Full wwPDB EM Validation Report ⓘ

Jan 24, 2023 – 08:08 PM EST

PDB ID	:	4V7E
EMDB ID	:	EMD-1780
Title	:	Model of the small subunit RNA based on a 5.5 A cryo-EM map of Triticum aestivum translating 80S ribosome
Authors	:	Barrio-Garcia, C.; Armache, J.-P.; Jarasch, A.; Anger, A.M.; Villa, E.; Becker, T.; Bhushan, S.; Jossinet, F.; Habeck, M.; Dindar, G.; Franckenberg, S.; Marquez, V.; Mielke, T.; Thomm, M.; Berninghausen, O.; Beatrix, B.; Soeding, J.; Westhof, E.; Wilson, D.N.; Beckmann, R.
Deposited on	:	2013-11-22
Resolution	:	5.50 Å(reported)

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

The following versions of software and data (see references ⓘ) were used in the production of this report:

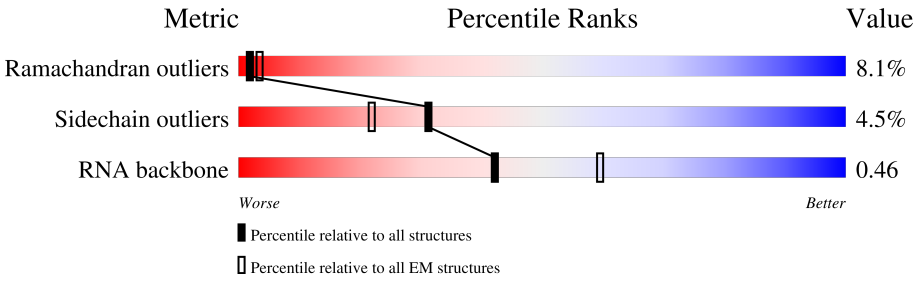
EMDB validation analysis	:	0.0.1.dev43
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.31.2

1 Overall quality at a glance

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 5.50 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



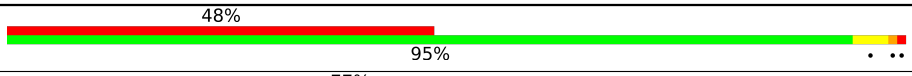
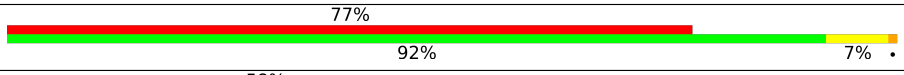
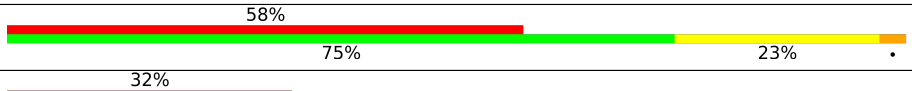
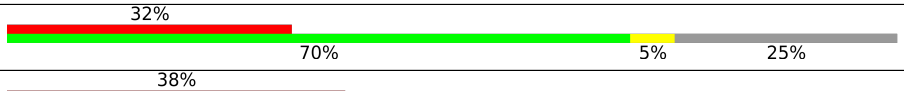
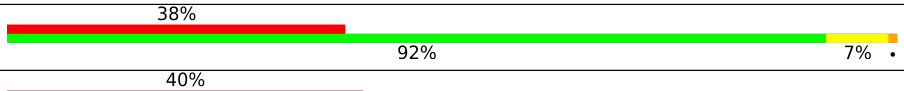
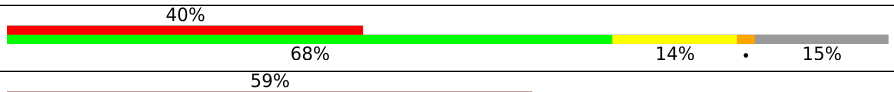
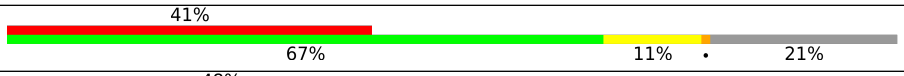
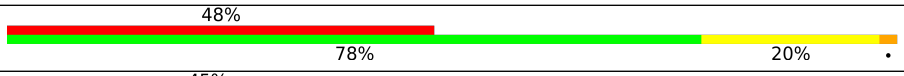
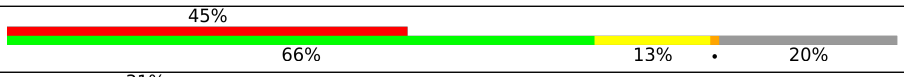
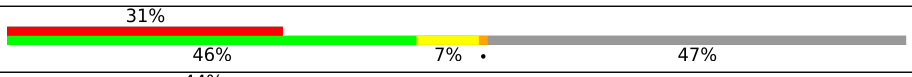
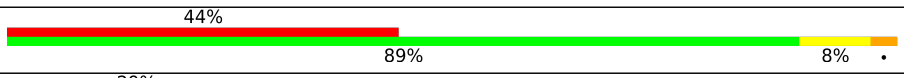
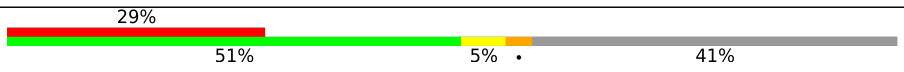
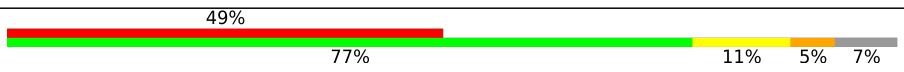
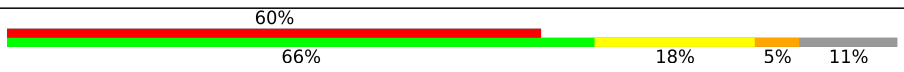
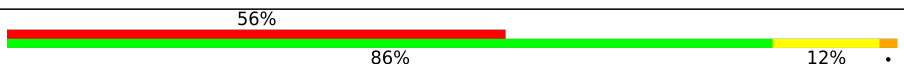
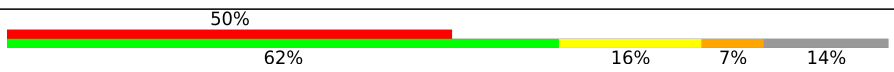
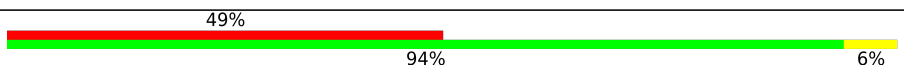
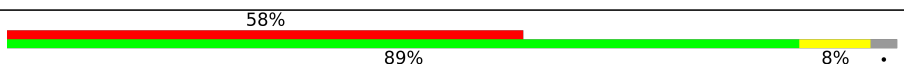
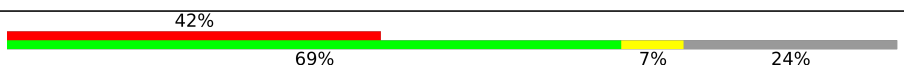
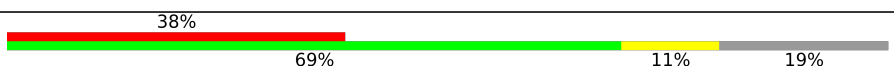
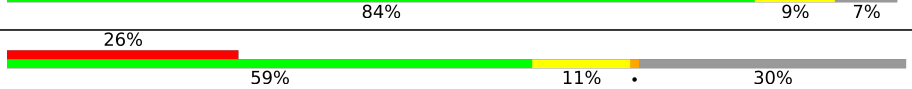
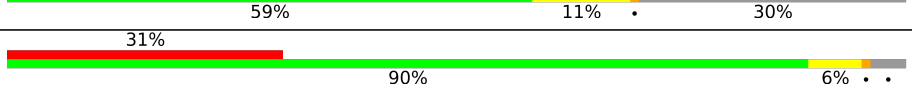
Metric	Whole archive (#Entries)	EM structures (#Entries)
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826
RNA backbone	4643	859

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion < 40%). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	Ad	1810	9% · 69% 24% ·
2	Ae	75	29% · 71% 25%
3	Af	11	82% 9% 73% 18%
4	BY	138	51% 88% 10% ·
5	BI	220	14% 28% · 70%
6	BK	183	26% 44% 5% · · 48%
7	BM	171	47% 61% 9% · 28%
8	Bf	155	25% 35% 11% 54%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
9	BX	142	
10	Bg	380	
11	BD	208	
12	BE	265	
13	BF	191	
14	BQ	149	
15	BU	128	
16	BO	151	
17	BS	152	
18	BN	151	
19	BL	160	
20	BT	146	
21	BP	154	
22	BZ	108	
23	Bc	65	
24	BW	130	
25	Bd	56	
26	Bb	86	
27	Be	62	
28	BA	260	
29	BR	141	
30	BB	262	
31	BV	82	
32	Ba	133	
33	BJ	195	

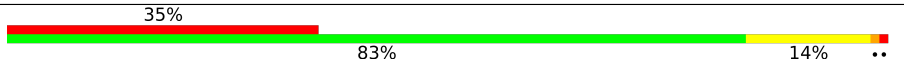
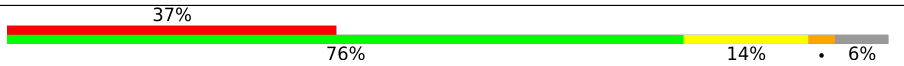
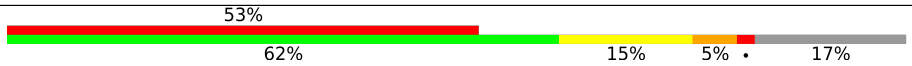
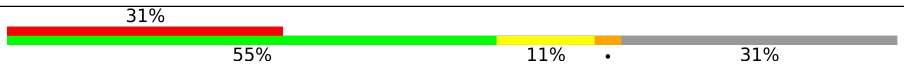
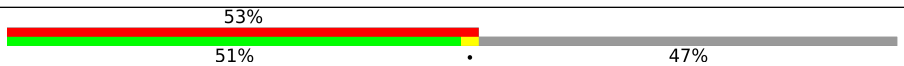
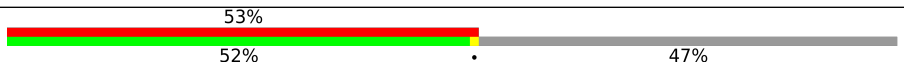
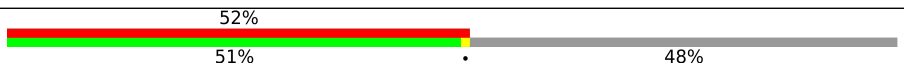
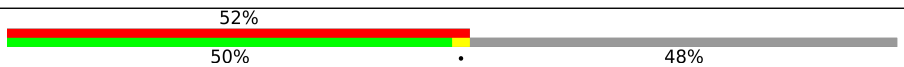
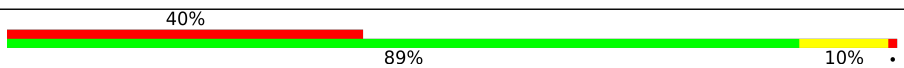
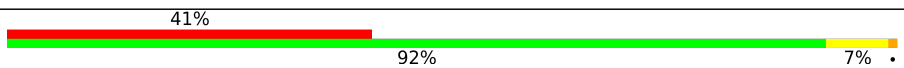
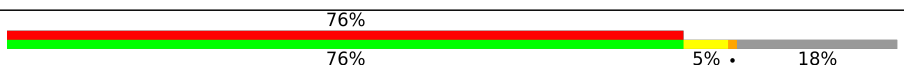
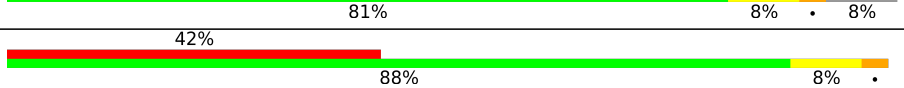
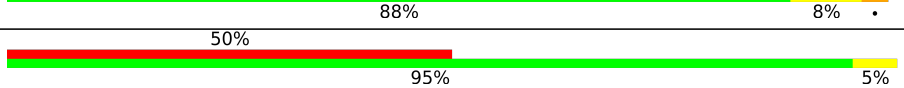
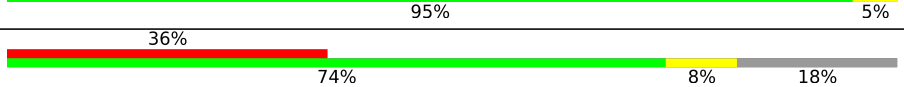
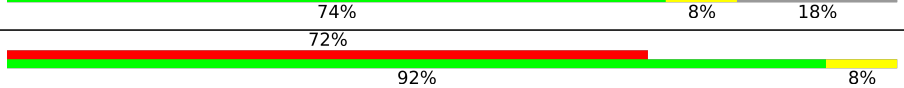
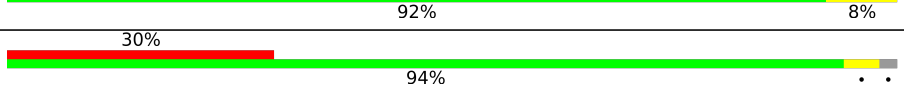
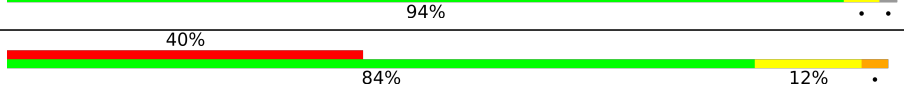
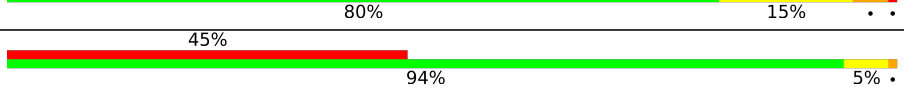
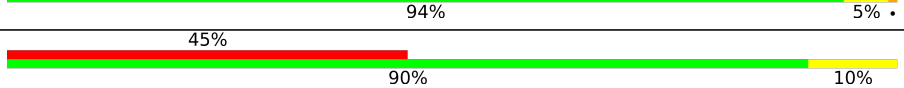
Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
34	BC	263	44% 77% 19%
35	BG	245	43% 88% 5% 6%
36	BH	189	52% 83% 12%
37	CG	257	38% 84% 8% 8%
38	CT	164	47% 85% 12%
39	CZ	136	33% 96%
40	Cz	216	98% 92% 8%
41	CA	261	54% 86% 10%
42	CJ	180	34% 78% 12% 6%
43	CH	190	41% 93% 6%
44	CV	140	74% 93% 7%
45	CN	200	35% 89% 8%
46	Ca	144	50% 77% 22%
47	CQ	188	39% 73% 12% 13%
48	CD	304	37% 75% 18% 6%
49	CR	209	44% 80% 8% 10%
50	CP	171	42% 86% 12%
51	CX	152	40% 73% 6% 20%
52	CW	162	31% 43% 54%
53	CY	150	21% 79% 6% 13%
54	Cr	147	18% 42% 6% 50%
55	Cc	112	45% 92% 7%
56	Cd	123	46% 84% 12%
57	Ce	133	58% 89% 8%
58	Cj	94	39% 80% 19%

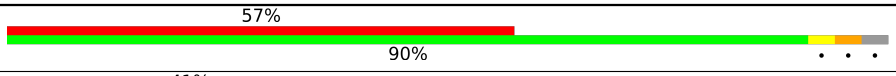
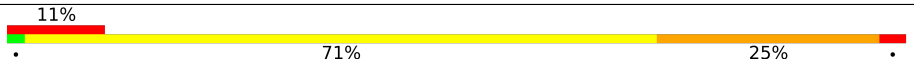
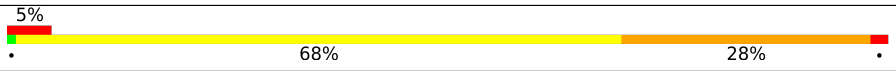
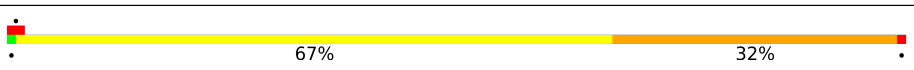
Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
59	Cl	51	
60	Co	105	
61	CM	134	
62	CS	178	
63	CU	130	
64	Ci	112	
65	CK	166	
66	Cu	110	
66	Cv	110	
67	Cs	113	
67	Ct	113	
68	Ch	124	
69	CF	244	
70	Cq	319	
71	CB	389	
72	CC	405	
73	CO	206	
74	Cp	92	
75	CI	224	
76	Cn	25	
77	Cm	53	
78	CL	208	
79	CE	219	
80	Cf	111	
81	Ck	69	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
82	Cb	60	
83	Cg	119	
84	Aa	3391	
85	Ac	160	
86	Ab	120	

2 Entry composition

There are 86 unique types of molecules in this entry. The entry contains 212263 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a RNA chain called 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
1	Ad	1762	37584	16788	6708	12327	1761	0	0

- Molecule 2 is a RNA chain called P-site tRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
2	Ae	75	1595	712	280	529	74	0	0

- Molecule 3 is a RNA chain called 5'-R(*AP*AP*AP*AP*GP*AP*CP*UP*UP*CP*A)-3'.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
3	Af	11	232	106	45	71	10	0	0

- Molecule 4 is a protein called 40S ribosomal protein S24E.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	BY	138	1108	703	212	189	4	0	0

- Molecule 5 is a protein called 40S ribosomal protein S8E.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	BI	66	533	330	105	95	3	0	0

- Molecule 6 is a protein called 40S ribosomal protein S10E.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	BK	96	818	535	137	143	3	0	0

- Molecule 7 is a protein called 40S ribosomal protein S12E.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	BM	123	Total	C	N	O	S	0	0
			924	577	159	179	9		

- Molecule 8 is a protein called 40S ribosomal protein S31e.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	Bf	71	Total	C	N	O	S	0	0
			577	367	107	98	5		

- Molecule 9 is a protein called 40S ribosomal protein S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	BX	142	Total	C	N	O	S	0	0
			1103	698	214	187	4		

- Molecule 10 is a protein called RACK1.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	Bg	380	Total	C	N	O	S	0	0
			2929	1813	530	567	19		

- Molecule 11 is a protein called 40S ribosomal protein S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	BD	208	Total	C	N	O	S	0	0
			1629	1029	294	297	9		

- Molecule 12 is a protein called 40S ribosomal protein S4E.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	BE	200	Total	C	N	O	S	0	0
			1607	1030	290	283	4		

- Molecule 13 is a protein called 40S ribosomal protein S7.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	BF	191	Total	C	N	O	S	0	0
			1489	928	281	273	7		

- Molecule 14 is a protein called 40S ribosomal protein S9.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	BQ	126	Total	C	N	O	S	0	0
			1017	648	195	170	4		

- Molecule 15 is a protein called 40S ribosomal protein S10.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	BU	128	Total	C	N	O	S	0	0
			982	613	176	187	6		

- Molecule 16 is a protein called 40S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	BO	119	Total	C	N	O	S	0	0
			899	550	178	167	4		

- Molecule 17 is a protein called 40S ribosomal protein S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	BS	152	Total	C	N	O	S	0	0
			1240	772	248	213	7		

- Molecule 18 is a protein called 40S ribosomal protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	BN	121	Total	C	N	O	S	0	0
			977	627	180	167	3		

- Molecule 19 is a protein called 40S ribosomal protein S17.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	BL	85	Total	C	N	O	S	0	0
			688	435	134	115	4		

- Molecule 20 is a protein called 40S ribosomal protein S19E.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	BT	146	Total	C	N	O	S	0	0
			1155	726	218	207	4		

- Molecule 21 is a protein called 40S ribosomal protein S19.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	BP	91	Total	C	N	O	S	0	0
			711	457	130	120	4		

- Molecule 22 is a protein called 40S ribosomal protein S25E.

Mol	Chain	Residues	Atoms				AltConf	Trace
22	BZ	100	Total	C	N	O	0	0
			779	489	146	144		

- Molecule 23 is a protein called 40S ribosomal protein S28E.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	Bc	58	Total	C	N	O	S	0	0
			454	281	86	84	3		

- Molecule 24 is a protein called 40S ribosomal protein S8.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	BW	130	Total	C	N	O	S	0	0
			1042	667	189	181	5		

- Molecule 25 is a protein called 40S ribosomal protein S14.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	Bd	48	Total	C	N	O	S	0	0
			379	233	77	63	6		

- Molecule 26 is a protein called 40S ribosomal protein S27E.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	Bb	86	Total	C	N	O	S	0	0
			663	414	119	122	8		

- Molecule 27 is a protein called 40S ribosomal protein S30E.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	Be	60	Total	C	N	O	S	0	0
			469	289	104	75	1		

- Molecule 28 is a protein called 40S ribosomal protein S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	BA	197	Total	C	N	O	S	0	0
			1537	969	280	278	10		

- Molecule 29 is a protein called 40S ribosomal protein S17E.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	BR	116	Total	C	N	O	S	0	0
			945	589	178	171	7		

- Molecule 30 is a protein called 40S ribosomal protein S1E.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	BB	211	Total	C	N	O	S	0	0
			1707	1089	308	302	8		

- Molecule 31 is a protein called 40S ribosomal protein S21E.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	BV	76	Total	C	N	O	S	0	0
			601	371	112	115	3		

- Molecule 32 is a protein called 40S ribosomal protein S26E.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	Ba	93	Total	C	N	O	S	0	0
			753	461	163	122	7		

- Molecule 33 is a protein called 40S ribosomal protein S4.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	BJ	187	Total	C	N	O	S	0	0
			1525	959	305	256	5		

- Molecule 34 is a protein called 40S ribosomal protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	BC	214	Total	C	N	O	S	0	0
			1665	1074	297	287	7		

- Molecule 35 is a protein called 40S ribosomal protein S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	BG	231	Total	C	N	O	S	0	0
			1867	1164	367	328	8		

- Molecule 36 is a protein called 40S ribosomal protein S7E.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	BH	184	Total	C	N	O	S	0	0
			1508	962	278	266	2		

- Molecule 37 is a protein called 60S ribosomal protein L8E.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	CG	237	Total	C	N	O	S	0	0
			1906	1226	351	322	7		

- Molecule 38 is a protein called 60S ribosomal protein L21E.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	CT	160	Total	C	N	O	S	0	0
			1288	814	251	219	4		

- Molecule 39 is a protein called 60S ribosomal protein L27E.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	CZ	136	Total	C	N	O	S	0	0
			1090	704	205	176	5		

- Molecule 40 is a protein called 60S ribosomal protein L1.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	Cz	216	Total	C	N	O	S	0	0
			1718	1092	309	304	13		

- Molecule 41 is a protein called 60S ribosomal protein L2.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	CA	255	Total	C	N	O	S	0	0
			1946	1210	399	328	9		

- Molecule 42 is a protein called 60S ribosomal protein L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	CJ	170	Total	C	N	O	S	0	0
			1380	869	256	246	9		

- Molecule 43 is a protein called 60S ribosomal protein L6.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	CH	190	Total	C	N	O	S	0	0
			1500	947	270	277	6		

- Molecule 44 is a protein called 60S ribosomal protein L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	CV	140	Total	C	N	O	S	0	0
			1048	658	199	181	10		

- Molecule 45 is a protein called 60S ribosomal protein L15E.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	CN	194	Total	C	N	O	S	0	0
			1630	1027	342	257	4		

- Molecule 46 is a protein called 60S ribosomal protein L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	Ca	144	Total	C	N	O	S	0	0
			1114	710	223	175	6		

- Molecule 47 is a protein called 60S ribosomal protein L18E.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	CQ	163	Total	C	N	O	S	0	0
			1284	810	248	219	7		

- Molecule 48 is a protein called 60S ribosomal protein L18.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	CD	304	Total	C	N	O	S	0	0
			2444	1531	440	466	7		

- Molecule 49 is a protein called 60S ribosomal protein L19E.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	CR	189	Total	C	N	O	S	0	0
			1569	972	330	257	10		

- Molecule 50 is a protein called 60S ribosomal protein L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	CP	171	Total	C	N	O	S	0	0
			1372	852	271	244	5		

- Molecule 51 is a protein called 60S ribosomal protein L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	CX	122	Total	C	N	O	S	0	0
			987	634	178	173	2		

- Molecule 52 is a protein called 60S ribosomal protein L24E.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	CW	75	Total	C	N	O	S	0	0
			635	408	126	97	4		

- Molecule 53 is a protein called 60S ribosomal protein L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	CY	130	Total	C	N	O	S	0	0
			1048	647	220	178	3		

- Molecule 54 is a protein called 60S ribosomal protein L28E.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	Cr	73	Total	C	N	O	S	0	0
			576	364	107	103	2		

- Molecule 55 is a protein called 60S ribosomal protein L30E.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	Cc	112	Total	C	N	O	S	0	0
			857	540	149	161	7		

- Molecule 56 is a protein called 60S ribosomal protein L31E.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	Cd	120	Total	C	N	O	S	0	0
			960	598	186	173	3		

- Molecule 57 is a protein called 60S ribosomal protein L32E.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	Ce	133	Total	C	N	O	S	0	0
			1103	696	216	185	6		

- Molecule 58 is a protein called 60S ribosomal protein L37E.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	Cj	94	Total	C	N	O	S	0	0
			755	459	166	123	7		

- Molecule 59 is a protein called 60S ribosomal protein L39E.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	Cl	51	Total	C	N	O	S	0	0
			460	291	100	67	2		

- Molecule 60 is a protein called 60S ribosomal protein L44E.

Mol	Chain	Residues	Atoms					AltConf	Trace
60	Co	105	Total	C	N	O	S	0	0
			851	535	166	144	6		

- Molecule 61 is a protein called 60S ribosomal protein L14E.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	CM	134	Total	C	N	O	S	0	0
			1081	690	201	185	5		

- Molecule 62 is a protein called 60S ribosomal protein L20.

Mol	Chain	Residues	Atoms					AltConf	Trace
62	CS	167	Total	C	N	O	S	0	0
			1419	916	263	233	7		

- Molecule 63 is a protein called 60S ribosomal protein L22E.

Mol	Chain	Residues	Atoms					AltConf	Trace
63	CU	108	Total	C	N	O	S	0	0
			864	551	155	156	2		

- Molecule 64 is a protein called 60S ribosomal protein L36E.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	Ci	77	Total	C	N	O	S	0	0
			613	383	128	100	2		

- Molecule 65 is a protein called 60S ribosomal protein L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
65	CK	128	Total	C	N	O	S	0	0
			960	602	177	177	4		

- Molecule 66 is a protein called 60S ribosomal protein P1.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	Cu	58	Total	C	N	O	S	0	0
			432	283	69	79	1		
66	Cv	58	Total	C	N	O	S	0	0
			432	283	69	79	1		

- Molecule 67 is a protein called Acidic ribosomal protein P2.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	Cs	59	Total	C	N	O	S	0	0
			441	278	69	90	4		
67	Ct	59	Total	C	N	O	S	0	0
			441	278	69	90	4		

- Molecule 68 is a protein called 60S ribosomal protein L29.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	Ch	124	Total	C	N	O	S	0	0
			1012	636	202	173	1		

- Molecule 69 is a protein called 60S ribosomal protein L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
69	CF	244	Total	C	N	O	S	0	0
			1984	1271	368	339	6		

- Molecule 70 is a protein called 60S acidic ribosomal protein P0.

Mol	Chain	Residues	Atoms					AltConf	Trace
70	Cq	262	Total	C	N	O	S	0	0
			1993	1278	330	377	8		

- Molecule 71 is a protein called 60S ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
71	CB	389	Total	C	N	O	S	0	0
			3139	1997	584	540	18		

- Molecule 72 is a protein called 60S ribosomal protein L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
72	CC	372	Total	C	N	O	S	0	0
			2898	1823	556	510	9		

- Molecule 73 is a protein called 60S ribosomal protein L13.

Mol	Chain	Residues	Atoms					AltConf	Trace
73	CO	206	Total	C	N	O	S	0	0
			1650	1045	320	274	11		

- Molecule 74 is a protein called 60S ribosomal protein L43E.

Mol	Chain	Residues	Atoms					AltConf	Trace
74	Cp	92	Total	C	N	O	S	0	0
			715	447	137	124	7		

- Molecule 75 is a protein called 60S ribosomal protein L16.

Mol	Chain	Residues	Atoms					AltConf	Trace
75	CI	184	Total	C	N	O	S	0	0
			1490	941	290	247	12		

- Molecule 76 is a protein called 60S ribosomal protein L41E.

Mol	Chain	Residues	Atoms					AltConf	Trace
76	Cn	25	Total	C	N	O	S	0	0
			238	145	62	28	3		

- Molecule 77 is a protein called 60S ribosomal protein L40E.

Mol	Chain	Residues	Atoms					AltConf	Trace
77	Cm	52	Total	C	N	O	S	0	0
			428	267	90	66	5		

- Molecule 78 is a protein called 60S ribosomal protein L13E.

Mol	Chain	Residues	Atoms					AltConf	Trace
78	CL	208	Total	C	N	O	S	0	0
			1691	1061	338	286	6		

- Molecule 79 is a protein called 60S ribosomal protein L6E.

Mol	Chain	Residues	Atoms					AltConf	Trace
79	CE	219	Total	C	N	O	S	0	0
			1731	1106	314	307	4		

- Molecule 80 is a protein called 60S ribosomal protein L33E.

Mol	Chain	Residues	Atoms					AltConf	Trace
80	Cf	111	Total	C	N	O	S	0	0
			891	561	170	156	4		

- Molecule 81 is a protein called 60S ribosomal protein L38E.

Mol	Chain	Residues	Atoms					AltConf	Trace
81	Ck	69	Total	C	N	O	S	0	0
			564	360	104	97	3		

- Molecule 82 is a protein called 60S ribosomal protein L29E.

Mol	Chain	Residues	Atoms					AltConf	Trace
82	Cb	58	Total	C	N	O	S	0	0
			477	288	103	85	1		

- Molecule 83 is a protein called 60S ribosomal protein L34E.

Mol	Chain	Residues	Atoms					AltConf	Trace
83	Cg	110	Total	C	N	O	S	0	0
			897	567	182	146	2		

- Molecule 84 is a RNA chain called 60S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
84	Aa	3391	Total	C	N	O	P	0	0
			72601	32373	13241	23598	3389		

- Molecule 85 is a RNA chain called 5.8S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
85	Ac	160	Total	C	N	O	P	0	0
			3408	1522	614	1113	159		

- Molecule 86 is a RNA chain called 5S ribosomal RNA.

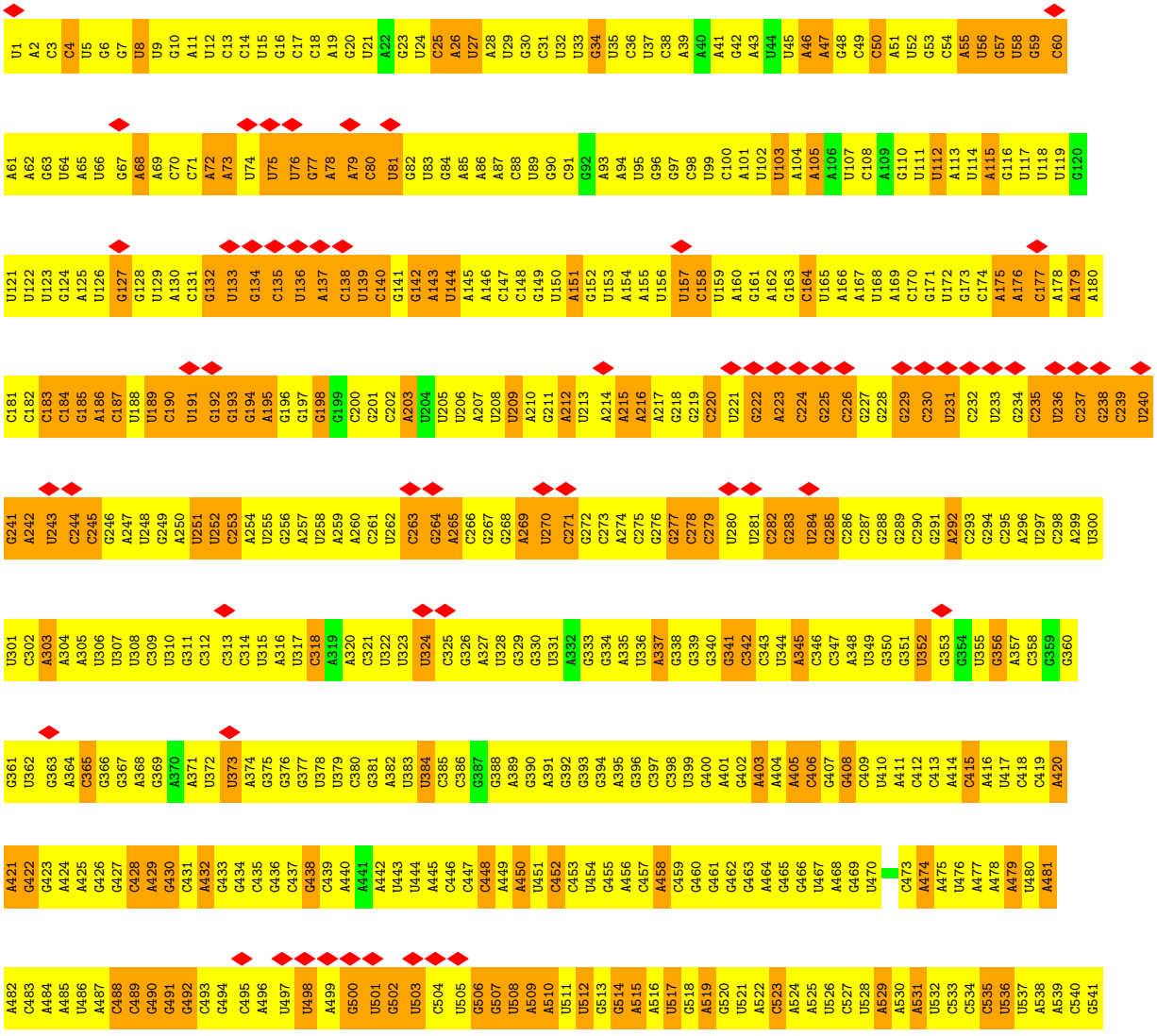
Mol	Chain	Residues	Atoms					AltConf	Trace
86	Ab	120	Total	C	N	O	P	0	0
			2561	1144	461	837	119		

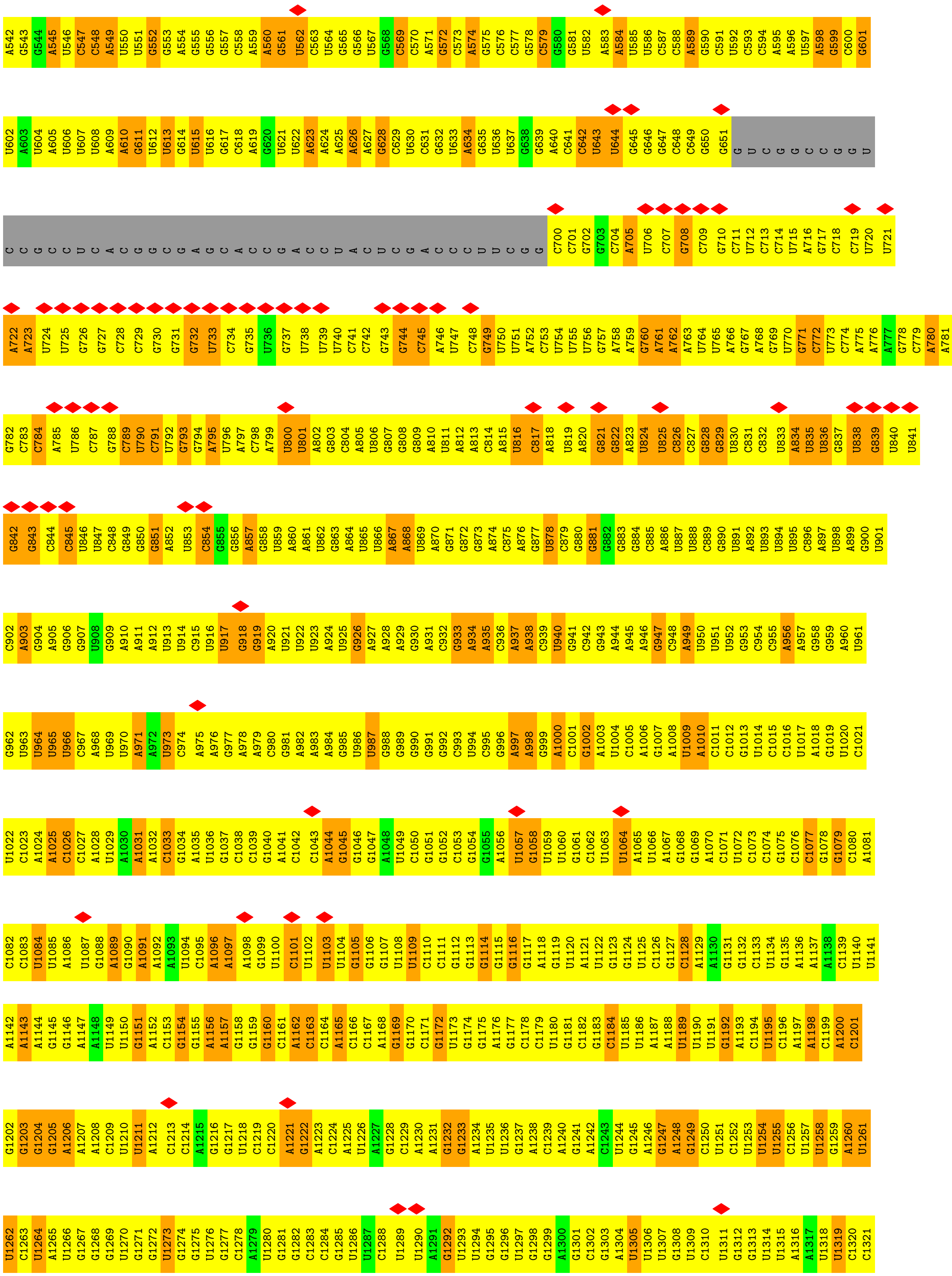
3 Residue-property plots (i)

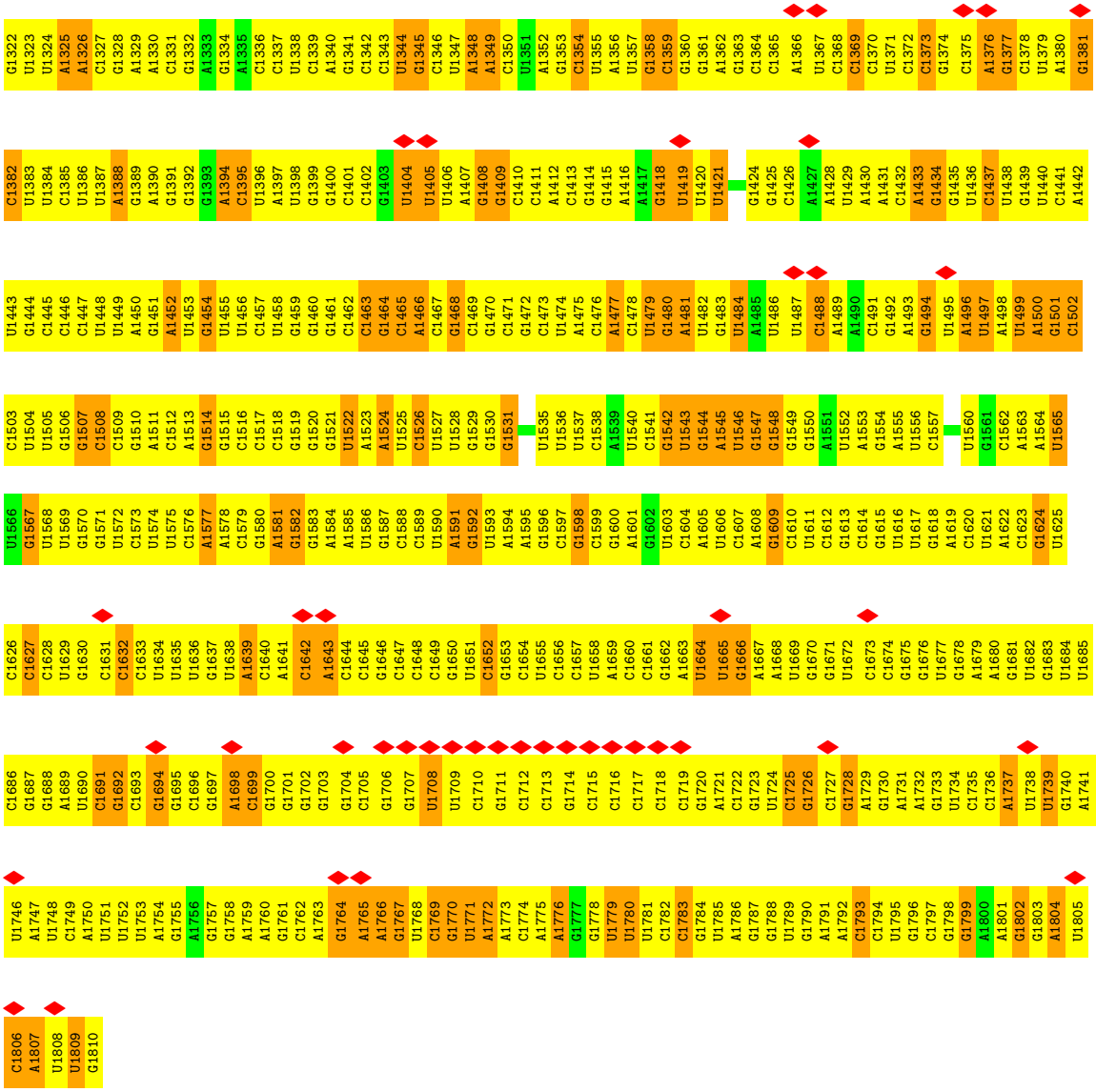
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: 18S ribosomal RNA

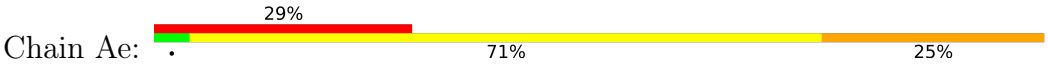
Chain Ad:

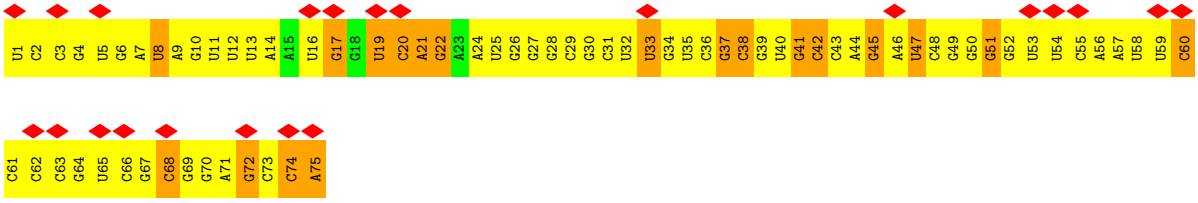



A542 G543 G544 A545 U546 C547 C548 A549 U550 U551 G552 G553 A554 G555 G556 G557 C558 A559 A560 G561 U562 C563 U564 G565 G566 U567 G568 C569 C570 A571 G572 C573 A574 G575 C576 C577 G578 C579 G580 G581 U582 A583 A584 U585 U586 C587 C588 A589 G590 C591 U592 C593 C594 A595 A596 U597 A598 G599 C600 G601
U602 A603 U604 A605 U606 U607 U608 A609 A610 G611 U612 U613 G614 U615 U616 G617 C618 A619 G620 U621 U622 A623 A624 A625 A626 A627 G628 C629 U630 C631 G632 U633 A634 G635 U636 U637 G638 G639 A640 C641 C642 U643 U644 G645 G646 G647 C648 C649 G650 G651 G U C G G C C G G U
C C G C C U C A C G G C G A G C A C C G A C C U A C U C G A C C C U U C G G C700 C701 G702 G703 C704 A705 U706 C707 G708 C709 G710 C711 U712 C713 C714 U715 A716 G717 C718 C719 U720 U721
A722 A723 U724 U725 G726 G727 C728 C729 G730 G731 G732 U733 C734 G735 U736 G737 U738 U739 U740 C741 C742 G743 G744 C745 A746 U747 C748 G749 U750 U751 A752 C753 U754 U755 U756 G757 A758 A759 G760 A761 A762 U763 U764 U765 A766 G767 A768 G769 U770 G771 C772 U773 C774 A775 A776 A777 G778 C779 A780 A781
G782 C783 C784 A785 U786 C787 G788 C789 U790 C791 U792 G793 G794 A795 U796 A797 C798 A799 U800 U801 A802 G803 C804 A805 U806 G807 G808 G809 A810 U811 A812 A813 C814 A815 U816 C817 A818 U819 A820 G821 G822 A823 U824 U825 C826 C827 G828 G829 U830 C831 C832 U833 A834 U835 U836 G837 U838 G839 U840 U841
G842 G843 C844 C845 U846 U847 C848 G849 G850 G851 A852 U853 C854 G855 G856 A857 G858 U859 A860 A861 U862 G863 A864 U865 U866 A867 A868 U869 A870 G871 G872 G873 A874 C875 A876 G877 U878 C879 G880 G881 G882 G883 G884 C885 A886 U887 U888 C889 G890 U891 A892 U893 U894 U895 C896 A897 U898 A899 G900 U901
C902 A903 G904 A905 G906 G907 U908 G909 A910 A911 A912 U913 U914 C915 U916 U917 G918 G919 A920 U921 U922 U923 A924 U925 G926 A927 A928 A929 G930 A931 C932 G933 A934 A935 C936 A937 A938 C939 U940 G941 C942 G943 A944 A945 A946 G947 C948 A949 U950 U951 U952 G953 C954 C955 A956 A957 G958 G959 A960 U961
G962 U963 U964 U965 U966 C967 A968 U969 U970 A971 A972 U973 C974 A975 A976 G977 A978 A979 C980 G981 A982 A983 A984 G985 U986 U987 G988 G989 G990 U991 G992 C993 U994 C995 G996 A997 A998 G999 A1000 C1001 G1002 A1003 U1004 C1005 A1006 G1007 A1008 U1009 A1010 C1011 C1012 G1013 U1014 C1015 C1016 U1017 A1018 G1019 U1020 C1021
U1022 C1023 A1024 A1025 C1026 C1027 A1028 U1029 A1030 A1031 A1032 C1033 G1034 A1035 U1036 G1037 C1038 C1039 G1040 A1041 C1042 C1043 A1044 G1045 G1046 G1047 A1048 U1049 C1050 G1051 G1052 C1053 G1054 G1055 A1056 U1057 G1058 U1059 U1060 G1061 C1062 U1063 U1064 A1065 U1066 A1067 G1068 G1069 A1070 C1071 U1072 C1073 C1074 G1075 C1076 C1077 G1078 G1079 C1080 A1081
C1082 C1083 U1084 U1085 A1086 U1087 G1088 A1089 G1090 A1091 A1092 A1093 U1094 C1095 A1096 A1097 A1098 G1099 U1100 C1101 U1102 U1103 U1104 G1105 G1106 G1107 U1108 U1109 C1110 C1111 G1112 G1113 G1114 G1115 G1116 G1117 A1118 G1119 U1120 A1121 U1122 G1123 G1124 U1125 C1126 G1127 C1128 A1129 A1130 G1131 C1132 C1133 U1134 G1135 A1136 A1137 A1138 C1139 U1140 U1141
A1142 A1143 A1144 G1145 G1146 A1147 A1148 U1149 U1150 G1151 A1152 C1153 G1154 G1155 A1156 A1157 G1158 G1159 G1160 C1161 A1162 C1163 C1164 A1165 C1166 C1167 A1168 G1169 G1170 C1171 G1172 U1173 G1174 G1175 A1176 G1177 C1178 C1179 U1180 G1181 C1182 G1183 C1184 U1185 U1186 A1187 A1188 U1189 U1190 U1191 G1192 A1193 C1194 U1195 C1196 A1197 A1198 C1199 A1200 C1201
G1202 G1203 G1204 G1205 A1206 A1207 A1208 C1209 U1210 U1211 A1212 C1213 C1214 A1215 G1216 G1217 U1218 C1219 C1220 A1221 G1222 A1223 C1224 A1225 U1226 A1227 G1228 C1229 A1230 A1231 G1232 G1233 A1234 U1235 U1236 G1237 A1238 C1239 A1240 G1241 A1242 C1243 U1244 G1245 A1246 G1247 A1248 G1249 C1250 U1251 C1252 U1253 U1254 U1255 C1256 U1257 U1258 G1259 A1260 U1261
U1262 C1263 U1264 A1265 U1266 G1267 G1268 G1269 U1270 G1271 G1272 U1273 G1274 G1275 U1276 G1277 C1278 A1279 U1280 G1281 G1282 C1283 C1284 G1285 U1286 U1287 C1288 U1289 U1290 A1291 G1292 U1293 U1294 G1295 G1296 U1297 G1298 G1299 A1300 G1301 C1302 G1303 A1304 U1305 U1306 U1307 G1308 U1309 C1310 U1311 G1312 G1313 U1314 U1315 A1316 A1317 U1318 U1319 C1320 C1321

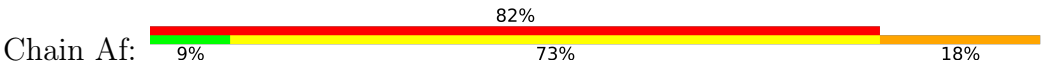


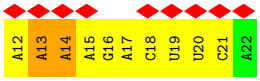
• Molecule 2: P-site tRNA





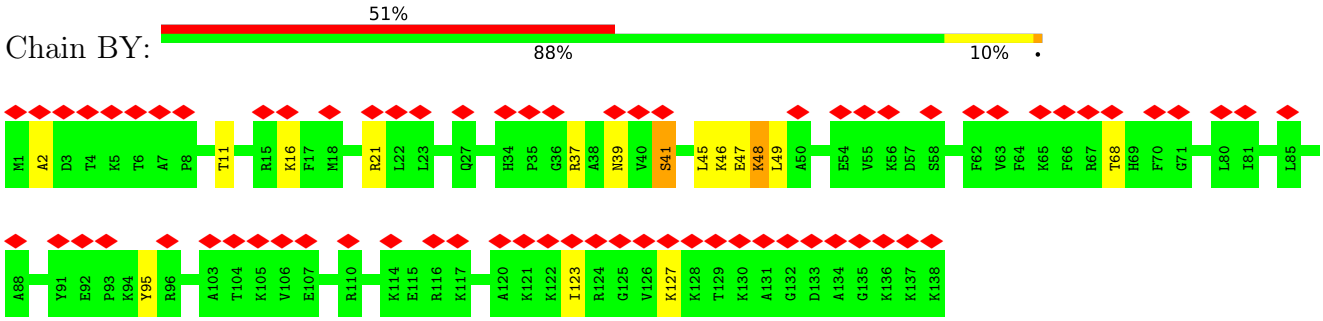
• Molecule 3: 5'-R(*AP*AP*AP*AP*GP*AP*CP*UP*UP*CP*A)-3'





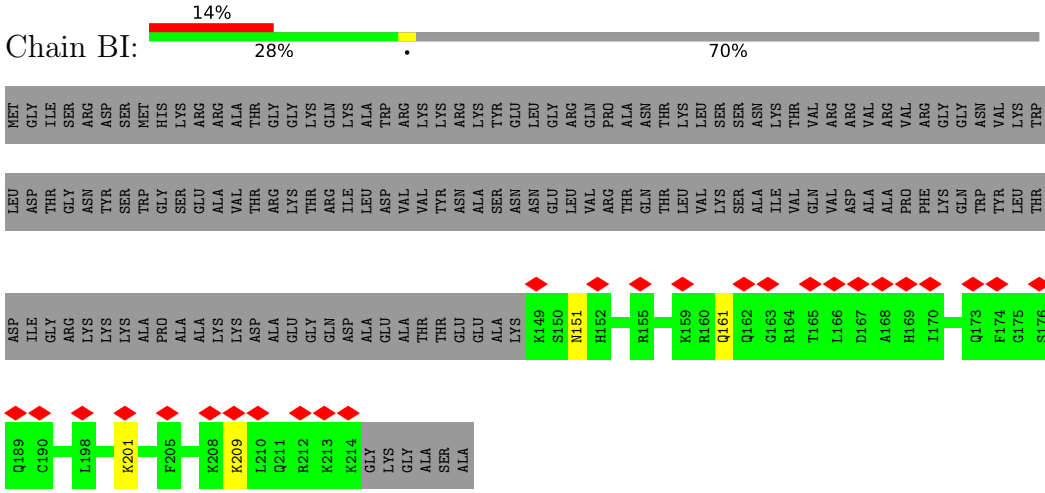
• Molecule 4: 40S ribosomal protein S24E

Chain BY:



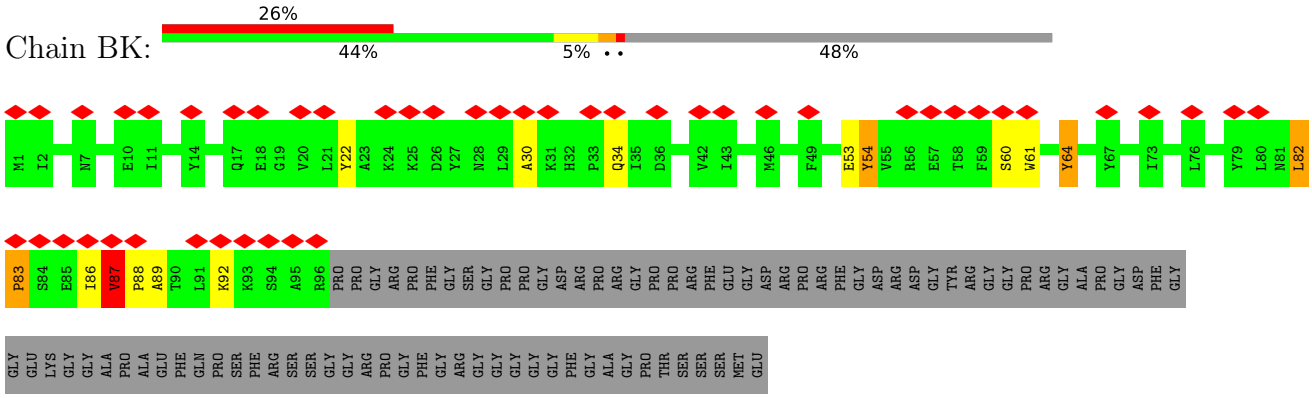
• Molecule 5: 40S ribosomal protein S8E

Chain BI:



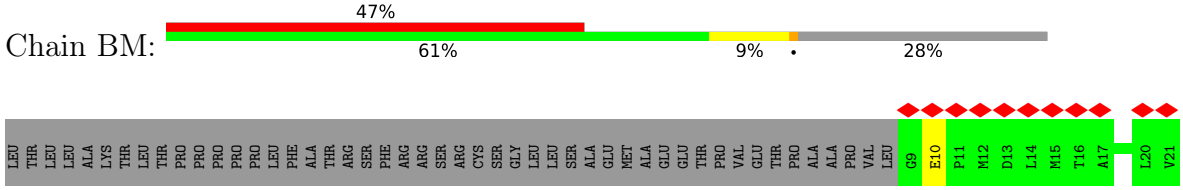
• Molecule 6: 40S ribosomal protein S10E

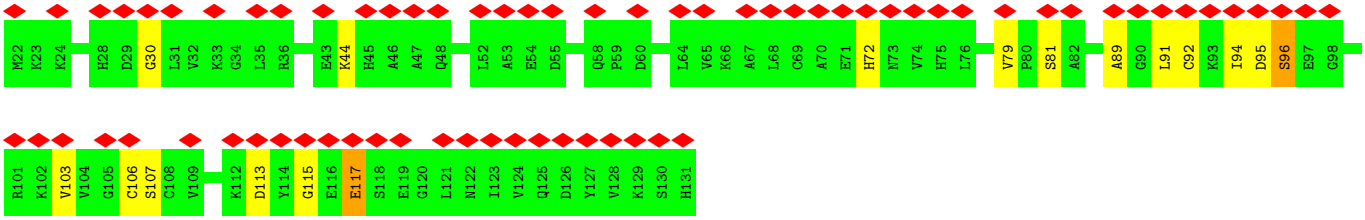
Chain BK:



• Molecule 7: 40S ribosomal protein S12E

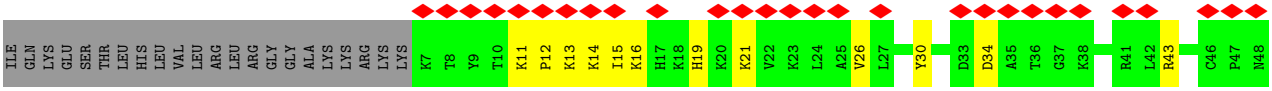
Chain BM:

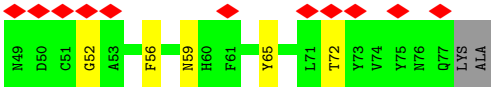




• Molecule 8: 40S ribosomal protein S31e

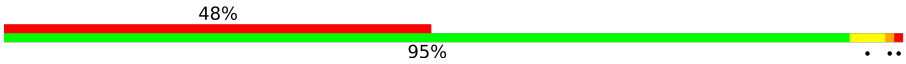
Chain Bf:

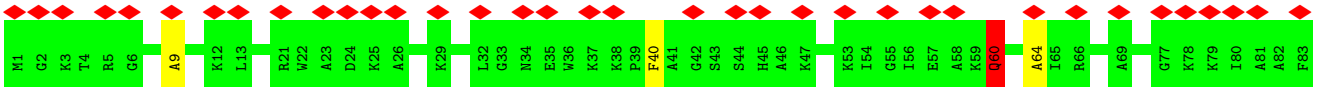


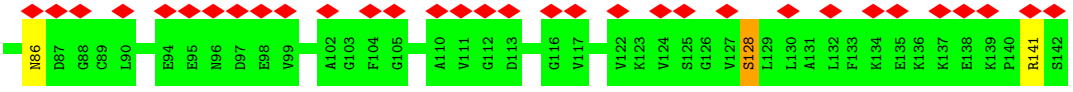


• Molecule 9: 40S ribosomal protein S12

Chain BX:

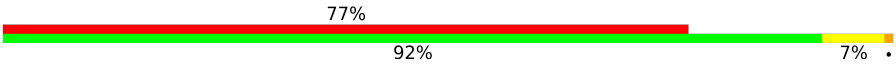


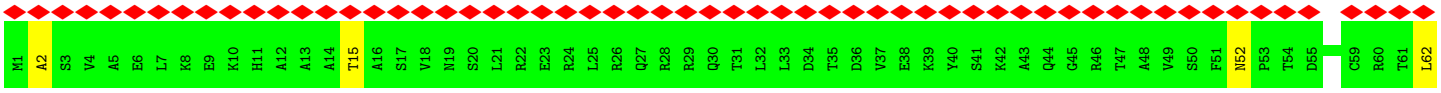


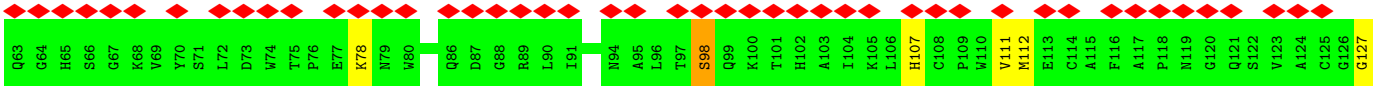


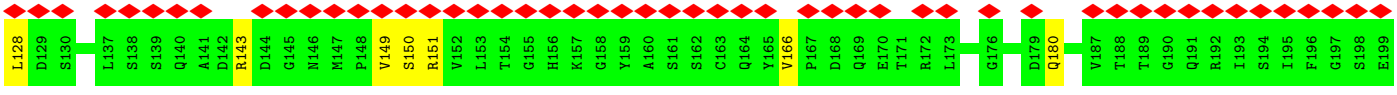
• Molecule 10: RACK1

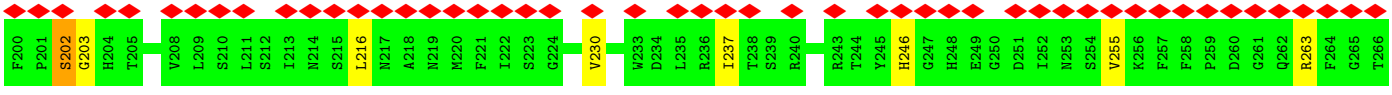
Chain Bg:

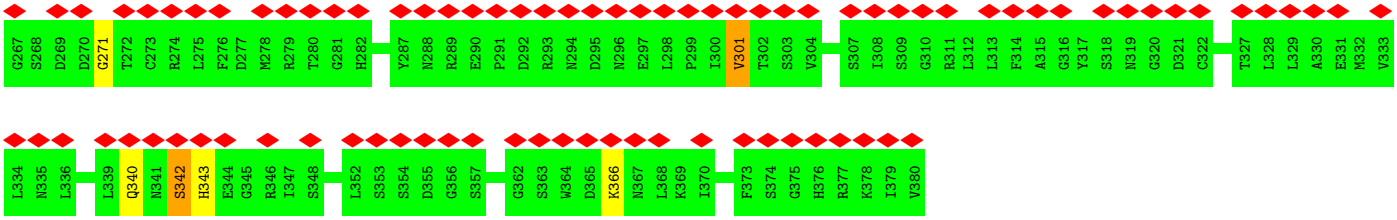






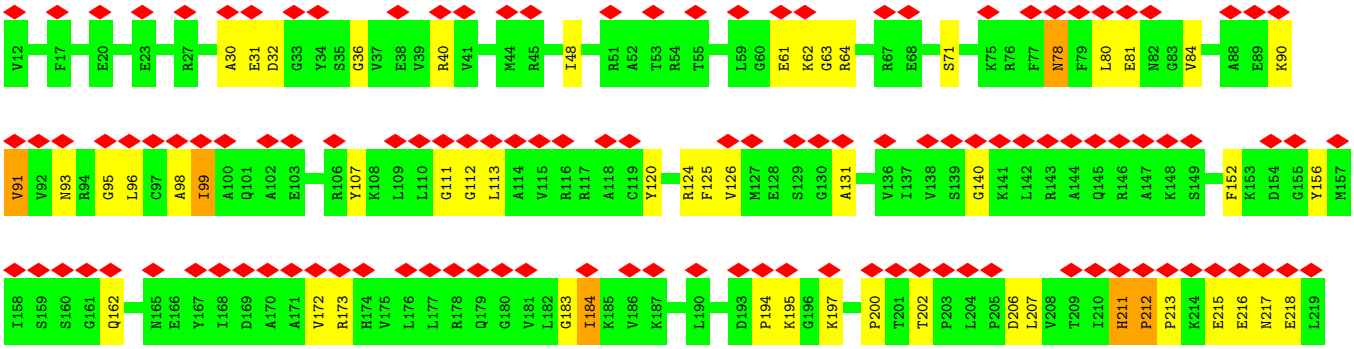






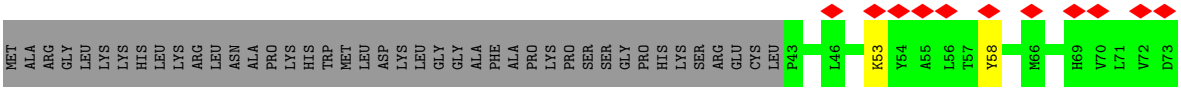
• Molecule 11: 40S ribosomal protein S3

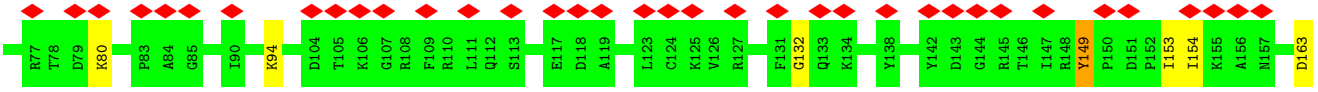
Chain BD:

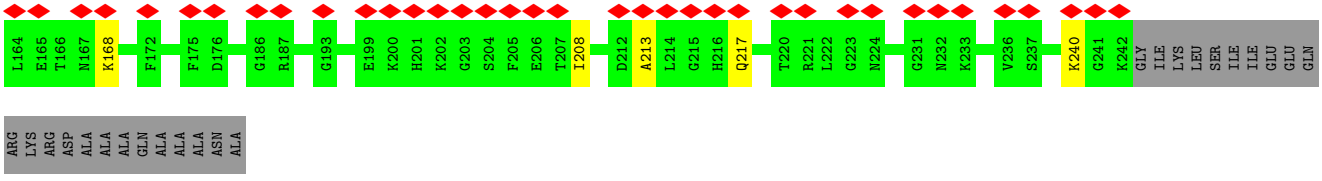


• Molecule 12: 40S ribosomal protein S4E

Chain BE:

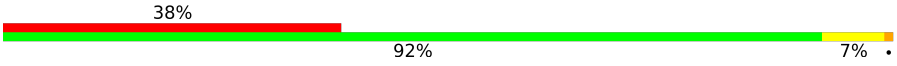


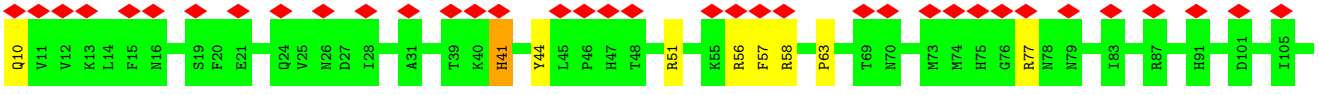


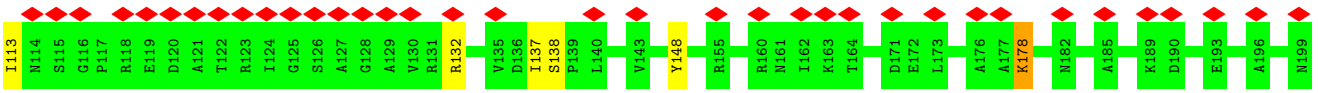


• Molecule 13: 40S ribosomal protein S7

Chain BF:

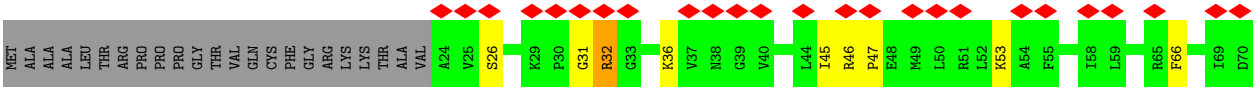






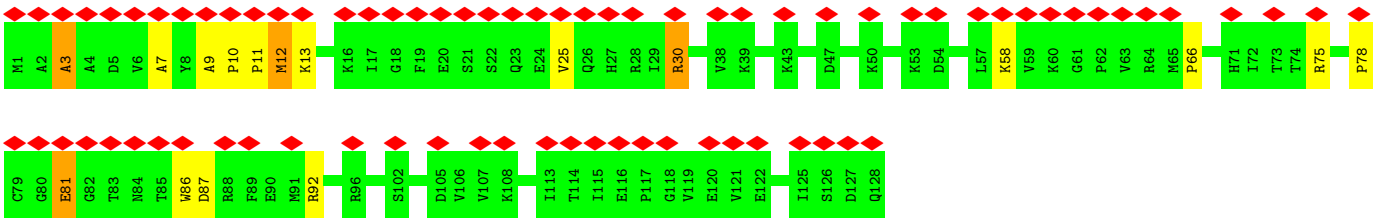
• Molecule 14: 40S ribosomal protein S9

Chain BQ:



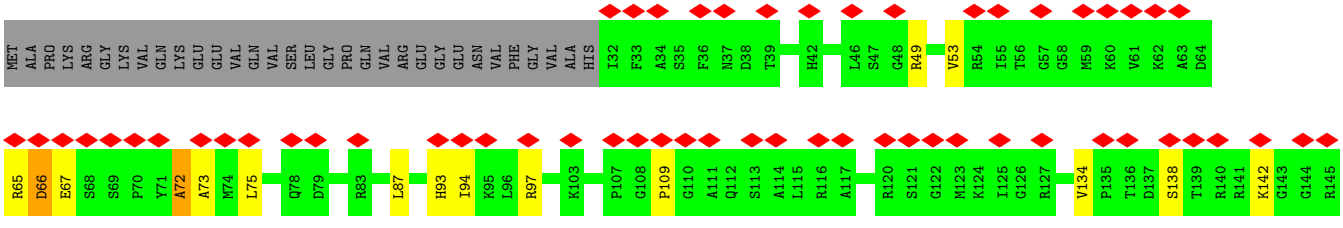
• Molecule 15: 40S ribosomal protein S10

Chain BU:



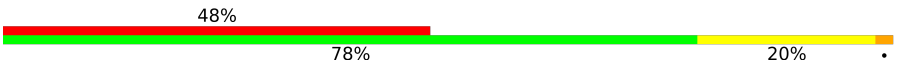
• Molecule 16: 40S ribosomal protein S11

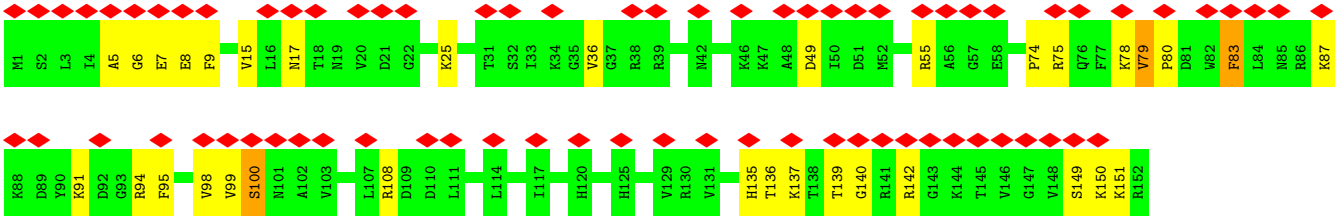
Chain BO:



• Molecule 17: 40S ribosomal protein S13

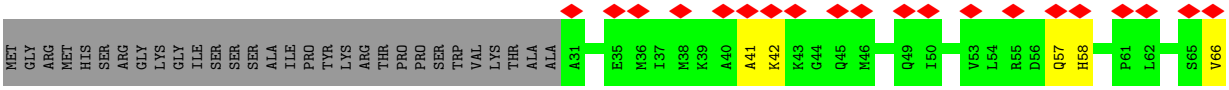
Chain BS:

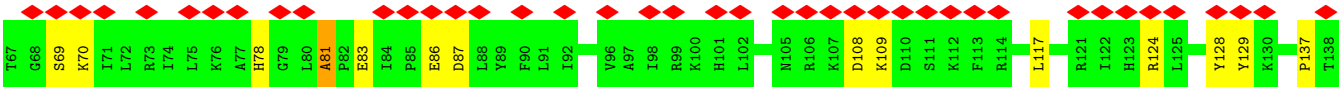


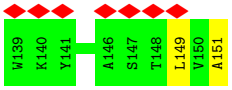


• Molecule 18: 40S ribosomal protein S15

Chain BN:

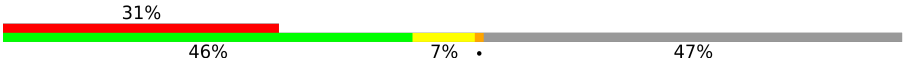


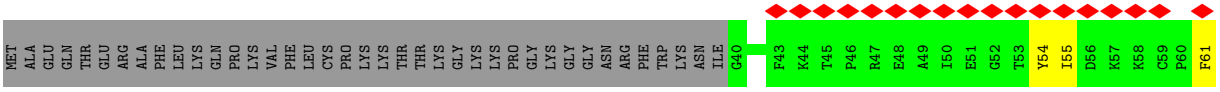


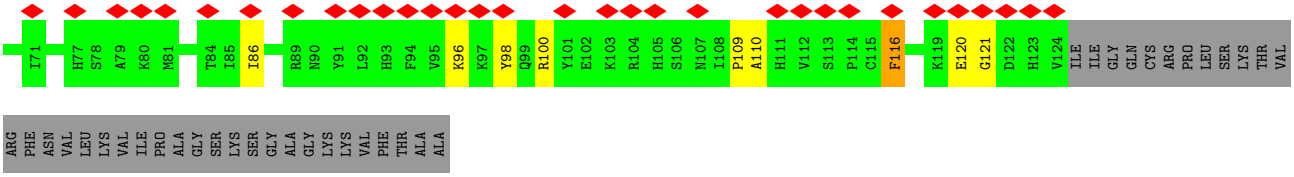


• Molecule 19: 40S ribosomal protein S17

Chain BL:

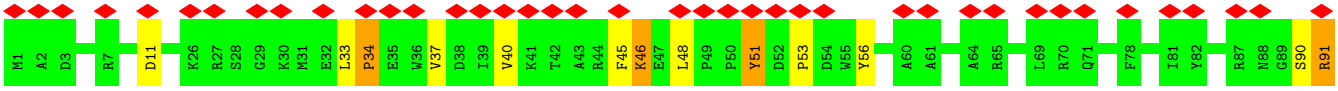


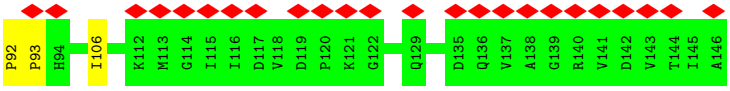




• Molecule 20: 40S ribosomal protein S19E

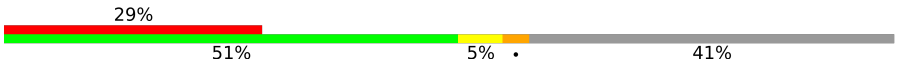
Chain BT:

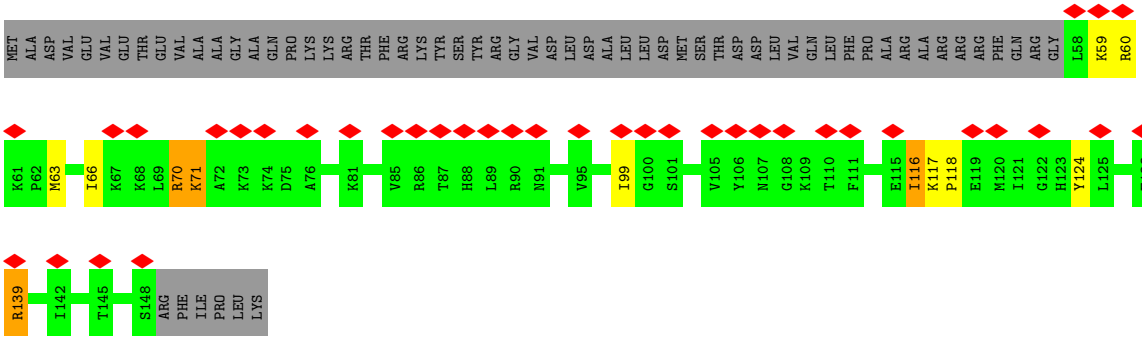




• Molecule 21: 40S ribosomal protein S19

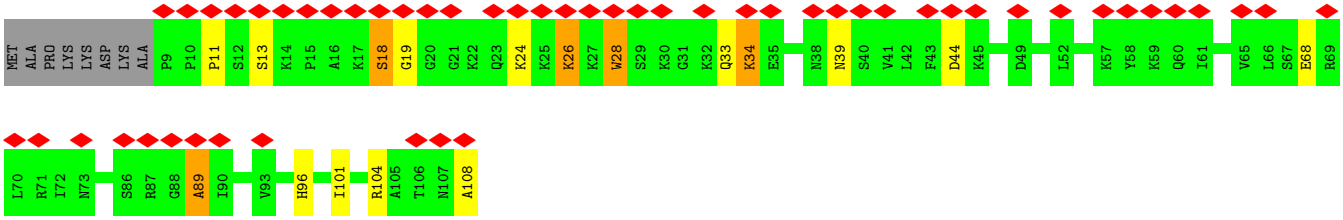
Chain BP:





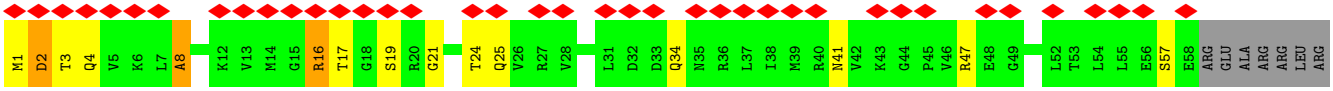
• Molecule 22: 40S ribosomal protein S25E

Chain BZ:



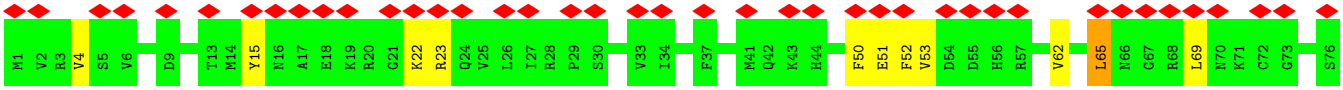
• Molecule 23: 40S ribosomal protein S28E

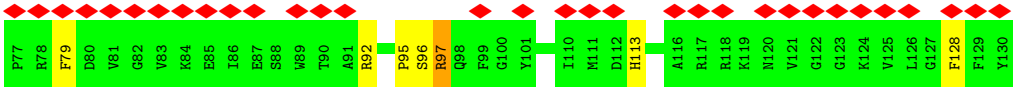
Chain Bc:



• Molecule 24: 40S ribosomal protein S8

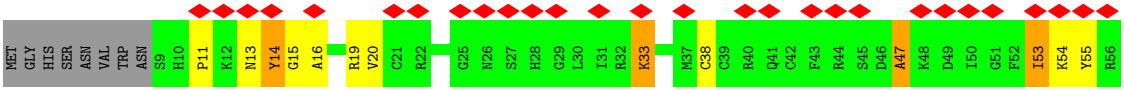
Chain BW:





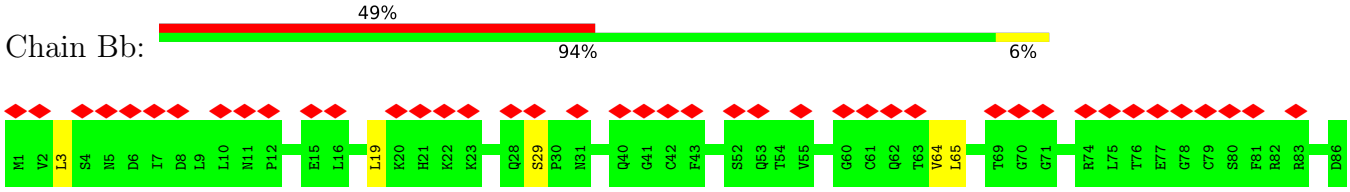
• Molecule 25: 40S ribosomal protein S14

Chain Bd:



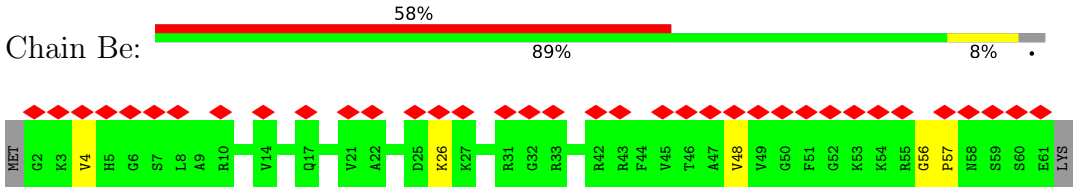
• Molecule 26: 40S ribosomal protein S27E

Chain Bb:



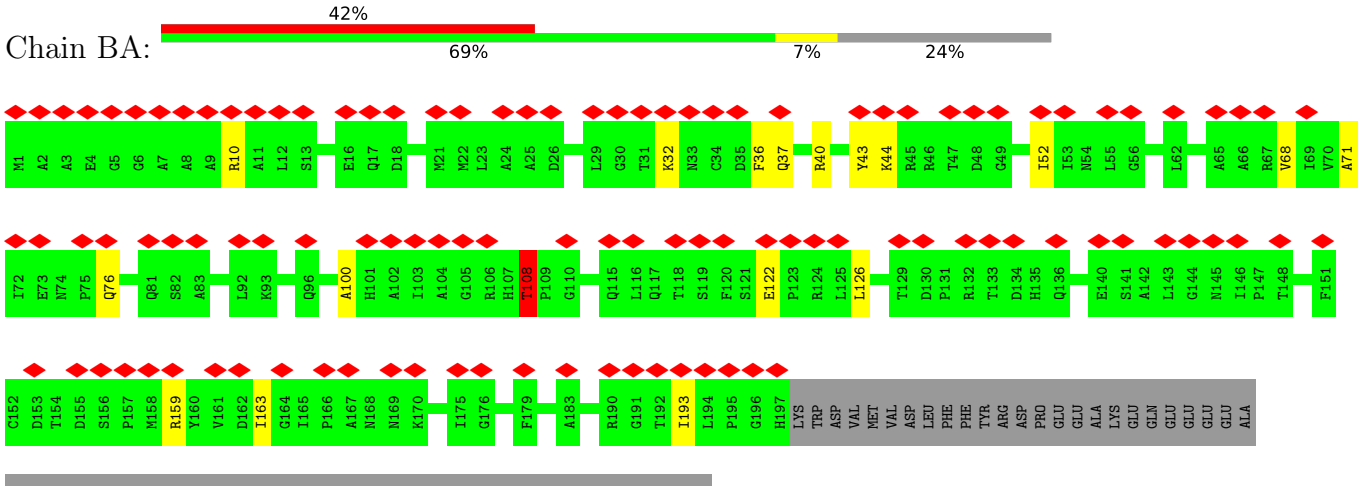
• Molecule 27: 40S ribosomal protein S30E

Chain Be:



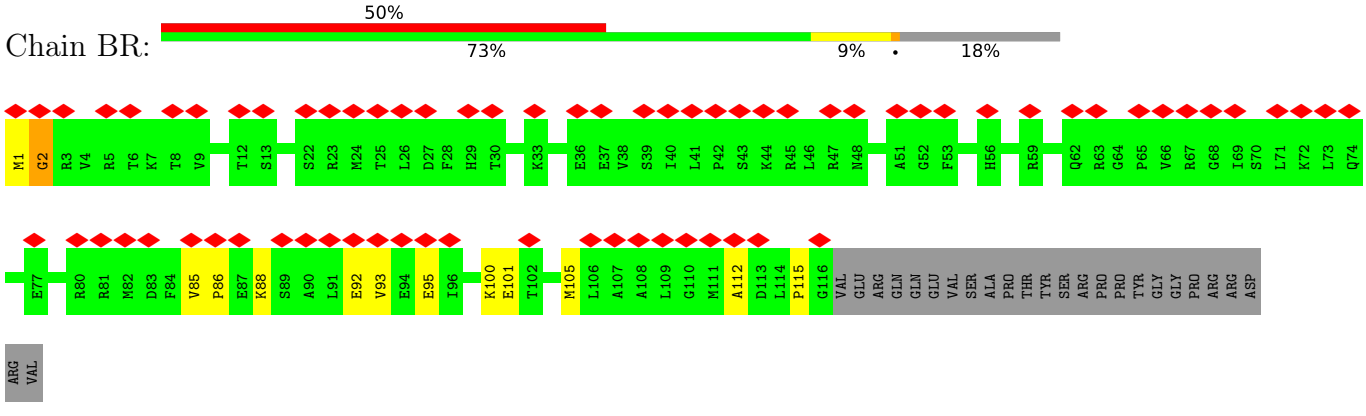
• Molecule 28: 40S ribosomal protein S2

Chain BA:



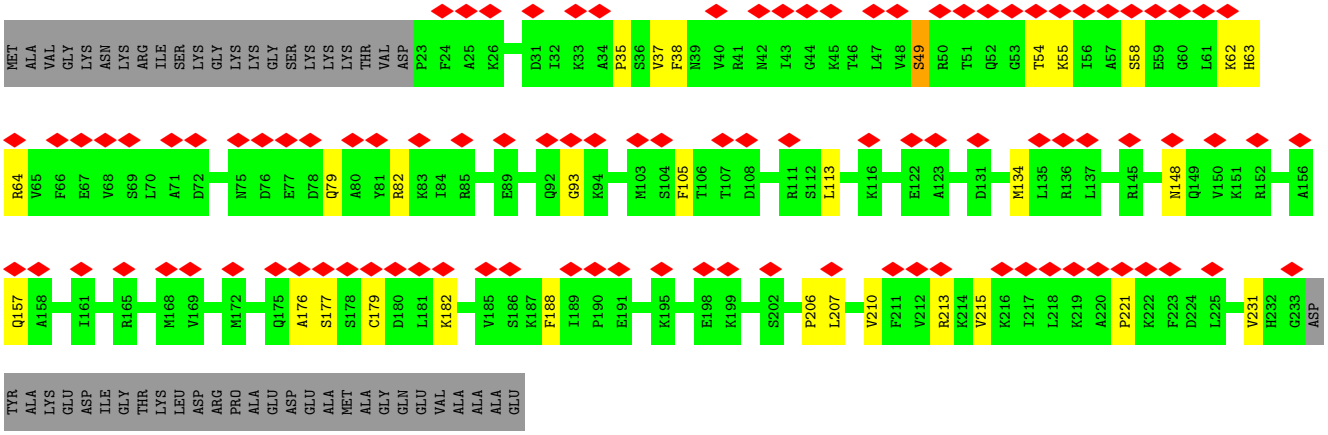
• Molecule 29: 40S ribosomal protein S17E

Chain BR:



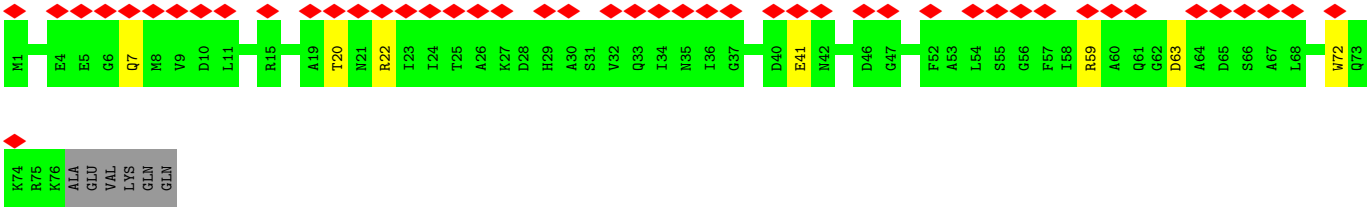
• Molecule 30: 40S ribosomal protein S1E

Chain BB:



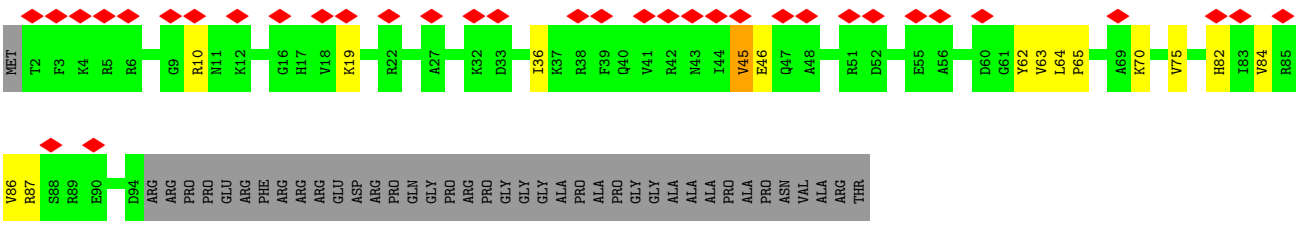
• Molecule 31: 40S ribosomal protein S21E

Chain BV:



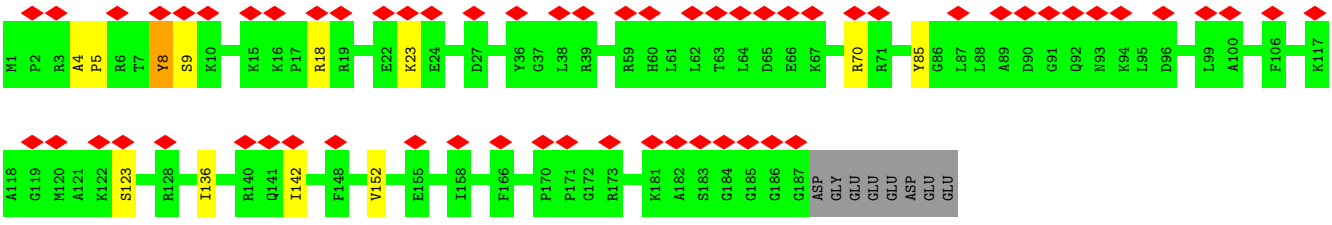
• Molecule 32: 40S ribosomal protein S26E

Chain Ba:



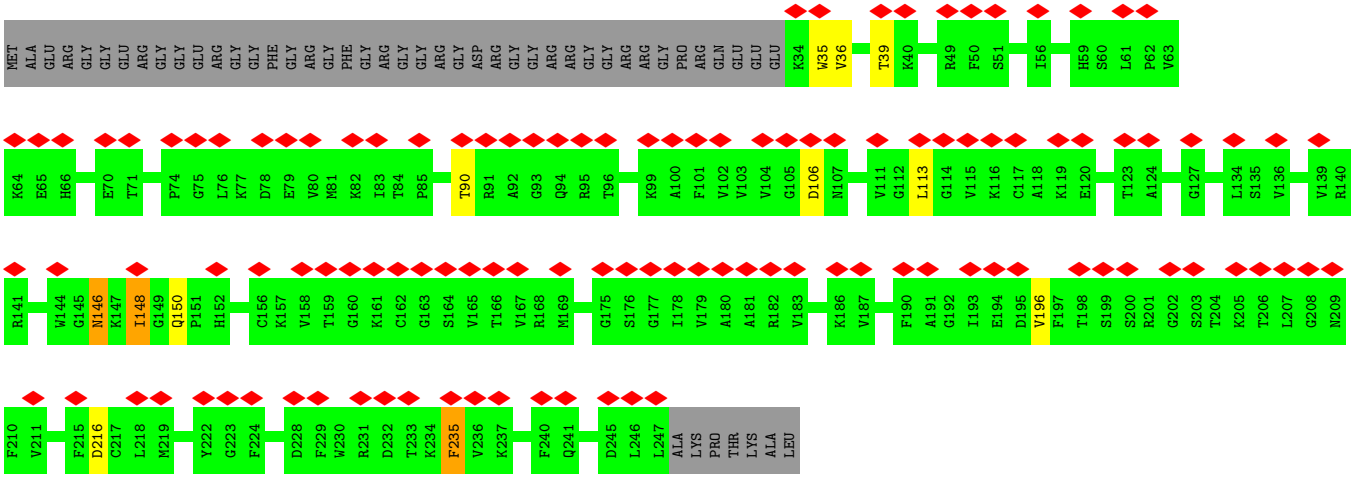
• Molecule 33: 40S ribosomal protein S4

Chain BJ:

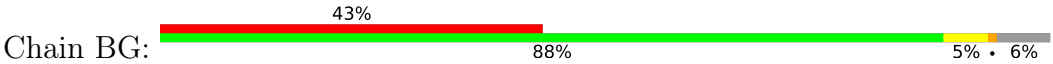


• Molecule 34: 40S ribosomal protein S5

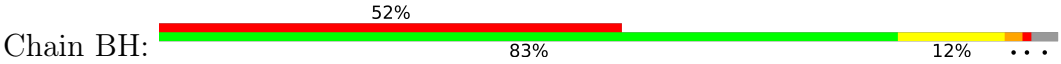
Chain BC:



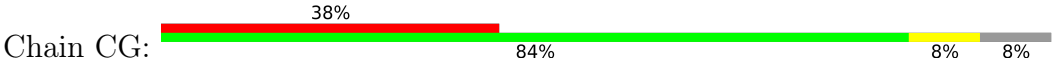
• Molecule 35: 40S ribosomal protein S6

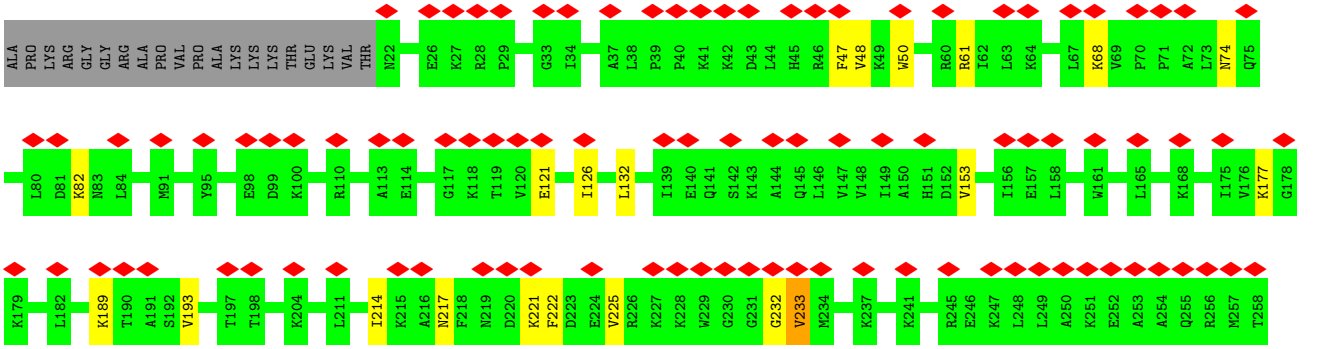


• Molecule 36: 40S ribosomal protein S7E



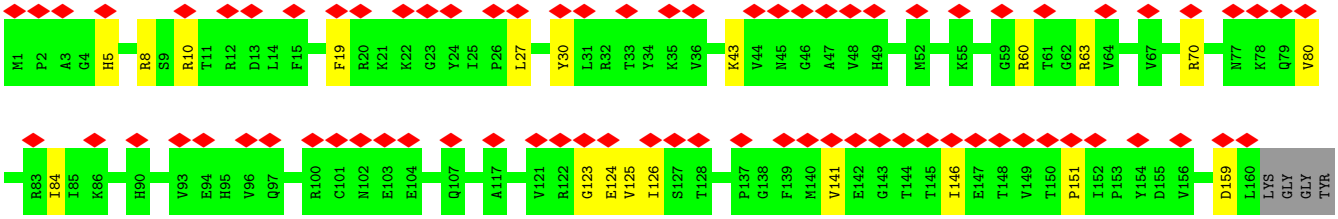
• Molecule 37: 60S ribosomal protein L8E





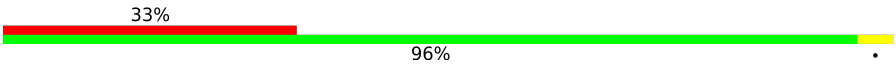
• Molecule 38: 60S ribosomal protein L21E

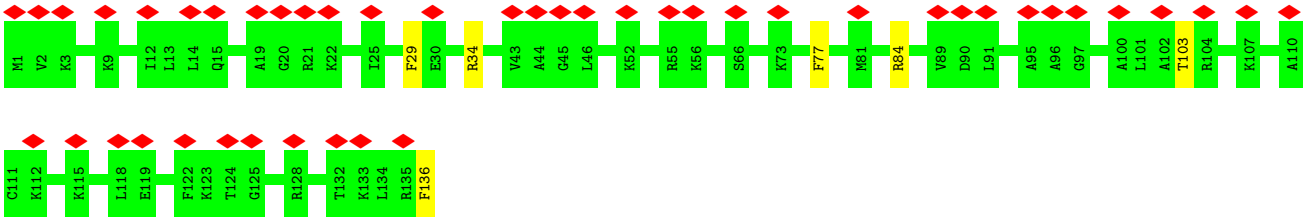
Chain CT:



• Molecule 39: 60S ribosomal protein L27E

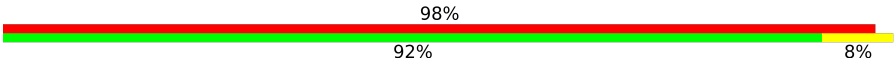
Chain CZ:

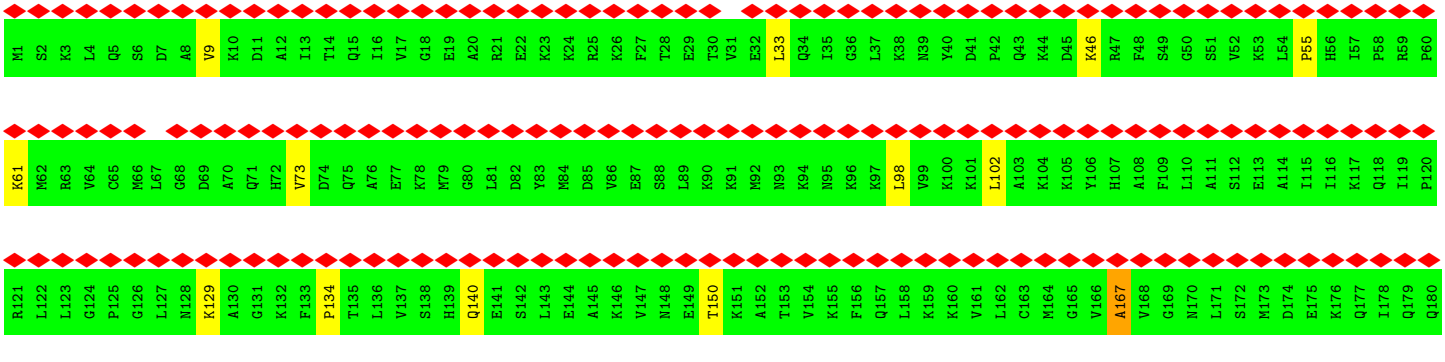


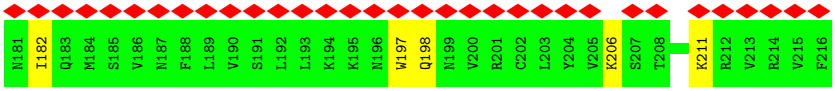


• Molecule 40: 60S ribosomal protein L1

Chain Cz:

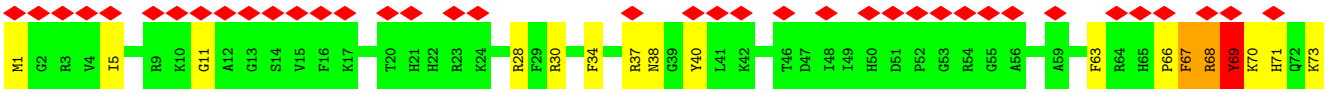


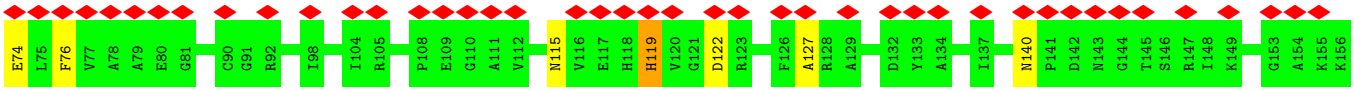


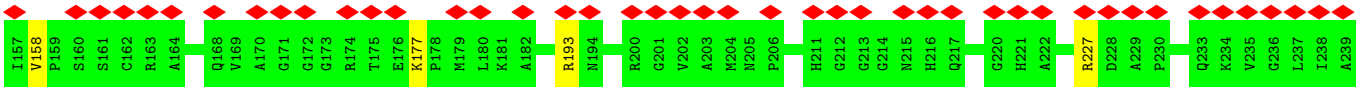


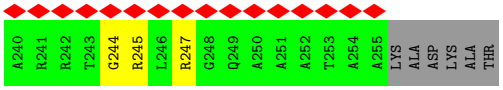
• Molecule 41: 60S ribosomal protein L2

Chain CA:



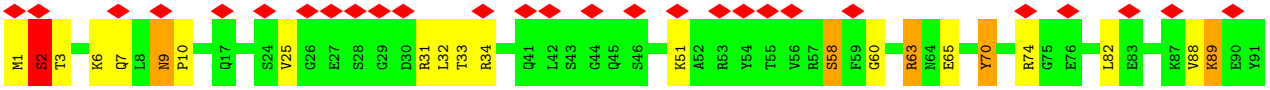


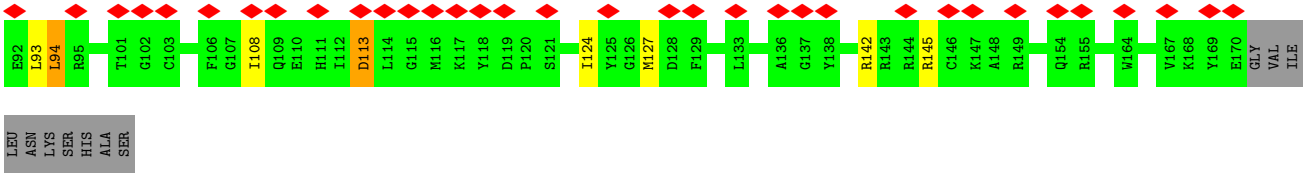




• Molecule 42: 60S ribosomal protein L5

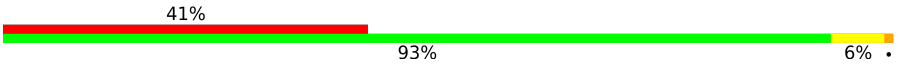
Chain CJ:

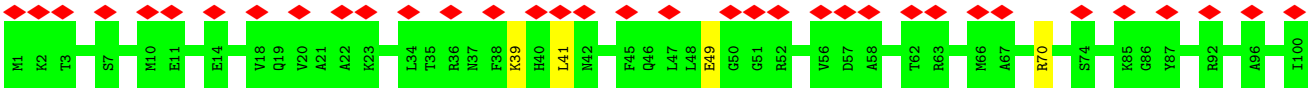


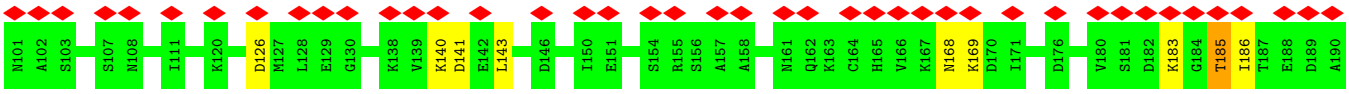


• Molecule 43: 60S ribosomal protein L6

Chain CH:

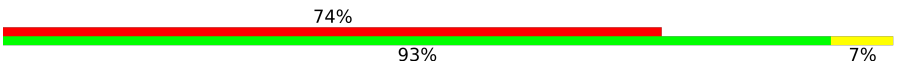


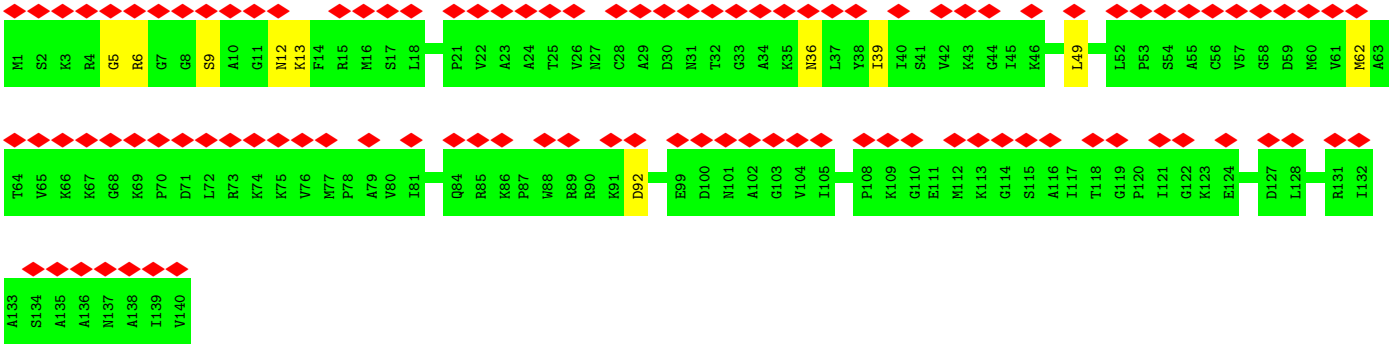




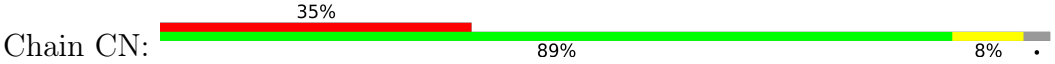
• Molecule 44: 60S ribosomal protein L14

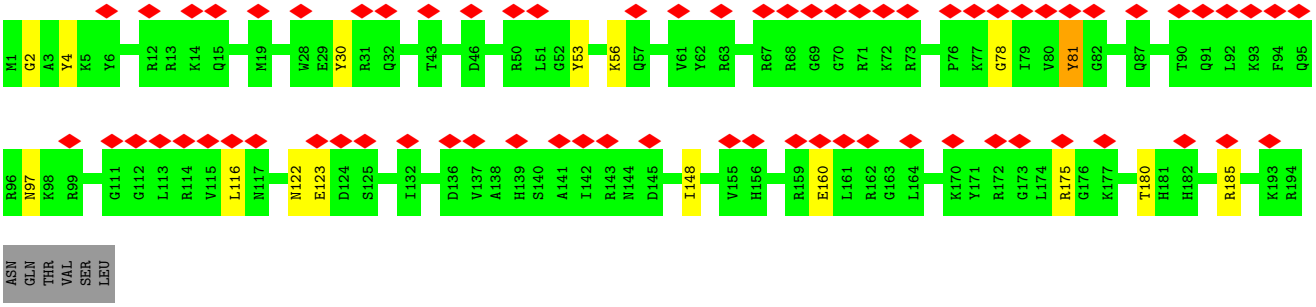
Chain CV:



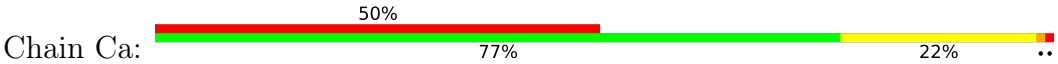


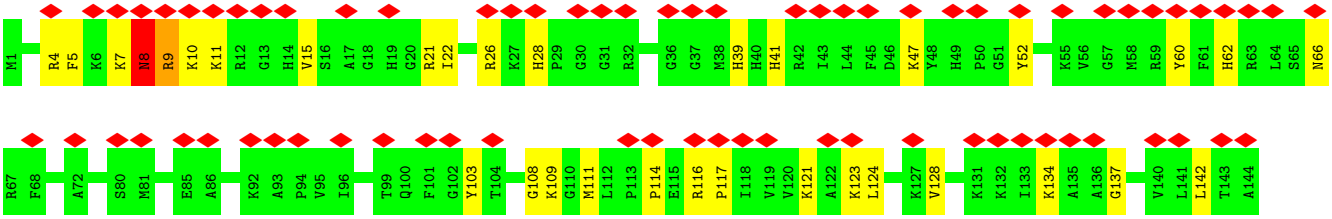
• Molecule 45: 60S ribosomal protein L15E



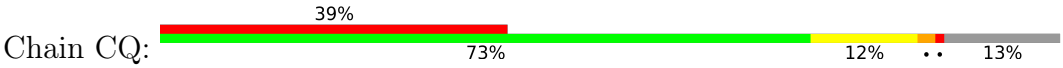


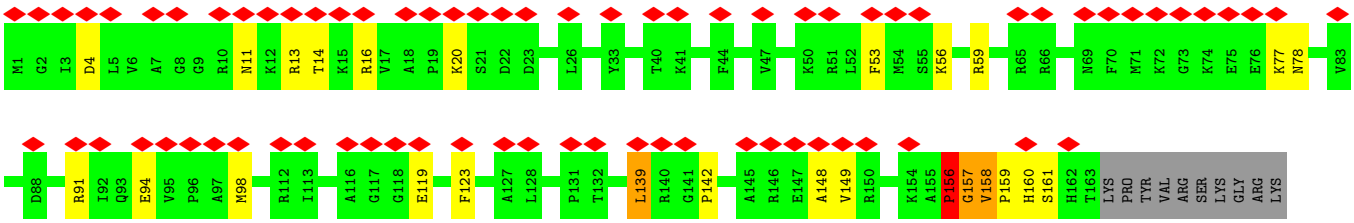
• Molecule 46: 60S ribosomal protein L15



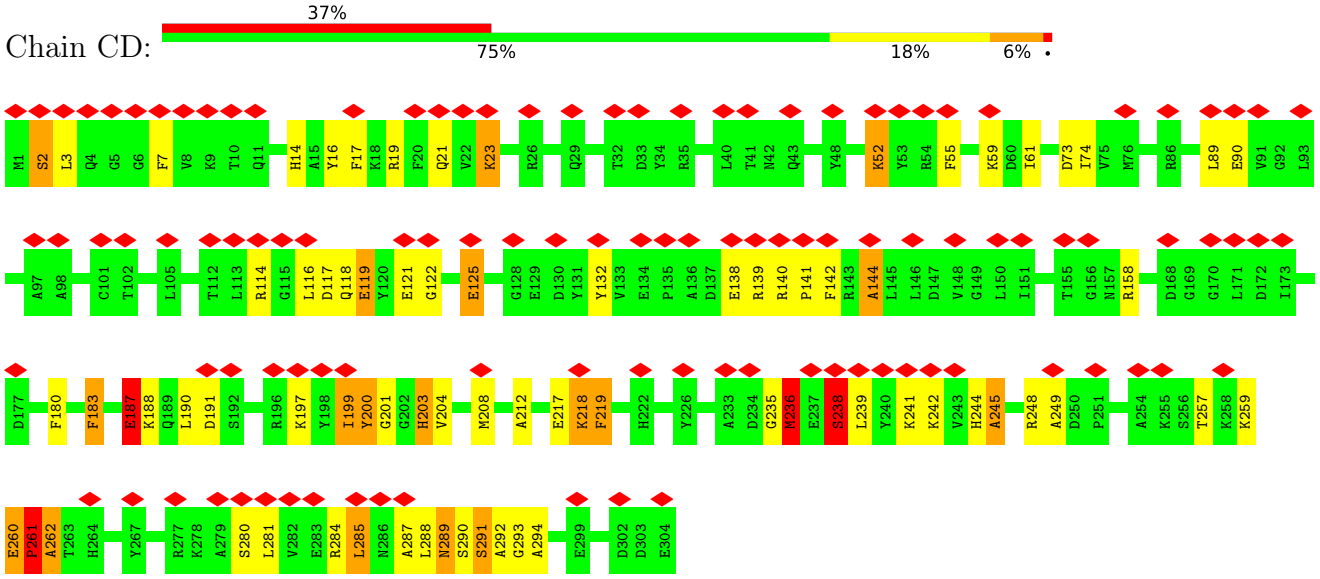


• Molecule 47: 60S ribosomal protein L18E

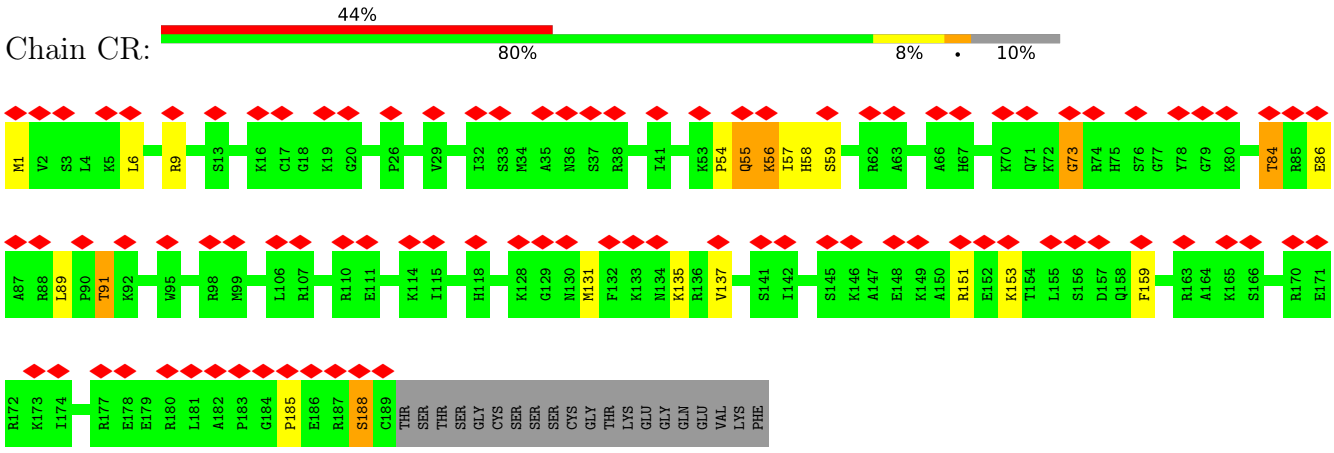




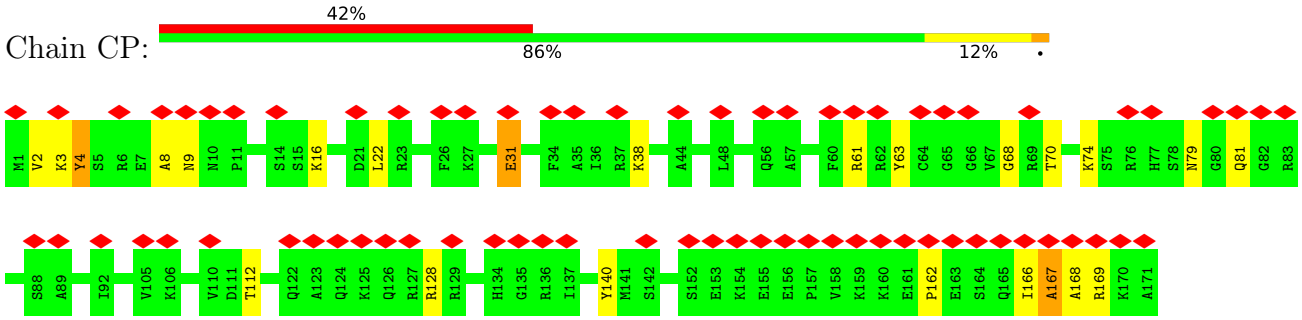
• Molecule 48: 60S ribosomal protein L18



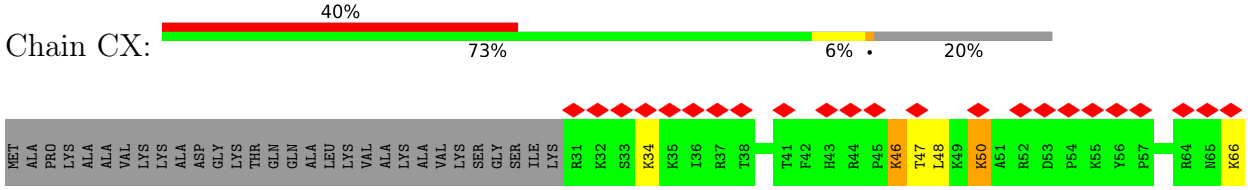
• Molecule 49: 60S ribosomal protein L19E

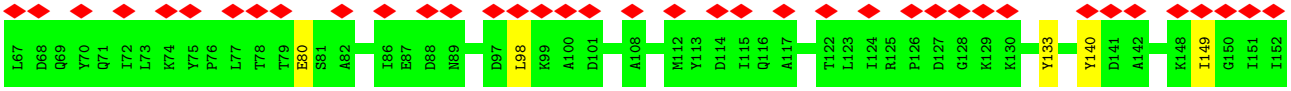


• Molecule 50: 60S ribosomal protein L22



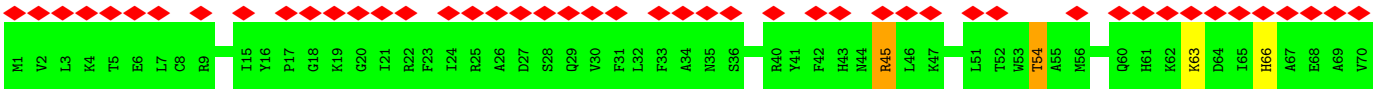
• Molecule 51: 60S ribosomal protein L23

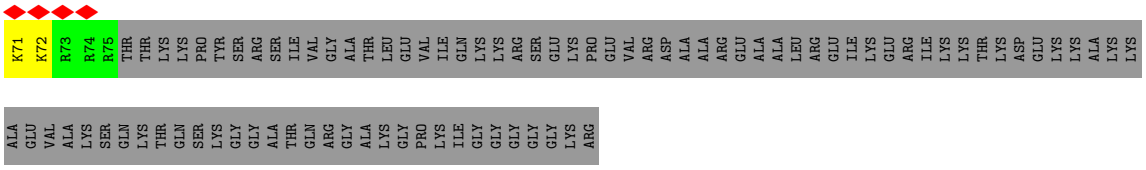




• Molecule 52: 60S ribosomal protein L24E

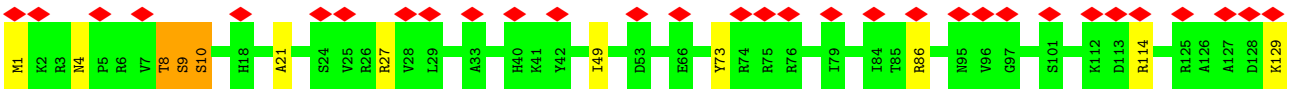
Chain CW:

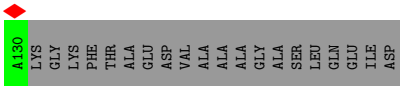




• Molecule 53: 60S ribosomal protein L24

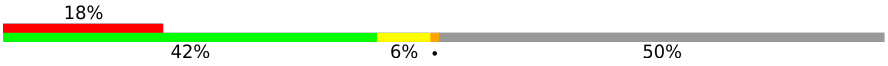
Chain CY:

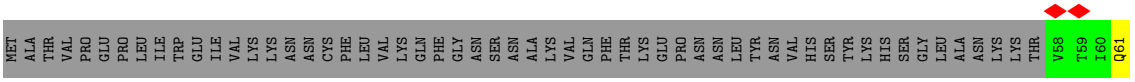


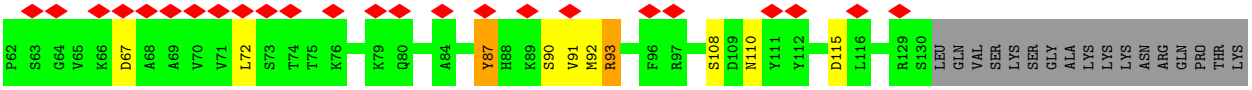


• Molecule 54: 60S ribosomal protein L28E

Chain Cr:

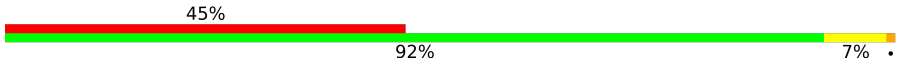


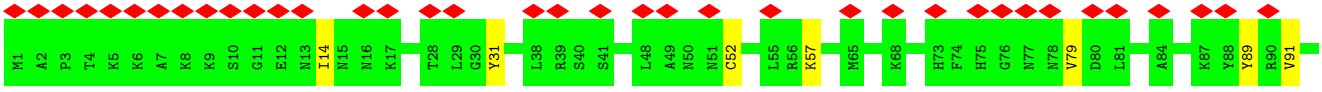


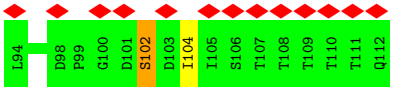


• Molecule 55: 60S ribosomal protein L30E

Chain Cc:

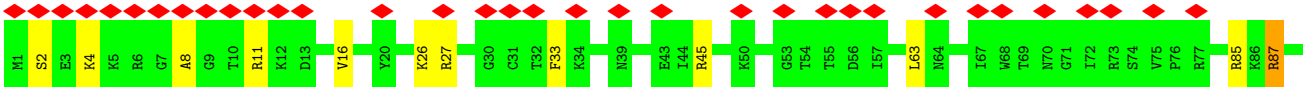


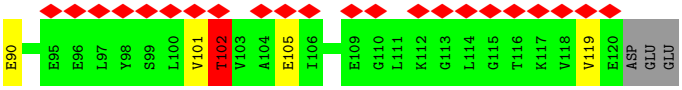




• Molecule 56: 60S ribosomal protein L31E

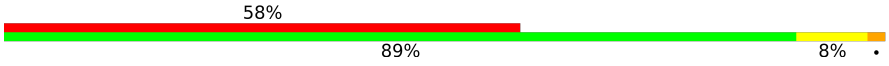
Chain Cd:

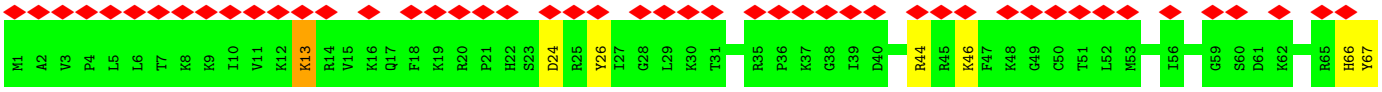


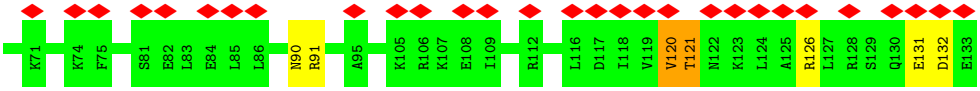


• Molecule 57: 60S ribosomal protein L32E

Chain Ce:

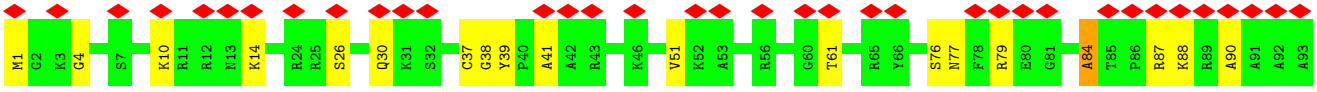






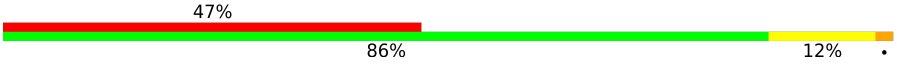
• Molecule 58: 60S ribosomal protein L37E

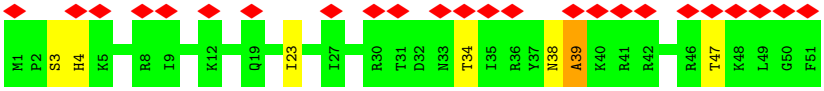
Chain Cj:



• Molecule 59: 60S ribosomal protein L39E

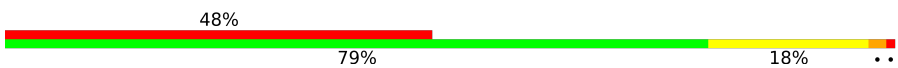
Chain Cl:

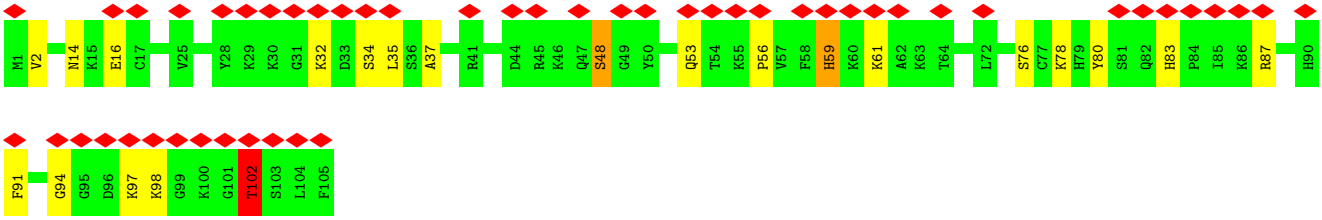




• Molecule 60: 60S ribosomal protein L44E

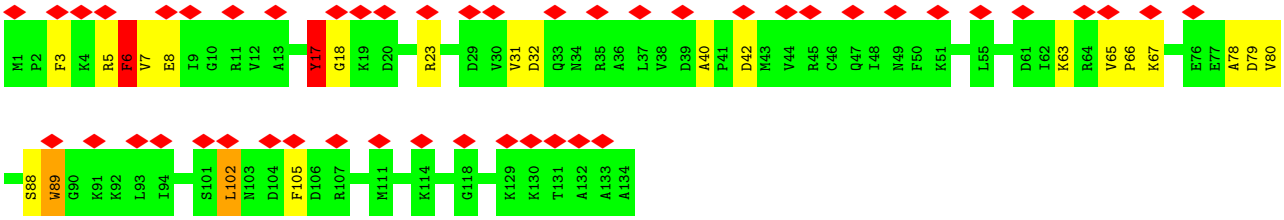
Chain Co:





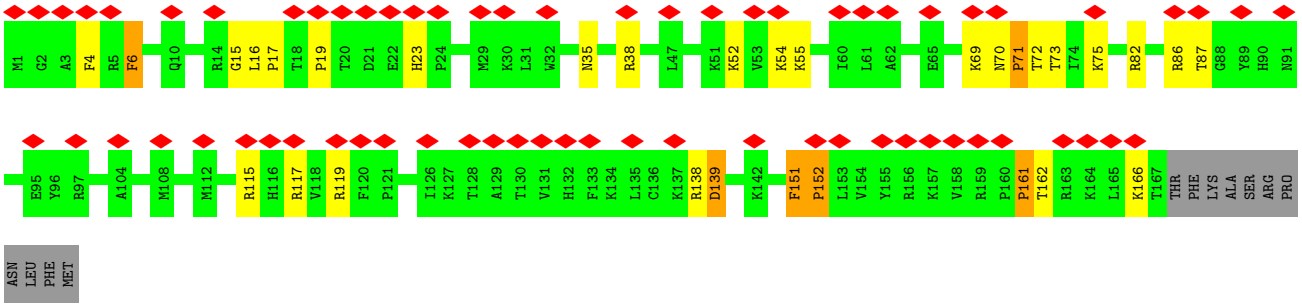
• Molecule 61: 60S ribosomal protein L14E

Chain CM:



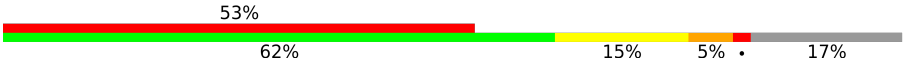
• Molecule 62: 60S ribosomal protein L20

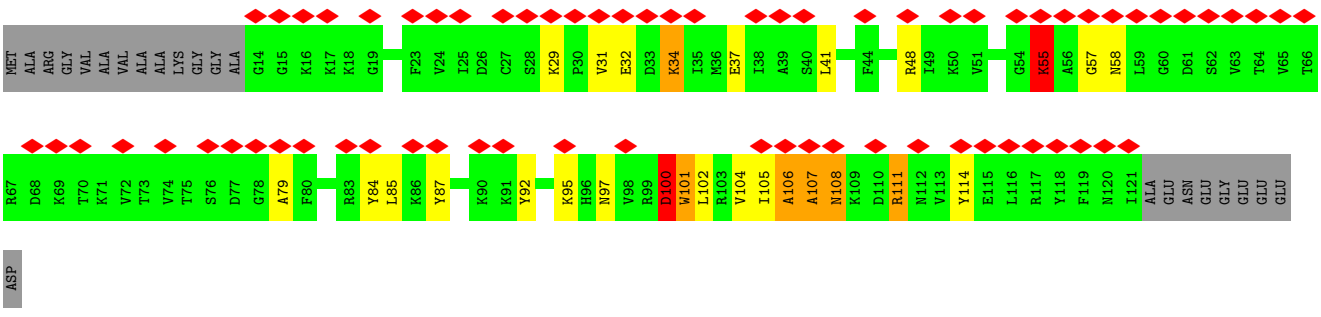
Chain CS:



• Molecule 63: 60S ribosomal protein L22E

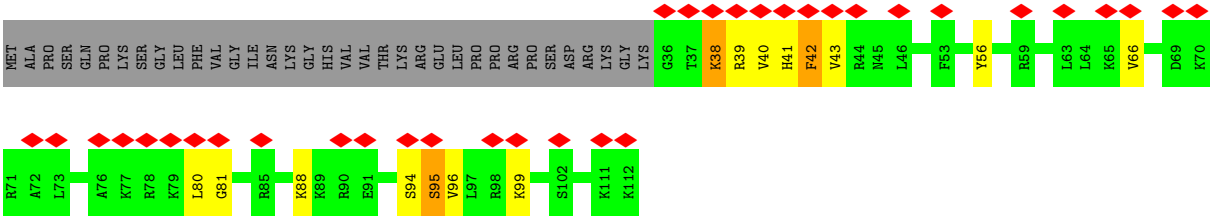
Chain CU:





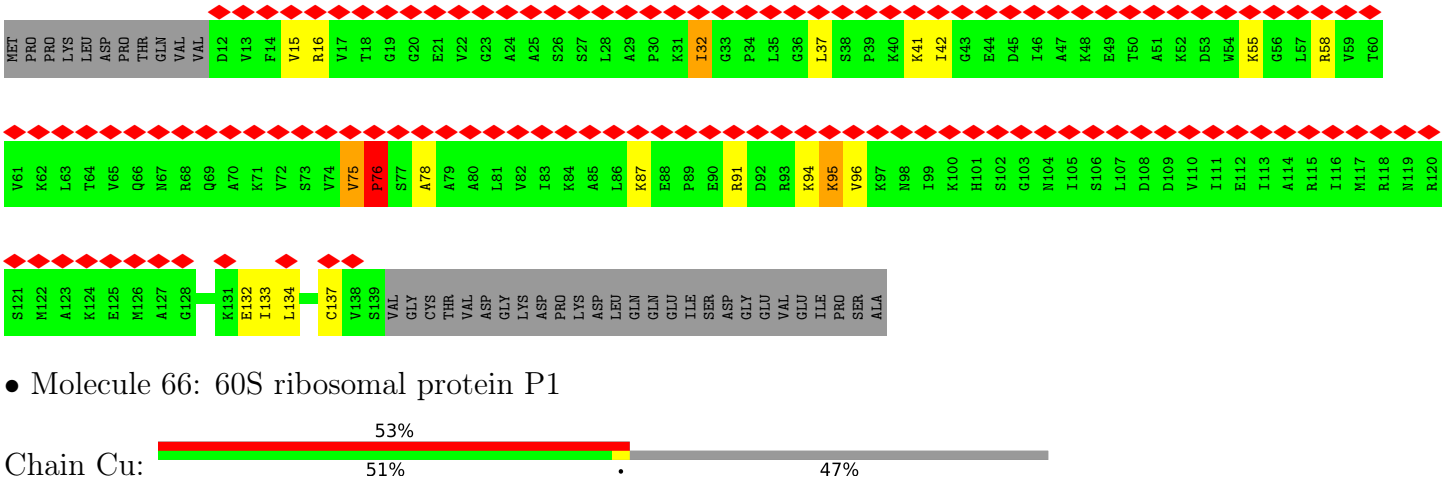
• Molecule 64: 60S ribosomal protein L36E

Chain Ci:



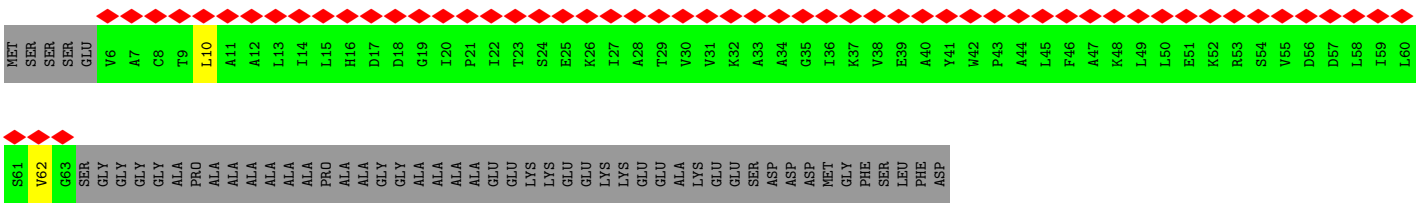
• Molecule 65: 60S ribosomal protein L11

Chain CK:



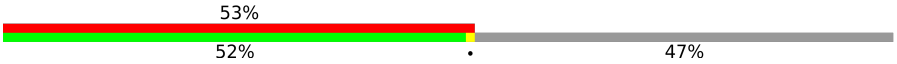
• Molecule 66: 60S ribosomal protein P1

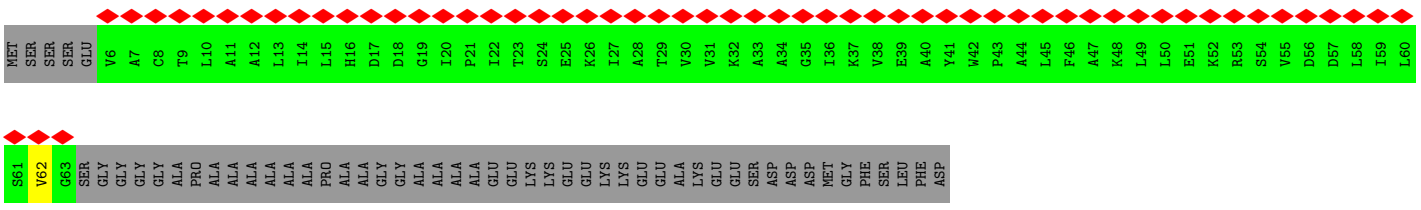
Chain Cu:



• Molecule 66: 60S ribosomal protein P1

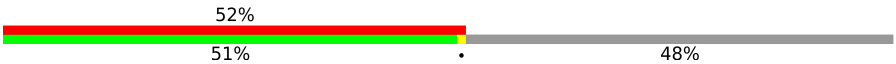
Chain Cv:

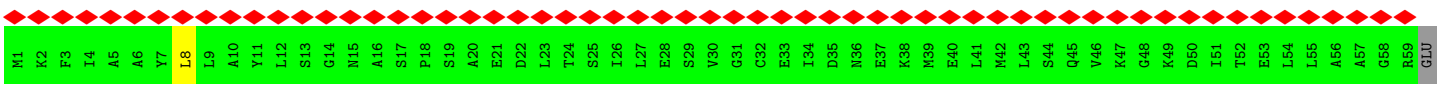




• Molecule 67: Acidic ribosomal protein P2

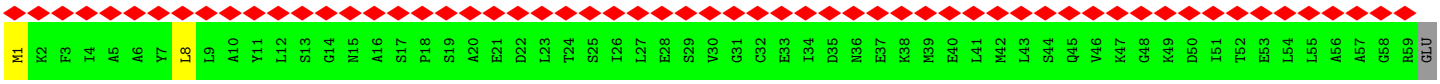
Chain Cs:

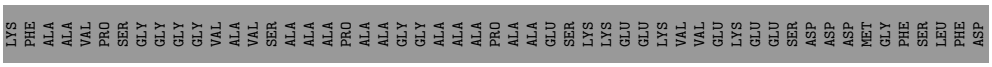




• Molecule 67: Acidic ribosomal protein P2

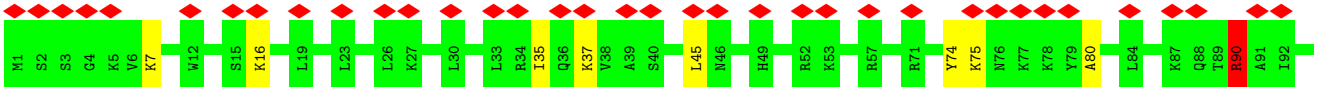
Chain Ct:





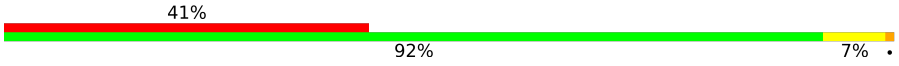
• Molecule 68: 60S ribosomal protein L29

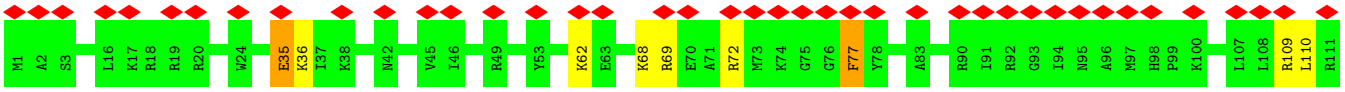
Chain Ch:

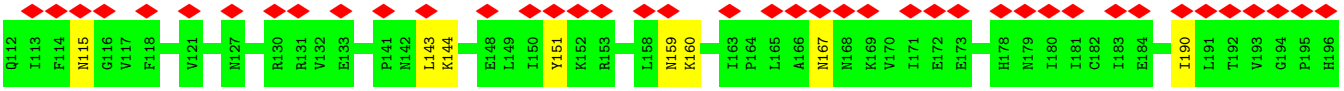


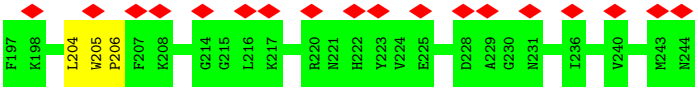
• Molecule 69: 60S ribosomal protein L30

Chain CF:



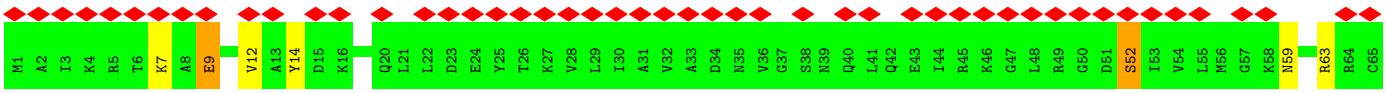


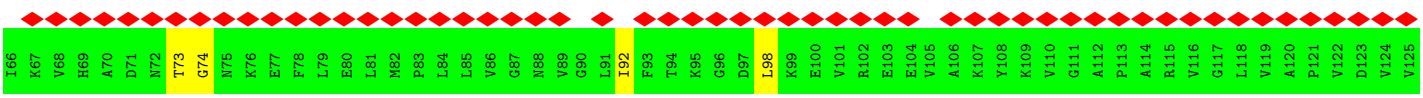


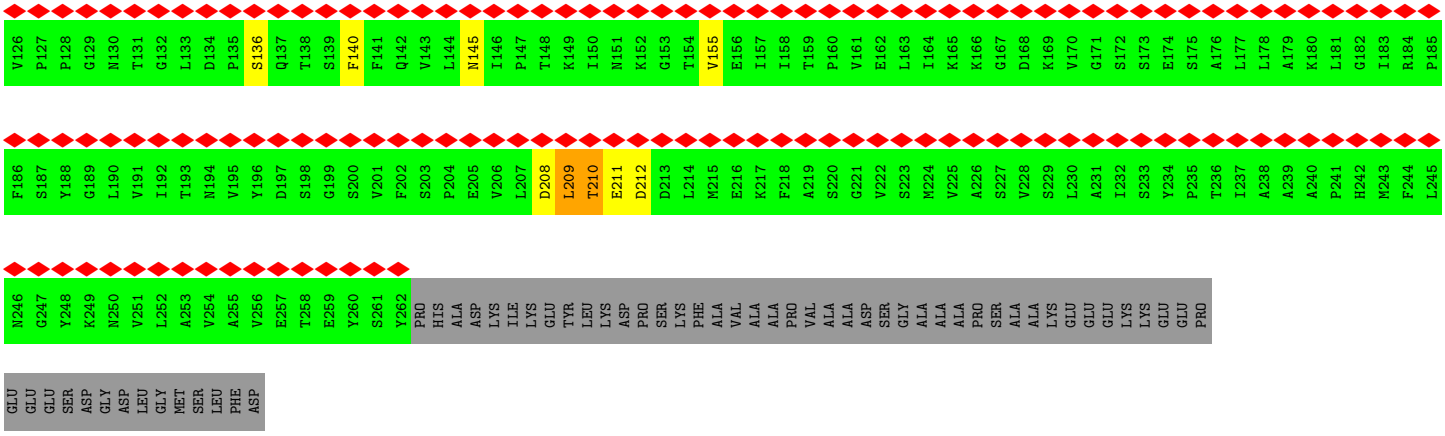


• Molecule 70: 60S acidic ribosomal protein P0

Chain Cq:

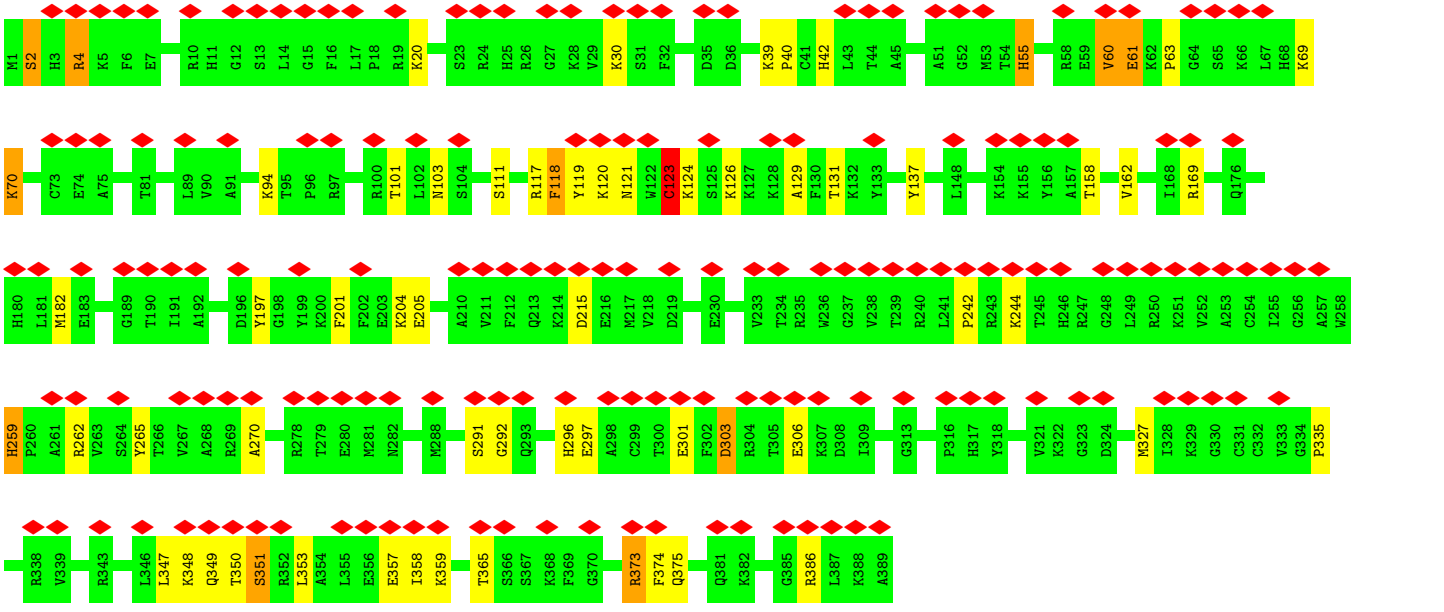






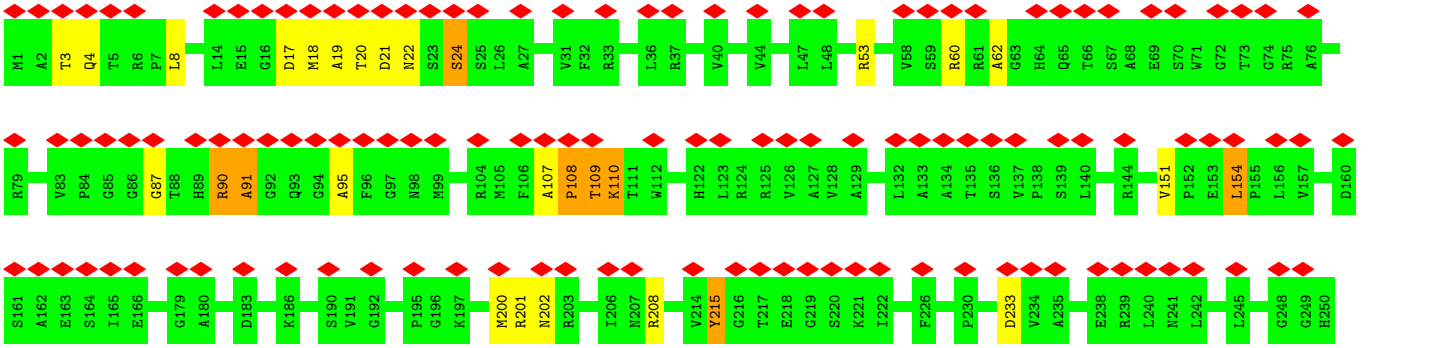
• Molecule 71: 60S ribosomal protein L3

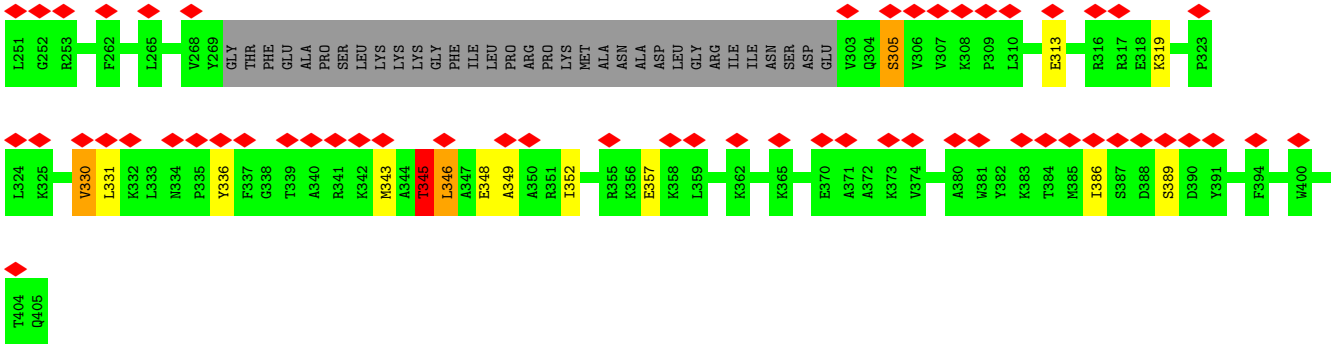
Chain CB:



• Molecule 72: 60S ribosomal protein L4

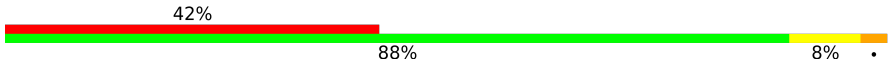
Chain CC:

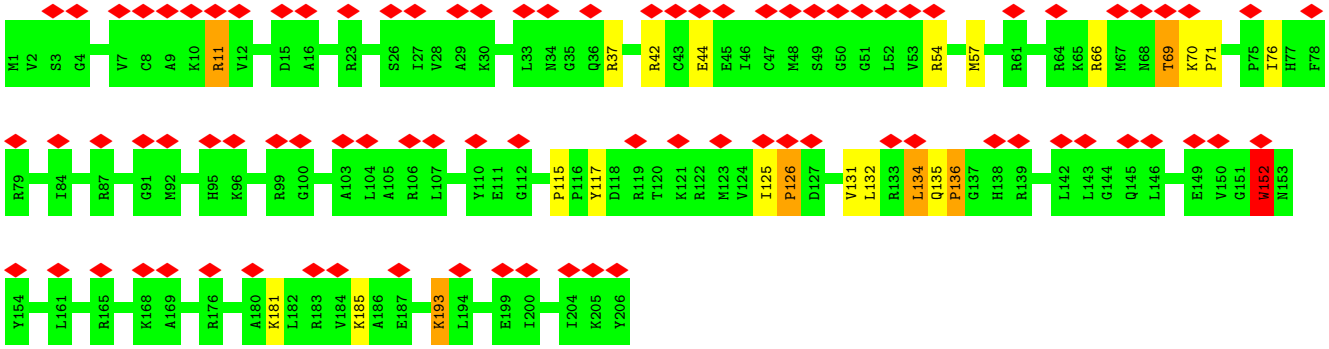




• Molecule 73: 60S ribosomal protein L13

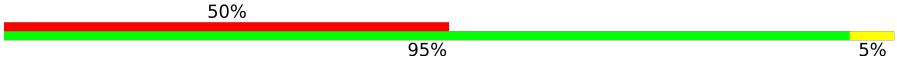
Chain CO:

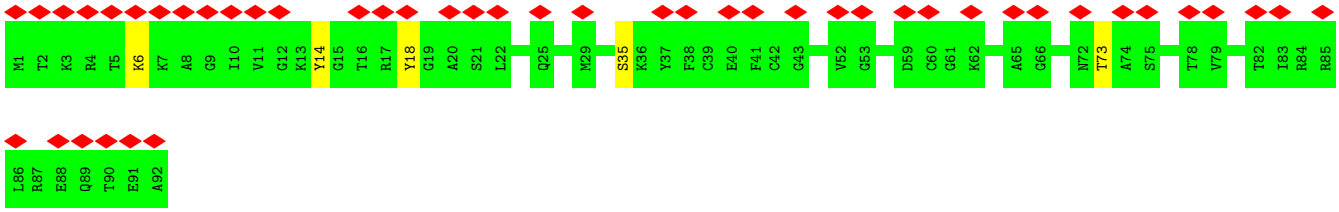




• Molecule 74: 60S ribosomal protein L43E

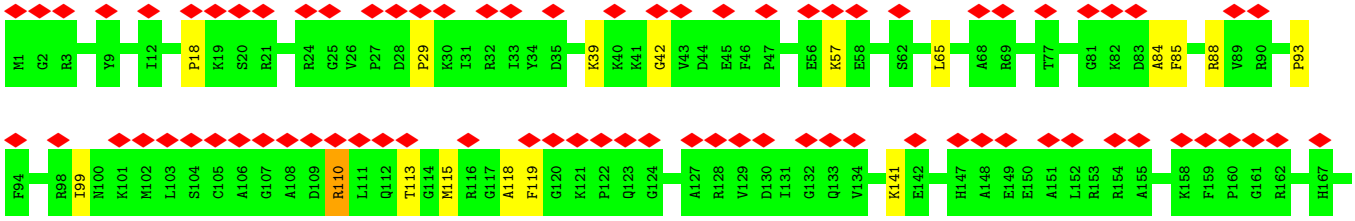
Chain Cp:

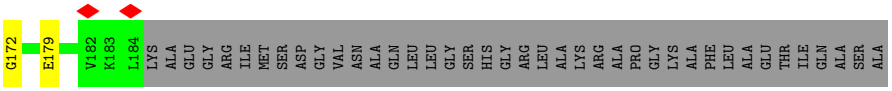




• Molecule 75: 60S ribosomal protein L16

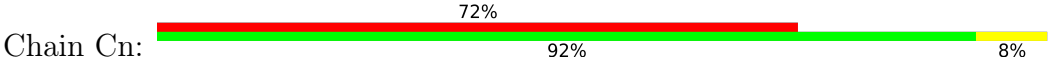
Chain CI:

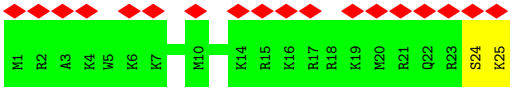




• Molecule 76: 60S ribosomal protein L41E

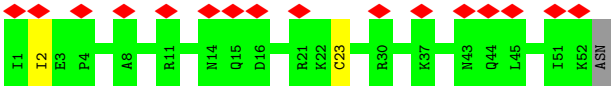
Chain Cn:





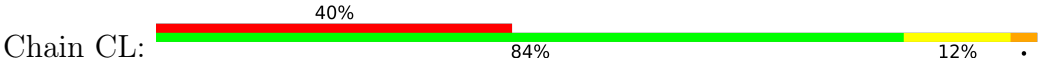
• Molecule 77: 60S ribosomal protein L40E

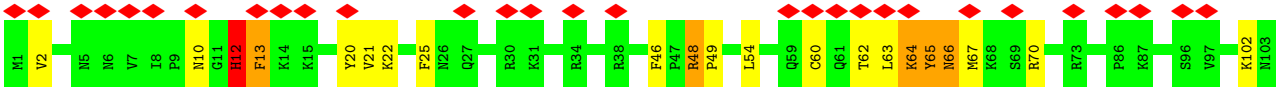
Chain Cm:

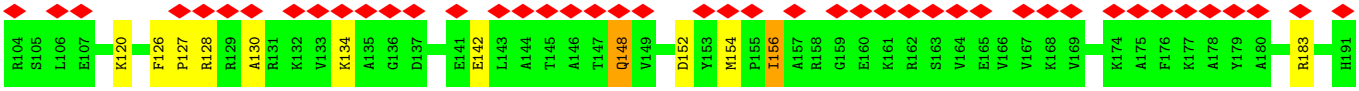


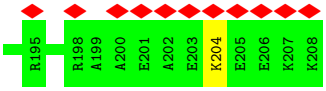
• Molecule 78: 60S ribosomal protein L13E

Chain CL:



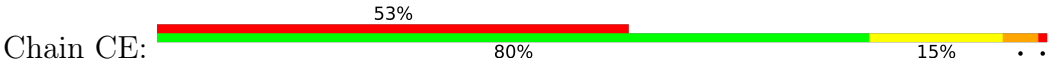


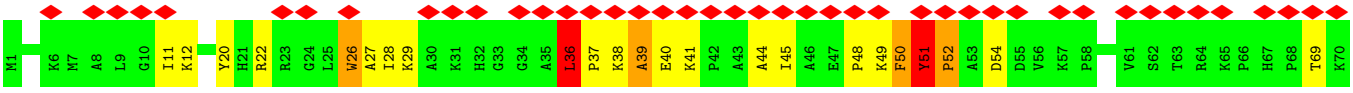


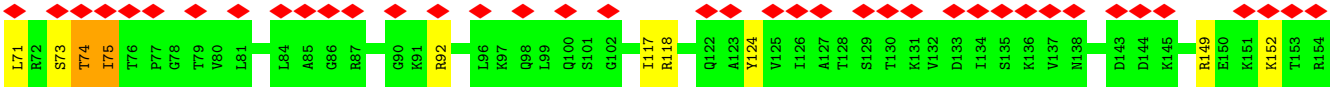


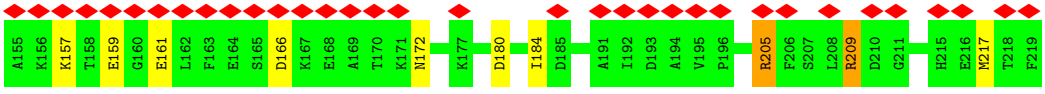
• Molecule 79: 60S ribosomal protein L6E

Chain CE:



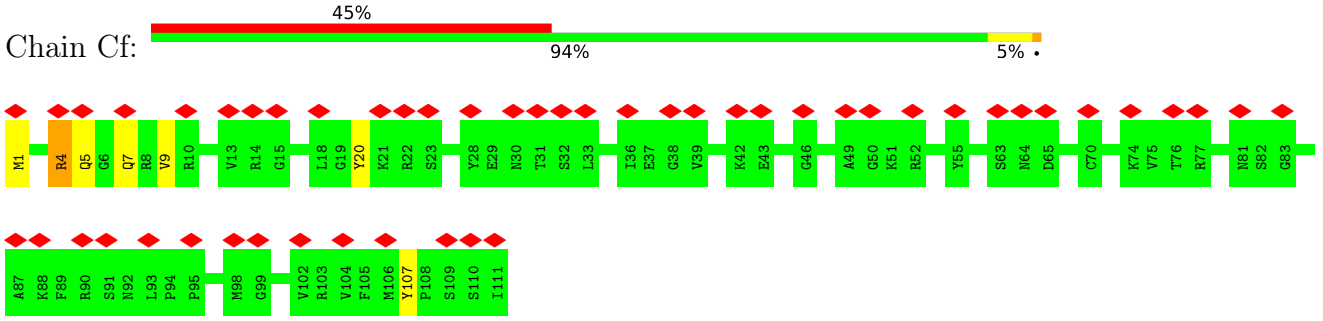






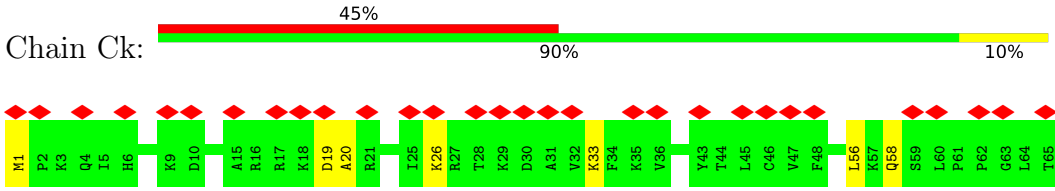
• Molecule 80: 60S ribosomal protein L33E

Chain Cf:



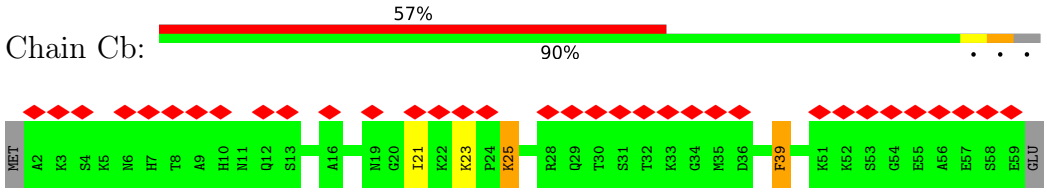
• Molecule 81: 60S ribosomal protein L38E

Chain Ck:



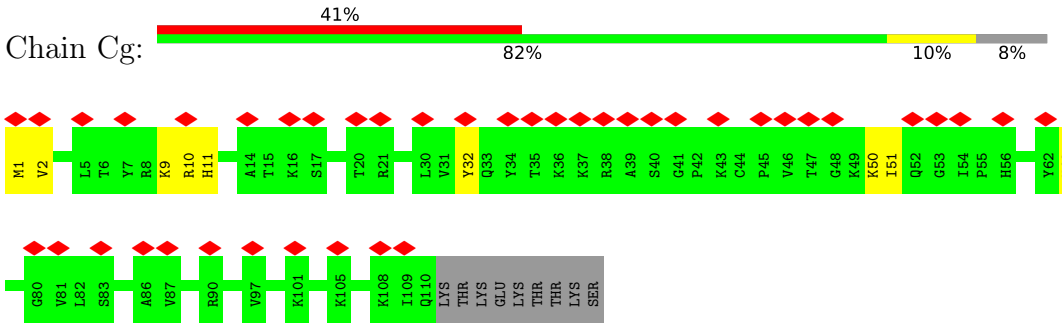
• Molecule 82: 60S ribosomal protein L29E

Chain Cb:



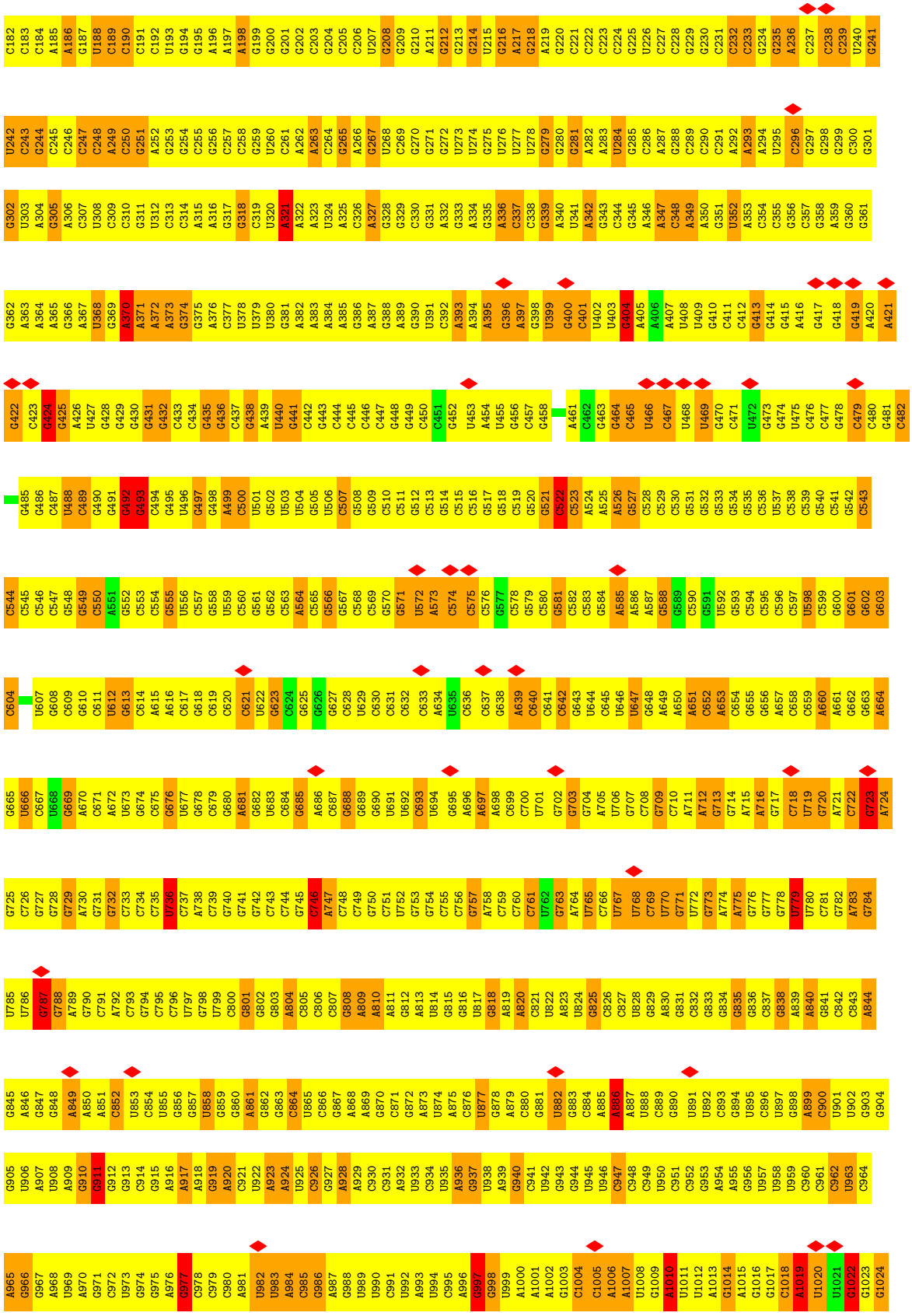
• Molecule 83: 60S ribosomal protein L34E

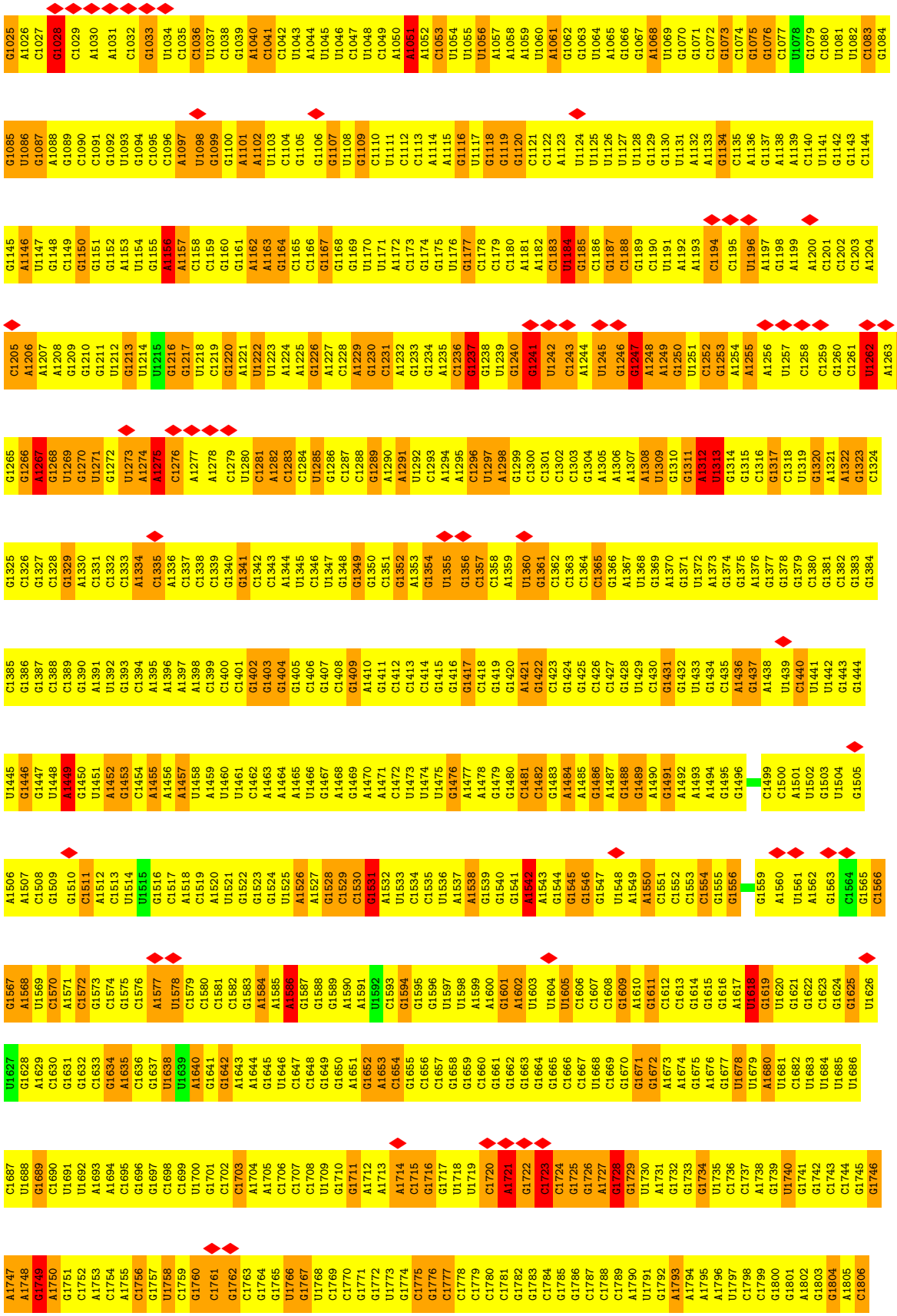
Chain Cg:

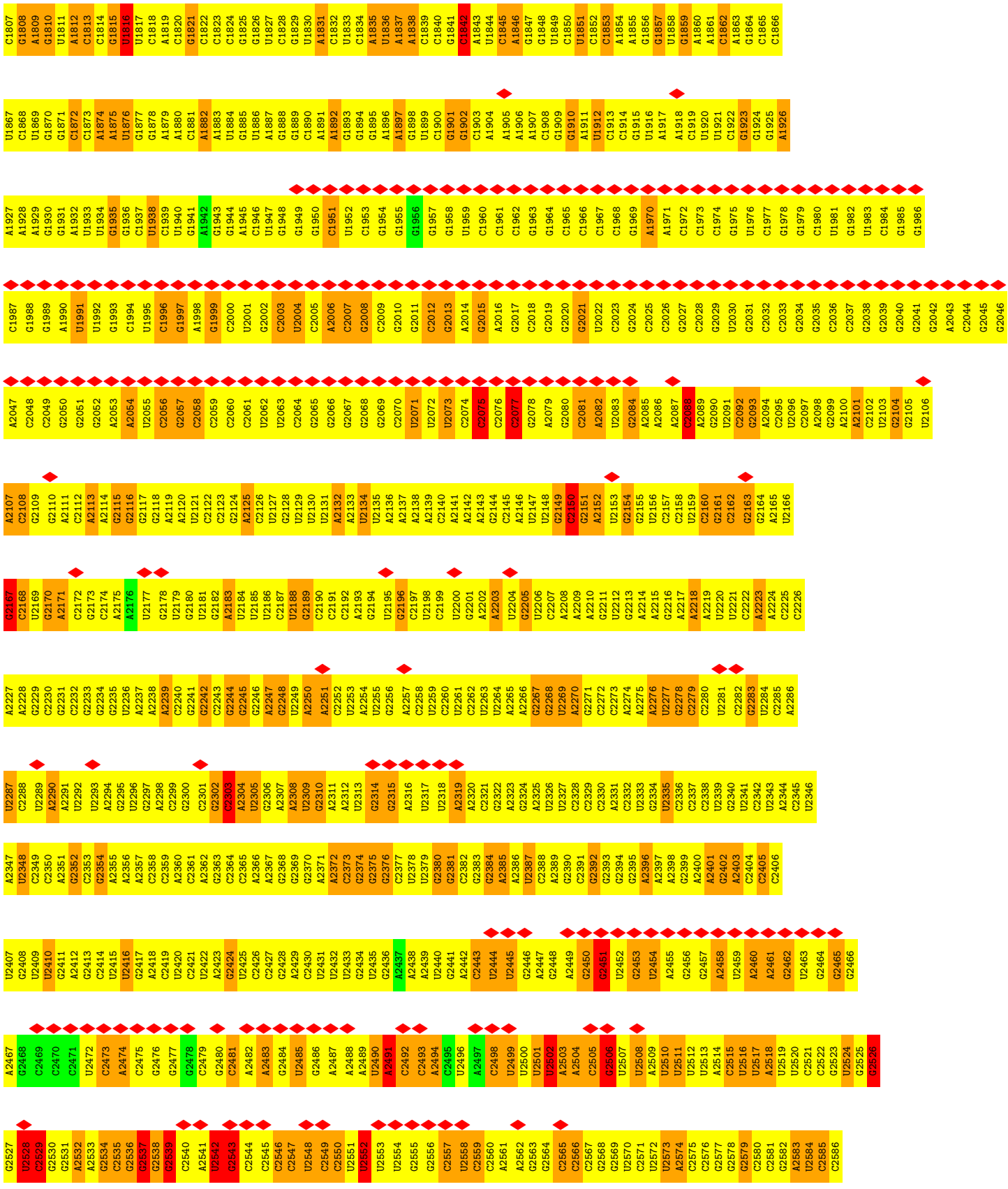


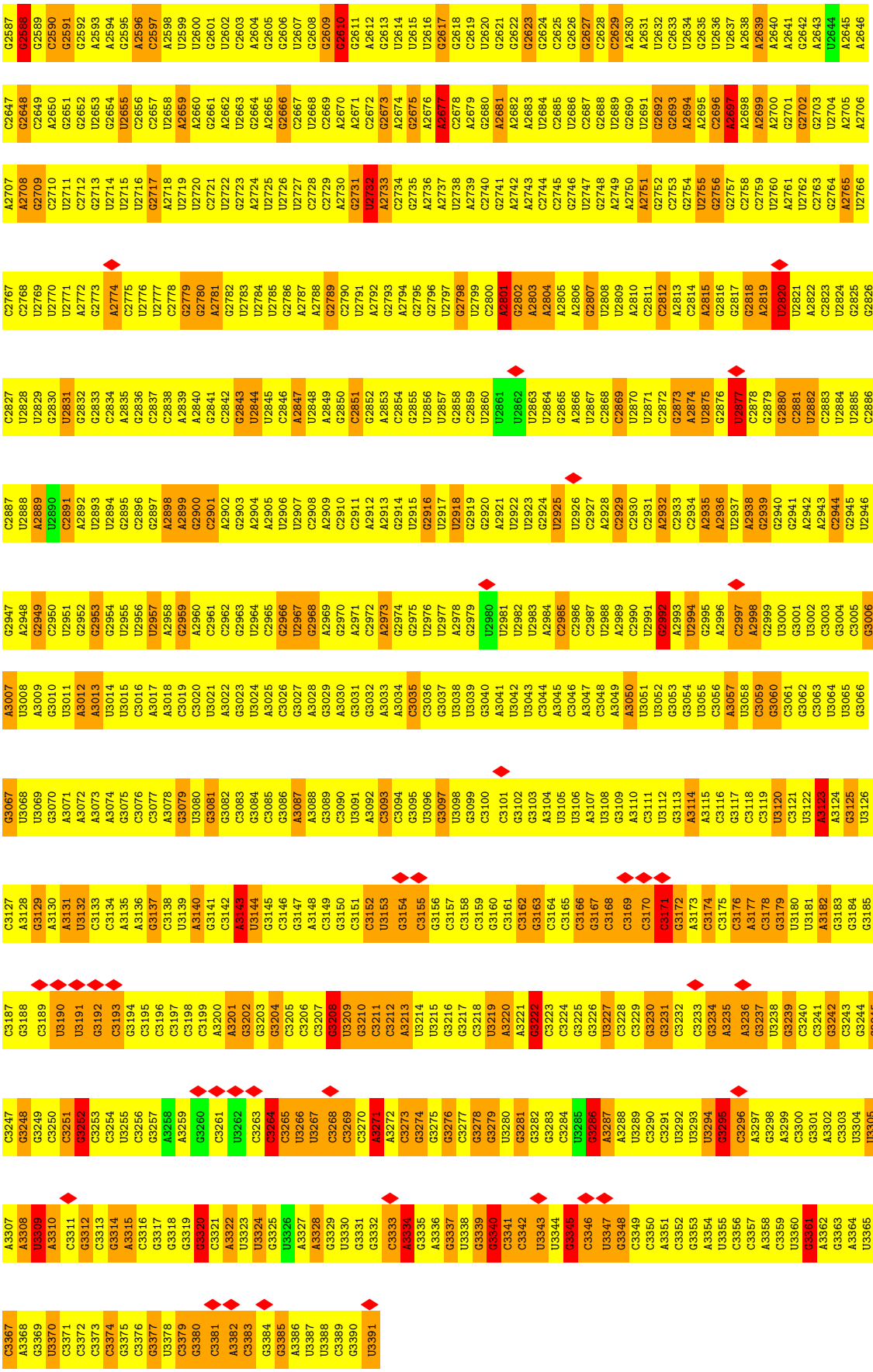
• Molecule 84: 60S ribosomal RNA

Chain Aa:



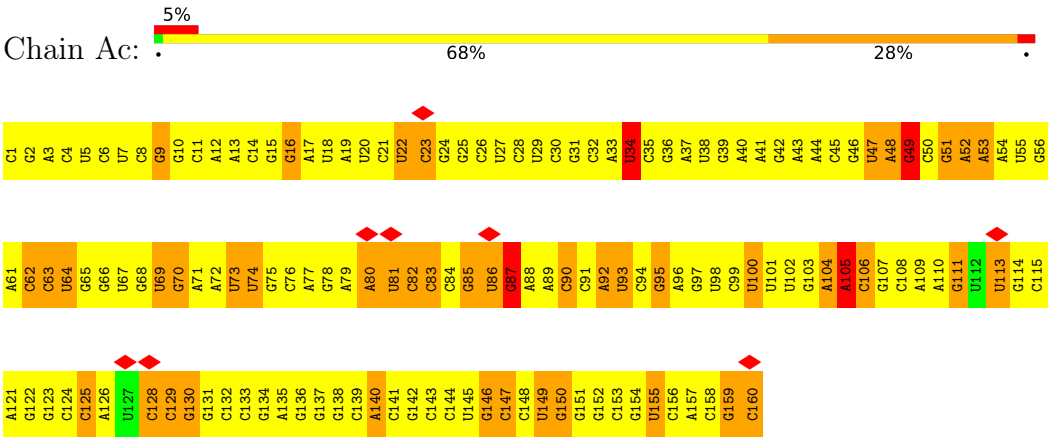



C1807 G1808 A1809 G1810 U1811 A1812 C1813 C1814 G1815 U1816 U1817 C1818 A1819 C1820 G1821 C1822 C1823 C1824 G1825 G1826 U1827 C1828 G1829 U1830 A1831 C1832 U1833 C1834 A1835 U1836 A1837 A1838 C1839 C1840 G1841 G1842 A1843 U1844 C1845 A1846 G1847 G1848 U1849 C1850 U1851 C1852 C1853 A1854 A1855 G1856 G1857 U1858 G1859 A1860 A1861 C1862 A1863 G1864 C1865 C1866
U1867 C1868 U1869 G1870 G1871 C1872 C1873 A1874 A1875 U1876 G1877 G1878 A1879 A1880 C1881 A1882 A1883 U1884 G1885 U1886 A1887 G1888 G1889 C1890 A1891 A1892 G1893 G1894 G1895 A1896 A1897 G1898 U1899 C1900 G1901 G1902 C1903 A1904 A1905 A1906 A1907 C1908 G1909 G1910 A1911 U1912 C1913 C1914 G1915 U1916 A1917 A1918 C1919 U1920 U1921 C1922 G1923 G1924 G1925 A1926
A1927 A1928 A1929 G1930 G1931 A1932 U1933 U1934 G1935 G1936 C1937 U1938 C1939 U1940 G1941 A1942 G1943 G1944 A1945 C1946 U1947 G1948 G1949 G1950 C1951 U1952 C1953 G1954 G1955 G1956 G1957 G1958 U1959 C1960 C1961 C1962 G1963 G1964 C1965 C1966 C1967 C1968 G1969 A1970 A1971 C1972 C1973 C1974 G1975 U1976 C1977 G1978 G1979 C1980 U1981 G1982 U1983 C1984 G1985 G1986
C1987 G1988 G1989 A1990 U1991 U1992 G1993 C1994 U1995 C1996 G1997 A1998 G1999 C2000 U2001 G2002 C2003 U2004 C2005 A2006 C2007 G2008 C2009 G2010 G2011 C2012 G2013 A2014 G2015 A2016 G2017 C2018 G2019 G2020 G2021 U2022 C2023 G2024 C2025 C2026 G2027 C2028 G2029 U2030 G2031 C2032 C2033 G2034 C2035 C2036 C2037 G2038 G2039 G2040 G2041 G2042 A2043 C2044 G2045 G2046
A2047 C2048 C2049 G2050 G2051 G2052 A2053 A2054 U2055 C2056 G2057 C2058 C2059 C2060 C2061 U2062 U2063 C2064 G2065 G2066 G2067 G2068 G2069 C2070 U2071 U2072 U2073 C2074 C2075 C2076 C2077 G2078 A2079 G2080 C2081 A2082 U2083 G2084 A2085 A2086 A2087 C2088 A2089 G2090 U2091 C2092 G2093 A2094 C2095 U2096 C2097 A2098 G2099 A2100 A2101 C2102 U2103 G2104 G2105 U2106
A2107 C2108 G2109 G2110 A2111 C2112 A2113 A2114 G2115 G2116 G2117 G2118 A2119 A2120 U2121 C2122 C2123 G2124 A2125 C2126 U2127 G2128 U2129 U2130 U2131 A2132 A2133 U2134 U2135 A2136 A2137 A2138 A2139 C2140 A2141 A2142 A2143 G2144 C2145 A2146 U2147 U2148 G2149 C2150 G2151 A2152 U2153 G2154 C2155 U2156 C2157 C2158 C2159 C2160 C2161 C2162 G2163 G2164 A2165 U2166
G2167 C2168 U2169 G2170 A2171 C2172 G2173 C2174 A2175 A2176 U2177 G2178 U2179 G2180 U2181 G2182 A2183 U2184 U2185 U2186 C2187 U2188 G2189 C2190 C2191 C2192 A2193 G2194 U2195 G2196 C2197 U2198 C2199 U2200 G2201 A2202 A2203 U2204 G2205 U2206 C2207 A2208 A2209 A2210 G2211 U2212 G2213 A2214 A2215 G2216 A2217 A2218 A2219 U2220 U2221 C2222 A2223 A2224 C2225 C2226
A2227 A2228 G2229 C2230 G2231 C2232 G2233 G2234 G2235 U2236 A2237 A2238 A2239 C2240 G2241 G2242 C2243 G2244 G2245 G2246 A2247 G2248 U2249 A2250 A2251 C2252 U2253 A2254 U2255 G2256 A2257 C2258 U2259 C2260 U2261 C2262 U2263 C2264 A2265 A2266 G2267 G2268 U2269 A2270 G2271 C2272 C2273 A2274 A2275 A2276 U2277 G2278 C2279 C2280 U2281 C2282 G2283 U2284 C2285 A2286
U2287 C2288 U2289 A2290 A2291 U2292 U2293 A2294 G2295 U2296 A2297 A2298 C2299 G2300 C2301 G2302 C2303 A2304 U2305 G2306 A2307 A2308 U2309 G2310 A2311 A2312 U2313 G2314 G2315 A2316 U2317 U2318 A2319 A2320 C2321 G2322 A2323 G2324 A2325 U2326 U2327 G2328 C2329 C2330 A2331 C2332 U2333 G2334 U2335 C2336 C2337 C2338 U2339 G2340 U2341 C2342 U2343 A2344 C2345 U2346
A2347 U2348 C2349 C2350 A2351 G2352 C2353 G2354 A2355 A2356 A2357 C2358 C2359 A2360 C2361 A2362 G2363 C2364 C2365 A2366 A2367 G2368 G2369 C2370 A2371 A2372 C2373 G2374 G2375 C2376 C2377 U2378 U2379 G2380 G2381 C2382 G2383 G2384 A2385 A2386 U2387 C2388 A2389 G2390 C2391 G2392 G2393 G2394 G2395 A2396 A2397 A2398 G2399 A2400 A2401 G2402 A2403 C2404 C2405 C2406
U2407 G2408 U2409 U2410 G2411 A2412 G2413 C2414 U2415 U2416 G2417 A2418 C2419 U2420 C2421 U2422 A2423 G2424 U2425 C2426 C2427 G2428 A2429 C2430 U2431 U2432 U2433 G2434 U2435 G2436 A2437 A2438 A2439 U2440 G2441 A2442 C2443 U2444 U2445 G2446 A2447 G2448 A2449 G2450 G2451 U2452 G2453 U2454 A2455 G2456 G2457 A2458 U2459 A2460 A2461 G2462 U2463 G2464 G2465 G2466
A2467 G2468 C2469 C2470 C2471 U2472 C2473 A2474 C2475 G2476 G2477 G2478 C2479 G2480 C2481 A2482 A2483 G2484 U2485 G2486 A2487 A2488 A2489 U2490 A2491 C2492 C2493 A2494 C2495 U2496 A2497 C2498 U2499 U2500 U2501 U2502 A2503 A2504 C2505 G2506 U2507 U2508 A2509 U2510 U2511 U2512 U2513 A2514 C2515 U2516 U2517 A2518 U2519 U2520 C2521 C2522 G2523 U2524 G2525 G2526
G2527 U2528 U2529 G2530 G2531 A2532 A2533 G2534 C2535 G2536 G2537 G2538 G2539 C2540 A2541 U2542 G2543 C2544 C2545 C2546 C2547 U2548 C2549 C2550 U2551 U2552 U2553 U2554 G2555 G2556 C2557 U2558 C2559 C2560 A2561 A2562 G2563 G2564 C2565 C2566 C2567 G2568 G2569 U2570 C2571 U2572 U2573 A2574 C2575 C2576 G2577 G2578 G2579 C2580 C2581 G2582 A2583 U2584 C2585 C2586



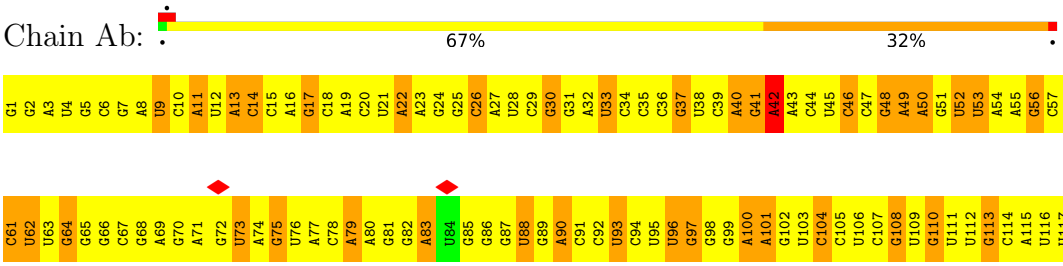
• Molecule 85: 5.8S ribosomal RNA

Chain Ac:



• Molecule 86: 5S ribosomal RNA

Chain Ab:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	2108230	Depositor
Resolution determination method	FSC 0.5 CUT-OFF	Depositor
CTF correction method	Wiener Filter on 3D volumes (SPIDER)	Depositor
Microscope	FEI TECNAI F30	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	25	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	4500	Depositor
Magnification	38900	Depositor
Image detector	KODAK SO-163 FILM	Depositor
Maximum map value	0.454	Depositor
Minimum map value	-0.200	Depositor
Average map value	0.003	Depositor
Map value standard deviation	0.027	Depositor
Recommended contour level	0.11	Depositor
Map size (Å)	455.4, 455.4, 455.4	wwPDB
Map dimensions	368, 368, 368	wwPDB
Map angles (°)	90, 90, 90	wwPDB
Pixel spacing (Å)	1.2375, 1.2375, 1.2375	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	Ad	2.49	2030/42036 (4.8%)	2.11	2382/65520 (3.6%)
2	Ae	2.62	95/1781 (5.3%)	2.13	105/2775 (3.8%)
3	Af	2.45	12/260 (4.6%)	2.06	16/403 (4.0%)
4	BY	0.99	0/1123	1.10	1/1487 (0.1%)
5	BI	1.05	0/539	0.95	0/712
6	BK	0.93	0/840	1.21	6/1135 (0.5%)
7	BM	0.82	0/936	1.11	2/1260 (0.2%)
8	Bf	0.93	0/590	1.17	1/788 (0.1%)
9	BX	0.96	0/1122	1.05	4/1492 (0.3%)
10	Bg	0.97	0/2988	1.06	3/4049 (0.1%)
11	BD	1.01	0/1652	1.20	4/2222 (0.2%)
12	BE	0.99	0/1637	1.07	0/2202
13	BF	0.98	0/1509	1.00	3/2034 (0.1%)
14	BQ	1.11	0/1034	1.19	6/1379 (0.4%)
15	BU	0.93	0/995	1.14	3/1338 (0.2%)
16	BO	1.05	0/909	1.11	2/1217 (0.2%)
17	BS	1.04	0/1258	1.15	5/1674 (0.3%)
18	BN	0.96	0/994	1.13	5/1332 (0.4%)
19	BL	1.04	0/704	1.15	3/944 (0.3%)
20	BT	1.01	0/1179	1.08	3/1586 (0.2%)
21	BP	0.91	0/727	1.11	2/975 (0.2%)
22	BZ	0.94	0/791	1.18	7/1057 (0.7%)
23	Bc	1.04	0/455	1.26	2/609 (0.3%)
24	BW	1.02	0/1060	1.16	6/1419 (0.4%)
25	Bd	1.11	0/386	1.25	4/510 (0.8%)
26	Bb	0.92	0/674	1.04	0/905
27	Be	1.07	0/476	1.01	0/627
28	BA	0.96	0/1567	1.06	4/2121 (0.2%)
29	BR	1.03	0/955	1.03	1/1273 (0.1%)
30	BB	0.96	0/1736	1.12	4/2329 (0.2%)
31	BV	1.00	0/610	1.07	0/820
32	Ba	1.07	0/766	1.13	0/1023
33	BJ	1.09	0/1553	1.05	4/2079 (0.2%)
34	BC	0.93	0/1701	1.05	3/2298 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\|>5$	RMSZ	$\#\|Z\|>5$
35	BG	1.06	0/1888	1.05	4/2507 (0.2%)
36	BH	3.40	1/1535 (0.1%)	1.14	4/2065 (0.2%)
37	CG	0.94	0/1939	1.01	5/2598 (0.2%)
38	CT	0.99	0/1316	1.11	2/1772 (0.1%)
39	CZ	1.00	0/1110	1.02	2/1480 (0.1%)
40	Cz	0.89	0/1741	1.00	1/2323 (0.0%)
41	CA	1.05	0/1992	1.15	10/2681 (0.4%)
42	CJ	1.06	0/1401	1.14	7/1869 (0.4%)
43	CH	0.96	0/1519	1.03	0/2042
44	CV	0.99	0/1064	1.07	0/1425
45	CN	1.12	0/1669	1.07	6/2235 (0.3%)
46	Ca	0.98	0/1143	1.17	4/1527 (0.3%)
47	CQ	1.04	0/1303	1.11	5/1748 (0.3%)
48	CD	1.00	0/2489	1.23	22/3342 (0.7%)
49	CR	1.09	0/1590	1.06	4/2100 (0.2%)
50	CP	1.03	0/1397	1.14	6/1871 (0.3%)
51	CX	0.90	0/1002	1.03	3/1340 (0.2%)
52	CW	1.04	0/649	1.07	1/861 (0.1%)
53	CY	1.10	0/1061	1.08	4/1418 (0.3%)
54	Cr	0.98	0/585	1.16	1/786 (0.1%)
55	Cc	0.86	0/869	0.98	1/1169 (0.1%)
56	Cd	1.01	0/970	1.10	4/1295 (0.3%)
57	Ce	1.01	0/1122	1.06	4/1497 (0.3%)
58	Cj	1.17	0/769	1.16	1/1019 (0.1%)
59	Cl	1.14	0/472	1.12	1/627 (0.2%)
60	Co	0.93	0/867	1.12	3/1144 (0.3%)
61	CM	0.99	0/1094	1.10	4/1461 (0.3%)
62	CS	1.01	0/1457	1.16	3/1957 (0.2%)
63	CU	0.98	0/876	1.27	12/1170 (1.0%)
64	Ci	1.07	0/618	1.16	5/809 (0.6%)
65	CK	0.92	0/968	1.11	1/1299 (0.1%)
66	Cu	0.78	0/438	0.91	0/596
66	Cv	0.79	0/438	0.90	0/596
67	Cs	0.83	0/444	0.82	0/596
67	Ct	0.84	0/444	0.81	0/596
68	Ch	1.02	0/1023	1.05	2/1359 (0.1%)
69	CF	0.98	0/2020	1.00	4/2708 (0.1%)
70	Cq	0.87	0/2023	0.96	5/2739 (0.2%)
71	CB	0.97	0/3207	1.14	16/4289 (0.4%)
72	CC	1.01	0/2951	1.11	8/3972 (0.2%)
73	CO	1.03	0/1678	1.07	6/2246 (0.3%)
74	Cp	1.00	0/724	1.02	1/958 (0.1%)
75	CI	1.01	0/1523	1.00	1/2036 (0.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\|>5$	RMSZ	$\#\|Z\|>5$
76	Cn	1.34	0/239	1.04	0/302
77	Cm	1.01	0/434	0.95	0/574
78	CL	1.03	0/1721	1.13	6/2299 (0.3%)
79	CE	0.95	0/1766	1.16	8/2374 (0.3%)
80	Cf	1.05	0/908	1.13	3/1215 (0.2%)
81	Ck	0.98	0/572	1.09	0/763
82	Cb	0.98	0/486	1.06	2/641 (0.3%)
83	Cg	1.07	0/913	1.02	0/1223
84	Aa	1.61	170/81235 (0.2%)	2.52	9121/126706 (7.2%)
85	Ac	1.61	7/3809 (0.2%)	2.48	426/5936 (7.2%)
86	Ab	2.31	125/2864 (4.4%)	2.91	380/4464 (8.5%)
All	All	1.65	2440/227878 (1.1%)	2.00	12710/334219 (3.8%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand.A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
4	BY	0	1
6	BK	0	4
7	BM	0	1
8	Bf	0	1
10	Bg	0	1
11	BD	0	3
12	BE	0	2
13	BF	0	2
14	BQ	0	1
15	BU	0	2
17	BS	0	1
19	BL	0	1
20	BT	0	4
23	Bc	0	1
24	BW	0	1
25	Bd	0	1
26	Bb	0	2
29	BR	0	1
30	BB	0	1
32	Ba	0	1
35	BG	0	1
36	BH	0	4
37	CG	0	2

Continued on next page...

Continued from previous page...

Mol	Chain	#Chirality outliers	#Planarity outliers
41	CA	0	4
42	CJ	0	2
43	CH	0	3
45	CN	0	1
46	Ca	0	7
47	CQ	0	6
48	CD	0	13
49	CR	0	3
50	CP	0	1
51	CX	0	1
55	Cc	0	1
57	Ce	0	1
58	Cj	0	1
59	Cl	0	1
60	Co	0	2
61	CM	0	4
62	CS	0	3
63	CU	0	2
65	CK	0	2
68	Ch	0	1
69	CF	0	3
70	Cq	0	2
71	CB	0	9
72	CC	0	4
73	CO	0	4
74	Cp	0	1
75	CI	0	4
78	CL	0	5
79	CE	0	7
80	Cf	0	2
83	Cg	0	1
84	Aa	0	309
85	Ac	0	18
86	Ab	0	19
All	All	0	486

All (2440) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BH	117	ARG	CZ-NH2	127.06	2.98	1.33
1	Ad	1203	G	C2'-C1'	23.55	1.79	1.53
2	Ae	28	G	C2'-C1'	-23.31	1.27	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	218	G	C2'-C1'	-23.01	1.28	1.53
1	Ad	999	G	C2'-C1'	-22.88	1.28	1.53
1	Ad	707	C	C2'-C1'	22.87	1.78	1.53
1	Ad	67	G	C2'-C1'	-22.47	1.28	1.53
1	Ad	1580	G	C2'-C1'	21.80	1.77	1.53
1	Ad	843	G	O4'-C1'	21.60	1.69	1.41
1	Ad	821	G	C2'-C1'	-21.45	1.29	1.53
1	Ad	1810	G	O4'-C1'	21.00	1.69	1.41
1	Ad	1796	G	C2'-C1'	-20.71	1.30	1.53
1	Ad	1080	C	O4'-C1'	20.56	1.68	1.41
1	Ad	1434	G	C2'-C1'	-20.34	1.30	1.53
1	Ad	260	A	C2'-C1'	-20.17	1.31	1.53
1	Ad	141	G	C2'-C1'	-20.08	1.31	1.53
1	Ad	457	C	C2'-C1'	-20.07	1.31	1.53
1	Ad	339	G	C2'-C1'	-19.92	1.31	1.53
1	Ad	1206	A	C2'-C1'	-19.53	1.31	1.53
1	Ad	1259	G	O4'-C1'	-19.39	1.16	1.41
2	Ae	19	U	O4'-C1'	19.14	1.66	1.41
1	Ad	179	A	O4'-C1'	18.97	1.66	1.41
1	Ad	836	U	O4'-C1'	18.92	1.66	1.41
1	Ad	67	G	O4'-C1'	18.85	1.66	1.41
1	Ad	617	G	C2'-C1'	-18.83	1.32	1.53
1	Ad	220	C	O4'-C1'	18.76	1.66	1.41
1	Ad	1206	A	O4'-C1'	18.70	1.66	1.41
1	Ad	1700	G	C2'-C1'	-18.54	1.32	1.53
1	Ad	782	G	C2'-C1'	-18.37	1.33	1.53
1	Ad	96	G	C2'-C1'	-18.25	1.33	1.53
1	Ad	648	C	O4'-C1'	18.05	1.65	1.41
1	Ad	1155	G	C2'-C1'	-17.96	1.33	1.53
1	Ad	176	A	C2'-C1'	17.93	1.73	1.53
1	Ad	87	A	C2'-C1'	17.86	1.73	1.53
2	Ae	69	G	C2'-C1'	-17.84	1.33	1.53
1	Ad	1260	A	C2'-C1'	-17.82	1.33	1.53
1	Ad	1466	A	C2'-C1'	-17.65	1.33	1.53
1	Ad	212	A	O4'-C1'	17.64	1.64	1.41
1	Ad	257	A	C2'-C1'	-17.60	1.33	1.53
1	Ad	1303	G	C2'-C1'	-17.57	1.34	1.53
1	Ad	238	G	O4'-C1'	17.52	1.64	1.41
1	Ad	238	G	C2'-C1'	-17.51	1.34	1.53
1	Ad	1002	G	C2'-C1'	-17.51	1.34	1.53
1	Ad	1464	G	C2'-C1'	-17.47	1.34	1.53
1	Ad	34	G	C2'-C1'	-17.43	1.34	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	617	G	O4'-C1'	17.41	1.64	1.41
2	Ae	30	G	C2'-C1'	-17.37	1.34	1.53
1	Ad	1444	G	C2'-C1'	-17.29	1.34	1.53
1	Ad	846	U	O4'-C1'	17.23	1.64	1.41
1	Ad	728	C	O4'-C1'	17.11	1.63	1.41
1	Ad	1580	G	O4'-C1'	-17.10	1.19	1.41
1	Ad	1445	C	O4'-C1'	17.10	1.63	1.41
1	Ad	140	C	O4'-C1'	17.02	1.63	1.41
1	Ad	524	A	C2'-C1'	-16.98	1.34	1.53
1	Ad	1311	U	C2'-C1'	16.95	1.72	1.53
1	Ad	1162	A	C2'-C1'	16.93	1.72	1.53
1	Ad	1375	C	O4'-C1'	16.91	1.63	1.41
1	Ad	174	C	C2'-C1'	16.86	1.71	1.53
1	Ad	613	U	O4'-C1'	16.82	1.63	1.41
1	Ad	254	A	C2'-C1'	-16.78	1.34	1.53
1	Ad	1161	C	O4'-C1'	16.71	1.63	1.41
1	Ad	1358	G	C2'-C1'	-16.67	1.35	1.53
1	Ad	1065	A	C2'-C1'	-16.66	1.35	1.53
1	Ad	1637	G	C2'-C1'	-16.66	1.35	1.53
1	Ad	1006	A	O4'-C1'	16.64	1.63	1.41
1	Ad	341	G	C2'-C1'	-16.53	1.35	1.53
1	Ad	570	C	C2'-C1'	-16.45	1.35	1.53
1	Ad	936	C	O4'-C1'	16.39	1.62	1.41
1	Ad	1447	C	C2'-C1'	-16.37	1.35	1.53
2	Ae	45	G	C2'-C1'	-16.31	1.35	1.53
1	Ad	385	C	O4'-C1'	16.30	1.62	1.41
1	Ad	998	A	C2'-C1'	-16.23	1.35	1.53
1	Ad	507	G	C2'-C1'	-16.18	1.35	1.53
1	Ad	14	C	C2'-C1'	-16.17	1.35	1.53
1	Ad	612	U	C2'-C1'	-16.14	1.35	1.53
1	Ad	861	A	C2'-C1'	16.03	1.71	1.53
1	Ad	1080	C	C2'-C1'	-15.99	1.35	1.53
1	Ad	280	U	O3'-P	-15.98	1.42	1.61
1	Ad	114	U	O4'-C1'	15.96	1.62	1.41
1	Ad	437	C	C2'-C1'	-15.93	1.35	1.53
1	Ad	1321	C	C2'-C1'	-15.88	1.35	1.53
1	Ad	1650	G	C2'-C1'	-15.80	1.35	1.53
1	Ad	281	U	O3'-P	-15.79	1.42	1.61
1	Ad	1687	G	C2'-C1'	-15.75	1.36	1.53
1	Ad	80	C	O4'-C1'	15.74	1.62	1.41
1	Ad	535	C	C2'-C1'	-15.71	1.36	1.53
1	Ad	504	C	O4'-C1'	15.69	1.62	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	839	G	C2'-C1'	-15.62	1.36	1.53
1	Ad	225	G	C2'-C1'	-15.62	1.36	1.53
1	Ad	1327	C	O4'-C1'	15.62	1.61	1.41
1	Ad	632	G	C2'-C1'	-15.61	1.36	1.53
1	Ad	1397	A	C2'-C1'	-15.57	1.36	1.53
1	Ad	135	C	O4'-C1'	15.56	1.61	1.41
1	Ad	1263	C	O4'-C1'	15.55	1.61	1.41
1	Ad	1391	G	C2'-C1'	-15.45	1.36	1.53
1	Ad	631	C	C2'-C1'	-15.44	1.36	1.53
1	Ad	282	C	C2'-C1'	15.42	1.70	1.53
1	Ad	1589	C	O4'-C1'	15.41	1.61	1.41
1	Ad	321	C	O4'-C1'	15.41	1.61	1.41
1	Ad	713	C	O4'-C1'	15.41	1.61	1.41
1	Ad	1354	C	C2'-C1'	-15.39	1.36	1.53
1	Ad	193	G	C2'-C1'	-15.36	1.36	1.53
1	Ad	1027	C	O4'-C1'	15.31	1.61	1.41
1	Ad	1184	C	O4'-C1'	15.30	1.61	1.41
1	Ad	861	A	O4'-C1'	15.28	1.61	1.41
1	Ad	1372	C	C2'-C1'	-15.15	1.36	1.53
1	Ad	287	C	O4'-C1'	15.14	1.61	1.41
1	Ad	1395	C	C2'-C1'	-15.14	1.36	1.53
1	Ad	158	C	C2'-C1'	-15.12	1.36	1.53
1	Ad	1730	G	O4'-C1'	15.05	1.61	1.41
1	Ad	25	C	O4'-C1'	15.04	1.61	1.41
1	Ad	457	C	O4'-C1'	15.04	1.61	1.41
1	Ad	1705	C	C2'-C1'	-15.03	1.36	1.53
1	Ad	1172	G	C2'-C1'	-15.01	1.36	1.53
1	Ad	223	A	C2'-C1'	-15.00	1.36	1.53
1	Ad	1154	G	C2'-C1'	-14.99	1.36	1.53
1	Ad	1023	C	O4'-C1'	14.98	1.61	1.41
1	Ad	753	C	C2'-C1'	-14.97	1.36	1.53
1	Ad	181	C	O4'-C1'	14.91	1.61	1.41
1	Ad	212	A	C2'-C1'	-14.86	1.37	1.53
1	Ad	1626	C	O4'-C1'	14.86	1.60	1.41
1	Ad	1778	G	C2'-C1'	-14.85	1.37	1.53
1	Ad	4	C	C2'-C1'	-14.77	1.37	1.53
1	Ad	381	G	C2'-C1'	-14.74	1.37	1.53
1	Ad	498	U	C2'-C1'	14.74	1.69	1.53
3	Af	17	A	C2'-C1'	-14.69	1.37	1.53
2	Ae	36	C	C2'-C1'	-14.68	1.37	1.53
1	Ad	1735	C	O4'-C1'	14.68	1.60	1.41
3	Af	17	A	O4'-C1'	14.64	1.60	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1358	G	O4'-C1'	14.63	1.60	1.41
1	Ad	290	C	O4'-C1'	14.62	1.60	1.41
1	Ad	480	U	C2'-C1'	-14.58	1.37	1.53
1	Ad	1783	C	C2'-C1'	-14.58	1.37	1.53
1	Ad	945	A	C2'-C1'	14.57	1.69	1.53
1	Ad	506	G	C2'-C1'	-14.56	1.37	1.53
1	Ad	509	A	O4'-C1'	14.55	1.60	1.41
1	Ad	1016	C	O4'-C1'	14.55	1.60	1.41
1	Ad	346	C	C2'-C1'	-14.53	1.37	1.53
1	Ad	183	C	O4'-C1'	14.49	1.60	1.41
1	Ad	1614	C	O4'-C1'	14.47	1.60	1.41
1	Ad	1346	C	O4'-C1'	14.44	1.60	1.41
1	Ad	1806	C	O4'-C1'	14.42	1.60	1.41
1	Ad	245	C	C2'-C1'	-14.39	1.37	1.53
1	Ad	774	C	O4'-C1'	14.36	1.60	1.41
1	Ad	1392	G	C2'-C1'	-14.35	1.37	1.53
1	Ad	1310	C	O4'-C1'	14.34	1.60	1.41
1	Ad	413	C	O4'-C1'	14.30	1.60	1.41
1	Ad	1263	C	C2'-C1'	-14.28	1.37	1.53
1	Ad	524	A	O4'-C1'	14.25	1.60	1.41
1	Ad	1461	G	C2'-C1'	-14.24	1.37	1.53
1	Ad	758	A	C2'-C1'	-14.22	1.37	1.53
1	Ad	257	A	O4'-C1'	14.21	1.60	1.41
1	Ad	1110	C	O4'-C1'	14.19	1.60	1.41
1	Ad	1444	G	O4'-C1'	14.14	1.60	1.41
1	Ad	938	A	C2'-C1'	-14.13	1.37	1.53
1	Ad	966	U	C2'-C1'	-14.12	1.37	1.53
1	Ad	1611	U	C2'-C1'	-14.10	1.37	1.53
1	Ad	201	G	C2'-C1'	-14.10	1.37	1.53
1	Ad	1620	C	C2'-C1'	-14.09	1.37	1.53
1	Ad	791	C	C2'-C1'	-14.07	1.37	1.53
1	Ad	1372	C	O4'-C1'	14.07	1.59	1.41
1	Ad	439	C	C2'-C1'	-14.06	1.37	1.53
1	Ad	187	C	O4'-C1'	14.04	1.59	1.41
1	Ad	1471	C	C2'-C1'	-14.02	1.38	1.53
1	Ad	1336	C	O4'-C1'	14.02	1.59	1.41
1	Ad	25	C	C2'-C1'	-13.99	1.38	1.53
1	Ad	1397	A	O4'-C1'	13.96	1.59	1.41
1	Ad	1416	A	C2'-C1'	-13.89	1.38	1.53
1	Ad	409	C	C2'-C1'	-13.89	1.38	1.53
1	Ad	1345	G	C2'-C1'	-13.88	1.38	1.53
1	Ad	1640	C	C2'-C1'	-13.86	1.38	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	205	U	C2'-C1'	13.84	1.68	1.53
1	Ad	914	U	C2'-C1'	-13.84	1.38	1.53
1	Ad	20	G	C2'-C1'	-13.83	1.38	1.53
1	Ad	719	C	O4'-C1'	13.78	1.59	1.41
1	Ad	1472	G	C2'-C1'	-13.77	1.38	1.53
1	Ad	849	G	C2'-C1'	-13.77	1.38	1.53
1	Ad	745	C	C2'-C1'	13.76	1.68	1.53
2	Ae	73	C	O4'-C1'	13.76	1.59	1.41
1	Ad	36	C	O4'-C1'	13.73	1.59	1.41
1	Ad	245	C	O4'-C1'	13.73	1.59	1.41
1	Ad	164	C	O4'-C1'	13.71	1.59	1.41
1	Ad	848	C	O4'-C1'	13.70	1.59	1.41
1	Ad	1069	G	C2'-C1'	-13.68	1.38	1.53
1	Ad	650	G	C2'-C1'	-13.64	1.38	1.53
1	Ad	839	G	O4'-C1'	13.63	1.59	1.41
1	Ad	1281	G	C2'-C1'	-13.63	1.38	1.53
1	Ad	1042	C	O4'-C1'	13.62	1.59	1.41
1	Ad	1705	C	O4'-C1'	13.59	1.59	1.41
1	Ad	533	C	C2'-C1'	-13.58	1.38	1.53
1	Ad	1296	G	C2'-C1'	-13.57	1.38	1.53
2	Ae	19	U	C2'-C1'	-13.57	1.38	1.53
1	Ad	644	U	C2'-C1'	-13.55	1.38	1.53
1	Ad	1329	A	O4'-C1'	13.54	1.59	1.41
1	Ad	237	C	C2'-C1'	-13.51	1.38	1.53
1	Ad	1654	C	O4'-C1'	13.51	1.59	1.41
1	Ad	220	C	C2'-C1'	-13.49	1.38	1.53
1	Ad	73	A	C2'-C1'	13.48	1.68	1.53
1	Ad	734	C	O4'-C1'	13.44	1.59	1.41
1	Ad	846	U	C2'-C1'	-13.43	1.38	1.53
1	Ad	1462	C	O4'-C1'	-13.42	1.24	1.41
1	Ad	1310	C	C2'-C1'	-13.41	1.38	1.53
1	Ad	793	G	C2'-C1'	-13.38	1.38	1.53
1	Ad	954	C	O4'-C1'	13.37	1.59	1.41
1	Ad	1038	C	O4'-C1'	13.34	1.58	1.41
1	Ad	877	G	C2'-C1'	-13.34	1.38	1.53
1	Ad	1033	C	O4'-C1'	13.34	1.58	1.41
1	Ad	1091	A	C2'-C1'	-13.31	1.38	1.53
1	Ad	286	C	O4'-C1'	13.31	1.58	1.41
1	Ad	944	A	O4'-C1'	13.30	1.58	1.41
1	Ad	94	A	C2'-C1'	-13.29	1.38	1.53
1	Ad	1231	A	C2'-C1'	-13.28	1.38	1.53
1	Ad	301	U	C2'-C1'	-13.27	1.38	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	256	G	O4'-C1'	13.26	1.58	1.41
2	Ae	55	C	O4'-C1'	13.26	1.58	1.41
1	Ad	1548	G	C2'-C1'	-13.25	1.38	1.53
1	Ad	1511	A	O4'-C1'	-13.25	1.24	1.41
1	Ad	704	C	O4'-C1'	13.23	1.58	1.41
1	Ad	1105	G	C2'-C1'	-13.21	1.38	1.53
1	Ad	954	C	C2'-C1'	-13.17	1.38	1.53
1	Ad	1302	C	O4'-C1'	13.16	1.58	1.41
1	Ad	1045	G	C2'-C1'	-13.14	1.38	1.53
2	Ae	60	C	C2'-C1'	-13.14	1.38	1.53
1	Ad	249	G	C2'-C1'	-13.14	1.38	1.53
1	Ad	1463	C	O4'-C1'	13.13	1.58	1.41
1	Ad	262	U	C2'-C1'	13.13	1.67	1.53
1	Ad	358	C	O4'-C1'	13.12	1.58	1.41
1	Ad	1801	A	C2'-C1'	13.12	1.67	1.53
1	Ad	202	C	O4'-C1'	13.11	1.58	1.41
1	Ad	1082	C	C2'-C1'	-13.11	1.39	1.53
1	Ad	1301	G	C2'-C1'	13.09	1.67	1.53
1	Ad	902	C	O4'-C1'	13.09	1.58	1.41
1	Ad	180	A	C2'-C1'	13.05	1.67	1.53
1	Ad	1704	G	C2'-C1'	-13.05	1.39	1.53
1	Ad	177	C	O4'-C1'	13.04	1.58	1.41
1	Ad	235	C	C2'-C1'	13.04	1.67	1.53
1	Ad	558	C	O4'-C1'	13.03	1.58	1.41
1	Ad	1727	C	O4'-C1'	13.02	1.58	1.41
1	Ad	536	U	C2'-C1'	-13.02	1.39	1.53
1	Ad	147	C	O4'-C1'	12.94	1.58	1.41
1	Ad	1599	C	O4'-C1'	12.94	1.58	1.41
1	Ad	1029	U	C2'-C1'	12.92	1.67	1.53
1	Ad	1409	G	C2'-C1'	-12.92	1.39	1.53
1	Ad	1184	C	C2'-C1'	-12.91	1.39	1.53
1	Ad	31	C	O4'-C1'	12.90	1.58	1.41
2	Ae	6	G	C2'-C1'	-12.90	1.39	1.53
1	Ad	757	G	C2'-C1'	-12.89	1.39	1.53
1	Ad	108	C	C2'-C1'	-12.88	1.39	1.53
2	Ae	45	G	O4'-C1'	12.84	1.58	1.41
1	Ad	1161	C	C2'-C1'	-12.84	1.39	1.53
1	Ad	1442	A	C2'-C1'	-12.84	1.39	1.53
1	Ad	1007	G	C2'-C1'	-12.84	1.39	1.53
1	Ad	1609	G	C2'-C1'	-12.82	1.39	1.53
1	Ad	1071	C	C2'-C1'	-12.78	1.39	1.53
1	Ad	971	A	O4'-C1'	12.77	1.58	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1615	G	C2'-C1'	-12.77	1.39	1.53
1	Ad	849	G	O4'-C1'	12.76	1.58	1.41
1	Ad	1572	U	O4'-C1'	12.76	1.58	1.41
1	Ad	1794	C	O4'-C1'	12.72	1.58	1.41
1	Ad	1758	G	C2'-C1'	-12.70	1.39	1.53
1	Ad	260	A	O4'-C1'	12.70	1.58	1.41
1	Ad	814	C	C2'-C1'	-12.70	1.39	1.53
1	Ad	1346	C	C2'-C1'	-12.68	1.39	1.53
1	Ad	296	A	C2'-C1'	-12.68	1.39	1.53
1	Ad	261	C	C2'-C1'	-12.66	1.39	1.53
1	Ad	1618	G	C2'-C1'	-12.62	1.39	1.53
1	Ad	881	G	C2'-C1'	-12.60	1.39	1.53
1	Ad	1715	C	O4'-C1'	12.60	1.58	1.41
1	Ad	1220	C	O4'-C1'	12.58	1.58	1.41
1	Ad	1082	C	O4'-C1'	12.57	1.57	1.41
1	Ad	1350	C	O4'-C1'	-12.57	1.25	1.41
1	Ad	1386	U	C2'-C1'	-12.57	1.39	1.53
1	Ad	253	C	O4'-C1'	12.57	1.57	1.41
1	Ad	1803	G	O4'-C1'	12.57	1.57	1.41
1	Ad	1020	U	C2'-C1'	-12.56	1.39	1.53
1	Ad	431	C	O4'-C1'	12.55	1.57	1.41
1	Ad	1593	U	C2'-C1'	-12.55	1.39	1.53
1	Ad	1232	G	C2'-C1'	-12.53	1.39	1.53
1	Ad	1631	C	O4'-C1'	12.53	1.57	1.41
1	Ad	388	G	C2'-C1'	-12.53	1.39	1.53
1	Ad	1047	G	C2'-C1'	-12.53	1.39	1.53
1	Ad	1656	C	O4'-C1'	12.52	1.57	1.41
1	Ad	570	C	O4'-C1'	12.52	1.57	1.41
1	Ad	845	C	C2'-C1'	12.52	1.67	1.53
1	Ad	834	A	C2'-C1'	12.52	1.67	1.53
1	Ad	1643	A	C2'-C1'	12.52	1.67	1.53
1	Ad	1773	A	O4'-C1'	12.52	1.57	1.41
1	Ad	1722	C	O4'-C1'	12.51	1.57	1.41
1	Ad	41	A	C2'-C1'	12.49	1.67	1.53
1	Ad	592	U	C2'-C1'	-12.48	1.39	1.53
1	Ad	342	C	O4'-C1'	12.48	1.57	1.41
1	Ad	1471	C	O4'-C1'	12.48	1.57	1.41
1	Ad	746	A	C2'-C1'	12.47	1.67	1.53
1	Ad	856	G	C2'-C1'	-12.47	1.39	1.53
1	Ad	259	A	O4'-C1'	12.47	1.57	1.41
1	Ad	762	A	O4'-C1'	12.46	1.57	1.41
1	Ad	12	U	C2'-C1'	-12.46	1.39	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	750	U	C2'-C1'	-12.46	1.39	1.53
1	Ad	1171	C	O4'-C1'	12.46	1.57	1.41
1	Ad	1336	C	C2'-C1'	-12.45	1.39	1.53
1	Ad	826	C	C2'-C1'	12.45	1.67	1.53
1	Ad	170	C	O4'-C1'	12.43	1.57	1.41
1	Ad	298	C	O4'-C1'	12.43	1.57	1.41
1	Ad	58	U	C2'-C1'	-12.43	1.39	1.53
1	Ad	369	G	C2'-C1'	12.43	1.67	1.53
1	Ad	1074	C	O4'-C1'	12.43	1.57	1.41
1	Ad	1500	A	C2'-C1'	12.42	1.67	1.53
1	Ad	297	U	O4'-C1'	12.40	1.57	1.41
1	Ad	1549	G	C2'-C1'	-12.39	1.39	1.53
1	Ad	547	C	O4'-C1'	-12.39	1.25	1.41
1	Ad	1582	G	O4'-C1'	12.36	1.57	1.41
1	Ad	1733	G	C2'-C1'	-12.36	1.39	1.53
1	Ad	1196	C	O4'-C1'	12.35	1.57	1.41
1	Ad	12	U	O4'-C1'	12.35	1.57	1.41
1	Ad	30	G	C2'-C1'	-12.35	1.39	1.53
1	Ad	753	C	O4'-C1'	12.34	1.57	1.41
1	Ad	1432	C	C2'-C1'	12.34	1.67	1.53
1	Ad	791	C	O4'-C1'	12.31	1.57	1.41
1	Ad	899	A	C2'-C1'	-12.29	1.39	1.53
1	Ad	1517	C	C2'-C1'	-12.25	1.39	1.53
1	Ad	351	G	C2'-C1'	-12.25	1.39	1.53
1	Ad	1213	C	O4'-C1'	12.23	1.57	1.41
1	Ad	1229	C	O4'-C1'	12.22	1.57	1.41
1	Ad	523	C	O4'-C1'	12.22	1.57	1.41
1	Ad	1644	C	C2'-C1'	-12.22	1.40	1.53
1	Ad	1240	A	O4'-C1'	12.19	1.57	1.41
1	Ad	356	G	O4'-C1'	12.19	1.57	1.41
1	Ad	1588	C	O4'-C1'	12.19	1.57	1.41
1	Ad	438	G	C2'-C1'	12.17	1.66	1.53
1	Ad	1156	A	C2'-C1'	-12.16	1.40	1.53
1	Ad	363	G	O4'-C1'	-12.16	1.25	1.41
1	Ad	439	C	O4'-C1'	12.15	1.57	1.41
1	Ad	1273	U	C2'-C1'	-12.13	1.40	1.53
1	Ad	1563	A	C2'-C1'	-12.13	1.40	1.53
1	Ad	336	U	C2'-C1'	12.12	1.66	1.53
1	Ad	237	C	O4'-C1'	12.12	1.57	1.41
1	Ad	1373	C	O4'-C1'	12.12	1.57	1.41
1	Ad	1253	U	C2'-C1'	-12.12	1.40	1.53
1	Ad	45	U	O4'-C1'	12.12	1.57	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	784	C	O4'-C1'	-12.10	1.25	1.41
1	Ad	1494	G	C2'-C1'	-12.09	1.40	1.53
1	Ad	361	G	C2'-C1'	-12.08	1.40	1.53
1	Ad	343	C	C2'-C1'	-12.08	1.40	1.53
1	Ad	394	G	C2'-C1'	12.05	1.66	1.53
1	Ad	922	U	C2'-C1'	-12.04	1.40	1.53
1	Ad	196	G	C2'-C1'	-12.04	1.40	1.53
3	Af	18	C	O4'-C1'	12.03	1.57	1.41
2	Ae	74	C	C2'-C1'	12.02	1.66	1.53
1	Ad	1021	C	O4'-C1'	12.01	1.57	1.41
1	Ad	1518	C	O4'-C1'	12.00	1.57	1.41
1	Ad	1252	C	C2'-C1'	-12.00	1.40	1.53
1	Ad	415	C	O4'-C1'	11.98	1.57	1.41
1	Ad	397	C	O4'-C1'	11.97	1.57	1.41
1	Ad	967	C	O4'-C1'	11.96	1.57	1.41
1	Ad	1652	C	O4'-C1'	11.96	1.57	1.41
1	Ad	1046	G	C2'-C1'	-11.96	1.40	1.53
1	Ad	1608	A	C2'-C1'	-11.94	1.40	1.53
1	Ad	334	G	C2'-C1'	-11.93	1.40	1.53
1	Ad	1488	C	O4'-C1'	11.92	1.57	1.41
1	Ad	1238	A	O4'-C1'	11.89	1.57	1.41
1	Ad	1342	C	C2'-C1'	-11.89	1.40	1.53
1	Ad	900	G	C2'-C1'	-11.86	1.40	1.53
1	Ad	588	C	O4'-C1'	11.85	1.57	1.41
1	Ad	1332	G	O4'-C1'	11.84	1.57	1.41
1	Ad	1610	C	O4'-C1'	11.83	1.57	1.41
1	Ad	535	C	O4'-C1'	11.83	1.57	1.41
1	Ad	644	U	O4'-C1'	11.81	1.57	1.41
1	Ad	259	A	C2'-C1'	-11.81	1.40	1.53
1	Ad	850	G	C2'-C1'	-11.79	1.40	1.53
1	Ad	870	A	C2'-C1'	11.79	1.66	1.53
1	Ad	700	C	O4'-C1'	11.75	1.56	1.41
1	Ad	1327	C	C2'-C1'	-11.74	1.40	1.53
1	Ad	117	U	C2'-C1'	-11.74	1.40	1.53
1	Ad	948	C	O4'-C1'	11.74	1.56	1.41
1	Ad	869	U	C2'-C1'	11.73	1.66	1.53
1	Ad	964	U	C2'-C1'	-11.73	1.40	1.53
2	Ae	29	C	O4'-C1'	11.71	1.56	1.41
1	Ad	915	C	O4'-C1'	11.70	1.56	1.41
1	Ad	955	C	O4'-C1'	11.70	1.56	1.41
1	Ad	1316	A	C2'-C1'	-11.70	1.40	1.53
1	Ad	1258	U	C2'-C1'	-11.69	1.40	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	202	C	C2'-C1'	-11.69	1.40	1.53
3	Af	20	U	C2'-C1'	-11.68	1.40	1.53
1	Ad	219	G	C2'-C1'	11.68	1.66	1.53
1	Ad	1557	C	O4'-C1'	11.65	1.56	1.41
1	Ad	832	C	C2'-C1'	-11.64	1.40	1.53
1	Ad	1686	C	C2'-C1'	-11.63	1.40	1.53
1	Ad	1589	C	C2'-C1'	-11.62	1.40	1.53
1	Ad	1710	C	O4'-C1'	11.62	1.56	1.41
2	Ae	43	C	C2'-C1'	-11.62	1.40	1.53
1	Ad	1648	C	O4'-C1'	11.61	1.56	1.41
1	Ad	1162	A	O4'-C1'	-11.61	1.26	1.41
1	Ad	346	C	O4'-C1'	11.59	1.56	1.41
1	Ad	1122	U	C2'-C1'	-11.59	1.40	1.53
1	Ad	1627	C	O4'-C1'	11.57	1.56	1.41
1	Ad	99	U	C2'-C1'	-11.57	1.40	1.53
1	Ad	1568	U	C2'-C1'	11.56	1.66	1.53
1	Ad	973	U	C2'-C1'	-11.55	1.40	1.53
1	Ad	488	C	O4'-C1'	11.55	1.56	1.41
1	Ad	1457	C	O4'-C1'	11.55	1.56	1.41
1	Ad	1110	C	C2'-C1'	-11.54	1.40	1.53
1	Ad	1407	A	C2'-C1'	11.54	1.66	1.53
1	Ad	1281	G	O4'-C1'	11.53	1.56	1.41
1	Ad	832	C	O4'-C1'	11.53	1.56	1.41
1	Ad	1731	A	O4'-C1'	11.52	1.56	1.41
1	Ad	146	A	C2'-C1'	11.50	1.66	1.53
1	Ad	801	U	C2'-C1'	11.50	1.66	1.53
1	Ad	1073	C	O4'-C1'	11.50	1.56	1.41
1	Ad	1032	A	C2'-C1'	11.48	1.66	1.53
1	Ad	968	A	C2'-C1'	11.48	1.66	1.53
1	Ad	1794	C	C2'-C1'	-11.47	1.40	1.53
1	Ad	1079	G	C2'-C1'	-11.47	1.40	1.53
1	Ad	1716	C	C2'-C1'	-11.46	1.40	1.53
1	Ad	1117	G	C2'-C1'	-11.46	1.40	1.53
1	Ad	1736	C	O4'-C1'	11.44	1.56	1.41
1	Ad	1451	G	O4'-C1'	11.42	1.56	1.41
2	Ae	4	G	C2'-C1'	-11.41	1.40	1.53
1	Ad	483	C	O4'-C1'	11.40	1.56	1.41
1	Ad	858	G	O4'-C1'	11.39	1.56	1.41
1	Ad	969	U	C2'-C1'	-11.38	1.40	1.53
1	Ad	1027	C	C2'-C1'	-11.36	1.40	1.53
1	Ad	288	G	C2'-C1'	-11.35	1.40	1.53
1	Ad	385	C	C2'-C1'	-11.35	1.40	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1058	G	C2'-C1'	-11.34	1.40	1.53
1	Ad	1447	C	O4'-C1'	11.34	1.56	1.41
1	Ad	1613	G	C2'-C1'	-11.34	1.40	1.53
1	Ad	1762	C	O4'-C1'	11.33	1.56	1.41
2	Ae	50	G	C2'-C1'	11.32	1.65	1.53
1	Ad	1426	C	O4'-C1'	11.30	1.56	1.41
1	Ad	239	C	O4'-C1'	11.30	1.56	1.41
2	Ae	22	G	C2'-C1'	-11.29	1.41	1.53
1	Ad	1715	C	C2'-C1'	-11.29	1.41	1.53
1	Ad	792	U	C2'-C1'	11.29	1.65	1.53
1	Ad	1064	U	C2'-C1'	11.28	1.65	1.53
1	Ad	133	U	O4'-C1'	11.28	1.56	1.41
1	Ad	711	C	C2'-C1'	-11.28	1.41	1.53
1	Ad	437	C	O4'-C1'	11.27	1.56	1.41
1	Ad	297	U	C2'-C1'	-11.26	1.41	1.53
1	Ad	1685	U	C2'-C1'	-11.26	1.41	1.53
1	Ad	1749	C	C2'-C1'	-11.26	1.41	1.53
2	Ae	60	C	O4'-C1'	11.25	1.56	1.41
1	Ad	949	A	O4'-C1'	11.22	1.56	1.41
1	Ad	1492	G	C2'-C1'	11.22	1.65	1.53
1	Ad	591	C	C2'-C1'	-11.21	1.41	1.53
1	Ad	885	C	O4'-C1'	11.21	1.56	1.41
1	Ad	651	G	C2'-C1'	-11.20	1.41	1.53
1	Ad	556	G	C2'-C1'	-11.20	1.41	1.53
1	Ad	1224	C	C2'-C1'	-11.18	1.41	1.53
1	Ad	81	U	O4'-C1'	11.18	1.56	1.41
1	Ad	995	C	C2'-C1'	-11.17	1.41	1.53
1	Ad	1545	A	C2'-C1'	11.17	1.65	1.53
1	Ad	1013	G	C2'-C1'	-11.17	1.41	1.53
1	Ad	1128	C	O4'-C1'	11.16	1.56	1.41
1	Ad	1239	C	O4'-C1'	11.16	1.56	1.41
1	Ad	804	C	O4'-C1'	11.15	1.56	1.41
1	Ad	182	C	O4'-C1'	11.15	1.56	1.41
1	Ad	1572	U	C2'-C1'	-11.15	1.41	1.53
1	Ad	175	A	O4'-C1'	11.15	1.56	1.41
1	Ad	45	U	C2'-C1'	-11.14	1.41	1.53
1	Ad	1414	G	C2'-C1'	-11.13	1.41	1.53
1	Ad	79	A	C2'-C1'	11.13	1.65	1.53
1	Ad	68	A	C2'-C1'	-11.12	1.41	1.53
1	Ad	1375	C	C2'-C1'	-11.12	1.41	1.53
1	Ad	1596	G	O4'-C1'	11.12	1.56	1.41
1	Ad	1476	C	C2'-C1'	-11.12	1.41	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	713	C	C2'-C1'	-11.11	1.41	1.53
1	Ad	879	C	C2'-C1'	-11.11	1.41	1.53
1	Ad	17	C	C2'-C1'	-11.11	1.41	1.53
1	Ad	169	A	O4'-C1'	11.11	1.56	1.41
1	Ad	587	C	C2'-C1'	-11.10	1.41	1.53
1	Ad	345	A	C2'-C1'	-11.10	1.41	1.53
1	Ad	1174	G	C2'-C1'	-11.10	1.41	1.53
1	Ad	1735	C	C2'-C1'	-11.08	1.41	1.53
1	Ad	1670	G	C2'-C1'	-11.07	1.41	1.53
1	Ad	428	C	C2'-C1'	-11.06	1.41	1.53
1	Ad	1037	G	C2'-C1'	-11.04	1.41	1.53
1	Ad	49	C	O4'-C1'	11.04	1.55	1.41
1	Ad	814	C	O4'-C1'	11.01	1.55	1.41
1	Ad	412	C	O4'-C1'	11.00	1.55	1.41
1	Ad	53	G	C2'-C1'	-10.98	1.41	1.53
1	Ad	121	U	O4'-C1'	10.98	1.55	1.41
1	Ad	1673	C	O4'-C1'	10.97	1.55	1.41
1	Ad	1516	C	C2'-C1'	-10.97	1.41	1.53
1	Ad	591	C	O4'-C1'	10.96	1.55	1.41
1	Ad	1507	G	C2'-C1'	-10.96	1.41	1.53
1	Ad	1319	U	C2'-C1'	-10.96	1.41	1.53
1	Ad	391	A	C2'-C1'	10.95	1.65	1.53
1	Ad	309	C	O4'-C1'	10.95	1.55	1.41
1	Ad	1443	U	C2'-C1'	-10.95	1.41	1.53
1	Ad	1502	C	O4'-C1'	10.94	1.55	1.41
1	Ad	384	U	O4'-C1'	-10.94	1.27	1.41
2	Ae	26	G	C2'-C1'	-10.92	1.41	1.53
2	Ae	56	A	O4'-C1'	10.91	1.55	1.41
1	Ad	1208	A	O4'-C1'	10.91	1.55	1.41
1	Ad	1765	A	C2'-C1'	10.91	1.65	1.53
2	Ae	58	U	C2'-C1'	10.91	1.65	1.53
1	Ad	1716	C	O4'-C1'	10.90	1.55	1.41
1	Ad	950	U	O4'-C1'	10.88	1.55	1.41
1	Ad	1515	G	C2'-C1'	-10.88	1.41	1.53
1	Ad	1699	C	O4'-C1'	10.87	1.55	1.41
1	Ad	649	C	C2'-C1'	-10.86	1.41	1.53
1	Ad	216	A	C2'-C1'	-10.85	1.41	1.53
1	Ad	1210	U	C2'-C1'	10.85	1.65	1.53
1	Ad	198	G	C2'-C1'	-10.83	1.41	1.53
1	Ad	158	C	O4'-C1'	10.83	1.55	1.41
1	Ad	1531	G	C2'-C1'	10.83	1.65	1.53
1	Ad	1644	C	O4'-C1'	10.82	1.55	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	135	C	C2'-C1'	-10.82	1.41	1.53
1	Ad	1517	C	O4'-C1'	10.81	1.55	1.41
1	Ad	1775	A	O4'-C1'	-10.80	1.27	1.41
1	Ad	1163	C	O4'-C1'	10.80	1.55	1.41
1	Ad	1119	G	C2'-C1'	10.80	1.65	1.53
1	Ad	1673	C	C2'-C1'	-10.80	1.41	1.53
1	Ad	198	G	O4'-C1'	10.79	1.55	1.41
1	Ad	448	C	O4'-C1'	10.79	1.55	1.41
1	Ad	1151	G	C2'-C1'	-10.78	1.41	1.53
1	Ad	249	G	O4'-C1'	10.77	1.55	1.41
1	Ad	1378	C	O4'-C1'	10.76	1.55	1.41
1	Ad	1174	G	O4'-C1'	10.75	1.55	1.41
1	Ad	484	A	O4'-C1'	10.74	1.55	1.41
1	Ad	593	C	O4'-C1'	10.74	1.55	1.41
1	Ad	179	A	C2'-C1'	-10.74	1.41	1.53
1	Ad	993	C	C2'-C1'	-10.72	1.41	1.53
1	Ad	121	U	C2'-C1'	-10.72	1.41	1.53
2	Ae	43	C	O4'-C1'	10.71	1.55	1.41
1	Ad	1567	G	O4'-C1'	-10.71	1.27	1.41
1	Ad	71	C	O4'-C1'	10.70	1.55	1.41
1	Ad	122	U	O4'-C1'	10.69	1.55	1.41
1	Ad	1603	U	O4'-C1'	-10.69	1.27	1.41
1	Ad	1585	A	O4'-C1'	10.67	1.55	1.41
1	Ad	796	U	C2'-C1'	-10.66	1.41	1.53
1	Ad	1219	C	O4'-C1'	10.66	1.55	1.41
1	Ad	380	C	O4'-C1'	10.64	1.55	1.41
1	Ad	539	A	C2'-C1'	-10.64	1.41	1.53
1	Ad	1760	A	C2'-C1'	-10.63	1.41	1.53
1	Ad	1077	C	O4'-C1'	10.63	1.55	1.41
1	Ad	18	C	O4'-C1'	10.61	1.55	1.41
1	Ad	36	C	C2'-C1'	-10.61	1.41	1.53
1	Ad	1193	A	C2'-C1'	10.61	1.65	1.53
1	Ad	17	C	O4'-C1'	10.60	1.55	1.41
1	Ad	1225	A	C2'-C1'	-10.60	1.41	1.53
1	Ad	1718	C	O4'-C1'	10.60	1.55	1.41
1	Ad	465	G	O4'-C1'	10.60	1.55	1.41
1	Ad	1410	C	O4'-C1'	10.60	1.55	1.41
1	Ad	1743	C	O4'-C1'	10.60	1.55	1.41
1	Ad	741	C	O4'-C1'	10.59	1.55	1.41
2	Ae	73	C	C2'-C1'	-10.58	1.41	1.53
1	Ad	296	A	O4'-C1'	10.57	1.55	1.41
1	Ad	1549	G	O4'-C1'	10.56	1.55	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1056	A	C2'-C1'	10.56	1.65	1.53
1	Ad	1096	A	C2'-C1'	-10.56	1.41	1.53
1	Ad	1702	G	C2'-C1'	-10.55	1.41	1.53
2	Ae	38	C	O4'-C1'	10.55	1.55	1.41
1	Ad	879	C	O4'-C1'	10.54	1.55	1.41
1	Ad	86	A	C2'-C1'	-10.53	1.41	1.53
1	Ad	999	G	O4'-C1'	10.53	1.55	1.41
1	Ad	342	C	C2'-C1'	-10.53	1.41	1.53
1	Ad	483	C	C2'-C1'	-10.52	1.41	1.53
1	Ad	1194	C	O4'-C1'	10.52	1.55	1.41
1	Ad	1012	C	O4'-C1'	10.52	1.55	1.41
1	Ad	136	U	C2'-C1'	-10.50	1.41	1.53
1	Ad	600	C	O4'-C1'	10.50	1.55	1.41
1	Ad	1232	G	O4'-C1'	10.50	1.55	1.41
1	Ad	321	C	C2'-C1'	-10.49	1.41	1.53
1	Ad	188	U	C2'-C1'	-10.49	1.41	1.53
1	Ad	183	C	C2'-C1'	-10.49	1.41	1.53
1	Ad	1001	C	O4'-C1'	10.49	1.55	1.41
1	Ad	473	C	O4'-C1'	10.48	1.55	1.41
1	Ad	889	C	C2'-C1'	-10.48	1.41	1.53
1	Ad	1122	U	O4'-C1'	10.48	1.55	1.41
1	Ad	141	G	O4'-C1'	10.48	1.55	1.41
1	Ad	504	C	C2'-C1'	-10.47	1.41	1.53
1	Ad	1751	U	C2'-C1'	-10.47	1.41	1.53
1	Ad	993	C	O4'-C1'	10.47	1.55	1.41
1	Ad	903	A	C2'-C1'	10.44	1.64	1.53
1	Ad	1574	U	C2'-C1'	10.43	1.64	1.53
1	Ad	1104	U	C2'-C1'	10.43	1.64	1.53
1	Ad	1610	C	C2'-C1'	-10.42	1.41	1.53
1	Ad	1304	A	C2'-C1'	10.42	1.64	1.53
1	Ad	148	C	C2'-C1'	-10.42	1.41	1.53
1	Ad	155	A	C2'-C1'	10.40	1.64	1.53
2	Ae	31	C	O4'-C1'	10.40	1.55	1.41
1	Ad	1051	G	C2'-C1'	-10.39	1.42	1.53
1	Ad	326	G	C2'-C1'	-10.39	1.42	1.53
1	Ad	316	A	C2'-C1'	10.37	1.64	1.53
1	Ad	1754	A	O4'-C1'	10.37	1.55	1.41
1	Ad	1708	U	O4'-C1'	10.36	1.55	1.41
1	Ad	533	C	O4'-C1'	10.36	1.55	1.41
1	Ad	1680	A	C2'-C1'	-10.36	1.42	1.53
1	Ad	1755	G	C2'-C1'	-10.36	1.42	1.53
1	Ad	642	C	C2'-C1'	-10.35	1.42	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	Ae	36	C	O4'-C1'	10.35	1.55	1.41
1	Ad	453	C	O4'-C1'	10.32	1.55	1.41
1	Ad	1388	A	C2'-C1'	10.32	1.64	1.53
1	Ad	1467	C	C2'-C1'	-10.32	1.42	1.53
1	Ad	301	U	O4'-C1'	10.31	1.55	1.41
1	Ad	415	C	C2'-C1'	-10.31	1.42	1.53
1	Ad	1382	C	O4'-C1'	10.31	1.55	1.41
1	Ad	889	C	O4'-C1'	10.31	1.55	1.41
1	Ad	1355	U	O4'-C1'	10.31	1.55	1.41
1	Ad	1503	C	O4'-C1'	10.30	1.55	1.41
1	Ad	1778	G	O4'-C1'	10.28	1.55	1.41
1	Ad	1007	G	O4'-C1'	10.27	1.55	1.41
1	Ad	1038	C	C2'-C1'	-10.26	1.42	1.53
1	Ad	1562	C	O4'-C1'	10.26	1.54	1.41
1	Ad	1124	G	C2'-C1'	-10.25	1.42	1.53
1	Ad	1678	G	C2'-C1'	-10.23	1.42	1.53
1	Ad	1571	G	C2'-C1'	-10.23	1.42	1.53
1	Ad	4	C	O4'-C1'	10.23	1.54	1.41
1	Ad	1612	C	O4'-C1'	10.22	1.54	1.41
1	Ad	1213	C	C2'-C1'	-10.22	1.42	1.53
1	Ad	798	C	O4'-C1'	10.21	1.54	1.41
1	Ad	936	C	C2'-C1'	-10.20	1.42	1.53
1	Ad	1187	A	C2'-C1'	-10.19	1.42	1.53
1	Ad	1255	U	C2'-C1'	10.19	1.64	1.53
1	Ad	1676	G	C2'-C1'	-10.19	1.42	1.53
1	Ad	376	G	C2'-C1'	-10.18	1.42	1.53
1	Ad	649	C	O4'-C1'	10.17	1.54	1.41
1	Ad	596	A	O4'-C1'	10.16	1.54	1.41
1	Ad	182	C	C2'-C1'	-10.16	1.42	1.53
1	Ad	1369	C	C2'-C1'	-10.16	1.42	1.53
1	Ad	1274	G	C2'-C1'	-10.14	1.42	1.53
1	Ad	735	G	C2'-C1'	-10.13	1.42	1.53
1	Ad	1725	C	C2'-C1'	10.14	1.64	1.53
1	Ad	1615	G	O4'-C1'	10.13	1.54	1.41
1	Ad	430	G	C2'-C1'	-10.12	1.42	1.53
1	Ad	1322	G	C2'-C1'	-10.11	1.42	1.53
1	Ad	714	C	O4'-C1'	10.11	1.54	1.41
1	Ad	810	A	O4'-C1'	10.10	1.54	1.41
1	Ad	1298	G	C2'-C1'	-10.08	1.42	1.53
1	Ad	604	U	C2'-C1'	-10.08	1.42	1.53
1	Ad	469	G	C2'-C1'	-10.07	1.42	1.53
1	Ad	393	G	C2'-C1'	-10.06	1.42	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	919	G	C2'-C1'	10.06	1.64	1.53
1	Ad	1385	C	O4'-C1'	10.05	1.54	1.41
1	Ad	1695	G	O4'-C1'	10.03	1.54	1.41
1	Ad	391	A	O4'-C1'	-10.03	1.28	1.41
1	Ad	404	A	O4'-C1'	-10.03	1.28	1.41
1	Ad	299	A	C2'-C1'	-10.02	1.42	1.53
1	Ad	408	G	C2'-C1'	-10.02	1.42	1.53
84	Aa	1747	A	O3'-P	-10.02	1.49	1.61
1	Ad	1083	C	O4'-C1'	10.02	1.54	1.41
1	Ad	1674	C	O4'-C1'	10.01	1.54	1.41
1	Ad	1282	G	C2'-C1'	-10.01	1.42	1.53
1	Ad	1625	U	C2'-C1'	-10.01	1.42	1.53
1	Ad	760	G	C2'-C1'	-10.00	1.42	1.53
1	Ad	1570	G	C2'-C1'	-10.00	1.42	1.53
1	Ad	313	C	C2'-C1'	-9.97	1.42	1.53
1	Ad	114	U	C2'-C1'	-9.95	1.42	1.53
1	Ad	538	A	O4'-C1'	9.94	1.54	1.41
1	Ad	1168	A	O4'-C1'	9.94	1.54	1.41
1	Ad	394	G	O4'-C1'	-9.94	1.28	1.41
1	Ad	1237	G	C2'-C1'	-9.94	1.42	1.53
1	Ad	435	C	O4'-C1'	9.93	1.54	1.41
1	Ad	526	U	C2'-C1'	-9.93	1.42	1.53
1	Ad	1139	C	O4'-C1'	9.92	1.54	1.41
1	Ad	527	C	O4'-C1'	9.91	1.54	1.41
1	Ad	93	A	C2'-C1'	9.91	1.64	1.53
2	Ae	21	A	O4'-C1'	9.91	1.54	1.41
1	Ad	462	G	C2'-C1'	-9.90	1.42	1.53
1	Ad	576	C	O4'-C1'	9.90	1.54	1.41
2	Ae	17	G	O4'-C1'	9.90	1.54	1.41
1	Ad	453	C	C2'-C1'	-9.89	1.42	1.53
1	Ad	1766	A	O4'-C1'	-9.89	1.28	1.41
1	Ad	914	U	O4'-C1'	9.88	1.54	1.41
1	Ad	630	U	C2'-C1'	-9.88	1.42	1.53
1	Ad	1599	C	C2'-C1'	-9.88	1.42	1.53
1	Ad	371	A	C2'-C1'	-9.88	1.42	1.53
1	Ad	1199	C	C2'-C1'	-9.88	1.42	1.53
1	Ad	1238	A	C2'-C1'	-9.86	1.42	1.53
1	Ad	588	C	C2'-C1'	-9.86	1.42	1.53
1	Ad	318	C	O4'-C1'	9.85	1.54	1.41
1	Ad	1766	A	C2'-C1'	9.85	1.64	1.53
1	Ad	1579	C	C2'-C1'	-9.83	1.42	1.53
86	Ab	46	C	N1-C6	9.83	1.43	1.37

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1349	A	C2'-C1'	-9.82	1.42	1.53
1	Ad	1687	G	O4'-C1'	9.81	1.54	1.41
1	Ad	980	C	O4'-C1'	9.81	1.54	1.41
1	Ad	1312	G	C2'-C1'	-9.81	1.42	1.53
1	Ad	1779	U	O4'-C1'	9.80	1.54	1.41
1	Ad	1765	A	O4'-C1'	-9.79	1.28	1.41
2	Ae	50	G	O4'-C1'	-9.79	1.28	1.41
1	Ad	289	G	C2'-C1'	-9.79	1.42	1.53
1	Ad	561	G	C2'-C1'	-9.79	1.42	1.53
2	Ae	75	A	C2'-C1'	9.78	1.64	1.53
1	Ad	229	G	C2'-C1'	-9.77	1.42	1.53
1	Ad	1462	C	C2'-C1'	9.77	1.64	1.53
1	Ad	1187	A	O4'-C1'	9.77	1.54	1.41
1	Ad	1199	C	O4'-C1'	9.77	1.54	1.41
1	Ad	1802	G	O4'-C1'	-9.77	1.28	1.41
1	Ad	550	U	O4'-C1'	9.76	1.54	1.41
1	Ad	1717	C	C2'-C1'	-9.76	1.42	1.53
1	Ad	1410	C	C2'-C1'	-9.76	1.42	1.53
2	Ae	9	A	O4'-C1'	9.75	1.54	1.41
1	Ad	966	U	O4'-C1'	9.75	1.54	1.41
1	Ad	1421	U	C2'-C1'	-9.75	1.42	1.53
1	Ad	165	U	O4'-C1'	9.74	1.54	1.41
1	Ad	187	C	C2'-C1'	-9.74	1.42	1.53
1	Ad	48	G	C2'-C1'	-9.74	1.42	1.53
1	Ad	548	C	C2'-C1'	-9.73	1.42	1.53
1	Ad	152	G	C2'-C1'	-9.73	1.42	1.53
2	Ae	61	C	O4'-C1'	9.73	1.54	1.41
1	Ad	881	G	O4'-C1'	9.73	1.54	1.41
1	Ad	569	C	O4'-C1'	9.72	1.54	1.41
1	Ad	641	C	O4'-C1'	9.72	1.54	1.41
1	Ad	1696	C	C2'-C1'	-9.71	1.42	1.53
1	Ad	1607	C	O4'-C1'	9.71	1.54	1.41
1	Ad	969	U	O4'-C1'	9.70	1.54	1.41
1	Ad	1123	G	C2'-C1'	-9.69	1.42	1.53
1	Ad	34	G	O4'-C1'	9.68	1.54	1.41
1	Ad	1538	C	O4'-C1'	9.68	1.54	1.41
1	Ad	1557	C	C2'-C1'	-9.67	1.42	1.53
1	Ad	1597	C	O4'-C1'	9.67	1.54	1.41
1	Ad	485	A	O4'-C1'	9.66	1.54	1.41
1	Ad	1043	C	O4'-C1'	9.66	1.54	1.41
1	Ad	632	G	O4'-C1'	9.65	1.54	1.41
1	Ad	820	A	C2'-C1'	-9.64	1.42	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1005	C	O4'-C1'	-9.64	1.29	1.41
1	Ad	1624	G	C2'-C1'	-9.64	1.42	1.53
1	Ad	458	A	C2'-C1'	9.63	1.64	1.53
1	Ad	942	C	C2'-C1'	-9.63	1.42	1.53
1	Ad	934	A	C2'-C1'	-9.61	1.42	1.53
1	Ad	537	U	O4'-C1'	9.60	1.54	1.41
1	Ad	1646	G	C2'-C1'	-9.60	1.42	1.53
1	Ad	406	C	C2'-C1'	-9.59	1.42	1.53
1	Ad	190	C	O4'-C1'	9.56	1.54	1.41
1	Ad	1645	C	O4'-C1'	9.55	1.54	1.41
1	Ad	1142	A	O4'-C1'	9.55	1.54	1.41
1	Ad	747	U	O4'-C1'	9.54	1.54	1.41
1	Ad	780	A	O4'-C1'	-9.54	1.29	1.41
1	Ad	235	C	O4'-C1'	9.54	1.54	1.41
1	Ad	1401	C	O4'-C1'	9.53	1.54	1.41
1	Ad	1095	C	O4'-C1'	9.53	1.54	1.41
1	Ad	1579	C	O4'-C1'	9.52	1.54	1.41
1	Ad	1109	U	C2'-C1'	-9.51	1.42	1.53
1	Ad	1354	C	O4'-C1'	9.51	1.54	1.41
1	Ad	97	G	O4'-C1'	9.49	1.53	1.41
1	Ad	1321	C	O4'-C1'	9.49	1.53	1.41
1	Ad	1686	C	O4'-C1'	9.48	1.53	1.41
1	Ad	1578	A	C2'-C1'	-9.48	1.43	1.53
1	Ad	540	C	C2'-C1'	-9.47	1.43	1.53
1	Ad	188	U	O4'-C1'	9.46	1.53	1.41
1	Ad	54	C	C2'-C1'	9.45	1.63	1.53
1	Ad	1305	U	O4'-C1'	9.45	1.53	1.41
86	Ab	24	G	N7-C5	-9.44	1.33	1.39
2	Ae	3	C	O4'-C1'	9.44	1.53	1.41
1	Ad	162	A	C2'-C1'	-9.43	1.43	1.53
1	Ad	317	U	O4'-C1'	9.43	1.53	1.41
1	Ad	1468	G	O4'-C1'	9.42	1.53	1.41
1	Ad	759	A	C2'-C1'	-9.42	1.43	1.53
1	Ad	896	C	O4'-C1'	9.42	1.53	1.41
1	Ad	772	C	C2'-C1'	-9.40	1.43	1.53
1	Ad	1649	C	O4'-C1'	9.40	1.53	1.41
1	Ad	98	C	O4'-C1'	9.40	1.53	1.41
1	Ad	286	C	C2'-C1'	-9.38	1.43	1.53
1	Ad	317	U	C2'-C1'	-9.38	1.43	1.53
1	Ad	1808	U	O4'-C1'	9.37	1.53	1.41
1	Ad	1379	U	O4'-C1'	9.37	1.53	1.41
1	Ad	1531	G	O4'-C1'	-9.36	1.29	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	804	C	C2'-C1'	-9.35	1.43	1.53
1	Ad	1451	G	C2'-C1'	-9.35	1.43	1.53
1	Ad	562	U	C2'-C1'	-9.34	1.43	1.53
1	Ad	821	G	O4'-C1'	9.34	1.53	1.41
1	Ad	277	G	C2'-C1'	-9.34	1.43	1.53
1	Ad	327	A	O4'-C1'	9.34	1.53	1.41
1	Ad	1015	C	O4'-C1'	9.34	1.53	1.41
1	Ad	1469	C	O4'-C1'	9.33	1.53	1.41
1	Ad	419	C	O4'-C1'	9.33	1.53	1.41
1	Ad	309	C	C2'-C1'	-9.33	1.43	1.53
1	Ad	953	G	C2'-C1'	-9.33	1.43	1.53
1	Ad	998	A	O4'-C1'	9.33	1.53	1.41
1	Ad	1520	G	C2'-C1'	-9.33	1.43	1.53
1	Ad	1252	C	O4'-C1'	9.32	1.53	1.41
1	Ad	711	C	O4'-C1'	9.32	1.53	1.41
1	Ad	31	C	C2'-C1'	-9.32	1.43	1.53
1	Ad	1337	C	O4'-C1'	9.32	1.53	1.41
1	Ad	116	G	C2'-C1'	-9.31	1.43	1.53
1	Ad	1418	G	O4'-C1'	9.31	1.53	1.41
1	Ad	1491	C	O4'-C1'	9.31	1.53	1.41
1	Ad	1754	A	C2'-C1'	-9.30	1.43	1.53
1	Ad	427	G	C2'-C1'	-9.30	1.43	1.53
1	Ad	573	C	O4'-C1'	9.29	1.53	1.41
1	Ad	860	A	C2'-C1'	9.29	1.63	1.53
1	Ad	1285	G	C2'-C1'	-9.29	1.43	1.53
1	Ad	116	G	O4'-C1'	9.29	1.53	1.41
1	Ad	278	C	C2'-C1'	-9.29	1.43	1.53
1	Ad	228	G	O4'-C1'	9.28	1.53	1.41
1	Ad	1783	C	O4'-C1'	9.27	1.53	1.41
2	Ae	72	G	O4'-C1'	-9.27	1.29	1.41
1	Ad	69	A	C2'-C1'	-9.27	1.43	1.53
1	Ad	421	A	O4'-C1'	9.26	1.53	1.41
1	Ad	795	A	O4'-C1'	9.26	1.53	1.41
1	Ad	460	G	C2'-C1'	-9.25	1.43	1.53
1	Ad	82	G	C2'-C1'	-9.23	1.43	1.53
86	Ab	40	A	N7-C5	-9.23	1.33	1.39
2	Ae	10	G	O4'-C1'	9.22	1.53	1.41
1	Ad	1059	U	C2'-C1'	-9.22	1.43	1.53
2	Ae	48	C	O4'-C1'	9.21	1.53	1.41
1	Ad	823	A	C2'-C1'	-9.20	1.43	1.53
1	Ad	1075	G	C2'-C1'	-9.20	1.43	1.53
1	Ad	416	A	C2'-C1'	9.18	1.63	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1269	G	C2'-C1'	-9.17	1.43	1.53
1	Ad	1680	A	O4'-C1'	9.17	1.53	1.41
1	Ad	918	G	C2'-C1'	-9.17	1.43	1.53
1	Ad	748	C	O4'-C1'	9.17	1.53	1.41
1	Ad	434	G	C2'-C1'	-9.16	1.43	1.53
1	Ad	254	A	O4'-C1'	9.16	1.53	1.41
1	Ad	278	C	O4'-C1'	9.14	1.53	1.41
1	Ad	1590	U	O4'-C1'	-9.14	1.29	1.41
2	Ae	71	A	C2'-C1'	-9.14	1.43	1.53
1	Ad	1125	U	C2'-C1'	9.13	1.63	1.53
1	Ad	1067	A	O4'-C1'	-9.13	1.29	1.41
1	Ad	1467	C	O4'-C1'	9.12	1.53	1.41
1	Ad	178	A	O4'-C1'	9.12	1.53	1.41
1	Ad	709	C	O4'-C1'	9.12	1.53	1.41
1	Ad	1179	C	O4'-C1'	9.12	1.53	1.41
1	Ad	426	G	C2'-C1'	-9.11	1.43	1.53
1	Ad	225	G	O4'-C1'	9.09	1.53	1.41
1	Ad	1491	C	C2'-C1'	-9.09	1.43	1.53
1	Ad	788	G	O4'-C1'	9.09	1.53	1.41
1	Ad	72	A	O4'-C1'	9.08	1.53	1.41
1	Ad	398	C	O4'-C1'	9.08	1.53	1.41
1	Ad	975	A	C2'-C1'	9.08	1.63	1.53
1	Ad	295	C	O4'-C1'	9.07	1.53	1.41
1	Ad	1562	C	C2'-C1'	-9.07	1.43	1.53
1	Ad	490	G	C2'-C1'	-9.05	1.43	1.53
1	Ad	261	C	O4'-C1'	9.05	1.53	1.41
1	Ad	702	G	C2'-C1'	-9.05	1.43	1.53
1	Ad	631	C	O4'-C1'	9.03	1.53	1.41
1	Ad	728	C	C2'-C1'	-9.03	1.43	1.53
1	Ad	150	U	C2'-C1'	9.03	1.63	1.53
1	Ad	1240	A	C2'-C1'	-9.03	1.43	1.53
1	Ad	406	C	O4'-C1'	9.02	1.53	1.41
1	Ad	1703	G	C2'-C1'	-9.02	1.43	1.53
1	Ad	1202	G	C2'-C1'	-9.00	1.43	1.53
1	Ad	149	G	C2'-C1'	-9.00	1.43	1.53
1	Ad	85	A	O4'-C1'	8.99	1.53	1.41
2	Ae	35	U	O4'-C1'	8.99	1.53	1.41
86	Ab	20	C	N3-C4	8.99	1.40	1.33
1	Ad	1712	C	O4'-C1'	8.98	1.53	1.41
1	Ad	1020	U	O4'-C1'	8.98	1.53	1.41
1	Ad	1614	C	C2'-C1'	-8.98	1.43	1.53
1	Ad	1398	U	O4'-C1'	8.97	1.53	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	965	U	O4'-C1'	8.97	1.53	1.41
2	Ae	72	G	C2'-C1'	8.97	1.63	1.53
1	Ad	474	A	O4'-C1'	8.96	1.53	1.41
1	Ad	727	G	O4'-C1'	8.96	1.53	1.41
1	Ad	558	C	C2'-C1'	-8.96	1.43	1.53
1	Ad	311	G	C2'-C1'	-8.95	1.43	1.53
1	Ad	506	G	O4'-C1'	8.94	1.53	1.41
1	Ad	1083	C	C2'-C1'	-8.94	1.43	1.53
1	Ad	126	U	O4'-C1'	8.92	1.53	1.41
1	Ad	43	A	C2'-C1'	8.91	1.63	1.53
1	Ad	903	A	O4'-C1'	-8.91	1.30	1.41
2	Ae	62	C	C2'-C1'	-8.91	1.43	1.53
1	Ad	1207	A	C2'-C1'	-8.89	1.43	1.53
1	Ad	1646	G	O4'-C1'	8.88	1.53	1.41
1	Ad	1355	U	C2'-C1'	-8.87	1.43	1.53
1	Ad	1166	C	C2'-C1'	-8.86	1.43	1.53
1	Ad	854	C	O4'-C1'	8.86	1.53	1.41
1	Ad	1060	U	C2'-C1'	-8.85	1.43	1.53
1	Ad	1552	U	O4'-C1'	8.85	1.53	1.41
1	Ad	932	C	O4'-C1'	8.84	1.53	1.41
1	Ad	376	G	O4'-C1'	8.84	1.53	1.41
1	Ad	979	A	O4'-C1'	8.84	1.53	1.41
1	Ad	24	U	O4'-C1'	8.84	1.53	1.41
1	Ad	860	A	O4'-C1'	-8.83	1.30	1.41
1	Ad	1442	A	O4'-C1'	8.83	1.53	1.41
1	Ad	1620	C	O4'-C1'	8.83	1.53	1.41
1	Ad	822	G	O4'-C1'	8.82	1.53	1.41
1	Ad	1475	A	O4'-C1'	8.82	1.53	1.41
1	Ad	345	A	O4'-C1'	8.81	1.53	1.41
1	Ad	1331	C	O4'-C1'	8.81	1.53	1.41
1	Ad	1523	A	O4'-C1'	8.81	1.53	1.41
2	Ae	7	A	C2'-C1'	-8.81	1.43	1.53
2	Ae	62	C	O4'-C1'	8.80	1.53	1.41
1	Ad	1113	G	C2'-C1'	-8.79	1.43	1.53
1	Ad	964	U	O4'-C1'	8.78	1.53	1.41
1	Ad	1137	A	O4'-C1'	8.78	1.53	1.41
1	Ad	623	A	C2'-C1'	-8.78	1.43	1.53
1	Ad	759	A	O4'-C1'	8.77	1.53	1.41
1	Ad	540	C	O4'-C1'	8.77	1.53	1.41
1	Ad	992	G	O4'-C1'	8.77	1.53	1.41
86	Ab	31	G	C6-N1	8.75	1.45	1.39
1	Ad	1399	G	C2'-C1'	-8.75	1.43	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1630	G	O4'-C1'	8.73	1.53	1.41
1	Ad	1685	U	O4'-C1'	8.71	1.52	1.41
1	Ad	1737	A	O4'-C1'	8.70	1.52	1.41
1	Ad	447	C	C2'-C1'	-8.70	1.43	1.53
1	Ad	1598	G	O4'-C1'	8.67	1.52	1.41
3	Af	16	G	O4'-C1'	8.66	1.52	1.41
1	Ad	1790	G	C2'-C1'	-8.66	1.43	1.53
1	Ad	344	U	C2'-C1'	8.64	1.62	1.53
1	Ad	1710	C	C2'-C1'	-8.64	1.43	1.53
1	Ad	847	U	C2'-C1'	-8.62	1.43	1.53
1	Ad	1395	C	O4'-C1'	8.61	1.52	1.41
1	Ad	1115	G	C2'-C1'	-8.61	1.43	1.53
1	Ad	23	G	C2'-C1'	-8.61	1.43	1.53
1	Ad	1026	C	O4'-C1'	8.60	1.52	1.41
1	Ad	1076	C	O4'-C1'	8.60	1.52	1.41
1	Ad	1749	C	O4'-C1'	8.60	1.52	1.41
1	Ad	932	C	C2'-C1'	-8.59	1.43	1.53
1	Ad	1033	C	C2'-C1'	-8.59	1.44	1.53
1	Ad	1700	G	O4'-C1'	8.59	1.52	1.41
1	Ad	1578	A	O4'-C1'	8.58	1.52	1.41
1	Ad	1600	G	C2'-C1'	-8.58	1.44	1.53
1	Ad	933	G	C2'-C1'	-8.58	1.44	1.53
1	Ad	1146	G	C2'-C1'	-8.57	1.44	1.53
1	Ad	1280	U	C2'-C1'	8.56	1.62	1.53
1	Ad	232	C	O4'-C1'	8.56	1.52	1.41
1	Ad	783	C	O4'-C1'	8.54	1.52	1.41
1	Ad	1744	C	O4'-C1'	8.54	1.52	1.41
1	Ad	195	A	O4'-C1'	8.53	1.52	1.41
1	Ad	589	A	C2'-C1'	-8.53	1.44	1.53
1	Ad	1633	C	O4'-C1'	8.53	1.52	1.41
1	Ad	1809	U	C2'-C1'	8.53	1.62	1.53
1	Ad	1111	C	O4'-C1'	8.53	1.52	1.41
2	Ae	27	G	C2'-C1'	-8.52	1.44	1.53
1	Ad	218	G	O4'-C1'	8.52	1.52	1.41
1	Ad	215	A	C2'-C1'	8.51	1.62	1.53
1	Ad	224	C	C2'-C1'	8.51	1.62	1.53
1	Ad	1696	C	O4'-C1'	8.51	1.52	1.41
1	Ad	1772	A	C2'-C1'	8.51	1.62	1.53
1	Ad	322	U	O4'-C1'	8.51	1.52	1.41
1	Ad	733	U	O4'-C1'	8.50	1.52	1.41
1	Ad	1797	C	O4'-C1'	8.50	1.52	1.41
1	Ad	1288	C	O4'-C1'	8.50	1.52	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1028	A	O4'-C1'	-8.50	1.30	1.41
2	Ae	35	U	C2'-C1'	-8.49	1.44	1.53
1	Ad	534	C	O4'-C1'	8.49	1.52	1.41
1	Ad	108	C	O4'-C1'	8.49	1.52	1.41
1	Ad	54	C	O4'-C1'	8.49	1.52	1.41
1	Ad	459	C	O4'-C1'	8.49	1.52	1.41
1	Ad	787	C	O4'-C1'	-8.48	1.30	1.41
1	Ad	561	G	O4'-C1'	8.48	1.52	1.41
1	Ad	973	U	O4'-C1'	8.48	1.52	1.41
1	Ad	1457	C	C2'-C1'	-8.48	1.44	1.53
1	Ad	1584	A	O4'-C1'	8.47	1.52	1.41
1	Ad	990	G	C2'-C1'	-8.47	1.44	1.53
1	Ad	1097	A	C2'-C1'	-8.47	1.44	1.53
1	Ad	110	G	C2'-C1'	-8.46	1.44	1.53
1	Ad	186	A	O4'-C1'	8.46	1.52	1.41
1	Ad	1587	G	C2'-C1'	-8.46	1.44	1.53
1	Ad	519	A	O4'-C1'	8.45	1.52	1.41
1	Ad	1672	U	C2'-C1'	-8.45	1.44	1.53
1	Ad	548	C	O4'-C1'	8.45	1.52	1.41
1	Ad	776	A	C2'-C1'	8.44	1.62	1.53
1	Ad	1205	G	C2'-C1'	8.43	1.62	1.53
1	Ad	350	G	O4'-C1'	8.43	1.52	1.41
1	Ad	1026	C	C2'-C1'	-8.42	1.44	1.53
1	Ad	1751	U	O4'-C1'	8.42	1.52	1.41
1	Ad	555	G	C2'-C1'	-8.41	1.44	1.53
1	Ad	68	A	O4'-C1'	8.41	1.52	1.41
1	Ad	57	G	C2'-C1'	-8.38	1.44	1.53
1	Ad	1059	U	O4'-C1'	8.38	1.52	1.41
1	Ad	1370	C	O4'-C1'	8.37	1.52	1.41
1	Ad	66	U	C2'-C1'	8.36	1.62	1.53
1	Ad	1506	G	C2'-C1'	-8.36	1.44	1.53
1	Ad	911	A	C2'-C1'	-8.36	1.44	1.53
1	Ad	646	G	C2'-C1'	-8.35	1.44	1.53
1	Ad	234	G	C2'-C1'	-8.35	1.44	1.53
1	Ad	1308	G	C2'-C1'	-8.34	1.44	1.53
1	Ad	1	U	O4'-C1'	8.34	1.52	1.41
1	Ad	285	G	C2'-C1'	-8.34	1.44	1.53
86	Ab	97	G	N7-C5	-8.33	1.34	1.39
1	Ad	835	U	O4'-C1'	-8.32	1.30	1.41
1	Ad	1543	U	O4'-C1'	8.31	1.52	1.41
1	Ad	1028	A	C2'-C1'	8.31	1.62	1.53
1	Ad	838	U	O4'-C1'	8.31	1.52	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	55	A	C2'-C1'	-8.30	1.44	1.53
1	Ad	1338	U	O4'-C1'	8.30	1.52	1.41
1	Ad	91	C	O4'-C1'	8.30	1.52	1.41
2	Ae	47	U	C2'-C1'	8.30	1.62	1.53
1	Ad	298	C	C2'-C1'	-8.28	1.44	1.53
1	Ad	727	G	C2'-C1'	-8.27	1.44	1.53
1	Ad	1223	A	O4'-C1'	8.27	1.52	1.41
86	Ab	81	G	N7-C5	-8.27	1.34	1.39
1	Ad	1628	C	O4'-C1'	8.26	1.52	1.41
86	Ab	99	G	C6-N1	8.26	1.45	1.39
1	Ad	66	U	O4'-C1'	-8.26	1.30	1.41
1	Ad	1378	C	C2'-C1'	-8.26	1.44	1.53
1	Ad	1094	U	O4'-C1'	8.25	1.52	1.41
1	Ad	1159	G	C2'-C1'	-8.25	1.44	1.53
1	Ad	1601	A	C2'-C1'	-8.25	1.44	1.53
1	Ad	1717	C	O4'-C1'	8.25	1.52	1.41
1	Ad	1727	C	C2'-C1'	-8.24	1.44	1.53
84	Aa	723	G	C2'-C1'	-8.24	1.44	1.53
1	Ad	1405	U	C2'-C1'	-8.24	1.44	1.53
1	Ad	628	G	C2'-C1'	-8.24	1.44	1.53
1	Ad	1164	C	O4'-C1'	8.24	1.52	1.41
2	Ae	1	U	O4'-C1'	8.23	1.52	1.41
1	Ad	1805	U	O4'-C1'	8.23	1.52	1.41
1	Ad	88	C	O4'-C1'	8.22	1.52	1.41
1	Ad	140	C	C2'-C1'	-8.22	1.44	1.53
1	Ad	1734	U	C2'-C1'	-8.22	1.44	1.53
1	Ad	1044	A	C2'-C1'	8.22	1.62	1.53
1	Ad	1524	A	O4'-C1'	-8.21	1.30	1.41
1	Ad	785	A	O4'-C1'	8.21	1.52	1.41
1	Ad	1262	U	C2'-C1'	8.20	1.62	1.53
1	Ad	810	A	C2'-C1'	-8.20	1.44	1.53
1	Ad	1630	G	C2'-C1'	-8.20	1.44	1.53
1	Ad	1401	C	C2'-C1'	-8.19	1.44	1.53
1	Ad	838	U	C2'-C1'	-8.18	1.44	1.53
1	Ad	161	G	O4'-C1'	-8.18	1.31	1.41
1	Ad	1439	G	C2'-C1'	-8.18	1.44	1.53
1	Ad	1594	A	C2'-C1'	8.17	1.62	1.53
1	Ad	343	C	O4'-C1'	8.17	1.52	1.41
1	Ad	530	A	O4'-C1'	8.16	1.52	1.41
1	Ad	1665	U	C2'-C1'	8.16	1.62	1.53
2	Ae	63	C	O4'-C1'	8.16	1.52	1.41
1	Ad	347	C	O4'-C1'	8.16	1.52	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1606	U	C2'-C1'	-8.16	1.44	1.53
2	Ae	51	G	C2'-C1'	-8.16	1.44	1.53
1	Ad	979	A	C2'-C1'	-8.16	1.44	1.53
1	Ad	790	U	C2'-C1'	-8.16	1.44	1.53
1	Ad	572	G	C2'-C1'	-8.15	1.44	1.53
1	Ad	466	G	C2'-C1'	-8.14	1.44	1.53
1	Ad	1368	C	O4'-C1'	-8.14	1.31	1.41
1	Ad	139	U	C2'-C1'	-8.14	1.44	1.53
1	Ad	1774	C	O4'-C1'	8.14	1.52	1.41
2	Ae	37	G	C2'-C1'	-8.14	1.44	1.53
1	Ad	96	G	O4'-C1'	8.13	1.52	1.41
1	Ad	248	U	O4'-C1'	8.13	1.52	1.41
1	Ad	537	U	C2'-C1'	-8.13	1.44	1.53
1	Ad	1062	C	C2'-C1'	8.13	1.62	1.53
1	Ad	1661	C	C2'-C1'	-8.12	1.44	1.53
1	Ad	1804	A	C2'-C1'	8.12	1.62	1.53
1	Ad	339	G	O4'-C1'	8.12	1.52	1.41
1	Ad	56	U	C4'-C3'	8.11	1.62	1.53
84	Aa	1827	U	P-O5'	-8.11	1.51	1.59
1	Ad	1203	G	O4'-C1'	-8.11	1.31	1.41
1	Ad	933	G	O3'-P	-8.11	1.51	1.61
1	Ad	312	C	O4'-C1'	8.11	1.52	1.41
1	Ad	511	U	C2'-C1'	8.10	1.62	1.53
1	Ad	779	C	O4'-C1'	8.10	1.52	1.41
1	Ad	619	A	C2'-C1'	8.10	1.62	1.53
1	Ad	1512	C	O4'-C1'	8.10	1.52	1.41
1	Ad	1720	G	C2'-C1'	-8.10	1.44	1.53
1	Ad	841	U	C2'-C1'	8.09	1.62	1.53
1	Ad	1430	A	C2'-C1'	-8.09	1.44	1.53
1	Ad	577	C	O4'-C1'	8.09	1.52	1.41
1	Ad	515	A	O4'-C1'	8.09	1.52	1.41
1	Ad	1102	U	C2'-C1'	-8.09	1.44	1.53
1	Ad	363	G	C2'-C1'	8.08	1.62	1.53
2	Ae	66	C	O4'-C1'	8.08	1.52	1.41
1	Ad	382	A	O4'-C1'	8.08	1.52	1.41
1	Ad	1402	C	O4'-C1'	8.08	1.52	1.41
1	Ad	1419	U	O4'-C1'	8.08	1.52	1.41
1	Ad	417	U	O4'-C1'	8.07	1.52	1.41
1	Ad	1071	C	O4'-C1'	8.07	1.52	1.41
1	Ad	629	C	C2'-C1'	-8.06	1.44	1.53
1	Ad	24	U	C2'-C1'	-8.06	1.44	1.53
1	Ad	1201	C	O4'-C1'	8.06	1.52	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	868	A	O4'-C1'	8.06	1.52	1.41
1	Ad	863	G	C2'-C1'	-8.05	1.44	1.53
1	Ad	1112	G	C2'-C1'	-8.06	1.44	1.53
1	Ad	1369	C	O4'-C1'	8.05	1.52	1.41
1	Ad	1750	A	C2'-C1'	-8.06	1.44	1.53
1	Ad	1669	U	C2'-C1'	-8.05	1.44	1.53
1	Ad	920	A	O4'-C1'	8.04	1.52	1.41
1	Ad	1433	A	C2'-C1'	8.04	1.62	1.53
1	Ad	1769	C	O4'-C1'	8.04	1.52	1.41
1	Ad	1092	A	C2'-C1'	-8.03	1.44	1.53
1	Ad	1170	G	C2'-C1'	-8.03	1.44	1.53
84	Aa	2354	G	N7-C5	-8.02	1.34	1.39
1	Ad	606	U	O4'-C1'	8.02	1.52	1.41
1	Ad	389	A	O4'-C1'	8.01	1.52	1.41
1	Ad	1050	C	C2'-C1'	-8.01	1.44	1.53
1	Ad	1595	A	O4'-C1'	8.01	1.52	1.41
86	Ab	18	C	N1-C6	8.01	1.42	1.37
1	Ad	147	C	C2'-C1'	-8.01	1.44	1.53
1	Ad	1649	C	C2'-C1'	-8.00	1.44	1.53
1	Ad	554	A	C2'-C1'	-8.00	1.44	1.53
1	Ad	1726	G	C5'-C4'	8.00	1.60	1.51
1	Ad	885	C	C2'-C1'	-8.00	1.44	1.53
1	Ad	1552	U	C2'-C1'	-7.99	1.44	1.53
1	Ad	1652	C	C2'-C1'	-7.99	1.44	1.53
1	Ad	341	G	O4'-C1'	7.99	1.52	1.41
1	Ad	304	A	C2'-C1'	-7.99	1.44	1.53
1	Ad	5	U	C2'-C1'	-7.98	1.44	1.53
1	Ad	990	G	O4'-C1'	7.98	1.52	1.41
1	Ad	1070	A	O4'-C1'	7.97	1.52	1.41
1	Ad	1512	C	C2'-C1'	-7.97	1.44	1.53
1	Ad	277	G	O4'-C1'	7.97	1.52	1.41
1	Ad	1165	A	C2'-C1'	-7.97	1.44	1.53
1	Ad	134	G	O4'-C1'	7.96	1.52	1.41
1	Ad	626	A	O4'-C1'	7.96	1.52	1.41
1	Ad	1413	C	C2'-C1'	-7.96	1.44	1.53
1	Ad	98	C	C2'-C1'	-7.96	1.44	1.53
1	Ad	1111	C	C2'-C1'	-7.96	1.44	1.53
1	Ad	285	G	O4'-C1'	7.96	1.51	1.41
1	Ad	447	C	O4'-C1'	7.96	1.51	1.41
1	Ad	807	G	C2'-C1'	-7.96	1.44	1.53
3	Af	21	C	O4'-C1'	7.95	1.51	1.41
1	Ad	566	G	C2'-C1'	-7.95	1.44	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
86	Ab	23	A	C6-N6	7.94	1.40	1.33
1	Ad	464	A	C2'-C1'	-7.94	1.44	1.53
1	Ad	967	C	C2'-C1'	-7.94	1.44	1.53
1	Ad	1126	C	O4'-C1'	7.93	1.51	1.41
1	Ad	714	C	C2'-C1'	-7.93	1.44	1.53
1	Ad	1171	C	C2'-C1'	-7.93	1.44	1.53
1	Ad	747	U	C2'-C1'	-7.93	1.44	1.53
1	Ad	717	G	C2'-C1'	-7.92	1.44	1.53
1	Ad	1214	C	C2'-C1'	-7.92	1.44	1.53
1	Ad	1664	U	C2'-C1'	7.92	1.62	1.53
1	Ad	1226	U	C2'-C1'	7.92	1.62	1.53
1	Ad	38	C	O4'-C1'	7.92	1.51	1.41
1	Ad	867	A	C2'-C1'	7.91	1.62	1.53
1	Ad	767	G	O4'-C1'	7.91	1.51	1.41
1	Ad	480	U	O4'-C1'	7.91	1.51	1.41
1	Ad	497	U	O4'-C1'	7.91	1.51	1.41
1	Ad	1636	U	C2'-C1'	-7.91	1.44	1.53
1	Ad	401	A	C2'-C1'	-7.90	1.44	1.53
86	Ab	27	A	N7-C5	-7.90	1.34	1.39
1	Ad	1269	G	O4'-C1'	7.89	1.51	1.41
1	Ad	81	U	C2'-C1'	-7.88	1.44	1.53
86	Ab	40	A	C6-N6	7.88	1.40	1.33
1	Ad	1191	U	O4'-C1'	7.88	1.51	1.41
1	Ad	1225	A	O4'-C1'	7.88	1.51	1.41
1	Ad	583	A	C2'-C1'	-7.87	1.44	1.53
1	Ad	1530	G	O4'-C1'	7.87	1.51	1.41
84	Aa	2084	G	O3'-P	-7.87	1.51	1.61
1	Ad	1294	U	O4'-C1'	7.87	1.51	1.41
1	Ad	1303	G	O4'-C1'	7.86	1.51	1.41
1	Ad	1747	A	C5'-C4'	7.84	1.60	1.51
1	Ad	1260	A	O4'-C1'	7.84	1.51	1.41
1	Ad	947	G	C5'-C4'	7.83	1.60	1.51
1	Ad	612	U	O4'-C1'	7.83	1.51	1.41
1	Ad	1207	A	O4'-C1'	7.83	1.51	1.41
1	Ad	937	A	C2'-C1'	7.83	1.61	1.53
1	Ad	1236	U	O4'-C1'	7.82	1.51	1.41
1	Ad	423	G	C2'-C1'	-7.80	1.44	1.53
1	Ad	915	C	C2'-C1'	-7.80	1.44	1.53
1	Ad	14	C	O4'-C1'	7.79	1.51	1.41
1	Ad	421	A	C2'-C1'	7.78	1.61	1.53
86	Ab	87	G	C2-N3	7.77	1.39	1.32
1	Ad	122	U	C2'-C1'	-7.77	1.44	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	629	C	O4'-C1'	7.77	1.51	1.41
1	Ad	450	A	O4'-C1'	7.76	1.51	1.41
1	Ad	1736	C	C2'-C1'	-7.76	1.44	1.53
1	Ad	1359	C	O4'-C1'	7.76	1.51	1.41
1	Ad	1554	G	C2'-C1'	-7.75	1.44	1.53
1	Ad	942	C	O4'-C1'	7.75	1.51	1.41
1	Ad	1492	G	O4'-C1'	-7.75	1.31	1.41
1	Ad	1728	G	C2'-C1'	-7.75	1.44	1.53
1	Ad	436	G	C2'-C1'	-7.75	1.44	1.53
1	Ad	189	U	C2'-C1'	7.75	1.61	1.53
1	Ad	1068	G	C2'-C1'	-7.75	1.44	1.53
1	Ad	1456	U	O4'-C1'	7.75	1.51	1.41
1	Ad	592	U	O4'-C1'	7.74	1.51	1.41
1	Ad	918	G	O4'-C1'	7.74	1.51	1.41
1	Ad	1542	G	O4'-C1'	-7.73	1.31	1.41
1	Ad	1000	A	C2'-C1'	-7.73	1.44	1.53
1	Ad	1789	U	O4'-C1'	7.72	1.51	1.41
1	Ad	1035	A	O3'-P	-7.72	1.51	1.61
1	Ad	1435	G	C2'-C1'	-7.72	1.44	1.53
1	Ad	374	A	C2'-C1'	-7.72	1.44	1.53
1	Ad	323	U	C2'-C1'	-7.70	1.44	1.53
1	Ad	1421	U	O4'-C1'	7.70	1.51	1.41
1	Ad	1640	C	O4'-C1'	7.69	1.51	1.41
1	Ad	1655	U	C2'-C1'	7.69	1.61	1.53
1	Ad	1086	A	O4'-C1'	7.69	1.51	1.41
1	Ad	875	C	O4'-C1'	7.69	1.51	1.41
1	Ad	1553	A	C2'-C1'	-7.68	1.44	1.53
2	Ae	29	C	C2'-C1'	-7.68	1.44	1.53
1	Ad	151	A	C2'-C1'	7.68	1.61	1.53
1	Ad	227	G	C2'-C1'	-7.67	1.45	1.53
1	Ad	292	A	O4'-C1'	7.67	1.51	1.41
1	Ad	923	U	O4'-C1'	7.67	1.51	1.41
1	Ad	1666	G	C2'-C1'	-7.67	1.45	1.53
1	Ad	148	C	O4'-C1'	7.67	1.51	1.41
1	Ad	771	G	C2'-C1'	7.65	1.61	1.53
86	Ab	37	G	C2-N3	7.65	1.38	1.32
1	Ad	1338	U	C2'-C1'	-7.65	1.45	1.53
1	Ad	1008	A	O4'-C1'	-7.64	1.31	1.41
1	Ad	1693	C	O4'-C1'	7.64	1.51	1.41
1	Ad	1339	C	O4'-C1'	7.64	1.51	1.41
1	Ad	210	A	C2'-C1'	-7.63	1.45	1.53
1	Ad	1642	C	O4'-C1'	7.63	1.51	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	514	G	C2'-C1'	-7.63	1.45	1.53
1	Ad	164	C	C2'-C1'	-7.62	1.45	1.53
1	Ad	1362	A	C2'-C1'	-7.62	1.45	1.53
86	Ab	5	G	C2-N3	7.61	1.38	1.32
1	Ad	137	A	O4'-C1'	-7.61	1.31	1.41
1	Ad	1496	A	C2'-C1'	7.61	1.61	1.53
1	Ad	456	A	O4'-C1'	-7.59	1.31	1.41
1	Ad	404	A	C2'-C1'	7.59	1.61	1.53
1	Ad	538	A	C2'-C1'	-7.59	1.45	1.53
1	Ad	1141	U	O4'-C1'	7.59	1.51	1.41
86	Ab	25	G	N1-C2	7.58	1.43	1.37
1	Ad	329	G	C2'-C1'	-7.57	1.45	1.53
1	Ad	167	A	C2'-C1'	7.57	1.61	1.53
1	Ad	1311	U	O4'-C1'	-7.57	1.31	1.41
1	Ad	412	C	C2'-C1'	-7.56	1.45	1.53
1	Ad	1278	C	O4'-C1'	-7.56	1.31	1.41
1	Ad	1398	U	C2'-C1'	-7.55	1.45	1.53
1	Ad	452	C	O4'-C1'	7.55	1.51	1.41
1	Ad	1738	U	C2'-C1'	-7.55	1.45	1.53
1	Ad	1682	U	O4'-C1'	7.54	1.51	1.41
1	Ad	495	C	O4'-C1'	7.54	1.51	1.41
86	Ab	99	G	C2-N3	7.54	1.38	1.32
1	Ad	1111	C	P-O5'	-7.53	1.52	1.59
1	Ad	1364	C	O4'-C1'	7.53	1.51	1.41
1	Ad	273	C	O4'-C1'	7.53	1.51	1.41
1	Ad	1647	C	O4'-C1'	7.53	1.51	1.41
1	Ad	797	A	O4'-C1'	7.52	1.51	1.41
1	Ad	3	C	C2'-C1'	7.52	1.61	1.53
1	Ad	1329	A	C2'-C1'	-7.52	1.45	1.53
2	Ae	52	G	C2'-C1'	-7.52	1.45	1.53
1	Ad	516	A	C2'-C1'	7.50	1.61	1.53
1	Ad	253	C	C2'-C1'	-7.49	1.45	1.53
1	Ad	1286	U	C2'-C1'	-7.49	1.45	1.53
1	Ad	1231	A	O4'-C1'	7.49	1.51	1.41
1	Ad	1592	G	O4'-C1'	-7.49	1.31	1.41
1	Ad	1594	A	O4'-C1'	7.49	1.51	1.41
1	Ad	1446	C	O4'-C1'	7.48	1.51	1.41
1	Ad	458	A	O4'-C1'	-7.47	1.31	1.41
1	Ad	817	C	C2'-C1'	7.47	1.61	1.53
1	Ad	1363	G	C2'-C1'	-7.47	1.45	1.53
3	Af	21	C	C2'-C1'	7.47	1.61	1.53
1	Ad	1230	A	O4'-C1'	7.46	1.51	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
84	Aa	290	C	P-O5'	-7.46	1.52	1.59
1	Ad	624	A	P-O5'	-7.46	1.52	1.59
1	Ad	712	U	C2'-C1'	7.46	1.61	1.53
1	Ad	1155	G	O4'-C1'	7.46	1.51	1.41
1	Ad	599	G	C2'-C1'	-7.46	1.45	1.53
1	Ad	1521	G	O4'-C1'	-7.45	1.31	1.41
1	Ad	386	C	O4'-C1'	7.45	1.51	1.41
1	Ad	414	A	C2'-C1'	-7.45	1.45	1.53
1	Ad	1136	A	O4'-C1'	7.45	1.51	1.41
1	Ad	33	U	C2'-C1'	7.44	1.61	1.53
1	Ad	1365	C	O4'-C1'	7.44	1.51	1.41
1	Ad	1469	C	C2'-C1'	-7.44	1.45	1.53
1	Ad	378	U	O4'-C1'	7.43	1.51	1.41
1	Ad	704	C	C2'-C1'	-7.43	1.45	1.53
1	Ad	1109	U	O4'-C1'	7.43	1.51	1.41
1	Ad	1555	A	O4'-C1'	7.43	1.51	1.41
1	Ad	1688	G	O4'-C1'	-7.43	1.31	1.41
2	Ae	55	C	C2'-C1'	-7.43	1.45	1.53
86	Ab	94	C	C4-C5	7.43	1.48	1.43
1	Ad	1099	G	C2'-C1'	-7.42	1.45	1.53
1	Ad	1623	C	O4'-C1'	7.42	1.51	1.41
84	Aa	2512	U	O3'-P	-7.42	1.52	1.61
2	Ae	68	C	O4'-C1'	7.42	1.51	1.41
1	Ad	858	G	C2'-C1'	-7.42	1.45	1.53
1	Ad	435	C	C2'-C1'	-7.41	1.45	1.53
1	Ad	380	C	C2'-C1'	-7.41	1.45	1.53
1	Ad	244	C	C2'-C1'	7.39	1.61	1.53
1	Ad	1041	A	C2'-C1'	7.39	1.61	1.53
1	Ad	1117	G	O4'-C1'	7.39	1.51	1.41
1	Ad	407	G	O4'-C1'	-7.39	1.32	1.41
1	Ad	1166	C	O4'-C1'	7.39	1.51	1.41
3	Af	20	U	O4'-C1'	7.39	1.51	1.41
1	Ad	960	A	O4'-C1'	7.38	1.51	1.41
1	Ad	117	U	O4'-C1'	7.38	1.51	1.41
1	Ad	596	A	C2'-C1'	-7.37	1.45	1.53
1	Ad	823	A	O3'-P	-7.37	1.52	1.61
86	Ab	10	C	N3-C4	7.37	1.39	1.33
1	Ad	1661	C	O4'-C1'	7.36	1.51	1.41
1	Ad	1362	A	O4'-C1'	7.36	1.51	1.41
1	Ad	308	U	O4'-C1'	7.34	1.51	1.41
1	Ad	1255	U	O4'-C1'	-7.33	1.32	1.41
1	Ad	651	G	O4'-C1'	7.33	1.51	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1244	U	O4'-C1'	7.33	1.51	1.41
1	Ad	1070	A	C2'-C1'	-7.33	1.45	1.53
1	Ad	217	A	C2'-C1'	-7.32	1.45	1.53
1	Ad	735	G	O4'-C1'	7.32	1.51	1.41
1	Ad	1779	U	C2'-C1'	-7.32	1.45	1.53
1	Ad	913	U	O4'-C1'	7.31	1.51	1.41
1	Ad	55	A	O4'-C1'	7.31	1.51	1.41
1	Ad	193	G	O4'-C1'	7.30	1.51	1.41
1	Ad	1364	C	C2'-C1'	-7.30	1.45	1.53
1	Ad	372	U	C2'-C1'	7.30	1.61	1.53
1	Ad	1316	A	O4'-C1'	7.30	1.51	1.41
1	Ad	1477	A	C2'-C1'	7.29	1.61	1.53
1	Ad	828	G	C2'-C1'	-7.29	1.45	1.53
1	Ad	388	G	O4'-C1'	7.29	1.51	1.41
1	Ad	1192	G	C2'-C1'	-7.29	1.45	1.53
1	Ad	368	A	C2'-C1'	7.29	1.61	1.53
1	Ad	1229	C	C2'-C1'	-7.28	1.45	1.53
1	Ad	1035	A	O4'-C1'	7.28	1.51	1.41
1	Ad	336	U	O4'-C1'	-7.27	1.32	1.41
1	Ad	755	U	O4'-C1'	7.27	1.51	1.41
1	Ad	1094	U	C2'-C1'	-7.27	1.45	1.53
1	Ad	1381	G	C2'-C1'	-7.27	1.45	1.53
1	Ad	772	C	O4'-C1'	7.27	1.51	1.41
1	Ad	49	C	C2'-C1'	-7.26	1.45	1.53
2	Ae	20	C	C5'-C4'	7.26	1.60	1.51
2	Ae	64	G	C2'-C1'	-7.26	1.45	1.53
1	Ad	269	A	O4'-C1'	-7.26	1.32	1.41
1	Ad	985	G	C2'-C1'	-7.25	1.45	1.53
1	Ad	1133	C	O4'-C1'	7.25	1.51	1.41
1	Ad	587	C	O4'-C1'	7.25	1.51	1.41
1	Ad	1499	U	C2'-C1'	-7.25	1.45	1.53
84	Aa	87	A	N7-C5	-7.25	1.34	1.39
1	Ad	590	G	O4'-C1'	7.24	1.51	1.41
1	Ad	1760	A	O4'-C1'	7.24	1.51	1.41
1	Ad	409	C	O4'-C1'	7.24	1.51	1.41
1	Ad	708	G	O4'-C1'	7.24	1.51	1.41
1	Ad	448	C	C5'-C4'	7.24	1.60	1.51
1	Ad	1526	C	O4'-C1'	7.24	1.51	1.41
2	Ae	17	G	C2'-C1'	-7.24	1.45	1.53
1	Ad	1453	U	O4'-C1'	7.23	1.51	1.41
2	Ae	59	U	O4'-C1'	7.23	1.51	1.41
1	Ad	706	U	O4'-C1'	7.22	1.51	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1152	A	C2'-C1'	-7.22	1.45	1.53
1	Ad	1660	C	O4'-C1'	7.22	1.51	1.41
1	Ad	517	U	O4'-C1'	7.22	1.51	1.41
86	Ab	107	C	N1-C6	7.22	1.41	1.37
3	Af	12	A	O4'-C1'	-7.22	1.32	1.41
1	Ad	20	G	O4'-C1'	7.22	1.51	1.41
1	Ad	1268	G	O4'-C1'	7.21	1.51	1.41
2	Ae	57	A	C2'-C1'	7.21	1.61	1.53
1	Ad	1040	G	C2'-C1'	-7.21	1.45	1.53
1	Ad	927	A	C2'-C1'	-7.21	1.45	1.53
1	Ad	1194	C	C2'-C1'	7.20	1.61	1.53
1	Ad	1576	C	C3'-C2'	7.20	1.60	1.52
1	Ad	1367	U	C2'-C1'	7.20	1.61	1.53
1	Ad	1605	A	C2'-C1'	-7.20	1.45	1.53
1	Ad	761	A	C2'-C1'	-7.20	1.45	1.53
1	Ad	1152	A	O4'-C1'	7.20	1.51	1.41
1	Ad	1054	G	O4'-C1'	7.19	1.51	1.41
1	Ad	1015	C	C2'-C1'	-7.18	1.45	1.53
2	Ae	66	C	C2'-C1'	-7.18	1.45	1.53
1	Ad	762	A	C2'-C1'	-7.18	1.45	1.53
1	Ad	1157	A	C2'-C1'	-7.18	1.45	1.53
1	Ad	840	U	O4'-C1'	7.16	1.50	1.41
1	Ad	835	U	C2'-C1'	7.16	1.61	1.53
1	Ad	1043	C	C2'-C1'	-7.16	1.45	1.53
1	Ad	333	G	C2'-C1'	-7.16	1.45	1.53
2	Ae	21	A	C2'-C1'	-7.16	1.45	1.53
1	Ad	607	U	C2'-C1'	-7.15	1.45	1.53
1	Ad	1307	U	C2'-C1'	-7.15	1.45	1.53
1	Ad	1524	A	C2'-C1'	7.15	1.61	1.53
1	Ad	239	C	C2'-C1'	-7.14	1.45	1.53
1	Ad	970	U	C2'-C1'	-7.14	1.45	1.53
1	Ad	1177	G	C2'-C1'	-7.14	1.45	1.53
1	Ad	313	C	O4'-C1'	7.14	1.50	1.41
1	Ad	1289	U	O4'-C1'	7.13	1.50	1.41
1	Ad	959	G	O4'-C1'	7.12	1.50	1.41
1	Ad	487	A	C2'-C1'	-7.12	1.45	1.53
1	Ad	1656	C	C2'-C1'	-7.12	1.45	1.53
3	Af	13	A	C2'-C1'	7.12	1.61	1.53
1	Ad	989	G	C2'-C1'	-7.11	1.45	1.53
85	Ac	59	A	N7-C5	-7.11	1.34	1.39
1	Ad	105	A	O4'-C1'	7.11	1.50	1.41
1	Ad	455	G	C2'-C1'	-7.11	1.45	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1045	G	C5'-C4'	7.11	1.59	1.51
1	Ad	1411	C	C2'-C1'	-7.11	1.45	1.53
1	Ad	997	A	C2'-C1'	-7.10	1.45	1.53
1	Ad	491	G	C2'-C1'	7.10	1.61	1.53
2	Ae	68	C	C2'-C1'	-7.10	1.45	1.53
1	Ad	223	A	O4'-C1'	7.09	1.50	1.41
1	Ad	1439	G	O4'-C1'	7.09	1.50	1.41
1	Ad	1296	G	O4'-C1'	7.08	1.50	1.41
1	Ad	1567	G	C2'-C1'	7.08	1.61	1.53
1	Ad	1678	G	O4'-C1'	7.08	1.50	1.41
1	Ad	347	C	C2'-C1'	-7.07	1.45	1.53
86	Ab	60	G	C2-N3	7.07	1.38	1.32
1	Ad	1004	U	O4'-C1'	7.07	1.50	1.41
86	Ab	90	A	C6-N1	7.07	1.40	1.35
1	Ad	1793	C	O4'-C1'	7.07	1.50	1.41
1	Ad	1476	C	O4'-C1'	7.06	1.50	1.41
1	Ad	1004	U	C2'-C1'	-7.06	1.45	1.53
1	Ad	465	G	C2'-C1'	-7.06	1.45	1.53
1	Ad	1139	C	C2'-C1'	-7.06	1.45	1.53
1	Ad	1413	C	O4'-C1'	7.05	1.50	1.41
1	Ad	1483	G	C2'-C1'	-7.05	1.45	1.53
1	Ad	1343	C	O4'-C1'	7.05	1.50	1.41
1	Ad	1436	U	O4'-C1'	7.05	1.50	1.41
84	Aa	2415	U	P-O5'	-7.04	1.52	1.59
2	Ae	3	C	C2'-C1'	-7.04	1.45	1.53
1	Ad	1224	C	O4'-C1'	7.04	1.50	1.41
2	Ae	7	A	O4'-C1'	7.03	1.50	1.41
1	Ad	1167	C	C2'-C1'	-7.01	1.45	1.53
1	Ad	978	A	O4'-C1'	7.00	1.50	1.41
1	Ad	207	A	C2'-C1'	-7.00	1.45	1.53
1	Ad	115	A	C2'-C1'	-7.00	1.45	1.53
1	Ad	948	C	C2'-C1'	-7.00	1.45	1.53
1	Ad	1158	G	C2'-C1'	-6.99	1.45	1.53
1	Ad	1720	G	O4'-C1'	6.99	1.50	1.41
1	Ad	230	C	O4'-C1'	6.99	1.50	1.41
1	Ad	305	A	O4'-C1'	6.98	1.50	1.41
1	Ad	1412	A	C2'-C1'	-6.98	1.45	1.53
1	Ad	958	G	C2'-C1'	-6.97	1.45	1.53
1	Ad	1654	C	C2'-C1'	-6.97	1.45	1.53
1	Ad	850	G	O4'-C1'	6.97	1.50	1.41
1	Ad	169	A	C2'-C1'	-6.96	1.45	1.53
1	Ad	327	A	C2'-C1'	-6.96	1.45	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	528	U	O4'-C1'	6.96	1.50	1.41
1	Ad	975	A	O4'-C1'	6.96	1.50	1.41
1	Ad	18	C	C2'-C1'	-6.96	1.45	1.53
1	Ad	525	A	C2'-C1'	-6.95	1.45	1.53
1	Ad	1236	U	C2'-C1'	-6.95	1.45	1.53
1	Ad	488	C	C2'-C1'	-6.94	1.45	1.53
84	Aa	2345	C	P-O5'	-6.94	1.52	1.59
1	Ad	546	U	O3'-P	-6.92	1.52	1.61
1	Ad	1677	U	O4'-C1'	6.92	1.50	1.41
1	Ad	1769	C	C5'-C4'	6.92	1.59	1.51
86	Ab	23	A	C6-N1	6.92	1.40	1.35
1	Ad	328	U	C2'-C1'	6.91	1.60	1.53
1	Ad	1767	G	C2'-C1'	-6.90	1.45	1.53
1	Ad	125	A	C2'-C1'	-6.90	1.45	1.53
1	Ad	888	U	C2'-C1'	-6.90	1.45	1.53
1	Ad	1146	G	O4'-C1'	6.89	1.50	1.41
1	Ad	1178	C	O4'-C1'	6.89	1.50	1.41
1	Ad	1741	A	C2'-C1'	-6.89	1.45	1.53
1	Ad	1436	U	C2'-C1'	-6.88	1.45	1.53
1	Ad	154	A	C2'-C1'	-6.88	1.45	1.53
1	Ad	47	A	C2'-C1'	-6.88	1.45	1.53
2	Ae	53	U	O4'-C1'	6.88	1.50	1.41
1	Ad	1384	U	C2'-C1'	6.87	1.60	1.53
1	Ad	1473	C	O4'-C1'	6.87	1.50	1.41
86	Ab	94	C	N3-C4	6.87	1.38	1.33
1	Ad	424	A	O4'-C1'	6.87	1.50	1.41
1	Ad	1556	U	C2'-C1'	6.86	1.60	1.53
1	Ad	127	G	O4'-C1'	6.85	1.50	1.41
1	Ad	1089	A	O4'-C1'	6.85	1.50	1.41
1	Ad	1684	U	O4'-C1'	6.84	1.50	1.41
1	Ad	1133	C	C2'-C1'	-6.84	1.45	1.53
1	Ad	1431	A	C5'-C4'	6.84	1.59	1.51
1	Ad	610	A	C2'-C1'	-6.83	1.45	1.53
1	Ad	1465	C	O4'-C1'	6.83	1.50	1.41
1	Ad	931	A	O4'-C1'	6.83	1.50	1.41
86	Ab	5	G	C2'-C1'	-6.82	1.45	1.53
1	Ad	1452	A	C5'-C4'	6.82	1.59	1.51
1	Ad	477	A	O4'-C1'	6.82	1.50	1.41
1	Ad	1563	A	O4'-C1'	6.81	1.50	1.41
1	Ad	282	C	C3'-C2'	6.81	1.60	1.52
1	Ad	293	C	O4'-C1'	6.81	1.50	1.41
1	Ad	200	C	O4'-C1'	6.81	1.50	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
86	Ab	66	G	N1-C2	6.81	1.43	1.37
1	Ad	1443	U	O4'-C1'	6.80	1.50	1.41
1	Ad	1002	G	O4'-C1'	6.80	1.50	1.41
1	Ad	1498	A	O4'-C1'	-6.79	1.32	1.41
1	Ad	976	A	C2'-C1'	-6.78	1.45	1.53
2	Ae	22	G	O4'-C1'	6.78	1.50	1.41
1	Ad	131	C	C2'-C1'	6.78	1.60	1.53
2	Ae	11	U	C2'-C1'	-6.78	1.45	1.53
86	Ab	58	G	C2'-C1'	-6.78	1.45	1.53
1	Ad	1085	U	C2'-C1'	6.77	1.60	1.53
86	Ab	83	A	C6-N6	6.77	1.39	1.33
1	Ad	479	A	O4'-C1'	6.77	1.50	1.41
1	Ad	165	U	C2'-C1'	-6.75	1.46	1.53
1	Ad	650	G	O4'-C1'	6.75	1.50	1.41
1	Ad	1639	A	O4'-C1'	6.75	1.50	1.41
86	Ab	6	C	N3-C4	6.75	1.38	1.33
1	Ad	266	C	O4'-C1'	6.75	1.50	1.41
86	Ab	85	G	C6-N1	6.74	1.44	1.39
84	Aa	1747	A	P-O5'	-6.74	1.53	1.59
1	Ad	418	C	C2'-C1'	-6.73	1.46	1.53
1	Ad	857	A	C2'-C1'	-6.71	1.46	1.53
1	Ad	1450	A	O4'-C1'	6.71	1.50	1.41
1	Ad	247	A	C2'-C1'	6.70	1.60	1.53
1	Ad	473	C	C2'-C1'	-6.70	1.46	1.53
1	Ad	1023	C	C2'-C1'	-6.70	1.46	1.53
1	Ad	166	A	O4'-C1'	6.70	1.50	1.41
1	Ad	984	A	C5'-C4'	6.70	1.59	1.51
1	Ad	531	A	O4'-C1'	6.70	1.50	1.41
2	Ae	48	C	C2'-C1'	-6.70	1.46	1.53
1	Ad	847	U	O4'-C1'	6.70	1.50	1.41
1	Ad	1350	C	C4'-C3'	6.69	1.60	1.53
1	Ad	226	C	O4'-C1'	6.69	1.50	1.41
1	Ad	470	U	C2'-C1'	-6.69	1.46	1.53
1	Ad	459	C	C2'-C1'	6.68	1.60	1.53
1	Ad	102	U	O4'-C1'	6.68	1.50	1.41
1	Ad	1441	C	O4'-C1'	6.68	1.50	1.41
1	Ad	1513	A	C2'-C1'	6.68	1.60	1.53
1	Ad	963	U	O4'-C1'	6.67	1.50	1.41
1	Ad	1386	U	O4'-C1'	6.67	1.50	1.41
1	Ad	83	U	C2'-C1'	6.66	1.60	1.53
1	Ad	639	G	C2'-C1'	-6.66	1.46	1.53
1	Ad	902	C	C2'-C1'	6.66	1.60	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1136	A	C2'-C1'	-6.66	1.46	1.53
1	Ad	1018	A	C5'-C4'	6.65	1.59	1.51
1	Ad	1338	U	C5'-C4'	6.65	1.59	1.51
1	Ad	1370	C	C2'-C1'	-6.65	1.46	1.53
1	Ad	365	C	O4'-C1'	6.64	1.50	1.41
1	Ad	625	A	P-O5'	-6.64	1.53	1.59
2	Ae	19	U	C5'-C4'	6.64	1.59	1.51
1	Ad	1424	G	C2'-C1'	-6.63	1.46	1.53
84	Aa	2092	C	C2'-C1'	-6.63	1.46	1.53
1	Ad	13	C	O4'-C1'	6.63	1.50	1.41
2	Ae	20	C	O4'-C1'	6.63	1.50	1.41
2	Ae	71	A	O4'-C1'	6.63	1.50	1.41
1	Ad	836	U	C5'-C4'	6.63	1.59	1.51
1	Ad	1741	A	O4'-C1'	6.63	1.50	1.41
1	Ad	1472	G	O4'-C1'	6.62	1.50	1.41
1	Ad	1049	U	O4'-C1'	6.61	1.50	1.41
86	Ab	29	C	C2-N3	6.61	1.41	1.35
1	Ad	307	U	O4'-C1'	6.61	1.50	1.41
1	Ad	959	G	C2'-C1'	-6.61	1.46	1.53
1	Ad	107	U	C2'-C1'	6.60	1.60	1.53
1	Ad	423	G	O4'-C1'	6.60	1.50	1.41
1	Ad	454	U	O4'-C1'	6.60	1.50	1.41
1	Ad	396	G	O4'-C1'	-6.60	1.33	1.41
86	Ab	101	A	C6-N6	6.60	1.39	1.33
1	Ad	1671	G	O3'-P	-6.60	1.53	1.61
1	Ad	732	G	O4'-C1'	-6.59	1.33	1.41
1	Ad	1535	U	O4'-C1'	6.59	1.50	1.41
1	Ad	748	C	C2'-C1'	-6.59	1.46	1.53
1	Ad	926	G	C2'-C1'	-6.58	1.46	1.53
1	Ad	1508	C	O4'-C1'	6.58	1.50	1.41
1	Ad	531	A	C5'-C4'	6.58	1.59	1.51
1	Ad	1077	C	C2'-C1'	-6.57	1.46	1.53
1	Ad	574	A	C2'-C1'	6.57	1.60	1.53
1	Ad	1185	U	O4'-C1'	6.57	1.50	1.41
1	Ad	761	A	C3'-C2'	6.57	1.60	1.52
86	Ab	71	A	C6-N1	6.56	1.40	1.35
1	Ad	163	G	C2'-C1'	-6.56	1.46	1.53
1	Ad	523	C	C2'-C1'	-6.56	1.46	1.53
1	Ad	614	G	C2'-C1'	-6.56	1.46	1.53
1	Ad	1672	U	O4'-C1'	6.56	1.50	1.41
1	Ad	337	A	O4'-C1'	6.55	1.50	1.41
1	Ad	927	A	O4'-C1'	6.55	1.50	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	768	A	O4'-C1'	6.55	1.50	1.41
1	Ad	793	G	C5'-C4'	6.55	1.59	1.51
1	Ad	899	A	O4'-C1'	6.55	1.50	1.41
1	Ad	468	A	O4'-C1'	-6.55	1.33	1.41
1	Ad	1537	U	C2'-C1'	6.54	1.60	1.53
1	Ad	1054	G	C2'-C1'	-6.54	1.46	1.53
86	Ab	76	U	N3-C4	6.53	1.44	1.38
1	Ad	1762	C	C2'-C1'	-6.53	1.46	1.53
1	Ad	1509	C	O4'-C1'	6.53	1.50	1.41
1	Ad	1271	G	O4'-C1'	-6.53	1.33	1.41
1	Ad	825	U	C2'-C1'	-6.52	1.46	1.53
2	Ae	11	U	O4'-C1'	6.52	1.50	1.41
1	Ad	1277	G	C2'-C1'	-6.52	1.46	1.53
1	Ad	741	C	C5'-C4'	6.52	1.59	1.51
1	Ad	1590	U	C2'-C1'	6.52	1.60	1.53
1	Ad	581	G	O3'-P	-6.51	1.53	1.61
1	Ad	113	A	C5'-C4'	6.51	1.59	1.51
1	Ad	133	U	C2'-C1'	-6.51	1.46	1.53
2	Ae	25	U	C2'-C1'	-6.51	1.46	1.53
1	Ad	366	G	O3'-P	-6.50	1.53	1.61
1	Ad	565	G	C2'-C1'	-6.50	1.46	1.53
84	Aa	1747	A	C2'-C1'	-6.50	1.46	1.53
1	Ad	801	U	O4'-C1'	-6.50	1.33	1.41
1	Ad	1167	C	O4'-C1'	6.50	1.50	1.41
1	Ad	586	U	C2'-C1'	-6.50	1.46	1.53
2	Ae	38	C	C2'-C1'	-6.50	1.46	1.53
86	Ab	74	A	C6-N6	6.50	1.39	1.33
1	Ad	1553	A	O4'-C1'	6.50	1.50	1.41
1	Ad	1062	C	O4'-C1'	6.49	1.50	1.41
1	Ad	937	A	P-O5'	-6.49	1.53	1.59
1	Ad	1420	U	C2'-C1'	-6.49	1.46	1.53
1	Ad	1663	A	C2'-C1'	6.49	1.60	1.53
1	Ad	1233	G	O4'-C1'	6.49	1.50	1.41
84	Aa	2374	G	N7-C5	-6.48	1.35	1.39
1	Ad	920	A	C2'-C1'	-6.47	1.46	1.53
1	Ad	1341	G	C2'-C1'	-6.47	1.46	1.53
1	Ad	974	C	O4'-C1'	6.47	1.50	1.41
1	Ad	1019	G	O4'-C1'	-6.47	1.33	1.41
1	Ad	1258	U	O4'-C1'	6.47	1.50	1.41
1	Ad	1358	G	O3'-P	-6.47	1.53	1.61
1	Ad	426	G	C5'-C4'	6.46	1.59	1.51
86	Ab	103	U	N3-C4	6.46	1.44	1.38

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
84	Aa	2527	G	N7-C5	-6.46	1.35	1.39
1	Ad	1253	U	O4'-C1'	6.46	1.50	1.41
1	Ad	1415	G	O4'-C1'	6.46	1.50	1.41
86	Ab	11	A	C6-N6	6.45	1.39	1.33
1	Ad	11	A	O4'-C1'	6.45	1.50	1.41
1	Ad	1118	A	C4'-C3'	6.45	1.60	1.53
1	Ad	27	U	O4'-C1'	6.45	1.50	1.41
1	Ad	622	U	C2'-C1'	-6.45	1.46	1.53
1	Ad	1448	U	C2'-C1'	-6.45	1.46	1.53
1	Ad	274	A	O4'-C1'	6.44	1.50	1.41
1	Ad	1703	G	O4'-C1'	6.44	1.50	1.41
86	Ab	74	A	C6-N1	6.44	1.40	1.35
1	Ad	529	A	O4'-C1'	6.44	1.50	1.41
84	Aa	1450	G	N7-C5	-6.44	1.35	1.39
1	Ad	411	A	O4'-C1'	6.44	1.50	1.41
1	Ad	15	U	O4'-C1'	6.43	1.50	1.41
1	Ad	1385	C	C2'-C1'	-6.43	1.46	1.53
1	Ad	357	A	O4'-C1'	6.42	1.50	1.41
1	Ad	402	G	O4'-C1'	6.42	1.50	1.41
84	Aa	1612	C	P-O5'	-6.42	1.53	1.59
1	Ad	1734	U	O4'-C1'	6.42	1.50	1.41
1	Ad	1651	U	C2'-C1'	-6.42	1.46	1.53
84	Aa	2093	G	C6-N1	6.42	1.44	1.39
1	Ad	263	C	C2'-C1'	6.42	1.60	1.53
1	Ad	584	A	C5'-C4'	6.41	1.59	1.51
1	Ad	598	A	O4'-C1'	6.41	1.50	1.41
1	Ad	723	A	C2'-C1'	6.41	1.60	1.53
1	Ad	1186	U	C2'-C1'	6.41	1.60	1.53
1	Ad	873	G	C2'-C1'	6.39	1.60	1.53
1	Ad	490	G	O4'-C1'	6.39	1.50	1.41
1	Ad	1658	U	O4'-C1'	6.39	1.50	1.41
1	Ad	331	U	C2'-C1'	6.39	1.60	1.53
1	Ad	1641	A	O3'-P	-6.39	1.53	1.61
84	Aa	423	C	N3-C4	6.38	1.38	1.33
1	Ad	501	U	C5'-C4'	6.38	1.59	1.51
1	Ad	852	A	O4'-C1'	6.38	1.50	1.41
1	Ad	1651	U	O4'-C1'	6.38	1.50	1.41
1	Ad	306	U	O4'-C1'	6.38	1.50	1.41
1	Ad	1550	G	O4'-C1'	-6.38	1.33	1.41
1	Ad	1723	G	C2'-C1'	-6.38	1.46	1.53
1	Ad	982	A	O4'-C1'	6.37	1.50	1.41
1	Ad	1613	G	O4'-C1'	6.37	1.50	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	252	U	C2'-C1'	6.36	1.60	1.53
84	Aa	3042	U	P-O5'	-6.36	1.53	1.59
1	Ad	1188	A	C2'-C1'	6.36	1.60	1.53
1	Ad	1128	C	C2'-C1'	-6.36	1.46	1.53
1	Ad	378	U	C5'-C4'	6.36	1.58	1.51
1	Ad	1054	G	P-O5'	-6.36	1.53	1.59
1	Ad	1246	A	O4'-C1'	6.35	1.50	1.41
1	Ad	1573	C	O4'-C1'	6.35	1.50	1.41
84	Aa	97	G	N7-C5	-6.35	1.35	1.39
1	Ad	482	A	O4'-C1'	6.35	1.50	1.41
1	Ad	1738	U	O4'-C1'	6.34	1.49	1.41
1	Ad	1713	C	O4'-C1'	6.34	1.49	1.41
1	Ad	54	C	P-O5'	-6.34	1.53	1.59
1	Ad	222	G	C2'-C1'	-6.33	1.46	1.53
1	Ad	1459	G	C2'-C1'	6.33	1.60	1.53
1	Ad	1278	C	C2'-C1'	-6.33	1.46	1.53
1	Ad	844	C	O4'-C1'	6.33	1.49	1.41
84	Aa	978	C	P-O5'	-6.32	1.53	1.59
86	Ab	42	A	C6-N6	6.32	1.39	1.33
1	Ad	802	A	O4'-C1'	6.32	1.49	1.41
1	Ad	1674	C	C2'-C1'	-6.32	1.46	1.53
1	Ad	200	C	C2'-C1'	-6.32	1.46	1.53
1	Ad	767	G	C2'-C1'	-6.32	1.46	1.53
86	Ab	75	G	N9-C8	6.32	1.42	1.37
1	Ad	1037	G	O4'-C1'	6.31	1.49	1.41
86	Ab	17	G	C6-N1	6.31	1.44	1.39
1	Ad	335	A	C5'-C4'	6.31	1.58	1.51
1	Ad	1259	G	C2'-C1'	6.31	1.60	1.53
1	Ad	1265	A	C2'-C1'	-6.31	1.46	1.53
86	Ab	8	A	C6-N6	6.31	1.39	1.33
1	Ad	1340	A	C2'-C1'	-6.30	1.46	1.53
1	Ad	1091	A	O4'-C1'	6.30	1.49	1.41
1	Ad	1106	G	C2'-C1'	-6.30	1.46	1.53
1	Ad	1419	U	C4'-C3'	6.30	1.60	1.53
1	Ad	1578	A	C5'-C4'	6.29	1.58	1.51
1	Ad	428	C	O4'-C1'	6.29	1.49	1.41
86	Ab	115	A	N7-C5	-6.29	1.35	1.39
1	Ad	1368	C	C2'-C1'	6.28	1.60	1.53
1	Ad	1540	U	P-O5'	-6.28	1.53	1.59
1	Ad	797	A	C2'-C1'	-6.28	1.46	1.53
1	Ad	6	G	C2'-C1'	-6.27	1.46	1.53
1	Ad	236	U	C2'-C1'	-6.27	1.46	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
84	Aa	2162	C	O3'-P	-6.26	1.53	1.61
1	Ad	1347	U	C2'-C1'	-6.26	1.46	1.53
1	Ad	1135	G	O4'-C1'	6.26	1.49	1.41
1	Ad	1334	G	C2'-C1'	6.25	1.60	1.53
86	Ab	109	U	N1-C6	6.25	1.43	1.38
3	Af	18	C	C2'-C1'	-6.25	1.46	1.53
1	Ad	269	A	C5'-C4'	6.25	1.58	1.51
1	Ad	1719	C	O4'-C1'	6.25	1.49	1.41
1	Ad	1004	U	C4'-C3'	6.24	1.60	1.53
1	Ad	1025	A	C2'-C1'	-6.24	1.46	1.53
1	Ad	1190	U	C2'-C1'	6.24	1.60	1.53
1	Ad	1430	A	C5'-C4'	6.24	1.58	1.51
1	Ad	1685	U	P-O5'	-6.24	1.53	1.59
1	Ad	1631	C	C2'-C1'	-6.23	1.46	1.53
86	Ab	60	G	O3'-P	-6.23	1.53	1.61
1	Ad	645	G	C2'-C1'	-6.22	1.46	1.53
1	Ad	844	C	C2'-C1'	6.22	1.60	1.53
1	Ad	1560	U	C2'-C1'	-6.22	1.46	1.53
1	Ad	1342	C	O4'-C1'	6.22	1.49	1.41
1	Ad	1660	C	C2'-C1'	-6.22	1.46	1.53
1	Ad	564	U	C2'-C1'	-6.21	1.46	1.53
1	Ad	1737	A	C5'-C4'	6.21	1.58	1.51
84	Aa	587	A	N7-C5	-6.21	1.35	1.39
84	Aa	1693	A	N7-C5	-6.21	1.35	1.39
86	Ab	56	G	N1-C2	6.20	1.42	1.37
1	Ad	563	C	C2'-C1'	-6.20	1.46	1.53
1	Ad	422	G	C5'-C4'	6.20	1.58	1.51
1	Ad	266	C	O3'-P	-6.19	1.53	1.61
1	Ad	90	G	C2'-C1'	-6.18	1.46	1.53
1	Ad	224	C	O4'-C1'	6.17	1.49	1.41
1	Ad	233	U	O4'-C1'	6.17	1.49	1.41
1	Ad	744	G	C2'-C1'	6.17	1.60	1.53
1	Ad	876	A	O4'-C1'	6.17	1.49	1.41
1	Ad	1131	G	C2'-C1'	6.17	1.60	1.53
1	Ad	72	A	C2'-C1'	-6.17	1.46	1.53
1	Ad	144	U	O4'-C1'	6.16	1.49	1.41
1	Ad	1785	U	C2'-C1'	-6.16	1.46	1.53
84	Aa	2177	U	O3'-P	-6.16	1.53	1.61
1	Ad	1796	G	O4'-C1'	6.16	1.49	1.41
86	Ab	28	U	C2'-C1'	-6.16	1.46	1.53
1	Ad	1221	A	C2'-C1'	6.16	1.60	1.53
1	Ad	1142	A	O3'-P	-6.15	1.53	1.61

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	834	A	P-O5'	-6.15	1.53	1.59
1	Ad	887	U	C2'-C1'	6.15	1.60	1.53
1	Ad	264	G	C5'-C4'	6.14	1.58	1.51
1	Ad	293	C	C2'-C1'	-6.14	1.46	1.53
1	Ad	1752	U	C2'-C1'	-6.14	1.46	1.53
86	Ab	50	A	C6-N1	6.14	1.39	1.35
1	Ad	1179	C	C2'-C1'	-6.13	1.46	1.53
86	Ab	109	U	P-O5'	-6.13	1.53	1.59
1	Ad	1571	G	O4'-C1'	6.13	1.49	1.41
86	Ab	93	U	O3'-P	-6.13	1.53	1.61
86	Ab	64	G	C2-N3	6.13	1.37	1.32
1	Ad	444	U	C2'-C1'	6.13	1.60	1.53
1	Ad	221	U	O4'-C1'	6.12	1.49	1.41
1	Ad	547	C	C2'-C1'	6.12	1.60	1.53
1	Ad	853	U	O4'-C1'	6.12	1.49	1.41
1	Ad	104	A	C2'-C1'	6.12	1.60	1.53
1	Ad	851	G	O4'-C1'	-6.12	1.33	1.41
1	Ad	1129	A	C2'-C1'	-6.12	1.46	1.53
1	Ad	1414	G	O4'-C1'	6.12	1.49	1.41
1	Ad	1698	A	C2'-C1'	-6.12	1.46	1.53
1	Ad	857	A	C5'-C4'	6.11	1.58	1.51
1	Ad	1438	U	C2'-C1'	-6.11	1.46	1.53
84	Aa	3234	G	N7-C5	-6.11	1.35	1.39
86	Ab	106	U	C2-N3	6.11	1.42	1.37
1	Ad	1250	C	O4'-C1'	-6.11	1.33	1.41
1	Ad	1536	U	O4'-C1'	6.10	1.49	1.41
1	Ad	1564	A	C2'-C1'	6.10	1.60	1.53
1	Ad	1044	A	O4'-C1'	-6.10	1.33	1.41
1	Ad	152	G	O3'-P	-6.09	1.53	1.61
84	Aa	279	G	C2-N3	6.09	1.37	1.32
1	Ad	730	G	O4'-C1'	-6.09	1.33	1.41
1	Ad	637	U	O4'-C1'	6.09	1.49	1.41
1	Ad	702	G	O4'-C1'	6.09	1.49	1.41
86	Ab	56	G	N7-C5	-6.08	1.35	1.39
1	Ad	1785	U	O4'-C1'	6.08	1.49	1.41
1	Ad	1170	G	C3'-C2'	-6.08	1.46	1.52
84	Aa	1079	G	C2-N3	6.08	1.37	1.32
1	Ad	555	G	O4'-C1'	6.07	1.49	1.41
1	Ad	326	G	O4'-C1'	6.07	1.49	1.41
1	Ad	625	A	C2'-C1'	6.07	1.60	1.53
1	Ad	1115	G	O4'-C1'	6.07	1.49	1.41
84	Aa	1526	A	N7-C5	-6.06	1.35	1.39

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1319	U	O4'-C1'	6.06	1.49	1.41
1	Ad	1071	C	C5'-C4'	6.06	1.58	1.51
1	Ad	1245	G	O4'-C1'	-6.06	1.33	1.41
1	Ad	783	C	C2'-C1'	-6.05	1.46	1.53
1	Ad	830	U	C2'-C1'	-6.05	1.46	1.53
1	Ad	957	A	O4'-C1'	6.04	1.49	1.41
1	Ad	843	G	C5'-C4'	6.04	1.58	1.51
1	Ad	494	G	C2'-C1'	6.03	1.59	1.53
1	Ad	1575	U	O3'-P	-6.03	1.53	1.61
84	Aa	3067	G	O3'-P	-6.03	1.53	1.61
1	Ad	1582	G	C2'-C1'	-6.03	1.46	1.53
86	Ab	71	A	C5-C4	6.02	1.43	1.38
86	Ab	26	C	N1-C6	6.02	1.40	1.37
1	Ad	113	A	O4'-C1'	6.01	1.49	1.41
1	Ad	1352	A	C2'-C1'	6.01	1.59	1.53
1	Ad	1408	G	O3'-P	-6.01	1.53	1.61
1	Ad	1768	U	C2'-C1'	-6.01	1.46	1.53
1	Ad	1249	G	C2'-C1'	-6.01	1.46	1.53
84	Aa	289	C	P-O5'	-6.01	1.53	1.59
1	Ad	1222	G	O4'-C1'	6.00	1.49	1.41
1	Ad	700	C	C2'-C1'	-6.00	1.46	1.53
1	Ad	1204	G	P-O5'	-6.00	1.53	1.59
86	Ab	44	C	C4-C5	6.00	1.47	1.43
86	Ab	69	A	N7-C5	-6.00	1.35	1.39
3	Af	15	A	C2'-C1'	-6.00	1.46	1.53
86	Ab	1	G	C6-N1	6.00	1.43	1.39
1	Ad	621	U	O4'-C1'	6.00	1.49	1.41
86	Ab	86	G	C5-C4	6.00	1.42	1.38
1	Ad	1203	G	C5'-C4'	6.00	1.58	1.51
1	Ad	46	A	C2'-C1'	-6.00	1.46	1.53
1	Ad	1679	A	O4'-C1'	5.99	1.49	1.41
84	Aa	1673	A	N7-C5	-5.99	1.35	1.39
1	Ad	1400	G	C2'-C1'	-5.99	1.46	1.53
86	Ab	93	U	C3'-C2'	-5.99	1.46	1.52
1	Ad	1718	C	C2'-C1'	-5.98	1.46	1.53
1	Ad	578	G	O4'-C1'	-5.98	1.33	1.41
1	Ad	1632	C	O3'-P	-5.98	1.53	1.61
86	Ab	57	C	C4-N4	5.98	1.39	1.33
86	Ab	69	A	N3-C4	-5.98	1.31	1.34
1	Ad	594	C	C2'-C1'	-5.98	1.46	1.53
1	Ad	189	U	O4'-C1'	-5.97	1.33	1.41
1	Ad	984	A	C2'-C1'	-5.97	1.46	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1569	U	C2'-C1'	5.97	1.59	1.53
86	Ab	58	G	C2-N3	5.97	1.37	1.32
1	Ad	1158	G	O4'-C1'	5.97	1.49	1.41
1	Ad	743	G	O4'-C1'	5.96	1.49	1.41
86	Ab	75	G	C5-C4	5.95	1.42	1.38
1	Ad	1194	C	C5'-C4'	5.95	1.58	1.51
1	Ad	243	U	O4'-C1'	-5.95	1.33	1.41
1	Ad	356	G	C5'-C4'	5.95	1.58	1.51
1	Ad	636	U	O4'-C1'	5.94	1.49	1.41
1	Ad	949	A	C2'-C1'	-5.94	1.46	1.53
1	Ad	1682	U	P-O5'	-5.94	1.53	1.59
2	Ae	65	U	C2'-C1'	-5.94	1.46	1.53
84	Aa	2132	A	N7-C5	-5.94	1.35	1.39
1	Ad	58	U	O4'-C1'	5.94	1.49	1.41
86	Ab	83	A	C6-N1	5.94	1.39	1.35
86	Ab	21	U	N3-C4	5.93	1.43	1.38
1	Ad	1320	C	P-O5'	-5.93	1.53	1.59
1	Ad	29	U	C2'-C1'	5.93	1.59	1.53
1	Ad	304	A	O4'-C1'	5.93	1.49	1.41
1	Ad	1577	A	C2'-C1'	-5.93	1.46	1.53
1	Ad	706	U	C2'-C1'	-5.92	1.46	1.53
84	Aa	860	G	N7-C5	-5.92	1.35	1.39
1	Ad	1791	A	O4'-C1'	5.92	1.49	1.41
1	Ad	1445	C	C2'-C1'	-5.91	1.46	1.53
1	Ad	112	U	C2'-C1'	-5.90	1.46	1.53
1	Ad	400	G	C2'-C1'	5.90	1.59	1.53
1	Ad	325	C	O4'-C1'	-5.90	1.33	1.41
86	Ab	119	C	C4-N4	5.90	1.39	1.33
1	Ad	112	U	O4'-C1'	5.89	1.49	1.41
1	Ad	374	A	O4'-C1'	5.89	1.49	1.41
1	Ad	563	C	O4'-C1'	5.89	1.49	1.41
1	Ad	1505	U	O4'-C1'	5.89	1.49	1.41
1	Ad	145	A	C2'-C1'	5.89	1.59	1.53
84	Aa	512	G	C2-N3	5.89	1.37	1.32
1	Ad	800	U	O3'-P	-5.88	1.54	1.61
86	Ab	71	A	N3-C4	5.88	1.38	1.34
1	Ad	90	G	O4'-C1'	5.88	1.49	1.41
1	Ad	382	A	C2'-C1'	-5.88	1.46	1.53
86	Ab	11	A	N9-C4	5.88	1.41	1.37
1	Ad	1086	A	O3'-P	-5.88	1.54	1.61
1	Ad	1156	A	O4'-C1'	5.87	1.49	1.41
1	Ad	1308	G	O4'-C1'	5.87	1.49	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	265	A	C2'-C1'	-5.87	1.46	1.53
1	Ad	1108	U	O3'-P	-5.87	1.54	1.61
1	Ad	981	G	C2'-C1'	-5.87	1.46	1.53
1	Ad	1638	U	C5'-C4'	5.87	1.58	1.51
2	Ae	69	G	O4'-C1'	5.87	1.49	1.41
1	Ad	1220	C	O3'-P	-5.86	1.54	1.61
1	Ad	1149	U	C2'-C1'	-5.86	1.47	1.53
1	Ad	103	U	O4'-C1'	5.86	1.49	1.41
1	Ad	604	U	O4'-C1'	5.86	1.49	1.41
84	Aa	494	C	C4'-C3'	5.86	1.59	1.53
1	Ad	1205	G	O4'-C1'	-5.86	1.34	1.41
84	Aa	97	G	C2-N3	5.85	1.37	1.32
86	Ab	83	A	C2'-C1'	-5.85	1.47	1.53
2	Ae	2	C	O4'-C1'	5.85	1.49	1.41
1	Ad	574	A	O4'-C1'	5.85	1.49	1.41
2	Ae	28	G	P-O5'	-5.84	1.53	1.59
1	Ad	621	U	C2'-C1'	-5.84	1.47	1.53
1	Ad	1276	U	O4'-C1'	5.84	1.49	1.41
2	Ae	33	U	O4'-C1'	5.84	1.49	1.41
1	Ad	1371	U	C2'-C1'	-5.83	1.47	1.53
1	Ad	1494	G	C5'-C4'	5.83	1.58	1.51
1	Ad	1709	U	O4'-C1'	5.83	1.49	1.41
1	Ad	1536	U	O3'-P	-5.83	1.54	1.61
84	Aa	1188	C	P-O5'	-5.83	1.53	1.59
1	Ad	618	C	O4'-C1'	5.83	1.49	1.41
1	Ad	928	A	C2'-C1'	-5.83	1.47	1.53
1	Ad	1588	C	C2'-C1'	-5.83	1.47	1.53
86	Ab	90	A	N7-C5	-5.83	1.35	1.39
1	Ad	137	A	C5'-C4'	5.82	1.58	1.51
84	Aa	2683	A	N7-C5	-5.82	1.35	1.39
1	Ad	1668	A	O4'-C1'	5.81	1.49	1.41
1	Ad	445	A	P-O5'	-5.80	1.53	1.59
1	Ad	1773	A	C2'-C1'	-5.80	1.47	1.53
1	Ad	1781	U	O4'-C1'	5.80	1.49	1.41
1	Ad	451	U	C2'-C1'	-5.80	1.47	1.53
84	Aa	2183	A	N7-C5	-5.80	1.35	1.39
1	Ad	227	G	O4'-C1'	5.80	1.49	1.41
1	Ad	1075	G	C5'-C4'	5.80	1.58	1.51
1	Ad	1175	G	C2'-C1'	-5.79	1.47	1.53
1	Ad	832	C	C5'-C4'	5.79	1.58	1.51
86	Ab	8	A	N7-C5	-5.79	1.35	1.39
1	Ad	816	U	O4'-C1'	5.79	1.49	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	890	G	O4'-C1'	5.79	1.49	1.41
86	Ab	50	A	N3-C4	-5.78	1.31	1.34
1	Ad	930	G	C2'-C1'	5.78	1.59	1.53
1	Ad	925	U	C2'-C1'	-5.78	1.47	1.53
1	Ad	1079	G	O4'-C1'	5.77	1.49	1.41
86	Ab	15	C	C5'-C4'	5.77	1.58	1.51
1	Ad	782	G	O4'-C1'	5.77	1.49	1.41
84	Aa	2569	G	P-O5'	-5.77	1.53	1.59
1	Ad	19	A	C2'-C1'	5.77	1.59	1.53
1	Ad	1643	A	O4'-C1'	-5.76	1.34	1.41
1	Ad	253	C	C4'-C3'	5.76	1.59	1.53
1	Ad	167	A	O4'-C1'	-5.76	1.34	1.41
1	Ad	870	A	O4'-C1'	-5.76	1.34	1.41
84	Aa	641	C	C4'-C3'	5.76	1.59	1.53
1	Ad	126	U	P-O5'	-5.76	1.53	1.59
1	Ad	1603	U	C2'-C1'	5.76	1.59	1.53
2	Ae	28	G	O4'-C1'	5.76	1.49	1.41
84	Aa	2527	G	C2-N3	5.75	1.37	1.32
1	Ad	98	C	O3'-P	-5.75	1.54	1.61
86	Ab	9	U	N3-C4	5.75	1.43	1.38
1	Ad	602	U	O4'-C1'	5.75	1.49	1.41
1	Ad	1714	G	C2'-C1'	-5.75	1.47	1.53
1	Ad	32	U	C2'-C1'	5.75	1.59	1.53
1	Ad	1009	U	C2'-C1'	5.74	1.59	1.53
1	Ad	401	A	O4'-C1'	5.74	1.49	1.41
84	Aa	721	A	P-O5'	-5.74	1.54	1.59
1	Ad	594	C	O4'-C1'	5.74	1.49	1.41
1	Ad	991	G	C2'-C1'	-5.74	1.47	1.53
1	Ad	6	G	C4'-C3'	5.73	1.59	1.53
1	Ad	104	A	O4'-C1'	-5.73	1.34	1.41
86	Ab	72	G	N7-C5	-5.73	1.35	1.39
84	Aa	2376	G	N1-C2	5.73	1.42	1.37
1	Ad	749	G	C2'-C1'	-5.72	1.47	1.53
2	Ae	72	G	C5'-C4'	5.72	1.58	1.51
84	Aa	1928	A	N7-C5	-5.72	1.35	1.39
1	Ad	377	G	O4'-C1'	5.72	1.49	1.41
1	Ad	1007	G	O3'-P	-5.72	1.54	1.61
1	Ad	1505	U	C2'-C1'	-5.72	1.47	1.53
1	Ad	1407	A	P-O5'	-5.72	1.54	1.59
84	Aa	2162	C	C2'-C1'	-5.72	1.47	1.53
84	Aa	2905	A	N7-C5	-5.71	1.35	1.39
1	Ad	911	A	O4'-C1'	5.71	1.49	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	271	C	O3'-P	-5.71	1.54	1.61
1	Ad	235	C	O3'-P	-5.71	1.54	1.61
1	Ad	745	C	O4'-C1'	5.71	1.49	1.41
86	Ab	99	G	C8-N7	-5.70	1.27	1.30
1	Ad	1484	U	O4'-C1'	5.70	1.49	1.41
1	Ad	1660	C	C5'-C4'	5.70	1.58	1.51
1	Ad	789	C	O4'-C1'	5.70	1.49	1.41
84	Aa	53	C	C2'-C1'	-5.70	1.47	1.53
1	Ad	914	U	P-O5'	-5.70	1.54	1.59
1	Ad	1456	U	C5'-C4'	5.70	1.58	1.51
1	Ad	335	A	O4'-C1'	5.69	1.49	1.41
1	Ad	837	G	C2'-C1'	-5.69	1.47	1.53
1	Ad	1489	A	O4'-C1'	5.69	1.49	1.41
1	Ad	1701	G	C2'-C1'	-5.69	1.47	1.53
1	Ad	1786	A	C3'-C2'	-5.69	1.46	1.52
86	Ab	36	C	N1-C6	5.69	1.40	1.37
1	Ad	83	U	O4'-C1'	5.68	1.49	1.41
1	Ad	566	G	O4'-C1'	5.68	1.49	1.41
1	Ad	780	A	C5'-C4'	5.68	1.58	1.51
85	Ac	5	U	P-O5'	-5.68	1.54	1.59
1	Ad	375	G	C2'-C1'	-5.68	1.47	1.53
1	Ad	1745	U	O4'-C1'	5.68	1.49	1.41
84	Aa	3335	G	C2-N3	5.68	1.37	1.32
1	Ad	750	U	O4'-C1'	5.68	1.49	1.41
1	Ad	928	A	O4'-C1'	5.68	1.49	1.41
1	Ad	1568	U	O4'-C1'	-5.68	1.34	1.41
1	Ad	1382	C	C2'-C1'	-5.67	1.47	1.53
1	Ad	51	A	C2'-C1'	-5.67	1.47	1.53
1	Ad	126	U	C5'-C4'	5.67	1.58	1.51
1	Ad	1000	A	O4'-C1'	5.67	1.49	1.41
1	Ad	1264	U	O4'-C1'	5.67	1.49	1.41
84	Aa	279	G	P-O5'	-5.67	1.54	1.59
1	Ad	101	A	O4'-C1'	5.66	1.49	1.41
1	Ad	1044	A	O3'-P	-5.66	1.54	1.61
1	Ad	987	U	C5'-C4'	5.65	1.58	1.51
1	Ad	1515	G	O4'-C1'	5.65	1.49	1.41
1	Ad	815	A	O4'-C1'	5.65	1.49	1.41
1	Ad	990	G	C4'-C3'	5.65	1.59	1.53
1	Ad	1544	G	O4'-C1'	5.65	1.49	1.41
84	Aa	716	A	N7-C5	-5.65	1.35	1.39
1	Ad	549	A	P-O5'	-5.65	1.54	1.59
1	Ad	1516	C	O4'-C1'	5.65	1.49	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	240	U	O4'-C1'	5.64	1.49	1.41
1	Ad	337	A	C5'-C4'	5.64	1.58	1.51
1	Ad	1604	C	O4'-C1'	-5.64	1.34	1.41
84	Aa	2095	C	O3'-P	-5.64	1.54	1.61
1	Ad	800	U	O4'-C1'	-5.63	1.34	1.41
1	Ad	1101	C	C2'-C1'	-5.63	1.47	1.53
84	Aa	694	U	P-O5'	-5.63	1.54	1.59
1	Ad	1302	C	C2'-C1'	-5.63	1.47	1.53
84	Aa	2196	G	C2-N3	5.63	1.37	1.32
1	Ad	116	G	C5'-C4'	5.63	1.58	1.51
1	Ad	1494	G	O3'-P	-5.63	1.54	1.61
1	Ad	59	G	C2'-C1'	-5.62	1.47	1.53
1	Ad	438	G	O3'-P	-5.62	1.54	1.61
1	Ad	981	G	O4'-C1'	5.61	1.49	1.41
1	Ad	1005	C	C2'-C1'	5.61	1.59	1.53
1	Ad	1209	C	O3'-P	-5.61	1.54	1.61
86	Ab	120	C	N1-C6	5.61	1.40	1.37
1	Ad	251	U	C2'-C1'	5.61	1.59	1.53
1	Ad	463	G	O4'-C1'	5.61	1.49	1.41
1	Ad	731	G	C2'-C1'	5.60	1.59	1.53
84	Aa	198	A	P-O5'	-5.60	1.54	1.59
86	Ab	99	G	C5'-C4'	5.60	1.58	1.51
1	Ad	1668	A	C2'-C1'	-5.60	1.47	1.53
86	Ab	100	A	N9-C4	-5.60	1.34	1.37
1	Ad	1264	U	C2'-C1'	-5.60	1.47	1.53
1	Ad	35	U	P-O5'	-5.60	1.54	1.59
1	Ad	76	U	O4'-C1'	5.60	1.49	1.41
1	Ad	377	G	C2'-C1'	-5.59	1.47	1.53
84	Aa	2354	G	C2-N3	5.59	1.37	1.32
1	Ad	719	C	C2'-C1'	-5.59	1.47	1.53
1	Ad	1153	C	C2'-C1'	-5.58	1.47	1.53
1	Ad	1634	U	O4'-C1'	5.58	1.49	1.41
1	Ad	828	G	O4'-C1'	-5.58	1.34	1.41
1	Ad	1016	C	C2'-C1'	-5.57	1.47	1.53
1	Ad	466	G	C5'-C4'	5.57	1.58	1.51
1	Ad	1705	C	C5'-C4'	5.57	1.58	1.51
1	Ad	184	C	C2'-C1'	-5.57	1.47	1.53
1	Ad	579	C	O4'-C1'	5.57	1.48	1.41
1	Ad	1575	U	C2'-C1'	5.57	1.59	1.53
1	Ad	446	C	O4'-C1'	5.57	1.48	1.41
2	Ae	14	A	C2'-C1'	-5.57	1.47	1.53
1	Ad	449	A	O4'-C1'	5.56	1.48	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1132	G	C4'-C3'	5.55	1.59	1.53
1	Ad	1632	C	O4'-C1'	5.55	1.48	1.41
1	Ad	1206	A	C4'-C3'	5.55	1.59	1.53
1	Ad	1498	A	C4'-O4'	-5.55	1.38	1.45
84	Aa	2266	A	N7-C5	-5.55	1.35	1.39
1	Ad	291	G	O4'-C1'	-5.54	1.34	1.41
86	Ab	107	C	C4-N4	5.54	1.39	1.33
1	Ad	852	A	C2'-C1'	-5.54	1.47	1.53
1	Ad	1056	A	O4'-C1'	-5.54	1.34	1.41
84	Aa	2163	G	C2-N3	5.54	1.37	1.32
1	Ad	1276	U	C2'-C1'	-5.54	1.47	1.53
1	Ad	1634	U	C2'-C1'	-5.54	1.47	1.53
1	Ad	508	U	O4'-C1'	5.53	1.48	1.41
1	Ad	708	G	C2'-C1'	-5.53	1.47	1.53
1	Ad	1724	U	O4'-C1'	5.53	1.48	1.41
85	Ac	70	G	O3'-P	-5.53	1.54	1.61
1	Ad	282	C	O5'-C5'	-5.53	1.33	1.42
84	Aa	1	G	N7-C5	-5.53	1.35	1.39
86	Ab	48	G	N7-C5	-5.53	1.35	1.39
84	Aa	773	G	P-O5'	-5.53	1.54	1.59
84	Aa	2513	U	C5'-C4'	-5.53	1.44	1.51
1	Ad	567	U	O4'-C1'	5.53	1.48	1.41
1	Ad	484	A	C2'-C1'	-5.52	1.47	1.53
1	Ad	1808	U	C5'-C4'	5.52	1.57	1.51
84	Aa	2634	U	P-O5'	-5.52	1.54	1.59
1	Ad	62	A	C5'-C4'	5.52	1.57	1.51
1	Ad	931	A	C5'-C4'	5.52	1.57	1.51
1	Ad	1286	U	O4'-C1'	5.52	1.48	1.41
1	Ad	1136	A	C3'-C2'	-5.52	1.46	1.52
1	Ad	1431	A	O4'-C1'	5.52	1.48	1.41
1	Ad	724	U	C2'-C1'	5.52	1.59	1.53
84	Aa	76	A	C6-N6	5.52	1.38	1.33
84	Aa	1356	G	C2-N3	5.51	1.37	1.32
1	Ad	1645	C	C2'-C1'	5.51	1.59	1.53
1	Ad	1383	U	C2'-C1'	5.51	1.59	1.53
84	Aa	935	U	C2-N3	5.51	1.41	1.37
86	Ab	90	A	C6-N6	5.51	1.38	1.33
1	Ad	200	C	C5'-C4'	5.50	1.57	1.51
1	Ad	905	A	O3'-P	-5.50	1.54	1.61
1	Ad	1235	U	O4'-C1'	5.50	1.48	1.41
84	Aa	2356	A	N7-C5	-5.50	1.35	1.39
84	Aa	2513	U	O5'-C5'	-5.50	1.34	1.42

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
86	Ab	72	G	O3'-P	-5.50	1.54	1.61
1	Ad	1018	A	O4'-C1'	5.49	1.48	1.41
1	Ad	1242	A	O4'-C1'	5.49	1.48	1.41
2	Ae	44	A	C2'-C1'	5.49	1.59	1.53
84	Aa	2167	G	C4'-O4'	-5.49	1.38	1.45
1	Ad	1479	U	O3'-P	-5.49	1.54	1.61
1	Ad	1570	G	O3'-P	-5.48	1.54	1.61
1	Ad	325	C	C5'-C4'	5.48	1.57	1.51
2	Ae	42	C	C4'-C3'	5.48	1.59	1.53
1	Ad	1121	A	C2'-C1'	-5.48	1.47	1.53
1	Ad	201	G	O4'-C1'	5.47	1.48	1.41
2	Ae	28	G	C5'-C4'	5.47	1.57	1.51
86	Ab	54	A	C2'-C1'	-5.47	1.47	1.53
1	Ad	283	G	P-O5'	-5.47	1.54	1.59
1	Ad	756	U	C2'-C1'	-5.47	1.47	1.53
1	Ad	53	G	O4'-C1'	5.47	1.48	1.41
1	Ad	868	A	C2'-C1'	5.47	1.59	1.53
84	Aa	1177	G	N3-C4	-5.47	1.31	1.35
1	Ad	758	A	O4'-C1'	5.47	1.48	1.41
1	Ad	1362	A	O3'-P	-5.47	1.54	1.61
1	Ad	550	U	C2'-C1'	-5.46	1.47	1.53
1	Ad	830	U	O4'-C1'	5.46	1.48	1.41
1	Ad	1766	A	O3'-P	-5.46	1.54	1.61
1	Ad	571	A	C3'-C2'	-5.46	1.46	1.52
1	Ad	1585	A	C2'-C1'	-5.46	1.47	1.53
1	Ad	1623	C	C2'-C1'	5.46	1.59	1.53
1	Ad	1479	U	O4'-C1'	-5.45	1.34	1.41
84	Aa	475	U	O3'-P	-5.45	1.54	1.61
1	Ad	303	A	C2'-C1'	5.45	1.59	1.53
1	Ad	802	A	C2'-C1'	-5.45	1.47	1.53
1	Ad	79	A	C5'-C4'	5.45	1.57	1.51
1	Ad	766	A	C2'-C1'	-5.45	1.47	1.53
1	Ad	1312	G	O4'-C1'	5.44	1.48	1.41
1	Ad	236	U	O3'-P	-5.44	1.54	1.61
84	Aa	1356	G	N7-C5	-5.44	1.35	1.39
84	Aa	836	G	N7-C5	-5.44	1.35	1.39
84	Aa	307	C	P-O5'	-5.44	1.54	1.59
1	Ad	1180	U	O4'-C1'	5.44	1.48	1.41
84	Aa	2806	A	N7-C5	-5.43	1.35	1.39
1	Ad	756	U	O4'-C1'	5.43	1.48	1.41
1	Ad	954	C	C3'-C2'	-5.43	1.46	1.52
1	Ad	1792	A	O4'-C1'	5.43	1.48	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
84	Aa	1319	U	P-O5'	-5.43	1.54	1.59
86	Ab	3	A	N9-C4	-5.43	1.34	1.37
1	Ad	429	A	O4'-C1'	5.42	1.48	1.41
1	Ad	970	U	O4'-C1'	5.42	1.48	1.41
1	Ad	1183	G	C4'-C3'	5.42	1.59	1.53
1	Ad	811	U	O4'-C1'	5.42	1.48	1.41
84	Aa	2566	C	O3'-P	-5.42	1.54	1.61
84	Aa	2756	G	C2-N3	5.42	1.37	1.32
86	Ab	42	A	N7-C5	-5.42	1.35	1.39
84	Aa	527	G	C2-N3	5.42	1.37	1.32
1	Ad	189	U	O3'-P	-5.41	1.54	1.61
1	Ad	485	A	C2'-C1'	-5.41	1.47	1.53
1	Ad	705	A	O3'-P	-5.41	1.54	1.61
1	Ad	1334	G	O4'-C1'	5.41	1.48	1.41
84	Aa	334	A	C6-N6	5.41	1.38	1.33
86	Ab	22	A	N9-C4	-5.41	1.34	1.37
1	Ad	1377	G	C5'-C4'	5.41	1.57	1.51
1	Ad	1247	G	O4'-C1'	-5.41	1.34	1.41
1	Ad	952	U	O4'-C1'	5.41	1.48	1.41
1	Ad	491	G	O4'-C1'	-5.40	1.34	1.41
86	Ab	3	A	C6-N6	5.40	1.38	1.33
1	Ad	60	C	O4'-C1'	5.40	1.48	1.41
84	Aa	2969	A	N7-C5	-5.40	1.36	1.39
85	Ac	15	G	P-O5'	-5.40	1.54	1.59
1	Ad	624	A	C2'-C1'	5.39	1.59	1.53
1	Ad	1629	U	O4'-C1'	5.39	1.48	1.41
1	Ad	1687	G	C4'-C3'	-5.39	1.47	1.52
1	Ad	405	A	O4'-C1'	5.39	1.48	1.41
1	Ad	739	U	O4'-C1'	5.39	1.48	1.41
1	Ad	1277	G	O4'-C1'	-5.39	1.34	1.41
86	Ab	56	G	C2-N3	5.39	1.37	1.32
84	Aa	2801	A	C6-N6	5.39	1.38	1.33
84	Aa	2502	U	O3'-P	-5.39	1.54	1.61
2	Ae	70	G	C5'-C4'	5.38	1.57	1.51
84	Aa	5	G	C2-N3	5.38	1.37	1.32
84	Aa	2513	U	O3'-P	-5.38	1.54	1.61
84	Aa	3177	A	C6-N6	5.38	1.38	1.33
1	Ad	1418	G	C5'-C4'	5.38	1.57	1.51
1	Ad	1176	A	O4'-C1'	5.38	1.48	1.41
1	Ad	100	C	O4'-C1'	5.38	1.48	1.41
1	Ad	206	U	O3'-P	-5.38	1.54	1.61
1	Ad	794	G	C2'-C1'	-5.37	1.47	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1669	U	O4'-C1'	5.37	1.48	1.41
1	Ad	519	A	C4'-C3'	5.37	1.59	1.53
84	Aa	1600	A	P-O5'	-5.37	1.54	1.59
1	Ad	543	G	O4'-C1'	5.37	1.48	1.41
1	Ad	545	A	C2'-C1'	-5.37	1.47	1.53
84	Aa	1317	G	C2'-C1'	-5.37	1.47	1.53
1	Ad	64	U	C2'-C1'	5.37	1.59	1.53
1	Ad	1807	A	C2'-C1'	5.37	1.59	1.53
84	Aa	2552	U	O3'-P	-5.37	1.54	1.61
1	Ad	323	U	O4'-C1'	5.37	1.48	1.41
1	Ad	778	G	O4'-C1'	-5.37	1.34	1.41
84	Aa	1309	U	O3'-P	-5.37	1.54	1.61
84	Aa	2610	G	O3'-P	-5.36	1.54	1.61
1	Ad	1143	A	O4'-C1'	5.36	1.48	1.41
1	Ad	99	U	O4'-C1'	5.36	1.48	1.41
1	Ad	901	U	C2'-C1'	-5.36	1.47	1.53
1	Ad	139	U	P-O5'	-5.36	1.54	1.59
1	Ad	405	A	C2'-C1'	-5.36	1.47	1.53
1	Ad	529	A	C2'-C1'	-5.35	1.47	1.53
1	Ad	1182	C	P-O5'	-5.35	1.54	1.59
1	Ad	1389	G	C2'-C1'	-5.34	1.47	1.53
1	Ad	1442	A	O3'-P	-5.34	1.54	1.61
1	Ad	1642	C	C2'-C1'	-5.34	1.47	1.53
84	Aa	2290	A	N7-C5	-5.34	1.36	1.39
1	Ad	1091	A	C4'-C3'	5.34	1.59	1.53
1	Ad	1309	U	O4'-C1'	-5.34	1.34	1.41
84	Aa	567	G	N7-C5	-5.34	1.36	1.39
84	Aa	87	A	C6-N6	5.33	1.38	1.33
1	Ad	1805	U	C5'-C4'	5.33	1.57	1.51
86	Ab	15	C	N3-C4	5.33	1.37	1.33
84	Aa	747	A	N7-C5	-5.33	1.36	1.39
1	Ad	418	C	O4'-C1'	5.32	1.48	1.41
1	Ad	479	A	C2'-C1'	-5.32	1.47	1.53
1	Ad	824	U	P-O5'	-5.32	1.54	1.59
1	Ad	1546	U	O4'-C1'	5.32	1.48	1.41
1	Ad	1132	G	P-O5'	-5.32	1.54	1.59
1	Ad	1525	U	C4'-C3'	5.32	1.59	1.53
84	Aa	73	A	N7-C5	-5.32	1.36	1.39
84	Aa	2216	G	C6-N1	5.32	1.43	1.39
1	Ad	630	U	O4'-C1'	5.32	1.48	1.41
1	Ad	790	U	O4'-C1'	5.32	1.48	1.41
84	Aa	144	A	N7-C5	-5.32	1.36	1.39

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	500	G	O3'-P	-5.31	1.54	1.61
2	Ae	4	G	P-O5'	-5.31	1.54	1.59
2	Ae	8	U	C2'-C1'	5.31	1.59	1.53
86	Ab	108	G	C2-N3	5.31	1.36	1.32
1	Ad	1805	U	C2'-C1'	-5.31	1.47	1.53
84	Aa	2178	G	O3'-P	-5.31	1.54	1.61
1	Ad	1576	C	C2'-C1'	5.31	1.59	1.53
86	Ab	27	A	N9-C8	5.31	1.42	1.37
1	Ad	338	G	O4'-C1'	-5.31	1.34	1.41
84	Aa	3135	A	N7-C5	-5.31	1.36	1.39
84	Aa	935	U	O3'-P	-5.30	1.54	1.61
84	Aa	2178	G	C3'-O3'	-5.30	1.34	1.42
1	Ad	318	C	O3'-P	-5.29	1.54	1.61
1	Ad	1478	C	O4'-C1'	5.29	1.48	1.41
1	Ad	493	C	O4'-C1'	5.29	1.48	1.41
84	Aa	267	G	N7-C5	-5.29	1.36	1.39
1	Ad	1738	U	P-O5'	-5.29	1.54	1.59
86	Ab	119	C	C3'-C2'	-5.29	1.47	1.52
84	Aa	1747	A	N7-C5	-5.29	1.36	1.39
86	Ab	93	U	N1-C2	5.29	1.43	1.38
1	Ad	1437	C	C4'-C3'	5.29	1.58	1.53
84	Aa	3177	A	N7-C5	-5.29	1.36	1.39
86	Ab	52	U	C2'-C1'	-5.28	1.47	1.53
1	Ad	752	A	O4'-C1'	5.28	1.48	1.41
1	Ad	527	C	C2'-C1'	-5.28	1.47	1.53
1	Ad	1295	G	C2'-C1'	-5.28	1.47	1.53
1	Ad	642	C	C3'-C2'	5.28	1.58	1.52
84	Aa	1310	G	N7-C5	-5.28	1.36	1.39
86	Ab	26	C	P-O5'	-5.28	1.54	1.59
1	Ad	1711	G	C2'-C1'	-5.27	1.47	1.53
84	Aa	2163	G	C2'-C1'	-5.27	1.47	1.53
1	Ad	160	A	C2'-C1'	-5.27	1.47	1.53
1	Ad	327	A	O3'-P	-5.27	1.54	1.61
86	Ab	111	U	C2-N3	5.27	1.41	1.37
1	Ad	1265	A	O4'-C1'	5.27	1.48	1.41
84	Aa	1250	G	C2'-C1'	-5.27	1.47	1.53
1	Ad	23	G	O3'-P	-5.27	1.54	1.61
1	Ad	168	U	C5'-C4'	5.26	1.57	1.51
1	Ad	775	A	O4'-C1'	5.26	1.48	1.41
86	Ab	12	U	C2-N3	5.26	1.41	1.37
1	Ad	1608	A	O4'-C1'	5.26	1.48	1.41
1	Ad	1786	A	O4'-C1'	5.26	1.48	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1251	U	O4'-C1'	5.26	1.48	1.41
1	Ad	1347	U	O4'-C1'	5.26	1.48	1.41
84	Aa	1241	G	O3'-P	-5.26	1.54	1.61
86	Ab	30	G	C6-N1	5.26	1.43	1.39
1	Ad	867	A	P-O5'	-5.25	1.54	1.59
1	Ad	240	U	C5'-C4'	5.25	1.57	1.51
1	Ad	266	C	C5'-C4'	5.25	1.57	1.51
1	Ad	827	C	O4'-C1'	5.25	1.48	1.41
1	Ad	9	U	O4'-C1'	5.25	1.48	1.41
1	Ad	1411	C	O4'-C1'	5.25	1.48	1.41
84	Aa	553	C	O3'-P	-5.25	1.54	1.61
1	Ad	926	G	O4'-C1'	5.25	1.48	1.41
1	Ad	1522	U	O4'-C1'	-5.25	1.34	1.41
84	Aa	294	A	N7-C5	-5.25	1.36	1.39
84	Aa	252	A	N7-C5	-5.24	1.36	1.39
1	Ad	8	U	C2'-C1'	5.24	1.59	1.53
1	Ad	951	U	O4'-C1'	5.24	1.48	1.41
1	Ad	539	A	O4'-C1'	5.24	1.48	1.41
1	Ad	545	A	O4'-C1'	-5.24	1.34	1.41
84	Aa	2239	A	N7-C5	-5.24	1.36	1.39
86	Ab	108	G	C5-C6	-5.24	1.37	1.42
1	Ad	1036	U	O4'-C1'	5.24	1.48	1.41
1	Ad	1799	G	C2'-C1'	-5.24	1.47	1.53
84	Aa	372	A	O3'-P	-5.23	1.54	1.61
84	Aa	2943	A	N7-C5	-5.23	1.36	1.39
1	Ad	1584	A	P-O5'	-5.23	1.54	1.59
1	Ad	1771	U	C2'-C1'	-5.23	1.47	1.53
86	Ab	64	G	C5-C4	5.23	1.42	1.38
1	Ad	131	C	O3'-P	-5.23	1.54	1.61
1	Ad	764	U	O4'-C1'	5.23	1.48	1.41
86	Ab	26	C	N3-C4	5.23	1.37	1.33
1	Ad	1114	G	O4'-C1'	5.23	1.48	1.41
1	Ad	1029	U	O4'-C1'	5.23	1.48	1.41
84	Aa	99	A	N7-C5	-5.23	1.36	1.39
84	Aa	2502	U	C2'-C1'	-5.23	1.47	1.53
1	Ad	215	A	O3'-P	-5.22	1.54	1.61
1	Ad	864	A	C5'-C4'	5.22	1.57	1.51
84	Aa	1062	G	P-O5'	-5.22	1.54	1.59
85	Ac	85	G	C2-N3	5.22	1.36	1.32
1	Ad	205	U	P-O5'	-5.22	1.54	1.59
84	Aa	1676	A	N7-C5	-5.22	1.36	1.39
1	Ad	1446	C	O3'-P	-5.22	1.54	1.61

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1795	U	O4'-C1'	5.22	1.48	1.41
1	Ad	129	U	C2'-C1'	5.21	1.59	1.53
1	Ad	1078	G	C2'-C1'	-5.21	1.47	1.53
1	Ad	597	U	O4'-C1'	5.21	1.48	1.41
1	Ad	1217	G	O4'-C1'	-5.21	1.34	1.41
1	Ad	1729	A	C5'-C4'	5.21	1.57	1.51
84	Aa	819	A	O3'-P	-5.21	1.54	1.61
1	Ad	894	U	O3'-P	-5.21	1.54	1.61
2	Ae	2	C	C2'-C1'	-5.21	1.47	1.53
86	Ab	1	G	N7-C5	-5.21	1.36	1.39
1	Ad	1021	C	C2'-C1'	-5.21	1.47	1.53
1	Ad	1202	G	C5'-C4'	5.21	1.57	1.51
84	Aa	610	G	N7-C5	-5.21	1.36	1.39
1	Ad	597	U	C2'-C1'	-5.20	1.47	1.53
84	Aa	265	G	C2-N3	5.20	1.36	1.32
1	Ad	1314	U	O4'-C1'	5.20	1.48	1.41
1	Ad	811	U	C2'-C1'	-5.20	1.47	1.53
1	Ad	1337	C	C2'-C1'	-5.20	1.47	1.53
1	Ad	611	G	P-O5'	-5.19	1.54	1.59
84	Aa	1486	G	C2-N3	5.19	1.36	1.32
1	Ad	150	U	O3'-P	-5.19	1.54	1.61
1	Ad	793	G	O4'-C1'	5.19	1.48	1.41
84	Aa	1649	G	C2-N3	5.19	1.36	1.32
1	Ad	262	U	O3'-P	-5.19	1.54	1.61
1	Ad	909	G	C2'-C1'	-5.19	1.47	1.53
85	Ac	150	G	C2'-C1'	-5.18	1.47	1.53
1	Ad	1025	A	O4'-C1'	5.18	1.48	1.41
1	Ad	1296	G	O3'-P	-5.18	1.54	1.61
1	Ad	1098	A	P-O5'	5.18	1.65	1.59
1	Ad	1262	U	O4'-C1'	-5.18	1.34	1.41
1	Ad	845	C	O3'-P	-5.18	1.54	1.61
1	Ad	1360	G	C2'-C1'	5.18	1.59	1.53
1	Ad	1528	U	C2'-C1'	5.18	1.59	1.53
1	Ad	542	A	C4'-C3'	5.18	1.58	1.53
1	Ad	874	A	O4'-C1'	5.17	1.48	1.41
1	Ad	1116	G	O4'-C1'	-5.17	1.34	1.41
84	Aa	2968	G	O3'-P	-5.17	1.54	1.61
86	Ab	19	A	N3-C4	-5.17	1.31	1.34
1	Ad	211	G	O4'-C1'	5.17	1.48	1.41
1	Ad	517	U	C5'-C4'	5.17	1.57	1.51
1	Ad	945	A	C5'-C4'	5.17	1.57	1.51
1	Ad	1307	U	O4'-C1'	5.17	1.48	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	318	C	C2'-C1'	-5.17	1.47	1.53
1	Ad	1064	U	O3'-P	-5.17	1.54	1.61
1	Ad	898	U	O4'-C1'	5.16	1.48	1.41
1	Ad	1527	U	C2'-C1'	5.16	1.59	1.53
1	Ad	1658	U	C2'-C1'	-5.16	1.47	1.53
1	Ad	728	C	O3'-P	-5.16	1.54	1.61
1	Ad	1198	A	O4'-C1'	5.16	1.48	1.41
1	Ad	123	U	P-O5'	-5.16	1.54	1.59
1	Ad	446	C	C2'-C1'	-5.16	1.47	1.53
84	Aa	2093	G	C2-N3	5.16	1.36	1.32
86	Ab	51	G	C3'-C2'	5.16	1.58	1.52
1	Ad	838	U	C5'-C4'	5.16	1.57	1.51
1	Ad	1309	U	C2'-C1'	5.16	1.59	1.53
1	Ad	20	G	C5'-C4'	5.16	1.57	1.51
1	Ad	379	U	C2'-C1'	5.16	1.59	1.53
1	Ad	1155	G	C5'-C4'	5.16	1.57	1.51
1	Ad	1546	U	C2'-C1'	5.15	1.59	1.53
84	Aa	2494	A	N7-C5	-5.15	1.36	1.39
84	Aa	2523	G	O3'-P	-5.15	1.54	1.61
1	Ad	143	A	O3'-P	-5.15	1.54	1.61
1	Ad	732	G	C2'-C1'	5.15	1.59	1.53
84	Aa	3364	A	P-O5'	-5.15	1.54	1.59
1	Ad	231	U	O4'-C1'	5.15	1.48	1.41
84	Aa	1958	G	O3'-P	-5.15	1.54	1.61
86	Ab	114	C	N1-C6	5.15	1.40	1.37
1	Ad	726	G	C2'-C1'	-5.14	1.47	1.53
1	Ad	564	U	O4'-C1'	5.14	1.48	1.41
84	Aa	723	G	C4'-C3'	5.14	1.58	1.53
84	Aa	16	A	P-O5'	-5.14	1.54	1.59
84	Aa	641	C	C5'-C4'	5.14	1.57	1.51
1	Ad	133	U	O3'-P	-5.14	1.54	1.61
1	Ad	469	G	O4'-C1'	5.13	1.48	1.41
1	Ad	586	U	O4'-C1'	5.13	1.48	1.41
1	Ad	1320	C	O4'-C1'	5.13	1.48	1.41
1	Ad	161	G	C2'-C1'	5.13	1.58	1.53
84	Aa	1677	G	C2-N3	5.13	1.36	1.32
84	Aa	2374	G	N1-C2	5.13	1.41	1.37
1	Ad	536	U	O3'-P	-5.13	1.54	1.61
1	Ad	1440	U	C5'-C4'	5.13	1.57	1.51
84	Aa	579	G	C2-N3	5.12	1.36	1.32
86	Ab	71	A	N7-C5	-5.12	1.36	1.39
86	Ab	82	G	N9-C4	-5.12	1.33	1.38

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	522	A	C2'-C1'	-5.12	1.47	1.53
1	Ad	1011	C	O4'-C1'	5.12	1.48	1.41
1	Ad	1605	A	O4'-C1'	5.12	1.48	1.41
84	Aa	752	U	P-O5'	-5.12	1.54	1.59
1	Ad	440	A	C2'-C1'	5.12	1.58	1.53
86	Ab	47	C	N3-C4	5.12	1.37	1.33
1	Ad	1067	A	C2'-C1'	5.12	1.58	1.53
1	Ad	1356	A	C2'-C1'	-5.12	1.47	1.53
84	Aa	1945	A	O3'-P	-5.12	1.55	1.61
1	Ad	1493	A	C4'-C3'	5.11	1.58	1.53
1	Ad	1527	U	O4'-C1'	5.11	1.48	1.41
1	Ad	1544	G	C2'-C1'	-5.11	1.47	1.53
1	Ad	1770	G	C2'-C1'	-5.11	1.47	1.53
84	Aa	1274	A	N7-C5	-5.11	1.36	1.39
1	Ad	518	G	O3'-P	-5.11	1.55	1.61
84	Aa	2393	G	C2'-C1'	-5.11	1.47	1.53
1	Ad	1022	U	C2'-C1'	-5.11	1.47	1.53
86	Ab	38	U	C2'-C1'	-5.11	1.47	1.53
1	Ad	1132	G	C2'-C1'	5.11	1.58	1.53
1	Ad	235	C	C5'-C4'	5.10	1.57	1.51
1	Ad	1153	C	O4'-C1'	5.10	1.48	1.41
84	Aa	1674	A	C6-N6	5.10	1.38	1.33
1	Ad	1118	A	C2'-C1'	-5.10	1.47	1.53
1	Ad	279	C	C2'-C1'	5.10	1.58	1.53
1	Ad	532	U	O4'-C1'	5.10	1.48	1.41
1	Ad	833	U	C2'-C1'	-5.10	1.47	1.53
1	Ad	1481	A	O4'-C1'	5.10	1.48	1.41
1	Ad	1068	G	C5'-C4'	5.10	1.57	1.51
1	Ad	1228	G	O4'-C1'	5.10	1.48	1.41
1	Ad	1464	G	O4'-C1'	5.10	1.48	1.41
86	Ab	87	G	C6-N1	5.09	1.43	1.39
1	Ad	348	A	O4'-C1'	5.09	1.48	1.41
1	Ad	995	C	O3'-P	-5.09	1.55	1.61
1	Ad	1708	U	C2'-C1'	-5.09	1.47	1.53
84	Aa	1796	A	N7-C5	-5.09	1.36	1.39
1	Ad	925	U	O4'-C1'	5.09	1.48	1.41
1	Ad	298	C	O3'-P	-5.09	1.55	1.61
2	Ae	5	U	P-O5'	-5.09	1.54	1.59
84	Aa	2770	U	P-O5'	-5.09	1.54	1.59
86	Ab	6	C	O3'-P	-5.09	1.55	1.61
1	Ad	414	A	O4'-C1'	5.09	1.48	1.41
84	Aa	1676	A	C6-N6	5.09	1.38	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
84	Aa	2291	A	N7-C5	-5.09	1.36	1.39
84	Aa	2503	A	C6-N6	5.09	1.38	1.33
1	Ad	1017	U	O3'-P	-5.08	1.55	1.61
1	Ad	1350	C	P-O5'	5.08	1.64	1.59
84	Aa	1600	A	N7-C5	-5.08	1.36	1.39
84	Aa	2307	A	N7-C5	-5.08	1.36	1.39
86	Ab	86	G	C6-N1	5.08	1.43	1.39
1	Ad	414	A	C3'-C2'	-5.08	1.47	1.52
1	Ad	648	C	O3'-P	-5.08	1.55	1.61
2	Ae	13	U	O4'-C1'	5.08	1.48	1.41
1	Ad	532	U	C4'-C3'	5.08	1.58	1.53
84	Aa	936	A	N7-C5	-5.08	1.36	1.39
84	Aa	122	A	N7-C5	-5.08	1.36	1.39
84	Aa	2174	C	C2'-C1'	-5.08	1.47	1.53
84	Aa	2751	A	N7-C5	-5.08	1.36	1.39
1	Ad	10	G	O4'-C1'	5.08	1.48	1.41
2	Ae	57	A	C5'-C4'	5.08	1.57	1.51
84	Aa	293	A	N7-C5	-5.08	1.36	1.39
2	Ae	5	U	C2'-C1'	5.07	1.58	1.53
86	Ab	24	G	P-O5'	-5.07	1.54	1.59
1	Ad	1182	C	O4'-C1'	5.07	1.48	1.41
84	Aa	1486	G	N7-C5	-5.07	1.36	1.39
86	Ab	98	G	N1-C2	5.07	1.41	1.37
1	Ad	941	G	C2'-C1'	-5.07	1.47	1.53
1	Ad	1194	C	O3'-P	-5.07	1.55	1.61
84	Aa	1310	G	C2-N3	5.07	1.36	1.32
86	Ab	48	G	N1-C2	5.07	1.41	1.37
1	Ad	487	A	P-O5'	-5.07	1.54	1.59
1	Ad	1218	U	C2'-C1'	5.06	1.58	1.53
1	Ad	815	A	P-O5'	-5.06	1.54	1.59
1	Ad	489	C	O4'-C1'	5.06	1.48	1.41
1	Ad	89	U	O4'-C1'	5.06	1.48	1.41
1	Ad	897	A	C2'-C1'	5.06	1.58	1.53
1	Ad	917	U	O4'-C1'	5.06	1.48	1.41
86	Ab	26	C	C4-N4	5.06	1.38	1.33
1	Ad	618	C	C2'-C1'	-5.05	1.47	1.53
84	Aa	2515	C	O3'-P	-5.05	1.55	1.61
1	Ad	809	G	C5'-C4'	5.05	1.57	1.51
1	Ad	349	U	C3'-C2'	-5.05	1.47	1.52
86	Ab	32	A	C6-N1	5.05	1.39	1.35
1	Ad	358	C	C2'-C1'	-5.05	1.47	1.53
84	Aa	2622	G	C2-N3	5.05	1.36	1.32

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	247	A	O4'-C1'	-5.04	1.35	1.41
1	Ad	722	A	O3'-P	-5.04	1.55	1.61
86	Ab	91	C	N1-C6	5.04	1.40	1.37
1	Ad	729	C	O4'-C1'	5.04	1.48	1.41
1	Ad	1340	A	C4'-C3'	-5.04	1.47	1.52
86	Ab	79	A	N3-C4	-5.04	1.31	1.34
1	Ad	281	U	C3'-O3'	-5.04	1.35	1.42
1	Ad	1690	U	C4'-O4'	5.04	1.52	1.45
1	Ad	1305	U	C2'-C1'	5.04	1.58	1.53
84	Aa	478	G	C2-N3	5.04	1.36	1.32
84	Aa	3234	G	C2-N3	5.04	1.36	1.32
1	Ad	1526	C	C4'-C3'	5.04	1.58	1.53
84	Aa	75	G	C2-N3	5.03	1.36	1.32
86	Ab	1	G	C2'-C1'	-5.03	1.47	1.53
1	Ad	1439	G	O3'-P	-5.03	1.55	1.61
1	Ad	1791	A	C4'-C3'	5.03	1.58	1.53
84	Aa	423	C	O3'-P	-5.03	1.55	1.61
1	Ad	1651	U	C5'-C4'	5.03	1.57	1.51
1	Ad	256	G	C2'-C1'	-5.03	1.47	1.53
1	Ad	415	C	P-O5'	-5.03	1.54	1.59
1	Ad	581	G	C2'-C1'	-5.03	1.47	1.53
1	Ad	821	G	C5'-C4'	5.03	1.57	1.51
1	Ad	1229	C	C5'-C4'	5.03	1.57	1.51
1	Ad	371	A	O4'-C1'	5.02	1.48	1.41
84	Aa	2109	G	C2-N3	5.02	1.36	1.32
1	Ad	1806	C	C5'-C4'	5.02	1.57	1.51
85	Ac	88	A	N7-C5	-5.02	1.36	1.39
1	Ad	763	A	O3'-P	-5.02	1.55	1.61
1	Ad	866	U	C2'-C1'	-5.01	1.47	1.53
1	Ad	943	G	O3'-P	-5.01	1.55	1.61
1	Ad	1204	G	C4'-C3'	5.01	1.58	1.53
86	Ab	66	G	C6-N1	5.01	1.43	1.39
84	Aa	2604	A	N7-C5	-5.01	1.36	1.39
86	Ab	39	C	C2-O2	5.01	1.28	1.24
1	Ad	1711	G	O4'-C1'	5.01	1.48	1.41
2	Ae	57	A	C4'-C3'	5.01	1.58	1.53
84	Aa	3109	G	C2-N3	5.01	1.36	1.32
84	Aa	1644	A	N7-C5	-5.01	1.36	1.39
84	Aa	3070	G	C2-N3	5.00	1.36	1.32
84	Aa	543	C	P-O5'	-5.00	1.54	1.59
84	Aa	1892	A	N7-C5	-5.00	1.36	1.39
1	Ad	1619	A	C2'-C1'	-5.00	1.47	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
84	Aa	2460	A	N7-C5	-5.00	1.36	1.39

All (12710) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	1005	C	O4'-C1'-N1	31.46	133.37	108.20
1	Ad	1462	C	O4'-C1'-N1	29.23	131.58	108.20
1	Ad	547	C	O4'-C1'-N1	28.96	131.37	108.20
1	Ad	1765	A	O4'-C1'-N9	28.77	131.22	108.20
84	Aa	2162	C	P-O3'-C3'	27.64	152.86	119.70
1	Ad	784	C	O4'-C1'-N1	27.46	130.17	108.20
1	Ad	511	U	O4'-C1'-N1	27.31	130.05	108.20
1	Ad	1580	G	O4'-C1'-N9	27.17	129.94	108.20
1	Ad	1604	C	O4'-C1'-N1	26.94	129.75	108.20
1	Ad	1064	U	O4'-C1'-N1	26.80	129.64	108.20
1	Ad	1368	C	O4'-C1'-N1	25.86	128.88	108.20
1	Ad	787	C	O4'-C1'-N1	25.30	128.44	108.20
1	Ad	67	G	N9-C1'-C2'	25.28	146.87	114.00
1	Ad	384	U	O4'-C1'-N1	24.94	128.15	108.20
1	Ad	1262	U	O4'-C1'-N1	24.71	127.97	108.20
1	Ad	1404	U	O4'-C1'-N1	24.63	127.90	108.20
1	Ad	835	U	O4'-C1'-N1	24.55	127.84	108.20
1	Ad	546	U	O4'-C1'-N1	24.37	127.69	108.20
1	Ad	1408	G	P-O3'-C3'	23.90	148.38	119.70
1	Ad	1622	A	O4'-C1'-N9	23.88	127.30	108.20
1	Ad	282	C	O4'-C1'-N1	23.75	127.20	108.20
1	Ad	1311	U	O4'-C1'-N1	23.61	127.09	108.20
1	Ad	1479	U	O4'-C1'-N1	23.55	127.04	108.20
1	Ad	1066	U	O4'-C1'-N1	23.14	126.71	108.20
2	Ae	73	C	P-O3'-C3'	22.96	147.25	119.70
1	Ad	1511	A	O4'-C1'-N9	22.82	126.45	108.20
1	Ad	869	U	O4'-C1'-N1	22.67	126.34	108.20
1	Ad	801	U	O4'-C1'-N1	22.63	126.31	108.20
1	Ad	1250	C	O4'-C1'-N1	22.52	126.21	108.20
1	Ad	1067	A	O4'-C1'-N9	22.18	125.94	108.20
1	Ad	823	A	P-O3'-C3'	21.59	145.61	119.70
1	Ad	1568	U	O4'-C1'-N1	21.57	125.46	108.20
1	Ad	1522	U	O4'-C1'-N1	21.30	125.24	108.20
1	Ad	325	C	O4'-C1'-N1	21.26	125.20	108.20
2	Ae	72	G	O4'-C1'-N9	21.26	125.20	108.20
1	Ad	1259	G	O4'-C1'-N9	21.24	125.19	108.20
1	Ad	1590	U	O4'-C1'-N1	21.23	125.19	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2502	U	P-O3'-C3'	21.14	145.07	119.70
1	Ad	189	U	O4'-C1'-N1	20.90	124.92	108.20
84	Aa	1957	G	C4'-C3'-O3'	20.90	154.79	113.00
1	Ad	1766	A	O4'-C1'-N9	20.80	124.84	108.20
84	Aa	1559	G	P-O3'-C3'	-20.79	94.76	119.70
84	Aa	2084	G	C4'-C3'-O3'	20.67	154.34	113.00
1	Ad	161	G	O4'-C1'-N9	20.64	124.71	108.20
1	Ad	1350	C	O4'-C1'-N1	20.53	124.63	108.20
84	Aa	641	C	P-O5'-C5'	20.30	153.39	120.90
1	Ad	1162	A	O4'-C1'-N9	20.18	124.34	108.20
1	Ad	1542	G	O4'-C1'-N9	20.15	124.32	108.20
1	Ad	1775	A	O4'-C1'-N9	20.10	124.28	108.20
1	Ad	363	G	O4'-C1'-N9	19.94	124.15	108.20
1	Ad	643	U	O4'-C1'-N1	19.78	124.03	108.20
1	Ad	773	U	O4'-C1'-N1	19.71	123.97	108.20
1	Ad	1531	G	O4'-C1'-N9	19.27	123.61	108.20
1	Ad	780	A	O4'-C1'-N9	19.18	123.55	108.20
1	Ad	456	A	O4'-C1'-N9	19.14	123.52	108.20
84	Aa	570	G	P-O3'-C3'	19.09	142.61	119.70
1	Ad	800	U	O4'-C1'-N1	19.07	123.46	108.20
1	Ad	457	C	N1-C1'-C2'	19.00	138.69	114.00
84	Aa	3182	A	P-O3'-C3'	18.92	142.41	119.70
1	Ad	861	A	O4'-C1'-C2'	-18.79	87.01	105.80
1	Ad	202	C	P-O3'-C3'	18.75	142.20	119.70
1	Ad	137	A	O4'-C1'-N9	18.72	123.17	108.20
84	Aa	1747	A	N1-C6-N6	18.69	129.82	118.60
1	Ad	76	U	P-O3'-C3'	18.55	141.96	119.70
1	Ad	1248	A	O4'-C1'-N9	18.43	122.94	108.20
1	Ad	1501	G	O4'-C1'-N9	18.23	122.78	108.20
1	Ad	1420	U	O4'-C1'-N1	18.12	122.69	108.20
1	Ad	1771	U	O4'-C1'-N1	18.08	122.67	108.20
1	Ad	585	U	O4'-C1'-N1	18.06	122.64	108.20
1	Ad	179	A	O4'-C1'-N9	-18.04	93.77	108.20
84	Aa	1576	C	P-O3'-C3'	17.78	141.03	119.70
1	Ad	1057	U	O4'-C1'-N1	17.68	122.34	108.20
84	Aa	2384	G	P-O3'-C3'	17.67	140.90	119.70
84	Aa	2216	G	N1-C6-O6	17.51	130.41	119.90
84	Aa	434	C	P-O3'-C3'	17.46	140.65	119.70
1	Ad	1802	G	O4'-C1'-N9	17.42	122.14	108.20
1	Ad	391	A	O4'-C1'-N9	17.35	122.08	108.20
1	Ad	939	C	O4'-C1'-N1	17.34	122.07	108.20
1	Ad	828	G	O4'-C1'-N9	17.19	121.95	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	1567	G	O4'-C1'-N9	17.19	121.95	108.20
1	Ad	1496	A	O4'-C1'-N9	17.17	121.93	108.20
1	Ad	133	U	P-O3'-C3'	17.14	140.27	119.70
1	Ad	1309	U	O4'-C1'-N1	17.03	121.83	108.20
84	Aa	1950	G	P-O3'-C3'	16.98	140.07	119.70
1	Ad	821	G	N9-C1'-C2'	16.94	136.03	114.00
84	Aa	1263	A	N1-C6-N6	16.88	128.73	118.60
84	Aa	2086	A	O5'-P-OP1	16.79	130.85	110.70
84	Aa	506	U	P-O3'-C3'	16.76	139.82	119.70
84	Aa	2216	G	C5-C6-O6	-16.73	118.56	128.60
1	Ad	1086	A	P-O3'-C3'	16.73	139.77	119.70
1	Ad	1497	U	O4'-C1'-N1	16.69	121.56	108.20
84	Aa	423	C	P-O3'-C3'	16.66	139.69	119.70
1	Ad	394	G	O4'-C1'-N9	16.59	121.47	108.20
1	Ad	1203	G	O4'-C1'-N9	16.49	121.39	108.20
1	Ad	280	U	P-O3'-C3'	-16.48	99.92	119.70
84	Aa	158	A	P-O3'-C3'	16.41	139.39	119.70
1	Ad	396	G	O4'-C1'-N9	16.38	121.31	108.20
86	Ab	16	A	N1-C6-N6	16.37	128.42	118.60
1	Ad	1592	G	O4'-C1'-N9	16.36	121.28	108.20
1	Ad	1203	G	C1'-O4'-C4'	16.35	122.98	109.90
1	Ad	1353	G	P-O3'-C3'	16.33	139.30	119.70
1	Ad	906	G	O4'-C1'-N9	16.33	121.26	108.20
1	Ad	1619	A	O4'-C1'-N9	16.32	121.26	108.20
1	Ad	732	G	O4'-C1'-N9	16.26	121.21	108.20
1	Ad	1498	A	O4'-C1'-N9	16.20	121.16	108.20
1	Ad	1623	C	P-O3'-C3'	16.16	139.09	119.70
1	Ad	1405	U	O4'-C1'-N1	16.08	121.06	108.20
1	Ad	730	G	O4'-C1'-N9	16.00	121.00	108.20
86	Ab	115	A	N1-C6-N6	15.98	128.19	118.60
86	Ab	80	A	N1-C6-N6	15.96	128.18	118.60
84	Aa	144	A	N1-C6-N6	15.89	128.14	118.60
84	Aa	1019	A	N1-C6-N6	15.88	128.13	118.60
86	Ab	19	A	N1-C6-N6	15.84	128.11	118.60
86	Ab	31	G	N1-C6-O6	15.83	129.40	119.90
84	Aa	1726	G	P-O3'-C3'	15.73	138.58	119.70
1	Ad	83	U	O4'-C1'-N1	15.62	120.70	108.20
1	Ad	139	U	O4'-C1'-N1	15.62	120.69	108.20
1	Ad	1149	U	O4'-C1'-N1	15.59	120.67	108.20
1	Ad	1245	G	O4'-C1'-N9	15.52	120.62	108.20
1	Ad	800	U	P-O3'-C3'	15.47	138.27	119.70
1	Ad	458	A	O4'-C1'-N9	15.46	120.57	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1487	A	P-O3'-C3'	15.45	138.25	119.70
84	Aa	3153	U	P-O3'-C3'	15.41	138.19	119.70
1	Ad	444	U	O4'-C1'-N1	15.39	120.52	108.20
1	Ad	1205	G	O4'-C1'-N9	15.39	120.51	108.20
1	Ad	1220	C	P-O3'-C3'	15.35	138.12	119.70
1	Ad	792	U	O4'-C1'-N1	15.35	120.48	108.20
86	Ab	55	A	N1-C6-N6	15.35	127.81	118.60
84	Aa	2152	A	P-O3'-C3'	15.34	138.11	119.70
3	Af	12	A	O4'-C1'-N9	15.21	120.36	108.20
84	Aa	2167	G	C5-C6-O6	-15.19	119.48	128.60
84	Aa	571	G	P-O3'-C3'	15.18	137.91	119.70
84	Aa	2178	G	C4'-C3'-O3'	-15.15	77.58	109.40
84	Aa	3182	A	O4'-C1'-N9	15.14	120.31	108.20
1	Ad	707	C	O4'-C1'-N1	15.12	120.30	108.20
1	Ad	860	A	O4'-C1'-N9	15.12	120.30	108.20
1	Ad	344	U	O4'-C1'-N1	15.09	120.27	108.20
84	Aa	939	A	N1-C6-N6	15.05	127.63	118.60
84	Aa	2085	A	P-O5'-C5'	15.02	144.94	120.90
2	Ae	58	U	O4'-C1'-N1	15.01	120.21	108.20
1	Ad	1102	U	O4'-C1'-N1	15.00	120.20	108.20
86	Ab	79	A	C5-C6-N1	-14.95	110.22	117.70
1	Ad	845	C	P-O3'-C3'	14.92	137.61	119.70
84	Aa	1308	A	N1-C6-N6	14.92	127.55	118.60
84	Aa	1811	U	P-O3'-C3'	14.90	137.58	119.70
84	Aa	2086	A	O5'-P-OP2	-14.89	92.30	105.70
1	Ad	208	U	P-O3'-C3'	14.89	137.56	119.70
1	Ad	559	A	P-O3'-C3'	14.88	137.56	119.70
1	Ad	156	U	O4'-C1'-N1	14.87	120.10	108.20
84	Aa	1322	A	N1-C6-N6	14.87	127.52	118.60
86	Ab	43	A	N1-C6-N6	14.87	127.52	118.60
1	Ad	1344	U	O4'-C1'-N1	14.84	120.07	108.20
84	Aa	2100	A	P-O3'-C3'	14.78	137.43	119.70
1	Ad	1019	G	O4'-C1'-N9	14.77	120.02	108.20
1	Ad	80	C	P-O3'-C3'	14.77	137.42	119.70
2	Ae	12	U	O4'-C1'-N1	14.77	120.01	108.20
1	Ad	1226	U	O4'-C1'-N1	14.77	120.01	108.20
84	Aa	2086	A	C2'-C3'-O3'	14.70	141.84	109.50
1	Ad	1377	G	O4'-C1'-N9	14.69	119.95	108.20
1	Ad	1044	A	O4'-C1'-N9	14.66	119.93	108.20
84	Aa	2708	A	N1-C6-N6	14.65	127.39	118.60
1	Ad	261	C	N1-C1'-C2'	14.64	133.03	114.00
84	Aa	1057	A	N1-C6-N6	14.62	127.37	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1796	A	N1-C6-N6	14.60	127.36	118.60
85	Ac	71	A	N1-C6-N6	14.56	127.34	118.60
84	Aa	1526	A	N1-C6-N6	14.56	127.33	118.60
1	Ad	516	A	P-O3'-C3'	14.55	137.16	119.70
84	Aa	563	C	P-O3'-C3'	14.54	137.14	119.70
1	Ad	372	U	O4'-C1'-N1	14.53	119.83	108.20
84	Aa	3221	A	P-O3'-C3'	14.51	137.11	119.70
1	Ad	215	A	P-O3'-C3'	14.49	137.09	119.70
84	Aa	64	A	N1-C6-N6	14.48	127.29	118.60
84	Aa	51	A	N1-C6-N6	14.45	127.27	118.60
1	Ad	828	G	P-O3'-C3'	14.43	137.02	119.70
1	Ad	1675	G	O4'-C1'-N9	14.41	119.73	108.20
1	Ad	1492	G	O4'-C1'-N9	14.40	119.72	108.20
1	Ad	1169	G	O4'-C1'-N9	14.37	119.70	108.20
86	Ab	79	A	N1-C6-N6	14.37	127.22	118.60
84	Aa	2072	U	P-O3'-C3'	14.36	136.93	119.70
84	Aa	349	A	N1-C6-N6	14.35	127.21	118.60
1	Ad	1206	A	N9-C1'-C2'	14.34	132.64	114.00
1	Ad	843	G	C3'-C2'-C1'	14.32	112.96	101.50
1	Ad	131	C	P-O3'-C3'	14.30	136.86	119.70
84	Aa	3308	A	P-O3'-C3'	14.28	136.84	119.70
86	Ab	42	A	N1-C6-N6	14.27	127.16	118.60
1	Ad	707	C	C1'-O4'-C4'	14.27	121.31	109.90
84	Aa	2286	A	N1-C6-N6	14.27	127.16	118.60
1	Ad	1504	U	O4'-C1'-N1	14.26	119.61	108.20
1	Ad	1694	G	O4'-C1'-N9	14.25	119.60	108.20
84	Aa	3001	G	O4'-C1'-N9	14.24	119.59	108.20
84	Aa	2461	A	P-O3'-C3'	14.20	136.74	119.70
86	Ab	50	A	N1-C6-N6	14.19	127.11	118.60
1	Ad	851	G	O4'-C1'-N9	14.19	119.55	108.20
84	Aa	587	A	N1-C6-N6	14.19	127.11	118.60
84	Aa	2494	A	N1-C6-N6	14.18	127.11	118.60
84	Aa	2932	A	N1-C6-N6	14.14	127.08	118.60
84	Aa	1146	A	N1-C6-N6	14.10	127.06	118.60
1	Ad	1371	U	O4'-C1'-N1	14.09	119.47	108.20
84	Aa	716	A	N1-C6-N6	14.07	127.04	118.60
84	Aa	2053	A	P-O3'-C3'	14.06	136.57	119.70
84	Aa	849	A	N1-C6-N6	14.05	127.03	118.60
1	Ad	215	A	O4'-C1'-N9	14.05	119.44	108.20
1	Ad	150	U	O4'-C1'-N1	14.04	119.43	108.20
86	Ab	47	C	P-O3'-C3'	14.04	136.54	119.70
1	Ad	1421	U	O4'-C1'-N1	14.03	119.43	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	87	A	C1'-O4'-C4'	14.03	121.12	109.90
1	Ad	786	U	O4'-C1'-N1	14.03	119.42	108.20
84	Aa	3175	C	P-O3'-C3'	14.03	136.54	119.70
1	Ad	501	U	P-O3'-C3'	14.02	136.53	119.70
84	Aa	168	A	N1-C6-N6	14.02	127.01	118.60
1	Ad	349	U	O4'-C1'-N1	14.01	119.41	108.20
1	Ad	1621	U	O4'-C1'-N1	14.00	119.40	108.20
1	Ad	63	G	O4'-C1'-N9	14.00	119.40	108.20
1	Ad	1440	U	O4'-C1'-N1	14.00	119.40	108.20
1	Ad	502	G	P-O3'-C3'	13.98	136.47	119.70
84	Aa	2167	G	N1-C6-O6	13.97	128.28	119.90
84	Aa	3025	A	N1-C6-N6	13.93	126.96	118.60
84	Aa	1088	A	N1-C6-N6	13.93	126.96	118.60
84	Aa	488	U	P-O3'-C3'	13.92	136.40	119.70
1	Ad	1643	A	O4'-C1'-N9	13.91	119.33	108.20
84	Aa	2528	U	P-O3'-C3'	13.90	136.38	119.70
1	Ad	1464	G	N9-C1'-C2'	13.89	132.06	114.00
84	Aa	1812	A	P-O3'-C3'	13.88	136.36	119.70
1	Ad	884	G	O4'-C1'-N9	13.87	119.30	108.20
84	Aa	2143	A	N1-C6-N6	13.86	126.92	118.60
84	Aa	2311	A	N1-C6-N6	13.84	126.90	118.60
84	Aa	159	G	N1-C6-O6	13.80	128.18	119.90
1	Ad	1807	A	O4'-C1'-N9	13.80	119.24	108.20
84	Aa	1136	A	N1-C6-N6	13.79	126.88	118.60
1	Ad	1550	G	O4'-C1'-N9	13.78	119.22	108.20
84	Aa	2646	A	N1-C6-N6	13.78	126.87	118.60
84	Aa	686	A	N1-C6-N6	13.77	126.86	118.60
1	Ad	562	U	O4'-C1'-N1	13.77	119.21	108.20
1	Ad	744	G	O4'-C1'-N9	13.72	119.18	108.20
84	Aa	1694	A	N1-C6-N6	13.71	126.83	118.60
1	Ad	1101	C	O4'-C1'-N1	13.70	119.16	108.20
1	Ad	1387	U	O4'-C1'-N1	13.67	119.13	108.20
1	Ad	1810	G	C3'-C2'-C1'	13.67	112.43	101.50
1	Ad	79	A	O4'-C1'-N9	13.66	119.13	108.20
84	Aa	525	A	N1-C6-N6	13.66	126.79	118.60
84	Aa	1538	A	N1-C6-N6	13.66	126.79	118.60
86	Ab	11	A	N1-C6-N6	13.65	126.79	118.60
1	Ad	722	A	P-O3'-C3'	13.64	136.07	119.70
84	Aa	657	A	N1-C6-N6	13.64	126.78	118.60
1	Ad	1583	G	O4'-C1'-N9	13.64	119.11	108.20
1	Ad	1763	A	O4'-C1'-N9	13.61	119.09	108.20
86	Ab	3	A	N1-C6-N6	13.60	126.76	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2237	A	N1-C6-N6	13.59	126.75	118.60
84	Aa	2165	A	N1-C6-N6	13.58	126.75	118.60
84	Aa	304	A	N1-C6-N6	13.57	126.74	118.60
84	Aa	2142	A	N1-C6-N6	13.57	126.74	118.60
84	Aa	1463	A	N1-C6-N6	13.55	126.73	118.60
36	BH	117	ARG	NE-CZ-NH1	-13.55	113.53	120.30
1	Ad	139	U	P-O3'-C3'	13.55	135.96	119.70
84	Aa	2177	U	C4'-C3'-O3'	-13.52	81.01	109.40
85	Ac	85	G	P-O3'-C3'	13.52	135.92	119.70
1	Ad	1655	U	O4'-C1'-N1	13.51	119.00	108.20
84	Aa	119	A	N1-C6-N6	13.51	126.70	118.60
84	Aa	1644	A	N1-C6-N6	13.49	126.69	118.60
1	Ad	815	A	P-O3'-C3'	13.49	135.88	119.70
1	Ad	918	G	P-O3'-C3'	13.48	135.88	119.70
1	Ad	1343	C	P-O3'-C3'	13.48	135.88	119.70
1	Ad	29	U	O4'-C1'-N1	13.47	118.98	108.20
84	Aa	3057	A	N1-C6-N6	13.47	126.69	118.60
84	Aa	3211	C	P-O3'-C3'	13.46	135.86	119.70
84	Aa	3143	A	N1-C6-N6	13.46	126.68	118.60
1	Ad	185	G	P-O3'-C3'	13.46	135.85	119.70
1	Ad	336	U	O4'-C1'-N1	13.44	118.95	108.20
1	Ad	999	G	C1'-O4'-C4'	-13.43	99.15	109.90
84	Aa	3220	A	N1-C6-N6	13.43	126.66	118.60
84	Aa	1344	A	N1-C6-N6	13.42	126.65	118.60
1	Ad	461	G	O4'-C1'-N9	13.41	118.93	108.20
84	Aa	50	A	N1-C6-N6	13.41	126.65	118.60
84	Aa	540	G	N1-C6-O6	13.40	127.94	119.90
84	Aa	2751	A	N1-C6-N6	13.37	126.62	118.60
1	Ad	276	G	O4'-C1'-N9	13.37	118.89	108.20
84	Aa	920	A	N1-C6-N6	13.36	126.61	118.60
1	Ad	1162	A	P-O3'-C3'	13.35	135.72	119.70
86	Ab	68	G	N1-C6-O6	13.35	127.91	119.90
84	Aa	2313	U	P-O3'-C3'	13.34	135.71	119.70
84	Aa	2905	A	N1-C6-N6	13.33	126.60	118.60
84	Aa	1456	A	N1-C6-N6	13.31	126.58	118.60
84	Aa	1855	A	N1-C6-N6	13.30	126.58	118.60
84	Aa	73	A	N1-C6-N6	13.29	126.57	118.60
2	Ae	73	C	N1-C1'-C2'	13.28	131.27	114.00
1	Ad	145	A	O4'-C1'-N9	13.28	118.82	108.20
84	Aa	353	A	N1-C6-N6	13.28	126.57	118.60
1	Ad	1183	G	O4'-C1'-N9	13.27	118.82	108.20
84	Aa	747	A	N1-C6-N6	13.27	126.56	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2948	A	N1-C6-N6	13.27	126.56	118.60
84	Aa	3315	A	N1-C6-N6	13.26	126.55	118.60
84	Aa	1490	A	N1-C6-N6	13.25	126.55	118.60
84	Aa	454	A	N1-C6-N6	13.25	126.55	118.60
1	Ad	1367	U	O4'-C1'-N1	13.24	118.79	108.20
84	Aa	3351	A	N1-C6-N6	13.23	126.54	118.60
1	Ad	930	G	O4'-C1'-N9	13.22	118.78	108.20
84	Aa	2503	A	P-O3'-C3'	13.21	135.55	119.70
84	Aa	217	A	N1-C6-N6	13.21	126.53	118.60
84	Aa	2504	A	P-O3'-C3'	13.21	135.55	119.70
84	Aa	3012	A	N1-C6-N6	13.21	126.52	118.60
84	Aa	2483	A	N1-C6-N6	13.21	126.52	118.60
84	Aa	2125	A	N1-C6-N6	13.20	126.52	118.60
1	Ad	167	A	O4'-C1'-N9	13.19	118.75	108.20
84	Aa	2996	A	N1-C6-N6	13.19	126.51	118.60
1	Ad	1581	A	P-O3'-C3'	13.19	135.52	119.70
1	Ad	32	U	O4'-C1'-N1	13.18	118.75	108.20
84	Aa	1501	A	N1-C6-N6	13.18	126.51	118.60
84	Aa	2513	U	C5'-C4'-C3'	-13.18	94.92	116.00
84	Aa	2849	A	N1-C6-N6	13.17	126.50	118.60
1	Ad	723	A	O4'-C1'-N9	13.16	118.73	108.20
84	Aa	1704	A	N1-C6-N6	13.15	126.49	118.60
84	Aa	332	A	N1-C6-N6	13.15	126.49	118.60
1	Ad	634	A	O4'-C1'-N9	13.13	118.70	108.20
84	Aa	2898	A	N1-C6-N6	13.13	126.48	118.60
84	Aa	830	A	N1-C6-N6	13.12	126.47	118.60
1	Ad	2	A	O4'-C1'-N9	13.11	118.69	108.20
84	Aa	774	A	N1-C6-N6	13.10	126.46	118.60
85	Ac	52	A	N1-C6-N6	13.09	126.46	118.60
1	Ad	1134	U	O4'-C1'-N1	13.09	118.67	108.20
1	Ad	235	C	O4'-C1'-C2'	-13.09	92.72	105.80
84	Aa	1334	A	N1-C6-N6	13.07	126.44	118.60
84	Aa	1224	A	N1-C6-N6	13.03	126.42	118.60
84	Aa	3113	G	N1-C6-O6	13.03	127.72	119.90
85	Ac	12	A	N1-C6-N6	13.00	126.40	118.60
84	Aa	2989	A	N1-C6-N6	13.00	126.40	118.60
84	Aa	2331	A	N1-C6-N6	13.00	126.40	118.60
84	Aa	3136	A	N1-C6-N6	13.00	126.40	118.60
84	Aa	1838	A	N1-C6-N6	12.99	126.39	118.60
84	Aa	2351	A	N1-C6-N6	12.98	126.39	118.60
84	Aa	1123	A	N1-C6-N6	12.98	126.39	118.60
1	Ad	1254	U	P-O3'-C3'	12.96	135.25	119.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1195	C	P-O3'-C3'	12.96	135.25	119.70
84	Aa	2788	A	N1-C6-N6	12.96	126.37	118.60
84	Aa	1061	A	N1-C6-N6	12.95	126.37	118.60
84	Aa	2538	G	P-O3'-C3'	12.95	135.23	119.70
1	Ad	1376	A	O4'-C1'-N9	12.94	118.56	108.20
2	Ae	47	U	O4'-C1'-N1	12.94	118.55	108.20
84	Aa	723	G	O4'-C1'-N9	12.94	118.55	108.20
84	Aa	156	A	N1-C6-N6	12.93	126.36	118.60
84	Aa	2984	A	N1-C6-N6	12.93	126.36	118.60
84	Aa	2098	A	N1-C6-N6	12.92	126.35	118.60
1	Ad	486	U	O4'-C1'-N1	12.91	118.53	108.20
84	Aa	1367	A	N1-C6-N6	12.91	126.35	118.60
84	Aa	573	A	N1-C6-N6	12.91	126.35	118.60
84	Aa	1274	A	N1-C6-N6	12.91	126.34	118.60
84	Aa	3382	A	N1-C6-N6	12.90	126.34	118.60
84	Aa	2810	A	N1-C6-N6	12.90	126.34	118.60
84	Aa	2943	A	N1-C6-N6	12.90	126.34	118.60
84	Aa	697	A	N1-C6-N6	12.89	126.34	118.60
84	Aa	3336	A	N1-C6-N6	12.89	126.33	118.60
84	Aa	672	A	N1-C6-N6	12.87	126.32	118.60
2	Ae	55	C	N1-C1'-C2'	12.87	130.74	114.00
1	Ad	788	G	P-O3'-C3'	12.87	135.15	119.70
1	Ad	379	U	O4'-C1'-N1	12.87	118.49	108.20
84	Aa	2171	A	N1-C6-N6	12.86	126.31	118.60
84	Aa	294	A	N1-C6-N6	12.85	126.31	118.60
84	Aa	2679	A	N1-C6-N6	12.85	126.31	118.60
1	Ad	404	A	O4'-C1'-N9	12.83	118.46	108.20
84	Aa	2561	A	N1-C6-N6	12.81	126.29	118.60
84	Aa	2372	A	N1-C6-N6	12.81	126.28	118.60
1	Ad	1241	G	O4'-C1'-N9	12.80	118.44	108.20
84	Aa	1819	A	N1-C6-N6	12.80	126.28	118.60
84	Aa	2640	A	N1-C6-N6	12.80	126.28	118.60
1	Ad	1406	U	O4'-C1'-N1	12.80	118.44	108.20
1	Ad	557	G	O4'-C1'-N9	12.80	118.44	108.20
84	Aa	499	A	P-O3'-C3'	12.80	135.06	119.70
84	Aa	1727	A	P-O3'-C3'	12.79	135.05	119.70
84	Aa	1843	A	N1-C6-N6	12.79	126.28	118.60
84	Aa	1904	A	N1-C6-N6	12.79	126.27	118.60
84	Aa	2787	A	N1-C6-N6	12.79	126.27	118.60
1	Ad	1460	G	O4'-C1'-N9	12.78	118.42	108.20
1	Ad	1248	A	P-O3'-C3'	12.78	135.03	119.70
84	Aa	1225	A	N1-C6-N6	12.77	126.26	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2139	A	N1-C6-N6	12.77	126.26	118.60
84	Aa	3271	A	N1-C6-N6	12.77	126.26	118.60
84	Aa	56	A	N1-C6-N6	12.77	126.26	118.60
84	Aa	262	A	N1-C6-N6	12.77	126.26	118.60
84	Aa	1349	G	N1-C6-O6	12.76	127.56	119.90
84	Aa	385	A	N1-C6-N6	12.76	126.25	118.60
1	Ad	219	G	O4'-C1'-N9	12.75	118.40	108.20
84	Aa	121	A	N1-C6-N6	12.74	126.25	118.60
84	Aa	3041	A	N1-C6-N6	12.74	126.24	118.60
86	Ab	77	A	N1-C6-N6	12.74	126.24	118.60
1	Ad	1203	G	N9-C1'-C2'	-12.73	97.44	114.00
84	Aa	982	U	P-O3'-C3'	12.73	134.98	119.70
1	Ad	1689	A	O4'-C1'-N9	12.73	118.38	108.20
84	Aa	1114	A	N1-C6-N6	12.73	126.24	118.60
84	Aa	426	A	N1-C6-N6	12.73	126.24	118.60
1	Ad	1659	A	O4'-C1'-N9	12.72	118.38	108.20
84	Aa	39	A	N1-C6-N6	12.72	126.23	118.60
84	Aa	1918	A	N1-C6-N6	12.71	126.23	118.60
1	Ad	1688	G	O4'-C1'-N9	12.71	118.37	108.20
84	Aa	1221	A	N1-C6-N6	12.71	126.22	118.60
1	Ad	761	A	P-O3'-C3'	12.71	134.95	119.70
84	Aa	3045	A	N1-C6-N6	12.70	126.22	118.60
84	Aa	2396	A	N1-C6-N6	12.70	126.22	118.60
84	Aa	3358	A	N1-C6-N6	12.70	126.22	118.60
84	Aa	2562	A	N1-C6-N6	12.69	126.21	118.60
84	Aa	2385	A	N1-C6-N6	12.68	126.21	118.60
1	Ad	176	A	O4'-C1'-N9	12.68	118.34	108.20
85	Ac	157	A	N1-C6-N6	12.68	126.20	118.60
84	Aa	792	A	N1-C6-N6	12.67	126.20	118.60
84	Aa	886	A	N1-C6-N6	12.67	126.20	118.60
84	Aa	3113	G	C5-C6-O6	-12.67	121.00	128.60
85	Ac	126	A	N1-C6-N6	12.67	126.20	118.60
84	Aa	929	A	N1-C6-N6	12.66	126.20	118.60
84	Aa	2074	C	P-O3'-C3'	12.66	134.90	119.70
84	Aa	2512	U	C2'-C3'-O3'	12.66	137.35	109.50
2	Ae	28	G	C1'-O4'-C4'	-12.64	99.78	109.90
85	Ac	41	A	N1-C6-N6	12.64	126.19	118.60
84	Aa	3177	A	N1-C6-N6	12.63	126.18	118.60
1	Ad	878	U	O4'-C1'-N1	12.63	118.30	108.20
86	Ab	99	G	N1-C6-O6	12.62	127.47	119.90
84	Aa	395	A	N1-C6-N6	12.62	126.17	118.60
84	Aa	2491	A	N1-C6-N6	12.62	126.17	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2969	A	N1-C6-N6	12.61	126.17	118.60
84	Aa	3049	A	N1-C6-N6	12.61	126.17	118.60
1	Ad	1753	U	O4'-C1'-N1	12.61	118.29	108.20
84	Aa	1282	A	N1-C6-N6	12.61	126.16	118.60
84	Aa	322	A	N1-C6-N6	12.60	126.16	118.60
85	Ac	33	A	N1-C6-N6	12.60	126.16	118.60
84	Aa	2357	A	N1-C6-N6	12.59	126.16	118.60
1	Ad	635	G	O4'-C1'-N9	12.59	118.27	108.20
84	Aa	2439	A	N1-C6-N6	12.59	126.16	118.60
84	Aa	1024	G	N1-C6-O6	12.58	127.45	119.90
1	Ad	300	U	O4'-C1'-N1	12.58	118.26	108.20
84	Aa	2993	A	N1-C6-N6	12.58	126.14	118.60
84	Aa	2805	A	N1-C6-N6	12.57	126.14	118.60
84	Aa	2294	A	N1-C6-N6	12.57	126.14	118.60
84	Aa	3306	A	N1-C6-N6	12.57	126.14	118.60
84	Aa	481	G	P-O3'-C3'	12.56	134.78	119.70
84	Aa	1153	A	N1-C6-N6	12.56	126.14	118.60
84	Aa	1753	A	N1-C6-N6	12.56	126.14	118.60
84	Aa	1359	A	N1-C6-N6	12.56	126.14	118.60
84	Aa	586	A	N1-C6-N6	12.55	126.13	118.60
1	Ad	1041	A	O4'-C1'-N9	12.55	118.24	108.20
84	Aa	2645	A	N1-C6-N6	12.54	126.12	118.60
84	Aa	499	A	N1-C6-N6	12.53	126.11	118.60
84	Aa	1000	A	N1-C6-N6	12.53	126.12	118.60
84	Aa	1438	A	N1-C6-N6	12.53	126.12	118.60
84	Aa	1336	A	N1-C6-N6	12.52	126.11	118.60
84	Aa	2904	A	N1-C6-N6	12.52	126.11	118.60
84	Aa	1927	A	N1-C6-N6	12.52	126.11	118.60
84	Aa	1590	A	N1-C6-N6	12.51	126.11	118.60
84	Aa	65	A	N1-C6-N6	12.50	126.10	118.60
1	Ad	1014	U	O4'-C1'-N1	12.49	118.19	108.20
84	Aa	811	A	N1-C6-N6	12.49	126.09	118.60
84	Aa	1013	A	N1-C6-N6	12.49	126.09	118.60
84	Aa	2638	A	N1-C6-N6	12.49	126.09	118.60
84	Aa	3114	A	N1-C6-N6	12.49	126.09	118.60
84	Aa	99	A	N1-C6-N6	12.48	126.09	118.60
84	Aa	1640	A	N1-C6-N6	12.48	126.09	118.60
84	Aa	1398	A	N1-C6-N6	12.48	126.09	118.60
2	Ae	74	C	C1'-O4'-C4'	12.47	119.88	109.90
84	Aa	2356	A	N1-C6-N6	12.47	126.08	118.60
85	Ac	40	A	N1-C6-N6	12.47	126.08	118.60
84	Aa	887	A	N1-C6-N6	12.47	126.08	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	159	G	C5-C6-O6	-12.47	121.12	128.60
84	Aa	33	A	N1-C6-N6	12.46	126.08	118.60
84	Aa	721	A	N1-C6-N6	12.46	126.08	118.60
84	Aa	2630	A	N1-C6-N6	12.46	126.08	118.60
84	Aa	1002	A	N1-C6-N6	12.46	126.07	118.60
84	Aa	526	A	P-O5'-C5'	12.45	140.82	120.90
84	Aa	3092	A	N1-C6-N6	12.45	126.07	118.60
84	Aa	2958	A	N1-C6-N6	12.45	126.07	118.60
84	Aa	1929	A	N1-C6-N6	12.44	126.06	118.60
1	Ad	891	U	O4'-C1'-N1	12.44	118.15	108.20
1	Ad	45	U	C3'-C2'-C1'	12.44	111.45	101.50
1	Ad	845	C	C1'-O4'-C4'	12.44	119.85	109.90
84	Aa	2014	A	N1-C6-N6	12.44	126.06	118.60
84	Aa	2482	A	N1-C6-N6	12.43	126.06	118.60
84	Aa	746	C	O4'-C1'-N1	12.43	118.14	108.20
84	Aa	1831	A	N1-C6-N6	12.42	126.05	118.60
1	Ad	583	A	O4'-C1'-N9	12.42	118.14	108.20
84	Aa	3148	A	N1-C6-N6	12.42	126.05	118.60
84	Aa	2214	A	N1-C6-N6	12.41	126.05	118.60
84	Aa	3221	A	N1-C6-N6	12.41	126.05	118.60
1	Ad	190	C	P-O3'-C3'	12.41	134.59	119.70
84	Aa	879	A	N1-C6-N6	12.41	126.05	118.60
84	Aa	1932	A	N1-C6-N6	12.41	126.05	118.60
1	Ad	197	G	O4'-C1'-N9	12.40	118.12	108.20
84	Aa	985	C	P-O3'-C3'	12.40	134.58	119.70
86	Ab	112	U	O4'-C1'-N1	12.40	118.12	108.20
84	Aa	705	A	N1-C6-N6	12.40	126.04	118.60
1	Ad	986	U	O4'-C1'-N1	12.39	118.11	108.20
84	Aa	1040	A	N1-C6-N6	12.39	126.04	118.60
84	Aa	2912	A	N1-C6-N6	12.39	126.04	118.60
84	Aa	1157	A	N1-C6-N6	12.39	126.03	118.60
84	Aa	3201	A	N1-C6-N6	12.39	126.03	118.60
84	Aa	2695	A	N1-C6-N6	12.38	126.03	118.60
84	Aa	61	A	N1-C6-N6	12.38	126.03	118.60
84	Aa	3104	A	N1-C6-N6	12.38	126.03	118.60
1	Ad	1100	U	O4'-C1'-N1	12.38	118.10	108.20
84	Aa	1232	A	N1-C6-N6	12.37	126.02	118.60
84	Aa	1494	A	N1-C6-N6	12.37	126.02	118.60
84	Aa	2935	A	N1-C6-N6	12.36	126.02	118.60
1	Ad	1690	U	O4'-C1'-N1	12.36	118.09	108.20
84	Aa	2276	A	N1-C6-N6	12.36	126.02	118.60
84	Aa	487	C	P-O3'-C3'	12.35	134.53	119.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
86	Ab	49	A	N1-C6-N6	12.35	126.01	118.60
84	Aa	2344	A	N1-C6-N6	12.35	126.01	118.60
84	Aa	2397	A	N1-C6-N6	12.35	126.01	118.60
84	Aa	1731	A	N1-C6-N6	12.35	126.01	118.60
86	Ab	110	G	N1-C6-O6	12.35	127.31	119.90
85	Ac	54	A	N1-C6-N6	12.34	126.00	118.60
85	Ac	110	A	N1-C6-N6	12.34	126.00	118.60
84	Aa	2101	A	N1-C6-N6	12.33	126.00	118.60
84	Aa	639	A	N1-C6-N6	12.33	126.00	118.60
84	Aa	2889	A	N1-C6-N6	12.33	126.00	118.60
84	Aa	216	G	C5-C6-O6	-12.32	121.21	128.60
84	Aa	846	A	N1-C6-N6	12.32	125.99	118.60
2	Ae	37	G	P-O3'-C3'	12.32	134.48	119.70
1	Ad	315	U	O4'-C1'-N1	12.31	118.05	108.20
84	Aa	373	A	N1-C6-N6	12.31	125.99	118.60
84	Aa	2400	A	N1-C6-N6	12.31	125.99	118.60
84	Aa	393	A	N1-C6-N6	12.31	125.99	118.60
84	Aa	1512	A	N1-C6-N6	12.31	125.99	118.60
84	Aa	1097	A	N1-C6-N6	12.31	125.98	118.60
84	Aa	2670	A	N1-C6-N6	12.31	125.98	118.60
2	Ae	36	C	N1-C1'-C2'	12.30	130.00	114.00
84	Aa	2503	A	N1-C6-N6	12.30	125.98	118.60
1	Ad	383	U	O4'-C1'-N1	12.30	118.04	108.20
84	Aa	2389	A	N1-C6-N6	12.30	125.98	118.60
84	Aa	282	A	N1-C6-N6	12.30	125.98	118.60
84	Aa	2730	A	N1-C6-N6	12.29	125.98	118.60
2	Ae	50	G	O4'-C1'-N9	12.29	118.03	108.20
84	Aa	2223	A	N1-C6-N6	12.29	125.98	118.60
84	Aa	1651	A	N1-C6-N6	12.28	125.97	118.60
86	Ab	81	G	N1-C6-O6	12.28	127.27	119.90
84	Aa	2217	A	N1-C6-N6	12.27	125.96	118.60
1	Ad	331	U	O4'-C1'-N1	12.27	118.02	108.20
1	Ad	1537	U	O4'-C1'-N1	12.27	118.02	108.20
84	Aa	6	A	N1-C6-N6	12.27	125.96	118.60
84	Aa	661	A	N1-C6-N6	12.27	125.96	118.60
84	Aa	118	G	N1-C6-O6	12.27	127.26	119.90
84	Aa	1106	G	P-O3'-C3'	12.27	134.42	119.70
84	Aa	196	A	N1-C6-N6	12.26	125.96	118.60
1	Ad	842	G	O4'-C1'-N9	12.26	118.00	108.20
84	Aa	1370	A	N1-C6-N6	12.26	125.95	118.60
84	Aa	2210	A	N1-C6-N6	12.25	125.95	118.60
84	Aa	2724	A	N1-C6-N6	12.25	125.95	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	778	G	O4'-C1'-N9	12.24	118.00	108.20
84	Aa	2138	A	N1-C6-N6	12.24	125.95	118.60
84	Aa	1928	A	N1-C6-N6	12.23	125.94	118.60
84	Aa	2152	A	N1-C6-N6	12.23	125.94	118.60
84	Aa	2239	A	N1-C6-N6	12.23	125.94	118.60
84	Aa	3034	A	N1-C6-N6	12.23	125.94	118.60
84	Aa	64	A	P-O3'-C3'	12.23	134.38	119.70
1	Ad	1278	C	O4'-C1'-N1	12.23	117.98	108.20
84	Aa	3110	A	N1-C6-N6	12.22	125.93	118.60
1	Ad	606	U	O4'-C1'-N1	12.22	117.97	108.20
84	Aa	266	A	N1-C6-N6	12.21	125.93	118.60
84	Aa	2266	A	N1-C6-N6	12.21	125.93	118.60
84	Aa	3272	A	N1-C6-N6	12.21	125.93	118.60
84	Aa	3017	A	N1-C6-N6	12.21	125.93	118.60
84	Aa	2082	A	N1-C6-N6	12.20	125.92	118.60
84	Aa	2290	A	N1-C6-N6	12.20	125.92	118.60
1	Ad	507	G	P-O3'-C3'	12.20	134.34	119.70
84	Aa	2804	A	N1-C6-N6	12.19	125.91	118.60
84	Aa	917	A	N1-C6-N6	12.19	125.91	118.60
84	Aa	2089	A	N1-C6-N6	12.18	125.91	118.60
84	Aa	2487	A	N1-C6-N6	12.18	125.91	118.60
84	Aa	1882	A	N1-C6-N6	12.17	125.91	118.60
84	Aa	1373	A	N1-C6-N6	12.17	125.90	118.60
84	Aa	3087	A	N1-C6-N6	12.17	125.90	118.60
84	Aa	364	A	N1-C6-N6	12.16	125.90	118.60
84	Aa	3078	A	N1-C6-N6	12.16	125.90	118.60
1	Ad	1780	U	O4'-C1'-N1	12.16	117.93	108.20
84	Aa	383	A	N1-C6-N6	12.16	125.90	118.60
84	Aa	2100	A	N1-C6-N6	12.16	125.89	118.60
1	Ad	294	G	O4'-C1'-N9	12.15	117.92	108.20
84	Aa	955	A	N1-C6-N6	12.15	125.89	118.60
84	Aa	2227	A	N1-C6-N6	12.15	125.89	118.60
84	Aa	3018	A	N1-C6-N6	12.15	125.89	118.60
84	Aa	3107	A	N1-C6-N6	12.15	125.89	118.60
85	Ac	13	A	N1-C6-N6	12.15	125.89	118.60
1	Ad	1810	G	O4'-C1'-N9	-12.14	98.49	108.20
84	Aa	968	A	N1-C6-N6	12.14	125.89	118.60
84	Aa	1172	A	N1-C6-N6	12.14	125.89	118.60
84	Aa	1835	A	N1-C6-N6	12.13	125.88	118.60
84	Aa	3299	A	N1-C6-N6	12.13	125.88	118.60
84	Aa	2114	A	N1-C6-N6	12.13	125.88	118.60
84	Aa	2371	A	N1-C6-N6	12.13	125.88	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1506	A	N1-C6-N6	12.12	125.87	118.60
1	Ad	263	C	O4'-C1'-N1	12.12	117.90	108.20
84	Aa	2677	A	N1-C6-N6	12.10	125.86	118.60
84	Aa	158	A	N1-C6-N6	12.10	125.86	118.60
84	Aa	1249	A	N1-C6-N6	12.10	125.86	118.60
86	Ab	74	A	N1-C6-N6	12.10	125.86	118.60
84	Aa	440	U	P-O3'-C3'	12.10	134.22	119.70
84	Aa	1599	A	N1-C6-N6	12.10	125.86	118.60
84	Aa	2706	A	N1-C6-N6	12.10	125.86	118.60
84	Aa	2674	A	N1-C6-N6	12.09	125.86	118.60
84	Aa	3213	A	N1-C6-N6	12.09	125.86	118.60
84	Aa	2662	A	N1-C6-N6	12.09	125.86	118.60
84	Aa	154	G	N1-C6-O6	12.09	127.15	119.90
84	Aa	2545	C	P-O3'-C3'	12.09	134.21	119.70
84	Aa	3310	A	N1-C6-N6	12.09	125.85	118.60
1	Ad	492	G	O4'-C1'-N9	12.08	117.87	108.20
1	Ad	1580	G	C1'-O4'-C4'	12.08	119.56	109.90
84	Aa	143	A	N1-C6-N6	12.08	125.85	118.60
84	Aa	1755	A	N1-C6-N6	12.08	125.85	118.60
84	Aa	2971	A	N1-C6-N6	12.08	125.85	118.60
84	Aa	2228	A	N1-C6-N6	12.08	125.85	118.60
84	Aa	2853	A	N1-C6-N6	12.07	125.84	118.60
84	Aa	197	A	N1-C6-N6	12.07	125.84	118.60
2	Ae	13	U	O4'-C1'-N1	12.07	117.86	108.20
1	Ad	1574	U	O4'-C1'-N1	12.07	117.85	108.20
84	Aa	540	G	C5-C6-O6	-12.06	121.36	128.60
84	Aa	1291	A	N1-C6-N6	12.06	125.84	118.60
84	Aa	87	A	N1-C6-N6	12.06	125.84	118.60
84	Aa	46	A	N1-C6-N6	12.06	125.83	118.60
84	Aa	292	A	N1-C6-N6	12.06	125.83	118.60
84	Aa	738	A	N1-C6-N6	12.05	125.83	118.60
84	Aa	186	A	N1-C6-N6	12.05	125.83	118.60
84	Aa	2694	A	N1-C6-N6	12.05	125.83	118.60
84	Aa	924	A	N1-C6-N6	12.04	125.83	118.60
84	Aa	2386	A	N1-C6-N6	12.04	125.82	118.60
84	Aa	2458	A	N1-C6-N6	12.04	125.83	118.60
84	Aa	1492	A	N1-C6-N6	12.04	125.82	118.60
84	Aa	1410	A	N1-C6-N6	12.03	125.82	118.60
84	Aa	1653	A	N1-C6-N6	12.03	125.82	118.60
1	Ad	1804	A	O4'-C1'-N9	12.03	117.82	108.20
84	Aa	1305	A	N1-C6-N6	12.03	125.82	118.60
84	Aa	2978	A	N1-C6-N6	12.03	125.82	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1485	A	N1-C6-N6	12.03	125.81	118.60
84	Aa	94	A	N1-C6-N6	12.02	125.81	118.60
84	Aa	1307	A	N1-C6-N6	12.02	125.81	118.60
84	Aa	219	A	N1-C6-N6	12.02	125.81	118.60
84	Aa	2733	A	N1-C6-N6	12.02	125.81	118.60
84	Aa	2429	A	N1-C6-N6	12.02	125.81	118.60
86	Ab	27	A	N1-C6-N6	12.02	125.81	118.60
1	Ad	279	C	O4'-C1'-N1	12.01	117.81	108.20
84	Aa	820	A	N1-C6-N6	12.01	125.81	118.60
84	Aa	1200	A	N1-C6-N6	12.01	125.81	118.60
84	Aa	1610	A	N1-C6-N6	12.00	125.80	118.60
84	Aa	3073	A	N1-C6-N6	12.00	125.80	118.60
84	Aa	2088	C	O4'-C1'-N1	11.99	117.80	108.20
84	Aa	2107	A	N1-C6-N6	11.99	125.80	118.60
84	Aa	1353	A	N1-C6-N6	11.99	125.79	118.60
84	Aa	1139	A	N1-C6-N6	11.98	125.79	118.60
84	Aa	2016	A	N1-C6-N6	11.98	125.79	118.60
84	Aa	660	A	N1-C6-N6	11.97	125.78	118.60
84	Aa	1138	A	N1-C6-N6	11.97	125.78	118.60
84	Aa	1306	A	N1-C6-N6	11.97	125.78	118.60
84	Aa	420	A	N1-C6-N6	11.96	125.78	118.60
84	Aa	1192	A	N1-C6-N6	11.96	125.77	118.60
84	Aa	1256	A	N1-C6-N6	11.95	125.77	118.60
1	Ad	1028	A	O4'-C1'-N9	11.95	117.76	108.20
84	Aa	62	A	N1-C6-N6	11.95	125.77	118.60
84	Aa	873	A	N1-C6-N6	11.95	125.77	118.60
84	Aa	1311	G	P-O3'-C3'	11.95	134.04	119.70
84	Aa	1790	A	N1-C6-N6	11.95	125.77	118.60
84	Aa	3173	A	N1-C6-N6	11.94	125.77	118.60
84	Aa	766	C	P-O3'-C3'	11.94	134.03	119.70
84	Aa	1395	A	N1-C6-N6	11.94	125.76	118.60
84	Aa	2718	A	N1-C6-N6	11.94	125.76	118.60
84	Aa	839	A	N1-C6-N6	11.94	125.76	118.60
84	Aa	2449	A	N1-C6-N6	11.94	125.76	118.60
1	Ad	1664	U	O4'-C1'-N1	11.93	117.75	108.20
84	Aa	730	A	N1-C6-N6	11.93	125.75	118.60
84	Aa	2244	G	P-O3'-C3'	11.92	134.01	119.70
84	Aa	1206	A	N1-C6-N6	11.92	125.75	118.60
84	Aa	1520	A	N1-C6-N6	11.92	125.75	118.60
84	Aa	3074	A	N1-C6-N6	11.92	125.75	118.60
84	Aa	1254	A	N1-C6-N6	11.91	125.75	118.60
84	Aa	1543	A	N1-C6-N6	11.91	125.75	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1846	A	N1-C6-N6	11.91	125.74	118.60
84	Aa	2574	A	N1-C6-N6	11.91	125.74	118.60
84	Aa	3022	A	N1-C6-N6	11.91	125.74	118.60
84	Aa	113	A	N1-C6-N6	11.90	125.74	118.60
84	Aa	2247	A	N1-C6-N6	11.90	125.74	118.60
84	Aa	1568	A	N1-C6-N6	11.90	125.74	118.60
84	Aa	1676	A	N1-C6-N6	11.90	125.74	118.60
84	Aa	1906	A	N1-C6-N6	11.90	125.74	118.60
84	Aa	2533	A	N1-C6-N6	11.88	125.73	118.60
85	Ac	104	A	N1-C6-N6	11.88	125.73	118.60
85	Ac	44	A	N1-C6-N6	11.88	125.73	118.60
84	Aa	1802	A	N1-C6-N6	11.88	125.73	118.60
84	Aa	1030	A	N1-C6-N6	11.87	125.72	118.60
84	Aa	2086	A	P-O5'-C5'	11.88	139.90	120.90
84	Aa	2761	A	N1-C6-N6	11.87	125.72	118.60
84	Aa	3123	A	N1-C6-N6	11.87	125.72	118.60
1	Ad	271	C	P-O3'-C3'	11.87	133.94	119.70
85	Ac	92	A	N1-C6-N6	11.87	125.72	118.60
84	Aa	98	A	N1-C6-N6	11.87	125.72	118.60
84	Aa	2681	A	N1-C6-N6	11.86	125.72	118.60
84	Aa	813	A	N1-C6-N6	11.85	125.71	118.60
84	Aa	1295	A	N1-C6-N6	11.85	125.71	118.60
84	Aa	1917	A	N1-C6-N6	11.85	125.71	118.60
84	Aa	1227	A	N1-C6-N6	11.85	125.71	118.60
84	Aa	2665	A	N1-C6-N6	11.84	125.71	118.60
84	Aa	3071	A	N1-C6-N6	11.84	125.71	118.60
84	Aa	376	A	N1-C6-N6	11.84	125.70	118.60
84	Aa	3312	G	N1-C6-O6	11.84	127.00	119.90
84	Aa	382	A	N1-C6-N6	11.84	125.70	118.60
84	Aa	1875	A	N1-C6-N6	11.84	125.70	118.60
84	Aa	2794	A	N1-C6-N6	11.83	125.70	118.60
84	Aa	1905	A	N1-C6-N6	11.83	125.70	118.60
84	Aa	2815	A	N1-C6-N6	11.83	125.70	118.60
84	Aa	439	A	N1-C6-N6	11.82	125.69	118.60
84	Aa	2774	A	N1-C6-N6	11.82	125.69	118.60
84	Aa	2203	A	N1-C6-N6	11.81	125.69	118.60
1	Ad	1788	G	O4'-C1'-N9	11.81	117.65	108.20
84	Aa	1255	A	N1-C6-N6	11.81	125.69	118.60
84	Aa	1970	A	N1-C6-N6	11.81	125.69	118.60
84	Aa	2839	A	N1-C6-N6	11.81	125.69	118.60
84	Aa	3135	A	N1-C6-N6	11.81	125.69	118.60
85	Ac	109	A	N1-C6-N6	11.81	125.69	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2092	C	O4'-C1'-N1	11.81	117.65	108.20
84	Aa	3088	A	N1-C6-N6	11.81	125.69	118.60
1	Ad	749	G	O4'-C1'-N9	11.81	117.65	108.20
84	Aa	1713	A	N1-C6-N6	11.80	125.68	118.60
84	Aa	1793	A	N1-C6-N6	11.80	125.68	118.60
86	Ab	22	A	N1-C6-N6	11.80	125.68	118.60
84	Aa	1809	A	N1-C6-N6	11.80	125.68	118.60
1	Ad	333	G	O4'-C1'-N9	11.80	117.64	108.20
84	Aa	928	A	N1-C6-N6	11.80	125.68	118.60
84	Aa	1455	A	N1-C6-N6	11.80	125.68	118.60
84	Aa	394	A	N1-C6-N6	11.80	125.68	118.60
84	Aa	2518	A	N1-C6-N6	11.79	125.68	118.60
84	Aa	3342	C	P-O3'-C3'	11.79	133.85	119.70
85	Ac	105	A	N1-C6-N6	11.79	125.67	118.60
84	Aa	1207	A	N1-C6-N6	11.79	125.67	118.60
84	Aa	1727	A	N1-C6-N6	11.79	125.67	118.60
1	Ad	1162	A	C1'-O4'-C4'	11.78	119.33	109.90
84	Aa	1812	A	N1-C6-N6	11.78	125.67	118.60
1	Ad	252	U	O4'-C1'-N1	11.78	117.62	108.20
84	Aa	844	A	N1-C6-N6	11.78	125.67	118.60
84	Aa	3028	A	N1-C6-N6	11.78	125.67	118.60
84	Aa	1560	A	P-O5'-C5'	11.78	139.75	120.90
1	Ad	505	U	O4'-C1'-N1	11.78	117.62	108.20
84	Aa	23	A	N1-C6-N6	11.78	125.67	118.60
1	Ad	1293	U	O4'-C1'-N1	11.77	117.62	108.20
84	Aa	216	G	N1-C6-O6	11.77	126.96	119.90
84	Aa	1330	A	N1-C6-N6	11.77	125.66	118.60
84	Aa	1376	A	N1-C6-N6	11.77	125.66	118.60
84	Aa	363	A	N1-C6-N6	11.77	125.66	118.60
84	Aa	698	A	N1-C6-N6	11.77	125.66	118.60
1	Ad	1524	A	O4'-C1'-N9	11.76	117.61	108.20
84	Aa	783	A	N1-C6-N6	11.76	125.66	118.60
84	Aa	1863	A	N1-C6-N6	11.76	125.66	118.60
84	Aa	2781	A	N1-C6-N6	11.76	125.66	118.60
84	Aa	2113	A	N1-C6-N6	11.76	125.66	118.60
84	Aa	416	A	N1-C6-N6	11.76	125.66	118.60
1	Ad	1190	U	O4'-C1'-N1	11.76	117.61	108.20
84	Aa	711	A	N1-C6-N6	11.75	125.65	118.60
84	Aa	2596	A	P-O3'-C3'	11.75	133.81	119.70
84	Aa	327	A	N1-C6-N6	11.75	125.65	118.60
84	Aa	1162	A	N1-C6-N6	11.75	125.65	118.60
84	Aa	2193	A	N1-C6-N6	11.75	125.65	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	564	A	N1-C6-N6	11.75	125.65	118.60
84	Aa	1674	A	N1-C6-N6	11.75	125.65	118.60
84	Aa	365	A	N1-C6-N6	11.74	125.64	118.60
84	Aa	287	A	N1-C6-N6	11.74	125.64	118.60
1	Ad	1782	C	P-O3'-C3'	11.73	133.78	119.70
84	Aa	149	A	N1-C6-N6	11.73	125.64	118.60
84	Aa	3362	A	N1-C6-N6	11.72	125.64	118.60
1	Ad	284	U	P-O3'-C3'	11.72	133.77	119.70
84	Aa	2298	A	N1-C6-N6	11.72	125.63	118.60
85	Ac	121	A	N1-C6-N6	11.72	125.63	118.60
84	Aa	2141	A	N1-C6-N6	11.72	125.63	118.60
84	Aa	1468	A	N1-C6-N6	11.72	125.63	118.60
84	Aa	1643	A	N1-C6-N6	11.72	125.63	118.60
84	Aa	3115	A	N1-C6-N6	11.72	125.63	118.60
84	Aa	1602	A	N1-C6-N6	11.71	125.63	118.60
1	Ad	1617	U	O4'-C1'-N1	11.71	117.57	108.20
84	Aa	1193	A	N1-C6-N6	11.71	125.63	118.60
84	Aa	3327	A	N1-C6-N6	11.71	125.62	118.60
84	Aa	2749	A	N1-C6-N6	11.71	125.62	118.60
84	Aa	3235	A	N1-C6-N6	11.70	125.62	118.60
1	Ad	608	U	O4'-C1'-N1	11.70	117.56	108.20
84	Aa	1312	A	N1-C6-N6	11.70	125.62	118.60
84	Aa	1837	A	N1-C6-N6	11.70	125.62	118.60
84	Aa	1065	A	N1-C6-N6	11.70	125.62	118.60
84	Aa	1883	A	N1-C6-N6	11.70	125.62	118.60
1	Ad	95	U	O4'-C1'-N1	11.69	117.56	108.20
84	Aa	3072	A	N1-C6-N6	11.69	125.62	118.60
1	Ad	282	C	C1'-O4'-C4'	11.69	119.25	109.90
84	Aa	3386	A	N1-C6-N6	11.69	125.61	118.60
1	Ad	612	U	N1-C1'-C2'	11.68	129.18	114.00
84	Aa	850	A	N1-C6-N6	11.68	125.61	118.60
84	Aa	2111	A	N1-C6-N6	11.68	125.61	118.60
1	Ad	903	A	O4'-C1'-N9	11.67	117.54	108.20
84	Aa	1204	A	N1-C6-N6	11.67	125.60	118.60
84	Aa	2006	A	N1-C6-N6	11.67	125.60	118.60
86	Ab	66	G	N1-C6-O6	11.67	126.90	119.90
1	Ad	57	G	O4'-C1'-N9	11.66	117.53	108.20
84	Aa	572	U	P-O3'-C3'	11.66	133.69	119.70
84	Aa	2218	A	N1-C6-N6	11.66	125.59	118.60
84	Aa	1861	A	N1-C6-N6	11.65	125.59	118.60
84	Aa	325	A	N1-C6-N6	11.65	125.59	118.60
84	Aa	1591	A	N1-C6-N6	11.63	125.58	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	1056	A	P-O3'-C3'	11.63	133.66	119.70
84	Aa	2251	A	N1-C6-N6	11.63	125.58	118.60
84	Aa	2960	A	N1-C6-N6	11.63	125.58	118.60
84	Aa	2765	A	N1-C6-N6	11.63	125.58	118.60
84	Aa	681	A	N1-C6-N6	11.63	125.58	118.60
1	Ad	282	C	P-O3'-C3'	11.62	133.65	119.70
84	Aa	1397	A	N1-C6-N6	11.62	125.57	118.60
84	Aa	1880	A	N1-C6-N6	11.62	125.57	118.60
84	Aa	2366	A	N1-C6-N6	11.61	125.57	118.60
84	Aa	249	A	N1-C6-N6	11.61	125.57	118.60
84	Aa	1926	A	N1-C6-N6	11.61	125.57	118.60
1	Ad	1267	G	O4'-C1'-N9	11.61	117.49	108.20
84	Aa	1738	A	N1-C6-N6	11.61	125.57	118.60
1	Ad	1582	G	C3'-C2'-C1'	11.61	110.78	101.50
84	Aa	981	A	N1-C6-N6	11.61	125.56	118.60
86	Ab	83	A	N1-C6-N6	11.61	125.56	118.60
84	Aa	1220	G	N1-C6-O6	11.60	126.86	119.90
85	Ac	89	A	N1-C6-N6	11.60	125.56	118.60
84	Aa	2736	A	N1-C6-N6	11.60	125.56	118.60
84	Aa	1278	A	N1-C6-N6	11.60	125.56	118.60
84	Aa	2840	A	N1-C6-N6	11.60	125.56	118.60
1	Ad	54	C	O4'-C1'-C2'	-11.59	94.21	105.80
84	Aa	2772	A	N1-C6-N6	11.59	125.55	118.60
84	Aa	2921	A	N1-C6-N6	11.59	125.55	118.60
1	Ad	1323	U	O4'-C1'-N1	11.58	117.47	108.20
84	Aa	1101	A	N1-C6-N6	11.58	125.55	118.60
2	Ae	65	U	O4'-C1'-N1	11.58	117.46	108.20
2	Ae	59	U	O4'-C1'-N1	11.57	117.46	108.20
1	Ad	817	C	P-O3'-C3'	11.57	133.59	119.70
84	Aa	2120	A	N1-C6-N6	11.57	125.54	118.60
84	Aa	1507	A	N1-C6-N6	11.57	125.54	118.60
1	Ad	1276	U	O4'-C1'-N1	11.56	117.45	108.20
1	Ad	743	G	O4'-C1'-N9	11.56	117.45	108.20
84	Aa	775	A	N1-C6-N6	11.56	125.54	118.60
84	Aa	2532	A	N1-C6-N6	11.56	125.54	118.60
84	Aa	53	C	O4'-C1'-N1	11.56	117.45	108.20
84	Aa	1571	A	N1-C6-N6	11.56	125.54	118.60
84	Aa	2835	A	N1-C6-N6	11.56	125.53	118.60
1	Ad	112	U	O4'-C1'-N1	11.55	117.44	108.20
84	Aa	932	A	N1-C6-N6	11.55	125.53	118.60
84	Aa	2474	A	N1-C6-N6	11.55	125.53	118.60
1	Ad	553	G	O4'-C1'-N9	11.55	117.44	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	355	U	O4'-C1'-N1	11.55	117.44	108.20
1	Ad	74	U	O4'-C1'-N1	11.54	117.44	108.20
2	Ae	42	C	O4'-C1'-N1	11.54	117.43	108.20
84	Aa	2054	A	N1-C6-N6	11.54	125.52	118.60
1	Ad	1576	C	P-O3'-C3'	11.54	133.54	119.70
84	Aa	2514	A	P-O3'-C3'	11.54	133.54	119.70
84	Aa	2412	A	N1-C6-N6	11.53	125.52	118.60
84	Aa	2202	A	N1-C6-N6	11.53	125.52	118.60
84	Aa	452	G	C4'-C3'-O3'	-11.53	85.20	109.40
84	Aa	3033	A	N1-C6-N6	11.53	125.52	118.60
84	Aa	1795	A	N1-C6-N6	11.52	125.51	118.60
86	Ab	20	C	N3-C4-C5	-11.52	117.29	121.90
84	Aa	2641	A	N1-C6-N6	11.51	125.50	118.60
85	Ac	53	A	N1-C6-N6	11.51	125.50	118.60
84	Aa	47	A	N1-C6-N6	11.50	125.50	118.60
1	Ad	1395	C	N1-C1'-C2'	11.50	128.95	114.00
1	Ad	509	A	C3'-C2'-C1'	11.50	110.70	101.50
84	Aa	1748	A	N1-C6-N6	11.50	125.50	118.60
1	Ad	156	U	P-O3'-C3'	11.50	133.50	119.70
84	Aa	122	A	N1-C6-N6	11.50	125.50	118.60
84	Aa	72	A	N1-C6-N6	11.50	125.50	118.60
84	Aa	1518	A	N1-C6-N6	11.50	125.50	118.60
84	Aa	885	A	N1-C6-N6	11.49	125.50	118.60
1	Ad	360	G	O4'-C1'-N9	11.49	117.39	108.20
84	Aa	550	C	P-O3'-C3'	11.49	133.49	119.70
84	Aa	1459	A	N1-C6-N6	11.49	125.49	118.60
84	Aa	2137	A	N1-C6-N6	11.49	125.49	118.60
84	Aa	670	A	N1-C6-N6	11.49	125.49	118.60
84	Aa	2813	A	N1-C6-N6	11.49	125.49	118.60
1	Ad	176	A	C1'-O4'-C4'	11.48	119.09	109.90
84	Aa	1163	A	N1-C6-N6	11.48	125.49	118.60
1	Ad	1556	U	O4'-C1'-N1	11.48	117.39	108.20
84	Aa	1860	A	N1-C6-N6	11.48	125.49	118.60
84	Aa	1107	G	N1-C6-O6	11.48	126.79	119.90
84	Aa	2250	A	N1-C6-N6	11.47	125.48	118.60
84	Aa	696	A	N1-C6-N6	11.46	125.48	118.60
84	Aa	2304	A	N1-C6-N6	11.46	125.48	118.60
1	Ad	744	G	N9-C1'-C2'	-11.46	99.10	114.00
85	Ac	135	A	N1-C6-N6	11.46	125.48	118.60
1	Ad	80	C	N1-C1'-C2'	11.45	128.89	114.00
1	Ad	262	U	O4'-C1'-N1	11.45	117.36	108.20
84	Aa	2527	G	N1-C6-O6	11.45	126.77	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	1691	C	O4'-C1'-C2'	-11.45	94.35	105.80
84	Aa	210	G	N1-C6-O6	11.45	126.77	119.90
84	Aa	1391	A	N1-C6-N6	11.44	125.47	118.60
84	Aa	861	A	N1-C6-N6	11.44	125.46	118.60
84	Aa	2081	C	P-O3'-C3'	11.43	133.42	119.70
84	Aa	1550	A	N1-C6-N6	11.43	125.46	118.60
84	Aa	2215	A	N1-C6-N6	11.43	125.46	118.60
84	Aa	2750	A	N1-C6-N6	11.43	125.46	118.60
84	Aa	1464	A	N1-C6-N6	11.43	125.45	118.60
84	Aa	2275	A	N1-C6-N6	11.43	125.46	118.60
84	Aa	3309	U	P-O3'-C3'	11.42	133.41	119.70
85	Ac	48	A	N1-C6-N6	11.42	125.45	118.60
1	Ad	845	C	O4'-C1'-C2'	-11.42	94.38	105.80
1	Ad	1580	G	N9-C1'-C2'	-11.42	99.16	114.00
1	Ad	1388	A	O4'-C1'-N9	11.41	117.33	108.20
86	Ab	89	G	O4'-C1'-N9	11.41	117.33	108.20
1	Ad	1361	G	O4'-C1'-N9	11.41	117.33	108.20
84	Aa	66	A	N1-C6-N6	11.41	125.44	118.60
84	Aa	2162	C	O4'-C1'-N1	11.41	117.33	108.20
84	Aa	1805	A	N1-C6-N6	11.40	125.44	118.60
86	Ab	90	A	N1-C6-N6	11.40	125.44	118.60
84	Aa	875	A	N1-C6-N6	11.40	125.44	118.60
84	Aa	1584	A	N1-C6-N6	11.40	125.44	118.60
84	Aa	1629	A	N1-C6-N6	11.39	125.44	118.60
84	Aa	758	A	N1-C6-N6	11.39	125.44	118.60
84	Aa	2502	U	O4'-C1'-N1	11.39	117.31	108.20
1	Ad	846	U	N1-C1'-C2'	11.39	128.80	114.00
84	Aa	970	A	N1-C6-N6	11.39	125.43	118.60
84	Aa	2312	A	N1-C6-N6	11.39	125.43	118.60
84	Aa	976	A	N1-C6-N6	11.39	125.43	118.60
1	Ad	860	A	N9-C1'-C2'	-11.38	99.20	114.00
84	Aa	48	A	N1-C6-N6	11.38	125.43	118.60
1	Ad	1259	G	O4'-C1'-C2'	11.37	117.84	107.60
84	Aa	869	A	N1-C6-N6	11.37	125.42	118.60
86	Ab	72	G	P-O3'-C3'	11.37	133.34	119.70
86	Ab	97	G	C5-C6-O6	-11.37	121.78	128.60
84	Aa	2699	A	N1-C6-N6	11.37	125.42	118.60
84	Aa	1199	A	N1-C6-N6	11.37	125.42	118.60
84	Aa	2631	A	N1-C6-N6	11.37	125.42	118.60
84	Aa	405	A	N1-C6-N6	11.36	125.42	118.60
84	Aa	2367	A	N1-C6-N6	11.36	125.42	118.60
84	Aa	2819	A	N1-C6-N6	11.36	125.42	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	211	A	N1-C6-N6	11.35	125.41	118.60
84	Aa	585	A	N1-C6-N6	11.35	125.41	118.60
84	Aa	2596	A	N1-C6-N6	11.35	125.41	118.60
1	Ad	54	C	O4'-C1'-N1	11.34	117.27	108.20
84	Aa	2175	A	N1-C6-N6	11.34	125.41	118.60
84	Aa	1874	A	N1-C6-N6	11.34	125.40	118.60
84	Aa	2709	G	N1-C6-O6	11.34	126.70	119.90
84	Aa	1527	A	N1-C6-N6	11.34	125.40	118.60
84	Aa	2362	A	N1-C6-N6	11.33	125.40	118.60
84	Aa	2074	C	O4'-C1'-N1	11.33	117.26	108.20
1	Ad	155	A	O4'-C1'-N9	11.32	117.26	108.20
84	Aa	1024	G	C5-C6-O6	-11.32	121.81	128.60
84	Aa	2316	A	N1-C6-N6	11.32	125.39	118.60
84	Aa	2047	A	N1-C6-N6	11.32	125.39	118.60
84	Aa	2208	A	N1-C6-N6	11.32	125.39	118.60
84	Aa	918	A	N1-C6-N6	11.31	125.39	118.60
84	Aa	1229	A	N1-C6-N6	11.31	125.39	118.60
84	Aa	3345	G	P-O3'-C3'	11.31	133.28	119.70
1	Ad	1238	A	P-O3'-C3'	11.31	133.27	119.70
1	Ad	132	G	O4'-C1'-N9	11.31	117.25	108.20
84	Aa	3128	A	N1-C6-N6	11.31	125.39	118.60
86	Ab	51	G	P-O3'-C3'	11.31	133.27	119.70
84	Aa	916	A	N1-C6-N6	11.30	125.38	118.60
84	Aa	1600	A	N1-C6-N6	11.30	125.38	118.60
84	Aa	3236	A	N1-C6-N6	11.30	125.38	118.60
1	Ad	1810	G	O4'-C1'-C2'	-11.30	94.50	105.80
84	Aa	2053	A	N1-C6-N6	11.30	125.38	118.60
84	Aa	2542	U	P-O3'-C3'	11.30	133.26	119.70
1	Ad	964	U	N1-C1'-C2'	11.29	128.68	114.00
84	Aa	1990	A	N1-C6-N6	11.29	125.37	118.60
1	Ad	1009	U	O4'-C1'-N1	11.29	117.23	108.20
84	Aa	1264	A	N1-C6-N6	11.29	125.37	118.60
84	Aa	2973	A	N1-C6-N6	11.29	125.37	118.60
84	Aa	1457	A	N1-C6-N6	11.28	125.37	118.60
84	Aa	651	A	N1-C6-N6	11.27	125.36	118.60
84	Aa	1182	A	N1-C6-N6	11.27	125.36	118.60
1	Ad	1466	A	O4'-C1'-C2'	11.27	117.74	107.60
84	Aa	1971	A	N1-C6-N6	11.27	125.36	118.60
84	Aa	3009	A	N1-C6-N6	11.27	125.36	118.60
84	Aa	1747	A	C5-C6-N6	-11.26	114.69	123.70
1	Ad	491	G	O4'-C1'-N9	11.26	117.21	108.20
84	Aa	1044	A	N1-C6-N6	11.26	125.36	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2822	A	N1-C6-N6	11.26	125.35	118.60
84	Aa	704	G	N1-C6-O6	11.25	126.65	119.90
1	Ad	1589	C	C3'-C2'-C1'	11.25	110.50	101.50
84	Aa	789	A	N1-C6-N6	11.25	125.35	118.60
1	Ad	52	U	O4'-C1'-N1	11.25	117.20	108.20
84	Aa	567	G	N1-C6-O6	11.25	126.65	119.90
84	Aa	1937	C	P-O3'-C3'	11.25	133.19	119.70
84	Aa	1059	A	N1-C6-N6	11.24	125.35	118.60
84	Aa	1703	C	O4'-C1'-N1	11.24	117.19	108.20
1	Ad	1029	U	O4'-C1'-N1	11.24	117.19	108.20
1	Ad	71	C	P-O3'-C3'	11.23	133.18	119.70
84	Aa	1275	A	N1-C6-N6	11.23	125.34	118.60
84	Aa	2489	A	N1-C6-N6	11.23	125.34	118.60
1	Ad	907	G	O4'-C1'-N9	11.22	117.18	108.20
84	Aa	2612	A	N1-C6-N6	11.22	125.33	118.60
84	Aa	3007	A	N1-C6-N6	11.22	125.33	118.60
1	Ad	64	U	O4'-C1'-N1	11.22	117.17	108.20
84	Aa	70	A	N1-C6-N6	11.22	125.33	118.60
1	Ad	1681	G	O4'-C1'-N9	11.22	117.17	108.20
84	Aa	1689	G	N1-C6-O6	11.21	126.63	119.90
84	Aa	527	G	P-O5'-C5'	11.20	138.83	120.90
1	Ad	613	U	O4'-C1'-C2'	-11.20	94.60	105.80
84	Aa	731	G	N1-C6-O6	11.20	126.62	119.90
84	Aa	954	A	N1-C6-N6	11.20	125.32	118.60
84	Aa	3297	A	N1-C6-N6	11.20	125.32	118.60
1	Ad	1409	G	P-O5'-C5'	11.18	138.79	120.90
1	Ad	1389	G	O4'-C1'-N9	11.18	117.14	108.20
85	Ac	61	A	N1-C6-N6	11.18	125.31	118.60
1	Ad	578	G	O4'-C1'-N9	11.18	117.14	108.20
84	Aa	1026	A	N1-C6-N6	11.17	125.30	118.60
84	Aa	167	C	P-O3'-C3'	11.16	133.10	119.70
86	Ab	31	G	C5-C6-O6	-11.16	121.90	128.60
84	Aa	2149	G	P-O3'-C3'	11.16	133.09	119.70
84	Aa	616	A	N1-C6-N6	11.16	125.30	118.60
84	Aa	2509	A	N1-C6-N6	11.15	125.29	118.60
1	Ad	525	A	O4'-C1'-N9	11.15	117.12	108.20
84	Aa	767	U	P-O3'-C3'	11.15	133.08	119.70
84	Aa	1716	G	N1-C6-O6	11.15	126.59	119.90
84	Aa	868	A	N1-C6-N6	11.14	125.29	118.60
84	Aa	1052	A	N1-C6-N6	11.14	125.29	118.60
84	Aa	76	A	N1-C6-N6	11.14	125.28	118.60
84	Aa	2764	G	N1-C6-O6	11.14	126.58	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	Af	19	U	O4'-C1'-N1	11.14	117.11	108.20
84	Aa	2737	A	N1-C6-N6	11.13	125.28	118.60
84	Aa	1235	A	N1-C6-N6	11.13	125.28	118.60
1	Ad	888	U	O4'-C1'-N1	11.13	117.10	108.20
84	Aa	293	A	N1-C6-N6	11.13	125.28	118.60
1	Ad	284	U	O4'-C1'-N1	11.12	117.10	108.20
86	Ab	100	A	N1-C6-N6	11.12	125.28	118.60
84	Aa	3287	A	N1-C6-N6	11.12	125.27	118.60
84	Aa	3308	A	N1-C6-N6	11.11	125.27	118.60
84	Aa	1321	A	N1-C6-N6	11.11	125.27	118.60
84	Aa	2132	A	N1-C6-N6	11.10	125.26	118.60
84	Aa	3167	G	P-O3'-C3'	11.10	133.02	119.70
84	Aa	198	A	N1-C6-N6	11.10	125.26	118.60
84	Aa	2792	A	N1-C6-N6	11.09	125.26	118.60
84	Aa	3140	A	N1-C6-N6	11.09	125.26	118.60
1	Ad	67	G	P-O3'-C3'	11.09	133.00	119.70
84	Aa	387	A	N1-C6-N6	11.09	125.25	118.60
1	Ad	241	G	P-O3'-C3'	11.09	133.00	119.70
84	Aa	2705	A	N1-C6-N6	11.08	125.25	118.60
84	Aa	2928	A	N1-C6-N6	11.08	125.25	118.60
86	Ab	45	U	O4'-C1'-N1	11.08	117.06	108.20
1	Ad	1081	A	O4'-C1'-N9	11.08	117.06	108.20
84	Aa	2881	C	O4'-C1'-N1	11.08	117.06	108.20
1	Ad	1247	G	O4'-C1'-N9	11.07	117.06	108.20
84	Aa	653	A	N1-C6-N6	11.06	125.24	118.60
85	Ac	82	C	P-O3'-C3'	11.06	132.97	119.70
84	Aa	650	A	N1-C6-N6	11.06	125.23	118.60
1	Ad	316	A	O4'-C1'-N9	11.05	117.04	108.20
85	Ac	88	A	N1-C6-N6	11.05	125.23	118.60
84	Aa	2938	A	N1-C6-N6	11.04	125.22	118.60
1	Ad	1186	U	O4'-C1'-N1	11.04	117.03	108.20
1	Ad	1195	U	O4'-C1'-N1	11.04	117.03	108.20
84	Aa	2796	G	N1-C6-O6	11.04	126.52	119.90
84	Aa	1577	A	N1-C6-N6	11.03	125.22	118.60
84	Aa	2568	G	N1-C6-O6	11.03	126.52	119.90
1	Ad	985	G	O4'-C1'-N9	11.03	117.03	108.20
1	Ad	724	U	O4'-C1'-N1	11.03	117.02	108.20
1	Ad	1085	U	O4'-C1'-N1	11.02	117.02	108.20
86	Ab	110	G	C5-C6-O6	-11.02	121.99	128.60
1	Ad	1125	U	O4'-C1'-N1	11.02	117.01	108.20
84	Aa	2660	A	N1-C6-N6	11.01	125.21	118.60
1	Ad	1357	U	O4'-C1'-N1	11.01	117.01	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	350	A	N1-C6-N6	11.01	125.20	118.60
84	Aa	1115	A	N1-C6-N6	10.99	125.20	118.60
1	Ad	262	U	C1'-O4'-C4'	10.99	118.69	109.90
1	Ad	1658	U	O4'-C1'-N1	10.99	116.99	108.20
1	Ad	621	U	O4'-C1'-N1	10.98	116.99	108.20
86	Ab	79	A	C4-C5-C6	10.98	122.49	117.00
84	Aa	2325	A	N1-C6-N6	10.98	125.19	118.60
84	Aa	340	A	N1-C6-N6	10.98	125.19	118.60
84	Aa	984	A	N1-C6-N6	10.98	125.19	118.60
84	Aa	2079	A	N1-C6-N6	10.97	125.18	118.60
84	Aa	2094	A	C4'-C3'-O3'	-10.97	86.36	109.40
84	Aa	1635	A	N1-C6-N6	10.96	125.18	118.60
86	Ab	60	G	N1-C6-O6	10.96	126.47	119.90
1	Ad	940	U	O4'-C1'-N1	10.96	116.97	108.20
84	Aa	1051	A	N1-C6-N6	10.95	125.17	118.60
84	Aa	306	A	N1-C6-N6	10.95	125.17	118.60
84	Aa	288	G	N1-C6-O6	10.95	126.47	119.90
85	Ac	140	A	N1-C6-N6	10.95	125.17	118.60
84	Aa	615	A	N1-C6-N6	10.94	125.16	118.60
84	Aa	819	A	N1-C6-N6	10.93	125.16	118.60
85	Ac	79	A	N1-C6-N6	10.93	125.16	118.60
1	Ad	968	A	O4'-C1'-N9	10.92	116.94	108.20
85	Ac	77	A	N1-C6-N6	10.91	125.15	118.60
84	Aa	16	A	N1-C6-N6	10.91	125.15	118.60
84	Aa	3124	A	N1-C6-N6	10.91	125.14	118.60
84	Aa	1015	A	N1-C6-N6	10.91	125.14	118.60
85	Ac	129	C	P-O3'-C3'	10.90	132.78	119.70
1	Ad	107	U	O4'-C1'-N1	10.90	116.92	108.20
84	Aa	2661	G	N1-C6-O6	10.90	126.44	119.90
1	Ad	1625	U	O4'-C1'-N1	10.89	116.91	108.20
84	Aa	397	A	N1-C6-N6	10.89	125.14	118.60
84	Aa	1798	C	P-O3'-C3'	10.89	132.77	119.70
84	Aa	2936	A	N1-C6-N6	10.89	125.13	118.60
85	Ac	80	A	N1-C6-N6	10.89	125.13	118.60
1	Ad	212	A	C3'-C2'-C1'	10.89	110.21	101.50
84	Aa	2398	A	N1-C6-N6	10.88	125.13	118.60
84	Aa	2514	A	N1-C6-N6	10.88	125.13	118.60
84	Aa	2707	A	N1-C6-N6	10.88	125.13	118.60
1	Ad	870	A	O4'-C1'-N9	10.88	116.90	108.20
84	Aa	2254	A	N1-C6-N6	10.88	125.13	118.60
84	Aa	2307	A	N1-C6-N6	10.87	125.12	118.60
1	Ad	334	G	O4'-C1'-N9	10.86	116.89	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	72	A	P-O3'-C3'	10.86	132.73	119.70
86	Ab	65	G	N1-C6-O6	10.86	126.42	119.90
1	Ad	1635	U	O4'-C1'-N1	10.86	116.89	108.20
84	Aa	3368	A	N1-C6-N6	10.86	125.11	118.60
1	Ad	476	U	O4'-C1'-N1	10.85	116.88	108.20
86	Ab	103	U	O4'-C1'-N1	10.85	116.88	108.20
84	Aa	1537	A	N1-C6-N6	10.85	125.11	118.60
86	Ab	32	A	N1-C6-N6	10.85	125.11	118.60
84	Aa	1415	G	N1-C6-O6	10.84	126.40	119.90
2	Ae	40	U	O4'-C1'-N1	10.84	116.87	108.20
1	Ad	1808	U	P-O3'-C3'	10.83	132.70	119.70
1	Ad	77	G	O4'-C1'-N9	10.83	116.86	108.20
84	Aa	1712	A	N1-C6-N6	10.83	125.10	118.60
84	Aa	1470	A	N1-C6-N6	10.82	125.09	118.60
84	Aa	1714	A	N1-C6-N6	10.82	125.09	118.60
84	Aa	2246	G	N1-C6-O6	10.82	126.39	119.90
85	Ac	85	G	N1-C6-O6	10.82	126.39	119.90
84	Aa	1181	A	N1-C6-N6	10.82	125.09	118.60
84	Aa	1361	G	N1-C6-O6	10.82	126.39	119.90
1	Ad	1386	U	N1-C1'-C2'	10.81	128.06	114.00
84	Aa	3188	G	N1-C6-O6	10.81	126.39	119.90
84	Aa	1478	A	N1-C6-N6	10.80	125.08	118.60
85	Ac	151	G	N1-C6-O6	10.80	126.38	119.90
1	Ad	498	U	O4'-C1'-N1	10.80	116.84	108.20
84	Aa	1720	C	O4'-C1'-N1	10.80	116.84	108.20
84	Aa	2270	A	N1-C6-N6	10.80	125.08	118.60
1	Ad	824	U	P-O5'-C5'	10.80	138.18	120.90
1	Ad	1603	U	O4'-C1'-N1	10.80	116.84	108.20
84	Aa	2224	A	N1-C6-N6	10.80	125.08	118.60
1	Ad	241	G	O4'-C1'-N9	10.79	116.83	108.20
1	Ad	1535	U	O4'-C1'-N1	10.79	116.83	108.20
84	Aa	1705	A	N1-C6-N6	10.78	125.07	118.60
84	Aa	1197	A	N1-C6-N6	10.78	125.07	118.60
84	Aa	1569	U	P-O3'-C3'	10.78	132.63	119.70
84	Aa	118	G	C5-C6-O6	-10.77	122.14	128.60
85	Ac	17	A	N1-C6-N6	10.76	125.06	118.60
1	Ad	1745	U	O4'-C1'-N1	10.76	116.81	108.20
84	Aa	3282	G	N1-C6-O6	10.76	126.36	119.90
84	Aa	171	G	N1-C6-O6	10.76	126.36	119.90
1	Ad	39	A	O4'-C1'-N9	10.75	116.80	108.20
1	Ad	1637	G	O4'-C1'-C2'	10.75	117.28	107.60
84	Aa	1741	G	N1-C6-O6	10.75	126.35	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	336	A	N1-C6-N6	10.74	125.05	118.60
1	Ad	1065	A	O4'-C1'-N9	10.74	116.79	108.20
84	Aa	2588	G	N1-C6-O6	10.74	126.34	119.90
1	Ad	987	U	O4'-C1'-N1	10.73	116.79	108.20
1	Ad	421	A	P-O3'-C3'	10.73	132.57	119.70
84	Aa	88	A	N1-C6-N6	10.73	125.04	118.60
1	Ad	421	A	O4'-C1'-C2'	-10.72	95.08	105.80
84	Aa	1294	A	N1-C6-N6	10.72	125.03	118.60
85	Ac	122	G	N1-C6-O6	10.71	126.33	119.90
84	Aa	2119	A	N1-C6-N6	10.71	125.03	118.60
84	Aa	2423	A	N1-C6-N6	10.71	125.03	118.60
84	Aa	323	A	N1-C6-N6	10.70	125.02	118.60
84	Aa	899	A	N1-C6-N6	10.70	125.02	118.60
1	Ad	1290	U	O4'-C1'-N1	10.70	116.76	108.20
2	Ae	32	U	O4'-C1'-N1	10.70	116.76	108.20
84	Aa	2020	G	P-O3'-C3'	10.69	132.53	119.70
1	Ad	772	C	N1-C1'-C2'	10.68	127.89	114.00
84	Aa	372	A	N1-C6-N6	10.68	125.01	118.60
84	Aa	1477	A	N1-C6-N6	10.68	125.01	118.60
1	Ad	739	U	O4'-C1'-N1	10.68	116.74	108.20
84	Aa	1007	A	N1-C6-N6	10.68	125.01	118.60
84	Aa	2291	A	N1-C6-N6	10.68	125.01	118.60
84	Aa	2671	A	N1-C6-N6	10.68	125.01	118.60
86	Ab	37	G	N1-C6-O6	10.67	126.30	119.90
1	Ad	129	U	O4'-C1'-N1	10.66	116.73	108.20
1	Ad	633	U	P-O3'-C3'	10.66	132.50	119.70
84	Aa	384	A	N1-C6-N6	10.66	125.00	118.60
84	Aa	1593	C	O4'-C1'-N1	10.66	116.73	108.20
84	Aa	3131	A	N1-C6-N6	10.66	125.00	118.60
84	Aa	2892	A	N1-C6-N6	10.66	125.00	118.60
84	Aa	3200	A	N1-C6-N6	10.66	124.99	118.60
86	Ab	8	A	N1-C6-N6	10.64	124.99	118.60
84	Aa	1544	G	P-O3'-C3'	10.64	132.47	119.70
84	Aa	154	G	C5-C6-O6	-10.64	122.22	128.60
84	Aa	172	A	N1-C6-N6	10.64	124.98	118.60
86	Ab	92	C	N3-C4-C5	-10.63	117.65	121.90
84	Aa	967	G	N1-C6-O6	10.62	126.27	119.90
84	Aa	1320	G	N1-C6-O6	10.62	126.27	119.90
84	Aa	362	G	N1-C6-O6	10.62	126.27	119.90
84	Aa	718	C	O4'-C1'-N1	10.62	116.69	108.20
84	Aa	1911	A	N1-C6-N6	10.62	124.97	118.60
84	Aa	2623	G	N1-C6-O6	10.62	126.27	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	1435	G	O4'-C1'-N9	10.61	116.69	108.20
84	Aa	105	A	N1-C6-N6	10.61	124.97	118.60
84	Aa	1887	A	N1-C6-N6	10.61	124.97	118.60
84	Aa	1237	G	N1-C6-O6	10.61	126.26	119.90
84	Aa	2593	A	N1-C6-N6	10.60	124.96	118.60
84	Aa	1248	A	N1-C6-N6	10.59	124.96	118.60
84	Aa	1943	G	C4'-C3'-O3'	10.59	134.18	113.00
84	Aa	1286	G	N1-C6-O6	10.58	126.25	119.90
84	Aa	1680	A	N1-C6-N6	10.58	124.95	118.60
84	Aa	2743	A	N1-C6-N6	10.58	124.95	118.60
1	Ad	1202	G	O4'-C1'-C2'	10.57	117.12	107.60
84	Aa	2354	G	N1-C6-O6	10.57	126.24	119.90
84	Aa	2360	A	N1-C6-N6	10.57	124.94	118.60
1	Ad	33	U	O4'-C1'-N1	10.57	116.65	108.20
84	Aa	1471	A	N1-C6-N6	10.57	124.94	118.60
84	Aa	3261	C	C4'-C3'-O3'	10.57	134.13	113.00
86	Ab	43	A	C5-C6-N6	-10.57	115.25	123.70
1	Ad	1255	U	O4'-C1'-N1	10.56	116.64	108.20
84	Aa	237	C	P-O3'-C3'	10.56	132.37	119.70
86	Ab	41	G	N1-C6-O6	10.55	126.23	119.90
84	Aa	1891	A	N1-C6-N6	10.55	124.93	118.60
1	Ad	1231	A	N9-C1'-C2'	10.54	127.70	114.00
84	Aa	138	G	N1-C6-O6	10.54	126.22	119.90
84	Aa	876	C	P-O3'-C3'	10.54	132.35	119.70
1	Ad	1336	C	N1-C1'-C2'	10.54	127.70	114.00
84	Aa	84	A	N1-C6-N6	10.54	124.92	118.60
1	Ad	715	U	O4'-C1'-N1	10.54	116.63	108.20
1	Ad	866	U	O4'-C1'-N1	10.53	116.63	108.20
84	Aa	2942	A	N1-C6-N6	10.54	124.92	118.60
86	Ab	19	A	C5-C6-N1	-10.54	112.43	117.70
84	Aa	1856	G	N1-C6-O6	10.53	126.22	119.90
84	Aa	1092	G	N1-C6-O6	10.53	126.22	119.90
84	Aa	1586	A	N1-C6-N6	10.53	124.92	118.60
1	Ad	764	U	O4'-C1'-N1	10.52	116.62	108.20
1	Ad	1105	G	N9-C1'-C2'	10.52	127.68	114.00
84	Aa	1585	A	N1-C6-N6	10.52	124.91	118.60
84	Aa	1047	C	O4'-C1'-N1	10.52	116.62	108.20
84	Aa	2605	G	N1-C6-O6	10.52	126.21	119.90
84	Aa	2801	A	N1-C6-N6	10.51	124.91	118.60
84	Aa	3047	A	N1-C6-N6	10.51	124.91	118.60
1	Ad	1321	C	C1'-O4'-C4'	-10.51	101.50	109.90
84	Aa	1322	A	C5-C6-N6	-10.50	115.30	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2265	A	N1-C6-N6	10.50	124.90	118.60
84	Aa	2919	G	N1-C6-O6	10.50	126.20	119.90
84	Aa	1217	G	N1-C6-O6	10.50	126.20	119.90
84	Aa	2222	C	P-O3'-C3'	10.49	132.29	119.70
84	Aa	2739	A	N1-C6-N6	10.49	124.89	118.60
1	Ad	831	C	O4'-C1'-N1	10.49	116.59	108.20
84	Aa	2319	A	N1-C6-N6	10.49	124.89	118.60
1	Ad	130	A	O4'-C1'-N9	10.48	116.59	108.20
84	Aa	346	A	N1-C6-N6	10.48	124.89	118.60
84	Aa	2136	A	N1-C6-N6	10.48	124.89	118.60
1	Ad	1162	A	N9-C1'-C2'	-10.48	100.38	114.00
84	Aa	1998	A	N1-C6-N6	10.48	124.89	118.60
84	Aa	723	G	C5'-C4'-O4'	-10.47	96.54	109.10
84	Aa	1019	A	C5-C6-N6	-10.47	115.32	123.70
1	Ad	872	G	O4'-C1'-N9	10.46	116.56	108.20
84	Aa	2697	A	N1-C6-N6	10.46	124.87	118.60
1	Ad	110	G	O4'-C1'-N9	10.45	116.56	108.20
1	Ad	1328	G	O4'-C1'-N9	10.45	116.56	108.20
84	Aa	359	A	N1-C6-N6	10.45	124.87	118.60
84	Aa	2374	G	N1-C6-O6	10.44	126.17	119.90
84	Aa	3225	G	N1-C6-O6	10.43	126.16	119.90
1	Ad	970	U	N1-C1'-C2'	10.43	127.56	114.00
1	Ad	1220	C	O4'-C1'-C2'	-10.43	95.37	105.80
84	Aa	2174	C	O4'-C1'-N1	10.43	116.54	108.20
1	Ad	1487	U	P-O3'-C3'	10.43	132.21	119.70
84	Aa	2513	U	C2'-C3'-O3'	10.43	132.44	109.50
86	Ab	86	G	N1-C6-O6	10.42	126.15	119.90
1	Ad	1161	C	N1-C1'-C2'	10.42	127.54	114.00
1	Ad	846	U	C1'-O4'-C4'	-10.41	101.57	109.90
1	Ad	731	G	O4'-C1'-N9	10.41	116.53	108.20
84	Aa	3179	G	N1-C6-O6	10.41	126.15	119.90
84	Aa	2257	A	N1-C6-N6	10.41	124.85	118.60
84	Aa	553	C	C4'-C3'-O3'	10.40	133.81	113.00
84	Aa	1523	G	N1-C6-O6	10.40	126.14	119.90
84	Aa	2150	C	O4'-C1'-N1	10.40	116.52	108.20
84	Aa	641	C	O4'-C1'-N1	10.40	116.52	108.20
84	Aa	436	G	N1-C6-O6	10.40	126.14	119.90
1	Ad	330	G	O4'-C1'-N9	10.40	116.52	108.20
84	Aa	1493	A	N1-C6-N6	10.39	124.84	118.60
84	Aa	26	A	N1-C6-N6	10.39	124.83	118.60
84	Aa	808	G	N1-C6-O6	10.39	126.13	119.90
1	Ad	1806	C	C3'-C2'-C1'	10.38	109.81	101.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2006	A	P-O3'-C3'	10.38	132.16	119.70
84	Aa	2132	A	O4'-C1'-N9	10.38	116.50	108.20
86	Ab	107	C	O4'-C1'-N1	10.38	116.50	108.20
1	Ad	707	C	N1-C1'-C2'	-10.38	100.51	114.00
1	Ad	1120	U	O4'-C1'-N1	10.37	116.50	108.20
84	Aa	1617	A	N1-C6-N6	10.37	124.82	118.60
84	Aa	2166	U	P-O3'-C3'	10.37	132.14	119.70
84	Aa	3334	A	N1-C6-N6	10.37	124.82	118.60
1	Ad	144	U	O4'-C1'-N1	10.37	116.49	108.20
1	Ad	712	U	O4'-C1'-N1	10.37	116.49	108.20
84	Aa	2306	G	N1-C6-O6	10.37	126.12	119.90
84	Aa	3307	A	N1-C6-N6	10.37	124.82	118.60
86	Ab	13	A	O4'-C1'-N9	10.36	116.49	108.20
1	Ad	1303	G	C1'-O4'-C4'	-10.36	101.61	109.90
84	Aa	843	C	O4'-C1'-N1	10.36	116.49	108.20
1	Ad	1297	U	O4'-C1'-N1	10.35	116.48	108.20
1	Ad	1358	G	N9-C1'-C2'	10.34	127.44	114.00
84	Aa	1879	A	N1-C6-N6	10.34	124.80	118.60
84	Aa	721	A	O4'-C1'-N9	10.34	116.47	108.20
84	Aa	1902	G	N1-C6-O6	10.34	126.10	119.90
1	Ad	1640	C	N1-C1'-C2'	10.33	127.43	114.00
85	Ac	59	A	N1-C6-N6	10.33	124.80	118.60
85	Ac	43	A	N1-C6-N6	10.33	124.80	118.60
84	Aa	316	A	N1-C6-N6	10.33	124.80	118.60
84	Aa	2850	G	N1-C6-O6	10.33	126.10	119.90
84	Aa	3013	A	N1-C6-N6	10.33	124.80	118.60
84	Aa	3333	C	O4'-C1'-N1	10.31	116.45	108.20
84	Aa	1349	G	C5-C6-O6	-10.30	122.42	128.60
1	Ad	172	U	O4'-C1'-N1	10.30	116.44	108.20
84	Aa	3248	G	N1-C6-O6	10.30	126.08	119.90
1	Ad	1520	G	O4'-C1'-N9	10.29	116.44	108.20
1	Ad	1757	G	O4'-C1'-N9	10.29	116.44	108.20
84	Aa	1316	C	O4'-C1'-N1	10.29	116.44	108.20
84	Aa	1870	G	N1-C6-O6	10.29	126.08	119.90
84	Aa	389	A	N1-C6-N6	10.29	124.77	118.60
84	Aa	1542	A	N1-C6-N6	10.29	124.77	118.60
84	Aa	1813	C	O4'-C1'-N1	10.29	116.43	108.20
84	Aa	2238	A	N1-C6-N6	10.29	124.77	118.60
84	Aa	3244	G	N1-C6-O6	10.29	126.07	119.90
84	Aa	2058	C	O4'-C1'-N1	10.29	116.43	108.20
84	Aa	2558	U	O4'-C1'-N1	10.28	116.43	108.20
86	Ab	37	G	C5-C6-O6	-10.28	122.43	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	754	U	O4'-C1'-N1	10.28	116.42	108.20
84	Aa	2583	A	N1-C6-N6	10.28	124.77	118.60
84	Aa	1031	A	N1-C6-N6	10.27	124.76	118.60
1	Ad	496	A	O4'-C1'-N9	10.27	116.41	108.20
84	Aa	1105	G	N1-C6-O6	10.27	126.06	119.90
1	Ad	870	A	N9-C1'-C2'	-10.26	100.66	114.00
1	Ad	1261	U	O4'-C1'-N1	10.26	116.41	108.20
84	Aa	1744	C	O4'-C1'-N1	10.26	116.41	108.20
84	Aa	339	G	N1-C6-O6	10.26	126.06	119.90
84	Aa	3030	A	N1-C6-N6	10.26	124.76	118.60
84	Aa	3175	C	O4'-C1'-N1	10.25	116.40	108.20
84	Aa	965	A	N1-C6-N6	10.25	124.75	118.60
86	Ab	19	A	C4-C5-C6	10.25	122.12	117.00
84	Aa	473	G	C4'-C3'-O3'	10.25	133.49	113.00
1	Ad	1004	U	O4'-C1'-N1	10.24	116.39	108.20
84	Aa	3288	A	N1-C6-N6	10.24	124.74	118.60
84	Aa	2909	A	N1-C6-N6	10.24	124.74	118.60
84	Aa	3253	C	O4'-C1'-N1	10.24	116.39	108.20
85	Ac	65	G	N1-C6-O6	10.24	126.04	119.90
1	Ad	281	U	P-O3'-C3'	10.23	131.98	119.70
1	Ad	73	A	N9-C1'-C2'	-10.23	100.70	114.00
84	Aa	1006	A	N1-C6-N6	10.23	124.74	118.60
84	Aa	2682	A	N1-C6-N6	10.22	124.73	118.60
86	Ab	8	A	C5-C6-N1	-10.22	112.59	117.70
84	Aa	1486	G	O4'-C1'-N9	10.22	116.37	108.20
84	Aa	2376	G	N1-C6-O6	10.22	126.03	119.90
1	Ad	7	G	O4'-C1'-N9	10.21	116.37	108.20
2	Ae	69	G	C1'-O4'-C4'	-10.21	101.73	109.90
84	Aa	2698	A	N1-C6-N6	10.21	124.73	118.60
1	Ad	1683	G	O4'-C1'-N9	10.20	116.36	108.20
84	Aa	634	A	N1-C6-N6	10.20	124.72	118.60
84	Aa	2442	A	N1-C6-N6	10.19	124.72	118.60
84	Aa	804	A	N1-C6-N6	10.19	124.72	118.60
84	Aa	1677	G	N1-C6-O6	10.19	126.01	119.90
1	Ad	457	C	C1'-O4'-C4'	-10.18	101.75	109.90
84	Aa	2515	C	P-O3'-C3'	10.18	131.92	119.70
84	Aa	1663	G	N1-C6-O6	10.18	126.01	119.90
84	Aa	275	G	N1-C6-O6	10.18	126.01	119.90
84	Aa	1017	G	N1-C6-O6	10.17	126.00	119.90
84	Aa	1832	C	O4'-C1'-N1	10.17	116.33	108.20
84	Aa	1389	C	O4'-C1'-N1	10.16	116.33	108.20
84	Aa	810	A	N1-C6-N6	10.16	124.70	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	925	U	O4'-C1'-N1	10.16	116.33	108.20
1	Ad	1582	G	O4'-C1'-N9	-10.15	100.08	108.20
1	Ad	707	C	O4'-C1'-C2'	-10.14	95.66	105.80
1	Ad	235	C	P-O3'-C3'	10.14	131.87	119.70
85	Ac	37	A	N1-C6-N6	10.14	124.68	118.60
84	Aa	2501	U	P-O3'-C3'	10.14	131.86	119.70
84	Aa	157	G	N1-C6-O6	10.13	125.98	119.90
84	Aa	297	G	N1-C6-O6	10.13	125.98	119.90
86	Ab	44	C	N3-C4-C5	-10.13	117.85	121.90
1	Ad	1414	G	C1'-O4'-C4'	-10.13	101.80	109.90
1	Ad	430	G	O4'-C1'-N9	10.12	116.30	108.20
84	Aa	2447	A	N1-C6-N6	10.12	124.67	118.60
84	Aa	3086	G	N1-C6-O6	10.12	125.97	119.90
84	Aa	3185	G	N1-C6-O6	10.12	125.97	119.90
84	Aa	315	A	N1-C6-N6	10.12	124.67	118.60
84	Aa	2998	A	N1-C6-N6	10.12	124.67	118.60
84	Aa	2133	A	N1-C6-N6	10.12	124.67	118.60
84	Aa	1897	A	N1-C6-N6	10.10	124.66	118.60
84	Aa	919	G	P-O3'-C3'	10.10	131.82	119.70
84	Aa	2516	U	P-O3'-C3'	10.10	131.82	119.70
84	Aa	59	A	N1-C6-N6	10.10	124.66	118.60
1	Ad	247	A	O4'-C1'-N9	10.10	116.28	108.20
1	Ad	1210	U	O4'-C1'-N1	10.10	116.28	108.20
1	Ad	1801	A	N9-C1'-C2'	-10.10	100.88	114.00
84	Aa	637	C	O4'-C1'-N1	10.10	116.28	108.20
1	Ad	616	U	O4'-C1'-N1	10.09	116.27	108.20
84	Aa	909	A	N1-C6-N6	10.09	124.65	118.60
84	Aa	2693	G	N1-C6-O6	10.09	125.95	119.90
84	Aa	494	C	C5'-C4'-C3'	10.08	132.13	116.00
1	Ad	1759	A	O4'-C1'-N9	10.08	116.27	108.20
84	Aa	2231	G	N1-C6-O6	10.08	125.95	119.90
1	Ad	1505	U	O4'-C1'-N1	10.07	116.26	108.20
3	Af	16	G	C3'-C2'-C1'	10.07	109.56	101.50
84	Aa	3130	A	N1-C6-N6	10.07	124.64	118.60
86	Ab	67	C	N3-C4-N4	10.07	125.05	118.00
1	Ad	1203	G	O4'-C1'-C2'	-10.07	95.73	105.80
84	Aa	1559	G	O3'-P-O5'	10.07	123.13	104.00
84	Aa	1717	G	N1-C6-O6	10.07	125.94	119.90
84	Aa	1721	A	O4'-C1'-N9	10.06	116.25	108.20
1	Ad	1315	U	O4'-C1'-N1	10.05	116.24	108.20
1	Ad	1565	U	O4'-C1'-N1	10.05	116.24	108.20
84	Aa	2659	A	N1-C6-N6	10.05	124.63	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	3194	G	N1-C6-O6	10.05	125.93	119.90
1	Ad	504	C	C3'-C2'-C1'	10.04	109.53	101.50
84	Aa	108	A	N1-C6-N6	10.04	124.63	118.60
84	Aa	2177	U	P-O3'-C3'	10.04	131.75	119.70
84	Aa	3190	U	O4'-C1'-N1	10.04	116.23	108.20
1	Ad	1254	U	O4'-C1'-N1	10.03	116.23	108.20
84	Aa	1532	A	N1-C6-N6	10.03	124.62	118.60
1	Ad	235	C	C1'-O4'-C4'	10.03	117.92	109.90
84	Aa	1333	C	P-O3'-C3'	10.03	131.74	119.70
84	Aa	3318	G	N1-C6-O6	10.03	125.92	119.90
84	Aa	30	C	O4'-C1'-N1	10.03	116.22	108.20
84	Aa	2349	C	O4'-C1'-N1	10.03	116.22	108.20
84	Aa	2347	A	N1-C6-N6	10.02	124.61	118.60
84	Aa	3380	G	P-O3'-C3'	10.02	131.73	119.70
84	Aa	2242	G	N1-C6-O6	10.02	125.91	119.90
84	Aa	2504	A	N1-C6-N6	10.02	124.61	118.60
84	Aa	3385	G	O4'-C1'-N9	10.02	116.22	108.20
85	Ac	72	A	N1-C6-N6	10.02	124.61	118.60
84	Aa	2587	G	N1-C6-O6	10.02	125.91	119.90
84	Aa	1892	A	N1-C6-N6	10.01	124.61	118.60
1	Ad	66	U	O4'-C1'-N1	10.01	116.21	108.20
1	Ad	843	G	O4'-C1'-C2'	-10.01	95.79	105.80
84	Aa	840	A	N1-C6-N6	10.01	124.61	118.60
84	Aa	2970	G	N1-C6-O6	10.01	125.90	119.90
1	Ad	944	A	C3'-C2'-C1'	10.00	109.50	101.50
84	Aa	1412	C	O4'-C1'-N1	10.00	116.20	108.20
85	Ac	134	G	N1-C6-O6	10.00	125.90	119.90
84	Aa	878	G	N1-C6-O6	10.00	125.90	119.90
1	Ad	220	C	C3'-C2'-C1'	10.00	109.50	101.50
1	Ad	224	C	O4'-C1'-C2'	-9.99	95.81	105.80
84	Aa	1449	A	N1-C6-N6	9.99	124.59	118.60
84	Aa	2194	G	N1-C6-O6	9.99	125.89	119.90
1	Ad	1005	C	C3'-C2'-C1'	-9.98	93.51	101.50
84	Aa	2873	G	N1-C6-O6	9.98	125.89	119.90
84	Aa	2992	G	N1-C6-O6	9.98	125.89	119.90
86	Ab	41	G	C5-C6-O6	-9.98	122.61	128.60
1	Ad	1216	G	O4'-C1'-N9	9.97	116.18	108.20
84	Aa	3317	G	N1-C6-O6	9.97	125.89	119.90
1	Ad	1119	G	O4'-C1'-N9	9.97	116.18	108.20
84	Aa	431	G	N1-C6-O6	9.96	125.88	119.90
1	Ad	717	G	O4'-C1'-N9	-9.96	100.23	108.20
1	Ad	91	C	O4'-C1'-N1	9.95	116.16	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2639	A	N1-C6-N6	9.95	124.57	118.60
85	Ac	143	C	O4'-C1'-N1	9.95	116.16	108.20
1	Ad	1495	U	O4'-C1'-N1	9.94	116.15	108.20
84	Aa	11	A	N1-C6-N6	9.94	124.56	118.60
84	Aa	1421	A	N1-C6-N6	9.94	124.56	118.60
84	Aa	2084	G	C2'-C3'-O3'	-9.93	87.65	109.50
86	Ab	24	G	N1-C6-O6	9.93	125.86	119.90
84	Aa	1436	A	N1-C6-N6	9.92	124.56	118.60
84	Aa	2538	G	N1-C6-O6	9.92	125.85	119.90
85	Ac	131	G	N1-C6-O6	9.92	125.85	119.90
84	Aa	1383	G	N1-C6-O6	9.92	125.85	119.90
84	Aa	2523	G	N1-C6-O6	9.92	125.85	119.90
1	Ad	1575	U	O4'-C1'-N1	9.91	116.13	108.20
84	Aa	1396	A	N1-C6-N6	9.91	124.55	118.60
1	Ad	1797	C	O4'-C1'-N1	9.91	116.13	108.20
84	Aa	263	A	N1-C6-N6	9.91	124.55	118.60
84	Aa	1889	G	N1-C6-O6	9.91	125.85	119.90
84	Aa	3032	G	N1-C6-O6	9.91	125.85	119.90
84	Aa	993	A	N1-C6-N6	9.91	124.54	118.60
84	Aa	2650	A	N1-C6-N6	9.91	124.54	118.60
84	Aa	1211	G	N1-C6-O6	9.90	125.84	119.90
84	Aa	1298	A	N1-C6-N6	9.90	124.54	118.60
84	Aa	2619	C	O4'-C1'-N1	9.90	116.12	108.20
1	Ad	209	U	O4'-C1'-N1	9.90	116.12	108.20
1	Ad	468	A	O4'-C1'-N9	9.90	116.12	108.20
84	Aa	649	A	N1-C6-N6	9.89	124.54	118.60
1	Ad	243	U	O4'-C1'-N1	9.89	116.11	108.20
1	Ad	310	U	O4'-C1'-N1	9.89	116.11	108.20
84	Aa	425	G	N1-C6-O6	9.89	125.83	119.90
1	Ad	587	C	N1-C1'-C2'	9.89	126.85	114.00
84	Aa	974	G	N1-C6-O6	9.89	125.83	119.90
84	Aa	3375	G	N1-C6-O6	9.89	125.83	119.90
84	Aa	1723	C	P-O3'-C3'	9.88	131.55	119.70
84	Aa	398	G	N1-C6-O6	9.87	125.83	119.90
84	Aa	2443	C	O4'-C1'-N1	9.87	116.10	108.20
84	Aa	1487	A	N1-C6-N6	9.87	124.52	118.60
84	Aa	1901	G	N1-C6-O6	9.87	125.82	119.90
1	Ad	1498	A	P-O3'-C3'	9.87	131.54	119.70
84	Aa	253	G	O4'-C1'-N9	9.87	116.09	108.20
84	Aa	521	G	N1-C6-O6	9.87	125.82	119.90
84	Aa	1486	G	N1-C6-O6	9.87	125.82	119.90
1	Ad	1060	U	O4'-C1'-N1	9.86	116.09	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	1455	U	O4'-C1'-N1	9.86	116.09	108.20
84	Aa	3067	G	N1-C6-O6	9.86	125.82	119.90
84	Aa	542	G	N1-C6-O6	9.86	125.82	119.90
1	Ad	536	U	N1-C1'-C2'	9.86	126.81	114.00
84	Aa	1452	A	N1-C6-N6	9.85	124.51	118.60
84	Aa	845	G	N1-C6-O6	9.85	125.81	119.90
84	Aa	911	G	N1-C6-O6	9.85	125.81	119.90
84	Aa	1958	G	O4'-C4'-C3'	-9.85	94.15	104.00
84	Aa	549	G	N1-C6-O6	9.85	125.81	119.90
84	Aa	579	G	N1-C6-O6	9.85	125.81	119.90
1	Ad	208	U	O4'-C1'-N1	9.84	116.07	108.20
84	Aa	283	A	N1-C6-N6	9.84	124.50	118.60
1	Ad	516	A	O4'-C1'-N9	9.84	116.07	108.20
84	Aa	1649	G	N1-C6-O6	9.84	125.80	119.90
84	Aa	1094	G	N1-C6-O6	9.83	125.80	119.90
84	Aa	1673	A	N1-C6-N6	9.83	124.50	118.60
1	Ad	219	G	N9-C1'-C2'	-9.82	101.19	112.00
84	Aa	2610	G	N1-C6-O6	9.81	125.78	119.90
1	Ad	820	A	O4'-C1'-N9	9.81	116.05	108.20
1	Ad	851	G	C3'-C2'-C1'	-9.80	93.66	101.50
1	Ad	924	A	O4'-C1'-N9	9.80	116.04	108.20
84	Aa	936	A	N1-C6-N6	9.80	124.48	118.60
84	Aa	2384	G	N1-C6-O6	9.81	125.78	119.90
84	Aa	2073	U	O4'-C1'-N1	9.80	116.04	108.20
84	Aa	2363	G	N1-C6-O6	9.80	125.78	119.90
84	Aa	1786	G	N1-C6-O6	9.79	125.78	119.90
1	Ad	916	U	O4'-C1'-N1	9.79	116.03	108.20
84	Aa	1746	G	N1-C6-O6	9.79	125.78	119.90
86	Ab	26	C	O4'-C1'-N1	9.79	116.03	108.20
84	Aa	1317	G	N1-C6-O6	9.79	125.78	119.90
86	Ab	60	G	O4'-C1'-N9	9.79	116.03	108.20
1	Ad	579	C	O4'-C1'-N1	9.79	116.03	108.20
1	Ad	1375	C	C3'-C2'-C1'	9.79	109.33	101.50
84	Aa	3099	G	N1-C6-O6	9.79	125.77	119.90
1	Ad	1462	C	C3'-C2'-C1'	-9.79	93.67	101.50
84	Aa	1359	A	P-O3'-C3'	9.79	131.44	119.70
84	Aa	2163	G	N1-C6-O6	9.78	125.77	119.90
84	Aa	1721	A	N1-C6-N6	9.78	124.47	118.60
1	Ad	1671	G	O4'-C1'-N9	9.78	116.02	108.20
84	Aa	388	G	N1-C6-O6	9.78	125.77	119.90
84	Aa	3345	G	N1-C6-O6	9.78	125.77	119.90
1	Ad	1771	U	P-O3'-C3'	9.77	131.43	119.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	526	A	N1-C6-N6	9.77	124.46	118.60
2	Ae	73	C	C1'-O4'-C4'	-9.77	102.08	109.90
84	Aa	3377	G	N1-C6-O6	9.77	125.76	119.90
84	Aa	3181	U	P-O3'-C3'	9.77	131.42	119.70
1	Ad	512	U	O4'-C1'-N1	9.77	116.01	108.20
1	Ad	1022	U	O4'-C1'-N1	9.77	116.01	108.20
84	Aa	2181	U	O4'-C1'-N1	9.77	116.01	108.20
84	Aa	2830	G	N1-C6-O6	9.77	125.76	119.90
86	Ab	24	G	C5-C6-O6	-9.76	122.74	128.60
84	Aa	618	G	N1-C6-O6	9.76	125.76	119.90
84	Aa	2172	C	O4'-C1'-N1	9.76	116.01	108.20
84	Aa	1352	G	N1-C6-O6	9.76	125.75	119.90
84	Aa	1446	G	N1-C6-O6	9.76	125.75	119.90
84	Aa	2234	G	N1-C6-O6	9.76	125.75	119.90
84	Aa	3278	G	N1-C6-O6	9.76	125.75	119.90
84	Aa	3354	A	N1-C6-N6	9.75	124.45	118.60
1	Ad	780	A	C3'-C2'-C1'	-9.75	93.70	101.50
1	Ad	1008	A	O4'-C1'-N9	9.75	116.00	108.20
84	Aa	2604	A	N1-C6-N6	9.75	124.45	118.60
86	Ab	108	G	N1-C6-O6	9.75	125.75	119.90
1	Ad	87	A	N9-C1'-C2'	-9.74	101.28	112.00
1	Ad	1322	G	O4'-C1'-N9	9.74	115.99	108.20
1	Ad	1200	A	O4'-C1'-N9	9.74	115.99	108.20
1	Ad	158	C	N1-C1'-C2'	9.74	126.66	114.00
84	Aa	2090	G	N1-C6-O6	9.73	125.74	119.90
84	Aa	334	A	N1-C6-N6	9.73	124.44	118.60
84	Aa	2302	G	N1-C6-O6	9.73	125.74	119.90
1	Ad	1657	C	O4'-C1'-N1	9.73	115.98	108.20
84	Aa	2692	G	N1-C6-O6	9.73	125.74	119.90
1	Ad	1382	C	O4'-C1'-N1	9.73	115.98	108.20
84	Aa	1923	G	N1-C6-O6	9.73	125.74	119.90
84	Aa	2613	G	N1-C6-O6	9.73	125.74	119.90
84	Aa	2069	G	N1-C6-O6	9.72	125.73	119.90
1	Ad	437	C	N1-C1'-C2'	9.72	126.64	114.00
84	Aa	3153	U	O4'-C1'-N1	9.72	115.98	108.20
85	Ac	130	G	N1-C6-O6	9.72	125.73	119.90
1	Ad	351	G	C1'-O4'-C4'	-9.72	102.13	109.90
84	Aa	2902	A	N1-C6-N6	9.72	124.43	118.60
84	Aa	1428	G	N1-C6-O6	9.71	125.73	119.90
1	Ad	503	U	O4'-C1'-N1	9.71	115.96	108.20
84	Aa	1756	C	O4'-C1'-N1	9.71	115.96	108.20
85	Ac	11	C	O4'-C1'-N1	9.71	115.96	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	251	U	O4'-C1'-N1	9.70	115.96	108.20
84	Aa	1801	G	N1-C6-O6	9.70	125.72	119.90
84	Aa	648	G	N1-C6-O6	9.69	125.72	119.90
84	Aa	907	A	N1-C6-N6	9.69	124.42	118.60
84	Aa	125	G	N1-C6-O6	9.69	125.72	119.90
84	Aa	423	C	N3-C4-N4	9.69	124.78	118.00
1	Ad	1684	U	O4'-C1'-N1	9.69	115.95	108.20
84	Aa	502	G	N1-C6-O6	9.69	125.71	119.90
84	Aa	2803	A	N1-C6-N6	9.69	124.41	118.60
84	Aa	133	G	N1-C6-O6	9.69	125.71	119.90
84	Aa	560	C	O4'-C1'-N1	9.68	115.95	108.20
84	Aa	2741	G	N1-C6-O6	9.68	125.71	119.90
1	Ad	841	U	O4'-C1'-N1	9.68	115.94	108.20
84	Aa	2945	G	N1-C6-O6	9.68	125.71	119.90
1	Ad	342	C	N1-C1'-C2'	9.67	126.58	114.00
1	Ad	505	U	P-O3'-C3'	9.67	131.30	119.70
84	Aa	1594	G	N1-C6-O6	9.67	125.70	119.90
84	Aa	474	G	O4'-C1'-N9	9.67	115.93	108.20
1	Ad	1806	C	O4'-C1'-C2'	-9.67	96.13	105.80
1	Ad	362	U	O4'-C1'-N1	9.66	115.93	108.20
86	Ab	70	G	N1-C6-O6	9.66	125.70	119.90
1	Ad	1257	U	O4'-C1'-N1	9.66	115.93	108.20
2	Ae	39	G	O4'-C1'-N9	9.66	115.93	108.20
84	Aa	753	G	N1-C6-O6	9.66	125.70	119.90
1	Ad	1500	A	O4'-C1'-N9	9.66	115.93	108.20
1	Ad	1084	U	O4'-C1'-N1	9.65	115.92	108.20
84	Aa	1650	G	N1-C6-O6	9.65	125.69	119.90
1	Ad	1176	A	O4'-C1'-N9	9.65	115.92	108.20
85	Ac	95	G	N1-C6-O6	9.64	125.69	119.90
1	Ad	854	C	O4'-C1'-C2'	-9.64	96.16	105.80
84	Aa	2146	A	N1-C6-N6	9.64	124.38	118.60
84	Aa	2174	C	P-O5'-C5'	9.64	136.32	120.90
84	Aa	764	A	N1-C6-N6	9.63	124.38	118.60
84	Aa	1772	G	N1-C6-O6	9.63	125.68	119.90
85	Ac	97	G	N1-C6-O6	9.63	125.68	119.90
1	Ad	887	U	O4'-C1'-N1	9.62	115.90	108.20
1	Ad	1560	U	O4'-C1'-N1	9.62	115.90	108.20
1	Ad	233	U	O4'-C1'-N1	9.62	115.90	108.20
84	Aa	1450	G	N1-C6-O6	9.62	125.67	119.90
84	Aa	1290	A	N1-C6-N6	9.62	124.37	118.60
1	Ad	1311	U	C1'-O4'-C4'	9.62	117.59	109.90
84	Aa	841	G	N1-C6-O6	9.61	125.67	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	Ae	74	C	O4'-C1'-N1	9.61	115.88	108.20
84	Aa	1309	U	P-O3'-C3'	9.61	131.23	119.70
84	Aa	3364	A	N1-C6-N6	9.61	124.36	118.60
84	Aa	3206	C	O4'-C1'-N1	9.61	115.88	108.20
84	Aa	2244	G	N1-C6-O6	9.60	125.66	119.90
84	Aa	3243	C	O4'-C1'-N1	9.60	115.88	108.20
84	Aa	1250	G	O4'-C1'-N9	9.60	115.88	108.20
1	Ad	1096	A	O4'-C1'-C2'	9.60	116.24	107.60
84	Aa	2361	C	O4'-C1'-N1	9.60	115.88	108.20
1	Ad	1031	A	O4'-C1'-N9	9.60	115.88	108.20
1	Ad	1448	U	O4'-C1'-N1	9.60	115.88	108.20
84	Aa	1092	G	C5-C6-O6	-9.60	122.84	128.60
84	Aa	851	A	N1-C6-N6	9.60	124.36	118.60
84	Aa	202	G	N1-C6-O6	9.59	125.65	119.90
84	Aa	1132	A	N1-C6-N6	9.59	124.35	118.60
2	Ae	49	G	O4'-C1'-N9	9.59	115.87	108.20
84	Aa	949	C	O4'-C1'-N1	9.59	115.87	108.20
84	Aa	1774	G	N1-C6-O6	9.59	125.65	119.90
86	Ab	42	A	C5-C6-N6	-9.59	116.03	123.70
86	Ab	116	U	O4'-C1'-N1	9.59	115.87	108.20
84	Aa	2087	A	N9-C1'-C2'	9.58	126.46	114.00
84	Aa	2525	G	P-O3'-C3'	9.58	131.20	119.70
1	Ad	1407	A	O4'-C1'-N9	9.58	115.86	108.20
84	Aa	1025	G	N1-C6-O6	9.58	125.65	119.90
84	Aa	1479	G	N1-C6-O6	9.58	125.65	119.90
84	Aa	2323	A	N1-C6-N6	9.58	124.35	118.60
1	Ad	35	U	O4'-C1'-N1	9.57	115.86	108.20
84	Aa	2473	C	O4'-C1'-N1	9.57	115.86	108.20
1	Ad	238	G	P-O3'-C3'	9.57	131.18	119.70
84	Aa	2093	G	N1-C6-O6	9.57	125.64	119.90
1	Ad	745	C	C1'-O4'-C4'	9.57	117.55	109.90
84	Aa	816	G	N1-C6-O6	9.57	125.64	119.90
84	Aa	953	G	N1-C6-O6	9.57	125.64	119.90
84	Aa	664	A	N1-C6-N6	9.56	124.34	118.60
84	Aa	1272	G	N1-C6-O6	9.56	125.64	119.90
84	Aa	2403	A	N1-C6-N6	9.56	124.34	118.60
84	Aa	3328	A	N1-C6-N6	9.56	124.34	118.60
86	Ab	76	U	O4'-C1'-N1	9.56	115.85	108.20
86	Ab	101	A	N1-C6-N6	9.56	124.34	118.60
84	Aa	662	G	N1-C6-O6	9.56	125.64	119.90
84	Aa	857	G	N1-C6-O6	9.56	125.64	119.90
84	Aa	423	C	C5-C4-N4	-9.55	113.51	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2011	G	P-O3'-C3'	9.55	131.16	119.70
84	Aa	740	G	N1-C6-O6	9.55	125.63	119.90
84	Aa	1384	G	N1-C6-O6	9.55	125.63	119.90
84	Aa	1480	G	N1-C6-O6	9.55	125.63	119.90
84	Aa	1562	A	P-O3'-C3'	9.55	131.16	119.70
1	Ad	582	U	O4'-C1'-N1	9.54	115.84	108.20
1	Ad	1067	A	C3'-C2'-C1'	-9.54	93.87	101.50
1	Ad	1765	A	N9-C1'-C2'	-9.54	101.51	112.00
85	Ac	107	G	N1-C6-O6	9.54	125.62	119.90
2	Ae	11	U	O4'-C1'-N1	9.53	115.83	108.20
84	Aa	2078	G	N1-C6-O6	9.53	125.62	119.90
1	Ad	238	G	N9-C1'-C2'	9.53	126.39	114.00
84	Aa	1244	A	N1-C6-N6	9.53	124.32	118.60
84	Aa	1946	C	O4'-C1'-N1	9.53	115.82	108.20
84	Aa	1244	A	P-O3'-C3'	9.52	131.13	119.70
1	Ad	87	A	O4'-C1'-C2'	-9.52	96.28	105.80
1	Ad	952	U	O4'-C1'-N1	9.52	115.81	108.20
84	Aa	3302	A	N1-C6-N6	9.52	124.31	118.60
86	Ab	54	A	N1-C6-N6	9.52	124.31	118.60
84	Aa	328	G	N1-C6-O6	9.52	125.61	119.90
84	Aa	1423	C	O4'-C1'-N1	9.52	115.81	108.20
1	Ad	868	A	P-O3'-C3'	9.51	131.12	119.70
84	Aa	1390	G	N1-C6-O6	9.50	125.60	119.90
84	Aa	2308	A	N1-C6-N6	9.50	124.30	118.60
84	Aa	430	G	N1-C6-O6	9.50	125.60	119.90
84	Aa	1431	G	N1-C6-O6	9.50	125.60	119.90
1	Ad	1637	G	C1'-O4'-C4'	-9.49	102.30	109.90
84	Aa	1750	A	N1-C6-N6	9.49	124.30	118.60
1	Ad	1691	C	O4'-C1'-N1	9.49	115.79	108.20
1	Ad	1765	A	C3'-C2'-C1'	-9.49	93.91	101.50
1	Ad	1475	A	C3'-C2'-C1'	9.49	109.09	101.50
84	Aa	235	G	N1-C6-O6	9.49	125.59	119.90
84	Aa	1955	G	N1-C6-O6	9.49	125.59	119.90
84	Aa	2462	G	O4'-C1'-N9	9.49	115.79	108.20
84	Aa	3254	C	O4'-C1'-N1	9.49	115.79	108.20
1	Ad	1730	G	O4'-C1'-C2'	-9.49	96.31	105.80
84	Aa	695	G	N1-C6-O6	9.49	125.59	119.90
84	Aa	456	G	N1-C6-O6	9.48	125.59	119.90
84	Aa	2690	G	N1-C6-O6	9.48	125.59	119.90
1	Ad	205	U	C1'-O4'-C4'	9.48	117.48	109.90
1	Ad	1656	C	C3'-C2'-C1'	9.48	109.08	101.50
84	Aa	590	C	C4'-C3'-O3'	9.48	131.96	113.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	862	G	N1-C6-O6	9.48	125.59	119.90
84	Aa	367	A	N1-C6-N6	9.47	124.28	118.60
84	Aa	627	G	N1-C6-O6	9.47	125.58	119.90
1	Ad	1310	C	C3'-C2'-C1'	9.47	109.08	101.50
84	Aa	514	G	N1-C6-O6	9.47	125.58	119.90
84	Aa	2764	G	C5-C6-O6	-9.47	122.92	128.60
1	Ad	1739	U	O4'-C1'-N1	9.47	115.78	108.20
2	Ae	67	G	O4'-C1'-N9	9.47	115.77	108.20
84	Aa	1641	G	N1-C6-O6	9.47	125.58	119.90
1	Ad	1608	A	O4'-C1'-N9	9.46	115.77	108.20
84	Aa	171	G	C5-C6-O6	-9.46	122.92	128.60
84	Aa	1247	G	N1-C6-O6	9.46	125.58	119.90
84	Aa	1652	G	N1-C6-O6	9.46	125.58	119.90
84	Aa	678	G	N1-C6-O6	9.46	125.58	119.90
1	Ad	1096	A	O4'-C1'-N9	9.46	115.77	108.20
84	Aa	449	G	N1-C6-O6	9.46	125.57	119.90
1	Ad	1200	A	P-O3'-C3'	9.45	131.04	119.70
84	Aa	1539	G	N1-C6-O6	9.46	125.57	119.90
84	Aa	1677	G	C5-C6-O6	-9.46	122.93	128.60
84	Aa	517	G	N1-C6-O6	9.45	125.57	119.90
84	Aa	1907	A	N1-C6-N6	9.45	124.27	118.60
84	Aa	1847	G	N1-C6-O6	9.45	125.57	119.90
1	Ad	1304	A	O4'-C1'-N9	9.45	115.76	108.20
84	Aa	1664	G	N1-C6-O6	9.45	125.57	119.90
1	Ad	921	U	O4'-C1'-N1	9.44	115.75	108.20
84	Aa	731	G	C5-C6-O6	-9.45	122.93	128.60
84	Aa	1130	G	N1-C6-O6	9.44	125.57	119.90
84	Aa	178	C	O4'-C1'-N1	9.44	115.75	108.20
84	Aa	3149	C	O4'-C1'-N1	9.44	115.75	108.20
86	Ab	51	G	N1-C6-O6	9.44	125.56	119.90
84	Aa	42	A	N1-C6-N6	9.44	124.26	118.60
84	Aa	1140	C	O4'-C1'-N1	9.44	115.75	108.20
84	Aa	1958	G	O4'-C1'-N9	9.44	115.75	108.20
84	Aa	318	G	N1-C6-O6	9.43	125.56	119.90
84	Aa	2295	G	N1-C6-O6	9.43	125.56	119.90
84	Aa	3371	C	O4'-C1'-N1	9.43	115.75	108.20
84	Aa	2661	G	C5-C6-O6	-9.43	122.94	128.60
84	Aa	3102	G	N1-C6-O6	9.43	125.56	119.90
86	Ab	105	C	O4'-C1'-N1	9.43	115.74	108.20
84	Aa	1089	G	N1-C6-O6	9.43	125.56	119.90
84	Aa	3157	C	O4'-C1'-N1	9.43	115.74	108.20
85	Ac	136	G	N1-C6-O6	9.43	125.56	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	3390	G	N1-C6-O6	9.42	125.55	119.90
84	Aa	1243	C	O4'-C1'-N1	9.42	115.73	108.20
1	Ad	1397	A	N9-C1'-C2'	9.41	126.24	114.00
84	Aa	809	A	N1-C6-N6	9.41	124.25	118.60
1	Ad	588	C	N1-C1'-C2'	9.41	126.23	114.00
84	Aa	2183	A	N1-C6-N6	9.41	124.25	118.60
1	Ad	548	C	N1-C1'-C2'	9.41	126.23	114.00
1	Ad	947	G	O4'-C1'-N9	9.40	115.72	108.20
1	Ad	1039	C	O4'-C1'-N1	9.40	115.72	108.20
1	Ad	1271	G	O4'-C1'-N9	9.40	115.72	108.20
84	Aa	285	G	N1-C6-O6	9.40	125.54	119.90
84	Aa	38	A	N1-C6-N6	9.40	124.24	118.60
1	Ad	994	U	O4'-C1'-N1	9.39	115.72	108.20
84	Aa	21	G	N1-C6-O6	9.39	125.54	119.90
84	Aa	3312	G	C5-C6-O6	-9.39	122.96	128.60
1	Ad	104	A	O4'-C1'-N9	9.39	115.71	108.20
84	Aa	566	G	N1-C6-O6	9.39	125.53	119.90
84	Aa	432	G	N1-C6-O6	9.39	125.53	119.90
84	Aa	1066	G	N1-C6-O6	9.39	125.53	119.90
84	Aa	1145	G	N1-C6-O6	9.39	125.53	119.90
84	Aa	2087	A	O4'-C1'-N9	9.39	115.71	108.20
86	Ab	92	C	N3-C4-N4	9.39	124.57	118.00
1	Ad	785	A	C3'-C2'-C1'	9.39	109.01	101.50
84	Aa	1236	C	O4'-C1'-N1	9.38	115.71	108.20
84	Aa	2879	G	N1-C6-O6	9.38	125.53	119.90
84	Aa	3190	U	P-O3'-C3'	9.38	130.96	119.70
84	Aa	2392	G	N1-C6-O6	9.38	125.53	119.90
84	Aa	581	G	N1-C6-O6	9.38	125.53	119.90
84	Aa	1769	C	O4'-C1'-N1	9.38	115.70	108.20
1	Ad	1692	G	O4'-C1'-N9	9.38	115.70	108.20
1	Ad	1803	G	O4'-C1'-C2'	-9.38	96.42	105.80
84	Aa	836	G	N1-C6-O6	9.38	125.53	119.90
86	Ab	20	C	O4'-C1'-N1	9.38	115.70	108.20
84	Aa	3298	G	N1-C6-O6	9.38	125.53	119.90
84	Aa	213	G	N1-C6-O6	9.38	125.53	119.90
84	Aa	798	G	N1-C6-O6	9.38	125.53	119.90
84	Aa	1263	A	C5-C6-N6	-9.37	116.20	123.70
84	Aa	1675	G	N1-C6-O6	9.37	125.52	119.90
84	Aa	1780	C	O4'-C1'-N1	9.37	115.70	108.20
84	Aa	2525	G	N1-C6-O6	9.37	125.52	119.90
84	Aa	2278	G	N1-C6-O6	9.37	125.52	119.90
1	Ad	119	U	O4'-C1'-N1	9.37	115.69	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	937	A	O4'-C1'-N9	9.37	115.69	108.20
1	Ad	1570	G	O4'-C1'-N9	9.36	115.69	108.20
85	Ac	3	A	O4'-C1'-N9	9.36	115.69	108.20
84	Aa	548	G	N1-C6-O6	9.36	125.51	119.90
84	Aa	794	G	N1-C6-O6	9.35	125.51	119.90
84	Aa	2219	A	N1-C6-N6	9.35	124.21	118.60
84	Aa	1524	G	N1-C6-O6	9.35	125.51	119.90
3	Af	16	G	O4'-C1'-C2'	-9.35	96.45	105.80
1	Ad	459	C	O4'-C1'-C2'	-9.34	96.46	105.80
1	Ad	1334	G	O4'-C1'-C2'	-9.34	96.46	105.80
84	Aa	302	G	N1-C6-O6	9.34	125.50	119.90
86	Ab	87	G	N1-C6-O6	9.34	125.50	119.90
84	Aa	623	G	N1-C6-O6	9.33	125.50	119.90
84	Aa	2550	C	O4'-C1'-N1	9.33	115.67	108.20
84	Aa	1356	G	P-O3'-C3'	9.33	130.90	119.70
1	Ad	1301	G	O4'-C1'-N9	9.33	115.66	108.20
1	Ad	1129	A	O4'-C1'-N9	9.33	115.66	108.20
84	Aa	1575	G	N1-C6-O6	9.33	125.50	119.90
86	Ab	90	A	C8-N9-C4	-9.33	102.07	105.80
84	Aa	1220	G	C5-C6-O6	-9.32	123.01	128.60
84	Aa	2577	G	N1-C6-O6	9.32	125.49	119.90
1	Ad	1384	U	O4'-C1'-N1	9.32	115.66	108.20
84	Aa	1188	C	O4'-C1'-N1	9.32	115.66	108.20
84	Aa	509	G	N1-C6-O6	9.32	125.49	119.90
84	Aa	1106	G	N1-C6-O6	9.32	125.49	119.90
84	Aa	2701	G	N1-C6-O6	9.32	125.49	119.90
85	Ac	111	G	N1-C6-O6	9.31	125.49	119.90
84	Aa	2320	A	N1-C6-N6	9.31	124.19	118.60
1	Ad	50	C	O4'-C1'-N1	9.30	115.64	108.20
1	Ad	111	U	O4'-C1'-N1	9.30	115.64	108.20
84	Aa	2149	G	O4'-C1'-N9	9.30	115.64	108.20
2	Ae	5	U	O4'-C1'-N1	9.30	115.64	108.20
84	Aa	1208	A	N1-C6-N6	9.30	124.18	118.60
84	Aa	866	C	O4'-C1'-N1	9.29	115.63	108.20
84	Aa	2382	C	O4'-C1'-N1	9.29	115.63	108.20
86	Ab	97	G	N1-C6-O6	9.29	125.47	119.90
1	Ad	180	A	O4'-C1'-N9	9.29	115.63	108.20
1	Ad	894	U	O4'-C1'-N1	9.29	115.63	108.20
84	Aa	1107	G	C5-C6-O6	-9.29	123.03	128.60
86	Ab	108	G	C5-C6-O6	-9.29	123.03	128.60
1	Ad	192	G	C1'-O4'-C4'	-9.28	102.47	109.90
84	Aa	241	G	N1-C6-O6	9.28	125.47	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2453	G	N1-C6-O6	9.28	125.47	119.90
84	Aa	1375	G	N1-C6-O6	9.28	125.47	119.90
1	Ad	239	C	C3'-C2'-C1'	9.28	108.92	101.50
1	Ad	1509	C	O4'-C1'-N1	9.28	115.62	108.20
84	Aa	966	G	N1-C6-O6	9.28	125.47	119.90
1	Ad	1758	G	O4'-C1'-C2'	9.28	115.95	107.60
84	Aa	137	C	O4'-C1'-N1	9.28	115.62	108.20
84	Aa	682	G	N1-C6-O6	9.28	125.47	119.90
84	Aa	1277	A	N1-C6-N6	9.27	124.16	118.60
84	Aa	1814	C	O4'-C1'-N1	9.27	115.62	108.20
84	Aa	2151	G	N1-C6-O6	9.27	125.46	119.90
84	Aa	2652	G	N1-C6-O6	9.27	125.46	119.90
1	Ad	740	U	O4'-C1'-N1	9.27	115.62	108.20
84	Aa	2273	C	O4'-C1'-N1	9.27	115.62	108.20
86	Ab	109	U	O4'-C1'-N1	9.27	115.62	108.20
84	Aa	421	A	N1-C6-N6	9.27	124.16	118.60
84	Aa	2418	A	N1-C6-N6	9.27	124.16	118.60
84	Aa	3178	C	O4'-C1'-N1	9.27	115.61	108.20
84	Aa	724	A	N1-C6-N6	9.27	124.16	118.60
84	Aa	1374	G	N1-C6-O6	9.27	125.46	119.90
84	Aa	1595	G	N1-C6-O6	9.27	125.46	119.90
84	Aa	2796	G	C5-C6-O6	-9.26	123.04	128.60
1	Ad	745	C	O4'-C1'-C2'	-9.26	96.54	105.80
84	Aa	32	G	N1-C6-O6	9.26	125.46	119.90
84	Aa	823	A	N1-C6-N6	9.26	124.15	118.60
84	Aa	996	A	N1-C6-N6	9.26	124.15	118.60
85	Ac	70	G	N1-C6-O6	9.26	125.45	119.90
84	Aa	89	C	O4'-C1'-N1	9.25	115.60	108.20
84	Aa	1545	G	N1-C6-O6	9.25	125.45	119.90
84	Aa	2685	C	O4'-C1'-N1	9.25	115.60	108.20
1	Ad	121	U	N1-C1'-C2'	9.25	126.03	114.00
84	Aa	447	C	O4'-C1'-N1	9.25	115.60	108.20
84	Aa	1416	G	N1-C6-O6	9.25	125.45	119.90
1	Ad	1612	C	C3'-C2'-C1'	9.25	108.90	101.50
84	Aa	1545	G	P-O3'-C3'	9.25	130.79	119.70
84	Aa	2461	A	N1-C6-N6	9.25	124.15	118.60
1	Ad	647	G	O4'-C1'-N9	9.24	115.59	108.20
84	Aa	1253	G	N1-C6-O6	9.24	125.45	119.90
84	Aa	1286	G	C5-C6-O6	-9.24	123.05	128.60
1	Ad	1375	C	P-O3'-C3'	9.24	130.79	119.70
84	Aa	1469	G	N1-C6-O6	9.24	125.45	119.90
84	Aa	1993	G	N1-C6-O6	9.24	125.44	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	3204	G	N1-C6-O6	9.24	125.44	119.90
1	Ad	1113	G	O4'-C1'-N9	9.23	115.59	108.20
84	Aa	2529	C	O4'-C1'-N1	9.23	115.59	108.20
85	Ac	150	G	N1-C6-O6	9.23	125.44	119.90
84	Aa	370	A	N1-C6-N6	9.23	124.14	118.60
84	Aa	593	G	N1-C6-O6	9.23	125.44	119.90
86	Ab	2	G	C5-C6-O6	-9.23	123.06	128.60
84	Aa	180	G	N1-C6-O6	9.23	125.44	119.90
84	Aa	288	G	C5-C6-O6	-9.23	123.06	128.60
84	Aa	281	G	N1-C6-O6	9.23	125.44	119.90
84	Aa	2345	C	O4'-C1'-N1	9.23	115.58	108.20
1	Ad	642	C	O4'-C1'-N1	9.23	115.58	108.20
84	Aa	3117	G	N1-C6-O6	9.23	125.44	119.90
1	Ad	893	U	O4'-C1'-N1	9.23	115.58	108.20
1	Ad	1029	U	C1'-O4'-C4'	9.23	117.28	109.90
1	Ad	102	U	O4'-C1'-N1	9.22	115.58	108.20
84	Aa	107	C	O4'-C1'-N1	9.22	115.58	108.20
84	Aa	530	C	O4'-C1'-N1	9.22	115.58	108.20
84	Aa	1260	G	N1-C6-O6	9.22	125.43	119.90
84	Aa	2353	C	O4'-C1'-N1	9.22	115.58	108.20
85	Ac	85	G	C5-C6-O6	-9.22	123.06	128.60
84	Aa	1116	G	N1-C6-O6	9.22	125.43	119.90
86	Ab	14	C	O4'-C1'-N1	9.22	115.58	108.20
84	Aa	2104	G	N1-C6-O6	9.22	125.43	119.90
84	Aa	3050	A	N1-C6-N6	9.22	124.13	118.60
86	Ab	28	U	O4'-C1'-N1	9.22	115.57	108.20
84	Aa	104	G	N1-C6-O6	9.22	125.43	119.90
84	Aa	3094	C	O4'-C1'-N1	9.22	115.57	108.20
84	Aa	979	C	O4'-C1'-N1	9.21	115.57	108.20
84	Aa	1169	G	N1-C6-O6	9.21	125.43	119.90
84	Aa	1386	G	N1-C6-O6	9.21	125.43	119.90
84	Aa	2036	C	O4'-C1'-N1	9.21	115.57	108.20
84	Aa	1377	G	N1-C6-O6	9.21	125.43	119.90
84	Aa	1622	G	N1-C6-O6	9.21	125.43	119.90
1	Ad	1056	A	N9-C1'-C2'	-9.21	101.87	112.00
84	Aa	1867	U	O4'-C1'-N1	9.21	115.57	108.20
84	Aa	512	G	N1-C6-O6	9.21	125.42	119.90
84	Aa	1799	C	O4'-C1'-N1	9.20	115.56	108.20
84	Aa	3127	C	O4'-C1'-N1	9.20	115.56	108.20
84	Aa	1662	G	N1-C6-O6	9.20	125.42	119.90
84	Aa	2950	C	O4'-C1'-N1	9.20	115.56	108.20
85	Ac	63	C	O4'-C1'-N1	9.20	115.56	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	3010	G	N1-C6-O6	9.20	125.42	119.90
84	Aa	129	G	N1-C6-O6	9.19	125.42	119.90
84	Aa	1829	G	N1-C6-O6	9.19	125.42	119.90
84	Aa	601	G	N1-C6-O6	9.19	125.42	119.90
84	Aa	2334	G	N1-C6-O6	9.19	125.42	119.90
86	Ab	57	C	O4'-C1'-N1	9.19	115.55	108.20
84	Aa	375	G	N1-C6-O6	9.19	125.41	119.90
84	Aa	1658	G	N1-C6-O6	9.19	125.41	119.90
1	Ad	1456	U	O4'-C1'-N1	9.19	115.55	108.20
84	Aa	1770	C	O4'-C1'-N1	9.19	115.55	108.20
86	Ab	115	A	C5-C6-N6	-9.19	116.35	123.70
1	Ad	495	C	O4'-C1'-N1	9.18	115.55	108.20
84	Aa	1958	G	C4'-C3'-O3'	-9.18	90.11	109.40
1	Ad	138	C	O4'-C1'-C2'	-9.18	96.62	105.80
84	Aa	1661	G	N1-C6-O6	9.18	125.41	119.90
2	Ae	16	U	O4'-C1'-N1	9.18	115.54	108.20
1	Ad	871	G	O4'-C1'-N9	9.18	115.54	108.20
1	Ad	1172	G	N9-C1'-C2'	9.18	125.93	114.00
86	Ab	15	C	O4'-C1'-N1	9.18	115.54	108.20
84	Aa	904	G	N1-C6-O6	9.17	125.40	119.90
84	Aa	1774	G	P-O3'-C3'	9.17	130.71	119.70
84	Aa	317	G	N1-C6-O6	9.17	125.40	119.90
84	Aa	1133	A	N1-C6-N6	9.17	124.10	118.60
84	Aa	1820	C	O4'-C1'-N1	9.17	115.54	108.20
84	Aa	1931	G	N1-C6-O6	9.17	125.40	119.90
84	Aa	2182	G	N1-C6-O6	9.17	125.40	119.90
84	Aa	2314	G	O4'-C1'-N9	9.17	115.53	108.20
84	Aa	424	G	N1-C6-O6	9.16	125.40	119.90
86	Ab	49	A	C5-C6-N6	-9.16	116.37	123.70
1	Ad	1045	G	C1'-O4'-C4'	-9.16	102.57	109.90
84	Aa	2538	G	O4'-C1'-N9	9.16	115.53	108.20
84	Aa	1698	C	O4'-C1'-N1	9.16	115.53	108.20
84	Aa	1637	G	N1-C6-O6	9.15	125.39	119.90
84	Aa	2352	G	N1-C6-O6	9.15	125.39	119.90
84	Aa	2527	G	C5-C6-O6	-9.15	123.11	128.60
84	Aa	2700	A	N1-C6-N6	9.15	124.09	118.60
85	Ac	15	G	N1-C6-O6	9.15	125.39	119.90
85	Ac	56	G	N1-C6-O6	9.15	125.39	119.90
84	Aa	2092	C	O3'-P-O5'	-9.15	86.61	104.00
84	Aa	1708	C	O4'-C1'-N1	9.15	115.52	108.20
84	Aa	1556	G	N1-C6-O6	9.14	125.39	119.90
84	Aa	2752	G	N1-C6-O6	9.14	125.39	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
86	Ab	65	G	C5-C6-O6	-9.14	123.11	128.60
1	Ad	535	C	N1-C1'-C2'	9.14	125.88	114.00
1	Ad	1058	G	O4'-C1'-N9	9.14	115.51	108.20
84	Aa	2196	G	N1-C6-O6	9.14	125.38	119.90
84	Aa	210	G	C5-C6-O6	-9.14	123.12	128.60
84	Aa	3379	C	O4'-C1'-N1	9.14	115.51	108.20
86	Ab	69	A	N1-C6-N6	9.14	124.08	118.60
1	Ad	1500	A	N9-C1'-C2'	-9.13	101.95	112.00
84	Aa	2746	G	N1-C6-O6	9.14	125.38	119.90
84	Aa	1818	C	O4'-C1'-N1	9.13	115.51	108.20
84	Aa	3286	G	N1-C6-O6	9.13	125.38	119.90
1	Ad	611	G	O4'-C1'-N9	9.13	115.50	108.20
2	Ae	50	G	N9-C1'-C2'	-9.13	101.96	112.00
84	Aa	2800	C	O4'-C1'-N1	9.13	115.50	108.20
84	Aa	2818	G	N1-C6-O6	9.13	125.38	119.90
84	Aa	390	G	N1-C6-O6	9.13	125.38	119.90
84	Aa	1935	G	N1-C6-O6	9.13	125.38	119.90
84	Aa	2122	C	O4'-C1'-N1	9.13	115.50	108.20
84	Aa	2834	C	O4'-C1'-N1	9.13	115.50	108.20
84	Aa	265	G	N1-C6-O6	9.12	125.38	119.90
84	Aa	1710	G	N1-C6-O6	9.13	125.38	119.90
84	Aa	3040	G	N1-C6-O6	9.13	125.38	119.90
84	Aa	1356	G	N1-C6-O6	9.12	125.37	119.90
84	Aa	2086	A	C4-N9-C1'	9.12	142.72	126.30
84	Aa	3147	G	N1-C6-O6	9.12	125.37	119.90
1	Ad	824	U	O4'-C1'-N1	9.12	115.50	108.20
1	Ad	1484	U	O4'-C1'-N1	9.12	115.50	108.20
84	Aa	2789	G	N1-C6-O6	9.12	125.37	119.90
84	Aa	583	C	O4'-C1'-N1	9.12	115.49	108.20
84	Aa	2401	A	N1-C6-N6	9.12	124.07	118.60
1	Ad	914	U	C1'-O4'-C4'	-9.11	102.61	109.90
84	Aa	1693	A	N1-C6-N6	9.11	124.07	118.60
85	Ac	96	A	N1-C6-N6	9.11	124.07	118.60
84	Aa	90	G	N1-C6-O6	9.11	125.36	119.90
84	Aa	1076	G	N1-C6-O6	9.11	125.36	119.90
84	Aa	2390	G	N1-C6-O6	9.11	125.36	119.90
84	Aa	3264	C	O4'-C1'-N1	9.11	115.49	108.20
84	Aa	1167	G	N1-C6-O6	9.11	125.36	119.90
84	Aa	943	G	N1-C6-O6	9.10	125.36	119.90
84	Aa	2370	G	N1-C6-O6	9.10	125.36	119.90
84	Aa	3281	G	N1-C6-O6	9.10	125.36	119.90
84	Aa	1810	G	N1-C6-O6	9.10	125.36	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	3156	G	N1-C6-O6	9.10	125.36	119.90
1	Ad	1280	U	O4'-C1'-N1	9.10	115.48	108.20
84	Aa	2073	U	P-O3'-C3'	-9.10	108.78	119.70
84	Aa	2076	C	O4'-C1'-N1	9.10	115.48	108.20
84	Aa	1058	A	N1-C6-N6	9.10	124.06	118.60
84	Aa	270	G	N1-C6-O6	9.09	125.36	119.90
1	Ad	1372	C	P-O3'-C3'	9.09	130.61	119.70
84	Aa	771	G	N1-C6-O6	9.09	125.35	119.90
84	Aa	3129	G	N1-C6-O6	9.09	125.35	119.90
84	Aa	2537	G	O4'-C1'-N9	9.09	115.47	108.20
1	Ad	41	A	O4'-C1'-C2'	-9.09	96.71	105.80
1	Ad	96	G	C1'-O4'-C4'	-9.09	102.63	109.90
1	Ad	843	G	O4'-C1'-N9	-9.09	100.93	108.20
84	Aa	3177	A	O4'-C1'-N9	9.09	115.47	108.20
1	Ad	1116	G	O4'-C1'-N9	9.09	115.47	108.20
84	Aa	1465	A	N1-C6-N6	9.09	124.05	118.60
84	Aa	760	C	O4'-C1'-N1	9.08	115.46	108.20
84	Aa	1233	G	N1-C6-O6	9.08	125.35	119.90
84	Aa	1729	G	N1-C6-O6	9.08	125.35	119.90
2	Ae	74	C	O4'-C1'-C2'	-9.08	96.72	105.80
84	Aa	1413	C	O4'-C1'-N1	9.08	115.46	108.20
84	Aa	2245	G	N1-C6-O6	9.07	125.34	119.90
84	Aa	638	G	N1-C6-O6	9.07	125.34	119.90
84	Aa	1561	U	O3'-P-O5'	9.07	121.23	104.00
84	Aa	3279	G	N1-C6-O6	9.07	125.34	119.90
84	Aa	1776	G	N1-C6-O6	9.07	125.34	119.90
1	Ad	1530	G	P-O3'-C3'	9.07	130.58	119.70
84	Aa	310	C	O4'-C1'-N1	9.07	115.45	108.20
84	Aa	1189	G	N1-C6-O6	9.07	125.34	119.90
84	Aa	1144	C	O4'-C1'-N1	9.06	115.45	108.20
84	Aa	1645	G	N1-C6-O6	9.06	125.34	119.90
1	Ad	633	U	O4'-C1'-N1	9.06	115.45	108.20
84	Aa	3001	G	N1-C6-O6	9.06	125.34	119.90
84	Aa	508	G	N1-C6-O6	9.06	125.33	119.90
84	Aa	1553	C	O4'-C1'-N1	9.06	115.44	108.20
84	Aa	1379	G	N1-C6-O6	9.05	125.33	119.90
84	Aa	1625	G	N1-C6-O6	9.05	125.33	119.90
84	Aa	2903	G	N1-C6-O6	9.05	125.33	119.90
1	Ad	817	C	O4'-C1'-N1	9.05	115.44	108.20
1	Ad	255	U	O4'-C1'-N1	9.05	115.44	108.20
84	Aa	96	C	O4'-C1'-N1	9.05	115.44	108.20
84	Aa	2023	C	O4'-C1'-N1	9.05	115.44	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	231	C	O4'-C1'-N1	9.05	115.44	108.20
84	Aa	1794	A	N1-C6-N6	9.05	124.03	118.60
1	Ad	1390	A	O4'-C1'-N9	9.04	115.44	108.20
1	Ad	845	C	C5'-C4'-C3'	9.04	130.47	116.00
1	Ad	1447	C	N1-C1'-C2'	9.04	125.76	114.00
1	Ad	1449	U	O4'-C1'-N1	9.04	115.43	108.20
84	Aa	3322	A	N1-C6-N6	9.04	124.03	118.60
84	Aa	2594	A	N1-C6-N6	9.04	124.03	118.60
85	Ac	36	G	N1-C6-O6	9.04	125.33	119.90
84	Aa	342	A	N1-C6-N6	9.04	124.02	118.60
84	Aa	971	G	N1-C6-O6	9.04	125.32	119.90
84	Aa	1168	G	N1-C6-O6	9.04	125.32	119.90
84	Aa	2589	G	N1-C6-O6	9.04	125.32	119.90
1	Ad	737	G	C4'-C3'-O3'	9.04	131.07	113.00
84	Aa	19	C	O4'-C1'-N1	9.04	115.43	108.20
84	Aa	485	G	N1-C6-O6	9.04	125.32	119.90
84	Aa	1985	G	N1-C6-O6	9.03	125.32	119.90
84	Aa	763	G	N1-C6-O6	9.03	125.32	119.90
84	Aa	2522	C	O4'-C1'-N1	9.03	115.42	108.20
1	Ad	1740	G	O4'-C1'-N9	9.03	115.42	108.20
84	Aa	1467	G	N1-C6-O6	9.03	125.32	119.90
1	Ad	1591	A	O4'-C1'-N9	9.03	115.42	108.20
84	Aa	725	G	N1-C6-O6	9.03	125.31	119.90
84	Aa	1447	G	N1-C6-O6	9.03	125.31	119.90
84	Aa	2383	G	N1-C6-O6	9.03	125.31	119.90
1	Ad	862	U	O4'-C1'-N1	9.02	115.42	108.20
1	Ad	1047	G	C1'-O4'-C4'	-9.02	102.68	109.90
84	Aa	700	C	O4'-C1'-N1	9.02	115.42	108.20
1	Ad	1748	U	O4'-C1'-N1	9.02	115.42	108.20
84	Aa	1226	G	N1-C6-O6	9.02	125.31	119.90
1	Ad	1782	C	O4'-C1'-N1	9.02	115.42	108.20
84	Aa	1443	G	N1-C6-O6	9.02	125.31	119.90
84	Aa	1798	C	O4'-C1'-N1	9.02	115.42	108.20
84	Aa	2170	G	N1-C6-O6	9.02	125.31	119.90
84	Aa	2676	A	N1-C6-N6	9.02	124.01	118.60
1	Ad	41	A	O4'-C1'-N9	9.02	115.41	108.20
1	Ad	270	U	O4'-C1'-N1	9.02	115.41	108.20
84	Aa	742	G	N1-C6-O6	9.02	125.31	119.90
84	Aa	497	G	N1-C6-O6	9.02	125.31	119.90
84	Aa	3357	C	O4'-C1'-N1	9.02	115.41	108.20
1	Ad	1206	A	O4'-C1'-N9	-9.01	100.99	108.20
84	Aa	1276	C	O4'-C1'-N1	9.01	115.41	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1303	C	O4'-C1'-N1	9.01	115.41	108.20
84	Aa	1631	G	N1-C6-O6	9.01	125.31	119.90
84	Aa	956	G	N1-C6-O6	9.01	125.31	119.90
86	Ab	33	U	O4'-C1'-N1	9.01	115.41	108.20
84	Aa	1893	G	N1-C6-O6	9.01	125.30	119.90
84	Aa	2527	G	O4'-C1'-N9	9.01	115.41	108.20
84	Aa	3325	G	N1-C6-O6	9.01	125.30	119.90
84	Aa	12	G	P-O3'-C3'	9.00	130.50	119.70
84	Aa	1547	G	N1-C6-O6	9.00	125.30	119.90
84	Aa	1725	G	N1-C6-O6	9.00	125.30	119.90
84	Aa	2855	G	N1-C6-O6	9.00	125.30	119.90
86	Ab	11	A	N1-C2-N3	9.00	133.80	129.30
84	Aa	998	G	N1-C6-O6	9.00	125.30	119.90
84	Aa	1909	G	N1-C6-O6	9.00	125.30	119.90
84	Aa	2085	A	P-O3'-C3'	-9.00	108.90	119.70
84	Aa	2656	C	O4'-C1'-N1	9.00	115.40	108.20
84	Aa	1583	G	N1-C6-O6	8.99	125.30	119.90
84	Aa	1950	G	O4'-C1'-N9	8.99	115.39	108.20
85	Ac	82	C	O4'-C1'-N1	8.99	115.39	108.20
86	Ab	58	G	C5-C6-O6	-8.99	123.20	128.60
84	Aa	890	G	N1-C6-O6	8.99	125.29	119.90
84	Aa	2825	G	N1-C6-O6	8.99	125.30	119.90
84	Aa	1	G	N1-C6-O6	8.99	125.29	119.90
1	Ad	824	U	P-O3'-C3'	8.98	130.48	119.70
1	Ad	1306	U	O4'-C1'-N1	8.98	115.39	108.20
1	Ad	1546	U	O4'-C1'-N1	8.98	115.39	108.20
84	Aa	17	G	N1-C6-O6	8.98	125.29	119.90
84	Aa	2236	U	O4'-C1'-N1	8.98	115.39	108.20
84	Aa	3331	G	N1-C6-O6	8.98	125.29	119.90
84	Aa	491	G	N1-C6-O6	8.98	125.29	119.90
84	Aa	2963	G	N1-C6-O6	8.98	125.29	119.90
84	Aa	927	G	N1-C6-O6	8.98	125.29	119.90
85	Ac	46	G	N1-C6-O6	8.98	125.29	119.90
1	Ad	1006	A	O4'-C1'-C2'	-8.98	96.82	105.80
1	Ad	1065	A	C1'-O4'-C4'	-8.98	102.72	109.90
84	Aa	3075	G	N1-C6-O6	8.97	125.28	119.90
84	Aa	1476	G	N1-C6-O6	8.97	125.28	119.90
84	Aa	1967	C	O4'-C1'-N1	8.97	115.38	108.20
84	Aa	803	G	N1-C6-O6	8.97	125.28	119.90
84	Aa	2213	G	N1-C6-O6	8.97	125.28	119.90
1	Ad	306	U	O4'-C1'-N1	8.96	115.37	108.20
84	Aa	1697	G	N1-C6-O6	8.96	125.28	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2204	U	P-O3'-C3'	8.96	130.46	119.70
84	Aa	522	C	O4'-C1'-N1	8.96	115.37	108.20
84	Aa	1619	G	N1-C6-O6	8.96	125.28	119.90
84	Aa	386	G	N1-C6-O6	8.96	125.28	119.90
84	Aa	2283	G	N1-C6-O6	8.96	125.28	119.90
85	Ac	120	G	N1-C6-O6	8.96	125.28	119.90
84	Aa	1978	G	N1-C6-O6	8.96	125.27	119.90
84	Aa	3029	G	N1-C6-O6	8.96	125.27	119.90
1	Ad	271	C	O4'-C1'-N1	8.96	115.36	108.20
84	Aa	584	G	N1-C6-O6	8.96	125.27	119.90
84	Aa	1001	A	N1-C6-N6	8.96	123.97	118.60
84	Aa	1764	G	N1-C6-O6	8.96	125.27	119.90
84	Aa	2428	G	N1-C6-O6	8.96	125.27	119.90
1	Ad	636	U	O4'-C1'-N1	8.95	115.36	108.20
84	Aa	1381	G	N1-C6-O6	8.95	125.27	119.90
84	Aa	1803	G	N1-C6-O6	8.95	125.27	119.90
84	Aa	2723	G	N1-C6-O6	8.95	125.27	119.90
1	Ad	1348	A	P-O3'-C3'	8.95	130.44	119.70
84	Aa	1601	G	N1-C6-O6	8.94	125.27	119.90
84	Aa	2086	A	C8-N9-C1'	-8.94	111.60	127.70
84	Aa	3367	C	O4'-C1'-N1	8.94	115.36	108.20
84	Aa	1143	G	N1-C6-O6	8.94	125.27	119.90
1	Ad	221	U	O4'-C1'-N1	8.94	115.35	108.20
84	Aa	2024	G	N1-C6-O6	8.94	125.26	119.90
84	Aa	176	A	N1-C6-N6	8.94	123.96	118.60
84	Aa	1716	G	C5-C6-O6	-8.94	123.24	128.60
84	Aa	3141	G	N1-C6-O6	8.94	125.26	119.90
84	Aa	3106	U	O4'-C1'-N1	8.94	115.35	108.20
1	Ad	174	C	O4'-C1'-N1	8.93	115.35	108.20
84	Aa	1621	G	N1-C6-O6	8.93	125.26	119.90
1	Ad	393	G	O4'-C1'-N9	8.93	115.35	108.20
1	Ad	1796	G	C1'-O4'-C4'	-8.93	102.75	109.90
84	Aa	1979	G	N1-C6-O6	8.93	125.26	119.90
85	Ac	114	G	N1-C6-O6	8.93	125.26	119.90
1	Ad	880	G	O4'-C1'-N9	8.93	115.34	108.20
1	Ad	1805	U	O4'-C1'-N1	8.93	115.34	108.20
84	Aa	97	G	N1-C6-O6	8.93	125.26	119.90
84	Aa	1411	G	N1-C6-O6	8.93	125.26	119.90
84	Aa	2657	C	O4'-C1'-N1	8.93	115.34	108.20
1	Ad	836	U	C3'-C2'-C1'	8.93	108.64	101.50
84	Aa	1898	G	N1-C6-O6	8.93	125.25	119.90
84	Aa	1915	G	N1-C6-O6	8.93	125.25	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
86	Ab	16	A	C5-C6-N1	-8.93	113.24	117.70
84	Aa	194	G	N1-C6-O6	8.92	125.25	119.90
84	Aa	3079	G	N1-C6-O6	8.92	125.25	119.90
84	Aa	986	G	N1-C6-O6	8.92	125.25	119.90
84	Aa	1348	G	N1-C6-O6	8.92	125.25	119.90
84	Aa	2189	G	N1-C6-O6	8.92	125.25	119.90
84	Aa	3188	G	C5-C6-O6	-8.92	123.25	128.60
84	Aa	3222	G	N1-C6-O6	8.92	125.25	119.90
1	Ad	518	G	P-O3'-C3'	8.92	130.40	119.70
84	Aa	542	G	P-O3'-C3'	8.92	130.40	119.70
84	Aa	2105	G	N1-C6-O6	8.92	125.25	119.90
1	Ad	500	G	O4'-C1'-N9	8.91	115.33	108.20
1	Ad	944	A	O4'-C1'-C2'	-8.91	96.89	105.80
1	Ad	1513	A	C1'-O4'-C4'	8.91	117.03	109.90
84	Aa	450	C	O4'-C1'-N1	8.91	115.33	108.20
84	Aa	867	G	N1-C6-O6	8.91	125.25	119.90
85	Ac	75	G	N1-C6-O6	8.91	125.25	119.90
85	Ac	149	U	O4'-C1'-N1	8.91	115.33	108.20
84	Aa	2874	A	N1-C6-N6	8.91	123.95	118.60
1	Ad	989	G	O4'-C1'-N9	8.91	115.33	108.20
84	Aa	1589	G	P-O3'-C3'	8.91	130.39	119.70
85	Ac	148	C	O4'-C1'-N1	8.91	115.33	108.20
86	Ab	23	A	N1-C6-N6	8.91	123.94	118.60
2	Ae	74	C	C3'-C2'-C1'	8.91	108.62	101.50
84	Aa	486	G	N1-C6-O6	8.91	125.24	119.90
84	Aa	1567	G	N1-C6-O6	8.91	125.24	119.90
84	Aa	2897	G	N1-C6-O6	8.91	125.24	119.90
1	Ad	1766	A	P-O3'-C3'	8.90	130.38	119.70
84	Aa	2731	G	N1-C6-O6	8.90	125.24	119.90
84	Aa	3282	G	C5-C6-O6	-8.90	123.26	128.60
1	Ad	517	U	O4'-C1'-N1	8.90	115.32	108.20
84	Aa	1823	C	O4'-C1'-N1	8.90	115.32	108.20
84	Aa	2487	A	O4'-C1'-N9	8.90	115.32	108.20
84	Aa	3264	C	P-O3'-C3'	8.90	130.38	119.70
84	Aa	1822	C	O4'-C1'-N1	8.90	115.32	108.20
84	Aa	894	G	N1-C6-O6	8.90	125.24	119.90
84	Aa	1990	A	P-O3'-C3'	8.90	130.38	119.70
84	Aa	2376	G	O4'-C1'-N9	8.90	115.32	108.20
84	Aa	3242	G	N1-C6-O6	8.90	125.24	119.90
84	Aa	434	C	O4'-C1'-N1	8.89	115.32	108.20
84	Aa	2601	G	N1-C6-O6	8.89	125.24	119.90
84	Aa	2651	G	N1-C6-O6	8.89	125.24	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2712	C	O4'-C1'-N1	8.89	115.31	108.20
86	Ab	119	C	O4'-C1'-N1	8.89	115.31	108.20
1	Ad	1343	C	O4'-C1'-N1	8.89	115.31	108.20
84	Aa	870	G	N1-C6-O6	8.89	125.23	119.90
84	Aa	2086	A	N9-C1'-C2'	8.89	125.56	114.00
84	Aa	590	C	P-O3'-C3'	-8.88	109.04	119.70
84	Aa	1329	G	N1-C6-O6	8.88	125.23	119.90
84	Aa	495	G	O5'-P-OP2	-8.88	97.71	105.70
84	Aa	1405	G	N1-C6-O6	8.88	125.23	119.90
84	Aa	2068	G	N1-C6-O6	8.88	125.23	119.90
84	Aa	3183	G	N1-C6-O6	8.88	125.23	119.90
84	Aa	1403	G	N1-C6-O6	8.88	125.23	119.90
84	Aa	1419	G	N1-C6-O6	8.88	125.23	119.90
84	Aa	2416	U	O4'-C1'-N1	8.88	115.31	108.20
1	Ad	38	C	O4'-C1'-N1	8.88	115.30	108.20
84	Aa	2300	G	N1-C6-O6	8.88	125.23	119.90
84	Aa	362	G	C5-C6-O6	-8.88	123.27	128.60
84	Aa	381	G	N1-C6-O6	8.88	125.23	119.90
84	Aa	2966	G	N1-C6-O6	8.87	125.22	119.90
84	Aa	3037	G	N1-C6-O6	8.87	125.22	119.90
84	Aa	3372	C	O4'-C1'-N1	8.87	115.30	108.20
1	Ad	1202	G	O4'-C1'-N9	8.87	115.30	108.20
84	Aa	3164	C	O4'-C1'-N1	8.87	115.30	108.20
85	Ac	25	G	N1-C6-O6	8.87	125.22	119.90
1	Ad	770	U	O4'-C1'-N1	8.87	115.30	108.20
84	Aa	1142	G	N1-C6-O6	8.87	125.22	119.90
85	Ac	31	G	N1-C6-O6	8.87	125.22	119.90
1	Ad	488	C	N1-C1'-C2'	8.87	125.53	114.00
84	Aa	1808	G	N1-C6-O6	8.87	125.22	119.90
84	Aa	2465	G	N1-C6-O6	8.87	125.22	119.90
84	Aa	2475	C	C4'-C3'-O3'	8.87	130.74	113.00
84	Aa	8	C	O4'-C1'-N1	8.87	115.29	108.20
1	Ad	1375	C	O4'-C1'-C2'	-8.86	96.94	105.80
1	Ad	281	U	O4'-C1'-C2'	-8.86	96.94	105.80
1	Ad	637	U	O4'-C1'-N1	8.86	115.29	108.20
84	Aa	796	C	O4'-C1'-N1	8.86	115.29	108.20
84	Aa	859	G	N1-C6-O6	8.86	125.22	119.90
84	Aa	1161	G	N1-C6-O6	8.86	125.21	119.90
84	Aa	2404	C	O4'-C1'-N1	8.86	115.29	108.20
84	Aa	937	G	N1-C6-O6	8.85	125.21	119.90
84	Aa	2466	G	N1-C6-O6	8.85	125.21	119.90
84	Aa	3066	G	N1-C6-O6	8.85	125.21	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	3206	C	C2-N1-C1'	8.85	128.54	118.80
86	Ab	38	U	O4'-C1'-N1	8.85	115.28	108.20
1	Ad	422	G	O4'-C1'-N9	8.85	115.28	108.20
1	Ad	1651	U	P-O3'-C3'	8.85	130.32	119.70
84	Aa	1304	G	N1-C6-O6	8.85	125.21	119.90
84	Aa	1696	G	N1-C6-O6	8.85	125.21	119.90
1	Ad	1101	C	N1-C1'-C2'	8.85	125.50	114.00
1	Ad	1586	U	O4'-C1'-N1	8.85	115.28	108.20
84	Aa	787	G	N1-C6-O6	8.85	125.21	119.90
84	Aa	1785	G	N1-C6-O6	8.85	125.21	119.90
84	Aa	1587	G	N1-C6-O6	8.85	125.21	119.90
84	Aa	277	U	O4'-C1'-N1	8.84	115.27	108.20
84	Aa	1079	G	N1-C6-O6	8.84	125.21	119.90
84	Aa	1231	C	O4'-C1'-N1	8.84	115.27	108.20
84	Aa	2995	G	N1-C6-O6	8.84	125.21	119.90
85	Ac	76	C	O4'-C1'-N1	8.84	115.28	108.20
84	Aa	2802	G	N1-C6-O6	8.84	125.20	119.90
84	Aa	2886	C	O4'-C1'-N1	8.84	115.27	108.20
84	Aa	3210	G	N1-C6-O6	8.84	125.20	119.90
1	Ad	836	U	O4'-C1'-C2'	-8.84	96.96	105.80
1	Ad	1094	U	N1-C1'-C2'	8.84	125.49	114.00
84	Aa	714	G	N1-C6-O6	8.84	125.20	119.90
84	Aa	1289	G	N1-C6-O6	8.83	125.20	119.90
84	Aa	1960	C	O4'-C1'-N1	8.83	115.27	108.20
1	Ad	903	A	C3'-C2'-C1'	-8.83	94.44	101.50
84	Aa	2057	G	N1-C6-O6	8.83	125.20	119.90
84	Aa	44	A	N1-C6-N6	8.83	123.90	118.60
84	Aa	915	G	N1-C6-O6	8.83	125.20	119.90
84	Aa	1300	C	O4'-C1'-N1	8.83	115.26	108.20
84	Aa	1540	G	N1-C6-O6	8.83	125.20	119.90
86	Ab	62	U	O4'-C1'-N1	8.83	115.26	108.20
84	Aa	784	G	N1-C6-O6	8.82	125.19	119.90
84	Aa	2648	G	N1-C6-O6	8.82	125.19	119.90
1	Ad	196	G	N9-C1'-C2'	8.82	125.47	114.00
84	Aa	1936	G	N1-C6-O6	8.82	125.19	119.90
1	Ad	1	U	O4'-C1'-C2'	-8.82	96.98	105.80
84	Aa	206	C	O4'-C1'-N1	8.82	115.25	108.20
84	Aa	392	C	O4'-C1'-N1	8.82	115.26	108.20
84	Aa	2368	G	N1-C6-O6	8.82	125.19	119.90
84	Aa	3356	C	O4'-C1'-N1	8.82	115.25	108.20
84	Aa	602	G	N1-C6-O6	8.82	125.19	119.90
84	Aa	2664	G	N1-C6-O6	8.82	125.19	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2812	C	O4'-C1'-N1	8.82	115.25	108.20
84	Aa	1999	G	N1-C6-O6	8.81	125.19	119.90
84	Aa	2748	G	N1-C6-O6	8.81	125.19	119.90
1	Ad	1626	C	C3'-C2'-C1'	8.81	108.55	101.50
84	Aa	1402	G	N1-C6-O6	8.81	125.19	119.90
1	Ad	143	A	O4'-C1'-N9	8.81	115.25	108.20
84	Aa	1175	G	N1-C6-O6	8.81	125.19	119.90
84	Aa	22	G	N1-C6-O6	8.81	125.18	119.90
84	Aa	665	G	N1-C6-O6	8.81	125.18	119.90
84	Aa	2337	C	O4'-C1'-N1	8.81	115.25	108.20
84	Aa	2582	G	N1-C6-O6	8.81	125.18	119.90
84	Aa	431	G	C5-C6-O6	-8.80	123.32	128.60
84	Aa	1496	G	N1-C6-O6	8.81	125.18	119.90
84	Aa	2627	G	N1-C6-O6	8.80	125.18	119.90
84	Aa	2959	G	N1-C6-O6	8.80	125.18	119.90
84	Aa	3298	G	O4'-C1'-N9	8.80	115.24	108.20
1	Ad	806	U	O4'-C1'-N1	8.80	115.24	108.20
84	Aa	1417	G	N1-C6-O6	8.80	125.18	119.90
86	Ab	60	G	C5-C6-O6	-8.80	123.32	128.60
1	Ad	32	U	N1-C1'-C2'	-8.80	102.32	112.00
84	Aa	1800	G	N1-C6-O6	8.80	125.18	119.90
84	Aa	2462	G	N1-C6-O6	8.80	125.18	119.90
84	Aa	3314	G	N1-C6-O6	8.80	125.18	119.90
1	Ad	222	G	O4'-C1'-N9	8.79	115.24	108.20
84	Aa	413	G	N1-C6-O6	8.80	125.18	119.90
84	Aa	445	C	O4'-C1'-N1	8.79	115.24	108.20
84	Aa	663	G	N1-C6-O6	8.79	125.18	119.90
84	Aa	2205	G	N1-C6-O6	8.80	125.18	119.90
84	Aa	3230	G	N1-C6-O6	8.80	125.18	119.90
84	Aa	60	G	N1-C6-O6	8.79	125.18	119.90
84	Aa	881	G	N1-C6-O6	8.79	125.17	119.90
84	Aa	1474	U	O4'-C1'-N1	8.79	115.23	108.20
84	Aa	2235	G	N1-C6-O6	8.79	125.18	119.90
84	Aa	3369	G	N1-C6-O6	8.79	125.17	119.90
84	Aa	429	G	N1-C6-O6	8.79	125.17	119.90
84	Aa	729	G	N1-C6-O6	8.79	125.17	119.90
84	Aa	2274	A	N1-C6-N6	8.79	123.87	118.60
84	Aa	3171	C	O4'-C1'-N1	8.79	115.23	108.20
84	Aa	640	C	P-O3'-C3'	-8.79	109.16	119.70
1	Ad	1016	C	N1-C1'-C2'	8.78	125.42	114.00
84	Aa	3027	G	N1-C6-O6	8.78	125.17	119.90
84	Aa	272	G	N1-C6-O6	8.78	125.17	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1432	G	N1-C6-O6	8.78	125.17	119.90
84	Aa	1588	G	N1-C6-O6	8.78	125.17	119.90
84	Aa	3237	G	N1-C6-O6	8.78	125.17	119.90
84	Aa	1354	G	N1-C6-O6	8.78	125.17	119.90
84	Aa	1925	G	N1-C6-O6	8.78	125.17	119.90
84	Aa	2878	C	O4'-C1'-N1	8.78	115.22	108.20
84	Aa	3172	G	O4'-C1'-N9	8.78	115.22	108.20
1	Ad	79	A	N9-C1'-C2'	-8.78	102.34	112.00
84	Aa	703	G	N1-C6-O6	8.78	125.17	119.90
84	Aa	1258	C	O4'-C1'-N1	8.78	115.22	108.20
84	Aa	1483	G	N1-C6-O6	8.78	125.17	119.90
84	Aa	2256	G	N1-C6-O6	8.78	125.17	119.90
84	Aa	2413	G	N1-C6-O6	8.78	125.17	119.90
84	Aa	2740	C	O4'-C1'-N1	8.78	115.22	108.20
84	Aa	3150	G	N1-C6-O6	8.78	125.17	119.90
84	Aa	3224	C	O4'-C1'-N1	8.78	115.22	108.20
84	Aa	3186	G	N1-C6-O6	8.77	125.16	119.90
84	Aa	3335	G	N1-C6-O6	8.77	125.16	119.90
1	Ad	201	G	N9-C1'-C2'	8.77	125.40	114.00
1	Ad	1432	C	O4'-C1'-N1	8.77	115.22	108.20
1	Ad	1778	G	N9-C1'-C2'	8.77	125.40	114.00
84	Aa	245	C	O4'-C1'-N1	8.77	115.22	108.20
84	Aa	1271	U	O4'-C1'-N1	8.77	115.21	108.20
84	Aa	1988	G	N1-C6-O6	8.77	125.16	119.90
84	Aa	3332	G	N1-C6-O6	8.77	125.16	119.90
85	Ac	159	G	P-O3'-C3'	8.77	130.22	119.70
84	Aa	534	G	N1-C6-O6	8.77	125.16	119.90
84	Aa	2258	C	O4'-C1'-N1	8.76	115.21	108.20
84	Aa	3384	G	N1-C6-O6	8.76	125.16	119.90
85	Ac	28	C	O4'-C1'-N1	8.76	115.21	108.20
84	Aa	438	G	N1-C6-O6	8.76	125.16	119.90
84	Aa	2115	G	N1-C6-O6	8.76	125.16	119.90
84	Aa	2578	G	N1-C6-O6	8.76	125.16	119.90
1	Ad	999	G	O4'-C1'-C2'	8.76	115.48	107.60
1	Ad	1191	U	O4'-C1'-N1	8.76	115.21	108.20
84	Aa	1134	G	N1-C6-O6	8.76	125.15	119.90
84	Aa	1283	C	O4'-C1'-N1	8.76	115.20	108.20
84	Aa	1699	C	O4'-C1'-N1	8.76	115.20	108.20
84	Aa	2012	C	P-O3'-C3'	8.76	130.21	119.70
84	Aa	2617	G	N1-C6-O6	8.76	125.15	119.90
84	Aa	3311	C	O4'-C1'-N1	8.76	115.20	108.20
85	Ac	158	C	O4'-C1'-N1	8.76	115.20	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1407	G	N1-C6-O6	8.75	125.15	119.90
84	Aa	1500	C	O4'-C1'-N1	8.75	115.20	108.20
84	Aa	2541	A	N1-C6-N6	8.75	123.85	118.60
84	Aa	3062	G	N1-C6-O6	8.75	125.15	119.90
1	Ad	281	U	O3'-P-O5'	-8.75	87.38	104.00
84	Aa	754	G	N1-C6-O6	8.75	125.15	119.90
84	Aa	773	G	N1-C6-O6	8.75	125.15	119.90
84	Aa	2375	G	N1-C6-O6	8.75	125.15	119.90
84	Aa	2979	G	N1-C6-O6	8.75	125.15	119.90
84	Aa	3084	G	N1-C6-O6	8.75	125.15	119.90
84	Aa	3337	G	N1-C6-O6	8.75	125.15	119.90
84	Aa	1100	G	N1-C6-O6	8.75	125.15	119.90
84	Aa	2780	G	N1-C6-O6	8.75	125.15	119.90
1	Ad	898	U	O4'-C1'-N1	8.74	115.20	108.20
84	Aa	114	G	N1-C6-O6	8.74	125.15	119.90
84	Aa	1728	G	N1-C6-O6	8.74	125.14	119.90
84	Aa	2838	C	O4'-C1'-N1	8.74	115.19	108.20
86	Ab	5	G	N1-C6-O6	8.74	125.14	119.90
1	Ad	756	U	O4'-C1'-N1	8.74	115.19	108.20
1	Ad	796	U	O4'-C1'-N1	8.74	115.19	108.20
84	Aa	199	G	N1-C6-O6	8.74	125.14	119.90
84	Aa	669	G	N1-C6-O6	8.74	125.14	119.90
84	Aa	2667	C	O4'-C1'-N1	8.74	115.19	108.20
84	Aa	944	G	N1-C6-O6	8.74	125.14	119.90
1	Ad	1170	G	O4'-C1'-N9	8.74	115.19	108.20
84	Aa	136	C	O4'-C1'-N1	8.74	115.19	108.20
84	Aa	2598	A	N1-C6-N6	8.74	123.84	118.60
84	Aa	126	G	N1-C6-O6	8.74	125.14	119.90
84	Aa	1299	G	N1-C6-O6	8.74	125.14	119.90
1	Ad	1325	A	C1'-O4'-C4'	-8.73	102.91	109.90
84	Aa	57	G	N1-C6-O6	8.73	125.14	119.90
84	Aa	2075	C	O4'-C1'-N1	8.73	115.19	108.20
84	Aa	2021	G	N1-C6-O6	8.73	125.14	119.90
85	Ac	24	G	N1-C6-O6	8.73	125.14	119.90
1	Ad	1061	G	O4'-C1'-N9	8.73	115.19	108.20
1	Ad	1474	U	O4'-C1'-N1	8.73	115.19	108.20
84	Aa	82	C	O4'-C1'-N1	8.73	115.18	108.20
84	Aa	531	G	N1-C6-O6	8.73	125.14	119.90
84	Aa	1982	G	N1-C6-O6	8.73	125.14	119.90
84	Aa	2540	C	O4'-C1'-N1	8.73	115.18	108.20
84	Aa	2448	G	N1-C6-O6	8.73	125.14	119.90
84	Aa	2128	G	N1-C6-O6	8.72	125.14	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1986	G	N1-C6-O6	8.72	125.13	119.90
1	Ad	67	G	O4'-C1'-N9	-8.72	101.22	108.20
84	Aa	208	G	N1-C6-O6	8.72	125.13	119.90
84	Aa	212	G	N1-C6-O6	8.72	125.13	119.90
84	Aa	357	C	O4'-C1'-N1	8.72	115.18	108.20
84	Aa	1767	G	N1-C6-O6	8.72	125.13	119.90
84	Aa	2067	G	N1-C6-O6	8.72	125.13	119.90
84	Aa	2112	C	O4'-C1'-N1	8.72	115.18	108.20
84	Aa	2231	G	C5-C6-O6	-8.72	123.37	128.60
84	Aa	2968	G	N1-C6-O6	8.72	125.13	119.90
84	Aa	358	G	N1-C6-O6	8.72	125.13	119.90
84	Aa	431	G	P-O3'-C3'	8.72	130.16	119.70
84	Aa	87	A	C4-C5-C6	8.71	121.36	117.00
84	Aa	790	G	N1-C6-O6	8.71	125.13	119.90
1	Ad	392	G	O4'-C1'-N9	8.71	115.17	108.20
1	Ad	870	A	C1'-O4'-C4'	8.71	116.87	109.90
84	Aa	100	C	O4'-C1'-N1	8.71	115.17	108.20
84	Aa	1701	G	N1-C6-O6	8.71	125.13	119.90
84	Aa	3295	G	N1-C6-O6	8.71	125.13	119.90
85	Ac	159	G	N1-C6-O6	8.71	125.13	119.90
84	Aa	2034	G	N1-C6-O6	8.71	125.13	119.90
84	Aa	3103	G	N1-C6-O6	8.71	125.13	119.90
84	Aa	3274	G	N1-C6-O6	8.71	125.13	119.90
1	Ad	1776	A	O4'-C1'-N9	8.71	115.17	108.20
84	Aa	545	C	O4'-C1'-N1	8.71	115.17	108.20
84	Aa	1779	C	O4'-C1'-N1	8.71	115.17	108.20
84	Aa	2763	C	O4'-C1'-N1	8.71	115.17	108.20
86	Ab	118	C	O4'-C1'-N1	8.71	115.17	108.20
1	Ad	1593	U	N1-C1'-C2'	8.71	125.32	114.00
84	Aa	1085	G	N1-C6-O6	8.70	125.12	119.90
84	Aa	1119	G	N1-C6-O6	8.71	125.12	119.90
84	Aa	1572	C	O4'-C1'-N1	8.71	115.16	108.20
84	Aa	2493	C	O4'-C1'-N1	8.71	115.17	108.20
1	Ad	4	C	C1'-O4'-C4'	-8.70	102.94	109.90
84	Aa	493	G	N1-C6-O6	8.70	125.12	119.90
84	Aa	2728	C	O4'-C1'-N1	8.70	115.16	108.20
84	Aa	2860	U	O4'-C1'-N1	8.70	115.16	108.20
84	Aa	757	G	N1-C6-O6	8.70	125.12	119.90
85	Ac	39	G	N1-C6-O6	8.70	125.12	119.90
84	Aa	441	G	N1-C6-O6	8.70	125.12	119.90
84	Aa	1825	G	N1-C6-O6	8.70	125.12	119.90
84	Aa	2450	G	P-O3'-C3'	8.70	130.14	119.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	454	U	O4'-C1'-N1	8.70	115.16	108.20
1	Ad	811	U	O4'-C1'-N1	8.70	115.16	108.20
84	Aa	741	G	N1-C6-O6	8.70	125.12	119.90
84	Aa	2271	G	N1-C6-O6	8.70	125.12	119.90
84	Aa	1213	G	N1-C6-O6	8.69	125.11	119.90
84	Aa	3083	C	O4'-C1'-N1	8.69	115.15	108.20
84	Aa	3343	U	P-O3'-C3'	8.69	130.13	119.70
84	Aa	713	G	N1-C6-O6	8.69	125.11	119.90
84	Aa	782	G	N1-C6-O6	8.69	125.11	119.90
84	Aa	838	G	N1-C6-O6	8.69	125.11	119.90
84	Aa	1670	G	N1-C6-O6	8.69	125.11	119.90
84	Aa	2589	G	P-O3'-C3'	8.69	130.12	119.70
84	Aa	2735	G	N1-C6-O6	8.69	125.11	119.90
84	Aa	1268	G	N1-C6-O6	8.69	125.11	119.90
84	Aa	3023	G	N1-C6-O6	8.69	125.11	119.90
1	Ad	753	C	N1-C1'-C2'	8.69	125.29	114.00
84	Aa	1949	G	N1-C6-O6	8.69	125.11	119.90
84	Aa	1954	G	N1-C6-O6	8.69	125.11	119.90
84	Aa	3301	G	N1-C6-O6	8.69	125.11	119.90
84	Aa	3329	G	N1-C6-O6	8.69	125.11	119.90
1	Ad	787	C	C3'-C2'-C1'	-8.68	94.55	101.50
1	Ad	956	A	N9-C1'-C2'	-8.68	102.45	112.00
84	Aa	1404	G	N1-C6-O6	8.68	125.11	119.90
1	Ad	206	U	O4'-C1'-N1	8.68	115.15	108.20
84	Aa	1100	G	P-O3'-C3'	8.68	130.12	119.70
84	Aa	1941	G	N1-C6-O6	8.68	125.11	119.90
1	Ad	1363	G	C3'-C2'-C1'	-8.68	94.56	101.50
84	Aa	356	G	N1-C6-O6	8.68	125.11	119.90
84	Aa	720	G	N1-C6-O6	8.68	125.11	119.90
84	Aa	667	C	O4'-C1'-N1	8.68	115.14	108.20
84	Aa	988	G	N1-C6-O6	8.68	125.11	119.90
84	Aa	1723	C	O4'-C1'-N1	8.68	115.14	108.20
84	Aa	1804	G	N1-C6-O6	8.68	125.11	119.90
84	Aa	2048	C	O4'-C1'-N1	8.68	115.14	108.20
84	Aa	2865	G	N1-C6-O6	8.68	125.11	119.90
84	Aa	3172	G	N1-C6-O6	8.68	125.11	119.90
84	Aa	527	G	N1-C6-O6	8.67	125.10	119.90
84	Aa	745	G	N1-C6-O6	8.67	125.10	119.90
1	Ad	28	A	O4'-C1'-N9	8.67	115.14	108.20
84	Aa	200	G	N1-C6-O6	8.67	125.10	119.90
84	Aa	732	G	N1-C6-O6	8.67	125.10	119.90
84	Aa	802	G	N1-C6-O6	8.67	125.10	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1238	G	O5'-P-OP1	-8.67	97.90	105.70
84	Aa	1877	G	N1-C6-O6	8.67	125.10	119.90
84	Aa	2858	G	N1-C6-O6	8.67	125.10	119.90
84	Aa	2488	A	N1-C6-N6	8.67	123.80	118.60
1	Ad	136	U	O4'-C1'-N1	8.67	115.13	108.20
84	Aa	3245	G	N1-C6-O6	8.67	125.10	119.90
84	Aa	112	C	O4'-C1'-N1	8.67	115.13	108.20
84	Aa	3361	G	N1-C6-O6	8.67	125.10	119.90
84	Aa	535	G	N1-C6-O6	8.66	125.10	119.90
84	Aa	150	G	N1-C6-O6	8.66	125.10	119.90
84	Aa	1555	G	N1-C6-O6	8.66	125.10	119.90
84	Aa	1807	C	O4'-C1'-N1	8.66	115.13	108.20
84	Aa	2051	G	N1-C6-O6	8.66	125.10	119.90
1	Ad	165	U	N1-C1'-C2'	8.66	125.26	114.00
1	Ad	617	G	O4'-C1'-N9	-8.66	101.27	108.20
84	Aa	404	G	O4'-C1'-N9	8.66	115.13	108.20
84	Aa	1689	G	C5-C6-O6	-8.66	123.40	128.60
84	Aa	1759	C	O4'-C1'-N1	8.66	115.13	108.20
84	Aa	1826	G	N1-C6-O6	8.66	125.10	119.90
84	Aa	1980	C	O4'-C1'-N1	8.66	115.13	108.20
84	Aa	2031	G	N1-C6-O6	8.66	125.09	119.90
84	Aa	124	C	O4'-C1'-N1	8.66	115.12	108.20
84	Aa	142	G	N1-C6-O6	8.66	125.09	119.90
84	Aa	1340	G	N1-C6-O6	8.66	125.09	119.90
84	Aa	2703	G	N1-C6-O6	8.66	125.09	119.90
84	Aa	1974	C	O4'-C1'-N1	8.65	115.12	108.20
84	Aa	3167	G	O4'-C1'-N9	8.65	115.12	108.20
1	Ad	1029	U	O4'-C1'-C2'	-8.65	97.15	105.80
84	Aa	490	G	N1-C6-O6	8.65	125.09	119.90
84	Aa	1129	G	N1-C6-O6	8.65	125.09	119.90
84	Aa	2355	A	N1-C6-N6	8.65	123.79	118.60
1	Ad	1473	C	O4'-C1'-N1	8.65	115.12	108.20
84	Aa	613	G	N1-C6-O6	8.65	125.09	119.90
84	Aa	691	U	O4'-C1'-N1	8.65	115.12	108.20
84	Aa	1245	U	P-O5'-C5'	8.65	134.74	120.90
84	Aa	2050	G	N1-C6-O6	8.65	125.09	119.90
84	Aa	253	G	N1-C6-O6	8.64	125.09	119.90
84	Aa	254	G	N1-C6-O6	8.64	125.09	119.90
84	Aa	834	G	N1-C6-O6	8.64	125.09	119.90
84	Aa	2017	G	N1-C6-O6	8.64	125.09	119.90
84	Aa	2673	G	N1-C6-O6	8.64	125.09	119.90
84	Aa	2732	U	O4'-C1'-N1	8.64	115.11	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	3077	C	O4'-C1'-N1	8.64	115.11	108.20
84	Aa	521	G	P-O3'-C3'	8.64	130.07	119.70
84	Aa	477	C	O4'-C1'-N1	8.64	115.11	108.20
84	Aa	2399	G	N1-C6-O6	8.64	125.08	119.90
84	Aa	2539	G	N1-C6-O6	8.64	125.08	119.90
1	Ad	438	G	O4'-C1'-N9	8.63	115.11	108.20
84	Aa	863	G	N1-C6-O6	8.63	125.08	119.90
84	Aa	2002	G	N1-C6-O6	8.63	125.08	119.90
84	Aa	3231	G	N1-C6-O6	8.63	125.08	119.90
86	Ab	57	C	N3-C4-N4	8.64	124.05	118.00
1	Ad	969	U	N1-C1'-C2'	8.63	125.22	114.00
84	Aa	567	G	C5-C6-O6	-8.63	123.42	128.60
84	Aa	1914	C	O4'-C1'-N1	8.63	115.11	108.20
84	Aa	2027	G	N1-C6-O6	8.63	125.08	119.90
84	Aa	2536	G	N1-C6-O6	8.63	125.08	119.90
84	Aa	748	C	O4'-C1'-N1	8.63	115.10	108.20
84	Aa	1544	G	N1-C6-O6	8.63	125.08	119.90
84	Aa	2411	G	N1-C6-O6	8.63	125.08	119.90
84	Aa	2924	G	N1-C6-O6	8.63	125.08	119.90
1	Ad	351	G	O4'-C1'-N9	8.63	115.10	108.20
84	Aa	1859	G	N1-C6-O6	8.62	125.08	119.90
84	Aa	2505	C	O4'-C1'-N1	8.62	115.10	108.20
1	Ad	1636	U	O4'-C1'-N1	8.62	115.10	108.20
2	Ae	8	U	O4'-C1'-N1	8.62	115.10	108.20
84	Aa	837	C	O4'-C1'-N1	8.62	115.10	108.20
84	Aa	1655	G	N1-C6-O6	8.62	125.07	119.90
84	Aa	2624	G	N1-C6-O6	8.62	125.07	119.90
84	Aa	512	G	O4'-C1'-N9	8.62	115.10	108.20
84	Aa	1263	A	O4'-C1'-N9	8.62	115.10	108.20
1	Ad	124	G	O4'-C1'-N9	8.62	115.09	108.20
1	Ad	748	C	P-O3'-C3'	8.62	130.04	119.70
84	Aa	2795	G	N1-C6-O6	8.62	125.07	119.90
84	Aa	3160	G	N1-C6-O6	8.62	125.07	119.90
84	Aa	3353	G	N1-C6-O6	8.62	125.07	119.90
85	Ac	156	C	O4'-C1'-N1	8.62	115.09	108.20
84	Aa	2441	G	N1-C6-O6	8.62	125.07	119.90
1	Ad	399	U	O4'-C1'-N1	8.62	115.09	108.20
84	Aa	351	G	N1-C6-O6	8.62	125.07	119.90
84	Aa	464	G	O4'-C1'-N9	8.62	115.09	108.20
84	Aa	685	G	N1-C6-O6	8.61	125.07	119.90
84	Aa	422	G	N1-C6-O6	8.61	125.07	119.90
84	Aa	469	U	O4'-C1'-N1	8.61	115.09	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	546	C	O4'-C1'-N1	8.61	115.09	108.20
84	Aa	3026	C	O4'-C1'-N1	8.61	115.09	108.20
84	Aa	914	C	O4'-C1'-N1	8.61	115.09	108.20
84	Aa	3349	C	O4'-C1'-N1	8.61	115.09	108.20
84	Aa	860	G	N1-C6-O6	8.61	125.07	119.90
84	Aa	3275	G	N1-C6-O6	8.61	125.07	119.90
84	Aa	625	G	C4'-C3'-O3'	8.61	130.22	113.00
84	Aa	2011	G	N1-C6-O6	8.61	125.06	119.90
84	Aa	2709	G	C5-C6-O6	-8.61	123.44	128.60
84	Aa	2811	C	O4'-C1'-N1	8.61	115.09	108.20
1	Ad	769	G	O4'-C1'-N9	8.61	115.08	108.20
1	Ad	1232	G	N9-C1'-C2'	8.61	125.19	114.00
68	Ch	74	TYR	CB-CG-CD1	-8.61	115.84	121.00
84	Aa	135	G	N1-C6-O6	8.61	125.06	119.90
84	Aa	680	G	N1-C6-O6	8.61	125.06	119.90
84	Aa	1361	G	C5-C6-O6	-8.61	123.44	128.60
84	Aa	1760	G	N1-C6-O6	8.61	125.06	119.90
84	Aa	1975	G	N1-C6-O6	8.61	125.06	119.90
84	Aa	2457	G	N1-C6-O6	8.61	125.06	119.90
84	Aa	3240	C	O4'-C1'-N1	8.61	115.08	108.20
84	Aa	1425	G	N1-C6-O6	8.60	125.06	119.90
84	Aa	1762	G	N1-C6-O6	8.60	125.06	119.90
86	Ab	5	G	O4'-C1'-N9	8.60	115.08	108.20
84	Aa	2459	U	P-O3'-C3'	8.60	130.02	119.70
84	Aa	2381	G	N1-C6-O6	8.60	125.06	119.90
84	Aa	2080	G	N1-C6-O6	8.60	125.06	119.90
1	Ad	1080	C	C1'-O4'-C4'	-8.60	103.02	109.90
84	Aa	1885	G	N1-C6-O6	8.60	125.06	119.90
85	Ac	115	C	O4'-C1'-N1	8.60	115.08	108.20
1	Ad	1545	A	C1'-O4'-C4'	8.59	116.78	109.90
84	Aa	1523	G	C5-C6-O6	-8.59	123.44	128.60
84	Aa	2543	G	N1-C6-O6	8.59	125.06	119.90
1	Ad	725	U	O4'-C1'-N1	8.59	115.07	108.20
3	Af	14	A	O4'-C1'-N9	8.59	115.07	108.20
84	Aa	543	C	C5'-C4'-O4'	8.59	119.41	109.10
84	Aa	831	G	N1-C6-O6	8.59	125.05	119.90
1	Ad	1163	C	O4'-C1'-C2'	-8.59	97.21	105.80
2	Ae	54	U	O4'-C1'-N1	8.59	115.07	108.20
84	Aa	975	G	N1-C6-O6	8.59	125.05	119.90
84	Aa	1371	G	N1-C6-O6	8.59	125.05	119.90
84	Aa	1696	G	O4'-C1'-N9	8.59	115.07	108.20
84	Aa	1717	G	C5-C6-O6	-8.59	123.45	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	366	G	N1-C6-O6	8.59	125.05	119.90
84	Aa	919	G	N1-C6-O6	8.59	125.05	119.90
84	Aa	2039	G	N1-C6-O6	8.59	125.05	119.90
84	Aa	2742	A	N1-C6-N6	8.59	123.75	118.60
84	Aa	600	G	N1-C6-O6	8.58	125.05	119.90
84	Aa	1510	G	N1-C6-O6	8.58	125.05	119.90
84	Aa	2118	G	N1-C6-O6	8.58	125.05	119.90
84	Aa	2985	C	O4'-C1'-N1	8.58	115.07	108.20
84	Aa	2066	G	N1-C6-O6	8.58	125.05	119.90
86	Ab	108	G	N3-C2-N2	8.58	125.91	119.90
84	Aa	3284	C	O4'-C1'-N1	8.58	115.06	108.20
1	Ad	1107	G	O4'-C1'-N9	8.58	115.06	108.20
84	Aa	396	G	N1-C6-O6	8.58	125.05	119.90
84	Aa	498	G	N1-C6-O6	8.58	125.05	119.90
84	Aa	1301	C	O4'-C1'-N1	8.58	115.06	108.20
84	Aa	2248	G	N1-C6-O6	8.58	125.05	119.90
84	Aa	1230	G	N1-C6-O6	8.57	125.05	119.90
1	Ad	434	G	O4'-C1'-N9	8.57	115.06	108.20
1	Ad	629	C	O4'-C1'-N1	8.57	115.06	108.20
84	Aa	1095	C	O4'-C1'-N1	8.57	115.06	108.20
84	Aa	2405	C	O4'-C1'-N1	8.57	115.06	108.20
84	Aa	1084	G	N1-C6-O6	8.57	125.04	119.90
85	Ac	142	G	N1-C6-O6	8.57	125.04	119.90
1	Ad	184	C	O4'-C1'-N1	8.57	115.06	108.20
84	Aa	2595	G	N1-C6-O6	8.57	125.04	119.90
84	Aa	3208	G	N1-C6-O6	8.57	125.04	119.90
1	Ad	966	U	N1-C1'-C2'	8.56	125.13	114.00
84	Aa	1736	C	O4'-C1'-N1	8.56	115.05	108.20
84	Aa	374	G	N1-C6-O6	8.56	125.04	119.90
84	Aa	1482	C	O4'-C1'-N1	8.56	115.05	108.20
84	Aa	1783	G	N1-C6-O6	8.56	125.04	119.90
84	Aa	2477	G	C4'-C3'-O3'	8.56	130.12	113.00
84	Aa	2914	G	N1-C6-O6	8.56	125.04	119.90
1	Ad	1466	A	N9-C1'-C2'	8.56	125.13	114.00
1	Ad	162	A	C1'-O4'-C4'	-8.56	103.05	109.90
84	Aa	85	G	N1-C6-O6	8.56	125.03	119.90
86	Ab	66	G	C5-C6-O6	-8.56	123.47	128.60
84	Aa	833	G	N1-C6-O6	8.55	125.03	119.90
84	Aa	1888	G	N1-C6-O6	8.56	125.03	119.90
84	Aa	2666	G	N1-C6-O6	8.55	125.03	119.90
84	Aa	5	G	N1-C6-O6	8.55	125.03	119.90
84	Aa	2608	G	N1-C6-O6	8.55	125.03	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
86	Ab	75	G	O4'-C1'-N9	8.55	115.04	108.20
84	Aa	2717	G	N1-C6-O6	8.55	125.03	119.90
84	Aa	3380	G	N3-C2-N2	8.55	125.89	119.90
84	Aa	2744	C	O4'-C1'-N1	8.55	115.04	108.20
84	Aa	1857	G	N1-C6-O6	8.55	125.03	119.90
84	Aa	2013	G	N1-C6-O6	8.55	125.03	119.90
84	Aa	2093	G	C5-C6-O6	-8.55	123.47	128.60
84	Aa	2109	G	N1-C6-O6	8.55	125.03	119.90
85	Ac	6	C	O4'-C1'-N1	8.55	115.04	108.20
1	Ad	290	C	C3'-C2'-C1'	8.55	108.34	101.50
1	Ad	1395	C	C1'-O4'-C4'	-8.55	103.06	109.90
84	Aa	880	C	O4'-C1'-N1	8.54	115.04	108.20
84	Aa	3277	C	O4'-C1'-N1	8.54	115.04	108.20
1	Ad	118	U	O4'-C1'-N1	8.54	115.03	108.20
84	Aa	3195	C	O4'-C1'-N1	8.54	115.03	108.20
84	Aa	1919	C	O4'-C1'-N1	8.54	115.03	108.20
1	Ad	218	G	C1'-O4'-C4'	-8.54	103.07	109.90
84	Aa	2315	G	N1-C6-O6	8.54	125.02	119.90
84	Aa	2920	G	N1-C6-O6	8.54	125.02	119.90
86	Ab	104	C	O4'-C1'-N1	8.54	115.03	108.20
84	Aa	1711	G	N1-C6-O6	8.54	125.02	119.90
84	Aa	2045	G	N1-C6-O6	8.54	125.02	119.90
85	Ac	133	C	O4'-C1'-N1	8.54	115.03	108.20
86	Ab	99	G	C5-C6-O6	-8.54	123.48	128.60
1	Ad	220	C	N1-C1'-C2'	8.54	125.10	114.00
1	Ad	1128	C	C3'-C2'-C1'	8.53	108.33	101.50
84	Aa	1420	G	N1-C6-O6	8.53	125.02	119.90
1	Ad	1425	G	O4'-C1'-N9	8.53	115.03	108.20
84	Aa	1067	G	N1-C6-O6	8.53	125.02	119.90
84	Aa	1726	G	N1-C6-O6	8.53	125.02	119.90
1	Ad	1065	A	O4'-C1'-C2'	8.53	115.28	107.60
85	Ac	3	A	N1-C6-N6	8.53	123.72	118.60
84	Aa	1335	C	O4'-C1'-N1	8.53	115.02	108.20
84	Aa	1966	C	O4'-C1'-N1	8.53	115.02	108.20
84	Aa	2229	G	N1-C6-O6	8.53	125.02	119.90
1	Ad	1706	G	O4'-C1'-N9	8.53	115.02	108.20
86	Ab	55	A	C4-C5-C6	8.53	121.26	117.00
1	Ad	266	C	O4'-C1'-N1	8.52	115.02	108.20
84	Aa	1751	G	N1-C6-O6	8.52	125.01	119.90
84	Aa	2417	G	N1-C6-O6	8.52	125.02	119.90
86	Ab	93	U	O4'-C1'-N1	8.52	115.02	108.20
84	Aa	160	G	N1-C6-O6	8.52	125.01	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1118	G	N1-C6-O6	8.52	125.01	119.90
84	Aa	2916	G	N1-C6-O6	8.52	125.01	119.90
84	Aa	2556	G	N1-C6-O6	8.52	125.01	119.90
1	Ad	1363	G	O4'-C1'-N9	8.52	115.01	108.20
84	Aa	179	G	N1-C6-O6	8.52	125.01	119.90
84	Aa	1771	G	N1-C6-O6	8.52	125.01	119.90
85	Ac	124	C	O4'-C1'-N1	8.52	115.02	108.20
84	Aa	557	C	O4'-C1'-N1	8.52	115.01	108.20
86	Ab	13	A	N1-C6-N6	8.52	123.71	118.60
1	Ad	386	C	O4'-C1'-N1	8.51	115.01	108.20
84	Aa	187	G	N1-C6-O6	8.51	125.01	119.90
84	Aa	876	C	O4'-C1'-N1	8.51	115.01	108.20
84	Aa	1968	C	O4'-C1'-N1	8.51	115.01	108.20
84	Aa	2029	G	N1-C6-O6	8.51	125.01	119.90
84	Aa	2038	G	N1-C6-O6	8.51	125.00	119.90
84	Aa	2102	C	O4'-C1'-N1	8.51	115.01	108.20
84	Aa	2207	C	O4'-C1'-N1	8.51	115.01	108.20
84	Aa	3252	G	N1-C6-O6	8.51	125.01	119.90
84	Aa	905	G	N1-C6-O6	8.51	125.00	119.90
84	Aa	345	G	N1-C6-O6	8.51	125.00	119.90
84	Aa	400	G	N1-C6-O6	8.51	125.00	119.90
84	Aa	1241	G	N1-C6-O6	8.51	125.00	119.90
84	Aa	1996	C	O4'-C1'-N1	8.51	115.01	108.20
84	Aa	2099	G	N1-C6-O6	8.51	125.00	119.90
84	Aa	756	C	O4'-C1'-N1	8.51	115.00	108.20
84	Aa	848	G	N1-C6-O6	8.51	125.00	119.90
84	Aa	1077	C	O4'-C1'-N1	8.51	115.00	108.20
84	Aa	1242	U	O4'-C1'-N1	8.51	115.00	108.20
84	Aa	1973	C	O4'-C1'-N1	8.51	115.00	108.20
84	Aa	3006	G	N1-C6-O6	8.51	125.00	119.90
1	Ad	1665	U	O4'-C1'-C2'	-8.50	97.30	105.80
84	Aa	1113	C	O4'-C1'-N1	8.50	115.00	108.20
84	Aa	1165	C	O4'-C1'-N1	8.50	115.00	108.20
84	Aa	1614	G	N1-C6-O6	8.50	125.00	119.90
85	Ac	47	U	O4'-C1'-N1	8.50	115.00	108.20
1	Ad	1131	G	O4'-C1'-N9	8.50	115.00	108.20
1	Ad	1729	A	O4'-C1'-N9	8.50	115.00	108.20
84	Aa	3089	G	N1-C6-O6	8.50	125.00	119.90
84	Aa	1491	G	N1-C6-O6	8.49	125.00	119.90
84	Aa	2402	G	N1-C6-O6	8.49	125.00	119.90
84	Aa	2563	G	N1-C6-O6	8.49	125.00	119.90
1	Ad	41	A	C1'-O4'-C4'	8.49	116.69	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	55	G	N1-C6-O6	8.49	125.00	119.90
84	Aa	805	C	O4'-C1'-N1	8.49	114.99	108.20
84	Aa	2689	U	O4'-C1'-N1	8.49	114.99	108.20
84	Aa	2754	G	N1-C6-O6	8.49	125.00	119.90
84	Aa	1608	C	O4'-C1'-N1	8.49	114.99	108.20
84	Aa	2526	G	N1-C6-O6	8.49	124.99	119.90
84	Aa	778	G	N1-C6-O6	8.49	124.99	119.90
84	Aa	109	G	N1-C6-O6	8.48	124.99	119.90
84	Aa	689	G	N1-C6-O6	8.48	124.99	119.90
84	Aa	2306	G	C5-C6-O6	-8.48	123.51	128.60
86	Ab	1	G	O4'-C1'-N9	8.48	114.99	108.20
1	Ad	599	G	O4'-C1'-N9	8.48	114.99	108.20
84	Aa	940	G	N1-C6-O6	8.48	124.99	119.90
84	Aa	2364	C	O4'-C1'-N1	8.48	114.99	108.20
84	Aa	1022	G	O4'-C1'-N9	8.48	114.98	108.20
84	Aa	2322	G	N1-C6-O6	8.48	124.99	119.90
84	Aa	2654	G	N1-C6-O6	8.48	124.99	119.90
1	Ad	968	A	C1'-O4'-C4'	8.48	116.68	109.90
84	Aa	619	C	O4'-C1'-N1	8.48	114.98	108.20
84	Aa	1666	C	O4'-C1'-N1	8.48	114.98	108.20
84	Aa	1895	G	N1-C6-O6	8.48	124.99	119.90
84	Aa	1210	G	N1-C6-O6	8.48	124.99	119.90
84	Aa	2714	U	O4'-C1'-N1	8.48	114.98	108.20
85	Ac	141	C	O4'-C1'-N1	8.48	114.98	108.20
84	Aa	446	C	O4'-C1'-N1	8.47	114.98	108.20
84	Aa	2025	C	O4'-C1'-N1	8.47	114.98	108.20
86	Ab	101	A	C4-C5-C6	8.47	121.24	117.00
1	Ad	782	G	C1'-O4'-C4'	-8.47	103.12	109.90
84	Aa	1186	C	O4'-C1'-N1	8.47	114.98	108.20
84	Aa	3234	G	N1-C6-O6	8.47	124.98	119.90
84	Aa	611	C	O4'-C1'-N1	8.47	114.98	108.20
84	Aa	2841	G	N1-C6-O6	8.47	124.98	119.90
85	Ac	16	G	N1-C6-O6	8.47	124.98	119.90
84	Aa	1977	C	O4'-C1'-N1	8.47	114.97	108.20
84	Aa	2486	G	N1-C6-O6	8.47	124.98	119.90
1	Ad	902	C	O4'-C1'-C2'	-8.47	97.33	105.80
84	Aa	230	G	N1-C6-O6	8.47	124.98	119.90
84	Aa	1997	G	N1-C6-O6	8.47	124.98	119.90
84	Aa	3109	G	N1-C6-O6	8.47	124.98	119.90
1	Ad	1380	A	O4'-C1'-N9	8.46	114.97	108.20
84	Aa	544	C	O4'-C1'-N1	8.46	114.97	108.20
84	Aa	829	G	N1-C6-O6	8.46	124.98	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1519	C	O4'-C1'-N1	8.47	114.97	108.20
1	Ad	1724	U	O4'-C1'-N1	8.46	114.97	108.20
84	Aa	256	G	N1-C6-O6	8.46	124.98	119.90
84	Aa	579	G	C5-C6-O6	-8.46	123.52	128.60
84	Aa	3090	C	O4'-C1'-N1	8.46	114.97	108.20
1	Ad	15	U	O4'-C1'-N1	8.46	114.97	108.20
84	Aa	195	G	N1-C6-O6	8.46	124.97	119.90
84	Aa	1665	G	N1-C6-O6	8.46	124.97	119.90
1	Ad	1646	G	C1'-O4'-C4'	-8.46	103.14	109.90
84	Aa	2642	G	N1-C6-O6	8.46	124.97	119.90
84	Aa	1318	C	O4'-C1'-N1	8.45	114.96	108.20
85	Ac	150	G	O4'-C1'-N9	8.46	114.96	108.20
1	Ad	839	G	P-O5'-C5'	8.45	134.42	120.90
1	Ad	1717	C	O4'-C1'-N1	8.45	114.96	108.20
84	Aa	1408	C	O4'-C1'-N1	8.45	114.96	108.20
84	Aa	20	G	N1-C6-O6	8.45	124.97	119.90
84	Aa	1686	U	O4'-C1'-N1	8.45	114.96	108.20
84	Aa	2622	G	N1-C6-O6	8.45	124.97	119.90
84	Aa	3100	C	P-O3'-C3'	8.45	129.84	119.70
84	Aa	1606	C	O4'-C1'-N1	8.45	114.96	108.20
1	Ad	328	U	O4'-C1'-N1	8.45	114.96	108.20
84	Aa	144	A	C5-C6-N6	-8.45	116.94	123.70
84	Aa	221	C	O4'-C1'-N1	8.45	114.96	108.20
84	Aa	707	G	N1-C6-O6	8.45	124.97	119.90
84	Aa	749	C	O4'-C1'-N1	8.45	114.96	108.20
84	Aa	882	U	O4'-C1'-N1	8.45	114.96	108.20
84	Aa	2108	C	O4'-C1'-N1	8.45	114.96	108.20
84	Aa	2173	G	O4'-C1'-N9	8.45	114.96	108.20
1	Ad	1155	G	C1'-O4'-C4'	-8.44	103.14	109.90
84	Aa	3198	C	O4'-C1'-N1	8.44	114.95	108.20
84	Aa	2033	C	O4'-C1'-N1	8.44	114.95	108.20
84	Aa	2086	A	C4'-C3'-O3'	-8.44	91.68	109.40
84	Aa	612	U	P-O3'-C3'	8.44	129.82	119.70
84	Aa	1281	C	O4'-C1'-N1	8.44	114.95	108.20
1	Ad	1492	G	N9-C1'-C2'	-8.44	102.72	112.00
84	Aa	2821	U	O4'-C1'-N1	8.43	114.95	108.20
84	Aa	471	C	O4'-C1'-N1	8.43	114.94	108.20
84	Aa	275	G	C5-C6-O6	-8.43	123.54	128.60
84	Aa	2535	C	O4'-C1'-N1	8.43	114.94	108.20
84	Aa	639	A	P-O3'-C3'	8.43	129.81	119.70
84	Aa	2555	G	N1-C6-O6	8.43	124.96	119.90
84	Aa	3053	G	N1-C6-O6	8.42	124.95	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1634	G	N1-C6-O6	8.42	124.95	119.90
84	Aa	2144	G	N1-C6-O6	8.42	124.95	119.90
85	Ac	144	C	O4'-C1'-N1	8.42	114.94	108.20
84	Aa	2940	G	N1-C6-O6	8.42	124.95	119.90
84	Aa	102	G	N1-C6-O6	8.42	124.95	119.90
84	Aa	1444	G	N1-C6-O6	8.42	124.95	119.90
1	Ad	296	A	N9-C1'-C2'	8.41	124.93	114.00
1	Ad	513	G	O4'-C1'-N9	8.41	114.93	108.20
1	Ad	733	U	O4'-C1'-N1	8.41	114.93	108.20
84	Aa	24	C	O4'-C1'-N1	8.41	114.93	108.20
1	Ad	1744	C	O4'-C1'-N1	8.40	114.92	108.20
1	Ad	88	C	O4'-C1'-N1	8.40	114.92	108.20
1	Ad	919	G	N9-C1'-C2'	-8.40	102.76	112.00
1	Ad	1103	U	O4'-C1'-N1	8.40	114.92	108.20
84	Aa	244	G	O4'-C1'-N9	8.40	114.92	108.20
84	Aa	1984	C	O4'-C1'-N1	8.40	114.92	108.20
1	Ad	1604	C	C3'-C2'-C1'	-8.40	94.78	101.50
84	Aa	52	G	N1-C6-O6	8.40	124.94	119.90
84	Aa	103	G	N1-C6-O6	8.40	124.94	119.90
84	Aa	1872	C	O4'-C1'-N1	8.40	114.92	108.20
84	Aa	1913	C	O4'-C1'-N1	8.40	114.92	108.20
1	Ad	407	G	O4'-C1'-N9	8.40	114.92	108.20
85	Ac	152	G	N1-C6-O6	8.40	124.94	119.90
1	Ad	224	C	O4'-C1'-N1	8.39	114.92	108.20
1	Ad	1593	U	C1'-O4'-C4'	-8.39	103.18	109.90
84	Aa	1150	G	N1-C6-O6	8.39	124.94	119.90
84	Aa	2299	C	O4'-C1'-N1	8.39	114.92	108.20
84	Aa	3350	C	O4'-C1'-N1	8.39	114.91	108.20
84	Aa	290	C	O4'-C1'-N1	8.39	114.91	108.20
1	Ad	1665	U	C1'-O4'-C4'	8.39	116.61	109.90
84	Aa	3203	G	N1-C6-O6	8.39	124.94	119.90
84	Aa	1415	G	C5-C6-O6	-8.39	123.57	128.60
84	Aa	1596	G	N1-C6-O6	8.39	124.93	119.90
1	Ad	164	C	N1-C1'-C2'	8.38	124.90	114.00
84	Aa	1562	A	C5'-C4'-C3'	8.38	129.42	116.00
84	Aa	2464	G	N1-C6-O6	8.38	124.93	119.90
1	Ad	1725	C	O4'-C1'-C2'	-8.38	97.42	105.80
84	Aa	1685	U	O4'-C1'-N1	8.38	114.91	108.20
84	Aa	3182	A	N1-C6-N6	8.38	123.63	118.60
84	Aa	1782	G	N1-C6-O6	8.38	124.93	119.90
84	Aa	3134	C	O4'-C1'-N1	8.38	114.90	108.20
1	Ad	571	A	O4'-C1'-N9	8.38	114.90	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2592	G	N1-C6-O6	8.38	124.93	119.90
1	Ad	1752	U	O4'-C1'-N1	8.38	114.90	108.20
84	Aa	1841	G	N1-C6-O6	8.38	124.93	119.90
86	Ab	23	A	C4-C5-C6	8.38	121.19	117.00
1	Ad	1466	A	C1'-O4'-C4'	-8.38	103.20	109.90
84	Aa	361	G	N1-C6-O6	8.38	124.93	119.90
84	Aa	305	G	N1-C6-O6	8.37	124.92	119.90
84	Aa	437	C	O4'-C1'-N1	8.37	114.90	108.20
86	Ab	51	G	C5-C6-O6	-8.38	123.58	128.60
1	Ad	5	U	O4'-C1'-N1	8.37	114.90	108.20
84	Aa	1422	G	N1-C6-O6	8.37	124.92	119.90
1	Ad	409	C	N1-C1'-C2'	8.37	124.88	114.00
84	Aa	3167	G	N1-C6-O6	8.37	124.92	119.90
86	Ab	118	C	N3-C4-N4	8.37	123.86	118.00
1	Ad	291	G	O4'-C1'-N9	8.37	114.89	108.20
84	Aa	80	C	O4'-C1'-N1	8.37	114.89	108.20
84	Aa	307	C	O4'-C1'-N1	8.37	114.89	108.20
84	Aa	2032	C	O4'-C1'-N1	8.37	114.89	108.20
84	Aa	2040	G	N1-C6-O6	8.37	124.92	119.90
1	Ad	67	G	C1'-O4'-C4'	-8.37	103.21	109.90
1	Ad	212	A	N9-C1'-C2'	8.37	124.87	114.00
1	Ad	1235	U	O4'-C1'-N1	8.37	114.89	108.20
84	Aa	162	G	N1-C6-O6	8.37	124.92	119.90
84	Aa	1042	C	O4'-C1'-N1	8.37	114.89	108.20
84	Aa	1573	G	N1-C6-O6	8.37	124.92	119.90
84	Aa	2246	G	C5-C6-O6	-8.37	123.58	128.60
84	Aa	2911	C	O4'-C1'-N1	8.37	114.89	108.20
84	Aa	2154	G	N1-C6-O6	8.36	124.92	119.90
84	Aa	3199	C	O4'-C1'-N1	8.37	114.89	108.20
1	Ad	249	G	N9-C1'-C2'	8.36	124.87	114.00
1	Ad	1622	A	C3'-C2'-C1'	-8.36	94.81	101.50
84	Aa	3054	G	N1-C6-O6	8.36	124.92	119.90
84	Aa	3063	C	O4'-C1'-N1	8.36	114.89	108.20
84	Aa	487	C	O4'-C1'-N1	8.36	114.89	108.20
84	Aa	575	C	C4'-C3'-O3'	-8.36	91.85	109.40
84	Aa	2628	C	O4'-C1'-N1	8.36	114.89	108.20
84	Aa	1323	G	N1-C6-O6	8.36	124.92	119.90
84	Aa	1632	G	N1-C6-O6	8.36	124.92	119.90
84	Aa	209	G	N1-C6-O6	8.36	124.91	119.90
84	Aa	433	C	O4'-C1'-N1	8.36	114.88	108.20
84	Aa	898	G	N1-C6-O6	8.35	124.91	119.90
1	Ad	570	C	N1-C1'-C2'	8.35	124.86	114.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	343	G	N1-C6-O6	8.35	124.91	119.90
84	Aa	3046	C	O4'-C1'-N1	8.35	114.88	108.20
84	Aa	1241	G	O4'-C1'-N9	8.35	114.88	108.20
84	Aa	2000	C	O4'-C1'-N1	8.35	114.88	108.20
84	Aa	470	G	N1-C6-O6	8.35	124.91	119.90
84	Aa	3317	G	C5-C6-O6	-8.35	123.59	128.60
84	Aa	3323	U	O4'-C1'-N1	8.35	114.88	108.20
1	Ad	1394	A	P-O3'-C3'	8.35	129.72	119.70
84	Aa	1628	G	N1-C6-O6	8.35	124.91	119.90
84	Aa	2597	C	O4'-C1'-N1	8.34	114.88	108.20
84	Aa	64	A	C5-C6-N6	-8.34	117.03	123.70
84	Aa	95	G	N1-C6-O6	8.34	124.91	119.90
84	Aa	2953	G	N1-C6-O6	8.34	124.91	119.90
84	Aa	516	C	O4'-C1'-N1	8.34	114.87	108.20
84	Aa	3068	U	O4'-C1'-N1	8.34	114.87	108.20
84	Aa	690	G	N1-C6-O6	8.34	124.90	119.90
84	Aa	3163	G	N1-C6-O6	8.34	124.90	119.90
1	Ad	1510	G	O4'-C1'-N9	8.34	114.87	108.20
2	Ae	31	C	C3'-C2'-C1'	8.34	108.17	101.50
84	Aa	835	G	N1-C6-O6	8.34	124.90	119.90
84	Aa	2511	U	C4'-C3'-O3'	-8.34	91.90	109.40
1	Ad	1321	C	N1-C1'-C2'	8.33	124.83	114.00
84	Aa	225	G	N1-C6-O6	8.33	124.90	119.90
84	Aa	2065	G	N1-C6-O6	8.33	124.90	119.90
85	Ac	118	C	O4'-C1'-N1	8.33	114.87	108.20
86	Ab	67	C	O4'-C1'-N1	8.33	114.87	108.20
84	Aa	1424	G	N1-C6-O6	8.33	124.90	119.90
84	Aa	165	C	O4'-C1'-N1	8.33	114.86	108.20
1	Ad	988	G	O4'-C1'-N9	8.33	114.86	108.20
84	Aa	902	U	O4'-C1'-N1	8.33	114.86	108.20
84	Aa	2163	G	O4'-C1'-N9	8.33	114.86	108.20
86	Ab	34	C	O4'-C1'-N1	8.33	114.86	108.20
84	Aa	704	G	C5-C6-O6	-8.32	123.61	128.60
84	Aa	872	G	N1-C6-O6	8.32	124.89	119.90
84	Aa	2097	C	O4'-C1'-N1	8.32	114.86	108.20
84	Aa	2786	G	N1-C6-O6	8.32	124.89	119.90
85	Ac	154	G	N1-C6-O6	8.32	124.89	119.90
84	Aa	3205	C	O4'-C1'-N1	8.32	114.86	108.20
1	Ad	1784	G	O4'-C1'-N9	8.32	114.86	108.20
84	Aa	3226	G	P-O3'-C3'	8.32	129.69	119.70
1	Ad	358	C	C3'-C2'-C1'	8.32	108.16	101.50
1	Ad	834	A	C1'-O4'-C4'	8.32	116.56	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	443	G	N1-C6-O6	8.32	124.89	119.90
84	Aa	448	G	N1-C6-O6	8.32	124.89	119.90
84	Aa	1029	C	O4'-C1'-N1	8.32	114.86	108.20
84	Aa	1571	A	O4'-C1'-N9	8.32	114.86	108.20
84	Aa	2621	G	N1-C6-O6	8.32	124.89	119.90
84	Aa	3211	C	O4'-C1'-N1	8.32	114.86	108.20
1	Ad	597	U	O4'-C1'-N1	8.32	114.85	108.20
84	Aa	1014	G	N1-C6-O6	8.32	124.89	119.90
84	Aa	1418	C	O4'-C1'-N1	8.32	114.86	108.20
84	Aa	3179	G	C5-C6-O6	-8.32	123.61	128.60
84	Aa	2426	C	O4'-C1'-N1	8.32	114.85	108.20
84	Aa	3060	G	N1-C6-O6	8.32	124.89	119.90
85	Ac	124	C	P-O3'-C3'	8.32	129.68	119.70
84	Aa	1016	G	N1-C6-O6	8.31	124.89	119.90
84	Aa	1741	G	C5-C6-O6	-8.31	123.61	128.60
84	Aa	2990	C	O4'-C1'-N1	8.31	114.85	108.20
84	Aa	3339	G	N1-C6-O6	8.31	124.89	119.90
86	Ab	31	G	C6-C5-N7	-8.31	125.41	130.40
1	Ad	962	G	O4'-C1'-N9	8.31	114.85	108.20
1	Ad	1599	C	C3'-C2'-C1'	8.31	108.15	101.50
84	Aa	1151	G	N1-C6-O6	8.31	124.89	119.90
84	Aa	2297	G	N1-C6-O6	8.31	124.89	119.90
84	Aa	827	C	O4'-C1'-N1	8.31	114.85	108.20
84	Aa	3126	U	O4'-C1'-N1	8.31	114.85	108.20
84	Aa	733	C	O4'-C1'-N1	8.31	114.85	108.20
84	Aa	1053	C	O4'-C1'-N1	8.31	114.85	108.20
84	Aa	2124	G	N1-C6-O6	8.31	124.89	119.90
84	Aa	478	G	N1-C6-O6	8.31	124.88	119.90
84	Aa	1989	G	N1-C6-O6	8.31	124.88	119.90
84	Aa	2460	A	N1-C6-N6	8.31	123.58	118.60
84	Aa	2511	U	C2'-C3'-O3'	8.31	127.78	109.50
84	Aa	3176	C	O4'-C1'-N1	8.31	114.85	108.20
84	Aa	3276	G	N1-C6-O6	8.31	124.88	119.90
84	Aa	761	C	O4'-C1'-N1	8.31	114.84	108.20
85	Ac	151	G	C5-C6-O6	-8.31	123.62	128.60
1	Ad	1608	A	N9-C1'-C2'	8.30	124.80	114.00
84	Aa	10	C	O4'-C1'-N1	8.30	114.84	108.20
84	Aa	832	C	O4'-C1'-N1	8.30	114.84	108.20
84	Aa	1742	G	N1-C6-O6	8.30	124.88	119.90
84	Aa	1864	G	N1-C6-O6	8.30	124.88	119.90
1	Ad	1045	G	O4'-C1'-N9	8.30	114.84	108.20
84	Aa	2049	C	O4'-C1'-N1	8.30	114.84	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2268	G	N1-C6-O6	8.30	124.88	119.90
84	Aa	2623	G	C5-C6-O6	-8.30	123.62	128.60
84	Aa	2378	U	O4'-C1'-N1	8.30	114.84	108.20
85	Ac	30	C	O4'-C1'-N1	8.30	114.84	108.20
84	Aa	40	G	N1-C6-O6	8.30	124.88	119.90
84	Aa	2328	C	O4'-C1'-N1	8.30	114.84	108.20
84	Aa	2940	G	O4'-C1'-N9	8.30	114.84	108.20
84	Aa	562	G	N1-C6-O6	8.29	124.88	119.90
84	Aa	585	A	O4'-C1'-N9	8.29	114.84	108.20
84	Aa	1612	C	O4'-C1'-N1	8.29	114.83	108.20
84	Aa	1824	C	O4'-C1'-N1	8.29	114.83	108.20
84	Aa	2474	A	O4'-C1'-N9	8.29	114.83	108.20
84	Aa	2588	G	C5-C6-O6	-8.29	123.63	128.60
1	Ad	152	G	O4'-C1'-N9	8.29	114.83	108.20
84	Aa	369	G	N1-C6-O6	8.29	124.87	119.90
84	Aa	751	C	O4'-C1'-N1	8.29	114.83	108.20
84	Aa	1994	C	O4'-C1'-N1	8.29	114.83	108.20
84	Aa	2546	C	O4'-C1'-N1	8.29	114.83	108.20
85	Ac	71	A	C5-C6-N6	-8.29	117.07	123.70
85	Ac	91	C	O4'-C1'-N1	8.29	114.83	108.20
84	Aa	14	U	O4'-C1'-N1	8.29	114.83	108.20
84	Aa	1552	C	O4'-C1'-N1	8.28	114.83	108.20
84	Aa	2864	U	O4'-C1'-N1	8.29	114.83	108.20
86	Ab	94	C	O4'-C1'-N1	8.29	114.83	108.20
84	Aa	3303	C	O4'-C1'-N1	8.28	114.83	108.20
85	Ac	138	G	N1-C6-O6	8.28	124.87	119.90
1	Ad	817	C	O4'-C1'-C2'	-8.28	97.52	105.80
1	Ad	1544	G	O4'-C1'-N9	8.28	114.83	108.20
84	Aa	2847	A	N1-C6-N6	8.28	123.57	118.60
84	Aa	3061	C	O4'-C1'-N1	8.28	114.83	108.20
84	Aa	3342	C	O4'-C1'-N1	8.28	114.83	108.20
85	Ac	126	A	O4'-C1'-N9	8.28	114.83	108.20
1	Ad	37	U	O4'-C1'-N1	8.28	114.82	108.20
84	Aa	633	C	O4'-C1'-N1	8.28	114.82	108.20
84	Aa	2196	G	C5-C6-O6	-8.28	123.63	128.60
85	Ac	153	C	O4'-C1'-N1	8.28	114.82	108.20
84	Aa	515	C	O4'-C1'-N1	8.28	114.82	108.20
84	Aa	1081	U	O4'-C1'-N1	8.28	114.82	108.20
84	Aa	2076	C	P-O3'-C3'	8.28	129.63	119.70
84	Aa	2927	C	O4'-C1'-N1	8.28	114.82	108.20
84	Aa	2985	C	C2-N1-C1'	8.28	127.90	118.80
1	Ad	1445	C	C3'-C2'-C1'	8.27	108.12	101.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1757	G	N1-C6-O6	8.27	124.86	119.90
84	Aa	993	A	O4'-C1'-N9	8.27	114.82	108.20
84	Aa	1759	C	C2-N1-C1'	8.27	127.90	118.80
1	Ad	1758	G	C1'-O4'-C4'	-8.27	103.29	109.90
84	Aa	2059	C	O4'-C1'-N1	8.27	114.81	108.20
84	Aa	2501	U	O4'-C1'-N1	8.27	114.82	108.20
85	Ac	134	G	C5-C6-O6	-8.27	123.64	128.60
84	Aa	1331	C	O4'-C1'-N1	8.27	114.81	108.20
84	Aa	1732	G	N1-C6-O6	8.27	124.86	119.90
85	Ac	50	C	O4'-C1'-N1	8.27	114.81	108.20
1	Ad	450	A	O4'-C1'-C2'	-8.26	97.54	105.80
84	Aa	331	G	N1-C6-O6	8.26	124.86	119.90
84	Aa	727	G	N1-C6-O6	8.26	124.86	119.90
84	Aa	2046	G	N1-C6-O6	8.26	124.86	119.90
1	Ad	1032	A	N9-C1'-C2'	-8.26	102.91	112.00
84	Aa	1434	G	N1-C6-O6	8.26	124.86	119.90
84	Aa	1495	G	N1-C6-O6	8.26	124.86	119.90
84	Aa	1706	C	O4'-C1'-N1	8.26	114.81	108.20
84	Aa	800	C	O4'-C1'-N1	8.26	114.81	108.20
84	Aa	3044	C	O4'-C1'-N1	8.26	114.81	108.20
1	Ad	509	A	O4'-C1'-C2'	-8.26	97.55	105.80
84	Aa	3187	C	O4'-C1'-N1	8.26	114.80	108.20
84	Aa	259	G	N1-C6-O6	8.25	124.85	119.90
84	Aa	1102	A	N1-C6-N6	8.25	123.55	118.60
84	Aa	592	U	O4'-C1'-N1	8.25	114.80	108.20
84	Aa	1245	U	O4'-C1'-N1	8.25	114.80	108.20
84	Aa	2010	G	N1-C6-O6	8.25	124.85	119.90
84	Aa	155	G	N1-C6-O6	8.25	124.85	119.90
84	Aa	354	C	O4'-C1'-N1	8.25	114.80	108.20
84	Aa	1350	G	N1-C6-O6	8.25	124.85	119.90
84	Aa	2814	C	O4'-C1'-N1	8.25	114.80	108.20
84	Aa	101	C	O4'-C1'-N1	8.25	114.80	108.20
84	Aa	147	G	N1-C6-O6	8.25	124.85	119.90
84	Aa	1449	A	O4'-C1'-N9	8.25	114.80	108.20
1	Ad	25	C	C3'-C2'-C1'	8.25	108.10	101.50
84	Aa	1656	C	O4'-C1'-N1	8.25	114.80	108.20
84	Aa	1930	G	N1-C6-O6	8.25	124.85	119.90
85	Ac	51	G	N1-C6-O6	8.25	124.85	119.90
84	Aa	1185	G	N1-C6-O6	8.24	124.85	119.90
84	Aa	1667	C	O4'-C1'-N1	8.24	114.79	108.20
84	Aa	3249	G	N1-C6-O6	8.24	124.84	119.90
1	Ad	615	U	O4'-C1'-N1	8.24	114.79	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	1141	U	O4'-C1'-N1	8.24	114.79	108.20
1	Ad	1345	G	C1'-O4'-C4'	-8.24	103.31	109.90
84	Aa	1642	G	N1-C6-O6	8.24	124.84	119.90
84	Aa	1609	G	O4'-C1'-N9	8.23	114.79	108.20
84	Aa	1854	A	N1-C6-N6	8.23	123.54	118.60
84	Aa	9	C	O4'-C1'-N1	8.23	114.78	108.20
84	Aa	2028	C	O4'-C1'-N1	8.23	114.78	108.20
84	Aa	2393	G	N1-C6-O6	8.23	124.84	119.90
1	Ad	748	C	C3'-C2'-C1'	8.23	108.08	101.50
85	Ac	2	G	N1-C6-O6	8.23	124.84	119.90
84	Aa	1947	U	O4'-C1'-N1	8.22	114.78	108.20
85	Ac	103	G	N1-C6-O6	8.22	124.83	119.90
85	Ac	49	G	N1-C6-O6	8.22	124.83	119.90
85	Ac	58	G	N1-C6-O6	8.22	124.83	119.90
1	Ad	416	A	O4'-C1'-N9	8.22	114.78	108.20
84	Aa	737	C	O4'-C1'-N1	8.22	114.77	108.20
84	Aa	1856	G	C5-C6-O6	-8.22	123.67	128.60
84	Aa	2093	G	O4'-C1'-N9	8.22	114.77	108.20
84	Aa	2568	G	C5-C6-O6	-8.22	123.67	128.60
1	Ad	1664	U	P-O3'-C3'	8.22	129.56	119.70
84	Aa	505	G	N1-C6-O6	8.21	124.83	119.90
84	Aa	960	C	O4'-C1'-N1	8.21	114.77	108.20
84	Aa	1414	C	O4'-C1'-N1	8.21	114.77	108.20
1	Ad	6	G	O4'-C1'-N9	8.21	114.77	108.20
1	Ad	84	G	O4'-C1'-N9	8.21	114.77	108.20
1	Ad	277	G	C3'-C2'-C1'	8.21	108.07	101.50
1	Ad	1301	G	N9-C1'-C2'	-8.21	102.97	112.00
84	Aa	398	G	C5-C6-O6	-8.21	123.67	128.60
84	Aa	655	G	N1-C6-O6	8.21	124.83	119.90
1	Ad	1774	C	O4'-C1'-N1	8.21	114.77	108.20
84	Aa	201	G	N1-C6-O6	8.21	124.83	119.90
84	Aa	1636	C	O4'-C1'-N1	8.21	114.77	108.20
84	Aa	1659	G	N1-C6-O6	8.21	124.83	119.90
84	Aa	2103	U	O4'-C1'-N1	8.21	114.77	108.20
84	Aa	3210	G	O4'-C1'-N9	8.21	114.77	108.20
84	Aa	3319	G	N1-C6-O6	8.21	124.83	119.90
84	Aa	558	G	N1-C6-O6	8.21	124.83	119.90
85	Ac	45	C	O4'-C1'-N1	8.21	114.77	108.20
1	Ad	373	U	O4'-C1'-N1	8.21	114.76	108.20
1	Ad	1069	G	O4'-C1'-N9	8.21	114.76	108.20
84	Aa	549	G	C5-C6-O6	-8.21	123.68	128.60
84	Aa	569	C	O4'-C1'-N1	8.21	114.77	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2908	C	O4'-C1'-N1	8.21	114.77	108.20
84	Aa	1112	C	O4'-C1'-N1	8.20	114.76	108.20
86	Ab	104	C	N3-C4-N4	8.20	123.74	118.00
18	BN	128	TYR	CB-CG-CD1	-8.20	116.08	121.00
84	Aa	1784	C	O4'-C1'-N1	8.20	114.76	108.20
3	Af	13	A	O4'-C1'-N9	8.20	114.76	108.20
84	Aa	218	G	N1-C6-O6	8.20	124.82	119.90
84	Aa	1075	G	N1-C6-O6	8.20	124.82	119.90
84	Aa	1660	C	O4'-C1'-N1	8.20	114.76	108.20
84	Aa	1963	G	N1-C6-O6	8.20	124.82	119.90
1	Ad	244	C	O4'-C1'-N1	8.20	114.76	108.20
1	Ad	492	G	P-O5'-C5'	8.20	134.01	120.90
84	Aa	91	G	N1-C6-O6	8.20	124.82	119.90
84	Aa	2041	G	N1-C6-O6	8.20	124.82	119.90
84	Aa	2450	G	N1-C6-O6	8.19	124.82	119.90
85	Ac	65	G	C5-C6-O6	-8.19	123.68	128.60
1	Ad	366	G	O4'-C1'-N9	8.19	114.75	108.20
84	Aa	164	C	O4'-C1'-N1	8.19	114.75	108.20
84	Aa	532	G	N1-C6-O6	8.19	124.81	119.90
84	Aa	1369	G	N1-C6-O6	8.19	124.81	119.90
84	Aa	3387	U	O4'-C1'-N1	8.19	114.75	108.20
86	Ab	2	G	N1-C6-O6	8.19	124.82	119.90
86	Ab	7	G	N1-C6-O6	8.19	124.82	119.90
84	Aa	1378	G	N1-C6-O6	8.19	124.81	119.90
1	Ad	1731	A	C3'-C2'-C1'	8.19	108.05	101.50
84	Aa	267	G	N1-C6-O6	8.19	124.81	119.90
84	Aa	2857	U	O4'-C1'-N1	8.19	114.75	108.20
2	Ae	57	A	O4'-C1'-N9	8.19	114.75	108.20
84	Aa	523	C	O4'-C1'-N1	8.19	114.75	108.20
84	Aa	2342	C	O4'-C1'-N1	8.18	114.75	108.20
84	Aa	3324	U	O4'-C1'-N1	8.18	114.75	108.20
1	Ad	324	U	O4'-C1'-N1	8.18	114.74	108.20
84	Aa	536	C	O4'-C1'-N1	8.18	114.74	108.20
84	Aa	641	C	C5'-C4'-C3'	8.18	129.09	116.00
84	Aa	744	C	O4'-C1'-N1	8.18	114.75	108.20
84	Aa	2816	G	N1-C6-O6	8.18	124.81	119.90
84	Aa	1735	U	O4'-C1'-N1	8.18	114.74	108.20
84	Aa	1972	C	O4'-C1'-N1	8.18	114.74	108.20
84	Aa	3207	C	O4'-C1'-N1	8.18	114.74	108.20
84	Aa	3239	G	N1-C6-O6	8.18	124.81	119.90
86	Ab	8	A	C4-C5-C6	8.18	121.09	117.00
86	Ab	75	G	N1-C6-O6	8.18	124.81	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	75	U	O4'-C1'-N1	8.18	114.74	108.20
84	Aa	1346	C	O4'-C1'-N1	8.17	114.74	108.20
84	Aa	1566	C	O4'-C1'-N1	8.17	114.74	108.20
84	Aa	2019	G	N1-C6-O6	8.17	124.80	119.90
84	Aa	2388	C	O4'-C1'-N1	8.17	114.74	108.20
84	Aa	3118	C	O4'-C1'-N1	8.17	114.74	108.20
84	Aa	2183	A	C5-C6-N1	-8.17	113.61	117.70
84	Aa	2187	C	O4'-C1'-N1	8.17	114.74	108.20
1	Ad	1127	G	N9-C1'-C2'	-8.17	103.01	112.00
84	Aa	1889	G	C5-C6-O6	-8.17	123.70	128.60
1	Ad	532	U	O4'-C1'-N1	8.17	114.73	108.20
84	Aa	2891	C	O4'-C1'-N1	8.17	114.73	108.20
2	Ae	3	C	O4'-C1'-N1	8.17	114.73	108.20
84	Aa	946	U	O4'-C1'-N1	8.17	114.73	108.20
84	Aa	1965	C	O4'-C1'-N1	8.17	114.73	108.20
84	Aa	2222	C	O4'-C1'-N1	8.17	114.73	108.20
86	Ab	67	C	C5-C4-N4	-8.17	114.48	120.20
84	Aa	1284	C	O4'-C1'-N1	8.16	114.73	108.20
84	Aa	2332	C	O4'-C1'-N1	8.16	114.73	108.20
84	Aa	98	A	O4'-C1'-N9	8.16	114.73	108.20
84	Aa	140	C	O4'-C1'-N1	8.16	114.73	108.20
84	Aa	684	C	O4'-C1'-N1	8.16	114.73	108.20
84	Aa	1038	C	O4'-C1'-N1	8.16	114.73	108.20
84	Aa	642	C	C5'-C4'-C3'	8.16	129.05	116.00
84	Aa	1156	A	N1-C6-N6	8.16	123.50	118.60
84	Aa	2003	C	O4'-C1'-N1	8.16	114.73	108.20
84	Aa	588	G	N1-C6-O6	8.16	124.79	119.90
84	Aa	1690	C	O4'-C1'-N1	8.16	114.73	108.20
84	Aa	2869	C	O4'-C1'-N1	8.16	114.72	108.20
84	Aa	3263	C	P-O5'-C5'	8.16	133.95	120.90
1	Ad	73	A	O4'-C1'-N9	8.15	114.72	108.20
84	Aa	1096	C	O4'-C1'-N1	8.15	114.72	108.20
84	Aa	1259	C	O4'-C1'-N1	8.15	114.72	108.20
84	Aa	2148	U	O4'-C1'-N1	8.15	114.72	108.20
84	Aa	2672	C	O4'-C1'-N1	8.15	114.72	108.20
1	Ad	1072	U	O4'-C1'-N1	8.15	114.72	108.20
84	Aa	582	C	O4'-C1'-N1	8.15	114.72	108.20
84	Aa	1959	U	P-O5'-C5'	-8.15	107.86	120.90
84	Aa	2569	G	N1-C6-O6	8.15	124.79	119.90
1	Ad	617	G	N9-C1'-C2'	8.15	124.59	114.00
84	Aa	1174	G	N1-C6-O6	8.15	124.79	119.90
84	Aa	1848	G	N1-C6-O6	8.15	124.79	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	131	C	O4'-C1'-N1	8.15	114.72	108.20
84	Aa	1695	C	N3-C4-C5	-8.15	118.64	121.90
84	Aa	3192	G	N1-C6-O6	8.14	124.79	119.90
86	Ab	11	A	C5-C6-N6	-8.14	117.18	123.70
1	Ad	481	A	O4'-C1'-N9	8.14	114.71	108.20
84	Aa	3004	G	N1-C6-O6	8.14	124.78	119.90
1	Ad	1047	G	O4'-C1'-N9	8.14	114.71	108.20
84	Aa	913	G	N1-C6-O6	8.14	124.78	119.90
84	Aa	1962	C	O4'-C1'-N1	8.14	114.71	108.20
1	Ad	189	U	P-O3'-C3'	8.14	129.46	119.70
1	Ad	836	U	N1-C1'-C2'	8.13	124.58	114.00
84	Aa	3216	G	N1-C6-O6	8.14	124.78	119.90
85	Ac	94	C	O4'-C1'-N1	8.13	114.71	108.20
84	Aa	520	G	N1-C6-O6	8.13	124.78	119.90
84	Aa	2241	G	N1-C6-O6	8.13	124.78	119.90
84	Aa	2402	G	P-O3'-C3'	8.13	129.46	119.70
84	Aa	2588	G	O4'-C1'-N9	8.13	114.70	108.20
84	Aa	2807	G	N1-C6-O6	8.13	124.78	119.90
1	Ad	903	A	N9-C1'-C2'	-8.13	103.06	112.00
86	Ab	69	A	C5-C6-N1	-8.13	113.64	117.70
84	Aa	777	G	N1-C6-O6	8.12	124.77	119.90
84	Aa	3184	G	N1-C6-O6	8.12	124.77	119.90
86	Ab	100	A	C5-C6-N1	-8.12	113.64	117.70
1	Ad	1711	G	O4'-C1'-N9	8.12	114.70	108.20
84	Aa	631	C	O4'-C1'-N1	8.12	114.70	108.20
84	Aa	1448	U	O4'-C1'-N1	8.12	114.70	108.20
84	Aa	3316	C	O4'-C1'-N1	8.12	114.70	108.20
86	Ab	72	G	O4'-C1'-N9	8.12	114.70	108.20
1	Ad	913	U	O4'-C1'-N1	8.12	114.69	108.20
84	Aa	1522	G	N1-C6-O6	8.12	124.77	119.90
85	Ac	1	C	O4'-C1'-N1	8.12	114.70	108.20
1	Ad	1139	C	C3'-C2'-C1'	8.12	107.99	101.50
84	Aa	621	C	O4'-C1'-N1	8.12	114.69	108.20
84	Aa	710	C	O4'-C1'-N1	8.11	114.69	108.20
84	Aa	570	G	N1-C6-O6	8.11	124.77	119.90
84	Aa	1615	G	N1-C6-O6	8.11	124.77	119.90
84	Aa	278	U	O4'-C1'-N1	8.11	114.69	108.20
84	Aa	1672	G	N1-C6-O6	8.11	124.77	119.90
84	Aa	2484	G	N1-C6-O6	8.11	124.77	119.90
84	Aa	3082	G	N1-C6-O6	8.11	124.77	119.90
84	Aa	3365	U	O4'-C1'-N1	8.11	114.69	108.20
1	Ad	193	G	C1'-O4'-C4'	-8.11	103.41	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2880	G	N1-C6-O6	8.11	124.77	119.90
84	Aa	2161	G	N1-C6-O6	8.11	124.76	119.90
84	Aa	2380	G	N1-C6-O6	8.11	124.76	119.90
84	Aa	2734	C	O4'-C1'-N1	8.11	114.69	108.20
84	Aa	2838	C	C2-N1-C1'	8.11	127.72	118.80
84	Aa	1969	G	N1-C6-O6	8.10	124.76	119.90
84	Aa	204	G	N1-C6-O6	8.10	124.76	119.90
84	Aa	3138	C	O4'-C1'-N1	8.10	114.68	108.20
84	Aa	1240	G	N1-C6-O6	8.10	124.76	119.90
84	Aa	1453	G	N1-C6-O6	8.10	124.76	119.90
84	Aa	2615	U	O4'-C1'-N1	8.10	114.68	108.20
1	Ad	158	C	C1'-O4'-C4'	-8.10	103.42	109.90
1	Ad	1062	C	O4'-C1'-N1	8.10	114.68	108.20
84	Aa	404	G	N1-C6-O6	8.10	124.76	119.90
86	Ab	82	G	C4-C5-C6	8.10	123.66	118.80
1	Ad	254	A	N9-C1'-C2'	8.10	124.53	114.00
84	Aa	3278	G	C5-C6-O6	-8.10	123.74	128.60
1	Ad	452	C	O4'-C1'-N1	8.10	114.68	108.20
84	Aa	2688	G	N1-C6-O6	8.10	124.76	119.90
1	Ad	617	G	C1'-O4'-C4'	-8.09	103.42	109.90
1	Ad	1513	A	O4'-C1'-N9	8.09	114.67	108.20
84	Aa	781	C	O4'-C1'-N1	8.09	114.67	108.20
84	Aa	2753	C	O4'-C1'-N1	8.09	114.67	108.20
84	Aa	3375	G	C5-C6-O6	-8.09	123.74	128.60
84	Aa	415	G	N1-C6-O6	8.09	124.75	119.90
84	Aa	596	C	O4'-C1'-N1	8.09	114.67	108.20
84	Aa	643	G	N1-C6-O6	8.09	124.75	119.90
84	Aa	1609	G	N1-C6-O6	8.09	124.75	119.90
84	Aa	2026	C	O4'-C1'-N1	8.09	114.67	108.20
84	Aa	2585	C	O4'-C1'-N1	8.09	114.67	108.20
1	Ad	393	G	C1'-O4'-C4'	-8.09	103.43	109.90
84	Aa	251	G	N1-C6-O6	8.09	124.75	119.90
84	Aa	511	C	O4'-C1'-N1	8.09	114.67	108.20
84	Aa	1827	U	O4'-C1'-N1	8.09	114.67	108.20
84	Aa	2826	G	N1-C6-O6	8.09	124.75	119.90
84	Aa	2687	C	O4'-C1'-N1	8.09	114.67	108.20
84	Aa	2837	C	O4'-C1'-N1	8.09	114.67	108.20
84	Aa	2913	A	N1-C6-N6	8.09	123.45	118.60
85	Ac	9	G	N1-C6-O6	8.09	124.75	119.90
1	Ad	765	U	O4'-C1'-N1	8.08	114.67	108.20
84	Aa	260	U	O4'-C1'-N1	8.08	114.67	108.20
84	Aa	1261	C	N3-C4-N4	8.08	123.66	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	746	C	C5'-C4'-O4'	8.08	118.80	109.10
84	Aa	977	G	N1-C6-O6	8.08	124.75	119.90
1	Ad	8	U	O4'-C1'-N1	8.08	114.66	108.20
1	Ad	1080	C	N1-C1'-C2'	8.08	124.50	114.00
84	Aa	442	C	O4'-C1'-N1	8.08	114.66	108.20
84	Aa	645	C	O4'-C1'-N1	8.08	114.67	108.20
84	Aa	2324	G	N1-C6-O6	8.08	124.75	119.90
84	Aa	3269	C	O4'-C1'-N1	8.08	114.66	108.20
86	Ab	66	G	C4-C5-C6	8.08	123.65	118.80
84	Aa	2408	G	N1-C6-O6	8.08	124.75	119.90
1	Ad	231	U	O4'-C1'-N1	8.07	114.66	108.20
1	Ad	1721	A	O4'-C1'-N9	8.07	114.66	108.20
84	Aa	233	C	O4'-C1'-N1	8.07	114.66	108.20
84	Aa	1173	C	O4'-C1'-N1	8.07	114.66	108.20
84	Aa	2123	C	O4'-C1'-N1	8.07	114.66	108.20
1	Ad	1588	C	N1-C1'-C2'	8.07	124.49	114.00
1	Ad	1685	U	C1'-O4'-C4'	-8.07	103.44	109.90
84	Aa	504	U	O4'-C1'-N1	8.07	114.66	108.20
84	Aa	565	C	O4'-C1'-N1	8.07	114.66	108.20
84	Aa	621	C	C2-N1-C1'	8.07	127.68	118.80
84	Aa	701	U	O4'-C1'-N1	8.07	114.66	108.20
84	Aa	1603	U	O4'-C1'-N1	8.07	114.66	108.20
84	Aa	717	G	N1-C6-O6	8.07	124.74	119.90
84	Aa	1878	G	N1-C6-O6	8.07	124.74	119.90
84	Aa	2117	G	N1-C6-O6	8.07	124.74	119.90
84	Aa	31	U	O4'-C1'-N1	8.07	114.65	108.20
84	Aa	1734	G	N1-C6-O6	8.07	124.74	119.90
84	Aa	2987	C	O4'-C1'-N1	8.07	114.66	108.20
85	Ac	123	G	N1-C6-O6	8.07	124.74	119.90
84	Aa	335	G	N1-C6-O6	8.06	124.74	119.90
84	Aa	461	A	C4'-C3'-O3'	8.06	129.13	113.00
84	Aa	597	C	O4'-C1'-N1	8.06	114.65	108.20
84	Aa	788	G	N1-C6-O6	8.06	124.74	119.90
84	Aa	1209	G	N1-C6-O6	8.06	124.74	119.90
84	Aa	337	C	O4'-C1'-N1	8.06	114.65	108.20
84	Aa	911	G	C5-C6-O6	-8.06	123.76	128.60
84	Aa	3189	C	O4'-C1'-N1	8.06	114.65	108.20
84	Aa	298	G	N1-C6-O6	8.06	124.74	119.90
84	Aa	436	G	C5-C6-O6	-8.06	123.76	128.60
84	Aa	419	G	N1-C6-O6	8.06	124.73	119.90
84	Aa	3158	C	O4'-C1'-N1	8.06	114.65	108.20
1	Ad	840	U	O4'-C1'-N1	8.06	114.64	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	735	C	O4'-C1'-N1	8.06	114.65	108.20
84	Aa	2713	G	N1-C6-O6	8.06	124.73	119.90
84	Aa	495	G	N1-C6-O6	8.05	124.73	119.90
84	Aa	2614	U	O4'-C1'-N1	8.05	114.64	108.20
84	Aa	571	G	N1-C6-O6	8.05	124.73	119.90
84	Aa	2191	C	O4'-C1'-N1	8.05	114.64	108.20
1	Ad	1049	U	O4'-C1'-N1	8.05	114.64	108.20
1	Ad	1496	A	P-O3'-C3'	8.05	129.36	119.70
1	Ad	1521	G	O4'-C1'-N9	8.05	114.64	108.20
84	Aa	1714	A	P-O3'-C3'	8.05	129.36	119.70
1	Ad	238	G	C3'-C2'-C1'	8.05	107.94	101.50
84	Aa	3183	G	P-O5'-C5'	8.05	133.77	120.90
1	Ad	1482	U	O4'-C1'-N1	8.04	114.64	108.20
84	Aa	400	G	C5-C6-O6	-8.04	123.77	128.60
84	Aa	519	C	O4'-C1'-N1	8.04	114.63	108.20
84	Aa	3086	G	C5-C6-O6	-8.04	123.78	128.60
84	Aa	3145	G	N1-C6-O6	8.04	124.72	119.90
1	Ad	288	G	C1'-O4'-C4'	-8.04	103.47	109.90
84	Aa	138	G	C5-C6-O6	-8.04	123.78	128.60
84	Aa	961	C	O4'-C1'-N1	8.04	114.63	108.20
84	Aa	1311	G	O4'-C1'-N9	8.04	114.63	108.20
84	Aa	1345	U	O4'-C1'-N1	8.04	114.63	108.20
84	Aa	2551	U	O4'-C1'-N1	8.04	114.63	108.20
84	Aa	1068	A	P-O3'-C3'	8.03	129.34	119.70
84	Aa	1087	G	N1-C6-O6	8.04	124.72	119.90
84	Aa	2278	G	C5-C6-O6	-8.04	123.78	128.60
84	Aa	3154	G	N1-C6-O6	8.04	124.72	119.90
85	Ac	57	C	O4'-C1'-N1	8.03	114.63	108.20
1	Ad	468	A	N9-C1'-C2'	-8.03	103.16	112.00
84	Aa	1725	G	O4'-C1'-N9	8.03	114.63	108.20
84	Aa	2711	U	O4'-C1'-N1	8.03	114.63	108.20
84	Aa	2941	G	N1-C6-O6	8.03	124.72	119.90
84	Aa	1733	G	N1-C6-O6	8.03	124.72	119.90
84	Aa	2329	C	O4'-C1'-N1	8.03	114.62	108.20
85	Ac	154	G	O4'-C1'-N9	8.03	114.62	108.20
84	Aa	1579	C	O4'-C1'-N1	8.03	114.62	108.20
84	Aa	1646	U	O4'-C1'-N1	8.03	114.62	108.20
1	Ad	619	A	O4'-C1'-N9	8.03	114.62	108.20
1	Ad	1260	A	N9-C1'-C2'	8.03	124.44	114.00
1	Ad	1499	U	O4'-C1'-N1	8.03	114.62	108.20
84	Aa	1217	G	C5-C6-O6	-8.03	123.78	128.60
84	Aa	2363	G	C5-C6-O6	-8.03	123.78	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2919	G	C5-C6-O6	-8.03	123.78	128.60
85	Ac	66	G	N1-C6-O6	8.03	124.72	119.90
84	Aa	1961	C	O4'-C1'-N1	8.02	114.62	108.20
1	Ad	1571	G	O4'-C1'-N9	8.02	114.62	108.20
84	Aa	174	G	N1-C6-O6	8.02	124.71	119.90
84	Aa	281	G	C5-C6-O6	-8.02	123.79	128.60
84	Aa	1071	G	N1-C6-O6	8.02	124.71	119.90
1	Ad	1434	G	C1'-O4'-C4'	-8.02	103.48	109.90
84	Aa	2233	G	N1-C6-O6	8.02	124.71	119.90
1	Ad	9	U	O4'-C1'-N1	8.02	114.61	108.20
1	Ad	928	A	O4'-C1'-N9	8.02	114.61	108.20
84	Aa	492	G	C5'-C4'-O4'	8.02	118.72	109.10
84	Aa	533	G	N1-C6-O6	8.02	124.71	119.90
84	Aa	2848	U	O4'-C1'-N1	8.02	114.61	108.20
85	Ac	132	C	O4'-C1'-N1	8.02	114.61	108.20
1	Ad	808	G	O4'-C1'-N9	8.02	114.61	108.20
84	Aa	795	C	O4'-C1'-N1	8.02	114.61	108.20
84	Aa	2243	C	O4'-C1'-N1	8.02	114.61	108.20
84	Aa	2579	G	N1-C6-O6	8.02	124.71	119.90
84	Aa	3256	C	O4'-C1'-N1	8.02	114.61	108.20
84	Aa	1775	C	O4'-C1'-N1	8.01	114.61	108.20
84	Aa	1908	C	O4'-C1'-N1	8.01	114.61	108.20
1	Ad	98	C	N1-C1'-C2'	8.01	124.42	114.00
84	Aa	2513	U	C5'-C4'-O4'	-8.01	99.49	109.10
84	Aa	2843	G	N1-C6-O6	8.01	124.71	119.90
84	Aa	412	C	O4'-C1'-N1	8.01	114.61	108.20
84	Aa	1327	G	N1-C6-O6	8.01	124.71	119.90
84	Aa	250	C	O4'-C1'-N1	8.01	114.61	108.20
84	Aa	1383	G	O4'-C1'-N9	8.01	114.61	108.20
84	Aa	1649	G	C5-C6-O6	-8.01	123.80	128.60
84	Aa	2359	C	O4'-C1'-N1	8.01	114.61	108.20
1	Ad	1472	G	C1'-O4'-C4'	-8.01	103.50	109.90
84	Aa	2850	G	C5-C6-O6	-8.01	123.80	128.60
84	Aa	127	G	N1-C6-O6	8.00	124.70	119.90
84	Aa	49	U	O4'-C1'-N1	8.00	114.60	108.20
1	Ad	954	C	C1'-O4'-C4'	-8.00	103.50	109.90
84	Aa	63	G	N1-C6-O6	8.00	124.70	119.90
84	Aa	1821	G	N1-C6-O6	8.00	124.70	119.90
84	Aa	2549	C	O4'-C1'-N1	8.00	114.60	108.20
86	Ab	119	C	N3-C4-C5	-8.00	118.70	121.90
1	Ad	19	A	O4'-C1'-N9	8.00	114.60	108.20
84	Aa	1035	C	O4'-C1'-N1	8.00	114.60	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1923	G	C5-C6-O6	-8.00	123.80	128.60
86	Ab	19	A	O4'-C1'-N9	7.99	114.59	108.20
1	Ad	945	A	O4'-C1'-N9	7.99	114.59	108.20
84	Aa	1110	C	O4'-C1'-N1	7.99	114.59	108.20
84	Aa	1338	C	O4'-C1'-N1	7.99	114.59	108.20
84	Aa	1787	C	O4'-C1'-N1	7.99	114.59	108.20
84	Aa	2086	A	O4'-C1'-N9	7.99	114.59	108.20
84	Aa	801	G	N1-C6-O6	7.99	124.69	119.90
1	Ad	89	U	O4'-C1'-N1	7.99	114.59	108.20
1	Ad	1576	C	C1'-O4'-C4'	7.99	116.29	109.90
1	Ad	1263	C	N1-C1'-C2'	7.98	124.38	114.00
84	Aa	694	U	O4'-C1'-N1	7.98	114.59	108.20
84	Aa	852	C	O4'-C1'-N1	7.98	114.59	108.20
84	Aa	161	C	O4'-C1'-N1	7.98	114.58	108.20
84	Aa	750	G	N1-C6-O6	7.98	124.69	119.90
84	Aa	1647	C	O4'-C1'-N1	7.98	114.58	108.20
84	Aa	2015	G	N1-C6-O6	7.98	124.69	119.90
84	Aa	2873	G	C5-C6-O6	-7.98	123.81	128.60
84	Aa	1033	G	N1-C6-O6	7.98	124.69	119.90
84	Aa	1080	C	O4'-C1'-N1	7.98	114.58	108.20
84	Aa	1194	C	O4'-C1'-N1	7.98	114.58	108.20
84	Aa	1293	C	O4'-C1'-N1	7.98	114.58	108.20
84	Aa	1362	C	O4'-C1'-N1	7.98	114.58	108.20
84	Aa	712	A	N1-C6-N6	7.98	123.39	118.60
84	Aa	967	G	C5-C6-O6	-7.97	123.81	128.60
84	Aa	1111	U	O4'-C1'-N1	7.97	114.58	108.20
1	Ad	1011	C	O4'-C1'-N1	7.97	114.58	108.20
84	Aa	1511	C	O4'-C1'-N1	7.97	114.58	108.20
84	Aa	2625	C	O4'-C1'-N1	7.97	114.58	108.20
84	Aa	3132	U	O4'-C1'-N1	7.97	114.58	108.20
85	Ac	97	G	C5-C6-O6	-7.97	123.82	128.60
1	Ad	14	C	N1-C1'-C2'	7.97	124.36	114.00
84	Aa	2061	C	O4'-C1'-N1	7.97	114.57	108.20
84	Aa	3032	G	C5-C6-O6	-7.97	123.82	128.60
84	Aa	1743	C	O4'-C1'-N1	7.96	114.57	108.20
84	Aa	1752	C	O4'-C1'-N1	7.96	114.57	108.20
1	Ad	1653	G	O4'-C1'-N9	7.96	114.57	108.20
1	Ad	1766	A	C1'-O4'-C4'	7.96	116.27	109.90
1	Ad	1202	G	C1'-O4'-C4'	-7.96	103.53	109.90
84	Aa	1383	G	C5-C6-O6	-7.96	123.82	128.60
84	Aa	2759	C	O4'-C1'-N1	7.96	114.57	108.20
84	Aa	1796	A	C5-C6-N6	-7.96	117.33	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
85	Ac	137	G	N1-C6-O6	7.96	124.68	119.90
1	Ad	1731	A	O4'-C1'-C2'	-7.96	97.84	105.80
84	Aa	1486	G	C5-C6-O6	-7.96	123.83	128.60
84	Aa	2499	U	O4'-C1'-N1	7.96	114.57	108.20
84	Aa	604	C	O4'-C1'-N1	7.96	114.57	108.20
84	Aa	3020	C	O4'-C1'-N1	7.96	114.56	108.20
84	Aa	1160	G	N1-C6-O6	7.96	124.67	119.90
84	Aa	1983	U	O4'-C1'-N1	7.96	114.56	108.20
84	Aa	2618	G	N1-C6-O6	7.96	124.67	119.90
84	Aa	952	C	O4'-C1'-N1	7.95	114.56	108.20
84	Aa	3197	C	O4'-C1'-N1	7.95	114.56	108.20
85	Ac	116	G	N1-C6-O6	7.95	124.67	119.90
84	Aa	2419	C	O4'-C1'-N1	7.95	114.56	108.20
84	Aa	2715	U	O4'-C1'-N1	7.95	114.56	108.20
84	Aa	1549	A	N1-C6-N6	7.95	123.37	118.60
84	Aa	878	G	C5-C6-O6	-7.95	123.83	128.60
84	Aa	2272	C	O4'-C1'-N1	7.95	114.56	108.20
80	Cf	107	TYR	CB-CG-CD2	-7.94	116.23	121.00
84	Aa	2581	C	O4'-C1'-N1	7.94	114.56	108.20
84	Aa	3269	C	C2-N1-C1'	7.94	127.54	118.80
84	Aa	1901	G	C5-C6-O6	-7.94	123.83	128.60
84	Aa	2225	C	O4'-C1'-N1	7.94	114.55	108.20
84	Aa	3111	C	O4'-C1'-N1	7.94	114.55	108.20
1	Ad	1194	C	O4'-C1'-C2'	-7.94	97.86	105.80
1	Ad	269	A	O4'-C1'-N9	7.94	114.55	108.20
41	CA	69	TYR	N-CA-CB	7.94	124.89	110.60
84	Aa	3244	G	C5-C6-O6	-7.94	123.84	128.60
84	Aa	603	G	O4'-C1'-N9	7.94	114.55	108.20
84	Aa	1070	G	N1-C6-O6	7.94	124.66	119.90
84	Aa	1390	G	O4'-C1'-N9	7.94	114.55	108.20
84	Aa	3385	G	N1-C6-O6	7.94	124.66	119.90
84	Aa	604	C	N3-C4-C5	-7.93	118.73	121.90
84	Aa	2260	C	O4'-C1'-N1	7.93	114.55	108.20
84	Aa	3031	G	N1-C6-O6	7.93	124.66	119.90
84	Aa	2952	G	N1-C6-O6	7.93	124.66	119.90
1	Ad	937	A	C1'-O4'-C4'	7.93	116.24	109.90
84	Aa	822	U	O4'-C1'-N1	7.93	114.54	108.20
84	Aa	1352	G	C5-C6-O6	-7.93	123.84	128.60
84	Aa	1648	C	O4'-C1'-N1	7.93	114.54	108.20
84	Aa	3214	U	O4'-C1'-N1	7.93	114.54	108.20
84	Aa	2833	G	N1-C6-O6	7.93	124.66	119.90
84	Aa	347	A	N1-C6-N6	7.93	123.36	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	676	G	N1-C6-O6	7.93	124.66	119.90
84	Aa	1853	C	O4'-C1'-N1	7.93	114.54	108.20
84	Aa	2092	C	O4'-C4'-C3'	-7.93	96.07	104.00
84	Aa	2975	G	N1-C6-O6	7.93	124.66	119.90
84	Aa	3019	C	O4'-C1'-N1	7.93	114.54	108.20
86	Ab	48	G	N1-C6-O6	7.93	124.66	119.90
1	Ad	1113	G	O4'-C1'-C2'	7.92	114.73	107.60
84	Aa	580	C	P-O3'-C3'	7.92	129.21	119.70
84	Aa	1306	A	O4'-C1'-N9	7.92	114.54	108.20
84	Aa	1700	U	O4'-C1'-N1	7.92	114.54	108.20
84	Aa	2064	C	O4'-C1'-N1	7.92	114.54	108.20
84	Aa	2491	A	P-O3'-C3'	7.92	129.21	119.70
84	Aa	2523	G	C5-C6-O6	-7.92	123.85	128.60
84	Aa	3143	A	C5-C6-N6	-7.92	117.36	123.70
84	Aa	2177	U	N1-C1'-C2'	7.92	124.30	114.00
84	Aa	2531	G	N1-C6-O6	7.92	124.65	119.90
84	Aa	3223	C	O4'-C1'-N1	7.92	114.54	108.20
86	Ab	14	C	C5-C6-N1	7.92	124.96	121.00
86	Ab	44	C	C2-N3-C4	7.92	123.86	119.90
1	Ad	1056	A	O4'-C1'-N9	7.92	114.53	108.20
84	Aa	32	G	C5-C6-O6	-7.92	123.85	128.60
1	Ad	281	U	C3'-C2'-C1'	-7.92	95.17	101.50
84	Aa	311	G	N1-C6-O6	7.92	124.65	119.90
85	Ac	93	U	O4'-C1'-N1	7.92	114.53	108.20
1	Ad	821	G	C3'-C2'-C1'	7.91	107.83	101.50
84	Aa	75	G	N1-C6-O6	7.91	124.65	119.90
84	Aa	3119	C	O4'-C1'-N1	7.91	114.53	108.20
84	Aa	4	C	O4'-C1'-N1	7.91	114.53	108.20
84	Aa	489	C	O4'-C1'-N1	7.91	114.53	108.20
84	Aa	2463	U	O4'-C1'-N1	7.91	114.53	108.20
84	Aa	2992	G	C5-C6-O6	-7.91	123.85	128.60
1	Ad	1568	U	C1'-O4'-C4'	7.91	116.23	109.90
84	Aa	182	C	O4'-C1'-N1	7.91	114.53	108.20
84	Aa	2008	G	N1-C6-O6	7.91	124.64	119.90
84	Aa	2321	C	O4'-C1'-N1	7.91	114.53	108.20
84	Aa	2866	A	N1-C6-N6	7.91	123.34	118.60
84	Aa	205	C	O4'-C1'-N1	7.91	114.53	108.20
1	Ad	183	C	N1-C1'-C2'	7.90	124.27	114.00
1	Ad	1128	C	P-O5'-C5'	7.90	133.54	120.90
84	Aa	3	G	N1-C6-O6	7.90	124.64	119.90
84	Aa	1707	C	O4'-C1'-N1	7.90	114.52	108.20
84	Aa	2167	G	C5'-C4'-C3'	7.90	128.65	116.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	339	G	C1'-O4'-C4'	-7.90	103.58	109.90
84	Aa	1108	U	O4'-C1'-N1	7.90	114.52	108.20
84	Aa	1320	G	C5-C6-O6	-7.90	123.86	128.60
1	Ad	96	G	N9-C1'-C2'	7.90	124.27	114.00
1	Ad	1218	U	C1'-O4'-C4'	7.90	116.22	109.90
84	Aa	1580	C	O4'-C1'-N1	7.90	114.52	108.20
84	Aa	2851	C	O4'-C1'-N1	7.90	114.52	108.20
1	Ad	321	C	C3'-C2'-C1'	7.90	107.82	101.50
1	Ad	369	G	O4'-C1'-C2'	-7.90	97.90	105.80
84	Aa	3232	C	O4'-C1'-N1	7.90	114.52	108.20
1	Ad	834	A	O4'-C1'-C2'	-7.89	97.91	105.80
84	Aa	54	G	N1-C6-O6	7.89	124.64	119.90
1	Ad	565	G	O4'-C1'-N9	7.89	114.51	108.20
1	Ad	1594	A	O4'-C1'-C2'	-7.89	97.91	105.80
84	Aa	191	C	O4'-C1'-N1	7.89	114.51	108.20
84	Aa	521	G	C5-C6-O6	-7.89	123.86	128.60
84	Aa	1131	U	O4'-C1'-N1	7.89	114.51	108.20
84	Aa	1197	A	O4'-C1'-N9	7.89	114.51	108.20
84	Aa	1613	C	O4'-C1'-N1	7.89	114.51	108.20
84	Aa	2494	A	C5-C6-N6	-7.89	117.39	123.70
84	Aa	3373	C	O4'-C1'-N1	7.89	114.51	108.20
84	Aa	285	G	C5-C6-O6	-7.89	123.86	128.60
84	Aa	1287	C	O4'-C1'-N1	7.89	114.51	108.20
84	Aa	500	C	O4'-C1'-N1	7.89	114.51	108.20
84	Aa	1328	C	O4'-C1'-N1	7.89	114.51	108.20
84	Aa	3289	U	O4'-C1'-N1	7.89	114.51	108.20
1	Ad	825	U	O4'-C1'-N1	7.89	114.51	108.20
1	Ad	1205	G	N9-C1'-C2'	-7.89	103.33	112.00
1	Ad	1755	G	O4'-C1'-N9	7.89	114.51	108.20
84	Aa	2037	C	O4'-C1'-N1	7.89	114.51	108.20
84	Aa	3283	G	N1-C6-O6	7.89	124.63	119.90
1	Ad	535	C	C3'-C2'-C1'	7.88	107.81	101.50
84	Aa	543	C	C2'-C3'-O3'	7.88	126.85	109.50
84	Aa	587	A	C4-C5-C6	7.88	120.94	117.00
1	Ad	176	A	N9-C1'-C2'	-7.88	103.33	112.00
84	Aa	743	C	O4'-C1'-N1	7.88	114.50	108.20
84	Aa	1722	G	P-O3'-C3'	7.88	129.16	119.70
84	Aa	2534	G	N1-C6-O6	7.88	124.63	119.90
84	Aa	2870	U	O4'-C1'-N1	7.88	114.51	108.20
84	Aa	458	G	N1-C6-O6	7.88	124.63	119.90
1	Ad	743	G	O4'-C1'-C2'	-7.88	97.92	105.80
84	Aa	1246	G	N1-C6-O6	7.88	124.63	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	275	C	O4'-C1'-N1	7.88	114.50	108.20
84	Aa	640	C	C6-N1-C2	-7.88	117.15	120.30
84	Aa	856	G	N1-C6-O6	7.88	124.63	119.90
84	Aa	3246	U	O4'-C1'-N1	7.88	114.50	108.20
1	Ad	1397	A	C1'-O4'-C4'	-7.87	103.60	109.90
84	Aa	2773	G	N1-C6-O6	7.87	124.62	119.90
84	Aa	2997	C	O4'-C1'-N1	7.87	114.50	108.20
84	Aa	1017	G	C5-C6-O6	-7.87	123.88	128.60
84	Aa	1364	C	O4'-C1'-N1	7.87	114.50	108.20
84	Aa	2643	A	N1-C6-N6	7.87	123.32	118.60
84	Aa	3213	A	O4'-C1'-N9	7.87	114.50	108.20
1	Ad	14	C	C1'-O4'-C4'	-7.87	103.60	109.90
1	Ad	1096	A	C1'-O4'-C4'	-7.87	103.60	109.90
84	Aa	244	G	N1-C6-O6	7.87	124.62	119.90
84	Aa	334	A	C5-C6-N1	-7.87	113.77	117.70
84	Aa	1574	C	O4'-C1'-N1	7.87	114.49	108.20
84	Aa	2906	U	O4'-C1'-N1	7.87	114.49	108.20
2	Ae	74	C	P-O3'-C3'	7.87	129.14	119.70
84	Aa	391	U	O4'-C1'-N1	7.87	114.49	108.20
84	Aa	912	G	N1-C6-O6	7.87	124.62	119.90
1	Ad	214	A	C1'-O4'-C4'	7.86	116.19	109.90
1	Ad	1041	A	N9-C1'-C2'	-7.86	103.35	112.00
1	Ad	1645	C	O4'-C1'-C2'	-7.86	97.94	105.80
84	Aa	2859	C	O4'-C1'-N1	7.86	114.49	108.20
85	Ac	19	A	N1-C6-N6	7.86	123.32	118.60
1	Ad	784	C	C3'-C2'-C1'	-7.86	95.21	101.50
84	Aa	227	C	O4'-C1'-N1	7.86	114.49	108.20
84	Aa	584	G	P-O3'-C3'	7.86	129.13	119.70
84	Aa	1162	A	O4'-C1'-N9	7.86	114.49	108.20
84	Aa	1976	U	O4'-C1'-N1	7.86	114.49	108.20
84	Aa	1530	C	O4'-C1'-N1	7.86	114.48	108.20
84	Aa	2145	C	O4'-C1'-N1	7.86	114.48	108.20
84	Aa	2895	G	N1-C6-O6	7.86	124.61	119.90
84	Aa	3341	C	O4'-C1'-N1	7.86	114.48	108.20
84	Aa	2143	A	C5-C6-N6	-7.85	117.42	123.70
84	Aa	1382	C	O4'-C1'-N1	7.85	114.48	108.20
84	Aa	1939	C	O4'-C1'-N1	7.85	114.48	108.20
84	Aa	2391	C	O4'-C1'-N1	7.85	114.48	108.20
84	Aa	3200	A	P-O3'-C3'	7.85	129.12	119.70
85	Ac	95	G	C5-C6-O6	-7.85	123.89	128.60
84	Aa	985	C	O4'-C1'-N1	7.85	114.48	108.20
84	Aa	2354	G	C5-C6-O6	-7.85	123.89	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	628	G	O4'-C1'-N9	7.85	114.48	108.20
84	Aa	559	U	O4'-C1'-N1	7.85	114.48	108.20
84	Aa	767	U	O4'-C1'-N1	7.85	114.48	108.20
84	Aa	1687	C	O4'-C1'-N1	7.85	114.48	108.20
84	Aa	2018	C	O4'-C1'-N1	7.85	114.48	108.20
84	Aa	2692	G	C5-C6-O6	-7.85	123.89	128.60
84	Aa	3390	G	C5-C6-O6	-7.85	123.89	128.60
84	Aa	2610	G	C5-C6-O6	-7.85	123.89	128.60
84	Aa	3025	A	C5-C6-N6	-7.85	117.42	123.70
1	Ad	367	G	O4'-C1'-N9	7.84	114.47	108.20
84	Aa	34	G	N1-C6-O6	7.84	124.61	119.90
84	Aa	1105	G	C5-C6-O6	-7.84	123.89	128.60
84	Aa	2506	G	O4'-C1'-N9	7.84	114.47	108.20
85	Ac	117	C	O4'-C1'-N1	7.84	114.48	108.20
84	Aa	674	G	N1-C6-O6	7.84	124.61	119.90
84	Aa	2587	G	C5-C6-O6	-7.84	123.89	128.60
1	Ad	833	U	O4'-C1'-N1	7.84	114.47	108.20
1	Ad	1730	G	C3'-C2'-C1'	7.84	107.77	101.50
84	Aa	130	G	N1-C6-O6	7.84	124.61	119.90
84	Aa	280	G	O4'-C1'-N9	7.84	114.47	108.20
84	Aa	1023	G	N1-C6-O6	7.84	124.61	119.90
84	Aa	1641	G	C5-C6-O6	-7.84	123.89	128.60
84	Aa	3225	G	C5-C6-O6	-7.84	123.89	128.60
84	Aa	759	C	O4'-C1'-N1	7.84	114.47	108.20
1	Ad	1432	C	N1-C1'-C2'	-7.84	103.38	112.00
84	Aa	1541	G	N1-C6-O6	7.84	124.60	119.90
2	Ae	6	G	N9-C1'-C2'	7.84	124.19	114.00
84	Aa	27	C	O4'-C1'-N1	7.84	114.47	108.20
84	Aa	2056	C	P-O3'-C3'	7.84	129.10	119.70
84	Aa	2626	G	N1-C6-O6	7.84	124.60	119.90
86	Ab	100	A	C4-C5-C6	7.84	120.92	117.00
84	Aa	51	A	C5-C6-N6	-7.83	117.43	123.70
84	Aa	2343	U	O4'-C1'-N1	7.83	114.47	108.20
1	Ad	430	G	C1'-O4'-C4'	-7.83	103.63	109.90
1	Ad	1789	U	O4'-C1'-N1	7.83	114.47	108.20
84	Aa	2831	U	O4'-C1'-N1	7.83	114.47	108.20
1	Ad	1027	C	N1-C1'-C2'	7.83	124.18	114.00
1	Ad	1698	A	O4'-C1'-N9	7.83	114.47	108.20
84	Aa	2005	C	O4'-C1'-N1	7.83	114.47	108.20
84	Aa	3291	C	O4'-C1'-N1	7.83	114.47	108.20
84	Aa	1694	A	C5-C6-N6	-7.83	117.44	123.70
85	Ac	68	G	N1-C6-O6	7.83	124.60	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
86	Ab	44	C	N3-C4-N4	7.83	123.48	118.00
1	Ad	1700	G	C1'-O4'-C4'	-7.83	103.64	109.90
84	Aa	2605	G	C5-C6-O6	-7.83	123.90	128.60
1	Ad	205	U	O4'-C1'-N1	7.83	114.46	108.20
84	Aa	871	C	O4'-C1'-N1	7.83	114.46	108.20
84	Aa	1073	G	N1-C6-O6	7.83	124.59	119.90
84	Aa	1089	G	C5-C6-O6	-7.83	123.90	128.60
84	Aa	2456	G	N1-C6-O6	7.83	124.59	119.90
84	Aa	2567	C	O4'-C1'-N1	7.83	114.46	108.20
84	Aa	1616	G	N1-C6-O6	7.82	124.59	119.90
84	Aa	2384	G	C5-C6-O6	-7.82	123.91	128.60
1	Ad	834	A	P-O3'-C3'	7.82	129.09	119.70
84	Aa	203	C	O4'-C1'-N1	7.82	114.46	108.20
1	Ad	612	U	C1'-O4'-C4'	-7.82	103.64	109.90
84	Aa	373	A	P-O3'-C3'	7.82	129.08	119.70
84	Aa	2525	G	C5-C6-O6	-7.82	123.91	128.60
84	Aa	28	C	O4'-C1'-N1	7.82	114.45	108.20
84	Aa	3257	G	N1-C6-O6	7.82	124.59	119.90
86	Ab	87	G	C5-C6-O6	-7.82	123.91	128.60
1	Ad	563	C	N1-C1'-C2'	7.82	124.16	114.00
1	Ad	1436	U	O4'-C1'-N1	7.82	114.45	108.20
84	Aa	1037	U	O4'-C1'-N1	7.81	114.45	108.20
84	Aa	3366	C	O4'-C1'-N1	7.81	114.45	108.20
1	Ad	243	U	P-O3'-C3'	7.81	129.08	119.70
84	Aa	2410	U	O4'-C1'-N1	7.81	114.45	108.20
84	Aa	3217	G	N1-C6-O6	7.81	124.59	119.90
84	Aa	3251	C	O4'-C1'-N1	7.81	114.45	108.20
84	Aa	2440	U	O4'-C1'-N1	7.81	114.45	108.20
86	Ab	21	U	O4'-C1'-N1	7.81	114.45	108.20
84	Aa	335	G	O4'-C1'-N9	7.81	114.45	108.20
85	Ac	122	G	C5-C6-O6	-7.81	123.92	128.60
84	Aa	296	C	O4'-C1'-N1	7.81	114.44	108.20
84	Aa	1575	G	O4'-C1'-N9	7.81	114.44	108.20
1	Ad	895	U	O4'-C1'-N1	7.80	114.44	108.20
1	Ad	1746	U	O4'-C1'-N1	7.80	114.44	108.20
85	Ac	59	A	C4-C5-C6	7.80	120.90	117.00
1	Ad	1185	U	O4'-C1'-N1	7.80	114.44	108.20
1	Ad	1338	U	O4'-C1'-N1	7.80	114.44	108.20
1	Ad	1528	U	O4'-C1'-N1	7.80	114.44	108.20
84	Aa	806	C	O4'-C1'-N1	7.80	114.44	108.20
84	Aa	3340	G	N1-C6-O6	7.80	124.58	119.90
84	Aa	1953	C	O4'-C1'-N1	7.80	114.44	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
86	Ab	17	G	C5-C6-O6	-7.80	123.92	128.60
84	Aa	1121	C	O4'-C1'-N1	7.80	114.44	108.20
84	Aa	1937	C	O4'-C1'-N1	7.80	114.44	108.20
84	Aa	302	G	O4'-C1'-N9	7.80	114.44	108.20
84	Aa	828	U	O4'-C1'-N1	7.80	114.44	108.20
84	Aa	1237	G	C5-C6-O6	-7.80	123.92	128.60
84	Aa	3196	C	O4'-C1'-N1	7.80	114.44	108.20
84	Aa	3351	A	C5-C6-N6	-7.80	117.46	123.70
84	Aa	479	C	O4'-C1'-N1	7.79	114.44	108.20
84	Aa	2729	C	O4'-C1'-N1	7.79	114.44	108.20
1	Ad	814	C	N1-C1'-C2'	7.79	124.13	114.00
84	Aa	125	G	C5-C6-O6	-7.79	123.92	128.60
84	Aa	268	U	O4'-C1'-N1	7.79	114.44	108.20
84	Aa	1009	G	N1-C6-O6	7.79	124.58	119.90
1	Ad	743	G	P-O3'-C3'	7.79	129.05	119.70
1	Ad	1017	U	O4'-C1'-N1	7.79	114.43	108.20
84	Aa	561	G	N1-C6-O6	7.79	124.57	119.90
84	Aa	1772	G	C5-C6-O6	-7.79	123.93	128.60
84	Aa	2242	G	C5-C6-O6	-7.79	123.93	128.60
84	Aa	2339	U	O4'-C1'-N1	7.79	114.43	108.20
84	Aa	2779	G	N1-C6-O6	7.79	124.57	119.90
1	Ad	1511	A	C3'-C2'-C1'	-7.79	95.27	101.50
84	Aa	2164	G	N1-C6-O6	7.79	124.57	119.90
84	Aa	1754	C	O4'-C1'-N1	7.78	114.43	108.20
84	Aa	234	G	N1-C6-O6	7.78	124.57	119.90
84	Aa	2077	C	O4'-C1'-N1	7.78	114.42	108.20
84	Aa	3112	U	O4'-C1'-N1	7.78	114.43	108.20
84	Aa	2279	C	O4'-C1'-N1	7.78	114.42	108.20
84	Aa	2616	U	O4'-C1'-N1	7.78	114.42	108.20
84	Aa	2766	U	O4'-C1'-N1	7.78	114.42	108.20
84	Aa	1308	A	C5-C6-N6	-7.78	117.48	123.70
1	Ad	401	A	P-O5'-C5'	-7.77	108.47	120.90
1	Ad	1471	C	C1'-O4'-C4'	-7.77	103.68	109.90
84	Aa	355	C	O4'-C1'-N1	7.77	114.42	108.20
84	Aa	2167	G	C5'-C4'-O4'	7.77	118.43	109.10
1	Ad	1761	G	O4'-C1'-N9	7.77	114.41	108.20
84	Aa	874	U	O4'-C1'-N1	7.77	114.41	108.20
84	Aa	1135	C	O4'-C1'-N1	7.77	114.41	108.20
84	Aa	1749	G	N1-C6-O6	7.77	124.56	119.90
84	Aa	1057	A	C5-C6-N6	-7.77	117.49	123.70
84	Aa	1987	C	O4'-C1'-N1	7.76	114.41	108.20
85	Ac	131	G	C5-C6-O6	-7.76	123.94	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
86	Ab	97	G	N3-C2-N2	7.76	125.33	119.90
1	Ad	567	U	O4'-C1'-N1	7.76	114.41	108.20
84	Aa	257	C	O4'-C1'-N1	7.76	114.41	108.20
84	Aa	734	C	O4'-C1'-N1	7.76	114.41	108.20
84	Aa	1873	C	O4'-C1'-N1	7.76	114.41	108.20
84	Aa	3388	U	O4'-C1'-N1	7.76	114.41	108.20
85	Ac	26	C	O4'-C1'-N1	7.76	114.41	108.20
84	Aa	1951	C	O4'-C1'-N1	7.76	114.41	108.20
1	Ad	785	A	C1'-O4'-C4'	7.76	116.11	109.90
84	Aa	93	G	N1-C6-O6	7.76	124.55	119.90
84	Aa	497	G	C5-C6-O6	-7.76	123.95	128.60
84	Aa	2830	G	C5-C6-O6	-7.76	123.95	128.60
84	Aa	3345	G	C5-C6-O6	-7.76	123.95	128.60
84	Aa	2052	G	N1-C6-O6	7.75	124.55	119.90
1	Ad	435	C	O4'-C1'-N1	7.75	114.40	108.20
1	Ad	1574	U	N1-C1'-C2'	-7.75	103.47	112.00
84	Aa	522	C	C5'-C4'-O4'	7.75	118.40	109.10
84	Aa	594	C	O4'-C1'-N1	7.75	114.40	108.20
84	Aa	1582	C	O4'-C1'-N1	7.75	114.40	108.20
84	Aa	2696	C	O4'-C1'-N1	7.75	114.40	108.20
1	Ad	900	G	N9-C1'-C2'	7.75	124.08	114.00
1	Ad	1576	C	O4'-C1'-N1	7.75	114.40	108.20
84	Aa	673	U	O4'-C1'-N1	7.75	114.40	108.20
84	Aa	2962	C	O4'-C1'-N1	7.75	114.40	108.20
84	Aa	2988	U	O4'-C1'-N1	7.75	114.40	108.20
84	Aa	1740	U	O4'-C1'-N1	7.75	114.40	108.20
84	Aa	3247	C	O4'-C1'-N1	7.75	114.40	108.20
84	Aa	192	C	O4'-C1'-N1	7.75	114.40	108.20
84	Aa	229	G	N1-C6-O6	7.75	124.55	119.90
1	Ad	1450	A	C3'-C2'-C1'	7.75	107.70	101.50
1	Ad	1734	U	O4'-C1'-N1	7.75	114.40	108.20
85	Ac	147	C	O4'-C1'-N1	7.75	114.40	108.20
84	Aa	648	G	C5-C6-O6	-7.74	123.95	128.60
84	Aa	1219	C	O4'-C1'-N1	7.74	114.39	108.20
1	Ad	239	C	P-O3'-C3'	7.74	128.99	119.70
84	Aa	755	C	O4'-C1'-N1	7.74	114.39	108.20
84	Aa	2363	G	O4'-C1'-N9	7.74	114.39	108.20
85	Ac	108	C	O4'-C1'-N1	7.74	114.39	108.20
1	Ad	867	A	O4'-C1'-N9	7.74	114.39	108.20
84	Aa	1159	C	O4'-C1'-N1	7.74	114.39	108.20
84	Aa	2012	C	O4'-C1'-N1	7.74	114.39	108.20
84	Aa	2607	U	O4'-C1'-N1	7.74	114.39	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	803	G	O4'-C1'-N9	7.73	114.39	108.20
84	Aa	1082	U	O4'-C1'-N1	7.73	114.39	108.20
86	Ab	40	A	N1-C6-N6	7.73	123.24	118.60
1	Ad	1193	A	O4'-C1'-N9	7.73	114.38	108.20
84	Aa	654	C	O4'-C1'-N1	7.73	114.38	108.20
84	Aa	2406	C	O4'-C1'-N1	7.73	114.38	108.20
84	Aa	2425	U	O4'-C1'-N1	7.73	114.39	108.20
2	Ae	52	G	O4'-C1'-N9	7.73	114.38	108.20
84	Aa	1650	G	C5-C6-O6	-7.73	123.96	128.60
84	Aa	2201	G	N1-C6-O6	7.73	124.54	119.90
1	Ad	644	U	C1'-O4'-C4'	-7.73	103.72	109.90
84	Aa	2186	U	O4'-C1'-N1	7.73	114.38	108.20
84	Aa	3043	U	O4'-C1'-N1	7.73	114.38	108.20
84	Aa	2020	G	N1-C6-O6	7.73	124.53	119.90
85	Ac	55	U	O4'-C1'-N1	7.73	114.38	108.20
84	Aa	79	C	O4'-C1'-N1	7.72	114.38	108.20
84	Aa	939	A	C5-C6-N6	-7.72	117.52	123.70
84	Aa	1870	G	C5-C6-O6	-7.72	123.97	128.60
84	Aa	1778	C	O4'-C1'-N1	7.72	114.38	108.20
84	Aa	2508	U	O4'-C1'-N1	7.72	114.38	108.20
84	Aa	2669	C	O4'-C1'-N1	7.72	114.38	108.20
84	Aa	3233	C	O4'-C1'-N1	7.72	114.38	108.20
84	Aa	1388	C	O4'-C1'-N1	7.72	114.38	108.20
84	Aa	1828	C	O4'-C1'-N1	7.72	114.38	108.20
85	Ac	69	U	O4'-C1'-N1	7.72	114.38	108.20
1	Ad	1648	C	C3'-C2'-C1'	7.72	107.68	101.50
84	Aa	2340	G	N1-C6-O6	7.72	124.53	119.90
84	Aa	481	G	N1-C6-O6	7.72	124.53	119.90
84	Aa	1190	C	O4'-C1'-N1	7.72	114.37	108.20
84	Aa	2575	C	O4'-C1'-N1	7.72	114.37	108.20
1	Ad	829	G	O4'-C1'-N9	7.71	114.37	108.20
1	Ad	1046	G	C1'-O4'-C4'	-7.71	103.73	109.90
84	Aa	2394	G	N1-C6-O6	7.71	124.53	119.90
1	Ad	1610	C	O4'-C1'-N1	7.71	114.37	108.20
84	Aa	276	U	O4'-C1'-N1	7.71	114.37	108.20
84	Aa	1427	C	O4'-C1'-N1	7.71	114.37	108.20
84	Aa	1671	G	N1-C6-O6	7.71	124.53	119.90
85	Ac	5	U	O4'-C1'-N1	7.71	114.37	108.20
1	Ad	985	G	C3'-C2'-C1'	-7.71	95.33	101.50
1	Ad	1363	G	C1'-O4'-C4'	-7.71	103.73	109.90
84	Aa	1940	U	O4'-C1'-N1	7.71	114.37	108.20
84	Aa	2887	C	O4'-C1'-N1	7.71	114.37	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	1764	G	O4'-C1'-N9	7.71	114.36	108.20
84	Aa	702	G	N1-C6-O6	7.71	124.52	119.90
86	Ab	98	G	O4'-C1'-N9	7.71	114.36	108.20
1	Ad	832	C	N1-C1'-C2'	7.70	124.01	114.00
84	Aa	2999	G	N1-C6-O6	7.70	124.52	119.90
1	Ad	595	A	O4'-C1'-N9	7.70	114.36	108.20
84	Aa	948	C	O4'-C1'-N1	7.70	114.36	108.20
1	Ad	507	G	C1'-O4'-C4'	-7.69	103.75	109.90
1	Ad	1350	C	O4'-C1'-C2'	7.69	114.52	107.60
84	Aa	699	C	O4'-C1'-N1	7.69	114.35	108.20
84	Aa	1466	U	O4'-C1'-N1	7.69	114.35	108.20
84	Aa	2057	G	O4'-C1'-N9	7.69	114.36	108.20
1	Ad	428	C	N1-C1'-C2'	7.69	124.00	114.00
1	Ad	785	A	O4'-C1'-C2'	-7.69	98.11	105.80
1	Ad	888	U	C1'-O4'-C4'	-7.69	103.75	109.90
84	Aa	978	C	O4'-C1'-N1	7.69	114.35	108.20
84	Aa	1400	C	O4'-C1'-N1	7.69	114.35	108.20
84	Aa	2507	U	O4'-C1'-N1	7.69	114.35	108.20
1	Ad	1275	G	O4'-C1'-N9	7.69	114.35	108.20
1	Ad	1781	U	O4'-C1'-N1	7.69	114.35	108.20
84	Aa	1562	A	C2'-C3'-O3'	-7.69	92.59	109.50
84	Aa	2422	U	O4'-C1'-N1	7.69	114.35	108.20
1	Ad	1601	A	O4'-C1'-N9	7.68	114.35	108.20
84	Aa	502	G	C5-C6-O6	-7.68	123.99	128.60
86	Ab	61	C	O4'-C1'-N1	7.68	114.35	108.20
86	Ab	102	G	O4'-C1'-N9	7.68	114.35	108.20
84	Aa	1145	G	O4'-C1'-N9	7.68	114.35	108.20
84	Aa	1611	G	N1-C6-O6	7.68	124.51	119.90
84	Aa	169	G	N1-C6-O6	7.68	124.51	119.90
1	Ad	869	U	C1'-O4'-C4'	7.68	116.04	109.90
84	Aa	169	G	O4'-C1'-N9	7.68	114.34	108.20
84	Aa	1120	G	N1-C6-O6	7.68	124.51	119.90
84	Aa	3085	C	O4'-C1'-N1	7.68	114.34	108.20
84	Aa	25	U	O4'-C1'-N1	7.68	114.34	108.20
1	Ad	511	U	P-O3'-C3'	7.68	128.91	119.70
84	Aa	2899	A	N1-C6-N6	7.68	123.21	118.60
1	Ad	482	A	O4'-C1'-N9	7.67	114.34	108.20
1	Ad	1795	U	O4'-C1'-N1	7.67	114.34	108.20
84	Aa	542	G	C5-C6-O6	-7.67	124.00	128.60
84	Aa	1737	C	O4'-C1'-N1	7.67	114.34	108.20
84	Aa	2910	C	O4'-C1'-N1	7.67	114.34	108.20
84	Aa	2985	C	C6-N1-C1'	-7.67	111.59	120.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1317	G	C5-C6-O6	-7.67	124.00	128.60
84	Aa	2538	G	C5-C6-O6	-7.67	124.00	128.60
84	Aa	2879	G	C5-C6-O6	-7.67	124.00	128.60
1	Ad	142	G	O4'-C1'-N9	7.67	114.33	108.20
84	Aa	175	G	N1-C6-O6	7.67	124.50	119.90
84	Aa	1663	G	C5-C6-O6	-7.67	124.00	128.60
84	Aa	2557	C	O4'-C1'-N1	7.67	114.33	108.20
84	Aa	1607	C	O4'-C1'-N1	7.67	114.33	108.20
84	Aa	1894	G	N1-C6-O6	7.67	124.50	119.90
1	Ad	1082	C	C1'-O4'-C4'	-7.66	103.77	109.90
1	Ad	1310	C	N1-C1'-C2'	7.66	123.96	114.00
84	Aa	291	C	O4'-C1'-N1	7.66	114.33	108.20
84	Aa	1265	G	O4'-C1'-N9	7.66	114.33	108.20
84	Aa	1840	C	O4'-C1'-N1	7.66	114.33	108.20
84	Aa	2110	G	N1-C6-O6	7.66	124.50	119.90
84	Aa	2445	U	O4'-C1'-N1	7.66	114.33	108.20
84	Aa	2544	C	O4'-C1'-N1	7.66	114.33	108.20
84	Aa	189	C	O4'-C1'-N1	7.66	114.33	108.20
84	Aa	696	A	O4'-C1'-N9	7.66	114.33	108.20
1	Ad	1112	G	C1'-O4'-C4'	-7.66	103.77	109.90
84	Aa	2702	G	N1-C6-O6	7.66	124.50	119.90
84	Aa	3079	G	O4'-C1'-N9	7.66	114.33	108.20
84	Aa	120	G	N1-C6-O6	7.66	124.50	119.90
84	Aa	1473	U	O4'-C1'-N1	7.66	114.33	108.20
1	Ad	999	G	N9-C1'-C2'	7.66	123.95	114.00
84	Aa	240	U	P-O3'-C3'	7.66	128.89	119.70
84	Aa	309	C	O4'-C1'-N1	7.66	114.32	108.20
84	Aa	2565	C	O4'-C1'-N1	7.66	114.33	108.20
84	Aa	2721	C	O4'-C1'-N1	7.66	114.33	108.20
84	Aa	2158	C	O4'-C1'-N1	7.65	114.32	108.20
84	Aa	3222	G	O4'-C1'-N9	7.65	114.32	108.20
1	Ad	94	A	O4'-C1'-N9	7.65	114.32	108.20
84	Aa	652	C	O4'-C1'-N1	7.65	114.32	108.20
84	Aa	1964	G	N1-C6-O6	7.65	124.49	119.90
84	Aa	892	U	O4'-C1'-N1	7.65	114.32	108.20
84	Aa	58	G	N1-C6-O6	7.65	124.49	119.90
84	Aa	1834	C	O4'-C1'-N1	7.65	114.32	108.20
84	Aa	2007	C	O4'-C1'-N1	7.65	114.32	108.20
85	Ac	72	A	O4'-C1'-N9	7.65	114.32	108.20
1	Ad	157	U	O4'-C1'-N1	7.65	114.32	108.20
1	Ad	1650	G	C1'-O4'-C4'	-7.65	103.78	109.90
84	Aa	300	C	O4'-C1'-N1	7.65	114.32	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2586	C	O4'-C1'-N1	7.65	114.32	108.20
1	Ad	950	U	O4'-C1'-N1	7.64	114.32	108.20
1	Ad	1219	C	C5'-C4'-O4'	7.64	118.27	109.10
2	Ae	30	G	N9-C1'-C2'	7.64	123.94	114.00
84	Aa	190	C	O4'-C1'-N1	7.64	114.32	108.20
84	Aa	352	U	O4'-C1'-N1	7.64	114.31	108.20
84	Aa	1351	C	O4'-C1'-N1	7.64	114.31	108.20
84	Aa	1715	C	O4'-C1'-N1	7.64	114.31	108.20
84	Aa	3321	C	O4'-C1'-N1	7.64	114.31	108.20
86	Ab	91	C	O4'-C1'-N1	7.64	114.31	108.20
84	Aa	167	C	O4'-C1'-N1	7.64	114.31	108.20
84	Aa	679	C	O4'-C1'-N1	7.64	114.31	108.20
84	Aa	1399	C	O4'-C1'-N1	7.64	114.31	108.20
84	Aa	1678	U	O4'-C1'-N1	7.64	114.31	108.20
84	Aa	1900	C	O4'-C1'-N1	7.64	114.31	108.20
84	Aa	2001	U	O4'-C1'-N1	7.64	114.31	108.20
1	Ad	302	C	O4'-C1'-N1	7.64	114.31	108.20
1	Ad	1629	U	O4'-C1'-N1	7.64	114.31	108.20
84	Aa	1768	U	O4'-C1'-N1	7.64	114.31	108.20
1	Ad	1654	C	C3'-C2'-C1'	7.63	107.61	101.50
84	Aa	2547	C	O4'-C1'-N1	7.63	114.31	108.20
84	Aa	2675	G	N1-C6-O6	7.63	124.48	119.90
84	Aa	3206	C	C6-N1-C1'	-7.63	111.64	120.80
1	Ad	494	G	O4'-C1'-N9	7.63	114.31	108.20
84	Aa	1902	G	C5-C6-O6	-7.63	124.02	128.60
84	Aa	1674	A	C5-C6-N1	-7.63	113.89	117.70
84	Aa	457	C	O4'-C1'-N1	7.63	114.30	108.20
84	Aa	492	G	N1-C6-O6	7.62	124.47	119.90
1	Ad	1027	C	C3'-C2'-C1'	7.62	107.60	101.50
84	Aa	264	C	O4'-C1'-N1	7.62	114.30	108.20
84	Aa	237	C	O4'-C1'-N1	7.62	114.30	108.20
86	Ab	16	A	C4-C5-C6	7.62	120.81	117.00
1	Ad	3	C	O4'-C1'-N1	7.62	114.30	108.20
1	Ad	80	C	C3'-C2'-C1'	7.62	107.59	101.50
84	Aa	1536	U	O4'-C1'-N1	7.62	114.29	108.20
84	Aa	2611	G	N1-C6-O6	7.62	124.47	119.90
1	Ad	1454	G	O4'-C1'-N9	7.62	114.29	108.20
84	Aa	308	U	O4'-C1'-N1	7.62	114.29	108.20
84	Aa	2125	A	C5-C6-N1	-7.62	113.89	117.70
1	Ad	338	G	O4'-C1'-N9	7.61	114.29	108.20
1	Ad	1645	C	C1'-O4'-C4'	7.61	115.99	109.90
84	Aa	2074	C	C5'-C4'-C3'	7.61	128.18	116.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	825	G	N1-C6-O6	7.61	124.47	119.90
84	Aa	847	G	N1-C6-O6	7.61	124.47	119.90
84	Aa	482	C	O4'-C1'-N1	7.61	114.29	108.20
84	Aa	630	C	O4'-C1'-N1	7.61	114.29	108.20
84	Aa	1214	U	O4'-C1'-N1	7.61	114.29	108.20
84	Aa	2092	C	C5'-C4'-C3'	7.61	128.18	116.00
84	Aa	2252	C	O4'-C1'-N1	7.61	114.29	108.20
84	Aa	1325	G	N1-C6-O6	7.61	124.47	119.90
84	Aa	3230	G	O4'-C1'-N9	7.61	114.29	108.20
1	Ad	155	A	C1'-O4'-C4'	7.61	115.99	109.90
1	Ad	395	A	O4'-C1'-N9	7.61	114.29	108.20
84	Aa	841	G	C5-C6-O6	-7.61	124.03	128.60
84	Aa	3105	U	O4'-C1'-N1	7.61	114.29	108.20
1	Ad	1286	U	O4'-C1'-N1	7.61	114.28	108.20
84	Aa	1426	C	O4'-C1'-N1	7.61	114.28	108.20
84	Aa	1533	U	O4'-C1'-N1	7.61	114.28	108.20
85	Ac	100	U	O4'-C1'-N1	7.60	114.28	108.20
84	Aa	1127	U	O4'-C1'-N1	7.60	114.28	108.20
84	Aa	1341	G	N1-C6-O6	7.60	124.46	119.90
84	Aa	1682	C	O4'-C1'-N1	7.60	114.28	108.20
84	Aa	3154	G	P-O3'-C3'	7.60	128.82	119.70
84	Aa	3163	G	O4'-C1'-N9	7.60	114.28	108.20
86	Ab	111	U	C5-C6-N1	7.60	126.50	122.70
1	Ad	1124	G	C1'-O4'-C4'	-7.60	103.82	109.90
1	Ad	1153	C	O4'-C1'-N1	7.60	114.28	108.20
84	Aa	261	C	O4'-C1'-N1	7.60	114.28	108.20
84	Aa	1806	C	O4'-C1'-N1	7.60	114.28	108.20
1	Ad	917	U	O4'-C1'-N1	7.60	114.28	108.20
84	Aa	263	A	O4'-C1'-N9	7.60	114.28	108.20
84	Aa	652	C	N3-C4-C5	-7.60	118.86	121.90
84	Aa	2767	C	O4'-C1'-N1	7.60	114.28	108.20
84	Aa	2827	C	O4'-C1'-N1	7.60	114.28	108.20
84	Aa	3183	G	O4'-C1'-N9	7.60	114.28	108.20
84	Aa	1746	G	C5-C6-O6	-7.60	124.04	128.60
84	Aa	2603	C	O4'-C1'-N1	7.60	114.28	108.20
85	Ac	27	U	O4'-C1'-N1	7.60	114.28	108.20
84	Aa	185	A	N1-C6-N6	7.59	123.16	118.60
84	Aa	495	G	O4'-C1'-N9	7.59	114.28	108.20
84	Aa	1992	U	O4'-C1'-N1	7.59	114.28	108.20
84	Aa	2259	U	O4'-C1'-N1	7.59	114.28	108.20
84	Aa	1068	A	N1-C6-N6	7.59	123.16	118.60
84	Aa	1118	G	C5-C6-O6	-7.59	124.05	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1594	G	C5-C6-O6	-7.59	124.05	128.60
86	Ab	68	G	C5-C6-N1	-7.59	107.70	111.50
1	Ad	1554	G	O4'-C1'-N9	7.59	114.27	108.20
84	Aa	3219	U	O4'-C1'-N1	7.59	114.27	108.20
84	Aa	512	G	C5-C6-O6	-7.59	124.05	128.60
84	Aa	2713	G	O4'-C1'-N9	7.58	114.27	108.20
84	Aa	3070	G	N1-C6-O6	7.58	124.45	119.90
84	Aa	3271	A	C5-C6-N6	-7.58	117.63	123.70
84	Aa	444	C	O4'-C1'-N1	7.58	114.27	108.20
84	Aa	2087	A	C5'-C4'-O4'	7.58	118.20	109.10
84	Aa	2609	G	N1-C6-O6	7.58	124.45	119.90
84	Aa	889	C	O4'-C1'-N1	7.58	114.26	108.20
1	Ad	73	A	C1'-O4'-C4'	7.58	115.96	109.90
1	Ad	1445	C	N1-C1'-C2'	7.58	123.85	114.00
2	Ae	30	G	C1'-O4'-C4'	-7.58	103.84	109.90
84	Aa	2701	G	O4'-C1'-N9	7.58	114.26	108.20
84	Aa	2269	U	O4'-C1'-N1	7.58	114.26	108.20
84	Aa	492	G	C2'-C3'-O3'	7.58	126.17	109.50
84	Aa	1461	U	O4'-C1'-N1	7.58	114.26	108.20
84	Aa	2806	A	N1-C6-N6	7.58	123.14	118.60
1	Ad	27	U	O4'-C1'-N1	7.57	114.26	108.20
1	Ad	1308	G	C1'-O4'-C4'	-7.57	103.84	109.90
68	Ch	74	TYR	CB-CG-CD2	7.57	125.54	121.00
84	Aa	1005	C	O4'-C1'-N1	7.57	114.26	108.20
84	Aa	2832	G	N1-C6-O6	7.57	124.44	119.90
84	Aa	1314	G	N1-C6-O6	7.57	124.44	119.90
84	Aa	1247	G	C5-C6-O6	-7.57	124.06	128.60
86	Ab	22	A	C4-C5-C6	7.57	120.78	117.00
84	Aa	1366	G	N1-C6-O6	7.57	124.44	119.90
84	Aa	3194	G	C5-C6-O6	-7.57	124.06	128.60
1	Ad	1178	C	C3'-C2'-C1'	7.57	107.55	101.50
84	Aa	1109	G	N1-C6-O6	7.57	124.44	119.90
1	Ad	860	A	C1'-O4'-C4'	7.57	115.95	109.90
1	Ad	873	G	O4'-C1'-N9	7.57	114.25	108.20
1	Ad	935	A	O4'-C1'-N9	7.57	114.25	108.20
84	Aa	717	G	O4'-C1'-N9	7.56	114.25	108.20
84	Aa	1122	C	O4'-C1'-N1	7.56	114.25	108.20
84	Aa	2576	C	O4'-C1'-N1	7.56	114.25	108.20
84	Aa	388	G	C5-C6-O6	-7.56	124.06	128.60
84	Aa	2974	G	N1-C6-O6	7.56	124.44	119.90
84	Aa	3263	C	C4'-C3'-O3'	7.56	128.12	113.00
1	Ad	290	C	O4'-C1'-C2'	-7.56	98.24	105.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	448	C	O4'-C1'-C2'	-7.56	98.24	105.80
84	Aa	2286	A	C5-C6-N6	-7.56	117.65	123.70
84	Aa	2823	C	O4'-C1'-N1	7.56	114.25	108.20
1	Ad	1051	G	O4'-C1'-N9	7.56	114.25	108.20
84	Aa	338	C	O4'-C1'-N1	7.56	114.25	108.20
84	Aa	1347	U	O4'-C1'-N1	7.56	114.25	108.20
1	Ad	1140	U	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	215	U	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	314	C	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	595	C	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	1141	U	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	128	C	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	726	C	O4'-C1'-N1	7.55	114.24	108.20
1	Ad	12	U	C1'-O4'-C4'	-7.55	103.86	109.90
84	Aa	2330	C	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	3091	U	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	983	U	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	1581	C	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	2421	C	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	1039	G	N1-C6-O6	7.55	124.43	119.90
1	Ad	983	A	C1'-O4'-C4'	7.55	115.94	109.90
1	Ad	1453	U	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	1440	C	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	3300	C	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	1995	U	P-O3'-C3'	7.54	128.75	119.70
84	Aa	3346	C	O4'-C1'-N1	7.54	114.24	108.20
80	Cf	107	TYR	CB-CG-CD1	7.54	125.53	121.00
84	Aa	2580	C	O4'-C1'-N1	7.54	114.23	108.20
84	Aa	2828	U	O4'-C1'-N1	7.54	114.23	108.20
85	Ac	99	C	O4'-C1'-N1	7.54	114.23	108.20
84	Aa	414	G	N1-C6-O6	7.54	124.42	119.90
84	Aa	1551	C	O4'-C1'-N1	7.54	114.23	108.20
84	Aa	2844	U	O4'-C1'-N1	7.54	114.23	108.20
1	Ad	1294	U	O4'-C1'-N1	7.54	114.23	108.20
1	Ad	1471	C	N1-C1'-C2'	7.54	123.80	114.00
2	Ae	25	U	O4'-C1'-N1	7.54	114.23	108.20
1	Ad	487	A	O4'-C1'-N9	7.54	114.23	108.20
84	Aa	215	U	P-O3'-C3'	7.54	128.74	119.70
84	Aa	824	U	O4'-C1'-N1	7.54	114.23	108.20
84	Aa	285	G	O4'-C1'-N9	7.53	114.23	108.20
84	Aa	618	G	C5-C6-O6	-7.53	124.08	128.60
84	Aa	716	A	C4-C5-C6	7.53	120.77	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1094	G	C5-C6-O6	-7.53	124.08	128.60
84	Aa	2498	C	O4'-C1'-N1	7.53	114.23	108.20
84	Aa	1145	G	C5-C6-O6	-7.53	124.08	128.60
84	Aa	2327	U	O4'-C1'-N1	7.53	114.23	108.20
1	Ad	1634	U	O4'-C1'-N1	7.53	114.22	108.20
84	Aa	753	G	C5-C6-O6	-7.53	124.08	128.60
1	Ad	552	G	O4'-C1'-N9	7.53	114.22	108.20
1	Ad	860	A	P-O3'-C3'	-7.53	110.67	119.70
84	Aa	2009	C	O4'-C1'-N1	7.53	114.22	108.20
84	Aa	2556	G	O4'-C1'-N9	7.53	114.22	108.20
84	Aa	632	C	O4'-C1'-N1	7.53	114.22	108.20
1	Ad	130	A	O4'-C1'-C2'	-7.52	98.28	105.80
1	Ad	1670	G	O4'-C1'-C2'	7.52	114.37	107.60
84	Aa	1928	A	C4-C5-C6	7.52	120.76	117.00
84	Aa	2782	G	N1-C6-O6	7.52	124.41	119.90
1	Ad	757	G	C1'-O4'-C4'	-7.52	103.89	109.90
1	Ad	953	G	O4'-C1'-N9	7.52	114.22	108.20
1	Ad	1801	A	C1'-O4'-C4'	7.52	115.92	109.90
84	Aa	1028	G	N1-C6-O6	7.52	124.41	119.90
84	Aa	1546	G	N1-C6-O6	7.52	124.41	119.90
85	Ac	10	G	N1-C6-O6	7.52	124.41	119.90
1	Ad	501	U	O4'-C1'-N1	7.52	114.21	108.20
84	Aa	938	U	O4'-C1'-N1	7.52	114.21	108.20
84	Aa	1363	C	O4'-C1'-N1	7.52	114.21	108.20
85	Ac	8	C	O4'-C1'-N1	7.52	114.21	108.20
84	Aa	372	A	O4'-C1'-N9	7.51	114.21	108.20
84	Aa	2577	G	C5-C6-O6	-7.51	124.09	128.60
84	Aa	3153	U	C2-N1-C1'	7.51	126.72	117.70
84	Aa	8	C	C2-N1-C1'	7.51	127.06	118.80
84	Aa	1146	A	C5-C6-N6	-7.51	117.69	123.70
84	Aa	2716	U	O4'-C1'-N1	7.51	114.21	108.20
84	Aa	3024	U	O4'-C1'-N1	7.51	114.21	108.20
84	Aa	2503	A	C4-C5-C6	7.51	120.75	117.00
84	Aa	3121	C	O4'-C1'-N1	7.51	114.21	108.20
84	Aa	2957	U	O4'-C1'-N1	7.51	114.21	108.20
1	Ad	394	G	C1'-O4'-C4'	7.51	115.91	109.90
1	Ad	990	G	O4'-C1'-N9	7.51	114.20	108.20
1	Ad	1145	G	O4'-C1'-N9	7.51	114.20	108.20
84	Aa	1326	C	O4'-C1'-N1	7.51	114.21	108.20
1	Ad	1512	C	N1-C1'-C2'	7.50	123.76	114.00
84	Aa	658	C	O4'-C1'-N1	7.50	114.20	108.20
84	Aa	896	C	O4'-C1'-N1	7.50	114.20	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2584	U	O4'-C1'-N1	7.50	114.20	108.20
1	Ad	1231	A	P-O3'-C3'	7.50	128.70	119.70
1	Ad	1500	A	C1'-O4'-C4'	7.50	115.90	109.90
84	Aa	617	C	O4'-C1'-N1	7.50	114.20	108.20
84	Aa	1409	G	N1-C6-O6	7.50	124.40	119.90
84	Aa	2178	G	C5'-C4'-O4'	7.50	118.10	109.10
84	Aa	2262	C	O4'-C1'-N1	7.50	114.20	108.20
84	Aa	1288	C	O4'-C1'-N1	7.50	114.20	108.20
1	Ad	114	U	C3'-C2'-C1'	7.50	107.50	101.50
1	Ad	755	U	N1-C1'-C2'	7.50	123.75	114.00
84	Aa	430	G	C5-C6-O6	-7.50	124.10	128.60
84	Aa	1130	G	C5-C6-O6	-7.50	124.10	128.60
84	Aa	2295	G	C5-C6-O6	-7.50	124.10	128.60
84	Aa	808	G	C5-C6-O6	-7.49	124.10	128.60
1	Ad	329	G	O4'-C1'-N9	7.49	114.19	108.20
84	Aa	449	G	C5-C6-O6	-7.49	124.11	128.60
84	Aa	1535	C	O4'-C1'-N1	7.49	114.19	108.20
1	Ad	23	G	O4'-C1'-N9	7.49	114.19	108.20
84	Aa	1865	C	O4'-C1'-N1	7.49	114.19	108.20
84	Aa	3290	C	O4'-C1'-N1	7.49	114.19	108.20
2	Ae	47	U	N1-C1'-C2'	-7.49	103.76	112.00
84	Aa	1850	C	O4'-C1'-N1	7.49	114.19	108.20
84	Aa	2157	C	O4'-C1'-N1	7.49	114.19	108.20
1	Ad	369	G	C1'-O4'-C4'	7.49	115.89	109.90
1	Ad	373	U	C5'-C4'-O4'	7.49	118.08	109.10
1	Ad	499	A	O4'-C1'-N9	7.49	114.19	108.20
84	Aa	375	G	C5-C6-O6	-7.49	124.11	128.60
84	Aa	464	G	N1-C6-O6	7.49	124.39	119.90
84	Aa	739	C	O4'-C1'-N1	7.49	114.19	108.20
84	Aa	2155	G	N1-C6-O6	7.49	124.39	119.90
84	Aa	339	G	C5-C6-O6	-7.48	124.11	128.60
84	Aa	1406	C	O4'-C1'-N1	7.48	114.19	108.20
84	Aa	2954	G	N1-C6-O6	7.48	124.39	119.90
84	Aa	1981	U	O4'-C1'-N1	7.48	114.19	108.20
1	Ad	648	C	O4'-C1'-C2'	-7.48	98.32	105.80
84	Aa	1428	G	C5-C6-O6	-7.48	124.11	128.60
84	Aa	3137	G	N1-C6-O6	7.48	124.39	119.90
84	Aa	815	G	N1-C6-O6	7.48	124.39	119.90
84	Aa	1503	G	N1-C6-O6	7.48	124.39	119.90
1	Ad	1063	U	O4'-C1'-N1	7.48	114.18	108.20
84	Aa	168	A	C5-C6-N6	-7.48	117.72	123.70
84	Aa	1344	A	O4'-C1'-N9	7.48	114.18	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1560	A	N9-C1'-C2'	7.48	123.72	114.00
84	Aa	2147	U	O4'-C1'-N1	7.48	114.18	108.20
84	Aa	1589	G	O4'-C1'-N9	7.48	114.18	108.20
1	Ad	1409	G	O4'-C1'-C2'	7.47	114.33	107.60
84	Aa	659	C	O4'-C1'-N1	7.47	114.18	108.20
84	Aa	1178	C	O4'-C1'-N1	7.47	114.18	108.20
84	Aa	2637	U	O4'-C1'-N1	7.47	114.18	108.20
84	Aa	3159	C	O4'-C1'-N1	7.47	114.18	108.20
86	Ab	56	G	N1-C6-O6	7.47	124.38	119.90
86	Ab	80	A	C4-C5-C6	7.47	120.74	117.00
84	Aa	1750	A	O4'-C1'-N9	7.47	114.18	108.20
84	Aa	895	U	O4'-C1'-N1	7.47	114.17	108.20
84	Aa	1211	G	C5-C6-O6	-7.47	124.12	128.60
84	Aa	3241	C	O4'-C1'-N1	7.47	114.17	108.20
1	Ad	146	A	C1'-O4'-C4'	7.47	115.88	109.90
84	Aa	2710	C	O4'-C1'-N1	7.47	114.17	108.20
84	Aa	425	G	C5-C6-O6	-7.47	124.12	128.60
84	Aa	628	C	O4'-C1'-N1	7.47	114.17	108.20
84	Aa	1125	U	O4'-C1'-N1	7.47	114.17	108.20
84	Aa	3218	C	O4'-C1'-N1	7.47	114.17	108.20
1	Ad	1192	G	O4'-C1'-N9	7.46	114.17	108.20
84	Aa	537	U	P-O3'-C3'	7.46	128.66	119.70
84	Aa	1695	C	O4'-C1'-N1	7.46	114.17	108.20
84	Aa	2557	C	C2-N1-C1'	7.46	127.01	118.80
1	Ad	1194	C	O4'-C1'-N1	7.46	114.17	108.20
1	Ad	67	G	C3'-C2'-C1'	7.46	107.47	101.50
1	Ad	1441	C	C3'-C2'-C1'	7.46	107.47	101.50
84	Aa	1249	A	O4'-C1'-N9	7.46	114.17	108.20
1	Ad	390	G	O4'-C1'-N9	7.46	114.17	108.20
1	Ad	1266	U	O4'-C1'-N1	7.46	114.17	108.20
84	Aa	1045	U	O4'-C1'-N1	7.46	114.17	108.20
84	Aa	3348	G	O4'-C1'-N9	7.46	114.17	108.20
84	Aa	2234	G	C5-C6-O6	-7.46	124.13	128.60
1	Ad	1082	C	N1-C1'-C2'	7.46	123.69	114.00
84	Aa	1489	G	N1-C6-O6	7.46	124.37	119.90
84	Aa	2195	U	O4'-C1'-N1	7.46	114.16	108.20
84	Aa	2519	U	O4'-C1'-N1	7.45	114.16	108.20
84	Aa	547	C	O4'-C1'-N1	7.45	114.16	108.20
1	Ad	93	A	C1'-O4'-C4'	7.45	115.86	109.90
84	Aa	1056	U	O4'-C1'-N1	7.45	114.16	108.20
84	Aa	2358	C	O4'-C1'-N1	7.45	114.16	108.20
84	Aa	2	C	O4'-C1'-N1	7.45	114.16	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	166	U	O4'-C1'-N1	7.45	114.16	108.20
84	Aa	344	C	O4'-C1'-N1	7.45	114.16	108.20
84	Aa	2167	G	C1'-O4'-C4'	-7.45	103.94	109.90
84	Aa	2717	G	O4'-C1'-N9	7.45	114.16	108.20
84	Aa	1164	G	N1-C6-O6	7.45	124.37	119.90
84	Aa	2521	C	O4'-C1'-N1	7.45	114.16	108.20
1	Ad	804	C	N1-C1'-C2'	7.45	123.68	114.00
1	Ad	819	U	O4'-C1'-N1	7.45	114.16	108.20
84	Aa	2063	U	O4'-C1'-N1	7.45	114.16	108.20
84	Aa	2072	U	O4'-C1'-N1	7.45	114.16	108.20
84	Aa	2600	U	O4'-C1'-N1	7.45	114.16	108.20
84	Aa	236	A	N1-C6-N6	7.44	123.07	118.60
1	Ad	1467	C	O4'-C1'-N1	7.44	114.15	108.20
84	Aa	893	C	O4'-C1'-N1	7.44	114.15	108.20
84	Aa	1781	C	O4'-C1'-N1	7.44	114.15	108.20
84	Aa	1218	U	O4'-C1'-N1	7.44	114.15	108.20
4	BY	41	SER	N-CA-CB	7.44	121.66	110.50
84	Aa	724	A	O4'-C1'-N9	7.44	114.15	108.20
1	Ad	163	G	O4'-C1'-N9	7.44	114.15	108.20
1	Ad	701	C	O4'-C1'-N1	7.44	114.15	108.20
84	Aa	518	G	N1-C6-O6	7.44	124.36	119.90
84	Aa	556	U	O4'-C1'-N1	7.44	114.15	108.20
84	Aa	2476	G	C4'-C3'-O3'	-7.44	93.78	109.40
1	Ad	1723	G	C1'-O4'-C4'	-7.43	103.95	109.90
84	Aa	1252	C	O4'-C1'-N1	7.43	114.15	108.20
84	Aa	2069	G	C5-C6-O6	-7.43	124.14	128.60
84	Aa	2824	U	O4'-C1'-N1	7.43	114.15	108.20
84	Aa	2965	C	O4'-C1'-N1	7.43	114.15	108.20
84	Aa	1063	G	N1-C6-O6	7.43	124.36	119.90
84	Aa	1657	C	O4'-C1'-N1	7.43	114.15	108.20
1	Ad	1234	A	O4'-C1'-N9	7.43	114.14	108.20
3	Af	18	C	C3'-C2'-C1'	7.43	107.44	101.50
84	Aa	1957	G	C2'-C3'-O3'	-7.43	93.15	109.50
84	Aa	2244	G	C5-C6-O6	-7.43	124.14	128.60
1	Ad	1334	G	C1'-O4'-C4'	7.43	115.84	109.90
84	Aa	297	G	C5-C6-O6	-7.43	124.14	128.60
84	Aa	641	C	N3-C4-C5	-7.43	118.93	121.90
84	Aa	930	C	O4'-C1'-N1	7.43	114.14	108.20
84	Aa	2237	A	C5-C6-N6	-7.43	117.76	123.70
84	Aa	1724	C	O4'-C1'-N1	7.43	114.14	108.20
1	Ad	1665	U	C3'-C2'-C1'	7.42	107.44	101.50
84	Aa	318	G	O4'-C1'-N9	7.42	114.14	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1481	C	O4'-C1'-N1	7.42	114.14	108.20
84	Aa	2236	U	P-O3'-C3'	7.42	128.61	119.70
86	Ab	57	C	C5-C4-N4	-7.42	115.00	120.20
86	Ab	80	A	C5-C6-N6	-7.42	117.76	123.70
84	Aa	900	C	O4'-C1'-N1	7.42	114.14	108.20
84	Aa	2454	U	O4'-C1'-N1	7.42	114.14	108.20
84	Aa	2842	C	O4'-C1'-N1	7.42	114.14	108.20
1	Ad	410	U	O4'-C1'-N1	7.42	114.14	108.20
1	Ad	1128	C	C5'-C4'-O4'	7.42	118.01	109.10
84	Aa	774	A	C5-C6-N6	-7.42	117.76	123.70
84	Aa	799	U	O4'-C1'-N1	7.42	114.14	108.20
84	Aa	1274	A	C4-C5-C6	7.42	120.71	117.00
84	Aa	2560	C	O4'-C1'-N1	7.42	114.14	108.20
84	Aa	2686	U	O4'-C1'-N1	7.42	114.14	108.20
84	Aa	1008	U	O4'-C1'-N1	7.42	114.14	108.20
84	Aa	1027	C	O4'-C1'-N1	7.42	114.14	108.20
84	Aa	1316	C	C6-N1-C2	-7.42	117.33	120.30
1	Ad	1168	A	C3'-C2'-C1'	7.42	107.44	101.50
84	Aa	133	G	C5-C6-O6	-7.42	124.15	128.60
84	Aa	506	U	O4'-C1'-N1	7.42	114.14	108.20
84	Aa	1311	G	N1-C6-O6	7.42	124.35	119.90
84	Aa	2768	C	O4'-C1'-N1	7.42	114.14	108.20
84	Aa	541	C	O4'-C1'-N1	7.42	114.13	108.20
84	Aa	3352	C	O4'-C1'-N1	7.42	114.13	108.20
84	Aa	328	G	C5-C6-O6	-7.42	124.15	128.60
84	Aa	353	A	C5-C6-N6	-7.41	117.77	123.70
84	Aa	408	U	O4'-C1'-N1	7.41	114.13	108.20
84	Aa	2261	U	O4'-C1'-N1	7.41	114.13	108.20
84	Aa	3161	C	O4'-C1'-N1	7.41	114.13	108.20
85	Ac	150	G	C5-C6-O6	-7.41	124.15	128.60
84	Aa	289	C	O4'-C1'-N1	7.41	114.13	108.20
86	Ab	71	A	N1-C6-N6	7.41	123.05	118.60
84	Aa	1633	C	O4'-C1'-N1	7.41	114.13	108.20
85	Ac	42	G	N1-C6-O6	7.41	124.35	119.90
1	Ad	215	A	N9-C1'-C2'	-7.41	103.85	112.00
84	Aa	3248	G	C5-C6-O6	-7.41	124.16	128.60
84	Aa	3202	G	N1-C6-O6	7.41	124.34	119.90
84	Aa	777	G	O4'-C1'-N9	7.41	114.12	108.20
84	Aa	2729	C	C2-N1-C1'	7.41	126.94	118.80
85	Ac	4	C	O4'-C1'-N1	7.41	114.12	108.20
84	Aa	1272	G	C5-C6-O6	-7.40	124.16	128.60
84	Aa	2071	U	O4'-C1'-N1	7.40	114.12	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2951	U	O4'-C1'-N1	7.40	114.12	108.20
84	Aa	3294	U	P-O3'-C3'	7.40	128.59	119.70
1	Ad	413	C	C3'-C2'-C1'	7.40	107.42	101.50
84	Aa	1201	C	O4'-C1'-N1	7.40	114.12	108.20
84	Aa	3138	C	N3-C4-C5	-7.40	118.94	121.90
84	Aa	1442	U	O4'-C1'-N1	7.40	114.12	108.20
84	Aa	2106	U	O4'-C1'-N1	7.40	114.12	108.20
84	Aa	2431	U	O4'-C1'-N1	7.40	114.12	108.20
84	Aa	92	C	O4'-C1'-N1	7.40	114.12	108.20
84	Aa	2211	G	N1-C6-O6	7.40	124.34	119.90
1	Ad	1196	C	C3'-C2'-C1'	7.40	107.42	101.50
84	Aa	3191	U	O4'-C1'-N1	7.40	114.12	108.20
1	Ad	1209	C	O4'-C1'-N1	7.40	114.12	108.20
84	Aa	1262	U	O4'-C1'-N1	7.39	114.11	108.20
84	Aa	1575	G	C5-C6-O6	-7.39	124.16	128.60
1	Ad	391	A	N9-C1'-C2'	-7.39	103.87	112.00
84	Aa	246	C	O4'-C1'-N1	7.39	114.11	108.20
84	Aa	1324	C	O4'-C1'-N1	7.39	114.11	108.20
84	Aa	1384	G	C5-C6-O6	-7.39	124.17	128.60
84	Aa	1760	G	O4'-C1'-N9	7.39	114.11	108.20
84	Aa	1935	G	C5-C6-O6	-7.39	124.17	128.60
84	Aa	2035	G	N1-C6-O6	7.39	124.34	119.90
86	Ab	3	A	C5-C6-N1	-7.39	114.00	117.70
1	Ad	1104	U	O4'-C1'-N1	7.39	114.11	108.20
1	Ad	1189	U	N1-C1'-C2'	7.39	123.61	114.00
84	Aa	1049	C	O4'-C1'-N1	7.39	114.11	108.20
84	Aa	867	G	C5-C6-O6	-7.39	124.17	128.60
84	Aa	2209	A	N1-C6-N6	7.39	123.03	118.60
1	Ad	105	A	O4'-C1'-C2'	-7.39	98.41	105.80
84	Aa	2194	G	C5-C6-O6	-7.39	124.17	128.60
84	Aa	3359	C	O4'-C1'-N1	7.39	114.11	108.20
1	Ad	1734	U	N1-C1'-C2'	7.38	123.60	114.00
2	Ae	10	G	C3'-C2'-C1'	7.38	107.41	101.50
84	Aa	2030	U	O4'-C1'-N1	7.38	114.11	108.20
84	Aa	2226	C	O4'-C1'-N1	7.38	114.11	108.20
84	Aa	2285	C	O4'-C1'-N1	7.38	114.11	108.20
84	Aa	2939	G	N1-C6-O6	7.38	124.33	119.90
1	Ad	900	G	C1'-O4'-C4'	-7.38	103.99	109.90
84	Aa	845	G	C5-C6-O6	-7.38	124.17	128.60
84	Aa	1620	U	O4'-C1'-N1	7.38	114.11	108.20
84	Aa	3177	A	C4-C5-C6	7.38	120.69	117.00
84	Aa	3228	C	O4'-C1'-N1	7.38	114.11	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1103	U	O4'-C1'-N1	7.38	114.11	108.20
84	Aa	1556	G	O4'-C1'-N9	7.38	114.11	108.20
84	Aa	1623	C	O4'-C1'-N1	7.38	114.11	108.20
1	Ad	1108	U	O4'-C1'-N1	7.38	114.10	108.20
84	Aa	318	G	C5-C6-O6	-7.38	124.17	128.60
1	Ad	148	C	O4'-C1'-N1	7.38	114.10	108.20
84	Aa	1952	U	O4'-C1'-N1	7.38	114.10	108.20
84	Aa	3133	C	O4'-C1'-N1	7.38	114.10	108.20
84	Aa	2785	U	O4'-C1'-N1	7.38	114.10	108.20
84	Aa	2845	U	O4'-C1'-N1	7.37	114.10	108.20
84	Aa	2970	G	C5-C6-O6	-7.37	124.18	128.60
84	Aa	3099	G	C5-C6-O6	-7.37	124.18	128.60
1	Ad	1193	A	C1'-O4'-C4'	7.37	115.80	109.90
84	Aa	2752	G	C5-C6-O6	-7.37	124.18	128.60
84	Aa	525	A	C5-C6-N6	-7.37	117.80	123.70
84	Aa	857	G	C5-C6-O6	-7.37	124.18	128.60
84	Aa	2175	A	O4'-C1'-N9	7.37	114.09	108.20
85	Ac	68	G	O4'-C1'-N9	7.37	114.09	108.20
1	Ad	271	C	O4'-C1'-C2'	-7.37	98.43	105.80
1	Ad	1669	U	O4'-C1'-N1	7.37	114.09	108.20
84	Aa	329	G	N1-C6-O6	7.37	124.32	119.90
84	Aa	465	C	O4'-C1'-N1	7.36	114.09	108.20
84	Aa	867	G	O4'-C1'-N9	7.36	114.09	108.20
84	Aa	1193	A	C4-C5-C6	7.36	120.68	117.00
84	Aa	2090	G	C5-C6-O6	-7.36	124.18	128.60
84	Aa	1062	G	N1-C6-O6	7.36	124.32	119.90
84	Aa	3185	G	C5-C6-O6	-7.36	124.18	128.60
84	Aa	1597	U	O4'-C1'-N1	7.36	114.09	108.20
84	Aa	1798	C	O3'-P-O5'	-7.36	90.02	104.00
84	Aa	1626	U	O4'-C1'-N1	7.36	114.09	108.20
84	Aa	2062	U	O4'-C1'-N1	7.36	114.09	108.20
84	Aa	110	C	O4'-C1'-N1	7.36	114.08	108.20
84	Aa	682	G	C5-C6-O6	-7.36	124.19	128.60
84	Aa	2221	U	O4'-C1'-N1	7.36	114.08	108.20
84	Aa	2636	U	O4'-C1'-N1	7.35	114.08	108.20
84	Aa	1604	U	P-O3'-C3'	7.35	128.52	119.70
84	Aa	1534	C	O4'-C1'-N1	7.35	114.08	108.20
1	Ad	834	A	C2'-C3'-O3'	7.35	125.67	109.50
84	Aa	514	G	C5-C6-O6	-7.35	124.19	128.60
84	Aa	991	C	O4'-C1'-N1	7.35	114.08	108.20
84	Aa	2771	U	O4'-C1'-N1	7.35	114.08	108.20
84	Aa	3267	U	O4'-C1'-N1	7.35	114.08	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	213	G	C5-C6-O6	-7.35	124.19	128.60
84	Aa	1462	C	O4'-C1'-N1	7.35	114.08	108.20
2	Ae	61	C	N1-C1'-C2'	7.35	123.55	114.00
1	Ad	348	A	O4'-C1'-N9	7.34	114.08	108.20
84	Aa	940	G	C5-C6-O6	-7.34	124.19	128.60
84	Aa	2571	C	O4'-C1'-N1	7.34	114.08	108.20
84	Aa	1137	G	N1-C6-O6	7.34	124.31	119.90
1	Ad	1409	G	N9-C1'-C2'	7.34	123.54	114.00
1	Ad	1735	C	C3'-C2'-C1'	7.34	107.37	101.50
84	Aa	302	G	C5-C6-O6	-7.34	124.20	128.60
84	Aa	1624	G	N1-C6-O6	7.34	124.30	119.90
84	Aa	1866	C	O4'-C1'-N1	7.34	114.07	108.20
84	Aa	2690	G	C5-C6-O6	-7.34	124.20	128.60
85	Ac	87	G	N1-C6-O6	7.34	124.30	119.90
86	Ab	58	G	N1-C6-O6	7.34	124.30	119.90
1	Ad	356	G	O4'-C1'-C2'	-7.34	98.46	105.80
1	Ad	1574	U	O4'-C1'-C2'	-7.34	98.46	105.80
84	Aa	647	U	O4'-C1'-N1	7.34	114.07	108.20
84	Aa	1505	G	N1-C6-O6	7.34	124.30	119.90
84	Aa	1774	G	C5-C6-O6	-7.34	124.20	128.60
1	Ad	1616	U	O4'-C1'-N1	7.34	114.07	108.20
84	Aa	1124	U	O4'-C1'-N1	7.34	114.07	108.20
84	Aa	1446	G	C5-C6-O6	-7.34	124.20	128.60
84	Aa	2303	C	O4'-C1'-N1	7.34	114.07	108.20
1	Ad	1685	U	N1-C1'-C2'	7.33	123.53	114.00
84	Aa	974	G	C5-C6-O6	-7.33	124.20	128.60
84	Aa	1093	U	O4'-C1'-N1	7.33	114.07	108.20
84	Aa	1216	G	O4'-C1'-N9	7.33	114.07	108.20
84	Aa	1270	G	N1-C6-O6	7.33	124.30	119.90
1	Ad	1514	G	O4'-C1'-N9	7.33	114.06	108.20
84	Aa	2652	G	C5-C6-O6	-7.33	124.20	128.60
84	Aa	2854	C	N3-C4-N4	7.33	123.13	118.00
84	Aa	766	C	O4'-C1'-N1	7.33	114.06	108.20
84	Aa	2168	C	O4'-C1'-N1	7.33	114.06	108.20
84	Aa	3035	C	O4'-C1'-N1	7.33	114.06	108.20
84	Aa	1337	C	O4'-C1'-N1	7.33	114.06	108.20
84	Aa	1890	C	O4'-C1'-N1	7.33	114.06	108.20
84	Aa	2326	U	O4'-C1'-N1	7.33	114.06	108.20
1	Ad	1255	U	O4'-C1'-C2'	-7.32	98.48	105.80
84	Aa	2060	C	O4'-C1'-N1	7.32	114.06	108.20
84	Aa	3036	C	O4'-C1'-N1	7.32	114.06	108.20
84	Aa	360	G	N1-C6-O6	7.32	124.29	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	695	G	C5-C6-O6	-7.32	124.21	128.60
84	Aa	2280	C	O4'-C1'-N1	7.32	114.06	108.20
84	Aa	636	C	O4'-C1'-N1	7.32	114.06	108.20
84	Aa	2682	A	O4'-C1'-N9	7.32	114.06	108.20
85	Ac	130	G	C5-C6-O6	-7.32	124.21	128.60
84	Aa	1390	G	C5-C6-O6	-7.32	124.21	128.60
84	Aa	2202	A	O4'-C1'-N9	7.32	114.06	108.20
1	Ad	1458	U	O4'-C1'-N1	7.32	114.05	108.20
84	Aa	177	C	O4'-C1'-N1	7.32	114.06	108.20
84	Aa	1205	C	O4'-C1'-N1	7.32	114.06	108.20
86	Ab	81	G	C5-C6-N1	-7.32	107.84	111.50
84	Aa	141	C	O4'-C1'-N1	7.32	114.05	108.20
84	Aa	716	A	O4'-C1'-N9	7.32	114.05	108.20
86	Ab	110	G	O4'-C1'-N9	7.32	114.05	108.20
84	Aa	773	G	C5-C6-O6	-7.31	124.21	128.60
84	Aa	2633	C	O4'-C1'-N1	7.31	114.05	108.20
84	Aa	2717	G	C5-C6-O6	-7.31	124.21	128.60
84	Aa	623	G	O4'-C1'-N9	7.31	114.05	108.20
84	Aa	3082	G	O4'-C1'-N9	7.31	114.05	108.20
1	Ad	349	U	N1-C1'-C2'	-7.31	103.96	112.00
84	Aa	1180	C	C2-N1-C1'	7.31	126.84	118.80
85	Ac	20	U	O4'-C1'-N1	7.31	114.05	108.20
84	Aa	87	A	C5-C6-N1	-7.31	114.05	117.70
84	Aa	106	G	N1-C6-O6	7.31	124.28	119.90
84	Aa	2809	U	O4'-C1'-N1	7.31	114.05	108.20
84	Aa	922	U	O4'-C1'-N1	7.30	114.04	108.20
84	Aa	1371	G	O4'-C1'-N9	7.30	114.04	108.20
84	Aa	2925	U	O4'-C1'-N1	7.30	114.04	108.20
1	Ad	398	C	N1-C1'-C2'	7.30	123.49	114.00
1	Ad	1801	A	O4'-C1'-N9	7.30	114.04	108.20
84	Aa	568	C	O4'-C1'-N1	7.30	114.04	108.20
84	Aa	662	G	C5-C6-O6	-7.30	124.22	128.60
1	Ad	1470	G	O4'-C1'-N9	7.30	114.04	108.20
84	Aa	3100	C	O4'-C1'-N1	7.30	114.04	108.20
86	Ab	80	A	C5-C6-N1	-7.30	114.05	117.70
84	Aa	826	C	O4'-C1'-N1	7.30	114.04	108.20
84	Aa	2106	U	P-O3'-C3'	7.30	128.46	119.70
84	Aa	2230	C	O4'-C1'-N1	7.30	114.04	108.20
85	Ac	4	C	N3-C4-N4	7.30	123.11	118.00
85	Ac	43	A	O4'-C1'-N9	7.30	114.04	108.20
84	Aa	468	U	O4'-C1'-N1	7.30	114.04	108.20
84	Aa	980	C	O4'-C1'-N1	7.30	114.04	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2934	C	O4'-C1'-N1	7.30	114.04	108.20
86	Ab	48	G	O4'-C1'-N9	7.30	114.04	108.20
84	Aa	139	U	O4'-C1'-N1	7.29	114.03	108.20
84	Aa	271	G	N1-C6-O6	7.29	124.28	119.90
84	Aa	1072	C	O4'-C1'-N1	7.29	114.03	108.20
1	Ad	1623	C	O4'-C1'-C2'	-7.29	98.51	105.80
1	Ad	1709	U	C3'-C2'-C1'	7.29	107.33	101.50
84	Aa	526	A	P-O3'-C3'	7.29	128.45	119.70
84	Aa	770	U	O4'-C1'-N1	7.29	114.03	108.20
84	Aa	3097	G	O4'-C1'-N9	7.29	114.03	108.20
86	Ab	55	A	C5-C6-N6	-7.29	117.87	123.70
84	Aa	36	U	O4'-C1'-N1	7.29	114.03	108.20
84	Aa	525	A	O4'-C1'-N9	7.29	114.03	108.20
84	Aa	1339	C	O4'-C1'-N1	7.29	114.03	108.20
84	Aa	517	G	C5-C6-O6	-7.29	124.23	128.60
84	Aa	1763	C	O4'-C1'-N1	7.29	114.03	108.20
84	Aa	2929	C	O4'-C1'-N1	7.29	114.03	108.20
1	Ad	996	G	O4'-C1'-N9	7.28	114.03	108.20
84	Aa	254	G	O4'-C1'-N9	7.28	114.03	108.20
84	Aa	2121	U	O4'-C1'-N1	7.28	114.03	108.20
84	Aa	267	G	O4'-C1'-N9	7.28	114.03	108.20
84	Aa	1701	G	C5-C6-O6	-7.28	124.23	128.60
84	Aa	2392	G	C5-C6-O6	-7.28	124.23	128.60
84	Aa	35	U	O4'-C1'-N1	7.28	114.02	108.20
84	Aa	2784	U	O4'-C1'-N1	7.28	114.03	108.20
84	Aa	3377	G	C5-C6-O6	-7.28	124.23	128.60
84	Aa	651	A	P-O3'-C3'	7.28	128.44	119.70
84	Aa	2035	G	O4'-C1'-N9	7.28	114.02	108.20
84	Aa	1504	U	O4'-C1'-N1	7.28	114.02	108.20
84	Aa	1565	G	P-O5'-C5'	7.28	132.54	120.90
84	Aa	1938	U	O4'-C1'-N1	7.28	114.02	108.20
84	Aa	2941	G	O4'-C1'-N9	7.28	114.02	108.20
84	Aa	72	A	O4'-C1'-N9	7.28	114.02	108.20
84	Aa	1722	G	N1-C6-O6	7.28	124.27	119.90
84	Aa	2267	G	N1-C6-O6	7.28	124.27	119.90
84	Aa	326	C	O4'-C1'-N1	7.27	114.02	108.20
84	Aa	773	G	O4'-C1'-N9	7.27	114.02	108.20
84	Aa	2316	A	O4'-C1'-N9	7.27	114.02	108.20
84	Aa	3318	G	C5-C6-O6	-7.27	124.24	128.60
84	Aa	2530	G	N1-C6-O6	7.27	124.26	119.90
1	Ad	137	A	P-O3'-C3'	7.27	128.42	119.70
84	Aa	3202	G	O4'-C1'-N9	7.27	114.02	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1149	C	O4'-C1'-N1	7.27	114.01	108.20
84	Aa	1327	G	O4'-C1'-N9	7.27	114.01	108.20
84	Aa	1431	G	C5-C6-O6	-7.27	124.24	128.60
84	Aa	1614	G	O4'-C1'-N9	7.27	114.01	108.20
86	Ab	31	G	O4'-C1'-N9	7.27	114.01	108.20
1	Ad	508	U	O4'-C1'-N1	7.26	114.01	108.20
1	Ad	1062	C	O4'-C1'-C2'	-7.26	98.53	105.80
84	Aa	1665	G	O4'-C1'-N9	7.26	114.01	108.20
86	Ab	66	G	C6-C5-N7	-7.26	126.04	130.40
1	Ad	826	C	O4'-C1'-C2'	-7.26	98.54	105.80
84	Aa	1827	U	C5'-C4'-C3'	-7.26	104.38	116.00
71	CB	265	TYR	CB-CG-CD2	-7.26	116.64	121.00
84	Aa	2966	G	C5-C6-O6	-7.26	124.24	128.60
1	Ad	1472	G	N9-C1'-C2'	7.26	123.44	114.00
84	Aa	1995	U	O4'-C1'-N1	7.26	114.01	108.20
84	Aa	2926	U	O4'-C1'-N1	7.26	114.01	108.20
85	Ac	29	U	O4'-C1'-N1	7.26	114.01	108.20
84	Aa	202	G	C5-C6-O6	-7.26	124.25	128.60
1	Ad	945	A	N9-C1'-C2'	-7.26	104.02	112.00
84	Aa	18	G	N1-C6-O6	7.26	124.25	119.90
84	Aa	463	G	N1-C6-O6	7.26	124.25	119.90
84	Aa	1385	C	O4'-C1'-N1	7.26	114.00	108.20
84	Aa	2481	C	O4'-C1'-N1	7.26	114.00	108.20
84	Aa	3059	C	C2-N1-C1'	7.26	126.78	118.80
1	Ad	1372	C	C3'-C2'-C1'	7.25	107.30	101.50
84	Aa	173	C	O4'-C1'-N1	7.25	114.00	108.20
84	Aa	807	C	O4'-C1'-N1	7.25	114.00	108.20
84	Aa	2394	G	O4'-C1'-N9	7.25	114.00	108.20
84	Aa	2116	G	N1-C6-O6	7.25	124.25	119.90
84	Aa	2379	U	O4'-C1'-N1	7.25	114.00	108.20
1	Ad	1464	G	C1'-O4'-C4'	-7.25	104.10	109.90
85	Ac	111	G	C5-C6-O6	-7.25	124.25	128.60
1	Ad	1250	C	C3'-C2'-C1'	-7.25	95.70	101.50
84	Aa	44	A	O4'-C1'-N9	7.25	114.00	108.20
84	Aa	614	C	O4'-C1'-N1	7.25	114.00	108.20
84	Aa	1171	U	O4'-C1'-N1	7.25	114.00	108.20
84	Aa	2356	A	C4-C5-C6	7.25	120.62	117.00
84	Aa	2727	U	O4'-C1'-N1	7.25	114.00	108.20
86	Ab	18	C	N3-C4-N4	7.25	123.07	118.00
84	Aa	794	G	C5-C6-O6	-7.25	124.25	128.60
84	Aa	865	U	O4'-C1'-N1	7.24	113.99	108.20
1	Ad	26	A	O4'-C1'-N9	7.24	113.99	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	744	G	O4'-C4'-C3'	-7.24	96.76	104.00
1	Ad	1523	A	O4'-C1'-C2'	-7.24	98.56	105.80
84	Aa	2335	U	O4'-C1'-N1	7.24	113.99	108.20
84	Aa	2775	C	O4'-C1'-N1	7.24	113.99	108.20
1	Ad	352	U	O4'-C1'-N1	7.24	113.99	108.20
1	Ad	1105	G	O4'-C1'-C2'	7.24	114.11	107.60
18	BN	128	TYR	CB-CG-CD2	7.24	125.34	121.00
84	Aa	1085	G	O4'-C1'-N9	7.24	113.99	108.20
84	Aa	2515	C	O4'-C1'-N1	7.24	113.99	108.20
84	Aa	2770	U	O4'-C1'-N1	7.24	113.99	108.20
1	Ad	1429	U	O4'-C1'-N1	7.24	113.99	108.20
1	Ad	1235	U	C3'-C2'-C1'	7.24	107.29	101.50
1	Ad	1339	C	O4'-C1'-N1	7.24	113.99	108.20
1	Ad	1647	C	C3'-C2'-C1'	7.24	107.29	101.50
84	Aa	747	A	C5-C6-N6	-7.24	117.91	123.70
84	Aa	1425	G	O4'-C1'-N9	7.24	113.99	108.20
84	Aa	403	U	O4'-C1'-N1	7.23	113.99	108.20
84	Aa	1090	C	O4'-C1'-N1	7.23	113.99	108.20
84	Aa	1187	G	N1-C6-O6	7.23	124.24	119.90
84	Aa	1198	G	N1-C6-O6	7.23	124.24	119.90
84	Aa	2492	C	O4'-C1'-N1	7.23	113.99	108.20
84	Aa	2959	G	C5-C6-O6	-7.23	124.26	128.60
84	Aa	90	G	C5-C6-O6	-7.23	124.26	128.60
84	Aa	816	G	C5-C6-O6	-7.23	124.26	128.60
84	Aa	1924	G	O4'-C1'-N9	7.23	113.98	108.20
84	Aa	2446	G	N1-C6-O6	7.23	124.24	119.90
84	Aa	2604	A	C5-C6-N1	-7.23	114.08	117.70
1	Ad	54	C	N1-C1'-C2'	-7.23	104.05	112.00
1	Ad	1391	G	C1'-O4'-C4'	-7.23	104.12	109.90
84	Aa	2708	A	C5-C6-N6	-7.23	117.92	123.70
84	Aa	3016	C	O4'-C1'-N1	7.23	113.98	108.20
1	Ad	1444	G	C3'-C2'-C1'	7.23	107.28	101.50
84	Aa	2293	U	O4'-C1'-N1	7.23	113.98	108.20
1	Ad	1121	A	O4'-C1'-N9	7.22	113.98	108.20
84	Aa	1652	G	C5-C6-O6	-7.22	124.27	128.60
84	Aa	2407	U	O4'-C1'-N1	7.22	113.98	108.20
42	CJ	70	TYR	CB-CG-CD2	7.22	125.33	121.00
84	Aa	45	U	O4'-C1'-N1	7.22	113.98	108.20
84	Aa	220	G	N1-C6-O6	7.22	124.23	119.90
84	Aa	333	G	N1-C6-O6	7.22	124.23	119.90
84	Aa	675	C	O4'-C1'-N1	7.22	113.98	108.20
84	Aa	2180	G	O4'-C1'-N9	7.22	113.98	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
71	CB	197	TYR	CB-CG-CD1	-7.22	116.67	121.00
1	Ad	412	C	C3'-C2'-C1'	7.22	107.28	101.50
84	Aa	379	U	O4'-C1'-N1	7.22	113.98	108.20
84	Aa	526	A	C5'-C4'-C3'	-7.22	104.45	116.00
84	Aa	270	G	O4'-C1'-N9	7.22	113.97	108.20
84	Aa	708	C	O4'-C1'-N1	7.22	113.97	108.20
84	Aa	1055	U	O4'-C1'-N1	7.22	113.97	108.20
1	Ad	123	U	O4'-C1'-N1	7.22	113.97	108.20
84	Aa	467	C	O4'-C1'-N1	7.22	113.97	108.20
84	Aa	603	G	N1-C6-O6	7.22	124.23	119.90
84	Aa	1510	G	O4'-C1'-N9	7.22	113.97	108.20
84	Aa	2376	G	C5-C6-O6	-7.22	124.27	128.60
84	Aa	2646	A	C5-C6-N6	-7.22	117.93	123.70
84	Aa	1469	G	C5-C6-O6	-7.21	124.27	128.60
86	Ab	7	G	O4'-C1'-N9	7.21	113.97	108.20
84	Aa	834	G	O4'-C1'-N9	7.21	113.97	108.20
84	Aa	2566	C	N3-C4-N4	7.21	123.05	118.00
1	Ad	334	G	O4'-C1'-C2'	7.21	114.09	107.60
84	Aa	836	G	C5'-C4'-C3'	-7.21	104.46	116.00
84	Aa	2289	U	O4'-C1'-N1	7.21	113.97	108.20
85	Ac	15	G	C5-C6-O6	-7.21	124.27	128.60
1	Ad	919	G	O4'-C1'-N9	7.21	113.97	108.20
1	Ad	1303	G	O4'-C1'-C2'	7.21	114.09	107.60
84	Aa	86	U	O4'-C1'-N1	7.21	113.97	108.20
84	Aa	2589	G	C5-C6-O6	-7.21	124.28	128.60
84	Aa	2779	G	P-O3'-C3'	7.21	128.35	119.70
84	Aa	1401	C	O4'-C1'-N1	7.21	113.97	108.20
84	Aa	1764	G	C5-C6-O6	-7.21	124.28	128.60
1	Ad	1218	U	O4'-C1'-N1	7.21	113.96	108.20
84	Aa	50	A	C5-C6-N6	-7.21	117.94	123.70
84	Aa	1060	U	O4'-C1'-N1	7.20	113.96	108.20
84	Aa	2483	A	C5-C6-N6	-7.20	117.94	123.70
84	Aa	2997	C	C2-N1-C1'	7.20	126.72	118.80
84	Aa	3255	U	O4'-C1'-N1	7.20	113.96	108.20
84	Aa	390	G	C5-C6-O6	-7.20	124.28	128.60
84	Aa	771	G	C5-C6-O6	-7.20	124.28	128.60
84	Aa	862	G	C5-C6-O6	-7.20	124.28	128.60
84	Aa	3389	C	O4'-C1'-N1	7.20	113.96	108.20
86	Ab	70	G	C5-C6-O6	-7.20	124.28	128.60
1	Ad	645	G	O4'-C1'-N9	7.20	113.96	108.20
84	Aa	989	U	O4'-C1'-N1	7.20	113.96	108.20
84	Aa	1018	C	O4'-C1'-N1	7.20	113.96	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	163	U	O4'-C1'-N1	7.20	113.96	108.20
84	Aa	971	G	C5-C6-O6	-7.20	124.28	128.60
84	Aa	3250	C	O4'-C1'-N1	7.20	113.96	108.20
86	Ab	14	C	N3-C4-C5	-7.20	119.02	121.90
84	Aa	514	G	O4'-C1'-N9	7.20	113.96	108.20
84	Aa	1484	A	N1-C6-N6	7.20	122.92	118.60
84	Aa	1718	U	O4'-C1'-N1	7.20	113.96	108.20
84	Aa	2557	C	N3-C4-C5	-7.20	119.02	121.90
84	Aa	3000	U	O4'-C1'-N1	7.20	113.96	108.20
85	Ac	32	C	O4'-C1'-N1	7.20	113.96	108.20
86	Ab	113	G	O4'-C1'-N9	7.20	113.96	108.20
84	Aa	3354	A	O4'-C1'-N9	7.19	113.96	108.20
84	Aa	496	U	O4'-C1'-N1	7.19	113.95	108.20
1	Ad	1672	U	O4'-C1'-N1	7.19	113.95	108.20
84	Aa	97	G	C5-C6-O6	-7.19	124.28	128.60
84	Aa	1241	G	C5-C6-O6	-7.19	124.29	128.60
84	Aa	1265	G	N1-C6-O6	7.19	124.21	119.90
84	Aa	1380	C	O4'-C1'-N1	7.19	113.95	108.20
84	Aa	2453	G	C5-C6-O6	-7.19	124.28	128.60
84	Aa	3067	G	C5-C6-O6	-7.19	124.29	128.60
84	Aa	566	G	C5-C6-O6	-7.19	124.29	128.60
1	Ad	865	U	O4'-C1'-N1	7.19	113.95	108.20
84	Aa	1074	C	O4'-C1'-N1	7.19	113.95	108.20
1	Ad	1330	A	O4'-C1'-N9	7.19	113.95	108.20
84	Aa	313	C	O4'-C1'-N1	7.19	113.95	108.20
84	Aa	1329	G	O4'-C1'-N9	7.19	113.95	108.20
84	Aa	994	U	O4'-C1'-N1	7.18	113.95	108.20
84	Aa	2955	U	O4'-C1'-N1	7.18	113.95	108.20
84	Aa	2427	C	O4'-C1'-N1	7.18	113.95	108.20
84	Aa	2972	C	O4'-C1'-N1	7.18	113.95	108.20
86	Ab	55	A	O4'-C1'-N9	7.18	113.95	108.20
84	Aa	1250	G	N1-C6-O6	7.18	124.21	119.90
84	Aa	1402	G	O4'-C1'-N9	7.18	113.94	108.20
84	Aa	2613	G	C5-C6-O6	-7.18	124.29	128.60
86	Ab	72	G	C8-N9-C4	-7.18	103.53	106.40
84	Aa	2725	U	O4'-C1'-N1	7.18	113.94	108.20
84	Aa	2915	U	O4'-C1'-N1	7.18	113.94	108.20
84	Aa	713	G	O4'-C1'-N9	7.18	113.94	108.20
84	Aa	934	C	O4'-C1'-N1	7.18	113.94	108.20
84	Aa	1935	G	O4'-C1'-N9	7.18	113.94	108.20
1	Ad	1316	A	N9-C1'-C2'	7.17	123.33	114.00
84	Aa	1142	G	O4'-C1'-N9	7.17	113.94	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2994	U	O4'-C1'-N1	7.17	113.94	108.20
1	Ad	426	G	O4'-C1'-N9	7.17	113.94	108.20
57	Ce	67	TYR	CB-CG-CD2	-7.17	116.70	121.00
84	Aa	432	G	C5-C6-O6	-7.17	124.30	128.60
84	Aa	1041	C	O4'-C1'-N1	7.17	113.94	108.20
84	Aa	1521	U	O4'-C1'-N1	7.17	113.94	108.20
1	Ad	406	C	C3'-C2'-C1'	7.17	107.24	101.50
1	Ad	1569	U	O4'-C1'-N1	7.17	113.93	108.20
1	Ad	1720	G	P-O3'-C3'	7.17	128.30	119.70
84	Aa	1697	G	O4'-C1'-N9	7.17	113.93	108.20
84	Aa	1705	A	O4'-C1'-N9	7.17	113.93	108.20
84	Aa	1975	G	O4'-C1'-N9	7.17	113.93	108.20
1	Ad	1554	G	O4'-C1'-C2'	7.17	114.05	107.60
84	Aa	410	G	O4'-C1'-N9	7.17	113.93	108.20
84	Aa	2004	U	O4'-C1'-N1	7.17	113.93	108.20
1	Ad	1796	G	N9-C1'-C2'	7.16	123.31	114.00
84	Aa	1034	U	O4'-C1'-N1	7.16	113.93	108.20
84	Aa	2245	G	C5-C6-O6	-7.16	124.30	128.60
84	Aa	3042	U	O4'-C1'-N1	7.16	113.93	108.20
84	Aa	41	C	O4'-C1'-N1	7.16	113.93	108.20
84	Aa	752	U	O4'-C1'-N1	7.16	113.93	108.20
86	Ab	44	C	O4'-C1'-N1	7.16	113.93	108.20
1	Ad	117	U	O4'-C1'-N1	7.16	113.93	108.20
1	Ad	149	G	O4'-C1'-N9	7.16	113.93	108.20
84	Aa	671	C	O4'-C1'-N1	7.16	113.93	108.20
84	Aa	891	U	O4'-C1'-N1	7.16	113.93	108.20
84	Aa	2253	U	O4'-C1'-N1	7.16	113.93	108.20
1	Ad	1663	A	O4'-C1'-C2'	-7.16	98.64	105.80
84	Aa	311	G	O4'-C1'-N9	7.16	113.93	108.20
84	Aa	1232	A	C5-C6-N1	-7.16	114.12	117.70
84	Aa	1433	U	O4'-C1'-N1	7.16	113.93	108.20
84	Aa	1959	U	O4'-C1'-N1	7.16	113.93	108.20
1	Ad	708	G	O4'-C1'-N9	-7.16	102.47	108.20
84	Aa	2395	G	N1-C6-O6	7.16	124.19	119.90
84	Aa	1676	A	C5-C6-N1	-7.16	114.12	117.70
84	Aa	2333	U	O4'-C1'-N1	7.16	113.92	108.20
1	Ad	475	A	P-O3'-C3'	7.15	128.28	119.70
84	Aa	581	G	C5-C6-O6	-7.15	124.31	128.60
84	Aa	1064	U	O4'-C1'-N1	7.15	113.92	108.20
84	Aa	1531	G	N1-C6-O6	7.15	124.19	119.90
84	Aa	2302	G	C5-C6-O6	-7.15	124.31	128.60
1	Ad	710	G	O4'-C1'-N9	7.15	113.92	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	3108	U	O4'-C1'-N1	7.15	113.92	108.20
84	Aa	1302	C	O4'-C1'-N1	7.15	113.92	108.20
84	Aa	1315	G	N1-C6-O6	7.15	124.19	119.90
84	Aa	2070	C	O4'-C1'-N1	7.15	113.92	108.20
84	Aa	3304	U	O4'-C1'-N1	7.15	113.92	108.20
1	Ad	242	A	O4'-C1'-N9	7.15	113.92	108.20
84	Aa	2220	U	O4'-C1'-N1	7.15	113.92	108.20
1	Ad	800	U	C3'-C2'-C1'	-7.15	95.78	101.50
84	Aa	706	U	O4'-C1'-N1	7.15	113.92	108.20
84	Aa	1786	G	C5-C6-O6	-7.15	124.31	128.60
84	Aa	2945	G	C5-C6-O6	-7.15	124.31	128.60
1	Ad	164	C	O4'-C1'-N1	7.15	113.92	108.20
1	Ad	1260	A	C3'-C2'-C1'	7.15	107.22	101.50
84	Aa	2092	C	N3-C4-C5	-7.15	119.04	121.90
86	Ab	4	U	O4'-C1'-N1	7.15	113.92	108.20
84	Aa	2346	U	O4'-C1'-N1	7.14	113.92	108.20
84	Aa	2383	G	C5-C6-O6	-7.14	124.31	128.60
1	Ad	1194	C	P-O3'-C3'	7.14	128.27	119.70
84	Aa	720	G	C5-C6-O6	-7.14	124.31	128.60
1	Ad	31	C	C3'-C2'-C1'	7.14	107.21	101.50
1	Ad	339	G	N9-C1'-C2'	7.14	123.28	114.00
84	Aa	554	C	C4'-C3'-O3'	7.14	127.28	113.00
84	Aa	2868	C	O4'-C1'-N1	7.14	113.91	108.20
84	Aa	3225	G	O4'-C1'-N9	7.14	113.91	108.20
1	Ad	258	U	O4'-C1'-N1	7.14	113.91	108.20
1	Ad	593	C	O4'-C1'-N1	7.14	113.91	108.20
1	Ad	1042	C	N1-C1'-C2'	7.14	123.28	114.00
84	Aa	1265	G	C5-C6-O6	-7.14	124.32	128.60
1	Ad	308	U	O4'-C1'-N1	7.14	113.91	108.20
84	Aa	157	G	C5-C6-O6	-7.14	124.32	128.60
84	Aa	330	C	O4'-C1'-N1	7.14	113.91	108.20
84	Aa	2451	G	O4'-C1'-N9	7.14	113.91	108.20
84	Aa	1494	A	O4'-C1'-N9	7.13	113.91	108.20
84	Aa	2307	A	C5-C6-N1	-7.13	114.13	117.70
84	Aa	3301	G	C5-C6-O6	-7.13	124.32	128.60
1	Ad	1587	G	O4'-C1'-N9	7.13	113.91	108.20
84	Aa	1948	G	O4'-C1'-N9	7.13	113.91	108.20
84	Aa	570	G	O4'-C1'-N9	7.13	113.90	108.20
84	Aa	2077	C	P-O3'-C3'	7.13	128.25	119.70
84	Aa	2310	G	N1-C6-O6	7.13	124.18	119.90
84	Aa	2081	C	C2'-C3'-O3'	7.13	125.18	109.50
85	Ac	21	C	O4'-C1'-N1	7.13	113.90	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	1248	A	C3'-C2'-C1'	-7.13	95.80	101.50
1	Ad	1725	C	O4'-C1'-N1	7.13	113.90	108.20
84	Aa	2905	A	C4-C5-C6	7.13	120.56	117.00
1	Ad	1528	U	C1'-O4'-C4'	7.12	115.60	109.90
84	Aa	2093	G	C4-N9-C1'	-7.12	117.24	126.50
84	Aa	2341	U	O4'-C1'-N1	7.12	113.90	108.20
84	Aa	3170	C	O4'-C1'-N1	7.12	113.90	108.20
84	Aa	223	C	O4'-C1'-N1	7.12	113.90	108.20
84	Aa	2836	G	N1-C6-O6	7.12	124.17	119.90
1	Ad	530	A	P-O3'-C3'	7.12	128.25	119.70
84	Aa	2856	U	O4'-C1'-N1	7.12	113.90	108.20
1	Ad	1647	C	O4'-C1'-C2'	-7.12	98.68	105.80
84	Aa	321	A	N1-C6-N6	7.12	122.87	118.60
84	Aa	931	C	O4'-C1'-N1	7.12	113.89	108.20
85	Ac	52	A	C5-C6-N6	-7.12	118.01	123.70
84	Aa	1948	G	N1-C6-O6	7.12	124.17	119.90
84	Aa	1439	U	O4'-C1'-N1	7.12	113.89	108.20
84	Aa	2242	G	O4'-C1'-N9	7.12	113.89	108.20
84	Aa	2528	U	O4'-C1'-N1	7.12	113.89	108.20
84	Aa	3029	G	O4'-C1'-N9	7.12	113.89	108.20
84	Aa	3333	C	C5'-C4'-O4'	7.12	117.64	109.10
84	Aa	1556	G	C5-C6-O6	-7.11	124.33	128.60
84	Aa	2801	A	C5-C6-N1	-7.11	114.14	117.70
84	Aa	3286	G	C5-C6-O6	-7.11	124.33	128.60
84	Aa	2434	G	N1-C6-O6	7.11	124.17	119.90
84	Aa	745	G	O4'-C1'-N9	7.11	113.89	108.20
84	Aa	1538	A	C5-C6-N6	-7.11	118.01	123.70
84	Aa	2385	A	C4-C5-C6	7.11	120.56	117.00
84	Aa	2611	G	O4'-C1'-N9	7.11	113.89	108.20
84	Aa	2701	G	C5-C6-O6	-7.11	124.33	128.60
1	Ad	99	U	N1-C1'-C2'	7.11	123.24	114.00
1	Ad	414	A	C1'-O4'-C4'	-7.11	104.21	109.90
1	Ad	716	A	C4'-C3'-O3'	-7.11	94.47	109.40
1	Ad	323	U	P-O3'-C3'	7.11	128.23	119.70
1	Ad	1184	C	C3'-C2'-C1'	7.11	107.19	101.50
3	Af	21	C	O4'-C1'-C2'	-7.11	98.69	105.80
84	Aa	456	G	C5-C6-O6	-7.11	124.34	128.60
84	Aa	1280	U	O4'-C1'-N1	7.11	113.89	108.20
1	Ad	391	A	C1'-O4'-C4'	7.10	115.58	109.90
84	Aa	765	U	O4'-C1'-N1	7.10	113.88	108.20
86	Ab	82	G	N3-C2-N2	7.10	124.87	119.90
84	Aa	513	C	C5'-C4'-O4'	7.10	117.62	109.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1372	U	O4'-C1'-N1	7.10	113.88	108.20
84	Aa	1650	G	O4'-C1'-N9	7.10	113.88	108.20
84	Aa	1662	G	C5-C6-O6	-7.10	124.34	128.60
1	Ad	480	U	N1-C1'-C2'	7.10	123.23	114.00
84	Aa	1350	G	O4'-C1'-N9	7.10	113.88	108.20
84	Aa	637	C	P-O3'-C3'	-7.10	111.19	119.70
1	Ad	1313	G	O4'-C1'-N9	7.09	113.88	108.20
84	Aa	1358	C	O4'-C1'-N1	7.09	113.88	108.20
84	Aa	2838	C	C6-N1-C1'	-7.09	112.29	120.80
84	Aa	3179	G	O4'-C1'-N9	7.09	113.88	108.20
86	Ab	73	U	C5'-C4'-O4'	7.09	117.61	109.10
84	Aa	455	U	O4'-C1'-N1	7.09	113.87	108.20
84	Aa	476	C	O4'-C1'-N1	7.09	113.87	108.20
84	Aa	1683	U	O4'-C1'-N1	7.09	113.87	108.20
84	Aa	2430	C	O4'-C1'-N1	7.09	113.87	108.20
84	Aa	2746	G	O4'-C1'-N9	7.09	113.87	108.20
1	Ad	151	A	O4'-C1'-N9	7.09	113.87	108.20
1	Ad	1154	G	O4'-C1'-C2'	7.09	113.98	107.60
84	Aa	293	A	O4'-C1'-N9	7.09	113.87	108.20
84	Aa	1088	A	C5-C6-N6	-7.09	118.03	123.70
84	Aa	1526	A	C4-C5-C6	7.09	120.54	117.00
84	Aa	3200	A	O4'-C1'-N9	7.09	113.87	108.20
86	Ab	71	A	C5-N7-C8	7.09	107.44	103.90
84	Aa	1924	G	N1-C6-O6	7.08	124.15	119.90
1	Ad	1172	G	C1'-O4'-C4'	-7.08	104.23	109.90
1	Ad	1376	A	C1'-O4'-C4'	7.08	115.57	109.90
84	Aa	1304	G	C5-C6-O6	-7.08	124.35	128.60
85	Ac	119	C	O4'-C1'-N1	7.08	113.87	108.20
84	Aa	440	U	O4'-C1'-N1	7.08	113.86	108.20
84	Aa	1526	A	C5-C6-N1	-7.08	114.16	117.70
84	Aa	3165	C	O4'-C1'-N1	7.08	113.86	108.20
1	Ad	76	U	O4'-C1'-N1	7.08	113.86	108.20
1	Ad	161	G	C3'-C2'-C1'	-7.08	95.84	101.50
84	Aa	510	C	O4'-C1'-N1	7.08	113.86	108.20
1	Ad	223	A	C1'-O4'-C4'	-7.08	104.24	109.90
84	Aa	644	U	O4'-C1'-N1	7.08	113.86	108.20
84	Aa	2078	G	C5-C6-O6	-7.08	124.35	128.60
84	Aa	3369	G	C5-C6-O6	-7.08	124.35	128.60
1	Ad	742	C	O4'-C1'-N1	7.08	113.86	108.20
1	Ad	1667	A	O4'-C1'-N9	7.08	113.86	108.20
1	Ad	792	U	N1-C1'-C2'	-7.08	104.22	112.00
84	Aa	921	C	O4'-C1'-N1	7.08	113.86	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1036	C	O4'-C1'-N1	7.08	113.86	108.20
84	Aa	1539	G	C5-C6-O6	-7.08	124.36	128.60
84	Aa	1649	G	O4'-C1'-N9	7.08	113.86	108.20
1	Ad	526	U	O4'-C1'-N1	7.07	113.86	108.20
84	Aa	666	U	O4'-C1'-N1	7.07	113.86	108.20
84	Aa	687	C	N3-C4-N4	7.07	122.95	118.00
84	Aa	2099	G	O4'-C1'-N9	7.07	113.86	108.20
84	Aa	377	C	O4'-C1'-N1	7.07	113.86	108.20
1	Ad	213	U	O4'-C1'-N1	7.07	113.86	108.20
1	Ad	535	C	C1'-O4'-C4'	-7.07	104.24	109.90
84	Aa	1025	G	C5-C6-O6	-7.07	124.36	128.60
84	Aa	1645	G	C5-C6-O6	-7.07	124.36	128.60
84	Aa	1729	G	C5-C6-O6	-7.07	124.36	128.60
1	Ad	1392	G	O4'-C1'-C2'	7.07	113.96	107.60
84	Aa	564	A	O4'-C1'-N9	7.07	113.85	108.20
84	Aa	574	C	O4'-C1'-N1	7.07	113.85	108.20
84	Aa	2903	G	C5-C6-O6	-7.07	124.36	128.60
1	Ad	1033	C	N1-C1'-C2'	7.06	123.18	114.00
86	Ab	78	C	C6-N1-C2	-7.06	117.47	120.30
86	Ab	86	G	O4'-C1'-N9	7.06	113.85	108.20
84	Aa	2340	G	O4'-C1'-N9	7.06	113.85	108.20
1	Ad	758	A	N9-C1'-C2'	7.06	123.18	114.00
58	Cj	84	ALA	N-CA-CB	7.06	119.98	110.10
84	Aa	247	C	O4'-C1'-N1	7.06	113.85	108.20
84	Aa	1909	G	C5-C6-O6	-7.06	124.36	128.60
84	Aa	2756	G	N3-C2-N2	7.06	124.84	119.90
84	Aa	2949	G	O4'-C1'-N9	7.06	113.85	108.20
1	Ad	430	G	O4'-C1'-C2'	7.06	113.95	107.60
1	Ad	1019	G	O4'-C1'-C2'	7.06	113.95	107.60
1	Ad	1235	U	O4'-C1'-C2'	-7.06	98.74	105.80
1	Ad	1255	U	N1-C1'-C2'	-7.06	104.24	112.00
84	Aa	299	G	N1-C6-O6	7.06	124.14	119.90
84	Aa	621	C	C6-N1-C1'	-7.06	112.33	120.80
84	Aa	1318	C	N3-C4-C5	-7.06	119.08	121.90
84	Aa	2444	U	O4'-C1'-N1	7.06	113.85	108.20
84	Aa	623	G	C5-C6-O6	-7.06	124.37	128.60
84	Aa	686	A	C5-C6-N6	-7.05	118.06	123.70
84	Aa	791	C	O4'-C1'-N1	7.05	113.84	108.20
84	Aa	3264	C	C2-N1-C1'	7.05	126.56	118.80
84	Aa	2336	C	O4'-C1'-N1	7.05	113.84	108.20
84	Aa	3237	G	C5-C6-O6	-7.05	124.37	128.60
84	Aa	818	G	N1-C6-O6	7.05	124.13	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1228	C	O4'-C1'-N1	7.05	113.84	108.20
84	Aa	1422	G	O4'-C1'-N9	7.05	113.84	108.20
84	Aa	2552	U	O4'-C1'-N1	7.05	113.84	108.20
84	Aa	870	G	C5-C6-O6	-7.05	124.37	128.60
84	Aa	1202	C	O4'-C1'-N1	7.05	113.84	108.20
84	Aa	1601	G	C5-C6-O6	-7.05	124.37	128.60
84	Aa	616	A	O4'-C1'-N9	7.05	113.84	108.20
1	Ad	1725	C	C1'-O4'-C4'	7.05	115.54	109.90
84	Aa	884	C	O4'-C1'-N1	7.05	113.84	108.20
84	Aa	1126	U	O4'-C1'-N1	7.05	113.84	108.20
84	Aa	2793	G	N1-C6-O6	7.04	124.13	119.90
1	Ad	176	A	O4'-C1'-C2'	-7.04	98.76	105.80
84	Aa	1513	C	O4'-C1'-N1	7.04	113.83	108.20
84	Aa	2163	G	C5'-C4'-O4'	-7.04	100.65	109.10
84	Aa	2635	G	N1-C6-O6	7.04	124.12	119.90
84	Aa	2932	A	C5-C6-N6	-7.04	118.07	123.70
84	Aa	1664	G	C5-C6-O6	-7.04	124.38	128.60
1	Ad	567	U	N1-C1'-C2'	7.04	123.15	114.00
84	Aa	1325	G	O4'-C1'-N9	7.04	113.83	108.20
84	Aa	1509	G	N1-C6-O6	7.04	124.12	119.90
84	Aa	1868	C	N3-C4-C5	-7.04	119.08	121.90
86	Ab	68	G	C5-C6-O6	-7.04	124.38	128.60
84	Aa	193	U	O4'-C1'-N1	7.04	113.83	108.20
84	Aa	1898	G	C5-C6-O6	-7.04	124.38	128.60
84	Aa	3075	G	C5-C6-O6	-7.04	124.38	128.60
1	Ad	1584	A	C3'-C2'-C1'	7.04	107.13	101.50
84	Aa	1282	A	O4'-C1'-N9	7.04	113.83	108.20
84	Aa	2536	G	C5-C6-O6	-7.04	124.38	128.60
1	Ad	478	A	O4'-C1'-N9	7.03	113.83	108.20
84	Aa	2602	U	O4'-C1'-N1	7.03	113.83	108.20
84	Aa	1563	G	P-O3'-C3'	7.03	128.14	119.70
84	Aa	2208	A	O4'-C1'-N9	7.03	113.83	108.20
84	Aa	3079	G	C5-C6-O6	-7.03	124.38	128.60
84	Aa	740	G	C5-C6-O6	-7.03	124.38	128.60
84	Aa	1851	U	O4'-C1'-N1	7.03	113.82	108.20
86	Ab	90	A	C4-C5-C6	7.03	120.52	117.00
84	Aa	992	U	O4'-C1'-N1	7.03	113.82	108.20
84	Aa	1258	C	N3-C4-C5	-7.03	119.09	121.90
84	Aa	1869	U	O4'-C1'-N1	7.03	113.82	108.20
86	Ab	17	G	N1-C6-O6	7.03	124.12	119.90
48	CD	183	PHE	CB-CG-CD1	-7.03	115.88	120.80
84	Aa	512	G	N3-C2-N2	7.03	124.82	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1989	G	O4'-C1'-N9	7.03	113.82	108.20
84	Aa	2524	U	O4'-C1'-N1	7.03	113.82	108.20
84	Aa	2570	U	O4'-C1'-N1	7.03	113.82	108.20
84	Aa	2573	U	O4'-C1'-N1	7.03	113.82	108.20
85	Ac	90	C	O4'-C1'-N1	7.03	113.82	108.20
84	Aa	956	G	C5-C6-O6	-7.02	124.39	128.60
84	Aa	2188	U	O4'-C1'-N1	7.02	113.82	108.20
1	Ad	351	G	C3'-C2'-C1'	-7.02	95.88	101.50
84	Aa	1669	C	O4'-C1'-N1	7.02	113.82	108.20
84	Aa	2088	C	N3-C4-C5	-7.02	119.09	121.90
84	Aa	2190	C	O4'-C1'-N1	7.02	113.82	108.20
84	Aa	3146	C	O4'-C1'-N1	7.02	113.82	108.20
1	Ad	1088	G	O4'-C1'-N9	7.02	113.82	108.20
84	Aa	951	C	O4'-C1'-N1	7.02	113.82	108.20
84	Aa	1079	G	C5-C6-O6	-7.02	124.39	128.60
84	Aa	1106	G	C5-C6-O6	-7.02	124.39	128.60
1	Ad	1	U	O4'-C1'-N1	7.02	113.81	108.20
84	Aa	239	C	O4'-C1'-N1	7.02	113.81	108.20
84	Aa	972	C	O4'-C1'-N1	7.02	113.82	108.20
84	Aa	1993	G	C5-C6-O6	-7.02	124.39	128.60
84	Aa	74	G	N1-C6-O6	7.02	124.11	119.90
84	Aa	1170	U	O4'-C1'-N1	7.02	113.81	108.20
84	Aa	1187	G	O4'-C1'-N9	7.02	113.81	108.20
84	Aa	1548	U	O4'-C1'-N1	7.02	113.81	108.20
84	Aa	1625	G	C5-C6-O6	-7.02	124.39	128.60
84	Aa	2080	G	O4'-C1'-N9	7.02	113.81	108.20
84	Aa	3274	G	O4'-C1'-N9	7.02	113.81	108.20
85	Ac	35	C	O4'-C1'-N1	7.02	113.81	108.20
85	Ac	78	G	N1-C6-O6	7.02	124.11	119.90
1	Ad	372	U	N1-C1'-C2'	-7.01	104.28	112.00
1	Ad	904	G	O4'-C1'-N9	7.01	113.81	108.20
84	Aa	539	C	O4'-C1'-N1	7.01	113.81	108.20
84	Aa	1528	G	N1-C6-O6	7.01	124.11	119.90
84	Aa	2964	U	O4'-C1'-N1	7.01	113.81	108.20
84	Aa	3279	G	C5-C6-O6	-7.01	124.39	128.60
84	Aa	181	G	N1-C6-O6	7.01	124.11	119.90
84	Aa	331	G	O4'-C1'-N9	7.01	113.81	108.20
84	Aa	507	C	N3-C4-N4	7.01	122.91	118.00
85	Ac	56	G	C5-C6-O6	-7.01	124.39	128.60
86	Ab	118	C	C2-N3-C4	7.01	123.41	119.90
1	Ad	1124	G	O4'-C1'-C2'	7.01	113.91	107.60
1	Ad	1489	A	O4'-C1'-N9	7.01	113.81	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	1567	G	C3'-C2'-C1'	-7.01	95.89	101.50
84	Aa	678	G	C5-C6-O6	-7.01	124.39	128.60
84	Aa	815	G	O4'-C1'-N9	7.01	113.81	108.20
84	Aa	1991	U	O4'-C1'-N1	7.01	113.81	108.20
84	Aa	2151	G	C5-C6-O6	-7.01	124.39	128.60
84	Aa	2466	G	C5-C6-O6	-7.01	124.39	128.60
84	Aa	1730	U	O4'-C1'-N1	7.01	113.81	108.20
57	Ce	26	TYR	CB-CG-CD2	-7.01	116.80	121.00
84	Aa	835	G	C5-C6-O6	-7.01	124.40	128.60
84	Aa	2789	G	C5-C6-O6	-7.01	124.40	128.60
85	Ac	24	G	O4'-C1'-N9	7.01	113.81	108.20
86	Ab	36	C	O4'-C1'-N1	7.01	113.81	108.20
1	Ad	1164	C	O4'-C1'-N1	7.00	113.80	108.20
84	Aa	2726	U	O4'-C1'-N1	7.00	113.80	108.20
84	Aa	2956	U	O4'-C1'-N1	7.00	113.80	108.20
1	Ad	975	A	C3'-C2'-C1'	7.00	107.10	101.50
1	Ad	1080	C	C3'-C2'-C1'	7.00	107.10	101.50
84	Aa	152	C	O4'-C1'-N1	7.00	113.80	108.20
84	Aa	275	G	N3-C2-N2	7.00	124.80	119.90
85	Ac	7	U	O4'-C1'-N1	7.00	113.80	108.20
84	Aa	106	G	O4'-C1'-N9	7.00	113.80	108.20
84	Aa	3384	G	C5-C6-O6	-7.00	124.40	128.60
85	Ac	107	G	C5-C6-O6	-7.00	124.40	128.60
84	Aa	720	G	P-O3'-C3'	-7.00	111.30	119.70
1	Ad	179	A	C3'-C2'-C1'	7.00	107.10	101.50
84	Aa	2163	G	C5-C6-O6	-6.99	124.40	128.60
84	Aa	2206	U	O4'-C1'-N1	6.99	113.79	108.20
84	Aa	1722	G	O4'-C1'-N9	6.99	113.79	108.20
84	Aa	2947	G	N1-C6-O6	6.99	124.09	119.90
84	Aa	1445	U	O4'-C1'-N1	6.99	113.79	108.20
84	Aa	1853	C	N3-C4-C5	-6.99	119.10	121.90
1	Ad	1405	U	C5'-C4'-C3'	-6.99	104.82	116.00
84	Aa	627	G	C5-C6-O6	-6.99	124.41	128.60
84	Aa	2914	G	O4'-C1'-N9	6.99	113.79	108.20
84	Aa	1829	G	C5-C6-O6	-6.99	124.41	128.60
1	Ad	873	G	N9-C1'-C2'	-6.99	104.32	112.00
84	Aa	709	G	N1-C6-O6	6.99	124.09	119.90
84	Aa	787	G	O4'-C1'-N9	6.99	113.79	108.20
84	Aa	1076	G	O4'-C1'-N9	6.99	113.79	108.20
84	Aa	3180	U	O4'-C1'-N1	6.99	113.79	108.20
84	Aa	3014	U	O4'-C1'-N1	6.98	113.79	108.20
84	Aa	2398	A	O4'-C1'-N9	6.98	113.78	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	317	G	C5-C6-O6	-6.98	124.41	128.60
84	Aa	814	U	O4'-C1'-N1	6.98	113.78	108.20
84	Aa	2871	U	O4'-C1'-N1	6.98	113.78	108.20
84	Aa	3150	G	C5-C6-O6	-6.98	124.41	128.60
84	Aa	1119	G	C5-C6-O6	-6.98	124.41	128.60
86	Ab	82	G	N1-C2-N3	-6.98	119.71	123.90
1	Ad	1432	C	C1'-O4'-C4'	6.98	115.48	109.90
42	CJ	70	TYR	CB-CG-CD1	-6.98	116.81	121.00
84	Aa	51	A	C4-C5-C6	6.98	120.49	117.00
84	Aa	104	G	C5-C6-O6	-6.98	124.41	128.60
84	Aa	241	G	C5-C6-O6	-6.98	124.41	128.60
84	Aa	1387	G	N1-C6-O6	6.98	124.09	119.90
84	Aa	2439	A	O4'-C1'-N9	6.98	113.78	108.20
84	Aa	2510	U	O4'-C1'-N1	6.98	113.78	108.20
84	Aa	3378	U	O4'-C1'-N1	6.98	113.78	108.20
1	Ad	64	U	O4'-C1'-C2'	-6.98	98.82	105.80
84	Aa	728	G	N1-C6-O6	6.98	124.09	119.90
84	Aa	1368	U	O4'-C1'-N1	6.98	113.78	108.20
84	Aa	1622	G	C5-C6-O6	-6.98	124.41	128.60
84	Aa	2846	C	O4'-C1'-N1	6.98	113.78	108.20
1	Ad	1549	G	C3'-C2'-C1'	6.97	107.08	101.50
2	Ae	29	C	C3'-C2'-C1'	6.97	107.08	101.50
84	Aa	1091	C	O4'-C1'-N1	6.97	113.78	108.20
84	Aa	1673	A	C5-C6-N1	-6.97	114.21	117.70
84	Aa	1605	U	O4'-C1'-N1	6.97	113.78	108.20
84	Aa	3298	G	C5-C6-O6	-6.97	124.42	128.60
84	Aa	625	G	P-O3'-C3'	6.97	128.07	119.70
1	Ad	627	A	O4'-C1'-N9	6.97	113.78	108.20
1	Ad	746	A	C1'-O4'-C4'	6.97	115.47	109.90
1	Ad	1683	G	C3'-C2'-C1'	-6.97	95.92	101.50
84	Aa	279	G	N1-C6-O6	6.97	124.08	119.90
86	Ab	90	A	C5-C6-N1	-6.97	114.22	117.70
1	Ad	711	C	O4'-C1'-N1	6.97	113.78	108.20
84	Aa	350	A	O4'-C1'-N9	6.97	113.77	108.20
84	Aa	1563	G	C2'-C3'-O3'	6.97	124.85	113.70
84	Aa	3217	G	O4'-C1'-N9	6.97	113.77	108.20
86	Ab	10	C	N3-C4-N4	6.97	122.88	118.00
1	Ad	385	C	C3'-C2'-C1'	6.96	107.07	101.50
1	Ad	726	G	O4'-C1'-N9	6.96	113.77	108.20
84	Aa	1169	G	C5-C6-O6	-6.96	124.42	128.60
84	Aa	1630	C	O4'-C1'-N1	6.96	113.77	108.20
84	Aa	2169	U	O4'-C1'-N1	6.96	113.77	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	3370	U	O4'-C1'-N1	6.96	113.77	108.20
84	Aa	3376	C	O4'-C1'-N1	6.96	113.77	108.20
1	Ad	751	U	O4'-C1'-N1	6.96	113.77	108.20
84	Aa	2255	U	O4'-C1'-N1	6.96	113.77	108.20
1	Ad	1735	C	N1-C1'-C2'	6.96	123.05	114.00
84	Aa	1085	G	C5-C6-O6	-6.96	124.42	128.60
84	Aa	1264	A	O4'-C1'-N9	6.96	113.77	108.20
84	Aa	2566	C	O4'-C1'-N1	6.96	113.77	108.20
84	Aa	1726	G	O4'-C1'-N9	6.96	113.77	108.20
84	Aa	2485	U	O4'-C1'-N1	6.96	113.77	108.20
84	Aa	3178	C	C2-N1-C1'	6.96	126.46	118.80
1	Ad	1787	G	C4'-C3'-C2'	-6.96	95.64	102.60
84	Aa	1577	A	O4'-C1'-N9	6.96	113.77	108.20
1	Ad	1512	C	O4'-C1'-N1	6.96	113.77	108.20
84	Aa	380	U	O4'-C1'-N1	6.96	113.77	108.20
84	Aa	750	G	O4'-C1'-N9	6.96	113.77	108.20
84	Aa	1288	C	N3-C4-C5	-6.96	119.12	121.90
84	Aa	2693	G	C5-C6-O6	-6.96	124.43	128.60
1	Ad	246	G	O4'-C1'-N9	6.96	113.76	108.20
84	Aa	425	G	O4'-C1'-N9	6.96	113.76	108.20
84	Aa	1884	U	O4'-C1'-N1	6.96	113.76	108.20
84	Aa	3334	A	C5-C6-N1	-6.96	114.22	117.70
86	Ab	82	G	C6-C5-N7	-6.96	126.23	130.40
84	Aa	1010	A	N1-C6-N6	6.95	122.77	118.60
84	Aa	1259	C	N3-C4-C5	-6.95	119.12	121.90
84	Aa	3177	A	C5-C6-N1	-6.95	114.22	117.70
84	Aa	3300	C	N3-C4-N4	6.95	122.87	118.00
84	Aa	2598	A	O4'-C1'-N9	6.95	113.76	108.20
1	Ad	54	C	C1'-O4'-C4'	6.95	115.46	109.90
1	Ad	173	G	O4'-C1'-N9	6.95	113.76	108.20
1	Ad	856	G	O4'-C1'-C2'	6.95	113.86	107.60
84	Aa	607	U	O4'-C1'-N1	6.95	113.76	108.20
84	Aa	1419	G	C5-C6-O6	-6.95	124.43	128.60
1	Ad	1538	C	C3'-C2'-C1'	6.95	107.06	101.50
84	Aa	1773	U	O4'-C1'-N1	6.95	113.76	108.20
84	Aa	1803	G	C5-C6-O6	-6.95	124.43	128.60
86	Ab	23	A	C5-C6-N1	-6.95	114.23	117.70
1	Ad	1202	G	C3'-C2'-C1'	-6.95	95.94	101.50
84	Aa	1104	C	O4'-C1'-N1	6.95	113.76	108.20
84	Aa	1719	U	O4'-C1'-N1	6.95	113.76	108.20
84	Aa	2599	U	O4'-C1'-N1	6.95	113.76	108.20
84	Aa	3281	G	C5-C6-O6	-6.95	124.43	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
86	Ab	47	C	N3-C4-N4	6.95	122.86	118.00
84	Aa	1234	G	N1-C6-O6	6.94	124.07	119.90
84	Aa	1618	U	O4'-C1'-N1	6.94	113.75	108.20
1	Ad	1448	U	C4'-C3'-C2'	-6.94	95.66	102.60
6	BK	87	VAL	CA-C-N	6.94	136.54	117.10
84	Aa	1261	C	O4'-C1'-N1	6.94	113.75	108.20
84	Aa	2695	A	O4'-C1'-N9	6.94	113.75	108.20
84	Aa	2808	U	O4'-C1'-N1	6.94	113.75	108.20
84	Aa	3142	C	O4'-C1'-N1	6.94	113.75	108.20
1	Ad	631	C	C1'-O4'-C4'	-6.94	104.35	109.90
84	Aa	252	A	N1-C6-N6	6.94	122.77	118.60
84	Aa	301	G	N1-C6-O6	6.94	124.06	119.90
84	Aa	428	G	N1-C6-O6	6.94	124.06	119.90
84	Aa	1847	G	C5-C6-O6	-6.94	124.44	128.60
84	Aa	1876	U	O4'-C1'-N1	6.94	113.75	108.20
84	Aa	2457	G	P-O3'-C3'	6.94	128.03	119.70
84	Aa	2659	A	C5-C6-N1	-6.94	114.23	117.70
84	Aa	2876	G	N1-C6-O6	6.94	124.06	119.90
1	Ad	1237	G	O4'-C1'-N9	6.94	113.75	108.20
84	Aa	150	G	C5-C6-O6	-6.94	124.44	128.60
84	Aa	1033	G	O4'-C1'-N9	6.94	113.75	108.20
84	Aa	3325	G	O4'-C1'-N9	6.94	113.75	108.20
85	Ac	136	G	C5-C6-O6	-6.94	124.44	128.60
1	Ad	1150	U	O4'-C1'-N1	6.94	113.75	108.20
52	CW	54	THR	N-CA-CB	6.94	123.48	110.30
1	Ad	914	U	N1-C1'-C2'	6.94	123.02	114.00
1	Ad	1062	C	C1'-O4'-C4'	6.93	115.45	109.90
1	Ad	1273	U	O4'-C1'-N1	6.93	113.75	108.20
1	Ad	1519	G	O4'-C1'-N9	6.93	113.75	108.20
85	Ac	70	G	C5-C6-O6	-6.93	124.44	128.60
84	Aa	1728	G	C5-C6-O6	-6.93	124.44	128.60
84	Aa	1348	G	O4'-C1'-N9	6.93	113.75	108.20
84	Aa	2022	U	O4'-C1'-N1	6.93	113.75	108.20
84	Aa	2142	A	C5-C6-N6	-6.93	118.16	123.70
84	Aa	745	G	C5-C6-O6	-6.93	124.44	128.60
84	Aa	2338	C	O4'-C1'-N1	6.93	113.74	108.20
84	Aa	2377	C	O4'-C1'-N1	6.93	113.74	108.20
84	Aa	2415	U	O4'-C1'-N1	6.93	113.74	108.20
84	Aa	2683	A	C4-C5-C6	6.93	120.46	117.00
1	Ad	229	G	O4'-C1'-N9	6.93	113.74	108.20
84	Aa	699	C	N3-C4-C5	-6.93	119.13	121.90
84	Aa	797	U	O4'-C1'-N1	6.93	113.74	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	977	G	O4'-C1'-N9	6.92	113.74	108.20
84	Aa	78	U	O4'-C1'-N1	6.92	113.74	108.20
84	Aa	2760	U	O4'-C1'-N1	6.92	113.74	108.20
84	Aa	653	A	O4'-C1'-N9	6.92	113.74	108.20
84	Aa	984	A	O4'-C1'-N9	6.92	113.74	108.20
84	Aa	3125	G	N1-C6-O6	6.92	124.05	119.90
1	Ad	1154	G	C1'-O4'-C4'	-6.92	104.36	109.90
84	Aa	1336	A	C4-C5-C6	6.92	120.46	117.00
84	Aa	1341	G	O4'-C1'-N9	6.92	113.74	108.20
84	Aa	3048	C	O4'-C1'-N1	6.92	113.74	108.20
84	Aa	289	C	N3-C4-C5	-6.92	119.13	121.90
84	Aa	1226	G	C5-C6-O6	-6.92	124.45	128.60
86	Ab	6	C	O4'-C1'-N1	6.92	113.74	108.20
84	Aa	622	U	O4'-C1'-N1	6.92	113.73	108.20
84	Aa	1801	G	C5-C6-O6	-6.92	124.45	128.60
84	Aa	15	C	N3-C4-N4	6.92	122.84	118.00
84	Aa	2961	C	O4'-C1'-N1	6.92	113.73	108.20
84	Aa	494	C	O4'-C1'-N1	6.92	113.73	108.20
84	Aa	1137	G	O4'-C1'-N9	6.91	113.73	108.20
84	Aa	1158	C	N3-C4-C5	-6.91	119.13	121.90
84	Aa	1430	C	O4'-C1'-N1	6.91	113.73	108.20
84	Aa	2568	G	O4'-C1'-N9	6.91	113.73	108.20
84	Aa	554	C	C2'-C3'-O3'	-6.91	94.29	109.50
84	Aa	1279	C	O4'-C1'-N1	6.91	113.73	108.20
1	Ad	1486	U	O4'-C1'-N1	6.91	113.73	108.20
84	Aa	381	G	C5-C6-O6	-6.91	124.45	128.60
84	Aa	2958	A	C5-C6-N6	-6.91	118.17	123.70
84	Aa	2997	C	C6-N1-C1'	-6.91	112.51	120.80
84	Aa	3215	U	O4'-C1'-N1	6.91	113.73	108.20
84	Aa	18	G	O4'-C1'-N9	6.91	113.73	108.20
84	Aa	638	G	C5-C6-O6	-6.91	124.45	128.60
84	Aa	2490	U	O4'-C1'-N1	6.91	113.73	108.20
86	Ab	55	A	C5-C6-N1	-6.91	114.25	117.70
84	Aa	487	C	N3-C4-N4	6.91	122.83	118.00
84	Aa	2818	G	C5-C6-O6	-6.91	124.46	128.60
1	Ad	179	A	C1'-O4'-C4'	-6.91	104.38	109.90
1	Ad	212	A	O4'-C1'-N9	-6.91	102.68	108.20
1	Ad	273	C	N1-C1'-C2'	6.91	122.98	114.00
84	Aa	1562	A	C5'-C4'-O4'	6.91	117.39	109.10
84	Aa	400	G	O4'-C1'-N9	6.90	113.72	108.20
84	Aa	3059	C	O4'-C1'-N1	6.90	113.72	108.20
1	Ad	1092	A	N9-C1'-C2'	6.90	122.97	114.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1658	G	C5-C6-O6	-6.90	124.46	128.60
1	Ad	729	C	O4'-C1'-N1	6.90	113.72	108.20
1	Ad	738	U	O4'-C1'-N1	6.90	113.72	108.20
1	Ad	1434	G	N9-C1'-C2'	6.90	122.97	114.00
84	Aa	3286	G	O4'-C1'-N9	6.90	113.72	108.20
85	Ac	120	G	C5-C6-O6	-6.90	124.46	128.60
1	Ad	473	C	N1-C1'-C2'	6.90	122.97	114.00
1	Ad	1327	C	C3'-C2'-C1'	6.90	107.02	101.50
84	Aa	640	C	O3'-P-O5'	6.90	117.11	104.00
84	Aa	1612	C	N3-C4-C5	-6.90	119.14	121.90
85	Ac	66	G	O4'-C1'-N9	6.90	113.72	108.20
1	Ad	295	C	C3'-C2'-C1'	6.90	107.02	101.50
84	Aa	22	G	C5-C6-O6	-6.90	124.46	128.60
84	Aa	1621	G	O4'-C1'-N9	6.90	113.72	108.20
84	Aa	3315	A	C5-C6-N6	-6.90	118.18	123.70
85	Ac	42	G	O4'-C1'-N9	6.90	113.72	108.20
86	Ab	77	A	C5-C6-N6	-6.90	118.18	123.70
1	Ad	1309	U	C1'-O4'-C4'	6.89	115.42	109.90
84	Aa	926	C	O4'-C1'-N1	6.89	113.72	108.20
1	Ad	883	G	O4'-C1'-N9	6.89	113.72	108.20
84	Aa	1677	G	O4'-C1'-N9	6.89	113.71	108.20
84	Aa	2564	G	N1-C6-O6	6.89	124.03	119.90
1	Ad	433	G	O4'-C1'-N9	6.89	113.71	108.20
84	Aa	284	U	O4'-C1'-N1	6.89	113.71	108.20
84	Aa	552	G	C4'-C3'-O3'	-6.89	94.93	109.40
84	Aa	1066	G	C5-C6-O6	-6.89	124.47	128.60
84	Aa	2202	A	C4-C5-C6	6.89	120.44	117.00
84	Aa	3243	C	N3-C4-N4	6.89	122.82	118.00
84	Aa	3361	G	C5-C6-O6	-6.89	124.47	128.60
84	Aa	151	U	O4'-C1'-N1	6.89	113.71	108.20
84	Aa	295	U	O4'-C1'-N1	6.89	113.71	108.20
84	Aa	883	G	N1-C6-O6	6.89	124.03	119.90
1	Ad	1445	C	O4'-C1'-C2'	-6.89	98.91	105.80
2	Ae	47	U	C1'-O4'-C4'	6.89	115.41	109.90
84	Aa	60	G	C5-C6-O6	-6.89	124.47	128.60
84	Aa	663	G	C5-C6-O6	-6.89	124.47	128.60
84	Aa	859	G	C5-C6-O6	-6.89	124.47	128.60
84	Aa	1644	A	C4-C5-C6	6.89	120.44	117.00
86	Ab	73	U	C1'-O4'-C4'	-6.88	104.39	109.90
1	Ad	1464	G	C3'-C2'-C1'	-6.88	96.00	101.50
84	Aa	563	C	O4'-C1'-N1	6.88	113.70	108.20
84	Aa	1189	G	C5-C6-O6	-6.88	124.47	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1904	A	C5-C6-N6	-6.88	118.19	123.70
1	Ad	881	G	O4'-C1'-N9	6.88	113.70	108.20
84	Aa	1432	G	C5-C6-O6	-6.88	124.47	128.60
84	Aa	3138	C	N3-C4-N4	6.88	122.82	118.00
84	Aa	787	G	C5-C6-O6	-6.88	124.47	128.60
84	Aa	3008	U	O4'-C1'-N1	6.88	113.70	108.20
84	Aa	3054	G	O4'-C1'-N9	6.88	113.70	108.20
84	Aa	3076	C	N3-C4-N4	6.88	122.81	118.00
84	Aa	531	G	O4'-C1'-N9	6.88	113.70	108.20
84	Aa	927	G	C5-C6-O6	-6.88	124.47	128.60
84	Aa	2170	G	C5-C6-O6	-6.88	124.47	128.60
1	Ad	1212	A	O4'-C1'-N9	6.88	113.70	108.20
1	Ad	1618	G	C1'-O4'-C4'	-6.88	104.40	109.90
73	CO	117	TYR	CB-CG-CD2	-6.88	116.88	121.00
1	Ad	273	C	O4'-C1'-N1	6.87	113.70	108.20
84	Aa	121	A	O4'-C1'-N9	6.87	113.70	108.20
84	Aa	1925	G	C5-C6-O6	-6.87	124.48	128.60
1	Ad	1152	A	C3'-C2'-C1'	6.87	107.00	101.50
84	Aa	485	G	O4'-C1'-N9	6.87	113.70	108.20
84	Aa	533	G	O4'-C1'-N9	6.87	113.70	108.20
84	Aa	2417	G	O4'-C1'-N9	6.87	113.70	108.20
84	Aa	3320	G	O4'-C1'-N9	6.87	113.70	108.20
85	Ac	159	G	C5-C6-O6	-6.87	124.48	128.60
84	Aa	763	G	C5-C6-O6	-6.87	124.48	128.60
84	Aa	1878	G	O4'-C1'-N9	6.87	113.69	108.20
84	Aa	2313	U	O4'-C1'-N1	6.87	113.70	108.20
84	Aa	2455	A	N1-C6-N6	6.87	122.72	118.60
84	Aa	2854	C	O4'-C1'-N1	6.87	113.69	108.20
84	Aa	1292	U	O4'-C1'-N1	6.87	113.69	108.20
84	Aa	3042	U	P-O5'-C5'	6.87	131.89	120.90
84	Aa	3027	G	C5-C6-O6	-6.87	124.48	128.60
84	Aa	3046	C	N3-C4-C5	-6.87	119.15	121.90
84	Aa	3236	A	O4'-C1'-N9	6.87	113.69	108.20
86	Ab	98	G	N1-C2-N3	-6.87	119.78	123.90
1	Ad	1613	G	C1'-O4'-C4'	-6.86	104.41	109.90
84	Aa	1537	A	O4'-C1'-N9	6.86	113.69	108.20
84	Aa	1912	U	O4'-C1'-N1	6.86	113.69	108.20
84	Aa	2089	A	O4'-C1'-N9	6.86	113.69	108.20
84	Aa	2149	G	N1-C6-O6	6.86	124.02	119.90
84	Aa	2438	A	O4'-C1'-N9	6.86	113.69	108.20
86	Ab	69	A	C4-C5-C6	6.86	120.43	117.00
84	Aa	692	U	O4'-C1'-N1	6.86	113.69	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	580	C	O4'-C1'-N1	6.86	113.69	108.20
84	Aa	962	C	O4'-C1'-N1	6.86	113.69	108.20
84	Aa	1116	G	C5-C6-O6	-6.86	124.48	128.60
84	Aa	2802	G	C5-C6-O6	-6.86	124.48	128.60
84	Aa	2986	C	O4'-C1'-N1	6.86	113.69	108.20
84	Aa	3208	G	C5-C6-O6	-6.86	124.48	128.60
84	Aa	3363	G	O4'-C1'-N9	6.86	113.69	108.20
1	Ad	1172	G	O4'-C1'-C2'	6.86	113.77	107.60
85	Ac	41	A	C5-C6-N6	-6.86	118.21	123.70
1	Ad	1677	U	O4'-C1'-N1	6.86	113.69	108.20
84	Aa	1810	G	C5-C6-O6	-6.86	124.48	128.60
1	Ad	848	C	O4'-C1'-C2'	-6.86	98.94	105.80
84	Aa	527	G	C5-C6-O6	-6.86	124.49	128.60
1	Ad	1190	U	N1-C1'-C2'	-6.85	104.46	112.00
1	Ad	1213	C	N1-C1'-C2'	6.85	122.91	114.00
2	Ae	9	A	O4'-C1'-C2'	-6.85	98.95	105.80
84	Aa	119	A	C5-C6-N6	-6.85	118.22	123.70
84	Aa	1134	G	C5-C6-O6	-6.85	124.49	128.60
84	Aa	1822	C	N3-C4-C5	-6.85	119.16	121.90
84	Aa	2115	G	C5-C6-O6	-6.85	124.49	128.60
84	Aa	2996	A	P-O3'-C3'	6.85	127.92	119.70
1	Ad	356	G	C3'-C2'-C1'	6.85	106.98	101.50
84	Aa	2292	U	O4'-C1'-N1	6.85	113.68	108.20
84	Aa	294	A	C4-C5-C6	6.85	120.42	117.00
84	Aa	964	C	O4'-C1'-N1	6.85	113.68	108.20
84	Aa	1411	G	O4'-C1'-N9	6.85	113.68	108.20
84	Aa	1524	G	C5-C6-O6	-6.85	124.49	128.60
84	Aa	2212	U	O4'-C1'-N1	6.85	113.68	108.20
86	Ab	47	C	O4'-C1'-N1	6.85	113.68	108.20
84	Aa	265	G	C5-C6-O6	-6.85	124.49	128.60
84	Aa	1545	G	O4'-C1'-N9	6.85	113.68	108.20
1	Ad	60	C	N1-C1'-C2'	6.85	122.90	114.00
84	Aa	2791	U	O4'-C1'-N1	6.85	113.68	108.20
1	Ad	719	C	C3'-C2'-C1'	6.84	106.97	101.50
1	Ad	1221	A	C1'-O4'-C4'	6.84	115.38	109.90
1	Ad	1582	G	O4'-C1'-C2'	-6.84	98.95	105.80
84	Aa	798	G	C5-C6-O6	-6.84	124.49	128.60
1	Ad	1112	G	O4'-C1'-C2'	6.84	113.76	107.60
1	Ad	25	C	P-O3'-C3'	6.84	127.91	119.70
84	Aa	3005	C	O4'-C1'-N1	6.84	113.67	108.20
1	Ad	706	U	C5'-C4'-C3'	-6.84	105.06	116.00
84	Aa	881	G	C5-C6-O6	-6.84	124.50	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1825	G	O4'-C1'-N9	6.84	113.67	108.20
84	Aa	2078	G	O4'-C1'-N9	6.84	113.67	108.20
1	Ad	1251	U	O4'-C1'-N1	6.84	113.67	108.20
84	Aa	2995	G	C5-C6-O6	-6.84	124.50	128.60
1	Ad	339	G	C3'-C2'-C1'	-6.84	96.03	101.50
1	Ad	1680	A	C3'-C2'-C1'	6.84	106.97	101.50
84	Aa	2348	U	O4'-C1'-N1	6.84	113.67	108.20
84	Aa	2652	G	O4'-C1'-N9	6.84	113.67	108.20
84	Aa	2949	G	N1-C6-O6	6.84	124.00	119.90
1	Ad	351	G	O4'-C1'-C2'	6.83	113.75	107.60
1	Ad	1324	U	O4'-C1'-N1	6.83	113.67	108.20
84	Aa	37	U	O4'-C1'-N1	6.83	113.67	108.20
84	Aa	1760	G	C5-C6-O6	-6.83	124.50	128.60
84	Aa	3144	U	O4'-C1'-N1	6.83	113.67	108.20
84	Aa	3245	G	C5-C6-O6	-6.83	124.50	128.60
1	Ad	728	C	N1-C1'-C2'	6.83	122.88	114.00
84	Aa	1871	G	N1-C6-O6	6.83	124.00	119.90
84	Aa	2832	G	O4'-C1'-N9	6.83	113.67	108.20
84	Aa	2898	A	C5-C6-N1	-6.83	114.28	117.70
84	Aa	3102	G	O4'-C1'-N9	6.83	113.67	108.20
1	Ad	262	U	N1-C1'-C2'	-6.83	104.49	112.00
1	Ad	929	A	O4'-C1'-N9	6.83	113.66	108.20
84	Aa	2171	A	C5-C6-N6	-6.83	118.24	123.70
86	Ab	74	A	C4-C5-C6	6.83	120.41	117.00
84	Aa	848	G	C5-C6-O6	-6.83	124.50	128.60
84	Aa	2246	G	O4'-C1'-N9	6.83	113.66	108.20
1	Ad	971	A	O4'-C1'-C2'	-6.83	98.97	105.80
84	Aa	355	C	N3-C4-C5	-6.83	119.17	121.90
84	Aa	1759	C	C6-N1-C1'	-6.83	112.61	120.80
84	Aa	1958	G	C5'-C4'-C3'	-6.83	105.08	116.00
84	Aa	2305	U	O4'-C1'-N1	6.83	113.66	108.20
84	Aa	2506	G	N1-C6-O6	6.83	124.00	119.90
1	Ad	416	A	C1'-O4'-C4'	6.82	115.36	109.90
1	Ad	1143	A	O4'-C1'-N9	6.82	113.66	108.20
84	Aa	241	G	O4'-C1'-N9	6.82	113.66	108.20
84	Aa	1161	G	C5-C6-O6	-6.82	124.51	128.60
84	Aa	2182	G	C5-C6-O6	-6.82	124.50	128.60
84	Aa	2640	A	C4-C5-C6	6.82	120.41	117.00
86	Ab	27	A	C5-N7-C8	6.82	107.31	103.90
86	Ab	75	G	C5-C6-O6	-6.82	124.51	128.60
1	Ad	1590	U	C1'-O4'-C4'	6.82	115.36	109.90
84	Aa	849	A	C5-C6-N6	-6.82	118.24	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1502	U	O4'-C1'-N1	6.82	113.66	108.20
84	Aa	2657	C	N3-C4-C5	-6.82	119.17	121.90
1	Ad	419	C	O4'-C1'-C2'	-6.82	98.98	105.80
1	Ad	1212	A	O4'-C1'-C2'	6.82	113.74	107.60
84	Aa	1100	G	C5-C6-O6	-6.82	124.51	128.60
84	Aa	1357	C	N3-C4-C5	-6.82	119.17	121.90
84	Aa	2735	G	C5-C6-O6	-6.82	124.51	128.60
85	Ac	83	C	O4'-C1'-N1	6.82	113.66	108.20
84	Aa	3348	G	N1-C6-O6	6.82	123.99	119.90
84	Aa	263	A	P-O3'-C3'	6.82	127.88	119.70
84	Aa	1260	G	C5-C6-O6	-6.82	124.51	128.60
86	Ab	50	A	C5-C6-N6	-6.82	118.25	123.70
1	Ad	804	C	O4'-C1'-N1	6.81	113.65	108.20
1	Ad	936	C	C3'-C2'-C1'	6.81	106.95	101.50
1	Ad	1593	U	O4'-C1'-C2'	6.81	113.73	107.60
48	CD	2	SER	N-CA-CB	6.81	120.72	110.50
84	Aa	1269	U	O4'-C1'-N1	6.81	113.65	108.20
86	Ab	58	G	N3-C2-N2	6.81	124.67	119.90
1	Ad	498	U	O4'-C1'-C2'	-6.81	98.99	105.80
84	Aa	683	U	O4'-C1'-N1	6.81	113.65	108.20
1	Ad	79	A	O4'-C4'-C3'	-6.81	97.19	104.00
84	Aa	123	U	O4'-C1'-N1	6.81	113.65	108.20
84	Aa	2867	U	O4'-C1'-N1	6.81	113.65	108.20
1	Ad	1193	A	O4'-C1'-C2'	-6.81	98.99	105.80
84	Aa	2582	G	C5-C6-O6	-6.81	124.52	128.60
84	Aa	3263	C	C5'-C4'-O4'	6.81	117.27	109.10
1	Ad	171	G	O4'-C1'-N9	6.81	113.64	108.20
1	Ad	762	A	O4'-C1'-C2'	-6.81	98.99	105.80
84	Aa	12	G	O4'-C1'-N9	6.81	113.64	108.20
84	Aa	1407	G	C5-C6-O6	-6.81	124.52	128.60
84	Aa	1547	G	C5-C6-O6	-6.81	124.52	128.60
1	Ad	59	G	O4'-C1'-N9	6.80	113.64	108.20
1	Ad	1434	G	O4'-C1'-C2'	6.80	113.72	107.60
84	Aa	800	C	N3-C4-C5	-6.80	119.18	121.90
84	Aa	998	G	C5-C6-O6	-6.80	124.52	128.60
84	Aa	1016	G	O4'-C1'-N9	6.80	113.64	108.20
85	Ac	72	A	C4-C5-C6	6.80	120.40	117.00
84	Aa	3103	G	O4'-C1'-N9	6.80	113.64	108.20
85	Ac	139	C	O4'-C1'-N1	6.80	113.64	108.20
84	Aa	76	A	C5-C6-N1	-6.80	114.30	117.70
84	Aa	808	G	P-O3'-C3'	6.80	127.86	119.70
84	Aa	1158	C	O4'-C1'-N1	6.80	113.64	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2745	C	O4'-C1'-N1	6.80	113.64	108.20
61	CM	6	PHE	CB-CG-CD2	6.80	125.56	120.80
84	Aa	170	C	N3-C4-N4	6.80	122.76	118.00
84	Aa	413	G	C5-C6-O6	-6.80	124.52	128.60
84	Aa	1561	U	P-O3'-C3'	6.80	127.86	119.70
84	Aa	1600	A	O4'-C1'-N9	6.80	113.64	108.20
84	Aa	2146	A	C5-C6-N1	-6.80	114.30	117.70
84	Aa	3184	G	O4'-C1'-N9	6.80	113.64	108.20
84	Aa	1762	G	C5-C6-O6	-6.80	124.52	128.60
84	Aa	2520	U	O4'-C1'-N1	6.80	113.64	108.20
1	Ad	351	G	N9-C1'-C2'	6.80	122.83	114.00
2	Ae	24	A	O4'-C1'-N9	6.80	113.64	108.20
84	Aa	1931	G	C5-C6-O6	-6.80	124.52	128.60
84	Aa	2948	A	C5-C6-N6	-6.80	118.26	123.70
1	Ad	214	A	P-O3'-C3'	6.79	127.85	119.70
1	Ad	442	A	O4'-C1'-N9	6.79	113.64	108.20
84	Aa	1525	U	O4'-C1'-N1	6.79	113.64	108.20
84	Aa	3001	G	C5-C6-O6	-6.79	124.52	128.60
1	Ad	1046	G	O4'-C1'-N9	6.79	113.63	108.20
84	Aa	3336	A	C5-C6-N6	-6.79	118.27	123.70
86	Ab	36	C	C6-N1-C2	-6.79	117.58	120.30
86	Ab	73	U	O4'-C1'-N1	6.79	113.63	108.20
84	Aa	1136	A	C5-C6-N6	-6.79	118.27	123.70
84	Aa	1216	G	N1-C6-O6	6.79	123.97	119.90
85	Ac	28	C	N3-C4-C5	-6.79	119.18	121.90
1	Ad	963	U	O4'-C1'-N1	6.79	113.63	108.20
84	Aa	3355	U	O4'-C1'-N1	6.79	113.63	108.20
86	Ab	11	A	C4-C5-C6	6.79	120.39	117.00
1	Ad	1184	C	N1-C1'-C2'	6.79	122.83	114.00
1	Ad	1698	A	P-O3'-C3'	6.79	127.85	119.70
84	Aa	429	G	C5-C6-O6	-6.79	124.53	128.60
84	Aa	1054	U	O4'-C1'-N1	6.79	113.63	108.20
84	Aa	2301	C	O4'-C1'-N1	6.79	113.63	108.20
84	Aa	3129	G	C5-C6-O6	-6.79	124.53	128.60
84	Aa	152	C	N3-C4-N4	6.79	122.75	118.00
84	Aa	2849	A	C5-C6-N6	-6.79	118.27	123.70
84	Aa	208	G	C5-C6-O6	-6.79	124.53	128.60
84	Aa	629	U	O4'-C1'-N1	6.79	113.63	108.20
84	Aa	1676	A	C4-C5-C6	6.79	120.39	117.00
84	Aa	2309	U	O4'-C1'-N1	6.79	113.63	108.20
84	Aa	2678	C	O4'-C1'-N1	6.79	113.63	108.20
84	Aa	2989	A	C5-C6-N6	-6.79	118.27	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	3382	A	C4-C5-C6	6.79	120.39	117.00
86	Ab	81	G	O4'-C1'-N9	6.79	113.63	108.20
84	Aa	2663	U	O4'-C1'-N1	6.78	113.63	108.20
84	Aa	2935	A	C4-C5-C6	6.78	120.39	117.00
84	Aa	3183	G	C5-C6-O6	-6.78	124.53	128.60
1	Ad	1125	U	C1'-O4'-C4'	6.78	115.33	109.90
84	Aa	73	A	C5-C6-N1	-6.78	114.31	117.70
84	Aa	435	G	O4'-C1'-N9	6.78	113.62	108.20
84	Aa	776	G	O4'-C1'-N9	6.78	113.62	108.20
84	Aa	833	G	C5-C6-O6	-6.78	124.53	128.60
84	Aa	1508	C	O4'-C1'-N1	6.78	113.62	108.20
84	Aa	3353	G	C5-C6-O6	-6.78	124.53	128.60
1	Ad	1363	G	O4'-C1'-C2'	6.78	113.70	107.60
84	Aa	3273	C	O4'-C1'-N1	6.78	113.62	108.20
1	Ad	81	U	O4'-C1'-N1	6.78	113.62	108.20
1	Ad	1660	C	O4'-C1'-N1	6.78	113.62	108.20
84	Aa	207	U	O4'-C1'-N1	6.78	113.62	108.20
84	Aa	1480	G	C5-C6-O6	-6.78	124.53	128.60
84	Aa	1547	G	O4'-C1'-N9	6.78	113.62	108.20
84	Aa	2170	G	O4'-C1'-N9	6.78	113.62	108.20
86	Ab	7	G	C5-C6-N1	-6.78	108.11	111.50
84	Aa	324	U	O4'-C1'-N1	6.78	113.62	108.20
84	Aa	2331	A	C5-C6-N6	-6.78	118.28	123.70
84	Aa	2748	G	C5-C6-O6	-6.78	124.53	128.60
2	Ae	1	U	O4'-C1'-N1	6.77	113.62	108.20
84	Aa	480	C	O4'-C1'-N1	6.77	113.62	108.20
84	Aa	1299	G	O4'-C1'-N9	6.77	113.62	108.20
84	Aa	1352	G	O4'-C1'-N9	6.77	113.62	108.20
84	Aa	1675	G	O4'-C1'-N9	6.77	113.62	108.20
84	Aa	2140	C	O4'-C1'-N1	6.77	113.62	108.20
84	Aa	2375	G	C5-C6-O6	-6.77	124.54	128.60
1	Ad	1013	G	C1'-O4'-C4'	-6.77	104.48	109.90
71	CB	197	TYR	CB-CG-CD2	6.77	125.06	121.00
84	Aa	105	A	O4'-C1'-N9	6.77	113.62	108.20
1	Ad	524	A	C1'-O4'-C4'	-6.77	104.48	109.90
71	CB	118	PHE	CB-CG-CD1	6.77	125.54	120.80
84	Aa	17	G	C5-C6-O6	-6.77	124.54	128.60
84	Aa	85	G	C5-C6-O6	-6.77	124.54	128.60
84	Aa	156	A	C5-C6-N6	-6.77	118.28	123.70
84	Aa	368	U	O4'-C1'-N1	6.77	113.62	108.20
84	Aa	386	G	C5-C6-O6	-6.77	124.54	128.60
84	Aa	1374	G	C5-C6-O6	-6.77	124.54	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1573	G	O4'-C1'-N9	6.77	113.61	108.20
84	Aa	2393	G	O4'-C1'-N9	6.77	113.61	108.20
84	Aa	2943	A	C4-C5-C6	6.77	120.38	117.00
84	Aa	271	G	O4'-C1'-N9	6.77	113.61	108.20
84	Aa	2031	G	O4'-C1'-N9	6.77	113.61	108.20
84	Aa	2991	U	O4'-C1'-N1	6.77	113.61	108.20
1	Ad	1192	G	O4'-C1'-C2'	6.76	113.69	107.60
84	Aa	1918	A	C5-C6-N6	-6.76	118.29	123.70
84	Aa	2537	G	N1-C6-O6	6.76	123.96	119.90
84	Aa	3178	C	C6-N1-C1'	-6.76	112.68	120.80
84	Aa	1283	C	N3-C4-C5	-6.76	119.19	121.90
84	Aa	3015	U	O4'-C1'-N1	6.76	113.61	108.20
84	Aa	2574	A	O4'-C1'-N9	6.76	113.61	108.20
84	Aa	3076	C	O4'-C1'-N1	6.76	113.61	108.20
84	Aa	3210	G	C5-C6-O6	-6.76	124.54	128.60
1	Ad	922	U	N1-C1'-C2'	6.76	122.79	114.00
84	Aa	1180	C	C6-N1-C1'	-6.76	112.69	120.80
84	Aa	1588	G	C5-C6-O6	-6.76	124.54	128.60
84	Aa	2465	G	O4'-C1'-N9	6.76	113.61	108.20
84	Aa	2893	U	O4'-C1'-N1	6.76	113.61	108.20
84	Aa	719	U	O4'-C1'-N1	6.76	113.61	108.20
84	Aa	2563	G	C5-C6-O6	-6.76	124.55	128.60
1	Ad	1728	G	P-O5'-C5'	6.76	131.71	120.90
84	Aa	1688	U	O4'-C1'-N1	6.76	113.61	108.20
86	Ab	37	G	N3-C2-N2	6.76	124.63	119.90
1	Ad	264	G	O4'-C1'-N9	6.75	113.60	108.20
1	Ad	1013	G	O4'-C1'-N9	6.75	113.60	108.20
84	Aa	180	G	C5-C6-O6	-6.75	124.55	128.60
84	Aa	43	U	O4'-C1'-N1	6.75	113.60	108.20
84	Aa	594	C	N3-C4-C5	-6.75	119.20	121.90
84	Aa	600	G	C5-C6-O6	-6.75	124.55	128.60
84	Aa	986	G	O4'-C1'-N9	6.75	113.60	108.20
84	Aa	1004	C	N3-C4-C5	-6.75	119.20	121.90
84	Aa	1949	G	C5-C6-O6	-6.75	124.55	128.60
84	Aa	2370	G	C5-C6-O6	-6.75	124.55	128.60
84	Aa	2608	G	C5-C6-O6	-6.75	124.55	128.60
84	Aa	3315	A	O4'-C1'-N9	6.75	113.60	108.20
1	Ad	1596	G	O4'-C1'-C2'	-6.75	99.05	105.80
84	Aa	919	G	C5-C6-O6	-6.75	124.55	128.60
86	Ab	85	G	O4'-C1'-N9	6.75	113.60	108.20
1	Ad	789	C	P-O3'-C3'	6.75	127.80	119.70
84	Aa	1808	G	C5-C6-O6	-6.75	124.55	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	3160	G	C5-C6-O6	-6.75	124.55	128.60
1	Ad	189	U	C1'-O4'-C4'	6.75	115.30	109.90
84	Aa	715	A	N1-C6-N6	6.75	122.65	118.60
84	Aa	2787	A	C5-C6-N6	-6.75	118.30	123.70
63	CU	92	TYR	CB-CG-CD2	-6.75	116.95	121.00
84	Aa	627	G	O4'-C1'-N9	6.75	113.60	108.20
84	Aa	1076	G	C5-C6-O6	-6.75	124.55	128.60
84	Aa	3182	A	O5'-C5'-C4'	6.75	124.52	111.70
84	Aa	736	U	O4'-C1'-N1	6.75	113.60	108.20
84	Aa	838	G	C5-C6-O6	-6.75	124.55	128.60
84	Aa	2731	G	C5-C6-O6	-6.75	124.55	128.60
84	Aa	2968	G	C5-C6-O6	-6.75	124.55	128.60
1	Ad	1547	G	O4'-C1'-N9	6.74	113.59	108.20
1	Ad	1687	G	N9-C1'-C2'	6.74	122.77	114.00
84	Aa	2420	U	O4'-C1'-N1	6.74	113.59	108.20
85	Ac	36	G	C5-C6-O6	-6.74	124.55	128.60
84	Aa	2555	G	C5-C6-O6	-6.74	124.56	128.60
1	Ad	79	A	O4'-C1'-C2'	-6.74	99.06	105.80
84	Aa	226	U	O4'-C1'-N1	6.74	113.59	108.20
84	Aa	1659	G	O4'-C1'-N9	6.74	113.59	108.20
84	Aa	2021	G	C5-C6-O6	-6.74	124.56	128.60
84	Aa	2266	A	C4-C5-C6	6.74	120.37	117.00
84	Aa	3064	U	O4'-C1'-N1	6.74	113.59	108.20
84	Aa	3102	G	C5-C6-O6	-6.74	124.56	128.60
84	Aa	610	G	C8-N9-C4	-6.74	103.70	106.40
84	Aa	901	U	O4'-C1'-N1	6.74	113.59	108.20
84	Aa	1604	U	O4'-C1'-N1	6.74	113.59	108.20
84	Aa	1933	U	O4'-C1'-N1	6.74	113.59	108.20
84	Aa	2526	G	O4'-C1'-N9	6.74	113.59	108.20
1	Ad	295	C	O4'-C1'-N1	6.74	113.59	108.20
1	Ad	789	C	O4'-C1'-C2'	-6.74	99.06	105.80
84	Aa	441	G	C5-C6-O6	-6.74	124.56	128.60
84	Aa	587	A	C5-C6-N6	-6.74	118.31	123.70
84	Aa	1375	G	C5-C6-O6	-6.74	124.56	128.60
86	Ab	16	A	C5-C6-N6	-6.74	118.31	123.70
84	Aa	1212	U	O4'-C1'-N1	6.73	113.59	108.20
84	Aa	2126	C	O4'-C1'-N1	6.73	113.59	108.20
84	Aa	2434	G	O4'-C1'-N9	6.73	113.59	108.20
84	Aa	57	G	C5-C6-O6	-6.73	124.56	128.60
84	Aa	214	G	N1-C6-O6	6.73	123.94	119.90
84	Aa	581	G	O4'-C1'-N9	6.73	113.59	108.20
84	Aa	2014	A	C4-C5-C6	6.73	120.37	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2217	A	C4-C5-C6	6.73	120.37	117.00
84	Aa	3204	G	C5-C6-O6	-6.73	124.56	128.60
84	Aa	508	G	C5-C6-O6	-6.73	124.56	128.60
84	Aa	703	G	C5-C6-O6	-6.73	124.56	128.60
84	Aa	1529	C	N3-C4-C5	-6.73	119.21	121.90
84	Aa	1583	G	C5-C6-O6	-6.73	124.56	128.60
84	Aa	2465	G	C5-C6-O6	-6.73	124.56	128.60
1	Ad	1809	U	O4'-C1'-N1	6.73	113.58	108.20
84	Aa	81	C	O4'-C1'-N1	6.73	113.58	108.20
84	Aa	949	C	N3-C4-C5	-6.73	119.21	121.90
84	Aa	2013	G	C5-C6-O6	-6.73	124.56	128.60
84	Aa	2758	C	N3-C4-C5	-6.73	119.21	121.90
84	Aa	3066	G	O4'-C1'-N9	6.73	113.58	108.20
84	Aa	404	G	C5-C6-O6	-6.73	124.56	128.60
84	Aa	1102	A	O4'-C1'-N9	6.73	113.58	108.20
84	Aa	1555	G	C5-C6-O6	-6.73	124.56	128.60
84	Aa	1567	G	O4'-C1'-N9	6.73	113.58	108.20
84	Aa	2624	G	C5-C6-O6	-6.73	124.56	128.60
84	Aa	2901	C	C2-N1-C1'	6.73	126.20	118.80
84	Aa	100	C	C2-N1-C1'	6.72	126.20	118.80
84	Aa	890	G	C5-C6-O6	-6.72	124.56	128.60
84	Aa	1550	A	O4'-C1'-N9	6.72	113.58	108.20
1	Ad	445	A	O4'-C1'-N9	6.72	113.58	108.20
1	Ad	956	A	O4'-C1'-C2'	-6.72	99.08	105.80
84	Aa	265	G	P-O3'-C3'	6.72	127.77	119.70
84	Aa	333	G	O4'-C1'-N9	6.72	113.58	108.20
84	Aa	349	A	C5-C6-N6	-6.72	118.32	123.70
84	Aa	2345	C	P-O5'-C5'	6.72	131.66	120.90
84	Aa	2621	G	O4'-C1'-N9	6.72	113.58	108.20
1	Ad	1589	C	N1-C1'-C2'	6.72	122.74	114.00
84	Aa	2653	U	O4'-C1'-N1	6.72	113.58	108.20
84	Aa	3325	G	C5-C6-O6	-6.72	124.57	128.60
84	Aa	1510	G	C5-C6-O6	-6.72	124.57	128.60
84	Aa	1681	U	O4'-C1'-N1	6.72	113.58	108.20
84	Aa	2741	G	C5-C6-O6	-6.72	124.57	128.60
86	Ab	10	C	N3-C4-C5	-6.72	119.21	121.90
84	Aa	1671	G	O4'-C1'-N9	6.72	113.58	108.20
84	Aa	2648	G	C5-C6-O6	-6.72	124.57	128.60
84	Aa	612	U	O4'-C1'-N1	6.72	113.57	108.20
84	Aa	1116	G	O4'-C1'-N9	6.72	113.57	108.20
84	Aa	1668	U	O4'-C1'-N1	6.72	113.57	108.20
84	Aa	2052	G	O4'-C1'-N9	6.72	113.57	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	3021	U	O4'-C1'-N1	6.72	113.57	108.20
1	Ad	717	G	N9-C1'-C2'	6.71	122.73	114.00
1	Ad	868	A	O4'-C1'-C2'	-6.71	99.09	105.80
84	Aa	1544	G	C5-C6-O6	-6.71	124.57	128.60
84	Aa	2399	G	C5-C6-O6	-6.71	124.57	128.60
1	Ad	562	U	C1'-O4'-C4'	-6.71	104.53	109.90
84	Aa	1065	A	C5-C6-N1	-6.71	114.34	117.70
84	Aa	2413	G	C5-C6-O6	-6.71	124.57	128.60
84	Aa	2924	G	C5-C6-O6	-6.71	124.57	128.60
84	Aa	172	A	C5-C6-N1	-6.71	114.34	117.70
84	Aa	1844	U	O4'-C1'-N1	6.71	113.57	108.20
84	Aa	3320	G	N1-C6-O6	6.71	123.93	119.90
86	Ab	39	C	O4'-C1'-N1	6.71	113.57	108.20
84	Aa	601	G	C5-C6-O6	-6.71	124.57	128.60
1	Ad	955	C	C3'-C2'-C1'	6.71	106.87	101.50
1	Ad	1114	G	O4'-C1'-N9	6.71	113.57	108.20
84	Aa	2073	U	C2-N1-C1'	6.71	125.75	117.70
84	Aa	2539	G	C5-C6-O6	-6.71	124.58	128.60
84	Aa	2827	C	N3-C4-N4	6.71	122.69	118.00
84	Aa	3363	G	N1-C6-O6	6.71	123.92	119.90
1	Ad	1538	C	O4'-C1'-N1	6.71	113.56	108.20
84	Aa	68	U	O4'-C1'-N1	6.71	113.57	108.20
84	Aa	593	G	O4'-C1'-N9	6.71	113.56	108.20
84	Aa	1176	U	O4'-C1'-N1	6.71	113.56	108.20
84	Aa	3065	U	O4'-C1'-N1	6.71	113.56	108.20
1	Ad	225	G	N9-C1'-C2'	6.70	122.72	114.00
1	Ad	613	U	C3'-C2'-C1'	6.70	106.86	101.50
84	Aa	1084	G	C5-C6-O6	-6.70	124.58	128.60
84	Aa	2738	U	O4'-C1'-N1	6.70	113.56	108.20
84	Aa	3242	G	O4'-C1'-N9	6.70	113.56	108.20
84	Aa	1801	G	O4'-C1'-N9	6.70	113.56	108.20
2	Ae	35	U	N1-C1'-C2'	6.70	122.71	114.00
84	Aa	1177	G	N1-C6-O6	6.70	123.92	119.90
84	Aa	1765	G	N1-C6-O6	6.70	123.92	119.90
84	Aa	1893	G	O4'-C1'-N9	6.70	113.56	108.20
84	Aa	2482	A	O4'-C1'-N9	6.70	113.56	108.20
1	Ad	363	G	N9-C1'-C2'	-6.70	104.63	112.00
1	Ad	1472	G	C3'-C2'-C1'	-6.70	96.14	101.50
84	Aa	117	U	O4'-C1'-N1	6.70	113.56	108.20
84	Aa	304	A	C5-C6-N6	-6.70	118.34	123.70
84	Aa	2447	A	O4'-C1'-N9	6.70	113.56	108.20
84	Aa	2865	G	C5-C6-O6	-6.70	124.58	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	3023	G	C5-C6-O6	-6.70	124.58	128.60
1	Ad	327	A	C3'-C2'-C1'	6.70	106.86	101.50
84	Aa	1545	G	C5-C6-O6	-6.70	124.58	128.60
84	Aa	1897	A	C4-C5-C6	6.70	120.35	117.00
86	Ab	7	G	N1-C2-N3	-6.70	119.88	123.90
1	Ad	968	A	N9-C1'-C2'	-6.70	104.64	112.00
84	Aa	601	G	O4'-C1'-N9	6.70	113.56	108.20
84	Aa	1344	A	C5-C6-N6	-6.70	118.34	123.70
84	Aa	2182	G	O4'-C1'-N9	6.70	113.56	108.20
84	Aa	995	C	O4'-C1'-N1	6.69	113.56	108.20
1	Ad	209	U	P-O3'-C3'	-6.69	111.67	119.70
84	Aa	548	G	C5-C6-O6	-6.69	124.58	128.60
84	Aa	1843	A	O4'-C1'-N9	6.69	113.55	108.20
84	Aa	1852	C	O4'-C1'-N1	6.69	113.55	108.20
84	Aa	2130	U	O4'-C1'-N1	6.69	113.55	108.20
84	Aa	3026	C	N3-C4-C5	-6.69	119.22	121.90
1	Ad	990	G	C1'-O4'-C4'	-6.69	104.55	109.90
1	Ad	1045	G	O4'-C1'-C2'	6.69	113.62	107.60
84	Aa	269	C	O4'-C1'-N1	6.69	113.55	108.20
84	Aa	1834	C	N3-C4-N4	6.69	122.68	118.00
84	Aa	1895	G	O4'-C1'-N9	6.69	113.55	108.20
84	Aa	2034	G	O4'-C1'-N9	6.69	113.55	108.20
84	Aa	965	A	C5-C6-N1	-6.69	114.36	117.70
84	Aa	1881	C	O4'-C1'-N1	6.69	113.55	108.20
1	Ad	551	U	O4'-C1'-N1	6.69	113.55	108.20
84	Aa	273	U	O4'-C1'-N1	6.69	113.55	108.20
84	Aa	1693	A	C4-C5-C6	6.69	120.34	117.00
84	Aa	179	G	O4'-C1'-N9	6.69	113.55	108.20
84	Aa	2459	U	O4'-C1'-N1	6.68	113.55	108.20
84	Aa	3117	G	C5-C6-O6	-6.68	124.59	128.60
86	Ab	10	C	O4'-C1'-N1	6.68	113.55	108.20
1	Ad	1618	G	O4'-C1'-C2'	6.68	113.61	107.60
84	Aa	1354	G	C5-C6-O6	-6.68	124.59	128.60
84	Aa	2039	G	O4'-C1'-N9	6.68	113.55	108.20
84	Aa	2091	U	O4'-C1'-N1	6.68	113.55	108.20
84	Aa	2530	G	O4'-C1'-N9	6.68	113.55	108.20
84	Aa	775	A	C5-C6-N6	-6.68	118.36	123.70
84	Aa	1724	C	N3-C4-C5	-6.68	119.23	121.90
84	Aa	3361	G	O4'-C1'-N9	6.68	113.54	108.20
84	Aa	1589	G	N1-C6-O6	6.68	123.91	119.90
84	Aa	1910	G	N1-C6-O6	6.68	123.91	119.90
1	Ad	287	C	N1-C1'-C2'	6.68	122.68	114.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	1221	A	O4'-C1'-N9	6.68	113.54	108.20
84	Aa	929	A	C4-C5-C6	6.68	120.34	117.00
84	Aa	945	U	O4'-C1'-N1	6.68	113.54	108.20
84	Aa	1044	A	C5-C6-N1	-6.68	114.36	117.70
84	Aa	1148	G	N1-C6-O6	6.68	123.91	119.90
84	Aa	1411	G	C5-C6-O6	-6.68	124.59	128.60
84	Aa	2024	G	O4'-C1'-N9	6.68	113.54	108.20
33	BJ	8	TYR	N-CA-CB	6.67	122.61	110.60
84	Aa	780	U	O4'-C1'-N1	6.67	113.54	108.20
84	Aa	1624	G	P-O3'-C3'	6.67	127.71	119.70
84	Aa	3168	C	O4'-C1'-N1	6.67	113.54	108.20
1	Ad	721	U	C4'-C3'-O3'	6.67	126.35	113.00
1	Ad	1069	G	O4'-C1'-C2'	6.67	113.61	107.60
1	Ad	1199	C	N1-C1'-C2'	6.67	122.67	114.00
84	Aa	243	C	O4'-C1'-N1	6.67	113.54	108.20
84	Aa	1223	U	O4'-C1'-N1	6.67	113.54	108.20
86	Ab	2	G	O4'-C1'-N9	6.67	113.54	108.20
84	Aa	252	A	C5-C6-N1	-6.67	114.36	117.70
84	Aa	537	U	O4'-C1'-N1	6.67	113.54	108.20
84	Aa	1386	G	O4'-C1'-N9	6.67	113.54	108.20
84	Aa	1670	G	O4'-C1'-N9	6.67	113.54	108.20
84	Aa	1747	A	O4'-C1'-N9	6.67	113.54	108.20
84	Aa	1897	A	C5-C6-N1	-6.67	114.36	117.70
84	Aa	1920	U	O4'-C1'-N1	6.67	113.54	108.20
84	Aa	2896	C	O4'-C1'-N1	6.67	113.54	108.20
84	Aa	1268	G	C5-C6-O6	-6.67	124.60	128.60
84	Aa	2904	A	P-O3'-C3'	6.67	127.70	119.70
85	Ac	107	G	O4'-C1'-N9	6.67	113.54	108.20
84	Aa	942	U	O4'-C1'-N1	6.67	113.53	108.20
84	Aa	2245	G	O4'-C1'-N9	6.67	113.53	108.20
84	Aa	3242	G	C5-C6-O6	-6.67	124.60	128.60
1	Ad	1198	A	O4'-C1'-N9	6.67	113.53	108.20
84	Aa	279	G	O4'-C1'-N9	6.67	113.53	108.20
84	Aa	714	G	C5-C6-O6	-6.67	124.60	128.60
84	Aa	803	G	C5-C6-O6	-6.67	124.60	128.60
84	Aa	2406	C	N3-C4-C5	-6.67	119.23	121.90
84	Aa	3252	G	O4'-C1'-N9	6.67	113.53	108.20
84	Aa	144	A	C4-C5-C6	6.67	120.33	117.00
84	Aa	2543	G	C5-C6-O6	-6.67	124.60	128.60
84	Aa	2666	G	O4'-C1'-N9	6.67	113.53	108.20
1	Ad	1450	A	O4'-C1'-C2'	-6.66	99.14	105.80
84	Aa	1387	G	O4'-C1'-N9	6.66	113.53	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1710	G	C5-C6-O6	-6.66	124.60	128.60
84	Aa	2617	G	C5-C6-O6	-6.66	124.60	128.60
1	Ad	794	G	O4'-C1'-N9	6.66	113.53	108.20
84	Aa	509	G	C5-C6-O6	-6.66	124.60	128.60
79	CE	74	THR	N-CA-CB	6.66	122.96	110.30
84	Aa	1043	U	O4'-C1'-N1	6.66	113.53	108.20
84	Aa	3029	G	C5-C6-O6	-6.66	124.60	128.60
85	Ac	16	G	O4'-C1'-N9	6.66	113.53	108.20
84	Aa	1207	A	C5-C6-N6	-6.66	118.37	123.70
84	Aa	1615	G	O4'-C1'-N9	6.66	113.53	108.20
84	Aa	1621	G	C5-C6-O6	-6.66	124.60	128.60
84	Aa	1826	G	C5-C6-O6	-6.66	124.60	128.60
1	Ad	1406	U	N1-C1'-C2'	6.66	122.65	114.00
84	Aa	395	A	C5-C6-N6	-6.66	118.38	123.70
84	Aa	2931	C	O4'-C1'-N1	6.66	113.53	108.20
84	Aa	3010	G	C5-C6-O6	-6.66	124.61	128.60
1	Ad	744	G	C1'-O4'-C4'	6.66	115.22	109.90
84	Aa	56	A	C5-C6-N6	-6.66	118.38	123.70
84	Aa	2556	G	C5-C6-O6	-6.66	124.61	128.60
1	Ad	260	A	C1'-O4'-C4'	-6.65	104.58	109.90
72	CC	305	SER	N-CA-CB	6.65	120.48	110.50
84	Aa	256	G	C5-C6-O6	-6.65	124.61	128.60
84	Aa	426	A	C5-C6-N1	-6.65	114.37	117.70
84	Aa	776	G	N1-C6-O6	6.65	123.89	119.90
84	Aa	1071	G	O4'-C1'-N9	6.65	113.52	108.20
84	Aa	1330	A	O4'-C1'-N9	6.65	113.52	108.20
84	Aa	3299	A	C4-C5-C6	6.65	120.33	117.00
86	Ab	86	G	C5-C6-O6	-6.65	124.61	128.60
1	Ad	604	U	O4'-C1'-N1	6.65	113.52	108.20
1	Ad	773	U	C3'-C2'-C1'	-6.65	96.18	101.50
84	Aa	6	A	O4'-C1'-N9	6.65	113.52	108.20
84	Aa	730	A	O4'-C1'-N9	6.65	113.52	108.20
84	Aa	1476	G	C5-C6-O6	-6.65	124.61	128.60
84	Aa	2529	C	N3-C4-C5	-6.65	119.24	121.90
84	Aa	2706	A	C4-C5-C6	6.65	120.33	117.00
86	Ab	17	G	N1-C2-N3	-6.65	119.91	123.90
84	Aa	2630	A	C4-C5-C6	6.65	120.33	117.00
2	Ae	10	G	O4'-C1'-C2'	-6.65	99.15	105.80
84	Aa	501	U	O4'-C1'-N1	6.65	113.52	108.20
84	Aa	1435	C	O4'-C1'-N1	6.65	113.52	108.20
84	Aa	2943	A	C5-C6-N6	-6.65	118.38	123.70
84	Aa	3040	G	C5-C6-O6	-6.65	124.61	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	3109	G	O4'-C1'-N9	6.65	113.52	108.20
84	Aa	1697	G	C5-C6-O6	-6.65	124.61	128.60
84	Aa	2833	G	O4'-C1'-N9	6.65	113.52	108.20
84	Aa	2979	G	C5-C6-O6	-6.65	124.61	128.60
1	Ad	1411	C	N1-C1'-C2'	6.64	122.64	114.00
84	Aa	402	U	O4'-C1'-N1	6.64	113.52	108.20
84	Aa	617	C	N3-C4-N4	6.64	122.65	118.00
84	Aa	898	G	C5-C6-O6	-6.64	124.61	128.60
84	Aa	2457	G	C5-C6-O6	-6.64	124.61	128.60
84	Aa	1046	U	O4'-C1'-N1	6.64	113.51	108.20
84	Aa	3173	A	O4'-C1'-N9	6.64	113.51	108.20
84	Aa	3383	C	O4'-C1'-N1	6.64	113.51	108.20
84	Aa	364	A	C4-C5-C6	6.64	120.32	117.00
84	Aa	580	C	N3-C4-C5	-6.64	119.25	121.90
84	Aa	1355	U	C2-N1-C1'	6.64	125.67	117.70
84	Aa	1496	G	C5-C6-O6	-6.64	124.62	128.60
84	Aa	3037	G	C5-C6-O6	-6.64	124.62	128.60
84	Aa	3076	C	P-O3'-C3'	6.64	127.67	119.70
84	Aa	906	U	O4'-C1'-N1	6.64	113.51	108.20
84	Aa	3174	C	O4'-C1'-N1	6.64	113.51	108.20
1	Ad	125	A	N9-C1'-C2'	6.64	122.63	114.00
84	Aa	438	G	C5-C6-O6	-6.64	124.62	128.60
84	Aa	1011	U	O4'-C1'-N1	6.64	113.51	108.20
84	Aa	1833	U	O4'-C1'-N1	6.64	113.51	108.20
84	Aa	3081	G	N1-C6-O6	6.64	123.88	119.90
84	Aa	224	C	O4'-C1'-N1	6.63	113.51	108.20
84	Aa	793	C	O4'-C1'-N1	6.63	113.51	108.20
84	Aa	1154	U	O4'-C1'-N1	6.63	113.51	108.20
84	Aa	1289	G	C5-C6-O6	-6.63	124.62	128.60
84	Aa	3294	U	O4'-C1'-N1	6.63	113.51	108.20
1	Ad	838	U	C5'-C4'-O4'	6.63	117.06	109.10
84	Aa	2491	A	C5-C6-N6	-6.63	118.39	123.70
1	Ad	127	G	O4'-C1'-C2'	-6.63	99.17	105.80
1	Ad	205	U	O4'-C1'-C2'	-6.63	99.17	105.80
1	Ad	1159	G	O4'-C1'-N9	6.63	113.50	108.20
1	Ad	1179	C	N1-C1'-C2'	6.63	122.62	114.00
84	Aa	414	G	O4'-C1'-N9	6.63	113.50	108.20
84	Aa	491	G	C5-C6-O6	-6.63	124.62	128.60
84	Aa	788	G	C5-C6-O6	-6.63	124.62	128.60
84	Aa	915	G	C5-C6-O6	-6.63	124.62	128.60
84	Aa	1739	G	O4'-C1'-N9	6.63	113.50	108.20
84	Aa	1747	A	C3'-C2'-C1'	-6.63	96.19	101.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	3092	A	C4-C5-C6	6.63	120.31	117.00
1	Ad	1443	U	O4'-C1'-N1	6.63	113.50	108.20
1	Ad	1395	C	O4'-C1'-N1	6.63	113.50	108.20
84	Aa	127	G	O4'-C1'-N9	6.63	113.50	108.20
84	Aa	620	C	O4'-C1'-N1	6.63	113.50	108.20
84	Aa	839	A	C4-C5-C6	6.63	120.31	117.00
84	Aa	1503	G	O4'-C1'-N9	6.63	113.50	108.20
84	Aa	1887	A	C5-C6-N1	-6.63	114.39	117.70
84	Aa	1897	A	O4'-C1'-N9	6.63	113.50	108.20
1	Ad	1747	A	O4'-C1'-N9	6.63	113.50	108.20
84	Aa	409	U	O4'-C1'-N1	6.63	113.50	108.20
84	Aa	925	U	O4'-C1'-N1	6.63	113.50	108.20
84	Aa	1839	C	O4'-C1'-N1	6.63	113.50	108.20
84	Aa	1955	G	C5-C6-O6	-6.63	124.62	128.60
84	Aa	2758	C	O4'-C1'-N1	6.63	113.50	108.20
84	Aa	3226	G	N1-C6-O6	6.63	123.88	119.90
84	Aa	2264	U	O4'-C1'-N1	6.62	113.50	108.20
84	Aa	2390	G	C5-C6-O6	-6.62	124.62	128.60
84	Aa	3120	U	O4'-C1'-N1	6.62	113.50	108.20
1	Ad	438	G	N9-C1'-C2'	-6.62	104.71	112.00
84	Aa	195	G	C5-C6-O6	-6.62	124.62	128.60
84	Aa	286	C	O4'-C1'-N1	6.62	113.50	108.20
84	Aa	643	G	O4'-C1'-N9	6.62	113.50	108.20
84	Aa	973	U	O4'-C1'-N1	6.62	113.50	108.20
84	Aa	1528	G	O4'-C1'-N9	6.62	113.50	108.20
84	Aa	2595	G	C5-C6-O6	-6.62	124.63	128.60
84	Aa	3141	G	C5-C6-O6	-6.62	124.63	128.60
63	CU	84	TYR	CB-CG-CD2	-6.62	117.03	121.00
84	Aa	235	G	C5-C6-O6	-6.62	124.63	128.60
84	Aa	307	C	N3-C4-C5	-6.62	119.25	121.90
84	Aa	1112	C	N3-C4-C5	-6.62	119.25	121.90
84	Aa	1751	G	O4'-C1'-N9	6.62	113.50	108.20
84	Aa	2104	G	C5-C6-O6	-6.62	124.63	128.60
84	Aa	2486	G	C5-C6-O6	-6.62	124.63	128.60
84	Aa	2776	U	O4'-C1'-N1	6.62	113.50	108.20
84	Aa	345	G	C5-C6-O6	-6.62	124.63	128.60
84	Aa	1402	G	C5-C6-O6	-6.62	124.63	128.60
1	Ad	1273	U	N1-C1'-C2'	6.62	122.61	114.00
1	Ad	187	C	N1-C1'-C2'	6.62	122.60	114.00
1	Ad	474	A	O4'-C1'-C2'	-6.62	99.18	105.80
84	Aa	463	G	O4'-C1'-N9	6.62	113.49	108.20
1	Ad	856	G	C1'-O4'-C4'	-6.62	104.61	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
19	BL	116	PHE	CB-CG-CD1	6.62	125.43	120.80
84	Aa	1243	C	C5'-C4'-O4'	6.62	117.04	109.10
84	Aa	2017	G	O4'-C1'-N9	6.62	113.49	108.20
84	Aa	3018	A	C4-C5-C6	6.62	120.31	117.00
84	Aa	3264	C	C6-N1-C1'	-6.62	112.86	120.80
1	Ad	1110	C	N1-C1'-C2'	6.61	122.60	114.00
84	Aa	10	C	N3-C4-N4	6.61	122.63	118.00
84	Aa	1526	A	C5-C6-N6	-6.61	118.41	123.70
86	Ab	113	G	N1-C2-N3	-6.61	119.93	123.90
84	Aa	2095	C	C2'-C3'-O3'	6.61	124.28	113.70
84	Aa	2369	G	O4'-C1'-N9	6.61	113.49	108.20
1	Ad	59	G	O4'-C1'-C2'	6.61	113.55	107.60
74	Cp	14	TYR	CB-CG-CD2	-6.61	117.03	121.00
84	Aa	76	A	C4-C5-C6	6.61	120.31	117.00
84	Aa	417	G	O4'-C1'-N9	6.61	113.49	108.20
84	Aa	2172	C	P-O3'-C3'	6.61	127.63	119.70
84	Aa	2981	U	O4'-C1'-N1	6.61	113.49	108.20
84	Aa	3194	G	O4'-C1'-N9	6.61	113.49	108.20
85	Ac	39	G	C5-C6-O6	-6.61	124.63	128.60
84	Aa	503	U	O4'-C1'-N1	6.61	113.49	108.20
84	Aa	716	A	C5-C6-N6	-6.61	118.41	123.70
84	Aa	785	U	O4'-C1'-N1	6.61	113.49	108.20
84	Aa	3336	A	O4'-C1'-N9	6.61	113.49	108.20
1	Ad	94	A	O4'-C1'-C2'	6.61	113.55	107.60
2	Ae	34	G	N9-C1'-C2'	6.61	122.59	114.00
84	Aa	2307	A	C4-C5-C6	6.61	120.30	117.00
85	Ac	75	G	C5-C6-O6	-6.61	124.64	128.60
1	Ad	87	A	O4'-C1'-N9	6.61	113.48	108.20
1	Ad	1593	U	C3'-C2'-C1'	-6.61	96.22	101.50
84	Aa	650	A	O4'-C1'-N9	6.61	113.48	108.20
1	Ad	110	G	C1'-O4'-C4'	-6.60	104.62	109.90
84	Aa	2372	A	O4'-C1'-N9	6.60	113.48	108.20
84	Aa	2984	A	C5-C6-N6	-6.60	118.42	123.70
1	Ad	41	A	N9-C1'-C2'	-6.60	104.74	112.00
1	Ad	1012	C	O4'-C1'-N1	6.60	113.48	108.20
84	Aa	12	G	N3-C2-N2	6.60	124.52	119.90
84	Aa	974	G	O4'-C1'-N9	6.60	113.48	108.20
84	Aa	1467	G	C5-C6-O6	-6.60	124.64	128.60
84	Aa	3269	C	C6-N1-C1'	-6.60	112.88	120.80
84	Aa	3330	U	O4'-C1'-N1	6.60	113.48	108.20
84	Aa	13	G	N1-C6-O6	6.60	123.86	119.90
84	Aa	885	A	C4-C5-C6	6.60	120.30	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2642	G	C5-C6-O6	-6.60	124.64	128.60
86	Ab	50	A	C5-C6-N1	-6.60	114.40	117.70
84	Aa	2283	G	C5-C6-O6	-6.60	124.64	128.60
84	Aa	2531	G	O4'-C1'-N9	6.60	113.48	108.20
84	Aa	2777	U	O4'-C1'-N1	6.60	113.48	108.20
84	Aa	2820	U	O4'-C1'-N1	6.60	113.48	108.20
84	Aa	3070	G	N3-C2-N2	6.60	124.52	119.90
1	Ad	208	U	C4'-C3'-C2'	-6.60	96.00	102.60
1	Ad	449	A	C3'-C2'-C1'	6.60	106.78	101.50
1	Ad	1117	G	N9-C1'-C2'	6.60	122.58	114.00
1	Ad	1189	U	O4'-C1'-N1	6.60	113.48	108.20
86	Ab	26	C	N3-C4-C5	-6.60	119.26	121.90
84	Aa	351	G	C5-C6-O6	-6.59	124.64	128.60
84	Aa	1723	C	N3-C4-N4	6.59	122.62	118.00
84	Aa	2360	A	C4-C5-C6	6.59	120.30	117.00
1	Ad	1662	G	O4'-C1'-N9	6.59	113.47	108.20
84	Aa	122	A	C4-C5-C6	6.59	120.30	117.00
84	Aa	2038	G	C5-C6-O6	-6.59	124.64	128.60
84	Aa	2417	G	C5-C6-O6	-6.59	124.64	128.60
1	Ad	1189	U	P-O3'-C3'	6.59	127.61	119.70
84	Aa	1	G	O4'-C1'-N9	6.59	113.47	108.20
84	Aa	943	G	C5-C6-O6	-6.59	124.64	128.60
84	Aa	1792	G	N1-C6-O6	6.59	123.86	119.90
84	Aa	2020	G	O4'-C1'-N9	6.59	113.47	108.20
84	Aa	3364	A	O4'-C1'-N9	6.59	113.47	108.20
85	Ac	96	A	C5-C6-N1	-6.59	114.40	117.70
84	Aa	888	U	O4'-C1'-N1	6.59	113.47	108.20
84	Aa	1783	G	C5-C6-O6	-6.59	124.65	128.60
84	Aa	1837	A	O4'-C1'-N9	6.59	113.47	108.20
86	Ab	40	A	O4'-C1'-N9	6.59	113.47	108.20
84	Aa	378	U	O4'-C1'-N1	6.59	113.47	108.20
84	Aa	2117	G	O4'-C1'-N9	6.59	113.47	108.20
84	Aa	2187	C	N3-C4-C5	-6.59	119.27	121.90
84	Aa	2210	A	C4-C5-C6	6.59	120.29	117.00
84	Aa	61	A	C4-C5-C6	6.58	120.29	117.00
84	Aa	2141	A	C4-C5-C6	6.58	120.29	117.00
84	Aa	2697	A	C5-C6-N1	-6.58	114.41	117.70
84	Aa	3012	A	C5-C6-N6	-6.58	118.43	123.70
84	Aa	337	C	N3-C4-C5	-6.58	119.27	121.90
84	Aa	520	G	O4'-C1'-N9	6.58	113.47	108.20
84	Aa	3087	A	C4-C5-C6	6.58	120.29	117.00
84	Aa	1153	A	C4-C5-C6	6.58	120.29	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1506	A	O4'-C1'-N9	6.58	113.47	108.20
84	Aa	3362	A	C4-C5-C6	6.58	120.29	117.00
84	Aa	1596	G	O4'-C1'-N9	6.58	113.46	108.20
84	Aa	1985	G	C5-C6-O6	-6.58	124.65	128.60
84	Aa	2396	A	C5-C6-N6	-6.58	118.44	123.70
1	Ad	753	C	C1'-O4'-C4'	-6.58	104.64	109.90
1	Ad	1274	G	C1'-O4'-C4'	-6.58	104.64	109.90
57	Ce	26	TYR	CB-CG-CD1	6.58	124.95	121.00
84	Aa	1175	G	C5-C6-O6	-6.58	124.65	128.60
84	Aa	1540	G	O4'-C1'-N9	6.58	113.46	108.20
84	Aa	2601	G	C5-C6-O6	-6.58	124.65	128.60
84	Aa	2944	C	O4'-C1'-N1	6.58	113.46	108.20
84	Aa	3237	G	O4'-C1'-N9	6.58	113.46	108.20
84	Aa	396	G	C5-C6-O6	-6.58	124.65	128.60
84	Aa	430	G	O4'-C1'-N9	6.58	113.46	108.20
1	Ad	110	G	C3'-C2'-C1'	-6.58	96.24	101.50
1	Ad	250	A	C1'-O4'-C4'	6.58	115.16	109.90
1	Ad	648	C	C3'-C2'-C1'	6.58	106.76	101.50
84	Aa	94	A	C4-C5-C6	6.58	120.29	117.00
84	Aa	1166	C	O4'-C1'-N1	6.58	113.46	108.20
84	Aa	2229	G	C5-C6-O6	-6.58	124.65	128.60
84	Aa	2769	U	O4'-C1'-N1	6.58	113.46	108.20
1	Ad	256	G	O4'-C1'-C2'	-6.57	99.23	105.80
1	Ad	632	G	N9-C1'-C2'	6.57	122.55	114.00
1	Ad	750	U	O4'-C1'-N1	6.57	113.46	108.20
1	Ad	905	A	O4'-C1'-N9	6.57	113.46	108.20
84	Aa	424	G	C4-N9-C1'	6.57	135.05	126.50
84	Aa	1167	G	C5-C6-O6	-6.57	124.66	128.60
84	Aa	1224	A	C5-C6-N6	-6.57	118.44	123.70
84	Aa	1691	U	O4'-C1'-N1	6.57	113.46	108.20
84	Aa	1766	U	O4'-C1'-N1	6.57	113.46	108.20
84	Aa	1870	G	O4'-C1'-N9	6.57	113.46	108.20
84	Aa	2618	G	O4'-C1'-N9	6.57	113.46	108.20
84	Aa	2914	G	C5-C6-O6	-6.57	124.66	128.60
86	Ab	59	U	C5-C6-N1	6.57	125.99	122.70
84	Aa	685	G	O4'-C1'-N9	6.57	113.46	108.20
84	Aa	1163	A	C5-C6-N1	-6.57	114.41	117.70
84	Aa	1777	C	O4'-C1'-N1	6.57	113.46	108.20
85	Ac	88	A	C4-C5-C6	6.57	120.29	117.00
1	Ad	1702	G	C1'-O4'-C4'	-6.57	104.64	109.90
73	CO	117	TYR	CB-CG-CD1	6.57	124.94	121.00
84	Aa	21	G	O4'-C1'-N9	6.57	113.46	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	685	G	C5-C6-O6	-6.57	124.66	128.60
84	Aa	1266	G	N1-C6-O6	6.57	123.84	119.90
84	Aa	2606	G	O4'-C1'-N9	6.57	113.46	108.20
84	Aa	2700	A	C5-C6-N1	-6.57	114.42	117.70
84	Aa	2778	C	O4'-C1'-N1	6.57	113.46	108.20
35	BG	160	ASN	N-CA-CB	6.57	122.42	110.60
84	Aa	613	G	C5-C6-O6	-6.57	124.66	128.60
84	Aa	1371	G	C5-C6-O6	-6.57	124.66	128.60
84	Aa	2132	A	C5-C6-N1	-6.57	114.42	117.70
84	Aa	2989	A	C4-C5-C6	6.57	120.28	117.00
1	Ad	1615	G	C1'-O4'-C4'	-6.57	104.64	109.90
84	Aa	1091	C	N3-C4-N4	6.57	122.60	118.00
84	Aa	1267	A	O4'-C1'-N9	6.57	113.45	108.20
84	Aa	1454	C	O4'-C1'-N1	6.57	113.45	108.20
84	Aa	1916	U	O4'-C1'-N1	6.57	113.45	108.20
84	Aa	2146	A	O4'-C1'-N9	6.57	113.45	108.20
84	Aa	1600	A	C4-C5-C6	6.57	120.28	117.00
84	Aa	1982	G	C5-C6-O6	-6.57	124.66	128.60
84	Aa	2621	G	C5-C6-O6	-6.57	124.66	128.60
84	Aa	2894	U	O4'-C1'-N1	6.57	113.45	108.20
84	Aa	3253	C	N3-C4-C5	-6.57	119.27	121.90
84	Aa	729	G	O4'-C1'-N9	6.56	113.45	108.20
84	Aa	1595	G	C5-C6-O6	-6.56	124.66	128.60
84	Aa	3147	G	C5-C6-O6	-6.56	124.66	128.60
84	Aa	697	A	O4'-C1'-N9	6.56	113.45	108.20
84	Aa	2381	G	O4'-C1'-N9	6.56	113.45	108.20
84	Aa	532	G	O4'-C1'-N9	6.56	113.45	108.20
84	Aa	607	U	C5'-C4'-O4'	6.56	116.97	109.10
84	Aa	1420	G	C5-C6-O6	-6.56	124.66	128.60
84	Aa	1540	G	C5-C6-O6	-6.56	124.66	128.60
1	Ad	467	U	O4'-C1'-N1	6.56	113.45	108.20
1	Ad	720	U	P-O3'-C3'	-6.56	111.83	119.70
84	Aa	2066	G	C5-C6-O6	-6.56	124.66	128.60
84	Aa	2074	C	N3-C4-N4	6.56	122.59	118.00
84	Aa	1643	A	O4'-C1'-N9	6.56	113.44	108.20
84	Aa	1839	C	N3-C4-C5	-6.56	119.28	121.90
84	Aa	1979	G	O4'-C1'-N9	6.56	113.45	108.20
84	Aa	2877	U	O4'-C1'-N1	6.56	113.45	108.20
86	Ab	5	G	C5-C6-O6	-6.56	124.67	128.60
84	Aa	2665	A	O4'-C1'-N9	6.56	113.44	108.20
85	Ac	8	C	N3-C4-N4	6.56	122.59	118.00
84	Aa	707	G	C5-C6-O6	-6.55	124.67	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1531	G	O4'-C1'-N9	6.55	113.44	108.20
84	Aa	1725	G	C5-C6-O6	-6.55	124.67	128.60
85	Ac	108	C	N3-C4-C5	-6.55	119.28	121.90
86	Ab	29	C	O4'-C1'-N1	6.55	113.44	108.20
1	Ad	1304	A	C1'-O4'-C4'	6.55	115.14	109.90
1	Ad	1720	G	C1'-O4'-C4'	-6.55	104.66	109.90
84	Aa	1290	A	O4'-C1'-N9	6.55	113.44	108.20
84	Aa	1083	C	O4'-C1'-N1	6.55	113.44	108.20
84	Aa	1321	A	C5-C6-N1	-6.55	114.42	117.70
84	Aa	1786	G	O4'-C1'-N9	6.55	113.44	108.20
84	Aa	1845	C	N3-C4-N4	6.55	122.59	118.00
84	Aa	2664	G	O4'-C1'-N9	6.55	113.44	108.20
84	Aa	3154	G	O4'-C1'-N9	6.55	113.44	108.20
84	Aa	599	C	O4'-C1'-N1	6.55	113.44	108.20
84	Aa	1143	G	C5-C6-O6	-6.55	124.67	128.60
84	Aa	1679	U	O4'-C1'-N1	6.55	113.44	108.20
84	Aa	2165	A	C5-C6-N1	-6.55	114.42	117.70
84	Aa	2498	C	N3-C4-C5	-6.55	119.28	121.90
84	Aa	2939	G	O4'-C1'-N9	6.55	113.44	108.20
84	Aa	2723	G	C5-C6-O6	-6.55	124.67	128.60
84	Aa	3183	G	O4'-C4'-C3'	-6.55	97.45	104.00
1	Ad	1211	U	O4'-C1'-N1	6.55	113.44	108.20
84	Aa	234	G	O4'-C1'-N9	6.55	113.44	108.20
84	Aa	1318	C	N3-C4-N4	6.55	122.58	118.00
84	Aa	1579	C	N3-C4-C5	-6.55	119.28	121.90
84	Aa	1874	A	C4-C5-C6	6.55	120.27	117.00
84	Aa	2290	A	C4-C5-C6	6.55	120.27	117.00
84	Aa	3384	G	O4'-C1'-N9	6.55	113.44	108.20
84	Aa	904	G	C5-C6-O6	-6.54	124.67	128.60
84	Aa	713	G	C5-C6-O6	-6.54	124.67	128.60
84	Aa	1963	G	O4'-C1'-N9	6.54	113.44	108.20
84	Aa	2260	C	N3-C4-C5	-6.54	119.28	121.90
84	Aa	2311	A	C5-C6-N1	-6.54	114.43	117.70
84	Aa	3052	U	O4'-C1'-N1	6.54	113.44	108.20
84	Aa	909	A	C5-C6-N6	-6.54	118.47	123.70
84	Aa	1479	G	C5-C6-O6	-6.54	124.67	128.60
85	Ac	130	G	O4'-C1'-N9	6.54	113.43	108.20
86	Ab	100	A	N9-C4-C5	6.54	108.42	105.80
1	Ad	411	A	O4'-C1'-N9	6.54	113.43	108.20
1	Ad	749	G	O4'-C1'-C2'	6.54	113.49	107.60
2	Ae	36	C	C1'-O4'-C4'	-6.54	104.67	109.90
84	Aa	1452	A	C4-C5-C6	6.54	120.27	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2424	G	N3-C2-N2	6.54	124.48	119.90
84	Aa	3238	U	O4'-C1'-N1	6.54	113.43	108.20
1	Ad	913	U	N1-C1'-C2'	6.54	122.50	114.00
84	Aa	258	C	O4'-C1'-N1	6.54	113.43	108.20
84	Aa	1798	C	C5'-C4'-C3'	6.54	126.46	116.00
84	Aa	2982	U	O4'-C1'-N1	6.54	113.43	108.20
84	Aa	3216	G	O4'-C1'-N9	6.54	113.43	108.20
1	Ad	640	A	O4'-C1'-N9	6.54	113.43	108.20
1	Ad	642	C	N1-C1'-C2'	6.54	122.50	114.00
1	Ad	1594	A	O4'-C1'-N9	6.54	113.43	108.20
84	Aa	228	C	O4'-C1'-N1	6.54	113.43	108.20
84	Aa	1838	A	C5-C6-N6	-6.54	118.47	123.70
86	Ab	56	G	O4'-C1'-N9	6.54	113.43	108.20
86	Ab	92	C	C6-N1-C2	-6.54	117.69	120.30
84	Aa	2423	A	O4'-C1'-N9	6.53	113.43	108.20
84	Aa	2775	C	N3-C4-C5	-6.53	119.29	121.90
84	Aa	852	C	N3-C4-C5	-6.53	119.29	121.90
84	Aa	2933	C	N3-C4-N4	6.53	122.57	118.00
1	Ad	288	G	O4'-C1'-C2'	6.53	113.48	107.60
84	Aa	555	G	N1-C6-O6	6.53	123.82	119.90
84	Aa	1919	C	N3-C4-C5	-6.53	119.29	121.90
84	Aa	3005	C	N3-C4-C5	-6.53	119.29	121.90
84	Aa	3190	U	C2-N1-C1'	6.53	125.54	117.70
84	Aa	3182	A	P-O5'-C5'	-6.53	110.45	120.90
71	CB	123	CYS	N-CA-CB	6.53	122.35	110.60
84	Aa	255	C	O4'-C1'-N1	6.53	113.42	108.20
84	Aa	259	G	C5-C6-O6	-6.53	124.68	128.60
84	Aa	615	A	C5-C6-N1	-6.53	114.44	117.70
84	Aa	2677	A	C5-C6-N6	-6.53	118.48	123.70
84	Aa	2996	A	C4-C5-C6	6.53	120.26	117.00
1	Ad	1003	A	C3'-C2'-C1'	6.53	106.72	101.50
84	Aa	40	G	C5-C6-O6	-6.53	124.68	128.60
84	Aa	1488	G	N3-C2-N2	6.53	124.47	119.90
84	Aa	2409	U	O4'-C1'-N1	6.53	113.42	108.20
84	Aa	1993	G	O4'-C1'-N9	6.52	113.42	108.20
84	Aa	2746	G	C5-C6-O6	-6.52	124.69	128.60
1	Ad	448	C	N1-C1'-C2'	6.52	122.48	114.00
18	BN	81	ALA	N-CA-CB	6.52	119.23	110.10
84	Aa	1067	G	C5-C6-O6	-6.52	124.69	128.60
84	Aa	1261	C	C5-C4-N4	-6.52	115.63	120.20
84	Aa	2165	A	C5'-C4'-C3'	-6.52	105.56	116.00
84	Aa	2736	A	C5-C6-N1	-6.52	114.44	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1243	C	N3-C4-C5	-6.52	119.29	121.90
84	Aa	1941	G	O4'-C1'-N9	6.52	113.42	108.20
84	Aa	385	A	C5-C6-N1	-6.52	114.44	117.70
1	Ad	1809	U	P-O3'-C3'	6.52	127.52	119.70
84	Aa	266	A	C5-C6-N6	-6.52	118.49	123.70
84	Aa	970	A	O4'-C1'-N9	6.52	113.41	108.20
1	Ad	201	G	C1'-O4'-C4'	-6.52	104.69	109.90
1	Ad	546	U	P-O3'-C3'	6.52	127.52	119.70
84	Aa	59	A	O4'-C1'-N9	6.52	113.41	108.20
84	Aa	421	A	O4'-C1'-N9	6.52	113.41	108.20
84	Aa	1726	G	C5-C6-O6	-6.52	124.69	128.60
86	Ab	96	U	O4'-C1'-N1	6.52	113.41	108.20
1	Ad	1382	C	C1'-O4'-C4'	-6.51	104.69	109.90
84	Aa	1340	G	O4'-C1'-N9	6.51	113.41	108.20
84	Aa	1532	A	C5-C6-N1	-6.51	114.44	117.70
84	Aa	1936	G	C5-C6-O6	-6.51	124.69	128.60
84	Aa	1950	G	N1-C6-O6	6.51	123.81	119.90
86	Ab	18	C	O4'-C1'-N1	6.51	113.41	108.20
1	Ad	240	U	N1-C1'-C2'	6.51	122.47	114.00
84	Aa	1441	U	O4'-C1'-N1	6.51	113.41	108.20
84	Aa	67	C	O4'-C1'-N1	6.51	113.41	108.20
84	Aa	125	G	O4'-C1'-N9	6.51	113.41	108.20
84	Aa	263	A	C4-C5-C6	6.51	120.26	117.00
84	Aa	1308	A	C4-C5-C6	6.51	120.26	117.00
84	Aa	2086	A	P-O3'-C3'	6.51	127.51	119.70
84	Aa	2721	C	N3-C4-C5	-6.51	119.30	121.90
84	Aa	259	G	O4'-C1'-N9	6.51	113.41	108.20
84	Aa	1836	U	O4'-C1'-N1	6.51	113.41	108.20
84	Aa	1922	C	O4'-C1'-N1	6.51	113.41	108.20
84	Aa	2263	U	O4'-C1'-N1	6.51	113.41	108.20
84	Aa	2539	G	O4'-C1'-N9	6.51	113.41	108.20
84	Aa	3380	G	O4'-C1'-N9	6.51	113.41	108.20
1	Ad	55	A	N9-C1'-C2'	6.51	122.46	114.00
84	Aa	1855	A	C4-C5-C6	6.51	120.25	117.00
1	Ad	1679	A	C3'-C2'-C1'	6.51	106.70	101.50
84	Aa	972	C	N3-C4-C5	-6.51	119.30	121.90
84	Aa	1632	G	C5-C6-O6	-6.51	124.70	128.60
84	Aa	1849	U	O4'-C1'-N1	6.51	113.41	108.20
84	Aa	2029	G	C5-C6-O6	-6.51	124.70	128.60
84	Aa	2669	C	N3-C4-C5	-6.51	119.30	121.90
84	Aa	3143	A	O4'-C1'-N9	6.51	113.41	108.20
1	Ad	1624	G	C5'-C4'-O4'	6.50	116.91	109.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	BZ	108	ALA	N-CA-CB	6.50	119.21	110.10
84	Aa	941	C	O4'-C1'-N1	6.50	113.40	108.20
84	Aa	2173	G	C5-C6-O6	-6.50	124.70	128.60
84	Aa	1964	G	O4'-C1'-N9	6.50	113.40	108.20
84	Aa	2344	A	C5-C6-N1	-6.50	114.45	117.70
84	Aa	2756	G	N1-C6-O6	6.50	123.80	119.90
1	Ad	141	G	C3'-C2'-C1'	6.50	106.70	101.50
1	Ad	1058	G	C1'-O4'-C4'	-6.50	104.70	109.90
84	Aa	670	A	O4'-C1'-N9	6.50	113.40	108.20
84	Aa	988	G	C5-C6-O6	-6.50	124.70	128.60
84	Aa	2040	G	O4'-C1'-N9	6.50	113.40	108.20
84	Aa	2080	G	C5-C6-O6	-6.50	124.70	128.60
84	Aa	2855	G	C5-C6-O6	-6.50	124.70	128.60
84	Aa	155	G	C5-C6-O6	-6.50	124.70	128.60
84	Aa	2353	C	N3-C4-C5	-6.50	119.30	121.90
1	Ad	998	A	C1'-O4'-C4'	-6.50	104.70	109.90
2	Ae	41	G	O4'-C1'-N9	6.50	113.40	108.20
84	Aa	758	A	C5-C6-N1	-6.50	114.45	117.70
84	Aa	1506	A	C5-C6-N6	-6.50	118.50	123.70
2	Ae	5	U	C3'-C2'-C1'	6.50	106.70	101.50
84	Aa	1	G	C5-C6-O6	-6.50	124.70	128.60
84	Aa	290	C	N3-C4-C5	-6.50	119.30	121.90
84	Aa	1063	G	O4'-C1'-N9	6.50	113.40	108.20
84	Aa	1365	C	N3-C4-N4	6.50	122.55	118.00
84	Aa	2790	C	O4'-C1'-N1	6.50	113.40	108.20
1	Ad	1041	A	C1'-O4'-C4'	6.50	115.10	109.90
84	Aa	358	G	C5-C6-O6	-6.50	124.70	128.60
84	Aa	2315	G	C5-C6-O6	-6.50	124.70	128.60
1	Ad	850	G	O4'-C1'-N9	6.49	113.39	108.20
1	Ad	919	G	C1'-O4'-C4'	6.49	115.09	109.90
84	Aa	742	G	C5-C6-O6	-6.49	124.70	128.60
1	Ad	1036	U	O4'-C1'-C2'	-6.49	99.31	105.80
1	Ad	1467	C	C1'-O4'-C4'	-6.49	104.71	109.90
84	Aa	997	G	N1-C6-O6	6.49	123.80	119.90
84	Aa	1625	G	O4'-C1'-N9	6.49	113.39	108.20
84	Aa	2523	G	C5'-C4'-O4'	6.49	116.89	109.10
84	Aa	2724	A	O4'-C1'-N9	6.49	113.39	108.20
84	Aa	99	A	C4-C5-C6	6.49	120.25	117.00
84	Aa	744	C	N3-C4-C5	-6.49	119.31	121.90
84	Aa	1485	A	C4-C5-C6	6.49	120.24	117.00
84	Aa	1997	G	C5-C6-O6	-6.49	124.71	128.60
84	Aa	2368	G	C5-C6-O6	-6.49	124.71	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2426	C	N3-C4-C5	-6.49	119.30	121.90
84	Aa	2797	U	O4'-C1'-N1	6.49	113.39	108.20
84	Aa	3226	G	O4'-C1'-N9	6.49	113.39	108.20
86	Ab	22	A	O4'-C1'-N9	6.49	113.39	108.20
86	Ab	27	A	C5-C6-N6	-6.49	118.51	123.70
84	Aa	918	A	C4-C5-C6	6.49	120.24	117.00
84	Aa	2284	U	O4'-C1'-N1	6.49	113.39	108.20
1	Ad	922	U	C1'-O4'-C4'	-6.49	104.71	109.90
1	Ad	1268	G	O4'-C1'-N9	6.49	113.39	108.20
84	Aa	51	A	C5'-C4'-O4'	6.49	116.88	109.10
84	Aa	958	U	O4'-C1'-N1	6.49	113.39	108.20
84	Aa	1235	A	O4'-C1'-N9	6.49	113.39	108.20
84	Aa	1978	G	C5-C6-O6	-6.49	124.71	128.60
84	Aa	2591	G	N1-C6-O6	6.49	123.79	119.90
84	Aa	3152	C	P-O3'-C3'	6.49	127.48	119.70
84	Aa	184	C	O4'-C1'-N1	6.48	113.39	108.20
84	Aa	944	G	C5-C6-O6	-6.48	124.71	128.60
1	Ad	11	A	O4'-C1'-C2'	-6.48	99.32	105.80
1	Ad	1679	A	O4'-C1'-C2'	-6.48	99.32	105.80
72	CC	330	VAL	N-CA-C	-6.48	93.50	111.00
84	Aa	2365	C	O4'-C1'-N1	6.48	113.39	108.20
84	Aa	2977	U	O4'-C1'-N1	6.48	113.39	108.20
84	Aa	3006	G	C5-C6-O6	-6.48	124.71	128.60
1	Ad	714	C	O4'-C1'-N1	6.48	113.39	108.20
84	Aa	791	C	N3-C4-C5	-6.48	119.31	121.90
84	Aa	1377	G	C5-C6-O6	-6.48	124.71	128.60
84	Aa	1680	A	O4'-C1'-N9	6.48	113.39	108.20
86	Ab	92	C	C2-N3-C4	6.48	123.14	119.90
84	Aa	369	G	C5-C6-O6	-6.48	124.71	128.60
84	Aa	1308	A	P-O3'-C3'	-6.48	111.92	119.70
1	Ad	255	U	C1'-O4'-C4'	6.48	115.08	109.90
50	CP	167	ALA	N-CA-CB	6.48	119.17	110.10
84	Aa	253	G	C5-C6-O6	-6.48	124.71	128.60
84	Aa	1648	C	N3-C4-C5	-6.48	119.31	121.90
84	Aa	2898	A	O4'-C1'-N9	6.48	113.38	108.20
84	Aa	3193	C	O4'-C1'-N1	6.48	113.38	108.20
1	Ad	1259	G	C3'-C2'-C1'	-6.48	96.32	101.50
84	Aa	3231	G	O4'-C1'-N9	6.48	113.38	108.20
84	Aa	217	A	C5-C6-N6	-6.47	118.52	123.70
84	Aa	1617	A	C5-C6-N1	-6.47	114.46	117.70
84	Aa	1893	G	C5-C6-O6	-6.47	124.72	128.60
1	Ad	1180	U	O4'-C1'-N1	6.47	113.38	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1282	A	P-O3'-C3'	6.47	127.47	119.70
84	Aa	3128	A	O4'-C1'-N9	6.47	113.38	108.20
86	Ab	50	A	C4-C5-C6	6.47	120.24	117.00
1	Ad	245	C	C1'-O4'-C4'	-6.47	104.72	109.90
1	Ad	108	C	N1-C1'-C2'	6.47	122.41	114.00
84	Aa	1233	G	C5-C6-O6	-6.47	124.72	128.60
84	Aa	3084	G	C5-C6-O6	-6.47	124.72	128.60
84	Aa	3313	C	O4'-C1'-N1	6.47	113.38	108.20
85	Ac	67	U	O4'-C1'-N1	6.47	113.38	108.20
86	Ab	9	U	O4'-C1'-N1	6.47	113.38	108.20
86	Ab	50	A	O4'-C1'-N9	6.47	113.38	108.20
1	Ad	194	G	O4'-C1'-C2'	-6.47	99.33	105.80
84	Aa	1450	G	C5-C6-O6	-6.47	124.72	128.60
84	Aa	2065	G	C5-C6-O6	-6.47	124.72	128.60
84	Aa	2119	A	C5-C6-N1	-6.47	114.47	117.70
1	Ad	536	U	O4'-C1'-C2'	6.47	113.42	107.60
84	Aa	5	G	C5-C6-O6	-6.47	124.72	128.60
84	Aa	209	G	C5-C6-O6	-6.47	124.72	128.60
84	Aa	986	G	C5-C6-O6	-6.47	124.72	128.60
84	Aa	1142	G	C5-C6-O6	-6.47	124.72	128.60
84	Aa	1334	A	C5-C6-N6	-6.47	118.53	123.70
84	Aa	1841	G	C5-C6-O6	-6.47	124.72	128.60
84	Aa	2173	G	N1-C6-O6	6.47	123.78	119.90
85	Ac	89	A	C5-C6-N1	-6.47	114.47	117.70
85	Ac	102	U	O4'-C1'-N1	6.47	113.37	108.20
1	Ad	521	U	O4'-C1'-N1	6.46	113.37	108.20
84	Aa	923	A	N1-C6-N6	6.46	122.48	118.60
84	Aa	1655	G	C5-C6-O6	-6.46	124.72	128.60
84	Aa	2461	A	C4-C5-C6	6.46	120.23	117.00
1	Ad	926	G	C5'-C4'-O4'	6.46	116.86	109.10
1	Ad	1502	C	N1-C1'-C2'	6.46	122.40	114.00
84	Aa	1757	G	C5-C6-O6	-6.46	124.72	128.60
1	Ad	357	A	C3'-C2'-C1'	6.46	106.67	101.50
84	Aa	349	A	C5-C6-N1	-6.46	114.47	117.70
84	Aa	682	G	O4'-C1'-N9	6.46	113.37	108.20
84	Aa	1123	A	C5-C6-N1	-6.46	114.47	117.70
84	Aa	1356	G	C5-C6-O6	-6.46	124.72	128.60
84	Aa	1634	G	C5-C6-O6	-6.46	124.72	128.60
84	Aa	1895	G	C5-C6-O6	-6.46	124.72	128.60
84	Aa	3107	A	C4-C5-C6	6.46	120.23	117.00
85	Ac	2	G	O4'-C1'-N9	6.46	113.37	108.20
86	Ab	83	A	C5-C6-N6	-6.46	118.53	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	778	G	O4'-C1'-N9	6.46	113.37	108.20
84	Aa	991	C	N3-C4-N4	6.46	122.52	118.00
84	Aa	1353	A	C4-C5-C6	6.46	120.23	117.00
84	Aa	2688	G	O4'-C1'-N9	6.46	113.37	108.20
84	Aa	3276	G	O4'-C1'-N9	6.46	113.37	108.20
1	Ad	79	A	C1'-O4'-C4'	6.46	115.07	109.90
1	Ad	749	G	C1'-O4'-C4'	-6.46	104.73	109.90
1	Ad	1727	C	N1-C1'-C2'	6.46	122.39	114.00
1	Ad	1792	A	O4'-C1'-N9	6.46	113.37	108.20
2	Ae	7	A	P-O3'-C3'	6.46	127.45	119.70
84	Aa	478	G	C5-C6-O6	-6.46	124.72	128.60
84	Aa	1096	C	N3-C4-C5	-6.46	119.32	121.90
84	Aa	1883	A	C4-C5-C6	6.46	120.23	117.00
84	Aa	2024	G	C5-C6-O6	-6.46	124.72	128.60
84	Aa	2126	C	N3-C4-C5	-6.46	119.32	121.90
84	Aa	3017	A	C4-C5-C6	6.46	120.23	117.00
84	Aa	28	C	N3-C4-C5	-6.46	119.32	121.90
84	Aa	1758	U	O4'-C1'-N1	6.46	113.36	108.20
84	Aa	2050	G	O4'-C1'-N9	6.46	113.37	108.20
84	Aa	2138	A	C5-C6-N6	-6.46	118.53	123.70
84	Aa	2290	A	C5-C6-N1	-6.46	114.47	117.70
84	Aa	3156	G	C5-C6-O6	-6.46	124.73	128.60
85	Ac	140	A	C5-C6-N1	-6.46	114.47	117.70
86	Ab	42	A	N9-C4-C5	6.46	108.38	105.80
86	Ab	101	A	C8-N9-C4	-6.46	103.22	105.80
86	Ab	12	U	O4'-C1'-N1	6.46	113.36	108.20
1	Ad	139	U	N1-C1'-C2'	6.45	122.39	114.00
1	Ad	1806	C	C1'-O4'-C4'	6.45	115.06	109.90
84	Aa	84	A	O4'-C1'-N9	6.45	113.36	108.20
84	Aa	1188	C	P-O5'-C5'	6.45	131.22	120.90
84	Aa	2577	G	O4'-C1'-N9	6.45	113.36	108.20
84	Aa	2967	U	O4'-C1'-N1	6.45	113.36	108.20
1	Ad	398	C	O4'-C1'-N1	6.45	113.36	108.20
84	Aa	674	G	O4'-C1'-N9	6.45	113.36	108.20
84	Aa	2683	A	C5-C6-N1	-6.45	114.47	117.70
84	Aa	2729	C	C6-N1-C1'	-6.45	113.06	120.80
84	Aa	2922	U	O4'-C1'-N1	6.45	113.36	108.20
85	Ac	157	A	C5-C6-N6	-6.45	118.54	123.70
1	Ad	329	G	C1'-O4'-C4'	-6.45	104.74	109.90
73	CO	136	PRO	CB-CA-C	6.45	128.13	112.00
84	Aa	754	G	C5-C6-O6	-6.45	124.73	128.60
84	Aa	957	U	O4'-C1'-N1	6.45	113.36	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2105	G	C5-C6-O6	-6.45	124.73	128.60
84	Aa	3110	A	C4-C5-C6	6.45	120.23	117.00
84	Aa	3316	C	N3-C4-N4	6.45	122.52	118.00
85	Ac	16	G	C5-C6-O6	-6.45	124.73	128.60
1	Ad	1450	A	C1'-O4'-C4'	6.45	115.06	109.90
1	Ad	1530	G	O4'-C1'-C2'	-6.45	99.35	105.80
84	Aa	363	A	C4-C5-C6	6.45	120.22	117.00
84	Aa	486	G	C5-C6-O6	-6.45	124.73	128.60
84	Aa	518	G	O4'-C1'-N9	6.45	113.36	108.20
84	Aa	937	G	C5-C6-O6	-6.45	124.73	128.60
84	Aa	941	C	N3-C4-C5	-6.45	119.32	121.90
84	Aa	1397	A	C4-C5-C6	6.45	120.22	117.00
84	Aa	1802	A	O4'-C1'-N9	6.45	113.36	108.20
84	Aa	2461	A	C5-C6-N1	-6.45	114.48	117.70
84	Aa	3130	A	O4'-C1'-N9	6.45	113.36	108.20
84	Aa	3227	U	O4'-C1'-N1	6.45	113.36	108.20
1	Ad	166	A	C3'-C2'-C1'	6.45	106.66	101.50
1	Ad	1638	U	O4'-C1'-N1	6.45	113.36	108.20
84	Aa	2550	C	N3-C4-C5	-6.45	119.32	121.90
1	Ad	834	A	N9-C1'-C2'	-6.45	104.91	112.00
84	Aa	436	G	O4'-C1'-N9	6.45	113.36	108.20
84	Aa	1313	U	O4'-C1'-N1	6.45	113.36	108.20
84	Aa	1344	A	C4-C5-C6	6.45	120.22	117.00
84	Aa	1367	A	O4'-C1'-N9	6.45	113.36	108.20
84	Aa	1472	C	O4'-C1'-N1	6.45	113.36	108.20
84	Aa	2494	A	C4-C5-C6	6.45	120.22	117.00
1	Ad	1589	C	O4'-C1'-C2'	-6.44	99.36	105.80
84	Aa	1366	G	O4'-C1'-N9	6.44	113.36	108.20
84	Aa	2324	G	O4'-C1'-N9	6.44	113.36	108.20
86	Ab	42	A	C8-N9-C4	-6.44	103.22	105.80
84	Aa	1180	C	O4'-C1'-N1	6.44	113.35	108.20
84	Aa	1296	C	O4'-C1'-N1	6.44	113.36	108.20
84	Aa	1447	G	C5-C6-O6	-6.44	124.73	128.60
84	Aa	2002	G	O4'-C1'-N9	6.44	113.35	108.20
84	Aa	3041	A	C5-C6-N1	-6.44	114.48	117.70
84	Aa	3095	G	N1-C6-O6	6.44	123.77	119.90
1	Ad	1783	C	C1'-O4'-C4'	-6.44	104.75	109.90
72	CC	91	ALA	N-CA-CB	6.44	119.12	110.10
84	Aa	111	C	O4'-C1'-N1	6.44	113.35	108.20
84	Aa	505	G	C5-C6-O6	-6.44	124.73	128.60
84	Aa	966	G	C5-C6-O6	-6.44	124.74	128.60
84	Aa	1516	G	N1-C6-O6	6.44	123.76	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	1006	A	C3'-C2'-C1'	6.44	106.65	101.50
1	Ad	1648	C	O4'-C1'-C2'	-6.44	99.36	105.80
2	Ae	30	G	O4'-C1'-C2'	6.44	113.39	107.60
84	Aa	2875	U	O4'-C1'-N1	6.44	113.35	108.20
1	Ad	21	U	O4'-C1'-N1	6.44	113.35	108.20
1	Ad	1186	U	C1'-O4'-C4'	6.44	115.05	109.90
57	Ce	67	TYR	CB-CG-CD1	6.44	124.86	121.00
84	Aa	1106	G	O4'-C1'-N9	6.44	113.35	108.20
84	Aa	1379	G	C5-C6-O6	-6.44	124.74	128.60
84	Aa	2235	G	C5-C6-O6	-6.44	124.74	128.60
86	Ab	88	U	O4'-C1'-N1	6.44	113.35	108.20
84	Aa	920	A	C5-C6-N6	-6.44	118.55	123.70
84	Aa	2414	C	O4'-C1'-N1	6.44	113.35	108.20
84	Aa	2518	A	C4-C5-C6	6.44	120.22	117.00
84	Aa	894	G	C5-C6-O6	-6.43	124.74	128.60
84	Aa	1181	A	C4-C5-C6	6.43	120.22	117.00
84	Aa	1913	C	N3-C4-C5	-6.43	119.33	121.90
84	Aa	2486	G	O4'-C1'-N9	6.43	113.35	108.20
84	Aa	2932	A	O4'-C1'-N9	6.43	113.35	108.20
1	Ad	1508	C	N1-C1'-C2'	6.43	122.36	114.00
84	Aa	908	U	O4'-C1'-N1	6.43	113.35	108.20
84	Aa	1707	C	N3-C4-C5	-6.43	119.33	121.90
84	Aa	2496	U	C4'-C3'-O3'	-6.43	95.89	109.40
84	Aa	3222	G	C5-C6-O6	-6.43	124.74	128.60
1	Ad	1305	U	O4'-C1'-N1	6.43	113.34	108.20
84	Aa	2960	A	C5-C6-N1	-6.43	114.48	117.70
84	Aa	3013	A	C5-C6-N1	-6.43	114.48	117.70
84	Aa	2239	A	C4-C5-C6	6.43	120.22	117.00
84	Aa	3220	A	C5-C6-N6	-6.43	118.56	123.70
1	Ad	1572	U	C1'-O4'-C4'	-6.43	104.76	109.90
84	Aa	65	A	C5-C6-N6	-6.43	118.56	123.70
84	Aa	3172	G	C5-C6-O6	-6.43	124.74	128.60
59	Cl	39	ALA	N-CA-CB	6.43	119.10	110.10
84	Aa	83	U	O4'-C1'-N1	6.43	113.34	108.20
84	Aa	177	C	N3-C4-C5	-6.43	119.33	121.90
84	Aa	959	U	O4'-C1'-N1	6.43	113.34	108.20
84	Aa	1070	G	O4'-C1'-N9	6.43	113.34	108.20
84	Aa	2723	G	O4'-C1'-N9	6.43	113.34	108.20
3	Af	12	A	O4'-C1'-C2'	6.42	113.38	107.60
84	Aa	232	C	O4'-C1'-N1	6.42	113.34	108.20
84	Aa	429	G	O4'-C1'-N9	6.42	113.34	108.20
84	Aa	598	U	O4'-C1'-N1	6.42	113.34	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1370	A	C4-C5-C6	6.42	120.21	117.00
84	Aa	1642	G	O4'-C1'-N9	6.42	113.34	108.20
84	Aa	1982	G	O4'-C1'-N9	6.42	113.34	108.20
84	Aa	2286	A	C4-C5-C6	6.42	120.21	117.00
84	Aa	2514	A	C5-C6-N1	-6.42	114.49	117.70
86	Ab	111	U	C6-N1-C2	-6.42	117.15	121.00
84	Aa	997	G	O4'-C1'-N9	6.42	113.34	108.20
84	Aa	1333	C	O4'-C1'-N1	6.42	113.34	108.20
84	Aa	1519	C	N3-C4-C5	-6.42	119.33	121.90
84	Aa	2388	C	N3-C4-N4	6.42	122.50	118.00
84	Aa	2930	C	O4'-C1'-N1	6.42	113.34	108.20
1	Ad	237	C	C1'-O4'-C4'	-6.42	104.76	109.90
84	Aa	639	A	C4-C5-C6	6.42	120.21	117.00
84	Aa	1386	G	C5-C6-O6	-6.42	124.75	128.60
84	Aa	2159	U	O4'-C1'-N1	6.42	113.34	108.20
85	Ac	17	A	O4'-C1'-N9	6.42	113.34	108.20
84	Aa	3322	A	C5-C6-N1	-6.42	114.49	117.70
85	Ac	142	G	C5-C6-O6	-6.42	124.75	128.60
1	Ad	314	C	O4'-C1'-N1	6.42	113.33	108.20
84	Aa	34	G	O4'-C1'-N9	6.42	113.33	108.20
84	Aa	294	A	C5-C6-N6	-6.42	118.57	123.70
84	Aa	746	C	C1'-O4'-C4'	-6.42	104.77	109.90
84	Aa	1443	G	C5-C6-O6	-6.42	124.75	128.60
84	Aa	2334	G	C5-C6-O6	-6.42	124.75	128.60
84	Aa	3332	G	O4'-C1'-N9	6.42	113.33	108.20
1	Ad	363	G	C3'-C2'-C1'	-6.42	96.37	101.50
84	Aa	593	G	C5-C6-O6	-6.42	124.75	128.60
84	Aa	2256	G	C5-C6-O6	-6.42	124.75	128.60
84	Aa	2679	A	C4-C5-C6	6.42	120.21	117.00
84	Aa	2817	G	O4'-C1'-N9	6.42	113.33	108.20
84	Aa	3044	C	N3-C4-C5	-6.42	119.33	121.90
1	Ad	474	A	C3'-C2'-C1'	6.42	106.63	101.50
1	Ad	196	G	C1'-O4'-C4'	-6.41	104.77	109.90
84	Aa	829	G	C5-C6-O6	-6.41	124.75	128.60
84	Aa	1661	G	C5-C6-O6	-6.41	124.75	128.60
84	Aa	3230	G	C5-C6-O6	-6.41	124.75	128.60
71	CB	265	TYR	CB-CG-CD1	6.41	124.85	121.00
84	Aa	2463	U	C5'-C4'-O4'	6.41	116.80	109.10
86	Ab	43	A	O4'-C1'-N9	6.41	113.33	108.20
86	Ab	68	G	O4'-C1'-N9	6.41	113.33	108.20
84	Aa	270	G	C5-C6-O6	-6.41	124.75	128.60
84	Aa	969	U	O4'-C1'-N1	6.41	113.33	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2057	G	C5-C6-O6	-6.41	124.75	128.60
84	Aa	2698	A	C5-C6-N1	-6.41	114.49	117.70
86	Ab	27	A	C4-C5-C6	6.41	120.20	117.00
84	Aa	1184	U	C5-C4-O4	-6.41	122.06	125.90
84	Aa	1954	G	O4'-C1'-N9	6.41	113.33	108.20
63	CU	92	TYR	CB-CG-CD1	6.41	124.84	121.00
84	Aa	1816	U	O4'-C1'-N1	6.41	113.33	108.20
84	Aa	1886	U	O4'-C1'-N1	6.41	113.33	108.20
85	Ac	126	A	C4-C5-C6	6.41	120.20	117.00
1	Ad	100	C	O4'-C1'-N1	6.41	113.33	108.20
1	Ad	151	A	C1'-O4'-C4'	6.41	115.03	109.90
1	Ad	1020	U	C3'-C2'-C1'	6.41	106.62	101.50
20	BT	51	TYR	CB-CG-CD2	6.41	124.84	121.00
84	Aa	1416	G	C5-C6-O6	-6.41	124.76	128.60
84	Aa	1595	G	O4'-C1'-N9	6.41	113.32	108.20
84	Aa	3057	A	C5-C6-N1	-6.41	114.50	117.70
86	Ab	68	G	C6-C5-N7	-6.41	126.56	130.40
45	CN	81	TYR	CB-CG-CD1	-6.40	117.16	121.00
1	Ad	529	A	P-O3'-C3'	6.40	127.38	119.70
1	Ad	60	C	P-O3'-C3'	-6.40	112.02	119.70
84	Aa	242	U	O4'-C1'-N1	6.40	113.32	108.20
84	Aa	288	G	P-O3'-C3'	6.40	127.38	119.70
84	Aa	733	C	N3-C4-C5	-6.40	119.34	121.90
84	Aa	1809	A	C4-C5-C6	6.40	120.20	117.00
84	Aa	2722	U	O4'-C1'-N1	6.40	113.32	108.20
84	Aa	657	A	C5-C6-N6	-6.40	118.58	123.70
84	Aa	1918	A	O4'-C1'-N9	6.40	113.32	108.20
84	Aa	2743	A	C4-C5-C6	6.40	120.20	117.00
1	Ad	1541	C	C3'-C2'-C1'	6.40	106.62	101.50
79	CE	124	TYR	CB-CG-CD2	-6.40	117.16	121.00
84	Aa	2076	C	N3-C4-C5	-6.40	119.34	121.90
84	Aa	2228	A	C4-C5-C6	6.40	120.20	117.00
84	Aa	2232	C	O4'-C1'-N1	6.40	113.32	108.20
84	Aa	2889	A	C4-C5-C6	6.40	120.20	117.00
84	Aa	3059	C	C6-N1-C1'	-6.40	113.12	120.80
1	Ad	593	C	O4'-C1'-C2'	-6.40	99.40	105.80
1	Ad	1409	G	C1'-O4'-C4'	-6.40	104.78	109.90
84	Aa	405	A	C4-C5-C6	6.40	120.20	117.00
84	Aa	1451	U	O4'-C1'-N1	6.40	113.32	108.20
85	Ac	103	G	C5-C6-O6	-6.40	124.76	128.60
84	Aa	250	C	P-O3'-C3'	6.39	127.37	119.70
84	Aa	729	G	C5-C6-O6	-6.39	124.76	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	947	C	O4'-C1'-N1	6.39	113.32	108.20
84	Aa	1447	G	O4'-C1'-N9	6.39	113.31	108.20
84	Aa	1865	C	N3-C4-C5	-6.39	119.34	121.90
84	Aa	1979	G	C5-C6-O6	-6.39	124.76	128.60
84	Aa	2134	U	O4'-C1'-N1	6.39	113.32	108.20
85	Ac	123	G	O4'-C1'-N9	6.39	113.32	108.20
84	Aa	2239	A	O4'-C1'-N9	6.39	113.31	108.20
84	Aa	1219	C	N3-C4-N4	6.39	122.47	118.00
84	Aa	1299	G	C5-C6-O6	-6.39	124.77	128.60
1	Ad	287	C	C3'-C2'-C1'	6.39	106.61	101.50
1	Ad	1073	C	C3'-C2'-C1'	6.39	106.61	101.50
84	Aa	239	C	N3-C4-N4	6.39	122.47	118.00
84	Aa	300	C	N3-C4-C5	-6.39	119.34	121.90
84	Aa	571	G	C5-C6-O6	-6.39	124.77	128.60
84	Aa	578	C	N3-C4-C5	-6.39	119.34	121.90
84	Aa	844	A	C5-C6-N1	-6.39	114.50	117.70
84	Aa	3284	C	N3-C4-N4	6.39	122.47	118.00
84	Aa	128	C	N3-C4-C5	-6.39	119.34	121.90
84	Aa	1032	C	O4'-C1'-N1	6.39	113.31	108.20
1	Ad	356	G	P-O3'-C3'	6.39	127.36	119.70
84	Aa	2319	A	C4-C5-C6	6.39	120.19	117.00
1	Ad	68	A	C1'-O4'-C4'	-6.38	104.79	109.90
1	Ad	651	G	N9-C1'-C2'	6.38	122.30	114.00
84	Aa	196	A	C4-C5-C6	6.38	120.19	117.00
84	Aa	978	C	N3-C4-C5	-6.38	119.35	121.90
84	Aa	1138	A	C5-C6-N1	-6.38	114.51	117.70
84	Aa	1757	G	O4'-C1'-N9	6.38	113.31	108.20
84	Aa	2050	G	C5-C6-O6	-6.38	124.77	128.60
84	Aa	2258	C	N3-C4-C5	-6.38	119.35	121.90
84	Aa	3303	C	N3-C4-C5	-6.38	119.35	121.90
1	Ad	483	C	N1-C1'-C2'	6.38	122.30	114.00
2	Ae	50	G	C1'-O4'-C4'	6.38	115.01	109.90
84	Aa	2909	A	C5-C6-N1	-6.38	114.51	117.70
85	Ac	2	G	C5-C6-O6	-6.38	124.77	128.60
1	Ad	350	G	O4'-C1'-N9	6.38	113.31	108.20
1	Ad	382	A	O4'-C1'-N9	6.38	113.31	108.20
18	BN	151	ALA	N-CA-CB	6.38	119.03	110.10
84	Aa	1348	G	C5-C6-O6	-6.38	124.77	128.60
84	Aa	2450	G	P-O5'-C5'	6.38	131.11	120.90
84	Aa	2472	U	O4'-C1'-N1	6.38	113.31	108.20
84	Aa	129	G	C5-C6-O6	-6.38	124.77	128.60
84	Aa	530	C	N3-C4-C5	-6.38	119.35	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1230	G	C5-C6-O6	-6.38	124.77	128.60
84	Aa	1901	G	O4'-C1'-N9	6.38	113.30	108.20
1	Ad	1538	C	O4'-C1'-C2'	-6.38	99.42	105.80
84	Aa	354	C	N3-C4-C5	-6.38	119.35	121.90
84	Aa	477	C	N3-C4-C5	-6.38	119.35	121.90
84	Aa	1631	G	C5-C6-O6	-6.38	124.77	128.60
84	Aa	2405	C	N3-C4-C5	-6.38	119.35	121.90
84	Aa	3121	C	N3-C4-N4	6.38	122.47	118.00
84	Aa	3139	U	O4'-C1'-N1	6.38	113.30	108.20
1	Ad	1314	U	O4'-C1'-N1	6.38	113.30	108.20
84	Aa	422	G	C5-C6-O6	-6.38	124.77	128.60
84	Aa	442	C	N3-C4-C5	-6.38	119.35	121.90
84	Aa	1341	G	N3-C2-N2	6.38	124.36	119.90
84	Aa	310	C	N3-C4-C5	-6.38	119.35	121.90
3	Af	17	A	N9-C1'-C2'	6.37	122.29	114.00
84	Aa	424	G	C5-C6-O6	-6.37	124.78	128.60
84	Aa	1281	C	N3-C4-C5	-6.37	119.35	121.90
84	Aa	2747	U	O4'-C1'-N1	6.37	113.30	108.20
1	Ad	227	G	O3'-P-O5'	6.37	116.11	104.00
1	Ad	236	U	O4'-C1'-N1	6.37	113.30	108.20
1	Ad	784	C	N1-C1'-C2'	-6.37	104.99	112.00
79	CE	50	PHE	CB-CG-CD1	6.37	125.26	120.80
84	Aa	254	G	C5-C6-O6	-6.37	124.78	128.60
84	Aa	282	A	C5-C6-N6	-6.37	118.60	123.70
84	Aa	868	A	C4-C5-C6	6.37	120.19	117.00
84	Aa	2168	C	P-O3'-C3'	6.37	127.35	119.70
84	Aa	2435	U	O4'-C1'-N1	6.37	113.30	108.20
84	Aa	2500	U	O4'-C1'-N1	6.37	113.30	108.20
84	Aa	3167	G	C5-C6-O6	-6.37	124.78	128.60
85	Ac	18	U	O4'-C1'-N1	6.37	113.30	108.20
84	Aa	322	A	C4-C5-C6	6.37	120.19	117.00
84	Aa	2695	A	C4-C5-C6	6.37	120.19	117.00
1	Ad	82	G	O4'-C1'-N9	6.37	113.29	108.20
84	Aa	356	G	C5-C6-O6	-6.37	124.78	128.60
84	Aa	811	A	C5-C6-N6	-6.37	118.61	123.70
84	Aa	817	U	O4'-C1'-N1	6.37	113.30	108.20
84	Aa	1297	U	O4'-C1'-N1	6.37	113.29	108.20
84	Aa	2139	A	C4-C5-C6	6.37	120.18	117.00
84	Aa	2164	G	O4'-C1'-N9	6.37	113.30	108.20
84	Aa	3084	G	O4'-C1'-N9	6.37	113.29	108.20
84	Aa	3333	C	C1'-O4'-C4'	-6.37	104.81	109.90
84	Aa	29	G	N3-C2-N2	6.37	124.36	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	130	G	O4'-C1'-N9	6.37	113.29	108.20
84	Aa	1855	A	C5-C6-N6	-6.37	118.61	123.70
84	Aa	584	G	C5-C6-O6	-6.37	124.78	128.60
84	Aa	1282	A	C4-C5-C6	6.37	120.18	117.00
84	Aa	1796	A	C4-C5-C6	6.37	120.18	117.00
84	Aa	2211	G	O4'-C1'-N9	6.37	113.29	108.20
84	Aa	2969	A	C5-C6-N1	-6.37	114.52	117.70
84	Aa	3140	A	O4'-C1'-N9	6.37	113.29	108.20
85	Ac	46	G	C5-C6-O6	-6.37	124.78	128.60
85	Ac	133	C	N3-C4-C5	-6.37	119.35	121.90
71	CB	55	HIS	CA-CB-CG	6.36	124.42	113.60
84	Aa	488	U	O4'-C1'-N1	6.36	113.29	108.20
84	Aa	855	U	O4'-C1'-N1	6.36	113.29	108.20
84	Aa	2626	G	O4'-C1'-N9	6.36	113.29	108.20
84	Aa	2719	U	O4'-C1'-N1	6.36	113.29	108.20
84	Aa	3062	G	C5-C6-O6	-6.36	124.78	128.60
84	Aa	3331	G	C5-C6-O6	-6.36	124.78	128.60
84	Aa	3335	G	C5-C6-O6	-6.36	124.78	128.60
84	Aa	2783	U	O4'-C1'-N1	6.36	113.29	108.20
1	Ad	1452	A	O4'-C1'-N9	6.36	113.29	108.20
84	Aa	1155	G	N1-C6-O6	6.36	123.72	119.90
84	Aa	1330	A	C4-C5-C6	6.36	120.18	117.00
84	Aa	1338	C	N3-C4-C5	-6.36	119.36	121.90
84	Aa	2976	U	O4'-C1'-N1	6.36	113.29	108.20
84	Aa	2984	A	C4-C5-C6	6.36	120.18	117.00
84	Aa	3062	G	O4'-C1'-N9	6.36	113.29	108.20
84	Aa	3197	C	N3-C4-C5	-6.36	119.36	121.90
84	Aa	3066	G	C5-C6-O6	-6.36	124.78	128.60
84	Aa	21	G	C5-C6-O6	-6.36	124.79	128.60
84	Aa	728	G	O4'-C1'-N9	6.36	113.29	108.20
84	Aa	2685	C	N3-C4-C5	-6.36	119.36	121.90
86	Ab	91	C	C2-N3-C4	6.36	123.08	119.90
1	Ad	381	G	C1'-O4'-C4'	-6.36	104.82	109.90
84	Aa	650	A	C4-C5-C6	6.36	120.18	117.00
1	Ad	235	C	C3'-C2'-C1'	6.35	106.58	101.50
84	Aa	2127	U	O4'-C1'-N1	6.35	113.28	108.20
84	Aa	3100	C	N3-C4-N4	6.35	122.45	118.00
84	Aa	987	A	C4-C5-C6	6.35	120.18	117.00
84	Aa	1824	C	N3-C4-C5	-6.35	119.36	121.90
84	Aa	1852	C	N3-C4-C5	-6.35	119.36	121.90
84	Aa	1915	G	C5-C6-O6	-6.35	124.79	128.60
84	Aa	2487	A	C4-C5-C6	6.35	120.18	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2853	A	C4-C5-C6	6.35	120.18	117.00
1	Ad	61	A	P-O5'-C5'	-6.35	110.74	120.90
84	Aa	665	G	C5-C6-O6	-6.35	124.79	128.60
84	Aa	3178	C	N3-C4-N4	6.35	122.44	118.00
1	Ad	1477	A	O4'-C1'-C2'	-6.35	99.45	105.80
33	BJ	85	TYR	CB-CG-CD2	-6.35	117.19	121.00
84	Aa	63	G	C5-C6-O6	-6.35	124.79	128.60
84	Aa	97	G	N3-C2-N2	6.35	124.34	119.90
84	Aa	684	C	N3-C4-C5	-6.35	119.36	121.90
84	Aa	771	G	C4'-C3'-C2'	6.35	108.95	102.60
84	Aa	784	G	C5-C6-O6	-6.35	124.79	128.60
84	Aa	1454	C	N3-C4-C5	-6.35	119.36	121.90
84	Aa	2247	A	C4-C5-C6	6.35	120.17	117.00
1	Ad	1210	U	O4'-C1'-C2'	-6.35	99.45	105.80
1	Ad	1295	G	O4'-C1'-N9	6.35	113.28	108.20
84	Aa	2885	U	O5'-P-OP1	-6.35	99.99	105.70
84	Aa	3135	A	C5-C6-N1	-6.35	114.53	117.70
85	Ac	40	A	C5-C6-N6	-6.35	118.62	123.70
1	Ad	1507	G	O4'-C1'-N9	6.34	113.28	108.20
84	Aa	319	C	N3-C4-N4	6.34	122.44	118.00
84	Aa	393	A	C4-C5-C6	6.34	120.17	117.00
84	Aa	1168	G	C5-C6-O6	-6.34	124.79	128.60
84	Aa	1501	A	C5-C6-N6	-6.34	118.62	123.70
84	Aa	2954	G	O4'-C1'-N9	6.34	113.28	108.20
85	Ac	137	G	O4'-C1'-N9	6.34	113.28	108.20
84	Aa	1385	C	N3-C4-C5	-6.34	119.36	121.90
84	Aa	1490	A	C5-C6-N6	-6.34	118.63	123.70
84	Aa	1518	A	C4-C5-C6	6.34	120.17	117.00
84	Aa	2199	C	N3-C4-C5	-6.34	119.36	121.90
1	Ad	1187	A	N9-C1'-C2'	6.34	122.24	114.00
2	Ae	58	U	C1'-O4'-C4'	6.34	114.97	109.90
84	Aa	2045	G	O4'-C1'-N9	6.34	113.27	108.20
84	Aa	2389	A	C4-C5-C6	6.34	120.17	117.00
85	Ac	154	G	C5-C6-O6	-6.34	124.80	128.60
84	Aa	70	A	C5-C6-N1	-6.34	114.53	117.70
84	Aa	747	A	C4-C5-C6	6.34	120.17	117.00
84	Aa	960	C	N3-C4-C5	-6.34	119.36	121.90
84	Aa	1426	C	N3-C4-C5	-6.34	119.36	121.90
84	Aa	2645	A	C4-C5-C6	6.34	120.17	117.00
1	Ad	594	C	O4'-C1'-N1	6.34	113.27	108.20
48	CD	260	GLU	N-CA-CB	6.34	122.01	110.60
84	Aa	2681	A	C4-C5-C6	6.34	120.17	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	412	C	N3-C4-N4	6.34	122.44	118.00
84	Aa	1457	A	O4'-C1'-N9	6.34	113.27	108.20
84	Aa	1647	C	N3-C4-C5	-6.34	119.37	121.90
84	Aa	2051	G	O4'-C1'-N9	6.34	113.27	108.20
84	Aa	2128	G	C5-C6-O6	-6.34	124.80	128.60
84	Aa	426	A	C4-C5-C6	6.33	120.17	117.00
84	Aa	1363	C	N3-C4-C5	-6.33	119.37	121.90
84	Aa	2606	G	N1-C6-O6	6.33	123.70	119.90
1	Ad	1693	C	O4'-C1'-N1	6.33	113.27	108.20
84	Aa	8	C	C6-N1-C1'	-6.33	113.20	120.80
84	Aa	131	C	N3-C4-C5	-6.33	119.37	121.90
84	Aa	213	G	O4'-C1'-N9	6.33	113.27	108.20
84	Aa	561	G	O4'-C1'-N9	6.33	113.27	108.20
84	Aa	1741	G	O4'-C1'-N9	6.33	113.27	108.20
84	Aa	1823	C	N3-C4-C5	-6.33	119.37	121.90
84	Aa	2613	G	O4'-C1'-N9	6.33	113.27	108.20
84	Aa	2694	A	O4'-C1'-N9	6.33	113.27	108.20
85	Ac	57	C	N3-C4-C5	-6.33	119.37	121.90
1	Ad	1508	C	O4'-C1'-N1	6.33	113.27	108.20
84	Aa	114	G	C5-C6-O6	-6.33	124.80	128.60
84	Aa	190	C	N3-C4-C5	-6.33	119.37	121.90
84	Aa	841	G	O4'-C1'-N9	6.33	113.27	108.20
84	Aa	1696	G	C5-C6-O6	-6.33	124.80	128.60
84	Aa	1929	A	C4-C5-C6	6.33	120.17	117.00
84	Aa	2046	G	O4'-C1'-N9	6.33	113.27	108.20
84	Aa	2132	A	C4-C5-C6	6.33	120.17	117.00
84	Aa	2191	C	N3-C4-C5	-6.33	119.37	121.90
85	Ac	106	C	O4'-C1'-N1	6.33	113.26	108.20
84	Aa	292	A	C4-C5-C6	6.33	120.17	117.00
84	Aa	1312	A	C5-C6-N1	-6.33	114.53	117.70
84	Aa	3053	G	O4'-C1'-N9	6.33	113.26	108.20
84	Aa	316	A	O4'-C1'-N9	6.33	113.26	108.20
84	Aa	1129	G	C5-C6-O6	-6.33	124.80	128.60
84	Aa	1653	A	C5-C6-N6	-6.33	118.64	123.70
84	Aa	1713	A	C4-C5-C6	6.33	120.16	117.00
84	Aa	1204	A	C4-C5-C6	6.33	120.16	117.00
84	Aa	1367	A	C5-C6-N6	-6.33	118.64	123.70
84	Aa	1750	A	C4-C5-C6	6.33	120.16	117.00
84	Aa	2997	C	P-O3'-C3'	6.33	127.29	119.70
1	Ad	602	U	O4'-C1'-N1	6.33	113.26	108.20
84	Aa	1049	C	N3-C4-C5	-6.33	119.37	121.90
84	Aa	1295	A	C5-C6-N1	-6.33	114.54	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2096	U	P-O5'-C5'	-6.33	110.78	120.90
84	Aa	2534	G	O4'-C1'-N9	6.33	113.26	108.20
84	Aa	2849	A	C4-C5-C6	6.33	120.16	117.00
84	Aa	1227	A	C4-C5-C6	6.32	120.16	117.00
84	Aa	2189	G	C5-C6-O6	-6.32	124.81	128.60
84	Aa	2412	A	O4'-C1'-N9	6.32	113.26	108.20
84	Aa	2942	A	C4-C5-C6	6.32	120.16	117.00
85	Ac	110	A	C4-C5-C6	6.32	120.16	117.00
1	Ad	531	A	O4'-C1'-N9	6.32	113.26	108.20
84	Aa	297	G	O4'-C1'-N9	6.32	113.26	108.20
84	Aa	538	C	O4'-C1'-N1	6.32	113.26	108.20
84	Aa	1159	C	N3-C4-C5	-6.32	119.37	121.90
84	Aa	1417	G	C5-C6-O6	-6.32	124.81	128.60
84	Aa	2021	G	O4'-C1'-N9	6.32	113.26	108.20
84	Aa	2300	G	C5-C6-O6	-6.32	124.81	128.60
1	Ad	227	G	O4'-C1'-N9	6.32	113.26	108.20
84	Aa	286	C	N3-C4-N4	6.32	122.42	118.00
84	Aa	716	A	C5-C6-N1	-6.32	114.54	117.70
84	Aa	726	C	N3-C4-C5	-6.32	119.37	121.90
84	Aa	1298	A	C5-C6-N1	-6.32	114.54	117.70
84	Aa	1776	G	C5-C6-O6	-6.32	124.81	128.60
84	Aa	419	G	C5-C6-O6	-6.32	124.81	128.60
84	Aa	3168	C	N3-C4-C5	-6.32	119.37	121.90
1	Ad	244	C	C3'-C2'-C1'	6.32	106.56	101.50
1	Ad	1137	A	C3'-C2'-C1'	6.32	106.55	101.50
84	Aa	792	A	C5-C6-N6	-6.32	118.65	123.70
84	Aa	1023	G	O4'-C1'-N9	6.32	113.25	108.20
84	Aa	1664	G	O4'-C1'-N9	6.32	113.25	108.20
84	Aa	2077	C	N3-C4-C5	-6.32	119.37	121.90
84	Aa	2111	A	C4-C5-C6	6.32	120.16	117.00
84	Aa	2300	G	O4'-C1'-N9	6.32	113.25	108.20
84	Aa	2428	G	C5-C6-O6	-6.32	124.81	128.60
84	Aa	3136	A	C4-C5-C6	6.32	120.16	117.00
1	Ad	558	C	C3'-C2'-C1'	6.32	106.55	101.50
84	Aa	1135	C	N3-C4-C5	-6.32	119.37	121.90
84	Aa	2336	C	N3-C4-C5	-6.32	119.37	121.90
84	Aa	3053	G	C5-C6-O6	-6.32	124.81	128.60
1	Ad	728	C	C3'-C2'-C1'	6.31	106.55	101.50
84	Aa	258	C	N3-C4-C5	-6.31	119.37	121.90
84	Aa	1086	U	O4'-C1'-N1	6.31	113.25	108.20
84	Aa	2297	G	O4'-C1'-N9	6.31	113.25	108.20
84	Aa	2534	G	C5-C6-O6	-6.31	124.81	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
17	BS	83	PHE	CB-CG-CD2	6.31	125.22	120.80
84	Aa	1191	U	O4'-C1'-N1	6.31	113.25	108.20
84	Aa	1463	A	C5-C6-N6	-6.31	118.65	123.70
84	Aa	1553	C	N3-C4-C5	-6.31	119.38	121.90
84	Aa	490	G	C5-C6-O6	-6.31	124.81	128.60
84	Aa	507	C	O4'-C1'-N1	6.31	113.25	108.20
84	Aa	1013	A	C5-C6-N1	-6.31	114.55	117.70
84	Aa	2651	G	C5-C6-O6	-6.31	124.81	128.60
84	Aa	2657	C	P-O3'-C3'	6.31	127.27	119.70
84	Aa	550	C	C4'-C3'-O3'	6.31	125.62	113.00
84	Aa	680	G	C5-C6-O6	-6.31	124.81	128.60
84	Aa	1403	G	C5-C6-O6	-6.31	124.81	128.60
84	Aa	1576	C	O4'-C1'-N1	6.31	113.25	108.20
84	Aa	1613	C	N3-C4-C5	-6.31	119.38	121.90
84	Aa	2474	A	C4-C5-C6	6.31	120.16	117.00
84	Aa	2585	C	N3-C4-C5	-6.31	119.38	121.90
84	Aa	2668	U	O4'-C1'-N1	6.31	113.25	108.20
84	Aa	3187	C	N3-C4-N4	6.31	122.42	118.00
1	Ad	344	U	O4'-C1'-C2'	-6.31	99.49	105.80
45	CN	4	TYR	CB-CG-CD1	-6.31	117.22	121.00
84	Aa	141	C	N3-C4-N4	6.31	122.42	118.00
84	Aa	786	U	O4'-C1'-N1	6.31	113.25	108.20
84	Aa	1015	A	O4'-C1'-N9	6.31	113.25	108.20
84	Aa	1310	G	N1-C6-O6	6.31	123.69	119.90
84	Aa	1859	G	C5-C6-O6	-6.31	124.82	128.60
84	Aa	2291	A	C5-C6-N1	-6.31	114.55	117.70
84	Aa	2780	G	C5-C6-O6	-6.31	124.82	128.60
84	Aa	3229	C	O4'-C1'-N1	6.31	113.25	108.20
84	Aa	3319	G	O4'-C1'-N9	6.31	113.25	108.20
84	Aa	2973	A	O4'-C1'-N9	6.31	113.25	108.20
84	Aa	2983	U	O4'-C1'-N1	6.31	113.25	108.20
1	Ad	1783	C	N1-C1'-C2'	6.30	122.20	114.00
84	Aa	838	G	O4'-C1'-N9	6.30	113.24	108.20
84	Aa	1188	C	N3-C4-C5	-6.30	119.38	121.90
84	Aa	2509	A	C5-C6-N1	-6.30	114.55	117.70
84	Aa	3136	A	C5-C6-N1	-6.30	114.55	117.70
84	Aa	3281	G	O4'-C1'-N9	6.30	113.24	108.20
84	Aa	2017	G	C5-C6-O6	-6.30	124.82	128.60
84	Aa	2561	A	C5-C6-N6	-6.30	118.66	123.70
1	Ad	614	G	P-O3'-C3'	6.30	127.26	119.70
2	Ae	46	A	O4'-C1'-N9	6.30	113.24	108.20
41	CA	67	PHE	N-CA-CB	6.30	121.94	110.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	456	G	O4'-C1'-N9	6.30	113.24	108.20
84	Aa	621	C	N3-C4-N4	6.30	122.41	118.00
84	Aa	1332	C	O4'-C1'-N1	6.30	113.24	108.20
84	Aa	1662	G	O4'-C1'-N9	6.30	113.24	108.20
84	Aa	2027	G	O4'-C1'-N9	6.30	113.24	108.20
84	Aa	2199	C	O4'-C1'-N1	6.30	113.24	108.20
84	Aa	2307	A	O4'-C1'-N9	6.30	113.24	108.20
84	Aa	2311	A	O4'-C1'-N9	6.30	113.24	108.20
84	Aa	3247	C	N3-C4-C5	-6.30	119.38	121.90
85	Ac	125	C	O4'-C1'-N1	6.30	113.24	108.20
85	Ac	157	A	O4'-C1'-N9	6.30	113.24	108.20
84	Aa	428	G	O4'-C1'-N9	6.30	113.24	108.20
84	Aa	1675	G	C5-C6-O6	-6.30	124.82	128.60
86	Ab	85	G	N1-C6-O6	6.30	123.68	119.90
84	Aa	1637	G	C5-C6-O6	-6.30	124.82	128.60
84	Aa	2162	C	O4'-C4'-C3'	-6.30	97.70	104.00
1	Ad	353	G	O4'-C1'-N9	6.30	113.24	108.20
48	CD	262	ALA	N-CA-CB	6.30	118.92	110.10
84	Aa	875	A	O4'-C1'-N9	6.30	113.24	108.20
84	Aa	1936	G	O4'-C1'-N9	6.30	113.24	108.20
84	Aa	2257	A	O4'-C1'-N9	6.30	113.24	108.20
84	Aa	2294	A	C4-C5-C6	6.30	120.15	117.00
84	Aa	2345	C	N3-C4-C5	-6.30	119.38	121.90
84	Aa	121	A	C4-C5-C6	6.29	120.15	117.00
84	Aa	1340	G	N3-C2-N2	6.29	124.31	119.90
84	Aa	2730	A	C4-C5-C6	6.29	120.15	117.00
84	Aa	2985	C	N3-C4-C5	-6.29	119.38	121.90
1	Ad	1237	G	O4'-C1'-C2'	6.29	113.26	107.60
84	Aa	401	C	N3-C4-C5	-6.29	119.38	121.90
84	Aa	415	G	C5-C6-O6	-6.29	124.82	128.60
84	Aa	573	A	C5-C6-N6	-6.29	118.67	123.70
84	Aa	886	A	C4-C5-C6	6.29	120.15	117.00
84	Aa	2053	A	C4-C5-C6	6.29	120.15	117.00
84	Aa	2144	G	C5-C6-O6	-6.29	124.82	128.60
84	Aa	2798	G	N1-C6-O6	6.29	123.68	119.90
84	Aa	3124	A	C4-C5-C6	6.29	120.15	117.00
1	Ad	1232	G	C1'-O4'-C4'	-6.29	104.87	109.90
84	Aa	8	C	N3-C4-C5	-6.29	119.38	121.90
84	Aa	761	C	N3-C4-C5	-6.29	119.38	121.90
84	Aa	782	G	C5-C6-O6	-6.29	124.83	128.60
84	Aa	2332	C	N3-C4-C5	-6.29	119.38	121.90
84	Aa	2907	U	O4'-C1'-N1	6.29	113.23	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	3287	A	O4'-C1'-N9	6.29	113.23	108.20
84	Aa	1427	C	N3-C4-C5	-6.29	119.38	121.90
84	Aa	2122	C	N3-C4-C5	-6.29	119.38	121.90
84	Aa	3263	C	C5'-C4'-C3'	6.29	126.06	116.00
84	Aa	124	C	N3-C4-C5	-6.29	119.38	121.90
84	Aa	535	G	C5-C6-O6	-6.29	124.83	128.60
84	Aa	719	U	P-O5'-C5'	6.29	130.96	120.90
84	Aa	1695	C	C2-N3-C4	6.29	123.04	119.90
84	Aa	2114	A	C4-C5-C6	6.29	120.14	117.00
84	Aa	2311	A	C5-C6-N6	-6.29	118.67	123.70
84	Aa	3166	C	O4'-C1'-N1	6.29	113.23	108.20
86	Ab	108	G	C4-C5-N7	-6.29	108.28	110.80
1	Ad	901	U	O4'-C1'-N1	6.29	113.23	108.20
84	Aa	1264	A	C4-C5-C6	6.29	120.14	117.00
84	Aa	2357	A	C5-C6-N6	-6.29	118.67	123.70
84	Aa	3089	G	C5-C6-O6	-6.29	124.83	128.60
1	Ad	252	U	O4'-C1'-C2'	-6.29	99.51	105.80
1	Ad	561	G	O4'-C1'-N9	-6.29	103.17	108.20
1	Ad	744	G	P-O5'-C5'	6.29	130.96	120.90
1	Ad	1112	G	N9-C1'-C2'	6.29	122.17	114.00
46	Ca	52	TYR	CB-CG-CD2	-6.29	117.23	121.00
84	Aa	700	C	N3-C4-C5	-6.29	119.39	121.90
84	Aa	830	A	C5-C6-N1	-6.29	114.56	117.70
84	Aa	1729	G	O4'-C1'-N9	6.29	113.23	108.20
84	Aa	1999	G	C5-C6-O6	-6.29	124.83	128.60
84	Aa	2427	C	N3-C4-C5	-6.29	119.39	121.90
84	Aa	2923	U	O4'-C1'-N1	6.29	113.23	108.20
84	Aa	3049	A	C5-C6-N6	-6.29	118.67	123.70
85	Ac	58	G	O4'-C1'-N9	6.29	113.23	108.20
1	Ad	1354	C	O4'-C1'-N1	6.28	113.23	108.20
1	Ad	1524	A	P-O3'-C3'	6.28	127.24	119.70
50	CP	4	TYR	CB-CG-CD2	-6.28	117.23	121.00
84	Aa	138	G	O4'-C1'-N9	6.28	113.23	108.20
84	Aa	359	A	C5-C6-N1	-6.28	114.56	117.70
84	Aa	1057	A	C4-C5-C6	6.28	120.14	117.00
84	Aa	1436	A	C4-C5-C6	6.28	120.14	117.00
84	Aa	1481	C	N3-C4-C5	-6.28	119.39	121.90
84	Aa	2412	A	C5-C6-N1	-6.28	114.56	117.70
84	Aa	2548	U	O4'-C1'-N1	6.28	113.23	108.20
84	Aa	2990	C	N3-C4-C5	-6.28	119.39	121.90
85	Ac	152	G	C5-C6-O6	-6.28	124.83	128.60
84	Aa	47	A	O4'-C1'-N9	6.28	113.23	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1162	A	C4-C5-C6	6.28	120.14	117.00
84	Aa	1206	A	C4-C5-C6	6.28	120.14	117.00
84	Aa	1501	A	C4-C5-C6	6.28	120.14	117.00
84	Aa	1986	G	O4'-C1'-N9	6.28	113.23	108.20
1	Ad	318	C	C3'-C2'-C1'	6.28	106.52	101.50
84	Aa	20	G	O4'-C1'-N9	6.28	113.22	108.20
84	Aa	1222	U	O4'-C1'-N1	6.28	113.22	108.20
84	Aa	1267	A	N1-C6-N6	6.28	122.37	118.60
84	Aa	2892	A	O4'-C1'-N9	6.28	113.22	108.20
1	Ad	1292	G	O4'-C1'-N9	6.28	113.22	108.20
84	Aa	218	G	O4'-C1'-N9	6.28	113.22	108.20
84	Aa	1619	G	C5-C6-O6	-6.28	124.83	128.60
84	Aa	3391	U	O4'-C1'-N1	6.28	113.22	108.20
1	Ad	976	A	O4'-C1'-N9	6.28	113.22	108.20
84	Aa	466	U	O4'-C1'-N1	6.28	113.22	108.20
84	Aa	485	G	C5-C6-O6	-6.28	124.83	128.60
84	Aa	2751	A	C5-C6-N6	-6.28	118.68	123.70
84	Aa	2781	A	C5-C6-N1	-6.28	114.56	117.70
84	Aa	3195	C	N3-C4-N4	6.28	122.39	118.00
1	Ad	162	A	O4'-C1'-N9	6.28	113.22	108.20
84	Aa	1139	A	O4'-C1'-N9	6.28	113.22	108.20
84	Aa	1477	A	C5-C6-N1	-6.28	114.56	117.70
84	Aa	1495	G	O4'-C1'-N9	6.28	113.22	108.20
84	Aa	1657	C	N3-C4-C5	-6.28	119.39	121.90
84	Aa	3266	U	O4'-C1'-N1	6.28	113.22	108.20
85	Ac	13	A	C5-C6-N1	-6.28	114.56	117.70
85	Ac	60	U	O4'-C1'-N1	6.28	113.22	108.20
85	Ac	114	G	O4'-C1'-N9	6.28	113.22	108.20
84	Aa	510	C	N3-C4-C5	-6.27	119.39	121.90
84	Aa	968	A	C4-C5-C6	6.27	120.14	117.00
84	Aa	1567	G	C5-C6-O6	-6.27	124.84	128.60
84	Aa	2735	G	O4'-C1'-N9	6.27	113.22	108.20
84	Aa	2395	G	O4'-C1'-N9	6.27	113.22	108.20
84	Aa	2562	A	C4-C5-C6	6.27	120.14	117.00
84	Aa	2795	G	C5-C6-O6	-6.27	124.84	128.60
84	Aa	723	G	O3'-P-O5'	6.27	115.92	104.00
84	Aa	3107	A	O4'-C1'-N9	6.27	113.22	108.20
1	Ad	931	A	O4'-C1'-N9	6.27	113.22	108.20
84	Aa	143	A	C4-C5-C6	6.27	120.13	117.00
84	Aa	751	C	N3-C4-C5	-6.27	119.39	121.90
84	Aa	835	G	C5'-C4'-C3'	6.27	126.03	116.00
1	Ad	719	C	O4'-C1'-C2'	-6.27	99.53	105.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	73	A	C4-C5-C6	6.27	120.13	117.00
84	Aa	1278	A	C4-C5-C6	6.27	120.13	117.00
84	Aa	2113	A	C4-C5-C6	6.27	120.13	117.00
84	Aa	2354	G	O4'-C1'-N9	6.27	113.22	108.20
84	Aa	2687	C	N3-C4-C5	-6.27	119.39	121.90
84	Aa	3055	U	O4'-C1'-N1	6.27	113.22	108.20
84	Aa	3133	C	N3-C4-C5	-6.27	119.39	121.90
84	Aa	3299	A	C5-C6-N1	-6.27	114.57	117.70
84	Aa	3337	G	C5-C6-O6	-6.27	124.84	128.60
1	Ad	1421	U	C1'-O4'-C4'	-6.27	104.89	109.90
84	Aa	2254	A	C4-C5-C6	6.27	120.13	117.00
84	Aa	2493	C	N3-C4-C5	-6.27	119.39	121.90
1	Ad	788	G	O4'-C1'-N9	-6.26	103.19	108.20
1	Ad	888	U	C3'-C2'-C1'	-6.26	96.49	101.50
84	Aa	77	U	O4'-C1'-N1	6.26	113.21	108.20
84	Aa	132	U	O4'-C1'-N1	6.26	113.21	108.20
84	Aa	401	C	O4'-C1'-N1	6.26	113.21	108.20
84	Aa	508	G	O4'-C1'-N9	6.26	113.21	108.20
84	Aa	640	C	N3-C4-C5	-6.26	119.39	121.90
84	Aa	949	C	N3-C4-N4	6.26	122.39	118.00
84	Aa	1039	G	O4'-C1'-N9	6.26	113.21	108.20
84	Aa	1806	C	N3-C4-C5	-6.26	119.39	121.90
84	Aa	1985	G	O4'-C1'-N9	6.26	113.21	108.20
84	Aa	3152	C	O4'-C1'-N1	6.26	113.21	108.20
85	Ac	51	G	C5-C6-O6	-6.26	124.84	128.60
1	Ad	1217	G	O4'-C1'-N9	6.26	113.21	108.20
84	Aa	489	C	N3-C4-N4	6.26	122.38	118.00
84	Aa	931	C	N3-C4-C5	-6.26	119.39	121.90
84	Aa	2034	G	C5-C6-O6	-6.26	124.84	128.60
84	Aa	2316	A	C4-C5-C6	6.26	120.13	117.00
63	CU	84	TYR	CB-CG-CD1	6.26	124.76	121.00
71	CB	118	PHE	CB-CG-CD2	-6.26	116.42	120.80
84	Aa	420	A	C4-C5-C6	6.26	120.13	117.00
84	Aa	795	C	N3-C4-C5	-6.26	119.39	121.90
84	Aa	912	G	O4'-C1'-N9	6.26	113.21	108.20
84	Aa	929	A	C5-C6-N6	-6.26	118.69	123.70
84	Aa	1880	A	O4'-C1'-N9	6.26	113.21	108.20
84	Aa	3314	G	C5-C6-O6	-6.26	124.84	128.60
1	Ad	174	C	O4'-C1'-C2'	-6.26	99.54	105.80
1	Ad	417	U	O4'-C1'-N1	6.26	113.21	108.20
1	Ad	1732	A	O4'-C1'-C2'	-6.26	99.54	105.80
84	Aa	287	A	C5-C6-N1	-6.26	114.57	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	864	C	N3-C4-C5	-6.26	119.40	121.90
84	Aa	866	C	N3-C4-C5	-6.26	119.40	121.90
84	Aa	1000	A	C4-C5-C6	6.26	120.13	117.00
84	Aa	2157	C	N3-C4-C5	-6.26	119.40	121.90
84	Aa	2372	A	C5-C6-N6	-6.26	118.69	123.70
84	Aa	2800	C	N3-C4-C5	-6.26	119.40	121.90
1	Ad	975	A	O4'-C1'-C2'	-6.26	99.54	105.80
1	Ad	1123	G	O4'-C1'-N9	6.26	113.21	108.20
1	Ad	368	A	O4'-C1'-N9	6.26	113.20	108.20
84	Aa	212	G	C5-C6-O6	-6.26	124.85	128.60
84	Aa	962	C	P-O3'-C3'	6.26	127.21	119.70
84	Aa	1405	G	C5-C6-O6	-6.26	124.85	128.60
84	Aa	2358	C	N3-C4-C5	-6.26	119.40	121.90
84	Aa	2804	A	C4-C5-C6	6.26	120.13	117.00
1	Ad	94	A	C1'-O4'-C4'	-6.25	104.90	109.90
1	Ad	957	A	O4'-C1'-N9	6.25	113.20	108.20
1	Ad	1157	A	O4'-C1'-N9	6.25	113.20	108.20
84	Aa	536	C	N3-C4-C5	-6.25	119.40	121.90
84	Aa	733	C	N3-C4-N4	6.25	122.38	118.00
84	Aa	1783	G	O4'-C1'-N9	6.25	113.20	108.20
84	Aa	1932	A	C5-C6-N1	-6.25	114.57	117.70
84	Aa	2213	G	C5-C6-O6	-6.25	124.85	128.60
84	Aa	2325	A	C5-C6-N1	-6.25	114.57	117.70
1	Ad	1722	C	O4'-C1'-N1	6.25	113.20	108.20
16	BO	72	ALA	N-CA-CB	6.25	118.85	110.10
84	Aa	836	G	C5-C6-O6	-6.25	124.85	128.60
84	Aa	2008	G	O4'-C1'-N9	6.25	113.20	108.20
84	Aa	2742	A	C5-C6-N1	-6.25	114.57	117.70
84	Aa	3347	U	O4'-C1'-N1	6.25	113.20	108.20
85	Ac	11	C	N3-C4-N4	6.25	122.38	118.00
84	Aa	614	C	N3-C4-N4	6.25	122.38	118.00
84	Aa	1724	C	N3-C4-N4	6.25	122.38	118.00
84	Aa	2256	G	O4'-C1'-N9	6.25	113.20	108.20
85	Ac	24	G	C5-C6-O6	-6.25	124.85	128.60
84	Aa	980	C	N3-C4-C5	-6.25	119.40	121.90
84	Aa	1539	G	O4'-C1'-N9	6.25	113.20	108.20
84	Aa	1799	C	N3-C4-N4	6.25	122.37	118.00
84	Aa	2627	G	C5-C6-O6	-6.25	124.85	128.60
28	BA	43	TYR	CB-CG-CD2	-6.25	117.25	121.00
84	Aa	1804	G	C5-C6-O6	-6.25	124.85	128.60
84	Aa	1843	A	C5-C6-N6	-6.25	118.70	123.70
85	Ac	43	A	C5-C6-N1	-6.25	114.58	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	498	G	C5-C6-O6	-6.25	124.85	128.60
84	Aa	587	A	C5-C6-N1	-6.25	114.58	117.70
84	Aa	2609	G	C5-C6-O6	-6.25	124.85	128.60
84	Aa	3111	C	N3-C4-C5	-6.25	119.40	121.90
1	Ad	842	G	C3'-C2'-C1'	-6.24	96.51	101.50
1	Ad	1525	U	O4'-C1'-N1	6.24	113.19	108.20
84	Aa	454	A	C5-C6-N1	-6.24	114.58	117.70
84	Aa	1644	A	C5-C6-N1	-6.24	114.58	117.70
84	Aa	2108	C	N3-C4-C5	-6.24	119.40	121.90
84	Aa	2638	A	C5-C6-N6	-6.24	118.70	123.70
85	Ac	31	G	C5-C6-O6	-6.24	124.85	128.60
15	BU	3	ALA	N-CA-CB	6.24	118.84	110.10
84	Aa	583	C	N3-C4-C5	-6.24	119.40	121.90
84	Aa	661	A	C5-C6-N1	-6.24	114.58	117.70
84	Aa	1101	A	C5-C6-N1	-6.24	114.58	117.70
84	Aa	1989	G	C5-C6-O6	-6.24	124.86	128.60
84	Aa	2418	A	C4-C5-C6	6.24	120.12	117.00
84	Aa	2712	C	N3-C4-C5	-6.24	119.40	121.90
84	Aa	2898	A	C4-C5-C6	6.24	120.12	117.00
1	Ad	397	C	O4'-C1'-C2'	-6.24	99.56	105.80
84	Aa	50	A	C4-C5-C6	6.24	120.12	117.00
84	Aa	1072	C	N3-C4-N4	6.24	122.37	118.00
84	Aa	1554	C	N3-C4-C5	-6.24	119.40	121.90
84	Aa	2051	G	C5-C6-O6	-6.24	124.86	128.60
84	Aa	2401	A	C4-C5-C6	6.24	120.12	117.00
85	Ac	59	A	C5-C6-N1	-6.24	114.58	117.70
1	Ad	1074	C	C3'-C2'-C1'	6.24	106.49	101.50
1	Ad	1465	C	O4'-C1'-C2'	-6.24	99.56	105.80
38	CT	19	PHE	CB-CG-CD1	6.24	125.17	120.80
84	Aa	642	C	C2-N1-C1'	6.24	125.66	118.80
84	Aa	1200	A	C4-C5-C6	6.24	120.12	117.00
84	Aa	2144	G	O4'-C1'-N9	6.24	113.19	108.20
84	Aa	2619	C	N3-C4-C5	-6.24	119.40	121.90
85	Ac	92	A	C4-C5-C6	6.24	120.12	117.00
41	CA	76	PHE	CB-CG-CD1	6.24	125.17	120.80
84	Aa	2291	A	C4-C5-C6	6.24	120.12	117.00
84	Aa	2765	A	C4-C5-C6	6.24	120.12	117.00
84	Aa	3382	A	C5-C6-N6	-6.24	118.71	123.70
1	Ad	1787	G	O4'-C1'-N9	6.24	113.19	108.20
84	Aa	1172	A	C5-C6-N6	-6.24	118.71	123.70
84	Aa	2011	G	C5-C6-O6	-6.24	124.86	128.60
84	Aa	2720	U	O4'-C1'-N1	6.24	113.19	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2882	U	O4'-C1'-N1	6.24	113.19	108.20
84	Aa	2905	A	C5-C6-N6	-6.24	118.71	123.70
84	Aa	3203	G	O4'-C1'-N9	6.24	113.19	108.20
84	Aa	1640	A	C4-C5-C6	6.23	120.12	117.00
84	Aa	2109	G	C5-C6-O6	-6.23	124.86	128.60
1	Ad	1461	G	C1'-O4'-C4'	-6.23	104.92	109.90
84	Aa	1704	A	C5-C6-N6	-6.23	118.71	123.70
84	Aa	2956	U	P-O3'-C3'	6.23	127.18	119.70
84	Aa	3057	A	C5-C6-N6	-6.23	118.71	123.70
86	Ab	7	G	C6-N1-C2	6.23	128.84	125.10
84	Aa	1279	C	N3-C4-C5	-6.23	119.41	121.90
84	Aa	1572	C	N3-C4-C5	-6.23	119.41	121.90
84	Aa	2129	U	O4'-C1'-N1	6.23	113.18	108.20
84	Aa	2265	A	O4'-C1'-N9	6.23	113.19	108.20
84	Aa	2996	A	C5-C6-N6	-6.23	118.72	123.70
84	Aa	214	G	O4'-C1'-N9	6.23	113.18	108.20
84	Aa	1281	C	P-O3'-C3'	6.23	127.17	119.70
84	Aa	1779	C	N3-C4-C5	-6.23	119.41	121.90
84	Aa	1860	A	O4'-C1'-N9	6.23	113.18	108.20
1	Ad	429	A	O4'-C1'-N9	6.23	113.18	108.20
1	Ad	510	A	C1'-O4'-C4'	6.23	114.88	109.90
1	Ad	951	U	O4'-C1'-N1	6.23	113.18	108.20
84	Aa	419	G	O4'-C1'-N9	6.23	113.18	108.20
84	Aa	486	G	O4'-C1'-N9	6.23	113.18	108.20
84	Aa	718	C	C5'-C4'-O4'	6.23	116.57	109.10
84	Aa	853	U	O4'-C1'-N1	6.23	113.18	108.20
84	Aa	1705	A	C5-C6-N1	-6.23	114.59	117.70
84	Aa	1880	A	C4-C5-C6	6.23	120.11	117.00
84	Aa	2774	A	C4-C5-C6	6.23	120.11	117.00
84	Aa	2918	U	O4'-C1'-N1	6.23	113.18	108.20
86	Ab	1	G	N1-C6-O6	6.23	123.64	119.90
84	Aa	357	C	N3-C4-N4	6.23	122.36	118.00
84	Aa	657	A	C4-C5-C6	6.23	120.11	117.00
84	Aa	985	C	N3-C4-N4	6.23	122.36	118.00
84	Aa	1075	G	C5-C6-O6	-6.23	124.86	128.60
84	Aa	2070	C	N3-C4-C5	-6.23	119.41	121.90
84	Aa	3090	C	N3-C4-C5	-6.23	119.41	121.90
1	Ad	277	G	N9-C1'-C2'	6.22	122.09	114.00
84	Aa	109	G	C5-C6-O6	-6.22	124.86	128.60
84	Aa	1000	A	C5-C6-N6	-6.22	118.72	123.70
84	Aa	1714	A	C4-C5-C6	6.22	120.11	117.00
84	Aa	1805	A	O4'-C1'-N9	6.22	113.18	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2098	A	C5-C6-N6	-6.22	118.72	123.70
84	Aa	2484	G	C5-C6-O6	-6.22	124.86	128.60
84	Aa	2670	A	C5-C6-N6	-6.22	118.72	123.70
1	Ad	223	A	N9-C1'-C2'	6.22	122.09	114.00
1	Ad	1503	C	N1-C1'-C2'	6.22	122.09	114.00
1	Ad	1581	A	C3'-C2'-C1'	6.22	106.48	101.50
84	Aa	1644	A	C5-C6-N6	-6.22	118.72	123.70
84	Aa	3201	A	C4-C5-C6	6.22	120.11	117.00
1	Ad	1543	U	C3'-C2'-C1'	6.22	106.48	101.50
84	Aa	2483	A	O4'-C1'-N9	6.22	113.18	108.20
1	Ad	1501	G	P-O3'-C3'	6.22	127.16	119.70
1	Ad	1670	G	O4'-C1'-N9	6.22	113.17	108.20
84	Aa	1294	A	O4'-C1'-N9	6.22	113.17	108.20
84	Aa	1928	A	C5-C6-N1	-6.22	114.59	117.70
84	Aa	2542	U	O4'-C1'-N1	6.22	113.17	108.20
84	Aa	2676	A	C5-C6-N1	-6.22	114.59	117.70
84	Aa	2859	C	N3-C4-C5	-6.22	119.41	121.90
84	Aa	3333	C	N3-C4-C5	-6.22	119.41	121.90
84	Aa	568	C	N3-C4-C5	-6.22	119.41	121.90
84	Aa	842	C	N3-C4-C5	-6.22	119.41	121.90
84	Aa	1157	A	C5-C6-N1	-6.22	114.59	117.70
84	Aa	1282	A	C5-C6-N6	-6.22	118.73	123.70
1	Ad	1303	G	P-O3'-C3'	6.22	127.16	119.70
84	Aa	640	C	C5'-C4'-O4'	6.22	116.56	109.10
84	Aa	1381	G	C5-C6-O6	-6.22	124.87	128.60
84	Aa	1819	A	O4'-C1'-N9	6.22	113.17	108.20
84	Aa	1902	G	O4'-C1'-N9	6.22	113.17	108.20
84	Aa	2205	G	C5-C6-O6	-6.22	124.87	128.60
84	Aa	2448	G	C5-C6-O6	-6.22	124.87	128.60
84	Aa	2645	A	C5-C6-N6	-6.22	118.73	123.70
84	Aa	2679	A	C5-C6-N6	-6.22	118.73	123.70
84	Aa	262	A	C4-C5-C6	6.21	120.11	117.00
84	Aa	1089	G	O4'-C1'-N9	6.21	113.17	108.20
84	Aa	1097	A	C4-C5-C6	6.21	120.11	117.00
84	Aa	1754	C	N3-C4-C5	-6.21	119.41	121.90
84	Aa	1927	A	C5-C6-N6	-6.21	118.73	123.70
84	Aa	2087	A	C1'-O4'-C4'	-6.21	104.93	109.90
84	Aa	2899	A	C5-C6-N1	-6.21	114.59	117.70
84	Aa	3003	C	O4'-C1'-N1	6.21	113.17	108.20
85	Ac	58	G	C5-C6-O6	-6.21	124.87	128.60
1	Ad	750	U	N1-C1'-C2'	6.21	122.08	114.00
84	Aa	721	A	C5-C6-N6	-6.21	118.73	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1114	A	O4'-C1'-N9	6.21	113.17	108.20
84	Aa	1273	U	C2-N1-C1'	6.21	125.16	117.70
1	Ad	1687	G	P-O3'-C3'	6.21	127.16	119.70
84	Aa	1036	C	N3-C4-C5	-6.21	119.42	121.90
84	Aa	1713	A	O4'-C1'-N9	6.21	113.17	108.20
84	Aa	2350	C	O4'-C1'-N1	6.21	113.17	108.20
84	Aa	3295	G	C5-C6-O6	-6.21	124.87	128.60
84	Aa	3332	G	C5-C6-O6	-6.21	124.87	128.60
84	Aa	433	C	N3-C4-C5	-6.21	119.42	121.90
84	Aa	513	C	P-O3'-C3'	6.21	127.15	119.70
84	Aa	1149	C	N3-C4-C5	-6.21	119.42	121.90
84	Aa	1978	G	O4'-C1'-N9	6.21	113.17	108.20
84	Aa	48	A	C4-C5-C6	6.21	120.10	117.00
84	Aa	586	A	C4-C5-C6	6.21	120.10	117.00
84	Aa	1814	C	N3-C4-N4	6.21	122.35	118.00
84	Aa	2268	G	C5-C6-O6	-6.21	124.87	128.60
84	Aa	2319	A	O4'-C1'-N9	6.21	113.17	108.20
84	Aa	2402	G	C5-C6-O6	-6.21	124.88	128.60
1	Ad	1163	C	C3'-C2'-C1'	6.21	106.47	101.50
84	Aa	834	G	C5-C6-O6	-6.21	124.88	128.60
84	Aa	887	A	C4-C5-C6	6.21	120.10	117.00
84	Aa	2436	G	C2'-C3'-O3'	-6.21	95.84	109.50
84	Aa	2667	C	N3-C4-C5	-6.21	119.42	121.90
84	Aa	3254	C	N3-C4-C5	-6.21	119.42	121.90
86	Ab	49	A	O4'-C1'-N9	6.21	113.17	108.20
1	Ad	303	A	O4'-C1'-C2'	-6.21	99.59	105.80
1	Ad	402	G	C3'-C2'-C1'	6.21	106.46	101.50
84	Aa	1224	A	C4-C5-C6	6.21	120.10	117.00
84	Aa	1930	G	O4'-C1'-N9	6.21	113.16	108.20
84	Aa	2572	U	O4'-C1'-N1	6.21	113.16	108.20
84	Aa	385	A	C4-C5-C6	6.20	120.10	117.00
84	Aa	1117	U	O4'-C1'-N1	6.20	113.16	108.20
84	Aa	1850	C	N3-C4-C5	-6.20	119.42	121.90
84	Aa	2411	G	C5-C6-O6	-6.20	124.88	128.60
84	Aa	2810	A	C5-C6-N6	-6.20	118.74	123.70
84	Aa	219	A	C4-C5-C6	6.20	120.10	117.00
84	Aa	1403	G	O4'-C1'-N9	6.20	113.16	108.20
1	Ad	24	U	O4'-C1'-N1	6.20	113.16	108.20
1	Ad	1755	G	C3'-C2'-C1'	-6.20	96.54	101.50
10	Bg	342	SER	N-CA-CB	6.20	119.80	110.50
84	Aa	516	C	N3-C4-C5	-6.20	119.42	121.90
84	Aa	663	G	O4'-C1'-N9	6.20	113.16	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1113	C	N3-C4-C5	-6.20	119.42	121.90
84	Aa	1892	A	C4-C5-C6	6.20	120.10	117.00
84	Aa	3232	C	N3-C4-C5	-6.20	119.42	121.90
84	Aa	3244	G	O4'-C1'-N9	6.20	113.16	108.20
84	Aa	3356	C	N3-C4-C5	-6.20	119.42	121.90
85	Ac	148	C	N3-C4-N4	6.20	122.34	118.00
1	Ad	27	U	C5'-C4'-O4'	6.20	116.54	109.10
1	Ad	357	A	C1'-O4'-C4'	6.20	114.86	109.90
1	Ad	1487	U	O4'-C1'-N1	6.20	113.16	108.20
84	Aa	186	A	C4-C5-C6	6.20	120.10	117.00
84	Aa	724	A	C5-C6-N1	-6.20	114.60	117.70
84	Aa	951	C	N3-C4-C5	-6.20	119.42	121.90
84	Aa	1030	A	C4-C5-C6	6.20	120.10	117.00
84	Aa	1285	U	O4'-C1'-N1	6.20	113.16	108.20
84	Aa	1514	U	O4'-C1'-N1	6.20	113.16	108.20
84	Aa	1517	C	C2-N1-C1'	6.20	125.62	118.80
84	Aa	2418	A	C5-C6-N1	-6.20	114.60	117.70
84	Aa	2869	C	N3-C4-C5	-6.20	119.42	121.90
85	Ac	157	A	C4-C5-C6	6.20	120.10	117.00
1	Ad	954	C	N1-C1'-C2'	6.20	122.06	114.00
2	Ae	20	C	O4'-C1'-N1	6.20	113.16	108.20
84	Aa	1246	G	C5-C6-O6	-6.20	124.88	128.60
1	Ad	934	A	P-O3'-C3'	6.20	127.13	119.70
1	Ad	1360	G	O4'-C1'-N9	6.20	113.16	108.20
84	Aa	32	G	O4'-C1'-N9	6.20	113.16	108.20
84	Aa	289	C	N3-C4-N4	6.20	122.34	118.00
84	Aa	1225	A	C5-C6-N6	-6.20	118.74	123.70
84	Aa	1840	C	N3-C4-C5	-6.20	119.42	121.90
84	Aa	2887	C	N3-C4-C5	-6.20	119.42	121.90
84	Aa	3135	A	C4-C5-C6	6.20	120.10	117.00
1	Ad	498	U	N1-C1'-C2'	-6.19	105.19	112.00
84	Aa	2904	A	C5-C6-N6	-6.19	118.74	123.70
84	Aa	850	A	C4-C5-C6	6.19	120.10	117.00
84	Aa	1687	C	N3-C4-C5	-6.19	119.42	121.90
84	Aa	2079	A	C5-C6-N1	-6.19	114.60	117.70
84	Aa	2912	A	C4-C5-C6	6.19	120.10	117.00
84	Aa	2978	A	C4-C5-C6	6.19	120.10	117.00
84	Aa	3220	A	C4-C5-C6	6.19	120.10	117.00
1	Ad	899	A	P-O3'-C3'	6.19	127.13	119.70
1	Ad	1663	A	C3'-C2'-C1'	6.19	106.45	101.50
84	Aa	199	G	C5-C6-O6	-6.19	124.89	128.60
84	Aa	645	C	N3-C4-C5	-6.19	119.42	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1405	G	O4'-C1'-N9	6.19	113.15	108.20
84	Aa	1733	G	O4'-C1'-N9	6.19	113.15	108.20
84	Aa	3386	A	C5-C6-N1	-6.19	114.61	117.70
86	Ab	118	C	N3-C4-C5	-6.19	119.42	121.90
84	Aa	968	A	C5-C6-N1	-6.19	114.61	117.70
84	Aa	1284	C	N3-C4-C5	-6.19	119.42	121.90
1	Ad	470	U	O4'-C1'-N1	6.19	113.15	108.20
84	Aa	98	A	C4-C5-C6	6.19	120.09	117.00
84	Aa	1095	C	N3-C4-C5	-6.19	119.42	121.90
84	Aa	1868	C	O4'-C1'-N1	6.19	113.15	108.20
84	Aa	3115	A	O4'-C1'-N9	6.19	113.15	108.20
1	Ad	1127	G	O4'-C1'-N9	6.19	113.15	108.20
61	CM	6	PHE	CB-CG-CD1	-6.19	116.47	120.80
84	Aa	1232	A	C4-C5-C6	6.19	120.09	117.00
84	Aa	1863	A	C4-C5-C6	6.19	120.09	117.00
84	Aa	3274	G	C5-C6-O6	-6.19	124.89	128.60
84	Aa	348	C	N3-C4-N4	6.18	122.33	118.00
84	Aa	802	G	O4'-C1'-N9	6.18	113.15	108.20
84	Aa	1068	A	C4-C5-C6	6.18	120.09	117.00
84	Aa	1818	C	N3-C4-C5	-6.18	119.43	121.90
84	Aa	1861	A	C4-C5-C6	6.18	120.09	117.00
84	Aa	1892	A	C5-C6-N1	-6.18	114.61	117.70
84	Aa	1986	G	C5-C6-O6	-6.18	124.89	128.60
84	Aa	2963	G	C5-C6-O6	-6.18	124.89	128.60
84	Aa	3386	A	O4'-C1'-N9	6.18	113.15	108.20
1	Ad	943	G	O4'-C1'-N9	6.18	113.15	108.20
84	Aa	88	A	C5-C6-N1	-6.18	114.61	117.70
84	Aa	262	A	C5-C6-N6	-6.18	118.75	123.70
84	Aa	304	A	C4-C5-C6	6.18	120.09	117.00
84	Aa	1917	A	C4-C5-C6	6.18	120.09	117.00
84	Aa	1929	A	C5-C6-N6	-6.18	118.75	123.70
84	Aa	2480	G	P-O5'-C5'	6.18	130.79	120.90
84	Aa	2921	A	C5-C6-N1	-6.18	114.61	117.70
84	Aa	849	A	C4-C5-C6	6.18	120.09	117.00
84	Aa	3009	A	C4-C5-C6	6.18	120.09	117.00
1	Ad	201	G	O4'-C1'-C2'	6.18	113.16	107.60
1	Ad	715	U	P-O5'-C5'	6.18	130.79	120.90
84	Aa	122	A	C5-C6-N1	-6.18	114.61	117.70
84	Aa	995	C	N3-C4-C5	-6.18	119.43	121.90
84	Aa	1478	A	C5-C6-N1	-6.18	114.61	117.70
84	Aa	1791	U	O4'-C1'-N1	6.18	113.14	108.20
84	Aa	3384	G	P-O3'-C3'	6.18	127.11	119.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
86	Ab	81	G	C5-C6-O6	-6.18	124.89	128.60
84	Aa	192	C	N3-C4-C5	-6.18	119.43	121.90
85	Ac	31	G	O4'-C1'-N9	6.18	113.14	108.20
1	Ad	1690	U	N1-C1'-C2'	-6.18	105.20	112.00
84	Aa	137	C	N3-C4-C5	-6.18	119.43	121.90
84	Aa	1031	A	C4-C5-C6	6.18	120.09	117.00
84	Aa	1249	A	C4-C5-C6	6.18	120.09	117.00
84	Aa	1523	G	O4'-C1'-N9	6.18	113.14	108.20
84	Aa	2015	G	O4'-C1'-N9	6.18	113.14	108.20
1	Ad	902	C	C3'-C2'-C1'	6.17	106.44	101.50
1	Ad	1206	A	C3'-C2'-C1'	6.17	106.44	101.50
84	Aa	127	G	C5-C6-O6	-6.17	124.89	128.60
84	Aa	634	A	C5-C6-N1	-6.17	114.61	117.70
84	Aa	1107	G	O4'-C1'-N9	6.17	113.14	108.20
84	Aa	1888	G	C5-C6-O6	-6.17	124.89	128.60
86	Ab	20	C	C2-N3-C4	6.17	122.99	119.90
1	Ad	541	G	O4'-C1'-N9	6.17	113.14	108.20
1	Ad	835	U	C4'-C3'-C2'	-6.17	96.43	102.60
84	Aa	7	C	O4'-C1'-N1	6.17	113.14	108.20
84	Aa	39	A	C5-C6-N6	-6.17	118.76	123.70
84	Aa	1359	A	C5-C6-N6	-6.17	118.76	123.70
84	Aa	1400	C	N3-C4-C5	-6.17	119.43	121.90
1	Ad	225	G	C1'-O4'-C4'	-6.17	104.96	109.90
1	Ad	1346	C	N1-C1'-C2'	6.17	122.02	114.00
1	Ad	1392	G	C1'-O4'-C4'	-6.17	104.96	109.90
84	Aa	160	G	C5-C6-O6	-6.17	124.90	128.60
84	Aa	228	C	N3-C4-C5	-6.17	119.43	121.90
84	Aa	448	G	O4'-C1'-N9	6.17	113.14	108.20
84	Aa	585	A	C4-C5-C6	6.17	120.08	117.00
84	Aa	687	C	O4'-C1'-N1	6.17	113.14	108.20
84	Aa	903	G	N1-C6-O6	6.17	123.60	119.90
84	Aa	3302	A	C4-C5-C6	6.17	120.09	117.00
1	Ad	1461	G	O4'-C1'-C2'	6.17	113.15	107.60
84	Aa	2068	G	C5-C6-O6	-6.17	124.90	128.60
84	Aa	2933	C	O4'-C1'-N1	6.17	113.14	108.20
85	Ac	139	C	N3-C4-C5	-6.17	119.43	121.90
84	Aa	424	G	C8-N9-C1'	-6.17	118.98	127.00
84	Aa	1790	A	C4-C5-C6	6.17	120.08	117.00
84	Aa	3089	G	O4'-C1'-N9	6.17	113.14	108.20
84	Aa	3277	C	C5'-C4'-O4'	6.17	116.50	109.10
1	Ad	630	U	O4'-C1'-N1	6.17	113.13	108.20
84	Aa	596	C	N3-C4-C5	-6.17	119.43	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	812	G	N1-C6-O6	6.17	123.60	119.90
84	Aa	840	A	O4'-C1'-N9	6.17	113.13	108.20
84	Aa	1326	C	N3-C4-C5	-6.17	119.43	121.90
84	Aa	2250	A	C4-C5-C6	6.17	120.08	117.00
84	Aa	2482	A	C5-C6-N6	-6.17	118.77	123.70
84	Aa	2659	A	C4-C5-C6	6.17	120.08	117.00
84	Aa	3302	A	C5-C6-N1	-6.17	114.62	117.70
84	Aa	1201	C	N3-C4-N4	6.17	122.31	118.00
1	Ad	1547	G	C3'-C2'-C1'	6.16	106.43	101.50
84	Aa	454	A	C4-C5-C6	6.16	120.08	117.00
84	Aa	1463	A	C5-C6-N1	-6.16	114.62	117.70
84	Aa	1794	A	C5-C6-N1	-6.16	114.62	117.70
84	Aa	1899	U	O4'-C1'-N1	6.16	113.13	108.20
84	Aa	2664	G	C5-C6-O6	-6.16	124.90	128.60
84	Aa	2673	G	O4'-C1'-N9	6.16	113.13	108.20
84	Aa	2737	A	C4-C5-C6	6.16	120.08	117.00
84	Aa	2858	G	C5-C6-O6	-6.16	124.90	128.60
84	Aa	3074	A	C4-C5-C6	6.16	120.08	117.00
1	Ad	292	A	C3'-C2'-C1'	6.16	106.43	101.50
1	Ad	1135	G	O4'-C1'-N9	6.16	113.13	108.20
84	Aa	519	C	N3-C4-C5	-6.16	119.44	121.90
84	Aa	1001	A	O4'-C1'-N9	6.16	113.13	108.20
84	Aa	1984	C	N3-C4-C5	-6.16	119.44	121.90
84	Aa	1988	G	C5-C6-O6	-6.16	124.90	128.60
84	Aa	2092	C	C6-N1-C2	-6.16	117.83	120.30
84	Aa	2708	A	C5-C6-N1	-6.16	114.62	117.70
86	Ab	25	G	N1-C6-O6	6.16	123.60	119.90
1	Ad	1682	U	O4'-C1'-C2'	-6.16	99.64	105.80
1	Ad	1697	G	O4'-C1'-N9	6.16	113.13	108.20
1	Ad	1728	G	OP1-P-OP2	-6.16	110.36	119.60
84	Aa	470	G	O4'-C1'-N9	6.16	113.13	108.20
84	Aa	632	C	N3-C4-C5	-6.16	119.44	121.90
84	Aa	879	A	C4-C5-C6	6.16	120.08	117.00
84	Aa	1732	G	O4'-C1'-N9	6.16	113.13	108.20
84	Aa	2917	U	O4'-C1'-N1	6.16	113.13	108.20
84	Aa	2930	C	N3-C4-C5	-6.16	119.44	121.90
84	Aa	3292	U	O4'-C1'-N1	6.16	113.13	108.20
86	Ab	5	G	N1-C2-N3	-6.16	120.20	123.90
1	Ad	847	U	C1'-O4'-C4'	-6.16	104.97	109.90
1	Ad	848	C	C3'-C2'-C1'	6.16	106.43	101.50
84	Aa	126	G	O4'-C1'-N9	6.16	113.13	108.20
84	Aa	1255	A	C4-C5-C6	6.16	120.08	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1398	A	C5-C6-N6	-6.16	118.77	123.70
84	Aa	1456	A	C5-C6-N1	-6.16	114.62	117.70
84	Aa	3269	C	N3-C4-N4	6.16	122.31	118.00
1	Ad	27	U	C3'-C2'-C1'	6.16	106.43	101.50
84	Aa	531	G	C5-C6-O6	-6.16	124.91	128.60
84	Aa	1012	U	O4'-C1'-N1	6.16	113.12	108.20
84	Aa	3003	C	N3-C4-C5	-6.16	119.44	121.90
85	Ac	73	U	O4'-C1'-N1	6.16	113.13	108.20
1	Ad	47	A	N9-C1'-C2'	6.16	122.00	114.00
1	Ad	79	A	C5'-C4'-O4'	6.16	116.49	109.10
84	Aa	1234	G	O4'-C1'-N9	6.16	113.12	108.20
84	Aa	1699	C	N3-C4-C5	-6.16	119.44	121.90
84	Aa	1805	A	C4-C5-C6	6.16	120.08	117.00
84	Aa	2037	C	N3-C4-N4	6.16	122.31	118.00
84	Aa	2458	A	C4-C5-C6	6.16	120.08	117.00
84	Aa	2852	G	N1-C6-O6	6.16	123.59	119.90
84	Aa	2987	C	N3-C4-C5	-6.16	119.44	121.90
1	Ad	228	G	O4'-C1'-C2'	-6.15	99.65	105.80
84	Aa	104	G	O4'-C1'-N9	6.15	113.12	108.20
84	Aa	56	A	C4-C5-C6	6.15	120.08	117.00
84	Aa	322	A	C5-C6-N6	-6.15	118.78	123.70
84	Aa	1336	A	C5-C6-N1	-6.15	114.62	117.70
84	Aa	1373	A	C4-C5-C6	6.15	120.08	117.00
84	Aa	1690	C	N3-C4-C5	-6.15	119.44	121.90
84	Aa	2013	G	O4'-C1'-N9	6.15	113.12	108.20
84	Aa	2993	A	C5-C6-N1	-6.15	114.62	117.70
1	Ad	17	C	C3'-C2'-C1'	6.15	106.42	101.50
1	Ad	1732	A	O4'-C1'-N9	6.15	113.12	108.20
47	CQ	53	PHE	CB-CG-CD2	-6.15	116.49	120.80
84	Aa	255	C	N3-C4-N4	6.15	122.31	118.00
84	Aa	365	A	C4-C5-C6	6.15	120.08	117.00
84	Aa	382	A	C4-C5-C6	6.15	120.08	117.00
84	Aa	749	C	N3-C4-C5	-6.15	119.44	121.90
84	Aa	933	U	O4'-C1'-N1	6.15	113.12	108.20
84	Aa	1246	G	O4'-C1'-N9	6.15	113.12	108.20
84	Aa	1666	C	N3-C4-C5	-6.15	119.44	121.90
84	Aa	2093	G	N3-C2-N2	6.15	124.20	119.90
84	Aa	660	A	C5-C6-N1	-6.15	114.62	117.70
84	Aa	2154	G	N3-C2-N2	6.15	124.20	119.90
1	Ad	1745	U	O4'-C1'-C2'	-6.15	99.65	105.80
84	Aa	225	G	C5-C6-O6	-6.15	124.91	128.60
84	Aa	981	A	C4-C5-C6	6.15	120.07	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2826	G	C5-C6-O6	-6.15	124.91	128.60
84	Aa	2069	G	O4'-C1'-N9	6.15	113.12	108.20
84	Aa	2331	A	C4-C5-C6	6.15	120.07	117.00
84	Aa	3072	A	C4-C5-C6	6.15	120.07	117.00
1	Ad	700	C	O4'-C1'-C2'	-6.14	99.66	105.80
84	Aa	970	A	C5-C6-N1	-6.14	114.63	117.70
84	Aa	1225	A	C4-C5-C6	6.14	120.07	117.00
84	Aa	1301	C	N3-C4-N4	6.14	122.30	118.00
84	Aa	1843	A	C4-C5-C6	6.14	120.07	117.00
84	Aa	2066	G	O4'-C1'-N9	6.14	113.11	108.20
84	Aa	2662	A	O4'-C1'-N9	6.14	113.12	108.20
84	Aa	2825	G	C5-C6-O6	-6.14	124.91	128.60
84	Aa	3205	C	N3-C4-N4	6.14	122.30	118.00
63	CU	107	ALA	N-CA-CB	6.14	118.70	110.10
84	Aa	162	G	C5-C6-O6	-6.14	124.91	128.60
84	Aa	370	A	O4'-C1'-N9	6.14	113.11	108.20
84	Aa	371	A	C4-C5-C6	6.14	120.07	117.00
84	Aa	1149	C	N3-C4-N4	6.14	122.30	118.00
84	Aa	1812	A	C5-C6-N1	-6.14	114.63	117.70
84	Aa	2549	C	N3-C4-C5	-6.14	119.44	121.90
84	Aa	3051	U	O4'-C1'-N1	6.14	113.11	108.20
86	Ab	14	C	C6-N1-C2	-6.14	117.84	120.30
84	Aa	1240	G	C5-C6-O6	-6.14	124.92	128.60
1	Ad	1165	A	O4'-C1'-N9	6.14	113.11	108.20
84	Aa	669	G	O4'-C1'-N9	6.14	113.11	108.20
84	Aa	790	G	C5-C6-O6	-6.14	124.92	128.60
84	Aa	1815	G	N1-C6-O6	6.14	123.58	119.90
84	Aa	2656	C	N3-C4-C5	-6.14	119.44	121.90
84	Aa	3073	A	C4-C5-C6	6.14	120.07	117.00
63	CU	57	GLY	C-N-CA	6.14	137.04	121.70
84	Aa	94	A	C5-C6-N1	-6.14	114.63	117.70
84	Aa	864	C	O4'-C1'-N1	6.14	113.11	108.20
84	Aa	2561	A	C4-C5-C6	6.14	120.07	117.00
84	Aa	3005	C	C5'-C4'-C3'	-6.14	106.18	116.00
1	Ad	1162	A	O4'-C1'-C2'	-6.14	99.66	105.80
9	BX	60	GLN	CB-CA-C	6.14	122.67	110.40
84	Aa	1040	A	C5-C6-N6	-6.14	118.79	123.70
84	Aa	1293	C	N3-C4-C5	-6.14	119.44	121.90
84	Aa	1401	C	N3-C4-C5	-6.14	119.44	121.90
84	Aa	1456	A	C5-C6-N6	-6.14	118.79	123.70
84	Aa	1532	A	C4-C5-C6	6.14	120.07	117.00
84	Aa	1965	C	N3-C4-N4	6.14	122.30	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2098	A	O4'-C1'-N9	6.14	113.11	108.20
1	Ad	822	G	C5'-C4'-O4'	6.13	116.46	109.10
1	Ad	932	C	N1-C1'-C2'	6.13	121.98	114.00
1	Ad	1342	C	N1-C1'-C2'	6.13	121.98	114.00
84	Aa	65	A	C4-C5-C6	6.13	120.07	117.00
84	Aa	481	G	O4'-C1'-N9	6.13	113.11	108.20
84	Aa	657	A	C5-C6-N1	-6.13	114.63	117.70
84	Aa	1543	A	C4-C5-C6	6.13	120.07	117.00
84	Aa	1807	C	N3-C4-C5	-6.13	119.45	121.90
84	Aa	1828	C	N3-C4-C5	-6.13	119.45	121.90
84	Aa	2366	A	C5-C6-N1	-6.13	114.63	117.70
84	Aa	2647	C	N3-C4-C5	-6.13	119.45	121.90
84	Aa	2886	C	N3-C4-C5	-6.13	119.45	121.90
84	Aa	115	C	P-O3'-C3'	6.13	127.06	119.70
84	Aa	660	A	O4'-C1'-N9	6.13	113.11	108.20
84	Aa	711	A	C5-C6-N1	-6.13	114.63	117.70
84	Aa	1328	C	N3-C4-C5	-6.13	119.45	121.90
84	Aa	2357	A	C4-C5-C6	6.13	120.07	117.00
84	Aa	2835	A	O4'-C1'-N9	6.13	113.11	108.20
84	Aa	3047	A	C5-C6-N1	-6.13	114.63	117.70
84	Aa	3109	G	C5-C6-O6	-6.13	124.92	128.60
1	Ad	291	G	C3'-C2'-C1'	-6.13	96.59	101.50
84	Aa	376	A	C4-C5-C6	6.13	120.07	117.00
84	Aa	802	G	C5-C6-O6	-6.13	124.92	128.60
84	Aa	1075	G	O4'-C1'-N9	6.13	113.11	108.20
84	Aa	1831	A	P-O3'-C3'	6.13	127.06	119.70
84	Aa	2092	C	C2-N1-C1'	-6.13	112.05	118.80
84	Aa	2580	C	N3-C4-C5	-6.13	119.45	121.90
84	Aa	2739	A	O4'-C1'-N9	6.13	113.11	108.20
84	Aa	2904	A	O4'-C1'-N9	6.13	113.11	108.20
1	Ad	146	A	O4'-C1'-C2'	-6.13	99.67	105.80
84	Aa	158	A	C4-C5-C6	6.13	120.06	117.00
84	Aa	170	C	O4'-C1'-N1	6.13	113.10	108.20
84	Aa	366	G	C5-C6-O6	-6.13	124.92	128.60
84	Aa	543	C	O5'-C5'-C4'	-6.13	100.05	111.70
84	Aa	1607	C	N3-C4-C5	-6.13	119.45	121.90
84	Aa	1798	C	C1'-O4'-C4'	-6.13	105.00	109.90
84	Aa	3095	G	O4'-C1'-N9	6.13	113.10	108.20
84	Aa	3154	G	C5-C6-O6	-6.13	124.92	128.60
1	Ad	185	G	O4'-C1'-N9	6.13	113.10	108.20
1	Ad	641	C	O4'-C1'-N1	6.13	113.10	108.20
84	Aa	305	G	O4'-C1'-N9	6.13	113.10	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1670	G	C5-C6-O6	-6.13	124.92	128.60
84	Aa	1744	C	C5'-C4'-O4'	6.13	116.45	109.10
84	Aa	2167	G	P-O3'-C3'	6.13	127.05	119.70
84	Aa	2397	A	C5-C6-N1	-6.13	114.64	117.70
84	Aa	2413	G	O4'-C1'-N9	6.13	113.10	108.20
84	Aa	3368	A	O4'-C1'-N9	6.13	113.10	108.20
84	Aa	376	A	O4'-C1'-N9	6.13	113.10	108.20
84	Aa	383	A	C4-C5-C6	6.13	120.06	117.00
84	Aa	717	G	C5-C6-O6	-6.13	124.92	128.60
84	Aa	1538	A	C4-C5-C6	6.13	120.06	117.00
84	Aa	2878	C	N3-C4-C5	-6.13	119.45	121.90
84	Aa	1026	A	O4'-C1'-N9	6.12	113.10	108.20
84	Aa	2442	A	O4'-C1'-N9	6.12	113.10	108.20
84	Aa	280	G	N1-C6-O6	6.12	123.57	119.90
84	Aa	932	A	O4'-C1'-N9	6.12	113.10	108.20
84	Aa	1123	A	C4-C5-C6	6.12	120.06	117.00
84	Aa	1367	A	C4-C5-C6	6.12	120.06	117.00
84	Aa	1413	C	N3-C4-C5	-6.12	119.45	121.90
84	Aa	2232	C	N3-C4-C5	-6.12	119.45	121.90
85	Ac	25	G	C5-C6-O6	-6.12	124.92	128.60
85	Ac	48	A	C5-C6-N1	-6.12	114.64	117.70
86	Ab	38	U	N3-C4-O4	6.12	123.69	119.40
1	Ad	152	G	C3'-C2'-C1'	-6.12	96.60	101.50
84	Aa	470	G	C5-C6-O6	-6.12	124.93	128.60
84	Aa	588	G	O4'-C1'-N9	6.12	113.10	108.20
84	Aa	842	C	N3-C4-N4	6.12	122.28	118.00
84	Aa	987	A	N1-C6-N6	6.12	122.27	118.60
84	Aa	1133	A	C4-C5-C6	6.12	120.06	117.00
84	Aa	1969	G	P-O3'-C3'	6.12	127.05	119.70
85	Ac	64	U	O4'-C1'-N1	6.12	113.10	108.20
1	Ad	96	G	O4'-C1'-C2'	6.12	113.11	107.60
84	Aa	252	A	C4-C5-C6	6.12	120.06	117.00
84	Aa	920	A	C4-C5-C6	6.12	120.06	117.00
84	Aa	2089	A	C4-C5-C6	6.12	120.06	117.00
84	Aa	2948	A	C4-C5-C6	6.12	120.06	117.00
84	Aa	3016	C	N3-C4-C5	-6.12	119.45	121.90
1	Ad	791	C	N1-C1'-C2'	6.12	121.95	114.00
1	Ad	1424	G	O4'-C1'-N9	6.12	113.10	108.20
56	Cd	33	PHE	CB-CG-CD1	6.12	125.08	120.80
84	Aa	711	A	C4-C5-C6	6.12	120.06	117.00
84	Aa	1161	G	O4'-C1'-N9	6.12	113.09	108.20
84	Aa	1475	U	O4'-C1'-N1	6.12	113.09	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1980	C	N3-C4-C5	-6.12	119.45	121.90
84	Aa	2744	C	N3-C4-N4	6.12	122.28	118.00
84	Aa	369	G	O4'-C1'-N9	6.12	113.09	108.20
84	Aa	665	G	O4'-C1'-N9	6.12	113.09	108.20
84	Aa	1490	A	C4-C5-C6	6.12	120.06	117.00
84	Aa	2084	G	O3'-P-O5'	-6.12	92.38	104.00
84	Aa	2843	G	C5-C6-O6	-6.12	124.93	128.60
85	Ac	54	A	C5-C6-N6	-6.12	118.81	123.70
1	Ad	296	A	O4'-C1'-N9	-6.12	103.31	108.20
1	Ad	298	C	C1'-O4'-C4'	-6.12	105.01	109.90
1	Ad	1555	A	O4'-C1'-N9	6.12	113.09	108.20
84	Aa	1004	C	O4'-C1'-N1	6.12	113.09	108.20
84	Aa	1711	G	C5-C6-O6	-6.12	124.93	128.60
84	Aa	1738	A	O4'-C1'-N9	6.12	113.09	108.20
84	Aa	1967	C	N3-C4-C5	-6.12	119.45	121.90
84	Aa	2367	A	C5-C6-N1	-6.12	114.64	117.70
84	Aa	2397	A	C4-C5-C6	6.12	120.06	117.00
84	Aa	2514	A	O4'-C1'-N9	6.12	113.09	108.20
84	Aa	2618	G	C5-C6-O6	-6.12	124.93	128.60
84	Aa	3277	C	N3-C4-C5	-6.12	119.45	121.90
86	Ab	105	C	C2-N3-C4	6.12	122.96	119.90
1	Ad	425	A	O4'-C1'-N9	6.11	113.09	108.20
1	Ad	967	C	C1'-O4'-C4'	-6.11	105.01	109.90
14	BQ	102	TYR	CB-CG-CD2	-6.11	117.33	121.00
25	Bd	47	ALA	N-CA-CB	6.11	118.66	110.10
84	Aa	1389	C	N3-C4-C5	-6.11	119.45	121.90
84	Aa	1793	A	C4-C5-C6	6.11	120.06	117.00
84	Aa	1888	G	O4'-C1'-N9	6.11	113.09	108.20
84	Aa	2479	C	O5'-C5'-C4'	-6.11	100.08	111.70
84	Aa	2750	A	C4-C5-C6	6.11	120.06	117.00
84	Aa	2889	A	C5-C6-N6	-6.11	118.81	123.70
84	Aa	3236	A	C4-C5-C6	6.11	120.06	117.00
2	Ae	17	G	C3'-C2'-C1'	6.11	106.39	101.50
84	Aa	602	G	C5-C6-O6	-6.11	124.93	128.60
84	Aa	2910	C	N3-C4-C5	-6.11	119.45	121.90
1	Ad	1120	U	N1-C1'-C2'	6.11	121.94	114.00
1	Ad	1576	C	C5'-C4'-C3'	-6.11	106.22	116.00
84	Aa	642	C	O4'-C1'-N1	6.11	113.09	108.20
84	Aa	1061	A	C5-C6-N6	-6.11	118.81	123.70
84	Aa	2366	A	C4-C5-C6	6.11	120.06	117.00
84	Aa	2371	A	C4-C5-C6	6.11	120.06	117.00
84	Aa	2512	U	P-O5'-C5'	-6.11	111.12	120.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	3150	G	O4'-C1'-N9	6.11	113.09	108.20
84	Aa	3213	A	C5-C6-N6	-6.11	118.81	123.70
84	Aa	3270	C	C2-N1-C1'	6.11	125.52	118.80
85	Ac	35	C	N3-C4-C5	-6.11	119.46	121.90
85	Ac	117	C	N3-C4-C5	-6.11	119.45	121.90
84	Aa	1333	C	N3-C4-N4	6.11	122.28	118.00
84	Aa	1746	G	P-O5'-C5'	-6.11	111.13	120.90
84	Aa	2271	G	C5-C6-O6	-6.11	124.94	128.60
84	Aa	3158	C	N3-C4-C5	-6.11	119.46	121.90
51	CX	140	TYR	CB-CG-CD1	-6.11	117.33	121.00
84	Aa	498	G	P-O3'-C3'	6.11	127.03	119.70
84	Aa	1305	A	C4-C5-C6	6.11	120.05	117.00
84	Aa	1316	C	N3-C4-C5	-6.11	119.46	121.90
84	Aa	2432	U	O4'-C1'-N1	6.11	113.08	108.20
84	Aa	2482	A	C4-C5-C6	6.11	120.05	117.00
84	Aa	3342	C	N3-C4-C5	-6.11	119.46	121.90
46	Ca	52	TYR	CB-CG-CD1	6.11	124.66	121.00
84	Aa	498	G	O4'-C1'-N9	6.11	113.08	108.20
84	Aa	573	A	C4-C5-C6	6.11	120.05	117.00
84	Aa	2730	A	C5-C6-N1	-6.11	114.65	117.70
84	Aa	3071	A	C4-C5-C6	6.11	120.05	117.00
84	Aa	3231	G	C5-C6-O6	-6.11	124.94	128.60
84	Aa	3338	U	O4'-C1'-N1	6.11	113.08	108.20
84	Aa	1704	A	C4-C5-C6	6.10	120.05	117.00
84	Aa	2755	U	O4'-C1'-N1	6.10	113.08	108.20
84	Aa	1438	A	C5-C6-N6	-6.10	118.82	123.70
86	Ab	29	C	N3-C4-C5	-6.10	119.46	121.90
84	Aa	1500	C	N3-C4-C5	-6.10	119.46	121.90
84	Aa	3349	C	N3-C4-C5	-6.10	119.46	121.90
84	Aa	722	C	O4'-C1'-N1	6.10	113.08	108.20
84	Aa	725	G	C5-C6-O6	-6.10	124.94	128.60
84	Aa	1194	C	N3-C4-N4	6.10	122.27	118.00
84	Aa	2238	A	C5-C6-N1	-6.10	114.65	117.70
84	Aa	2962	C	N3-C4-C5	-6.10	119.46	121.90
84	Aa	3156	G	O4'-C1'-N9	6.10	113.08	108.20
1	Ad	609	A	O4'-C1'-N9	6.10	113.08	108.20
19	BL	116	PHE	CB-CG-CD2	-6.10	116.53	120.80
84	Aa	293	A	C4-C5-C6	6.10	120.05	117.00
84	Aa	332	A	C5-C6-N6	-6.10	118.82	123.70
84	Aa	443	G	O4'-C1'-N9	6.10	113.08	108.20
84	Aa	2010	G	C5-C6-O6	-6.10	124.94	128.60
84	Aa	2101	A	C4-C5-C6	6.10	120.05	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2400	A	C4-C5-C6	6.10	120.05	117.00
84	Aa	2484	G	O4'-C1'-N9	6.10	113.08	108.20
84	Aa	2803	A	C5-C6-N1	-6.10	114.65	117.70
84	Aa	2806	A	C5-C6-N1	-6.10	114.65	117.70
84	Aa	3280	U	O4'-C1'-N1	6.10	113.08	108.20
1	Ad	621	U	N1-C1'-C2'	6.10	121.92	114.00
1	Ad	1652	C	C1'-O4'-C4'	-6.10	105.02	109.90
84	Aa	20	G	C5-C6-O6	-6.10	124.94	128.60
84	Aa	2023	C	N3-C4-C5	-6.10	119.46	121.90
84	Aa	2786	G	C5-C6-O6	-6.10	124.94	128.60
1	Ad	838	U	O4'-C1'-N1	6.09	113.08	108.20
63	CU	106	ALA	N-CA-CB	6.09	118.63	110.10
84	Aa	628	C	N3-C4-N4	6.09	122.27	118.00
84	Aa	1435	C	N3-C4-C5	-6.09	119.46	121.90
84	Aa	1535	C	N3-C4-C5	-6.09	119.46	121.90
84	Aa	1663	G	O4'-C1'-N9	6.09	113.08	108.20
84	Aa	2879	G	O4'-C1'-N9	6.09	113.08	108.20
1	Ad	581	G	O4'-C1'-N9	6.09	113.07	108.20
84	Aa	534	G	C5-C6-O6	-6.09	124.94	128.60
84	Aa	3088	A	C4-C5-C6	6.09	120.05	117.00
84	Aa	3092	A	C5-C6-N1	-6.09	114.65	117.70
1	Ad	605	A	O4'-C1'-N9	6.09	113.07	108.20
1	Ad	1513	A	N9-C1'-C2'	-6.09	105.30	112.00
84	Aa	54	G	O4'-C1'-N9	6.09	113.07	108.20
84	Aa	493	G	O4'-C1'-N9	6.09	113.07	108.20
84	Aa	1846	A	C4-C5-C6	6.09	120.05	117.00
84	Aa	2165	A	C5-C6-N6	-6.09	118.83	123.70
84	Aa	2172	C	N3-C4-C5	-6.09	119.46	121.90
84	Aa	2678	C	N3-C4-N4	6.09	122.26	118.00
84	Aa	3041	A	C4-C5-C6	6.09	120.05	117.00
84	Aa	3103	G	C5-C6-O6	-6.09	124.94	128.60
84	Aa	3146	C	N3-C4-C5	-6.09	119.46	121.90
84	Aa	3241	C	N3-C4-C5	-6.09	119.46	121.90
85	Ac	153	C	N3-C4-N4	6.09	122.26	118.00
84	Aa	507	C	N3-C4-C5	-6.09	119.46	121.90
84	Aa	721	A	C4-C5-C6	6.09	120.05	117.00
84	Aa	1424	G	O4'-C1'-N9	6.09	113.07	108.20
84	Aa	1763	C	N3-C4-N4	6.09	122.26	118.00
84	Aa	2081	C	N3-C4-N4	6.09	122.26	118.00
84	Aa	1153	A	C5-C6-N6	-6.09	118.83	123.70
84	Aa	1291	A	C4-C5-C6	6.09	120.04	117.00
85	Ac	54	A	C4-C5-C6	6.09	120.04	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	489	C	O4'-C1'-N1	6.09	113.07	108.20
1	Ad	607	U	O4'-C1'-N1	6.09	113.07	108.20
39	CZ	77	PHE	CB-CG-CD2	-6.09	116.54	120.80
84	Aa	991	C	N3-C4-C5	-6.09	119.47	121.90
84	Aa	1248	A	C5-C6-N1	-6.09	114.66	117.70
84	Aa	1769	C	N3-C4-C5	-6.09	119.47	121.90
84	Aa	1996	C	N3-C4-C5	-6.09	119.47	121.90
84	Aa	2082	A	C4-C5-C6	6.09	120.04	117.00
84	Aa	2622	G	C5-C6-O6	-6.09	124.95	128.60
84	Aa	3371	C	N3-C4-C5	-6.09	119.47	121.90
84	Aa	458	G	O4'-C1'-N9	6.08	113.07	108.20
84	Aa	1295	A	O4'-C1'-N9	6.08	113.07	108.20
84	Aa	2360	A	O4'-C1'-N9	6.08	113.07	108.20
84	Aa	2430	C	N3-C4-C5	-6.08	119.47	121.90
84	Aa	2466	G	O4'-C1'-N9	6.08	113.07	108.20
84	Aa	3166	C	N3-C4-C5	-6.08	119.47	121.90
1	Ad	537	U	N1-C1'-C2'	6.08	121.91	114.00
84	Aa	126	G	C5-C6-O6	-6.08	124.95	128.60
84	Aa	1463	A	C4-C5-C6	6.08	120.04	117.00
84	Aa	1464	A	O4'-C1'-N9	6.08	113.07	108.20
84	Aa	1939	C	N3-C4-C5	-6.08	119.47	121.90
84	Aa	2190	C	N3-C4-N4	6.08	122.26	118.00
84	Aa	3221	A	C5-C6-N6	-6.08	118.83	123.70
84	Aa	3386	A	C4-C5-C6	6.08	120.04	117.00
86	Ab	24	G	C6-C5-N7	-6.08	126.75	130.40
1	Ad	475	A	O4'-C1'-N9	6.08	113.07	108.20
1	Ad	528	U	O4'-C1'-N1	6.08	113.06	108.20
49	CR	55	GLN	N-CA-CB	6.08	121.55	110.60
84	Aa	88	A	C4-C5-C6	6.08	120.04	117.00
84	Aa	279	G	N3-C2-N2	6.08	124.16	119.90
84	Aa	905	G	C5-C6-O6	-6.08	124.95	128.60
84	Aa	2897	G	C5-C6-O6	-6.08	124.95	128.60
84	Aa	2928	A	C5-C6-N1	-6.08	114.66	117.70
84	Aa	3049	A	C4-C5-C6	6.08	120.04	117.00
2	Ae	45	G	C3'-C2'-C1'	6.08	106.36	101.50
79	CE	39	ALA	N-CA-CB	6.08	118.61	110.10
84	Aa	439	A	C4-C5-C6	6.08	120.04	117.00
84	Aa	541	C	N3-C4-N4	6.08	122.26	118.00
84	Aa	2377	C	C1'-O4'-C4'	6.08	114.76	109.90
84	Aa	2773	G	O4'-C1'-N9	6.08	113.06	108.20
1	Ad	1699	C	O4'-C1'-C2'	-6.08	99.72	105.80
1	Ad	1741	A	C5'-C4'-O4'	6.08	116.39	109.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	33	A	C4-C5-C6	6.08	120.04	117.00
84	Aa	642	C	C6-N1-C2	-6.08	117.87	120.30
84	Aa	725	G	O4'-C1'-N9	6.08	113.06	108.20
84	Aa	904	G	O4'-C1'-N9	6.08	113.06	108.20
84	Aa	1251	U	O4'-C1'-N1	6.08	113.06	108.20
84	Aa	1665	G	C5-C6-O6	-6.08	124.95	128.60
84	Aa	1812	A	O4'-C1'-N9	6.08	113.06	108.20
84	Aa	1975	G	C5-C6-O6	-6.08	124.95	128.60
84	Aa	2266	A	C5-C6-N1	-6.08	114.66	117.70
84	Aa	2276	A	C5-C6-N6	-6.08	118.84	123.70
84	Aa	2380	G	C5-C6-O6	-6.08	124.95	128.60
84	Aa	3329	G	O4'-C1'-N9	6.08	113.06	108.20
85	Ac	145	U	O4'-C1'-N1	6.08	113.06	108.20
85	Ac	155	U	O4'-C1'-N1	6.08	113.06	108.20
86	Ab	18	C	C2-N3-C4	6.08	122.94	119.90
1	Ad	815	A	C4'-C3'-C2'	-6.08	96.52	102.60
84	Aa	55	G	O4'-C1'-N9	6.08	113.06	108.20
84	Aa	110	C	N3-C4-C5	-6.08	119.47	121.90
84	Aa	187	G	O4'-C1'-N9	6.08	113.06	108.20
84	Aa	732	G	C5-C6-O6	-6.08	124.95	128.60
84	Aa	778	G	C5-C6-O6	-6.08	124.95	128.60
84	Aa	1346	C	N3-C4-C5	-6.08	119.47	121.90
84	Aa	1826	G	O4'-C1'-N9	6.08	113.06	108.20
84	Aa	2093	G	C8-N9-C1'	6.08	134.90	127.00
1	Ad	760	G	O4'-C1'-C2'	6.08	113.07	107.60
1	Ad	825	U	P-O5'-C5'	6.08	130.62	120.90
84	Aa	194	G	C5-C6-O6	-6.08	124.95	128.60
84	Aa	1619	G	O4'-C1'-N9	6.08	113.06	108.20
84	Aa	2163	G	N3-C2-N2	6.08	124.15	119.90
84	Aa	2651	G	O4'-C1'-N9	6.08	113.06	108.20
84	Aa	2666	G	C5-C6-O6	-6.08	124.95	128.60
85	Ac	11	C	N3-C4-C5	-6.08	119.47	121.90
84	Aa	394	A	C4-C5-C6	6.07	120.04	117.00
84	Aa	671	C	N3-C4-C5	-6.07	119.47	121.90
84	Aa	827	C	N3-C4-C5	-6.07	119.47	121.90
84	Aa	1658	G	O4'-C1'-N9	6.07	113.06	108.20
84	Aa	2193	A	O4'-C1'-N9	6.07	113.06	108.20
84	Aa	2908	C	N3-C4-C5	-6.07	119.47	121.90
1	Ad	1733	G	N9-C1'-C2'	6.07	121.89	114.00
84	Aa	2161	G	C5-C6-O6	-6.07	124.96	128.60
84	Aa	2920	G	C5'-C4'-C3'	-6.07	106.28	116.00
84	Aa	3123	A	C4-C5-C6	6.07	120.04	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	1194	C	C1'-O4'-C4'	6.07	114.76	109.90
1	Ad	1726	G	O4'-C1'-N9	6.07	113.06	108.20
84	Aa	427	U	O4'-C1'-N1	6.07	113.06	108.20
84	Aa	1115	A	O4'-C1'-N9	6.07	113.06	108.20
84	Aa	1175	G	N3-C2-N2	6.07	124.15	119.90
84	Aa	1953	C	N3-C4-C5	-6.07	119.47	121.90
84	Aa	248	C	N3-C4-C5	-6.07	119.47	121.90
84	Aa	1050	A	N1-C6-N6	6.07	122.24	118.60
84	Aa	2521	C	N3-C4-C5	-6.07	119.47	121.90
84	Aa	2950	C	N3-C4-C5	-6.07	119.47	121.90
85	Ac	40	A	O4'-C1'-N9	6.07	113.06	108.20
86	Ab	111	U	O4'-C1'-N1	6.07	113.06	108.20
78	CL	25	PHE	CB-CG-CD1	6.07	125.05	120.80
84	Aa	103	G	C5-C6-O6	-6.07	124.96	128.60
84	Aa	686	A	C4-C5-C6	6.07	120.03	117.00
84	Aa	1590	A	C5-C6-N6	-6.07	118.85	123.70
84	Aa	2778	C	N3-C4-C5	-6.07	119.47	121.90
85	Ac	110	A	O4'-C1'-N9	6.07	113.05	108.20
1	Ad	958	G	O4'-C1'-N9	6.07	113.05	108.20
1	Ad	1225	A	C3'-C2'-C1'	6.07	106.35	101.50
1	Ad	1597	C	C3'-C2'-C1'	6.07	106.35	101.50
84	Aa	205	C	N3-C4-C5	-6.07	119.47	121.90
84	Aa	616	A	C5-C6-N1	-6.07	114.67	117.70
84	Aa	710	C	N3-C4-C5	-6.07	119.47	121.90
84	Aa	1186	C	N3-C4-C5	-6.07	119.47	121.90
84	Aa	1253	G	O4'-C1'-N9	6.07	113.05	108.20
84	Aa	1376	A	C5-C6-N1	-6.07	114.67	117.70
84	Aa	1795	A	C4-C5-C6	6.07	120.03	117.00
84	Aa	3034	A	C4-C5-C6	6.07	120.03	117.00
84	Aa	3251	C	N3-C4-N4	6.07	122.25	118.00
84	Aa	1456	A	C4-C5-C6	6.06	120.03	117.00
84	Aa	1818	C	N3-C4-N4	6.06	122.25	118.00
1	Ad	637	U	O4'-C1'-C2'	-6.06	99.74	105.80
36	BH	17	SER	N-CA-CB	6.06	119.59	110.50
84	Aa	523	C	N3-C4-N4	6.06	122.24	118.00
84	Aa	529	C	N3-C4-N4	6.06	122.24	118.00
84	Aa	1376	A	C4-C5-C6	6.06	120.03	117.00
84	Aa	1388	C	N3-C4-C5	-6.06	119.47	121.90
84	Aa	2624	G	O4'-C1'-N9	6.06	113.05	108.20
84	Aa	2779	G	C5-C6-O6	-6.06	124.96	128.60
84	Aa	3240	C	N3-C4-C5	-6.06	119.47	121.90
84	Aa	3310	A	C4-C5-C6	6.06	120.03	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	1728	G	O4'-C1'-N9	6.06	113.05	108.20
84	Aa	1925	G	O4'-C1'-N9	6.06	113.05	108.20
84	Aa	2429	A	C5-C6-N1	-6.06	114.67	117.70
1	Ad	11	A	C3'-C2'-C1'	6.06	106.35	101.50
1	Ad	470	U	N1-C1'-C2'	6.06	121.88	114.00
1	Ad	914	U	P-O5'-C5'	6.06	130.59	120.90
84	Aa	12	G	C2-N3-C4	6.06	114.93	111.90
84	Aa	377	C	N3-C4-N4	6.06	122.24	118.00
84	Aa	595	C	N3-C4-C5	-6.06	119.48	121.90
84	Aa	830	A	C4-C5-C6	6.06	120.03	117.00
84	Aa	879	A	C5-C6-N1	-6.06	114.67	117.70
84	Aa	1040	A	C4-C5-C6	6.06	120.03	117.00
84	Aa	1253	G	C5-C6-O6	-6.06	124.96	128.60
84	Aa	2201	G	O4'-C1'-N9	6.06	113.05	108.20
84	Aa	2578	G	C5-C6-O6	-6.06	124.97	128.60
84	Aa	2838	C	N3-C4-C5	-6.06	119.48	121.90
84	Aa	2866	A	C4-C5-C6	6.06	120.03	117.00
84	Aa	3033	A	C4-C5-C6	6.06	120.03	117.00
84	Aa	3176	C	N3-C4-C5	-6.06	119.48	121.90
85	Ac	126	A	C5-C6-N6	-6.06	118.85	123.70
1	Ad	889	C	O4'-C1'-N1	6.06	113.05	108.20
2	Ae	60	C	N1-C1'-C2'	6.06	121.88	114.00
84	Aa	738	A	C4-C5-C6	6.06	120.03	117.00
84	Aa	1015	A	C5-C6-N1	-6.06	114.67	117.70
84	Aa	1359	A	C4-C5-C6	6.06	120.03	117.00
84	Aa	1364	C	N3-C4-C5	-6.06	119.48	121.90
84	Aa	1751	G	C5-C6-O6	-6.06	124.97	128.60
84	Aa	1752	C	N3-C4-C5	-6.06	119.48	121.90
84	Aa	2364	C	N3-C4-N4	6.06	122.24	118.00
84	Aa	2954	G	C5-C6-O6	-6.06	124.97	128.60
84	Aa	3239	G	O4'-C1'-N9	6.06	113.05	108.20
84	Aa	688	G	N1-C6-O6	6.06	123.53	119.90
84	Aa	820	A	C5-C6-N6	-6.06	118.86	123.70
84	Aa	1337	C	N3-C4-C5	-6.06	119.48	121.90
84	Aa	2097	C	N3-C4-C5	-6.06	119.48	121.90
84	Aa	2753	C	N3-C4-C5	-6.06	119.48	121.90
85	Ac	32	C	N3-C4-C5	-6.06	119.48	121.90
1	Ad	1059	U	N1-C1'-C2'	6.05	121.87	114.00
1	Ad	1700	G	N9-C1'-C2'	6.05	121.87	114.00
84	Aa	528	C	C4'-C3'-O3'	6.05	125.11	113.00
84	Aa	1041	C	N3-C4-C5	-6.05	119.48	121.90
84	Aa	2398	A	C5-C6-N1	-6.05	114.67	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2462	G	C5-C6-O6	-6.05	124.97	128.60
84	Aa	2557	C	C6-N1-C1'	-6.05	113.53	120.80
84	Aa	2751	A	C5-C6-N1	-6.05	114.67	117.70
84	Aa	2813	A	C4-C5-C6	6.05	120.03	117.00
85	Ac	30	C	N3-C4-C5	-6.05	119.48	121.90
2	Ae	17	G	N9-C1'-C2'	6.05	121.87	114.00
84	Aa	563	C	C2'-C3'-O3'	6.05	123.38	113.70
84	Aa	734	C	N3-C4-C5	-6.05	119.48	121.90
84	Aa	953	G	N3-C2-N2	6.05	124.14	119.90
84	Aa	2240	C	N3-C4-N4	6.05	122.24	118.00
84	Aa	3123	A	O4'-C1'-N9	6.05	113.04	108.20
84	Aa	3306	A	C4-C5-C6	6.05	120.03	117.00
1	Ad	257	A	O4'-C1'-N9	-6.05	103.36	108.20
84	Aa	513	C	N3-C4-N4	6.05	122.23	118.00
84	Aa	1819	A	C4-C5-C6	6.05	120.03	117.00
84	Aa	1831	A	C5-C6-N1	-6.05	114.67	117.70
84	Aa	2509	A	O4'-C1'-N9	6.05	113.04	108.20
84	Aa	2805	A	C5-C6-N1	-6.05	114.67	117.70
84	Aa	315	A	C4-C5-C6	6.05	120.02	117.00
84	Aa	1002	A	C5-C6-N6	-6.05	118.86	123.70
84	Aa	2328	C	N3-C4-C5	-6.05	119.48	121.90
85	Ac	12	A	C5-C6-N6	-6.05	118.86	123.70
84	Aa	142	G	C5-C6-O6	-6.05	124.97	128.60
84	Aa	1404	G	O4'-C1'-N9	6.05	113.04	108.20
84	Aa	1484	A	C5-C6-N1	-6.05	114.68	117.70
84	Aa	1492	A	C5-C6-N6	-6.05	118.86	123.70
84	Aa	2038	G	O4'-C1'-N9	6.05	113.04	108.20
84	Aa	2503	A	C5-C6-N1	-6.05	114.68	117.70
84	Aa	2522	C	N3-C4-C5	-6.05	119.48	121.90
84	Aa	2640	A	C5-C6-N6	-6.05	118.86	123.70
84	Aa	3147	G	O4'-C1'-N9	6.05	113.04	108.20
86	Ab	99	G	C5-C6-N1	-6.05	108.48	111.50
84	Aa	1879	A	O4'-C1'-N9	6.04	113.04	108.20
84	Aa	2086	A	O5'-C5'-C4'	-6.04	100.21	111.70
84	Aa	2737	A	C5-C6-N1	-6.04	114.68	117.70
1	Ad	594	C	N1-C1'-C2'	6.04	121.86	114.00
1	Ad	1627	C	C3'-C2'-C1'	6.04	106.33	101.50
84	Aa	231	C	N3-C4-C5	-6.04	119.48	121.90
84	Aa	251	G	C5-C6-O6	-6.04	124.97	128.60
84	Aa	586	A	P-O3'-C3'	6.04	126.95	119.70
84	Aa	1028	G	C5-C6-O6	-6.04	124.97	128.60
84	Aa	1139	A	C5-C6-N1	-6.04	114.68	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1152	G	N1-C6-O6	6.04	123.53	119.90
84	Aa	1832	C	N3-C4-C5	-6.04	119.48	121.90
84	Aa	2180	G	N1-C6-O6	6.04	123.53	119.90
84	Aa	2697	A	O4'-C1'-N9	6.04	113.03	108.20
84	Aa	2840	A	O4'-C1'-N9	6.04	113.03	108.20
85	Ac	77	A	O4'-C1'-N9	6.04	113.03	108.20
85	Ac	118	C	N3-C4-C5	-6.04	119.48	121.90
1	Ad	357	A	O4'-C1'-C2'	-6.04	99.76	105.80
1	Ad	1502	C	C3'-C2'-C1'	6.04	106.33	101.50
47	CQ	123	PHE	CB-CG-CD1	6.04	125.03	120.80
84	Aa	849	A	C5-C6-N1	-6.04	114.68	117.70
84	Aa	854	C	N3-C4-C5	-6.04	119.48	121.90
84	Aa	955	A	C4-C5-C6	6.04	120.02	117.00
84	Aa	1182	A	C5-C6-N1	-6.04	114.68	117.70
84	Aa	1362	C	N3-C4-C5	-6.04	119.48	121.90
84	Aa	1998	A	O4'-C1'-N9	6.04	113.03	108.20
84	Aa	2032	C	N3-C4-C5	-6.04	119.48	121.90
84	Aa	2781	A	C4-C5-C6	6.04	120.02	117.00
84	Aa	3136	A	O4'-C1'-N9	6.04	113.03	108.20
1	Ad	1127	G	C1'-O4'-C4'	6.04	114.73	109.90
2	Ae	17	G	C5'-C4'-O4'	6.04	116.35	109.10
84	Aa	57	G	O4'-C1'-N9	6.04	113.03	108.20
84	Aa	187	G	C5-C6-O6	-6.04	124.98	128.60
84	Aa	2389	A	C5-C6-N1	-6.04	114.68	117.70
84	Aa	2754	G	C5-C6-O6	-6.04	124.98	128.60
85	Ac	81	U	O4'-C1'-N1	6.04	113.03	108.20
1	Ad	1803	G	O4'-C1'-N9	-6.04	103.37	108.20
14	BQ	149	ARG	N-CA-CB	6.04	121.47	110.60
84	Aa	534	G	O4'-C1'-N9	6.04	113.03	108.20
84	Aa	2019	G	O4'-C1'-N9	6.04	113.03	108.20
84	Aa	2251	A	C4-C5-C6	6.04	120.02	117.00
1	Ad	1210	U	C1'-O4'-C4'	6.04	114.73	109.90
1	Ad	1736	C	C3'-C2'-C1'	6.04	106.33	101.50
41	CA	76	PHE	CB-CG-CD2	-6.04	116.57	120.80
84	Aa	990	U	O4'-C1'-N1	6.04	113.03	108.20
84	Aa	1468	A	O4'-C1'-N9	6.04	113.03	108.20
84	Aa	2670	A	C4-C5-C6	6.04	120.02	117.00
84	Aa	3310	A	O4'-C1'-N9	6.04	113.03	108.20
84	Aa	33	A	C5-C6-N6	-6.04	118.87	123.70
84	Aa	471	C	N3-C4-C5	-6.04	119.49	121.90
84	Aa	2396	A	C4-C5-C6	6.04	120.02	117.00
84	Aa	2424	G	O4'-C1'-N9	6.04	113.03	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2695	A	C5-C6-N6	-6.04	118.87	123.70
84	Aa	2952	G	C5-C6-O6	-6.04	124.98	128.60
84	Aa	3265	C	N3-C4-N4	6.04	122.22	118.00
84	Aa	454	A	C5-C6-N6	-6.03	118.87	123.70
84	Aa	1340	G	C5-C6-O6	-6.03	124.98	128.60
84	Aa	1422	G	C5-C6-O6	-6.03	124.98	128.60
84	Aa	2562	A	C5-C6-N6	-6.03	118.87	123.70
1	Ad	1493	A	O4'-C1'-N9	6.03	113.03	108.20
84	Aa	544	C	N3-C4-C5	-6.03	119.49	121.90
84	Aa	2393	G	C5-C6-O6	-6.03	124.98	128.60
84	Aa	2806	A	C4-C5-C6	6.03	120.02	117.00
86	Ab	119	C	N3-C4-N4	6.03	122.22	118.00
1	Ad	455	G	O4'-C1'-N9	6.03	113.02	108.20
1	Ad	795	A	C3'-C2'-C1'	6.03	106.33	101.50
84	Aa	27	C	N3-C4-C5	-6.03	119.49	121.90
84	Aa	359	A	C4-C5-C6	6.03	120.02	117.00
84	Aa	672	A	C5-C6-N1	-6.03	114.69	117.70
84	Aa	1298	A	O4'-C1'-N9	6.03	113.03	108.20
84	Aa	1656	C	N3-C4-C5	-6.03	119.49	121.90
84	Aa	2285	C	N3-C4-C5	-6.03	119.49	121.90
84	Aa	2342	C	N3-C4-C5	-6.03	119.49	121.90
84	Aa	3383	C	N3-C4-N4	6.03	122.22	118.00
85	Ac	114	G	C5-C6-O6	-6.03	124.98	128.60
84	Aa	343	G	C5-C6-O6	-6.03	124.98	128.60
84	Aa	831	G	C5-C6-O6	-6.03	124.98	128.60
1	Ad	378	U	O4'-C1'-N1	6.03	113.02	108.20
1	Ad	1312	G	C1'-O4'-C4'	-6.03	105.08	109.90
84	Aa	444	C	N3-C4-C5	-6.03	119.49	121.90
84	Aa	579	G	N3-C2-N2	6.03	124.12	119.90
84	Aa	586	A	C5-C6-N6	-6.03	118.88	123.70
84	Aa	1221	A	C4-C5-C6	6.03	120.01	117.00
84	Aa	2696	C	N3-C4-C5	-6.03	119.49	121.90
86	Ab	70	G	C8-N9-C4	-6.03	103.99	106.40
1	Ad	1124	G	O4'-C1'-N9	6.03	113.02	108.20
84	Aa	89	C	N3-C4-C5	-6.03	119.49	121.90
84	Aa	179	G	C5-C6-O6	-6.03	124.98	128.60
84	Aa	312	U	O4'-C1'-N1	6.03	113.02	108.20
84	Aa	798	G	O4'-C1'-N9	6.03	113.02	108.20
84	Aa	1767	G	C5-C6-O6	-6.03	124.98	128.60
84	Aa	2884	U	O4'-C1'-N1	6.03	113.02	108.20
84	Aa	3114	A	C4-C5-C6	6.03	120.01	117.00
85	Ac	14	C	O4'-C1'-N1	6.03	113.02	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
86	Ab	58	G	O4'-C1'-N9	6.03	113.02	108.20
1	Ad	771	G	O4'-C1'-N9	6.02	113.02	108.20
1	Ad	1077	C	C3'-C2'-C1'	6.02	106.32	101.50
84	Aa	1727	A	C4-C5-C6	6.02	120.01	117.00
84	Aa	1873	C	N3-C4-C5	-6.02	119.49	121.90
86	Ab	120	C	N3-C4-N4	6.02	122.22	118.00
1	Ad	196	G	O4'-C1'-N9	6.02	113.02	108.20
1	Ad	792	U	C1'-O4'-C4'	6.02	114.72	109.90
9	BX	40	PHE	CB-CG-CD1	6.02	125.02	120.80
84	Aa	305	G	C5-C6-O6	-6.02	124.99	128.60
84	Aa	332	A	C5-C6-N1	-6.02	114.69	117.70
84	Aa	1946	C	N3-C4-C5	-6.02	119.49	121.90
84	Aa	2436	G	P-O3'-C3'	6.02	126.93	119.70
84	Aa	2905	A	C5-C6-N1	-6.02	114.69	117.70
85	Ac	50	C	N3-C4-C5	-6.02	119.49	121.90
85	Ac	131	G	O4'-C1'-N9	6.02	113.02	108.20
84	Aa	1777	C	N3-C4-C5	-6.02	119.49	121.90
84	Aa	2441	G	C5-C6-O6	-6.02	124.99	128.60
84	Aa	690	G	C5-C6-O6	-6.02	124.99	128.60
84	Aa	975	G	O4'-C1'-N9	6.02	113.02	108.20
84	Aa	1144	C	N3-C4-C5	-6.02	119.49	121.90
84	Aa	1507	A	C4-C5-C6	6.02	120.01	117.00
84	Aa	2514	A	C4-C5-C6	6.02	120.01	117.00
84	Aa	2902	A	C5-C6-N1	-6.02	114.69	117.70
84	Aa	3123	A	C5-C6-N1	-6.02	114.69	117.70
84	Aa	3224	C	N3-C4-C5	-6.02	119.49	121.90
1	Ad	853	U	O4'-C1'-N1	6.02	113.01	108.20
2	Ae	69	G	N9-C1'-C2'	6.02	121.82	114.00
17	BS	98	VAL	N-CA-C	-6.02	94.75	111.00
84	Aa	168	A	C4-C5-C6	6.02	120.01	117.00
84	Aa	1635	A	C4-C5-C6	6.02	120.01	117.00
84	Aa	2100	A	C4-C5-C6	6.02	120.01	117.00
84	Aa	2788	A	C5-C6-N6	-6.02	118.89	123.70
85	Ac	87	G	O4'-C1'-N9	6.02	113.01	108.20
1	Ad	533	C	P-O5'-C5'	-6.02	111.28	120.90
84	Aa	515	C	N3-C4-C5	-6.02	119.49	121.90
1	Ad	619	A	N9-C1'-C2'	-6.01	105.38	112.00
1	Ad	1054	G	O4'-C1'-N9	6.01	113.01	108.20
84	Aa	920	A	O4'-C1'-N9	6.01	113.01	108.20
84	Aa	1155	G	O4'-C1'-N9	6.01	113.01	108.20
84	Aa	2275	A	C4-C5-C6	6.01	120.01	117.00
84	Aa	2380	G	O4'-C1'-N9	6.01	113.01	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	393	G	N9-C1'-C2'	6.01	121.82	114.00
1	Ad	1520	G	C1'-O4'-C4'	-6.01	105.09	109.90
84	Aa	875	A	C4-C5-C6	6.01	120.01	117.00
84	Aa	876	C	N3-C4-C5	-6.01	119.50	121.90
84	Aa	1941	G	C5-C6-O6	-6.01	124.99	128.60
1	Ad	1181	G	O4'-C1'-N9	6.01	113.01	108.20
1	Ad	1778	G	O4'-C1'-N9	-6.01	103.39	108.20
84	Aa	697	A	C5-C6-N6	-6.01	118.89	123.70
84	Aa	1221	A	C5-C6-N6	-6.01	118.89	123.70
84	Aa	1470	A	C5-C6-N6	-6.01	118.89	123.70
84	Aa	1486	G	N3-C2-N2	6.01	124.11	119.90
84	Aa	1596	G	C5-C6-O6	-6.01	124.99	128.60
84	Aa	1954	G	C5-C6-O6	-6.01	124.99	128.60
84	Aa	2118	G	C5-C6-O6	-6.01	124.99	128.60
84	Aa	2175	A	C4-C5-C6	6.01	120.00	117.00
84	Aa	2222	C	N3-C4-C5	-6.01	119.50	121.90
84	Aa	2276	A	O4'-C1'-N9	6.01	113.01	108.20
84	Aa	2351	A	C5-C6-N6	-6.01	118.89	123.70
84	Aa	2381	G	C5-C6-O6	-6.01	124.99	128.60
84	Aa	2805	A	C4-C5-C6	6.01	120.01	117.00
84	Aa	3275	G	C5-C6-O6	-6.01	124.99	128.60
85	Ac	91	C	N3-C4-C5	-6.01	119.50	121.90
1	Ad	1331	C	O4'-C1'-N1	6.01	113.01	108.20
1	Ad	1526	C	O4'-C1'-N1	6.01	113.01	108.20
3	Af	16	G	N9-C1'-C2'	-6.01	105.39	112.00
84	Aa	361	G	O4'-C1'-N9	6.01	113.01	108.20
84	Aa	639	A	C5-C6-N1	-6.01	114.69	117.70
84	Aa	650	A	C5-C6-N1	-6.01	114.69	117.70
84	Aa	1552	C	N3-C4-C5	-6.01	119.50	121.90
84	Aa	1723	C	N3-C4-C5	-6.01	119.50	121.90
84	Aa	1944	G	C5'-C4'-C3'	6.01	125.61	116.00
84	Aa	2010	G	O4'-C1'-N9	6.01	113.01	108.20
84	Aa	2638	A	C4-C5-C6	6.01	120.00	117.00
84	Aa	2863	U	O4'-C1'-N1	6.01	113.01	108.20
84	Aa	3009	A	C5-C6-N1	-6.01	114.69	117.70
84	Aa	3077	C	N3-C4-C5	-6.01	119.50	121.90
85	Ac	115	C	N3-C4-C5	-6.01	119.50	121.90
1	Ad	451	U	O4'-C1'-N1	6.01	113.01	108.20
84	Aa	1274	A	C5-C6-N1	-6.01	114.70	117.70
84	Aa	1894	G	O4'-C1'-N9	6.01	113.01	108.20
84	Aa	2027	G	C5-C6-O6	-6.01	125.00	128.60
84	Aa	2142	A	C4-C5-C6	6.01	120.00	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2276	A	C4-C5-C6	6.01	120.00	117.00
84	Aa	374	G	C5-C6-O6	-6.01	125.00	128.60
84	Aa	482	C	N3-C4-N4	6.01	122.20	118.00
84	Aa	570	G	C5-C6-O6	-6.01	125.00	128.60
84	Aa	1629	A	C5-C6-N1	-6.01	114.70	117.70
84	Aa	2270	A	O4'-C1'-N9	6.01	113.00	108.20
1	Ad	164	C	C3'-C2'-C1'	6.00	106.30	101.50
84	Aa	961	C	N3-C4-C5	-6.00	119.50	121.90
84	Aa	1749	G	O3'-P-O5'	-6.00	92.59	104.00
84	Aa	2149	G	C4-N9-C1'	6.00	134.31	126.50
84	Aa	2587	G	N1-C2-N3	-6.00	120.30	123.90
84	Aa	3218	C	N3-C4-C5	-6.00	119.50	121.90
1	Ad	367	G	C3'-C2'-C1'	-6.00	96.70	101.50
84	Aa	432	G	O4'-C1'-N9	6.00	113.00	108.20
84	Aa	903	G	O4'-C1'-N9	6.00	113.00	108.20
84	Aa	1296	C	N3-C4-C5	-6.00	119.50	121.90
84	Aa	1609	G	C5-C6-O6	-6.00	125.00	128.60
84	Aa	1812	A	C4-C5-C6	6.00	120.00	117.00
84	Aa	2369	G	N1-C6-O6	6.00	123.50	119.90
84	Aa	2579	G	C5-C6-O6	-6.00	125.00	128.60
84	Aa	2835	A	C4-C5-C6	6.00	120.00	117.00
85	Ac	51	G	O4'-C1'-N9	6.00	113.00	108.20
1	Ad	193	G	N9-C1'-C2'	6.00	121.80	114.00
84	Aa	93	G	C5-C6-O6	-6.00	125.00	128.60
84	Aa	670	A	C5-C6-N1	-6.00	114.70	117.70
84	Aa	2412	A	C4-C5-C6	6.00	120.00	117.00
84	Aa	2429	A	C4-C5-C6	6.00	120.00	117.00
84	Aa	474	G	O5'-C5'-C4'	6.00	123.10	111.70
17	BS	100	SER	N-CA-CB	6.00	119.50	110.50
84	Aa	675	C	N3-C4-C5	-6.00	119.50	121.90
84	Aa	872	G	O4'-C1'-N9	6.00	113.00	108.20
84	Aa	2039	G	C5-C6-O6	-6.00	125.00	128.60
84	Aa	2533	A	C4-C5-C6	6.00	120.00	117.00
84	Aa	2750	A	C5-C6-N1	-6.00	114.70	117.70
84	Aa	2822	A	C4-C5-C6	6.00	120.00	117.00
84	Aa	3186	G	C5-C6-O6	-6.00	125.00	128.60
1	Ad	86	A	N9-C1'-C2'	6.00	121.80	114.00
1	Ad	782	G	N9-C1'-C2'	6.00	121.80	114.00
1	Ad	1475	A	O4'-C1'-C2'	-6.00	99.80	105.80
84	Aa	1438	A	C4-C5-C6	6.00	120.00	117.00
84	Aa	2019	G	C5-C6-O6	-6.00	125.00	128.60
84	Aa	2100	A	C5-C6-N1	-6.00	114.70	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2139	A	C5-C6-N1	-6.00	114.70	117.70
84	Aa	2706	A	C5-C6-N1	-6.00	114.70	117.70
84	Aa	2790	C	N3-C4-N4	6.00	122.20	118.00
84	Aa	3372	C	N3-C4-C5	-6.00	119.50	121.90
84	Aa	916	A	C4-C5-C6	6.00	120.00	117.00
84	Aa	2643	A	O4'-C1'-N9	6.00	113.00	108.20
84	Aa	3335	G	N3-C2-N2	6.00	124.10	119.90
1	Ad	318	C	C5'-C4'-O4'	5.99	116.29	109.10
84	Aa	156	A	C4-C5-C6	5.99	120.00	117.00
84	Aa	411	C	O4'-C1'-N1	5.99	113.00	108.20
84	Aa	511	C	N3-C4-C5	-5.99	119.50	121.90
84	Aa	1317	G	O4'-C1'-N9	5.99	113.00	108.20
84	Aa	1749	G	C5-C6-O6	-5.99	125.00	128.60
84	Aa	1877	G	C5-C6-O6	-5.99	125.00	128.60
84	Aa	1960	C	N3-C4-C5	-5.99	119.50	121.90
84	Aa	2274	A	C4-C5-C6	5.99	120.00	117.00
84	Aa	2632	U	O4'-C1'-N1	5.99	112.99	108.20
84	Aa	3131	A	C4-C5-C6	5.99	120.00	117.00
1	Ad	1016	C	C3'-C2'-C1'	5.99	106.29	101.50
84	Aa	206	C	N3-C4-C5	-5.99	119.50	121.90
84	Aa	810	A	C4-C5-C6	5.99	120.00	117.00
84	Aa	1659	G	C5-C6-O6	-5.99	125.00	128.60
86	Ab	105	C	N3-C4-N4	5.99	122.19	118.00
1	Ad	569	C	O4'-C1'-C2'	-5.99	99.81	105.80
84	Aa	81	C	N3-C4-C5	-5.99	119.50	121.90
84	Aa	119	A	C4-C5-C6	5.99	120.00	117.00
84	Aa	1846	A	O4'-C1'-N9	5.99	112.99	108.20
84	Aa	2079	A	O4'-C1'-N9	5.99	112.99	108.20
84	Aa	2338	C	N3-C4-N4	5.99	122.19	118.00
84	Aa	3350	C	N3-C4-C5	-5.99	119.50	121.90
36	BH	117	ARG	N-CA-CB	5.99	121.38	110.60
63	CU	100	ASP	N-CA-CB	5.99	121.38	110.60
84	Aa	69	U	O4'-C1'-N1	5.99	112.99	108.20
84	Aa	420	A	O4'-C1'-N9	5.99	112.99	108.20
84	Aa	800	C	C2-N3-C4	5.99	122.89	119.90
84	Aa	900	C	N3-C4-C5	-5.99	119.50	121.90
84	Aa	1210	G	C5-C6-O6	-5.99	125.01	128.60
84	Aa	1825	G	C5-C6-O6	-5.99	125.01	128.60
84	Aa	2152	A	C5-C6-N6	-5.99	118.91	123.70
84	Aa	2455	A	C5-C6-N1	-5.99	114.71	117.70
84	Aa	2773	G	C5-C6-O6	-5.99	125.01	128.60
84	Aa	3157	C	N3-C4-C5	-5.99	119.50	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	113	A	C5-C6-N6	-5.99	118.91	123.70
84	Aa	696	A	C4-C5-C6	5.99	119.99	117.00
84	Aa	887	A	C5-C6-N6	-5.99	118.91	123.70
84	Aa	1213	G	C5-C6-O6	-5.99	125.01	128.60
84	Aa	1602	A	C5-C6-N6	-5.99	118.91	123.70
84	Aa	2502	U	O3'-P-O5'	-5.99	92.63	104.00
84	Aa	2801	A	C4-C5-C6	5.99	119.99	117.00
84	Aa	16	A	C5-C6-N1	-5.99	114.71	117.70
84	Aa	2745	C	N3-C4-C5	-5.99	119.51	121.90
1	Ad	762	A	C3'-C2'-C1'	5.98	106.29	101.50
84	Aa	917	A	C4-C5-C6	5.98	119.99	117.00
84	Aa	1087	G	C5-C6-O6	-5.98	125.01	128.60
84	Aa	2029	G	O4'-C1'-N9	5.98	112.99	108.20
84	Aa	2047	A	C4-C5-C6	5.98	119.99	117.00
84	Aa	3223	C	N3-C4-C5	-5.98	119.51	121.90
1	Ad	614	G	P-O5'-C5'	-5.98	111.33	120.90
1	Ad	1305	U	O4'-C1'-C2'	-5.98	99.82	105.80
13	BF	148	TYR	CB-CG-CD2	-5.98	117.41	121.00
84	Aa	705	A	C5-C6-N6	-5.98	118.91	123.70
84	Aa	890	G	O4'-C1'-N9	5.98	112.99	108.20
1	Ad	614	G	O4'-C1'-N9	5.98	112.98	108.20
23	Bc	8	ALA	N-CA-CB	5.98	118.47	110.10
84	Aa	218	G	C5-C6-O6	-5.98	125.01	128.60
84	Aa	1546	G	O4'-C1'-N9	5.98	112.98	108.20
84	Aa	2681	A	O4'-C1'-N9	5.98	112.98	108.20
84	Aa	72	A	C4-C5-C6	5.98	119.99	117.00
84	Aa	948	C	N3-C4-C5	-5.98	119.51	121.90
84	Aa	1307	A	C4-C5-C6	5.98	119.99	117.00
84	Aa	1444	G	O4'-C1'-N9	5.98	112.98	108.20
84	Aa	2031	G	C5-C6-O6	-5.98	125.01	128.60
2	Ae	72	G	P-O3'-C3'	-5.98	112.53	119.70
84	Aa	1923	G	O4'-C1'-N9	5.98	112.98	108.20
84	Aa	2145	C	N3-C4-C5	-5.98	119.51	121.90
84	Aa	2224	A	C5-C6-N1	-5.98	114.71	117.70
84	Aa	2439	A	C5-C6-N6	-5.98	118.92	123.70
84	Aa	3044	C	N3-C4-N4	5.98	122.18	118.00
84	Aa	3045	A	C5-C6-N6	-5.98	118.92	123.70
84	Aa	3114	A	C5-C6-N6	-5.98	118.92	123.70
85	Ac	45	C	N3-C4-C5	-5.98	119.51	121.90
1	Ad	755	U	O4'-C1'-N1	5.98	112.98	108.20
84	Aa	499	A	C5-C6-N6	-5.98	118.92	123.70
84	Aa	1747	A	C4-C5-C6	5.98	119.99	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2098	A	C4-C5-C6	5.98	119.99	117.00
85	Ac	41	A	O4'-C1'-N9	5.98	112.98	108.20
1	Ad	868	A	N9-C1'-C2'	-5.97	105.43	112.00
1	Ad	1090	G	O4'-C1'-N9	5.97	112.98	108.20
84	Aa	522	C	N3-C4-C5	-5.97	119.51	121.90
84	Aa	653	A	C4-C5-C6	5.97	119.99	117.00
84	Aa	792	A	C4-C5-C6	5.97	119.99	117.00
84	Aa	1306	A	C4-C5-C6	5.97	119.99	117.00
84	Aa	1630	C	N3-C4-C5	-5.97	119.51	121.90
84	Aa	1650	G	N3-C2-N2	5.97	124.08	119.90
84	Aa	2505	C	N3-C4-N4	5.97	122.18	118.00
84	Aa	2152	A	C4-C5-C6	5.97	119.99	117.00
84	Aa	3327	A	C4-C5-C6	5.97	119.99	117.00
1	Ad	949	A	C3'-C2'-C1'	5.97	106.28	101.50
2	Ae	28	G	O4'-C1'-C2'	5.97	112.97	107.60
1	Ad	244	C	O4'-C1'-C2'	-5.97	99.83	105.80
84	Aa	387	A	C5-C6-N1	-5.97	114.72	117.70
84	Aa	697	A	C5-C6-N1	-5.97	114.72	117.70
84	Aa	1199	A	C5-C6-N1	-5.97	114.72	117.70
84	Aa	1373	A	O4'-C1'-N9	5.97	112.98	108.20
84	Aa	1484	A	P-O3'-C3'	5.97	126.86	119.70
84	Aa	1970	A	C4-C5-C6	5.97	119.98	117.00
84	Aa	2107	A	C4-C5-C6	5.97	119.98	117.00
84	Aa	2312	A	C4-C5-C6	5.97	119.98	117.00
1	Ad	741	C	O4'-C1'-N1	5.97	112.97	108.20
84	Aa	66	A	C5-C6-N1	-5.97	114.72	117.70
84	Aa	1968	C	N3-C4-C5	-5.97	119.51	121.90
84	Aa	2067	G	C5-C6-O6	-5.97	125.02	128.60
84	Aa	3328	A	C4-C5-C6	5.97	119.98	117.00
1	Ad	238	G	O4'-C1'-C2'	-5.97	99.83	105.80
51	CX	140	TYR	CB-CG-CD2	5.97	124.58	121.00
84	Aa	62	A	C4-C5-C6	5.97	119.98	117.00
84	Aa	754	G	O4'-C1'-N9	5.97	112.97	108.20
84	Aa	1048	U	O4'-C1'-N1	5.97	112.97	108.20
84	Aa	2120	A	C4-C5-C6	5.97	119.98	117.00
84	Aa	3013	A	C4-C5-C6	5.97	119.98	117.00
84	Aa	3101	C	N3-C4-N4	5.97	122.18	118.00
84	Aa	3249	G	O4'-C1'-N9	5.97	112.97	108.20
1	Ad	1574	U	C1'-O4'-C4'	5.96	114.67	109.90
84	Aa	50	A	O4'-C1'-N9	5.96	112.97	108.20
84	Aa	1393	G	N1-C6-O6	5.96	123.48	119.90
84	Aa	1698	C	N3-C4-C5	-5.96	119.52	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1706	C	N3-C4-C5	-5.96	119.52	121.90
84	Aa	1879	A	C5-C6-N1	-5.96	114.72	117.70
84	Aa	1972	C	N3-C4-C5	-5.96	119.51	121.90
84	Aa	2059	C	N3-C4-C5	-5.96	119.51	121.90
84	Aa	2165	A	C4-C5-C6	5.96	119.98	117.00
84	Aa	2337	C	N3-C4-C5	-5.96	119.51	121.90
84	Aa	2943	A	O4'-C1'-N9	5.96	112.97	108.20
84	Aa	3288	A	C5-C6-N1	-5.96	114.72	117.70
84	Aa	3310	A	C5-C6-N6	-5.96	118.93	123.70
84	Aa	3340	G	O4'-C1'-N9	5.96	112.97	108.20
1	Ad	61	A	O4'-C4'-C3'	-5.96	98.04	104.00
1	Ad	70	C	O4'-C1'-N1	5.96	112.97	108.20
2	Ae	43	C	O4'-C1'-N1	5.96	112.97	108.20
84	Aa	743	C	N3-C4-C5	-5.96	119.52	121.90
84	Aa	1566	C	N3-C4-C5	-5.96	119.52	121.90
85	Ac	56	G	O4'-C1'-N9	5.96	112.97	108.20
84	Aa	178	C	N3-C4-C5	-5.96	119.52	121.90
84	Aa	543	C	N3-C4-N4	5.96	122.17	118.00
84	Aa	655	G	C5-C6-O6	-5.96	125.02	128.60
84	Aa	813	A	C5-C6-N1	-5.96	114.72	117.70
84	Aa	987	A	O4'-C1'-N9	5.96	112.97	108.20
84	Aa	1450	G	C4'-C3'-C2'	-5.96	96.64	102.60
84	Aa	1499	C	O4'-C1'-N1	5.96	112.97	108.20
84	Aa	2156	U	O4'-C1'-N1	5.96	112.97	108.20
84	Aa	2351	A	C5-C6-N1	-5.96	114.72	117.70
84	Aa	564	A	C5-C6-N1	-5.96	114.72	117.70
84	Aa	656	G	O4'-C1'-N9	5.96	112.97	108.20
84	Aa	1136	A	C4-C5-C6	5.96	119.98	117.00
84	Aa	1365	C	O4'-C1'-N1	5.96	112.97	108.20
85	Ac	14	C	N3-C4-N4	5.96	122.17	118.00
1	Ad	788	G	P-O5'-C5'	-5.96	111.37	120.90
39	CZ	77	PHE	CB-CG-CD1	5.96	124.97	120.80
47	CQ	53	PHE	CB-CG-CD1	5.96	124.97	120.80
84	Aa	47	A	C5-C6-N6	-5.96	118.93	123.70
84	Aa	646	U	O4'-C1'-N1	5.96	112.97	108.20
84	Aa	1114	A	C5-C6-N6	-5.96	118.93	123.70
84	Aa	1378	G	O4'-C1'-N9	5.96	112.97	108.20
84	Aa	2641	A	C4-C5-C6	5.96	119.98	117.00
84	Aa	3173	A	C4-C5-C6	5.96	119.98	117.00
84	Aa	3352	C	N3-C4-C5	-5.96	119.52	121.90
1	Ad	1587	G	C1'-O4'-C4'	-5.96	105.14	109.90
84	Aa	1073	G	O4'-C1'-N9	5.96	112.97	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1882	A	O4'-C1'-N9	5.96	112.97	108.20
84	Aa	2047	A	C5-C6-N1	-5.96	114.72	117.70
84	Aa	2227	A	C4-C5-C6	5.96	119.98	117.00
84	Aa	3028	A	C4-C5-C6	5.96	119.98	117.00
84	Aa	3381	C	N3-C4-N4	5.96	122.17	118.00
85	Ac	119	C	N3-C4-C5	-5.96	119.52	121.90
1	Ad	237	C	N1-C1'-C2'	5.96	121.74	114.00
84	Aa	541	C	N3-C4-C5	-5.96	119.52	121.90
84	Aa	944	G	O4'-C1'-N9	5.96	112.96	108.20
84	Aa	2296	U	O4'-C1'-N1	5.96	112.96	108.20
84	Aa	2662	A	C4-C5-C6	5.96	119.98	117.00
84	Aa	2792	A	C4-C5-C6	5.96	119.98	117.00
84	Aa	3357	C	N3-C4-C5	-5.96	119.52	121.90
1	Ad	1035	A	C3'-C2'-C1'	5.95	106.26	101.50
1	Ad	1163	C	O4'-C1'-N1	-5.95	103.44	108.20
41	CA	69	TYR	CB-CG-CD1	5.95	124.57	121.00
84	Aa	1254	A	C4-C5-C6	5.95	119.98	117.00
84	Aa	1315	G	O4'-C1'-N9	5.95	112.96	108.20
84	Aa	1785	G	C5-C6-O6	-5.95	125.03	128.60
84	Aa	2428	G	O4'-C1'-N9	5.95	112.96	108.20
84	Aa	2665	A	C4-C5-C6	5.95	119.98	117.00
84	Aa	2921	A	C4-C5-C6	5.95	119.98	117.00
84	Aa	3104	A	C4-C5-C6	5.95	119.98	117.00
84	Aa	3331	G	O4'-C1'-N9	5.95	112.96	108.20
85	Ac	92	A	C5-C6-N1	-5.95	114.72	117.70
84	Aa	1684	U	P-O3'-C3'	-5.95	112.56	119.70
84	Aa	2002	G	C5-C6-O6	-5.95	125.03	128.60
84	Aa	2110	G	O4'-C1'-N9	5.95	112.96	108.20
85	Ac	88	A	O4'-C1'-N9	5.95	112.96	108.20
1	Ad	153	U	C3'-C2'-C1'	5.95	106.26	101.50
1	Ad	885	C	C3'-C2'-C1'	5.95	106.26	101.50
1	Ad	1179	C	C3'-C2'-C1'	5.95	106.26	101.50
84	Aa	704	G	N3-C2-N2	5.95	124.07	119.90
84	Aa	782	G	O4'-C1'-N9	5.95	112.96	108.20
84	Aa	1288	C	N3-C4-N4	5.95	122.17	118.00
84	Aa	1459	A	C4-C5-C6	5.95	119.97	117.00
84	Aa	1785	G	O4'-C1'-N9	5.95	112.96	108.20
84	Aa	2350	C	N3-C4-C5	-5.95	119.52	121.90
84	Aa	3297	A	C4-C5-C6	5.95	119.98	117.00
85	Ac	33	A	C5-C6-N6	-5.95	118.94	123.70
84	Aa	1183	C	N3-C4-C5	-5.95	119.52	121.90
84	Aa	2354	G	N3-C2-N2	5.95	124.06	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2998	A	C5-C6-N1	-5.95	114.73	117.70
84	Aa	1819	A	C5-C6-N6	-5.95	118.94	123.70
1	Ad	1231	A	C3'-C2'-C1'	5.95	106.26	101.50
2	Ae	2	C	O4'-C1'-N1	5.95	112.96	108.20
84	Aa	111	C	P-O3'-C3'	5.95	126.84	119.70
84	Aa	143	A	C5-C6-N1	-5.95	114.73	117.70
84	Aa	836	G	C8-N9-C4	-5.95	104.02	106.40
84	Aa	1944	G	O3'-P-O5'	-5.95	92.70	104.00
84	Aa	2193	A	C4-C5-C6	5.95	119.97	117.00
84	Aa	2456	G	O4'-C1'-N9	5.95	112.96	108.20
84	Aa	2993	A	C4-C5-C6	5.95	119.97	117.00
84	Aa	3019	C	N3-C4-C5	-5.95	119.52	121.90
1	Ad	904	G	O4'-C1'-C2'	5.94	112.95	107.60
84	Aa	1731	A	C5-C6-N1	-5.94	114.73	117.70
84	Aa	416	A	C4-C5-C6	5.94	119.97	117.00
84	Aa	547	C	N3-C4-C5	-5.94	119.52	121.90
84	Aa	660	A	C4-C5-C6	5.94	119.97	117.00
84	Aa	936	A	C4-C5-C6	5.94	119.97	117.00
84	Aa	2674	A	C4-C5-C6	5.94	119.97	117.00
84	Aa	2697	A	C4-C5-C6	5.94	119.97	117.00
84	Aa	2788	A	C5-C6-N1	-5.94	114.73	117.70
85	Ac	12	A	C5-C6-N1	-5.94	114.73	117.70
2	Ae	2	C	N1-C1'-C2'	5.94	121.72	114.00
84	Aa	947	C	N3-C4-C5	-5.94	119.52	121.90
84	Aa	993	A	C5-C6-N1	-5.94	114.73	117.70
84	Aa	1010	A	C5-C6-N1	-5.94	114.73	117.70
84	Aa	1459	A	C5-C6-N1	-5.94	114.73	117.70
84	Aa	2161	G	O4'-C1'-N9	5.94	112.95	108.20
84	Aa	2227	A	O4'-C1'-N9	5.94	112.95	108.20
84	Aa	2682	A	C4-C5-C6	5.94	119.97	117.00
84	Aa	2812	C	N3-C4-C5	-5.94	119.52	121.90
84	Aa	2815	A	C5-C6-N1	-5.94	114.73	117.70
84	Aa	3336	A	C4-C5-C6	5.94	119.97	117.00
1	Ad	807	G	O4'-C1'-N9	5.94	112.95	108.20
84	Aa	327	A	C4-C5-C6	5.94	119.97	117.00
84	Aa	1576	C	N3-C4-N4	5.94	122.16	118.00
1	Ad	562	U	O4'-C1'-C2'	5.94	112.94	107.60
1	Ad	1524	A	C3'-C2'-C1'	-5.94	96.75	101.50
84	Aa	1499	C	N3-C4-C5	-5.94	119.53	121.90
84	Aa	1673	A	C4-C5-C6	5.94	119.97	117.00
84	Aa	1864	G	C5-C6-O6	-5.94	125.04	128.60
84	Aa	2006	A	C4-C5-C6	5.94	119.97	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2352	G	C5-C6-O6	-5.94	125.04	128.60
1	Ad	633	U	P-O5'-C5'	-5.94	111.40	120.90
1	Ad	1545	A	O4'-C1'-N9	5.94	112.95	108.20
84	Aa	75	G	C5-C6-O6	-5.94	125.04	128.60
84	Aa	2208	A	C4-C5-C6	5.94	119.97	117.00
84	Aa	2772	A	C4-C5-C6	5.94	119.97	117.00
85	Ac	75	G	O4'-C1'-N9	5.94	112.95	108.20
1	Ad	971	A	C3'-C2'-C1'	5.93	106.25	101.50
1	Ad	1480	G	O4'-C1'-N9	5.93	112.95	108.20
84	Aa	261	C	N3-C4-C5	-5.93	119.53	121.90
84	Aa	2087	A	O4'-C1'-C2'	5.93	112.94	107.60
84	Aa	3083	C	N3-C4-C5	-5.93	119.53	121.90
85	Ac	120	G	O4'-C1'-N9	5.93	112.95	108.20
1	Ad	139	U	P-O5'-C5'	5.93	130.39	120.90
1	Ad	184	C	N1-C1'-C2'	5.93	121.71	114.00
1	Ad	626	A	P-O3'-C3'	5.93	126.82	119.70
84	Aa	517	G	O4'-C1'-N9	5.93	112.94	108.20
84	Aa	557	C	N3-C4-C5	-5.93	119.53	121.90
84	Aa	630	C	N3-C4-N4	5.93	122.15	118.00
84	Aa	1192	A	C4-C5-C6	5.93	119.97	117.00
84	Aa	1294	A	C5-C6-N1	-5.93	114.73	117.70
84	Aa	1395	A	C4-C5-C6	5.93	119.97	117.00
84	Aa	1896	A	N1-C6-N6	5.93	122.16	118.60
84	Aa	1999	G	O4'-C1'-N9	5.93	112.95	108.20
84	Aa	2503	A	O4'-C1'-N9	5.93	112.95	108.20
84	Aa	2737	A	O4'-C1'-N9	5.93	112.94	108.20
84	Aa	2810	A	C4-C5-C6	5.93	119.97	117.00
84	Aa	2841	G	C5-C6-O6	-5.93	125.04	128.60
84	Aa	2997	C	N3-C4-N4	5.93	122.15	118.00
56	Cd	33	PHE	CB-CG-CD2	-5.93	116.65	120.80
84	Aa	1058	A	C4-C5-C6	5.93	119.97	117.00
84	Aa	1229	A	C4-C5-C6	5.93	119.97	117.00
84	Aa	2003	C	N3-C4-C5	-5.93	119.53	121.90
85	Ac	1	C	N3-C4-N4	5.93	122.15	118.00
1	Ad	493	C	C3'-C2'-C1'	5.93	106.24	101.50
1	Ad	1733	G	O4'-C1'-N9	5.93	112.94	108.20
84	Aa	174	G	C5-C6-O6	-5.93	125.04	128.60
84	Aa	319	C	N3-C4-C5	-5.93	119.53	121.90
84	Aa	1192	A	C5-C6-N1	-5.93	114.73	117.70
84	Aa	1534	C	N3-C4-C5	-5.93	119.53	121.90
84	Aa	1750	A	C5-C6-N1	-5.93	114.73	117.70
84	Aa	2377	C	N3-C4-C5	-5.93	119.53	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2700	A	C4-C5-C6	5.93	119.96	117.00
84	Aa	2855	G	O4'-C1'-N9	5.93	112.94	108.20
84	Aa	3153	U	C6-N1-C1'	-5.93	112.90	121.20
79	CE	205	ARG	N-CA-CB	5.93	121.27	110.60
84	Aa	928	A	O4'-C1'-N9	5.93	112.94	108.20
84	Aa	2248	G	C5-C6-O6	-5.93	125.04	128.60
84	Aa	2357	A	O4'-C1'-N9	5.93	112.94	108.20
84	Aa	3057	A	C4-C5-C6	5.93	119.96	117.00
85	Ac	76	C	N3-C4-C5	-5.93	119.53	121.90
1	Ad	215	A	C1'-O4'-C4'	5.93	114.64	109.90
84	Aa	1274	A	C5-C6-N6	-5.93	118.96	123.70
84	Aa	1339	C	N3-C4-C5	-5.93	119.53	121.90
84	Aa	1493	A	C5-C6-N1	-5.93	114.74	117.70
84	Aa	1977	C	N3-C4-C5	-5.93	119.53	121.90
84	Aa	2197	C	O4'-C1'-N1	5.93	112.94	108.20
84	Aa	2273	C	N3-C4-N4	5.93	122.15	118.00
84	Aa	2368	G	O4'-C1'-N9	5.93	112.94	108.20
84	Aa	2594	A	C4-C5-C6	5.93	119.96	117.00
84	Aa	3115	A	C4-C5-C6	5.93	119.96	117.00
84	Aa	3148	A	C5-C6-N6	-5.93	118.96	123.70
2	Ae	75	A	O4'-C1'-N9	5.92	112.94	108.20
84	Aa	224	C	N3-C4-N4	5.92	122.15	118.00
84	Aa	387	A	C4-C5-C6	5.92	119.96	117.00
84	Aa	2065	G	O4'-C1'-N9	5.92	112.94	108.20
84	Aa	2385	A	C5-C6-N1	-5.92	114.74	117.70
84	Aa	2385	A	P-O5'-C5'	5.92	130.38	120.90
84	Aa	2958	A	O4'-C1'-N9	5.92	112.94	108.20
84	Aa	3007	A	C4-C5-C6	5.92	119.96	117.00
85	Ac	62	C	N3-C4-C5	-5.92	119.53	121.90
85	Ac	106	C	N3-C4-C5	-5.92	119.53	121.90
84	Aa	103	G	O4'-C1'-N9	5.92	112.94	108.20
84	Aa	407	A	P-O5'-C5'	5.92	130.38	120.90
84	Aa	3028	A	O4'-C1'-N9	5.92	112.94	108.20
1	Ad	541	G	P-O3'-C3'	5.92	126.81	119.70
84	Aa	26	A	C4-C5-C6	5.92	119.96	117.00
84	Aa	939	A	C4-C5-C6	5.92	119.96	117.00
84	Aa	1455	A	C4-C5-C6	5.92	119.96	117.00
84	Aa	2449	A	C4-C5-C6	5.92	119.96	117.00
84	Aa	2840	A	C5-C6-N6	-5.92	118.96	123.70
84	Aa	3012	A	C4-C5-C6	5.92	119.96	117.00
84	Aa	3329	G	C5-C6-O6	-5.92	125.05	128.60
84	Aa	272	G	C5-C6-O6	-5.92	125.05	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	783	A	C4-C5-C6	5.92	119.96	117.00
84	Aa	1044	A	O4'-C1'-N9	5.92	112.94	108.20
84	Aa	1484	A	C4-C5-C6	5.92	119.96	117.00
1	Ad	1629	U	N1-C1'-C2'	5.92	121.69	114.00
84	Aa	23	A	C4-C5-C6	5.92	119.96	117.00
84	Aa	183	C	O4'-C1'-N1	5.92	112.93	108.20
84	Aa	314	C	N3-C4-C5	-5.92	119.53	121.90
84	Aa	412	C	N3-C4-C5	-5.92	119.53	121.90
84	Aa	494	C	N3-C4-C5	-5.92	119.53	121.90
84	Aa	558	G	O4'-C1'-N9	5.92	112.94	108.20
84	Aa	996	A	C5-C6-N1	-5.92	114.74	117.70
84	Aa	1009	G	O4'-C1'-N9	5.92	112.93	108.20
84	Aa	1355	U	N1-C1'-C2'	5.92	121.69	114.00
84	Aa	1382	C	N3-C4-N4	5.92	122.14	118.00
84	Aa	2751	A	C4-C5-C6	5.92	119.96	117.00
84	Aa	3134	C	N3-C4-C5	-5.92	119.53	121.90
1	Ad	371	A	P-O5'-C5'	-5.92	111.43	120.90
84	Aa	175	G	O4'-C1'-N9	5.92	112.93	108.20
84	Aa	1406	C	N3-C4-C5	-5.92	119.53	121.90
84	Aa	1410	A	C4-C5-C6	5.92	119.96	117.00
84	Aa	1951	C	N3-C4-N4	5.92	122.14	118.00
84	Aa	2048	C	N3-C4-C5	-5.92	119.53	121.90
84	Aa	2294	A	C5-C6-N6	-5.92	118.97	123.70
84	Aa	2359	C	N3-C4-C5	-5.92	119.53	121.90
84	Aa	2601	G	O4'-C1'-N9	5.92	112.93	108.20
84	Aa	2829	U	O4'-C1'-N1	5.92	112.93	108.20
84	Aa	3063	C	N3-C4-C5	-5.92	119.53	121.90
85	Ac	160	C	N3-C4-N4	5.92	122.14	118.00
84	Aa	1452	A	C5-C6-N1	-5.92	114.74	117.70
84	Aa	2532	A	C5-C6-N1	-5.92	114.74	117.70
45	CN	30	TYR	CB-CG-CD2	-5.91	117.45	121.00
84	Aa	91	G	C5-C6-O6	-5.91	125.05	128.60
84	Aa	301	G	O4'-C1'-N9	5.91	112.93	108.20
84	Aa	574	C	N3-C4-N4	5.91	122.14	118.00
84	Aa	830	A	C5-C6-N6	-5.91	118.97	123.70
84	Aa	1114	A	C4-C5-C6	5.91	119.96	117.00
84	Aa	1512	A	C4-C5-C6	5.91	119.96	117.00
84	Aa	2016	A	O4'-C1'-N9	5.91	112.93	108.20
84	Aa	2935	A	C5-C6-N6	-5.91	118.97	123.70
84	Aa	3086	G	O4'-C1'-N9	5.91	112.93	108.20
84	Aa	3306	A	C5-C6-N1	-5.91	114.74	117.70
1	Ad	1284	C	O4'-C1'-N1	5.91	112.93	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	732	G	O4'-C1'-N9	5.91	112.93	108.20
84	Aa	921	C	N3-C4-C5	-5.91	119.53	121.90
84	Aa	1027	C	N3-C4-C5	-5.91	119.53	121.90
84	Aa	3069	U	O4'-C1'-N1	5.91	112.93	108.20
84	Aa	3228	C	N3-C4-C5	-5.91	119.53	121.90
84	Aa	3358	A	C5-C6-N6	-5.91	118.97	123.70
1	Ad	93	A	O4'-C1'-C2'	-5.91	99.89	105.80
84	Aa	886	A	C5-C6-N6	-5.91	118.97	123.70
84	Aa	1042	C	N3-C4-C5	-5.91	119.54	121.90
84	Aa	1180	C	N3-C4-N4	5.91	122.14	118.00
84	Aa	1835	A	C5-C6-N6	-5.91	118.97	123.70
84	Aa	2026	C	N3-C4-C5	-5.91	119.54	121.90
84	Aa	3339	G	O4'-C1'-N9	5.91	112.93	108.20
1	Ad	1229	C	C3'-C2'-C1'	5.91	106.23	101.50
1	Ad	1732	A	C1'-O4'-C4'	5.91	114.63	109.90
84	Aa	217	A	C4-C5-C6	5.91	119.95	117.00
84	Aa	323	A	C5-C6-N1	-5.91	114.75	117.70
84	Aa	346	A	C4-C5-C6	5.91	119.95	117.00
84	Aa	480	C	N3-C4-N4	5.91	122.14	118.00
84	Aa	748	C	N3-C4-C5	-5.91	119.54	121.90
84	Aa	1052	A	C5-C6-N6	-5.91	118.97	123.70
84	Aa	2694	A	C4-C5-C6	5.91	119.95	117.00
84	Aa	2944	C	N3-C4-N4	5.91	122.14	118.00
84	Aa	3050	A	O4'-C1'-N9	5.91	112.93	108.20
85	Ac	37	A	C4-C5-C6	5.91	119.95	117.00
48	CD	125	GLU	N-CA-CB	5.91	121.23	110.60
84	Aa	230	G	O4'-C1'-N9	5.91	112.92	108.20
84	Aa	121	A	C5-C6-N1	-5.91	114.75	117.70
84	Aa	313	C	N3-C4-C5	-5.91	119.54	121.90
84	Aa	847	G	O4'-C1'-N9	5.91	112.92	108.20
84	Aa	2370	G	O4'-C1'-N9	5.91	112.92	108.20
84	Aa	3287	A	C5-C6-N1	-5.91	114.75	117.70
1	Ad	892	A	C1'-O4'-C4'	5.90	114.62	109.90
84	Aa	1464	A	C4-C5-C6	5.90	119.95	117.00
1	Ad	487	A	O4'-C1'-C2'	5.90	112.91	107.60
1	Ad	749	G	C3'-C2'-C1'	-5.90	96.78	101.50
84	Aa	711	A	O4'-C1'-N9	5.90	112.92	108.20
84	Aa	924	A	C5-C6-N6	-5.90	118.98	123.70
84	Aa	953	G	C5-C6-O6	-5.90	125.06	128.60
84	Aa	955	A	C5-C6-N6	-5.90	118.98	123.70
84	Aa	1770	C	N3-C4-C5	-5.90	119.54	121.90
84	Aa	2364	C	N3-C4-C5	-5.90	119.54	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2423	A	C4-C5-C6	5.90	119.95	117.00
85	Ac	43	A	C4-C5-C6	5.90	119.95	117.00
1	Ad	136	U	N1-C1'-C2'	5.90	121.67	114.00
1	Ad	716	A	C2'-C3'-O3'	5.90	123.14	113.70
84	Aa	244	G	C5-C6-O6	-5.90	125.06	128.60
84	Aa	360	G	O4'-C1'-N9	5.90	112.92	108.20
84	Aa	1136	A	O4'-C1'-N9	5.90	112.92	108.20
84	Aa	1283	C	N3-C4-N4	5.90	122.13	118.00
84	Aa	2110	G	C5-C6-O6	-5.90	125.06	128.60
1	Ad	85	A	O4'-C1'-C2'	-5.90	99.90	105.80
84	Aa	2012	C	N3-C4-C5	-5.90	119.54	121.90
84	Aa	2631	A	C5-C6-N1	-5.90	114.75	117.70
84	Aa	2643	A	C5-C6-N1	-5.90	114.75	117.70
1	Ad	1285	G	O4'-C1'-N9	5.90	112.92	108.20
1	Ad	1408	G	C2'-C3'-O3'	5.90	123.14	113.70
84	Aa	410	G	N3-C2-N2	5.90	124.03	119.90
84	Aa	758	A	O4'-C1'-N9	5.90	112.92	108.20
84	Aa	1074	C	N3-C4-C5	-5.90	119.54	121.90
84	Aa	1098	U	O4'-C1'-N1	5.90	112.92	108.20
84	Aa	1674	A	C4-C5-C6	5.90	119.95	117.00
84	Aa	2011	G	O4'-C1'-N9	5.90	112.92	108.20
84	Aa	2055	U	O4'-C1'-N1	5.90	112.92	108.20
84	Aa	2655	U	O4'-C1'-N1	5.90	112.92	108.20
84	Aa	2839	A	C4-C5-C6	5.90	119.95	117.00
84	Aa	2998	A	C4-C5-C6	5.90	119.95	117.00
84	Aa	3030	A	O4'-C1'-N9	5.90	112.92	108.20
84	Aa	3305	U	O4'-C1'-N1	5.90	112.92	108.20
84	Aa	161	C	N3-C4-N4	5.90	122.13	118.00
84	Aa	1987	C	N3-C4-C5	-5.90	119.54	121.90
84	Aa	2795	G	O4'-C1'-N9	5.90	112.92	108.20
84	Aa	3234	G	C5-C6-O6	-5.90	125.06	128.60
1	Ad	1368	C	C3'-C2'-C1'	-5.89	96.78	101.50
84	Aa	325	A	C4-C5-C6	5.89	119.95	117.00
84	Aa	529	C	O4'-C1'-N1	5.89	112.92	108.20
84	Aa	658	C	N3-C4-C5	-5.89	119.54	121.90
84	Aa	1649	G	N3-C2-N2	5.89	124.03	119.90
84	Aa	2590	C	N3-C4-N4	5.89	122.13	118.00
84	Aa	2665	A	C5-C6-N1	-5.89	114.75	117.70
84	Aa	3373	C	N3-C4-C5	-5.89	119.54	121.90
1	Ad	1345	G	O4'-C1'-C2'	5.89	112.90	107.60
9	BX	128	SER	N-CA-CB	5.89	119.34	110.50
71	CB	120	LYS	N-CA-C	-5.89	95.09	111.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	790	G	O4'-C1'-N9	5.89	112.91	108.20
84	Aa	1640	A	C5-C6-N6	-5.89	118.99	123.70
84	Aa	1882	A	C4-C5-C6	5.89	119.95	117.00
84	Aa	2014	A	C5-C6-N1	-5.89	114.75	117.70
84	Aa	2593	A	O4'-C1'-N9	5.89	112.91	108.20
84	Aa	2667	C	C2-N3-C4	5.89	122.85	119.90
84	Aa	2934	C	N3-C4-N4	5.89	122.12	118.00
84	Aa	3211	C	N3-C4-N4	5.89	122.12	118.00
1	Ad	1342	C	O4'-C1'-N1	5.89	112.91	108.20
84	Aa	46	A	C4-C5-C6	5.89	119.94	117.00
84	Aa	2386	A	C5-C6-N1	-5.89	114.75	117.70
85	Ac	124	C	N3-C4-C5	-5.89	119.54	121.90
1	Ad	1047	G	O4'-C1'-C2'	5.89	112.90	107.60
84	Aa	140	C	N3-C4-C5	-5.89	119.54	121.90
84	Aa	631	C	N3-C4-N4	5.89	122.12	118.00
84	Aa	856	G	O4'-C1'-N9	5.89	112.91	108.20
84	Aa	1300	C	N3-C4-C5	-5.89	119.54	121.90
84	Aa	1905	A	O4'-C1'-N9	5.89	112.91	108.20
84	Aa	2060	C	N3-C4-C5	-5.89	119.54	121.90
84	Aa	2123	C	N3-C4-C5	-5.89	119.54	121.90
84	Aa	2532	A	C4-C5-C6	5.89	119.94	117.00
84	Aa	373	A	C5-C6-N6	-5.89	118.99	123.70
84	Aa	672	A	C5-C6-N6	-5.89	118.99	123.70
84	Aa	2281	U	O4'-C1'-N1	5.89	112.91	108.20
84	Aa	2759	C	N3-C4-C5	-5.89	119.55	121.90
84	Aa	491	G	O4'-C1'-N9	5.89	112.91	108.20
84	Aa	1440	C	N3-C4-C5	-5.89	119.55	121.90
84	Aa	2349	C	N3-C4-C5	-5.89	119.55	121.90
84	Aa	2846	C	N3-C4-N4	5.89	122.12	118.00
85	Ac	87	G	C5-C6-O6	-5.89	125.07	128.60
86	Ab	30	G	N1-C6-O6	5.89	123.43	119.90
1	Ad	1012	C	C3'-C2'-C1'	5.88	106.21	101.50
1	Ad	1023	C	C3'-C2'-C1'	5.88	106.21	101.50
1	Ad	1042	C	O4'-C1'-C2'	-5.88	99.92	105.80
84	Aa	1580	C	N3-C4-C5	-5.88	119.55	121.90
84	Aa	2090	G	O4'-C1'-N9	5.88	112.91	108.20
84	Aa	2794	A	C5-C6-N1	-5.88	114.76	117.70
1	Ad	1710	C	C3'-C2'-C1'	5.88	106.21	101.50
20	BT	51	TYR	CB-CG-CD1	-5.88	117.47	121.00
84	Aa	1263	A	C4-C5-C6	5.88	119.94	117.00
84	Aa	2351	A	C4-C5-C6	5.88	119.94	117.00
84	Aa	2718	A	C4-C5-C6	5.88	119.94	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	BK	64	TYR	CB-CG-CD2	-5.88	117.47	121.00
41	CA	68	ARG	N-CA-CB	5.88	121.19	110.60
84	Aa	1035	C	N3-C4-C5	-5.88	119.55	121.90
84	Aa	842	C	O4'-C1'-N1	5.88	112.90	108.20
84	Aa	869	A	C5-C6-N6	-5.88	119.00	123.70
84	Aa	2762	U	O4'-C1'-N1	5.88	112.90	108.20
84	Aa	2813	A	O4'-C1'-N9	5.88	112.90	108.20
1	Ad	535	C	P-O5'-C5'	5.88	130.31	120.90
1	Ad	1705	C	C1'-O4'-C4'	-5.88	105.20	109.90
84	Aa	9	C	N3-C4-C5	-5.88	119.55	121.90
84	Aa	846	A	C5-C6-N1	-5.88	114.76	117.70
84	Aa	2045	G	C5-C6-O6	-5.88	125.07	128.60
84	Aa	3321	C	N3-C4-N4	5.88	122.11	118.00
1	Ad	1670	G	C1'-O4'-C4'	-5.88	105.20	109.90
25	Bd	53	ILE	C-N-CA	5.88	136.39	121.70
84	Aa	6	A	C5-C6-N6	-5.88	119.00	123.70
84	Aa	1002	A	C4-C5-C6	5.88	119.94	117.00
84	Aa	1866	C	N3-C4-C5	-5.88	119.55	121.90
84	Aa	2102	C	N3-C4-N4	5.88	122.11	118.00
1	Ad	413	C	O4'-C1'-C2'	-5.88	99.92	105.80
84	Aa	46	A	C5-C6-N6	-5.88	119.00	123.70
84	Aa	99	A	C5-C6-N6	-5.88	119.00	123.70
84	Aa	1731	A	C4-C5-C6	5.88	119.94	117.00
84	Aa	2491	A	C4-C5-C6	5.88	119.94	117.00
84	Aa	2581	C	N3-C4-C5	-5.88	119.55	121.90
84	Aa	2969	A	C4-C5-C6	5.88	119.94	117.00
84	Aa	3189	C	N3-C4-C5	-5.88	119.55	121.90
85	Ac	109	A	C4-C5-C6	5.88	119.94	117.00
1	Ad	152	G	C1'-O4'-C4'	-5.87	105.20	109.90
1	Ad	1299	G	C1'-O4'-C4'	5.87	114.60	109.90
1	Ad	1624	G	O4'-C1'-C2'	5.87	112.89	107.60
84	Aa	95	G	C5-C6-O6	-5.87	125.08	128.60
84	Aa	610	G	N1-C6-O6	5.87	123.42	119.90
84	Aa	730	A	C5-C6-N6	-5.87	119.00	123.70
84	Aa	1278	A	O4'-C1'-N9	5.87	112.90	108.20
84	Aa	1582	C	N3-C4-N4	5.87	122.11	118.00
84	Aa	1623	C	N3-C4-N4	5.87	122.11	118.00
84	Aa	1802	A	C4-C5-C6	5.87	119.94	117.00
84	Aa	2630	A	C5-C6-N6	-5.87	119.00	123.70
84	Aa	2851	C	N3-C4-C5	-5.87	119.55	121.90
84	Aa	2942	A	O4'-C1'-N9	5.87	112.90	108.20
84	Aa	3085	C	N3-C4-C5	-5.87	119.55	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
85	Ac	12	A	P-O5'-C5'	-5.87	111.50	120.90
1	Ad	1143	A	C3'-C2'-C1'	5.87	106.20	101.50
84	Aa	320	U	O4'-C1'-N1	5.87	112.90	108.20
84	Aa	566	G	C4'-C3'-C2'	-5.87	96.73	102.60
84	Aa	615	A	O4'-C1'-N9	5.87	112.90	108.20
84	Aa	1110	C	N3-C4-C5	-5.87	119.55	121.90
84	Aa	1568	A	C4-C5-C6	5.87	119.94	117.00
84	Aa	1788	C	N3-C4-C5	-5.87	119.55	121.90
84	Aa	2101	A	C5-C6-N1	-5.87	114.76	117.70
84	Aa	2724	A	C4-C5-C6	5.87	119.94	117.00
84	Aa	2996	A	C5-C6-N1	-5.87	114.77	117.70
84	Aa	3221	A	C4-C5-C6	5.87	119.94	117.00
84	Aa	3235	A	C4-C5-C6	5.87	119.94	117.00
85	Ac	79	A	C4-C5-C6	5.87	119.94	117.00
1	Ad	941	G	O4'-C1'-N9	5.87	112.90	108.20
1	Ad	1109	U	P-O5'-C5'	5.87	130.29	120.90
84	Aa	861	A	C4-C5-C6	5.87	119.94	117.00
84	Aa	3271	A	C4-C5-C6	5.87	119.94	117.00
86	Ab	30	G	C8-N9-C4	-5.87	104.05	106.40
1	Ad	326	G	P-O3'-C3'	5.87	126.74	119.70
84	Aa	434	C	N3-C4-C5	-5.87	119.55	121.90
84	Aa	474	G	O3'-P-O5'	-5.87	92.85	104.00
84	Aa	1097	A	C5-C6-N6	-5.87	119.01	123.70
84	Aa	1629	A	C4-C5-C6	5.87	119.93	117.00
84	Aa	2503	A	P-O5'-C5'	5.87	130.29	120.90
84	Aa	2692	G	C4-N9-C1'	5.87	134.13	126.50
84	Aa	2749	A	C4-C5-C6	5.87	119.93	117.00
84	Aa	3228	C	N3-C4-N4	5.87	122.11	118.00
84	Aa	3291	C	N3-C4-N4	5.87	122.11	118.00
84	Aa	121	A	C5-C6-N6	-5.87	119.01	123.70
84	Aa	200	G	C5-C6-O6	-5.87	125.08	128.60
84	Aa	1007	A	C4-C5-C6	5.87	119.93	117.00
85	Ac	144	C	N3-C4-N4	5.87	122.11	118.00
1	Ad	203	A	C1'-O4'-C4'	-5.87	105.21	109.90
48	CD	245	ALA	N-CA-CB	5.87	118.31	110.10
84	Aa	212	G	N3-C2-N2	5.87	124.01	119.90
84	Aa	811	A	O4'-C1'-N9	5.87	112.89	108.20
84	Aa	2329	C	N3-C4-C5	-5.87	119.55	121.90
84	Aa	2671	A	C4-C5-C6	5.87	119.93	117.00
86	Ab	7	G	C6-C5-N7	-5.87	126.88	130.40
1	Ad	263	C	O4'-C1'-C2'	-5.86	99.94	105.80
84	Aa	956	G	O4'-C1'-N9	5.86	112.89	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1398	A	C4-C5-C6	5.86	119.93	117.00
84	Aa	1600	A	C5-C6-N1	-5.86	114.77	117.70
84	Aa	2054	A	C4-C5-C6	5.86	119.93	117.00
84	Aa	2713	G	C5-C6-O6	-5.86	125.08	128.60
84	Aa	62	A	C5-C6-N6	-5.86	119.01	123.70
84	Aa	149	A	C4-C5-C6	5.86	119.93	117.00
84	Aa	349	A	C4-C5-C6	5.86	119.93	117.00
84	Aa	569	C	N3-C4-C5	-5.86	119.56	121.90
84	Aa	1590	A	C4-C5-C6	5.86	119.93	117.00
84	Aa	2374	G	C5-C6-O6	-5.86	125.08	128.60
84	Aa	2375	G	O4'-C1'-N9	5.86	112.89	108.20
85	Ac	19	A	O4'-C1'-N9	5.86	112.89	108.20
85	Ac	125	C	N3-C4-C5	-5.86	119.56	121.90
62	CS	6	PHE	N-CA-CB	5.86	121.15	110.60
84	Aa	367	A	C4-C5-C6	5.86	119.93	117.00
84	Aa	897	U	O4'-C1'-N1	5.86	112.89	108.20
84	Aa	2009	C	N3-C4-C5	-5.86	119.56	121.90
84	Aa	2803	A	C4-C5-C6	5.86	119.93	117.00
84	Aa	3003	C	N3-C4-N4	5.86	122.10	118.00
85	Ac	9	G	C5-C6-O6	-5.86	125.08	128.60
84	Aa	1797	U	C5'-C4'-O4'	5.86	116.13	109.10
84	Aa	2586	C	N3-C4-C5	-5.86	119.56	121.90
1	Ad	827	C	O4'-C1'-N1	5.86	112.89	108.20
84	Aa	134	U	O4'-C1'-N1	5.86	112.89	108.20
84	Aa	1582	C	N3-C4-C5	-5.86	119.56	121.90
84	Aa	1951	C	N3-C4-C5	-5.86	119.56	121.90
84	Aa	2116	G	O4'-C1'-N9	5.86	112.89	108.20
84	Aa	2733	A	C4-C5-C6	5.86	119.93	117.00
84	Aa	2912	A	C5-C6-N6	-5.86	119.01	123.70
84	Aa	2974	G	O4'-C1'-N9	5.86	112.89	108.20
84	Aa	3116	C	O4'-C1'-N1	5.86	112.89	108.20
1	Ad	1237	G	C1'-O4'-C4'	-5.86	105.22	109.90
1	Ad	1794	C	N1-C1'-C2'	5.86	121.61	114.00
84	Aa	309	C	N3-C4-C5	-5.86	119.56	121.90
84	Aa	707	G	O4'-C1'-N9	5.86	112.88	108.20
84	Aa	1157	A	C4-C5-C6	5.86	119.93	117.00
84	Aa	1392	U	O4'-C1'-N1	5.86	112.89	108.20
84	Aa	1487	A	O4'-C1'-N9	5.86	112.88	108.20
84	Aa	2223	A	C4-C5-C6	5.86	119.93	117.00
84	Aa	2356	A	C5-C6-N1	-5.86	114.77	117.70
84	Aa	3119	C	N3-C4-C5	-5.86	119.56	121.90
85	Ac	50	C	N3-C4-N4	5.86	122.10	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	1412	A	C1'-O4'-C4'	-5.85	105.22	109.90
70	Cq	140	PHE	CB-CG-CD1	5.85	124.90	120.80
84	Aa	100	C	C6-N1-C1'	-5.85	113.78	120.80
84	Aa	221	C	N3-C4-C5	-5.85	119.56	121.90
85	Ac	38	U	O4'-C1'-N1	5.85	112.88	108.20
85	Ac	144	C	N3-C4-C5	-5.85	119.56	121.90
1	Ad	1182	C	O4'-C1'-N1	5.85	112.88	108.20
84	Aa	741	G	C5-C6-O6	-5.85	125.09	128.60
84	Aa	1178	C	N3-C4-C5	-5.85	119.56	121.90
84	Aa	1516	G	O4'-C1'-N9	5.85	112.88	108.20
84	Aa	2077	C	N3-C4-N4	5.85	122.10	118.00
84	Aa	2227	A	C5-C6-N6	-5.85	119.02	123.70
84	Aa	2443	C	N3-C4-C5	-5.85	119.56	121.90
84	Aa	2683	A	N1-C6-N6	5.85	122.11	118.60
84	Aa	2708	A	C4-C5-C6	5.85	119.93	117.00
1	Ad	1391	G	O4'-C1'-C2'	5.85	112.87	107.60
84	Aa	1128	U	O4'-C1'-N1	5.85	112.88	108.20
84	Aa	1969	G	C5-C6-O6	-5.85	125.09	128.60
84	Aa	2053	A	C5-C6-N1	-5.85	114.77	117.70
84	Aa	2650	A	C5-C6-N1	-5.85	114.78	117.70
1	Ad	805	A	O4'-C1'-N9	5.85	112.88	108.20
82	Cb	39	PHE	N-CA-CB	5.85	121.13	110.60
84	Aa	438	G	O4'-C1'-N9	5.85	112.88	108.20
84	Aa	854	C	O4'-C1'-N1	5.85	112.88	108.20
84	Aa	952	C	N3-C4-C5	-5.85	119.56	121.90
84	Aa	1109	G	O4'-C1'-N9	5.85	112.88	108.20
84	Aa	1308	A	O4'-C1'-N9	5.85	112.88	108.20
84	Aa	2124	G	C5-C6-O6	-5.85	125.09	128.60
84	Aa	2400	A	C5-C6-N6	-5.85	119.02	123.70
84	Aa	2739	A	C5-C6-N1	-5.85	114.78	117.70
84	Aa	2883	C	N3-C4-C5	-5.85	119.56	121.90
14	BQ	102	TYR	CB-CG-CD1	5.85	124.51	121.00
35	BG	28	PHE	CB-CG-CD1	5.85	124.89	120.80
84	Aa	355	C	C5'-C4'-C3'	-5.85	106.64	116.00
84	Aa	634	A	C5'-C4'-C3'	-5.85	106.64	116.00
84	Aa	1819	A	C5-C6-N1	-5.85	114.78	117.70
84	Aa	2099	G	C5-C6-O6	-5.85	125.09	128.60
85	Ac	121	A	C5-C6-N6	-5.85	119.02	123.70
1	Ad	530	A	C3'-C2'-C1'	5.85	106.18	101.50
84	Aa	249	A	C4-C5-C6	5.85	119.92	117.00
84	Aa	366	G	O4'-C1'-N9	5.85	112.88	108.20
84	Aa	1324	C	N3-C4-C5	-5.85	119.56	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1494	A	C4-C5-C6	5.85	119.92	117.00
84	Aa	1660	C	N3-C4-C5	-5.85	119.56	121.90
84	Aa	2209	A	O4'-C1'-N9	5.85	112.88	108.20
84	Aa	3164	C	N3-C4-C5	-5.85	119.56	121.90
84	Aa	489	C	N3-C4-C5	-5.84	119.56	121.90
84	Aa	634	A	O4'-C1'-N9	5.84	112.88	108.20
84	Aa	984	A	C4-C5-C6	5.84	119.92	117.00
84	Aa	1373	A	C5-C6-N6	-5.84	119.03	123.70
84	Aa	1961	C	N3-C4-C5	-5.84	119.56	121.90
84	Aa	2214	A	C5-C6-N1	-5.84	114.78	117.70
84	Aa	2631	A	C4-C5-C6	5.84	119.92	117.00
84	Aa	2971	A	O4'-C1'-N9	5.84	112.88	108.20
85	Ac	146	G	O4'-C1'-N9	5.84	112.88	108.20
86	Ab	17	G	O4'-C1'-N9	5.84	112.88	108.20
1	Ad	1075	G	O4'-C1'-N9	5.84	112.87	108.20
84	Aa	148	U	O4'-C1'-N1	5.84	112.87	108.20
84	Aa	323	A	O4'-C1'-N9	5.84	112.87	108.20
84	Aa	2150	C	C5'-C4'-O4'	5.84	116.11	109.10
84	Aa	3203	G	C5-C6-O6	-5.84	125.09	128.60
85	Ac	138	G	O4'-C1'-N9	5.84	112.87	108.20
1	Ad	1492	G	C1'-O4'-C4'	5.84	114.57	109.90
84	Aa	257	C	N3-C4-C5	-5.84	119.56	121.90
84	Aa	662	G	O4'-C1'-N9	5.84	112.87	108.20
84	Aa	1704	A	C5-C6-N1	-5.84	114.78	117.70
84	Aa	1781	C	N3-C4-C5	-5.84	119.56	121.90
84	Aa	2082	A	C5-C6-N1	-5.84	114.78	117.70
84	Aa	2411	G	O4'-C1'-N9	5.84	112.87	108.20
1	Ad	432	A	C5'-C4'-O4'	5.84	116.11	109.10
1	Ad	1544	G	P-O3'-C3'	5.84	126.71	119.70
84	Aa	2627	G	O4'-C1'-N9	5.84	112.87	108.20
84	Aa	3011	U	O4'-C1'-N1	5.84	112.87	108.20
84	Aa	832	C	N3-C4-N4	5.84	122.09	118.00
84	Aa	1365	C	N3-C4-C5	-5.84	119.56	121.90
84	Aa	1629	A	O4'-C1'-N9	5.84	112.87	108.20
84	Aa	2591	G	O4'-C1'-N9	5.84	112.87	108.20
84	Aa	3210	G	P-O3'-C3'	5.84	126.70	119.70
84	Aa	3283	G	O4'-C1'-N9	5.84	112.87	108.20
1	Ad	202	C	O4'-C1'-N1	5.84	112.87	108.20
1	Ad	526	U	N1-C1'-C2'	5.84	121.59	114.00
1	Ad	861	A	O4'-C1'-N9	-5.84	103.53	108.20
1	Ad	969	U	C3'-C2'-C1'	5.84	106.17	101.50
1	Ad	1386	U	C1'-O4'-C4'	-5.84	105.23	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	129	G	O4'-C1'-N9	5.84	112.87	108.20
84	Aa	212	G	O4'-C1'-N9	5.84	112.87	108.20
84	Aa	739	C	N3-C4-N4	5.84	122.09	118.00
84	Aa	1904	A	C4-C5-C6	5.84	119.92	117.00
84	Aa	1905	A	C5-C6-N1	-5.84	114.78	117.70
84	Aa	1927	A	C4-C5-C6	5.84	119.92	117.00
84	Aa	2183	A	C4-C5-C6	5.84	119.92	117.00
84	Aa	2203	A	C4-C5-C6	5.84	119.92	117.00
84	Aa	2567	C	N3-C4-N4	5.84	122.09	118.00
84	Aa	2826	G	O4'-C1'-N9	5.84	112.87	108.20
85	Ac	26	C	N3-C4-C5	-5.84	119.56	121.90
84	Aa	26	A	C5-C6-N1	-5.83	114.78	117.70
84	Aa	709	G	P-O3'-C3'	5.83	126.70	119.70
84	Aa	2016	A	C4-C5-C6	5.83	119.92	117.00
84	Aa	3220	A	C5-C6-N1	-5.83	114.78	117.70
1	Ad	288	G	O4'-C1'-N9	5.83	112.87	108.20
1	Ad	1342	C	C1'-O4'-C4'	-5.83	105.23	109.90
84	Aa	111	C	N3-C4-C5	-5.83	119.57	121.90
84	Aa	1573	G	C5-C6-O6	-5.83	125.10	128.60
84	Aa	2674	A	C5-C6-N1	-5.83	114.78	117.70
84	Aa	3201	A	C5-C6-N6	-5.83	119.03	123.70
1	Ad	135	C	N1-C1'-C2'	5.83	121.58	114.00
1	Ad	854	C	O4'-C1'-N1	5.83	112.86	108.20
1	Ad	993	C	C3'-C2'-C1'	5.83	106.16	101.50
3	Af	15	A	O4'-C1'-N9	5.83	112.86	108.20
84	Aa	191	C	N3-C4-C5	-5.83	119.57	121.90
84	Aa	913	G	O4'-C1'-N9	5.83	112.86	108.20
84	Aa	1911	A	C5-C6-N1	-5.83	114.78	117.70
84	Aa	2139	A	C5-C6-N6	-5.83	119.03	123.70
84	Aa	2272	C	N3-C4-C5	-5.83	119.57	121.90
84	Aa	2421	C	N3-C4-C5	-5.83	119.57	121.90
84	Aa	2813	A	C5-C6-N1	-5.83	114.78	117.70
84	Aa	2837	C	N3-C4-C5	-5.83	119.57	121.90
86	Ab	74	A	C5-C6-N1	-5.83	114.78	117.70
1	Ad	58	U	O4'-C1'-N1	5.83	112.86	108.20
84	Aa	2733	A	C5-C6-N6	-5.83	119.04	123.70
84	Aa	196	A	C5-C6-N6	-5.83	119.04	123.70
84	Aa	1570	C	N3-C4-N4	5.83	122.08	118.00
84	Aa	1599	A	C5-C6-N6	-5.83	119.04	123.70
84	Aa	2120	A	C5-C6-N1	-5.83	114.78	117.70
84	Aa	2311	A	C4-C5-C6	5.83	119.91	117.00
84	Aa	2892	A	C5-C6-N1	-5.83	114.78	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	3071	A	C5-C6-N1	-5.83	114.79	117.70
84	Aa	3334	A	O4'-C1'-N9	5.83	112.86	108.20
84	Aa	3374	C	C2-N1-C1'	5.83	125.21	118.80
86	Ab	108	G	N1-C2-N3	-5.83	120.40	123.90
1	Ad	1647	C	C1'-O4'-C4'	5.83	114.56	109.90
84	Aa	2140	C	N3-C4-C5	-5.83	119.57	121.90
84	Aa	2322	G	C5-C6-O6	-5.83	125.10	128.60
84	Aa	2344	A	C4-C5-C6	5.83	119.91	117.00
85	Ac	147	C	N3-C4-C5	-5.83	119.57	121.90
1	Ad	214	A	O4'-C1'-N9	5.83	112.86	108.20
1	Ad	1159	G	C3'-C2'-C1'	-5.83	96.84	101.50
84	Aa	1610	A	C5-C6-N1	-5.83	114.79	117.70
84	Aa	1974	C	N3-C4-C5	-5.83	119.57	121.90
84	Aa	2312	A	C5-C6-N1	-5.83	114.79	117.70
84	Aa	2704	U	O4'-C1'-N1	5.83	112.86	108.20
84	Aa	2895	G	O4'-C1'-N9	5.83	112.86	108.20
84	Aa	3045	A	C4-C5-C6	5.83	119.91	117.00
84	Aa	3078	A	C5-C6-N6	-5.83	119.04	123.70
84	Aa	569	C	N3-C4-N4	5.82	122.08	118.00
84	Aa	735	C	N3-C4-C5	-5.82	119.57	121.90
84	Aa	1129	G	O4'-C1'-N9	5.82	112.86	108.20
84	Aa	1483	G	C5-C6-O6	-5.82	125.11	128.60
84	Aa	2233	G	O4'-C1'-N9	5.82	112.86	108.20
84	Aa	2265	A	C4-C5-C6	5.82	119.91	117.00
84	Aa	2901	C	N3-C4-C5	-5.82	119.57	121.90
84	Aa	3174	C	N3-C4-C5	-5.82	119.57	121.90
84	Aa	3175	C	N3-C4-C5	-5.82	119.57	121.90
84	Aa	290	C	N3-C4-N4	5.82	122.08	118.00
84	Aa	912	G	C5-C6-O6	-5.82	125.11	128.60
84	Aa	1359	A	O4'-C1'-N9	5.82	112.86	108.20
84	Aa	2557	C	N3-C4-N4	5.82	122.08	118.00
84	Aa	2960	A	C4-C5-C6	5.82	119.91	117.00
84	Aa	3252	G	C5-C6-O6	-5.82	125.11	128.60
1	Ad	1414	G	O4'-C1'-N9	5.82	112.86	108.20
1	Ad	1528	U	O4'-C1'-C2'	-5.82	99.98	105.80
84	Aa	1330	A	C5-C6-N1	-5.82	114.79	117.70
84	Aa	1574	C	N3-C4-C5	-5.82	119.57	121.90
84	Aa	1753	A	C5-C6-N1	-5.82	114.79	117.70
84	Aa	2772	A	O4'-C1'-N9	5.82	112.86	108.20
85	Ac	71	A	C4-C5-C6	5.82	119.91	117.00
84	Aa	6	A	C4-C5-C6	5.82	119.91	117.00
84	Aa	447	C	N3-C4-C5	-5.82	119.57	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	628	C	N3-C4-C5	-5.82	119.57	121.90
84	Aa	1494	A	C5-C6-N6	-5.82	119.05	123.70
84	Aa	2761	A	C4-C5-C6	5.82	119.91	117.00
84	Aa	3159	C	N3-C4-C5	-5.82	119.57	121.90
84	Aa	144	A	C5-C6-N1	-5.82	114.79	117.70
84	Aa	642	C	P-O5'-C5'	5.82	130.21	120.90
84	Aa	1512	A	C5-C6-N6	-5.82	119.05	123.70
84	Aa	1651	A	C5-C6-N1	-5.82	114.79	117.70
84	Aa	2634	U	O4'-C1'-N1	5.82	112.85	108.20
85	Ac	44	A	C4-C5-C6	5.82	119.91	117.00
85	Ac	140	A	O4'-C1'-N9	5.82	112.85	108.20
86	Ab	11	A	C8-N9-C4	-5.82	103.47	105.80
1	Ad	507	G	O4'-C1'-N9	5.82	112.85	108.20
84	Aa	55	G	C5-C6-O6	-5.82	125.11	128.60
84	Aa	448	G	C5-C6-O6	-5.82	125.11	128.60
84	Aa	1323	G	C5-C6-O6	-5.82	125.11	128.60
84	Aa	1391	A	O4'-C1'-N9	5.82	112.85	108.20
84	Aa	1708	C	N3-C4-C5	-5.82	119.57	121.90
84	Aa	1973	C	N3-C4-C5	-5.82	119.57	121.90
84	Aa	2304	A	C4-C5-C6	5.82	119.91	117.00
84	Aa	2367	A	O4'-C1'-N9	5.82	112.85	108.20
84	Aa	3249	G	C5-C6-O6	-5.82	125.11	128.60
1	Ad	247	A	C5'-C4'-O4'	5.81	116.08	109.10
84	Aa	550	C	O3'-P-O5'	-5.81	92.95	104.00
84	Aa	971	G	O4'-C1'-N9	5.81	112.85	108.20
84	Aa	1396	A	C4-C5-C6	5.81	119.91	117.00
84	Aa	2016	A	C5-C6-N1	-5.81	114.79	117.70
84	Aa	2385	A	C5-C6-N6	-5.81	119.05	123.70
84	Aa	2554	U	O4'-C1'-N1	5.81	112.85	108.20
1	Ad	11	A	C1'-O4'-C4'	5.81	114.55	109.90
1	Ad	415	C	C5'-C4'-O4'	5.81	116.07	109.10
1	Ad	618	C	O4'-C1'-N1	5.81	112.85	108.20
1	Ad	1097	A	O4'-C1'-N9	5.81	112.85	108.20
1	Ad	1615	G	N9-C1'-C2'	5.81	121.56	114.00
24	BW	128	PHE	CB-CG-CD2	-5.81	116.73	120.80
84	Aa	672	A	C4-C5-C6	5.81	119.91	117.00
84	Aa	730	A	C4-C5-C6	5.81	119.91	117.00
84	Aa	1115	A	C4-C5-C6	5.81	119.91	117.00
84	Aa	1295	A	C4-C5-C6	5.81	119.91	117.00
84	Aa	1424	G	C5-C6-O6	-5.81	125.11	128.60
84	Aa	2113	A	C5-C6-N1	-5.81	114.79	117.70
86	Ab	64	G	C4-C5-C6	5.81	122.29	118.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
86	Ab	98	G	N3-C2-N2	5.81	123.97	119.90
1	Ad	1386	U	O4'-C1'-N1	5.81	112.85	108.20
48	CD	291	SER	N-CA-CB	5.81	119.22	110.50
84	Aa	851	A	C4-C5-C6	5.81	119.91	117.00
84	Aa	2178	G	P-O3'-C3'	5.81	126.67	119.70
84	Aa	2214	A	C4-C5-C6	5.81	119.91	117.00
84	Aa	2931	C	N3-C4-C5	-5.81	119.58	121.90
1	Ad	1497	U	C3'-C2'-C1'	-5.81	96.85	101.50
38	CT	19	PHE	CB-CG-CD2	-5.81	116.73	120.80
84	Aa	211	A	C5-C6-N6	-5.81	119.05	123.70
84	Aa	509	G	O4'-C1'-N9	5.81	112.85	108.20
84	Aa	532	G	C5-C6-O6	-5.81	125.11	128.60
84	Aa	607	U	N1-C1'-C2'	5.81	121.55	114.00
84	Aa	756	C	N3-C4-C5	-5.81	119.58	121.90
84	Aa	1617	A	C4-C5-C6	5.81	119.91	117.00
84	Aa	2872	C	N3-C4-N4	5.81	122.07	118.00
85	Ac	122	G	O4'-C1'-N9	5.81	112.85	108.20
1	Ad	1034	G	O4'-C1'-N9	5.81	112.85	108.20
1	Ad	1258	U	O4'-C1'-N1	5.81	112.85	108.20
84	Aa	17	G	O4'-C1'-N9	5.81	112.84	108.20
84	Aa	135	G	C5-C6-O6	-5.81	125.11	128.60
84	Aa	272	G	O4'-C1'-N9	5.81	112.85	108.20
84	Aa	823	A	C4-C5-C6	5.81	119.90	117.00
84	Aa	978	C	C2-N3-C4	5.81	122.80	119.90
84	Aa	1370	A	C5-C6-N6	-5.81	119.05	123.70
84	Aa	3060	G	C5-C6-O6	-5.81	125.11	128.60
84	Aa	3136	A	C5-C6-N6	-5.81	119.05	123.70
84	Aa	3210	G	C4-N9-C1'	5.81	134.05	126.50
48	CD	183	PHE	CB-CG-CD2	5.81	124.86	120.80
84	Aa	1256	A	C4-C5-C6	5.81	119.90	117.00
84	Aa	2025	C	N3-C4-C5	-5.81	119.58	121.90
84	Aa	2483	A	C4-C5-C6	5.81	119.90	117.00
84	Aa	3213	A	C4-C5-C6	5.81	119.90	117.00
1	Ad	310	U	C5'-C4'-O4'	5.80	116.06	109.10
1	Ad	493	C	O4'-C1'-N1	5.80	112.84	108.20
1	Ad	627	A	P-O3'-C3'	5.80	126.67	119.70
1	Ad	1388	A	N9-C1'-C2'	-5.80	105.62	112.00
48	CD	7	PHE	CB-CG-CD1	5.80	124.86	120.80
84	Aa	539	C	N3-C4-N4	5.80	122.06	118.00
84	Aa	610	G	P-O5'-C5'	5.80	130.19	120.90
84	Aa	715	A	C5-C6-N1	-5.80	114.80	117.70
84	Aa	1335	C	N3-C4-C5	-5.80	119.58	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1636	C	N3-C4-C5	-5.80	119.58	121.90
84	Aa	2574	A	C4-C5-C6	5.80	119.90	117.00
84	Aa	2734	C	N3-C4-N4	5.80	122.06	118.00
84	Aa	2835	A	C5-C6-N1	-5.80	114.80	117.70
84	Aa	2892	A	C4-C5-C6	5.80	119.90	117.00
84	Aa	2946	U	O4'-C1'-N1	5.80	112.84	108.20
84	Aa	3308	A	C4-C5-C6	5.80	119.90	117.00
85	Ac	77	A	C4-C5-C6	5.80	119.90	117.00
86	Ab	61	C	N3-C4-C5	-5.80	119.58	121.90
1	Ad	197	G	P-O3'-C3'	5.80	126.66	119.70
84	Aa	70	A	P-O3'-C3'	5.80	126.66	119.70
84	Aa	1380	C	N3-C4-C5	-5.80	119.58	121.90
84	Aa	1520	A	C4-C5-C6	5.80	119.90	117.00
84	Aa	2657	C	C2-N3-C4	5.80	122.80	119.90
84	Aa	3142	C	N3-C4-N4	5.80	122.06	118.00
24	BW	15	TYR	CB-CG-CD2	-5.80	117.52	121.00
84	Aa	875	A	C5-C6-N1	-5.80	114.80	117.70
84	Aa	2112	C	N3-C4-N4	5.80	122.06	118.00
84	Aa	2460	A	C5-C6-N1	-5.80	114.80	117.70
84	Aa	2736	A	C4-C5-C6	5.80	119.90	117.00
85	Ac	66	G	C5-C6-O6	-5.80	125.12	128.60
1	Ad	36	C	C3'-C2'-C1'	5.80	106.14	101.50
1	Ad	1214	C	P-O3'-C3'	-5.80	112.74	119.70
84	Aa	61	A	C5-C6-N6	-5.80	119.06	123.70
84	Aa	158	A	C5-C6-N1	-5.80	114.80	117.70
84	Aa	1156	A	C4-C5-C6	5.80	119.90	117.00
84	Aa	2386	A	C4-C5-C6	5.80	119.90	117.00
84	Aa	2629	C	N3-C4-N4	5.80	122.06	118.00
84	Aa	2658	U	O4'-C1'-N1	5.80	112.84	108.20
84	Aa	2662	A	C5-C6-N1	-5.80	114.80	117.70
84	Aa	3022	A	C4-C5-C6	5.80	119.90	117.00
1	Ad	1052	G	O4'-C1'-N9	5.80	112.84	108.20
78	CL	64	LYS	N-CA-CB	5.80	121.04	110.60
84	Aa	1932	A	O4'-C1'-N9	5.80	112.84	108.20
84	Aa	2273	C	N3-C4-C5	-5.80	119.58	121.90
85	Ac	106	C	N3-C4-N4	5.80	122.06	118.00
86	Ab	48	G	N3-C2-N2	5.80	123.96	119.90
1	Ad	966	U	C1'-O4'-C4'	-5.80	105.26	109.90
84	Aa	80	C	N3-C4-C5	-5.80	119.58	121.90
84	Aa	171	G	O4'-C1'-N9	5.80	112.84	108.20
84	Aa	555	G	O4'-C1'-N9	5.80	112.84	108.20
84	Aa	1643	A	C4-C5-C6	5.80	119.90	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2903	G	O4'-C1'-N9	5.80	112.84	108.20
84	Aa	2932	A	C5-C6-N1	-5.80	114.80	117.70
84	Aa	2934	C	P-O3'-C3'	5.80	126.66	119.70
84	Aa	3275	G	O4'-C1'-N9	5.80	112.84	108.20
1	Ad	83	U	N1-C1'-C2'	-5.79	105.62	112.00
1	Ad	547	C	P-O3'-C3'	5.79	126.65	119.70
84	Aa	793	C	N3-C4-C5	-5.79	119.58	121.90
84	Aa	1006	A	C4-C5-C6	5.79	119.90	117.00
84	Aa	1026	A	C5-C6-N1	-5.79	114.80	117.70
1	Ad	539	A	C1'-O4'-C4'	-5.79	105.27	109.90
84	Aa	480	C	N3-C4-C5	-5.79	119.58	121.90
84	Aa	920	A	C5-C6-N1	-5.79	114.80	117.70
84	Aa	3257	G	C5-C6-O6	-5.79	125.12	128.60
85	Ac	109	A	O4'-C1'-N9	5.79	112.84	108.20
85	Ac	158	C	N3-C4-N4	5.79	122.06	118.00
1	Ad	1283	C	O4'-C1'-N1	5.79	112.83	108.20
84	Aa	372	A	C4-C5-C6	5.79	119.90	117.00
84	Aa	493	G	C5-C6-O6	-5.79	125.12	128.60
84	Aa	708	C	N3-C4-N4	5.79	122.06	118.00
84	Aa	1061	A	C4-C5-C6	5.79	119.90	117.00
84	Aa	2671	A	C5-C6-N1	-5.79	114.80	117.70
84	Aa	2998	A	O4'-C1'-N9	5.79	112.83	108.20
1	Ad	104	A	P-O3'-C3'	5.79	126.65	119.70
1	Ad	496	A	P-O3'-C3'	-5.79	112.75	119.70
72	CC	336	TYR	CB-CG-CD2	5.79	124.47	121.00
84	Aa	1550	A	C4-C5-C6	5.79	119.89	117.00
86	Ab	82	G	C5-C6-N1	-5.79	108.61	111.50
1	Ad	1233	G	C3'-C2'-C1'	5.79	106.13	101.50
84	Aa	58	G	O4'-C1'-N9	5.79	112.83	108.20
84	Aa	693	C	N3-C4-C5	-5.79	119.58	121.90
84	Aa	954	A	C4-C5-C6	5.79	119.89	117.00
84	Aa	995	C	N3-C4-N4	5.79	122.05	118.00
84	Aa	1875	A	O4'-C1'-N9	5.79	112.83	108.20
84	Aa	2847	A	O4'-C1'-N9	5.79	112.83	108.20
84	Aa	3095	G	N3-C2-N2	5.79	123.95	119.90
86	Ab	68	G	C4-C5-C6	5.79	122.27	118.80
1	Ad	714	C	C3'-C2'-C1'	5.79	106.13	101.50
84	Aa	265	G	N3-C2-N2	5.79	123.95	119.90
84	Aa	492	G	C4'-C3'-C2'	5.79	108.39	102.60
84	Aa	907	A	C4-C5-C6	5.79	119.89	117.00
1	Ad	574	A	C5'-C4'-O4'	5.79	116.04	109.10
1	Ad	1705	C	C3'-C2'-C1'	5.79	106.13	101.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	267	G	C5-C6-O6	-5.79	125.13	128.60
84	Aa	393	A	C5-C6-N6	-5.79	119.07	123.70
84	Aa	1468	A	C4-C5-C6	5.79	119.89	117.00
84	Aa	1753	A	C5-C6-N6	-5.79	119.07	123.70
84	Aa	2678	C	N3-C4-C5	-5.79	119.59	121.90
84	Aa	2836	G	N3-C2-N2	5.79	123.95	119.90
84	Aa	2850	G	O4'-C1'-N9	5.79	112.83	108.20
84	Aa	3250	C	N3-C4-C5	-5.79	119.59	121.90
84	Aa	3251	C	N3-C4-C5	-5.79	119.59	121.90
1	Ad	131	C	C4'-C3'-C2'	-5.78	96.82	102.60
1	Ad	1192	G	C1'-O4'-C4'	-5.78	105.27	109.90
1	Ad	1755	G	C1'-O4'-C4'	-5.78	105.27	109.90
84	Aa	181	G	O4'-C1'-N9	5.78	112.83	108.20
84	Aa	2487	A	C5-C6-N1	-5.78	114.81	117.70
84	Aa	2672	C	N3-C4-C5	-5.78	119.59	121.90
84	Aa	3358	A	C4-C5-C6	5.78	119.89	117.00
84	Aa	932	A	C5-C6-N1	-5.78	114.81	117.70
84	Aa	2961	C	N3-C4-C5	-5.78	119.59	121.90
85	Ac	110	A	C5-C6-N6	-5.78	119.08	123.70
1	Ad	285	G	N9-C1'-C2'	5.78	121.51	114.00
1	Ad	1573	C	O4'-C1'-N1	5.78	112.82	108.20
61	CM	89	TRP	N-CA-CB	5.78	121.00	110.60
84	Aa	224	C	N3-C4-C5	-5.78	119.59	121.90
84	Aa	1087	G	O4'-C1'-N9	5.78	112.82	108.20
84	Aa	1132	A	C4-C5-C6	5.78	119.89	117.00
84	Aa	1581	C	N3-C4-C5	-5.78	119.59	121.90
84	Aa	1855	A	C5-C6-N1	-5.78	114.81	117.70
84	Aa	2177	U	C2'-C3'-O3'	5.78	122.95	113.70
84	Aa	2509	A	C4-C5-C6	5.78	119.89	117.00
84	Aa	2822	A	C5-C6-N1	-5.78	114.81	117.70
84	Aa	3100	C	N3-C4-C5	-5.78	119.59	121.90
1	Ad	344	U	C1'-O4'-C4'	5.78	114.52	109.90
1	Ad	1597	C	O4'-C1'-N1	5.78	112.82	108.20
84	Aa	1890	C	N3-C4-C5	-5.78	119.59	121.90
84	Aa	1943	G	P-O3'-C3'	-5.78	112.77	119.70
84	Aa	2237	A	C4-C5-C6	5.78	119.89	117.00
84	Aa	2321	C	N3-C4-C5	-5.78	119.59	121.90
86	Ab	75	G	C3'-C2'-C1'	-5.78	96.88	101.50
1	Ad	860	A	P-O5'-C5'	-5.78	111.66	120.90
1	Ad	949	A	O4'-C1'-C2'	-5.78	100.02	105.80
1	Ad	1254	U	C1'-O4'-C4'	5.78	114.52	109.90
41	CA	67	PHE	CB-CG-CD1	-5.78	116.76	120.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	120	G	O4'-C1'-N9	5.78	112.82	108.20
84	Aa	1418	C	N3-C4-N4	5.78	122.04	118.00
84	Aa	1599	A	C4-C5-C6	5.78	119.89	117.00
84	Aa	1875	A	C4-C5-C6	5.78	119.89	117.00
84	Aa	2119	A	C4-C5-C6	5.78	119.89	117.00
84	Aa	2250	A	C5-C6-N1	-5.78	114.81	117.70
84	Aa	2456	G	C5-C6-O6	-5.78	125.13	128.60
84	Aa	2792	A	C5-C6-N1	-5.78	114.81	117.70
84	Aa	565	C	C2-N3-C4	5.78	122.79	119.90
84	Aa	805	C	N3-C4-C5	-5.78	119.59	121.90
84	Aa	1203	C	N3-C4-C5	-5.78	119.59	121.90
84	Aa	1208	A	C4-C5-C6	5.78	119.89	117.00
84	Aa	1778	C	N3-C4-C5	-5.78	119.59	121.90
84	Aa	2757	G	N1-C6-O6	5.78	123.36	119.90
84	Aa	3017	A	C5-C6-N6	-5.78	119.08	123.70
84	Aa	3212	C	N3-C4-N4	5.78	122.04	118.00
84	Aa	3358	A	C5-C6-N1	-5.78	114.81	117.70
1	Ad	10	G	O4'-C1'-N9	5.77	112.82	108.20
1	Ad	312	C	C3'-C2'-C1'	5.77	106.12	101.50
84	Aa	2288	C	O4'-C1'-N1	5.77	112.82	108.20
84	Aa	2400	A	O4'-C1'-N9	5.77	112.82	108.20
85	Ac	135	A	C4-C5-C6	5.77	119.89	117.00
84	Aa	26	A	O4'-C1'-N9	5.77	112.82	108.20
84	Aa	232	C	N3-C4-C5	-5.77	119.59	121.90
84	Aa	354	C	N3-C4-N4	5.77	122.04	118.00
84	Aa	2210	A	C5-C6-N6	-5.77	119.08	123.70
84	Aa	2347	A	O4'-C1'-N9	5.77	112.82	108.20
84	Aa	2847	A	C4-C5-C6	5.77	119.89	117.00
84	Aa	2880	G	O4'-C1'-N9	5.77	112.82	108.20
86	Ab	65	G	N1-C2-N3	-5.77	120.44	123.90
84	Aa	160	G	O4'-C1'-N9	5.77	112.82	108.20
84	Aa	189	C	N3-C4-C5	-5.77	119.59	121.90
84	Aa	1016	G	C5-C6-O6	-5.77	125.14	128.60
84	Aa	1291	A	C5-C6-N1	-5.77	114.81	117.70
84	Aa	1492	A	C4-C5-C6	5.77	119.89	117.00
84	Aa	1635	A	C5-C6-N1	-5.77	114.81	117.70
84	Aa	2896	C	N3-C4-N4	5.77	122.04	118.00
84	Aa	3140	A	C5-C6-N1	-5.77	114.81	117.70
1	Ad	586	U	O4'-C1'-N1	5.77	112.81	108.20
2	Ae	68	C	N1-C1'-C2'	5.77	121.50	114.00
84	Aa	197	A	C5-C6-N6	-5.77	119.08	123.70
84	Aa	1490	A	C5-C6-N1	-5.77	114.81	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2973	A	C4-C5-C6	5.77	119.89	117.00
84	Aa	3206	C	N3-C4-C5	-5.77	119.59	121.90
84	Aa	3302	A	O4'-C1'-N9	5.77	112.82	108.20
86	Ab	34	C	C2-N3-C4	5.77	122.78	119.90
1	Ad	206	U	P-O3'-C3'	5.77	126.62	119.70
1	Ad	961	U	O4'-C1'-N1	5.77	112.81	108.20
34	BC	146	ASN	N-CA-CB	5.77	120.98	110.60
84	Aa	545	C	N3-C4-C5	-5.77	119.59	121.90
84	Aa	871	C	N3-C4-C5	-5.77	119.59	121.90
84	Aa	1061	A	C5-C6-N1	-5.77	114.82	117.70
84	Aa	1361	G	O4'-C1'-N9	5.77	112.81	108.20
84	Aa	1472	C	N3-C4-C5	-5.77	119.59	121.90
84	Aa	1755	A	C5-C6-N6	-5.77	119.08	123.70
84	Aa	2623	G	O4'-C1'-N9	5.77	112.81	108.20
84	Aa	3272	A	C5-C6-N6	-5.77	119.09	123.70
84	Aa	3288	A	O4'-C1'-N9	5.77	112.81	108.20
1	Ad	1132	G	O4'-C1'-N9	5.77	112.81	108.20
1	Ad	1341	G	P-O3'-C3'	5.77	126.62	119.70
84	Aa	147	G	C5-C6-O6	-5.77	125.14	128.60
84	Aa	873	A	C4-C5-C6	5.77	119.88	117.00
84	Aa	1305	A	C5-C6-N6	-5.77	119.09	123.70
84	Aa	2092	C	C3'-C2'-C1'	-5.77	96.89	101.50
84	Aa	2244	G	O4'-C1'-N9	5.77	112.81	108.20
1	Ad	646	G	O4'-C1'-C2'	5.76	112.79	107.60
1	Ad	1352	A	O4'-C1'-N9	5.76	112.81	108.20
1	Ad	1369	C	N1-C1'-C2'	5.76	121.49	114.00
1	Ad	1502	C	O4'-C1'-C2'	-5.76	100.03	105.80
1	Ad	1507	G	C1'-O4'-C4'	-5.76	105.29	109.90
84	Aa	821	C	O4'-C1'-N1	5.76	112.81	108.20
84	Aa	2243	C	N3-C4-C5	-5.76	119.59	121.90
84	Aa	826	C	N3-C4-C5	-5.76	119.59	121.90
84	Aa	2238	A	C4-C5-C6	5.76	119.88	117.00
84	Aa	2442	A	C4-C5-C6	5.76	119.88	117.00
1	Ad	965	U	O4'-C1'-C2'	-5.76	100.04	105.80
1	Ad	1005	C	C5'-C4'-O4'	5.76	116.01	109.10
48	CD	122	GLY	N-CA-C	-5.76	98.70	113.10
84	Aa	3	G	C5-C6-O6	-5.76	125.14	128.60
84	Aa	1460	U	O4'-C1'-N1	5.76	112.81	108.20
84	Aa	1491	G	C5-C6-O6	-5.76	125.14	128.60
84	Aa	1577	A	C4-C5-C6	5.76	119.88	117.00
84	Aa	2439	A	P-O5'-C5'	-5.76	111.68	120.90
84	Aa	2928	A	C4-C5-C6	5.76	119.88	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2932	A	C4-C5-C6	5.76	119.88	117.00
84	Aa	3199	C	N3-C4-C5	-5.76	119.60	121.90
1	Ad	1687	G	C3'-C2'-C1'	5.76	106.11	101.50
2	Ae	10	G	C1'-O4'-C4'	5.76	114.51	109.90
56	Cd	87	ARG	N-CA-CB	5.76	120.97	110.60
84	Aa	73	A	C5-C6-N6	-5.76	119.09	123.70
84	Aa	976	A	O4'-C1'-N9	5.76	112.81	108.20
84	Aa	1059	A	O4'-C1'-N9	5.76	112.81	108.20
84	Aa	1885	G	C5-C6-O6	-5.76	125.14	128.60
84	Aa	2571	C	N3-C4-C5	-5.76	119.60	121.90
84	Aa	3104	A	C5-C6-N6	-5.76	119.09	123.70
84	Aa	38	A	O4'-C1'-N9	5.76	112.81	108.20
84	Aa	917	A	C5-C6-N6	-5.76	119.09	123.70
84	Aa	1477	A	C4-C5-C6	5.76	119.88	117.00
84	Aa	1622	G	O4'-C1'-N9	5.76	112.81	108.20
84	Aa	2699	A	C4-C5-C6	5.76	119.88	117.00
84	Aa	2834	C	N3-C4-C5	-5.76	119.60	121.90
1	Ad	1250	C	O4'-C1'-C2'	5.76	112.78	107.60
84	Aa	93	G	O4'-C1'-N9	5.76	112.81	108.20
84	Aa	654	C	N3-C4-C5	-5.76	119.60	121.90
84	Aa	905	G	O4'-C1'-N9	5.76	112.81	108.20
84	Aa	1190	C	N3-C4-C5	-5.76	119.60	121.90
84	Aa	1412	C	N3-C4-C5	-5.76	119.60	121.90
84	Aa	1848	G	O4'-C1'-N9	5.76	112.81	108.20
84	Aa	1887	A	O4'-C1'-N9	5.76	112.81	108.20
84	Aa	1926	A	C5-C6-N6	-5.76	119.09	123.70
84	Aa	2137	A	C4-C5-C6	5.76	119.88	117.00
85	Ac	11	C	C4'-C3'-C2'	-5.76	96.84	102.60
85	Ac	104	A	C4-C5-C6	5.76	119.88	117.00
33	BJ	85	TYR	CB-CG-CD1	5.75	124.45	121.00
71	CB	351	SER	N-CA-CB	5.75	119.13	110.50
84	Aa	1062	G	O4'-C1'-N9	5.75	112.80	108.20
84	Aa	2041	G	O4'-C1'-N9	5.75	112.80	108.20
84	Aa	2081	C	O4'-C1'-N1	5.75	112.80	108.20
84	Aa	2125	A	C4-C5-C6	5.75	119.88	117.00
84	Aa	3037	G	O4'-C1'-N9	5.75	112.80	108.20
86	Ab	90	A	O4'-C1'-N9	5.75	112.80	108.20
1	Ad	1091	A	N9-C1'-C2'	5.75	121.48	114.00
84	Aa	659	C	N3-C4-C5	-5.75	119.60	121.90
84	Aa	1838	A	C4-C5-C6	5.75	119.88	117.00
84	Aa	1908	C	N3-C4-N4	5.75	122.03	118.00
84	Aa	2365	C	N3-C4-C5	-5.75	119.60	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2794	A	C4-C5-C6	5.75	119.88	117.00
84	Aa	2799	U	O4'-C1'-N1	5.75	112.80	108.20
84	Aa	3165	C	N3-C4-C5	-5.75	119.60	121.90
84	Aa	3235	A	C5-C6-N6	-5.75	119.10	123.70
84	Aa	3360	U	O4'-C1'-N1	5.75	112.80	108.20
85	Ac	96	A	C4-C5-C6	5.75	119.88	117.00
34	BC	235	PHE	N-CA-CB	5.75	120.95	110.60
84	Aa	886	A	C5-C6-N1	-5.75	114.83	117.70
84	Aa	1256	A	C5-C6-N6	-5.75	119.10	123.70
84	Aa	1748	A	C5-C6-N6	-5.75	119.10	123.70
84	Aa	1771	G	C5-C6-O6	-5.75	125.15	128.60
84	Aa	3368	A	C4-C5-C6	5.75	119.88	117.00
86	Ab	3	A	C5-C6-N6	-5.75	119.10	123.70
1	Ad	1155	G	N9-C1'-C2'	5.75	121.47	114.00
84	Aa	1114	A	C5-C6-N1	-5.75	114.83	117.70
84	Aa	1450	G	C5'-C4'-O4'	5.75	116.00	109.10
84	Aa	2786	G	O4'-C1'-N9	5.75	112.80	108.20
1	Ad	419	C	O4'-C1'-N1	5.75	112.80	108.20
1	Ad	1802	G	O4'-C1'-C2'	5.75	112.77	107.60
11	BD	184	ILE	N-CA-CB	5.75	124.02	110.80
14	BQ	135	PHE	CB-CG-CD2	5.75	124.82	120.80
33	BJ	9	SER	N-CA-CB	5.75	119.12	110.50
84	Aa	338	C	N3-C4-C5	-5.75	119.60	121.90
84	Aa	383	A	C5-C6-N6	-5.75	119.10	123.70
84	Aa	760	C	N3-C4-C5	-5.75	119.60	121.90
84	Aa	873	A	C5-C6-N6	-5.75	119.10	123.70
84	Aa	1882	A	C5-C6-N6	-5.75	119.10	123.70
84	Aa	2215	A	C4-C5-C6	5.75	119.88	117.00
84	Aa	3193	C	N3-C4-N4	5.75	122.02	118.00
1	Ad	559	A	O4'-C1'-C2'	-5.75	100.05	105.80
84	Aa	818	G	C5-C6-O6	-5.75	125.15	128.60
84	Aa	1378	G	C5-C6-O6	-5.75	125.15	128.60
84	Aa	2124	G	O4'-C1'-N9	5.75	112.80	108.20
84	Aa	2223	A	C5-C6-N1	-5.75	114.83	117.70
84	Aa	2598	A	C4-C5-C6	5.75	119.87	117.00
84	Aa	19	C	O5'-P-OP2	-5.75	100.53	105.70
84	Aa	976	A	C5-C6-N1	-5.75	114.83	117.70
84	Aa	1872	C	N3-C4-N4	5.75	122.02	118.00
84	Aa	2280	C	N3-C4-N4	5.75	122.02	118.00
1	Ad	518	G	O4'-C1'-N9	5.74	112.80	108.20
1	Ad	936	C	O4'-C1'-C2'	-5.74	100.06	105.80
84	Aa	216	G	O4'-C1'-N9	5.74	112.80	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1259	C	N3-C4-N4	5.74	122.02	118.00
84	Aa	1404	G	C5-C6-O6	-5.74	125.15	128.60
84	Aa	1628	G	C5-C6-O6	-5.74	125.15	128.60
84	Aa	2596	A	C4-C5-C6	5.74	119.87	117.00
84	Aa	3101	C	N3-C4-C5	-5.74	119.60	121.90
84	Aa	970	A	C4-C5-C6	5.74	119.87	117.00
84	Aa	1414	C	N3-C4-C5	-5.74	119.60	121.90
84	Aa	1694	A	C4-C5-C6	5.74	119.87	117.00
84	Aa	2140	C	N3-C4-N4	5.74	122.02	118.00
1	Ad	1074	C	O4'-C1'-C2'	-5.74	100.06	105.80
84	Aa	120	G	C5-C6-O6	-5.74	125.16	128.60
84	Aa	164	C	N3-C4-N4	5.74	122.02	118.00
84	Aa	246	C	N3-C4-C5	-5.74	119.60	121.90
84	Aa	813	A	O4'-C1'-N9	5.74	112.79	108.20
84	Aa	2000	C	N3-C4-C5	-5.74	119.60	121.90
84	Aa	2018	C	N3-C4-C5	-5.74	119.60	121.90
84	Aa	2033	C	N3-C4-C5	-5.74	119.60	121.90
84	Aa	2049	C	N3-C4-C5	-5.74	119.60	121.90
84	Aa	2288	C	N3-C4-C5	-5.74	119.60	121.90
84	Aa	2442	A	C5-C6-N1	-5.74	114.83	117.70
84	Aa	2593	A	C5-C6-N1	-5.74	114.83	117.70
84	Aa	2971	A	C4-C5-C6	5.74	119.87	117.00
1	Ad	217	A	P-O5'-C5'	5.74	130.08	120.90
84	Aa	233	C	N3-C4-C5	-5.74	119.60	121.90
84	Aa	715	A	O4'-C1'-N9	5.74	112.79	108.20
84	Aa	1018	C	N3-C4-N4	5.74	122.02	118.00
84	Aa	1667	C	N3-C4-C5	-5.74	119.61	121.90
84	Aa	2107	A	C5-C6-N6	-5.74	119.11	123.70
84	Aa	2133	A	C4-C5-C6	5.74	119.87	117.00
84	Aa	2223	A	O4'-C1'-N9	5.74	112.79	108.20
84	Aa	2676	A	C4-C5-C6	5.74	119.87	117.00
84	Aa	2920	G	C5-C6-O6	-5.74	125.16	128.60
84	Aa	3359	C	N3-C4-C5	-5.74	119.61	121.90
1	Ad	1083	C	C3'-C2'-C1'	5.74	106.09	101.50
1	Ad	1220	C	C3'-C2'-C1'	5.74	106.09	101.50
48	CD	238	SER	N-CA-CB	5.74	119.11	110.50
84	Aa	1994	C	N3-C4-C5	-5.74	119.61	121.90
84	Aa	2971	A	C5-C6-N1	-5.74	114.83	117.70
84	Aa	3375	G	O4'-C1'-N9	5.74	112.79	108.20
1	Ad	1159	G	P-O3'-C3'	-5.74	112.82	119.70
1	Ad	1699	C	C3'-C2'-C1'	5.74	106.09	101.50
84	Aa	2168	C	N3-C4-C5	-5.74	119.61	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2788	A	C4-C5-C6	5.74	119.87	117.00
84	Aa	2928	A	O4'-C1'-N9	5.74	112.79	108.20
84	Aa	363	A	O4'-C1'-N9	5.73	112.79	108.20
84	Aa	505	G	O4'-C1'-N9	5.73	112.79	108.20
84	Aa	1354	G	O4'-C1'-N9	5.73	112.79	108.20
86	Ab	34	C	N3-C4-C5	-5.73	119.61	121.90
1	Ad	554	A	O4'-C1'-N9	5.73	112.79	108.20
1	Ad	910	A	O4'-C1'-N9	5.73	112.79	108.20
84	Aa	200	G	O4'-C1'-N9	5.73	112.78	108.20
84	Aa	1066	G	O4'-C1'-N9	5.73	112.79	108.20
84	Aa	1206	A	O4'-C1'-N9	5.73	112.78	108.20
84	Aa	2215	A	C5-C6-N1	-5.73	114.83	117.70
84	Aa	2224	A	C4-C5-C6	5.73	119.87	117.00
84	Aa	2619	C	N3-C4-N4	5.73	122.01	118.00
84	Aa	2757	G	O4'-C1'-N9	5.73	112.79	108.20
1	Ad	1193	A	C3'-C2'-C1'	5.73	106.08	101.50
1	Ad	1451	G	N9-C1'-C2'	5.73	121.45	114.00
84	Aa	293	A	C5-C6-N1	-5.73	114.83	117.70
84	Aa	1193	A	C5-C6-N6	-5.73	119.11	123.70
84	Aa	1835	A	C4-C5-C6	5.73	119.86	117.00
84	Aa	1857	G	C5-C6-O6	-5.73	125.16	128.60
84	Aa	2088	C	C5'-C4'-C3'	5.73	125.17	116.00
84	Aa	2218	A	C5-C6-N6	-5.73	119.12	123.70
84	Aa	3306	A	C5-C6-N6	-5.73	119.12	123.70
84	Aa	3389	C	N3-C4-C5	-5.73	119.61	121.90
1	Ad	281	U	C4'-C3'-C2'	-5.73	96.87	102.60
85	Ac	89	A	C4-C5-C6	5.73	119.86	117.00
1	Ad	827	C	O4'-C1'-C2'	-5.73	100.07	105.80
84	Aa	346	A	O4'-C1'-N9	5.73	112.78	108.20
84	Aa	1508	C	N3-C4-C5	-5.73	119.61	121.90
84	Aa	1782	G	O4'-C1'-N9	5.73	112.78	108.20
84	Aa	2603	C	N3-C4-C5	-5.73	119.61	121.90
84	Aa	2673	G	C5-C6-O6	-5.73	125.16	128.60
84	Aa	3162	C	N3-C4-N4	5.73	122.01	118.00
1	Ad	64	U	C4'-C3'-C2'	-5.73	96.87	102.60
84	Aa	16	A	C4-C5-C6	5.73	119.86	117.00
84	Aa	1290	A	C5-C6-N1	-5.73	114.84	117.70
1	Ad	1125	U	O4'-C1'-C2'	-5.72	100.08	105.80
1	Ad	1591	A	O4'-C1'-C2'	-5.72	100.08	105.80
84	Aa	848	G	O4'-C1'-N9	5.72	112.78	108.20
86	Ab	2	G	N9-C4-C5	-5.72	103.11	105.40
1	Ad	174	C	C5'-C4'-O4'	5.72	115.97	109.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	760	G	O4'-C1'-N9	5.72	112.78	108.20
84	Aa	813	A	C4-C5-C6	5.72	119.86	117.00
84	Aa	1588	G	O4'-C1'-N9	5.72	112.78	108.20
84	Aa	1969	G	O4'-C1'-N9	5.72	112.78	108.20
84	Aa	2790	C	N3-C4-C5	-5.72	119.61	121.90
84	Aa	2881	C	N3-C4-C5	-5.72	119.61	121.90
84	Aa	3206	C	N3-C4-N4	5.72	122.01	118.00
84	Aa	3322	A	C4-C5-C6	5.72	119.86	117.00
85	Ac	129	C	N3-C4-C5	-5.72	119.61	121.90
84	Aa	1444	G	C5-C6-O6	-5.72	125.17	128.60
84	Aa	2504	A	C4-C5-C6	5.72	119.86	117.00
84	Aa	2992	G	O4'-C1'-N9	5.72	112.78	108.20
84	Aa	3087	A	C5-C6-N6	-5.72	119.12	123.70
1	Ad	232	C	C3'-C2'-C1'	5.72	106.08	101.50
1	Ad	491	G	N9-C1'-C2'	-5.72	105.71	112.00
84	Aa	1375	G	O4'-C1'-N9	5.72	112.78	108.20
84	Aa	2043	A	C4'-C3'-O3'	5.72	124.44	113.00
84	Aa	2694	A	C5-C6-N6	-5.72	119.12	123.70
84	Aa	3061	C	N3-C4-C5	-5.72	119.61	121.90
84	Aa	757	G	C5-C6-O6	-5.72	125.17	128.60
84	Aa	1342	C	N3-C4-C5	-5.72	119.61	121.90
84	Aa	1584	A	C4-C5-C6	5.72	119.86	117.00
84	Aa	2133	A	O4'-C1'-N9	5.72	112.77	108.20
84	Aa	3059	C	N3-C4-N4	5.72	122.00	118.00
84	Aa	3293	U	O4'-C1'-N1	5.72	112.78	108.20
1	Ad	488	C	O4'-C1'-C2'	-5.72	100.08	105.80
1	Ad	1488	C	C3'-C2'-C1'	5.72	106.07	101.50
84	Aa	159	G	O4'-C1'-N9	5.72	112.77	108.20
84	Aa	1208	A	O4'-C1'-N9	5.72	112.77	108.20
84	Aa	1511	C	N3-C4-C5	-5.72	119.61	121.90
84	Aa	1571	A	C4-C5-C6	5.72	119.86	117.00
84	Aa	2941	G	C5-C6-O6	-5.72	125.17	128.60
85	Ac	44	A	C5-C6-N6	-5.72	119.13	123.70
1	Ad	490	G	N9-C1'-C2'	5.71	121.43	114.00
1	Ad	978	A	O4'-C1'-N9	5.71	112.77	108.20
84	Aa	136	C	N3-C4-C5	-5.71	119.61	121.90
84	Aa	1236	C	N3-C4-C5	-5.71	119.61	121.90
84	Aa	2325	A	C4-C5-C6	5.71	119.86	117.00
84	Aa	2612	A	C5-C6-N1	-5.71	114.84	117.70
85	Ac	65	G	P-O5'-C5'	-5.71	111.76	120.90
1	Ad	250	A	O4'-C1'-C2'	-5.71	100.09	105.80
1	Ad	372	U	C1'-O4'-C4'	5.71	114.47	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	325	A	O4'-C1'-N9	5.71	112.77	108.20
84	Aa	667	C	N3-C4-C5	-5.71	119.61	121.90
84	Aa	1693	A	C5-C6-N1	-5.71	114.84	117.70
86	Ab	3	A	C4-C5-C6	5.71	119.86	117.00
1	Ad	397	C	C3'-C2'-C1'	5.71	106.07	101.50
1	Ad	431	C	C3'-C2'-C1'	5.71	106.07	101.50
1	Ad	561	G	C3'-C2'-C1'	5.71	106.07	101.50
84	Aa	105	A	C5-C6-N1	-5.71	114.84	117.70
84	Aa	604	C	C6-N1-C2	-5.71	118.02	120.30
84	Aa	1374	G	O4'-C1'-N9	5.71	112.77	108.20
84	Aa	2742	A	C4-C5-C6	5.71	119.86	117.00
85	Ac	156	C	N3-C4-C5	-5.71	119.61	121.90
1	Ad	742	C	P-O3'-C3'	5.71	126.55	119.70
84	Aa	2963	G	O4'-C1'-N9	5.71	112.77	108.20
85	Ac	123	G	C5-C6-O6	-5.71	125.17	128.60
86	Ab	42	A	O4'-C1'-N9	5.71	112.77	108.20
84	Aa	755	C	N3-C4-C5	-5.71	119.62	121.90
84	Aa	928	A	C4-C5-C6	5.71	119.86	117.00
84	Aa	977	G	C5-C6-O6	-5.71	125.17	128.60
84	Aa	1591	A	C4-C5-C6	5.71	119.85	117.00
84	Aa	1767	G	O4'-C1'-N9	5.71	112.77	108.20
84	Aa	2767	C	N3-C4-N4	5.71	122.00	118.00
84	Aa	2792	A	O4'-C1'-N9	5.71	112.77	108.20
84	Aa	2916	G	C5-C6-O6	-5.71	125.17	128.60
84	Aa	3362	A	O4'-C1'-N9	5.71	112.77	108.20
1	Ad	405	A	O4'-C1'-C2'	-5.71	100.09	105.80
1	Ad	1088	G	C4'-C3'-C2'	-5.71	96.89	102.60
84	Aa	546	C	N3-C4-C5	-5.71	119.62	121.90
84	Aa	939	A	C5-C6-N1	-5.71	114.85	117.70
84	Aa	1122	C	N3-C4-C5	-5.71	119.62	121.90
84	Aa	1862	C	N3-C4-N4	5.71	122.00	118.00
84	Aa	2401	A	C5-C6-N1	-5.71	114.85	117.70
84	Aa	2449	A	C5-C6-N1	-5.71	114.85	117.70
84	Aa	2488	A	C4-C5-C6	5.71	119.85	117.00
84	Aa	2929	C	N3-C4-N4	5.71	121.99	118.00
84	Aa	3114	A	C5'-C4'-O4'	5.71	115.95	109.10
84	Aa	16	A	O4'-C1'-N9	5.71	112.76	108.20
84	Aa	738	A	C5-C6-N6	-5.71	119.14	123.70
84	Aa	2301	C	C2-N1-C1'	5.71	125.08	118.80
84	Aa	2640	A	C5-C6-N1	-5.71	114.85	117.70
84	Aa	2753	C	C5'-C4'-C3'	5.71	125.13	116.00
1	Ad	637	U	C1'-O4'-C4'	5.70	114.46	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	1116	G	C3'-C2'-C1'	-5.70	96.94	101.50
1	Ad	1221	A	P-O3'-C3'	5.70	126.54	119.70
1	Ad	1665	U	O4'-C1'-N1	5.70	112.76	108.20
50	CP	31	GLU	N-CA-CB	5.70	120.86	110.60
84	Aa	670	A	C4-C5-C6	5.70	119.85	117.00
84	Aa	1101	A	C4-C5-C6	5.70	119.85	117.00
84	Aa	1150	G	C5-C6-O6	-5.70	125.18	128.60
84	Aa	1905	A	C4-C5-C6	5.70	119.85	117.00
84	Aa	1962	C	N3-C4-C5	-5.70	119.62	121.90
84	Aa	2361	C	N3-C4-C5	-5.70	119.62	121.90
84	Aa	3154	G	C1'-O4'-C4'	-5.70	105.34	109.90
84	Aa	3290	C	N3-C4-C5	-5.70	119.62	121.90
84	Aa	1151	G	C5-C6-O6	-5.70	125.18	128.60
84	Aa	1477	A	O4'-C1'-N9	5.70	112.76	108.20
84	Aa	2032	C	N3-C4-N4	5.70	121.99	118.00
84	Aa	2056	C	N3-C4-N4	5.70	121.99	118.00
1	Ad	1097	A	O4'-C1'-C2'	5.70	112.73	107.60
45	CN	30	TYR	CB-CG-CD1	5.70	124.42	121.00
84	Aa	201	G	O4'-C1'-N9	5.70	112.76	108.20
84	Aa	1123	A	C5-C6-N6	-5.70	119.14	123.70
84	Aa	1610	A	C4-C5-C6	5.70	119.85	117.00
84	Aa	1863	A	C5-C6-N6	-5.70	119.14	123.70
84	Aa	2080	G	P-O3'-C3'	5.70	126.54	119.70
84	Aa	2230	C	N3-C4-C5	-5.70	119.62	121.90
84	Aa	2356	A	C5-C6-N6	-5.70	119.14	123.70
84	Aa	2978	A	C5-C6-N6	-5.70	119.14	123.70
1	Ad	575	G	C1'-O4'-C4'	5.70	114.46	109.90
84	Aa	7	C	N3-C4-C5	-5.70	119.62	121.90
84	Aa	394	A	C5-C6-N6	-5.70	119.14	123.70
84	Aa	450	C	N3-C4-C5	-5.70	119.62	121.90
84	Aa	766	C	N3-C4-C5	-5.70	119.62	121.90
84	Aa	873	A	O4'-C1'-N9	5.70	112.76	108.20
84	Aa	1227	A	C5-C6-N1	-5.70	114.85	117.70
84	Aa	1409	G	O4'-C1'-N9	5.70	112.76	108.20
84	Aa	1906	A	C4-C5-C6	5.70	119.85	117.00
84	Aa	3209	U	P-O3'-C3'	5.70	126.54	119.70
1	Ad	1600	G	C3'-C2'-C1'	5.70	106.06	101.50
84	Aa	1217	G	O4'-C1'-N9	5.70	112.76	108.20
84	Aa	1501	A	O4'-C1'-N9	5.70	112.76	108.20
84	Aa	1907	A	C4-C5-C6	5.70	119.85	117.00
84	Aa	1930	G	C5-C6-O6	-5.70	125.18	128.60
84	Aa	3110	A	C5-C6-N1	-5.70	114.85	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	3149	C	N3-C4-C5	-5.70	119.62	121.90
86	Ab	50	A	C5-N7-C8	5.70	106.75	103.90
1	Ad	1426	C	O4'-C1'-C2'	-5.70	100.10	105.80
17	BS	83	PHE	CB-CG-CD1	-5.70	116.81	120.80
42	CJ	1	MET	C-N-CA	5.70	135.94	121.70
78	CL	48	ARG	N-CA-CB	5.70	120.85	110.60
84	Aa	102	G	C5-C6-O6	-5.70	125.18	128.60
84	Aa	420	A	C5-C6-N1	-5.70	114.85	117.70
84	Aa	617	C	N3-C4-C5	-5.70	119.62	121.90
84	Aa	1392	U	P-O5'-C5'	-5.70	111.79	120.90
84	Aa	2079	A	C4-C5-C6	5.70	119.85	117.00
84	Aa	2594	A	C5-C6-N1	-5.70	114.85	117.70
84	Aa	292	A	C5-C6-N1	-5.69	114.85	117.70
84	Aa	1267	A	C4-C5-C6	5.69	119.85	117.00
84	Aa	1395	A	C5-C6-N6	-5.69	119.14	123.70
84	Aa	1837	A	C4-C5-C6	5.69	119.85	117.00
84	Aa	3027	G	O4'-C1'-N9	5.69	112.75	108.20
84	Aa	3034	A	C5-C6-N6	-5.69	119.14	123.70
84	Aa	3288	A	C4-C5-C6	5.69	119.85	117.00
84	Aa	257	C	N3-C4-N4	5.69	121.98	118.00
84	Aa	377	C	N3-C4-C5	-5.69	119.62	121.90
84	Aa	389	A	C4-C5-C6	5.69	119.85	117.00
84	Aa	679	C	N3-C4-C5	-5.69	119.62	121.90
84	Aa	709	G	C5-C6-O6	-5.69	125.18	128.60
84	Aa	1146	A	P-O5'-C5'	-5.69	111.79	120.90
84	Aa	1197	A	C4-C5-C6	5.69	119.85	117.00
84	Aa	1485	A	C5-C6-N6	-5.69	119.15	123.70
84	Aa	1715	C	N3-C4-C5	-5.69	119.62	121.90
84	Aa	1842	C	N3-C4-N4	5.69	121.98	118.00
84	Aa	1904	A	O4'-C1'-N9	5.69	112.75	108.20
84	Aa	2639	A	C4-C5-C6	5.69	119.85	117.00
84	Aa	2804	A	C5-C6-N6	-5.69	119.14	123.70
61	CM	17	TYR	N-CA-CB	5.69	120.84	110.60
84	Aa	331	G	C5-C6-O6	-5.69	125.19	128.60
84	Aa	615	A	C4-C5-C6	5.69	119.85	117.00
84	Aa	690	G	O4'-C1'-N9	5.69	112.75	108.20
84	Aa	1038	C	N3-C4-C5	-5.69	119.62	121.90
84	Aa	1434	G	C5-C6-O6	-5.69	125.19	128.60
84	Aa	2239	A	C5-C6-N1	-5.69	114.86	117.70
84	Aa	3054	G	C5-C6-O6	-5.69	125.19	128.60
85	Ac	121	A	C4-C5-C6	5.69	119.84	117.00
84	Aa	702	G	O4'-C1'-N9	5.69	112.75	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1593	C	N3-C4-C5	-5.69	119.62	121.90
84	Aa	2817	G	N1-C6-O6	5.69	123.31	119.90
1	Ad	71	C	O4'-C1'-C2'	-5.69	100.11	105.80
84	Aa	269	C	N3-C4-N4	5.69	121.98	118.00
84	Aa	416	A	O4'-C1'-N9	5.69	112.75	108.20
84	Aa	812	G	O4'-C1'-N9	5.69	112.75	108.20
84	Aa	907	A	C5-C6-N1	-5.69	114.86	117.70
84	Aa	1799	C	N3-C4-C5	-5.69	119.62	121.90
84	Aa	1914	C	N3-C4-C5	-5.69	119.62	121.90
84	Aa	2743	A	C5-C6-N1	-5.69	114.86	117.70
84	Aa	2815	A	C4-C5-C6	5.69	119.84	117.00
84	Aa	2975	G	C5-C6-O6	-5.69	125.19	128.60
84	Aa	3187	C	N3-C4-C5	-5.69	119.62	121.90
85	Ac	49	G	O4'-C1'-N9	5.69	112.75	108.20
84	Aa	337	C	N3-C4-N4	5.69	121.98	118.00
84	Aa	1136	A	C5-C6-N1	-5.69	114.86	117.70
84	Aa	2224	A	O4'-C1'-N9	5.69	112.75	108.20
84	Aa	2671	A	O4'-C1'-N9	5.69	112.75	108.20
84	Aa	2819	A	C5-C6-N1	-5.69	114.86	117.70
84	Aa	3385	G	C5-C6-O6	-5.69	125.19	128.60
84	Aa	1509	G	C5-C6-O6	-5.68	125.19	128.60
84	Aa	2089	A	C5-C6-N6	-5.68	119.15	123.70
84	Aa	2190	C	N3-C4-C5	-5.68	119.63	121.90
1	Ad	912	A	O4'-C1'-N9	5.68	112.75	108.20
1	Ad	1374	G	O4'-C1'-N9	5.68	112.75	108.20
84	Aa	228	C	N3-C4-N4	5.68	121.98	118.00
84	Aa	294	A	O4'-C1'-N9	5.68	112.75	108.20
84	Aa	3045	A	C5-C6-N1	-5.68	114.86	117.70
86	Ab	74	A	O4'-C1'-N9	5.68	112.75	108.20
84	Aa	210	G	O4'-C1'-N9	5.68	112.75	108.20
84	Aa	2564	G	O4'-C1'-N9	5.68	112.75	108.20
84	Aa	2575	C	N3-C4-N4	5.68	121.98	118.00
84	Aa	3264	C	N3-C4-C5	-5.68	119.63	121.90
1	Ad	801	U	C3'-C2'-C1'	-5.68	96.96	101.50
84	Aa	889	C	N3-C4-C5	-5.68	119.63	121.90
84	Aa	1249	A	C5-C6-N1	-5.68	114.86	117.70
84	Aa	1953	C	N3-C4-N4	5.68	121.98	118.00
84	Aa	1990	A	C4-C5-C6	5.68	119.84	117.00
84	Aa	2592	G	C5-C6-O6	-5.68	125.19	128.60
84	Aa	2703	G	C5-C6-O6	-5.68	125.19	128.60
84	Aa	2718	A	C5-C6-N6	-5.68	119.16	123.70
84	Aa	2868	C	N3-C4-N4	5.68	121.97	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	3272	A	C4-C5-C6	5.68	119.84	117.00
50	CP	4	TYR	CB-CG-CD1	5.68	124.41	121.00
84	Aa	22	G	O4'-C1'-N9	5.68	112.74	108.20
84	Aa	1789	C	N3-C4-N4	5.68	121.97	118.00
84	Aa	3364	A	C5-C6-N1	-5.68	114.86	117.70
84	Aa	24	C	N3-C4-C5	-5.68	119.63	121.90
84	Aa	3067	G	O4'-C1'-N9	5.68	112.74	108.20
2	Ae	47	U	O4'-C1'-C2'	-5.67	100.13	105.80
71	CB	373	ARG	N-CA-CB	5.67	120.82	110.60
84	Aa	364	A	C5-C6-N6	-5.67	119.16	123.70
84	Aa	449	G	O4'-C1'-N9	5.67	112.74	108.20
84	Aa	893	C	N3-C4-C5	-5.67	119.63	121.90
84	Aa	1118	G	C4-N9-C1'	5.67	133.88	126.50
84	Aa	1134	G	O4'-C1'-N9	5.67	112.74	108.20
84	Aa	1793	A	C5-C6-N6	-5.67	119.16	123.70
84	Aa	1883	A	O4'-C1'-N9	5.67	112.74	108.20
84	Aa	2217	A	C5-C6-N6	-5.67	119.16	123.70
85	Ac	140	A	C4-C5-C6	5.67	119.84	117.00
84	Aa	235	G	O4'-C1'-N9	5.67	112.74	108.20
84	Aa	361	G	C5-C6-O6	-5.67	125.20	128.60
84	Aa	363	A	C5-C6-N1	-5.67	114.86	117.70
84	Aa	2175	A	C5-C6-N1	-5.67	114.86	117.70
84	Aa	2489	A	C5-C6-N6	-5.67	119.16	123.70
84	Aa	2655	U	C5'-C4'-C3'	-5.67	106.92	116.00
84	Aa	3078	A	C4-C5-C6	5.67	119.84	117.00
1	Ad	1598	G	C5'-C4'-O4'	5.67	115.91	109.10
84	Aa	999	U	O4'-C1'-N1	5.67	112.74	108.20
84	Aa	1872	C	N3-C4-C5	-5.67	119.63	121.90
85	Ac	52	A	C4-C5-C6	5.67	119.84	117.00
86	Ab	15	C	N3-C4-C5	-5.67	119.63	121.90
84	Aa	1570	C	N3-C4-C5	-5.67	119.63	121.90
84	Aa	2650	A	C4-C5-C6	5.67	119.83	117.00
84	Aa	2761	A	C5-C6-N6	-5.67	119.16	123.70
1	Ad	815	A	O4'-C1'-N9	5.67	112.73	108.20
84	Aa	211	A	O4'-C1'-N9	5.67	112.73	108.20
84	Aa	698	A	C4-C5-C6	5.67	119.83	117.00
84	Aa	1156	A	C5-C6-N1	-5.67	114.86	117.70
84	Aa	1254	A	O4'-C1'-N9	5.67	112.73	108.20
84	Aa	2320	A	O4'-C1'-N9	5.67	112.73	108.20
84	Aa	3152	C	N3-C4-N4	5.67	121.97	118.00
1	Ad	847	U	C5'-C4'-O4'	5.67	115.90	109.10
84	Aa	578	C	O4'-C1'-N1	5.67	112.73	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	661	A	O4'-C1'-N9	5.67	112.73	108.20
84	Aa	975	G	C5-C6-O6	-5.67	125.20	128.60
84	Aa	1926	A	C4-C5-C6	5.67	119.83	117.00
84	Aa	2214	A	C5-C6-N6	-5.67	119.17	123.70
84	Aa	2724	A	C5-C6-N1	-5.67	114.87	117.70
84	Aa	2807	G	C5-C6-O6	-5.67	125.20	128.60
84	Aa	2942	A	C5-C6-N1	-5.67	114.87	117.70
84	Aa	3122	U	P-O3'-C3'	5.67	126.50	119.70
1	Ad	1226	U	C1'-O4'-C4'	5.67	114.43	109.90
84	Aa	437	C	N3-C4-C5	-5.67	119.63	121.90
84	Aa	758	A	C4-C5-C6	5.67	119.83	117.00
84	Aa	883	G	O4'-C1'-N9	5.67	112.73	108.20
1	Ad	289	G	O4'-C1'-C2'	5.66	112.70	107.60
1	Ad	936	C	N1-C1'-C2'	5.66	121.36	114.00
1	Ad	1753	U	N1-C1'-C2'	-5.66	105.77	112.00
84	Aa	71	C	N3-C4-N4	5.66	121.96	118.00
84	Aa	393	A	O4'-C1'-N9	5.66	112.73	108.20
84	Aa	1332	C	N3-C4-C5	-5.66	119.64	121.90
84	Aa	1397	A	C5-C6-N1	-5.66	114.87	117.70
84	Aa	1496	G	O4'-C1'-N9	5.66	112.73	108.20
84	Aa	1543	A	C5-C6-N1	-5.66	114.87	117.70
84	Aa	1883	A	C5-C6-N1	-5.66	114.87	117.70
84	Aa	2247	A	C5-C6-N6	-5.66	119.17	123.70
84	Aa	2458	A	O4'-C1'-N9	5.66	112.73	108.20
85	Ac	21	C	N3-C4-C5	-5.66	119.63	121.90
84	Aa	1306	A	C5-C6-N6	-5.66	119.17	123.70
84	Aa	1587	G	C5-C6-O6	-5.66	125.20	128.60
1	Ad	548	C	O4'-C1'-N1	5.66	112.73	108.20
84	Aa	563	C	N3-C4-N4	5.66	121.96	118.00
84	Aa	1501	A	C5-C6-N1	-5.66	114.87	117.70
84	Aa	1906	A	O4'-C1'-N9	5.66	112.73	108.20
84	Aa	1918	A	C4-C5-C6	5.66	119.83	117.00
84	Aa	1971	A	O4'-C1'-N9	5.66	112.73	108.20
1	Ad	297	U	C1'-O4'-C4'	-5.66	105.37	109.90
84	Aa	1643	A	C5-C6-N6	-5.66	119.17	123.70
84	Aa	1794	A	O4'-C1'-N9	5.66	112.73	108.20
84	Aa	1800	G	C5-C6-O6	-5.66	125.20	128.60
84	Aa	2347	A	C4-C5-C6	5.66	119.83	117.00
84	Aa	2518	A	C5-C6-N6	-5.66	119.17	123.70
84	Aa	2899	A	O4'-C1'-N9	5.66	112.73	108.20
84	Aa	2975	G	O4'-C1'-N9	5.66	112.73	108.20
85	Ac	61	A	C4-C5-C6	5.66	119.83	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1727	A	C5-C6-N6	-5.66	119.17	123.70
84	Aa	1971	A	C4-C5-C6	5.66	119.83	117.00
84	Aa	2330	C	N3-C4-C5	-5.66	119.64	121.90
84	Aa	2367	A	C4-C5-C6	5.66	119.83	117.00
84	Aa	3162	C	N3-C4-C5	-5.66	119.64	121.90
1	Ad	1768	U	C1'-O4'-C4'	-5.66	105.38	109.90
84	Aa	66	A	C4-C5-C6	5.66	119.83	117.00
84	Aa	371	A	C5-C6-N1	-5.66	114.87	117.70
84	Aa	413	G	O4'-C1'-N9	5.66	112.72	108.20
84	Aa	907	A	O4'-C1'-N9	5.66	112.72	108.20
84	Aa	1001	A	C4-C5-C6	5.66	119.83	117.00
84	Aa	1026	A	C4-C5-C6	5.66	119.83	117.00
84	Aa	1255	A	C5-C6-N1	-5.66	114.87	117.70
84	Aa	1318	C	C5-C6-N1	5.66	123.83	121.00
1	Ad	1688	G	C1'-O4'-C4'	5.65	114.42	109.90
84	Aa	39	A	C4-C5-C6	5.65	119.83	117.00
84	Aa	1576	C	N3-C4-C5	-5.65	119.64	121.90
84	Aa	2427	C	N3-C4-N4	5.65	121.96	118.00
1	Ad	1258	U	C5'-C4'-O4'	5.65	115.88	109.10
79	CE	124	TYR	CB-CG-CD1	5.65	124.39	121.00
84	Aa	203	C	N3-C4-C5	-5.65	119.64	121.90
84	Aa	465	C	N3-C4-C5	-5.65	119.64	121.90
84	Aa	2462	G	C5'-C4'-C3'	5.65	125.05	116.00
84	Aa	2574	A	C5-C6-N6	-5.65	119.18	123.70
84	Aa	2700	A	O4'-C1'-N9	5.65	112.72	108.20
84	Aa	3104	A	C5-C6-N1	-5.65	114.87	117.70
84	Aa	3196	C	N3-C4-C5	-5.65	119.64	121.90
1	Ad	108	C	C1'-O4'-C4'	-5.65	105.38	109.90
1	Ad	336	U	C1'-O4'-C4'	5.65	114.42	109.90
1	Ad	1614	C	C1'-O4'-C4'	-5.65	105.38	109.90
84	Aa	1562	A	O5'-C5'-C4'	-5.65	100.97	111.70
84	Aa	1879	A	C4-C5-C6	5.65	119.83	117.00
84	Aa	1949	G	O4'-C1'-N9	5.65	112.72	108.20
84	Aa	2058	C	N3-C4-C5	-5.65	119.64	121.90
84	Aa	2217	A	C5-C6-N1	-5.65	114.88	117.70
84	Aa	2228	A	C5-C6-N6	-5.65	119.18	123.70
84	Aa	2819	A	C4-C5-C6	5.65	119.83	117.00
84	Aa	3362	A	C5-C6-N1	-5.65	114.88	117.70
85	Ac	109	A	C5-C6-N6	-5.65	119.18	123.70
55	Cc	102	SER	N-CA-CB	5.65	118.97	110.50
84	Aa	1248	A	C4-C5-C6	5.65	119.83	117.00
84	Aa	2114	A	C5-C6-N6	-5.65	119.18	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2372	A	C4-C5-C6	5.65	119.82	117.00
84	Aa	3020	C	N3-C4-C5	-5.65	119.64	121.90
1	Ad	595	A	C1'-O4'-C4'	5.65	114.42	109.90
1	Ad	624	A	O4'-C1'-N9	5.65	112.72	108.20
79	CE	50	PHE	CB-CG-CD2	-5.65	116.85	120.80
84	Aa	1321	A	C4-C5-C6	5.65	119.82	117.00
84	Aa	1642	G	C5-C6-O6	-5.65	125.21	128.60
84	Aa	1680	A	C4-C5-C6	5.65	119.82	117.00
84	Aa	1775	C	N3-C4-N4	5.65	121.95	118.00
84	Aa	2272	C	N3-C4-N4	5.65	121.95	118.00
84	Aa	2805	A	C5-C6-N6	-5.65	119.18	123.70
84	Aa	3107	A	C5-C6-N6	-5.65	119.18	123.70
85	Ac	14	C	N3-C4-C5	-5.65	119.64	121.90
85	Ac	111	G	O4'-C1'-N9	5.65	112.72	108.20
1	Ad	158	C	C4'-C3'-C2'	-5.65	96.95	102.60
1	Ad	1294	U	O4'-C1'-C2'	-5.65	100.15	105.80
1	Ad	1768	U	O4'-C1'-N1	5.65	112.72	108.20
1	Ad	1801	A	O4'-C1'-C2'	-5.65	100.15	105.80
1	Ad	216	A	O4'-C1'-C2'	5.64	112.68	107.60
1	Ad	979	A	O4'-C1'-N9	5.64	112.72	108.20
84	Aa	112	C	N3-C4-N4	5.64	121.95	118.00
84	Aa	579	G	O4'-C1'-N9	5.64	112.72	108.20
84	Aa	788	G	O4'-C1'-N9	5.64	112.72	108.20
84	Aa	846	A	C4-C5-C6	5.64	119.82	117.00
84	Aa	1100	G	O4'-C1'-N9	5.64	112.72	108.20
84	Aa	1204	A	C5-C6-N6	-5.64	119.19	123.70
84	Aa	1304	G	O4'-C1'-N9	5.64	112.72	108.20
84	Aa	1633	C	N3-C4-N4	5.64	121.95	118.00
84	Aa	2014	A	C5-C6-N6	-5.64	119.18	123.70
84	Aa	2724	A	C5-C6-N6	-5.64	119.18	123.70
84	Aa	2814	C	N3-C4-C5	-5.64	119.64	121.90
84	Aa	3346	C	N3-C4-N4	5.64	121.95	118.00
1	Ad	923	U	C3'-C2'-C1'	5.64	106.01	101.50
84	Aa	219	A	C5-C6-N6	-5.64	119.19	123.70
84	Aa	863	G	C5-C6-O6	-5.64	125.22	128.60
84	Aa	1917	A	O4'-C1'-N9	5.64	112.71	108.20
84	Aa	2909	A	O4'-C1'-N9	5.64	112.72	108.20
84	Aa	3269	C	N3-C4-C5	-5.64	119.64	121.90
86	Ab	94	C	C6-N1-C2	5.64	122.56	120.30
48	CD	199	ILE	N-CA-CB	5.64	123.78	110.80
84	Aa	558	G	C5-C6-O6	-5.64	125.22	128.60
84	Aa	886	A	O4'-C1'-N9	5.64	112.71	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1318	C	C6-N1-C2	-5.64	118.04	120.30
1	Ad	205	U	N1-C1'-C2'	-5.64	105.80	112.00
84	Aa	108	A	P-O3'-C3'	5.64	126.47	119.70
84	Aa	923	A	C4-C5-C6	5.64	119.82	117.00
84	Aa	1015	A	C4-C5-C6	5.64	119.82	117.00
84	Aa	2371	A	C5-C6-N1	-5.64	114.88	117.70
84	Aa	2492	C	N3-C4-N4	5.64	121.95	118.00
86	Ab	36	C	N3-C4-N4	5.64	121.95	118.00
1	Ad	820	A	O4'-C1'-C2'	5.64	112.67	107.60
84	Aa	2304	A	O4'-C1'-N9	5.64	112.71	108.20
84	Aa	2598	A	C5-C6-N1	-5.64	114.88	117.70
85	Ac	97	G	O4'-C1'-N9	5.64	112.71	108.20
1	Ad	203	A	O4'-C1'-N9	5.64	112.71	108.20
1	Ad	329	G	C4'-C3'-C2'	-5.64	96.96	102.60
84	Aa	560	C	N3-C4-N4	5.64	121.95	118.00
84	Aa	631	C	N3-C4-C5	-5.64	119.64	121.90
84	Aa	1084	G	O4'-C1'-N9	5.64	112.71	108.20
84	Aa	1160	G	C5-C6-O6	-5.64	125.22	128.60
84	Aa	1551	C	N3-C4-N4	5.64	121.95	118.00
84	Aa	2088	C	O4'-C4'-C3'	-5.64	98.36	104.00
84	Aa	2853	A	C5-C6-N6	-5.64	119.19	123.70
84	Aa	3022	A	C5-C6-N6	-5.64	119.19	123.70
1	Ad	465	G	C3'-C2'-C1'	5.63	106.01	101.50
1	Ad	507	G	O4'-C1'-C2'	5.63	112.67	107.60
1	Ad	1675	G	N9-C1'-C2'	-5.63	105.80	112.00
84	Aa	446	C	N3-C4-C5	-5.63	119.65	121.90
84	Aa	502	G	O4'-C1'-N9	5.63	112.71	108.20
84	Aa	563	C	N3-C4-C5	-5.63	119.65	121.90
84	Aa	1109	G	C5-C6-O6	-5.63	125.22	128.60
84	Aa	1329	G	C5-C6-O6	-5.63	125.22	128.60
84	Aa	1534	C	N3-C4-N4	5.63	121.94	118.00
84	Aa	1714	A	C5-C6-N1	-5.63	114.88	117.70
84	Aa	1934	U	O4'-C1'-N1	5.63	112.71	108.20
84	Aa	2756	G	O4'-C1'-N9	5.63	112.71	108.20
84	Aa	1860	A	C4-C5-C6	5.63	119.82	117.00
84	Aa	1861	A	O4'-C1'-N9	5.63	112.71	108.20
84	Aa	3034	A	O4'-C1'-N9	5.63	112.71	108.20
1	Ad	732	G	N9-C1'-C2'	-5.63	105.81	112.00
1	Ad	1159	G	C5'-C4'-O4'	5.63	115.86	109.10
84	Aa	633	C	N3-C4-N4	5.63	121.94	118.00
84	Aa	1182	A	C4-C5-C6	5.63	119.82	117.00
84	Aa	1206	A	C5-C6-N1	-5.63	114.88	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1221	A	C5-C6-N1	-5.63	114.89	117.70
84	Aa	1784	C	N3-C4-C5	-5.63	119.65	121.90
84	Aa	3077	C	N3-C4-N4	5.63	121.94	118.00
86	Ab	78	C	C5-C6-N1	5.63	123.82	121.00
1	Ad	276	G	C4'-C3'-C2'	-5.63	96.97	102.60
84	Aa	10	C	N3-C4-C5	-5.63	119.65	121.90
84	Aa	60	G	O4'-C1'-N9	5.63	112.70	108.20
84	Aa	291	C	N3-C4-C5	-5.63	119.65	121.90
84	Aa	880	C	N3-C4-N4	5.63	121.94	118.00
84	Aa	1732	G	C5-C6-O6	-5.63	125.22	128.60
84	Aa	1900	C	N3-C4-N4	5.63	121.94	118.00
84	Aa	2223	A	C5-C6-N6	-5.63	119.20	123.70
24	BW	15	TYR	CB-CG-CD1	5.63	124.38	121.00
84	Aa	222	C	O4'-C1'-N1	5.63	112.70	108.20
84	Aa	317	G	O4'-C1'-N9	5.63	112.70	108.20
84	Aa	669	G	C5-C6-O6	-5.63	125.22	128.60
84	Aa	919	G	O4'-C1'-N9	5.63	112.70	108.20
84	Aa	2040	G	C5-C6-O6	-5.63	125.22	128.60
84	Aa	2741	G	O4'-C1'-N9	5.63	112.70	108.20
84	Aa	3327	A	O4'-C1'-N9	5.63	112.70	108.20
1	Ad	141	G	N9-C1'-C2'	5.63	121.32	114.00
22	BZ	34	LYS	N-CA-CB	5.63	120.73	110.60
84	Aa	1079	G	N3-C2-N2	5.63	123.84	119.90
84	Aa	1542	A	O4'-C1'-N9	5.63	112.70	108.20
84	Aa	2173	G	C4-N9-C1'	-5.63	119.19	126.50
84	Aa	2203	A	C5-C6-N6	-5.63	119.20	123.70
84	Aa	2629	C	N3-C4-C5	-5.63	119.65	121.90
84	Aa	2740	C	N3-C4-N4	5.63	121.94	118.00
84	Aa	3079	G	P-O3'-C3'	5.63	126.45	119.70
84	Aa	3128	A	C5-C6-N1	-5.63	114.89	117.70
80	Cf	1	MET	CG-SD-CE	-5.62	91.20	100.20
84	Aa	651	A	C4-C5-C6	5.62	119.81	117.00
84	Aa	2058	C	N3-C4-N4	5.62	121.94	118.00
85	Ac	129	C	O4'-C1'-N1	5.62	112.70	108.20
41	CA	119	HIS	N-CA-CB	5.62	120.72	110.60
84	Aa	2743	A	O4'-C1'-N9	5.62	112.70	108.20
85	Ac	33	A	C5-C6-N1	-5.62	114.89	117.70
1	Ad	249	G	C1'-O4'-C4'	-5.62	105.40	109.90
1	Ad	448	C	C1'-O4'-C4'	5.62	114.40	109.90
1	Ad	1053	C	O4'-C1'-N1	5.62	112.70	108.20
1	Ad	1272	G	O4'-C1'-N9	5.62	112.70	108.20
1	Ad	1569	U	C1'-O4'-C4'	5.62	114.40	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	1785	U	O4'-C1'-N1	5.62	112.70	108.20
84	Aa	230	G	C5-C6-O6	-5.62	125.23	128.60
84	Aa	232	C	N3-C4-N4	5.62	121.94	118.00
84	Aa	687	C	N3-C4-C5	-5.62	119.65	121.90
84	Aa	1051	A	C4-C5-C6	5.62	119.81	117.00
84	Aa	1099	G	N1-C6-O6	5.62	123.27	119.90
84	Aa	1742	G	C5-C6-O6	-5.62	125.23	128.60
84	Aa	1846	A	C5-C6-N6	-5.62	119.20	123.70
84	Aa	2306	G	O4'-C1'-N9	5.62	112.70	108.20
84	Aa	3141	G	O4'-C1'-N9	5.62	112.70	108.20
84	Aa	3339	G	C5-C6-O6	-5.62	125.23	128.60
86	Ab	1	G	C4-C5-C6	5.62	122.17	118.80
1	Ad	187	C	O4'-C1'-C2'	-5.62	100.18	105.80
60	Co	59	HIS	N-CA-CB	5.62	120.72	110.60
84	Aa	58	G	C5-C6-O6	-5.62	125.23	128.60
84	Aa	79	C	N3-C4-C5	-5.62	119.65	121.90
84	Aa	2414	C	N3-C4-C5	-5.62	119.65	121.90
84	Aa	3173	A	C5-C6-N6	-5.62	119.20	123.70
1	Ad	488	C	P-O3'-C3'	5.62	126.44	119.70
84	Aa	681	A	C5-C6-N6	-5.62	119.20	123.70
84	Aa	2239	A	C5-C6-N6	-5.62	119.20	123.70
84	Aa	2633	C	N3-C4-C5	-5.62	119.65	121.90
84	Aa	3171	C	C2-N1-C1'	5.62	124.98	118.80
85	Ac	154	G	P-O5'-C5'	5.62	129.89	120.90
84	Aa	298	G	O4'-C1'-N9	5.62	112.69	108.20
84	Aa	1182	A	O4'-C1'-N9	5.62	112.69	108.20
84	Aa	1651	A	C5-C6-N6	-5.62	119.21	123.70
84	Aa	1932	A	C4-C5-C6	5.62	119.81	117.00
84	Aa	2254	A	O4'-C1'-N9	5.62	112.69	108.20
84	Aa	2294	A	C5-C6-N1	-5.62	114.89	117.70
1	Ad	1780	U	C1'-O4'-C4'	5.62	114.39	109.90
70	Cq	140	PHE	CB-CG-CD2	-5.62	116.87	120.80
84	Aa	1065	A	C4-C5-C6	5.62	119.81	117.00
84	Aa	1274	A	O4'-C1'-N9	5.62	112.69	108.20
84	Aa	2750	A	O4'-C1'-N9	5.62	112.69	108.20
84	Aa	2945	G	O4'-C1'-N9	5.62	112.69	108.20
86	Ab	74	A	C5-C6-N6	-5.62	119.21	123.70
1	Ad	970	U	O4'-C1'-N1	5.61	112.69	108.20
1	Ad	1013	G	O4'-C1'-C2'	5.61	112.65	107.60
71	CB	353	LEU	N-CA-C	-5.61	95.84	111.00
84	Aa	198	A	C4-C5-C6	5.61	119.81	117.00
84	Aa	238	C	N3-C4-N4	5.61	121.93	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	854	C	N3-C4-N4	5.61	121.93	118.00
84	Aa	913	G	C5-C6-O6	-5.61	125.23	128.60
84	Aa	1028	G	O4'-C1'-N9	5.61	112.69	108.20
84	Aa	1143	G	O4'-C1'-N9	5.61	112.69	108.20
84	Aa	1260	G	O4'-C1'-N9	5.61	112.69	108.20
84	Aa	1385	C	N3-C4-N4	5.61	121.93	118.00
84	Aa	2119	A	O4'-C1'-N9	5.61	112.69	108.20
84	Aa	2297	G	C5-C6-O6	-5.61	125.23	128.60
84	Aa	3268	C	O4'-C1'-N1	5.61	112.69	108.20
85	Ac	90	C	N3-C4-N4	5.61	121.93	118.00
84	Aa	696	A	C5-C6-N6	-5.61	119.21	123.70
84	Aa	1104	C	N3-C4-N4	5.61	121.93	118.00
84	Aa	1343	C	O4'-C1'-N1	5.61	112.69	108.20
84	Aa	1511	C	N3-C4-N4	5.61	121.93	118.00
84	Aa	2436	G	O4'-C1'-N9	5.61	112.69	108.20
1	Ad	523	C	C3'-C2'-C1'	5.61	105.99	101.50
1	Ad	639	G	O4'-C1'-N9	5.61	112.69	108.20
84	Aa	382	A	C5-C6-N6	-5.61	119.21	123.70
84	Aa	928	A	C5-C6-N6	-5.61	119.21	123.70
84	Aa	1174	G	N3-C2-N2	5.61	123.83	119.90
84	Aa	1436	A	C5-C6-N1	-5.61	114.89	117.70
84	Aa	1937	C	N3-C4-N4	5.61	121.93	118.00
84	Aa	2219	A	O4'-C1'-N9	5.61	112.69	108.20
84	Aa	2800	C	N3-C4-N4	5.61	121.93	118.00
84	Aa	3018	A	C5-C6-N1	-5.61	114.89	117.70
84	Aa	3018	A	C5-C6-N6	-5.61	119.21	123.70
84	Aa	3169	C	N3-C4-N4	5.61	121.93	118.00
84	Aa	3276	G	C5-C6-O6	-5.61	125.23	128.60
1	Ad	1005	C	N1-C1'-C2'	-5.61	105.83	112.00
1	Ad	1385	C	O3'-P-O5'	-5.61	93.34	104.00
1	Ad	1516	C	N1-C1'-C2'	5.61	121.29	114.00
84	Aa	34	G	C5-C6-O6	-5.61	125.23	128.60
84	Aa	1462	C	N3-C4-C5	-5.61	119.66	121.90
85	Ac	158	C	N3-C4-C5	-5.61	119.66	121.90
84	Aa	714	G	O4'-C1'-N9	5.61	112.69	108.20
84	Aa	1146	A	C4-C5-C6	5.61	119.80	117.00
84	Aa	1443	G	O4'-C1'-N9	5.61	112.69	108.20
84	Aa	1772	G	O4'-C1'-N9	5.61	112.69	108.20
84	Aa	1809	A	C5-C6-N6	-5.61	119.21	123.70
84	Aa	3110	A	C5-C6-N6	-5.61	119.21	123.70
86	Ab	97	G	C8-N9-C4	-5.61	104.16	106.40
84	Aa	253	G	N1-C2-N3	-5.61	120.54	123.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1252	C	N3-C4-C5	-5.61	119.66	121.90
84	Aa	1353	A	C5-C6-N6	-5.61	119.22	123.70
84	Aa	2589	G	O4'-C1'-N9	5.61	112.68	108.20
84	Aa	3056	C	O4'-C1'-N1	5.61	112.69	108.20
84	Aa	3074	A	C5-C6-N6	-5.61	119.22	123.70
85	Ac	33	A	C4-C5-C6	5.61	119.80	117.00
1	Ad	923	U	P-O3'-C3'	5.60	126.42	119.70
22	BZ	18	SER	C-N-CA	5.60	134.07	122.30
84	Aa	741	G	O4'-C1'-N9	5.60	112.68	108.20
84	Aa	862	G	O4'-C1'-N9	5.60	112.68	108.20
84	Aa	1820	C	N3-C4-N4	5.60	121.92	118.00
85	Ac	88	A	C5-C6-N1	-5.60	114.90	117.70
86	Ab	31	G	C5-C6-N1	-5.60	108.70	111.50
1	Ad	283	G	P-O3'-C3'	5.60	126.42	119.70
37	CG	233	VAL	N-CA-CB	5.60	123.83	111.50
84	Aa	411	C	N3-C4-C5	-5.60	119.66	121.90
84	Aa	457	C	N3-C4-N4	5.60	121.92	118.00
84	Aa	608	G	P-O5'-C5'	5.60	129.86	120.90
84	Aa	633	C	N3-C4-C5	-5.60	119.66	121.90
84	Aa	899	A	C4-C5-C6	5.60	119.80	117.00
84	Aa	1813	C	N3-C4-C5	-5.60	119.66	121.90
84	Aa	2458	A	C5-C6-N6	-5.60	119.22	123.70
86	Ab	41	G	N3-C2-N2	5.60	123.82	119.90
1	Ad	333	G	O4'-C1'-C2'	5.60	112.64	107.60
23	Bc	2	ASP	N-CA-CB	5.60	120.68	110.60
84	Aa	23	A	C5-C6-N6	-5.60	119.22	123.70
84	Aa	99	A	C5-C6-N1	-5.60	114.90	117.70
84	Aa	229	G	N3-C2-N2	5.60	123.82	119.90
84	Aa	574	C	N3-C4-C5	-5.60	119.66	121.90
84	Aa	1353	A	O4'-C1'-N9	5.60	112.68	108.20
84	Aa	1527	A	C5-C6-N6	-5.60	119.22	123.70
56	Cd	102	THR	N-CA-CB	5.60	120.94	110.30
84	Aa	1200	A	C5-C6-N6	-5.60	119.22	123.70
84	Aa	1790	A	O4'-C1'-N9	5.60	112.68	108.20
84	Aa	2141	A	C5-C6-N1	-5.60	114.90	117.70
84	Aa	2533	A	C5-C6-N6	-5.60	119.22	123.70
84	Aa	3232	C	N3-C4-N4	5.60	121.92	118.00
84	Aa	3353	G	O4'-C1'-N9	5.60	112.68	108.20
84	Aa	3382	A	O4'-C1'-N9	5.60	112.68	108.20
1	Ad	71	C	O4'-C1'-N1	5.60	112.68	108.20
24	BW	65	LEU	N-CA-CB	5.60	121.59	110.40
25	Bd	33	LYS	N-CA-CB	5.60	120.67	110.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	306	A	C5-C6-N1	-5.60	114.90	117.70
84	Aa	467	C	N3-C4-N4	5.60	121.92	118.00
84	Aa	1112	C	C2-N3-C4	5.60	122.70	119.90
84	Aa	1788	C	O4'-C1'-N1	5.60	112.68	108.20
84	Aa	2390	G	O4'-C1'-N9	5.60	112.68	108.20
84	Aa	2544	C	N3-C4-N4	5.60	121.92	118.00
84	Aa	2938	A	C4-C5-C6	5.60	119.80	117.00
84	Aa	738	A	O4'-C1'-N9	5.60	112.68	108.20
84	Aa	1962	C	N3-C4-N4	5.60	121.92	118.00
84	Aa	2230	C	N3-C4-N4	5.60	121.92	118.00
84	Aa	3034	A	C5-C6-N1	-5.60	114.90	117.70
1	Ad	462	G	O4'-C1'-C2'	5.59	112.64	107.60
1	Ad	1707	G	O4'-C1'-N9	5.59	112.68	108.20
71	CB	70	LYS	N-CA-CB	5.59	120.67	110.60
84	Aa	173	C	N3-C4-C5	-5.59	119.66	121.90
84	Aa	1485	A	P-O5'-C5'	-5.59	111.95	120.90
84	Aa	1988	G	O4'-C1'-N9	5.59	112.68	108.20
85	Ac	132	C	N3-C4-C5	-5.59	119.66	121.90
2	Ae	28	G	C4'-C3'-C2'	-5.59	97.01	102.60
84	Aa	1044	A	C4-C5-C6	5.59	119.80	117.00
84	Aa	2504	A	C5-C6-N1	-5.59	114.90	117.70
85	Ac	53	A	C4-C5-C6	5.59	119.80	117.00
86	Ab	77	A	O4'-C1'-N9	5.59	112.67	108.20
86	Ab	104	C	N3-C4-C5	-5.59	119.66	121.90
84	Aa	619	C	N3-C4-N4	5.59	121.91	118.00
84	Aa	676	G	C5-C6-O6	-5.59	125.25	128.60
84	Aa	914	C	N3-C4-N4	5.59	121.91	118.00
84	Aa	1321	A	O4'-C1'-N9	5.59	112.67	108.20
84	Aa	1889	G	O4'-C1'-N9	5.59	112.67	108.20
84	Aa	2005	C	N3-C4-N4	5.59	121.91	118.00
84	Aa	2056	C	N3-C4-C5	-5.59	119.66	121.90
84	Aa	2298	A	C5-C6-N1	-5.59	114.91	117.70
84	Aa	3073	A	C5-C6-N6	-5.59	119.23	123.70
1	Ad	757	G	O4'-C1'-C2'	5.59	112.63	107.60
1	Ad	1772	A	O4'-C1'-C2'	-5.59	100.21	105.80
71	CB	61	GLU	N-CA-CB	5.59	120.66	110.60
84	Aa	245	C	N3-C4-C5	-5.59	119.66	121.90
84	Aa	304	A	C5-C6-N1	-5.59	114.91	117.70
84	Aa	384	A	C4-C5-C6	5.59	119.80	117.00
84	Aa	1270	G	C5-C6-O6	-5.59	125.25	128.60
84	Aa	1324	C	N3-C4-N4	5.59	121.91	118.00
84	Aa	1880	A	C5-C6-N1	-5.59	114.91	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2151	G	P-O3'-C3'	5.59	126.41	119.70
84	Aa	2546	C	N3-C4-N4	5.59	121.91	118.00
84	Aa	2898	A	C5-C6-N6	-5.59	119.23	123.70
84	Aa	2993	A	C5-C6-N6	-5.59	119.23	123.70
1	Ad	1252	C	N1-C1'-C2'	5.59	121.27	114.00
1	Ad	1418	G	O4'-C1'-C2'	-5.59	100.21	105.80
75	CI	119	PHE	N-CA-CB	5.59	120.66	110.60
84	Aa	543	C	N3-C4-C5	-5.59	119.67	121.90
86	Ab	16	A	O4'-C1'-N9	5.59	112.67	108.20
1	Ad	42	G	O4'-C1'-N9	5.59	112.67	108.20
1	Ad	174	C	N1-C1'-C2'	-5.59	105.86	112.00
1	Ad	1345	G	O4'-C1'-N9	5.59	112.67	108.20
84	Aa	186	A	C5-C6-N6	-5.59	119.23	123.70
84	Aa	405	A	C5-C6-N1	-5.59	114.91	117.70
84	Aa	490	G	O4'-C1'-N9	5.59	112.67	108.20
84	Aa	520	G	C5-C6-O6	-5.59	125.25	128.60
84	Aa	562	G	C5-C6-O6	-5.59	125.25	128.60
84	Aa	695	G	O4'-C1'-N9	5.59	112.67	108.20
84	Aa	703	G	O4'-C1'-N9	5.59	112.67	108.20
84	Aa	860	G	C5-C6-O6	-5.59	125.25	128.60
84	Aa	1003	G	O4'-C1'-N9	5.59	112.67	108.20
84	Aa	2036	C	N3-C4-C5	-5.59	119.67	121.90
84	Aa	2193	A	C5-C6-N6	-5.59	119.23	123.70
84	Aa	2201	G	C5-C6-O6	-5.58	125.25	128.60
84	Aa	2545	C	O4'-C1'-N1	5.58	112.67	108.20
14	BQ	32	ARG	N-CA-CB	5.58	120.65	110.60
84	Aa	384	A	O4'-C1'-N9	5.58	112.67	108.20
84	Aa	688	G	N3-C2-N2	5.58	123.81	119.90
84	Aa	801	G	C5-C6-O6	-5.58	125.25	128.60
84	Aa	1072	C	N3-C4-C5	-5.58	119.67	121.90
84	Aa	1418	C	N3-C4-C5	-5.58	119.67	121.90
84	Aa	1906	A	C5-C6-N6	-5.58	119.23	123.70
84	Aa	2208	A	C5-C6-N1	-5.58	114.91	117.70
1	Ad	287	C	O4'-C1'-C2'	-5.58	100.22	105.80
1	Ad	455	G	C3'-C2'-C1'	-5.58	97.03	101.50
1	Ad	1311	U	N1-C1'-C2'	-5.58	105.86	112.00
1	Ad	1616	U	P-O3'-C3'	5.58	126.40	119.70
41	CA	67	PHE	CB-CG-CD2	5.58	124.71	120.80
84	Aa	568	C	N3-C4-N4	5.58	121.91	118.00
84	Aa	1254	A	C5-C6-N6	-5.58	119.23	123.70
84	Aa	1784	C	N3-C4-N4	5.58	121.91	118.00
84	Aa	2101	A	C5-C6-N6	-5.58	119.23	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2360	A	C5-C6-N1	-5.58	114.91	117.70
84	Aa	2904	A	C4-C5-C6	5.58	119.79	117.00
85	Ac	143	C	N3-C4-C5	-5.58	119.67	121.90
84	Aa	122	A	O4'-C1'-N9	5.58	112.66	108.20
84	Aa	2439	A	C5-C6-N1	-5.58	114.91	117.70
86	Ab	72	G	C4-N9-C1'	5.58	133.75	126.50
1	Ad	76	U	C2'-C3'-O3'	5.58	122.62	113.70
1	Ad	1301	G	C1'-O4'-C4'	5.58	114.36	109.90
84	Aa	303	U	O4'-C1'-N1	5.58	112.66	108.20
84	Aa	705	A	C4-C5-C6	5.58	119.79	117.00
84	Aa	1820	C	N3-C4-C5	-5.58	119.67	121.90
85	Ac	95	G	O4'-C1'-N9	5.58	112.66	108.20
1	Ad	926	G	C1'-O4'-C4'	-5.58	105.44	109.90
1	Ad	1132	G	P-O5'-C5'	5.58	129.82	120.90
84	Aa	19	C	N3-C4-C5	-5.58	119.67	121.90
84	Aa	61	A	C5-C6-N1	-5.58	114.91	117.70
84	Aa	108	A	C4-C5-C6	5.58	119.79	117.00
84	Aa	364	A	C5-C6-N1	-5.58	114.91	117.70
84	Aa	1410	A	C5-C6-N6	-5.58	119.24	123.70
84	Aa	2371	A	C5-C6-N6	-5.58	119.24	123.70
84	Aa	2571	C	N3-C4-N4	5.58	121.90	118.00
84	Aa	2973	A	C5-C6-N6	-5.58	119.24	123.70
84	Aa	3207	C	N3-C4-N4	5.58	121.90	118.00
84	Aa	3268	C	N3-C4-N4	5.58	121.90	118.00
84	Aa	3311	C	N3-C4-C5	-5.58	119.67	121.90
1	Ad	798	C	O4'-C1'-N1	5.57	112.66	108.20
84	Aa	106	G	C5-C6-O6	-5.57	125.26	128.60
84	Aa	513	C	N3-C4-C5	-5.57	119.67	121.90
84	Aa	1107	G	P-O5'-C5'	5.57	129.82	120.90
84	Aa	1350	G	C5-C6-O6	-5.57	125.26	128.60
84	Aa	1606	C	N3-C4-C5	-5.57	119.67	121.90
84	Aa	1922	C	N3-C4-N4	5.57	121.90	118.00
84	Aa	2515	C	N3-C4-C5	-5.57	119.67	121.90
84	Aa	2639	A	C5-C6-N1	-5.57	114.91	117.70
84	Aa	3207	C	N3-C4-C5	-5.57	119.67	121.90
1	Ad	242	A	P-O3'-C3'	5.57	126.39	119.70
1	Ad	393	G	O4'-C1'-C2'	5.57	112.61	107.60
84	Aa	453	U	C5'-C4'-C3'	5.57	124.92	116.00
84	Aa	881	G	O4'-C1'-N9	5.57	112.66	108.20
84	Aa	916	A	C5-C6-N1	-5.57	114.91	117.70
84	Aa	1090	C	N3-C4-N4	5.57	121.90	118.00
84	Aa	1351	C	N3-C4-C5	-5.57	119.67	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1790	A	C5-C6-N6	-5.57	119.24	123.70
84	Aa	3240	C	N3-C4-N4	5.57	121.90	118.00
1	Ad	63	G	C5'-C4'-C3'	5.57	124.91	116.00
1	Ad	135	C	C3'-C2'-C1'	5.57	105.96	101.50
1	Ad	1181	G	C1'-O4'-C4'	-5.57	105.44	109.90
1	Ad	1731	A	C4'-C3'-C2'	-5.57	97.03	102.60
7	BM	96	SER	N-CA-CB	5.57	118.86	110.50
84	Aa	274	U	O4'-C1'-N1	5.57	112.66	108.20
84	Aa	1410	A	C5-C6-N1	-5.57	114.92	117.70
84	Aa	2883	C	O4'-C1'-N1	5.57	112.66	108.20
84	Aa	3155	C	N3-C4-C5	-5.57	119.67	121.90
85	Ac	40	A	C4-C5-C6	5.57	119.78	117.00
1	Ad	1527	U	O4'-C1'-N1	5.57	112.66	108.20
84	Aa	831	G	O4'-C1'-N9	5.57	112.66	108.20
84	Aa	846	A	C5-C6-N6	-5.57	119.25	123.70
84	Aa	2562	A	C5-C6-N1	-5.57	114.92	117.70
84	Aa	2810	A	C5-C6-N1	-5.57	114.92	117.70
1	Ad	1378	C	N1-C1'-C2'	5.57	121.24	114.00
9	BX	40	PHE	CB-CG-CD2	-5.57	116.90	120.80
84	Aa	79	C	N3-C4-N4	5.57	121.90	118.00
84	Aa	1782	G	C5-C6-O6	-5.57	125.26	128.60
84	Aa	2936	A	C5-C6-N6	-5.57	119.25	123.70
84	Aa	3127	C	N3-C4-C5	-5.57	119.67	121.90
84	Aa	3128	A	C4-C5-C6	5.57	119.78	117.00
84	Aa	3148	A	C4-C5-C6	5.57	119.78	117.00
1	Ad	30	G	C1'-O4'-C4'	-5.57	105.45	109.90
1	Ad	311	G	O4'-C1'-N9	5.57	112.65	108.20
1	Ad	646	G	C1'-O4'-C4'	-5.57	105.45	109.90
10	Bg	98	SER	N-CA-CB	5.57	118.85	110.50
78	CL	25	PHE	CB-CG-CD2	-5.57	116.90	120.80
84	Aa	567	G	N3-C2-N2	5.57	123.80	119.90
84	Aa	2068	G	O4'-C1'-N9	5.57	112.65	108.20
84	Aa	2354	G	C4-C5-C6	5.57	122.14	118.80
84	Aa	3257	G	O4'-C1'-N9	5.57	112.65	108.20
84	Aa	3367	C	N3-C4-N4	5.57	121.90	118.00
1	Ad	358	C	O4'-C1'-C2'	-5.56	100.24	105.80
84	Aa	292	A	C5-C6-N6	-5.56	119.25	123.70
84	Aa	1052	A	O4'-C1'-N9	5.56	112.65	108.20
1	Ad	886	A	O4'-C1'-N9	5.56	112.65	108.20
48	CD	236	MET	N-CA-CB	5.56	120.61	110.60
63	CU	111	ARG	N-CA-CB	5.56	120.61	110.60
84	Aa	183	C	N3-C4-C5	-5.56	119.67	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	186	A	C5-C6-N1	-5.56	114.92	117.70
84	Aa	548	G	O4'-C1'-N9	5.56	112.65	108.20
84	Aa	612	U	C4'-C3'-C2'	5.56	108.16	102.60
84	Aa	894	G	O4'-C1'-N9	5.56	112.65	108.20
84	Aa	1875	A	C5-C6-N6	-5.56	119.25	123.70
84	Aa	2020	G	C5-C6-O6	-5.56	125.26	128.60
84	Aa	2547	C	N3-C4-N4	5.56	121.89	118.00
84	Aa	2628	C	N3-C4-C5	-5.56	119.67	121.90
84	Aa	3163	G	C5-C6-O6	-5.56	125.26	128.60
85	Ac	84	C	N3-C4-N4	5.56	121.89	118.00
85	Ac	110	A	C5-C6-N1	-5.56	114.92	117.70
84	Aa	112	C	N3-C4-C5	-5.56	119.68	121.90
84	Aa	884	C	N3-C4-N4	5.56	121.89	118.00
84	Aa	1715	C	N3-C4-N4	5.56	121.89	118.00
84	Aa	2593	A	C4-C5-C6	5.56	119.78	117.00
1	Ad	78	A	C5'-C4'-O4'	5.56	115.77	109.10
84	Aa	149	A	C5-C6-N6	-5.56	119.25	123.70
84	Aa	860	G	O4'-C1'-N9	5.56	112.65	108.20
84	Aa	1431	G	O4'-C1'-N9	5.56	112.65	108.20
84	Aa	1881	C	N3-C4-N4	5.56	121.89	118.00
84	Aa	1994	C	N3-C4-N4	5.56	121.89	118.00
86	Ab	2	G	N7-C8-N9	5.56	115.88	113.10
86	Ab	85	G	C6-C5-N7	-5.56	127.06	130.40
1	Ad	591	C	N1-C1'-C2'	5.56	121.22	114.00
69	CF	151	TYR	CB-CG-CD1	-5.56	117.67	121.00
84	Aa	445	C	N3-C4-C5	-5.56	119.68	121.90
84	Aa	1614	G	C5-C6-O6	-5.56	125.27	128.60
84	Aa	1669	C	N3-C4-C5	-5.56	119.68	121.90
84	Aa	1705	A	C4-C5-C6	5.56	119.78	117.00
84	Aa	1747	A	C5'-C4'-O4'	5.56	115.77	109.10
84	Aa	1885	G	O4'-C1'-N9	5.56	112.65	108.20
84	Aa	2604	A	O4'-C1'-N9	5.56	112.65	108.20
84	Aa	3159	C	N3-C4-N4	5.56	121.89	118.00
84	Aa	3171	C	N3-C4-N4	5.56	121.89	118.00
84	Aa	3341	C	N3-C4-C5	-5.56	119.68	121.90
85	Ac	104	A	C5-C6-N6	-5.56	119.25	123.70
84	Aa	1640	A	C5-C6-N1	-5.56	114.92	117.70
84	Aa	1641	G	O4'-C1'-N9	5.56	112.64	108.20
84	Aa	1917	A	C5-C6-N1	-5.56	114.92	117.70
84	Aa	1970	A	C5-C6-N6	-5.56	119.25	123.70
84	Aa	2028	C	N3-C4-C5	-5.56	119.68	121.90
84	Aa	2098	A	C5-C6-N1	-5.56	114.92	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2837	C	N3-C4-N4	5.56	121.89	118.00
1	Ad	59	G	C1'-O4'-C4'	-5.55	105.46	109.90
1	Ad	453	C	C3'-C2'-C1'	5.55	105.94	101.50
84	Aa	4	C	N3-C4-N4	5.55	121.89	118.00
84	Aa	256	G	O4'-C1'-N9	5.55	112.64	108.20
84	Aa	614	C	N3-C4-C5	-5.55	119.68	121.90
84	Aa	1030	A	C5-C6-N6	-5.55	119.26	123.70
84	Aa	1302	C	N3-C4-C5	-5.55	119.68	121.90
84	Aa	1307	A	C5-C6-N6	-5.55	119.26	123.70
84	Aa	1482	C	N3-C4-C5	-5.55	119.68	121.90
84	Aa	1692	U	O4'-C1'-N1	5.55	112.64	108.20
84	Aa	1702	C	N3-C4-N4	5.55	121.89	118.00
84	Aa	2252	C	N3-C4-N4	5.55	121.89	118.00
84	Aa	2630	A	C5-C6-N1	-5.55	114.92	117.70
84	Aa	3210	G	C5'-C4'-O4'	5.55	115.77	109.10
85	Ac	63	C	N3-C4-N4	5.55	121.89	118.00
1	Ad	403	A	O4'-C1'-N9	5.55	112.64	108.20
85	Ac	19	A	C4-C5-C6	5.55	119.78	117.00
86	Ab	48	G	C5-C6-O6	-5.55	125.27	128.60
1	Ad	193	G	O4'-C1'-N9	5.55	112.64	108.20
1	Ad	610	A	O4'-C1'-N9	5.55	112.64	108.20
84	Aa	97	G	O4'-C1'-N9	5.55	112.64	108.20
84	Aa	110	C	N3-C4-N4	5.55	121.89	118.00
84	Aa	560	C	N3-C4-C5	-5.55	119.68	121.90
84	Aa	576	C	O4'-C1'-N1	5.55	112.64	108.20
84	Aa	722	C	N3-C4-C5	-5.55	119.68	121.90
84	Aa	1343	C	N3-C4-N4	5.55	121.89	118.00
84	Aa	2779	G	O4'-C1'-N9	5.55	112.64	108.20
84	Aa	2944	C	N3-C4-C5	-5.55	119.68	121.90
1	Ad	1426	C	O4'-C1'-N1	5.55	112.64	108.20
6	BK	64	TYR	CB-CG-CD1	5.55	124.33	121.00
84	Aa	1025	G	O4'-C1'-N9	5.55	112.64	108.20
84	Aa	1574	C	N3-C4-N4	5.55	121.89	118.00
84	Aa	3023	G	O4'-C1'-N9	5.55	112.64	108.20
86	Ab	71	A	C4-C5-N7	-5.55	107.92	110.70
1	Ad	1160	G	C5'-C4'-O4'	5.55	115.76	109.10
84	Aa	580	C	N3-C4-N4	5.55	121.88	118.00
84	Aa	1031	A	C5-C6-N1	-5.55	114.93	117.70
84	Aa	1624	G	O4'-C1'-N9	5.55	112.64	108.20
84	Aa	1753	A	C4-C5-C6	5.55	119.77	117.00
85	Ac	17	A	C4-C5-C6	5.55	119.77	117.00
1	Ad	298	C	N1-C1'-C2'	5.55	121.21	114.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	507	G	C3'-C2'-C1'	-5.55	97.06	101.50
1	Ad	1793	C	O4'-C1'-C2'	-5.55	100.25	105.80
72	CC	336	TYR	CB-CG-CD1	-5.55	117.67	121.00
84	Aa	4	C	N3-C4-C5	-5.55	119.68	121.90
84	Aa	325	A	C5-C6-N6	-5.55	119.26	123.70
84	Aa	1336	A	C5-C6-N6	-5.55	119.26	123.70
84	Aa	1568	A	C5-C6-N6	-5.55	119.26	123.70
84	Aa	1731	A	C5-C6-N6	-5.55	119.26	123.70
84	Aa	1787	C	N3-C4-C5	-5.55	119.68	121.90
84	Aa	1987	C	N3-C4-N4	5.55	121.88	118.00
84	Aa	2018	C	N3-C4-N4	5.55	121.88	118.00
84	Aa	2303	C	N3-C4-C5	-5.55	119.68	121.90
84	Aa	3201	A	C5-C6-N1	-5.55	114.93	117.70
84	Aa	2219	A	C5-C6-N1	-5.54	114.93	117.70
84	Aa	2249	U	O4'-C1'-N1	5.54	112.64	108.20
84	Aa	3107	A	C5-C6-N1	-5.54	114.93	117.70
86	Ab	89	G	N1-C6-O6	5.54	123.23	119.90
84	Aa	1156	A	O4'-C1'-N9	5.54	112.63	108.20
84	Aa	1738	A	C4-C5-C6	5.54	119.77	117.00
84	Aa	2046	G	C5-C6-O6	-5.54	125.27	128.60
84	Aa	2408	G	C5-C6-O6	-5.54	125.27	128.60
84	Aa	2839	A	C5-C6-N6	-5.54	119.27	123.70
84	Aa	3056	C	N3-C4-C5	-5.54	119.68	121.90
84	Aa	3327	A	C5-C6-N6	-5.54	119.27	123.70
85	Ac	13	A	C4-C5-C6	5.54	119.77	117.00
86	Ab	35	C	O4'-C1'-N1	5.54	112.63	108.20
84	Aa	1745	G	O4'-C1'-N9	5.54	112.63	108.20
84	Aa	2447	A	C4-C5-C6	5.54	119.77	117.00
84	Aa	2647	C	O4'-C1'-N1	5.54	112.63	108.20
84	Aa	2901	C	C6-N1-C1'	-5.54	114.15	120.80
84	Aa	3169	C	N3-C4-C5	-5.54	119.68	121.90
86	Ab	22	A	C5-C6-N1	-5.54	114.93	117.70
1	Ad	1032	A	C1'-O4'-C4'	5.54	114.33	109.90
1	Ad	1792	A	P-O3'-C3'	5.54	126.35	119.70
84	Aa	348	C	N3-C4-C5	-5.54	119.68	121.90
84	Aa	976	A	C4-C5-C6	5.54	119.77	117.00
84	Aa	1307	A	C5-C6-N1	-5.54	114.93	117.70
84	Aa	2262	C	N3-C4-C5	-5.54	119.68	121.90
84	Aa	2517	U	O4'-C1'-N1	5.54	112.63	108.20
84	Aa	2565	C	N3-C4-N4	5.54	121.88	118.00
1	Ad	599	G	C5'-C4'-O4'	5.54	115.75	109.10
84	Aa	98	A	C5-C6-N6	-5.54	119.27	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	837	C	N3-C4-C5	-5.54	119.69	121.90
84	Aa	839	A	C5-C6-N1	-5.54	114.93	117.70
84	Aa	876	C	N3-C4-N4	5.54	121.88	118.00
84	Aa	1094	G	O4'-C1'-N9	5.54	112.63	108.20
84	Aa	1138	A	C4-C5-C6	5.54	119.77	117.00
84	Aa	1279	C	N3-C4-N4	5.54	121.88	118.00
84	Aa	1343	C	N3-C4-C5	-5.54	119.69	121.90
84	Aa	2947	G	C5-C6-O6	-5.54	125.28	128.60
1	Ad	1444	G	N9-C1'-C2'	5.54	121.20	114.00
73	CO	69	THR	N-CA-CB	5.54	120.82	110.30
84	Aa	698	A	C5-C6-N1	-5.54	114.93	117.70
84	Aa	868	A	C5-C6-N1	-5.54	114.93	117.70
84	Aa	1493	A	C4-C5-C6	5.54	119.77	117.00
84	Aa	1493	A	O4'-C1'-N9	5.54	112.63	108.20
84	Aa	1775	C	N3-C4-C5	-5.54	119.69	121.90
84	Aa	1831	A	C5-C6-N6	-5.54	119.27	123.70
84	Aa	1958	G	C5'-C4'-O4'	5.54	115.74	109.10
84	Aa	2104	G	O4'-C1'-N9	5.54	112.63	108.20
84	Aa	3155	C	O4'-C1'-N1	5.54	112.63	108.20
84	Aa	3245	G	O4'-C1'-N9	5.54	112.63	108.20
84	Aa	3272	A	O4'-C1'-N9	5.54	112.63	108.20
1	Ad	573	C	C3'-C2'-C1'	5.54	105.93	101.50
48	CD	219	PHE	CB-CG-CD1	5.54	124.67	120.80
62	CS	152	PRO	CA-N-CD	-5.54	103.75	111.50
84	Aa	21	G	P-O3'-C3'	-5.54	113.06	119.70
84	Aa	439	A	C5-C6-N6	-5.54	119.27	123.70
84	Aa	640	C	N3-C4-N4	5.54	121.88	118.00
84	Aa	781	C	N3-C4-C5	-5.54	119.69	121.90
84	Aa	872	G	C5-C6-O6	-5.54	125.28	128.60
84	Aa	1464	A	C5-C6-N1	-5.54	114.93	117.70
84	Aa	2547	C	N3-C4-C5	-5.54	119.69	121.90
84	Aa	2936	A	O4'-C1'-N9	5.54	112.63	108.20
86	Ab	92	C	C4-C5-C6	5.54	120.17	117.40
6	BK	54	TYR	CB-CG-CD1	-5.53	117.68	121.00
64	Ci	56	TYR	CB-CG-CD2	-5.53	117.68	121.00
84	Aa	289	C	C5-C6-N1	5.53	123.77	121.00
84	Aa	806	C	N3-C4-C5	-5.53	119.69	121.90
84	Aa	843	C	N3-C4-C5	-5.53	119.69	121.90
84	Aa	1013	A	C4-C5-C6	5.53	119.77	117.00
84	Aa	1249	A	C5-C6-N6	-5.53	119.27	123.70
84	Aa	1264	A	C5-C6-N1	-5.53	114.93	117.70
84	Aa	1080	C	N3-C4-C5	-5.53	119.69	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1468	A	C5-C6-N6	-5.53	119.27	123.70
84	Aa	2064	C	N3-C4-N4	5.53	121.87	118.00
84	Aa	2110	G	P-O5'-C5'	-5.53	112.05	120.90
84	Aa	2160	C	N3-C4-N4	5.53	121.87	118.00
85	Ac	159	G	O4'-C1'-N9	5.53	112.62	108.20
1	Ad	159	U	C1'-O4'-C4'	-5.53	105.47	109.90
1	Ad	799	A	O4'-C1'-N9	5.53	112.62	108.20
1	Ad	1745	U	C1'-O4'-C4'	5.53	114.33	109.90
84	Aa	393	A	C5-C6-N1	-5.53	114.94	117.70
84	Aa	1494	A	C5-C6-N1	-5.53	114.94	117.70
84	Aa	1517	C	N3-C4-C5	-5.53	119.69	121.90
84	Aa	1922	C	N3-C4-C5	-5.53	119.69	121.90
84	Aa	2301	C	N3-C4-N4	5.53	121.87	118.00
84	Aa	3092	A	C5-C6-N6	-5.53	119.28	123.70
84	Aa	3104	A	O4'-C1'-N9	5.53	112.62	108.20
84	Aa	3178	C	P-O3'-C3'	5.53	126.34	119.70
1	Ad	462	G	C1'-O4'-C4'	-5.53	105.48	109.90
1	Ad	1431	A	O4'-C1'-N9	5.53	112.62	108.20
2	Ae	22	G	C1'-O4'-C4'	-5.53	105.48	109.90
84	Aa	1033	G	C5-C6-O6	-5.53	125.28	128.60
84	Aa	2804	A	C5-C6-N1	-5.53	114.94	117.70
1	Ad	147	C	C3'-C2'-C1'	5.53	105.92	101.50
1	Ad	369	G	N9-C1'-C2'	-5.53	105.92	112.00
1	Ad	1439	G	N9-C1'-C2'	5.53	121.19	114.00
84	Aa	611	C	N3-C4-N4	5.53	121.87	118.00
84	Aa	759	C	N3-C4-C5	-5.53	119.69	121.90
84	Aa	783	A	C5-C6-N6	-5.53	119.28	123.70
84	Aa	1276	C	N3-C4-C5	-5.53	119.69	121.90
84	Aa	1455	A	C5-C6-N6	-5.53	119.28	123.70
84	Aa	1635	A	O4'-C1'-N9	5.53	112.62	108.20
84	Aa	2391	C	N3-C4-N4	5.53	121.87	118.00
84	Aa	2710	C	N3-C4-C5	-5.53	119.69	121.90
84	Aa	3233	C	N3-C4-C5	-5.53	119.69	121.90
84	Aa	111	C	N3-C4-N4	5.53	121.87	118.00
84	Aa	1148	G	C5-C6-O6	-5.53	125.28	128.60
84	Aa	1275	A	C5-C6-N6	-5.53	119.28	123.70
84	Aa	1415	G	O4'-C1'-N9	5.53	112.62	108.20
84	Aa	1805	A	C5-C6-N1	-5.53	114.94	117.70
84	Aa	1990	A	O4'-C1'-N9	5.53	112.62	108.20
84	Aa	2728	C	N3-C4-C5	-5.53	119.69	121.90
84	Aa	3041	A	C5-C6-N6	-5.53	119.28	123.70
85	Ac	152	G	O4'-C1'-N9	5.53	112.62	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	1564	A	O3'-P-O5'	-5.52	93.50	104.00
50	CP	140	TYR	CB-CG-CD1	5.52	124.31	121.00
84	Aa	2207	C	N3-C4-C5	-5.52	119.69	121.90
84	Aa	2698	A	C4-C5-C6	5.52	119.76	117.00
84	Aa	327	A	C5-C6-N6	-5.52	119.28	123.70
84	Aa	376	A	C5-C6-N6	-5.52	119.28	123.70
84	Aa	656	G	N1-C6-O6	5.52	123.21	119.90
84	Aa	1053	C	N3-C4-N4	5.52	121.86	118.00
84	Aa	1308	A	C5-C6-N1	-5.52	114.94	117.70
84	Aa	1522	G	O4'-C1'-N9	5.52	112.62	108.20
84	Aa	1802	A	C5-C6-N1	-5.52	114.94	117.70
84	Aa	2935	A	C5-C6-N1	-5.52	114.94	117.70
86	Ab	31	G	C4-C5-N7	5.52	113.01	110.80
42	CJ	113	ASP	N-CA-CB	5.52	120.54	110.60
84	Aa	639	A	C5-C6-N6	-5.52	119.28	123.70
84	Aa	879	A	C5-C6-N6	-5.52	119.28	123.70
85	Ac	98	U	O4'-C1'-N1	5.52	112.62	108.20
85	Ac	134	G	O4'-C1'-N9	5.52	112.62	108.20
1	Ad	236	U	N1-C1'-C2'	5.52	121.18	114.00
84	Aa	250	C	N3-C4-N4	5.52	121.86	118.00
84	Aa	1276	C	N3-C4-N4	5.52	121.86	118.00
84	Aa	1657	C	N3-C4-N4	5.52	121.86	118.00
84	Aa	1721	A	C4'-C3'-C2'	-5.52	97.08	102.60
84	Aa	1738	A	C5-C6-N6	-5.52	119.28	123.70
84	Aa	2331	A	O4'-C1'-N9	5.52	112.62	108.20
84	Aa	2460	A	C4-C5-C6	5.52	119.76	117.00
84	Aa	2487	A	C5-C6-N6	-5.52	119.28	123.70
84	Aa	3382	A	C5-C6-N1	-5.52	114.94	117.70
1	Ad	200	C	C3'-C2'-C1'	5.52	105.91	101.50
84	Aa	2160	C	N3-C4-C5	-5.52	119.69	121.90
84	Aa	2352	G	N3-C2-N2	5.52	123.76	119.90
84	Aa	2526	G	C5-C6-O6	-5.52	125.29	128.60
84	Aa	2774	A	C5-C6-N6	-5.52	119.29	123.70
84	Aa	1166	C	N3-C4-C5	-5.52	119.69	121.90
84	Aa	2114	A	C5-C6-N1	-5.52	114.94	117.70
1	Ad	1361	G	C4'-C3'-C2'	-5.51	97.08	102.60
42	CJ	58	SER	N-CA-CB	5.51	118.77	110.50
48	CD	187	GLU	N-CA-CB	5.51	120.53	110.60
84	Aa	385	A	C5-C6-N6	-5.51	119.29	123.70
84	Aa	416	A	C5-C6-N6	-5.51	119.29	123.70
84	Aa	1102	A	C4-C5-C6	5.51	119.76	117.00
84	Aa	1335	C	N3-C4-N4	5.51	121.86	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1399	C	N3-C4-C5	-5.51	119.69	121.90
84	Aa	1417	G	O4'-C1'-N9	5.51	112.61	108.20
84	Aa	2089	A	C5-C6-N1	-5.51	114.94	117.70
84	Aa	2832	G	C5-C6-O6	-5.51	125.29	128.60
85	Ac	83	C	N3-C4-N4	5.51	121.86	118.00
1	Ad	1713	C	O4'-C1'-N1	5.51	112.61	108.20
84	Aa	499	A	C4-C5-C6	5.51	119.76	117.00
84	Aa	1542	A	C5-C6-N6	-5.51	119.29	123.70
84	Aa	2174	C	N3-C4-N4	5.51	121.86	118.00
84	Aa	2940	G	C5-C6-O6	-5.51	125.29	128.60
63	CU	34	LYS	N-CA-CB	5.51	120.52	110.60
84	Aa	95	G	P-O5'-C5'	5.51	129.72	120.90
84	Aa	1911	A	C4-C5-C6	5.51	119.76	117.00
84	Aa	2226	C	N3-C4-C5	-5.51	119.69	121.90
84	Aa	2251	A	C5-C6-N6	-5.51	119.29	123.70
84	Aa	2559	C	N3-C4-C5	-5.51	119.69	121.90
85	Ac	44	A	O4'-C1'-N9	5.51	112.61	108.20
85	Ac	126	A	C5-C6-N1	-5.51	114.94	117.70
1	Ad	165	U	O4'-C1'-N1	5.51	112.61	108.20
1	Ad	1409	G	C3'-C2'-C1'	-5.51	97.09	101.50
84	Aa	421	A	C4-C5-C6	5.51	119.75	117.00
84	Aa	564	A	C4-C5-C6	5.51	119.75	117.00
84	Aa	869	A	O4'-C1'-N9	5.51	112.61	108.20
84	Aa	1520	A	C5-C6-N6	-5.51	119.29	123.70
84	Aa	2681	A	C5-C6-N6	-5.51	119.29	123.70
84	Aa	3028	A	C5-C6-N6	-5.51	119.29	123.70
84	Aa	3170	C	N3-C4-C5	-5.51	119.70	121.90
10	Bg	202	SER	N-CA-CB	5.51	118.76	110.50
84	Aa	2641	A	O4'-C1'-N9	5.51	112.61	108.20
84	Aa	3073	A	C5-C6-N1	-5.51	114.95	117.70
1	Ad	360	G	C3'-C2'-C1'	-5.51	97.09	101.50
1	Ad	1388	A	O4'-C1'-C2'	-5.51	100.29	105.80
50	CP	140	TYR	CB-CG-CD2	-5.51	117.70	121.00
84	Aa	82	C	N3-C4-N4	5.51	121.86	118.00
84	Aa	643	G	C5-C6-O6	-5.51	125.30	128.60
84	Aa	839	A	C5-C6-N6	-5.51	119.30	123.70
84	Aa	1455	A	O4'-C1'-N9	5.51	112.61	108.20
84	Aa	2111	A	C5-C6-N1	-5.51	114.95	117.70
6	BK	82	LEU	CA-C-N	5.50	132.51	117.10
84	Aa	1059	A	C5-C6-N6	-5.50	119.30	123.70
84	Aa	2740	C	N3-C4-C5	-5.50	119.70	121.90
84	Aa	2912	A	C5-C6-N1	-5.50	114.95	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
86	Ab	20	C	C6-N1-C2	5.50	122.50	120.30
1	Ad	315	U	O4'-C1'-C2'	-5.50	100.30	105.80
84	Aa	582	C	N3-C4-C5	-5.50	119.70	121.90
84	Aa	914	C	N3-C4-C5	-5.50	119.70	121.90
84	Aa	1181	A	C5-C6-N1	-5.50	114.95	117.70
84	Aa	2158	C	N3-C4-C5	-5.50	119.70	121.90
84	Aa	2254	A	C5-C6-N1	-5.50	114.95	117.70
84	Aa	2545	C	N3-C4-C5	-5.50	119.70	121.90
85	Ac	105	A	C5-C6-N1	-5.50	114.95	117.70
1	Ad	600	C	O4'-C1'-N1	5.50	112.60	108.20
84	Aa	661	A	C4-C5-C6	5.50	119.75	117.00
84	Aa	769	C	N3-C4-C5	-5.50	119.70	121.90
84	Aa	1721	A	C5-C6-N1	-5.50	114.95	117.70
84	Aa	2082	A	C5-C6-N6	-5.50	119.30	123.70
84	Aa	2361	C	N3-C4-N4	5.50	121.85	118.00
84	Aa	2749	A	C5-C6-N1	-5.50	114.95	117.70
84	Aa	2949	G	N3-C2-N2	5.50	123.75	119.90
84	Aa	3088	A	C5-C6-N6	-5.50	119.30	123.70
84	Aa	3137	G	C5-C6-O6	-5.50	125.30	128.60
85	Ac	124	C	N3-C4-N4	5.50	121.85	118.00
86	Ab	66	G	O4'-C1'-N9	5.50	112.60	108.20
1	Ad	1442	A	C1'-O4'-C4'	-5.50	105.50	109.90
84	Aa	243	C	N3-C4-C5	-5.50	119.70	121.90
84	Aa	2323	A	C4-C5-C6	5.50	119.75	117.00
84	Aa	2359	C	N3-C4-N4	5.50	121.85	118.00
1	Ad	191	U	C4'-C3'-C2'	-5.50	97.10	102.60
1	Ad	462	G	O4'-C1'-N9	5.50	112.60	108.20
1	Ad	1044	A	P-O3'-C3'	5.50	126.30	119.70
1	Ad	1428	A	O4'-C1'-N9	5.50	112.60	108.20
30	BB	49	SER	N-CA-CB	5.50	118.75	110.50
84	Aa	108	A	O4'-C1'-N9	5.50	112.60	108.20
84	Aa	1471	A	C4-C5-C6	5.50	119.75	117.00
84	Aa	2025	C	N3-C4-N4	5.50	121.85	118.00
84	Aa	2650	A	O4'-C1'-N9	5.50	112.60	108.20
84	Aa	2899	A	C4-C5-C6	5.50	119.75	117.00
84	Aa	3200	A	C4-C5-C6	5.50	119.75	117.00
1	Ad	536	U	C1'-O4'-C4'	-5.50	105.50	109.90
84	Aa	306	A	O4'-C1'-N9	5.50	112.60	108.20
84	Aa	588	G	C5-C6-O6	-5.50	125.30	128.60
84	Aa	1512	A	C5-C6-N1	-5.50	114.95	117.70
84	Aa	1632	G	O4'-C1'-N9	5.50	112.60	108.20
84	Aa	2075	C	N3-C4-C5	-5.50	119.70	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2374	G	C5-C6-N1	-5.50	108.75	111.50
84	Aa	2540	C	N3-C4-C5	-5.50	119.70	121.90
84	Aa	2733	A	O4'-C1'-N9	5.50	112.60	108.20
84	Aa	3161	C	N3-C4-C5	-5.50	119.70	121.90
84	Aa	2566	C	N3-C4-C5	-5.50	119.70	121.90
84	Aa	3115	A	C5-C6-N6	-5.50	119.30	123.70
84	Aa	3297	A	O4'-C1'-N9	5.50	112.60	108.20
84	Aa	833	G	O4'-C1'-N9	5.49	112.59	108.20
84	Aa	954	A	C5-C6-N1	-5.49	114.95	117.70
84	Aa	1023	G	C5-C6-O6	-5.49	125.30	128.60
84	Aa	1554	C	O4'-C1'-N1	5.49	112.59	108.20
84	Aa	1963	G	C5-C6-O6	-5.49	125.30	128.60
84	Aa	158	A	C5-C6-N6	-5.49	119.31	123.70
84	Aa	217	A	C5-C6-N1	-5.49	114.95	117.70
84	Aa	365	A	C5-C6-N6	-5.49	119.31	123.70
1	Ad	546	U	C3'-C2'-C1'	-5.49	97.11	101.50
1	Ad	1111	C	O4'-C1'-N1	5.49	112.59	108.20
84	Aa	136	C	N3-C4-N4	5.49	121.84	118.00
84	Aa	952	C	N3-C4-N4	5.49	121.84	118.00
84	Aa	1425	G	C5-C6-O6	-5.49	125.31	128.60
84	Aa	1429	U	O4'-C1'-N1	5.49	112.59	108.20
84	Aa	2304	A	C5-C6-N1	-5.49	114.95	117.70
84	Aa	2458	A	C5-C6-N1	-5.49	114.95	117.70
84	Aa	3072	A	C5-C6-N6	-5.49	119.31	123.70
84	Aa	3075	G	O4'-C1'-N9	5.49	112.59	108.20
1	Ad	960	A	O4'-C1'-N9	5.49	112.59	108.20
1	Ad	1796	G	O4'-C1'-C2'	5.49	112.54	107.60
36	BH	135	GLU	N-CA-CB	5.49	120.48	110.60
37	CG	47	PHE	CB-CG-CD1	5.49	124.64	120.80
72	CC	345	THR	N-CA-CB	5.49	120.73	110.30
84	Aa	1520	A	C5-C6-N1	-5.49	114.95	117.70
84	Aa	1842	C	N3-C4-C5	-5.49	119.70	121.90
84	Aa	2265	A	C5-C6-N1	-5.49	114.95	117.70
84	Aa	2527	G	C4-C5-C6	5.49	122.09	118.80
1	Ad	13	C	O4'-C1'-N1	5.49	112.59	108.20
84	Aa	1199	A	C4-C5-C6	5.49	119.74	117.00
84	Aa	1358	C	N3-C4-N4	5.49	121.84	118.00
84	Aa	1887	A	C4-C5-C6	5.49	119.74	117.00
84	Aa	2772	A	C5-C6-N1	-5.49	114.96	117.70
85	Ac	53	A	C5-C6-N6	-5.49	119.31	123.70
85	Ac	135	A	C5-C6-N1	-5.49	114.96	117.70
84	Aa	264	C	N3-C4-N4	5.49	121.84	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	525	A	C4-C5-C6	5.49	119.74	117.00
84	Aa	742	G	O4'-C1'-N9	5.49	112.59	108.20
84	Aa	870	G	O4'-C1'-N9	5.49	112.59	108.20
84	Aa	1382	C	N3-C4-C5	-5.49	119.71	121.90
84	Aa	1858	U	O4'-C1'-N1	5.49	112.59	108.20
84	Aa	1861	A	C5-C6-N1	-5.49	114.96	117.70
84	Aa	884	C	N3-C4-C5	-5.48	119.71	121.90
84	Aa	1586	A	C5-C6-N6	-5.48	119.31	123.70
84	Aa	2659	A	O4'-C1'-N9	5.48	112.59	108.20
84	Aa	2927	C	N3-C4-N4	5.48	121.84	118.00
84	Aa	173	C	N3-C4-N4	5.48	121.84	118.00
84	Aa	330	C	N3-C4-C5	-5.48	119.71	121.90
84	Aa	640	C	P-O5'-C5'	5.48	129.67	120.90
84	Aa	782	G	O3'-P-O5'	-5.48	93.58	104.00
84	Aa	1565	G	O5'-C5'-C4'	-5.48	101.28	111.70
84	Aa	1739	G	N1-C6-O6	5.48	123.19	119.90
84	Aa	2969	A	C5-C6-N6	-5.48	119.31	123.70
84	Aa	3198	C	N3-C4-C5	-5.48	119.71	121.90
85	Ac	116	G	O4'-C1'-N9	5.48	112.59	108.20
1	Ad	178	A	O4'-C1'-C2'	-5.48	100.32	105.80
1	Ad	869	U	O4'-C1'-C2'	-5.48	100.32	105.80
1	Ad	1506	G	O4'-C1'-N9	5.48	112.58	108.20
84	Aa	1467	G	O4'-C1'-N9	5.48	112.58	108.20
84	Aa	1637	G	O4'-C1'-N9	5.48	112.58	108.20
84	Aa	2319	A	C5-C6-N6	-5.48	119.31	123.70
84	Aa	2402	G	O4'-C1'-N9	5.48	112.58	108.20
84	Aa	2971	A	C5-C6-N6	-5.48	119.32	123.70
84	Aa	2979	G	O4'-C1'-N9	5.48	112.58	108.20
84	Aa	3087	A	O4'-C1'-N9	5.48	112.58	108.20
85	Ac	23	C	N3-C4-C5	-5.48	119.71	121.90
1	Ad	1360	G	P-O3'-C3'	5.48	126.28	119.70
84	Aa	1073	G	C5-C6-O6	-5.48	125.31	128.60
84	Aa	1167	G	O4'-C1'-N9	5.48	112.58	108.20
84	Aa	1874	A	O4'-C1'-N9	5.48	112.58	108.20
84	Aa	2210	A	C5-C6-N1	-5.48	114.96	117.70
84	Aa	2279	C	N3-C4-N4	5.48	121.83	118.00
84	Aa	2840	A	C4-C5-C6	5.48	119.74	117.00
86	Ab	102	G	N1-C6-O6	5.48	123.19	119.90
48	CD	7	PHE	CB-CG-CD2	-5.48	116.97	120.80
84	Aa	321	A	C4-C5-C6	5.48	119.74	117.00
84	Aa	722	C	N3-C4-N4	5.48	121.83	118.00
84	Aa	917	A	O4'-C1'-N9	5.48	112.58	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1287	C	N3-C4-C5	-5.48	119.71	121.90
84	Aa	1495	G	C5-C6-O6	-5.48	125.31	128.60
84	Aa	3351	A	C4-C5-C6	5.48	119.74	117.00
1	Ad	839	G	C1'-O4'-C4'	-5.47	105.52	109.90
84	Aa	1172	A	C4-C5-C6	5.47	119.74	117.00
84	Aa	1499	C	N3-C4-N4	5.47	121.83	118.00
84	Aa	1713	A	C5-C6-N6	-5.47	119.32	123.70
84	Aa	2117	G	C5-C6-O6	-5.47	125.31	128.60
84	Aa	2362	A	C4-C5-C6	5.47	119.74	117.00
84	Aa	2384	G	O4'-C1'-N9	5.47	112.58	108.20
84	Aa	2705	A	C4-C5-C6	5.47	119.74	117.00
84	Aa	2768	C	N3-C4-C5	-5.47	119.71	121.90
85	Ac	54	A	O4'-C1'-N9	5.47	112.58	108.20
1	Ad	487	A	C3'-C2'-C1'	-5.47	97.12	101.50
29	BR	1	MET	C-N-CA	5.47	133.79	122.30
46	Ca	8	ASN	N-CA-C	-5.47	96.23	111.00
48	CD	119	GLU	N-CA-CB	5.47	120.45	110.60
84	Aa	59	A	C4-C5-C6	5.47	119.74	117.00
84	Aa	96	C	N3-C4-C5	-5.47	119.71	121.90
84	Aa	415	G	O4'-C1'-N9	5.47	112.58	108.20
84	Aa	476	C	N3-C4-C5	-5.47	119.71	121.90
84	Aa	481	G	C5-C6-O6	-5.47	125.32	128.60
84	Aa	1039	G	C5-C6-O6	-5.47	125.32	128.60
84	Aa	1275	A	O4'-C1'-N9	5.47	112.58	108.20
84	Aa	1854	A	C5-C6-N1	-5.47	114.96	117.70
84	Aa	1944	G	O4'-C4'-C3'	5.47	110.48	106.10
84	Aa	2391	C	N3-C4-C5	-5.47	119.71	121.90
84	Aa	2679	A	C5-C6-N1	-5.47	114.96	117.70
84	Aa	3389	C	N3-C4-N4	5.47	121.83	118.00
86	Ab	22	A	C5-C6-N6	-5.47	119.32	123.70
86	Ab	95	U	O4'-C1'-N1	5.47	112.58	108.20
84	Aa	258	C	N3-C4-N4	5.47	121.83	118.00
84	Aa	454	A	O4'-C1'-N9	5.47	112.58	108.20
84	Aa	723	G	C4'-C3'-C2'	-5.47	97.13	102.60
84	Aa	2433	U	O4'-C1'-N1	5.47	112.58	108.20
84	Aa	2823	C	N3-C4-N4	5.47	121.83	118.00
84	Aa	2853	A	C5-C6-N1	-5.47	114.97	117.70
86	Ab	91	C	N3-C4-C5	-5.47	119.71	121.90
1	Ad	1580	G	C3'-C2'-C1'	-5.47	97.12	101.50
84	Aa	499	A	C5-C6-N1	-5.47	114.97	117.70
84	Aa	1105	G	P-O3'-C3'	5.47	126.26	119.70
84	Aa	1476	G	N3-C2-N2	5.47	123.73	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1563	G	C5'-C4'-O4'	-5.47	102.54	109.10
84	Aa	1712	A	C4-C5-C6	5.47	119.73	117.00
84	Aa	3076	C	N3-C4-C5	-5.47	119.71	121.90
84	Aa	3155	C	N3-C4-N4	5.47	121.83	118.00
86	Ab	37	G	O4'-C1'-N9	5.47	112.58	108.20
86	Ab	43	A	C4-C5-C6	5.47	119.73	117.00
84	Aa	1185	G	O4'-C1'-N9	5.47	112.58	108.20
84	Aa	1795	A	C5-C6-N1	-5.47	114.97	117.70
84	Aa	2901	C	N3-C4-N4	5.47	121.83	118.00
1	Ad	717	G	C2'-C3'-O3'	5.47	122.45	113.70
1	Ad	826	C	O4'-C1'-N1	5.47	112.57	108.20
71	CB	121	ASN	N-CA-CB	5.47	120.44	110.60
84	Aa	101	C	N3-C4-C5	-5.47	119.71	121.90
84	Aa	810	A	O4'-C1'-N9	5.47	112.57	108.20
84	Aa	2138	A	C4-C5-C6	5.47	119.73	117.00
84	Aa	2654	G	C5-C6-O6	-5.47	125.32	128.60
85	Ac	119	C	N3-C4-N4	5.47	121.83	118.00
1	Ad	724	U	C1'-O4'-C4'	5.46	114.27	109.90
1	Ad	1232	G	C5'-C4'-O4'	5.46	115.66	109.10
84	Aa	12	G	C4'-C3'-C2'	-5.46	97.14	102.60
84	Aa	677	U	O4'-C1'-N1	5.46	112.57	108.20
84	Aa	1174	G	C5-C6-O6	-5.46	125.32	128.60
84	Aa	1225	A	C5-C6-N1	-5.46	114.97	117.70
84	Aa	1409	G	C5-C6-O6	-5.46	125.32	128.60
84	Aa	2389	A	C5-C6-N6	-5.46	119.33	123.70
84	Aa	2493	C	N3-C4-N4	5.46	121.83	118.00
84	Aa	3036	C	N3-C4-C5	-5.46	119.71	121.90
85	Ac	49	G	C5-C6-O6	-5.46	125.32	128.60
84	Aa	353	A	P-O5'-C5'	-5.46	112.16	120.90
1	Ad	706	U	O4'-C1'-N1	5.46	112.57	108.20
1	Ad	1092	A	O4'-C1'-N9	5.46	112.57	108.20
84	Aa	1709	U	O4'-C1'-N1	5.46	112.57	108.20
84	Aa	2662	A	C5-C6-N6	-5.46	119.33	123.70
85	Ac	105	A	C5-C6-N6	-5.46	119.33	123.70
84	Aa	2105	G	O4'-C1'-N9	5.46	112.57	108.20
84	Aa	2174	C	N3-C4-C5	-5.46	119.72	121.90
84	Aa	3182	A	C4'-C3'-C2'	-5.46	97.14	102.60
1	Ad	333	G	C3'-C2'-C1'	-5.46	97.13	101.50
84	Aa	1185	G	C5-C6-O6	-5.46	125.33	128.60
84	Aa	1195	C	N3-C4-N4	5.46	121.82	118.00
84	Aa	1802	A	C5-C6-N6	-5.46	119.33	123.70
84	Aa	2298	A	C4-C5-C6	5.46	119.73	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2807	G	O4'-C1'-N9	5.46	112.57	108.20
84	Aa	2972	C	N3-C4-C5	-5.46	119.72	121.90
84	Aa	3030	A	C4-C5-C6	5.46	119.73	117.00
85	Ac	80	A	C4-C5-C6	5.46	119.73	117.00
1	Ad	468	A	C5'-C4'-O4'	5.46	115.65	109.10
1	Ad	1316	A	C1'-O4'-C4'	-5.46	105.53	109.90
1	Ad	1515	G	O4'-C1'-N9	5.46	112.57	108.20
35	BG	28	PHE	CB-CG-CD2	-5.46	116.98	120.80
84	Aa	1	G	C4-N9-C1'	5.46	133.59	126.50
84	Aa	109	G	O4'-C1'-N9	5.46	112.57	108.20
84	Aa	223	C	N3-C4-N4	5.46	121.82	118.00
84	Aa	573	A	C5-C6-N1	-5.46	114.97	117.70
84	Aa	619	C	N3-C4-C5	-5.46	119.72	121.90
84	Aa	823	A	O4'-C1'-N9	5.46	112.57	108.20
84	Aa	972	C	N3-C4-N4	5.46	121.82	118.00
84	Aa	1200	A	C5-C6-N1	-5.46	114.97	117.70
84	Aa	1235	A	C4-C5-C6	5.46	119.73	117.00
84	Aa	1854	A	C4-C5-C6	5.46	119.73	117.00
84	Aa	1915	G	O4'-C1'-N9	5.46	112.56	108.20
84	Aa	2228	A	C5-C6-N1	-5.46	114.97	117.70
84	Aa	2933	C	C5'-C4'-O4'	5.46	115.65	109.10
84	Aa	330	C	N3-C4-N4	5.46	121.82	118.00
84	Aa	943	G	N3-C2-N2	5.46	123.72	119.90
84	Aa	2999	G	N3-C2-N2	5.46	123.72	119.90
1	Ad	768	A	OP1-P-OP2	-5.45	111.42	119.60
84	Aa	249	A	C5-C6-N1	-5.45	114.97	117.70
84	Aa	620	C	N3-C4-C5	-5.45	119.72	121.90
84	Aa	1438	A	O4'-C1'-N9	5.45	112.56	108.20
84	Aa	1878	G	C5-C6-O6	-5.45	125.33	128.60
84	Aa	2026	C	N3-C4-N4	5.45	121.82	118.00
84	Aa	2149	G	C8-N9-C1'	-5.45	119.91	127.00
84	Aa	2450	G	C5-C6-O6	-5.45	125.33	128.60
84	Aa	2985	C	C5'-C4'-O4'	5.45	115.64	109.10
84	Aa	3087	A	C5-C6-N1	-5.45	114.97	117.70
85	Ac	23	C	N3-C4-N4	5.45	121.82	118.00
1	Ad	267	G	O4'-C1'-N9	5.45	112.56	108.20
84	Aa	162	G	O4'-C1'-N9	5.45	112.56	108.20
84	Aa	1744	C	P-O3'-C3'	-5.45	113.16	119.70
84	Aa	2158	C	N3-C4-N4	5.45	121.82	118.00
84	Aa	2185	U	C5'-C4'-C3'	-5.45	107.28	116.00
1	Ad	934	A	C3'-C2'-C1'	5.45	105.86	101.50
84	Aa	199	G	O4'-C1'-N9	5.45	112.56	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	712	A	C4-C5-C6	5.45	119.72	117.00
84	Aa	889	C	N3-C4-N4	5.45	121.81	118.00
84	Aa	985	C	N3-C4-C5	-5.45	119.72	121.90
84	Aa	2503	A	C5-C6-N6	-5.45	119.34	123.70
84	Aa	2660	A	O4'-C1'-N9	5.45	112.56	108.20
84	Aa	3082	G	C5-C6-O6	-5.45	125.33	128.60
84	Aa	3341	C	N3-C4-N4	5.45	121.81	118.00
1	Ad	922	U	O4'-C1'-N1	5.45	112.56	108.20
1	Ad	1226	U	O4'-C1'-C2'	-5.45	100.35	105.80
84	Aa	689	G	C5-C6-O6	-5.45	125.33	128.60
84	Aa	777	G	C5-C6-O6	-5.45	125.33	128.60
84	Aa	1789	C	N3-C4-C5	-5.45	119.72	121.90
84	Aa	2789	G	C2'-C3'-O3'	5.45	122.42	113.70
84	Aa	2885	U	C4'-C3'-C2'	-5.45	97.15	102.60
86	Ab	51	G	C6-C5-N7	-5.45	127.13	130.40
1	Ad	140	C	O4'-C1'-C2'	-5.45	100.35	105.80
1	Ad	1512	C	C3'-C2'-C1'	5.45	105.86	101.50
84	Aa	332	A	C4-C5-C6	5.45	119.72	117.00
84	Aa	769	C	N3-C4-N4	5.45	121.81	118.00
84	Aa	1157	A	C5-C6-N6	-5.45	119.34	123.70
84	Aa	2033	C	N3-C4-N4	5.45	121.81	118.00
1	Ad	1365	C	O4'-C1'-N1	5.45	112.56	108.20
28	BA	43	TYR	CB-CG-CD1	5.45	124.27	121.00
84	Aa	803	G	O4'-C1'-N9	5.45	112.56	108.20
84	Aa	1139	A	C4-C5-C6	5.45	119.72	117.00
84	Aa	1160	G	O4'-C1'-N9	5.45	112.56	108.20
84	Aa	1752	C	N3-C4-N4	5.45	121.81	118.00
84	Aa	2625	C	N3-C4-N4	5.45	121.81	118.00
84	Aa	3140	A	C4-C5-C6	5.45	119.72	117.00
84	Aa	3251	C	P-O3'-C3'	5.45	126.23	119.70
85	Ac	79	A	C5-C6-N6	-5.45	119.34	123.70
1	Ad	29	U	O4'-C1'-C2'	-5.44	100.36	105.80
1	Ad	179	A	C4'-C3'-C2'	5.44	108.04	102.60
84	Aa	1990	A	C5-C6-N6	-5.44	119.34	123.70
85	Ac	61	A	O4'-C1'-N9	5.44	112.56	108.20
1	Ad	100	C	C1'-O4'-C4'	5.44	114.25	109.90
1	Ad	1618	G	N9-C1'-C2'	5.44	121.07	114.00
1	Ad	1776	A	C3'-C2'-C1'	-5.44	97.14	101.50
73	CO	136	PRO	CA-N-CD	-5.44	103.88	111.50
84	Aa	24	C	N3-C4-N4	5.44	121.81	118.00
84	Aa	640	C	O4'-C1'-N1	5.44	112.55	108.20
84	Aa	1162	A	C5-C6-N6	-5.44	119.35	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1520	A	O4'-C1'-N9	5.44	112.55	108.20
84	Aa	1862	C	N3-C4-C5	-5.44	119.72	121.90
84	Aa	2184	U	O4'-C1'-N1	5.44	112.55	108.20
48	CD	180	PHE	CB-CG-CD1	5.44	124.61	120.80
84	Aa	5	G	C4-N9-C1'	5.44	133.57	126.50
84	Aa	727	G	C5-C6-O6	-5.44	125.34	128.60
84	Aa	1291	A	C5-C6-N6	-5.44	119.35	123.70
84	Aa	1480	G	O4'-C1'-N9	5.44	112.55	108.20
84	Aa	1744	C	N3-C4-C5	-5.44	119.72	121.90
85	Ac	81	U	P-O3'-C3'	5.44	126.23	119.70
84	Aa	418	G	O4'-C1'-N9	5.44	112.55	108.20
84	Aa	1998	A	C4-C5-C6	5.44	119.72	117.00
1	Ad	450	A	C3'-C2'-C1'	5.44	105.85	101.50
22	BZ	89	ALA	N-CA-CB	5.44	117.71	110.10
70	Cq	52	SER	N-CA-CB	5.44	118.66	110.50
84	Aa	2	C	N3-C4-C5	-5.44	119.72	121.90
84	Aa	237	C	N3-C4-C5	-5.44	119.72	121.90
84	Aa	450	C	N3-C4-N4	5.44	121.81	118.00
84	Aa	949	C	C5-C6-N1	5.44	123.72	121.00
84	Aa	2225	C	N3-C4-N4	5.44	121.81	118.00
84	Aa	2373	C	C5'-C4'-O4'	-5.44	102.58	109.10
84	Aa	3007	A	C5-C6-N6	-5.44	119.35	123.70
84	Aa	3192	G	C5-C6-O6	-5.44	125.34	128.60
84	Aa	3205	C	N3-C4-C5	-5.44	119.72	121.90
84	Aa	3287	A	C4-C5-C6	5.44	119.72	117.00
86	Ab	29	C	C5-C6-N1	5.44	123.72	121.00
1	Ad	1234	A	C1'-O4'-C4'	5.44	114.25	109.90
70	Cq	9	GLU	N-CA-C	-5.44	96.32	111.00
84	Aa	3350	C	N3-C4-N4	5.44	121.81	118.00
85	Ac	62	C	P-O5'-C5'	-5.44	112.20	120.90
1	Ad	879	C	N1-C1'-C2'	5.43	121.06	114.00
1	Ad	1507	G	C3'-C2'-C1'	-5.43	97.15	101.50
84	Aa	262	A	C5-C6-N1	-5.43	114.98	117.70
84	Aa	342	A	O4'-C1'-N9	5.43	112.55	108.20
84	Aa	898	G	C4-N9-C1'	5.43	133.57	126.50
84	Aa	1229	A	C5-C6-N6	-5.43	119.35	123.70
84	Aa	2950	C	N3-C4-N4	5.43	121.80	118.00
84	Aa	3212	C	N3-C4-C5	-5.43	119.73	121.90
84	Aa	479	C	N3-C4-C5	-5.43	119.73	121.90
84	Aa	792	A	O4'-C1'-N9	5.43	112.55	108.20
84	Aa	1907	A	C5-C6-N1	-5.43	114.98	117.70
84	Aa	2061	C	N3-C4-N4	5.43	121.80	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2397	A	C5-C6-N6	-5.43	119.36	123.70
84	Aa	3094	C	N3-C4-N4	5.43	121.80	118.00
84	Aa	3319	G	C5-C6-O6	-5.43	125.34	128.60
84	Aa	3366	C	N3-C4-C5	-5.43	119.73	121.90
69	CF	77	PHE	CB-CG-CD1	5.43	124.60	120.80
84	Aa	712	A	O4'-C1'-N9	5.43	112.55	108.20
84	Aa	883	G	C5-C6-O6	-5.43	125.34	128.60
84	Aa	1088	A	C5-C6-N1	-5.43	114.98	117.70
84	Aa	2481	C	N3-C4-N4	5.43	121.80	118.00
84	Aa	2660	A	C5-C6-N1	-5.43	114.98	117.70
1	Ad	58	U	P-O5'-C5'	5.43	129.59	120.90
84	Aa	343	G	O4'-C1'-N9	5.43	112.54	108.20
84	Aa	1312	A	C4-C5-C6	5.43	119.72	117.00
84	Aa	1591	A	C5-C6-N6	-5.43	119.36	123.70
84	Aa	1761	C	N3-C4-C5	-5.43	119.73	121.90
1	Ad	1799	G	O4'-C1'-N9	5.43	112.54	108.20
84	Aa	1206	A	C5-C6-N6	-5.43	119.36	123.70
84	Aa	1850	C	N3-C4-N4	5.43	121.80	118.00
84	Aa	2048	C	N3-C4-N4	5.43	121.80	118.00
84	Aa	3070	G	C5-C6-O6	-5.43	125.34	128.60
84	Aa	84	A	C4-C5-C6	5.43	119.71	117.00
84	Aa	1228	C	N3-C4-C5	-5.43	119.73	121.90
84	Aa	1369	G	C5-C6-O6	-5.43	125.34	128.60
84	Aa	1790	A	C5-C6-N1	-5.43	114.99	117.70
84	Aa	3017	A	C5-C6-N1	-5.43	114.99	117.70
84	Aa	3272	A	C5-C6-N1	-5.43	114.99	117.70
85	Ac	10	G	O4'-C1'-N9	5.43	112.54	108.20
1	Ad	969	U	P-O3'-C3'	5.42	126.21	119.70
1	Ad	1133	C	O4'-C1'-N1	5.42	112.54	108.20
1	Ad	1752	U	C3'-C2'-C1'	-5.42	97.16	101.50
84	Aa	130	G	C5-C6-O6	-5.42	125.34	128.60
84	Aa	373	A	C5-C6-N1	-5.42	114.99	117.70
84	Aa	603	G	P-O5'-C5'	5.42	129.58	120.90
84	Aa	1013	A	C5-C6-N6	-5.42	119.36	123.70
84	Aa	1278	A	C5-C6-N1	-5.42	114.99	117.70
84	Aa	1513	C	N3-C4-C5	-5.42	119.73	121.90
84	Aa	2674	A	C5-C6-N6	-5.42	119.36	123.70
84	Aa	3263	C	O4'-C4'-C3'	5.42	110.44	106.10
1	Ad	281	U	O4'-C4'-C3'	-5.42	98.58	104.00
1	Ad	1010	A	O4'-C1'-N9	5.42	112.54	108.20
84	Aa	586	A	C5-C6-N1	-5.42	114.99	117.70
84	Aa	850	A	C5-C6-N6	-5.42	119.36	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1353	A	C5-C6-N1	-5.42	114.99	117.70
84	Aa	2400	A	C5-C6-N1	-5.42	114.99	117.70
84	Aa	3088	A	C5-C6-N1	-5.42	114.99	117.70
84	Aa	3088	A	O4'-C1'-N9	5.42	112.54	108.20
84	Aa	3114	A	C5-C6-N1	-5.42	114.99	117.70
84	Aa	3148	A	C5-C6-N1	-5.42	114.99	117.70
84	Aa	477	C	N3-C4-N4	5.42	121.80	118.00
84	Aa	771	G	N1-C2-N3	-5.42	120.65	123.90
84	Aa	1911	A	O4'-C1'-N9	5.42	112.54	108.20
84	Aa	2028	C	N3-C4-N4	5.42	121.80	118.00
84	Aa	2533	A	O4'-C1'-N9	5.42	112.54	108.20
84	Aa	3033	A	O4'-C1'-N9	5.42	112.54	108.20
85	Ac	34	U	O4'-C1'-N1	5.42	112.54	108.20
1	Ad	1177	G	C1'-O4'-C4'	-5.42	105.56	109.90
84	Aa	114	G	P-O3'-C3'	5.42	126.20	119.70
84	Aa	932	A	C4-C5-C6	5.42	119.71	117.00
84	Aa	1370	A	C5-C6-N1	-5.42	114.99	117.70
84	Aa	2457	G	O4'-C1'-N9	5.42	112.54	108.20
1	Ad	61	A	C4'-C3'-O3'	-5.42	98.02	109.40
1	Ad	238	G	O4'-C1'-N9	-5.42	103.86	108.20
1	Ad	262	U	O4'-C1'-C2'	-5.42	100.38	105.80
84	Aa	1277	A	C4-C5-C6	5.42	119.71	117.00
84	Aa	1490	A	O4'-C1'-N9	5.42	112.53	108.20
84	Aa	1937	C	N3-C4-C5	-5.42	119.73	121.90
84	Aa	2603	C	N3-C4-N4	5.42	121.79	118.00
84	Aa	2681	A	C5-C6-N1	-5.42	114.99	117.70
84	Aa	2961	C	N3-C4-N4	5.42	121.79	118.00
84	Aa	3248	G	O4'-C1'-N9	5.42	112.53	108.20
1	Ad	144	U	P-O3'-C3'	-5.42	113.20	119.70
1	Ad	1355	U	N1-C1'-C2'	5.42	121.04	114.00
1	Ad	1790	G	C1'-O4'-C4'	-5.42	105.57	109.90
21	BP	70	ARG	N-CA-CB	5.42	120.35	110.60
84	Aa	710	C	N3-C4-N4	5.42	121.79	118.00
84	Aa	857	G	O4'-C1'-N9	5.42	112.53	108.20
84	Aa	1231	C	N3-C4-N4	5.42	121.79	118.00
84	Aa	1568	A	C5-C6-N1	-5.42	114.99	117.70
84	Aa	1713	A	C5-C6-N1	-5.42	114.99	117.70
84	Aa	1917	A	C5-C6-N6	-5.42	119.37	123.70
84	Aa	1977	C	N3-C4-N4	5.42	121.79	118.00
84	Aa	2612	A	C4-C5-C6	5.42	119.71	117.00
84	Aa	227	C	N3-C4-C5	-5.42	119.73	121.90
84	Aa	1397	A	O4'-C1'-N9	5.42	112.53	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1507	A	C5-C6-N6	-5.42	119.37	123.70
84	Aa	1516	G	N3-C2-N2	5.42	123.69	119.90
84	Aa	2136	A	C5-C6-N6	-5.42	119.37	123.70
84	Aa	2635	G	O4'-C1'-N9	5.42	112.53	108.20
86	Ab	88	U	C5-C6-N1	5.42	125.41	122.70
1	Ad	902	C	P-O3'-C3'	5.41	126.20	119.70
1	Ad	968	A	C3'-C2'-C1'	-5.41	97.17	101.50
1	Ad	1620	C	C3'-C2'-C1'	5.41	105.83	101.50
84	Aa	2	C	N3-C4-N4	5.41	121.79	118.00
84	Aa	72	A	C5-C6-N1	-5.41	114.99	117.70
84	Aa	197	A	C4-C5-C6	5.41	119.71	117.00
84	Aa	201	G	C5-C6-O6	-5.41	125.35	128.60
84	Aa	298	G	C5-C6-O6	-5.41	125.35	128.60
84	Aa	316	A	C4-C5-C6	5.41	119.71	117.00
84	Aa	917	A	C5-C6-N1	-5.41	114.99	117.70
84	Aa	1272	G	O4'-C1'-N9	5.41	112.53	108.20
84	Aa	1471	A	O4'-C1'-N9	5.41	112.53	108.20
84	Aa	1594	G	O4'-C1'-N9	5.41	112.53	108.20
84	Aa	1743	C	N3-C4-C5	-5.41	119.73	121.90
84	Aa	1882	A	C5-C6-N1	-5.41	114.99	117.70
84	Aa	2575	C	N3-C4-C5	-5.41	119.73	121.90
84	Aa	2822	A	O4'-C1'-N9	5.41	112.53	108.20
84	Aa	3110	A	O4'-C1'-N9	5.41	112.53	108.20
84	Aa	3321	C	N3-C4-C5	-5.41	119.73	121.90
1	Ad	1465	C	C5'-C4'-O4'	5.41	115.59	109.10
84	Aa	1029	C	N3-C4-C5	-5.41	119.73	121.90
84	Aa	2558	U	C2-N1-C1'	5.41	124.19	117.70
84	Aa	3364	A	C4-C5-C6	5.41	119.71	117.00
84	Aa	3374	C	O4'-C1'-N1	5.41	112.53	108.20
1	Ad	1234	A	O4'-C1'-C2'	-5.41	100.39	105.80
84	Aa	420	A	C5-C6-N6	-5.41	119.37	123.70
84	Aa	1465	A	O4'-C1'-N9	5.41	112.53	108.20
84	Aa	1837	A	C5-C6-N1	-5.41	115.00	117.70
84	Aa	2081	C	N3-C4-C5	-5.41	119.74	121.90
84	Aa	2924	G	O4'-C1'-N9	5.41	112.53	108.20
84	Aa	3025	A	C4-C5-C6	5.41	119.71	117.00
1	Ad	315	U	C4'-C3'-C2'	-5.41	97.19	102.60
1	Ad	573	C	O4'-C1'-C2'	-5.41	100.39	105.80
1	Ad	1347	U	O4'-C1'-N1	5.41	112.53	108.20
84	Aa	708	C	N3-C4-C5	-5.41	119.74	121.90
84	Aa	1571	A	C5-C6-N6	-5.41	119.37	123.70
84	Aa	2202	A	C5-C6-N1	-5.41	115.00	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2279	C	N3-C4-C5	-5.41	119.74	121.90
84	Aa	3059	C	N3-C4-C5	-5.41	119.74	121.90
85	Ac	53	A	O4'-C1'-N9	5.41	112.53	108.20
85	Ac	146	G	N1-C2-N3	-5.41	120.66	123.90
86	Ab	95	U	N3-C4-O4	5.41	123.19	119.40
1	Ad	317	U	C3'-C2'-C1'	5.41	105.83	101.50
1	Ad	1641	A	O4'-C1'-N9	5.41	112.53	108.20
84	Aa	533	G	C5-C6-O6	-5.41	125.36	128.60
1	Ad	311	G	P-O5'-C5'	-5.41	112.25	120.90
84	Aa	383	A	C5-C6-N1	-5.41	115.00	117.70
84	Aa	1002	A	O4'-C1'-N9	5.41	112.52	108.20
84	Aa	1312	A	O4'-C1'-N9	5.41	112.52	108.20
84	Aa	2006	A	C5-C6-N6	-5.41	119.38	123.70
84	Aa	2052	G	C5-C6-O6	-5.41	125.36	128.60
84	Aa	2299	C	N3-C4-C5	-5.41	119.74	121.90
84	Aa	2730	A	C5-C6-N6	-5.41	119.38	123.70
84	Aa	2768	C	N3-C4-N4	5.41	121.78	118.00
1	Ad	1327	C	N1-C1'-C2'	5.40	121.03	114.00
84	Aa	222	C	N3-C4-C5	-5.40	119.74	121.90
84	Aa	414	G	C5-C6-O6	-5.40	125.36	128.60
84	Aa	664	A	O4'-C1'-N9	5.40	112.52	108.20
84	Aa	1005	C	N3-C4-N4	5.40	121.78	118.00
84	Aa	3039	U	O4'-C1'-N1	5.40	112.52	108.20
86	Ab	18	C	N3-C4-C5	-5.40	119.74	121.90
86	Ab	56	G	N1-C2-N3	-5.40	120.66	123.90
84	Aa	213	G	N3-C2-N2	5.40	123.68	119.90
84	Aa	720	G	C5'-C4'-O4'	5.40	115.58	109.10
84	Aa	820	A	C4-C5-C6	5.40	119.70	117.00
84	Aa	2260	C	C2-N3-C4	5.40	122.60	119.90
84	Aa	2388	C	N3-C4-C5	-5.40	119.74	121.90
84	Aa	2595	G	O4'-C1'-N9	5.40	112.52	108.20
84	Aa	2596	A	O4'-C1'-N9	5.40	112.52	108.20
84	Aa	3048	C	N3-C4-C5	-5.40	119.74	121.90
85	Ac	101	U	O4'-C1'-N1	5.40	112.52	108.20
1	Ad	289	G	C1'-O4'-C4'	-5.40	105.58	109.90
1	Ad	1543	U	N1-C1'-C2'	5.40	121.02	114.00
1	Ad	1553	A	N9-C1'-C2'	5.40	121.02	114.00
1	Ad	1751	U	N1-C1'-C2'	5.40	121.02	114.00
84	Aa	224	C	C4'-C3'-C2'	-5.40	97.20	102.60
84	Aa	1209	G	C5-C6-O6	-5.40	125.36	128.60
84	Aa	2365	C	N3-C4-N4	5.40	121.78	118.00
84	Aa	2729	C	N3-C4-C5	-5.40	119.74	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	39	A	C5-C6-N1	-5.40	115.00	117.70
84	Aa	523	C	N3-C4-C5	-5.40	119.74	121.90
84	Aa	1831	A	P-O5'-C5'	5.40	129.54	120.90
84	Aa	2086	A	O4'-C1'-C2'	5.40	112.46	107.60
1	Ad	792	U	O4'-C1'-C2'	-5.40	100.40	105.80
1	Ad	1758	G	N9-C1'-C2'	5.40	121.02	114.00
53	CY	8	THR	N-CA-CB	5.40	120.56	110.30
84	Aa	219	A	C5-C6-N1	-5.40	115.00	117.70
84	Aa	823	A	C5-C6-N1	-5.40	115.00	117.70
84	Aa	1174	G	O4'-C1'-N9	5.40	112.52	108.20
84	Aa	1864	G	O4'-C1'-N9	5.40	112.52	108.20
84	Aa	1932	A	C5-C6-N6	-5.40	119.38	123.70
84	Aa	2301	C	N3-C4-C5	-5.40	119.74	121.90
84	Aa	2643	A	C4-C5-C6	5.40	119.70	117.00
84	Aa	2767	C	N3-C4-C5	-5.40	119.74	121.90
84	Aa	2836	G	O4'-C1'-N9	5.40	112.52	108.20
1	Ad	1792	A	C3'-C2'-C1'	5.40	105.82	101.50
84	Aa	176	A	C4-C5-C6	5.40	119.70	117.00
84	Aa	539	C	N3-C4-C5	-5.40	119.74	121.90
84	Aa	731	G	O4'-C1'-N9	5.40	112.52	108.20
84	Aa	1543	A	C5-C6-N6	-5.40	119.38	123.70
84	Aa	1586	A	O4'-C1'-N9	5.40	112.52	108.20
64	Ci	38	LYS	N-CA-CB	5.39	120.31	110.60
84	Aa	578	C	P-O3'-C3'	5.39	126.17	119.70
84	Aa	651	A	C5-C6-N1	-5.39	115.00	117.70
84	Aa	2449	A	C5-C6-N6	-5.39	119.38	123.70
84	Aa	2464	G	C5-C6-O6	-5.39	125.36	128.60
84	Aa	2739	A	P-O5'-C5'	-5.39	112.27	120.90
85	Ac	104	A	C5-C6-N1	-5.39	115.00	117.70
84	Aa	19	C	N3-C4-N4	5.39	121.78	118.00
84	Aa	157	G	O4'-C1'-N9	5.39	112.51	108.20
84	Aa	196	A	C5-C6-N1	-5.39	115.00	117.70
84	Aa	616	A	C4-C5-C6	5.39	119.70	117.00
84	Aa	981	A	C5-C6-N1	-5.39	115.00	117.70
84	Aa	1063	G	C5-C6-O6	-5.39	125.36	128.60
84	Aa	1090	C	N3-C4-C5	-5.39	119.74	121.90
84	Aa	1344	A	C5-C6-N1	-5.39	115.00	117.70
84	Aa	1837	A	C5-C6-N6	-5.39	119.39	123.70
84	Aa	2816	G	C5-C6-O6	-5.39	125.36	128.60
84	Aa	2874	A	O4'-C1'-N9	5.39	112.51	108.20
84	Aa	3299	A	O4'-C1'-N9	5.39	112.51	108.20
84	Aa	3328	A	O4'-C1'-N9	5.39	112.51	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
85	Ac	113	U	O4'-C1'-N1	5.39	112.51	108.20
85	Ac	129	C	N3-C4-N4	5.39	121.78	118.00
84	Aa	1970	A	O4'-C1'-N9	5.39	112.51	108.20
84	Aa	3142	C	N3-C4-C5	-5.39	119.74	121.90
86	Ab	1	G	C6-C5-N7	-5.39	127.17	130.40
1	Ad	365	C	N1-C1'-C2'	5.39	121.01	114.00
1	Ad	555	G	C1'-O4'-C4'	-5.39	105.59	109.90
1	Ad	1305	U	C1'-O4'-C4'	5.39	114.21	109.90
1	Ad	1632	C	P-O3'-C3'	5.39	126.17	119.70
84	Aa	426	A	C5-C6-N6	-5.39	119.39	123.70
84	Aa	1010	A	C4-C5-C6	5.39	119.69	117.00
84	Aa	1162	A	C5-C6-N1	-5.39	115.00	117.70
84	Aa	1602	A	C4-C5-C6	5.39	119.69	117.00
84	Aa	1761	C	N3-C4-N4	5.39	121.77	118.00
84	Aa	2882	U	P-O3'-C3'	5.39	126.17	119.70
1	Ad	1069	G	C1'-O4'-C4'	-5.39	105.59	109.90
84	Aa	70	A	C4-C5-C6	5.39	119.69	117.00
84	Aa	2960	A	O4'-C1'-N9	5.39	112.51	108.20
1	Ad	1015	C	O4'-C1'-N1	5.39	112.51	108.20
1	Ad	1665	U	P-O3'-C3'	5.39	126.16	119.70
84	Aa	582	C	N3-C4-N4	5.39	121.77	118.00
84	Aa	918	A	C5-C6-N1	-5.39	115.01	117.70
84	Aa	1337	C	N3-C4-N4	5.39	121.77	118.00
84	Aa	1537	A	C4-C5-C6	5.39	119.69	117.00
84	Aa	1584	A	C5-C6-N1	-5.39	115.01	117.70
84	Aa	1797	U	C5'-C4'-C3'	-5.39	107.38	116.00
84	Aa	2070	C	N3-C4-N4	5.39	121.77	118.00
84	Aa	2430	C	N3-C4-N4	5.39	121.77	118.00
84	Aa	2596	A	C5-C6-N6	-5.39	119.39	123.70
84	Aa	2710	C	N3-C4-N4	5.39	121.77	118.00
84	Aa	2758	C	C2-N3-C4	5.39	122.59	119.90
84	Aa	3334	A	C5'-C4'-C3'	-5.39	107.38	116.00
1	Ad	346	C	C3'-C2'-C1'	5.38	105.81	101.50
1	Ad	1400	G	O4'-C1'-N9	5.38	112.51	108.20
84	Aa	389	A	C5-C6-N1	-5.38	115.01	117.70
84	Aa	1029	C	N3-C4-N4	5.38	121.77	118.00
84	Aa	1097	A	C5-C6-N1	-5.38	115.01	117.70
84	Aa	1780	C	N3-C4-N4	5.38	121.77	118.00
84	Aa	2041	G	C5-C6-O6	-5.38	125.37	128.60
84	Aa	2605	G	O4'-C1'-N9	5.38	112.51	108.20
84	Aa	2952	G	O4'-C1'-N9	5.38	112.51	108.20
84	Aa	3004	G	C5-C6-O6	-5.38	125.37	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	3376	C	N3-C4-N4	5.38	121.77	118.00
1	Ad	1063	U	P-O3'-C3'	5.38	126.16	119.70
1	Ad	1074	C	O4'-C1'-N1	5.38	112.50	108.20
84	Aa	825	G	C5-C6-O6	-5.38	125.37	128.60
84	Aa	887	A	C5-C6-N1	-5.38	115.01	117.70
84	Aa	2021	G	P-O3'-C3'	5.38	126.16	119.70
84	Aa	2404	C	N3-C4-N4	5.38	121.77	118.00
84	Aa	2694	A	C5-C6-N1	-5.38	115.01	117.70
84	Aa	2765	A	C5-C6-N1	-5.38	115.01	117.70
84	Aa	2909	A	C4-C5-C6	5.38	119.69	117.00
84	Aa	2986	C	N3-C4-C5	-5.38	119.75	121.90
85	Ac	99	C	N3-C4-N4	5.38	121.77	118.00
86	Ab	101	A	C5-C6-N1	-5.38	115.01	117.70
1	Ad	844	C	O4'-C1'-C2'	-5.38	100.42	105.80
84	Aa	2781	A	O4'-C1'-N9	5.38	112.50	108.20
84	Aa	3193	C	N3-C4-C5	-5.38	119.75	121.90
1	Ad	82	G	C1'-O4'-C4'	-5.38	105.60	109.90
1	Ad	980	C	O4'-C1'-N1	5.38	112.50	108.20
24	BW	128	PHE	CB-CG-CD1	5.38	124.56	120.80
84	Aa	98	A	C5-C6-N1	-5.38	115.01	117.70
84	Aa	323	A	C4-C5-C6	5.38	119.69	117.00
84	Aa	1195	C	N3-C4-C5	-5.38	119.75	121.90
84	Aa	1759	C	N3-C4-C5	-5.38	119.75	121.90
84	Aa	2545	C	N3-C4-N4	5.38	121.77	118.00
84	Aa	2641	A	C5-C6-N6	-5.38	119.40	123.70
1	Ad	719	C	O4'-C1'-N1	5.38	112.50	108.20
1	Ad	1137	A	O4'-C1'-C2'	-5.38	100.42	105.80
1	Ad	1207	A	O4'-C1'-N9	-5.38	103.90	108.20
1	Ad	1655	U	C1'-O4'-C4'	5.38	114.20	109.90
84	Aa	474	G	C2'-C3'-O3'	-5.38	97.67	109.50
84	Aa	1331	C	N3-C4-N4	5.38	121.76	118.00
84	Aa	1717	G	O4'-C1'-N9	5.38	112.50	108.20
84	Aa	2308	A	C4-C5-C6	5.38	119.69	117.00
84	Aa	2372	A	C5-C6-N1	-5.38	115.01	117.70
84	Aa	3103	G	N3-C2-N2	5.38	123.66	119.90
84	Aa	3270	C	O4'-C1'-N1	5.38	112.50	108.20
86	Ab	118	C	C5-C4-N4	-5.38	116.44	120.20
84	Aa	447	C	N3-C4-N4	5.38	121.76	118.00
84	Aa	996	A	C4-C5-C6	5.38	119.69	117.00
84	Aa	2429	A	O4'-C1'-N9	5.38	112.50	108.20
1	Ad	253	C	N1-C1'-C2'	5.37	120.99	114.00
1	Ad	385	C	C1'-O4'-C4'	-5.37	105.60	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	319	C	O4'-C1'-N1	5.37	112.50	108.20
84	Aa	1552	C	N3-C4-N4	5.37	121.76	118.00
84	Aa	1841	G	O4'-C1'-N9	5.37	112.50	108.20
84	Aa	2000	C	N3-C4-N4	5.37	121.76	118.00
84	Aa	2005	C	N3-C4-C5	-5.37	119.75	121.90
84	Aa	2318	U	O4'-C1'-N1	5.37	112.50	108.20
84	Aa	3098	U	O4'-C1'-N1	5.37	112.50	108.20
84	Aa	3116	C	N3-C4-C5	-5.37	119.75	121.90
85	Ac	156	C	N3-C4-N4	5.37	121.76	118.00
86	Ab	43	A	N1-C2-N3	5.37	131.99	129.30
1	Ad	164	C	C4'-C3'-C2'	-5.37	97.23	102.60
1	Ad	227	G	P-O3'-C3'	5.37	126.15	119.70
1	Ad	323	U	C3'-C2'-C1'	5.37	105.80	101.50
84	Aa	113	A	C4-C5-C6	5.37	119.69	117.00
84	Aa	338	C	N3-C4-N4	5.37	121.76	118.00
84	Aa	376	A	C5-C6-N1	-5.37	115.01	117.70
84	Aa	636	C	N3-C4-C5	-5.37	119.75	121.90
84	Aa	698	A	C5-C6-N6	-5.37	119.40	123.70
84	Aa	821	C	N3-C4-N4	5.37	121.76	118.00
84	Aa	1518	A	C5-C6-N1	-5.37	115.01	117.70
84	Aa	1583	G	N3-C2-N2	5.37	123.66	119.90
84	Aa	1795	A	O4'-C1'-N9	5.37	112.50	108.20
84	Aa	2100	A	C5-C6-N6	-5.37	119.40	123.70
84	Aa	2436	G	C4'-C3'-O3'	5.37	123.74	113.00
84	Aa	2451	G	N1-C6-O6	5.37	123.12	119.90
84	Aa	2576	C	N3-C4-C5	-5.37	119.75	121.90
84	Aa	2815	A	O4'-C1'-N9	5.37	112.50	108.20
84	Aa	2891	C	N3-C4-C5	-5.37	119.75	121.90
86	Ab	90	A	N7-C8-N9	5.37	116.49	113.80
1	Ad	1203	G	C5'-C4'-O4'	5.37	115.54	109.10
3	Af	21	C	C1'-O4'-C4'	5.37	114.20	109.90
84	Aa	1367	A	C5-C6-N1	-5.37	115.02	117.70
1	Ad	153	U	O4'-C1'-C2'	-5.37	100.43	105.80
84	Aa	347	A	C4-C5-C6	5.37	119.68	117.00
84	Aa	518	G	C5-C6-O6	-5.37	125.38	128.60
84	Aa	926	C	N3-C4-C5	-5.37	119.75	121.90
84	Aa	1030	A	C5-C6-N1	-5.37	115.02	117.70
84	Aa	1723	C	C4'-C3'-C2'	-5.37	97.23	102.60
84	Aa	2729	C	N3-C4-N4	5.37	121.76	118.00
85	Ac	42	G	C5-C6-O6	-5.37	125.38	128.60
85	Ac	105	A	O4'-C1'-N9	5.37	112.50	108.20
84	Aa	618	G	O4'-C1'-N9	5.37	112.49	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1071	G	C5-C6-O6	-5.37	125.38	128.60
84	Aa	2515	C	N3-C4-N4	5.37	121.76	118.00
86	Ab	51	G	N1-C2-N3	-5.37	120.68	123.90
1	Ad	134	G	O4'-C1'-N9	-5.37	103.91	108.20
1	Ad	761	A	C1'-O4'-C4'	-5.37	105.61	109.90
78	CL	156	ILE	N-CA-CB	5.37	123.14	110.80
84	Aa	54	G	C5-C6-O6	-5.37	125.38	128.60
84	Aa	238	C	N3-C4-C5	-5.37	119.75	121.90
84	Aa	826	C	N3-C4-N4	5.37	121.75	118.00
84	Aa	993	A	C4-C5-C6	5.37	119.68	117.00
84	Aa	1377	G	O4'-C1'-N9	5.37	112.49	108.20
84	Aa	1743	C	N3-C4-N4	5.37	121.76	118.00
84	Aa	2257	A	C4-C5-C6	5.37	119.68	117.00
84	Aa	2529	C	C5'-C4'-O4'	5.37	115.54	109.10
84	Aa	3346	C	N3-C4-C5	-5.37	119.75	121.90
85	Ac	84	C	N3-C4-C5	-5.37	119.75	121.90
1	Ad	542	A	N9-C1'-C2'	-5.36	106.10	112.00
2	Ae	44	A	C4'-C3'-C2'	-5.36	97.24	102.60
84	Aa	1254	A	C5-C6-N1	-5.36	115.02	117.70
84	Aa	1394	C	N3-C4-N4	5.36	121.75	118.00
84	Aa	1843	A	C5-C6-N1	-5.36	115.02	117.70
84	Aa	2266	A	C5-C6-N6	-5.36	119.41	123.70
84	Aa	2388	C	C2-N3-C4	5.36	122.58	119.90
84	Aa	3229	C	N3-C4-C5	-5.36	119.75	121.90
86	Ab	95	U	C5-C4-O4	-5.36	122.68	125.90
1	Ad	466	G	O4'-C1'-N9	5.36	112.49	108.20
1	Ad	852	A	O4'-C1'-N9	5.36	112.49	108.20
13	BF	41	HIS	N-CA-CB	5.36	120.25	110.60
84	Aa	371	A	N1-C6-N6	5.36	121.82	118.60
84	Aa	2900	G	N3-C2-N2	5.36	123.65	119.90
84	Aa	3239	G	C5-C6-O6	-5.36	125.38	128.60
1	Ad	282	C	P-O5'-C5'	-5.36	112.32	120.90
1	Ad	965	U	O4'-C1'-N1	5.36	112.49	108.20
1	Ad	1742	A	O4'-C1'-N9	5.36	112.49	108.20
84	Aa	1579	C	C2-N3-C4	5.36	122.58	119.90
84	Aa	1610	A	C5-C6-N6	-5.36	119.41	123.70
84	Aa	1906	A	C5-C6-N1	-5.36	115.02	117.70
84	Aa	2527	G	C6-C5-N7	-5.36	127.18	130.40
84	Aa	2578	G	N3-C2-N2	5.36	123.65	119.90
84	Aa	2774	A	C5-C6-N1	-5.36	115.02	117.70
84	Aa	2810	A	O4'-C1'-N9	5.36	112.49	108.20
84	Aa	1391	A	C5-C6-N1	-5.36	115.02	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1616	G	O4'-C1'-N9	5.36	112.49	108.20
84	Aa	1813	C	N3-C4-N4	5.36	121.75	118.00
84	Aa	2007	C	N3-C4-N4	5.36	121.75	118.00
84	Aa	2765	A	C5-C6-N6	-5.36	119.41	123.70
1	Ad	361	G	O4'-C1'-N9	5.36	112.49	108.20
1	Ad	1769	C	O4'-C1'-C2'	-5.36	100.44	105.80
84	Aa	1040	A	O4'-C1'-N9	5.36	112.48	108.20
84	Aa	1067	G	O4'-C1'-N9	5.36	112.49	108.20
84	Aa	1080	C	N3-C4-N4	5.36	121.75	118.00
84	Aa	1205	C	N3-C4-N4	5.36	121.75	118.00
84	Aa	2141	A	O4'-C1'-N9	5.36	112.48	108.20
84	Aa	2698	A	O4'-C1'-N9	5.36	112.49	108.20
84	Aa	2938	A	C5-C6-N1	-5.36	115.02	117.70
84	Aa	3129	G	O4'-C1'-N9	5.36	112.48	108.20
84	Aa	3211	C	N3-C4-C5	-5.36	119.76	121.90
84	Aa	3264	C	N3-C4-N4	5.36	121.75	118.00
1	Ad	403	A	C1'-O4'-C4'	5.36	114.18	109.90
1	Ad	457	C	C3'-C2'-C1'	-5.36	97.22	101.50
1	Ad	1355	U	O4'-C1'-N1	5.36	112.48	108.20
2	Ae	19	U	O4'-C1'-N1	-5.36	103.92	108.20
84	Aa	239	C	N3-C4-C5	-5.36	119.76	121.90
84	Aa	943	G	O4'-C1'-N9	5.36	112.48	108.20
84	Aa	1238	G	N1-C6-O6	5.36	123.11	119.90
84	Aa	1333	C	N3-C4-C5	-5.36	119.76	121.90
84	Aa	1334	A	C5-C6-N1	-5.36	115.02	117.70
84	Aa	1891	A	C5-C6-N1	-5.36	115.02	117.70
84	Aa	1971	A	C5-C6-N6	-5.36	119.42	123.70
84	Aa	2006	A	C5-C6-N1	-5.36	115.02	117.70
84	Aa	2386	A	C5-C6-N6	-5.36	119.42	123.70
84	Aa	2474	A	C5-C6-N6	-5.36	119.42	123.70
84	Aa	3130	A	C4-C5-C6	5.36	119.68	117.00
1	Ad	72	A	C5'-C4'-O4'	5.35	115.53	109.10
1	Ad	596	A	C3'-C2'-C1'	5.35	105.78	101.50
2	Ae	66	C	O4'-C1'-N1	5.35	112.48	108.20
84	Aa	434	C	N3-C4-N4	5.35	121.75	118.00
84	Aa	493	G	O3'-P-O5'	5.35	114.17	104.00
84	Aa	1311	G	C5-C6-O6	-5.35	125.39	128.60
84	Aa	1734	G	O4'-C1'-N9	5.35	112.48	108.20
84	Aa	2015	G	C5-C6-O6	-5.35	125.39	128.60
84	Aa	2543	G	O4'-C1'-N9	5.35	112.48	108.20
1	Ad	760	G	C1'-O4'-C4'	-5.35	105.62	109.90
84	Aa	167	C	C4'-C3'-C2'	5.35	107.95	102.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	198	A	C5-C6-N1	-5.35	115.02	117.70
84	Aa	296	C	N3-C4-N4	5.35	121.75	118.00
84	Aa	1241	G	C5'-C4'-C3'	5.35	124.56	116.00
84	Aa	1734	G	C5-C6-O6	-5.35	125.39	128.60
84	Aa	1852	C	N3-C4-N4	5.35	121.75	118.00
84	Aa	2101	A	O4'-C1'-N9	5.35	112.48	108.20
1	Ad	1359	C	P-O3'-C3'	5.35	126.12	119.70
24	BW	97	ARG	N-CA-CB	5.35	120.23	110.60
84	Aa	1209	G	O4'-C1'-N9	5.35	112.48	108.20
84	Aa	2016	A	C5-C6-N6	-5.35	119.42	123.70
84	Aa	2745	C	N3-C4-N4	5.35	121.75	118.00
86	Ab	46	C	O4'-C1'-N1	5.35	112.48	108.20
1	Ad	1164	C	C3'-C2'-C1'	5.35	105.78	101.50
1	Ad	1239	C	C3'-C2'-C1'	5.35	105.78	101.50
1	Ad	1503	C	C3'-C2'-C1'	5.35	105.78	101.50
84	Aa	779	U	O4'-C1'-N1	5.35	112.48	108.20
84	Aa	3028	A	C5-C6-N1	-5.35	115.03	117.70
84	Aa	3173	A	C5-C6-N1	-5.35	115.03	117.70
84	Aa	3216	G	C5-C6-O6	-5.35	125.39	128.60
84	Aa	3256	C	N3-C4-C5	-5.35	119.76	121.90
86	Ab	59	U	O4'-C1'-N1	5.35	112.48	108.20
1	Ad	164	C	C1'-O4'-C4'	-5.35	105.62	109.90
1	Ad	1288	C	O4'-C1'-N1	5.35	112.48	108.20
41	CA	40	TYR	CB-CG-CD2	-5.35	117.79	121.00
48	CD	289	ASN	N-CA-CB	5.35	120.22	110.60
84	Aa	1314	G	N3-C2-N2	5.35	123.64	119.90
84	Aa	1363	C	C2-N3-C4	5.35	122.57	119.90
84	Aa	1500	C	N3-C4-N4	5.35	121.74	118.00
84	Aa	1509	G	N3-C2-N2	5.35	123.64	119.90
84	Aa	2604	A	C4-C5-C6	5.35	119.67	117.00
84	Aa	3296	C	N3-C4-N4	5.35	121.74	118.00
86	Ab	75	G	P-O3'-C3'	5.35	126.12	119.70
1	Ad	926	G	C3'-C2'-C1'	-5.35	97.22	101.50
1	Ad	1007	G	C1'-O4'-C4'	-5.35	105.62	109.90
84	Aa	143	A	C5-C6-N6	-5.35	119.42	123.70
84	Aa	482	C	N3-C4-C5	-5.35	119.76	121.90
84	Aa	1868	C	C2-N3-C4	5.35	122.57	119.90
84	Aa	1945	A	P-O5'-C5'	-5.35	112.35	120.90
84	Aa	3182	A	C5'-C4'-C3'	5.35	124.55	116.00
1	Ad	886	A	C5'-C4'-O4'	5.34	115.51	109.10
30	BB	134	MET	CG-SD-CE	-5.34	91.65	100.20
84	Aa	738	A	C5-C6-N1	-5.34	115.03	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1831	A	C4-C5-C6	5.34	119.67	117.00
84	Aa	2473	C	N3-C4-N4	5.34	121.74	118.00
84	Aa	3322	A	O4'-C1'-N9	5.34	112.48	108.20
1	Ad	153	U	O4'-C1'-N1	5.34	112.47	108.20
84	Aa	2178	G	C2'-C3'-O3'	-5.34	97.74	109.50
84	Aa	2749	A	C5-C6-N6	-5.34	119.43	123.70
1	Ad	844	C	C5'-C4'-O4'	5.34	115.51	109.10
49	CR	188	SER	N-CA-CB	5.34	118.51	110.50
84	Aa	392	C	N3-C4-C5	-5.34	119.76	121.90
84	Aa	885	A	C5-C6-N1	-5.34	115.03	117.70
84	Aa	1018	C	N3-C4-C5	-5.34	119.76	121.90
84	Aa	1153	A	C5-C6-N1	-5.34	115.03	117.70
84	Aa	1264	A	C5'-C4'-O4'	5.34	115.51	109.10
84	Aa	2083	U	C5'-C4'-C3'	5.34	124.55	116.00
84	Aa	2118	G	O4'-C1'-N9	5.34	112.47	108.20
84	Aa	2439	A	C4-C5-C6	5.34	119.67	117.00
84	Aa	2576	C	N3-C4-N4	5.34	121.74	118.00
84	Aa	2620	U	O4'-C1'-N1	5.34	112.47	108.20
84	Aa	3033	A	C5-C6-N6	-5.34	119.43	123.70
2	Ae	53	U	O4'-C1'-N1	5.34	112.47	108.20
84	Aa	6	A	C5-C6-N1	-5.34	115.03	117.70
84	Aa	439	A	C5-C6-N1	-5.34	115.03	117.70
84	Aa	785	U	P-O3'-C3'	5.34	126.11	119.70
84	Aa	981	A	C5-C6-N6	-5.34	119.43	123.70
84	Aa	1104	C	N3-C4-C5	-5.34	119.76	121.90
84	Aa	2054	A	C5-C6-N1	-5.34	115.03	117.70
84	Aa	2481	C	N3-C4-C5	-5.34	119.76	121.90
84	Aa	2611	G	C5-C6-O6	-5.34	125.40	128.60
84	Aa	3038	U	O4'-C1'-N1	5.34	112.47	108.20
1	Ad	255	U	O4'-C1'-C2'	-5.34	100.46	105.80
84	Aa	33	A	C5-C6-N1	-5.34	115.03	117.70
84	Aa	1255	A	C5-C6-N6	-5.34	119.43	123.70
84	Aa	1780	C	N3-C4-C5	-5.34	119.77	121.90
86	Ab	68	G	C6-N1-C2	5.34	128.30	125.10
1	Ad	831	C	C1'-O4'-C4'	5.34	114.17	109.90
1	Ad	973	U	N1-C1'-C2'	5.34	120.94	114.00
1	Ad	1115	G	C3'-C2'-C1'	5.34	105.77	101.50
1	Ad	1203	G	P-O3'-C3'	-5.34	113.30	119.70
84	Aa	150	G	P-O5'-C5'	-5.34	112.36	120.90
84	Aa	180	G	O4'-C1'-N9	5.34	112.47	108.20
84	Aa	679	C	N3-C4-N4	5.34	121.73	118.00
84	Aa	844	A	C4-C5-C6	5.34	119.67	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1364	C	N3-C4-N4	5.34	121.74	118.00
84	Aa	1607	C	C2-N3-C4	5.34	122.57	119.90
84	Aa	2699	A	C5-C6-N6	-5.34	119.43	123.70
84	Aa	3074	A	C5-C6-N1	-5.34	115.03	117.70
84	Aa	114	G	C4'-C3'-C2'	-5.33	97.27	102.60
84	Aa	642	C	O5'-C5'-C4'	5.33	121.84	111.70
84	Aa	727	G	O4'-C1'-N9	5.33	112.47	108.20
84	Aa	850	A	C5-C6-N1	-5.33	115.03	117.70
84	Aa	467	C	N3-C4-C5	-5.33	119.77	121.90
84	Aa	558	G	P-O5'-C5'	-5.33	112.37	120.90
84	Aa	737	C	N3-C4-C5	-5.33	119.77	121.90
84	Aa	744	C	C2-N3-C4	5.33	122.57	119.90
84	Aa	1541	G	C5-C6-O6	-5.33	125.40	128.60
84	Aa	2197	C	N3-C4-N4	5.33	121.73	118.00
84	Aa	2320	A	C4-C5-C6	5.33	119.67	117.00
84	Aa	3236	A	C5-C6-N6	-5.33	119.43	123.70
84	Aa	3284	C	N3-C4-C5	-5.33	119.77	121.90
1	Ad	381	G	O4'-C1'-C2'	5.33	112.40	107.60
1	Ad	1133	C	N1-C1'-C2'	5.33	120.93	114.00
20	BT	56	TYR	CB-CG-CD2	-5.33	117.80	121.00
84	Aa	195	G	O4'-C1'-N9	5.33	112.47	108.20
84	Aa	442	C	N3-C4-N4	5.33	121.73	118.00
84	Aa	599	C	N3-C4-C5	-5.33	119.77	121.90
84	Aa	775	A	C4-C5-C6	5.33	119.67	117.00
84	Aa	789	A	C5-C6-N6	-5.33	119.44	123.70
84	Aa	1027	C	N3-C4-N4	5.33	121.73	118.00
84	Aa	1727	A	O4'-C1'-N9	5.33	112.47	108.20
84	Aa	1794	A	C4-C5-C6	5.33	119.67	117.00
84	Aa	2132	A	C4'-C3'-C2'	-5.33	97.27	102.60
84	Aa	2252	C	N3-C4-C5	-5.33	119.77	121.90
84	Aa	2705	A	C5-C6-N1	-5.33	115.03	117.70
84	Aa	2883	C	N3-C4-N4	5.33	121.73	118.00
85	Ac	103	G	O4'-C1'-N9	5.33	112.47	108.20
86	Ab	28	U	C5-C4-O4	-5.33	122.70	125.90
84	Aa	1303	C	N3-C4-C5	-5.33	119.77	121.90
84	Aa	2532	A	O4'-C1'-N9	5.33	112.46	108.20
84	Aa	3012	A	C5-C6-N1	-5.33	115.03	117.70
1	Ad	180	A	O4'-C1'-C2'	-5.33	100.47	105.80
1	Ad	821	G	C1'-O4'-C4'	-5.33	105.64	109.90
1	Ad	1522	U	O4'-C1'-C2'	5.33	112.40	107.60
1	Ad	1606	U	O4'-C1'-N1	5.33	112.46	108.20
84	Aa	306	A	C4-C5-C6	5.33	119.66	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	783	A	C5-C6-N1	-5.33	115.04	117.70
84	Aa	1255	A	O4'-C1'-N9	5.33	112.46	108.20
84	Aa	1263	A	C5-C6-N1	-5.33	115.04	117.70
84	Aa	1676	A	O4'-C1'-N9	5.33	112.46	108.20
84	Aa	2789	G	C5'-C4'-C3'	-5.33	107.47	116.00
86	Ab	113	G	N1-C6-O6	5.33	123.10	119.90
1	Ad	1186	U	O4'-C1'-C2'	-5.33	100.47	105.80
1	Ad	1456	U	N1-C1'-C2'	5.33	120.92	114.00
84	Aa	1227	A	C5-C6-N6	-5.33	119.44	123.70
84	Aa	2102	C	N3-C4-C5	-5.33	119.77	121.90
84	Aa	3073	A	O4'-C1'-N9	5.33	112.46	108.20
84	Aa	3093	C	N3-C4-N4	5.33	121.73	118.00
84	Aa	3168	C	C6-N1-C2	-5.33	118.17	120.30
84	Aa	3278	G	P-O3'-C3'	5.33	126.09	119.70
1	Ad	41	A	C3'-C2'-C1'	5.33	105.76	101.50
1	Ad	229	G	P-O3'-C3'	5.33	126.09	119.70
1	Ad	1161	C	C3'-C2'-C1'	5.33	105.76	101.50
84	Aa	699	C	N3-C4-N4	5.33	121.73	118.00
84	Aa	1485	A	C5-C6-N1	-5.33	115.04	117.70
84	Aa	1580	C	N3-C4-N4	5.33	121.73	118.00
84	Aa	2706	A	C5-C6-N6	-5.33	119.44	123.70
84	Aa	2880	G	C5-C6-O6	-5.33	125.41	128.60
1	Ad	1650	G	O4'-C1'-C2'	5.32	112.39	107.60
84	Aa	326	C	N3-C4-C5	-5.32	119.77	121.90
84	Aa	680	G	O4'-C1'-N9	5.32	112.46	108.20
84	Aa	681	A	C4-C5-C6	5.32	119.66	117.00
84	Aa	1486	G	C6-C5-N7	-5.32	127.20	130.40
84	Aa	1633	C	N3-C4-C5	-5.32	119.77	121.90
84	Aa	2780	G	O4'-C1'-N9	5.32	112.46	108.20
84	Aa	2978	A	C5-C6-N1	-5.32	115.04	117.70
1	Ad	1109	U	N1-C1'-C2'	5.32	120.92	114.00
86	Ab	25	G	C5-C6-O6	-5.32	125.41	128.60
1	Ad	94	A	C5'-C4'-C3'	-5.32	107.49	116.00
1	Ad	194	G	P-O3'-C3'	5.32	126.08	119.70
1	Ad	261	C	C1'-O4'-C4'	-5.32	105.64	109.90
84	Aa	1551	C	N3-C4-C5	-5.32	119.77	121.90
84	Aa	1565	G	C5'-C4'-C3'	5.32	124.51	116.00
84	Aa	2044	C	C5'-C4'-C3'	-5.32	107.49	116.00
84	Aa	2455	A	O4'-C1'-N9	5.32	112.46	108.20
84	Aa	3152	C	C3'-C2'-C1'	5.32	105.76	101.50
84	Aa	819	A	C4-C5-C6	5.32	119.66	117.00
84	Aa	869	A	C4-C5-C6	5.32	119.66	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1457	A	C5-C6-N6	-5.32	119.44	123.70
84	Aa	1860	A	C5-C6-N1	-5.32	115.04	117.70
84	Aa	2137	A	C5-C6-N1	-5.32	115.04	117.70
85	Ac	25	G	O4'-C1'-N9	5.32	112.45	108.20
86	Ab	19	A	C5-C6-N6	-5.32	119.44	123.70
1	Ad	1281	G	N9-C1'-C2'	5.32	120.91	114.00
84	Aa	880	C	N3-C4-C5	-5.32	119.77	121.90
84	Aa	1208	A	C5-C6-N1	-5.32	115.04	117.70
84	Aa	1455	A	C5-C6-N1	-5.32	115.04	117.70
84	Aa	1806	C	C5'-C4'-O4'	5.32	115.48	109.10
84	Aa	2054	A	C5-C6-N6	-5.32	119.45	123.70
84	Aa	2061	C	N3-C4-C5	-5.32	119.77	121.90
84	Aa	2111	A	C5-C6-N6	-5.32	119.45	123.70
84	Aa	2150	C	N3-C4-N4	5.32	121.72	118.00
84	Aa	2874	A	C4-C5-C6	5.32	119.66	117.00
85	Ac	142	G	O4'-C1'-N9	5.32	112.45	108.20
1	Ad	1252	C	O4'-C1'-N1	5.32	112.45	108.20
1	Ad	1401	C	N1-C1'-C2'	5.32	120.91	114.00
47	CQ	161	SER	N-CA-C	-5.32	96.65	111.00
60	Co	48	SER	N-CA-CB	5.32	118.47	110.50
84	Aa	33	A	O4'-C1'-N9	5.32	112.45	108.20
84	Aa	316	A	C5-C6-N1	-5.32	115.04	117.70
84	Aa	763	G	O4'-C1'-N9	5.32	112.45	108.20
84	Aa	936	A	C5-C6-N1	-5.32	115.04	117.70
84	Aa	1763	C	N3-C4-C5	-5.32	119.77	121.90
84	Aa	2691	U	O4'-C1'-N1	5.32	112.45	108.20
84	Aa	3050	A	C5-C6-N6	-5.32	119.45	123.70
84	Aa	3121	C	N3-C4-C5	-5.32	119.77	121.90
84	Aa	3169	C	O4'-C1'-N1	5.32	112.45	108.20
84	Aa	202	G	O4'-C1'-N9	5.31	112.45	108.20
84	Aa	347	A	C5-C6-N1	-5.31	115.04	117.70
84	Aa	500	C	N3-C4-N4	5.31	121.72	118.00
84	Aa	1970	A	C5-C6-N1	-5.31	115.04	117.70
84	Aa	2801	A	O4'-C1'-N9	5.31	112.45	108.20
84	Aa	3134	C	N3-C4-N4	5.31	121.72	118.00
1	Ad	1091	A	C1'-O4'-C4'	-5.31	105.65	109.90
46	Ca	9	ARG	N-CA-CB	5.31	120.16	110.60
84	Aa	329	G	O4'-C1'-N9	5.31	112.45	108.20
84	Aa	1120	G	O4'-C1'-N9	5.31	112.45	108.20
84	Aa	1192	A	C5-C6-N6	-5.31	119.45	123.70
84	Aa	1856	G	O4'-C1'-N9	5.31	112.45	108.20
84	Aa	3311	C	N3-C4-N4	5.31	121.72	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	Ae	19	U	C3'-C2'-C1'	5.31	105.75	101.50
47	CQ	123	PHE	CB-CG-CD2	-5.31	117.08	120.80
84	Aa	1645	G	O4'-C1'-N9	5.31	112.45	108.20
84	Aa	1861	A	C5-C6-N6	-5.31	119.45	123.70
84	Aa	3253	C	N3-C4-N4	5.31	121.72	118.00
85	Ac	128	C	N3-C4-C5	-5.31	119.78	121.90
1	Ad	865	U	N1-C1'-C2'	5.31	120.90	114.00
1	Ad	1173	U	O4'-C1'-N1	5.31	112.45	108.20
84	Aa	286	C	C4'-C3'-C2'	-5.31	97.29	102.60
84	Aa	365	A	C5-C6-N1	-5.31	115.05	117.70
84	Aa	794	G	O4'-C1'-N9	5.31	112.45	108.20
84	Aa	806	C	N3-C4-N4	5.31	121.72	118.00
84	Aa	1051	A	C5-C6-N6	-5.31	119.45	123.70
84	Aa	1278	A	C5-C6-N6	-5.31	119.45	123.70
84	Aa	1396	A	O4'-C1'-N9	5.31	112.45	108.20
84	Aa	1590	A	C5-C6-N1	-5.31	115.05	117.70
84	Aa	3011	U	C5'-C4'-C3'	5.31	124.50	116.00
2	Ae	74	C	N1-C1'-C2'	-5.31	106.16	112.00
84	Aa	705	A	C5-C6-N1	-5.31	115.05	117.70
84	Aa	1896	A	O4'-C1'-N9	5.31	112.44	108.20
84	Aa	2092	C	C4'-C3'-C2'	5.31	107.91	102.60
84	Aa	3033	A	C5-C6-N1	-5.31	115.05	117.70
84	Aa	3165	C	N3-C4-N4	5.31	121.72	118.00
84	Aa	1306	A	C5-C6-N1	-5.31	115.05	117.70
84	Aa	1865	C	N3-C4-N4	5.31	121.71	118.00
84	Aa	2035	G	C5-C6-O6	-5.31	125.42	128.60
84	Aa	2037	C	N3-C4-C5	-5.31	119.78	121.90
1	Ad	167	A	N9-C1'-C2'	-5.30	106.17	112.00
1	Ad	941	G	P-O3'-C3'	5.30	126.07	119.70
1	Ad	995	C	O4'-C1'-N1	5.30	112.44	108.20
1	Ad	1511	A	O4'-C1'-C2'	5.30	112.37	107.60
1	Ad	1701	G	C3'-C2'-C1'	-5.30	97.26	101.50
53	CY	10	SER	N-CA-CB	5.30	118.45	110.50
84	Aa	11	A	O4'-C1'-N9	5.30	112.44	108.20
84	Aa	249	A	C5-C6-N6	-5.30	119.46	123.70
84	Aa	363	A	C5-C6-N6	-5.30	119.46	123.70
84	Aa	1233	G	O4'-C1'-N9	5.30	112.44	108.20
84	Aa	1290	A	C4-C5-C6	5.30	119.65	117.00
84	Aa	1961	C	N3-C4-N4	5.30	121.71	118.00
84	Aa	2059	C	N3-C4-N4	5.30	121.71	118.00
84	Aa	2167	G	C6-C5-N7	-5.30	127.22	130.40
84	Aa	2533	A	C5-C6-N1	-5.30	115.05	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2839	A	C5-C6-N1	-5.30	115.05	117.70
84	Aa	3184	G	C5-C6-O6	-5.30	125.42	128.60
85	Ac	21	C	N3-C4-N4	5.30	121.71	118.00
85	Ac	48	A	C4-C5-C6	5.30	119.65	117.00
85	Ac	53	A	C5-C6-N1	-5.30	115.05	117.70
86	Ab	3	A	O4'-C1'-N9	5.30	112.44	108.20
86	Ab	7	G	N3-C2-N2	5.30	123.61	119.90
84	Aa	296	C	N3-C4-C5	-5.30	119.78	121.90
84	Aa	535	G	O4'-C1'-N9	5.30	112.44	108.20
84	Aa	2462	G	O4'-C4'-C3'	-5.30	98.70	104.00
84	Aa	2902	A	C4-C5-C6	5.30	119.65	117.00
84	Aa	336	A	C5-C6-N1	-5.30	115.05	117.70
84	Aa	661	A	C5-C6-N6	-5.30	119.46	123.70
84	Aa	859	G	O4'-C1'-N9	5.30	112.44	108.20
84	Aa	1517	C	C6-N1-C1'	-5.30	114.44	120.80
84	Aa	1875	A	C5-C6-N1	-5.30	115.05	117.70
84	Aa	2146	A	C4-C5-C6	5.30	119.65	117.00
84	Aa	2325	A	O4'-C1'-N9	5.30	112.44	108.20
84	Aa	2774	A	O4'-C1'-N9	5.30	112.44	108.20
84	Aa	2896	C	N3-C4-C5	-5.30	119.78	121.90
84	Aa	3022	A	C5-C6-N1	-5.30	115.05	117.70
8	Bf	56	PHE	CB-CG-CD2	5.30	124.51	120.80
84	Aa	416	A	C5-C6-N1	-5.30	115.05	117.70
84	Aa	632	C	N3-C4-N4	5.30	121.71	118.00
84	Aa	924	A	C4-C5-C6	5.30	119.65	117.00
84	Aa	1207	A	O4'-C1'-N9	5.30	112.44	108.20
84	Aa	1550	A	C5-C6-N6	-5.30	119.46	123.70
84	Aa	2135	U	O4'-C1'-N1	5.30	112.44	108.20
84	Aa	2240	C	O4'-C1'-N1	5.30	112.44	108.20
84	Aa	2298	A	C5-C6-N6	-5.30	119.46	123.70
84	Aa	804	A	C4-C5-C6	5.30	119.65	117.00
84	Aa	1006	A	O4'-C1'-N9	5.30	112.44	108.20
84	Aa	2441	G	O4'-C1'-N9	5.30	112.44	108.20
84	Aa	2474	A	C5-C6-N1	-5.30	115.05	117.70
1	Ad	721	U	P-O5'-C5'	-5.30	112.42	120.90
1	Ad	746	A	N9-C1'-C2'	-5.30	106.17	112.00
1	Ad	1270	U	C1'-O4'-C4'	-5.30	105.66	109.90
2	Ae	70	G	O4'-C1'-N9	5.30	112.44	108.20
11	BD	78	ASN	N-CA-CB	5.30	120.13	110.60
84	Aa	12	G	C5-C6-O6	-5.30	125.42	128.60
84	Aa	167	C	N3-C4-C5	-5.30	119.78	121.90
84	Aa	410	G	N1-C6-O6	5.30	123.08	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	720	G	O4'-C1'-N9	5.30	112.44	108.20
84	Aa	819	A	C5-C6-N1	-5.30	115.05	117.70
84	Aa	928	A	C5-C6-N1	-5.30	115.05	117.70
84	Aa	949	C	C2-N3-C4	5.30	122.55	119.90
84	Aa	1036	C	C2-N3-C4	5.30	122.55	119.90
84	Aa	1267	A	C5-C6-N1	-5.30	115.05	117.70
84	Aa	1323	G	O4'-C1'-N9	5.30	112.44	108.20
84	Aa	1608	C	N3-C4-N4	5.30	121.71	118.00
84	Aa	2141	A	C5-C6-N6	-5.30	119.46	123.70
84	Aa	2399	G	O4'-C1'-N9	5.30	112.44	108.20
84	Aa	3162	C	P-O3'-C3'	5.30	126.06	119.70
84	Aa	3256	C	N3-C4-N4	5.30	121.71	118.00
84	Aa	3336	A	C1'-O4'-C4'	-5.30	105.66	109.90
84	Aa	597	C	N3-C4-N4	5.29	121.71	118.00
84	Aa	1430	C	N3-C4-C5	-5.29	119.78	121.90
84	Aa	1846	A	C5-C6-N1	-5.29	115.05	117.70
84	Aa	3072	A	C5-C6-N1	-5.29	115.05	117.70
84	Aa	2064	C	N3-C4-C5	-5.29	119.78	121.90
84	Aa	2137	A	C5-C6-N6	-5.29	119.47	123.70
84	Aa	2185	U	O4'-C1'-N1	5.29	112.44	108.20
84	Aa	2561	A	C5-C6-N1	-5.29	115.05	117.70
84	Aa	3078	A	C5-C6-N1	-5.29	115.05	117.70
1	Ad	1079	G	N9-C1'-C2'	5.29	120.88	114.00
1	Ad	1299	G	O4'-C4'-C3'	-5.29	98.71	104.00
2	Ae	5	U	O4'-C1'-C2'	-5.29	100.51	105.80
84	Aa	143	A	O4'-C1'-N9	5.29	112.43	108.20
84	Aa	825	G	O4'-C1'-N9	5.29	112.43	108.20
84	Aa	1172	A	O4'-C1'-N9	5.29	112.43	108.20
84	Aa	1800	G	P-O3'-C3'	5.29	126.05	119.70
84	Aa	1860	A	C5-C6-N6	-5.29	119.47	123.70
84	Aa	2885	U	O4'-C1'-N1	5.29	112.43	108.20
84	Aa	3186	G	O4'-C1'-N9	5.29	112.43	108.20
85	Ac	94	C	N3-C4-N4	5.29	121.70	118.00
3	Af	20	U	N1-C1'-C2'	5.29	120.88	114.00
84	Aa	1177	G	O4'-C1'-N9	5.29	112.43	108.20
84	Aa	1577	A	C5-C6-N1	-5.29	115.06	117.70
84	Aa	3166	C	N3-C4-N4	5.29	121.70	118.00
84	Aa	3168	C	N3-C4-N4	5.29	121.70	118.00
85	Ac	22	U	O4'-C1'-N1	5.29	112.43	108.20
86	Ab	5	G	N3-C2-N2	5.29	123.60	119.90
1	Ad	281	U	C5'-C4'-O4'	-5.29	102.75	109.10
1	Ad	1185	U	N1-C1'-C2'	5.29	120.87	114.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	Ae	57	A	O4'-C1'-C2'	-5.29	100.51	105.80
84	Aa	1351	C	C2-N3-C4	5.29	122.54	119.90
84	Aa	1438	A	C5-C6-N1	-5.29	115.06	117.70
84	Aa	1512	A	O4'-C1'-N9	5.29	112.43	108.20
84	Aa	1928	A	C5-C6-N6	-5.29	119.47	123.70
84	Aa	2120	A	O4'-C1'-N9	5.29	112.43	108.20
84	Aa	2815	A	C5'-C4'-C3'	5.29	124.46	116.00
84	Aa	3270	C	C6-N1-C1'	-5.29	114.45	120.80
84	Aa	3307	A	C5-C6-N1	-5.29	115.06	117.70
85	Ac	153	C	N3-C4-C5	-5.29	119.78	121.90
86	Ab	38	U	C5-C4-O4	-5.29	122.73	125.90
1	Ad	236	U	P-O3'-C3'	5.29	126.05	119.70
84	Aa	177	C	C2-N3-C4	5.29	122.54	119.90
84	Aa	381	G	O4'-C1'-N9	5.29	112.43	108.20
84	Aa	759	C	N3-C4-N4	5.29	121.70	118.00
84	Aa	1119	G	O4'-C1'-N9	5.29	112.43	108.20
84	Aa	2104	G	N1-C2-N3	-5.29	120.73	123.90
84	Aa	2316	A	C5-C6-N1	-5.29	115.06	117.70
84	Aa	52	G	C5'-C4'-C3'	-5.29	107.54	116.00
84	Aa	149	A	O4'-C1'-N9	5.29	112.43	108.20
84	Aa	407	A	C2'-C3'-O3'	5.29	122.16	113.70
84	Aa	861	A	C5-C6-N1	-5.29	115.06	117.70
84	Aa	885	A	C5-C6-N6	-5.29	119.47	123.70
84	Aa	966	G	O4'-C1'-N9	5.29	112.43	108.20
84	Aa	1360	U	P-O3'-C3'	5.29	126.04	119.70
84	Aa	1726	G	C1'-O4'-C4'	-5.29	105.67	109.90
84	Aa	2449	A	O4'-C1'-N9	5.29	112.43	108.20
85	Ac	139	C	N3-C4-N4	5.29	121.70	118.00
86	Ab	11	A	N3-C4-C5	-5.29	123.10	126.80
1	Ad	1657	C	C5'-C4'-O4'	5.28	115.44	109.10
84	Aa	636	C	N3-C4-N4	5.28	121.70	118.00
84	Aa	664	A	C4-C5-C6	5.28	119.64	117.00
84	Aa	1032	C	N3-C4-N4	5.28	121.70	118.00
84	Aa	2275	A	C5-C6-N6	-5.28	119.47	123.70
84	Aa	2323	A	C5-C6-N1	-5.28	115.06	117.70
84	Aa	2763	C	N3-C4-N4	5.28	121.70	118.00
84	Aa	3351	A	O4'-C1'-N9	5.28	112.43	108.20
85	Ac	12	A	C4-C5-C6	5.28	119.64	117.00
1	Ad	17	C	N1-C1'-C2'	5.28	120.87	114.00
84	Aa	322	A	C5-C6-N1	-5.28	115.06	117.70
84	Aa	1341	G	C5-C6-O6	-5.28	125.43	128.60
84	Aa	2229	G	O4'-C1'-N9	5.28	112.42	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	3	C	C1'-O4'-C4'	5.28	114.12	109.90
1	Ad	1355	U	C3'-C2'-C1'	5.28	105.72	101.50
84	Aa	97	G	P-O5'-C5'	-5.28	112.45	120.90
84	Aa	737	C	N3-C4-N4	5.28	121.70	118.00
84	Aa	861	A	C5-C6-N6	-5.28	119.47	123.70
84	Aa	2214	A	O4'-C1'-N9	5.28	112.42	108.20
84	Aa	2772	A	C5-C6-N6	-5.28	119.47	123.70
84	Aa	3241	C	N3-C4-N4	5.28	121.70	118.00
1	Ad	1311	U	O4'-C1'-C2'	-5.28	100.52	105.80
1	Ad	1478	C	O4'-C1'-C2'	-5.28	100.52	105.80
54	Cr	93	ARG	N-CA-CB	5.28	120.10	110.60
84	Aa	74	G	N3-C2-N2	5.28	123.59	119.90
84	Aa	1173	C	N3-C4-C5	-5.28	119.79	121.90
84	Aa	1302	C	N3-C4-N4	5.28	121.69	118.00
84	Aa	30	C	N3-C4-C5	-5.28	119.79	121.90
84	Aa	96	C	N3-C4-N4	5.28	121.69	118.00
84	Aa	345	G	O4'-C1'-N9	5.28	112.42	108.20
84	Aa	443	G	C5-C6-O6	-5.28	125.43	128.60
84	Aa	1755	A	C5-C6-N1	-5.28	115.06	117.70
84	Aa	1848	G	C5-C6-O6	-5.28	125.43	128.60
84	Aa	3152	C	N3-C4-C5	-5.28	119.79	121.90
86	Ab	27	A	N7-C8-N9	-5.28	111.16	113.80
1	Ad	843	G	P-O5'-C5'	5.28	129.34	120.90
2	Ae	27	G	C3'-C2'-C1'	-5.28	97.28	101.50
84	Aa	48	A	C5-C6-N6	-5.28	119.48	123.70
84	Aa	397	A	C5-C6-N1	-5.28	115.06	117.70
84	Aa	1002	A	C5-C6-N1	-5.28	115.06	117.70
84	Aa	1041	C	N3-C4-N4	5.28	121.69	118.00
84	Aa	1135	C	N3-C4-N4	5.28	121.69	118.00
84	Aa	1591	A	C5-C6-N1	-5.28	115.06	117.70
84	Aa	1736	C	N3-C4-C5	-5.28	119.79	121.90
84	Aa	2222	C	N3-C4-N4	5.28	121.69	118.00
84	Aa	2560	C	N3-C4-C5	-5.28	119.79	121.90
84	Aa	2718	A	C5-C6-N1	-5.28	115.06	117.70
84	Aa	2778	C	N3-C4-N4	5.28	121.69	118.00
84	Aa	2911	C	N3-C4-N4	5.28	121.69	118.00
1	Ad	73	A	O4'-C1'-C2'	-5.27	100.53	105.80
1	Ad	153	U	N1-C1'-C2'	-5.27	106.20	112.00
1	Ad	238	G	C5'-C4'-O4'	5.27	115.43	109.10
84	Aa	8	C	N3-C4-N4	5.27	121.69	118.00
84	Aa	1213	G	O4'-C1'-N9	5.27	112.42	108.20
84	Aa	1595	G	N3-C2-N2	5.27	123.59	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2492	C	N3-C4-C5	-5.27	119.79	121.90
84	Aa	2504	A	O4'-C1'-N9	5.27	112.42	108.20
84	Aa	2891	C	C2-N3-C4	5.27	122.54	119.90
86	Ab	103	U	N3-C4-O4	5.27	123.09	119.40
1	Ad	322	U	C3'-C2'-C1'	5.27	105.72	101.50
1	Ad	1808	U	C3'-C2'-C1'	5.27	105.72	101.50
51	CX	50	LYS	N-CA-CB	5.27	120.09	110.60
84	Aa	684	C	C2-N3-C4	5.27	122.54	119.90
84	Aa	896	C	N3-C4-N4	5.27	121.69	118.00
84	Aa	948	C	N3-C4-N4	5.27	121.69	118.00
84	Aa	1014	G	C5-C6-O6	-5.27	125.44	128.60
84	Aa	1097	A	O4'-C1'-N9	5.27	112.42	108.20
84	Aa	1908	C	N3-C4-C5	-5.27	119.79	121.90
84	Aa	2202	A	C5-C6-N6	-5.27	119.48	123.70
84	Aa	2434	G	C5-C6-O6	-5.27	125.44	128.60
84	Aa	3151	C	O4'-C1'-N1	5.27	112.42	108.20
84	Aa	3308	A	C5-C6-N1	-5.27	115.06	117.70
84	Aa	810	A	C5-C6-N1	-5.27	115.06	117.70
84	Aa	2324	G	C5-C6-O6	-5.27	125.44	128.60
84	Aa	2688	G	C5-C6-O6	-5.27	125.44	128.60
84	Aa	3362	A	C5-C6-N6	-5.27	119.48	123.70
1	Ad	18	C	O4'-C1'-N1	5.27	112.42	108.20
1	Ad	1038	C	C3'-C2'-C1'	5.27	105.72	101.50
1	Ad	1763	A	N9-C1'-C2'	-5.27	106.20	112.00
84	Aa	1518	A	C5-C6-N6	-5.27	119.48	123.70
84	Aa	2225	C	N3-C4-C5	-5.27	119.79	121.90
84	Aa	2966	G	O4'-C1'-N9	5.27	112.42	108.20
84	Aa	3115	A	C5-C6-N1	-5.27	115.06	117.70
86	Ab	99	G	N3-C2-N2	5.27	123.59	119.90
84	Aa	1358	C	N3-C4-C5	-5.27	119.79	121.90
84	Aa	1399	C	N3-C4-N4	5.27	121.69	118.00
85	Ac	128	C	N3-C4-N4	5.27	121.69	118.00
85	Ac	148	C	N3-C4-C5	-5.27	119.79	121.90
1	Ad	646	G	O4'-C1'-N9	5.27	112.41	108.20
84	Aa	220	G	O4'-C1'-N9	5.27	112.41	108.20
84	Aa	1675	G	C3'-C2'-C1'	-5.27	97.29	101.50
84	Aa	2660	A	C4-C5-C6	5.27	119.63	117.00
85	Ac	160	C	N3-C4-C5	-5.27	119.79	121.90
84	Aa	327	A	C5-C6-N1	-5.26	115.07	117.70
84	Aa	1219	C	N3-C4-C5	-5.26	119.79	121.90
84	Aa	1373	A	C5-C6-N1	-5.26	115.07	117.70
84	Aa	1468	A	C5-C6-N1	-5.26	115.07	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2765	A	O4'-C1'-N9	5.26	112.41	108.20
84	Aa	3147	G	N3-C2-N2	5.26	123.58	119.90
86	Ab	29	C	N3-C4-N4	5.26	121.69	118.00
1	Ad	1086	A	C3'-C2'-C1'	5.26	105.71	101.50
28	BA	108	THR	N-CA-CB	5.26	120.30	110.30
84	Aa	1088	A	C4-C5-C6	5.26	119.63	117.00
86	Ab	39	C	N3-C4-N4	5.26	121.68	118.00
34	BC	39	THR	N-CA-CB	5.26	120.30	110.30
84	Aa	197	A	C5-C6-N1	-5.26	115.07	117.70
84	Aa	250	C	N3-C4-C5	-5.26	119.80	121.90
84	Aa	529	C	C6-N1-C2	-5.26	118.20	120.30
84	Aa	1507	A	O4'-C1'-N9	5.26	112.41	108.20
84	Aa	2985	C	N3-C4-N4	5.26	121.68	118.00
84	Aa	3316	C	N3-C4-C5	-5.26	119.80	121.90
85	Ac	94	C	N3-C4-C5	-5.26	119.80	121.90
1	Ad	388	G	N9-C1'-C2'	5.26	120.84	114.00
1	Ad	1065	A	C3'-C2'-C1'	-5.26	97.29	101.50
65	CK	95	LYS	C-N-CA	5.26	134.85	121.70
84	Aa	165	C	N3-C4-N4	5.26	121.68	118.00
84	Aa	424	G	N3-C2-N2	5.26	123.58	119.90
84	Aa	764	A	O4'-C1'-N9	5.26	112.41	108.20
84	Aa	1682	C	N3-C4-N4	5.26	121.68	118.00
84	Aa	2075	C	N3-C4-N4	5.26	121.68	118.00
84	Aa	2943	A	C5-C6-N1	-5.26	115.07	117.70
86	Ab	87	G	C6-C5-N7	-5.26	127.24	130.40
1	Ad	877	G	O4'-C1'-N9	5.26	112.41	108.20
84	Aa	48	A	C5-C6-N1	-5.26	115.07	117.70
84	Aa	2275	A	C5-C6-N1	-5.26	115.07	117.70
1	Ad	230	C	O4'-C1'-C2'	-5.26	100.54	105.80
1	Ad	1314	U	O4'-C4'-C3'	-5.26	98.74	104.00
37	CG	47	PHE	CB-CG-CD2	-5.26	117.12	120.80
45	CN	4	TYR	CB-CG-CD2	5.26	124.15	121.00
84	Aa	392	C	N3-C4-N4	5.26	121.68	118.00
84	Aa	594	C	C2-N3-C4	5.26	122.53	119.90
84	Aa	724	A	C5'-C4'-C3'	5.26	124.41	116.00
84	Aa	840	A	C4-C5-C6	5.26	119.63	117.00
84	Aa	1301	C	N3-C4-C5	-5.26	119.80	121.90
84	Aa	1707	C	N3-C4-N4	5.26	121.68	118.00
84	Aa	1874	A	C5-C6-N1	-5.26	115.07	117.70
84	Aa	1900	C	N3-C4-C5	-5.26	119.80	121.90
84	Aa	2362	A	O4'-C1'-N9	5.26	112.41	108.20
84	Aa	2398	A	C4-C5-C6	5.26	119.63	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2868	C	P-O3'-C3'	5.26	126.01	119.70
84	Aa	3151	C	N3-C4-C5	-5.26	119.80	121.90
84	Aa	3170	C	N3-C4-N4	5.26	121.68	118.00
84	Aa	3312	G	O4'-C1'-N9	5.26	112.41	108.20
1	Ad	439	C	C3'-C2'-C1'	5.25	105.70	101.50
84	Aa	165	C	N3-C4-C5	-5.25	119.80	121.90
84	Aa	344	C	N3-C4-C5	-5.25	119.80	121.90
84	Aa	2173	G	C8-N9-C1'	5.25	133.83	127.00
84	Aa	3268	C	N3-C4-C5	-5.25	119.80	121.90
1	Ad	1693	C	C3'-C2'-C1'	5.25	105.70	101.50
84	Aa	318	G	N3-C2-N2	5.25	123.58	119.90
84	Aa	697	A	C4-C5-C6	5.25	119.63	117.00
84	Aa	2544	C	N3-C4-C5	-5.25	119.80	121.90
84	Aa	3067	G	C5'-C4'-O4'	5.25	115.40	109.10
84	Aa	3096	U	O4'-C1'-N1	5.25	112.40	108.20
1	Ad	831	C	O4'-C1'-C2'	-5.25	100.55	105.80
1	Ad	1448	U	C3'-C2'-C1'	5.25	105.70	101.50
1	Ad	1517	C	N1-C1'-C2'	5.25	120.83	114.00
84	Aa	113	A	O4'-C1'-N9	5.25	112.40	108.20
84	Aa	585	A	C5-C6-N1	-5.25	115.08	117.70
84	Aa	686	A	C5-C6-N1	-5.25	115.07	117.70
84	Aa	774	A	C4-C5-C6	5.25	119.62	117.00
84	Aa	1655	G	O4'-C1'-N9	5.25	112.40	108.20
84	Aa	2023	C	N3-C4-N4	5.25	121.68	118.00
84	Aa	2182	G	P-O3'-C3'	5.25	126.00	119.70
84	Aa	2197	C	N3-C4-C5	-5.25	119.80	121.90
84	Aa	3071	A	C5-C6-N6	-5.25	119.50	123.70
84	Aa	3171	C	C6-N1-C1'	-5.25	114.50	120.80
85	Ac	116	G	C5-C6-O6	-5.25	125.45	128.60
1	Ad	974	C	C3'-C2'-C1'	5.25	105.70	101.50
84	Aa	1499	C	C6-N1-C2	-5.25	118.20	120.30
84	Aa	3006	G	O4'-C1'-N9	5.25	112.40	108.20
72	CC	90	ARG	N-CA-CB	5.25	120.05	110.60
84	Aa	382	A	C5-C6-N1	-5.25	115.08	117.70
84	Aa	1291	A	O4'-C1'-N9	5.25	112.40	108.20
84	Aa	1607	C	N3-C4-N4	5.25	121.67	118.00
84	Aa	2113	A	C5-C6-N6	-5.25	119.50	123.70
84	Aa	2414	C	N3-C4-N4	5.25	121.67	118.00
84	Aa	2642	G	O4'-C1'-N9	5.25	112.40	108.20
84	Aa	3356	C	N3-C4-N4	5.25	121.67	118.00
84	Aa	3374	C	N3-C4-N4	5.25	121.67	118.00
1	Ad	1188	A	C1'-O4'-C4'	5.25	114.10	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	124	C	N3-C4-N4	5.25	121.67	118.00
84	Aa	340	A	C4-C5-C6	5.25	119.62	117.00
84	Aa	1316	C	C2-N1-C1'	5.25	124.57	118.80
84	Aa	1704	A	O4'-C1'-N9	5.25	112.40	108.20
84	Aa	1733	G	C5-C6-O6	-5.25	125.45	128.60
84	Aa	2248	G	O4'-C1'-N9	5.25	112.40	108.20
1	Ad	1806	C	C5'-C4'-O4'	5.25	115.39	109.10
2	Ae	58	U	P-O5'-C5'	5.25	129.29	120.90
53	CY	73	TYR	CB-CG-CD1	-5.25	117.85	121.00
84	Aa	82	C	N3-C4-C5	-5.25	119.80	121.90
84	Aa	119	A	C5-C6-N1	-5.25	115.08	117.70
84	Aa	620	C	N3-C4-N4	5.25	121.67	118.00
84	Aa	964	C	N3-C4-N4	5.25	121.67	118.00
84	Aa	2574	A	C5-C6-N1	-5.25	115.08	117.70
86	Ab	104	C	C5-C4-N4	-5.25	116.53	120.20
1	Ad	25	C	C1'-O4'-C4'	-5.24	105.70	109.90
1	Ad	104	A	O4'-C1'-C2'	-5.24	100.56	105.80
2	Ae	44	A	C1'-O4'-C4'	5.24	114.09	109.90
84	Aa	1196	U	O4'-C1'-N1	5.24	112.39	108.20
84	Aa	1391	A	C5-C6-N6	-5.24	119.51	123.70
84	Aa	1587	G	O4'-C1'-N9	5.24	112.39	108.20
84	Aa	3109	G	N3-C2-N2	5.24	123.57	119.90
1	Ad	927	A	C4'-C3'-C2'	-5.24	97.36	102.60
1	Ad	1263	C	P-O3'-C3'	5.24	125.99	119.70
1	Ad	1410	C	C3'-C2'-C1'	5.24	105.69	101.50
1	Ad	1627	C	N1-C1'-C2'	5.24	120.81	114.00
84	Aa	72	A	C5-C6-N6	-5.24	119.51	123.70
84	Aa	458	G	C5-C6-O6	-5.24	125.45	128.60
84	Aa	497	G	O4'-C1'-N9	5.24	112.39	108.20
84	Aa	962	C	N3-C4-N4	5.24	121.67	118.00
84	Aa	968	A	C5-C6-N6	-5.24	119.51	123.70
84	Aa	1421	A	C4-C5-C6	5.24	119.62	117.00
84	Aa	1550	A	C5-C6-N1	-5.24	115.08	117.70
15	BU	11	PRO	C-N-CA	5.24	134.80	121.70
84	Aa	585	A	C5-C6-N6	-5.24	119.51	123.70
84	Aa	678	G	O4'-C1'-N9	5.24	112.39	108.20
84	Aa	1047	C	N3-C4-C5	-5.24	119.80	121.90
84	Aa	1052	A	C4-C5-C6	5.24	119.62	117.00
84	Aa	3290	C	N3-C4-N4	5.24	121.67	118.00
1	Ad	269	A	C3'-C2'-C1'	-5.24	97.31	101.50
1	Ad	560	A	O4'-C1'-N9	5.24	112.39	108.20
84	Aa	12	G	N1-C6-O6	5.24	123.04	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	353	A	C4-C5-C6	5.24	119.62	117.00
84	Aa	426	A	O4'-C1'-N9	5.24	112.39	108.20
84	Aa	486	G	N3-C2-N2	5.24	123.57	119.90
84	Aa	2648	G	O4'-C1'-N9	5.24	112.39	108.20
84	Aa	2931	C	N3-C4-N4	5.24	121.67	118.00
84	Aa	3061	C	N3-C4-N4	5.24	121.67	118.00
72	CC	110	LYS	N-CA-CB	5.24	120.03	110.60
84	Aa	2277	U	O4'-C1'-N1	5.24	112.39	108.20
84	Aa	2362	A	C5-C6-N6	-5.24	119.51	123.70
84	Aa	2531	G	C5-C6-O6	-5.24	125.46	128.60
84	Aa	2958	A	C4-C5-C6	5.24	119.62	117.00
1	Ad	138	C	O4'-C1'-N1	5.24	112.39	108.20
1	Ad	700	C	O4'-C1'-N1	5.24	112.39	108.20
84	Aa	464	G	P-O3'-C3'	5.24	125.98	119.70
84	Aa	693	C	N3-C4-N4	5.24	121.67	118.00
84	Aa	962	C	N3-C4-C5	-5.24	119.81	121.90
84	Aa	1568	A	O4'-C1'-N9	5.24	112.39	108.20
84	Aa	1697	G	N3-C2-N2	5.24	123.56	119.90
84	Aa	2133	A	C5-C6-N6	-5.24	119.51	123.70
84	Aa	2496	U	C2'-C3'-O3'	5.24	122.08	113.70
84	Aa	2874	A	C5-C6-N1	-5.24	115.08	117.70
84	Aa	3047	A	C4-C5-C6	5.24	119.62	117.00
85	Ac	36	G	O4'-C1'-N9	5.24	112.39	108.20
86	Ab	120	C	N1-C2-O2	5.24	122.04	118.90
1	Ad	401	A	O4'-C1'-N9	5.23	112.39	108.20
84	Aa	2227	A	C5-C6-N1	-5.23	115.08	117.70
1	Ad	991	G	C4'-C3'-C2'	-5.23	97.37	102.60
1	Ad	1210	U	P-O3'-C3'	5.23	125.98	119.70
37	CG	222	PHE	CB-CG-CD2	5.23	124.46	120.80
69	CF	77	PHE	CB-CG-CD2	-5.23	117.14	120.80
84	Aa	142	G	O4'-C1'-N9	5.23	112.39	108.20
84	Aa	527	G	O4'-C1'-N9	5.23	112.39	108.20
84	Aa	1874	A	C5-C6-N6	-5.23	119.51	123.70
84	Aa	1883	A	C5-C6-N6	-5.23	119.52	123.70
84	Aa	1958	G	N9-C1'-C2'	-5.23	106.25	112.00
84	Aa	2498	C	N3-C4-N4	5.23	121.66	118.00
84	Aa	2597	C	N3-C4-C5	-5.23	119.81	121.90
84	Aa	2695	A	C5-C6-N1	-5.23	115.08	117.70
1	Ad	776	A	C1'-O4'-C4'	5.23	114.08	109.90
1	Ad	1676	G	O4'-C1'-N9	5.23	112.39	108.20
7	BM	117	GLU	N-CA-CB	5.23	120.01	110.60
64	Ci	95	SER	N-CA-C	-5.23	96.88	111.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	965	A	C4-C5-C6	5.23	119.62	117.00
1	Ad	1494	G	P-O3'-C3'	5.23	125.97	119.70
84	Aa	38	A	C4-C5-C6	5.23	119.61	117.00
84	Aa	1905	A	C5-C6-N6	-5.23	119.52	123.70
84	Aa	2247	A	C5-C6-N1	-5.23	115.08	117.70
84	Aa	3190	U	C6-N1-C1'	-5.23	113.88	121.20
1	Ad	1256	C	O4'-C1'-N1	5.23	112.38	108.20
84	Aa	326	C	N3-C4-N4	5.23	121.66	118.00
84	Aa	562	G	O4'-C1'-N9	5.23	112.38	108.20
84	Aa	1139	A	C5-C6-N6	-5.23	119.52	123.70
84	Aa	1423	C	N3-C4-C5	-5.23	119.81	121.90
84	Aa	2007	C	N3-C4-C5	-5.23	119.81	121.90
84	Aa	2429	A	C5-C6-N6	-5.23	119.52	123.70
1	Ad	100	C	N1-C1'-C2'	-5.23	106.25	112.00
84	Aa	512	G	N1-C2-N3	-5.23	120.76	123.90
84	Aa	1179	C	N3-C4-C5	-5.23	119.81	121.90
84	Aa	1458	U	O4'-C1'-N1	5.23	112.38	108.20
84	Aa	1744	C	N3-C4-N4	5.23	121.66	118.00
84	Aa	2262	C	N3-C4-N4	5.23	121.66	118.00
84	Aa	3374	C	N3-C4-C5	-5.23	119.81	121.90
86	Ab	74	A	P-O3'-C3'	5.23	125.97	119.70
84	Aa	967	G	C5'-C4'-C3'	-5.22	107.64	116.00
84	Aa	1007	A	O4'-C1'-N9	5.22	112.38	108.20
84	Aa	1440	C	N3-C4-N4	5.22	121.66	118.00
84	Aa	1615	G	C5-C6-O6	-5.22	125.47	128.60
84	Aa	1795	A	C5-C6-N6	-5.22	119.52	123.70
84	Aa	2209	A	C4-C5-C6	5.22	119.61	117.00
84	Aa	2565	C	N3-C4-C5	-5.22	119.81	121.90
84	Aa	3307	A	C4-C5-C6	5.22	119.61	117.00
86	Ab	29	C	C2'-C3'-O3'	5.22	122.06	113.70
1	Ad	420	A	O4'-C1'-N9	5.22	112.38	108.20
1	Ad	545	A	P-O5'-C5'	-5.22	112.54	120.90
1	Ad	649	C	O4'-C1'-N1	5.22	112.38	108.20
1	Ad	1672	U	N1-C1'-C2'	5.22	120.79	114.00
84	Aa	510	C	N3-C4-N4	5.22	121.66	118.00
84	Aa	750	G	C5-C6-O6	-5.22	125.47	128.60
84	Aa	979	C	N3-C4-N4	5.22	121.66	118.00
84	Aa	1258	C	P-O5'-C5'	-5.22	112.55	120.90
84	Aa	1376	A	O4'-C1'-N9	5.22	112.38	108.20
84	Aa	1408	C	N3-C4-N4	5.22	121.66	118.00
84	Aa	2590	C	N3-C4-C5	-5.22	119.81	121.90
1	Ad	906	G	O4'-C1'-C2'	5.22	112.30	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	1594	A	C5'-C4'-O4'	5.22	115.36	109.10
84	Aa	981	A	O4'-C1'-N9	5.22	112.38	108.20
84	Aa	1571	A	C5-C6-N1	-5.22	115.09	117.70
84	Aa	1880	A	C5-C6-N6	-5.22	119.52	123.70
84	Aa	1950	G	O3'-P-O5'	5.22	113.92	104.00
84	Aa	2473	C	N3-C4-C5	-5.22	119.81	121.90
84	Aa	3334	A	C4-C5-C6	5.22	119.61	117.00
1	Ad	162	A	O4'-C1'-C2'	5.22	112.30	107.60
1	Ad	521	U	C4'-C3'-C2'	-5.22	97.38	102.60
1	Ad	534	C	O4'-C1'-N1	5.22	112.38	108.20
3	Af	16	G	C4'-C3'-C2'	-5.22	97.38	102.60
69	CF	110	LEU	N-CA-C	-5.22	96.91	111.00
84	Aa	721	A	P-O5'-C5'	5.22	129.25	120.90
84	Aa	1010	A	O4'-C1'-N9	5.22	112.38	108.20
84	Aa	1737	C	N3-C4-C5	-5.22	119.81	121.90
84	Aa	2953	G	C5-C6-O6	-5.22	125.47	128.60
1	Ad	1184	C	P-O3'-C3'	5.22	125.96	119.70
84	Aa	791	C	N3-C4-N4	5.22	121.65	118.00
84	Aa	1578	U	O4'-C1'-N1	5.22	112.38	108.20
84	Aa	5	G	N3-C2-N2	5.22	123.55	119.90
84	Aa	565	C	C4'-C3'-C2'	-5.22	97.38	102.60
84	Aa	597	C	N3-C4-C5	-5.22	119.81	121.90
84	Aa	1395	A	C5-C6-N1	-5.22	115.09	117.70
84	Aa	1407	G	O4'-C1'-N9	5.22	112.37	108.20
84	Aa	1759	C	N3-C4-N4	5.22	121.65	118.00
84	Aa	2216	G	C6-C5-N7	-5.22	127.27	130.40
84	Aa	2233	G	C5-C6-O6	-5.22	125.47	128.60
84	Aa	2291	A	O4'-C1'-N9	5.22	112.37	108.20
84	Aa	2362	A	C5-C6-N1	-5.22	115.09	117.70
84	Aa	2865	G	O4'-C1'-N9	5.22	112.37	108.20
84	Aa	2902	A	O4'-C1'-N9	5.22	112.37	108.20
84	Aa	424	G	C6-C5-N7	-5.21	127.27	130.40
84	Aa	454	A	P-O5'-C5'	5.21	129.24	120.90
84	Aa	1507	A	C5-C6-N1	-5.21	115.09	117.70
84	Aa	1566	C	N3-C4-N4	5.21	121.65	118.00
84	Aa	2178	G	N9-C1'-C2'	-5.21	106.26	112.00
84	Aa	2524	U	C4'-C3'-C2'	-5.21	97.39	102.60
84	Aa	2641	A	C5-C6-N1	-5.21	115.09	117.70
84	Aa	3195	C	N3-C4-C5	-5.21	119.81	121.90
84	Aa	1581	C	N3-C4-N4	5.21	121.65	118.00
84	Aa	2707	A	C5-C6-N6	-5.21	119.53	123.70
84	Aa	3124	A	C5-C6-N1	-5.21	115.09	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	716	A	O3'-P-O5'	5.21	113.90	104.00
1	Ad	1035	A	O4'-C1'-C2'	-5.21	100.59	105.80
1	Ad	1167	C	O4'-C1'-N1	5.21	112.37	108.20
18	BN	129	TYR	CB-CG-CD2	-5.21	117.87	121.00
30	BB	188	PHE	CB-CG-CD2	-5.21	117.15	120.80
84	Aa	237	C	N3-C4-N4	5.21	121.65	118.00
84	Aa	964	C	N3-C4-C5	-5.21	119.82	121.90
84	Aa	1720	C	N3-C4-C5	-5.21	119.81	121.90
84	Aa	2086	A	O3'-P-O5'	5.21	113.90	104.00
84	Aa	2207	C	N3-C4-N4	5.21	121.65	118.00
84	Aa	2546	C	N3-C4-C5	-5.21	119.82	121.90
2	Ae	37	G	O4'-C1'-C2'	5.21	112.29	107.60
40	Cz	167	ALA	N-CA-CB	5.21	117.39	110.10
84	Aa	851	A	C5-C6-N1	-5.21	115.09	117.70
84	Aa	2107	A	C5-C6-N1	-5.21	115.09	117.70
86	Ab	53	U	C5-C6-N1	5.21	125.31	122.70
1	Ad	269	A	P-O5'-C5'	5.21	129.23	120.90
1	Ad	839	G	N9-C1'-C2'	5.21	120.77	114.00
1	Ad	857	A	O4'-C1'-N9	5.21	112.37	108.20
1	Ad	1624	G	C1'-O4'-C4'	-5.21	105.73	109.90
84	Aa	128	C	C2-N3-C4	5.21	122.50	119.90
84	Aa	140	C	N3-C4-N4	5.21	121.65	118.00
84	Aa	795	C	N3-C4-N4	5.21	121.65	118.00
84	Aa	1007	A	C5-C6-N6	-5.21	119.53	123.70
84	Aa	1305	A	C5-C6-N1	-5.21	115.10	117.70
84	Aa	1599	A	P-O5'-C5'	-5.21	112.57	120.90
84	Aa	2286	A	C5'-C4'-C3'	5.21	124.33	116.00
84	Aa	2373	C	N3-C4-C5	-5.21	119.82	121.90
84	Aa	3349	C	N3-C4-N4	5.21	121.65	118.00
85	Ac	80	A	C5-C6-N6	-5.21	119.53	123.70
1	Ad	983	A	O4'-C1'-N9	5.21	112.36	108.20
1	Ad	1442	A	C5'-C4'-O4'	5.21	115.35	109.10
1	Ad	1492	G	C3'-C2'-C1'	-5.21	97.33	101.50
49	CR	159	PHE	CB-CG-CD1	5.21	124.44	120.80
84	Aa	386	G	O4'-C1'-N9	5.21	112.36	108.20
84	Aa	1457	A	C4-C5-C6	5.21	119.60	117.00
84	Aa	1537	A	C5-C6-N6	-5.21	119.53	123.70
2	Ae	21	A	P-O5'-C5'	5.21	129.23	120.90
19	BL	54	TYR	CB-CG-CD2	-5.21	117.88	121.00
84	Aa	189	C	N3-C4-N4	5.21	121.64	118.00
84	Aa	1491	G	O4'-C1'-N9	5.21	112.36	108.20
84	Aa	3217	G	C5-C6-O6	-5.21	125.48	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	329	G	P-O3'-C3'	5.20	125.94	119.70
1	Ad	547	C	C4'-C3'-C2'	-5.20	97.40	102.60
1	Ad	933	G	O4'-C1'-N9	5.20	112.36	108.20
1	Ad	1609	G	O4'-C1'-C2'	5.20	112.28	107.60
84	Aa	1020	U	O4'-C1'-N1	5.20	112.36	108.20
84	Aa	1359	A	C5-C6-N1	-5.20	115.10	117.70
84	Aa	1599	A	C5-C6-N1	-5.20	115.10	117.70
84	Aa	2344	A	C5-C6-N6	-5.20	119.54	123.70
84	Aa	3116	C	N3-C4-N4	5.20	121.64	118.00
84	Aa	3297	A	C5-C6-N6	-5.20	119.54	123.70
85	Ac	123	G	N3-C2-N2	5.20	123.54	119.90
64	Ci	42	PHE	N-CA-CB	5.20	119.96	110.60
84	Aa	2446	G	O4'-C1'-N9	5.20	112.36	108.20
84	Aa	2786	G	N3-C2-N2	5.20	123.54	119.90
84	Aa	2916	G	O4'-C1'-N9	5.20	112.36	108.20
85	Ac	108	C	C2-N3-C4	5.20	122.50	119.90
1	Ad	823	A	N9-C1'-C2'	5.20	120.76	114.00
1	Ad	1071	C	C5'-C4'-O4'	5.20	115.34	109.10
84	Aa	383	A	O4'-C1'-N9	5.20	112.36	108.20
84	Aa	739	C	N3-C4-C5	-5.20	119.82	121.90
84	Aa	1330	A	C5-C6-N6	-5.20	119.54	123.70
84	Aa	2047	A	O4'-C1'-N9	5.20	112.36	108.20
84	Aa	2646	A	C4-C5-C6	5.20	119.60	117.00
1	Ad	489	C	O4'-C1'-C2'	-5.20	100.60	105.80
1	Ad	578	G	C3'-C2'-C1'	-5.20	97.34	101.50
1	Ad	1110	C	C1'-O4'-C4'	-5.20	105.74	109.90
84	Aa	1179	C	O4'-C1'-N1	5.20	112.36	108.20
84	Aa	1369	G	N3-C2-N2	5.20	123.54	119.90
84	Aa	1859	G	O4'-C1'-N9	5.20	112.36	108.20
84	Aa	2635	G	N3-C2-N2	5.20	123.54	119.90
84	Aa	2665	A	C5-C6-N6	-5.20	119.54	123.70
84	Aa	2736	A	O4'-C1'-N9	5.20	112.36	108.20
84	Aa	2761	A	C5-C6-N1	-5.20	115.10	117.70
1	Ad	1698	A	N9-C1'-C2'	5.20	120.76	114.00
63	CU	87	TYR	CB-CG-CD1	5.20	124.12	121.00
84	Aa	1199	A	O4'-C1'-N9	5.20	112.36	108.20
84	Aa	1736	C	N3-C4-N4	5.20	121.64	118.00
84	Aa	2093	G	N1-C2-N3	-5.20	120.78	123.90
84	Aa	2794	A	C5-C6-N6	-5.20	119.54	123.70
84	Aa	3125	G	O4'-C1'-N9	5.20	112.36	108.20
85	Ac	72	A	C5'-C4'-O4'	5.20	115.34	109.10
1	Ad	82	G	O4'-C1'-C2'	5.20	112.28	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	700	C	N1-C1'-C2'	5.20	120.75	114.00
1	Ad	1645	C	C5'-C4'-O4'	5.20	115.33	109.10
1	Ad	1771	U	C4'-C3'-C2'	5.20	107.80	102.60
84	Aa	609	C	C5'-C4'-O4'	5.20	115.34	109.10
84	Aa	1809	A	C5-C6-N1	-5.20	115.10	117.70
84	Aa	2131	U	O4'-C1'-N1	5.20	112.36	108.20
84	Aa	2251	A	O4'-C1'-N9	5.20	112.36	108.20
84	Aa	2715	U	C5'-C4'-C3'	-5.20	107.69	116.00
1	Ad	1147	A	O4'-C1'-N9	5.19	112.36	108.20
84	Aa	774	A	O4'-C1'-N9	5.19	112.36	108.20
84	Aa	811	A	C4-C5-C6	5.19	119.60	117.00
84	Aa	1261	C	P-O5'-C5'	5.19	129.21	120.90
84	Aa	3381	C	N3-C4-C5	-5.19	119.82	121.90
85	Ac	138	G	C5-C6-O6	-5.19	125.48	128.60
35	BG	159	VAL	C-N-CA	5.19	134.68	121.70
84	Aa	2179	U	C5'-C4'-O4'	5.19	115.33	109.10
84	Aa	2283	G	O4'-C1'-N9	5.19	112.35	108.20
86	Ab	69	A	C6-C5-N7	-5.19	128.66	132.30
1	Ad	581	G	C1'-O4'-C4'	-5.19	105.75	109.90
1	Ad	982	A	O4'-C1'-N9	5.19	112.35	108.20
2	Ae	60	C	O4'-C1'-N1	5.19	112.35	108.20
84	Aa	395	A	C4-C5-C6	5.19	119.60	117.00
84	Aa	653	A	C5-C6-N6	-5.19	119.55	123.70
84	Aa	878	G	O4'-C1'-N9	5.19	112.35	108.20
84	Aa	929	A	C5-C6-N1	-5.19	115.11	117.70
84	Aa	1379	G	O4'-C1'-N9	5.19	112.35	108.20
84	Aa	2142	A	C5-C6-N1	-5.19	115.10	117.70
84	Aa	2316	A	C5-C6-N6	-5.19	119.55	123.70
84	Aa	3148	A	O4'-C1'-N9	5.19	112.35	108.20
84	Aa	3354	A	C4-C5-C6	5.19	119.59	117.00
86	Ab	70	G	C4-C5-C6	5.19	121.92	118.80
86	Ab	89	G	C5-C6-O6	-5.19	125.49	128.60
84	Aa	567	G	C6-C5-N7	-5.19	127.29	130.40
84	Aa	1115	A	C5-C6-N6	-5.19	119.55	123.70
84	Aa	1327	G	C5-C6-O6	-5.19	125.49	128.60
84	Aa	1847	G	O4'-C1'-N9	5.19	112.35	108.20
84	Aa	3299	A	C5-C6-N6	-5.19	119.55	123.70
1	Ad	1001	C	O4'-C1'-C2'	-5.19	100.61	105.80
1	Ad	1097	A	N9-C1'-C2'	5.19	120.74	114.00
70	Cq	14	TYR	CB-CG-CD2	-5.19	117.89	121.00
82	Cb	25	LYS	N-CA-CB	5.19	119.94	110.60
84	Aa	94	A	C5-C6-N6	-5.19	119.55	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	827	C	N3-C4-N4	5.19	121.63	118.00
84	Aa	1284	C	N3-C4-N4	5.19	121.63	118.00
84	Aa	1594	G	N3-C2-N2	5.19	123.53	119.90
84	Aa	1793	A	O4'-C1'-N9	5.19	112.35	108.20
84	Aa	2677	A	O4'-C1'-N9	5.19	112.35	108.20
85	Ac	13	A	C5-C6-N6	-5.19	119.55	123.70
85	Ac	61	A	C5-C6-N6	-5.19	119.55	123.70
86	Ab	44	C	P-O5'-C5'	-5.19	112.60	120.90
1	Ad	72	A	C3'-C2'-C1'	5.19	105.65	101.50
1	Ad	428	C	C1'-O4'-C4'	-5.19	105.75	109.90
84	Aa	435	G	N1-C6-O6	5.19	123.01	119.90
84	Aa	547	C	N3-C4-N4	5.19	121.63	118.00
84	Aa	2203	A	C5-C6-N1	-5.19	115.11	117.70
84	Aa	2210	A	O4'-C1'-N9	5.19	112.35	108.20
84	Aa	3327	A	C5-C6-N1	-5.19	115.11	117.70
85	Ac	3	A	C4-C5-C6	5.19	119.59	117.00
1	Ad	813	A	C1'-O4'-C4'	5.18	114.05	109.90
1	Ad	965	U	P-O5'-C5'	-5.18	112.60	120.90
1	Ad	1137	A	O4'-C1'-N9	5.18	112.35	108.20
84	Aa	1293	C	C2-N3-C4	5.18	122.49	119.90
84	Aa	2707	A	C4-C5-C6	5.18	119.59	117.00
84	Aa	2744	C	N3-C4-C5	-5.18	119.83	121.90
86	Ab	75	G	C5'-C4'-O4'	5.18	115.32	109.10
1	Ad	874	A	O4'-C1'-C2'	-5.18	100.62	105.80
1	Ad	1556	U	C1'-O4'-C4'	5.18	114.05	109.90
30	BB	188	PHE	CB-CG-CD1	5.18	124.43	120.80
84	Aa	23	A	C5-C6-N1	-5.18	115.11	117.70
84	Aa	334	A	C4-C5-C6	5.18	119.59	117.00
84	Aa	899	A	C5-C6-N6	-5.18	119.55	123.70
84	Aa	1244	A	O4'-C1'-N9	5.18	112.35	108.20
84	Aa	1397	A	C5-C6-N6	-5.18	119.55	123.70
84	Aa	1787	C	N3-C4-N4	5.18	121.63	118.00
84	Aa	1965	C	N3-C4-C5	-5.18	119.83	121.90
84	Aa	2529	C	C2-N3-C4	5.18	122.49	119.90
84	Aa	2625	C	N3-C4-C5	-5.18	119.83	121.90
84	Aa	2900	G	N1-C6-O6	5.18	123.01	119.90
84	Aa	3124	A	O4'-C1'-N9	5.18	112.35	108.20
85	Ac	92	A	C5-C6-N6	-5.18	119.55	123.70
85	Ac	137	G	C5-C6-O6	-5.18	125.49	128.60
84	Aa	1137	G	C5-C6-O6	-5.18	125.49	128.60
84	Aa	1584	A	C5-C6-N6	-5.18	119.56	123.70
1	Ad	517	U	C5'-C4'-O4'	5.18	115.32	109.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	1538	C	C1'-O4'-C4'	5.18	114.04	109.90
1	Ad	1584	A	O4'-C1'-C2'	-5.18	100.62	105.80
84	Aa	789	A	C4-C5-C6	5.18	119.59	117.00
84	Aa	804	A	C5-C6-N6	-5.18	119.56	123.70
84	Aa	871	C	N3-C4-N4	5.18	121.62	118.00
84	Aa	1282	A	C5-C6-N1	-5.18	115.11	117.70
84	Aa	1356	G	O4'-C1'-N9	5.18	112.34	108.20
84	Aa	1926	A	O4'-C1'-N9	5.18	112.34	108.20
84	Aa	2193	A	C5-C6-N1	-5.18	115.11	117.70
85	Ac	80	A	O4'-C1'-N9	5.18	112.34	108.20
85	Ac	125	C	N3-C4-N4	5.18	121.62	118.00
84	Aa	227	C	N3-C4-N4	5.18	121.62	118.00
84	Aa	1030	A	O4'-C1'-N9	5.18	112.34	108.20
84	Aa	1850	C	C2-N3-C4	5.18	122.49	119.90
1	Ad	177	C	O4'-C1'-C2'	-5.18	100.62	105.80
1	Ad	260	A	N9-C1'-C2'	5.18	120.73	114.00
1	Ad	1538	C	P-O5'-C5'	5.18	129.18	120.90
1	Ad	1699	C	O4'-C1'-N1	5.18	112.34	108.20
2	Ae	56	A	C3'-C2'-C1'	5.18	105.64	101.50
78	CL	66	ASN	N-CA-CB	5.18	119.92	110.60
84	Aa	149	A	C5-C6-N1	-5.18	115.11	117.70
84	Aa	672	A	O4'-C1'-N9	5.18	112.34	108.20
84	Aa	1513	C	N3-C4-N4	5.18	121.62	118.00
84	Aa	2388	C	C5'-C4'-C3'	5.18	124.28	116.00
84	Aa	2649	C	N3-C4-C5	-5.18	119.83	121.90
1	Ad	511	U	C1'-O4'-C4'	5.17	114.04	109.90
84	Aa	382	A	O4'-C1'-N9	5.17	112.34	108.20
84	Aa	1140	C	N3-C4-N4	5.17	121.62	118.00
84	Aa	2179	U	C4'-C3'-O3'	-5.17	98.53	109.40
84	Aa	2280	C	N3-C4-C5	-5.17	119.83	121.90
84	Aa	2356	A	O4'-C1'-N9	5.17	112.34	108.20
84	Aa	3367	C	N3-C4-C5	-5.17	119.83	121.90
86	Ab	78	C	O4'-C1'-N1	5.17	112.34	108.20
1	Ad	409	C	O4'-C1'-N1	5.17	112.34	108.20
1	Ad	774	C	C3'-C2'-C1'	5.17	105.64	101.50
1	Ad	961	U	C3'-C2'-C1'	5.17	105.64	101.50
84	Aa	67	C	N3-C4-N4	5.17	121.62	118.00
84	Aa	813	A	C5-C6-N6	-5.17	119.56	123.70
1	Ad	29	U	C1'-O4'-C4'	5.17	114.04	109.90
84	Aa	1654	C	O4'-C1'-N1	5.17	112.34	108.20
84	Aa	1898	G	O4'-C1'-N9	5.17	112.34	108.20
84	Aa	2770	U	C5'-C4'-C3'	-5.17	107.73	116.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2869	C	N3-C4-N4	5.17	121.62	118.00
84	Aa	3099	G	O4'-C1'-N9	5.17	112.34	108.20
84	Aa	3123	A	C5-C6-N6	-5.17	119.56	123.70
1	Ad	1808	U	O4'-C1'-C2'	-5.17	100.63	105.80
22	BZ	18	SER	N-CA-CB	5.17	118.25	110.50
84	Aa	1482	C	N3-C4-N4	5.17	121.62	118.00
84	Aa	2401	A	O4'-C1'-N9	5.17	112.34	108.20
84	Aa	3196	C	N3-C4-N4	5.17	121.62	118.00
1	Ad	222	G	OP1-P-OP2	-5.17	111.85	119.60
1	Ad	576	C	C3'-C2'-C1'	5.17	105.64	101.50
1	Ad	1497	U	C5'-C4'-O4'	5.17	115.30	109.10
1	Ad	1798	G	C5'-C4'-O4'	5.17	115.30	109.10
84	Aa	565	C	N3-C4-C5	-5.17	119.83	121.90
84	Aa	630	C	N3-C4-C5	-5.17	119.83	121.90
84	Aa	655	G	O4'-C1'-N9	5.17	112.33	108.20
84	Aa	1230	G	O4'-C1'-N9	5.17	112.33	108.20
84	Aa	2013	G	C5'-C4'-O4'	5.17	115.30	109.10
84	Aa	2541	A	C4-C5-C6	5.17	119.58	117.00
84	Aa	2674	A	O4'-C1'-N9	5.17	112.33	108.20
84	Aa	2815	A	C5-C6-N6	-5.17	119.56	123.70
84	Aa	2869	C	C2-N3-C4	5.17	122.48	119.90
84	Aa	3048	C	N3-C4-N4	5.17	121.62	118.00
86	Ab	56	G	C6-C5-N7	-5.17	127.30	130.40
86	Ab	82	G	N1-C6-O6	5.17	123.00	119.90
1	Ad	1793	C	O4'-C1'-N1	5.17	112.33	108.20
11	BD	120	TYR	CB-CG-CD1	-5.17	117.90	121.00
84	Aa	1334	A	C4-C5-C6	5.17	119.58	117.00
84	Aa	2304	A	C5-C6-N6	-5.17	119.57	123.70
84	Aa	2699	A	C5-C6-N1	-5.17	115.12	117.70
84	Aa	2841	G	O4'-C1'-N9	5.17	112.33	108.20
84	Aa	3220	A	O4'-C1'-N9	5.17	112.33	108.20
85	Ac	135	A	C5-C6-N6	-5.17	119.57	123.70
1	Ad	231	U	N1-C1'-C2'	5.17	120.72	114.00
1	Ad	265	A	C4'-C3'-C2'	-5.17	97.44	102.60
1	Ad	473	C	C3'-C2'-C1'	5.17	105.63	101.50
84	Aa	105	A	C4-C5-C6	5.17	119.58	117.00
85	Ac	129	C	C6-N1-C2	-5.17	118.23	120.30
1	Ad	1191	U	N1-C1'-C2'	5.16	120.71	114.00
1	Ad	1280	U	O4'-C1'-C2'	-5.16	100.64	105.80
84	Aa	236	A	C4-C5-C6	5.16	119.58	117.00
84	Aa	282	A	O5'-C5'-C4'	5.16	121.51	111.70
84	Aa	724	A	C4-C5-C6	5.16	119.58	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1506	A	C4-C5-C6	5.16	119.58	117.00
84	Aa	3221	A	C5-C6-N1	-5.16	115.12	117.70
84	Aa	3333	C	N3-C4-N4	5.16	121.61	118.00
86	Ab	50	A	N1-C2-N3	5.16	131.88	129.30
84	Aa	101	C	N3-C4-N4	5.16	121.61	118.00
84	Aa	263	A	C5-C6-N1	-5.16	115.12	117.70
84	Aa	638	G	P-O5'-C5'	5.16	129.16	120.90
84	Aa	299	G	O4'-C1'-N9	5.16	112.33	108.20
84	Aa	1469	G	O4'-C1'-N9	5.16	112.33	108.20
84	Aa	2270	A	C5-C6-N6	-5.16	119.57	123.70
84	Aa	3094	C	N3-C4-C5	-5.16	119.84	121.90
1	Ad	451	U	N1-C1'-C2'	5.16	120.70	114.00
1	Ad	485	A	N9-C1'-C2'	5.16	120.71	114.00
1	Ad	1326	A	O4'-C1'-N9	5.16	112.33	108.20
84	Aa	94	A	O4'-C1'-N9	5.16	112.33	108.20
84	Aa	519	C	N3-C4-N4	5.16	121.61	118.00
84	Aa	1395	A	O4'-C1'-N9	5.16	112.33	108.20
84	Aa	1424	G	N3-C2-N2	5.16	123.51	119.90
84	Aa	2288	C	N3-C4-N4	5.16	121.61	118.00
84	Aa	3321	C	P-O3'-C3'	5.16	125.89	119.70
84	Aa	2709	G	O4'-C1'-N9	5.16	112.33	108.20
84	Aa	3332	G	P-O3'-C3'	5.16	125.89	119.70
1	Ad	758	A	C1'-O4'-C4'	-5.16	105.78	109.90
84	Aa	294	A	C5-C6-N1	-5.16	115.12	117.70
84	Aa	1092	G	O4'-C1'-N9	5.16	112.33	108.20
84	Aa	1140	C	N3-C4-C5	-5.16	119.84	121.90
84	Aa	1585	A	C4-C5-C6	5.16	119.58	117.00
84	Aa	1638	U	O4'-C1'-N1	5.16	112.32	108.20
84	Aa	1907	A	O4'-C1'-N9	5.16	112.33	108.20
84	Aa	2754	G	O4'-C1'-N9	5.16	112.32	108.20
84	Aa	2868	C	N3-C4-C5	-5.16	119.84	121.90
86	Ab	48	G	C2-N3-C4	-5.16	109.32	111.90
84	Aa	832	C	N3-C4-C5	-5.15	119.84	121.90
84	Aa	1450	G	C4-C5-C6	5.15	121.89	118.80
84	Aa	350	A	C5-C6-N1	-5.15	115.12	117.70
84	Aa	771	G	O4'-C1'-N9	5.15	112.32	108.20
84	Aa	1731	A	O4'-C1'-N9	5.15	112.32	108.20
84	Aa	1913	C	N3-C4-N4	5.15	121.61	118.00
84	Aa	2282	C	N3-C4-C5	-5.15	119.84	121.90
84	Aa	3279	G	O4'-C1'-N9	5.15	112.32	108.20
85	Ac	6	C	N3-C4-C5	-5.15	119.84	121.90
85	Ac	41	A	C4-C5-C6	5.15	119.58	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	938	A	O4'-C1'-C2'	5.15	112.24	107.60
1	Ad	1626	C	O4'-C1'-C2'	-5.15	100.65	105.80
84	Aa	1256	A	C5-C6-N1	-5.15	115.12	117.70
84	Aa	2386	A	O4'-C1'-N9	5.15	112.32	108.20
84	Aa	3127	C	N3-C4-N4	5.15	121.61	118.00
85	Ac	77	A	C5-C6-N6	-5.15	119.58	123.70
85	Ac	99	C	N3-C4-C5	-5.15	119.84	121.90
84	Aa	311	G	C5-C6-O6	-5.15	125.51	128.60
84	Aa	1560	A	C5'-C4'-O4'	5.15	115.28	109.10
84	Aa	1894	G	C5-C6-O6	-5.15	125.51	128.60
85	Ac	132	C	N3-C4-N4	5.15	121.61	118.00
1	Ad	506	G	C1'-O4'-C4'	-5.15	105.78	109.90
1	Ad	593	C	C3'-C2'-C1'	5.15	105.62	101.50
2	Ae	61	C	O4'-C1'-N1	5.15	112.32	108.20
84	Aa	11	A	C4-C5-C6	5.15	119.57	117.00
84	Aa	1224	A	C5-C6-N1	-5.15	115.13	117.70
84	Aa	1401	C	C2-N3-C4	5.15	122.47	119.90
84	Aa	1435	C	N3-C4-N4	5.15	121.60	118.00
84	Aa	1660	C	N3-C4-N4	5.15	121.60	118.00
84	Aa	1771	G	N3-C2-N2	5.15	123.50	119.90
84	Aa	1998	A	C5-C6-N1	-5.15	115.13	117.70
84	Aa	2125	A	C5-C6-N6	-5.15	119.58	123.70
84	Aa	2251	A	C5-C6-N1	-5.15	115.13	117.70
84	Aa	2374	G	O4'-C1'-N9	5.15	112.32	108.20
84	Aa	2849	A	O4'-C1'-N9	5.15	112.32	108.20
42	CJ	63	ARG	N-CA-CB	5.15	119.86	110.60
84	Aa	1019	A	O4'-C1'-N9	5.15	112.32	108.20
84	Aa	2290	A	C5-C6-N6	-5.15	119.58	123.70
1	Ad	8	U	O4'-C1'-C2'	-5.14	100.66	105.80
1	Ad	1548	G	C3'-C2'-C1'	-5.14	97.38	101.50
1	Ad	1716	C	N1-C1'-C2'	5.14	120.69	114.00
84	Aa	660	A	C5-C6-N6	-5.14	119.58	123.70
84	Aa	873	A	C5-C6-N1	-5.14	115.13	117.70
84	Aa	2235	G	N3-C2-N2	5.14	123.50	119.90
84	Aa	3172	G	C4-N9-C1'	5.14	133.19	126.50
84	Aa	3209	U	O4'-C1'-N1	5.14	112.31	108.20
86	Ab	26	C	N3-C4-N4	5.14	121.60	118.00
2	Ae	58	U	N1-C1'-C2'	-5.14	106.34	112.00
71	CB	2	SER	N-CA-C	-5.14	97.11	111.00
84	Aa	396	G	O4'-C1'-N9	5.14	112.31	108.20
84	Aa	955	A	C5-C6-N1	-5.14	115.13	117.70
84	Aa	1083	C	N3-C4-C5	-5.14	119.84	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2434	G	P-O3'-C3'	-5.14	113.53	119.70
84	Aa	3317	G	N3-C2-N2	5.14	123.50	119.90
84	Aa	384	A	C5-C6-N1	-5.14	115.13	117.70
1	Ad	405	A	O4'-C1'-N9	5.14	112.31	108.20
63	CU	108	ASN	N-CA-CB	5.14	119.85	110.60
84	Aa	500	C	N3-C4-C5	-5.14	119.84	121.90
84	Aa	1193	A	C8-N9-C4	-5.14	103.75	105.80
84	Aa	1235	A	C5-C6-N1	-5.14	115.13	117.70
84	Aa	1400	C	N3-C4-N4	5.14	121.60	118.00
84	Aa	1838	A	C5-C6-N1	-5.14	115.13	117.70
84	Aa	2569	G	C5-C6-O6	-5.14	125.52	128.60
84	Aa	2814	C	N3-C4-N4	5.14	121.60	118.00
84	Aa	3313	C	N3-C4-C5	-5.14	119.84	121.90
1	Ad	66	U	C2'-C3'-O3'	5.14	121.92	113.70
84	Aa	1960	C	N3-C4-N4	5.14	121.60	118.00
84	Aa	2358	C	N3-C4-N4	5.14	121.60	118.00
84	Aa	2834	C	N3-C4-N4	5.14	121.60	118.00
1	Ad	400	G	P-O3'-C3'	-5.14	113.53	119.70
1	Ad	1105	G	C1'-O4'-C4'	-5.14	105.79	109.90
16	BO	66	ASP	N-CA-CB	5.14	119.84	110.60
84	Aa	554	C	C5'-C4'-O4'	5.14	115.26	109.10
84	Aa	963	U	O4'-C1'-N1	5.14	112.31	108.20
84	Aa	1235	A	C5-C6-N6	-5.14	119.59	123.70
84	Aa	1560	A	O5'-P-OP1	-5.14	101.08	105.70
84	Aa	1927	A	C5-C6-N1	-5.14	115.13	117.70
85	Ac	83	C	N3-C4-C5	-5.14	119.84	121.90
86	Ab	47	C	C5-C4-N4	-5.14	116.61	120.20
1	Ad	802	A	O4'-C1'-N9	5.13	112.31	108.20
25	Bd	14	TYR	N-CA-CB	5.13	119.84	110.60
60	Co	102	THR	N-CA-CB	5.13	120.06	110.30
84	Aa	186	A	O4'-C1'-N9	5.13	112.31	108.20
84	Aa	674	G	C5-C6-O6	-5.13	125.52	128.60
84	Aa	2073	U	C6-N1-C1'	-5.13	114.01	121.20
84	Aa	2276	A	C5-C6-N1	-5.13	115.13	117.70
84	Aa	2804	A	O4'-C1'-N9	5.13	112.31	108.20
1	Ad	45	U	N1-C1'-C2'	5.13	120.67	114.00
84	Aa	341	U	O4'-C1'-N1	5.13	112.31	108.20
84	Aa	1059	A	C4-C5-C6	5.13	119.57	117.00
84	Aa	1132	A	O4'-C1'-N9	5.13	112.31	108.20
84	Aa	1151	G	O4'-C1'-N9	5.13	112.31	108.20
84	Aa	1946	C	N3-C4-N4	5.13	121.59	118.00
84	Aa	3177	A	C5-C6-N6	-5.13	119.59	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
85	Ac	131	G	N3-C2-N2	5.13	123.49	119.90
1	Ad	515	A	C3'-C2'-C1'	5.13	105.61	101.50
1	Ad	642	C	C3'-C2'-C1'	5.13	105.61	101.50
1	Ad	732	G	C3'-C2'-C1'	-5.13	97.39	101.50
2	Ae	53	U	O4'-C1'-C2'	-5.13	100.67	105.80
84	Aa	62	A	O4'-C1'-N9	5.13	112.31	108.20
84	Aa	724	A	P-O5'-C5'	5.13	129.11	120.90
84	Aa	1275	A	C4-C5-C6	5.13	119.56	117.00
84	Aa	1370	A	O4'-C1'-N9	5.13	112.31	108.20
84	Aa	1462	C	N3-C4-N4	5.13	121.59	118.00
84	Aa	2009	C	N3-C4-N4	5.13	121.59	118.00
84	Aa	2152	A	C5-C6-N1	-5.13	115.13	117.70
84	Aa	2752	G	O4'-C1'-N9	5.13	112.31	108.20
84	Aa	3259	A	C4'-C3'-O3'	-5.13	98.63	109.40
84	Aa	1077	C	N3-C4-N4	5.13	121.59	118.00
84	Aa	2929	C	N3-C4-C5	-5.13	119.85	121.90
85	Ac	109	A	C5-C6-N1	-5.13	115.14	117.70
1	Ad	34	G	N9-C1'-C2'	5.13	120.67	114.00
1	Ad	838	U	O4'-C4'-C3'	-5.13	98.87	104.00
14	BQ	135	PHE	CB-CG-CD1	-5.13	117.21	120.80
84	Aa	1239	U	O4'-C1'-N1	5.13	112.30	108.20
84	Aa	1298	A	C4-C5-C6	5.13	119.56	117.00
84	Aa	1487	A	C5-C6-N1	-5.13	115.14	117.70
84	Aa	3188	G	O4'-C1'-N9	5.13	112.30	108.20
84	Aa	3376	C	N3-C4-C5	-5.13	119.85	121.90
84	Aa	283	A	C4-C5-C6	5.13	119.56	117.00
84	Aa	910	G	N1-C6-O6	5.13	122.98	119.90
84	Aa	916	A	O4'-C1'-N9	5.13	112.30	108.20
84	Aa	960	C	C2-N3-C4	5.13	122.46	119.90
84	Aa	2241	G	C5-C6-O6	-5.13	125.52	128.60
84	Aa	2282	C	N3-C4-N4	5.13	121.59	118.00
84	Aa	251	G	N3-C2-N2	5.12	123.49	119.90
84	Aa	584	G	O4'-C1'-N9	5.12	112.30	108.20
84	Aa	1398	A	C5-C6-N1	-5.12	115.14	117.70
84	Aa	1651	A	C4-C5-C6	5.12	119.56	117.00
84	Aa	1742	G	O4'-C1'-N9	5.12	112.30	108.20
1	Ad	426	G	P-O3'-C3'	5.12	125.85	119.70
84	Aa	29	G	O4'-C1'-N9	5.12	112.30	108.20
84	Aa	561	G	C5-C6-O6	-5.12	125.53	128.60
84	Aa	980	C	N3-C4-N4	5.12	121.59	118.00
84	Aa	1651	A	O4'-C1'-N9	5.12	112.30	108.20
84	Aa	1723	C	C5'-C4'-O4'	5.12	115.25	109.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1984	C	N3-C4-N4	5.12	121.59	118.00
84	Aa	2049	C	N3-C4-N4	5.12	121.59	118.00
84	Aa	2287	U	O4'-C1'-N1	5.12	112.30	108.20
84	Aa	2347	A	C5-C6-N1	-5.12	115.14	117.70
85	Ac	61	A	C5-C6-N1	-5.12	115.14	117.70
85	Ac	86	U	O4'-C1'-N1	5.12	112.30	108.20
1	Ad	288	G	C4'-C3'-C2'	-5.12	97.48	102.60
1	Ad	946	A	O4'-C1'-N9	5.12	112.30	108.20
2	Ae	59	U	O4'-C1'-C2'	-5.12	100.68	105.80
15	BU	81	GLU	N-CA-CB	5.12	119.82	110.60
84	Aa	1057	A	C5-C6-N1	-5.12	115.14	117.70
84	Aa	2895	G	C5-C6-O6	-5.12	125.53	128.60
85	Ac	44	A	C5-C6-N1	-5.12	115.14	117.70
85	Ac	59	A	C5-N7-C8	5.12	106.46	103.90
1	Ad	1359	C	O4'-C1'-N1	5.12	112.30	108.20
84	Aa	340	A	C5-C6-N6	-5.12	119.61	123.70
84	Aa	918	A	C5-C6-N6	-5.12	119.60	123.70
84	Aa	1608	C	N3-C4-C5	-5.12	119.85	121.90
84	Aa	1892	A	C8-N9-C4	-5.12	103.75	105.80
84	Aa	3297	A	C5-C6-N1	-5.12	115.14	117.70
1	Ad	114	U	C1'-O4'-C4'	-5.12	105.81	109.90
1	Ad	1576	C	C3'-C2'-C1'	5.12	105.59	101.50
84	Aa	2070	C	P-O5'-C5'	5.12	129.09	120.90
84	Aa	2904	A	C5-C6-N1	-5.12	115.14	117.70
84	Aa	3315	A	C4-C5-C6	5.12	119.56	117.00
1	Ad	550	U	O4'-C1'-N1	5.12	112.29	108.20
1	Ad	631	C	N1-C1'-C2'	5.12	120.65	114.00
1	Ad	1151	G	O4'-C1'-C2'	5.12	112.20	107.60
3	Af	21	C	C3'-C2'-C1'	5.12	105.59	101.50
62	CS	72	THR	N-CA-CB	5.12	120.02	110.30
84	Aa	27	C	N3-C4-N4	5.12	121.58	118.00
84	Aa	437	C	N3-C4-N4	5.12	121.58	118.00
84	Aa	1391	A	C4-C5-C6	5.12	119.56	117.00
84	Aa	2559	C	N3-C4-N4	5.12	121.58	118.00
1	Ad	1274	G	C5'-C4'-O4'	5.11	115.23	109.10
64	Ci	95	SER	N-CA-CB	5.11	118.17	110.50
84	Aa	550	C	C2'-C3'-O3'	-5.11	98.25	109.50
84	Aa	595	C	N3-C4-N4	5.11	121.58	118.00
84	Aa	1323	G	N3-C2-N2	5.11	123.48	119.90
84	Aa	2226	C	N3-C4-N4	5.11	121.58	118.00
84	Aa	2270	A	C4-C5-C6	5.11	119.56	117.00
1	Ad	858	G	N9-C1'-C2'	5.11	120.64	114.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1310	G	C4-N9-C1'	5.11	133.15	126.50
84	Aa	1738	A	C5-C6-N1	-5.11	115.14	117.70
84	Aa	2451	G	N3-C2-N2	5.11	123.48	119.90
84	Aa	2733	A	C5-C6-N1	-5.11	115.14	117.70
84	Aa	3004	G	O4'-C1'-N9	5.11	112.29	108.20
84	Aa	3171	C	N3-C4-C5	-5.11	119.86	121.90
1	Ad	458	A	P-O3'-C3'	5.11	125.83	119.70
1	Ad	837	G	O4'-C1'-N9	5.11	112.29	108.20
1	Ad	1066	U	C3'-C2'-C1'	-5.11	97.41	101.50
84	Aa	59	A	C5-C6-N1	-5.11	115.14	117.70
84	Aa	298	G	N3-C2-N2	5.11	123.48	119.90
84	Aa	325	A	C5-C6-N1	-5.11	115.14	117.70
84	Aa	1005	C	N3-C4-C5	-5.11	119.86	121.90
84	Aa	1464	A	C5-C6-N6	-5.11	119.61	123.70
84	Aa	1807	C	N3-C4-N4	5.11	121.58	118.00
84	Aa	2677	A	C4-C5-C6	5.11	119.56	117.00
1	Ad	1143	A	O4'-C1'-C2'	-5.11	100.69	105.80
1	Ad	1735	C	O4'-C1'-C2'	-5.11	100.69	105.80
84	Aa	493	G	P-O3'-C3'	-5.11	113.57	119.70
84	Aa	495	G	C5-C6-O6	-5.11	125.53	128.60
84	Aa	1032	C	N3-C4-C5	-5.11	119.86	121.90
84	Aa	2377	C	N3-C4-N4	5.11	121.58	118.00
84	Aa	2434	G	C4'-C3'-C2'	-5.11	97.49	102.60
1	Ad	93	A	C3'-C2'-C1'	5.11	105.59	101.50
1	Ad	1616	U	C1'-O4'-C4'	5.11	113.99	109.90
84	Aa	651	A	C5-C6-N6	-5.11	119.61	123.70
84	Aa	1077	C	N3-C4-C5	-5.11	119.86	121.90
84	Aa	1396	A	C5-C6-N1	-5.11	115.15	117.70
84	Aa	1804	G	O4'-C1'-N9	5.11	112.29	108.20
84	Aa	1866	C	C2-N3-C4	5.11	122.45	119.90
84	Aa	2082	A	O4'-C1'-N9	5.11	112.29	108.20
1	Ad	169	A	C3'-C2'-C1'	5.11	105.58	101.50
1	Ad	1134	U	C1'-O4'-C4'	5.11	113.98	109.90
84	Aa	247	C	N3-C4-N4	5.11	121.57	118.00
84	Aa	764	A	C4-C5-C6	5.11	119.55	117.00
84	Aa	1109	G	N1-C2-N3	-5.11	120.84	123.90
84	Aa	1760	G	P-O3'-C3'	-5.11	113.57	119.70
84	Aa	1779	C	C2-N3-C4	5.11	122.45	119.90
84	Aa	1966	C	N3-C4-C5	-5.11	119.86	121.90
84	Aa	2518	A	C5-C6-N1	-5.11	115.15	117.70
84	Aa	2645	A	C5-C6-N1	-5.11	115.15	117.70
84	Aa	2986	C	N3-C4-N4	5.11	121.57	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	3066	G	N3-C2-N2	5.11	123.47	119.90
84	Aa	3310	A	C5-C6-N1	-5.11	115.15	117.70
85	Ac	3	A	C5-C6-N1	-5.11	115.15	117.70
85	Ac	4	C	N3-C4-C5	-5.11	119.86	121.90
2	Ae	67	G	C4'-C3'-C2'	-5.10	97.50	102.60
84	Aa	1356	G	C4-C5-C6	5.10	121.86	118.80
84	Aa	1427	C	C2-N3-C4	5.10	122.45	119.90
84	Aa	565	C	N3-C4-N4	5.10	121.57	118.00
84	Aa	792	A	C5-C6-N1	-5.10	115.15	117.70
84	Aa	1248	A	O4'-C1'-N9	5.10	112.28	108.20
84	Aa	1739	G	N3-C2-N2	5.10	123.47	119.90
84	Aa	1835	A	C5-C6-N1	-5.10	115.15	117.70
84	Aa	3085	C	N3-C4-N4	5.10	121.57	118.00
49	CR	159	PHE	CB-CG-CD2	-5.10	117.23	120.80
84	Aa	941	C	N3-C4-N4	5.10	121.57	118.00
84	Aa	1805	A	C5-C6-N6	-5.10	119.62	123.70
86	Ab	44	C	C5'-C4'-O4'	5.10	115.22	109.10
1	Ad	747	U	N1-C1'-C2'	5.10	120.63	114.00
11	BD	107	TYR	CB-CG-CD1	-5.10	117.94	121.00
84	Aa	87	A	C8-N9-C4	-5.10	103.76	105.80
84	Aa	172	A	C4-C5-C6	5.10	119.55	117.00
84	Aa	175	G	C5-C6-O6	-5.10	125.54	128.60
84	Aa	452	G	C5'-C4'-O4'	5.10	115.22	109.10
84	Aa	513	C	O4'-C1'-N1	5.10	112.28	108.20
84	Aa	793	C	N3-C4-N4	5.10	121.57	118.00
84	Aa	1437	G	O4'-C1'-N9	5.10	112.28	108.20
84	Aa	2008	G	C5-C6-O6	-5.10	125.54	128.60
84	Aa	2852	G	O4'-C1'-N9	5.10	112.28	108.20
1	Ad	340	G	O4'-C1'-N9	5.10	112.28	108.20
1	Ad	1408	G	O3'-P-O5'	5.10	113.68	104.00
28	BA	36	PHE	CB-CG-CD1	5.10	124.37	120.80
84	Aa	255	C	N3-C4-C5	-5.10	119.86	121.90
84	Aa	397	A	C4-C5-C6	5.10	119.55	117.00
84	Aa	399	U	O4'-C1'-N1	5.10	112.28	108.20
84	Aa	1197	A	C5-C6-N6	-5.10	119.62	123.70
84	Aa	2286	A	C5-C6-N1	-5.10	115.15	117.70
84	Aa	2816	G	O4'-C1'-N9	5.10	112.28	108.20
84	Aa	2913	A	C5-C6-N1	-5.10	115.15	117.70
84	Aa	3160	G	O4'-C1'-N9	5.10	112.28	108.20
84	Aa	650	A	C3'-C2'-C1'	5.10	105.58	101.50
1	Ad	226	C	O4'-C1'-N1	5.09	112.28	108.20
84	Aa	796	C	N3-C4-N4	5.09	121.57	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	1394	C	N3-C4-C5	-5.09	119.86	121.90
84	Aa	1727	A	C5-C6-N1	-5.09	115.15	117.70
84	Aa	2699	A	O4'-C1'-N9	5.09	112.28	108.20
1	Ad	700	C	C3'-C2'-C1'	5.09	105.58	101.50
48	CD	144	ALA	N-CA-CB	5.09	117.23	110.10
84	Aa	1538	A	C5-C6-N1	-5.09	115.15	117.70
84	Aa	1793	A	C5-C6-N1	-5.09	115.15	117.70
1	Ad	776	A	O4'-C1'-N9	5.09	112.27	108.20
84	Aa	479	C	N3-C4-N4	5.09	121.56	118.00
84	Aa	753	G	O4'-C1'-N9	5.09	112.27	108.20
84	Aa	1637	G	N3-C2-N2	5.09	123.47	119.90
84	Aa	1871	G	O4'-C1'-N9	5.09	112.27	108.20
84	Aa	2247	A	O4'-C1'-N9	5.09	112.27	108.20
85	Ac	17	A	C5-C6-N6	-5.09	119.63	123.70
86	Ab	32	A	C5-C6-N1	-5.09	115.15	117.70
1	Ad	100	C	O4'-C1'-C2'	-5.09	100.71	105.80
1	Ad	207	A	N9-C1'-C2'	-5.09	106.40	112.00
1	Ad	307	U	O4'-C1'-N1	5.09	112.27	108.20
1	Ad	954	C	C3'-C2'-C1'	5.09	105.57	101.50
6	BK	54	TYR	CB-CG-CD2	5.09	124.05	121.00
84	Aa	457	C	N3-C4-C5	-5.09	119.86	121.90
84	Aa	552	G	C2'-C3'-O3'	5.09	121.84	113.70
84	Aa	1355	U	C6-N1-C1'	-5.09	114.07	121.20
84	Aa	1383	G	N1-C2-N3	-5.09	120.85	123.90
84	Aa	1693	A	C5-N7-C8	5.09	106.44	103.90
84	Aa	2529	C	C5'-C4'-C3'	-5.09	107.86	116.00
1	Ad	1701	G	O4'-C1'-N9	5.09	112.27	108.20
1	Ad	851	G	O4'-C1'-C2'	5.09	112.18	107.60
1	Ad	1395	C	O4'-C1'-C2'	5.09	112.18	107.60
1	Ad	1701	G	O4'-C1'-C2'	5.09	112.18	107.60
84	Aa	203	C	N3-C4-N4	5.09	121.56	118.00
84	Aa	512	G	C5'-C4'-C3'	5.09	124.14	116.00
84	Aa	564	A	C5-C6-N6	-5.09	119.63	123.70
84	Aa	984	A	C5-C6-N6	-5.09	119.63	123.70
84	Aa	1236	C	N3-C4-N4	5.09	121.56	118.00
84	Aa	1966	C	N3-C4-N4	5.09	121.56	118.00
84	Aa	2782	G	O4'-C1'-N9	5.09	112.27	108.20
84	Aa	3031	G	O4'-C1'-N9	5.09	112.27	108.20
1	Ad	592	U	O4'-C1'-N1	5.08	112.27	108.20
22	BZ	26	LYS	N-CA-CB	5.08	119.75	110.60
84	Aa	421	A	C5-C6-N1	-5.08	115.16	117.70
1	Ad	176	A	P-O3'-C3'	5.08	125.80	119.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	621	U	C1'-O4'-C4'	-5.08	105.83	109.90
1	Ad	784	C	O4'-C1'-C2'	5.08	112.17	107.60
1	Ad	1155	G	O4'-C1'-C2'	5.08	112.18	107.60
84	Aa	46	A	C5-C6-N1	-5.08	115.16	117.70
84	Aa	282	A	C4-C5-C6	5.08	119.54	117.00
84	Aa	1000	A	C5-C6-N1	-5.08	115.16	117.70
84	Aa	1310	G	N3-C2-N2	5.08	123.46	119.90
84	Aa	1526	A	O4'-C1'-N9	5.08	112.27	108.20
84	Aa	1702	C	N3-C4-C5	-5.08	119.87	121.90
84	Aa	2241	G	C5'-C4'-C3'	-5.08	107.87	116.00
2	Ae	9	A	O4'-C1'-N9	-5.08	104.14	108.20
2	Ae	72	G	C3'-C2'-C1'	-5.08	97.44	101.50
84	Aa	1393	G	O4'-C1'-N9	5.08	112.27	108.20
84	Aa	1421	A	C5-C6-N1	-5.08	115.16	117.70
84	Aa	2512	U	O4'-C4'-C3'	5.08	110.17	106.10
84	Aa	2833	G	C5-C6-O6	-5.08	125.55	128.60
84	Aa	3265	C	N3-C4-C5	-5.08	119.87	121.90
1	Ad	93	A	N9-C1'-C2'	-5.08	106.41	112.00
1	Ad	542	A	O4'-C1'-N9	5.08	112.26	108.20
1	Ad	1752	U	C1'-O4'-C4'	-5.08	105.84	109.90
84	Aa	211	A	C4-C5-C6	5.08	119.54	117.00
1	Ad	718	C	C4'-C3'-O3'	5.08	123.16	113.00
1	Ad	1487	U	C1'-O4'-C4'	5.08	113.96	109.90
1	Ad	1633	C	O4'-C1'-N1	5.08	112.26	108.20
84	Aa	287	A	C4-C5-C6	5.08	119.54	117.00
84	Aa	1671	G	C5-C6-O6	-5.08	125.55	128.60
84	Aa	2647	C	N3-C4-N4	5.08	121.56	118.00
84	Aa	3049	A	C5-C6-N1	-5.08	115.16	117.70
1	Ad	1554	G	C3'-C2'-C1'	-5.08	97.44	101.50
84	Aa	764	A	C5-C6-N1	-5.08	115.16	117.70
84	Aa	1969	G	N3-C2-N2	5.08	123.45	119.90
84	Aa	3036	C	N3-C4-N4	5.08	121.55	118.00
1	Ad	948	C	N1-C1'-C2'	5.08	120.60	114.00
1	Ad	1549	G	O4'-C1'-N9	-5.08	104.14	108.20
84	Aa	3	G	O4'-C1'-N9	5.08	112.26	108.20
84	Aa	279	G	C5-C6-O6	-5.08	125.55	128.60
84	Aa	1546	G	C5'-C4'-O4'	5.08	115.19	109.10
84	Aa	1712	A	C5-C6-N6	-5.08	119.64	123.70
84	Aa	2092	C	C5'-C4'-O4'	-5.08	103.01	109.10
84	Aa	2527	G	N3-C2-N2	5.08	123.45	119.90
84	Aa	2638	A	C5-C6-N1	-5.08	115.16	117.70
84	Aa	3252	G	C5'-C4'-C3'	-5.08	107.88	116.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Ad	1664	U	C1'-O4'-C4'	5.07	113.96	109.90
13	BF	148	TYR	CB-CG-CD1	5.07	124.04	121.00
37	CG	222	PHE	CB-CG-CD1	-5.07	117.25	120.80
42	CJ	2	SER	N-CA-C	5.07	124.70	111.00
84	Aa	289	C	C6-N1-C2	-5.07	118.27	120.30
84	Aa	356	G	O4'-C1'-N9	5.07	112.26	108.20
84	Aa	2330	C	N3-C4-N4	5.07	121.55	118.00
1	Ad	960	A	O4'-C1'-C2'	-5.07	100.73	105.80
1	Ad	1390	A	C3'-C2'-C1'	-5.07	97.44	101.50
84	Aa	84	A	C5-C6-N6	-5.07	119.64	123.70
84	Aa	264	C	N3-C4-C5	-5.07	119.87	121.90
84	Aa	315	A	C5-C6-N1	-5.07	115.17	117.70
84	Aa	705	A	O4'-C1'-N9	5.07	112.26	108.20
84	Aa	1040	A	C5-C6-N1	-5.07	115.17	117.70
84	Aa	1808	G	O4'-C1'-N9	5.07	112.26	108.20
84	Aa	1839	C	N3-C4-N4	5.07	121.55	118.00
84	Aa	2382	C	N3-C4-C5	-5.07	119.87	121.90
84	Aa	2675	G	O4'-C1'-N9	5.07	112.26	108.20
84	Aa	2745	C	C2-N3-C4	5.07	122.44	119.90
84	Aa	2992	G	N1-C2-N3	-5.07	120.86	123.90
84	Aa	3060	G	N3-C2-N2	5.07	123.45	119.90
84	Aa	3118	C	N3-C4-N4	5.07	121.55	118.00
86	Ab	81	G	C5-N7-C8	5.07	106.83	104.30
79	CE	26	TRP	N-CA-CB	5.07	119.72	110.60
84	Aa	975	G	N3-C2-N2	5.07	123.45	119.90
84	Aa	2274	A	O4'-C1'-N9	5.07	112.25	108.20
84	Aa	3296	C	N3-C4-C5	-5.07	119.87	121.90
84	Aa	1434	G	O4'-C1'-N9	5.07	112.25	108.20
84	Aa	2204	U	O4'-C1'-N1	5.07	112.25	108.20
84	Aa	3035	C	N3-C4-C5	-5.07	119.87	121.90
84	Aa	3166	C	C2-N3-C4	5.07	122.43	119.90
84	Aa	3273	C	N3-C4-C5	-5.07	119.87	121.90
85	Ac	6	C	N3-C4-N4	5.07	121.55	118.00
22	BZ	28	TRP	N-CA-CB	5.07	119.72	110.60
84	Aa	493	G	C1'-O4'-C4'	-5.07	105.85	109.90
84	Aa	932	A	C5-C6-N6	-5.07	119.65	123.70
84	Aa	1207	A	C4-C5-C6	5.07	119.53	117.00
84	Aa	2450	G	O4'-C1'-N9	5.07	112.25	108.20
84	Aa	3010	G	N3-C2-N2	5.07	123.45	119.90
84	Aa	3131	A	C5-C6-N6	-5.07	119.65	123.70
84	Aa	3236	A	C5-C6-N1	-5.07	115.17	117.70
84	Aa	405	A	C5-C6-N6	-5.06	119.65	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	463	G	C5-C6-O6	-5.06	125.56	128.60
84	Aa	1682	C	N3-C4-C5	-5.06	119.87	121.90
84	Aa	141	C	N3-C4-C5	-5.06	119.88	121.90
84	Aa	1079	G	C5'-C4'-O4'	5.06	115.17	109.10
84	Aa	1661	G	O4'-C1'-N9	5.06	112.25	108.20
84	Aa	1190	C	N3-C4-N4	5.06	121.54	118.00
86	Ab	79	A	C4-C5-N7	-5.06	108.17	110.70
84	Aa	15	C	N3-C4-C5	-5.06	119.88	121.90
84	Aa	97	G	C6-C5-N7	-5.06	127.36	130.40
84	Aa	115	C	C1'-O4'-C4'	-5.06	105.85	109.90
84	Aa	169	G	C5-C6-O6	-5.06	125.56	128.60
84	Aa	1443	G	N3-C2-N2	5.06	123.44	119.90
84	Aa	2446	G	C5-C6-O6	-5.06	125.56	128.60
1	Ad	176	A	C3'-C2'-C1'	5.06	105.55	101.50
17	BS	83	PHE	N-CA-CB	5.06	119.70	110.60
84	Aa	572	U	O4'-C1'-N1	5.06	112.25	108.20
84	Aa	594	C	N3-C4-N4	5.06	121.54	118.00
84	Aa	796	C	N3-C4-C5	-5.06	119.88	121.90
84	Aa	1588	G	C5'-C4'-C3'	5.06	124.09	116.00
84	Aa	2074	C	C5'-C4'-O4'	-5.06	103.03	109.10
84	Aa	2303	C	N3-C4-N4	5.06	121.54	118.00
1	Ad	1443	U	N1-C1'-C2'	5.06	120.57	114.00
1	Ad	1169	G	C5'-C4'-O4'	5.05	115.17	109.10
84	Aa	478	G	O4'-C1'-N9	5.05	112.24	108.20
84	Aa	645	C	C2-N3-C4	5.05	122.43	119.90
84	Aa	1457	A	C5-C6-N1	-5.05	115.17	117.70
84	Aa	2295	G	O4'-C1'-N9	5.05	112.24	108.20
84	Aa	2357	A	C5-C6-N1	-5.05	115.17	117.70
1	Ad	838	U	C3'-C2'-C1'	5.05	105.54	101.50
84	Aa	350	A	C5-C6-N6	-5.05	119.66	123.70
1	Ad	182	C	C3'-C2'-C1'	5.05	105.54	101.50
84	Aa	161	C	N3-C4-C5	-5.05	119.88	121.90
84	Aa	1318	C	P-O5'-C5'	5.05	128.98	120.90
84	Aa	2557	C	C6-N1-C2	-5.05	118.28	120.30
84	Aa	2617	G	O4'-C1'-N9	5.05	112.24	108.20
84	Aa	3229	C	N3-C4-N4	5.05	121.54	118.00
85	Ac	85	G	C6-C5-N7	-5.05	127.37	130.40
86	Ab	3	A	C6-N1-C2	5.05	121.63	118.60
1	Ad	529	A	O4'-C1'-N9	5.05	112.24	108.20
1	Ad	1151	G	C5'-C4'-O4'	5.05	115.16	109.10
84	Aa	156	A	O4'-C1'-N9	5.05	112.24	108.20
84	Aa	2482	A	C5-C6-N1	-5.05	115.18	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2586	C	N3-C4-N4	5.05	121.53	118.00
1	Ad	780	A	O4'-C1'-C2'	5.05	112.14	107.60
84	Aa	64	A	O4'-C1'-N9	5.05	112.24	108.20
84	Aa	858	U	O4'-C1'-N1	5.05	112.24	108.20
84	Aa	2835	A	C5-C6-N6	-5.05	119.66	123.70
86	Ab	54	A	C5-C6-N6	-5.05	119.66	123.70
1	Ad	299	A	C1'-O4'-C4'	-5.05	105.86	109.90
1	Ad	421	A	C3'-C2'-C1'	5.05	105.54	101.50
1	Ad	1071	C	C1'-O4'-C4'	-5.05	105.86	109.90
84	Aa	52	G	C5-C6-O6	-5.05	125.57	128.60
84	Aa	124	C	C2-N3-C4	5.05	122.42	119.90
84	Aa	715	A	C4-C5-C6	5.05	119.52	117.00
84	Aa	1365	C	C2-N3-C4	5.05	122.42	119.90
84	Aa	2124	G	N3-C2-N2	5.05	123.43	119.90
84	Aa	2198	U	C5'-C4'-C3'	-5.05	107.92	116.00
84	Aa	2948	A	C5-C6-N1	-5.05	115.18	117.70
1	Ad	1268	G	C3'-C2'-C1'	5.04	105.54	101.50
2	Ae	1	U	P-O3'-C3'	5.04	125.75	119.70
86	Ab	115	A	O4'-C1'-N9	5.04	112.24	108.20
1	Ad	334	G	C1'-O4'-C4'	-5.04	105.86	109.90
1	Ad	1368	C	P-O3'-C3'	5.04	125.75	119.70
84	Aa	182	C	N3-C4-C5	-5.04	119.88	121.90
84	Aa	394	A	C5-C6-N1	-5.04	115.18	117.70
84	Aa	417	G	N1-C6-O6	5.04	122.93	119.90
84	Aa	1051	A	C5-C6-N1	-5.04	115.18	117.70
84	Aa	2014	A	P-O3'-C3'	5.04	125.75	119.70
84	Aa	2086	A	C4'-C3'-C2'	5.04	107.64	102.60
84	Aa	3308	A	C5-C6-N6	-5.04	119.67	123.70
1	Ad	838	U	P-O3'-C3'	5.04	125.75	119.70
84	Aa	1478	A	C4-C5-C6	5.04	119.52	117.00
84	Aa	1753	A	O4'-C1'-N9	5.04	112.23	108.20
84	Aa	3278	G	N3-C2-N2	5.04	123.43	119.90
1	Ad	735	G	N9-C1'-C2'	5.04	120.55	114.00
84	Aa	2152	A	C2'-C3'-O3'	5.04	121.76	113.70
1	Ad	239	C	O4'-C1'-N1	5.04	112.23	108.20
1	Ad	934	A	N9-C1'-C2'	5.04	120.55	114.00
84	Aa	61	A	O4'-C1'-N9	5.04	112.23	108.20
84	Aa	1050	A	C5-C6-N1	-5.04	115.18	117.70
84	Aa	1239	U	P-O3'-C3'	5.04	125.75	119.70
84	Aa	1376	A	C5-C6-N6	-5.04	119.67	123.70
84	Aa	1929	A	C5-C6-N1	-5.04	115.18	117.70
84	Aa	1974	C	N3-C4-N4	5.04	121.53	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2646	A	C5-C6-N1	-5.04	115.18	117.70
84	Aa	2690	G	O4'-C1'-N9	5.04	112.23	108.20
84	Aa	3374	C	C6-N1-C1'	-5.04	114.75	120.80
86	Ab	8	A	O4'-C1'-N9	5.04	112.23	108.20
1	Ad	774	C	N1-C1'-C2'	5.04	120.55	114.00
1	Ad	961	U	O4'-C1'-C2'	-5.04	100.76	105.80
1	Ad	1040	G	C1'-O4'-C4'	-5.04	105.87	109.90
48	CD	219	PHE	CB-CG-CD2	-5.04	117.27	120.80
84	Aa	135	G	O4'-C1'-N9	5.04	112.23	108.20
84	Aa	164	C	N3-C4-C5	-5.04	119.89	121.90
84	Aa	3368	A	C5-C6-N6	-5.04	119.67	123.70
1	Ad	1024	A	O4'-C1'-N9	5.04	112.23	108.20
84	Aa	319	C	C2-N3-C4	5.04	122.42	119.90
84	Aa	1369	G	O4'-C1'-N9	5.04	112.23	108.20
84	Aa	1631	G	N3-C2-N2	5.04	123.42	119.90
84	Aa	2164	G	C5-C6-O6	-5.04	125.58	128.60
84	Aa	2941	G	N3-C2-N2	5.04	123.42	119.90
85	Ac	9	G	N1-C2-N3	-5.04	120.88	123.90
1	Ad	219	G	O4'-C1'-C2'	-5.03	100.77	105.80
1	Ad	651	G	C1'-O4'-C4'	-5.03	105.87	109.90
1	Ad	1465	C	O4'-C1'-N1	5.03	112.23	108.20
48	CD	280	SER	N-CA-CB	5.03	118.05	110.50
84	Aa	309	C	N3-C4-N4	5.03	121.52	118.00
84	Aa	441	G	O4'-C1'-N9	5.03	112.23	108.20
84	Aa	526	A	C5-C6-N1	-5.03	115.18	117.70
84	Aa	573	A	O4'-C1'-N9	5.03	112.23	108.20
84	Aa	860	G	C4-C5-C6	5.03	121.82	118.80
84	Aa	984	A	C5-C6-N1	-5.03	115.18	117.70
84	Aa	1157	A	O4'-C1'-N9	5.03	112.23	108.20
84	Aa	2120	A	C5-C6-N6	-5.03	119.67	123.70
84	Aa	2266	A	O4'-C1'-N9	5.03	112.23	108.20
84	Aa	2540	C	N3-C4-N4	5.03	121.52	118.00
1	Ad	279	C	C1'-O4'-C4'	5.03	113.93	109.90
84	Aa	2853	A	O4'-C1'-N9	5.03	112.22	108.20
84	Aa	3290	C	P-O3'-C3'	5.03	125.74	119.70
1	Ad	30	G	O4'-C1'-C2'	5.03	112.13	107.60
1	Ad	446	C	C3'-C2'-C1'	5.03	105.52	101.50
84	Aa	333	G	C8-N9-C1'	5.03	133.54	127.00
84	Aa	934	C	N3-C4-C5	-5.03	119.89	121.90
84	Aa	996	A	O4'-C1'-N9	5.03	112.22	108.20
84	Aa	2165	A	O4'-C1'-N9	5.03	112.22	108.20
84	Aa	2489	A	C4-C5-C6	5.03	119.52	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2518	A	O4'-C1'-N9	5.03	112.22	108.20
84	Aa	2842	C	N3-C4-C5	-5.03	119.89	121.90
84	Aa	1042	C	N3-C4-N4	5.03	121.52	118.00
84	Aa	3182	A	O4'-C4'-C3'	-5.03	98.97	104.00
84	Aa	232	C	C5'-C4'-O4'	5.03	115.13	109.10
84	Aa	389	A	O4'-C1'-N9	5.03	112.22	108.20
84	Aa	721	A	C5-C6-N1	-5.03	115.19	117.70
84	Aa	1465	A	C4-C5-C6	5.03	119.51	117.00
84	Aa	1490	A	P-O3'-C3'	5.03	125.73	119.70
84	Aa	1509	G	O4'-C1'-N9	5.03	112.22	108.20
84	Aa	1968	C	N3-C4-N4	5.03	121.52	118.00
84	Aa	2622	G	N3-C2-N2	5.03	123.42	119.90
84	Aa	3139	U	P-O3'-C3'	5.03	125.73	119.70
1	Ad	78	A	O4'-C1'-N9	5.03	112.22	108.20
1	Ad	1466	A	P-O3'-C3'	5.03	125.73	119.70
84	Aa	300	C	C2-N3-C4	5.03	122.41	119.90
84	Aa	492	G	N3-C2-N2	5.03	123.42	119.90
84	Aa	3283	G	C5-C6-O6	-5.03	125.58	128.60
85	Ac	78	G	O4'-C1'-N9	5.03	112.22	108.20
85	Ac	90	C	N3-C4-C5	-5.03	119.89	121.90
86	Ab	83	A	C4-C5-C6	5.03	119.51	117.00
1	Ad	403	A	N9-C1'-C2'	-5.02	106.47	112.00
1	Ad	1343	C	C5'-C4'-C3'	-5.02	107.96	116.00
84	Aa	553	C	P-O3'-C3'	5.02	125.73	119.70
84	Aa	2205	G	N3-C2-N2	5.02	123.42	119.90
85	Ac	74	U	O4'-C1'-N1	5.02	112.22	108.20
1	Ad	619	A	C1'-O4'-C4'	5.02	113.92	109.90
1	Ad	1652	C	O4'-C1'-N1	5.02	112.22	108.20
84	Aa	1330	A	C4'-C3'-C2'	-5.02	97.58	102.60
84	Aa	1522	G	C5-C6-O6	-5.02	125.59	128.60
84	Aa	2858	G	O4'-C1'-N9	5.02	112.22	108.20
85	Ac	54	A	C5-C6-N1	-5.02	115.19	117.70
1	Ad	1280	U	C1'-O4'-C4'	5.02	113.92	109.90
2	Ae	4	G	C1'-O4'-C4'	-5.02	105.88	109.90
84	Aa	544	C	N3-C4-N4	5.02	121.52	118.00
84	Aa	1389	C	N3-C4-N4	5.02	121.52	118.00
84	Aa	2872	C	N3-C4-C5	-5.02	119.89	121.90
1	Ad	601	G	O4'-C1'-N9	5.02	112.22	108.20
21	BP	71	LYS	N-CA-CB	5.02	119.63	110.60
84	Aa	1006	A	C5-C6-N1	-5.02	115.19	117.70
84	Aa	1070	G	C5-C6-O6	-5.02	125.59	128.60
84	Aa	1967	C	N3-C4-N4	5.02	121.51	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	2866	A	O4'-C1'-N9	5.02	112.22	108.20
85	Ac	15	G	N3-C2-N2	5.02	123.41	119.90
1	Ad	1488	C	O4'-C1'-C2'	-5.02	100.78	105.80
73	CO	134	LEU	C-N-CA	5.02	134.24	121.70
84	Aa	951	C	N3-C4-N4	5.02	121.51	118.00
84	Aa	1452	A	O4'-C1'-N9	5.02	112.22	108.20
84	Aa	1479	G	N3-C2-N2	5.02	123.41	119.90
84	Aa	1643	A	C5-C6-N1	-5.02	115.19	117.70
84	Aa	1781	C	N3-C4-N4	5.02	121.51	118.00
84	Aa	1806	C	N3-C4-N4	5.02	121.51	118.00
84	Aa	2216	G	N1-C2-N3	-5.02	120.89	123.90
84	Aa	2502	U	P-O5'-C5'	5.02	128.93	120.90
84	Aa	2889	A	C5-C6-N1	-5.02	115.19	117.70
84	Aa	3114	A	O4'-C1'-N9	5.02	112.21	108.20
84	Aa	3275	G	N3-C2-N2	5.02	123.41	119.90
1	Ad	1405	U	C5'-C4'-O4'	5.02	115.12	109.10
84	Aa	204	G	O4'-C1'-N9	5.02	112.21	108.20
84	Aa	924	A	C5-C6-N1	-5.02	115.19	117.70
84	Aa	2208	A	C5-C6-N6	-5.02	119.69	123.70
1	Ad	1715	C	N1-C1'-C2'	5.01	120.52	114.00
2	Ae	64	G	C1'-O4'-C4'	-5.01	105.89	109.90
53	CY	9	SER	N-CA-CB	5.01	118.02	110.50
84	Aa	621	C	N3-C4-C5	-5.01	119.89	121.90
84	Aa	2267	G	C5-C6-O6	-5.01	125.59	128.60
86	Ab	101	A	C6-C5-N7	-5.01	128.79	132.30
84	Aa	328	G	O4'-C1'-N9	5.01	112.21	108.20
84	Aa	3056	C	N3-C4-N4	5.01	121.51	118.00
84	Aa	1017	G	O4'-C1'-N9	5.01	112.21	108.20
84	Aa	1454	C	C2-N3-C4	5.01	122.41	119.90
84	Aa	2285	C	N3-C4-N4	5.01	121.51	118.00
84	Aa	2387	U	O4'-C1'-N1	5.01	112.21	108.20
84	Aa	2919	G	N3-C2-N2	5.01	123.41	119.90
1	Ad	649	C	N1-C1'-C2'	5.01	120.51	114.00
84	Aa	397	A	O4'-C1'-N9	5.01	112.21	108.20
84	Aa	801	G	O4'-C1'-N9	5.01	112.21	108.20
84	Aa	1018	C	P-O3'-C3'	5.01	125.71	119.70
84	Aa	1065	A	O4'-C1'-N9	5.01	112.21	108.20
84	Aa	1264	A	C5-C6-N6	-5.01	119.69	123.70
84	Aa	1311	G	C2'-C3'-O3'	5.01	121.72	113.70
84	Aa	1877	G	O4'-C1'-N9	5.01	112.21	108.20
84	Aa	2088	C	C4'-C3'-C2'	-5.01	97.59	102.60
84	Aa	2505	C	N3-C4-C5	-5.01	119.90	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	Aa	3030	A	C5-C6-N6	-5.01	119.69	123.70
1	Ad	559	A	C1'-O4'-C4'	5.01	113.91	109.90
45	CN	53	TYR	CB-CG-CD1	-5.01	118.00	121.00
84	Aa	204	G	C5-C6-O6	-5.01	125.60	128.60
84	Aa	820	A	O4'-C1'-N9	5.01	112.21	108.20
84	Aa	1024	G	O4'-C1'-N9	5.01	112.21	108.20
84	Aa	1130	G	O4'-C1'-N9	5.01	112.20	108.20
84	Aa	2301	C	C6-N1-C1'	-5.01	114.79	120.80
84	Aa	2649	C	N3-C4-N4	5.01	121.50	118.00
84	Aa	3072	A	O4'-C1'-N9	5.01	112.21	108.20
84	Aa	3203	G	N3-C2-N2	5.01	123.40	119.90
84	Aa	3337	G	O4'-C1'-N9	5.01	112.20	108.20
84	Aa	789	A	C5-C6-N1	-5.00	115.20	117.70
84	Aa	1675	G	C8-N9-C1'	5.00	133.51	127.00
84	Aa	1774	G	N3-C2-N2	5.00	123.40	119.90
86	Ab	64	G	N1-C6-O6	5.00	122.90	119.90
1	Ad	19	A	O4'-C1'-C2'	-5.00	100.80	105.80
1	Ad	1349	A	N9-C1'-C2'	5.00	120.51	114.00
2	Ae	26	G	O4'-C1'-N9	5.00	112.20	108.20
84	Aa	348	C	O4'-C1'-N1	5.00	112.20	108.20
84	Aa	1722	G	C5-C6-O6	-5.00	125.60	128.60
1	Ad	56	U	P-O3'-C3'	5.00	125.70	119.70
1	Ad	341	G	O4'-C1'-N9	-5.00	104.20	108.20
1	Ad	550	U	C3'-C2'-C1'	5.00	105.50	101.50
1	Ad	783	C	O4'-C1'-N1	5.00	112.20	108.20
84	Aa	245	C	N3-C4-N4	5.00	121.50	118.00
84	Aa	617	C	C5-C6-N1	5.00	123.50	121.00
84	Aa	980	C	C2-N3-C4	5.00	122.40	119.90
84	Aa	2143	A	C4-C5-C6	5.00	119.50	117.00
84	Aa	2185	U	C5-C6-N1	5.00	125.20	122.70
84	Aa	2959	G	O4'-C1'-N9	5.00	112.20	108.20

There are no chirality outliers.

All (486) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
84	Aa	1004	C	Sidechain
84	Aa	1010	A	Sidechain
84	Aa	1019	A	Sidechain
84	Aa	1022	G	Sidechain
84	Aa	1028	G	Sidechain
84	Aa	1051	A	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
84	Aa	106	G	Sidechain
84	Aa	1073	G	Sidechain
84	Aa	108	A	Sidechain
84	Aa	1083	C	Sidechain
84	Aa	11	A	Sidechain
84	Aa	1102	A	Sidechain
84	Aa	1109	G	Sidechain
84	Aa	111	C	Sidechain
84	Aa	1116	G	Sidechain
84	Aa	1118	G	Sidechain
84	Aa	1119	G	Sidechain
84	Aa	114	G	Sidechain
84	Aa	1150	G	Sidechain
84	Aa	1156	A	Sidechain
84	Aa	1157	A	Sidechain
84	Aa	1163	A	Sidechain
84	Aa	1164	G	Sidechain
84	Aa	1167	G	Sidechain
84	Aa	1177	G	Sidechain
84	Aa	1184	U	Sidechain
84	Aa	1187	G	Sidechain
84	Aa	120	G	Sidechain
84	Aa	1216	G	Sidechain
84	Aa	1230	G	Sidechain
84	Aa	1237	G	Sidechain
84	Aa	1241	G	Sidechain
84	Aa	1247	G	Sidechain
84	Aa	126	G	Sidechain
84	Aa	1262	U	Sidechain
84	Aa	1267	A	Sidechain
84	Aa	1275	A	Sidechain
84	Aa	1297	U	Sidechain
84	Aa	1298	A	Sidechain
84	Aa	13	G	Sidechain
84	Aa	1308	A	Sidechain
84	Aa	1312	A	Sidechain
84	Aa	1313	U	Sidechain
84	Aa	1320	G	Sidechain
84	Aa	1322	A	Sidechain
84	Aa	1323	G	Sidechain
84	Aa	1335	C	Sidechain
84	Aa	1341	G	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
84	Aa	1354	G	Sidechain
84	Aa	1409	G	Sidechain
84	Aa	144	A	Sidechain
84	Aa	1449	A	Sidechain
84	Aa	1457	A	Sidechain
84	Aa	147	G	Sidechain
84	Aa	1476	G	Sidechain
84	Aa	1482	C	Sidechain
84	Aa	1486	G	Sidechain
84	Aa	1489	G	Sidechain
84	Aa	1528	G	Sidechain
84	Aa	1531	G	Sidechain
84	Aa	1538	A	Sidechain
84	Aa	1542	A	Sidechain
84	Aa	158	A	Sidechain
84	Aa	1586	A	Sidechain
84	Aa	159	G	Sidechain
84	Aa	1594	G	Sidechain
84	Aa	1598	U	Sidechain
84	Aa	1601	G	Sidechain
84	Aa	1609	G	Sidechain
84	Aa	1611	G	Sidechain
84	Aa	1618	U	Sidechain
84	Aa	1619	G	Sidechain
84	Aa	1634	G	Sidechain
84	Aa	1635	A	Sidechain
84	Aa	1638	U	Sidechain
84	Aa	1653	A	Sidechain
84	Aa	1671	G	Sidechain
84	Aa	1672	G	Sidechain
84	Aa	1678	U	Sidechain
84	Aa	1689	G	Sidechain
84	Aa	1711	G	Sidechain
84	Aa	1716	G	Sidechain
84	Aa	1721	A	Sidechain
84	Aa	1723	C	Sidechain
84	Aa	1725	G	Sidechain
84	Aa	1728	G	Sidechain
84	Aa	1746	G	Sidechain
84	Aa	1747	A	Sidechain
84	Aa	1749	G	Sidechain
84	Aa	1750	A	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
84	Aa	1756	C	Sidechain
84	Aa	176	A	Sidechain
84	Aa	1767	G	Sidechain
84	Aa	18	G	Sidechain
84	Aa	1804	G	Sidechain
84	Aa	1816	U	Sidechain
84	Aa	1821	G	Sidechain
84	Aa	1842	C	Sidechain
84	Aa	1853	C	Sidechain
84	Aa	1857	G	Sidechain
84	Aa	1859	G	Sidechain
84	Aa	186	A	Sidechain
84	Aa	188	U	Sidechain
84	Aa	1892	A	Sidechain
84	Aa	1903	C	Sidechain
84	Aa	1910	G	Sidechain
84	Aa	1912	U	Sidechain
84	Aa	1921	U	Sidechain
84	Aa	1923	G	Sidechain
84	Aa	1935	G	Sidechain
84	Aa	20	G	Sidechain
84	Aa	2075	C	Sidechain
84	Aa	2077	C	Sidechain
84	Aa	2088	C	Sidechain
84	Aa	2092	C	Sidechain
84	Aa	2093	G	Sidechain
84	Aa	2104	G	Sidechain
84	Aa	2113	A	Sidechain
84	Aa	2132	A	Sidechain
84	Aa	214	G	Sidechain
84	Aa	2149	G	Sidechain
84	Aa	2150	C	Sidechain
84	Aa	2167	G	Sidechain
84	Aa	2171	A	Sidechain
84	Aa	218	G	Sidechain
84	Aa	2189	G	Sidechain
84	Aa	2192	C	Sidechain
84	Aa	2218	A	Sidechain
84	Aa	2242	G	Sidechain
84	Aa	2269	U	Sidechain
84	Aa	2270	A	Sidechain
84	Aa	2290	A	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
84	Aa	2303	C	Sidechain
84	Aa	2348	U	Sidechain
84	Aa	235	G	Sidechain
84	Aa	2352	G	Sidechain
84	Aa	2354	G	Sidechain
84	Aa	2375	G	Sidechain
84	Aa	2376	G	Sidechain
84	Aa	2380	G	Sidechain
84	Aa	2381	G	Sidechain
84	Aa	2416	U	Sidechain
84	Aa	2424	G	Sidechain
84	Aa	244	G	Sidechain
84	Aa	2444	U	Sidechain
84	Aa	2451	G	Sidechain
84	Aa	2491	A	Sidechain
84	Aa	2502	U	Sidechain
84	Aa	2506	G	Sidechain
84	Aa	2508	U	Sidechain
84	Aa	2526	G	Sidechain
84	Aa	2528	U	Sidechain
84	Aa	2529	C	Sidechain
84	Aa	2537	G	Sidechain
84	Aa	2538	G	Sidechain
84	Aa	2539	G	Sidechain
84	Aa	2542	U	Sidechain
84	Aa	2543	G	Sidechain
84	Aa	2552	U	Sidechain
84	Aa	2557	C	Sidechain
84	Aa	2558	U	Sidechain
84	Aa	2583	A	Sidechain
84	Aa	2588	G	Sidechain
84	Aa	2591	G	Sidechain
84	Aa	2610	G	Sidechain
84	Aa	2623	G	Sidechain
84	Aa	2627	G	Sidechain
84	Aa	2639	A	Sidechain
84	Aa	2648	G	Sidechain
84	Aa	265	G	Sidechain
84	Aa	2666	G	Sidechain
84	Aa	2673	G	Sidechain
84	Aa	2677	A	Sidechain
84	Aa	2697	A	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
84	Aa	2709	G	Sidechain
84	Aa	2732	U	Sidechain
84	Aa	2733	A	Sidechain
84	Aa	2751	A	Sidechain
84	Aa	2789	G	Sidechain
84	Aa	279	G	Sidechain
84	Aa	2801	A	Sidechain
84	Aa	2807	G	Sidechain
84	Aa	2815	A	Sidechain
84	Aa	2820	U	Sidechain
84	Aa	2843	G	Sidechain
84	Aa	2877	U	Sidechain
84	Aa	2882	U	Sidechain
84	Aa	2888	U	Sidechain
84	Aa	2918	U	Sidechain
84	Aa	2932	A	Sidechain
84	Aa	2935	A	Sidechain
84	Aa	2936	A	Sidechain
84	Aa	2966	G	Sidechain
84	Aa	2967	U	Sidechain
84	Aa	2968	G	Sidechain
84	Aa	2992	G	Sidechain
84	Aa	3002	U	Sidechain
84	Aa	3006	G	Sidechain
84	Aa	3007	A	Sidechain
84	Aa	3012	A	Sidechain
84	Aa	302	G	Sidechain
84	Aa	3035	C	Sidechain
84	Aa	3057	A	Sidechain
84	Aa	3067	G	Sidechain
84	Aa	3097	G	Sidechain
84	Aa	3123	A	Sidechain
84	Aa	3125	G	Sidechain
84	Aa	3137	G	Sidechain
84	Aa	3143	A	Sidechain
84	Aa	3171	C	Sidechain
84	Aa	3179	G	Sidechain
84	Aa	318	G	Sidechain
84	Aa	3204	G	Sidechain
84	Aa	3208	G	Sidechain
84	Aa	321	A	Sidechain
84	Aa	3219	U	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
84	Aa	3220	A	Sidechain
84	Aa	3222	G	Sidechain
84	Aa	3242	G	Sidechain
84	Aa	3248	G	Sidechain
84	Aa	3252	G	Sidechain
84	Aa	3264	C	Sidechain
84	Aa	3267	U	Sidechain
84	Aa	3269	C	Sidechain
84	Aa	3271	A	Sidechain
84	Aa	3276	G	Sidechain
84	Aa	3286	G	Sidechain
84	Aa	3294	U	Sidechain
84	Aa	3295	G	Sidechain
84	Aa	3309	U	Sidechain
84	Aa	3312	G	Sidechain
84	Aa	3314	G	Sidechain
84	Aa	3315	A	Sidechain
84	Aa	3320	G	Sidechain
84	Aa	3334	A	Sidechain
84	Aa	3340	G	Sidechain
84	Aa	3345	G	Sidechain
84	Aa	3361	G	Sidechain
84	Aa	3377	G	Sidechain
84	Aa	3379	C	Sidechain
84	Aa	3380	G	Sidechain
84	Aa	339	G	Sidechain
84	Aa	342	A	Sidechain
84	Aa	352	U	Sidechain
84	Aa	370	A	Sidechain
84	Aa	372	A	Sidechain
84	Aa	373	A	Sidechain
84	Aa	404	G	Sidechain
84	Aa	413	G	Sidechain
84	Aa	424	G	Sidechain
84	Aa	425	G	Sidechain
84	Aa	431	G	Sidechain
84	Aa	436	G	Sidechain
84	Aa	492	G	Sidechain
84	Aa	493	G	Sidechain
84	Aa	497	G	Sidechain
84	Aa	522	C	Sidechain
84	Aa	526	A	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
84	Aa	527	G	Sidechain
84	Aa	53	C	Sidechain
84	Aa	566	G	Sidechain
84	Aa	602	G	Sidechain
84	Aa	603	G	Sidechain
84	Aa	604	C	Sidechain
84	Aa	62	A	Sidechain
84	Aa	647	U	Sidechain
84	Aa	666	U	Sidechain
84	Aa	669	G	Sidechain
84	Aa	67	C	Sidechain
84	Aa	676	G	Sidechain
84	Aa	688	G	Sidechain
84	Aa	693	C	Sidechain
84	Aa	713	G	Sidechain
84	Aa	723	G	Sidechain
84	Aa	732	G	Sidechain
84	Aa	736	U	Sidechain
84	Aa	746	C	Sidechain
84	Aa	75	G	Sidechain
84	Aa	757	G	Sidechain
84	Aa	763	G	Sidechain
84	Aa	765	U	Sidechain
84	Aa	768	U	Sidechain
84	Aa	771	G	Sidechain
84	Aa	772	U	Sidechain
84	Aa	773	G	Sidechain
84	Aa	775	A	Sidechain
84	Aa	779	U	Sidechain
84	Aa	783	A	Sidechain
84	Aa	787	G	Sidechain
84	Aa	801	G	Sidechain
84	Aa	808	G	Sidechain
84	Aa	818	G	Sidechain
84	Aa	825	G	Sidechain
84	Aa	835	G	Sidechain
84	Aa	838	G	Sidechain
84	Aa	844	A	Sidechain
84	Aa	849	A	Sidechain
84	Aa	85	G	Sidechain
84	Aa	858	U	Sidechain
84	Aa	861	A	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
84	Aa	877	U	Sidechain
84	Aa	886	A	Sidechain
84	Aa	911	G	Sidechain
84	Aa	93	G	Sidechain
84	Aa	936	A	Sidechain
84	Aa	966	G	Sidechain
84	Aa	97	G	Sidechain
84	Aa	977	G	Sidechain
84	Aa	997	G	Sidechain
86	Ab	104	C	Sidechain
86	Ab	117	U	Sidechain
86	Ab	17	G	Sidechain
86	Ab	30	G	Sidechain
86	Ab	33	U	Sidechain
86	Ab	37	G	Sidechain
86	Ab	40	A	Sidechain
86	Ab	42	A	Sidechain
86	Ab	46	C	Sidechain
86	Ab	56	G	Sidechain
86	Ab	61	C	Sidechain
86	Ab	62	U	Sidechain
86	Ab	79	A	Sidechain
86	Ab	83	A	Sidechain
86	Ab	88	U	Sidechain
86	Ab	9	U	Sidechain
86	Ab	90	A	Sidechain
86	Ab	96	U	Sidechain
86	Ab	97	G	Sidechain
85	Ac	100	U	Sidechain
85	Ac	105	A	Sidechain
85	Ac	146	G	Sidechain
85	Ac	147	C	Sidechain
85	Ac	149	U	Sidechain
85	Ac	16	G	Sidechain
85	Ac	22	U	Sidechain
85	Ac	34	U	Sidechain
85	Ac	49	G	Sidechain
85	Ac	51	G	Sidechain
85	Ac	53	A	Sidechain
85	Ac	60	U	Sidechain
85	Ac	64	U	Sidechain
85	Ac	69	U	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
85	Ac	70	G	Sidechain
85	Ac	74	U	Sidechain
85	Ac	87	G	Sidechain
85	Ac	9	G	Sidechain
30	BB	157	GLN	Peptide
11	BD	112	GLY	Peptide
11	BD	211	HIS	Peptide
11	BD	212	PRO	Peptide
12	BE	132	GLY	Peptide
12	BE	240	LYS	Peptide
13	BF	138	SER	Peptide
13	BF	44	TYR	Sidechain
35	BG	182	ARG	Peptide
36	BH	105	PRO	Peptide
36	BH	114	PRO	Peptide
36	BH	117	ARG	Sidechain
36	BH	184	PHE	Peptide
6	BK	22	TYR	Sidechain
6	BK	83	PRO	Peptide
6	BK	86	ILE	Peptide
6	BK	87	VAL	Peptide
19	BL	98	TYR	Sidechain
7	BM	92	CYS	Peptide
14	BQ	131	GLU	Peptide
29	BR	2	GLY	Peptide
17	BS	142	ARG	Sidechain
20	BT	37	VAL	Peptide
20	BT	46	LYS	Peptide
20	BT	91	ARG	Sidechain
20	BT	92	PRO	Peptide
15	BU	10	PRO	Peptide
15	BU	78	PRO	Peptide
24	BW	62	VAL	Peptide
4	BY	48	LYS	Peptide
32	Ba	87	ARG	Sidechain
26	Bb	29	SER	Peptide
26	Bb	3	LEU	Peptide
23	Bc	21	GLY	Peptide
25	Bd	13	ASN	Peptide
8	Bf	52	GLY	Peptide
10	Bg	301	VAL	Peptide
41	CA	122	ASP	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
41	CA	244	GLY	Peptide
41	CA	63	PHE	Peptide
41	CA	70	LYS	Peptide
71	CB	117	ARG	Peptide
71	CB	119	TYR	Sidechain
71	CB	259	HIS	Sidechain
71	CB	291	SER	Peptide
71	CB	303	ASP	Peptide
71	CB	349	GLN	Peptide
71	CB	357	GLU	Peptide
71	CB	365	THR	Peptide
71	CB	42	HIS	Peptide
72	CC	201	ARG	Sidechain
72	CC	215	TYR	Sidechain
72	CC	24	SER	Peptide
72	CC	95	ALA	Peptide
48	CD	114	ARG	Peptide
48	CD	121	GLU	Peptide
48	CD	139	ARG	Peptide
48	CD	187	GLU	Peptide
48	CD	201	GLY	Peptide
48	CD	21	GLN	Peptide
48	CD	217	GLU	Peptide
48	CD	218	LYS	Peptide
48	CD	235	GLY	Peptide
48	CD	238	SER	Peptide
48	CD	244	HIS	Peptide
48	CD	257	THR	Peptide
48	CD	261	PRO	Peptide
79	CE	20	TYR	Sidechain
79	CE	27	ALA	Peptide
79	CE	36	LEU	Peptide
79	CE	48	PRO	Peptide
79	CE	49	LYS	Peptide
79	CE	51	TYR	Peptide
79	CE	71	LEU	Peptide
69	CF	204	LEU	Peptide
69	CF	35	GLU	Peptide
69	CF	77	PHE	Peptide
37	CG	50	TRP	Peptide
37	CG	74	ASN	Peptide
43	CH	168	ASN	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
43	CH	169	LYS	Peptide
43	CH	183	LYS	Peptide
75	CI	110	ARG	Peptide
75	CI	172	GLY	Peptide
75	CI	29	PRO	Peptide
75	CI	88	ARG	Sidechain
42	CJ	2	SER	Peptide
42	CJ	9	ASN	Peptide
65	CK	75	VAL	Peptide
65	CK	76	PRO	Peptide
78	CL	12	HIS	Peptide
78	CL	13	PHE	Peptide,Sidechain
78	CL	20	TYR	Sidechain
78	CL	65	TYR	Sidechain
61	CM	17	TYR	Sidechain
61	CM	18	GLY	Peptide
61	CM	40	ALA	Peptide
61	CM	6	PHE	Peptide
45	CN	81	TYR	Sidechain
73	CO	115	PRO	Peptide
73	CO	125	ILE	Peptide
73	CO	152	TRP	Peptide
73	CO	70	LYS	Peptide
50	CP	3	LYS	Peptide
47	CQ	14	THR	Peptide
47	CQ	156	PRO	Peptide
47	CQ	157	GLY	Peptide
47	CQ	158	VAL	Peptide
47	CQ	16	ARG	Peptide
47	CQ	59	ARG	Sidechain
49	CR	73	GLY	Peptide
49	CR	84	THR	Peptide
49	CR	89	LEU	Peptide
62	CS	139	ASP	Peptide
62	CS	151	PHE	Peptide
62	CS	82	ARG	Sidechain
63	CU	100	ASP	Peptide
63	CU	55	LYS	Peptide
51	CX	133	TYR	Sidechain
46	Ca	103	TYR	Sidechain
46	Ca	116	ARG	Peptide
46	Ca	137	GLY	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
46	Ca	39	HIS	Peptide
46	Ca	5	PHE	Peptide
46	Ca	60	TYR	Peptide
46	Ca	8	ASN	Peptide
55	Cc	52	CYS	Peptide
57	Ce	13	LYS	Peptide
80	Cf	20	TYR	Sidechain
80	Cf	4	ARG	Sidechain
83	Cg	1	MET	Peptide
68	Ch	90	ARG	Peptide
58	Cj	88	LYS	Peptide
59	Cl	3	SER	Peptide
60	Co	32	LYS	Peptide
60	Co	87	ARG	Sidechain
74	Cp	35	SER	Peptide
70	Cq	7	LYS	Peptide
70	Cq	9	GLU	Peptide

5.2 Too-close contacts

Due to software issues we are unable to calculate clashes - this section is therefore empty.

5.3 Torsion angles

5.3.1 Protein backbone

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
4	BY	136/138 (99%)	118 (87%)	8 (6%)	10 (7%)	1 13
5	BI	64/220 (29%)	61 (95%)	2 (3%)	1 (2%)	9 43
6	BK	94/183 (51%)	66 (70%)	17 (18%)	11 (12%)	0 6
7	BM	121/171 (71%)	84 (69%)	20 (16%)	17 (14%)	0 4
8	Bf	69/155 (44%)	46 (67%)	10 (14%)	13 (19%)	0 2

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
9	BX	140/142 (99%)	124 (89%)	11 (8%)	5 (4%)	3 25
10	Bg	378/380 (100%)	334 (88%)	26 (7%)	18 (5%)	2 21
11	BD	206/208 (99%)	125 (61%)	34 (16%)	47 (23%)	0 1
12	BE	198/265 (75%)	173 (87%)	16 (8%)	9 (4%)	2 22
13	BF	189/191 (99%)	162 (86%)	20 (11%)	7 (4%)	3 25
14	BQ	124/149 (83%)	93 (75%)	15 (12%)	16 (13%)	0 5
15	BU	126/128 (98%)	102 (81%)	14 (11%)	10 (8%)	1 12
16	BO	117/151 (78%)	91 (78%)	12 (10%)	14 (12%)	0 6
17	BS	150/152 (99%)	109 (73%)	16 (11%)	25 (17%)	0 3
18	BN	119/151 (79%)	92 (77%)	14 (12%)	13 (11%)	0 8
19	BL	83/160 (52%)	61 (74%)	16 (19%)	6 (7%)	1 14
20	BT	144/146 (99%)	123 (85%)	13 (9%)	8 (6%)	2 18
21	BP	89/154 (58%)	69 (78%)	12 (14%)	8 (9%)	1 11
22	BZ	98/108 (91%)	75 (76%)	10 (10%)	13 (13%)	0 4
23	Bc	56/65 (86%)	40 (71%)	5 (9%)	11 (20%)	0 2
24	BW	128/130 (98%)	101 (79%)	16 (12%)	11 (9%)	1 11
25	Bd	46/56 (82%)	29 (63%)	6 (13%)	11 (24%)	0 1
26	Bb	84/86 (98%)	75 (89%)	6 (7%)	3 (4%)	3 25
27	Be	58/62 (94%)	49 (84%)	5 (9%)	4 (7%)	1 14
28	BA	195/260 (75%)	176 (90%)	10 (5%)	9 (5%)	2 21
29	BR	114/141 (81%)	89 (78%)	15 (13%)	10 (9%)	1 11
30	BB	209/262 (80%)	153 (73%)	31 (15%)	25 (12%)	0 6
31	BV	74/82 (90%)	62 (84%)	9 (12%)	3 (4%)	3 22
32	Ba	91/133 (68%)	65 (71%)	13 (14%)	13 (14%)	0 4
33	BJ	185/195 (95%)	162 (88%)	16 (9%)	7 (4%)	3 24
34	BC	212/263 (81%)	189 (89%)	16 (8%)	7 (3%)	4 26
35	BG	227/245 (93%)	211 (93%)	10 (4%)	6 (3%)	5 31
36	BH	182/189 (96%)	154 (85%)	10 (6%)	18 (10%)	0 9
37	CG	235/257 (91%)	205 (87%)	24 (10%)	6 (3%)	5 31
38	CT	158/164 (96%)	137 (87%)	6 (4%)	15 (10%)	0 10
39	CZ	134/136 (98%)	123 (92%)	10 (8%)	1 (1%)	22 62

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
40	Cz	214/216 (99%)	197 (92%)	9 (4%)	8 (4%)	3 25
41	CA	253/261 (97%)	219 (87%)	19 (8%)	15 (6%)	1 17
42	CJ	168/180 (93%)	132 (79%)	14 (8%)	22 (13%)	0 4
43	CH	188/190 (99%)	167 (89%)	16 (8%)	5 (3%)	5 31
44	CV	138/140 (99%)	124 (90%)	7 (5%)	7 (5%)	2 19
45	CN	192/200 (96%)	168 (88%)	18 (9%)	6 (3%)	4 27
46	Ca	142/144 (99%)	101 (71%)	24 (17%)	17 (12%)	0 6
47	CQ	161/188 (86%)	127 (79%)	18 (11%)	16 (10%)	0 9
48	CD	302/304 (99%)	213 (70%)	35 (12%)	54 (18%)	0 3
49	CR	187/209 (90%)	163 (87%)	14 (8%)	10 (5%)	2 19
50	CP	169/171 (99%)	140 (83%)	12 (7%)	17 (10%)	0 9
51	CX	120/152 (79%)	100 (83%)	17 (14%)	3 (2%)	5 32
52	CW	73/162 (45%)	55 (75%)	12 (16%)	6 (8%)	1 12
53	CY	128/150 (85%)	114 (89%)	8 (6%)	6 (5%)	2 21
54	Cr	71/147 (48%)	49 (69%)	13 (18%)	9 (13%)	0 5
55	Cc	110/112 (98%)	96 (87%)	10 (9%)	4 (4%)	3 25
56	Cd	118/123 (96%)	98 (83%)	8 (7%)	12 (10%)	0 8
57	Ce	131/133 (98%)	113 (86%)	10 (8%)	8 (6%)	1 16
58	Cj	92/94 (98%)	58 (63%)	19 (21%)	15 (16%)	0 3
59	Cl	49/51 (96%)	36 (74%)	8 (16%)	5 (10%)	0 8
60	Co	103/105 (98%)	76 (74%)	13 (13%)	14 (14%)	0 4
61	CM	132/134 (98%)	101 (76%)	14 (11%)	17 (13%)	0 5
62	CS	165/178 (93%)	122 (74%)	20 (12%)	23 (14%)	0 4
63	CU	106/130 (82%)	76 (72%)	13 (12%)	17 (16%)	0 3
64	Ci	75/112 (67%)	59 (79%)	5 (7%)	11 (15%)	0 4
65	CK	126/166 (76%)	94 (75%)	17 (14%)	15 (12%)	0 6
66	Cu	56/110 (51%)	54 (96%)	1 (2%)	1 (2%)	8 40
66	Cv	56/110 (51%)	53 (95%)	2 (4%)	1 (2%)	8 40
67	Cs	57/113 (50%)	54 (95%)	3 (5%)	0	100 100
67	Ct	57/113 (50%)	54 (95%)	3 (5%)	0	100 100
68	Ch	122/124 (98%)	103 (84%)	11 (9%)	8 (7%)	1 15

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
69	CF	242/244 (99%)	217 (90%)	16 (7%)	9 (4%)	3 25
70	Cq	260/319 (82%)	233 (90%)	15 (6%)	12 (5%)	2 21
71	CB	387/389 (100%)	307 (79%)	43 (11%)	37 (10%)	0 9
72	CC	368/405 (91%)	311 (84%)	27 (7%)	30 (8%)	1 12
73	CO	204/206 (99%)	179 (88%)	14 (7%)	11 (5%)	2 19
74	Cp	90/92 (98%)	81 (90%)	7 (8%)	2 (2%)	6 35
75	CI	182/224 (81%)	147 (81%)	24 (13%)	11 (6%)	1 16
76	Cn	23/25 (92%)	21 (91%)	1 (4%)	1 (4%)	2 22
77	Cm	50/53 (94%)	46 (92%)	3 (6%)	1 (2%)	7 37
78	CL	206/208 (99%)	168 (82%)	13 (6%)	25 (12%)	0 5
79	CE	217/219 (99%)	177 (82%)	14 (6%)	26 (12%)	0 6
80	Cf	109/111 (98%)	103 (94%)	5 (5%)	1 (1%)	17 56
81	Ck	67/69 (97%)	63 (94%)	2 (3%)	2 (3%)	4 28
82	Cb	56/60 (93%)	48 (86%)	4 (7%)	4 (7%)	1 14
83	Cg	108/119 (91%)	96 (89%)	8 (7%)	4 (4%)	3 25
All	All	11663/13543 (86%)	9641 (83%)	1083 (9%)	939 (8%)	2 12

All (939) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	BY	2	ALA
4	BY	39	ASN
4	BY	41	SER
4	BY	46	LYS
4	BY	49	LEU
4	BY	68	THR
6	BK	82	LEU
6	BK	87	VAL
6	BK	88	PRO
6	BK	89	ALA
7	BM	79	VAL
7	BM	81	SER
7	BM	96	SER
8	Bf	26	VAL
9	BX	60	GLN
9	BX	128	SER
10	Bg	2	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	Bg	149	VAL
10	Bg	216	LEU
10	Bg	342	SER
10	Bg	343	HIS
11	BD	32	ASP
11	BD	48	ILE
11	BD	90	LYS
11	BD	96	LEU
11	BD	99	ILE
11	BD	111	GLY
11	BD	125	PHE
11	BD	126	VAL
11	BD	131	ALA
11	BD	156	TYR
11	BD	162	GLN
11	BD	183	GLY
11	BD	184	ILE
11	BD	197	LYS
11	BD	200	PRO
11	BD	213	PRO
11	BD	215	GLU
11	BD	216	GLU
11	BD	217	ASN
11	BD	218	GLU
12	BE	58	TYR
12	BE	153	ILE
12	BE	154	ILE
13	BF	41	HIS
13	BF	57	PHE
13	BF	63	PRO
13	BF	77	ARG
14	BQ	45	ILE
14	BQ	76	ARG
14	BQ	90	ALA
14	BQ	91	ILE
14	BQ	142	ALA
15	BU	3	ALA
15	BU	7	ALA
15	BU	9	ALA
15	BU	12	MET
15	BU	81	GLU
16	BO	66	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	BO	72	ALA
16	BO	97	ARG
16	BO	134	VAL
16	BO	148	ARG
17	BS	5	ALA
17	BS	8	GLU
17	BS	9	PHE
17	BS	17	ASN
17	BS	74	PRO
17	BS	80	PRO
17	BS	87	LYS
17	BS	99	VAL
17	BS	100	SER
17	BS	149	SER
18	BN	42	LYS
18	BN	57	GLN
18	BN	69	SER
18	BN	81	ALA
18	BN	86	GLU
18	BN	109	LYS
18	BN	137	PRO
19	BL	55	ILE
19	BL	109	PRO
19	BL	110	ALA
19	BL	120	GLU
20	BT	34	PRO
20	BT	40	VAL
21	BP	66	ILE
21	BP	70	ARG
21	BP	71	LYS
21	BP	139	ARG
22	BZ	18	SER
22	BZ	19	GLY
22	BZ	24	LYS
22	BZ	26	LYS
22	BZ	28	TRP
22	BZ	33	GLN
23	Bc	2	ASP
23	Bc	16	ARG
23	Bc	17	THR
23	Bc	24	THR
24	BW	4	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
24	BW	52	PHE
24	BW	53	VAL
24	BW	65	LEU
24	BW	97	ARG
25	Bd	11	PRO
25	Bd	14	TYR
25	Bd	54	LYS
26	Bb	64	VAL
27	Be	57	PRO
28	BA	10	ARG
28	BA	100	ALA
29	BR	2	GLY
29	BR	88	LYS
29	BR	93	VAL
29	BR	101	GLU
29	BR	115	PRO
30	BB	49	SER
30	BB	113	LEU
30	BB	148	ASN
30	BB	179	CYS
30	BB	182	LYS
30	BB	206	PRO
31	BV	22	ARG
32	Ba	45	VAL
32	Ba	63	VAL
32	Ba	86	VAL
33	BJ	5	PRO
33	BJ	8	TYR
34	BC	146	ASN
35	BG	20	ASP
35	BG	87	TYR
35	BG	160	ASN
36	BH	17	SER
36	BH	34	ASN
36	BH	104	PRO
36	BH	105	PRO
36	BH	106	LYS
36	BH	118	THR
37	CG	48	VAL
37	CG	225	VAL
37	CG	233	VAL
38	CT	8	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
38	CT	70	ARG
38	CT	141	VAL
38	CT	151	PRO
40	Cz	150	THR
40	Cz	167	ALA
40	Cz	197	TRP
40	Cz	198	GLN
41	CA	28	ARG
41	CA	67	PHE
41	CA	68	ARG
41	CA	119	HIS
42	CJ	2	SER
42	CJ	3	THR
42	CJ	7	GLN
42	CJ	58	SER
42	CJ	94	LEU
42	CJ	113	ASP
43	CH	140	LYS
43	CH	185	THR
43	CH	186	ILE
44	CV	13	LYS
44	CV	36	ASN
45	CN	122	ASN
45	CN	185	ARG
46	Ca	9	ARG
46	Ca	10	LYS
46	Ca	15	VAL
46	Ca	22	ILE
46	Ca	28	HIS
46	Ca	109	LYS
46	Ca	128	VAL
47	CQ	13	ARG
47	CQ	20	LYS
47	CQ	156	PRO
47	CQ	159	PRO
48	CD	2	SER
48	CD	16	TYR
48	CD	74	ILE
48	CD	116	LEU
48	CD	138	GLU
48	CD	188	LYS
48	CD	191	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
48	CD	199	ILE
48	CD	204	VAL
48	CD	218	LYS
48	CD	236	MET
48	CD	239	LEU
48	CD	260	GLU
48	CD	262	ALA
48	CD	284	ARG
48	CD	285	LEU
48	CD	289	ASN
48	CD	290	SER
48	CD	291	SER
49	CR	55	GLN
49	CR	56	LYS
49	CR	59	SER
49	CR	188	SER
50	CP	112	THR
50	CP	167	ALA
51	CX	34	LYS
51	CX	46	LYS
51	CX	50	LYS
52	CW	54	THR
52	CW	72	LYS
53	CY	8	THR
53	CY	9	SER
53	CY	10	SER
54	Cr	110	ASN
55	Cc	102	SER
56	Cd	8	ALA
56	Cd	27	ARG
56	Cd	87	ARG
56	Cd	101	VAL
56	Cd	102	THR
56	Cd	119	VAL
57	Ce	13	LYS
57	Ce	131	GLU
58	Cj	4	GLY
58	Cj	41	ALA
58	Cj	51	VAL
58	Cj	84	ALA
58	Cj	90	ALA
59	Cl	4	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
59	Cl	34	THR
59	Cl	38	ASN
60	Co	48	SER
60	Co	97	LYS
61	CM	6	PHE
61	CM	7	VAL
61	CM	17	TYR
61	CM	23	ARG
61	CM	66	PRO
61	CM	80	VAL
61	CM	89	TRP
61	CM	102	LEU
62	CS	4	PHE
62	CS	6	PHE
62	CS	17	PRO
62	CS	23	HIS
62	CS	35	ASN
62	CS	54	LYS
62	CS	70	ASN
62	CS	71	PRO
62	CS	73	THR
62	CS	87	THR
62	CS	117	ARG
62	CS	138	ARG
62	CS	151	PHE
62	CS	152	PRO
62	CS	161	PRO
63	CU	31	VAL
63	CU	32	GLU
63	CU	34	LYS
63	CU	58	ASN
63	CU	79	ALA
63	CU	100	ASP
63	CU	101	TRP
63	CU	104	VAL
63	CU	105	ILE
63	CU	106	ALA
63	CU	111	ARG
64	Ci	38	LYS
64	Ci	40	VAL
64	Ci	95	SER
65	CK	15	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
65	CK	32	ILE
65	CK	37	LEU
65	CK	76	PRO
65	CK	95	LYS
65	CK	96	VAL
65	CK	132	GLU
65	CK	133	ILE
66	Cu	62	VAL
66	Cv	62	VAL
68	Ch	117	GLN
68	Ch	119	LYS
69	CF	109	ARG
69	CF	159	ASN
69	CF	205	TRP
70	Cq	63	ARG
70	Cq	208	ASP
70	Cq	212	ASP
71	CB	4	ARG
71	CB	60	VAL
71	CB	61	GLU
71	CB	63	PRO
71	CB	123	CYS
71	CB	129	ALA
71	CB	292	GLY
71	CB	296	HIS
71	CB	335	PRO
71	CB	350	THR
71	CB	351	SER
71	CB	358	ILE
72	CC	3	THR
72	CC	17	ASP
72	CC	21	ASP
72	CC	24	SER
72	CC	62	ALA
72	CC	90	ARG
72	CC	107	ALA
72	CC	108	PRO
72	CC	110	LYS
72	CC	202	ASN
72	CC	305	SER
72	CC	348	GLU
72	CC	349	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
73	CO	11	ARG
73	CO	71	PRO
73	CO	126	PRO
73	CO	132	LEU
73	CO	135	GLN
73	CO	136	PRO
75	CI	18	PRO
75	CI	39	LYS
75	CI	113	THR
75	CI	115	MET
78	CL	13	PHE
78	CL	21	VAL
78	CL	46	PHE
78	CL	48	ARG
78	CL	62	THR
78	CL	64	LYS
78	CL	66	ASN
78	CL	127	PRO
78	CL	154	MET
78	CL	156	ILE
79	CE	26	TRP
79	CE	28	ILE
79	CE	37	PRO
79	CE	39	ALA
79	CE	40	GLU
79	CE	41	LYS
79	CE	44	ALA
79	CE	51	TYR
79	CE	52	PRO
79	CE	73	SER
79	CE	74	THR
79	CE	159	GLU
79	CE	166	ASP
80	Cf	7	GLN
82	Cb	21	ILE
82	Cb	39	PHE
83	Cg	11	HIS
83	Cg	65	PRO
6	BK	53	GLU
6	BK	61	TRP
7	BM	115	GLY
7	BM	117	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
8	Bf	13	LYS
8	Bf	16	LYS
8	Bf	19	HIS
9	BX	86	ASN
10	Bg	202	SER
10	Bg	203	GLY
10	Bg	271	GLY
11	BD	36	GLY
11	BD	63	GLY
11	BD	80	LEU
11	BD	81	GLU
11	BD	91	VAL
11	BD	98	ALA
11	BD	113	LEU
11	BD	140	GLY
11	BD	152	PHE
11	BD	195	LYS
12	BE	53	LYS
12	BE	163	ASP
12	BE	217	GLN
13	BF	178	LYS
14	BQ	26	SER
14	BQ	36	LYS
14	BQ	138	ARG
15	BU	13	LYS
15	BU	30	ARG
15	BU	58	LYS
16	BO	75	LEU
16	BO	94	ILE
16	BO	138	SER
17	BS	15	VAL
17	BS	75	ARG
17	BS	91	LYS
17	BS	95	PHE
17	BS	151	LYS
18	BN	149	LEU
19	BL	121	GLY
20	BT	45	PHE
21	BP	116	ILE
22	BZ	11	PRO
22	BZ	34	LYS
22	BZ	89	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	Bc	19	SER
23	Bc	25	GLN
24	BW	23	ARG
24	BW	50	PHE
24	BW	92	ARG
24	BW	96	SER
25	Bd	19	ARG
25	Bd	20	VAL
25	Bd	33	LYS
25	Bd	53	ILE
28	BA	32	LYS
28	BA	71	ALA
29	BR	86	PRO
29	BR	95	GLU
29	BR	112	ALA
30	BB	93	GLY
30	BB	177	SER
30	BB	221	PRO
31	BV	7	GLN
32	Ba	10	ARG
32	Ba	19	LYS
32	Ba	62	TYR
33	BJ	123	SER
33	BJ	136	ILE
33	BJ	152	VAL
34	BC	148	ILE
36	BH	67	TYR
36	BH	77	HIS
36	BH	111	VAL
36	BH	135	GLU
37	CG	121	GLU
38	CT	5	HIS
38	CT	10	ARG
38	CT	159	ASP
40	Cz	73	VAL
40	Cz	98	LEU
40	Cz	134	PRO
41	CA	34	PHE
42	CJ	33	THR
42	CJ	63	ARG
42	CJ	88	VAL
42	CJ	108	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
42	CJ	124	ILE
42	CJ	127	MET
44	CV	5	GLY
44	CV	9	SER
44	CV	12	ASN
45	CN	2	GLY
45	CN	56	LYS
46	Ca	7	LYS
46	Ca	8	ASN
46	Ca	11	LYS
46	Ca	124	LEU
47	CQ	94	GLU
47	CQ	98	MET
47	CQ	160	HIS
48	CD	3	LEU
48	CD	14	HIS
48	CD	59	LYS
48	CD	73	ASP
48	CD	89	LEU
48	CD	117	ASP
48	CD	119	GLU
48	CD	125	GLU
48	CD	144	ALA
48	CD	183	PHE
48	CD	187	GLU
48	CD	200	TYR
48	CD	203	HIS
48	CD	238	SER
48	CD	248	ARG
48	CD	249	ALA
49	CR	54	PRO
50	CP	2	VAL
50	CP	9	ASN
50	CP	31	GLU
50	CP	38	LYS
50	CP	68	GLY
50	CP	70	THR
50	CP	74	LYS
50	CP	128	ARG
50	CP	166	ILE
50	CP	169	ARG
52	CW	63	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
54	Cr	90	SER
54	Cr	91	VAL
56	Cd	2	SER
57	Ce	120	VAL
58	Cj	76	SER
58	Cj	79	ARG
58	Cj	87	ARG
59	Cl	39	ALA
60	Co	34	SER
60	Co	37	ALA
61	CM	3	PHE
61	CM	32	ASP
62	CS	52	LYS
63	CU	37	GLU
64	Ci	42	PHE
64	Ci	66	VAL
64	Ci	94	SER
65	CK	94	LYS
65	CK	137	CYS
69	CF	36	LYS
70	Cq	52	SER
71	CB	2	SER
71	CB	124	LYS
71	CB	126	LYS
71	CB	131	THR
71	CB	215	ASP
71	CB	301	GLU
71	CB	303	ASP
71	CB	359	LYS
71	CB	373	ARG
71	CB	374	PHE
72	CC	19	ALA
72	CC	91	ALA
72	CC	151	VAL
72	CC	208	ARG
72	CC	345	THR
74	Cp	6	LYS
74	Cp	18	TYR
75	CI	99	ILE
75	CI	110	ARG
75	CI	118	ALA
78	CL	12	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
78	CL	49	PRO
78	CL	67	MET
78	CL	70	ARG
78	CL	130	ALA
79	CE	12	LYS
79	CE	54	ASP
79	CE	75	ILE
79	CE	172	ASN
79	CE	205	ARG
79	CE	209	ARG
81	Ck	20	ALA
82	Cb	25	LYS
83	Cg	10	ARG
4	BY	16	LYS
5	BI	161	GLN
6	BK	34	GLN
7	BM	10	GLU
7	BM	44	LYS
7	BM	72	HIS
7	BM	89	ALA
8	Bf	12	PRO
8	Bf	30	TYR
10	Bg	98	SER
10	Bg	150	SER
10	Bg	151	ARG
10	Bg	180	GLN
10	Bg	301	VAL
10	Bg	366	LYS
11	BD	62	LYS
11	BD	78	ASN
11	BD	93	ASN
11	BD	173	ARG
11	BD	211	HIS
12	BE	94	LYS
12	BE	213	ALA
14	BQ	32	ARG
14	BQ	81	THR
14	BQ	92	ALA
14	BQ	118	TYR
14	BQ	146	LYS
16	BO	93	HIS
16	BO	109	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	BO	149	ARG
17	BS	49	ASP
17	BS	140	GLY
18	BN	78	HIS
18	BN	87	ASP
20	BT	11	ASP
22	BZ	101	ILE
23	Bc	8	ALA
24	BW	95	PRO
25	Bd	15	GLY
25	Bd	47	ALA
26	Bb	19	LEU
26	Bb	65	LEU
28	BA	44	LYS
30	BB	55	LYS
32	Ba	46	GLU
32	Ba	82	HIS
36	BH	57	ASN
36	BH	89	SER
36	BH	132	TYR
37	CG	153	VAL
37	CG	232	GLY
38	CT	80	VAL
39	CZ	103	THR
41	CA	11	GLY
41	CA	71	HIS
41	CA	245	ARG
42	CJ	65	GLU
42	CJ	89	LYS
42	CJ	145	ARG
46	Ca	66	ASN
46	Ca	114	PRO
47	CQ	11	ASN
47	CQ	119	GLU
47	CQ	142	PRO
48	CD	23	LYS
48	CD	52	LYS
48	CD	55	PHE
48	CD	132	TYR
48	CD	141	PRO
48	CD	197	LYS
48	CD	212	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
48	CD	261	PRO
48	CD	287	ALA
48	CD	288	LEU
48	CD	292	ALA
48	CD	293	GLY
50	CP	8	ALA
50	CP	63	TYR
50	CP	79	ASN
50	CP	168	ALA
54	Cr	87	TYR
54	Cr	93	ARG
56	Cd	4	LYS
56	Cd	11	ARG
56	Cd	26	LYS
58	Cj	26	SER
58	Cj	77	ASN
59	Cl	47	THR
60	Co	14	ASN
60	Co	56	PRO
60	Co	76	SER
60	Co	91	PHE
60	Co	94	GLY
60	Co	98	LYS
60	Co	102	THR
61	CM	31	VAL
61	CM	88	SER
61	CM	105	PHE
62	CS	139	ASP
62	CS	162	THR
63	CU	29	LYS
63	CU	97	ASN
63	CU	107	ALA
63	CU	108	ASN
64	Ci	39	ARG
64	Ci	80	LEU
65	CK	134	LEU
68	Ch	99	ASP
68	Ch	113	VAL
69	CF	35	GLU
69	CF	62	LYS
69	CF	167	ASN
70	Cq	73	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
70	Cq	209	LEU
70	Cq	210	THR
70	Cq	211	GLU
71	CB	40	PRO
71	CB	103	ASN
71	CB	137	TYR
71	CB	158	THR
71	CB	262	ARG
71	CB	375	GLN
71	CB	386	ARG
72	CC	4	GLN
72	CC	330	VAL
73	CO	42	ARG
73	CO	69	THR
76	Cn	24	SER
78	CL	22	LYS
78	CL	128	ARG
78	CL	134	LYS
78	CL	142	GLU
78	CL	148	GLN
78	CL	152	ASP
79	CE	157	LYS
4	BY	11	THR
4	BY	48	LYS
6	BK	30	ALA
6	BK	60	SER
6	BK	64	TYR
7	BM	30	GLY
7	BM	94	ILE
7	BM	106	CYS
7	BM	107	SER
8	Bf	14	LYS
8	Bf	21	LYS
8	Bf	34	ASP
8	Bf	72	THR
9	BX	64	ALA
11	BD	30	ALA
11	BD	61	GLU
11	BD	64	ARG
11	BD	71	SER
11	BD	172	VAL
12	BE	149	TYR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
13	BF	56	ARG
15	BU	25	VAL
16	BO	53	VAL
16	BO	73	ALA
16	BO	142	LYS
17	BS	6	GLY
17	BS	7	GLU
17	BS	79	VAL
17	BS	83	PHE
17	BS	94	ARG
17	BS	139	THR
18	BN	41	ALA
18	BN	58	HIS
19	BL	61	PHE
20	BT	48	LEU
22	BZ	13	SER
22	BZ	96	HIS
23	Bc	3	THR
23	Bc	4	GLN
25	Bd	16	ALA
28	BA	108	THR
29	BR	100	LYS
30	BB	35	PRO
30	BB	79	GLN
30	BB	82	ARG
30	BB	176	ALA
31	BV	59	ARG
32	Ba	36	ILE
32	Ba	64	LEU
32	Ba	65	PRO
34	BC	35	TRP
34	BC	36	VAL
34	BC	106	ASP
34	BC	150	GLN
34	BC	235	PHE
35	BG	69	THR
36	BH	102	VAL
36	BH	141	VAL
36	BH	157	PRO
38	CT	124	GLU
38	CT	125	VAL
41	CA	38	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
41	CA	115	ASN
41	CA	127	ALA
42	CJ	6	LYS
42	CJ	10	PRO
42	CJ	32	LEU
42	CJ	74	ARG
43	CH	49	GLU
43	CH	126	ASP
44	CV	6	ARG
45	CN	78	GLY
45	CN	148	ILE
46	Ca	4	ARG
46	Ca	108	GLY
46	Ca	117	PRO
46	Ca	134	LYS
47	CQ	78	ASN
47	CQ	139	LEU
47	CQ	148	ALA
47	CQ	157	GLY
47	CQ	158	VAL
48	CD	17	PHE
48	CD	90	GLU
48	CD	118	GLN
48	CD	245	ALA
48	CD	259	LYS
52	CW	66	HIS
53	CY	4	ASN
53	CY	21	ALA
55	Cc	31	TYR
55	Cc	89	TYR
57	Ce	46	LYS
57	Ce	90	ASN
57	Ce	132	ASP
58	Cj	10	LYS
58	Cj	37	CYS
58	Cj	39	TYR
58	Cj	61	THR
60	Co	35	LEU
61	CM	65	VAL
61	CM	67	LYS
62	CS	15	GLY
62	CS	16	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
62	CS	19	PRO
62	CS	86	ARG
64	Ci	41	HIS
68	Ch	80	ALA
69	CF	206	PRO
70	Cq	12	VAL
70	Cq	74	GLY
71	CB	204	LYS
71	CB	205	GLU
71	CB	270	ALA
72	CC	22	ASN
72	CC	87	GLY
72	CC	154	LEU
72	CC	331	LEU
72	CC	346	LEU
72	CC	389	SER
75	CI	84	ALA
75	CI	85	PHE
75	CI	93	PRO
78	CL	65	TYR
81	Ck	26	LYS
82	Cb	23	LYS
4	BY	45	LEU
7	BM	91	LEU
7	BM	113	ASP
8	Bf	43	ARG
9	BX	9	ALA
10	Bg	111	VAL
17	BS	137	LYS
17	BS	150	LYS
20	BT	53	PRO
21	BP	117	LYS
21	BP	118	PRO
23	Bc	57	SER
24	BW	79	PHE
27	Be	4	VAL
27	Be	48	VAL
28	BA	163	ILE
29	BR	92	GLU
30	BB	38	PHE
30	BB	54	THR
30	BB	58	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	BB	62	LYS
30	BB	63	HIS
30	BB	64	ARG
30	BB	210	VAL
30	BB	213	ARG
33	BJ	142	ILE
35	BG	154	ASP
36	BH	113	ARG
41	CA	66	PRO
41	CA	69	TYR
41	CA	140	ASN
42	CJ	9	ASN
47	CQ	149	VAL
48	CD	140	ARG
48	CD	294	ALA
49	CR	185	PRO
50	CP	162	PRO
52	CW	45	ARG
53	CY	49	ILE
54	Cr	72	LEU
54	Cr	108	SER
56	Cd	90	GLU
57	Ce	66	HIS
60	Co	59	HIS
60	Co	80	TYR
61	CM	78	ALA
61	CM	79	ASP
63	CU	55	LYS
65	CK	75	VAL
65	CK	78	ALA
65	CK	91	ARG
68	Ch	45	LEU
68	Ch	90	ARG
69	CF	160	LYS
70	Cq	145	ASN
71	CB	70	LYS
71	CB	111	SER
72	CC	18	MET
72	CC	109	THR
72	CC	343	MET
73	CO	131	VAL
73	CO	152	TRP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
73	CO	193	LYS
77	Cm	2	ILE
78	CL	60	CYS
79	CE	29	LYS
79	CE	69	THR
7	BM	95	ASP
8	Bf	11	LYS
10	Bg	237	ILE
10	Bg	340	GLN
11	BD	31	GLU
11	BD	84	VAL
11	BD	194	PRO
11	BD	206	ASP
11	BD	212	PRO
14	BQ	47	PRO
20	BT	90	SER
21	BP	63	MET
22	BZ	44	ASP
23	Bc	34	GLN
25	Bd	38	CYS
28	BA	193	ILE
30	BB	37	VAL
30	BB	207	LEU
33	BJ	4	ALA
35	BG	159	VAL
38	CT	43	LYS
41	CA	73	LYS
42	CJ	25	VAL
44	CV	49	LEU
49	CR	91	THR
49	CR	137	VAL
52	CW	71	LYS
54	Cr	67	ASP
57	Ce	121	THR
62	CS	166	LYS
64	Ci	81	GLY
65	CK	87	LYS
70	Cq	136	SER
71	CB	69	LYS
71	CB	242	PRO
71	CB	297	GLU
78	CL	126	PHE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
79	CE	11	ILE
14	BQ	31	GLY
27	Be	56	GLY
32	Ba	84	VAL
38	CT	123	GLY
49	CR	57	ILE
79	CE	45	ILE
79	CE	117	ILE
83	Cg	2	VAL
13	BF	137	ILE
14	BQ	46	ARG
18	BN	66	VAL
38	CT	84	ILE
38	CT	146	ILE
49	CR	73	GLY
54	Cr	61	GLN
7	BM	103	VAL
10	Bg	127	GLY
11	BD	95	GLY
20	BT	33	LEU
28	BA	122	GLU
32	Ba	75	VAL
40	Cz	55	PRO
42	CJ	60	GLY
64	Ci	43	VAL
68	Ch	97	SER
78	CL	2	VAL
6	BK	83	PRO
15	BU	66	PRO
30	BB	215	VAL
36	BH	156	ASP
38	CT	126	ILE
56	Cd	16	VAL
75	CI	42	GLY
8	Bf	15	ILE
11	BD	202	THR
55	Cc	79	VAL
58	Cj	38	GLY
72	CC	386	ILE
79	CE	36	LEU

5.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	BY	116/116 (100%)	110 (95%)	6 (5%)	23	49
5	BI	56/179 (31%)	53 (95%)	3 (5%)	22	49
6	BK	90/146 (62%)	88 (98%)	2 (2%)	52	71
7	BM	101/142 (71%)	101 (100%)	0	100	100
8	Bf	62/135 (46%)	60 (97%)	2 (3%)	39	61
9	BX	113/113 (100%)	111 (98%)	2 (2%)	59	77
10	Bg	323/323 (100%)	310 (96%)	13 (4%)	31	56
11	BD	175/175 (100%)	170 (97%)	5 (3%)	42	64
12	BE	176/225 (78%)	172 (98%)	4 (2%)	50	70
13	BF	159/159 (100%)	153 (96%)	6 (4%)	33	57
14	BQ	103/120 (86%)	97 (94%)	6 (6%)	20	46
15	BU	113/113 (100%)	107 (95%)	6 (5%)	22	49
16	BO	94/120 (78%)	90 (96%)	4 (4%)	29	54
17	BS	133/133 (100%)	125 (94%)	8 (6%)	19	46
18	BN	106/130 (82%)	101 (95%)	5 (5%)	26	52
19	BL	74/135 (55%)	70 (95%)	4 (5%)	22	49
20	BT	121/121 (100%)	115 (95%)	6 (5%)	24	50
21	BP	77/130 (59%)	71 (92%)	6 (8%)	12	38
22	BZ	87/93 (94%)	84 (97%)	3 (3%)	37	60
23	Bc	52/58 (90%)	48 (92%)	4 (8%)	13	39
24	BW	113/113 (100%)	109 (96%)	4 (4%)	36	60
25	Bd	40/47 (85%)	39 (98%)	1 (2%)	47	68
26	Bb	78/78 (100%)	78 (100%)	0	100	100
27	Be	47/49 (96%)	46 (98%)	1 (2%)	53	72
28	BA	161/204 (79%)	153 (95%)	8 (5%)	24	50
29	BR	105/127 (83%)	103 (98%)	2 (2%)	57	75

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
30	BB	188/226 (83%)	186 (99%)	2 (1%)	73	84
31	BV	63/68 (93%)	59 (94%)	4 (6%)	18	44
32	Ba	80/107 (75%)	78 (98%)	2 (2%)	47	68
33	BJ	160/167 (96%)	157 (98%)	3 (2%)	57	75
34	BC	182/211 (86%)	177 (97%)	5 (3%)	44	65
35	BG	201/210 (96%)	192 (96%)	9 (4%)	27	53
36	BH	164/168 (98%)	157 (96%)	7 (4%)	29	54
37	CG	205/220 (93%)	194 (95%)	11 (5%)	22	49
38	CT	139/141 (99%)	135 (97%)	4 (3%)	42	64
39	CZ	113/113 (100%)	109 (96%)	4 (4%)	36	60
40	Cz	192/192 (100%)	182 (95%)	10 (5%)	23	49
41	CA	195/199 (98%)	184 (94%)	11 (6%)	21	47
42	CJ	149/157 (95%)	139 (93%)	10 (7%)	16	42
43	CH	164/164 (100%)	158 (96%)	6 (4%)	34	58
44	CV	109/109 (100%)	106 (97%)	3 (3%)	43	65
45	CN	167/173 (96%)	161 (96%)	6 (4%)	35	59
46	Ca	110/110 (100%)	101 (92%)	9 (8%)	11	36
47	CQ	138/160 (86%)	132 (96%)	6 (4%)	29	54
48	CD	251/251 (100%)	234 (93%)	17 (7%)	16	42
49	CR	166/183 (91%)	154 (93%)	12 (7%)	14	41
50	CP	144/144 (100%)	139 (96%)	5 (4%)	36	60
51	CX	109/130 (84%)	102 (94%)	7 (6%)	17	44
52	CW	66/133 (50%)	65 (98%)	1 (2%)	65	80
53	CY	115/128 (90%)	110 (96%)	5 (4%)	29	54
54	Cr	64/131 (49%)	61 (95%)	3 (5%)	26	52
55	Cc	98/98 (100%)	94 (96%)	4 (4%)	30	55
56	Cd	103/106 (97%)	98 (95%)	5 (5%)	25	51
57	Ce	122/122 (100%)	116 (95%)	6 (5%)	25	51
58	Cj	77/77 (100%)	74 (96%)	3 (4%)	32	57
59	Cl	48/48 (100%)	47 (98%)	1 (2%)	53	72
60	Co	94/94 (100%)	87 (93%)	7 (7%)	13	40

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
61	CM	116/116 (100%)	110 (95%)	6 (5%)	23	49
62	CS	153/163 (94%)	145 (95%)	8 (5%)	23	49
63	CU	94/106 (89%)	86 (92%)	8 (8%)	10	35
64	Ci	62/92 (67%)	59 (95%)	3 (5%)	25	52
65	CK	105/139 (76%)	98 (93%)	7 (7%)	16	42
66	Cu	46/77 (60%)	45 (98%)	1 (2%)	52	71
66	Cv	46/77 (60%)	46 (100%)	0	100	100
67	Cs	48/82 (58%)	47 (98%)	1 (2%)	53	72
67	Ct	48/82 (58%)	46 (96%)	2 (4%)	30	54
68	Ch	109/109 (100%)	103 (94%)	6 (6%)	21	48
69	CF	206/206 (100%)	199 (97%)	7 (3%)	37	60
70	Cq	222/265 (84%)	216 (97%)	6 (3%)	44	65
71	CB	335/335 (100%)	315 (94%)	20 (6%)	19	46
72	CC	302/329 (92%)	286 (95%)	16 (5%)	22	49
73	CO	173/173 (100%)	160 (92%)	13 (8%)	13	39
74	Cp	73/73 (100%)	72 (99%)	1 (1%)	67	80
75	CI	156/183 (85%)	152 (97%)	4 (3%)	46	67
76	Cn	24/24 (100%)	23 (96%)	1 (4%)	30	54
77	Cm	47/48 (98%)	46 (98%)	1 (2%)	53	72
78	CL	175/175 (100%)	166 (95%)	9 (5%)	24	50
79	CE	185/185 (100%)	169 (91%)	16 (9%)	10	34
80	Cf	96/96 (100%)	93 (97%)	3 (3%)	40	62
81	Ck	63/63 (100%)	58 (92%)	5 (8%)	12	38
82	Cb	51/53 (96%)	51 (100%)	0	100	100
83	Cg	98/107 (92%)	91 (93%)	7 (7%)	14	41
All	All	10084/11382 (89%)	9634 (96%)	450 (4%)	31	53

All (450) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	BY	21	ARG
4	BY	37	ARG
4	BY	47	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	BY	95	TYR
4	BY	123	ILE
4	BY	127	LYS
5	BI	151	ASN
5	BI	201	LYS
5	BI	209	LYS
6	BK	54	TYR
6	BK	92	LYS
8	Bf	59	ASN
8	Bf	65	TYR
9	BX	60	GLN
9	BX	141	ARG
10	Bg	15	THR
10	Bg	52	ASN
10	Bg	62	LEU
10	Bg	78	LYS
10	Bg	107	HIS
10	Bg	112	MET
10	Bg	128	LEU
10	Bg	143	ARG
10	Bg	166	VAL
10	Bg	230	VAL
10	Bg	246	HIS
10	Bg	255	VAL
10	Bg	263	ARG
11	BD	40	ARG
11	BD	91	VAL
11	BD	99	ILE
11	BD	124	ARG
11	BD	207	LEU
12	BE	80	LYS
12	BE	149	TYR
12	BE	168	LYS
12	BE	208	ILE
13	BF	10	GLN
13	BF	51	ARG
13	BF	58	ARG
13	BF	113	ILE
13	BF	132	ARG
13	BF	178	LYS
14	BQ	53	LYS
14	BQ	66	PHE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
14	BQ	129	ARG
14	BQ	135	PHE
14	BQ	143	ARG
14	BQ	149	ARG
15	BU	12	MET
15	BU	30	ARG
15	BU	75	ARG
15	BU	86	TRP
15	BU	87	ASP
15	BU	92	ARG
16	BO	49	ARG
16	BO	65	ARG
16	BO	67	GLU
16	BO	87	LEU
17	BS	25	LYS
17	BS	36	VAL
17	BS	55	ARG
17	BS	78	LYS
17	BS	79	VAL
17	BS	108	ARG
17	BS	135	HIS
17	BS	136	THR
18	BN	70	LYS
18	BN	83	GLU
18	BN	108	ASP
18	BN	117	LEU
18	BN	124	ARG
19	BL	86	ILE
19	BL	96	LYS
19	BL	100	ARG
19	BL	116	PHE
20	BT	34	PRO
20	BT	46	LYS
20	BT	51	TYR
20	BT	91	ARG
20	BT	93	PRO
20	BT	106	ILE
21	BP	59	LYS
21	BP	60	ARG
21	BP	99	ILE
21	BP	116	ILE
21	BP	124	TYR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
21	BP	139	ARG
22	BZ	39	ASN
22	BZ	68	GLU
22	BZ	104	ARG
23	Bc	1	MET
23	Bc	16	ARG
23	Bc	41	ASN
23	Bc	47	ARG
24	BW	22	LYS
24	BW	51	GLU
24	BW	69	LEU
24	BW	113	HIS
25	Bd	55	TYR
27	Be	26	LYS
28	BA	37	GLN
28	BA	40	ARG
28	BA	52	ILE
28	BA	68	VAL
28	BA	76	GLN
28	BA	108	THR
28	BA	126	LEU
28	BA	159	ARG
29	BR	85	VAL
29	BR	105	MET
30	BB	105	PHE
30	BB	231	VAL
31	BV	20	THR
31	BV	41	GLU
31	BV	63	ASP
31	BV	72	TRP
32	Ba	45	VAL
32	Ba	70	LYS
33	BJ	18	ARG
33	BJ	23	LYS
33	BJ	70	ARG
34	BC	90	THR
34	BC	113	LEU
34	BC	148	ILE
34	BC	196	VAL
34	BC	216	ASP
35	BG	4	ASN
35	BG	7	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	BG	32	ILE
35	BG	44	GLU
35	BG	74	ARG
35	BG	87	TYR
35	BG	130	GLU
35	BG	144	ARG
35	BG	228	ARG
36	BH	32	ASN
36	BH	36	GLU
36	BH	117	ARG
36	BH	130	VAL
36	BH	158	LYS
36	BH	167	LEU
36	BH	182	VAL
37	CG	61	ARG
37	CG	68	LYS
37	CG	82	LYS
37	CG	126	ILE
37	CG	132	LEU
37	CG	177	LYS
37	CG	189	LYS
37	CG	193	VAL
37	CG	214	ILE
37	CG	217	ASN
37	CG	221	LYS
38	CT	27	LEU
38	CT	30	TYR
38	CT	60	ARG
38	CT	63	ARG
39	CZ	29	PHE
39	CZ	34	ARG
39	CZ	84	ARG
39	CZ	136	PHE
40	Cz	9	VAL
40	Cz	33	LEU
40	Cz	46	LYS
40	Cz	61	LYS
40	Cz	102	LEU
40	Cz	129	LYS
40	Cz	140	GLN
40	Cz	182	ILE
40	Cz	206	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
40	Cz	211	LYS
41	CA	1	MET
41	CA	5	ILE
41	CA	30	ARG
41	CA	37	ARG
41	CA	69	TYR
41	CA	74	GLU
41	CA	158	VAL
41	CA	177	LYS
41	CA	193	ARG
41	CA	227	ARG
41	CA	247	ARG
42	CJ	2	SER
42	CJ	31	ARG
42	CJ	34	ARG
42	CJ	51	LYS
42	CJ	70	TYR
42	CJ	82	LEU
42	CJ	89	LYS
42	CJ	93	LEU
42	CJ	94	LEU
42	CJ	142	ARG
43	CH	39	LYS
43	CH	41	LEU
43	CH	70	ARG
43	CH	141	ASP
43	CH	143	LEU
43	CH	185	THR
44	CV	39	ILE
44	CV	62	MET
44	CV	92	ASP
45	CN	97	ASN
45	CN	116	LEU
45	CN	123	GLU
45	CN	160	GLU
45	CN	175	ARG
45	CN	180	THR
46	Ca	21	ARG
46	Ca	26	ARG
46	Ca	41	HIS
46	Ca	47	LYS
46	Ca	62	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
46	Ca	111	MET
46	Ca	121	LYS
46	Ca	123	LYS
46	Ca	142	LEU
47	CQ	4	ASP
47	CQ	56	LYS
47	CQ	77	LYS
47	CQ	91	ARG
47	CQ	139	LEU
47	CQ	156	PRO
48	CD	19	ARG
48	CD	23	LYS
48	CD	52	LYS
48	CD	61	ILE
48	CD	142	PHE
48	CD	158	ARG
48	CD	190	LEU
48	CD	200	TYR
48	CD	203	HIS
48	CD	208	MET
48	CD	219	PHE
48	CD	236	MET
48	CD	241	LYS
48	CD	242	LYS
48	CD	261	PRO
48	CD	281	LEU
48	CD	285	LEU
49	CR	1	MET
49	CR	6	LEU
49	CR	9	ARG
49	CR	56	LYS
49	CR	58	HIS
49	CR	84	THR
49	CR	86	GLU
49	CR	91	THR
49	CR	131	MET
49	CR	135	LYS
49	CR	151	ARG
49	CR	153	LYS
50	CP	4	TYR
50	CP	16	LYS
50	CP	22	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	CP	61	ARG
50	CP	81	GLN
51	CX	46	LYS
51	CX	47	THR
51	CX	48	LEU
51	CX	66	LYS
51	CX	80	GLU
51	CX	98	LEU
51	CX	149	ILE
52	CW	45	ARG
53	CY	1	MET
53	CY	27	ARG
53	CY	86	ARG
53	CY	114	ARG
53	CY	129	LYS
54	Cr	87	TYR
54	Cr	92	MET
54	Cr	115	ASP
55	Cc	14	ILE
55	Cc	57	LYS
55	Cc	91	VAL
55	Cc	104	ILE
56	Cd	45	ARG
56	Cd	63	LEU
56	Cd	85	ARG
56	Cd	102	THR
56	Cd	105	GLU
57	Ce	24	ASP
57	Ce	44	ARG
57	Ce	91	ARG
57	Ce	120	VAL
57	Ce	121	THR
57	Ce	126	ARG
58	Cj	1	MET
58	Cj	14	LYS
58	Cj	30	GLN
59	Cl	23	ILE
60	Co	2	VAL
60	Co	16	GLU
60	Co	53	GLN
60	Co	61	LYS
60	Co	78	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
60	Co	83	HIS
60	Co	102	THR
61	CM	5	ARG
61	CM	6	PHE
61	CM	8	GLU
61	CM	42	ASP
61	CM	63	LYS
61	CM	102	LEU
62	CS	38	ARG
62	CS	55	LYS
62	CS	69	LYS
62	CS	71	PRO
62	CS	75	LYS
62	CS	115	ARG
62	CS	119	ARG
62	CS	161	PRO
63	CU	41	LEU
63	CU	48	ARG
63	CU	55	LYS
63	CU	85	LEU
63	CU	95	LYS
63	CU	101	TRP
63	CU	102	LEU
63	CU	114	TYR
64	Ci	88	LYS
64	Ci	96	VAL
64	Ci	99	LYS
65	CK	16	ARG
65	CK	32	ILE
65	CK	41	LYS
65	CK	42	ILE
65	CK	55	LYS
65	CK	58	ARG
65	CK	76	PRO
66	Cu	10	LEU
67	Cs	8	LEU
67	Ct	1	MET
67	Ct	8	LEU
68	Ch	7	LYS
68	Ch	16	LYS
68	Ch	35	ILE
68	Ch	37	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
68	Ch	75	LYS
68	Ch	90	ARG
69	CF	68	LYS
69	CF	69	ARG
69	CF	72	ARG
69	CF	115	ASN
69	CF	143	LEU
69	CF	144	LYS
69	CF	190	ILE
70	Cq	59	ASN
70	Cq	92	ILE
70	Cq	98	LEU
70	Cq	155	VAL
70	Cq	209	LEU
70	Cq	210	THR
71	CB	4	ARG
71	CB	20	LYS
71	CB	30	LYS
71	CB	39	LYS
71	CB	55	HIS
71	CB	60	VAL
71	CB	94	LYS
71	CB	101	THR
71	CB	118	PHE
71	CB	123	CYS
71	CB	162	VAL
71	CB	169	ARG
71	CB	182	MET
71	CB	201	PHE
71	CB	244	LYS
71	CB	259	HIS
71	CB	306	GLU
71	CB	327	MET
71	CB	347	LEU
71	CB	348	LYS
72	CC	8	LEU
72	CC	20	THR
72	CC	53	ARG
72	CC	60	ARG
72	CC	108	PRO
72	CC	109	THR
72	CC	154	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
72	CC	200	MET
72	CC	215	TYR
72	CC	233	ASP
72	CC	313	GLU
72	CC	319	LYS
72	CC	345	THR
72	CC	346	LEU
72	CC	352	ILE
72	CC	357	GLU
73	CO	11	ARG
73	CO	37	ARG
73	CO	44	GLU
73	CO	54	ARG
73	CO	57	MET
73	CO	66	ARG
73	CO	76	ILE
73	CO	126	PRO
73	CO	134	LEU
73	CO	152	TRP
73	CO	181	LYS
73	CO	185	LYS
73	CO	193	LYS
74	Cp	73	THR
75	CI	57	LYS
75	CI	65	LEU
75	CI	141	LYS
75	CI	179	GLU
76	Cn	25	LYS
77	Cm	23	CYS
78	CL	10	ASN
78	CL	12	HIS
78	CL	54	LEU
78	CL	63	LEU
78	CL	102	LYS
78	CL	120	LYS
78	CL	148	GLN
78	CL	183	ARG
78	CL	204	LYS
79	CE	22	ARG
79	CE	36	LEU
79	CE	38	LYS
79	CE	50	PHE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
79	CE	51	TYR
79	CE	52	PRO
79	CE	75	ILE
79	CE	92	ARG
79	CE	118	ARG
79	CE	149	ARG
79	CE	152	LYS
79	CE	161	GLU
79	CE	180	ASP
79	CE	184	ILE
79	CE	209	ARG
79	CE	217	MET
80	Cf	4	ARG
80	Cf	5	GLN
80	Cf	9	VAL
81	Ck	1	MET
81	Ck	19	ASP
81	Ck	33	LYS
81	Ck	56	LEU
81	Ck	58	GLN
83	Cg	9	LYS
83	Cg	32	TYR
83	Cg	50	LYS
83	Cg	51	ILE
83	Cg	63	LYS
83	Cg	66	ARG
83	Cg	72	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (129) such sidechains are listed below:

Mol	Chain	Res	Type
4	BY	39	ASN
5	BI	151	ASN
5	BI	152	HIS
5	BI	189	GLN
6	BK	32	HIS
9	BX	20	GLN
9	BX	60	GLN
9	BX	109	HIS
10	Bg	63	GLN
10	Bg	217	ASN
10	Bg	219	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	Bg	282	HIS
10	Bg	343	HIS
10	Bg	367	ASN
11	BD	162	GLN
13	BF	91	HIS
15	BU	84	ASN
17	BS	42	ASN
17	BS	72	HIS
17	BS	120	HIS
17	BS	125	HIS
18	BN	58	HIS
18	BN	101	HIS
19	BL	77	HIS
19	BL	105	HIS
19	BL	123	HIS
20	BT	15	HIS
21	BP	112	ASN
22	BZ	99	GLN
24	BW	42	GLN
24	BW	44	HIS
24	BW	113	HIS
25	Bd	28	HIS
26	Bb	51	HIS
29	BR	56	HIS
30	BB	99	ASN
30	BB	232	HIS
31	BV	38	HIS
31	BV	73	GLN
32	Ba	7	ASN
32	Ba	11	ASN
32	Ba	73	HIS
32	Ba	80	HIS
32	Ba	82	HIS
33	BJ	125	HIS
33	BJ	178	ASN
35	BG	34	GLN
35	BG	59	GLN
35	BG	160	ASN
37	CG	57	GLN
37	CG	134	HIS
38	CT	54	HIS
38	CT	58	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
38	CT	90	HIS
40	Cz	75	GLN
41	CA	65	HIS
41	CA	139	HIS
41	CA	187	HIS
41	CA	209	HIS
41	CA	211	HIS
41	CA	216	HIS
41	CA	218	HIS
41	CA	221	HIS
41	CA	233	GLN
42	CJ	17	GLN
42	CJ	153	HIS
43	CH	40	HIS
45	CN	87	GLN
45	CN	95	GLN
45	CN	97	ASN
45	CN	182	HIS
46	Ca	19	HIS
46	Ca	69	HIS
48	CD	14	HIS
48	CD	43	GLN
48	CD	157	ASN
49	CR	58	HIS
49	CR	121	HIS
49	CR	143	HIS
50	CP	9	ASN
50	CP	25	HIS
50	CP	54	HIS
50	CP	56	GLN
50	CP	117	HIS
50	CP	121	ASN
50	CP	146	HIS
51	CX	43	HIS
51	CX	69	GLN
51	CX	89	ASN
51	CX	121	ASN
52	CW	61	HIS
53	CY	99	HIS
57	Ce	22	HIS
58	Cj	28	HIS
58	Cj	94	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
59	Cl	20	ASN
62	CS	132	HIS
64	Ci	83	HIS
68	Ch	46	ASN
68	Ch	66	GLN
68	Ch	117	GLN
70	Cq	40	GLN
70	Cq	59	ASN
71	CB	121	ASN
71	CB	165	HIS
71	CB	259	HIS
71	CB	276	HIS
71	CB	282	ASN
72	CC	64	HIS
72	CC	120	ASN
72	CC	146	HIS
72	CC	250	HIS
73	CO	18	HIS
73	CO	138	HIS
73	CO	145	GLN
75	CI	14	ASN
78	CL	99	HIS
79	CE	18	HIS
79	CE	21	HIS
79	CE	67	HIS
79	CE	100	GLN
80	Cf	26	ASN
80	Cf	27	GLN
82	Cb	6	ASN
82	Cb	10	HIS
82	Cb	17	HIS
82	Cb	42	ASN
82	Cb	49	HIS
83	Cg	11	HIS

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	Ad	1760/1810 (97%)	458 (26%)	0
2	Ae	74/75 (98%)	19 (25%)	0
3	Af	10/11 (90%)	2 (20%)	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
84	Aa	3389/3391 (99%)	748 (22%)	0
85	Ac	159/160 (99%)	35 (22%)	0
86	Ab	119/120 (99%)	23 (19%)	0
All	All	5511/5567 (98%)	1285 (23%)	0

All (1285) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	Ad	4	C
1	Ad	8	U
1	Ad	16	G
1	Ad	25	C
1	Ad	26	A
1	Ad	27	U
1	Ad	34	G
1	Ad	46	A
1	Ad	47	A
1	Ad	50	C
1	Ad	55	A
1	Ad	56	U
1	Ad	57	G
1	Ad	58	U
1	Ad	59	G
1	Ad	60	C
1	Ad	65	A
1	Ad	68	A
1	Ad	72	A
1	Ad	73	A
1	Ad	75	U
1	Ad	76	U
1	Ad	77	G
1	Ad	78	A
1	Ad	79	A
1	Ad	80	C
1	Ad	81	U
1	Ad	103	U
1	Ad	105	A
1	Ad	112	U
1	Ad	115	A
1	Ad	127	G
1	Ad	128	G
1	Ad	132	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Ad	133	U
1	Ad	134	G
1	Ad	135	C
1	Ad	136	U
1	Ad	137	A
1	Ad	138	C
1	Ad	139	U
1	Ad	140	C
1	Ad	142	G
1	Ad	143	A
1	Ad	144	U
1	Ad	151	A
1	Ad	157	U
1	Ad	158	C
1	Ad	164	C
1	Ad	175	A
1	Ad	176	A
1	Ad	177	C
1	Ad	179	A
1	Ad	183	C
1	Ad	184	C
1	Ad	185	G
1	Ad	186	A
1	Ad	187	C
1	Ad	189	U
1	Ad	190	C
1	Ad	191	U
1	Ad	192	G
1	Ad	193	G
1	Ad	194	G
1	Ad	195	A
1	Ad	198	G
1	Ad	203	A
1	Ad	209	U
1	Ad	212	A
1	Ad	215	A
1	Ad	216	A
1	Ad	220	C
1	Ad	222	G
1	Ad	223	A
1	Ad	224	C
1	Ad	225	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Ad	226	C
1	Ad	229	G
1	Ad	230	C
1	Ad	231	U
1	Ad	235	C
1	Ad	236	U
1	Ad	237	C
1	Ad	238	G
1	Ad	239	C
1	Ad	240	U
1	Ad	241	G
1	Ad	242	A
1	Ad	243	U
1	Ad	244	C
1	Ad	245	C
1	Ad	251	U
1	Ad	252	U
1	Ad	253	C
1	Ad	263	C
1	Ad	264	G
1	Ad	265	A
1	Ad	268	G
1	Ad	269	A
1	Ad	270	U
1	Ad	271	C
1	Ad	272	G
1	Ad	277	G
1	Ad	278	C
1	Ad	279	C
1	Ad	282	C
1	Ad	283	G
1	Ad	284	U
1	Ad	285	G
1	Ad	292	A
1	Ad	303	A
1	Ad	318	C
1	Ad	320	A
1	Ad	324	U
1	Ad	337	A
1	Ad	341	G
1	Ad	342	C
1	Ad	345	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Ad	352	U
1	Ad	356	G
1	Ad	364	A
1	Ad	365	C
1	Ad	373	U
1	Ad	384	U
1	Ad	403	A
1	Ad	405	A
1	Ad	406	C
1	Ad	408	G
1	Ad	415	C
1	Ad	420	A
1	Ad	421	A
1	Ad	422	G
1	Ad	428	C
1	Ad	429	A
1	Ad	430	G
1	Ad	432	A
1	Ad	438	G
1	Ad	443	U
1	Ad	448	C
1	Ad	450	A
1	Ad	452	C
1	Ad	458	A
1	Ad	474	A
1	Ad	479	A
1	Ad	481	A
1	Ad	488	C
1	Ad	489	C
1	Ad	490	G
1	Ad	491	G
1	Ad	492	G
1	Ad	498	U
1	Ad	500	G
1	Ad	501	U
1	Ad	502	G
1	Ad	503	U
1	Ad	506	G
1	Ad	507	G
1	Ad	508	U
1	Ad	509	A
1	Ad	510	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Ad	512	U
1	Ad	514	G
1	Ad	515	A
1	Ad	517	U
1	Ad	519	A
1	Ad	520	G
1	Ad	523	C
1	Ad	529	A
1	Ad	531	A
1	Ad	535	C
1	Ad	536	U
1	Ad	545	A
1	Ad	547	C
1	Ad	548	C
1	Ad	549	A
1	Ad	552	G
1	Ad	560	A
1	Ad	561	G
1	Ad	562	U
1	Ad	569	C
1	Ad	572	G
1	Ad	574	A
1	Ad	579	C
1	Ad	584	A
1	Ad	589	A
1	Ad	598	A
1	Ad	599	G
1	Ad	601	G
1	Ad	610	A
1	Ad	611	G
1	Ad	613	U
1	Ad	615	U
1	Ad	623	A
1	Ad	626	A
1	Ad	628	G
1	Ad	634	A
1	Ad	642	C
1	Ad	643	U
1	Ad	644	U
1	Ad	705	A
1	Ad	708	G
1	Ad	722	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Ad	723	A
1	Ad	732	G
1	Ad	733	U
1	Ad	744	G
1	Ad	745	C
1	Ad	749	G
1	Ad	760	G
1	Ad	761	A
1	Ad	762	A
1	Ad	771	G
1	Ad	772	C
1	Ad	780	A
1	Ad	781	A
1	Ad	784	C
1	Ad	789	C
1	Ad	790	U
1	Ad	791	C
1	Ad	793	G
1	Ad	795	A
1	Ad	800	U
1	Ad	801	U
1	Ad	812	A
1	Ad	816	U
1	Ad	817	C
1	Ad	818	A
1	Ad	821	G
1	Ad	822	G
1	Ad	824	U
1	Ad	825	U
1	Ad	826	C
1	Ad	828	G
1	Ad	829	G
1	Ad	834	A
1	Ad	835	U
1	Ad	836	U
1	Ad	838	U
1	Ad	839	G
1	Ad	842	G
1	Ad	843	G
1	Ad	845	C
1	Ad	851	G
1	Ad	854	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Ad	857	A
1	Ad	859	U
1	Ad	867	A
1	Ad	868	A
1	Ad	878	U
1	Ad	881	G
1	Ad	903	A
1	Ad	917	U
1	Ad	918	G
1	Ad	919	G
1	Ad	926	G
1	Ad	933	G
1	Ad	934	A
1	Ad	935	A
1	Ad	937	A
1	Ad	938	A
1	Ad	940	U
1	Ad	947	G
1	Ad	949	A
1	Ad	956	A
1	Ad	964	U
1	Ad	965	U
1	Ad	966	U
1	Ad	971	A
1	Ad	973	U
1	Ad	987	U
1	Ad	997	A
1	Ad	998	A
1	Ad	1000	A
1	Ad	1002	G
1	Ad	1009	U
1	Ad	1010	A
1	Ad	1025	A
1	Ad	1026	C
1	Ad	1031	A
1	Ad	1033	C
1	Ad	1044	A
1	Ad	1045	G
1	Ad	1057	U
1	Ad	1058	G
1	Ad	1064	U
1	Ad	1077	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Ad	1079	G
1	Ad	1084	U
1	Ad	1087	U
1	Ad	1089	A
1	Ad	1091	A
1	Ad	1096	A
1	Ad	1097	A
1	Ad	1101	C
1	Ad	1103	U
1	Ad	1105	G
1	Ad	1109	U
1	Ad	1114	G
1	Ad	1116	G
1	Ad	1128	C
1	Ad	1143	A
1	Ad	1144	A
1	Ad	1151	G
1	Ad	1154	G
1	Ad	1156	A
1	Ad	1157	A
1	Ad	1160	G
1	Ad	1162	A
1	Ad	1163	C
1	Ad	1165	A
1	Ad	1169	G
1	Ad	1172	G
1	Ad	1184	C
1	Ad	1189	U
1	Ad	1192	G
1	Ad	1195	U
1	Ad	1197	A
1	Ad	1198	A
1	Ad	1200	A
1	Ad	1201	C
1	Ad	1203	G
1	Ad	1204	G
1	Ad	1205	G
1	Ad	1206	A
1	Ad	1211	U
1	Ad	1221	A
1	Ad	1222	G
1	Ad	1232	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Ad	1233	G
1	Ad	1247	G
1	Ad	1248	A
1	Ad	1249	G
1	Ad	1254	U
1	Ad	1255	U
1	Ad	1258	U
1	Ad	1260	A
1	Ad	1261	U
1	Ad	1262	U
1	Ad	1264	U
1	Ad	1273	U
1	Ad	1292	G
1	Ad	1305	U
1	Ad	1318	U
1	Ad	1319	U
1	Ad	1325	A
1	Ad	1326	A
1	Ad	1344	U
1	Ad	1345	G
1	Ad	1348	A
1	Ad	1349	A
1	Ad	1354	C
1	Ad	1358	G
1	Ad	1359	C
1	Ad	1366	A
1	Ad	1369	C
1	Ad	1373	C
1	Ad	1376	A
1	Ad	1377	G
1	Ad	1381	G
1	Ad	1382	C
1	Ad	1388	A
1	Ad	1394	A
1	Ad	1395	C
1	Ad	1396	U
1	Ad	1404	U
1	Ad	1405	U
1	Ad	1408	G
1	Ad	1409	G
1	Ad	1418	G
1	Ad	1419	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Ad	1421	U
1	Ad	1433	A
1	Ad	1434	G
1	Ad	1437	C
1	Ad	1452	A
1	Ad	1454	G
1	Ad	1463	C
1	Ad	1464	G
1	Ad	1465	C
1	Ad	1466	A
1	Ad	1468	G
1	Ad	1477	A
1	Ad	1479	U
1	Ad	1480	G
1	Ad	1481	A
1	Ad	1484	U
1	Ad	1488	C
1	Ad	1494	G
1	Ad	1496	A
1	Ad	1497	U
1	Ad	1499	U
1	Ad	1500	A
1	Ad	1501	G
1	Ad	1502	C
1	Ad	1507	G
1	Ad	1508	C
1	Ad	1514	G
1	Ad	1522	U
1	Ad	1524	A
1	Ad	1526	C
1	Ad	1529	G
1	Ad	1531	G
1	Ad	1542	G
1	Ad	1543	U
1	Ad	1544	G
1	Ad	1545	A
1	Ad	1546	U
1	Ad	1547	G
1	Ad	1548	G
1	Ad	1565	U
1	Ad	1567	G
1	Ad	1577	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Ad	1581	A
1	Ad	1582	G
1	Ad	1591	A
1	Ad	1592	G
1	Ad	1598	G
1	Ad	1609	G
1	Ad	1624	G
1	Ad	1627	C
1	Ad	1632	C
1	Ad	1639	A
1	Ad	1642	C
1	Ad	1643	A
1	Ad	1652	C
1	Ad	1664	U
1	Ad	1665	U
1	Ad	1666	G
1	Ad	1691	C
1	Ad	1692	G
1	Ad	1694	G
1	Ad	1698	A
1	Ad	1699	C
1	Ad	1708	U
1	Ad	1725	C
1	Ad	1726	G
1	Ad	1728	G
1	Ad	1737	A
1	Ad	1739	U
1	Ad	1764	G
1	Ad	1765	A
1	Ad	1766	A
1	Ad	1767	G
1	Ad	1769	C
1	Ad	1770	G
1	Ad	1771	U
1	Ad	1772	A
1	Ad	1776	A
1	Ad	1779	U
1	Ad	1780	U
1	Ad	1783	C
1	Ad	1793	C
1	Ad	1799	G
1	Ad	1802	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Ad	1804	A
1	Ad	1806	C
1	Ad	1807	A
1	Ad	1809	U
2	Ae	8	U
2	Ae	17	G
2	Ae	19	U
2	Ae	20	C
2	Ae	21	A
2	Ae	22	G
2	Ae	33	U
2	Ae	37	G
2	Ae	38	C
2	Ae	41	G
2	Ae	42	C
2	Ae	45	G
2	Ae	47	U
2	Ae	51	G
2	Ae	60	C
2	Ae	68	C
2	Ae	72	G
2	Ae	74	C
2	Ae	75	A
3	Af	13	A
3	Af	14	A
84	Aa	2	C
84	Aa	3	G
84	Aa	6	A
84	Aa	12	G
84	Aa	13	G
84	Aa	15	C
84	Aa	25	U
84	Aa	39	A
84	Aa	41	C
84	Aa	48	A
84	Aa	58	G
84	Aa	59	A
84	Aa	64	A
84	Aa	65	A
84	Aa	73	A
84	Aa	74	G
84	Aa	75	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	84	A
84	Aa	85	G
84	Aa	91	G
84	Aa	92	C
84	Aa	98	A
84	Aa	108	A
84	Aa	109	G
84	Aa	112	C
84	Aa	115	C
84	Aa	116	U
84	Aa	121	A
84	Aa	134	U
84	Aa	135	G
84	Aa	153	U
84	Aa	155	G
84	Aa	156	A
84	Aa	159	G
84	Aa	164	C
84	Aa	167	C
84	Aa	168	A
84	Aa	171	G
84	Aa	180	G
84	Aa	188	U
84	Aa	189	C
84	Aa	190	C
84	Aa	198	A
84	Aa	208	G
84	Aa	212	G
84	Aa	216	G
84	Aa	217	A
84	Aa	232	C
84	Aa	233	C
84	Aa	236	A
84	Aa	238	C
84	Aa	239	C
84	Aa	241	G
84	Aa	242	U
84	Aa	243	C
84	Aa	247	C
84	Aa	248	C
84	Aa	249	A
84	Aa	250	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	251	G
84	Aa	263	A
84	Aa	267	G
84	Aa	281	G
84	Aa	284	U
84	Aa	293	A
84	Aa	296	C
84	Aa	305	G
84	Aa	321	A
84	Aa	327	A
84	Aa	336	A
84	Aa	337	C
84	Aa	347	A
84	Aa	348	C
84	Aa	349	A
84	Aa	368	U
84	Aa	370	A
84	Aa	371	A
84	Aa	374	G
84	Aa	393	A
84	Aa	395	A
84	Aa	396	G
84	Aa	397	A
84	Aa	399	U
84	Aa	400	G
84	Aa	401	C
84	Aa	404	G
84	Aa	419	G
84	Aa	421	A
84	Aa	422	G
84	Aa	424	G
84	Aa	432	G
84	Aa	435	G
84	Aa	438	G
84	Aa	440	U
84	Aa	441	G
84	Aa	464	G
84	Aa	465	C
84	Aa	466	U
84	Aa	467	C
84	Aa	469	U
84	Aa	479	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	482	C
84	Aa	488	U
84	Aa	489	C
84	Aa	492	G
84	Aa	493	G
84	Aa	499	A
84	Aa	500	C
84	Aa	507	C
84	Aa	521	G
84	Aa	522	C
84	Aa	523	C
84	Aa	524	A
84	Aa	543	C
84	Aa	544	C
84	Aa	549	G
84	Aa	550	C
84	Aa	555	G
84	Aa	564	A
84	Aa	571	G
84	Aa	572	U
84	Aa	573	A
84	Aa	574	C
84	Aa	575	C
84	Aa	581	G
84	Aa	585	A
84	Aa	588	G
84	Aa	598	U
84	Aa	601	G
84	Aa	612	U
84	Aa	613	G
84	Aa	621	C
84	Aa	623	G
84	Aa	639	A
84	Aa	640	C
84	Aa	642	C
84	Aa	651	A
84	Aa	652	C
84	Aa	653	A
84	Aa	660	A
84	Aa	664	A
84	Aa	681	A
84	Aa	685	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	697	A
84	Aa	703	G
84	Aa	709	G
84	Aa	712	A
84	Aa	716	A
84	Aa	718	C
84	Aa	719	U
84	Aa	720	G
84	Aa	722	C
84	Aa	723	G
84	Aa	724	A
84	Aa	729	G
84	Aa	736	U
84	Aa	746	C
84	Aa	747	A
84	Aa	761	C
84	Aa	767	U
84	Aa	768	U
84	Aa	769	C
84	Aa	770	U
84	Aa	779	U
84	Aa	784	G
84	Aa	787	G
84	Aa	788	G
84	Aa	804	A
84	Aa	809	A
84	Aa	810	A
84	Aa	820	A
84	Aa	840	A
84	Aa	852	C
84	Aa	864	C
84	Aa	877	U
84	Aa	882	U
84	Aa	886	A
84	Aa	899	A
84	Aa	900	C
84	Aa	910	G
84	Aa	911	G
84	Aa	917	A
84	Aa	919	G
84	Aa	920	A
84	Aa	923	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	924	A
84	Aa	926	C
84	Aa	928	A
84	Aa	937	G
84	Aa	940	G
84	Aa	947	C
84	Aa	950	U
84	Aa	962	C
84	Aa	963	U
84	Aa	965	A
84	Aa	977	G
84	Aa	982	U
84	Aa	983	U
84	Aa	984	A
84	Aa	985	C
84	Aa	986	G
84	Aa	997	G
84	Aa	998	G
84	Aa	1005	C
84	Aa	1006	A
84	Aa	1007	A
84	Aa	1010	A
84	Aa	1014	G
84	Aa	1018	C
84	Aa	1019	A
84	Aa	1020	U
84	Aa	1022	G
84	Aa	1024	G
84	Aa	1025	G
84	Aa	1028	G
84	Aa	1033	G
84	Aa	1036	C
84	Aa	1040	A
84	Aa	1041	C
84	Aa	1051	A
84	Aa	1053	C
84	Aa	1056	U
84	Aa	1061	A
84	Aa	1068	A
84	Aa	1069	U
84	Aa	1075	G
84	Aa	1076	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	1085	G
84	Aa	1086	U
84	Aa	1087	G
84	Aa	1097	A
84	Aa	1098	U
84	Aa	1099	G
84	Aa	1101	A
84	Aa	1107	G
84	Aa	1120	G
84	Aa	1134	G
84	Aa	1146	A
84	Aa	1147	U
84	Aa	1156	A
84	Aa	1162	A
84	Aa	1183	C
84	Aa	1184	U
84	Aa	1185	G
84	Aa	1188	C
84	Aa	1194	C
84	Aa	1196	U
84	Aa	1205	C
84	Aa	1206	A
84	Aa	1213	G
84	Aa	1217	G
84	Aa	1220	G
84	Aa	1222	U
84	Aa	1226	G
84	Aa	1229	A
84	Aa	1231	C
84	Aa	1236	C
84	Aa	1237	G
84	Aa	1240	G
84	Aa	1241	G
84	Aa	1242	U
84	Aa	1243	C
84	Aa	1245	U
84	Aa	1246	G
84	Aa	1247	G
84	Aa	1248	A
84	Aa	1249	A
84	Aa	1250	G
84	Aa	1252	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	1253	G
84	Aa	1255	A
84	Aa	1257	U
84	Aa	1262	U
84	Aa	1264	A
84	Aa	1266	G
84	Aa	1267	A
84	Aa	1268	G
84	Aa	1269	U
84	Aa	1270	G
84	Aa	1271	U
84	Aa	1273	U
84	Aa	1274	A
84	Aa	1275	A
84	Aa	1276	C
84	Aa	1281	C
84	Aa	1282	A
84	Aa	1283	C
84	Aa	1285	U
84	Aa	1289	G
84	Aa	1291	A
84	Aa	1296	C
84	Aa	1309	U
84	Aa	1311	G
84	Aa	1312	A
84	Aa	1313	U
84	Aa	1317	G
84	Aa	1329	G
84	Aa	1334	A
84	Aa	1349	G
84	Aa	1352	G
84	Aa	1355	U
84	Aa	1356	G
84	Aa	1357	C
84	Aa	1360	U
84	Aa	1361	G
84	Aa	1365	C
84	Aa	1402	G
84	Aa	1403	G
84	Aa	1404	G
84	Aa	1417	G
84	Aa	1421	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	1422	G
84	Aa	1431	G
84	Aa	1436	A
84	Aa	1437	G
84	Aa	1440	C
84	Aa	1446	G
84	Aa	1449	A
84	Aa	1452	A
84	Aa	1453	G
84	Aa	1455	A
84	Aa	1481	C
84	Aa	1484	A
84	Aa	1488	G
84	Aa	1491	G
84	Aa	1511	C
84	Aa	1526	A
84	Aa	1529	C
84	Aa	1530	C
84	Aa	1531	G
84	Aa	1542	A
84	Aa	1545	G
84	Aa	1546	G
84	Aa	1550	A
84	Aa	1554	C
84	Aa	1556	G
84	Aa	1566	C
84	Aa	1567	G
84	Aa	1568	A
84	Aa	1570	C
84	Aa	1572	C
84	Aa	1577	A
84	Aa	1578	U
84	Aa	1584	A
84	Aa	1586	A
84	Aa	1602	A
84	Aa	1605	U
84	Aa	1618	U
84	Aa	1625	G
84	Aa	1640	A
84	Aa	1642	G
84	Aa	1652	G
84	Aa	1654	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	1680	A
84	Aa	1703	C
84	Aa	1714	A
84	Aa	1715	C
84	Aa	1720	C
84	Aa	1721	A
84	Aa	1722	G
84	Aa	1723	C
84	Aa	1724	C
84	Aa	1726	G
84	Aa	1727	A
84	Aa	1728	G
84	Aa	1729	G
84	Aa	1734	G
84	Aa	1740	U
84	Aa	1748	A
84	Aa	1749	G
84	Aa	1758	U
84	Aa	1760	G
84	Aa	1761	C
84	Aa	1762	G
84	Aa	1766	U
84	Aa	1775	C
84	Aa	1776	G
84	Aa	1777	C
84	Aa	1793	A
84	Aa	1806	C
84	Aa	1808	G
84	Aa	1809	A
84	Aa	1810	G
84	Aa	1812	A
84	Aa	1813	C
84	Aa	1815	G
84	Aa	1816	U
84	Aa	1817	U
84	Aa	1830	U
84	Aa	1831	A
84	Aa	1835	A
84	Aa	1836	U
84	Aa	1837	A
84	Aa	1838	A
84	Aa	1842	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	1845	C
84	Aa	1846	A
84	Aa	1851	U
84	Aa	1862	C
84	Aa	1872	C
84	Aa	1874	A
84	Aa	1875	A
84	Aa	1876	U
84	Aa	1882	A
84	Aa	1897	A
84	Aa	1901	G
84	Aa	1902	G
84	Aa	1926	A
84	Aa	1938	U
84	Aa	1951	C
84	Aa	1970	A
84	Aa	1991	U
84	Aa	1996	C
84	Aa	1997	G
84	Aa	1999	G
84	Aa	2003	C
84	Aa	2004	U
84	Aa	2006	A
84	Aa	2007	C
84	Aa	2008	G
84	Aa	2012	C
84	Aa	2013	G
84	Aa	2015	G
84	Aa	2021	G
84	Aa	2042	G
84	Aa	2054	A
84	Aa	2056	C
84	Aa	2057	G
84	Aa	2058	C
84	Aa	2071	U
84	Aa	2073	U
84	Aa	2075	C
84	Aa	2077	C
84	Aa	2081	C
84	Aa	2082	A
84	Aa	2084	G
84	Aa	2088	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	2101	A
84	Aa	2107	A
84	Aa	2108	C
84	Aa	2115	G
84	Aa	2116	G
84	Aa	2125	A
84	Aa	2134	U
84	Aa	2150	C
84	Aa	2151	G
84	Aa	2152	A
84	Aa	2153	U
84	Aa	2154	G
84	Aa	2160	C
84	Aa	2161	G
84	Aa	2162	C
84	Aa	2163	G
84	Aa	2167	G
84	Aa	2168	C
84	Aa	2170	G
84	Aa	2183	A
84	Aa	2188	U
84	Aa	2196	G
84	Aa	2200	U
84	Aa	2203	A
84	Aa	2205	G
84	Aa	2223	A
84	Aa	2239	A
84	Aa	2244	G
84	Aa	2245	G
84	Aa	2247	A
84	Aa	2248	G
84	Aa	2250	A
84	Aa	2251	A
84	Aa	2267	G
84	Aa	2268	G
84	Aa	2276	A
84	Aa	2277	U
84	Aa	2278	G
84	Aa	2279	C
84	Aa	2283	G
84	Aa	2287	U
84	Aa	2302	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	2303	C
84	Aa	2304	A
84	Aa	2305	U
84	Aa	2308	A
84	Aa	2309	U
84	Aa	2310	G
84	Aa	2314	G
84	Aa	2315	G
84	Aa	2317	U
84	Aa	2319	A
84	Aa	2335	U
84	Aa	2372	A
84	Aa	2373	C
84	Aa	2374	G
84	Aa	2384	G
84	Aa	2385	A
84	Aa	2387	U
84	Aa	2392	G
84	Aa	2396	A
84	Aa	2401	A
84	Aa	2402	G
84	Aa	2403	A
84	Aa	2405	C
84	Aa	2410	U
84	Aa	2443	C
84	Aa	2445	U
84	Aa	2450	G
84	Aa	2451	G
84	Aa	2452	U
84	Aa	2453	G
84	Aa	2454	U
84	Aa	2458	A
84	Aa	2460	A
84	Aa	2461	A
84	Aa	2462	G
84	Aa	2465	G
84	Aa	2467	A
84	Aa	2473	C
84	Aa	2474	A
84	Aa	2481	C
84	Aa	2483	A
84	Aa	2485	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	2490	U
84	Aa	2491	A
84	Aa	2492	C
84	Aa	2493	C
84	Aa	2494	A
84	Aa	2498	C
84	Aa	2499	U
84	Aa	2501	U
84	Aa	2502	U
84	Aa	2503	A
84	Aa	2504	A
84	Aa	2505	C
84	Aa	2506	G
84	Aa	2510	U
84	Aa	2511	U
84	Aa	2515	C
84	Aa	2516	U
84	Aa	2517	U
84	Aa	2518	A
84	Aa	2524	U
84	Aa	2526	G
84	Aa	2528	U
84	Aa	2529	C
84	Aa	2532	A
84	Aa	2534	G
84	Aa	2535	C
84	Aa	2536	G
84	Aa	2537	G
84	Aa	2539	G
84	Aa	2542	U
84	Aa	2543	G
84	Aa	2546	C
84	Aa	2547	C
84	Aa	2548	U
84	Aa	2549	C
84	Aa	2550	C
84	Aa	2552	U
84	Aa	2553	U
84	Aa	2559	C
84	Aa	2565	C
84	Aa	2566	C
84	Aa	2573	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	2574	A
84	Aa	2579	G
84	Aa	2584	U
84	Aa	2585	C
84	Aa	2588	G
84	Aa	2590	C
84	Aa	2596	A
84	Aa	2597	C
84	Aa	2609	G
84	Aa	2610	G
84	Aa	2617	G
84	Aa	2629	C
84	Aa	2655	U
84	Aa	2659	A
84	Aa	2675	G
84	Aa	2677	A
84	Aa	2680	G
84	Aa	2681	A
84	Aa	2684	U
84	Aa	2692	G
84	Aa	2693	G
84	Aa	2694	A
84	Aa	2696	C
84	Aa	2697	A
84	Aa	2699	A
84	Aa	2702	G
84	Aa	2708	A
84	Aa	2717	G
84	Aa	2731	G
84	Aa	2732	U
84	Aa	2755	U
84	Aa	2756	G
84	Aa	2765	A
84	Aa	2774	A
84	Aa	2779	G
84	Aa	2780	G
84	Aa	2781	A
84	Aa	2798	G
84	Aa	2801	A
84	Aa	2802	G
84	Aa	2803	A
84	Aa	2804	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	2812	C
84	Aa	2818	G
84	Aa	2819	A
84	Aa	2820	U
84	Aa	2831	U
84	Aa	2844	U
84	Aa	2847	A
84	Aa	2851	C
84	Aa	2869	C
84	Aa	2873	G
84	Aa	2874	A
84	Aa	2875	U
84	Aa	2877	U
84	Aa	2880	G
84	Aa	2881	C
84	Aa	2889	A
84	Aa	2891	C
84	Aa	2898	A
84	Aa	2899	A
84	Aa	2900	G
84	Aa	2901	C
84	Aa	2916	G
84	Aa	2925	U
84	Aa	2929	C
84	Aa	2937	U
84	Aa	2938	A
84	Aa	2939	G
84	Aa	2944	C
84	Aa	2949	G
84	Aa	2953	G
84	Aa	2957	U
84	Aa	2959	G
84	Aa	2973	A
84	Aa	2985	C
84	Aa	2992	G
84	Aa	2994	U
84	Aa	2997	C
84	Aa	2998	A
84	Aa	3013	A
84	Aa	3050	A
84	Aa	3058	U
84	Aa	3059	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	3060	G
84	Aa	3079	G
84	Aa	3080	U
84	Aa	3081	G
84	Aa	3087	A
84	Aa	3093	C
84	Aa	3114	A
84	Aa	3120	U
84	Aa	3123	A
84	Aa	3129	G
84	Aa	3131	A
84	Aa	3132	U
84	Aa	3140	A
84	Aa	3143	A
84	Aa	3144	U
84	Aa	3152	C
84	Aa	3153	U
84	Aa	3154	G
84	Aa	3155	C
84	Aa	3162	C
84	Aa	3163	G
84	Aa	3166	C
84	Aa	3167	G
84	Aa	3168	C
84	Aa	3169	C
84	Aa	3170	C
84	Aa	3171	C
84	Aa	3172	G
84	Aa	3174	C
84	Aa	3176	C
84	Aa	3177	A
84	Aa	3178	C
84	Aa	3182	A
84	Aa	3190	U
84	Aa	3191	U
84	Aa	3192	G
84	Aa	3193	C
84	Aa	3201	A
84	Aa	3202	G
84	Aa	3208	G
84	Aa	3209	U
84	Aa	3210	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	3211	C
84	Aa	3212	C
84	Aa	3213	A
84	Aa	3222	G
84	Aa	3227	U
84	Aa	3230	G
84	Aa	3231	G
84	Aa	3234	G
84	Aa	3235	A
84	Aa	3236	A
84	Aa	3237	G
84	Aa	3239	G
84	Aa	3245	G
84	Aa	3251	C
84	Aa	3252	G
84	Aa	3264	C
84	Aa	3265	C
84	Aa	3266	U
84	Aa	3268	C
84	Aa	3271	A
84	Aa	3273	C
84	Aa	3274	G
84	Aa	3278	G
84	Aa	3279	G
84	Aa	3281	G
84	Aa	3286	G
84	Aa	3287	A
84	Aa	3295	G
84	Aa	3296	C
84	Aa	3305	U
84	Aa	3308	A
84	Aa	3309	U
84	Aa	3310	A
84	Aa	3320	G
84	Aa	3322	A
84	Aa	3324	U
84	Aa	3328	A
84	Aa	3333	C
84	Aa	3334	A
84	Aa	3337	G
84	Aa	3339	G
84	Aa	3340	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	3341	C
84	Aa	3342	C
84	Aa	3343	U
84	Aa	3344	U
84	Aa	3345	G
84	Aa	3346	C
84	Aa	3347	U
84	Aa	3348	G
84	Aa	3361	G
84	Aa	3367	C
84	Aa	3370	U
84	Aa	3374	C
84	Aa	3381	C
84	Aa	3382	A
84	Aa	3383	C
84	Aa	3385	G
84	Aa	3391	U
85	Ac	23	C
85	Ac	34	U
85	Ac	47	U
85	Ac	48	A
85	Ac	49	G
85	Ac	52	A
85	Ac	59	A
85	Ac	62	C
85	Ac	63	C
85	Ac	73	U
85	Ac	80	A
85	Ac	81	U
85	Ac	82	C
85	Ac	83	C
85	Ac	85	G
85	Ac	86	U
85	Ac	87	G
85	Ac	90	C
85	Ac	92	A
85	Ac	93	U
85	Ac	95	G
85	Ac	104	A
85	Ac	105	A
85	Ac	106	C
85	Ac	111	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
85	Ac	113	U
85	Ac	125	C
85	Ac	128	C
85	Ac	129	C
85	Ac	130	G
85	Ac	140	A
85	Ac	150	G
85	Ac	155	U
85	Ac	159	G
85	Ac	160	C
86	Ab	11	A
86	Ab	13	A
86	Ab	14	C
86	Ab	22	A
86	Ab	26	C
86	Ab	41	G
86	Ab	42	A
86	Ab	48	G
86	Ab	49	A
86	Ab	50	A
86	Ab	52	U
86	Ab	53	U
86	Ab	63	U
86	Ab	64	G
86	Ab	73	U
86	Ab	75	G
86	Ab	93	U
86	Ab	100	A
86	Ab	101	A
86	Ab	108	G
86	Ab	110	G
86	Ab	113	G
86	Ab	119	C

There are no RNA pucker outliers to report.

5.4 Non-standard residues in protein, DNA, RNA chains (i)

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

There are no ligands in this entry.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

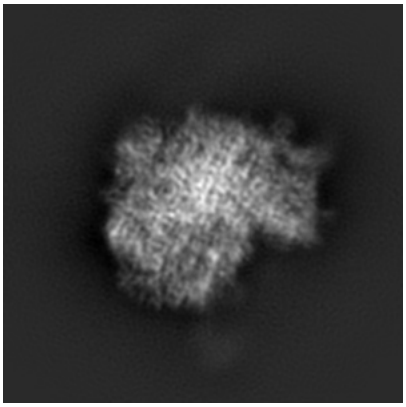
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-1780. These allow visual inspection of the internal detail of the map and identification of artifacts.

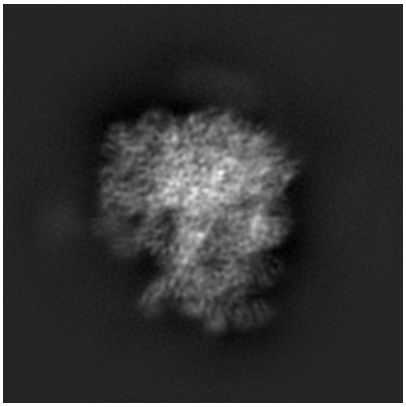
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

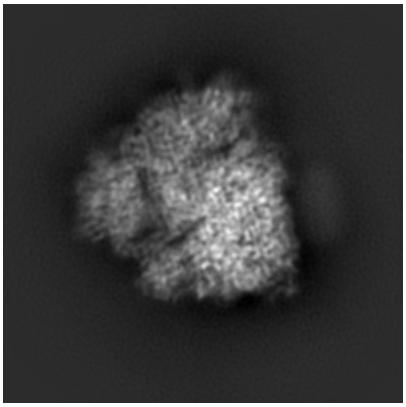
6.1.1 Primary map



X



Y

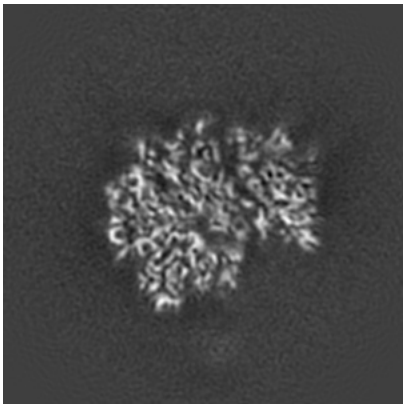


Z

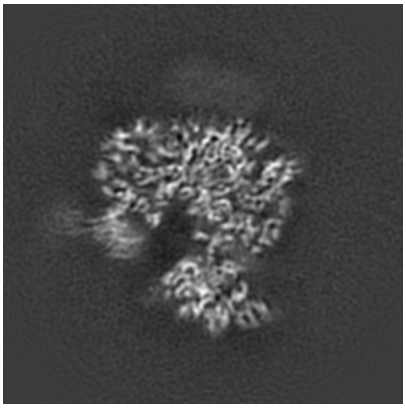
The images above show the map projected in three orthogonal directions.

6.2 Central slices

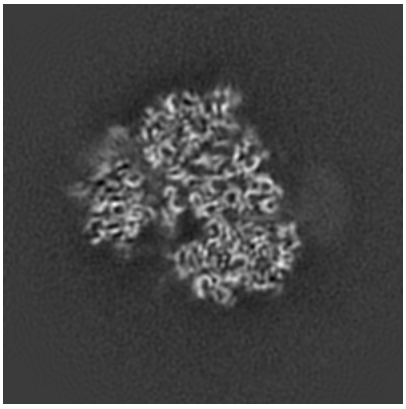
6.2.1 Primary map



X Index: 184



Y Index: 184

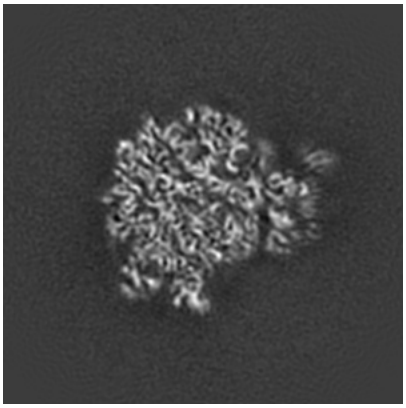


Z Index: 184

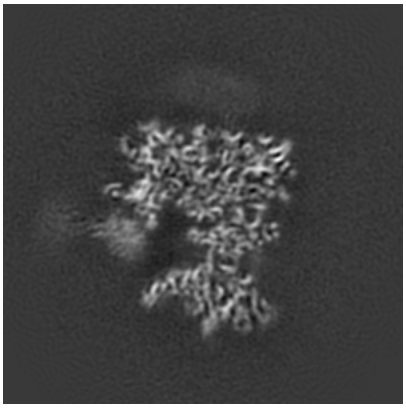
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

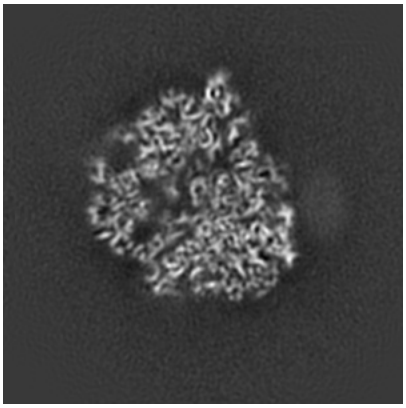
6.3.1 Primary map



X Index: 213



Y Index: 193

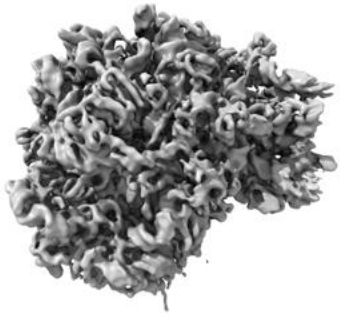


Z Index: 173

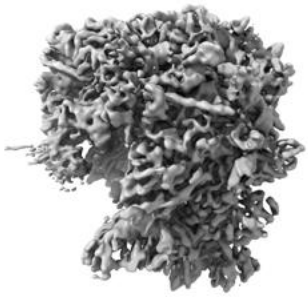
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal surface views (i)

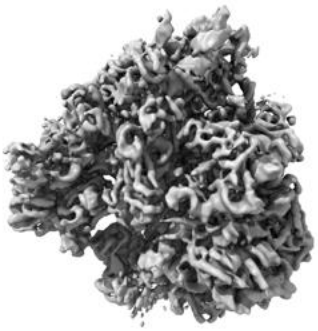
6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.11. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

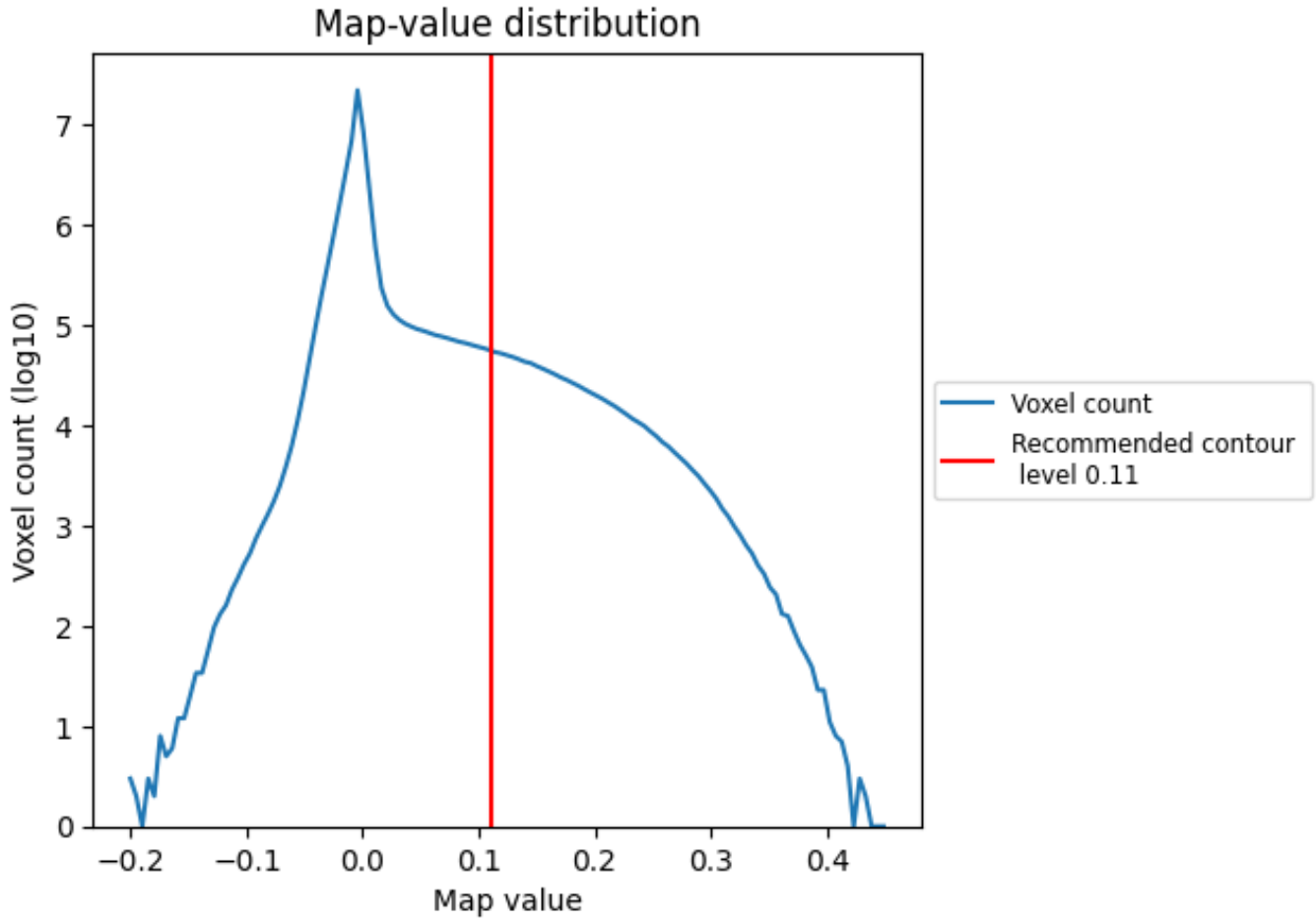
6.5 Mask visualisation (i)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis

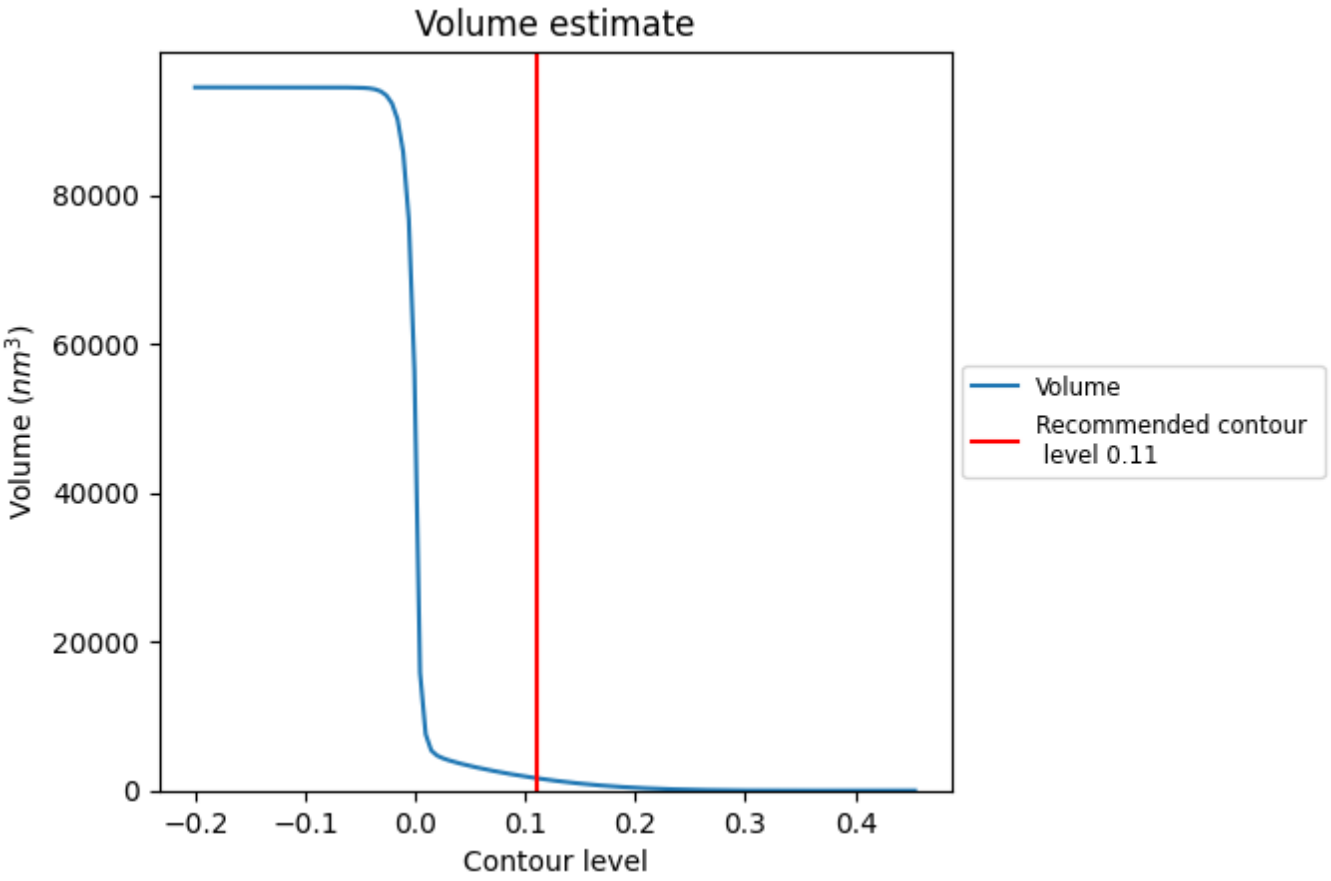
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

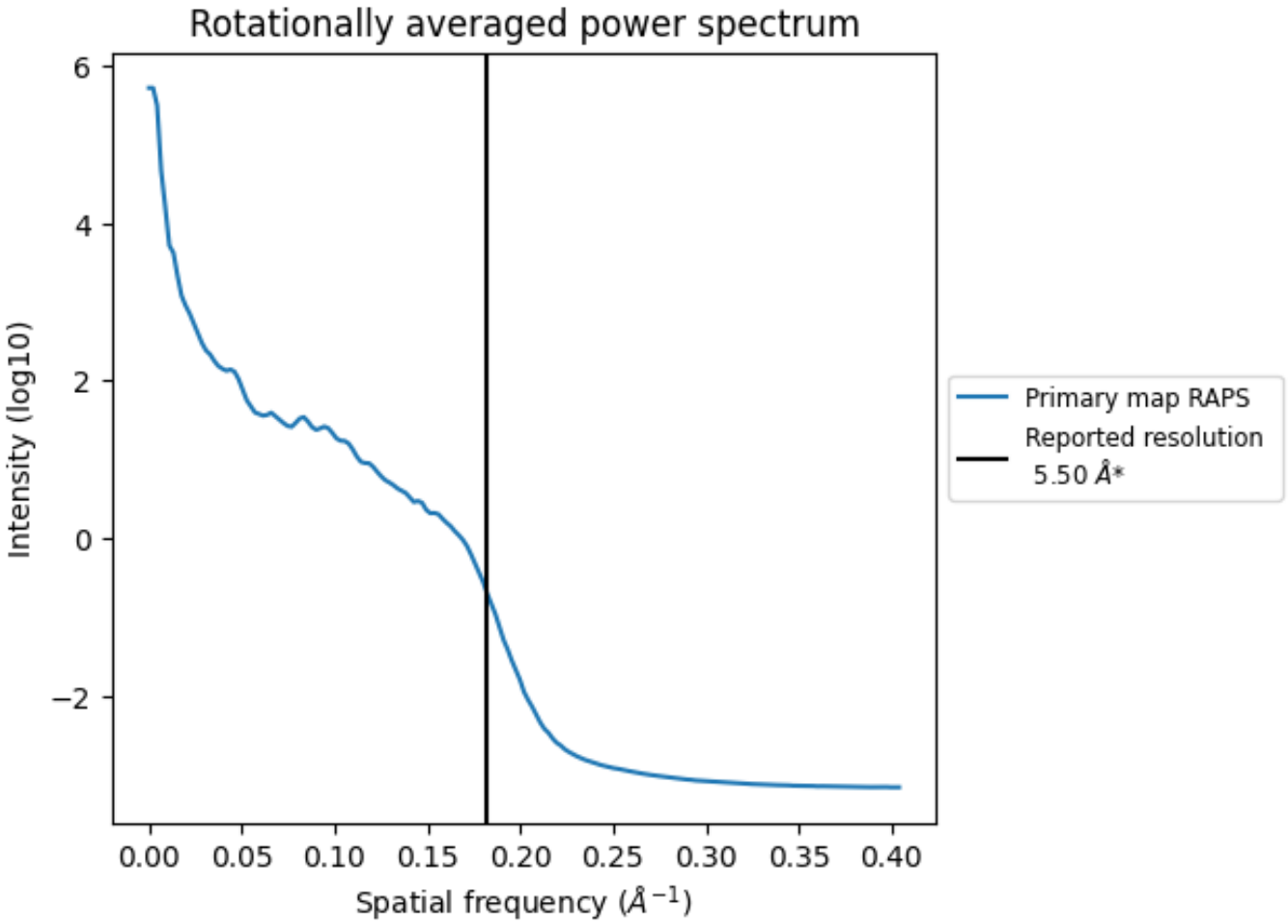
7.2 Volume estimate



The volume at the recommended contour level is 1668 nm^3; this corresponds to an approximate mass of 1506 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum (i)



*Reported resolution corresponds to spatial frequency of 0.182 Å^{-1}

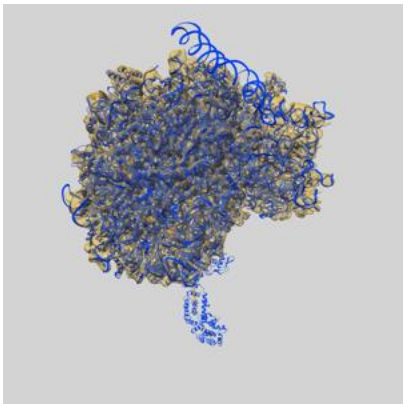
8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

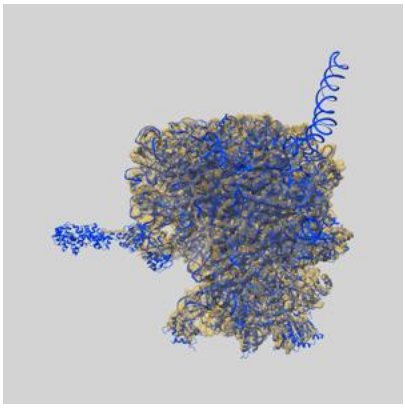
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-1780 and PDB model 4V7E. Per-residue inclusion information can be found in section 3 on page 20.

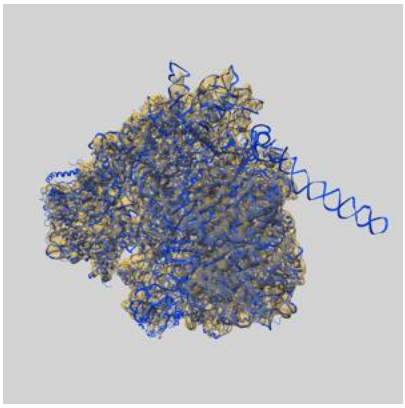
9.1 Map-model overlay



X



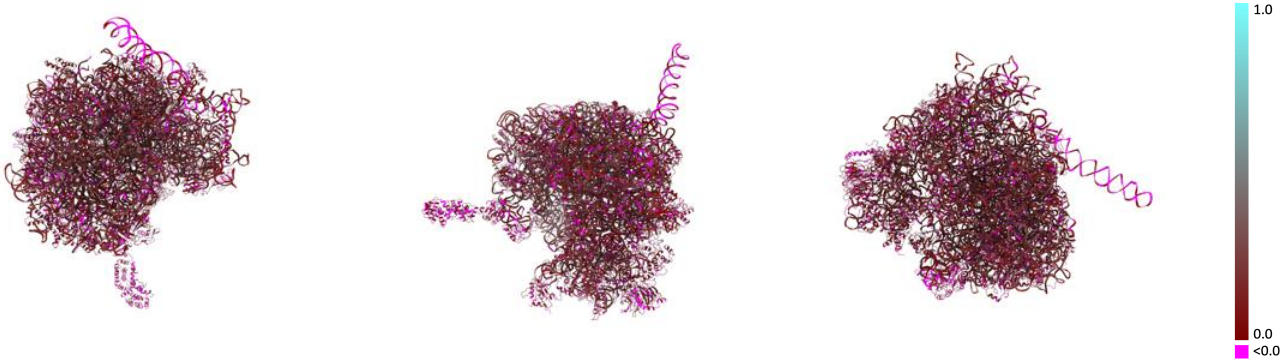
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.11 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

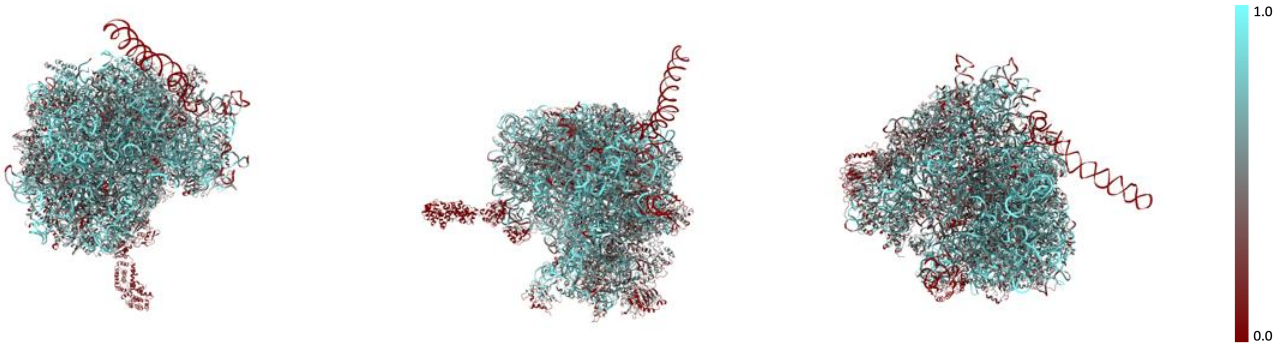
9.2 Q-score mapped to coordinate model



X Y Z

The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

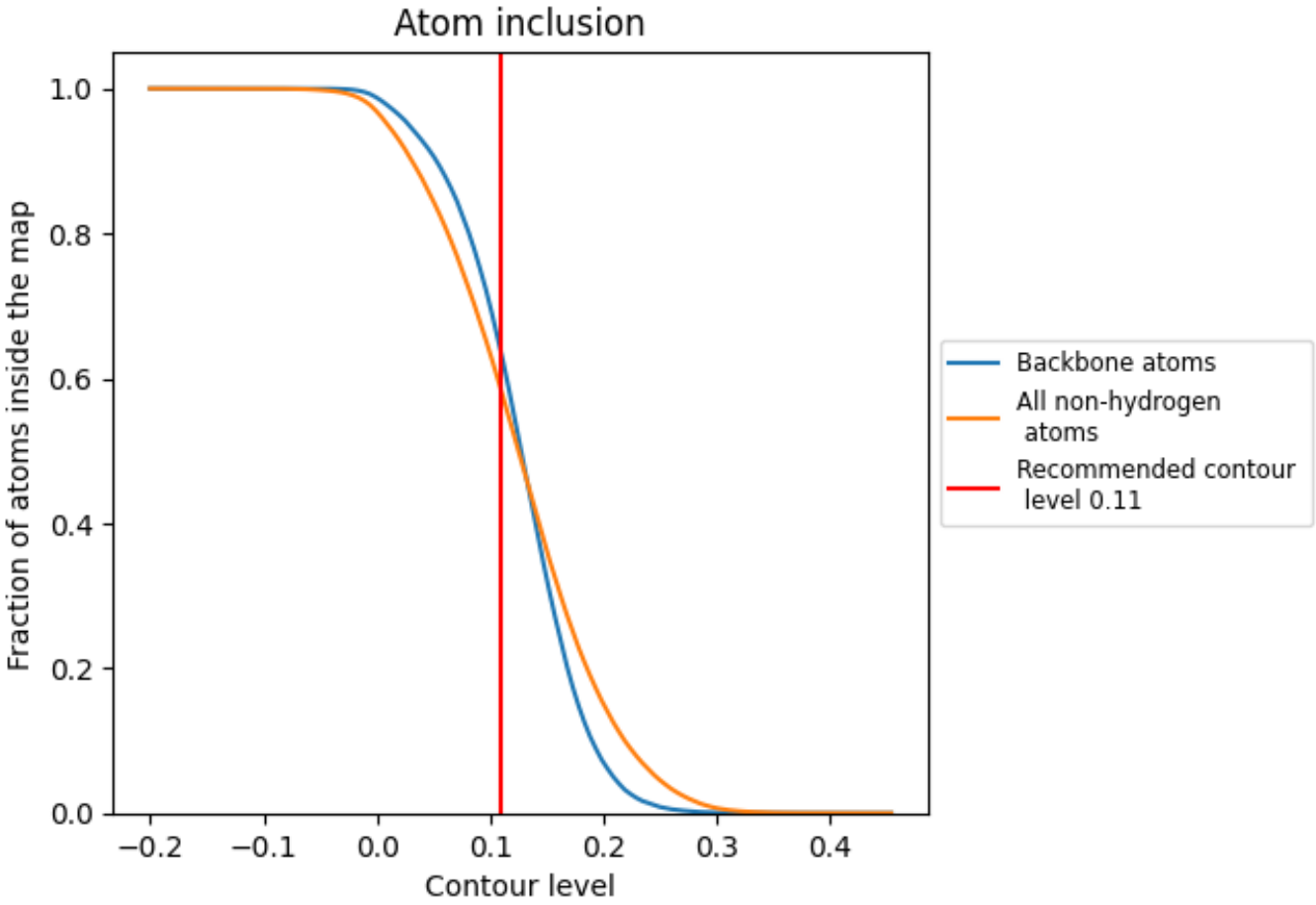
9.3 Atom inclusion mapped to coordinate model



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.11).

9.4 Atom inclusion (i)



At the recommended contour level, 63% of all backbone atoms, 58% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.11) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.5826	0.1550
Aa	0.7377	0.1940
Ab	0.8528	0.2080
Ac	0.7934	0.2070
Ad	0.7396	0.1960
Ae	0.4915	0.1860
Af	0.1293	0.0800
BA	0.3804	0.1240
BB	0.4210	0.1260
BC	0.3646	0.1210
BD	0.3293	0.1190
BE	0.4311	0.1040
BF	0.4542	0.1280
BG	0.4302	0.1120
BH	0.3666	0.1230
BI	0.4139	0.1110
BJ	0.4894	0.1170
BK	0.4180	0.0950
BL	0.3153	0.1070
BM	0.2871	0.0870
BN	0.3866	0.0980
BO	0.3839	0.1130
BP	0.4370	0.1110
BQ	0.3975	0.0950
BR	0.3454	0.1130
BS	0.4000	0.1130
BT	0.4459	0.1070
BU	0.3075	0.0920
BV	0.3601	0.1050
BW	0.3448	0.0840
BX	0.4157	0.1190
BY	0.4148	0.0740
BZ	0.3447	0.0990
Ba	0.4599	0.1350
Bb	0.4000	0.1200

Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
Bc	0.3077	0.0630
Bd	0.3736	0.0680
Be	0.3031	0.0730
Bf	0.3569	0.0730
Bg	0.2151	0.0850
CA	0.3965	0.1150
CB	0.4292	0.1080
CC	0.4029	0.1160
CD	0.4762	0.1050
CE	0.3678	0.0960
CF	0.4640	0.1200
CG	0.4751	0.1180
CH	0.4758	0.1140
CI	0.4448	0.1210
CJ	0.4656	0.1300
CK	0.0583	0.0530
CL	0.4417	0.1020
CM	0.4739	0.1230
CN	0.4819	0.1090
CO	0.4495	0.1070
CP	0.4274	0.1150
CQ	0.4246	0.1150
CR	0.4299	0.1140
CS	0.4637	0.1040
CT	0.3952	0.1130
CU	0.3175	0.0650
CV	0.2652	0.1300
CW	0.2757	0.1230
CX	0.3930	0.1120
CY	0.5448	0.1270
CZ	0.5066	0.1270
Ca	0.4074	0.0920
Cb	0.3613	0.0940
Cc	0.4303	0.1090
Cd	0.4082	0.0930
Ce	0.3661	0.1060
Cf	0.4198	0.0960
Cg	0.4448	0.1210
Ch	0.4536	0.0910
Ci	0.4105	0.0870
Cj	0.4672	0.1040
Ck	0.4709	0.1140

Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
Cl	0.4312	0.1180
Cm	0.5290	0.1580
Cn	0.2831	-0.0170
Co	0.3911	0.0940
Cp	0.3991	0.1240
Cq	0.0737	0.0580
Cr	0.4893	0.1140
Cs	0.0137	0.0590
Ct	0.0000	0.0300
Cu	0.0000	0.0430
Cv	0.0000	0.0280
Cz	0.0260	0.0410