Full wwPDB EM Validation Report ⓘ

Dec 12, 2022 – 09:15 am GMT

PDB ID	:	6YAN
EMDB ID	:	EMD-10762
Title	:	Mammalian 48S late-stage translation initiation complex with histone 4 mRNA
Authors	:	Bochler, A.; Simonetti, A.; Guca, E.; Hashem, Y.
Deposited on	:	2020-03-12
Resolution	:	3.48 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:

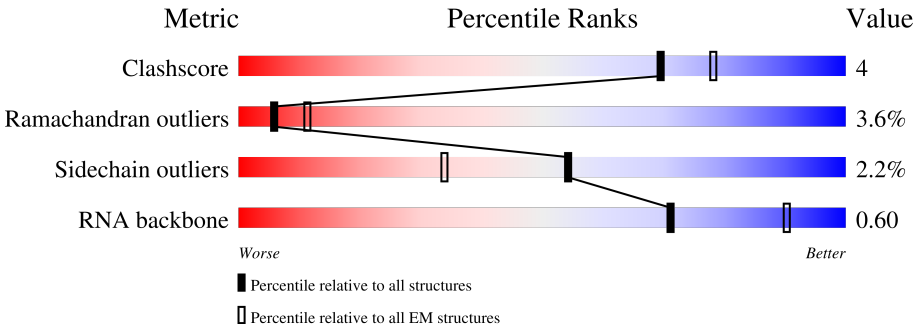
EMDB validation analysis	:	0.0.1.dev43
Mogul	:	1.8.4, CSD as541be (2020)
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.31.3

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.48 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)
Clashscore	158937	4297
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	l	25	16% 88% 12%
2	C	208	93% 7%
3	D	215	93% 6%
4	E	226	95% 5%
5	F	227	7% 90% 9%
6	G	263	97%
7	H	191	6% 93% 7%

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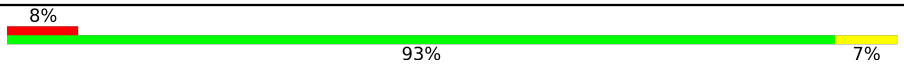
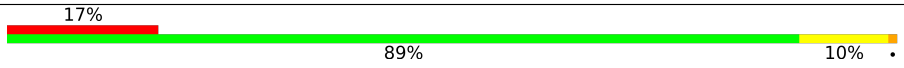
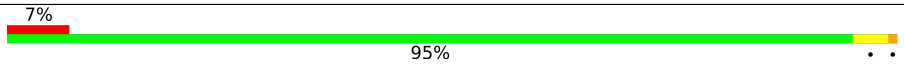
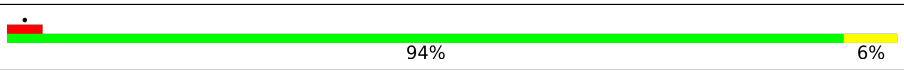
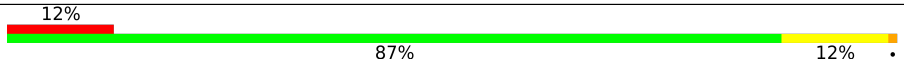
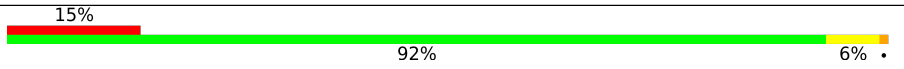
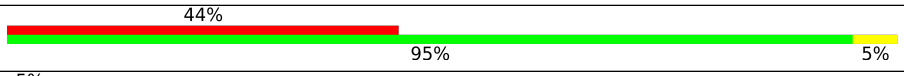
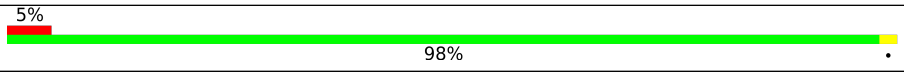
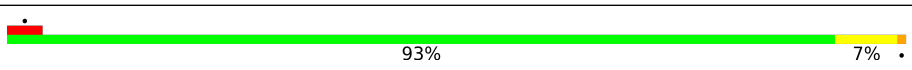
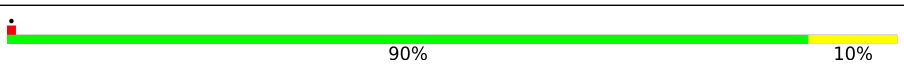
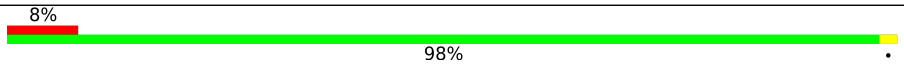
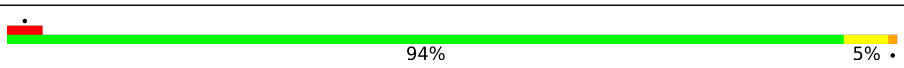
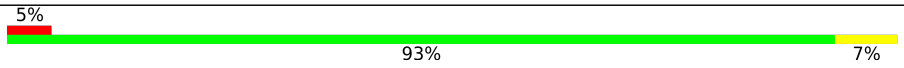
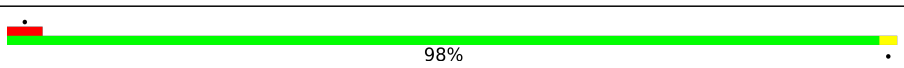
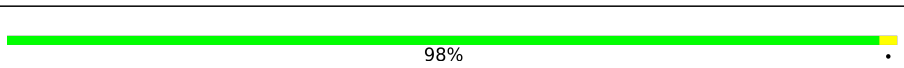
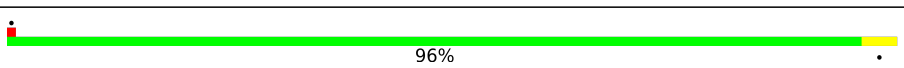
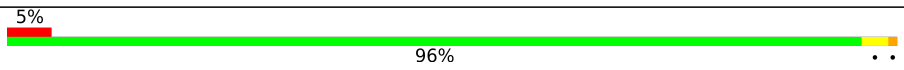
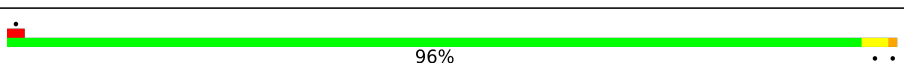
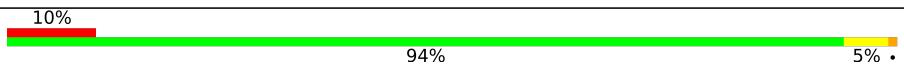
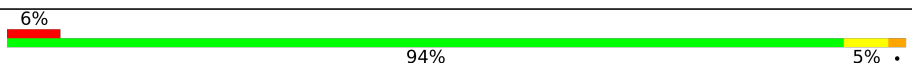
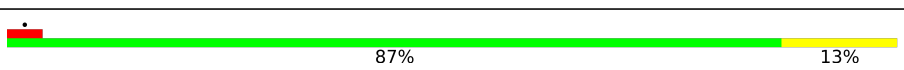
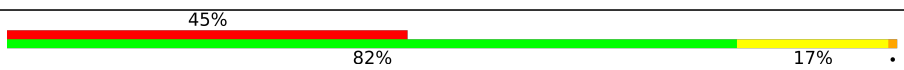
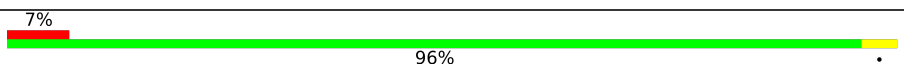
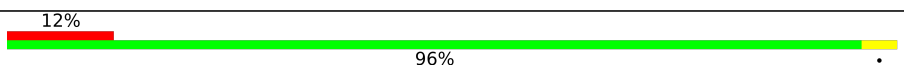
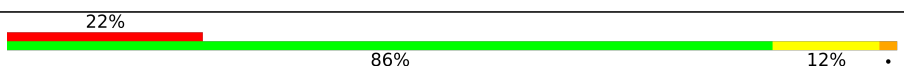
Mol	Chain	Length	Quality of chain
8	I	237	
9	J	190	
10	K	206	
11	L	182	
12	M	98	
13	N	158	
14	O	124	
15	P	150	
16	Q	136	
17	S	141	
18	T	126	
19	V	141	
20	W	104	
21	X	82	
22	Y	129	
23	Z	142	
24	a	126	
25	b	99	
26	c	84	
27	d	64	
28	e	53	
29	f	71	
30	g	313	
31	h	75	
32	i	59	

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Mol	Chain	Length	Quality of chain
33	2	1863	73% 18% 6%
34	3	36	72% 42% 56%
35	A	266	82% 88% 8%
36	B	422	100% 91% 9%
37	U	142	86% 11%
38	R	135	13% 79% 16%
39	1	75	43% 69% 21% 9%

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
33	C4J	2	1244	X	-	-	-

2 Entry composition (i)

There are 39 unique types of molecules in this entry. The entry contains 84251 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 protein called 60s ribosomal protein l41.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	l	25	Total	C	N	O	S	0	0
			240	145	64	28	3		

- Molecule 2 is a protein called 40S ribosomal protein SA.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	C	208	Total	C	N	O	S	0	0
			1643	1045	289	301	8		

- Molecule 3 is a protein called ribosomal protein eS1.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	D	215	Total	C	N	O	S	0	0
			1742	1107	309	311	15		

- Molecule 4 is a protein called 40S ribosomal protein uS5.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	E	226	Total	C	N	O	S	0	0
			1743	1127	300	307	9		

- Molecule 5 is a protein called Ribosomal protein S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	F	227	Total	C	N	O	S	0	0
			1765	1124	317	316	8		

- Molecule 6 is a protein called 40S ribosomal protein S4.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	G	263	Total	C	N	O	S	0	0
			2083	1329	385	359	10		

- Molecule 7 is a protein called Ribosomal protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	H	191	Total	C	N	O	S	0	0
			1509	943	286	273	7		

- Molecule 8 is a protein called 40S ribosomal protein S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	I	237	Total	C	N	O	S	0	0
			1924	1200	387	330	7		

- Molecule 9 is a protein called ribosomal protein eS7.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	J	190	Total	C	N	O	S	0	0
			1530	975	281	273	1		

- Molecule 10 is a protein called 40S ribosomal protein S8.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	K	206	Total	C	N	O	S	0	0
			1680	1054	329	292	5		

- Molecule 11 is a protein called Ribosomal protein S9 (Predicted).

Mol	Chain	Residues	Atoms					AltConf	Trace
11	L	182	Total	C	N	O	S	0	0
			1499	952	300	245	2		

- Molecule 12 is a protein called 40S ribosomal protein eS10.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	M	98	Total	C	N	O	S	0	0
			828	539	148	135	6		

- Molecule 13 is a protein called Ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	N	158	Total	C	N	O	S	0	0
			1296	827	241	221	7		

- Molecule 14 is a protein called 40S ribosomal protein S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	O	124	Total	C	N	O	S	0	0
			958	600	170	179	9		

- Molecule 15 is a protein called ribosomal protein uS15.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	P	150	Total	C	N	O	S	0	0
			1208	773	229	205	1		

- Molecule 16 is a protein called 40S ribosomal protein uS11.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	Q	136	Total	C	N	O	S	0	0
			1016	621	199	190	6		

- Molecule 17 is a protein called ribosomal protein uS9.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	S	141	Total	C	N	O	S	0	0
			1123	715	212	193	3		

- Molecule 18 is a protein called ribosomal protein eS17.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	T	126	Total	C	N	O	S	0	0
			1020	639	188	188	5		

- Molecule 19 is a protein called 40S ribosomal protein eS19.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	V	141	Total	C	N	O	S	0	0
			1113	701	213	196	3		

- Molecule 20 is a protein called Ribosomal_S10 domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	W	104	Total	C	N	O	S	0	0
			822	514	156	148	4		

- Molecule 21 is a protein called 40S ribosomal protein S21.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	X	82	Total	C	N	O	S	0	0
			620	378	117	120	5		

- Molecule 22 is a protein called Ribosomal protein S15a.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	Y	129	Total	C	N	O	S	0	0
			1034	659	193	176	6		

- Molecule 23 is a protein called 40S ribosomal protein uS12.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	Z	142	Total	C	N	O	S	0	0
			1107	698	220	185	4		

- Molecule 24 is a protein called 40S ribosomal protein S24.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	a	126	Total	C	N	O	S	0	0
			1022	645	198	174	5		

- Molecule 25 is a protein called 40S ribosomal protein eS26.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	b	99	Total	C	N	O	S	0	0
			790	491	162	131	6		

- Molecule 26 is a protein called 40S ribosomal protein S27.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	c	84	Total	C	N	O	S	0	0
			659	413	122	116	8		

- Molecule 27 is a protein called ribosomal protein eS28.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	d	64	Total	C	N	O	S	0	0
			507	308	102	95	2		

- Molecule 28 is a protein called ribosomal protein uS14.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	e	53	Total	C	N	O	S	0	0
			445	278	90	72	5		

- Molecule 29 is a protein called ribosomal protein eS31.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	f	71	Total	C	N	O	S	0	0
			582	367	109	99	7		

- Molecule 30 is a protein called ribosomal protein RACK1.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	g	313	Total	C	N	O	S	0	0
			2437	1535	424	466	12		

- Molecule 31 is a protein called ribosomal protein eS25.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	h	75	Total	C	N	O	S	0	0
			599	382	111	105	1		

- Molecule 32 is a protein called 40S ribosomal protein eS30.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	i	59	Total	C	N	O	S	0	0
			473	293	104	75	1		

- Molecule 33 is a RNA chain called 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	2	1744	Total	C	N	O	P	0	0
			37202	16613	6663	12186	1740		

- Molecule 34 is a RNA chain called histone 4 (H4) mRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	3	36	Total	C	N	O	P	0	0
			774	346	144	249	35		

- Molecule 35 is a protein called Eukaryotic translation initiation factor 2 subunit 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	A	266	Total	C	N	O	S	0	0
			2147	1354	376	406	11		

- Molecule 36 is a protein called eukaryotic translation initiation factor 2 subunit gamma.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	B	422	Total	C	N	O	S	0	0
			3214	2044	561	592	17		

- Molecule 37 is a protein called 40S ribosomal protein uS13.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	U	142	Total	C	N	O	S	0	0
			1172	733	239	199	1		

- Molecule 38 is a protein called Ribosomal protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	R	135	Total	C	N	O	S	0	0
			1111	704	211	189	7		

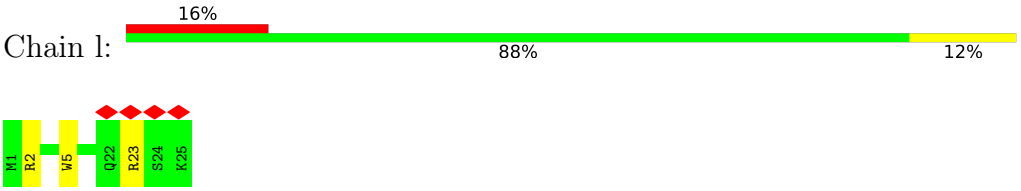
- Molecule 39 is a RNA chain called initiator methionylated tRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	1	75	Total	C	N	O	P	0	0
			1614	722	299	519	74		

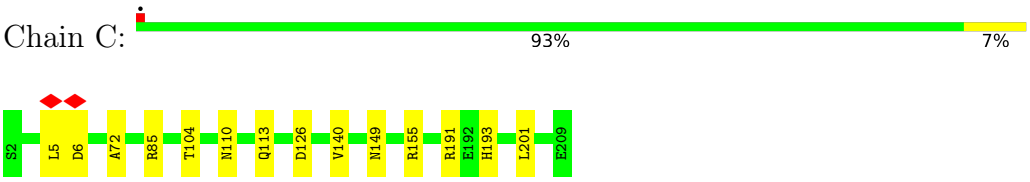
3 Residue-property plots (i)

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.

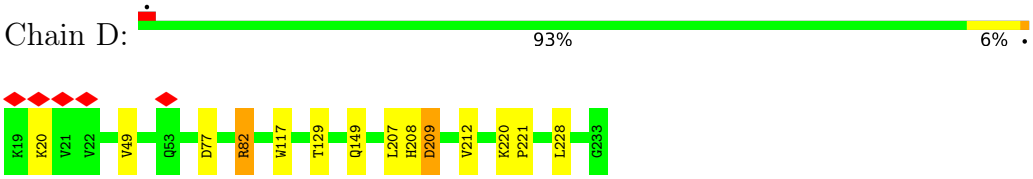
• Molecule 1: 60s ribosomal protein l41



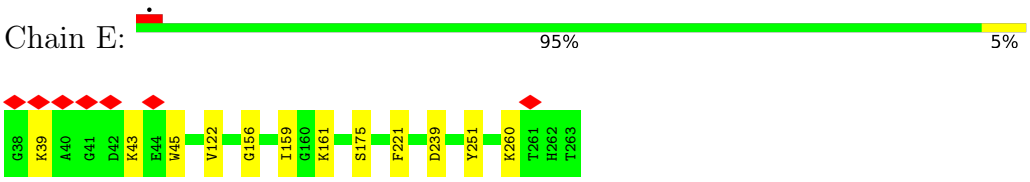
• Molecule 2: 40S ribosomal protein SA



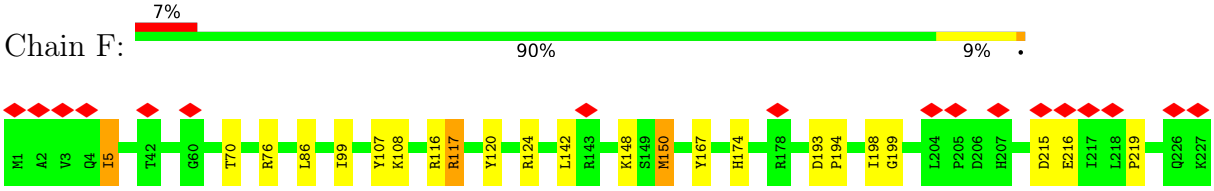
• Molecule 3: ribosomal protein eS1



• Molecule 4: 40S ribosomal protein uS5

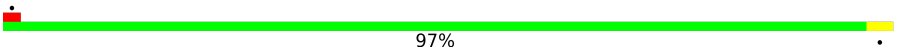


• Molecule 5: Ribosomal protein S3



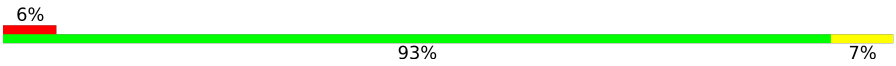
• Molecule 6: 40S ribosomal protein S4

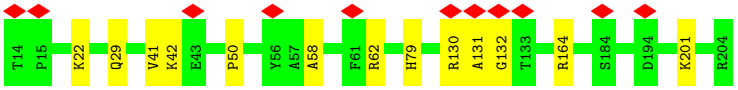
Chain G:



• Molecule 7: Ribosomal protein S5

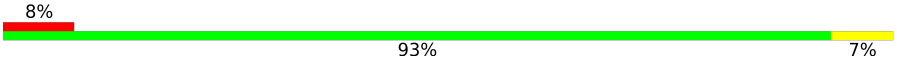
Chain H:

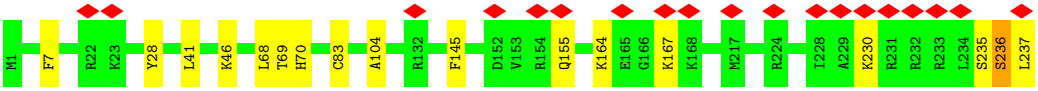




• Molecule 8: 40S ribosomal protein S6

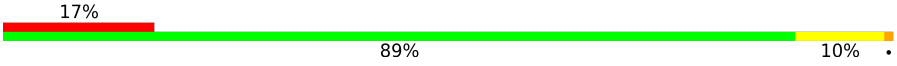
Chain I:

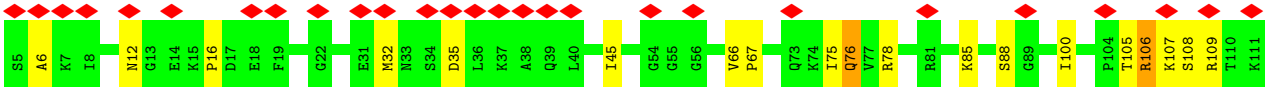


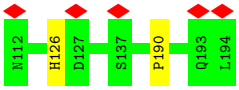


• Molecule 9: ribosomal protein eS7

Chain J:

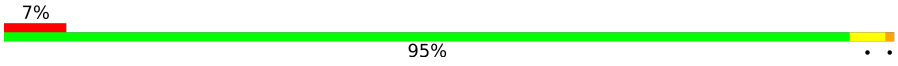


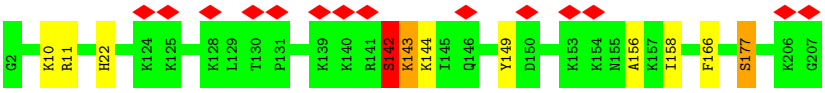




• Molecule 10: 40S ribosomal protein S8

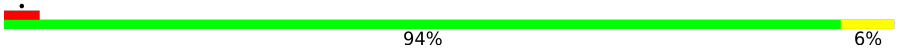
Chain K:





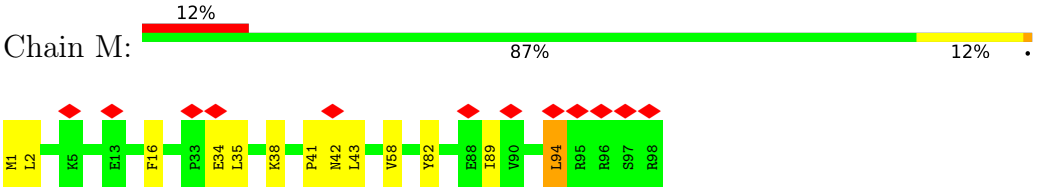
• Molecule 11: Ribosomal protein S9 (Predicted)

Chain L:



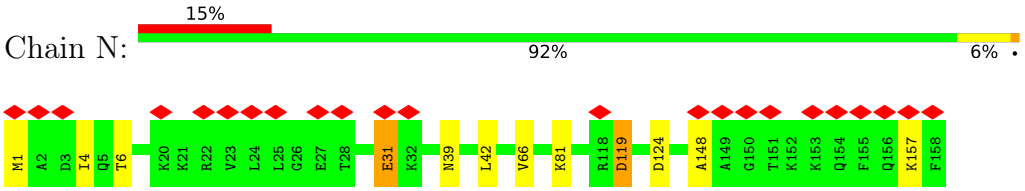
• Molecule 12: 40S ribosomal protein eS10

Chain M:



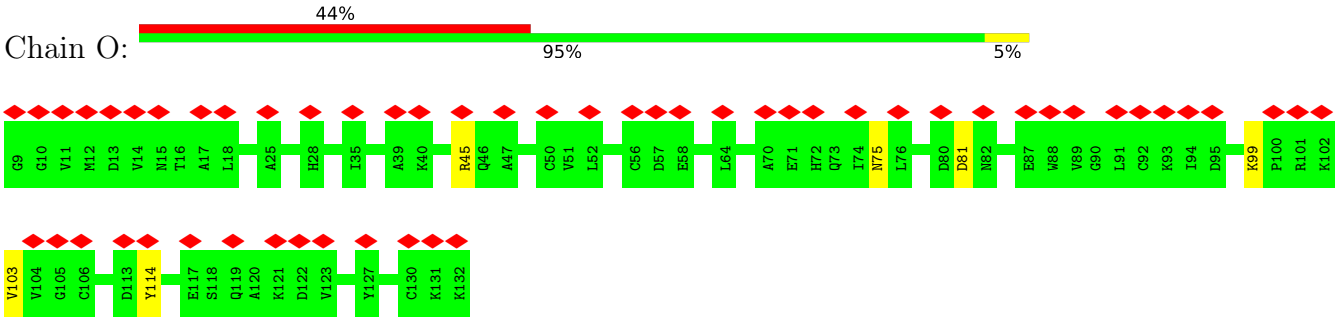
• Molecule 13: Ribosomal protein S11

Chain N:



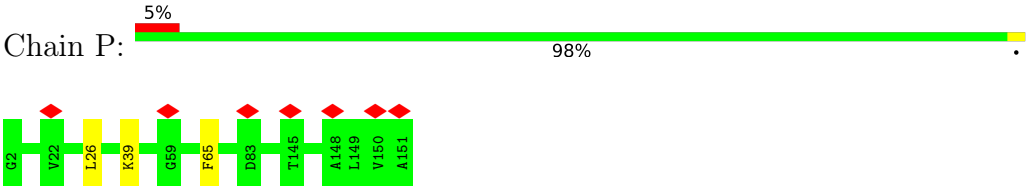
• Molecule 14: 40S ribosomal protein S12

Chain O:



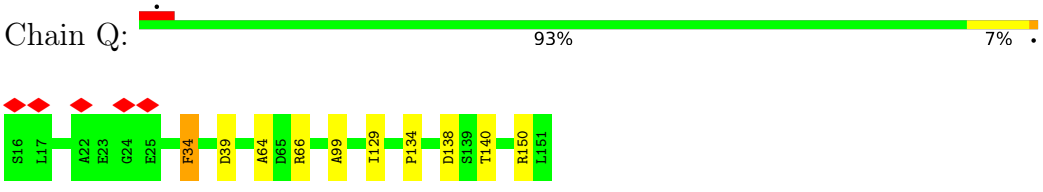
• Molecule 15: ribosomal protein uS15

Chain P:



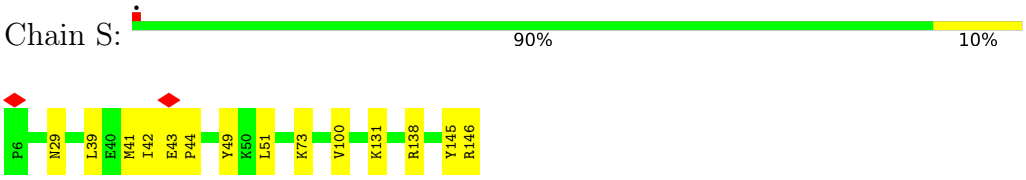
• Molecule 16: 40S ribosomal protein uS11

Chain Q:



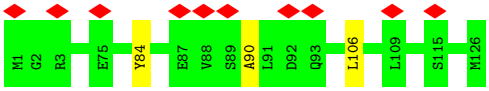
• Molecule 17: ribosomal protein uS9

Chain S:



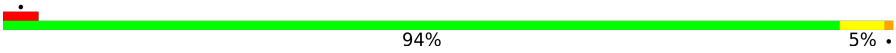
• Molecule 18: ribosomal protein eS17

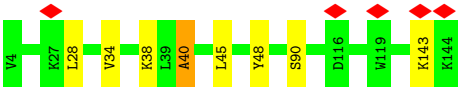
Chain T:



• Molecule 19: 40S ribosomal protein eS19

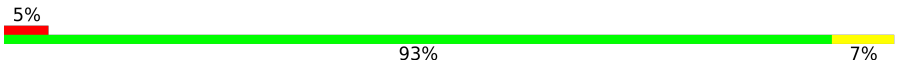
Chain V:

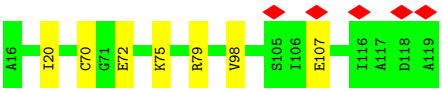




• Molecule 20: Ribosomal_S10 domain-containing protein

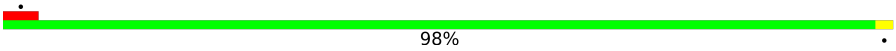
Chain W:

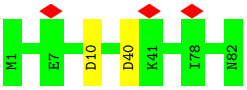




• Molecule 21: 40S ribosomal protein S21

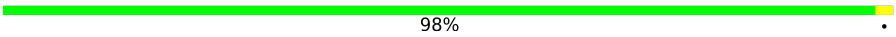
Chain X:

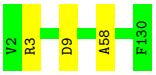




• Molecule 22: Ribosomal protein S15a

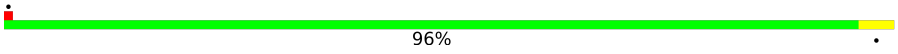
Chain Y:





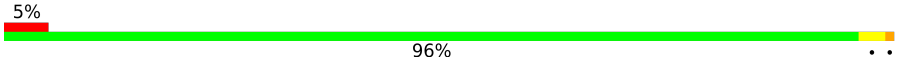
• Molecule 23: 40S ribosomal protein uS12

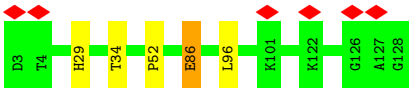
Chain Z:



• Molecule 24: 40S ribosomal protein S24

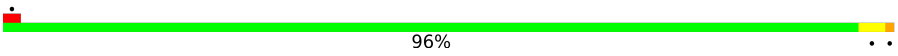
Chain a:

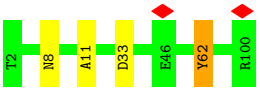




• Molecule 25: 40S ribosomal protein eS26

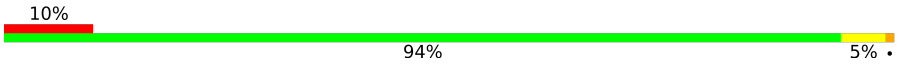
Chain b:

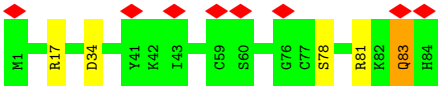




• Molecule 26: 40S ribosomal protein S27

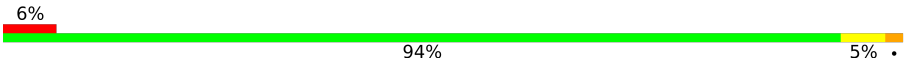
Chain c:

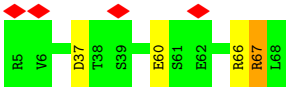




• Molecule 27: ribosomal protein eS28

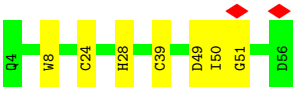
Chain d:





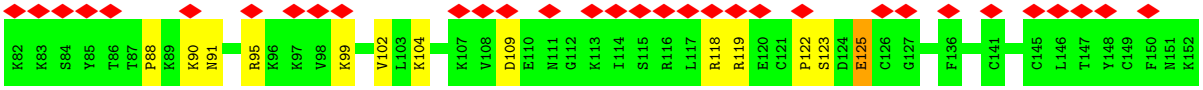
• Molecule 28: ribosomal protein uS14

Chain e:



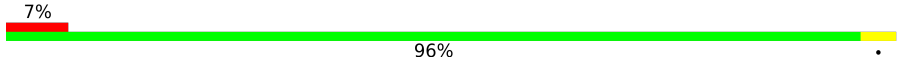
• Molecule 29: ribosomal protein eS31

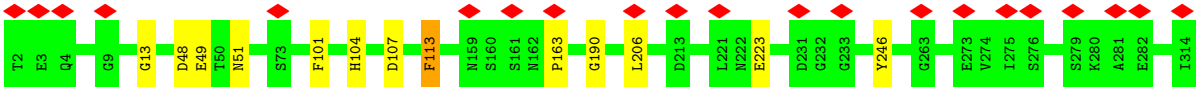
Chain f:



• Molecule 30: ribosomal protein RACK1

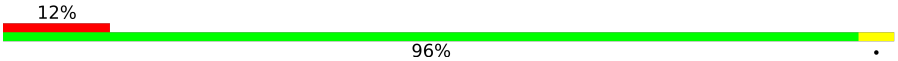
Chain g:

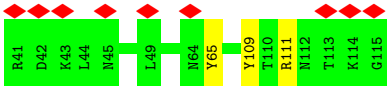




• Molecule 31: ribosomal protein eS25

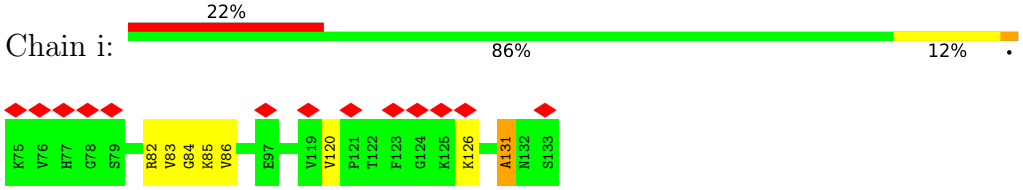
Chain h:





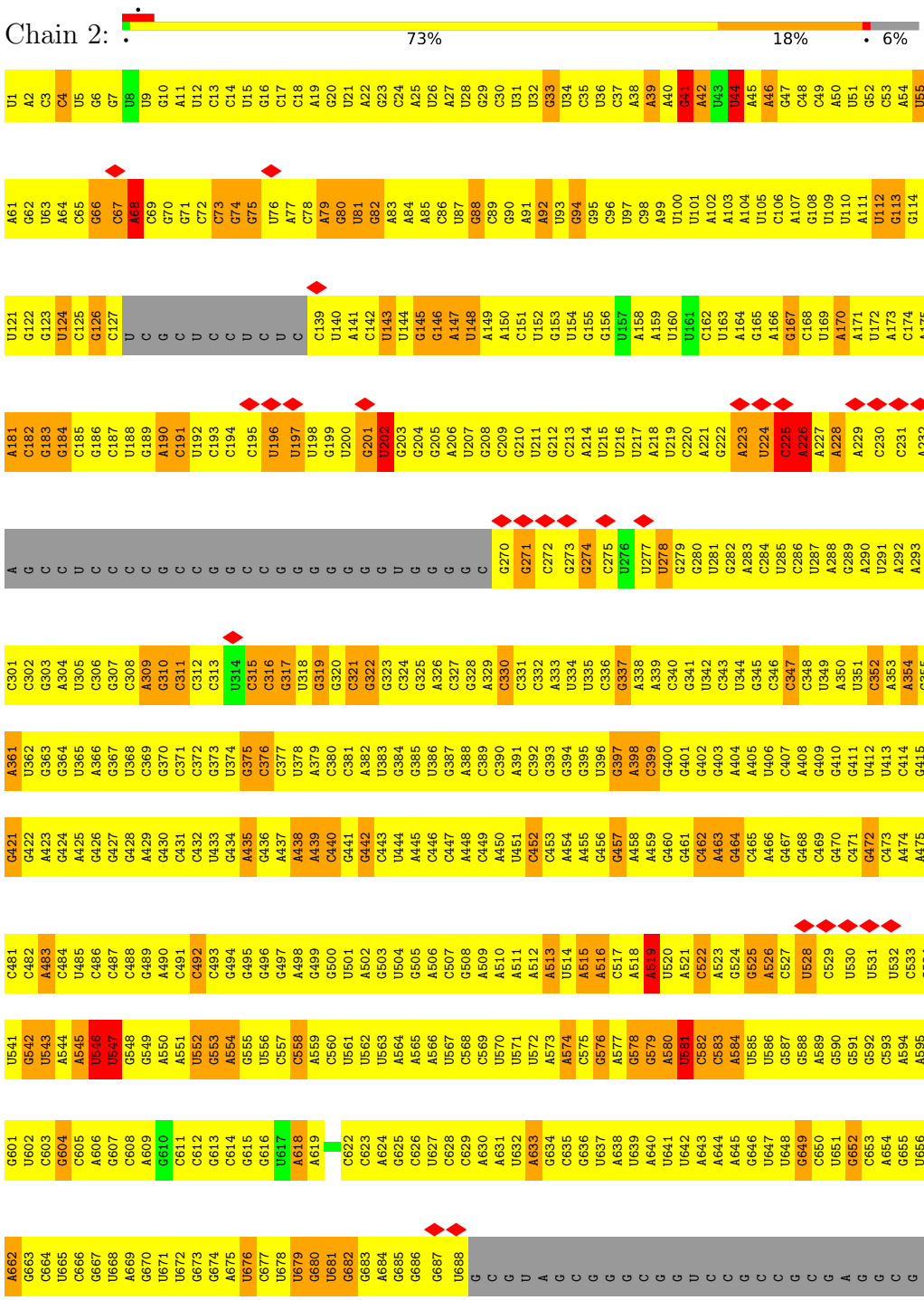
• Molecule 32: 40S ribosomal protein eS30

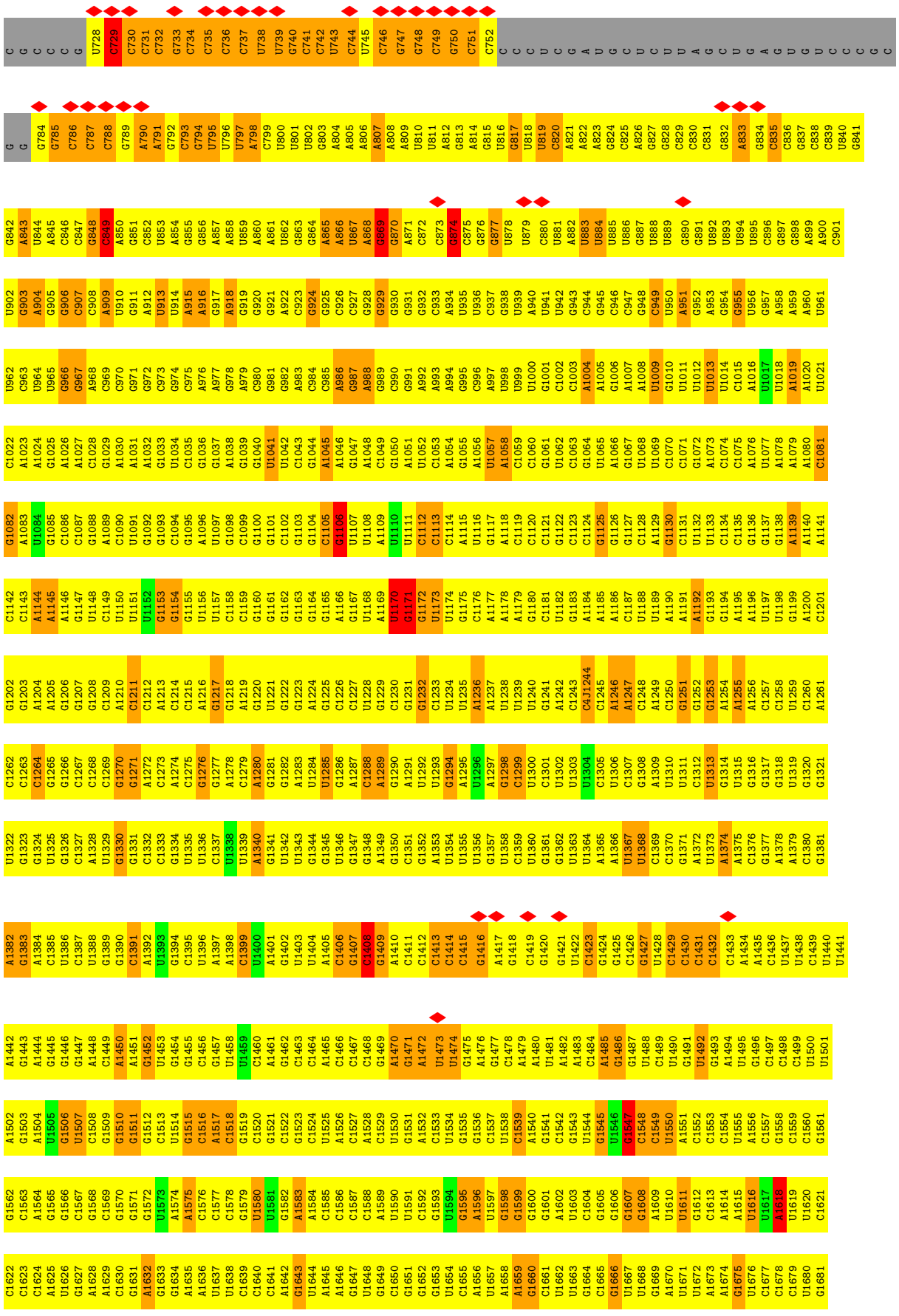
Chain i:

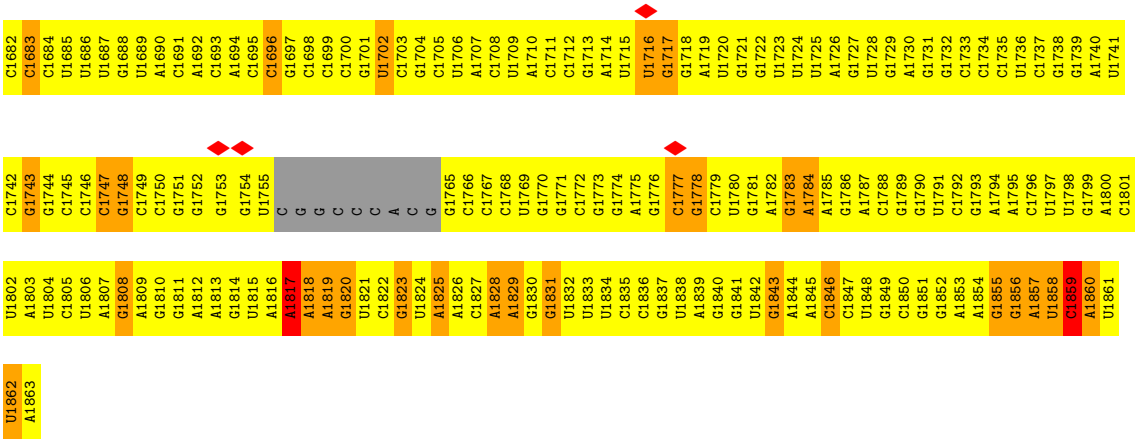


• Molecule 33: 18S ribosomal RNA

Chain 2:

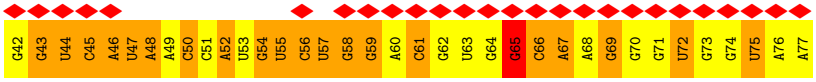






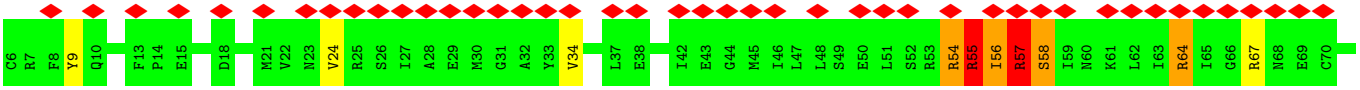
• Molecule 34: histone 4 (H4) mRNA

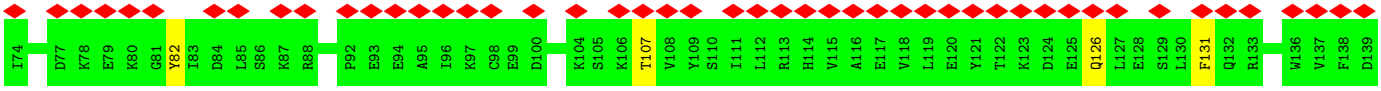
Chain 3:

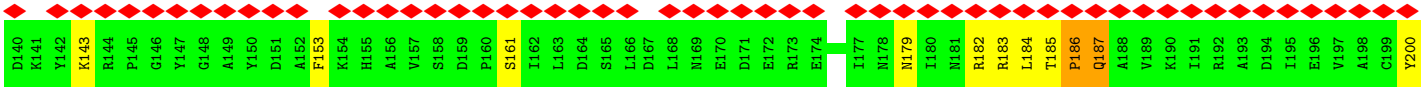


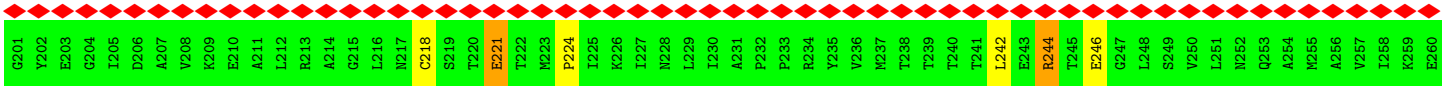
• Molecule 35: Eukaryotic translation initiation factor 2 subunit 1

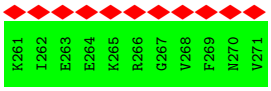
Chain A:





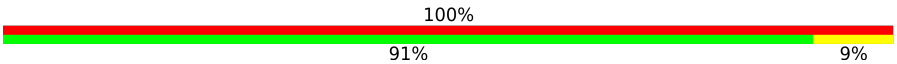


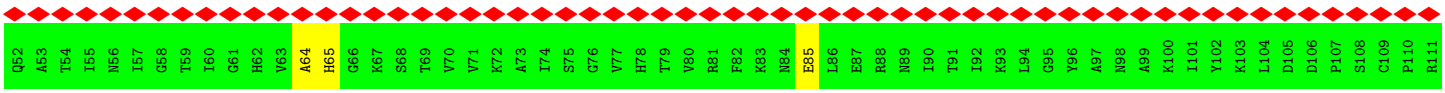


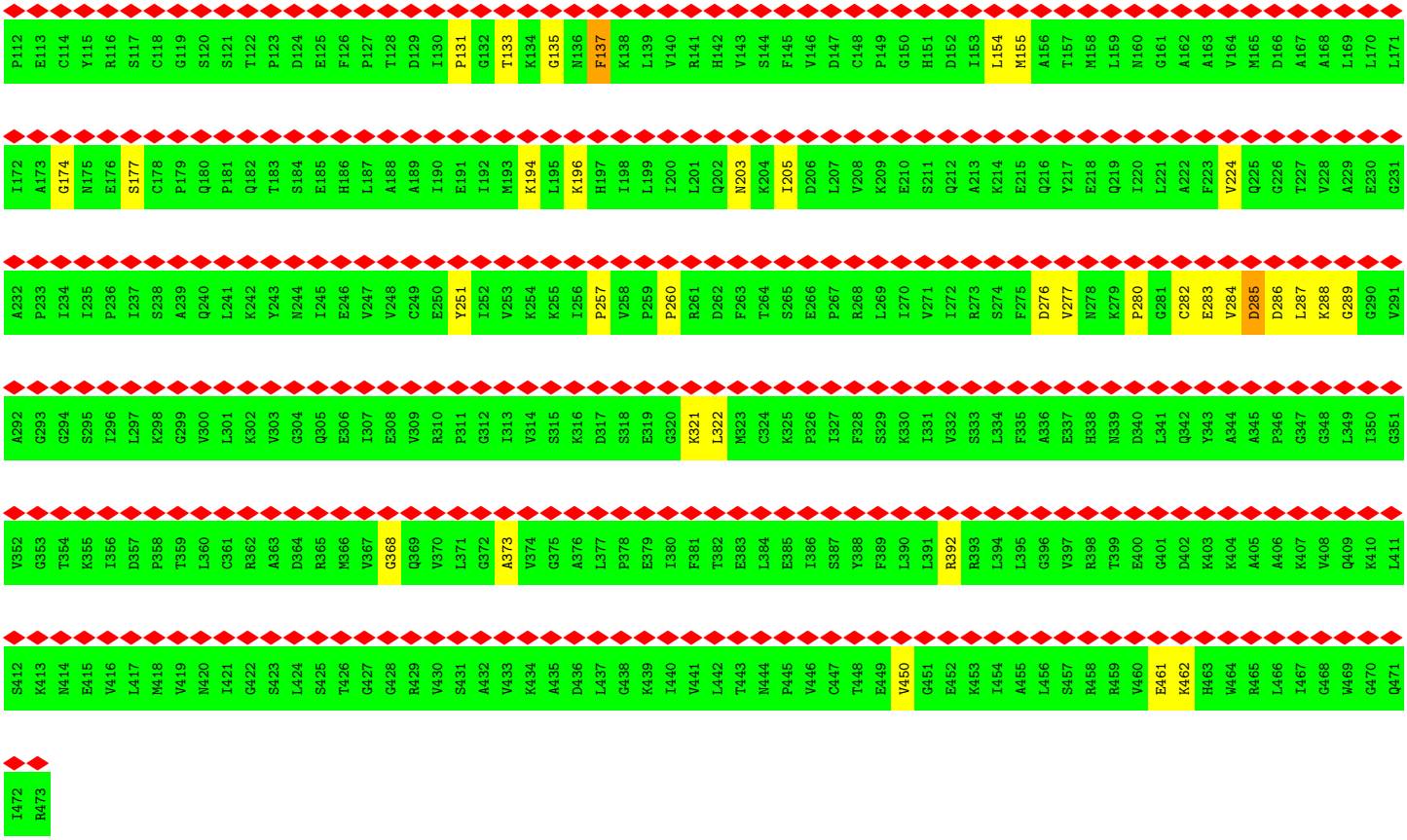


• Molecule 36: eukaryotic translation initiation factor 2 subunit gamma

Chain B:

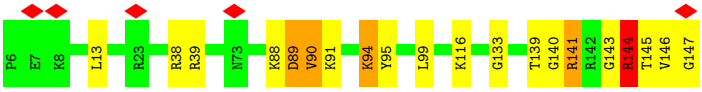






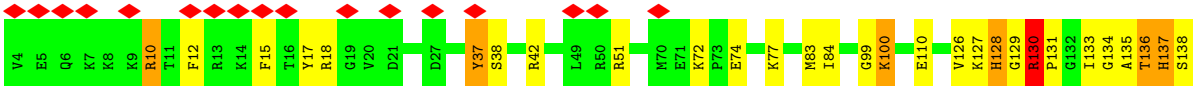
• Molecule 37: 40S ribosomal protein uS13

Chain U:



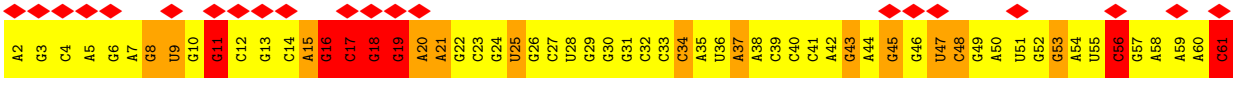
• Molecule 38: Ribosomal protein S15

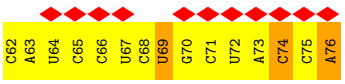
Chain R:



• Molecule 39: initiator methionylated tRNA

Chain 1:





4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	372000	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	NONE	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	26	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.110	Depositor
Minimum map value	-0.065	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.003	Depositor
Recommended contour level	0.0109	Depositor
Map size (Å)	422.40002, 422.40002, 422.40002	wwPDB
Map dimensions	384, 384, 384	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.1, 1.1, 1.1	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: C4J, T6A

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	l	1.35	0/241	0.96	0/305
2	C	0.97	0/1680	0.99	0/2283
3	D	0.90	0/1770	1.02	2/2367 (0.1%)
4	E	0.91	0/1779	0.99	5/2399 (0.2%)
5	F	0.97	0/1793	1.03	1/2412 (0.0%)
6	G	0.97	0/2125	1.00	0/2856
7	H	0.99	0/1531	0.97	0/2059
8	I	1.07	0/1946	1.03	6/2587 (0.2%)
9	J	0.96	0/1553	1.00	0/2079
10	K	1.03	0/1709	1.05	5/2278 (0.2%)
11	L	1.07	0/1523	0.98	2/2031 (0.1%)
12	M	0.96	0/852	1.01	0/1147
13	N	1.00	0/1319	1.01	0/1761
14	O	0.90	0/968	1.04	2/1296 (0.2%)
15	P	0.97	0/1232	0.92	2/1656 (0.1%)
16	Q	1.02	0/1029	1.05	2/1380 (0.1%)
17	S	1.01	0/1141	1.01	0/1528
18	T	0.99	0/1032	0.99	0/1383
19	V	0.98	0/1133	0.99	3/1517 (0.2%)
20	W	0.96	0/832	1.02	0/1117
21	X	0.99	0/627	1.01	0/839
22	Y	0.99	0/1051	0.98	0/1406
23	Z	0.99	0/1125	0.99	2/1500 (0.1%)
24	a	1.01	0/1038	1.04	1/1377 (0.1%)
25	b	1.06	0/803	1.03	1/1076 (0.1%)
26	c	0.94	0/673	1.00	0/902
27	d	1.13	0/509	1.02	0/680
28	e	1.10	0/455	1.05	0/603
29	f	0.98	0/594	1.07	0/786
30	g	0.92	0/2494	1.10	4/3394 (0.1%)
31	h	0.97	0/605	1.08	2/810 (0.2%)
32	i	1.09	0/478	1.06	1/628 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
33	2	1.61	115/41562 (0.3%)	2.42	4485/64770 (6.9%)
34	3	1.22	0/867	1.89	54/1352 (4.0%)
35	A	1.00	0/2178	1.08	9/2935 (0.3%)
36	B	0.92	0/3267	1.07	4/4415 (0.1%)
37	U	1.01	0/1190	0.92	0/1592
38	R	0.99	0/1132	0.99	3/1510 (0.2%)
39	1	2.46	8/1770 (0.5%)	2.77	221/2759 (8.0%)
All	All	1.35	123/89606 (0.1%)	1.90	4817/129775 (3.7%)

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
2	C	0	1
3	D	0	1
5	F	0	2
8	I	0	2
9	J	0	2
11	L	0	2
12	M	0	5
17	S	0	2
26	c	0	1
28	e	0	2
29	f	0	1
31	h	0	1
32	i	0	2
33	2	1	64
34	3	1	0
35	A	0	8
36	B	0	11
37	U	0	3
39	1	3	3
All	All	5	113

All (123) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
39	1	19	G	O3'-P	43.51	2.13	1.61
39	1	16	G	O3'-P	-39.18	1.14	1.61
39	1	17	C	O3'-P	32.10	1.99	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	2	1815	U	O3'-P	-29.22	1.26	1.61
39	1	17	C	C2'-O2'	-26.05	1.07	1.41
39	1	18	G	O3'-P	21.68	1.87	1.61
33	2	350	A	O3'-P	21.20	1.86	1.61
33	2	1172	G	O3'-P	-19.95	1.37	1.61
33	2	675	A	O3'-P	19.45	1.84	1.61
33	2	676	U	O3'-P	-19.09	1.38	1.61
39	1	18	G	C3'-O3'	-16.78	1.18	1.42
33	2	797	U	O3'-P	-14.47	1.43	1.61
33	2	351	U	O3'-P	-13.61	1.44	1.61
33	2	1170	U	O3'-P	-10.27	1.48	1.61
33	2	1171	G	O3'-P	-9.29	1.50	1.61
39	1	18	G	C1'-N9	-7.93	1.35	1.46
33	2	916	A	N7-C5	-7.78	1.34	1.39
33	2	1816	A	O3'-P	-7.72	1.51	1.61
33	2	1170	U	C2-N3	7.11	1.42	1.37
33	2	1809	A	N7-C5	-6.63	1.35	1.39
33	2	1186	A	N7-C5	-6.35	1.35	1.39
33	2	960	A	N7-C5	-6.33	1.35	1.39
33	2	1141	A	N7-C5	-6.32	1.35	1.39
33	2	1023	A	N7-C5	-6.24	1.35	1.39
33	2	1283	A	N7-C5	-6.08	1.35	1.39
33	2	304	A	N7-C5	-6.07	1.35	1.39
33	2	1730	A	N7-C5	-6.07	1.35	1.39
33	2	1192	A	N7-C5	-6.04	1.35	1.39
33	2	1045	A	N7-C5	-6.03	1.35	1.39
33	2	1200	A	N7-C5	-6.02	1.35	1.39
33	2	1170	U	C1'-N1	6.02	1.57	1.48
33	2	1066	A	N7-C5	-5.99	1.35	1.39
33	2	619	A	N7-C5	-5.98	1.35	1.39
33	2	1178	A	N7-C5	-5.91	1.35	1.39
33	2	994	A	N7-C5	-5.90	1.35	1.39
33	2	102	A	N7-C5	-5.87	1.35	1.39
33	2	1139	A	N7-C5	-5.87	1.35	1.39
33	2	1645	A	N7-C5	-5.85	1.35	1.39
33	2	1353	A	N7-C5	-5.84	1.35	1.39
33	2	170	A	N7-C5	-5.82	1.35	1.39
33	2	171	A	N7-C5	-5.82	1.35	1.39
33	2	1646	A	N7-C5	-5.82	1.35	1.39
33	2	577	A	N7-C5	-5.81	1.35	1.39
33	2	1146	A	N7-C5	-5.81	1.35	1.39
33	2	437	A	N7-C5	-5.80	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	2	1140	A	N7-C5	-5.80	1.35	1.39
33	2	1184	A	N7-C5	-5.77	1.35	1.39
33	2	822	A	N7-C5	-5.73	1.35	1.39
33	2	1584	A	N7-C5	-5.72	1.35	1.39
33	2	474	A	N7-C5	-5.68	1.35	1.39
33	2	206	A	N7-C5	-5.67	1.35	1.39
33	2	391	A	N7-C5	-5.66	1.35	1.39
33	2	177	G	C2-N3	5.66	1.37	1.32
33	2	1629	A	N7-C5	-5.64	1.35	1.39
39	1	17	C	C3'-O3'	-5.64	1.34	1.42
33	2	1828	A	N7-C5	-5.61	1.35	1.39
33	2	1615	A	N7-C5	-5.60	1.35	1.39
33	2	1019	A	N7-C5	-5.59	1.35	1.39
33	2	968	A	N7-C5	-5.58	1.35	1.39
33	2	584	A	N7-C5	-5.58	1.35	1.39
33	2	1169	A	N7-C5	-5.58	1.35	1.39
33	2	1185	A	N7-C5	-5.56	1.35	1.39
33	2	1046	A	N7-C5	-5.54	1.35	1.39
33	2	1378	A	N7-C5	-5.53	1.35	1.39
33	2	423	A	N7-C5	-5.52	1.35	1.39
33	2	1740	A	N7-C5	-5.48	1.35	1.39
33	2	92	A	N7-C5	-5.46	1.35	1.39
33	2	1628	A	N7-C5	-5.45	1.35	1.39
33	2	317	G	C2-N3	5.43	1.37	1.32
33	2	1024	A	N7-C5	-5.41	1.36	1.39
33	2	1784	A	N7-C5	-5.41	1.36	1.39
33	2	439	A	N7-C5	-5.41	1.36	1.39
33	2	1479	A	N7-C5	-5.41	1.36	1.39
33	2	1785	A	N7-C5	-5.36	1.36	1.39
33	2	66	G	N7-C5	-5.36	1.36	1.39
33	2	1461	A	N7-C5	-5.36	1.36	1.39
33	2	1635	A	N7-C5	-5.35	1.36	1.39
33	2	594	A	N7-C5	-5.32	1.36	1.39
33	2	227	A	N7-C5	-5.32	1.36	1.39
33	2	99	A	N7-C5	-5.31	1.36	1.39
33	2	273	G	C2-N3	5.28	1.36	1.32
33	2	843	A	N7-C5	-5.27	1.36	1.39
33	2	643	A	N7-C5	-5.27	1.36	1.39
33	2	1196	A	N7-C5	-5.26	1.36	1.39
33	2	546	U	C2-N3	5.25	1.41	1.37
33	2	661	A	N7-C5	-5.21	1.36	1.39
33	2	1825	A	N7-C5	-5.21	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	2	1845	A	N7-C5	-5.21	1.36	1.39
33	2	821	A	N7-C5	-5.20	1.36	1.39
33	2	11	A	N7-C5	-5.19	1.36	1.39
33	2	1177	A	N7-C5	-5.19	1.36	1.39
33	2	19	A	N7-C5	-5.18	1.36	1.39
33	2	554	A	N7-C5	-5.17	1.36	1.39
33	2	537	G	C2-N3	5.17	1.36	1.32
33	2	1794	A	N7-C5	-5.17	1.36	1.39
33	2	1287	A	N7-C5	-5.16	1.36	1.39
33	2	149	A	N7-C5	-5.15	1.36	1.39
33	2	476	A	N7-C5	-5.15	1.36	1.39
33	2	436	G	C2-N3	5.15	1.36	1.32
33	2	229	A	N7-C5	-5.13	1.36	1.39
33	2	940	A	N7-C5	-5.13	1.36	1.39
33	2	1714	A	N7-C5	-5.13	1.36	1.39
33	2	1079	A	N7-C5	-5.13	1.36	1.39
33	2	1418	G	C2-N3	5.13	1.36	1.32
33	2	1303	U	C2-N3	5.13	1.41	1.37
33	2	402	G	N7-C5	-5.12	1.36	1.39
33	2	1349	A	N7-C5	-5.11	1.36	1.39
33	2	964	U	C2-N3	5.09	1.41	1.37
33	2	640	A	N7-C5	-5.08	1.36	1.39
33	2	630	A	N7-C5	-5.08	1.36	1.39
33	2	436	G	N7-C5	-5.07	1.36	1.39
33	2	832	G	C2-N3	5.05	1.36	1.32
33	2	1080	A	N7-C5	-5.05	1.36	1.39
33	2	1078	A	N7-C5	-5.04	1.36	1.39
33	2	1170	U	C5-C6	5.04	1.38	1.34
33	2	934	A	N7-C5	-5.04	1.36	1.39
33	2	319	G	C2-N3	5.03	1.36	1.32
33	2	1030	A	N7-C5	-5.03	1.36	1.39
33	2	1210	A	N7-C5	-5.02	1.36	1.39
33	2	1556	A	N7-C5	-5.02	1.36	1.39
33	2	976	A	N7-C5	-5.02	1.36	1.39
33	2	1328	A	N7-C5	-5.02	1.36	1.39
33	2	1170	U	N1-C2	-5.00	1.34	1.38

All (4817) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
39	1	19	G	O3'-P-O5'	31.90	164.60	104.00
39	1	16	G	P-O3'-C3'	23.25	147.60	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	351	U	P-O3'-C3'	18.59	142.01	119.70
33	2	797	U	O3'-P-O5'	-17.82	70.15	104.00
33	2	676	U	O3'-P-O5'	-17.57	70.62	104.00
33	2	1817	A	P-O3'-C3'	-17.39	98.83	119.70
39	1	19	G	OP1-P-O3'	-17.13	67.51	105.20
39	1	17	C	C4'-C3'-O3'	16.30	145.59	113.00
39	1	54	A	N1-C6-N6	14.70	127.42	118.60
33	2	1007	A	N1-C6-N6	14.15	127.09	118.60
33	2	1556	A	N1-C6-N6	14.07	127.04	118.60
33	2	545	A	N1-C6-N6	13.94	126.96	118.60
33	2	519	A	N1-C6-N6	13.86	126.92	118.60
33	2	1032	A	N1-C6-N6	13.86	126.92	118.60
33	2	1575	A	N1-C6-N6	13.83	126.90	118.60
39	1	17	C	O3'-P-O5'	13.83	130.28	104.00
39	1	8	G	P-O3'-C3'	13.82	136.28	119.70
33	2	1027	A	N1-C6-N6	13.78	126.86	118.60
33	2	1200	A	N1-C6-N6	13.77	126.86	118.60
33	2	173	A	N1-C6-N6	13.72	126.83	118.60
33	2	1405	A	N1-C6-N6	13.70	126.82	118.60
33	2	976	A	N1-C6-N6	13.63	126.78	118.60
39	1	15	A	N1-C6-N6	13.62	126.77	118.60
33	2	640	A	N1-C6-N6	13.59	126.75	118.60
33	2	1854	A	P-O3'-C3'	13.50	135.91	119.70
39	1	7	A	N1-C6-N6	13.49	126.70	118.60
39	1	50	A	N1-C6-N6	13.41	126.64	118.60
33	2	1417	A	N1-C6-N6	13.39	126.63	118.60
39	1	18	G	O3'-P-O5'	13.39	129.44	104.00
33	2	68	A	N1-C6-N6	13.37	126.62	118.60
33	2	1378	A	N1-C6-N6	13.28	126.57	118.60
33	2	554	A	N1-C6-N6	13.26	126.55	118.60
33	2	1854	A	N1-C6-N6	13.24	126.54	118.60
39	1	38	A	N1-C6-N6	13.21	126.53	118.60
39	1	60	A	N1-C6-N6	13.20	126.52	118.60
33	2	1190	A	N1-C6-N6	13.16	126.50	118.60
39	1	2	A	N1-C6-N6	13.15	126.49	118.60
33	2	643	A	N1-C6-N6	13.12	126.47	118.60
39	1	63	A	N1-C6-N6	13.12	126.47	118.60
33	2	997	A	N1-C6-N6	13.12	126.47	118.60
33	2	1813	A	N1-C6-N6	13.11	126.47	118.60
33	2	423	A	N1-C6-N6	13.03	126.42	118.60
33	2	1825	A	N1-C6-N6	13.03	126.42	118.60
33	2	1636	A	N1-C6-N6	13.01	126.41	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	940	A	N1-C6-N6	12.99	126.40	118.60
33	2	535	A	N1-C6-N6	12.99	126.39	118.60
33	2	1177	A	N1-C6-N6	12.99	126.39	118.60
33	2	1526	A	N1-C6-N6	12.99	126.39	118.60
33	2	1839	A	N1-C6-N6	12.98	126.39	118.60
33	2	458	A	N1-C6-N6	12.98	126.39	118.60
33	2	977	A	N1-C6-N6	12.96	126.38	118.60
33	2	550	A	N1-C6-N6	12.96	126.37	118.60
33	2	425	A	N1-C6-N6	12.93	126.36	118.60
33	2	1853	A	N1-C6-N6	12.93	126.36	118.60
33	2	1016	A	N1-C6-N6	12.92	126.35	118.60
33	2	1609	A	N1-C6-N6	12.92	126.35	118.60
33	2	510	A	N1-C6-N6	12.91	126.35	118.60
34	3	52	A	N1-C6-N6	12.91	126.34	118.60
33	2	1349	A	N1-C6-N6	12.85	126.31	118.60
33	2	445	A	N1-C6-N6	12.85	126.31	118.60
33	2	1646	A	N1-C6-N6	12.83	126.30	118.60
33	2	1726	A	N1-C6-N6	12.80	126.28	118.60
33	2	91	A	N1-C6-N6	12.79	126.28	118.60
33	2	1144	A	N1-C6-N6	12.79	126.28	118.60
33	2	1289	A	N1-C6-N6	12.79	126.27	118.60
33	2	404	A	N1-C6-N6	12.78	126.27	118.60
33	2	388	A	N1-C6-N6	12.77	126.26	118.60
33	2	1710	A	N1-C6-N6	12.77	126.26	118.60
33	2	798	A	N1-C6-N6	12.76	126.26	118.60
33	2	854	A	N1-C6-N6	12.75	126.25	118.60
33	2	882	A	N1-C6-N6	12.75	126.25	118.60
33	2	1109	A	N1-C6-N6	12.75	126.25	118.60
33	2	288	A	N1-C6-N6	12.73	126.24	118.60
33	2	1224	A	N1-C6-N6	12.72	126.23	118.60
33	2	479	A	N1-C6-N6	12.71	126.22	118.60
33	2	986	A	N1-C6-N6	12.70	126.22	118.60
33	2	50	A	N1-C6-N6	12.70	126.22	118.60
33	2	309	A	N1-C6-N6	12.69	126.22	118.60
33	2	858	A	N1-C6-N6	12.69	126.21	118.60
33	2	988	A	N1-C6-N6	12.69	126.22	118.60
33	2	232	A	N1-C6-N6	12.69	126.21	118.60
33	2	366	A	N1-C6-N6	12.68	126.20	118.60
33	2	382	A	N1-C6-N6	12.67	126.20	118.60
33	2	509	A	N1-C6-N6	12.66	126.20	118.60
33	2	1089	A	N1-C6-N6	12.65	126.19	118.60
33	2	951	A	N1-C6-N6	12.64	126.19	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1632	A	N1-C6-N6	12.63	126.18	118.60
33	2	1274	A	N1-C6-N6	12.62	126.17	118.60
33	2	1287	A	N1-C6-N6	12.62	126.17	118.60
33	2	904	A	N1-C6-N6	12.61	126.16	118.60
33	2	1479	A	N1-C6-N6	12.61	126.16	118.60
33	2	1800	A	N1-C6-N6	12.60	126.16	118.60
33	2	868	A	N1-C6-N6	12.60	126.16	118.60
33	2	1775	A	N1-C6-N6	12.60	126.16	118.60
33	2	228	A	N1-C6-N6	12.59	126.15	118.60
33	2	1618	A	N1-C6-N6	12.58	126.15	118.60
33	2	1141	A	N1-C6-N6	12.57	126.14	118.60
33	2	429	A	N1-C6-N6	12.57	126.14	118.60
33	2	1375	A	N1-C6-N6	12.57	126.14	118.60
33	2	1674	A	N1-C6-N6	12.57	126.14	118.60
33	2	1216	A	N1-C6-N6	12.57	126.14	118.60
33	2	826	A	N1-C6-N6	12.56	126.14	118.60
33	2	1740	A	N1-C6-N6	12.56	126.14	118.60
33	2	1564	A	N1-C6-N6	12.56	126.14	118.60
33	2	1410	A	N1-C6-N6	12.56	126.13	118.60
33	2	915	A	N1-C6-N6	12.55	126.13	118.60
33	2	164	A	N1-C6-N6	12.54	126.12	118.60
34	3	76	A	N1-C6-N6	12.54	126.12	118.60
33	2	1026	A	N1-C6-N6	12.51	126.10	118.60
33	2	630	A	N1-C6-N6	12.50	126.10	118.60
33	2	1844	A	N1-C6-N6	12.50	126.10	118.60
33	2	1280	A	N1-C6-N6	12.48	126.09	118.60
33	2	379	A	N1-C6-N6	12.47	126.08	118.60
33	2	1782	A	N1-C6-N6	12.47	126.08	118.60
33	2	450	A	N1-C6-N6	12.46	126.08	118.60
33	2	1366	A	N1-C6-N6	12.45	126.07	118.60
33	2	227	A	N1-C6-N6	12.43	126.06	118.60
33	2	214	A	N1-C6-N6	12.42	126.06	118.60
39	1	16	G	OP1-P-O3'	12.42	132.53	105.20
33	2	807	A	N1-C6-N6	12.42	126.05	118.60
33	2	1019	A	N1-C6-N6	12.41	126.05	118.60
33	2	624	A	N1-C6-N6	12.40	126.04	118.60
33	2	25	A	N1-C6-N6	12.40	126.04	118.60
33	2	1829	A	N1-C6-N6	12.37	126.02	118.60
33	2	1020	A	N1-C6-N6	12.36	126.01	118.60
33	2	1295	A	N1-C6-N6	12.36	126.01	118.60
33	2	1247	A	N1-C6-N6	12.35	126.01	118.60
33	2	40	A	N1-C6-N6	12.35	126.01	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1236	A	N1-C6-N6	12.35	126.01	118.60
33	2	1717	G	N1-C6-O6	12.35	127.31	119.90
33	2	22	A	N1-C6-N6	12.34	126.00	118.60
33	2	959	A	N1-C6-N6	12.34	126.00	118.60
33	2	809	A	N1-C6-N6	12.33	126.00	118.60
33	2	1532	A	N1-C6-N6	12.33	126.00	118.60
33	2	1379	A	N1-C6-N6	12.32	125.99	118.60
33	2	1714	A	N1-C6-N6	12.32	125.99	118.60
33	2	99	A	N1-C6-N6	12.32	125.99	118.60
33	2	1219	A	N1-C6-N6	12.31	125.99	118.60
33	2	293	A	N1-C6-N6	12.31	125.99	118.60
33	2	574	A	N1-C6-N6	12.31	125.98	118.60
33	2	845	A	N1-C6-N6	12.31	125.98	118.60
33	2	953	A	N1-C6-N6	12.29	125.97	118.60
33	2	1589	A	N1-C6-N6	12.29	125.97	118.60
33	2	589	A	N1-C6-N6	12.28	125.97	118.60
33	2	1172	G	P-O3'-C3'	12.28	134.43	119.70
33	2	333	A	N1-C6-N6	12.27	125.96	118.60
33	2	1803	A	N1-C6-N6	12.25	125.95	118.60
33	2	1038	A	N1-C6-N6	12.24	125.95	118.60
33	2	661	A	N1-C6-N6	12.24	125.94	118.60
33	2	1692	A	N1-C6-N6	12.23	125.94	118.60
33	2	544	A	N1-C6-N6	12.22	125.94	118.60
33	2	1083	A	N1-C6-N6	12.22	125.93	118.60
33	2	521	A	N1-C6-N6	12.21	125.93	118.60
33	2	38	A	N1-C6-N6	12.21	125.92	118.60
33	2	1205	A	N1-C6-N6	12.20	125.92	118.60
33	2	1213	A	N1-C6-N6	12.20	125.92	118.60
33	2	233	A	N1-C6-N6	12.19	125.91	118.60
33	2	1476	A	N1-C6-N6	12.19	125.91	118.60
33	2	466	A	N1-C6-N6	12.18	125.91	118.60
33	2	85	A	N1-C6-N6	12.16	125.89	118.60
33	2	1008	A	N1-C6-N6	12.16	125.89	118.60
33	2	638	A	N1-C6-N6	12.15	125.89	118.60
33	2	223	A	N1-C6-N6	12.15	125.89	118.60
33	2	513	A	N1-C6-N6	12.15	125.89	118.60
33	2	958	A	N1-C6-N6	12.15	125.89	118.60
33	2	1129	A	N1-C6-N6	12.15	125.89	118.60
33	2	361	A	N1-C6-N6	12.14	125.89	118.60
33	2	1031	A	N1-C6-N6	12.14	125.88	118.60
33	2	1272	A	N1-C6-N6	12.14	125.88	118.60
33	2	993	A	N1-C6-N6	12.12	125.88	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	994	A	N1-C6-N6	12.12	125.87	118.60
33	2	979	A	N1-C6-N6	12.12	125.87	118.60
33	2	1465	A	N1-C6-N6	12.11	125.87	118.60
33	2	103	A	N1-C6-N6	12.11	125.87	118.60
33	2	1249	A	N1-C6-N6	12.11	125.86	118.60
33	2	283	A	N1-C6-N6	12.11	125.86	118.60
33	2	808	A	N1-C6-N6	12.10	125.86	118.60
33	2	1444	A	N1-C6-N6	12.09	125.85	118.60
33	2	483	A	N1-C6-N6	12.08	125.85	118.60
33	2	518	A	N1-C6-N6	12.08	125.85	118.60
33	2	1204	A	N1-C6-N6	12.08	125.85	118.60
33	2	1372	A	N1-C6-N6	12.08	125.85	118.60
33	2	1118	A	N1-C6-N6	12.07	125.84	118.60
33	2	1382	A	N1-C6-N6	12.07	125.84	118.60
33	2	405	A	N1-C6-N6	12.07	125.84	118.60
33	2	918	A	N1-C6-N6	12.07	125.84	118.60
33	2	1196	A	N1-C6-N6	12.06	125.84	118.60
33	2	19	A	N1-C6-N6	12.06	125.83	118.60
33	2	660	A	N1-C6-N6	12.06	125.83	118.60
33	2	77	A	N1-C6-N6	12.05	125.83	118.60
33	2	633	A	N1-C6-N6	12.05	125.83	118.60
33	2	1054	A	N1-C6-N6	12.05	125.83	118.60
33	2	1625	A	N1-C6-N6	12.05	125.83	118.60
34	3	77	A	N1-C6-N6	12.05	125.83	118.60
33	2	1080	A	N1-C6-N6	12.05	125.83	118.60
33	2	523	A	N1-C6-N6	12.04	125.83	118.60
33	2	631	A	N1-C6-N6	12.04	125.83	118.60
33	2	850	A	N1-C6-N6	12.04	125.82	118.60
33	2	823	A	N1-C6-N6	12.04	125.82	118.60
33	2	339	A	N1-C6-N6	12.03	125.82	118.60
33	2	983	A	N1-C6-N6	12.03	125.82	118.60
33	2	475	A	N1-C6-N6	12.03	125.82	118.60
33	2	1673	A	N1-C6-N6	12.03	125.82	118.60
33	2	1596	A	N1-C6-N6	12.03	125.81	118.60
33	2	166	A	N1-C6-N6	12.02	125.81	118.60
33	2	2	A	N1-C6-N6	12.02	125.81	118.60
33	2	1169	A	N1-C6-N6	12.02	125.81	118.60
33	2	814	A	N1-C6-N6	12.02	125.81	118.60
33	2	1328	A	N1-C6-N6	12.01	125.81	118.60
33	2	1242	A	N1-C6-N6	12.01	125.81	118.60
33	2	912	A	N1-C6-N6	12.00	125.80	118.60
33	2	512	A	N1-C6-N6	11.99	125.80	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	54	A	N1-C6-N6	11.99	125.79	118.60
33	2	1291	A	N1-C6-N6	11.98	125.79	118.60
39	1	21	A	N1-C6-N6	11.98	125.79	118.60
33	2	490	A	N1-C6-N6	11.98	125.79	118.60
33	2	416	A	N1-C6-N6	11.98	125.79	118.60
33	2	1078	A	N1-C6-N6	11.98	125.79	118.60
33	2	1845	A	N1-C6-N6	11.97	125.78	118.60
33	2	1297	A	N1-C6-N6	11.97	125.78	118.60
33	2	1451	A	N1-C6-N6	11.97	125.78	118.60
39	1	35	A	N1-C6-N6	11.97	125.78	118.60
33	2	1472	A	N1-C6-N6	11.97	125.78	118.60
33	2	502	A	N1-C6-N6	11.96	125.78	118.60
33	2	1340	A	N1-C6-N6	11.96	125.78	118.60
33	2	1574	A	N1-C6-N6	11.96	125.78	118.60
33	2	595	A	N1-C6-N6	11.95	125.77	118.60
33	2	27	A	N1-C6-N6	11.95	125.77	118.60
33	2	459	A	N1-C6-N6	11.95	125.77	118.60
33	2	1004	A	N1-C6-N6	11.94	125.76	118.60
33	2	1073	A	N1-C6-N6	11.93	125.76	118.60
33	2	454	A	N1-C6-N6	11.93	125.76	118.60
33	2	463	A	N1-C6-N6	11.93	125.76	118.60
34	3	68	A	N1-C6-N6	11.93	125.76	118.60
33	2	1719	A	N1-C6-N6	11.93	125.76	118.60
33	2	1096	A	N1-C6-N6	11.92	125.75	118.60
33	2	1787	A	N1-C6-N6	11.92	125.75	118.60
33	2	922	A	N1-C6-N6	11.91	125.75	118.60
33	2	1707	A	N1-C6-N6	11.90	125.74	118.60
33	2	42	A	N1-C6-N6	11.90	125.74	118.60
33	2	290	A	N1-C6-N6	11.90	125.74	118.60
39	1	44	A	N1-C6-N6	11.90	125.74	118.60
33	2	559	A	N1-C6-N6	11.90	125.74	118.60
33	2	1146	A	N1-C6-N6	11.90	125.74	118.60
33	2	84	A	N1-C6-N6	11.89	125.74	118.60
33	2	1353	A	N1-C6-N6	11.89	125.74	118.60
33	2	45	A	N1-C6-N6	11.89	125.73	118.60
33	2	960	A	N1-C6-N6	11.89	125.73	118.60
33	2	221	A	N1-C6-N6	11.88	125.73	118.60
33	2	821	A	N1-C6-N6	11.88	125.73	118.60
33	2	64	A	N1-C6-N6	11.88	125.73	118.60
33	2	354	A	N1-C6-N6	11.88	125.73	118.60
33	2	566	A	N1-C6-N6	11.88	125.73	118.60
33	2	1502	A	N1-C6-N6	11.88	125.73	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	11	A	N1-C6-N6	11.86	125.72	118.60
33	2	833	A	N1-C6-N6	11.86	125.72	118.60
33	2	580	A	N1-C6-N6	11.86	125.71	118.60
33	2	968	A	N1-C6-N6	11.85	125.71	118.60
33	2	860	A	N1-C6-N6	11.84	125.71	118.60
39	1	59	A	N1-C6-N6	11.84	125.71	118.60
33	2	1470	A	N1-C6-N6	11.84	125.70	118.60
33	2	662	A	N1-C6-N6	11.84	125.70	118.60
33	2	1816	A	N1-C6-N6	11.84	125.70	118.60
33	2	1670	A	N1-C6-N6	11.83	125.70	118.60
33	2	1045	A	N1-C6-N6	11.82	125.69	118.60
33	2	147	A	N1-C6-N6	11.82	125.69	118.60
33	2	338	A	N1-C6-N6	11.81	125.69	118.60
33	2	1246	A	N1-C6-N6	11.80	125.68	118.60
33	2	1482	A	N1-C6-N6	11.80	125.68	118.60
33	2	644	A	N1-C6-N6	11.80	125.68	118.60
33	2	329	A	N1-C6-N6	11.79	125.68	118.60
33	2	899	A	N1-C6-N6	11.79	125.67	118.60
33	2	1145	A	N1-C6-N6	11.79	125.67	118.60
33	2	1448	A	N1-C6-N6	11.79	125.67	118.60
33	2	1374	A	N1-C6-N6	11.78	125.67	118.60
33	2	438	A	N1-C6-N6	11.78	125.67	118.60
33	2	1826	A	N1-C6-N6	11.77	125.66	118.60
39	1	20	A	N1-C6-N6	11.77	125.66	118.60
33	2	565	A	N1-C6-N6	11.77	125.66	118.60
33	2	871	A	N1-C6-N6	11.77	125.66	118.60
33	2	659	A	N1-C6-N6	11.76	125.66	118.60
33	2	1656	A	N1-C6-N6	11.76	125.66	118.60
33	2	812	A	N1-C6-N6	11.76	125.66	118.60
33	2	292	A	N1-C6-N6	11.75	125.65	118.60
33	2	934	A	N1-C6-N6	11.75	125.65	118.60
33	2	992	A	N1-C6-N6	11.75	125.65	118.60
33	2	111	A	N1-C6-N6	11.75	125.65	118.60
33	2	1056	A	N1-C6-N6	11.75	125.65	118.60
33	2	175	A	N1-C6-N6	11.74	125.64	118.60
35	A	54	ARG	C-N-CA	11.74	151.05	121.70
33	2	61	A	N1-C6-N6	11.74	125.64	118.60
33	2	1005	A	N1-C6-N6	11.73	125.64	118.60
33	2	1807	A	N1-C6-N6	11.73	125.64	118.60
33	2	1795	A	N1-C6-N6	11.73	125.64	118.60
33	2	1694	A	N1-C6-N6	11.71	125.63	118.60
33	2	1659	A	N1-C6-N6	11.71	125.62	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1384	A	N1-C6-N6	11.71	125.62	118.60
33	2	350	A	N1-C6-N6	11.70	125.62	118.60
33	2	141	A	N1-C6-N6	11.69	125.62	118.60
33	2	1483	A	N1-C6-N6	11.68	125.61	118.60
33	2	1551	A	N1-C6-N6	11.68	125.61	118.60
33	2	594	A	N1-C6-N6	11.68	125.61	118.60
33	2	1179	A	N1-C6-N6	11.68	125.61	118.60
33	2	865	A	N1-C6-N6	11.67	125.60	118.60
33	2	158	A	N1-C6-N6	11.67	125.60	118.60
33	2	645	A	N1-C6-N6	11.67	125.60	118.60
33	2	159	A	N1-C6-N6	11.66	125.60	118.60
33	2	857	A	N1-C6-N6	11.66	125.59	118.60
33	2	1690	A	N1-C6-N6	11.65	125.59	118.60
33	2	1048	A	N1-C6-N6	11.65	125.59	118.60
39	1	42	A	N1-C6-N6	11.65	125.59	118.60
33	2	218	A	N1-C6-N6	11.65	125.59	118.60
33	2	455	A	N1-C6-N6	11.64	125.58	118.60
33	2	609	A	N1-C6-N6	11.64	125.58	118.60
33	2	916	A	N1-C6-N6	11.64	125.58	118.60
33	2	1278	A	N1-C6-N6	11.64	125.58	118.60
33	2	1237	A	N1-C6-N6	11.64	125.58	118.60
33	2	511	A	N1-C6-N6	11.63	125.58	118.60
33	2	1023	A	N1-C6-N6	11.63	125.58	118.60
33	2	1485	A	N1-C6-N6	11.62	125.57	118.60
33	2	909	A	N1-C6-N6	11.62	125.57	118.60
33	2	1718	G	N1-C6-O6	11.61	126.87	119.90
34	3	67	A	N1-C6-N6	11.61	125.56	118.60
33	2	1614	A	N1-C6-N6	11.60	125.56	118.60
33	2	398	A	N1-C6-N6	11.57	125.54	118.60
33	2	618	A	N1-C6-N6	11.56	125.53	118.60
33	2	806	A	N1-C6-N6	11.56	125.53	118.60
33	2	1480	A	N1-C6-N6	11.56	125.53	118.60
33	2	1450	A	N1-C6-N6	11.54	125.53	118.60
33	2	1494	A	N1-C6-N6	11.55	125.53	118.60
33	2	1115	A	N1-C6-N6	11.54	125.52	118.60
33	2	1051	A	N1-C6-N6	11.53	125.52	118.60
33	2	476	A	N1-C6-N6	11.53	125.52	118.60
33	2	1076	A	N1-C6-N6	11.53	125.52	118.60
33	2	1583	A	N1-C6-N6	11.52	125.51	118.60
33	2	102	A	N1-C6-N6	11.51	125.51	118.60
33	2	181	A	N1-C6-N6	11.51	125.50	118.60
33	2	861	A	N1-C6-N6	11.50	125.50	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1139	A	N1-C6-N6	11.49	125.49	118.60
33	2	1434	A	N1-C6-N6	11.48	125.49	118.60
33	2	1186	A	N1-C6-N6	11.48	125.49	118.60
33	2	805	A	N1-C6-N6	11.48	125.49	118.60
33	2	39	A	N1-C6-N6	11.47	125.48	118.60
33	2	675	A	N1-C6-N6	11.46	125.47	118.60
33	2	427	G	N1-C6-O6	11.46	126.77	119.90
33	2	1195	A	N1-C6-N6	11.45	125.47	118.60
33	2	584	A	N1-C6-N6	11.44	125.47	118.60
33	2	1140	A	N1-C6-N6	11.44	125.47	118.60
33	2	900	A	N1-C6-N6	11.44	125.47	118.60
33	2	1397	A	N1-C6-N6	11.44	125.46	118.60
33	2	107	A	N1-C6-N6	11.43	125.46	118.60
33	2	1365	A	N1-C6-N6	11.43	125.46	118.60
33	2	408	A	N1-C6-N6	11.41	125.45	118.60
33	2	1730	A	N1-C6-N6	11.41	125.44	118.60
39	1	73	A	N1-C6-N6	11.39	125.43	118.60
33	2	1184	A	N1-C6-N6	11.39	125.43	118.60
33	2	1442	A	N1-C6-N6	11.38	125.43	118.60
33	2	573	A	N1-C6-N6	11.37	125.42	118.60
33	2	304	A	N1-C6-N6	11.36	125.42	118.60
33	2	1461	A	N1-C6-N6	11.36	125.41	118.60
33	2	435	A	N1-C6-N6	11.35	125.41	118.60
33	2	995	G	N1-C6-O6	11.33	126.70	119.90
33	2	1058	A	N1-C6-N6	11.33	125.40	118.60
33	2	619	A	N1-C6-N6	11.32	125.39	118.60
33	2	843	A	N1-C6-N6	11.27	125.36	118.60
33	2	564	A	N1-C6-N6	11.27	125.36	118.60
33	2	1857	A	N1-C6-N6	11.26	125.36	118.60
33	2	577	A	N1-C6-N6	11.26	125.36	118.60
39	1	5	A	N1-C6-N6	11.24	125.34	118.60
33	2	516	A	N1-C6-N6	11.23	125.34	118.60
33	2	1496	G	N1-C6-O6	11.23	126.64	119.90
33	2	654	A	N1-C6-N6	11.21	125.33	118.60
33	2	525	G	N1-C6-O6	11.20	126.62	119.90
33	2	804	A	N1-C6-N6	11.20	125.32	118.60
33	2	448	A	N1-C6-N6	11.18	125.31	118.60
33	2	1255	A	N1-C6-N6	11.18	125.31	118.60
33	2	1401	A	N1-C6-N6	11.16	125.30	118.60
33	2	1178	A	N1-C6-N6	11.16	125.30	118.60
33	2	60	A	N1-C6-N6	11.15	125.29	118.60
33	2	1809	A	N1-C6-N6	11.13	125.28	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	226	A	N1-C6-N6	11.12	125.27	118.60
33	2	1024	A	N1-C6-N6	11.12	125.27	118.60
33	2	551	A	N1-C6-N6	11.11	125.27	118.60
33	2	1794	A	N1-C6-N6	11.10	125.26	118.60
33	2	83	A	N1-C6-N6	11.07	125.25	118.60
33	2	326	A	N1-C6-N6	11.07	125.24	118.60
33	2	474	A	N1-C6-N6	11.07	125.24	118.60
33	2	1605	G	N1-C6-O6	11.05	126.53	119.90
33	2	1435	A	N1-C6-N6	11.04	125.22	118.60
33	2	437	A	N1-C6-N6	11.02	125.21	118.60
33	2	1628	A	N1-C6-N6	11.02	125.21	118.60
33	2	1066	A	N1-C6-N6	11.02	125.21	118.60
33	2	320	G	N1-C6-O6	10.98	126.49	119.90
33	2	1398	A	N1-C6-N6	10.95	125.17	118.60
33	2	149	A	N1-C6-N6	10.94	125.16	118.60
33	2	1266	G	N1-C6-O6	10.92	126.45	119.90
33	2	1635	A	N1-C6-N6	10.92	125.15	118.60
33	2	822	A	N1-C6-N6	10.92	125.15	118.60
33	2	1528	A	N1-C6-N6	10.92	125.15	118.60
33	2	1540	A	N1-C6-N6	10.91	125.15	118.60
33	2	866	A	N1-C6-N6	10.91	125.14	118.60
33	2	526	A	N1-C6-N6	10.91	125.14	118.60
33	2	600	G	N1-C6-O6	10.88	126.43	119.90
33	2	658	A	N1-C6-N6	10.87	125.12	118.60
33	2	506	A	N1-C6-N6	10.87	125.12	118.60
33	2	170	A	N1-C6-N6	10.84	125.11	118.60
33	2	1256	A	N1-C6-N6	10.83	125.10	118.60
33	2	229	A	N1-C6-N6	10.81	125.09	118.60
33	2	1629	A	N1-C6-N6	10.80	125.08	118.60
33	2	1812	A	N1-C6-N6	10.80	125.08	118.60
33	2	1283	A	N1-C6-N6	10.78	125.07	118.60
33	2	515	A	N1-C6-N6	10.77	125.06	118.60
33	2	123	G	N1-C6-O6	10.75	126.35	119.90
33	2	500	G	N1-C6-O6	10.73	126.34	119.90
33	2	1361	G	N1-C6-O6	10.72	126.33	119.90
33	2	1030	A	N1-C6-N6	10.71	125.03	118.60
33	2	401	G	N1-C6-O6	10.70	126.32	119.90
33	2	1743	G	N1-C6-O6	10.70	126.32	119.90
33	2	46	A	N1-C6-N6	10.69	125.01	118.60
33	2	62	G	N1-C6-O6	10.67	126.30	119.90
33	2	1137	G	N1-C6-O6	10.66	126.30	119.90
39	1	76	A	N1-C6-N6	10.63	124.98	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	279	G	N1-C6-O6	10.62	126.27	119.90
33	2	146	G	N1-C6-O6	10.62	126.27	119.90
33	2	353	A	N1-C6-N6	10.60	124.96	118.60
33	2	1348	G	N1-C6-O6	10.60	126.26	119.90
33	2	1079	A	N1-C6-N6	10.58	124.95	118.60
39	1	19	G	P-O3'-C3'	10.58	132.40	119.70
33	2	212	G	N1-C6-O6	10.56	126.24	119.90
33	2	1828	A	N1-C6-N6	10.56	124.94	118.60
33	2	1837	G	N1-C6-O6	10.56	126.23	119.90
33	2	869	G	N1-C6-O6	10.54	126.22	119.90
33	2	1752	G	N1-C6-O6	10.54	126.22	119.90
33	2	6	G	N1-C6-O6	10.53	126.22	119.90
33	2	1784	A	N1-C6-N6	10.53	124.92	118.60
33	2	1770	G	N1-C6-O6	10.52	126.21	119.90
33	2	1816	A	P-O3'-C3'	-10.51	107.08	119.70
33	2	52	G	N1-C6-O6	10.51	126.20	119.90
39	1	29	G	N1-C6-O6	10.50	126.20	119.90
33	2	1823	G	N1-C6-O6	10.50	126.20	119.90
33	2	384	G	N1-C6-O6	10.49	126.20	119.90
33	2	1602	A	N1-C6-N6	10.49	124.90	118.60
33	2	1642	A	N1-C6-N6	10.49	124.89	118.60
33	2	1371	G	N1-C6-O6	10.49	126.19	119.90
33	2	1254	A	N1-C6-N6	10.48	124.89	118.60
33	2	156	G	N1-C6-O6	10.46	126.18	119.90
33	2	498	A	N1-C6-N6	10.46	124.88	118.60
33	2	289	G	N1-C6-O6	10.46	126.17	119.90
39	1	24	G	N1-C6-O6	10.45	126.17	119.90
33	2	300	G	N1-C6-O6	10.44	126.17	119.90
33	2	1160	G	N1-C6-O6	10.44	126.16	119.90
33	2	206	A	N1-C6-N6	10.43	124.86	118.60
33	2	579	G	N1-C6-O6	10.43	126.16	119.90
33	2	1606	G	N1-C6-O6	10.42	126.15	119.90
33	2	310	G	N1-C6-O6	10.41	126.14	119.90
33	2	1170	U	P-O3'-C3'	10.40	132.19	119.70
39	1	53	G	N1-C6-O6	10.40	126.14	119.90
33	2	670	G	N1-C6-O6	10.40	126.14	119.90
33	2	1732	G	N1-C6-O6	10.39	126.14	119.90
33	2	1653	G	N1-C6-O6	10.39	126.14	119.90
33	2	92	A	N1-C6-N6	10.38	124.83	118.60
33	2	887	G	N1-C6-O6	10.38	126.13	119.90
33	2	1171	G	O3'-P-O5'	10.38	123.73	104.00
33	2	167	G	N1-C6-O6	10.36	126.12	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	457	G	N1-C6-O6	10.35	126.11	119.90
33	2	1392	A	N1-C6-N6	10.35	124.81	118.60
33	2	1001	G	N1-C6-O6	10.34	126.11	119.90
33	2	1231	G	N1-C6-O6	10.34	126.10	119.90
33	2	1688	G	N1-C6-O6	10.34	126.10	119.90
33	2	1183	G	N1-C6-O6	10.32	126.09	119.90
33	2	1633	G	N1-C6-O6	10.31	126.09	119.90
33	2	427	G	C5-C6-O6	-10.31	122.41	128.60
33	2	1261	A	N1-C6-N6	10.31	124.79	118.60
33	2	1651	G	N1-C6-O6	10.30	126.08	119.90
33	2	1314	G	N1-C6-O6	10.29	126.08	119.90
39	1	31	G	N1-C6-O6	10.27	126.06	119.90
33	2	80	G	N1-C6-O6	10.25	126.05	119.90
33	2	536	G	N1-C6-O6	10.25	126.05	119.90
33	2	1202	G	N1-C6-O6	10.25	126.05	119.90
33	2	323	G	N1-C6-O6	10.24	126.05	119.90
33	2	421	G	N1-C6-O6	10.24	126.05	119.90
33	2	542	G	N1-C6-O6	10.23	126.04	119.90
33	2	827	G	N1-C6-O6	10.23	126.04	119.90
33	2	856	G	N1-C6-O6	10.23	126.04	119.90
33	2	7	G	N1-C6-O6	10.21	126.03	119.90
39	1	22	G	N1-C6-O6	10.21	126.03	119.90
33	2	1506	G	N1-C6-O6	10.19	126.02	119.90
33	2	303	G	N1-C6-O6	10.19	126.01	119.90
33	2	434	G	N1-C6-O6	10.19	126.01	119.90
33	2	1774	G	N1-C6-O6	10.19	126.01	119.90
33	2	606	A	N1-C6-N6	10.17	124.70	118.60
33	2	1744	G	N1-C6-O6	10.16	125.99	119.90
33	2	596	G	N1-C6-O6	10.15	125.99	119.90
33	2	1771	G	N1-C6-O6	10.15	125.99	119.90
33	2	1185	A	N1-C6-N6	10.15	124.69	118.60
33	2	1037	G	N1-C6-O6	10.14	125.98	119.90
33	2	208	G	N1-C6-O6	10.14	125.98	119.90
33	2	676	U	OP2-P-O3'	10.13	127.50	105.20
33	2	1799	G	N1-C6-O6	10.13	125.98	119.90
33	2	1786	G	N1-C6-O6	10.13	125.98	119.90
33	2	669	A	N1-C6-N6	10.13	124.68	118.60
39	1	49	G	N1-C6-O6	10.13	125.98	119.90
33	2	1820	G	N1-C6-O6	10.12	125.97	119.90
33	2	1645	A	N1-C6-N6	10.12	124.67	118.60
33	2	1840	G	N1-C6-O6	10.11	125.97	119.90
33	2	553	G	N1-C6-O6	10.11	125.97	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1232	G	N1-C6-O6	10.11	125.96	119.90
33	2	932	G	N1-C6-O6	10.10	125.96	119.90
39	1	58	A	N1-C6-N6	10.10	124.66	118.60
33	2	1790	G	N1-C6-O6	10.10	125.96	119.90
33	2	1615	A	N1-C6-N6	10.09	124.65	118.60
33	2	320	G	C5-C6-O6	-10.08	122.55	128.60
39	1	6	G	N1-C6-O6	10.08	125.95	119.90
33	2	1223	G	N1-C6-O6	10.07	125.94	119.90
33	2	1785	A	N1-C6-N6	10.07	124.64	118.60
33	2	1290	G	N1-C6-O6	10.07	125.94	119.90
33	2	1571	G	N1-C6-O6	10.07	125.94	119.90
33	2	1286	G	N1-C6-O6	10.07	125.94	119.90
33	2	601	G	N1-C6-O6	10.05	125.93	119.90
33	2	1605	G	C5-C6-O6	-10.05	122.57	128.60
33	2	1046	A	N1-C6-N6	10.05	124.63	118.60
33	2	274	G	N1-C6-O6	10.05	125.93	119.90
33	2	204	G	N1-C6-O6	10.04	125.93	119.90
33	2	337	G	N1-C6-O6	10.04	125.92	119.90
33	2	1701	G	N1-C6-O6	10.04	125.92	119.90
33	2	1658	A	N1-C6-N6	10.03	124.62	118.60
33	2	190	A	N1-C6-N6	10.02	124.61	118.60
33	2	41	G	N1-C6-O6	10.01	125.91	119.90
33	2	1101	G	N1-C6-O6	10.01	125.91	119.90
33	2	1100	G	N1-C6-O6	10.01	125.90	119.90
33	2	403	G	N1-C6-O6	10.00	125.90	119.90
33	2	1565	G	N1-C6-O6	10.00	125.90	119.90
33	2	95	G	N1-C6-O6	9.99	125.89	119.90
33	2	578	G	N1-C6-O6	9.98	125.89	119.90
33	2	1566	G	N1-C6-O6	9.98	125.89	119.90
33	2	1509	G	N1-C6-O6	9.98	125.89	119.90
33	2	1519	G	N1-C6-O6	9.98	125.89	119.90
33	2	79	A	N1-C6-N6	9.96	124.58	118.60
33	2	394	G	N1-C6-O6	9.96	125.88	119.90
33	2	663	G	N1-C6-O6	9.96	125.87	119.90
33	2	1445	G	N1-C6-O6	9.95	125.87	119.90
33	2	534	G	N1-C6-O6	9.93	125.86	119.90
33	2	1852	G	N1-C6-O6	9.93	125.86	119.90
33	2	1572	G	N1-C6-O6	9.92	125.85	119.90
33	2	88	G	N1-C6-O6	9.92	125.85	119.90
33	2	104	A	N1-C6-N6	9.91	124.55	118.60
33	2	1424	G	N1-C6-O6	9.91	125.84	119.90
33	2	1547	G	N1-C6-O6	9.91	125.84	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	978	G	N1-C6-O6	9.90	125.84	119.90
33	2	1598	G	N1-C6-O6	9.90	125.84	119.90
33	2	1362	G	N1-C6-O6	9.90	125.84	119.90
33	2	1455	G	N1-C6-O6	9.89	125.84	119.90
33	2	1849	G	N1-C6-O6	9.89	125.83	119.90
33	2	1192	A	N1-C6-N6	9.89	124.53	118.60
33	2	1515	G	N1-C6-O6	9.88	125.83	119.90
33	2	649	G	N1-C6-O6	9.88	125.83	119.90
33	2	1044	G	N1-C6-O6	9.88	125.83	119.90
33	2	1136	G	N1-C6-O6	9.87	125.82	119.90
33	2	1470	A	P-O3'-C3'	9.87	131.55	119.70
33	2	870	G	N1-C6-O6	9.87	125.82	119.90
33	2	367	G	N1-C6-O6	9.85	125.81	119.90
33	2	1033	G	N1-C6-O6	9.84	125.81	119.90
33	2	945	G	N1-C6-O6	9.84	125.81	119.90
33	2	1669	G	N1-C6-O6	9.84	125.80	119.90
33	2	1072	G	N1-C6-O6	9.83	125.80	119.90
33	2	271	G	N1-C6-O6	9.83	125.80	119.90
33	2	319	G	N1-C6-O6	9.82	125.79	119.90
33	2	952	G	N1-C6-O6	9.82	125.79	119.90
33	2	1781	G	N1-C6-O6	9.82	125.79	119.90
33	2	464	G	N1-C6-O6	9.81	125.78	119.90
33	2	1210	A	N1-C6-N6	9.80	124.48	118.60
33	2	1454	G	N1-C6-O6	9.80	125.78	119.90
33	2	503	G	N1-C6-O6	9.79	125.78	119.90
39	1	8	G	N1-C6-O6	9.79	125.77	119.90
33	2	108	G	N1-C6-O6	9.77	125.77	119.90
33	2	1229	G	N1-C6-O6	9.77	125.76	119.90
33	2	183	G	N1-C6-O6	9.76	125.76	119.90
33	2	274	G	C5-C6-O6	-9.76	122.74	128.60
39	1	70	G	N1-C6-O6	9.76	125.75	119.90
33	2	122	G	N1-C6-O6	9.75	125.75	119.90
33	2	1721	G	N1-C6-O6	9.75	125.75	119.90
33	2	1851	G	N1-C6-O6	9.75	125.75	119.90
33	2	201	G	N1-C6-O6	9.73	125.74	119.90
33	2	47	G	N1-C6-O6	9.73	125.74	119.90
33	2	400	G	N1-C6-O6	9.73	125.74	119.90
33	2	890	G	N1-C6-O6	9.73	125.74	119.90
33	2	1122	G	N1-C6-O6	9.73	125.73	119.90
33	2	1718	G	C5-C6-O6	-9.72	122.77	128.60
33	2	360	G	N1-C6-O6	9.71	125.72	119.90
33	2	1731	G	N1-C6-O6	9.71	125.72	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
39	1	11	G	N1-C6-O6	9.70	125.72	119.90
33	2	1535	G	N1-C6-O6	9.70	125.72	119.90
33	2	146	G	C5-C6-O6	-9.70	122.78	128.60
33	2	1334	G	N1-C6-O6	9.67	125.70	119.90
33	2	1531	G	N1-C6-O6	9.67	125.70	119.90
33	2	1855	G	N1-C6-O6	9.67	125.70	119.90
33	2	145	G	N1-C6-O6	9.66	125.70	119.90
33	2	634	G	N1-C6-O6	9.66	125.70	119.90
33	2	1208	G	N1-C6-O6	9.66	125.69	119.90
33	2	1477	G	N1-C6-O6	9.66	125.70	119.90
33	2	542	G	C5-C6-O6	-9.66	122.81	128.60
33	2	525	G	C5-C6-O6	-9.65	122.81	128.60
33	2	919	G	N1-C6-O6	9.65	125.69	119.90
33	2	1619	U	O4'-C1'-N1	9.65	115.92	108.20
33	2	29	G	N1-C6-O6	9.64	125.69	119.90
33	2	943	G	N1-C6-O6	9.64	125.68	119.90
33	2	197	U	O4'-C1'-N1	9.63	115.91	108.20
33	2	1510	G	N1-C6-O6	9.62	125.67	119.90
33	2	1675	G	N1-C6-O6	9.62	125.67	119.90
33	2	1584	A	N1-C6-N6	9.62	124.37	118.60
33	2	925	G	N1-C6-O6	9.61	125.66	119.90
33	2	1649	G	N1-C6-O6	9.61	125.66	119.90
33	2	1810	G	N1-C6-O6	9.60	125.66	119.90
33	2	591	G	N1-C6-O6	9.60	125.66	119.90
33	2	1036	G	N1-C6-O6	9.60	125.66	119.90
39	1	18	G	O4'-C1'-N9	9.60	115.88	108.20
33	2	62	G	C5-C6-O6	-9.59	122.84	128.60
33	2	1061	G	N1-C6-O6	9.59	125.66	119.90
33	2	385	G	N1-C6-O6	9.59	125.65	119.90
33	2	279	G	C5-C6-O6	-9.59	122.85	128.60
33	2	345	G	N1-C6-O6	9.58	125.65	119.90
33	2	1608	G	N1-C6-O6	9.56	125.64	119.90
33	2	863	G	N1-C6-O6	9.56	125.64	119.90
33	2	500	G	C5-C6-O6	-9.56	122.87	128.60
33	2	828	G	N1-C6-O6	9.56	125.63	119.90
33	2	1717	G	C5-C6-O6	-9.56	122.87	128.60
33	2	1600	G	N1-C6-O6	9.55	125.63	119.90
33	2	409	G	N1-C6-O6	9.55	125.63	119.90
33	2	1025	G	N1-C6-O6	9.55	125.63	119.90
39	1	57	G	N1-C6-O6	9.55	125.63	119.90
33	2	203	G	N1-C6-O6	9.55	125.63	119.90
33	2	1164	G	N1-C6-O6	9.54	125.62	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1180	G	N1-C6-O6	9.54	125.62	119.90
33	2	607	G	N1-C6-O6	9.54	125.62	119.90
33	2	995	G	C5-C6-O6	-9.54	122.88	128.60
33	2	1416	G	N1-C6-O6	9.53	125.62	119.90
39	1	13	G	N1-C6-O6	9.53	125.61	119.90
33	2	1341	G	N1-C6-O6	9.52	125.61	119.90
39	1	52	G	N1-C6-O6	9.52	125.61	119.90
33	2	66	G	N1-C6-O6	9.52	125.61	119.90
33	2	971	G	N1-C6-O6	9.52	125.61	119.90
33	2	1117	G	N1-C6-O6	9.52	125.61	119.90
33	2	1265	G	N1-C6-O6	9.51	125.60	119.90
33	2	1536	G	N1-C6-O6	9.50	125.60	119.90
33	2	1561	G	N1-C6-O6	9.50	125.60	119.90
33	2	903	G	N1-C6-O6	9.49	125.60	119.90
33	2	855	G	N1-C6-O6	9.49	125.59	119.90
33	2	1345	G	N1-C6-O6	9.49	125.59	119.90
33	2	981	G	N1-C6-O6	9.48	125.59	119.90
33	2	1137	G	C5-C6-O6	-9.48	122.91	128.60
33	2	1599	G	N1-C6-O6	9.48	125.59	119.90
33	2	499	G	N1-C6-O6	9.48	125.59	119.90
33	2	1218	G	N1-C6-O6	9.48	125.59	119.90
39	1	30	G	N1-C6-O6	9.47	125.58	119.90
33	2	1294	G	N1-C6-O6	9.46	125.58	119.90
33	2	1316	G	N1-C6-O6	9.45	125.57	119.90
39	1	24	G	C5-C6-O6	-9.45	122.93	128.60
33	2	1055	G	N1-C6-O6	9.45	125.57	119.90
33	2	1496	G	C5-C6-O6	-9.45	122.93	128.60
33	2	1770	G	C5-C6-O6	-9.44	122.93	128.60
33	2	127	C	O4'-C1'-N1	9.44	115.75	108.20
33	2	1166	A	N1-C6-N6	9.44	124.26	118.60
33	2	880	C	O4'-C1'-N1	9.44	115.75	108.20
33	2	1486	G	N1-C6-O6	9.43	125.56	119.90
33	2	307	G	N1-C6-O6	9.43	125.56	119.90
33	2	1085	G	N1-C6-O6	9.42	125.55	119.90
33	2	1206	G	N1-C6-O6	9.42	125.55	119.90
33	2	1331	G	N1-C6-O6	9.42	125.55	119.90
33	2	1006	G	N1-C6-O6	9.41	125.55	119.90
33	2	1462	G	N1-C6-O6	9.41	125.55	119.90
39	1	16	G	N1-C6-O6	9.41	125.55	119.90
33	2	1232	G	C5-C6-O6	-9.41	122.96	128.60
33	2	56	G	N1-C6-O6	9.40	125.54	119.90
33	2	1271	G	N1-C6-O6	9.40	125.54	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1789	G	N1-C6-O6	9.40	125.54	119.90
33	2	1748	G	N1-C6-O6	9.39	125.53	119.90
33	2	1814	G	N1-C6-O6	9.39	125.53	119.90
33	2	322	G	O4'-C1'-N9	9.38	115.71	108.20
33	2	588	G	N1-C6-O6	9.38	125.53	119.90
33	2	906	G	N1-C6-O6	9.38	125.53	119.90
33	2	1010	G	N1-C6-O6	9.38	125.53	119.90
33	2	1050	G	N1-C6-O6	9.38	125.53	119.90
33	2	636	G	N1-C6-O6	9.37	125.52	119.90
39	1	3	G	N1-C6-O6	9.37	125.52	119.90
33	2	411	G	N1-C6-O6	9.37	125.52	119.90
33	2	1320	G	N1-C6-O6	9.37	125.52	119.90
33	2	974	G	N1-C6-O6	9.36	125.52	119.90
33	2	1104	G	N1-C6-O6	9.36	125.52	119.90
33	2	1047	G	N1-C6-O6	9.36	125.52	119.90
33	2	1347	G	N1-C6-O6	9.36	125.52	119.90
33	2	1324	G	N1-C6-O6	9.36	125.51	119.90
33	2	1751	G	N1-C6-O6	9.35	125.51	119.90
33	2	1407	G	P-O3'-C3'	9.34	130.91	119.70
33	2	1092	G	N1-C6-O6	9.34	125.50	119.90
33	2	1162	G	N1-C6-O6	9.33	125.50	119.90
33	2	931	G	N1-C6-O6	9.33	125.50	119.90
33	2	1266	G	C5-C6-O6	-9.33	123.00	128.60
33	2	393	G	N1-C6-O6	9.32	125.49	119.90
33	2	1558	G	N1-C6-O6	9.32	125.49	119.90
33	2	1447	G	N1-C6-O6	9.32	125.49	119.90
33	2	472	G	N1-C6-O6	9.31	125.49	119.90
33	2	1427	G	N1-C6-O6	9.31	125.49	119.90
33	2	186	G	N1-C6-O6	9.31	125.49	119.90
33	2	920	G	N1-C6-O6	9.30	125.48	119.90
33	2	351	U	OP1-P-O3'	-9.30	84.74	105.20
33	2	1487	G	N1-C6-O6	9.30	125.48	119.90
33	2	1612	G	N1-C6-O6	9.30	125.48	119.90
33	2	33	G	N1-C6-O6	9.30	125.48	119.90
33	2	189	G	N1-C6-O6	9.29	125.48	119.90
33	2	1570	G	N1-C6-O6	9.29	125.47	119.90
33	2	1160	G	C5-C6-O6	-9.29	123.03	128.60
33	2	494	G	N1-C6-O6	9.28	125.47	119.90
33	2	948	G	N1-C6-O6	9.28	125.47	119.90
33	2	1383	G	N1-C6-O6	9.28	125.47	119.90
33	2	1361	G	C5-C6-O6	-9.27	123.04	128.60
33	2	1452	G	N1-C6-O6	9.27	125.46	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1664	G	N1-C6-O6	9.27	125.46	119.90
33	2	524	G	N1-C6-O6	9.24	125.44	119.90
33	2	613	G	N1-C6-O6	9.24	125.44	119.90
33	2	1697	G	N1-C6-O6	9.23	125.44	119.90
33	2	1171	G	N1-C6-O6	9.23	125.44	119.90
33	2	470	G	N1-C6-O6	9.23	125.44	119.90
33	2	864	G	N1-C6-O6	9.23	125.44	119.90
33	2	555	G	N1-C6-O6	9.22	125.43	119.90
33	2	1752	G	C5-C6-O6	-9.22	123.07	128.60
33	2	1125	G	N1-C6-O6	9.21	125.43	119.90
33	2	1308	G	N1-C6-O6	9.21	125.43	119.90
33	2	1241	G	N1-C6-O6	9.21	125.42	119.90
33	2	939	U	O4'-C1'-N1	9.21	115.56	108.20
33	2	1067	G	N1-C6-O6	9.21	125.42	119.90
33	2	457	G	C5-C6-O6	-9.20	123.08	128.60
33	2	212	G	C5-C6-O6	-9.20	123.08	128.60
33	2	1381	G	N1-C6-O6	9.20	125.42	119.90
33	2	592	G	N1-C6-O6	9.19	125.41	119.90
33	2	1727	G	N1-C6-O6	9.19	125.41	119.90
33	2	1773	G	N1-C6-O6	9.18	125.41	119.90
33	2	238	G	N1-C6-O6	9.18	125.41	119.90
33	2	397	G	N1-C6-O6	9.18	125.41	119.90
33	2	1323	G	N1-C6-O6	9.18	125.41	119.90
33	2	1130	G	N1-C6-O6	9.18	125.41	119.90
33	2	1153	G	N1-C6-O6	9.17	125.41	119.90
33	2	1545	G	N1-C6-O6	9.17	125.40	119.90
33	2	456	G	N1-C6-O6	9.16	125.40	119.90
33	2	1199	G	N1-C6-O6	9.16	125.40	119.90
33	2	1443	G	N1-C6-O6	9.15	125.39	119.90
33	2	1729	G	N1-C6-O6	9.15	125.39	119.90
33	2	1722	G	N1-C6-O6	9.15	125.39	119.90
33	2	430	G	N1-C6-O6	9.15	125.39	119.90
33	2	1172	G	N1-C6-O6	9.14	125.39	119.90
33	2	424	G	N1-C6-O6	9.14	125.38	119.90
33	2	1766	C	O4'-C1'-N1	9.14	115.51	108.20
33	2	1811	G	N1-C6-O6	9.13	125.38	119.90
33	2	987	G	N1-C6-O6	9.12	125.37	119.90
33	2	1064	G	N1-C6-O6	9.12	125.37	119.90
33	2	418	U	O4'-C1'-N1	9.12	115.49	108.20
33	2	505	G	N1-C6-O6	9.12	125.37	119.90
33	2	1309	A	N1-C6-N6	9.12	124.07	118.60
33	2	1394	G	N1-C6-O6	9.12	125.37	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	930	G	N1-C6-O6	9.11	125.36	119.90
33	2	1220	G	N1-C6-O6	9.11	125.36	119.90
33	2	972	G	N1-C6-O6	9.11	125.36	119.90
33	2	1253	G	N1-C6-O6	9.11	125.36	119.90
33	2	1841	G	N1-C6-O6	9.11	125.36	119.90
33	2	932	G	C5-C6-O6	-9.10	123.14	128.60
33	2	1837	G	C5-C6-O6	-9.10	123.14	128.60
39	1	19	G	OP2-P-O3'	-9.10	85.19	105.20
33	2	1225	G	N1-C6-O6	9.09	125.35	119.90
33	2	1772	C	O4'-C1'-N1	9.09	115.47	108.20
33	2	966	G	N1-C6-O6	9.09	125.35	119.90
33	2	1568	G	N1-C6-O6	9.09	125.35	119.90
33	2	468	G	N1-C6-O6	9.08	125.35	119.90
33	2	874	G	N1-C6-O6	9.08	125.35	119.90
33	2	1469	G	N1-C6-O6	9.08	125.35	119.90
33	2	1607	G	N1-C6-O6	9.07	125.34	119.90
33	2	323	G	C5-C6-O6	-9.07	123.16	128.60
39	1	22	G	C5-C6-O6	-9.07	123.16	128.60
33	2	803	G	N1-C6-O6	9.07	125.34	119.90
33	2	898	G	N1-C6-O6	9.07	125.34	119.90
33	2	1371	G	C5-C6-O6	-9.06	123.16	128.60
33	2	1523	G	N1-C6-O6	9.06	125.33	119.90
34	3	65	G	N1-C6-O6	9.06	125.33	119.90
33	2	1418	G	N1-C6-O6	9.05	125.33	119.90
33	2	1765	G	N1-C6-O6	9.05	125.33	119.90
33	2	381	C	O4'-C1'-N1	9.05	115.44	108.20
33	2	1566	G	C5-C6-O6	-9.05	123.17	128.60
33	2	653	C	O4'-C1'-N1	9.04	115.44	108.20
33	2	6	G	C5-C6-O6	-9.04	123.17	128.60
33	2	1103	G	N1-C6-O6	9.04	125.32	119.90
33	2	426	G	N1-C6-O6	9.04	125.32	119.90
33	2	1222	G	N1-C6-O6	9.04	125.32	119.90
33	2	1344	G	N1-C6-O6	9.04	125.32	119.90
33	2	1851	G	C5-C6-O6	-9.04	123.18	128.60
33	2	1840	G	C5-C6-O6	-9.03	123.18	128.60
33	2	1753	G	N1-C6-O6	9.02	125.31	119.90
33	2	123	G	C5-C6-O6	-9.02	123.19	128.60
33	2	23	G	N1-C6-O6	9.02	125.31	119.90
33	2	837	G	O4'-C1'-N9	9.01	115.41	108.20
33	2	856	G	C5-C6-O6	-9.01	123.19	128.60
33	2	1823	G	C5-C6-O6	-9.01	123.19	128.60
39	1	10	G	N1-C6-O6	9.01	125.31	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	3	64	G	N1-C6-O6	9.01	125.31	119.90
33	2	1332	C	O4'-C1'-N1	9.01	115.41	108.20
33	2	1562	G	N1-C6-O6	9.01	125.30	119.90
33	2	1511	G	N1-C6-O6	9.00	125.30	119.90
33	2	625	G	N1-C6-O6	9.00	125.30	119.90
33	2	114	G	N1-C6-O6	9.00	125.30	119.90
33	2	911	G	N1-C6-O6	9.00	125.30	119.90
33	2	1633	G	C5-C6-O6	-9.00	123.20	128.60
33	2	1475	G	N1-C6-O6	9.00	125.30	119.90
33	2	1294	G	O4'-C1'-N9	8.99	115.39	108.20
33	2	1808	G	N1-C6-O6	8.99	125.30	119.90
34	3	71	G	N1-C6-O6	8.99	125.29	119.90
33	2	938	G	N1-C6-O6	8.99	125.29	119.90
33	2	1191	A	N1-C6-N6	8.99	123.99	118.60
33	2	587	G	N1-C6-O6	8.98	125.29	119.90
33	2	1743	G	C5-C6-O6	-8.98	123.21	128.60
39	1	49	G	C5-C6-O6	-8.98	123.21	128.60
33	2	375	G	N1-C6-O6	8.98	125.29	119.90
33	2	967	G	N1-C6-O6	8.98	125.29	119.90
33	2	1147	G	N1-C6-O6	8.98	125.29	119.90
33	2	1127	G	N1-C6-O6	8.97	125.28	119.90
33	2	16	G	N1-C6-O6	8.97	125.28	119.90
33	2	75	G	N1-C6-O6	8.97	125.28	119.90
33	2	827	G	C5-C6-O6	-8.97	123.22	128.60
33	2	1100	G	C5-C6-O6	-8.97	123.22	128.60
33	2	991	G	N1-C6-O6	8.97	125.28	119.90
33	2	1093	G	N1-C6-O6	8.96	125.28	119.90
33	2	921	G	N1-C6-O6	8.96	125.28	119.90
33	2	1786	G	C5-C6-O6	-8.96	123.23	128.60
33	2	1411	C	O4'-C1'-N1	8.95	115.36	108.20
33	2	1835	C	O4'-C1'-N1	8.95	115.36	108.20
33	2	113	G	N1-C6-O6	8.94	125.26	119.90
39	1	43	G	N1-C6-O6	8.93	125.26	119.90
33	2	1175	G	N1-C6-O6	8.93	125.26	119.90
33	2	205	G	N1-C6-O6	8.93	125.25	119.90
33	2	1521	G	N1-C6-O6	8.91	125.25	119.90
33	2	167	G	C5-C6-O6	-8.91	123.25	128.60
33	2	1165	G	N1-C6-O6	8.90	125.24	119.90
33	2	319	G	C5-C6-O6	-8.90	123.26	128.60
33	2	153	G	N1-C6-O6	8.90	125.24	119.90
33	2	883	U	O4'-C1'-N1	8.90	115.32	108.20
33	2	670	G	C5-C6-O6	-8.90	123.26	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	928	G	N1-C6-O6	8.90	125.24	119.90
33	2	1778	G	N1-C6-O6	8.89	125.24	119.90
33	2	1231	G	C5-C6-O6	-8.89	123.27	128.60
33	2	1163	G	N1-C6-O6	8.89	125.23	119.90
33	2	1276	G	N1-C6-O6	8.89	125.23	119.90
33	2	1314	G	C5-C6-O6	-8.89	123.27	128.60
33	2	1414	C	C2-N1-C1'	8.89	128.57	118.80
33	2	310	G	C5-C6-O6	-8.88	123.27	128.60
33	2	163	U	O4'-C1'-N1	8.88	115.30	108.20
33	2	496	G	N1-C6-O6	8.88	125.23	119.90
33	2	1776	G	N1-C6-O6	8.88	125.23	119.90
33	2	289	G	C5-C6-O6	-8.87	123.28	128.60
33	2	1503	G	N1-C6-O6	8.87	125.22	119.90
33	2	1321	G	N1-C6-O6	8.87	125.22	119.90
33	2	1793	G	N1-C6-O6	8.87	125.22	119.90
33	2	1425	G	N1-C6-O6	8.87	125.22	119.90
33	2	52	G	C5-C6-O6	-8.86	123.28	128.60
33	2	616	G	N1-C6-O6	8.85	125.21	119.90
33	2	1565	G	C5-C6-O6	-8.85	123.29	128.60
33	2	155	G	N1-C6-O6	8.84	125.20	119.90
33	2	370	G	N1-C6-O6	8.84	125.20	119.90
33	2	1001	G	C5-C6-O6	-8.84	123.30	128.60
33	2	522	C	O4'-C1'-N1	8.84	115.27	108.20
33	2	1774	G	C5-C6-O6	-8.84	123.30	128.60
33	2	1126	G	N1-C6-O6	8.83	125.20	119.90
33	2	1360	U	O4'-C1'-N1	8.83	115.26	108.20
33	2	199	G	N1-C6-O6	8.82	125.19	119.90
33	2	1106	G	N1-C6-O6	8.82	125.19	119.90
33	2	1094	C	O4'-C1'-N1	8.82	115.26	108.20
33	2	1509	G	C5-C6-O6	-8.82	123.31	128.60
33	2	1541	G	N1-C6-O6	8.82	125.19	119.90
33	2	1317	G	N1-C6-O6	8.82	125.19	119.90
33	2	461	G	N1-C6-O6	8.82	125.19	119.90
33	2	1251	G	N1-C6-O6	8.82	125.19	119.90
33	2	403	G	C5-C6-O6	-8.81	123.31	128.60
33	2	832	G	N1-C6-O6	8.81	125.19	119.90
33	2	1704	G	N1-C6-O6	8.81	125.19	119.90
33	2	180	G	N1-C6-O6	8.80	125.18	119.90
33	2	1515	G	C5-C6-O6	-8.80	123.32	128.60
33	2	1390	G	N1-C6-O6	8.80	125.18	119.90
33	2	1267	C	O4'-C1'-N1	8.79	115.23	108.20
33	2	402	G	N1-C6-O6	8.79	125.17	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	955	G	N1-C6-O6	8.79	125.17	119.90
33	2	1039	G	N1-C6-O6	8.79	125.17	119.90
33	2	222	G	N1-C6-O6	8.78	125.17	119.90
33	2	1678	C	O4'-C1'-N1	8.78	115.22	108.20
33	2	1830	G	N1-C6-O6	8.78	125.17	119.90
33	2	1767	C	O4'-C1'-N1	8.78	115.22	108.20
39	1	31	G	C5-C6-O6	-8.78	123.33	128.60
33	2	401	G	C5-C6-O6	-8.77	123.34	128.60
33	2	1088	G	N1-C6-O6	8.77	125.17	119.90
33	2	891	G	N1-C6-O6	8.77	125.16	119.90
33	2	299	G	N1-C6-O6	8.77	125.16	119.90
33	2	945	G	C5-C6-O6	-8.77	123.34	128.60
33	2	1593	G	N1-C6-O6	8.77	125.16	119.90
33	2	328	G	N1-C6-O6	8.76	125.16	119.90
33	2	1420	G	N1-C6-O6	8.75	125.15	119.90
33	2	1738	G	N1-C6-O6	8.75	125.15	119.90
33	2	1681	G	N1-C6-O6	8.75	125.15	119.90
33	2	1660	G	N1-C6-O6	8.74	125.14	119.90
33	2	422	G	N1-C6-O6	8.74	125.14	119.90
33	2	901	C	O4'-C1'-N1	8.74	115.19	108.20
39	1	9	U	O4'-C1'-N1	8.74	115.19	108.20
33	2	322	G	N1-C6-O6	8.74	125.14	119.90
33	2	410	G	N1-C6-O6	8.74	125.14	119.90
33	2	508	G	N1-C6-O6	8.74	125.14	119.90
33	2	568	C	O4'-C1'-N1	8.73	115.18	108.20
33	2	495	G	N1-C6-O6	8.72	125.13	119.90
33	2	655	G	N1-C6-O6	8.72	125.13	119.90
33	2	877	G	N1-C6-O6	8.72	125.13	119.90
33	2	400	G	C5-C6-O6	-8.72	123.37	128.60
33	2	579	G	C5-C6-O6	-8.71	123.37	128.60
33	2	596	G	C5-C6-O6	-8.71	123.37	128.60
33	2	345	G	C5-C6-O6	-8.71	123.38	128.60
33	2	1095	G	N1-C6-O6	8.70	125.12	119.90
33	2	395	G	N1-C6-O6	8.70	125.12	119.90
33	2	156	G	C5-C6-O6	-8.70	123.38	128.60
33	2	1183	G	C5-C6-O6	-8.70	123.38	128.60
33	2	303	G	C5-C6-O6	-8.70	123.38	128.60
33	2	1846	C	O4'-C1'-N1	8.70	115.16	108.20
33	2	460	G	N1-C6-O6	8.69	125.11	119.90
33	2	1571	G	C5-C6-O6	-8.69	123.39	128.60
33	2	300	G	C5-C6-O6	-8.69	123.39	128.60
33	2	80	G	C5-C6-O6	-8.68	123.39	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	82	G	N1-C6-O6	8.68	125.11	119.90
33	2	646	G	N1-C6-O6	8.68	125.11	119.90
33	2	1229	G	C5-C6-O6	-8.68	123.39	128.60
33	2	1187	C	O4'-C1'-N1	8.68	115.14	108.20
33	2	813	G	N1-C6-O6	8.68	125.11	119.90
33	2	875	C	O4'-C1'-N1	8.68	115.14	108.20
33	2	929	G	N1-C6-O6	8.68	125.11	119.90
33	2	165	G	N1-C6-O6	8.67	125.10	119.90
33	2	537	G	N1-C6-O6	8.67	125.10	119.90
34	3	73	G	N1-C6-O6	8.67	125.10	119.90
33	2	421	G	C5-C6-O6	-8.67	123.40	128.60
33	2	817	G	N1-C6-O6	8.67	125.10	119.90
33	2	1037	G	C5-C6-O6	-8.67	123.40	128.60
33	2	1739	G	N1-C6-O6	8.67	125.10	119.90
33	2	1506	G	C5-C6-O6	-8.66	123.40	128.60
33	2	29	G	C5-C6-O6	-8.66	123.41	128.60
33	2	957	G	N1-C6-O6	8.65	125.09	119.90
33	2	842	G	N1-C6-O6	8.65	125.09	119.90
33	2	1040	G	N1-C6-O6	8.65	125.09	119.90
33	2	20	G	N1-C6-O6	8.64	125.09	119.90
33	2	538	C	O4'-C1'-N1	8.64	115.11	108.20
33	2	1783	G	N1-C6-O6	8.64	125.09	119.90
33	2	1113	C	O4'-C1'-N1	8.64	115.11	108.20
33	2	1631	G	N1-C6-O6	8.64	125.08	119.90
33	2	1125	G	C5-C6-O6	-8.63	123.42	128.60
33	2	1270	G	N1-C6-O6	8.63	125.08	119.90
33	2	1666	G	N1-C6-O6	8.63	125.08	119.90
33	2	1749	C	O4'-C1'-N1	8.63	115.10	108.20
33	2	1389	G	N1-C6-O6	8.62	125.08	119.90
33	2	1768	C	O4'-C1'-N1	8.62	115.10	108.20
39	1	17	C	P-O3'-C3'	8.62	130.04	119.70
33	2	415	G	N1-C6-O6	8.62	125.07	119.90
33	2	48	C	O4'-C1'-N1	8.62	115.09	108.20
33	2	649	G	C5-C6-O6	-8.62	123.43	128.60
33	2	905	G	N1-C6-O6	8.62	125.07	119.90
33	2	1519	G	C5-C6-O6	-8.61	123.43	128.60
34	3	69	G	N1-C6-O6	8.61	125.07	119.90
33	2	581	U	P-O3'-C3'	8.61	130.03	119.70
33	2	436	G	N1-C6-O6	8.60	125.06	119.90
33	2	441	G	N1-C6-O6	8.60	125.06	119.90
33	2	1781	G	C5-C6-O6	-8.60	123.44	128.60
39	1	46	G	N1-C6-O6	8.60	125.06	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	373	G	N1-C6-O6	8.60	125.06	119.90
33	2	590	G	N1-C6-O6	8.59	125.06	119.90
33	2	1510	G	C5-C6-O6	-8.59	123.44	128.60
33	2	1286	G	C5-C6-O6	-8.59	123.45	128.60
33	2	1402	G	N1-C6-O6	8.59	125.05	119.90
33	2	906	G	C5-C6-O6	-8.58	123.45	128.60
33	2	1535	G	C5-C6-O6	-8.57	123.46	128.60
33	2	1446	G	N1-C6-O6	8.57	125.04	119.90
34	3	62	G	N1-C6-O6	8.57	125.04	119.90
33	2	553	G	C5-C6-O6	-8.57	123.46	128.60
33	2	1265	G	C5-C6-O6	-8.57	123.46	128.60
33	2	325	G	N1-C6-O6	8.56	125.04	119.90
33	2	1290	G	C5-C6-O6	-8.56	123.46	128.60
33	2	576	G	N1-C6-O6	8.56	125.03	119.90
33	2	74	G	O4'-C1'-N9	8.55	115.04	108.20
33	2	394	G	C5-C6-O6	-8.55	123.47	128.60
33	2	820	C	O4'-C1'-N1	8.55	115.04	108.20
39	1	57	G	C5-C6-O6	-8.54	123.47	128.60
33	2	1841	G	C5-C6-O6	-8.54	123.48	128.60
33	2	74	G	N1-C6-O6	8.54	125.02	119.90
33	2	897	G	N1-C6-O6	8.53	125.02	119.90
33	2	70	G	N1-C6-O6	8.53	125.02	119.90
33	2	1701	G	C5-C6-O6	-8.53	123.48	128.60
33	2	533	C	O4'-C1'-N1	8.52	115.01	108.20
33	2	982	G	N1-C6-O6	8.52	125.01	119.90
33	2	1029	G	N1-C6-O6	8.52	125.01	119.90
33	2	1348	G	C5-C6-O6	-8.51	123.49	128.60
33	2	184	G	N1-C6-O6	8.51	125.00	119.90
33	2	1357	G	N1-C6-O6	8.51	125.00	119.90
33	2	434	G	C5-C6-O6	-8.50	123.50	128.60
33	2	673	G	N1-C6-O6	8.49	125.00	119.90
33	2	1010	G	C5-C6-O6	-8.49	123.51	128.60
33	2	1072	G	C5-C6-O6	-8.49	123.51	128.60
33	2	1207	G	N1-C6-O6	8.49	124.99	119.90
33	2	69	C	O4'-C1'-N1	8.49	114.99	108.20
33	2	71	G	N1-C6-O6	8.48	124.99	119.90
33	2	204	G	C5-C6-O6	-8.48	123.51	128.60
33	2	1326	G	N1-C6-O6	8.48	124.99	119.90
33	2	1512	G	N1-C6-O6	8.48	124.99	119.90
33	2	1744	G	C5-C6-O6	-8.48	123.51	128.60
33	2	1856	G	N1-C6-O6	8.48	124.99	119.90
33	2	1318	G	N1-C6-O6	8.48	124.99	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	7	G	C5-C6-O6	-8.48	123.51	128.60
33	2	601	G	C5-C6-O6	-8.47	123.52	128.60
33	2	1105	C	O4'-C1'-N1	8.47	114.98	108.20
33	2	634	G	C5-C6-O6	-8.47	123.52	128.60
33	2	497	G	N1-C6-O6	8.47	124.98	119.90
33	2	1708	C	O4'-C1'-N1	8.47	114.97	108.20
33	2	975	C	O4'-C1'-N1	8.46	114.97	108.20
33	2	1362	G	C5-C6-O6	-8.46	123.52	128.60
39	1	29	G	C5-C6-O6	-8.46	123.52	128.60
33	2	954	G	N1-C6-O6	8.46	124.97	119.90
33	2	1407	G	N1-C6-O6	8.46	124.97	119.90
33	2	1154	G	N1-C6-O6	8.46	124.97	119.90
33	2	1227	C	O4'-C1'-N1	8.45	114.96	108.20
33	2	1552	C	O4'-C1'-N1	8.45	114.96	108.20
33	2	208	G	C5-C6-O6	-8.44	123.53	128.60
33	2	154	U	O4'-C1'-N1	8.44	114.95	108.20
33	2	464	G	C5-C6-O6	-8.44	123.53	128.60
33	2	550	A	O4'-C1'-N9	8.44	114.95	108.20
33	2	600	G	C5-C6-O6	-8.44	123.53	128.60
33	2	237	G	N1-C6-O6	8.44	124.96	119.90
33	2	280	G	N1-C6-O6	8.44	124.96	119.90
33	2	210	G	N1-C6-O6	8.43	124.96	119.90
33	2	220	C	O4'-C1'-N1	8.43	114.94	108.20
33	2	1155	G	N1-C6-O6	8.43	124.96	119.90
33	2	1377	G	N1-C6-O6	8.43	124.96	119.90
33	2	1383	G	C5-C6-O6	-8.43	123.54	128.60
33	2	1731	G	C5-C6-O6	-8.43	123.55	128.60
33	2	1852	G	C5-C6-O6	-8.42	123.55	128.60
33	2	834	G	N1-C6-O6	8.41	124.95	119.90
33	2	1277	G	N1-C6-O6	8.41	124.95	119.90
33	2	830	C	O4'-C1'-N1	8.41	114.93	108.20
33	2	1138	G	N1-C6-O6	8.41	124.95	119.90
33	2	1649	G	C5-C6-O6	-8.41	123.55	128.60
33	2	273	G	N1-C6-O6	8.40	124.94	119.90
33	2	1298	G	N1-C6-O6	8.40	124.94	119.90
33	2	534	G	C5-C6-O6	-8.40	123.56	128.60
33	2	1082	G	N1-C6-O6	8.40	124.94	119.90
33	2	824	G	N1-C6-O6	8.40	124.94	119.90
33	2	876	G	O4'-C1'-N9	8.40	114.92	108.20
33	2	1572	G	C5-C6-O6	-8.40	123.56	128.60
33	2	1006	G	C5-C6-O6	-8.39	123.56	128.60
33	2	1843	G	N1-C6-O6	8.39	124.93	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1202	G	C5-C6-O6	-8.38	123.57	128.60
33	2	1430	C	O4'-C1'-N1	8.38	114.91	108.20
33	2	118	C	O4'-C1'-N1	8.38	114.91	108.20
34	3	63	U	O4'-C1'-N1	8.38	114.91	108.20
39	1	19	G	N1-C6-O6	8.38	124.93	119.90
33	2	663	G	C5-C6-O6	-8.38	123.57	128.60
33	2	1606	G	C5-C6-O6	-8.38	123.57	128.60
33	2	183	G	C5-C6-O6	-8.37	123.58	128.60
33	2	380	C	O4'-C1'-N1	8.37	114.90	108.20
33	2	1754	G	N1-C6-O6	8.37	124.92	119.90
33	2	1099	C	O4'-C1'-N1	8.37	114.89	108.20
33	2	1455	G	C5-C6-O6	-8.37	123.58	128.60
33	2	1454	G	C5-C6-O6	-8.36	123.58	128.60
33	2	1582	G	N1-C6-O6	8.36	124.92	119.90
39	1	11	G	C5-C6-O6	-8.36	123.58	128.60
33	2	1595	G	N1-C6-O6	8.36	124.92	119.90
33	2	177	G	N1-C6-O6	8.36	124.91	119.90
33	2	815	G	N1-C6-O6	8.36	124.91	119.90
33	2	90	G	N1-C6-O6	8.35	124.91	119.90
33	2	327	C	O4'-C1'-N1	8.35	114.88	108.20
33	2	275	C	O4'-C1'-N1	8.35	114.88	108.20
33	2	375	G	C5-C6-O6	-8.35	123.59	128.60
33	2	1112	C	O4'-C1'-N1	8.35	114.88	108.20
33	2	270	G	N1-C6-O6	8.34	124.91	119.90
33	2	1608	G	C5-C6-O6	-8.34	123.59	128.60
33	2	896	C	O4'-C1'-N1	8.34	114.87	108.20
33	2	1647	G	N1-C6-O6	8.33	124.90	119.90
33	2	1543	G	N1-C6-O6	8.33	124.90	119.90
33	2	835	C	O4'-C1'-N1	8.33	114.86	108.20
33	2	360	G	C5-C6-O6	-8.33	123.60	128.60
33	2	193	C	O4'-C1'-N1	8.32	114.86	108.20
33	2	428	G	N1-C6-O6	8.32	124.89	119.90
33	2	674	G	N1-C6-O6	8.32	124.89	119.90
33	2	384	G	C5-C6-O6	-8.32	123.61	128.60
33	2	667	G	N1-C6-O6	8.32	124.89	119.90
33	2	1333	C	O4'-C1'-N1	8.31	114.84	108.20
33	2	47	G	C5-C6-O6	-8.30	123.62	128.60
33	2	273	G	C5-C6-O6	-8.30	123.62	128.60
33	2	1688	G	C5-C6-O6	-8.30	123.62	128.60
33	2	1651	G	C5-C6-O6	-8.30	123.62	128.60
33	2	1409	G	N1-C6-O6	8.30	124.88	119.90
33	2	122	G	C5-C6-O6	-8.29	123.62	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	367	G	C5-C6-O6	-8.29	123.62	128.60
33	2	1119	C	O4'-C1'-N1	8.29	114.83	108.20
33	2	1536	G	C5-C6-O6	-8.29	123.62	128.60
33	2	1601	G	N1-C6-O6	8.29	124.88	119.90
33	2	1655	C	C2-N1-C1'	8.29	127.92	118.80
39	1	8	G	C5-C6-O6	-8.29	123.62	128.60
33	2	615	G	N1-C6-O6	8.29	124.87	119.90
33	2	1201	C	O4'-C1'-N1	8.29	114.83	108.20
33	2	1634	G	N1-C6-O6	8.29	124.87	119.90
33	2	1002	C	O4'-C1'-N1	8.28	114.83	108.20
33	2	1131	C	O4'-C1'-N1	8.28	114.83	108.20
34	3	70	G	N1-C6-O6	8.28	124.87	119.90
33	2	548	G	N1-C6-O6	8.28	124.87	119.90
33	2	1324	G	C5-C6-O6	-8.28	123.63	128.60
33	2	1419	C	O4'-C1'-N1	8.28	114.82	108.20
33	2	1493	G	N1-C6-O6	8.28	124.87	119.90
33	2	1330	G	N1-C6-O6	8.28	124.87	119.90
33	2	1653	G	C5-C6-O6	-8.27	123.64	128.60
33	2	307	G	C5-C6-O6	-8.27	123.64	128.60
33	2	870	G	C5-C6-O6	-8.27	123.64	128.60
33	2	629	C	O4'-C1'-N1	8.27	114.81	108.20
33	2	317	G	N1-C6-O6	8.26	124.86	119.90
33	2	1416	G	C5-C6-O6	-8.26	123.65	128.60
33	2	1194	G	N1-C6-O6	8.25	124.85	119.90
33	2	337	G	C5-C6-O6	-8.25	123.65	128.60
33	2	1445	G	C5-C6-O6	-8.25	123.65	128.60
33	2	201	G	C5-C6-O6	-8.24	123.66	128.60
33	2	1167	G	N1-C6-O6	8.24	124.84	119.90
33	2	1181	C	O4'-C1'-N1	8.24	114.79	108.20
33	2	1771	G	C5-C6-O6	-8.24	123.66	128.60
33	2	1675	G	C5-C6-O6	-8.24	123.66	128.60
33	2	385	G	C5-C6-O6	-8.23	123.66	128.60
33	2	1098	G	N1-C6-O6	8.23	124.84	119.90
33	2	1604	C	O4'-C1'-N1	8.23	114.78	108.20
33	2	952	G	C5-C6-O6	-8.22	123.67	128.60
33	2	1136	G	C5-C6-O6	-8.22	123.67	128.60
10	K	149	TYR	CB-CG-CD1	8.21	125.93	121.00
33	2	1217	G	N1-C6-O6	8.22	124.83	119.90
33	2	1334	G	C5-C6-O6	-8.21	123.67	128.60
33	2	1790	G	C5-C6-O6	-8.21	123.67	128.60
39	1	39	C	O4'-C1'-N1	8.21	114.77	108.20
33	2	1043	C	O4'-C1'-N1	8.21	114.77	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	937	C	O4'-C1'-N1	8.21	114.77	108.20
33	2	1466	C	O4'-C1'-N1	8.21	114.77	108.20
33	2	1471	G	N1-C6-O6	8.21	124.83	119.90
33	2	1497	C	O4'-C1'-N1	8.21	114.77	108.20
33	2	1627	G	N1-C6-O6	8.21	124.82	119.90
33	2	837	G	N1-C6-O6	8.21	124.82	119.90
33	2	1193	G	N1-C6-O6	8.21	124.82	119.90
33	2	605	C	O4'-C1'-N1	8.20	114.76	108.20
33	2	1370	C	O4'-C1'-N1	8.21	114.76	108.20
33	2	1745	C	O4'-C1'-N1	8.20	114.76	108.20
33	2	469	C	O4'-C1'-N1	8.20	114.76	108.20
33	2	209	C	O4'-C1'-N1	8.20	114.76	108.20
33	2	298	G	N1-C6-O6	8.20	124.82	119.90
33	2	1427	G	C5-C6-O6	-8.19	123.69	128.60
39	1	13	G	C5-C6-O6	-8.19	123.69	128.60
33	2	352	C	O4'-C1'-N1	8.18	114.75	108.20
33	2	558	C	O4'-C1'-N1	8.18	114.74	108.20
33	2	94	G	N1-C6-O6	8.18	124.81	119.90
33	2	560	C	O4'-C1'-N1	8.18	114.74	108.20
33	2	1779	C	O4'-C1'-N1	8.17	114.74	108.20
39	1	6	G	C5-C6-O6	-8.17	123.70	128.60
33	2	387	G	N1-C6-O6	8.16	124.80	119.90
10	K	149	TYR	CB-CG-CD2	-8.16	116.10	121.00
33	2	1135	C	O4'-C1'-N1	8.16	114.73	108.20
33	2	1101	G	C5-C6-O6	-8.16	123.70	128.60
33	2	145	G	C5-C6-O6	-8.16	123.71	128.60
33	2	178	C	O4'-C1'-N1	8.15	114.72	108.20
33	2	1669	G	C5-C6-O6	-8.15	123.71	128.60
33	2	351	U	O3'-P-O5'	8.15	119.48	104.00
33	2	1268	C	O4'-C1'-N1	8.14	114.72	108.20
33	2	1732	G	C5-C6-O6	-8.14	123.71	128.60
33	2	885	U	O4'-C1'-N1	8.14	114.72	108.20
33	2	1054	A	O4'-C1'-N9	8.14	114.71	108.20
33	2	56	G	C5-C6-O6	-8.14	123.72	128.60
39	1	53	G	C5-C6-O6	-8.14	123.72	128.60
33	2	597	U	O4'-C1'-N1	8.14	114.71	108.20
39	1	45	G	N1-C6-O6	8.13	124.78	119.90
33	2	192	U	O4'-C1'-N1	8.13	114.70	108.20
33	2	890	G	C5-C6-O6	-8.13	123.72	128.60
33	2	1250	C	O4'-C1'-N1	8.12	114.70	108.20
33	2	420	C	O4'-C1'-N1	8.12	114.70	108.20
33	2	828	G	C5-C6-O6	-8.12	123.73	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
39	1	26	G	N1-C6-O6	8.12	124.77	119.90
33	2	1776	G	C5-C6-O6	-8.12	123.73	128.60
33	2	1579	G	N1-C6-O6	8.12	124.77	119.90
33	2	1350	G	N1-C6-O6	8.11	124.77	119.90
33	2	1468	C	O4'-C1'-N1	8.11	114.69	108.20
33	2	341	G	N1-C6-O6	8.11	124.77	119.90
33	2	943	G	C5-C6-O6	-8.11	123.73	128.60
33	2	848	G	O4'-C1'-N9	8.11	114.68	108.20
33	2	1176	C	O4'-C1'-N1	8.11	114.69	108.20
33	2	879	U	O4'-C1'-N1	8.10	114.68	108.20
33	2	1421	G	N1-C6-O6	8.10	124.76	119.90
33	2	1607	G	C5-C6-O6	-8.10	123.74	128.60
39	1	30	G	C5-C6-O6	-8.10	123.74	128.60
33	2	95	G	C5-C6-O6	-8.10	123.74	128.60
33	2	1252	G	N1-C6-O6	8.10	124.76	119.90
33	2	841	G	N1-C6-O6	8.10	124.76	119.90
33	2	1652	G	N1-C6-O6	8.10	124.76	119.90
19	V	48	TYR	CB-CG-CD2	-8.09	116.14	121.00
33	2	364	G	N1-C6-O6	8.09	124.75	119.90
33	2	1778	G	C5-C6-O6	-8.09	123.74	128.60
33	2	284	C	O4'-C1'-N1	8.09	114.67	108.20
33	2	1562	G	O4'-C1'-N9	8.09	114.67	108.20
33	2	1047	G	C5-C6-O6	-8.08	123.75	128.60
33	2	442	G	N1-C6-O6	8.08	124.75	119.90
33	2	1616	U	O4'-C1'-N1	8.07	114.66	108.20
33	2	1111	U	O4'-C1'-N1	8.07	114.65	108.20
33	2	1639	C	O4'-C1'-N1	8.07	114.65	108.20
33	2	10	G	N1-C6-O6	8.06	124.74	119.90
33	2	431	C	O4'-C1'-N1	8.06	114.64	108.20
33	2	876	G	N1-C6-O6	8.06	124.73	119.90
39	1	52	G	C5-C6-O6	-8.06	123.77	128.60
33	2	1226	C	O4'-C1'-N1	8.05	114.64	108.20
33	2	1847	C	O4'-C1'-N1	8.05	114.64	108.20
33	2	1343	U	O4'-C1'-N1	8.05	114.64	108.20
33	2	1676	U	O4'-C1'-N1	8.05	114.64	108.20
33	2	37	C	O4'-C1'-N1	8.05	114.64	108.20
33	2	494	G	C5-C6-O6	-8.05	123.77	128.60
33	2	536	G	C5-C6-O6	-8.04	123.78	128.60
33	2	555	G	C5-C6-O6	-8.04	123.78	128.60
33	2	729	C	O4'-C1'-N1	8.04	114.63	108.20
33	2	592	G	C5-C6-O6	-8.03	123.78	128.60
33	2	1522	C	O4'-C1'-N1	8.03	114.62	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1621	C	O4'-C1'-N1	8.03	114.62	108.20
34	3	74	G	N1-C6-O6	8.03	124.72	119.90
33	2	917	G	N1-C6-O6	8.03	124.72	119.90
33	2	1553	C	O4'-C1'-N1	8.02	114.62	108.20
33	2	1748	G	C5-C6-O6	-8.02	123.79	128.60
33	2	1801	C	O4'-C1'-N1	8.02	114.62	108.20
33	2	931	G	C5-C6-O6	-8.02	123.79	128.60
34	3	68	A	O4'-C1'-N9	8.02	114.61	108.20
33	2	503	G	C5-C6-O6	-8.01	123.79	128.60
33	2	1061	G	C5-C6-O6	-8.01	123.79	128.60
33	2	41	G	C5-C6-O6	-8.01	123.80	128.60
33	2	1599	G	C5-C6-O6	-8.01	123.80	128.60
33	2	1206	G	C5-C6-O6	-8.00	123.80	128.60
33	2	294	C	O4'-C1'-N1	8.00	114.60	108.20
33	2	1561	G	C5-C6-O6	-8.00	123.80	128.60
33	2	1736	U	O4'-C1'-N1	8.00	114.60	108.20
33	2	369	C	O4'-C1'-N1	8.00	114.60	108.20
33	2	1352	G	N1-C6-O6	8.00	124.70	119.90
33	2	1531	G	C5-C6-O6	-8.00	123.80	128.60
33	2	849	C	C2-N1-C1'	8.00	127.60	118.80
33	2	1053	C	O4'-C1'-N1	8.00	114.60	108.20
33	2	1315	U	O4'-C1'-N1	7.99	114.59	108.20
33	2	626	C	O4'-C1'-N1	7.99	114.59	108.20
33	2	1467	C	O4'-C1'-N1	7.99	114.59	108.20
33	2	1487	G	C5-C6-O6	-7.99	123.81	128.60
33	2	591	G	C5-C6-O6	-7.99	123.81	128.60
33	2	924	G	N1-C6-O6	7.98	124.69	119.90
33	2	88	G	C5-C6-O6	-7.98	123.81	128.60
33	2	545	A	P-O3'-C3'	7.98	129.28	119.70
33	2	543	U	O4'-C1'-N1	7.97	114.58	108.20
33	2	1311	U	O4'-C1'-N1	7.97	114.58	108.20
33	2	1504	A	N1-C6-N6	7.97	123.38	118.60
33	2	1414	C	C6-N1-C1'	-7.96	111.24	120.80
33	2	837	G	C5-C6-O6	-7.96	123.82	128.60
33	2	439	A	N1-C6-N6	7.96	123.38	118.60
33	2	115	U	O4'-C1'-N1	7.96	114.57	108.20
33	2	613	G	C5-C6-O6	-7.96	123.82	128.60
34	3	72	U	O4'-C1'-N1	7.96	114.57	108.20
33	2	1122	G	C5-C6-O6	-7.95	123.83	128.60
33	2	1643	G	N1-C6-O6	7.95	124.67	119.90
33	2	607	G	C5-C6-O6	-7.94	123.83	128.60
33	2	851	G	N1-C6-O6	7.94	124.67	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1586	C	O4'-C1'-N1	7.94	114.55	108.20
33	2	426	G	C5-C6-O6	-7.94	123.84	128.60
33	2	126	G	N1-C6-O6	7.94	124.66	119.90
33	2	1033	G	C5-C6-O6	-7.94	123.84	128.60
33	2	1208	G	C5-C6-O6	-7.94	123.84	128.60
33	2	282	G	N1-C6-O6	7.93	124.66	119.90
33	2	430	G	C5-C6-O6	-7.93	123.84	128.60
33	2	839	C	O4'-C1'-N1	7.93	114.55	108.20
33	2	893	U	O4'-C1'-N1	7.93	114.55	108.20
33	2	1638	U	O4'-C1'-N1	7.93	114.55	108.20
33	2	1547	G	C5-C6-O6	-7.93	123.84	128.60
33	2	1598	G	C5-C6-O6	-7.93	123.84	128.60
33	2	549	G	N1-C6-O6	7.92	124.66	119.90
33	2	1753	G	C5-C6-O6	-7.92	123.84	128.60
33	2	1524	C	O4'-C1'-N1	7.92	114.54	108.20
33	2	1746	C	O4'-C1'-N1	7.92	114.54	108.20
33	2	1705	C	O4'-C1'-N1	7.92	114.53	108.20
33	2	75	G	O4'-C1'-N9	7.92	114.53	108.20
33	2	569	C	O4'-C1'-N1	7.92	114.53	108.20
33	2	1281	G	N1-C6-O6	7.92	124.65	119.90
33	2	1443	G	C5-C6-O6	-7.91	123.85	128.60
39	1	32	C	O4'-C1'-N1	7.91	114.53	108.20
33	2	625	G	C5-C6-O6	-7.91	123.85	128.60
39	1	3	G	C5-C6-O6	-7.91	123.85	128.60
33	2	1477	G	C5-C6-O6	-7.91	123.86	128.60
33	2	946	C	O4'-C1'-N1	7.90	114.52	108.20
33	2	200	U	O4'-C1'-N1	7.90	114.52	108.20
33	2	1341	G	C5-C6-O6	-7.90	123.86	128.60
33	2	1849	G	C5-C6-O6	-7.90	123.86	128.60
33	2	336	C	O4'-C1'-N1	7.89	114.52	108.20
33	2	1209	C	O4'-C1'-N1	7.89	114.51	108.20
39	1	66	C	O4'-C1'-N1	7.89	114.51	108.20
33	2	484	C	O4'-C1'-N1	7.89	114.51	108.20
33	2	1103	G	C5-C6-O6	-7.89	123.86	128.60
33	2	1036	G	C5-C6-O6	-7.89	123.87	128.60
39	1	54	A	C5-C6-N6	-7.89	117.39	123.70
33	2	1713	G	N1-C6-O6	7.88	124.63	119.90
33	2	499	G	C5-C6-O6	-7.88	123.87	128.60
33	2	846	C	O4'-C1'-N1	7.88	114.51	108.20
39	1	62	C	O4'-C1'-N1	7.88	114.50	108.20
33	2	186	G	C5-C6-O6	-7.88	123.87	128.60
33	2	1417	A	C5-C6-N6	-7.88	117.40	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1426	C	O4'-C1'-N1	7.88	114.50	108.20
33	2	628	C	O4'-C1'-N1	7.88	114.50	108.20
33	2	1727	G	C5-C6-O6	-7.87	123.88	128.60
33	2	140	U	O4'-C1'-N1	7.87	114.49	108.20
33	2	409	G	C5-C6-O6	-7.87	123.88	128.60
33	2	1282	G	N1-C6-O6	7.87	124.62	119.90
33	2	1093	G	C5-C6-O6	-7.86	123.89	128.60
33	2	191	C	O4'-C1'-N1	7.86	114.48	108.20
33	2	911	G	O4'-C1'-N9	7.85	114.48	108.20
33	2	81	U	O4'-C1'-N1	7.85	114.48	108.20
33	2	332	C	O4'-C1'-N1	7.85	114.48	108.20
33	2	1735	C	O4'-C1'-N1	7.85	114.48	108.20
33	2	1457	G	N1-C6-O6	7.85	124.61	119.90
39	1	23	C	O4'-C1'-N1	7.85	114.48	108.20
33	2	1345	G	C5-C6-O6	-7.84	123.89	128.60
33	2	947	C	O4'-C1'-N1	7.84	114.47	108.20
33	2	1830	G	C5-C6-O6	-7.84	123.90	128.60
33	2	424	G	C5-C6-O6	-7.84	123.90	128.60
33	2	1007	A	C5-C6-N6	-7.83	117.43	123.70
33	2	529	C	O4'-C1'-N1	7.83	114.47	108.20
33	2	578	G	C5-C6-O6	-7.83	123.90	128.60
33	2	355	C	O4'-C1'-N1	7.83	114.46	108.20
33	2	1697	G	C5-C6-O6	-7.83	123.90	128.60
39	1	27	C	O4'-C1'-N1	7.83	114.46	108.20
33	2	926	C	O4'-C1'-N1	7.82	114.46	108.20
33	2	972	G	C5-C6-O6	-7.82	123.91	128.60
33	2	1279	C	O4'-C1'-N1	7.82	114.46	108.20
33	2	1709	U	O4'-C1'-N1	7.82	114.46	108.20
33	2	604	G	N1-C6-O6	7.82	124.59	119.90
33	2	1323	G	C5-C6-O6	-7.82	123.91	128.60
33	2	1733	C	O4'-C1'-N1	7.82	114.45	108.20
33	2	376	C	O4'-C1'-N1	7.82	114.45	108.20
33	2	392	C	O4'-C1'-N1	7.82	114.45	108.20
33	2	1810	G	C5-C6-O6	-7.82	123.91	128.60
33	2	1105	C	C2-N1-C1'	7.81	127.39	118.80
33	2	1499	C	O4'-C1'-N1	7.81	114.44	108.20
33	2	980	C	O4'-C1'-N1	7.80	114.44	108.20
33	2	803	G	C5-C6-O6	-7.80	123.92	128.60
33	2	1214	C	O4'-C1'-N1	7.80	114.44	108.20
33	2	1542	C	O4'-C1'-N1	7.80	114.44	108.20
33	2	639	U	O4'-C1'-N1	7.80	114.44	108.20
33	2	1679	C	O4'-C1'-N1	7.80	114.44	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1722	G	C5-C6-O6	-7.80	123.92	128.60
33	2	1248	C	O4'-C1'-N1	7.79	114.44	108.20
33	2	1456	C	O4'-C1'-N1	7.79	114.44	108.20
33	2	981	G	C5-C6-O6	-7.79	123.93	128.60
33	2	1130	G	C5-C6-O6	-7.79	123.93	128.60
39	1	70	G	C5-C6-O6	-7.79	123.93	128.60
33	2	432	C	O4'-C1'-N1	7.78	114.42	108.20
33	2	1070	C	O4'-C1'-N1	7.78	114.42	108.20
33	2	1128	C	O4'-C1'-N1	7.78	114.42	108.20
33	2	1153	G	C5-C6-O6	-7.78	123.93	128.60
33	2	1498	C	O4'-C1'-N1	7.77	114.42	108.20
33	2	1025	G	C5-C6-O6	-7.77	123.94	128.60
33	2	916	A	C4-C5-C6	7.77	120.89	117.00
33	2	1090	C	O4'-C1'-N1	7.77	114.42	108.20
33	2	1711	C	O4'-C1'-N1	7.77	114.42	108.20
33	2	974	G	C5-C6-O6	-7.77	123.94	128.60
33	2	1121	C	O4'-C1'-N1	7.76	114.41	108.20
33	2	1275	C	O4'-C1'-N1	7.76	114.41	108.20
33	2	271	G	C5-C6-O6	-7.76	123.95	128.60
33	2	664	C	O4'-C1'-N1	7.75	114.40	108.20
33	2	954	G	O4'-C1'-N9	7.75	114.40	108.20
33	2	1106	G	C5-C6-O6	-7.75	123.95	128.60
33	2	1135	C	C2-N1-C1'	7.75	127.33	118.80
33	2	165	G	O4'-C1'-N9	7.75	114.40	108.20
33	2	162	C	O4'-C1'-N1	7.75	114.40	108.20
33	2	1613	C	O4'-C1'-N1	7.74	114.39	108.20
33	2	330	C	O4'-C1'-N1	7.74	114.39	108.20
33	2	489	G	N1-C6-O6	7.74	124.55	119.90
33	2	948	G	C5-C6-O6	-7.74	123.96	128.60
33	2	1102	C	O4'-C1'-N1	7.74	114.39	108.20
33	2	925	G	C5-C6-O6	-7.74	123.96	128.60
33	2	650	C	O4'-C1'-N1	7.73	114.39	108.20
33	2	1077	U	O4'-C1'-N1	7.73	114.39	108.20
33	2	1271	G	C5-C6-O6	-7.73	123.96	128.60
33	2	1147	G	C5-C6-O6	-7.72	123.97	128.60
33	2	1850	C	O4'-C1'-N1	7.72	114.38	108.20
33	2	1223	G	C5-C6-O6	-7.72	123.97	128.60
33	2	1559	C	O4'-C1'-N1	7.72	114.38	108.20
33	2	517	C	O4'-C1'-N1	7.72	114.38	108.20
33	2	306	C	O4'-C1'-N1	7.72	114.37	108.20
33	2	1164	G	C5-C6-O6	-7.72	123.97	128.60
33	2	913	U	O4'-C1'-N1	7.71	114.37	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1624	C	O4'-C1'-N1	7.71	114.37	108.20
33	2	933	C	O4'-C1'-N1	7.70	114.36	108.20
33	2	1380	C	O4'-C1'-N1	7.70	114.36	108.20
33	2	971	G	C5-C6-O6	-7.70	123.98	128.60
33	2	407	C	O4'-C1'-N1	7.70	114.36	108.20
33	2	89	C	O4'-C1'-N1	7.69	114.35	108.20
33	2	507	C	O4'-C1'-N1	7.69	114.35	108.20
33	2	567	U	O4'-C1'-N1	7.69	114.35	108.20
33	2	1486	G	C5-C6-O6	-7.69	123.99	128.60
33	2	1831	G	N1-C6-O6	7.69	124.51	119.90
33	2	1855	G	C5-C6-O6	-7.69	123.99	128.60
33	2	881	U	O4'-C1'-N1	7.69	114.35	108.20
33	2	1429	C	O4'-C1'-N1	7.69	114.35	108.20
33	2	112	U	O4'-C1'-N1	7.69	114.35	108.20
33	2	446	C	O4'-C1'-N1	7.68	114.35	108.20
33	2	1028	C	O4'-C1'-N1	7.68	114.35	108.20
33	2	1683	C	O4'-C1'-N1	7.68	114.35	108.20
19	V	48	TYR	CB-CG-CD1	7.68	125.61	121.00
33	2	324	C	O4'-C1'-N1	7.68	114.34	108.20
33	2	174	C	O4'-C1'-N1	7.68	114.34	108.20
33	2	989	G	N1-C6-O6	7.67	124.50	119.90
33	2	1702	U	O4'-C1'-N1	7.67	114.34	108.20
33	2	1447	G	C5-C6-O6	-7.67	124.00	128.60
33	2	1750	C	O4'-C1'-N1	7.67	114.34	108.20
33	2	467	G	N1-C6-O6	7.67	124.50	119.90
33	2	1563	C	O4'-C1'-N1	7.67	114.34	108.20
33	2	1802	U	O4'-C1'-N1	7.67	114.34	108.20
33	2	530	U	O4'-C1'-N1	7.67	114.33	108.20
33	2	236	C	O4'-C1'-N1	7.66	114.33	108.20
33	2	348	C	O4'-C1'-N1	7.66	114.33	108.20
33	2	443	C	O4'-C1'-N1	7.66	114.32	108.20
33	2	1543	G	C5-C6-O6	-7.65	124.01	128.60
33	2	587	G	C5-C6-O6	-7.65	124.01	128.60
33	2	886	U	O4'-C1'-N1	7.65	114.32	108.20
33	2	1087	C	O4'-C1'-N1	7.65	114.32	108.20
33	2	235	C	N3-C4-N4	7.65	123.35	118.00
33	2	1218	G	C5-C6-O6	-7.65	124.01	128.60
33	2	286	C	O4'-C1'-N1	7.64	114.32	108.20
39	1	10	G	C5-C6-O6	-7.64	124.01	128.60
33	2	1492	U	O4'-C1'-N1	7.64	114.31	108.20
4	E	251	TYR	CB-CG-CD2	-7.64	116.42	121.00
33	2	848	G	N1-C6-O6	7.63	124.48	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1207	G	C5-C6-O6	-7.63	124.02	128.60
33	2	1415	C	O4'-C1'-N1	7.63	114.31	108.20
33	2	635	C	O4'-C1'-N1	7.63	114.31	108.20
39	1	12	C	O4'-C1'-N1	7.63	114.31	108.20
33	2	217	U	O4'-C1'-N1	7.63	114.30	108.20
33	2	1585	C	O4'-C1'-N1	7.63	114.30	108.20
33	2	105	U	O4'-C1'-N1	7.63	114.30	108.20
33	2	1478	C	O4'-C1'-N1	7.62	114.30	108.20
33	2	929	G	C5-C6-O6	-7.62	124.03	128.60
33	2	1789	G	C5-C6-O6	-7.62	124.03	128.60
33	2	894	U	O4'-C1'-N1	7.62	114.30	108.20
33	2	887	G	C5-C6-O6	-7.62	124.03	128.60
39	1	40	C	O4'-C1'-N1	7.62	114.30	108.20
33	2	481	C	O4'-C1'-N1	7.62	114.29	108.20
33	2	1053	C	C2-N1-C1'	7.62	127.18	118.80
33	2	1403	U	O4'-C1'-N1	7.62	114.29	108.20
33	2	582	C	O4'-C1'-N1	7.61	114.29	108.20
33	2	1820	G	C5-C6-O6	-7.61	124.03	128.60
33	2	1423	C	O4'-C1'-N1	7.61	114.28	108.20
39	1	4	C	O4'-C1'-N1	7.61	114.28	108.20
33	2	468	G	O4'-C1'-N9	7.60	114.28	108.20
33	2	1501	U	O4'-C1'-N1	7.60	114.28	108.20
33	2	666	C	O4'-C1'-N1	7.60	114.28	108.20
33	2	969	C	O4'-C1'-N1	7.60	114.28	108.20
33	2	24	C	O4'-C1'-N1	7.60	114.28	108.20
33	2	677	C	O3'-P-O5'	7.60	118.44	104.00
33	2	847	C	O4'-C1'-N1	7.60	114.28	108.20
33	2	1520	C	O4'-C1'-N1	7.60	114.28	108.20
33	2	914	U	O4'-C1'-N1	7.59	114.28	108.20
33	2	1050	G	C5-C6-O6	-7.59	124.04	128.60
33	2	1741	U	O4'-C1'-N1	7.59	114.28	108.20
33	2	557	C	O4'-C1'-N1	7.59	114.27	108.20
33	2	422	G	C5-C6-O6	-7.59	124.05	128.60
33	2	1475	G	C5-C6-O6	-7.59	124.05	128.60
33	2	1650	C	O4'-C1'-N1	7.58	114.27	108.20
33	2	1788	C	O4'-C1'-N1	7.58	114.27	108.20
33	2	106	C	O4'-C1'-N1	7.58	114.27	108.20
33	2	731	C	O4'-C1'-N1	7.58	114.27	108.20
33	2	1149	C	O4'-C1'-N1	7.58	114.27	108.20
33	2	1511	G	C5-C6-O6	-7.58	124.05	128.60
33	2	119	U	O4'-C1'-N1	7.58	114.26	108.20
33	2	227	A	C4-C5-C6	7.58	120.79	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	187	C	O4'-C1'-N1	7.57	114.26	108.20
33	2	561	U	O4'-C1'-N1	7.57	114.26	108.20
33	2	849	C	C6-N1-C1'	-7.57	111.71	120.80
33	2	1822	C	O4'-C1'-N1	7.57	114.26	108.20
33	2	1545	G	C5-C6-O6	-7.57	124.06	128.60
33	2	944	C	O4'-C1'-N1	7.57	114.25	108.20
33	2	1273	C	O4'-C1'-N1	7.57	114.25	108.20
33	2	532	U	O4'-C1'-N1	7.56	114.25	108.20
33	2	898	G	C5-C6-O6	-7.56	124.06	128.60
33	2	1703	C	O4'-C1'-N1	7.56	114.25	108.20
33	2	1588	C	O4'-C1'-N1	7.56	114.25	108.20
33	2	414	C	O4'-C1'-N1	7.56	114.24	108.20
33	2	1143	C	O4'-C1'-N1	7.56	114.25	108.20
33	2	552	U	O4'-C1'-N1	7.55	114.24	108.20
33	2	1661	C	O4'-C1'-N1	7.55	114.24	108.20
33	2	1473	U	O4'-C1'-N1	7.55	114.24	108.20
33	2	1549	C	O4'-C1'-N1	7.55	114.24	108.20
33	2	903	G	C5-C6-O6	-7.55	124.07	128.60
33	2	1523	G	C5-C6-O6	-7.55	124.07	128.60
33	2	352	C	N3-C4-C5	-7.54	118.88	121.90
33	2	33	G	C5-C6-O6	-7.54	124.08	128.60
33	2	1806	U	O4'-C1'-N1	7.54	114.23	108.20
33	2	18	C	O4'-C1'-N1	7.54	114.23	108.20
33	2	53	C	O4'-C1'-N1	7.54	114.23	108.20
33	2	973	C	O4'-C1'-N1	7.54	114.23	108.20
33	2	1664	G	C5-C6-O6	-7.53	124.08	128.60
33	2	1331	G	C5-C6-O6	-7.52	124.09	128.60
33	2	1537	C	O4'-C1'-N1	7.52	114.22	108.20
33	2	1600	G	C5-C6-O6	-7.52	124.09	128.60
33	2	1044	G	C5-C6-O6	-7.52	124.09	128.60
33	2	1257	C	O4'-C1'-N1	7.52	114.21	108.20
33	2	1376	C	O4'-C1'-N1	7.52	114.21	108.20
39	1	68	C	O4'-C1'-N1	7.52	114.21	108.20
33	2	838	C	O4'-C1'-N1	7.51	114.21	108.20
33	2	919	G	C5-C6-O6	-7.51	124.09	128.60
33	2	1294	G	C5-C6-O6	-7.51	124.09	128.60
33	2	923	C	O4'-C1'-N1	7.51	114.21	108.20
33	2	1312	C	O4'-C1'-N1	7.51	114.21	108.20
33	2	117	C	O4'-C1'-N1	7.51	114.21	108.20
33	2	17	C	O4'-C1'-N1	7.51	114.20	108.20
33	2	495	G	C5-C6-O6	-7.50	124.10	128.60
33	2	470	G	C5-C6-O6	-7.50	124.10	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1500	U	O4'-C1'-N1	7.50	114.20	108.20
33	2	1836	C	O4'-C1'-N1	7.50	114.20	108.20
33	2	1071	C	O4'-C1'-N1	7.49	114.19	108.20
33	2	1815	U	O4'-C1'-N1	7.49	114.19	108.20
33	2	1452	G	C5-C6-O6	-7.49	124.11	128.60
33	2	898	G	O4'-C1'-N9	7.49	114.19	108.20
33	2	151	C	O4'-C1'-N1	7.49	114.19	108.20
33	2	585	U	O4'-C1'-N1	7.48	114.19	108.20
33	2	1385	C	O4'-C1'-N1	7.48	114.19	108.20
33	2	15	U	O4'-C1'-N1	7.48	114.18	108.20
33	2	970	C	O4'-C1'-N1	7.48	114.18	108.20
33	2	1085	G	C5-C6-O6	-7.48	124.11	128.60
33	2	1092	G	C5-C6-O6	-7.48	124.11	128.60
33	2	1347	G	C5-C6-O6	-7.48	124.11	128.60
33	2	999	U	O4'-C1'-N1	7.48	114.18	108.20
33	2	1123	C	O4'-C1'-N1	7.47	114.18	108.20
33	2	411	G	C5-C6-O6	-7.47	124.12	128.60
33	2	906	G	O4'-C1'-N9	7.47	114.18	108.20
33	2	1814	G	C5-C6-O6	-7.47	124.12	128.60
33	2	928	G	C5-C6-O6	-7.47	124.12	128.60
33	2	869	G	C5-C6-O6	-7.47	124.12	128.60
33	2	1000	U	O4'-C1'-N1	7.47	114.17	108.20
39	1	16	G	C5-C6-O6	-7.47	124.12	128.60
33	2	612	C	O4'-C1'-N1	7.47	114.17	108.20
33	2	978	G	C5-C6-O6	-7.46	124.12	128.60
33	2	1263	C	O4'-C1'-N1	7.46	114.17	108.20
33	2	1436	C	O4'-C1'-N1	7.46	114.17	108.20
33	2	1805	C	O4'-C1'-N1	7.46	114.17	108.20
33	2	1369	C	O4'-C1'-N1	7.46	114.17	108.20
34	3	61	C	O4'-C1'-N1	7.46	114.17	108.20
39	1	34	C	O4'-C1'-N1	7.46	114.17	108.20
33	2	935	U	O4'-C1'-N1	7.46	114.17	108.20
33	2	198	U	O4'-C1'-N1	7.46	114.17	108.20
33	2	863	G	C5-C6-O6	-7.46	124.13	128.60
33	2	1737	C	O4'-C1'-N1	7.46	114.17	108.20
33	2	372	C	O4'-C1'-N1	7.45	114.16	108.20
33	2	608	C	O4'-C1'-N1	7.45	114.16	108.20
33	2	1283	A	C4-C5-C6	7.45	120.73	117.00
33	2	1560	C	O4'-C1'-N1	7.45	114.16	108.20
33	2	990	C	O4'-C1'-N1	7.45	114.16	108.20
33	2	1700	C	O4'-C1'-N1	7.45	114.16	108.20
33	2	1842	U	O4'-C1'-N1	7.45	114.16	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1670	A	O4'-C1'-N9	7.44	114.15	108.20
33	2	96	C	O4'-C1'-N1	7.44	114.15	108.20
33	2	984	C	O4'-C1'-N1	7.44	114.15	108.20
33	2	1319	U	O4'-C1'-N1	7.44	114.15	108.20
33	2	1191	A	O4'-C1'-N9	7.44	114.15	108.20
33	2	1698	C	O4'-C1'-N1	7.43	114.14	108.20
33	2	728	U	O4'-C1'-N1	7.43	114.14	108.20
33	2	524	G	C5-C6-O6	-7.43	124.14	128.60
33	2	802	U	O4'-C1'-N1	7.42	114.14	108.20
33	2	150	A	N1-C6-N6	7.42	123.05	118.60
33	2	508	G	C5-C6-O6	-7.42	124.15	128.60
33	2	393	G	C5-C6-O6	-7.42	124.15	128.60
33	2	570	U	O4'-C1'-N1	7.42	114.13	108.20
33	2	312	C	O4'-C1'-N1	7.41	114.13	108.20
33	2	1013	U	O4'-C1'-N1	7.41	114.13	108.20
33	2	1387	C	O4'-C1'-N1	7.41	114.13	108.20
33	2	1556	A	C5-C6-N6	-7.41	117.77	123.70
33	2	1827	C	O4'-C1'-N1	7.41	114.13	108.20
33	2	143	U	O4'-C1'-N1	7.41	114.13	108.20
33	2	1258	C	O4'-C1'-N1	7.41	114.13	108.20
33	2	1622	C	O4'-C1'-N1	7.41	114.13	108.20
33	2	1116	U	O4'-C1'-N1	7.41	114.12	108.20
33	2	496	G	C5-C6-O6	-7.40	124.16	128.60
33	2	806	A	O4'-C1'-N9	7.40	114.12	108.20
33	2	1747	C	O4'-C1'-N1	7.39	114.11	108.20
33	2	1734	C	O4'-C1'-N1	7.39	114.11	108.20
33	2	1301	C	O4'-C1'-N1	7.39	114.11	108.20
33	2	1381	G	C5-C6-O6	-7.38	124.17	128.60
33	2	1425	G	C5-C6-O6	-7.38	124.17	128.60
33	2	1208	G	O4'-C1'-N9	7.38	114.11	108.20
33	2	1684	C	O4'-C1'-N1	7.38	114.11	108.20
33	2	675	A	OP2-P-O3'	7.38	121.44	105.20
33	2	1307	C	O4'-C1'-N1	7.37	114.09	108.20
33	2	1673	A	O4'-C1'-N9	7.37	114.09	108.20
33	2	473	C	O4'-C1'-N1	7.37	114.09	108.20
33	2	1404	U	O4'-C1'-N1	7.36	114.09	108.20
33	2	1568	G	C5-C6-O6	-7.36	124.18	128.60
33	2	428	G	O4'-C1'-N9	7.36	114.09	108.20
33	2	395	G	C5-C6-O6	-7.36	124.19	128.60
33	2	71	G	O4'-C1'-N9	7.36	114.08	108.20
33	2	1746	C	N3-C4-N4	7.35	123.15	118.00
33	2	1320	G	C5-C6-O6	-7.35	124.19	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1233	C	O4'-C1'-N1	7.35	114.08	108.20
33	2	446	C	N3-C4-N4	7.34	123.14	118.00
33	2	797	U	OP2-P-O3'	7.34	121.36	105.20
33	2	987	G	C5-C6-O6	-7.34	124.19	128.60
33	2	1412	C	O4'-C1'-N1	7.34	114.07	108.20
33	2	1262	C	O4'-C1'-N1	7.34	114.07	108.20
33	2	468	G	C5-C6-O6	-7.33	124.20	128.60
33	2	1682	C	O4'-C1'-N1	7.33	114.07	108.20
33	2	173	A	C5-C6-N6	-7.33	117.83	123.70
33	2	235	C	O4'-C1'-N1	7.33	114.06	108.20
33	2	1310	U	O4'-C1'-N1	7.33	114.06	108.20
33	2	406	U	O4'-C1'-N1	7.33	114.06	108.20
33	2	1446	G	C5-C6-O6	-7.33	124.20	128.60
33	2	892	U	O4'-C1'-N1	7.33	114.06	108.20
33	2	1075	C	O4'-C1'-N1	7.33	114.06	108.20
33	2	616	G	C5-C6-O6	-7.33	124.20	128.60
33	2	1285	U	O4'-C1'-N1	7.33	114.06	108.20
33	2	86	C	O4'-C1'-N1	7.32	114.06	108.20
33	2	1423	C	N3-C4-N4	7.32	123.12	118.00
33	2	1554	C	O4'-C1'-N1	7.32	114.05	108.20
33	2	1122	G	O4'-C1'-N9	7.31	114.05	108.20
33	2	1776	G	O4'-C1'-N9	7.31	114.05	108.20
34	3	69	G	O4'-C1'-N9	7.31	114.05	108.20
33	2	611	C	O4'-C1'-N1	7.31	114.05	108.20
33	2	1577	C	O4'-C1'-N1	7.31	114.05	108.20
33	2	819	U	O4'-C1'-N1	7.31	114.05	108.20
33	2	1088	G	C5-C6-O6	-7.30	124.22	128.60
33	2	1162	G	C5-C6-O6	-7.30	124.22	128.60
33	2	1440	U	O4'-C1'-N1	7.30	114.04	108.20
33	2	586	U	O4'-C1'-N1	7.30	114.04	108.20
33	2	588	G	C5-C6-O6	-7.30	124.22	128.60
33	2	1655	C	C6-N1-C1'	-7.30	112.04	120.80
33	2	206	A	C4-C5-C6	7.29	120.65	117.00
33	2	668	U	O4'-C1'-N1	7.29	114.03	108.20
33	2	1811	G	C5-C6-O6	-7.29	124.22	128.60
33	2	1796	C	O4'-C1'-N1	7.29	114.03	108.20
33	2	21	U	O4'-C1'-N1	7.29	114.03	108.20
33	2	182	C	O4'-C1'-N1	7.29	114.03	108.20
33	2	216	U	O4'-C1'-N1	7.29	114.03	108.20
33	2	991	G	C5-C6-O6	-7.29	124.23	128.60
33	2	1724	U	O4'-C1'-N1	7.28	114.03	108.20
33	2	465	C	O4'-C1'-N1	7.28	114.03	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	929	G	O4'-C1'-N9	7.28	114.03	108.20
33	2	66	G	C5-C6-O6	-7.28	124.23	128.60
33	2	961	U	O4'-C1'-N1	7.28	114.02	108.20
33	2	1215	C	O4'-C1'-N1	7.28	114.02	108.20
33	2	872	C	N3-C4-N4	7.28	123.09	118.00
33	2	891	G	C5-C6-O6	-7.28	124.23	128.60
33	2	1067	G	C5-C6-O6	-7.27	124.24	128.60
33	2	456	G	C5-C6-O6	-7.27	124.24	128.60
33	2	93	U	O4'-C1'-N1	7.27	114.02	108.20
33	2	1104	G	C5-C6-O6	-7.27	124.24	128.60
33	2	938	G	C5-C6-O6	-7.26	124.24	128.60
31	h	65	TYR	CB-CG-CD1	7.26	125.36	121.00
33	2	1055	G	C5-C6-O6	-7.26	124.24	128.60
33	2	1141	A	C4-C5-C6	7.26	120.63	117.00
33	2	231	C	O4'-C1'-N1	7.26	114.01	108.20
33	2	1424	G	C5-C6-O6	-7.26	124.24	128.60
33	2	1769	U	O4'-C1'-N1	7.26	114.01	108.20
33	2	1792	C	O4'-C1'-N1	7.26	114.00	108.20
33	2	1836	C	N3-C4-N4	7.26	123.08	118.00
33	2	1854	A	C5-C6-N6	-7.26	117.89	123.70
33	2	834	G	O4'-C1'-N9	7.25	114.00	108.20
33	2	930	G	C5-C6-O6	-7.25	124.25	128.60
33	2	1065	U	O4'-C1'-N1	7.25	114.00	108.20
33	2	28	U	O4'-C1'-N1	7.25	114.00	108.20
33	2	1550	U	O4'-C1'-N1	7.25	114.00	108.20
33	2	1720	U	O4'-C1'-N1	7.25	114.00	108.20
33	2	1175	G	C5-C6-O6	-7.25	124.25	128.60
33	2	1754	G	C5-C6-O6	-7.25	124.25	128.60
33	2	1253	G	C5-C6-O6	-7.24	124.25	128.60
33	2	1558	G	C5-C6-O6	-7.24	124.25	128.60
33	2	491	C	O4'-C1'-N1	7.24	113.99	108.20
33	2	1003	C	O4'-C1'-N1	7.24	113.99	108.20
33	2	1751	G	C5-C6-O6	-7.24	124.26	128.60
33	2	412	U	O4'-C1'-N1	7.24	113.99	108.20
33	2	869	G	P-O3'-C3'	7.24	128.38	119.70
33	2	1409	G	C5-C6-O6	-7.24	124.26	128.60
33	2	1592	C	O4'-C1'-N1	7.24	113.99	108.20
33	2	1712	C	O4'-C1'-N1	7.23	113.99	108.20
33	2	180	G	C5-C6-O6	-7.23	124.26	128.60
33	2	527	C	O4'-C1'-N1	7.23	113.99	108.20
33	2	433	U	O4'-C1'-N1	7.23	113.98	108.20
33	2	1325	U	O4'-C1'-N1	7.23	113.98	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	478	U	O4'-C1'-N1	7.22	113.98	108.20
39	1	51	U	O4'-C1'-N1	7.22	113.98	108.20
33	2	1527	C	O4'-C1'-N1	7.22	113.98	108.20
33	2	399	C	O4'-C1'-N1	7.22	113.98	108.20
33	2	189	G	C5-C6-O6	-7.22	124.27	128.60
33	2	419	C	O4'-C1'-N1	7.22	113.98	108.20
33	2	636	G	C5-C6-O6	-7.22	124.27	128.60
33	2	927	C	O4'-C1'-N1	7.22	113.98	108.20
33	2	1587	C	O4'-C1'-N1	7.22	113.97	108.20
33	2	519	A	C5-C6-N6	-7.22	117.93	123.70
33	2	1172	G	C5-C6-O6	-7.21	124.27	128.60
33	2	1225	G	C5-C6-O6	-7.21	124.27	128.60
33	2	471	C	O4'-C1'-N1	7.21	113.97	108.20
33	2	957	G	C5-C6-O6	-7.21	124.28	128.60
33	2	199	G	C5-C6-O6	-7.21	124.28	128.60
33	2	1681	G	C5-C6-O6	-7.21	124.28	128.60
33	2	1418	G	C5-C6-O6	-7.20	124.28	128.60
33	2	35	C	O4'-C1'-N1	7.20	113.96	108.20
33	2	1264	C	O4'-C1'-N1	7.20	113.96	108.20
33	2	1305	C	O4'-C1'-N1	7.20	113.96	108.20
33	2	1351	C	O4'-C1'-N1	7.20	113.96	108.20
33	2	325	G	C5-C6-O6	-7.20	124.28	128.60
33	2	590	G	C5-C6-O6	-7.20	124.28	128.60
33	2	1198	U	O4'-C1'-N1	7.20	113.96	108.20
33	2	1555	U	O4'-C1'-N1	7.20	113.96	108.20
33	2	368	U	O4'-C1'-N1	7.19	113.95	108.20
33	2	1039	G	C5-C6-O6	-7.19	124.29	128.60
33	2	1321	G	C5-C6-O6	-7.19	124.29	128.60
33	2	1729	G	C5-C6-O6	-7.19	124.29	128.60
33	2	1230	C	O4'-C1'-N1	7.19	113.95	108.20
39	1	65	C	O4'-C1'-N1	7.19	113.95	108.20
33	2	1373	U	O4'-C1'-N1	7.18	113.95	108.20
33	2	1672	U	O4'-C1'-N1	7.18	113.95	108.20
34	3	65	G	C5-C6-O6	-7.18	124.29	128.60
33	2	213	C	O4'-C1'-N1	7.18	113.95	108.20
33	2	397	G	C5-C6-O6	-7.18	124.29	128.60
33	2	447	C	O4'-C1'-N1	7.18	113.94	108.20
33	2	575	C	O4'-C1'-N1	7.18	113.94	108.20
33	2	864	G	C5-C6-O6	-7.18	124.29	128.60
33	2	215	U	O4'-C1'-N1	7.18	113.94	108.20
33	2	1464	C	O4'-C1'-N1	7.18	113.94	108.20
33	2	1793	G	C5-C6-O6	-7.17	124.30	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
39	1	72	U	O4'-C1'-N1	7.17	113.94	108.20
33	2	30	C	O4'-C1'-N1	7.17	113.94	108.20
33	2	989	G	C5-C6-O6	-7.17	124.30	128.60
33	2	343	C	O4'-C1'-N1	7.17	113.93	108.20
31	h	65	TYR	CB-CG-CD2	-7.16	116.70	121.00
33	2	108	G	C5-C6-O6	-7.16	124.30	128.60
33	2	1184	A	C4-C5-C6	7.16	120.58	117.00
33	2	347	C	O4'-C1'-N1	7.16	113.93	108.20
33	2	994	A	C4-C5-C6	7.16	120.58	117.00
33	2	1120	C	O4'-C1'-N1	7.16	113.93	108.20
33	2	1041	U	O4'-C1'-N1	7.16	113.92	108.20
33	2	1180	G	C5-C6-O6	-7.16	124.31	128.60
33	2	1481	U	O4'-C1'-N1	7.16	113.92	108.20
33	2	1376	C	N3-C4-N4	7.15	123.01	118.00
33	2	593	C	O4'-C1'-N1	7.15	113.92	108.20
33	2	1117	G	C5-C6-O6	-7.14	124.31	128.60
33	2	849	C	O4'-C1'-N1	7.14	113.92	108.20
33	2	1640	C	O4'-C1'-N1	7.14	113.91	108.20
33	2	840	U	O4'-C1'-N1	7.13	113.91	108.20
33	2	36	U	O4'-C1'-N1	7.13	113.91	108.20
33	2	671	U	O4'-C1'-N1	7.13	113.91	108.20
33	2	287	U	O4'-C1'-N1	7.13	113.91	108.20
33	2	328	G	C5-C6-O6	-7.13	124.32	128.60
33	2	844	U	O4'-C1'-N1	7.13	113.91	108.20
33	2	1316	G	C5-C6-O6	-7.13	124.32	128.60
33	2	637	U	O4'-C1'-N1	7.13	113.90	108.20
33	2	1395	C	O4'-C1'-N1	7.13	113.90	108.20
39	1	12	C	N3-C4-N4	7.13	122.99	118.00
33	2	334	U	O4'-C1'-N1	7.12	113.90	108.20
33	2	1765	G	C5-C6-O6	-7.12	124.33	128.60
39	1	61	C	O4'-C1'-N1	7.12	113.90	108.20
33	2	1391	C	O4'-C1'-N1	7.12	113.89	108.20
33	2	197	U	C2-N1-C1'	7.12	126.24	117.70
39	1	64	U	O4'-C1'-N1	7.11	113.89	108.20
33	2	1158	C	O4'-C1'-N1	7.11	113.89	108.20
33	2	1557	C	O4'-C1'-N1	7.11	113.89	108.20
33	2	1681	G	O4'-C1'-N9	7.11	113.89	108.20
33	2	1755	U	O4'-C1'-N1	7.11	113.89	108.20
33	2	1834	U	O4'-C1'-N1	7.11	113.89	108.20
33	2	1655	C	O4'-C1'-N1	7.11	113.88	108.20
33	2	377	C	O4'-C1'-N1	7.10	113.88	108.20
33	2	599	U	O4'-C1'-N1	7.10	113.88	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1570	G	C5-C6-O6	-7.10	124.34	128.60
33	2	374	U	O4'-C1'-N1	7.10	113.88	108.20
39	1	43	G	C5-C6-O6	-7.10	124.34	128.60
33	2	513	A	O4'-C1'-N9	7.10	113.88	108.20
33	2	544	A	O4'-C1'-N9	7.10	113.88	108.20
33	2	1063	C	O4'-C1'-N1	7.10	113.88	108.20
33	2	1178	A	C4-C5-C6	7.10	120.55	117.00
33	2	1665	C	O4'-C1'-N1	7.10	113.88	108.20
33	2	1567	C	O4'-C1'-N1	7.10	113.88	108.20
33	2	1671	U	O4'-C1'-N1	7.10	113.88	108.20
33	2	480	C	O4'-C1'-N1	7.09	113.88	108.20
33	2	1239	U	O4'-C1'-N1	7.09	113.88	108.20
33	2	114	G	C5-C6-O6	-7.09	124.34	128.60
33	2	623	C	O4'-C1'-N1	7.09	113.88	108.20
33	2	1474	U	O4'-C1'-N1	7.09	113.87	108.20
33	2	1298	G	C5-C6-O6	-7.09	124.35	128.60
33	2	1773	G	C5-C6-O6	-7.09	124.35	128.60
33	2	1774	G	O4'-C1'-N9	7.09	113.87	108.20
33	2	1170	U	O4'-C1'-N1	7.08	113.87	108.20
33	2	391	A	N1-C6-N6	7.08	122.85	118.60
33	2	730	C	O4'-C1'-N1	7.08	113.86	108.20
33	2	1159	C	O4'-C1'-N1	7.08	113.86	108.20
33	2	1533	C	O4'-C1'-N1	7.08	113.86	108.20
33	2	1612	G	C5-C6-O6	-7.08	124.36	128.60
33	2	1402	G	C5-C6-O6	-7.07	124.36	128.60
33	2	1569	C	O4'-C1'-N1	7.07	113.86	108.20
39	1	23	C	N3-C4-N4	7.07	122.95	118.00
33	2	224	U	P-O3'-C3'	7.07	128.19	119.70
33	2	1809	A	C4-C5-C6	7.07	120.53	117.00
33	2	415	G	C5-C6-O6	-7.07	124.36	128.60
33	2	815	G	C5-C6-O6	-7.07	124.36	128.60
33	2	949	C	O4'-C1'-N1	7.07	113.85	108.20
33	2	373	G	C5-C6-O6	-7.07	124.36	128.60
33	2	1750	C	N3-C4-N4	7.07	122.95	118.00
33	2	1848	U	O4'-C1'-N1	7.06	113.85	108.20
33	2	171	A	N1-C6-N6	7.06	122.84	118.60
33	2	505	G	C5-C6-O6	-7.06	124.36	128.60
33	2	966	G	C5-C6-O6	-7.06	124.36	128.60
33	2	181	A	C4-C5-C6	7.06	120.53	117.00
33	2	545	A	C5-C6-N6	-7.06	118.05	123.70
33	2	211	U	O4'-C1'-N1	7.06	113.84	108.20
33	2	1556	A	C4-C5-C6	7.06	120.53	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1111	U	C2-N1-C1'	7.05	126.16	117.70
33	2	1335	U	O4'-C1'-N1	7.05	113.84	108.20
33	2	1680	U	O4'-C1'-N1	7.05	113.84	108.20
33	2	413	U	O4'-C1'-N1	7.05	113.84	108.20
33	2	895	U	O4'-C1'-N1	7.05	113.84	108.20
33	2	34	U	O4'-C1'-N1	7.04	113.84	108.20
33	2	321	C	O4'-C1'-N1	7.04	113.84	108.20
33	2	1562	G	C5-C6-O6	-7.04	124.37	128.60
33	2	349	U	O4'-C1'-N1	7.04	113.83	108.20
33	2	219	U	O4'-C1'-N1	7.04	113.83	108.20
33	2	317	G	O4'-C1'-N9	7.04	113.83	108.20
33	2	472	G	C5-C6-O6	-7.04	124.38	128.60
33	2	474	A	C4-C5-C6	7.04	120.52	117.00
33	2	588	G	O4'-C1'-N9	7.04	113.83	108.20
33	2	635	C	N3-C4-N4	7.04	122.93	118.00
33	2	17	C	N3-C4-N4	7.04	122.92	118.00
33	2	1046	A	O4'-C1'-N9	7.04	113.83	108.20
34	3	64	G	C5-C6-O6	-7.04	124.38	128.60
33	2	238	G	C5-C6-O6	-7.03	124.38	128.60
33	2	1045	A	C4-C5-C6	7.03	120.52	117.00
33	2	655	G	C5-C6-O6	-7.03	124.38	128.60
33	2	1721	G	C5-C6-O6	-7.03	124.38	128.60
39	1	71	C	N3-C4-N4	7.03	122.92	118.00
33	2	1704	G	C5-C6-O6	-7.03	124.38	128.60
33	2	541	U	O4'-C1'-N1	7.03	113.82	108.20
33	2	1308	G	C5-C6-O6	-7.03	124.38	128.60
33	2	1200	A	C5-C6-N6	-7.03	118.08	123.70
33	2	1405	A	C5-C6-N6	-7.03	118.08	123.70
33	2	878	U	O4'-C1'-N1	7.02	113.82	108.20
33	2	1240	U	O4'-C1'-N1	7.02	113.82	108.20
33	2	1490	U	O4'-C1'-N1	7.02	113.82	108.20
39	1	41	C	O4'-C1'-N1	7.02	113.82	108.20
33	2	449	C	O4'-C1'-N1	7.02	113.81	108.20
33	2	536	G	P-O3'-C3'	7.02	128.12	119.70
33	2	602	U	O4'-C1'-N1	7.02	113.81	108.20
33	2	49	C	O4'-C1'-N1	7.01	113.81	108.20
33	2	322	G	C5-C6-O6	-7.01	124.39	128.60
33	2	402	G	C5-C6-O6	-7.01	124.39	128.60
33	2	1355	U	O4'-C1'-N1	7.01	113.81	108.20
33	2	549	G	O4'-C1'-N9	7.01	113.81	108.20
33	2	730	C	N3-C4-N4	7.01	122.91	118.00
33	2	1808	G	C5-C6-O6	-7.01	124.39	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	460	G	C5-C6-O6	-7.01	124.39	128.60
33	2	1647	G	C5-C6-O6	-7.01	124.39	128.60
33	2	207	U	O4'-C1'-N1	7.00	113.80	108.20
33	2	229	A	C4-C5-C6	7.00	120.50	117.00
33	2	1603	U	O4'-C1'-N1	7.00	113.80	108.20
33	2	1628	A	C4-C5-C6	7.00	120.50	117.00
33	2	462	C	O4'-C1'-N1	7.00	113.80	108.20
33	2	1462	G	C5-C6-O6	-7.00	124.40	128.60
33	2	31	U	O4'-C1'-N1	7.00	113.80	108.20
33	2	101	U	O4'-C1'-N1	7.00	113.80	108.20
33	2	1241	G	C5-C6-O6	-6.99	124.40	128.60
33	2	321	C	N3-C4-N4	6.99	122.89	118.00
33	2	1357	G	C5-C6-O6	-6.99	124.41	128.60
33	2	1513	C	O4'-C1'-N1	6.99	113.79	108.20
33	2	963	C	O4'-C1'-N1	6.99	113.79	108.20
33	2	1306	U	O4'-C1'-N1	6.98	113.79	108.20
33	2	1032	A	C5-C6-N6	-6.98	118.11	123.70
33	2	331	C	O4'-C1'-N1	6.98	113.78	108.20
33	2	1637	U	O4'-C1'-N1	6.98	113.78	108.20
33	2	20	G	C5-C6-O6	-6.98	124.41	128.60
33	2	1074	C	O4'-C1'-N1	6.98	113.78	108.20
33	2	86	C	N3-C4-N4	6.98	122.88	118.00
33	2	520	U	O4'-C1'-N1	6.98	113.78	108.20
33	2	1471	G	C5-C6-O6	-6.98	124.41	128.60
33	2	1559	C	N3-C4-N4	6.97	122.88	118.00
8	I	28	TYR	CB-CG-CD2	-6.97	116.82	121.00
33	2	1624	C	N3-C4-N4	6.97	122.88	118.00
33	2	116	U	O4'-C1'-N1	6.96	113.77	108.20
33	2	153	G	C5-C6-O6	-6.96	124.42	128.60
33	2	1409	G	O4'-C1'-N9	6.96	113.77	108.20
33	2	1858	U	O4'-C1'-N1	6.96	113.77	108.20
33	2	311	C	N3-C4-N4	6.96	122.87	118.00
33	2	1668	U	O4'-C1'-N1	6.96	113.77	108.20
33	2	210	G	C5-C6-O6	-6.96	124.42	128.60
33	2	100	U	O4'-C1'-N1	6.96	113.76	108.20
33	2	1252	G	C5-C6-O6	-6.96	124.43	128.60
33	2	936	U	O4'-C1'-N1	6.95	113.76	108.20
33	2	1326	G	C5-C6-O6	-6.95	124.43	128.60
33	2	1482	A	O4'-C1'-N9	6.95	113.76	108.20
33	2	1715	U	O4'-C1'-N1	6.95	113.76	108.20
33	2	378	U	O4'-C1'-N1	6.95	113.76	108.20
33	2	1023	A	C4-C5-C6	6.95	120.47	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	g	101	PHE	CB-CG-CD1	6.95	125.66	120.80
33	2	1056	A	O4'-C1'-N9	6.95	113.76	108.20
33	2	1188	U	O4'-C1'-N1	6.95	113.76	108.20
33	2	1666	G	C5-C6-O6	-6.95	124.43	128.60
33	2	1346	U	O4'-C1'-N1	6.94	113.75	108.20
33	2	301	C	O4'-C1'-N1	6.94	113.75	108.20
33	2	1200	A	C4-C5-C6	6.94	120.47	117.00
33	2	1453	U	O4'-C1'-N1	6.94	113.75	108.20
33	2	1015	C	O4'-C1'-N1	6.94	113.75	108.20
33	2	1173	U	O4'-C1'-N1	6.93	113.75	108.20
39	1	71	C	O4'-C1'-N1	6.93	113.75	108.20
33	2	152	U	O4'-C1'-N1	6.93	113.75	108.20
33	2	960	A	C4-C5-C6	6.93	120.47	117.00
33	2	1493	G	C5-C6-O6	-6.93	124.44	128.60
39	1	63	A	C5-C6-N6	-6.93	118.15	123.70
39	1	36	U	O4'-C1'-N1	6.93	113.75	108.20
33	2	891	G	O4'-C1'-N9	6.93	113.74	108.20
33	2	1516	C	N3-C4-N4	6.92	122.85	118.00
33	2	1623	C	O4'-C1'-N1	6.92	113.74	108.20
33	2	874	G	C5-C6-O6	-6.92	124.45	128.60
33	2	808	A	C5-C6-N6	-6.92	118.16	123.70
33	2	577	A	C4-C5-C6	6.92	120.46	117.00
33	2	1394	G	C5-C6-O6	-6.92	124.45	128.60
33	2	665	U	O4'-C1'-N1	6.92	113.73	108.20
33	2	1503	G	C5-C6-O6	-6.92	124.45	128.60
33	2	977	A	C5-C6-N6	-6.92	118.17	123.70
33	2	370	G	C5-C6-O6	-6.91	124.45	128.60
33	2	1163	G	C5-C6-O6	-6.91	124.45	128.60
33	2	1414	C	O4'-C1'-N1	6.91	113.73	108.20
33	2	1620	U	O4'-C1'-N1	6.91	113.73	108.20
33	2	672	U	O4'-C1'-N1	6.91	113.73	108.20
33	2	1228	U	O4'-C1'-N1	6.91	113.73	108.20
39	1	18	G	P-O3'-C3'	6.91	127.99	119.70
33	2	222	G	C5-C6-O6	-6.91	124.46	128.60
33	2	305	U	O4'-C1'-N1	6.91	113.73	108.20
33	2	603	C	O4'-C1'-N1	6.91	113.72	108.20
33	2	1276	G	C5-C6-O6	-6.91	124.46	128.60
33	2	1768	C	N3-C4-N4	6.90	122.83	118.00
33	2	341	G	O4'-C1'-N9	6.90	113.72	108.20
4	E	251	TYR	CB-CG-CD1	6.90	125.14	121.00
33	2	799	C	O4'-C1'-N1	6.90	113.72	108.20
33	2	1165	G	C5-C6-O6	-6.90	124.46	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1396	U	O4'-C1'-N1	6.90	113.72	108.20
33	2	1833	U	O4'-C1'-N1	6.90	113.72	108.20
33	2	383	U	O4'-C1'-N1	6.90	113.72	108.20
33	2	615	G	C5-C6-O6	-6.90	124.46	128.60
33	2	524	G	O4'-C1'-N9	6.90	113.72	108.20
33	2	910	U	O4'-C1'-N1	6.90	113.72	108.20
33	2	437	A	C4-C5-C6	6.89	120.45	117.00
33	2	955	G	C5-C6-O6	-6.89	124.46	128.60
33	2	1646	A	C4-C5-C6	6.89	120.45	117.00
33	2	537	G	C5-C6-O6	-6.89	124.47	128.60
33	2	1222	G	C5-C6-O6	-6.89	124.47	128.60
33	2	1700	C	N3-C4-N4	6.89	122.82	118.00
33	2	1469	G	C5-C6-O6	-6.88	124.47	128.60
39	1	55	U	O4'-C1'-N1	6.88	113.71	108.20
33	2	16	G	C5-C6-O6	-6.88	124.47	128.60
33	2	194	C	O4'-C1'-N1	6.88	113.70	108.20
33	2	1009	U	O4'-C1'-N1	6.88	113.70	108.20
33	2	1042	U	O4'-C1'-N1	6.88	113.70	108.20
33	2	1086	C	O4'-C1'-N1	6.88	113.70	108.20
39	1	14	C	O4'-C1'-N1	6.88	113.70	108.20
33	2	1525	U	O4'-C1'-N1	6.88	113.70	108.20
33	2	286	C	N3-C4-N4	6.88	122.81	118.00
33	2	486	C	O4'-C1'-N1	6.87	113.70	108.20
33	2	1197	U	O4'-C1'-N1	6.87	113.70	108.20
33	2	1742	C	O4'-C1'-N1	6.87	113.70	108.20
33	2	14	C	O4'-C1'-N1	6.87	113.69	108.20
33	2	465	C	N3-C4-N4	6.87	122.81	118.00
39	1	50	A	C5-C6-N6	-6.87	118.20	123.70
33	2	173	A	C4-C5-C6	6.87	120.43	117.00
33	2	51	U	O4'-C1'-N1	6.86	113.69	108.20
33	2	501	U	O4'-C1'-N1	6.86	113.69	108.20
39	1	18	G	OP1-P-O3'	-6.86	90.11	105.20
33	2	1584	A	C4-C5-C6	6.86	120.43	117.00
33	2	921	G	C5-C6-O6	-6.86	124.48	128.60
33	2	1463	C	O4'-C1'-N1	6.86	113.69	108.20
33	2	124	U	O4'-C1'-N1	6.86	113.68	108.20
33	2	230	C	O4'-C1'-N1	6.86	113.68	108.20
33	2	1220	G	C5-C6-O6	-6.86	124.49	128.60
33	2	1353	A	C4-C5-C6	6.86	120.43	117.00
33	2	1730	A	C4-C5-C6	6.86	120.43	117.00
33	2	842	G	C5-C6-O6	-6.85	124.49	128.60
33	2	153	G	O4'-C1'-N9	6.85	113.68	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	26	U	O4'-C1'-N1	6.85	113.68	108.20
33	2	967	G	C5-C6-O6	-6.85	124.49	128.60
33	2	1035	C	O4'-C1'-N1	6.85	113.68	108.20
33	2	1287	A	C4-C5-C6	6.85	120.42	117.00
33	2	852	C	O4'-C1'-N1	6.84	113.68	108.20
33	2	1021	U	O4'-C1'-N1	6.84	113.68	108.20
39	1	33	C	O4'-C1'-N1	6.84	113.68	108.20
33	2	75	G	C5-C6-O6	-6.84	124.49	128.60
33	2	168	C	O4'-C1'-N1	6.84	113.67	108.20
33	2	1199	G	C5-C6-O6	-6.84	124.49	128.60
33	2	1049	C	O4'-C1'-N1	6.84	113.67	108.20
33	2	1578	C	O4'-C1'-N1	6.84	113.67	108.20
39	1	47	U	O4'-C1'-N1	6.84	113.67	108.20
33	2	554	A	C5-C6-N6	-6.83	118.23	123.70
33	2	583	C	O4'-C1'-N1	6.83	113.67	108.20
33	2	962	U	O4'-C1'-N1	6.83	113.67	108.20
33	2	1243	C	O4'-C1'-N1	6.83	113.67	108.20
39	1	48	C	N3-C4-C5	-6.83	119.17	121.90
33	2	504	U	O4'-C1'-N1	6.83	113.67	108.20
33	2	888	U	O4'-C1'-N1	6.83	113.67	108.20
33	2	1171	G	C5-C6-O6	-6.83	124.50	128.60
33	2	1618	A	O4'-C1'-N9	6.83	113.66	108.20
33	2	480	C	N3-C4-N4	6.82	122.78	118.00
33	2	998	U	O4'-C1'-N1	6.82	113.66	108.20
34	3	62	G	C5-C6-O6	-6.82	124.51	128.60
33	2	627	U	O4'-C1'-N1	6.82	113.66	108.20
33	2	99	A	C4-C5-C6	6.82	120.41	117.00
33	2	414	C	N3-C4-N4	6.82	122.77	118.00
33	2	933	C	N3-C4-N4	6.82	122.77	118.00
33	2	1788	C	N3-C4-N4	6.82	122.77	118.00
33	2	614	C	O4'-C1'-N1	6.82	113.65	108.20
33	2	1406	C	O4'-C1'-N1	6.82	113.65	108.20
33	2	1575	A	C5-C6-N6	-6.82	118.25	123.70
33	2	109	U	O4'-C1'-N1	6.82	113.65	108.20
33	2	1095	G	C5-C6-O6	-6.82	124.51	128.60
33	2	1804	U	O4'-C1'-N1	6.82	113.65	108.20
33	2	1217	G	C5-C6-O6	-6.81	124.51	128.60
33	2	104	A	C4-C5-C6	6.81	120.41	117.00
33	2	417	U	O4'-C1'-N1	6.81	113.65	108.20
33	2	556	U	O4'-C1'-N1	6.81	113.65	108.20
33	2	835	C	C2-N1-C1'	6.81	126.29	118.80
33	2	466	A	C5-C6-N6	-6.81	118.25	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	563	U	O4'-C1'-N1	6.81	113.64	108.20
33	2	673	G	C5-C6-O6	-6.81	124.52	128.60
33	2	1186	A	C4-C5-C6	6.80	120.40	117.00
33	2	1298	G	O4'-C1'-N9	6.80	113.64	108.20
33	2	364	G	C5-C6-O6	-6.80	124.52	128.60
33	2	1431	C	N3-C4-N4	6.80	122.76	118.00
33	2	576	G	C5-C6-O6	-6.80	124.52	128.60
39	1	28	U	O4'-C1'-N1	6.80	113.64	108.20
33	2	642	U	O4'-C1'-N1	6.79	113.64	108.20
33	2	87	U	O4'-C1'-N1	6.79	113.64	108.20
33	2	205	G	C5-C6-O6	-6.79	124.52	128.60
33	2	317	G	C5-C6-O6	-6.79	124.52	128.60
33	2	1108	U	O4'-C1'-N1	6.79	113.63	108.20
33	2	1349	A	C5-C6-N6	-6.79	118.27	123.70
33	2	344	U	O4'-C1'-N1	6.79	113.63	108.20
33	2	430	G	O4'-C1'-N9	6.79	113.63	108.20
33	2	1610	U	O4'-C1'-N1	6.79	113.63	108.20
33	2	1631	G	C5-C6-O6	-6.79	124.53	128.60
33	2	1213	A	C4-C5-C6	6.79	120.39	117.00
33	2	1114	C	O4'-C1'-N1	6.78	113.63	108.20
33	2	1154	G	C5-C6-O6	-6.78	124.53	128.60
39	1	38	A	C5-C6-N6	-6.78	118.28	123.70
33	2	868	A	O4'-C1'-N9	6.78	113.62	108.20
33	2	1292	U	O4'-C1'-N1	6.78	113.62	108.20
33	2	184	G	C5-C6-O6	-6.78	124.53	128.60
33	2	362	U	O4'-C1'-N1	6.77	113.62	108.20
33	2	1390	G	C5-C6-O6	-6.77	124.53	128.60
33	2	452	C	O4'-C1'-N1	6.77	113.62	108.20
33	2	1771	G	O4'-C1'-N9	6.77	113.62	108.20
33	2	1124	C	O4'-C1'-N1	6.77	113.62	108.20
39	1	54	A	C4-C5-C6	6.77	120.39	117.00
33	2	428	G	C5-C6-O6	-6.77	124.54	128.60
33	2	647	U	O4'-C1'-N1	6.77	113.62	108.20
33	2	1740	A	C4-C5-C6	6.77	120.39	117.00
39	1	14	C	N3-C4-N4	6.77	122.74	118.00
33	2	461	G	C5-C6-O6	-6.76	124.54	128.60
33	2	1634	G	C5-C6-O6	-6.76	124.54	128.60
33	2	641	U	O4'-C1'-N1	6.76	113.61	108.20
33	2	1626	U	O4'-C1'-N1	6.76	113.61	108.20
33	2	675	A	P-O3'-C3'	-6.76	111.59	119.70
33	2	1297	A	O4'-C1'-N9	6.76	113.61	108.20
33	2	1754	G	O4'-C1'-N9	6.76	113.61	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	23	G	C5-C6-O6	-6.76	124.54	128.60
33	2	68	A	C5-C6-N6	-6.76	118.29	123.70
33	2	1527	C	N3-C4-N4	6.76	122.73	118.00
33	2	1155	G	C5-C6-O6	-6.76	124.55	128.60
33	2	1825	A	C4-C5-C6	6.76	120.38	117.00
33	2	488	C	O4'-C1'-N1	6.75	113.60	108.20
33	2	832	G	C5-C6-O6	-6.75	124.55	128.60
33	2	1597	U	O4'-C1'-N1	6.75	113.60	108.20
33	2	551	A	O4'-C1'-N9	6.75	113.60	108.20
33	2	799	C	N3-C4-N4	6.75	122.72	118.00
39	1	31	G	O4'-C1'-N9	6.75	113.60	108.20
33	2	877	G	C5-C6-O6	-6.75	124.55	128.60
33	2	1593	G	C5-C6-O6	-6.75	124.55	128.60
33	2	272	C	N3-C4-N4	6.74	122.72	118.00
33	2	1389	G	C5-C6-O6	-6.74	124.55	128.60
33	2	1027	A	C5-C6-N6	-6.74	118.31	123.70
33	2	1420	G	C5-C6-O6	-6.74	124.56	128.60
33	2	90	G	C5-C6-O6	-6.74	124.56	128.60
33	2	1144	A	O4'-C1'-N9	6.74	113.59	108.20
33	2	442	G	C5-C6-O6	-6.73	124.56	128.60
33	2	571	U	O4'-C1'-N1	6.73	113.59	108.20
33	2	9	U	O4'-C1'-N1	6.73	113.58	108.20
33	2	1299	C	C2-N1-C1'	6.73	126.20	118.80
33	2	487	C	O4'-C1'-N1	6.72	113.58	108.20
33	2	528	U	O4'-C1'-N1	6.72	113.58	108.20
33	2	1297	A	C4-C5-C6	6.72	120.36	117.00
33	2	195	C	O4'-C1'-N1	6.72	113.57	108.20
33	2	458	A	C5-C6-N6	-6.72	118.33	123.70
33	2	275	C	C2-N1-C1'	6.71	126.19	118.80
33	2	97	U	O4'-C1'-N1	6.71	113.57	108.20
33	2	113	G	C5-C6-O6	-6.71	124.57	128.60
33	2	817	G	C5-C6-O6	-6.71	124.57	128.60
33	2	1156	U	O4'-C1'-N1	6.71	113.57	108.20
33	2	1713	G	N3-C2-N2	6.71	124.60	119.90
33	2	336	C	N3-C4-N4	6.71	122.70	118.00
33	2	485	U	O4'-C1'-N1	6.71	113.57	108.20
33	2	1234	U	O4'-C1'-N1	6.71	113.57	108.20
33	2	587	G	O4'-C1'-N9	6.71	113.56	108.20
33	2	797	U	O4'-C1'-N1	6.71	113.56	108.20
33	2	920	G	C5-C6-O6	-6.71	124.58	128.60
39	1	15	A	C5-C6-N6	-6.70	118.34	123.70
39	1	25	U	O4'-C1'-N1	6.70	113.56	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	811	U	O4'-C1'-N1	6.70	113.56	108.20
33	2	622	C	O4'-C1'-N1	6.70	113.56	108.20
33	2	548	G	C5-C6-O6	-6.70	124.58	128.60
33	2	1224	A	C4-C5-C6	6.70	120.35	117.00
33	2	882	A	C5-C6-N6	-6.69	118.34	123.70
33	2	18	C	N3-C4-N4	6.69	122.69	118.00
33	2	410	G	C5-C6-O6	-6.69	124.58	128.60
33	2	997	A	C5-C6-N6	-6.69	118.35	123.70
39	1	2	A	C5-C6-N6	-6.69	118.35	123.70
33	2	911	G	C5-C6-O6	-6.69	124.59	128.60
33	2	120	U	O4'-C1'-N1	6.69	113.55	108.20
33	2	829	C	N3-C4-N4	6.69	122.68	118.00
33	2	1058	A	C4-C5-C6	6.69	120.34	117.00
33	2	1068	U	O4'-C1'-N1	6.69	113.55	108.20
33	2	1388	U	O4'-C1'-N1	6.69	113.55	108.20
33	2	876	G	C5-C6-O6	-6.68	124.59	128.60
33	2	1138	G	C5-C6-O6	-6.68	124.59	128.60
39	1	40	C	N3-C4-N4	6.68	122.68	118.00
33	2	392	C	N3-C4-N4	6.68	122.68	118.00
33	2	1022	C	N3-C4-N4	6.68	122.68	118.00
33	2	1460	C	O4'-C1'-N1	6.68	113.55	108.20
33	2	1607	G	O4'-C1'-N9	6.68	113.55	108.20
34	3	71	G	C5-C6-O6	-6.68	124.59	128.60
33	2	646	G	C5-C6-O6	-6.68	124.59	128.60
34	3	75	U	O4'-C1'-N1	6.68	113.54	108.20
33	2	540	C	N3-C4-N4	6.67	122.67	118.00
33	2	974	G	O4'-C1'-N9	6.67	113.54	108.20
33	2	1091	U	O4'-C1'-N1	6.67	113.54	108.20
33	2	467	G	O4'-C1'-N9	6.67	113.54	108.20
33	2	1029	G	C5-C6-O6	-6.67	124.60	128.60
33	2	1082	G	C5-C6-O6	-6.67	124.60	128.60
33	2	1360	U	C2-N1-C1'	6.67	125.70	117.70
33	2	80	G	O4'-C1'-N9	6.67	113.53	108.20
33	2	291	U	O4'-C1'-N1	6.67	113.53	108.20
33	2	907	C	O4'-C1'-N1	6.67	113.53	108.20
33	2	1142	C	O4'-C1'-N1	6.67	113.53	108.20
33	2	510	A	O4'-C1'-N9	6.67	113.53	108.20
33	2	1224	A	C5-C6-N6	-6.67	118.37	123.70
33	2	1472	A	C4-C5-C6	6.66	120.33	117.00
33	2	177	G	N3-C2-N2	6.66	124.56	119.90
33	2	965	U	O4'-C1'-N1	6.66	113.53	108.20
39	1	7	A	C5-C6-N6	-6.66	118.37	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	12	U	O4'-C1'-N1	6.66	113.53	108.20
33	2	164	A	C4-C5-C6	6.66	120.33	117.00
33	2	964	U	O4'-C1'-N1	6.66	113.53	108.20
33	2	1130	G	O4'-C1'-N9	6.66	113.53	108.20
33	2	1609	A	C5-C6-N6	-6.66	118.37	123.70
33	2	121	U	O4'-C1'-N1	6.66	113.52	108.20
33	2	855	G	C5-C6-O6	-6.66	124.61	128.60
33	2	1775	A	C5-C6-N6	-6.66	118.38	123.70
33	2	1816	A	O3'-P-O5'	-6.66	91.36	104.00
33	2	1838	U	O4'-C1'-N1	6.66	113.53	108.20
33	2	231	C	N3-C4-N4	6.65	122.66	118.00
33	2	907	C	N3-C4-N4	6.65	122.66	118.00
33	2	1654	U	O4'-C1'-N1	6.65	113.52	108.20
33	2	1853	A	C5-C6-N6	-6.65	118.38	123.70
33	2	357	U	O4'-C1'-N1	6.65	113.52	108.20
33	2	373	G	O4'-C1'-N9	6.65	113.52	108.20
33	2	1040	G	C5-C6-O6	-6.65	124.61	128.60
33	2	1441	U	O4'-C1'-N1	6.65	113.52	108.20
33	2	1201	C	N3-C4-N4	6.65	122.66	118.00
33	2	1738	G	C5-C6-O6	-6.65	124.61	128.60
33	2	1839	A	C5-C6-N6	-6.65	118.38	123.70
33	2	177	G	C5-C6-O6	-6.65	124.61	128.60
39	1	30	G	O4'-C1'-N9	6.65	113.52	108.20
33	2	1591	U	O4'-C1'-N1	6.65	113.52	108.20
33	2	976	A	C5-C6-N6	-6.64	118.38	123.70
33	2	1001	G	O4'-C1'-N9	6.64	113.52	108.20
33	2	1843	G	O4'-C1'-N9	6.64	113.51	108.20
33	2	512	A	O4'-C1'-N9	6.64	113.51	108.20
33	2	909	A	O4'-C1'-N9	6.64	113.51	108.20
33	2	1142	C	N3-C4-N4	6.64	122.65	118.00
33	2	441	G	C5-C6-O6	-6.64	124.62	128.60
33	2	900	A	O4'-C1'-N9	6.64	113.51	108.20
33	2	1378	A	C5-C6-N6	-6.64	118.39	123.70
33	2	1548	C	O4'-C1'-N1	6.64	113.51	108.20
33	2	1656	A	C4-C5-C6	6.64	120.32	117.00
33	2	833	A	C4-C5-C6	6.64	120.32	117.00
33	2	1169	A	C4-C5-C6	6.64	120.32	117.00
33	2	1157	U	O4'-C1'-N1	6.63	113.51	108.20
33	2	1596	A	C4-C5-C6	6.63	120.32	117.00
33	2	233	A	C5-C6-N6	-6.63	118.39	123.70
33	2	1299	C	O4'-C1'-N1	6.63	113.50	108.20
33	2	1174	U	O4'-C1'-N1	6.63	113.50	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1521	G	C5-C6-O6	-6.63	124.62	128.60
33	2	1329	U	O4'-C1'-N1	6.63	113.50	108.20
33	2	1797	U	O4'-C1'-N1	6.63	113.50	108.20
33	2	1515	G	C4-N9-C1'	6.62	135.11	126.50
33	2	1856	G	C5-C6-O6	-6.62	124.63	128.60
33	2	1052	U	O4'-C1'-N1	6.62	113.50	108.20
33	2	1105	C	C6-N1-C1'	-6.62	112.86	120.80
33	2	1623	C	N3-C4-N4	6.62	122.64	118.00
33	2	889	U	O4'-C1'-N1	6.62	113.50	108.20
33	2	280	G	C5-C6-O6	-6.62	124.63	128.60
33	2	954	G	C5-C6-O6	-6.62	124.63	128.60
33	2	970	C	N3-C4-N4	6.62	122.63	118.00
33	2	1817	A	OP2-P-O3'	6.62	119.76	105.20
33	2	1723	U	O4'-C1'-N1	6.62	113.49	108.20
33	2	69	C	N3-C4-N4	6.61	122.63	118.00
33	2	432	C	N3-C4-N4	6.61	122.63	118.00
33	2	966	G	O4'-C1'-N9	6.61	113.49	108.20
33	2	525	G	O4'-C1'-N9	6.61	113.49	108.20
33	2	1728	U	O4'-C1'-N1	6.61	113.49	108.20
33	2	1438	U	O4'-C1'-N1	6.61	113.49	108.20
33	2	281	U	O4'-C1'-N1	6.61	113.49	108.20
33	2	387	G	C5-C6-O6	-6.61	124.64	128.60
36	B	137	PHE	CB-CG-CD1	6.61	125.42	120.80
33	2	179	C	O4'-C1'-N1	6.60	113.48	108.20
33	2	80	G	P-O3'-C3'	6.60	127.62	119.70
33	2	1002	C	N3-C4-N4	6.60	122.62	118.00
33	2	1317	G	C5-C6-O6	-6.60	124.64	128.60
33	2	452	C	N3-C4-N4	6.60	122.62	118.00
33	2	176	U	O4'-C1'-N1	6.60	113.48	108.20
33	2	1270	G	C5-C6-O6	-6.60	124.64	128.60
33	2	471	C	N3-C4-N4	6.60	122.62	118.00
33	2	337	G	O4'-C1'-N9	6.59	113.48	108.20
33	2	1028	C	N3-C4-N4	6.59	122.61	118.00
33	2	1263	C	N3-C4-N4	6.59	122.62	118.00
33	2	13	C	O4'-C1'-N1	6.59	113.47	108.20
33	2	1508	C	O4'-C1'-N1	6.59	113.47	108.20
33	2	1352	G	C5-C6-O6	-6.59	124.64	128.60
33	2	5	U	O4'-C1'-N1	6.59	113.47	108.20
33	2	1753	G	O4'-C1'-N9	6.59	113.47	108.20
33	2	1185	A	C4-C5-C6	6.58	120.29	117.00
33	2	237	G	C5-C6-O6	-6.58	124.65	128.60
33	2	1625	A	C5-C6-N1	-6.58	114.41	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1127	G	C5-C6-O6	-6.58	124.65	128.60
33	2	1182	U	O4'-C1'-N1	6.58	113.47	108.20
33	2	1791	U	O4'-C1'-N1	6.58	113.46	108.20
33	2	1251	G	C5-C6-O6	-6.58	124.65	128.60
33	2	1463	C	N3-C4-N4	6.58	122.61	118.00
33	2	868	A	C4-C5-C6	6.58	120.29	117.00
33	2	996	C	O4'-C1'-N1	6.58	113.46	108.20
33	2	1582	G	C5-C6-O6	-6.58	124.66	128.60
16	Q	34	PHE	CB-CG-CD2	-6.57	116.20	120.80
33	2	38	A	O4'-C1'-N9	6.57	113.46	108.20
33	2	572	U	O4'-C1'-N1	6.57	113.46	108.20
33	2	1177	A	C5-C6-N6	-6.57	118.44	123.70
39	1	16	G	O4'-C1'-N9	6.57	113.46	108.20
34	3	68	A	C4-C5-C6	6.57	120.29	117.00
33	2	82	G	C5-C6-O6	-6.57	124.66	128.60
33	2	539	C	O4'-C1'-N1	6.57	113.45	108.20
33	2	1054	A	C4-C5-C6	6.57	120.28	117.00
33	2	516	A	O4'-C1'-N9	6.56	113.45	108.20
33	2	824	G	C5-C6-O6	-6.56	124.66	128.60
33	2	1293	U	O4'-C1'-N1	6.56	113.45	108.20
33	2	1428	U	O4'-C1'-N1	6.56	113.45	108.20
33	2	1687	U	O4'-C1'-N1	6.56	113.45	108.20
33	2	225	C	O4'-C1'-N1	6.56	113.45	108.20
33	2	299	G	C5-C6-O6	-6.56	124.67	128.60
33	2	1136	G	O4'-C1'-N9	6.56	113.44	108.20
33	2	1810	G	O4'-C1'-N9	6.56	113.45	108.20
33	2	1375	A	C4-C5-C6	6.56	120.28	117.00
33	2	1611	U	O4'-C1'-N1	6.56	113.44	108.20
33	2	859	U	O4'-C1'-N1	6.55	113.44	108.20
33	2	1359	C	N3-C4-N4	6.55	122.59	118.00
33	2	1458	U	O4'-C1'-N1	6.55	113.44	108.20
33	2	1630	C	O4'-C1'-N1	6.55	113.44	108.20
33	2	1107	U	O4'-C1'-N1	6.55	113.44	108.20
33	2	1354	U	O4'-C1'-N1	6.55	113.44	108.20
33	2	1843	G	C5-C6-O6	-6.55	124.67	128.60
33	2	91	A	C4-C5-C6	6.55	120.28	117.00
33	2	843	A	C4-C5-C6	6.55	120.28	117.00
33	2	858	A	C4-C5-C6	6.55	120.28	117.00
33	2	1083	A	C4-C5-C6	6.55	120.27	117.00
33	2	1167	G	C5-C6-O6	-6.55	124.67	128.60
33	2	1714	A	C4-C5-C6	6.55	120.27	117.00
33	2	40	A	C4-C5-C6	6.55	120.27	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	813	G	C5-C6-O6	-6.55	124.67	128.60
33	2	1060	C	N3-C4-N4	6.55	122.58	118.00
33	2	1066	A	C4-C5-C6	6.55	120.27	117.00
33	2	155	G	C5-C6-O6	-6.54	124.67	128.60
33	2	421	G	O4'-C1'-N9	6.54	113.44	108.20
33	2	544	A	C4-C5-C6	6.54	120.27	117.00
33	2	968	A	C4-C5-C6	6.54	120.27	117.00
33	2	645	A	C4-C5-C6	6.54	120.27	117.00
33	2	1539	C	N3-C4-N4	6.54	122.58	118.00
33	2	82	G	N3-C2-N2	6.54	124.48	119.90
33	2	654	A	O4'-C1'-N9	6.54	113.43	108.20
33	2	657	U	O4'-C1'-N1	6.54	113.43	108.20
33	2	164	A	C5-C6-N6	-6.54	118.47	123.70
33	2	548	G	O4'-C1'-N9	6.54	113.43	108.20
34	3	73	G	C5-C6-O6	-6.54	124.68	128.60
33	2	386	U	O4'-C1'-N1	6.54	113.43	108.20
38	R	37	TYR	CB-CG-CD2	-6.54	117.08	121.00
33	2	451	U	O4'-C1'-N1	6.54	113.43	108.20
33	2	594	A	C4-C5-C6	6.53	120.27	117.00
33	2	1132	U	O4'-C1'-N1	6.53	113.43	108.20
33	2	1172	G	O4'-C1'-N9	6.53	113.43	108.20
33	2	1507	U	O4'-C1'-N1	6.53	113.43	108.20
33	2	1673	A	C4-C5-C6	6.53	120.27	117.00
33	2	1779	C	N3-C4-N4	6.53	122.57	118.00
33	2	1799	G	C5-C6-O6	-6.53	124.68	128.60
33	2	1479	A	C4-C5-C6	6.53	120.27	117.00
39	1	60	A	C5-C6-N6	-6.53	118.47	123.70
33	2	1047	G	O4'-C1'-N9	6.53	113.42	108.20
33	2	1245	C	O4'-C1'-N1	6.53	113.42	108.20
33	2	1539	C	O4'-C1'-N1	6.53	113.42	108.20
33	2	63	U	O4'-C1'-N1	6.53	113.42	108.20
33	2	1629	A	C4-C5-C6	6.53	120.26	117.00
33	2	923	C	N3-C4-N4	6.52	122.57	118.00
33	2	1368	U	O4'-C1'-N1	6.52	113.42	108.20
34	3	52	A	C5-C6-N6	-6.52	118.48	123.70
33	2	1706	U	O4'-C1'-N1	6.52	113.42	108.20
33	2	1662	U	O4'-C1'-N1	6.52	113.42	108.20
33	2	1407	G	O4'-C1'-N9	6.52	113.42	108.20
39	1	46	G	C5-C6-O6	-6.52	124.69	128.60
33	2	839	C	N3-C4-N4	6.52	122.56	118.00
33	2	872	C	O4'-C1'-N1	6.52	113.41	108.20
33	2	1825	A	C5-C6-N6	-6.52	118.48	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	439	A	C4-C5-C6	6.52	120.26	117.00
35	A	54	ARG	O-C-N	-6.52	112.27	122.70
33	2	342	U	O4'-C1'-N1	6.51	113.41	108.20
33	2	1422	U	O4'-C1'-N1	6.51	113.41	108.20
33	2	1800	A	C5-C6-N6	-6.51	118.49	123.70
33	2	1635	A	C4-C5-C6	6.51	120.26	117.00
33	2	1660	G	C5-C6-O6	-6.51	124.69	128.60
33	2	1796	C	N3-C4-N4	6.51	122.56	118.00
33	2	363	G	N1-C6-O6	6.51	123.81	119.90
33	2	1417	A	C4-C5-C6	6.51	120.25	117.00
33	2	996	C	N3-C4-N4	6.51	122.56	118.00
33	2	1689	U	O4'-C1'-N1	6.51	113.41	108.20
33	2	1725	U	O4'-C1'-N1	6.51	113.41	108.20
33	2	32	U	O4'-C1'-N1	6.51	113.41	108.20
33	2	1595	G	C5-C6-O6	-6.50	124.70	128.60
33	2	356	U	O4'-C1'-N1	6.50	113.40	108.20
33	2	497	G	C5-C6-O6	-6.50	124.70	128.60
33	2	1146	A	C4-C5-C6	6.50	120.25	117.00
33	2	170	A	C4-C5-C6	6.50	120.25	117.00
33	2	1295	A	C4-C5-C6	6.50	120.25	117.00
33	2	1512	G	C5-C6-O6	-6.50	124.70	128.60
33	2	187	C	N3-C4-N4	6.50	122.55	118.00
33	2	228	A	C4-C5-C6	6.50	120.25	117.00
33	2	1699	C	O4'-C1'-N1	6.50	113.40	108.20
33	2	514	U	O4'-C1'-N1	6.50	113.40	108.20
39	1	19	G	C5-C6-O6	-6.50	124.70	128.60
33	2	619	A	C4-C5-C6	6.50	120.25	117.00
33	2	74	G	C5-C6-O6	-6.49	124.70	128.60
33	2	308	C	N3-C4-N4	6.49	122.55	118.00
33	2	982	G	C5-C6-O6	-6.49	124.70	128.60
33	2	102	A	C4-C5-C6	6.49	120.25	117.00
33	2	1489	C	N3-C4-N4	6.49	122.54	118.00
33	2	806	A	C4-C5-C6	6.49	120.24	117.00
33	2	979	A	O4'-C1'-N9	6.49	113.39	108.20
33	2	1255	A	C4-C5-C6	6.49	120.24	117.00
33	2	800	U	O4'-C1'-N1	6.49	113.39	108.20
33	2	1069	U	O4'-C1'-N1	6.49	113.39	108.20
33	2	489	G	C5-C6-O6	-6.48	124.71	128.60
33	2	1513	C	C2-N1-C1'	6.48	125.93	118.80
33	2	1783	G	C5-C6-O6	-6.48	124.71	128.60
33	2	1749	C	N3-C4-N4	6.48	122.54	118.00
33	2	425	A	C5-C6-N6	-6.48	118.52	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1498	C	N3-C4-N4	6.48	122.53	118.00
33	2	382	A	O4'-C1'-N9	6.47	113.38	108.20
33	2	550	A	C5-C6-N6	-6.47	118.52	123.70
33	2	972	G	O4'-C1'-N9	6.47	113.38	108.20
33	2	1516	C	O4'-C1'-N1	6.47	113.38	108.20
33	2	78	C	C2-N1-C1'	6.47	125.92	118.80
33	2	236	C	N3-C4-N4	6.47	122.53	118.00
33	2	270	G	C5-C6-O6	-6.47	124.72	128.60
33	2	436	G	C5-C6-O6	-6.47	124.72	128.60
33	2	1082	G	O4'-C1'-N9	6.47	113.38	108.20
33	2	1011	U	O4'-C1'-N1	6.47	113.37	108.20
33	2	1168	U	O4'-C1'-N1	6.47	113.37	108.20
33	2	1511	G	O4'-C1'-N9	6.47	113.37	108.20
33	2	1719	A	O4'-C1'-N9	6.47	113.37	108.20
33	2	57	U	O4'-C1'-N1	6.46	113.37	108.20
33	2	162	C	N3-C4-N4	6.46	122.53	118.00
33	2	927	C	N3-C4-N4	6.46	122.53	118.00
33	2	1135	C	C6-N1-C1'	-6.46	113.04	120.80
33	2	1143	C	N3-C4-N4	6.46	122.53	118.00
33	2	420	C	N3-C4-N4	6.46	122.52	118.00
33	2	829	C	O4'-C1'-N1	6.46	113.37	108.20
33	2	915	A	C4-C5-C6	6.46	120.23	117.00
33	2	977	A	C4-C5-C6	6.46	120.23	117.00
33	2	1429	C	N3-C4-N4	6.46	122.52	118.00
33	2	1386	U	O4'-C1'-N1	6.46	113.37	108.20
33	2	1618	A	C4-C5-C6	6.46	120.23	117.00
33	2	522	C	N3-C4-N4	6.46	122.52	118.00
33	2	851	G	C5-C6-O6	-6.46	124.73	128.60
33	2	1410	A	C5-C6-N6	-6.46	118.53	123.70
33	2	1609	A	C4-C5-C6	6.46	120.23	117.00
33	2	1733	C	N3-C4-N4	6.46	122.52	118.00
33	2	1739	G	C5-C6-O6	-6.46	124.73	128.60
33	2	902	U	O4'-C1'-N1	6.46	113.36	108.20
33	2	1331	G	N3-C2-N2	6.46	124.42	119.90
33	2	1139	A	C4-C5-C6	6.45	120.23	117.00
33	2	1464	C	N3-C4-N4	6.45	122.52	118.00
33	2	1538	U	O4'-C1'-N1	6.45	113.36	108.20
33	2	371	C	O4'-C1'-N1	6.45	113.36	108.20
33	2	1742	C	N3-C4-N4	6.45	122.52	118.00
33	2	1148	U	O4'-C1'-N1	6.45	113.36	108.20
33	2	94	G	C5-C6-O6	-6.45	124.73	128.60
33	2	674	G	C5-C6-O6	-6.45	124.73	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1767	C	N3-C4-N4	6.45	122.51	118.00
33	2	454	A	C4-C5-C6	6.44	120.22	117.00
33	2	640	A	C5-C6-N6	-6.44	118.55	123.70
33	2	867	U	O4'-C1'-N1	6.44	113.35	108.20
33	2	1732	G	O4'-C1'-N9	6.44	113.35	108.20
33	2	309	A	C5-C6-N6	-6.44	118.55	123.70
33	2	396	U	O4'-C1'-N1	6.44	113.35	108.20
33	2	1330	G	O4'-C1'-N9	6.44	113.35	108.20
33	2	675	A	O3'-P-O5'	-6.43	91.78	104.00
33	2	925	G	O4'-C1'-N9	6.43	113.35	108.20
33	2	1262	C	N3-C4-N4	6.43	122.50	118.00
33	2	350	A	C4-C5-C6	6.43	120.22	117.00
33	2	1272	A	C4-C5-C6	6.43	120.22	117.00
34	3	69	G	C5-C6-O6	-6.43	124.74	128.60
33	2	1211	C	N3-C4-N4	6.43	122.50	118.00
33	2	1318	G	C5-C6-O6	-6.43	124.74	128.60
33	2	861	A	C4-C5-C6	6.43	120.21	117.00
33	2	1344	G	C5-C6-O6	-6.43	124.74	128.60
33	2	651	U	O4'-C1'-N1	6.43	113.34	108.20
33	2	1408	C	N3-C4-N4	6.43	122.50	118.00
33	2	1685	U	O4'-C1'-N1	6.43	113.34	108.20
33	2	1449	C	C2-N1-C1'	6.43	125.87	118.80
33	2	1582	G	O4'-C1'-N9	6.43	113.34	108.20
33	2	1801	C	N3-C4-N4	6.43	122.50	118.00
33	2	575	C	N3-C4-N4	6.42	122.50	118.00
33	2	1275	C	N3-C4-N4	6.42	122.50	118.00
33	2	1560	C	N3-C4-N4	6.42	122.50	118.00
33	2	366	A	C5-C6-N6	-6.42	118.56	123.70
33	2	203	G	C5-C6-O6	-6.42	124.75	128.60
33	2	834	G	C5-C6-O6	-6.42	124.75	128.60
33	2	643	A	C5-C6-N6	-6.42	118.57	123.70
33	2	1062	U	O4'-C1'-N1	6.42	113.33	108.20
33	2	1377	G	C5-C6-O6	-6.42	124.75	128.60
33	2	1379	A	C4-C5-C6	6.42	120.21	117.00
33	2	308	C	O4'-C1'-N1	6.42	113.33	108.20
33	2	444	U	O4'-C1'-N1	6.42	113.33	108.20
33	2	1016	A	C4-C5-C6	6.41	120.21	117.00
33	2	1115	A	C4-C5-C6	6.41	120.21	117.00
33	2	1219	A	C4-C5-C6	6.41	120.21	117.00
33	2	1233	C	N3-C4-N4	6.41	122.49	118.00
33	2	1313	U	O4'-C1'-N1	6.41	113.33	108.20
33	2	1543	G	O4'-C1'-N9	6.41	113.33	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	149	A	O4'-C1'-N9	6.41	113.33	108.20
33	2	1432	C	N3-C4-N4	6.41	122.49	118.00
33	2	310	G	O4'-C1'-N9	6.41	113.32	108.20
33	2	447	C	N3-C4-N4	6.41	122.48	118.00
34	3	70	G	C5-C6-O6	-6.41	124.76	128.60
33	2	816	U	O4'-C1'-N1	6.40	113.32	108.20
33	2	1034	U	O4'-C1'-N1	6.40	113.32	108.20
33	2	402	G	N3-C2-N2	6.40	124.38	119.90
33	2	942	U	O4'-C1'-N1	6.40	113.32	108.20
33	2	1318	G	O4'-C1'-N9	6.40	113.32	108.20
33	2	1627	G	C5-C6-O6	-6.40	124.76	128.60
33	2	1845	A	C4-C5-C6	6.40	120.20	117.00
33	2	1064	G	C5-C6-O6	-6.40	124.76	128.60
33	2	1103	G	O4'-C1'-N9	6.40	113.32	108.20
33	2	1828	A	C4-C5-C6	6.40	120.20	117.00
33	2	1277	G	C5-C6-O6	-6.40	124.76	128.60
33	2	1016	A	C5-C6-N6	-6.39	118.58	123.70
33	2	1067	G	O4'-C1'-N9	6.39	113.32	108.20
33	2	1602	A	C4-C5-C6	6.39	120.20	117.00
33	2	1722	G	O4'-C1'-N9	6.39	113.31	108.20
33	2	165	G	C5-C6-O6	-6.39	124.76	128.60
33	2	562	U	O4'-C1'-N1	6.39	113.31	108.20
33	2	1014	U	O4'-C1'-N1	6.39	113.31	108.20
33	2	899	A	O4'-C1'-N9	6.39	113.31	108.20
33	2	1465	A	C4-C5-C6	6.39	120.19	117.00
33	2	340	C	O4'-C1'-N1	6.39	113.31	108.20
33	2	1532	A	C4-C5-C6	6.39	120.19	117.00
39	1	68	C	N3-C4-N4	6.38	122.47	118.00
33	2	1177	A	C4-C5-C6	6.38	120.19	117.00
33	2	1221	U	O4'-C1'-N1	6.38	113.31	108.20
33	2	53	C	N3-C4-N4	6.38	122.47	118.00
33	2	1249	A	C4-C5-C6	6.38	120.19	117.00
33	2	1366	A	C4-C5-C6	6.38	120.19	117.00
33	2	1541	G	C5-C6-O6	-6.38	124.77	128.60
33	2	538	C	N3-C4-N4	6.38	122.47	118.00
33	2	1577	C	N3-C4-N4	6.38	122.46	118.00
33	2	160	U	O4'-C1'-N1	6.38	113.30	108.20
33	2	960	A	C5-C6-N1	-6.38	114.51	117.70
33	2	1044	G	N3-C2-N2	6.38	124.36	119.90
33	2	365	U	O4'-C1'-N1	6.37	113.30	108.20
33	2	482	C	O4'-C1'-N1	6.37	113.30	108.20
33	2	1847	C	N3-C4-N4	6.37	122.46	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	862	U	O4'-C1'-N1	6.37	113.30	108.20
33	2	1124	C	N3-C4-N4	6.37	122.46	118.00
33	2	1813	A	C4-C5-C6	6.37	120.18	117.00
33	2	488	C	N3-C4-N4	6.37	122.46	118.00
33	2	11	A	C4-C5-C6	6.37	120.18	117.00
33	2	416	A	C4-C5-C6	6.37	120.18	117.00
33	2	951	A	C5-C6-N6	-6.37	118.61	123.70
33	2	1150	U	O4'-C1'-N1	6.36	113.29	108.20
33	2	1648	U	O4'-C1'-N1	6.36	113.29	108.20
34	3	76	A	C5-C6-N6	-6.36	118.61	123.70
33	2	1115	A	O4'-C1'-N9	6.36	113.29	108.20
33	2	1230	C	N3-C4-N4	6.36	122.45	118.00
33	2	1336	U	O4'-C1'-N1	6.36	113.29	108.20
33	2	986	A	C4-C5-C6	6.36	120.18	117.00
33	2	1798	U	O4'-C1'-N1	6.36	113.28	108.20
33	2	71	G	C5-C6-O6	-6.35	124.79	128.60
33	2	166	A	O4'-C1'-N9	6.35	113.28	108.20
33	2	531	U	O4'-C1'-N1	6.35	113.28	108.20
33	2	1236	A	C5-C6-N6	-6.35	118.62	123.70
33	2	202	U	O4'-C1'-N1	6.35	113.28	108.20
33	2	1588	C	N3-C4-N4	6.35	122.44	118.00
33	2	312	C	N3-C4-N4	6.35	122.44	118.00
33	2	425	A	C4-C5-C6	6.35	120.17	117.00
33	2	527	C	N3-C4-N4	6.35	122.44	118.00
33	2	1218	G	O4'-C1'-N9	6.34	113.28	108.20
33	2	476	A	C4-C5-C6	6.34	120.17	117.00
33	2	1614	A	C4-C5-C6	6.34	120.17	117.00
33	2	918	A	C4-C5-C6	6.34	120.17	117.00
33	2	1392	A	C4-C5-C6	6.34	120.17	117.00
33	2	1727	G	O4'-C1'-N9	6.34	113.27	108.20
33	2	299	G	O4'-C1'-N9	6.34	113.27	108.20
33	2	1280	A	C4-C5-C6	6.34	120.17	117.00
33	2	1372	A	C4-C5-C6	6.34	120.17	117.00
33	2	1621	C	N3-C4-N4	6.34	122.44	118.00
33	2	394	G	O4'-C1'-N9	6.33	113.27	108.20
33	2	917	G	C5-C6-O6	-6.33	124.80	128.60
33	2	905	G	C5-C6-O6	-6.33	124.80	128.60
33	2	1554	C	N3-C4-N4	6.33	122.43	118.00
33	2	331	C	N3-C4-N4	6.33	122.43	118.00
33	2	397	G	O4'-C1'-N9	6.33	113.26	108.20
33	2	673	G	O4'-C1'-N9	6.33	113.27	108.20
33	2	858	A	C5-C6-N6	-6.33	118.64	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	873	C	C2-N1-C1'	6.33	125.76	118.80
33	2	1652	G	C5-C6-O6	-6.33	124.80	128.60
33	2	1805	C	N3-C4-N4	6.33	122.43	118.00
39	1	2	A	C4-C5-C6	6.33	120.17	117.00
33	2	352	C	N3-C4-N4	6.33	122.43	118.00
33	2	1247	A	C4-C5-C6	6.33	120.16	117.00
39	1	3	G	O4'-C1'-N9	6.33	113.26	108.20
33	2	35	C	N3-C4-N4	6.33	122.43	118.00
33	2	1078	A	C4-C5-C6	6.33	120.16	117.00
33	2	1846	C	N3-C4-N4	6.33	122.43	118.00
33	2	329	A	C4-C5-C6	6.32	120.16	117.00
39	1	29	G	O4'-C1'-N9	6.32	113.26	108.20
33	2	1471	G	O4'-C1'-N9	6.32	113.26	108.20
33	2	1030	A	C4-C5-C6	6.32	120.16	117.00
33	2	1196	A	C4-C5-C6	6.32	120.16	117.00
33	2	1279	C	N3-C4-N4	6.32	122.42	118.00
33	2	10	G	C5-C6-O6	-6.32	124.81	128.60
33	2	111	A	C5-C6-N1	-6.32	114.54	117.70
33	2	510	A	C5-C6-N6	-6.32	118.65	123.70
33	2	1072	G	O4'-C1'-N9	6.32	113.25	108.20
33	2	1117	G	O4'-C1'-N9	6.32	113.25	108.20
33	2	1314	G	O4'-C1'-N9	6.32	113.25	108.20
33	2	1787	A	O4'-C1'-N9	6.32	113.25	108.20
33	2	1854	A	C4-C5-C6	6.32	120.16	117.00
33	2	42	A	C4-C5-C6	6.32	120.16	117.00
33	2	175	A	O4'-C1'-N9	6.32	113.25	108.20
33	2	845	A	C4-C5-C6	6.31	120.16	117.00
33	2	584	A	C4-C5-C6	6.31	120.16	117.00
33	2	1363	U	O4'-C1'-N1	6.31	113.25	108.20
33	2	479	A	C4-C5-C6	6.31	120.16	117.00
39	1	17	C	OP2-P-O3'	-6.31	91.31	105.20
33	2	589	A	C4-C5-C6	6.31	120.15	117.00
33	2	1020	A	C4-C5-C6	6.31	120.15	117.00
33	2	495	G	O4'-C1'-N9	6.31	113.25	108.20
33	2	848	G	P-O3'-C3'	6.30	127.27	119.70
33	2	1302	U	O4'-C1'-N1	6.30	113.24	108.20
33	2	1451	A	C4-C5-C6	6.30	120.15	117.00
33	2	1615	A	C4-C5-C6	6.30	120.15	117.00
33	2	50	A	C4-C5-C6	6.30	120.15	117.00
33	2	988	A	C5-C6-N6	-6.30	118.66	123.70
33	2	1342	U	O4'-C1'-N1	6.30	113.24	108.20
33	2	232	A	C5-C6-N6	-6.30	118.66	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	77	A	C4-C5-C6	6.30	120.15	117.00
33	2	213	C	N3-C4-N4	6.30	122.41	118.00
33	2	340	C	N3-C4-N4	6.30	122.41	118.00
33	2	1570	G	O4'-C1'-N9	6.30	113.24	108.20
33	2	1853	A	C4-C5-C6	6.29	120.15	117.00
34	3	77	A	C4-C5-C6	6.29	120.15	117.00
33	2	144	U	O4'-C1'-N1	6.29	113.23	108.20
34	3	74	G	C5-C6-O6	-6.29	124.83	128.60
33	2	614	C	N3-C4-N4	6.29	122.40	118.00
35	A	131	PHE	CB-CG-CD2	-6.29	116.40	120.80
33	2	382	A	C4-C5-C6	6.28	120.14	117.00
33	2	304	A	C4-C5-C6	6.28	120.14	117.00
33	2	513	A	C4-C5-C6	6.28	120.14	117.00
33	2	986	A	C5-C6-N6	-6.28	118.68	123.70
33	2	1632	A	C4-C5-C6	6.28	120.14	117.00
33	2	1775	A	O4'-C1'-N9	6.28	113.22	108.20
33	2	518	A	C5-C6-N6	-6.28	118.68	123.70
33	2	1636	A	C5-C6-N6	-6.28	118.68	123.70
34	3	63	U	C2-N1-C1'	6.28	125.23	117.70
33	2	909	A	P-O3'-C3'	6.28	127.23	119.70
33	2	1214	C	N3-C4-N4	6.28	122.39	118.00
33	2	1495	U	O4'-C1'-N1	6.28	113.22	108.20
33	2	1752	G	O4'-C1'-N9	6.28	113.22	108.20
33	2	1330	G	C5-C6-O6	-6.27	124.84	128.60
33	2	1691	C	O4'-C1'-N1	6.27	113.22	108.20
34	3	52	A	C4-C5-C6	6.27	120.14	117.00
39	1	69	U	O4'-C1'-N1	6.27	113.22	108.20
33	2	1551	A	O4'-C1'-N9	6.27	113.22	108.20
33	2	388	A	C5-C6-N6	-6.27	118.68	123.70
33	2	798	A	C4-C5-C6	6.27	120.14	117.00
33	2	429	A	C4-C5-C6	6.27	120.13	117.00
33	2	1019	A	C4-C5-C6	6.27	120.13	117.00
33	2	1172	G	OP2-P-O3'	-6.27	91.41	105.20
33	2	1667	U	O4'-C1'-N1	6.27	113.21	108.20
39	1	65	C	N3-C4-N4	6.27	122.39	118.00
33	2	1144	A	C4-C5-C6	6.27	120.13	117.00
33	2	1839	A	C4-C5-C6	6.27	120.13	117.00
33	2	664	C	N3-C4-C5	-6.26	119.39	121.90
33	2	1092	G	O4'-C1'-N9	6.26	113.21	108.20
33	2	1109	A	C4-C5-C6	6.26	120.13	117.00
33	2	418	U	C2-N1-C1'	6.26	125.22	117.70
33	2	306	C	N3-C4-N4	6.26	122.38	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	946	C	N3-C4-N4	6.26	122.38	118.00
33	2	181	A	O4'-C1'-N9	6.26	113.21	108.20
33	2	1097	U	O4'-C1'-N1	6.26	113.21	108.20
33	2	1442	A	C4-C5-C6	6.26	120.13	117.00
38	R	37	TYR	CB-CG-CD1	6.26	124.76	121.00
33	2	288	A	C4-C5-C6	6.26	120.13	117.00
30	g	101	PHE	CB-CG-CD2	-6.26	116.42	120.80
33	2	335	U	O4'-C1'-N1	6.26	113.20	108.20
33	2	467	G	C5-C6-O6	-6.25	124.85	128.60
33	2	19	A	O4'-C1'-N9	6.25	113.20	108.20
33	2	659	A	C4-C5-C6	6.25	120.13	117.00
33	2	941	U	O4'-C1'-N1	6.25	113.20	108.20
33	2	988	A	C4-C5-C6	6.25	120.13	117.00
33	2	1526	A	C5-C6-N6	-6.25	118.70	123.70
33	2	1613	C	N3-C4-N4	6.25	122.38	118.00
33	2	54	A	C4-C5-C6	6.25	120.13	117.00
33	2	1118	A	C4-C5-C6	6.25	120.12	117.00
33	2	1457	G	C5-C6-O6	-6.25	124.85	128.60
33	2	1192	A	C4-C5-C6	6.25	120.12	117.00
33	2	1444	A	C4-C5-C6	6.25	120.12	117.00
33	2	1747	C	N3-C4-N4	6.25	122.37	118.00
33	2	1780	U	O4'-C1'-N1	6.25	113.20	108.20
33	2	450	A	C5-C6-N6	-6.25	118.70	123.70
33	2	676	U	O4'-C1'-N1	6.25	113.20	108.20
33	2	1035	C	N3-C4-N4	6.25	122.37	118.00
33	2	1382	A	C4-C5-C6	6.24	120.12	117.00
33	2	1079	A	C4-C5-C6	6.24	120.12	117.00
33	2	278	U	O4'-C1'-N1	6.24	113.19	108.20
33	2	1301	C	N3-C4-N4	6.24	122.37	118.00
33	2	1646	A	C5-C6-N6	-6.24	118.71	123.70
33	2	333	A	C4-C5-C6	6.24	120.12	117.00
33	2	1007	A	C4-C5-C6	6.24	120.12	117.00
33	2	1154	G	O4'-C1'-N9	6.24	113.19	108.20
33	2	629	C	N3-C4-N4	6.24	122.37	118.00
33	2	1421	G	C5-C6-O6	-6.24	124.86	128.60
33	2	838	C	N3-C4-N4	6.24	122.36	118.00
33	2	1273	C	N3-C4-N4	6.24	122.36	118.00
33	2	1279	C	N3-C4-C5	-6.24	119.41	121.90
33	2	377	C	N3-C4-N4	6.23	122.36	118.00
33	2	626	C	N3-C4-N4	6.23	122.36	118.00
33	2	666	C	N3-C4-N4	6.23	122.36	118.00
33	2	979	A	C4-C5-C6	6.23	120.11	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	979	A	C5-C6-N6	-6.23	118.72	123.70
33	2	1264	C	N3-C4-N4	6.23	122.36	118.00
33	2	1737	C	N3-C4-N4	6.23	122.36	118.00
33	2	1772	C	N3-C4-N4	6.23	122.36	118.00
33	2	458	A	O4'-C1'-N9	6.23	113.18	108.20
33	2	590	G	O4'-C1'-N9	6.23	113.18	108.20
33	2	1714	A	C5-C6-N6	-6.23	118.72	123.70
30	g	113	PHE	CB-CG-CD1	6.23	125.16	120.80
33	2	831	C	O4'-C1'-N1	6.23	113.18	108.20
33	2	1365	A	C4-C5-C6	6.23	120.11	117.00
33	2	1520	C	N3-C4-N4	6.23	122.36	118.00
33	2	1587	C	N3-C4-N4	6.23	122.36	118.00
33	2	1661	C	N3-C4-N4	6.23	122.36	118.00
39	1	34	C	N3-C4-N4	6.23	122.36	118.00
33	2	529	C	N3-C4-N4	6.23	122.36	118.00
33	2	419	C	N3-C4-N4	6.22	122.36	118.00
33	2	1850	C	N3-C4-N4	6.22	122.36	118.00
33	2	1726	A	C5-C6-N6	-6.22	118.72	123.70
33	2	379	A	C5-C6-N6	-6.22	118.72	123.70
33	2	423	A	C5-C6-N1	-6.22	114.59	117.70
33	2	475	A	C4-C5-C6	6.22	120.11	117.00
33	2	823	A	C4-C5-C6	6.22	120.11	117.00
33	2	1231	G	O4'-C1'-N9	6.22	113.18	108.20
33	2	1219	A	O4'-C1'-N9	6.21	113.17	108.20
33	2	1636	A	C4-C5-C6	6.21	120.11	117.00
33	2	479	A	C5-C6-N6	-6.21	118.73	123.70
33	2	70	G	C5-C6-O6	-6.21	124.87	128.60
33	2	220	C	N3-C4-N4	6.21	122.35	118.00
33	2	511	A	C4-C5-C6	6.21	120.11	117.00
33	2	551	A	C4-C5-C6	6.21	120.11	117.00
33	2	653	C	N3-C4-N4	6.21	122.35	118.00
33	2	1320	G	O4'-C1'-N9	6.21	113.17	108.20
33	2	151	C	N3-C4-N4	6.21	122.34	118.00
33	2	283	A	C4-C5-C6	6.21	120.10	117.00
33	2	398	A	C4-C5-C6	6.21	120.10	117.00
33	2	598	C	O4'-C1'-N1	6.21	113.17	108.20
33	2	1295	A	C5-C6-N6	-6.21	118.73	123.70
33	2	1439	C	O4'-C1'-N1	6.21	113.17	108.20
33	2	1712	C	N3-C4-N4	6.21	122.35	118.00
8	I	28	TYR	CB-CG-CD1	6.21	124.72	121.00
33	2	338	A	O4'-C1'-N9	6.21	113.16	108.20
33	2	84	A	C4-C5-C6	6.21	120.10	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	490	A	C4-C5-C6	6.21	120.10	117.00
33	2	361	A	C4-C5-C6	6.20	120.10	117.00
33	2	1497	C	N3-C4-N4	6.20	122.34	118.00
34	3	53	U	O4'-C1'-N1	6.20	113.16	108.20
39	1	50	A	C4-C5-C6	6.20	120.10	117.00
33	2	175	A	C4-C5-C6	6.20	120.10	117.00
33	2	348	C	N3-C4-N4	6.20	122.34	118.00
33	2	922	A	C5-C6-N6	-6.20	118.74	123.70
33	2	147	A	C4-C5-C6	6.20	120.10	117.00
33	2	463	A	O4'-C1'-N9	6.20	113.16	108.20
33	2	827	G	O4'-C1'-N9	6.20	113.16	108.20
33	2	1020	A	C5-C6-N6	-6.20	118.74	123.70
33	2	1491	G	N1-C6-O6	6.20	123.62	119.90
33	2	1803	A	O4'-C1'-N9	6.20	113.16	108.20
33	2	1193	G	C5-C6-O6	-6.20	124.88	128.60
33	2	598	C	N3-C4-N4	6.20	122.34	118.00
33	2	1170	U	OP1-P-O3'	6.20	118.83	105.20
33	2	1532	A	C5-C6-N6	-6.20	118.74	123.70
33	2	422	G	O4'-C1'-N9	6.20	113.16	108.20
33	2	875	C	N3-C4-N4	6.20	122.34	118.00
33	2	1128	C	N3-C4-N4	6.20	122.34	118.00
33	2	535	A	C5-C6-N6	-6.19	118.75	123.70
33	2	841	G	C5-C6-O6	-6.19	124.89	128.60
33	2	934	A	C4-C5-C6	6.19	120.10	117.00
33	2	1622	C	N3-C4-N4	6.19	122.33	118.00
33	2	1630	C	N3-C4-N4	6.19	122.33	118.00
33	2	1740	A	C5-C6-N6	-6.19	118.75	123.70
33	2	301	C	N3-C4-N4	6.19	122.33	118.00
33	2	309	A	C4-C5-C6	6.19	120.10	117.00
33	2	1099	C	N3-C4-N4	6.19	122.33	118.00
33	2	67	C	N3-C4-N4	6.19	122.33	118.00
33	2	589	A	C5-C6-N6	-6.19	118.75	123.70
33	2	831	C	N3-C4-N4	6.19	122.33	118.00
33	2	1260	C	N3-C4-N4	6.19	122.33	118.00
39	1	20	A	C4-C5-C6	6.19	120.09	117.00
33	2	168	C	N3-C4-N4	6.19	122.33	118.00
33	2	841	G	O4'-C1'-N9	6.19	113.15	108.20
33	2	855	G	O4'-C1'-N9	6.19	113.15	108.20
33	2	1540	A	C4-C5-C6	6.18	120.09	117.00
33	2	1548	C	N3-C4-N4	6.18	122.33	118.00
39	1	4	C	N3-C4-N4	6.18	122.33	118.00
33	2	584	A	C5-C6-N1	-6.18	114.61	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	618	A	C4-C5-C6	6.18	120.09	117.00
33	2	78	C	O4'-C1'-N1	6.18	113.14	108.20
33	2	359	C	N3-C4-N4	6.18	122.33	118.00
33	2	367	G	O4'-C1'-N9	6.18	113.14	108.20
33	2	1665	C	N3-C4-N4	6.18	122.33	118.00
39	1	39	C	N3-C4-N4	6.18	122.33	118.00
33	2	388	A	C4-C5-C6	6.18	120.09	117.00
33	2	48	C	N3-C4-N4	6.18	122.32	118.00
33	2	282	G	C5-C6-O6	-6.18	124.89	128.60
33	2	554	A	C4-C5-C6	6.18	120.09	117.00
33	2	1003	C	N3-C4-N4	6.18	122.32	118.00
33	2	1235	U	O4'-C1'-N1	6.18	113.14	108.20
33	2	1585	C	N3-C4-N4	6.18	122.32	118.00
33	2	1751	G	O4'-C1'-N9	6.18	113.14	108.20
39	1	21	A	C4-C5-C6	6.18	120.09	117.00
39	1	60	A	C4-C5-C6	6.18	120.09	117.00
33	2	909	A	C4-C5-C6	6.17	120.09	117.00
33	2	1095	G	O4'-C1'-N9	6.17	113.14	108.20
33	2	1530	U	O4'-C1'-N1	6.17	113.14	108.20
33	2	126	G	C5-C6-O6	-6.17	124.90	128.60
33	2	313	C	N3-C4-N4	6.17	122.32	118.00
33	2	404	A	C4-C5-C6	6.17	120.09	117.00
33	2	1189	U	O4'-C1'-N1	6.17	113.14	108.20
33	2	1686	U	O4'-C1'-N1	6.17	113.14	108.20
33	2	1710	A	C5-C6-N6	-6.17	118.76	123.70
33	2	825	C	O4'-C1'-N1	6.17	113.14	108.20
33	2	405	A	C4-C5-C6	6.17	120.08	117.00
33	2	916	A	C5-C6-N1	-6.17	114.62	117.70
33	2	953	A	C4-C5-C6	6.17	120.08	117.00
33	2	1472	A	C5-C6-N1	-6.17	114.62	117.70
33	2	1682	C	N3-C4-N4	6.17	122.32	118.00
33	2	94	G	O4'-C1'-N9	6.17	113.13	108.20
33	2	123	G	O4'-C1'-N9	6.17	113.13	108.20
33	2	191	C	N3-C4-N4	6.17	122.32	118.00
33	2	339	A	C4-C5-C6	6.17	120.08	117.00
33	2	64	A	C4-C5-C6	6.17	120.08	117.00
33	2	1006	G	O4'-C1'-N9	6.17	113.13	108.20
33	2	1278	A	C4-C5-C6	6.17	120.08	117.00
33	2	159	A	C4-C5-C6	6.16	120.08	117.00
33	2	631	A	C4-C5-C6	6.16	120.08	117.00
33	2	1690	A	C4-C5-C6	6.16	120.08	117.00
33	2	107	A	C4-C5-C6	6.16	120.08	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	956	U	O4'-C1'-N1	6.16	113.13	108.20
33	2	1484	C	N3-C4-N4	6.16	122.31	118.00
33	2	209	C	N3-C4-N4	6.16	122.31	118.00
33	2	1165	G	N3-C2-N2	6.16	124.21	119.90
39	1	35	A	C4-C5-C6	6.16	120.08	117.00
33	2	346	C	O4'-C1'-N1	6.16	113.13	108.20
33	2	1266	G	O4'-C1'-N9	6.16	113.13	108.20
33	2	324	C	N3-C4-N4	6.16	122.31	118.00
33	2	1067	G	P-O3'-C3'	6.16	127.09	119.70
33	2	1513	C	C6-N1-C1'	-6.16	113.41	120.80
39	1	41	C	N3-C4-N4	6.16	122.31	118.00
33	2	994	A	C5-C6-N1	-6.15	114.62	117.70
33	2	201	G	O4'-C1'-N9	6.15	113.12	108.20
33	2	1029	G	N3-C2-N2	6.15	124.21	119.90
33	2	1553	C	N3-C4-N4	6.15	122.31	118.00
33	2	218	A	C4-C5-C6	6.15	120.08	117.00
33	2	332	C	N3-C4-N4	6.15	122.31	118.00
33	2	854	A	C4-C5-C6	6.15	120.08	117.00
33	2	1242	A	C4-C5-C6	6.15	120.08	117.00
33	2	1366	A	C5-C6-N6	-6.15	118.78	123.70
33	2	1643	G	C5-C6-O6	-6.15	124.91	128.60
33	2	1337	C	N3-C4-N4	6.15	122.30	118.00
33	2	1674	A	C5-C6-N6	-6.15	118.78	123.70
33	2	70	G	O4'-C1'-N9	6.14	113.12	108.20
33	2	1172	G	OP1-P-O3'	6.14	118.72	105.20
33	2	1407	G	C5-C6-O6	-6.14	124.91	128.60
33	2	379	A	C4-C5-C6	6.14	120.07	117.00
33	2	458	A	C4-C5-C6	6.14	120.07	117.00
33	2	1822	C	N3-C4-N4	6.14	122.30	118.00
16	Q	34	PHE	CB-CG-CD1	6.14	125.10	120.80
19	V	40	ALA	N-CA-CB	6.14	118.69	110.10
33	2	569	C	N3-C4-N4	6.14	122.30	118.00
33	2	463	A	C4-C5-C6	6.14	120.07	117.00
33	2	83	A	C4-C5-C6	6.13	120.07	117.00
33	2	214	A	C4-C5-C6	6.13	120.07	117.00
33	2	459	A	C4-C5-C6	6.13	120.07	117.00
33	2	670	G	O4'-C1'-N9	6.13	113.11	108.20
33	2	850	A	C4-C5-C6	6.13	120.07	117.00
33	2	1026	A	C5-C6-N6	-6.13	118.80	123.70
33	2	382	A	C5-C6-N6	-6.13	118.80	123.70
33	2	731	C	N3-C4-N4	6.13	122.29	118.00
33	2	866	A	C4-C5-C6	6.13	120.06	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	148	U	O4'-C1'-N1	6.13	113.10	108.20
33	2	545	A	C4-C5-C6	6.13	120.06	117.00
33	2	649	G	O4'-C1'-N9	6.13	113.10	108.20
33	2	111	A	C4-C5-C6	6.12	120.06	117.00
33	2	475	A	C5-C6-N6	-6.12	118.80	123.70
33	2	580	A	C4-C5-C6	6.12	120.06	117.00
33	2	971	G	O4'-C1'-N9	6.12	113.10	108.20
33	2	1431	C	O4'-C1'-N1	6.12	113.10	108.20
33	2	1812	A	O4'-C1'-N9	6.12	113.10	108.20
36	B	137	PHE	CB-CG-CD2	-6.12	116.51	120.80
33	2	327	C	N3-C4-N4	6.12	122.28	118.00
33	2	481	C	N3-C4-N4	6.12	122.28	118.00
33	2	288	A	C5-C6-N6	-6.12	118.80	123.70
33	2	292	A	C4-C5-C6	6.12	120.06	117.00
33	2	624	A	C5-C6-N6	-6.12	118.81	123.70
33	2	580	A	O4'-C1'-N9	6.12	113.09	108.20
33	2	845	A	C5-C6-N6	-6.12	118.81	123.70
33	2	1190	A	C5-C6-N1	-6.12	114.64	117.70
33	2	1787	A	C5-C6-N1	-6.12	114.64	117.70
33	2	23	G	O4'-C1'-N9	6.11	113.09	108.20
33	2	142	C	C2-N1-C1'	6.11	125.53	118.80
33	2	366	A	C4-C5-C6	6.11	120.06	117.00
33	2	1254	A	C4-C5-C6	6.11	120.06	117.00
39	1	35	A	C5-C6-N1	-6.11	114.64	117.70
33	2	854	A	C5-C6-N1	-6.11	114.64	117.70
33	2	1162	G	O4'-C1'-N9	6.11	113.09	108.20
33	2	1249	A	C5-C6-N6	-6.11	118.81	123.70
33	2	1344	G	O4'-C1'-N9	6.11	113.09	108.20
33	2	973	C	N3-C4-N4	6.11	122.28	118.00
33	2	1835	C	N3-C4-N4	6.11	122.28	118.00
33	2	729	C	N3-C4-N4	6.11	122.28	118.00
33	2	1022	C	O4'-C1'-N1	6.11	113.08	108.20
33	2	1308	G	N3-C2-N2	6.11	124.18	119.90
33	2	1370	C	N3-C4-N4	6.11	122.28	118.00
33	2	1692	A	C4-C5-C6	6.11	120.05	117.00
33	2	1024	A	C4-C5-C6	6.11	120.05	117.00
33	2	1261	A	C4-C5-C6	6.11	120.05	117.00
33	2	1508	C	N3-C4-N4	6.11	122.27	118.00
33	2	1185	A	O4'-C1'-N9	6.10	113.08	108.20
33	2	1377	G	O4'-C1'-N9	6.10	113.08	108.20
33	2	976	A	C4-C5-C6	6.10	120.05	117.00
33	2	1650	C	N3-C4-N4	6.10	122.27	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	445	A	C5-C6-N1	-6.10	114.65	117.70
14	O	114	TYR	CB-CG-CD2	-6.10	117.34	121.00
33	2	239	U	O4'-C1'-N1	6.10	113.08	108.20
33	2	30	C	N3-C4-N4	6.10	122.27	118.00
33	2	443	C	N3-C4-N4	6.10	122.27	118.00
33	2	1102	C	N3-C4-N4	6.10	122.27	118.00
33	2	1246	A	C4-C5-C6	6.10	120.05	117.00
33	2	1781	G	O4'-C1'-N9	6.10	113.08	108.20
33	2	106	C	N3-C4-N4	6.10	122.27	118.00
33	2	487	C	N3-C4-N4	6.10	122.27	118.00
33	2	924	G	C5-C6-O6	-6.10	124.94	128.60
33	2	512	A	C4-C5-C6	6.09	120.05	117.00
33	2	564	A	C4-C5-C6	6.09	120.05	117.00
39	1	67	U	O4'-C1'-N1	6.09	113.08	108.20
33	2	358	U	O4'-C1'-N1	6.09	113.08	108.20
33	2	127	C	N3-C4-C5	-6.09	119.46	121.90
33	2	978	G	O4'-C1'-N9	6.09	113.07	108.20
33	2	1008	A	C4-C5-C6	6.09	120.05	117.00
33	2	1119	C	N3-C4-N4	6.09	122.26	118.00
33	2	1564	A	C4-C5-C6	6.09	120.05	117.00
33	2	1674	A	C4-C5-C6	6.09	120.05	117.00
35	A	56	ILE	C-N-CA	-6.09	106.47	121.70
33	2	2	A	C4-C5-C6	6.09	120.04	117.00
33	2	896	C	N3-C4-C5	-6.09	119.46	121.90
33	2	1303	U	C5-C4-O4	-6.09	122.25	125.90
33	2	1321	G	O4'-C1'-N9	6.09	113.07	108.20
39	1	63	A	C4-C5-C6	6.09	120.05	117.00
33	2	1450	A	C4-C5-C6	6.09	120.04	117.00
33	2	330	C	N3-C4-N4	6.09	122.26	118.00
33	2	429	A	C5-C6-N6	-6.09	118.83	123.70
33	2	1274	A	C4-C5-C6	6.09	120.04	117.00
33	2	1349	A	C4-C5-C6	6.09	120.04	117.00
33	2	1583	A	C4-C5-C6	6.09	120.04	117.00
33	2	1794	A	C4-C5-C6	6.09	120.04	117.00
39	1	76	A	O4'-C1'-N9	6.09	113.07	108.20
33	2	1232	G	O4'-C1'-N9	6.08	113.07	108.20
39	1	74	C	N3-C4-N4	6.08	122.26	118.00
33	2	809	A	C4-C5-C6	6.08	120.04	117.00
33	2	469	C	N3-C4-N4	6.08	122.26	118.00
33	2	797	U	OP1-P-O3'	6.08	118.58	105.20
33	2	1140	A	C4-C5-C6	6.08	120.04	117.00
33	2	1096	A	C4-C5-C6	6.08	120.04	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1713	G	C5-C6-O6	-6.08	124.95	128.60
33	2	1406	C	N3-C4-N4	6.08	122.25	118.00
33	2	1564	A	C5-C6-N6	-6.08	118.84	123.70
33	2	1735	C	N3-C4-C5	-6.08	119.47	121.90
35	A	153	PHE	CB-CG-CD1	6.08	125.06	120.80
33	2	343	C	N3-C4-N4	6.08	122.25	118.00
33	2	625	G	O4'-C1'-N9	6.08	113.06	108.20
33	2	1418	G	O4'-C1'-N9	6.08	113.06	108.20
33	2	1829	A	C4-C5-C6	6.08	120.04	117.00
23	Z	41	PHE	CB-CG-CD1	6.07	125.05	120.80
33	2	50	A	O4'-C1'-N9	6.07	113.06	108.20
33	2	194	C	N3-C4-N4	6.07	122.25	118.00
33	2	884	U	O4'-C1'-N1	6.07	113.06	108.20
39	1	16	G	OP2-P-O3'	-6.07	91.84	105.20
33	2	1813	A	C5-C6-N6	-6.07	118.84	123.70
33	2	1580	U	O4'-C1'-N1	6.07	113.06	108.20
33	2	944	C	N3-C4-N4	6.07	122.25	118.00
33	2	1057	U	O4'-C1'-N1	6.07	113.05	108.20
33	2	1190	A	C5-C6-N6	-6.07	118.85	123.70
33	2	1645	A	C4-C5-C6	6.06	120.03	117.00
33	2	89	C	N3-C4-N4	6.06	122.24	118.00
33	2	361	A	C5-C6-N6	-6.06	118.85	123.70
33	2	638	A	C5-C6-N6	-6.06	118.85	123.70
33	2	1277	G	O4'-C1'-N9	6.06	113.05	108.20
33	2	22	A	C4-C5-C6	6.06	120.03	117.00
33	2	809	A	C5-C6-N6	-6.06	118.85	123.70
33	2	1031	A	C5-C6-N6	-6.06	118.85	123.70
33	2	58	C	N3-C4-N4	6.06	122.24	118.00
33	2	1216	A	C5-C6-N6	-6.06	118.85	123.70
33	2	206	A	C5-C6-N1	-6.06	114.67	117.70
33	2	638	A	C4-C5-C6	6.06	120.03	117.00
33	2	857	A	C4-C5-C6	6.06	120.03	117.00
33	2	897	G	O4'-C1'-N9	6.06	113.05	108.20
33	2	293	A	C4-C5-C6	6.06	120.03	117.00
33	2	1745	C	N3-C4-N4	6.05	122.24	118.00
33	2	990	C	N3-C4-N4	6.05	122.24	118.00
33	2	1213	A	C5-C6-N6	-6.05	118.86	123.70
33	2	272	C	O4'-C1'-N1	6.05	113.04	108.20
33	2	526	A	O4'-C1'-N9	6.05	113.04	108.20
33	2	664	C	N3-C4-N4	6.05	122.23	118.00
33	2	940	A	C5-C6-N6	-6.05	118.86	123.70
33	2	1053	C	C6-N1-C1'	-6.05	113.54	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1088	G	O4'-C1'-N9	6.05	113.04	108.20
33	2	1606	G	O4'-C1'-N9	6.05	113.04	108.20
33	2	103	A	C5-C6-N6	-6.05	118.86	123.70
33	2	1619	U	C2-N1-C1'	6.05	124.95	117.70
33	2	232	A	C4-C5-C6	6.04	120.02	117.00
33	2	1726	A	C4-C5-C6	6.04	120.02	117.00
39	1	45	G	C5-C6-O6	-6.04	124.97	128.60
33	2	40	A	C5-C6-N6	-6.04	118.86	123.70
33	2	60	A	C4-C5-C6	6.04	120.02	117.00
33	2	1134	C	O4'-C1'-N1	6.04	113.03	108.20
33	2	615	G	O4'-C1'-N9	6.04	113.03	108.20
33	2	826	A	C4-C5-C6	6.04	120.02	117.00
33	2	1380	C	N3-C4-N4	6.04	122.23	118.00
33	2	1418	G	N3-C2-N2	6.04	124.13	119.90
33	2	1807	A	C4-C5-C6	6.04	120.02	117.00
33	2	91	A	C5-C6-N6	-6.04	118.87	123.70
33	2	289	G	O4'-C1'-N9	6.04	113.03	108.20
33	2	957	G	O4'-C1'-N9	6.04	113.03	108.20
33	2	1859	C	O4'-C1'-N1	6.04	113.03	108.20
33	2	343	C	N3-C4-C5	-6.04	119.48	121.90
33	2	1051	A	C4-C5-C6	6.04	120.02	117.00
33	2	1169	A	C5-C6-N6	-6.04	118.87	123.70
33	2	1443	G	O4'-C1'-N9	6.04	113.03	108.20
39	1	66	C	N3-C4-N4	6.04	122.23	118.00
33	2	826	A	C5-C6-N6	-6.04	118.87	123.70
33	2	223	A	C4-C5-C6	6.04	120.02	117.00
33	2	1272	A	C5-C6-N6	-6.04	118.87	123.70
33	2	1437	U	O4'-C1'-N1	6.04	113.03	108.20
33	2	1792	C	N3-C4-N4	6.04	122.23	118.00
33	2	455	A	C4-C5-C6	6.03	120.02	117.00
33	2	807	A	C5-C6-N1	-6.03	114.68	117.70
33	2	882	A	C4-C5-C6	6.03	120.02	117.00
33	2	1127	G	O4'-C1'-N9	6.03	113.03	108.20
33	2	549	G	C5-C6-O6	-6.03	124.98	128.60
33	2	1813	A	C5-C6-N1	-6.03	114.68	117.70
33	2	1032	A	C4-C5-C6	6.03	120.02	117.00
33	2	1331	G	O4'-C1'-N9	6.03	113.03	108.20
33	2	1375	A	C5-C6-N6	-6.03	118.88	123.70
33	2	822	A	C4-C5-C6	6.03	120.01	117.00
33	2	56	G	O4'-C1'-N9	6.02	113.02	108.20
33	2	1059	C	N3-C4-N4	6.02	122.22	118.00
33	2	1571	G	O4'-C1'-N9	6.02	113.02	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1841	G	O4'-C1'-N9	6.02	113.02	108.20
33	2	1007	A	O4'-C1'-N9	6.02	113.02	108.20
33	2	1073	A	C4-C5-C6	6.02	120.01	117.00
33	2	1144	A	C5-C6-N6	-6.02	118.88	123.70
33	2	1194	G	C5-C6-O6	-6.02	124.99	128.60
33	2	1353	A	C5-C6-N1	-6.02	114.69	117.70
33	2	1485	A	C4-C5-C6	6.02	120.01	117.00
33	2	812	A	C4-C5-C6	6.02	120.01	117.00
33	2	1160	G	O4'-C1'-N9	6.02	113.02	108.20
33	2	304	A	C5-C6-N1	-6.02	114.69	117.70
33	2	1070	C	N3-C4-N4	6.02	122.21	118.00
33	2	1131	C	N3-C4-N4	6.02	122.21	118.00
33	2	1385	C	N3-C4-N4	6.02	122.21	118.00
39	1	27	C	N3-C4-N4	6.02	122.21	118.00
33	2	1204	A	C4-C5-C6	6.02	120.01	117.00
33	2	1483	A	C4-C5-C6	6.02	120.01	117.00
33	2	1821	U	O4'-C1'-N1	6.02	113.02	108.20
33	2	1405	A	C4-C5-C6	6.02	120.01	117.00
33	2	1694	A	C4-C5-C6	6.02	120.01	117.00
33	2	814	A	C5-C6-N6	-6.01	118.89	123.70
39	1	59	A	C4-C5-C6	6.01	120.01	117.00
33	2	851	G	O4'-C1'-N9	6.01	113.01	108.20
33	2	1714	A	O4'-C1'-N9	6.01	113.01	108.20
33	2	39	A	C4-C5-C6	6.01	120.00	117.00
33	2	404	A	C5-C6-N6	-6.01	118.89	123.70
33	2	640	A	C5-C6-N1	-6.01	114.69	117.70
33	2	1395	C	N3-C4-N4	6.01	122.21	118.00
33	2	1482	A	C4-C5-C6	6.01	120.00	117.00
33	2	1374	A	C4-C5-C6	6.01	120.00	117.00
33	2	1081	C	O4'-C1'-N1	6.01	113.01	108.20
33	2	1415	C	N3-C4-C5	-6.01	119.50	121.90
33	2	1629	A	O4'-C1'-N9	6.00	113.00	108.20
33	2	1642	A	C4-C5-C6	6.00	120.00	117.00
35	A	131	PHE	CB-CG-CD1	6.00	125.00	120.80
33	2	498	A	C4-C5-C6	6.00	120.00	117.00
33	2	675	A	C4-C5-C6	6.00	120.00	117.00
33	2	1434	A	C4-C5-C6	6.00	120.00	117.00
33	2	1575	A	C4-C5-C6	6.00	120.00	117.00
39	1	38	A	C4-C5-C6	6.00	120.00	117.00
33	2	225	C	N3-C4-N4	6.00	122.20	118.00
33	2	1145	A	C4-C5-C6	6.00	120.00	117.00
34	3	67	A	C4-C5-C6	6.00	120.00	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	147	A	O4'-C1'-N9	6.00	113.00	108.20
33	2	395	G	O4'-C1'-N9	6.00	113.00	108.20
33	2	1707	A	O4'-C1'-N9	6.00	113.00	108.20
33	2	65	C	N3-C4-N4	6.00	122.20	118.00
33	2	474	A	C5-C6-N1	-6.00	114.70	117.70
33	2	1364	U	O4'-C1'-N1	6.00	113.00	108.20
34	3	76	A	C4-C5-C6	6.00	120.00	117.00
33	2	1369	C	N3-C4-N4	6.00	122.20	118.00
33	2	1567	C	N3-C4-C5	-6.00	119.50	121.90
33	2	1782	A	C4-C5-C6	6.00	120.00	117.00
33	2	611	C	N3-C4-N4	6.00	122.20	118.00
33	2	1800	A	O4'-C1'-N9	6.00	113.00	108.20
33	2	993	A	O4'-C1'-N9	5.99	113.00	108.20
33	2	1023	A	C5-C6-N1	-5.99	114.70	117.70
33	2	19	A	C4-C5-C6	5.99	120.00	117.00
33	2	502	A	C4-C5-C6	5.99	120.00	117.00
33	2	897	G	C5-C6-O6	-5.99	125.00	128.60
33	2	1005	A	C5-C6-N6	-5.99	118.91	123.70
33	2	1080	A	C4-C5-C6	5.99	120.00	117.00
33	2	1476	A	C4-C5-C6	5.99	120.00	117.00
33	2	1478	C	N3-C4-N4	5.99	122.19	118.00
33	2	1589	A	C5-C6-N6	-5.99	118.91	123.70
33	2	1657	U	O4'-C1'-N1	5.99	112.99	108.20
33	2	597	U	C2-N1-C1'	5.99	124.89	117.70
39	1	13	G	O4'-C1'-N9	5.99	112.99	108.20
33	2	959	A	C5-C6-N6	-5.99	118.91	123.70
33	2	518	A	C4-C5-C6	5.99	119.99	117.00
33	2	959	A	C4-C5-C6	5.99	119.99	117.00
33	2	1829	A	C5-C6-N6	-5.99	118.91	123.70
39	1	62	C	N3-C4-N4	5.99	122.19	118.00
33	2	852	C	N3-C4-N4	5.98	122.19	118.00
33	2	1289	A	C5-C6-N6	-5.98	118.91	123.70
33	2	1425	G	O4'-C1'-N9	5.98	112.99	108.20
33	2	92	A	C4-C5-C6	5.98	119.99	117.00
33	2	1049	C	N3-C4-N4	5.98	122.19	118.00
33	2	1332	C	N3-C4-N4	5.98	122.19	118.00
33	2	1378	A	C4-C5-C6	5.98	119.99	117.00
33	2	1435	A	C4-C5-C6	5.98	119.99	117.00
33	2	865	A	C5-C6-N6	-5.98	118.92	123.70
33	2	1832	U	O4'-C1'-N1	5.98	112.98	108.20
33	2	640	A	C4-C5-C6	5.98	119.99	117.00
33	2	1126	G	C5-C6-O6	-5.98	125.01	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1529	C	O4'-C1'-N1	5.98	112.98	108.20
33	2	608	C	N3-C4-N4	5.98	122.19	118.00
33	2	1328	A	C4-C5-C6	5.98	119.99	117.00
33	2	511	A	O4'-C1'-N9	5.98	112.98	108.20
33	2	1109	A	C5-C6-N6	-5.98	118.92	123.70
33	2	630	A	C4-C5-C6	5.97	119.99	117.00
33	2	1031	A	C4-C5-C6	5.97	119.99	117.00
33	2	1663	U	O4'-C1'-N1	5.97	112.98	108.20
33	2	453	C	O4'-C1'-N1	5.97	112.98	108.20
33	2	1800	A	C4-C5-C6	5.97	119.99	117.00
33	2	46	A	C4-C5-C6	5.97	119.99	117.00
33	2	609	A	C4-C5-C6	5.97	119.98	117.00
33	2	821	A	C4-C5-C6	5.97	119.98	117.00
33	2	1015	C	N3-C4-C5	-5.97	119.51	121.90
33	2	1210	A	C4-C5-C6	5.97	119.98	117.00
33	2	1289	A	C4-C5-C6	5.97	119.98	117.00
33	2	1811	G	O4'-C1'-N9	5.97	112.97	108.20
33	2	1260	C	O4'-C1'-N1	5.97	112.97	108.20
33	2	228	A	C5-C6-N1	-5.97	114.72	117.70
33	2	483	A	C5-C6-N6	-5.97	118.93	123.70
33	2	1465	A	C5-C6-N6	-5.97	118.93	123.70
35	A	153	PHE	CB-CG-CD2	-5.97	116.62	120.80
33	2	521	A	C4-C5-C6	5.96	119.98	117.00
33	2	623	C	N3-C4-N4	5.96	122.17	118.00
33	2	1707	A	C4-C5-C6	5.96	119.98	117.00
33	2	1479	A	C5-C6-N6	-5.96	118.93	123.70
33	2	508	G	O4'-C1'-N9	5.96	112.97	108.20
33	2	559	A	C4-C5-C6	5.96	119.98	117.00
33	2	661	A	C5-C6-N1	-5.96	114.72	117.70
33	2	1340	A	C5-C6-N6	-5.96	118.93	123.70
33	2	459	A	O4'-C1'-N9	5.96	112.97	108.20
33	2	535	A	C4-C5-C6	5.96	119.98	117.00
33	2	661	A	C4-C5-C6	5.96	119.98	117.00
33	2	958	A	C4-C5-C6	5.96	119.98	117.00
33	2	1401	A	C4-C5-C6	5.96	119.98	117.00
33	2	1513	C	N3-C4-C5	-5.96	119.52	121.90
33	2	1669	G	N3-C2-N2	5.96	124.07	119.90
33	2	50	A	C5-C6-N6	-5.96	118.94	123.70
33	2	355	C	N3-C4-N4	5.96	122.17	118.00
33	2	1444	A	C5-C6-N1	-5.96	114.72	117.70
33	2	1695	C	N3-C4-N4	5.96	122.17	118.00
33	2	509	A	C5-C6-N1	-5.95	114.72	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	868	A	C5-C6-N6	-5.95	118.94	123.70
33	2	1510	G	O4'-C1'-N9	5.95	112.96	108.20
39	1	58	A	C4-C5-C6	5.95	119.98	117.00
33	2	99	A	C5-C6-N6	-5.95	118.94	123.70
33	2	807	A	C4-C5-C6	5.95	119.98	117.00
33	2	65	C	N3-C4-C5	-5.95	119.52	121.90
33	2	230	C	N3-C4-N4	5.95	122.17	118.00
33	2	341	G	C5-C6-O6	-5.95	125.03	128.60
33	2	1494	A	C4-C5-C6	5.95	119.97	117.00
33	2	1574	A	C5-C6-N6	-5.95	118.94	123.70
33	2	22	A	C5-C6-N1	-5.95	114.73	117.70
33	2	33	G	O4'-C1'-N9	5.95	112.96	108.20
33	2	164	A	O4'-C1'-N9	5.95	112.96	108.20
33	2	853	U	O4'-C1'-N1	5.95	112.96	108.20
39	1	58	A	C5-C6-N1	-5.95	114.73	117.70
33	2	4	C	O4'-C1'-N1	5.95	112.96	108.20
33	2	669	A	O4'-C1'-N9	5.95	112.96	108.20
33	2	438	A	C4-C5-C6	5.95	119.97	117.00
33	2	523	A	C5-C6-N1	-5.95	114.73	117.70
33	2	582	C	N3-C4-N4	5.95	122.16	118.00
33	2	912	A	C4-C5-C6	5.95	119.97	117.00
33	2	1413	C	N3-C4-N4	5.95	122.16	118.00
33	2	1446	G	O4'-C1'-N9	5.95	112.96	108.20
33	2	1461	A	C4-C5-C6	5.95	119.97	117.00
33	2	25	A	C5-C6-N6	-5.94	118.95	123.70
33	2	73	C	O4'-C1'-N1	5.94	112.95	108.20
33	2	808	A	O4'-C1'-N9	5.94	112.95	108.20
33	2	1193	G	O4'-C1'-N9	5.94	112.95	108.20
33	2	1274	A	C5-C6-N6	-5.94	118.95	123.70
33	2	1391	C	N3-C4-N4	5.94	122.16	118.00
33	2	1731	G	O4'-C1'-N9	5.94	112.95	108.20
33	2	953	A	C5-C6-N6	-5.94	118.95	123.70
33	2	1470	A	C5-C6-N6	-5.94	118.95	123.70
33	2	1608	G	O4'-C1'-N9	5.94	112.95	108.20
33	2	1618	A	C5-C6-N6	-5.94	118.95	123.70
33	2	221	A	O4'-C1'-N9	5.94	112.95	108.20
33	2	1601	G	C5-C6-O6	-5.94	125.04	128.60
33	2	61	A	C4-C5-C6	5.94	119.97	117.00
33	2	298	G	C5-C6-O6	-5.94	125.04	128.60
33	2	346	C	N3-C4-N4	5.94	122.16	118.00
33	2	660	A	C4-C5-C6	5.94	119.97	117.00
33	2	1579	G	C5-C6-O6	-5.94	125.04	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	439	A	O4'-C1'-N9	5.94	112.95	108.20
33	2	523	A	O4'-C1'-N9	5.94	112.95	108.20
33	2	1195	A	O4'-C1'-N9	5.94	112.95	108.20
33	2	408	A	O4'-C1'-N9	5.93	112.95	108.20
33	2	506	A	C4-C5-C6	5.93	119.97	117.00
33	2	984	C	N3-C4-N4	5.93	122.15	118.00
33	2	1205	A	C4-C5-C6	5.93	119.97	117.00
33	2	1268	C	N3-C4-N4	5.93	122.15	118.00
33	2	1397	A	C4-C5-C6	5.93	119.97	117.00
33	2	166	A	C4-C5-C6	5.93	119.97	117.00
33	2	948	G	O4'-C1'-N9	5.93	112.95	108.20
33	2	1777	C	O4'-C1'-N1	5.93	112.95	108.20
33	2	674	G	O4'-C1'-N9	5.93	112.94	108.20
33	2	1735	C	N3-C4-N4	5.93	122.15	118.00
33	2	622	C	N3-C4-N4	5.93	122.15	118.00
33	2	1019	A	C5-C6-N1	-5.93	114.73	117.70
33	2	1196	A	C5-C6-N6	-5.93	118.96	123.70
33	2	1468	C	N3-C4-N4	5.93	122.15	118.00
33	2	1488	U	O4'-C1'-N1	5.93	112.94	108.20
33	2	1684	C	N3-C4-N4	5.93	122.15	118.00
33	2	1844	A	O4'-C1'-N9	5.93	112.94	108.20
33	2	1356	U	O4'-C1'-N1	5.93	112.94	108.20
33	2	88	G	O4'-C1'-N9	5.93	112.94	108.20
33	2	158	A	O4'-C1'-N9	5.93	112.94	108.20
33	2	554	A	O4'-C1'-N9	5.93	112.94	108.20
33	2	558	C	N3-C4-N4	5.93	122.15	118.00
33	2	1451	A	C5-C6-N1	-5.93	114.74	117.70
33	2	1697	G	O4'-C1'-N9	5.93	112.94	108.20
33	2	326	A	O4'-C1'-N9	5.92	112.94	108.20
33	2	630	A	C5-C6-N6	-5.92	118.96	123.70
33	2	1094	C	N3-C4-N4	5.92	122.15	118.00
33	2	1140	A	C5-C6-N1	-5.92	114.74	117.70
33	2	1226	C	N3-C4-N4	5.92	122.15	118.00
33	2	1382	A	C5-C6-N6	-5.92	118.96	123.70
39	1	38	A	O4'-C1'-N9	5.92	112.94	108.20
33	2	1476	A	C5-C6-N6	-5.92	118.96	123.70
33	2	338	A	C4-C5-C6	5.92	119.96	117.00
33	2	1184	A	C5-C6-N1	-5.92	114.74	117.70
33	2	1434	A	O4'-C1'-N9	5.92	112.94	108.20
33	2	1799	G	O4'-C1'-N9	5.92	112.94	108.20
33	2	1485	A	O4'-C1'-N9	5.92	112.94	108.20
33	2	313	C	O4'-C1'-N1	5.92	112.94	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	445	A	C4-C5-C6	5.92	119.96	117.00
33	2	836	C	N3-C4-N4	5.92	122.14	118.00
33	2	1436	C	N3-C4-N4	5.92	122.14	118.00
33	2	408	A	C4-C5-C6	5.92	119.96	117.00
33	2	1710	A	C4-C5-C6	5.92	119.96	117.00
33	2	940	A	C5-C6-N1	-5.92	114.74	117.70
33	2	1187	C	N3-C4-N4	5.92	122.14	118.00
33	2	460	G	O4'-C1'-N9	5.91	112.93	108.20
33	2	492	C	O4'-C1'-N1	5.91	112.93	108.20
33	2	814	A	C4-C5-C6	5.91	119.96	117.00
33	2	1038	A	C5-C6-N6	-5.91	118.97	123.70
33	2	1181	C	N3-C4-N4	5.91	122.14	118.00
33	2	1632	A	C5-C6-N6	-5.91	118.97	123.70
39	1	52	G	O4'-C1'-N9	5.91	112.93	108.20
33	2	603	C	N3-C4-C5	-5.91	119.53	121.90
33	2	1118	A	C5-C6-N6	-5.91	118.97	123.70
33	2	186	G	O4'-C1'-N9	5.91	112.93	108.20
33	2	1480	A	C4-C5-C6	5.91	119.95	117.00
39	1	5	A	C4-C5-C6	5.91	119.95	117.00
33	2	1237	A	C4-C5-C6	5.91	119.95	117.00
33	2	1299	C	C6-N1-C1'	-5.91	113.71	120.80
33	2	1496	G	O4'-C1'-N9	5.91	112.93	108.20
39	1	42	A	C4-C5-C6	5.91	119.95	117.00
33	2	983	A	C4-C5-C6	5.91	119.95	117.00
33	2	798	A	C5-C6-N1	-5.91	114.75	117.70
33	2	1008	A	C5-C6-N6	-5.91	118.98	123.70
33	2	1089	A	C4-C5-C6	5.91	119.95	117.00
33	2	1534	U	O4'-C1'-N1	5.91	112.92	108.20
33	2	1431	C	N3-C4-C5	-5.90	119.54	121.90
33	2	1470	A	C4-C5-C6	5.90	119.95	117.00
33	2	1812	A	C4-C5-C6	5.90	119.95	117.00
33	2	24	C	N3-C4-C5	-5.90	119.54	121.90
33	2	401	G	O4'-C1'-N9	5.90	112.92	108.20
33	2	1063	C	N3-C4-N4	5.90	122.13	118.00
33	2	1241	G	O4'-C1'-N9	5.90	112.92	108.20
33	2	298	G	O4'-C1'-N9	5.90	112.92	108.20
32	i	131	ALA	N-CA-CB	5.90	118.36	110.10
33	2	190	A	C4-C5-C6	5.90	119.95	117.00
33	2	1384	A	C4-C5-C6	5.90	119.95	117.00
33	2	38	A	C5-C6-N6	-5.90	118.98	123.70
33	2	1236	A	C4-C5-C6	5.90	119.95	117.00
33	2	423	A	C5-C6-N6	-5.89	118.98	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	510	A	C4-C5-C6	5.89	119.95	117.00
33	2	1339	U	O4'-C1'-N1	5.89	112.92	108.20
33	2	1718	G	O4'-C1'-N9	5.89	112.92	108.20
33	2	1089	A	C5-C6-N6	-5.89	118.99	123.70
39	1	7	A	C4-C5-C6	5.89	119.95	117.00
33	2	326	A	C5-C6-N1	-5.89	114.75	117.70
33	2	667	G	C5-C6-O6	-5.89	125.06	128.60
33	2	662	A	C5-C6-N6	-5.89	118.99	123.70
33	2	218	A	O4'-C1'-N9	5.89	112.91	108.20
33	2	1337	C	O4'-C1'-N1	5.89	112.91	108.20
33	2	463	A	C5-C6-N6	-5.89	118.99	123.70
33	2	804	A	C4-C5-C6	5.89	119.94	117.00
33	2	1537	C	N3-C4-N4	5.89	122.12	118.00
39	1	26	G	C5-C6-O6	-5.89	125.07	128.60
33	2	14	C	N3-C4-C5	-5.88	119.55	121.90
33	2	565	A	C5-C6-N6	-5.88	118.99	123.70
33	2	1129	A	O4'-C1'-N9	5.88	112.91	108.20
33	2	1247	A	C5-C6-N6	-5.88	118.99	123.70
33	2	1548	C	N3-C4-C5	-5.88	119.55	121.90
33	2	1123	C	N3-C4-N4	5.88	122.12	118.00
33	2	1216	A	C4-C5-C6	5.88	119.94	117.00
33	2	1695	C	O4'-C1'-N1	5.88	112.91	108.20
33	2	339	A	C5-C6-N6	-5.88	118.99	123.70
33	2	574	A	C5-C6-N6	-5.88	119.00	123.70
33	2	798	A	C5-C6-N6	-5.88	119.00	123.70
33	2	1093	G	O4'-C1'-N9	5.88	112.91	108.20
33	2	1456	C	N3-C4-C5	-5.88	119.55	121.90
33	2	1225	G	O4'-C1'-N9	5.88	112.90	108.20
33	2	1287	A	C5-C6-N1	-5.88	114.76	117.70
33	2	1692	A	C5-C6-N6	-5.88	119.00	123.70
33	2	1707	A	C5-C6-N6	-5.88	119.00	123.70
33	2	644	A	C4-C5-C6	5.88	119.94	117.00
33	2	1827	C	N3-C4-N4	5.88	122.11	118.00
33	2	975	C	N3-C4-N4	5.88	122.11	118.00
33	2	1038	A	C4-C5-C6	5.88	119.94	117.00
33	2	1316	G	O4'-C1'-N9	5.88	112.90	108.20
33	2	280	G	O4'-C1'-N9	5.87	112.90	108.20
33	2	915	A	C5-C6-N6	-5.87	119.00	123.70
33	2	54	A	C5-C6-N6	-5.87	119.00	123.70
33	2	612	C	N3-C4-N4	5.87	122.11	118.00
33	2	963	C	N3-C4-N4	5.87	122.11	118.00
33	2	1104	G	O4'-C1'-N9	5.87	112.90	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1359	C	O4'-C1'-N1	5.87	112.90	108.20
33	2	604	G	C5-C6-O6	-5.87	125.08	128.60
33	2	1699	C	N3-C4-N4	5.87	122.11	118.00
33	2	1328	A	C5-C6-N6	-5.87	119.00	123.70
33	2	1384	A	O4'-C1'-N9	5.87	112.89	108.20
33	2	577	A	C5-C6-N1	-5.87	114.77	117.70
33	2	333	A	C5-C6-N1	-5.86	114.77	117.70
33	2	1096	A	C5-C6-N1	-5.86	114.77	117.70
33	2	1683	C	N3-C4-N4	5.86	122.11	118.00
33	2	1701	G	O4'-C1'-N9	5.86	112.89	108.20
33	2	566	A	C4-C5-C6	5.86	119.93	117.00
33	2	644	A	C5-C6-N6	-5.86	119.01	123.70
34	3	65	G	P-O3'-C3'	5.86	126.73	119.70
33	2	125	C	O4'-C1'-N1	5.86	112.89	108.20
33	2	1219	A	C5-C6-N6	-5.86	119.01	123.70
33	2	643	A	C4-C5-C6	5.86	119.93	117.00
33	2	1048	A	O4'-C1'-N9	5.86	112.89	108.20
39	1	7	A	O4'-C1'-N9	5.86	112.89	108.20
33	2	539	C	N3-C4-N4	5.86	122.10	118.00
33	2	1076	A	C4-C5-C6	5.86	119.93	117.00
33	2	1135	C	N3-C4-C5	-5.86	119.56	121.90
33	2	1255	A	C5-C6-N6	-5.86	119.01	123.70
33	2	141	A	C4-C5-C6	5.86	119.93	117.00
39	1	21	A	O4'-C1'-N9	5.86	112.88	108.20
33	2	1100	G	O4'-C1'-N9	5.85	112.88	108.20
33	2	380	C	N3-C4-N4	5.85	122.10	118.00
33	2	807	A	O4'-C1'-N9	5.85	112.88	108.20
33	2	1282	G	C5-C6-O6	-5.85	125.09	128.60
33	2	98	C	N3-C4-N4	5.85	122.09	118.00
33	2	169	U	O4'-C1'-N1	5.85	112.88	108.20
33	2	316	C	N3-C4-N4	5.85	122.09	118.00
33	2	874	G	O4'-C1'-N9	5.85	112.88	108.20
33	2	904	A	C5-C6-N6	-5.85	119.02	123.70
33	2	1276	G	O4'-C1'-N9	5.85	112.88	108.20
33	2	914	U	P-O3'-C3'	5.85	126.72	119.70
33	2	1171	G	O4'-C1'-N9	5.85	112.88	108.20
33	2	1402	G	O4'-C1'-N9	5.85	112.88	108.20
33	2	369	C	N3-C4-N4	5.84	122.09	118.00
33	2	1286	G	O4'-C1'-N9	5.84	112.88	108.20
33	2	1840	G	O4'-C1'-N9	5.84	112.88	108.20
33	2	1257	C	N3-C4-N4	5.84	122.09	118.00
33	2	1551	A	C4-C5-C6	5.84	119.92	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1574	A	C4-C5-C6	5.84	119.92	117.00
33	2	1782	A	C5-C6-N6	-5.84	119.03	123.70
33	2	1046	A	C4-C5-C6	5.84	119.92	117.00
33	2	1060	C	O4'-C1'-N1	5.84	112.87	108.20
33	2	1299	C	N3-C4-C5	-5.84	119.56	121.90
33	2	1584	A	C5-C6-N1	-5.84	114.78	117.70
33	2	1090	C	N3-C4-N4	5.84	122.08	118.00
33	2	1795	A	C4-C5-C6	5.84	119.92	117.00
33	2	435	A	C4-C5-C6	5.83	119.92	117.00
33	2	832	G	O4'-C1'-N9	5.83	112.87	108.20
33	2	997	A	C4-C5-C6	5.83	119.92	117.00
33	2	1039	G	O4'-C1'-N9	5.83	112.87	108.20
33	2	1179	A	C4-C5-C6	5.83	119.92	117.00
33	2	1795	A	O4'-C1'-N9	5.83	112.87	108.20
33	2	27	A	C4-C5-C6	5.83	119.92	117.00
33	2	565	A	C4-C5-C6	5.83	119.92	117.00
33	2	1141	A	C5-C6-N1	-5.83	114.78	117.70
33	2	1280	A	C5-C6-N6	-5.83	119.03	123.70
33	2	1426	C	N3-C4-N4	5.83	122.08	118.00
33	2	98	C	O4'-C1'-N1	5.83	112.86	108.20
33	2	1161	G	O4'-C1'-N9	5.83	112.86	108.20
33	2	1030	A	O4'-C1'-N9	5.83	112.86	108.20
33	2	182	C	N3-C4-N4	5.83	122.08	118.00
33	2	937	C	N3-C4-N4	5.83	122.08	118.00
33	2	1350	G	C5-C6-O6	-5.83	125.11	128.60
33	2	1677	C	N3-C4-N4	5.83	122.08	118.00
33	2	796	U	O4'-C1'-N1	5.82	112.86	108.20
33	2	850	A	C5-C6-N1	-5.82	114.79	117.70
33	2	926	C	N3-C4-N4	5.82	122.08	118.00
33	2	1129	A	C5-C6-N6	-5.82	119.04	123.70
33	2	1659	A	O4'-C1'-N9	5.82	112.86	108.20
33	2	1679	C	N3-C4-N4	5.82	122.08	118.00
33	2	445	A	C5-C6-N6	-5.82	119.04	123.70
33	2	513	A	C5-C6-N6	-5.82	119.04	123.70
33	2	1408	C	N3-C4-C5	-5.82	119.57	121.90
33	2	221	A	C4-C5-C6	5.82	119.91	117.00
33	2	1324	G	O4'-C1'-N9	5.82	112.86	108.20
33	2	1379	A	C5-C6-N6	-5.82	119.04	123.70
33	2	916	A	O4'-C1'-N9	5.82	112.85	108.20
33	2	945	G	O4'-C1'-N9	5.82	112.85	108.20
33	2	1038	A	O4'-C1'-N9	5.82	112.85	108.20
33	2	1347	G	O4'-C1'-N9	5.82	112.85	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
39	1	73	A	C4-C5-C6	5.82	119.91	117.00
33	2	1146	A	C5-C6-N1	-5.81	114.79	117.70
33	2	1785	A	C4-C5-C6	5.81	119.91	117.00
33	2	1129	A	C4-C5-C6	5.81	119.91	117.00
33	2	1408	C	O4'-C1'-N1	5.81	112.85	108.20
33	2	1502	A	C4-C5-C6	5.81	119.91	117.00
33	2	170	A	C5-C6-N1	-5.81	114.79	117.70
33	2	662	A	C4-C5-C6	5.81	119.91	117.00
33	2	27	A	O4'-C1'-N9	5.81	112.85	108.20
33	2	922	A	C4-C5-C6	5.81	119.91	117.00
33	2	1066	A	O4'-C1'-N9	5.81	112.85	108.20
33	2	1659	A	C4-C5-C6	5.81	119.91	117.00
33	2	20	G	O4'-C1'-N9	5.81	112.85	108.20
33	2	1216	A	O4'-C1'-N9	5.81	112.85	108.20
33	2	908	C	N3-C4-C5	-5.81	119.58	121.90
33	2	922	A	O4'-C1'-N9	5.81	112.84	108.20
33	2	307	G	O4'-C1'-N9	5.80	112.84	108.20
33	2	1651	G	O4'-C1'-N9	5.80	112.84	108.20
33	2	877	G	O4'-C1'-N9	5.80	112.84	108.20
33	2	989	G	O4'-C1'-N9	5.80	112.84	108.20
33	2	68	A	C4-C5-C6	5.80	119.90	117.00
33	2	103	A	C4-C5-C6	5.80	119.90	117.00
33	2	1056	A	C4-C5-C6	5.80	119.90	117.00
33	2	1140	A	O4'-C1'-N9	5.80	112.84	108.20
33	2	1158	C	N3-C4-N4	5.80	122.06	118.00
39	1	76	A	C4-C5-C6	5.80	119.90	117.00
33	2	150	A	C4-C5-C6	5.80	119.90	117.00
33	2	470	G	O4'-C1'-N9	5.80	112.84	108.20
33	2	1552	C	N3-C4-C5	-5.80	119.58	121.90
33	2	1765	G	O4'-C1'-N9	5.80	112.84	108.20
33	2	1691	C	N3-C4-N4	5.80	122.06	118.00
33	2	59	U	O4'-C1'-N1	5.80	112.84	108.20
33	2	1027	A	C4-C5-C6	5.80	119.90	117.00
33	2	45	A	C4-C5-C6	5.79	119.90	117.00
33	2	303	G	O4'-C1'-N9	5.79	112.84	108.20
33	2	1071	C	N3-C4-N4	5.79	122.06	118.00
33	2	1134	C	N3-C4-N4	5.79	122.06	118.00
33	2	1467	C	N3-C4-N4	5.79	122.06	118.00
33	2	1844	A	C5-C6-N1	-5.79	114.80	117.70
33	2	1287	A	C5-C6-N6	-5.79	119.06	123.70
33	2	1291	A	C5-C6-N1	-5.79	114.80	117.70
33	2	1721	G	O4'-C1'-N9	5.79	112.83	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	108	G	O4'-C1'-N9	5.79	112.83	108.20
33	2	145	G	O4'-C1'-N9	5.79	112.83	108.20
33	2	171	A	C4-C5-C6	5.79	119.89	117.00
33	2	498	A	O4'-C1'-N9	5.79	112.83	108.20
33	2	900	A	C4-C5-C6	5.79	119.90	117.00
33	2	1159	C	N3-C4-N4	5.79	122.05	118.00
33	2	544	A	C5-C6-N6	-5.79	119.07	123.70
33	2	214	A	C5-C6-N1	-5.79	114.81	117.70
33	2	573	A	O4'-C1'-N9	5.79	112.83	108.20
33	2	1212	C	O4'-C1'-N1	5.79	112.83	108.20
33	2	1246	A	C5-C6-N6	-5.79	119.07	123.70
33	2	1524	C	N3-C4-N4	5.79	122.05	118.00
33	2	83	A	O4'-C1'-N9	5.79	112.83	108.20
33	2	193	C	N3-C4-N4	5.79	122.05	118.00
33	2	486	C	N3-C4-N4	5.79	122.05	118.00
33	2	934	A	C5-C6-N1	-5.79	114.81	117.70
33	2	1141	A	C5-C6-N6	-5.79	119.07	123.70
33	2	1589	A	C4-C5-C6	5.78	119.89	117.00
33	2	415	G	O4'-C1'-N9	5.78	112.82	108.20
33	2	580	A	C5-C6-N6	-5.78	119.08	123.70
33	2	1051	A	O4'-C1'-N9	5.78	112.82	108.20
33	2	900	A	C5-C6-N1	-5.78	114.81	117.70
33	2	660	A	C5-C6-N1	-5.78	114.81	117.70
33	2	1387	C	N3-C4-N4	5.78	122.04	118.00
33	2	1410	A	C4-C5-C6	5.78	119.89	117.00
33	2	1449	C	C6-N1-C1'	-5.78	113.87	120.80
33	2	1777	C	N3-C4-N4	5.78	122.04	118.00
33	2	234	C	N3-C4-N4	5.78	122.04	118.00
33	2	1048	A	C4-C5-C6	5.78	119.89	117.00
33	2	1170	U	N3-C4-O4	5.78	123.44	119.40
33	2	1305	C	N3-C4-N4	5.78	122.04	118.00
33	2	509	A	C5-C6-N6	-5.77	119.08	123.70
33	2	545	A	O4'-C1'-N9	5.77	112.82	108.20
33	2	1048	A	C5-C6-N6	-5.77	119.08	123.70
33	2	1289	A	C5-C6-N1	-5.77	114.81	117.70
33	2	354	A	C4-C5-C6	5.77	119.89	117.00
33	2	416	A	C5-C6-N6	-5.77	119.08	123.70
33	2	1227	C	N3-C4-N4	5.77	122.04	118.00
33	2	1362	G	O4'-C1'-N9	5.77	112.82	108.20
33	2	1708	C	N3-C4-N4	5.77	122.04	118.00
33	2	801	U	O4'-C1'-N1	5.77	112.82	108.20
33	2	904	A	C5-C6-N1	-5.77	114.81	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	25	A	C4-C5-C6	5.77	119.89	117.00
33	2	295	C	O4'-C1'-N1	5.77	112.82	108.20
33	2	515	A	C5-C6-N1	-5.77	114.81	117.70
33	2	992	A	C4-C5-C6	5.77	119.89	117.00
33	2	1098	G	C5-C6-O6	-5.77	125.14	128.60
39	1	33	C	N3-C4-C5	-5.77	119.59	121.90
33	2	392	C	N3-C4-C5	-5.77	119.59	121.90
33	2	1372	A	C5-C6-N6	-5.77	119.09	123.70
33	2	1719	A	C4-C5-C6	5.77	119.88	117.00
33	2	1470	A	O4'-C1'-N9	5.77	112.81	108.20
33	2	2	A	C5-C6-N6	-5.76	119.09	123.70
33	2	125	C	N3-C4-N4	5.76	122.03	118.00
33	2	158	A	C5-C6-N6	-5.76	119.09	123.70
33	2	1568	G	O4'-C1'-N9	5.76	112.81	108.20
33	2	521	A	C5-C6-N1	-5.76	114.82	117.70
33	2	517	C	N3-C4-N4	5.76	122.03	118.00
33	2	810	U	O4'-C1'-N1	5.76	112.81	108.20
33	2	904	A	C4-C5-C6	5.76	119.88	117.00
33	2	1803	A	C5-C6-N1	-5.76	114.82	117.70
33	2	79	A	C4'-C3'-C2'	-5.76	96.84	102.60
33	2	147	A	C5-C6-N6	-5.76	119.09	123.70
33	2	573	A	C5-C6-N6	-5.76	119.09	123.70
33	2	1089	A	C5-C6-N1	-5.76	114.82	117.70
33	2	1109	A	C5-C6-N1	-5.76	114.82	117.70
33	2	1145	A	C5-C6-N6	-5.76	119.09	123.70
33	2	1484	C	O4'-C1'-N1	5.76	112.81	108.20
33	2	1844	A	C5-C6-N6	-5.76	119.09	123.70
33	2	19	A	C5-C6-N6	-5.76	119.09	123.70
33	2	557	C	N3-C4-N4	5.76	122.03	118.00
33	2	870	G	O4'-C1'-N9	5.76	112.81	108.20
33	2	1340	A	C4-C5-C6	5.76	119.88	117.00
33	2	1466	C	N3-C4-N4	5.76	122.03	118.00
33	2	210	G	O4'-C1'-N9	5.75	112.80	108.20
33	2	1696	C	N3-C4-N4	5.75	122.03	118.00
33	2	122	G	O4'-C1'-N9	5.75	112.80	108.20
33	2	564	A	O4'-C1'-N9	5.75	112.80	108.20
33	2	1300	U	O4'-C1'-N1	5.75	112.80	108.20
33	2	1533	C	N3-C4-N4	5.75	122.03	118.00
33	2	1605	G	O4'-C1'-N9	5.75	112.80	108.20
33	2	1625	A	O4'-C1'-N9	5.75	112.80	108.20
33	2	636	G	O4'-C1'-N9	5.75	112.80	108.20
33	2	1083	A	C5-C6-N6	-5.75	119.10	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	320	G	C5'-C4'-C3'	-5.75	106.80	116.00
33	2	559	A	C5-C6-N6	-5.75	119.10	123.70
33	2	1081	C	N3-C4-C5	-5.75	119.60	121.90
33	2	854	A	C5-C6-N6	-5.75	119.10	123.70
33	2	1027	A	C5-C6-N1	-5.75	114.83	117.70
33	2	1291	A	C4-C5-C6	5.75	119.87	117.00
30	g	113	PHE	CB-CG-CD2	-5.74	116.78	120.80
33	2	677	C	N3-C4-N4	5.74	122.02	118.00
33	2	1317	G	O4'-C1'-N9	5.74	112.79	108.20
33	2	1652	G	O4'-C1'-N9	5.74	112.80	108.20
33	2	229	A	O4'-C1'-N9	5.74	112.79	108.20
33	2	926	C	N3-C4-C5	-5.74	119.60	121.90
33	2	624	A	C4-C5-C6	5.74	119.87	117.00
33	2	1596	A	C5-C6-N6	-5.74	119.11	123.70
33	2	1715	U	P-O3'-C3'	5.74	126.59	119.70
33	2	73	C	N3-C4-N4	5.74	122.02	118.00
33	2	227	A	C5-C6-N1	-5.74	114.83	117.70
33	2	1081	C	N3-C4-N4	5.74	122.02	118.00
33	2	1112	C	N3-C4-N4	5.74	122.02	118.00
33	2	227	A	C5-C6-N6	-5.74	119.11	123.70
33	2	300	G	O4'-C1'-N9	5.74	112.79	108.20
33	2	976	A	C5-C6-N1	-5.74	114.83	117.70
33	2	1269	C	N3-C4-N4	5.73	122.01	118.00
33	2	197	U	C6-N1-C1'	-5.73	113.17	121.20
33	2	233	A	C4-C5-C6	5.73	119.87	117.00
33	2	534	G	O4'-C1'-N9	5.73	112.79	108.20
33	2	595	A	C4-C5-C6	5.73	119.87	117.00
33	2	821	A	C5-C6-N6	-5.73	119.11	123.70
33	2	993	A	C5-C6-N6	-5.73	119.11	123.70
33	2	1592	C	N3-C4-N4	5.73	122.01	118.00
33	2	1670	A	C4-C5-C6	5.73	119.87	117.00
33	2	228	A	C5-C6-N6	-5.73	119.11	123.70
33	2	1222	G	N3-C2-N2	5.73	123.91	119.90
33	2	1312	C	N3-C4-C5	-5.73	119.61	121.90
33	2	317	G	P-O3'-C3'	5.73	126.57	119.70
33	2	448	A	C4-C5-C6	5.73	119.86	117.00
33	2	633	A	C5-C6-N6	-5.73	119.12	123.70
33	2	662	A	O4'-C1'-N9	5.73	112.78	108.20
33	2	1161	G	N1-C6-O6	5.73	123.34	119.90
33	2	1192	A	C5-C6-N1	-5.72	114.84	117.70
33	2	1703	C	N3-C4-C5	-5.72	119.61	121.90
33	2	1816	A	C4-C5-C6	5.72	119.86	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	50	A	C5-C6-N1	-5.72	114.84	117.70
33	2	283	A	C5-C6-N6	-5.72	119.12	123.70
33	2	293	A	C5-C6-N6	-5.72	119.12	123.70
33	2	404	A	C5-C6-N1	-5.72	114.84	117.70
33	2	540	C	O4'-C1'-N1	5.72	112.78	108.20
33	2	1297	A	C5-C6-N1	-5.72	114.84	117.70
33	2	1575	A	C5-C6-N1	-5.72	114.84	117.70
33	2	1803	A	C4-C5-C6	5.72	119.86	117.00
33	2	804	A	O4'-C1'-N9	5.72	112.78	108.20
33	2	459	A	C5-C6-N6	-5.72	119.12	123.70
33	2	992	A	C5-C6-N6	-5.72	119.12	123.70
33	2	1120	C	N3-C4-N4	5.72	122.00	118.00
33	2	1416	G	O4'-C1'-N9	5.72	112.78	108.20
33	2	1480	A	C5-C6-N6	-5.72	119.12	123.70
33	2	1601	G	N3-C2-N2	5.72	123.90	119.90
33	2	1734	C	N3-C4-N4	5.72	122.00	118.00
33	2	44	U	O4'-C1'-N1	5.72	112.77	108.20
33	2	423	A	C4-C5-C6	5.72	119.86	117.00
33	2	363	G	O4'-C1'-N9	5.71	112.77	108.20
33	2	915	A	O4'-C1'-N9	5.71	112.77	108.20
33	2	1557	C	N3-C4-N4	5.71	122.00	118.00
33	2	195	C	N3-C4-C5	-5.71	119.61	121.90
33	2	1144	A	C5-C6-N1	-5.71	114.84	117.70
33	2	1151	U	O4'-C1'-N1	5.71	112.77	108.20
33	2	1178	A	C5-C6-N1	-5.71	114.84	117.70
33	2	1158	C	N3-C4-C5	-5.71	119.62	121.90
33	2	1	U	O4'-C1'-N1	5.71	112.77	108.20
33	2	223	A	C5-C6-N6	-5.71	119.13	123.70
33	2	484	C	N3-C4-N4	5.71	122.00	118.00
33	2	899	A	C4-C5-C6	5.71	119.85	117.00
33	2	938	G	O4'-C1'-N9	5.71	112.77	108.20
33	2	1195	A	C4-C5-C6	5.71	119.85	117.00
33	2	1333	C	N3-C4-N4	5.71	122.00	118.00
33	2	85	A	C5-C6-N1	-5.71	114.85	117.70
33	2	175	A	C5-C6-N6	-5.71	119.14	123.70
33	2	1433	C	N3-C4-C5	-5.71	119.62	121.90
33	2	831	C	N3-C4-C5	-5.71	119.62	121.90
33	2	1826	A	C4-C5-C6	5.71	119.85	117.00
33	2	1114	C	N3-C4-N4	5.70	121.99	118.00
33	2	315	C	N3-C4-N4	5.70	121.99	118.00
33	2	912	A	C5-C6-N6	-5.70	119.14	123.70
33	2	214	A	C5-C6-N6	-5.70	119.14	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	633	A	C4-C5-C6	5.70	119.85	117.00
33	2	960	A	O4'-C1'-N9	5.70	112.76	108.20
33	2	1004	A	C4-C5-C6	5.70	119.85	117.00
33	2	1025	G	O4'-C1'-N9	5.70	112.76	108.20
33	2	1533	C	N3-C4-C5	-5.70	119.62	121.90
33	2	85	A	C4-C5-C6	5.70	119.85	117.00
33	2	899	A	C5-C6-N1	-5.70	114.85	117.70
33	2	1245	C	N3-C4-N4	5.70	121.99	118.00
39	1	6	G	O4'-C1'-N9	5.70	112.76	108.20
33	2	860	A	C5-C6-N6	-5.70	119.14	123.70
33	2	969	C	N3-C4-C5	-5.70	119.62	121.90
33	2	1536	G	O4'-C1'-N9	5.70	112.76	108.20
33	2	1670	A	C5-C6-N6	-5.70	119.14	123.70
33	2	11	A	C5-C6-N6	-5.69	119.14	123.70
33	2	509	A	C4-C5-C6	5.69	119.85	117.00
33	2	825	C	N3-C4-N4	5.69	121.99	118.00
33	2	1026	A	C4-C5-C6	5.69	119.85	117.00
33	2	1632	A	C5-C6-N1	-5.69	114.85	117.70
33	2	849	C	N3-C4-N4	5.69	121.98	118.00
33	2	1270	G	O4'-C1'-N9	5.69	112.75	108.20
33	2	1433	C	N3-C4-N4	5.69	121.98	118.00
33	2	338	A	C5-C6-N6	-5.69	119.15	123.70
33	2	1206	G	O4'-C1'-N9	5.69	112.75	108.20
33	2	1640	C	N3-C4-N4	5.69	121.98	118.00
33	2	91	A	C5-C6-N1	-5.69	114.86	117.70
33	2	1384	A	C5-C6-N6	-5.69	119.15	123.70
33	2	290	A	C5-C6-N1	-5.69	114.86	117.70
33	2	535	A	C5-C6-N1	-5.69	114.86	117.70
33	2	805	A	C4-C5-C6	5.69	119.84	117.00
33	2	1644	U	O4'-C1'-N1	5.69	112.75	108.20
39	1	48	C	N3-C4-N4	5.69	121.98	118.00
33	2	42	A	C5-C6-N6	-5.69	119.15	123.70
33	2	140	U	P-O3'-C3'	5.68	126.52	119.70
33	2	1491	G	O4'-C1'-N9	5.68	112.75	108.20
33	2	1789	G	O4'-C1'-N9	5.68	112.75	108.20
33	2	1856	G	O4'-C1'-N9	5.68	112.75	108.20
33	2	537	G	P-O5'-C5'	5.68	129.99	120.90
33	2	1631	G	C4-N9-C1'	5.68	133.89	126.50
39	1	10	G	C4-N9-C1'	5.68	133.89	126.50
33	2	117	C	N3-C4-C5	-5.68	119.63	121.90
33	2	279	G	O4'-C1'-N9	5.68	112.74	108.20
33	2	822	A	C5-C6-N1	-5.68	114.86	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1205	A	C5-C6-N1	-5.68	114.86	117.70
33	2	1454	G	O4'-C1'-N9	5.68	112.74	108.20
33	2	1504	A	O4'-C1'-N9	5.68	112.74	108.20
33	2	7	G	O4'-C1'-N9	5.68	112.74	108.20
33	2	943	G	O4'-C1'-N9	5.68	112.74	108.20
33	2	502	A	C5-C6-N6	-5.68	119.16	123.70
33	2	583	C	N3-C4-N4	5.68	121.97	118.00
33	2	848	G	C5-C6-O6	-5.68	125.19	128.60
33	2	890	G	O4'-C1'-N9	5.68	112.74	108.20
33	2	1186	A	C5-C6-N1	-5.68	114.86	117.70
14	O	114	TYR	CB-CG-CD1	5.67	124.41	121.00
33	2	155	G	O4'-C1'-N9	5.67	112.74	108.20
33	2	533	C	N3-C4-C5	-5.67	119.63	121.90
33	2	566	A	C5-C6-N6	-5.67	119.16	123.70
33	2	820	C	N3-C4-N4	5.67	121.97	118.00
33	2	1602	A	O4'-C1'-N9	5.67	112.74	108.20
5	F	120	TYR	CB-CG-CD2	-5.67	117.60	121.00
33	2	958	A	C5-C6-N6	-5.67	119.16	123.70
33	2	1477	G	O4'-C1'-N9	5.67	112.74	108.20
33	2	114	G	O4'-C1'-N9	5.67	112.74	108.20
3	D	209	ASP	N-CA-CB	5.67	120.80	110.60
33	2	453	C	N3-C4-N4	5.67	121.97	118.00
33	2	540	C	N3-C4-C5	-5.67	119.63	121.90
33	2	1322	U	O4'-C1'-N1	5.67	112.73	108.20
33	2	1512	G	O4'-C1'-N9	5.67	112.73	108.20
33	2	90	G	O4'-C1'-N9	5.67	112.73	108.20
33	2	107	A	C5-C6-N1	-5.67	114.87	117.70
33	2	391	A	C4-C5-C6	5.67	119.83	117.00
33	2	405	A	C5-C6-N6	-5.67	119.17	123.70
33	2	968	A	C5-C6-N1	-5.67	114.87	117.70
33	2	61	A	C5-C6-N6	-5.66	119.17	123.70
33	2	1111	U	C6-N1-C1'	-5.66	113.27	121.20
33	2	1515	G	C8-N9-C1'	-5.66	119.64	127.00
33	2	1717	G	O4'-C1'-N9	5.66	112.73	108.20
39	1	5	A	O4'-C1'-N9	5.66	112.73	108.20
33	2	915	A	C5-C6-N1	-5.66	114.87	117.70
33	2	992	A	O4'-C1'-N9	5.66	112.73	108.20
33	2	1054	A	C5-C6-N6	-5.66	119.17	123.70
33	2	1475	G	O4'-C1'-N9	5.66	112.73	108.20
39	1	59	A	O4'-C1'-N9	5.66	112.73	108.20
39	1	75	C	N3-C4-N4	5.66	121.96	118.00
10	K	142	SER	C-N-CA	5.66	135.85	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	102	A	O4'-C1'-N9	5.66	112.73	108.20
33	2	1043	C	N3-C4-N4	5.66	121.96	118.00
33	2	1782	A	C5-C6-N1	-5.66	114.87	117.70
33	2	1280	A	C5-C6-N1	-5.66	114.87	117.70
33	2	1586	C	N3-C4-N4	5.66	121.96	118.00
33	2	2	A	O4'-C1'-N9	5.65	112.72	108.20
33	2	149	A	C4-C5-C6	5.65	119.83	117.00
33	2	466	A	C4-C5-C6	5.65	119.83	117.00
33	2	1273	C	N3-C4-C5	-5.65	119.64	121.90
33	2	1008	A	O4'-C1'-N9	5.65	112.72	108.20
33	2	1209	C	N3-C4-N4	5.65	121.96	118.00
33	2	158	A	C4-C5-C6	5.65	119.82	117.00
33	2	483	A	C4-C5-C6	5.65	119.82	117.00
33	2	490	A	C5-C6-N1	-5.65	114.88	117.70
33	2	492	C	N3-C4-N4	5.65	121.95	118.00
33	2	871	A	C4-C5-C6	5.65	119.82	117.00
33	2	909	A	C5-C6-N1	-5.65	114.88	117.70
33	2	350	A	C5-C6-N6	-5.65	119.18	123.70
33	2	589	A	O4'-C1'-N9	5.65	112.72	108.20
33	2	1410	A	O4'-C1'-N9	5.65	112.72	108.20
39	1	32	C	N3-C4-N4	5.65	121.95	118.00
33	2	1274	A	C5-C6-N1	-5.64	114.88	117.70
33	2	146	G	O4'-C1'-N9	5.64	112.71	108.20
33	2	221	A	C5-C6-N6	-5.64	119.19	123.70
33	2	399	C	N3-C4-N4	5.64	121.95	118.00
33	2	1412	C	N3-C4-N4	5.64	121.95	118.00
33	2	1499	C	N3-C4-N4	5.64	121.95	118.00
39	1	8	G	O4'-C1'-N9	5.64	112.71	108.20
33	2	1312	C	N3-C4-N4	5.64	121.95	118.00
33	2	1625	A	C4-C5-C6	5.64	119.82	117.00
34	3	68	A	C5-C6-N1	-5.64	114.88	117.70
33	2	4	C	N3-C4-N4	5.64	121.95	118.00
33	2	62	G	O4'-C1'-N9	5.64	112.71	108.20
33	2	1405	A	O4'-C1'-N9	5.64	112.71	108.20
33	2	77	A	C5-C6-N1	-5.63	114.88	117.70
33	2	833	A	C5-C6-N6	-5.63	119.19	123.70
33	2	1661	C	N3-C4-C5	-5.63	119.65	121.90
33	2	857	A	C5-C6-N6	-5.63	119.19	123.70
33	2	1558	G	O4'-C1'-N9	5.63	112.71	108.20
33	2	1666	G	N3-C2-N2	5.63	123.84	119.90
33	2	658	A	C4-C5-C6	5.63	119.82	117.00
33	2	1004	A	C5-C6-N6	-5.63	119.19	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1398	A	C5-C6-N6	-5.63	119.19	123.70
39	1	33	C	N3-C4-N4	5.63	121.94	118.00
33	2	655	G	O4'-C1'-N9	5.63	112.70	108.20
33	2	1639	C	N3-C4-N4	5.63	121.94	118.00
33	2	118	C	N3-C4-N4	5.63	121.94	118.00
33	2	13	C	N3-C4-C5	-5.62	119.65	121.90
33	2	196	U	O4'-C1'-N1	5.62	112.70	108.20
33	2	1200	A	O4'-C1'-N9	5.62	112.70	108.20
33	2	302	C	N3-C4-N4	5.62	121.94	118.00
33	2	1073	A	C5-C6-N6	-5.62	119.20	123.70
33	2	1483	A	O4'-C1'-N9	5.62	112.70	108.20
33	2	1504	A	C4-C5-C6	5.62	119.81	117.00
33	2	1514	U	O4'-C1'-N1	5.62	112.70	108.20
33	2	293	A	C5-C6-N1	-5.62	114.89	117.70
33	2	940	A	O4'-C1'-N9	5.62	112.70	108.20
33	2	983	A	C5-C6-N6	-5.62	119.20	123.70
33	2	1374	A	C5-C6-N6	-5.62	119.20	123.70
33	2	949	C	N3-C4-N4	5.62	121.93	118.00
33	2	1528	A	C4-C5-C6	5.62	119.81	117.00
39	1	15	A	C5-C6-N1	-5.62	114.89	117.70
33	2	958	A	O4'-C1'-N9	5.62	112.69	108.20
33	2	1248	C	N3-C4-N4	5.62	121.93	118.00
33	2	1655	C	N3-C4-C5	-5.62	119.65	121.90
33	2	438	A	C5-C6-N6	-5.62	119.21	123.70
33	2	1005	A	C4-C5-C6	5.62	119.81	117.00
33	2	473	C	N3-C4-C5	-5.61	119.65	121.90
33	2	573	A	C4-C5-C6	5.61	119.81	117.00
33	2	1121	C	N3-C4-N4	5.61	121.93	118.00
33	2	1186	A	O4'-C1'-N9	5.61	112.69	108.20
33	2	1204	A	C5-C6-N6	-5.61	119.21	123.70
33	2	354	A	C5-C6-N6	-5.61	119.21	123.70
39	1	56	C	N3-C4-N4	5.61	121.93	118.00
33	2	288	A	O4'-C1'-N9	5.61	112.69	108.20
33	2	947	C	N3-C4-N4	5.61	121.93	118.00
33	2	326	A	C4-C5-C6	5.61	119.81	117.00
33	2	437	A	C5-C6-N1	-5.61	114.90	117.70
33	2	1005	A	O4'-C1'-N9	5.61	112.69	108.20
33	2	1027	A	O4'-C1'-N9	5.61	112.69	108.20
33	2	1192	A	O4'-C1'-N9	5.61	112.69	108.20
33	2	1334	G	O4'-C1'-N9	5.61	112.69	108.20
33	2	1448	A	C5-C6-N1	-5.61	114.90	117.70
33	2	1118	A	O4'-C1'-N9	5.61	112.69	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	84	A	C5-C6-N1	-5.60	114.90	117.70
33	2	868	A	C5-C6-N1	-5.60	114.90	117.70
33	2	1205	A	C5-C6-N6	-5.60	119.22	123.70
33	2	127	C	N3-C4-N4	5.60	121.92	118.00
33	2	1538	U	P-O3'-C3'	5.60	126.42	119.70
33	2	1618	A	C5-C6-N1	-5.60	114.90	117.70
33	2	1703	C	N3-C4-N4	5.60	121.92	118.00
33	2	1744	G	O4'-C1'-N9	5.60	112.68	108.20
33	2	1816	A	C5-C6-N6	-5.60	119.22	123.70
33	2	46	A	C5-C6-N1	-5.60	114.90	117.70
33	2	873	C	N3-C4-N4	5.60	121.92	118.00
33	2	1019	A	C5-C6-N6	-5.60	119.22	123.70
33	2	1367	U	O4'-C1'-N1	5.60	112.68	108.20
33	2	1432	C	O4'-C1'-N1	5.60	112.68	108.20
33	2	1807	A	C5-C6-N6	-5.60	119.22	123.70
33	2	366	A	O4'-C1'-N9	5.60	112.68	108.20
33	2	609	A	O4'-C1'-N9	5.60	112.68	108.20
33	2	1256	A	C4-C5-C6	5.60	119.80	117.00
33	2	24	C	N3-C4-N4	5.60	121.92	118.00
33	2	234	C	O4'-C1'-N1	5.60	112.68	108.20
33	2	654	A	C4-C5-C6	5.60	119.80	117.00
33	2	1242	A	C5-C6-N6	-5.60	119.22	123.70
33	2	1659	A	C5-C6-N6	-5.60	119.22	123.70
33	2	234	C	N3-C4-C5	-5.59	119.66	121.90
33	2	866	A	O4'-C1'-N9	5.59	112.68	108.20
33	2	969	C	N3-C4-N4	5.59	121.92	118.00
33	2	1414	C	N3-C4-C5	-5.59	119.66	121.90
33	2	1716	U	O4'-C1'-N1	5.59	112.68	108.20
33	2	321	C	N3-C4-C5	-5.59	119.66	121.90
33	2	450	A	O4'-C1'-N9	5.59	112.67	108.20
33	2	1060	C	N3-C4-C5	-5.59	119.66	121.90
33	2	1795	A	C5-C6-N6	-5.59	119.23	123.70
33	2	1803	A	C5-C6-N6	-5.59	119.23	123.70
33	2	1479	A	C5-C6-N1	-5.59	114.91	117.70
33	2	519	A	C4-C5-C6	5.58	119.79	117.00
33	2	142	C	N3-C4-N4	5.58	121.91	118.00
33	2	1655	C	N3-C4-N4	5.58	121.91	118.00
33	2	449	C	N3-C4-N4	5.58	121.91	118.00
33	2	462	C	N3-C4-C5	-5.58	119.67	121.90
33	2	1036	G	O4'-C1'-N9	5.58	112.67	108.20
33	2	1526	A	C5-C6-N1	-5.58	114.91	117.70
33	2	45	A	C5-C6-N6	-5.58	119.24	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	64	A	C5-C6-N1	-5.58	114.91	117.70
33	2	659	A	C5-C6-N6	-5.58	119.24	123.70
34	3	77	A	C5-C6-N6	-5.58	119.24	123.70
23	Z	41	PHE	CB-CG-CD2	-5.58	116.89	120.80
33	2	566	A	O4'-C1'-N9	5.58	112.66	108.20
33	2	918	A	C5-C6-N6	-5.58	119.24	123.70
33	2	940	A	C4-C5-C6	5.58	119.79	117.00
33	2	1845	A	C5-C6-N6	-5.58	119.24	123.70
39	1	21	A	C5-C6-N1	-5.58	114.91	117.70
33	2	631	A	C5-C6-N6	-5.58	119.24	123.70
33	2	1698	C	N3-C4-N4	5.58	121.90	118.00
8	I	145	PHE	CB-CG-CD2	-5.58	116.90	120.80
33	2	1004	A	O4'-C1'-N9	5.58	112.66	108.20
33	2	1166	A	C4-C5-C6	5.58	119.79	117.00
33	2	1243	C	N3-C4-C5	-5.58	119.67	121.90
33	2	1269	C	O4'-C1'-N1	5.58	112.66	108.20
33	2	78	C	C6-N1-C1'	-5.57	114.11	120.80
33	2	1056	A	C5-C6-N6	-5.57	119.24	123.70
33	2	1080	A	C5-C6-N6	-5.57	119.24	123.70
33	2	1726	A	O4'-C1'-N9	5.57	112.66	108.20
33	2	290	A	C4-C5-C6	5.57	119.79	117.00
33	2	473	C	N3-C4-N4	5.57	121.90	118.00
33	2	1307	C	N3-C4-N4	5.57	121.90	118.00
33	2	1115	A	C5-C6-N6	-5.57	119.24	123.70
33	2	812	A	C5-C6-N6	-5.57	119.25	123.70
33	2	1196	A	O4'-C1'-N9	5.57	112.65	108.20
33	2	1327	C	N3-C4-N4	5.57	121.90	118.00
33	2	1636	A	C5-C6-N1	-5.57	114.92	117.70
33	2	494	G	O4'-C1'-N9	5.57	112.65	108.20
33	2	949	C	N3-C4-C5	-5.57	119.67	121.90
33	2	1267	C	N3-C4-C5	-5.57	119.67	121.90
33	2	1673	A	C5-C6-N6	-5.57	119.25	123.70
33	2	1704	G	O4'-C1'-N9	5.57	112.65	108.20
33	2	1775	A	C4-C5-C6	5.57	119.78	117.00
33	2	340	C	N3-C4-C5	-5.56	119.67	121.90
33	2	1434	A	C5-C6-N6	-5.56	119.25	123.70
33	2	240	C	N3-C4-N4	5.56	121.89	118.00
33	2	512	A	C5-C6-N6	-5.56	119.25	123.70
33	2	1673	A	C5-C6-N1	-5.56	114.92	117.70
39	1	53	G	O4'-C1'-N9	5.56	112.65	108.20
33	2	166	A	C5-C6-N6	-5.56	119.25	123.70
33	2	677	C	N3-C4-C5	-5.56	119.68	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1457	G	O4'-C1'-N9	5.56	112.65	108.20
33	2	805	A	C5-C6-N6	-5.56	119.25	123.70
33	2	521	A	C5-C6-N6	-5.56	119.25	123.70
33	2	618	A	C5-C6-N1	-5.56	114.92	117.70
33	2	1766	C	N3-C4-N4	5.56	121.89	118.00
33	2	606	A	C4-C5-C6	5.56	119.78	117.00
33	2	823	A	C5-C6-N1	-5.56	114.92	117.70
33	2	1295	A	O4'-C1'-N9	5.56	112.64	108.20
33	2	1691	C	N3-C4-C5	-5.56	119.68	121.90
33	2	1784	A	C4-C5-C6	5.56	119.78	117.00
33	2	1807	A	O4'-C1'-N9	5.56	112.64	108.20
33	2	85	A	C5-C6-N6	-5.55	119.26	123.70
33	2	118	C	N3-C4-C5	-5.55	119.68	121.90
33	2	823	A	C5-C6-N6	-5.55	119.26	123.70
33	2	918	A	C5-C6-N1	-5.55	114.92	117.70
33	2	1281	G	C5-C6-O6	-5.55	125.27	128.60
33	2	1345	G	O4'-C1'-N9	5.55	112.64	108.20
33	2	1522	C	N3-C4-N4	5.55	121.89	118.00
33	2	1849	G	O4'-C1'-N9	5.55	112.64	108.20
33	2	1857	A	C4-C5-C6	5.55	119.78	117.00
33	2	1502	A	C5-C6-N1	-5.55	114.92	117.70
33	2	1711	C	N3-C4-N4	5.55	121.89	118.00
33	2	643	A	C5-C6-N1	-5.55	114.92	117.70
33	2	1549	C	N3-C4-N4	5.55	121.89	118.00
33	2	72	C	N3-C4-C5	-5.55	119.68	121.90
33	2	275	C	N3-C4-C5	-5.55	119.68	121.90
33	2	1494	A	C5-C6-N1	-5.55	114.92	117.70
33	2	1739	G	N3-C2-N2	5.55	123.78	119.90
33	2	195	C	N3-C4-N4	5.55	121.88	118.00
33	2	174	C	N3-C4-N4	5.55	121.88	118.00
33	2	1086	C	N3-C4-N4	5.55	121.88	118.00
33	2	1435	A	C5-C6-N1	-5.55	114.93	117.70
34	3	66	C	N3-C4-C5	-5.55	119.68	121.90
33	2	376	C	N3-C4-N4	5.54	121.88	118.00
33	2	454	A	C5-C6-N6	-5.54	119.26	123.70
33	2	630	A	C5-C6-N1	-5.54	114.93	117.70
33	2	729	C	N3-C4-C5	-5.54	119.68	121.90
33	2	1087	C	N3-C4-C5	-5.54	119.68	121.90
33	2	142	C	C6-N1-C1'	-5.54	114.15	120.80
33	2	807	A	C5-C6-N6	-5.54	119.27	123.70
33	2	1045	A	C5-C6-N1	-5.54	114.93	117.70
33	2	1211	C	N3-C4-C5	-5.54	119.68	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1351	C	N3-C4-C5	-5.54	119.68	121.90
33	2	1770	G	O4'-C1'-N9	5.54	112.64	108.20
33	2	1845	A	O4'-C1'-N9	5.54	112.64	108.20
39	1	44	A	C4-C5-C6	5.54	119.77	117.00
33	2	1080	A	C5-C6-N1	-5.54	114.93	117.70
33	2	1452	G	O4'-C1'-N9	5.54	112.63	108.20
39	1	44	A	C5-C6-N6	-5.54	119.27	123.70
33	2	603	C	N3-C4-N4	5.54	121.88	118.00
33	2	631	A	C5-C6-N1	-5.54	114.93	117.70
33	2	865	A	C4-C5-C6	5.54	119.77	117.00
39	1	7	A	C5-C6-N1	-5.54	114.93	117.70
39	1	61	C	N3-C4-N4	5.54	121.88	118.00
33	2	22	A	C5-C6-N6	-5.54	119.27	123.70
33	2	596	G	O4'-C1'-N9	5.54	112.63	108.20
33	2	650	C	N3-C4-N4	5.54	121.88	118.00
33	2	871	A	C5-C6-N6	-5.54	119.27	123.70
33	2	994	A	O4'-C1'-N9	5.54	112.63	108.20
33	2	1267	C	N3-C4-N4	5.54	121.88	118.00
33	2	199	G	O4'-C1'-N9	5.54	112.63	108.20
33	2	329	A	C5-C6-N6	-5.54	119.27	123.70
33	2	1078	A	C5-C6-N6	-5.54	119.27	123.70
33	2	333	A	C5-C6-N6	-5.53	119.27	123.70
33	2	565	A	O4'-C1'-N9	5.53	112.63	108.20
34	3	77	A	C5-C6-N1	-5.53	114.93	117.70
33	2	1139	A	C5-C6-N6	-5.53	119.27	123.70
33	2	1824	U	O4'-C1'-N1	5.53	112.62	108.20
33	2	328	G	O4'-C1'-N9	5.53	112.62	108.20
33	2	491	C	N3-C4-C5	-5.53	119.69	121.90
33	2	908	C	N3-C4-N4	5.53	121.87	118.00
33	2	166	A	C5-C6-N1	-5.53	114.94	117.70
33	2	1483	A	C5-C6-N6	-5.53	119.28	123.70
33	2	1719	A	C5-C6-N6	-5.53	119.28	123.70
33	2	656	U	O4'-C1'-N1	5.53	112.62	108.20
33	2	675	A	C5-C6-N6	-5.53	119.28	123.70
33	2	1078	A	C5-C6-N1	-5.53	114.94	117.70
33	2	27	A	C5-C6-N1	-5.52	114.94	117.70
33	2	535	A	O4'-C1'-N9	5.52	112.62	108.20
33	2	576	G	O4'-C1'-N9	5.52	112.62	108.20
33	2	429	A	O4'-C1'-N9	5.52	112.62	108.20
33	2	958	A	C5-C6-N1	-5.52	114.94	117.70
39	1	56	C	N3-C4-C5	-5.52	119.69	121.90
33	2	72	C	N3-C4-N4	5.52	121.86	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	295	C	N3-C4-N4	5.52	121.86	118.00
33	2	595	A	C5-C6-N6	-5.52	119.28	123.70
33	2	1456	C	N3-C4-N4	5.52	121.86	118.00
33	2	1590	U	O4'-C1'-N1	5.52	112.61	108.20
33	2	58	C	O4'-C1'-N1	5.52	112.61	108.20
33	2	77	A	C5-C6-N6	-5.52	119.29	123.70
33	2	850	A	O4'-C1'-N9	5.52	112.61	108.20
33	2	1204	A	C5-C6-N1	-5.52	114.94	117.70
33	2	1694	A	C5-C6-N1	-5.52	114.94	117.70
33	2	1851	G	O4'-C1'-N9	5.52	112.61	108.20
33	2	290	A	O4'-C1'-N9	5.51	112.61	108.20
33	2	13	C	N3-C4-N4	5.51	121.86	118.00
33	2	27	A	C5-C6-N6	-5.51	119.29	123.70
33	2	390	C	N3-C4-N4	5.51	121.86	118.00
33	2	594	A	C5-C6-N1	-5.51	114.94	117.70
34	3	67	A	O4'-C1'-N9	5.51	112.61	108.20
33	2	574	A	C4-C5-C6	5.51	119.75	117.00
33	2	595	A	C5-C6-N1	-5.51	114.94	117.70
33	2	628	C	N3-C4-N4	5.51	121.86	118.00
33	2	1814	G	O4'-C1'-N9	5.51	112.61	108.20
10	K	177	SER	N-CA-CB	5.51	118.76	110.50
33	2	1074	C	N3-C4-N4	5.51	121.85	118.00
33	2	1101	G	O4'-C1'-N9	5.51	112.61	108.20
33	2	1450	A	O4'-C1'-N9	5.51	112.61	108.20
33	2	282	G	O4'-C1'-N9	5.50	112.60	108.20
39	1	20	A	C5-C6-N1	-5.50	114.95	117.70
39	1	21	A	C5-C6-N6	-5.50	119.30	123.70
33	2	993	A	C4-C5-C6	5.50	119.75	117.00
33	2	381	C	N3-C4-N4	5.50	121.85	118.00
33	2	860	A	C4-C5-C6	5.50	119.75	117.00
33	2	1826	A	C5-C6-N1	-5.50	114.95	117.70
34	3	66	C	N3-C4-N4	5.50	121.85	118.00
39	1	18	G	C4'-C3'-O3'	5.50	124.00	113.00
39	1	24	G	O4'-C1'-N9	5.50	112.60	108.20
33	2	448	A	O4'-C1'-N9	5.50	112.60	108.20
33	2	830	C	N3-C4-N4	5.50	121.85	118.00
33	2	907	C	N3-C4-C5	-5.50	119.70	121.90
33	2	511	A	C5-C6-N1	-5.50	114.95	117.70
33	2	645	A	C5-C6-N6	-5.50	119.30	123.70
33	2	302	C	O4'-C1'-N1	5.49	112.59	108.20
33	2	1179	A	C5-C6-N6	-5.49	119.31	123.70
33	2	1551	A	C5-C6-N6	-5.49	119.31	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
39	1	59	A	C5-C6-N6	-5.49	119.31	123.70
33	2	512	A	C5-C6-N1	-5.49	114.95	117.70
33	2	1604	C	N3-C4-C5	-5.49	119.70	121.90
33	2	555	G	O4'-C1'-N9	5.49	112.59	108.20
33	2	883	U	C2-N1-C1'	5.49	124.29	117.70
33	2	1176	C	N3-C4-N4	5.49	121.84	118.00
33	2	1449	C	N3-C4-N4	5.49	121.84	118.00
33	2	1794	A	C5-C6-N6	-5.49	119.31	123.70
33	2	1614	A	C5-C6-N1	-5.49	114.96	117.70
33	2	288	A	C5-C6-N1	-5.49	114.96	117.70
33	2	604	G	O4'-C1'-N9	5.49	112.59	108.20
33	2	1051	A	C5-C6-N6	-5.49	119.31	123.70
33	2	1114	C	N3-C4-C5	-5.49	119.71	121.90
33	2	1379	A	C5-C6-N1	-5.49	114.96	117.70
33	2	607	G	O4'-C1'-N9	5.48	112.59	108.20
33	2	39	A	O4'-C1'-N9	5.48	112.59	108.20
33	2	96	C	N3-C4-N4	5.48	121.84	118.00
33	2	226	A	O4'-C1'-N9	5.48	112.59	108.20
33	2	1250	C	N3-C4-C5	-5.48	119.71	121.90
33	2	66	G	O4'-C1'-N9	5.48	112.58	108.20
33	2	275	C	C6-N1-C1'	-5.48	114.22	120.80
33	2	1202	G	O4'-C1'-N9	5.48	112.58	108.20
33	2	1482	A	C5-C6-N6	-5.48	119.32	123.70
33	2	38	A	C4-C5-C6	5.48	119.74	117.00
33	2	172	U	O4'-C1'-N1	5.48	112.58	108.20
33	2	398	A	C5-C6-N6	-5.48	119.32	123.70
33	2	1693	C	N3-C4-N4	5.48	121.83	118.00
33	2	1738	G	N3-C2-N2	5.48	123.73	119.90
33	2	47	G	O4'-C1'-N9	5.47	112.58	108.20
33	2	292	A	C5-C6-N1	-5.47	114.96	117.70
33	2	1826	A	O4'-C1'-N9	5.47	112.58	108.20
33	2	496	G	O4'-C1'-N9	5.47	112.58	108.20
33	2	983	A	C5-C6-N1	-5.47	114.96	117.70
33	2	1064	G	N3-C2-N2	5.47	123.73	119.90
33	2	1787	A	C4-C5-C6	5.47	119.74	117.00
39	1	15	A	C4-C5-C6	5.47	119.74	117.00
39	1	42	A	C5-C6-N6	-5.47	119.32	123.70
33	2	1213	A	O4'-C1'-N9	5.47	112.58	108.20
33	2	1258	C	N3-C4-N4	5.47	121.83	118.00
33	2	1215	C	N3-C4-N4	5.47	121.83	118.00
33	2	1399	C	N3-C4-N4	5.47	121.83	118.00
33	2	1690	A	C5-C6-N6	-5.47	119.32	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1719	A	C5-C6-N1	-5.47	114.97	117.70
33	2	1793	G	N3-C2-N2	5.47	123.73	119.90
33	2	1710	A	C5-C6-N1	-5.47	114.97	117.70
34	3	77	A	O4'-C1'-N9	5.47	112.57	108.20
33	2	229	A	C5-C6-N1	-5.46	114.97	117.70
33	2	529	C	N3-C4-C5	-5.46	119.71	121.90
33	2	545	A	C5-C6-N1	-5.46	114.97	117.70
33	2	843	A	O4'-C1'-N9	5.46	112.57	108.20
33	2	1032	A	C5-C6-N1	-5.46	114.97	117.70
33	2	1083	A	C5-C6-N1	-5.46	114.97	117.70
33	2	3	C	N3-C4-N4	5.46	121.82	118.00
33	2	806	A	C5-C6-N6	-5.46	119.33	123.70
33	2	991	G	O4'-C1'-N9	5.46	112.57	108.20
33	2	159	A	C5-C6-N1	-5.46	114.97	117.70
33	2	490	A	C5-C6-N6	-5.46	119.33	123.70
39	1	73	A	C5-C6-N6	-5.46	119.33	123.70
33	2	117	C	N3-C4-N4	5.46	121.82	118.00
33	2	1242	A	C5-C6-N1	-5.46	114.97	117.70
33	2	1693	C	O4'-C1'-N1	5.46	112.57	108.20
33	2	609	A	C5-C6-N1	-5.46	114.97	117.70
33	2	826	A	O4'-C1'-N9	5.46	112.56	108.20
33	2	377	C	N3-C4-C5	-5.46	119.72	121.90
33	2	835	C	N3-C4-N4	5.46	121.82	118.00
33	2	1212	C	N3-C4-N4	5.46	121.82	118.00
33	2	1845	A	C5-C6-N1	-5.46	114.97	117.70
11	L	159	PHE	CB-CG-CD2	-5.45	116.98	120.80
33	2	336	C	N3-C4-C5	-5.45	119.72	121.90
33	2	951	A	O4'-C1'-N9	5.45	112.56	108.20
33	2	1031	A	O4'-C1'-N9	5.45	112.56	108.20
39	1	43	G	O4'-C1'-N9	5.45	112.56	108.20
33	2	455	A	C5-C6-N6	-5.45	119.34	123.70
33	2	661	A	C5-C6-N6	-5.45	119.34	123.70
33	2	835	C	C6-N1-C1'	-5.45	114.26	120.80
33	2	1085	G	O4'-C1'-N9	5.45	112.56	108.20
39	1	59	A	C5-C6-N1	-5.45	114.97	117.70
33	2	78	C	N3-C4-N4	5.45	121.82	118.00
33	2	223	A	C5-C6-N1	-5.45	114.97	117.70
33	2	364	G	O4'-C1'-N9	5.45	112.56	108.20
33	2	1549	C	N3-C4-C5	-5.45	119.72	121.90
33	2	1857	A	C5-C6-N6	-5.45	119.34	123.70
33	2	1419	C	N3-C4-N4	5.45	121.81	118.00
33	2	1050	G	O4'-C1'-N9	5.45	112.56	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1424	G	O4'-C1'-N9	5.45	112.56	108.20
33	2	1502	A	C5-C6-N6	-5.45	119.34	123.70
33	2	84	A	C5-C6-N6	-5.45	119.34	123.70
33	2	835	C	N3-C4-C5	-5.45	119.72	121.90
33	2	1656	A	C5-C6-N6	-5.45	119.34	123.70
34	3	67	A	C5-C6-N1	-5.45	114.98	117.70
33	2	14	C	N3-C4-N4	5.44	121.81	118.00
33	2	347	C	N3-C4-N4	5.44	121.81	118.00
33	2	1649	G	O4'-C1'-N9	5.44	112.56	108.20
33	2	149	A	C5-C6-N6	-5.44	119.35	123.70
33	2	203	G	O4'-C1'-N9	5.44	112.55	108.20
33	2	454	A	C5-C6-N1	-5.44	114.98	117.70
33	2	1859	C	N3-C4-C5	-5.44	119.72	121.90
33	2	58	C	N3-C4-C5	-5.44	119.72	121.90
33	2	1105	C	N3-C4-C5	-5.44	119.72	121.90
33	2	418	U	C6-N1-C1'	-5.44	113.59	121.20
33	2	484	C	N3-C4-C5	-5.44	119.72	121.90
33	2	669	A	C4-C5-C6	5.44	119.72	117.00
33	2	675	A	O4'-C1'-N9	5.44	112.55	108.20
33	2	1375	A	C5-C6-N1	-5.44	114.98	117.70
33	2	1415	C	N3-C4-N4	5.44	121.81	118.00
33	2	1808	G	N3-C2-N2	5.44	123.71	119.90
33	2	1149	C	N3-C4-N4	5.44	121.81	118.00
33	2	42	A	O4'-C1'-N9	5.43	112.55	108.20
33	2	235	C	C5-C4-N4	-5.43	116.40	120.20
38	R	15	PHE	CB-CG-CD1	5.43	124.60	120.80
33	2	660	A	C5-C6-N6	-5.43	119.35	123.70
33	2	1134	C	N3-C4-C5	-5.43	119.73	121.90
39	1	5	A	C5-C6-N6	-5.43	119.35	123.70
33	2	497	G	O4'-C1'-N9	5.43	112.55	108.20
33	2	1250	C	N3-C4-N4	5.43	121.80	118.00
33	2	64	A	C5-C6-N6	-5.43	119.36	123.70
33	2	382	A	C5-C6-N1	-5.43	114.98	117.70
33	2	523	A	C4-C5-C6	5.43	119.72	117.00
33	2	1169	A	O4'-C1'-N9	5.43	112.54	108.20
33	2	1467	C	N3-C4-C5	-5.43	119.73	121.90
33	2	218	A	C5-C6-N6	-5.43	119.36	123.70
33	2	226	A	C4-C5-C6	5.43	119.71	117.00
33	2	275	C	N3-C4-N4	5.43	121.80	118.00
33	2	912	A	O4'-C1'-N9	5.43	112.54	108.20
33	2	1195	A	C5-C6-N1	-5.43	114.99	117.70
33	2	1698	C	N3-C4-C5	-5.43	119.73	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	39	A	C5-C6-N6	-5.42	119.36	123.70
33	2	178	C	N3-C4-N4	5.42	121.80	118.00
33	2	847	C	N3-C4-N4	5.42	121.80	118.00
33	2	1054	A	C5-C6-N1	-5.42	114.99	117.70
33	2	809	A	O4'-C1'-N9	5.42	112.54	108.20
33	2	826	A	C5-C6-N1	-5.42	114.99	117.70
33	2	1503	G	O4'-C1'-N9	5.42	112.54	108.20
33	2	22	A	O4'-C1'-N9	5.42	112.54	108.20
33	2	833	A	O4'-C1'-N9	5.42	112.54	108.20
33	2	1076	A	C5-C6-N6	-5.42	119.36	123.70
33	2	1381	G	O4'-C1'-N9	5.42	112.54	108.20
33	2	1778	G	O4'-C1'-N9	5.42	112.54	108.20
34	3	68	A	C5-C6-N6	-5.42	119.36	123.70
33	2	180	G	O4'-C1'-N9	5.42	112.54	108.20
33	2	574	A	C5-C6-N1	-5.42	114.99	117.70
33	2	1216	A	C5-C6-N1	-5.42	114.99	117.70
33	2	379	A	O4'-C1'-N9	5.42	112.53	108.20
33	2	516	A	C4-C5-C6	5.42	119.71	117.00
33	2	594	A	O4'-C1'-N9	5.42	112.53	108.20
33	2	1427	G	O4'-C1'-N9	5.42	112.53	108.20
33	2	1641	C	N3-C4-N4	5.42	121.79	118.00
33	2	1750	C	N3-C4-C5	-5.42	119.73	121.90
39	1	44	A	C5-C6-N1	-5.42	114.99	117.70
33	2	405	A	C5-C6-N1	-5.42	114.99	117.70
33	2	493	C	N3-C4-C5	-5.42	119.73	121.90
39	1	74	C	O4'-C1'-N1	5.42	112.53	108.20
33	2	354	A	O4'-C1'-N9	5.42	112.53	108.20
33	2	359	C	N3-C4-C5	-5.42	119.73	121.90
33	2	1163	G	O4'-C1'-N9	5.42	112.53	108.20
33	2	1237	A	C5-C6-N6	-5.42	119.37	123.70
33	2	1646	A	C5-C6-N1	-5.42	114.99	117.70
33	2	46	A	O4'-C1'-N9	5.41	112.53	108.20
33	2	503	G	O4'-C1'-N9	5.41	112.53	108.20
33	2	544	A	C5-C6-N1	-5.41	114.99	117.70
33	2	1086	C	N3-C4-C5	-5.41	119.73	121.90
33	2	1230	C	N3-C4-C5	-5.41	119.73	121.90
33	2	1552	C	N3-C4-N4	5.41	121.79	118.00
33	2	592	G	O4'-C1'-N9	5.41	112.53	108.20
33	2	1040	G	O4'-C1'-N9	5.41	112.53	108.20
33	2	1372	A	O4'-C1'-N9	5.41	112.53	108.20
33	2	1726	A	C5-C6-N1	-5.41	115.00	117.70
33	2	507	C	N3-C4-C5	-5.41	119.74	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	813	G	N3-C2-N2	5.41	123.69	119.90
33	2	1019	A	O4'-C1'-N9	5.41	112.53	108.20
33	2	1175	G	N3-C2-N2	5.41	123.69	119.90
33	2	1217	G	O4'-C1'-N9	5.41	112.53	108.20
33	2	1243	C	N3-C4-N4	5.41	121.79	118.00
33	2	1247	A	C5-C6-N1	-5.41	115.00	117.70
33	2	1656	A	C5-C6-N1	-5.41	115.00	117.70
33	2	141	A	C5-C6-N6	-5.41	119.37	123.70
33	2	181	A	C5-C6-N6	-5.41	119.37	123.70
33	2	861	A	C5-C6-N6	-5.41	119.37	123.70
33	2	980	C	N3-C4-N4	5.41	121.78	118.00
33	2	976	A	O4'-C1'-N9	5.41	112.53	108.20
33	2	1058	A	C5-C6-N1	-5.41	115.00	117.70
33	2	1219	A	C5-C6-N1	-5.41	115.00	117.70
33	2	1291	A	O4'-C1'-N9	5.41	112.53	108.20
33	2	1563	C	N3-C4-N4	5.41	121.78	118.00
33	2	1164	G	O4'-C1'-N9	5.40	112.52	108.20
33	2	1297	A	C5-C6-N6	-5.40	119.38	123.70
33	2	1485	A	C5-C6-N6	-5.40	119.38	123.70
33	2	1600	G	N3-C2-N2	5.40	123.68	119.90
33	2	45	A	C5-C6-N1	-5.40	115.00	117.70
33	2	353	A	C4-C5-C6	5.40	119.70	117.00
33	2	506	A	C5-C6-N6	-5.40	119.38	123.70
33	2	1045	A	C5-C6-N6	-5.40	119.38	123.70
33	2	1435	A	O4'-C1'-N9	5.40	112.52	108.20
33	2	1450	A	C5-C6-N1	-5.40	115.00	117.70
34	3	62	G	O4'-C1'-N9	5.40	112.52	108.20
33	2	667	G	N3-C2-N2	5.40	123.68	119.90
33	2	1137	G	O4'-C1'-N9	5.40	112.52	108.20
33	2	1278	A	C5-C6-N6	-5.40	119.38	123.70
39	1	60	A	C5-C6-N1	-5.40	115.00	117.70
33	2	294	C	N3-C4-N4	5.40	121.78	118.00
33	2	1260	C	N3-C4-C5	-5.40	119.74	121.90
33	2	1482	A	C5-C6-N1	-5.40	115.00	117.70
33	2	292	A	C5-C6-N6	-5.40	119.38	123.70
33	2	407	C	N3-C4-N4	5.40	121.78	118.00
33	2	1176	C	N3-C4-C5	-5.40	119.74	121.90
33	2	1212	C	N3-C4-C5	-5.40	119.74	121.90
33	2	283	A	C5-C6-N1	-5.39	115.00	117.70
33	2	1773	G	O4'-C1'-N9	5.39	112.52	108.20
33	2	1826	A	C5-C6-N6	-5.39	119.38	123.70
33	2	442	G	O4'-C1'-N9	5.39	112.51	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	464	G	O4'-C1'-N9	5.39	112.51	108.20
33	2	677	C	P-O3'-C3'	-5.39	113.23	119.70
39	1	20	A	C5-C6-N6	-5.39	119.39	123.70
33	2	850	A	C5-C6-N6	-5.39	119.39	123.70
33	2	1365	A	C5-C6-N6	-5.39	119.39	123.70
33	2	435	A	O4'-C1'-N9	5.39	112.51	108.20
33	2	510	A	C5-C6-N1	-5.39	115.01	117.70
33	2	843	A	C5-C6-N6	-5.39	119.39	123.70
33	2	1361	G	O4'-C1'-N9	5.39	112.51	108.20
33	2	141	A	C5-C6-N1	-5.38	115.01	117.70
33	2	353	A	C5-C6-N1	-5.38	115.01	117.70
33	2	1224	A	O4'-C1'-N9	5.38	112.51	108.20
33	2	1303	U	O4'-C1'-N1	5.38	112.51	108.20
33	2	1465	A	O4'-C1'-N9	5.38	112.51	108.20
33	2	182	C	N3-C4-C5	-5.38	119.75	121.90
33	2	466	A	O4'-C1'-N9	5.38	112.51	108.20
33	2	993	A	C5-C6-N1	-5.38	115.01	117.70
33	2	162	C	N3-C4-C5	-5.38	119.75	121.90
33	2	351	U	OP2-P-O3'	5.38	117.04	105.20
33	2	369	C	N3-C4-C5	-5.38	119.75	121.90
33	2	1583	A	C5-C6-N6	-5.38	119.39	123.70
33	2	1793	G	O4'-C1'-N9	5.38	112.50	108.20
33	2	1287	A	O4'-C1'-N9	5.38	112.50	108.20
33	2	371	C	N3-C4-N4	5.38	121.76	118.00
33	2	650	C	N3-C4-C5	-5.38	119.75	121.90
33	2	805	A	O4'-C1'-N9	5.38	112.50	108.20
39	1	75	C	N3-C4-C5	-5.38	119.75	121.90
33	2	238	G	O4'-C1'-N9	5.37	112.50	108.20
33	2	1383	G	O4'-C1'-N9	5.37	112.50	108.20
33	2	1567	C	N3-C4-N4	5.37	121.76	118.00
33	2	25	A	C5-C6-N1	-5.37	115.02	117.70
33	2	290	A	C5-C6-N6	-5.37	119.40	123.70
33	2	1708	C	N3-C4-C5	-5.37	119.75	121.90
33	2	1248	C	N3-C4-C5	-5.37	119.75	121.90
33	2	1291	A	C5-C6-N6	-5.37	119.41	123.70
33	2	491	C	N3-C4-N4	5.37	121.76	118.00
33	2	159	A	C5-C6-N6	-5.37	119.41	123.70
33	2	645	A	O4'-C1'-N9	5.37	112.49	108.20
35	A	57	ARG	C-N-CA	5.37	135.12	121.70
33	2	448	A	C5-C6-N1	-5.36	115.02	117.70
33	2	1024	A	C5-C6-N6	-5.36	119.41	123.70
33	2	1448	A	C4-C5-C6	5.36	119.68	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
39	1	27	C	N3-C4-C5	-5.36	119.75	121.90
39	1	32	C	N3-C4-C5	-5.36	119.75	121.90
33	2	1564	A	C5-C6-N1	-5.36	115.02	117.70
33	2	1414	C	N3-C4-N4	5.36	121.75	118.00
33	2	102	A	C5-C6-N1	-5.36	115.02	117.70
33	2	493	C	N3-C4-N4	5.36	121.75	118.00
33	2	1145	A	O4'-C1'-N9	5.36	112.48	108.20
33	2	296	U	O4'-C1'-N1	5.35	112.48	108.20
33	2	1696	C	N3-C4-C5	-5.35	119.76	121.90
33	2	408	A	C5-C6-N6	-5.35	119.42	123.70
33	2	1565	G	O4'-C1'-N9	5.35	112.48	108.20
3	D	82	ARG	N-CA-CB	5.35	120.23	110.60
33	2	901	C	N3-C4-N4	5.35	121.75	118.00
33	2	79	A	O4'-C1'-N9	5.35	112.48	108.20
33	2	537	G	N3-C2-N2	5.35	123.64	119.90
33	2	804	A	C5-C6-N6	-5.35	119.42	123.70
33	2	429	A	C5-C6-N1	-5.35	115.03	117.70
33	2	564	A	C5-C6-N1	-5.35	115.03	117.70
33	2	896	C	N3-C4-N4	5.35	121.74	118.00
33	2	968	A	C5-C6-N6	-5.35	119.42	123.70
33	2	1442	A	C5-C6-N1	-5.35	115.03	117.70
33	2	1693	C	N3-C4-C5	-5.35	119.76	121.90
33	2	284	C	N3-C4-N4	5.35	121.74	118.00
33	2	476	A	C5-C6-N1	-5.35	115.03	117.70
33	2	1444	A	C5-C6-N6	-5.35	119.42	123.70
33	2	516	A	C5-C6-N1	-5.34	115.03	117.70
33	2	857	A	O4'-C1'-N9	5.34	112.48	108.20
33	2	1576	C	N3-C4-N4	5.34	121.74	118.00
33	2	78	C	N3-C4-C5	-5.34	119.76	121.90
33	2	1133	U	O4'-C1'-N1	5.34	112.47	108.20
33	2	1468	C	N3-C4-C5	-5.34	119.76	121.90
33	2	1561	G	O4'-C1'-N9	5.34	112.47	108.20
33	2	381	C	N3-C4-C5	-5.34	119.76	121.90
33	2	1694	A	C5-C6-N6	-5.34	119.43	123.70
33	2	52	G	O4'-C1'-N9	5.34	112.47	108.20
36	B	276	ASP	C-N-CA	5.34	135.04	121.70
33	2	842	G	O4'-C1'-N9	5.34	112.47	108.20
33	2	1448	A	C5-C6-N6	-5.34	119.43	123.70
33	2	1167	G	O4'-C1'-N9	5.33	112.47	108.20
33	2	1190	A	C4-C5-C6	5.33	119.67	117.00
33	2	323	G	O4'-C1'-N9	5.33	112.47	108.20
33	2	515	A	C4-C5-C6	5.33	119.67	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	619	A	C5-C6-N1	-5.33	115.03	117.70
33	2	928	G	O4'-C1'-N9	5.33	112.46	108.20
33	2	977	A	O4'-C1'-N9	5.33	112.47	108.20
33	2	1004	A	C5-C6-N1	-5.33	115.03	117.70
33	2	1786	G	O4'-C1'-N9	5.33	112.47	108.20
33	2	1837	G	O4'-C1'-N9	5.33	112.47	108.20
33	2	1664	G	O4'-C1'-N9	5.33	112.46	108.20
33	2	37	C	N3-C4-N4	5.33	121.73	118.00
33	2	450	A	C4-C5-C6	5.33	119.66	117.00
33	2	632	U	O4'-C1'-N1	5.33	112.46	108.20
33	2	1245	C	N3-C4-C5	-5.33	119.77	121.90
33	2	1278	A	C5-C6-N1	-5.33	115.03	117.70
33	2	1712	C	N3-C4-C5	-5.33	119.77	121.90
33	2	1730	A	C5-C6-N1	-5.33	115.04	117.70
33	2	1831	G	C5-C6-O6	-5.33	125.40	128.60
33	2	1432	C	N3-C4-C5	-5.33	119.77	121.90
33	2	99	A	O4'-C1'-N9	5.33	112.46	108.20
33	2	185	C	N3-C4-C5	-5.33	119.77	121.90
33	2	457	G	O4'-C1'-N9	5.32	112.46	108.20
33	2	1073	A	C5-C6-N1	-5.32	115.04	117.70
33	2	1249	A	O4'-C1'-N9	5.32	112.46	108.20
33	2	104	A	C5-C6-N1	-5.32	115.04	117.70
33	2	523	A	C5-C6-N6	-5.32	119.44	123.70
33	2	1674	A	C5-C6-N1	-5.32	115.04	117.70
33	2	16	G	O4'-C1'-N9	5.32	112.46	108.20
33	2	185	C	N3-C4-N4	5.32	121.72	118.00
33	2	509	A	O4'-C1'-N9	5.32	112.46	108.20
33	2	609	A	C5-C6-N6	-5.32	119.44	123.70
33	2	1378	A	C5-C6-N1	-5.32	115.04	117.70
33	2	316	C	N3-C4-C5	-5.32	119.77	121.90
33	2	479	A	C5-C6-N1	-5.32	115.04	117.70
33	2	594	A	C5-C6-N6	-5.32	119.45	123.70
33	2	633	A	C5-C6-N1	-5.32	115.04	117.70
33	2	970	C	N3-C4-C5	-5.32	119.77	121.90
33	2	351	U	O4'-C1'-N1	5.32	112.45	108.20
33	2	370	G	O4'-C1'-N9	5.32	112.45	108.20
33	2	390	C	N3-C4-C5	-5.31	119.77	121.90
33	2	1358	U	O4'-C1'-N1	5.31	112.45	108.20
33	2	1401	A	C5-C6-N6	-5.31	119.45	123.70
33	2	1424	G	C5'-C4'-C3'	5.31	124.50	116.00
33	2	1642	A	C5-C6-N1	-5.31	115.04	117.70
33	2	511	A	C5-C6-N6	-5.31	119.45	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1149	C	N3-C4-C5	-5.31	119.78	121.90
33	2	435	A	C5-C6-N1	-5.31	115.04	117.70
33	2	1450	A	C5-C6-N6	-5.31	119.45	123.70
33	2	1461	A	C5-C6-N6	-5.31	119.45	123.70
33	2	1299	C	N3-C4-N4	5.31	121.72	118.00
33	2	1541	G	O4'-C1'-N9	5.31	112.45	108.20
33	2	1815	U	P-O3'-C3'	5.31	126.07	119.70
33	2	1844	A	C4-C5-C6	5.31	119.66	117.00
33	2	521	A	O4'-C1'-N9	5.31	112.45	108.20
33	2	1024	A	O4'-C1'-N9	5.31	112.45	108.20
33	2	1487	G	O4'-C1'-N9	5.31	112.45	108.20
33	2	1519	G	O4'-C1'-N9	5.31	112.45	108.20
33	2	99	A	C5-C6-N1	-5.30	115.05	117.70
33	2	179	C	N3-C4-N4	5.30	121.71	118.00
33	2	476	A	C5-C6-N6	-5.30	119.46	123.70
33	2	1166	A	O4'-C1'-N9	5.30	112.44	108.20
33	2	1650	C	N3-C4-C5	-5.30	119.78	121.90
33	2	1237	A	C5-C6-N1	-5.30	115.05	117.70
34	3	67	A	C5-C6-N6	-5.30	119.46	123.70
33	2	613	G	O4'-C1'-N9	5.30	112.44	108.20
33	2	846	C	N3-C4-N4	5.30	121.71	118.00
33	2	955	G	N3-C2-N2	5.30	123.61	119.90
33	2	984	C	N3-C4-C5	-5.30	119.78	121.90
33	2	1423	C	N3-C4-C5	-5.30	119.78	121.90
33	2	391	A	O4'-C1'-N9	5.30	112.44	108.20
33	2	440	C	N3-C4-C5	-5.30	119.78	121.90
33	2	1220	G	O4'-C1'-N9	5.30	112.44	108.20
33	2	1451	A	O4'-C1'-N9	5.30	112.44	108.20
33	2	329	A	C5-C6-N1	-5.30	115.05	117.70
33	2	873	C	C6-N1-C1'	-5.30	114.44	120.80
33	2	1485	A	C5-C6-N1	-5.30	115.05	117.70
33	2	1540	A	O4'-C1'-N9	5.30	112.44	108.20
33	2	1631	G	O4'-C1'-N9	5.30	112.44	108.20
33	2	388	A	C5-C6-N1	-5.29	115.05	117.70
33	2	1397	A	C5-C6-N6	-5.29	119.46	123.70
33	2	1557	C	N3-C4-C5	-5.29	119.78	121.90
39	1	17	C	O4'-C1'-N1	5.29	112.44	108.20
33	2	924	G	O4'-C1'-N9	5.29	112.44	108.20
33	2	1430	C	N3-C4-C5	-5.29	119.78	121.90
33	2	1544	U	O4'-C1'-N1	5.29	112.44	108.20
33	2	189	G	N3-C2-N2	5.29	123.60	119.90
33	2	218	A	C5-C6-N1	-5.29	115.05	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	605	C	N3-C4-N4	5.29	121.70	118.00
39	1	16	G	O3'-P-O5'	-5.29	93.95	104.00
33	2	354	A	C5-C6-N1	-5.29	115.06	117.70
33	2	486	C	N3-C4-C5	-5.29	119.78	121.90
33	2	1146	A	C5-C6-N6	-5.29	119.47	123.70
33	2	1200	A	C5-C6-N1	-5.29	115.06	117.70
33	2	1859	C	N3-C4-N4	5.29	121.70	118.00
39	1	40	C	N3-C4-C5	-5.29	119.78	121.90
8	I	7	PHE	CB-CG-CD1	5.29	124.50	120.80
33	2	102	A	C5-C6-N6	-5.29	119.47	123.70
33	2	517	C	N3-C4-C5	-5.29	119.79	121.90
39	1	63	A	O4'-C1'-N9	5.29	112.43	108.20
33	2	483	A	O4'-C1'-N9	5.28	112.43	108.20
33	2	1829	A	C5-C6-N1	-5.28	115.06	117.70
33	2	873	C	O4'-C1'-N1	5.28	112.43	108.20
33	2	435	A	C5-C6-N6	-5.28	119.47	123.70
33	2	538	C	N3-C4-C5	-5.28	119.79	121.90
33	2	899	A	C5-C6-N6	-5.28	119.47	123.70
33	2	1218	G	O3'-P-O5'	-5.28	93.97	104.00
33	2	1327	C	N3-C4-C5	-5.28	119.79	121.90
33	2	1178	A	O4'-C1'-N9	5.28	112.42	108.20
33	2	1451	A	C5-C6-N6	-5.28	119.48	123.70
33	2	68	A	C5-C6-N1	-5.28	115.06	117.70
33	2	1016	A	C5-C6-N1	-5.28	115.06	117.70
33	2	1692	A	C5-C6-N1	-5.28	115.06	117.70
33	2	912	A	C5-C6-N1	-5.27	115.06	117.70
33	2	1096	A	C5-C6-N6	-5.27	119.48	123.70
33	2	1613	C	N3-C4-C5	-5.27	119.79	121.90
33	2	19	A	C5-C6-N1	-5.27	115.06	117.70
33	2	125	C	N3-C4-C5	-5.27	119.79	121.90
33	2	270	G	O4'-C1'-N9	5.27	112.42	108.20
33	2	455	A	C5-C6-N1	-5.27	115.06	117.70
33	2	1180	G	O4'-C1'-N9	5.27	112.42	108.20
33	2	1634	G	O4'-C1'-N9	5.27	112.42	108.20
33	2	226	A	C5-C6-N6	-5.27	119.48	123.70
33	2	502	A	C5-C6-N1	-5.27	115.06	117.70
33	2	1105	C	N3-C4-N4	5.27	121.69	118.00
33	2	1128	C	N3-C4-C5	-5.27	119.79	121.90
33	2	1214	C	N3-C4-C5	-5.27	119.79	121.90
33	2	1614	A	C5-C6-N6	-5.27	119.48	123.70
33	2	536	G	O4'-C1'-N9	5.27	112.41	108.20
33	2	871	A	C5-C6-N1	-5.27	115.07	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	901	C	N3-C4-C5	-5.27	119.79	121.90
33	2	1129	A	C5-C6-N1	-5.27	115.07	117.70
33	2	1372	A	C5-C6-N1	-5.27	115.07	117.70
33	2	1599	G	O4'-C1'-N9	5.27	112.42	108.20
33	2	513	A	C5-C6-N1	-5.27	115.07	117.70
33	2	820	C	N3-C4-C5	-5.27	119.79	121.90
39	1	57	G	O4'-C1'-N9	5.27	112.41	108.20
33	2	142	C	N3-C4-C5	-5.26	119.79	121.90
33	2	438	A	O4'-C1'-N9	5.26	112.41	108.20
33	2	836	C	N3-C4-C5	-5.26	119.79	121.90
8	I	145	PHE	CB-CG-CD1	5.26	124.48	120.80
34	3	61	C	N3-C4-C5	-5.26	119.80	121.90
33	2	452	C	N3-C4-C5	-5.26	119.80	121.90
33	2	55	U	O4'-C1'-N1	5.26	112.41	108.20
33	2	1326	G	O4'-C1'-N9	5.26	112.41	108.20
33	2	1816	A	O4'-C1'-N9	5.26	112.41	108.20
33	2	1397	A	C5-C6-N1	-5.26	115.07	117.70
33	2	1394	G	O4'-C1'-N9	5.26	112.41	108.20
33	2	798	A	O5'-C5'-C4'	5.25	121.69	111.70
33	2	980	C	N3-C4-C5	-5.25	119.80	121.90
33	2	331	C	N3-C4-C5	-5.25	119.80	121.90
33	2	110	U	O4'-C1'-N1	5.25	112.40	108.20
33	2	591	G	O4'-C1'-N9	5.25	112.40	108.20
33	2	873	C	N3-C4-C5	-5.25	119.80	121.90
33	2	905	G	O4'-C1'-N9	5.25	112.40	108.20
33	2	920	G	O4'-C1'-N9	5.25	112.40	108.20
33	2	1439	C	N3-C4-N4	5.25	121.67	118.00
33	2	1658	A	C4-C5-C6	5.25	119.62	117.00
34	3	61	C	N3-C4-N4	5.25	121.67	118.00
33	2	371	C	N3-C4-C5	-5.25	119.80	121.90
33	2	440	C	N3-C4-N4	5.25	121.67	118.00
33	2	551	A	C5-C6-N1	-5.25	115.08	117.70
33	2	1075	C	N3-C4-N4	5.25	121.67	118.00
33	2	1126	G	O4'-C1'-N9	5.25	112.40	108.20
33	2	953	A	C5-C6-N1	-5.25	115.08	117.70
33	2	1596	A	C5-C6-N1	-5.25	115.08	117.70
33	2	994	A	C5-C6-N6	-5.25	119.50	123.70
33	2	1112	C	N3-C4-C5	-5.25	119.80	121.90
33	2	1641	C	N3-C4-C5	-5.25	119.80	121.90
33	2	1816	A	C5-C6-N1	-5.25	115.08	117.70
33	2	79	A	C4-C5-C6	5.24	119.62	117.00
33	2	330	C	N3-C4-C5	-5.24	119.80	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1809	A	C5-C6-N1	-5.24	115.08	117.70
33	2	393	G	O4'-C1'-N9	5.24	112.39	108.20
33	2	471	C	N3-C4-C5	-5.24	119.80	121.90
33	2	1333	C	N3-C4-C5	-5.24	119.80	121.90
33	2	240	C	O4'-C1'-N1	5.24	112.39	108.20
33	2	798	A	O4'-C1'-N9	5.24	112.39	108.20
33	2	1283	A	C5-C6-N1	-5.24	115.08	117.70
33	2	806	A	C5-C6-N1	-5.24	115.08	117.70
39	1	48	C	P-O3'-C3'	5.24	125.98	119.70
33	2	221	A	C5-C6-N1	-5.24	115.08	117.70
33	2	1053	C	N3-C4-C5	-5.24	119.81	121.90
33	2	1309	A	O4'-C1'-N9	5.24	112.39	108.20
33	2	1429	C	N3-C4-C5	-5.24	119.81	121.90
33	2	1690	A	C5-C6-N1	-5.24	115.08	117.70
39	1	76	A	C5-C6-N1	-5.24	115.08	117.70
33	2	95	G	O4'-C1'-N9	5.23	112.39	108.20
33	2	1825	A	C5-C6-N1	-5.23	115.08	117.70
33	2	624	A	O4'-C1'-N9	5.23	112.39	108.20
33	2	1038	A	C5-C6-N1	-5.23	115.08	117.70
33	2	1730	A	C5-C6-N6	-5.23	119.51	123.70
35	A	82	TYR	CB-CG-CD2	-5.23	117.86	121.00
33	2	38	A	C5-C6-N1	-5.23	115.08	117.70
33	2	67	C	N3-C4-C5	-5.23	119.81	121.90
33	2	959	A	C5-C6-N1	-5.23	115.08	117.70
33	2	1682	C	N3-C4-C5	-5.23	119.81	121.90
33	2	83	A	C5-C6-N1	-5.23	115.09	117.70
33	2	1179	A	C5-C6-N1	-5.23	115.09	117.70
39	1	23	C	N3-C4-C5	-5.23	119.81	121.90
25	b	62	TYR	CB-CG-CD2	-5.22	117.87	121.00
33	2	1360	U	C6-N1-C1'	-5.22	113.89	121.20
33	2	1457	G	N3-C2-N2	5.22	123.56	119.90
33	2	1551	A	C5-C6-N1	-5.22	115.09	117.70
33	2	1784	A	C5-C6-N6	-5.22	119.52	123.70
39	1	42	A	C5-C6-N1	-5.22	115.09	117.70
33	2	817	G	O4'-C1'-N9	5.22	112.38	108.20
33	2	1705	C	N3-C4-C5	-5.22	119.81	121.90
33	2	193	C	N3-C4-C5	-5.22	119.81	121.90
33	2	407	C	N3-C4-C5	-5.22	119.81	121.90
33	2	628	C	N3-C4-C5	-5.22	119.81	121.90
33	2	677	C	O4'-C1'-N1	5.22	112.37	108.20
33	2	833	A	C5-C6-N1	-5.22	115.09	117.70
33	2	1478	C	N3-C4-C5	-5.22	119.81	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	908	C	O4'-C1'-N1	5.22	112.37	108.20
33	2	1199	G	O4'-C1'-N9	5.22	112.37	108.20
33	2	1569	C	N3-C4-C5	-5.22	119.81	121.90
33	2	1583	A	C5-C6-N1	-5.22	115.09	117.70
33	2	1614	A	O4'-C1'-N9	5.22	112.37	108.20
33	2	1812	A	C5-C6-N1	-5.22	115.09	117.70
33	2	35	C	N3-C4-C5	-5.21	119.81	121.90
33	2	645	A	C5-C6-N1	-5.21	115.09	117.70
33	2	654	A	C5-C6-N6	-5.21	119.53	123.70
33	2	1020	A	O4'-C1'-N9	5.21	112.37	108.20
33	2	1563	C	N3-C4-C5	-5.21	119.81	121.90
33	2	909	A	C5-C6-N6	-5.21	119.53	123.70
33	2	1412	C	N3-C4-C5	-5.21	119.81	121.90
33	2	1734	C	N3-C4-C5	-5.21	119.81	121.90
33	2	315	C	N3-C4-C5	-5.21	119.81	121.90
33	2	605	C	N3-C4-C5	-5.21	119.81	121.90
39	1	61	C	N3-C4-C5	-5.21	119.82	121.90
33	2	986	A	C5-C6-N1	-5.21	115.09	117.70
33	2	1113	C	N3-C4-C5	-5.21	119.82	121.90
33	2	1398	A	C4-C5-C6	5.21	119.61	117.00
33	2	345	G	O4'-C1'-N9	5.21	112.37	108.20
33	2	1087	C	N3-C4-N4	5.21	121.65	118.00
33	2	618	A	C5-C6-N6	-5.21	119.53	123.70
33	2	1379	A	O4'-C1'-N9	5.21	112.36	108.20
33	2	293	A	O4'-C1'-N9	5.21	112.36	108.20
33	2	319	G	O4'-C1'-N9	5.21	112.36	108.20
33	2	1836	C	N3-C4-C5	-5.20	119.82	121.90
33	2	2	A	C5-C6-N1	-5.20	115.10	117.70
33	2	812	A	C5-C6-N1	-5.20	115.10	117.70
33	2	1026	A	C5-C6-N1	-5.20	115.10	117.70
33	2	1405	A	C5-C6-N1	-5.20	115.10	117.70
33	2	398	A	O4'-C1'-N9	5.20	112.36	108.20
33	2	934	A	C5-C6-N6	-5.20	119.54	123.70
33	2	1578	C	N3-C4-C5	-5.20	119.82	121.90
33	2	427	G	O4'-C1'-N9	5.20	112.36	108.20
33	2	550	A	C4-C5-C6	5.20	119.60	117.00
33	2	917	G	O4'-C1'-N9	5.20	112.36	108.20
33	2	921	G	O4'-C1'-N9	5.20	112.36	108.20
33	2	526	A	C5-C6-N6	-5.20	119.54	123.70
33	2	1195	A	C5-C6-N6	-5.20	119.54	123.70
33	2	1612	G	N3-C2-N2	5.20	123.54	119.90
33	2	17	C	C2-N1-C1'	5.20	124.52	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	608	C	N3-C4-C5	-5.20	119.82	121.90
33	2	631	A	O4'-C1'-N9	5.20	112.36	108.20
33	2	916	A	C5-N7-C8	5.20	106.50	103.90
33	2	1401	A	O4'-C1'-N9	5.20	112.36	108.20
33	2	1442	A	C5-C6-N6	-5.20	119.54	123.70
33	2	1740	A	C5-C6-N1	-5.20	115.10	117.70
39	1	49	G	O4'-C1'-N9	5.20	112.36	108.20
33	2	550	A	C5-C6-N1	-5.19	115.10	117.70
33	2	1261	A	C5-C6-N1	-5.19	115.10	117.70
33	2	1494	A	C5-C6-N6	-5.19	119.55	123.70
33	2	1524	C	N3-C4-C5	-5.19	119.82	121.90
33	2	440	C	O4'-C1'-N1	5.19	112.35	108.20
33	2	459	A	C5-C6-N1	-5.19	115.11	117.70
33	2	1805	C	N3-C4-C5	-5.19	119.82	121.90
24	a	86	GLU	N-CA-CB	5.19	119.94	110.60
33	2	1341	G	O4'-C1'-N9	5.19	112.35	108.20
33	2	1521	G	O4'-C1'-N9	5.19	112.35	108.20
33	2	1628	A	C5-C6-N1	-5.19	115.11	117.70
33	2	1733	C	N3-C4-C5	-5.19	119.83	121.90
33	2	659	A	C5-C6-N1	-5.19	115.11	117.70
33	2	822	A	O4'-C1'-N9	5.19	112.35	108.20
33	2	1729	G	N3-C2-N2	5.19	123.53	119.90
33	2	42	A	C5-C6-N1	-5.18	115.11	117.70
33	2	232	A	C5-C6-N1	-5.18	115.11	117.70
33	2	1430	C	N3-C4-N4	5.18	121.63	118.00
33	2	39	A	C5-C6-N1	-5.18	115.11	117.70
33	2	566	A	C5-C6-N1	-5.18	115.11	117.70
33	2	676	U	P-O3'-C3'	-5.18	113.48	119.70
33	2	1290	G	O4'-C1'-N9	5.18	112.35	108.20
39	1	47	U	C2-N1-C1'	5.18	123.92	117.70
33	2	303	G	P-O3'-C3'	5.18	125.91	119.70
33	2	1056	A	C5-C6-N1	-5.18	115.11	117.70
33	2	1179	A	O4'-C1'-N9	5.18	112.34	108.20
33	2	1257	C	N3-C4-C5	-5.18	119.83	121.90
33	2	1696	C	O4'-C1'-N1	5.18	112.34	108.20
33	2	1076	A	C5-C6-N1	-5.17	115.11	117.70
33	2	1215	C	N3-C4-C5	-5.17	119.83	121.90
39	1	2	A	O4'-C1'-N9	5.17	112.34	108.20
33	2	856	G	O4'-C1'-N9	5.17	112.34	108.20
33	2	1483	A	C5-C6-N1	-5.17	115.11	117.70
33	2	1523	G	O4'-C1'-N9	5.17	112.34	108.20
33	2	1835	C	N3-C4-C5	-5.17	119.83	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
39	1	45	G	O4'-C1'-N9	5.17	112.34	108.20
33	2	49	C	N3-C4-N4	5.17	121.62	118.00
33	2	1272	A	O4'-C1'-N9	5.17	112.33	108.20
33	2	1476	A	C5-C6-N1	-5.17	115.12	117.70
33	2	208	G	P-O3'-C3'	5.17	125.90	119.70
33	2	1589	A	C5-C6-N1	-5.17	115.12	117.70
39	1	26	G	O4'-C1'-N9	5.17	112.33	108.20
33	2	181	A	C5-C6-N1	-5.16	115.12	117.70
33	2	1670	A	C5-C6-N1	-5.16	115.12	117.70
33	2	527	C	N3-C4-C5	-5.16	119.84	121.90
33	2	619	A	C5-C6-N6	-5.16	119.57	123.70
33	2	1043	C	N3-C4-C5	-5.16	119.84	121.90
33	2	425	A	C5-C6-N1	-5.16	115.12	117.70
33	2	1807	A	C5-C6-N1	-5.16	115.12	117.70
34	3	76	A	O4'-C1'-N9	5.16	112.33	108.20
39	1	35	A	C5-C6-N6	-5.16	119.57	123.70
33	2	1353	A	C5-C6-N6	-5.16	119.57	123.70
33	2	60	A	C5-C6-N1	-5.16	115.12	117.70
33	2	1284	U	O4'-C1'-N1	5.16	112.33	108.20
33	2	408	A	C5-C6-N1	-5.15	115.12	117.70
33	2	646	G	O4'-C1'-N9	5.15	112.32	108.20
33	2	988	A	C5-C6-N1	-5.15	115.12	117.70
33	2	1008	A	C5-C6-N1	-5.15	115.12	117.70
33	2	40	A	C5-C6-N1	-5.15	115.12	117.70
33	2	852	C	N3-C4-C5	-5.15	119.84	121.90
33	2	212	G	O4'-C1'-N9	5.15	112.32	108.20
33	2	569	C	N3-C4-C5	-5.15	119.84	121.90
33	2	658	A	C5-C6-N6	-5.15	119.58	123.70
33	2	1066	A	C5-C6-N6	-5.15	119.58	123.70
33	2	1374	A	C5-C6-N1	-5.15	115.13	117.70
8	I	7	PHE	CB-CG-CD2	-5.15	117.20	120.80
33	2	338	A	C5-C6-N1	-5.15	115.13	117.70
33	2	861	A	C5-C6-N1	-5.15	115.13	117.70
33	2	438	A	C5-C6-N1	-5.14	115.13	117.70
33	2	519	A	C5-C6-N1	-5.14	115.13	117.70
33	2	1075	C	N3-C4-C5	-5.14	119.84	121.90
33	2	601	G	O4'-C1'-N9	5.14	112.31	108.20
33	2	1010	G	O4'-C1'-N9	5.14	112.31	108.20
33	2	1201	C	N3-C4-C5	-5.14	119.84	121.90
33	2	1464	C	N3-C4-C5	-5.14	119.84	121.90
33	2	1471	G	P-O3'-C3'	5.14	125.87	119.70
33	2	60	A	C5-C6-N6	-5.14	119.59	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	139	C	N3-C4-N4	5.14	121.60	118.00
33	2	361	A	O4'-C1'-N9	5.14	112.31	108.20
33	2	416	A	C5-C6-N1	-5.14	115.13	117.70
33	2	944	C	N3-C4-C5	-5.14	119.84	121.90
33	2	1839	A	O4'-C1'-N9	5.14	112.31	108.20
33	2	1371	G	O4'-C1'-N9	5.14	112.31	108.20
33	2	1602	A	C5-C6-N1	-5.14	115.13	117.70
33	2	4	C	N3-C4-C5	-5.14	119.85	121.90
33	2	866	A	C5-C6-N1	-5.14	115.13	117.70
33	2	824	G	O4'-C1'-N9	5.13	112.31	108.20
33	2	1185	A	C5-C6-N1	-5.13	115.13	117.70
33	2	622	C	N3-C4-C5	-5.13	119.85	121.90
33	2	652	G	N1-C6-O6	5.13	122.98	119.90
33	2	1256	A	C5-C6-N1	-5.13	115.13	117.70
33	2	1461	A	C5-C6-N1	-5.13	115.13	117.70
33	2	1497	C	N3-C4-C5	-5.13	119.85	121.90
33	2	1537	C	N3-C4-C5	-5.13	119.85	121.90
33	2	1540	A	C5-C6-N6	-5.13	119.59	123.70
33	2	1795	A	C5-C6-N1	-5.13	115.14	117.70
33	2	11	A	C5-C6-N1	-5.13	115.14	117.70
33	2	240	C	N3-C4-C5	-5.13	119.85	121.90
33	2	73	C	N3-C4-C5	-5.13	119.85	121.90
33	2	951	A	C4-C5-C6	5.13	119.56	117.00
36	B	251	TYR	CB-CG-CD1	5.13	124.08	121.00
34	3	63	U	C6-N1-C1'	-5.12	114.03	121.20
33	2	985	C	N3-C4-N4	5.12	121.59	118.00
33	2	1159	C	N3-C4-C5	-5.12	119.85	121.90
33	2	1254	A	C5-C6-N1	-5.12	115.14	117.70
33	2	49	C	N3-C4-C5	-5.12	119.85	121.90
33	2	845	A	O4'-C1'-N9	5.12	112.30	108.20
33	2	919	G	O4'-C1'-N9	5.12	112.30	108.20
33	2	1058	A	C5-C6-N6	-5.12	119.60	123.70
33	2	1258	C	N3-C4-C5	-5.12	119.85	121.90
33	2	1472	A	C5-C6-N6	-5.12	119.60	123.70
4	E	175	SER	N-CA-CB	5.12	118.18	110.50
33	2	225	C	N3-C4-C5	-5.12	119.85	121.90
33	2	559	A	O4'-C1'-N9	5.12	112.29	108.20
33	2	654	A	C5-C6-N1	-5.12	115.14	117.70
33	2	1387	C	N3-C4-C5	-5.12	119.85	121.90
33	2	372	C	N3-C4-N4	5.12	121.58	118.00
33	2	398	A	C5-C6-N1	-5.12	115.14	117.70
33	2	1229	G	O4'-C1'-N9	5.12	112.29	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1569	C	N3-C4-N4	5.12	121.58	118.00
33	2	564	A	C5-C6-N6	-5.12	119.61	123.70
33	2	666	C	N3-C4-C5	-5.12	119.85	121.90
33	2	1787	A	C5-C6-N6	-5.12	119.61	123.70
33	2	333	A	O4'-C1'-N9	5.11	112.29	108.20
33	2	502	A	O4'-C1'-N9	5.11	112.29	108.20
33	2	1389	G	O4'-C1'-N9	5.11	112.29	108.20
33	2	295	C	N3-C4-C5	-5.11	119.86	121.90
33	2	615	G	N3-C2-N2	5.11	123.48	119.90
33	2	1288	C	N3-C4-C5	-5.11	119.86	121.90
33	2	329	A	O4'-C1'-N9	5.11	112.29	108.20
33	2	1030	A	C5-C6-N1	-5.11	115.15	117.70
33	2	611	C	N3-C4-C5	-5.11	119.86	121.90
33	2	1049	C	N3-C4-C5	-5.11	119.86	121.90
33	2	1254	A	P-O3'-C3'	5.11	125.83	119.70
33	2	1337	C	N3-C4-C5	-5.11	119.86	121.90
33	2	1392	A	O4'-C1'-N9	5.11	112.29	108.20
33	2	1278	A	O4'-C1'-N9	5.11	112.28	108.20
33	2	1548	C	P-O3'-C3'	5.11	125.83	119.70
33	2	1742	C	N3-C4-C5	-5.11	119.86	121.90
11	L	159	PHE	CB-CG-CD1	5.10	124.37	120.80
33	2	142	C	O4'-C1'-N1	5.10	112.28	108.20
33	2	159	A	O4'-C1'-N9	5.10	112.28	108.20
33	2	376	C	N3-C4-C5	-5.10	119.86	121.90
33	2	812	A	O4'-C1'-N9	5.10	112.28	108.20
33	2	1526	A	C4-C5-C6	5.10	119.55	117.00
39	1	50	A	C5-C6-N1	-5.10	115.15	117.70
33	2	959	A	O4'-C1'-N9	5.10	112.28	108.20
33	2	1247	A	O4'-C1'-N9	5.10	112.28	108.20
4	E	221	PHE	CB-CG-CD1	5.10	124.37	120.80
33	2	809	A	C5-C6-N1	-5.10	115.15	117.70
33	2	821	A	C5-C6-N1	-5.10	115.15	117.70
33	2	858	A	C5-C6-N1	-5.10	115.15	117.70
33	2	1028	C	N3-C4-C5	-5.10	119.86	121.90
33	2	1366	A	C5-C6-N1	-5.10	115.15	117.70
33	2	1583	A	O4'-C1'-N9	5.10	112.28	108.20
33	2	624	A	C5-C6-N1	-5.10	115.15	117.70
33	2	860	A	C5-C6-N1	-5.10	115.15	117.70
33	2	1181	C	N3-C4-C5	-5.10	119.86	121.90
33	2	1494	A	O4'-C1'-N9	5.10	112.28	108.20
33	2	1623	C	N3-C4-C5	-5.10	119.86	121.90
33	2	1659	A	C5-C6-N1	-5.10	115.15	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	472	G	N3-C2-N2	5.10	123.47	119.90
33	2	648	U	O4'-C1'-N1	5.10	112.28	108.20
33	2	997	A	C5-C6-N1	-5.10	115.15	117.70
33	2	1035	C	N3-C4-C5	-5.10	119.86	121.90
33	2	1177	A	C5-C6-N1	-5.09	115.15	117.70
33	2	1348	G	O4'-C1'-N9	5.09	112.28	108.20
33	2	918	A	O4'-C1'-N9	5.09	112.27	108.20
33	2	1113	C	N3-C4-N4	5.09	121.56	118.00
39	1	74	C	N3-C4-C5	-5.09	119.86	121.90
33	2	1528	A	C5-C6-N6	-5.09	119.63	123.70
33	2	1785	A	O4'-C1'-N9	5.09	112.27	108.20
33	2	1809	A	C5-C6-N6	-5.09	119.63	123.70
33	2	453	C	N3-C4-C5	-5.09	119.86	121.90
33	2	1139	A	O4'-C1'-N9	5.09	112.27	108.20
33	2	1365	A	C5-C6-N1	-5.09	115.16	117.70
33	2	29	G	O4'-C1'-N9	5.09	112.27	108.20
33	2	985	C	O4'-C1'-N1	5.09	112.27	108.20
33	2	1635	A	C5-C6-N1	-5.09	115.16	117.70
33	2	1737	C	N3-C4-C5	-5.09	119.86	121.90
33	2	516	A	C5-C6-N6	-5.09	119.63	123.70
33	2	600	G	O4'-C1'-N9	5.09	112.27	108.20
33	2	623	C	N3-C4-C5	-5.09	119.86	121.90
33	2	1120	C	N3-C4-C5	-5.09	119.87	121.90
33	2	414	C	N3-C4-C5	-5.08	119.87	121.90
33	2	79	A	P-O3'-C3'	5.08	125.80	119.70
33	2	583	C	N3-C4-C5	-5.08	119.87	121.90
33	2	1271	G	O4'-C1'-N9	5.08	112.27	108.20
33	2	6	G	O4'-C1'-N9	5.08	112.26	108.20
33	2	297	C	N3-C4-C5	-5.08	119.87	121.90
33	2	492	C	N3-C4-C5	-5.08	119.87	121.90
33	2	559	A	C5-C6-N1	-5.08	115.16	117.70
33	2	847	C	N3-C4-C5	-5.08	119.87	121.90
33	2	1604	C	N3-C4-N4	5.08	121.55	118.00
39	1	2	A	C5-C6-N1	-5.08	115.16	117.70
33	2	389	C	N3-C4-N4	5.08	121.55	118.00
33	2	1275	C	N3-C4-C5	-5.08	119.87	121.90
33	2	1498	C	N3-C4-C5	-5.08	119.87	121.90
33	2	1572	G	O4'-C1'-N9	5.08	112.26	108.20
33	2	1307	C	N3-C4-C5	-5.07	119.87	121.90
33	2	1491	G	C5-C6-O6	-5.07	125.56	128.60
33	2	168	C	N3-C4-C5	-5.07	119.87	121.90
33	2	597	U	C6-N1-C1'	-5.07	114.10	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	1426	C	N3-C4-C5	-5.07	119.87	121.90
33	2	1566	G	O4'-C1'-N9	5.07	112.26	108.20
33	2	1831	G	N3-C2-N2	5.07	123.45	119.90
33	2	880	C	N3-C4-N4	5.07	121.55	118.00
33	2	1186	A	C5-C6-N6	-5.07	119.64	123.70
33	2	150	A	O4'-C1'-N9	5.07	112.25	108.20
33	2	178	C	N3-C4-C5	-5.07	119.87	121.90
33	2	231	C	N3-C4-C5	-5.07	119.87	121.90
33	2	533	C	N3-C4-N4	5.07	121.55	118.00
33	2	560	C	N3-C4-C5	-5.07	119.87	121.90
33	2	819	U	C2-N1-C1'	5.07	123.78	117.70
33	2	1658	A	O4'-C1'-N9	5.07	112.25	108.20
33	2	174	C	N3-C4-C5	-5.07	119.87	121.90
33	2	554	A	C5-C6-N1	-5.07	115.17	117.70
33	2	1262	C	N3-C4-C5	-5.07	119.87	121.90
33	2	1619	U	C6-N1-C1'	-5.07	114.11	121.20
33	2	1413	C	O4'-C1'-N1	5.06	112.25	108.20
33	2	982	G	O4'-C1'-N9	5.06	112.25	108.20
33	2	1051	A	C5-C6-N1	-5.06	115.17	117.70
34	3	74	G	O4'-C1'-N9	5.06	112.25	108.20
33	2	880	C	N3-C4-C5	-5.06	119.88	121.90
33	2	954	G	C4-N9-C1'	5.06	133.08	126.50
33	2	644	A	O4'-C1'-N9	5.06	112.25	108.20
33	2	551	A	C5-C6-N6	-5.06	119.65	123.70
33	2	1155	G	O4'-C1'-N9	5.06	112.25	108.20
33	2	1447	G	O4'-C1'-N9	5.06	112.25	108.20
34	3	52	A	C5-C6-N1	-5.06	115.17	117.70
33	2	904	A	O4'-C1'-N9	5.05	112.24	108.20
33	2	1032	A	O4'-C1'-N9	5.05	112.24	108.20
33	2	1102	C	N3-C4-C5	-5.05	119.88	121.90
33	2	1328	A	O4'-C1'-N9	5.05	112.24	108.20
33	2	663	G	O4'-C1'-N9	5.05	112.24	108.20
33	2	171	A	C5-C6-N1	-5.05	115.18	117.70
33	2	213	C	N3-C4-C5	-5.05	119.88	121.90
33	2	1678	C	N3-C4-N4	5.05	121.53	118.00
33	2	1153	G	O4'-C1'-N9	5.05	112.24	108.20
33	2	482	C	N3-C4-N4	5.05	121.53	118.00
33	2	1411	C	N3-C4-N4	5.05	121.53	118.00
33	2	1705	C	N3-C4-N4	5.04	121.53	118.00
33	2	83	A	C5-C6-N6	-5.04	119.67	123.70
33	2	448	A	C5-C6-N6	-5.04	119.67	123.70
33	2	593	C	N3-C4-N4	5.04	121.53	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	830	C	N3-C4-C5	-5.04	119.88	121.90
15	P	65	PHE	CB-CG-CD1	5.04	124.33	120.80
33	2	69	C	N3-C4-C5	-5.04	119.88	121.90
33	2	1209	C	N3-C4-C5	-5.04	119.88	121.90
39	1	4	C	N3-C4-C5	-5.04	119.88	121.90
33	2	18	C	N3-C4-C5	-5.04	119.88	121.90
33	2	1385	C	N3-C4-C5	-5.04	119.88	121.90
33	2	1628	A	C5-C6-N6	-5.04	119.67	123.70
33	2	1777	C	N3-C4-C5	-5.04	119.88	121.90
33	2	1382	A	O4'-C1'-N9	5.04	112.23	108.20
33	2	1170	U	C6-N1-C1'	-5.04	114.15	121.20
33	2	1419	C	N3-C4-C5	-5.04	119.89	121.90
33	2	1635	A	C5-C6-N6	-5.04	119.67	123.70
33	2	1694	A	O4'-C1'-N9	5.04	112.23	108.20
33	2	107	A	C5-C6-N6	-5.03	119.67	123.70
33	2	932	G	O4'-C1'-N9	5.03	112.23	108.20
33	2	1554	C	N3-C4-C5	-5.03	119.89	121.90
39	1	54	A	O4'-C1'-N9	5.03	112.23	108.20
4	E	221	PHE	CB-CG-CD2	-5.03	117.28	120.80
33	2	1079	A	C5-C6-N1	-5.03	115.19	117.70
33	2	1118	A	C5-C6-N1	-5.03	115.19	117.70
33	2	339	A	C5-C6-N1	-5.03	115.19	117.70
33	2	1461	A	O4'-C1'-N9	5.03	112.22	108.20
33	2	11	A	O4'-C1'-N9	5.03	112.22	108.20
33	2	547	U	O4'-C1'-N1	5.03	112.22	108.20
33	2	1026	A	O4'-C1'-N9	5.03	112.22	108.20
33	2	1593	G	O4'-C1'-N9	5.03	112.22	108.20
33	2	311	C	O4'-C1'-N1	5.03	112.22	108.20
33	2	431	C	N3-C4-N4	5.03	121.52	118.00
33	2	537	G	O4'-C1'-N9	5.03	112.22	108.20
33	2	1078	A	O4'-C1'-N9	5.03	112.22	108.20
33	2	1328	A	C5-C6-N1	-5.03	115.19	117.70
33	2	1472	A	O4'-C1'-N9	5.03	112.22	108.20
33	2	167	G	O4'-C1'-N9	5.02	112.22	108.20
33	2	1413	C	N3-C4-C5	-5.02	119.89	121.90
33	2	61	A	C5-C6-N1	-5.02	115.19	117.70
33	2	1399	C	N3-C4-C5	-5.02	119.89	121.90
33	2	1556	A	C5-C6-N1	-5.02	115.19	117.70
33	2	1123	C	N3-C4-C5	-5.02	119.89	121.90
33	2	204	G	O4'-C1'-N9	5.02	112.22	108.20
33	2	526	A	C4-C5-C6	5.02	119.51	117.00
33	2	1542	C	N3-C4-C5	-5.02	119.89	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2	379	A	C5-C6-N1	-5.02	115.19	117.70
39	1	38	A	C5-C6-N1	-5.02	115.19	117.70
39	1	54	A	C5-C6-N1	-5.02	115.19	117.70
33	2	462	C	N3-C4-N4	5.01	121.51	118.00
33	2	629	C	N3-C4-C5	-5.01	119.89	121.90
33	2	1629	A	C5-C6-N6	-5.01	119.69	123.70
39	1	46	G	O4'-C1'-N9	5.01	112.21	108.20
33	2	1011	U	C2-N1-C1'	5.01	123.72	117.70
33	2	1516	C	N3-C4-C5	-5.01	119.89	121.90
10	K	143	LYS	N-CA-CB	5.01	119.62	110.60
33	2	350	A	C5-C6-N1	-5.01	115.19	117.70
33	2	546	U	O4'-C1'-N1	5.01	112.21	108.20
33	2	933	C	N3-C4-C5	-5.01	119.89	121.90
15	P	65	PHE	CB-CG-CD2	-5.01	117.29	120.80
33	2	934	A	O4'-C1'-N9	5.01	112.21	108.20
33	2	1589	A	O4'-C1'-N9	5.01	112.21	108.20
33	2	1018	U	C2-N1-C1'	5.01	123.71	117.70
33	2	1382	A	C5-C6-N1	-5.01	115.20	117.70
33	2	846	C	N3-C4-C5	-5.01	119.90	121.90
33	2	1066	A	C5-C6-N1	-5.01	115.20	117.70
33	2	385	G	O4'-C1'-N9	5.00	112.20	108.20
33	2	1288	C	O4'-C1'-N1	5.00	112.20	108.20
33	2	1796	C	N3-C4-C5	-5.00	119.90	121.90
39	1	73	A	O4'-C1'-N9	5.00	112.20	108.20
33	2	400	G	O4'-C1'-N9	5.00	112.20	108.20
33	2	560	C	N3-C4-N4	5.00	121.50	118.00
33	2	1242	A	O4'-C1'-N9	5.00	112.20	108.20

All (5) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
33	2	1244	C4J	C4'
34	3	65	G	C3'
39	1	17	C	C2',C3'
39	1	18	G	C3'

All (113) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
39	1	18	G	Sidechain
39	1	48	C	Sidechain
39	1	69	U	Sidechain

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Mol	Chain	Res	Type	Group
33	2	112	U	Sidechain
33	2	1125	G	Sidechain
33	2	1139	A	Sidechain
33	2	1170	U	Sidechain
33	2	1171	G	Sidechain
33	2	1192	A	Sidechain
33	2	1251	G	Sidechain
33	2	1259	U	Sidechain
33	2	1285	U	Sidechain
33	2	1288	C	Sidechain
33	2	1289	A	Sidechain
33	2	1383	G	Sidechain
33	2	1416	G	Sidechain
33	2	1423	C	Sidechain
33	2	145	G	Sidechain
33	2	1452	G	Sidechain
33	2	146	G	Sidechain
33	2	1511	G	Sidechain
33	2	1515	G	Sidechain
33	2	1545	G	Sidechain
33	2	1547	G	Sidechain
33	2	1595	G	Sidechain
33	2	1598	G	Sidechain
33	2	1599	G	Sidechain
33	2	1607	G	Sidechain
33	2	1611	U	Sidechain
33	2	167	G	Sidechain
33	2	170	A	Sidechain
33	2	1702	U	Sidechain
33	2	1783	G	Sidechain
33	2	1784	A	Sidechain
33	2	1808	G	Sidechain
33	2	188	U	Sidechain
33	2	190	A	Sidechain
33	2	196	U	Sidechain
33	2	228	A	Sidechain
33	2	318	U	Sidechain
33	2	319	G	Sidechain
33	2	321	C	Sidechain
33	2	361	A	Sidechain
33	2	39	A	Sidechain
33	2	41	G	Sidechain

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Mol	Chain	Res	Type	Group
33	2	421	G	Sidechain
33	2	435	A	Sidechain
33	2	44	U	Sidechain
33	2	452	C	Sidechain
33	2	519	A	Sidechain
33	2	525	G	Sidechain
33	2	528	U	Sidechain
33	2	574	A	Sidechain
33	2	576	G	Sidechain
33	2	581	U	Sidechain
33	2	649	G	Sidechain
33	2	652	G	Sidechain
33	2	657	U	Sidechain
33	2	66	G	Sidechain
33	2	82	G	Sidechain
33	2	869	G	Sidechain
33	2	874	G	Sidechain
33	2	877	G	Sidechain
33	2	88	G	Sidechain
33	2	903	G	Sidechain
33	2	92	A	Sidechain
33	2	955	G	Sidechain
35	A	184	LEU	Peptide
35	A	185	THR	Peptide
35	A	186	PRO	Peptide
35	A	187	GLN	Peptide
35	A	200	TYR	Sidechain
35	A	54	ARG	Mainchain
35	A	55	ARG	Sidechain
35	A	57	ARG	Peptide
36	B	133	THR	Peptide
36	B	280	PRO	Peptide
36	B	282	CYS	Peptide
36	B	284	VAL	Peptide
36	B	285	ASP	Peptide
36	B	286	ASP	Peptide
36	B	287	LEU	Peptide
36	B	288	LYS	Peptide
36	B	289	GLY	Peptide
36	B	322	LEU	Peptide
36	B	373	ALA	Peptide
2	C	193	HIS	Peptide

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Mol	Chain	Res	Type	Group
3	D	208	HIS	Peptide
5	F	107	TYR	Sidechain
5	F	167	TYR	Sidechain
8	I	68	LEU	Peptide
8	I	69	THR	Peptide
9	J	105	THR	Peptide
9	J	66	VAL	Peptide
11	L	147	PHE	Peptide
11	L	54	ARG	Sidechain
12	M	1	MET	Peptide
12	M	34	GLU	Peptide
12	M	35	LEU	Peptide
12	M	43	LEU	Peptide
12	M	82	TYR	Sidechain
17	S	42	ILE	Peptide
17	S	43	GLU	Peptide
37	U	89	ASP	Peptide
37	U	94	LYS	Peptide
37	U	99	LEU	Peptide
26	c	81	ARG	Peptide
28	e	28	HIS	Peptide
28	e	49	ASP	Peptide
29	f	90	LYS	Peptide
31	h	109	TYR	Sidechain
32	i	120	VAL	Peptide
32	i	126	LYS	Peptide

5.2 Too-close contacts (i)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	l	240	0	289	0	0
2	C	1643	0	1646	1	0
3	D	1742	0	1815	0	0
4	E	1743	0	1836	0	0
5	F	1765	0	1863	23	0
6	G	2083	0	2189	0	0
7	H	1509	0	1563	8	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
8	I	1924	0	2086	12	0
9	J	1530	0	1623	27	0
10	K	1680	0	1762	1	0
11	L	1499	0	1608	0	0
12	M	828	0	854	0	0
13	N	1296	0	1374	0	0
14	O	958	0	993	0	0
15	P	1208	0	1294	1	0
16	Q	1016	0	1039	0	0
17	S	1123	0	1193	2	0
18	T	1020	0	1075	0	0
19	V	1113	0	1149	5	0
20	W	822	0	887	1	0
21	X	620	0	622	0	0
22	Y	1034	0	1080	0	0
23	Z	1107	0	1179	2	0
24	a	1022	0	1084	0	0
25	b	790	0	839	0	0
26	c	659	0	683	0	0
27	d	507	0	536	0	0
28	e	445	0	442	0	0
29	f	582	0	599	0	0
30	g	2437	0	2393	0	0
31	h	599	0	655	0	0
32	i	473	0	524	0	0
33	2	37202	0	18777	310	0
34	3	774	0	390	81	0
35	A	2147	0	2187	26	0
36	B	3214	0	3354	0	0
37	U	1172	0	1226	50	0
38	R	1111	0	1166	58	0
39	1	1614	0	824	60	0
All	All	84251	0	66698	517	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 4.

All (517) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:U:147:GLY:CA	38:R:131:PRO:HG3	1.22	1.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:U:147:GLY:HA3	38:R:131:PRO:CG	1.34	1.55
39:1:16:G:O3'	39:1:17:C:P	1.14	1.52
33:2:1817:A:C2'	33:2:1818:A:H5'	1.47	1.42
5:F:117:ARG:HH12	34:3:67:A:N6	1.14	1.41
35:A:183:ARG:NE	39:1:18:G:O6	1.59	1.33
8:I:230:LYS:NZ	33:2:747:G:OP2	1.57	1.33
5:F:117:ARG:NH1	34:3:67:A:N6	1.79	1.29
8:I:236:SER:O	8:I:237:LEU:HG	1.21	1.29
33:2:1817:A:O2'	33:2:1818:A:H5'	1.19	1.29
33:2:1518:C:OP1	37:U:143:GLY:HA2	1.17	1.25
33:2:1517:A:C2	38:R:128:HIS:CE1	2.26	1.24
33:2:1518:C:OP1	37:U:143:GLY:CA	1.86	1.23
33:2:1696:C:H5'	34:3:54:G:O6	1.38	1.23
5:F:117:ARG:NH2	34:3:65:G:H2'	1.50	1.23
33:2:740:G:H21	33:2:794:G:C1'	1.50	1.23
39:1:16:G:C8	39:1:17:C:C6	2.27	1.23
39:1:16:G:HO3'	39:1:17:C:P	1.07	1.22
39:1:16:G:C2'	39:1:17:C:H5"	1.71	1.21
39:1:17:C:O3'	39:1:18:G:P	1.99	1.21
8:I:230:LYS:NZ	33:2:747:G:P	2.17	1.18
39:1:16:G:C8	39:1:17:C:H6	1.61	1.18
33:2:1817:A:H2'	33:2:1818:A:H5'	1.30	1.13
9:J:108:SER:HA	33:2:740:G:O3'	1.47	1.12
9:J:108:SER:HA	33:2:740:G:C3'	1.65	1.12
33:2:740:G:N2	33:2:794:G:H1'	1.62	1.12
35:A:183:ARG:NE	39:1:18:G:C6	2.19	1.11
9:J:107:LYS:HE3	33:2:738:U:C4'	1.81	1.09
34:3:57:U:H5'	34:3:58:G:OP2	1.51	1.09
5:F:116:ARG:HE	5:F:150:MET:CE	1.65	1.09
39:1:16:G:H2'	39:1:17:C:H5"	1.28	1.08
7:H:130:ARG:CD	34:3:47:U:H4'	1.83	1.08
38:R:128:HIS:HB3	38:R:129:GLY:HA3	1.28	1.08
7:H:130:ARG:HD3	34:3:47:U:C4'	1.84	1.07
39:1:19:G:O3'	39:1:20:A:P	2.13	1.06
33:2:1817:A:C2'	33:2:1818:A:C5'	2.31	1.06
39:1:16:G:C3'	39:1:17:C:H5"	1.84	1.06
5:F:117:ARG:NH1	34:3:67:A:H61	1.42	1.03
39:1:16:G:C3'	39:1:17:C:P	2.46	1.03
9:J:106:ARG:HG3	33:2:794:G:N7	1.68	1.02
33:2:1817:A:H2'	33:2:1818:A:C5'	1.87	1.02
7:H:132:GLY:O	35:A:55:ARG:NH2	1.91	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:U:147:GLY:HA2	38:R:131:PRO:HG3	1.37	1.01
33:2:742:C:C2'	33:2:743:U:H5'	1.91	1.01
9:J:107:LYS:HE3	33:2:738:U:H4'	1.38	1.01
34:3:57:U:C5'	34:3:58:G:OP2	2.08	1.01
8:I:236:SER:O	8:I:237:LEU:CG	2.09	1.00
33:2:1817:A:O2'	33:2:1818:A:C5'	2.09	1.00
37:U:143:GLY:O	37:U:144:ARG:NH1	1.93	1.00
33:2:737:C:H3'	33:2:738:U:H5"	1.42	1.00
33:2:683:G:N2	33:2:731:C:N3	2.10	1.00
33:2:1518:C:O2'	37:U:146:VAL:CG1	2.08	0.99
5:F:116:ARG:HE	5:F:150:MET:HE2	1.26	0.99
33:2:749:C:H3'	33:2:750:G:H5"	1.43	0.99
33:2:740:G:H21	33:2:794:G:H1'	0.81	0.97
33:2:684:A:C2	33:2:731:C:N3	2.32	0.97
8:I:237:LEU:HB2	33:2:784:G:H4'	1.42	0.97
9:J:107:LYS:HE2	33:2:737:C:H2'	1.46	0.97
5:F:117:ARG:HH22	34:3:65:G:H2'	1.16	0.97
34:3:51:C:H4'	39:1:37:T6A:ODB	1.64	0.97
23:Z:61:GLN:HG3	33:2:1818:A:OP1	1.64	0.96
33:2:1518:C:O2'	37:U:146:VAL:HG13	1.64	0.96
35:A:183:ARG:CZ	39:1:18:G:H1	1.80	0.95
33:2:740:G:N2	33:2:794:G:C1'	2.21	0.95
39:1:16:G:H8	39:1:17:C:H6	1.04	0.94
37:U:147:GLY:HA3	38:R:131:PRO:CB	1.96	0.94
33:2:745:U:H2'	33:2:746:C:C6	2.01	0.94
34:3:42:G:H2'	34:3:43:G:N7	1.83	0.94
35:A:183:ARG:CZ	39:1:18:G:O6	2.16	0.94
33:2:1818:A:O2'	33:2:1819:A:H5"	1.67	0.93
33:2:680:G:H1	33:2:734:C:H42	1.00	0.93
33:2:742:C:O2'	33:2:743:U:H5'	1.68	0.93
33:2:738:U:O2'	33:2:740:G:OP2	1.86	0.93
39:1:16:G:C8	39:1:17:C:C5	2.56	0.92
33:2:742:C:H2'	33:2:743:U:H5'	1.49	0.92
39:1:16:G:H2'	39:1:17:C:C5'	1.98	0.92
33:2:683:G:H1	33:2:731:C:H42	1.18	0.92
9:J:107:LYS:CE	33:2:738:U:C4'	2.38	0.91
9:J:106:ARG:CG	33:2:794:G:N7	2.23	0.91
5:F:117:ARG:HH22	34:3:65:G:C2'	1.82	0.91
33:2:733:G:N7	33:2:738:U:O4	2.04	0.90
33:2:1696:C:C5'	34:3:54:G:O6	2.19	0.90
33:2:680:G:H1	33:2:734:C:N4	1.68	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:1:16:G:H8	39:1:17:C:C6	1.75	0.90
38:R:136:THR:O	38:R:138:SER:N	2.05	0.90
39:1:16:G:O3'	39:1:17:C:OP2	1.90	0.90
33:2:734:C:H2'	33:2:735:C:H5"	1.53	0.90
33:2:787:C:H2'	33:2:788:C:C6	2.06	0.89
33:2:739:U:O2'	33:2:740:G:OP1	1.88	0.89
35:A:183:ARG:CZ	39:1:18:G:N1	2.36	0.89
8:I:235:SER:O	8:I:237:LEU:N	2.07	0.88
33:2:949:C:C3'	33:2:950:U:P	2.62	0.88
9:J:107:LYS:HD2	33:2:740:G:P	2.13	0.88
33:2:751:C:O2'	33:2:752:C:H5'	1.74	0.87
35:A:183:ARG:CZ	39:1:18:G:C6	2.57	0.87
5:F:117:ARG:NH1	34:3:67:A:H62	1.69	0.87
33:2:746:C:H2'	33:2:747:G:C8	2.10	0.87
7:H:130:ARG:HD3	34:3:47:U:H4'	0.92	0.87
8:I:230:LYS:HZ2	33:2:747:G:P	1.91	0.87
33:2:742:C:O2'	33:2:743:U:C5'	2.23	0.87
33:2:685:G:N2	33:2:730:C:N3	2.22	0.87
37:U:147:GLY:CA	38:R:131:PRO:CG	2.13	0.85
33:2:740:G:N1	33:2:793:C:C2	2.44	0.85
33:2:684:A:H2'	33:2:685:G:C8	2.12	0.85
33:2:732:C:H2'	33:2:733:G:O4'	1.76	0.85
33:2:1244:C4J:C3	33:2:1244:C4J:O36	2.23	0.84
33:2:740:G:N1	33:2:793:C:O2	2.09	0.84
33:2:731:C:H2'	33:2:732:C:H5"	1.57	0.84
9:J:107:LYS:HG2	33:2:737:C:O2'	1.77	0.83
37:U:91:LYS:HA	38:R:18:ARG:H	1.42	0.82
39:1:16:G:H2'	39:1:17:C:O4'	1.80	0.81
39:1:11:G:H1	39:1:25:U:H3	1.27	0.81
39:1:16:G:C2'	39:1:17:C:C5'	2.56	0.81
9:J:108:SER:CA	33:2:740:G:C3'	2.54	0.81
37:U:147:GLY:HA3	38:R:131:PRO:CD	2.11	0.81
33:2:1518:C:OP1	37:U:143:GLY:N	2.12	0.80
33:2:1518:C:O2'	37:U:146:VAL:HG11	1.81	0.80
33:2:1518:C:C5'	33:2:1518:C:H6	1.95	0.80
33:2:1518:C:H6	33:2:1518:C:H5"	1.47	0.79
33:2:743:U:H1'	33:2:744:C:C1'	2.12	0.79
33:2:1264:C:C4'	38:R:100:LYS:HE3	2.13	0.79
5:F:116:ARG:NE	5:F:150:MET:HE2	1.98	0.79
33:2:743:U:O2'	33:2:744:C:O4'	2.00	0.79
39:1:17:C:H2'	39:1:18:G:H5'	1.63	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2:748:G:O2'	33:2:749:C:O5'	2.01	0.79
34:3:51:C:C4'	39:1:37:T6A:ODB	2.30	0.79
33:2:1510:G:C3'	33:2:1510:G:C5'	2.61	0.78
38:R:128:HIS:HB3	38:R:129:GLY:CA	2.13	0.78
33:2:734:C:C2'	33:2:735:C:H5"	2.13	0.78
33:2:1517:A:H2	38:R:128:HIS:CE1	2.01	0.78
39:1:18:G:O4'	39:1:61:C:H5'	1.84	0.78
5:F:117:ARG:HH21	34:3:65:G:H2'	1.45	0.77
39:1:16:G:O3'	39:1:17:C:O5'	2.01	0.77
34:3:47:U:P	34:3:47:U:H6	2.07	0.77
33:2:743:U:O4	33:2:791:A:N1	2.18	0.77
23:Z:61:GLN:CG	33:2:1818:A:OP1	2.33	0.76
5:F:116:ARG:HE	5:F:150:MET:HE1	1.48	0.76
33:2:749:C:H2'	33:2:750:G:O4'	1.86	0.76
33:2:1696:C:C4'	34:3:54:G:C6	2.68	0.76
9:J:106:ARG:N	33:2:794:G:N7	2.34	0.75
35:A:183:ARG:CD	39:1:18:G:C6	2.69	0.75
5:F:116:ARG:NE	5:F:150:MET:CE	2.48	0.75
34:3:59:G:H5"	34:3:59:G:N3	2.02	0.74
35:A:183:ARG:NH2	39:1:18:G:H1	1.84	0.74
33:2:1817:A:C8	33:2:1817:A:OP2	2.41	0.74
35:A:107:THR:HG22	39:1:18:G:C6	2.23	0.74
37:U:147:GLY:HA3	38:R:131:PRO:HG3	0.76	0.74
33:2:1232:G:H5'	38:R:134:GLY:O	1.88	0.74
33:2:797:U:H2'	33:2:798:A:O4'	1.88	0.73
33:2:748:G:C2	33:2:749:C:C2	2.77	0.73
34:3:42:G:H2'	34:3:43:G:C8	2.23	0.73
8:I:236:SER:C	8:I:237:LEU:HG	2.09	0.72
33:2:684:A:C2	33:2:731:C:C4	2.78	0.72
33:2:749:C:C3'	33:2:750:G:H5"	2.18	0.72
33:2:683:G:H1	33:2:731:C:N4	1.87	0.72
9:J:107:LYS:HA	33:2:740:G:O5'	1.89	0.71
34:3:58:G:O2'	34:3:59:G:O5'	2.06	0.71
9:J:107:LYS:CE	33:2:737:C:H2'	2.18	0.71
33:2:68:A:H61	33:2:81:U:H3	1.38	0.71
33:2:733:G:C5	33:2:738:U:O4	2.44	0.71
33:2:748:G:N2	33:2:749:C:O2	2.23	0.71
34:3:56:C:H1'	34:3:57:U:OP1	1.89	0.71
33:2:683:G:H2'	33:2:684:A:C8	2.24	0.71
9:J:107:LYS:CG	33:2:737:C:O2'	2.37	0.71
33:2:745:U:H2'	33:2:746:C:C5	2.25	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:1:19:G:O3'	39:1:20:A:OP1	2.08	0.70
39:1:18:G:O4'	39:1:61:C:C5'	2.39	0.70
33:2:740:G:N2	33:2:794:G:O4'	2.23	0.70
34:3:51:C:H1'	39:1:37:T6A:O14	1.92	0.70
33:2:1236:A:N1	38:R:99:GLY:HA3	2.06	0.69
33:2:737:C:C3'	33:2:738:U:H5"	2.22	0.69
37:U:143:GLY:C	37:U:144:ARG:HG3	2.13	0.68
33:2:793:C:O2'	33:2:794:G:H4'	1.93	0.68
34:3:49:A:H2'	34:3:50:C:H5'	1.75	0.68
5:F:117:ARG:HH12	34:3:67:A:H61	0.68	0.68
39:1:16:G:C3'	39:1:17:C:C5'	2.70	0.68
33:2:685:G:N2	33:2:730:C:C2	2.62	0.68
33:2:795:U:OP2	33:2:795:U:H4'	1.93	0.68
34:3:59:G:N3	34:3:59:G:H3'	2.08	0.67
5:F:117:ARG:NH2	34:3:65:G:C2'	2.39	0.67
33:2:740:G:O6	33:2:793:C:N3	2.27	0.67
37:U:147:GLY:C	38:R:131:PRO:HG3	2.09	0.67
35:A:179:ASN:OD1	35:A:183:ARG:NH2	2.28	0.67
33:2:526:A:H62	33:2:537:G:H21	1.42	0.66
34:3:55:U:H5	34:3:56:C:C5	2.13	0.66
39:1:16:G:O3'	39:1:17:C:C5'	2.43	0.66
8:I:237:LEU:HB2	33:2:784:G:C4'	2.20	0.66
33:2:1608:G:H5"	38:R:42:ARG:HH22	1.60	0.66
33:2:1859:C:H4'	33:2:1860:A:OP2	1.95	0.66
33:2:1510:G:C5'	33:2:1510:G:O4'	2.44	0.66
9:J:109:ARG:HB2	33:2:740:G:H2'	1.77	0.65
33:2:1232:G:H4'	38:R:135:ALA:HB2	1.79	0.65
33:2:739:U:H4'	33:2:740:G:OP2	1.96	0.65
33:2:785:G:N2	33:2:786:C:O2	2.30	0.65
33:2:1232:G:C4'	38:R:135:ALA:HB2	2.27	0.64
33:2:743:U:H1'	33:2:744:C:H1'	1.78	0.64
33:2:1518:C:P	37:U:143:GLY:HA2	2.35	0.64
33:2:1696:C:O4'	34:3:54:G:C6	2.50	0.64
33:2:683:G:C6	33:2:684:A:C6	2.86	0.64
33:2:1518:C:H5"	33:2:1518:C:C6	2.31	0.64
34:3:46:A:O5'	34:3:46:A:H8	1.81	0.64
37:U:91:LYS:H	38:R:18:ARG:HG2	1.62	0.64
8:I:235:SER:C	8:I:237:LEU:H	2.02	0.63
39:1:16:G:C2'	39:1:17:C:O4'	2.44	0.63
19:V:38:LYS:CG	37:U:39:ARG:NH1	2.61	0.63
38:R:129:GLY:O	38:R:130:ARG:HB2	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2:743:U:H1'	33:2:744:C:O4'	1.99	0.63
33:2:784:G:H2'	33:2:785:G:H5'	1.79	0.63
33:2:790:A:O5'	33:2:790:A:H8	1.81	0.63
39:1:16:G:H2'	39:1:17:C:C4'	2.28	0.63
33:2:740:G:C6	33:2:793:C:N3	2.67	0.62
9:J:106:ARG:CA	33:2:794:G:N7	2.46	0.62
33:2:685:G:H1	33:2:730:C:H42	1.47	0.62
33:2:688:U:H6	33:2:688:U:O5'	1.83	0.62
33:2:740:G:C2	33:2:793:C:O2	2.52	0.62
37:U:91:LYS:HG2	38:R:17:TYR:HA	1.82	0.62
33:2:746:C:H2'	33:2:747:G:N7	2.14	0.62
7:H:130:ARG:HH11	34:3:47:U:H5'	1.64	0.62
19:V:38:LYS:HG2	37:U:39:ARG:NH1	2.15	0.62
38:R:133:ILE:O	38:R:133:ILE:HG22	2.01	0.61
33:2:745:U:O2'	33:2:746:C:O4'	2.18	0.61
33:2:1696:C:H4'	34:3:54:G:C5	2.35	0.61
33:2:682:G:C2	33:2:683:G:N7	2.69	0.61
33:2:733:G:N7	33:2:738:U:C4	2.69	0.61
33:2:751:C:H2'	33:2:752:C:C6	2.35	0.61
33:2:1618:A:C5'	37:U:133:GLY:HA3	2.30	0.61
39:1:19:G:N1	39:1:56:C:N3	2.49	0.61
33:2:734:C:C3'	33:2:735:C:H5"	2.31	0.61
33:2:790:A:C6	33:2:791:A:N6	2.69	0.61
33:2:1618:A:H5"	37:U:133:GLY:CA	2.31	0.60
33:2:793:C:C2'	33:2:794:G:H4'	2.31	0.60
34:3:56:C:H1'	34:3:57:U:P	2.41	0.60
33:2:744:C:C4	33:2:745:U:O4	2.55	0.60
5:F:117:ARG:NH2	34:3:65:G:C8	2.70	0.60
19:V:45:LEU:HD11	37:U:38:ARG:NH2	2.17	0.59
35:A:107:THR:HG22	39:1:18:G:O6	2.01	0.59
33:2:686:G:O5'	33:2:686:G:H8	1.84	0.59
33:2:790:A:H2'	33:2:791:A:C8	2.37	0.59
33:2:682:G:C2	33:2:683:G:C5	2.91	0.59
33:2:743:U:C6	33:2:744:C:C2	2.91	0.59
33:2:1264:C:H4'	38:R:100:LYS:HE3	1.85	0.59
38:R:128:HIS:CB	38:R:129:GLY:HA3	2.15	0.58
33:2:683:G:N1	33:2:684:A:C6	2.71	0.58
33:2:682:G:H2'	33:2:683:G:H8	1.68	0.58
33:2:743:U:HO2'	33:2:744:C:C1'	2.16	0.58
33:2:784:G:C5	33:2:785:G:N7	2.71	0.58
33:2:1517:A:C2	38:R:128:HIS:NE2	2.71	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2:793:C:H4'	33:2:793:C:OP1	2.03	0.58
33:2:743:U:H3	33:2:791:A:H2	1.51	0.58
9:J:107:LYS:HD2	33:2:740:G:O5'	2.03	0.57
33:2:683:G:O2'	33:2:684:A:H5'	2.04	0.57
33:2:784:G:C2'	33:2:785:G:H5'	2.33	0.57
38:R:135:ALA:O	38:R:136:THR:HB	2.04	0.57
33:2:1170:U:H2'	33:2:1171:G:C8	2.38	0.57
33:2:746:C:C2'	33:2:747:G:C8	2.86	0.57
33:2:787:C:H2'	33:2:788:C:C5	2.38	0.57
33:2:750:G:C6	33:2:751:C:N4	2.73	0.57
33:2:683:G:C6	33:2:684:A:N6	2.73	0.57
34:3:49:A:H2	34:3:49:A:OP1	1.88	0.57
19:V:38:LYS:HG3	37:U:39:ARG:NH1	2.20	0.57
33:2:740:G:H2'	33:2:741:C:H5"	1.87	0.57
35:A:64:ARG:HE	35:A:67:ARG:HG3	1.70	0.56
37:U:147:GLY:HA3	38:R:131:PRO:HB3	1.85	0.56
33:2:1244:C4J:O2	33:2:1244:C4J:C31	2.53	0.56
35:A:183:ARG:NH2	39:1:18:G:N1	2.51	0.56
33:2:1618:A:H5"	37:U:133:GLY:N	2.20	0.56
9:J:107:LYS:CA	33:2:740:G:O5'	2.54	0.56
33:2:745:U:C2	33:2:746:C:C4	2.94	0.56
33:2:1817:A:HO2'	33:2:1818:A:H5'	1.60	0.56
33:2:1618:A:H5"	37:U:133:GLY:HA3	1.87	0.56
33:2:734:C:C5	33:2:737:C:N4	2.73	0.56
34:3:56:C:C1'	34:3:57:U:P	2.94	0.56
34:3:54:G:O2'	34:3:55:U:OP1	2.18	0.55
33:2:848:G:H3'	33:2:849:C:H5"	1.88	0.55
34:3:54:G:O5'	34:3:54:G:H8	1.89	0.55
7:H:131:ALA:O	34:3:49:A:OP2	2.23	0.55
33:2:1862:U:O2	33:2:1862:U:H2'	2.06	0.55
33:2:681:U:H2'	33:2:681:U:O2	2.07	0.55
34:3:51:C:H1'	39:1:37:T6A:HO4	1.70	0.55
34:3:49:A:H2'	34:3:50:C:C5'	2.36	0.55
34:3:49:A:C5'	34:3:49:A:N3	2.70	0.55
39:1:18:G:C1'	39:1:61:C:H5'	2.36	0.55
9:J:75:ILE:HG23	9:J:76:GLN:H	1.72	0.55
33:2:687:G:H2'	33:2:688:U:H5'	1.89	0.55
33:2:739:U:O2	33:2:739:U:H2'	2.06	0.55
33:2:1232:G:C2	33:2:1518:C:N4	2.75	0.55
33:2:1696:C:H4'	34:3:54:G:C6	2.40	0.55
33:2:787:C:N3	33:2:788:C:N4	2.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:A:64:ARG:HD3	35:A:64:ARG:N	2.23	0.54
33:2:684:A:O5'	33:2:684:A:H8	1.91	0.54
33:2:1330:G:H22	33:2:1492:U:H3	1.55	0.54
33:2:1518:C:C5'	33:2:1518:C:C6	2.85	0.54
9:J:108:SER:CA	33:2:740:G:O3'	2.38	0.54
35:A:64:ARG:HD3	35:A:64:ARG:H	1.73	0.54
34:3:42:G:H2'	34:3:43:G:C5	2.41	0.54
37:U:88:LYS:CG	38:R:37:TYR:CD2	2.91	0.54
33:2:786:C:H6	33:2:786:C:O5'	1.91	0.54
33:2:683:G:N2	33:2:731:C:C2	2.66	0.53
10:K:142:SER:H	10:K:143:LYS:HB2	1.73	0.53
5:F:117:ARG:CZ	34:3:67:A:H62	2.22	0.53
33:2:1407:G:H3'	33:2:1408:C:H5"	1.90	0.53
5:F:5:ILE:HD13	5:F:5:ILE:H	1.73	0.53
33:2:1518:C:C1'	37:U:146:VAL:HG13	2.38	0.53
37:U:91:LYS:HZ3	38:R:17:TYR:HD1	1.52	0.53
33:2:1294:G:P	38:R:77:LYS:HE2	2.49	0.53
33:2:682:G:N3	33:2:683:G:C8	2.76	0.53
33:2:744:C:C5	33:2:745:U:O4	2.62	0.53
34:3:54:G:H4'	34:3:55:U:OP1	2.07	0.53
33:2:687:G:C5	33:2:729:C:N4	2.77	0.53
33:2:685:G:H1	33:2:730:C:N4	2.06	0.52
34:3:50:C:H2'	34:3:51:C:H5'	1.92	0.52
5:F:117:ARG:CZ	34:3:67:A:N6	2.67	0.52
5:F:99:ILE:HD12	5:F:99:ILE:H	1.74	0.52
33:2:683:G:C2	33:2:684:A:C4	2.97	0.52
33:2:682:G:O5'	33:2:682:G:H8	1.92	0.52
34:3:54:G:O2'	34:3:55:U:H5"	2.09	0.52
33:2:745:U:H3'	33:2:745:U:H6	1.75	0.52
33:2:794:G:O2'	33:2:795:U:OP1	2.20	0.52
9:J:100:ILE:CD1	33:2:736:C:O2	2.58	0.51
33:2:734:C:C3'	33:2:735:C:C5'	2.88	0.51
33:2:747:G:O5'	33:2:747:G:H8	1.91	0.51
33:2:1294:G:OP1	38:R:77:LYS:HE2	2.10	0.51
7:H:130:ARG:HD3	34:3:47:U:C5'	2.40	0.51
34:3:51:C:O2'	39:1:37:T6A:ODB	2.14	0.51
39:1:16:G:C8	39:1:17:C:H5	2.26	0.51
20:W:20:ILE:HG21	20:W:98:VAL:HG21	1.93	0.51
33:2:687:G:C6	33:2:729:C:N4	2.78	0.51
33:2:790:A:C5	33:2:791:A:N6	2.78	0.51
33:2:1817:A:H2'	33:2:1818:A:O5'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:A:64:ARG:N	35:A:64:ARG:CD	2.74	0.51
33:2:682:G:C4	33:2:683:G:N7	2.79	0.51
34:3:57:U:C4'	34:3:58:G:OP2	2.59	0.51
34:3:59:G:N3	34:3:59:G:C3'	2.73	0.51
33:2:687:G:C2'	33:2:688:U:H5'	2.41	0.51
33:2:749:C:H3'	33:2:750:G:C5'	2.29	0.51
34:3:50:C:C2'	34:3:51:C:H5'	2.41	0.50
33:2:787:C:O5'	33:2:787:C:H6	1.94	0.50
34:3:55:U:C5	34:3:56:C:C5	2.98	0.50
19:V:38:LYS:HG2	37:U:39:ARG:CZ	2.42	0.50
34:3:46:A:O3'	34:3:47:U:H6	1.95	0.50
33:2:1264:C:O2'	38:R:100:LYS:HG3	2.12	0.50
34:3:55:U:H3'	34:3:56:C:H5"	1.94	0.50
34:3:58:G:HO2'	34:3:59:G:C5'	2.22	0.50
39:1:19:G:C3'	39:1:20:A:OP1	2.59	0.50
7:H:131:ALA:C	34:3:49:A:OP2	2.50	0.50
39:1:16:G:C3'	39:1:17:C:OP2	2.53	0.50
33:2:679:U:H2'	33:2:680:G:C8	2.47	0.49
33:2:683:G:C2	33:2:684:A:C5	3.00	0.49
33:2:745:U:N3	33:2:746:C:N4	2.60	0.49
33:2:741:C:N3	33:2:792:G:O6	2.46	0.49
33:2:743:U:O4	33:2:791:A:C2	2.65	0.49
34:3:47:U:P	34:3:47:U:C6	2.97	0.49
39:1:16:G:O2'	39:1:17:C:O4'	2.28	0.49
8:I:236:SER:O	8:I:237:LEU:CB	2.60	0.49
33:2:225:C:H3'	33:2:226:A:C5'	2.42	0.49
33:2:740:G:C3'	33:2:741:C:H5"	2.43	0.49
34:3:49:A:OP1	34:3:49:A:C2	2.66	0.49
33:2:740:G:H3'	33:2:741:C:H5"	1.95	0.48
34:3:49:A:N3	34:3:49:A:O5'	2.46	0.48
34:3:58:G:N3	34:3:58:G:H2'	2.28	0.48
33:2:784:G:C6	33:2:785:G:C5	3.01	0.48
33:2:1264:C:O4'	38:R:100:LYS:HE3	2.13	0.48
33:2:745:U:C2	33:2:746:C:N4	2.81	0.48
39:1:19:G:N2	39:1:56:C:C2	2.81	0.48
33:2:1264:C:H4'	38:R:100:LYS:HG2	1.96	0.47
33:2:1517:A:C2	38:R:128:HIS:HE1	2.16	0.47
5:F:116:ARG:NE	5:F:150:MET:HE1	2.18	0.47
33:2:743:U:O2'	33:2:744:C:O5'	2.32	0.47
33:2:1264:C:O4'	38:R:100:LYS:NZ	2.46	0.47
33:2:1294:G:OP2	38:R:77:LYS:NZ	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2:1105:C:H3'	33:2:1106:G:H5"	1.97	0.47
33:2:742:C:O2'	33:2:743:U:H5"	2.09	0.47
33:2:1244:C4J:C4	39:1:34:C:H5'	2.44	0.47
35:A:179:ASN:HB3	35:A:183:ARG:NH1	2.30	0.47
37:U:146:VAL:HG12	37:U:147:GLY:H	1.79	0.47
33:2:784:G:H8	33:2:784:G:P	2.38	0.47
33:2:784:G:C4	33:2:785:G:C8	3.02	0.47
33:2:1860:A:O2'	33:2:1861:U:H5'	2.15	0.47
35:A:182:ARG:HB3	39:1:53:G:H21	1.80	0.47
37:U:147:GLY:CA	38:R:131:PRO:CB	2.76	0.47
33:2:741:C:H3'	33:2:741:C:H6	1.80	0.47
34:3:43:G:H2'	34:3:44:U:C5	2.50	0.47
33:2:684:A:H2'	33:2:685:G:H8	1.73	0.47
33:2:731:C:C2'	33:2:732:C:H5"	2.37	0.47
33:2:749:C:C3'	33:2:750:G:C5'	2.89	0.47
33:2:682:G:C2	33:2:683:G:C8	3.03	0.46
33:2:742:C:H3'	33:2:742:C:H6	1.80	0.46
33:2:793:C:H2'	33:2:794:G:H4'	1.97	0.46
33:2:685:G:H8	33:2:685:G:O5'	1.98	0.46
34:3:55:U:C5	34:3:56:C:C6	3.03	0.46
39:1:16:G:H3'	39:1:17:C:OP2	2.15	0.46
33:2:676:U:O2	33:2:913:U:C2	2.68	0.46
33:2:745:U:C2'	33:2:746:C:C6	2.89	0.46
39:1:19:G:H3'	39:1:20:A:OP1	2.15	0.46
33:2:1547:G:OP2	33:2:1547:G:C8	2.68	0.46
34:3:55:U:H3'	34:3:56:C:C5'	2.45	0.46
35:A:55:ARG:HD3	35:A:55:ARG:HA	1.64	0.46
33:2:748:G:N2	33:2:749:C:C2	2.84	0.46
33:2:1517:A:N3	38:R:128:HIS:NE2	2.64	0.46
39:1:17:C:H2'	39:1:18:G:C5'	2.41	0.46
17:S:145:TYR:O	17:S:146:ARG:HB3	2.16	0.46
33:2:741:C:H2'	33:2:742:C:O4'	2.15	0.46
33:2:751:C:C2'	33:2:752:C:H5'	2.44	0.46
33:2:1518:C:C2'	37:U:146:VAL:HG13	2.44	0.46
33:2:679:U:H3'	33:2:679:U:H6	1.81	0.46
33:2:1517:A:N3	38:R:128:HIS:CE1	2.78	0.46
33:2:1236:A:C4	38:R:100:LYS:HE2	2.16	0.45
33:2:1294:G:C5'	38:R:77:LYS:HB2	2.47	0.45
35:A:183:ARG:NH1	39:1:18:G:O6	2.49	0.45
37:U:91:LYS:HA	38:R:18:ARG:N	2.22	0.45
33:2:785:G:C2	33:2:786:C:C2	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2:684:A:H2	33:2:731:C:N3	2.09	0.45
33:2:740:G:C2'	33:2:741:C:H5"	2.46	0.45
33:2:1518:C:H1'	37:U:146:VAL:HG13	1.99	0.45
37:U:139:THR:HG22	37:U:140:GLY:N	2.30	0.45
38:R:84:ILE:HD12	38:R:84:ILE:H	1.81	0.45
38:R:136:THR:O	38:R:136:THR:HG23	2.16	0.45
34:3:45:C:H3'	34:3:45:C:O2	2.17	0.45
5:F:198:ILE:HD12	5:F:198:ILE:H	1.82	0.44
17:S:39:LEU:H	17:S:39:LEU:HD23	1.81	0.44
33:2:743:U:OP2	33:2:743:U:H2'	2.17	0.44
33:2:743:U:C5	33:2:744:C:N3	2.85	0.44
35:A:24:VAL:HA	35:A:34:VAL:HG12	1.98	0.44
37:U:143:GLY:C	37:U:144:ARG:CG	2.85	0.44
8:I:237:LEU:OXT	33:2:784:G:O3'	2.35	0.44
33:2:684:A:C6	33:2:685:G:O6	2.70	0.44
33:2:1407:G:H3'	33:2:1408:C:C5'	2.46	0.44
33:2:1429:C:C5	33:2:1430:C:C5	3.06	0.44
33:2:792:G:H8	33:2:792:G:P	2.40	0.44
33:2:1236:A:H1'	38:R:100:LYS:HE2	1.99	0.44
35:A:57:ARG:O	35:A:57:ARG:HG2	2.17	0.44
34:3:58:G:HO2'	34:3:59:G:P	2.36	0.44
35:A:64:ARG:NE	35:A:67:ARG:HG3	2.30	0.44
39:1:17:C:H2'	39:1:18:G:P	2.58	0.44
33:2:784:G:C5	33:2:785:G:C5	3.04	0.44
33:2:682:G:H2'	33:2:683:G:C8	2.52	0.44
33:2:735:C:H3'	33:2:736:C:H5"	2.00	0.44
33:2:737:C:H3'	33:2:738:U:C5'	2.30	0.44
33:2:787:C:O5'	33:2:787:C:C6	2.70	0.44
34:3:47:U:C6	34:3:47:U:OP2	2.70	0.44
37:U:88:LYS:HG3	38:R:37:TYR:CD2	2.52	0.44
33:2:1518:C:C6	33:2:1518:C:C4'	3.01	0.43
33:2:682:G:N3	33:2:683:G:N7	2.66	0.43
33:2:745:U:C2	33:2:746:C:N3	2.86	0.43
33:2:785:G:C2	33:2:786:C:O2	2.70	0.43
33:2:1232:G:O4'	38:R:135:ALA:HB2	2.18	0.43
9:J:107:LYS:HG3	33:2:737:C:O2'	2.17	0.43
33:2:201:G:H3'	33:2:202:U:H5"	2.00	0.43
33:2:683:G:H2'	33:2:684:A:H8	1.78	0.43
33:2:1818:A:HO2'	33:2:1819:A:H5"	1.77	0.43
37:U:147:GLY:C	38:R:131:PRO:CG	2.77	0.43
9:J:100:ILE:HG13	33:2:736:C:O2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2:746:C:H5”	33:2:747:G:OP2	2.19	0.43
35:A:183:ARG:HD2	39:1:18:G:C6	2.49	0.43
38:R:128:HIS:CB	38:R:129:GLY:CA	2.85	0.43
9:J:100:ILE:HD12	33:2:736:C:O2	2.19	0.43
15:P:26:LEU:H	15:P:26:LEU:HD12	1.83	0.43
33:2:790:A:H8	33:2:790:A:P	2.42	0.43
33:2:734:C:H5	33:2:737:C:N4	2.17	0.43
34:3:46:A:O3’	34:3:47:U:C6	2.70	0.43
33:2:682:G:N1	33:2:683:G:C5	2.87	0.43
33:2:684:A:H2’	33:2:685:G:N7	2.32	0.43
33:2:734:C:H3’	33:2:735:C:C5’	2.49	0.43
33:2:790:A:N6	33:2:791:A:N6	2.67	0.43
34:3:59:G:N3	34:3:59:G:C5’	2.78	0.43
33:2:1172:G:C6	33:2:1173:U:C4	3.07	0.42
9:J:109:ARG:N	33:2:741:C:OP1	2.52	0.42
33:2:737:C:H5’	33:2:738:U:OP2	2.19	0.42
33:2:791:A:C8	33:2:791:A:O5’	2.72	0.42
34:3:47:U:O2’	34:3:48:A:P	2.77	0.42
39:1:16:G:C2’	39:1:17:C:C4’	2.93	0.42
33:2:786:C:O5’	33:2:786:C:C6	2.71	0.42
37:U:141:ARG:HD2	37:U:141:ARG:HA	1.78	0.42
33:2:791:A:O5’	33:2:791:A:H8	2.03	0.42
33:2:1618:A:C5’	37:U:133:GLY:H	2.33	0.42
33:2:1828:A:H2	33:2:1831:G:H1	1.66	0.42
34:3:57:U:H3’	34:3:57:U:O2	2.20	0.42
33:2:1276:G:H1	33:2:1313:U:H3	1.66	0.42
33:2:1408:C:H2’	33:2:1409:G:C8	2.54	0.42
37:U:90:VAL:HG13	38:R:18:ARG:HH11	1.85	0.42
33:2:519:A:N6	33:2:545:A:H61	2.17	0.41
33:2:737:C:C3’	33:2:738:U:C5’	2.97	0.41
33:2:1264:C:C5’	38:R:100:LYS:HE3	2.49	0.41
34:3:46:A:C3’	34:3:47:U:C6	3.03	0.41
33:2:1696:C:C5’	34:3:54:G:C6	2.94	0.41
34:3:44:U:O2’	34:3:45:C:OP2	2.34	0.41
37:U:146:VAL:HG12	37:U:147:GLY:N	2.35	0.41
33:2:745:U:C4	33:2:746:C:N4	2.88	0.41
35:A:56:ILE:O	35:A:58:SER:N	2.52	0.41
2:C:5:LEU:HD22	2:C:5:LEU:H	1.85	0.41
37:U:90:VAL:HG22	38:R:18:ARG:HD3	2.01	0.41
37:U:91:LYS:NZ	38:R:17:TYR:HD1	2.19	0.41
33:2:741:C:C6	33:2:741:C:C3’	3.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2:790:A:H2'	33:2:791:A:H8	1.83	0.41
9:J:107:LYS:HD2	33:2:740:G:OP2	2.20	0.41
37:U:116:LYS:HG2	38:R:110:GLU:OE2	2.20	0.41
39:1:18:G:H1'	39:1:61:C:H5'	2.01	0.41
33:2:686:G:O5'	33:2:686:G:C8	2.70	0.41
33:2:746:C:C3'	33:2:747:G:C8	3.03	0.41
33:2:924:G:H1	33:2:1009:U:H3	1.67	0.41
33:2:546:U:H3'	33:2:547:U:H5"	2.03	0.41
33:2:552:U:H2'	33:2:553:G:C8	2.56	0.41
33:2:742:C:C3'	33:2:742:C:C6	3.04	0.41
33:2:874:G:H22	33:2:904:A:H2	1.68	0.41
34:3:51:C:C2'	34:3:52:A:OP2	2.68	0.41
33:2:124:U:H3	33:2:330:C:H42	1.68	0.41
33:2:734:C:H41	33:2:737:C:N4	2.19	0.41
33:2:745:U:C3'	33:2:745:U:C6	3.03	0.41
33:2:1264:C:O4'	38:R:100:LYS:CE	2.68	0.41
33:2:1618:A:H5"	37:U:133:GLY:H	1.84	0.41
34:3:43:G:O2'	34:3:44:U:C6	2.70	0.41
33:2:987:G:C6	33:2:1130:G:H4'	2.56	0.40
33:2:516:A:N6	33:2:578:G:H22	2.20	0.40
33:2:744:C:OP1	33:2:744:C:H4'	2.21	0.40
34:3:42:G:C2'	34:3:43:G:C5	3.04	0.40
5:F:70:THR:HG22	5:F:86:LEU:HD13	2.03	0.40
33:2:745:U:H3'	33:2:745:U:C6	2.56	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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	
1	l	23/25 (92%)	23 (100%)	0	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
2	C	206/208 (99%)	176 (85%)	21 (10%)	9 (4%)	2 20
3	D	213/215 (99%)	185 (87%)	19 (9%)	9 (4%)	3 22
4	E	224/226 (99%)	203 (91%)	16 (7%)	5 (2%)	6 35
5	F	225/227 (99%)	205 (91%)	13 (6%)	7 (3%)	4 28
6	G	261/263 (99%)	229 (88%)	26 (10%)	6 (2%)	6 34
7	H	189/191 (99%)	165 (87%)	16 (8%)	8 (4%)	3 22
8	I	233/237 (98%)	206 (88%)	20 (9%)	7 (3%)	4 28
9	J	188/190 (99%)	162 (86%)	18 (10%)	8 (4%)	2 21
10	K	204/206 (99%)	180 (88%)	18 (9%)	6 (3%)	4 29
11	L	180/182 (99%)	167 (93%)	6 (3%)	7 (4%)	3 23
12	M	96/98 (98%)	78 (81%)	12 (12%)	6 (6%)	1 13
13	N	156/158 (99%)	130 (83%)	19 (12%)	7 (4%)	2 20
14	O	122/124 (98%)	103 (84%)	15 (12%)	4 (3%)	4 27
15	P	148/150 (99%)	143 (97%)	5 (3%)	0	100 100
16	Q	134/136 (98%)	116 (87%)	11 (8%)	7 (5%)	2 16
17	S	139/141 (99%)	123 (88%)	12 (9%)	4 (3%)	4 29
18	T	124/126 (98%)	114 (92%)	8 (6%)	2 (2%)	9 41
19	V	139/141 (99%)	124 (89%)	10 (7%)	5 (4%)	3 25
20	W	102/104 (98%)	95 (93%)	4 (4%)	3 (3%)	4 29
21	X	80/82 (98%)	66 (82%)	13 (16%)	1 (1%)	12 45
22	Y	127/129 (98%)	119 (94%)	6 (5%)	2 (2%)	9 41
23	Z	140/142 (99%)	127 (91%)	11 (8%)	2 (1%)	11 43
24	a	122/126 (97%)	106 (87%)	12 (10%)	4 (3%)	4 27
25	b	97/99 (98%)	81 (84%)	13 (13%)	3 (3%)	4 28
26	c	82/84 (98%)	72 (88%)	8 (10%)	2 (2%)	6 33
27	d	62/64 (97%)	54 (87%)	5 (8%)	3 (5%)	2 18
28	e	51/53 (96%)	39 (76%)	8 (16%)	4 (8%)	1 9
29	f	69/71 (97%)	56 (81%)	6 (9%)	7 (10%)	0 6
30	g	311/313 (99%)	273 (88%)	31 (10%)	7 (2%)	6 34
31	h	73/75 (97%)	70 (96%)	2 (3%)	1 (1%)	11 43
32	i	57/59 (97%)	45 (79%)	7 (12%)	5 (9%)	1 7

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
35	A	264/266 (99%)	225 (85%)	29 (11%)	10 (4%)	3 24
36	B	420/422 (100%)	350 (83%)	48 (11%)	22 (5%)	2 16
37	U	140/142 (99%)	121 (86%)	14 (10%)	5 (4%)	3 25
38	R	133/135 (98%)	105 (79%)	18 (14%)	10 (8%)	1 9
All	All	5534/5610 (99%)	4836 (87%)	500 (9%)	198 (4%)	6 25

All (198) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	D	209	ASP
3	D	221	PRO
5	F	193	ASP
5	F	219	PRO
6	G	2	ALA
6	G	17	HIS
8	I	46	LYS
8	I	104	ALA
8	I	155	GLN
8	I	236	SER
9	J	67	PRO
9	J	88	SER
10	K	158	ILE
10	K	177	SER
11	L	63	LEU
11	L	148	ILE
11	L	155	LYS
12	M	89	ILE
13	N	66	VAL
14	O	99	LYS
19	V	143	LYS
22	Y	3	ARG
24	a	86	GLU
29	f	91	ASN
29	f	95	ARG
35	A	58	SER
35	A	186	PRO
35	A	187	GLN
36	B	194	LYS
37	U	90	VAL
38	R	126	VAL
38	R	137	HIS

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Mol	Chain	Res	Type
2	C	6	ASP
3	D	149	GLN
5	F	142	LEU
5	F	215	ASP
5	F	216	GLU
6	G	153	LEU
7	H	79	HIS
7	H	164	ARG
8	I	41	LEU
9	J	106	ARG
9	J	190	PRO
11	L	21	GLU
12	M	2	LEU
12	M	42	ASN
13	N	81	LYS
14	O	103	VAL
16	Q	99	ALA
16	Q	140	THR
17	S	29	ASN
17	S	44	PRO
19	V	34	VAL
19	V	40	ALA
21	X	10	ASP
27	d	67	ARG
28	e	8	TRP
29	f	122	PRO
30	g	107	ASP
32	i	131	ALA
35	A	218	CYS
35	A	221	GLU
36	B	65	HIS
36	B	283	GLU
36	B	285	ASP
36	B	462	LYS
37	U	145	THR
38	R	12	PHE
38	R	136	THR
2	C	155	ARG
3	D	82	ARG
4	E	156	GLY
4	E	159	ILE
4	E	260	LYS

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Mol	Chain	Res	Type
5	F	199	GLY
6	G	240	ARG
7	H	22	LYS
7	H	41	VAL
7	H	50	PRO
7	H	58	ALA
7	H	62	ARG
8	I	83	CYS
10	K	11	ARG
10	K	142	SER
10	K	144	LYS
11	L	187	ALA
13	N	42	LEU
13	N	119	ASP
13	N	148	ALA
14	O	75	ASN
14	O	81	ASP
16	Q	66	ARG
16	Q	138	ASP
18	T	84	TYR
18	T	90	ALA
20	W	72	GLU
23	Z	126	ALA
25	b	11	ALA
26	c	83	GLN
28	e	24	CYS
29	f	123	SER
30	g	13	GLY
30	g	48	ASP
31	h	111	ARG
32	i	84	GLY
35	A	242	LEU
35	A	244	ARG
36	B	131	PRO
36	B	174	GLY
36	B	177	SER
36	B	224	VAL
36	B	277	VAL
37	U	144	ARG
38	R	10	ARG
38	R	83	MET
38	R	128	HIS

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Mol	Chain	Res	Type
38	R	130	ARG
2	C	113	GLN
2	C	149	ASN
3	D	20	LYS
3	D	77	ASP
5	F	194	PRO
6	G	30	ARG
6	G	83	PRO
7	H	42	LYS
9	J	6	ALA
9	J	12	ASN
9	J	16	PRO
9	J	45	ILE
11	L	185	ALA
12	M	38	LYS
12	M	94	LEU
17	S	138	ARG
19	V	90	SER
24	a	52	PRO
25	b	8	ASN
27	d	37	ASP
30	g	163	PRO
30	g	190	GLY
30	g	223	GLU
32	i	85	LYS
35	A	143	LYS
35	A	161	SER
35	A	224	PRO
36	B	64	ALA
36	B	196	LYS
36	B	205	ILE
36	B	257	PRO
36	B	321	LYS
36	B	461	GLU
37	U	89	ASP
37	U	95	TYR
2	C	72	ALA
2	C	104	THR
2	C	110	ASN
2	C	191	ARG
3	D	117	TRP
3	D	129	THR

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Mol	Chain	Res	Type
3	D	207	LEU
4	E	45	TRP
4	E	161	LYS
8	I	70	HIS
12	M	41	PRO
13	N	31	GLU
19	V	28	LEU
20	W	70	CYS
20	W	107	GLU
22	Y	58	ALA
24	a	34	THR
24	a	96	LEU
25	b	62	TYR
27	d	66	ARG
29	f	125	GLU
30	g	104	HIS
32	i	83	VAL
32	i	86	VAL
36	B	85	GLU
36	B	260	PRO
38	R	38	SER
38	R	74	GLU
10	K	156	ALA
13	N	6	THR
16	Q	64	ALA
16	Q	129	ILE
16	Q	134	PRO
23	Z	127	ASN
26	c	78	SER
36	B	135	GLY
36	B	154	LEU
2	C	126	ASP
28	e	50	ILE
29	f	102	VAL
29	f	88	PRO
36	B	368	GLY
11	L	163	SER
17	S	100	VAL
28	e	51	GLY
36	B	450	VAL

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
1	l	24/24 (100%)	21 (88%)	3 (12%)	4 21
2	C	174/174 (100%)	171 (98%)	3 (2%)	60 82
3	D	196/196 (100%)	192 (98%)	4 (2%)	55 79
4	E	187/187 (100%)	183 (98%)	4 (2%)	53 78
5	F	190/190 (100%)	182 (96%)	8 (4%)	30 61
6	G	225/225 (100%)	223 (99%)	2 (1%)	78 91
7	H	161/161 (100%)	159 (99%)	2 (1%)	71 87
8	I	207/207 (100%)	205 (99%)	2 (1%)	76 89
9	J	170/170 (100%)	164 (96%)	6 (4%)	36 66
10	K	177/177 (100%)	174 (98%)	3 (2%)	60 82
11	L	157/157 (100%)	156 (99%)	1 (1%)	86 94
12	M	89/89 (100%)	86 (97%)	3 (3%)	37 67
13	N	142/142 (100%)	135 (95%)	7 (5%)	25 57
14	O	104/104 (100%)	103 (99%)	1 (1%)	76 89
15	P	130/130 (100%)	129 (99%)	1 (1%)	81 92
16	Q	106/106 (100%)	103 (97%)	3 (3%)	43 72
17	S	117/117 (100%)	112 (96%)	5 (4%)	29 61
18	T	114/114 (100%)	113 (99%)	1 (1%)	78 91
19	V	113/113 (100%)	113 (100%)	0	100 100
20	W	94/94 (100%)	92 (98%)	2 (2%)	53 78
21	X	67/67 (100%)	66 (98%)	1 (2%)	65 84
22	Y	112/112 (100%)	111 (99%)	1 (1%)	78 91
23	Z	114/114 (100%)	112 (98%)	2 (2%)	59 81
24	a	108/108 (100%)	107 (99%)	1 (1%)	78 91
25	b	87/87 (100%)	86 (99%)	1 (1%)	73 88
26	c	76/76 (100%)	73 (96%)	3 (4%)	32 63

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
27	d	57/57 (100%)	55 (96%)	2 (4%)	36 66
28	e	47/47 (100%)	46 (98%)	1 (2%)	53 78
29	f	64/64 (100%)	58 (91%)	6 (9%)	8 33
30	g	272/272 (100%)	267 (98%)	5 (2%)	59 81
31	h	66/66 (100%)	66 (100%)	0	100 100
32	i	49/49 (100%)	48 (98%)	1 (2%)	55 79
35	A	238/238 (100%)	230 (97%)	8 (3%)	37 67
36	B	354/354 (100%)	350 (99%)	4 (1%)	73 88
37	U	122/122 (100%)	118 (97%)	4 (3%)	38 68
38	R	121/121 (100%)	114 (94%)	7 (6%)	20 52
All	All	4831/4831 (100%)	4723 (98%)	108 (2%)	54 77

All (108) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	l	2	ARG
1	l	5	TRP
1	l	23	ARG
2	C	85	ARG
2	C	140	VAL
2	C	201	LEU
3	D	49	VAL
3	D	212	VAL
3	D	220	LYS
3	D	228	LEU
4	E	39	LYS
4	E	43	LYS
4	E	122	VAL
4	E	239	ASP
5	F	5	ILE
5	F	76	ARG
5	F	108	LYS
5	F	117	ARG
5	F	124	ARG
5	F	148	LYS
5	F	150	MET
5	F	174	HIS
6	G	156	MET

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Mol	Chain	Res	Type
6	G	176	ASP
7	H	29	GLN
7	H	201	LYS
8	I	164	LYS
8	I	167	LYS
9	J	32	MET
9	J	35	ASP
9	J	76	GLN
9	J	78	ARG
9	J	85	LYS
9	J	126	HIS
10	K	10	LYS
10	K	22	HIS
10	K	166	PHE
11	L	116	LYS
12	M	16	PHE
12	M	58	VAL
12	M	94	LEU
13	N	1	MET
13	N	4	ILE
13	N	31	GLU
13	N	39	ASN
13	N	119	ASP
13	N	124	ASP
13	N	157	LYS
14	O	45	ARG
15	P	39	LYS
16	Q	34	PHE
16	Q	39	ASP
16	Q	150	ARG
17	S	41	MET
17	S	49	TYR
17	S	51	LEU
17	S	73	LYS
17	S	131	LYS
18	T	106	LEU
20	W	75	LYS
20	W	79	ARG
21	X	40	ASP
22	Y	9	ASP
23	Z	32	LEU
23	Z	105	PHE

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Mol	Chain	Res	Type
24	a	29	HIS
25	b	33	ASP
26	c	17	ARG
26	c	34	ASP
26	c	83	GLN
27	d	60	GLU
27	d	67	ARG
28	e	39	CYS
29	f	99	LYS
29	f	104	LYS
29	f	109	ASP
29	f	118	ARG
29	f	119	ARG
29	f	125	GLU
30	g	49	GLU
30	g	51	ASN
30	g	113	PHE
30	g	206	LEU
30	g	246	TYR
32	i	82	ARG
35	A	9	TYR
35	A	55	ARG
35	A	57	ARG
35	A	64	ARG
35	A	126	GLN
35	A	221	GLU
35	A	244	ARG
35	A	246	GLU
36	B	137	PHE
36	B	155	MET
36	B	203	ASN
36	B	392	ARG
37	U	13	LEU
37	U	94	LYS
37	U	141	ARG
37	U	144	ARG
38	R	10	ARG
38	R	51	ARG
38	R	72	LYS
38	R	100	LYS
38	R	127	LYS
38	R	130	ARG

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Mol	Chain	Res	Type
38	R	137	HIS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (18) such sidechains are listed below:

Mol	Chain	Res	Type
5	F	207	HIS
6	G	50	ASN
13	N	5	GLN
15	P	105	ASN
16	Q	32	HIS
17	S	48	GLN
23	Z	16	HIS
24	a	29	HIS
25	b	17	HIS
30	g	14	HIS
30	g	188	HIS
31	h	89	GLN
31	h	103	HIS
36	B	65	HIS
36	B	160	ASN
36	B	180	GLN
36	B	203	ASN
36	B	305	GLN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
33	2	1732/1863 (92%)	263 (15%)	11 (0%)
34	3	35/36 (97%)	20 (57%)	5 (14%)
39	1	74/75 (98%)	15 (20%)	5 (6%)
All	All	1841/1974 (93%)	298 (16%)	21 (1%)

All (298) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
33	2	4	C
33	2	33	G
33	2	41	G
33	2	42	A
33	2	44	U

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Mol	Chain	Res	Type
33	2	46	A
33	2	55	U
33	2	56	G
33	2	59	U
33	2	60	A
33	2	67	C
33	2	68	A
33	2	73	C
33	2	74	G
33	2	75	G
33	2	76	U
33	2	79	A
33	2	80	G
33	2	94	G
33	2	113	G
33	2	126	G
33	2	143	U
33	2	147	A
33	2	148	U
33	2	178	C
33	2	179	C
33	2	181	A
33	2	182	C
33	2	183	G
33	2	184	G
33	2	191	C
33	2	197	U
33	2	202	U
33	2	223	A
33	2	224	U
33	2	225	C
33	2	226	A
33	2	271	G
33	2	274	G
33	2	277	U
33	2	278	U
33	2	285	U
33	2	296	U
33	2	299	G
33	2	300	G
33	2	309	A
33	2	310	G

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Mol	Chain	Res	Type
33	2	311	C
33	2	315	C
33	2	316	C
33	2	317	G
33	2	322	G
33	2	337	G
33	2	347	C
33	2	352	C
33	2	354	A
33	2	358	U
33	2	375	G
33	2	376	C
33	2	397	G
33	2	398	A
33	2	399	C
33	2	418	U
33	2	438	A
33	2	439	A
33	2	440	C
33	2	442	G
33	2	457	G
33	2	462	C
33	2	463	A
33	2	464	G
33	2	472	G
33	2	477	U
33	2	483	A
33	2	492	C
33	2	513	A
33	2	515	A
33	2	522	C
33	2	542	G
33	2	543	U
33	2	546	U
33	2	547	U
33	2	554	A
33	2	558	C
33	2	579	G
33	2	580	A
33	2	581	U
33	2	582	C
33	2	583	C

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Mol	Chain	Res	Type
33	2	584	A
33	2	596	G
33	2	597	U
33	2	598	C
33	2	604	G
33	2	618	A
33	2	633	A
33	2	658	A
33	2	659	A
33	2	661	A
33	2	662	A
33	2	678	U
33	2	679	U
33	2	680	G
33	2	681	U
33	2	682	G
33	2	729	C
33	2	732	C
33	2	733	G
33	2	734	C
33	2	735	C
33	2	736	C
33	2	737	C
33	2	738	U
33	2	739	U
33	2	740	G
33	2	741	C
33	2	742	C
33	2	743	U
33	2	744	C
33	2	746	C
33	2	747	G
33	2	748	G
33	2	749	C
33	2	750	G
33	2	751	C
33	2	785	G
33	2	786	C
33	2	787	C
33	2	788	C
33	2	789	G
33	2	790	A

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Mol	Chain	Res	Type
33	2	791	A
33	2	793	C
33	2	794	G
33	2	795	U
33	2	807	A
33	2	817	G
33	2	818	U
33	2	819	U
33	2	820	C
33	2	833	A
33	2	835	C
33	2	843	A
33	2	849	C
33	2	865	A
33	2	867	U
33	2	868	A
33	2	869	G
33	2	870	G
33	2	874	G
33	2	883	U
33	2	884	U
33	2	906	G
33	2	907	C
33	2	909	A
33	2	915	A
33	2	916	A
33	2	918	A
33	2	929	G
33	2	951	A
33	2	966	G
33	2	967	G
33	2	986	A
33	2	988	A
33	2	1004	A
33	2	1012	U
33	2	1013	U
33	2	1019	A
33	2	1041	U
33	2	1045	A
33	2	1057	U
33	2	1058	A
33	2	1081	C

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Mol	Chain	Res	Type
33	2	1082	G
33	2	1106	G
33	2	1112	C
33	2	1113	C
33	2	1144	A
33	2	1145	A
33	2	1153	G
33	2	1154	G
33	2	1203	G
33	2	1211	C
33	2	1217	G
33	2	1238	U
33	2	1246	A
33	2	1247	A
33	2	1253	G
33	2	1255	A
33	2	1270	G
33	2	1271	G
33	2	1280	A
33	2	1298	G
33	2	1299	C
33	2	1340	A
33	2	1367	U
33	2	1368	U
33	2	1374	A
33	2	1382	A
33	2	1391	C
33	2	1399	C
33	2	1406	C
33	2	1408	C
33	2	1413	C
33	2	1414	C
33	2	1415	C
33	2	1427	G
33	2	1431	C
33	2	1432	C
33	2	1450	A
33	2	1470	A
33	2	1471	G
33	2	1472	A
33	2	1473	U
33	2	1474	U

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Mol	Chain	Res	Type
33	2	1485	A
33	2	1486	G
33	2	1506	G
33	2	1507	U
33	2	1516	C
33	2	1517	A
33	2	1518	C
33	2	1539	C
33	2	1547	G
33	2	1548	C
33	2	1549	C
33	2	1550	U
33	2	1575	A
33	2	1580	U
33	2	1583	A
33	2	1596	A
33	2	1616	U
33	2	1618	A
33	2	1632	A
33	2	1643	G
33	2	1659	A
33	2	1660	G
33	2	1666	G
33	2	1675	G
33	2	1683	C
33	2	1716	U
33	2	1717	G
33	2	1743	G
33	2	1747	C
33	2	1748	G
33	2	1777	C
33	2	1778	G
33	2	1817	A
33	2	1819	A
33	2	1820	G
33	2	1823	G
33	2	1825	A
33	2	1829	A
33	2	1843	G
33	2	1846	C
33	2	1855	G
33	2	1856	G

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Mol	Chain	Res	Type
33	2	1857	A
33	2	1858	U
33	2	1859	C
33	2	1860	A
33	2	1862	U
33	2	1863	A
34	3	43	G
34	3	44	U
34	3	45	C
34	3	46	A
34	3	47	U
34	3	48	A
34	3	50	C
34	3	54	G
34	3	55	U
34	3	56	C
34	3	57	U
34	3	58	G
34	3	59	G
34	3	60	A
34	3	61	C
34	3	65	G
34	3	66	C
34	3	69	G
34	3	72	U
34	3	75	U
39	1	9	U
39	1	11	G
39	1	15	A
39	1	16	G
39	1	17	C
39	1	18	G
39	1	19	G
39	1	21	A
39	1	43	G
39	1	45	G
39	1	47	U
39	1	56	C
39	1	61	C
39	1	74	C
39	1	76	A

All (21) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
33	2	224	U
33	2	397	G
33	2	739	U
33	2	817	G
33	2	866	A
33	2	1012	U
33	2	1057	U
33	2	1153	G
33	2	1549	C
33	2	1616	U
33	2	1818	A
34	3	54	G
34	3	56	C
34	3	57	U
34	3	58	G
34	3	65	G
39	1	8	G
39	1	16	G
39	1	17	C
39	1	18	G
39	1	74	C

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

2 non-standard protein/DNA/RNA residues are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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 $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
33	C4J	2	1244	33	24,29,30	0.79	1 (4%)	29,42,45	1.03	1 (3%)
39	T6A	1	37	39	27,34,35	1.04	2 (7%)	29,49,52	2.64	9 (31%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
33	C4J	2	1244	33	1/1/7/7	9/16/34/35	0/2/2/2
39	T6A	1	37	39	-	6/19/41/42	0/3/3/3

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
39	1	37	T6A	C5-C4	2.51	1.47	1.40
39	1	37	T6A	O4'-C1'	2.21	1.44	1.41
33	2	1244	C4J	C1'-C5	-2.07	1.45	1.50

All (10) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
39	1	37	T6A	C12-N11-C10	8.56	136.20	121.94
39	1	37	T6A	C2-N1-C6	7.01	122.61	116.59
39	1	37	T6A	C14-C12-C13	3.68	116.47	110.19
39	1	37	T6A	N3-C2-N1	-3.57	123.09	128.68
33	2	1244	C4J	C4-N3-C2	-3.41	121.15	125.46
39	1	37	T6A	N6-C6-N1	3.04	122.79	118.72
39	1	37	T6A	O10-C10-N6	-2.97	118.60	123.62
39	1	37	T6A	C4-C5-N7	-2.77	106.51	109.40
39	1	37	T6A	C14-C12-N11	2.70	118.63	111.72
39	1	37	T6A	N6-C10-N11	2.10	116.70	113.76

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
33	2	1244	C4J	C4'

All (15) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
33	2	1244	C4J	C31-C3-N3-C2
33	2	1244	C4J	C31-C3-N3-C4
33	2	1244	C4J	C3-C31-C32-C34
33	2	1244	C4J	C3-C31-C32-N33
33	2	1244	C4J	N33-C32-C34-O36
39	1	37	T6A	C14-C12-N11-C10
33	2	1244	C4J	N33-C32-C34-O35
39	1	37	T6A	N11-C12-C13-ODA
39	1	37	T6A	N11-C12-C13-ODB
39	1	37	T6A	C13-C12-C14-C15

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Mol	Chain	Res	Type	Atoms
33	2	1244	C4J	N3-C3-C31-C32
39	1	37	T6A	O4'-C4'-C5'-O5'
33	2	1244	C4J	C31-C32-C34-O35
33	2	1244	C4J	C31-C32-C34-O36
39	1	37	T6A	C13-C12-N11-C10

There are no ring outliers.

2 monomers are involved in 8 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
33	2	1244	C4J	3	0
39	1	37	T6A	5	0

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)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
33	2	6
39	1	5
8	I	1
24	a	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	2	730:C	O3'	731:C	P	8.58

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	I	217:MET	C	218:LYS	N	3.94
1	a	9:THR	C	10:ARG	N	3.27
1	1	19:G	O3'	20:A	P	2.13
1	1	17:C	O3'	18:G	P	1.99
1	1	18:G	O3'	19:G	P	1.87
1	2	350:A	O3'	351:U	P	1.86
1	2	675:A	O3'	676:U	P	1.84
1	2	676:U	O3'	677:C	P	1.38
1	2	1172:G	O3'	1173:U	P	1.37
1	1	36:U	O3'	37:T6A	P	1.28
1	2	1815:U	O3'	1816:A	P	1.26
1	1	16:G	O3'	17:C	P	1.14

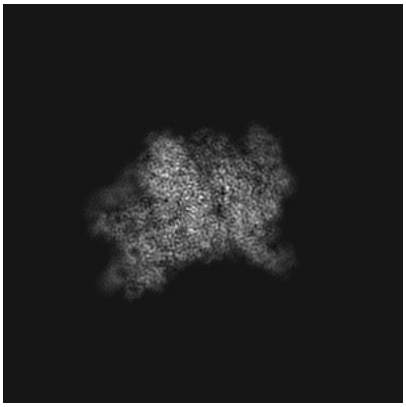
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-10762. These allow visual inspection of the internal detail of the map and identification of artifacts.

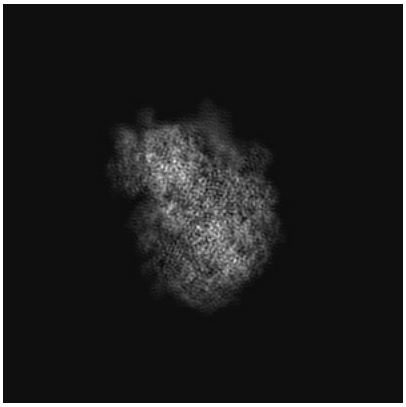
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

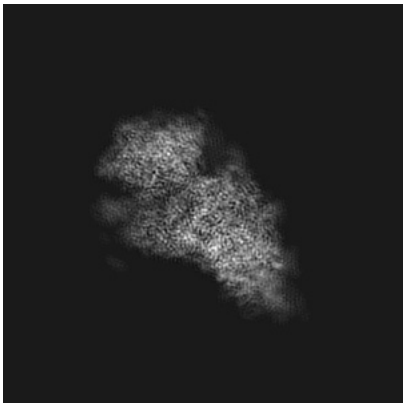
6.1.1 Primary map



X



Y



Z

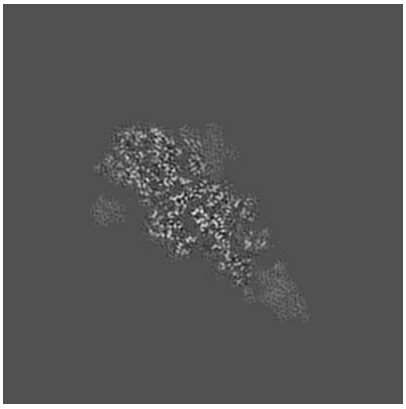
The images above show the map projected in three orthogonal directions.

6.2 Central slices

6.2.1 Primary map

X Index: 192

Y Index: 192

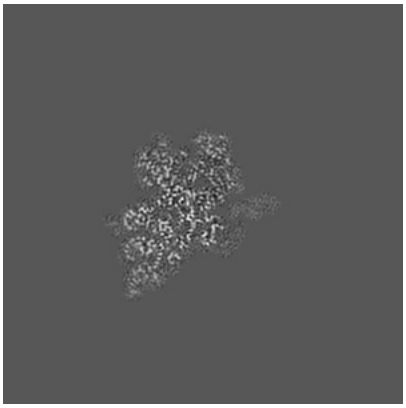


Z Index: 192

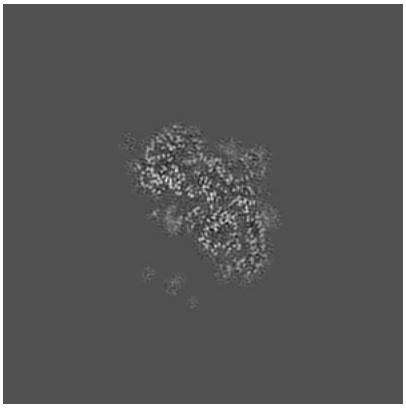
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

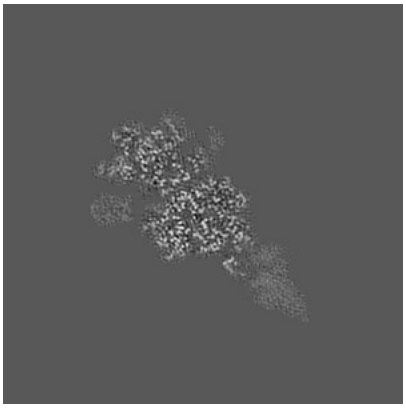
6.3.1 Primary map



X Index: 208



Y Index: 160

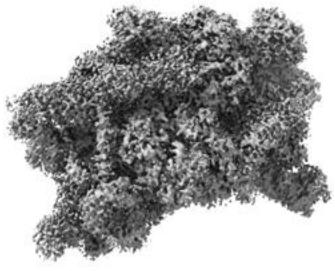


Z Index: 199

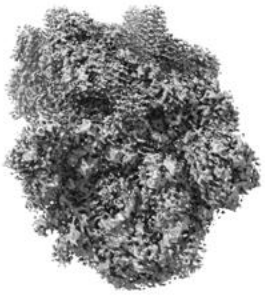
The images above show the largest variance slices of the map in three orthogonal directions.

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 0.0109. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

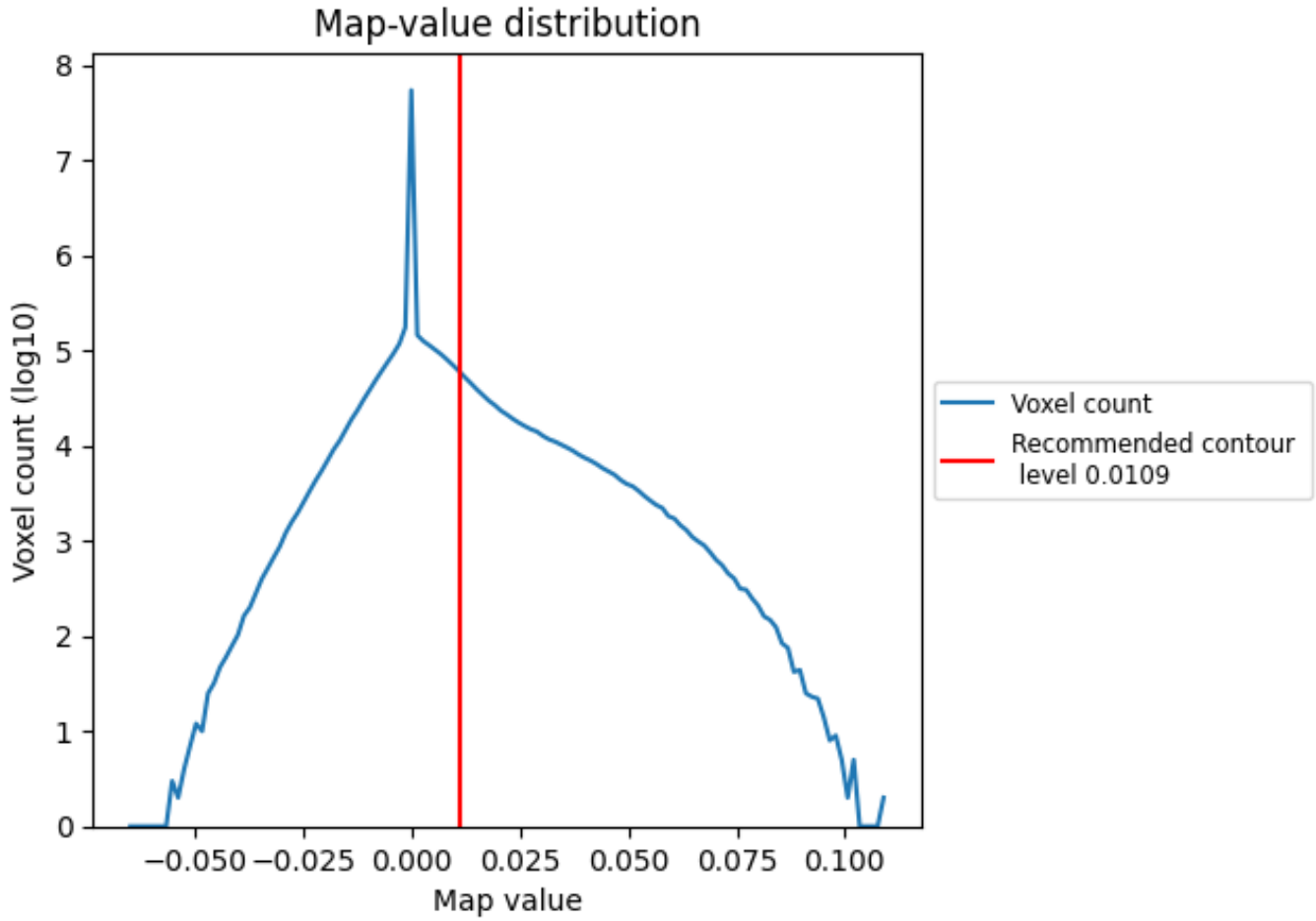
6.5 Mask visualisation (i)

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

7 Map analysis

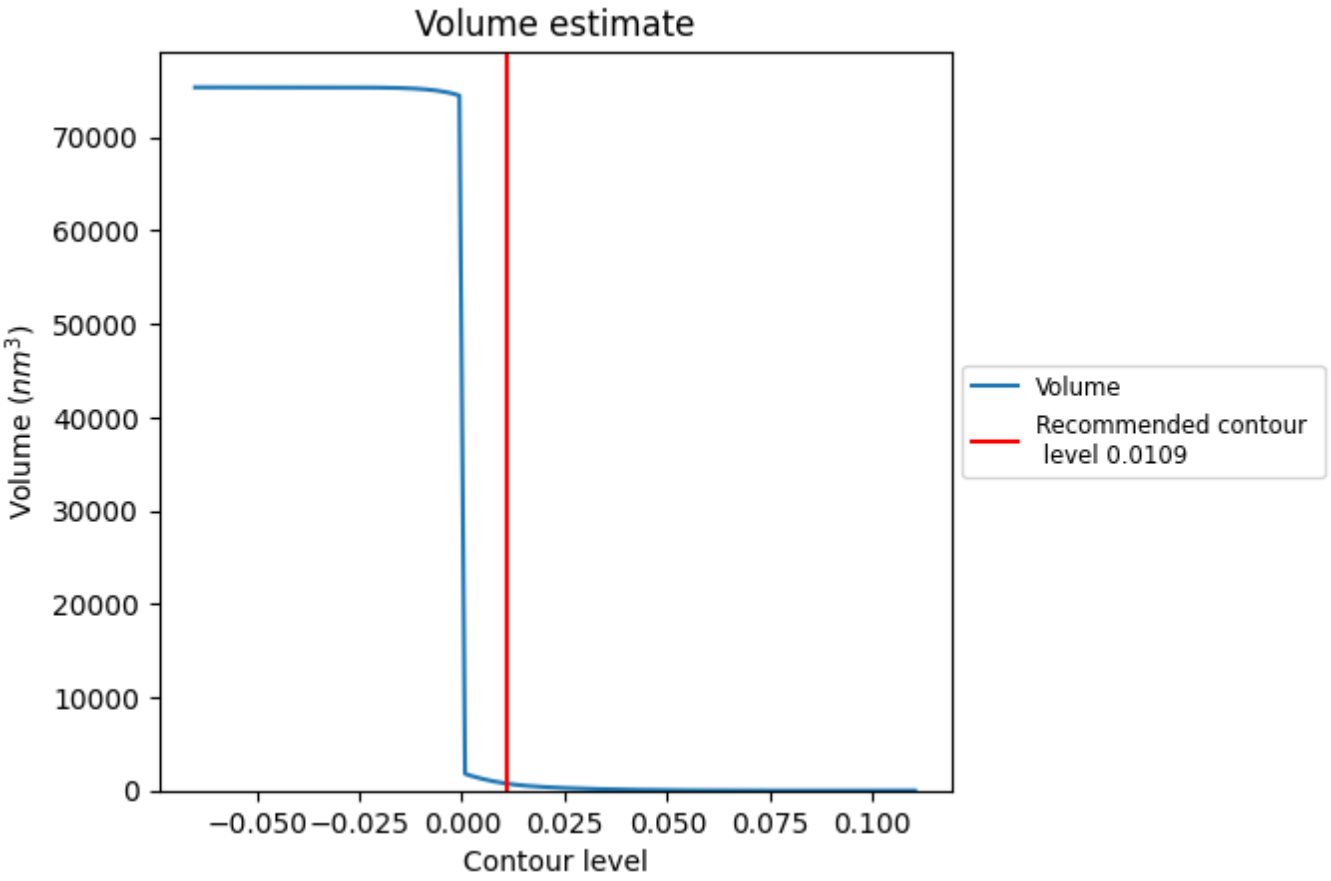
This section contains the results of statistical analysis of the map.

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.

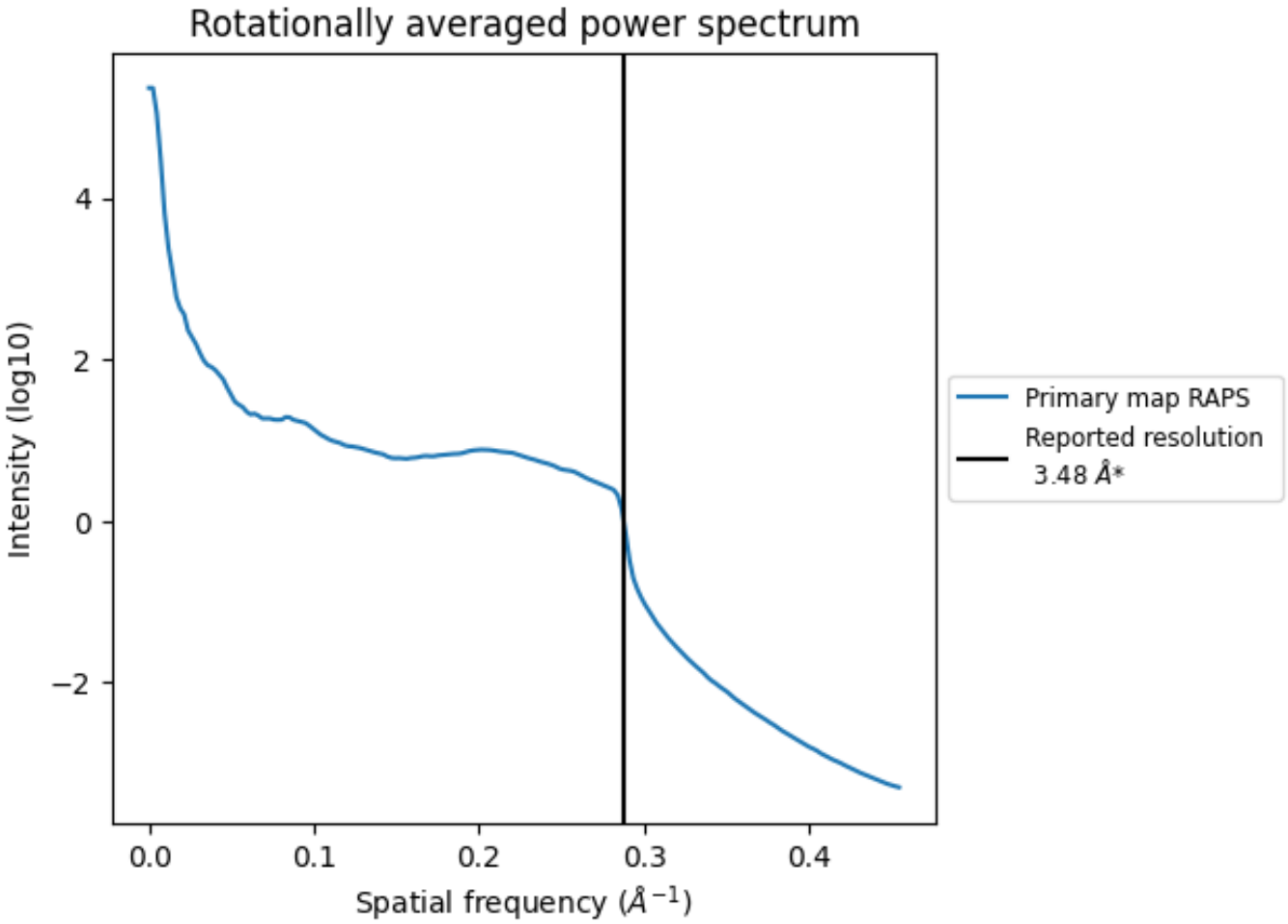
7.2 Volume estimate



The volume at the recommended contour level is 753 nm^3; this corresponds to an approximate mass of 680 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 0.287 $Å^{-1}$

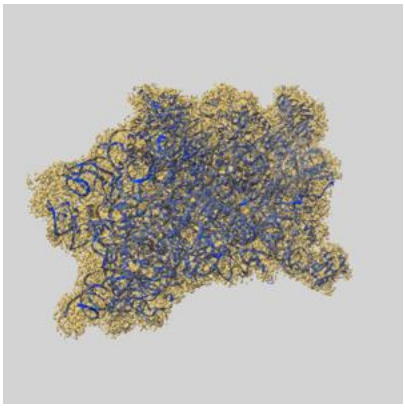
8 Fourier-Shell correlation

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

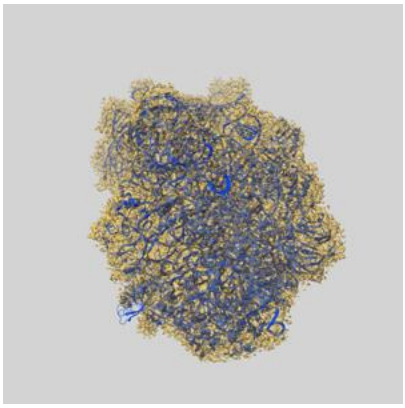
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-10762 and PDB model 6YAN. Per-residue inclusion information can be found in section 3 on page 11.

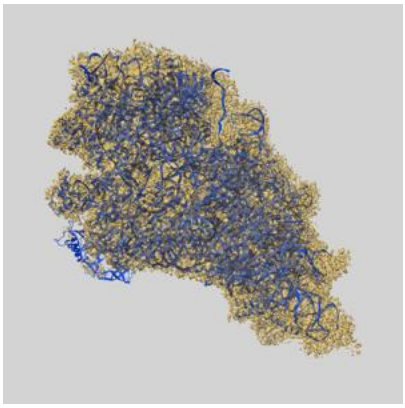
9.1 Map-model overlay



X



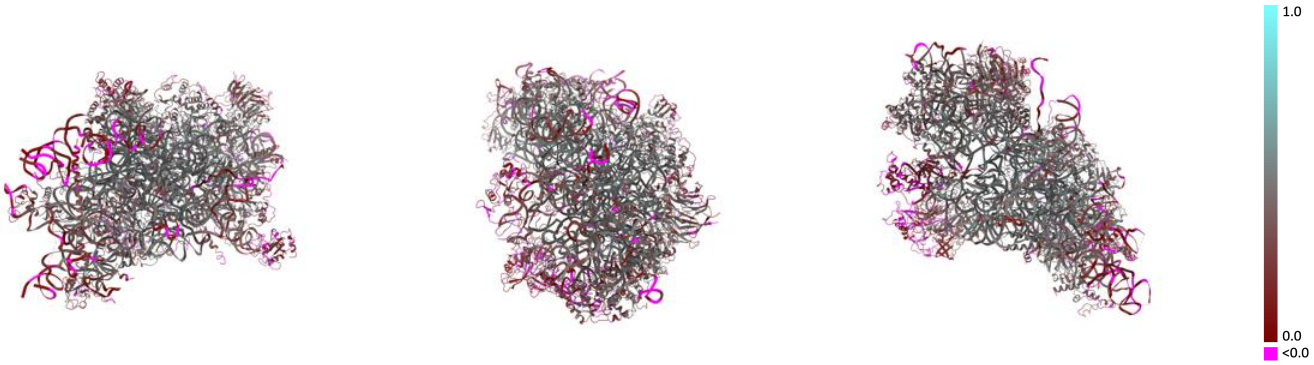
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.0109 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.

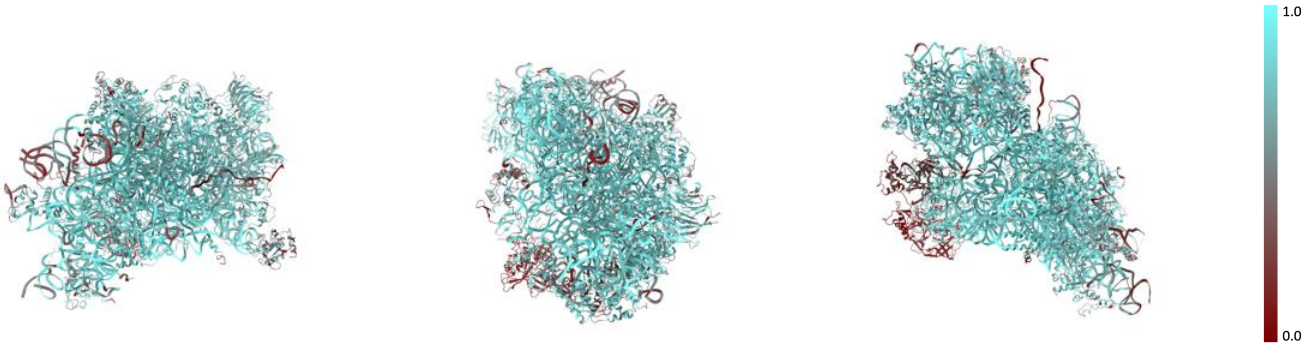
9.2 Q-score mapped to coordinate model (i)



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.

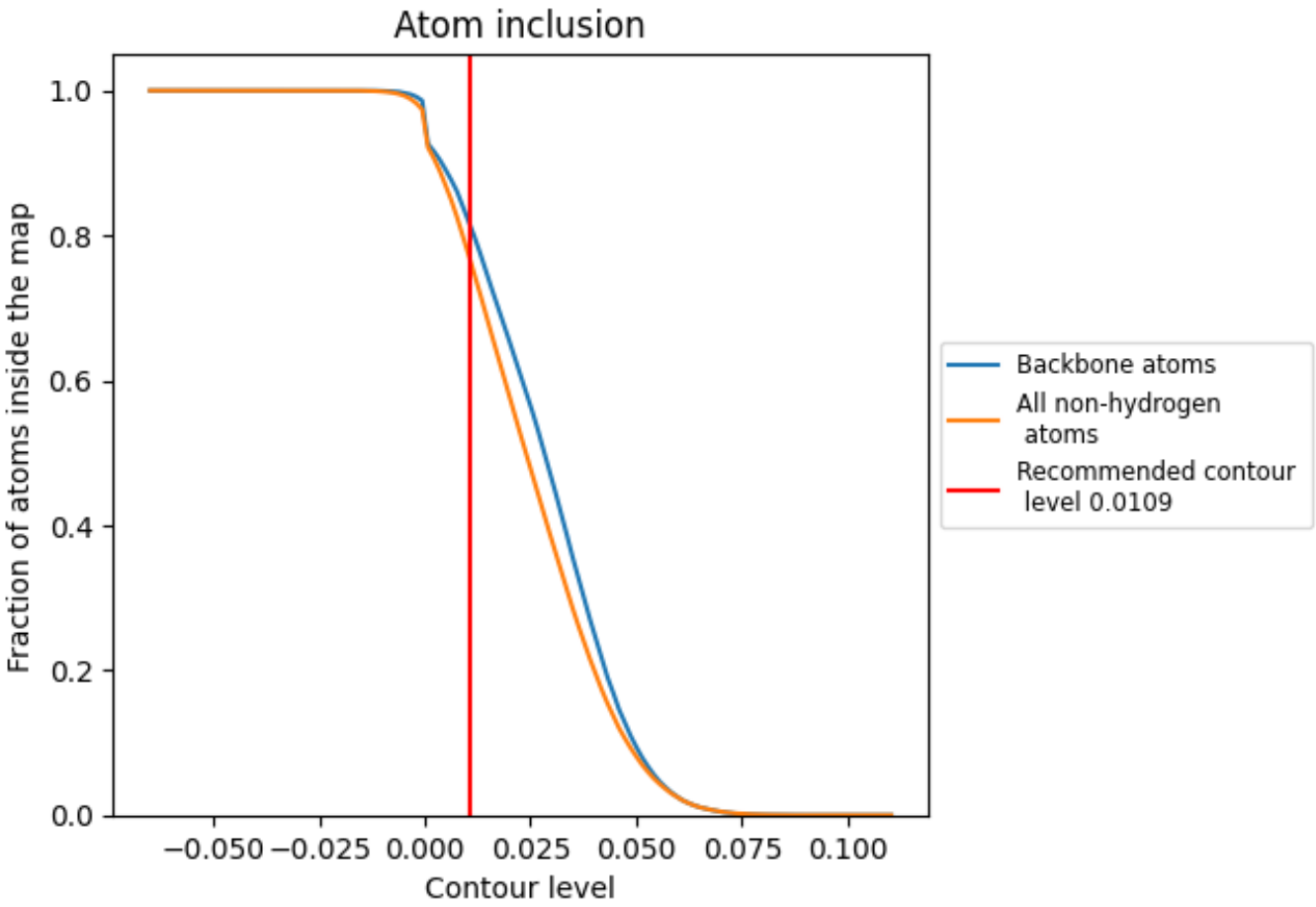
9.3 Atom inclusion mapped to coordinate model (i)



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 (0.0109).

9.4 Atom inclusion (i)



At the recommended contour level, 81% of all backbone atoms, 76% 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 (0.0109) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.7631	0.3510
1	0.5062	0.1520
2	0.8838	0.4010
3	0.3269	0.1390
A	0.1818	0.0510
B	0.0079	-0.0120
C	0.8302	0.4210
D	0.7890	0.4010
E	0.8249	0.4440
F	0.7364	0.3530
G	0.8137	0.4160
H	0.7841	0.3830
I	0.7258	0.2980
J	0.6342	0.2810
K	0.7708	0.3630
L	0.8230	0.4160
M	0.7419	0.3150
N	0.7486	0.3830
O	0.4364	0.1240
P	0.8055	0.3960
Q	0.8065	0.4090
R	0.7001	0.3020
S	0.8142	0.4180
T	0.7288	0.3300
U	0.7693	0.3430
V	0.7773	0.3790
W	0.7503	0.3450
X	0.7921	0.3780
Y	0.8683	0.4780
Z	0.8509	0.4510
a	0.7968	0.3730
b	0.8331	0.4320
c	0.7403	0.3230
d	0.7536	0.3660
e	0.8103	0.3800

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Chain	Atom inclusion	Q-score
f	0.4427	0.0750
g	0.7391	0.3250
h	0.7055	0.3110
i	0.6228	0.2840
l	0.7671	0.3910