R1b-L513 Outli	ne Tree - F1																											
08/28/2018 Major	326 Lead	Level	#REFI	#REFI	#REFI	#REFI		#REFI	#REFI	#REF	#REF	#REFI	#REF!	Level	#REFI	#REFI	#REFI	#REF!	#REFI	#REF!	#REFI	#REFI	#REF!	#REFI	#REFI			evel
Subgroup	SNP	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39 4	40
R1b-P312>L21>L513		L513					•			•		•					•									•		
R1b-P312>L21>L513 R1b-P312>L21>L513		14 14	S5668	Δ7																								
R1b-P312>L21>L513	S7834	14	15	16	S7834																							
R1b-P312>L21>L513		14		16		S7828	0.704000																					
R1b-P312>L21>L513 R1b-P312>L21>L513		14 14		16 16			8 Z21262 8 19	Z21269																				
R1b-P312>L21>L513	BY11178	14	15		17	1	8 19	20	BY11178																			
R1b-P312>L21>L513 R1b-P312>L21>L513		14 14		16	17	1		20	21	BY11184 BY11194																		
R1b-P312>L21>L513		14		16					L577	DITTIO																		
R1b-P312>L21>L513		14		16						BY449	DV44504																	
R1b-P312>L21>L513 R1b-P312>L21>L513		14 14		16 16				BY4027	21	2	2 BY11564																	
R1b-P312>L21>L513		14		16		1			BY11207																			
R1b-P312>L21>L513 R1b-P312>L21>L513		14 14		16 16				20	21	BY11200 BY11204																		
R1b-P312>L21>L513		14					8 BY11203		21	D111204																		
R1b-P312>L21>L513	BY11186	14	15	16	17	1		BY11186																				
R1b-P312>L21>L513 R1b-P312>L21>L513		14 14		16 16		BY13842	8 19	BY11187																				
R1b-P312>L21>L513		14		16		BY14106																						
R1b-P312>L21>L513		14		16	17	1	8 BY14207																					
R1b-P312>L21>L513 R1b-P312>L21>L513		14 14		16	217819	Z17822																						
R1b-P312>L21>L513	FGC13503	14	15	16	17		8 FGC1350	3																				
R1b-P312>L21>L513 R1b-P312>L21>L513		3 14 5 14		16 16				FGC13508	FGC1349	5																		_
R1b-P312>L21>L513		14		16					21	BY11193																		
R1b-P312>L21>L513		14		16					Z18493																			
R1b-P312>L21>L513 R1b-P312>L21>L513		14 14		16 16					21	Z18491	2 Z18492																	
R1b-P312>L21>L513		14		16					21			3 Z18490																
R1b-P312>L21>L513 R1b-P312>L21>L513		14 14		16 16	17			20	21		2 2 2 BY13852	3 24	BY2630															
R1b-P312>L21>L513		14		16		1		BY13854		Δ.	Z BT 1303Z																	
R1b-P312>L21>L513		14		16		1	8 S23634																					
R1b-P312>L21>L513 R1b-P312>L21>L513		14 14		16 16	Z17826	BY41206																						
R1b-P312>L21>L513	Z17623	14		16	Z17623																							
R1b-P312>L21>L513		14		16		S5979	0.000																					
R1b-P312>L21>L513 R1b-P312>L21>L513		14 14		16 16		1	8 19	A3																				
R1b-P312>L21>L513	3 A8	14		16				20	A8																			
R1b-P312>L21>L513 R1b-P312>L21>L513		14 14		16 16					21		2 Z17296																	
R1b-P312>L21>L513	FGC32661	14		16	17	1			21			3 FGC3266	1															
R1b-P312>L21>L513		14						20					BY11250	•														
R1b-P312>L21>L513 R1b-P312>L21>L513		14		16 16					21					1														
R1b-P312>L21>L513	FGC32657	14	15	16	17	1		9 20	21				FGC3265	7														
R1b-P312>L21>L513 R1b-P312>L21>L513		14	15	16 16	17	1	8 19	20	21	1 2	2 2	3 FGC3182 3 24	BY11219															
R1b-P312>L21>L513								9 20				3 24																
R1b-P312>L21>L513	FGC35609	14										3 FGC3560	9															
R1b-P312>L21>L513 R1b-P312>L21>L513		14 14						20				3 BY11246 3 BY11237																
R1b-P312>L21>L513	FGC36391	14	15	16	17	1	8 19	20	21	2	2 2	3 FGC3639	1															
R1b-P312>L21>L513 R1b-P312>L21>L513	FGC36390	14						20				3 24 3 Y95564	FGC36390	0														
R1b-P312>L21>L513		14						20			2 A16846	0 199904																
R1b-P312>L21>L513	FGC32836			16	17	1	8 19	20	21	FGC3283	<mark>6</mark>																	
R1b-P312>L21>L513 R1b-P312>L21>L513								20 20			2 BY11216																	
R1b-P312>L21>L513	Z18060	14							Z18060																			
R1b-P312>L21>L513								20		FGC3212	3																	
R1b-P312>L21>L513	BY11239 FGC32082	14							BY11239 FGC3208																			

D41- D240-1-04-1-542 - E-O-00000	4.4	45	40	47	4.0	40	00	04 50	000000								_			
R1b-P312>L21>L513 FGC32083	14	15	16	17	18	19 10 DV 2	20	21 <mark>FG</mark>	C32083											
R1b-P312>L21>L513 BY207	14	15	16		18	19 BY2	07	7040												
R1b-P312>L21>L513 Z17816	14	15	16	17	18	19	20 Z1		70.40											
R1b-P312>L21>L513 Z17813	14	15	16	17	18	19	20	21 Z1												
R1b-P312>L21>L513 A1069	14	15	16	17	18	19	20	21		069										
R1b-P312>L21>L513 Z17815	14	15	16	17	18	19	20	21	22	23 <mark>Z</mark>	17815									
R1b-P312>L21>L513 A1075	14	15	16	17	18	19	20	21	22	23	24	1075								
R1b-P312>L21>L513 FGC39649	14	15	16	17	18	19	20	21	22	23	24	25	FGC39649							
R1b-P312>L21>L513 BY11233	14	15	16	17	18	19	20	21	22	23	24	25	26 BY	11233						
R1b-P312>L21>L513 BY11234	14	15	16	17	18	19	20	21	22	23	24	25	26 BY	11234						
R1b-P312>L21>L513 FGC40094	14	15	16	17	18	19	20	21	22	23	24	25	FGC40094							
R1b-P312>L21>L513 BY11557	14	15	16	17	18	19	20	21	22	23	24	25	BY11557							
R1b-P312>L21>L513 A1072	14	15	16	17	18	19	20	21	22	23	24	25	A1072							
R1b-P312>L21>L513 A1067	14	15	16	17	18	19	20	21	22	23	24 🖊	1067								
R1b-P312>L21>L513 A1063	14	15	16	17	18	19	20	21	22	23	24	25	A1063							
R1b-P312>L21>L513 BY11248	14	15	16	17	18	19	20	21	22	23	24	25	26 BY	11248						
R1b-P312>L21>L513 A1066	14	15	16	17	18	19	20	21	22	23	24	25	26 A10)66						
R1b-P312>L21>L513 A5863	14	15	16	17	18	19	20	21	22	23	24	25	A5863							
R1b-P312>L21>L513 BY11244	14	15	16	17	18	19	20	21	22	23	24	25	26 BY	11244						
R1b-P312>L21>L513 A5862	14	15	16	17	18	19	20	21	22	23	24	25	26 A58	362						
R1b-P312>L21>L513 FGC39900	14	15	16	17	18	19	20	21	22	23	24	25	FGC39900							
R1b-P312>L21>L513 BY11240	14	15	16	17	18	19	20	21	22	23	24	25	26 BY	11240						
R1b-P312>L21>L513 BY11220	14	15	16	17	18	19	20	21	22	23	24	25	26	27 BY112	220					
R1b-P312>L21>L513 FGC39899	14	15	16	17	18	19	20	21	22	23	24	25		C39899						
R1b-P312>L21>L513 FGC40129	14	15	16	17	18	19	20	21	22	23	24		FGC40129							
R1b-P312>L21>L513 FGC39793	14	15	16	17	18	19	20	21	22	23	24	25	FGC39793							
R1b-P312>L21>L513 BY13857	14	15	16	17	18	19	20	21	22	23	24	25	BY13857							
R1b-P312>L21>L513 BY13856	14	15	16	17	18	19	20	21	22	23	24	25		13856						
R1b-P312>L21>L513 BY15302	14	15	16	17	18	19	20	21	22		Y15302	2.0								
R1b-P312>L21>L513 BY11556	14	15	16	17	18	19	20	21	22	23		Y11556								
R1b-P312>L21>L513 BY34838	14	15	16	17	18	19	20	21	22 BY :		2.7	111000								
R1b-P312>L21>L513 BY11555	14	15	16	17	18	19	20 RY	11555	22 01	J4000										
R1b-P312>L21>L513 ZS4581	14	15	16	17	18	19 ZS4	581	11000												
R1b-P312>L21>L513 Z17817	14	15	16	17	18	19		7817												
R1b-P312>L21>L513 217617	14	15	16	17	18	19	20 21		615											
R1b-P312>L21>L513 BY3152	14	15	16	17	18	19	20	21	22 BY:	3153										
R1b-P312>L21>L513 BY11558	14	15	16	17	18	19	20	21	22		Y11558									
R1b-P312>L21>L513 BY11554	14			17			20		22		Y11554									
R1b-P312>L21>L513 FGC30221	14	15 15	16	17	18 18	19 19	20	21	22 FG	23 B	111004									
R1b-P312>L21>L513 FGC30221	14	15	16 16	17	18	19	20			22 5	GC30225									
R1b-P312>L21>L513 BY11224	14	15	16	17	18	19	20	21	22	23 F (SOUGELO	Y11224								
R1b-P312>L21>L513 FGC30220	14	15	16	17	18	19	20	21	22	23		CC20220								
R1b-P312>L21>L513 FGC30220	14						20				24 F	25 1	ECC20240							
R1b-P312>L21>L513 BY11217	14	15 15	16 16	17 17	18 18	19 19	20	21	22	23	24	25	16 DV	11017						
R1b-P312>L21>L513 FGC30218		15		17	18									11217						
R1b-P312>L21>L513 BY11227	14 14	15	16	17	18	19	20	21	22	23 B'	24 Y11227	25	20 FG	C30218						
			16			19				COCEDO	111221									
R1b-P312>L21>L513 FGC36506	14	15	16	17	18	19	20	21	22 FG	C30300										
R1b-P312>L21>L513 BY42411 R1b-P312>L21>L513 ZS4584	14	15 15	16	17 17	18	19	20 79		42411											
R1b-P312>L21>L513 ZS4576	14 14	15	16	17	18 18	19	20 23	21 ZS	1576											
R1b-P312>L21>L513 Z54576 R1b-P312>L21>L513 BY11212			16	17		19	20	_	4576	11212										
R1b-P312>L21>L513 BY11212 R1b-P312>L21>L513 BY11559	14 14	15 15	16 16	17	18 18	19 19	20	21	22 BY	11212										
R1b-P312>L21>L513 BY11559 R1b-P312>L21>L513 BY4019	14						20	21 BY	4019											
R1b-P312>L21>L513 BY4019 R1b-P312>L21>L513 BY4017	14	15 15	16 16	17 17	18 18	19 19	20	21 BY	22 BY	<i>1</i> 017										
R1b-P312>L21>L513 FGC39508	14	15		17	18		20				2C30E00									
			16 16	17		19	20	21	22	_	3C39508	V11242								
R1b-P312>L21>L513 BY11242	14	15 15	16	17	18 18	19	20	21	22	23		Y11242								
R1b-P312>L21>L513 FGC39513 R1b-P312>L21>L513 FGC39514				17		19	20		22		24 F	GC39513	ECC20544							
	14	15	16		18	19	20	21	22	23	24		FGC39514	020540						
R1b-P312>L21>L513 FGC39512	14	15	16	17	18	19	20	21	22	23	24	25	26 FG		0507					
R1b-P312>L21>L513 FGC39507	14	15	16	17	18	19	20	21	22	23	24		26	27 FGC39						
R1b-P312>L21>L513 BY11241	14	15	16	17	18	19	20	21	22	23	24	25	26	27 BY112	<u>41 </u>					
R1b-P312>L21>L513 BY11247	14	15	16	17	18	19	20	21	22	23 <mark>B</mark>	Y11247									
R1b-P312>L21>L513 FGC32004	14	15	16	17	18	19 FGC	32004	(054												
R1b-P312>L21>L513 BY651	14	15	16	17	18	19	20 BY													
R1b-P312>L21>L513 BY2634	14	15	16	17	18	19	20		2634											
R1b-P312>L21>L513 A7711	14	15	16	17	18	19	20	21	22 A7											
R1b-P312>L21>L513 FGC32001	14	15	16	17	18	19	20	21	22 FG											
R1b-P312>L21>L513 BY34846	14	15	16	17	18	19	20	21	22 BY	34846										
R1b-P312>L21>L513 BY11210	14	15	16	17	18	19	20	21 BY												
R1b-P312>L21>L513 BY11221	14	15	16	17	18	19	20		11221										·	
R1b-P312>L21>L513 BY14138	14	15	16	17	18	19	20	21	22 BY										·	
R1b-P312>L21>L513 BY11238	14	15	16	17	18	19	20	21	22 BY											
R1b-P312>L21>L513 BY11214	14	15	16	17	18	19	20	21	22	23 B	Y11214									
			_	_	_			_												

R1b-P312>L21>L513 BY15236 14 15 16 17 18 19 20 21 BY15236	
R1b-P312>L21>L513 Y87784 14 15 16 17 18 19 20 21 22 Y87784	
R1b-P312>L21>L513 FGC32128 14 15 16 17 18 19 20 FGC32128	
R1b-P312>L21>L513 FGC31862 14 15 16 17 18 FGC31862	
R1b-P312-121-1-513 Z16340 14 15 Z 16340	
R1b-P312>L21>L513 FGC9798 14 15 16 FGC9798	
R1b-P312>L21>L513 FGC9811 14 15 16 17 FGC9811	
R1b-P312>L21>L513 ZS347 14 15 16 17 18 ZS347	
R1b-P312>L21>L513 BY11174 14 15 16 17 18 19 BY11174	
R1b-P312>L21>L513 BY11191 14 15 16 17 18 19 BY11191	
RIb-P312-121-1513 BY11196 14 15 16 17 18 19 20 BY11196	
R16-P312>L21>L513 BY11189 14 15 16 17 18 19 20 BY11189	
R1b-P312>L21>L513 Z20655 14 15 16 17 18 Z20655	
R1b-P312>L21>L513 Y140575	
R1b-P312≻L21≻L513 FGC9804 14 15 16 17 18 FGC9804	
R1b-P312-121>L513 FGC32571 14 15 16 17 18 19 FGC32571	
R1b-P3129-1219-1513 FGC9809 14 15 16 17 18 19 FGC9809	
R1b-P312>L21>L513 FGC9800 14 15 16 17 18 19 20 FGC9800	
R1b-P312>L21>L513 P66 14 15 16 17 18 19 20 21 P66	
R1b-P312>L21>L513 Z16337 14 15 16 17 18 19 20 21 Z16337	
R1b-P312>L21>L513 BY3093 14 15 16 17 18 19 20 21 22 BY3093	
R1b-P312-121>L513 BY11188	
R1b-P3125-L21>L513 BY11205 14 15 16 17 18 19 20 21 22 23 24 BY11205	
Rib-932-21-1513 BY11175 14 15 16 17 18 19 20 21 22 23 BY1175	
R1b-P312>L21>L513 BY2598 14 15 16 17 18 19 20 21 22 BY2598	
R1b-P312>L21>L513 FGC32562 14 15 16 17 18 19 20 21 22 FGC32562	
R1b-P312>L21>L513 BY11199 14 15 16 17 18 19 20 21 22 BY11199	
R1b-P312>L21>L513 FGC8039 14 15 16 17 18 19 20 21 22 FGC8039	
R1b-P312>121>1513 BY13846 14 15 16 17 18 19 20 21 22 23 BY13846	
Rib-P312-L21-L513 BY13848 14 15 16 17 18 19 20 21 22 23 BY13848	
R1b-P312>L21>L513 BY34850 14 15 16 17 18 19 20 21 22 BY34850	
R1b-P312>L21>L513 FGC31830 14 15 16 17 18 FGC31830	
R1b-P312>L21>L513 FGC35649 14 15 16 17 FGC35649	
R1b-P312>L21>L513 BY4148 14 15 16 BY4148	
R1b-P312>L21>L513 BY11183 14 15 16 17 BY11183	
R1b-P312>L21>L513 Y21310 14 15 16 17 18 Y21310	
R1b-P312>121>L513 BY24717 14 15 16 17 18 19 BY24717	
R1b-P3125-L21>-L513 BY13832 14 15 16 17 BY13832	
R1b-P3125-121-1-1513 BY11574 14 15 16 17 18 BY11574	
R1b-P312>L21>L513 BY49891 14 15 16 17 BY49891	
R16-P312>L21>L513 BY624 14 15 16 BY624	
R1b-P312>L21>L513 BY621 14 15 16 17 BY621	
R1b-P312>L21>L513 BY616 14 15 16 17 18 BY616	
R1b-P312>L21>L513 BY53803 14 15 16 17 18 BY53803	
R1b-P312>L21>L513 Y81721 14 15 16 17 Y81721	
R1b-P312>L21>L513 Z16357 14 15 Z16357	
R1b-P312-L21>L513 Z16343 14 15 16 Z16343	
R1b-P312>L21>L513 BY11573 14 15 16 17 18 BY11573	
R1b-P312>L21>L513 BY15419 14 15 16 17 18 19 BY15419	
R1b-P312>L21>L513 BY11565 14 15 16 17 18 19 20 BY11565	
R1b-P312>L21>L513 BY15420 14 15 16 17 18 19 20 BY15420	
R1b-P312>L21>L513 FGC33966 14 15 16 17 18 19 FGC33966	
R1b-P312>L21>L513 A11138 14 15 16 17 18 A11138	
Rib-932-21-1-513 A11132 14 15 16 17 18 19 A11132	
R1b-912>L21>L513 Z16854 14 15 16 17 Z16854	
R1b-P312>L21>L513 ZS349 14 15 16 17 18 ZS349	
R1b-P312>L21>L513 BY13845 14 15 16 17 18 19 BY13845	
R1b-P312>L21>L513 BY13850 14 15 16 17 18 BY13850	
R1b-P312>L21>L513 BY19970 14 15 16 BY19970	
R1b-P312>L21>L513 BY67061 14 15 BY67061	
R1b-P312>12\b_13 Z23532 14 Z23532	
Rib-8712-12-15.13 BY4029 14 15 BY4029	
R1b-P312>L21>L513 FGC32625 14 15 16 FGC32625	
R1b-P312>L21>L513 BY11524 14 15 16 17 BY11524	
R1b-P312>L21>L513 BY11527 14 15 16 17 18 BY11527	
R1b-P312>L21>L513 FGC35131 14 15 16 17 18 FGC35131	
R1b-P312>L21>L513 BY11526 14 15 16 17 18 19 BY11526	
R1b-P312>12/15/13 FGC32620 14 15 16 17 FGC32620	
R16-P312>L21>L513 BY11157 1 14 15 16 BY11157	
R1b-P312\L21>L513 BY11157	
R1b+7312>L21>L513 BY11157 14 15 16 BY11154 R1b-P312>L21>L513 BY11171 14 15 16 17 BY11154 R1b-P312>L21>L513 BY11171 14 15 16 17 18 BY11171	

R1b-P312>L21>L513 BY11128					
	14 15	16 17 BY11128			
R1b-P312>L21>L513 BY11529	14 15	16 BY11529			
R1b-P312>L21>L513 BY11530		16 17 BY11530			
R1b-P312>L21>L513 BY11158	14 15	16 BY11158			
R1b-P312>L21>L513 BY11163	14 15 BY1116	3			
	14 700500	· <mark>V</mark>			
R1b-P312>L21>L513 Z23506	14 Z23506				
R1b-P312>L21>L513 Z23516	14 15 Z23516				
		40 DV44404			
R1b-P312>L21>L513 BY11131		16 BY11131			
R1b-P312>L21>L513 BY11142	14 15	16 BY11142			
R1b-P312>L21>L513 FGC3208	14 15 FGC32 0	181			
		<mark>/01</mark>			
R1b-P312>L21>L513 FGC1343	14 FGC13437				
R1b-P312>L21>L513 BY2940	14 15 BY2940				
R1b-P312>L21>L513 BY2979					
		16 BY2979			
R1b-P312>L21>L513 BY4030	14 15	16 17 BY4030			
R1b-P312>L21>L513 BY11136	14 15	16 17 18 BY1113 6			
R1b-P312>L21>L513 BY11153	14 15	16 17 BY11153			
R1b-P312>L21>L513 BY11141	14 15	16 17 18 BY1114			
R1b-P312>L21>L513 BY11148	14 15	16 17 18 BY1114 8			
R1b-P312>L21>L513 FGC1342	14 15 FGC134	127			
R1b-P312>L21>L513 L908	14 L908				
R1b-P312>L21>L513 S6365	14 S6365				
R1b-P312>L21>L513 BY16	14 15 BY16				
		16 CTC3087			
R1b-P312>L21>L513 CTS3087	14 15	0103001			
R1b-P312>L21>L513 FGC1341	14 15	16 17 FGC13411			
R1b-P312>L21>L513 FGC3236	14 15	16 17 18 FGC323	3		
R1b-P312>L21>L513 BY390		16 17 18	9 BY390		
R1b-P312>L21>L513 BY11270	14 15	16 17 18	9 20 BY11270		
R1b-P312>L21>L513 BY4794		16 17 18	9 BY4794		
R1b-P312>L21>L513 FGC46414	14 15	16 17 18	9 20 FGC46414		
R1b-P312>L21>L513 BY11265	14 15	16 17 18	9 20 BY11265		
			· · · · · · · · · · · · · · · · · · ·		
R1b-P312>L21>L513 BY11280			9 BY11280		
R1b-P312>L21>L513 A11235	14 15	16 17 18	9 20 A11235		
R1b-P312>L21>L513 BY114232	14 15	16 17 18	9 20 21 BY114232		
R1b-P312>L21>L513 BY11289	14 15	16 17 18 BY1128 9			
R1b-P312>L21>L513 Z17629	14 15	16 17 18	9 Z17629		
R1b-P312>L21>L513 Z17626					
			9 20 <mark>Z17626</mark>		
R1b-P312>L21>L513 Z17624	14 15	16 17 18	9 20 21 Z17624		
R1b-P312>L21>L513 BY11284	14 15	16 17 18	9 20 21 22 BY11284		
R1b-P312>L21>L513 BY11286	14 15	16 17 18	9 20 21 22 BY11286		
R1b-P312>L21>L513 FGC1342	14 15	16 17 18	9 FGC13421		
R1b-P312>L21>L513 BY160873	14 15				
		16 17 19	0 PV160873		
R1b-P312>L21>L513 Z16372		16 17 18	9 BY160873		
		16 17 18 16 Z16372	9 BY160873		
R1b-P312>L21>L513 BY34852	14 15	16 Z16372	9 BY160873		
R1b-P312>L21>L513 BY34852	14 15 14 15	16 Z16372 16 17 BY34852	9 BY160873		
R1b-P312>L21>L513 BY184	14 15 14 15 14 15	16 Z16372 16 17 BY34852 16 17 18 BY184			
	14 15 14 15 14 15	16 Z16372 16 17 BY34852 16 17 18 BY184	9 BY160873 9 BY182		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182	14 15 14 15 14 15 14 15	16 216372	9 BY182		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775	14 15 15 14 15 15 14 15 15 14 15 15 14 15	16 216372 16 17 8Y34852 8Y184 16 17 18 16 17 18 16 17 18	9 BY182 9 20 M2775		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 ZS5207	14 15 15 14 15 15 14 15 15 14 15 15 14 15	16 216372 16 17 8Y34852 16 16 17 16 17 16 17 16 17	9 <mark>BY182</mark> 9 20 <mark>M2775</mark> 9 20 21 <mark>ZS5207</mark>		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 ZS5207	14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	16 216372 16 17 BY34852 16 17 18 BY184 16 17 18 16 17 18 16 17 18 16 17 18	9 <mark>BY182</mark> 9 20 <mark>M2775</mark> 9 20 21 <mark>ZS5207</mark>		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 Z\$5207 R1b-P312>L21>L513 BY11277	14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15	16	9 BY182 9 20 M2775 9 20 21 ZS5207 9 20 21 22 BY11277		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 ZS5207 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11278	14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15	16	9 BY182 9 20 M2775 9 20 21 ZS5207 9 20 21 22 BY11277 9 20 21 22 BY11278		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 Z\$5207 R1b-P312>L21>L513 BY11277	14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15	16	9 BY182 9 20 M2775 9 20 21 ZS5207 9 20 21 22 BY11277		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 Z55207 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11278 R1b-P312>L21>L513 BY42404	14 15 15 14 15 14 15 15 14 15 14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 15 14 15 15 15 15 15 15 15 15 15 15 15 15 15	16	9 BY182 9 20 M2775 9 20 21 ZS5207 9 20 21 22 BY11277 9 20 21 22 BY11278		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 ZS5207 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11278 R1b-P312>L21>L513 BY42404 R1b-P312>L21>L513 BY404	14 15 14 15	16	9 BY162 9 20 M2775 9 20 21 ZS5207 9 20 21 22 BY11277 9 20 21 22 BY11278 9 20 21 22 BY42404		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 Z55207 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11278 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY404	14 15 14 15	16	9 BY182 9 20 M2775 9 20 21 ZS5207 9 20 21 22 BY11277 9 20 21 22 BY11278 9 20 21 22 BY42404 9 BY402		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 ZS5207 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11278 R1b-P312>L21>L513 BY42404 R1b-P312>L21>L513 BY404	14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 15 15 15 15 15 15 15 15 15 15 15	16	9 BY162 9 20 M2775 9 20 21 ZS5207 9 20 21 22 BY11277 9 20 21 22 BY11278 9 20 21 22 BY42404		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 Z55207 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11278 R1b-P312>L21>L513 BY42404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406	14 15 14 15	16	9 BY182 9 20 M2775 9 20 21 ZS5207 9 20 21 22 BY11277 9 20 21 22 BY11278 9 20 21 22 BY42404 9 BY402		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 ZS5207 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11278 R1b-P312>L21>L513 BY42404 R1b-P312>L21>L513 BY42404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY408	14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 15 15 15 15 15 15 15 15 15 15 15	16	9 BY182 9 20 M2775 9 20 21 ZS5207 9 20 21 22 BY11277 9 20 21 22 BY11278 9 20 21 22 BY42404 9 BY402 9 20 BY408 9 20 BY408 9 20 21 BY3150		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 ZS5207 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY11278 R1b-P312>L21>L513 BY42404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY3150 R1b-P312>L21>L513 BY3150	14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 15 15 15 15 15 15 15 15 15 15 15	16	9 BY402 9 BY402 9 BY402 9 BY402 9 20 21 Z85207 9 20 21 22 BY11277 9 20 21 22 BY11278 9 20 21 22 BY42404		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 ZS5207 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY11278 R1b-P312>L21>L513 BY42404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY3150 R1b-P312>L21>L513 BY3150	14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 15 15 15 15 15 15 15 15 15 15 15	16	9 BY182 9 20 M2775 9 20 21 ZS5207 9 20 21 22 BY11277 9 20 21 22 BY11278 9 20 21 22 BY42404 9 BY402 9 20 BY408 9 20 BY408 9 20 21 BY3150		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY142404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY405 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY41256	14 15 15 14 15 15 15 15 15 15 15 15 15 15 15 15 15	16	9 BY182 9 20 M2775 9 20 21 ZS5207 9 20 21 22 BY11277 9 20 21 22 BY42404 9 8Y402 9 20 BY408 9 20 BY408 9 20 21 22 BY11256 9 20 21 22 BY11266 9 20 21 22 BY11266		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11278 R1b-P312>L21>L513 BY11278 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY3150 R1b-P312>L21>L513 BY3150 R1b-P312>L21>L513 BY3150 R1b-P312>L21>L513 BY3150 R1b-P312>L21>L513 BY3150 R1b-P312>L21>L513 BY31256	14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 15 15 15 15 15 15 15 15 15 15 15	16	9 BY182 9 20 M2775 9 20 21 ZS5207 9 20 21 22 BY11277 9 20 21 22 BY11278 9 20 21 22 BY42404 9 20 21 BY3150 9 20 21 BY3150 9 20 21 22 BY11256 9 20 21 BY11256 9 20 21 BY11250 9 20 21 BY11250 9 20 21 BY11250 9 20 21 BY11250		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 ZS5207 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY11278 R1b-P312>L21>L513 BY11278 R1b-P312>L21>L513 BY42404 R1b-P312>L21>L513 BY42404 R1b-P312>L21>L513 BY402 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY4156 R1b-P312>L21>L513 BY11256	14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 15 15 15 15 15 15 15 15 15 15 15	16	9 BY182 9 20 M2775 9 20 21 ZS5207 9 20 21 22 BY11277 9 20 21 22 BY42404 9 8Y402 9 20 BY408 9 20 BY408 9 20 21 22 BY11256 9 20 21 22 BY11266 9 20 21 22 BY11266		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 ZS5207 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY11278 R1b-P312>L21>L513 BY11278 R1b-P312>L21>L513 BY42404 R1b-P312>L21>L513 BY42404 R1b-P312>L21>L513 BY402 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY4156 R1b-P312>L21>L513 BY11256	14 15 15 14 15 15 15 15 15 15 15 15 15 15 15 15 15	16	9 BY182 9 20 M2775 9 20 21 ZS5207 9 20 21 22 BY11277 9 20 21 22 BY11278 9 20 21 22 BY42404 9 20 21 BY3150 9 20 21 BY3150 9 20 21 22 BY11256 9 20 21 BY11256 9 20 21 BY11250 9 20 21 BY11250 9 20 21 BY11250 9 20 21 BY11250		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 SS207 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY42404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY402 R1b-P312>L21>L513 BY405 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY1256	14 15 15 14 15 15 14 15 15 15 15 15 15 15 15 15 15 15 15 15	16	9 BY182 9 20 M2775 9 20 21 ZS5207 9 20 21 22 BY11277 9 20 21 22 BY11278 9 20 21 22 BY42404 9 20 21 BY3150 9 20 21 BY3150 9 20 21 22 BY11256 9 20 21 BY11256 9 20 21 BY11250 9 20 21 BY11250 9 20 21 BY11250 9 20 21 BY11250		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY405 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY11266 R1b-P312>L21>L513 BY11256 R1b-P312>L21>L513 BY11256 R1b-P312>L21>L513 BY11256 R1b-P312>L21>L513 BY11256 R1b-P312>L21>L513 BY11256 R1b-P312>L21>L513 BY11251 R1b-P312>L21>L513 BY11251 R1b-P312>L21>L513 BY11251 R1b-P312>L21>L513 BY11251 R1b-P312>L21>L513 BY11251	14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 15 15 15 15 15 15 15 15 15 15 15	16	9 BY182 9 20 M2775 9 20 21 ZS5207 9 20 21 22 BY11277 9 20 21 22 BY11278 9 20 21 22 BY42404 9 20 21 BY3150 9 20 21 BY3150 9 20 21 22 BY11256 9 20 21 BY11256 9 20 21 BY11250 9 20 21 BY11250 9 20 21 BY11250 9 20 21 BY11250		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 SS207 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY42404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY402 R1b-P312>L21>L513 BY405 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY1256	14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 14 15 15 15 15 15 15 15 15 15 15 15 15 15	16	9 BY182 9 20 M2775 9 20 21 ZS5207 9 20 21 22 BY11277 9 20 21 22 BY11278 9 20 21 22 BY42404 9 20 21 BY3150 9 20 21 BY3150 9 20 21 22 BY11256 9 20 21 BY11256 9 20 21 BY11250 9 20 21 BY11250 9 20 21 BY11250 9 20 21 BY11250		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY11278 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY11251	14 15 14 15	16	9 BY182 9 20 M2775 9 20 21 Z2 BY11277 9 20 21 22 BY11278 9 20 21 22 BY42404 9 BY402 9 20 BY408 9 20 21 BY3150 9 20 21 22 BY11256 9 20 21 22 BY11256 9 20 21 22 BY11256 9 20 21 BY3548		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY11278 R1b-P312>L21>L513 BY4244 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY11261 R1b-P312>L21>L513 BY11261 R1b-P312>L21>L513 BY11261 R1b-P312>L21>L513 BY117 R1b-P312>L21>L513 BY17 R1b-P312>L21>L513 BY17 R1b-P312>L21>L513 BY25676 R1b-P312>L21>L513 BY36876 R1b-P312>L21>L513 BY36876 R1b-P312>L21>L513 BY36876	14 15 14 15	16	9 BY182 9 20 M2775 9 20 21 Z2 BY11277 9 20 21 22 BY11278 9 20 21 22 BY42404 9 BY402 9 20 BY408 9 20 21 BY3150 9 20 21 22 BY11256 9 20 21 22 BY11256 9 20 21 22 BY11256 9 20 21 BY3548		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 SS25207 R1b-P312>L21>L513 SS25207 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY405 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY157 R1b-P312>L21>L513 BY2558 R1b-P312>L21>L513 BY2558 R1b-P312>L21>L513 BY255876 R1b-P312>L21>L513 BY34853 R1b-P312>L21>L515 BY34853 R1b-P312>L21>L515 BY34853 R1b-P312>L21>L515 BY34853 R1b-P312>L21>L515 BY34853	14 15 14 15	16	9 BY162 - 9 20 M2775 - 9 20 21 ZS5207 - 9 20 21 22 BY11277 9 20 21 22 BY42404 - 9 BY408 9 20 BY 10 21 BY3150 9 20 21 BY3150 9		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 SS25207 R1b-P312>L21>L513 SS25207 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY405 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY157 R1b-P312>L21>L513 BY2558 R1b-P312>L21>L513 BY2558 R1b-P312>L21>L513 BY255876 R1b-P312>L21>L513 BY34853 R1b-P312>L21>L515 BY34853 R1b-P312>L21>L515 BY34853 R1b-P312>L21>L515 BY34853 R1b-P312>L21>L515 BY34853	14 15 14 15	16	9 BY162 - 9 20 M2775 - 9 20 21 ZS5207 - 9 20 21 22 BY11277 9 20 21 22 BY42404 - 9 BY408 9 20 BY 10 21 BY3150 9 20 21 BY3150 9		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY11256 R1b-P312>L21>L513 BY11256 R1b-P312>L21>L513 BY11256 R1b-P312>L21>L513 BY11256 R1b-P312>L21>L513 BY11256 R1b-P312>L21>L513 BY11256 R1b-P312>L21>L513 BY11266 R1b-P312>L21>L513 BY26876 R1b-P312>L21>L513 FGG32200 R1b-P312>L21>L513 FGG32201 R1b-P312>L21>L513 FGG32201	14 15 14 15	16 216372 16 17 8Y34852 16 17 18 17 18 18	9 BY162 - 9 20 M2775 - 9 20 21 ZS5207 - 9 20 21 22 BY11277 9 20 21 22 BY42404 - 9 BY408 9 20 BY 10 21 BY3150 9 20 21 BY3150 9		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY14278 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY11256 R1b-P312>L21>L513 BY11256 R1b-P312>L21>L513 BY11251 R1b-P312>L21>L513 BY11251 R1b-P312>L21>L513 BY11251 R1b-P312>L21>L513 BY11251 R1b-P312>L21>L513 BY17 R1b-P312>L21>L513 BY17 R1b-P312>L21>L513 BY17 R1b-P312>L21>L513 BY368 R1b-P312>L21>L513 BY368 R1b-P312>L21>L513 BY368 R1b-P312>L21>L513 BY368 R1b-P312>L21>L513 BY3683 R1b-P312>L21>L513 BY3683 R1b-P312>L21>L513 FGC32219 R1b-P312>L21>L513 FGC32219 R1b-P312>L21>L513 FGC32219 R1b-P312>L21>L513 FGG3219	14 15 14 15	16	9 BY162 - 9 20 M2775 - 9 20 21 ZS5207 - 9 20 21 22 BY11277 9 20 21 22 BY42404 - 9 BY408 9 20 BY 10 21 BY3150 9 20 21 BY3150 9		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY11278 R1b-P312>L21>L513 BY14278 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1256 R1b-P312>L21>L513 BY1358 R1b-P312>L21>L513 BY25576 R1b-P312>L21>L513 BY25576 R1b-P312>L21>L513 BY34853 R1b-P312>L21>L513 BY34853 R1b-P312>L21>L513 FGG3220 R1b-P312>L21>L513 FGG3220 R1b-P312>L21>L513 BY365 R1b-P312>L21>L513 BY365 R1b-P312>L21>L513 BY365 R1b-P312>L21>L513 BY3653 R1b-P312>L21>L513 BY3653 R1b-P312>L21>L513 BY3653 R1b-P312>L21>L513 BY3653 R1b-P312>L21>L513 BY3653 R1b-P312>L21>L513 BY365	14 15 14 15	16 216372 16 17 8Y34852 16 17 18 17 18 18	9 BY162 - 9 20 M2775 - 9 20 21 ZS5207 - 9 20 21 22 BY11277 9 20 21 22 BY42404 - 9 BY408 9 20 BY 10 21 BY3150 9 20 21 BY3150 9		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY11278 R1b-P312>L21>L513 BY14278 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY408 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1256 R1b-P312>L21>L513 BY1358 R1b-P312>L21>L513 BY25576 R1b-P312>L21>L513 BY25576 R1b-P312>L21>L513 BY34853 R1b-P312>L21>L513 BY34853 R1b-P312>L21>L513 FGG3220 R1b-P312>L21>L513 FGG3220 R1b-P312>L21>L513 BY365 R1b-P312>L21>L513 BY365 R1b-P312>L21>L513 BY365 R1b-P312>L21>L513 BY3653 R1b-P312>L21>L513 BY3653 R1b-P312>L21>L513 BY3653 R1b-P312>L21>L513 BY3653 R1b-P312>L21>L513 BY3653 R1b-P312>L21>L513 BY365	14 15 14 15	16	9 BY182 9 20 21 ZS5207 9 20 21 22 BY11277 9 20 21 22 BY11278 9 20 21 22 BY4404 9 BY402 9 20 21 BY3150 9 20 21 BY3150 9 20 21 22 BY11256 9 20 21 BY3150 9 20 21 BY3		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 SY5207 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY167 R1b-P312>L21>L513 BY167 R1b-P312>L21>L513 BY3485 R1b-P312>L21>L513 BY3485 R1b-P312>L21>L513 BY3485 R1b-P312>L21>L513 BY3485 R1b-P312>L21>L513 BY3485 R1b-P312>L21>L513 BY365	14 15 14 15	16	9 BY182 9 20 21 ZS5207 9 20 21 22 BY11277 9 20 21 22 BY11278 9 20 21 22 BY4404 9 BY402 9 20 21 BY3150 9 20 21 BY3150 9 20 21 22 BY11256 9 20 21 BY3150 9 20 21 BY3		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY402 R1b-P312>L21>L513 BY405 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY16 R1b-P312>L21>L513 BY363	14 15 14 15	16	9 BY182 9 20 21 ZS5207 9 20 21 22 BY11277 9 20 21 22 BY11278 9 20 21 22 BY4404 9 BY402 9 20 21 BY3150 9 20 21 BY3150 9 20 21 22 BY11256 9 20 21 BY3150 9 20 21 BY3		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 SY5207 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY167 R1b-P312>L21>L513 BY167 R1b-P312>L21>L513 BY3485 R1b-P312>L21>L513 BY3485 R1b-P312>L21>L513 BY3485 R1b-P312>L21>L513 BY3485 R1b-P312>L21>L513 BY3485 R1b-P312>L21>L513 BY365	14 15 14 15	16	9 BY182 9 20 21 ZS5207 9 20 21 22 BY11277 9 20 21 22 BY11278 9 20 21 22 BY4404 9 BY402 9 20 21 BY3150 9 20 21 BY3150 9 20 21 22 BY11256 9 20 21 BY3150 9 20 21 BY3		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11278 R1b-P312>L21>L513 BY14278 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY11256 R1b-P312>L21>L513 BY11256 R1b-P312>L21>L513 BY11256 R1b-P312>L21>L513 BY11251 R1b-P312>L21>L513 BY11251 R1b-P312>L21>L513 BY11251 R1b-P312>L21>L513 BY11251 R1b-P312>L21>L513 BY165 R1b-P312>L21>L513 BY165 R1b-P312>L21>L513 BY365 R1b-P312>L21>L513 BY365 R1b-P312>L21>L513 BY365 R1b-P312>L21>L513 BY3653 R1b-P312>L21>L513 BY3653 R1b-P312>L21>L513 BY365	14 15 14 15	16	9 BY162 9 20 M2775 9 20 21 ZS5207 9 20 21 22 BY11277 9 20 21 22 BY11278 9 20 21 22 BY42404 9 BY402 9 20 BY408 9 20 21 22 BY11256 9 20 21 22 BY11256 9 20 21 22 BY11260 9 20 21 BY1251 9 20 21 BY23548		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY11278 R1b-P312>L21>L513 BY11278 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY138 R1b-P312>L21>L513 BY138 R1b-P312>L21>L513 BY138 R1b-P312>L21>L513 BY34853 R1b-P312>L21>L513 BY34853 R1b-P312>L21>L513 BY34853 R1b-P312>L21>L513 BY368	14 15 14 15	16	9 BY182		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 SS25207 R1b-P312>L21>L513 SS25207 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY167 R1b-P312>L21>L513 BY167 R1b-P312>L21>L513 BY167 R1b-P312>L21>L513 BY167 R1b-P312>L21>L513 BY167 R1b-P312>L21>L513 BY368 R1b-P312>L21>L513 BY368 R1b-P312>L21>L513 BY368 R1b-P312>L21>L513 BY369	14 15 14 15	16	9 BY162 9 20 M2775 9 20 21 ZS5207 9 20 21 22 BY11277 9 20 21 22 BY11278 9 20 21 22 BY42404 9 BY402 9 20 BY408 9 20 21 22 BY11256 9 20 21 22 BY11256 9 20 21 22 BY11260 9 20 21 BY1251 9 20 21 BY23548		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 SS25207 R1b-P312>L21>L513 SS25207 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY11277 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY11260 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY167 R1b-P312>L21>L513 BY167 R1b-P312>L21>L513 BY167 R1b-P312>L21>L513 BY167 R1b-P312>L21>L513 BY167 R1b-P312>L21>L513 BY368 R1b-P312>L21>L513 BY368 R1b-P312>L21>L513 BY368 R1b-P312>L21>L513 BY369	14 15 14 15	16	9 BY182		
R1b-P312>L21>L513 BY184 R1b-P312>L21>L513 BY182 R1b-P312>L21>L513 M2775 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY1127 R1b-P312>L21>L513 BY11278 R1b-P312>L21>L513 BY11278 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY404 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY406 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY1126 R1b-P312>L21>L513 BY138 R1b-P312>L21>L513 BY138 R1b-P312>L21>L513 BY138 R1b-P312>L21>L513 BY34853 R1b-P312>L21>L513 BY34853 R1b-P312>L21>L513 BY34853 R1b-P312>L21>L513 BY368	14 15 14 15	16	9 BY182		

R1b-P312>L21>L513 FGC32640	14	15	16	17	18	19		21	22 FGC32640
R1b-P312>L21>L513 BY11283	14	15	16	17	18	19		21	22 BY11283
R1b-P312>L21>L513 BY11259	14	15	16	17	18	19		21	22 BY11259
R1b-P312>L21>L513 BY50635	14	15	16	17	18	19		3Y50635	
R1b-P312>L21>L513 BY50579	14	15	16	17	18	19	20	21 E	Y50579
R1b-P312>L21>L513 BY14240	14	15	16	17	18 <mark>B</mark> `	Y14240			
R1b-P312>L21>L513 CTS11744	14	15 CTS	S11744						
R1b-P312>L21>L513 Z16407	14	15	16 Z16	6407					
R1b-P312>L21>L513 BY553	14	15	16	17 BY5	553				
R1b-P312>L21>L513 BY11288	14	15	16	17	18 B	Y11288			
R1b-P312>L21>L513 BY11261	14	15	16	17	18	19	BY11261		
R1b-P312>L21>L513 BY11262	14	15	16	17	18	19	BY11262		
R1b-P312>L21>L513 FGC31789	14	15	16	17	18 F (GC31789			
R1b-P312>L21>L513 Z17909	14	15	16	17 717	7909				
R1b-P312>L21>L513 ZW05	14	15	16	17	18 7	W05			
R1b-P312>L21>L513 ZW04	14	15	16	17	18		ZW04		
R1b-P312>L21>L513 ZW02	14	15	16	17	18	19		W02	
R1b-P312>L21>L513 ZW14	14	15	16	17	18				W14
R1b-P312>L21>L513 ZW14 R1b-P312>L21>L513 ZW10	14	15	16	17	18	19 19			W10
									.010
R1b-P312>L21>L513 ZW22	14	15	16	17	18	19		W22	
R1b-P312>L21>L513 BY2745	14	15	16	17	18		BY2745		
R1b-P312>L21>L513 BY11281	14	15	16	17	18	19		3Y11281	
R1b-P312>L21>L513 FGC31837	14	15	16	17	18	19		GC31837	
R1b-P312>L21>L513 BY11252	14	15	16	17	18	19	BY11252		
R1b-P312>L21>L513 FGC34075	14	15	16	17	18	19	FGC34075		
R1b-P312>L21>L513 BY11255	14	15	16	17	18 B	Y11255			
R1b-P312>L21>L513 FGC36485	14	15	16	17	18 F (GC36485			
R1b-P312>L21>L513 BY11279	14	15	16	17 BY1	11279				
R1b-P312>L21>L513 BY20148	14	15	16 BY2	20148					
R1b-P312>L21>L513 BY11264	14	15	16		11264				
R1b-P312>L21>L513 L192	14 L19								
R1b-P312>L21>L513 BY11150	14	15 BY1	1150						
R1b-P312>L21>L513 BY19748	14 BY1								
R1b-P312>L21>L513 BY11124	14	15 BY1	112/						
R1b-P312>L21>L513 BY11146	14			11116					
		15	16 BY1		14405				
R1b-P312>L21>L513 BY11165	14	15	16	17 BY1					
		15	16	17 BY1	11134				
R1b-P312>L21>L513 BY11134	14								
R1b-P312>L21>L513 BY21961	14 BY2	1961							
	14 BY2	1961 15 BY3	34856						