Appendix 5.9.A – Third party report - Chandler KBS

Wessex Water

September 2018

Wessex Water
YTL GROUP

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CHANDLERKBS

Water Resources Management Plan RCV

MEAV Estimating Support

Wessex Water

September 2017

Contents

Appendices

Version		Prepared by	Checked by	Issue date
1	Final	MT	DD	27 Sept 2017

1. Introduction

To assist in Wessex Water's (WW) in its Clean Water Resources Management Plan, ChandlerKBS was commissioned to provide Modern Equivalent Asset Valuations (MEAV) for the following:

- 197 borehole shafts and 239 borehole pumps based on TR61cost equations.
- We were also requested to provide cost assurance for 10 borehole assets
- Washouts, auto-divert systems and outfalls
- Dams and reservoir assets based on any data which could be sourced by ChandlerKBS including WW's own records.

ChandlerKBS has over 25-years' experience within the utilities sector providing cost and project management services. We work with various utility companies and regulators in providing estimating, cost management and benchmarking services across the UK. We work with utility companies and assist in preparing regulatory business plan submissions. We have access to final actual project cost data and we maintain an in-house unit cost estimating database which is populated with costs sourced from a number of water companies.

The team members on this commission included:

Mark Thomas, Associate
William Heap, Senior Cost Manager
Gareth Maidment, Cost Manager

The team has extensive experience of working in the water industry and have been involved in the preparation of cost estimates for previous and current business plan submissions for various water companies. The team members are all highly experienced in working with unit cost models, both in their compilation and utilisation. ChandlerKBS has assisted WW in compiling TR61 unit cost data submissions for more than 10 years.

2. Boreholes Estimates Methodology

WW provided ChandlerKBS with a spreadsheet comprising a summary of design data for the 197 borehole assets and for 239 borehole pump assets. To produce the estimated costs, the design data (depth and bore for civils and power output for mechanical and electrical) were applied to the TR61 V13 cost models and adjusted for inflation using COPI (Q1 2017 being the latest available at the time).

The results were presented to WW, via email on 31st August 2017, in three Excel workbooks, the contents of which are included in the Appendices of this report:

- Borehole Estimates TR61 Confidence Ranges.xlsx
- Borehole Estimates Total Cost Summary.xlsx
- Washout, Auto Divert and Outfall Summary.xlsx

The first workbook is a summary of the base TR61 model costs indexed to March 2017 along with the confidence ranges at 90%ile and 70%ile as requested. The first worksheet (Appendix A) is for the civils element of the borehole shaft and the second is for the pumps and M&E (Appendix C).

The second workbook (as shown in Appendix B) is a summary of all the costs including the following additional items which are excluded from the TR61 models:

- Headworks kiosk (TR61 model for kiosks). For the 70%ile range we have included 20 "buildings" at £69,000 each in lieu of the kiosk model costs, as instructed by WW.
- External works: roads/hardstandings and fencing calculated using ChandlerKBS models. We assumed an area of 200m2 per borehole for roads/hardstandings and a fence length of 50m per borehole.
- Discharge pipework, washout and auto-divert system (from bottom up estimate).
- Outfalls (from bottom up estimate).

The third workbook (as shown in Appendix D) is the summary of the estimates for the washouts, auto-divert valves and outfalls including discharge pipework. For these elements, we have allocated a cost to each borehole depending on the number of boreholes on each site (e.g. on a site with three boreholes we have allocated the costs

for a washout and outfall system for a three-borehole site and divided by 3 for each borehole asset). See Appendix D for the summary of these estimates.

The confidence grades included in this summary are the percentiles for the borehole models with the sum of all the additional elements added on, i.e. the statistical analysis was not carried out on the additional elements.

Again, the first worksheet is for the civils element of the borehole shaft and, for convenience, the second sheet is included for the pumps and M&E (please refer again to Appendix C).

It was confirmed by WRc that the headworks element is included in the TR61 model.

We have not included land or client costs in our estimates.

3. Borehole Estimates Cost Assurance

ChandlerKBS utilised its in-house database of water industry construction costs to provide benchmarked cost assurance to the TR61 models. There was limited data in relation to boreholes, therefore for each of the ten borehole shaft scenarios we utilised project data and applied the costs to the WW design data. For the borehole pumps we applied our in-house cost models to the power output to produce the benchmark costs. As these were models, we could easily apply the comparisons to all the pump assets.

The workbook named "Boreholes Cost Assurance Civils Summary.xlsx" (see Appendix E) contains the benchmark results for the boreholes civil element in which TR61 models were compared on a like for like basis (i.e. identical inclusions and exclusions) to ChandlerKBS cost data. We prepared estimates based on actual project costs for each of the 10 sample boreholes. We selected one additional asset for benchmarking, i.e. Corfe Mullen Borehole 3, as it had a particularly large diameter (3.05m). Therefore, there are 11 boreholes in the final sample. We modelled the data from the estimates based on borehole depth and diameter and applied the model to the complete borehole asset stock.

As shown in Appendix E, the results are as follows:

Sample of 11 benchmark results:

TR61= £1.995m
ChandlerKBS = £2.184m

Variance = 10%

All borehole assets benchmark results:

TR61 = £29.743m
ChandlerKBS = £33,890m
Variance = 14%

For the Corfe Mullen borehole, we applied a pumping well model for the comparison as we believed it would be more representative than the driven borehole benchmark cost. The results are included in the figures reported above.

The individual asset benchmarks have a relatively wide range of variances, both positive and negative, but the overall result shows TR61 is 10% lower than the benchmark for the sample of 11 assets and 14% lower based on the whole stock. We noticed that TR61 costs of the smaller diameter boreholes were particularly low compared to the benchmark.

The workbook named "Borehole Pumps Cost Assurance ME.xlsx" (Appendix F) contains the benchmark results for the borehole pumps element, where TR61 results were compared to costs derived from ChandlerKBS's in-house unit cost database. The results are based on the average of two models, each based on data from different water companies; one model being a high lift pumps model and the other being a water pumping stations M&E model.

As shown in the table, the results are as follows:

Sample of 11 benchmark results:

TR61 = £1.333m
ChandlerKBS = £1.332m
Variance = 0.13%

All borehole pump assets benchmark results:

TR61 = £21.420m
ChandlerKBS = £23.223m
Variance = 8.2%

Again, the individual asset benchmarks have a wide range of variances but the overall variance is only 0.13% (TR61 being marginally higher than the benchmark). This was a very close benchmark result, therefore, to verify this benchmark further, we applied the models to the whole borehole pump asset stock. That comparison indicated that the total TR61 result was 8.2% lower than the benchmark.

The graph in the second worksheet illustrates where the main differences occur between the ChandlerKBS modelled data and the TR61 model. It shows that the TR61 models give higher results for the higher power ratings and the benchmark gives higher results for the lower power ratings. The highest frequency of occurrence is at the lower end of the power ratings; the total of the benchmark results will therefore be higher.

Kiosk costs were benchmarked separately. For the assumed area of 13.5m2, TR61 reported a cost of £39,235 and our in-house benchmark model reported £37,346.

Our cost models conform to the Ofwat guidelines in that the data points are all from projects undertaken within the last 10 years. This ensures that exposure to distortion by indexation of very old data or obsolete technology is mitigated.

4. Dams and Reservoirs Estimates

We received a table of 13 dams and reservoir assets from WW with the following design parameters and headings:

- WW Site ID
- Reservoir Name
- Year Built
- Capacity (m3)
- Max. Height (m)
- Dam Type
- Impounding or Non-impounding
- Subject to Reservoirs Act 1975
- EA Risk designation
- Crest length (m)

The information used to calculate the valuations was gathered from various sources including other water companies, international sources (specifically USA and France), price book models and old WW information accessed through past ChandlerKBS's work for Ofwat. Outlying data was excluded to refine the models.

The costed table shown in Appendix G and sent via email to WW on 4th September 2017 included four sets of results, as follows:

1. The old WW PR09 model inflated using COPI to 2017 price base.

2. The ChandlerKBS average model, which is the average of all the individual cost models that we compiled from the data gathered.

3. The closest individual model to the average. This model was based on information received from our contact in a civil engineering company in France which specialises in dam construction internationally, namely ISL Ingénierie. The models are based on ISL projects and a study carried out by a French water agency into dam construction. We have updated the prices using the indexing provided by ISL and converted to GBP.

4. A power model derived from data from another water company based on height and crest length (the same parameters as the WW model but applied differently). In this instance, we have a model for earth filled reservoirs and a separate model for concrete reservoirs.

WW were unable to locate the models used in the last asset valuation, therefore we have assumed that the PR09 model is the latest relevant valuation technique available. All values in the main table are exclusive of land but include project on-costs such as design, project management and risk.

Other models used to derive the average were as follows:

- Two USA based models (one power model and one linear model). We sourced several dam costs from the USA but excluded most data points due to the time of construction and used only relatively modern project costs. Eight reservoir projects were included in the final model. The cost data was entirely sourced through an internet based research exercise.

- A price book model (there were initially three price book models, one high-level, one low-level and one mid-level; we utilised the low-level model as the others were outliers);

- Four sets of models from other water companies, one of which was excluded as an outlier;

- A France based model as described above.

We sourced valuations from PR09 on single reservoirs from two more water companies and used them for benchmarking purposes. The dams were larger than any of the dams in WW's asset stock and they proved to be a mismatch for the WW model. Both benchmark valuations were low compared the models derived by ChandlerKBS, but the nearest models were the two models included in the table (items 3 and 4 above). See Appendix H.

It has been extremely difficult to find any applicable cost data in the UK for dam construction as a relatively small number of dams have been built in recent years. Also, the unique nature of the assets makes modelling construction costs very difficult and, arguably, inapplicable. This is reinforced by the large variances between the models for most of the dam sizes. The cost models do not entirely conform to the Ofwat guidelines in that the data points are not all from projects undertaken within the last 10 years. Therefore, we advise that the costs provided are utilised with caution. We would categorise the confidence grades as low as it was difficult to draw any definitive conclusions from the exercise. We would argue that the modern equivalent construction techniques would be more efficient today than during PR09 and therefore the ChandlerKBS average model might be a better signifier of current costs as the overall result is marginally lower than that of the updated WW model (which is derived from the PR09 RCV submission).

Appendix A

Civils Borehole Assets: TR61 Models and Confidence Ranges

Wessex Water MEAV Civils Borehole Assets: TR61 Models and Confidence Ranges

CKBS Ref	Site ID	Site	Asset ID	Asset Name	TR61 V13 Costs Civils (£'000s)	90%ile Upper (£'000s)	90%ile Lower (£'000s)	70%ile Upper (£'000s)	70%ile Lower (£'000s)
C1	11102	ERLESTOKE	29176	ERLESTOKE NO 1	**85.530**	170.811	33.462	125.758	45.450
C2	11102	ERLESTOKE	29177	ERLESTOKE NO 2	**85.530**	170.811	33.462	125.758	45.450
C3	11102	ERLESTOKE	29178	ERLESTOKE NO 3	**97.679**	195.072	38.215	143.620	51.906
C4	12001	CORFE MULLEN	29151	CORFE MULLEN NO 1	**224.947**	449.238	88.007	330.748	119.535
C5	12001	CORFE MULLEN	29152	CORFE MULLEN NO 2	**176.148**	351.781	68.915	258.996	93.604
C6	12002	ALTON PANCRAS	29100	ALTON PANCRAS NO 1	**152.136**	303.829	59.521	223.691	80.844
C7	12002	ALTON PANCRAS	29101	ALTON PANCRAS NO 2	**128.385**	256.395	50.228	188.768	68.223
C8	12003	ARN HILL	29102	ARN HILL NO 1 | LICENCE NO.1343 23G 107, ANNUAL LICENCE 665.55 MI	**116.991**	233.641	45.771	172.016	62.168
C9	12003	ARN HILL	29103	ARN HILL NO 2	**118.287**	236.229	46.278	173.921	62.857
C10	12005	SHAFTESBURY	29104	BARTON HILL NO 1	**226.702**	452.743	88.693	333.328	120.468
C11	12005	SHAFTESBURY	29105	BARTON HILL NO 2	**226.702**	452.743	88.693	333.328	120.468
C12	12006	BELHUISH	29106	BELHUISH NO 1	**209.528**	418.444	81.974	308.075	111.341
C13	12006	BELHUISH	29107	BELHUISH NO 2	**233.138**	465.595	91.211	342.790	123.888
C14	12006	BELHUISH	29108	BELHUISH NO 3	**224.996**	449.336	88.026	330.819	119.561
C15	12007	BISHOPS CANNINGS	29110	BISHOPS CANNINGS BOREHOLE	**149.510**	298.583	58.493	219.829	79.448
C16	12007	BISHOPS CANNINGS	29111	BISHOPS CANNINGS BOREHOLE	**111.432**	222.538	43.596	163.842	59.214
C17	12007	BISHOPS CANNINGS	29112	BISHOPS CANNINGS BOREHOLE	**87.772**	175.288	34.339	129.054	46.641
C18	12008	BLANDFORD	29113	BLACK LANE BOREHOLE | BH1	**171.858**	343.214	67.236	252.688	91.324
C19	12008	BLANDFORD	29114	BLACK LANE BOREHOLE | BH2	**157.472**	314.484	61.608	231.536	83.679
C20	12008	BLANDFORD	29115	BLACK LANE BOREHOLE | BH3	**170.720**	340.942	66.791	251.015	90.719
C21	12008	BLANDFORD	29116	BLACK LANE BOREHOLE | BH4	**166.000**	331.516	64.945	244.076	88.211
C22	12011	BOSSINGTON	29117	BOSSINGTON NO 1 | SEASONAL USE	**119.748**	239.146	46.849	176.069	63.633
C23	12012	BOURTON	12570	BOURTON BOREHOLE 1 | SAMPLE POINT ID 15300667	**168.028**	335.566	65.738	247.057	89.289
C24	12012	BOURTON	12571	BOURTON BOREHOLE	**149.689**	298.942	58.563	220.093	79.544
C25	12012	BOURTON	12572	BOURTON BOREHOLE 3 | SAMPLE POINT ID 15300669	**175.062**	349.613	68.490	257.400	93.027
C26	12012	BOURTON	12573	BOURTON BOREHOLE 4	**118.733**	237.119	46.452	174.577	63.094
C27	12014	BRADLEY HEAD	12635	BRADLEY HEAD NO 1 | 254MM DIAMETER	**76.740**	153.255	30.023	112.833	40.779
C28	12014	BRADLEY HEAD	50861	BRADLEY HEAD NO 2 | 254MM DIAMETER	**79.159**	158.086	30.969	116.389	42.064
C29	12015	BRIANTSPUDDLE	29118	BRIANTSPUDDLE NO 1	**171.886**	343.271	67.247	252.730	91.339
C30	12015	BRIANTSPUDDLE	29119	BRIANTSPUDDLE NO 2	**335.493**	670.007	131.256	493.287	178.278
C31	12017	BRIXTON DEVERILL	29120	BRIXTON DEVERILL NO 1	**129.154**	257.931	50.529	189.899	68.631
C32	12017	BRIXTON DEVERILL	29121	BRIXTON DEVERILL NO 2	**182.420**	364.308	71.369	268.218	96.937
C33	12017	BRIXTON DEVERILL	29122	BRIXTON DEVERILL NO 3 | SEASONAL USE - STREAM SUPPORT	**186.059**	371.575	72.792	273.569	98.870
C34	12020	BULBRIDGE	29124	BULBRIDGE NO 1	**116.090**	231.841	45.418	170.691	61.689
C35	12023	CASTLE CARY	29125	CASTLE CARY NO 1	**91.902**	183.535	35.955	135.126	48.836
C36	12024	CASTLETON	29126	CASTLETON NO 1	**101.159**	202.023	39.577	148.738	53.755
C37	12024	CASTLETON	29127	CASTLETON NO 2	**100.720**	201.147	39.405	148.092	53.522
C38	12025	CATTISTOCK	29128	CATTISTOCK NO 1	**118.570**	236.794	46.388	174.338	63.007
C39	12025	CATTISTOCK	29129	CATTISTOCK NO 2 | 145MH AT 17 L/S (1.4ML DAY)	**131.299**	262.215	51.368	193.053	69.771
C40	12025	CATTISTOCK	29130	CATTISTOCK NO 3	**114.084**	227.835	44.633	167.742	60.623
C41	12026	CHARLTON	12866	CHARLTON BOREHOLE NO 1	**179.730**	358.935	70.316	264.263	95.507
C42	12026	CHARLTON	12867	CHARLTON BOREHOLE NO2 | ALSO USED FOR STREAM SUPPORT	**172.254**	344.005	67.391	253.271	91.534
C43	12027	CHERHILL	12882	CHERHILL NO 2 | LICENCE NO.1753 08G 047, ANNUAL LICENCE 510 ML.	**146.744**	293.060	57.411	215.763	77.979
C44	12027	CHERHILL	12883	CHERHILL NO 3 | LICENCE NO.1753 08G 047, ANNUAL LICENCE 510ML.	**119.512**	238.675	46.757	175.722	63.508
C45	12027	CHERHILL	52644	CHERHILL NO 4	**231.321**	461.966	90.500	340.118	122.922
C46	12027	CHERHILL	53103	CHERHILL NO 1 | LICENCE NO.1753 08G 047, ANNUAL LICENCE 510 ML.	**146.744**	293.060	57.411	215.763	77.979
C47	12029	CHIRTON	29135	CHIRTON BOTTOM NO 3	**212.607**	424.594	83.179	312.603	112.978
C48	12029	CHIRTON	29136	CHIRTON BOTTOM NO 2	**154.437**	308.424	60.421	227.074	82.067
C49	12029	CHIRTON	29137	CHIRTON BOTTOM NO 1	**154.437**	308.424	60.421	227.074	82.067
C50	12030	CHITTERNE	29138	CHITTERNE BOREHOLE NO 1 | LOCATED OFF SITE	**186.243**	371.943	72.864	273.839	98.968
C51	12030	CHITTERNE	29139	CHITTERNE BOREHOLE NO 2 | LOCATED OFF SITE	**161.493**	322.515	63.181	237.449	85.816
C52	12030	CHITTERNE	29140	CHITTERNE BOREHOLE NO 3 | LOCATED OFF SITE	**156.455**	312.453	61.210	230.041	83.139
C53	12030	CHITTERNE	29141	CHITTERNE BOREHOLE NO 4 | LOCATED OFF SITE	**161.493**	322.515	63.181	237.449	85.816
C54	12030	CHITTERNE	29142	CHITTERNE NO BOREHOLE 5 | LOCATED ON SITE	**210.837**	421.059	82.486	310.001	112.037

Wessex Water MEAV Civils Borehole Assets: TR61 Models and Confidence Ranges

CKBS Ref	Site ID	Site	Asset ID	Asset Name	TR61 V13 Costs Civils (£'000s)	90%ile Upper (£'000s)	90%ile Lower (£'000s)	70%ile Upper (£'000s)	70%ile Lower (£'000s)
C55	12030	CHITTERNE	29143	CHITTERNE BOREHOLE NO 6	**338.268**	675.549	132.341	497.367	179.753
C56	12030	CHITTERNE	29144	CHITTERNE BOREHOLE NO 7 | LOCATED OFF SITE	**161.493**	322.515	63.181	237.449	85.816
C57	12031	CLARENDON	29146	CLARENDON PARK NO 2	**208.713**	416.818	81.655	306.878	110.909
C58	12032	CLARENDON	29145	CLARENDON PARK NO 1	**237.715**	474.735	93.002	349.520	126.320
C59	12035	CODFORD	13065	CODFORD NO 1 | TOP DIAMETER = 900MM AND REDUCES TO 400MM AT 37M DEPTH	**161.989**	323.505	63.375	238.177	86.080
C60	12035	CODFORD	13066	CODFORD NO 2	**207.326**	414.048	81.113	304.839	110.172
C61	12035	CODFORD	13067	CODFORD NO 3	**211.209**	421.801	82.632	310.547	112.235
C62	12036	COMPTON	29147	COMPTON NO 1 | B/H RAISED TO ABOVE GROUND LEVEL	**116.668**	232.996	45.644	171.541	61.997
C63	12036	COMPTON	29148	COMPTON NO 2 | BOREHOLE RAISED ABOVE GROUND LEVEL	**117.748**	235.152	46.067	173.128	62.570
C64	12036	COMPTON	29149	COMPTON NO 3 | B/H RAISED TO ABOVE GROUND LEVEL	**116.621**	232.901	45.626	171.472	61.971
C65	12037	COMPTON DURVILLE	13174	COMPTON DURVILLE NO 1	**88.069**	175.882	34.456	129.491	46.799
C66	12037	COMPTON DURVILLE	13175	COMPTON DURVILLE NO 2	**182.510**	364.487	71.404	268.350	96.984
C67	12038	CORFE MULLEN	29153	CORFE MULLEN NO 3	**498.840**	996.223	195.162	733.460	265.079
C68	12040	MALMESBURY	13382	COW BRIDGE MALMESBURY NO 1 | LICENCE 175301G 410F, ANNUAL LICENCE 3600ML. PUMP D	**150.662**	300.883	58.944	221.523	80.060
C69	12041	SALISBURY	29155	DEANS FARM NO 1	**211.970**	423.321	82.929	311.666	112.639
C70	12041	SALISBURY	29156	DEANS FARM NO 2	**159.653**	318.839	62.461	234.742	84.838
C71	12041	SALISBURY	29157	DEANS FARM NO 3	**188.655**	376.759	73.808	277.385	100.250
C72	12042	SALISBURY	29159	DEVIZES ROAD NO 2 | SEASONAL USE. BOREHOLE DRILLED INTO BASE OF WELL.	**109.157**	217.995	42.706	160.497	58.005
C73	12043	DEWLISH	29160	DEWLISH BOREHOLE | SEASONAL USE | BH1	**239.856**	479.013	93.840	352.669	127.458
C74	12043	DEWLISH	29161	DEWLISH BOREHOLE | BH2	**149.977**	299.517	58.676	220.516	79.697
C75	12043	DEWLISH	29162	DEWLISH BOREHOLE | BH3	**149.257**	298.079	58.394	219.458	79.314
C76	12050	DURRINGTON	29167	DURRINGTON NO 1	**84.480**	168.713	33.051	124.214	44.892
C77	12050	DURRINGTON	29168	DURRINGTON NO 2	**103.176**	206.050	40.366	151.702	54.827
C78	12051	DORCHESTER	29170	EAGLE LODGE NO 1 | LICENCE NO.1344 55G 105, ANNUAL LICENCE 2550 ML	**176.558**	352.600	69.075	259.599	93.821
C79	12051	DORCHESTER	29171	EAGLE LODGE NO 2 | LICENCE NO.1344 55G 105, ANNUAL LICENCE 1550 ML.	**134.431**	268.469	52.594	197.658	71.435
C80	12052	EASTERTON	14119	EASTERTON NO 1 | LICENCE NO.1753 09G 099, ANNUAL LICENCE 414.83ML	**122.957**	245.555	48.105	180.788	65.338
C81	12053	EMPOOL	10050	EMPOOL NO 1	**173.788**	347.069	67.991	255.526	92.350
C82	12053	EMPOOL	10051	EMPOOL NO 2	**173.544**	346.582	67.896	255.168	92.220
C83	12053	EMPOOL	10052	EMPOOL NO 3	**158.803**	317.142	62.129	233.493	84.387
C84	12053	EMPOOL	10053	EMPOOL NO 4	**200.218**	399.852	78.332	294.387	106.394
C85	12055	FONTHILL BISHOP	10121	FONTHILL BISHOP NO 1	**158.449**	316.436	61.990	232.973	84.199
C86	12055	FONTHILL BISHOP	10123	FONTHILL BISHOP NO 2	**157.647**	314.833	61.676	231.793	83.772
C87	12055	FONTHILL BISHOP	29179	FONTHILL BISHOP NO 3	**236.673**	472.654	92.594	347.987	125.766
C88	12056	FORSTON	29180	FORSTON BOREHOLE 1	**108.232**	216.148	42.344	159.137	57.513
C89	12056	FORSTON	29181	FORSTON BOREHOLE 2	**128.385**	256.395	50.228	188.768	68.223
C90	12056	FORSTON	29182	FORSTON BOREHOLE 3	**144.680**	288.937	56.603	212.727	76.882
C91	12057	FOVANT	29183	FOVANT NO 1 | LOCATED IN BUILDING 1.	**76.213**	152.205	29.817	112.059	40.499
C92	12057	FOVANT	29184	FOVANT NO 2 | LOCATED IN BUILDING 2.	**81.115**	161.993	31.735	119.266	43.104
C93	12057	FOVANT	29185	FOVANT NO 3	**96.149**	192.018	37.617	141.372	51.093
C94	12058	FRIAR WADDON	29186	FRIAR WADDON NO 1	**239.814**	478.927	93.823	352.606	127.435
C95	12058	FRIAR WADDON	29187	FRIAR WADDON NO 2	**126.532**	252.695	49.503	186.044	67.238
C96	12058	FRIAR WADDON	29188	FRIAR WADDON NO 3	**219.217**	437.794	85.765	322.322	116.490
C97	12060	GOODSHILL	29189	GOODSHILL NO 1	**98.132**	195.977	38.392	144.286	52.146
C98	12060	GOODSHILL	29190	GOODSHILL NO 2	**83.406**	166.569	32.631	122.635	44.321
C99	12063	HEYTESBURY	10622	HEYTESBURY NO 4	**127.809**	255.245	50.003	187.922	67.917
C100	12063	HEYTESBURY	10623	HEYTESBURY NO 5	**181.358**	362.187	70.953	266.657	96.372
C101	12063	HEYTESBURY	10624	HEYTESBURY NO 11	**160.054**	319.640	62.618	235.332	85.051
C102	12063	HEYTESBURY	10625	HEYTESBURY NO 6	**112.786**	225.243	44.126	165.833	59.934
C103	12063	HEYTESBURY	10626	HEYTESBURY NO 10	**136.701**	273.003	53.482	200.996	72.642
C104	12063	HEYTESBURY	10627	HEYTESBURY NO 7	**145.083**	289.742	56.761	213.320	77.096
C105	12064	HOLT	29192	HOLT NO 2 | LICENCE NO.1753 01G 405 A, ANNUAL LICENCE 4560 ML/D	**169.068**	337.643	66.145	248.587	89.842
C106	12065	HOLT	29191	HOLT NO 1 | LICENCE NO.1753 01G 405 A	**200.218**	399.852	78.332	294.387	106.394
C107	12068	CHIPPENHAM	10752	CHIPPENHAM IVYFIELDS NO 2	**122.587**	244.816	47.960	180.244	65.142
C108	12068	CHIPPENHAM	10753	CHIPPENHAM IVYFIELDS NO 3	**123.380**	246.400	48.270	181.410	65.563

Wessex Water MEAV Civils Borehole Assets: TR61 Models and Confidence Ranges

CKBS Ref	Site ID	Site	Asset ID	Asset Name	TR61 V13 Costs Civils (£'000s)	90%ile Upper (£'000s)	90%ile Lower (£'000s)	70%ile Upper (£'000s)	70%ile Lower (£'000s)
C109	12068	CHIPPENHAM	53125	CHIPPENHAM IVYFIELDS NO 4	**141.458**	282.503	55.343	207.991	75.170
C110	12068	CHIPPENHAM	53126	CHIPPENHAM IVYFIELDS NO 5	**123.380**	246.400	48.270	181.410	65.563
C111	12070	LACOCK	29194	LACOCK NO 1	**190.661**	380.765	74.593	280.335	101.316
C112	12070	LACOCK	53093	LACOCK NO 2	**172.785**	345.066	67.599	254.051	91.817
C113	12071	LAKE	29195	LAKE NO 1	**106.848**	213.384	41.802	157.102	56.778
C114	12071	LAKE	29196	LAKE NO 2	**100.053**	199.813	39.144	147.111	53.167
C115	12071	LAKE	29197	LAKE NO 3	**142.784**	285.152	55.862	209.941	75.874
C116	12075	LITTON CHENEY	29202	LITTON CHENEY NO 1	**95.819**	191.358	37.487	140.886	50.917
C117	12075	LITTON CHENEY	29203	LITTON CHENEY BOREHOLE B | LITTON CHENEY NO 2	**96.741**	193.199	37.848	142.241	51.407
C118	12075	LITTON CHENEY	29204	LITTON CHENEY BOREHOLE C | LITTON CHENEY NO 3	**108.368**	216.419	42.397	159.337	57.586
C119	12079	MAIDEN NEWTON	29205	MAIDEN NEWTON NO 1	**80.018**	159.802	31.305	117.652	42.521
C120	12082	MERE	29206	MERE NO 1	**121.834**	243.312	47.665	179.136	64.742
C121	12082	MERE	29207	MERE NO 2	**143.986**	287.551	56.332	211.707	76.513
C122	12082	MERE	29208	MERE NO 3	**140.550**	280.689	54.988	206.655	74.687
C123	12084	MILBORNE WICK	11438	MILBOURNE WICK NO 1	**94.283**	188.290	36.886	138.627	50.101
C124	12084	MILBORNE WICK	11439	MILBOURNE WICK NO 2	**89.141**	178.021	34.875	131.066	47.369
C125	12085	MILBOURNE	11475	MILBOURNE NO 1	**81.917**	163.596	32.049	120.446	43.530
C126	12086	MILBORNE ST ANDREW	29209	MILBORNE ST ANDREW NO 1	**105.317**	210.327	41.204	154.852	55.965
C127	12086	MILBORNE ST ANDREW	29210	MILBORNE ST ANDREW NO 2	**331.613**	662.258	129.738	487.581	176.216
C128	12086	MILBORNE ST ANDREW	29211	MILBORNE ST ANDREW NO 3	**216.165**	431.700	84.571	317.835	114.869
C129	12088	MOORBRAKE	11558	MOORBRAKE MINEHEAD NO 1 | SEASONAL USE	**79.048**	157.865	30.926	116.226	42.005
C130	12088	MOORBRAKE	11559	MOORBRAKE MINEHEAD NO 2 | SEASONAL USE	**95.600**	190.920	37.402	140.563	50.801
C131	12089	NEWTON TONEY	29214	NEWTON TONEY NO 1	**211.091**	421.565	82.585	310.374	112.172
C132	12089	NEWTON TONEY	29215	NEWTON TONEY NO 2	**211.351**	422.086	82.687	310.757	112.310
C133	12096	MALMESBURY	29216	PARK ROAD MALMESBURY NO 1 | DUTY	**117.187**	234.033	45.847	172.304	62.272
C134	12099	COMBE ST NICHOLAS	11807	POLE RUE NO 1	**129.036**	257.695	50.483	189.726	68.569
C135	12099	COMBE ST NICHOLAS	11808	POLE RUE NO 2	**116.241**	232.143	45.477	170.913	61.770
C136	12099	COMBE ST NICHOLAS	11809	POLE RUE NO 3	**116.420**	232.501	45.547	171.177	61.865
C137	12101	PORTESHAM	29218	PORTESHAM NO 1	**91.307**	182.347	35.722	134.252	48.520
C138	12103	RODBOURNE	9069	RODBOURNE NO 1 | ALLUVIUM	**166.661**	332.836	65.203	245.047	88.562
C139	12103	RODBOURNE	9070	RODBOURNE NO 2	**186.059**	371.575	72.792	273.569	98.870
C140	12103	RODBOURNE	9071	RODBOURNE NO 3 | DELIVERY MAIN INSTALLED MAY 1998	**199.274**	397.967	77.962	292.999	105.893
C141	12104	SHAPWICK	29219	SHAPWICK NO 1	**288.804**	576.765	112.989	424.638	153.468
C142	12104	SHAPWICK	29220	SHAPWICK NO 2	**385.928**	770.729	150.987	567.442	205.079
C143	12104	SHAPWICK	29221	SHAPWICK NO 3	**194.318**	388.070	76.024	285.713	103.259
C144	12105	SHEPHERDS SHORE PS	29222	SHEPHERDS SHORE NO 1 | MANHOLE COVERS HAVE NO LOCKS	**91.666**	183.064	35.863	134.779	48.710
C145	12105	SHEPHERDS SHORE PS	29223	SHEPHERDS SHORE NO 2	**148.934**	297.434	58.268	218.983	79.142
C146	12106	SHREWTON	29225	SHREWTON NO 1	**95.848**	191.417	37.499	140.929	50.933
C147	12106	SHREWTON	29226	SHREWTON NO 2	**211.091**	421.565	82.585	310.374	112.172
C148	12109	STUBHAMPTON	29227	STUBHAMPTON NO 1	**176.277**	352.039	68.965	259.186	93.672
C149	12109	STUBHAMPTON	29228	STUBHAMPTON NO 2	**267.124**	533.468	104.507	392.761	141.947
C150	12110	STURMINSTER MARSHALL	29230	STURMINSTER MARSHALL NO 2	**175.888**	351.263	68.813	258.614	93.466
C151	12110	STURMINSTER MARSHALL	29231	STURMINSTER MARSHALL NO 3	**177.328**	354.138	69.376	260.731	94.231
C152	12110	STURMINSTER MARSHALL	29232	STURMINSTER MARSHALL NO 4	**177.328**	354.138	69.376	260.731	94.231
C153	12110	STURMINSTER MARSHALL	53037	STURMINSTER MARSHALL NO 1	**185.058**	369.575	72.401	272.097	98.338
C154	12113	TATWORTH	29233	TATWORTH NO 1	**75.455**	150.690	29.521	110.944	40.096
C155	12116	ULWELL	29235	ULWELL NO 1	**134.084**	267.776	52.458	197.148	71.251
C156	12116	ULWELL	51605	BOREHOLE	**187.799**	375.050	73.473	276.127	99.795
C157	12117	UPTON SCUDAMORE	9474	UPTON SCUDAMORE NO 3	**113.187**	226.044	44.283	166.423	60.147
C158	12117	UPTON SCUDAMORE	9475	UPTON SCUDAMORE NO 4	**113.187**	226.044	44.283	166.423	60.147
C159	12117	UPTON SCUDAMORE	9476	UPTON SCUDAMORE NO 5	**126.214**	252.059	49.379	185.576	67.069
C160	12117	UPTON SCUDAMORE	29236	UPTON SCUDAMORE NO 2	**102.332**	204.366	40.036	150.462	54.378
C161	12117	UPTON SCUDAMORE	29237	UPTON SCUDAMORE NO 6	**125.128**	249.891	48.954	183.980	66.492
C162	12119	WATERLOO FARM	29238	WATERLOO FARM NO 1	**74.575**	148.931	29.176	109.649	39.628

Wessex Water MEAV Civils Borehole Assets: TR61 Models and Confidence Ranges

CKBS Ref	Site ID	Site	Asset ID	Asset Name	TR61 V13 Costs Civils (£'000s)	90%ile Upper (£'000s)	90%ile Lower (£'000s)	70%ile Upper (£'000s)	70%ile Lower (£'000s)
C163	12119	WATERLOO FARM	52815	WATERLOO FARM NO 2	**74.575**	148.931	29.176	109.649	39.628
C164	12123	WESTBURY	29239	WELLHEAD NO 1	**122.321**	244.285	47.856	179.852	65.000
C165	12124	WEST LULWORTH	29241	WEST LULWORTH NO 1 | LICENCE NO.1344 03G 008, ANNUAL LICENCE 272.76 MI	**126.355**	252.342	49.434	185.784	67.144
C166	12130	WINTERBOURNE ABBAS	9782	WINTERBOURNE BOREHOLE 1 | BH1	**113.414**	226.497	44.371	166.756	60.267
C167	12130	WINTERBOURNE ABBAS	9783	WINTERBOURNE BOREHOLE 2 | SEASONAL USE | BH2	**134.143**	267.894	52.481	197.234	71.282
C168	12130	WINTERBOURNE ABBAS	53035	WINTERBOURNE BOREHOLE | SEASONAL USE | BH3	**134.143**	267.894	52.481	197.234	71.282
C169	12132	WYLYE	29243	WYLYE NO 1	**105.294**	210.280	41.194	154.817	55.952
C170	12132	WYLYE	29244	WYLYE NO 2 | SEASONAL USE	**127.782**	255.191	49.992	187.882	67.902
C171	12133	SALISBURY	29245	WYNDHAM ROAD NO 1	**97.948**	195.609	38.320	144.016	52.049
C172	12133	SALISBURY	29246	WYNDHAM ROAD NO 2	**80.025**	159.816	31.308	117.663	42.524
C173	12134	YATESBURY	29247	YATESBURY NO 1 | ANNUAL LICENCE 318.23 ML	**200.632**	400.679	78.494	294.996	106.614
C174	12134	YATESBURY	921952	YATESBURY NO 2	**219.290**	437.940	85.793	322.430	116.529
C175	12500	HULLAVINGTON	60035	STREAM SUPPORT BOREHOLE	**125.175**	249.985	48.973	184.049	66.517
C176	12501	KINGSTON DEVERILL	16525	KINGSTON DEVERILL NO 1 | STREAM SUPPORT BOREHOLE	**107.335**	214.357	41.993	157.818	57.037
C177	12501	KINGSTON DEVERILL	29193	KINGSTON DEVERILL NO 2 | STREAM SUPPORT BOREHOLE	**113.191**	226.052	44.284	166.429	60.149
C178	12502	LUCKINGTON	66968	STREAM SUPPORT BOREHOLE	**152.361**	304.277	59.608	224.021	80.963
C179	12502	LUCKINGTON	69673	STREAM SUPPORT BOREHOLE	**152.361**	304.277	59.608	224.021	80.963
C180	12503	LITTLE CHALFIELD NO 1	60363	STREAM SUPPORT BOREHOLE	**104.645**	208.984	40.940	153.863	55.607
C181	12504	LOWER STANTON ST QUINTIN	67071	STREAM SUPPORT BOREHOLE	**104.645**	208.984	40.940	153.863	55.607
C182	12505	SOUTH WRAXALL	60048	STREAM SUPPORT BOREHOLE	**104.645**	208.984	40.940	153.863	55.607
C183	12506	STANBRIDGE	65551	STREAM SUPPORT BOREHOLE	**104.645**	208.984	40.940	153.863	55.607
C184	12507	TETBURY	56718	STREAM SUPPORT BOREHOLE	**104.645**	208.984	40.940	153.863	55.607
C185	12507	TETBURY	69667	STREAM SUPPORT BOREHOLE	**155.334**	310.215	60.772	228.393	82.543
C186	12508	PIMPERNE	58172	STREAM SUPPORT BOREHOLE	**83.406**	166.569	32.631	122.635	44.321
C187	17157	ALTON PANCRAS	70835	STREAM SUPPORT BOREHOLE | 30" DIAMETER 30 LITRES/SECOND WITH 20M DRAWDOWN	**171.570**	342.639	67.124	252.265	91.171
C188	17200	PIDDLETRENTHIDE	72474	STREAM SUPPORT BOREHOLE | MONITORING BOREHOLE	**83.406**	166.569	32.631	122.635	44.321
C189	19607	CODFORD	53101	ASHTON GIFFORD NO 1	**114.698**	229.061	44.873	168.644	60.949
C190	19607	CODFORD	53102	ASHTON GIFFORD NO 2	**114.698**	229.061	44.873	168.644	60.949
C191	19715	CODFORD	69676	STREAM SUPPORT BOREHOLE	**114.698**	229.061	44.873	168.644	60.949
C192	19715	CODFORD	69677	STREAM SUPPORT BOREHOLE	**114.698**	229.061	44.873	168.644	60.949
C193	19914	STOBOROUGH	60931	ASR BOREHOLE	**180.159**	359.793	70.484	264.894	95.735
C194	19915	WAREHAM	60933	ASR BOREHOLE	**180.159**	359.793	70.484	264.894	95.735
C195	19916	HYDE	60935	ASR BOREHOLE	**180.159**	359.793	70.484	264.894	95.735
C196	19917	HYDE	60937	ASR BOREHOLE	**180.159**	359.793	70.484	264.894	95.735
C197	19918	LYTCHETT MINSTER	60939	ASR BOREHOLE	**180.159**	359.793	70.484	264.894	95.735
		Building Adjustment for 70%ile only (add 20 x buildings @ £69k less 20 x kiosks @ £39.235k as instructed Julian Welbank 24/8/17)						595.291	595.291
				Total	29,743.184	59,399.551	11,636.486	44,327.667	16,400.581

Appendix B

Values of Civils Boreholes and Associated Assets

Wessex Water MEAV Civils Borehole Assets: TR61

CKBS Ref	Site ID	Site	Asset ID	Asset Name	TR61 V13 Costs Civils (£'000s)	Kiosk 13.5m2 (TR61 V13) (£'000s)	Road/ Hardstanding/ Fencing (CKBS) (£'000s)	Discharge Pipework, Washout & Auto-Divert System (CKBS) (£'000s)	Outfall (CKBS) (£'000s)	Total (£'000s)	90%ile Upper (£'000s)	90%ile Lower (£'000s)	70%ile Upper (£'000s)	70%ile Lower (£'000s)
C1	11102	ERLESTOKE	29176	ERLESTOKE NO 1	85.530	39.235	44.670	28.108	14.183	**211.727**	297.007	159.659	251.955	171.647
C2	11102	ERLESTOKE	29177	ERLESTOKE NO 2	85.530	39.235	44.670	28.108	14.183	**211.727**	297.007	159.659	251.955	171.647
C3	11102	ERLESTOKE	29178	ERLESTOKE NO 3	97.679	39.235	44.670	28.108	14.183	**223.875**	321.269	164.412	269.817	178.102
C4	12001	CORFE MULLEN	29151	CORFE MULLEN NO 1	224.947	39.235	44.670	31.357	21.274	**361.484**	585.775	224.543	467.284	256.072
C5	12001	CORFE MULLEN	29152	CORFE MULLEN NO 2	176.148	39.235	44.670	31.357	21.274	**312.684**	488.318	205.451	395.532	230.140
C6	12002	ALTON PANCRAS	29100	ALTON PANCRAS NO 1	152.136	39.235	44.670	31.357	21.274	**288.673**	440.365	196.057	360.228	217.381
C7	12002	ALTON PANCRAS	29101	ALTON PANCRAS NO 2	128.385	39.235	44.670	31.357	21.274	**264.921**	392.931	186.765	325.305	204.759
C8	12003	ARN HILL	29102	ARN HILL NO 1 | LICENCE NO.1343 23G 107, ANNUAL LICENCE 665.55 MI	116.991	39.235	44.670	31.357	21.274	**253.528**	370.178	182.307	308.553	198.705
C9	12003	ARN HILL	29103	ARN HILL NO 2	118.287	39.235	44.670	31.357	21.274	**254.824**	372.765	182.814	310.458	199.393
C10	12005	SHAFTESBURY	29104	BARTON HILL NO 1	226.702	39.235	44.670	31.357	21.274	**363.239**	589.280	225.230	469.865	257.004
C11	12005	SHAFTESBURY	29105	BARTON HILL NO 2	226.702	39.235	44.670	31.357	21.274	**363.239**	589.280	225.230	469.865	257.004
C12	12006	BELHUISH	29106	BELHUISH NO 1	209.528	39.235	44.670	28.108	14.183	**335.724**	544.640	208.171	434.272	237.538
C13	12006	BELHUISH	29107	BELHUISH NO 2	233.138	39.235	44.670	28.108	14.183	**359.335**	591.792	217.408	468.987	250.084
C14	12006	BELHUISH	29108	BELHUISH NO 3	224.996	39.235	44.670	28.108	14.183	**351.193**	575.533	214.223	457.016	245.758
C15	12007	BISHOPS CANNINGS	29110	BISHOPS CANNINGS BOREHOLE	149.510	39.235	44.670	28.108	14.183	**275.707**	424.780	184.690	346.026	205.645
C16	12007	BISHOPS CANNINGS	29111	BISHOPS CANNINGS BOREHOLE	111.432	39.235	44.670	28.108	14.183	**237.629**	348.735	169.792	290.038	185.411
C17	12007	BISHOPS CANNINGS	29112	BISHOPS CANNINGS BOREHOLE	87.772	39.235	44.670	28.108	14.183	**213.969**	301.485	160.536	255.251	172.838
C18	12008	BLANDFORD	29113	BLACK LANE BOREHOLE | BH1	171.858	39.235	44.670	26.484	10.637	**292.885**	464.241	188.263	373.715	212.351
C19	12008	BLANDFORD	29114	BLACK LANE BOREHOLE | BH2	157.472	39.235	44.670	26.484	10.637	**278.499**	435.511	182.635	352.563	204.706
C20	12008	BLANDFORD	29115	BLACK LANE BOREHOLE | BH3	170.720	39.235	44.670	26.484	10.637	**291.747**	461.969	187.818	372.042	211.746
C21	12008	BLANDFORD	29116	BLACK LANE BOREHOLE | BH4	166.000	39.235	44.670	26.484	10.637	**287.027**	452.543	185.972	365.103	209.238
C22	12011	BOSSINGTON	29117	BOSSINGTON NO 1 | SEASONAL USE	119.748	39.235	44.670	41.102	42.548	**287.303**	406.701	214.405	343.625	231.189
C23	12012	BOURTON	12570	BOURTON BOREHOLE 1 | SAMPLE POINT ID 15300667	168.028	39.235	44.670	26.484	10.637	**289.055**	456.593	186.765	368.084	210.316
C24	12012	BOURTON	12571	BOURTON BOREHOLE	149.689	39.235	44.670	26.484	10.637	**270.716**	419.969	179.590	341.120	200.571
C25	12012	BOURTON	12572	BOURTON BOREHOLE 3 | SAMPLE POINT ID 15300669	175.062	39.235	44.670	26.484	10.637	**296.089**	470.640	189.517	378.427	214.054
C26	12012	BOURTON	12573	BOURTON BOREHOLE 4	118.733	39.235	44.670	26.484	10.637	**239.760**	358.146	167.479	295.604	184.121
C27	12014	BRADLEY HEAD	12635	BRADLEY HEAD NO 1 | 254MM DIAMETER	76.740	39.235	44.670	31.357	21.274	**213.276**	289.792	166.560	249.369	177.315
C28	12014	BRADLEY HEAD	50861	BRADLEY HEAD NO 2 | 254MM DIAMETER	79.159	39.235	44.670	31.357	21.274	**215.695**	294.623	167.506	252.926	178.601
C29	12015	BRIANTSPUDDLE	29118	BRIANTSPUDDLE NO 1	171.886	39.235	44.670	31.357	21.274	**308.423**	479.808	203.784	389.267	227.876
C30	12015	BRIANTSPUDDLE	29119	BRIANTSPUDDLE NO 2	335.493	39.235	44.670	31.357	21.274	**472.030**	806.544	267.792	629.823	314.815
C31	12017	BRIXTON DEVERILL	29120	BRIXTON DEVERILL NO 1	129.154	39.235	44.670	28.108	14.183	**255.351**	384.128	176.726	316.096	194.828
C32	12017	BRIXTON DEVERILL	29121	BRIXTON DEVERILL NO 2	182.420	39.235	44.670	28.108	14.183	**308.617**	490.505	197.565	394.415	223.133
C33	12017	BRIXTON DEVERILL	29122	BRIXTON DEVERILL NO 3 | SEASONAL USE - STREAM SUPPORT	186.059	39.235	44.670	28.108	14.183	**312.256**	497.772	198.989	399.766	225.067
C34	12020	BULBRIDGE	29124	BULBRIDGE NO 1	116.090	39.235	44.670	41.102	42.548	**283.646**	399.397	212.974	338.246	229.245
C35	12023	CASTLE CARY	29125	CASTLE CARY NO 1	91.902	39.235	44.670	41.102	42.548	**259.457**	351.091	203.510	302.682	216.391
C36	12024	CASTLETON	29126	CASTLETON NO 1	101.159	39.235	44.670	31.357	21.274	**237.696**	338.560	176.113	285.274	190.292
C37	12024	CASTLETON	29127	CASTLETON NO 2	100.720	39.235	44.670	31.357	21.274	**237.257**	337.683	175.942	284.629	190.059
C38	12025	CATTISTOCK	29128	CATTISTOCK NO 1	118.570	39.235	44.670	28.108	14.183	**244.767**	362.991	172.585	300.534	189.204
C39	12025	CATTISTOCK	29129	CATTISTOCK NO 2 | 145MH AT 17 L/S (1.4ML DAY)	131.299	39.235	44.670	28.108	14.183	**257.496**	388.412	177.565	319.250	195.968
C40	12025	CATTISTOCK	29130	CATTISTOCK NO 3	114.084	39.235	44.670	28.108	14.183	**240.281**	354.032	170.830	293.938	186.820
C41	12026	CHARLTON	12866	CHARLTON BOREHOLE NO 1	179.730	39.235	44.670	31.357	21.274	**316.267**	495.472	206.853	400.799	232.044
C42	12026	CHARLTON	12867	CHARLTON BOREHOLE NO2 | ALSO USED FOR STREAM SUPPORT	172.254	39.235	44.670	31.357	21.274	**308.791**	480.542	203.928	389.807	228.071
C43	12027	CHERHILL	12882	CHERHILL NO 2 | LICENCE NO.1753 08G 047, ANNUAL LICENCE 510 ML.	146.744	39.235	44.670	26.484	10.637	**267.771**	414.087	178.438	336.790	199.006
C44	12027	CHERHILL	12883	CHERHILL NO 3 | LICENCE NO.1753 08G 047, ANNUAL LICENCE 510ML.	119.512	39.235	44.670	26.484	10.637	**240.539**	359.702	167.784	296.749	184.535
C45	12027	CHERHILL	52644	CHERHILL NO 4	231.321	39.235	44.670	26.484	10.637	**352.348**	582.993	211.527	461.145	243.949
C46	12027	CHERHILL	53103	CHERHILL NO 1 | LICENCE NO.1753 08G 047, ANNUAL LICENCE 510 ML.	146.744	39.235	44.670	26.484	10.637	**267.771**	414.087	178.438	336.790	199.006
C47	12029	CHIRTON	29135	CHIRTON BOTTOM NO 3	212.607	39.235	44.670	28.108	14.183	**338.804**	550.791	209.376	438.800	239.175
C48	12029	CHIRTON	29136	CHIRTON BOTTOM NO 2	154.437	39.235	44.670	28.108	14.183	**280.634**	434.621	186.618	353.271	208.264
C49	12029	CHIRTON	29137	CHIRTON BOTTOM NO 1	154.437	39.235	44.670	28.108	14.183	**280.634**	434.621	186.618	353.271	208.264
C50	12030	CHITTERNE	29138	CHITTERNE BOREHOLE NO 1 | LOCATED OFF SITE	186.243	39.235	44.670	24.396	6.078	**300.623**	486.323	187.244	388.219	213.348
C51	12030	CHITTERNE	29139	CHITTERNE BOREHOLE NO 2 | LOCATED OFF SITE	161.493	39.235	44.670	24.396	6.078	**275.873**	436.895	177.561	351.829	200.196
C52	12030	CHITTERNE	29140	CHITTERNE BOREHOLE NO 3 | LOCATED OFF SITE	156.455	39.235	44.670	24.396	6.078	**270.835**	426.833	175.590	344.421	197.519
C53	12030	CHITTERNE	29141	CHITTERNE BOREHOLE NO 4 | LOCATED OFF SITE	161.493	39.235	44.670	24.396	6.078	**275.873**	436.895	177.561	351.829	200.196
C54	12030	CHITTERNE	29142	CHITTERNE NO BOREHOLE 5 | LOCATED ON SITE	210.837	39.235	44.670	24.396	6.078	**325.217**	535.439	196.866	424.381	226.417
C55	12030	CHITTERNE	29143	CHITTERNE BOREHOLE NO 6	338.268	39.235	44.670	24.396	6.078	**452.648**	789.929	246.721	611.747	294.133
C56	12030	CHITTERNE	29144	CHITTERNE BOREHOLE NO 7 | LOCATED OFF SITE	161.493	39.235	44.670	24.396	6.078	**275.873**	436.895	177.561	351.829	200.196
C57	12031	CLARENDON	29146	CLARENDON PARK NO 2	208.713	39.235	44.670	41.102	42.548	**376.269**	584.373	249.211	474.434	278.464
C58	12032	CLARENDON	29145	CLARENDON PARK NO 1	237.715	39.235	44.670	41.102	42.548	**405.270**	642.291	260.557	517.075	293.875
C59	12035	CODFORD	13065	CODFORD NO 1 | TOP DIAMETER = 900MM AND REDUCES TO 400MM AT 37M DEPTH	161.989	39.235	44.670	28.108	14.183	**288.186**	449.702	189.572	364.374	212.276
C60	12035	CODFORD	13066	CODFORD NO 2	207.326	39.235	44.670	28.108	14.183	**333.523**	540.244	207.310	431.036	236.368
C61	12035	CODFORD	13067	CODFORD NO 3	211.209	39.235	44.670	28.108	14.183	**337.406**	547.998	208.828	436.744	238.432
C62	12036	COMPTON	29147	COMPTON NO 1 | B/H RAISED TO ABOVE GROUND LEVEL	116.668	39.235	44.670	28.108	14.183	**242.865**	359.193	171.841	297.738	188.193
C63	12036	COMPTON	29148	COMPTON NO 2 | BOREHOLE RAISED ABOVE GROUND LEVEL	117.748	39.235	44.670	28.108	14.183	**243.945**	361.349	172.264	299.325	188.767
C64	12036	COMPTON	29149	COMPTON NO 3 | B/H RAISED TO ABOVE GROUND LEVEL	116.621	39.235	44.670	28.108	14.183	**242.818**	359.098	171.823	297.668	188.168
C65	12037	COMPTON DURVILLE	13174	COMPTON DURVILLE NO 1	88.069	39.235	44.670	31.357	21.274	**224.606**	312.418	170.992	266.028	183.336
C66	12037	COMPTON DURVILLE	13175	COMPTON DURVILLE NO 2	182.510	39.235	44.670	31.357	21.274	**319.046**	501.024	207.940	404.887	233.521
C67	12038	CORFE MULLEN	29153	CORFE MULLEN NO 3	498.840	39.235	44.670	41.102	42.548	**666.395**	1163.779	362.718	901.016	432.635
C68	12040	MALMESBURY	13382	COW BRIDGE MALMESBURY NO 1 | LICENCE 175301G 410F, ANNUAL LICENCE 3600ML. PUMP D	150.662	39.235	44.670	41.102	42.548	**318.217**	468.439	226.499	389.078	247.616
C69	12041	SALISBURY	29155	DEANS FARM NO 1	211.970	39.235	44.670	28.108	14.183	**338.167**	549.518	209.126	437.863	238.836
C70	12041	SALISBURY	29156	DEANS FARM NO 2	159.653	39.235	44.670	28.108	14.183	**285.849**	445.036	188.658	360.939	211.035
C71	12041	SALISBURY	29157	DEANS FARM NO 3	188.655	39.235	44.670	28.108	14.183	**314.852**	502.956	200.005	403.582	226.447
C72	12042	SALISBURY	29159	DEVIZES ROAD NO 2 | SEASONAL USE. BOREHOLE DRILLED INTO BASE OF WELL.	109.157	39.235	44.670	41.102	42.548	**276.712**	385.551	210.261	328.052	225.561
C73	12043	DEWLISH	29160	DEWLISH BOREHOLE | SEASONAL USE | BH1	239.856	39.235	44.670	28.108	14.183	**366.053**	605.210	220.036	478.866	253.655
C74	12043	DEWLISH	29161	DEWLISH BOREHOLE | BH2	149.977	39.235	44.670	28.108	14.183	**276.174**	425.713	184.873	346.713	205.894
C75	12043	DEWLISH	29162	DEWLISH BOREHOLE | BH3	149.257	39.235	44.670	28.108	14.183	**275.454**	424.276	184.591	345.655	205.511
C76	12050	DURRINGTON	29167	DURRINGTON NO 1	84.480	39.235	44.670	31.357	21.274	**221.017**	305.250	169.588	260.750	181.429
C77	12050	DURRINGTON	29168	DURRINGTON NO 2	103.176	39.235	44.670	31.357	21.274	**239.712**	342.586	176.902	288.239	191.363
C78	12051	DORCHESTER	29170	EAGLE LODGE NO 1 | LICENCE NO.1344 55G 105, ANNUAL LICENCE 2550 ML	176.558	39.235	44.670	31.357	21.274	**313.094**	489.137	205.612	396.135	230.358
C79	12051	DORCHESTER	29171	EAGLE LODGE NO 2 | LICENCE NO.1344 55G 105, ANNUAL LICENCE 1550 ML.	134.431	39.235	44.670	31.357	21.274	**270.967**	405.005	189.130	334.194	207.972

Wessex Water MEAV Civils Borehole Assets: TR61

CKBS Ref	Site ID	Site	Asset ID	Asset Name	TR61 V13 Costs Civils (£'000s)	Kiosk 13.5m2 (TR61 V13) (£'000s)	Road/ Hardstanding/ Fencing (CKBS) (£'000s)	Discharge Pipework, Washout & Auto-Divert System (CKBS) (£'000s)	Outfall (CKBS) (£'000s)	Total (£'000s)	90%ile Upper (£'000s)	90%ile Lower (£'000s)	70%ile Upper (£'000s)	70%ile Lower (£'000s)
C80	12052	EASTERTON	14119	EASTERTON NO 1 | LICENCE NO.1753 09G 099, ANNUAL LICENCE 414.83ML	122.957	39.235	44.670	41.102	42.548	**290.513**	413.111	215.660	348.343	232.894
C81	12053	EMPOOL	10050	EMPOOL NO 1	173.788	39.235	44.670	26.484	10.637	**294.815**	468.096	189.018	376.553	213.377
C82	12053	EMPOOL	10051	EMPOOL NO 2	173.544	39.235	44.670	26.484	10.637	**294.571**	467.609	188.923	376.195	213.247
C83	12053	EMPOOL	10052	EMPOOL NO 3	158.803	39.235	44.670	26.484	10.637	**279.830**	438.169	183.156	354.520	205.414
C84	12053	EMPOOL	10053	EMPOOL NO 4	200.218	39.235	44.670	26.484	10.637	**321.245**	520.879	199.359	415.414	227.421
C85	12055	FONTHILL BISHOP	10121	FONTHILL BISHOP NO 1	158.449	39.235	44.670	28.108	14.183	**284.646**	442.632	188.187	359.170	210.395
C86	12055	FONTHILL BISHOP	10123	FONTHILL BISHOP NO 2	157.647	39.235	44.670	28.108	14.183	**283.844**	441.030	187.873	357.990	209.969
C87	12055	FONTHILL BISHOP	29179	FONTHILL BISHOP NO 3	236.673	39.235	44.670	28.108	14.183	**362.869**	598.851	218.791	474.184	251.963
C88	12056	FORSTON	29180	FORSTON BOREHOLE 1	108.232	39.235	44.670	28.108	14.183	**234.429**	342.344	168.541	285.334	183.710
C89	12056	FORSTON	29181	FORSTON BOREHOLE 2	128.385	39.235	44.670	28.108	14.183	**254.582**	382.592	176.425	314.965	194.419
C90	12056	FORSTON	29182	FORSTON BOREHOLE 3	144.680	39.235	44.670	28.108	14.183	**270.877**	415.134	182.800	338.924	203.079
C91	12057	FOVANT	29183	FOVANT NO 1 | LOCATED IN BUILDING 1.	76.213	39.235	44.670	28.108	14.183	**202.410**	278.401	156.014	238.256	166.696
C92	12057	FOVANT	29184	FOVANT NO 2 | LOCATED IN BUILDING 2.	81.115	39.235	44.670	28.108	14.183	**207.312**	288.190	157.932	245.463	169.301
C93	12057	FOVANT	29185	FOVANT NO 3	96.149	39.235	44.670	28.108	14.183	**222.346**	318.215	163.814	267.568	177.290
C94	12058	FRIAR WADDON	29186	FRIAR WADDON NO 1	239.814	39.235	44.670	28.108	14.183	**366.011**	605.124	220.020	478.803	253.632
C95	12058	FRIAR WADDON	29187	FRIAR WADDON NO 2	126.532	39.235	44.670	28.108	14.183	**252.729**	378.892	175.700	312.241	193.435
C96	12058	FRIAR WADDON	29188	FRIAR WADDON NO 3	219.217	39.235	44.670	28.108	14.183	**345.414**	563.991	211.962	448.519	242.687
C97	12060	GOODSHILL	29189	GOODSHILL NO 1	98.132	39.235	44.670	31.357	21.274	**234.668**	332.513	174.929	280.823	188.683
C98	12060	GOODSHILL	29190	GOODSHILL NO 2	83.406	39.235	44.670	31.357	21.274	**219.943**	303.106	169.168	259.172	180.858
C99	12063	HEYTESBURY	10622	HEYTESBURY NO 4	127.809	39.235	44.670	24.860	7.091	**243.666**	371.102	165.860	303.779	183.774
C100	12063	HEYTESBURY	10623	HEYTESBURY NO 5	181.358	39.235	44.670	24.860	7.091	**297.215**	478.044	186.810	382.514	212.230
C101	12063	HEYTESBURY	10624	HEYTESBURY NO 11	160.054	39.235	44.670	24.860	7.091	**275.911**	435.497	178.475	351.189	200.908
C102	12063	HEYTESBURY	10625	HEYTESBURY NO 6	112.786	39.235	44.670	24.860	7.091	**228.643**	341.100	159.983	281.690	175.791
C103	12063	HEYTESBURY	10626	HEYTESBURY NO 10	136.701	39.235	44.670	24.860	7.091	**252.558**	388.860	169.339	316.853	188.499
C104	12063	HEYTESBURY	10627	HEYTESBURY NO 7	145.083	39.235	44.670	24.860	7.091	**260.940**	405.599	172.618	329.177	192.953
C105	12064	HOLT	29192	HOLT NO 2 | LICENCE NO.1753 01G 405 A, ANNUAL LICENCE 4560 ML/D	169.068	39.235	44.670	41.102	42.548	**336.624**	505.199	233.700	416.142	257.397
C106	12065	HOLT	29191	HOLT NO 1 | LICENCE NO.1753 01G 405 A	200.218	39.235	44.670	41.102	42.548	**367.774**	567.407	245.887	461.943	273.950
C107	12068	CHIPPENHAM	10752	CHIPPENHAM IVYFIELDS NO 2	122.587	39.235	44.670	26.484	10.637	**243.614**	365.843	168.987	301.271	186.169
C108	12068	CHIPPENHAM	10753	CHIPPENHAM IVYFIELDS NO 3	123.380	39.235	44.670	26.484	10.637	**244.407**	367.427	169.297	302.437	186.590
C109	12068	CHIPPENHAM	53125	CHIPPENHAM IVYFIELDS NO 4	141.458	39.235	44.670	26.484	10.637	**262.485**	403.530	176.370	329.018	196.197
C110	12068	CHIPPENHAM	53126	CHIPPENHAM IVYFIELDS NO 5	123.380	39.235	44.670	26.484	10.637	**244.407**	367.427	169.297	302.437	186.590
C111	12070	LACOCK	29194	LACOCK NO 1	190.661	39.235	44.670	31.357	21.274	**327.197**	517.301	211.129	416.871	237.852
C112	12070	LACOCK	53093	LACOCK NO 2	172.785	39.235	44.670	31.357	21.274	**309.322**	481.602	204.136	390.588	228.353
C113	12071	LAKE	29195	LAKE NO 1	106.848	39.235	44.670	28.108	14.183	**233.045**	339.581	167.999	283.299	182.975
C114	12071	LAKE	29196	LAKE NO 2	100.053	39.235	44.670	28.108	14.183	**226.249**	326.010	165.341	273.307	179.364
C115	12071	LAKE	29197	LAKE NO 3	142.784	39.235	44.670	28.108	14.183	**268.981**	411.349	182.059	336.137	202.071
C116	12075	LITTON CHENEY	29202	LITTON CHENEY NO 1	95.819	39.235	44.670	28.108	14.183	**222.016**	317.555	163.684	267.083	177.114
C117	12075	LITTON CHENEY	29203	LITTON CHENEY BOREHOLE B | LITTON CHENEY NO 2	96.741	39.235	44.670	28.108	14.183	**222.938**	319.396	164.045	268.438	177.604
C118	12075	LITTON CHENEY	29204	LITTON CHENEY BOREHOLE C | LITTON CHENEY NO 3	108.368	39.235	44.670	28.108	14.183	**234.565**	342.616	168.594	285.533	183.783
C119	12079	MAIDEN NEWTON	29205	MAIDEN NEWTON NO 1	80.018	39.235	44.670	41.102	42.548	**247.573**	327.357	198.861	285.208	210.076
C120	12082	MERE	29206	MERE NO 1	121.834	39.235	44.670	28.108	14.183	**248.031**	369.509	173.862	305.333	190.938
C121	12082	MERE	29207	MERE NO 2	143.986	39.235	44.670	28.108	14.183	**270.182**	413.748	182.529	337.904	202.710
C122	12082	MERE	29208	MERE NO 3	140.550	39.235	44.670	28.108	14.183	**266.747**	406.886	181.184	332.852	200.884
C123	12084	MILBORNE WICK	11438	MILBOURNE WICK NO 1	94.283	39.235	44.670	31.357	21.274	**230.819**	324.827	173.423	275.164	186.638
C124	12084	MILBORNE WICK	11439	MILBOURNE WICK NO 2	89.141	39.235	44.670	31.357	21.274	**225.677**	314.558	171.411	267.603	183.905
C125	12085	MILBOURNE	11475	MILBOURNE NO 1	81.917	39.235	44.670	41.102	42.548	**249.473**	331.151	199.604	288.001	211.086
C126	12086	MILBORNE ST ANDREW	29209	MILBORNE ST ANDREW NO 1	105.317	39.235	44.670	28.108	14.183	**231.514**	336.524	167.400	281.048	182.162
C127	12086	MILBORNE ST ANDREW	29210	MILBORNE ST ANDREW NO 2	331.613	39.235	44.670	28.108	14.183	**457.810**	788.455	255.934	613.778	302.413
C128	12086	MILBORNE ST ANDREW	29211	MILBORNE ST ANDREW NO 3	216.165	39.235	44.670	28.108	14.183	**342.362**	557.897	210.768	444.032	241.065
C129	12088	MOORBRAKE	11558	MOORBRAKE MINEHEAD NO 1 | SEASONAL USE	79.048	39.235	44.670	31.357	21.274	**215.584**	294.401	167.463	252.763	178.542
C130	12088	MOORBRAKE	11559	MOORBRAKE MINEHEAD NO 2 | SEASONAL USE	95.600	39.235	44.670	31.357	21.274	**232.136**	327.457	173.938	277.100	187.337
C131	12089	NEWTON TONEY	29214	NEWTON TONEY NO 1	211.091	39.235	44.670	31.357	21.274	**347.627**	558.102	219.122	446.910	248.708
C132	12089	NEWTON TONEY	29215	NEWTON TONEY NO 2	211.351	39.235	44.670	31.357	21.274	**347.888**	558.622	219.224	447.293	248.847
C133	12096	MALMESBURY	29216	PARK ROAD MALMESBURY NO 1 | DUTY	117.187	39.235	44.670	41.102	42.548	**284.743**	401.588	213.403	339.860	229.828
C134	12099	COMBE ST NICHOLAS	11807	POLE RUE NO 1	129.036	39.235	44.670	28.108	14.183	**255.233**	383.892	176.680	315.923	194.766
C135	12099	COMBE ST NICHOLAS	11808	POLE RUE NO 2	116.241	39.235	44.670	28.108	14.183	**242.438**	358.340	171.674	297.110	187.966
C136	12099	COMBE ST NICHOLAS	11809	POLE RUE NO 3	116.420	39.235	44.670	28.108	14.183	**242.617**	358.698	171.744	297.374	188.062
C137	12101	PORTESHAM	29218	PORTESHAM NO 1	91.307	39.235	44.670	41.102	42.548	**258.863**	349.903	203.278	301.807	216.075
C138	12103	RODBOURNE	9069	RODBOURNE NO 1 | ALLUVIUM	166.661	39.235	44.670	28.108	14.183	**292.858**	459.033	191.400	371.244	214.759
C139	12103	RODBOURNE	9070	RODBOURNE NO 2	186.059	39.235	44.670	28.108	14.183	**312.256**	497.772	198.989	399.766	225.067
C140	12103	RODBOURNE	9071	RODBOURNE NO 3 | DELIVERY MAIN INSTALLED MAY 1998	199.274	39.235	44.670	28.108	14.183	**325.471**	524.163	204.159	419.196	232.090
C141	12104	SHAPWICK	29219	SHAPWICK NO 1	288.804	39.235	44.670	28.108	14.183	**415.001**	702.962	239.186	550.835	279.665
C142	12104	SHAPWICK	29220	SHAPWICK NO 2	385.928	39.235	44.670	28.108	14.183	**512.124**	896.926	277.184	693.639	331.276
C143	12104	SHAPWICK	29221	SHAPWICK NO 3	194.318	39.235	44.670	28.108	14.183	**320.515**	514.267	202.220	411.910	229.456
C144	12105	SHEPHERDS SHORE PS	29222	SHEPHERDS SHORE NO 1 | MANHOLE COVERS HAVE NO LOCKS	91.666	39.235	44.670	31.357	21.274	**228.202**	319.600	172.399	271.316	185.247
C145	12105	SHEPHERDS SHORE PS	29223	SHEPHERDS SHORE NO 2	148.934	39.235	44.670	31.357	21.274	**285.471**	433.970	194.804	355.519	215.679
C146	12106	SHREWTON	29225	SHREWTON NO 1	95.848	39.235	44.670	31.357	21.274	**232.385**	327.953	174.035	277.465	187.470
C147	12106	SHREWTON	29226	SHREWTON NO 2	211.091	39.235	44.670	31.357	21.274	**347.627**	558.102	219.122	446.910	248.708
C148	12109	STUBHAMPTON	29227	STUBHAMPTON NO 1	176.277	39.235	44.670	31.357	21.274	**312.813**	488.576	205.502	395.722	230.209
C149	12109	STUBHAMPTON	29228	STUBHAMPTON NO 2	267.124	39.235	44.670	31.357	21.274	**403.660**	670.004	241.044	529.297	278.484
C150	12110	STURMINSTER MARSHALL	29230	STURMINSTER MARSHALL NO 2	175.888	39.235	44.670	26.484	10.637	**296.915**	472.290	189.840	379.641	214.493
C151	12110	STURMINSTER MARSHALL	29231	STURMINSTER MARSHALL NO 3	177.328	39.235	44.670	26.484	10.637	**298.355**	475.165	190.403	381.758	215.258
C152	12110	STURMINSTER MARSHALL	29232	STURMINSTER MARSHALL NO 4	177.328	39.235	44.670	26.484	10.637	**298.355**	475.165	190.403	381.758	215.258
C153	12110	STURMINSTER MARSHALL	53037	STURMINSTER MARSHALL NO 1	185.058	39.235	44.670	26.484	10.637	**306.085**	490.602	193.428	393.124	219.365
C154	12113	TATWORTH	29233	TATWORTH NO 1	75.455	39.235	44.670	41.102	42.548	**243.011**	318.246	197.076	278.500	207.652
C155	12116	ULWELL	29235	ULWELL NO 1	134.084	39.235	44.670	31.357	21.274	**270.620**	404.313	188.994	333.684	207.788
C156	12116	ULWELL	51605	BOREHOLE	187.799	39.235	44.670	31.357	21.274	**324.335**	511.586	210.009	412.663	236.331
C157	12117	UPTON SCUDAMORE	9474	UPTON SCUDAMORE NO 3	113.187	39.235	44.670	25.510	8.510	**231.112**	343.969	162.208	284.348	178.072
C158	12117	UPTON SCUDAMORE	9475	UPTON SCUDAMORE NO 4	113.187	39.235	44.670	25.510	8.510	**231.112**	343.969	162.208	284.348	178.072

Wessex Water MEAV Civils Borehole Assets: TR61

CKBS Ref	Site ID	Site	Asset ID	Asset Name	TR61 V13 Costs Civils (£'000s)	Kiosk 13.5m2 (TR61 V13) (£'000s)	Road/ Hardstanding/ Fencing (CKBS) (£'000s)	Discharge Pipework, Washout & Auto-Divert System (CKBS) (£'000s)	Outfall (CKBS) (£'000s)	Total (£'000s)	90%ile Upper (£'000s)	90%ile Lower (£'000s)	70%ile Upper (£'000s)	70%ile Lower (£'000s)
C159	12117	UPTON SCUDAMORE	9476	UPTON SCUDAMORE NO 5	126.214	39.235	44.670	25.510	8.510	**244.139**	369.984	167.304	303.501	184.994
C160	12117	UPTON SCUDAMORE	29236	UPTON SCUDAMORE NO 2	102.332	39.235	44.670	25.510	8.510	**220.257**	322.291	157.961	268.387	172.304
C161	12117	UPTON SCUDAMORE	29237	UPTON SCUDAMORE NO 6	125.128	39.235	44.670	25.510	8.510	**243.053**	367.816	166.879	301.905	184.417
C162	12119	WATERLOO FARM	29238	WATERLOO FARM NO 1	74.575	39.235	44.670	31.357	21.274	**211.111**	285.468	165.713	246.186	176.165
C163	12119	WATERLOO FARM	52815	WATERLOO FARM NO 2	74.575	39.235	44.670	31.357	21.274	**211.111**	285.468	165.713	246.186	176.165
C164	12123	WESTBURY	29239	WELLHEAD NO 1	122.321	39.235	44.670	41.102	42.548	**289.876**	411.840	215.411	347.408	232.556
C165	12124	WEST LULWORTH	29241	WEST LULWORTH NO 1 | LICENCE NO.1344 03G 008, ANNUAL LICENCE 272.76 MI	126.355	39.235	44.670	41.102	42.548	**293.911**	419.897	216.990	353.340	234.700
C166	12130	WINTERBOURNE ABBAS	9782	WINTERBOURNE BOREHOLE 1 | BH1	113.414	39.235	44.670	28.108	14.183	**239.611**	352.694	170.568	292.953	186.464
C167	12130	WINTERBOURNE ABBAS	9783	WINTERBOURNE BOREHOLE 2 | SEASONAL USE | BH2	134.143	39.235	44.670	28.108	14.183	**260.340**	394.091	178.678	323.431	197.479
C168	12130	WINTERBOURNE ABBAS	53035	WINTERBOURNE BOREHOLE | SEASONAL USE | BH3	134.143	39.235	44.670	28.108	14.183	**260.340**	394.091	178.678	323.431	197.479
C169	12132	WYLYE	29243	WYLYE NO 1	105.294	39.235	44.670	31.357	21.274	**241.830**	346.817	177.731	291.353	192.489
C170	12132	WYLYE	29244	WYLYE NO 2 | SEASONAL USE	127.782	39.235	44.670	31.357	21.274	**264.319**	391.728	186.529	324.419	204.439
C171	12133	SALISBURY	29245	WYNDHAM ROAD NO 1	97.948	39.235	44.670	31.357	21.274	**234.484**	332.146	174.857	280.552	188.585
C172	12133	SALISBURY	29246	WYNDHAM ROAD NO 2	80.025	39.235	44.670	31.357	21.274	**216.561**	296.352	167.845	254.199	179.061
C173	12134	YATESBURY	29247	YATESBURY NO 1 | ANNUAL LICENCE 318.23 ML	200.632	39.235	44.670	31.357	21.274	**337.169**	537.215	215.030	431.533	243.151
C174	12134	YATESBURY	921952	YATESBURY NO 2	219.290	39.235	44.670	31.357	21.274	**355.827**	574.477	222.330	458.966	253.066
C175	12500	HULLAVINGTON	60035	STREAM SUPPORT BOREHOLE	125.175	39.235	44.670	41.102	42.548	**292.731**	417.541	216.528	351.605	234.073
C176	12501	KINGSTON DEVERILL	16525	KINGSTON DEVERILL NO 1 | STREAM SUPPORT BOREHOLE	107.335	39.235	44.670	31.357	21.274	**243.872**	350.893	178.529	294.355	193.573
C177	12501	KINGSTON DEVERILL	29193	KINGSTON DEVERILL NO 2 | STREAM SUPPORT BOREHOLE	113.191	39.235	44.670	31.357	21.274	**249.728**	362.588	180.821	302.965	196.685
C178	12502	LUCKINGTON	66968	STREAM SUPPORT BOREHOLE	152.361	39.235	44.670	31.357	21.274	**288.897**	440.813	196.145	360.557	217.500
C179	12502	LUCKINGTON	69673	STREAM SUPPORT BOREHOLE	152.361	39.235	44.670	31.357	21.274	**288.897**	440.813	196.145	360.557	217.500
C180	12503	LITTLE CHALFIELD NO 1	60363	STREAM SUPPORT BOREHOLE	104.645	39.235	44.670	41.102	42.548	**272.200**	376.540	208.496	321.418	223.163
C181	12504	LOWER STANTON ST QUINTIN	67071	STREAM SUPPORT BOREHOLE	104.645	39.235	44.670	41.102	42.548	**272.200**	376.540	208.496	321.418	223.163
C182	12505	SOUTH WRAXALL	60048	STREAM SUPPORT BOREHOLE	104.645	39.235	44.670	41.102	42.548	**272.200**	376.540	208.496	321.418	223.163
C183	12506	STANBRIDGE	65551	STREAM SUPPORT BOREHOLE	104.645	39.235	44.670	41.102	42.548	**272.200**	376.540	208.496	321.418	223.163
C184	12507	TETBURY	56718	STREAM SUPPORT BOREHOLE	104.645	39.235	44.670	31.357	21.274	**241.181**	345.521	177.477	290.399	192.144
C185	12507	TETBURY	69667	STREAM SUPPORT BOREHOLE	155.334	39.235	44.670	31.357	21.274	**291.871**	446.751	197.308	364.929	219.080
C186	12508	PIMPERNE	58172	STREAM SUPPORT BOREHOLE	83.406	39.235	44.670	41.102	42.548	**250.962**	334.125	200.187	290.191	211.877
C187	17157	ALTON PANCRAS	70835	STREAM SUPPORT BOREHOLE | 30" DIAMETER 30 LITRES/SECOND WITH 20M DRAWDOWN	171.570	39.235	44.670	41.102	42.548	**339.125**	510.194	234.679	419.820	258.726
C188	17200	PIDDLETRENTHIDE	72474	STREAM SUPPORT BOREHOLE | MONITORING BOREHOLE	83.406	39.235	44.670	41.102	42.548	**250.962**	334.125	200.187	290.191	211.877
C189	19607	CODFORD	53101	ASHTON GIFFORD NO 1	114.698	39.235	44.670	31.357	21.274	**251.234**	365.597	181.410	305.180	197.486
C190	19607	CODFORD	53102	ASHTON GIFFORD NO 2	114.698	39.235	44.670	31.357	21.274	**251.234**	365.597	181.410	305.180	197.486
C191	19715	CODFORD	69676	STREAM SUPPORT BOREHOLE	114.698	39.235	44.670	31.357	21.274	**251.234**	365.597	181.410	305.180	197.486
C192	19715	CODFORD	69677	STREAM SUPPORT BOREHOLE	114.698	39.235	44.670	31.357	21.274	**251.234**	365.597	181.410	305.180	197.486
C193	19914	STOBOROUGH	60931	ASR BOREHOLE	180.159	39.235	44.670	41.102	42.548	**347.715**	527.349	238.040	432.450	263.291
C194	19915	WAREHAM	60933	ASR BOREHOLE	180.159	39.235	44.670	41.102	42.548	**347.715**	527.349	238.040	432.450	263.291
C195	19916	HYDE	60935	ASR BOREHOLE	180.159	39.235	44.670	41.102	42.548	**347.715**	527.349	238.040	432.450	263.291
C196	19917	HYDE	60937	ASR BOREHOLE	180.159	39.235	44.670	41.102	42.548	**347.715**	527.349	238.040	432.450	263.291
C197	19918	LYTCHETT MINSTER	60939	ASR BOREHOLE	180.159	39.235	44.670	41.102	42.548	**347.715**	527.349	238.040	432.450	263.291
		Building Adjustment for 70%ile only (add 20 x buildings @ £69k less 20 x kiosks @ £39.235k as instructed Julian Welbank 24/8/17)											595.291	595.291
				Total	29,743.184	7,729.388	8,800.039	6,031.085	3,871.901	**56,175.597**	85,831.964	38,068.898	70,760.080	42,832.993

Appendix C

Borehole Pump Assets: TR61 Models and Confidence Ranges

Wessex Water MEAV Borehole Pump Assets: TR61 and Confidence Grades

CKBS Ref	Site ID	Site	Asset ID	Asset Name	TR61 V13 Costs M&E	90%ile Upper	90%ile Lower	70%ile Upper	70%ile Lower
ME1	12001	CORFE MULLEN	11899	BOREHOLE PUMP 1 | 17.02 ML/D 415 VOLTS	**109.531**	280.925	20.808	172.165	33.952
ME2	12001	CORFE MULLEN	56451	BOREHOLE PUMP 2 | 7 ML/D 415 VOLTS	**70.557**	180.966	13.404	110.905	21.871
ME3	12001	CORFE MULLEN	906740	BOREHOLE PUMP | EMERGENCY BOXED SPARE	**79.077**	202.819	15.022	124.298	24.512
ME4	12002	ALTON PANCRAS	11921	BOREHOLE PUMP 1 | 4.6 ML/D @ 19 M/H	**47.561**	121.986	9.035	74.759	14.743
ME5	12002	ALTON PANCRAS	66861	BOREHOLE PUMP 2	**47.561**	121.986	9.035	74.759	14.743
ME6	12002	ALTON PANCRAS	925339	BOREHOLE 1 RAW SAMPLE PUMP	**0.000**	0.000	0.000	0.000	0.000
ME7	12003	ARN HILL	11938	BOREHOLE PUMP 1 | 48M DEEP, 0.97 ML/D, 72 M/H. LOCATED IN BUILDING NO.1	**38.625**	99.067	7.338	60.713	11.973
ME8	12003	ARN HILL	69329	BOREHOLE PUMP 2 | LOCATED IN BUILDING NO.2	**43.207**	110.818	8.208	67.915	13.393
ME9	12005	SHAFTESBURY	12324	BOREHOLE PUMP 1 | 0.77 ML/D 37M DEEP.	**31.194**	80.007	5.926	49.032	9.670
ME10	12005	SHAFTESBURY	12325	BOREHOLE PUMP 2A | 0.41 ML/D @ 61 M/H, 38M DEPTH.	**25.718**	65.962	4.886	40.425	7.972
ME11	12005	SHAFTESBURY	56452	BOREHOLE PUMP 2B | 0.41 ML/D	**25.718**	65.962	4.886	40.425	7.972
ME12	12006	BELHUISH	12367	BOREHOLE PUMP 2 | 1.2 ML/D, 85M PUMP DEPTH.	**57.688**	147.960	10.959	90.677	17.882
ME13	12006	BELHUISH	12368	BOREHOLE PUMP | 4.6 ML/D, 80M DEPTH.	**143.778**	368.764	27.314	225.997	44.568
ME14	12006	BELHUISH	69104	BOREHOLE PUMP 3	**181.080**	464.437	34.400	284.631	56.131
ME15	12006	BELHUISH	69105	BOREHOLE PUMP 1	**160.620**	411.959	30.513	252.469	49.789
ME16	12006	BELHUISH	931454	SPARE BOREHOLE PUMP	**61.498**	157.731	11.683	96.666	19.063
ME17	12007	BISHOPS CANNINGS	12414	BOREHOLE WATER PUMP NO2 | 1.3 ML/D	**31.194**	80.007	5.926	49.032	9.670
ME18	12007	BISHOPS CANNINGS	12415	BOREHOLE WATER PUMP NO3 | 1.3 ML/D	**31.194**	80.007	5.926	49.032	9.670
ME19	12007	BISHOPS CANNINGS	706354	BOREHOLE WATER PUMP	**0.000**	0.000	0.000	0.000	0.000
ME20	12007	BISHOPS CANNINGS	706355	BOREHOLE WATER PUMP	**0.000**	0.000	0.000	0.000	0.000
ME21	12007	BISHOPS CANNINGS	972807	BOREHOLE WATER PUMP	**0.000**	0.000	0.000	0.000	0.000
ME22	12008	BLANDFORD	49411	BOREHOLE PUMP	**0.000**	0.000	0.000	0.000	0.000
ME23	12008	BLANDFORD	68017	BOREHOLE PUMP NO2	**131.133**	336.330	24.911	206.120	40.648
ME24	12008	BLANDFORD	68018	BOREHOLE PUMP NO3	**131.133**	336.330	24.911	206.120	40.648
ME25	12008	BLANDFORD	68019	BOREHOLE PUMP	**131.133**	336.330	24.911	206.120	40.648
ME26	12011	BOSSINGTON	54327	BOREHOLE PUMP 1 | 1.36 ML/DAY	**0.000**	0.000	0.000	0.000	0.000
ME27	12011	BOSSINGTON	54328	BOREHOLE PUMP 2 | 1.36 ML/DAY	**0.000**	0.000	0.000	0.000	0.000
ME28	12012	BOURTON	87313	BOREHOLE PUMP 1	**40.948**	105.023	7.779	64.363	12.693
ME29	12012	BOURTON	87315	BOREHOLE PUMP 3	**40.948**	105.023	7.779	64.363	12.693
ME30	12012	BOURTON	87317	BOREHOLE PUMP 4	**40.948**	105.023	7.779	64.363	12.693
ME31	12012	BOURTON	973672	BOREHOLE PUMP 1	**47.561**	121.986	9.035	74.759	14.743
ME32	12014	BRADLEY HEAD	87001	BOREHOLE PUMP	**0.000**	0.000	0.000	0.000	0.000
ME33	12014	BRADLEY HEAD	87002	BOREHOLE PUMP	**0.000**	0.000	0.000	0.000	0.000
ME34	12014	BRADLEY HEAD	87451	BOREHOLE PUMP 1	**59.608**	152.884	11.324	93.695	18.477
ME35	12014	BRADLEY HEAD	87453	BOREHOLE PUMP 2	**59.608**	152.884	11.324	93.695	18.477
ME36	12015	BRIANTSPUDDLE	12650	BOREHOLE PUMP | LOCATED IN BUILDING 3. 6.5ML/D, DEPTH 22.2M	**204.646**	524.877	38.877	321.671	63.436
ME37	12015	BRIANTSPUDDLE	12651	BOREHOLE PUMP | LOCATED IN BUILDING 3. 9.63 ML/D @ 50 M/H	**158.268**	405.928	30.066	248.773	49.060
ME38	12015	BRIANTSPUDDLE	12652	BOREHOLE PUMP | LOCATED IN BUILING 3. 8.5ML/D @ 50M/H. PUMP DEPTH 25.4M.	**140.044**	359.185	26.604	220.127	43.411
ME39	12015	BRIANTSPUDDLE	51445	BOREHOLE PUMP | IN YARD	**31.194**	80.007	5.926	49.032	9.670
ME40	12015	BRIANTSPUDDLE	51446	BOREHOLE PUMP | IN YARD	**0.000**	0.000	0.000	0.000	0.000
ME41	12015	BRIANTSPUDDLE	51453	BOREHOLE PUMP NO5 | DUTY	**91.850**	235.578	17.449	144.374	28.472
ME42	12015	BRIANTSPUDDLE	72396	BOREHOLE PUMP NO1	**242.509**	621.991	46.070	381.187	75.173
ME43	12015	BRIANTSPUDDLE	906298	BOREHOLE PUMP | EMERGENCY BOXED SPARE	**217.959**	559.024	41.406	342.598	67.563
ME44	12017	BRIXTON DEVERILL	16636	BOREHOLE PUMP 3 | 9 ML/D @ 30 M/H - STREAM SUPPORT	**103.803**	266.235	19.720	163.162	32.177
ME45	12017	BRIXTON DEVERILL	67431	BOREHOLE PUMP NO1	**196.238**	503.313	37.280	308.456	60.830
ME46	12017	BRIXTON DEVERILL	67746	BOREHOLE PUMP 2	**316.658**	812.169	60.156	497.738	98.158
ME47	12017	BRIXTON DEVERILL	906725	BOREHOLE PUMP NO4	**314.134**	805.694	59.676	493.770	97.375
ME48	12017	BRIXTON DEVERILL	926140	BOREHOLE PUMP NO3 | 21-P-001	**87.169**	223.571	16.560	137.016	27.021
ME49	12020	BULBRIDGE	12747	BOREHOLE PUMP 1 | 0.75	**47.561**	121.986	9.035	74.759	14.743
ME50	12020	BULBRIDGE	906736	BOREHOLE PUMP | EMERGENCY BOXED SPARE	**47.561**	121.986	9.035	74.759	14.743
ME51	12024	CASTLETON	16646	BOREHOLE PUMP 2	**113.731**	291.700	21.606	178.768	35.254
ME52	12024	CASTLETON	16653	BOREHOLE PUMP 1	**113.731**	291.700	21.606	178.768	35.254
ME53	12024	CASTLETON	932433	SUMP PUMP | BOREHOLE 1 SUMP PUMP	**0.000**	0.000	0.000	0.000	0.000
ME54	12024	CASTLETON	974886	BOREHOLE PUMP 1	**110.940**	284.539	21.075	174.380	34.389

Wessex Water MEAV Borehole Pump Assets: TR61 and Confidence Grades

CKBS Ref	Site ID	Site	Asset ID	Asset Name	TR61 V13 Costs M&E	90%ile Upper	90%ile Lower	70%ile Upper	70%ile Lower
ME55	12025	CATTISTOCK	12810	BOREHOLE PUMP	**16.153**	41.429	3.069	25.390	5.007
ME56	12025	CATTISTOCK	79625	BOREHOLE PUMP 2	**75.726**	194.223	14.386	119.030	23.474
ME57	12025	CATTISTOCK	706653	BOREHOLE PUMP 1	**82.361**	211.239	15.646	129.458	25.530
ME58	12025	CATTISTOCK	919528	BOREHOLE PUMP 1	**75.726**	194.223	14.386	119.030	23.474
ME59	12025	CATTISTOCK	919529	SPARE BOREHOLE PUMP	**75.726**	194.223	14.386	119.030	23.474
ME60	12026	CHARLTON	12857	BOREHOLE PUMP | CHARLTON STREAM SUPPORT	**57.688**	147.960	10.959	90.677	17.882
ME61	12026	CHARLTON	65618	BOREHOLE PUMP | TO MINETY TOWER NO. 1	**108.113**	277.289	20.538	169.936	33.513
ME62	12026	CHARLTON	65620	BOREHOLE PUMP | TO RODBOURNE GROUND TANK 1	**128.532**	329.660	24.417	202.032	39.842
ME63	12026	CHARLTON	65621	BOREHOLE PUMP | TO RODBOURNE GROUND TANK 2	**128.532**	329.660	24.417	202.032	39.842
ME64	12026	CHARLTON	66705	BOREHOLE PUMP | TO MINETY TOWER NO. 2	**140.044**	359.185	26.604	220.127	43.411
ME65	12026	CHARLTON	988606	BOREHOLE PUMP | TO RODBOURNE GROUND TANK 1	**113.731**	291.700	21.606	178.768	35.254
ME66	12027	CHERHILL	12877	BOREHOLE PUMP 2 | 1.4ML/D. PUMP DEPTH 72M.	**61.498**	157.731	11.683	96.666	19.063
ME67	12027	CHERHILL	12878	BOREHOLE PUMP 3 | 1.4ML/D, PUMP DEPTH 72M.	**53.751**	137.861	10.211	84.488	16.662
ME68	12027	CHERHILL	12884	BOREHOLE PUMP 4	**7.729**	19.822	1.468	12.148	2.396
ME69	12029	CHIRTON	52359	BOREHOLE PUMP 2 | 1.4 ML/D @ 110 M/H	**75.726**	194.223	14.386	119.030	23.474
ME70	12029	CHIRTON	69331	BOREHOLE PUMP	**83.978**	215.388	15.953	132.001	26.032
ME71	12029	CHIRTON	69332	BOREHOLE PUMP 1	**75.726**	194.223	14.386	119.030	23.474
ME72	12029	CHIRTON	974884	BOREHOLE PUMP 1	**61.498**	157.731	11.683	96.666	19.063
ME73	12030	CHITTERNE	16656	BOREHOLE PUMP 8 | 0.4 ML/D @20 M/H	**12.305**	31.560	2.338	19.342	3.814
ME74	12030	CHITTERNE	16660	BOREHOLE PUMP 1 | 4.23 ML/D @ 30M/H	**70.557**	180.966	13.404	110.905	21.871
ME75	12030	CHITTERNE	16663	BOREHOLE PUMP 4 | 4.23 ML/D @ 30 M/H	**70.557**	180.966	13.404	110.905	21.871
ME76	12030	CHITTERNE	16664	BOREHOLE PUMP 9 | 0.4 ML/D @ 20 M/H	**12.305**	31.560	2.338	19.342	3.814
ME77	12030	CHITTERNE	16665	BOREHOLE PUMP 7 | 4.23 ML/D @ 30 M/H	**70.557**	180.966	13.404	110.905	21.871
ME78	12030	CHITTERNE	16667	BOREHOLE PUMP 6 | 4.23ML/D @30 M/H	**70.557**	180.966	13.404	110.905	21.871
ME79	12030	CHITTERNE	16669	BOREHOLE PUMP 5 | 4.23 ML/D @ 30 M/H	**70.557**	180.966	13.404	110.905	21.871
ME80	12030	CHITTERNE	16670	BOREHOLE PUMP | 4.23 ML/D @ 30 M/H	**70.557**	180.966	13.404	110.905	21.871
ME81	12030	CHITTERNE	16673	BOREHOLE PUMP 2 | 4.23 ML/D @ 30 M/H	**70.557**	180.966	13.404	110.905	21.871
ME82	12030	CHITTERNE	706644	BOREHOLE PUMP 3 | 160M3/H AT 40M HEAD | TYPE SP160-2 | DIRECT ON-LINE START	**68.793**	176.441	13.069	108.132	21.324
ME83	12031	CLARENDON	12921	BOREHOLE PUMP | 5.2 ML/D @ 80 M/H	**181.080**	464.437	34.400	284.631	56.131
ME84	12031	CLARENDON	81089	BOREHOLE PUMP 2 | 8 ML/D	**164.116**	420.925	31.177	257.964	50.873
ME85	12032	CLARENDON	81088	BOREHOLE PUMP | 8 ML/D	**164.116**	420.925	31.177	257.964	50.873
ME86	12035	CODFORD	13015	BOREHOLE PUMP	**72.300**	185.437	13.735	113.645	22.412
ME87	12035	CODFORD	13016	BOREHOLE PUMP	**59.608**	152.884	11.324	93.695	18.477
ME88	12035	CODFORD	66704	BOREHOLE PUMP | BOREHOLE 1	**80.727**	207.050	15.336	126.891	25.024
ME89	12035	CODFORD	972166	BOREHOLE PUMP | BOREHOLE 3	**75.726**	194.223	14.386	119.030	23.474
ME90	12035	CODFORD	974885	BOREHOLE PUMP | BOREHOLE 2	**75.726**	194.223	14.386	119.030	23.474
ME91	12036	COMPTON	13075	BOREHOLE PUMP 1	**136.260**	349.480	25.885	214.179	42.238
ME92	12036	COMPTON	13076	BOREHOLE PUMP 2	**75.726**	194.223	14.386	119.030	23.474
ME93	12036	COMPTON	13077	BOREHOLE PUMP	**136.260**	349.480	25.885	214.179	42.238
ME94	12036	COMPTON	706632	BOREHOLE PUMP 3	**140.044**	359.185	26.604	220.127	43.411
ME95	12036	COMPTON	973671	BOREHOLE PUMP 1	**140.044**	359.185	26.604	220.127	43.411
ME96	12037	COMPTON DURVILLE	13132	BOREHOLE PUMP | 5.9ML/D	**113.731**	291.700	21.606	178.768	35.254
ME97	12037	COMPTON DURVILLE	13133	BOREHOLE PUMP NO2 | 5.9ML/D, PUMP DEPTH 46.5M.	**113.731**	291.700	21.606	178.768	35.254
ME98	12038	CORFE MULLEN	13220	BOREHOLE/WELL PUMP 1 | 2.5 ML/D @ 30 M/H	**25.718**	65.962	4.886	40.425	7.972
ME99	12038	CORFE MULLEN	13221	BOREHOLE/WELL PUMP 2 | 2.5 ML/D @ 30 M/H	**7.729**	19.822	1.468	12.148	2.396
ME100	12038	CORFE MULLEN	13222	BOREHOLE PUMP 3 | 9 ML/D @ 30 M/H	**36.232**	92.929	6.883	56.952	11.231
ME101	12038	CORFE MULLEN	52071	BOREHOLE PUMP | IN STORAGE	**25.718**	65.962	4.886	40.425	7.972
ME102	12038	CORFE MULLEN	52072	BOREHOLE PUMP | IN STORAGE	**74.023**	189.855	14.062	116.353	22.946
ME103	12038	CORFE MULLEN	52073	BOREHOLE PUMP | IN STORAGE	**94.907**	243.418	18.030	149.179	29.419
ME104	12038	CORFE MULLEN	52074	BOREHOLE PUMP | IN STORAGE	**0.000**	0.000	0.000	0.000	0.000
ME105	12040	MALMESBURY	13380	BOREHOLE PUMP 1 | SRCE PUMP. 7.5 ML/D PUMP DEPTH 39M. RODBOURNE NO1	**65.196**	167.215	12.385	102.478	20.209
ME106	12040	MALMESBURY	13381	BOREHOLE PUMP 2 | INT COMPENS PUMP. 2.5 ML/D PUMP DEPTH 39M. STREAM SUPPORT NO2	**33.759**	86.586	6.413	53.064	10.465
ME107	12041	SALISBURY	51488	BOREHOLE PUMP 3	**212.887**	546.015	40.442	334.625	65.991
ME108	12041	SALISBURY	64179	BOREHOLE PUMP 1	**128.532**	329.660	24.417	202.032	39.842
ME109	12041	SALISBURY	64180	BOREHOLE PUMP 2	**212.887**	546.015	40.442	334.625	65.991

Wessex Water MEAV Borehole Pump Assets: TR61 and Confidence Grades

CKBS Ref	Site ID	Site	Asset ID	Asset Name	TR61 V13 Costs M&E	90%ile Upper	90%ile Lower	70%ile Upper	70%ile Lower
ME110	12041	SALISBURY	906742	BOREHOLE PUMP | EMERGENCY BOXED SPARE	**212.887**	546.015	40.442	334.625	65.991
ME111	12041	SALISBURY	938605	BOREHOLE PUMP 3	**212.887**	546.015	40.442	334.625	65.991
ME112	12042	SALISBURY	13424	BOREHOLE PUMP | 4.9 ML/D	**68.793**	176.441	13.069	108.132	21.324
ME113	12043	DEWLISH	13450	BOREHOLE PUMP 2 | 4.1ML/D	**59.608**	152.884	11.324	93.695	18.477
ME114	12043	DEWLISH	13451	BOREHOLE PUMP | 60 HP 6.7 ML/D	**99.404**	254.952	18.884	156.247	30.813
ME115	12043	DEWLISH	83111	BOREHOLE PUMP 1 | STREAM SUPPORT	**99.404**	254.952	18.884	156.247	30.813
ME116	12043	DEWLISH	706441	BOREHOLE PUMP 3 | NUMBER 3	**99.404**	254.952	18.884	156.247	30.813
ME117	12043	DEWLISH	906294	BOREHOLE PUMP | EMERGENCY BOXED SPARE	**99.404**	254.952	18.884	156.247	30.813
ME118	12043	DEWLISH	907280	BOREHOLE PUMP NO 3	**99.404**	254.952	18.884	156.247	30.813
ME119	12050	DURRINGTON	9924	BOREHOLE PUMP 1 | 3.28 ML/D PUMP DEPTH 33M. NO 1 PUMP	**128.532**	329.660	24.417	202.032	39.842
ME120	12050	DURRINGTON	9925	BOREHOLE PUMP 2 | 3.5 ML/D, PUMP DEPTH 30M.NO 2 PUMP	**128.532**	329.660	24.417	202.032	39.842
ME121	12051	DORCHESTER	74781	BOREHOLE PUMP 1	**204.646**	524.877	38.877	321.671	63.436
ME122	12051	DORCHESTER	74782	BOREHOLE PUMP 2	**204.646**	524.877	38.877	321.671	63.436
ME123	12051	DORCHESTER	906295	BOREHOLE PUMP | EMERGENCY BOXED SPARE	**204.646**	524.877	38.877	321.671	63.436
ME124	12052	EASTERTON	69335	BOREHOLE PUMP	**68.793**	176.441	13.069	108.132	21.324
ME125	12053	EMPOOL	10025	BOREHOLE PUMP | 10 ML/D	**140.044**	359.185	26.604	220.127	43.411
ME126	12053	EMPOOL	10027	BOREHOLE 1 PUMP | 10 ML/D	**140.044**	359.185	26.604	220.127	43.411
ME127	12053	EMPOOL	10087	BOREHOLE PUMP	**0.000**	0.000	0.000	0.000	0.000
ME128	12053	EMPOOL	66132	BOREHOLE 3 PUMP 1	**67.006**	171.858	12.729	105.323	20.771
ME129	12053	EMPOOL	78380	BOREHOLE 3 PUMP 2 | 10MLD	**128.532**	329.660	24.417	202.032	39.842
ME130	12055	FONTHILL BISHOP	10112	BOREHOLE PUMP 1 | 2.8 ML/D @ 155 M/H| PUMP DEPTH 40M	**158.268**	405.928	30.066	248.773	49.060
ME131	12055	FONTHILL BISHOP	10113	BOREHOLE PUMP 2 | 2.8ML/D @ 155 M/H. PUMP DEPTH 40M.	**158.268**	405.928	30.066	248.773	49.060
ME132	12055	FONTHILL BISHOP	10114	BOREHOLE PUMP 3 | 2.8 ML/D @ 155 M/H	**158.268**	405.928	30.066	248.773	49.060
ME133	12055	FONTHILL BISHOP	705726	BOREHOLE PUMP 1A | 2.5ML/DAY	**0.000**	0.000	0.000	0.000	0.000
ME134	12055	FONTHILL BISHOP	928031	BOREHOLE 2 SUMP PUMP	**0.000**	0.000	0.000	0.000	0.000
ME135	12055	FONTHILL BISHOP	928032	BOREHOLE 1 SUMP PUMP	**0.000**	0.000	0.000	0.000	0.000
ME136	12056	FORSTON	10150	BOREHOLE PUMP 1	**38.625**	99.067	7.338	60.713	11.973
ME137	12056	FORSTON	10151	BOREHOLE PUMP 3	**68.793**	176.441	13.069	108.132	21.324
ME138	12057	FOVANT	10222	BOREHOLE PUMP	**0.000**	0.000	0.000	0.000	0.000
ME139	12057	FOVANT	81307	BOREHOLE PUMP 1 | PUMPHOUSE 1	**25.718**	65.962	4.886	40.425	7.972
ME140	12057	FOVANT	81308	BOREHOLE PUMP 2 | PUMPHOUSE 2	**25.718**	65.962	4.886	40.425	7.972
ME141	12058	FRIAR WADDON	67322	BOREHOLE PUMP NO1	**181.080**	464.437	34.400	284.631	56.131
ME142	12058	FRIAR WADDON	67323	BOREHOLE PUMP NO3	**212.887**	546.015	40.442	334.625	65.991
ME143	12058	FRIAR WADDON	903746	BOREHOLE SAMPLE PUMP NO 1	**0.000**	0.000	0.000	0.000	0.000
ME144	12058	FRIAR WADDON	903747	BOREHOLE SAMPLE PUMP NO 2	**0.000**	0.000	0.000	0.000	0.000
ME145	12060	GOODSHILL	10580	BOREHOLE PUMP	**49.666**	127.385	9.435	78.068	15.396
ME146	12060	GOODSHILL	928270	SAMPLE PUMP IN BOREHOLE 1	**0.000**	0.000	0.000	0.000	0.000
ME147	12063	HEYTESBURY	10609	BOREHOLE PUMP NO4 | 5 ML/D @ 43.5 M/H	**79.077**	202.819	15.022	124.298	24.512
ME148	12063	HEYTESBURY	10610	BOREHOLE PUMP NO5 | 5 ML/D @ 43.5 M/H	**96.417**	247.292	18.316	151.553	29.887
ME149	12063	HEYTESBURY	69336	BOREHOLE PUMP NO6	**99.404**	254.952	18.884	156.247	30.813
ME150	12063	HEYTESBURY	84312	BOREHOLE PUMP NO7	**99.404**	254.952	18.884	156.247	30.813
ME151	12063	HEYTESBURY	84313	BOREHOLE PUMP NO10	**68.793**	176.441	13.069	108.132	21.324
ME152	12063	HEYTESBURY	84314	BOREHOLE PUMP NO11	**115.115**	295.248	21.868	180.943	35.683
ME153	12063	HEYTESBURY	906738	BOREHOLE PUMP | EMERGENCY BOXED SPARE	**110.940**	284.539	21.075	174.380	34.389
ME154	12064	HOLT	49967	BOREHOLE PUMP 2 | 8.64 ML/D, 73.5M/H, 54M DEEP.	**188.734**	484.067	35.854	296.661	58.504
ME155	12065	HOLT	67748	BOREHOLE PUMP NO1	**160.620**	411.959	30.513	252.469	49.789
ME156	12068	CHIPPENHAM	10740	BOREHOLE 2 PUMP	**97.916**	251.136	18.601	153.909	30.352
ME157	12068	CHIPPENHAM	10741	BOREHOLE 3 PUMP	**160.620**	411.959	30.513	252.469	49.789
ME158	12068	CHIPPENHAM	10742	BOREHOLE 4 PUMP | 10 ML/D @ 53.58 M/H	**155.900**	399.853	29.616	245.050	48.326
ME159	12068	CHIPPENHAM	10743	BOREHOLE 5 PUMP	**97.916**	251.136	18.601	153.909	30.352
ME160	12068	CHIPPENHAM	910855	BOREHOLE 4 PUMP | 21-P-004	**181.080**	464.437	34.400	284.631	56.131
ME161	12068	CHIPPENHAM	931451	SPARE BOREHOLE 1 PUMP	**113.731**	291.700	21.606	178.768	35.254
ME162	12068	CHIPPENHAM	931452	SPARE BOREHOLE 2 PUMP	**113.731**	291.700	21.606	178.768	35.254
ME163	12068	CHIPPENHAM	931453	SPARE BOREHOLE 3 PUMP	**158.268**	405.928	30.066	248.773	49.060
ME164	12070	LACOCK	10815	BOREHOLE PUMP 1 | 6.5 ML/D @ 60 M/H, DEPTH 57M.	**109.531**	280.925	20.808	172.165	33.952

Wessex Water MEAV Borehole Pump Assets: TR61 and Confidence Grades

CKBS Ref	Site ID	Site	Asset ID	Asset Name	TR61 V13 Costs M&E	90%ile Upper	90%ile Lower	70%ile Upper	70%ile Lower
ME165	12070	LACOCK	10816	BOREHOLE PUMP 2 | 6.5 ML/D @ 60 M/H, DEPTH 57M	**113.731**	291.700	21.606	178.768	35.254
ME166	12071	LAKE	76251	BOREHOLE PUMP NO1 | 400/3/50 C/W NRV	**113.731**	291.700	21.606	178.768	35.254
ME167	12071	LAKE	76252	BOREHOLE PUMP NO2 | 400/3/50 C/W NRV	**113.731**	291.700	21.606	178.768	35.254
ME168	12071	LAKE	903000	BOREHOLE PUMP NO3 | BOREHOLE NO 3	**68.793**	176.441	13.069	108.132	21.324
ME169	12071	LAKE	906299	BOREHOLE PUMP | EMERGENCY BOXED SPARE	**110.940**	284.539	21.075	174.380	34.389
ME170	12075	LITTON CHENEY	10973	BOREHOLE PUMP B | 1.85 ML/D	**7.729**	19.822	1.468	12.148	2.396
ME171	12075	LITTON CHENEY	51538	BOREHOLE PUMP | 1.85ML/D	**0.000**	0.000	0.000	0.000	0.000
ME172	12075	LITTON CHENEY	51539	BOREHOLE PUMP C | 3 ML/D	**0.000**	0.000	0.000	0.000	0.000
ME173	12075	LITTON CHENEY	906300	BOREHOLE PUMP | EMERGENCY BOXED SPARE	**47.561**	121.986	9.035	74.759	14.743
ME174	12082	MERE	11395	BOREHOLE PUMP 1	**93.385**	239.514	17.740	146.786	28.947
ME175	12082	MERE	11396	BOREHOLE PUMP 2	**93.385**	239.514	17.740	146.786	28.947
ME176	12084	MILBORNE WICK	11433	BOREHOLE PUMP 1	**31.194**	80.007	5.926	49.032	9.670
ME177	12084	MILBORNE WICK	11434	BOREHOLE PUMP 2	**31.194**	80.007	5.926	49.032	9.670
ME178	12085	MILBOURNE	60924	BOREHOLE PUMP 1 - RODBOURNE | 33.91 L/S AT 55M	**75.726**	194.223	14.386	119.030	23.474
ME179	12085	MILBOURNE	86095	BOREHOLE PUMP 2 - WHYCHURCH	**75.726**	194.223	14.386	119.030	23.474
ME180	12086	MILBORNE ST ANDREW	11519	BOREHOLE PUMP 2 | 3.50 ML/D	**47.561**	121.986	9.035	74.759	14.743
ME181	12086	MILBORNE ST ANDREW	11521	BOREHOLE PUMP 4	**38.625**	99.067	7.338	60.713	11.973
ME182	12086	MILBORNE ST ANDREW	37087	BOREHOLE PUMP 1	**68.793**	176.441	13.069	108.132	21.324
ME183	12086	MILBORNE ST ANDREW	67429	BOREHOLE PUMP 3	**43.207**	110.818	8.208	67.915	13.393
ME184	12088	MOORBRAKE	11554	BOREHOLE PUMP 2 | 0.88 ML/D @ 69.5 M/H	**7.729**	19.822	1.468	12.148	2.396
ME185	12089	NEWTON TONEY	11580	BOREHOLE PUMP 1 | 7.0 ML/D	**91.850**	235.578	17.449	144.374	28.472
ME186	12089	NEWTON TONEY	11581	BOREHOLE PUMP 2 | 7.34 M L/D	**106.686**	273.629	20.267	167.693	33.070
ME187	12089	NEWTON TONEY	928087	BOREHOLE PUMP 1	**0.000**	0.000	0.000	0.000	0.000
ME188	12096	MALMESBURY	11700	BOREHOLE PUMP | STREAM SUPPORT - 9 ML/D | DUTY	**61.498**	157.731	11.683	96.666	19.063
ME189	12099	COMBE ST NICHOLAS	11785	BOREHOLE PUMP 1 | 2.5 ML/D @ 37 M/H	**53.751**	137.861	10.211	84.488	16.662
ME190	12099	COMBE ST NICHOLAS	11786	BOREHOLE PUMP 2 | 2.5 ML/D @ 37 M/H	**53.751**	137.861	10.211	84.488	16.662
ME191	12099	COMBE ST NICHOLAS	11787	BOREHOLE PUMP 3 | 2.5 ML/D @ 37 M/H	**53.751**	137.861	10.211	84.488	16.662
ME192	12099	COMBE ST NICHOLAS	906301	BOREHOLE PUMP | EMERGENCY BOXED SPARE	**53.751**	137.861	10.211	84.488	16.662
ME193	12099	COMBE ST NICHOLAS	988607	BOREHOLE PUMP 1	**53.751**	137.861	10.211	84.488	16.662
ME194	12101	PORTESHAM	8999	BOREHOLE PUMP | 0.7 ML/D	**22.757**	58.366	4.323	35.770	7.054
ME195	12103	RODBOURNE	9059	BOREHOLE PUMP | 7.2 ML/D @ 15 M/H, PUMP DEPTH 28M.	**55.737**	142.954	10.588	87.609	17.277
ME196	12103	RODBOURNE	9072	BOREHOLE PUMP | 7.2 ML/D @ 15 M/H, PUMP DEPTH 28M	**55.737**	142.954	10.588	87.609	17.277
ME197	12103	RODBOURNE	69334	BOREHOLE PUMP 1 | 5.03ML/D	**61.498**	157.731	11.683	96.666	19.063
ME198	12104	SHAPWICK	9100	BOREHOLE PUMP | 2.3 ML/D	**87.169**	223.571	16.560	137.016	27.021
ME199	12104	SHAPWICK	9105	BOREHOLE PUMP | 4.5 ML/D	**140.044**	359.185	26.604	220.127	43.411
ME200	12104	SHAPWICK	84439	BOREHOLE PUMP | 6.81 ML/D	**181.080**	464.437	34.400	284.631	56.131
ME201	12105	SHEPHERDS SHORE PS	69909	BOREHOLE PUMP 1 | SUBMERSIBLE, DEPTH 52.6M.	**38.625**	99.067	7.338	60.713	11.973
ME202	12105	SHEPHERDS SHORE PS	69910	BOREHOLE PUMP | SUBMERSIBLE, DEPTH 50.7M.	**38.625**	99.067	7.338	60.713	11.973
ME203	12106	SHREWTON	9121	BOREHOLE PUMP 1 | 1.2 ML/D	**67.006**	171.858	12.729	105.323	20.771
ME204	12106	SHREWTON	9122	BOREHOLE PUMP 2 | 1.1 ML/D	**72.300**	185.437	13.735	113.645	22.412
ME205	12109	STUBHAMPTON	68198	BOREHOLE PUMP 1	**67.006**	171.858	12.729	105.323	20.771
ME206	12109	STUBHAMPTON	68199	BOREHOLE PUMP 2	**67.006**	171.858	12.729	105.323	20.771
ME207	12110	STURMINSTER MARSHALL	9203	BOREHOLE PUMP 2 | 5.56 ML/D	**128.532**	329.660	24.417	202.032	39.842
ME208	12110	STURMINSTER MARSHALL	9204	BOREHOLE PUMP 3 | 5.56ML/D	**128.532**	329.660	24.417	202.032	39.842
ME209	12110	STURMINSTER MARSHALL	9205	BOREHOLE PUMP 4 | 5.56ML/D	**128.532**	329.660	24.417	202.032	39.842
ME210	12110	STURMINSTER MARSHALL	906741	BOREHOLE PUMP | EMERGENCY BOXED SPARE	**158.268**	405.928	30.066	248.773	49.060
ME211	12113	TATWORTH	9320	BOREHOLE PUMP	**12.305**	31.560	2.338	19.342	3.814
ME212	12113	TATWORTH	76886	BOREHOLE PUMP	**53.751**	137.861	10.211	84.488	16.662
ME213	12113	TATWORTH	76887	BOREHOLE PUMP | BOXED SPARE	**53.751**	137.861	10.211	84.488	16.662
ME214	12116	ULWELL	9395	BOREHOLE PUMP 1 | 1.1 ML/D	**65.196**	167.215	12.385	102.478	20.209
ME215	12116	ULWELL	9396	BOREHOLE PUMP 2 | 1.1 ML/D	**53.751**	137.861	10.211	84.488	16.662
ME216	12117	UPTON SCUDAMORE	9455	BOREHOLE PUMP | 1.25 ML/D @ 50 M/H	**68.793**	176.441	13.069	108.132	21.324
ME217	12117	UPTON SCUDAMORE	9456	BOREHOLE PUMP | 2 ML/D @ 55 M/H	**70.557**	180.966	13.404	110.905	21.871
ME218	12117	UPTON SCUDAMORE	84316	BOREHOLE PUMP	**75.726**	194.223	14.386	119.030	23.474
ME219	12117	UPTON SCUDAMORE	88818	BOREHOLE PUMP	**31.194**	80.007	5.926	49.032	9.670

Wessex Water MEAV Borehole Pump Assets: TR61 and Confidence Grades

CKBS Ref	Site ID	Site	Asset ID	Asset Name	TR61 V13 Costs M&E	90%ile Upper	90%ile Lower	70%ile Upper	70%ile Lower
ME220	12117	UPTON SCUDAMORE	89426	SUBMERSIBLE BOREHOLE PUMP | TO BECOME BOXED SPARES	**53.751**	137.861	10.211	84.488	16.662
ME221	12117	UPTON SCUDAMORE	901610	BOREHOLE PUMP	**31.194**	80.007	5.926	49.032	9.670
ME222	12117	UPTON SCUDAMORE	901611	BOREHOLE PUMP	**40.948**	105.023	7.779	64.363	12.693
ME223	12117	UPTON SCUDAMORE	901612	BOREHOLE PUMP	**53.751**	137.861	10.211	84.488	16.662
ME224	12117	UPTON SCUDAMORE	906357	BOREHOLE PUMP NO5	**0.000**	0.000	0.000	0.000	0.000
ME225	12117	UPTON SCUDAMORE	906385	BOREHOLE PUMP NO6 | SUBMERSIBLE	**88.743**	227.608	16.859	139.490	27.508
ME226	12117	UPTON SCUDAMORE	971454	SUBMERSIBLE BOREHOLE PUMP	**61.498**	157.731	11.683	96.666	19.063
ME227	12119	WATERLOO FARM	9614	BOREHOLE PUMP 2 | 1.55 ML/D @ 97 M/H	**57.688**	147.960	10.959	90.677	17.882
ME228	12119	WATERLOO FARM	69330	BOREHOLE PUMP	**53.751**	137.861	10.211	84.488	16.662
ME229	12119	WATERLOO FARM	915233	BOREHOLE PUMP 1	**53.751**	137.861	10.211	84.488	16.662
ME230	12119	WATERLOO FARM	919527	BOREHOLE PUMP 2	**53.751**	137.861	10.211	84.488	16.662
ME231	12123	WESTBURY	79578	BOREHOLE PUMP 1 | 1.4ML/D	**47.561**	121.986	9.035	74.759	14.743
ME232	12130	WINTERBOURNE ABBAS	76471	STREAM SUPPORT PUMP | SUBMERSIBLE BOREHOLE PUMP	**38.625**	99.067	7.338	60.713	11.973
ME233	12130	WINTERBOURNE ABBAS	78254	BOREHOLE PUMP 1 | BUILT IN NON RETURN VALVE 6'' BSP DISCHARGE	**99.404**	254.952	18.884	156.247	30.813
ME234	12130	WINTERBOURNE ABBAS	78255	BOREHOLE PUMP 2 | BUILT IN NON RETURN VALVE 6'' BSP DISCHARGE	**99.404**	254.952	18.884	156.247	30.813
ME235	12130	WINTERBOURNE ABBAS	906297	BOREHOLE PUMP | EMERGENCY BOXED SPARE	**99.404**	254.952	18.884	156.247	30.813
ME236	12130	WINTERBOURNE ABBAS	926090	BOREHOLE 1 SAMPLE PUMP	**0.000**	0.000	0.000	0.000	0.000
ME237	12132	WYLYE	9862	BOREHOLE PUMP 1 | 0.78ML/D	**67.006**	171.858	12.729	105.323	20.771
ME238	12132	WYLYE	9863	BOREHOLE PUMP 2 | 0.78ML	**67.006**	171.858	12.729	105.323	20.771
ME239	12132	WYLYE	922770	BOREHOLE PUMP WITH BUILT-IN NON-RETURN VALVE	**61.498**	157.731	11.683	96.666	19.063
ME240	12132	WYLYE	931428	BOREHOLE PUMP 1	**61.498**	157.731	11.683	96.666	19.063
ME241	12132	WYLYE	931429	BOREHOLE PUMP 2	**61.498**	157.731	11.683	96.666	19.063
ME242	12133	SALISBURY	40348	BOREHOLE PUMP | 150MM PIPE	**0.000**	0.000	0.000	0.000	0.000
ME243	12134	YATESBURY	84304	BOREHOLE PUMP	**47.561**	121.986	9.035	74.759	14.743
ME244	12500	HULLAVINGTON	85776	BOREHOLE PUMP	**87.169**	223.571	16.560	137.016	27.021
ME245	12501	KINGSTON DEVERILL	49963	BOREHOLE PUMP	**59.608**	152.884	11.324	93.695	18.477
ME246	12501	KINGSTON DEVERILL	49964	BOREHOLE PUMP	**97.916**	251.136	18.601	153.909	30.352
ME247	12501	KINGSTON DEVERILL	910585	BOREHOLE PUMP 1 | 21P001	**85.581**	219.499	16.258	134.520	26.528
ME248	12501	KINGSTON DEVERILL	910586	BOREHOLE PUMP 2 | 21P002	**85.581**	219.499	16.258	134.520	26.528
ME249	12502	LUCKINGTON	69674	BOREHOLE PUMP	**140.044**	359.185	26.604	220.127	43.411
ME250	12502	LUCKINGTON	69675	BOREHOLE PUMP	**140.044**	359.185	26.604	220.127	43.411
ME251	12503	LITTLE CHALFIELD NO 1	65454	BOREHOLE PUMP | PUMP DEPTH 42M	**43.207**	110.818	8.208	67.915	13.393
ME252	12504	LOWER STANTON ST QUINTIN	67072	BOREHOLE PUMP	**53.751**	137.861	10.211	84.488	16.662
ME253	12505	SOUTH WRAXALL	60049	BOREHOLE PUMP | 2.8 ML/D	**55.737**	142.954	10.588	87.609	17.277
ME254	12505	SOUTH WRAXALL	913630	BOREHOLE PUMP	**53.751**	137.861	10.211	84.488	16.662
ME255	12506	STANBRIDGE	65552	BOREHOLE PUMP	**53.751**	137.861	10.211	84.488	16.662
ME256	12507	TETBURY	50159	BOREHOLE PUMP	**191.968**	492.361	36.468	301.743	59.506
ME257	12507	TETBURY	69668	BOREHOLE PUMP NO1	**0.000**	0.000	0.000	0.000	0.000
ME258	12507	TETBURY	69669	BOREHOLE PUMP NO2	**0.000**	0.000	0.000	0.000	0.000
ME259	12507	TETBURY	988605	BOREHOLE PUMP NO1	**113.731**	291.700	21.606	178.768	35.254
ME260	12508	PIMPERNE	58173	BOREHOLE PUMP | 1.5 ML/D - OPERATES FROM JUNE 1ST TO SEPT 1ST	**31.194**	80.007	5.926	49.032	9.670
ME261	12552	HILL DEVERILL	86182	FEED PUMP | BOREHOLE 2	**53.751**	137.861	10.211	84.488	16.662
ME262	12552	HILL DEVERILL	906737	BOREHOLE PUMP | EMERGENCY BOXED SPARE	**72.300**	185.437	13.735	113.645	22.412
ME263	17157	ALTON PANCRAS	906293	BOREHOLE PUMP | EMERGENCY BOXED SPARE	**33.759**	86.586	6.413	53.064	10.465
ME264	19174	LYTCHETT MINSTER	60927	ASR BOREHOLE PUMP	**0.000**	0.000	0.000	0.000	0.000
ME265	19607	CODFORD	78508	BOREHOLE PUMP 1	**25.718**	65.962	4.886	40.425	7.972
ME266	19607	CODFORD	78509	BOREHOLE PUMP 2	**25.718**	65.962	4.886	40.425	7.972
ME267	19715	CODFORD	69678	BOREHOLE PUMP	**53.751**	137.861	10.211	84.488	16.662
ME268	19715	CODFORD	69679	BOREHOLE PUMP	**53.751**	137.861	10.211	84.488	16.662
				Total	**21,420.324**	54,939.089	4,069.240	33,669.442	6,639.872

Appendix D

Washouts, Auto-Divert Systems and Outfalls

Wessex Water MEAV Water Resources

Borehole Assets: Washout, Auto Divert and Outfall

Discharge Pipework, Washout and Auto-Divert Valves

		1 nr BH	2 nr BH	3 nr BH	4 nr BH
Discharge Pipework and Valves assumed 20m/borehole		13,530.00	27,060.00	40,590.00	54,120.00
Washout Chamber and Internal Pipework and Valves		14,350.55	15,480.55	16,610.55	17,740.55
Subtotal		27,880.55	42,540.55	57,200.55	71,860.55
General Items and Supervision	30%	8,364.17	12,762.17	17,160.17	21,558.17
Risk	5%	1,812.24	2,765.14	3,718.04	4,670.94
Fee	8%	3,044.56	4,645.43	6,246.30	7,847.17
Total cost per site		41,101.51	62,713.28	84,325.05	105,936.82
(Add £21611.77 for each additional borehole)					
Cost per borehole		41,101.51	31,356.64	28,108.35	26,484.21

Outfall

Outfall Pipeline 45m		13,500.00	13,500.00	13,500.00	13,500.00
Outfall Headwall		15,362.00	15,362.00	15,362.00	15,362.00
Subtotal		28,862.00	28,862.00	28,862.00	28,862.00
General Items and Supervision	30%	8,658.60	8,658.60	8,658.60	8,658.60
Risk	5%	1,876.03	1,876.03	1,876.03	1,876.03
Fee	8%	3,151.73	3,151.73	3,151.73	3,151.73
Total		42,548.36	42,548.36	42,548.36	42,548.36

ASSUMPTIONS

Estimate based on Black Lane WTW drawings B0473/111, 125, 127 and 128
Single washout chamber size independent of borehole numbers
Discharged pipelines assumed to be 20m per borehole
Cable ducts to washout chamber assumed to be 10m per borehole
Average sized outfall used for all sites independent of number of boreholes
Estimate base date is 1Q2017
Access to site is suitable for the required plant and machinery
Excavated material is inert and not contaminated and disposed off-site
No ecological and archeological special measures are required
No constraints are imposed by Network Rail/Third Parties
Assumes continuance sequence of works
Excl. Construction risk, major design development risk, Design and Wessex Water overheads
Excl. VAT

Appendix E

Borehole Shafts Civils Benchmark Summary

Borehole Shafts Civils Benchmark Summary

Sample No	Borehole Site	Asset ID	Sample Asset Name	Depth (m)	Bore Dia (mm)	Benchmark Costs	TR61 V13 Costs	TR61 v BM	% Variance
1	ARN HILL	29102	ARN HILL NO 1	77.44	300	161,377.36	116,991.43	Lower	28%
2	BISHOPS CANNINGS	29111	BISHOPS CANNINGS BOREHOLE	30.70	680	108,807.22	111,431.66	Higher	2%
3	CASTLE CARY	29125	CASTLE CARY NO 1	9.00	1,400	82,232.45	91,901.67	Higher	12%
4	CODFORD	13065	CODFORD NO 1	47.00	900	137,318.80	161,988.75	Higher	18%
5	CORFE MULLEN*	29153	CORFE MULLEN NO 3	60.67	3,050	544,551.66	498,839.77	Lower	8%
6	GOODSHILL	29189	GOODSHILL NO 1	60.96	250	139,818.04	98,131.63	Lower	30%
7	MILBOURNE	11475	MILBOURNE NO 1	92.99	90	173,539.84	81,917.45	Lower	53%
8	MILBORNE ST ANDREW	29209	MILBORNE ST ANDREW NO 1	121.90	150	209,585.68	105,317.33	Lower	50%
9	SHAPWICK	29220	SHAPWICK NO 2	152.44	900	298,226.14	385,927.60	Higher	29%
10	STUBHAMPTON	29228	STUBHAMPTON NO 2	142.38	610	260,551.11	267,123.62	Higher	3%
11	TATWORTH	29233	TATWORTH NO 1	4.11	1,370	68,818.29	75,455.28	Higher	10%
					Total	**2,184,826.59**	**1,995,026.20**	Ave Variance	22%

Benchmark Variance £	189,800.39
Benchmark Variance %	10%
All Projects TR61	29,743,184.41
All Projects BM (Linear model based on sample)	33,889,807.83
All Projects Variance	4,146,623.43
All Project Variance %	14%

*Alternative benchmark, i.e. Pumping Well cost model

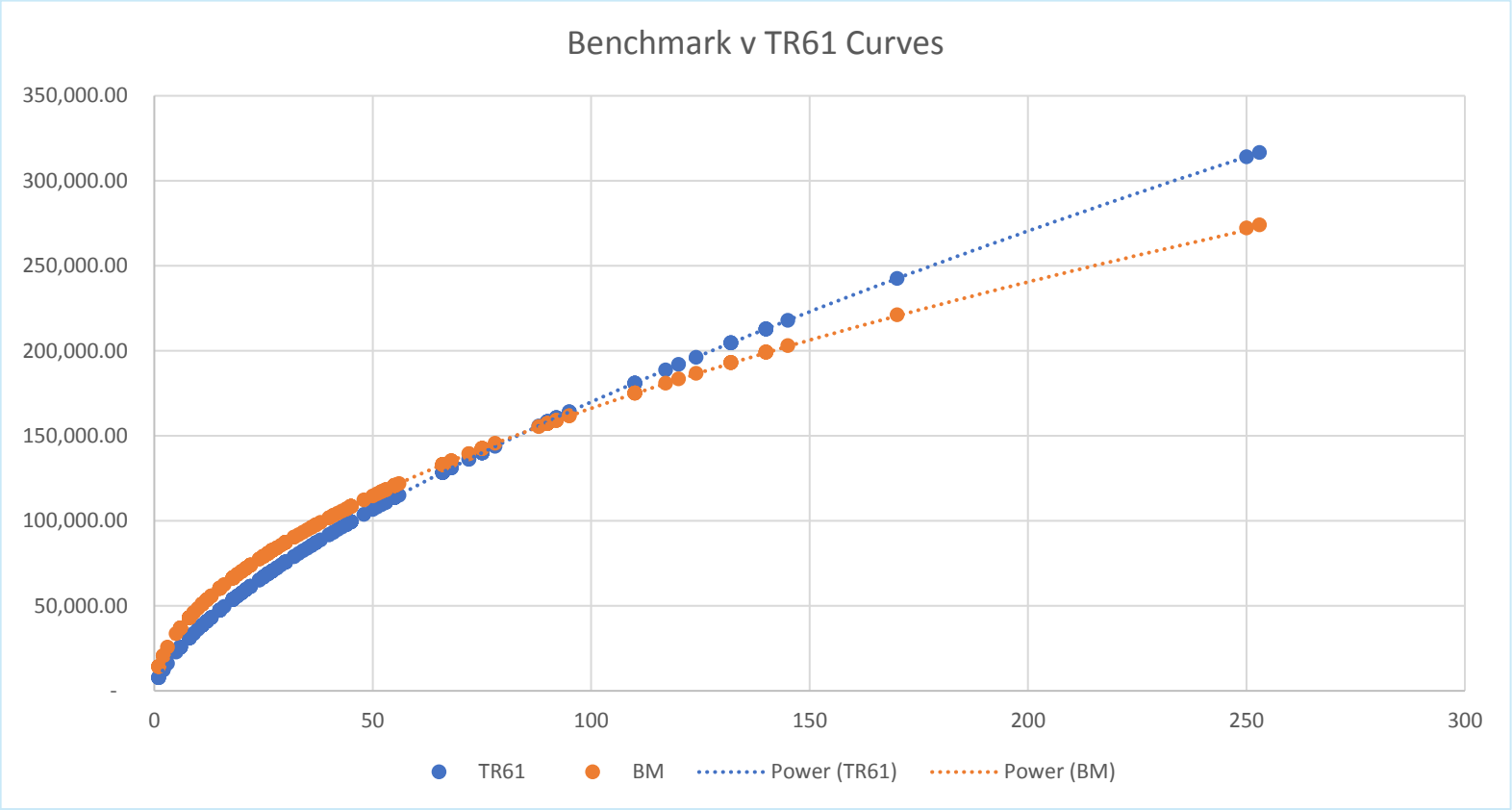
Appendix F

Borehole Pumps M&E Benchmark Summary

Borehole Pumps M&E Benchmark Summary

Asset ID	Site	Asset Name	Power (kW)	Benchmark Costs	TR61 V13 Costs	TR61 v BM	% Variance
11921	ALTON PANCRAS	BOREHOLE PUMP 1 | 4.6 ML/D @ 19 M/H	15	60,317.13	47,561.38	Lower	27%
12367	BELHUISH	BOREHOLE PUMP 2 | 1.2 ML/D, 85M PUMP DEPTH.	20	70,318.17	57,688.38	Lower	22%
69104	BELHUISH	BOREHOLE PUMP 3	110	175,123.56	181,080.49	Higher	3%
67746	BRIXTON DEVERILL	BOREHOLE PUMP 2	253	274,070.94	316,658.43	Higher	13%
12810	CATTISTOCK	BOREHOLE PUMP	3	25,645.31	16,152.72	Lower	59%
79625	CATTISTOCK	BOREHOLE PUMP 2	30	87,315.96	75,726.09	Lower	15%
66705	CHARLTON	BOREHOLE PUMP | TO MINETY TOWER NO. 2	75	142,593.26	140,043.61	Lower	2%
12884	CHERHILL	BOREHOLE PUMP 4	1	14,346.20	7,728.54	Lower	86%
81089	CLARENDON	BOREHOLE PUMP 2 | 8 ML/D	95	161,870.58	164,115.54	Higher	1%
51488	SALISBURY	BOREHOLE PUMP 3	140	199,344.82	212,886.98	Higher	6%
988605	TETBURY	BOREHOLE PUMP NO1	55	120,758.64	113,731.44	Lower	6%
				1,331,704.56	**1,333,373.58**	Ave Variance	22%

Benchmark Variance £	1,669.02
Benchmark Variance %	0.13%
All Projects TR61	21,420,323.95
All Projects BM (Linear model based on sample)	23,223,169.46
All Projects Variance	- 1,802,845.51
All Project Variance %	-8.42%


Benchmark v TR61 Curves
350,000.00
300,000.00
250,000.00
200,000.00
150,000.00
100,000.00
50,000.00
-
0
50
100
150
200
250
300
TR61
BM
Power (TR61)
Power (BM)

Appendix G

Dams Summary

Wessex Water
Summary of reservoirs

WW Site ID	Reservoir	Year Built	Capacity m3	Max. Height m	Dam Type	Impounding or Non-impounding	Subject to Reservoirs Act 1975	EA Risk designation	Crest length m	Wessex Water PR09 Model Updated by COPI (£'000)	ChandlerKBS Average (£'000)	Closest Model to Average (£'000)	Closest Dual Model (Concrete and Earth Separated) (£'000)
12092	Nutscale	1942	178,000	15	Mass concrete gravity arch	Impounding	Yes	High risk	90	**3,451.181**	**4,365.081**	**5,200.098**	**8,756.762**
12033	Clatworthy	1959	5,364,000	30	Mass concrete gravity	Impounding	Yes	High risk	170	**26,075.593**	**18,213.719**	**13,295.314**	**19,989.750**
12049	Durleigh	1936	959,000	8.2	Earth fill embankment with puddle clay core	Impounding	Yes	High risk	430	**4,927.639**	**5,923.218**	**6,005.333**	**5,492.177**
12004	Ashford	1934	50,000	5.5	Earth fill embankment with puddle clay core	Impounding	Yes	High risk	250	**1,288.867**	**2,247.964**	**2,617.347**	**2,837.710**
12062	Hawkridge	1960	864,000	20	Mass concrete gravity	Impounding	Yes	High risk	200	**13,634.297**	**11,277.829**	**8,297.386**	**17,190.382**
11777	Leigh	1893	120,000	12.5	Earth fill embankment with puddle clay core	Impounding	Yes	High risk	300	**7,988.846**	**8,713.501**	**9,488.332**	**5,734.570**
11208	Luxhay	1905	544,000	19	Earth fill embankment with puddle clay core	Impounding	Yes	High risk	430	**26,455.649**	**23,663.616**	**24,435.699**	**9,900.115**
12111	Sutton Bingham	1956	2,614,000	15	Earth fill embankment with puddle clay	Impounding	Yes	High risk	225	**8,627.954**	**9,177.171**	**10,715.297**	**5,326.178**
12087	Monkswood	1890	231,000	15	Earth fill embankment with puddle clay	Impounding	Yes	High risk	160	**6,135.434**	**6,813.690**	**8,971.471**	**4,193.670**
12009	Ivy Lake	1987	120,000	2	Earth fill embankment around worked	Non-impounding	Yes	Not high risk	200	**136.343**	**728.449**	**719.252**	**1,193.863**
12009	Blashford Lake	1985	520,000	6	Earth fill embankment around worked	Non-impounding	Yes	Not high risk	130	**797.606**	**1,609.155**	**2,429.615**	**1,906.895**
12009	Ellingham Intake Pound	1989	100,000	9	Earth fill embankment with bentonite cement slurry cut off	Non-impounding	Yes	Not high risk	170	**2,346.803**	**3,327.883**	**4,449.265**	**3,058.410**
12095	Otterhead	1885	15,000	4	Earth fill embankment with bentonite cement slurry cut off	Impounding	No	Not high risk	80	**218.149**	**835.119**	**1,400.349**	**1,020.943**
Land values to be provided by Wessex Water										**102,084.361**	**96,896.395**	**98,024.758**	**86,601.425**

Model used in PR09 taken from response to reporters commentary (accessed through ChandlerKBS horizontal audit for Ofwat). Model: £0.154k x height (m) ^ 2 x crest length (m)	ChandlerKBS compiled data from various sources, i.e. other water companiees, price books and data from France and the USA. Each source was modelled and the models were applied to the design data in this table. The summaries of the models were compared side by side and the averages of all the models, including the WW model are reported in this column.	The model closest to the mean was the models sourced from France. The data formed part of a report into dam construction carried out by a French Water Agency. The data was passed to ChandlerKBS by our contact at French Civil Engineering company ISL Ingenierie. The models used were for concrete and earth combined construction.	This is sourced from another UK water company. The models are based on results from a revaluation exercise carried out during PR14 and indexed using COPI. Unlike Wessex Water's single model for all dams, there are two separate models, one for concrete dams and another for earth filled dams. Earth filled dams are generally lower in value.

Appendix H

Dams Benchmark Summary

Wessex Water
Summary of reservoirs

WW Site ID	Reservoir	Year Built	Capacity m3	Max. Height m	Dam Type	Impounding or Non-impounding	Subject to Reservoirs Act 1975	EA Risk designation	Crest length m	Wessex Water PR09 Model Updated by COPI (£'000)	ChandlerKBS Average (£'000)	Closest Individual Model to Average (£'000)	Closest Dual Model (Concrete and Earth Separated) (£'000)	Actual Valuation (includes land)
12092	Benchmark 1		10,000,000	20	Concrete/Earth	Impounding			1100	74,988.634	30,401.410	18,832.884	19,828.822	19.987
12033	Benchmark 2		2,700,000	20	Concrete/Earth	Impounding			700	47,720.040	21,421.697	15,245.668	14,442.924	10.945
										122,708.674	51,823.107	34,078.552	34,271.746	30.932

The benchmark reservoirs were much larger than any of the Wessex Water Reservoirs and it seems that the WW model becomes unsuitable for large dams. With very large dams the WW model becomes an outlier	Without the inclusion of the WW model the average model would reduce to £41m against the benchmark. 25% greater.	France model. Closest model to combined benchmark total	Other water company models. Closest model to both individual benchmarks	Benchmarks are two reservoirs for which we have visibility of PR09 valuations. These valuations have been indexed to Q1 2017. We cannot verify the reliability of the methodology used in the PR09 valuations. The benchmark valuations include land whereas the model valuations do not.

Contact sheet

This document was prepared by:
Dylan Davies

Chandlers House, Terra Nova Way,
Penarth Marina, Cardiff CF64 1SA

T +44 (0)29 20352300
F +44 (0)29 20352400
E ddavies@chandlerkbs.com