

Supporting Documents for Walterston Farm
Ground Water Transitional Licence Application

Business Trading Name – WH Dixon & Sons

Business Address – Walterston Farm, Haycastle, Haverfordwest, Pembrokeshire, SA62 5HT

Category - Technical Supporting Information

Date – 19 November 2019

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Information

Brief history of farm eg type livestock only or mixed with arable crops

Walterston Farm is modern dairy unit located on the outskirts of Hayscastle Pembrokeshire. The principal contacts are Mr Henry Dixon, Mrs Margaret Dixon, David and Robert Dixon Sons. The family moved to Walterston farm from Yorkshire in 1986.

Walterston farm is a mixed farm unit and consists of owned land. The farmed land area covers 190hectares (469acres).

The land bank is down to grass leys, silage cropping and fodder beet grown with concentrates fed to the cows to supplement the feed ration. The dairy herd is on a pasture system during the summer months. Under this type of system milk production is predominately from grass with Friesian cows producing an annual average 6000- 9000lts per cow and would be classed as a high performing herd.

Average stocking at the farms amounts to 200 dairy cattle, the cows are kept on cubicles/straw-based systems. The younger stock between 3-13months 160animals and 13-24months 150animals are kept at Walterston Farm. Heifers generally calve at 24months when they joining the milking herd. On average cow numbers are held at 200LSU with barren cows being replaced by 20 first time calvers.

The farm also runs a beef unit with calves from a day old to finished animals at 18 to 24months reared through the farm system.

Water Supply

The farm groundwater source supplies drinking and wash water for the dairy herd via drinking troughs, plate cooler and milking parlour.

The water transfers through the farm mains and is regulated via a pressure vessel cut off switch system and float valves from the drinking troughs and milking parlour wash, animal drinking pattern and milking times are on a need's basis.

The water that is used for the parlour system wash and bulk tank cleaning is sourced via the public mains supply from DWR Cymru Welsh Water.

The farm lies within a groundwater abstraction exempt area Wales.

A growing number of livestock farmers are seeking to source water from alternative sources such as boreholes, springs, rivers, lakes or rainwater harvesting as costs of mains water increases.

Stock farm water is one of the most important natural resources, whether considering direct water consumption being stock drinking, washing and cleaning. Approximately a third to a half of all potable water abstractions are used for drinking with the remaining being used for cleaning parlours, yards and milk cooling.

From the 1 April 2005, an amendment was made to the Water Act 2003 that deregulated abstractions of **less** than 20m³/day the law now permits you to abstract up to a maximum of 20m³/day (equal to 20,000 litres per day) without the need for a licence. This is subject to conditions:

(1) You have a legal right to the source of supply if it is on your land.

(2) The abstraction is not part of a series of abstractions from the same source totalling a quantity greater than 20m³/day.

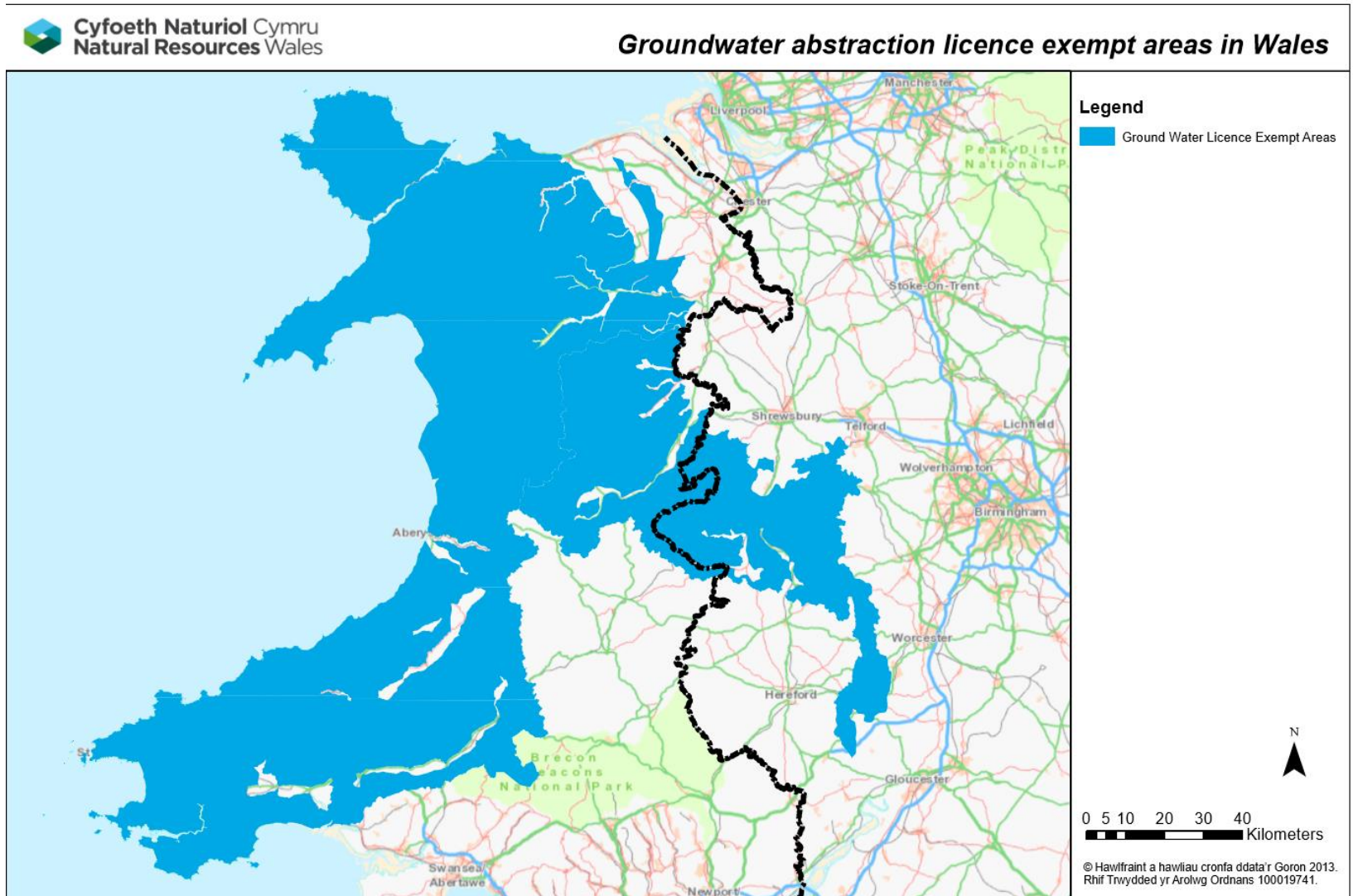
Natural Resources Wales have introduced an application window where a transitional licence application is required to be submitted during this period 1 January 2018 until 31 December 2019. Following this, there is up to a 3-year determination period. The application fee is currently £135. Transitional licence applications are required to be submitted during the application window 1 January 2018 until 31 December 2019 if you abstract more than the exempt limit.

After the 31 December 2019 if more than 20m³/day a full licence application will have to be submitted to continue using the groundwater abstraction.

If a farm has several boreholes which one of them may be a domestic supply which all abstract from the same source of supply, i.e. the same groundwater source that in total abstract more than 20m³/day will require a licence.

Areas within Wales that are outside the Groundwater exempt area should all have an abstraction licence if they abstracted more than the exempt limit.

Map showing Exempt Groundwater Area Wales



Doc1 Letter of Authorisation



Becky@kebek.co.uk
07901339662

19 November 2019

Mr H Dixon
Walterston Farm
Hayscastle
Haverfordqwest
Pembrokeshire
SA62 5HT

Letter of Authorisation: Kebek Ltd

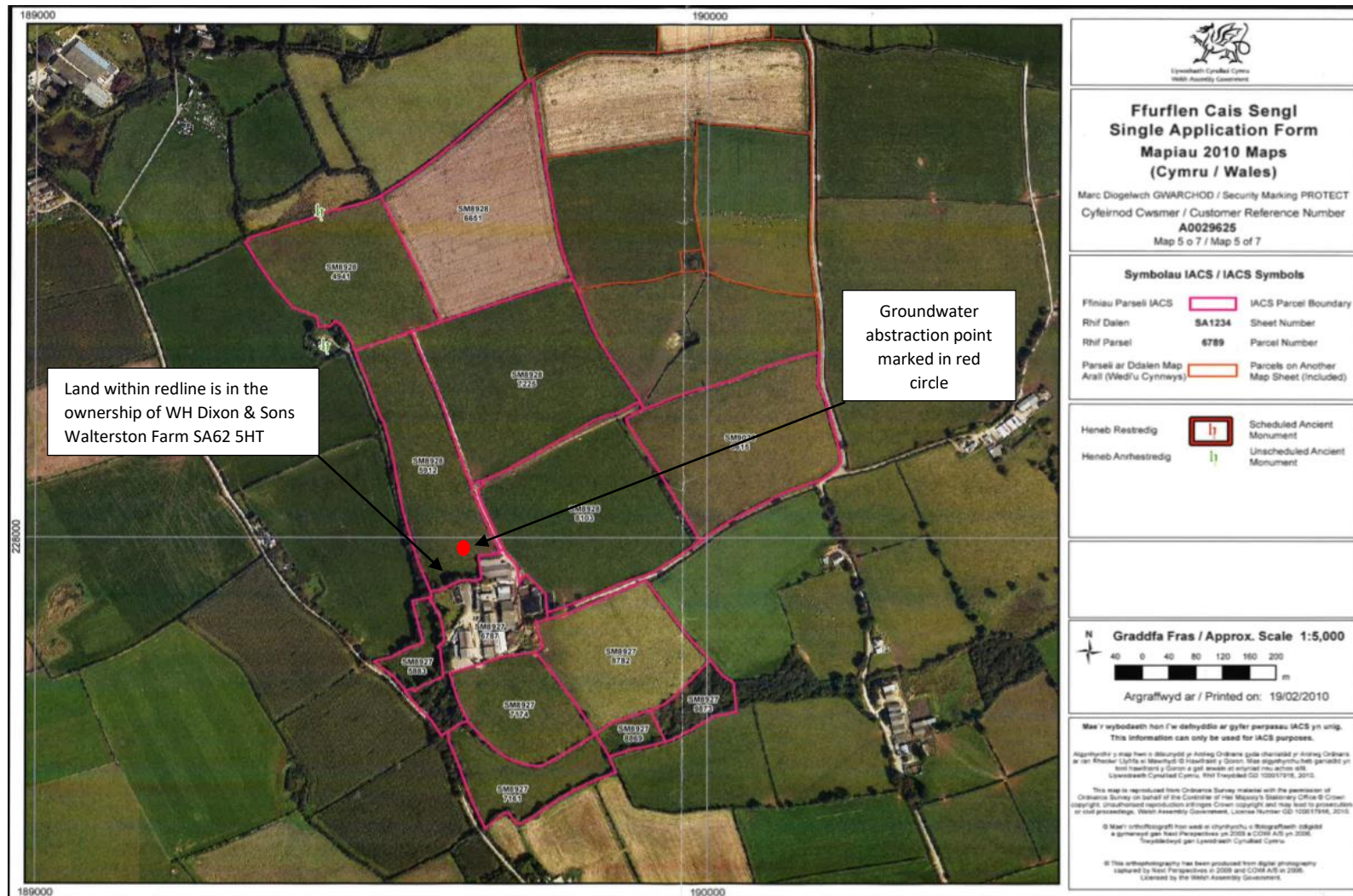
This is to certify that I, Henry Dixon authorise our representatives of Kebek Ltd, to act on our behalf with regard to the application for the Transitional Licence for existing groundwater abstraction at Walterston Farm.

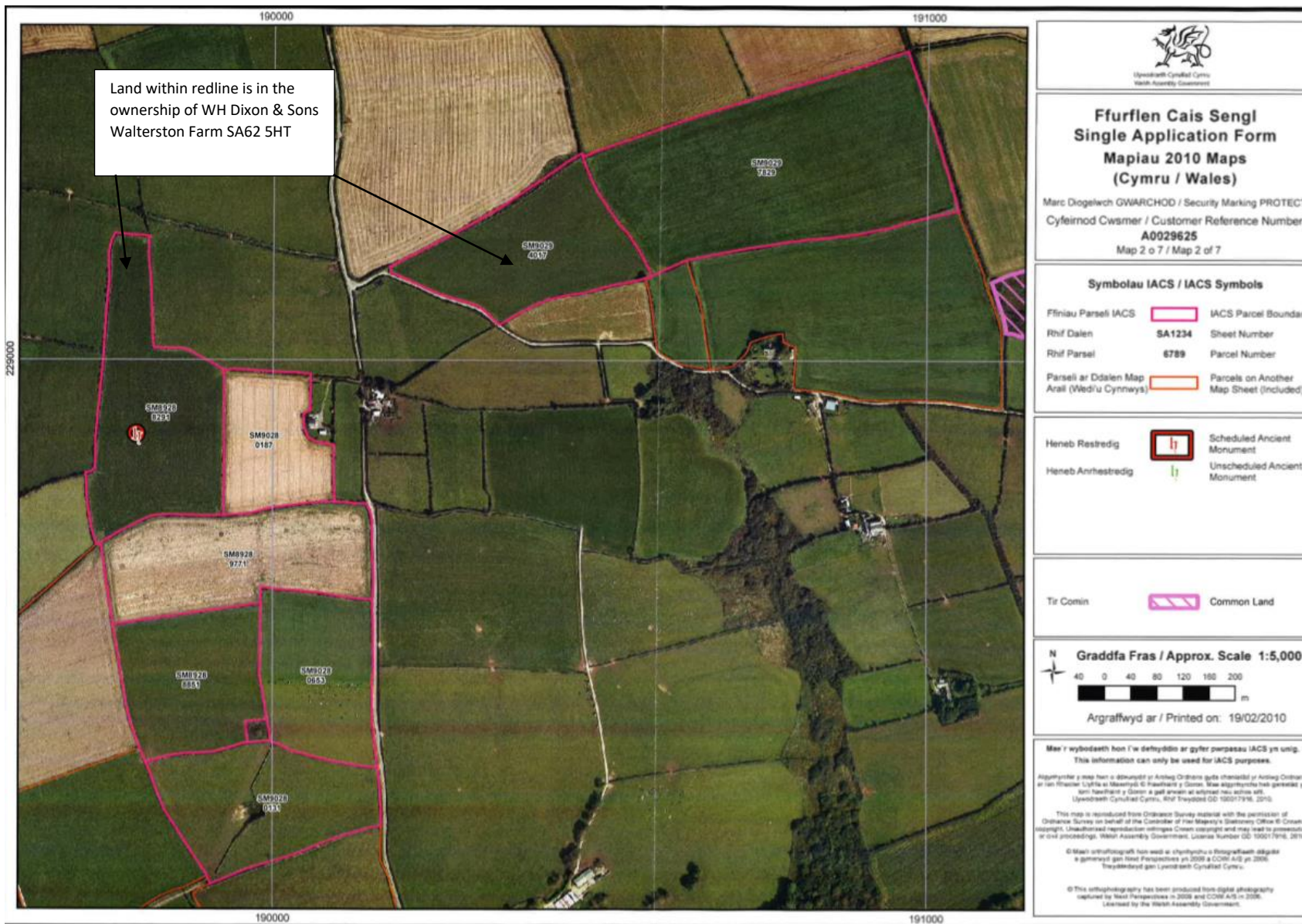
Name: Kebek Ltd
Company representative: Rebecca Jones and Keith Owen
Date: 19th November 2019
Contact details:
Becky@kebek.co.uk 07901339662
Keith@kebek.co.uk 07522780346

Yours sincerely

PP
Henry Dixon
Partner
Walterston Farm

Doc 2 – Entitlement to Land SFP Maps





Document 4 Walterston Farm: Groundwater Borehole and Pressure Vessel location



Doc5 Photographic Evidence Borehole Chamber/ Pressure Vessel

GW Abstraction point Walterston Farm



Doc5 Photographic Evidence Borehole Pump

GW Abstraction Pump Details Walterston Farm

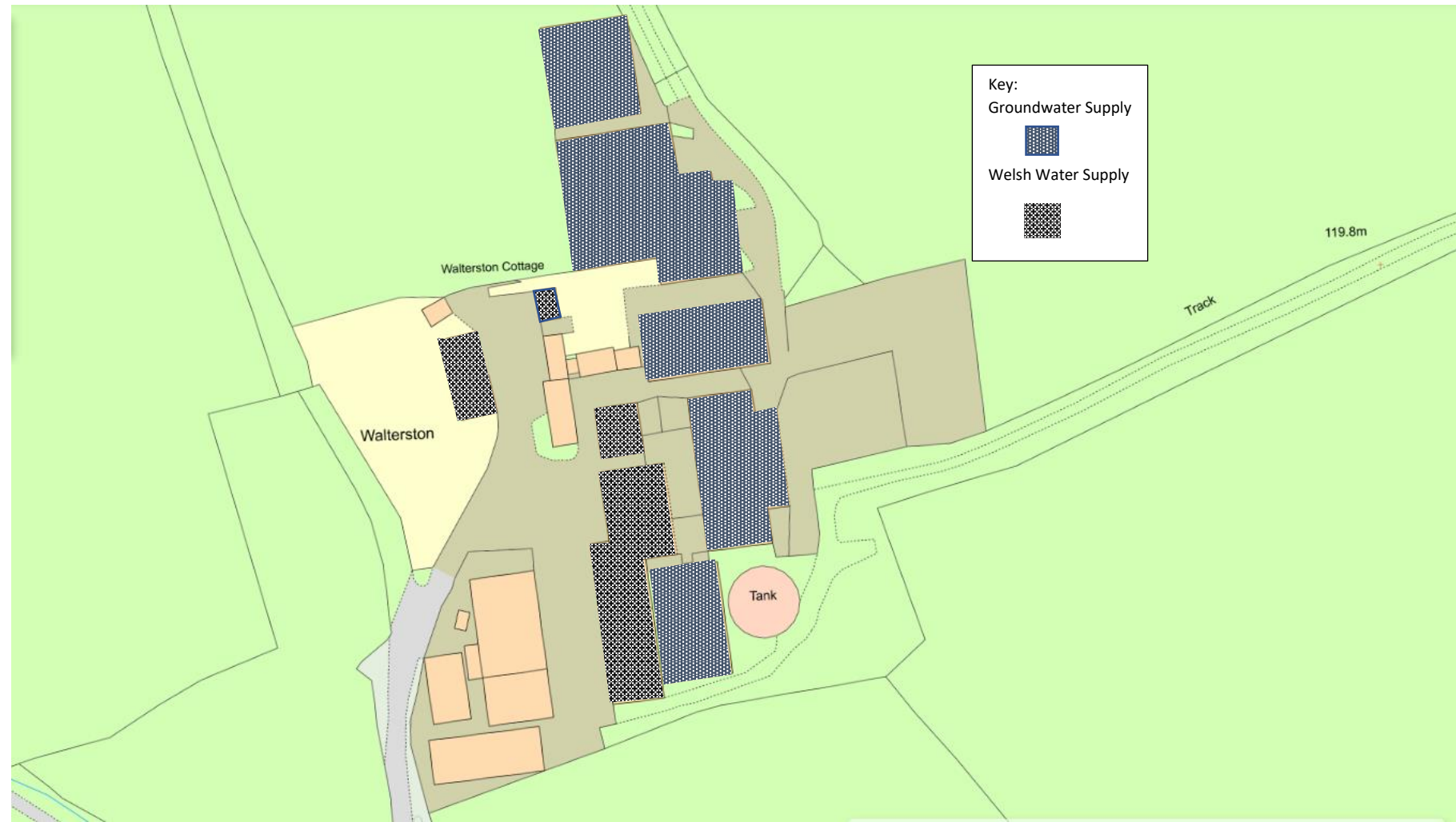


Doc5 Photographic Evidence

GW Pressure Vessel Tank Walterston Farm



Document6 Walterston Farm: Borehole Distribution Plan

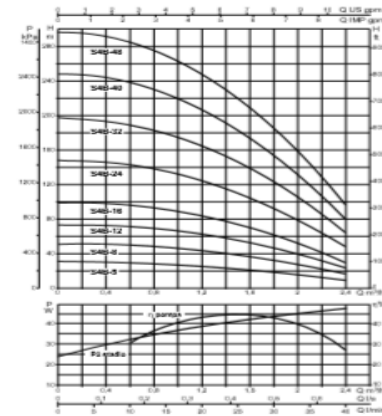
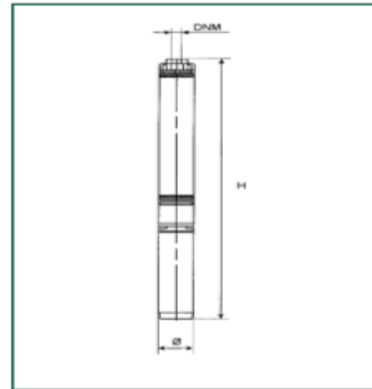


Doc7 Groundwater Pump Specifications DAB S4B -16

The performance curves are based on the kinematic viscosity values – 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 2548.

S4B

Liquid temperature range: from 0°C to +40°C



MODEL	Ø (mm)	HEIGHT H		DNM	PACKING DIMENSIONS (mm)			VOLUME (M ³)	WEIGHT GROSS Kg	
		M single phase	T three phase		L/A	L/B	H (M/T)		M single phase	T three phase
S4B-5 M	97	518	—	1" N _A G-F	110	110	770	0,010	11,1	—
S4B-8 M / S4B-8 T	97	606	585	1" N _A G-F	110	110	770	0,010	12,5	11,5
S4B-12 M / S4B-12 T	97	723	695	1" N _A G-F	110	110	770	0,010	14,4	13,1
S4B-16 M / S4B-16 T	97	841	813	1" N _A G-F	110	110	1000/910	0,013/0,010	16,3	15,1
S4B-24 M / S4B-24 T	97	1078	1021	1" N _A G-F	120	120	1240	0,018	20,2	17,5
S4B-32 M / S4B-32 T	97	1287	1230	1" N _A G-F	120	120	1590/1330	0,023/0,019	22,5	20,2
S4B-40 M / S4B-40 T	97	1575	1471	1" N _A G-F	120	120	1920/1590	0,029/0,023	27,6	22,9
S4B-48 M / S4B-48 T	97	1755	1651	1" N _A G-F	120	120	1920	0,028	28,7	24,2

MODEL	ELECTRICAL DATA					HYDRAULIC DATA (n = 2850 1/min)									
	VOLTAGE 50 Hz	COS φ	P ₂ NOMINAL kW	HP	I _n A	CAPACITOR µF Vc	Q m³/h	0	0,5	0,9	1,2	1,5	1,8	2,1	2,4
S4B-5 M	1x220-230 V~	0,79-0,73	0,75	0,33	2,8-3,2	12,5	400	31	30	28,6	26	22,6	19	14,8	10
S4B-8 M	1x220-230 V~	0,83-0,78	0,37	0,3	3,5-4	16	400	49,6	47,8	45,8	41,5	36,2	30,6	23,7	16
S4B-8 T	3x400 V~	0,7	0,37	0,3	1,1	—	—	49,6	47,8	45,8	41,5	36,2	30,6	23,7	16
S4B-12 M	1x220-230 V~	0,90-0,84	0,55	0,75	4,5-4,8	20	400	74,4	71,8	68,6	62,3	54,4	45,8	35,5	24
S4B-12 T	3x400 V~	0,75	0,55	0,75	1,5	—	—	74,4	71,8	68,6	62,3	54,4	45,8	35,5	24
S4B-16 M	1x220-230 V~	0,93-0,86	0,75	1	5,7-6,1	30	400	99,2	96,7	91,5	80	72,5	61	47,4	32
S4B-16 T	3x400 V~	0,75	0,75	1	2,1	—	—	99,2	96,7	91,5	80	72,5	61	47,4	32
S4B-24 M	1x220-230 V~	0,89-0,82	1,1	1,5	8,7-9,6	40	400	148,8	143,5	137,3	124,6	108,7	91,7	71	48
S4B-24 T	3x400 V~	0,76	1,1	1,5	3	—	—	148,8	143,5	137,3	124,6	108,7	91,7	71	48
S4B-32 M	1x220-230 V~	0,96-0,92	1,5	2	10,7-11,2	50	400	198,4	191,4	183	166	144,9	122,2	94,7	64
S4B-32 T	3x400 V~	0,76	1,5	2	4	—	—	198,4	191,4	183	166	144,9	122,2	94,7	64
S4B-40 M	1x220-230 V~	0,98-0,97	2,2	3	14,7-14,8	70	400	248	239,2	228,8	207,6	181,2	152,8	118,4	80
S4B-40 T	3x400 V~	0,75	2,2	3	5,9	—	—	248	239,2	228,8	207,6	181,2	152,8	118,4	80
S4B-48 M	1x220-230 V~	0,98-0,97	2,2	3	14,7-14,8	70	400	297,6	287,1	274,6	249,2	217,4	183,4	142,1	96
S4B-48 T	3x400 V~	0,75	2,2	3	5,9	—	—	297,6	287,1	274,6	249,2	217,4	183,4	142,1	96

* The data on the protection are on page 22.

Doc8 Livestock numbers and water volume used 2011-2017

	water consumptic	livestock no	daily consum	monthly con	annual consu	flow rate litre per hour	flow rate litres per second	pump time for drinking water (seconds)	pump time for drinking water (hours)	pump time for parlour washings (seconds)	pump time for parlour washings (hours)
2011											
dairy cows in milk	100	200	20000	600000	7200000	2850	0.8	40595.0	11.3	7500	2.1
cow with calf	50		0	0	0						
heifers 24 month	50	136	6800	204000	2448000						
<12 month	36	142	5112	153360	1840320						
<3 months	4	66	264	7920	95040						
Bull	100	3	300	9000	108000						
total livestock water use			32476	974280	11691360						
parlour washings	30	200	6000	180000	2160000						
2012											
dairy cows in milk	100	200	20000	600000	7200000	2850	0.8	40901.0526	11.4	7578.94737	2.1
cow with calf	50		0	0	0						
heifers 24 month	50	132	6600	198000	2376000						
<12 month	36	145	5220	156600	1879200						
<3 months	4	65	260	7800	93600						
Bull	100	3	300	9000	108000						
total livestock water use			32380	971400	11656800						
parlour washings	30	200	6000	180000	2160000						
2013											
dairy cows in milk	100	210	21000	630000	7560000	2850	0.8	43311.1579	12.0	7957.89474	2.2
cow with calf	50		0	0	0						
heifers 24 month	50	144	7200	216000	2592000						
<12 month	36	152	5472	164160	1969920						
<3 months	4	79	316	9480	113760						
Bull	100	3	300	9000	108000						
total livestock water use			34288	1028640	12343680						
parlour washings	30	210	6300	189000	2268000						
2014											
dairy cows in milk	100	210	21000	630000	7560000	2850	0.8	43311.1579	12.0	7957.89474	2.2
cow with calf	50		0	0	0						
heifers 24 month	50	144	7200	216000	2592000						
<12 month	36	152	5472	164160	1969920						
<3 months	4	79	316	9480	113760						
Bull	100	3	300	9000	108000						
total livestock water use			34288	1028640	12343680						
parlour washings	30	210	6300	189000	2268000						
2015											
dairy cows in milk	100	220	22000	660000	7920000	2850	0.8	44498.5263	12.4	8336.84211	2.3
cow with calf	50		0	0	0						
heifers 24 month	50	140	7000	210000	2520000						
<12 month	36	156	5616	168480	2021760						
<3 months	4	78	312	9360	112320						
Bull	100	3	300	9000	108000						
total livestock water use			35228	1056840	12682080						
parlour washings	30	220	6600	198000	2376000						
2016											
dairy cows in milk	100	220	22000	660000	7920000	2850	0.8	45125.0526	12.5	8336.84211	2.3
cow with calf	50		0	0	0						
heifers 24 month	50	158	7900	237000	2844000						
<12 month	36	145	5220	156600	1879200						
<3 months	4	76	304	9120	109440						
Bull	100	3	300	9000	108000						
total livestock water use			35724	1071720	12860640						
parlour washings	30	220	6600	198000	2376000						
2017											
dairy cows in milk	100	200	20000	600000	7200000	2850	0.8	42954.9474	11.9	7578.94737	2.1
cow with calf	50	12	600	18000	216000						
heifers 24 month	50	205	10250	307500	3690000						
<12 month	36	71	2556	76680	920160						
<3 months	4	75	300	9000	108000						
Bull	100	3	300	9000	108000						
total livestock water use			34006	1020180	12242160						
parlour washings	30	200	6000	180000	2160000						

Doc 8 Livestock Numbers from Farm Records extracted from BCMS

Walterston Farm SA62 5HT County Parish Holding Number 55/456/0002

Herd Size by Year

Stock	UK Herd No			
Livestock	2011	2014	2017	UK745455
Milking Cows				
Dairy cows >2 years	200	210	212	
Dairy Cows 1-2 year	25	20	42	
Dairy Cows < 1 Year	25	20	45	
Female Beef				
Calved beef				
Female beef >2 year	48	56	23	
Female beef 1-2 year	75	82	90	
Female beef <1 year	48	57	101	
Service Bulls				
Service bull > 1 year	3	3	3	
Service bull < 1 year	0			
Other				
Calves to sell	0	0	0	
Other young Stock				
Steer				
Steer < 1 year	75	58	30	
Steer > 1 year	48	82	20	
Total number of animals = 547		= 588	= 566	

Signed

Bevan & Buckland LLP

Chartered accountants, tax and financial planners



AE/EAJ/DIX001

30 December 2019
Alun Evans
Direct dial 01437 761404
email: alun@bevanbuckland.co.uk

TO WHOM IT MAY CONCERN

Dear Sirs

Messrs Dixon - Walterston Farm, Haycastle, Haverfordwest, Pembrokeshire, SA62 5HZ

I confirm that as at 31 March 2017 the number of animals included in the accounts is as follows:

Farm stock valuation

Livestock dairy

Heifers in calf	19
Two year olds	23
12-24 months	30
6-12 months	15

Beef

Beef sucklers	12
Two year olds	11
12-24 months	122
6-12 months	56
Under 6 months	75
Bull	2

On hand at 31-3-17

Cows	200
Bull	1

Should you have any queries then please do not hesitate to contact me.

Yours faithfully

Bevan Buckland LLP



45 High Street, Haverfordwest,
Pembrokeshire SA61 2BP

Tel: 01437 750666

alun@bevanbuckland.co.uk

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Incorporated in England and Wales with the number 06401792

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Approved to sign on behalf of the firm by the Chartered
Accountant, Alun Evans, who is a member of the ICAEW
Chartered Accountants

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50 Queen's Square
London WC2N 4AU

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