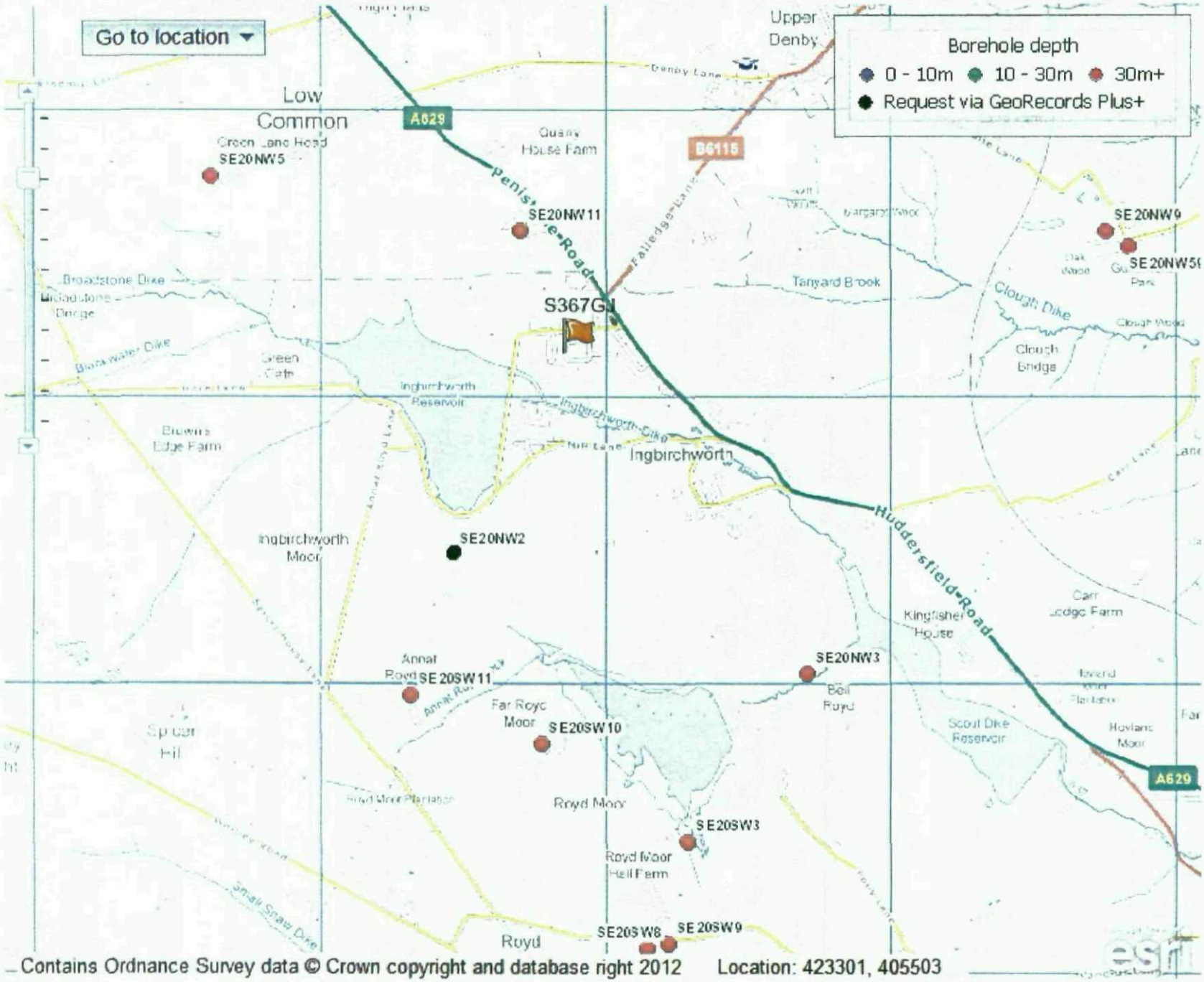
jnpgroup
Consulting Engineers

Appendix D – Borehole Location Records



BOREHOLE LOCATION PLAN

Central hS. 86 GLOSSOP T Charsley
Yorkshire NRA.

86 SE20/39

FORM WR-38

National Rivers Authority
..... Region
BOREHOLE RECORD

NRA No. B779

(Please type)

A. SITE DETAILS

SE20NW 11

Borehole drilled for	G.P. D. HOLMES LTD.
Location	DELPH HOUSE FARM. DENBY HUDDERSFIELD.
NGR (8 fig.)	~~SE 218 067~~ SE2170 0658 Please attach site plan
Ground Level (if known) ..	
Drilling Company	MALKAC CONSTRUCTION LTD.
Date of drilling	Commenced: 22.8.91 Completed: 29.8.91

B. CONSTRUCTION DETAILS

Borehole datum (if not ground level)..... G.L. above m below GL
(point from which all measurements of depth are taken eg flange, edge of chamber, etc)

Borehole drilled diameter ..... 140 mm from 9.30 to 91.00 m/depth
_____ mm from _____ to _____ m/depth
_____ mm from _____ to _____ m/depth

Casing material and type (eg plain steel, plastic slotted) Steel diameter 141.7 mm from 0 to 9.30 m/depth
_____ diameter _____ mm from _____ to _____ m/depth
_____ diameter _____ mm from _____ to _____ m/depth
_____ diameter _____ mm from _____ to _____ m/depth

Grouting details .....

Water struck at ..... 56.00 m (depth below datum - mbd)
_____ m (depth below datum - mbd)

Rest water Level on completion ..... 35.52 mbd

C. TEST PUMPING SUMMARY (Please supply full details on Forms WR-39)

Test Pumping Datum (if different from borehole datum) 0.41 m ~~below~~ above borehole datum (mbd)

Pump Suction Depth ..... 52.00 mbd

Water Level (Start of Test) ..... 36.04 mbd

Water Level (End of Test) ..... 38.22 mbd

Pumping rate ..... 4.143/ hr. m³/d : l/s

for 24 days/hours

Recovery to 36.26 mbd in 2 mins : hrs : days
(from end of pumping)

Date(s) of measurements 23.11.94 23.11.94

Please Supply Chemical Analysis if Available

NGDC ACCESSION NUMBER 22229

B. S. 6.11.95
S. Roach

Central HS.
Yorkshire NRA.

SE20/39
39_1

FORM WR-38

National Rivers Authority
..... Region
BOREHOLE RECORD

NRA No. B779

(Please type)

A. SITE DETAILS

SE20NW 11

Borehole drilled for	G.P. D. HOLMES LTD.
Location	DELPH HOUSE. FARM. DENBY HUDDERSFIELD.
NGR (8 fig.)	~~SE 218 067~~ SE 2190 0658 *Please attach site plan*
Ground Level (if known) ..	
Drilling Company	MALMAC CONSTRUCTION LTD.
Date of drilling	Commenced: 22.9.94 Completed: 29.9.94

B. CONSTRUCTION DETAILS.

Borehole datum (if not ground level)..... G.L. above m below GL
(point from which all measurements of depth are taken eg flange, edge of chamber, etc)

Borehole drilled diameter ..... 140 mm from 9.30 to 91.00 m/depth
_____ mm from _____ to _____ m/depth
_____ mm from _____ to _____ m/depth

Casing material Steel and type (eg plain steel, plastic slotted) diameter 14.7 mm from 0 to 9.30 m/depth
_____ diameter _____ mm from _____ to _____ m/depth
_____ diameter _____ mm from _____ to _____ m/depth
_____ diameter _____ mm from _____ to _____ m/depth

Grouting details .....

Water struck at ..... 56.60 m (depth below datum - mbd)
_____ m (depth below datum - mbd)

Rest water Level on completion ..... 35.52 mbd

C. TEST PUMPING SUMMARY (Please supply full details on Forms WR-60)

Test Pumping Datum (if different from borehole datum) 0.41 above m ~~below~~ borehole datum (mbd)

Pump Suction Depth ..... 52.00 mbd

Water Level (Start of Test) ..... 36.04 mbd

Water Level (End of Test) ..... 38.22 mbd

Pumping rate ..... 4.143/hr. m^3/d : l/s

for 24 ~~days~~/hours

Recovery to 36.25 mbd (from end of pumping) In 7 mins : ~~hrs~~ : days

Date(s) of measurements 23.11.94 23.11.94

Please Supply Chemical Analysis if Available

SE20 NW/11
SE20/39

FORM WR-38 (cont.)

NRA No. 8779

(Please type)

D. STRATA LOG

Geological Classification (BGS only)	Description of strata	Thickness m	Depth m
Superficial Deposits	TOP SOIL	0.40	0.40
	Clay Brown	2.40	2.80
	SANDSTONE BROWN	0.60	3.40
	MUDSTONE GREY	18.30	21.70
	MUDSTONE DARK GREY	1.90	23.60
	MUDSTONE GREY.	0.70	24.30
Prob. Crow Coal	COAL.	0.20	24.50
	MUDSTONE GREY	4.30	28.80
Prob. Greenrigg Sandstone	SANDSTONE GREY.	15.40	44.20
	MUDSTONE ; SANDSTONE BANDS GREY	25.60	69.80
Prob. Greenmoor Rock	SANDSTONE GREY.	18.20	88.00
	MUDSTONE GREY.	3.00	91.00

Lower Coal Measures Group, A. Lanfletton

RA 5/9/97

[continue on separate page if necessary]

Other Comments (eg gas encountered, saline water intercepted, etc).

FOR OFFICIAL USE ONLY

FILE ..... CONSENT NO ..... BGS REF NO .....

LICENCE NO USE OF BH NGR

SE20/39
39-2

FORM WR-38 (cont.)

NRA No.	B779

(Please type)

D. STRATA LOG

Geological Classification (BGS only)	Description of strata	Thickness m	Depth m
Superficial	TOP SOIL	0.40	0.40
	Clay Brown	2.40	2.80
	SANDSTONE BROWN	0.60	3.40
	MUDSTONE GREY	18.30	21.70
	MUDSTONE DARK GREY	1.90	23.60
	MUDSTONE GREY.	0.70	24.50
Prob. Crow Coal	COAL.	0.20	24.50
	MUDSTONE GREY	4.30	28.80
Prob. Grenoside Sandstone	SANDSTONE GREY.	15.40	44.20
	MUDSTONE ; SANDSTONE BANDS GREY	25.60	69.80
Prob. Greenmoor Rock.	SANDSTONE GREY.	18.20	88.00
	MUDSTONE GREY.	3.00	91.00

pp RA 5/9/97

[continue on separate page if necessary]

Other Comments (eg gas encountered, saline water intercepted, etc)

FOR OFFICIAL USE ONLY

FILE ..... CONSENT NO ..... BGS REF NO .....

LICENCE NO ..... USE OF BH ..... NGR .....

SE20/39

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FORM WR-39/1

National Rivers Authority
..... Region

PUMPING TEST DATA

CONSTANT RATE PUMPING TEST SHEET 1

CONSENT NO.	B779
Pumping test at	DELPH HOUSE FARM-DENBY-HUDDERSFIELD
NGR	SE 218 067
Observations from	—
NGR	—

Description of datum point from which measurements were made (eg ground level, flange, dip tube/other): 0·40m. A.S.L.

Height above ground level (metres):

Date	Time	Elapsed time Minutes	Elapsed time Hours	Depth of water level below datum (metres)	Drawdown (metres)	Meter readings (m^3) or Discharge rate (m^3/hr)	Comments (eg pump started, pumping rate changed, pump stopped)
20/11/94	10·15	DAY (- 3)		36·02			
21/11/94	10·45	DAY (- 2)		35·98			
22/11/94	09·30	DAY (- 1)		36·04			
23/11/94	09·00	0		36·04		·02616·50	
		1		37·10			
		2		37·24			
		3		37·28			
		4		37·32			
		5		37·33			
		6		37·36			
		7		37·37			
		8		37·39			
		9		37·39			
		10		37·40			
		15		37·41		·02617·52	
		20		37·44			
		25		37·48			
		30		37·48		·02618·53	
		35		37·50			
		40		37·50			
		45		37·52		·02619·53	
		50		37·53			
		55		37·64			
		60		37·55		·02620·54	
		70		37·57			
		80		37·58			
		90		37·59		·02622·57	
		100		37·61		·02623·27	
		120	2	37·63		·02624·62	
		150		37·67		·02626·75	

SURVEY OF EXISTING BOREHOLES

ENVIRONMENT AGENCY

B.G.S. Ref. No. ..... N.G.R. SE 217065

Licence No. 2-27-S-180

OWNERS NAME G.P.D. Hldgs. Ltd

ADDRESS Delph House Farm, Derby, Huddersfield HD8 8XY

App No. 6671

Authorised Abstraction

2.285 tcma

22. cu m/d

4.2 cu m/h

	DEPTH	THICK	STRATA DETAILS
	0.4m	0.4m	Topsoil
	2.8m	2.4m	Brown Clay
	3.4m	0.6m	S.F Brown
	21.7m	18.3m	Grey Mudstone
	23.6m	1.9m	Dark Grey Mudstone
	24.5m	0.7m	Grey Mudstone
	24.5m	0.1m	Coal
	28.8m	4.3m	Grey Mudstone
	44.2m	15.4m	Grey Sandstone
	69.8m	25.6m	Mudstone/Sdst Band
	88m	18.1m	Sdst Grey
	91m	3m	Mudstone Grey

Dia. 190mm

Depth 91m

Lining Steel to 9.3m

Well Sinker Mather Carr

Date 20.9.04

R.W.L. 36.04 mAgl

P.W.L. 138.22 mAgl

SE20/39

39-4

FORM WR-39/4

National Rivers Authority
..... Region

PUMPING TEST DATA

CONTINUATION SHEET

CONSENT NO.	B779	Description of datum point from which measurements were made (eg ground level, flange, dip tube/other):
Pumping test at		
NGR	SHEET (2) (Pumping)	
Observations from		Height above ground level (metres):
NGR		

Date	Time	Elapsed time Hours	Elapsed time Days	Depth of water level below datum (metres)	Drawdown (metres)		Comments
23/11/94	12.30	3½		37.70		02630.86	
	13.00	4		37.71		.02632.85	
	14.00	5		37.74		—	
	15.00	6		37.77		.02641.53	
	16.00	7		37.81		.02645.17	
	17.00	8		37.85		.02649.65	
	18.00	9		37.89		.02653.78	
	19.00	10		37.93		—	
	20.00	11		37.95		—	
24/11/94	06.00			38.19		02705.68	
	07.00			38.21		.02707.95	
	08.00			38.23		.02711.84	
	09.00			38.22		.02715.93	
	Pump Switched OFF						
	Amount Pumped =				99.43	m^3/HR. (24 HRS)	
	=				4.143	m^3/HR.	
	=				911 galls/HR.		

Use continuation sheet (WR-39/4) if necessary

Form/96

SE20/39
39-S

FORM WR-39/2

National Rivers Authority
..... Region

PUMPING TEST DATA

CONSTANT RATE PUMPING TEST - RECOVERY

CONSENT NO.	B779	Description of datum point from which measurements were made (eg ground level, flange, dip tube/other):
Pumping test at	SHEET 3 (RECOVERY)	
NGR		
Observations from		Height above ground level (metres):
NGR		

Date	Time	Elapsed time		Depth of water level below datum (metres)	Drawdown (metres)		Comments
		Minutes	Hours				
24-11-94	09·00	0		38·22			
		1		37·10			
		2		36·89			
		3		36·84			
		4		36·83			
		5		36·80			
		6		36·80			
		7		36·80			
		8		36·78			
		9		36·78			
		10		36·76			
		15		36·76			
		20		36·75			
		25		36·74			
		30		36·72			
		35		36·71			
		40		36·71			
		45		36·70			
		50		36·70			
		55		36·70			
	10·00	60	1	36·69			
		70		36·68			
		80		36·67			
		90		36·67			
		100		36·66			
	11·00	120	2	36·64			
		150		36·63			
	12·00	180	3	36·62			
		210		36·61			
	13·00	240	4	36·60			
	14·00	300	5	36·58			

http://scans.bgs.ac.uk/sobi_scans/boreholes/56257/images/14438670.png 30/08/2012

SE20/30
39-6

FORM WR-39/4

National Rivers Authority
..... Region

PUMPING TEST DATA

CONTINUATION SHEET

CONSENT NO.	B779
Pumping test at	
NGR	SHEET 4 (RECOVERY)
Observations from	
NGR	

Description of datum point from which measurements were made (eg ground level, flange, dip tube/other):

Height above ground level (metres):

Date	Time	Elapsed time Hours	Elapsed time Days	Depth of water level below datum (metres)	Drawdown (metres)		Comments
24-11-94	15.00	6		36.55			
	16.00	7		36.59			
	17.00	8		36.57			
	18.00	9		36.57			
	19.00	10		36.56			
	20.00	11		36.57			
25-11-94	09.00			36.52			
	16.00			36.515			
26-11-94	10.15			36.49			
1-12-94	09.20			36.25			

Use continuation sheet (WR-39/4) if necessary

Forms/08