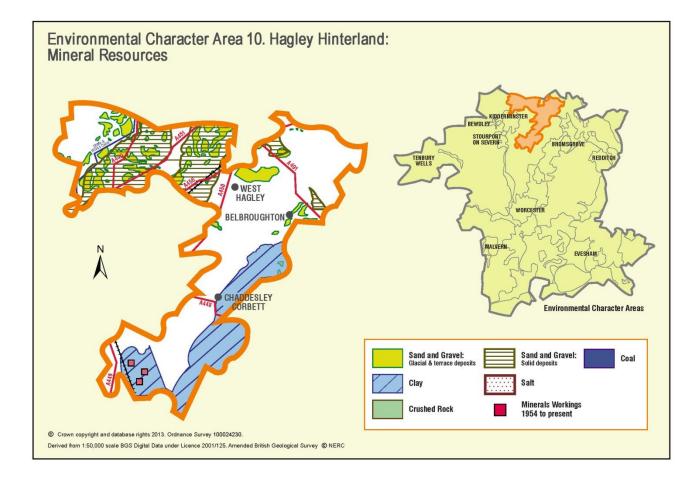
Appendix 10: Analysis of aggregate resources in ECA 10: Hagley Hinterland



ECA Summary for the Third Stage consultation on MLP (Spring 2015):

Sand and gravel

There are 32 resource areas identified for sand and gravel in Hagley Hinterland ECA:

- Key: 5
- Significant: 1
- Not significant: 17
- Compromised: 9

Crushed rock

There are no resource areas identified in Hagley Hinterland ECA for crushed rock.

Non-aggregates

BGS data indicates that there are deposits of clay in this ECA.

Overview of resource assessment for ECA 10

Sand and gravel resource areas:

Resource Second Stage Consu		ultation Third Stage Cons		sultation
number*	Original estimated resource	Significance	Revised estimate of resource	Significance
	tonnage (2 tonnes/m ³)		tonnage (1.65 tonnes/m ³)	
10/1	Depth not known	Not significant	Depth not known	Not significant
10/2	Depth not known	Not significant	Depth not known	Not significant
10/3	Depth not known	Not significant	Depth not known	Not significant
10/4	Depth not known	Not significant	Depth not known	Not significant
10/5	240,000	Not significant	198,000	Not significant
10/6	360,000	Not significant	297,000	Not significant
10/7	Depth not known	Not significant	Depth not known	Not significant
10/7a	Depth not known	Compromised	Depth not known	Compromised
10/8	Depth not known	Not significant	Depth not known	Not significant
10/8 a	Depth not known	Compromised	Depth not known	Compromised
10/9	Depth not known	Not significant	Depth not known	Not significant
10/10	Depth not known	Not significant	Depth not known	Not significant
10/11	Depth not known	Compromised	Depth not known	Compromised
10/11a	Depth not known	Compromised	Depth not known	Compromised
10/12	3,536,000	Key	2,917,200	Key
10/13	Depth not known	Not significant	Depth not known	Not significant
10/14	Depth not known	Not significant	Depth not known	Not significant
10/15	Depth not known	Not significant	Depth not known	Not significant
10/16	Depth not known	Not significant	Depth not known	Not significant
10/17	Depth not known	Significant	Depth not known	Significant
10/18	Depth not known	Not significant	Depth not known	Not significant
10/19	Depth not known	Not significant	Depth not known	Not significant
10/20	Depth not known	Not significant	Depth not known	Not significant
10/21	8,164,000	Key	6,735,300	Key
10/21a	624,000	Compromised	514,800	Compromised
10/22	738,000	Compromised	608,850	Compromised
10/23	182,512,000	Key	150,572,400	Key
10/23a	22,400,000	Compromised	18,480,000	Compromised
10/24	220,500,000	Key	181,912,500	Key
10/25	446,936,000	Key	368,722,200	Key
10/26	11,629,000	Compromised	9,593,925	Compromised
10/27	36,405,000	Compromised	30,034,125	Compromised

Overview			
Resource number:			
Resource name:	Kinver Lane West		
Resource area:	17ha		
Resource depth:	Kinver Lane West 17ha Not known		
Location			
OS sheet reference:	SO 88 SW Blakeshall 10/3		
National grid ref:	384203, 281221		
Resource description:			
Resource description:	Resource area 10/1 is 4 th terrace (Kidderminster Station) sand and gravel. No information on thicknesses available.		
	This is underlain by solid sand (assessed as resource area 10/25).		
	for the second consultation on MLP (Autumn 2013)		
Commentary:	A small resource area with little built development.		
Crude estimate of resource:	Depth not known		
Conclusion:	Not significant: Small deposit with no information to estimate the resource in this area.		
	Not for consideration in defining areas of search.		
Assessment of resource	for the Third Stage consultation on MLP (Spring 2015)		
Revised estimate of resource:	No change to the assessment.		

Resource name: Kinver Lane East Resource depth: Not known Location DS sheet reference: SO 88 SW 384808, 281663 Workshow Use of the second consultation on the second consecond consultation to estimate the resourc	Overview	evicade	
National grid ref: 384808, 281663 Shall Joint Joi	Resource number: Resource name: Resource area: Resource depth: Location	Kinver Lane East 18ha Not known	
Resource description: Resource area 10/2 is 4 th terrace (Kidderminster Station) sand and gravel. No information on thicknesses available. This is underlain by solid sand (assessed as resource area 10/25). Assessment of resource for the second consultation on MLP (Autumn 2013) Commentary: A small resource area with little built development. North Worcestershire path crosses the area. Crude estimate of resource: Depth not known Conclusion: Not significant: Small deposit with no information to estimate the resource in this area. Assessment of resource for the Third Stage consultation on MLP (Spring 2015) No change to the assessment.	OS sheet reference: National grid ref:	384808, 281663	10/3 10/3 Economic and Economic and Econom
Assessment of resource for the second consultation on MLP (Autumn 2013) Commentary: A small resource area with little built development. North Worcestershire path crosses the area. Crude estimate of resource: Depth not known Conclusion: Not significant: Small deposit with no information to estimate the resource in this area. Not for consideration in defining areas of search. Assessment of resource for the Third Stage consultation on MLP (Spring 2015) Revised estimate of resource:	Resource description: Resource description:	available.	
Commentary: A small resource area with little built development. North Worcestershire path crosses the area. Crude estimate of resource: Depth not known Conclusion: Not significant: Small deposit with no information to estimate the resource in this area. Not for consideration in defining areas of search. Assessment of resource for the Third Stage consultation on MLP (Spring 2015) No change to the assessment. Revised estimate of resource: No change to the assessment.			
Crude estimate of resource: Depth not known Conclusion: Not significant: Small deposit with no information to estimate the resource in this area. Not for consideration in defining areas of search. Assessment of resource for the Third Stage consultation on MLP (Spring 2015) Not change to the assessment. Revised estimate of resource: No change to the assessment.			
Not for consideration in defining areas of search. Assessment of resource for the Third Stage consultation on MLP (Spring 2015) Revised estimate of resource: No change to the assessment.	Commentary: Crude estimate of resource:		Iorth Worcestershire path crosses the area.
Revised estimate of No change to the assessment. resource:	Conclusion:	e	estimate the resource in this area.
resource:	Assessment of resource		2015)
Conclusion: Not significant.	Revised estimate of resource:	No change to the assessment.	
	Conclusion:	Not significant.	

Overview	
Resource number: Resource name: Resource area: Resource depth: Location OS sheet reference: National grid ref:	10/3 Caunsall North 19ha Depth not known SO 88 SW, SO 88 SE 385090, 281314
Resource description:	
Resource description:	Resource area 10/3 is 3 rd terrace (Holt Heath) sand and gravel. No information on thicknesses available.
	This is underlain by solid sand (assessed as resource area 10/25).
	e for the second consultation on MLP (Autumn 2013)
Commentary:	A small resource area with little built development. North Worcestershire path crosses the area.
Crude estimate of resource:	Depth not known
Conclusion:	Not significant: Small deposit with no information to estimate the resource in this area. Not for consideration in defining areas of search.
Assessment of resource	e for the Third Stage consultation on MLP (Spring 2015)
Revised estimate of resource:	No change to the assessment.
Conclusion:	Not significant.

Overview	
Resource number: Resource name: Resource area: Resource depth: Location OS sheet reference: National grid ref:	10/4 Caunsall Bridge 12ha Not known SO 88 SE 385508, 280923
Resource description:	
Resource description:	Resource area 10/4 is 1 st terrace (Powerhouse) sand and gravel. No information on thicknesses available.
	This is underlain by solid sand (assessed as resource areas 10/25 and 2/21).
Assessment of resource	e for the second consultation on MLP (Autumn 2013)
Commentary:	A small resource area intersected by a road but with little other built development.
Crude estimate of resource:	Depth not known
Conclusion:	Not significant: Small deposit with no information to estimate the resource in this area. Not for consideration in defining areas of search.
Assessment of resource	e for the Third Stage consultation on MLP (Spring 2015)
Revised estimate of	No change to the assessment.
resource:	
Conclusion:	Not significant.

Overview			
Resource number:	10/5 0025 0025		
Resource name:	Gloucester Coppice		
Resource area:	10ha		
Resource depth:	Estimated 2.4m		
Location			
OS sheet reference: National grid ref:	SO 87 NW 383367, 279858		
Resource description: Resource description:	n: Resource area 10/5 is 3 rd terrace (Holt Heath) sand and gravel. The terrace was exposed in a working to the		
	south (at Wolverley) showing up to 3m thickness in the centre, thinning to 1m to the east and west and consisting of coarse sand, bunter pebbles and chert. An extension to the working permitted in 1987 reported an average depth of 2.8m of sand and gravel.		
	Estimated resource depth based on mean average of: a) Wolverley Pit original working (median average 3m to 1m): 2m and b) Wolverley Pit extension 2.8m = 2.4m.		
	This is underlain by solid sand (assessed as resource area 10/25).		
Assessment of resource	e for the second consultation on MLP (Autumn 2013)		
Commentary:	A small resource area with little built development.		
Crude estimate of	Area: 10 ha x average depth: 2.4m ÷ 2		
resource:	Estimated resource volume: 120,000 m ³		
	Estimated resource tonnage (at 2 t/m ³): 240,000 tonnes		
Conclusion:	Not significant: Small deposit with less than 300,000m ³ .		
	Not for consideration in defining areas of search.		
	e for the Third Stage consultation on MLP (Spring 2015)		
Revised estimate of	Area: 10 ha x average depth: 2.4m ÷ 2		
resource:	Estimated resource volume: 120,000 m ³		
	Estimated resource tonnage (at 1.65 t/m ³): 198,000 tonnes		
Conclusion:	Not significant.		

Overview		
Resource number:	10/6 Sch Sch 10/8	
Resource name:	Wolverley Court	
Resource area:	15ha	
Resource depth:	Estimated 2.4m	
Location	Wolverley Wolverley 10/9	
OS sheet reference: National grid ref:	SO 87 NW 383333, 279064	
Resource description:		
Resource description:	Resource area 10/6 is 3 rd terrace (Holt Heath) sand and gravel. The terrace was exposed in a working at Wolverley showing up to 3m thickness in the centre, thinning to 1m to the east and west and consisting of coarse sand, bunter pebbles and chert. An extension to the working permitted in 1987 reported an average depth of 2.8m of sand and gravel. A letter in support of the application stated "there is no further sand and gravel available on the land south of Wolverley Road". Estimated resource depth based on mean average of: a) Wolverley Pit original working (median average 3m to 1m): 2m and b) Wolverley Pit extension 2.8m = 2.4m. This is underlain by solid sand (assessed as resource area 2/22 and 10/25). e for the second consultation on MLP (Autumn 2013)	
Commentary:	A small resource area with dispersed built development. The southern end of the deposit has previously been worked, this section is not included as part of the resource area.	
Crude estimate of	Area: 15 ha x average depth: 2.4m ÷ 2	
resource:	Estimated resource volume: 180,000 m ³ Estimated resource tonnage (at 2 t/m ³): 360,000 tonnes	
Conclusion:	Not significant: Small deposit with less than 300,000m ³ . Not for consideration in defining areas of search.	
Assessment of resourc	e for the Third Stage consultation on MLP (Spring 2015)	
Revised estimate of	Area: 15 ha x average depth: 2.4m ÷ 2	

resource:	Estimated resource volume: 180,000 m ³
	Estimated resource tonnage (at 1.65 t/m ³): 297,000 tonnes
Conclusion:	Not significant.

Overview	10/5
Resource number:	10/7 Wolverley 10/9
Resource name:	North of Broadwaters
Resource area:	37ha
Resource depth:	Not known
Location	Lea Castle
OS sheet reference:	SO 87 NW 2721 910/10 10/6
National grid ref:	383897, 278904
Resource description:	
Resource description:	Resource area 10/7 is 4 th terrace (Kidderminster Station) sand and gravel. There are no details recorded of possible thicknesses but bunter pebbles are visible in the soil at the surface. This is underlain by solid sand (assessed as resource area 2/21 and 10/25).
Assessment of resourc	e for the second consultation on MLP (Autumn 2013)
Commentary:	A small resource area intersected by roads with some ribbon development The deposit extends to the south under the settlement of Broadwaters, this section is considered as resource area 10/7a.
Crude estimate of	Depth not known
resource:	·
Conclusion:	Not significant: Small deposit with no information to estimate the resource in this area.
	Not for consideration in defining areas of search.
Assessment of resourc	e for the Third Stage consultation on MLP (Spring 2015)
Additional information	A 51ha site covering part of this resource area was submitted in response to the Second Stage Consultation.
	This stated that "The site consists of 4th River Terrace Deposits, Glacial sands and gravels and Upper Mottled
	Sandstone, as per the geological map based on detailed site investigation and laboratory gradings". No more
	detailed geological information was provided with the site submission. This site also covers the solid sands of
	resource area 2/21 and a glacial deposit which was not assessed for the second consultation the MLP as it is
	less than 10ha and less than 200m wide.
Revised estimate of	No change to the assessment.
resource:	

	Conclusion:	Not significant.
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Overview	E.		
Resource number:	10/7a		
Resource name:	Broadwaters	126 Lea Castle	
Resource area:	15ha 🛛 🛛		
Resource depth:	Not known		
Location		10/7 2/21	
OS sheet reference:	SO 87 NW	and blydelavas Linx 77	
National grid ref:		Sand Pit Ho Pit Ho 0/17a 53 59 10/11 Kennel 2/19 Sand Converted from 1.50, 100 scale BGS Digitel Olds under schoe 2001/125 Amended British Geological Subver O NERC Crown op Aren and distance stripts 2013 Ordance 38/ Crown op Aren and distance stripts 2013 Ordance 38/	
Resource description:			
Resource description:	Resource area 10/7a is 4 th terrace (Kidderminster Station) sand and gravel. There are no details recorded of		
		inter peobles are visible in the soil at the surface.	
	This is underlain by solid sand (assessed as resource area 2/25). ce for the second consultation on MLP (Autumn 2013)		
Commentary:	A small resource area compromised by the settlement of Broadwaters. The deposit extends to the north, this is		
Crude estimate of	considered as resource area 10/7.		
Crude estimate of resource:	Depth not known		
Conclusion:	Compromised by developm		
		Itation on MLP (Spring 2015)	
Revised estimate of resource:	No change to the assessme	ent.	
Conclusion:	Compromised by developm	ent.	
	· · · · ·		

Overview		N I REAL DUT
Resource number:	10/8	110/4
Resource name:	West of Cookley	Wish Brite 87
Resource area:	25ha	
Resource depth:	Not known	
Location		10/8 a 100
OS sheet reference:	SO 87 NW, SO 87 NE, SO 88 SW, SO 88 SE	10/25
National grid ref:	385167, 279996	Vinitehouse b 2/21 Fm 2/21 Fm 1smere Ho Derived from 1:60:000 scale BGS Digital Data under LideOrezoon 1/35 Amendee British Geological Survey G NERC G Crown couldght and batabase rights 2013 Opting 0/10
Resource description:		
Resource description:	available.	th terrace (Kidderminster Station) sand and gravel. No information on thicknesses
Assessment of resource	· · ·	ation on MLP (Autumn 2013)
Commentary:		tersected by roads. The deposit extends to the west under the settlement of Cookley,
Crude estimate of resource:	Depth not known	
Conclusion:	Not significant: Small de	posit with no information to estimate the resource in this area.
	Not for consideration in	defining areas of search.
Assessment of resource		sultation on MLP (Spring 2015)
Revised estimate of	No change to the assess	sment.
resource:		
Conclusion:	Not significant.	

Overview		Aust cliffe
Resource number:	10/8a	Even 10/25
Resource name:	West of Cookley	PORCE AND
Resource area:	25ha	The store of the s
Resource depth:	Not known	
Location		
OS sheet reference:	SO 87 NW, SO 87 NE, SO 88 SW, SO 88 SE	10/8 a
National grid ref:	385167, 279996	Der wed from 180 000 scale BIGS Dignal Date onder Lioende 20011126 Amended Brütert Geologiski Survey (c) NERZ (d) Ciewin dopyright and database rights 2013 Orlance Supey 100024230
Resource description:		
Resource description:		⁵ 4 th terrace (Kidderminster Station) sand and gravel. No information on thicknesses
	available.	
		id sand (assessed as resource area 10/27).
		tation on MLP (Autumn 2013)
Commentary:		compromised by the settlement of Cookley. The deposit continues to the east, this is
	assessed as resource a	area 10/8.
Crude estimate of	Depth not known	
resource:	-	
Conclusion:	Compromised by devel	
Assessment of resource	e for the Third Stage co	nsultation on MLP (Spring 2015)
Revised estimate of resource:	No change to the asses	ssment.
Conclusion:	Compromised by devel	opment.
		-F

Resource number:10/9Resource name:AxborougResource area:26haResource depth:Not knowLocationSO 87 NOS sheet reference:SO 87 NNational grid ref:385610,	WN IW, SO 87 NE	
Resource area:26haResource depth:Not knowLocationSO 87 N	wn IW, SO 87 NE 279391	
Resource area:26haResource depth:Not knowLocationSO 87 N	WN W, SO 87 NE 279391 Whitehouse Company of the second s	
LocationOS sheet reference:SO 87 N	IW, SO 87 NE 279391	
OS sheet reference: SO 87 N	279391	
	279391	
National grid ref: 385610,		
	10/9	
	Lea Castle	
	Em / 10/10 80 10/24	
	10/12	
	Derived from 1/50,000 scale BGS Digital Data under Upenvelopmenter 2001/125 Amended British Sedagical Survey	
	10/7 rown popyright and databas a rights 2013 Ordanice Survey: 100024230. 10/11	
Resource description:		
	ce area 10/9 is glaciofluvial sand and gravel. No information on thicknesses available.	
This is u	underlain by solid sand (assessed as resource area 2/21).	
Assessment of resource for the s	second consultation on MLP (Autumn 2013)	
Commentary: A small	resource area with dispersed development across the site.	
Crude estimate of Depth ne	not known	
resource:		
Conclusion: Not sign	nificant: Small deposit with no information to estimate the resource in this area.	
Not for c	Not for consideration in defining areas of search.	
Assessment of resource for the T	Third Stage consultation on MLP (Spring 2015)	
	a site covering a small part of this resource area was submitted in response to the "Call for Sites" in	
	r 2014. No geological information was submitted to support the site proposal but the landowner's	
	stimated that the 80ha site contained 1,000,000 tonnes of Terrace deposit and Fluvioglacial deposit.	
	s no information to determine how much of this might be within resource area 10/9.	
Revised estimate of No chan resource:	nge to the assessment.	
Conclusion: Not sign	nificant.	

Overview		N-2/10/2710/27
Resource number: Resource name: Resource area: Resource depth: Location OS sheet reference: National grid ref:	10/10 Three Cornered Covert 11ha Not known SO 87 NW, SO 87 NE 385121, 279032	10/72 53 10/10 10/10 80 80 00 00 00 00 00 00 00 00 00 00 00
Resource description: Resource description:	available.	4 th terrace (Kidderminster Station) sand and gravel. No information on thicknesses
Assessment of resource		d sand (assessed as resource area 2/21). ation on MLP (Autumn 2013)
Commentary:		vith dispersed development across the site.
Crude estimate of resource:	Depth not known	· · ·
Conclusion:	0	eposit with no information to estimate the resource in this area. defining areas of search.
		nsultation on MLP (Spring 2015)
Revised estimate of resource:	No change to the asses	sment.
Conclusion:	Not significant.	

Overview	
Resource number: Resource name: Resource area: Resource depth: Location OS sheet reference:	10/11 East of Broadwaters 5ha remaining Not known SO 87 NW
National grid ref:	SO 87 NW 384785, 278332
Resource description:	
Resource description:	Resource area 10/11 is 3 rd terrace (Holt Heath) sand and gravel. No information on thicknesses available. This is underlain by solid sand (assessed as resource area 2/21).
Assessment of resourc	e for the second consultation on MLP (Autumn 2013)
Commentary:	A small resource area intersected by a road. The deposit continues to the south west beneath the settlement of Broadwaters, Kidderminster, this section is considered as resource area 10/11a.
Crude estimate of resource:	Depth not known
Conclusion:	Compromised by development with less than 10ha of the deposit remaining.
	e for the Third Stage consultation on MLP (Spring 2015)
Revised estimate of resource:	No change to the assessment.
Conclusion:	Compromised by development.

Overview		10/6 - / Lea Castle
Resource number:	10/11a	
Resource name:	Broadwaters	1017
Resource area:	5ha	10/12
Resource depth:	Not known	Woodhores
Location		
OS sheet reference:	SO 87 NW	53 59 59
National grid ref:	384716, 278256	Ho 10/11 10/11 10/11 Kermels 2/21 2/19 Cott Co
Resource description:		
Resource description:	Resource area 10/11a is	3 rd terrace (Holt Heath) sand and gravel. No information on thicknesses available.
	This is underlain by solid	sand (assessed as resource area 2/25).
Assessment of resourc		ation on MLP (Autumn 2013)
Commentary:	A small resource area that	at is overlain by the settlement of Broadwaters, Kidderminster. The deposit continues
	to the north east, this sec	tion is considered as resource area 10/11.
Crude estimate of	Depth not known	
resource:		
Conclusion:	Compromised by develop	oment.
Assessment of resourc	e for the Third Stage con	sultation on MLP (Spring 2015)
Revised estimate of	No change to the assessr	ment.
resource:		
Conclusion:	Compromised by develop	oment.

Overview		
Resource number:		
Resource name:	Waggon Lane	
Resource area:	52ha	
Resource depth:	Estimated 6.8m	
Location	10/9	
OS sheet reference: National grid ref:	SO 87 NE 387233, 279018	
	10/12 10/12 Derived from // 50.000 scale BOS Dotal Data under Licence 2001/128 Amendee Builter Georgeoer Survey 2019 ERC Survey, 100224230	
Resource description:		
Resource description:	Resource area 10/12 is glaciofluvial sand and gravel. A glacial sand and gravel deposit capping Bunter pebble beds (Kidderminster Formation) in the north west and Upper Mottled Sandstone in the south east. No details of thickness or composition are recorded. A similar deposit at Barnett Hill to the south east showed, in downward succession, false bedded sand with thin lenses of gravel 10' (3m), on false bedded sand 10'-15' (3m-4.6m) (total 6m to 7.6m).	
	Estimated resource depth based on median depth at Barnett Hill: (6m to 7.6m) = 6.8m	
	This is underlain by solid sand (assessed as resource areas 2/21 and 10/24).	
Assessment of resource	e for the second consultation on MLP (Autumn 2013)	
Commentary:	A medium resource area with little built development.	
Crude estimate of	Area: 52 ha x average depth: 6.8 m ÷ 2	
resource:	Estimated resource volume: 1,768,000 m ³	
	Estimated resource tonnage (at 2 t/m ³): 3,536,000 tonnes	
Conclusion:	Significant – key resource.	
	Use to define areas of search.	
Assessment of resource	e for the Third Stage consultation on MLP (Spring 2015)	
Revised estimate of	Area: 52 ha x average depth: 6.8 m ÷ 2	
resource:	Estimated resource volume: 1,768,000 m ³	
	Estimated resource tonnage (at 1.65 t/m ³): 2,917,200 tonnes	
Conclusion:	Significant – key resource.	

Overview		
Resource number: Resource name:	10/13 West of Common Farm	House Fm Cour 101 10/16
Resource area: Resource depth: Location OS sheet reference: National grid ref:	16ha Not known SO 88 SE, SO 87 NE 388107, 280431	Control 10/13 Five Ways 2/21 PH 10/24 Derwed from 1:50:000 scale BOS Dig 10/52 under Logence 2001/125 Amended British & sologinal Burley Ki NERC (c) Crown copyright and database rights 2013 Orderose
		Survey 100024230
Resource description: Resource description:		glaciofluvial sand and gravel. No information on thicknesses available.
	· · ·	id sand (assessed as resource area 2/21).
Assessment of resource Commentary:	A small resource area v	tation on MLP (Autumn 2013) with some dispersed development. The deposit extends to the north out of the county s marked as OUT on the figure.
Crude estimate of resource:	Depth not known	
Conclusion:	0	eposit with no information to estimate the resource in this area. defining areas of search.
	·	nsultation on MLP (Spring 2015)
Revised estimate of resource:	No change to the asses	ssment.
Conclusion:	Not significant.	

Overview		
Resource number:	10/14	
Resource name:	Iveley Lane	AV AND
Resource area:	11ha	OUT 101 10/16
Resource depth:	Not known	
Location		Con 10/13 QUT 99 8 5 20
OS sheet reference:	SO 88 SE, SO 87 NE	LA CONTRACTOR
National grid ref:	388498, 280526	Five Ways 10/24 10/24 Detived from 1.58 000 seale BGS Digital Data under Licence 2001: 155 Amended British Geological Surv EVL1 Ch (c) NERC (c) Crown copyright and database rights 2013 Ordance Survey 10002433
Resource description:		
Resource description:	Resource area 10/14 is	glaciofluvial sand and gravel. No information on thicknesses available.
•		
	This is underlain by soli	d sand (assessed as resource area 2/21).
Assessment of resource	e for the second consult	ation on MLP (Autumn 2013)
Commentary:	A small resource area w	vith little built development.
Crude estimate of	Depth not known	
resource:		
Conclusion:	Not significant: Small de	eposit with no information to estimate the resource in this area.
		defining areas of search.
Assessment of resource	e for the Third Stage cor	nsultation on MLP (Spring 2015)
Revised estimate of	No change to the asses	sment.
resource:		
Conclusion:	Not significant.	

Overview		N OUT OUT 101 10/16
Resource number:	10/15	OUT OUT 10/16
Resource name:	Brakemill Plantation	Co 10/13 OUT 99 R 97
Resource area:	17ha	10/24/ 010 5005
Resource depth:	Not known	10/14 Schster
Location		
OS sheet reference:	SO 88 SE, SO 87 NE	
National grid ref:	388952, 280185	10/15 2/21 Ake MI Churchill Derived from 120 000 scale BGS Digital Date under Usernee 2001 125 Amenoed British Geologiest Burvey (a) NERC Go road oppyretit and databese upits 2013 obvande DT Burvey 100024230
Resource description:		
Resource description:	Resource area 10/15 is	glaciofluvial sand and gravel. The deposit is described as sandy soil with abundant
	quartz and quartzite pel	bbles and cobbles. No information available on thicknesses.
		d sand (assessed as resource area 2/21).
		tation on MLP (Autumn 2013)
Commentary:		vith little built development.
Crude estimate of resource:	Depth not known	
Conclusion:	Not significant: Small de	eposit with no information to estimate the resource in this area.
		defining areas of search.
		nsultation on MLP (Spring 2015)
Revised estimate of resource:	No change to the asses	sment.
Conclusion:	Not significant.	
	-	

Overview	
Resource number: Resource name: Resource area: Resource depth: Location	10/16 The Birches 27ha Not known
OS sheet reference: National grid ref:	SO 88 SE 388161, 280912
Resource description:	
Resource description:	Resource area 10/16 is glaciofluvial sand and gravel. No information on thicknesses available. This is underlain by solid sand (assessed as resource area 2/21).
Assessment of resource	e for the second consultation on MLP (Autumn 2013)
Commentary:	A small resource area with little built development. The deposit extends to the north and west outside the county boundary into Staffordshire, this is not considered as part of the resource areas and is shown as OUT on the figure.
Crude estimate of	Depth not known
resource:	
Conclusion:	Not significant: Small deposit with no information to estimate the resource in this area. Not for consideration in defining areas of search.
Assessment of resource	e for the Third Stage consultation on MLP (Spring 2015)
Revised estimate of resource:	No change to the assessment.
Conclusion:	Not significant.

Overview		10/18
Resource number: Resource name: Resource area: Resource depth: Location OS sheet reference: National grid ref:	10/17 Thicknall Lane 89ha Not known SO 87 NE, SO 97 NW 390740, 279170	N21 10/18 9 0 10/17 0
Resource description:		
Resource description:		nformation on thicknesses available.
Assessment of resource	e for the second consult	tation on MLP (Autumn 2013)
Commentary:		a intersected by roads with little other built development.
Crude estimate of resource:	Depth not known	
Conclusion:	Significant. Consider in defining are	eas of search.
Assessment of resource		nsultation on MLP (Spring 2015)
Revised estimate of resource:	No change to the asses	
Conclusion:	Significant.	

Overview		
Resource number: Resource name: Resource area: Resource depth: Location OS sheet reference: National grid ref:	10/18 Lower Clent 17ha Not known SO 97 NW, SO 98 SW 391859, 280074	Hagley 1023 Pgley Park Pgley Park Pgle
Resource description:		
Resource description:		glaciofluvial sand and gravel. No information on thicknesses available. d sand (assessed as resource area 10/23).
Assessment of resource		ation on MLP (Autumn 2013)
Commentary:	A small resource area w	vith little built development.
Crude estimate of resource:	Depth not known	
Conclusion:		posit with no information to estimate the resource in this area. defining areas of search.
Assessment of resource		sultation on MLP (Spring 2015)
Revised estimate of resource:	No change to the assess	
Conclusion:	Not significant.	

Overview		N / Clent V DA (Miss) Fm
Resource number: Resource name: Resource area: Resource depth: Location OS sheet reference: National grid ref:	10/19 Hollies Hill 11ha Not known SO 97 NW 392741, 277614	White Lodge/Em White Lodge/Em Ulies HILL Yewr-Tree OHO HOLD
Resource description:		
Resource description:	Alluvial fan deposit and	3 rd terrace (Holt Heath) sand and gravel. No information on thicknesses available.
Assessment of resource	e for the second consult	ation on MLP (Autumn 2013)
Commentary:	A small resource area w	vith little built development.
Crude estimate of resource:	Depth not known	
Conclusion:		posit with no information to estimate the resource in this area. defining areas of search.
Assessment of resource	e for the Third Stage con	nsultation on MLP (Spring 2015)
Revised estimate of resource:	No change to the asses	
Conclusion:	Not significant.	

Overview		White // 24/ 20/9
Resource number: Resource name: Resource area: Resource depth: Location OS sheet reference: National grid ref:	10/20 Hartle Lane 15ha Not known SO 97 NW 393011, 277138	Lodge Fm Ulies Hill Here Tre Hol Hol Hol Hol Hol Hol Hol Hol
Resource description:		
Resource description:	3 rd terrace (Holt Heath	n) sand and gravel. No information on thicknesses available.
		Itation on MLP (Autumn 2013)
Commentary:	A small resource area	intersected by a road with some ribbon development.
Crude estimate of resource:	Depth not known	
Conclusion:		deposit with no information to estimate the resource in this area. In defining areas of search.
Assessment of resource	for the Third Stage co	onsultation on MLP (Spring 2015)
Revised estimate of resource:	No change to the asse	
Conclusion:	Not significant.	

Overview		No. 10 Sector Se
Resource number:	10/21	
Resource name:	Wildmoor Superficial	
	Deposits	
Resource area:	157ha	
Resource depth:	Estimated 5.2m	
Location		
OS sheet reference:	SO 97 NE, SO 97 SE	
National grid ref:	369373, 275900	Papes Wood Hindler Hindler Der Ved from 140,000 spale BOS, fielder Hindler Composition 140,000 spale BOS, fielder Hindler
Resource description:	· · · · · · · · · · · · · · · · · · ·	
Resource description:		luvial fan deposits, glaciofluvial and 3 rd terrace (Holt Heath) sand and gravel. This is / but with some limited information available:
	 To the north of Jun boreholes have rec 	ction 4 of the M5 motorway, between Chadwich Grange Farm and Manor Farm, 3 corded:
	 3.6m of sand and gravel on sandstone overlain by 0.7m of sandy clay; 1.4m of clayey, silty sand on 7.6m of sandstone and 1.3m of clayey, pebbly sand on 5.7m of sandstone. 2 boreholes at Lydiate Ash recorded 2.1m and 1.8m of sand and gravel on sandstone. An exposure at the southern end of the Chadwich Farm pit shows 1.9m of sand and gravel on sandstone. 	
 A borehole adjacent to the M5 south east of the sand and gravel on sandstone overlain by 1.4m 		nt to the M5 south east of the Chadwich Lane / Money Lane junction proves 8.2m of a sandstone overlain by 1.4m of boulder clay.
	 An exposure at Tra side of the County 	montana's Pit (in the Chadwich Lane, Money Lane, Sandy Lane area) on the south Council tip showed a 15m base of well bedded sand and gravel. The pit now infilled erly exposed 7.6m of gravel on 4m of coarse sand and fine gravel with the base not
	Estimated resource depth	based on mean average of: a) boreholes to the north of Junction 4: (average of 1m), b) boreholes at Lydiate Ash: (average of 1.8m to 2.1m = 1.95m, c) exposure at

	Chadwich Farm Pit: 1.9m d) borehole adjacent to M5 south east of Chadwich Lane/Money Lane: 8.2m, and e) average of exposures at Tramontana's Pit: 11.6m = 5.15m rounded to 5.2m)
	This is underlain by solid sand (assessed as resource area 3/7 and 3/11).
Assessment of resource	e for the second consultation on MLP (Autumn 2013)
Commentary:	A large but sprawling resource area. The deposit extends under the M5 motorway in a number of places these areas have not been included as part of the resource area. Where the deposit extends under the urban area of Catshill, Bromsgrove these are considered as a separate resource area (10/21a). The 3 rd terrace deposit also continues to the south of Catshill and this is considered as a separate resource area (10/22).
Crude estimate of resource:	Area: 157 ha x average depth: 5.2 m ÷ 2 Estimated resource volume: 4,082,000 m ³ Converted to tonnes (at 2 t/m ³): 8,164,000 tonnes
Conclusion:	Significant – key resource. Use to define areas of search.
Assessment of resource	e for the Third Stage consultation on MLP (Spring 2015)
Additional information	2 sites (one 10ha site and one 4ha) covering part of this resource area were submitted in response to the Second Stage Consultation. No detailed geological information was provided with the site submissions. They also cover part of resource area 3/7.
Revised estimate of	Area: 157 ha x average depth: 5.2 m ÷ 2
resource:	Estimated resource volume: 4,082,000 m ³
	Estimated resource tonnage (at 1.65 t/m ³): 6,735,300 tonnes
Conclusion:	Significant – key resource.

Overview		
Resource number: Resource name: Resource area:	10/21a Wildmoor Superficial Deposit a) 12ha	
Resource depth:	Estimated 5.2m	
Location	SO 97 SE	
OS sheet reference: National grid ref:	SO 97 SE 396014, 274261	
Resource description:		
Resource description:	Resource area 10/21a is Alluvial fan deposits and 3 rd terrace (Holt Heath) sand and gravel. This is a complex area of geology but with some limited information available:	
	 To the north of Junction 4 of the M5 motorway, between Chadwich Grange Farm and Manor Farm, 3 boreholes have recorded: 3.6m of sand and gravel on sandstone overlain by 0.7m of sandy clay; 1.4m of clayey, silty sand on 7.6m of sandstone and 1.3m of clayey, pebbly sand on 5.7m of sandstone. 2 boreholes at Lydiate Ash recorded 2.1m and 1.8m of sand and gravel on sandstone. An exposure at the southern end of the Chadwich Farm pit shows 1.9m of sand and gravel on sandstone. A borehole adjacent to the M5 south east of the Chadwich Lane / Money Lane junction proves 8.2m of sand and gravel on sandstone overlain by 1.4m of boulder clay. 	
	 An exposure at Tramontana's Pit (in the Chadwich Lane, Money Lane, Sandy Lane area) on the south side of the County Council tip showed a 15m base of well bedded sand and gravel. The pit now infilled by Austin / BL formerly exposed 7.6m of gravel on 4m of coarse sand and fine gravel with the base not seen (total 11.6m). 	
	Estimated resource depth based on mean average of: a) boreholes to the north of Junction 4: (average of 3.6m, 1.4m and 1.3m = 2.1m), b) boreholes at Lydiate Ash: (average of 1.8m to 2.1m = 1.95m, c) exposure at	

	Chadwich Farm Pit: 1.9m d) borehole adjacent to M5 south east of Chadwich Lane/Money Lane: 8.2m, and e) average of exposures at Tramontana's Pit: 11.6m = 5.15m rounded to 5.2m)		
	This is underlain by solid sand (assessed as resource area 3/10).		
Assessment of resour	ce for the second consultation on MLP (Autumn 2013)		
Commentary:	A small resource area overlain by the settlement of Catshill. The deposit continues to the north (10/21) and the 3 rd terrace deposit also continues to the south of Catshill and this is considered as a separate resource area (10/22).		
Crude estimate of resource:	Area: 12 ha x average depth: 5.2 m ÷ 2 Estimated resource volume: 312,000 m ³ Converted to tonnes (at 2 t/m ³): 624,000		
Conclusion:	Compromised by development.		
Assessment of resour	ce for the Third Stage consultation on MLP (Spring 2015)		
Revised estimate of	Area: 12 ha x average depth: 5.2 m ÷ 2		
resource:	Estimated resource volume: 312,000 m ³		
	Estimated resource tonnage (at 1.65 t/m ³): 514,800 tonnes		
Conclusion:	Compromised by development.		

Overview			
Resource number: Resource name: Resource area: Resource depth: Location OS sheet reference: National grid ref:	10/22 South of Catshill 18ha Estimated 4.1m SO 97 SE 396339, 273912		
Resource description:			
Resource description:	Resource area 10/22 is 3 rd terrace (Holt Heath) sand and gravel. This is a confused area of geology with limited information available. A borehole to the south east of the deposit near the M42 showed 3.2m of sand and gravel and 0.9m of sandy clay (total = 4.1m). It is not clear whether this is in the 3 rd terrace or the alluvial fan deposit.		
Assessment of resour	Part of this resource is underlain by solid sand (assessed as resource area 3/10). ce for the second consultation on MLP (Autumn 2013)		
Commentary:	A small narrow resource area with built development across much of the area.		
Crude estimate of	Area: 18 ha x average depth: 4.1 m ÷ 2		
resource:	Estimated resource volume: 369,000 m ³		
	Estimated resource volume: 738,000 tonnes		
Conclusion:	Compromised by development with less than 10ha of the deposit remaining.		
Assessment of resour	ce for the Third Stage consultation on MLP (Spring 2015)		
Revised estimate of	Area: 18 ha x average depth: 4.1 m ÷ 2		
resource:	Estimated resource volume: 369,000 m ³		
	Estimated resource tonnage (at 1.65 t/m ³): 608,850 tonnes		
Conclusion:	Compromised by development.		

Overview	
Resource number: Resource name: Resource area: Resource depth: Location OS sheet reference: National grid ref:	10/23 Hagley Hall 136 ha Estimated 134.2m SO 98 SW 391897, 280608
Resource description:	
Resource description:	Resource area 10/23 is Wildmoor sandstone and Kidderminster formation solid sands. The memoir for Dudley and Bridgnorth records that on the south west flanks of the Clent hills, and near Hagley, the pebble beds resting directly upon the Clent Breccia are of the shingle-bed type with some lenses of red or brown sand or sand-rock. The Wildmoor Sandstone formation ranges in thickness from 90m-120m, although a borehole near Hagley (at grid reference 389940, 281690) proved 175m of red hard and soft sandstone some of this could be attributed to the underlying Kidderminster Formation since the lower boundary is indistinct. The memoir states that the thickness of the Kidderminster formation varies, but records that it is 112m-133m in the north of the county near Hagley. Estimated resource depth calculated as a mean average of: a) range of Wildmoor Formation (mid-point of 90m to 120m): 105m, b) borehole near Hagley: 175m, c) memoir record for near Hagley: (mid-point of 112m to 133m): 122.5m = 134.2m Part of this resource is overlain by terrace or glacial sand and gravel (assessed as resource area 10/18).
Assessment of resource	e for the second consultation on MLP (Autumn 2013)
Commentary:	A medium-sized resource area intersected by roads with some built development across the resource area. This deposit extends under the settlement of Hagley, this section is considered separately as resource area 10/23a.
Crude estimate of resource:	Area: 136 ha x average depth: 134.2 m ÷ 2 Estimated resource volume: 91,256,000m ³

	Estimated resource tonnage (at 2 t/m ³): 182,512,000 tonnes	
Conclusion:	Significant – key resource.	
	Use to define areas of search.	
Assessment of resource for the Third Stage consultation on MLP (Spring 2015)		
Revised estimate of	Area: 136 ha x average depth: 134.2 m ÷ 2	
resource:	Estimated resource volume: 91,256,000m ³	
	Estimated resource tonnage (at 1.65 t/m ³): 150,572,400 tonnes	
Conclusion:	Significant – key resource.	

Overview			
Resource number:	10/23a		
Resource name:	Hagley		
Resource area:	16 ha		
Resource depth:	16 ha Estimated 140m		
Location			
OS sheet reference: National grid ref:	SO 98 SW 391533, 280894		
Resource description:			
Resource description:	Resource area 10/23a is Wildmoor Sandstone Formation solid sand. The memoir for Dudley and Bridgnorth records that on the south west flanks of the Clent hills, and near Hagley, the pebble beds resting directly upon the Clent Breccia are of the shingle-bed type with some lenses of red or brown sand or sand-rock. The Wildmoor Sandstone formation ranges in thickness from 90m-120m, although a borehole near Hagley (at grid reference 389940 281690) proved 175m of red hard and soft sandstone some of this could be attributed to the underlying Kidderminster Formation since the lower boundary is indistinct.		
	Estimated resource depth calculated as a mean average of: a) range of Wildmoor Formation (mid-point of 90m to 120m): 105m, b) borehole near Hagley: 175m = 140m		
	e for the second consultation on MLP (Autumn 2013)		
Commentary:	A small resource area which is compromised by the settlement of Hagley. The deposit extends to the south and east of Hagley, this section is considered separately as resource area 10/23.		
Crude estimate of	Area: 16 ha x average depth: 140 m ÷ 2		
resource:	Estimated resource volume: 11,200,000 m ³		
	Estimated resource tonnage (at 2 t/m ³): 22,400,000 tonnes		
Conclusion:	Compromised by development.		
Assessment of resourc	e for the Third Stage consultation on MLP (Spring 2015)		
Revised estimate of	Area: 16 ha x average depth: 140 m ÷ 2		
resource:	Estimated resource volume: 11,200,000 m ³		
	Estimated resource tonnage (at 1.65 t/m ³): 18,480,000 tonnes		

Conclusion: Compromised by development.
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Overview			
Resource number: Resource name: Resource area: Resource depth:	10/24 Five Ways 180ha Estimated 122.5m		
Location OS sheet reference: National grid ref:	SO 87 NE, SO 88 SE 387078, 279572	10/27 10/9 Whitel ones 5 Fin the final of	
Resource description:			
Resource description:	The sand and gravel resources of this part of the county are Wildmoor sandstone formation and Kidderminster formation solid sand of considerable geological complexity. Resource area 10/24 is mapped as Kidderminster Formation. The Kidderminster Formation is generally described as well-rounded pebble to cobble size conglomerate and red-brown, medium to coarse sandstone. The lower part of the formation predominantly consists of clast-supported conglomerate composed largely of pebbles and cobbles of red, red brown and grey fine-grained quartzite together with red sandstone, milky quartz and rare porphyritic igneous rocks and re-worked conglomerate. The formation rests uncomfortably on Bridgnorth Sandstone. The maximum thickness of the conglomerate dominated facies is probably about 20m but this is gradational into the overlying sandstone dominated facies, which also contains beds and lenses of pebble conglomerate.		
	The thickness of the Kidderminster formation in this district ranges from 112m – 133m, although the upper boundary is difficult to recognise because of the lithological similarity of the Kidderminster sandstone to the predominantly non-pebbly Wildmoor Sandstone. This resource area is an outcrop of the Kidderminster Formation bounded to the West by Stapenhill Fault which, near Iverley House Farm, truncates the Kidderminster Formation escarpment of Bunkers Hill, and then continues in a SSW direction to Hurcott Wood. Estimated resource depth calculated as mid-point of 112m to 133m = 122.5m		

	Part of this resource is overlain by terrace or glacial sand and gravel (assessed as resource area 10/12).	
Assessment of resource	Assessment of resource for the second consultation on MLP (Autumn 2013)	
Commentary:	A large resource area with little built development. The Wildmoor and Kidderminster sandstone deposits are extensive and extend in all directions beyond this resource area and beneath the settlements of Kidderminster, Stourport, Blakedown, Fairfield, Arley Kings (these sections are considered as resource areas 1/32, 1/33, 2/21, 2/22, 2/23, 2/24, 2/25, 2/26, 10/25, 10/26 and 10/27) and to the north of the county boundary.	
Crude estimate of	Area: 180 ha x average depth: 122.5 m ÷ 2	
resource:	Estimated resource volume: 110,250,000 m ³	
	Estimated resource tonnage (at 2 t/m ³): 220,500,000 tonnes	
Conclusion:	Significant – key resource.	
	Use to define areas of search.	
Assessment of resource	ce for the Third Stage consultation on MLP (Spring 2015)	
Revised estimate of	Area: 180 ha x average depth: 122.5 m ÷ 2	
resource:	Estimated resource volume: 110,250,000 m ³	
	Estimated resource tonnage (at 1.65 t/m ³): 181,912,500 tonnes	
Conclusion:	Significant – key resource.	

Overview		
Resource number:	10/25	
Resource name:	North West of	A HERE AND A
	Kidderminster	The TOP
Resource area:	1288 ha	
Resource depth:	Estimated 34.7m	10/13-02
Location		10/25
OS sheet reference:	SO 88 SW, SO 88 SE,	10/24
	SO87 NW, SO 77 NE	10/10 10/10
National grid ref:	382703, 279781	10/11 2/26
		1018 C 2180
		211 5218 330
		38/5 38/2 38/2/
		Licence 2001/125 Whe yord Shield Geo potel Survey 22 ag
		Survey 1000242300 4431
Resource description:		
Resource description:	The sand and gravel res	ources of this part of the county are Wildmoor sandstone formation and Kidderminster
	•	onsiderable geological complexity. Resource area 10/25 is mapped as Kidderminster
	Formation.	
	The Kidderminster and V	Vildmoor sandstones are partially but extensively overlain by terrace and glacial sand
	and gravel deposits, whi	ch are recorded as separate resource areas $(10/1, 10/2, 10/3, 10/4, 10/5$ and $10/6$).
		ation is generally described as well-rounded pebble to cobble size conglomerate and
		parse sandstone. The lower part of the formation predominantly consists of clast-
		composed largely of pebbles and cobbles of red, red brown and grey fine-grained
		ed sandstone, milky quartz and rare porphyritic igneous rocks and re-worked
		ation rests uncomfortably on Bridge north Sandstone. The maximum thickness of the
	•	I facies is probably about 20m but this is gradational into the overlying sandstone
		also contains beds and lenses of pebble conglomerate. The memoir states that the n ranges from 112m – 133m, although the upper boundary is difficult to recognise
		al similarity of the Kidderminster sandstone to the predominantly non-pebbly Wildmoor
	Sandstone.	aronnianty of the reduction of bandstone to the predominantly non-peoply wildhoor
	There is some more deta	ailed information about some sections of the deposit:
		ley and Franche: Along the east side of Habberley Valley a pronounced escarpment is

formed by the Kidderminster Formation capping Wildmoor Sandstone and many exposures of the latter are visible in the lower part of the scarp. Crags of brown, current bedded sandstone are abundant on the floor of the valley, conspicuously at the Peckett Rock, 250m north-north-west of the Habberley Valley Inn, where over 50' (15.2m) of sandstone is exposed.

Numerous exposures are reported to occur in the valleys to the north west of Franche in the escarpment which bounds the Habberley Valley. In a road section south east of High Habberley over 140' (42.7m) of sandstone beds with some pebbles are exposed. A northerly trending fault throws these beds against 5' (1.5m) of reddish brown sandstone without pebbles (Wildmoor Sandstone). North west of this road cutting, in the grounds of High Habberley House, exposures near the base of the Kidderminster Formation show a conspicuous band of very coarse breccia containing large angular fragments up to 6" in diameter. A typical section in this location consists of: 6' of pebbly red sandstone overlying 8" of red sandstone with fewer pebbles, 4' of pebbly red sandstone, and 5' 6" of coarse breccia (total depth of 16'2", 4.9m).

The Kidderminster Formation, present as a calcareous grit, caps the Wildmoor Sandstone cliff at Ridgestone Rock and Jacob's Ladder at the northern end of Habberley Valley. Elsewhere, calcareous grit and conglomerate near the base of the Kidderminster Formation were formally exposed adjacent to the Kidderminster to Bridgenorth road about 650 yards north east of Lower Barns Farm, at the junction of Lower Lane and Honeybrook lane however, sandstone of Kidderminster type, with few or no pebbles is exposed.

- Blakeshall, Wolverley and Cookley: There are reported to be many exposures near Blakeshall, Wolverley and Cookley although few details are given. Red sandstone with calcareous grit and breccia, a little above the middle of the Pebble beds, appears in the sides of the valley about 900 yards North West of Cookley Church, while a lane near Wolverley Church shows up to 50' (15.2m) of pebbly sandstones. In general, in this area, pebbly sandstones and coarse pebbly grits, in part calcareous, range nearly to the top of the formation, but conglomerates are rare.
- Kinver Edge and Drakelow: At Kinver Edge the memoir records the basement bed is only approximately 2' (0.6m) thick consisting of a marly or sandy breccia with, in places, coarse pebbly grit above. Shingle beds higher in the sequence make a feature parallel to and south east of the Edge, but this dies out near the Lodge, on the county boundary. A calcareous grit on breccia forms the basement bed along the remainder of the escarpment. Near Drakelow it appears to be about 2' (0.6m) thick but lenses of similar calcareous breccia occur in places above the actual base.
- There is a distinctive 5 1/2ft (1.7m) band of coarse angular breccia near the base of the Formation at High Habberley.
- A borehole at Sleepy Pool Mill (on the boundary between this resource area and 2/21 at grid reference 385480 280630, near Caunsall) recorded 8m of sandy clay (alluvium) overlying 2m of red, soft sandstone (Wildmoor) and 40m of red sandstone (tentatively assigned to the Kidderminster formation) (total 42m).

Estimated resource depth calculate as a mean average of: a) memoir range of the Kidderminster formation (median average of 112m to 133m): 122.5m, b) exposure near Habberley Valley Inn: 15.2m, c) road section

south east of High Habberley: 42.7m, d) typical section at High Habberley House: 4.9m, e) exposure in a lane
near Wolverley Church: 15.2m, f) memoir record for Kinver Edge: 0.6m, g) borehole at Sleepy Pool Mill: 42m =
34.7m
ce for the second consultation on MLP (Autumn 2013)
A large resource area with dispersed development throughout. The Wildmoor and Kidderminster sandstone
deposits are extensive and extend to the south and east beyond this resource area and beneath the
settlements of Kidderminster, Stourport, Blakedown, Fairfield, Arley Kings (these sections are considered as
resource areas 1/32, 1/33, 2/21, 2/22, 2/23, 2/24, 2/25, 2/26, 10/24, 10/26 and 10/27) and to the north of the
county boundary.
Area: 1288 ha x average depth: 34.7 m ÷ 2
Estimated resource volume: 223,468,000 m ³
Estimated resource tonnage (at 2 t/m ³): 446,936,000 tonnes
Significant – key resource.
Use to define areas of search.
ce for the Third Stage consultation on MLP (Spring 2015)
Area: 1288 ha x average depth: 34.7 m ÷ 2
Estimated resource volume: 223,468,000 m ³
Estimated resource tonnage (at 1.65 t/m ³): 368,722,200 tonnes
Significant – key resource.

Overview	PI	evolus a put of the telow	
Resource number: Resource name: Resource area: Resource depth: Location	10/26 Fairfield 29 ha Estimated 40.1m	Fm u 6 0/8 a 10/25 10/25	
OS sheet reference: National grid ref:	33	Perived from 1.50,000 soels BGS Digital Data university of NERC. p. Crown copyright and database shores 2015 Ordense avvey 100024230	
Resource description: Resource description:	•	rces of this part of the county are Wildmoor sandstone formation and Kidderminster siderable geological complexity. This resource area is mapped as Kidderminster	
		dmoor sandstones are partially but extensively overlain by terrace and glacial sand are recorded as separate resource areas.	
	The Kidderminster Formation is generally described as well-rounded pebble to cobble size conglomerate and red-brown, medium to coarse sandstone. The lower part of the formation predominantly consists of clast-supported conglomerate composed largely of pebbles and cobbles of red, red brown and grey fine-grained quartzite together with red sandstone, milky quartz and rare porphyritic igneous rocks and re-worked conglomerate. The formation rests uncomfortably on Bridge north Sandstone. The maximum thickness of the conglomerate dominated facies is probably about 20m but this is gradational into the overlying sandstone dominated facies, which also contains beds and lenses of pebble conglomerate. The memoir states that the thickness of the formation ranges from $112m - 133m$, although the upper boundary is difficult to recognise because of the lithological similarity of the Kidderminster sandstone to the predominantly non-pebbly Wildmoor Sandstone.		
		ed information about some sections of the deposit: and Franche: Along the east side of Habberley Valley a pronounced escarpment	

	 is formed by the Kidderminster Formation capping Wildmoor Sandstone and many exposures of the latter are visible in the lower part of the scarp. Crags of brown, current bedded sandstone are abundant on the floor of the valley, conspicuously at the Peckett Rock, 250m north-north-west of the Habberley Valley Inn, where over 50' (15.2m) of sandstone is exposed. Numerous exposures are reported to occur in the valleys to the north west of Franche in the escarpment which bounds the Habberley Valley. In a road section south east of High Habberley over 140' (42.7m) of sandstone beds with some pebbles are exposed. A northerly trending fault throws these beds against 5' (1.5m) of reddish brown sandstone without pebbles (Wildmoor Sandstone). North west of this road cutting, in the grounds of High Habberley House, exposures near the base of the Kidderminster Formation show a conspicuous band of very coarse breccia containing large angular fragments up to 6" in diameter. A typical section in this location consists of: 6' of pebbly red sandstone overlying 8" of red sandstone with fewer pebbles, 4' of pebbly red sandstone, and 5' 6" of coarse breccia (total depth of 16'2", 4.9m). The Kidderminster Formation, present as a calcareous grit, caps the Wildmoor Sandstone cliff at Ridgestone Rock and Jacob's Ladder at the northern end of Habberley Valley. Elsewhere, calcareous grit and conglomerate near the base of the Kidderminster Formation were formally exposed adjacent to the Kidderminster to Edigenorth road about 650 yards north east of Lower Barns Farm, at the junction of Lower Lane and Honeybrook lane however, sandstone of Kidderminster type, with few or no pebbles is exposed. Blakeshall, Wolverley and Cookley: There are reported to be many exposures near Blakeshall, Wolverley and Cookley although few details are given. Red sandstone with calcareous grit and breccia, a little above the middle of the Pebble beds, appears in the sides of the valley about 900 yards North West of Cookley Church
Assessment of resourc	e for the second consultation on MLP (Autumn 2013)
Commentary:	An small resource area overlain by the settlement of Fairfield. The Wildmoor and Kidderminster sandstone deposits are extensive and extend in all directions beyond this resource area and beneath the settlements of Kidderminster, Stourport, Blakedown, Arley Kings (these sections are considered as resource areas 1/32, 1/33, 2/21, 2/22, 2/23, 2/24, 2/25, 2/26, 10/24, 10/25 and 10/27) and to the north of the county boundary.
Crude estimate of	Area: 29 ha x average depth: 40.1 m ÷ 2
resource:	Estimated resource volume: 5,814,500 m ³
	Estimated resource tonnage (at 2 t/m ³): 11,629,000 tonnes

Conclusion:	Compromised by development.	
Assessment of resource for the Third Stage consultation on MLP (Spring 2015)		
Revised estimate of	Area: 29 ha x average depth: 40.1 m ÷ 2	
resource:	Estimated resource volume: 5,814,500 m ³	
	Estimated resource tonnage (at 1.65 t/m ³): 9,593,925 tonnes	
Conclusion:	Compromised by development.	

Overview	10/3 10/3 MIT
Resource number:	
Resource name:	Cookley
Resource area:	45 ha
Resource depth:	Estimated 80.9m
Location	OW 1 PAR WOLL WOLL BY
OS sheet reference:	SO 87 NW 282702 270781
National grid ref:	382703, 279781
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	PRIVACION 1.50 000 Scale Ages Digital Date under Cast le
	Licence 2003/126 Amended British Seological Survey
	(c) Show b oppyright and database right 2013 Qrdance 77
	Survey 100024250
Resource description:	
Resource description:	Resource area 10/27 is Wildmoor Formation and Kidderminster Formation solid sand. The sand and gravel
	resources of this part of the county are Wildmoor sandstone formation and Kidderminster formation solid sand
	of considerable geological complexity. The Kidderminster and Wildmoor sandstones are partially but
	extensively overlain by terrace and glacial sand and gravel deposits, which are recorded as separate resource
	areas (this resource area is overlain by 10/8a).
	Kidderminster Formation
	The Kiddemainstea Foundation is non-able described as well as well as held to add the size set also and
	The Kidderminster Formation is generally described as well rounded pebble to cobble size conglomerate and red brown, medium to searce conditions. The lower part of the formation prodominantly consists of cleat
	red-brown, medium to coarse sandstone. The lower part of the formation predominantly consists of clast- supported conglomerate composed largely of pebbles and cobbles of red, red brown and grey fine-grained
	quartize together with red sandstone, milky quartize and rare porphyritic igneous rocks and re-worked
	conglomerate. The formation rests uncomfortably on Bridgnorth Sandstone. The maximum thickness of the
	conglomerate dominated facies is probably about 20m but this is gradational into the overlying sandstone
	dominated facies, which also contains beds and lenses of pebble conglomerate. The memoir states that the
	thickness of the formation ranges from 112m – 133m, although the upper boundary is difficult to recognise
	because of the lithological similarity of the Kidderminster sandstone to the predominantly non-pebbly
	Wildmoor Sandstone.
	There is some more detailed information about some sections of the deposit:
	There is some more detailed information about some sections of the deposit.

	 Blakeshall, Wolverley and Cookley: There are reported to be many exposures near Blakeshall, Wolverley and Cookley although few details are given. Red sandstone with calcareous grit and breccia, a little above the middle of the Pebble beds, appears in the sides of the valley about 900 yards North West of Cookley Church, while a lane near Wolverley Church shows up to 50' (15.2m) of pebbly
	sandstones. In general, in this area, pebbly sandstones and coarse pebbly grits, in part calcareous, range nearly to the top of the formation, but conglomerates are rare.
	Wildmoor Formation
	The Wildmoor Formation is generally described as red-brown and orange, fine to medium grained, feldspathic sandstone with sparse, thin mudstone beds. Generally the formation is characterised by an absence of pebbles, in contrast to the Kidderminster Formation, although sparse pebbly stringers are recorded. The fine grain-size and soft, poorly cemented nature of the sandstone made it ideal for exploitation as moulding sand for use in the foundry industry. The memoir states that the Wildmoor Sandstone formation ranges in thickness from 90m-120m. There is no more detailed information about depths for the Wildmoor deposit in this area.
	Estimated depth
	Estimated resource depth calculate as a mean average of: a) memoir range of the Kidderminster formation (median average of 112m to 133m): 122.5m, b) exposure in a lane near Wolverley Church: 15.2m, c) BGS estimates of Wildmoor Sandstone formation (mid-point 90m to 120m): 105m = 80.9m
Assessment of resourc	e for the second consultation on MLP (Autumn 2013)
Commentary:	An small resource area overlain by the settlement of Cookley. The Wildmoor and Kidderminster sandstone deposits are extensive and extend in all directions beyond this resource area and beneath the settlements of Kidderminster, Stourport, Blakedown, Fairfield, Arley Kings (these sections are considered as resource areas 1/32, 1/33, 2/21, 2/22, 2/23, 2/24, 2/25, 2/26, 10/24, 10/25 and 10/26) and to the north of the county boundary.
Crude estimate of	Area: 29 ha x average depth: $40.1 \text{ m} \div 2$
resource:	Estimated resource volume: 5,814,500 m ³
	Estimated resource tonnage (at 2 t/m ³): 11,629,000 tonnes
Conclusion:	Compromised by development.
Assessment of resourc	e for the Third Stage consultation on MLP (Spring 2015)
Revised estimate of	The wrong area and depth information was used in the calculation of the estimate of this resource in the
resource:	section above.
	Area: 45 ha x average depth: $80.9 \text{ m} \div 2$
	Estimated resource volume: 18,202,500 m ³
O and the state	Estimated resource tonnage (at 1.65 t/m ³): 30,034,125 tonnes
Conclusion:	Compromised by development.