). *Buckingham, 1939.* C TG 1039 4325
Yield 600 g.p.h. *Aug. 1947.*

(d) Surface +100. Lining tubes: 153¼ × 6 in. Ck -22. Water struck at -40. R.W.L. +18. *R.E., Mar. 1942.* D TG 1036 4317
Yield 1,200 g.p.h. *Aug. 1947.* R.W.L. +32. P.W.L. +19½. Yield 4,500 g.p.h. *Oct. 1952.* R.W.L. +38. P.W.L. +19¾. Yield 4,000 g.p.h. *Oct. 1960.* R.W.L. +44. *Oct. 1964.*

(e) Surface +45. Bore 250 × 10 in reduced to 8 in at depth. Lining tubes: × 15 in to 51¾; × 12 in to 128¾; × 10 in to 182¼; 76 × 8 in from 174 down (perforated). Ck -73. Water struck at -21 and -c.155. R.W.L. -10. P.W.L. -40. Recovered to -10 in 65 min. Suction -112. Yield 7,060 g.p.h. (14 d. test). *Dando, Apr. 1952.* E TG 1008 4380
R.W.L. -13. P.W.L. -21. Yield 6,300 g.p.h. *Nov. 1956.* R.W.L. -7½. P.W.L. -12¾. Yield 6,000 g.p.h. *Oct. 1960.*

(d)

GEOLOGICAL CLASSIFICATION	NATURE OF STRATA	THICKNESS ft.	DEPTH ft.
	Topsoil ...	2	2
Boulder Clay	Rubble sandy chalk and flints	8	10
(Buried channel)	Sandy chalk flints and stones	14	24
75	Grey chalk flints and stones	41	65
	Light brown clay, chalk stones and flints ...	10	75
Sand and Gravel	Sand (blowing) and gravel	46½	121½
(Buried channel)	Flints	½	122
47			
UCk	Chalk and flints (top 25 ft very soft)	128	250
128			

pp. W.M. Edmunds 17.2.67

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(6)

TG14/9

131/47 E

WEYBOURNE , 57/565614; 8m. W. of CROMER.

Alt.circa. 100' O.D.
0- 2' Topsoil.
0- 10' Rubble sandy chalk & Flints.
- 24' Sandy chalk Flints & Stones.
- 65' Grey Chalk Flints & Stones.
- 75' Light Brown Clay, Chalk Stones & Flints.
-121½' Sand & Gravel (sand blowing)
-122' Flints.
122'-250' Chalk and Flints (top 25' very soft).

= CHALKY BOULDER CLAY

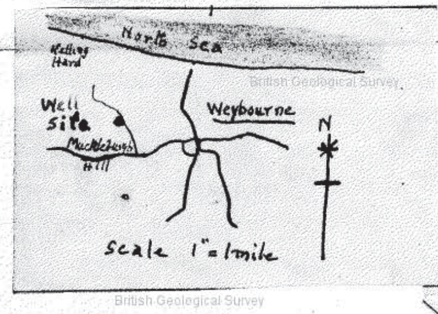
Boulder Clay

Sand and gravel 47

UCK

Started drilling 13.3.42.
Finished " 250' 29.3.42.
Water struck at 140' and lower.
R.W.L. 82'.
153'4"×6" casing; other casings pulled.

Quoted in W Catalogue WLE 17/2/67



Sunk by R.E. Boring section. Yield 1200 g.p.h. 1947. W.T. 15.8.47.

~~Returned~~. Sect-6 card

NGRC

BOREHOLE RECORDS

ADJUSTMENT FORM

QUARTER SHEET TG14 SW/11 – 14

BH REGISTRATION NUMBER 11 – 14

RECORDS ENTERED AND HELD BY WALLINGFORD

BH REGISTRATION NUMBER(S)

131/146 High Lodge, Weybourne. (Disused)

TG 1167 4286

TG14/11

Surface +95. Shaft 50 × 4; rest bore 4½ in. Lining tubes: × 4 in. R.W.L. +27.
P.W.L. +21. Yield 600 g.p.h. (8 h. test). *Barnham, July 1949.*
R.W.L. +45¾. *July 1950.* Electric pump. *Before 1960.*

Pleist. Drift	...	...	77	77
UCk	...	...	73	150

GEOLOGICAL CLASSIFICATION	NATURE OF STRATA	THICKNESS ft.	DEPTH ft.
PLEIST. DRIFT 77'	Shaft	50	
	Blue clay	27	77
U. CHALK 73'	Soft chalk	20	97
	Medium chalk	40	137
	Hard chalk & flints	13	150

pp. W.M. Edmunds
1967

RECORD OF WELL (SHAFT OR BORE)

(attach copy of analysis if available)

For Survey use only
TG04/11
N. 3072
131/146

EXACT SITE OF WELL

At High Lodge.

Town or Village Weybourne.

County Norfolk. Six-inch quarter sheet TG 57.568,609. NWNE

For Mr. Johnson. State whether owner, tenant, builder, contractor, consultant, etc. :— Owner.

Address (if different from above)

Level of ground surface above sea-level (O.D.) +95 ft. If well-top is not at ground level, state how far ... (above; below;) ... ft.

SHAFT 50 ft.; diameter 4 ft.; Details of headings

BORE 100 ft.; diameter of bore: at top 4½ ins.; at bottom ... ins.

Details of permanent lining tubes 4½" x ¼" thick Tube.

Water struck at depths of ... ft. below well-top.

TEST CONDITIONS

Rest-level of water 68 ft. ~~above~~ below well-top. Suction at ... ft. Yield on 8 hours' ~~days~~ test

pumping at 600 galls. per hour with depression to 74 ft. below well-top.

Recovery to rest-level in ... mins. / hours Capacity of pump ... g.p.h. Date of measurements July. 1949

NORMAL CONDITIONS

Description of permanent pumping equipment:

Make and/or type ... Motive power ...

Capacity ... gallons per hour. Suction at ... ft.

Amount pumped ... galls. per day. Estimated consumption ... galls. per week.

Well made by A.W. Barnham, Bridewell St, Walsingham, Nfk. Date of well July 1949.

Information from as above.

ADDITIONAL NOTES

Visited. O.D+95.
Used to supply 2 houses. Electric pump.
Owner. Macumble
mgc 23/1/60

LOG OF STRATA OVERLEAF.

GEOLOGICAL SURVEY AND MUSEUM, SOUTH KENSINGTON, LONDON, S.W.7.		Date Received	1" O.S. Map No.	Site marked on 1" Map	(use symbol) on 6" Map
		4.1.50		0	

(*35243) Wt.44731/0424 12,000 3/48 A.& E.W.Ltd. Gp.685

(For Survey use only) GEOLOGICAL CLASSIFICATION	NATURE OF STRATA If measurements start below ground surface, state how far ...	THICKNESS Feet	THICKNESS Inches	DEPTH Feet	DEPTH Inches	
		...	...	50	-	OD95
	Blue Clay.	77		27	-	+18
	Soft Chalk.	97		20	-	-2
	Medium Chalk.	137		40	-	
	Hard Chalk and Flints.	150		13	-	
	DATA Bank					

Plant Dept 77
UCK 73
WS 1967

NGRC

BOREHOLE RECORDS

ADJUSTMENT FORM

QUARTER SHEET TG14SW/11-14

BH REGISTRATION NUMBER 11-14

RECORDS ENTERED AND HELD BY WALLINGFORD

BH REGISTRATION NUMBER(S)

131/77 - Site of Beach House, Weybourne. (Filled in)

TG 1101 4369

Surface +25. Shaft 20; rest bore. Lining tubes: 70 × 4 in. R.W.L. +5. Yield 500 g.p.h. (test). *Bullen, 1940.*
Handpump. *1940.*

TG14/13

ESTIMATED GEOLOGICAL CLASSIFICATION	NATURE OF STRATA	THICKNESS ft.	DEPTH ft.
Pleist. Drift) Crag)	... ...	80	80
UCk	... ...	30	110

p.p. W.M. Edmunds
1967

RECORD OF WELL (SHAFT OR BORE)

131

TG 14/3 77

(1)

At Beach House, Weybourne

Town or Village Norfolk

County Norfolk. Six-inch quarter sheet 10 N.E. W.

For ~~Mr.~~ Lord Walpole

Exact site of well ____ { Attach a tracing from a map, or a sketch-map, if possible.

Level of ground surface above sea-level (O.D.) c 25 feet.

Is well-top at ground level? ____ If not, state how far above / below; ____ feet.

Shaft 20 ft., diameter ____ ft. Details of headings ____

Bore 90 ft.; diameter of bore: at top 4 ins.; at bottom ____ ins.

Lengths, diameters, perforations, etc., of lining tubes 70ft x 4in

Water struck at depths, below well-top, of (feet) ____

TEST DETAILS — Month ____ Year ____

Rest-level of water 20 ft. ~~above~~ / below well-top. Suction at ____ ft. Yield on ____ hours' / days' pumping 500 gallons per hour (max. capacity of pump ____ g.p.h.), with depression of ____ feet. Recovery to ____ in ____ mins. / hours.

WORKING CONDITIONS

Rest-level of water in ____ (month), ____ (year), ____ ft. above / below well-top.

Highest " in ____ (month), ____ (year), ____ ft. above / below "

Lowest " in ____ (month), ____ (year), ____ ft. above / below "

Suction at ____ ft. Rate of pumping ____ galls. per ____ for ____ hours per day.

with average depression of ____ ft. Recovery to ____ in ____ mins. / hours

Quality of water (*attach copy of analysis if available*) ____

Well made by H.W. Bullen & Bros, Foundry, Norfolk Date of well 1940

Information from Do

ADDITIONAL NOTES.

Hand pump Once visited. House demolished. - Site as D. well has been "bull-dozed" in rise clearing operations. HW 15/8/47.

Visited. No trace.
mg 23/1/60

LOG OF STRATA OVERLEAF.

GEOLOGICAL SURVEY AND MUSEUM, SOUTH KENSINGTON, LONDON, S.W.7.

Date received.	G.S.M. Office File No.	1" N.S. Map No.	1" O.S. Map No.	Site marked (use symbol) on 1" Map.	on 6" Map.
May 1941		131			A

(17208) Wt.42901/0877 10,000 2/41 A.& E.W.Ltd. Gp.686

2.

(For Survey use only) GEOLOGICAL CLASSIFICATION

NATURE OF STRATA (If measurements start below ground surface, state how far...)	Thickness Feet	Thickness Inches	Depth Feet	Depth Inches
(Pleist drift) Crag } Depth to Chalk ca.			80	
UCk Chalk ca.	30	0	110	0

WMS 1967

DATA Bank

TG13SW 5 113-332

DEREHAM WATER SUPPLIES LTD. TG13/103

THE WHITE HOUSE, BRADENHAM ROAD, SCARNING, DEREHAM, NORFOLK, NR19 2LA
V.A.T. Reg. No. 304 7022 04

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GENERATOR HIRE
PUMP HIRE

BOREHOLES DRILLED ACIDISED & TESTED

Tel.: WENDLING (036287) 613
FAX No.: (036287) 612

WELL LOG

CUSTOMER'S NAME: P.J.G. SEAMAN SITE: GREAT FARM, SAXTHORPE.

GRID REF.: TG. 113 332 DATE:

DIA.: LINED TO: 235 FT. 18" DIA. REDUCED AT 235 FT. - 328 FT. 16"

DEPTH	STRATA
0 - 2 FT.	TOP SOIL
2 - 20 FT.	SANDY SUBSOIL
20 - 50 FT.	SAND
50 - 80 FT.	CLAY
80 - 105 FT.	CLAY BLOWING SAND & FLINT.
105 - 125 FT.	CHALK, FLINT & SAND.
125 - 150 FT.	CHALK.
150 - 252	BLOWING SAND
252 - 328	CHALK & FLINT
328 -	CLAY.

CUSTOMER SIGN DEPTH .....

DRILLER .....

RIG ..... REST WATER LEVEL .....

NGRC

BOREHOLE RECORDS

ADJUSTMENT FORM

QUARTER SHEET TG 02 NE

BH REGISTRATION NUMBER 12 - 26

RECORDS ENTERED AND HELD BY WALLINGFORD

BH REGISTRATION NUMBER(S)

Eastern A.W.A.

RECORD OF WELL

For Institute use only Licence No. N .....

TG02/95

147 TG02/NE

EXACT SITE OF WELL

At RED PIT FARM

Town or Village WOOD DALLING

County NORFOLK

Six-inch National Grid sheet and reference TG 0998 2878

For D.G. WILLIAMS AND RED PIT FARM LTD

State whether owner, tenant, builder, contractor, consultant, etc.:

Address (if different from above)

Level of ground surface above sea level (O.D.) ..... ft (..... m)

*DELETE AS NECESSARY

If well top is not at ground level state how far above:* below: ..... ft (..... m)

SHAFT..... ft (..... m); diameter..... ft (..... m);

HEADINGS (please attach details—dimensions and directions)

BORE 200 ft (60.96 m); diameter: at top 8 in (203 mm);

at bottom..... in (..... mm)

Full details of permanent lining tubes (position, length, inner and outer diameters, plain slotted etc.):

Steel lining tubes (115ft) 35.05m

TEST CONDITIONS

Water struck at depths of ..... ft (..... m) below well top

Rest level of water..... ft (..... m) above* below well top. Suction at..... ft (..... m)

Yield on..... hours'* days' test pumping at..... galls per ..... (..... l/s) with

depression to..... ft (..... m) below well top. Recovery to rest level in ..... mins* hours

Capacity of pump..... g.p.h. (..... l/s)

Date of measurements.....

NORMAL CONDITIONS

DESCRIPTION OF PERMANENT PUMPING EQUIPMENT:

Make and/or type ..... Motive power.....

Capacity..... galls (..... m^3) per hour. Suction at ..... ft (..... m)

below well top. Amount pumped..... galls (..... m^3) per day. Estimated

consumption ..... galls (..... m^3) per week

Well made by F.H.V. HEWSON & SON Date of sinking JUNE 1988

ADDITIONAL NOTES ANALYSIS (please attach copy if available)

LOG OF STRATA OVERLEAF

Received from A.W.A. Norwich Division

Date 22.9.88

Observation well.....

Recorder.....

ER log.....

Site marked on

1" map.....

6" map—Grid Sheet.....

(use symbol)

Copy to.....

Date.....

INSTITUTE OF GEOLOGICAL SCIENCES
HYDROGEOLOGY UNIT
EXHIBITION ROAD
LONDON SW7 2DE

IGS 2494 10 000 7/79

For Institute use only

Geological Classification	Nature of strata *If measurements start below ground surface, state how far.*	Thickness Feet	Thickness Inches	Thickness Metres	Depth Feet	Depth Inches	Depth Metres
	TOP SOIL AND MADE UP GROUND	4		1.21	4		1.21
	SANDY CLAY	14		4.27	18		5.48
	GREY CLAY	49		14.94	67		20.42
	SANDY CLAY	16		4.87	83		25.29
	GREEN SAND	13		3.97	96		29.26
	GREEN SAND + GRAVEL	2		0.61	98		29.87
	CHALK	102		31.09	200		60.96

Tg02/95

F. H. V. HEWSON & SON

Shipdham Thetford Norfolk IP25 7LU
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- Pumps supplied and repaired
- Generator Hire
- Pump Hire

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WATER SUPPLY ENGINEERS

VAT Reg. No. 106 1372 11

Our Ref: FCH/GH.

14th June 1988.

Your Ref:

Anglian Water Authority,
Norwich Division,
Yare House,
62 - 64, Thorpe Road,
N O R W I C H NR1 1SA.

Dear Sirs,

Red Pit Farm, Wood Dalling.

Herewith details of the borehole recently constructed for Mr D.Williams at the above site.

Depth of Borehole	200 feet.		
Diameter of Borehole	8 inch.		
Steel lining tubes.	115 feet.		
Strata:-			
Top Soil and made up ground	4'	-	4'
Sandy Clay	14'	-	18'
Grey Clay	49'	-	67'
Sandy Clay	16'	-	83'
Green Sand	13'	-	96'
Green Sand and Gravel	2'	-	98'
Chalk.	102'	-	200'

We trust the above information meets your requirements.

Yours faithfully,

F.C. Hewson

F.H.V.HEWSON & SON.

21 SEP

PASSED FOR FILING

G.M. Hewson F.C. Hewson