

APPENDIX D THIRD PARTY DATA

UNEXPLODED BOMB RISK MAP



SITE LOCATION

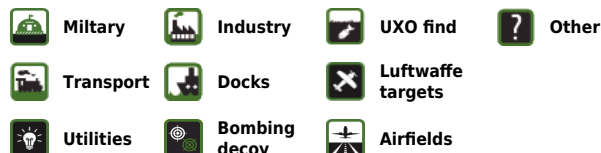
Map Centre: 321821,356475



This map principally indicates a hazard from Unexploded Bombs (UXB) due to WWII bombardment. Other sources of Unexploded Ordnance (UXO) may be present. It should be noted that this map does not represent UXO risk and should not be reported as such when reproduced.

LEGEND

- **High:** Areas indicated as having a bombing density of 50 bombs per 1000acre or higher.
- **Moderate:** Areas indicated as having a bombing density of 15 to 49 bombs per 1000acre.
- **Low:** Areas indicated as having 15 bombs per 1000acre or less.



How to use your Unexploded Bomb (UXB) risk map?

This map indicates the potential for UXBs to be present because of World War Two (WWII) bombing. It can be incorporated into a technical report, such as a Phase 1 Desk Study, or similar document as an indication of the potential for UXO encounter on a Site. Other sources of UXO may also be indicated, although note that these are not comprehensive and more detailed research is required to confirm their presence.

What if my Site is in a moderate or high density area?

We typically recommend that a detailed UXO desk study and risk assessment is undertaken for sites in an area with a moderate or high bombing density. Additionally, if your site is in close proximity to a strategic target, military establishment, airfield or bombing decoy, then [additional detailed research](#) is recommended.

If my site is in a low risk area, do I need to do anything?

If both the map and other research confirm that there is a low potential for UXO to be present on your site, then, subject to your own comfort and risk tolerance, works can proceed with no special precautions.

If you are unsure whether other sources of UXO may be present, you can request one of our [pre-desk study assessments \(PDSA\)](#) by emailing a site boundary and location to pdsa@zetica.com.

You should never plan site work or undertake a risk assessment using these maps alone. More detail is required, to include an assessment of the likelihood of a source of UXO hazard from other military activity not reflected on these maps.

If I have any questions, who do I contact?

tel: +44 (0) 1993 886682 email: uxo@zetica.com web: www.zeticauxo.com

The information in this UXB risk map is derived from a range of sources and should be used with the [accompanying notes on our website](#).

Zetica cannot guarantee the accuracy or completeness of the information or data used and cannot accept any liability for any use of the maps. These maps can be used as part of a technical report or similar publication, subject to acknowledgement. The copyright remains with Zetica Ltd.



NGRC
BOREHOLE RECORDS
ADJUSTMENT FORM

QUARTER SHEET SJ 25 NW

BH REGISTRATION NUMBER(S) 2-40

TRANSFERRED TO OPENCAST COLLECTION

DO NOT SCAN



14-1.TIF
WELSH NATIONAL WATER DEVELOPMENT AUTHORITY
DEE AND CLWYD RIVER DIVISION

DETAILED HYDROGEOLOGICAL RECORD SHEET : INDIVIDUAL SITE RECORD

SJ25/14

~~SJ25/12~~

NAME Maes-y-Droell works N.G.R. 2127 5680
mineshaft abstraction
NR. GRAIAN RHVD, DENBYS. SJ 25 NE

EXACT SITE KNOWN YES/NO YES LOCATION SKETCH YES/NO
HEIGHT A.O.D. 333 METRES ESTIMATED FROM MAP/SURVEY
REFERENCE POINT NONE/DETAILS/SKETCH

LOG YES/NO YES LOCATION OF LOG HERE/I.G.S.

SUMMARY OF LOG

Mine shaft. 580' Total measured depth 16.580
29.4m pan /

WATER QUALITY INFORMATION YES/NO

WATER LEVEL INFORMATION

ABSTRACTION YES/NO/OCCASIONALLY/NOT KNOWN/STAND-BY

LICENCE No.

LICENSED ABSTRACTION

/HOUR 90.9m³ /DAY 27ML /YEAR

67/8/329

PUMPING TEST YES/NO YES

DATE

LOCATION OF DATA

WATER LEVELS RECORDED NONE/ISOLATED READINGS/MONTHLY/AUTOGRAPHIC

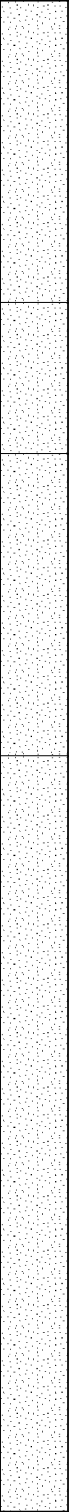
LOCATION OF RECORDS

TerraConsult		Borehole Log				Borehole no: BHA		Sheet 1 of 2	
Personnel: Drilled by: SS Logged by: JNP Checked by: DD		Equipment & methods: Plant: Dando 250 Method: Rotary openhole Flush: Water SPT Hammer details: N/A		Hole diameter & casing depths: Dia (mm): 140 to: 15.00 Casing depth: 3.00		Coordinates & level: UK National grid - -		Dates: Start: 02/04/2014 End: 02/04/2014 Backfilled: 02/04/2015	
Backfill/ Well Inst	Water- strikes	Legend	Level/ Depth (Thickness)	Stratum Description	Progress, Casing & Water Data		Samples & In Situ Testing		
					Date Casing	Time Water	Depth	Type & No.	Results
			(1.00)	Brown slightly gravelly fine to coarse SAND. Gravel is subangular to subrounded of limestone and sandstone.					
			1.00	MADE GROUND: Brown slightly silty fine SAND.			1.00	D1	
			(2.00)				2.00	D2	
			3.00	MADE GROUND: Brown slightly silty fine SAND. Rare medium sand grains.			3.00	D3	
							4.00	D4	
							5.00	D5	
			(6.00)				6.00	D6	
							7.00	D7	
							8.00	D8	
			9.00	MADE GROUND: Brown slightly silty fine to medium SAND.			9.00	D9	
Continued next sheet				Casing Date	Water Time	Depth	Type & No.	Results	
Instrumentation details: ID: Type: Diam: Remarks:		General remarks: 12.00 to 13.00m Drilling erratic		Groundwater entries: Struck: Rose to: Rate of Depth (20 mins) inflow: sealed: No Groundwater Encountered		Chiselling: From: to: Duration (min): Tool:			
Notes: For explanation of symbols and abbreviations see key sheet. All depths are reduced levels in metres. Log issue: Draft Scale: 1:50 (c) TerraConsult. www.terraconsult.co.uk				Project: Maes Y Droell Project No: 1987 Client: J. A. Jackson					

Start:	02/04/2014
End:	02/04/2014
Backfilled:	02/04/2015

 Notes: For explanation of symbols and abbreviations see key sheet. All depths are reduced levels in metres. Log issue: Draft Scale: 1:50 (c) TerraConsult. www.terraconsult.co.uk	Project: Maes Y Droell Project No: 1987 Client: J. A. Jackson
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TerraConsult		Borehole Log				Borehole no: BHC		Sheet 1 of 1	
Personnel: Drilled by: SS Logged by: JNP Checked by: DD		Equipment & methods: Plant: Dando 250 Method: Rotary openhole Flush: Water SPT Hammer details: N/A		Hole diameter & casing depths: Dia (mm): 140 to: 2.00 Casing depth: 0.00		Coordinates & level: UK National grid - -		Dates: Start: 26/03/2014 End: 26/03/2014 Backfilled: 26/03/2015	
Backfill/ Well Inst.	Water- strikes	Legend	Level/ Depth (Thickness)	Stratum Description	Progress, Casing & Water Data		Samples & In Situ Testing		
					Date Casing	Time Water	Depth	Type & No.	Results
			(2.00)	Light grey fine SAND. Rare fragments of organic matter.			1.00	D1	
			2.00	Exploratory hole ends at 2.00 m			2.00	D2	
					26/03/2014 0.00	1700 0.00			
					Casing Date	Water Time	Depth	Type & No.	Results
Instrumentation details: ID: Type: Diam: Remarks:				General remarks:	Groundwater entries: Struck: Rose to: Rate of Depth (20 mins) inflow: sealed: No Groundwater Encountered		Chiselling: From: to: Duration (min): Tool:		
 Notes: For explanation of symbols and abbreviations see key sheet. All depths are reduced levels in metres. Log issue: Draft Scale: 1:50 (c) TerraConsult. www.terraconsult.co.uk				Project: Maes Y Droell Project No: 1987 Client: J. A. Jackson					

TerraConsult		Borehole Log				Borehole no: BHD		Sheet 1 of 3					
Personnel: Drilled by: SS Logged by: JNP Checked by: DD			Equipment & methods: Plant: Dando 250 Method: Rotary openhole Flush: Water SPT Hammer details: N/A			Hole diameter & casing depths: Dia (mm): 140 to: 30.00 Casing depth: 3.00		Coordinates & level: UK National grid - -		Dates: Start: 24/03/2014 End: 25/03/2014 Backfilled: 25/03/2015			
Backfill/Well Inst.		Water-strikes	Legend	Level/Depth (Thickness)	Stratum Description	Progress, Casing & Water Data Date Casing Time Water		Samples & In Situ Testing Depth Type & No. Results					
				(2.00)	Light grey fine SAND. Rare medium sand grains.			1.00	D1				
				2.00	Light brownish grey fine SAND.			2.00	D2				
				(1.00)									
				3.00	Light brownish grey fine SAND. Rare medium sand grains.			3.00	D3				
				(2.00)									
				5.00	Light grey fine SAND. Rare medium sand grains.			5.00	D5				
								6.00	D6				
								7.00	D7				
								8.00	D8				
								9.00	D9				
Continued next sheet						Casing Date	Water Time	Depth	Type & No.	Results			
Instrumentation details: ID: Type: Diam: Remarks:					General remarks:					Groundwater entries: Struck: Rose to: Rate of Depth (20 mins) inflow: sealed: No Groundwater Encountered		Chiselling: From: to: Duration (min): Tool:	
 Notes: For explanation of symbols and abbreviations see key sheet. All depths are reduced levels in metres. Log issue: Draft Scale: 1:50 (c) TerraConsult. www.terraconsult.co.uk					Project: Maes Y Droell Project No: 1987 Client: J. A. Jackson								

TerraConsult		Borehole Log				Borehole no: BHD		Sheet 2 of 3											
Personnel: Drilled by: SS Logged by: JNP Checked by: DD			Equipment & methods: Plant: Dando 250 Method: Rotary openhole Flush: Water SPT Hammer details: N/A			Hole diameter & casing depths: Dia (mm): 140 to: 30.00 Casing depth: 3.00		Coordinates & level: UK National grid - -		Dates: Start: 24/03/2014 End: 25/03/2014 Backfilled: 25/03/2015									
Backfill/Well Inst.		Water-strikes	Legend	Level/Depth (Thickness)	Stratum Description	Progress, Casing & Water Data		Samples & In Situ Testing											
						Date Casing	Time Water	Depth	Type & No.	Results									
				(22.00)	Light grey fine SAND. Rare medium sand grains.			10.00	D10										
								11.00	D11										
								12.00	D12										
								13.00	D13										
								13.00 - 15.00	B13-15B										
								14.00	D14										
								15.00	D15										
								16.00	D16										
								17.00	D17										
								18.00	D18										
								19.00	D19										
								Continued next sheet				Casing Date	Water Time	Depth	Type & No.	Results			
								Instrumentation details: ID: Type: Diam: Remarks:				General remarks:		Groundwater entries: Struck: Rose to: Rate of Depth (20 mins) inflow: sealed: No Groundwater Encountered		Chiselling: From: to: Duration (min): Tool:			
								Notes: For explanation of symbols and abbreviations see key sheet. All depths are reduced levels in metres. Log issue: Draft Scale: 1:50 (c) TerraConsult. www.terraconsult.co.uk				Project: Maes Y Droell Project No: 1987 Client: J. A. Jackson							

TerraConsult		Borehole Log				Borehole no: BHD		Sheet 3 of 3			
Personnel: Drilled by: SS Logged by: JNP Checked by: DD			Equipment & methods: Plant: Dando 250 Method: Rotary openhole Flush: Water SPT Hammer details: N/A			Hole diameter & casing depths: Dia (mm): 140 to: 30.00 Casing depth: 3.00		Coordinates & level: UK National grid - -		Dates: Start: 24/03/2014 End: 25/03/2014 Backfilled: 25/03/2015	
Backfill/Well Inst.		Water-strikes	Legend	Level/Depth (Thickness)	Stratum Description	Progress, Casing & Water Data		Samples & In Situ Testing			
						Date Casing	Time Water	Depth	Type & No.	Results	
					Light grey fine SAND. Rare medium sand grains.			20.00	D20		
								21.00	D21		
								22.00	D22		
								23.00	D23		
								24.00	D24		
								25.00	D25		
								26.00	D26		
				27.00	Light brownish grey fine to medium SAND.			27.00	D27		
				(3.00)				28.00	D28		
								29.00	D29		
						25/03/2014 3.00	1430 10.70				
					Exploratory hole ends at 30.00 m	Casing Date	Water Time	Depth	Type & No.	Results	
Instrumentation details: ID: Type: Diam: Remarks:					General remarks:	Groundwater entries: Struck: Rose to: Rate of Depth (20 mins) inflow: sealed: No Groundwater Encountered			Chiselling: From: to: Duration (min): Tool:		
 Notes: For explanation of symbols and abbreviations see key sheet. All depths are reduced levels in metres. Log issue: Draft Scale: 1:50 (c) TerraConsult. www.terraconsult.co.uk					Project: Maes Y Droell Project No: 1987 Client: J. A. Jackson						

Start:	28/03/2014
End:	31/03/2014
Backfilled:	31/03/2015

 Notes: For explanation of symbols and abbreviations see key sheet. All depths are reduced levels in metres. Log issue: Draft Scale: 1:50 (c) TerraConsult. www.terraconsult.co.uk	Project: Maes Y Droell Project No: 1987 Client: J. A. Jackson	
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TerraConsult		Borehole Log				Borehole no: BHE		Sheet 3 of 3			
Personnel: Drilled by: SS Logged by: JNP Checked by: DD			Equipment & methods: Plant: Dando 250 Method: Rotary openhole Flush: Water SPT Hammer details: N/A			Hole diameter & casing depths: Dia (mm): 140 to: 30.00 Casing depth: 10.00		Coordinates & level: UK National grid - -		Dates: Start: 28/03/2014 End: 31/03/2014 Backfilled: 31/03/2015	
Backfill/ Well Inst.	Water- strikes	Legend	Level/ Depth (Thickness)	Stratum Description	Progress, Casing & Water Data		Samples & In Situ Testing				
					Date Casing	Time Water	Depth	Type & No.	Results		
			20.00	Light brownish grey slightly silty fine to medium SAND.			20.00	D16			
			(1.00)								
			21.00	Light brown slightly silty fine to medium SAND.			21.00	D17			
			(2.00)								
			22.00				22.00	D18			
			(2.00)								
			23.00	Light brownish grey slightly silty fine to medium SAND.			23.00	D19			
			(2.00)								
			24.00				24.00	D20			
			(2.00)								
25.00	Light brownish grey slightly silty fine to coarse SAND.	25.00	D21								
(2.00)											
26.00		26.00	D22								
(2.00)											
27.00	Brown slightly silty fine to medium SAND.	27.00	D23								
(3.00)											
28.00		28.00	D24								
(3.00)											
29.00		29.00	D25								
(3.00)											
Exploratory hole ends at 30.00 m					Casing Date	Water Time	Depth	Type & No.	Results		
Instrumentation details: ID: Type: Diam: Remarks:					General remarks:			Groundwater entries: Struck: Rose to: Rate of Depth (20 mins) inflow: sealed: No Groundwater Encountered		Chiselling: From: to: Duration (min): Tool:	
Notes: For explanation of symbols and abbreviations see key sheet. All depths are reduced levels in metres. Log issue: Draft Scale: 1:50 (c) TerraConsult. www.terraconsult.co.uk					Project: Maes Y Droell Project No: 1987 Client: J. A. Jackson						

TerraConsult		Borehole Log				Borehole no: BHF		Sheet 1 of 3			
Personnel: Drilled by: SS Logged by: JNP Checked by: DD			Equipment & methods: Plant: Dando 250 Method: Rotary openhole Flush: Water SPT Hammer details: N/A			Hole diameter & casing depths: Dia (mm): 140 to: 24.00 Casing depth: 9.00		Coordinates & level: UK National grid - -		Dates: Start: 27/03/2014 End: 27/03/2014 Backfilled: 27/03/2015	
Backfill/Well Inst.		Water-strikes	Legend	Level/Depth (Thickness)	Stratum Description	Progress, Casing & Water Data Date Casing Time Water		Samples & In Situ Testing Depth Type & No. Results			
				(1.00)	MADE GROUND: Light brownish grey fine to medium SAND.			1.00	D1		
				1.00	MADE GROUND: Light brownish grey slightly silty slightly gravelly fine to coarse SAND. Gravel is angular to subrounded fine to medium of limestone.						
				(1.00)							
				2.00	MADE GROUND: Light brownish grey slightly gravelly fine to coarse SAND. Gravel is subangular to subrounded fine to medium of limestone.						
				(1.00)							
			3.00	MADE GROUND: Light brownish grey slightly silty fine SAND. Rare medium sand grains.			3.00	D3			
			(2.00)								
			4.00	MADE GROUND: Light brown slightly silty fine SAND. Rare medium sand grains.							
			5.00				5.00	D5			
			(7.00)								
Continued next sheet					Casing Date	Water Time	Depth	Type & No.	Results		
Instrumentation details: ID: Type: Diam: Remarks:					General remarks: 6.00 to 9.00m No returns		Groundwater entries: Struck: Rose to: Rate of Depth (20 mins) inflow: sealed: No Groundwater Encountered		Chiselling: From: to: Duration (min): Tool:		
 Notes: For explanation of symbols and abbreviations see key sheet. All depths are reduced levels in metres. Log issue: Draft Scale: 1:50 (c) TerraConsult. www.terraconsult.co.uk					Project: Maes Y Droell Project No: 1987 Client: J. A. Jackson						

TerraConsult		Borehole Log				Borehole no: BHF		Sheet 2 of 3						
Personnel: Drilled by: SS Logged by: JNP Checked by: DD			Equipment & methods: Plant: Dando 250 Method: Rotary openhole Flush: Water SPT Hammer details: N/A			Hole diameter & casing depths: Dia (mm): 140 to: 24.00 Casing depth: 9.00		Coordinates & level: UK National grid - -		Dates: Start: 27/03/2014 End: 27/03/2014 Backfilled: 27/03/2015				
Backfill/ Well Inst.		Water- strikes	Legend	Level/ Depth (Thickness)	Stratum Description	Progress, Casing & Water Data		Samples & In Situ Testing						
						Date Casing	Time Water	Depth	Type & No.	Results				
					MADE GROUND: Light brown slightly silty fine SAND. Rare medium sand grains.			10.00	D6					
												11.00	D7	
												12.00	D8	
												13.00	D9	
												14.00	D10	
												15.00	D11	
												16.00	D12	
												17.00	D13	
												18.00	D14	
												19.00	D15	
Continued next sheet					Casing Date	Water Time	Depth	Type & No.	Results					
Instrumentation details: ID: Type: Diam: Remarks:				General remarks: 6.00 to 9.00m No returns		Groundwater entries: Struck: Rose to: Rate of Depth (20 mins) inflow: sealed: No Groundwater Encountered		Chiselling: From: to: Duration (min): Tool:						
Notes: For explanation of symbols and abbreviations see key sheet. All depths are reduced levels in metres. Log issue: Draft Scale: 1:50 (c) TerraConsult. www.terraconsult.co.uk					Project: Maes Y Droell Project No: 1987 Client: J. A. Jackson									

TerraConsult		Borehole Log				Borehole no: BHF		Sheet 3 of 3			
Personnel: Drilled by: SS Logged by: JNP Checked by: DD			Equipment & methods: Plant: Dando 250 Method: Rotary openhole Flush: Water SPT Hammer details: N/A			Hole diameter & casing depths: Dia (mm): 140 to: 24.00 Casing depth: 9.00		Coordinates & level: UK National grid - -		Dates: Start: 27/03/2014 End: 27/03/2014 Backfilled: 27/03/2015	
Backfill/ Well Inst.		Water- strikes	Legend	Level/ Depth (Thickness)	Stratum Description	Progress, Casing & Water Data Date Casing		Time Water	Samples & In Situ Testing Depth Type & No. Results		
				20.00	MADE GROUND: Light brownish grey slightly silty fine SAND. Rare medium sand grains.				20.00	D16	
				(2.00)					21.00	D17	
				22.00	SANDSTONE: Recovered as: Light grey slightly silty fine SAND.				22.00	D18	
				(2.00)					23.00	D19	
				24.00	Exploratory hole ends at 24.00 m	27/03/2014 9.00		1730 0.00	24.00	D20	
						Casing Date	Water Time	Depth	Type & No.	Results	
Instrumentation details: ID: Type: Diam: Remarks:					General remarks: 6.00 to 9.00m No returns		Groundwater entries: Struck: Rose to: Rate of Depth (20 mins) inflow: sealed: No Groundwater Encountered			Chiselling: From: to: Duration (min): Tool:	
 Notes: For explanation of symbols and abbreviations see key sheet. All depths are reduced levels in metres. Log issue: Draft Scale: 1:50 (c) TerraConsult. www.terraconsult.co.uk					Project: Maes Y Droell Project No: 1987 Client: J. A. Jackson						

TerraConsult		Borehole Log				Borehole no: BHG		Sheet 2 of 3					
Personnel: Drilled by: SS Logged by: JNP Checked by: DD			Equipment & methods: Plant: Dando 250 Method: Rotary openhole Flush: Water SPT Hammer details: N/A			Hole diameter & casing depths: Dia (mm): 140 to: 30.00 Casing depth: 3.00		Coordinates & level: UK National grid - -		Dates: Start: 25/03/2014 End: 26/03/2014 Backfilled: 26/03/2015			
Backfill/Well Inst.		Water-strikes	Legend	Level/Depth (Thickness)	Stratum Description	Progress, Casing & Water Data Date CasingTime Water		Samples & In Situ Testing DepthType & No.Results					
				10.00	Light grey slightly silty fine SAND. Rare medium sand grains.			10.00	D10				
				10.00 - 15.00	B10-15B								
				11.00	D11								
				12.00	D12								
				13.00	D13								
				14.00	D14								
				15.00	D15								
				16.00	D16								
				17.00	D17								
				18.00	Light brownish grey slightly silty fine SAND. Rare medium sand grains.			18.00	D18				
			(8.00)										
				19.00	Light brownish grey fine to coarse SAND.			19.00	D19				
				(1.00)									
Continued next sheet					Casing Date	Water Time	Depth	Type & No.	Results				
Instrumentation details: ID: Type: Diam: Remarks:					General remarks:					Groundwater entries: Struck: Rose to: Rate of Depth (20 mins) inflow: sealed: No Groundwater Encountered		Chiselling: From: to: Duration (min): Tool:	
 Notes: For explanation of symbols and abbreviations see key sheet. All depths are reduced levels in metres. Log issue: Draft Scale: 1:50 (c) TerraConsult. www.terraconsult.co.uk					Project: Maes Y Droell Project No: 1987 Client: J. A. Jackson								

TerraConsult		Borehole Log				Borehole no: BHG		Sheet 3 of 3					
Personnel:			Equipment & methods:			Hole diameter & casing depths:		Coordinates & level:		Dates:			
Drilled by: SS			Plant: Dando 250			Dia (mm): 140 to: 30.00		Casing depth: 3.00		UK National grid		Start: 25/03/2014	
Logged by: JNP			Method: Rotary openhole							-		End: 26/03/2014	
Checked by: DD			Flush: Water			SPT Hammer details: N/A				-		Backfilled: 26/03/2015	
Backfill/Well Inst.		Water-strikes	Legend	Level/Depth (Thickness)	Stratum Description	Progress, Casing & Water Data		Samples & In Situ Testing					
						Date Casing	Time Water	Depth	Type & No.	Results			
				(2.00)	Light brownish grey fine to coarse SAND. 20.00m - 22.00m: Sand noticeably coarser than above.			20.00 20.00	D20 B20B				
				21.00	Light brownish grey medium to coarse SAND.			21.00	D21				
				(1.00)									
				22.00	Light brownish grey fine SAND. Rare medium sand grains.			22.00 22.00	D22 B22B				
				(1.00)									
				23.00	Light brown slightly silty fine to medium SAND.			23.00 23.00	D23 B23B				
				(2.00)				24.00	D24				
				25.00	Light brown fine to coarse SAND.			25.00	D25				
				(1.00)									
				26.00	Light brown slightly silty fine SAND.			26.00	D26				
				(1.00)									
				27.00	Light brown slightly silty fine to medium SAND.			27.00	D27				
				(3.00)				28.00	D28				
								29.00	D29				
								26/03/2014 3.00	1500 6.72				
					Exploratory hole ends at 30.00 m	Casing Date	Water Time	Depth	Type & No.	Results			
Instrumentation details: ID: Type: Diam: Remarks:					General remarks:	Groundwater entries: Struck: Rose to: Rate of Depth (20 mins) inflow: sealed: No Groundwater Encountered			Chiselling: From: to: Duration (min): Tool:				
 Notes: For explanation of symbols and abbreviations see key sheet. All depths are reduced levels in metres. Log issue: Draft Scale: 1:50 (c) TerraConsult. www.terraconsult.co.uk					Project: Maes Y Droell Project No: 1987 Client: J. A. Jackson								

TerraConsult		Borehole Log				Borehole no: BHC1		Sheet 1 of 3					
Personnel:			Equipment & methods:			Hole diameter & casing depths:		Coordinates & level:		Dates:			
Drilled by: SS			Plant: Dando 250			Dia (mm): 140 to: 30.00		Casing depth: 3.00		UK National grid		Start: 01/04/2014	
Logged by: JNP			Method: Rotary openhole							-		End: 01/04/2014	
Checked by: DD			Flush: Water			SPT Hammer details: N/A				-		Backfilled: 01/04/2015	
Backfill/Well Inst.		Water-strikes	Legend	Level/Depth (Thickness)	Stratum Description	Progress, Casing & Water Data		Samples & In Situ Testing					
						Date Casing	Time Water	Depth	Type & No.	Results			
				(5.00)	Light grey slightly silty fine SAND.			3.00	D1				
								4.00	D2				
				5.00	Light brownish grey slightly silty fine SAND. Rare medium sand grains.			5.00	D3				
				(1.00)									
				6.00	Light grey slightly silty fine SAND. Rare medium sand grains.			6.00	D4				
				(1.00)									
				7.00	Light reddish brown slightly silty fine to medium SAND.			7.00	D5				
				(2.00)				8.00	D6				
				9.00	Light brownish grey slightly silty fine to medium SAND.			9.00	D7				
Continued next sheet						Casing Date	Water Time	Depth	Type & No.	Results			
Instrumentation details:					General remarks:		Groundwater entries:		Chiselling:				
ID: Type: Diam: Remarks:					8.00 to 9.00m Returns taking on a more reddish brown hue.		Struck: Rose to: Rate of Depth (20 mins) inflow: sealed: No Groundwater Encountered		From: to: Duration (min): Tool:				
AGS Notes: For explanation of symbols and abbreviations see key sheet. All depths are reduced levels in metres. Log issue: Draft Scale: 1:50 (c) TerraConsult. www.terraconsult.co.uk					Project: Maes Y Droell								
					Project No: 1987								
					Client: J. A. Jackson								

Personnel:

Drilled by: SS
Logged by: JNP
Checked by: DD

Equipment & methods:

Plant: Dando 250
Method: Rotary openhole
Flush: Water SPT Hammer details: N/A

Hole diameter & casing depths:

Dia (mm):	to:	Casing depth:
140	30.00	3.00

Coordinates & level:

UK National grid

Dates:	
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Start:	01/04/2014
End:	01/04/2014
Backfilled:	01/04/2015

Backfill/ Well Inst.	Water- strikes	Legend	Level Depth (Thickness)	Stratum Description	Progress, Casing & Water Data		Samples & In Situ Testing			
					Date Casing	Time Water	Depth	Type & No.	Results	
			(3.00)	Light brownish grey slightly silty fine to medium SAND.			10.00	D8		
			12.00	Light brown slightly silty fine to medium SAND.			12.00	D10		
			13.00	Light brownish grey slightly silty fine to medium SAND.			13.00	D11		
			14.00	Light grey slightly silty fine to medium SAND.			14.00	D12		
			16.00	Light grey silty fine SAND.			16.00	D14		
			19.00	Light brownish grey slightly silty fine SAND.			19.00	D17		
			(1.00)							
				Continued next sheet	Casing Date	Water Time	Depth	Type & No.	Results	
Instrumentation details: ID: Type: Diam: Remarks:				General remarks: 8.00 to 9.00m Returns taking on a more reddish brown hue.	Groundwater entries: Struck: Rose to: Rate of Depth (20 mins) inflow. sealed: No Groundwater Encountered			Chiselling: From: to: Duration (min): Tool:		



Notes: For explanation of symbols and abbreviations see key sheet.
All depths are reduced levels in metres.

Log issue: Draft

Scale: 1:50 (c) TerraConsult. www.terraconsult.co.uk

Project: **Maes Y Droell**

Project No: **1987**

Client: **J. A. Jackson**

TerraConsult		Borehole Log				Borehole no: BHC1		Sheet 3 of 3			
Personnel: Drilled by: SS Logged by: JNP Checked by: DD			Equipment & methods: Plant: Dando 250 Method: Rotary openhole Flush: Water SPT Hammer details: N/A			Hole diameter & casing depths: Dia (mm): 140 to: 30.00 Casing depth: 3.00		Coordinates & level: UK National grid - -		Dates: Start: 01/04/2014 End: 01/04/2014 Backfilled: 01/04/2015	
Backfill/Well Inst.		Water-strikes	Legend	Level/Depth (Thickness)	Stratum Description	Progress, Casing & Water Data Date Casing Time Water		Samples & In Situ Testing Depth Type & No. Results			
				20.00	Light brownish grey slightly silty fine SAND. Rare medium sand grains.			20.00	D18		
				(2.00)				21.00	D19		
				22.00	Light brownish grey slightly silty fine SAND.			22.00	D20		
				(1.00)				23.00	D21		
				23.00	Light grey slightly silty fine SAND. Rare medium sand grains.			24.00	D22		
				(4.00)				25.00	D23		
								26.00	D24		
				27.00	Light grey slightly silty fine to medium SAND.			27.00	D25		
				(2.00)				28.00	D26		
				29.00	Light brownish grey slightly silty fine to medium SAND.			29.00	D27		
(1.00)						01/04/2014 1730 3.00 5.55					
Exploratory hole ends at 30.00 m					Casing Date	Water Time	Depth	Type & No.	Results		
Instrumentation details: ID: Type: Diam: Remarks:				General remarks: 8.00 to 9.00m Returns taking on a more reddish brown hue.			Groundwater entries: Struck: Rose to: Rate of Depth (20 mins) inflow: sealed: No Groundwater Encountered		Chiselling: From: to: Duration (min): Tool:		
 Notes: For explanation of symbols and abbreviations see key sheet. All depths are reduced levels in metres. Log issue: Draft Scale: 1:50 (c) TerraConsult. www.terraconsult.co.uk				Project: Maes Y Droell Project No: 1987 Client: J. A. Jackson							

Maers & Droell drilling Campaign December 2020

Results after treatment

Bore Hole	Description	LOG	Recovery rate %	SAMPLE	Al2O3 %	Fe2O3 %	Yield %	
BH 1								
da 0 a 3 m	Soil + very fine sand / silt		40	NO				
3 - 6 m	Very fine sand / silt , white color		60	BH1 / 1	1.48	0.135	15.3	
6 - 9 m	Medium-fine sand, white to light yellow color		50	BH1 / 2	0.17	0.042	73.9	Ricalcolo livello utile
9 - 12 m	Medium-fine sand, white color		80	BH1 / 3	0.20	0.022	75.9	Al2O3 % Fe2O3 % Yield %
12 - 16.5 m	Fine to very fine sand, white color		80	BH1 / 4	0.93	0.089	26.9	0.19 0.032 74.9
16.5 - 19.5 m	Very fine sand / silt , white color		90	BH1 / 5	1.60	0.23	11.0	
19,5 - 21 m	Very fine sand / silt , white color and reddish portion		40	NO				
21 - 24 m	Very fine sand / silt , white to brownish color		60	BH1 / 6	1.17	0.34	40.3	
BH 2								
0 - 4,5 m	Soil + very fine sand / silt reddish		70	NO				
4,5 - 6,0 m	Coarse sand with gravel, graish color		65	BH2 / 1	0.41	0.052	28.7	
6 - 9 m	Medium-coarse sand with reddish silt layers		90	BH2 / 2	0.27	0.035	47.9	Ricalcolo livello utile
9 - 12 m	Medium sand, white color		70	BH2 / 3	0.22	0.030	69.4	Al2O3 % Fe2O3 % Yield %
12 - 16.5 m	Medium sand, white color		80	BH2 / 4				0.23 0.031 63.3
16.5 - 19.5 m	Very fine sand / silt , white		90	BH2 / 5	0.76	0.116	19.1	
19,5 - 20,3 m	Very fine sand / silt , white with reddish layers		80	NO				
BH 3								
0 - 3.0 m	Soil + very fine sand , light yellow color		60	NO				
3.0 - 7.5 m	Fine sand with clay layers, yellowish to gray color		60	BH 3 / 1	0.33	0.055	43.7	
7.5 - 12.0 m	Very fine sand / silt , white with reddish layers		80	BH 3 / 2	1.35	0.59	9.4	
12 - 15 m	Medium-fine sand, yellowish to orange color		80	BH 3 / 3				
15 - 18 m	Fine to Very fine sand , orange to white color		60	BH 3 / 4				
18 - 20.5 m	Medium-Fine sand , light orange to white color		60	BH 3 / 5				
BH 4								
0.0 - 3.0 m	Soil + very fine sand / silt		40	NO				
3.0 - 9.0 m	Very fine sand / silt , white to yellowish color		80	NO				
9.0 - 11.0 m	Medium-fine sand, white to yellowish color		90	NO				
11.0 - 13.5 m	Very fine sand / silt , yellow to dark brown color		70	NO				
13,5 - 16,5 m	Very fine sand / silt , white color		85	NO				
16.5 - 19.0 m	BROWN - ORANGE WITH REDDISH LAYER MUDSTONE		85	NO				
19.0 - 21.0 m	BLACK MUDSTONE		90	NO				
BH 5								
0.0 - 3.0 m	Soil + very fine sand / silt		60	NO				
3.0 - 4.0 m	Very fine sand / silt , light brown color		85	NO				
4.0 - 5.5 m	Medium-fine sand, white to yellowish color		90	NO				
5.5 - 9.0 m	Very fine sand / silt , light brown to dark gray color		70	NO				
9.0 - 9.5 m	BROWN - ORANGE WITH REDDISH LAYER MUDSTONE		85	NO				
9.5 - 10.5 m	Very fine sand / silt , light brown to dark gray color		70	NO				
10.5 - 12.0 m	BLACK MUDSTONE		90	NO				
12.0 - 13.0 m	Very fine sand / silt , brown color		90	NO				

13.0 - 14.0 m	BLACK MUDSTONE		90	NO			
14.0 - 14.5 m	Very fine sand / silt , brown color		90	NO			
14.5 - 15.0 m	BLACK MUDSTONE		90	NO			
15.0 - 16.0 m	Very fine sand / silt , brown color		90	NO			
16.0 - 19.0 m	BLACK MUDSTONE		90	NO			
19.0 - 21.5 m	Very fine sand / silt , light brown to dark gray color		90	NO			
21.5 - 36.0 m	BLACK MUDSTONE		90	NO			
BH 6							
0 - 2.0 m	Soil + medium sand , light yellow to drak gray color		70	NO			
2.0 - 6,0 m	medium -fine sand, light yellow to drak gray color		70	BH 6 / 1			
6.0 - 10.5 m	medium -fine sand, white to light orange color with dark silt layer		80	BH 6 / 2			
10.5 - 15.00 m	Medium fine sand , light yellow color		90	BH 6 / 3			
15.0 - 18.0 m	Very fine sand / silt , white to light orange color		90	BH 6 / 4			
18 - 20.0 m	Very fine sand / silt , white to light orange color		70	BH 6 / 5			
BH 7							
0 - 4,5 m	Soil + very fine sand / silt , light yellow color		70	NO			
4.5 - 7.5 m	Medium fine sand with clay layers, light yellow color		80	BH 7 / 1	0.27	0.045	71.6
7.5 - 12 m	Very fine to fine sand , white with yellowish layers		60	BH 7 / 2	0.28	0.038	58.8
12 - 15 m	Medium sand, white color		60	BH 7 / 3	0.29	0.038	53.3
15 - 18 m	Medium- Fine sand , white color		55	BH 7 / 4	0.39	0.039	30.7
18 - 21 m	Medium sand, white color		55	BH 7 / 5	0.52	0.049	41.5
BH 8							
0 - 16.5 m	Loose Made ground		30	NO			
16.5 - 19.5 m	Medium - fine sand with clay layers, yellowish to graish color		80	BH 8 / 1			
19.5 - 22.5 m	Medium - fine sand , graish color		60	BH 8 / 2			
22.5 - 25.5 m	Medium fine sand with clay layers, brownish to drak gray color		80	BH 8 / 3			
25.5 - 30.0 m	Medium fine sand with clay layers, orange to brownish color		60	BH 8 / 4			
BH 9							
0 - 3 m	Made ground + Very fine sand / silt , white color		70	NO			
3 - 6 m	Very fine sand / silt , white to brown color		90	BH9 / 1			
6 - 9 m	Fine to Very fine sand , white to brown color		90	BH9 / 2			
9 - 12 m	Medium sand, white color		50	BH9 / 3			
12 - 15 m	Medium sand, white color		50	BH9 / 4			
15 - 21 m	Medium san white color - no recovery		< 20	NO			
BH 10							
0 - 13,5 m	Loose Made ground		30	NO			
13,5 - 17,0	Compacted made ground		90	NO			
17 - 19 m	Medium sand, white color		80	BH 10 / 1			
19.0 - 25.5 m	Medium-fine sand with clay layers, reddish color		55	BH 10 / 2			
25.5 - 30 m	Medium-fine sand with clay layers, brownish color		65	BH 10 / 3			

Ricalcolo livello utile
Al2O3 % Fe2O3 % Yield %
0.33 0.041 51.9