

WESTPHALIAN
B

Black Bind
Blue Bind
Ironstone
Blue Bind
Bare Stone
Blue Bind
Ironstone
Blue Bind
Black Bind
Blue Bind
Grey Post
Stony Bind
Blue Bind
Coal
Clunch
Stone Bind
Grey Stone
Blue Bind
Top Hard Coal
Hoing Dirt or Fine Clay
Clunch
Stone Bind
Blue Bind
Grey Stone
Blue Bind
Ironstone
Blue Bind
Ironstone
Blue Bind
Dark Bind
Blue Bind
Ironstone
Blue Bind

Carried forward

112
75A

1	0	5		
"	"	3		
"	5	7		
"	"	10		
"	1	4 1/2		
"	"	4	13	1 6 1/2
4	5	7 1/2		
"	"	7 1/2		
"	2	7		
"	2	5		
1	1	2		
1	2	10		
"	"	2 1/2	9	2 5 1/2
"	2	6		
"	2	3 1/2		
6	0	0 1/2		
1	2	5 1/2		
2	0	2	11	1 5 1/2
"	"	1 1/2	16 1/4	7 3 1/2
"	1	6	145	8 1/2
"	22	4	518	0 1/2
7	1	4	530	4 1/2
4	12	4		
4	0	4	531	11 1/2
"	1	7	533	6 1/2
"	1	7		
"	"	1	535	7 1/2
"	1	3	534	10 1/2
"	"	2 1/2	535	1
"	"	6	535	7
"	"	6	536	1
"	2	0	538	1
"	"	2 1/2	538	3 1/2
"	"	10	539	1 1/2
15	0	10	164	1 3 1/2

Carried forward

WESTPHALIAN D

178

Brought forward

15 1 10 1/2
9 2 1 1/2
10 1 1 7/8
14 1 1 5/8
11 1 1 1/2
3 1 1 7/8
26 2 1 1/2
7 1 2 0
14 1 1 4
4 1 1 4
12 1 0
1 2 3
8 2 2
31 2 8 1/2
7 2 7
16 2 1 1/2
10 1 1 3/4
9 1 1 3/4
4 0 6
3 0 0
10 2 6
4 1 11
4 2 11
15 2 1

Ironstone
Blue Bind
Ironstone
Blue Bind
Black Shale
Coal Dunsil top coal
Soft Clunch
Strong Stone
Grey Bind
Coal Black Shaly Dunsil bottom coal
Clunch
Grey Bind
Strong Stone Bind
Grey Bind
Stone Bind
Strong Bind
Soft Bind
Coal Black Shaly
Clunch
Coal Black Shaly
Clunch
Black Shale
Clunch
Black Shale
Soft Clunch
Black Shale
Clunch & Clunchy Bind with Canke Beds
Strong Blue Bind
Stone Bind
Stone
Blue Bind
Strong Black Shale
Coal

WATERLOO MARKER

carried forward

15 0 1
" " 1
" " 10
" " 16 15 1 10
1 0 1 16 1 11
" " 6 16 2 3
" " 3 16 2 5
1 2 9
2 1 0
3 2 3
" 1 8 9 2 6
1 1 0
3 1 0
" 1 0
1 1 4
" 6
" 1 10
1 0 2
1 0 0
" 1 3
" 2 6 10 1
" 6
" 7
" 8
" 2
" 2
" 4
3 2 10
4 2 9
1 2 8
1 1 6
3 2 8
" 1 8
" 1 4 14 1
" " 21 1/2



WESTPHALIAN B		112		75A	
Clunch		4			
Stone Bind		4			
Stone Bind		20			
Stone		27			
Stone		112			
Strong Bind		200			
Bind with Ironstone		227			
Black Shale		110			
Coal		6			
Black Shale		13			
Clunch		8			
Coal		10			
Strong Black Shale		10			
Coal		144		11 1 4 1/2	
Clunch		100			
Bind with Ironstone		200			
Coal		11		3 1 4	
Clunch		106			
Stone		110			
Blue Bind with Ironstone		225			
Black Shale		20			
Coal		1			
Clunch		100			
Stone Bind		212			
Stone & Lanks		212			
Stone Bind		20			
Strong Bind		200			
Grey Bind		123			
Black Stone		10			
Clunch		16			
Stone		116			
Stone Bind		313			
Grey Stone in beds		200			
Carried forward		240		8 232 2 1/4	

180		Brisford		24	0	8	232	211
WESTPHALIAN	Stone Bind			2	1	4		1
	Coal			"	"	7 1/2	26	2 1/2
	Clunch			"	2	0		
	Canke & Stone			2	0	0		
	Strong Blue Bind			4	0	0		
	Dark Bind			"	2	7		
	Coal			"	"	3	4	2 6
	Strong Clunchy Bind			2	2	0		
	Stone			1	0	0		
	Strong Blue Bind			1	2	0		
	Black Shale			"	"	1		
	Clunch			"	"	9		
	Strong Stone Bind			3	1	0		
	Stone & Canke			2	0	0		
	Strong Blue Bind with Canke beds			4	2	0		
	Soft dirty partings			"	"	20		
	Black Shale with Ironstone			1	2	0		1
	Coal			"	"	4	14	1 4
	Clunch			2	0	0		
	Bind			2	1	0		1
	Coal			"	"	4	4	1 4
	Clunch			"	1	0		
	Black Shale			"	"	3		
	Soft Bind			5	1	4		
	Grey Stone in thin beds with Canke beds			4	2	0		
	Bind			1	1	4		
	Black Shale			"	"	4		1
	Coal			"	"	7	12	1 0
	Clunch	ELL		1	5	0		
	Black Shale			"	"	7		1
	Coal			"	"	0	1	2 3
	Clunch			1	1	0		
	Stone Bind			4	0	0		
			Carried forward	5	1	0	303	1 5 1/2

		181	112	303	75A
		Brought forward	3 0 0		
			" 2 8		
			" 1 6	8 2 2	
			" 1 6		
			" 2 6		
			3 0 0		
			1 0 0		
			6 0 0		
			6 1 0		
			7 2 6		
			" 1		
			1 1 6		
			" 2 6		
			3 0 0		
			" 2 6		
			1 0 0		
			" 2 6		
			1 0 0		
			2 2 0		
			1 0 0		
			2 0 0		
			2 2 0		
			1 0 0		
			3 0 0		
			2 1 7		
			" 2 0		
			" 3 4		
			" 2 0		
			" 1		
			" 6		
			" 1		
			" 1 1		
			" 2 0		
			50 2 6 1/2	312 0 7 1/2	
		Carried forward			

Contact BGS: ngdc@bgs.ac.uk

WESTPHALIAN
A

Coal and Clunch

Black Bat

Clunch

Rock

Bind

Rock

Bind

Stone

Bind

Stone

Bind

Black Bat

Blue Bind

Dark Bat

Coal

Dark Clunch

Clunch with Ironstone

Blue Bind

Rock

Stone Bind

Blue Bind

Clunch

Coal

Clunch

Rock

Blue Bind

Rock

Blue Bind

Ironstone

Blue Bind

Clunch

Blue Bind

Rock

Carried forward

112

399 0

75A

11				
6				
8				
3				
1				
3				
4				
6				
10				
4				
8				
6				
1				
5				
4				
3				
3				
7				
5				
4				
3				
3				
4				
5				
11				
6				
11				
9				
0				
0				
10				
4				
2				
3				
0				
6				
9				
10				
8				
2				
0				
9				
4				
5				
2				
8				

	184	Brought forward	2	0	9	4	5	2	8
WESTPHALIANA	Blue Bind		"	1	3				
	Grey Rocks		2	2	11				
	Blue Bind		1	1	8				
	Grey Rocks		"	"	9				
	Blue Bind		2	0	6				
	Ironstone		"	"	2				
	Black Bind		"	"	6	3	2	9	
	Coal	DEEP HARD	1	0	0	10	2	6	
	Clunch		1	1	8				
	Grey Rocks		2	0	10				
	Blue Bind		"	1	8				
	Rock		"	"	6				1
	Ironstone		"	3		4	1	11	
	Blue Bind		1	1	6				
	Stone Bind		"	2	4				
	Loff Bind		1	0	0				
	Coal		"	"	7				
	Dark Clunch		"	"	7				
	Coal		"	1	0				
	Dark Stone		"	"	3				
deep hard coal	coal	1st PIPER	"	2	8	4	2	11	
	Black Shale		"	1	4				
	Stone and Bind		4	2	0				
	Stone Bind		"	1	0				
	Lantz		"	1	4				
	Bind with Ironstone balls		8	2	3				
	Black shale		"	"	4				
	Coal	2nd PIPER	"	1	4				
	Black shale coal	Dogtooth	"	1	4	15	2	1	
	Clunch		"	"	10				
	Blue Bind		"	2	6				
	Stone Bind with Ironstone		4	1	0				
	Dark Bind		1	1	1				
	Stone Bind		"	1	6				1
	Carried forward		7	1	9	4	5	2	0

SK47SE9		185	112	452 0 1
Brought forward			75A	
WESTPHALIAN	Rocks		1 10 0	
A	Bind Parting		" " 2	
	Rocks		" 2 1	
	Bind		" 7	
	Cantr		" 1 11	
	Stone Bind		" 1 9	
	Blue Bind		1 1 4	
	Grey Stone		" 9	
	Stone Bind		" 1 6	
	Rock		" 7	
	Stone Bind		" 1 11	
	Rock		" 8	
	Stone Bind		" 8	
	Rock		" 1 11	
	Stone Bind		" 1 0	
	Dark Bind		1 0 3	
	Rock		" 1 1	
	Stone Bind		" 2 7	
	Blue Bind		1 2 9	
	Rock		" 8	
	Dark Bind		" 10	
	Rock		" 6	
	Blue Bind with Ironstone		3 1 10	
	Black Shales with Ironstone		1 0 11	
	Clunch		2 2 4	
	Stone Clunch		" 2 1	
	Stone Bind		" 2 0	
	Rock with Cantr		8 1 3	
	Bind		" 6	
	Rock with Cantr		6 0 4	
	Stone Bind		1 1 1	
	Imut	} ? Furnace coal THREE QUARTERS	1 0 6	
	Black Shale		2 2 2	
Carried forward			43 1 0	452 0 1

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