

Site Details:

NORTH PARCEL, WATER
LANE, ANGMERING

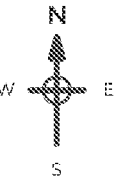
Client Ref: 17-S995-FDO-19495
Report Ref: HMD-154-4201093_LS_2_3
Grid Ref: 507862, 105741

Map Name: National Grid

Map date: 1995

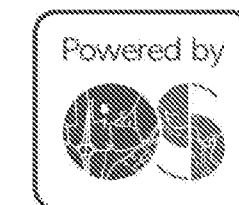
Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1995
Revised N/A
Edition N/A
Copyright 1995
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1995
Levelled N/A



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 22 August 2017

To view map legend click here [Legend](#)



Site Details:

NORTH PARCEL, WATER
LANE, ANGMERING

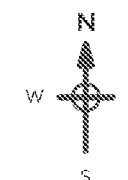
Client Ref: 17-S995-FDO-19495
Report Ref: HMD-154-4201093_LS_2_3
Grid Ref: 507862, 105741

Map Name: National Grid

Map date: 1995

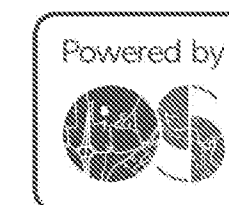
Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1995
Revised 1995
Edition N/A
Copyright 1995
Levelled N/A



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 22 August 2017

To view map legend click here [Legend](#)



Site Details:

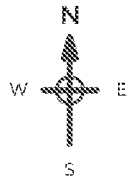
NORTH PARCEL, WATER LANE, ANGMERING

Client Ref:
Report Ref:
Grid Ref:

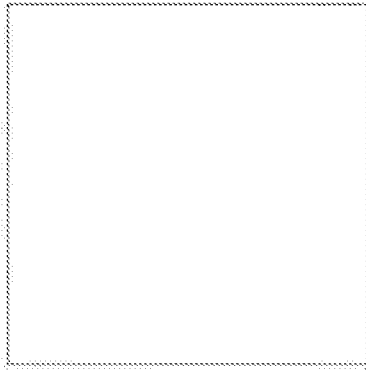
17-S995-FDO-19495
HMD-154-4201093
507550, 105116

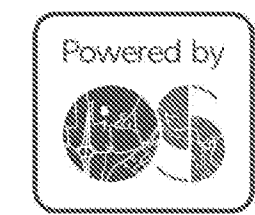
Map Name:
Map date:
Scale:
Printed at:

County Series
1876
1:10,560
1:10,560



Surveyed 1876
Revised 1876
Edition N/A
Copyright N/A
Levelled N/A



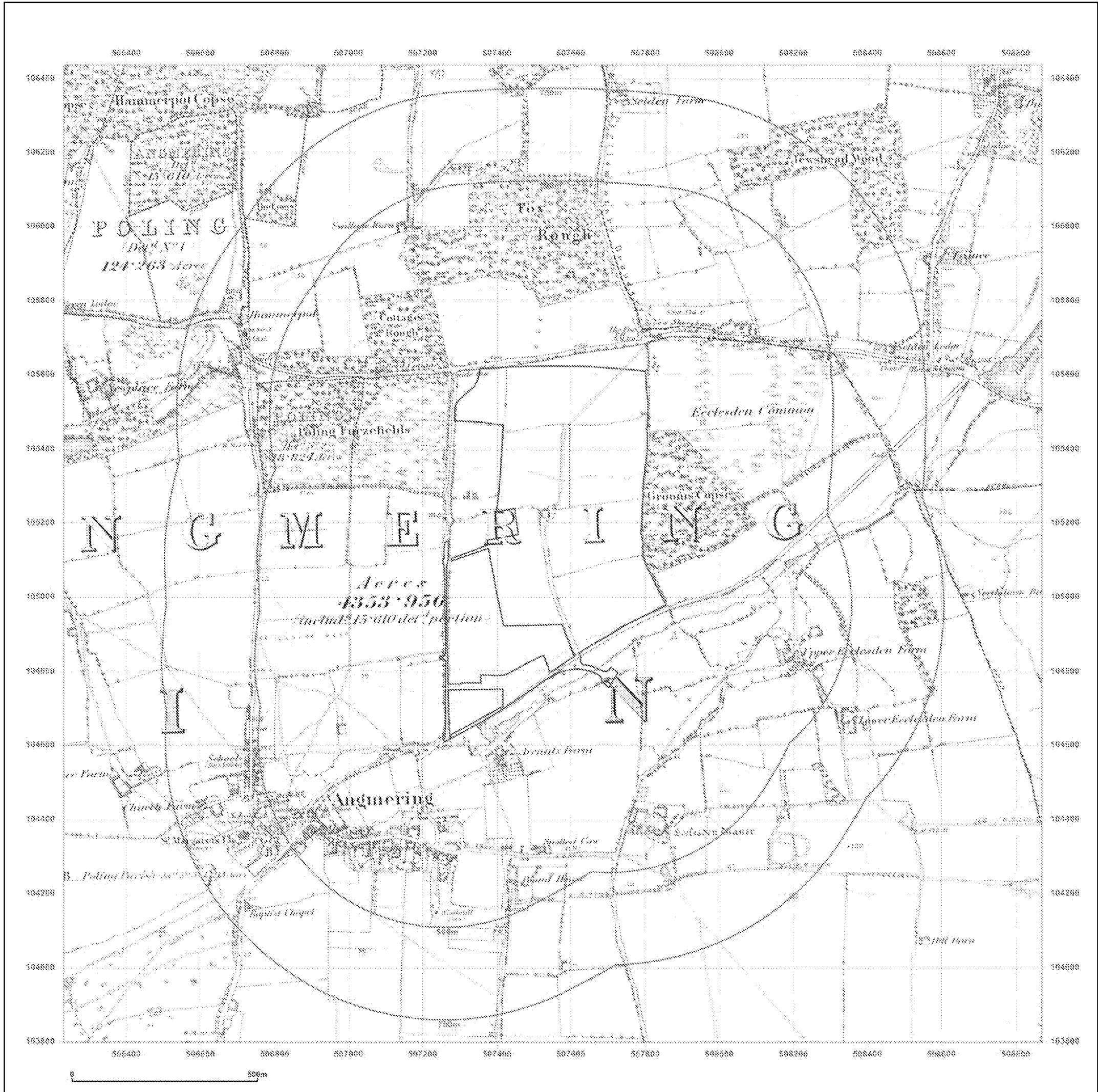


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 22 August 2017

To view map legend click here [Legend](#)

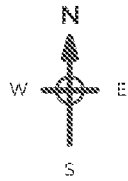


Site Details:

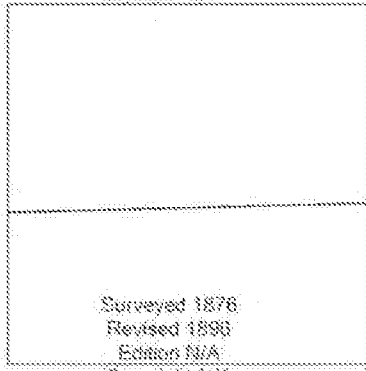
NORTH PARCEL, WATER
LANE, ANGMERING

Client Ref: 17-S995-FDO-19495
Report Ref: HMD-154-4201093
Grid Ref: 507550, 105116

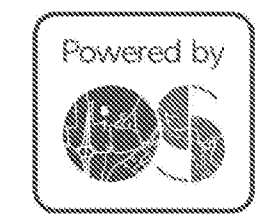
Map Name: County Series
Map date: 1896-1899
Scale: 1:10,560
Printed at: 1:10,560



Surveyed 1876
Revised 1899
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1876
Revised 1899
Edition N/A
Copyright N/A
Levelled N/A

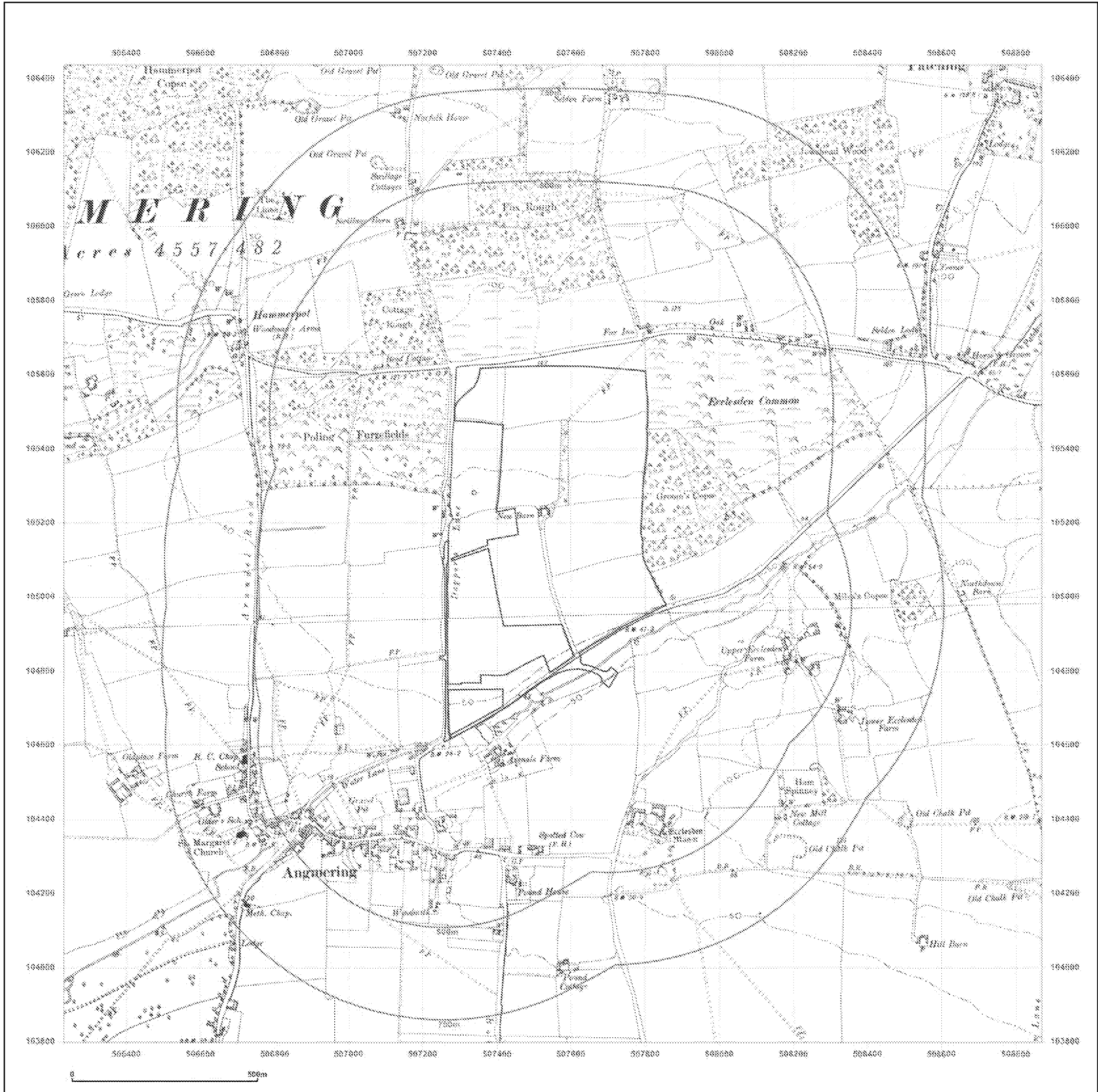


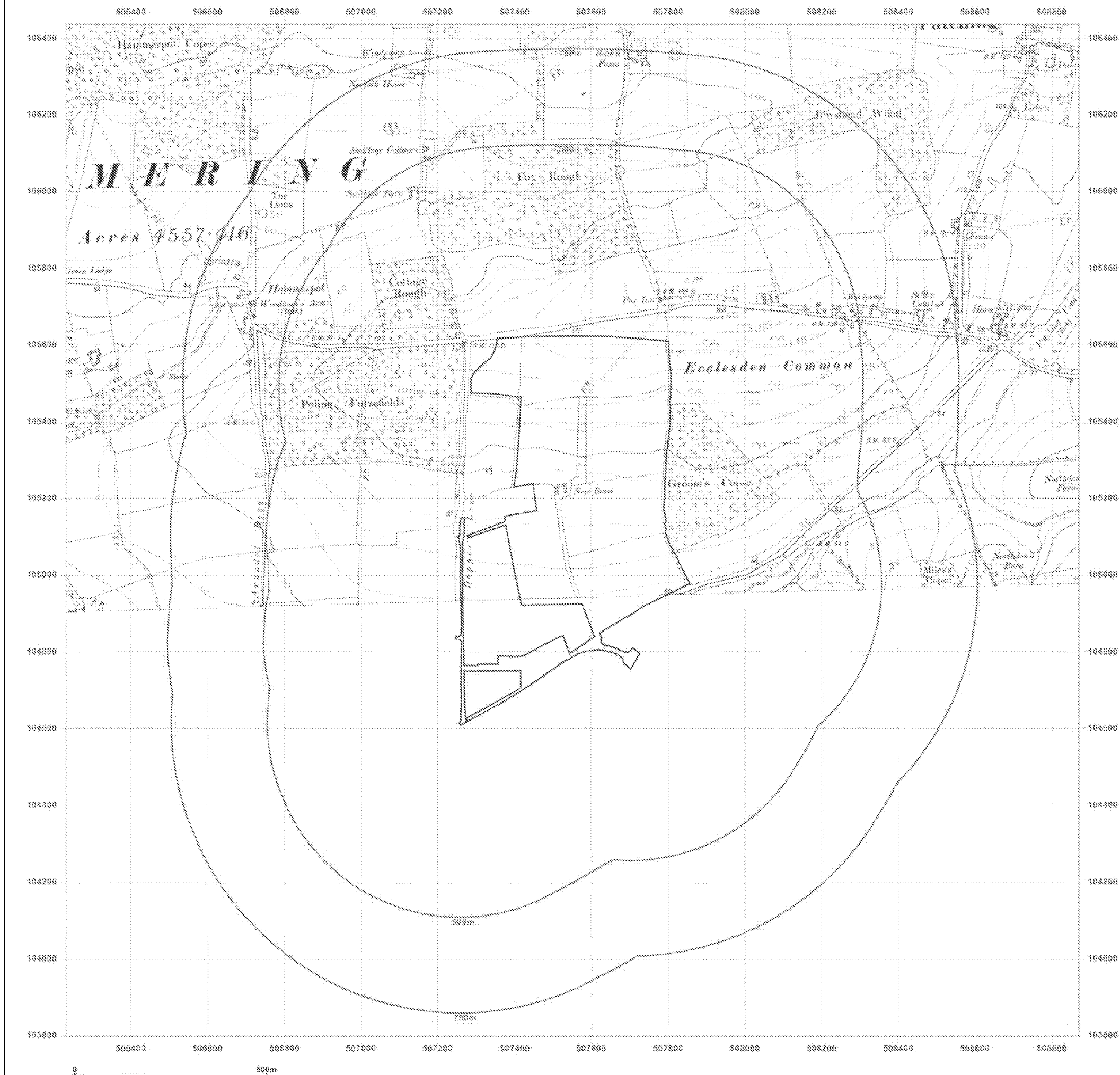
Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 22 August 2017

To view map legend click here [Legend](#)





Site Details:

NORTH PARCEL, WATER
LANE, ANGMERING

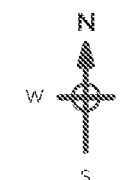
Client Ref: 17-S995-FDO-19495
Report Ref: HMD-154-4201093
Grid Ref: 507550, 105116

Map Name: County Series

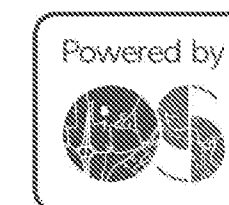
Map date: 1909

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1875
Revised 1909
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 22 August 2017

To view map legend click here [Legend](#)



Site Details:

NORTH PARCEL, WATER
LANE, ANGMERING

Client Ref: 17-S995-FDO-19495
Report Ref: HMD-154-4201093
Grid Ref: 507550, 105116

Map Name: County Series
Map date: 1909-1910
Scale: 1:10,560
Printed at: 1:10,560

Surveyed 1875
Revised 1909
Edition N/A
Copyright N/A
Levelled N/A

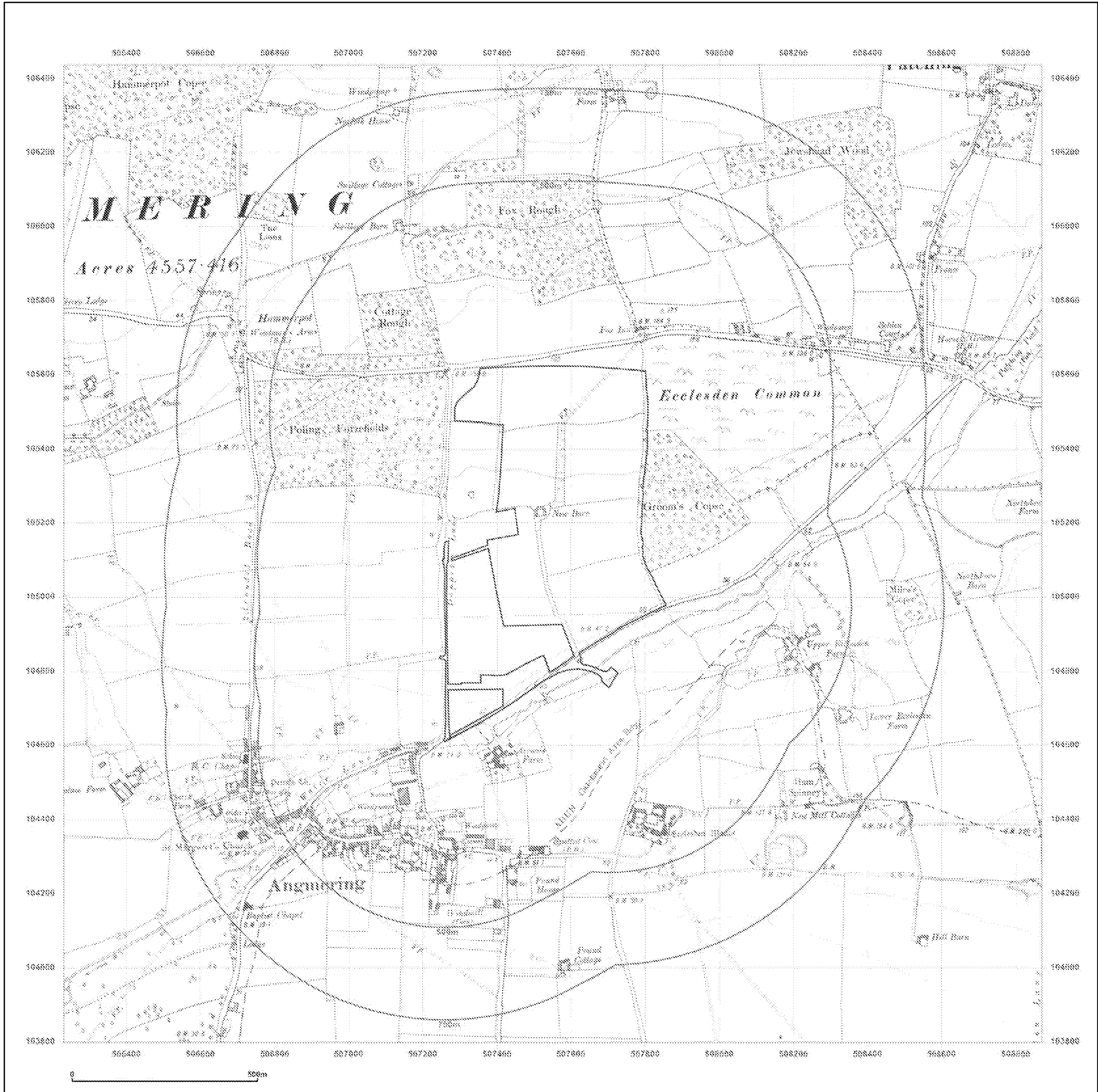
Surveyed 1875
Revised 1910
Edition N/A
Copyright N/A
Levelled N/A

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 22 August 2017

To view map legend click here [Legend](#)



Site Details:

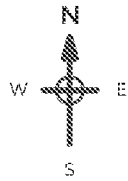
NORTH PARCEL, WATER LANE, ANGMERING

Client Ref:
Report Ref:
Grid Ref:

17-S995-FDO-19495
HMD-154-4201093
507550, 105116

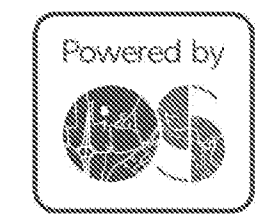
Map Name:
Map date:
Scale:
Printed at:

County Series
1938-1943
1:10,560
1:10,560



Surveyed 1875
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1875
Revised 1943
Edition N/A
Copyright N/A
Levelled N/A

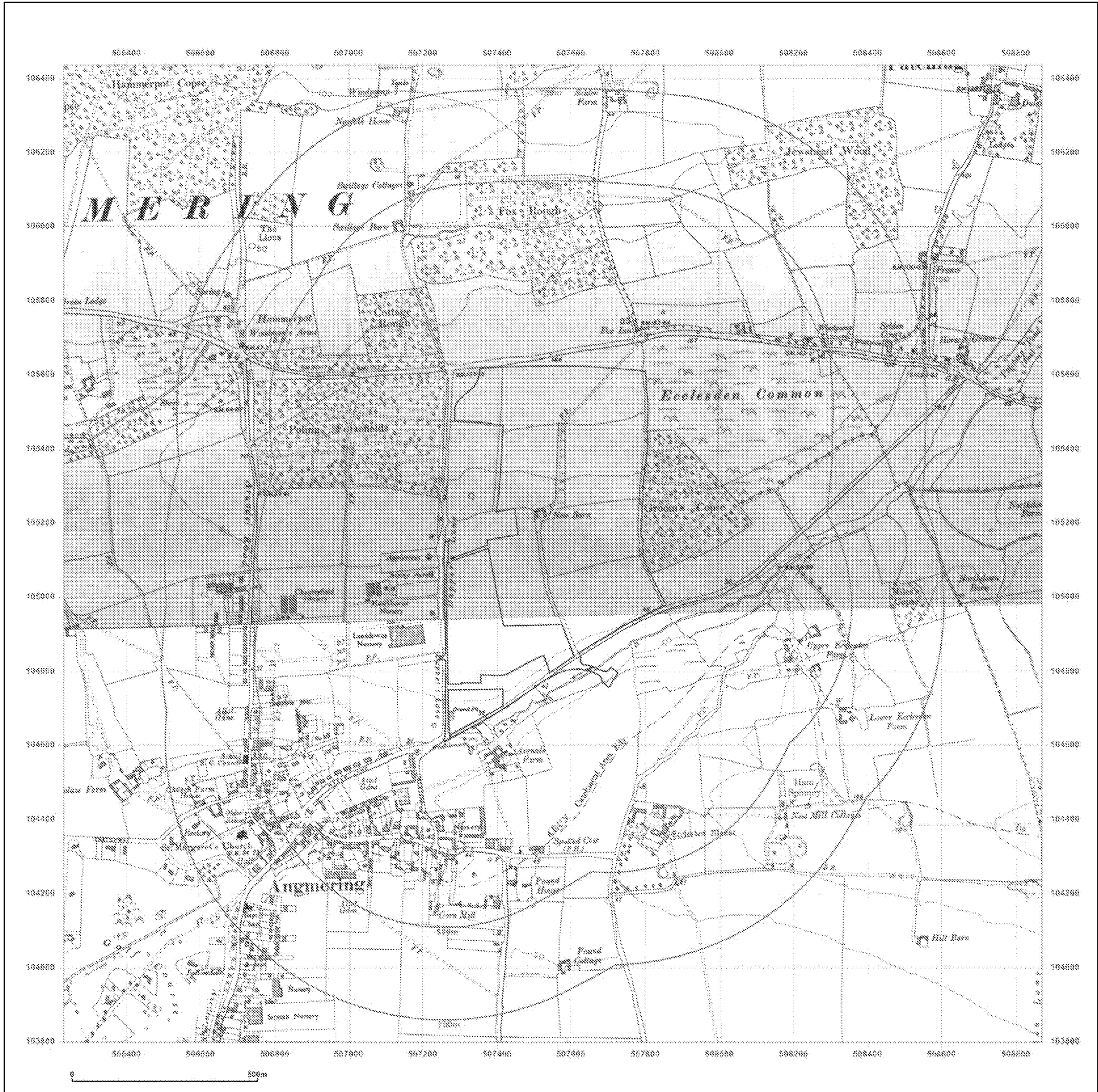


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 22 August 2017

To view map legend click here [Legend](#)



Site Details:

NORTH PARCEL, WATER
LANE, ANGMERING

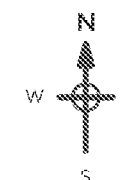
Client Ref: 17-S995-FDO-19495
Report Ref: HMD-154-4201093
Grid Ref: 507550, 105116

Map Name: Provisional

Map date: 1957

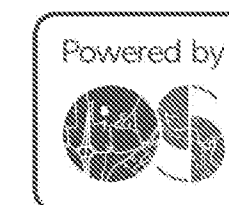
Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1957
Revised 1957
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1957
Revised 1957
Edition N/A
Copyright N/A
Levelled N/A

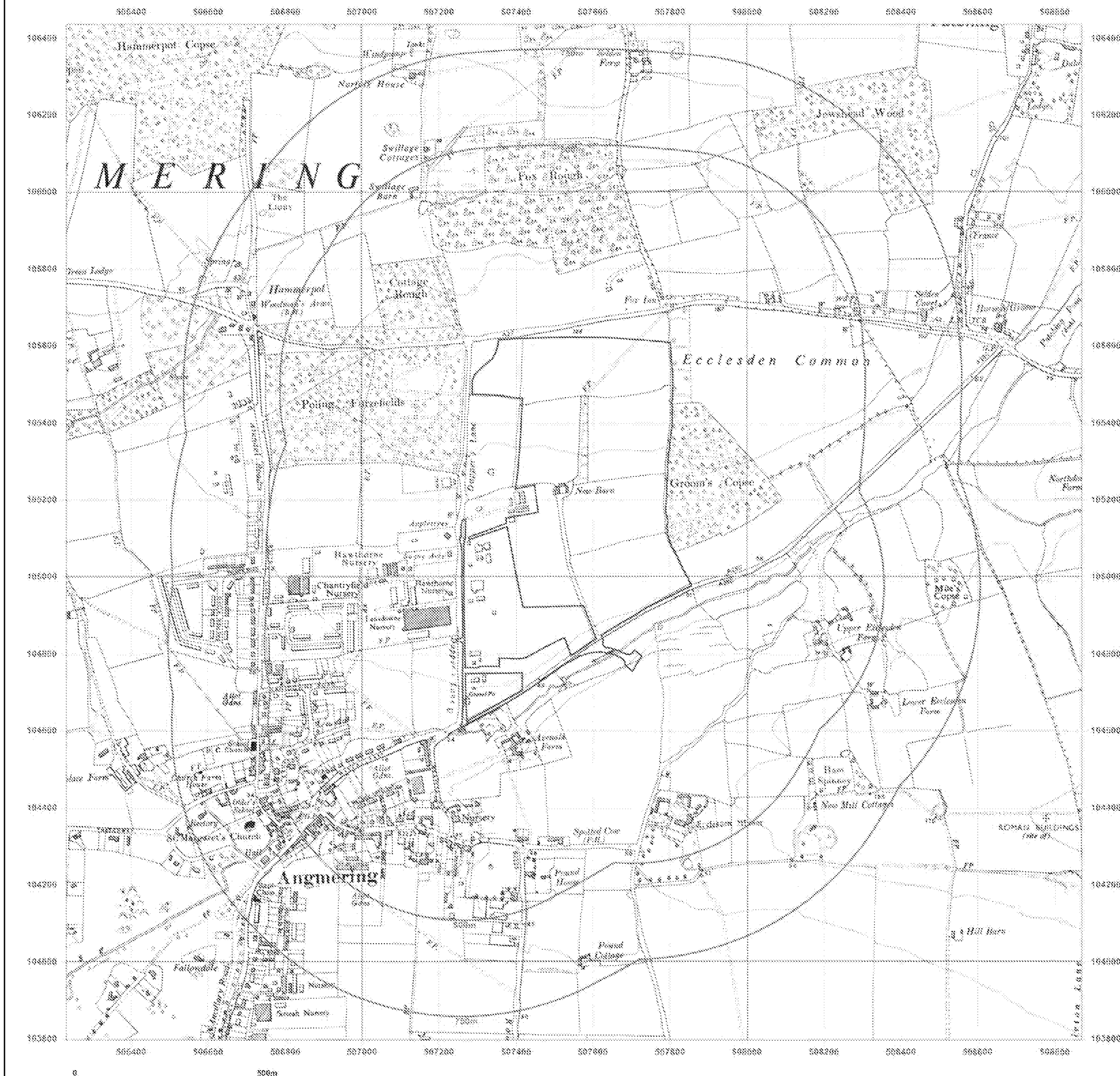


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 22 August 2017

To view map legend click here [Legend](#)

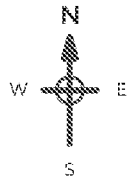


Site Details:

NORTH PARCEL, WATER LANE, ANGMERING

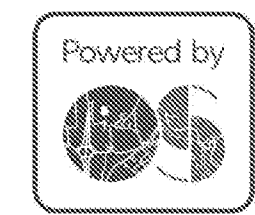
Client Ref: 17-S995-FDO-19495
Report Ref: HMD-154-4201093
Grid Ref: 507550, 105116

Map Name: National Grid
Map date: 1974-1976
Scale: 1:10,000
Printed at: 1:10,000



Surveyed 1972
Revised 1976
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1973
Revised 1974
Edition N/A
Copyright N/A
Levelled N/A

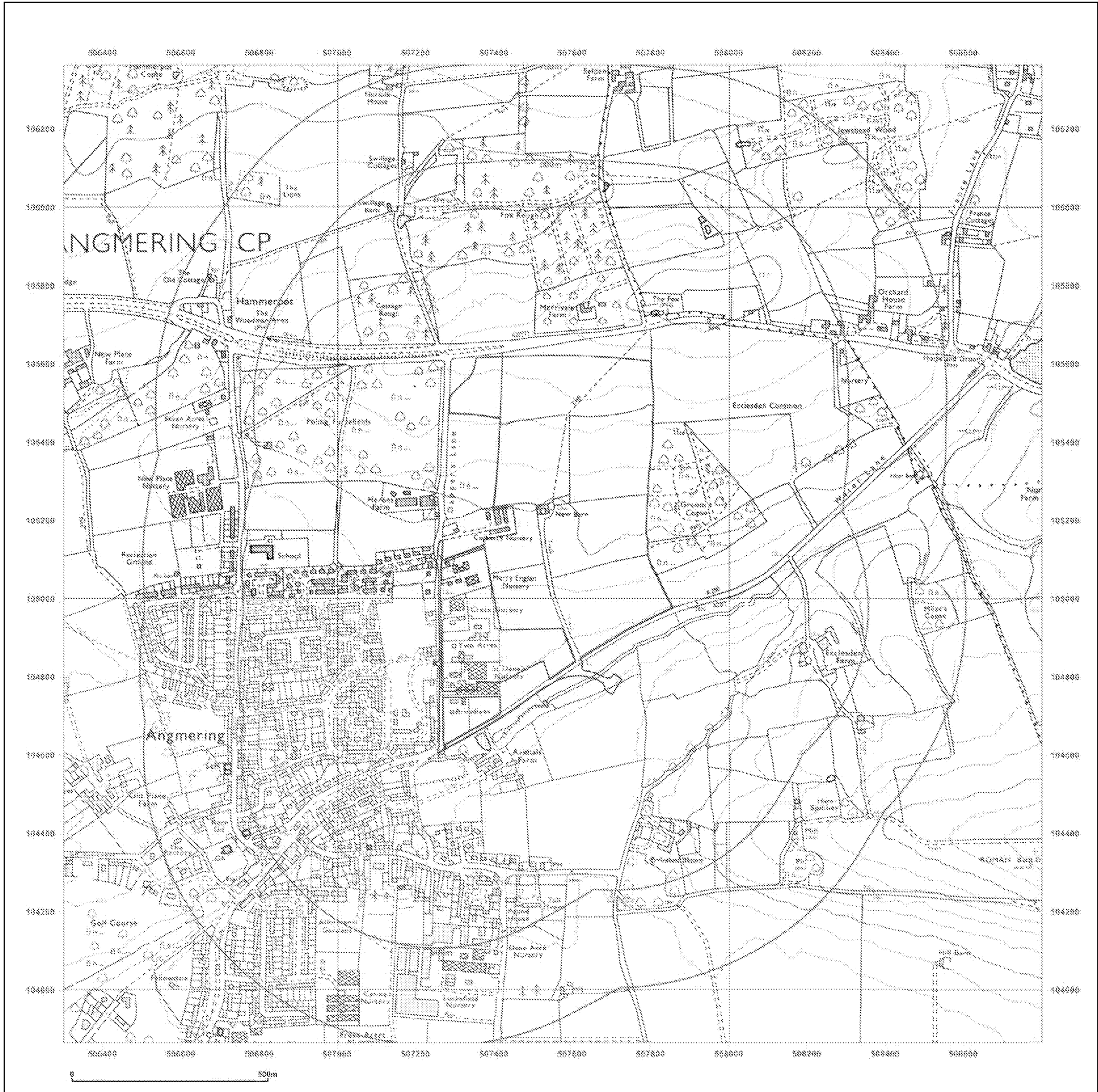


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 22 August 2017

To view map legend click here [Legend](#)



Site Details:

NORTH PARCEL, WATER
LANE, ANGMERING

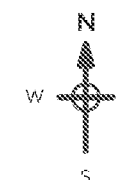
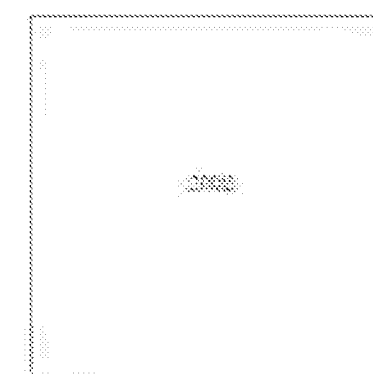
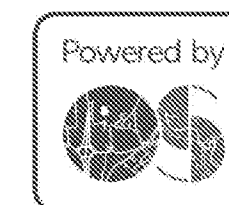
Client Ref: 17-S995-FDO-19495
Report Ref: HMD-154-4201093
Grid Ref: 507550, 105116

Map Name: 1:10,000 Raster

Map date: 2002

Scale: 1:10,000

Printed at: 1:10,000

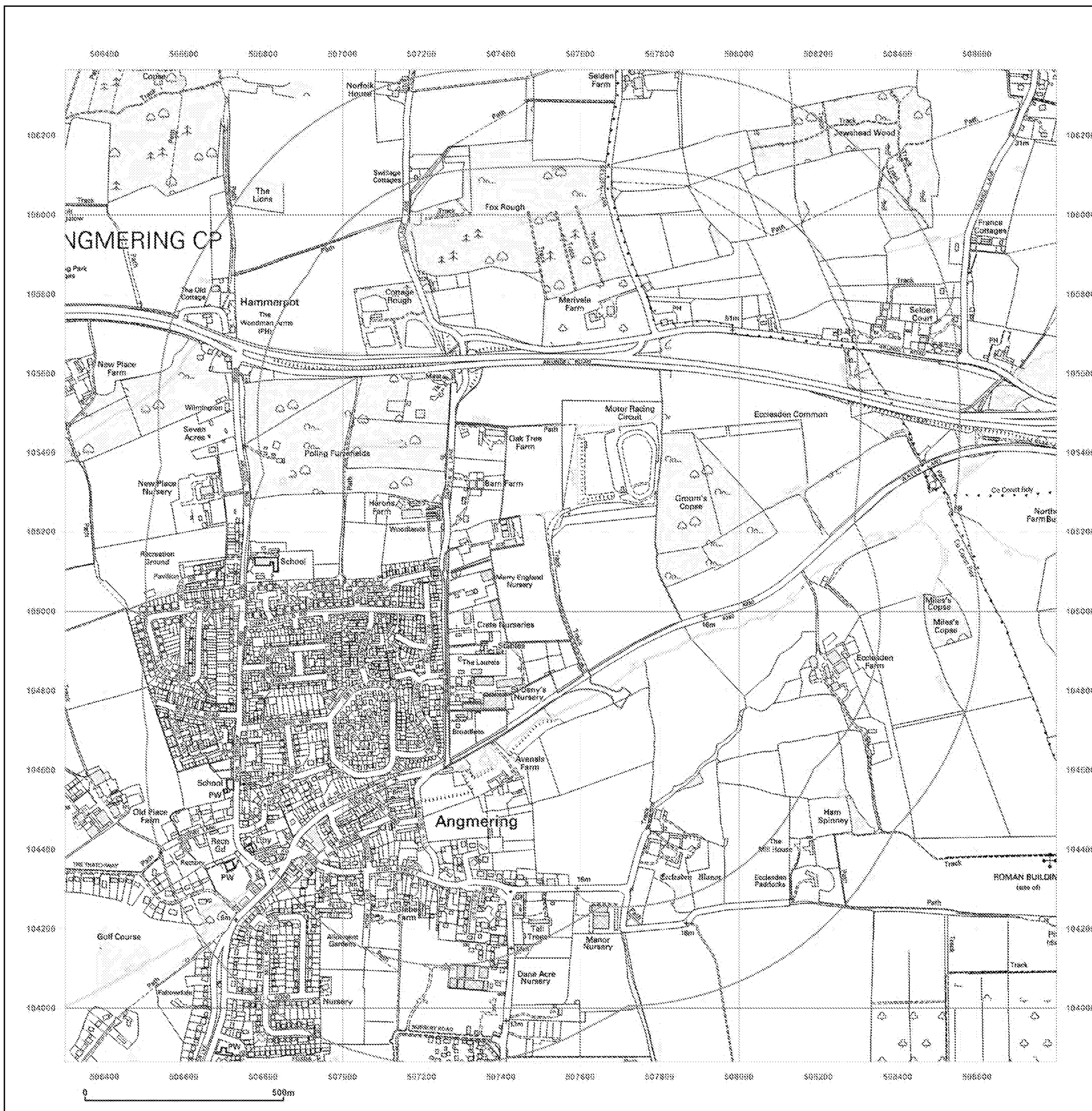


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 22 August 2017

To view map legend click here [Legend](#)



Site Details:

NORTH PARCEL, WATER
LANE, ANGMERING

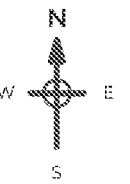
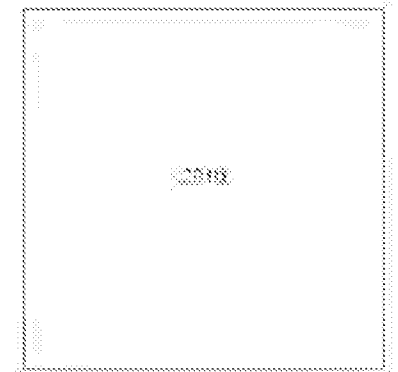
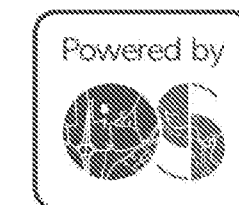
Client Ref: 17-S995-FDO-19495
Report Ref: HMD-154-4201093
Grid Ref: 507550, 105116

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 22 August 2017

To view map legend click here [Legend](#)





Groundsure

INSIGHTS

Site Details:

NORTH PARCEL, WATER
LANE, ANGMERING

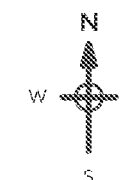
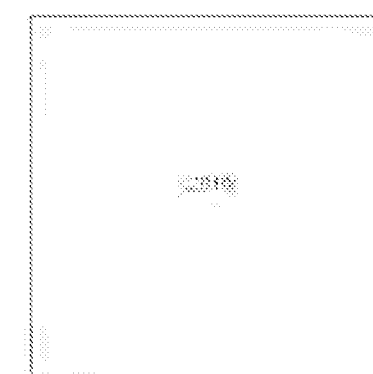
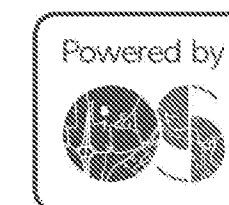
Client Ref: 17-S995-FDO-19495
Report Ref: HMD-154-4201093
Grid Ref: 507550, 105116

Map Name: National Grid

Map date: 2014

Scale: 1:10,000

Printed at: 1:10,000



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 22 August 2017

To view map legend click here [Legend](#)





APPENDIX 3

- Exploratory Hole Logs
- BGS Borehole Logs

Temporary Record

TQ 00NE/18

317/439

TQ 00

NE

SOUTH DOWNS INVESTIGATION

OBSERVATION BOREHOLES PHASE VI

0757

0757

SCHEDULE OF BOREHOLE RECORDSTAKEN FROM CONTRACTORS REPORTS

B.H. No. 81.

HAMMERPOT, NEW BARNSussex BS NE/ETQ 07570525

STRATA	THICKNESS (metres)	DEPTH BELOW GROUND LEVEL (metres)
Topsoil	0.2	0.2
Light brown & grey clay (some flints)	4.3	4.5
Blue clay	4.5	9.0
Grey clay	8.0	17.0
Dark grey, silty clay	5.0	22.0
Multi-coloured silty clay	4.5	26.5
Light brown sandy clay	7.0	33.5
Grey stone	0.5	34.0
Grey silty sand	2.0	36.0
Grey clay & stones	5.0	41.0
Grey silty sand	2.5	43.5
Hard black stoney clay (chillers describe this as coal)	3.0	46.5
Multi-coloured clays	5.0	51.5
Gravel clay & chalk	1.0	52.5
Soft chalk & flints	17.5	70.0
Chalk & flint beds	66.0	136.0
Hard putty chalk & flints with chalk seams	64.0	200.0
Date	Bank	



**British
Geological Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL

BGS ID: 569674 : BGS Reference: TQ00NE18

British National Grid (27700) : 507570,105250

Report an issue with this borehole

<<

< Prev

Page 2 of 2

Next >

>>

TQ 00 NE/18 F. SMITH & SON (GRIMSBY) LTD. S. 6554

Cheapside Works

Waltham Grimsby

Contract No. 16

317/439

CLIENT : SOUTHERN WATER AUTHORITY

BOREHOLE : N° 81

CONSULTANT :

TYPE OF BORING: CABLE

SITE : WATER LANE - HAMMERPOLE - NEWBARN

LINING TUBES :

TQ 00 NE/18 ANGMERING

Survey 63 NE/6

Commenced : 26th APRIL 1976

Completed : 2nd JULY 1976

Strata	thickness	depth	legend	Casing detail
--------	-----------	-------	--------	---------------

TOP SOIL

0200

0200

LIGHT BROWN & GREY CLAY

4300

4500

BLUE CLAY

4500

9000

GREY CLAY

8000

17000

DARK GREY SILTY CLAY

5000

22000

MULTICOLOURED SILTY CLAY

4500

26500

LIGHT BROWN SANDY CLAY

7000

33500

GREY STONE

0500

34000

GREY SILTY SAND

2000

36000

GREY CLAY & STONES

5000

41000

GREY SILTY SAND

2500

43500

HARD BLACK STONEY CLAY (COAL)

3000

46500

MULTICOLOURED CLAYS

5000

51500

GRAVEL CLAY & CHALK

WATER

1000

52500

SOFT CHALK & FLINTS

WATER

17500

70000

CHALK & FLINT BEDS

WATER

66000

200mm tube
59m plain
11m slotted
45x10x300mm
slots

Tube @ 150mm AGL

SLOTTED

TOP SOIL

LONDON
CLAY

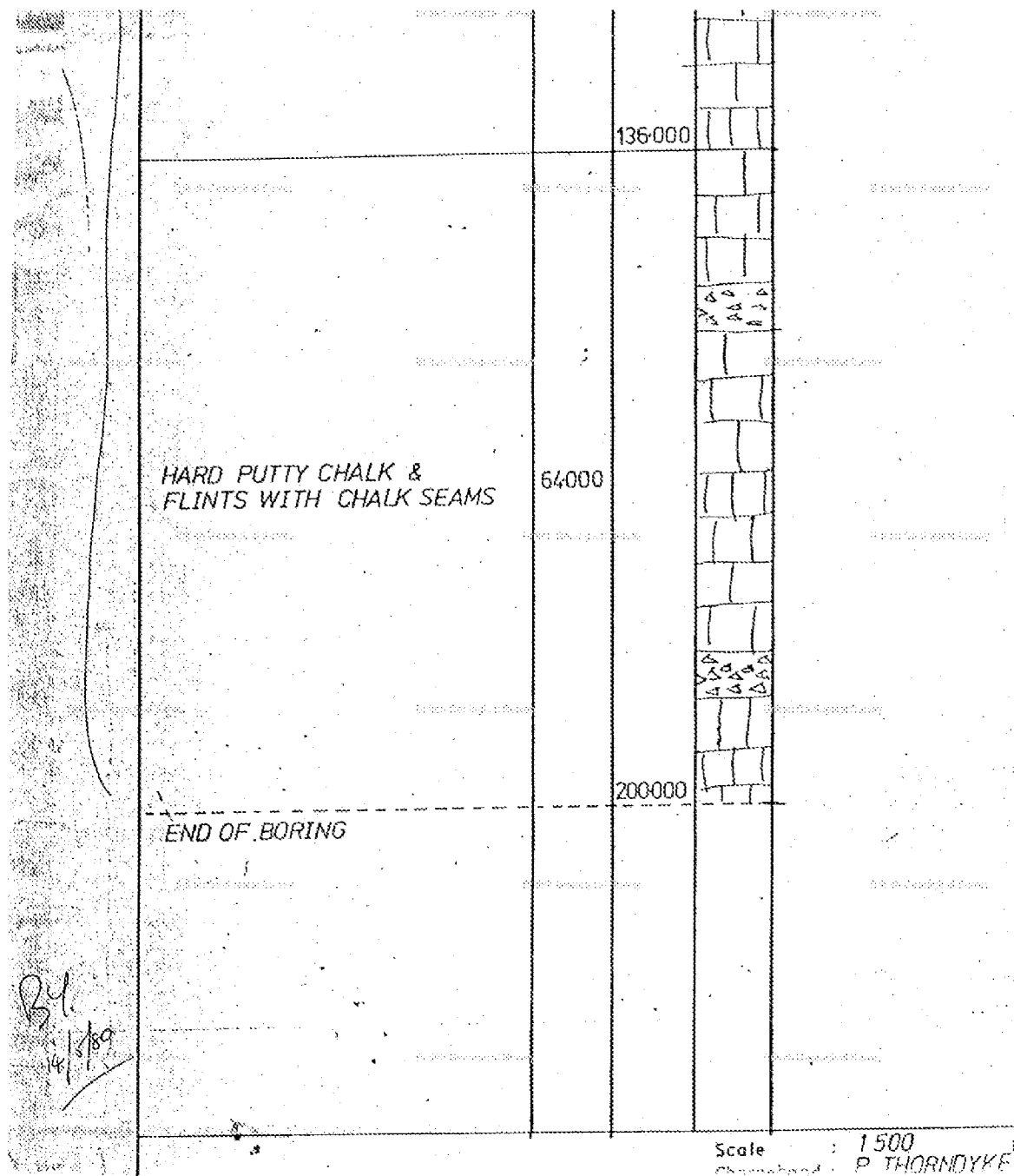
WOLVERHAMPTON
&
READING
BEDS

UPPER
CHALK

200mm tube
59m plain
11m slotted
45x10x300mm
slots

Tube @ 150mm AGL

SLOTTED

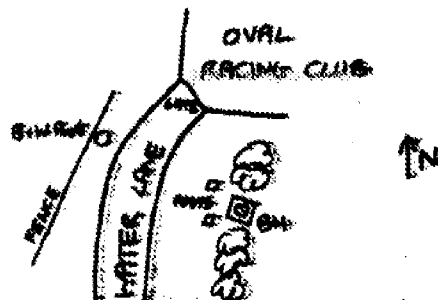


British Geological Survey
Hydrogeology Group
Logging Record

BGS Registration Number : TW00NE - 63
 Archive Record Number : TQ 00/143
 Borehole Name : Water Lane - Hammerpot New Barn, Angmering
 National Grid Reference : TQ 0754 0520
 Date Drilled : 26/04/76 - 02/07/76
 Date Visited : 04/08/94 and 15/08/94
 Datum Used : GL
 OD Elevation (GL) : 27.20m
 Drilled Diameter : 200mm (8")
 Total Depth (bGL) : 198.13m
 Water Level (bGL) : 24.94m @ 1045 and @ 1617
 Total Casing Depth (bGL) : 70.2m
 Logs Run : Conductivity
 Temperature
 Spontaneous Potential
 Point Resistance
 Caliper
 Natural Gamma
 Focussed Resistance
 Magnetic Susceptibility
 Inductance
 Operator : J C Talbot

Notes : BH has 8" casing 0.29m above GL on concrete plinth

Site Plan :



Signature and Date :

J C Talbot 9/9/94

British Geological Survey

British Geological Survey

British Geological Survey

RECORD OF BOREHOLE

amended ngr
See enclosed
info. site visited
1994.

F. SMITH & SON (GRIMSBY) LTD. S. 6554

Cheapside Works

Waltham Grimsby

Contract No

317/43

CLIENT : SOUTHERN WATER AUTHORITY

BOREHOLE : No 81

CONSULTANT :

TYPE OF BORING: CABLE

SITE : 0520
WATER LANE - HAMMERPOOT - NEWBARN

LINING TUBES :

* TQ 0754
0757 0525 ANGMERING

Surrey 63 NE/E

TQ 0014

Commenced : 26th APRIL 1976Completed : 2nd JULY 1976

	Strata	thickness	depth	legend	Casing detail
TOP SOIL		0200	0200		
LIGHT BROWN & GREY CLAY		4300	4500		
BLUE CLAY		4500	9000		
GREY CLAY		8000	17000		
DARK GREY SILTY CLAY		5000	22000		
MULTICOLOURED SILTY CLAY		4500	26500		
LIGHT BROWN SANDY CLAY		7000	33500		
GREY STONE		0500	34000		
GREY SILTY SAND		2000	36000		
GREY CLAY & STONES		5000	41000		
GREY SILTY SAND		2500	43500		
HARD BLACK STONEY CLAY (COAL)		3000	46500		
MULTICOLOURED CLAYS		5000	51500		
GRAVEL CLAY & CHALK WATER		1000	52500		
SOFT CHALK & FLINTS . WATER		17500	70000		

200mm tub
59m plain
11m slots
45x10x30l
slots

Tube @ 150m

SLOTTED

OBSERVATION WELLS: WELL DATA SHEET

British Geological Survey

British Geological Survey

British Geological Survey

WDU Ref No T9 00

IGS Ref No

LOCATION

Site Hammerpot New BarnHydrometric area 44NGR T9 875 765 25
0754 0520

WELL DETAILS

Depth

Diameter

Length of solid lining

.....(feet)(inches)
200.00(metres)(cms)(m)

Measuring point

OD of surface 26.91 modOD of measuring point 27-30 mod

Geological succession

Aquifers Chalk

MEASUREMENT

Automatic recorder:

type

operated

gauge scale

Time traverse

inches per

Manual measurements: frequency

Monthly

Measuring authority

SWA SR + WD

Record charts changed by

REMARKS

Records available from

Interference effects:

from adjacent discharging wells; barometric; river influence;
tidal; miscellaneous; (add details on accompanying sheet)

Disused or used (.....hours pumped per) Sunk as observation well

Surface run-off gauging stations

Nearest rainfall station

Rdg 37656/1/3236 1m 2/78 TP

TQ00/143

British Geological Survey

British Geological Survey

British Geological Survey

**British Geological Survey
Hydrogeology Group
Logging Record**

BGS Registration Number :

Archive Record Number :

TQ 00/143

Borehole Name :

Water Lane - Hammerpot New Barn, Angmering

National Grid Reference :

TQ 0754 0520

Date Drilled :

26/04/76 - 02/07/76

Date Visited :

04/08/94 and 15/08/94

Datum Used :

GL

OD Elevation (GL) :

27.20m

Drilled Diameter :

200mm (8")

Total Depth (bGL) :

198.13m

Water Level (bGL) :

24.94m @ 1045 and @ 1617

Total Casing Depth (bGL) :

70.2m

Logs Run :

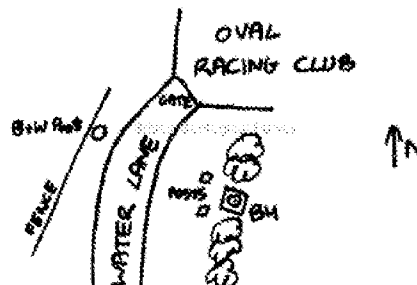
Conductivity
Temperature
Spontaneous Potential
Point Resistance
Caliper
Natural Gamma
Focussed Resistance
Magnetic Susceptibility
Inductance

Operator :

J C Talbot

Notes : BH has 8" casing 0.29m above GL on concrete plinth

Site Plan :



Signature and Date :

J C Talbot 9/9/94

317/439

T 000/11

The rest water level was 27.0 metres below ground level. The hole is cased with 200mm diameter solid steel casing to 58m below surface, and with 200mm diameter slotted steel casing from 58m to 69m below surface.

Water was struck at 52.5m, 70m and 136m below surface.

Levelled surface datum = 27.20 metres above Ordnance Datum.

Days

Bank

Temporary Record

317/439

SOUTH DOWNS INVESTIGATION TQ 00/14
OBSERVATION BOREHOLES PHASE VI

SCHEDULE OF BOREHOLE RECORDS
TAKEN FROM CONTRACTORS REPORTS

B.H. No. 81HAMMERPOT, NEW BARNSussex b3 NE/ETQ 075705250754 0520

STRATA	THICKNESS (metres)	DEPTH BELOW GROUND LEVEL (metres)
Topsoil	0.2	0.2
Light brown & grey clay (some flints)	4.3	4.5
Blue Clay	4.5	9.0
Grey clay	8.0	17.0
Dark grey, silty clay	5.0	22.0
Multi-coloured silty clay	4.5	26.5
Light brown sandy clay	7.0	33.5
Grey stone	0.5	34.0
Grey silty sand	2.0	36.0
Grey clay & stones	5.0	41.0
Grey silty sand	2.5	43.5
Hard black stoney clay	3.0	46.5
(differ describe this as coal)		
Multi-coloured clays	5.0	51.5
Gravel clay & chalk	1.0	52.5
Soft chalk & flints	17.5	70.0
Chalk & flint beds	66.0	136.0
Hard putty chalk & flints with chalk seams	64.0	200.0
Date	Bank	

317/439

The next water level was 27.0m. below ground level.

The hole is cased with 200mm diameter steel case to 58m below surface, and with 200mm diameter slotted steel casing from 58m to 69m below surface.

Water was struck at 52.5m, 70m and 136m b.s.

Levelled surface datum = 27.20m. AOD.



Project Name

Water Lane

Project No.

19495

Dimensions (m):

2.30

Date

02/09/2015

Location: Angmering

Depth (m)

3.20

0.60



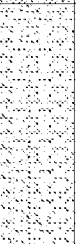
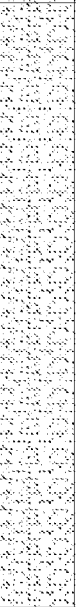
Scale

1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

Logged By

Troy Randall

Samples & In Situ Testing			Water Strike	Depth in metres (thickness)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.30	D,J			(0.40)		Grass over dry and friable to very soft brown mottled orange slightly sandy slightly gravelly CLAY with rootlets. Sand is fine to coarse. Gravel is angular to well rounded fine to coarse flint. (TOPSOIL)	
				0.40			
				(0.80)		Very soft to soft orange sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular to subrounded fine to medium flint. (HEAD DEPOSITS) Between 0.60mbgl and 1.20mbgl: firm clay.	1
1.00	D,J			1.20			
				(2.00)		Soft , becoming firm grey mottled orange sandy very gravelly CLAY with high cobble content. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse flint. Cobbles of angular flint. (HEAD DEPOSITS)	2
2.50	B			3.20			3
						Trialpit Complete at 3.20 m	4

Remarks: Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool. Upon completion the location was backfilled with arisings.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample


Project Name

Water Lane

Project No.

19495

Dimensions (m):

2.20

Date

02/09/2015

Location: Angmering

Depth (m)

2.50

0.60

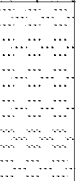
Scale

1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

Logged By

Troy Randall

Samples & In Situ Testing			Water Strike	Depth in metres (thickness)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.20	D,J			(0.50)		Grass over dry and friable slightly sandy slightly gravelly CLAY with rootlets. Sand is fine. Gravel is subangular to subrounded fine to medium flint. (TOPSOIL)	
0.70	D,J			(0.40)		Firm to stiff orange mottled grey sandy very gravelly CLAY with cobble content. Sand is fine to coarse. Gravel is angular to well rounded fine to coarse flint. Cobbles of angular to very angular flint. (HEAD DEPOSITS)	
1.20	B			(0.60)		Stiff grey mottled orange CLAY. (LONDON CLAY FORMATION)	1
				1.50		Trialpit Complete at 2.50 m	
							2
							3
							4

Remarks: Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool. Upon completion the location was backfilled with arisings.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

Project Name

Water Lane

19495

Location: Angmering

Dimensions (m):

2.20

Depth (m)

3.00

0.70

Date

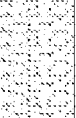
02/09/2015

Scale

1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

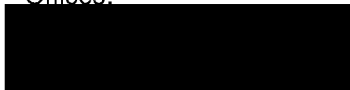
Logged By
Troy Randall

Samples & In Situ Testing			Water Strike	Depth in metres (thickness)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.10	D,J			(0.40)		Grass over dry and friable slightly sandy slightly gravelly CLAY with rootlets. Sand is fine. Gravel is subangular to subrounded fine to medium flint. (TOPSOIL)	
				0.40		Soft to firm orange mottled grey sandy very gravelly CLAY with cobble content. Sand is fine to coarse. Gravel is very angular to subrounded fine to coarse flint. Cobbles are very angular to angular flint. (HEAD DEPOSITS)	
				(1.40)			1
1.50	D,J			1.80			
				(1.20)		Firm grey mottled orange very sandy CLAY. Sand is fine to coarse. (LONDON CLAY FORMATION)	2
3.00	B			3.00			3
Trialpit Complete at 3.00 m							
							4

Remarks: Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool. Upon completion the location was backfilled with arisings.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample


Project Name

Water Lane

Project No.

19495

Dimensions (m):

2.10

Date

02/09/2015

Location: Angmering

Depth (m)

2.10

0.60

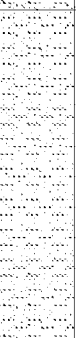
Scale

1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

Logged By

Troy Randall

Samples & In Situ Testing			Water Strike	Depth in metres (thickness)	Legend	Stratum Description	
Depth (m)	Type	Results					
1.00	D,J			(0.60)		Grass over dry and friable slightly sandy slightly gravelly CLAY with rootlets. Sand is fine. Gravel is subangular to subrounded fine to medium flint. (TOPSOIL)	1
				0.60 (0.40)		Soft grey fissured orange sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular to well rounded fine to medium flint. (HEAD DEPOSITS)	
				1.00 (1.10)		Firm to stiff grey and orange sandy fissured CLAY. Sand is fine to coarse. (LONDON CLAY FORMATION)	
2.00	D,J			2.10		Trialpit Complete at 2.10 m	2
							3
							4

Remarks: Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool. Upon completion the location was backfilled with arisings.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample


Project Name

Water Lane

Project No.

19495

Dimensions (m):

2.30

Date

02/09/2015

Location: Angmering

Depth (m)

2.80

0.70

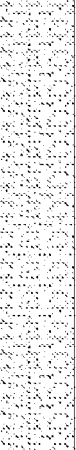

Scale

1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

Logged By

Troy Randall

Samples & In Situ Testing			Water Strike	Depth in metres (thickness)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.50	D,J			(0.70)		Crops over dry and friable to soft dark brown gravelly CLAY with rootlets. Gravel is subangular to subrounded fine to coarse flint and occasional chalk. (TOPSOIL)	
				0.70			
				(1.50)		Soft very gravelly orangish brown slightly sandy very gravelly CLAY with cobble content. Sand is fine to coarse. Gravel is angular to very angular fine to coarse flint. Cobbles of very angular flint. (HEAD DEPOSITS)	1
1.80	D,J						
				2.20			2
				(0.60)		Firm to stiff greyish brown slightly sandy CLAY. Sand is fine to coarse. (LONDON CLAY FORMATION)	
2.50	B						
				2.80			
Trialpit Complete at 2.80 m							3
							4

Remarks: Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool. Upon completion the location was backfilled with arisings.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample



Trialpit No

Sheet 1 of 1

Date _____

02/09/2015

1:25

Logged By
Troy Randall

Trialpit Complete at 2.40 m

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample


Project Name

Water Lane

Project No.

19495

Dimensions (m):

2.40

Date

02/09/2015

Location: Angmering

Depth (m)

2.80

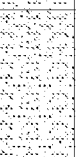
0.70


Scale

1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

Logged By
Troy Randall

Samples & In Situ Testing			Water Strike	Depth in metres (thickness)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.20	D,J			(0.30)		Grass over very soft and friable dark brown slightly gravelly CLAY with rootlets. Gravel is angular to well rounded fine to medium flint. (TOPSOIL)	
				0.30		Firm to stiff grey mottled orange slightly sandy CLAY. Sand is fine to coarse. (HEAD DEPOSITS)	
0.90	D,J			(1.00)		Below 0.80mbgl: orange.	1
				1.30			
				(1.50)			2
				2.80			
						Trialpit Complete at 2.80 m	3
							4

Remarks: Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool. Upon completion the location was backfilled with arisings.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample


Project Name

Water Lane

Project No.

19495

Dimensions (m):

2.20

Date

02/09/2015

Location: Angmering

Depth (m)

2.90

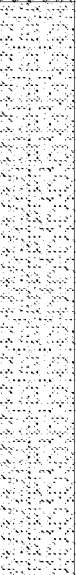
0.70


Scale

1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

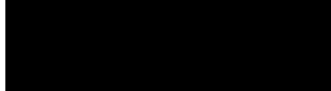
Logged By
Troy Randall

Samples & In Situ Testing			Water Strike	Depth in metres (thickness)	Legend	Stratum Description	
Depth (m)	Type	Results					
1.00	D,J			(0.40)		Grass over very soft and friable dark brown slightly gravelly CLAY with rootlets. Gravel is angular to well rounded fine to medium flint and brick. (MADE GROUND)	1
				0.40		Soft to firm greyish brown slightly sandy slightly gravelly CLAY. Sand is fine to medium. Gravel is angular to subrounded fine to coarse flint. (HEAD DEPOSITS)	
2.00	D,J			(1.90)		Below 1.50mbgl: orange.	2
				2.30			
2.70	B			(0.60)		Firm grey slightly sandy CLAY. Sand is fine to coarse. (LONDON CLAY FORMATION)	3
				2.90		Trialpit Complete at 2.90 m	
							4

Remarks: Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool. Upon completion the location was backfilled with arisings.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample



Project Name

Water Lane

Project No.

19495

Dimensions (m):

2.40

Depth (m)

3.00

0.70



Date

02/09/2015

Scale

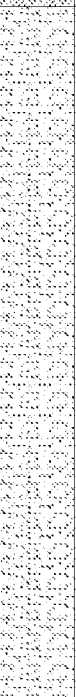
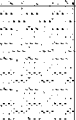
1:25

Client:

Rydon Homes Ltd & Gleeson Strategic Land

Logged By

Troy Randall

Samples & In Situ Testing			Water Strike	Depth in metres (thickness)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.20	D,J			(0.30)		Grass over very soft and friable dark brown slightly gravelly CLAY with rootlets. Gravel is angular to well rounded fine to medium flint. (TOPSOIL)	
				0.30		Soft to firm orange mottled grey sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular to very angular fine to medium flint. (HEAD DEPOSITS)	
				(2.30)			1
						Between 2.00mbgl and 2.40mbgl: gravelly and cobble content.	2
2.80	D,J			2.60		Soft to firm grey mottled orange slightly sandy CLAY. Sand is fine to coarse. (LONDON CLAY FORMATION)	
				(0.40)			
				3.00			3
						Trialpit Complete at 3.00 m	
							4

Remarks: Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool. Upon completion the location was backfilled with arisings.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample



Offices:



Plant:

Co-ords:

Trialpit No

MTP112

Sheet 1 of 1

Project Name

Water Lane

Project No.

19495

Dimensions (m):

2.20

Depth (m)

3.00

0.70



Date

03/09/2015

Scale

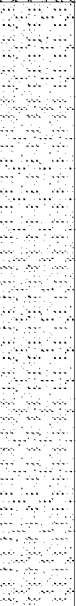
1:25

Client:

Rydon Homes Ltd & Gleeson Strategic Land

Logged By

Troy Randall

Samples & In Situ Testing			Water Strike	Depth in metres (thickness)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.50	D,J			(1.00)		Black clayey slightly sandy GRAVEL with cobble content. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse flint, brick, concrete, chalk, asphalt and plastic. Cobbles of angular brick and concrete. (MADE GROUND) Between 0.00mbgl and 1.00mbgl: slight hydrocarbon odour.	
1.20	D,J			1.00		Soft to firm brownish orange mottled grey sandy CLAY. Sand is fine to coarse. (LONDON CLAY FORMATION)	1
				(2.00)			2
3.00	B			3.00			3
							4

Remarks: Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool. Upon completion the location was backfilled with arisings.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

Project Name

Water Lane

Project No.

19495

Dimensions (m):

2.50

Date

03/09/2015

Location: Angmering

Depth (m)

3.30

0.80

Scale

1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

Logged By
Troy Randall

Samples & In Situ Testing			Water Strike	Depth in metres (thickness)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.40	D,J			(0.50)		Grass over dry and friable brown slightly sandy gravelly CLAY with cobble and boulder content. Sand is fine to medium. Gravel is subangular to very angular fine to coarse flint, brick, concrete, asphalt, chalk and rebar. Cobbles and boulders of subangular to angular concrete and brick. (MADE GROUND)	
				0.50		Dry and friable to very soft dark brown sandy gravelly CLAY with cobble and boulder content. Sand is fine to coarse. Gravel is angular to very angular fine to coarse flint, brick, concrete, chalk, wood and rebar. Cobbles and boulders of angular brick and concrete. (MADE GROUND)	1
				(2.80)		Below 1.50mbgl: black. Between 1.50mbgl and 3.30mbgl: slight hydrocarbon odour.	2
3.30	D,J			3.30		Trialpit Complete at 3.30 m	3
							4

Remarks: Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool. Upon completion the location was backfilled with arisings.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample



Plant:

Co-ords: -

Trialpit No

MTP114

Sheet 1 of 1

Project Name

Water Lane

Project No.

19495

Dimensions (m):

2.10

Depth (m)

2.40

0.70



Date

03/09/2015

Scale

1:25

Client:

Rydon Homes Ltd & Gleeson Strategic Land

Logged By

Troy Randall

Samples & In Situ Testing			Water Strike	Depth in metres (thickness)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.30	D,J			(0.40) 0.40		Grass over soft brown slightly gravelly CLAY with rootlets. Gravel is angular to well rounded fine to coarse flint. (TOPSOIL)	
1.00	D,J			(2.00) 2.40		Firm orange mottled grey slightly sandy CLAY. Sand is fine to medium. (LONDON CLAY FORMATION)	1 2 3 4
						Trialpit Complete at 2.40 m	

Remarks: Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool. Upon completion the location was backfilled with arisings.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample



Offices:



Plant:

Co-ords:

Trialpit No

MTP115

Sheet 1 of 1

Project Name

Water Lane

Project No.

19495

Dimensions (m):

2.10

Location: Angmering

Depth (m)

2.30

0.70



Date

03/09/2015

Scale

1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

Logged By

Troy Randall

Samples & In Situ Testing			Water Strike	Depth in metres (thickness)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.10	D,J			(0.30)		Grass over soft brown slightly gravelly CLAY with rootlets. Gravel is angular to well rounded fine to coarse flint. (TOPSOIL)	
				0.30		Firm orange mottled grey slightly sandy CLAY. Sand is fine to medium. (LONDON CLAY FORMATION)	
0.80	D,J						1
				(2.00)			
1.50	B						2
				2.30		Trialpit Complete at 2.30 m	3
							4

Remarks: Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool. Upon completion the location was backfilled with arisings.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample



Offices:



Plant:

Co-ords:

Trialpit No

MTP116

Sheet 1 of 1

Project Name

Water Lane

Project No.

19495

Dimensions (m):

2.10

Date

03/09/2015

Location: Angmering

Depth (m)

2.30

0.80

Scale

1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

Logged By

Troy Randall

Samples & In Situ Testing			Water Strike	Depth in metres (thickness)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.20	D,J			(0.30)		Grass over soft brown slightly gravelly CLAY with rootlets. Gravel is angular to well rounded fine to coarse flint. (TOPSOIL)	
				0.30		Firm orange mottled grey slightly sandy CLAY. Sand is fine to medium. (LONDON CLAY FORMATION)	
0.70	D,J			(2.00)		Between 1.00mbgl and 2.40mbgl: grey clay pockets.	1
				2.30		Trialpit Complete at 2.30 m	2
							3
							4

Remarks: Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool. Upon completion the location was backfilled with arisings.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample



Offices:



Plant:

Co-ords:

Trialpit No

MTP117

Sheet 1 of 1

Project Name

Water Lane

Project No.

19495

Dimensions (m):

2.20

Date

03/09/2015

Location: Angmering

Depth (m)

3.20

0.70



Scale

1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

Logged By

Troy Randall

Samples & In Situ Testing			Water Strike	Depth in metres (thickness)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.30	D,J			(0.40) 0.40		Grass over soft brown slightly gravelly CLAY with rootlets. Gravel is angular to well rounded fine to coarse flint. (TOPSOIL)	
1.00	D,J			(2.80)		Firm orange mottled grey slightly sandy CLAY. Sand is fine to medium. (LONDON CLAY FORMATION)	1
3.00	B			3.20			2 3 4
						Trialpit Complete at 3.20 m	

Remarks: Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool. Upon completion the location was backfilled with arisings.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample


Project Name

Water Lane

Project No.

19495

Co-ords

-

Hole Type

WLS

Location: Angmering

Level

-

Scale

1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

Dates: 02/09/2015

Logged By

Rachael Guild

Well	Water Strike	Samples & In Situ Testing			Depth in metres (thickness)	Legend	Stratum Description	
		Depth (m)	Type	Results				
		0.20	D,J		(0.30)		Dark brown, sandy clay with occasional fine and medium angular and sub-angular flint gravels. Occasional rootlets.	
					0.30		Grey and orange CLAY with occasional fine to coarse angular and sub-angular flint gravels and rare flint cobbles.	
					(0.70)			
		1.00	CPT	N=6 (1,2,1,2,1,2)	1.00		Soft low strength orange with grey flecks, slightly sandy CLAY with rare, fine angular and sub angular flint gravel.	1
		1.50	D,J		(1.00)			
		2.00	CPT	N=10 (2,2,3,2,3,2)	2.00		Firm medium strength orange and occasionally grey, slightly sandy CLAY.	2
					(0.70)			
					2.70		Firm medium strength orange and grey sandy CLAY with common fine to coarse angular, sub-angular, rounded and sub-rounded flint gravels.	
					(0.30)			
		3.00	CPT	N=16 (6,6,4,4,4,4)	3.00		End of Window Sample at 3.00 m	3
								

Remarks:

Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

Project Name

Water Lane

Project No.

19495

Co-ords

-

Hole Type

WLS

Location: Angmering

Level

-

Scale

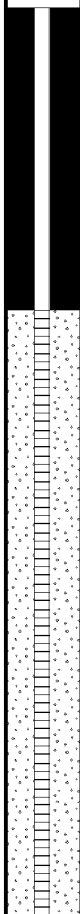
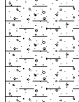
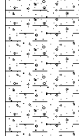
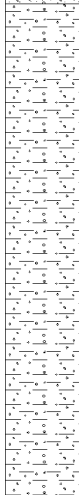
1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

Dates: 02/09/2015

Logged By

Rachael Guild

Well	Water Strike	Samples & In Situ Testing			Depth in metres (thickness)	Legend	Stratum Description		
		Depth (m)	Type	Results					
		0.20	D,J	N=5 (1,1,1,2,1,1)	0.25		Dark brown slightly sandy clay with rare sub-angular flint cobbles.	1	
		0.60	D,J		0.45		Orange/brown sandy CLAY with common fine and medium, angular, sub angular and sub rounded flint gravels and occasional rootlets.		
					(0.45)		Orange and grey slightly sandy CLAY with occasional fine and medium sub-angular and angular flint gravels.		
					0.90		Soft low strength grey and orange flecked CLAY with fine sub-angular and angular flint gravels.		
		1.30			Soft low strength, becoming firm medium strength orange and grey CLAY with rare fine, sub angular and angular flint gravels.				
		2.00	CPT	N=11 (2,1,2,3,3,3)	(1.70)			2	
		3.00	CPT	N=14 (3,3,3,3,4,4)	3.00	End of Window Sample at 3.00 m			3
									4

Remarks:

Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

Project Name

Water Lane

Project No.

19495

Co-ords

-

Hole Type

WLS

Location: Angmering

Level

-

Scale

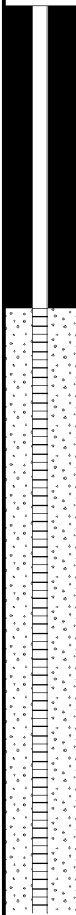
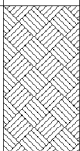
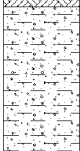
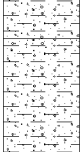
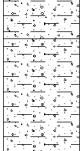
1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

Dates: 02/09/2015

Logged By

Rachael Guild

Well	Water Strike	Samples & In Situ Testing			Depth in metres (thickness)	Legend	Stratum Description	
		Depth (m)	Type	Results				
		0.30	D,J		(0.50)		Brown, soft sandy clay with occasional fine and medium rounded and sub-rounded flint gravels. Occasional rootlets.	
					0.50			
		0.80	D,J		(0.60)		Firm light brown/orange sandy CLAY with occasional subangular flint cobbles and fine angular and subangular flint gravels.	
		1.00	CPT	N=10 (2,2,2,3,2,3)	1.10			1
		1.30	D,J		(0.50)		Firm medium strength orange/light brown sandy CLAY with occasional sub angular and sub-rounded fine flint gravel.	
					1.60			
		2.00	CPT	N=27 (7,7,7,6,7,7)	(1.40)		Stiff high strength orange/ brown slightly sandy CLAY with common fine to coarse subangular, angular and rounded flint gravels and occasional flint cobbles.	2
		3.00	CPT	N=31 (7,9,9,7,8,7)	3.00		End of Window Sample at 3.00 m	3
								4

Remarks:

Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool.

IVN - in-situ hand vane

IPP - in-situ pocket penetrometer

SPT - in-situ standard penetration test

PID - in-situ photoionization detector

D - small disturbed sample (tub)

J - amber glass jar (250ml)

V - amber glass jar (60ml)

B - bulk disturbed sample



Window Sample No

Sheet 1 of 1

Water Lane

19495

—

WLS

Location: Angmering

Level

Scale

1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

Dates: 02/09/2015

<p>Logged By</p>

Rachael Guild

oleBASE 3.1 (Bld 428.48) Standard Borehole Log v2 dated 27th Nov 03

Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool.

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

Project Name

Water Lane

Project No.

19495

Co-ords

-

Hole Type

WLS

Location: Angmering

Level

-

Scale

1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

Dates: 02/09/2015

Logged By

Rachael Guild

Well	Water Strike	Samples & In Situ Testing			Depth in metres (thickness)	Legend	Stratum Description	
		Depth (m)	Type	Results				
		0.35	D,J		(0.35)		Dark brown slightly sandy soft clay with occasional fine and medium, rounded, sub rounded and sub angular flint gravels with rootlets.	
					0.35		Light brown/orange clayey sand with fine to coarse angular, sub angular, sub rounded and rounded flint gravels.	
					0.45			
					(0.55)		Firm medium strength orange and grey slightly sandy CLAY with rare fine rounded and sub rounded flint gravels (darker grey and less orange with depth)	
		1.00	CPT	N=9 (1,1,2,2,2,3)	1.00		Firm medium strength grey slightly sandy CLAY.	1
		2.00	CPT	N=10 (2,1,2,2,3,3)	(2.00)			2
		3.00	CPT	N=12 (2,2,3,3,3,3)	3.00		End of Window Sample at 3.00 m	3
								4

Remarks:

Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool.

IVN - in-situ hand vane

IPP - in-situ pocket penetrometer

SPT - in-situ standard penetration test

PID - in-situ photoionization detector

D - small disturbed sample (tub)

J - amber glass jar (250ml)

V - amber glass jar (60ml)

B - bulk disturbed sample

Project Name

Water Lane

Project No.

19495

Co-ords

-

Hole Type

WLS

Location: Angmering

Level

-

Scale

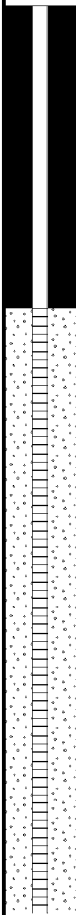
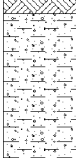
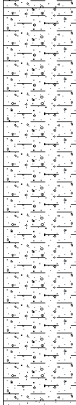
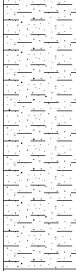
1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

Dates: 02/09/2015

Logged By

Rachael Guild

Well	Water Strike	Samples & In Situ Testing			Depth in metres (thickness)	Legend	Stratum Description	
		Depth (m)	Type	Results				
		0.30	D,J		(0.30) 0.30		Dark brown clayey sand with rare small and medium, rounded and sub angular flint gravels and rootlets.	
					(0.50) 0.80		Firm grey and orange slightly sandy CLAY with rare fine angular, sub angular, sub rounded flint gravels	
		1.00	CPT	N=25 (5,4,5,6,7,7)	(1.30) 2.10		Stiff high strength, becoming firm medium strength orange and grey slightly sandy CLAY with common flint cobbles and fine to coarse angular and sub angular flint gravels.	1
		2.00	CPT	N=12 (2,1,2,3,3,4)	(0.90) 3.00		Firm medium strength orange and bluish grey slightly sandy CLAY with occasional rootlets.	2
		2.20	D,J					
		3.00	CPT	N=11 (2,2,2,2,3,4)			End of Window Sample at 3.00 m	3
								4

Remarks:

Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool.

IVN - in-situ hand vane

IPP - in-situ pocket penetrometer

SPT - in-situ standard penetration test

PID - in-situ photoionization detector

D - small disturbed sample (tub)

J - amber glass jar (250ml)

V - amber glass jar (60ml)

B - bulk disturbed sample



Equipment and Methods

Window Sample No
MWS107
Sheet 1 of 1

Project Name
Water Lane

Project No.
19495

Co-ords
-

Level
-

Hole Type
WLS

Location: Angmering

Dates: 03/09/2015

Scale
1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

Logged By
Rachael Guild

Well	Water Strike	Samples & In Situ Testing			Depth in metres (thickness)	Legend	Stratum Description	
		Depth (m)	Type	Results				
		0.20	D,J	N=25 (2,4,6,6,6,7)	0.25		Light brown clayey sand with common rootlets, fine to coarse rounded sub rounded and angular flint gravels, dark brown fragments of possible clinker and pieces of glass.	1
		0.50	D,J		0.35		MADE GROUND: Light brown/orange soft sandy clay with glass fragments and fine to coarse rounded, sub rounded and sub angular flint gravel.	
		0.90	D,J		0.60		MADE GROUND: Light brown soft sandy clay with fragments of coal, glass and fine to coarse rounded, sub rounded and sub angular flint gravels.	
		1.00	CPT		0.50			
					1.10		End of Window Sample at 1.10 m	
		2.00	CPT	N=0 (9,7)				2
		3.00	CPT	N=0				3
								4

Remarks:

Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool. End of hole at 1.10mbgl due to an unknown concrete obstruction.

IVN - in-situ hand vane

IPP - in-situ pocket penetrometer

SPT - in-situ standard penetration test

PID - in-situ photoionization detector

D - small disturbed sample (tub)

J - amber glass jar (250ml)

V - amber glass jar (60ml)

B - bulk disturbed sample


Project Name

Water Lane

Project No.

19495

Co-ords

-

Hole Type

WLS

Location: Angmering

Level

-

Scale

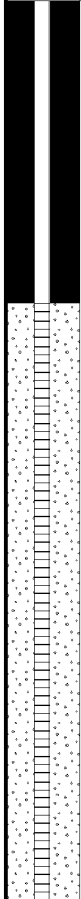
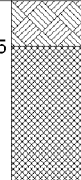
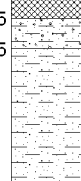
1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

Dates: 03/09/2015

Logged By

Rachael Guild

Well	Water Strike	Samples & In Situ Testing			Depth in metres (thickness)	Legend	Stratum Description	
		Depth (m)	Type	Results				
		0.20	D,J		(0.50)		Brown clayey sand with common rootlets and fine to medium angular and sub angular flint gravels. (TOPSOIL)	
		0.60	D,J				MADE GROUND: Dark brown and orange clayey coarse sand with brick fragments, possible clinker and occasional fine to medium sub angular and rounded flint gravel. With a layer of decomposing roots at 0.6m	
		1.00	CPT	N=4 (1,1,1,1,1,1)	(2.25)		Firm dark brown and grey slightly sandy CLAY with common fine to coarse sub angular, angular and rounded flint gravels and occasional subangular flint cobbles.	
		1.50	D,J				Soft low strength orange and grey slightly sandy clay with common rootlets.	1
		2.00	CPT	N=8 (1,1,2,2,2,2)			From 2.0 m: becoming firm medium strength.	2
		3.00	CPT	N=13 (2,2,3,3,3,4)	3.00		End of Window Sample at 3.00 m	3
								4

Remarks:

Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool.

IVN - in-situ hand vane
 IPP - in-situ pocket penetrometer
 SPT - in-situ standard penetration test
 PID - in-situ photoionization detector

D - small disturbed sample (tub)
 J - amber glass jar (250ml)
 V - amber glass jar (60ml)
 B - bulk disturbed sample

Project Name

Water Lane

Project No.

19495

Co-ords

-

Hole Type

WLS

Location: Angmering

Level

-

Scale

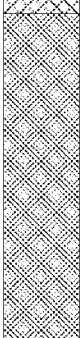
1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

Dates: 03/09/2015

Logged By

Rachael Guild

Well	Water Strike	Samples & In Situ Testing			Depth in metres (thickness)	Legend	Stratum Description	
		Depth (m)	Type	Results				
		0.20	D,J		(0.30)		Brown clayey fine sand with common broken brick, Tarmac and occasional fine to coarse angular and sub angular flint gravel.	
		0.50	D,J		0.30		MADE GROUND: Wet dark brown/black crushed tarmac small medium and large gravels with occasional fine to coarse angular and sub angular flint gravels. Large possibly tarmac cobble at 1m.	
		1.00	CPT	N=1 (1,0,0,0,1,0)	(1.10)			1
		1.45	D,J		1.40		Soft low strength grey and orange fine sandy CLAY with occasional rootlets.	
		2.00	CPT	N=8 (1,1,1,2,2,3)	(1.05)		From 2.0 m: becoming firm medium strength.	2
		3.00	CPT	N=0	2.45		End of Window Sample at 2.50 m	3
								4

Remarks:

Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool. End of hole at 2.45mbgl due to hole collapse.

IVN - in-situ hand vane

IPP - in-situ pocket penetrometer

SPT - in-situ standard penetration test

PID - in-situ photoionization detector

D - small disturbed sample (tub)

J - amber glass jar (250ml)

V - amber glass jar (60ml)

B - bulk disturbed sample

Project Name

Water Lane

Project No.

19495

Co-ords

-

Hole Type

WLS

Location: Angmering

Level

-

Scale

1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

Dates: 03/09/2015

Logged By

Rachael Guild

Well	Water Strike	Samples & In Situ Testing			Depth in metres (thickness)	Legend	Stratum Description	
		Depth (m)	Type	Results				
		0.35	D,J		(0.50)		Light brown sandy clay with rare slate and medium to coarse rounded to subangular flint gravels.	
							MADE GROUND: Grey/dark brown and orange slightly clayey sand with occasional concrete fragments and rare fine to medium rounded to subangular flint gravels, rare brick and crushed tarmac fragments.	
		1.00	CPT	N=11 (2,2,3,2,3,3)	(0.30)		MADE GROUND: Light grey slightly clayey sand with common concrete fragments and fine to medium rounded to subangular flint gravel and rare tarmac fragments.	1
							MADE GROUND: Red brick cobble.	
							MADE GROUND: Medium dense dark brown clayey sand with yellow sand, brick fragments, with common fine to coarse rounded to angular flint gravel and rare concrete fragments.	
							MADE GROUND: Moist dark brown softy sandy clay with common fine to coarse rounded to angular flint gravels and rare flint cobbles.	
		1.90	D,J		(0.45)		MADE GROUND: Concrete and dark brown clayey sand with rare flint cobbles and fine to coarse angular to subangular flint gravels.	2
							MADE GROUND: Dark brown/ black clayey sand with brick fragments, occasional concrete, tarmac, and fine to medium rounded to subangular flint gravels.	
		2.00	CPT	N=6 (1,1,1,2,1,2)				
		3.00	CPT	N=11 (2,1,2,2,4,3)	(0.80)		Soft low strength, becoming firm medium strength orange and grey slightly sandy CLAY.	3
							End of Window Sample at 3.00 m	

Remarks:

Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

Project Name

Water Lane

Project No.

19495

Co-ords

-

Hole Type

WLS

Location: Angmering

Level

-

Scale

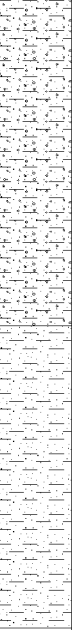
1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

Dates: 03/09/2015

Logged By

Rachael Guild

Well	Water Strike	Samples & In Situ Testing			Depth in metres (thickness)	Legend	Stratum Description	
		Depth (m)	Type	Results				
		0.15	D,J		0.15		MADE GROUND: Dark brown/black tarmac and flint gravel	
					(0.35)		MADE GROUND: Dark brown/black firm, slightly sandy clay with occasional fine to coarse rounded to subangular flint gravel.	
					0.50		MADE GROUND: Dark brown soft clayey sand with common fine to coarse rounded to angular, flint gravels and occasional tarmac fragments.	
		0.80	D,J		0.80		Soft low strength orange and grey slightly sandy CLAY with occasional fine to coarse rounded to subangular flint gravels near the top of the section (0.8m)	1
		1.00	CPT	N=6 (1,1,1,1,2,2)	(1.20)			
		2.00	CPT	N=12 (2,2,3,3,3,3)	2.00		Firm medium strength, becoming stiff high strength grey slightly sandy CLAY.	2
					(1.00)			
		3.00	CPT	N=17 (2,2,3,3,4,7)	3.00		End of Window Sample at 3.00 m	3
								4

Remarks:

Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

Project Name

Water Lane

Project No.

19495

Co-ords

-

Hole Type

WLS

Location: Angmering

Level

-

Scale

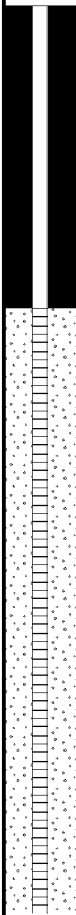
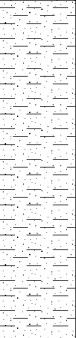
1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

Dates: 03/09/2015

Logged By

Rachael Guild

Well	Water Strike	Samples & In Situ Testing			Depth in metres (thickness)	Legend	Stratum Description	
		Depth (m)	Type	Results				
					(0.30)		MADE GROUND: Compacted tarmac and flint gravel.	
		0.55	D,J		(0.40)		Dark brown/back clayey SAND with occasional medium to coarse rounded to subangular flint gravels and rare flint cobbles.	
		1.00	CPT	N=6 (1,1,2,1,2,1)	(2.30)		Soft low strength orange and grey slightly sandy CLAY. Rare flint gravels (2.5-2.7m band of yellow clayey sand)	1
		2.00	CPT	N=9 (1,1,2,2,2,3)			From 2.0 m: becoming firm medium strength.	2
		3.00	CPT	N=14 (2,2,3,3,4,4)	3.00		End of Window Sample at 3.00 m	3
								4

Remarks:

Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool.

 IVN - in-situ hand vane
 IPP - in-situ pocket penetrometer
 SPT - in-situ standard penetration test
 PID - in-situ photoionization detector

 D - small disturbed sample (tub)
 J - amber glass jar (250ml)
 V - amber glass jar (60ml)
 B - bulk disturbed sample



Equipment and Methods

Window Sample No
MWS114
Sheet 1 of 1

Project Name
Water Lane

Project No.
19495

Co-ords
-

Level
-

Hole Type
WLS

Scale
1:25

Location: Angmering

Dates: 03/09/2015

Logged By
Rachael Guild

Client: Rydon Homes Ltd & Gleeson Strategic Land

Well	Water Strike	Samples & In Situ Testing			Depth in metres (thickness)	Legend	Stratum Description	
		Depth (m)	Type	Results				
		0.30	D,J		(0.30)		Loose dark brown sand, common fine to coarse rounded to angular flint gravels, rare subangular flint cobbles.	
					0.30		Loose dark brown/ black clayey fine SAND with occasional fine to coarse angular to subrounded flint gravels, rare flint cobbles and rare tarmac fragments.	
					0.65		Soft low strength grey and orange slightly silty CLAY with rare fine to medium rounded to subrounded flint gravels. (Yellow clayey sand at 2.7m)	-1
		1.00	CPT	N=4 (1,1,1,1,1,1)	(2.35)		From 2.0 m: firm medium strength.	
		2.00	CPT	N=10 (1,2,2,2,3,3)				-2
		3.00	CPT	N=13 (2,2,3,3,3,4)	3.00		End of Window Sample at 3.00 m	3
								4

Remarks:

Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool.

IVN - in-situ hand vane

IPP - in-situ pocket penetrometer

SPT - in-situ standard penetration test

PID - in-situ photoionization detector

D - small disturbed sample (tub)

J - amber glass jar (250ml)

V - amber glass jar (60ml)

B - bulk disturbed sample

Project Name

Water Lane

Project No.

19495

Co-ords

-

Hole Type

WLS

Location: Angmering

Level

-

Scale

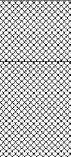
1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

Dates: 03/09/2015

Logged By

Rachael Guild

Well	Water Strike	Samples & In Situ Testing			Depth in metres (thickness)	Legend	Stratum Description	
		Depth (m)	Type	Results				
		0.25	D,J		0.20		MADE GROUND: Loose dark brown sand with tarmac, brick and fine to coarse angular to subrounded flint gravels and concrete cobbles.	1
					(0.55)		MADE GROUND: Dark brown clayey sand, very firm with some soft yellow sand in patches. Concrete gravel, brick fragments, tarmac and occasional fine to coarse angular to subrounded flint gravels.	
		0.90	D,J		0.75		MADE GROUND: Dark brown clayey sand with concrete fragments and occasional flint gravels (fine to coarse angular to subangular)	
		1.00	CPT	N=30 (2,2,7,9,7,7)	1.00		MADE GROUND: Yellow sand with occasional concrete fragments, tarmac and brick and rare fine to medium angular to subangular flint gravels.	
					(0.50)		MADE GROUND: Dark brown sandy clay with occasional brick and common fine to coarse angular to subrounded flint gravels. CONCRETE OBSTRUCTION.	
					1.50		End of Window Sample at 2.00 m	
		2.00	CPT	N=49 (11,9,13,11,11,14)				2
		3.00	CPT	N=0				3
								4

Remarks:

Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool. End of hole at 2.00mbgl due to a concrete obstruction.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

Project Name
Water Lane

Project No.
19495

Location: Angmering

Client: Rydon Homes Ltd & Gleeson Strategic Land

Dimensions (m):

Depth (m)

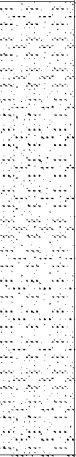
2.70

2.10 0.50

Date
07/09/2015

Scale
1:25

Logged By
Troy Randall

Samples & In Situ Testing			Water Strike	Depth in metres (thickness)	Legend	Stratum Description	
Depth (m)	Type	Results					
				(0.40)		Grass over dry and friable brown slightly gravelly CLAY with rootlets. Gravel is very angular to subrounded fine to coarse flint. (TOPSOIL)	
				0.40		Soft to firm light brown mottled grey slightly sandy CLAY. Sand is fine to coarse. (HEAD DEPOSITS) Between 0.40mbgl and 0.60mbgl: fine to cobble subangular to subrounded flint.	
				0.60			
				(1.50)		Firm light brown mottled grey slightly sandy CLAY. Sand is fine to coarse. (LONDON CLAY FORMATION)	1
2.00	D,J			2.10		Trialpit Complete at 2.10 m	2
							3
							4

Remarks: Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool. Upon completion the location was backfilled with arisings. Please note soakaway testing was undertaken in this location.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

Project Name

Water Lane

Project No.

19495

Dimensions (m):

2.70

Date

07/09/2015

Location: Angmering

Depth (m)

1.90

0.60

Scale

1:25

Client: Rydon Homes Ltd & Gleeson Strategic Land

Logged By
Troy Randall

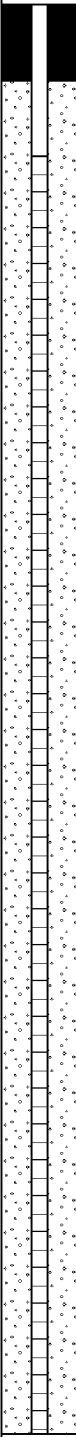
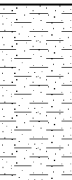
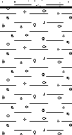
Samples & In Situ Testing			Water Strike	Depth in metres (thickness)	Legend	Stratum Description	
Depth (m)	Type	Results					
				(0.30)		Crops over dry and friable brown slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is angular to subrounded fine to coarse flint. (TOPSOIL)	
				0.30		Orangish brown soft sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is subangular to very angular fine to coarse flint. Cobbles of angular flint. (HEAD DEPOSITS)	
				(1.60)			1
				1.90			2
2.70	D,J						3
							4

Trialpit Complete at 1.90 m

Remarks: Prior to the intrusive ground investigation the location was scanned using a cable avoidance tool. Upon completion the location was backfilled with arisings. Please note soakaway testing was undertaken in this location.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

 offices London		<div></div>		<h1>Borehole Log</h1>				Borehole No. MBH101					
Project Name: Water Lane		Project No. 19495		Co-ords:				Hole Type CP					
Location: Angmering		Level:				Scale 1:50							
Equipment: Cable Percussion Rig		Dates: 13/09/2017				Logged By JW							
Well	Wtr Strk	Sample and In Situ Testing			Coring				Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results	FI	TCR	SCR	RQD					
		1.50 1.50 - 1.95	SPT(S) D	N=4 (1,1/1,1,1,1)					1.20			Soft brown sandy CLAY.	1
									2.10			Soft brown gravelly CLAY.	2
		2.50 2.50 - 2.95	SPT(S) D	N=10 (1,2/2,2,3,3)								Stiff blue/brown mottled CLAY.	3
		3.50 3.50 - 3.95	SPT(S) D	N=12 (2,2/2,3,3,4)									4
		4.50 4.50 - 4.95	SPT(S) D	N=16 (2,3/3,4,4,5)									5
		6.00 6.00 - 6.45	SPT(S) D	N=17 (2,3/3,4,5,5)								Stiff grey CLAY with brown weathering.	6
		7.50 7.50 - 7.95	SPT(S) D	N=20 (2,4/4,5,5,6)									7
		9.00 9.00 - 9.45	SPT(S) D	N=23 (4,5/5,5,6,7)									
								9.45			End of Borehole at 9.45m	9	
													10
<div><div><div>D = small disturbed sample (tub)</div><div>J = organic sample (amber glass jar)</div><div>V = volatile sample (amber glass vial)</div><div>B = bulk bag sample</div><div>SPT(C) = Standard Penetration Test (Cone)</div><div>SPT(S) = Standard Penetration Test (Split Spoon)</div></div><div><div>HSV = hand shear vane (kPa)</div><div>PP = pocket penetrometer (kg.cm2)</div><div>PID = photoionisation detector (ppm)</div><div>FI = fracture index</div><div>TCR = total core recovery</div><div>SCR = solid core recovery</div><div>RQD = rock quality designation</div></div></div> <div>Remarks Standpipe is left 0.5m above ground level</div>													

<div><div><div><div><div></div><div>dom</div></div><div>merebrook</div></div><div>offices</div><div>London</div><div>Kenilworth</div><div>Leamington</div><div>Warwick</div></div></div>		Cromford Mills, Mill Lane, Matlock, Derbyshire, DE4 3BQ		<div>Borehole Log</div>				<div>Borehole No.</div> <div>M8H103</div> <div>Sheet 1 of 1</div>						
Project Name: Water Lane				Project No. 19495		Co-ords:		Hole Type CP						
Location: Angmering				Level:		Scale 1:50		Logged By JW						
Equipment: Cable Percussion Rig				Dates: 13/09/2017										
Well	Wtr Strk	Sample and In Situ Testing			Coring				Depth (m)	Level (m)	Legend	Stratum Description		
		Depth (m)	Type	Results	FI	TCR	SCR	RQD						
									0.20			Vegetation over TOPSOIL.		
												Brown sandy gravelly CLAY. Gravel is Flint.	1	
		1.50 1.50 - 1.95	SPT(S) D	N=10 (1,2/2,2,3,3)										2
		2.50 2.50 - 2.95	SPT(S) D	N=14 (2,3/3,3,3,5)						2.10				3
		3.50 3.50 - 3.95	SPT(S) D	N=9 (2,2/2,2,2,3)										4
		4.50 4.50 - 4.95	SPT(S) D	N=11 (1,2/3,2,3,3)						4.00				5
		6.00 6.00 - 6.45	SPT(S) D	N=12 (1,2/2,3,3,4)										6
		7.50 7.50 - 7.95	SPT(S) D	N=22 (2,3/3,5,6,8)										7
													8	
													9	
		9.00 9.00 - 9.45	SPT(S) D	N=34 (3,4/7,8,8,11)									9	
									9.45			End of Borehole at 9.45m	10	
D = small disturbed sample (tub) J = organic sample (amber glass jar) V = volatile sample (amber glass vial) B = bulk bag sample SPT(C) = Standard Penetration Test (Cone) SPT(S) = Standard Penetration Test (Split Spoon)				HSV = hand shear vane (kPa) PP = pocket penetrometer (kg.cm2) PID = photoionisation detector (ppm) FI = fracture index TCR = total core recovery SCR = solid core recovery RQD = rock quality designation				Remarks Standpipe is left 0.5m above ground level						



APPENDIX 4

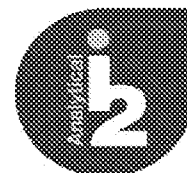
- Soil Chemistry
- Laboratory Analysis Certificates



4841



M/CERTS



Environmental Science

Siobhan Jackson

Merebrook
Suite 2B
East Mill
Bridgefoot
Belper
Derbyshire
DE56 2UA

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

Analytical Report Number : 15-78431-A

Replaces Analytical Report Number : 15-78431, issue no. 1

Project / Site name:	Water Lane Angmering	Samples received on:	07/09/2015
Your job number:	19495	Samples instructed on:	07/09/2015
Your order number:	15-S2-FDO-LABS	Analysis completed by:	14/09/2015
Report Issue Number:	2	Report issued on:	03/08/2016
Samples Analysed:	35 soil samples		

Signed:

Dr Irma Doyle
Senior Account Manager
For & on behalf of i2 Analytical Ltd.

Signed:

Emma Winter
Assistant Reporting Manager
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

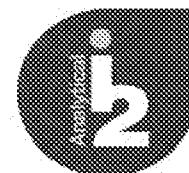
Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :	soils	- 4 weeks from reporting
	leachates	- 2 weeks from reporting
	waters	- 2 weeks from reporting
	asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.



4041



Environmental Science

Analytical Report Number: 15-78431-A

Project / Site name: Water Lane Angmering

Your Order No: 15-S2-FDO-LABS

Lab Sample Number				483500	483501	483502	483503	483504
Sample Reference				MWS101	MWS102	MWS103	MWS104	MWS105
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.60	0.30	0.40	0.35
Date Sampled				02/09/2015	02/09/2015	02/09/2015	02/09/2015	02/09/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	13	12	18	14	11
Total mass of sample received	kg	0.001	NONE	1.2	1.1	1.2	1.2	1.2

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	-	-	-	-	-

General Inorganics

pH	pH Units	N/A	MCERTS	6.6	8.0	6.7	7.1	7.6
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Water Soluble Sulphate (Soil Equivalent)	g/kg	0.0025	MCERTS	0.037	0.036	0.027	0.039	0.025
Water Soluble Sulphate as SO ₄ (2:1)	mg/kg	2.5	MCERTS	37	36	27	39	25
Water Soluble Sulphate (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.018	0.018	0.014	0.020	0.013
Sulphide	mg/kg	1	MCERTS	1.1	1.1	< 1.0	< 1.0	< 1.0
Organic Matter	%	0.1	MCERTS	2.9	0.4	3.0	4.3	0.7

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
----------------------------	-------	---	--------	-------	-------	-------	-------	-------

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Pyrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(a)anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(a)pyrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

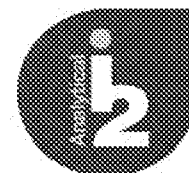
Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	< 1.60	< 1.60	< 1.60	< 1.60	< 1.60
-----------------------------	-------	-----	--------	--------	--------	--------	--------	--------

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	11	10	10	11	9.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	27	40	25	32	38
Copper (aqua regia extractable)	mg/kg	1	MCERTS	10	3.1	19	14	2.9
Lead (aqua regia extractable)	mg/kg	1	MCERTS	23	15	35	23	15
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	15	18	16	19	16
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	3.1	4.4	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	45	41	67	57	38



4041



Environmental Science

Analytical Report Number: 15-78431-A

Project / Site name: Water Lane Angmering

Your Order No: 15-S2-FDO-LABS

Lab Sample Number				483500	483501	483502	483503	483504
Sample Reference				MWS101	MWS102	MWS103	MWS104	MWS105
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.60	0.30	0.40	0.35
Date Sampled				02/09/2015	02/09/2015	02/09/2015	02/09/2015	02/09/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

Monaromatics

Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

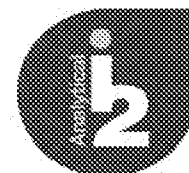
Petroleum Hydrocarbons

TPH-CWG - Aliphatic > EC5 - EC6	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic > EC6 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic > EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic > EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic > EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10

TPH-CWG - Aromatic > EC5 - EC7	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic > EC7 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic > EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic > EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic > EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic > EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10



4041



Environmental Science

Analytical Report Number: 15-78431-A

Project / Site name: Water Lane Angmering

Your Order No: 15-S2-FDO-LABS

Lab Sample Number				483500	483501	483502	483503	483504
Sample Reference				MWS101	MWS102	MWS103	MWS104	MWS105
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.60	0.30	0.40	0.35
Date Sampled				02/09/2015	02/09/2015	02/09/2015	02/09/2015	02/09/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

Organochlorine Pesticides (OCP)

Aldrin	mg/kg	0.01	NONE	-	-	-	-	-
Alpha-BHC(Lindane)	mg/kg	0.01	NONE	-	-	-	-	-
Beta-BHC(Lindane)	mg/kg	0.01	NONE	-	-	-	-	-
Chlordane (sum of cis & trans isomers)	mg/kg	0.01	NONE	-	-	-	-	-
DDD	mg/kg	0.01	NONE	-	-	-	-	-
DDE	mg/kg	0.01	NONE	-	-	-	-	-
DDT	mg/kg	0.01	NONE	-	-	-	-	-
Dieldrin	mg/kg	0.01	NONE	-	-	-	-	-
Endosulphan I	mg/kg	0.01	NONE	-	-	-	-	-
Endosulphan II	mg/kg	0.01	NONE	-	-	-	-	-
Endosulphan Sulphate	mg/kg	0.01	NONE	-	-	-	-	-
Endrin	mg/kg	0.01	NONE	-	-	-	-	-
Gamma-BHC	mg/kg	0.01	NONE	-	-	-	-	-
Heptachlor	mg/kg	0.01	NONE	-	-	-	-	-
Heptachlor epoxide	mg/kg	0.01	NONE	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.01	NONE	-	-	-	-	-
Hexachlorocyclohexane	mg/kg	0.01	NONE	-	-	-	-	-
pp-Methoxychlor	mg/kg	0.01	NONE	-	-	-	-	-

Organophosphorus Pesticides (OPP)

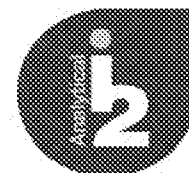
Azinphos methyl	mg/kg	0.01	NONE	-	-	-	-	-
Diazinon	mg/kg	0.01	NONE	-	-	-	-	-
Dichlorvos	mg/kg	0.01	NONE	-	-	-	-	-
Dimethoate	mg/kg	0.01	NONE	-	-	-	-	-
Etion	mg/kg	0.01	NONE	-	-	-	-	-
Fenitrothion	mg/kg	0.01	NONE	-	-	-	-	-
Malathion	mg/kg	0.01	NONE	-	-	-	-	-
Mevinphos	mg/kg	0.01	NONE	-	-	-	-	-
Parathion	mg/kg	0.01	NONE	-	-	-	-	-
Pirimiphos methyl	mg/kg	0.01	NONE	-	-	-	-	-

Organonitrogen Pesticides (ONP)

Atrazine	mg/kg	0.01	NONE	-	-	-	-	-
Simazine	mg/kg	0.01	NONE	-	-	-	-	-
Trietazine	mg/kg	0.01	NONE	-	-	-	-	-



4041



Environmental Science

Analytical Report Number: 15-78431-A

Project / Site name: Water Lane Angmering

Your Order No: 15-S2-FDO-LABS

Lab Sample Number				483505	483506	483507	483508	483509
Sample Reference				MWS106	MWS107	MWS107	MWS108	MWS109
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.50	0.90	0.60	0.50
Date Sampled				02/09/2015	02/09/2015	02/09/2015	02/09/2015	02/09/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	-
Moisture Content	%	N/A	NONE	19	9.7	11	15	-
Total mass of sample received	kg	0.001	NONE	1.0	0.88	0.93	1.1	-

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	Chrysotile-Insulation Lagging	-	-
Asbestos in Soil	Type	N/A	ISO 17025	-	-	Detected	Not-detected	Not-detected

General Inorganics

pH	pH Units	N/A	MCERTS	6.7	8.5	8.3	8.0	-
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	-
Water Soluble Sulphate (Soil Equivalent)	g/kg	0.0025	MCERTS	0.037	0.32	0.068	0.20	-
Water Soluble Sulphate as SO ₄ (2:1)	mg/kg	2.5	MCERTS	37	320	67	200	-
Water Soluble Sulphate (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.019	0.16	0.034	0.10	-
Sulphide	mg/kg	1	MCERTS	< 1.0	4.3	13	< 1.0	-
Organic Matter	%	0.1	MCERTS	3.6	1.8	1.4	2.3	-

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
----------------------------	-------	---	--------	-------	-------	-------	-------	---

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	2.9	-
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10	0.28	< 0.10	1.3	-
Acenaphthene	mg/kg	0.1	MCERTS	< 0.10	0.23	< 0.10	14	-
Fluorene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	13	-
Phenanthrene	mg/kg	0.1	MCERTS	< 0.10	1.6	2.5	100	-
Anthracene	mg/kg	0.1	MCERTS	< 0.10	0.67	0.80	33	-
Fluoranthene	mg/kg	0.1	MCERTS	< 0.10	5.8	4.9	130	-
Pyrene	mg/kg	0.1	MCERTS	< 0.10	5.5	4.2	100	-
Benzo(a)anthracene	mg/kg	0.1	MCERTS	< 0.10	2.5	2.2	53	-
Chrysene	mg/kg	0.05	MCERTS	< 0.05	3.1	1.7	34	-
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	< 0.10	3.0	1.6	40	-
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	< 0.10	0.98	1.2	23	-
Benzo(a)pyrene	mg/kg	0.1	MCERTS	< 0.10	1.6	1.4	34	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	< 0.10	0.84	< 0.10	18	-
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	4.2	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	1.0	< 0.05	20	-

Total PAH

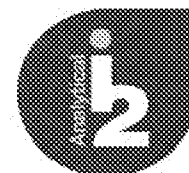
Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	< 1.60	27.1	20.4	622	-
-----------------------------	-------	-----	--------	--------	------	------	-----	---

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	10	13	9.8	9.0	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	-
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	30	35	33	23	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	3.9	57	95	23	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	22	62	47	49	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	12	26	26	19	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	1.0	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	33	150	89	92	-



4041



Environmental Science

Analytical Report Number: 15-78431-A

Project / Site name: Water Lane Angmering

Your Order No: 15-S2-FDO-LABS

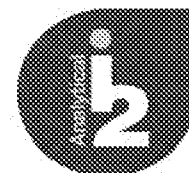
Lab Sample Number				483505	483506	483507	483508	483509
Sample Reference				MWS106	MWS107	MWS107	MWS108	MWS109
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.50	0.90	0.60	0.50
Date Sampled				02/09/2015	02/09/2015	02/09/2015	02/09/2015	02/09/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monaromatics								
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
Toluene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
p & m-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
o-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-

Petroleum Hydrocarbons

TPH-CWG - Aliphatic > EC5 - EC6	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	-
TPH-CWG - Aliphatic > EC6 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	-
TPH-CWG - Aliphatic > EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	-
TPH-CWG - Aliphatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
TPH-CWG - Aliphatic > EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	10	-
TPH-CWG - Aliphatic > EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	20	-
TPH-CWG - Aliphatic > EC21 - EC35	mg/kg	8	MCERTS	< 8.0	120	76	41	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	120	76	71	-
TPH-CWG - Aromatic > EC5 - EC7	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	-
TPH-CWG - Aromatic > EC7 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	-
TPH-CWG - Aromatic > EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	-
TPH-CWG - Aromatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	1.3	2.1	5.4	-
TPH-CWG - Aromatic > EC12 - EC16	mg/kg	2	MCERTS	< 2.0	4.1	4.9	250	-
TPH-CWG - Aromatic > EC16 - EC21	mg/kg	10	MCERTS	< 10	36	29	1200	-
TPH-CWG - Aromatic > EC21 - EC35	mg/kg	10	MCERTS	< 10	160	110	1300	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	200	150	2800	-



4041



Environmental Science

Analytical Report Number: 15-78431-A

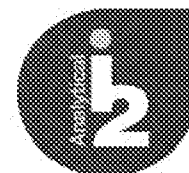
Project / Site name: Water Lane Angmering

Your Order No: 15-S2-FDO-LABS

Lab Sample Number				483505	483506	483507	483508	483509
Sample Reference				MWS106	MWS107	MWS107	MWS108	MWS109
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.50	0.90	0.60	0.50
Date Sampled				02/09/2015	02/09/2015	02/09/2015	02/09/2015	02/09/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Organochlorine Pesticides (OCP)								
Aldrin	mg/kg	0.01	NONE	-	-	-	-	-
Alpha-BHC(Lindane)	mg/kg	0.01	NONE	-	-	-	-	-
Beta-BHC(Lindane)	mg/kg	0.01	NONE	-	-	-	-	-
Chlordane (sum of cis & trans isomers)	mg/kg	0.01	NONE	-	-	-	-	-
DDD	mg/kg	0.01	NONE	-	-	-	-	-
DDE	mg/kg	0.01	NONE	-	-	-	-	-
DDT	mg/kg	0.01	NONE	-	-	-	-	-
Dieldrin	mg/kg	0.01	NONE	-	-	-	-	-
Endosulphan I	mg/kg	0.01	NONE	-	-	-	-	-
Endosulphan II	mg/kg	0.01	NONE	-	-	-	-	-
Endosulphan Sulphate	mg/kg	0.01	NONE	-	-	-	-	-
Endrin	mg/kg	0.01	NONE	-	-	-	-	-
Gamma-BHC	mg/kg	0.01	NONE	-	-	-	-	-
Heptachlor	mg/kg	0.01	NONE	-	-	-	-	-
Heptachlor epoxide	mg/kg	0.01	NONE	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.01	NONE	-	-	-	-	-
Hexachlorocyclohexane	mg/kg	0.01	NONE	-	-	-	-	-
pp-Methoxychlor	mg/kg	0.01	NONE	-	-	-	-	-
Organophosphorus Pesticides (OPP)								
Azinphos methyl	mg/kg	0.01	NONE	-	-	-	-	-
Diazinon	mg/kg	0.01	NONE	-	-	-	-	-
Dichlorvos	mg/kg	0.01	NONE	-	-	-	-	-
Dimethoate	mg/kg	0.01	NONE	-	-	-	-	-
Etion	mg/kg	0.01	NONE	-	-	-	-	-
Fenitrothion	mg/kg	0.01	NONE	-	-	-	-	-
Malathion	mg/kg	0.01	NONE	-	-	-	-	-
Mevinphos	mg/kg	0.01	NONE	-	-	-	-	-
Parathion	mg/kg	0.01	NONE	-	-	-	-	-
Pirimiphos methyl	mg/kg	0.01	NONE	-	-	-	-	-
Organonitrogen Pesticides (ONP)								
Atrazine	mg/kg	0.01	NONE	-	-	-	-	-
Simazine	mg/kg	0.01	NONE	-	-	-	-	-
Trietazine	mg/kg	0.01	NONE	-	-	-	-	-



4041



Environmental Science

Analytical Report Number: 15-78431-A

Project / Site name: Water Lane Angmering

Your Order No: 15-S2-FDO-LABS

Lab Sample Number				483510	483511	483512	483513	483514
Sample Reference				MWS110	MWS110	MWS110	MWS111	MWS112
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.70	1.10	0.35	0.15
Date Sampled				02/09/2015	02/09/2015	02/09/2015	02/09/2015	02/09/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	16	12	20	9.8	10
Total mass of sample received	kg	0.001	NONE	0.94	0.99	1.3	1.0	1.1

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	-	-	-	Not-detected	-

General Inorganics

pH	pH Units	N/A	MCERTS	7.6	8.0	7.6	9.2	-
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	-
Water Soluble Sulphate (Soil Equivalent)	g/kg	0.0025	MCERTS	0.023	0.044	0.26	0.34	-
Water Soluble Sulphate as SO ₄ (2:1)	mg/kg	2.5	MCERTS	23	44	260	340	-
Water Soluble Sulphate (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.012	0.022	0.13	0.17	-
Sulphide	mg/kg	1	MCERTS	1.4	< 1.0	11	24	-
Organic Matter	%	0.1	MCERTS	2.8	0.5	3.2	1.2	-

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
----------------------------	-------	---	--------	-------	-------	-------	-------	---

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	0.49	0.70	< 0.10
Anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	0.14	0.19	< 0.10
Fluoranthene	mg/kg	0.1	MCERTS	0.40	< 0.10	1.1	2.1	0.69
Pyrene	mg/kg	0.1	MCERTS	0.40	< 0.10	1.1	1.8	0.75
Benzo(a)anthracene	mg/kg	0.1	MCERTS	0.22	< 0.10	0.65	0.85	0.34
Chrysene	mg/kg	0.05	MCERTS	0.26	< 0.05	0.44	1.1	0.28
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	0.29	< 0.10	0.36	0.69	0.31
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	0.20	< 0.10	0.53	0.64	0.23
Benzo(a)pyrene	mg/kg	0.1	MCERTS	0.22	< 0.10	0.45	0.63	0.20
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

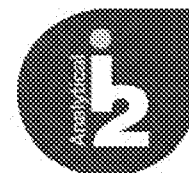
Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	1.99	< 1.60	5.19	8.72	2.80
-----------------------------	-------	-----	--------	------	--------	------	------	------

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.7	11	7.7	11	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	-
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	29	36	34	29	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	11	13	8.8	41	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	31	15	22	43	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	15	31	14	31	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	54	63	43	92	-



4041



Environmental Science

Analytical Report Number: 15-78431-A

Project / Site name: Water Lane Angmering

Your Order No: 15-S2-FDO-LABS

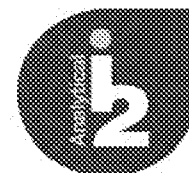
Lab Sample Number				483510	483511	483512	483513	483514
Sample Reference				MWS110	MWS110	MWS110	MWS111	MWS112
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.70	1.10	0.35	0.15
Date Sampled				02/09/2015	02/09/2015	02/09/2015	02/09/2015	02/09/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monaromatics								
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
Toluene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
p & m-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
o-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-

Petroleum Hydrocarbons

TPH-CWG - Aliphatic > EC5 - EC6	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	-
TPH-CWG - Aliphatic > EC6 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	-
TPH-CWG - Aliphatic > EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	-
TPH-CWG - Aliphatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
TPH-CWG - Aliphatic > EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	-
TPH-CWG - Aliphatic > EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	-
TPH-CWG - Aliphatic > EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	24	23	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	24	23	-
TPH-CWG - Aromatic > EC5 - EC7	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	-
TPH-CWG - Aromatic > EC7 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	-
TPH-CWG - Aromatic > EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	-
TPH-CWG - Aromatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	1.2	< 1.0	< 1.0	-
TPH-CWG - Aromatic > EC12 - EC16	mg/kg	2	MCERTS	2.2	< 2.0	< 2.0	< 2.0	-
TPH-CWG - Aromatic > EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	10	< 10	-
TPH-CWG - Aromatic > EC21 - EC35	mg/kg	10	MCERTS	20	< 10	78	25	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	22	< 10	88	25	-



4041



Environmental Science

Analytical Report Number: 15-78431-A

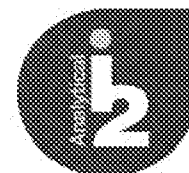
Project / Site name: Water Lane Angmering

Your Order No: 15-S2-FDO-LABS

Lab Sample Number				483510	483511	483512	483513	483514
Sample Reference				MWS110	MWS110	MWS110	MWS111	MWS112
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.70	1.10	0.35	0.15
Date Sampled				02/09/2015	02/09/2015	02/09/2015	02/09/2015	02/09/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Organochlorine Pesticides (OCP)								
Aldrin	mg/kg	0.01	NONE	-	-	-	-	-
Alpha-BHC(Lindane)	mg/kg	0.01	NONE	-	-	-	-	-
Beta-BHC(Lindane)	mg/kg	0.01	NONE	-	-	-	-	-
Chlordane (sum of cis & trans isomers)	mg/kg	0.01	NONE	-	-	-	-	-
DDD	mg/kg	0.01	NONE	-	-	-	-	-
DDE	mg/kg	0.01	NONE	-	-	-	-	-
DDT	mg/kg	0.01	NONE	-	-	-	-	-
Dieldrin	mg/kg	0.01	NONE	-	-	-	-	-
Endosulphan I	mg/kg	0.01	NONE	-	-	-	-	-
Endosulphan II	mg/kg	0.01	NONE	-	-	-	-	-
Endosulphan Sulphate	mg/kg	0.01	NONE	-	-	-	-	-
Endrin	mg/kg	0.01	NONE	-	-	-	-	-
Gamma-BHC	mg/kg	0.01	NONE	-	-	-	-	-
Heptachlor	mg/kg	0.01	NONE	-	-	-	-	-
Heptachlor epoxide	mg/kg	0.01	NONE	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.01	NONE	-	-	-	-	-
Hexachlorocyclohexane	mg/kg	0.01	NONE	-	-	-	-	-
pp-Methoxychlor	mg/kg	0.01	NONE	-	-	-	-	-
Organophosphorus Pesticides (OPP)								
Azinphos methyl	mg/kg	0.01	NONE	-	-	-	-	-
Diazinon	mg/kg	0.01	NONE	-	-	-	-	-
Dichlorvos	mg/kg	0.01	NONE	-	-	-	-	-
Dimethoate	mg/kg	0.01	NONE	-	-	-	-	-
Etion	mg/kg	0.01	NONE	-	-	-	-	-
Fenitrothion	mg/kg	0.01	NONE	-	-	-	-	-
Malathion	mg/kg	0.01	NONE	-	-	-	-	-
Mevinphos	mg/kg	0.01	NONE	-	-	-	-	-
Parathion	mg/kg	0.01	NONE	-	-	-	-	-
Pirimiphos methyl	mg/kg	0.01	NONE	-	-	-	-	-
Organonitrogen Pesticides (ONP)								
Atrazine	mg/kg	0.01	NONE	-	-	-	-	-
Simazine	mg/kg	0.01	NONE	-	-	-	-	-
Trietazine	mg/kg	0.01	NONE	-	-	-	-	-



4041



Environmental Science

Analytical Report Number: 15-78431-A

Project / Site name: Water Lane Angmering

Your Order No: 15-S2-FDO-LABS

Lab Sample Number				483515	483516	483517	483518	483519
Sample Reference				MWS112	MWS113	MWS114	MWS115	MWS115
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.80	0.55	0.30	0.25	0.90
Date Sampled				02/09/2015	02/09/2015	02/09/2015	02/09/2015	02/09/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	6.7	13	12	10	12
Total mass of sample received	kg	0.001	NONE	0.93	0.96	1.0	1.2	1.1

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	-	-	-	Not-detected	-

General Inorganics

pH	pH Units	N/A	MCERTS	7.6	7.6	7.4	8.3	8.7
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Water Soluble Sulphate (Soil Equivalent)	g/kg	0.0025	MCERTS	0.077	0.35	0.38	0.30	3.7
Water Soluble Sulphate as SO ₄ (2:1)	mg/kg	2.5	MCERTS	77	350	380	300	3700
Water Soluble Sulphate (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.039	0.18	0.19	0.15	1.8
Sulphide	mg/kg	1	MCERTS	2.4	4.0	4.7	4.1	3.4
Organic Matter	%	0.1	MCERTS	0.6	4.9	4.2	1.8	1.7

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
----------------------------	-------	---	--------	-------	-------	-------	-------	-------

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	1.5	1.4	1.2
Anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	0.55	0.49	0.38
Fluoranthene	mg/kg	0.1	MCERTS	< 0.10	0.45	3.2	4.0	2.4
Pyrene	mg/kg	0.1	MCERTS	< 0.10	0.43	2.8	3.5	2.2
Benzo(a)anthracene	mg/kg	0.1	MCERTS	< 0.10	0.24	1.0	1.5	1.1
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.31	0.94	2.0	0.98
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	< 0.10	0.29	0.81	1.5	1.1
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	< 0.10	0.26	0.54	1.2	0.46
Benzo(a)pyrene	mg/kg	0.1	MCERTS	< 0.10	0.33	0.52	1.4	0.84
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	0.43	< 0.10
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.76	< 0.05

Total PAH

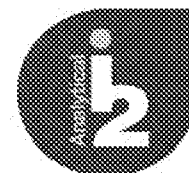
Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	< 1.60	2.31	11.9	18.2	10.7
-----------------------------	-------	-----	--------	--------	------	------	------	------

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	19	6.8	8.5	11	9.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	41	35	25	24	20
Copper (aqua regia extractable)	mg/kg	1	MCERTS	3.8	13	7.4	47	25
Lead (aqua regia extractable)	mg/kg	1	MCERTS	19	31	24	210	240
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	26	17	13	21	16
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	2.3	3.1	< 1.0	2.7	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	29	48	38	140	130



4041



Environmental Science

Analytical Report Number: 15-78431-A

Project / Site name: Water Lane Angmering

Your Order No: 15-S2-FDO-LABS

Lab Sample Number				483515	483516	483517	483518	483519
Sample Reference				MWS112	MWS113	MWS114	MWS115	MWS115
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.80	0.55	0.30	0.25	0.90
Date Sampled				02/09/2015	02/09/2015	02/09/2015	02/09/2015	02/09/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monoaromatics								
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

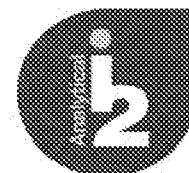
Petrolium Hydrocarbons

TPH-CWG - Aliphatic > EC5 - EC6	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic > EC6 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic > EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic > EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	2.1	3.7	< 2.0
TPH-CWG - Aliphatic > EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	17	< 8.0
TPH-CWG - Aliphatic > EC21 - EC35	mg/kg	8	MCERTS	< 8.0	65	8.6	85	51
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	65	11	110	51

TPH-CWG - Aromatic > EC5 - EC7	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic > EC7 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic > EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	1.0	< 1.0	< 1.0
TPH-CWG - Aromatic > EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	6.8	2.4	< 2.0
TPH-CWG - Aromatic > EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	42	16	13
TPH-CWG - Aromatic > EC21 - EC35	mg/kg	10	MCERTS	< 10	130	81	74	60
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	130	130	92	73



4041



Environmental Science

Analytical Report Number: 15-78431-A

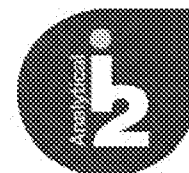
Project / Site name: Water Lane Angmering

Your Order No: 15-S2-FDO-LABS

Lab Sample Number				483515	483516	483517	483518	483519
Sample Reference				MWS112	MWS113	MWS114	MWS115	MWS115
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.80	0.55	0.30	0.25	0.90
Date Sampled				02/09/2015	02/09/2015	02/09/2015	02/09/2015	02/09/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Organochlorine Pesticides (OCP)								
Aldrin	mg/kg	0.01	NONE	-	-	-	-	-
Alpha-BHC(Lindane)	mg/kg	0.01	NONE	-	-	-	-	-
Beta-BHC(Lindane)	mg/kg	0.01	NONE	-	-	-	-	-
Chlordane (sum of cis & trans isomers)	mg/kg	0.01	NONE	-	-	-	-	-
DDD	mg/kg	0.01	NONE	-	-	-	-	-
DDE	mg/kg	0.01	NONE	-	-	-	-	-
DDT	mg/kg	0.01	NONE	-	-	-	-	-
Dieldrin	mg/kg	0.01	NONE	-	-	-	-	-
Endosulphan I	mg/kg	0.01	NONE	-	-	-	-	-
Endosulphan II	mg/kg	0.01	NONE	-	-	-	-	-
Endosulphan Sulphate	mg/kg	0.01	NONE	-	-	-	-	-
Endrin	mg/kg	0.01	NONE	-	-	-	-	-
Gamma-BHC	mg/kg	0.01	NONE	-	-	-	-	-
Heptachlor	mg/kg	0.01	NONE	-	-	-	-	-
Heptachlor epoxide	mg/kg	0.01	NONE	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.01	NONE	-	-	-	-	-
Hexachlorocyclohexane	mg/kg	0.01	NONE	-	-	-	-	-
pp-Methoxychlor	mg/kg	0.01	NONE	-	-	-	-	-
Organophosphorus Pesticides (OPP)								
Azinphos methyl	mg/kg	0.01	NONE	-	-	-	-	-
Diazinon	mg/kg	0.01	NONE	-	-	-	-	-
Dichlorvos	mg/kg	0.01	NONE	-	-	-	-	-
Dimethoate	mg/kg	0.01	NONE	-	-	-	-	-
Etion	mg/kg	0.01	NONE	-	-	-	-	-
Fenitrothion	mg/kg	0.01	NONE	-	-	-	-	-
Malathion	mg/kg	0.01	NONE	-	-	-	-	-
Mevinphos	mg/kg	0.01	NONE	-	-	-	-	-
Parathion	mg/kg	0.01	NONE	-	-	-	-	-
Pirimiphos methyl	mg/kg	0.01	NONE	-	-	-	-	-
Organonitrogen Pesticides (ONP)								
Atrazine	mg/kg	0.01	NONE	-	-	-	-	-
Simazine	mg/kg	0.01	NONE	-	-	-	-	-
Trietazine	mg/kg	0.01	NONE	-	-	-	-	-



4041



Environmental Science

Analytical Report Number: 15-78431-A

Project / Site name: Water Lane Angmering

Your Order No: 15-S2-FDO-LABS

Lab Sample Number	483523	483524	483525	483526	483527
Sample Reference	MWS111	TP103	TP104	TP105	TP106
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	1.90	0.20	0.10	1.00	0.50
Date Sampled	02/09/2015	02/09/2015	02/09/2015	02/09/2015	02/09/2015
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	14	14
Total mass of sample received	kg	0.001	NONE	0.92	1.1

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	-	-	-	-	-

General Inorganics

pH	pH Units	N/A	MCERTS	8.8	7.0	6.8	7.4	6.8
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Water Soluble Sulphate (Soil Equivalent)	g/kg	0.0025	MCERTS	0.64	0.019	0.026	0.035	0.030
Water Soluble Sulphate as SO ₄ (2:1)	mg/kg	2.5	MCERTS	640	19	26	35	30
Water Soluble Sulphate (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.32	0.0095	0.013	0.017	0.015
Sulphide	mg/kg	1	MCERTS	21	< 1.0	< 1.0	< 1.0	< 1.0
Organic Matter	%	0.1	MCERTS	1.5	2.5	2.9	0.3	2.6

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
----------------------------	-------	---	--------	-------	-------	-------	-------	-------

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	0.42	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	mg/kg	0.1	MCERTS	0.52	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	mg/kg	0.1	MCERTS	4.7	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	mg/kg	0.1	MCERTS	1.4	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	mg/kg	0.1	MCERTS	8.9	< 0.10	< 0.10	< 0.10	< 0.10
Pyrene	mg/kg	0.1	MCERTS	8.0	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(a)anthracene	mg/kg	0.1	MCERTS	3.1	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	mg/kg	0.05	MCERTS	4.1	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	2.4	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	2.1	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(a)pyrene	mg/kg	0.1	MCERTS	2.0	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	1.2	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.5	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

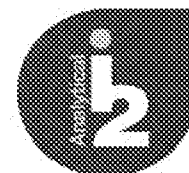
Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	40.4	< 1.60	< 1.60	< 1.60	< 1.60
-----------------------------	-------	-----	--------	------	--------	--------	--------	--------

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	5.0	9.0	7.5	10	12
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	13	27	25	34	27
Copper (aqua regia extractable)	mg/kg	1	MCERTS	20	8.3	12	12	13
Lead (aqua regia extractable)	mg/kg	1	MCERTS	50	22	23	14	28
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	11	14	21	22	21
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	4.3	< 1.0	< 1.0	< 1.0	2.3
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	55	44	34	54	63



4041



Environmental Science

Analytical Report Number: 15-78431-A

Project / Site name: Water Lane Angmering

Your Order No: 15-S2-FDO-LABS

Lab Sample Number				483523	483524	483525	483526	483527
Sample Reference				MWS111	TP103	TP104	TP105	TP106
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.90	0.20	0.10	1.00	0.50
Date Sampled				02/09/2015	02/09/2015	02/09/2015	02/09/2015	02/09/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monaromatics								
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

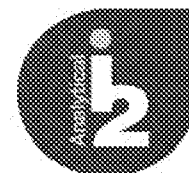
Petroleum Hydrocarbons

TPH-CWG - Aliphatic > EC5 - EC6	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic > EC6 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic > EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic > EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic > EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC21 - EC35	mg/kg	8	MCERTS	110	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	110	< 10	< 10	< 10	< 10

TPH-CWG - Aromatic > EC5 - EC7	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic > EC7 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic > EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic > EC10 - EC12	mg/kg	1	MCERTS	1.1	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic > EC12 - EC16	mg/kg	2	MCERTS	11	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic > EC16 - EC21	mg/kg	10	MCERTS	69	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic > EC21 - EC35	mg/kg	10	MCERTS	190	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	270	< 10	< 10	< 10	< 10



4041



Environmental Science

Analytical Report Number: 15-78431-A

Project / Site name: Water Lane Angmering

Your Order No: 15-S2-FDO-LABS

Lab Sample Number	483523	483524	483525	483526	483527
Sample Reference	MWS111	TP103	TP104	TP105	TP106
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	1.90	0.20	0.10	1.00	0.50
Date Sampled	02/09/2015	02/09/2015	02/09/2015	02/09/2015	02/09/2015
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied

Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Organochlorine Pesticides (OCP)								
Aldrin	mg/kg	0.01	NONE	-	-	< 0.01	-	-
Alpha-BHC(Lindane)	mg/kg	0.01	NONE	-	-	< 0.01	-	-
Beta-BHC(Lindane)	mg/kg	0.01	NONE	-	-	< 0.01	-	-
Chlordane (sum of cis & trans isomers)	mg/kg	0.01	NONE	-	-	< 0.01	-	-
DDD	mg/kg	0.01	NONE	-	-	< 0.01	-	-
DDE	mg/kg	0.01	NONE	-	-	< 0.01	-	-
DDT	mg/kg	0.01	NONE	-	-	< 0.01	-	-
Dieldrin	mg/kg	0.01	NONE	-	-	< 0.01	-	-
Endosulphan I	mg/kg	0.01	NONE	-	-	< 0.01	-	-
Endosulphan II	mg/kg	0.01	NONE	-	-	< 0.01	-	-
Endosulphan Sulphate	mg/kg	0.01	NONE	-	-	< 0.01	-	-
Endrin	mg/kg	0.01	NONE	-	-	< 0.01	-	-
Gamma-BHC	mg/kg	0.01	NONE	-	-	< 0.01	-	-
Heptachlor	mg/kg	0.01	NONE	-	-	< 0.01	-	-
Heptachlor epoxide	mg/kg	0.01	NONE	-	-	< 0.01	-	-
Hexachlorobenzene	mg/kg	0.01	NONE	-	-	< 0.01	-	-
Hexachlorocyclohexane	mg/kg	0.01	NONE	-	-	< 0.01	-	-
pp-Methoxychlor	mg/kg	0.01	NONE	-	-	< 0.01	-	-

Organophosphorus Pesticides (OPP)

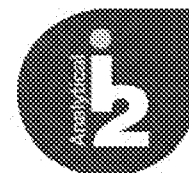
Azinphos methyl	mg/kg	0.01	NONE	-	-	-	-	-
Diazinon	mg/kg	0.01	NONE	-	-	-	-	-
Dichlorvos	mg/kg	0.01	NONE	-	-	-	-	-
Dimethoate	mg/kg	0.01	NONE	-	-	-	-	-
Etion	mg/kg	0.01	NONE	-	-	-	-	-
Fenitrothion	mg/kg	0.01	NONE	-	-	-	-	-
Malathion	mg/kg	0.01	NONE	-	-	-	-	-
Mevinphos	mg/kg	0.01	NONE	-	-	-	-	-
Parathion	mg/kg	0.01	NONE	-	-	-	-	-
Pirimiphos methyl	mg/kg	0.01	NONE	-	-	-	-	-

Organonitrogen Pesticides (ONP)

Atrazine	mg/kg	0.01	NONE	-	-	< 0.01	-	-
Simazine	mg/kg	0.01	NONE	-	-	< 0.01	-	-
Trietazine	mg/kg	0.01	NONE	-	-	< 0.01	-	-



4041



Environmental Science

Analytical Report Number: 15-78431-A

Project / Site name: Water Lane Angmering

Your Order No: 15-S2-FDO-LABS

Lab Sample Number				483528	483529	483530	483531	483532
Sample Reference				TP107	TP108	TP109	TP110	TP111
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.70	0.30	0.20	1.00	0.20
Date Sampled				02/09/2015	02/09/2015	02/09/2015	02/09/2015	02/09/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	14	16	18	14	16
Total mass of sample received	kg	0.001	NONE	1.1	1.1	1.0	0.80	0.99

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	-	-	-	-	-

General Inorganics

pH	pH Units	N/A	MCERTS	7.8	7.1	7.3	8.1	7.2
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Water Soluble Sulphate (Soil Equivalent)	g/kg	0.0025	MCERTS	0.026	0.035	0.064	0.19	0.045
Water Soluble Sulphate as SO ₄ (2:1)	mg/kg	2.5	MCERTS	26	35	64	190	45
Water Soluble Sulphate (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.013	0.017	0.032	0.095	0.023
Sulphide	mg/kg	1	MCERTS	< 1.0	11	1.3	< 1.0	< 1.0
Organic Matter	%	0.1	MCERTS	1.3	2.8	4.4	0.4	4.3

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
----------------------------	-------	---	--------	-------	-------	-------	-------	-------

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	0.63	< 0.10	< 0.10
Anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	0.15	< 0.10	< 0.10
Fluoranthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	1.2	< 0.10	< 0.10
Pyrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	1.0	< 0.10	< 0.10
Benzo(a)anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	0.36	< 0.10	< 0.10
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.60	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(a)pyrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

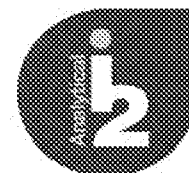
Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	< 1.60	< 1.60	4.01	< 1.60	< 1.60
-----------------------------	-------	-----	--------	--------	--------	------	--------	--------

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	9.7	8.9	9.9	15	10
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	28	24	31	49	33
Copper (aqua regia extractable)	mg/kg	1	MCERTS	14	13	22	22	20
Lead (aqua regia extractable)	mg/kg	1	MCERTS	26	23	23	18	21
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	17	16	18	45	18
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	1.5	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	63	54	60	86	52



4041



Environmental Science

Analytical Report Number: 15-78431-A

Project / Site name: Water Lane Angmering

Your Order No: 15-S2-FDO-LABS

Lab Sample Number				483528	483529	483530	483531	483532
Sample Reference				TP107	TP108	TP109	TP110	TP111
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.70	0.30	0.20	1.00	0.20
Date Sampled				02/09/2015	02/09/2015	02/09/2015	02/09/2015	02/09/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monaromatics								
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

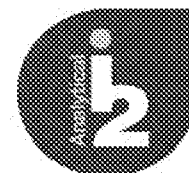
Petroleum Hydrocarbons

TPH-CWG - Aliphatic > EC5 - EC6	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic > EC6 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic > EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic > EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic > EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10

TPH-CWG - Aromatic > EC5 - EC7	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic > EC7 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic > EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic > EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic > EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic > EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	16	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	16	< 10	< 10



4041



Environmental Science

Analytical Report Number: 15-78431-A

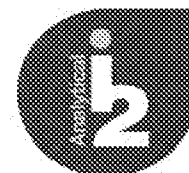
Project / Site name: Water Lane Angmering

Your Order No: 15-S2-FDO-LABS

Lab Sample Number				483528	483529	483530	483531	483532
Sample Reference				TP107	TP108	TP109	TP110	TP111
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.70	0.30	0.20	1.00	0.20
Date Sampled				02/09/2015	02/09/2015	02/09/2015	02/09/2015	02/09/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Organochlorine Pesticides (OCP)								
Aldrin	mg/kg	0.01	NONE	-	< 0.01	-	-	-
Alpha-BHC(Lindane)	mg/kg	0.01	NONE	-	< 0.01	-	-	-
Beta-BHC(Lindane)	mg/kg	0.01	NONE	-	< 0.01	-	-	-
Chlordane (sum of cis & trans isomers)	mg/kg	0.01	NONE	-	< 0.01	-	-	-
DDD	mg/kg	0.01	NONE	-	< 0.01	-	-	-
DDE	mg/kg	0.01	NONE	-	< 0.01	-	-	-
DDT	mg/kg	0.01	NONE	-	< 0.01	-	-	-
Dieldrin	mg/kg	0.01	NONE	-	< 0.01	-	-	-
Endosulphan I	mg/kg	0.01	NONE	-	< 0.01	-	-	-
Endosulphan II	mg/kg	0.01	NONE	-	< 0.01	-	-	-
Endosulphan Sulphate	mg/kg	0.01	NONE	-	< 0.01	-	-	-
Endrin	mg/kg	0.01	NONE	-	< 0.01	-	-	-
Gamma-BHC	mg/kg	0.01	NONE	-	< 0.01	-	-	-
Heptachlor	mg/kg	0.01	NONE	-	< 0.01	-	-	-
Heptachlor epoxide	mg/kg	0.01	NONE	-	< 0.01	-	-	-
Hexachlorobenzene	mg/kg	0.01	NONE	-	< 0.01	-	-	-
Hexachlorocyclohexane	mg/kg	0.01	NONE	-	< 0.01	-	-	-
pp-Methoxychlor	mg/kg	0.01	NONE	-	< 0.01	-	-	-
Organophosphorus Pesticides (OPP)								
Azinphos methyl	mg/kg	0.01	NONE	-	< 0.01	-	-	-
Diazinon	mg/kg	0.01	NONE	-	< 0.01	-	-	-
Dichlorvos	mg/kg	0.01	NONE	-	< 0.01	-	-	-
Dimethoate	mg/kg	0.01	NONE	-	< 0.01	-	-	-
Etion	mg/kg	0.01	NONE	-	< 0.01	-	-	-
Fenitrothion	mg/kg	0.01	NONE	-	< 0.01	-	-	-
Malathion	mg/kg	0.01	NONE	-	< 0.01	-	-	-
Mevinphos	mg/kg	0.01	NONE	-	< 0.01	-	-	-
Parathion	mg/kg	0.01	NONE	-	< 0.01	-	-	-
Pirimiphos methyl	mg/kg	0.01	NONE	-	< 0.01	-	-	-
Organonitrogen Pesticides (ONP)								
Atrazine	mg/kg	0.01	NONE	-	-	-	-	-
Simazine	mg/kg	0.01	NONE	-	-	-	-	-
Trietazine	mg/kg	0.01	NONE	-	-	-	-	-



4041



Environmental Science

Analytical Report Number: 15-78431-A

Project / Site name: Water Lane Angmering

Your Order No: 15-S2-FDO-LABS

Lab Sample Number	483533	483534	483535	483536	483537
Sample Reference	TP112	TP113	TP114	TP115	TP117
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.50	3.30	1.00	0.10	0.30
Date Sampled	02/09/2015	02/09/2015	02/09/2015	02/09/2015	02/09/2015
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	10	16
Total mass of sample received	kg	0.001	NONE	1.3	1.1

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	-	-	-

General Inorganics

pH	pH Units	N/A	MCERTS	8.7	9.4	7.0	6.4	6.8
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Water Soluble Sulphate (Soil Equivalent)	g/kg	0.0025	MCERTS	1.2	2.0	0.039	0.037	0.028
Water Soluble Sulphate as SO ₄ (2:1)	mg/kg	2.5	MCERTS	1200	2000	39	37	28
Water Soluble Sulphate (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.62	0.99	0.019	0.018	0.014
Sulphide	mg/kg	1	MCERTS	340	270	< 1.0	< 1.0	1.0
Organic Matter	%	0.1	MCERTS	6.1	2.8	0.3	4.9	4.5

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
----------------------------	-------	---	--------	-------	-------	-------	-------	-------

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	2.8	0.27	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.1	MCERTS	2.0	0.40	< 0.10	< 0.10	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	12	1.0	< 0.10	< 0.10	< 0.10
Fluorene	mg/kg	0.1	MCERTS	14	1.3	< 0.10	< 0.10	< 0.10
Phenanthrene	mg/kg	0.1	MCERTS	120	9.0	< 0.10	< 0.10	< 0.10
Anthracene	mg/kg	0.1	MCERTS	32	2.7	< 0.10	< 0.10	< 0.10
Fluoranthene	mg/kg	0.1	MCERTS	170	15	< 0.10	< 0.10	< 0.10
Pyrene	mg/kg	0.1	MCERTS	140	13	< 0.10	< 0.10	< 0.10
Benzo(a)anthracene	mg/kg	0.1	MCERTS	73	5.5	< 0.10	< 0.10	< 0.10
Chrysene	mg/kg	0.05	MCERTS	75	4.6	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	79	4.8	< 0.10	< 0.10	< 0.10
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	43	3.1	< 0.10	< 0.10	< 0.10
Benzo(a)pyrene	mg/kg	0.1	MCERTS	69	4.6	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	41	2.1	< 0.10	< 0.10	< 0.10
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	5.5	0.37	< 0.10	< 0.10	< 0.10
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	48	2.6	< 0.05	< 0.05	< 0.05

Total PAH

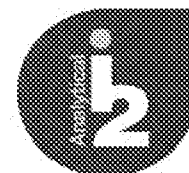
Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	917	70.0	< 1.60	< 1.60	< 1.60
-----------------------------	-------	-----	--------	-----	------	--------	--------	--------

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.9	8.0	9.1	7.2	5.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	37	22	39	21	20
Copper (aqua regia extractable)	mg/kg	1	MCERTS	29	48	13	6.4	7.7
Lead (aqua regia extractable)	mg/kg	1	MCERTS	47	140	13	22	19
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	17	15	37	9.6	13
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	77	170	64	30	24



4041



Environmental Science

Analytical Report Number: 15-78431-A

Project / Site name: Water Lane Angmering

Your Order No: 15-S2-FDO-LABS

Lab Sample Number				483533	483534	483535	483536	483537
Sample Reference				TP112	TP113	TP114	TP115	TP117
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	3.30	1.00	0.10	0.30
Date Sampled				02/09/2015	02/09/2015	02/09/2015	02/09/2015	02/09/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monaromatics								
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

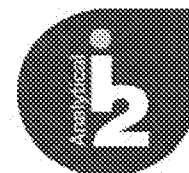
Petroleum Hydrocarbons

TPH-CWG - Aliphatic > EC5 - EC6	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic > EC6 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic > EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic > EC12 - EC16	mg/kg	2	MCERTS	2.2	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic > EC16 - EC21	mg/kg	8	MCERTS	23	13	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC21 - EC35	mg/kg	8	MCERTS	74	52	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	99	65	< 10	< 10	< 10

TPH-CWG - Aromatic > EC5 - EC7	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic > EC7 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic > EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic > EC12 - EC16	mg/kg	2	MCERTS	6.3	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic > EC16 - EC21	mg/kg	10	MCERTS	120	27	< 10	< 10	< 10
TPH-CWG - Aromatic > EC21 - EC35	mg/kg	10	MCERTS	880	110	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	1000	140	< 10	< 10	< 10



4041



Environmental Science

Analytical Report Number: 15-78431-A

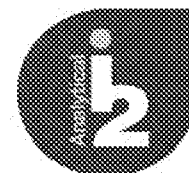
Project / Site name: Water Lane Angmering

Your Order No: 15-S2-FDO-LABS

Lab Sample Number				483533	483534	483535	483536	483537
Sample Reference				TP112	TP113	TP114	TP115	TP117
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	3.30	1.00	0.10	0.30
Date Sampled				02/09/2015	02/09/2015	02/09/2015	02/09/2015	02/09/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Organochlorine Pesticides (OCP)								
Aldrin	mg/kg	0.01	NONE	-	-	-	-	-
Alpha-BHC(Lindane)	mg/kg	0.01	NONE	-	-	-	-	-
Beta-BHC(Lindane)	mg/kg	0.01	NONE	-	-	-	-	-
Chlordane (sum of cis & trans isomers)	mg/kg	0.01	NONE	-	-	-	-	-
DDD	mg/kg	0.01	NONE	-	-	-	-	-
DDE	mg/kg	0.01	NONE	-	-	-	-	-
DDT	mg/kg	0.01	NONE	-	-	-	-	-
Dieldrin	mg/kg	0.01	NONE	-	-	-	-	-
Endosulphan I	mg/kg	0.01	NONE	-	-	-	-	-
Endosulphan II	mg/kg	0.01	NONE	-	-	-	-	-
Endosulphan Sulphate	mg/kg	0.01	NONE	-	-	-	-	-
Endrin	mg/kg	0.01	NONE	-	-	-	-	-
Gamma-BHC	mg/kg	0.01	NONE	-	-	-	-	-
Heptachlor	mg/kg	0.01	NONE	-	-	-	-	-
Heptachlor epoxide	mg/kg	0.01	NONE	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.01	NONE	-	-	-	-	-
Hexachlorocyclohexane	mg/kg	0.01	NONE	-	-	-	-	-
pp-Methoxychlor	mg/kg	0.01	NONE	-	-	-	-	-
Organophosphorus Pesticides (OPP)								
Azinphos methyl	mg/kg	0.01	NONE	-	-	-	-	-
Diazinon	mg/kg	0.01	NONE	-	-	-	-	-
Dichlorvos	mg/kg	0.01	NONE	-	-	-	-	-
Dimethoate	mg/kg	0.01	NONE	-	-	-	-	-
Etion	mg/kg	0.01	NONE	-	-	-	-	-
Fenitrothion	mg/kg	0.01	NONE	-	-	-	-	-
Malathion	mg/kg	0.01	NONE	-	-	-	-	-
Mevinphos	mg/kg	0.01	NONE	-	-	-	-	-
Parathion	mg/kg	0.01	NONE	-	-	-	-	-
Pirimiphos methyl	mg/kg	0.01	NONE	-	-	-	-	-
Organonitrogen Pesticides (ONP)								
Atrazine	mg/kg	0.01	NONE	-	-	-	-	-
Simazine	mg/kg	0.01	NONE	-	-	-	-	-
Trietazine	mg/kg	0.01	NONE	-	-	-	-	-



4041



Environmental Science

Analytical Report Number : 15-78431-A**Project / Site name: Water Lane Angmering**

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
483500	MWS101	None Supplied	0.20	Brown clay and loam with gravel and vegetation.
483501	MWS102	None Supplied	0.60	Brown clay and sand.
483502	MWS103	None Supplied	0.30	Brown loam and clay with gravel.
483503	MWS104	None Supplied	0.40	Brown clay and loam with gravel and vegetation.
483504	MWS105	None Supplied	0.35	Light brown clay and sand.
483505	MWS106	None Supplied	0.30	Brown loam and clay with gravel.
483506	MWS107	None Supplied	0.50	Brown clay and sand with gravel and vegetation.
483507	MWS107	None Supplied	0.90	Brown clay and sand with gravel and chalk.
483508	MWS108	None Supplied	0.60	Brown loam and clay with gravel.
483509	MWS109	None Supplied	0.50	-
483510	MWS110	None Supplied	0.30	Brown loam and clay with gravel.
483511	MWS110	None Supplied	0.70	Light brown clay and sand.
483512	MWS110	None Supplied	1.10	Brown clay and sand.
483513	MWS111	None Supplied	0.35	Brown clay and loam with gravel.
483514	MWS112	None Supplied	0.15	Brown clay and loam with gravel.
483515	MWS112	None Supplied	0.80	Brown clay and sand.
483516	MWS113	None Supplied	0.55	Brown clay and sand.
483517	MWS114	None Supplied	0.30	Brown clay and sand.
483518	MWS115	None Supplied	0.25	Brown clay and sand.
483519	MWS115	None Supplied	0.90	Brown clay and sand.
483523	MWS111	None Supplied	1.90	Brown clay and sand with gravel and chalk.
483524	TP103	None Supplied	0.20	Brown loam and clay.
483525	TP104	None Supplied	0.10	Brown loam and clay.
483526	TP105	None Supplied	1.00	Brown clay and sand.
483527	TP106	None Supplied	0.50	Brown loam and clay with gravel.
483528	TP107	None Supplied	0.70	Brown loam and clay with gravel.
483529	TP108	None Supplied	0.30	Brown loam and clay with gravel.
483530	TP109	None Supplied	0.20	Brown loam and clay with gravel.
483531	TP110	None Supplied	1.00	Brown clay and sand.
483532	TP111	None Supplied	0.20	Brown loam and clay with gravel.
483533	TP112	None Supplied	0.50	Brown loam and sand with gravel.
483534	TP113	None Supplied	3.30	Brown loam and clay with gravel.
483535	TP114	None Supplied	1.00	Brown clay and sand.
483536	TP115	None Supplied	0.10	Brown loam and sand with gravel.
483537	TP117	None Supplied	0.30	Brown loam and sand with gravel.



Analytical Report Number : 15-78431-A

Project / Site name: Water Lane Angmering

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Organic matter in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L023-PL	D	MCERTS
Organochlorine pesticides in soil	Determination of organochlorine pesticides in soil by GC-MS	In-house method		W	NONE
Organonitrogen pesticides in soil	Determination of organonitrogen pesticides in soil by GC-MS	In-house method		W	NONE
Organophosphorous pesticides in soil	Determination of organophosphorous pesticides in soil by GC-MS	In-house method		W	NONE
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Sulphate, water soluble, in soil	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests, 2:1 water:soil extraction, analysis by ICP-OES.	L038-PL	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode.	In-house method	L010-PL	D	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method	L076-PL	W	MCERTS

Iss No 15-78431-2A Water Lane Angmering 19495



Analytical Report Number : 15-78431-A

Project / Site name: Water Lane Angmering

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

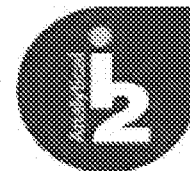
Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
----------------------	-------------------------------	-----------------------------	---------------	--------------------	----------------------

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Sample ID	Other ID	Sample Type	Job	Sample Number	Sample Deviation Code	test name	test ref	Test Deviation code
MWS101		S	15-78431	483500	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
MWS101		S	15-78431	483500	b	TPHCWG (Soil)	L076-PL	b
MWS102		S	15-78431	483501	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
MWS102		S	15-78431	483501	b	TPHCWG (Soil)	L076-PL	b
MWS103		S	15-78431	483502	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
MWS103		S	15-78431	483502	b	TPHCWG (Soil)	L076-PL	b
MWS104		S	15-78431	483503	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
MWS104		S	15-78431	483503	b	TPHCWG (Soil)	L076-PL	b
MWS105		S	15-78431	483504	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
MWS105		S	15-78431	483504	b	TPHCWG (Soil)	L076-PL	b
MWS106		S	15-78431	483505	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
MWS106		S	15-78431	483505	b	TPHCWG (Soil)	L076-PL	b
MWS107		S	15-78431	483506	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
MWS107		S	15-78431	483506	b	TPHCWG (Soil)	L076-PL	b
MWS107		S	15-78431	483507	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
MWS107		S	15-78431	483507	b	TPHCWG (Soil)	L076-PL	b
MWS108		S	15-78431	483508	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
MWS108		S	15-78431	483508	b	TPHCWG (Soil)	L076-PL	b
MWS110		S	15-78431	483510	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
MWS110		S	15-78431	483510	b	TPHCWG (Soil)	L076-PL	b
MWS110		S	15-78431	483511	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
MWS110		S	15-78431	483511	b	TPHCWG (Soil)	L076-PL	b
MWS110		S	15-78431	483512	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
MWS110		S	15-78431	483512	b	TPHCWG (Soil)	L076-PL	b
MWS111		S	15-78431	483513	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
MWS111		S	15-78431	483513	b	TPHCWG (Soil)	L076-PL	b
MWS111		S	15-78431	483523	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
MWS111		S	15-78431	483523	b	TPHCWG (Soil)	L076-PL	b
MWS112		S	15-78431	483515	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
MWS112		S	15-78431	483515	b	TPHCWG (Soil)	L076-PL	b
MWS113		S	15-78431	483516	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
MWS113		S	15-78431	483516	b	TPHCWG (Soil)	L076-PL	b
MWS114		S	15-78431	483517	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
MWS114		S	15-78431	483517	b	TPHCWG (Soil)	L076-PL	b
MWS115		S	15-78431	483518	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
MWS115		S	15-78431	483518	b	TPHCWG (Soil)	L076-PL	b
MWS115		S	15-78431	483519	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
MWS115		S	15-78431	483519	b	TPHCWG (Soil)	L076-PL	b
TP103		S	15-78431	483524	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
TP103		S	15-78431	483524	b	TPHCWG (Soil)	L076-PL	b
TP104		S	15-78431	483525	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
TP104		S	15-78431	483525	b	TPHCWG (Soil)	L076-PL	b
TP105		S	15-78431	483526	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
TP105		S	15-78431	483526	b	TPHCWG (Soil)	L076-PL	b
TP106		S	15-78431	483527	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
TP106		S	15-78431	483527	b	TPHCWG (Soil)	L076-PL	b
TP107		S	15-78431	483528	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
TP107		S	15-78431	483528	b	TPHCWG (Soil)	L076-PL	b
TP108		S	15-78431	483529	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
TP108		S	15-78431	483529	b	TPHCWG (Soil)	L076-PL	b
TP109		S	15-78431	483530	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
TP109		S	15-78431	483530	b	TPHCWG (Soil)	L076-PL	b
TP110		S	15-78431	483531	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
TP110		S	15-78431	483531	b	TPHCWG (Soil)	L076-PL	b
TP111		S	15-78431	483532	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
TP111		S	15-78431	483532	b	TPHCWG (Soil)	L076-PL	b
TP112		S	15-78431	483533	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
TP112		S	15-78431	483533	b	TPHCWG (Soil)	L076-PL	b
TP113		S	15-78431	483534	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
TP113		S	15-78431	483534	b	TPHCWG (Soil)	L076-PL	b
TP114		S	15-78431	483535	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
TP114		S	15-78431	483535	b	TPHCWG (Soil)	L076-PL	b
TP115		S	15-78431	483536	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
TP115		S	15-78431	483536	b	TPHCWG (Soil)	L076-PL	b
TP117		S	15-78431	483537	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
TP117		S	15-78431	483537	b	TPHCWG (Soil)	L076-PL	b



Environmental Science

Siobhan Jackson

Merebrook
First Floor
1 Leonard Place
Westerham Road
Keston
BR2 6HQ

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

Analytical Report Number : 15-78433

Project / Site name:	Water Lane Angmering	Samples received on:	07/09/2015
Your job number:	19495	Samples instructed on:	07/09/2015
Your order number:	15-S2-FDO-LABS	Analysis completed by:	16/09/2015
Report Issue Number:	1	Report issued on:	16/09/2015
Samples Analysed:	1 wac multi sample		

Signed:

Rexona Rahman
Reporting Manager
For & on behalf of i2 Analytical Ltd.

Signed:

Emma Winter
Assistant Reporting Manager
For & on behalf of i2 Analytical Ltd.

Other office located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Iss No 15-78433-1

This certificate should not be reproduced, except in full, without the express permission of the laboratory.

The results included within the report are representative of the samples submitted for analysis.

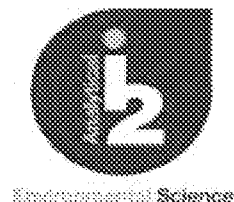
Page 1 of 5



i2 Analytical

7 Woodshots Meadow
Croxley Green Business Park
Watford, WD18 8YS

Waste Acceptance Criteria Analytical Results							
Report No:	15-78433						
					Client: MEREBROOK		
Location	Water Lane Angmering						
Lab Reference (Sample Number)	483552				Landfill Waste Acceptance Criteria		
Sampling Date	03/09/2015				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	MWS109						
Depth (m)	0.50						
Solid Waste Analysis							
TOC (%)**	1.2				3%	5%	6%
Loss on Ignition (%) **	2.3				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.30				1	--	--
Mineral Oil (mg/kg)	310				500	--	--
Total PAH (WAC-17) (mg/kg)	53				100	--	--
pH (units)**	7.6				--	>6	--
Acid Neutralisation Capacity (mol / kg)	5.1				--	To be evaluated	To be evaluated
Eluate Analysis	2:1	8:1		Cumulative 10:1	Limit values for compliance leaching test		
(BS EN 12457 - 3 preparation utilising end over end leaching procedure)	mg/l	mg/l		mg/kg	using BS EN 12457-3 at l/S 10 l/kg (mg/kg)		
Arsenic *	< 0.010	< 0.010		< 0.050	0.5	2	25
Barium *	0.099	0.067		0.73	20	100	300
Cadmium *	< 0.0005	< 0.0005		< 0.0020	0.04	1	5
Chromium *	0.0052	0.0035		0.038	0.5	10	70
Copper *	0.011	0.0056		0.064	2	50	100
Mercury *	< 0.0015	< 0.0015		< 0.010	0.01	0.2	2
Molybdenum *	< 0.0030	< 0.0030		< 0.020	0.5	10	30
Nickel *	0.0034	0.0027		0.029	0.4	10	40
Lead *	0.0061	< 0.0050		0.049	0.5	10	50
Antimony *	< 0.0050	< 0.0050		< 0.020	0.06	0.7	5
Selenium *	< 0.010	< 0.010		0.088	0.1	0.5	7
Zinc *	0.0045	0.0038		0.039	4	50	200
Chloride *	< 4.0	< 4.0		< 15	800	4000	25000
Fluoride	2.1	1.1		13	10	150	500
Sulphate *	130	17		360	1000	20000	50000
TDS	170	40		620	4000	60000	100000
Phenol Index (Monhydric Phenols) *	< 0.13	< 0.13		< 0.50	1	-	-
DOC	5.8	19		170	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	1.2						
Dry Matter (%)	97						
Moisture (%)	3.0						
Stage 1							
Volume Eluate L2 (litres)	0.34						
Filtered Eluate VE1 (litres)	0.29						
Results are expressed on a dry weight basis, after correction for moisture content where applicable							
Stated limits are for guidance only and I2 cannot be held responsible for any discrepancies with current legislation							
* = UKAS accredited (liquid eluate analysis only)							
** = MCERTS accredited							



Analytical Report Number : 15-78433

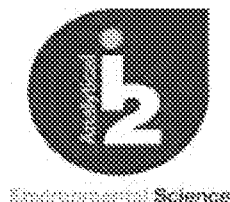
Project / Site name: Water Lane Angmering

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
483552	MWS109	None Supplied	0.50	Brown gravel.**

**Non MCerts matrix



Analytical Report Number : 15-78433

Project / Site name: Water Lane Angmering

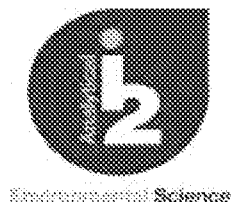
Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Acid neutralisation capacity of soil	Determination of acid neutralisation capacity by addition of acid or alkali followed by electronic probe.	In-house method based on Guidance on Sampling and Testing of Wastes to Meet Landfill Waste Acceptance	L046-PL	W	NONE
BTEX (Sum of BTEX compounds) in soil	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073S-PL	W	MCERTS
Chloride in WAC leachate (BS EN 12457-3 Prep)	Determination of Chloride colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260.	L082-PL	W	ISO 17025
DOC in WAC leachate (BS EN 12457-3 Prep)	Determination of dissolved organic carbon in leachate by TOC/DOC NDIR analyser.	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L037-PL	W	NONE
Fluoride in WAC leachate (BS EN 12457-3 Prep)	Determination of fluoride in leachate by 1:1ratio with a buffer solution followed by Ion Selective Electrode.	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L033-PL	W	NONE
Loss on ignition of soil @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L047-PL	D	MCERTS
Metals in WAC leachate (BS EN 12457-3 Prep)	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L039-PL	W	ISO 17025
Mineral Oil in Soil	Determination of dichloromethane/hexane extractable hydrocarbons in soil by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
PCB's by GC-MS in soil	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L027-PL	D	MCERTS
pH in soil	Determination of pH in soil by addition of water followed by electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L005-PL	W	MCERTS
Phenol Index in WAC leachate (BS EN 12457-3 Prep)	Determination of monohydric phenols in leachate by continuous flow analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
Seciated WAC-17 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Sulphate in WAC leachate (BS EN 12457-3 Prep)	Determination of sulphate in leachate by acidification followed by ICP-OES.	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L039-PL	W	ISO 17025
TDS in WAC leachate (BS EN 12457-3 Prep)	Determination of total dissolved solids in leachate by electrometric measurement.	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L004-PL	W	NONE
Total organic carbon in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L023-PL	D	MCERTS

ISS NO 15-78433-1

This certificate should not be reproduced, except in full, without the express permission of the laboratory.

The results included within the report are representative of the samples submitted for analysis.



Analytical Report Number : 15-78433

Project / Site name: Water Lane Angmering

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
----------------------	-------------------------------	-----------------------------	---------------	--------------------	----------------------

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.



Environmental Science

Siobhan Jackson

Merebrook
Suite 2B
East Mill
Bridgefoot
Belper
Derbyshire
DE56 2UA

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

Analytical Report Number : 15-78526

Project / Site name: Water Lane Angmering

Samples received on: 07/09/2015

Your job number: 19495

Samples instructed on: 09/09/2015

Your order number: 15-S2-FDO-LABS

Analysis completed by: 15/09/2015

Report Issue Number: 1

Report issued on: 15/09/2015

Samples Analysed: 1 soil sample

Signed:

Rexona Rahman
Reporting Manager
For & on behalf of i2 Analytical Ltd.

Signed:

Emma Winter
Assistant Reporting Manager
For & on behalf of i2 Analytical Ltd.

Other office located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Iss No 15-78526-1

This certificate should not be reproduced, except in full, without the express permission of the laboratory.

The results included within the report are representative of the samples submitted for analysis.

Page 1 of 3

Analytical Report Number: 15-78526

Project / Site name: Water Lane Angmering

Your Order No: 15-S2-FDO-LABS

Lab Sample Number				484013				
Sample Reference				TP116				
Sample Number				None Supplied				
Depth (m)				0.200				
Date Sampled				03/09/2015				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

Environmental Forensics
Organochlorine Pesticides

Aldrin	µg/kg	10	NONE	< 10				
Alpha-HCH (Alpha BHC)	µg/kg	10	NONE	< 10				
Beta-HCH (Beta-BHC)	µg/kg	10	NONE	< 10				
Chlordane (sum of cis & trans isomers)	µg/kg	10	NONE	< 10				
Delta-HCH (Delta-BHC)	µg/kg	10	NONE	< 10				
Dieldrin	µg/kg	10	NONE	< 10				
Endosulphan A	µg/kg	10	NONE	< 10				
Endosulphan B	µg/kg	10	NONE	< 10				
Endrin	µg/kg	10	NONE	< 10				
Gamma-HCH (Lindane) (Gamma-BHC)	µg/kg	10	NONE	< 10				
HCB (Hexachlorobenzene)	µg/kg	10	NONE	< 10				
Heptachlor	µg/kg	10	NONE	< 10				
Heptachlor Epoxide	µg/kg	10	NONE	< 10				
Isodrin	µg/kg	10	NONE	< 10				
pp-Methoxychlor	µg/kg	10	NONE	< 10				
o,p-DDE	µg/kg	10	NONE	< 10				
o,p-DDT	µg/kg	10	NONE	< 10				
o,p-TDE (o,p-DDD)	µg/kg	10	NONE	< 10				
p,p-DDE	µg/kg	10	NONE	< 10				
p,p-DDT	µg/kg	10	NONE	< 10				
p,p-TDE (p,p-DDD)	µg/kg	10	NONE	< 10				
Trifluralin	µg/kg	10	NONE	< 10				

Organophosphorous pesticides

Azinphos-methyl	µg/kg	10	NONE	< 10				
Chlorfenvinphos I (cis)	µg/kg	10	NONE	< 10				
Chlorfenvinphos II (trans)	µg/kg	10	NONE	< 10				
Chlorfenvinphos-methyl	µg/kg	10	NONE	< 10				
Diazinon	µg/kg	10	NONE	< 10				
Dichlorvos	µg/kg	10	NONE	< 10				
Dimethoate	µg/kg	10	NONE	< 10				
E-mevinphos	µg/kg	10	NONE	< 10				
Z-mevinphos	µg/kg	10	NONE	< 10				
Fenitrothion	µg/kg	10	NONE	< 10				
Fenthion	µg/kg	10	NONE	< 10				
Malathion	µg/kg	10	NONE	< 10				
Parathion-ethyl	µg/kg	10	NONE	< 10				
Parathion-methyl	µg/kg	10	NONE	< 10				
Phorate	µg/kg	10	NONE	< 10				

Analytical Report Number : 15-78526

Project / Site name: Water Lane Angmering

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
TO - Organochlorine pesticides in soil	Determination of OCPs by extraction with hexane followed by GC-MS.	In-house method		W	NONE
TO - Organophosphorous pesticides in soil	Determination of OPPs by extraction with DCM followed by GC-MS.	In-house method		W	NONE

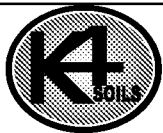
For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.



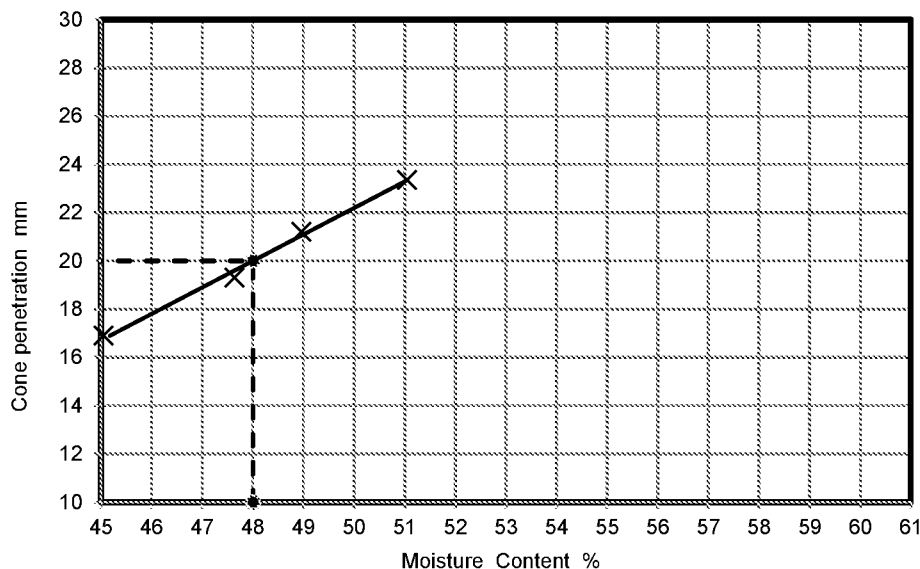
APPENDIX 5 ■ Geotechnical Laboratory Certificates



LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

Job No.	19472
Borehole/Pit No.	TP101
Sample No.	1
Depth m	2.50
Sample Type	B
Samples received	08/09/2015
Schedules received	09/09/2015
Project Started	09/09/2015
Date Tested	23/09/2015

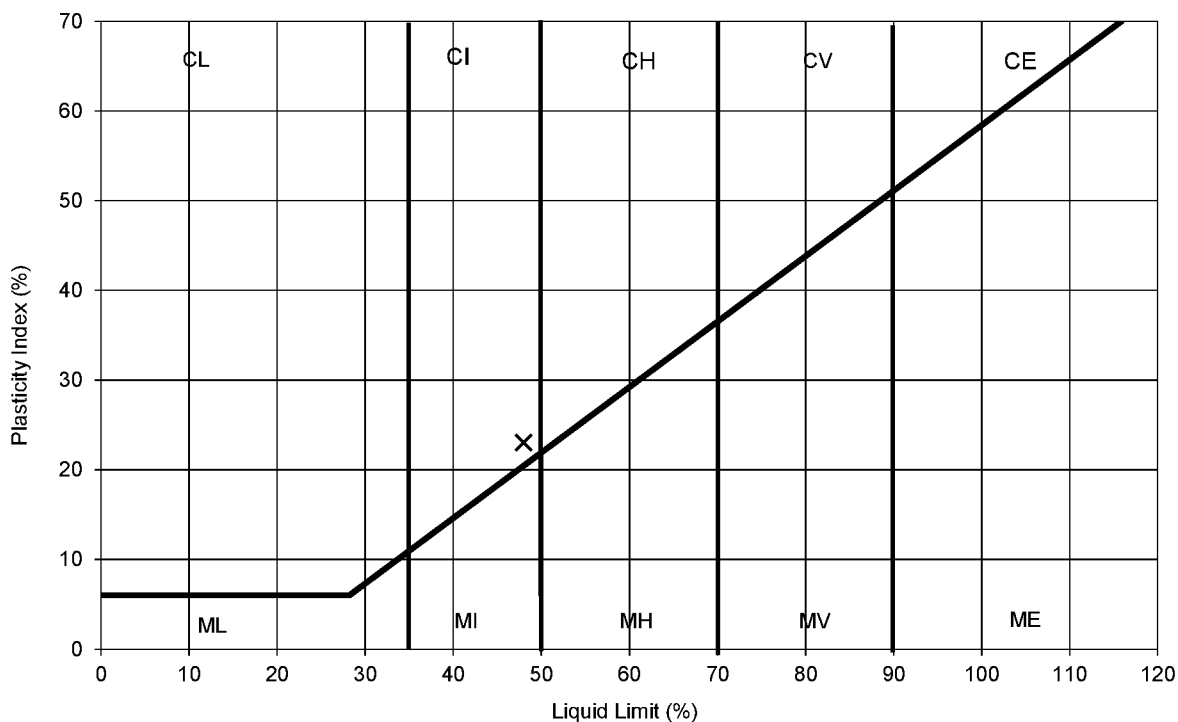
Site Name	Water Lane		
Project No.	19495	Client	Idom Merebrook Ltd
Soil Description	Brown gravelly slightly sandy silty CLAY (gravel is fmc and sub-angular to sub-rounded)		



NATURAL MOISTURE CONTENT	9	%
% PASSING 425µm SIEVE	14	%
LIQUID LIMIT	48	%
PLASTIC LIMIT	25	%
PLASTICITY INDEX	23	%

Remarks

PLASTICITY INDEX



TEST METHOD

BS1377: Part 2 : Clause 4.4 : 1990 Determination of the liquid limit by the cone penetrometer method

BS1377: Part 2 : Clause 5.0 : 1990: Determination of the plastic limit and plasticity index

BS1377: Part 2 : Clause 3.2 : 1990: Determination of the moisture content by the oven drying

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU

Tel: 01923 711 288 Email: James@k4soils.com

Checked and Approved

Initials: J.P

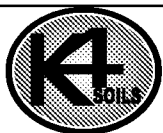
Date: 25/09/2015

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

MSF-5 R2 (Rev.0)



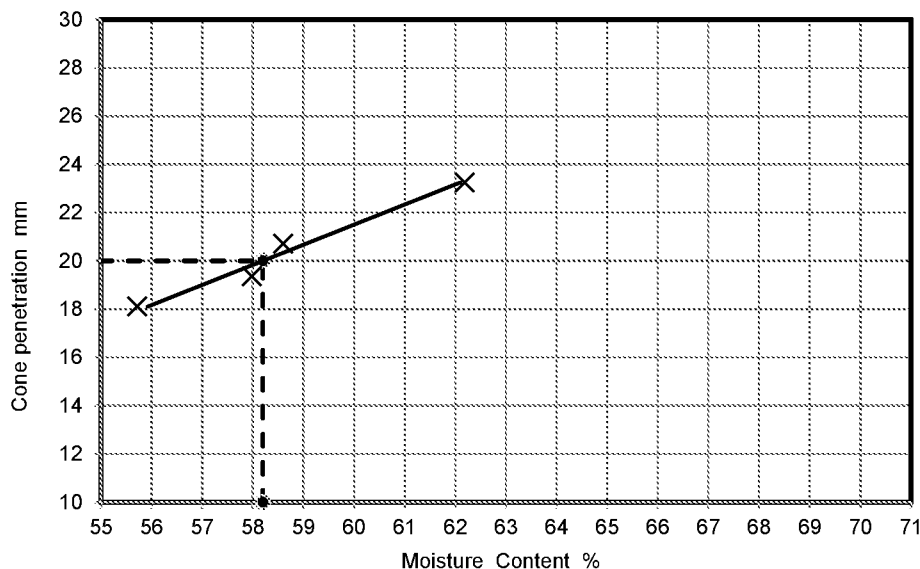
2519



LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

Job No.	19472
Borehole/Pit No.	TP104
Sample No.	1
Depth m	3.00
Sample Type	B
Samples received	08/09/2015
Schedules received	09/09/2015
Project Started	09/09/2015
Date Tested	

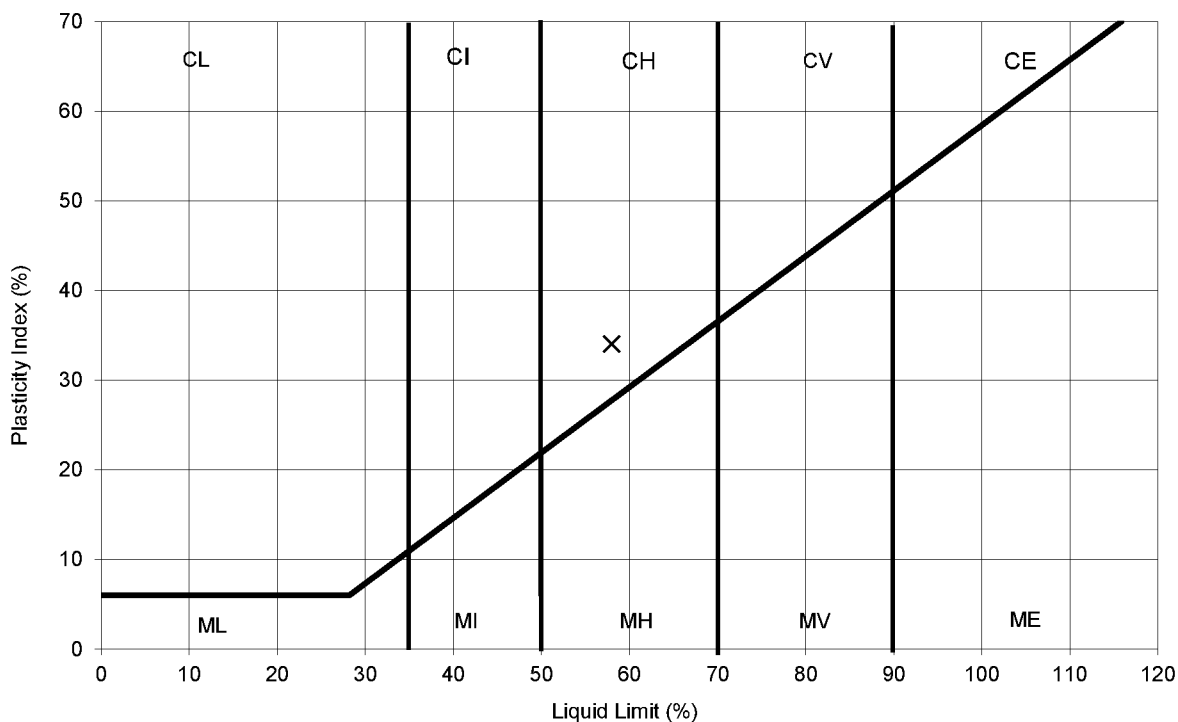
Site Name	Water Lane		
Project No.	19495	Client	Idom Merebrook Ltd
Soil Description	Brown, orange brown and pale grey CLAY		



NATURAL MOISTURE CONTENT	30	%
% PASSING 425µm SIEVE	100	%
LIQUID LIMIT	58	%
PLASTIC LIMIT	24	%
PLASTICITY INDEX	34	%

Remarks

PLASTICITY INDEX



TEST METHOD

BS1377: Part 2 :Clause 4.4 : 1990 Determination of the liquid limit by the cone penetrometer method

BS1377: Part 2 :Clause 5.0 : 1990: Determination of the plastic limit and plasticity index

BS1377: Part 2 :Clause 3.2 : 1990:Determination of the moisture content by the oven drying

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU

Tel: 01923 711 288 Email: James@k4soils.com

Checked and Approved

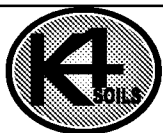
Initials: J.P

Date: 25/09/2015

2519

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

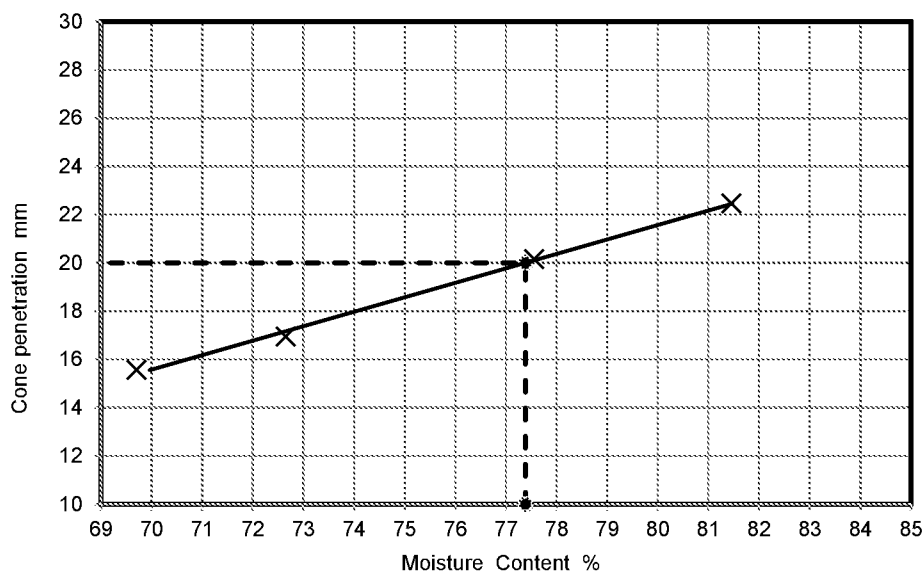
MSF-5 R2 (Rev.0)



LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

Job No.	19472
Borehole/Pit No.	TP110
Sample No.	1
Depth m	2.70
Sample Type	B
Samples received	08/09/2015
Schedules received	09/09/2015
Project Started	09/09/2015
Date Tested	

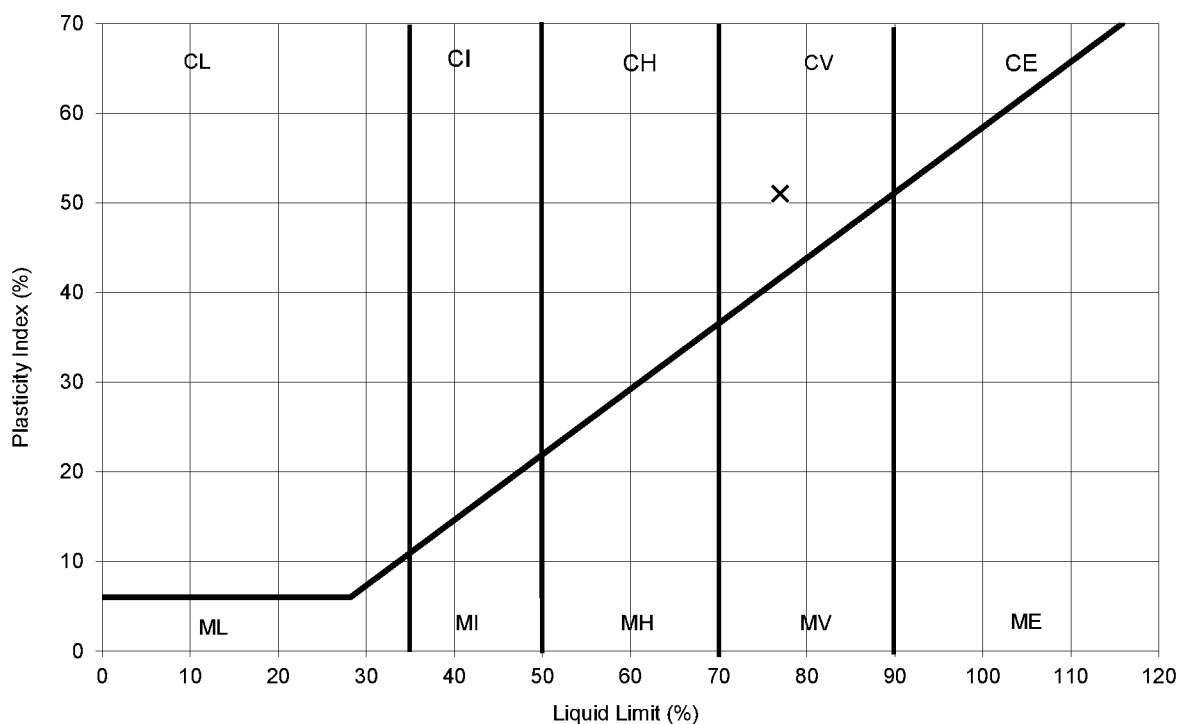
Site Name	Water Lane		
Project No.	19495	Client	Idom Merebrook Ltd
Soil Description	Dark grey and orange brown CLAY with rare fmc gravel		



NATURAL MOISTURE CONTENT	33	%
% PASSING 425µm SIEVE	95	%
LIQUID LIMIT	77	%
PLASTIC LIMIT	26	%
PLASTICITY INDEX	51	%

Remarks

PLASTICITY INDEX



TEST METHOD

BS1377: Part 2 :Clause 4.4 : 1990 Determination of the liquid limit by the cone penetrometer method

BS1377: Part 2 :Clause 5.0 : 1990: Determination of the plastic limit and plasticity index

BS1377: Part 2 :Clause 3.2 : 1990:Determination of the moisture content by the oven drying

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU

Tel: 01923 711 288 Email: James@k4soils.com

Checked and Approved

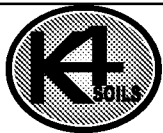
Initials: J.P

Date: 25/09/2015

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

MSF-5 R2 (Rev.0)

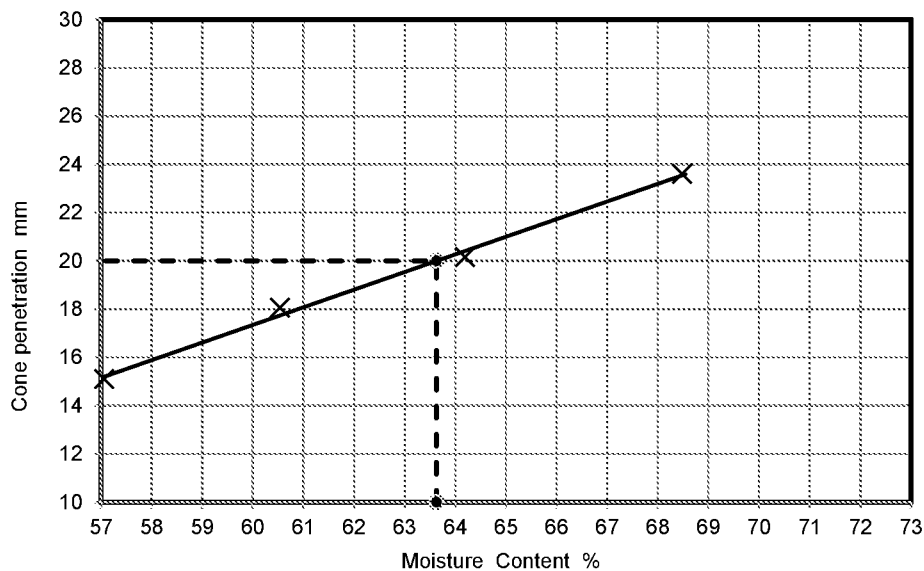
2519



LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

Job No.	19472
Borehole/Pit No.	TP112
Sample No.	1
Depth m	3.00
Sample Type	B
Samples received	08/09/2015
Schedules received	09/09/2015
Project Started	09/09/2015
Date Tested	

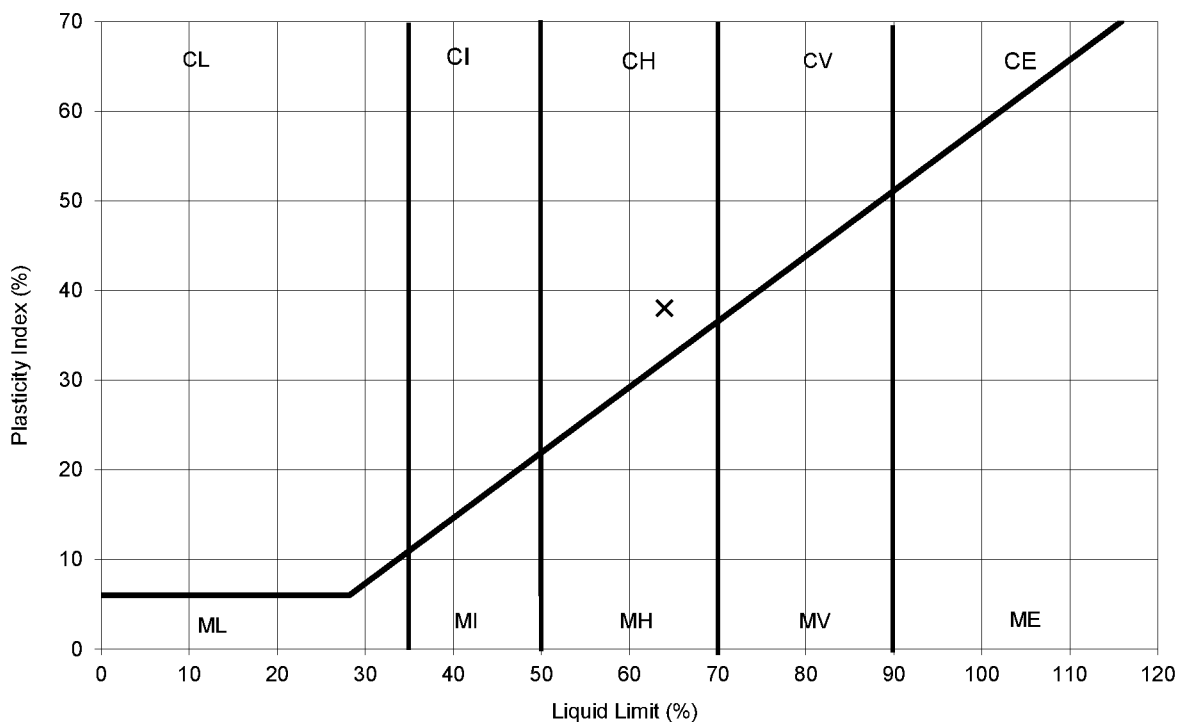
Site Name	Water Lane		
Project No.	19495	Client	Idom Merebrook Ltd
Soil Description	Orange brown and pale grey CLAY with sandy patches		



NATURAL MOISTURE CONTENT	34	%
% PASSING 425µm SIEVE	100	%
LIQUID LIMIT	64	%
PLASTIC LIMIT	26	%
PLASTICITY INDEX	38	%

Remarks

PLASTICITY INDEX



TEST METHOD

BS1377: Part 2 :Clause 4.4 : 1990 Determination of the liquid limit by the cone penetrometer method

BS1377: Part 2 :Clause 5.0 : 1990: Determination of the plastic limit and plasticity index

BS1377: Part 2 :Clause 3.2 : 1990:Determination of the moisture content by the oven drying

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU

Tel: 01923 711 288 Email: James@k4soils.com

Checked and Approved

Initials: J.P

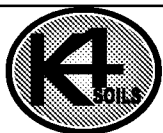
Date: 25/09/2015

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

MSF-5 R2 (Rev.0)

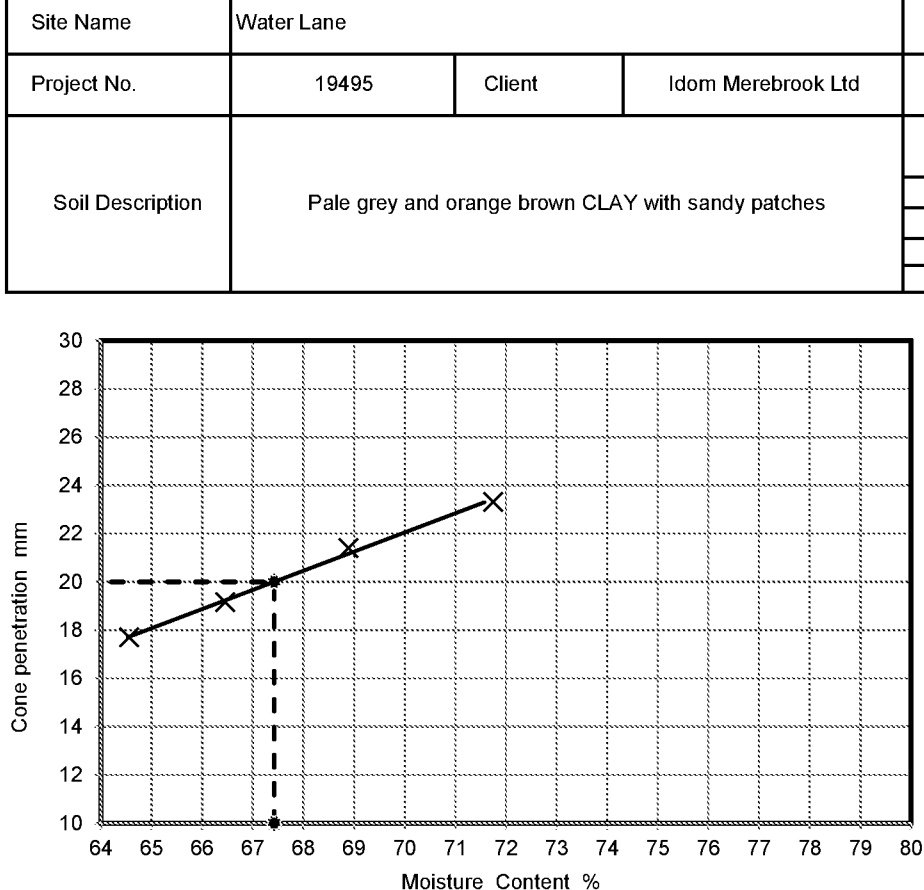


2519



LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

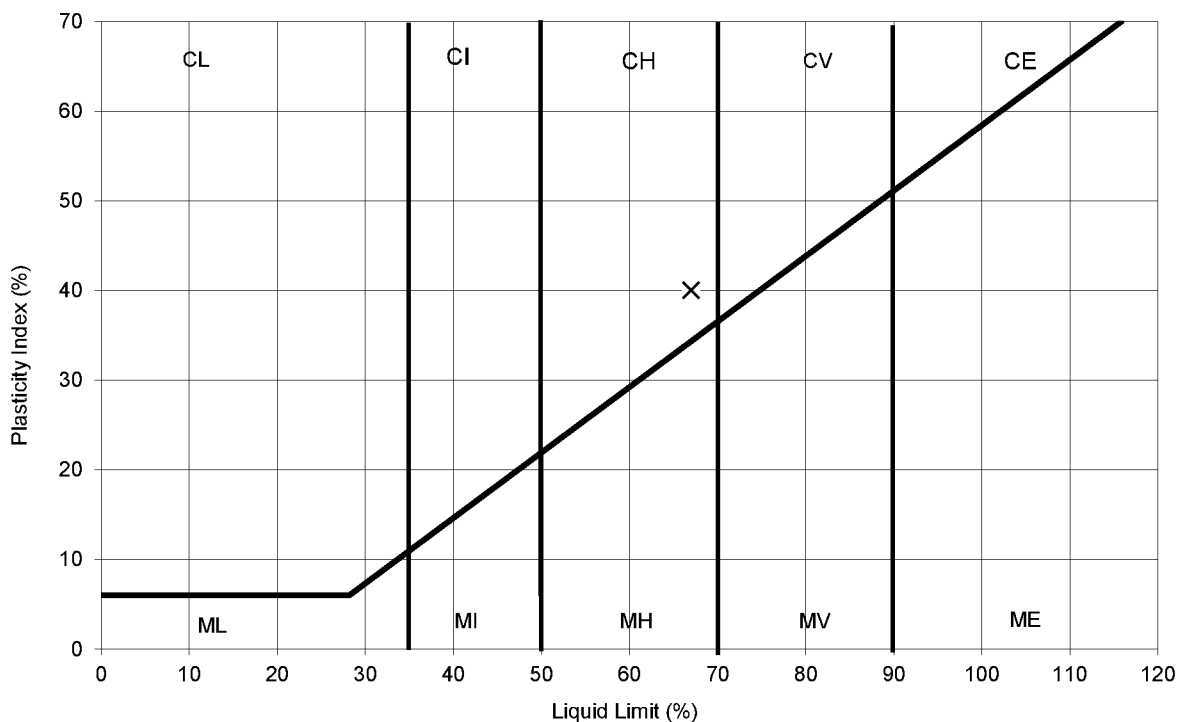
Job No.	19472
Borehole/Pit No.	TP115
Sample No.	1
Depth m	1.50
Sample Type	B
Samples received	08/09/2015
Schedules received	09/09/2015
Project Started	09/09/2015
Date Tested	



NATURAL MOISTURE CONTENT	31	%
% PASSING 425µm SIEVE	100	%
LIQUID LIMIT	67	%
PLASTIC LIMIT	27	%
PLASTICITY INDEX	40	%

Remarks

PLASTICITY INDEX



TEST METHOD

BS1377: Part 2 : Clause 4.4 : 1990 Determination of the liquid limit by the cone penetrometer method

BS1377: Part 2 : Clause 5.0 : 1990: Determination of the plastic limit and plasticity index

BS1377: Part 2 : Clause 3.2 : 1990: Determination of the moisture content by the oven drying

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU

Tel: 01923 711 288 Email: James@k4soils.com

Checked and Approved

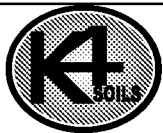
Initials: J.P

Date: 25/09/2015

2519

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

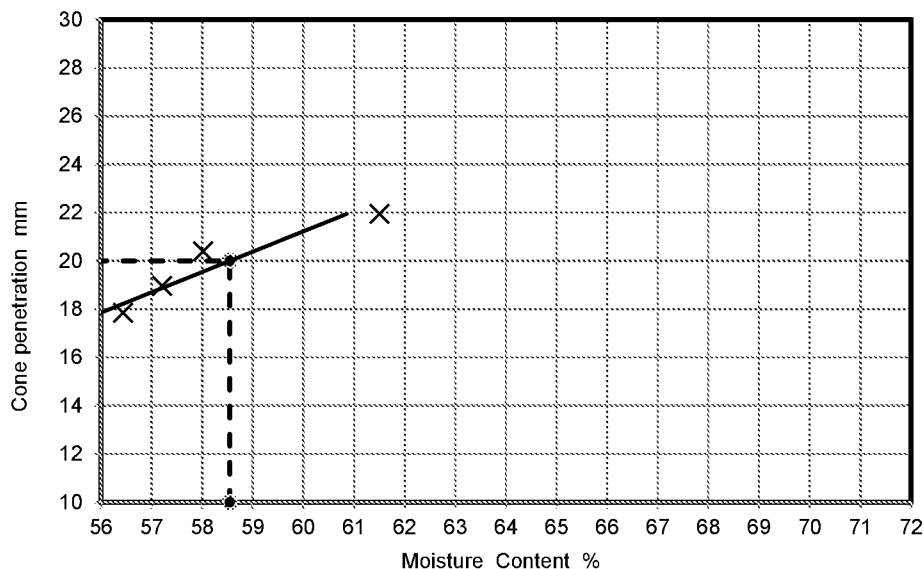
MSF-5 R2 (Rev.0)



LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

Job No.	19472
Borehole/Pit No.	TP117
Sample No.	1
Depth m	3.00
Sample Type	B
Samples received	
Schedules received	09/09/2015
Project Started	09/09/2015
Date Tested	

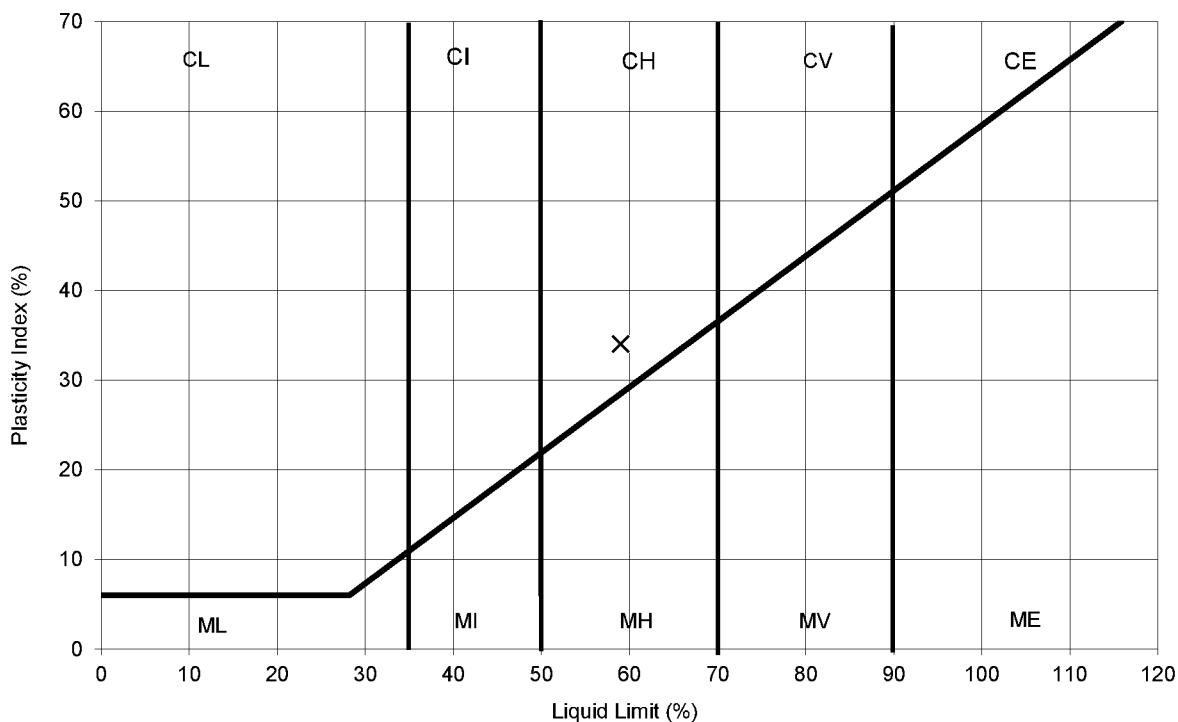
Site Name	Water Lane		
Project No.	19495	Client	Idom Merebrook Ltd
Soil Description	Orange brown and pale grey CLAY with sandy patches		



NATURAL MOISTURE CONTENT	27	%
% PASSING 425µm SIEVE	100	%
LIQUID LIMIT	59	%
PLASTIC LIMIT	25	%
PLASTICITY INDEX	34	%

Remarks

PLASTICITY INDEX



TEST METHOD

BS1377: Part 2 :Clause 4.4 : 1990 Determination of the liquid limit by the cone penetrometer method

BS1377: Part 2 :Clause 5.0 : 1990: Determination of the plastic limit and plasticity index

BS1377: Part 2 :Clause 3.2 : 1990:Determination of the moisture content by the oven drying

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU

Tel: 01923 711 288 Email: James@k4soils.com

Checked and Approved

Initials: J.P

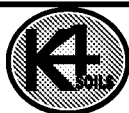
Date: 25/09/2015

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

MSF-5 R2 (Rev.0)



2519

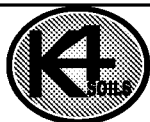


Summary of Test Results

Job No. 19472	Project Name Water Lane	Programme	
		Samples received	08/09/2015
Project No. 19495	Client Idom Merebrook Ltd	Schedule received	09/09/2015
		Project started	09/09/2015
		Testing Started	21/09/2015

Hole No.	Sample				Soil Description	NMC %	Passing 425µm %	LL %	PL %	PI %	Remarks
	Ref	Top	Base	Type							
TP101	1	2.50		B	Brown gravelly slightly sandy silty CLAY (gravel is fmc and sub-angular to sub-rounded)	8.7	14	48	25	23	
TP104	1	3.00		B	Brown, orange brown and pale grey CLAY	30	100	58	24	34	
TP110	1	2.70		B	Dark grey and orange brown CLAY with rare fmc gravel	33	95	77	26	51	
TP112	1	3.00		B	Orange brown and pale grey CLAY with sandy patches	34	100	64	26	38	
TP115	1	1.50		B	Pale grey and orange brown CLAY with sandy patches	31	100	67	27	40	
TP117	1	3.00		B	Orange brown and pale grey CLAY with sandy patches	27	100	59	25	34	
TP118	1	1.00		B	Brown and pale grey CLAY with sandy patches	30	100	41	20	21	
TP122	1	2.50		B	Brown CLAY with sandy patches and rare fm gravel	36	98	73	26	47	
TP124	1	3.00		B	Brown slightly gravelly slightly sandy CLAY (gravel is fm and sub-angular)	29	95	72	25	47	

 2519	Test Methods: BS1377: Part 2: 1990: Natural Moisture Content : clause 3.2 Atterberg Limits: clause 4.3 and 5.0	Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU	Checked and Approved Initials J.P Date: 25/09/2015
	Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)		MSF-5-R1(a) -Rev. 0



PARTICLE SIZE DISTRIBUTION

Job Ref 19472

Borehole/Pit No. TP108

Site Name Water Lane

Sample No. 1

Project No. 19495

Client

Idom Merebrook Ltd

Depth 2.00 m

Soil Description

Brown sandy very clayey GRAVEL (gravel is fmc and sub-angular to angular)

Sample Type B

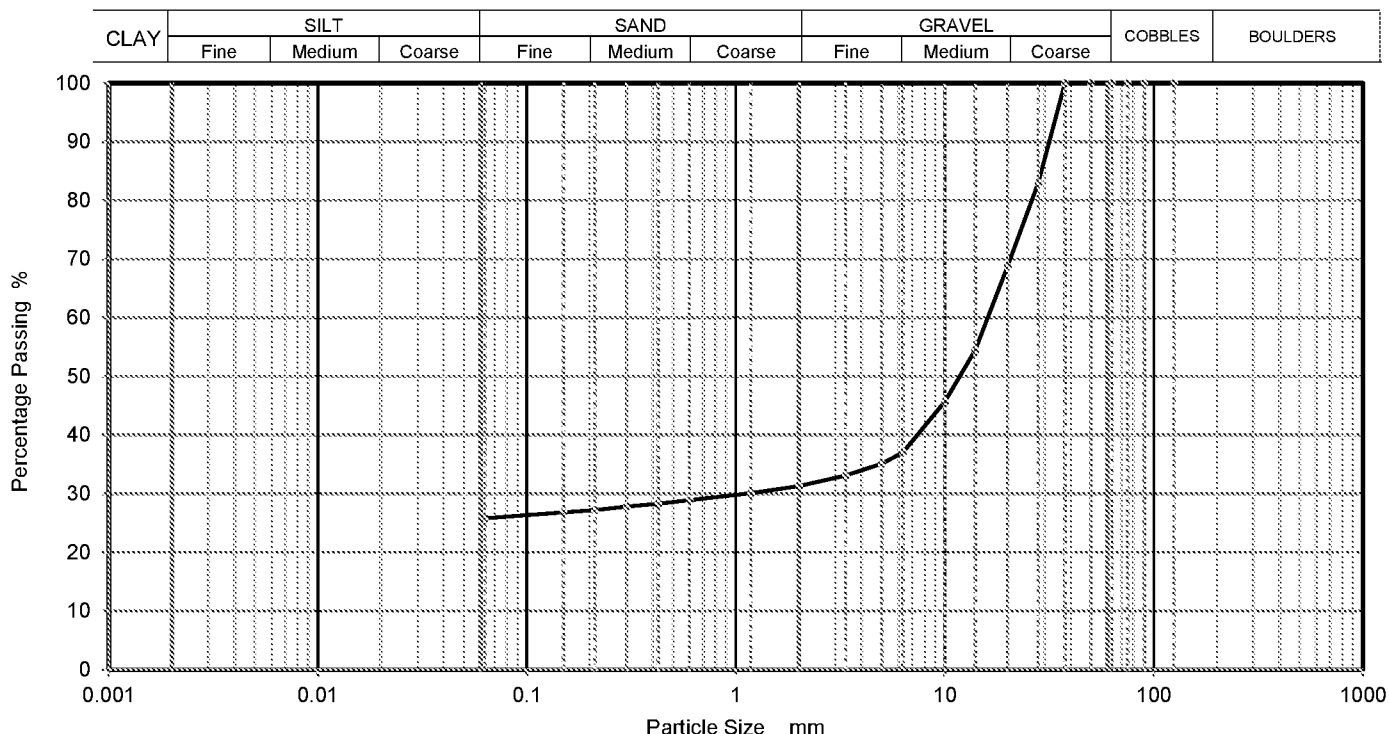
Samples received 08/09/2015

Schedules received 09/09/2015

Test Method BS1377:Part 2: 1990, clause 9.0

Project started 09/09/2015

Date tested 23/09/2015



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	83		
20	69		
14	55		
10	46		
6.3	37		
5	35		
3.35	33		
2	31		
1.18	30		
0.6	29		
0.425	28		
0.3	28		
0.212	27		
0.15	27		
0.063	26		

Dry Mass of sample, g

1496

Sample Proportions	% dry mass
Very coarse	0
Gravel	69
Sand	6
Fines <0.063mm	26

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	
Curvature Coefficient	

Remarks

Preparation and testing in accordance with BS1377 unless noted below



K4 Soils Laboratory
Unit 8, Olds Close, Watford, Herts, WD18 9RU

Checked and Approved

Initials: J.P

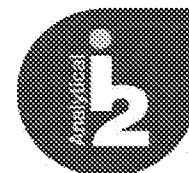
Date: 25/09/2015

MSF-5-R3 (Rev.0)

					Sulphate Content (Gravimetric Method) for 2:1 Soil: Water Extract and pH Value - Summary of Results Tested in accordance with BS1377 : Part 3 : 1990, clause 5.3 and clause 9						
Job No. 19472		Project Name Water Lane							Programme Samples received 08/09/2015 Schedule received 09/09/2015		
Project No. 19495		Client Idom Merebrook Ltd							Project started 09/09/2015 Testing Started 14/09/2015		
Hole No.	Sample				Soil description	Dry Mass passing 2mm %	SO3 Content g/l	SO4 Content g/l	pH	Remarks	
	Ref	Top	Base	Type							
TP101	1	2.50		B	Brown gravelly slightly sandy silty CLAY (gravel is fmc and sub-angular to sub-rounded)	40	0.20	0.24	7.80		
TP104	1	3.00		B	Brown, orange brown and pale grey CLAY	100	0.30	0.36	7.62		
TP110	1	2.70		B	Dark grey and orange brown CLAY with rare fmc gravel	98	0.99	1.19	7.16		
TP112	1	3.00		B	Orange brown and pale grey CLAY with sandy patches	100	0.23	0.28	7.30		
TP115	1	1.50		B	Pale grey and orange brown CLAY with sandy patches	100	0.25	0.30	7.65		
TP117	1	3.00		B	Orange brown and pale grey CLAY with sandy patches	100	0.29	0.34	7.50		
TP118	1	1.00		B	Brown and pale grey CLAY with sandy patches	100	0.30	0.37	7.92		
TP122	1	2.50		B	Brown CLAY with sandy patches and rare fm gravel	97	0.25	0.30	7.02		
TP124	1	3.00		B	Brown slightly gravelly slightly sandy CLAY (gravel is fm and sub-angular)	95	0.22	0.26	7.86		
										Test Report by: K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach  Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)	Checked and Approved Initials J.P. Date: 25/09/2015 MSF-5-R29 (Rev.0)
2519											



APPENDIX 6 ▪ Groundwater Laboratory Certificates



Environmental Science

Siobhan Jackson

Merebrook
Suite 2B
East Mill
Bridgefoot
Belper
Derbyshire
DE56 2UA

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

Analytical Report Number : 15-79934-B

Replaces Analytical Report Number : 15-79934, issue no. 1

Project / Site name:	Water Lane	Samples received on:	05/10/2015
Your job number:	19495	Samples instructed on:	05/10/2015
Your order number:	15-S2-FDO-LABS	Analysis completed by:	09/10/2015
Report Issue Number:	2	Report issued on:	03/08/2016
Samples Analysed:	3 water samples		

Signed:

Dr Claire Stone
Quality Manager
For & on behalf of i2 Analytical Ltd.

Signed:

Emma Winter
Assistant Reporting Manager
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :	soils	- 4 weeks from reporting
	leachates	- 2 weeks from reporting
	waters	- 2 weeks from reporting
	asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.



Analytical Report Number: 15-79934-B

Project / Site name: Water Lane

Your Order No: 15-S2-FDO-LABS

Lab Sample Number				492222	492223	492224		
Sample Reference				MWS104	MWS108	MWS109		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				None Supplied	None Supplied	None Supplied		
Date Sampled				01/10/2015	01/10/2015	01/10/2015		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status					

General Inorganics

pH	pH Units	N/A	ISO 17025	7.7	7.1	7.0		
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10		
Sulphate as SO ₄	µg/l	45	ISO 17025	136000	324000	328000		
Sulphide	µg/l	5	NONE	< 5.0	< 5.0	< 5.0		
Dissolved Organic Carbon (DOC)	mg/l	0.1	NONE	14.9	26.9	31.7		

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10	< 10	< 10		
----------------------------	------	----	-----------	------	------	------	--	--

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	7.3		
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.53		
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	6.1		
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	4.4		
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	14		
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	4.8		
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	17		
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	16		
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	6.5		
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	7.0		
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	9.9		
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	4.4		
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	8.9		
Indeno(1,2,3-cd)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	4.9		
Dibenz(a,h)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	0.78		
Benzo(ghi)perylene	µg/l	0.01	NONE	< 0.01	< 0.01	6.1		

Total PAH

Total EPA-16 PAHs	µg/l	0.2	ISO 17025	< 0.20	< 0.20	119		
-------------------	------	-----	-----------	--------	--------	-----	--	--

Heavy Metals / Metalloids

Arsenic (dissolved)	µg/l	0.15	ISO 17025	1.60	8.86	19.1		
Cadmium (dissolved)	µg/l	0.02	ISO 17025	0.03	< 0.02	< 0.02		
Chromium (hexavalent)	µg/l	5	ISO 17025	< 5.0	< 5.0	< 5.0		
Chromium (dissolved)	µg/l	0.2	ISO 17025	< 0.2	0.4	0.8		
Copper (dissolved)	µg/l	0.5	ISO 17025	2.9	3.6	3.0		
Lead (dissolved)	µg/l	0.2	ISO 17025	< 0.2	0.9	0.7		
Mercury (dissolved)	µg/l	0.05	ISO 17025	0.49	0.19	0.12		
Nickel (dissolved)	µg/l	0.5	ISO 17025	8.5	7.6	13		
Selenium (dissolved)	µg/l	0.6	ISO 17025	4.0	7.5	3.4		
Zinc (dissolved)	µg/l	0.5	ISO 17025	5.0	2.7	1.4		



Analytical Report Number: 15-79934-B

Project / Site name: Water Lane

Your Order No: 15-S2-FDO-LABS

Lab Sample Number				492222	492223	492224		
Sample Reference				MWS104	MWS108	MWS109		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				None Supplied	None Supplied	None Supplied		
Date Sampled				01/10/2015	01/10/2015	01/10/2015		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status					

Monoaromatics

Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
p & m-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C6 - C8	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C8 - C10	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10		

TPH-CWG - Aromatic >C5 - C7	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic >C7 - C8	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic >C8 - C10	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10	21		
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10	130		
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	410		
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	760		
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	1300		

U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number : 15-79934-B

Project / Site name: Water Lane

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
Dissolved Organic Carbon in water	Determination of dissolved inorganic carbon in water by TOC/DOC NDIR Analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	W	NONE
Hexavalent chromium in water	Determination of hexavalent chromium in water by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method by continuous flow analyser. Accredited Matrices SW, GW, PW.	L080-PL	W	ISO 17025
Metals in water by ICP-MS (dissolved)	Determination of metals in water by acidification followed by ICP-MS. Accredited Matrices: SW, GW, PW except B=SW,GW, Hg=SW,PW, Al=SW,PW.	In-house method based on USEPA Method 6020 & 200.8 "for the determination of trace elements in water by ICP-MS.	L012-PL	W	ISO 17025
Monohydric phenols in water	Determination of phenols in water by continuous flow analyser. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
pH in water	Determination of pH in water by electrometric measurement. Accredited matrices: SW PW GW	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L005-PL	W	ISO 17025
Speciated EPA-16 PAHs in water	Determination of PAH compounds in water by extraction in dichloromethane followed by GC-MS with the use of surrogate and internal standards. Accredited matrices: SW PW GW	In-house method based on USEPA 8270	L070-PL	W	ISO 17025
Sulphate in water	Determination of sulphate in water by acidification followed by ICP-OES. Accredited matrices: SW PW GW	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Sulphide in water	Determination of sulphide in water by ion selective electrode.	In-house method	L029-PL	W	NONE
Total cyanide in water	Determination of total cyanide by distillation followed by colorimetry. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Sample Deviation Report



Sample ID	Other ID	Sample Type	Job	Sample Number	Sample Deviation Code	test_name	test_ref	Test Deviation code
MWS104		W	15-79934	492222	c	pH in water	L005-PL	c
MWS108		W	15-79934	492223	c	pH in water	L005-PL	c
MWS109		W	15-79934	492224	c	pH in water	L005-PL	c



APPENDIX 7

- Field Monitoring Records
- Groundwater Level Data
- Hazardous Soil Gas Data

GAS MONITORING RECORD ROUND 1



Location Reference	Time	Flow and Pressure Measurements				Gas Measurements						VOC Measurements		Dip Measurements		Comments
		Flow		Atmospheric Pressure	Differential Pressure	Methane	Methane LEL	Carbon Dioxide	Oxygen	Carbon Monoxide	Hydrogen Sulphide	Hexane	PID	Depth to Water	Depth to Base	
		max	steady													
		l hr ⁻¹		mb	Pa	%	%	%	%	ppm	ppm	%	ppm	m	m	
MWS102	-	<0.1	<0.1	1018	0	<0.1	<0.1	1.3	19.8	-	nr	0.016	nr	nr	2.86	GL=-0.14
MWS103	-	<0.1	<0.1	1018	0	<0.1	<0.1	2.7	18.2	-	nr	0.014	nr	nr	3.22	GL=-0.14
MWS104	-	<0.1	<0.1	1018	0	<0.1	<0.1	4.5	8.6	-	nr	0.013	nr	nr	3.35	GL=-0.25
MWS106	-	<0.1	<0.1	1018	0	<0.1	<0.1	0.2	20.8	-	nr	0.015	nr	nr	2.98	GL=-0.22
MWS108	-	<0.1	<0.1	1019	0	<0.1	<0.1	3.6	17.9	-	nr	0.013	nr	dry	3.25	-
MWS109	-	<0.1	<0.1	1019	0	<0.1	<0.1	4.6	8.3	-	nr	0.012	nr	0.47	0.70	-
MWS113	-	<0.1	<0.1	1018	0	<0.1	<0.1	3.1	18.5	-	nr	0.013	nr	nr	2.70	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Weather:		Technical difficulties with dip meter -unable to measure water levels. Weather - Dry with low wind.				nr = not recorded			Gas Analyser		PID		Site:		Land to North of Water Lane, Angmering	
						Model:			-		-		Project Number:		19495	
						Serial Number:			-		-		Monitored By:		Troy Randall	
						Date of Last Calibration:			-		-		Date:		10/09/2015	

GAS MONITORING RECORD ROUND 2



Location Reference	Time	Flow and Pressure Measurements				Gas Measurements						VOC Measurements		Dip Measurements		Comments
		Flow		Atmospheric Pressure	Differential Pressure	Methane	Methane LEL	Carbon Dioxide	Oxygen	Carbon Monoxide	Hydrogen Sulphide	Hexane	PID	Depth to Water	Depth to Base	
		max	steady													
		l hr ⁻¹		mb	Pa	%	%	%	%	ppm	ppm	%	ppm	m	m	
MWS102	12:15	0.4	0	982	0	0	0	0.7	20.2	0	0	0.013	nr	1.71	2.89	-
MWS103	12:00	0.4	0	983	0	0	0	1.9	18.7	0	0	0.012	nr	Dry	3.25	-
MWS104	11:45	0	0	982	0	0	0	2.2	14	0	0	0.012	nr	2.66	3.27	-
MWS106	11:20	0	0	981	0	0	0	0.8	20.1	0	0	0.014	nr	2.16	3.01	-
MWS108	12:45	3.5	3.7	982	0	0	0	1.8	17.2	0	0	0.011	nr	0.23	2.74	-
MWS109	13:00	0	0	981	0	0	0	0.4	20	0	0	0.013	nr	0.29	0.70	-
MWS113	11:00	0	0	983	0	0	0	1	18.6	0	0	0.016	nr	0.10	2.71	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Weather:		Overcast and Drizzle				nr = not recorded			Gas Analyser		PID		Site:		Land to North of Water Lane, Angmering	
						Model:			-		-		Project Number:		19495	
						Serial Number:			-		-		Monitored By:		RLG	
						Date of Last Calibration:			-		-		Date:		17/09/2015	

GAS MONITORING RECORD ROUND 3



Location Reference	Time	Flow and Pressure Measurements				Gas Measurements						VOC Measurements		Dip Measurements		Comments
		Flow		Atmospheric Pressure	Differential Pressure	Methane	Methane LEL	Carbon Dioxide	Oxygen	Carbon Monoxide	Hydrogen Sulphide	Hexane	PID	Depth to Water	Depth to Base	
		max	steady													
		l hr ⁻¹		mb	Pa	%	%	%	%	ppm	ppm	%	ppm	m	m	
MWS102	-	-	-	-	-	-	-	-	-	-	nr	-	nr	0.64	2.68	Gas tap removed
MWS103	11:38	0	0	1026	0	0	0	2.3	18.2	0	0	0.017	nr	dry	3.25	-
MWS104	10:58	0	0	1025	0	0	0	0.5	20.6	0	0	0.011	nr	1.58	3.24	-
MWS106	10:44	0	0	1026	0	0	0	2.9	16.1	0	0	0.010	nr	2.23	3.03	-
MWS108	09:40	0	0	1028	0	0	0	1.5	19.8	0	0	0.012	nr	0.37	2.73	-
MWS109	10:10	0.9	0	1028	0	0	0	0	20.6	0	0	0.011	nr	0.45	0.72	-
MWS113	00:00	-	-	-	-	-	-	-	-	-	nr	-	nr	-	-	Inaccessible - under a car
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Weather:		Warm Sunny				nr = not recorded			Gas Analyser		PID		Site:		Land to North of Water Lane, Angmering	
						Model:			-		-		Project Number:		19495	
						Serial Number:			-		-		Monitored By:		RLG	
						Date of Last Calibration:			-		-		Date:		02/10/2015	



APPENDIX 8 ▪ Gas Risk Assessment

MODIFIED WILSON AND CARD GAS CHARACTERISTIC SITUATION

SITE: Land to North of Water Lane, Angmering

JOB NUMBER: 19495

26/09/2017

Carbon Dioxide		Methane	
Maximum Gas Concentration	4.60 %	Maximum Gas Concentration	0.10 %
Maximum Measured Steady Flow	0.10 L hr ⁻¹	Maximum Measured Peak Flow	0.90 L hr ⁻¹
Gas Screening Value	0.0046 L hr ⁻¹	Gas Screening Value	0.0009 L hr ⁻¹
Characteristic Situation	1	Characteristic Situation	1
If measured values are zero then resolution limit of instrument is used for calculation of GSV			
worst case carbon dioxide or methane characteristic situation value defines overall characteristic situation for the site			

Modified Wilson and Card Classification

					BS 8485:2015 Gas Protection Scores - refer to standard for full guidance			
					Minimum Gas Protection Score Required			
Characteristic Situation	Risk Classification	Gas Screening Value Threshold (L hr ⁻¹)	Additional Factors	Typical Source of Generation	Type A Building	Type B Building	Type C Building	Type D Building
1	very low risk	<0.07	typically methane not to exceed 1% and/or carbon dioxide 5% otherwise consider increase to situation 2	natural soils with low organic content; 'typical' made ground	0	0	0	0
2	low risk	0.07 to <0.7	borehole air flow rate not to exceed 70 L hr ⁻¹ otherwise consider increase to situation 3	natural soils with high peat/organic content; 'typical' made ground	3.5	3.5	2.5	1.5
3	moderate risk	0.7 to <3.5		old landfill, inert waste, mineworking flooded	4.5	4	3	2.5
4	moderate to high risk	3.5 to <15	quantitative risk assessment required to evaluate scope of protective measures	mineworking susceptible to flooding, completed landfill	6.5 ^{A)}	5.5 ^{A)}	4.5	3.5
5	high risk	15 to <70		mineworking unflooded inactive with shallow workings near surface	hazard too high for this method to define protection measures	6.5 ^{A)}	5.5	4.5
6	very high risk	>70		recent landfill site	hazard too high for this method to define protection measures	hazard too high for this method to define protection measures	7.5	6.5

BS 8485:2015 Gas Protection Measures - refer to standard for full guidance						
Select two or more elements from the following three types of protection to achieve score (only one element per type permitted)						
Structural Barrier	Score ^{B)}	Ventilation Measures		Score	Gas Resistant Membrane	Score
Precast suspended segmental subfloor (i.e. beam and block)	0	Pressure relief pathway (usually formed of low fines gravel or with a thin geocomposite blanket or strips terminating in a gravel trench external to the building)		0.5	Gas resistant membrane meeting all of the following criteria: 1. sufficiently impervious to the gases with a methane gas transmission rate <40.0 ml/day/m2/atm (average) for sheet and joints (tested in accordance with BS ISO 15105-1 manometric method)	2
Cast in situ ground-bearing floor slab (with only nominal mesh reinforcement)	0.5	Passive sub floor dispersal layer	Very good performance ^{E)}	2.5	2. sufficiently durable to remain serviceable for the anticipated life of the building and duration of gas emissions 3. sufficiently strong to withstand in-service stresses (e.g. settlement if placed below a floor slab)	
			Good performance ^{E)}	1.5	4. sufficiently strong to withstand the installation process and following trades until covered (e.g. penetration from steel fibres in fibre reinforced concrete, penetration of reinforcement ties, tearing due to working above it, dropping tools, etc)	
Cast in situ monolithic reinforced ground bearing raft or reinforced cast in situ suspended floor slab with minimal penetrations	1 or 1.5 ^{C)}	Active dispersal layer, usually comprising fans with active abstraction (suction) from a subfloor dilution layer, with roof level vents. The dilution layer may comprise a clear void or be formed of geocomposite or polystyrene void formers ^{E)}		1.5 to 2.5	5. capable, after installation, of providing a complete barrier to the entry of the relevant gas 6. verified in accordance with CIRIA C735	
Basement floor and walls conforming to BS 8102:2009, Grade 2 waterproofing ^{D)}	2	Active positive pressurization by the creation of a blanket of external fresh air beneath the building floor slab by pumps supplying air to points across the central footprint of the building into a permeable layer, usually formed of a thin geocomposite blanket ^{E)}		1.5 to 2.5		
Basement floor and walls conforming to BS 8102:2009, Grade 3 waterproofing ^{D)}	2.5	Ventilated car park (floor slab of occupied part of the building under consideration is underlain by a basement or undercroft car park) ^{F)}		4		

Notes

A) Residential buildings should not be built on CS4 or higher sites unless the type of construction or site circumstances allow additional levels of protection to be incorporated, e.g. high-performance ventilation or pathway intervention measures, and an associated sustainable system of management of maintenance of the gas control system, e.g. in institutional and/or fully serviced contractual situations

B) The scores are conditional on breaches of floor slabs, etc., being effectively sealed

C) To achieve a score of 1.5 the raft or suspended slab should be well reinforced to control cracking and have minimal penetrations cast in

D) The score is conditional on the waterproofing not being based on the use of a geosynthetic clay liner waterproofing product

E) Refer to BS 8485:2015 Annex B to determine performance and assign score

F) Assumes that the car park is vented to deal with car exhaust fumes, designed to Buildings Regulations 2000, Approved Document F

Building Types

Type A

Private ownership with no building management controls on alterations to the internal structure, the use of rooms, the ventilation of rooms or the structural fabric of the building. Some small rooms present. Probably conventional building construction (rather than civil engineering). Examples include private housing and some retail premises.

FOR TYPE A BUILDINGS ACTIVE VENTILATION MEASURES ARE INAPPROPRIATE

Type B

Private or commercial property with central building management control of any alterations to the building or its uses but limited or no central building management control of the maintenance of the building, including the gas protection measures. Multiple occupancy. Small to medium size rooms with passive ventilation of rooms and other internal spaces throughout ground floor and basement areas. May be conventional building or civil engineering construction. Examples include managed apartments, multiple occupancy offices, some retail premises and parts of some public buildings (such as schools, hospitals, leisure centres) and parts of hotels.

Type C

Commercial building with central building management control of any alterations to the building or its uses and central building management control of the maintenance of the building, including the gas protection measures. Single occupancy of ground floor and basement areas. Small to large size rooms with active ventilation or good passive ventilation of all rooms and other internal spaces throughout ground floor and basement areas. Probably civil engineering construction. Examples include offices, some retail premises, and parts of some public buildings (such as schools, hospitals, leisure centres and parts of hotels).

Type D

Industrial style building having large volume internal space(s) that are well ventilated. Corporate ownership with building management controls on alterations to the ground floor and basement areas of the building and on maintenance of ground gas protective measures. Probably civil engineering construction. Examples are retail park sales buildings, factory shop floor areas, warehouses. (Small rooms within these style buildings should be separately categorized as Type B or Type C).

NHBC TRAFFIC LIGHT GAS CHARACTERISTIC SITUATION

SITE: Land to North of Water Lane, Angmering

JOB NUMBER: 19495

26/09/2017

<u>Carbon Dioxide</u>				<u>Methane</u>			
Maximum Gas Concentration	4.60	%		Maximum Gas Concentration	0.10	%	
Maximum Measured Steady Flow	0.10	L hr ⁻¹		Maximum Measured Peak Flow	0.90	L hr ⁻¹	
Gas Screening Value	0.0046	L hr ⁻¹		Gas Screening Value	0.0009	L hr ⁻¹	
Characteristic Situation	Green			Characteristic Situation	Green		
if measured values are zero then resolution limit of instrument is used for calculation of GSV worst case carbon dioxide or methane characteristic situation value defines overall characteristic situation for the site							

NHBC Classification
Protection Measures

Characteristic Situation	Carbon Dioxide		Methane		Protection Measures	
	Typical Maximum Concentration (%v/v)	Gas Screening Value (L hr ⁻¹)	Typical Maximum Concentration (%v/v)	Gas Screening Value (L hr ⁻¹)		
Green					negligible	Ground gas protection measures are not required
	5	0.78	1	0.16		
Amber 1					low to intermediate	Low-level ground gas protection measures are required, using a membrane and ventilated sub-floor void that creates a permeability contrast to limit the ingress of gas into buildings. Gas protection measures are to be installed as prescribed in BRE 414. Ventilation of the sub-floor void should be designed to provide a minimum of one complete volume change per 24 hours
	10	1.56	5	0.63		
Amber 2					intermediate to high	High-level ground gas protection measures are required, creating a permeability contrast to prevent ingress of gas into buildings. Gas protection measures are to be installed as prescribed in BRE 414. Membranes used should always be fitted by a specialist contractor and should be fully certified (see Appendix E). As with Amber 1, ventilation of the sub-floor void should be designed to provide a minimum of one complete volume change per 24 hours.
	30	3.10	20	1.56		
Red					high	Standard residential housing is not normally acceptable without further Ground Gas Risk Assessment and/or possible remedial mitigation measures to reduce/remove the source of the ground gases. In certain circumstances, active protection methods could be applied, but only when there is a legal agreement assuring the management and maintenance of the system for the life of the property.



APPENDIX 9 ▪ Soakage test results

**DETERMINATION OF SOIL INFILTRATION RATE IN
ACCORDANCE WITH BRE DIGEST 365**

GENERAL INFORMATION

Site Name:	Water Lane, Angmering			Job No:	19495
Engineer:	Troy Randall	Date:	07/09/2015	Weather:	Dry

TEST PIT DETAILS

Trial Pit Number:		SA101		Test 1 of 1					
Length (m):		2.7	Width (m):		0.5		Depth (m):		2.1
Depth to Groundwater (m):		N/A							
Time Filling Commenced:				Time Filling Completed:					
Depth to Water at Start of Test:			0.5						
Effective Depths:			75%:		0.90	50%:	1.30	25%:	1.70

NOTE: Soakage to at least 25% effective depth is required in order to calculate infiltration rate. If infiltration rates are slow extrapolation maybe required to determine time at which 25% effective depth would be achieved.

TEST PIT RESULTS

TEST DATA

Time	t (mins)	t (secs)	Depth to Water (m)
10:30	0	0	0.500
	0.5	30	0.500
	1	60	0.500
	1.5	90	0.500
	2	120	0.500
	3	180	0.500
	4	240	0.510
	5	300	0.510
	6	360	0.510
	7	420	0.520
	8	480	0.520
	9	540	0.520
10:40	10	600	0.520
10:45	15	900	0.540
10:50	20	1200	0.540
10:55	25	1500	0.550
11:00	30	1800	0.550
11:30	60	3600	0.600
12:00	90	5400	0.610
12:30	120	7200	0.610
13:30	180	10800	0.610
14:30	240	14400	0.610

DETERMINATION OF SOIL INFILTRATION RATE IN ACCORDANCE WITH BRE DIGEST 365

GENERAL INFORMATION

Site Name:	Water Lane, Angmering			Job No:	19495
Engineer:	Troy Randall	Date:	07/09/2015	Weather:	Dry

TEST PIT DETAILS

Trial Pit Number:		SA102		Test 1 of 1			
Length (m):		2.7	Width (m):		0.6	Depth (m): 1.9	
Depth to Groundwater (m):		1.9					
Time Filling Commenced:				Time Filling Completed:			
Depth to Water at Start of Test:		0.37					
Effective Depths:		75%:		0.75	50%:	1.14	25%: 1.52

NOTE: Soakage to at least 25% effective depth is required in order to calculate infiltration rate. If infiltration rates are slow extrapolation maybe required to determine time at which 25% effective depth would be achieved.

TEST PIT RESULTS

[illegible]

