



Full wwPDB EM Validation Report ⓘ

Dec 12, 2022 – 01:08 am GMT

PDB ID : 6T83
EMDB ID : EMD-10398
Title : Structure of yeast disome (di-ribosome) stalled on poly(A) tract.
Authors : Tesina, P.; Buschauer, R.; Cheng, J.; Berninghausen, O.; Becker, R.; Beckmann, R.
Deposited on : 2019-10-24
Resolution : 4.00 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

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

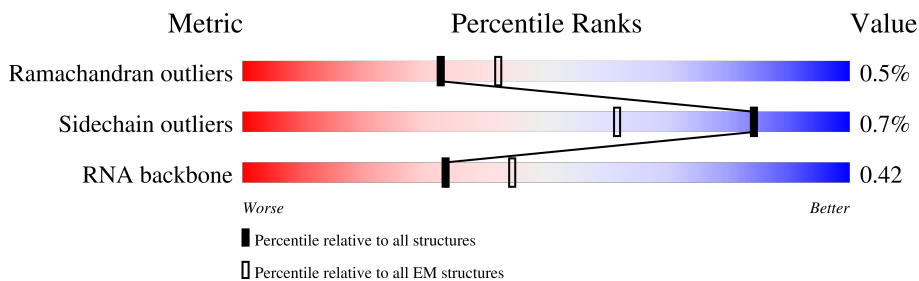
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 4.00 Å.

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



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

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. 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	2b	1800	
1	a	1800	
2	Ab	252	
2	b	252	
3	Ba	255	
3	c	255	
4	Pb	142	
4	q	142	

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Mol	Chain	Length	Quality of chain
5	Cb	254	81% 15%
5	d	254	85% 15%
6	Db	240	91% 8%
6	e	240	92% 7%
7	Eb	261	97%
7	f	261	98%
8	Fb	225	91% 8%
8	g	225	90% 8%
9	Gb	236	94%
9	h	236	90% 8%
10	Hb	190	94%
10	i	190	94%
11	Ib	200	90% 6%
11	j	200	93% 6%
12	Jb	197	89% 7%
12	k	197	92% 6%
13	Kb	105	88% 12%
13	l	105	86% 12%
14	Lb	156	90% 8%
14	m	156	93% 6%
15	Mb	143	79% 5% 15%
15	n	143	83% 13%
16	Nb	151	98%
16	o	151	98%
17	Ob	137	91% 7%

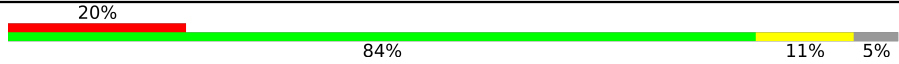
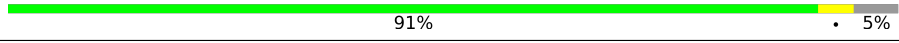
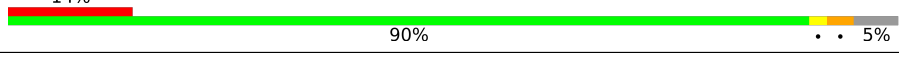
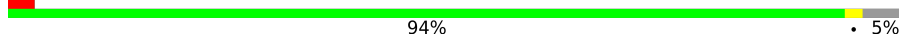
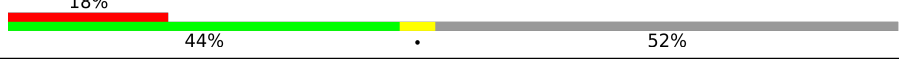

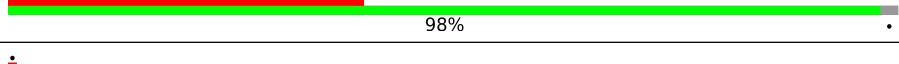
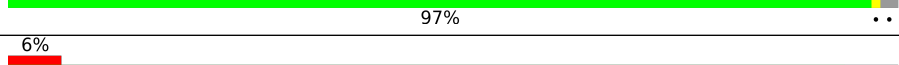
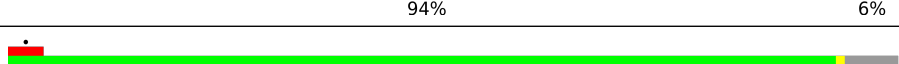
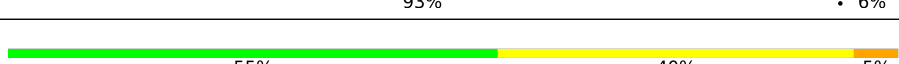
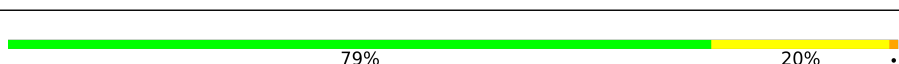
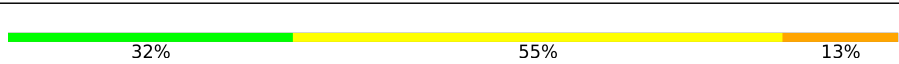

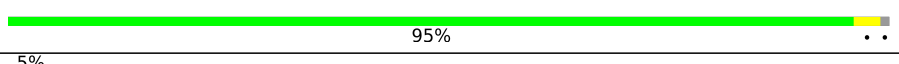
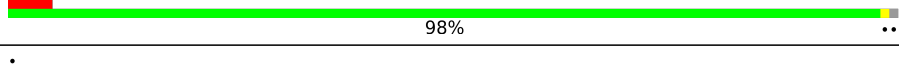
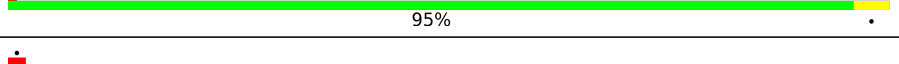
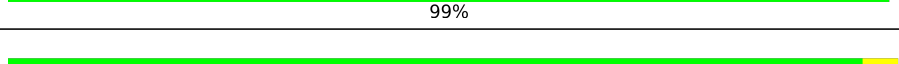
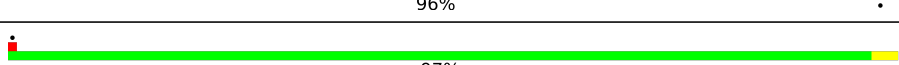
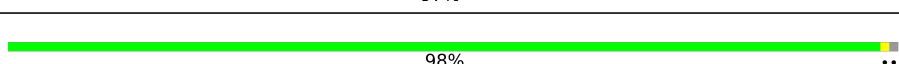
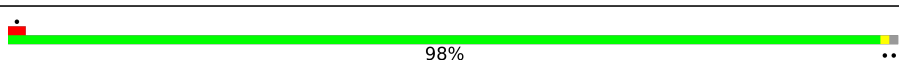
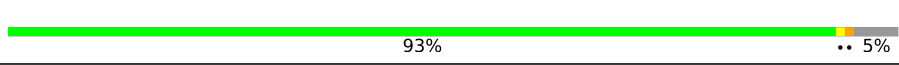
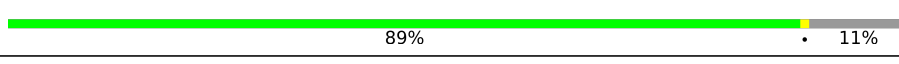
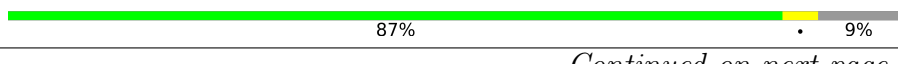


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Mol	Chain	Length	Quality of chain
17	p	137	21% 93% 7%
18	Qb	143	96% ...
18	r	143	8% 95% ..
19	Rb	136	85% 11%
19	s	136	19% 90% 8%
20	Sb	146	95% ...
20	t	146	26% 95% 5%
21	Tb	144	96% ..
21	u	144	14% 99% .
22	Ub	121	82% 17%
22	v	121	7% 80% 17%
23	Vb	87	99% .
23	w	87	5% 100%
24	Wb	130	96% ..
24	x	130	6% 98% ..
25	Xb	145	94% 5%
25	y	145	10% 98% ..
26	Yb	135	97% ..
26	z	135	7% 96% ..
27	0	108	16% 63% 36%
27	Zb	108	6% 76% 24%
28	1	119	9% 80% 18%
28	ab	119	73% 7% 18%
29	2	82	35% 98% ..
29	bb	82	95% ..

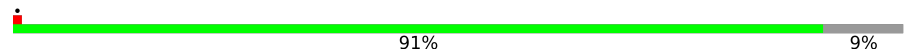


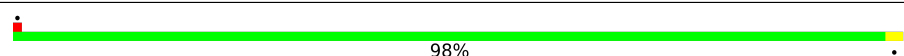
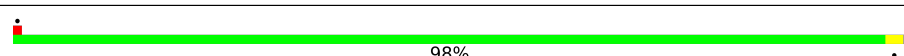
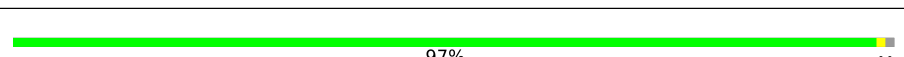
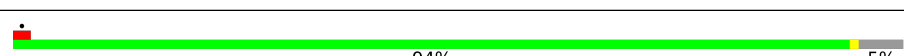
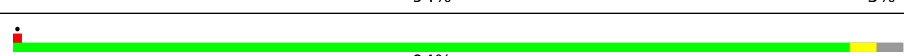
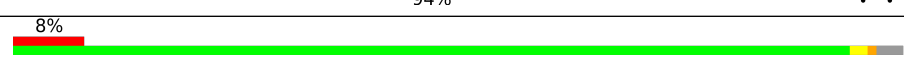
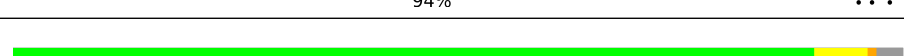
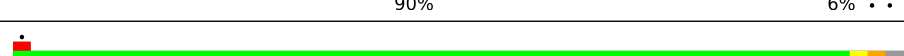
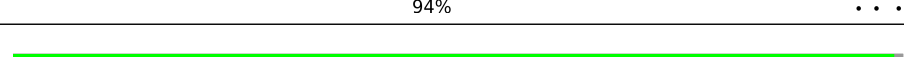
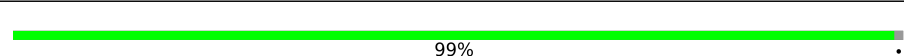
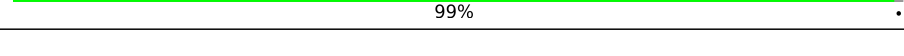
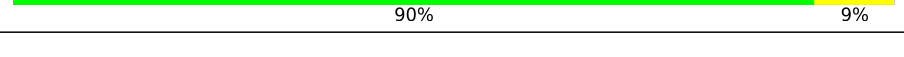
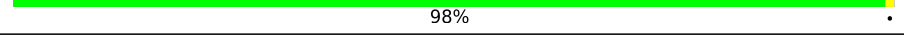
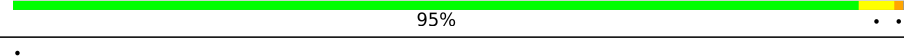
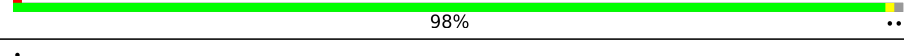
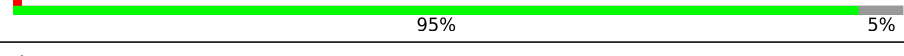
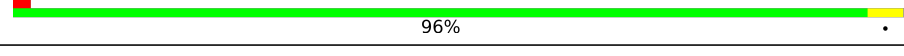
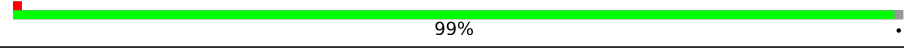
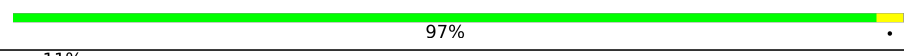
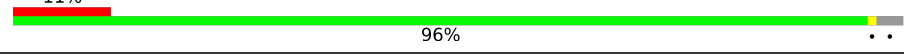
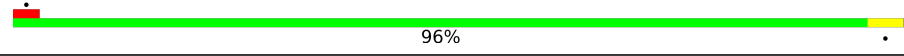
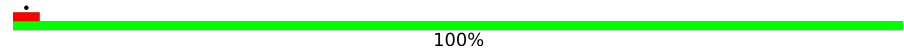
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Mol	Chain	Length	Quality of chain
30	4	56	
30	db	56	
31	5	63	
31	eb	63	
32	6	152	
32	fb	152	
33	7	319	
33	gb	319	
34	3	67	
34	cb	67	
35	4b	121	
35	Bb	121	
36	3b	158	
36	Ca	158	
37	Ay	254	
37	Da	254	
38	By	387	
38	Ea	387	
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40	Ga	297	
41	Ey	176	
41	Ha	176	
42	Fy	244	

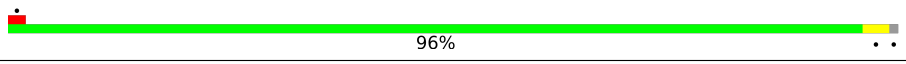
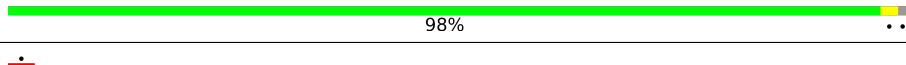
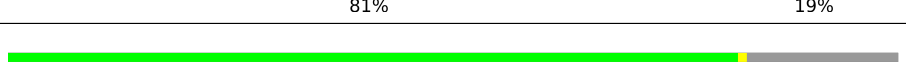
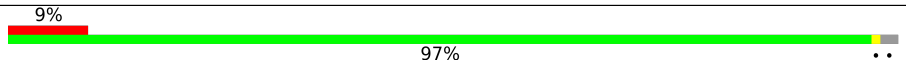
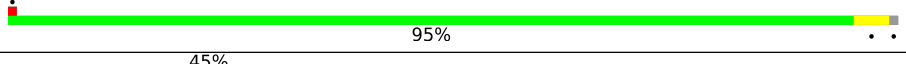

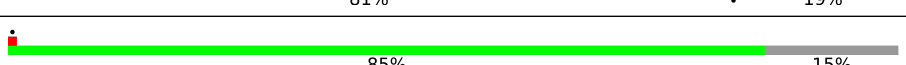

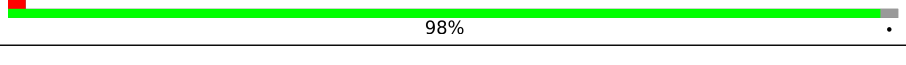
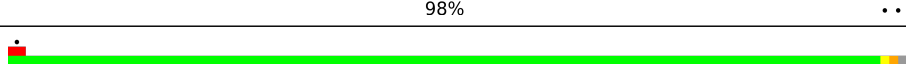
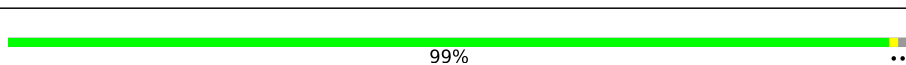
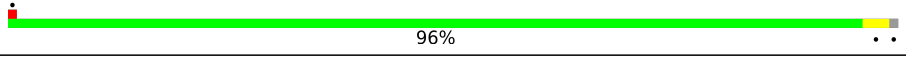
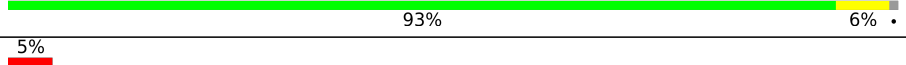
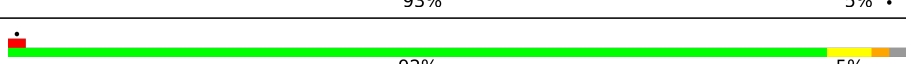
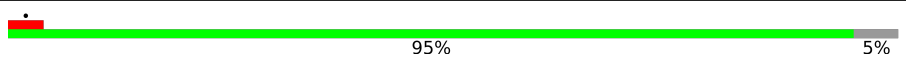
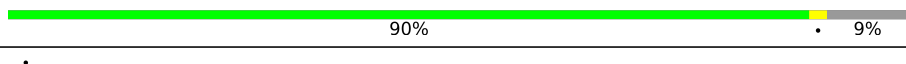
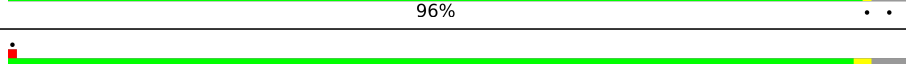
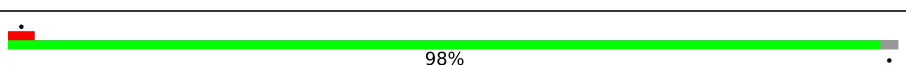
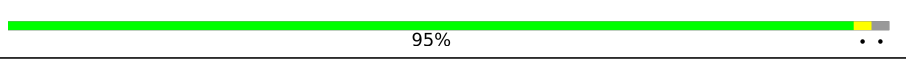
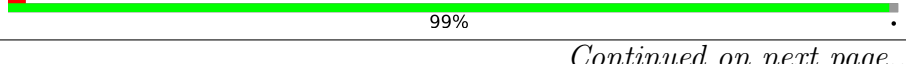



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Mol	Chain	Length	Quality of chain
42	Ia	244	 91% 9%
43	Gy	256	 88% 9%
43	Ja	256	 89% 10%
44	Hy	191	 98%
44	Ka	191	 98%
45	Iy	221	 97%
45	La	221	 94% 5%
46	Jy	174	 94%
46	Ma	174	 94%
47	Ly	199	 90% 6%
47	Na	199	 94%
48	My	138	 99%
48	Oa	138	 99%
49	Ny	204	 90% 9%
49	Pa	204	 98%
50	Oy	199	 95%
50	Qa	199	 98%
51	A	184	 95% 5%
51	Py	184	 96%
52	B	186	 99%
52	Qy	186	 97%
53	C	189	 96%
53	Ry	189	 96%
54	D	172	 100%
54	Sy	172	 97%

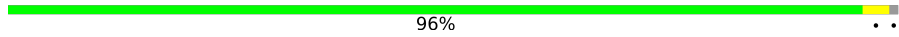
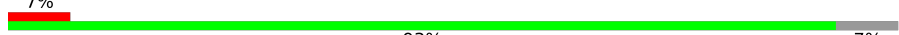
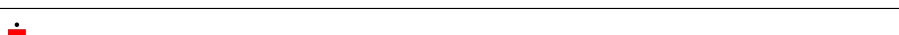
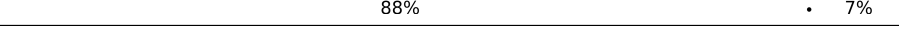
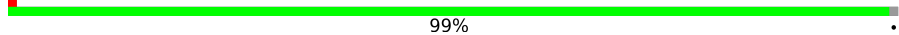

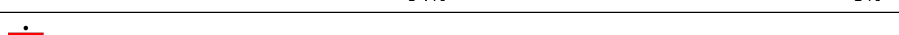
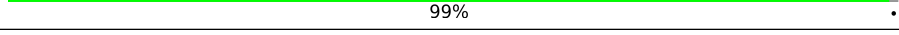
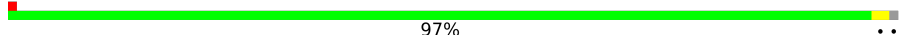

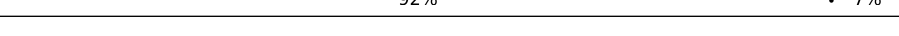

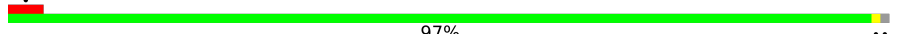
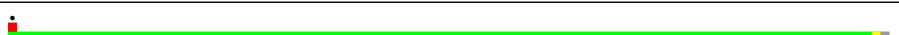
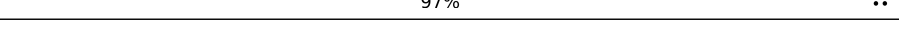

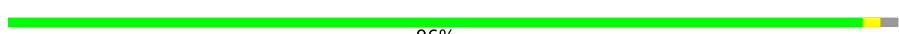

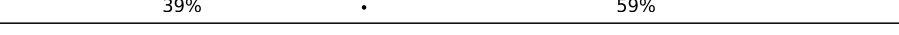


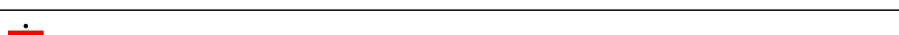
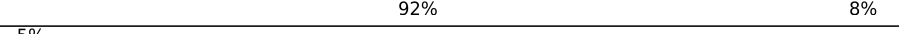
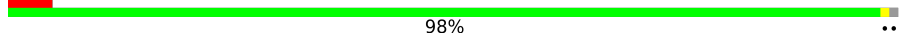

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Mol	Chain	Length	Quality of chain
55	E	160	 96%
55	Ty	160	 98%
56	F	121	 81% 19%
56	Uy	121	 82% 17%
57	G	137	 97%
57	Vy	137	 95%
58	H	155	 45% 82% 5% 13%
58	Wy	155	 20% 81% 19%
59	I	142	 85% 15%
59	Xy	142	 84% 15%
60	J	127	 98%
60	Yy	127	 98%
61	K	136	 98%
61	Zy	136	 99%
62	L	149	 96%
62	ay	149	 93% 6%
63	M	59	 5% 93% 5%
63	by	59	 92% 5%
64	N	105	 95% 5%
64	cy	105	 90% 9%
65	O	113	 96%
65	dy	113	 95%
66	P	130	 98%
66	ey	130	95%
67	Q	107	99%

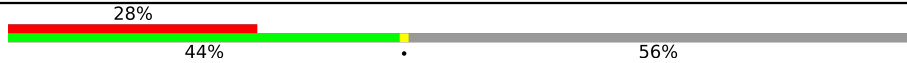
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Mol	Chain	Length	Quality of chain
67	fy	107	 96%
68	R	121	 7% 93% 7%
68	gy	121	 88% 7%
69	S	120	 99%
69	hb	120	 94% 5%
70	T	100	 99%
70	ib	100	 97%
71	U	88	 92% 7%
71	jb	88	 91% 6%
72	V	78	 97%
72	kb	78	 97%
73	W	51	 96%
73	lb	51	 96%
74	X	128	 39% 59%
74	mb	128	 40% 59%
75	Y	25	 24% 92% 8%
75	nb	25	 92% 8%
76	Z	106	 5% 98%
76	ob	106	 95%
77	aa	92	 5% 97%
77	pb	92	 91% 8%
78	1b	3396	 30% 51% 13% 6%
78	Aa	3396	 58% 30% 8%
79	6b	76	 63% 33%
79	8	76	 11% 75% 25%

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Mol	Chain	Length	Quality of chain
80	ba	311	 <p>A horizontal bar chart representing the quality of chain. The bar is divided into three segments: a red segment on the left labeled '28%', a green segment in the middle labeled '44%', and a grey segment on the right labeled '56%'. A small black dot is located at the end of the green segment.</p>

2 Entry composition [i](#)

There are 80 unique types of molecules in this entry. The entry contains 401820 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

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

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
1	2b	1771	37739	16872	6683	12413	1771	0	0
1	a	1758	37455	16745	6624	12328	1758	0	0

- Molecule 2 is a protein called 40S ribosomal protein S0-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	Ab	206	1603	1030	284	287	2	0	0
2	b	206	1583	1017	281	283	2	0	0

- Molecule 3 is a protein called 40S ribosomal protein S1-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	Ba	226	1798	1139	330	325	4	0	0
3	c	216	1722	1091	312	315	4	0	0

- Molecule 4 is a protein called 40S ribosomal protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	Pb	117	916	583	171	155	7	0	0
4	q	119	939	595	176	161	7	0	0

- Molecule 5 is a protein called 40S ribosomal protein S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	Cb	216	Total	C	N	O	S	0	0
			1626	1042	287	295	2		
5	d	217	Total	C	N	O	S	0	0
			1635	1047	289	297	2		

- Molecule 6 is a protein called 40S ribosomal protein S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	Db	222	Total	C	N	O	S	0	0
			1729	1098	312	313	6		
6	e	223	Total	C	N	O	S	0	0
			1734	1101	313	314	6		

- Molecule 7 is a protein called 40S ribosomal protein S4-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	Eb	258	Total	C	N	O	S	0	0
			2056	1308	387	358	3		
7	f	260	Total	C	N	O	S	0	0
			2068	1316	389	360	3		

- Molecule 8 is a protein called Rps5p.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	Fb	206	Total	C	N	O	S	0	0
			1605	1005	299	298	3		
8	g	206	Total	C	N	O	S	0	0
			1609	1007	300	299	3		

- Molecule 9 is a protein called 40S ribosomal protein S6-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	Gb	228	Total	C	N	O	S	0	0
			1815	1138	351	323	3		
9	h	218	Total	C	N	O	S	0	0
			1755	1102	337	313	3		

- Molecule 10 is a protein called 40S ribosomal protein S7-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
10	Hb	184	Total	C	N	O	0	0
			1473	946	263	264		

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Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
10	i	185	1486	954	266	266	0	0

- Molecule 11 is a protein called 40S ribosomal protein S8-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
11	Ib	187	1476	916	295	263	2	0	0
11	j	188	1489	925	298	264	2	0	0

- Molecule 12 is a protein called 40S ribosomal protein S9-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
12	Jb	184	1479	935	285	258	1	0	0
12	k	185	1494	943	289	261	1	0	0

- Molecule 13 is a protein called 40S ribosomal protein S10-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
13	Kb	92	752	487	122	141	2	0	0
13	l	92	741	478	121	140	2	0	0

- Molecule 14 is a protein called 40S ribosomal protein S11-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
14	Lb	144	1159	742	219	195	3	0	0
14	m	146	1168	747	221	197	3	0	0

- Molecule 15 is a protein called 40S ribosomal protein S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
15	Mb	121	875	551	153	169	2	0	0
15	n	124	890	560	156	172	2	0	0

- Molecule 16 is a protein called 40S ribosomal protein S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	Nb	150	Total	C	N	O	S	0	0
			1192	759	224	207	2		
16	o	150	Total	C	N	O	S	0	0
			1192	759	224	207	2		

- Molecule 17 is a protein called 40S ribosomal protein S14-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	Ob	127	Total	C	N	O	S	0	0
			926	569	185	169	3		
17	p	128	Total	C	N	O	S	0	0
			949	582	188	176	3		

- Molecule 18 is a protein called 40S ribosomal protein S16-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
18	Qb	141	Total	C	N	O	0	0
			1105	708	203	194		
18	r	141	Total	C	N	O	0	0
			1105	708	203	194		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
19	Rb	121	Total	C	N	O	S	0	0
			948	596	179	171	2		
19	s	125	Total	C	N	O	S	0	0
			1000	625	188	185	2		

- Molecule 20 is a protein called 40S ribosomal protein S18-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	Sb	145	Total	C	N	O	S	0	0
			1192	743	237	210	2		
20	t	145	Total	C	N	O	S	0	0
			1192	743	237	210	2		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
21	Tb	143	Total	C	N	O	S	0	0
			1112	694	208	208	2		
21	u	143	Total	C	N	O	S	0	0
			1112	694	208	208	2		

- Molecule 22 is a protein called 40S ribosomal protein S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	Ub	100	Total	C	N	O	S	0	0
			797	506	144	146	1		
22	v	101	Total	C	N	O	S	0	0
			805	512	145	147	1		

- Molecule 23 is a protein called 40S ribosomal protein S21-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	Vb	87	Total	C	N	O	S	0	0
			673	415	125	131	2		
23	w	87	Total	C	N	O	S	0	0
			684	420	125	137	2		

- Molecule 24 is a protein called 40S ribosomal protein S22-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	Wb	129	Total	C	N	O	S	0	0
			1021	650	188	180	3		
24	x	129	Total	C	N	O	S	0	0
			1021	650	188	180	3		

- Molecule 25 is a protein called 40S ribosomal protein S23-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	Xb	144	Total	C	N	O	S	0	0
			1121	708	220	191	2		
25	y	144	Total	C	N	O	S	0	0
			1121	708	220	191	2		

- Molecule 26 is a protein called 40S ribosomal protein S24-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
26	Yb	134	Total	C	N	O	0	0
			1073	676	208	189		

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Mol	Chain	Residues	Atoms				AltConf	Trace
26	z	134	Total	C	N	O	0	0
			1073	676	208	189		

- Molecule 27 is a protein called 40S ribosomal protein S25-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
27	Zb	82	Total	C	N	O	0	0
			651	416	123	112		
27	0	69	Total	C	N	O	0	0
			558	357	103	98		

- Molecule 28 is a protein called 40S ribosomal protein S26-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	ab	97	Total	C	N	O	S	0	0
			769	475	160	129	5		
28	1	97	Total	C	N	O	S	0	0
			769	475	160	129	5		

- Molecule 29 is a protein called 40S ribosomal protein S27-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	bb	81	Total	C	N	O	S	0	0
			610	382	110	113	5		
29	2	81	Total	C	N	O	S	0	0
			610	382	110	113	5		

- Molecule 30 is a protein called 40S ribosomal protein S29-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	db	53	Total	C	N	O	S	0	0
			442	274	92	72	4		
30	4	53	Total	C	N	O	S	0	0
			442	274	92	72	4		

- Molecule 31 is a protein called 40S ribosomal protein S30-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	eb	60	Total	C	N	O	S	0	0
			472	298	97	76	1		
31	5	60	Total	C	N	O	S	0	0
			475	299	98	77	1		

- Molecule 32 is a protein called Ubiquitin-40S ribosomal protein S31.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	fb	73	Total	C	N	O	S	0	0
			556	352	105	95	4		
32	6	73	Total	C	N	O	S	0	0
			556	352	105	95	4		

- Molecule 33 is a protein called Guanine nucleotide-binding protein subunit beta-like protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	gb	312	Total	C	N	O	S	0	0
			2383	1514	409	452	8		
33	7	313	Total	C	N	O	S	0	0
			2403	1521	411	463	8		

- Molecule 34 is a protein called 40S ribosomal protein S28-B.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	cb	63	Total	C	N	O	S	0	0
			491	303	96	91	1		
34	3	63	Total	C	N	O	S	0	0
			497	306	99	91	1		

- Molecule 35 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	4b	121	Total	C	N	O	P	0	0
			2579	1152	461	845	121		
35	Bb	121	Total	C	N	O	P	0	0
			2579	1152	461	845	121		

- Molecule 36 is a RNA chain called 5.8S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	3b	158	Total	C	N	O	P	0	0
			3353	1500	586	1109	158		
36	Ca	157	Total	C	N	O	P	0	0
			3333	1491	584	1101	157		

- Molecule 37 is a protein called 60S ribosomal protein L2-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	Ay	251	Total	C	N	O	S	0	0
			1899	1182	385	331	1		
37	Da	252	Total	C	N	O	S	0	0
			1912	1190	388	333	1		

- Molecule 38 is a protein called 60S ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	By	386	Total	C	N	O	S	0	0
			3075	1950	584	533	8		
38	Ea	386	Total	C	N	O	S	0	0
			3075	1950	584	533	8		

- Molecule 39 is a protein called 60S ribosomal protein L4-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	Cy	361	Total	C	N	O	S	0	0
			2748	1729	522	494	3		
39	Fa	361	Total	C	N	O	S	0	0
			2748	1729	522	494	3		

- Molecule 40 is a protein called 60S ribosomal protein L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	Dy	294	Total	C	N	O	S	0	0
			2351	1484	410	455	2		
40	Ga	294	Total	C	N	O	S	0	0
			2359	1489	412	456	2		

- Molecule 41 is a protein called 60S ribosomal protein L6-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	Ey	167	Total	C	N	O	S	0	0
			1303	840	234	228	1		
41	Ha	157	Total	C	N	O	S	0	0
			1248	806	224	217	1		

- Molecule 42 is a protein called 60S ribosomal protein L7-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	Fy	222	Total	C	N	O	S	0	0
			1784	1151	324	308	1		

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Mol	Chain	Residues	Atoms					AltConf	Trace
42	Ia	223	Total	C	N	O	S	0	0
			1791	1155	325	310	1		

- Molecule 43 is a protein called 60S ribosomal protein L8-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	Gy	233	Total	C	N	O	S	0	0
			1804	1151	323	327	3		
43	Ja	231	Total	C	N	O	S	0	0
			1763	1130	316	314	3		

- Molecule 44 is a protein called 60S ribosomal protein L9-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	Hy	191	Total	C	N	O	S	0	0
			1508	957	274	273	4		
44	Ka	190	Total	C	N	O	S	0	0
			1510	957	273	276	4		

- Molecule 45 is a protein called 60S ribosomal protein L10.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	Iy	218	Total	C	N	O	S	0	0
			1764	1117	334	306	7		
45	La	209	Total	C	N	O	S	0	0
			1696	1077	321	293	5		

- Molecule 46 is a protein called 60S ribosomal protein L11-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	Jy	169	Total	C	N	O	S	0	0
			1350	846	253	247	4		
46	Ma	169	Total	C	N	O	S	0	0
			1353	847	253	249	4		

- Molecule 47 is a protein called 60S ribosomal protein L13-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
47	Ly	193	Total	C	N	O	0	0
			1543	962	315	266		
47	Na	194	Total	C	N	O	0	0
			1548	965	316	267		

- Molecule 48 is a protein called 60S ribosomal protein L14-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	My	136	Total	C	N	O	S	0	0
			1053	675	199	177	2		
48	Oa	137	Total	C	N	O	S	0	0
			1059	678	200	179	2		

- Molecule 49 is a protein called 60S ribosomal protein L15-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	Ny	203	Total	C	N	O	S	0	0
			1720	1077	361	281	1		
49	Pa	203	Total	C	N	O	S	0	0
			1720	1077	361	281	1		

- Molecule 50 is a protein called 60S ribosomal protein L16-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	Oy	197	Total	C	N	O	S	197	0
			1555	1003	289	262	1		
50	Qa	197	Total	C	N	O	S	0	0
			1555	1003	289	262	1		

- Molecule 51 is a protein called 60S ribosomal protein L17-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
51	Py	183	Total	C	N	O	0	0
			1416	879	284	253		
51	A	175	Total	C	N	O	0	0
			1378	856	273	249		

- Molecule 52 is a protein called 60S ribosomal protein L18-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	Qy	185	Total	C	N	O	S	0	0
			1441	908	290	241	2		
52	B	185	Total	C	N	O	S	0	0
			1441	908	290	241	2		

- Molecule 53 is a protein called 60S ribosomal protein L19-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
53	Ry	188	Total	C	N	O	0	0
			1515	932	323	260		
53	C	183	Total	C	N	O	0	0
			1482	911	320	251		

- Molecule 54 is a protein called 60S ribosomal protein L20-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	Sy	171	Total	C	N	O	S	0	0
			1437	925	266	243	3		
54	D	172	Total	C	N	O	S	0	0
			1445	930	267	244	4		

- Molecule 55 is a protein called 60S ribosomal protein L21-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	Ty	159	Total	C	N	O	S	0	0
			1276	805	246	221	4		
55	E	159	Total	C	N	O	S	0	0
			1276	805	246	221	4		

- Molecule 56 is a protein called 60S ribosomal protein L22-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
56	Uy	100	Total	C	N	O	0	0
			796	516	131	149		
56	F	98	Total	C	N	O	0	0
			778	505	127	146		

- Molecule 57 is a protein called 60S ribosomal protein L23-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	Vy	136	Total	C	N	O	S	0	0
			1003	628	189	179	7		
57	G	134	Total	C	N	O	S	0	0
			993	623	187	176	7		

- Molecule 58 is a protein called 60S ribosomal protein L24-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	Wy	126	Total	C	N	O	S	0	0
			849	532	167	149	1		

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Mol	Chain	Residues	Atoms					AltConf	Trace
58	H	135	Total	C	N	O	S	0	0
			1089	682	219	187	1		

- Molecule 59 is a protein called 60S ribosomal protein L25.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	Xy	121	Total	C	N	O	S	0	0
			964	620	169	173	2		
59	I	120	Total	C	N	O	S	0	0
			959	617	168	172	2		

- Molecule 60 is a protein called 60S ribosomal protein L26-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
60	Yy	125	Total	C	N	O	0	0
			984	620	191	173		
60	J	124	Total	C	N	O	0	0
			976	614	190	172		

- Molecule 61 is a protein called 60S ribosomal protein L27-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
61	Zy	135	Total	C	N	O	0	0
			1092	710	202	180		
61	K	135	Total	C	N	O	0	0
			1092	710	202	180		

- Molecule 62 is a protein called 60S ribosomal protein L28.

Mol	Chain	Residues	Atoms					AltConf	Trace
62	ay	148	Total	C	N	O	S	0	0
			1173	749	231	190	3		
62	L	148	Total	C	N	O	S	0	0
			1173	749	231	190	3		

- Molecule 63 is a protein called 60S ribosomal protein L29.

Mol	Chain	Residues	Atoms				AltConf	Trace
63	by	58	Total	C	N	O	0	0
			462	289	100	73		
63	M	58	Total	C	N	O	0	0
			462	289	100	73		

- Molecule 64 is a protein called 60S ribosomal protein L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	cy	96	Total	C	N	O	S	0	0
			737	476	123	137	1		
64	N	100	Total	C	N	O	S	0	0
			767	492	128	146	1		

- Molecule 65 is a protein called 60S ribosomal protein L31-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
65	dy	109	Total	C	N	O	S	0	0
			876	556	167	152	1		
65	O	109	Total	C	N	O	S	0	0
			883	559	167	156	1		

- Molecule 66 is a protein called 60S ribosomal protein L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	ey	127	Total	C	N	O	S	0	0
			1017	644	205	167	1		
66	P	127	Total	C	N	O	S	0	0
			1020	647	205	167	1		

- Molecule 67 is a protein called 60S ribosomal protein L33-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	fy	106	Total	C	N	O	S	0	0
			850	540	165	144	1		
67	Q	106	Total	C	N	O	S	0	0
			850	540	165	144	1		

- Molecule 68 is a protein called 60S ribosomal protein L34-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	gy	112	Total	C	N	O	S	0	0
			880	545	179	152	4		
68	R	112	Total	C	N	O	S	0	0
			880	545	179	152	4		

- Molecule 69 is a protein called 60S ribosomal protein L35-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
69	hb	119	Total	C	N	O	S	0	0
			969	615	186	167	1		
69	S	119	Total	C	N	O	S	0	0
			965	612	185	167	1		

- Molecule 70 is a protein called 60S ribosomal protein L36-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
70	ib	99	Total	C	N	O	S	0	0
			766	478	154	132	2		
70	T	99	Total	C	N	O	S	0	0
			770	481	156	131	2		

- Molecule 71 is a protein called 60S ribosomal protein L37-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
71	jb	85	Total	C	N	O	S	0	0
			670	408	146	111	5		
71	U	82	Total	C	N	O	S	0	0
			650	396	142	107	5		

- Molecule 72 is a protein called 60S ribosomal protein L38.

Mol	Chain	Residues	Atoms				AltConf	Trace
72	kb	77	Total	C	N	O	0	0
			612	391	115	106		
72	V	77	Total	C	N	O	0	0
			608	388	114	106		

- Molecule 73 is a protein called 60S ribosomal protein L39.

Mol	Chain	Residues	Atoms					AltConf	Trace
73	lb	50	Total	C	N	O	S	0	0
			436	272	97	65	2		
73	W	50	Total	C	N	O	S	0	0
			436	272	97	65	2		

- Molecule 74 is a protein called Ubiquitin-60S ribosomal protein L40.

Mol	Chain	Residues	Atoms					AltConf	Trace
74	mb	52	Total	C	N	O	S	0	0
			417	259	86	67	5		

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Mol	Chain	Residues	Atoms					AltConf	Trace
74	X	52	Total	C	N	O	S	0	0
			417	259	86	67	5		

- Molecule 75 is a protein called 60S ribosomal protein L41-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
75	nb	25	Total	C	N	O	S	0	0
			229	139	62	27	1		
75	Y	25	Total	C	N	O	S	0	0
			233	142	63	27	1		

- Molecule 76 is a protein called 60S ribosomal protein L42-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
76	ob	103	Total	C	N	O	S	0	0
			824	517	167	135	5		
76	Z	105	Total	C	N	O	S	0	0
			847	534	170	138	5		

- Molecule 77 is a protein called 60S ribosomal protein L43-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
77	pb	91	Total	C	N	O	S	0	0
			694	429	138	121	6		
77	aa	91	Total	C	N	O	S	0	0
			694	429	138	121	6		

- Molecule 78 is a RNA chain called 25S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
78	1b	3184	Total	C	N	O	P	0	0
			68091	30415	12259	22233	3184		
78	Aa	3127	Total	C	N	O	P	0	0
			66891	29878	12066	21820	3127		

- Molecule 79 is a RNA chain called tRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
79	6b	76	Total	C	N	O	P	0	0
			1616	721	281	538	76		
79	8	76	Total	C	N	O	P	0	0
			1616	721	281	538	76		

- Molecule 80 is a protein called 60S acidic ribosomal protein P0.

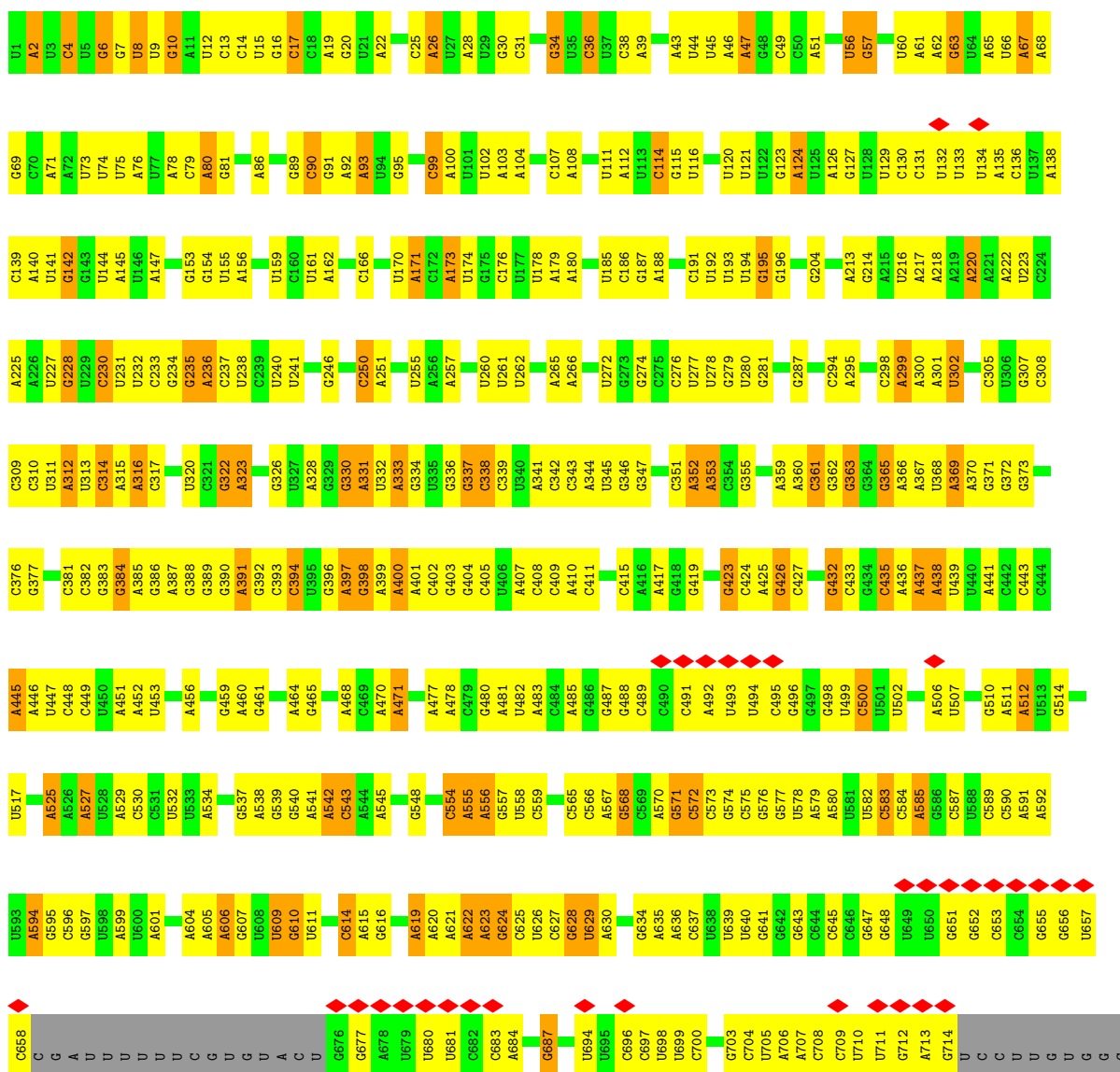
Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
80	ba	138	1052	672	187	190	3	0	0

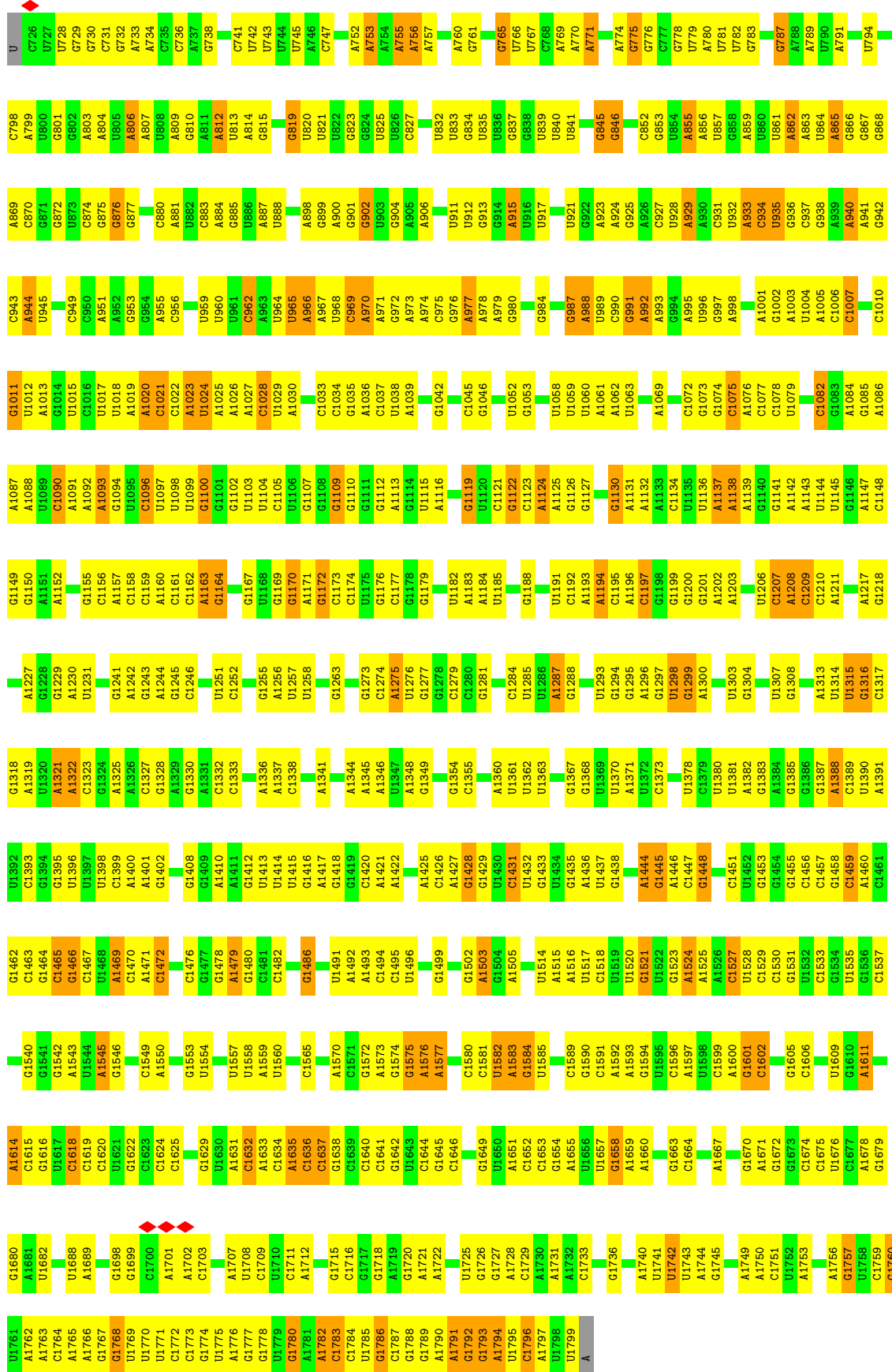
3 Residue-property plots

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

• Molecule 1: 18S rRNA

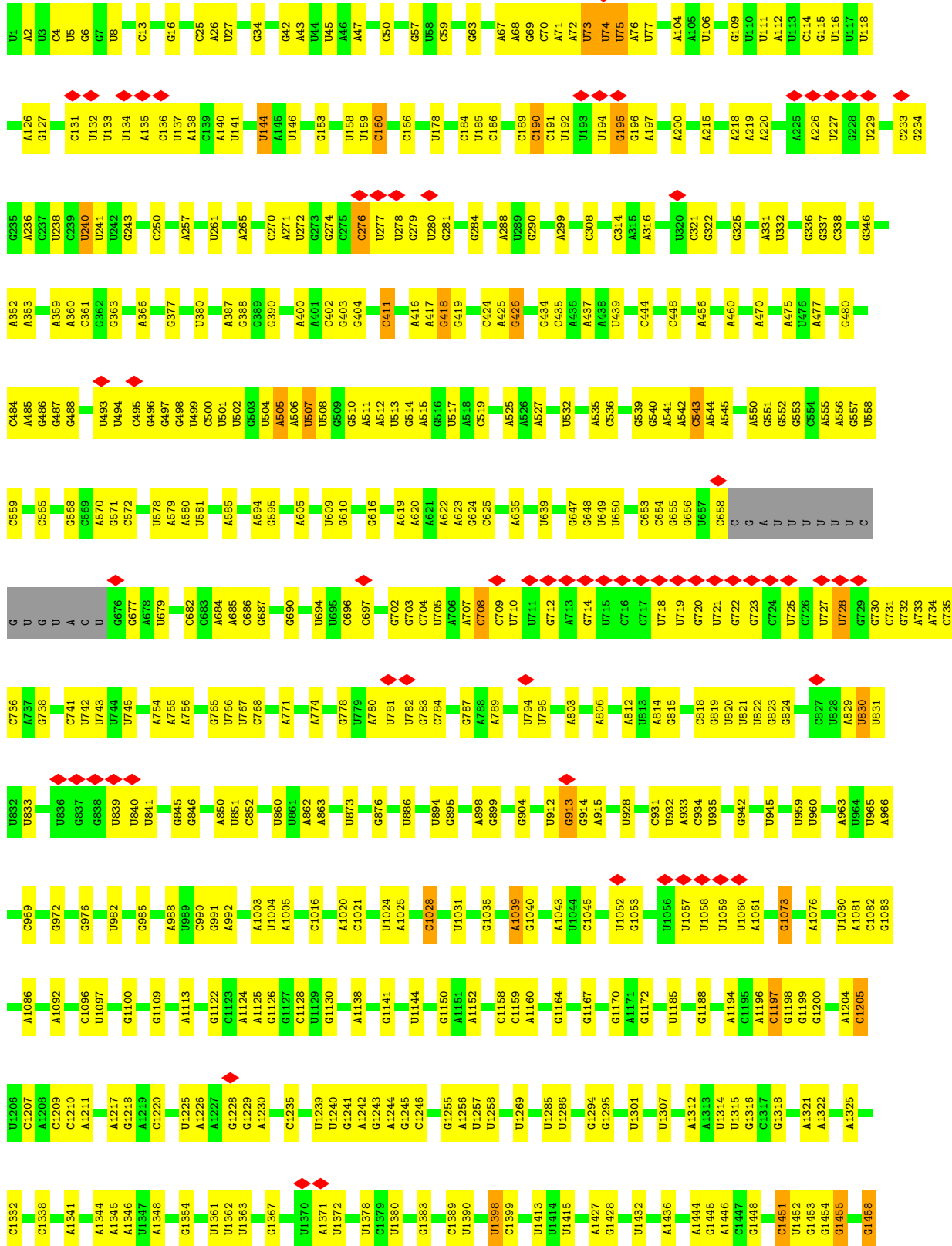
Chain 2b: 

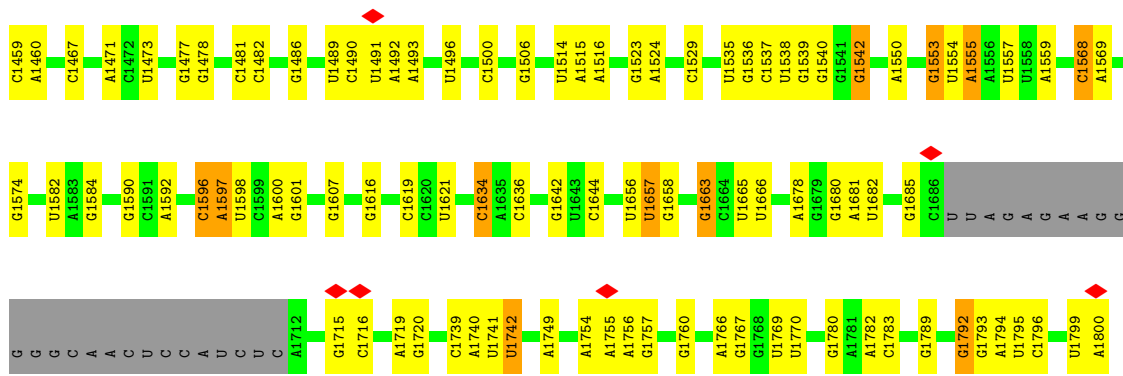




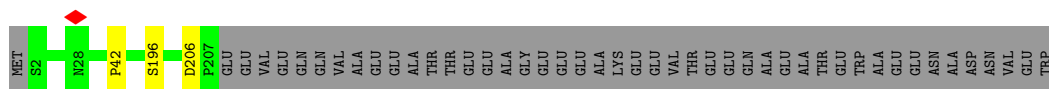
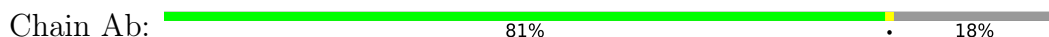
• Molecule 1: 18S rRNA

Chain a:

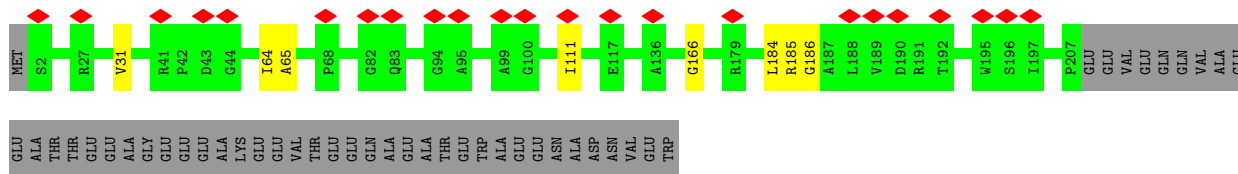
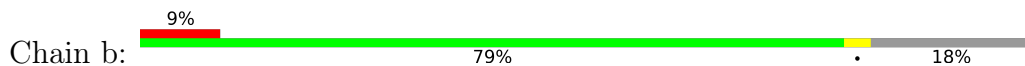




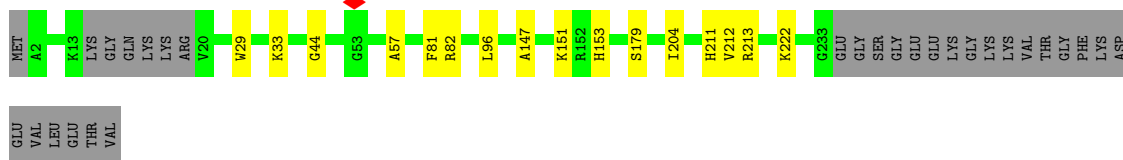
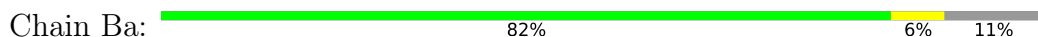
• Molecule 2: 40S ribosomal protein S0-A



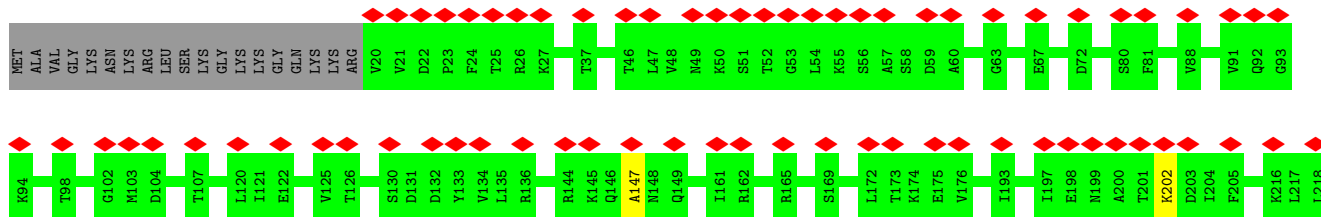
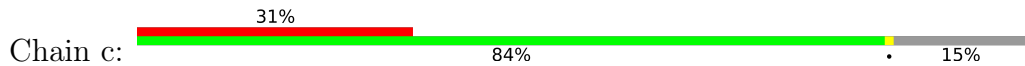
• Molecule 2: 40S ribosomal protein S0-A

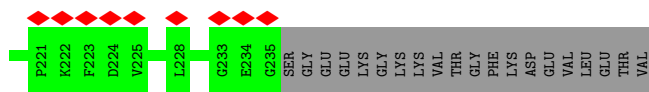


• Molecule 3: 40S ribosomal protein S1-A

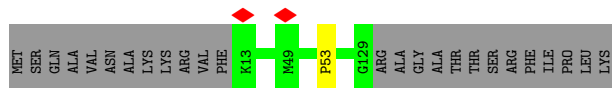
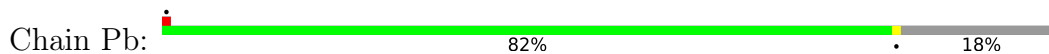


• Molecule 3: 40S ribosomal protein S1-A

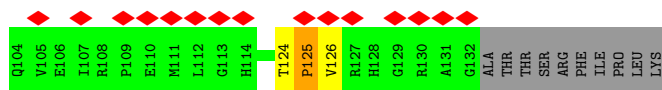
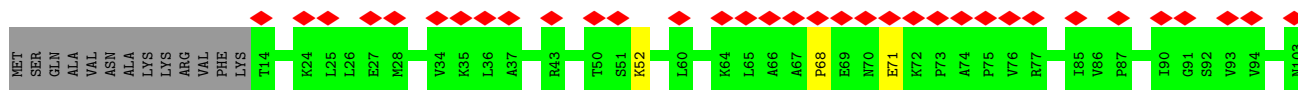
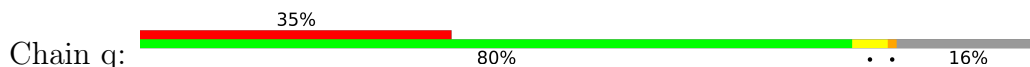




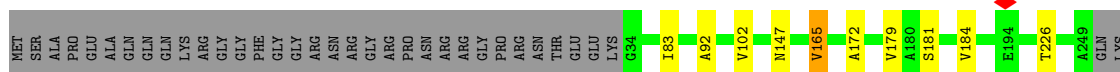
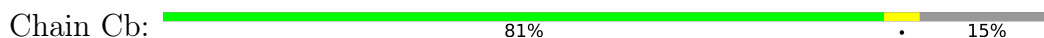
• Molecule 4: 40S ribosomal protein S15



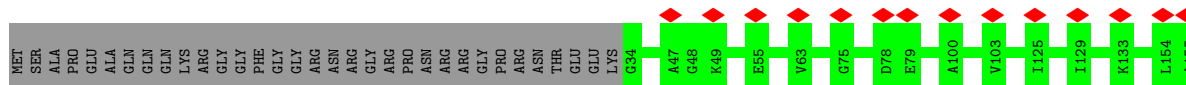
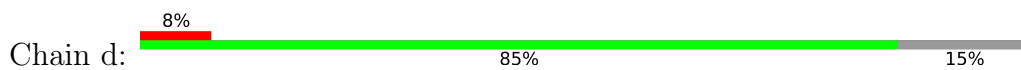
• Molecule 4: 40S ribosomal protein S15



• Molecule 5: 40S ribosomal protein S2

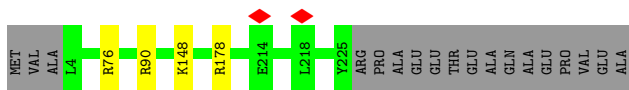


• Molecule 5: 40S ribosomal protein S2

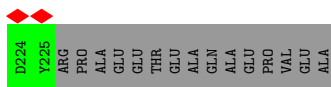
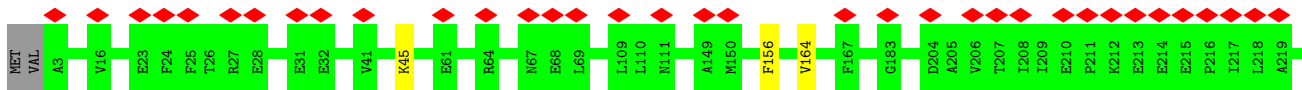
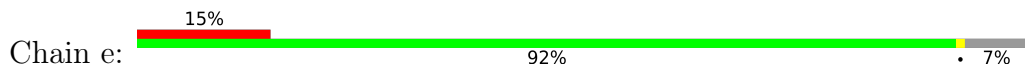


• Molecule 6: 40S ribosomal protein S3





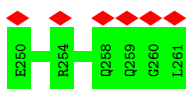
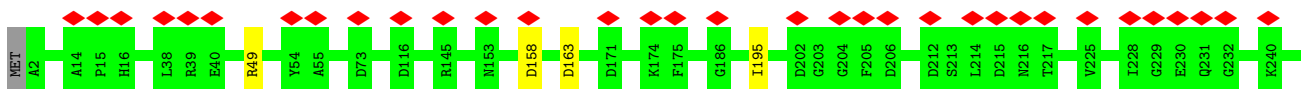
• Molecule 6: 40S ribosomal protein S3



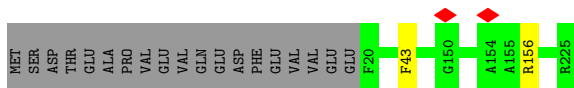
• Molecule 7: 40S ribosomal protein S4-A



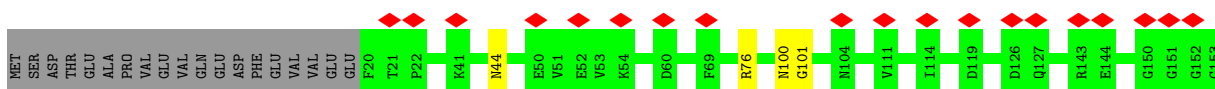
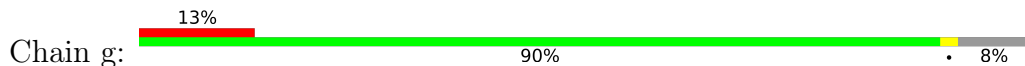
• Molecule 7: 40S ribosomal protein S4-A

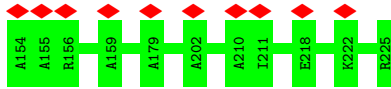


• Molecule 8: Rps5p



• Molecule 8: Rps5p





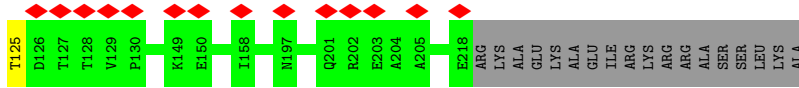
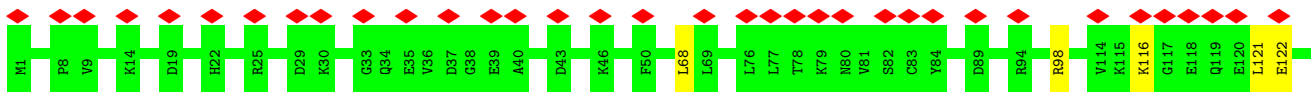
- Molecule 9: 40S ribosomal protein S6-A

Chain Gb: 94%



- Molecule 9: 40S ribosomal protein S6-A

Chain h: 21% 90% 8%



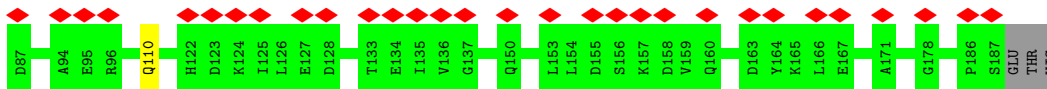
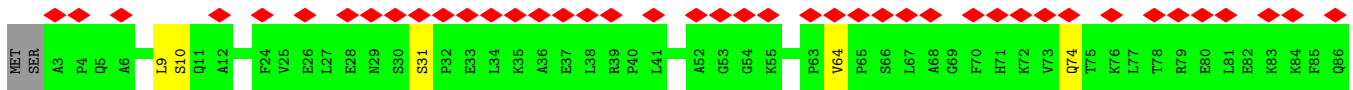
- Molecule 10: 40S ribosomal protein S7-A

Chain Hb: 94%



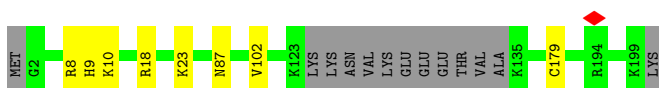
- Molecule 10: 40S ribosomal protein S7-A

Chain i: 38% 94%

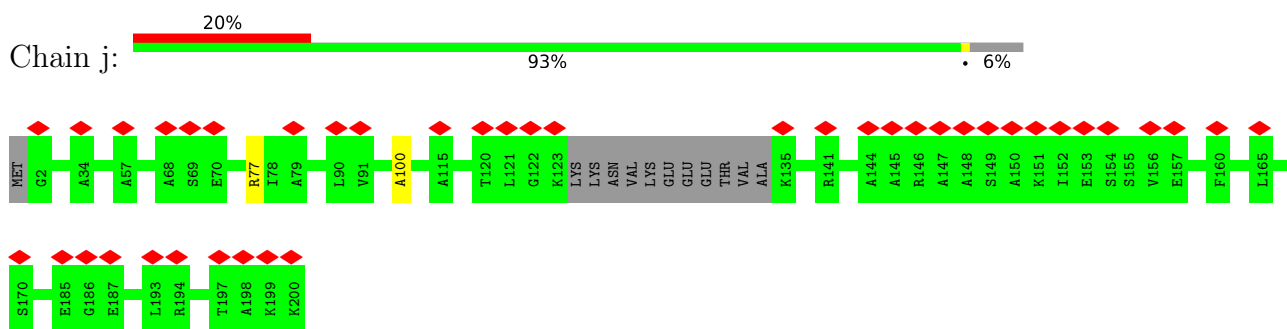


- Molecule 11: 40S ribosomal protein S8-A

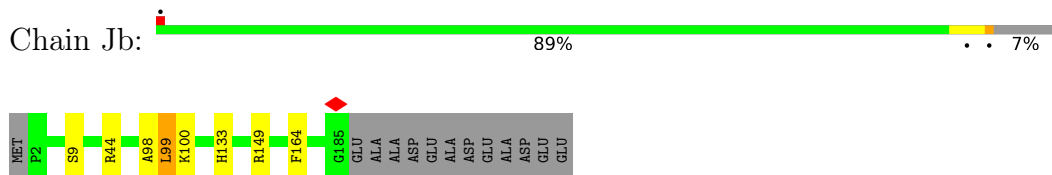
Chain Ib: 90% 6%



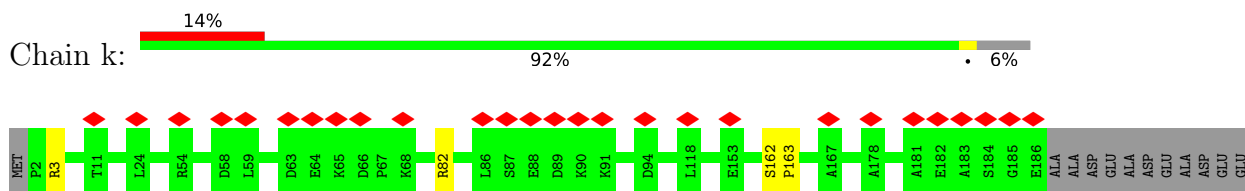
- Molecule 11: 40S ribosomal protein S8-A



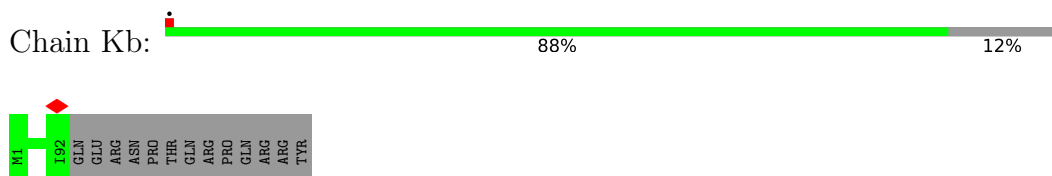
- Molecule 12: 40S ribosomal protein S9-A



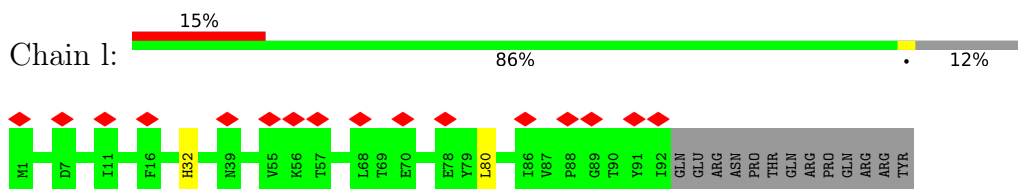
- Molecule 12: 40S ribosomal protein S9-A



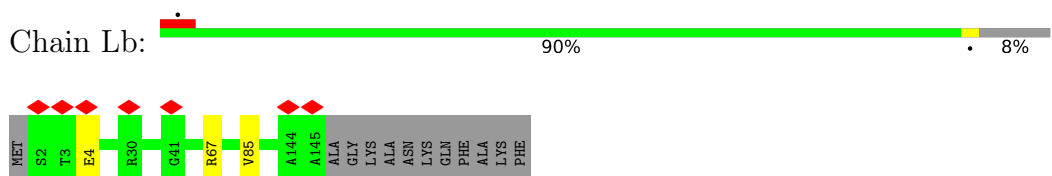
- Molecule 13: 40S ribosomal protein S10-A



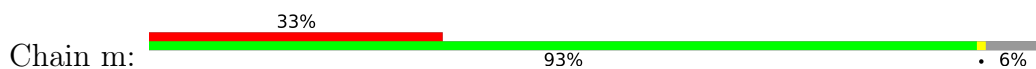
- Molecule 13: 40S ribosomal protein S10-A

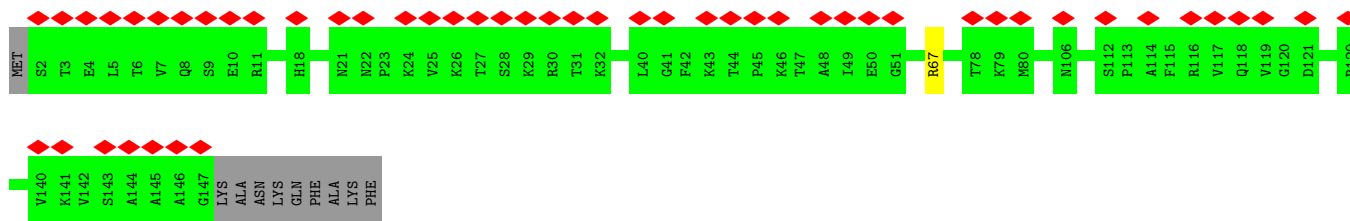


- Molecule 14: 40S ribosomal protein S11-A

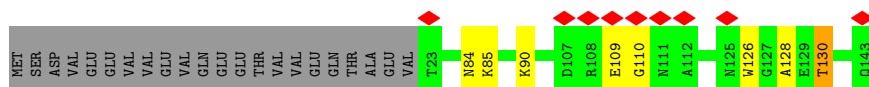
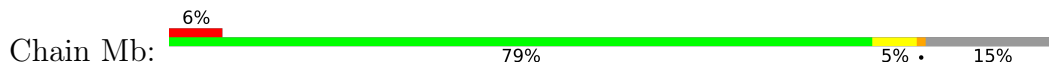


- Molecule 14: 40S ribosomal protein S11-A

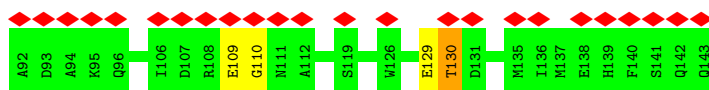
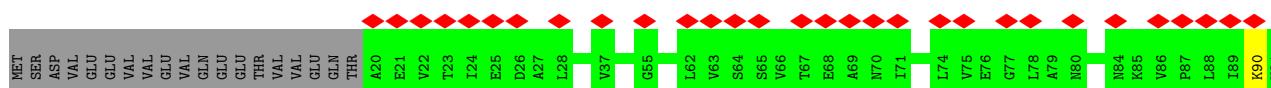
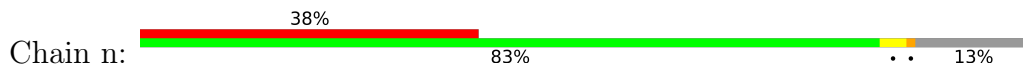




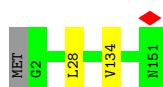
• Molecule 15: 40S ribosomal protein S12



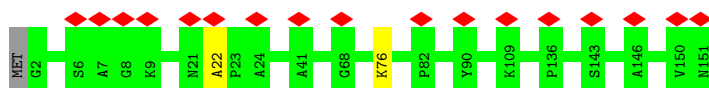
• Molecule 15: 40S ribosomal protein S12



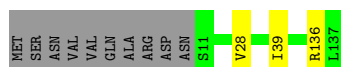
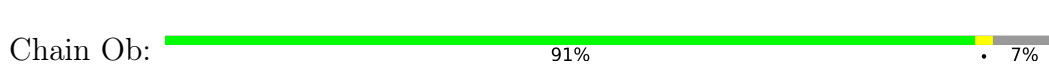
• Molecule 16: 40S ribosomal protein S13



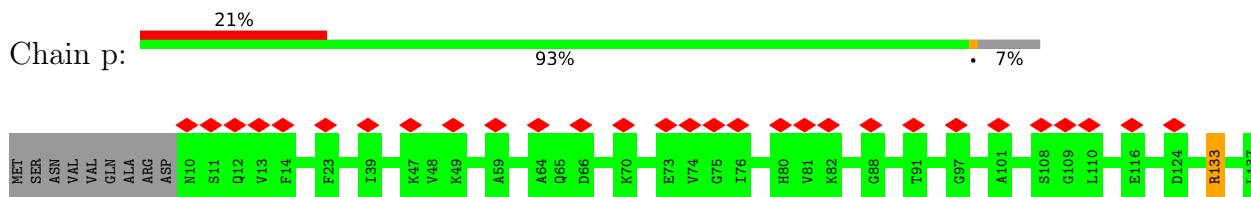
• Molecule 16: 40S ribosomal protein S13



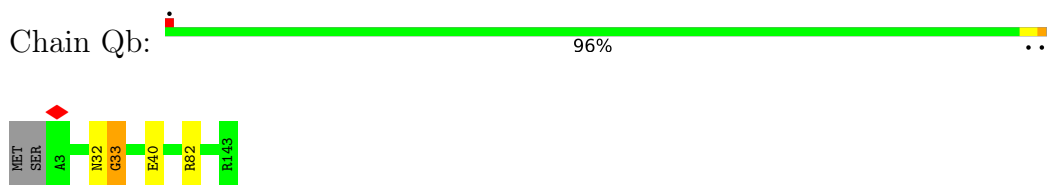
• Molecule 17: 40S ribosomal protein S14-A



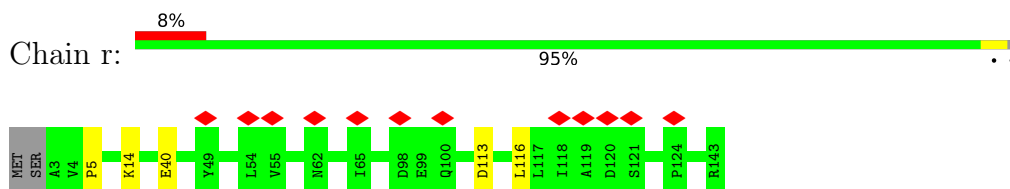
• Molecule 17: 40S ribosomal protein S14-A



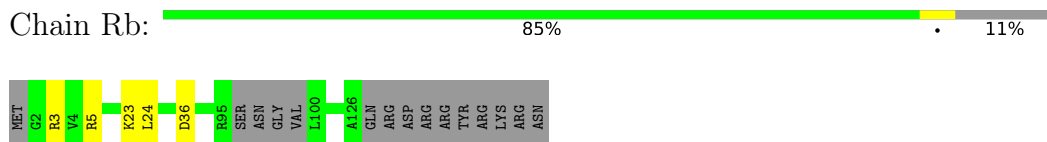
• Molecule 18: 40S ribosomal protein S16-A



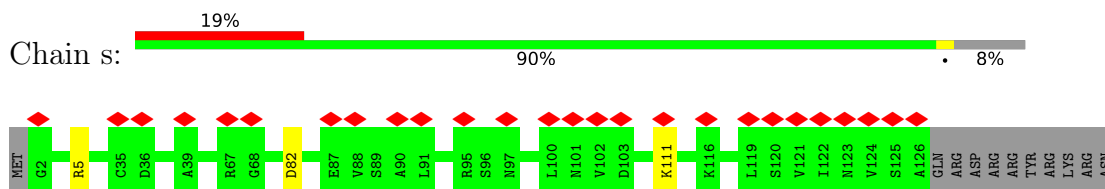
• Molecule 18: 40S ribosomal protein S16-A



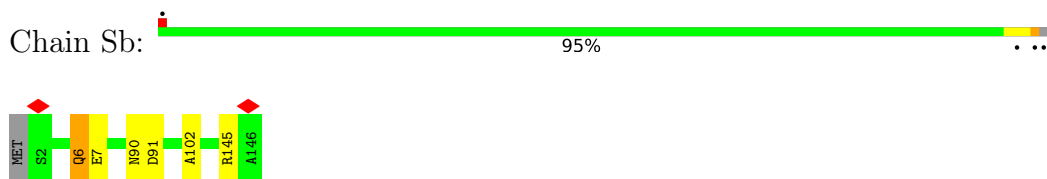
• Molecule 19: 40S ribosomal protein S17-B



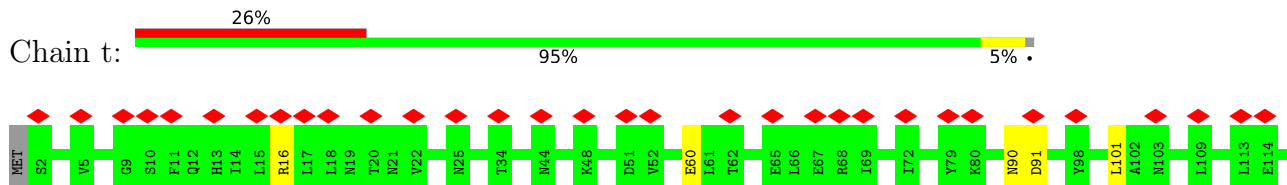
• Molecule 19: 40S ribosomal protein S17-B

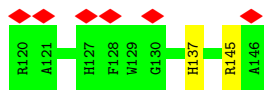


• Molecule 20: 40S ribosomal protein S18-A



• Molecule 20: 40S ribosomal protein S18-A





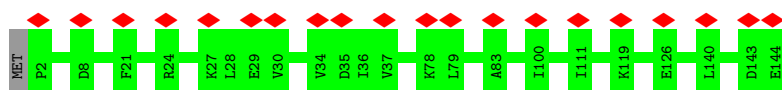
- Molecule 21: 40S ribosomal protein S19-A

Chain Tb: 96%



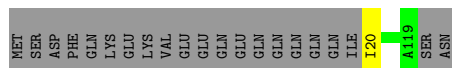
- Molecule 21: 40S ribosomal protein S19-A

Chain u: 99%



- Molecule 22: 40S ribosomal protein S20

Chain Ub: 82% 17%



- Molecule 22: 40S ribosomal protein S20

Chain v: 80% 17%



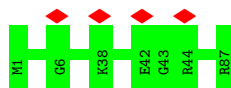
- Molecule 23: 40S ribosomal protein S21-A

Chain Vb: 99%



- Molecule 23: 40S ribosomal protein S21-A

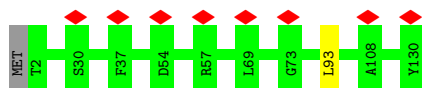
Chain w: 100%



- Molecule 24: 40S ribosomal protein S22-A



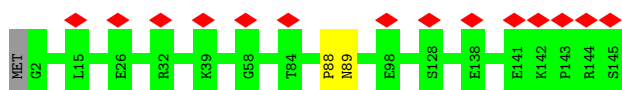
• Molecule 24: 40S ribosomal protein S22-A



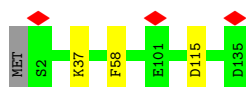
• Molecule 25: 40S ribosomal protein S23-A



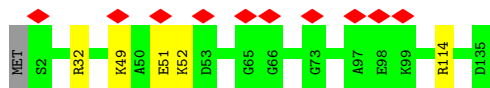
• Molecule 25: 40S ribosomal protein S23-A



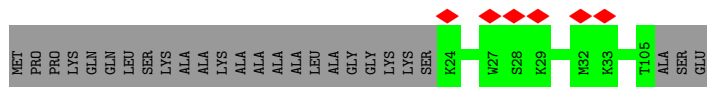
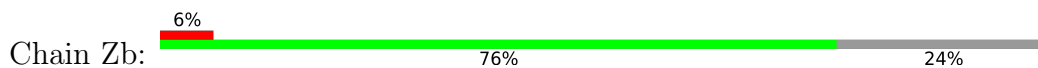
• Molecule 26: 40S ribosomal protein S24-A



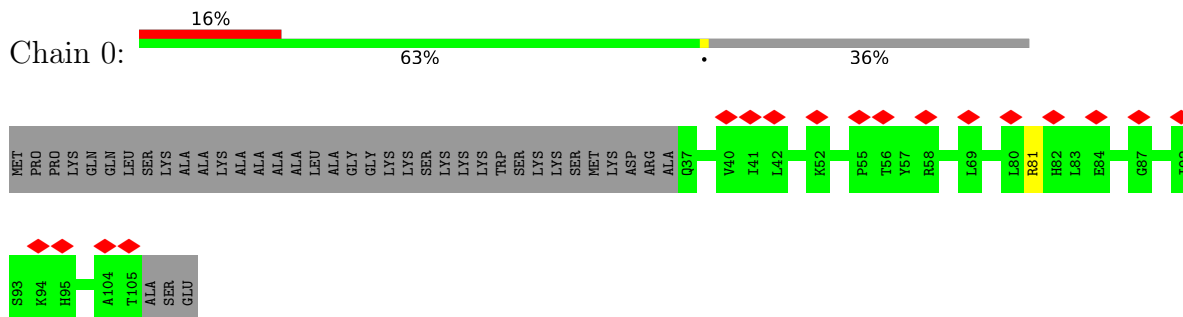
• Molecule 26: 40S ribosomal protein S24-A



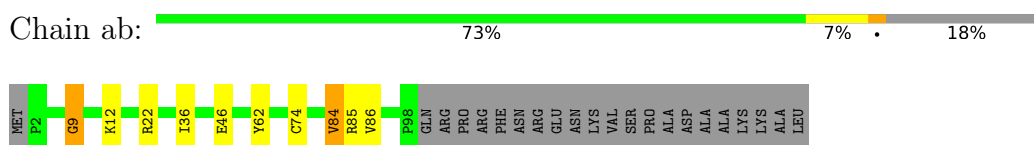
• Molecule 27: 40S ribosomal protein S25-A



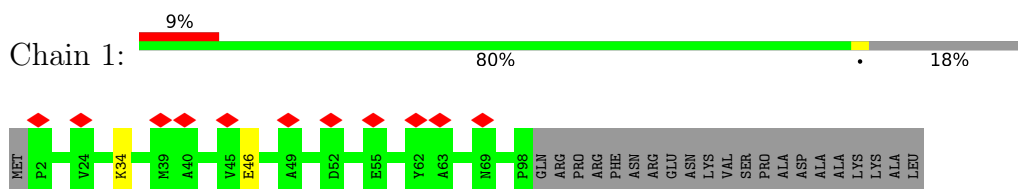
• Molecule 27: 40S ribosomal protein S25-A



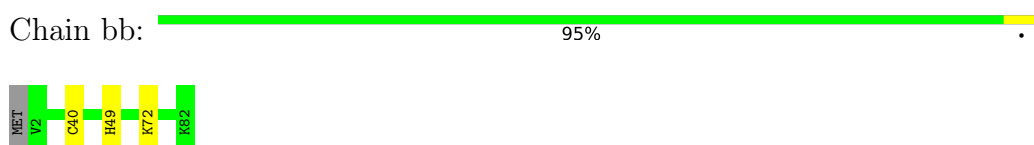
• Molecule 28: 40S ribosomal protein S26-A



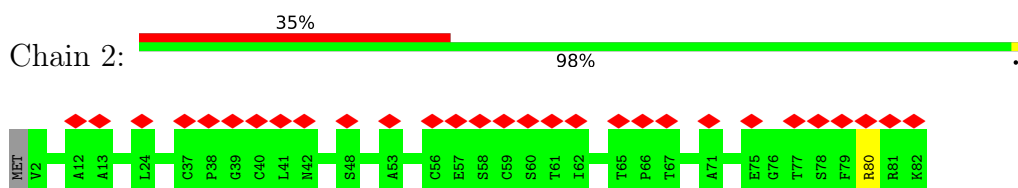
• Molecule 28: 40S ribosomal protein S26-A



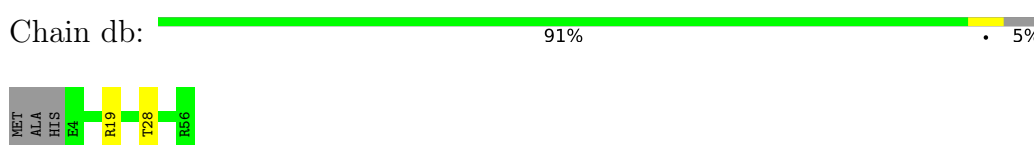
• Molecule 29: 40S ribosomal protein S27-A



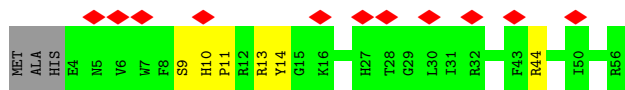
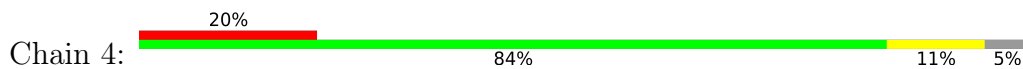
• Molecule 29: 40S ribosomal protein S27-A



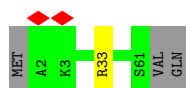
• Molecule 30: 40S ribosomal protein S29-A



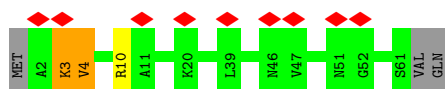
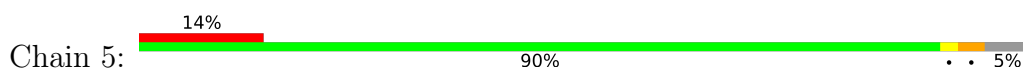
• Molecule 30: 40S ribosomal protein S29-A



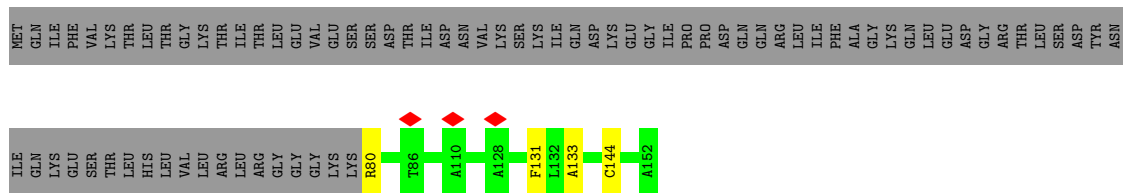
• Molecule 31: 40S ribosomal protein S30-A



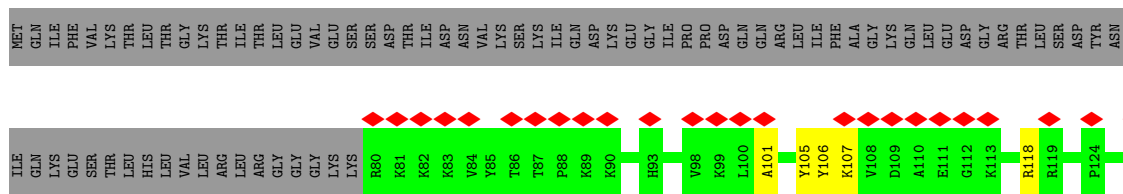
• Molecule 31: 40S ribosomal protein S30-A



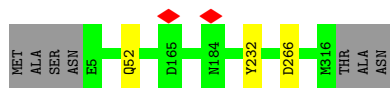
• Molecule 32: Ubiquitin-40S ribosomal protein S31



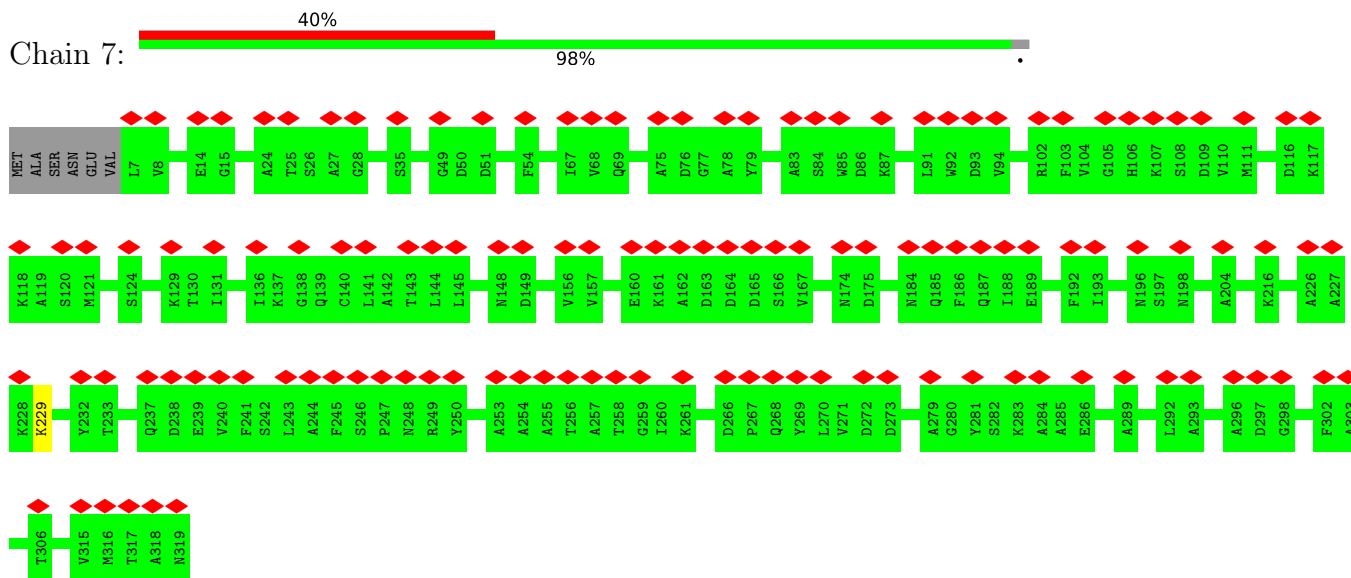
• Molecule 32: Ubiquitin-40S ribosomal protein S31



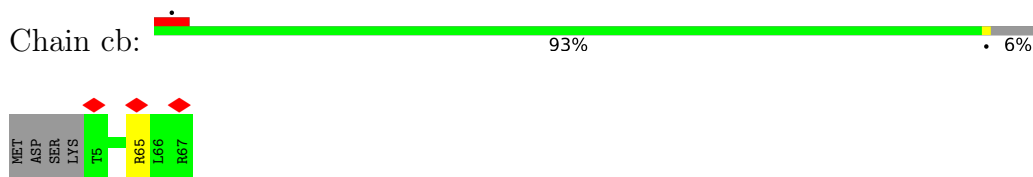
• Molecule 33: Guanine nucleotide-binding protein subunit beta-like protein



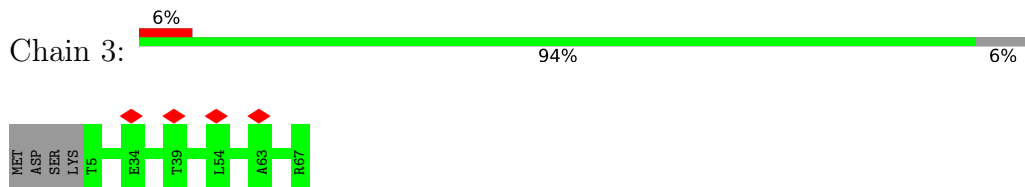
• Molecule 33: Guanine nucleotide-binding protein subunit beta-like protein



• Molecule 34: 40S ribosomal protein S28-B



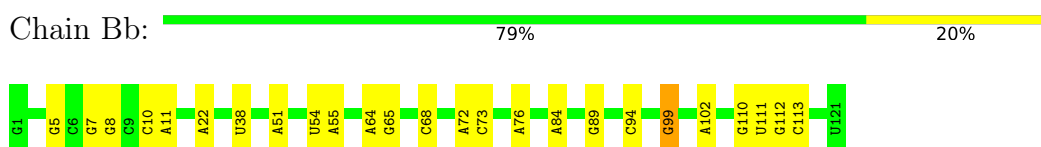
• Molecule 34: 40S ribosomal protein S28-B



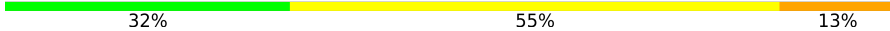
• Molecule 35: 5S rRNA

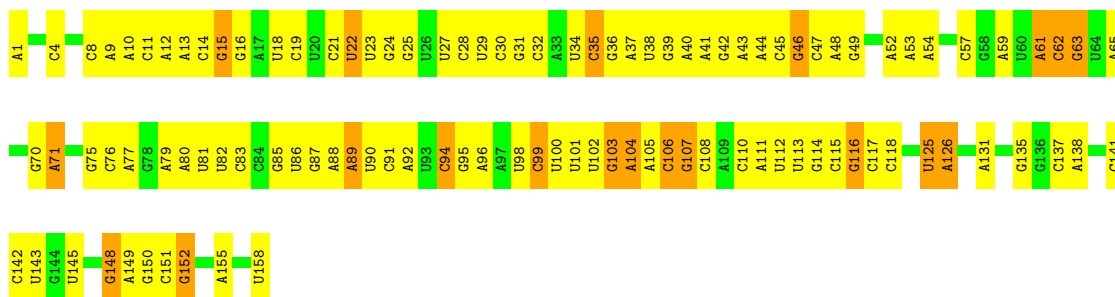


• Molecule 35: 5S rRNA



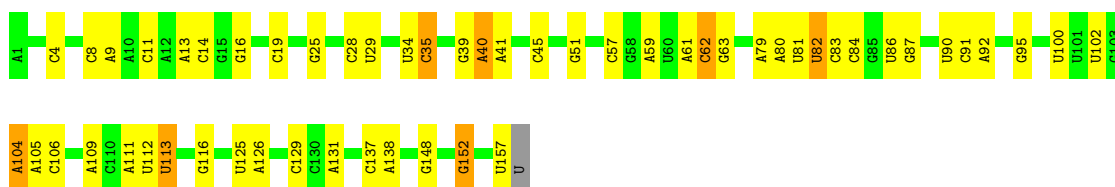
• Molecule 36: 5.8S rRNA

Chain 3b:  32% 55% 13%



- Molecule 36: 5.8S rRNA

Chain Ca:  65% 30%



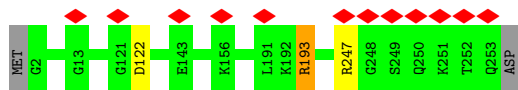
- Molecule 37: 60S ribosomal protein L2-A

Chain Ay:  95%



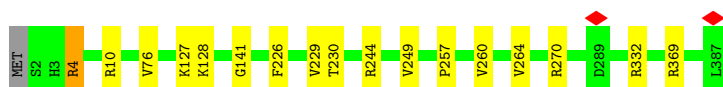
- Molecule 37: 60S ribosomal protein L2-A

Chain Da:  5% 98%



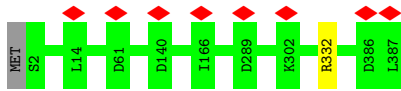
- Molecule 38: 60S ribosomal protein L3

Chain By:  95%



- Molecule 38: 60S ribosomal protein L3

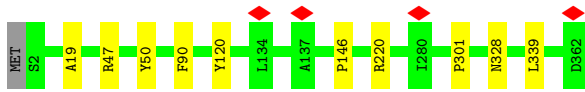
Chain Ea:  99%



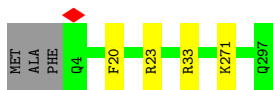
- Molecule 39: 60S ribosomal protein L4-A



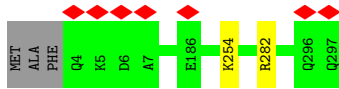
- Molecule 39: 60S ribosomal protein L4-A



- Molecule 40: 60S ribosomal protein L5



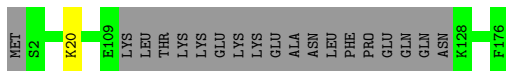
- Molecule 40: 60S ribosomal protein L5



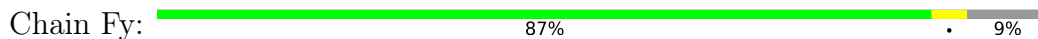
- Molecule 41: 60S ribosomal protein L6-A



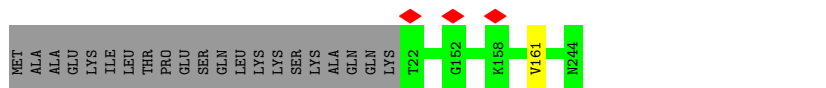
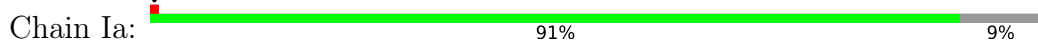
- Molecule 41: 60S ribosomal protein L6-A



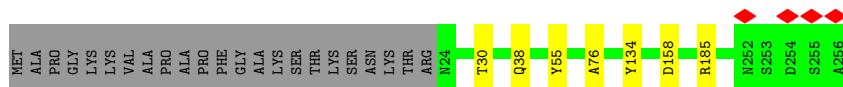
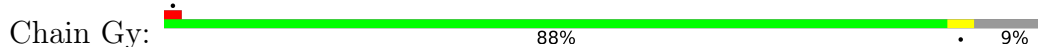
- Molecule 42: 60S ribosomal protein L7-A



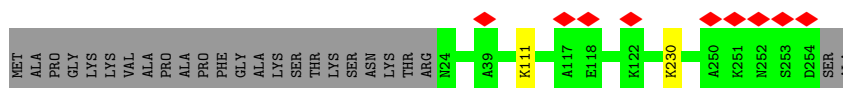
• Molecule 42: 60S ribosomal protein L7-A



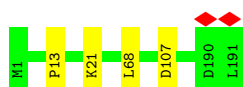
• Molecule 43: 60S ribosomal protein L8-A



• Molecule 43: 60S ribosomal protein L8-A



• Molecule 44: 60S ribosomal protein L9-A



• Molecule 44: 60S ribosomal protein L9-A

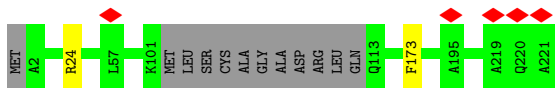


• Molecule 45: 60S ribosomal protein L10





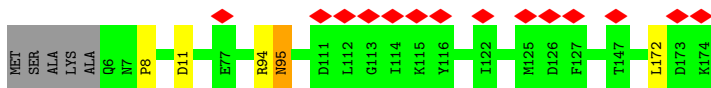
- Molecule 45: 60S ribosomal protein L10



- Molecule 46: 60S ribosomal protein L11-A



- Molecule 46: 60S ribosomal protein L11-A



- Molecule 47: 60S ribosomal protein L13-A



- Molecule 47: 60S ribosomal protein L13-A



- Molecule 48: 60S ribosomal protein L14-A



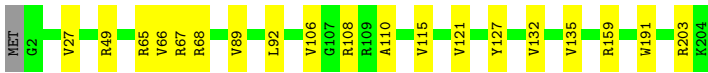
- Molecule 48: 60S ribosomal protein L14-A

Chain Oa:  99%



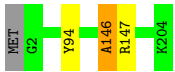
- Molecule 49: 60S ribosomal protein L15-A

Chain Ny:  90% 9%



- Molecule 49: 60S ribosomal protein L15-A

Chain Pa:  98%



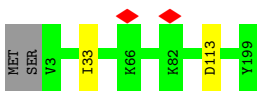
- Molecule 50: 60S ribosomal protein L16-A

Chain Oy:  95%



- Molecule 50: 60S ribosomal protein L16-A

Chain Qa:  98%



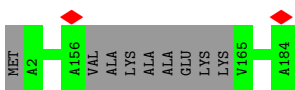
- Molecule 51: 60S ribosomal protein L17-A

Chain Py:  96%



- Molecule 51: 60S ribosomal protein L17-A

Chain A:  95% 5%



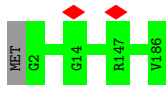
- Molecule 52: 60S ribosomal protein L18-A

Chain Qy:  97%



- Molecule 52: 60S ribosomal protein L18-A

Chain B:  99%



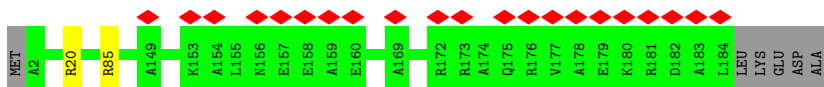
- Molecule 53: 60S ribosomal protein L19-A

Chain Ry:  96%



- Molecule 53: 60S ribosomal protein L19-A

Chain C:  11% 96%



- Molecule 54: 60S ribosomal protein L20-A

Chain Sy:  97%



- Molecule 54: 60S ribosomal protein L20-A

Chain D:  100%

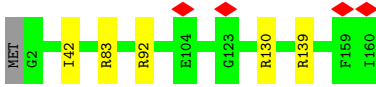


- Molecule 55: 60S ribosomal protein L21-A

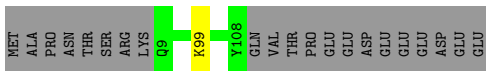
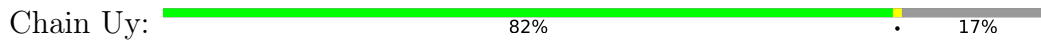
Chain Ty:  98%



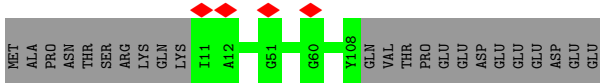
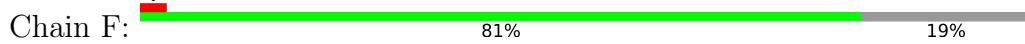
- Molecule 55: 60S ribosomal protein L21-A



- Molecule 56: 60S ribosomal protein L22-A



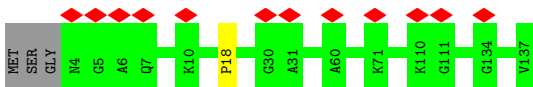
- Molecule 56: 60S ribosomal protein L22-A



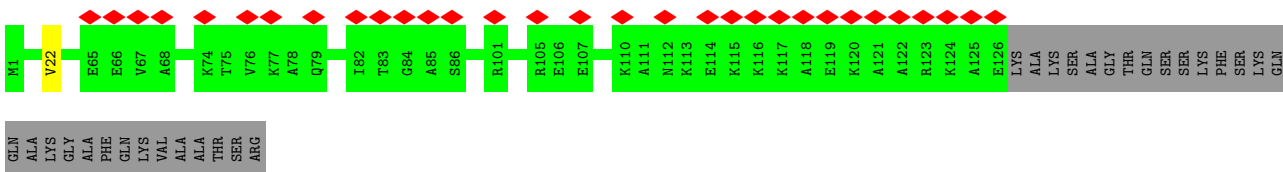
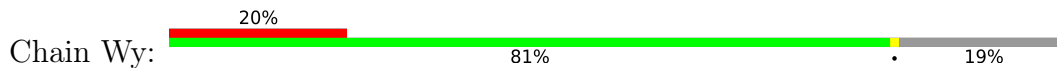
- Molecule 57: 60S ribosomal protein L23-A



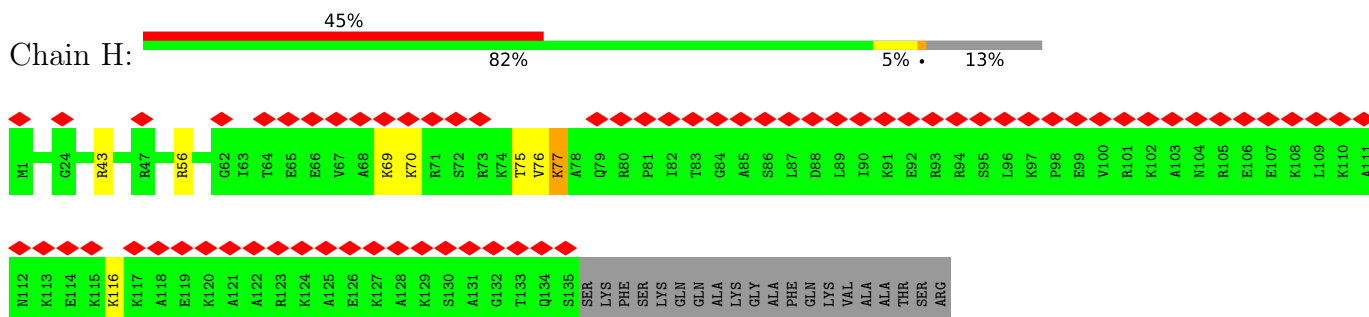
- Molecule 57: 60S ribosomal protein L23-A



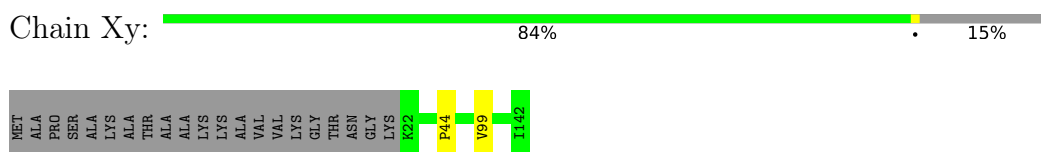
- Molecule 58: 60S ribosomal protein L24-A



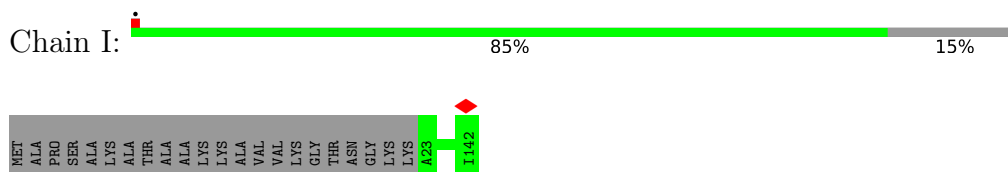
• Molecule 58: 60S ribosomal protein L24-A



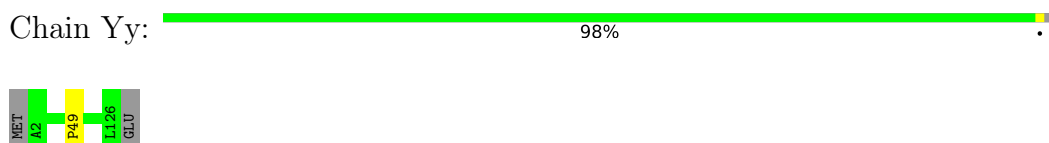
• Molecule 59: 60S ribosomal protein L25



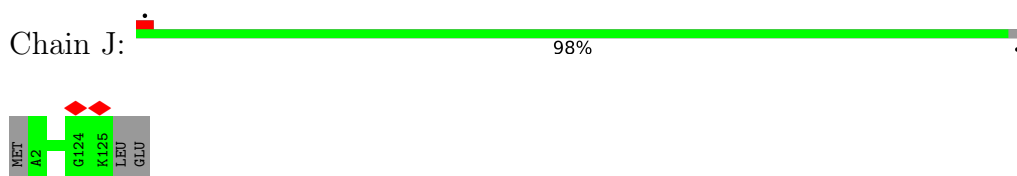
• Molecule 59: 60S ribosomal protein L25



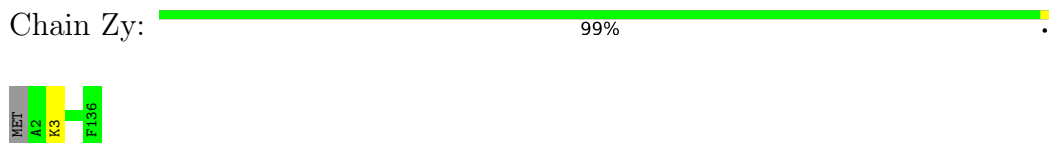
• Molecule 60: 60S ribosomal protein L26-A



• Molecule 60: 60S ribosomal protein L26-A

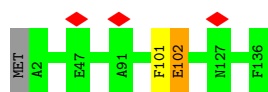


• Molecule 61: 60S ribosomal protein L27-A



• Molecule 61: 60S ribosomal protein L27-A

Chain K:  98%



• Molecule 62: 60S ribosomal protein L28

Chain ay:  93% 6%



• Molecule 62: 60S ribosomal protein L28

Chain L:  96%

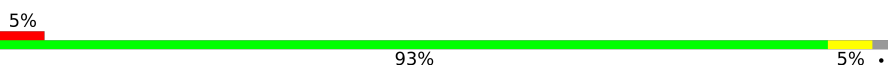


• Molecule 63: 60S ribosomal protein L29

Chain by:  92% 5%



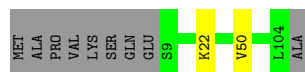
• Molecule 63: 60S ribosomal protein L29

Chain M:  93% 5%



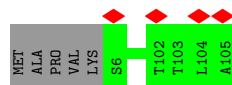
• Molecule 64: 60S ribosomal protein L30

Chain cy:  90% 9%



• Molecule 64: 60S ribosomal protein L30

Chain N:  95% 5%



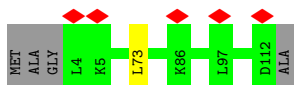
- Molecule 65: 60S ribosomal protein L31-A

Chain dy:  95%



- Molecule 65: 60S ribosomal protein L31-A

Chain O:  96%



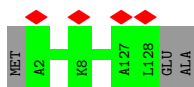
- Molecule 66: 60S ribosomal protein L32

Chain ey:  95%



- Molecule 66: 60S ribosomal protein L32

Chain P:  98%



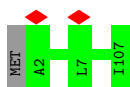
- Molecule 67: 60S ribosomal protein L33-A

Chain fy:  96%




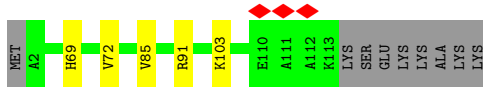
- Molecule 67: 60S ribosomal protein L33-A

Chain Q:  99%

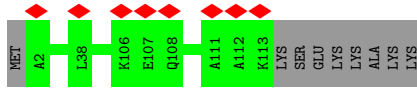


- Molecule 68: 60S ribosomal protein L34-A

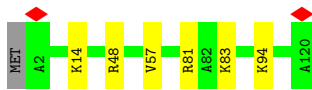
Chain gy:  88% 7%



- Molecule 68: 60S ribosomal protein L34-A



- Molecule 69: 60S ribosomal protein L35-A



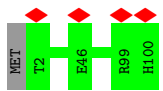
- Molecule 69: 60S ribosomal protein L35-A



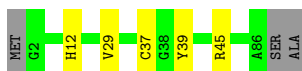
- Molecule 70: 60S ribosomal protein L36-A



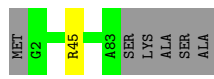
- Molecule 70: 60S ribosomal protein L36-A



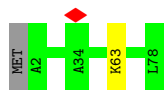
- Molecule 71: 60S ribosomal protein L37-A



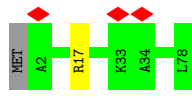
- Molecule 71: 60S ribosomal protein L37-A



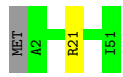
• Molecule 72: 60S ribosomal protein L38



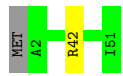
• Molecule 72: 60S ribosomal protein L38



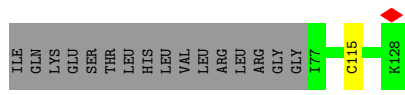
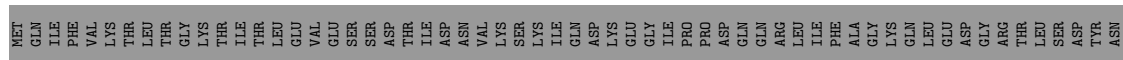
• Molecule 73: 60S ribosomal protein L39



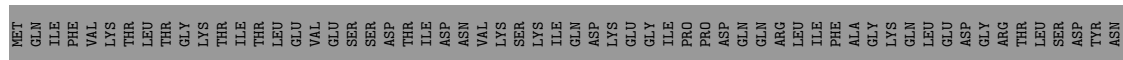
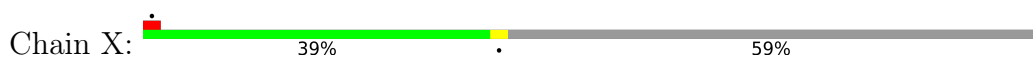
• Molecule 73: 60S ribosomal protein L39

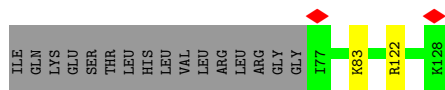


• Molecule 74: Ubiquitin-60S ribosomal protein L40

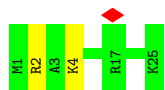


• Molecule 74: Ubiquitin-60S ribosomal protein L40

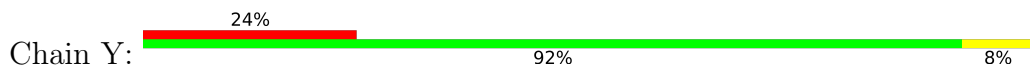




• Molecule 75: 60S ribosomal protein L41-A



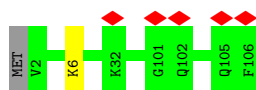
• Molecule 75: 60S ribosomal protein L41-A



• Molecule 76: 60S ribosomal protein L42-A



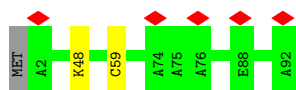
• Molecule 76: 60S ribosomal protein L42-A



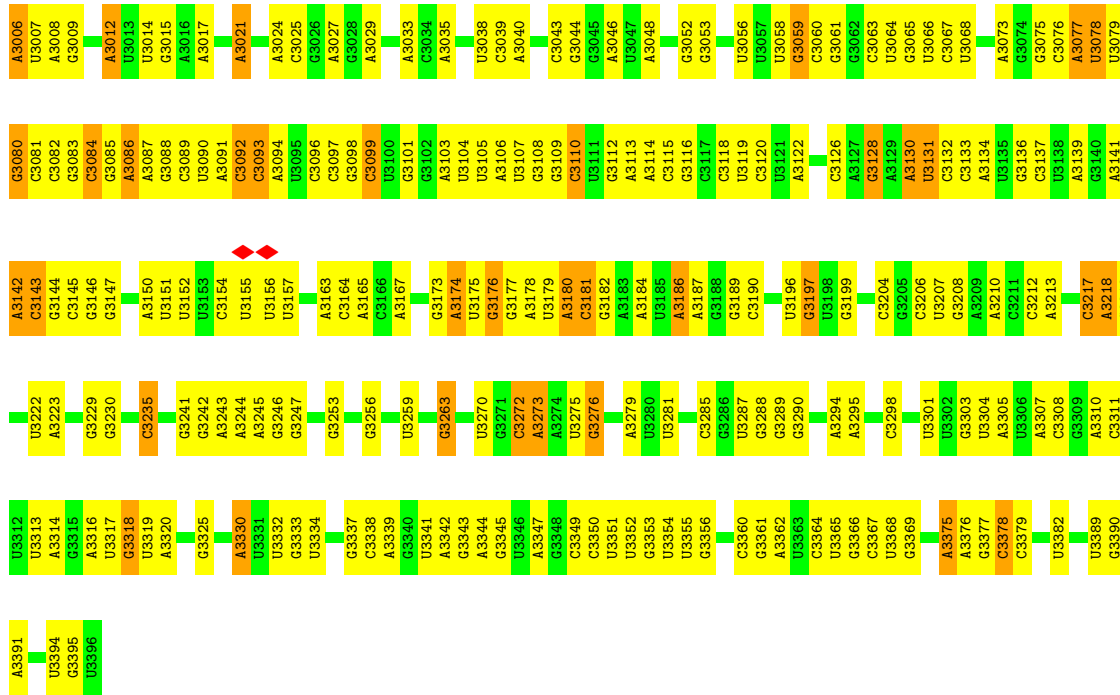
• Molecule 77: 60S ribosomal protein L43-A



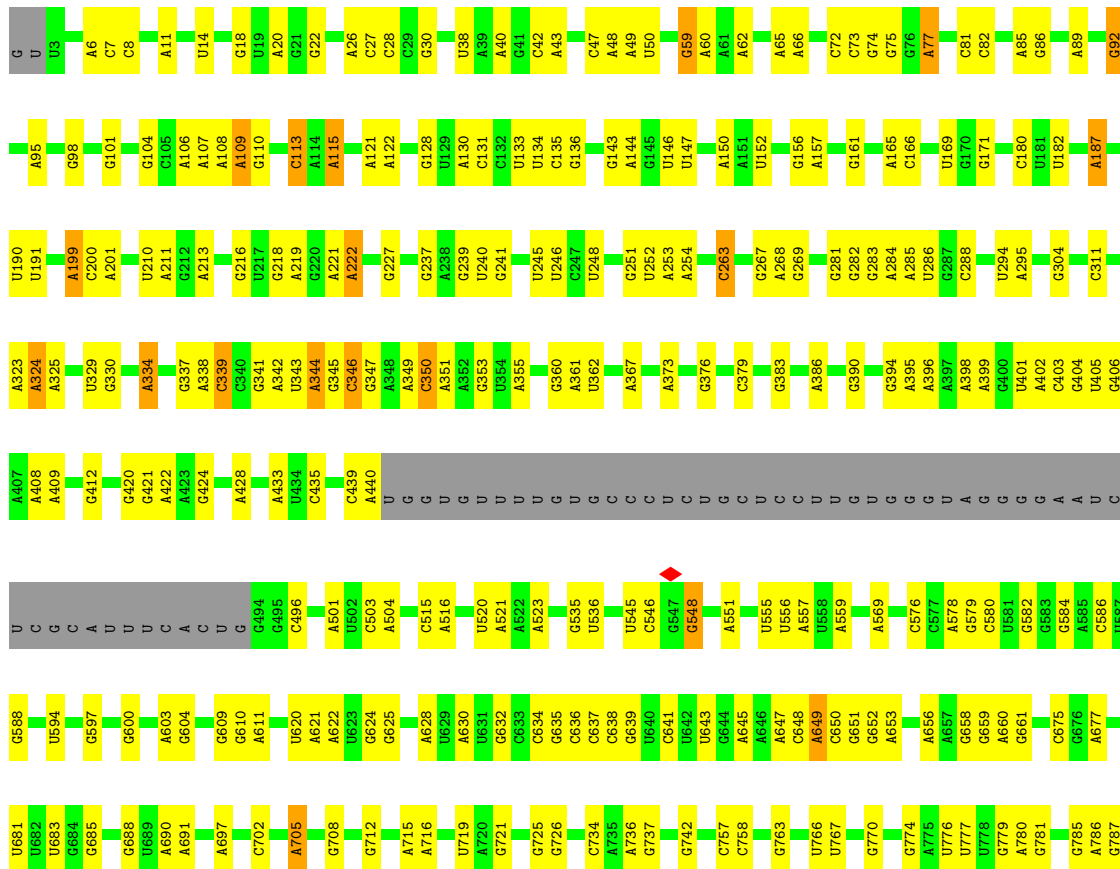
• Molecule 77: 60S ribosomal protein L43-A



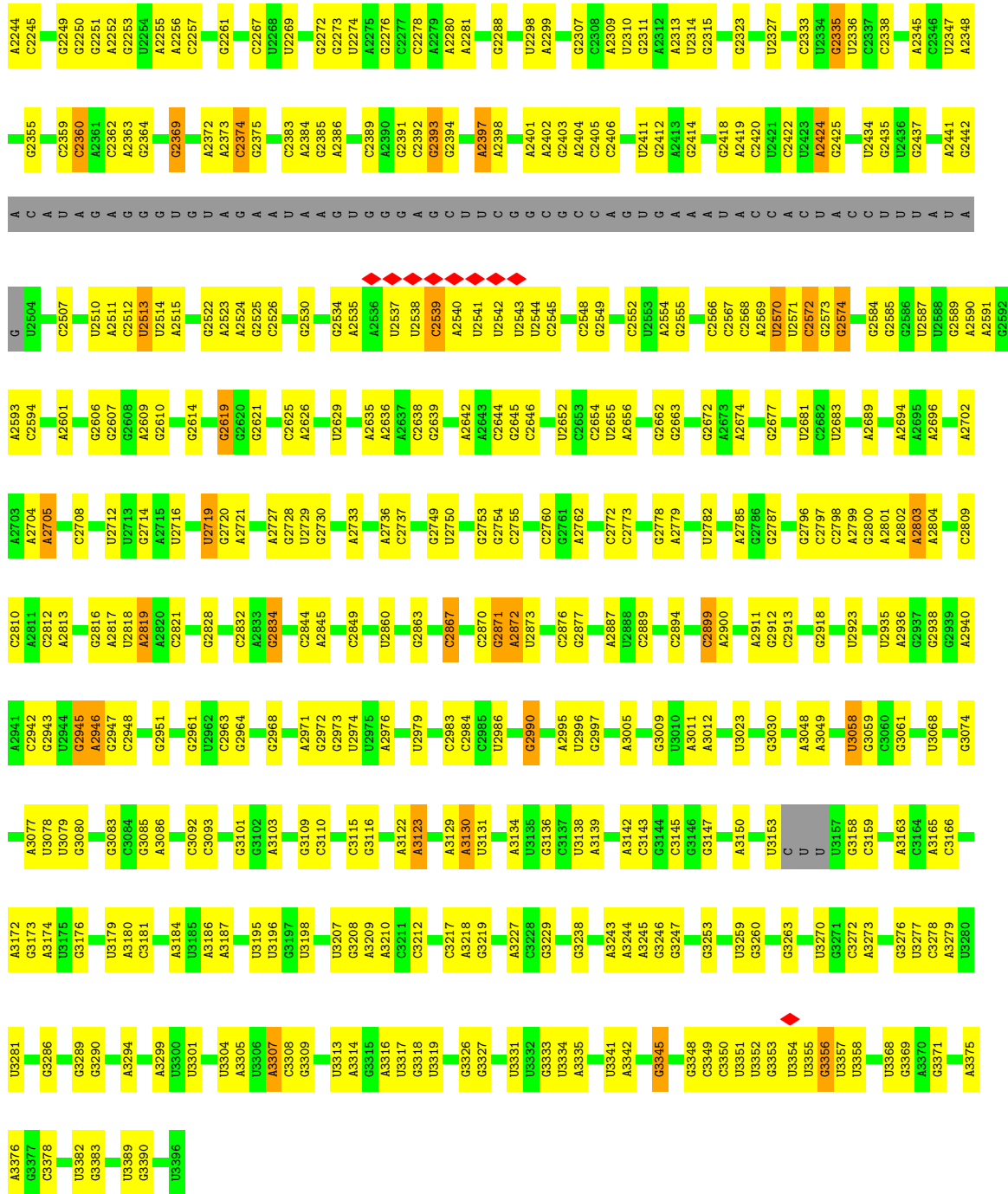
• Molecule 78: 25S rRNA



• Molecule 78: 25S rRNA



C2114	A884	U1096	C1187	A1301	G1400	U1494	C1574	U1705	A1809	G1898	C	U	C2114
C2115	A885	G1097	U1188	A1302	G1404	U1495	A1575	A1714	A1813	G1899	G	G	C2115
A2119	C886	A1098	C1189	A1303	G1404	U1496	G1576	A1715	A1814	C1904	U	U	A2119
G2120	C887	G1101	A1190	A1304	G1414	C1496	C1577	U1716	A1815	G1905	A	A	G2120
G2121	A888	A1102	U1191	G1305	A1419	C1499	C1578	U1717	U1816	G1906	G	G	G2121
G2122	G889	A1103	C1198	G1306	A1420	U1503	A1580	U1718	C1817	A1910	U	U	G2122
G2123	C802	A1104	A1199	G1307	G1421	A1504	C1582	G1719	U1818	A1910	U	U	G2123
G2130	C803	G1107	A1200	A1308	G1422	C1505	A1583	U1720	U1819	C1923	G	G	G2130
A2131	G805	G1115	A1201	U1309	C1423	A1508	A1584	U1721	U1820	C1923	C	C	A2131
G2132	A806	G1116	A1202	A1310	C1426	C1509	A1587	U1722	U1821	G1927	U	U	G2132
U2137	A807	C1117	G1222	G1312	U1427	A1510	A1588	A1723	U1837	A1930	U	U	U2137
A2138	G809	C1119	A1223	G1313	U1428	U1511	A1589	U1724	G1837	U1931	U	U	A2138
A2139	A810	C1119	A1223	C1314	A1429	U1511	G1590	C1725	G1838	U1931	G	G	A2139
A2142	G815	G1126	U1235	U1315	G1429	G1521	G1591	C1726	U1840	A1932	U	U	A2142
C2146	A816	G1129	G1236	A1316	C1432	U1522	G1592	U1736	A1842	A1933	A	A	C2146
A2149	A817	A1129	G1237	A1317	A1433	U1523	A1593	A1741	C1843	G1934	U	U	A2149
A2158	C818	A1130	C1239	C1320	G1434	A1524	A1594	A1741	C1844	G1935	U	U	A2158
A2164	G822	A1131	G1240	U1325	A1436	G1525	A1602	A1750	C1845	U1938	C	C	A2164
G2165	C823	G1131	U1241	U1328	C1437	G1528	A1605	G1751	C1846	C1941	U	U	G2165
A2166	C824	C1132	G1242	U1329	C1441	A1529	A1607	A1752	G1847	C1942	U	U	A2166
G2169	G826	G1133	G1243	U1330	U1442	U1532	U1607	C1755	G1848	G1943	U	U	G2169
U2170	A827	A1133	A1244	A1330	G1443	U1533	C1608	C1756	C1849	C1947	U	U	U2170
G2178	U829	C1136	G1246	C1333	G1444	A1534	U1620	U1760	C1854	G1952	G	G	G2178
U2184	A830	G1140	A1259	A1343	U1445	U1540	U1629	C1761	A1854	G1953	U	U	U2184
U2186	G831	C1141	A1262	U1346	U1446	U1541	U1639	C1762	G1855	G1953	U	U	U2186
G2187	G832	U1032	G1262	U1347	U1447	U1541	U1639	U1763	U1871	G	U	C	G2187
C2204	A836	U1033	A1263	U1348	G1447	A1546	G1635	U1764	U1872	U	U	U	C2204
U2205	A837	U1034	A1264	G	U1450	G1547	U1636	U1765	C1872	U	U	U	U2205
G2206	A838	G1035	G1264	U	A1451	U1547	U1637	U1766	U1873	U	U	U	G2206
A2207	U839	A1036	U1265	U	A1452	U1549	C1639	C1767	A1874	U	U	U	A2207
A2208	A846	U1041	G1266	U	A1453	U1549	U1642	U1770	G1875	U	U	U	A2208
U2209	C849	U1047	U1267	A1352	U1454	C1550	A1642	C1770	U1878	U	U	U	U2209
G2210	G856	A1048	U1268	U1353	A1456	C1551	A1643	C1773	A1879	U	U	U	G2210
A2214	G857	A1049	G1268	G1354	A1457	U1554	C1644	U1774	U1880	U	U	U	A2214
A2223	A858	C1049	U1269	A1355	U1458	U1555	U1645	G1775	U1881	U	U	U	A2223
A2228	C861	G1059	A1271	U1356	C1459	A1556	A1654	U1780	G1882	U	U	U	A2228
A2229	G867	G1161	A1272	G1357	C1459	A1557	G1655	C1781	U1883	U	U	U	A2229
G2234	U871	G1176	C1272	U1358	U1464	U1558	G1656	C1788	A1884	U	U	U	G2234
G2239	U874	C1176	A1274	U1359	A1465	A1559	C1657	U1791	U1885	U	U	U	G2239
A2242	G875	C1177	U1276	U1360	A1466	G1560	G1658	C1792	U1886	U	U	U	A2242
A2243	U878	G1178	U1277	U1361	U1470	U1564	G1662	U1793	A1886	U	U	U	A2243
	G879	G1179	C1277	A1381	A1474	G	A1667	G1796	U1887	U	U	U	
	U879	G1179	G1282	A1381	A1475	A	G1677	A1797	A1888	U	U	U	
	G880	U1081	C1283	A1386	A1476	U	A1683	A1798	U1889	U	U	U	
	C881	U1082	C1284	G1387	G1480	U	U1695	U1804	A1893	U	U	U	
	U879	U1181	G1285	G1387	A1481	U	C1701	C1805	U1894	U	U	U	
	G882	A1182	A1286	A1397	A1482	U		A1806	A1895	U	U	U	
	U876	C1185	A1287	U1398	G1483	U		G1807	A1896	U	U	U	
	A883	G1186	C1292	A1399	G1488	G1573		G1808	G1897	U	U	U	
			G1295										
			C1298										

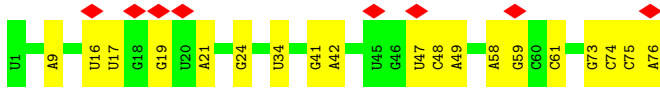


• Molecule 79: tRNA

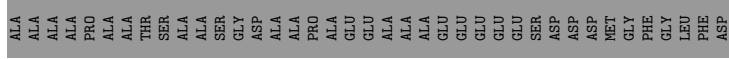
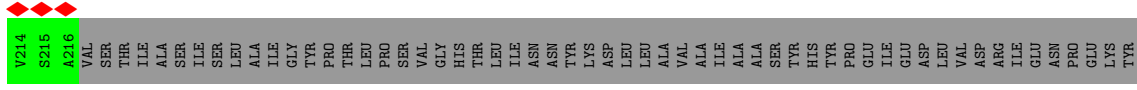
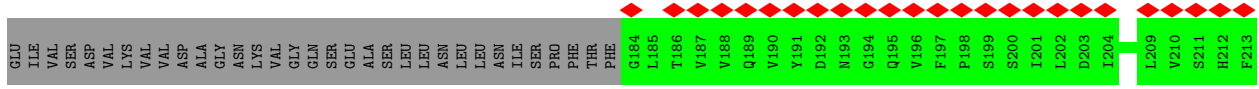
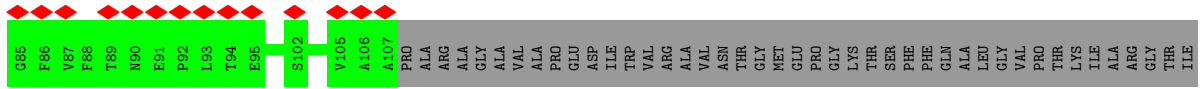
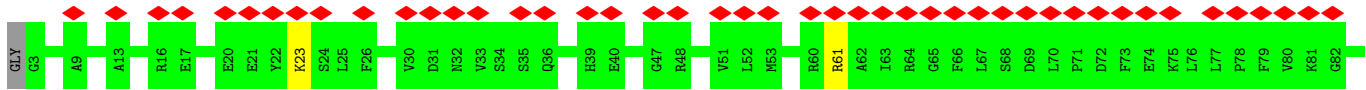
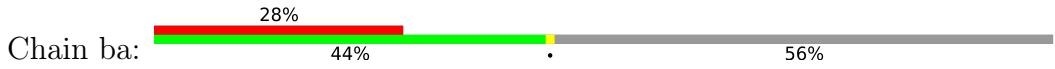


• Molecule 79: tRNA





• Molecule 80: 60S acidic ribosomal protein P0



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	19459	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	2.5	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	FEI FALCON II (4k x 4k)	Depositor
Maximum map value	0.335	Depositor
Minimum map value	-0.031	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.010	Depositor
Recommended contour level	0.02	Depositor
Map size (Å)	574.52, 574.52, 574.52	wwPDB
Map dimensions	530, 530, 530	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.084, 1.084, 1.084	Depositor

5 Model quality [i](#)

5.1 Standard geometry [i](#)

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	2b	1.84	750/42211 (1.8%)	1.64	1016/65773 (1.5%)
1	a	1.40	19/41891 (0.0%)	1.22	201/65273 (0.3%)
2	Ab	0.75	0/1644	0.66	0/2249
2	b	0.40	0/1623	0.64	1/2222 (0.0%)
3	Ba	0.85	2/1823 (0.1%)	0.76	0/2447
3	c	0.40	0/1748	0.60	0/2352
4	Pb	0.71	0/936	0.64	0/1259
4	q	0.36	0/959	0.63	0/1288
5	Cb	1.04	5/1656 (0.3%)	0.74	0/2251
5	d	0.45	0/1665	0.60	0/2263
6	Db	0.74	0/1754	0.65	0/2361
6	e	0.38	0/1759	0.58	0/2368
7	Eb	0.92	1/2097 (0.0%)	0.72	0/2823
7	f	0.40	0/2109	0.62	0/2839
8	Fb	0.76	0/1625	0.67	0/2197
8	g	0.37	0/1629	0.59	0/2202
9	Gb	0.67	0/1839	0.75	0/2460
9	h	0.39	0/1779	0.64	0/2379
10	Hb	0.76	0/1498	0.67	0/2019
10	i	0.37	0/1511	0.61	0/2036
11	Ib	0.96	2/1501 (0.1%)	0.77	0/2006
11	j	0.43	0/1514	0.63	0/2021
12	Jb	0.86	1/1504 (0.1%)	0.75	1/2016 (0.0%)
12	k	0.40	0/1519	0.60	0/2035
13	Kb	0.66	0/769	0.59	0/1039
13	l	0.38	0/757	0.57	0/1022
14	Lb	1.19	1/1185 (0.1%)	0.74	0/1598
14	m	0.44	0/1194	0.63	0/1610
15	Mb	0.40	0/883	0.70	0/1199
15	n	0.33	0/898	0.64	0/1220
16	Nb	1.08	1/1215 (0.1%)	0.75	0/1638
16	o	0.46	0/1215	0.62	0/1638
17	Ob	0.98	0/937	0.87	0/1261
17	p	0.43	0/960	0.71	1/1290 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
18	Qb	0.86	0/1125	0.69	0/1510
18	r	0.41	0/1125	0.64	0/1510
19	Rb	0.72	0/957	0.72	2/1283 (0.2%)
19	s	0.37	0/1010	0.60	0/1355
20	Sb	0.63	0/1211	0.68	0/1628
20	t	0.39	0/1211	0.64	0/1628
21	Tb	0.78	0/1130	0.69	0/1517
21	u	0.40	0/1130	0.58	0/1517
22	Ub	0.79	0/807	0.68	0/1091
22	v	0.41	0/815	0.60	0/1102
23	Vb	0.89	0/682	0.72	0/921
23	w	0.47	0/693	0.61	0/935
24	Wb	1.12	1/1038 (0.1%)	0.80	0/1395
24	x	0.49	0/1038	0.65	1/1395 (0.1%)
25	Xb	1.07	1/1139 (0.1%)	0.76	0/1518
25	y	0.49	0/1139	0.64	0/1518
26	Yb	0.77	0/1087	0.69	0/1449
26	z	0.42	0/1087	0.66	0/1449
27	0	0.36	0/566	0.61	0/761
27	Zb	0.60	0/661	0.67	0/888
28	1	0.50	0/782	0.70	0/1047
28	ab	1.16	2/782 (0.3%)	0.89	2/1047 (0.2%)
29	2	0.37	0/620	0.59	0/838
29	bb	0.82	1/620 (0.2%)	0.72	0/838
30	4	1.27	2/452 (0.4%)	1.14	2/600 (0.3%)
30	db	0.94	0/452	0.74	0/600
31	5	0.40	0/483	0.61	0/643
31	eb	0.79	0/480	0.72	1/639 (0.2%)
32	6	0.36	0/567	0.59	0/764
32	fb	0.53	0/567	0.69	0/764
33	7	0.34	0/2456	0.58	0/3343
33	gb	0.59	0/2436	0.66	0/3318
34	3	0.38	0/499	0.67	0/670
34	cb	0.83	0/493	0.77	0/663
35	4b	1.77	33/2883 (1.1%)	1.58	62/4491 (1.4%)
35	Bb	1.11	0/2883	1.26	17/4491 (0.4%)
36	3b	2.14	109/3746 (2.9%)	1.82	142/5832 (2.4%)
36	Ca	1.28	5/3724 (0.1%)	1.38	42/5798 (0.7%)
37	Ay	1.25	7/1933 (0.4%)	0.85	1/2598 (0.0%)
37	Da	0.72	0/1946	0.73	2/2614 (0.1%)
38	By	1.20	5/3146 (0.2%)	0.80	5/4228 (0.1%)
38	Ea	0.63	0/3146	0.68	0/4228
39	Cy	1.24	14/2800 (0.5%)	0.79	1/3790 (0.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
39	Fa	0.66	1/2800 (0.0%)	0.69	2/3790 (0.1%)
40	Dy	0.82	0/2400	0.69	2/3239 (0.1%)
40	Ga	0.52	0/2408	0.62	0/3248
41	Ey	0.88	1/1324 (0.1%)	0.74	1/1782 (0.1%)
41	Ha	0.57	0/1269	0.62	0/1705
42	Fy	1.19	4/1821 (0.2%)	0.78	2/2451 (0.1%)
42	Ia	0.67	0/1828	0.66	0/2461
43	Gy	0.95	1/1836 (0.1%)	0.74	0/2481
43	Ja	0.53	0/1795	0.58	0/2429
44	Hy	0.90	0/1529	0.71	0/2060
44	Ka	0.58	0/1531	0.62	0/2062
45	Iy	0.97	2/1801 (0.1%)	0.73	0/2416
45	La	0.58	0/1732	0.62	0/2323
46	Jy	0.79	0/1371	0.68	0/1838
46	Ma	0.42	0/1374	0.68	0/1842
47	Ly	1.16	5/1568 (0.3%)	0.79	3/2106 (0.1%)
47	Na	0.60	0/1573	0.71	0/2113
48	My	0.87	0/1068	0.75	0/1438
48	Oa	0.54	0/1074	0.67	0/1446
49	Ny	1.48	13/1757 (0.7%)	0.90	6/2354 (0.3%)
49	Pa	0.80	2/1757 (0.1%)	0.76	0/2354
50	Oy	1.30	6/1585 (0.4%)	0.75	0/2128
50	Qa	0.72	0/1585	0.66	1/2128 (0.0%)
51	A	0.69	0/1400	0.65	0/1882
51	Py	1.26	5/1439 (0.3%)	0.84	0/1938
52	B	0.58	0/1465	0.71	0/1965
52	Qy	1.13	1/1465 (0.1%)	0.77	2/1965 (0.1%)
53	C	0.59	0/1499	0.66	2/1998 (0.1%)
53	Ry	1.06	2/1532 (0.1%)	0.77	1/2043 (0.0%)
54	D	0.66	0/1481	0.66	0/1990
54	Sy	1.14	3/1473 (0.2%)	0.73	0/1980
55	E	0.68	0/1300	0.70	2/1743 (0.1%)
55	Ty	1.16	1/1300 (0.1%)	0.75	1/1743 (0.1%)
56	F	0.51	0/794	0.58	0/1076
56	Uy	0.75	0/812	0.68	0/1099
57	G	0.61	0/1008	0.65	0/1356
57	Vy	1.21	4/1018 (0.4%)	0.83	3/1369 (0.2%)
58	H	2.21	1/1103 (0.1%)	0.76	3/1458 (0.2%)
58	Wy	0.89	1/863 (0.1%)	0.65	0/1169
59	I	0.65	0/974	0.66	0/1314
59	Xy	1.10	1/979 (0.1%)	0.72	0/1321
60	J	0.56	0/987	0.69	0/1318
60	Yy	1.00	0/995	0.81	0/1329

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
61	K	0.57	0/1118	0.61	0/1497
61	Zy	1.03	0/1118	0.67	0/1497
62	L	0.68	0/1204	0.71	0/1612
62	ay	1.22	2/1204 (0.2%)	0.82	1/1612 (0.1%)
63	M	0.53	0/473	0.73	0/629
63	by	0.96	0/473	0.69	0/629
64	N	0.62	0/775	0.61	0/1040
64	cy	1.10	1/745 (0.1%)	0.74	0/1001
65	O	0.64	0/897	0.66	0/1205
65	dy	1.11	0/890	0.79	1/1196 (0.1%)
66	P	0.65	0/1041	0.65	0/1394
66	ey	1.14	3/1038 (0.3%)	0.74	0/1390
67	Q	0.76	0/868	0.69	0/1168
67	fy	1.36	3/868 (0.3%)	0.80	0/1168
68	R	0.67	0/890	0.72	0/1189
68	gy	1.23	2/890 (0.2%)	0.82	1/1189 (0.1%)
69	S	0.53	0/974	0.65	0/1297
69	hb	1.03	1/978 (0.1%)	0.71	0/1301
70	T	0.54	0/777	0.66	0/1033
70	ib	0.95	2/772 (0.3%)	0.71	0/1026
71	U	0.82	0/665	0.82	2/882 (0.2%)
71	jb	1.39	3/685 (0.4%)	0.89	1/908 (0.1%)
72	V	0.46	0/614	0.65	0/822
72	kb	0.76	0/618	0.66	0/826
73	W	0.73	0/443	0.75	1/588 (0.2%)
73	lb	1.30	0/443	0.82	0/588
74	X	0.52	0/423	0.65	1/562 (0.2%)
74	mb	0.96	1/423 (0.2%)	0.73	0/562
75	Y	0.46	0/234	0.75	0/300
75	nb	0.93	0/230	0.98	2/296 (0.7%)
76	Z	0.63	0/860	0.70	0/1136
76	ob	1.01	0/836	0.79	1/1104 (0.1%)
77	aa	0.75	0/701	0.67	0/934
77	pb	1.38	5/701 (0.7%)	0.83	4/934 (0.4%)
78	1b	2.21	2892/76214 (3.8%)	1.81	2772/118821 (2.3%)
78	Aa	1.29	109/74873 (0.1%)	1.38	699/116727 (0.6%)
79	6b	1.50	9/1804 (0.5%)	1.54	35/2809 (1.2%)
79	8	0.57	0/1804	1.04	1/2809 (0.0%)
80	ba	0.37	0/1067	0.61	0/1439
All	All	1.43	4049/431658 (0.9%)	1.29	5053/634238 (0.8%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected

by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
2	Ab	0	1
2	b	0	5
3	Ba	0	6
4	Pb	0	1
4	q	0	3
5	Cb	0	3
7	Eb	0	1
7	f	0	1
8	g	0	2
9	h	0	3
10	Hb	0	2
10	i	0	4
11	Ib	0	2
11	j	0	1
12	Jb	0	4
13	l	0	1
14	Lb	0	1
15	Mb	0	4
15	n	0	3
16	o	0	1
17	Ob	0	2
17	p	0	1
18	Qb	0	3
18	r	0	2
20	Sb	0	2
20	t	0	3
21	Tb	0	2
22	Ub	0	1
22	v	0	3
24	Wb	0	2
25	Xb	0	3
26	z	0	2
28	1	0	1
28	ab	0	3
30	4	0	3
31	5	0	2
32	6	0	4
32	fb	0	3
33	gb	0	1
38	By	0	3
39	Fa	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
42	Fy	0	1
43	Gy	0	3
44	Hy	0	2
45	La	0	1
46	Jy	0	2
46	Ma	0	4
47	Ly	0	1
47	Na	0	5
49	Ny	0	2
49	Pa	0	1
50	Oy	0	2
50	Qa	0	1
52	Qy	0	1
53	Ry	0	1
54	Sy	0	1
55	E	0	1
55	Ty	0	1
57	G	0	1
57	Vy	0	1
58	H	0	4
60	Yy	0	1
61	K	0	1
62	L	0	2
62	ay	0	3
63	M	0	2
63	by	0	3
64	cy	0	1
69	hb	0	1
All	All	0	146

All (4049) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	a	1597	A	N3-C4	114.04	2.03	1.34
1	a	1597	A	C6-N1	113.96	2.15	1.35
1	a	1597	A	N1-C2	87.38	2.12	1.34
1	a	1597	A	C2-N3	73.39	1.99	1.33
1	a	1597	A	C5-C4	72.97	1.89	1.38
58	H	116	LYS	CG-CD	71.11	3.94	1.52
1	a	1597	A	C5-C6	64.12	1.98	1.41
1	a	74	U	C2-N3	45.21	1.69	1.37
1	a	74	U	N3-C4	33.58	1.68	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	a	74	U	N1-C2	31.84	1.67	1.38
1	a	74	U	N1-C6	30.64	1.65	1.38
1	a	74	U	C4-C5	29.10	1.69	1.43
1	a	74	U	C5-C6	27.20	1.58	1.34
30	4	13	ARG	C-N	17.07	1.73	1.34
30	4	14	TYR	N-CA	16.75	1.79	1.46
78	1b	846	A	N7-C5	-11.69	1.32	1.39
47	Ly	21	ARG	CA-CB	-11.67	1.28	1.53
47	Ly	54	LEU	C-N	-11.62	1.07	1.34
78	1b	2630	C	N1-C6	-11.21	1.30	1.37
78	1b	920	A	N9-C4	-10.91	1.31	1.37
78	1b	804	C	N1-C6	-10.85	1.30	1.37
5	Cb	92	ALA	CA-CB	-10.69	1.30	1.52
78	1b	1854	C	N1-C6	-10.62	1.30	1.37
78	1b	1176	C	N1-C6	-10.47	1.30	1.37
78	1b	2813	A	N9-C4	-10.23	1.31	1.37
78	1b	2338	C	N1-C6	-10.21	1.31	1.37
78	1b	2132	C	C4-C5	-10.18	1.34	1.43
78	1b	860	G	N9-C8	-10.04	1.30	1.37
78	1b	2810	C	C4-C5	-10.04	1.34	1.43
78	1b	803	C	C4-C5	-9.93	1.35	1.43
1	2b	1773	C	N1-C6	-9.87	1.31	1.37
36	3b	28	C	N1-C6	-9.87	1.31	1.37
78	1b	2407	C	N1-C6	-9.82	1.31	1.37
78	1b	1491	A	C6-N6	-9.77	1.26	1.33
78	1b	1426	C	N1-C6	-9.77	1.31	1.37
1	2b	331	A	N9-C4	-9.68	1.32	1.37
78	1b	637	C	C4-C5	-9.68	1.35	1.43
78	1b	342	A	N9-C4	-9.68	1.32	1.37
36	3b	106	C	N3-C4	-9.67	1.27	1.33
78	1b	2406	C	C4-C5	-9.65	1.35	1.43
78	1b	633	C	N1-C6	-9.62	1.31	1.37
3	Ba	33	LYS	C-N	-9.62	1.11	1.34
1	2b	974	A	N9-C4	-9.55	1.32	1.37
78	1b	1844	C	C4-C5	-9.52	1.35	1.43
78	1b	949	C	N1-C6	-9.45	1.31	1.37
78	1b	911	C	N1-C6	-9.43	1.31	1.37
78	1b	641	C	N1-C6	-9.40	1.31	1.37
78	1b	1792	C	N1-C6	-9.39	1.31	1.37
78	1b	804	C	C4-C5	-9.38	1.35	1.43
78	1b	634	C	N1-C6	-9.38	1.31	1.37
78	1b	1195	A	N9-C8	-9.38	1.30	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	327	A	N9-C4	-9.38	1.32	1.37
78	1b	1328	C	N1-C6	-9.36	1.31	1.37
78	1b	399	A	N9-C4	-9.35	1.32	1.37
78	1b	2182	A	N9-C4	-9.34	1.32	1.37
78	1b	1195	A	N9-C4	-9.32	1.32	1.37
78	1b	2610	G	N9-C8	-9.30	1.31	1.37
78	1b	3043	C	N1-C6	-9.26	1.31	1.37
78	1b	346	C	N1-C6	-9.22	1.31	1.37
78	1b	2354	C	C4-C5	-9.17	1.35	1.43
78	1b	650	C	C4-C5	-9.14	1.35	1.43
78	1b	2939	G	N9-C8	-9.11	1.31	1.37
78	1b	3093	C	N1-C6	-9.03	1.31	1.37
78	1b	339	C	N1-C6	-9.03	1.31	1.37
78	1b	1551	C	N1-C6	-9.01	1.31	1.37
78	1b	2397	A	N9-C4	-9.01	1.32	1.37
78	1b	1312	C	N1-C6	-8.97	1.31	1.37
78	1b	2812	C	N1-C6	-8.97	1.31	1.37
78	1b	2359	C	C4-C5	-8.94	1.35	1.43
78	1b	705	A	N9-C4	-8.93	1.32	1.37
78	1b	2322	C	N1-C6	-8.93	1.31	1.37
78	1b	2825	C	C4-C5	-8.93	1.35	1.43
78	1b	2864	A	N9-C4	-8.92	1.32	1.37
78	1b	2870	C	N1-C6	-8.89	1.31	1.37
78	1b	803	C	N1-C6	-8.88	1.31	1.37
78	1b	1137	C	N1-C6	-8.88	1.31	1.37
78	1b	2196	C	N1-C6	-8.85	1.31	1.37
78	1b	2967	A	C6-N6	-8.84	1.26	1.33
78	1b	2819	A	N3-C4	-8.83	1.29	1.34
78	1b	2333	C	N1-C6	-8.83	1.31	1.37
78	1b	3305	A	N9-C4	-8.82	1.32	1.37
78	1b	2985	C	N1-C6	-8.79	1.31	1.37
1	2b	1784	C	N1-C6	-8.78	1.31	1.37
78	1b	340	C	N1-C6	-8.76	1.31	1.37
78	1b	3060	C	N1-C6	-8.76	1.31	1.37
78	1b	807	A	N9-C4	-8.73	1.32	1.37
78	1b	2195	C	N1-C6	-8.73	1.31	1.37
78	1b	1843	C	C4-C5	-8.72	1.35	1.43
78	1b	31	C	C4-C5	-8.71	1.35	1.43
78	1b	802	C	N1-C6	-8.69	1.31	1.37
78	1b	2370	G	N9-C4	-8.69	1.30	1.38
78	1b	1505	C	N1-C6	-8.68	1.31	1.37
1	2b	1642	G	N9-C8	-8.68	1.31	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	663	C	N1-C6	-8.66	1.31	1.37
78	1b	2609	A	C6-N6	-8.66	1.27	1.33
78	1b	868	C	N1-C6	-8.65	1.31	1.37
1	2b	1121	C	N1-C6	-8.64	1.31	1.37
36	3b	11	C	C4-C5	-8.63	1.36	1.43
78	1b	2409	G	N9-C8	-8.63	1.31	1.37
78	1b	1440	G	N9-C8	-8.61	1.31	1.37
42	Fy	151	ARG	CA-CB	-8.60	1.35	1.53
78	1b	793	C	N1-C6	-8.59	1.31	1.37
78	1b	2339	C	N1-C6	-8.58	1.32	1.37
78	1b	2192	C	N1-C6	-8.58	1.32	1.37
78	1b	648	C	N1-C6	-8.57	1.32	1.37
78	1b	2963	C	C4-C5	-8.57	1.36	1.43
1	2b	309	C	N1-C6	-8.57	1.32	1.37
78	1b	3077	A	N9-C4	-8.57	1.32	1.37
78	1b	2362	C	C4-C5	-8.56	1.36	1.43
78	1b	861	C	N1-C6	-8.55	1.32	1.37
78	1b	109	A	N9-C4	-8.51	1.32	1.37
78	1b	929	A	N9-C4	-8.51	1.32	1.37
78	1b	2727	A	N9-C4	-8.50	1.32	1.37
78	1b	2991	A	N9-C4	-8.49	1.32	1.37
78	1b	2348	A	N7-C5	-8.48	1.34	1.39
78	1b	2365	C	N1-C6	-8.47	1.32	1.37
78	1b	815	G	N9-C8	-8.47	1.31	1.37
78	1b	931	C	N1-C6	-8.46	1.32	1.37
1	2b	1764	C	N1-C6	-8.46	1.32	1.37
78	1b	1856	C	C4-C5	-8.44	1.36	1.43
78	1b	2334	U	N1-C6	-8.43	1.30	1.38
78	1b	2991	A	N9-C8	-8.42	1.31	1.37
78	1b	1420	C	N1-C6	-8.41	1.32	1.37
78	1b	2183	A	N9-C4	-8.40	1.32	1.37
78	1b	1338	C	N1-C6	-8.39	1.32	1.37
78	1b	2367	A	C6-N6	-8.39	1.27	1.33
1	2b	331	A	C5-C6	-8.37	1.33	1.41
78	1b	345	G	N9-C8	-8.36	1.31	1.37
78	1b	860	G	N9-C4	-8.34	1.31	1.38
78	1b	2405	C	N1-C6	-8.34	1.32	1.37
78	1b	43	A	N9-C4	-8.34	1.32	1.37
78	1b	361	A	N9-C4	-8.34	1.32	1.37
1	2b	1784	C	C4-C5	-8.31	1.36	1.43
78	1b	1175	C	N1-C6	-8.31	1.32	1.37
78	1b	918	C	N1-C6	-8.30	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	2810	C	C5-C6	-8.29	1.27	1.34
78	1b	823	C	C4-C5	-8.29	1.36	1.43
78	1b	2150	G	N1-C2	-8.28	1.31	1.37
78	1b	63	A	N9-C4	-8.28	1.32	1.37
36	3b	57	C	N1-C6	-8.27	1.32	1.37
78	1b	2799	A	N9-C4	-8.26	1.32	1.37
78	1b	2150	G	C6-N1	-8.26	1.33	1.39
78	1b	2147	A	C6-N6	-8.26	1.27	1.33
78	1b	1379	G	N9-C8	-8.25	1.32	1.37
78	1b	1301	A	N9-C4	-8.25	1.32	1.37
78	1b	619	A	N9-C4	-8.24	1.32	1.37
78	1b	2202	C	N1-C6	-8.23	1.32	1.37
78	1b	1900	A	N9-C4	-8.23	1.32	1.37
78	1b	1160	C	N1-C6	-8.22	1.32	1.37
78	1b	1333	C	C4-C5	-8.21	1.36	1.43
78	1b	1406	A	N9-C4	-8.21	1.32	1.37
78	1b	806	A	N9-C4	-8.20	1.32	1.37
78	1b	2413	A	N9-C4	-8.19	1.32	1.37
78	1b	1333	C	N1-C6	-8.18	1.32	1.37
78	1b	224	C	N1-C6	-8.17	1.32	1.37
78	1b	1150	A	N9-C4	-8.17	1.32	1.37
78	1b	2270	A	N9-C4	-8.16	1.32	1.37
78	1b	949	C	C4-C5	-8.15	1.36	1.43
1	2b	13	C	N1-C6	-8.14	1.32	1.37
78	1b	881	C	N1-C6	-8.14	1.32	1.37
78	1b	273	A	N9-C4	-8.13	1.32	1.37
78	1b	2370	G	N9-C8	-8.13	1.32	1.37
78	1b	375	A	N9-C4	-8.13	1.32	1.37
78	1b	2213	A	N9-C4	-8.12	1.32	1.37
78	1b	2406	C	C5-C6	-8.12	1.27	1.34
1	2b	583	C	C4-C5	-8.11	1.36	1.43
78	1b	1799	A	C6-N6	-8.11	1.27	1.33
78	1b	289	A	N9-C4	-8.10	1.32	1.37
78	1b	1112	A	N9-C4	-8.08	1.33	1.37
78	1b	360	G	N9-C8	-8.07	1.32	1.37
78	1b	403	C	N3-C4	-8.06	1.28	1.33
78	1b	1170	A	N9-C4	-8.06	1.33	1.37
78	1b	1791	C	C4-C5	-8.04	1.36	1.43
78	1b	2248	C	N1-C6	-8.04	1.32	1.37
78	1b	2948	C	N1-C6	-8.04	1.32	1.37
36	3b	48	A	N9-C4	-8.03	1.33	1.37
78	1b	344	A	N9-C4	-8.03	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2b	344	A	N7-C5	-8.03	1.34	1.39
78	1b	28	C	N1-C6	-8.02	1.32	1.37
78	1b	944	C	C4-C5	-8.02	1.36	1.43
78	1b	27	C	N1-C6	-8.02	1.32	1.37
1	2b	615	A	N9-C4	-8.02	1.33	1.37
78	1b	2967	A	N9-C8	-8.01	1.31	1.37
1	2b	112	A	N9-C4	-8.00	1.33	1.37
78	1b	1893	A	C6-N6	-8.00	1.27	1.33
78	1b	1796	G	N9-C4	-7.99	1.31	1.38
78	1b	2635	A	N9-C4	-7.99	1.33	1.37
78	1b	1802	C	N1-C6	-7.98	1.32	1.37
78	1b	2988	C	N1-C6	-7.98	1.32	1.37
78	1b	1546	A	N9-C4	-7.98	1.33	1.37
78	1b	638	C	C4-C5	-7.98	1.36	1.43
78	1b	3048	A	N9-C4	-7.97	1.33	1.37
78	1b	709	A	N9-C4	-7.96	1.33	1.37
1	2b	572	C	N1-C6	-7.96	1.32	1.37
78	1b	2803	A	N9-C4	-7.96	1.33	1.37
78	1b	81	C	N1-C6	-7.96	1.32	1.37
78	1b	658	G	N7-C5	-7.96	1.34	1.39
78	1b	929	A	C6-N6	-7.96	1.27	1.33
78	1b	1424	C	C4-C5	-7.95	1.36	1.43
78	1b	2983	C	N1-C6	-7.95	1.32	1.37
1	2b	393	C	N1-C6	-7.95	1.32	1.37
78	1b	2278	C	N1-C6	-7.95	1.32	1.37
1	2b	99	C	N1-C6	-7.95	1.32	1.37
78	1b	1872	C	N1-C6	-7.95	1.32	1.37
78	1b	637	C	N1-C6	-7.94	1.32	1.37
1	2b	975	C	N1-C6	-7.93	1.32	1.37
78	1b	2874	G	N9-C8	-7.92	1.32	1.37
78	1b	123	A	N9-C4	-7.92	1.33	1.37
78	1b	2911	A	N9-C4	-7.92	1.33	1.37
78	1b	1102	A	N9-C4	-7.90	1.33	1.37
1	2b	1142	A	C6-N6	-7.89	1.27	1.33
1	2b	1322	A	C6-N6	-7.88	1.27	1.33
78	1b	2879	C	N1-C6	-7.87	1.32	1.37
78	1b	2155	G	N9-C8	-7.87	1.32	1.37
78	1b	1796	G	C2-N3	-7.87	1.26	1.32
78	1b	1544	G	N9-C8	-7.87	1.32	1.37
78	1b	2432	A	N9-C4	-7.87	1.33	1.37
78	1b	72	C	N1-C6	-7.86	1.32	1.37
78	Aa	346	C	N1-C6	-7.86	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	1803	C	N1-C6	-7.85	1.32	1.37
78	1b	1327	C	N1-C6	-7.85	1.32	1.37
78	1b	2197	C	N1-C6	-7.85	1.32	1.37
78	1b	1199	C	N1-C6	-7.85	1.32	1.37
78	1b	1941	C	N1-C6	-7.84	1.32	1.37
1	2b	1783	C	N1-C6	-7.81	1.32	1.37
36	3b	47	C	C4-C5	-7.81	1.36	1.43
78	1b	2985	C	C4-C5	-7.81	1.36	1.43
78	1b	2804	A	N9-C4	-7.81	1.33	1.37
78	1b	2147	A	N9-C4	-7.80	1.33	1.37
78	1b	2394	G	N9-C4	-7.80	1.31	1.38
78	1b	928	C	N1-C6	-7.80	1.32	1.37
78	1b	2591	A	N9-C4	-7.79	1.33	1.37
78	1b	2984	C	C4-C5	-7.79	1.36	1.43
78	1b	1454	A	C5-C6	-7.79	1.34	1.41
78	1b	2884	C	N1-C6	-7.79	1.32	1.37
78	1b	958	C	N1-C6	-7.78	1.32	1.37
78	1b	992	A	N9-C4	-7.78	1.33	1.37
78	1b	661	G	N9-C4	-7.78	1.31	1.38
78	1b	1491	A	C6-N1	-7.77	1.30	1.35
1	2b	1195	C	N1-C6	-7.76	1.32	1.37
78	1b	2398	A	N9-C4	-7.75	1.33	1.37
78	1b	349	A	N9-C4	-7.74	1.33	1.37
78	1b	611	A	N9-C4	-7.74	1.33	1.37
78	1b	2819	A	N9-C4	-7.74	1.33	1.37
78	1b	1152	G	C2-N3	-7.74	1.26	1.32
78	1b	1527	C	C4-C5	-7.73	1.36	1.43
1	2b	975	C	C4-C5	-7.73	1.36	1.43
78	1b	54	C	N1-C6	-7.73	1.32	1.37
78	1b	3043	C	N3-C4	-7.73	1.28	1.33
78	1b	27	C	C4-C5	-7.73	1.36	1.43
1	2b	1636	C	N1-C6	-7.72	1.32	1.37
78	1b	1497	C	N1-C6	-7.72	1.32	1.37
78	1b	1423	C	C4-C5	-7.72	1.36	1.43
78	1b	895	A	C5-C6	-7.71	1.34	1.41
78	1b	951	A	N9-C4	-7.71	1.33	1.37
78	1b	2804	A	C6-N6	-7.71	1.27	1.33
78	1b	2305	G	N9-C8	-7.71	1.32	1.37
1	2b	1132	A	C6-N6	-7.71	1.27	1.33
78	1b	1364	C	N3-C4	-7.70	1.28	1.33
78	1b	2324	A	N9-C4	-7.70	1.33	1.37
1	2b	1088	A	C6-N6	-7.68	1.27	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	910	G	N9-C8	-7.68	1.32	1.37
36	3b	19	C	N1-C6	-7.68	1.32	1.37
78	1b	817	A	N9-C8	-7.68	1.31	1.37
1	2b	1641	C	N1-C6	-7.67	1.32	1.37
78	1b	2362	C	N1-C6	-7.67	1.32	1.37
1	2b	931	C	N1-C6	-7.66	1.32	1.37
1	2b	1152	A	C5-C6	-7.66	1.34	1.41
1	2b	360	A	N9-C4	-7.66	1.33	1.37
78	1b	881	C	C4-C5	-7.65	1.36	1.43
78	1b	936	A	N9-C4	-7.65	1.33	1.37
78	1b	2354	C	N1-C6	-7.64	1.32	1.37
1	2b	1728	A	N9-C4	-7.64	1.33	1.37
78	1b	1608	C	C4-C5	-7.64	1.36	1.43
78	1b	344	A	C6-N6	-7.64	1.27	1.33
78	1b	2987	A	N9-C4	-7.64	1.33	1.37
78	1b	931	C	C4-C5	-7.63	1.36	1.43
78	1b	1141	C	N1-C6	-7.63	1.32	1.37
78	1b	1901	A	C6-N6	-7.62	1.27	1.33
78	1b	1156	C	N1-C6	-7.62	1.32	1.37
36	3b	137	C	N1-C6	-7.62	1.32	1.37
1	2b	636	A	N9-C4	-7.62	1.33	1.37
78	1b	2335	G	N9-C4	-7.62	1.31	1.38
78	1b	2816	G	N9-C8	-7.62	1.32	1.37
78	1b	2734	A	N9-C4	-7.61	1.33	1.37
1	2b	1674	C	C4-C5	-7.61	1.36	1.43
78	1b	2128	C	N1-C6	-7.61	1.32	1.37
78	1b	2149	A	N9-C4	-7.61	1.33	1.37
78	1b	2354	C	N3-C4	-7.61	1.28	1.33
78	1b	403	C	N1-C6	-7.60	1.32	1.37
78	1b	1313	G	N9-C8	-7.60	1.32	1.37
78	1b	3076	C	C4-C5	-7.60	1.36	1.43
78	1b	929	A	C6-N1	-7.60	1.30	1.35
78	1b	2392	C	N1-C6	-7.59	1.32	1.37
78	1b	2810	C	C4-N4	-7.59	1.27	1.33
35	4b	84	A	C6-N6	-7.59	1.27	1.33
78	1b	938	C	N1-C6	-7.59	1.32	1.37
78	1b	2968	G	N9-C8	-7.58	1.32	1.37
78	1b	638	C	N1-C6	-7.58	1.32	1.37
78	1b	2608	G	N9-C4	-7.58	1.31	1.38
78	1b	2366	C	C4-C5	-7.57	1.36	1.43
49	Ny	191	TRP	CB-CG	-7.57	1.36	1.50
36	3b	30	C	N1-C6	-7.57	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	3b	141	C	N1-C6	-7.56	1.32	1.37
1	2b	1034	C	N1-C6	-7.56	1.32	1.37
78	1b	1921	A	N9-C4	-7.56	1.33	1.37
78	1b	1330	A	N9-C4	-7.55	1.33	1.37
78	1b	60	A	C6-N6	-7.55	1.27	1.33
78	1b	3308	C	N1-C6	-7.55	1.32	1.37
78	1b	107	A	N9-C4	-7.55	1.33	1.37
78	1b	2876	C	N1-C6	-7.55	1.32	1.37
78	1b	647	A	C6-N6	-7.54	1.27	1.33
78	1b	1845	G	N9-C4	-7.54	1.31	1.38
39	Cy	106	TRP	CB-CG	-7.53	1.36	1.50
78	1b	836	A	N9-C4	-7.53	1.33	1.37
78	1b	271	C	N1-C6	-7.53	1.32	1.37
78	1b	2636	A	N9-C4	-7.53	1.33	1.37
78	1b	824	C	C4-C5	-7.53	1.36	1.43
78	1b	938	C	N3-C4	-7.53	1.28	1.33
78	1b	2977	G	N9-C8	-7.52	1.32	1.37
78	1b	1899	G	N9-C8	-7.52	1.32	1.37
78	1b	2354	C	C5-C6	-7.52	1.28	1.34
78	1b	2879	C	N3-C4	-7.51	1.28	1.33
78	1b	352	A	N9-C8	-7.50	1.31	1.37
78	1b	670	C	N1-C6	-7.49	1.32	1.37
36	3b	11	C	N1-C6	-7.49	1.32	1.37
78	1b	93	C	N1-C6	-7.49	1.32	1.37
78	1b	948	C	C4-C5	-7.49	1.36	1.43
28	ab	12	LYS	CA-CB	-7.48	1.37	1.53
1	2b	1192	C	N1-C6	-7.48	1.32	1.37
78	1b	1749	A	N9-C4	-7.48	1.33	1.37
78	1b	2977	G	C6-N1	-7.47	1.34	1.39
78	1b	886	C	N1-C6	-7.47	1.32	1.37
78	1b	290	G	N9-C8	-7.46	1.32	1.37
78	1b	2988	C	C4-C5	-7.46	1.36	1.43
78	1b	1359	C	N1-C6	-7.45	1.32	1.37
78	1b	332	C	N1-C6	-7.45	1.32	1.37
1	2b	1142	A	C5-C6	-7.44	1.34	1.41
78	1b	1152	G	N9-C4	-7.44	1.31	1.38
1	2b	1088	A	C5-C6	-7.43	1.34	1.41
78	1b	583	G	N9-C8	-7.43	1.32	1.37
78	1b	2360	C	N1-C6	-7.43	1.32	1.37
78	1b	320	G	N9-C4	-7.43	1.32	1.38
1	2b	628	G	C6-N1	-7.42	1.34	1.39
78	1b	321	C	N1-C6	-7.42	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	906	A	C6-N6	-7.42	1.28	1.33
78	1b	1372	C	N1-C6	-7.42	1.32	1.37
78	1b	2809	C	C4-C5	-7.41	1.37	1.43
1	2b	962	C	N1-C6	-7.41	1.32	1.37
78	1b	661	G	N9-C8	-7.41	1.32	1.37
78	1b	1901	A	C5-C6	-7.41	1.34	1.41
1	2b	1090	C	C4-C5	-7.41	1.37	1.43
1	2b	943	C	C4-C5	-7.41	1.37	1.43
78	1b	2134	G	N9-C8	-7.41	1.32	1.37
78	1b	1447	G	N9-C4	-7.40	1.32	1.38
78	1b	2956	A	N9-C4	-7.40	1.33	1.37
78	1b	52	A	N3-C4	-7.40	1.30	1.34
78	1b	886	C	C4-C5	-7.39	1.37	1.43
78	1b	814	U	N1-C6	-7.39	1.31	1.38
78	1b	806	A	N9-C8	-7.39	1.31	1.37
78	1b	2371	G	N9-C8	-7.39	1.32	1.37
45	Iy	120	GLY	C-N	-7.38	1.17	1.34
78	1b	1799	A	N9-C4	-7.38	1.33	1.37
78	1b	2324	A	C6-N6	-7.38	1.28	1.33
39	Cy	35	VAL	CB-CG2	-7.37	1.37	1.52
36	3b	142	C	N1-C6	-7.37	1.32	1.37
78	1b	2994	A	N9-C4	-7.37	1.33	1.37
78	1b	1893	A	C5-C6	-7.36	1.34	1.41
78	1b	2358	A	N9-C4	-7.36	1.33	1.37
78	1b	354	U	C4-C5	-7.35	1.36	1.43
78	1b	637	C	C5-C6	-7.35	1.28	1.34
78	1b	1534	A	N7-C5	-7.34	1.34	1.39
78	1b	1364	C	N1-C6	-7.34	1.32	1.37
1	2b	376	C	N1-C6	-7.34	1.32	1.37
1	2b	1773	C	C4-C5	-7.33	1.37	1.43
78	1b	1900	A	N3-C4	-7.33	1.30	1.34
78	1b	1663	C	N1-C6	-7.33	1.32	1.37
78	1b	88	A	N9-C4	-7.32	1.33	1.37
78	1b	2145	A	C6-N6	-7.32	1.28	1.33
78	1b	2832	C	N1-C6	-7.32	1.32	1.37
78	1b	2394	G	N3-C4	-7.32	1.30	1.35
1	2b	865	A	C6-N6	-7.32	1.28	1.33
78	1b	957	C	N1-C6	-7.32	1.32	1.37
78	1b	2947	G	N9-C8	-7.31	1.32	1.37
1	2b	1388	A	N9-C4	-7.30	1.33	1.37
79	6b	75	C	N1-C6	-7.30	1.32	1.37
29	bb	49	HIS	CA-CB	-7.30	1.37	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	661	G	N1-C2	-7.30	1.31	1.37
36	Ca	109	A	N9-C4	-7.30	1.33	1.37
78	1b	1339	C	N1-C6	-7.29	1.32	1.37
78	1b	2420	C	N1-C6	-7.29	1.32	1.37
78	1b	663	C	C4-C5	-7.29	1.37	1.43
78	1b	64	G	N9-C8	-7.28	1.32	1.37
45	Iy	119	TRP	CB-CG	-7.28	1.37	1.50
78	1b	1847	A	N9-C4	-7.28	1.33	1.37
78	1b	306	A	N9-C4	-7.27	1.33	1.37
39	Cy	77	VAL	CB-CG1	-7.27	1.37	1.52
78	1b	1908	A	N7-C5	-7.27	1.34	1.39
78	1b	2976	A	N9-C4	-7.27	1.33	1.37
36	3b	21	C	C4-C5	-7.26	1.37	1.43
78	1b	927	C	C4-C5	-7.26	1.37	1.43
78	1b	2337	C	C4-C5	-7.25	1.37	1.43
1	2b	361	C	N1-C6	-7.25	1.32	1.37
1	2b	1075	C	N1-C6	-7.25	1.32	1.37
78	1b	1312	C	C4-C5	-7.24	1.37	1.43
78	1b	1895	A	C5-C4	-7.24	1.33	1.38
78	1b	355	A	N9-C4	-7.23	1.33	1.37
78	1b	2956	A	N3-C4	-7.23	1.30	1.34
36	3b	30	C	C4-C5	-7.23	1.37	1.43
78	1b	359	U	N1-C2	-7.23	1.32	1.38
78	1b	895	A	N9-C4	-7.23	1.33	1.37
78	1b	2375	G	N9-C8	-7.23	1.32	1.37
78	1b	651	G	N9-C8	-7.23	1.32	1.37
78	1b	2810	C	N1-C6	-7.23	1.32	1.37
78	1b	1539	A	N9-C4	-7.22	1.33	1.37
78	1b	1156	C	C4-C5	-7.22	1.37	1.43
78	1b	1428	A	N9-C4	-7.22	1.33	1.37
78	1b	1655	G	C6-N1	-7.21	1.34	1.39
78	1b	2415	C	N1-C6	-7.21	1.32	1.37
78	1b	951	A	N9-C8	-7.21	1.31	1.37
78	1b	36	C	N1-C6	-7.20	1.32	1.37
78	1b	812	G	N9-C8	-7.20	1.32	1.37
78	1b	2985	C	N3-C4	-7.19	1.28	1.33
78	1b	3139	A	C6-N6	-7.19	1.28	1.33
78	1b	805	G	C6-N1	-7.18	1.34	1.39
78	1b	1901	A	C6-N1	-7.18	1.30	1.35
1	2b	937	C	N1-C6	-7.18	1.32	1.37
78	1b	1559	A	N9-C4	-7.18	1.33	1.37
78	1b	1664	G	N9-C8	-7.18	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	2296	A	N9-C4	-7.17	1.33	1.37
78	1b	2390	A	N9-C4	-7.17	1.33	1.37
78	1b	21	G	C6-O6	-7.17	1.17	1.24
78	1b	1368	U	C4-C5	-7.17	1.37	1.43
78	1b	1155	C	N1-C6	-7.17	1.32	1.37
78	1b	339	C	N3-C4	-7.17	1.28	1.33
78	1b	1319	G	C6-N1	-7.17	1.34	1.39
78	1b	945	C	N1-C6	-7.16	1.32	1.37
78	1b	226	C	N1-C6	-7.16	1.32	1.37
78	1b	1379	G	N9-C4	-7.16	1.32	1.38
78	1b	45	A	C5-C6	-7.16	1.34	1.41
1	2b	1776	A	N9-C4	-7.16	1.33	1.37
1	2b	333	A	C6-N6	-7.16	1.28	1.33
78	1b	846	A	C6-N1	-7.16	1.30	1.35
78	1b	1927	G	N3-C4	-7.15	1.30	1.35
78	1b	2133	U	C4-C5	-7.15	1.37	1.43
78	1b	2333	C	N3-C4	-7.15	1.28	1.33
78	1b	1836	C	N3-C4	-7.15	1.28	1.33
78	1b	2360	C	C4-C5	-7.14	1.37	1.43
78	1b	2348	A	C5-C6	-7.14	1.34	1.41
78	1b	2610	G	C6-N1	-7.14	1.34	1.39
78	1b	656	A	C5-C6	-7.14	1.34	1.41
78	1b	1437	C	C4-C5	-7.14	1.37	1.43
78	1b	2304	C	C4-C5	-7.14	1.37	1.43
78	1b	942	U	N1-C6	-7.13	1.31	1.38
78	1b	1656	A	N9-C4	-7.13	1.33	1.37
78	1b	927	C	N1-C6	-7.13	1.32	1.37
77	pb	55	TRP	CB-CG	-7.13	1.37	1.50
78	1b	2335	G	N9-C8	-7.12	1.32	1.37
78	1b	3178	A	N9-C4	-7.12	1.33	1.37
78	1b	1527	C	N3-C4	-7.12	1.28	1.33
78	1b	1844	C	N1-C6	-7.12	1.32	1.37
38	By	260	VAL	CB-CG2	-7.11	1.38	1.52
78	1b	1852	G	N9-C8	-7.11	1.32	1.37
78	1b	1169	A	N9-C4	-7.11	1.33	1.37
78	1b	1516	C	N1-C6	-7.11	1.32	1.37
78	1b	2242	A	N9-C4	-7.11	1.33	1.37
79	6b	74	C	C4-C5	-7.11	1.37	1.43
1	2b	1772	C	N1-C6	-7.10	1.32	1.37
36	3b	30	C	N3-C4	-7.10	1.28	1.33
1	2b	1105	C	N1-C6	-7.10	1.32	1.37
1	2b	1090	C	C5-C6	-7.09	1.28	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2b	1078	C	N1-C6	-7.09	1.32	1.37
78	1b	1049	C	N1-C6	-7.09	1.32	1.37
78	1b	1330	A	N9-C8	-7.08	1.32	1.37
78	1b	925	A	N9-C4	-7.08	1.33	1.37
78	Aa	2812	C	N1-C6	-7.08	1.32	1.37
78	1b	1339	C	C4-C5	-7.08	1.37	1.43
78	1b	1836	C	N1-C6	-7.08	1.32	1.37
78	1b	2383	C	N1-C6	-7.08	1.32	1.37
78	1b	755	A	N9-C4	-7.08	1.33	1.37
78	1b	23	A	N9-C4	-7.07	1.33	1.37
78	1b	1297	C	N1-C6	-7.07	1.32	1.37
78	1b	2196	C	C4-C5	-7.07	1.37	1.43
78	1b	1597	C	C4-C5	-7.07	1.37	1.43
78	1b	2602	G	N9-C4	-7.06	1.32	1.38
78	1b	2918	G	N9-C8	-7.06	1.32	1.37
78	1b	10	C	N1-C6	-7.05	1.32	1.37
78	1b	1592	G	C2-N3	-7.04	1.27	1.32
1	2b	17	C	N1-C6	-7.04	1.32	1.37
78	1b	818	C	N1-C6	-7.04	1.32	1.37
78	1b	861	C	C4-C5	-7.04	1.37	1.43
78	1b	2158	A	N9-C4	-7.04	1.33	1.37
36	3b	43	A	C6-N6	-7.03	1.28	1.33
78	1b	2810	C	N3-C4	-7.03	1.29	1.33
78	1b	77	A	N9-C4	-7.03	1.33	1.37
78	1b	88	A	N9-C8	-7.02	1.32	1.37
78	1b	2343	C	N1-C6	-7.02	1.32	1.37
78	1b	2148	U	C4-C5	-7.02	1.37	1.43
78	1b	2967	A	C6-N1	-7.02	1.30	1.35
1	2b	13	C	C4-C5	-7.02	1.37	1.43
38	By	264	VAL	CB-CG2	-7.02	1.38	1.52
78	1b	2316	G	N9-C8	-7.02	1.32	1.37
36	3b	62	C	N1-C6	-7.01	1.32	1.37
1	2b	1786	G	N9-C8	-7.01	1.32	1.37
1	2b	1163	A	N9-C4	-7.00	1.33	1.37
36	3b	65	A	N9-C4	-7.00	1.33	1.37
78	1b	799	G	N1-C2	-7.00	1.32	1.37
78	1b	2172	A	C6-N6	-7.00	1.28	1.33
78	1b	2337	C	N1-C6	-7.00	1.32	1.37
1	2b	107	C	C4-C5	-7.00	1.37	1.43
78	1b	53	G	N9-C8	-7.00	1.32	1.37
1	2b	979	A	N9-C8	-7.00	1.32	1.37
78	1b	1187	C	N1-C6	-6.99	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	823	C	N3-C4	-6.99	1.29	1.33
78	1b	1119	C	N1-C6	-6.99	1.32	1.37
78	1b	2964	G	N1-C2	-6.99	1.32	1.37
78	1b	47	C	N1-C6	-6.99	1.32	1.37
78	1b	2414	G	C6-N1	-6.99	1.34	1.39
49	Ny	132	VAL	CB-CG2	-6.98	1.38	1.52
78	1b	1690	C	N1-C6	-6.98	1.32	1.37
78	1b	2332	A	C5-C6	-6.98	1.34	1.41
1	2b	14	C	C4-C5	-6.98	1.37	1.43
78	1b	929	A	C5-C4	-6.98	1.33	1.38
1	2b	1183	A	N9-C4	-6.98	1.33	1.37
78	1b	893	C	C4-C5	-6.97	1.37	1.43
1	2b	1651	A	N9-C4	-6.97	1.33	1.37
78	1b	860	G	N3-C4	-6.97	1.30	1.35
36	3b	115	C	N1-C6	-6.97	1.32	1.37
78	1b	1157	G	N9-C8	-6.97	1.32	1.37
78	1b	1926	C	N1-C6	-6.97	1.32	1.37
78	1b	2642	A	N9-C4	-6.97	1.33	1.37
78	1b	3137	C	N1-C6	-6.97	1.32	1.37
78	1b	2864	A	N3-C4	-6.96	1.30	1.34
78	1b	933	A	N9-C4	-6.96	1.33	1.37
78	1b	972	A	C6-N6	-6.96	1.28	1.33
78	1b	1146	C	N1-C6	-6.96	1.32	1.37
78	1b	846	A	N9-C4	6.96	1.42	1.37
78	1b	2609	A	N9-C4	-6.96	1.33	1.37
78	1b	2420	C	N3-C4	-6.96	1.29	1.33
78	1b	1863	G	N9-C4	-6.95	1.32	1.38
78	1b	2389	C	N1-C6	-6.95	1.32	1.37
78	1b	2407	C	C4-C5	-6.95	1.37	1.43
78	1b	1508	C	N1-C6	-6.95	1.32	1.37
78	Aa	1381	A	N9-C4	-6.94	1.33	1.37
1	2b	1775	U	N1-C6	-6.94	1.31	1.38
78	1b	82	C	N1-C6	-6.93	1.32	1.37
78	1b	872	U	N1-C6	-6.93	1.31	1.38
78	1b	1419	A	N9-C4	-6.93	1.33	1.37
78	1b	1854	C	N3-C4	-6.93	1.29	1.33
79	6b	74	C	N1-C6	-6.93	1.32	1.37
1	2b	614	C	C4-C5	-6.93	1.37	1.43
78	1b	1491	A	C5-C4	-6.93	1.33	1.38
1	2b	1459	C	N1-C6	-6.93	1.32	1.37
78	1b	873	C	N1-C6	-6.93	1.32	1.37
78	1b	2118	C	N1-C6	-6.92	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	861	C	C5-C6	-6.92	1.28	1.34
78	1b	935	U	N1-C6	-6.92	1.31	1.38
1	2b	1764	C	C4-C5	-6.92	1.37	1.43
36	3b	92	A	N9-C4	-6.92	1.33	1.37
78	1b	944	C	N1-C6	-6.92	1.32	1.37
78	1b	3126	C	N1-C6	-6.92	1.32	1.37
78	1b	2126	A	N9-C4	-6.92	1.33	1.37
1	2b	1457	C	N1-C6	-6.92	1.33	1.37
78	1b	933	A	C5-C6	-6.91	1.34	1.41
78	1b	2813	A	C6-N1	-6.91	1.30	1.35
78	1b	3096	C	C4-C5	-6.91	1.37	1.43
1	2b	1664	C	N1-C6	-6.91	1.33	1.37
78	1b	51	A	N9-C4	-6.91	1.33	1.37
78	1b	675	C	N1-C6	-6.91	1.33	1.37
1	2b	627	C	C4-C5	-6.91	1.37	1.43
78	1b	647	A	C6-N1	-6.91	1.30	1.35
1	2b	956	C	N1-C6	-6.91	1.33	1.37
78	1b	1930	A	C5-C6	-6.91	1.34	1.41
1	2b	1322	A	C6-N1	-6.91	1.30	1.35
78	1b	636	C	C4-C5	-6.91	1.37	1.43
78	1b	970	A	N9-C4	-6.91	1.33	1.37
78	1b	1799	A	C5-C6	-6.91	1.34	1.41
1	2b	1122	G	N9-C4	-6.90	1.32	1.38
78	1b	3364	C	N1-C6	-6.90	1.33	1.37
78	1b	1793	C	N1-C6	-6.90	1.33	1.37
78	1b	1904	C	N1-C6	-6.90	1.33	1.37
78	1b	906	A	N9-C4	-6.90	1.33	1.37
78	1b	868	C	C4-C5	-6.90	1.37	1.43
78	1b	1332	A	C5-C6	-6.90	1.34	1.41
78	1b	1838	G	N9-C4	-6.90	1.32	1.38
78	1b	2186	U	N1-C6	-6.90	1.31	1.38
79	6b	75	C	C4-C5	-6.90	1.37	1.43
78	1b	1435	A	N7-C5	-6.89	1.35	1.39
78	1b	1773	C	N1-C6	-6.89	1.33	1.37
78	1b	2415	C	N3-C4	-6.89	1.29	1.33
1	2b	338	C	N1-C6	-6.89	1.33	1.37
78	1b	2885	C	C4-C5	-6.89	1.37	1.43
78	1b	2366	C	N3-C4	-6.89	1.29	1.33
78	1b	816	A	N7-C5	-6.89	1.35	1.39
78	1b	3004	C	C4-C5	-6.89	1.37	1.43
78	1b	1896	A	C5-C6	-6.89	1.34	1.41
78	1b	586	C	N1-C6	-6.88	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	912	G	N9-C8	-6.88	1.33	1.37
78	1b	1796	G	N3-C4	-6.88	1.30	1.35
78	1b	2132	C	N1-C6	-6.88	1.33	1.37
1	2b	1021	C	N3-C4	-6.88	1.29	1.33
78	1b	1491	A	C5-C6	-6.88	1.34	1.41
78	1b	827	A	C6-N6	-6.87	1.28	1.33
78	1b	1132	C	N1-C6	-6.87	1.33	1.37
78	1b	1135	A	C6-N6	-6.87	1.28	1.33
78	1b	2872	A	N9-C4	-6.87	1.33	1.37
78	1b	2983	C	C5-C6	-6.87	1.28	1.34
78	1b	1046	A	C6-N6	-6.86	1.28	1.33
78	Aa	804	C	N1-C6	-6.86	1.33	1.37
78	1b	364	G	N9-C8	-6.85	1.33	1.37
78	1b	2727	A	C5-C6	-6.85	1.34	1.41
78	1b	611	A	C6-N6	-6.85	1.28	1.33
1	2b	968	U	N1-C6	-6.84	1.31	1.38
78	1b	2413	A	C5-C6	-6.84	1.34	1.41
78	1b	2917	G	N9-C8	-6.84	1.33	1.37
78	1b	2245	C	N1-C6	-6.84	1.33	1.37
78	1b	353	G	C2-N3	-6.84	1.27	1.32
78	1b	334	A	N9-C4	-6.83	1.33	1.37
78	1b	2273	G	N9-C8	-6.83	1.33	1.37
1	2b	865	A	N9-C4	-6.83	1.33	1.37
78	1b	913	A	N9-C8	-6.83	1.32	1.37
78	1b	2881	C	N1-C6	-6.83	1.33	1.37
1	2b	1275	A	N9-C4	-6.83	1.33	1.37
78	1b	2867	C	C4-C5	-6.83	1.37	1.43
1	2b	1664	C	N3-C4	-6.83	1.29	1.33
78	1b	3308	C	C4-C5	-6.83	1.37	1.43
78	1b	658	G	C8-N7	-6.82	1.26	1.30
78	1b	1446	A	C5-C6	-6.82	1.34	1.41
1	2b	1675	C	C4-C5	-6.82	1.37	1.43
78	1b	353	G	N9-C4	-6.82	1.32	1.38
78	1b	1045	C	N1-C6	-6.82	1.33	1.37
78	1b	1854	C	C4-C5	-6.82	1.37	1.43
78	1b	2424	A	N7-C5	-6.82	1.35	1.39
78	1b	3082	C	N1-C6	-6.82	1.33	1.37
78	1b	953	G	N9-C8	-6.81	1.33	1.37
78	1b	3145	C	N1-C6	-6.81	1.33	1.37
78	1b	921	A	C6-N6	-6.81	1.28	1.33
78	1b	636	C	N1-C6	-6.81	1.33	1.37
49	Ny	121	VAL	CB-CG1	-6.81	1.38	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	1836	C	C4-C5	-6.81	1.37	1.43
78	1b	2632	G	N9-C8	-6.81	1.33	1.37
78	1b	1441	G	N9-C8	-6.81	1.33	1.37
78	1b	948	C	N1-C6	-6.80	1.33	1.37
1	2b	1327	C	N1-C6	-6.80	1.33	1.37
78	1b	964	G	N9-C8	-6.80	1.33	1.37
78	1b	2337	C	N3-C4	-6.80	1.29	1.33
78	1b	2312	A	N9-C8	-6.80	1.32	1.37
1	2b	1109	G	N9-C4	-6.80	1.32	1.38
78	1b	824	C	N1-C6	-6.80	1.33	1.37
78	1b	2434	U	N3-C4	-6.79	1.32	1.38
78	1b	1135	A	C5-C6	-6.79	1.34	1.41
78	1b	1909	A	N9-C4	-6.79	1.33	1.37
78	1b	30	G	N9-C8	-6.79	1.33	1.37
78	1b	287	G	N9-C4	-6.78	1.32	1.38
78	1b	1832	C	N1-C6	-6.78	1.33	1.37
78	1b	2344	U	N1-C6	-6.78	1.31	1.38
1	2b	1671	A	N9-C4	-6.78	1.33	1.37
1	2b	1744	A	C6-N6	-6.78	1.28	1.33
78	1b	1535	A	N9-C8	-6.78	1.32	1.37
78	1b	505	G	N9-C8	-6.78	1.33	1.37
78	1b	3040	A	N9-C4	-6.78	1.33	1.37
1	2b	1142	A	C5-C4	-6.77	1.34	1.38
78	1b	2317	A	C6-N6	-6.77	1.28	1.33
78	1b	2726	C	N1-C6	-6.77	1.33	1.37
78	1b	1660	C	C4-C5	-6.77	1.37	1.43
78	1b	1917	C	N1-C6	-6.77	1.33	1.37
78	1b	2802	A	N9-C4	-6.76	1.33	1.37
78	1b	1119	C	C4-C5	-6.76	1.37	1.43
78	1b	2408	U	N1-C6	-6.76	1.31	1.38
78	1b	2776	C	C4-C5	-6.76	1.37	1.43
78	1b	1113	G	N9-C8	-6.76	1.33	1.37
78	1b	963	G	N9-C8	-6.76	1.33	1.37
78	1b	650	C	N1-C6	-6.75	1.33	1.37
1	2b	1090	C	N1-C6	-6.75	1.33	1.37
78	1b	2653	C	C4-C5	-6.75	1.37	1.43
1	2b	1625	C	C4-C5	-6.75	1.37	1.43
1	2b	1763	A	N9-C4	-6.75	1.33	1.37
78	1b	1927	G	N9-C4	-6.75	1.32	1.38
78	1b	3081	C	N1-C6	-6.75	1.33	1.37
78	1b	3379	C	C4-C5	-6.75	1.37	1.43
78	1b	2397	A	N9-C8	-6.74	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
50	Oy	16[A]	VAL	CB-CG2	-6.74	1.38	1.52
78	1b	810	A	N3-C4	-6.74	1.30	1.34
78	Aa	2360	C	N1-C6	-6.74	1.33	1.37
1	2b	351	C	N1-C6	-6.74	1.33	1.37
78	1b	2962	U	N1-C6	-6.74	1.31	1.38
78	1b	596	C	N1-C6	-6.74	1.33	1.37
78	1b	843	A	C6-N6	-6.74	1.28	1.33
78	1b	1544	G	N9-C4	-6.74	1.32	1.38
78	1b	1663	C	C4-C5	-6.74	1.37	1.43
78	1b	1873	U	N1-C6	-6.73	1.31	1.38
1	2b	317	C	N1-C6	-6.73	1.33	1.37
78	1b	1313	G	N9-C4	-6.73	1.32	1.38
78	1b	1105	A	C5-C6	-6.72	1.34	1.41
78	1b	55	G	N3-C4	-6.72	1.30	1.35
78	1b	944	C	N3-C4	-6.72	1.29	1.33
78	1b	1113	G	N1-C2	-6.72	1.32	1.37
49	Pa	94	TYR	CD1-CE1	-6.72	1.29	1.39
78	1b	1902	G	C6-N1	-6.72	1.34	1.39
1	2b	92	A	N9-C4	-6.71	1.33	1.37
78	1b	645	A	C6-N6	-6.71	1.28	1.33
78	1b	2142	A	C6-N1	-6.71	1.30	1.35
78	1b	1304	A	C6-N1	-6.71	1.30	1.35
1	2b	1036	A	N9-C4	-6.71	1.33	1.37
1	2b	1107	G	N9-C8	-6.71	1.33	1.37
78	1b	1334	U	N1-C6	-6.71	1.31	1.38
78	1b	1637	A	N9-C4	-6.70	1.33	1.37
78	1b	3110	C	C4-C5	-6.70	1.37	1.43
78	1b	1925	U	N1-C6	-6.70	1.31	1.38
78	Aa	3301	U	C2-N3	-6.70	1.33	1.37
49	Ny	121	VAL	CB-CG2	-6.69	1.38	1.52
78	1b	896	A	C6-N6	-6.69	1.28	1.33
1	2b	1126	G	N9-C8	-6.69	1.33	1.37
78	1b	2990	G	N9-C8	-6.69	1.33	1.37
78	1b	788	C	C4-C5	-6.68	1.37	1.43
1	2b	305	C	C4-C5	-6.68	1.37	1.43
1	2b	1786	G	N1-C2	-6.68	1.32	1.37
78	1b	1896	A	C6-N1	-6.68	1.30	1.35
78	1b	1431	G	N9-C8	-6.68	1.33	1.37
78	1b	3186	A	N9-C4	-6.68	1.33	1.37
78	1b	1848	G	N9-C4	-6.67	1.32	1.38
78	1b	3132	C	C4-C5	-6.67	1.37	1.43
78	1b	363	G	N9-C8	-6.67	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	365	A	N9-C4	-6.67	1.33	1.37
78	1b	2941	A	N9-C4	-6.67	1.33	1.37
1	2b	1589	C	N1-C6	-6.67	1.33	1.37
78	1b	1850	A	N9-C4	-6.67	1.33	1.37
78	1b	2982	A	N9-C4	-6.67	1.33	1.37
78	1b	918	C	C4-C5	-6.66	1.37	1.43
78	1b	1592	G	N3-C4	-6.66	1.30	1.35
78	1b	2391	G	N9-C4	-6.66	1.32	1.38
78	1b	2733	A	C5-C6	-6.66	1.35	1.41
1	a	1555	A	N3-C4	-6.66	1.30	1.34
78	1b	694	C	C4-C5	-6.66	1.37	1.43
78	1b	2813	A	C5-C6	-6.66	1.35	1.41
49	Ny	135	VAL	CB-CG1	-6.66	1.38	1.52
78	1b	341	G	N9-C8	-6.66	1.33	1.37
78	1b	951	A	N7-C5	-6.66	1.35	1.39
36	3b	12	A	N9-C4	-6.66	1.33	1.37
78	1b	2277	C	N1-C6	-6.66	1.33	1.37
78	1b	805	G	N9-C8	-6.65	1.33	1.37
78	1b	2408	U	C4-C5	-6.65	1.37	1.43
78	1b	845	G	N9-C4	-6.65	1.32	1.38
36	3b	36	G	N9-C4	-6.65	1.32	1.38
1	2b	929	A	N9-C4	-6.65	1.33	1.37
57	Vy	58	VAL	CB-CG1	-6.65	1.38	1.52
78	1b	304	G	N9-C8	-6.64	1.33	1.37
78	1b	934	G	N7-C5	-6.64	1.35	1.39
78	1b	1111	U	N1-C6	-6.64	1.31	1.38
78	1b	2147	A	C5-C6	-6.64	1.35	1.41
78	1b	288	C	N1-C6	-6.64	1.33	1.37
36	3b	45	C	C4-C5	-6.64	1.37	1.43
1	2b	1581	C	N1-C6	-6.64	1.33	1.37
78	1b	1930	A	N9-C4	-6.64	1.33	1.37
78	1b	1212	A	N9-C4	-6.64	1.33	1.37
1	2b	969	C	N1-C6	-6.63	1.33	1.37
1	2b	629	U	C4-C5	-6.63	1.37	1.43
37	Ay	113	VAL	CB-CG2	-6.63	1.39	1.52
78	1b	781	G	N9-C8	-6.63	1.33	1.37
78	1b	1873	U	N1-C2	-6.63	1.32	1.38
78	1b	371	G	N9-C8	-6.62	1.33	1.37
78	1b	2967	A	N7-C5	-6.62	1.35	1.39
39	Cy	208	VAL	CB-CG2	-6.62	1.39	1.52
78	1b	39	A	N9-C4	-6.62	1.33	1.37
78	1b	696	C	C4-C5	-6.62	1.37	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	2964	G	C6-N1	-6.62	1.34	1.39
78	1b	2413	A	N3-C4	-6.62	1.30	1.34
78	1b	2867	C	N3-C4	-6.62	1.29	1.33
1	2b	980	G	N9-C8	-6.62	1.33	1.37
78	1b	665	A	N9-C8	-6.62	1.32	1.37
78	1b	2343	C	C4-C5	-6.62	1.37	1.43
78	1b	2360	C	C5-C6	-6.62	1.29	1.34
36	3b	11	C	N3-C4	-6.61	1.29	1.33
78	1b	60	A	C6-N1	-6.61	1.30	1.35
78	1b	875	G	N7-C5	-6.61	1.35	1.39
78	1b	1366	A	N9-C4	-6.61	1.33	1.37
78	1b	2341	A	N9-C8	-6.61	1.32	1.37
1	2b	624	G	N1-C2	-6.61	1.32	1.37
78	1b	1169	A	C5-C6	-6.61	1.35	1.41
78	1b	1475	A	C6-N6	-6.61	1.28	1.33
1	2b	398	G	N9-C4	-6.61	1.32	1.38
78	1b	2244	A	N9-C4	-6.61	1.33	1.37
78	1b	2982	A	N9-C8	-6.61	1.32	1.37
78	1b	45	A	C5-C4	-6.61	1.34	1.38
78	1b	910	G	N9-C4	-6.61	1.32	1.38
78	1b	2333	C	C4-C5	-6.60	1.37	1.43
78	1b	1147	G	N9-C8	-6.60	1.33	1.37
78	1b	432	G	N9-C8	-6.60	1.33	1.37
78	1b	696	C	N1-C6	-6.60	1.33	1.37
78	1b	2961	G	N9-C8	-6.60	1.33	1.37
1	2b	344	A	C5-C6	-6.60	1.35	1.41
1	2b	1797	A	C6-N6	-6.60	1.28	1.33
1	2b	1088	A	N9-C8	-6.60	1.32	1.37
78	1b	1475	A	N9-C4	-6.60	1.33	1.37
78	1b	1048	A	N9-C4	-6.59	1.33	1.37
78	1b	647	A	N9-C4	-6.59	1.33	1.37
78	1b	632	G	N9-C8	-6.59	1.33	1.37
78	1b	2734	A	C5-C6	-6.59	1.35	1.41
78	1b	2797	C	N1-C6	-6.59	1.33	1.37
1	2b	1652	C	N1-C6	-6.59	1.33	1.37
78	1b	806	A	C6-N6	-6.59	1.28	1.33
78	Aa	360	G	N9-C8	-6.58	1.33	1.37
78	Aa	1156	C	C2-O2	-6.58	1.18	1.24
78	1b	2304	C	N1-C6	-6.58	1.33	1.37
78	1b	2357	A	N9-C4	-6.58	1.33	1.37
78	1b	2409	G	N1-C2	-6.58	1.32	1.37
78	1b	369	A	N9-C8	-6.58	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	1493	G	C6-N1	-6.58	1.34	1.39
51	Py	91	VAL	CB-CG1	-6.58	1.39	1.52
78	1b	2911	A	C6-N6	-6.58	1.28	1.33
1	2b	1023	A	N9-C4	-6.57	1.33	1.37
78	1b	1332	A	C6-N6	-6.57	1.28	1.33
78	1b	341	G	N1-C2	-6.57	1.32	1.37
78	1b	2625	C	N1-C6	-6.57	1.33	1.37
1	2b	1465	C	N1-C6	-6.57	1.33	1.37
78	1b	873	C	N3-C4	-6.57	1.29	1.33
1	2b	1636	C	C4-C5	-6.57	1.37	1.43
1	2b	1675	C	N1-C6	-6.57	1.33	1.37
37	Ay	113	VAL	CB-CG1	-6.57	1.39	1.52
78	1b	2406	C	N1-C6	-6.57	1.33	1.37
78	1b	651	G	N7-C5	-6.57	1.35	1.39
78	1b	820	A	C6-N6	-6.57	1.28	1.33
78	1b	1614	C	C4-C5	-6.57	1.37	1.43
78	1b	2705	A	N9-C4	-6.57	1.33	1.37
1	2b	1783	C	C4-C5	-6.56	1.37	1.43
78	1b	793	C	C4-C5	-6.56	1.37	1.43
78	1b	962	A	N3-C4	-6.56	1.30	1.34
78	1b	801	A	N9-C4	-6.56	1.33	1.37
78	1b	2416	U	C4-C5	-6.56	1.37	1.43
78	1b	2939	G	N7-C5	-6.56	1.35	1.39
78	Aa	808	A	N9-C4	-6.56	1.33	1.37
78	1b	958	C	C4-C5	-6.56	1.37	1.43
1	2b	1731	A	N9-C4	-6.55	1.33	1.37
78	1b	2610	G	N7-C5	-6.55	1.35	1.39
78	1b	42	C	N1-C6	-6.54	1.33	1.37
78	1b	69	C	N1-C6	-6.54	1.33	1.37
78	1b	1328	C	C4-C5	-6.54	1.37	1.43
78	1b	1930	A	C6-N6	-6.54	1.28	1.33
78	1b	3134	A	C5-C6	-6.54	1.35	1.41
78	1b	1152	G	N3-C4	-6.54	1.30	1.35
78	1b	1423	C	N1-C6	-6.54	1.33	1.37
78	1b	306	A	C6-N6	-6.54	1.28	1.33
36	3b	8	C	N1-C6	-6.53	1.33	1.37
78	1b	810	A	N9-C4	-6.53	1.33	1.37
1	2b	1776	A	N9-C8	-6.53	1.32	1.37
78	1b	1491	A	N9-C4	-6.53	1.33	1.37
78	1b	1376	C	N1-C6	-6.53	1.33	1.37
78	1b	2948	C	C4-C5	-6.53	1.37	1.43
78	1b	1000	C	N1-C6	-6.53	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	657	A	N9-C4	-6.52	1.33	1.37
78	1b	2823	G	N9-C8	-6.52	1.33	1.37
78	1b	2964	G	N9-C4	-6.52	1.32	1.38
1	2b	1045	C	N1-C6	-6.52	1.33	1.37
78	1b	896	A	N9-C4	-6.52	1.33	1.37
78	1b	1342	C	N1-C6	-6.52	1.33	1.37
78	1b	2408	U	N1-C2	-6.52	1.32	1.38
78	1b	2776	C	N1-C6	-6.52	1.33	1.37
1	2b	1157	A	C6-N1	-6.52	1.30	1.35
36	3b	18	U	C4-C5	-6.52	1.37	1.43
78	1b	2393	G	C2-N3	-6.51	1.27	1.32
78	1b	1529	A	N7-C5	-6.51	1.35	1.39
78	1b	1505	C	C4-C5	-6.51	1.37	1.43
35	4b	85	G	N9-C8	-6.51	1.33	1.37
78	1b	107	A	N3-C4	-6.51	1.30	1.34
1	2b	874	C	N1-C6	-6.51	1.33	1.37
36	3b	45	C	N3-C4	-6.51	1.29	1.33
78	1b	1376	C	C4-C5	-6.51	1.37	1.43
78	1b	2167	A	N9-C4	-6.50	1.33	1.37
78	1b	2807	U	C4-C5	-6.50	1.37	1.43
78	1b	2960	C	N3-C4	-6.50	1.29	1.33
78	1b	339	C	C4-C5	-6.50	1.37	1.43
78	1b	1719	G	N9-C8	-6.50	1.33	1.37
78	1b	1901	A	N7-C5	-6.50	1.35	1.39
78	1b	2967	A	C5-C6	-6.50	1.35	1.41
78	1b	2247	G	N3-C4	-6.50	1.30	1.35
78	1b	2367	A	C5-C6	-6.50	1.35	1.41
1	2b	1774	G	N9-C4	-6.50	1.32	1.38
78	1b	113	C	N1-C6	-6.50	1.33	1.37
78	1b	2809	C	N1-C6	-6.49	1.33	1.37
78	1b	2422	C	C4-C5	-6.49	1.37	1.43
1	2b	1077	C	N1-C6	-6.49	1.33	1.37
78	1b	1851	G	N7-C5	-6.49	1.35	1.39
1	2b	1020	A	C6-N6	-6.49	1.28	1.33
1	2b	1618	C	N1-C6	-6.49	1.33	1.37
36	3b	35	C	N1-C6	-6.49	1.33	1.37
78	1b	31	C	N3-C4	-6.49	1.29	1.33
1	2b	6	G	N9-C8	-6.48	1.33	1.37
78	1b	352	A	N9-C4	-6.48	1.33	1.37
78	1b	888	A	N9-C4	-6.48	1.33	1.37
78	1b	2338	C	C4-C5	-6.48	1.37	1.43
78	1b	1509	A	N9-C4	-6.48	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2b	1102	G	N9-C8	-6.48	1.33	1.37
78	1b	660	A	C6-N6	-6.48	1.28	1.33
78	1b	840	C	N1-C6	-6.48	1.33	1.37
36	3b	100	U	C4-C5	-6.47	1.37	1.43
78	1b	902	G	N9-C4	-6.47	1.32	1.38
1	2b	938	G	N9-C8	-6.47	1.33	1.37
78	1b	1615	C	N1-C6	-6.47	1.33	1.37
78	1b	2202	C	C4-C5	-6.47	1.37	1.43
78	1b	2813	A	N3-C4	-6.47	1.30	1.34
1	2b	1143	A	N9-C4	-6.47	1.33	1.37
78	1b	628	A	C5-C6	-6.47	1.35	1.41
78	1b	647	A	C5-C6	-6.46	1.35	1.41
78	1b	952	A	N9-C4	-6.46	1.33	1.37
78	1b	1478	C	N1-C6	-6.46	1.33	1.37
78	1b	1844	C	C5-C6	-6.46	1.29	1.34
78	1b	317	A	N9-C4	-6.46	1.33	1.37
1	2b	1624	C	N1-C6	-6.45	1.33	1.37
78	1b	1046	A	C5-C6	-6.45	1.35	1.41
78	1b	1150	A	C5-C6	-6.45	1.35	1.41
1	2b	865	A	C5-C6	-6.45	1.35	1.41
78	1b	807	A	N9-C8	-6.45	1.32	1.37
1	2b	1620	C	N1-C6	-6.45	1.33	1.37
36	3b	4	C	C4-C5	-6.45	1.37	1.43
78	1b	2308	C	N1-C6	-6.45	1.33	1.37
78	1b	2360	C	N3-C4	-6.45	1.29	1.33
78	1b	2654	C	C4-C5	-6.45	1.37	1.43
78	1b	882	A	N9-C4	-6.45	1.33	1.37
1	2b	616	G	N9-C8	-6.45	1.33	1.37
78	1b	345	G	N9-C4	-6.45	1.32	1.38
78	1b	666	A	N9-C4	-6.45	1.33	1.37
78	1b	2523	A	N9-C4	-6.45	1.33	1.37
78	1b	2733	A	C6-N6	-6.45	1.28	1.33
1	2b	987	G	N9-C8	-6.44	1.33	1.37
1	2b	1279	C	N1-C6	-6.44	1.33	1.37
1	2b	1431	C	N1-C6	-6.44	1.33	1.37
36	3b	108	C	N1-C6	-6.44	1.33	1.37
78	1b	106	A	C5-C6	-6.44	1.35	1.41
78	1b	1170	A	N9-C8	-6.44	1.32	1.37
78	1b	66	A	N9-C4	-6.44	1.33	1.37
78	1b	1854	C	C5-C6	-6.44	1.29	1.34
78	1b	2606	G	C2-N3	-6.44	1.27	1.32
78	1b	942	U	C4-C5	-6.44	1.37	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	361	A	N3-C4	-6.43	1.30	1.34
78	1b	2642	A	C6-N6	-6.43	1.28	1.33
1	2b	846	G	C6-N1	-6.43	1.35	1.39
78	1b	433	A	N9-C4	-6.43	1.33	1.37
78	1b	2617	U	N3-C4	-6.43	1.32	1.38
78	1b	1788	C	N1-C6	-6.43	1.33	1.37
1	2b	1033	C	N1-C6	-6.43	1.33	1.37
78	1b	2355	G	N9-C4	-6.43	1.32	1.38
78	1b	2867	C	N1-C6	-6.43	1.33	1.37
1	2b	1152	A	C6-N6	-6.43	1.28	1.33
78	1b	92	G	N7-C5	-6.43	1.35	1.39
78	1b	115	A	N9-C4	-6.43	1.33	1.37
78	1b	2246	G	N9-C4	-6.43	1.32	1.38
78	1b	1335	C	N1-C6	-6.42	1.33	1.37
78	1b	1487	G	N9-C8	-6.42	1.33	1.37
78	1b	2733	A	N7-C5	-6.42	1.35	1.39
78	1b	655	C	N1-C6	-6.42	1.33	1.37
78	1b	1895	A	C6-N6	-6.42	1.28	1.33
78	Aa	3305	A	N9-C4	-6.42	1.33	1.37
78	1b	336	A	N9-C4	-6.42	1.33	1.37
78	1b	2958	A	N9-C4	-6.42	1.33	1.37
78	1b	1638	A	N9-C4	-6.42	1.33	1.37
78	1b	1116	G	N9-C8	-6.42	1.33	1.37
78	1b	57	A	N9-C4	-6.42	1.34	1.37
78	Aa	810	A	N9-C4	-6.41	1.34	1.37
1	2b	943	C	N1-C6	-6.41	1.33	1.37
78	1b	2146	C	N3-C4	-6.41	1.29	1.33
78	1b	878	G	C6-N1	-6.41	1.35	1.39
78	1b	2816	G	C6-N1	-6.41	1.35	1.39
78	1b	34	A	N9-C8	-6.41	1.32	1.37
78	1b	1401	A	C5-C6	-6.41	1.35	1.41
1	2b	310	C	N1-C6	-6.41	1.33	1.37
1	2b	1319	A	N9-C4	-6.41	1.34	1.37
78	1b	2970	C	N1-C6	-6.41	1.33	1.37
78	1b	3134	A	N9-C4	-6.41	1.34	1.37
1	2b	1322	A	C5-C6	-6.40	1.35	1.41
78	1b	1596	C	N1-C6	-6.40	1.33	1.37
78	1b	968	G	N1-C2	-6.40	1.32	1.37
78	1b	1853	U	N1-C6	-6.40	1.32	1.38
78	1b	2697	A	C6-N6	-6.39	1.28	1.33
78	Aa	1792	C	N1-C6	-6.39	1.33	1.37
78	1b	366	A	C5-C6	-6.39	1.35	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	868	C	N3-C4	-6.39	1.29	1.33
78	1b	1120	A	C6-N6	-6.39	1.28	1.33
78	1b	1397	C	N1-C6	-6.39	1.33	1.37
78	1b	1535	A	N9-C4	-6.39	1.34	1.37
78	1b	2957	G	C6-N1	-6.39	1.35	1.39
1	2b	989	U	C4-C5	-6.39	1.37	1.43
78	1b	29	C	N1-C6	-6.39	1.33	1.37
78	1b	1432	C	N1-C6	-6.39	1.33	1.37
78	1b	1827	C	N1-C6	-6.39	1.33	1.37
78	1b	369	A	N9-C4	-6.39	1.34	1.37
78	1b	2774	C	N1-C6	-6.39	1.33	1.37
78	1b	111	C	N1-C6	-6.39	1.33	1.37
78	1b	1435	A	C5-C6	-6.38	1.35	1.41
78	1b	29	C	C4-C5	-6.38	1.37	1.43
78	1b	2309	A	N9-C4	-6.38	1.34	1.37
78	1b	1843	C	N1-C6	-6.38	1.33	1.37
78	1b	2393	G	N3-C4	-6.38	1.30	1.35
78	1b	2913	C	N1-C6	-6.38	1.33	1.37
1	2b	339	C	N1-C6	-6.38	1.33	1.37
78	1b	649	A	N3-C4	-6.38	1.31	1.34
78	1b	2350	C	N1-C6	-6.37	1.33	1.37
78	1b	637	C	N3-C4	-6.37	1.29	1.33
78	1b	68	C	C4-C5	-6.37	1.37	1.43
78	1b	1534	A	C5-C6	-6.37	1.35	1.41
1	2b	1401	A	C5-C6	-6.37	1.35	1.41
78	1b	315	C	C4-C5	-6.37	1.37	1.43
78	1b	900	G	N9-C8	-6.37	1.33	1.37
78	1b	1676	A	N9-C4	-6.37	1.34	1.37
78	1b	1923	C	N1-C6	-6.37	1.33	1.37
78	1b	3048	A	N3-C4	-6.37	1.31	1.34
78	1b	265	A	N9-C4	-6.37	1.34	1.37
78	1b	1857	C	N1-C6	-6.37	1.33	1.37
78	1b	3142	A	N9-C4	-6.37	1.34	1.37
78	1b	98	G	N9-C4	-6.36	1.32	1.38
78	1b	2941	A	N7-C5	-6.36	1.35	1.39
68	gy	85	VAL	CB-CG1	-6.36	1.39	1.52
78	1b	2399	A	C6-N6	-6.36	1.28	1.33
78	1b	1156	C	N3-C4	-6.36	1.29	1.33
1	2b	1007	C	C4-C5	-6.36	1.37	1.43
78	1b	886	C	N3-C4	-6.35	1.29	1.33
78	1b	647	A	N9-C8	-6.35	1.32	1.37
78	1b	1136	A	C5-C6	-6.35	1.35	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	2334	U	N1-C2	-6.35	1.32	1.38
1	2b	616	G	N9-C4	-6.35	1.32	1.38
78	1b	2760	C	N1-C6	-6.35	1.33	1.37
78	1b	323	A	N9-C4	-6.35	1.34	1.37
78	1b	2511	A	C5-C6	-6.35	1.35	1.41
78	1b	2869	U	N1-C6	-6.34	1.32	1.38
78	1b	1149	G	N9-C4	-6.34	1.32	1.38
78	1b	2317	A	C5-C6	-6.34	1.35	1.41
36	3b	44	A	N9-C4	-6.34	1.34	1.37
78	1b	802	C	C4-C5	-6.34	1.37	1.43
78	1b	1489	A	C5-C6	-6.34	1.35	1.41
1	2b	1658	G	N1-C2	-6.34	1.32	1.37
78	1b	68	C	N1-C6	-6.34	1.33	1.37
78	1b	341	G	N9-C4	-6.34	1.32	1.38
78	1b	645	A	C5-C4	-6.34	1.34	1.38
78	1b	887	G	N9-C8	-6.34	1.33	1.37
78	1b	1411	C	N1-C6	-6.34	1.33	1.37
78	Aa	2974	U	C2-N3	-6.34	1.33	1.37
1	2b	1148	C	N1-C6	-6.33	1.33	1.37
78	1b	807	A	N7-C5	-6.33	1.35	1.39
78	1b	788	C	N3-C4	-6.33	1.29	1.33
78	1b	1420	C	C4-C5	-6.33	1.37	1.43
1	2b	1027	A	N9-C4	-6.33	1.34	1.37
78	1b	1379	G	N3-C4	-6.33	1.31	1.35
78	1b	647	A	C5-C4	-6.33	1.34	1.38
78	1b	810	A	N7-C5	-6.33	1.35	1.39
78	1b	2873	U	N1-C6	-6.33	1.32	1.38
78	1b	661	G	C2-N3	-6.32	1.27	1.32
78	1b	2700	G	N9-C8	-6.32	1.33	1.37
78	1b	45	A	N7-C5	-6.32	1.35	1.39
78	1b	856	G	C6-N1	-6.32	1.35	1.39
78	1b	1907	C	N1-C6	-6.32	1.33	1.37
78	1b	2606	G	N3-C4	-6.32	1.31	1.35
1	2b	973	A	C6-N6	-6.32	1.28	1.33
36	3b	27	U	N1-C6	-6.32	1.32	1.38
1	2b	622	A	N9-C4	-6.32	1.34	1.37
1	2b	870	C	N3-C4	-6.32	1.29	1.33
35	4b	94	C	N1-C6	-6.32	1.33	1.37
78	1b	890	C	N1-C6	-6.32	1.33	1.37
78	1b	2134	G	N3-C4	-6.31	1.31	1.35
78	1b	3091	A	C5-C6	-6.31	1.35	1.41
1	2b	1797	A	N9-C4	-6.31	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2b	1467	C	N1-C6	-6.31	1.33	1.37
78	Aa	48	A	N9-C4	-6.31	1.34	1.37
78	1b	1062	A	C6-N6	-6.31	1.28	1.33
78	1b	1128	U	N1-C6	-6.30	1.32	1.38
78	1b	2638	C	C4-C5	-6.30	1.38	1.43
78	1b	2879	C	C4-C5	-6.30	1.38	1.43
78	1b	2959	C	N1-C6	-6.30	1.33	1.37
1	2b	967	A	C5-C6	-6.30	1.35	1.41
78	1b	880	G	C6-N1	-6.30	1.35	1.39
78	1b	913	A	C6-N6	-6.30	1.28	1.33
78	1b	1118	C	N1-C6	-6.30	1.33	1.37
1	2b	938	G	N9-C4	-6.30	1.32	1.38
78	1b	2425	G	N9-C4	-6.30	1.32	1.38
36	3b	24	G	C6-N1	-6.29	1.35	1.39
1	2b	1136	U	N1-C6	-6.29	1.32	1.38
66	ey	28	VAL	CB-CG1	-6.29	1.39	1.52
78	1b	2609	A	C5-C6	-6.29	1.35	1.41
78	1b	2811	A	N9-C8	-6.29	1.32	1.37
1	2b	1652	C	C4-C5	-6.29	1.38	1.43
78	1b	304	G	N7-C5	-6.29	1.35	1.39
78	1b	923	C	N1-C6	-6.29	1.33	1.37
78	1b	2874	G	N3-C4	-6.29	1.31	1.35
78	1b	2946	A	N9-C4	-6.29	1.34	1.37
1	2b	1006	C	N1-C6	-6.29	1.33	1.37
78	1b	874	U	N1-C6	-6.29	1.32	1.38
78	1b	33	G	N7-C5	-6.29	1.35	1.39
78	1b	2195	C	C4-C5	-6.29	1.38	1.43
78	1b	2346	C	N1-C6	-6.29	1.33	1.37
78	1b	2820	A	N3-C4	-6.29	1.31	1.34
78	1b	706	A	C5-C6	-6.29	1.35	1.41
78	1b	2414	G	N3-C4	-6.29	1.31	1.35
78	1b	2419	A	C5-C6	-6.29	1.35	1.41
78	1b	1534	A	C6-N6	-6.28	1.28	1.33
78	1b	2409	G	N9-C4	-6.28	1.32	1.38
78	1b	661	G	N3-C4	-6.28	1.31	1.35
78	1b	2697	A	C5-C6	-6.28	1.35	1.41
78	1b	2407	C	C5-C6	-6.28	1.29	1.34
78	1b	2519	A	C6-N6	-6.28	1.28	1.33
1	2b	363	G	N7-C5	-6.28	1.35	1.39
78	1b	2389	C	C4-C5	-6.28	1.38	1.43
78	1b	649	A	N9-C8	-6.28	1.32	1.37
78	1b	360	G	N9-C4	-6.27	1.32	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	957	C	C4-C5	-6.27	1.38	1.43
78	1b	950	G	C6-N1	-6.27	1.35	1.39
78	1b	3180	A	N9-C4	-6.27	1.34	1.37
78	1b	321	C	C4-C5	-6.27	1.38	1.43
78	1b	1424	C	N1-C6	-6.27	1.33	1.37
78	1b	2164	A	N9-C4	-6.27	1.34	1.37
78	1b	353	G	N3-C4	-6.27	1.31	1.35
78	1b	859	G	C6-N1	-6.26	1.35	1.39
78	1b	1320	C	C4-C5	-6.26	1.38	1.43
78	1b	1908	A	C5-C6	-6.26	1.35	1.41
1	2b	1786	G	N9-C4	-6.26	1.32	1.38
78	1b	106	A	C6-N6	-6.26	1.28	1.33
78	1b	656	A	C6-N1	-6.26	1.31	1.35
78	1b	1155	C	C4-C5	-6.26	1.38	1.43
78	1b	1493	G	N1-C2	-6.26	1.32	1.37
78	1b	2424	A	C5-C6	-6.26	1.35	1.41
35	4b	84	A	C5-C6	-6.26	1.35	1.41
78	1b	975	C	N1-C6	-6.26	1.33	1.37
78	1b	45	A	C6-N6	-6.26	1.28	1.33
78	1b	45	A	N9-C4	-6.26	1.34	1.37
78	1b	875	G	N9-C8	-6.26	1.33	1.37
78	1b	3330	A	N9-C4	-6.26	1.34	1.37
1	2b	396	G	N9-C4	-6.25	1.32	1.38
78	1b	289	A	N3-C4	-6.25	1.31	1.34
1	2b	1020	A	N9-C4	-6.25	1.34	1.37
1	2b	1087	A	C6-N6	-6.25	1.28	1.33
78	1b	851	C	C4-C5	-6.25	1.38	1.43
1	2b	584	C	N1-C6	-6.25	1.33	1.37
1	2b	1088	A	C5-C4	-6.25	1.34	1.38
78	1b	941	G	N1-C2	-6.25	1.32	1.37
1	2b	1796	C	N1-C6	-6.25	1.33	1.37
78	1b	896	A	C5-C6	-6.25	1.35	1.41
78	1b	1587	A	N7-C5	-6.25	1.35	1.39
36	3b	108	C	N3-C4	-6.25	1.29	1.33
78	1b	1304	A	C6-N6	-6.25	1.28	1.33
1	2b	1074	G	N7-C5	-6.24	1.35	1.39
78	1b	1548	C	N1-C6	-6.24	1.33	1.37
78	1b	1886	A	N3-C4	-6.24	1.31	1.34
78	Aa	2813	A	N9-C4	-6.24	1.34	1.37
78	1b	2798	C	N1-C6	-6.24	1.33	1.37
1	2b	394	C	N1-C6	-6.24	1.33	1.37
78	1b	3213	A	N9-C4	-6.24	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	2962	U	C4-C5	-6.24	1.38	1.43
78	1b	31	C	C4-N4	-6.24	1.28	1.33
78	1b	2136	C	N1-C6	-6.24	1.33	1.37
16	Nb	134	VAL	C-N	-6.24	1.19	1.34
1	2b	1006	C	C4-C5	-6.23	1.38	1.43
78	1b	1799	A	C5-C4	-6.23	1.34	1.38
78	1b	2155	G	N9-C4	-6.23	1.32	1.38
35	4b	84	A	C6-N1	-6.23	1.31	1.35
35	4b	100	C	N1-C6	-6.23	1.33	1.37
78	1b	815	G	C8-N7	-6.23	1.27	1.30
78	1b	2819	A	N9-C8	-6.23	1.32	1.37
37	Ay	69	TYR	CD2-CE2	-6.23	1.30	1.39
78	1b	950	G	N9-C4	-6.23	1.32	1.38
78	1b	842	G	N9-C4	-6.23	1.32	1.38
78	1b	860	G	C2-N3	-6.23	1.27	1.32
78	1b	2145	A	N7-C5	-6.23	1.35	1.39
1	2b	1113	A	N9-C4	-6.23	1.34	1.37
78	1b	2906	C	C4-C5	-6.23	1.38	1.43
1	2b	38	C	N1-C6	-6.22	1.33	1.37
78	1b	1319	G	N7-C5	-6.22	1.35	1.39
78	Aa	1875	G	N9-C8	-6.22	1.33	1.37
1	2b	1783	C	C5-C6	-6.22	1.29	1.34
78	1b	2134	G	C6-N1	-6.22	1.35	1.39
78	1b	625	G	N9-C8	-6.22	1.33	1.37
78	1b	2615	G	N9-C8	-6.22	1.33	1.37
78	1b	869	G	N9-C8	-6.22	1.33	1.37
78	1b	1915	A	C6-N6	-6.22	1.28	1.33
78	1b	406	G	C2-N3	-6.21	1.27	1.32
78	1b	3342	A	N9-C4	-6.21	1.34	1.37
78	1b	2813	A	C5-C4	-6.21	1.34	1.38
1	2b	974	A	N9-C8	-6.21	1.32	1.37
78	1b	944	C	C4-N4	-6.21	1.28	1.33
78	1b	2609	A	C5-C4	-6.21	1.34	1.38
78	1b	3244	A	N9-C4	-6.21	1.34	1.37
78	1b	1133	A	C6-N6	-6.21	1.28	1.33
78	1b	3311	C	C4-C5	-6.21	1.38	1.43
78	1b	2816	G	N1-C2	-6.21	1.32	1.37
1	2b	934	C	N1-C6	-6.20	1.33	1.37
1	2b	1671	A	C5-C6	-6.20	1.35	1.41
71	jb	37	CYS	CB-SG	-6.20	1.71	1.82
78	1b	269	G	N9-C4	-6.20	1.32	1.38
1	2b	437	A	N9-C4	-6.20	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2b	1203	A	N9-C4	-6.20	1.34	1.37
1	2b	1629	G	N9-C8	-6.20	1.33	1.37
78	1b	1454	A	C6-N6	-6.20	1.28	1.33
78	1b	1492	G	C6-N1	-6.20	1.35	1.39
1	2b	634	G	N9-C4	-6.20	1.32	1.38
36	3b	45	C	N1-C6	-6.20	1.33	1.37
78	1b	651	G	C6-N1	-6.20	1.35	1.39
78	1b	1126	G	N9-C8	-6.19	1.33	1.37
78	1b	1932	A	C6-N6	-6.19	1.28	1.33
78	1b	2359	C	N1-C6	-6.19	1.33	1.37
78	1b	2376	G	N1-C2	-6.19	1.32	1.37
78	Aa	1505	C	N1-C6	-6.19	1.33	1.37
35	4b	100	C	N3-C4	-6.19	1.29	1.33
1	2b	1778	G	N9-C8	-6.19	1.33	1.37
78	1b	828	A	C6-N6	-6.19	1.28	1.33
78	1b	1406	A	C6-N1	-6.19	1.31	1.35
78	1b	344	A	C5-C6	-6.18	1.35	1.41
78	1b	1158	A	N9-C4	-6.18	1.34	1.37
78	1b	2313	A	C5-C6	-6.18	1.35	1.41
78	1b	2963	C	N1-C6	-6.18	1.33	1.37
78	1b	695	C	N1-C6	-6.18	1.33	1.37
78	1b	2408	U	C5-C6	-6.18	1.28	1.34
1	2b	809	A	N9-C4	-6.18	1.34	1.37
78	1b	1615	C	C4-C5	-6.18	1.38	1.43
78	1b	2402	A	C5-C4	-6.18	1.34	1.38
78	1b	2649	A	C6-N6	-6.18	1.29	1.33
78	1b	370	U	N1-C2	-6.17	1.32	1.38
78	1b	1587	A	C5-C4	-6.17	1.34	1.38
78	1b	2606	G	N1-C2	-6.17	1.32	1.37
78	1b	936	A	N3-C4	-6.17	1.31	1.34
78	1b	1296	C	N1-C6	-6.17	1.33	1.37
78	1b	2366	C	N1-C6	-6.17	1.33	1.37
78	1b	3004	C	C4-N4	-6.17	1.28	1.33
78	1b	807	A	C5-C6	-6.17	1.35	1.41
1	2b	387	A	C6-N6	-6.17	1.29	1.33
1	2b	408	C	C4-C5	-6.17	1.38	1.43
78	1b	946	U	N1-C2	-6.17	1.33	1.38
1	2b	1299	G	N9-C8	-6.16	1.33	1.37
1	2b	1606	C	C4-C5	-6.16	1.38	1.43
78	1b	1204	A	N3-C4	-6.16	1.31	1.34
78	1b	1395	G	N1-C2	-6.16	1.32	1.37
1	2b	1642	G	N9-C4	-6.16	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	2331	C	C4-C5	-6.16	1.38	1.43
78	1b	1057	A	N9-C4	-6.16	1.34	1.37
1	2b	568	G	N9-C4	-6.16	1.33	1.38
78	1b	583	G	N9-C4	-6.16	1.33	1.38
78	1b	942	U	N1-C2	-6.15	1.33	1.38
1	2b	944	A	N9-C4	-6.15	1.34	1.37
1	2b	1021	C	N1-C6	-6.15	1.33	1.37
78	1b	920	A	C6-N6	-6.15	1.29	1.33
78	1b	921	A	N7-C5	-6.15	1.35	1.39
78	1b	1332	A	N7-C5	-6.15	1.35	1.39
78	1b	650	C	N3-C4	-6.15	1.29	1.33
78	1b	2637	A	N3-C4	-6.15	1.31	1.34
78	1b	823	C	C4-N4	-6.15	1.28	1.33
78	1b	3046	A	C5-C6	-6.15	1.35	1.41
78	1b	71	A	N9-C4	-6.15	1.34	1.37
78	1b	1460	A	N9-C4	-6.14	1.34	1.37
78	1b	2803	A	N3-C4	-6.14	1.31	1.34
78	1b	2815	G	N9-C8	-6.14	1.33	1.37
1	2b	372	G	N9-C8	-6.14	1.33	1.37
78	1b	344	A	C6-N1	-6.14	1.31	1.35
78	1b	2987	A	N3-C4	-6.14	1.31	1.34
1	2b	567	A	N9-C4	-6.14	1.34	1.37
1	2b	1678	A	N9-C4	-6.14	1.34	1.37
78	1b	822	G	N1-C2	-6.14	1.32	1.37
78	1b	1142	G	N1-C2	-6.14	1.32	1.37
78	1b	2627	C	N3-C4	-6.14	1.29	1.33
78	1b	3006	A	N9-C4	-6.14	1.34	1.37
78	1b	950	G	C5-C6	-6.13	1.36	1.42
1	2b	409	C	C4-C5	-6.13	1.38	1.43
78	1b	1146	C	C4-C5	-6.13	1.38	1.43
1	2b	322	G	N7-C5	-6.13	1.35	1.39
78	1b	867	G	N3-C4	-6.13	1.31	1.35
78	1b	2889	C	N3-C4	-6.13	1.29	1.33
78	1b	2246	G	N3-C4	-6.13	1.31	1.35
1	2b	1006	C	C4-N4	-6.13	1.28	1.33
39	Cy	77	VAL	CB-CG2	-6.13	1.40	1.52
78	1b	843	A	C5-C6	-6.13	1.35	1.41
78	1b	1506	A	N9-C4	-6.13	1.34	1.37
78	1b	2279	A	N9-C4	-6.13	1.34	1.37
78	1b	2428	U	N1-C6	-6.13	1.32	1.38
71	jb	29	VAL	CB-CG1	-6.13	1.40	1.52
78	1b	435	C	N1-C6	-6.13	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	1864	A	N9-C4	-6.13	1.34	1.37
78	1b	2958	A	C5-C4	-6.13	1.34	1.38
1	2b	576	G	N9-C8	-6.12	1.33	1.37
78	1b	665	A	N7-C5	-6.12	1.35	1.39
1	2b	1771	U	C4-C5	-6.12	1.38	1.43
78	1b	788	C	N1-C6	-6.12	1.33	1.37
78	1b	920	A	C5-C4	-6.12	1.34	1.38
36	3b	47	C	N1-C6	-6.12	1.33	1.37
78	1b	791	A	C6-N6	-6.12	1.29	1.33
78	1b	1099	A	C5-C6	-6.12	1.35	1.41
78	1b	92	G	C6-N1	-6.12	1.35	1.39
78	1b	645	A	C6-N1	-6.12	1.31	1.35
78	1b	927	C	N3-C4	-6.12	1.29	1.33
78	1b	2786	G	N9-C8	-6.12	1.33	1.37
1	2b	1093	A	N9-C4	-6.12	1.34	1.37
78	1b	2278	C	C4-C5	-6.12	1.38	1.43
1	2b	47	A	N9-C4	-6.11	1.34	1.37
1	2b	951	A	N9-C4	-6.11	1.34	1.37
78	1b	1585	C	N3-C4	-6.11	1.29	1.33
78	1b	1062	A	C5-C6	-6.11	1.35	1.41
78	1b	2893	C	N1-C6	-6.11	1.33	1.37
78	1b	968	G	C2-N2	-6.11	1.28	1.34
78	1b	1401	A	C6-N6	-6.11	1.29	1.33
78	1b	2607	G	N9-C4	-6.11	1.33	1.38
1	2b	366	A	C6-N6	-6.11	1.29	1.33
78	1b	2352	A	C5-C6	-6.11	1.35	1.41
1	2b	7	G	N9-C8	-6.11	1.33	1.37
78	1b	1423	C	N3-C4	-6.11	1.29	1.33
78	1b	1656	A	N9-C8	-6.11	1.32	1.37
1	a	894	U	C2-N3	-6.10	1.33	1.37
78	Aa	2333	C	N1-C6	-6.10	1.33	1.37
1	2b	1201	G	N9-C8	-6.10	1.33	1.37
78	1b	2153	U	N1-C6	-6.10	1.32	1.38
1	2b	398	G	C2-N3	-6.10	1.27	1.32
1	2b	747	C	N1-C6	-6.10	1.33	1.37
1	2b	925	G	N9-C8	-6.10	1.33	1.37
1	2b	1791	A	N7-C5	-6.10	1.35	1.39
78	1b	1295	G	N7-C5	-6.10	1.35	1.39
78	1b	2145	A	C5-C6	-6.10	1.35	1.41
1	2b	449	C	N1-C6	-6.09	1.33	1.37
1	2b	937	C	C4-C5	-6.09	1.38	1.43
1	2b	1025	A	C6-N6	-6.09	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	948	C	C5-C6	-6.09	1.29	1.34
78	1b	1493	G	C5-C6	-6.09	1.36	1.42
78	1b	2425	G	N9-C8	-6.09	1.33	1.37
1	2b	341	A	C5-C6	-6.09	1.35	1.41
1	2b	1652	C	C4-N4	-6.09	1.28	1.33
35	4b	11	A	N9-C4	-6.09	1.34	1.37
78	1b	359	U	C2-N3	-6.09	1.33	1.37
78	1b	893	C	N1-C6	-6.09	1.33	1.37
78	1b	1003	A	N9-C4	-6.09	1.34	1.37
78	1b	1362	G	N9-C8	-6.09	1.33	1.37
78	1b	1535	A	N3-C4	-6.09	1.31	1.34
78	1b	2601	A	C6-N6	-6.09	1.29	1.33
1	2b	1087	A	N9-C8	-6.09	1.32	1.37
1	2b	1778	G	N9-C4	-6.09	1.33	1.38
78	1b	2245	C	N3-C4	-6.09	1.29	1.33
78	1b	2287	C	N1-C6	-6.09	1.33	1.37
1	2b	1632	C	C4-C5	-6.08	1.38	1.43
78	1b	2152	A	N9-C4	-6.08	1.34	1.37
78	1b	2390	A	C5-C6	-6.08	1.35	1.41
57	Vy	19	VAL	CB-CG1	-6.08	1.40	1.52
78	1b	1465	A	N9-C4	-6.08	1.34	1.37
78	1b	1547	G	N9-C4	-6.08	1.33	1.38
78	1b	1889	G	N3-C4	-6.08	1.31	1.35
78	1b	2984	C	C5-C6	-6.08	1.29	1.34
78	1b	2941	A	C5-C6	-6.08	1.35	1.41
78	1b	82	C	C4-C5	-6.08	1.38	1.43
78	1b	2118	C	C4-C5	-6.08	1.38	1.43
78	1b	2869	U	N1-C2	-6.08	1.33	1.38
78	1b	1189	C	N1-C6	-6.08	1.33	1.37
1	2b	1142	A	N9-C4	-6.08	1.34	1.37
49	Ny	66	VAL	CB-CG1	-6.08	1.40	1.52
78	1b	2664	C	N1-C6	-6.08	1.33	1.37
78	1b	2869	U	C2-N3	-6.08	1.33	1.37
78	1b	1397	C	C4-C5	-6.07	1.38	1.43
78	1b	2792	A	C6-N6	-6.07	1.29	1.33
78	1b	94	G	C6-N1	-6.07	1.35	1.39
78	1b	811	U	N1-C6	-6.07	1.32	1.38
78	1b	1575	A	C6-N1	-6.07	1.31	1.35
78	1b	806	A	C6-N1	-6.07	1.31	1.35
1	2b	398	G	N3-C4	-6.07	1.31	1.35
78	1b	2390	A	C6-N6	-6.07	1.29	1.33
1	2b	366	A	C5-C6	-6.07	1.35	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	199	A	N9-C4	-6.07	1.34	1.37
78	1b	1852	G	N9-C4	-6.07	1.33	1.38
78	1b	2601	A	N9-C4	-6.07	1.34	1.37
78	1b	2697	A	C6-N1	-6.06	1.31	1.35
78	1b	800	G	N9-C4	-6.06	1.33	1.38
78	1b	809	G	C8-N7	-6.06	1.27	1.30
78	1b	2128	C	C4-C5	-6.06	1.38	1.43
57	Vy	58	VAL	CB-CG2	-6.06	1.40	1.52
78	1b	1170	A	C6-N6	-6.06	1.29	1.33
78	1b	1656	A	C5-C4	-6.06	1.34	1.38
78	1b	2120	A	C5-C6	-6.06	1.35	1.41
78	1b	2805	G	C6-N1	-6.06	1.35	1.39
36	Ca	104	A	N9-C8	-6.06	1.32	1.37
1	2b	1327	C	C4-C5	-6.06	1.38	1.43
78	1b	41	G	C6-N1	-6.05	1.35	1.39
78	1b	1538	G	C6-N1	-6.05	1.35	1.39
78	1b	2290	C	N1-C6	-6.05	1.33	1.37
78	1b	2375	G	N9-C4	-6.05	1.33	1.38
78	1b	1611	G	N1-C2	-6.05	1.32	1.37
1	2b	1774	G	N3-C4	-6.05	1.31	1.35
36	3b	112	U	C2-N3	-6.05	1.33	1.37
78	1b	2602	G	N9-C8	-6.05	1.33	1.37
1	2b	1019	A	N9-C4	-6.05	1.34	1.37
1	2b	1637	C	N1-C6	-6.05	1.33	1.37
78	1b	2769	A	N9-C4	-6.05	1.34	1.37
39	Fa	19	ALA	C-N	-6.05	1.20	1.34
1	2b	1119	G	N9-C8	-6.05	1.33	1.37
78	1b	633	C	C5-C6	-6.05	1.29	1.34
78	1b	758	C	C2-O2	-6.05	1.19	1.24
39	Cy	35	VAL	CB-CG1	-6.04	1.40	1.52
78	1b	894	G	N9-C4	-6.04	1.33	1.38
78	1b	888	A	C6-N6	-6.04	1.29	1.33
78	1b	1344	G	N9-C8	-6.04	1.33	1.37
78	1b	2312	A	N9-C4	-6.04	1.34	1.37
78	1b	3143	C	N1-C6	-6.04	1.33	1.37
78	Aa	409	A	N9-C8	-6.04	1.32	1.37
78	1b	656	A	C6-N6	-6.04	1.29	1.33
78	1b	843	A	N9-C4	-6.04	1.34	1.37
78	1b	2399	A	C5-C6	-6.04	1.35	1.41
78	1b	2362	C	N3-C4	-6.04	1.29	1.33
78	1b	1166	G	N1-C2	-6.04	1.32	1.37
78	1b	2874	G	N9-C4	-6.04	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	3120	C	N1-C6	-6.04	1.33	1.37
78	1b	702	C	N1-C6	-6.04	1.33	1.37
78	1b	2414	G	N7-C5	-6.04	1.35	1.39
1	2b	445	A	N9-C4	-6.03	1.34	1.37
78	1b	3075	G	C6-N1	-6.03	1.35	1.39
1	2b	927	C	C4-C5	-6.03	1.38	1.43
78	1b	1175	C	C4-C5	-6.03	1.38	1.43
78	1b	2704	A	N9-C4	-6.03	1.34	1.37
36	3b	44	A	C5-C6	-6.03	1.35	1.41
78	1b	26	A	C6-N6	-6.03	1.29	1.33
78	1b	209	A	C5-C6	-6.03	1.35	1.41
78	1b	2145	A	N9-C8	-6.03	1.32	1.37
78	1b	2285	C	C4-C5	-6.03	1.38	1.43
1	2b	400	A	N7-C5	-6.03	1.35	1.39
78	1b	1444	G	N1-C2	-6.03	1.32	1.37
78	1b	2409	G	C5-C4	-6.03	1.34	1.38
78	1b	2908	G	N9-C8	-6.03	1.33	1.37
1	2b	407	A	C5-C6	-6.02	1.35	1.41
78	1b	701	G	C6-N1	-6.02	1.35	1.39
1	2b	362	G	N1-C2	-6.02	1.32	1.37
78	1b	749	C	N1-C6	-6.02	1.33	1.37
1	2b	1010	C	C4-C5	-6.02	1.38	1.43
1	2b	1088	A	N7-C5	-6.02	1.35	1.39
1	2b	1176	G	N9-C8	-6.02	1.33	1.37
78	1b	1799	A	C6-N1	-6.02	1.31	1.35
78	1b	2334	U	C2-N3	-6.02	1.33	1.37
78	1b	2868	U	C5-C6	-6.02	1.28	1.34
78	1b	1338	C	C4-C5	-6.02	1.38	1.43
78	1b	1444	G	C6-N1	-6.02	1.35	1.39
78	1b	710	A	N9-C8	-6.01	1.32	1.37
78	1b	1928	G	N9-C8	-6.01	1.33	1.37
78	1b	2819	A	C5-C4	-6.01	1.34	1.38
78	1b	691	A	C5-C6	-6.01	1.35	1.41
78	1b	2407	C	N3-C4	-6.01	1.29	1.33
1	2b	990	C	C4-C5	-6.01	1.38	1.43
1	2b	1072	C	C4-C5	-6.01	1.38	1.43
1	2b	1123	C	C4-C5	-6.01	1.38	1.43
78	1b	1550	C	N1-C6	-6.01	1.33	1.37
78	1b	1849	C	N1-C6	-6.01	1.33	1.37
78	1b	1942	U	N1-C6	-6.01	1.32	1.38
78	1b	2940	A	C5-C4	-6.01	1.34	1.38
78	1b	2981	U	N1-C6	-6.01	1.32	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	1429	G	N1-C2	-6.01	1.32	1.37
78	1b	1852	G	C6-N1	-6.01	1.35	1.39
78	1b	3060	C	C4-C5	-6.01	1.38	1.43
47	Ly	33	VAL	CB-CG1	-6.01	1.40	1.52
78	1b	2805	G	N9-C8	-6.00	1.33	1.37
78	1b	335	G	N9-C4	-6.00	1.33	1.38
78	1b	2816	G	C2-N3	-6.00	1.27	1.32
1	2b	991	G	N1-C2	-6.00	1.32	1.37
1	2b	1611	A	N7-C5	-6.00	1.35	1.39
78	1b	670	C	N3-C4	-6.00	1.29	1.33
78	1b	841	A	N9-C4	-6.00	1.34	1.37
78	1b	873	C	C5-C6	-6.00	1.29	1.34
78	1b	913	A	N9-C4	-6.00	1.34	1.37
78	1b	1150	A	N3-C4	-6.00	1.31	1.34
78	1b	1896	A	N3-C4	-6.00	1.31	1.34
78	1b	2786	G	N9-C4	-6.00	1.33	1.38
1	2b	975	C	C5-C6	-6.00	1.29	1.34
1	2b	1785	U	N1-C6	-6.00	1.32	1.38
78	1b	35	A	N7-C5	-6.00	1.35	1.39
1	2b	382	C	N1-C6	-6.00	1.33	1.37
1	2b	955	A	N9-C4	-6.00	1.34	1.37
78	1b	894	G	C2-N3	-6.00	1.27	1.32
78	1b	1395	G	C6-N1	-5.99	1.35	1.39
78	1b	1592	G	N9-C4	-5.99	1.33	1.38
1	2b	1281	G	N9-C8	-5.99	1.33	1.37
78	1b	67	A	C6-N6	-5.99	1.29	1.33
78	1b	1437	C	N3-C4	-5.99	1.29	1.33
78	1b	649	A	N7-C5	-5.99	1.35	1.39
78	1b	710	A	N9-C4	-5.99	1.34	1.37
78	1b	1928	G	N3-C4	-5.99	1.31	1.35
78	1b	2966	G	C6-N1	-5.99	1.35	1.39
78	1b	928	C	C4-C5	-5.99	1.38	1.43
78	1b	1901	A	C5-C4	-5.99	1.34	1.38
78	1b	795	G	C6-N1	-5.99	1.35	1.39
78	1b	928	C	N3-C4	-5.99	1.29	1.33
78	1b	1302	A	N9-C4	-5.99	1.34	1.37
1	2b	1545	A	N9-C4	-5.99	1.34	1.37
1	2b	991	G	C6-N1	-5.98	1.35	1.39
78	1b	86	G	N3-C4	-5.98	1.31	1.35
78	1b	824	C	C5-C6	-5.98	1.29	1.34
78	1b	992	A	N9-C8	-5.98	1.32	1.37
78	1b	1664	G	N7-C5	-5.98	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	2950	G	C2-N3	-5.98	1.27	1.32
78	1b	662	U	C4-C5	-5.98	1.38	1.43
78	1b	968	G	N3-C4	-5.98	1.31	1.35
78	1b	2765	C	C4-C5	-5.98	1.38	1.43
78	Aa	1488	G	N9-C8	-5.98	1.33	1.37
78	1b	1337	A	N9-C4	-5.98	1.34	1.37
78	1b	1663	C	C5-C6	-5.98	1.29	1.34
78	1b	2419	A	N7-C5	-5.98	1.35	1.39
1	2b	637	C	N1-C6	-5.98	1.33	1.37
1	2b	1152	A	N7-C5	-5.98	1.35	1.39
51	Py	88	VAL	CB-CG2	-5.98	1.40	1.52
78	1b	2947	G	C5-C4	-5.98	1.34	1.38
1	2b	955	A	N9-C8	-5.98	1.32	1.37
1	2b	1087	A	N9-C4	-5.98	1.34	1.37
78	1b	3043	C	C4-C5	-5.98	1.38	1.43
78	Aa	1591	G	N3-C4	-5.98	1.31	1.35
1	2b	967	A	N7-C5	-5.97	1.35	1.39
78	1b	3099	C	N1-C6	-5.97	1.33	1.37
78	Aa	2397	A	N9-C4	-5.97	1.34	1.37
49	Ny	115	VAL	CB-CG2	-5.97	1.40	1.52
78	1b	1343	A	N9-C8	-5.97	1.32	1.37
78	1b	2967	A	C5-C4	-5.97	1.34	1.38
1	2b	997	G	N9-C8	-5.97	1.33	1.37
78	1b	341	G	C6-N1	-5.97	1.35	1.39
78	1b	424	G	C6-N1	-5.97	1.35	1.39
78	1b	867	G	N9-C4	-5.97	1.33	1.38
78	1b	2799	A	N9-C8	-5.97	1.32	1.37
1	2b	1109	G	C2-N3	-5.96	1.27	1.32
78	1b	1546	A	C5-C6	-5.96	1.35	1.41
78	1b	2397	A	N3-C4	-5.96	1.31	1.34
1	2b	1721	A	N9-C4	-5.96	1.34	1.37
37	Ay	62	VAL	CB-CG2	-5.96	1.40	1.52
1	2b	978	A	N9-C4	-5.96	1.34	1.37
78	1b	945	C	N3-C4	-5.96	1.29	1.33
78	1b	1897	G	N9-C8	-5.96	1.33	1.37
78	1b	3106	A	C6-N6	-5.96	1.29	1.33
1	2b	1784	C	N3-C4	-5.96	1.29	1.33
78	1b	892	U	N1-C6	-5.96	1.32	1.38
78	1b	1419	A	C5-C6	-5.96	1.35	1.41
78	1b	2398	A	C5-C6	-5.96	1.35	1.41
78	1b	3378	C	C4-C5	-5.96	1.38	1.43
78	1b	364	G	C6-N1	-5.96	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	1373	A	N9-C4	-5.96	1.34	1.37
78	1b	1434	G	N3-C4	-5.96	1.31	1.35
78	1b	1845	G	N3-C4	-5.96	1.31	1.35
78	Aa	107	A	N9-C4	-5.96	1.34	1.37
51	Py	39	TRP	CB-CG	-5.96	1.39	1.50
78	1b	844	G	N9-C8	-5.95	1.33	1.37
78	1b	835	G	N9-C8	-5.95	1.33	1.37
78	1b	1927	G	N9-C8	-5.95	1.33	1.37
78	1b	2369	G	N7-C5	-5.95	1.35	1.39
1	2b	756	A	N3-C4	-5.95	1.31	1.34
78	1b	829	U	N1-C6	-5.95	1.32	1.38
78	1b	2430	A	C6-N6	-5.95	1.29	1.33
78	1b	2126	A	C6-N6	-5.95	1.29	1.33
78	1b	898	U	N1-C6	-5.95	1.32	1.38
78	1b	1443	G	C6-N1	-5.95	1.35	1.39
78	1b	2612	U	N1-C6	-5.95	1.32	1.38
78	1b	2792	A	N9-C4	-5.95	1.34	1.37
1	a	1597	A	C8-N7	5.95	1.35	1.31
1	2b	309	C	N3-C4	-5.94	1.29	1.33
78	1b	1363	A	N7-C5	-5.94	1.35	1.39
1	2b	1333	C	C4-C5	-5.94	1.38	1.43
78	1b	2143	A	N7-C5	-5.94	1.35	1.39
78	1b	639	G	N1-C2	-5.94	1.32	1.37
78	1b	1481	A	N9-C8	-5.94	1.32	1.37
78	1b	2785	A	N9-C4	-5.94	1.34	1.37
78	1b	3139	A	C5-C6	-5.94	1.35	1.41
1	a	1211	A	N9-C4	-5.94	1.34	1.37
1	2b	1425	A	N9-C4	-5.93	1.34	1.37
78	1b	16	A	C6-N6	-5.93	1.29	1.33
78	1b	657	A	C6-N6	-5.93	1.29	1.33
78	1b	2362	C	C5-C6	-5.93	1.29	1.34
78	1b	2737	C	N1-C6	-5.93	1.33	1.37
1	2b	315	A	N7-C5	-5.93	1.35	1.39
78	1b	16	A	N9-C4	-5.93	1.34	1.37
78	1b	357	A	N9-C8	-5.93	1.33	1.37
78	Aa	2610	G	N9-C8	-5.93	1.33	1.37
78	1b	1147	G	N1-C2	-5.93	1.33	1.37
1	2b	6	G	N9-C4	-5.93	1.33	1.38
1	2b	1027	A	C6-N6	-5.93	1.29	1.33
78	1b	656	A	N7-C5	-5.93	1.35	1.39
78	1b	2413	A	N7-C5	-5.93	1.35	1.39
78	1b	1372	C	C4-C5	-5.93	1.38	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	1881	A	N9-C8	-5.93	1.33	1.37
78	1b	2390	A	C6-N1	-5.93	1.31	1.35
78	1b	866	A	N9-C4	-5.93	1.34	1.37
78	1b	969	C	N3-C4	-5.93	1.29	1.33
78	1b	2178	A	N9-C4	-5.93	1.34	1.37
1	2b	1652	C	N3-C4	-5.92	1.29	1.33
1	2b	107	C	N1-C6	-5.92	1.33	1.37
1	2b	1733	C	C4-C5	-5.92	1.38	1.43
78	1b	62	A	N9-C4	-5.92	1.34	1.37
78	1b	1922	A	C5-C6	-5.92	1.35	1.41
78	1b	2311	G	N7-C5	-5.92	1.35	1.39
1	2b	1169	G	N9-C4	-5.92	1.33	1.38
78	1b	870	G	N9-C4	-5.92	1.33	1.38
78	1b	2414	G	N9-C4	-5.92	1.33	1.38
78	1b	2956	A	C5-C6	-5.92	1.35	1.41
78	1b	2976	A	N3-C4	-5.92	1.31	1.34
78	1b	1327	C	C4-C5	-5.92	1.38	1.43
78	1b	1657	C	C4-C5	-5.92	1.38	1.43
78	1b	880	G	N1-C2	-5.92	1.33	1.37
78	1b	951	A	N3-C4	-5.92	1.31	1.34
78	1b	2265	C	C4-C5	-5.92	1.38	1.43
78	1b	2880	U	N1-C2	-5.92	1.33	1.38
78	1b	2889	C	N1-C6	-5.92	1.33	1.37
1	2b	607	G	N9-C8	-5.92	1.33	1.37
78	1b	886	C	C5-C6	-5.92	1.29	1.34
78	1b	1142	G	N9-C8	-5.92	1.33	1.37
1	2b	1027	A	C5-C4	-5.92	1.34	1.38
78	1b	1858	A	N9-C4	-5.92	1.34	1.37
78	1b	745	C	N1-C6	-5.91	1.33	1.37
78	1b	433	A	C5-C6	-5.91	1.35	1.41
78	1b	1617	G	N9-C8	-5.91	1.33	1.37
78	1b	861	C	N3-C4	-5.91	1.29	1.33
78	1b	893	C	C5-C6	-5.91	1.29	1.34
78	1b	1908	A	C6-N6	-5.91	1.29	1.33
78	1b	2197	C	C4-C5	-5.91	1.38	1.43
78	1b	51	A	C5-C6	-5.91	1.35	1.41
78	1b	913	A	C6-N1	-5.91	1.31	1.35
78	1b	2787	G	N9-C8	-5.91	1.33	1.37
78	1b	3303	G	N9-C4	-5.91	1.33	1.38
1	2b	1620	C	C4-C5	-5.91	1.38	1.43
78	1b	1300	G	C6-N1	-5.91	1.35	1.39
78	1b	2400	G	N9-C8	-5.91	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	57	A	C6-N6	-5.91	1.29	1.33
78	1b	344	A	N7-C5	-5.91	1.35	1.39
78	1b	634	C	C4-C5	-5.91	1.38	1.43
78	1b	816	A	N9-C4	-5.91	1.34	1.37
78	1b	1738	C	N1-C6	-5.91	1.33	1.37
78	1b	2928	C	N1-C6	-5.91	1.33	1.37
1	2b	976	G	N3-C4	-5.90	1.31	1.35
1	2b	1104	U	N1-C6	-5.90	1.32	1.38
78	1b	365	A	C5-C6	-5.90	1.35	1.41
78	1b	1432	C	C4-C5	-5.90	1.38	1.43
78	1b	1899	G	N9-C4	-5.90	1.33	1.38
78	1b	2814	G	N9-C4	-5.90	1.33	1.38
78	1b	1135	A	N9-C4	-5.90	1.34	1.37
78	1b	1373	A	C5-C6	-5.90	1.35	1.41
78	1b	1505	C	C5-C6	-5.90	1.29	1.34
1	2b	1297	G	C6-N1	-5.90	1.35	1.39
78	1b	972	A	C5-C6	-5.90	1.35	1.41
78	1b	305	U	N1-C6	-5.90	1.32	1.38
78	1b	919	U	N1-C6	-5.90	1.32	1.38
78	1b	2233	A	N9-C4	-5.90	1.34	1.37
14	Lb	85	VAL	CB-CG2	-5.89	1.40	1.52
36	3b	48	A	N3-C4	-5.89	1.31	1.34
78	1b	55	G	N9-C4	-5.89	1.33	1.38
1	2b	20	G	N9-C4	-5.89	1.33	1.38
1	2b	355	G	N9-C8	-5.89	1.33	1.37
1	2b	604	A	N9-C8	-5.89	1.33	1.37
1	2b	1674	C	N3-C4	-5.89	1.29	1.33
37	Ay	207	VAL	CB-CG1	-5.89	1.40	1.52
78	1b	373	A	C6-N6	-5.89	1.29	1.33
78	1b	1150	A	C6-N6	-5.89	1.29	1.33
78	1b	1902	G	N1-C2	-5.89	1.33	1.37
78	1b	2815	G	N9-C4	-5.89	1.33	1.38
78	1b	1145	G	N9-C8	-5.89	1.33	1.37
78	1b	1426	C	N3-C4	-5.89	1.29	1.33
78	1b	1898	G	N9-C4	-5.89	1.33	1.38
78	1b	2950	G	N1-C2	-5.89	1.33	1.37
1	2b	1078	C	C5-C6	-5.89	1.29	1.34
78	1b	833	G	N1-C2	-5.89	1.33	1.37
78	1b	2515	A	N9-C4	-5.89	1.34	1.37
78	1b	2948	C	N3-C4	-5.89	1.29	1.33
78	1b	688	G	N9-C4	-5.89	1.33	1.38
78	1b	2107	A	C5-C6	-5.89	1.35	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	2108	C	N1-C6	-5.89	1.33	1.37
78	1b	3039	C	N1-C6	-5.89	1.33	1.37
78	1b	2278	C	C5-C6	-5.88	1.29	1.34
78	1b	2322	C	N3-C4	-5.88	1.29	1.33
78	1b	2409	G	N3-C4	-5.88	1.31	1.35
78	1b	2602	G	N3-C4	-5.88	1.31	1.35
78	1b	2962	U	N1-C2	-5.88	1.33	1.38
1	2b	1764	C	N3-C4	-5.88	1.29	1.33
51	Py	51	VAL	CB-CG1	-5.88	1.40	1.52
78	1b	916	G	C6-N1	-5.88	1.35	1.39
1	2b	956	C	C4-C5	-5.88	1.38	1.43
78	1b	1311	G	N9-C8	-5.88	1.33	1.37
1	2b	1103	U	N1-C6	-5.88	1.32	1.38
78	1b	319	A	N9-C4	-5.88	1.34	1.37
78	1b	817	A	N7-C5	-5.88	1.35	1.39
78	1b	1328	C	C5-C6	-5.88	1.29	1.34
78	1b	2134	G	C8-N7	-5.88	1.27	1.30
78	1b	3212	C	N1-C6	-5.88	1.33	1.37
1	2b	525	A	C6-N6	-5.88	1.29	1.33
78	1b	1314	C	C4-C5	-5.88	1.38	1.43
78	1b	803	C	C5-C6	-5.87	1.29	1.34
78	1b	929	A	C5-C6	-5.87	1.35	1.41
78	1b	1187	C	C4-C5	-5.87	1.38	1.43
78	1b	1595	U	N1-C6	-5.87	1.32	1.38
78	1b	1665	C	N1-C6	-5.87	1.33	1.37
78	1b	3379	C	N3-C4	-5.87	1.29	1.33
78	1b	2134	G	N7-C5	-5.87	1.35	1.39
78	1b	2235	C	C4-C5	-5.87	1.38	1.43
78	1b	3067	C	N1-C6	-5.87	1.33	1.37
78	1b	2119	A	N9-C4	-5.87	1.34	1.37
1	2b	977	A	C6-N6	-5.87	1.29	1.33
36	3b	14	C	N1-C6	-5.87	1.33	1.37
78	1b	644	G	N3-C4	-5.87	1.31	1.35
78	1b	1592	G	C2-N2	-5.87	1.28	1.34
78	1b	344	A	N9-C8	-5.87	1.33	1.37
1	2b	887	A	N9-C4	-5.87	1.34	1.37
78	1b	639	G	C6-N1	-5.87	1.35	1.39
78	1b	1195	A	N3-C4	-5.86	1.31	1.34
78	1b	1300	G	N9-C4	-5.86	1.33	1.38
78	1b	2335	G	C2-N3	-5.86	1.28	1.32
78	1b	655	C	C4-C5	-5.86	1.38	1.43
78	1b	2813	A	C6-N6	-5.86	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2b	1162	C	N1-C6	-5.86	1.33	1.37
78	1b	941	G	N3-C4	-5.86	1.31	1.35
78	1b	1369	A	N9-C4	-5.86	1.34	1.37
78	1b	1406	A	N3-C4	-5.86	1.31	1.34
78	1b	950	G	N9-C8	-5.86	1.33	1.37
78	1b	2345	A	C6-N1	-5.86	1.31	1.35
78	1b	2925	C	N1-C6	-5.86	1.33	1.37
1	2b	344	A	C6-N6	-5.86	1.29	1.33
78	1b	659	G	C6-N1	-5.86	1.35	1.39
78	1b	661	G	C5-C4	-5.86	1.34	1.38
78	1b	1492	G	N9-C8	-5.86	1.33	1.37
78	1b	3136	G	N9-C8	-5.86	1.33	1.37
78	1b	3298	C	C4-C5	-5.86	1.38	1.43
36	3b	36	G	N9-C8	-5.85	1.33	1.37
1	2b	103	A	N9-C4	-5.85	1.34	1.37
35	4b	9	C	N1-C6	-5.85	1.33	1.37
78	1b	801	A	C5-C4	-5.85	1.34	1.38
78	1b	935	U	C2-N3	-5.85	1.33	1.37
78	1b	1648	A	N9-C4	-5.85	1.34	1.37
78	1b	2115	G	N9-C8	-5.85	1.33	1.37
78	1b	1318	A	N3-C4	-5.85	1.31	1.34
78	1b	1368	U	N1-C6	-5.85	1.32	1.38
78	Aa	827	A	C6-N6	-5.85	1.29	1.33
78	1b	949	C	C5-C6	-5.85	1.29	1.34
78	1b	1693	C	N1-C6	-5.85	1.33	1.37
1	2b	1323	C	C4-C5	-5.85	1.38	1.43
78	1b	1333	C	N3-C4	-5.85	1.29	1.33
78	1b	1788	C	C4-C5	-5.85	1.38	1.43
78	1b	313	A	N9-C4	-5.84	1.34	1.37
78	1b	388	G	N9-C8	-5.84	1.33	1.37
78	1b	1312	C	C5-C6	-5.84	1.29	1.34
78	1b	1402	C	N1-C6	-5.84	1.33	1.37
78	1b	1789	G	N9-C4	-5.84	1.33	1.38
78	1b	2395	G	N9-C4	-5.84	1.33	1.38
1	2b	100	A	N9-C4	-5.84	1.34	1.37
78	1b	630	A	C6-N6	-5.84	1.29	1.33
78	1b	633	C	C4-C5	-5.84	1.38	1.43
78	1b	675	C	C4-C5	-5.84	1.38	1.43
78	1b	2611	U	N1-C6	-5.84	1.32	1.38
1	2b	1479	A	N9-C4	-5.84	1.34	1.37
78	1b	1913	A	N3-C4	-5.84	1.31	1.34
78	1b	2166	A	N9-C4	-5.84	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2b	869	A	N9-C4	-5.84	1.34	1.37
78	1b	996	A	N9-C4	-5.84	1.34	1.37
78	1b	1843	C	N3-C4	-5.84	1.29	1.33
78	1b	2370	G	N3-C4	-5.84	1.31	1.35
36	3b	104	A	C6-N6	-5.84	1.29	1.33
78	1b	26	A	C6-N1	-5.84	1.31	1.35
78	1b	940	G	N3-C4	-5.84	1.31	1.35
78	1b	428	A	C5-C4	-5.83	1.34	1.38
78	1b	2150	G	N9-C8	-5.83	1.33	1.37
78	Aa	837	A	N9-C4	-5.83	1.34	1.37
78	Aa	1798	A	N9-C4	-5.83	1.34	1.37
1	2b	1026	A	C6-N1	-5.83	1.31	1.35
78	1b	814	U	C4-C5	-5.83	1.38	1.43
78	1b	83	U	C2-N3	-5.83	1.33	1.37
78	1b	933	A	N7-C5	-5.83	1.35	1.39
78	1b	1105	A	C6-N6	-5.83	1.29	1.33
78	1b	2929	C	N1-C6	-5.83	1.33	1.37
78	1b	2132	C	C4-N4	-5.83	1.28	1.33
78	1b	3089	C	C4-C5	-5.83	1.38	1.43
1	2b	791	A	N9-C4	-5.82	1.34	1.37
78	1b	40	A	C6-N6	-5.82	1.29	1.33
78	1b	827	A	N9-C8	-5.82	1.33	1.37
78	1b	1145	G	N9-C4	-5.82	1.33	1.38
78	1b	652	G	C6-N1	-5.82	1.35	1.39
1	2b	1126	G	N9-C4	-5.82	1.33	1.38
78	1b	2663	G	N9-C8	-5.82	1.33	1.37
1	2b	1401	A	N7-C5	-5.82	1.35	1.39
1	2b	1465	C	C5-C6	-5.82	1.29	1.34
36	3b	35	C	C4-C5	-5.82	1.38	1.43
78	1b	2243	A	N9-C4	-5.82	1.34	1.37
1	2b	1592	A	N9-C4	-5.82	1.34	1.37
78	1b	322	U	N1-C6	-5.82	1.32	1.38
78	1b	1161	G	N9-C4	-5.82	1.33	1.38
78	1b	2603	G	N9-C8	-5.82	1.33	1.37
78	1b	1185	C	C4-C5	-5.81	1.38	1.43
1	2b	330	G	N7-C5	-5.81	1.35	1.39
78	1b	316	U	N1-C6	-5.81	1.32	1.38
78	1b	2160	G	N9-C4	-5.81	1.33	1.38
78	1b	2938	G	N9-C4	-5.81	1.33	1.38
78	1b	3001	C	N1-C6	-5.81	1.33	1.37
50	Oy	35[A]	VAL	CB-CG1	-5.81	1.40	1.52
67	fy	27	VAL	CB-CG1	-5.81	1.40	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	144	A	N9-C4	-5.81	1.34	1.37
78	1b	342	A	N9-C8	-5.81	1.33	1.37
78	1b	661	G	C2-N2	-5.81	1.28	1.34
1	2b	1131	A	C5-C6	-5.81	1.35	1.41
36	3b	10	A	N7-C5	-5.81	1.35	1.39
78	1b	1447	G	C2-N3	-5.81	1.28	1.32
78	1b	2123	G	N7-C5	-5.81	1.35	1.39
78	1b	2928	C	N3-C4	-5.81	1.29	1.33
78	1b	1367	G	N1-C2	-5.81	1.33	1.37
1	2b	31	C	N1-C6	-5.81	1.33	1.37
78	1b	913	A	C5-C4	-5.81	1.34	1.38
78	1b	2711	C	N1-C6	-5.81	1.33	1.37
1	2b	1134	C	N3-C4	-5.80	1.29	1.33
78	1b	2154	U	N1-C6	-5.80	1.32	1.38
78	1b	2592	G	C6-N1	-5.80	1.35	1.39
78	1b	2894	C	N1-C6	-5.80	1.33	1.37
78	1b	1906	G	N1-C2	-5.80	1.33	1.37
78	1b	3103	A	C5-C6	-5.80	1.35	1.41
1	2b	812	A	N9-C4	-5.80	1.34	1.37
62	ay	60	TYR	CD2-CE2	-5.80	1.30	1.39
78	1b	333	G	N1-C2	-5.80	1.33	1.37
78	1b	919	U	C4-C5	-5.80	1.38	1.43
78	1b	2335	G	N3-C4	-5.80	1.31	1.35
78	1b	22	G	N9-C4	-5.80	1.33	1.38
78	1b	366	A	N9-C4	-5.80	1.34	1.37
78	1b	637	C	C4-N4	-5.80	1.28	1.33
78	1b	1204	A	N9-C8	-5.80	1.33	1.37
78	1b	3073	A	C5-C6	-5.80	1.35	1.41
78	1b	1149	G	N1-C2	-5.79	1.33	1.37
1	2b	1028	C	N1-C6	-5.79	1.33	1.37
1	2b	1745	G	N9-C8	-5.79	1.33	1.37
49	Ny	127	TYR	CD2-CE2	-5.79	1.30	1.39
78	1b	995	U	C4-C5	-5.79	1.38	1.43
78	1b	1420	C	N3-C4	-5.79	1.29	1.33
78	1b	1585	C	N1-C6	-5.79	1.33	1.37
78	1b	1796	G	C5-C4	-5.79	1.34	1.38
78	1b	2332	A	C6-N6	-5.79	1.29	1.33
1	2b	1664	C	C4-C5	-5.79	1.38	1.43
78	1b	639	G	N9-C8	-5.79	1.33	1.37
78	1b	799	G	N3-C4	-5.79	1.31	1.35
78	1b	1546	A	N7-C5	-5.79	1.35	1.39
78	1b	2805	G	N1-C2	-5.79	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2b	391	A	C6-N6	-5.79	1.29	1.33
1	2b	427	C	C4-C5	-5.79	1.38	1.43
78	1b	1145	G	C6-N1	-5.79	1.35	1.39
78	1b	1421	G	C2-N2	-5.79	1.28	1.34
1	2b	976	G	C6-N1	-5.79	1.35	1.39
49	Ny	115	VAL	CB-CG1	-5.79	1.40	1.52
71	jb	39	TYR	CD2-CE2	-5.79	1.30	1.39
78	1b	1844	C	C4-N4	-5.79	1.28	1.33
78	1b	2151	C	N1-C6	-5.79	1.33	1.37
78	1b	916	G	N1-C2	-5.79	1.33	1.37
78	1b	1392	G	N9-C8	-5.79	1.33	1.37
78	1b	2398	A	C6-N6	-5.79	1.29	1.33
78	1b	2984	C	N3-C4	-5.79	1.29	1.33
78	1b	105	C	N3-C4	-5.78	1.29	1.33
78	1b	2098	C	N1-C6	-5.78	1.33	1.37
78	1b	2970	C	C4-C5	-5.78	1.38	1.43
1	2b	955	A	C6-N6	-5.78	1.29	1.33
78	1b	2115	G	N9-C4	-5.78	1.33	1.38
78	1b	2182	A	N3-C4	-5.78	1.31	1.34
78	Aa	911	C	N1-C6	-5.78	1.33	1.37
78	1b	360	G	N1-C2	-5.78	1.33	1.37
78	1b	1480	G	N1-C2	-5.78	1.33	1.37
78	1b	705	A	N3-C4	-5.78	1.31	1.34
78	1b	863	C	N1-C6	-5.78	1.33	1.37
78	1b	2172	A	C5-C6	-5.78	1.35	1.41
78	1b	3087	A	N9-C4	-5.78	1.34	1.37
1	2b	933	A	N9-C4	-5.78	1.34	1.37
1	2b	1327	C	N3-C4	-5.78	1.29	1.33
36	3b	24	G	N1-C2	-5.78	1.33	1.37
78	1b	38	U	C4-C5	-5.78	1.38	1.43
78	1b	1451	C	N1-C6	-5.78	1.33	1.37
78	1b	638	C	N3-C4	-5.78	1.29	1.33
78	1b	1419	A	C5-C4	-5.78	1.34	1.38
78	1b	1804	A	C6-N1	-5.78	1.31	1.35
78	1b	2884	C	C4-C5	-5.78	1.38	1.43
78	1b	3097	C	N1-C6	-5.78	1.33	1.37
35	4b	66	A	C5-C6	-5.77	1.35	1.41
78	1b	2192	C	C5-C6	-5.77	1.29	1.34
78	1b	2595	A	C6-N1	-5.77	1.31	1.35
78	1b	931	C	N3-C4	-5.77	1.29	1.33
78	1b	1802	C	C4-C5	-5.77	1.38	1.43
78	1b	2908	G	N9-C4	-5.77	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2b	407	A	C6-N6	-5.77	1.29	1.33
1	2b	962	C	C4-C5	-5.77	1.38	1.43
1	2b	1465	C	C4-C5	-5.77	1.38	1.43
78	1b	40	A	C6-N1	-5.77	1.31	1.35
78	1b	959	C	N1-C6	-5.77	1.33	1.37
78	1b	1889	G	C2-N2	-5.77	1.28	1.34
78	1b	1889	G	N7-C5	-5.77	1.35	1.39
78	1b	2983	C	C4-C5	-5.77	1.38	1.43
1	2b	1593	A	C6-N6	-5.77	1.29	1.33
78	1b	660	A	C5-C4	-5.77	1.34	1.38
78	1b	751	A	C6-N6	-5.77	1.29	1.33
78	1b	1397	C	N3-C4	-5.76	1.29	1.33
78	1b	2804	A	C5-C4	-5.76	1.34	1.38
78	Aa	227	G	N9-C4	-5.76	1.33	1.38
1	2b	949	C	N1-C6	-5.76	1.33	1.37
78	1b	2609	A	N9-C8	-5.76	1.33	1.37
78	1b	2654	C	N1-C6	-5.76	1.33	1.37
78	1b	2747	A	N9-C4	-5.76	1.34	1.37
78	1b	2938	G	N9-C8	-5.76	1.33	1.37
78	Aa	886	C	N1-C6	-5.76	1.33	1.37
1	2b	16	G	C6-N1	-5.76	1.35	1.39
1	2b	615	A	C6-N6	-5.76	1.29	1.33
78	1b	934	G	N1-C2	-5.76	1.33	1.37
78	1b	937	G	N1-C2	-5.76	1.33	1.37
78	1b	938	C	C4-C5	-5.76	1.38	1.43
78	1b	1899	G	C6-N1	-5.76	1.35	1.39
78	1b	2190	U	C4-C5	-5.76	1.38	1.43
78	1b	825	U	C4-C5	-5.75	1.38	1.43
78	1b	1930	A	N7-C5	-5.75	1.35	1.39
1	2b	1667	A	C5-C6	-5.75	1.35	1.41
78	1b	1804	A	C6-N6	-5.75	1.29	1.33
78	1b	2992	U	N1-C6	-5.75	1.32	1.38
78	1b	3305	A	C5-C4	-5.75	1.34	1.38
1	2b	1631	A	N9-C4	-5.75	1.34	1.37
78	1b	1664	G	C6-N1	-5.75	1.35	1.39
78	1b	1852	G	N1-C2	-5.75	1.33	1.37
78	1b	1904	C	C4-C5	-5.75	1.38	1.43
78	1b	1910	A	C6-N6	-5.75	1.29	1.33
78	1b	2181	C	N1-C6	-5.75	1.33	1.37
78	1b	2637	A	N7-C5	-5.75	1.35	1.39
78	1b	3339	A	N9-C4	-5.75	1.34	1.37
1	2b	862	A	N9-C4	-5.75	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	2424	A	N9-C4	-5.75	1.34	1.37
36	3b	16	G	N9-C4	-5.75	1.33	1.38
78	1b	2947	G	N9-C4	-5.75	1.33	1.38
1	2b	616	G	N3-C4	-5.75	1.31	1.35
1	2b	1590	G	N9-C8	-5.75	1.33	1.37
78	1b	652	G	N9-C8	-5.75	1.33	1.37
78	1b	1099	A	N7-C5	-5.75	1.35	1.39
78	1b	2371	G	C6-N1	-5.75	1.35	1.39
78	1b	2381	G	N3-C4	-5.75	1.31	1.35
78	1b	3150	A	N9-C4	-5.75	1.34	1.37
78	1b	503	C	N1-C6	-5.75	1.33	1.37
1	2b	1764	C	C5-C6	-5.74	1.29	1.34
78	1b	50	U	C4-C5	-5.74	1.38	1.43
78	1b	1199	C	C5-C6	-5.74	1.29	1.34
78	1b	1611	G	C6-N1	-5.74	1.35	1.39
78	1b	838	G	N1-C2	-5.74	1.33	1.37
78	1b	2804	A	C5-C6	-5.74	1.35	1.41
78	1b	894	G	N3-C4	-5.74	1.31	1.35
78	Aa	1328	C	C4-C5	-5.74	1.38	1.43
78	1b	810	A	N9-C8	-5.74	1.33	1.37
78	1b	1496	C	C4-C5	-5.74	1.38	1.43
78	1b	2270	A	C6-N6	-5.74	1.29	1.33
78	1b	2161	G	N9-C8	-5.74	1.33	1.37
78	1b	610	G	C6-N1	-5.74	1.35	1.39
78	1b	931	C	C5-C6	-5.74	1.29	1.34
78	1b	1798	A	N9-C8	-5.74	1.33	1.37
78	1b	811	U	C4-C5	-5.73	1.38	1.43
1	2b	1093	A	N3-C4	-5.73	1.31	1.34
78	1b	1341	U	C4-C5	-5.73	1.38	1.43
78	1b	3378	C	N1-C6	-5.73	1.33	1.37
78	1b	1794	G	N9-C4	-5.73	1.33	1.38
78	1b	958	C	N3-C4	-5.73	1.29	1.33
78	1b	2273	G	N7-C5	-5.73	1.35	1.39
78	1b	1328	C	N3-C4	-5.73	1.29	1.33
78	1b	1430	U	N1-C6	-5.73	1.32	1.38
78	1b	1587	A	N9-C8	-5.73	1.33	1.37
78	1b	1723	A	N9-C4	-5.73	1.34	1.37
78	1b	2413	A	C5-C4	-5.73	1.34	1.38
78	1b	2430	A	C5-C6	-5.73	1.35	1.41
1	2b	625	C	C4-C5	-5.73	1.38	1.43
1	2b	877	G	N9-C8	-5.73	1.33	1.37
1	2b	1775	U	N1-C2	-5.73	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	3b	28	C	C4-C5	-5.73	1.38	1.43
78	1b	849	C	N1-C6	-5.73	1.33	1.37
78	1b	971	G	N9-C8	-5.73	1.33	1.37
78	1b	957	C	C5-C6	-5.72	1.29	1.34
78	1b	1099	A	N9-C4	-5.72	1.34	1.37
78	1b	1886	A	N9-C4	-5.72	1.34	1.37
78	1b	2267	C	N1-C6	-5.72	1.33	1.37
78	1b	2939	G	C6-N1	-5.72	1.35	1.39
78	1b	344	A	C5-C4	-5.72	1.34	1.38
78	1b	1533	U	C4-C5	-5.72	1.38	1.43
78	1b	2761	G	N9-C8	-5.72	1.33	1.37
78	1b	1864	A	C5-C6	-5.72	1.35	1.41
78	1b	2416	U	N1-C6	-5.72	1.32	1.38
1	2b	14	C	N1-C6	-5.72	1.33	1.37
1	2b	747	C	C4-C5	-5.72	1.38	1.43
35	4b	93	C	N1-C6	-5.72	1.33	1.37
78	1b	936	A	C6-N6	-5.72	1.29	1.33
78	1b	1440	G	N9-C4	-5.72	1.33	1.38
78	1b	1836	C	C4-N4	-5.72	1.28	1.33
78	1b	2245	C	C5-C6	-5.72	1.29	1.34
78	1b	3301	U	C2-N3	-5.72	1.33	1.37
78	1b	2703	A	N9-C4	-5.72	1.34	1.37
1	2b	1201	G	N9-C4	-5.72	1.33	1.38
78	1b	3083	G	N9-C8	-5.72	1.33	1.37
36	3b	52	A	C5-C6	-5.71	1.35	1.41
78	1b	82	C	C5-C6	-5.71	1.29	1.34
78	1b	1476	G	N9-C4	-5.71	1.33	1.38
78	1b	1508	C	C4-C5	-5.71	1.38	1.43
78	1b	2947	G	C2-N3	-5.71	1.28	1.32
36	3b	57	C	N3-C4	-5.71	1.29	1.33
1	2b	360	A	N9-C8	-5.71	1.33	1.37
78	1b	2931	C	C4-C5	-5.71	1.38	1.43
1	2b	1789	G	N9-C8	-5.71	1.33	1.37
78	1b	832	G	C6-N1	-5.71	1.35	1.39
78	1b	1529	A	N9-C4	-5.71	1.34	1.37
78	1b	2925	C	C4-C5	-5.71	1.38	1.43
78	1b	2369	G	C6-N1	-5.71	1.35	1.39
78	1b	2957	G	N3-C4	-5.71	1.31	1.35
78	Aa	836	A	N9-C4	-5.71	1.34	1.37
78	Aa	1532	C	C2-O2	-5.71	1.19	1.24
78	1b	1453	A	C6-N1	-5.71	1.31	1.35
78	1b	1940	G	N9-C4	-5.71	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	2422	C	N1-C6	-5.71	1.33	1.37
78	1b	805	G	N1-C2	-5.70	1.33	1.37
78	1b	1858	A	N3-C4	-5.70	1.31	1.34
1	2b	1174	C	N1-C6	-5.70	1.33	1.37
1	2b	1593	A	N9-C4	-5.70	1.34	1.37
39	Cy	193	LYS	CE-NZ	-5.70	1.34	1.49
78	1b	936	A	C5-C4	-5.70	1.34	1.38
1	2b	308	C	N1-C6	-5.70	1.33	1.37
78	1b	501	A	C5-C6	-5.70	1.35	1.41
78	1b	2321	A	N9-C8	-5.70	1.33	1.37
78	1b	365	A	N3-C4	-5.70	1.31	1.34
78	1b	902	G	N7-C5	-5.70	1.35	1.39
78	1b	2413	A	C6-N6	-5.70	1.29	1.33
1	2b	408	C	N1-C6	-5.70	1.33	1.37
1	2b	976	G	N9-C8	-5.70	1.33	1.37
1	2b	556	A	C6-N6	-5.70	1.29	1.33
78	1b	1790	G	N9-C4	-5.70	1.33	1.38
78	1b	1911	A	N3-C4	-5.70	1.31	1.34
78	1b	3091	A	N9-C4	-5.70	1.34	1.37
78	Aa	2338	C	N1-C6	-5.70	1.33	1.37
78	1b	36	C	C5-C6	-5.69	1.29	1.34
1	2b	940	A	N9-C8	-5.69	1.33	1.37
78	1b	1145	G	N1-C2	-5.69	1.33	1.37
78	1b	1318	A	N9-C4	-5.69	1.34	1.37
78	1b	870	G	N9-C8	-5.69	1.33	1.37
78	1b	1514	G	N9-C4	-5.69	1.33	1.38
78	1b	2645	G	N1-C2	-5.69	1.33	1.37
78	1b	2815	G	C5-C6	-5.69	1.36	1.42
78	Aa	1175	C	N1-C6	-5.69	1.33	1.37
78	1b	645	A	N9-C8	-5.69	1.33	1.37
78	1b	586	C	N3-C4	-5.69	1.29	1.33
78	1b	2125	A	C5-C6	-5.69	1.35	1.41
78	Aa	1435	A	N9-C4	-5.69	1.34	1.37
1	2b	1088	A	N9-C4	-5.69	1.34	1.37
36	3b	103	G	N9-C4	-5.69	1.33	1.38
78	1b	39	A	C5-C6	-5.68	1.35	1.41
78	1b	804	C	C5-C6	-5.68	1.29	1.34
78	1b	1896	A	C6-N6	-5.68	1.29	1.33
78	1b	1898	G	N9-C8	-5.68	1.33	1.37
36	3b	32	C	N1-C6	-5.68	1.33	1.37
78	1b	51	A	C6-N6	-5.68	1.29	1.33
78	1b	1860	G	N9-C8	-5.68	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2b	347	G	C6-N1	-5.68	1.35	1.39
78	1b	801	A	N7-C5	-5.68	1.35	1.39
78	1b	2323	G	N9-C8	-5.68	1.33	1.37
78	1b	2646	C	N1-C6	-5.68	1.33	1.37
78	1b	3305	A	N9-C8	-5.68	1.33	1.37
1	2b	353	A	C5-C6	-5.68	1.35	1.41
1	2b	1749	A	N9-C4	-5.68	1.34	1.37
78	1b	646	A	N9-C4	-5.68	1.34	1.37
78	1b	1375	G	N3-C4	-5.68	1.31	1.35
78	1b	1845	G	C2-N3	-5.68	1.28	1.32
78	1b	2177	G	N9-C8	-5.68	1.33	1.37
78	1b	2186	U	N1-C2	-5.68	1.33	1.38
78	1b	2644	C	N1-C6	-5.68	1.33	1.37
70	ib	17	VAL	CB-CG2	-5.67	1.41	1.52
78	1b	900	G	N7-C5	-5.67	1.35	1.39
78	1b	1378	U	N1-C6	-5.67	1.32	1.38
78	1b	1591	G	C6-N1	-5.67	1.35	1.39
78	1b	2406	C	N3-C4	-5.67	1.29	1.33
78	Aa	1169	A	N9-C4	-5.67	1.34	1.37
78	1b	360	G	N3-C4	-5.67	1.31	1.35
78	1b	1587	A	C6-N1	-5.67	1.31	1.35
1	2b	298	C	C4-C5	-5.67	1.38	1.43
78	1b	1319	G	C5-C6	-5.67	1.36	1.42
1	2b	572	C	C4-C5	-5.67	1.38	1.43
39	Cy	50	TYR	CD1-CE1	-5.67	1.30	1.39
78	1b	1155	C	N3-C4	-5.67	1.29	1.33
68	gy	72	VAL	CB-CG1	-5.67	1.41	1.52
78	1b	638	C	C5-C6	-5.67	1.29	1.34
78	1b	1381	A	N9-C4	-5.67	1.34	1.37
78	1b	3142	A	C5-C4	-5.67	1.34	1.38
78	Aa	653	A	N9-C4	-5.67	1.34	1.37
78	1b	2172	A	N9-C4	-5.67	1.34	1.37
1	2b	627	C	C5-C6	-5.66	1.29	1.34
78	1b	1799	A	N3-C4	-5.66	1.31	1.34
78	1b	1884	A	N9-C4	-5.66	1.34	1.37
78	1b	1898	G	C6-N1	-5.66	1.35	1.39
78	1b	1930	A	C5-C4	-5.66	1.34	1.38
1	2b	298	C	N1-C6	-5.66	1.33	1.37
1	2b	1784	C	C4-N4	-5.66	1.28	1.33
78	1b	2338	C	N3-C4	-5.66	1.29	1.33
78	1b	2894	C	C4-C5	-5.66	1.38	1.43
78	1b	2928	C	C4-C5	-5.66	1.38	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2b	525	A	N9-C4	-5.66	1.34	1.37
78	1b	521	A	N9-C4	-5.66	1.34	1.37
78	1b	2594	C	N1-C6	-5.66	1.33	1.37
78	1b	2798	C	C4-C5	-5.66	1.38	1.43
36	3b	11	C	C5-C6	-5.66	1.29	1.34
78	1b	940	G	N7-C5	-5.66	1.35	1.39
78	1b	2359	C	C4-N4	-5.66	1.28	1.33
78	1b	2371	G	N1-C2	-5.66	1.33	1.37
78	1b	2947	G	N3-C4	-5.66	1.31	1.35
78	1b	3097	C	C4-C5	-5.66	1.38	1.43
1	2b	935	U	C2-N3	-5.65	1.33	1.37
78	1b	89	A	C5-C6	-5.65	1.35	1.41
78	1b	274	G	N9-C8	-5.65	1.33	1.37
78	1b	660	A	C6-N1	-5.65	1.31	1.35
78	1b	1358	C	N1-C6	-5.65	1.33	1.37
78	1b	2892	A	C6-N6	-5.65	1.29	1.33
1	2b	512	A	N9-C4	-5.65	1.34	1.37
78	1b	1166	G	N9-C4	-5.65	1.33	1.38
78	1b	2421	U	N1-C6	-5.65	1.32	1.38
1	2b	859	A	N9-C4	-5.65	1.34	1.37
78	1b	27	C	C5-C6	-5.65	1.29	1.34
78	1b	428	A	N3-C4	-5.65	1.31	1.34
67	fy	9	VAL	CB-CG2	-5.65	1.41	1.52
78	1b	104	G	N7-C5	-5.65	1.35	1.39
78	1b	630	A	C6-N1	-5.65	1.31	1.35
78	1b	1423	C	C4-N4	-5.65	1.28	1.33
78	1b	1446	A	C5-C4	-5.65	1.34	1.38
78	1b	1489	A	N7-C5	-5.65	1.35	1.39
78	1b	3134	A	C6-N6	-5.65	1.29	1.33
78	1b	1365	G	C6-N1	-5.65	1.35	1.39
78	1b	1943	C	N1-C6	-5.65	1.33	1.37
78	Aa	1529	A	N9-C4	-5.64	1.34	1.37
41	Ey	74	VAL	CB-CG2	-5.64	1.41	1.52
78	1b	1899	G	N3-C4	-5.64	1.31	1.35
1	2b	26	A	C6-N6	-5.64	1.29	1.33
78	1b	399	A	N3-C4	-5.64	1.31	1.34
78	1b	2329	C	N1-C6	-5.64	1.33	1.37
1	2b	589	C	N1-C6	-5.64	1.33	1.37
24	Wb	89	TRP	CB-CG	-5.64	1.40	1.50
78	1b	1870	C	N1-C6	-5.64	1.33	1.37
1	2b	1141	G	N1-C2	-5.64	1.33	1.37
67	fy	81	VAL	CB-CG1	-5.64	1.41	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	1364	C	C4-C5	-5.64	1.38	1.43
78	1b	1497	C	C4-C5	-5.64	1.38	1.43
78	1b	1512	U	N1-C2	-5.64	1.33	1.38
78	1b	2316	G	N3-C4	-5.64	1.31	1.35
78	1b	661	G	C6-N1	-5.63	1.35	1.39
78	1b	916	G	N9-C8	-5.63	1.33	1.37
78	1b	1130	A	N9-C4	-5.63	1.34	1.37
78	1b	1476	G	N9-C8	-5.63	1.33	1.37
78	1b	27	C	N3-C4	-5.63	1.30	1.33
78	1b	1142	G	C6-N1	-5.63	1.35	1.39
78	1b	2940	A	C6-N6	-5.63	1.29	1.33
78	1b	92	G	C5-C6	-5.63	1.36	1.42
78	1b	1002	A	N9-C4	-5.63	1.34	1.37
78	1b	1941	C	C4-C5	-5.63	1.38	1.43
78	1b	2596	U	C4-C5	-5.63	1.38	1.43
78	Aa	1132	C	N1-C6	-5.63	1.33	1.37
78	1b	968	G	C6-N1	-5.63	1.35	1.39
78	1b	1182	A	C6-N1	-5.63	1.31	1.35
1	2b	941	A	N9-C4	-5.63	1.34	1.37
78	1b	95	A	N3-C4	-5.63	1.31	1.34
78	1b	814	U	C5-C6	-5.63	1.29	1.34
78	1b	1171	G	N9-C8	-5.63	1.33	1.37
78	1b	1488	G	N9-C8	-5.63	1.33	1.37
1	2b	1317	C	N1-C6	-5.63	1.33	1.37
5	Cb	102	VAL	CB-CG2	-5.63	1.41	1.52
78	1b	289	A	C5-C4	-5.63	1.34	1.38
78	1b	1171	G	C5-C4	-5.63	1.34	1.38
78	1b	2627	C	C4-C5	-5.63	1.38	1.43
1	2b	385	A	N9-C4	-5.62	1.34	1.37
78	1b	2114	C	N1-C6	-5.62	1.33	1.37
78	1b	3052	G	C6-N1	-5.62	1.35	1.39
1	2b	12	U	N1-C6	-5.62	1.32	1.38
78	1b	420	G	N3-C4	-5.62	1.31	1.35
78	1b	906	A	N7-C5	-5.62	1.35	1.39
78	1b	2422	C	C4-N4	-5.62	1.28	1.33
1	2b	1284	C	N1-C6	-5.62	1.33	1.37
78	1b	108	A	C6-N6	-5.62	1.29	1.33
78	1b	809	G	N7-C5	-5.62	1.35	1.39
78	1b	3053	G	N3-C4	-5.62	1.31	1.35
1	2b	1787	C	N1-C6	-5.62	1.33	1.37
78	1b	1140	G	N9-C8	-5.62	1.33	1.37
78	1b	2637	A	C5-C6	-5.62	1.35	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	2957	G	N9-C4	-5.62	1.33	1.38
1	2b	1451	C	N1-C6	-5.62	1.33	1.37
78	1b	318	A	N3-C4	-5.62	1.31	1.34
78	1b	972	A	C5-C4	-5.62	1.34	1.38
78	1b	1115	G	N9-C8	-5.62	1.33	1.37
78	1b	2715	A	N9-C4	-5.62	1.34	1.37
1	2b	102	U	C5-C6	-5.62	1.29	1.34
78	1b	611	A	C5-C4	-5.62	1.34	1.38
78	1b	1154	A	C6-N6	-5.62	1.29	1.33
78	1b	1142	G	N9-C4	-5.61	1.33	1.38
78	1b	3038	U	N1-C6	-5.61	1.32	1.38
78	1b	269	G	N1-C2	-5.61	1.33	1.37
78	1b	2131	A	C5-C4	-5.61	1.34	1.38
78	1b	2242	A	C5-C4	-5.61	1.34	1.38
78	1b	306	A	C5-C6	-5.61	1.36	1.41
78	1b	884	A	N9-C8	-5.61	1.33	1.37
78	1b	1389	G	N3-C4	-5.61	1.31	1.35
78	1b	1481	A	N9-C4	-5.61	1.34	1.37
78	1b	1492	G	N9-C4	-5.61	1.33	1.38
78	1b	2156	C	N1-C6	-5.61	1.33	1.37
1	2b	124	A	N9-C4	-5.61	1.34	1.37
1	2b	606	A	C6-N6	-5.61	1.29	1.33
78	1b	790	U	C4-C5	-5.61	1.38	1.43
78	1b	1164	G	N9-C8	-5.61	1.33	1.37
78	1b	1550	C	C4-C5	-5.61	1.38	1.43
78	1b	2414	G	C5-C4	-5.61	1.34	1.38
78	1b	2428	U	C4-C5	-5.61	1.38	1.43
78	1b	2902	A	N9-C4	-5.61	1.34	1.37
1	2b	884	A	C5-C6	-5.61	1.36	1.41
36	3b	118	C	C4-C5	-5.61	1.38	1.43
78	1b	1587	A	C5-C6	-5.61	1.36	1.41
78	1b	2182	A	C5-C4	-5.61	1.34	1.38
78	1b	2645	G	N9-C8	-5.61	1.33	1.37
78	Aa	2591	A	N9-C4	-5.61	1.34	1.37
1	2b	1109	G	N3-C4	-5.60	1.31	1.35
78	1b	327	A	C6-N6	-5.60	1.29	1.33
78	1b	3379	C	N1-C6	-5.60	1.33	1.37
78	Aa	1910	A	N9-C4	-5.60	1.34	1.37
1	2b	14	C	N3-C4	-5.60	1.30	1.33
78	1b	1493	G	N9-C8	-5.60	1.33	1.37
78	1b	1915	A	C5-C6	-5.60	1.36	1.41
11	1b	102	VAL	CB-CG2	-5.60	1.41	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	421	G	N1-C2	-5.60	1.33	1.37
1	2b	403	G	N9-C4	-5.60	1.33	1.38
78	1b	1182	A	C6-N6	-5.60	1.29	1.33
78	1b	1869	C	N1-C6	-5.60	1.33	1.37
78	1b	2192	C	N3-C4	-5.60	1.30	1.33
78	1b	2364	G	N9-C4	-5.60	1.33	1.38
1	2b	943	C	C4-N4	-5.60	1.28	1.33
78	1b	1856	C	C4-N4	-5.60	1.28	1.33
1	2b	979	A	N3-C4	-5.60	1.31	1.34
1	2b	1074	G	N9-C8	-5.60	1.33	1.37
78	1b	359	U	N1-C6	-5.60	1.32	1.38
78	1b	1893	A	C5-C4	-5.59	1.34	1.38
78	1b	2296	A	N3-C4	-5.59	1.31	1.34
78	1b	2333	C	C4-N4	-5.59	1.28	1.33
78	Aa	1546	A	N9-C4	-5.59	1.34	1.37
78	1b	1449	A	C6-N1	-5.59	1.31	1.35
78	1b	2352	A	N9-C4	-5.59	1.34	1.37
1	2b	1591	C	N3-C4	-5.59	1.30	1.33
78	1b	326	U	N1-C2	-5.59	1.33	1.38
78	1b	2367	A	N7-C5	-5.59	1.35	1.39
78	1b	20	A	C6-N6	-5.59	1.29	1.33
78	1b	934	G	N9-C4	-5.59	1.33	1.38
78	1b	2324	A	C6-N1	-5.59	1.31	1.35
78	1b	2391	G	C6-N1	-5.59	1.35	1.39
78	1b	2907	G	N9-C8	-5.59	1.33	1.37
78	1b	2961	G	C8-N7	-5.59	1.27	1.30
1	2b	1304	G	C6-N1	-5.59	1.35	1.39
1	2b	1788	G	N7-C5	-5.59	1.35	1.39
78	1b	77	A	N9-C8	-5.59	1.33	1.37
1	2b	93	A	N7-C5	-5.59	1.35	1.39
70	ib	40	VAL	CB-CG2	-5.59	1.41	1.52
78	1b	964	G	N7-C5	-5.59	1.35	1.39
78	1b	1139	G	N9-C8	-5.59	1.33	1.37
78	1b	2369	G	C8-N7	-5.59	1.27	1.30
78	1b	3075	G	N1-C2	-5.59	1.33	1.37
78	1b	21	G	N7-C5	-5.58	1.35	1.39
78	1b	366	A	C6-N6	-5.58	1.29	1.33
78	1b	1169	A	C6-N6	-5.58	1.29	1.33
1	2b	405	C	C4-C5	-5.58	1.38	1.43
1	2b	1611	A	C5-C6	-5.58	1.36	1.41
78	1b	214	G	N9-C8	-5.58	1.33	1.37
78	1b	400	G	C6-N1	-5.58	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	1913	A	N9-C4	-5.58	1.34	1.37
78	1b	906	A	C5-C6	-5.58	1.36	1.41
78	1b	1488	G	N3-C4	-5.58	1.31	1.35
78	1b	2762	A	N9-C4	-5.58	1.34	1.37
78	1b	3177	G	N9-C8	-5.58	1.33	1.37
78	1b	70	A	C5-C6	-5.58	1.36	1.41
78	1b	799	G	C5-C4	-5.58	1.34	1.38
78	1b	340	C	N3-C4	-5.58	1.30	1.33
78	1b	584	G	N9-C4	-5.58	1.33	1.38
78	1b	2134	G	N9-C4	-5.58	1.33	1.38
78	1b	2324	A	N3-C4	-5.58	1.31	1.34
1	2b	1653	C	N1-C6	-5.58	1.33	1.37
1	2b	1729	C	C4-C5	-5.58	1.38	1.43
78	1b	406	G	N9-C4	-5.58	1.33	1.38
78	1b	1529	A	N9-C8	-5.58	1.33	1.37
1	2b	599	A	C5-C6	-5.58	1.36	1.41
1	2b	599	A	N7-C5	-5.58	1.35	1.39
1	2b	1134	C	N1-C6	-5.58	1.33	1.37
78	1b	835	G	N7-C5	-5.58	1.35	1.39
78	1b	1493	G	N9-C4	-5.58	1.33	1.38
78	1b	1857	C	C4-C5	-5.58	1.38	1.43
1	2b	621	A	N9-C4	-5.57	1.34	1.37
78	1b	30	G	C6-N1	-5.57	1.35	1.39
78	1b	408	A	N7-C5	-5.57	1.35	1.39
1	2b	1300	A	N9-C4	-5.57	1.34	1.37
78	1b	2332	A	N9-C4	-5.57	1.34	1.37
78	1b	2906	C	N1-C6	-5.57	1.33	1.37
78	1b	3052	G	N1-C2	-5.57	1.33	1.37
78	1b	837	A	N9-C4	-5.57	1.34	1.37
78	1b	882	A	N3-C4	-5.57	1.31	1.34
78	1b	1714	A	N9-C4	-5.57	1.34	1.37
78	1b	2223	A	N9-C4	-5.57	1.34	1.37
36	Ca	152	G	N3-C4	-5.57	1.31	1.35
1	2b	315	A	N9-C4	-5.57	1.34	1.37
1	2b	1094	G	N9-C8	-5.57	1.33	1.37
50	Oy	149[A]	TYR	CD2-CE2	-5.57	1.30	1.39
78	1b	2651	G	C2-N3	-5.57	1.28	1.32
1	2b	933	A	C6-N6	-5.57	1.29	1.33
78	1b	1171	G	C6-N1	-5.57	1.35	1.39
78	1b	2816	G	C2-N2	-5.57	1.28	1.34
78	1b	3139	A	C6-N1	-5.57	1.31	1.35
1	2b	123	G	N9-C4	-5.57	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2b	1788	G	N3-C4	-5.57	1.31	1.35
78	1b	799	G	C2-N3	-5.57	1.28	1.32
78	1b	1833	G	N9-C8	-5.57	1.33	1.37
78	1b	1901	A	N9-C4	-5.57	1.34	1.37
78	1b	2606	G	C6-N1	-5.57	1.35	1.39
1	2b	601	A	N9-C4	-5.56	1.34	1.37
78	1b	665	A	C5-C6	-5.56	1.36	1.41
78	1b	327	A	C5-C6	-5.56	1.36	1.41
78	1b	660	A	N9-C4	-5.56	1.34	1.37
78	1b	1409	G	C6-N1	-5.56	1.35	1.39
78	1b	1714	A	C5-C6	-5.56	1.36	1.41
78	1b	2883	U	C4-C5	-5.56	1.38	1.43
78	1b	1558	A	C5-C6	-5.56	1.36	1.41
78	1b	2377	G	N3-C4	-5.56	1.31	1.35
78	1b	3085	G	N9-C4	-5.56	1.33	1.38
1	2b	1030	A	C6-N6	-5.56	1.29	1.33
78	1b	838	G	C2-N2	-5.56	1.28	1.34
78	1b	2963	C	C4-N4	-5.56	1.28	1.33
49	Pa	94	TYR	CG-CD1	-5.56	1.31	1.39
1	2b	28	A	N9-C4	-5.56	1.34	1.37
1	2b	575	C	N1-C6	-5.56	1.33	1.37
78	1b	325	A	C6-N1	-5.56	1.31	1.35
78	1b	1657	C	C5-C6	-5.56	1.29	1.34
78	1b	1936	A	N9-C4	-5.56	1.34	1.37
78	1b	3035	A	N9-C4	-5.56	1.34	1.37
1	2b	294	C	N1-C6	-5.56	1.33	1.37
1	2b	1127	G	N9-C8	-5.56	1.33	1.37
1	2b	1533	C	N1-C6	-5.56	1.33	1.37
78	1b	903	U	N1-C6	-5.56	1.32	1.38
78	1b	2131	A	N9-C8	-5.56	1.33	1.37
78	1b	2826	U	C4-C5	-5.56	1.38	1.43
78	1b	1564	U	C2-N3	-5.55	1.33	1.37
78	1b	3303	G	C2-N3	-5.55	1.28	1.32
1	2b	938	G	N3-C4	-5.55	1.31	1.35
78	1b	678	G	C6-N1	-5.55	1.35	1.39
78	1b	1499	C	N1-C6	-5.55	1.33	1.37
78	Aa	101	G	N3-C4	-5.55	1.31	1.35
35	4b	6	C	N1-C6	-5.55	1.33	1.37
36	3b	35	C	C4-N4	-5.55	1.28	1.33
78	1b	2127	U	C4-C5	-5.55	1.38	1.43
78	1b	3015	G	N9-C4	-5.55	1.33	1.38
36	3b	106	C	N1-C6	-5.55	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	902	G	C5-C4	-5.55	1.34	1.38
78	1b	1434	G	C2-N3	-5.55	1.28	1.32
78	1b	1611	G	N9-C8	-5.55	1.33	1.37
78	1b	2120	A	C6-N6	-5.55	1.29	1.33
1	2b	865	A	C5-C4	-5.55	1.34	1.38
1	2b	988	A	C5-C6	-5.55	1.36	1.41
78	1b	828	A	C6-N1	-5.55	1.31	1.35
78	1b	1905	G	N1-C2	-5.55	1.33	1.37
39	Cy	250	TRP	CB-CG	-5.55	1.40	1.50
78	1b	2311	G	N1-C2	-5.55	1.33	1.37
1	2b	471	A	C5-C6	-5.54	1.36	1.41
1	2b	1143	A	N3-C4	-5.54	1.31	1.34
78	1b	1139	G	N9-C4	-5.54	1.33	1.38
78	1b	1894	U	C4-C5	-5.54	1.38	1.43
78	1b	2293	C	N1-C6	-5.54	1.33	1.37
78	1b	2825	C	C5-C6	-5.54	1.29	1.34
78	1b	20	A	N9-C8	-5.54	1.33	1.37
78	1b	1135	A	C5-C4	-5.54	1.34	1.38
78	1b	1375	G	N7-C5	-5.54	1.35	1.39
78	1b	2391	G	C8-N7	-5.54	1.27	1.30
78	1b	384	A	N9-C4	-5.54	1.34	1.37
78	1b	1314	C	N1-C6	-5.54	1.33	1.37
1	2b	1426	C	N1-C6	-5.54	1.33	1.37
35	4b	79	A	N9-C4	-5.54	1.34	1.37
1	2b	555	A	N7-C5	-5.54	1.35	1.39
1	2b	990	C	N1-C6	-5.54	1.33	1.37
78	1b	1148	G	N9-C4	-5.54	1.33	1.38
78	1b	2727	A	N7-C5	-5.54	1.35	1.39
78	1b	2746	A	N9-C4	-5.54	1.34	1.37
1	2b	1591	C	C4-C5	-5.53	1.38	1.43
78	1b	2183	A	C5-C6	-5.53	1.36	1.41
78	Aa	355	A	N9-C4	-5.53	1.34	1.37
78	1b	320	G	N9-C8	-5.53	1.33	1.37
78	1b	2600	C	N1-C6	-5.53	1.33	1.37
78	1b	713	U	N1-C6	-5.53	1.32	1.38
78	1b	876	A	C5-C6	-5.53	1.36	1.41
78	1b	26	A	C5-C6	-5.53	1.36	1.41
35	4b	91	G	N9-C8	-5.53	1.33	1.37
36	3b	35	C	N3-C4	-5.53	1.30	1.33
78	1b	2416	U	C5-C6	-5.53	1.29	1.34
78	Aa	2590	A	N9-C4	-5.53	1.34	1.37
37	Ay	134	VAL	CB-CG2	-5.53	1.41	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	348	A	N9-C4	-5.53	1.34	1.37
78	1b	2187	G	N9-C8	-5.53	1.33	1.37
78	1b	1699	A	N9-C4	-5.52	1.34	1.37
1	2b	637	C	C4-C5	-5.52	1.38	1.43
39	Cy	113	VAL	CB-CG2	-5.52	1.41	1.52
78	1b	939	U	N1-C6	-5.52	1.32	1.38
78	1b	1334	U	C5-C6	-5.52	1.29	1.34
78	1b	1453	A	C5-C6	-5.52	1.36	1.41
78	1b	2141	U	C2-N3	-5.52	1.33	1.37
78	1b	3004	C	N3-C4	-5.52	1.30	1.33
78	1b	3067	C	C4-C5	-5.52	1.38	1.43
78	1b	1160	C	C4-C5	-5.52	1.38	1.43
78	1b	1590	G	N3-C4	-5.52	1.31	1.35
78	1b	2394	G	C6-N1	-5.52	1.35	1.39
78	1b	3001	C	C4-C5	-5.52	1.38	1.43
78	1b	967	A	N9-C8	-5.52	1.33	1.37
78	1b	1394	A	N9-C4	-5.52	1.34	1.37
78	1b	1898	G	C2-N3	-5.52	1.28	1.32
36	3b	29	U	N1-C6	-5.52	1.32	1.38
78	1b	218	G	N9-C8	-5.52	1.33	1.37
78	1b	649	A	C6-N1	-5.52	1.31	1.35
78	1b	653	A	C6-N6	-5.52	1.29	1.33
78	1b	1194	G	N9-C8	-5.52	1.33	1.37
78	1b	2368	A	N9-C4	-5.52	1.34	1.37
1	2b	1297	G	N9-C4	-5.52	1.33	1.38
78	1b	3077	A	C5-C6	-5.52	1.36	1.41
1	2b	1130	G	N9-C8	-5.51	1.33	1.37
78	1b	113	C	N3-C4	-5.51	1.30	1.33
78	1b	717	C	N1-C6	-5.51	1.33	1.37
78	1b	911	C	C4-C5	-5.51	1.38	1.43
78	1b	962	A	N9-C4	-5.51	1.34	1.37
78	1b	2432	A	C5-C4	-5.51	1.34	1.38
78	1b	1046	A	C5-C4	-5.51	1.34	1.38
78	1b	635	G	C6-N1	-5.51	1.35	1.39
78	1b	696	C	C4-N4	-5.51	1.28	1.33
78	1b	929	A	N9-C8	-5.51	1.33	1.37
78	1b	2562	A	N9-C8	-5.51	1.33	1.37
78	1b	2586	G	N9-C4	-5.51	1.33	1.38
5	Cb	184	VAL	CB-CG2	-5.51	1.41	1.52
78	1b	105	C	N1-C6	-5.51	1.33	1.37
78	1b	867	G	N9-C8	-5.51	1.33	1.37
78	1b	1163	A	C6-N6	-5.51	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	2215	A	N9-C4	-5.51	1.34	1.37
78	1b	2345	A	C6-N6	-5.51	1.29	1.33
78	1b	2354	C	C4-N4	-5.51	1.28	1.33
78	1b	2414	G	N9-C8	-5.51	1.33	1.37
78	1b	2425	G	N3-C4	-5.51	1.31	1.35
78	1b	2966	G	N9-C8	-5.51	1.33	1.37
78	1b	3344	A	N9-C4	-5.51	1.34	1.37
1	2b	1094	G	C6-N1	-5.51	1.35	1.39
1	2b	1774	G	N9-C8	-5.51	1.33	1.37
78	1b	344	A	N3-C4	-5.51	1.31	1.34
78	1b	1330	A	N3-C4	-5.51	1.31	1.34
78	1b	2193	U	N1-C6	-5.51	1.32	1.38
78	1b	2313	A	C5-C4	-5.51	1.34	1.38
78	1b	373	A	C5-C6	-5.50	1.36	1.41
78	1b	3133	C	C4-C5	-5.50	1.38	1.43
78	1b	109	A	N3-C4	-5.50	1.31	1.34
78	1b	972	A	N9-C8	-5.50	1.33	1.37
78	1b	2196	C	C5-C6	-5.50	1.29	1.34
78	1b	2382	G	N7-C5	-5.50	1.35	1.39
1	2b	955	A	C5-C6	-5.50	1.36	1.41
1	2b	1653	C	C4-C5	-5.50	1.38	1.43
78	1b	356	C	N1-C6	-5.50	1.33	1.37
78	1b	907	G	N7-C5	-5.50	1.35	1.39
78	1b	1373	A	C5-C4	-5.50	1.34	1.38
78	1b	1434	G	N9-C4	-5.50	1.33	1.38
78	1b	1613	A	N9-C4	-5.50	1.34	1.37
78	1b	2128	C	C5-C6	-5.50	1.29	1.34
78	1b	2413	A	C6-N1	-5.50	1.31	1.35
78	1b	2695	A	C6-N1	-5.50	1.31	1.35
78	1b	2934	A	N9-C4	-5.50	1.34	1.37
1	2b	566	C	N1-C6	-5.50	1.33	1.37
53	Ry	22	VAL	CB-CG1	-5.50	1.41	1.52
78	1b	650	C	C4-N4	-5.50	1.29	1.33
78	1b	1111	U	N1-C2	-5.50	1.33	1.38
78	1b	2146	C	N1-C6	-5.50	1.33	1.37
78	1b	2317	A	C5-C4	-5.50	1.34	1.38
78	Aa	2802	A	N9-C4	-5.50	1.34	1.37
1	2b	1090	C	N3-C4	-5.49	1.30	1.33
78	1b	337	G	N1-C2	-5.49	1.33	1.37
78	1b	1791	C	N3-C4	-5.49	1.30	1.33
78	1b	1911	A	C5-C6	-5.49	1.36	1.41
78	1b	2348	A	N3-C4	-5.49	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2b	1105	C	N3-C4	-5.49	1.30	1.33
35	4b	85	G	C6-N1	-5.49	1.35	1.39
78	1b	335	G	C5-C6	-5.49	1.36	1.42
78	1b	940	G	N9-C4	-5.49	1.33	1.38
78	1b	2887	A	C5-C6	-5.49	1.36	1.41
78	1b	3046	A	N7-C5	-5.49	1.35	1.39
78	1b	327	A	C5-C4	-5.49	1.34	1.38
78	1b	1127	G	N9-C4	-5.49	1.33	1.38
78	1b	1131	G	N9-C8	-5.49	1.34	1.37
1	2b	1145	U	N1-C6	-5.49	1.33	1.38
38	By	76	VAL	CB-CG1	-5.49	1.41	1.52
78	1b	1584	U	N1-C6	-5.49	1.33	1.38
1	2b	1658	G	C2-N2	-5.49	1.29	1.34
36	3b	11	C	C4-N4	-5.49	1.29	1.33
36	3b	48	A	C5-C4	-5.49	1.34	1.38
1	2b	572	C	N3-C4	-5.48	1.30	1.33
78	1b	2424	A	N3-C4	-5.48	1.31	1.34
11	1b	179	CYS	CA-CB	-5.48	1.41	1.53
78	1b	875	G	C5-C6	-5.48	1.36	1.42
78	1b	895	A	N7-C5	-5.48	1.35	1.39
78	1b	1939	G	C6-N1	-5.48	1.35	1.39
1	2b	310	C	C4-C5	-5.48	1.38	1.43
1	2b	585	A	C6-N6	-5.48	1.29	1.33
78	1b	94	G	N3-C4	-5.48	1.31	1.35
78	1b	872	U	C5-C6	-5.48	1.29	1.34
78	1b	2147	A	N7-C5	-5.48	1.35	1.39
1	2b	383	G	N9-C8	-5.48	1.34	1.37
78	1b	185	C	N1-C6	-5.48	1.33	1.37
78	1b	921	A	C5-C6	-5.48	1.36	1.41
78	1b	1933	A	N7-C5	-5.48	1.35	1.39
78	1b	2187	G	N1-C2	-5.48	1.33	1.37
1	2b	575	C	C4-C5	-5.48	1.38	1.43
1	2b	1640	C	N1-C6	-5.48	1.33	1.37
78	1b	433	A	N9-C8	-5.48	1.33	1.37
78	1b	881	C	C5-C6	-5.48	1.29	1.34
78	1b	1790	G	C5-C4	-5.48	1.34	1.38
78	Aa	1187	C	N1-C6	-5.48	1.33	1.37
1	2b	309	C	C4-C5	-5.48	1.38	1.43
1	2b	1793	G	C6-N1	-5.47	1.35	1.39
78	1b	837	A	N9-C8	-5.47	1.33	1.37
78	1b	993	G	N9-C4	-5.47	1.33	1.38
78	1b	1644	C	N1-C6	-5.47	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	2876	C	C4-C5	-5.47	1.38	1.43
1	2b	323	A	N7-C5	-5.47	1.35	1.39
1	2b	1660	A	C6-N6	-5.47	1.29	1.33
78	1b	396	A	N9-C4	-5.47	1.34	1.37
78	1b	1168	U	N1-C6	-5.47	1.33	1.38
78	1b	2096	A	N9-C4	-5.47	1.34	1.37
78	1b	2611	U	C2-N3	-5.47	1.33	1.37
78	1b	2273	G	N1-C2	-5.47	1.33	1.37
78	1b	3113	A	N9-C8	-5.47	1.33	1.37
78	1b	1449	A	C5-C6	-5.47	1.36	1.41
78	1b	2329	C	C4-C5	-5.47	1.38	1.43
78	1b	2625	C	C4-C5	-5.47	1.38	1.43
1	2b	1209	C	N1-C6	-5.47	1.33	1.37
78	1b	632	G	N1-C2	-5.47	1.33	1.37
78	1b	1050	U	C4-C5	-5.47	1.38	1.43
78	1b	2244	A	C6-N1	-5.47	1.31	1.35
78	1b	2610	G	C5-C4	-5.47	1.34	1.38
78	Aa	828	A	C6-N6	-5.47	1.29	1.33
1	2b	1116	A	N9-C4	-5.47	1.34	1.37
78	1b	845	G	C2-N2	-5.47	1.29	1.34
78	1b	856	G	N9-C8	-5.47	1.34	1.37
78	1b	2968	G	N9-C4	-5.47	1.33	1.38
1	2b	114	C	N1-C6	-5.46	1.33	1.37
78	1b	1469	C	N1-C6	-5.46	1.33	1.37
78	1b	1476	G	N3-C4	-5.46	1.31	1.35
78	1b	1495	U	N3-C4	-5.46	1.33	1.38
78	1b	3091	A	N7-C5	-5.46	1.35	1.39
36	3b	32	C	C4-C5	-5.46	1.38	1.43
78	1b	815	G	N7-C5	-5.46	1.35	1.39
78	1b	2979	U	C2-N3	-5.46	1.33	1.37
78	Aa	2813	A	N9-C8	-5.46	1.33	1.37
78	1b	51	A	C6-N1	-5.46	1.31	1.35
78	1b	62	A	N9-C8	-5.46	1.33	1.37
78	1b	815	G	C6-N1	-5.46	1.35	1.39
78	1b	819	U	C4-C5	-5.46	1.38	1.43
78	1b	972	A	C6-N1	-5.46	1.31	1.35
78	1b	1373	A	N9-C8	-5.46	1.33	1.37
78	1b	2825	C	N1-C6	-5.46	1.33	1.37
1	2b	881	A	C6-N6	-5.46	1.29	1.33
78	1b	47	C	C4-C5	-5.46	1.38	1.43
1	2b	998	A	N9-C4	-5.46	1.34	1.37
78	1b	661	G	C5-C6	-5.46	1.36	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	1449	A	N7-C5	-5.46	1.35	1.39
1	2b	19	A	C6-N1	-5.46	1.31	1.35
78	1b	902	G	N9-C8	-5.46	1.34	1.37
78	1b	2274	U	C4-C5	-5.46	1.38	1.43
78	1b	2324	A	C5-C6	-5.46	1.36	1.41
79	6b	42	A	N9-C4	-5.46	1.34	1.37
1	2b	1580	C	N1-C6	-5.46	1.33	1.37
78	1b	1789	G	N7-C5	-5.46	1.35	1.39
78	Aa	2963	C	N1-C6	-5.46	1.33	1.37
1	2b	966	A	N9-C4	-5.45	1.34	1.37
78	1b	914	A	N9-C4	-5.45	1.34	1.37
78	1b	1863	G	N9-C8	-5.45	1.34	1.37
78	1b	2104	A	N9-C4	-5.45	1.34	1.37
78	1b	941	G	C6-N1	-5.45	1.35	1.39
78	1b	967	A	N9-C4	-5.45	1.34	1.37
78	Aa	2976	A	N9-C4	-5.45	1.34	1.37
78	1b	2653	C	N1-C6	-5.45	1.33	1.37
78	1b	3106	A	N7-C5	-5.45	1.35	1.39
78	1b	1308	A	C6-N6	-5.45	1.29	1.33
78	1b	1513	G	N1-C2	-5.45	1.33	1.37
78	1b	1750	A	N9-C4	-5.45	1.34	1.37
78	1b	2878	G	N9-C8	-5.45	1.34	1.37
78	1b	2919	A	C5-C6	-5.45	1.36	1.41
78	1b	3088	G	N1-C2	-5.45	1.33	1.37
78	1b	3118	C	N1-C6	-5.45	1.33	1.37
78	1b	947	G	N7-C5	-5.45	1.35	1.39
78	1b	1313	G	N3-C4	-5.45	1.31	1.35
78	1b	1919	G	N3-C4	-5.45	1.31	1.35
1	2b	1458	G	C6-N1	-5.45	1.35	1.39
78	1b	1478	C	C4-C5	-5.45	1.38	1.43
78	1b	2814	G	C2-N2	-5.45	1.29	1.34
1	2b	1005	A	N9-C8	-5.44	1.33	1.37
78	1b	60	A	C5-C6	-5.44	1.36	1.41
78	1b	630	A	N7-C5	-5.44	1.35	1.39
78	1b	1939	G	N9-C8	-5.44	1.34	1.37
1	2b	10	G	N1-C2	-5.44	1.33	1.37
78	1b	82	C	N3-C4	-5.44	1.30	1.33
78	1b	269	G	C6-N1	-5.44	1.35	1.39
78	1b	919	U	C5-C6	-5.44	1.29	1.34
78	1b	1597	C	C5-C6	-5.44	1.29	1.34
1	2b	427	C	N1-C6	-5.44	1.33	1.37
38	By	249	VAL	CB-CG1	-5.44	1.41	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	225	C	N1-C6	-5.44	1.33	1.37
78	1b	2649	A	N9-C4	-5.44	1.34	1.37
1	2b	1482	C	N1-C6	-5.44	1.33	1.37
78	1b	1786	G	N9-C8	-5.44	1.34	1.37
78	Aa	1372	C	C4-C5	-5.44	1.38	1.43
78	1b	58	G	N1-C2	-5.44	1.33	1.37
78	1b	1203	A	C6-N6	-5.44	1.29	1.33
78	1b	2185	G	N9-C8	-5.43	1.34	1.37
78	1b	1084	A	C5-C6	-5.43	1.36	1.41
78	1b	1157	G	N1-C2	-5.43	1.33	1.37
78	1b	2896	A	N9-C4	-5.43	1.34	1.37
78	1b	156	G	N9-C8	-5.43	1.34	1.37
78	1b	1929	G	N9-C4	-5.43	1.33	1.38
78	1b	3002	C	C4-C5	-5.43	1.38	1.43
78	1b	3114	A	N9-C4	-5.43	1.34	1.37
78	1b	2320	A	N3-C4	-5.43	1.31	1.34
1	2b	625	C	N1-C6	-5.43	1.33	1.37
1	2b	1037	C	N1-C6	-5.43	1.33	1.37
1	2b	1593	A	C5-C6	-5.43	1.36	1.41
78	1b	894	G	C2-N2	-5.43	1.29	1.34
78	1b	934	G	N3-C4	-5.43	1.31	1.35
78	1b	1932	A	N9-C4	-5.43	1.34	1.37
78	1b	2927	C	N1-C6	-5.43	1.33	1.37
1	2b	973	A	N7-C5	-5.42	1.35	1.39
78	1b	889	U	N1-C6	-5.42	1.33	1.38
78	1b	1393	A	N9-C4	-5.42	1.34	1.37
78	1b	2355	G	N7-C5	-5.42	1.35	1.39
78	1b	2369	G	N9-C8	-5.42	1.34	1.37
78	Aa	1381	A	C5-C6	-5.42	1.36	1.41
78	Aa	2355	G	N9-C4	-5.42	1.33	1.38
1	2b	344	A	N9-C8	-5.42	1.33	1.37
78	1b	66	A	C5-C4	-5.42	1.34	1.38
1	2b	587	C	C4-C5	-5.42	1.38	1.43
78	1b	951	A	C5-C6	-5.42	1.36	1.41
78	1b	2125	A	N9-C4	-5.42	1.34	1.37
78	Aa	2601	A	N9-C4	-5.42	1.34	1.37
78	1b	2526	C	C4-C5	-5.42	1.38	1.43
1	2b	1197	C	N1-C6	-5.42	1.33	1.37
78	1b	64	G	N9-C4	-5.42	1.33	1.38
78	1b	946	U	C4-C5	-5.42	1.38	1.43
78	1b	1521	G	C6-N1	-5.42	1.35	1.39
78	1b	1791	C	N1-C6	-5.42	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	798	G	N1-C2	-5.42	1.33	1.37
78	1b	1667	A	C6-N6	-5.42	1.29	1.33
1	a	895	G	C6-N1	-5.42	1.35	1.39
1	2b	15	U	C4-C5	-5.42	1.38	1.43
1	2b	1503	A	C5-C6	-5.42	1.36	1.41
1	2b	1577	A	N9-C4	-5.42	1.34	1.37
78	1b	806	A	N3-C4	-5.42	1.31	1.34
78	1b	1480	G	C6-N1	-5.42	1.35	1.39
78	1b	2333	C	C5-C6	-5.42	1.30	1.34
78	1b	2884	C	N3-C4	-5.42	1.30	1.33
1	2b	57	G	N9-C4	-5.41	1.33	1.38
1	2b	1476	C	N1-C6	-5.41	1.33	1.37
78	1b	361	A	C5-C6	-5.41	1.36	1.41
78	1b	1487	G	N1-C2	-5.41	1.33	1.37
78	1b	2650	U	N1-C6	-5.41	1.33	1.38
1	2b	386	G	N9-C8	-5.41	1.34	1.37
78	1b	62	A	C6-N6	-5.41	1.29	1.33
78	1b	1065	A	N9-C4	-5.41	1.34	1.37
78	1b	1197	A	C5-C6	-5.41	1.36	1.41
78	1b	1373	A	N7-C5	-5.41	1.36	1.39
78	1b	1596	C	N3-C4	-5.41	1.30	1.33
78	1b	1755	C	N1-C6	-5.41	1.33	1.37
1	2b	924	A	C6-N6	-5.41	1.29	1.33
1	2b	1728	A	N3-C4	-5.41	1.31	1.34
35	4b	87	G	N9-C8	-5.41	1.34	1.37
78	1b	1154	A	N9-C4	-5.41	1.34	1.37
78	1b	2145	A	C6-N1	-5.41	1.31	1.35
78	1b	2341	A	C5-C6	-5.41	1.36	1.41
78	1b	2664	C	C5-C6	-5.41	1.30	1.34
78	1b	2939	G	C8-N7	-5.41	1.27	1.30
79	6b	40	C	N1-C6	-5.41	1.33	1.37
78	1b	905	U	N1-C6	-5.41	1.33	1.38
78	1b	1301	A	N9-C8	-5.41	1.33	1.37
78	1b	1591	G	C8-N7	-5.41	1.27	1.30
78	1b	2368	A	N3-C4	-5.41	1.31	1.34
78	1b	709	A	N3-C4	-5.41	1.31	1.34
78	1b	1375	G	C5-C6	-5.41	1.36	1.42
78	1b	3092	C	C4-C5	-5.41	1.38	1.43
78	1b	1842	A	C6-N1	-5.41	1.31	1.35
1	2b	1173	C	N1-C6	-5.40	1.33	1.37
78	1b	2370	G	C2-N3	-5.40	1.28	1.32
1	2b	1792	G	N7-C5	-5.40	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	4b	83	U	N1-C6	-5.40	1.33	1.38
78	1b	879	U	C2-N3	-5.40	1.33	1.37
78	1b	1333	C	C5-C6	-5.40	1.30	1.34
78	1b	1375	G	C6-N1	-5.40	1.35	1.39
78	1b	2330	C	N3-C4	-5.40	1.30	1.33
78	Aa	3130	A	N7-C5	-5.40	1.36	1.39
36	3b	41	A	N7-C5	-5.40	1.36	1.39
42	Fy	138	TYR	CD2-CE2	-5.40	1.31	1.39
78	1b	826	G	N9-C8	-5.40	1.34	1.37
78	1b	969	C	N1-C6	-5.40	1.33	1.37
78	1b	1437	C	N1-C6	-5.40	1.33	1.37
78	1b	3090	U	N1-C6	-5.40	1.33	1.38
1	2b	760	A	C6-N6	-5.40	1.29	1.33
35	4b	10	C	N1-C6	-5.40	1.33	1.37
78	1b	930	U	N1-C2	-5.40	1.33	1.38
78	1b	1374	G	N9-C8	-5.40	1.34	1.37
78	1b	2324	A	C5-C4	-5.40	1.34	1.38
1	2b	1599	C	N1-C6	-5.40	1.33	1.37
69	hb	57	VAL	CB-CG2	-5.40	1.41	1.52
78	1b	1389	G	N9-C4	-5.40	1.33	1.38
78	1b	1597	C	N1-C6	-5.40	1.33	1.37
78	1b	2247	G	N9-C4	-5.40	1.33	1.38
1	2b	1287	A	N9-C4	-5.40	1.34	1.37
1	2b	1420	C	N1-C6	-5.39	1.33	1.37
25	Xb	127	VAL	CB-CG1	-5.39	1.41	1.52
78	1b	968	G	N7-C5	-5.39	1.36	1.39
78	1b	1847	A	C5-C6	-5.39	1.36	1.41
78	1b	2154	U	N1-C2	-5.39	1.33	1.38
78	Aa	883	A	N9-C4	-5.39	1.34	1.37
1	2b	876	G	N9-C8	-5.39	1.34	1.37
49	Ny	89	VAL	CB-CG2	-5.39	1.41	1.52
78	1b	654	C	N3-C4	-5.39	1.30	1.33
78	1b	1781	C	C4-C5	-5.39	1.38	1.43
78	1b	2946	A	C5-C4	-5.39	1.34	1.38
79	6b	75	C	C4-N4	-5.39	1.29	1.33
78	Aa	1141	C	C4-C5	-5.39	1.38	1.43
78	Aa	1441	G	N9-C4	-5.39	1.33	1.38
78	1b	8	C	C4-C5	-5.39	1.38	1.43
78	1b	1805	C	N3-C4	-5.39	1.30	1.33
78	1b	3365	U	C4-C5	-5.39	1.38	1.43
1	2b	604	A	C6-N6	-5.39	1.29	1.33
78	1b	268	A	N9-C4	-5.39	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	943	U	C2-N3	-5.39	1.33	1.37
78	1b	992	A	C5-C6	-5.39	1.36	1.41
78	1b	2656	A	N9-C4	-5.39	1.34	1.37
1	2b	1157	A	N9-C4	-5.39	1.34	1.37
78	1b	635	G	N9-C4	-5.39	1.33	1.38
78	1b	103	G	N9-C8	-5.39	1.34	1.37
78	1b	2331	C	C5-C6	-5.39	1.30	1.34
78	1b	2805	G	N9-C4	-5.39	1.33	1.38
1	2b	300	A	N9-C4	-5.38	1.34	1.37
1	2b	456	A	C6-N6	-5.38	1.29	1.33
1	2b	1210	C	N1-C6	-5.38	1.33	1.37
35	4b	100	C	C4-C5	-5.38	1.38	1.43
35	4b	117	A	C6-N6	-5.38	1.29	1.33
78	1b	345	G	N1-C2	-5.38	1.33	1.37
78	1b	2834	G	N1-C2	-5.38	1.33	1.37
78	1b	2897	A	N9-C4	-5.38	1.34	1.37
1	2b	1078	C	C4-C5	-5.38	1.38	1.43
28	ab	86	VAL	CB-CG2	-5.38	1.41	1.52
36	3b	101	U	C4-C5	-5.38	1.38	1.43
78	1b	884	A	N9-C4	-5.38	1.34	1.37
78	1b	1297	C	C4-C5	-5.38	1.38	1.43
78	1b	1893	A	C6-N1	-5.38	1.31	1.35
1	2b	1084	A	N9-C4	-5.38	1.34	1.37
1	2b	1094	G	N7-C5	-5.38	1.36	1.39
1	2b	1131	A	C6-N6	-5.38	1.29	1.33
78	1b	81	C	C4-C5	-5.38	1.38	1.43
78	1b	1591	G	N1-C2	-5.38	1.33	1.37
78	1b	1918	C	N1-C6	-5.38	1.33	1.37
78	1b	2271	A	N9-C4	-5.38	1.34	1.37
78	1b	2610	G	C8-N7	-5.38	1.27	1.30
78	1b	407	A	N3-C4	-5.38	1.31	1.34
78	1b	2627	C	C5-C6	-5.38	1.30	1.34
78	1b	2877	G	N1-C2	-5.38	1.33	1.37
1	2b	974	A	C5-C4	-5.38	1.34	1.38
78	1b	15	C	C4-C5	-5.38	1.38	1.43
78	1b	95	A	N9-C4	-5.38	1.34	1.37
78	1b	336	A	C5-C6	-5.38	1.36	1.41
78	1b	353	G	N9-C8	-5.38	1.34	1.37
78	1b	422	A	N3-C4	-5.38	1.31	1.34
78	1b	2519	A	C5-C6	-5.38	1.36	1.41
1	2b	1792	G	C6-N1	-5.38	1.35	1.39
78	1b	104	G	N1-C2	-5.38	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	635	G	N9-C8	-5.38	1.34	1.37
78	1b	2410	U	C2-N3	-5.38	1.33	1.37
78	1b	1303	A	C6-N1	-5.38	1.31	1.35
1	2b	609	U	C4-C5	-5.37	1.38	1.43
1	2b	988	A	N9-C8	-5.37	1.33	1.37
1	2b	1132	A	N9-C4	-5.37	1.34	1.37
35	4b	72	A	C6-N6	-5.37	1.29	1.33
78	1b	2877	G	N9-C8	-5.37	1.34	1.37
1	2b	1645	G	N7-C5	-5.37	1.36	1.39
54	Sy	42	TRP	CB-CG	-5.37	1.40	1.50
78	1b	66	A	N9-C8	-5.37	1.33	1.37
78	1b	833	G	N7-C5	-5.37	1.36	1.39
78	1b	2323	G	N7-C5	-5.37	1.36	1.39
78	1b	2892	A	C5-C6	-5.37	1.36	1.41
1	2b	295	A	N9-C4	-5.37	1.34	1.37
1	2b	1132	A	C5-C6	-5.37	1.36	1.41
36	3b	92	A	C5-C6	-5.37	1.36	1.41
78	1b	1839	A	N9-C4	-5.37	1.34	1.37
78	1b	2126	A	C5-C6	-5.37	1.36	1.41
78	1b	2281	A	N9-C4	-5.37	1.34	1.37
78	1b	2316	G	N9-C4	-5.37	1.33	1.38
78	1b	2991	A	N3-C4	-5.37	1.31	1.34
1	2b	1645	G	N9-C8	-5.37	1.34	1.37
1	2b	1776	A	C6-N6	-5.37	1.29	1.33
35	4b	79	A	N3-C4	-5.37	1.31	1.34
78	1b	33	G	N9-C4	-5.37	1.33	1.38
78	1b	1910	A	C6-N1	-5.37	1.31	1.35
1	2b	86	A	N9-C4	-5.37	1.34	1.37
78	1b	963	G	C6-N1	-5.37	1.35	1.39
78	1b	1179	A	N9-C4	-5.37	1.34	1.37
78	1b	2329	C	N3-C4	-5.37	1.30	1.33
78	1b	2391	G	N7-C5	-5.37	1.36	1.39
1	2b	753	A	N9-C4	-5.37	1.34	1.37
78	1b	51	A	N3-C4	-5.37	1.31	1.34
78	1b	92	G	N9-C8	-5.37	1.34	1.37
78	1b	1897	G	N7-C5	-5.37	1.36	1.39
78	1b	2320	A	N9-C4	-5.37	1.34	1.37
78	1b	2356	A	N9-C8	-5.37	1.33	1.37
78	1b	2605	G	N9-C4	-5.37	1.33	1.38
1	2b	1636	C	N3-C4	-5.36	1.30	1.33
51	Py	139	TYR	CD2-CE2	-5.36	1.31	1.39
78	1b	30	G	N9-C4	-5.36	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	99	A	C5-C4	-5.36	1.34	1.38
78	1b	288	C	C4-C5	-5.36	1.38	1.43
78	1b	1133	A	C6-N1	-5.36	1.31	1.35
78	1b	1883	A	C6-N6	-5.36	1.29	1.33
78	1b	2756	C	N1-C6	-5.36	1.33	1.37
78	1b	2950	G	C6-N1	-5.36	1.35	1.39
1	2b	12	U	C4-C5	-5.36	1.38	1.43
1	2b	316	A	N9-C4	-5.36	1.34	1.37
1	2b	1299	G	N1-C2	-5.36	1.33	1.37
78	1b	1797	A	N9-C8	-5.36	1.33	1.37
78	1b	2180	G	N9-C8	-5.36	1.34	1.37
78	1b	2958	A	C5-C6	-5.36	1.36	1.41
1	2b	342	C	N1-C6	-5.36	1.33	1.37
78	1b	841	A	C6-N6	-5.36	1.29	1.33
78	1b	1515	A	N7-C5	-5.36	1.36	1.39
78	1b	1797	A	C5-C6	-5.36	1.36	1.41
1	2b	1001	A	N9-C4	-5.36	1.34	1.37
1	2b	1300	A	N3-C4	-5.36	1.31	1.34
78	1b	2368	A	N7-C5	-5.36	1.36	1.39
78	1b	3298	C	N1-C6	-5.36	1.33	1.37
1	2b	941	A	N3-C4	-5.36	1.31	1.34
78	1b	819	U	N1-C6	-5.36	1.33	1.38
78	1b	836	A	N3-C4	-5.36	1.31	1.34
78	1b	1168	U	N3-C4	-5.36	1.33	1.38
78	1b	1393	A	N7-C5	-5.36	1.36	1.39
78	1b	1406	A	C6-N6	-5.36	1.29	1.33
78	1b	1708	C	N1-C6	-5.36	1.33	1.37
78	1b	2174	G	N3-C4	-5.36	1.31	1.35
78	Aa	2945	G	N9-C8	-5.36	1.34	1.37
1	2b	173	A	N9-C4	-5.36	1.34	1.37
1	2b	366	A	N9-C4	-5.36	1.34	1.37
36	3b	42	G	N9-C4	-5.36	1.33	1.38
78	1b	305	U	C2-N3	-5.36	1.34	1.37
78	1b	661	G	N7-C5	-5.36	1.36	1.39
78	1b	1889	G	C6-N1	-5.36	1.35	1.39
78	1b	2349	U	N1-C6	-5.36	1.33	1.38
78	1b	2814	G	C2-N3	-5.36	1.28	1.32
78	Aa	1941	C	N1-C6	-5.36	1.33	1.37
1	2b	432	G	C6-N1	-5.35	1.35	1.39
49	Ny	27	VAL	CB-CG1	-5.35	1.41	1.52
78	1b	838	G	C6-N1	-5.35	1.35	1.39
78	1b	1194	G	N7-C5	-5.35	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	1895	A	C5-C6	-5.35	1.36	1.41
52	Qy	182	LYS	CA-CB	-5.35	1.42	1.53
78	1b	644	G	C2-N3	-5.35	1.28	1.32
78	1b	2177	G	N9-C4	-5.35	1.33	1.38
1	2b	635	A	C6-N6	-5.35	1.29	1.33
1	2b	1790	A	N7-C5	-5.35	1.36	1.39
36	3b	43	A	C6-N1	-5.35	1.31	1.35
78	1b	1669	C	C4-C5	-5.35	1.38	1.43
1	2b	1116	A	C5-C6	-5.35	1.36	1.41
1	2b	1495	C	N1-C6	-5.35	1.33	1.37
78	1b	61	A	C6-N1	-5.35	1.31	1.35
78	1b	1118	C	C4-C5	-5.35	1.38	1.43
78	1b	1851	G	C8-N7	-5.35	1.27	1.30
1	2b	757	A	N9-C4	-5.35	1.34	1.37
36	3b	115	C	N3-C4	-5.35	1.30	1.33
78	1b	213	A	N9-C4	-5.35	1.34	1.37
78	1b	875	G	N1-C2	-5.35	1.33	1.37
78	1b	929	A	N7-C5	-5.35	1.36	1.39
78	1b	1375	G	C5-C4	-5.35	1.34	1.38
78	1b	2525	G	N9-C4	-5.35	1.33	1.38
78	1b	2892	A	N9-C4	-5.35	1.34	1.37
1	2b	1583	A	C5-C6	-5.35	1.36	1.41
78	1b	977	C	N1-C6	-5.35	1.33	1.37
78	1b	1491	A	N7-C5	-5.35	1.36	1.39
78	1b	2515	A	N3-C4	-5.35	1.31	1.34
78	1b	913	A	C5-C6	-5.34	1.36	1.41
78	1b	1112	A	N3-C4	-5.34	1.31	1.34
78	1b	1150	A	C6-N1	-5.34	1.31	1.35
78	1b	1454	A	C5-C4	-5.34	1.35	1.38
78	1b	1528	G	N9-C8	-5.34	1.34	1.37
78	1b	1612	A	N9-C4	-5.34	1.34	1.37
78	1b	2183	A	C6-N6	-5.34	1.29	1.33
78	1b	2890	A	C6-N6	-5.34	1.29	1.33
78	Aa	1539	A	N9-C4	-5.34	1.34	1.37
58	Wy	22	VAL	CB-CG1	-5.34	1.41	1.52
78	1b	287	G	C2-N2	-5.34	1.29	1.34
78	1b	711	A	C6-N6	-5.34	1.29	1.33
78	1b	973	A	N9-C8	-5.34	1.33	1.37
78	1b	1125	U	N1-C6	-5.34	1.33	1.38
78	1b	2104	A	N9-C8	-5.34	1.33	1.37
78	1b	2807	U	N1-C6	-5.34	1.33	1.38
78	1b	1529	A	C5-C6	-5.34	1.36	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	2172	A	C5-C4	-5.34	1.35	1.38
78	1b	2214	A	N9-C4	-5.34	1.34	1.37
1	2b	596	C	N1-C6	-5.34	1.33	1.37
78	1b	1298	C	N1-C6	-5.34	1.33	1.37
78	1b	2125	A	C6-N6	-5.34	1.29	1.33
78	1b	1856	C	C5-C6	-5.34	1.30	1.34
78	1b	1881	A	N9-C4	-5.34	1.34	1.37
78	1b	2166	A	N9-C8	-5.34	1.33	1.37
78	1b	2945	G	N7-C5	-5.34	1.36	1.39
78	1b	3130	A	N7-C5	-5.34	1.36	1.39
1	2b	387	A	C6-N1	-5.34	1.31	1.35
1	2b	1740	A	C5-C6	-5.34	1.36	1.41
78	1b	828	A	N9-C8	-5.34	1.33	1.37
78	1b	1167	U	N1-C6	-5.34	1.33	1.38
78	1b	1369	A	C6-N6	-5.34	1.29	1.33
78	1b	1486	G	N9-C4	-5.34	1.33	1.38
78	1b	2199	G	C6-N1	-5.34	1.35	1.39
78	1b	2291	A	N9-C4	-5.34	1.34	1.37
78	1b	2382	G	C6-N1	-5.34	1.35	1.39
1	2b	876	G	N9-C4	-5.33	1.33	1.38
1	2b	1791	A	C5-C6	-5.33	1.36	1.41
78	1b	34	A	C5-C6	-5.33	1.36	1.41
78	1b	364	G	N9-C4	-5.33	1.33	1.38
78	1b	891	G	N7-C5	-5.33	1.36	1.39
78	1b	933	A	C5-C4	-5.33	1.35	1.38
78	1b	971	G	N9-C4	-5.33	1.33	1.38
78	1b	1792	C	N3-C4	-5.33	1.30	1.33
78	1b	2332	A	N7-C5	-5.33	1.36	1.39
78	1b	2359	C	C5-C6	-5.33	1.30	1.34
78	1b	99	A	N9-C4	-5.33	1.34	1.37
78	1b	816	A	C5-C6	-5.33	1.36	1.41
78	1b	1657	C	N1-C6	-5.33	1.33	1.37
1	2b	943	C	C5-C6	-5.33	1.30	1.34
77	pb	26	VAL	CB-CG1	-5.33	1.41	1.52
78	1b	342	A	C5-C4	-5.33	1.35	1.38
78	1b	2181	C	C4-C5	-5.33	1.38	1.43
78	1b	2377	G	C5-C4	-5.33	1.34	1.38
78	1b	371	G	C6-N1	-5.33	1.35	1.39
78	1b	808	A	C5-C6	-5.33	1.36	1.41
78	1b	945	C	C4-C5	-5.33	1.38	1.43
78	1b	1180	A	N9-C4	-5.33	1.34	1.37
78	1b	1412	G	C6-N1	-5.33	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	1797	A	N3-C4	-5.33	1.31	1.34
78	1b	1898	G	N1-C2	-5.33	1.33	1.37
78	1b	2938	G	N3-C4	-5.33	1.31	1.35
1	2b	322	G	C6-N1	-5.33	1.35	1.39
1	2b	1137	A	N9-C4	-5.33	1.34	1.37
78	1b	871	U	N1-C6	-5.33	1.33	1.38
1	2b	1147	A	N7-C5	-5.33	1.36	1.39
78	1b	418	A	C5-C6	-5.33	1.36	1.41
78	1b	1468	A	N9-C4	-5.33	1.34	1.37
78	1b	1835	A	C6-N1	-5.33	1.31	1.35
1	2b	1075	C	C4-C5	-5.32	1.38	1.43
38	By	229	VAL	CB-CG2	-5.32	1.41	1.52
78	1b	914	A	N3-C4	-5.32	1.31	1.34
78	1b	1178	G	N1-C2	-5.32	1.33	1.37
78	1b	2421	U	C4-C5	-5.32	1.38	1.43
78	1b	3081	C	C4-C5	-5.32	1.38	1.43
78	1b	2370	G	N7-C5	-5.32	1.36	1.39
1	2b	326	G	N7-C5	-5.32	1.36	1.39
1	2b	943	C	N3-C4	-5.32	1.30	1.33
1	2b	973	A	C5-C6	-5.32	1.36	1.41
36	3b	25	G	N9-C4	-5.32	1.33	1.38
78	1b	57	A	C5-C6	-5.32	1.36	1.41
78	1b	337	G	C2-N2	-5.32	1.29	1.34
78	1b	839	C	N1-C6	-5.32	1.33	1.37
78	1b	1118	C	N3-C4	-5.32	1.30	1.33
78	1b	2391	G	N3-C4	-5.32	1.31	1.35
78	1b	2620	G	N1-C2	-5.32	1.33	1.37
78	1b	2790	A	N9-C8	-5.32	1.33	1.37
78	1b	2815	G	C5-C4	-5.32	1.34	1.38
78	1b	923	C	C4-C5	-5.32	1.38	1.43
1	2b	1002	G	N9-C4	-5.32	1.33	1.38
78	1b	610	G	N9-C4	-5.32	1.33	1.38
78	1b	1923	C	N3-C4	-5.32	1.30	1.33
78	1b	2202	C	C5-C6	-5.32	1.30	1.34
78	1b	2727	A	C6-N6	-5.32	1.29	1.33
78	1b	2741	C	C4-C5	-5.32	1.38	1.43
78	1b	2948	C	C5-C6	-5.32	1.30	1.34
78	1b	3012	A	N9-C4	-5.32	1.34	1.37
1	2b	1026	A	C6-N6	-5.31	1.29	1.33
78	1b	420	G	C2-N3	-5.31	1.28	1.32
1	2b	26	A	N9-C4	-5.31	1.34	1.37
1	2b	980	G	C6-N1	-5.31	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	330	G	N3-C4	-5.31	1.31	1.35
78	1b	2919	A	C6-N6	-5.31	1.29	1.33
78	1b	209	A	C6-N6	-5.31	1.29	1.33
78	1b	1054	A	N9-C4	-5.31	1.34	1.37
78	1b	1120	A	C6-N1	-5.31	1.31	1.35
78	1b	2918	G	N3-C4	-5.31	1.31	1.35
1	2b	1013	A	N9-C4	-5.31	1.34	1.37
1	2b	1763	A	C5-C6	-5.31	1.36	1.41
35	4b	91	G	N9-C4	-5.31	1.33	1.38
78	1b	8	C	C4-N4	-5.31	1.29	1.33
78	1b	1385	C	N1-C6	-5.31	1.33	1.37
78	1b	1633	C	N1-C6	-5.31	1.33	1.37
78	1b	2651	G	N3-C4	-5.31	1.31	1.35
78	1b	2693	C	N1-C6	-5.31	1.33	1.37
78	1b	3391	A	N9-C4	-5.31	1.34	1.37
1	2b	13	C	N3-C4	-5.31	1.30	1.33
1	2b	328	A	C6-N6	-5.31	1.29	1.33
1	2b	572	C	C5-C6	-5.31	1.30	1.34
36	3b	77	A	C5-C6	-5.31	1.36	1.41
78	1b	925	A	C5-C6	-5.31	1.36	1.41
78	1b	1679	A	N9-C4	-5.31	1.34	1.37
78	1b	3075	G	N7-C5	-5.31	1.36	1.39
78	1b	80	G	C6-N1	-5.31	1.35	1.39
78	1b	2966	G	C2-N2	-5.31	1.29	1.34
1	2b	1109	G	N1-C2	-5.30	1.33	1.37
1	2b	1633	A	C5-C6	-5.30	1.36	1.41
78	1b	123	A	C5-C6	-5.30	1.36	1.41
78	1b	345	G	N3-C4	-5.30	1.31	1.35
78	1b	1364	C	C4-N4	-5.30	1.29	1.33
78	1b	1594	A	N9-C8	-5.30	1.33	1.37
78	1b	2431	C	N3-C4	-5.30	1.30	1.33
78	1b	2788	C	C4-C5	-5.30	1.38	1.43
78	1b	2966	G	N1-C2	-5.30	1.33	1.37
78	1b	2368	A	N9-C8	-5.30	1.33	1.37
1	2b	343	C	N1-C6	-5.30	1.33	1.37
1	2b	884	A	N9-C4	-5.30	1.34	1.37
1	2b	1149	G	C6-N1	-5.30	1.35	1.39
78	1b	80	G	N9-C8	-5.30	1.34	1.37
78	1b	913	A	N7-C5	-5.30	1.36	1.39
78	Aa	1158	A	N9-C4	-5.30	1.34	1.37
1	2b	1132	A	C6-N1	-5.30	1.31	1.35
36	3b	61	A	N9-C8	-5.30	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	694	C	N1-C6	-5.30	1.33	1.37
78	1b	1453	A	C6-N6	-5.30	1.29	1.33
78	1b	1910	A	N9-C4	-5.30	1.34	1.37
78	1b	2820	A	N9-C4	-5.30	1.34	1.37
78	Aa	948	C	C4-C5	-5.30	1.38	1.43
78	Aa	1923	C	N1-C6	-5.30	1.33	1.37
1	2b	1762	A	C6-N1	-5.30	1.31	1.35
78	1b	213	A	N9-C8	-5.30	1.33	1.37
78	1b	1412	G	N9-C8	-5.30	1.34	1.37
78	1b	3147	G	N7-C5	-5.30	1.36	1.39
1	2b	1674	C	C4-N4	-5.30	1.29	1.33
35	4b	7	G	N9-C4	-5.30	1.33	1.38
37	Ay	69	TYR	CE2-CZ	-5.30	1.31	1.38
78	1b	33	G	N9-C8	-5.30	1.34	1.37
78	1b	1178	G	C6-N1	-5.30	1.35	1.39
78	1b	1507	G	N9-C4	-5.30	1.33	1.38
78	1b	1544	G	N3-C4	-5.30	1.31	1.35
78	1b	1908	A	N9-C4	-5.30	1.34	1.37
78	1b	2120	A	C5-C4	-5.30	1.35	1.38
78	1b	2180	G	N9-C4	-5.30	1.33	1.38
78	1b	3094	A	C6-N1	-5.30	1.31	1.35
36	Ca	28	C	N1-C6	-5.30	1.33	1.37
1	2b	973	A	C6-N1	-5.29	1.31	1.35
36	3b	142	C	C4-C5	-5.29	1.38	1.43
78	1b	1658	G	N1-C2	-5.29	1.33	1.37
78	1b	2295	A	C5-C6	-5.29	1.36	1.41
36	3b	135	G	N7-C5	-5.29	1.36	1.39
78	1b	610	G	N1-C2	-5.29	1.33	1.37
78	1b	2727	A	C5-C4	-5.29	1.35	1.38
1	2b	368	U	N1-C6	-5.29	1.33	1.38
1	2b	1336	A	N9-C4	-5.29	1.34	1.37
1	2b	1658	G	C6-N1	-5.29	1.35	1.39
36	3b	75	G	N9-C4	-5.29	1.33	1.38
78	1b	1061	A	C6-N6	-5.29	1.29	1.33
78	1b	2377	G	N9-C4	-5.29	1.33	1.38
78	1b	3073	A	C6-N6	-5.29	1.29	1.33
78	Aa	1176	C	N1-C6	-5.29	1.33	1.37
1	2b	67	A	N9-C4	-5.29	1.34	1.37
1	2b	301	A	C5-C6	-5.29	1.36	1.41
1	2b	1667	A	C6-N6	-5.29	1.29	1.33
78	1b	657	A	C5-C4	-5.29	1.35	1.38
78	1b	868	C	C5-C6	-5.29	1.30	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	Aa	344	A	N9-C4	-5.29	1.34	1.37
1	2b	870	C	N1-C6	-5.29	1.33	1.37
1	2b	1113	A	C5-C4	-5.29	1.35	1.38
78	1b	987	U	C4-C5	-5.29	1.38	1.43
78	1b	1452	A	N3-C4	-5.29	1.31	1.34
78	1b	2394	G	C5-C4	-5.29	1.34	1.38
1	2b	1456	C	N1-C6	-5.29	1.33	1.37
36	3b	52	A	N7-C5	-5.29	1.36	1.39
78	1b	831	G	N9-C8	-5.29	1.34	1.37
78	1b	2943	G	N9-C8	-5.29	1.34	1.37
78	1b	3059	G	N9-C8	-5.29	1.34	1.37
78	1b	3136	G	N7-C5	-5.29	1.36	1.39
1	2b	570	A	N9-C4	-5.28	1.34	1.37
36	3b	54	A	N9-C4	-5.28	1.34	1.37
59	Xy	99	VAL	CB-CG2	-5.28	1.41	1.52
77	pb	18	TYR	CE1-CZ	-5.28	1.31	1.38
78	1b	41	G	N9-C8	-5.28	1.34	1.37
78	1b	625	G	N9-C4	-5.28	1.33	1.38
78	1b	897	U	N1-C6	-5.28	1.33	1.38
78	1b	953	G	N9-C4	-5.28	1.33	1.38
78	1b	2131	A	C6-N1	-5.28	1.31	1.35
78	1b	2431	C	N1-C6	-5.28	1.33	1.37
78	1b	2977	G	N9-C4	-5.28	1.33	1.38
78	Aa	634	C	N1-C6	-5.28	1.33	1.37
78	Aa	936	A	N9-C4	-5.28	1.34	1.37
78	1b	48	A	C6-N6	-5.28	1.29	1.33
78	1b	3106	A	C5-C6	-5.28	1.36	1.41
1	2b	102	U	N1-C6	-5.28	1.33	1.38
1	2b	305	C	N3-C4	-5.28	1.30	1.33
1	2b	1124	A	C5-C6	-5.28	1.36	1.41
78	1b	63	A	N9-C8	-5.28	1.33	1.37
78	1b	974	G	C5-C6	-5.28	1.37	1.42
78	1b	1120	A	C5-C6	-5.28	1.36	1.41
78	1b	1369	A	N7-C5	-5.28	1.36	1.39
78	1b	2270	A	N3-C4	-5.28	1.31	1.34
78	1b	2350	C	N3-C4	-5.28	1.30	1.33
1	2b	300	A	C6-N6	-5.28	1.29	1.33
1	2b	1026	A	C5-C4	-5.28	1.35	1.38
36	3b	47	C	C5-C6	-5.28	1.30	1.34
78	1b	1302	A	N3-C4	-5.28	1.31	1.34
78	1b	1483	G	C6-N1	-5.28	1.35	1.39
78	Aa	2625	C	N1-C6	-5.28	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2b	266	A	N9-C4	-5.28	1.34	1.37
1	2b	1094	G	N1-C2	-5.28	1.33	1.37
1	2b	1313	A	N9-C4	-5.28	1.34	1.37
78	1b	672	A	C5-C6	-5.28	1.36	1.41
78	1b	711	A	N9-C8	-5.28	1.33	1.37
78	1b	1145	G	N3-C4	-5.28	1.31	1.35
78	1b	1379	G	C6-N1	-5.28	1.35	1.39
78	1b	1404	G	N9-C4	-5.28	1.33	1.38
78	Aa	650	C	C4-C5	-5.28	1.38	1.43
1	2b	315	A	C5-C4	-5.27	1.35	1.38
1	2b	755	A	N9-C4	-5.27	1.34	1.37
78	1b	656	A	C5-C4	-5.27	1.35	1.38
78	1b	3114	A	N3-C4	-5.27	1.31	1.34
78	Aa	2166	A	N9-C4	-5.27	1.34	1.37
1	2b	423	G	N7-C5	-5.27	1.36	1.39
78	1b	28	C	C4-C5	-5.27	1.38	1.43
78	1b	691	A	N9-C8	-5.27	1.33	1.37
78	1b	917	A	C6-N6	-5.27	1.29	1.33
78	1b	1545	A	N9-C8	-5.27	1.33	1.37
78	1b	2830	G	N9-C4	-5.27	1.33	1.38
78	1b	876	A	N9-C4	-5.27	1.34	1.37
78	1b	2348	A	N9-C8	-5.27	1.33	1.37
78	1b	3014	U	N1-C6	-5.27	1.33	1.38
78	Aa	2242	A	N9-C4	-5.27	1.34	1.37
78	1b	428	A	N9-C4	-5.27	1.34	1.37
78	1b	996	A	C6-N6	-5.27	1.29	1.33
78	1b	1148	G	C5-C4	-5.27	1.34	1.38
78	1b	2277	C	C4-C5	-5.27	1.38	1.43
78	1b	70	A	N7-C5	-5.27	1.36	1.39
78	1b	273	A	N9-C8	-5.27	1.33	1.37
78	1b	935	U	N1-C2	-5.27	1.33	1.38
78	1b	1707	A	N9-C4	-5.27	1.34	1.37
78	1b	1913	A	C5-C4	-5.27	1.35	1.38
78	1b	2814	G	N1-C2	-5.27	1.33	1.37
78	1b	3003	G	N9-C4	-5.27	1.33	1.38
78	Aa	1474	A	C6-N6	-5.27	1.29	1.33
78	1b	113	C	C4-C5	-5.27	1.38	1.43
78	1b	327	A	N3-C4	-5.27	1.31	1.34
78	1b	2838	A	N9-C4	-5.27	1.34	1.37
78	1b	3076	C	N3-C4	-5.27	1.30	1.33
1	2b	868	G	N9-C4	-5.26	1.33	1.38
36	3b	71	A	N9-C4	-5.26	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	930	U	N1-C6	-5.26	1.33	1.38
78	1b	1515	A	N9-C8	-5.26	1.33	1.37
78	1b	1895	A	N9-C4	-5.26	1.34	1.37
78	1b	2380	U	N1-C6	-5.26	1.33	1.38
1	2b	571	G	N9-C8	-5.26	1.34	1.37
36	3b	91	C	C4-C5	-5.26	1.38	1.43
78	1b	809	G	C6-N1	-5.26	1.35	1.39
78	1b	2417	U	N1-C6	-5.26	1.33	1.38
78	1b	3073	A	N7-C5	-5.26	1.36	1.39
1	2b	1793	G	N1-C2	-5.26	1.33	1.37
78	1b	1657	C	C4-N4	-5.26	1.29	1.33
78	1b	1787	A	N7-C5	-5.26	1.36	1.39
78	1b	2341	A	N9-C4	-5.26	1.34	1.37
78	1b	2612	U	C4-C5	-5.26	1.38	1.43
1	2b	1417	A	C6-N6	-5.26	1.29	1.33
1	2b	1600	A	N3-C4	-5.26	1.31	1.34
78	1b	695	C	C4-C5	-5.26	1.38	1.43
78	1b	1319	G	N1-C2	-5.26	1.33	1.37
78	1b	1857	C	N3-C4	-5.26	1.30	1.33
78	1b	2958	A	C6-N6	-5.26	1.29	1.33
78	1b	702	C	C4-C5	-5.26	1.38	1.43
78	1b	752	C	C4-C5	-5.26	1.38	1.43
78	1b	1454	A	C6-N1	-5.26	1.31	1.35
1	2b	411	C	C4-C5	-5.26	1.38	1.43
1	2b	1173	C	C4-C5	-5.26	1.38	1.43
78	1b	39	A	N9-C8	-5.26	1.33	1.37
1	2b	426	G	C6-N1	-5.25	1.35	1.39
78	1b	1311	G	N9-C4	-5.25	1.33	1.38
78	1b	1407	A	C6-N6	-5.25	1.29	1.33
78	1b	2817	A	N7-C5	-5.25	1.36	1.39
1	2b	323	A	C5-C6	-5.25	1.36	1.41
78	1b	412	G	N9-C8	-5.25	1.34	1.37
1	2b	1401	A	N9-C4	-5.25	1.34	1.37
78	1b	1843	C	C5-C6	-5.25	1.30	1.34
78	1b	1856	C	N3-C4	-5.25	1.30	1.33
78	Aa	2733	A	N9-C4	-5.25	1.34	1.37
1	2b	1010	C	N1-C6	-5.25	1.33	1.37
36	3b	13	A	N9-C8	-5.25	1.33	1.37
78	1b	1299	U	N1-C6	-5.25	1.33	1.38
1	2b	1034	C	C4-C5	-5.25	1.38	1.43
39	Cy	208	VAL	CB-CG1	-5.25	1.41	1.52
78	1b	916	G	N3-C4	-5.25	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	1848	G	C2-N3	-5.25	1.28	1.32
78	1b	2710	C	C4-C5	-5.25	1.38	1.43
78	1b	2758	A	C6-N6	-5.25	1.29	1.33
78	1b	2910	A	C5-C6	-5.25	1.36	1.41
78	1b	2968	G	C5-C4	-5.25	1.34	1.38
78	1b	909	G	N9-C8	-5.25	1.34	1.37
78	1b	937	G	N9-C8	-5.25	1.34	1.37
78	1b	1113	G	C6-N1	-5.25	1.35	1.39
78	1b	1170	A	C5-C4	-5.25	1.35	1.38
78	1b	1374	G	N7-C5	-5.25	1.36	1.39
78	Aa	1312	C	N1-C6	-5.25	1.34	1.37
1	2b	1109	G	C6-N1	-5.25	1.35	1.39
78	1b	1435	A	C5-C4	-5.25	1.35	1.38
78	1b	2245	C	C4-C5	-5.25	1.38	1.43
1	2b	332	U	N1-C6	-5.24	1.33	1.38
66	ey	25	TYR	CD2-CE2	-5.24	1.31	1.39
78	1b	2118	C	C4-N4	-5.24	1.29	1.33
1	2b	1018	U	N1-C2	-5.24	1.33	1.38
78	1b	817	A	C5-C6	-5.24	1.36	1.41
78	1b	1633	C	C4-C5	-5.24	1.38	1.43
1	2b	634	G	N3-C4	-5.24	1.31	1.35
1	2b	880	C	N1-C6	-5.24	1.34	1.37
78	1b	1613	A	C6-N6	-5.24	1.29	1.33
78	1b	1923	C	C4-C5	-5.24	1.38	1.43
36	3b	45	C	C5-C6	-5.24	1.30	1.34
78	1b	991	G	N9-C4	-5.24	1.33	1.38
78	1b	1453	A	N7-C5	-5.24	1.36	1.39
78	1b	365	A	C6-N6	-5.24	1.29	1.33
78	1b	643	U	N1-C6	-5.24	1.33	1.38
78	1b	1537	A	N9-C4	-5.24	1.34	1.37
36	3b	9	A	N9-C4	-5.24	1.34	1.37
36	3b	42	G	C6-N1	-5.24	1.35	1.39
78	1b	409	A	N7-C5	-5.24	1.36	1.39
78	1b	641	C	C4-C5	-5.24	1.38	1.43
78	1b	888	A	C5-C4	-5.24	1.35	1.38
78	1b	1868	G	N3-C4	-5.24	1.31	1.35
78	1b	2376	G	N9-C4	-5.24	1.33	1.38
78	1b	2651	G	N9-C4	-5.24	1.33	1.38
78	1b	2823	G	N7-C5	-5.24	1.36	1.39
78	1b	2914	G	N3-C4	-5.24	1.31	1.35
1	2b	1020	A	C5-C4	-5.23	1.35	1.38
35	4b	95	A	C5-C6	-5.23	1.36	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	754	G	N9-C8	-5.23	1.34	1.37
78	1b	1709	C	N3-C4	-5.23	1.30	1.33
78	1b	2815	G	N7-C5	-5.23	1.36	1.39
1	2b	1759	C	N1-C6	-5.23	1.34	1.37
78	1b	334	A	C5-C6	-5.23	1.36	1.41
78	1b	407	A	N7-C5	-5.23	1.36	1.39
78	1b	2134	G	C5-C4	-5.23	1.34	1.38
78	1b	2607	G	N3-C4	-5.23	1.31	1.35
78	1b	2787	G	C6-N1	-5.23	1.35	1.39
78	1b	2883	U	N1-C6	-5.23	1.33	1.38
1	2b	988	A	N9-C4	-5.23	1.34	1.37
78	1b	226	C	N3-C4	-5.23	1.30	1.33
78	1b	395	A	N9-C4	-5.23	1.34	1.37
78	1b	1918	C	C4-C5	-5.23	1.38	1.43
78	1b	2138	A	C6-N6	-5.23	1.29	1.33
1	2b	95	G	N9-C4	-5.23	1.33	1.38
1	2b	624	G	N7-C5	-5.23	1.36	1.39
78	1b	94	G	C2-N3	-5.23	1.28	1.32
78	1b	1417	G	N9-C4	-5.23	1.33	1.38
78	1b	2885	C	N3-C4	-5.23	1.30	1.33
78	1b	819	U	N1-C2	-5.23	1.33	1.38
78	1b	2591	A	C5-C6	-5.23	1.36	1.41
78	1b	2631	U	N1-C6	-5.23	1.33	1.38
1	2b	1727	G	N7-C5	-5.22	1.36	1.39
78	1b	281	G	N1-C2	-5.22	1.33	1.37
78	1b	1141	C	C4-C5	-5.22	1.38	1.43
78	1b	1153	A	N7-C5	-5.22	1.36	1.39
78	1b	1510	G	N3-C4	-5.22	1.31	1.35
78	1b	2363	A	N9-C4	-5.22	1.34	1.37
78	1b	2370	G	C5-C4	-5.22	1.34	1.38
78	Aa	912	G	N9-C8	-5.22	1.34	1.37
1	2b	353	A	N7-C5	-5.22	1.36	1.39
1	2b	974	A	N3-C4	-5.22	1.31	1.34
78	1b	1424	C	C4-N4	-5.22	1.29	1.33
78	1b	81	C	C5-C6	-5.22	1.30	1.34
78	1b	877	C	C4-C5	-5.22	1.38	1.43
78	1b	1896	A	N7-C5	-5.22	1.36	1.39
78	1b	2734	A	C5-C4	-5.22	1.35	1.38
78	1b	3096	C	N1-C6	-5.22	1.34	1.37
1	2b	363	G	C5-C6	-5.22	1.37	1.42
1	2b	621	A	N3-C4	-5.22	1.31	1.34
54	Sy	100	VAL	CB-CG1	-5.22	1.41	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	304	G	C6-N1	-5.22	1.35	1.39
78	Aa	1870	C	N1-C6	-5.22	1.34	1.37
1	2b	331	A	C5-C4	-5.22	1.35	1.38
78	1b	48	A	N9-C4	-5.22	1.34	1.37
78	1b	1827	C	N3-C4	-5.22	1.30	1.33
7	Eb	237	SER	C-N	-5.22	1.22	1.34
78	1b	61	A	N7-C5	-5.22	1.36	1.39
78	1b	2811	A	N7-C5	-5.22	1.36	1.39
78	Aa	3308	C	N1-C6	-5.22	1.34	1.37
1	2b	333	A	N9-C8	-5.21	1.33	1.37
1	2b	337	G	C2-N3	-5.21	1.28	1.32
78	1b	28	C	N3-C4	-5.21	1.30	1.33
78	1b	86	G	C2-N3	-5.21	1.28	1.32
78	1b	928	C	C5-C6	-5.21	1.30	1.34
78	1b	946	U	N1-C6	-5.21	1.33	1.38
78	1b	2991	A	N7-C5	-5.21	1.36	1.39
78	1b	89	A	N9-C4	-5.21	1.34	1.37
1	2b	619	A	N9-C4	-5.21	1.34	1.37
1	2b	1157	A	N9-C8	-5.21	1.33	1.37
50	Oy	34[A]	VAL	CB-CG2	-5.21	1.42	1.52
78	1b	229	G	N9-C4	-5.21	1.33	1.38
78	1b	1399	A	N9-C4	-5.21	1.34	1.37
78	1b	2372	A	C6-N6	-5.21	1.29	1.33
78	1b	2527	G	N9-C8	-5.21	1.34	1.37
78	1b	2724	U	N1-C6	-5.21	1.33	1.38
78	1b	2995	A	C6-N6	-5.21	1.29	1.33
78	Aa	815	G	N9-C8	-5.21	1.34	1.37
1	2b	315	A	C5-C6	-5.21	1.36	1.41
36	3b	44	A	C5-C4	-5.21	1.35	1.38
78	1b	1910	A	N7-C5	-5.21	1.36	1.39
78	1b	2745	G	N9-C8	-5.21	1.34	1.37
78	1b	2990	G	C5-C4	-5.21	1.34	1.38
1	2b	1020	A	C5-C6	-5.21	1.36	1.41
1	2b	1020	A	C6-N1	-5.21	1.31	1.35
1	2b	1207	C	N1-C6	-5.21	1.34	1.37
47	Ly	97	VAL	CB-CG2	-5.21	1.42	1.52
78	1b	34	A	N7-C5	-5.21	1.36	1.39
78	1b	1145	G	C2-N2	-5.21	1.29	1.34
78	1b	2557	A	N9-C4	-5.21	1.34	1.37
78	1b	3107	U	N1-C6	-5.21	1.33	1.38
1	2b	1635	A	N9-C4	-5.21	1.34	1.37
77	pb	18	TYR	CE2-CZ	-5.21	1.31	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	335	G	C5-C4	-5.21	1.34	1.38
78	1b	876	A	N7-C5	-5.21	1.36	1.39
78	1b	1517	G	N9-C8	-5.21	1.34	1.37
78	1b	2621	G	C6-N1	-5.21	1.35	1.39
78	1b	2728	G	N9-C4	-5.21	1.33	1.38
1	2b	1576	A	N9-C4	-5.21	1.34	1.37
5	Cb	165	VAL	CB-CG2	-5.21	1.42	1.52
35	4b	72	A	C5-C6	-5.21	1.36	1.41
78	1b	655	C	N3-C4	-5.21	1.30	1.33
1	2b	301	A	N9-C8	-5.20	1.33	1.37
1	2b	1584	G	N9-C8	-5.20	1.34	1.37
78	1b	669	U	N1-C6	-5.20	1.33	1.38
78	1b	1295	G	N9-C8	-5.20	1.34	1.37
1	2b	906	A	N9-C4	-5.20	1.34	1.37
78	1b	349	A	C5-C6	-5.20	1.36	1.41
78	1b	929	A	N3-C4	-5.20	1.31	1.34
78	1b	1454	A	N7-C5	-5.20	1.36	1.39
78	1b	286	U	C2-N3	-5.20	1.34	1.37
78	1b	388	G	N1-C2	-5.20	1.33	1.37
78	1b	1437	C	C5-C6	-5.20	1.30	1.34
78	1b	2160	G	N3-C4	-5.20	1.31	1.35
78	1b	2188	A	C6-N1	-5.20	1.31	1.35
78	1b	2326	A	C6-N6	-5.20	1.29	1.33
1	2b	471	A	N9-C4	-5.20	1.34	1.37
1	2b	1156	C	C4-C5	-5.20	1.38	1.43
1	2b	1794	A	C5-C6	-5.20	1.36	1.41
78	1b	1327	C	N3-C4	-5.20	1.30	1.33
78	1b	1401	A	N7-C5	-5.20	1.36	1.39
78	1b	2320	A	C5-C4	-5.20	1.35	1.38
78	1b	2370	G	C8-N7	-5.20	1.27	1.30
78	1b	2762	A	N3-C4	-5.20	1.31	1.34
78	1b	693	A	C5-C6	-5.20	1.36	1.41
78	1b	936	A	C6-N1	-5.20	1.31	1.35
78	1b	958	C	C4-N4	-5.20	1.29	1.33
78	1b	1508	C	C4-N4	-5.20	1.29	1.33
78	1b	2368	A	C5-C6	-5.20	1.36	1.41
1	2b	1762	A	C5-C6	-5.20	1.36	1.41
78	1b	405	U	C2-N3	-5.20	1.34	1.37
78	1b	1667	A	N7-C5	-5.20	1.36	1.39
78	1b	1129	A	N9-C4	-5.19	1.34	1.37
78	1b	385	A	N9-C4	-5.19	1.34	1.37
78	1b	962	A	N9-C8	-5.19	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	1551	C	C4-C5	-5.19	1.38	1.43
78	1b	1589	A	C6-N6	-5.19	1.29	1.33
78	1b	1650	G	N9-C8	-5.19	1.34	1.37
78	Aa	656	A	N7-C5	-5.19	1.36	1.39
1	2b	336	G	N9-C4	-5.19	1.33	1.38
1	2b	1288	G	N9-C4	-5.19	1.33	1.38
1	2b	1600	A	N9-C4	-5.19	1.34	1.37
78	1b	963	G	C5-C6	-5.19	1.37	1.42
78	1b	991	G	N9-C8	-5.19	1.34	1.37
78	1b	1107	C	N1-C6	-5.19	1.34	1.37
78	1b	2132	C	C5-C6	-5.19	1.30	1.34
78	1b	2430	A	N7-C5	-5.19	1.36	1.39
78	1b	2898	G	N9-C8	-5.19	1.34	1.37
78	1b	3113	A	N9-C4	-5.19	1.34	1.37
1	2b	610	G	C6-N1	-5.19	1.35	1.39
1	2b	1281	G	N9-C4	-5.19	1.33	1.38
1	2b	1303	U	N1-C6	-5.19	1.33	1.38
78	1b	1154	A	N3-C4	-5.19	1.31	1.34
78	1b	2311	G	C6-N1	-5.19	1.35	1.39
78	1b	2321	A	N9-C4	-5.19	1.34	1.37
1	2b	1549	C	C4-C5	-5.19	1.38	1.43
78	1b	500	C	C4-C5	-5.19	1.38	1.43
78	1b	1859	A	N9-C4	-5.19	1.34	1.37
78	1b	1863	G	C2-N3	-5.19	1.28	1.32
1	2b	1015	U	N1-C2	-5.19	1.33	1.38
78	1b	920	A	C5-C6	-5.19	1.36	1.41
78	1b	1505	C	N3-C4	-5.19	1.30	1.33
78	1b	1896	A	C5-C4	-5.19	1.35	1.38
78	1b	2130	G	N9-C4	-5.19	1.33	1.38
78	1b	2823	G	N1-C2	-5.19	1.33	1.37
1	2b	769	A	C5-C6	-5.18	1.36	1.41
78	1b	1805	C	C4-C5	-5.18	1.38	1.43
78	1b	2295	A	N9-C4	-5.18	1.34	1.37
78	1b	2988	C	N3-C4	-5.18	1.30	1.33
1	2b	312	A	N3-C4	-5.18	1.31	1.34
36	3b	114	G	N9-C8	-5.18	1.34	1.37
78	1b	1340	G	N9-C4	-5.18	1.33	1.38
78	1b	2911	A	C5-C4	-5.18	1.35	1.38
78	1b	3305	A	C6-N6	-5.18	1.29	1.33
1	2b	22	A	N9-C4	-5.18	1.34	1.37
1	2b	1079	U	N1-C6	-5.18	1.33	1.38
36	3b	46	G	N9-C4	-5.18	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	357	A	C5-C4	-5.18	1.35	1.38
78	1b	1939	G	N3-C4	-5.18	1.31	1.35
79	6b	41	G	N7-C5	-5.18	1.36	1.39
78	Aa	2819	A	N9-C4	-5.18	1.34	1.37
1	2b	95	G	N9-C8	-5.18	1.34	1.37
1	2b	606	A	C5-C6	-5.18	1.36	1.41
36	3b	96	A	N9-C4	-5.18	1.34	1.37
78	1b	675	C	N3-C4	-5.18	1.30	1.33
78	1b	1538	G	N1-C2	-5.18	1.33	1.37
78	Aa	2990	G	N9-C4	-5.18	1.33	1.38
1	2b	605	A	C5-C6	-5.18	1.36	1.41
1	2b	1593	A	C6-N1	-5.18	1.31	1.35
39	Cy	194	TYR	CE1-CZ	-5.18	1.31	1.38
50	Oy	36[A]	VAL	CB-CG1	-5.18	1.42	1.52
78	1b	1422	G	N9-C8	-5.18	1.34	1.37
66	ey	41	VAL	CB-CG1	-5.18	1.42	1.52
78	1b	866	A	N9-C8	-5.18	1.33	1.37
78	1b	2614	G	N7-C5	-5.18	1.36	1.39
36	3b	13	A	C6-N1	-5.17	1.31	1.35
47	Ly	58	VAL	CB-CG2	-5.17	1.42	1.52
78	1b	346	C	C5-C6	-5.17	1.30	1.34
78	1b	1108	U	N1-C6	-5.17	1.33	1.38
78	1b	1800	A	C5-C6	-5.17	1.36	1.41
78	1b	2375	G	C2-N3	-5.17	1.28	1.32
78	1b	2780	A	N9-C4	-5.17	1.34	1.37
78	1b	3046	A	C6-N6	-5.17	1.29	1.33
1	2b	1592	A	N9-C8	-5.17	1.33	1.37
78	1b	789	A	C5-C6	-5.17	1.36	1.41
78	1b	2195	C	C5-C6	-5.17	1.30	1.34
78	Aa	106	A	C6-N6	-5.17	1.29	1.33
1	2b	606	A	N9-C4	-5.17	1.34	1.37
1	2b	955	A	C5-C4	-5.17	1.35	1.38
78	1b	13	A	N9-C4	-5.17	1.34	1.37
78	1b	397	A	C5-C6	-5.17	1.36	1.41
78	1b	919	U	C2-N3	-5.17	1.34	1.37
78	1b	1691	U	N1-C6	-5.17	1.33	1.38
78	1b	2643	A	N9-C4	-5.17	1.34	1.37
78	1b	3044	G	N1-C2	-5.17	1.33	1.37
78	Aa	1447	G	N9-C4	-5.17	1.33	1.38
1	2b	91	G	N9-C4	-5.17	1.33	1.38
78	1b	322	U	C2-N3	-5.17	1.34	1.37
78	1b	856	G	N1-C2	-5.17	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	3184	A	C5-C6	-5.17	1.36	1.41
1	2b	1315	U	C4-C5	-5.17	1.38	1.43
57	Vy	118	VAL	CB-CG1	-5.17	1.42	1.52
78	1b	55	G	N1-C2	-5.17	1.33	1.37
78	1b	355	A	N7-C5	-5.17	1.36	1.39
78	1b	753	C	C4-C5	-5.17	1.38	1.43
78	1b	933	A	N3-C4	-5.17	1.31	1.34
78	1b	2142	A	C6-N6	-5.17	1.29	1.33
78	1b	2762	A	N9-C8	-5.17	1.33	1.37
78	1b	2837	A	N9-C4	-5.17	1.34	1.37
78	1b	2855	U	N1-C6	-5.17	1.33	1.38
78	1b	3394	U	N1-C6	-5.17	1.33	1.38
1	2b	336	G	N9-C8	-5.17	1.34	1.37
1	2b	470	A	N9-C4	-5.17	1.34	1.37
1	2b	972	G	N9-C8	-5.17	1.34	1.37
78	1b	691	A	C5-C4	-5.17	1.35	1.38
78	1b	1148	G	N9-C8	-5.17	1.34	1.37
78	1b	1365	G	N9-C8	-5.17	1.34	1.37
78	1b	1853	U	C4-C5	-5.17	1.38	1.43
78	1b	2245	C	C4-N4	-5.17	1.29	1.33
78	1b	2853	A	C6-N6	-5.17	1.29	1.33
78	Aa	107	A	N3-C4	-5.17	1.31	1.34
78	1b	2309	A	C5-C6	-5.17	1.36	1.41
1	2b	362	G	C6-N1	-5.16	1.35	1.39
1	2b	628	G	N1-C2	-5.16	1.33	1.37
35	4b	102	A	N9-C4	-5.16	1.34	1.37
36	3b	9	A	N7-C5	-5.16	1.36	1.39
78	1b	407	A	N9-C4	-5.16	1.34	1.37
78	1b	585	A	C5-C6	-5.16	1.36	1.41
78	1b	2832	C	C4-C5	-5.16	1.38	1.43
78	1b	3362	A	N9-C4	-5.16	1.34	1.37
1	a	1028	C	N1-C6	-5.16	1.34	1.37
78	1b	2300	G	C6-N1	-5.16	1.35	1.39
78	1b	2348	A	N9-C4	-5.16	1.34	1.37
36	3b	4	C	N3-C4	-5.16	1.30	1.33
78	1b	994	G	C2-N3	-5.16	1.28	1.32
78	1b	1362	G	N3-C4	-5.16	1.31	1.35
78	1b	2390	A	N7-C5	-5.16	1.36	1.39
78	1b	2619	G	C2-N2	-5.16	1.29	1.34
1	2b	940	A	N9-C4	-5.16	1.34	1.37
1	2b	1155	G	N9-C8	-5.16	1.34	1.37
78	1b	811	U	N1-C2	-5.16	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	1902	G	N9-C8	-5.16	1.34	1.37
78	1b	2299	A	N9-C4	-5.16	1.34	1.37
78	1b	3066	U	N1-C2	-5.16	1.33	1.38
78	Aa	873	C	N1-C6	-5.16	1.34	1.37
36	Ca	11	C	N1-C6	-5.16	1.34	1.37
78	1b	933	A	C6-N6	-5.16	1.29	1.33
78	1b	1522	U	N1-C6	-5.16	1.33	1.38
78	1b	2519	A	C6-N1	-5.16	1.31	1.35
78	Aa	3005	A	N9-C4	-5.16	1.34	1.37
1	2b	4	C	C4-C5	-5.16	1.38	1.43
1	2b	1295	G	N9-C4	-5.16	1.33	1.38
1	2b	1565	C	N1-C6	-5.16	1.34	1.37
1	2b	1602	C	N1-C6	-5.16	1.34	1.37
78	1b	61	A	C6-N6	-5.16	1.29	1.33
78	1b	1850	A	N7-C5	-5.16	1.36	1.39
78	1b	2133	U	N1-C6	-5.16	1.33	1.38
78	1b	2608	G	N3-C4	-5.16	1.31	1.35
78	Aa	1559	A	C8-N7	-5.16	1.27	1.31
1	2b	1073	G	N3-C4	-5.15	1.31	1.35
78	1b	286	U	N1-C2	-5.15	1.33	1.38
78	1b	908	G	N1-C2	-5.15	1.33	1.37
78	1b	1809	A	N9-C4	-5.15	1.34	1.37
78	1b	1888	U	N1-C6	-5.15	1.33	1.38
78	1b	1935	G	N7-C5	-5.15	1.36	1.39
78	1b	2313	A	N7-C5	-5.15	1.36	1.39
78	1b	2396	G	N9-C4	-5.15	1.33	1.38
78	1b	2756	C	C4-C5	-5.15	1.38	1.43
1	2b	1776	A	C5-C4	-5.15	1.35	1.38
78	1b	114	A	C6-N6	-5.15	1.29	1.33
78	1b	660	A	N7-C5	-5.15	1.36	1.39
78	1b	1411	C	N3-C4	-5.15	1.30	1.33
78	1b	1449	A	N3-C4	-5.15	1.31	1.34
78	Aa	652	G	N9-C8	-5.15	1.34	1.37
1	2b	875	G	N9-C4	-5.15	1.33	1.38
78	1b	569	A	N9-C4	-5.15	1.34	1.37
78	1b	2242	A	N9-C8	-5.15	1.33	1.37
1	a	985	G	N9-C4	-5.15	1.33	1.38
1	2b	1591	C	N1-C6	-5.15	1.34	1.37
1	2b	1596	C	N1-C6	-5.15	1.34	1.37
36	3b	44	A	N3-C4	-5.15	1.31	1.34
78	1b	99	A	C6-N6	-5.15	1.29	1.33
78	1b	273	A	C6-N6	-5.15	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	635	G	N3-C4	-5.15	1.31	1.35
78	1b	1153	A	C5-C6	-5.15	1.36	1.41
78	1b	1198	C	N1-C6	-5.15	1.34	1.37
78	1b	1342	C	C4-C5	-5.15	1.38	1.43
78	1b	1919	G	N9-C4	-5.15	1.33	1.38
78	1b	3061	G	N9-C8	-5.15	1.34	1.37
1	2b	1169	G	N3-C4	-5.15	1.31	1.35
78	1b	909	G	N9-C4	-5.15	1.33	1.38
78	1b	1547	G	N3-C4	-5.15	1.31	1.35
78	1b	1834	U	N1-C6	-5.15	1.33	1.38
3	Ba	29	TRP	CB-CG	-5.14	1.41	1.50
36	3b	38	U	C2-N3	-5.14	1.34	1.37
78	1b	1939	G	N9-C4	-5.14	1.33	1.38
78	1b	2422	C	N3-C4	-5.14	1.30	1.33
78	1b	2695	A	C5-C6	-5.14	1.36	1.41
78	Aa	1591	G	N9-C4	-5.14	1.33	1.38
1	2b	371	G	N9-C8	-5.14	1.34	1.37
1	2b	771	A	N9-C4	-5.14	1.34	1.37
1	2b	1782	A	N9-C8	-5.14	1.33	1.37
42	Fy	84	VAL	CB-CG1	-5.14	1.42	1.52
78	1b	1438	U	N1-C6	-5.14	1.33	1.38
78	1b	2867	C	C5-C6	-5.14	1.30	1.34
78	1b	3131	U	C4-C5	-5.14	1.39	1.43
1	2b	1609	U	N1-C6	-5.14	1.33	1.38
78	1b	1896	A	N9-C4	-5.14	1.34	1.37
1	2b	30	G	N7-C5	-5.14	1.36	1.39
78	1b	333	G	N9-C8	-5.14	1.34	1.37
78	1b	365	A	N9-C8	-5.14	1.33	1.37
78	1b	649	A	N9-C4	-5.14	1.34	1.37
78	1b	1044	U	N1-C6	-5.14	1.33	1.38
78	1b	1058	U	N1-C6	-5.14	1.33	1.38
78	1b	1489	A	C5-C4	-5.14	1.35	1.38
1	2b	1625	C	N1-C6	-5.14	1.34	1.37
78	1b	55	G	C2-N3	-5.14	1.28	1.32
78	1b	1058	U	C2-N3	-5.14	1.34	1.37
78	1b	2150	G	N7-C5	-5.14	1.36	1.39
78	1b	2691	A	C5-C6	-5.14	1.36	1.41
1	2b	435	C	N1-C6	-5.14	1.34	1.37
1	2b	801	G	N1-C2	-5.14	1.33	1.37
1	2b	1017	U	N1-C6	-5.14	1.33	1.38
1	2b	1025	A	C5-C6	-5.14	1.36	1.41
1	2b	1524	A	C6-N6	-5.14	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2b	1729	C	N1-C6	-5.14	1.34	1.37
78	1b	63	A	C5-C6	-5.14	1.36	1.41
78	1b	839	C	C4-C5	-5.14	1.38	1.43
78	1b	1656	A	N3-C4	-5.14	1.31	1.34
78	1b	2393	G	N9-C4	-5.14	1.33	1.38
78	1b	2422	C	C5-C6	-5.14	1.30	1.34
78	1b	3338	C	N1-C6	-5.14	1.34	1.37
78	Aa	1373	A	C5-C6	-5.14	1.36	1.41
1	2b	2	A	N9-C8	-5.13	1.33	1.37
1	2b	1300	A	C5-C4	-5.13	1.35	1.38
36	3b	117	C	C4-C5	-5.13	1.38	1.43
78	1b	650	C	C5-C6	-5.13	1.30	1.34
78	1b	651	G	C8-N7	-5.13	1.27	1.30
78	1b	962	A	C5-C4	-5.13	1.35	1.38
78	1b	1489	A	N3-C4	-5.13	1.31	1.34
78	1b	2161	G	C6-N1	-5.13	1.35	1.39
78	1b	2349	U	C4-C5	-5.13	1.39	1.43
78	1b	2987	A	N7-C5	-5.13	1.36	1.39
78	1b	225	C	N3-C4	-5.13	1.30	1.33
78	1b	2335	G	C2-N2	-5.13	1.29	1.34
1	2b	1005	A	N9-C4	-5.13	1.34	1.37
1	2b	1300	A	C6-N1	-5.13	1.31	1.35
1	2b	1429	G	N9-C8	-5.13	1.34	1.37
78	1b	8	C	N3-C4	-5.13	1.30	1.33
78	1b	516	A	N9-C4	-5.13	1.34	1.37
78	1b	789	A	N7-C5	-5.13	1.36	1.39
78	1b	1423	C	C5-C6	-5.13	1.30	1.34
78	1b	1612	A	C6-N1	-5.13	1.31	1.35
78	1b	2304	C	N3-C4	-5.13	1.30	1.33
78	1b	2325	G	C5-C6	-5.13	1.37	1.42
78	1b	2556	C	N1-C6	-5.13	1.34	1.37
35	4b	7	G	N9-C8	-5.13	1.34	1.37
1	2b	1763	A	N3-C4	-5.13	1.31	1.34
1	2b	1796	C	C5-C6	-5.13	1.30	1.34
35	4b	84	A	C5-C4	-5.13	1.35	1.38
78	1b	55	G	C5-C4	-5.13	1.34	1.38
78	1b	812	G	C5-C4	-5.13	1.34	1.38
78	1b	1131	G	N3-C4	-5.13	1.31	1.35
78	1b	1868	G	N9-C8	-5.13	1.34	1.37
78	1b	2803	A	C5-C4	-5.13	1.35	1.38
78	1b	2958	A	N9-C8	-5.13	1.33	1.37
78	1b	3272	C	N1-C6	-5.13	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	3b	9	A	C5-C6	-5.13	1.36	1.41
78	1b	89	A	C5-C4	-5.13	1.35	1.38
78	1b	360	G	C6-N1	-5.13	1.35	1.39
78	1b	366	A	C5-C4	-5.13	1.35	1.38
78	1b	1804	A	N9-C4	-5.13	1.34	1.37
78	1b	1901	A	C8-N7	-5.13	1.27	1.31
78	1b	1904	C	C5-C6	-5.13	1.30	1.34
78	1b	1932	A	C5-C6	-5.13	1.36	1.41
78	1b	2774	C	N3-C4	-5.13	1.30	1.33
78	1b	2894	C	N3-C4	-5.13	1.30	1.33
78	1b	1546	A	N9-C8	-5.12	1.33	1.37
78	1b	1850	A	C5-C6	-5.12	1.36	1.41
78	1b	2799	A	N3-C4	-5.12	1.31	1.34
78	1b	3064	U	C4-C5	-5.12	1.39	1.43
1	2b	1722	A	N9-C4	-5.12	1.34	1.37
35	4b	6	C	N3-C4	-5.12	1.30	1.33
78	1b	21	G	C6-N1	-5.12	1.35	1.39
78	1b	1781	C	N3-C4	-5.12	1.30	1.33
78	1b	1941	C	N1-C2	-5.12	1.35	1.40
78	1b	2345	A	C5-C6	-5.12	1.36	1.41
78	Aa	2414	G	N9-C8	-5.12	1.34	1.37
1	2b	36	C	C4-C5	-5.12	1.38	1.43
1	2b	333	A	C6-N1	-5.12	1.31	1.35
1	2b	628	G	N7-C5	-5.12	1.36	1.39
1	2b	1615	C	C4-C5	-5.12	1.38	1.43
78	1b	716	A	N9-C4	-5.12	1.34	1.37
78	1b	1122	U	C5-C6	-5.12	1.29	1.34
78	1b	1203	A	N9-C4	-5.12	1.34	1.37
78	1b	1866	C	N1-C6	-5.12	1.34	1.37
78	1b	2366	C	C5-C6	-5.12	1.30	1.34
78	1b	2619	G	N9-C4	-5.12	1.33	1.38
78	1b	3005	A	N7-C5	-5.12	1.36	1.39
1	2b	915	A	C6-N6	-5.12	1.29	1.33
1	2b	1328	G	N3-C4	-5.12	1.31	1.35
78	1b	1435	A	N9-C4	-5.12	1.34	1.37
78	1b	2636	A	C6-N1	-5.12	1.31	1.35
78	1b	2824	G	N9-C8	-5.12	1.34	1.37
1	2b	1327	C	C5-C6	-5.12	1.30	1.34
1	2b	1524	A	C5-C6	-5.12	1.36	1.41
1	2b	1753	A	C5-C6	-5.12	1.36	1.41
36	3b	1	A	C5-C6	-5.12	1.36	1.41
78	1b	1133	A	N9-C4	-5.12	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	2132	C	N3-C4	-5.12	1.30	1.33
78	1b	2397	A	C5-C6	-5.12	1.36	1.41
78	Aa	342	A	N3-C4	-5.12	1.31	1.34
36	3b	42	G	N3-C4	-5.12	1.31	1.35
78	1b	950	G	N7-C5	-5.12	1.36	1.39
78	1b	1495	U	N1-C6	-5.12	1.33	1.38
78	1b	1654	A	N7-C5	-5.12	1.36	1.39
78	1b	2695	A	C6-N6	-5.12	1.29	1.33
78	Aa	2973	G	N9-C4	-5.12	1.33	1.38
36	3b	94	C	N1-C6	-5.12	1.34	1.37
78	1b	676	G	N3-C4	-5.12	1.31	1.35
78	1b	812	G	C6-N1	-5.12	1.35	1.39
78	1b	2627	C	C4-N4	-5.12	1.29	1.33
1	2b	108	A	N7-C5	-5.11	1.36	1.39
78	1b	278	U	C4-C5	-5.11	1.39	1.43
78	1b	315	C	N3-C4	-5.11	1.30	1.33
78	1b	1447	G	N3-C4	-5.11	1.31	1.35
78	1b	2602	G	C2-N3	-5.11	1.28	1.32
78	1b	2615	G	N7-C5	-5.11	1.36	1.39
78	1b	2816	G	N3-C4	-5.11	1.31	1.35
78	1b	3128	G	C6-N1	-5.11	1.35	1.39
1	2b	940	A	C5-C6	-5.11	1.36	1.41
1	2b	1027	A	C5-C6	-5.11	1.36	1.41
78	1b	1377	G	C6-N1	-5.11	1.35	1.39
1	2b	1148	C	C4-C5	-5.11	1.38	1.43
1	2b	1298	U	N1-C2	-5.11	1.33	1.38
1	2b	1417	A	C5-C6	-5.11	1.36	1.41
1	2b	1469	A	N9-C4	-5.11	1.34	1.37
36	3b	116	G	N1-C2	-5.11	1.33	1.37
78	1b	1050	U	N1-C6	-5.11	1.33	1.38
78	1b	1131	G	N7-C5	-5.11	1.36	1.39
36	3b	105	A	N9-C8	-5.11	1.33	1.37
78	1b	94	G	N9-C4	-5.11	1.33	1.38
78	Aa	77	A	N9-C4	-5.11	1.34	1.37
1	2b	1480	G	C6-N1	-5.11	1.35	1.39
78	1b	874	U	N3-C4	-5.11	1.33	1.38
78	1b	2881	C	C4-C5	-5.11	1.38	1.43
79	6b	39	C	N1-C6	-5.11	1.34	1.37
1	2b	332	U	C2-N3	-5.11	1.34	1.37
78	1b	409	A	N9-C4	-5.11	1.34	1.37
78	1b	629	U	N1-C2	-5.11	1.33	1.38
78	1b	660	A	C5-C6	-5.11	1.36	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	936	A	N7-C5	-5.11	1.36	1.39
78	1b	1760	A	N9-C4	-5.11	1.34	1.37
78	1b	3375	A	N9-C4	-5.11	1.34	1.37
78	Aa	47	C	C4-C5	-5.11	1.38	1.43
78	1b	1377	G	N9-C4	-5.10	1.33	1.38
78	1b	2621	G	N9-C8	-5.10	1.34	1.37
1	2b	988	A	N7-C5	-5.10	1.36	1.39
1	2b	1321	A	N9-C4	-5.10	1.34	1.37
78	1b	634	C	N3-C4	-5.10	1.30	1.33
78	1b	1452	A	N9-C4	-5.10	1.34	1.37
78	1b	1789	G	C5-C6	-5.10	1.37	1.42
78	1b	2336	U	N1-C2	-5.10	1.33	1.38
78	1b	2799	A	C5-C6	-5.10	1.36	1.41
1	2b	870	C	C4-C5	-5.10	1.38	1.43
78	1b	666	A	C6-N6	-5.10	1.29	1.33
78	1b	670	C	C4-N4	-5.10	1.29	1.33
78	1b	1406	A	C5-C4	-5.10	1.35	1.38
1	2b	927	C	N1-C6	-5.10	1.34	1.37
1	2b	975	C	N3-C4	-5.10	1.30	1.33
1	2b	1323	C	N1-C6	-5.10	1.34	1.37
1	2b	1793	G	N9-C8	-5.10	1.34	1.37
74	mb	115	CYS	CB-SG	-5.10	1.73	1.81
78	1b	1474	A	N9-C4	-5.10	1.34	1.37
78	1b	1613	A	C5-C6	-5.10	1.36	1.41
78	1b	2345	A	C5-C4	-5.10	1.35	1.38
78	1b	2361	A	N9-C4	-5.10	1.34	1.37
78	1b	2512	C	C4-C5	-5.10	1.38	1.43
78	1b	2879	C	C5-C6	-5.10	1.30	1.34
78	1b	973	A	N9-C4	-5.10	1.34	1.37
78	1b	1113	G	N9-C4	-5.10	1.33	1.38
78	1b	1676	A	C6-N6	-5.10	1.29	1.33
78	Aa	1423	C	N1-C6	-5.10	1.34	1.37
1	2b	798	C	N1-C6	-5.10	1.34	1.37
1	2b	1045	C	C4-C5	-5.10	1.38	1.43
62	ay	15	VAL	CB-CG2	-5.10	1.42	1.52
78	1b	367	A	C6-N6	-5.10	1.29	1.33
78	1b	1374	G	C6-N1	-5.10	1.35	1.39
78	1b	1794	G	N9-C8	-5.10	1.34	1.37
78	1b	2381	G	C5-C4	-5.10	1.34	1.38
78	Aa	2946	A	N9-C4	-5.10	1.34	1.37
1	2b	1046	G	N9-C8	-5.09	1.34	1.37
1	2b	1760	G	N1-C2	-5.09	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	Cb	179	VAL	CB-CG2	-5.09	1.42	1.52
78	1b	104	G	N9-C8	-5.09	1.34	1.37
78	1b	1368	U	N1-C2	-5.09	1.33	1.38
78	1b	2143	A	C5-C6	-5.09	1.36	1.41
78	1b	2755	C	N3-C4	-5.09	1.30	1.33
78	1b	3002	C	C5-C6	-5.09	1.30	1.34
78	1b	2562	A	N9-C4	-5.09	1.34	1.37
35	4b	84	A	N7-C5	-5.09	1.36	1.39
78	1b	313	A	C5-C6	-5.09	1.36	1.41
78	1b	321	C	C5-C6	-5.09	1.30	1.34
78	1b	649	A	C5-C4	-5.09	1.35	1.38
78	1b	1169	A	N3-C4	-5.09	1.31	1.34
78	1b	2759	U	N1-C6	-5.09	1.33	1.38
78	1b	2804	A	N9-C8	-5.09	1.33	1.37
78	1b	3310	A	C5-C6	-5.09	1.36	1.41
78	Aa	339	C	C4-C5	-5.09	1.38	1.43
1	2b	360	A	C5-C4	-5.09	1.35	1.38
78	1b	1586	G	N1-C2	-5.09	1.33	1.37
78	1b	1653	G	N9-C8	-5.09	1.34	1.37
78	1b	2793	G	C5-C6	-5.09	1.37	1.42
78	1b	2825	C	C4-N4	-5.09	1.29	1.33
78	1b	3063	C	C4-C5	-5.09	1.38	1.43
78	1b	1367	G	N9-C8	-5.09	1.34	1.37
78	1b	1667	A	C5-C6	-5.09	1.36	1.41
78	1b	1842	A	N9-C8	-5.09	1.33	1.37
78	1b	2301	U	N1-C6	-5.09	1.33	1.38
1	2b	1126	G	N3-C4	-5.09	1.31	1.35
78	1b	902	G	N3-C4	-5.09	1.31	1.35
78	1b	936	A	C5-C6	-5.09	1.36	1.41
78	1b	1083	G	N1-C2	-5.09	1.33	1.37
78	1b	1714	A	C5-C4	-5.09	1.35	1.38
78	1b	1591	G	N7-C5	-5.08	1.36	1.39
78	1b	1935	G	N1-C2	-5.08	1.33	1.37
78	1b	823	C	N1-C6	-5.08	1.34	1.37
78	1b	860	G	C5-C4	-5.08	1.34	1.38
78	1b	1340	G	N9-C8	-5.08	1.34	1.37
78	1b	1845	G	N1-C2	-5.08	1.33	1.37
78	Aa	516	A	N9-C4	-5.08	1.34	1.37
1	2b	443	C	C4-C5	-5.08	1.38	1.43
1	2b	1109	G	C2-N2	-5.08	1.29	1.34
78	1b	200	C	N1-C6	-5.08	1.34	1.37
78	1b	875	G	N9-C4	-5.08	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	1499	C	N3-C4	-5.08	1.30	1.33
78	1b	2148	U	N3-C4	-5.08	1.33	1.38
78	1b	2619	G	N1-C2	-5.08	1.33	1.37
78	1b	2958	A	N7-C5	-5.08	1.36	1.39
78	1b	3009	G	N1-C2	-5.08	1.33	1.37
1	2b	1542	G	N9-C4	-5.08	1.33	1.38
78	1b	214	G	C5-C4	-5.08	1.34	1.38
78	1b	2399	A	N9-C4	-5.08	1.34	1.37
78	1b	2896	A	C5-C6	-5.08	1.36	1.41
78	1b	2918	G	N9-C4	-5.08	1.33	1.38
1	2b	599	A	N9-C8	-5.08	1.33	1.37
53	Ry	95	TRP	CB-CG	-5.08	1.41	1.50
78	1b	317	A	N3-C4	-5.08	1.31	1.34
78	1b	318	A	N9-C4	-5.08	1.34	1.37
78	1b	855	U	N1-C6	-5.08	1.33	1.38
78	1b	1173	U	N1-C6	-5.08	1.33	1.38
78	1b	1393	A	C5-C6	-5.08	1.36	1.41
78	1b	1441	G	N1-C2	-5.08	1.33	1.37
78	1b	1858	A	N9-C8	-5.08	1.33	1.37
78	1b	2934	A	N3-C4	-5.08	1.31	1.34
1	2b	19	A	C5-C6	-5.08	1.36	1.41
1	2b	26	A	C5-C6	-5.08	1.36	1.41
78	1b	1544	G	C6-N1	-5.08	1.35	1.39
78	1b	1619	A	N9-C4	-5.08	1.34	1.37
78	1b	2246	G	C5-C4	-5.08	1.34	1.38
1	2b	461	G	N7-C5	-5.08	1.36	1.39
1	2b	636	A	N9-C8	-5.08	1.33	1.37
1	2b	1085	G	C6-N1	-5.08	1.35	1.39
1	2b	1776	A	C5-C6	-5.08	1.36	1.41
36	3b	16	G	N3-C4	-5.08	1.31	1.35
78	1b	273	A	C5-C6	-5.08	1.36	1.41
78	1b	1654	A	C5-C6	-5.08	1.36	1.41
78	1b	1749	A	N9-C8	-5.08	1.33	1.37
78	1b	2364	G	C2-N3	-5.08	1.28	1.32
78	1b	3008	A	C5-C4	-5.08	1.35	1.38
78	1b	3333	G	N9-C4	-5.08	1.33	1.38
1	2b	1763	A	N7-C5	-5.07	1.36	1.39
1	2b	1789	G	N3-C4	-5.07	1.31	1.35
55	Ty	25	VAL	CB-CG1	-5.07	1.42	1.52
78	1b	277	G	N9-C4	-5.07	1.33	1.38
78	1b	349	A	C5-C4	-5.07	1.35	1.38
78	1b	414	U	N1-C6	-5.07	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	827	A	C6-N1	-5.07	1.31	1.35
78	1b	1412	G	N7-C5	-5.07	1.36	1.39
78	1b	2392	C	C5-C6	-5.07	1.30	1.34
78	1b	2919	A	C6-N1	-5.07	1.31	1.35
78	1b	3068	U	N1-C6	-5.07	1.33	1.38
36	3b	89	A	N9-C4	-5.07	1.34	1.37
78	1b	87	U	C4-C5	-5.07	1.39	1.43
1	2b	8	U	N1-C6	-5.07	1.33	1.38
1	2b	585	A	C5-C6	-5.07	1.36	1.41
78	1b	503	C	C4-C5	-5.07	1.38	1.43
78	1b	1123	U	C4-C5	-5.07	1.39	1.43
78	1b	1500	G	C6-N1	-5.07	1.36	1.39
78	1b	2150	G	N3-C4	-5.07	1.31	1.35
78	1b	2185	G	N7-C5	-5.07	1.36	1.39
78	Aa	433	A	N7-C5	-5.07	1.36	1.39
78	1b	1718	G	N9-C4	-5.07	1.33	1.38
78	1b	2941	A	C5-C4	-5.07	1.35	1.38
1	2b	573	C	N1-C6	-5.07	1.34	1.37
1	2b	1091	A	N9-C4	-5.07	1.34	1.37
1	2b	1733	C	N1-C6	-5.07	1.34	1.37
78	1b	60	A	N7-C5	-5.07	1.36	1.39
78	1b	222	A	C6-N6	-5.07	1.29	1.33
78	1b	996	A	N9-C8	-5.07	1.33	1.37
78	1b	1195	A	C5-C4	-5.07	1.35	1.38
78	1b	1526	U	N1-C6	-5.07	1.33	1.38
78	1b	2317	A	N9-C8	-5.07	1.33	1.37
78	1b	2812	C	N3-C4	-5.07	1.30	1.33
1	2b	381	C	N1-C6	-5.07	1.34	1.37
12	Jb	133	HIS	CA-CB	-5.07	1.42	1.53
1	2b	1176	G	N9-C4	-5.06	1.33	1.38
1	2b	1772	C	C4-C5	-5.06	1.38	1.43
78	1b	700	C	C4-C5	-5.06	1.38	1.43
1	2b	872	G	N9-C8	-5.06	1.34	1.37
1	2b	1021	C	C4-N4	-5.06	1.29	1.33
78	1b	275	U	N1-C6	-5.06	1.33	1.38
78	1b	307	A	N9-C4	-5.06	1.34	1.37
78	1b	389	A	C6-N6	-5.06	1.29	1.33
78	1b	802	C	C5-C6	-5.06	1.30	1.34
78	1b	1198	C	C4-C5	-5.06	1.38	1.43
78	1b	1882	G	N9-C8	-5.06	1.34	1.37
78	1b	2151	C	C5-C6	-5.06	1.30	1.34
78	1b	2644	C	C4-C5	-5.06	1.38	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	2647	A	N9-C4	-5.06	1.34	1.37
78	1b	2885	C	C5-C6	-5.06	1.30	1.34
78	Aa	109	A	N9-C4	-5.06	1.34	1.37
1	2b	1575	G	C6-N1	-5.06	1.36	1.39
1	2b	1789	G	N9-C4	-5.06	1.33	1.38
78	1b	870	G	C6-N1	-5.06	1.36	1.39
78	1b	1404	G	N9-C8	-5.06	1.34	1.37
78	1b	3303	G	N3-C4	-5.06	1.31	1.35
1	2b	314	C	N1-C6	-5.06	1.34	1.37
36	3b	98	U	C4-C5	-5.06	1.39	1.43
49	Ny	110	ALA	CA-CB	-5.06	1.41	1.52
78	1b	941	G	C2-N2	-5.06	1.29	1.34
78	1b	996	A	C5-C6	-5.06	1.36	1.41
78	1b	1449	A	C6-N6	-5.06	1.29	1.33
78	1b	1535	A	C6-N1	-5.06	1.32	1.35
78	1b	2402	A	C6-N6	-5.06	1.29	1.33
1	2b	923	A	C5-C6	-5.06	1.36	1.41
36	3b	75	G	N9-C8	-5.06	1.34	1.37
78	1b	896	A	C6-N1	-5.06	1.32	1.35
78	1b	2827	U	N1-C6	-5.06	1.33	1.38
78	Aa	822	G	N9-C8	-5.06	1.34	1.37
1	2b	93	A	N9-C4	-5.06	1.34	1.37
78	1b	49	A	C5-C6	-5.06	1.36	1.41
78	1b	974	G	C6-N1	-5.06	1.36	1.39
78	1b	2149	A	N9-C8	-5.06	1.33	1.37
78	1b	2322	C	C4-C5	-5.06	1.39	1.43
49	Ny	106	VAL	CB-CG2	-5.05	1.42	1.52
78	1b	2142	A	N9-C8	-5.05	1.33	1.37
36	3b	24	G	N9-C8	-5.05	1.34	1.37
39	Cy	25	VAL	CB-CG2	-5.05	1.42	1.52
78	1b	962	A	C6-N1	-5.05	1.32	1.35
78	1b	2892	A	C5-C4	-5.05	1.35	1.38
78	Aa	649	A	C6-N6	-5.05	1.29	1.33
1	2b	583	C	N3-C4	-5.05	1.30	1.33
78	1b	222	A	C5-C6	-5.05	1.36	1.41
78	1b	342	A	C6-N6	-5.05	1.29	1.33
78	1b	1405	U	N1-C2	-5.05	1.34	1.38
78	1b	1427	U	C2-N3	-5.05	1.34	1.37
78	1b	2593	A	N9-C4	-5.05	1.34	1.37
1	2b	1087	A	C5-C6	-5.05	1.36	1.41
78	1b	846	A	N3-C4	-5.05	1.31	1.34
78	1b	2775	U	N1-C6	-5.05	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	Aa	1842	A	N9-C4	-5.05	1.34	1.37
78	1b	29	C	N3-C4	-5.05	1.30	1.33
78	1b	365	A	C5-C4	-5.05	1.35	1.38
78	1b	1111	U	C4-C5	-5.05	1.39	1.43
1	2b	427	C	N3-C4	-5.04	1.30	1.33
1	2b	979	A	N9-C4	-5.04	1.34	1.37
35	4b	102	A	N9-C8	-5.04	1.33	1.37
78	1b	2193	U	N1-C2	-5.04	1.34	1.38
78	1b	2397	A	N7-C5	-5.04	1.36	1.39
78	1b	2634	U	C2-N3	-5.04	1.34	1.37
1	2b	342	C	C4-C5	-5.04	1.39	1.43
1	2b	1675	C	C5-C6	-5.04	1.30	1.34
78	1b	752	C	N1-C6	-5.04	1.34	1.37
78	1b	860	G	C6-N1	-5.04	1.36	1.39
78	1b	1459	C	N1-C6	-5.04	1.34	1.37
78	1b	1537	A	C6-N1	-5.04	1.32	1.35
78	1b	1655	G	N1-C2	-5.04	1.33	1.37
78	1b	2894	C	C5-C6	-5.04	1.30	1.34
1	2b	1655	A	N9-C8	-5.04	1.33	1.37
78	1b	48	A	C5-C6	-5.04	1.36	1.41
78	1b	76	G	N9-C8	-5.04	1.34	1.37
78	1b	914	A	N9-C8	-5.04	1.33	1.37
1	2b	330	G	C5-C6	-5.04	1.37	1.42
36	3b	30	C	C5-C6	-5.04	1.30	1.34
36	3b	108	C	C4-C5	-5.04	1.39	1.43
1	2b	162	A	C5-C6	-5.04	1.36	1.41
1	2b	1458	G	N7-C5	-5.04	1.36	1.39
1	2b	1525	A	C6-N6	-5.04	1.29	1.33
78	1b	907	G	N1-C2	-5.04	1.33	1.37
78	1b	1155	C	C5-C6	-5.04	1.30	1.34
78	1b	2642	A	C5-C6	-5.04	1.36	1.41
1	2b	382	C	C4-C5	-5.04	1.39	1.43
78	1b	817	A	C5-C4	-5.04	1.35	1.38
78	1b	2344	U	N1-C2	-5.04	1.34	1.38
78	1b	3086	A	C6-N6	-5.04	1.29	1.33
1	2b	806	A	N9-C4	-5.04	1.34	1.37
78	1b	755	A	C5-C6	-5.04	1.36	1.41
78	1b	1736	G	N3-C4	-5.04	1.31	1.35
78	1b	2320	A	C5-C6	-5.04	1.36	1.41
1	2b	977	A	N9-C4	-5.03	1.34	1.37
54	Sy	79	VAL	CB-CG2	-5.03	1.42	1.52
78	1b	295	A	N9-C4	-5.03	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	667	C	N3-C4	-5.03	1.30	1.33
78	1b	1114	U	C2-N3	-5.03	1.34	1.37
78	1b	1377	G	N9-C8	-5.03	1.34	1.37
78	1b	2244	A	N9-C8	-5.03	1.33	1.37
78	1b	2364	G	N1-C2	-5.03	1.33	1.37
78	1b	2733	A	C5-C4	-5.03	1.35	1.38
78	1b	2819	A	C6-N1	-5.03	1.32	1.35
78	1b	3134	A	C5-C4	-5.03	1.35	1.38
78	1b	2197	C	C5-C6	-5.03	1.30	1.34
78	1b	2223	A	N9-C8	-5.03	1.33	1.37
1	2b	956	C	N3-C4	-5.03	1.30	1.33
1	2b	974	A	C6-N6	-5.03	1.29	1.33
1	2b	1637	C	C5-C6	-5.03	1.30	1.34
42	Fy	216	VAL	CB-CG1	-5.03	1.42	1.52
78	1b	55	G	N9-C8	-5.03	1.34	1.37
78	1b	361	A	C5-C4	-5.03	1.35	1.38
78	1b	377	A	N9-C4	-5.03	1.34	1.37
78	1b	1479	U	N1-C6	-5.03	1.33	1.38
78	1b	1912	U	C4-C5	-5.03	1.39	1.43
78	1b	2285	C	N1-C6	-5.03	1.34	1.37
78	1b	2341	A	C6-N1	-5.03	1.32	1.35
78	1b	3003	G	N3-C4	-5.03	1.31	1.35
1	2b	1069	A	C6-N6	-5.03	1.29	1.33
1	2b	1110	G	N7-C5	-5.03	1.36	1.39
36	3b	31	G	N9-C8	-5.03	1.34	1.37
78	1b	1492	G	C5-C4	-5.03	1.34	1.38
1	2b	630	A	N9-C8	-5.03	1.33	1.37
78	1b	315	C	N1-C6	-5.03	1.34	1.37
78	1b	827	A	N7-C5	-5.03	1.36	1.39
78	1b	1136	A	C5-C4	-5.03	1.35	1.38
78	1b	2733	A	N9-C8	-5.03	1.33	1.37
36	3b	25	G	C5-C4	-5.03	1.34	1.38
50	Oy	35[A]	VAL	CB-CG2	-5.03	1.42	1.52
78	1b	65	A	N3-C4	-5.03	1.31	1.34
78	1b	648	C	C4-N4	-5.03	1.29	1.33
78	1b	845	G	C2-N3	-5.03	1.28	1.32
78	1b	907	G	C5-C4	-5.03	1.34	1.38
78	1b	1086	C	N1-C6	-5.03	1.34	1.37
78	1b	1889	G	N1-C2	-5.03	1.33	1.37
78	1b	1905	G	N9-C8	-5.03	1.34	1.37
78	1b	3350	C	N1-C6	-5.03	1.34	1.37
78	1b	96	G	N9-C4	-5.02	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	832	G	N9-C4	-5.02	1.33	1.38
78	1b	884	A	C6-N6	-5.02	1.29	1.33
78	1b	1306	G	N3-C4	-5.02	1.31	1.35
78	1b	2969	A	N9-C4	-5.02	1.34	1.37
1	2b	1125	A	N9-C8	-5.02	1.33	1.37
78	1b	102	C	N1-C6	-5.02	1.34	1.37
78	1b	427	C	C4-C5	-5.02	1.39	1.43
78	1b	1133	A	C5-C4	-5.02	1.35	1.38
78	1b	1744	G	N9-C8	-5.02	1.34	1.37
78	1b	2406	C	C4-N4	-5.02	1.29	1.33
78	1b	2801	A	N9-C4	-5.02	1.34	1.37
36	3b	143	U	N1-C6	-5.02	1.33	1.38
78	1b	504	A	N9-C8	-5.02	1.33	1.37
78	1b	873	C	C4-C5	-5.02	1.39	1.43
78	1b	1445	U	N1-C6	-5.02	1.33	1.38
78	1b	2961	G	N7-C5	-5.02	1.36	1.39
1	2b	884	A	C6-N6	-5.02	1.29	1.33
1	2b	990	C	N3-C4	-5.02	1.30	1.33
43	Gy	55	TYR	CD1-CE1	-5.02	1.31	1.39
78	1b	952	A	N9-C8	-5.02	1.33	1.37
78	1b	1887	A	N7-C5	-5.02	1.36	1.39
78	1b	1935	G	N3-C4	-5.02	1.31	1.35
78	1b	798	G	N3-C4	-5.02	1.31	1.35
78	1b	1040	A	N9-C4	-5.02	1.34	1.37
78	1b	1439	U	N1-C6	-5.02	1.33	1.38
78	1b	2355	G	N1-C2	-5.02	1.33	1.37
78	1b	2901	G	N9-C4	-5.02	1.33	1.38
78	1b	144	A	C5-C6	-5.02	1.36	1.41
1	2b	28	A	C6-N6	-5.01	1.29	1.33
35	4b	82	G	N9-C4	-5.01	1.33	1.38
78	1b	306	A	C5-C4	-5.01	1.35	1.38
78	1b	325	A	C6-N6	-5.01	1.29	1.33
78	1b	1339	C	C5-C6	-5.01	1.30	1.34
78	1b	2612	U	C5-C6	-5.01	1.29	1.34
78	1b	2632	G	N3-C4	-5.01	1.31	1.35
78	1b	2764	C	N1-C6	-5.01	1.34	1.37
1	2b	399	A	N9-C4	-5.01	1.34	1.37
1	2b	747	C	C5-C6	-5.01	1.30	1.34
1	2b	925	G	C8-N7	-5.01	1.27	1.30
1	2b	1549	C	N1-C6	-5.01	1.34	1.37
1	2b	1592	A	C6-N6	-5.01	1.29	1.33
36	3b	4	C	C4-N4	-5.01	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
64	cy	50	VAL	CB-CG1	-5.01	1.42	1.52
77	pb	64	VAL	CB-CG1	-5.01	1.42	1.52
78	1b	63	A	C6-N6	-5.01	1.29	1.33
78	1b	101	G	N9-C4	-5.01	1.33	1.38
78	1b	1616	U	N1-C6	-5.01	1.33	1.38
78	1b	2139	A	C6-N6	-5.01	1.29	1.33
78	1b	2649	A	C6-N1	-5.01	1.32	1.35
1	2b	346	G	C5-C4	-5.01	1.34	1.38
1	2b	1116	A	C5-C4	-5.01	1.35	1.38
1	2b	1144	U	C4-C5	-5.01	1.39	1.43
78	1b	789	A	N9-C8	-5.01	1.33	1.37
78	1b	998	A	C5-C6	-5.01	1.36	1.41
78	1b	1149	G	N3-C4	-5.01	1.31	1.35
78	1b	1428	A	C5-C4	-5.01	1.35	1.38
78	1b	1559	A	C5-C4	-5.01	1.35	1.38
78	1b	2878	G	N9-C4	-5.01	1.33	1.38
78	1b	2921	U	N1-C2	-5.01	1.34	1.38
1	2b	1478	G	N7-C5	-5.01	1.36	1.39
78	1b	947	G	C5-C6	-5.01	1.37	1.42
78	1b	2300	G	N3-C4	-5.01	1.31	1.35
1	2b	392	G	N9-C8	-5.01	1.34	1.37
39	Cy	106	TRP	CG-CD1	-5.01	1.29	1.36
78	1b	90	C	C4-C5	-5.01	1.39	1.43
78	1b	413	U	N1-C6	-5.01	1.33	1.38
78	1b	497	C	C4-C5	-5.01	1.39	1.43
78	1b	864	G	N9-C4	-5.01	1.33	1.38
78	1b	1131	G	N9-C4	-5.01	1.33	1.38
78	1b	1932	A	C6-N1	-5.01	1.32	1.35
78	1b	2382	G	N9-C8	-5.01	1.34	1.37
78	1b	2789	U	N1-C2	-5.01	1.34	1.38
78	Aa	1119	C	N1-C6	-5.01	1.34	1.37
78	Aa	2389	C	N1-C6	-5.01	1.34	1.37
78	1b	588	G	N1-C2	-5.00	1.33	1.37
78	1b	2632	G	C6-N1	-5.00	1.36	1.39
78	1b	3048	A	C5-C4	-5.00	1.35	1.38
1	2b	355	G	N9-C4	-5.00	1.33	1.38
1	2b	610	G	N9-C4	-5.00	1.33	1.38
1	2b	1417	A	C6-N1	-5.00	1.32	1.35
78	1b	64	G	N7-C5	-5.00	1.36	1.39
78	1b	825	U	N1-C2	-5.00	1.34	1.38
78	1b	1374	G	C8-N7	-5.00	1.27	1.30
78	1b	1387	G	N3-C4	-5.00	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	1b	1497	C	N3-C4	-5.00	1.30	1.33
78	1b	1635	G	N9-C4	-5.00	1.33	1.38
78	1b	2611	U	N1-C2	-5.00	1.34	1.38
78	1b	1303	A	N3-C4	-5.00	1.31	1.34
78	1b	2176	U	C2-N3	-5.00	1.34	1.37
78	1b	2323	G	N3-C4	-5.00	1.31	1.35
78	1b	2341	A	C6-N6	-5.00	1.29	1.33
78	1b	2982	A	N3-C4	-5.00	1.31	1.34

All (5053) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	a	1597	A	N1-C2-N3	-60.58	99.01	129.30
1	a	1597	A	C2-N3-C4	50.02	135.61	110.60
78	1b	846	A	C8-N9-C4	-33.16	92.54	105.80
78	1b	846	A	N7-C8-N9	27.18	127.39	113.80
1	a	1597	A	C4-C5-N7	-23.61	98.89	110.70
1	a	1597	A	C6-N1-C2	22.22	131.93	118.60
1	a	1597	A	N7-C8-N9	18.06	122.83	113.80
36	3b	106	C	N3-C4-N4	-17.66	105.64	118.00
78	1b	2434	U	C5-C4-O4	16.76	135.96	125.90
30	4	13	ARG	C-N-CA	16.70	163.44	121.70
78	1b	2595	A	N1-C6-N6	-16.35	108.79	118.60
78	1b	2434	U	N3-C4-O4	-15.18	108.78	119.40
1	2b	352	A	C5-C6-N6	-14.99	111.71	123.70
36	3b	106	C	C5-C4-N4	14.38	130.26	120.20
78	1b	846	A	C4-N9-C1'	14.23	151.91	126.30
1	2b	629	U	C5-C6-N1	14.12	129.76	122.70
78	Aa	1152	G	N1-C6-O6	-14.08	111.45	119.90
1	2b	331	A	N1-C6-N6	13.48	126.69	118.60
1	2b	352	A	N1-C6-N6	13.48	126.69	118.60
78	Aa	1063	G	C4-N9-C1'	13.45	143.98	126.50
78	1b	846	A	C4-C5-C6	13.37	123.69	117.00
78	1b	895	A	N1-C6-N6	13.35	126.61	118.60
1	2b	1401	A	N1-C6-N6	13.34	126.60	118.60
1	2b	629	U	C2-N1-C1'	13.29	133.65	117.70
78	1b	3308	C	C5-C4-N4	-13.24	110.93	120.20
78	1b	893	C	C5-C4-N4	-13.14	111.00	120.20
1	a	1597	A	N3-C4-N9	13.07	137.86	127.40
1	2b	331	A	C5-C6-N6	-12.99	113.31	123.70
78	1b	804	C	C5-C4-N4	-12.94	111.14	120.20
78	1b	846	A	N1-C2-N3	12.89	135.75	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	2825	C	C5-C4-N4	-12.70	111.31	120.20
78	1b	895	A	C5-C6-N6	-12.60	113.62	123.70
78	1b	803	C	C5-C4-N4	-12.47	111.47	120.20
1	2b	846	G	N1-C6-O6	-12.38	112.47	119.90
78	Aa	1063	G	C8-N9-C1'	-12.18	111.17	127.00
78	Aa	1561	G	O4'-C1'-N9	11.99	117.79	108.20
78	1b	846	A	C5-N7-C8	-11.88	97.96	103.90
78	1b	2434	U	N1-C2-N3	-11.77	107.84	114.90
1	a	1555	A	N1-C6-N6	-11.77	111.54	118.60
1	2b	629	U	C6-N1-C2	-11.68	113.99	121.00
1	a	1597	A	N3-C4-C5	-11.61	118.67	126.80
1	2b	846	G	C5-C6-O6	11.54	135.52	128.60
78	1b	1574	C	N1-C2-O2	11.53	125.81	118.90
1	2b	1159	C	C2-N1-C1'	11.48	131.43	118.80
78	1b	846	A	N3-C4-C5	-11.44	118.79	126.80
78	Aa	386	A	N1-C6-N6	11.29	125.38	118.60
78	1b	2963	C	C5-C4-N4	-11.27	112.31	120.20
1	a	708	C	N3-C2-O2	-11.24	114.03	121.90
78	1b	2810	C	C5-C4-N4	-11.06	112.46	120.20
1	a	1597	A	C6-C5-N7	11.04	140.03	132.30
78	1b	2359	C	C5-C4-N4	-11.04	112.47	120.20
1	2b	1699	G	C5-C6-O6	11.03	135.22	128.60
78	1b	1844	C	C5-C4-N4	-11.00	112.50	120.20
78	1b	637	C	C5-C4-N4	-10.96	112.53	120.20
1	2b	629	U	N3-C4-O4	10.89	127.03	119.40
78	1b	1856	C	C5-C4-N4	-10.77	112.66	120.20
78	1b	1491	A	C5-C6-N1	10.77	123.08	117.70
78	1b	846	A	N9-C4-C5	10.73	110.09	105.80
78	1b	3029	A	N1-C6-N6	10.68	125.01	118.60
78	1b	1105	A	C5-C6-N6	-10.66	115.17	123.70
1	2b	583	C	C2-N1-C1'	10.55	130.41	118.80
1	2b	331	A	C4-C5-N7	10.49	115.94	110.70
78	1b	1796	G	N3-C4-N9	-10.43	119.74	126.00
78	1b	2809	C	C5-C4-N4	-10.39	112.93	120.20
1	2b	36	C	C5-C4-N4	-10.36	112.95	120.20
78	1b	2332	A	C5-C6-N6	-10.31	115.45	123.70
78	1b	102	C	C5-C4-N4	-10.28	113.00	120.20
1	2b	1699	G	N1-C6-O6	-10.20	113.78	119.90
36	3b	115	C	N1-C2-O2	10.14	124.98	118.90
78	Aa	2362	C	N3-C2-O2	-10.13	114.81	121.90
78	1b	1429	G	N1-C2-N2	-10.08	107.12	116.20
78	1b	793	C	C5-C4-N4	-10.08	113.14	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	2332	A	N1-C6-N6	10.08	124.65	118.60
35	4b	100	C	N1-C2-O2	10.07	124.94	118.90
1	2b	331	A	N9-C4-C5	-10.07	101.77	105.80
78	1b	1863	G	C2-N3-C4	-10.07	106.87	111.90
1	a	895	G	C5-C6-O6	10.05	134.63	128.60
78	1b	658	G	C6-C5-N7	-10.03	124.38	130.40
1	a	1597	A	C5-N7-C8	10.02	108.91	103.90
78	1b	706	A	C5-C6-N6	-10.01	115.69	123.70
78	1b	2434	U	C2-N3-C4	10.00	133.00	127.00
1	2b	369	A	N1-C6-N6	9.97	124.58	118.60
78	1b	895	A	C4-C5-N7	9.93	115.67	110.70
78	1b	21	G	N1-C6-O6	-9.86	113.98	119.90
78	1b	2304	C	N1-C2-O2	9.84	124.80	118.90
78	Aa	2333	C	N1-C2-O2	9.82	124.79	118.90
78	1b	31	C	C5-C4-N4	-9.80	113.34	120.20
78	1b	98	G	C2-N3-C4	-9.80	107.00	111.90
78	1b	2132	C	C5-C4-N4	-9.77	113.36	120.20
1	2b	1503	A	N1-C6-N6	9.77	124.46	118.60
1	2b	1109	G	C2-N3-C4	-9.76	107.02	111.90
78	Aa	1063	G	O4'-C1'-N9	9.72	115.97	108.20
78	1b	1046	A	C5-C6-N1	9.71	122.55	117.70
78	1b	1178	G	N1-C2-N2	-9.69	107.48	116.20
78	Aa	2333	C	N3-C2-O2	-9.69	115.12	121.90
1	2b	1159	C	C6-N1-C1'	-9.68	109.18	120.80
79	6b	74	C	C5-C4-N4	-9.67	113.43	120.20
78	Aa	1788	C	N1-C2-O2	9.67	124.70	118.90
1	2b	1401	A	C5-C6-N6	-9.63	116.00	123.70
78	1b	1847	A	N1-C6-N6	9.62	124.37	118.60
78	1b	691	A	C5-C6-N6	-9.59	116.03	123.70
78	1b	661	G	C2-N3-C4	-9.59	107.11	111.90
78	1b	937	G	N3-C2-N2	9.55	126.59	119.90
78	1b	1145	G	C2-N3-C4	-9.54	107.13	111.90
1	2b	769	A	N1-C6-N6	9.52	124.31	118.60
78	1b	881	C	C5-C4-N4	-9.50	113.55	120.20
78	1b	2150	G	N1-C2-N2	-9.47	107.68	116.20
78	1b	3043	C	N1-C2-O2	9.47	124.58	118.90
78	1b	1424	C	C5-C4-N4	-9.45	113.58	120.20
78	1b	2825	C	N3-C4-N4	9.44	124.61	118.00
78	1b	2278	C	C5-C4-N4	-9.44	113.59	120.20
78	1b	2335	G	C2-N3-C4	-9.44	107.18	111.90
78	1b	86	G	N3-C2-N2	-9.42	113.31	119.90
78	1b	293	C	N1-C2-O2	9.41	124.55	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	341	A	N9-C4-C5	-9.39	102.04	105.80
78	1b	647	A	C5-C6-N1	9.38	122.39	117.70
1	2b	1465	C	C5-C4-N4	-9.37	113.64	120.20
78	1b	922	U	C2-N1-C1'	9.37	128.95	117.70
78	Aa	75	G	C4-C5-N7	9.35	114.54	110.80
78	1b	628	A	N1-C6-N6	9.35	124.21	118.60
1	2b	331	A	C5-N7-C8	-9.34	99.23	103.90
78	Aa	2974	U	N3-C2-O2	-9.33	115.67	122.20
78	1b	2362	C	C2-N1-C1'	9.32	129.05	118.80
78	1b	2592	G	C2-N3-C4	-9.32	107.24	111.90
1	2b	344	A	C5-C6-N6	-9.31	116.25	123.70
36	3b	45	C	N1-C2-O2	9.31	124.49	118.90
78	1b	1657	C	N3-C4-C5	9.31	125.62	121.90
78	1b	2654	C	C5-C4-N4	-9.30	113.69	120.20
78	1b	3343	G	C2-N3-C4	-9.30	107.25	111.90
78	1b	2354	C	N1-C2-O2	9.29	124.47	118.90
1	a	74	U	N1-C2-N3	-9.28	109.33	114.90
1	2b	453	U	C2-N1-C1'	9.27	128.83	117.70
78	1b	894	G	C2-N3-C4	-9.27	107.26	111.90
79	6b	75	C	C5-C4-N4	-9.27	113.71	120.20
78	1b	845	G	C2-N3-C4	-9.27	107.27	111.90
78	1b	320	G	N3-C4-C5	9.27	133.23	128.60
78	1b	2367	A	C5-C6-N1	9.25	122.33	117.70
78	1b	2609	A	C5-C6-N1	9.25	122.33	117.70
78	1b	364	G	C2-N3-C4	-9.25	107.28	111.90
1	a	965	U	C2-N1-C1'	9.25	128.80	117.70
78	1b	1564	U	N3-C2-O2	-9.24	115.73	122.20
1	2b	628	G	N1-C2-N2	-9.24	107.88	116.20
1	2b	1088	A	C5-C6-N6	-9.22	116.32	123.70
78	Aa	42	C	N1-C2-O2	9.22	124.43	118.90
78	1b	827	A	C5-C6-N1	9.21	122.31	117.70
78	1b	846	A	C6-C5-N7	-9.21	125.85	132.30
78	1b	364	G	C8-N9-C4	9.19	110.08	106.40
78	1b	1863	G	N3-C4-C5	9.18	133.19	128.60
78	1b	221	A	O4'-C1'-N9	9.16	115.53	108.20
1	2b	1122	G	C2-N3-C4	-9.16	107.32	111.90
1	2b	647	G	N3-C2-N2	-9.16	113.49	119.90
78	1b	2816	G	C2-N3-C4	-9.16	107.32	111.90
78	1b	3308	C	N3-C4-N4	9.16	124.41	118.00
78	1b	2931	C	C5-C4-N4	-9.15	113.79	120.20
1	a	1455	G	N3-C4-N9	-9.15	120.51	126.00
78	Aa	2867	C	C6-N1-C2	-9.15	116.64	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	605	A	N1-C6-N6	9.14	124.08	118.60
1	2b	1142	A	C5-C6-N6	-9.14	116.39	123.70
78	1b	2369	G	N7-C8-N9	9.12	117.66	113.10
78	1b	2511	A	C4-C5-N7	9.10	115.25	110.70
1	2b	583	C	C5-C4-N4	-9.10	113.83	120.20
36	3b	125	U	C2-N1-C1'	9.08	128.59	117.70
1	2b	1503	A	C5-C6-N6	-9.06	116.45	123.70
78	1b	1135	A	C5-C6-N6	-9.06	116.45	123.70
78	1b	60	A	C5-C6-N1	9.06	122.23	117.70
1	2b	625	C	C5-C4-N4	-9.06	113.86	120.20
78	1b	1889	G	C2-N3-C4	-9.06	107.37	111.90
78	1b	2367	A	C5-C6-N6	-9.05	116.46	123.70
78	1b	1364	C	N1-C2-O2	9.04	124.33	118.90
78	Aa	1591	G	N3-C4-N9	-9.04	120.58	126.00
1	2b	1444	A	N1-C6-N6	-9.04	113.18	118.60
1	2b	992	A	N1-C6-N6	9.03	124.02	118.60
78	1b	2737	C	N3-C2-O2	-9.02	115.58	121.90
1	a	75	U	C2-N1-C1'	9.02	128.52	117.70
78	1b	2285	C	C5-C4-N4	-9.01	113.89	120.20
36	3b	115	C	N3-C2-O2	-8.99	115.61	121.90
1	2b	398	G	C2-N3-C4	-8.99	107.41	111.90
79	6b	63	C	N1-C2-O2	8.96	124.28	118.90
1	2b	967	A	C5-C6-N6	-8.95	116.54	123.70
78	1b	628	A	C5-C6-N6	-8.95	116.54	123.70
78	1b	1454	A	C5-C6-N6	-8.95	116.54	123.70
1	2b	924	A	C5-C6-N1	8.94	122.17	117.70
1	2b	344	A	N1-C6-N6	8.92	123.95	118.60
78	Aa	1788	C	N3-C2-O2	-8.91	115.66	121.90
78	1b	1333	C	N1-C2-O2	8.90	124.24	118.90
78	1b	824	C	C5-C4-N4	-8.90	113.97	120.20
78	Aa	1156	C	N3-C2-O2	-8.90	115.67	121.90
78	1b	1152	G	N3-C4-N9	-8.89	120.67	126.00
1	2b	1123	C	C5-C4-N4	-8.88	113.99	120.20
78	1b	1046	A	C5-C6-N6	-8.88	116.60	123.70
78	1b	992	A	N1-C6-N6	8.87	123.92	118.60
1	2b	1600	A	N1-C6-N6	8.86	123.92	118.60
78	1b	1300	G	C2-N3-C4	-8.86	107.47	111.90
78	1b	2343	C	N1-C2-O2	8.86	124.21	118.90
1	2b	1142	A	C5-C6-N1	8.86	122.13	117.70
78	1b	2511	A	C5-C6-N6	-8.85	116.62	123.70
78	1b	1447	G	N3-C4-C5	8.84	133.02	128.60
78	1b	691	A	N9-C4-C5	-8.83	102.27	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	364	G	N9-C4-C5	-8.82	101.87	105.40
78	1b	1232	C	C2-N1-C1'	8.82	128.50	118.80
1	a	934	C	C2-N1-C1'	8.82	128.50	118.80
36	Ca	8	C	N1-C2-O2	8.81	124.19	118.90
78	1b	1856	C	N1-C2-O2	8.80	124.18	118.90
78	Aa	2362	C	N1-C2-O2	8.80	124.18	118.90
1	a	517	U	N3-C2-O2	-8.79	116.05	122.20
1	2b	1028	C	N3-C4-C5	8.79	125.42	121.90
78	1b	287	G	C2-N3-C4	-8.79	107.51	111.90
1	2b	330	G	C6-C5-N7	-8.78	125.13	130.40
1	2b	1389	C	C2-N1-C1'	8.76	128.43	118.80
36	3b	47	C	C5-C4-N4	-8.75	114.07	120.20
78	1b	807	A	N1-C6-N6	8.75	123.85	118.60
78	1b	2424	A	N1-C6-N6	8.75	123.85	118.60
78	1b	3076	C	C5-C4-N4	-8.74	114.08	120.20
35	4b	89	G	C2-N3-C4	-8.74	107.53	111.90
78	1b	893	C	N3-C4-N4	8.73	124.11	118.00
78	1b	886	C	N1-C2-O2	8.72	124.13	118.90
78	1b	2366	C	N1-C2-O2	8.72	124.13	118.90
1	2b	400	A	C8-N9-C4	-8.72	102.31	105.80
36	3b	11	C	N1-C2-O2	8.72	124.13	118.90
78	1b	1851	G	C4-C5-N7	8.72	114.29	110.80
1	2b	938	G	C2-N3-C4	-8.71	107.54	111.90
78	1b	2983	C	C6-N1-C1'	-8.71	110.35	120.80
78	1b	846	A	C6-N1-C2	-8.69	113.38	118.60
1	2b	352	A	C6-N1-C2	-8.68	113.39	118.60
1	2b	1122	G	N3-C4-C5	8.68	132.94	128.60
35	4b	84	A	C5-C6-N1	8.68	122.04	117.70
78	1b	803	C	N3-C4-N4	8.65	124.05	118.00
78	1b	3004	C	N1-C2-O2	8.64	124.09	118.90
78	1b	1105	A	N1-C6-N6	8.63	123.78	118.60
1	2b	305	C	N1-C2-O2	8.63	124.08	118.90
78	Aa	1063	G	N7-C8-N9	8.63	117.42	113.10
78	1b	79	U	C5-C4-O4	-8.63	120.72	125.90
78	1b	1844	C	N3-C4-C5	8.63	125.35	121.90
78	1b	1544	G	C2-N3-C4	-8.62	107.59	111.90
1	2b	629	U	C5-C4-O4	-8.62	120.73	125.90
78	1b	1493	G	C2-N3-C4	-8.61	107.60	111.90
1	2b	1109	G	N3-C4-C5	8.61	132.90	128.60
78	Aa	1152	G	C5-C6-O6	8.60	133.76	128.60
1	2b	991	G	C2-N3-C4	-8.60	107.60	111.90
78	1b	1429	G	N3-C2-N2	8.60	125.92	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	2967	A	C5-C6-N1	8.59	122.00	117.70
78	1b	2887	A	N1-C6-N6	8.59	123.75	118.60
78	1b	293	C	N3-C2-O2	-8.59	115.89	121.90
78	1b	2511	A	N9-C4-C5	-8.59	102.37	105.80
1	a	535	A	N1-C6-N6	-8.59	113.45	118.60
78	1b	1796	G	N3-C4-C5	8.58	132.89	128.60
1	2b	827	C	N3-C4-N4	-8.58	112.00	118.00
78	1b	1314	C	N1-C2-O2	8.58	124.05	118.90
78	1b	2285	C	N3-C4-C5	8.58	125.33	121.90
78	1b	2810	C	N1-C2-O2	8.58	124.05	118.90
78	1b	1435	A	C5-C6-N6	-8.58	116.84	123.70
78	Aa	435	C	N3-C2-O2	-8.58	115.90	121.90
36	Ca	8	C	N3-C2-O2	-8.57	115.90	121.90
1	2b	298	C	C5-C4-N4	-8.57	114.20	120.20
36	3b	30	C	N1-C2-O2	8.56	124.04	118.90
78	1b	1340	G	N1-C6-O6	-8.56	114.76	119.90
78	Aa	107	A	N1-C6-N6	-8.55	113.47	118.60
78	1b	200	C	C5-C4-N4	-8.55	114.22	120.20
1	2b	1652	C	N3-C4-C5	8.54	125.32	121.90
78	1b	2810	C	N3-C4-C5	8.54	125.31	121.90
1	2b	827	C	N3-C4-C5	8.52	125.31	121.90
78	1b	1575	A	N1-C6-N6	-8.51	113.50	118.60
78	1b	3110	C	C5-C4-N4	-8.51	114.25	120.20
78	1b	1608	C	C5-C4-N4	-8.49	114.26	120.20
78	1b	341	G	C2-N3-C4	-8.48	107.66	111.90
78	1b	804	C	N3-C4-N4	8.46	123.93	118.00
78	1b	1447	G	N3-C4-N9	-8.46	120.92	126.00
78	1b	1933	A	N1-C6-N6	8.46	123.68	118.60
78	1b	3046	A	C5-C6-N6	-8.46	116.93	123.70
78	1b	1851	G	C6-C5-N7	-8.45	125.33	130.40
1	2b	396	G	C2-N3-C4	-8.44	107.68	111.90
1	a	118	U	N3-C2-O2	-8.44	116.29	122.20
78	1b	2322	C	N1-C2-O2	8.44	123.96	118.90
36	3b	137	C	N1-C2-O2	8.43	123.96	118.90
78	1b	1574	C	N3-C2-O2	-8.43	116.00	121.90
78	1b	2627	C	N1-C2-O2	8.43	123.96	118.90
78	1b	1199	C	C6-N1-C2	8.42	123.67	120.30
78	Aa	1152	G	N3-C2-N2	8.42	125.79	119.90
1	2b	1674	C	C5-C4-N4	-8.42	114.31	120.20
78	1b	838	G	C2-N3-C4	-8.41	107.69	111.90
1	2b	1660	A	C5-C6-N6	-8.41	116.97	123.70
78	1b	2370	G	C2-N3-C4	-8.40	107.70	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	357	A	C5-C6-N6	-8.39	116.98	123.70
78	1b	3004	C	C5-C4-N4	-8.39	114.33	120.20
1	2b	1778	G	C2-N3-C4	-8.38	107.71	111.90
78	1b	1612	A	N1-C6-N6	-8.38	113.57	118.60
78	Aa	2721	A	C5-C6-N1	8.38	121.89	117.70
78	1b	2645	G	N1-C2-N2	-8.38	108.66	116.20
78	1b	3091	A	C5-C6-N6	-8.38	117.00	123.70
1	2b	1006	C	N3-C4-C5	8.37	125.25	121.90
78	1b	1136	A	C5-C6-N6	-8.37	117.01	123.70
78	1b	1379	G	C2-N3-C4	-8.37	107.72	111.90
78	1b	2434	U	C6-N1-C1'	-8.37	109.49	121.20
1	2b	341	A	C4-C5-N7	8.37	114.88	110.70
78	1b	2406	C	C5-C4-N4	-8.37	114.34	120.20
78	1b	937	G	N1-C2-N2	-8.36	108.67	116.20
78	1b	2983	C	C2-N1-C1'	8.36	128.00	118.80
78	1b	2354	C	C5-C4-N4	-8.36	114.35	120.20
1	2b	333	A	C5-C6-N1	8.34	121.87	117.70
78	1b	2887	A	C5-C6-N6	-8.34	117.03	123.70
78	Aa	1155	C	N1-C2-O2	8.33	123.90	118.90
78	1b	650	C	C5-C4-N4	-8.33	114.37	120.20
78	1b	1939	G	C2-N3-C4	-8.32	107.74	111.90
78	1b	304	G	N7-C8-N9	8.31	117.26	113.10
35	4b	94	C	N1-C2-O2	8.31	123.89	118.90
78	1b	320	G	C2-N3-C4	-8.31	107.75	111.90
78	1b	2928	C	N1-C2-O2	8.31	123.89	118.90
78	1b	2964	G	C2-N3-C4	-8.31	107.75	111.90
78	Aa	2867	C	N1-C2-O2	8.30	123.88	118.90
78	1b	2985	C	N1-C2-O2	8.30	123.88	118.90
1	a	74	U	C6-N1-C2	8.30	125.98	121.00
36	3b	108	C	N1-C2-O2	8.30	123.88	118.90
1	a	1596	C	C5'-C4'-O4'	8.29	119.05	109.10
78	1b	2957	G	C2-N3-C4	-8.29	107.75	111.90
78	1b	3103	A	C5-C6-N6	-8.27	117.08	123.70
78	Aa	991	G	N1-C2-N2	-8.27	108.76	116.20
78	1b	1447	G	O4'-C1'-N9	8.26	114.81	108.20
1	2b	400	A	N7-C8-N9	8.26	117.93	113.80
78	1b	130	A	C5-C6-N6	-8.26	117.09	123.70
78	Aa	2204	C	N3-C2-O2	-8.26	116.12	121.90
78	1b	998	A	C5-C6-N6	-8.26	117.09	123.70
1	2b	927	C	N1-C2-O2	8.26	123.85	118.90
36	3b	42	G	C2-N3-C4	-8.25	107.78	111.90
1	2b	637	C	C5-C4-N4	-8.24	114.43	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	1784	C	C5-C4-N4	-8.23	114.44	120.20
78	1b	2331	C	C5-C4-N4	-8.23	114.44	120.20
78	1b	2797	C	C6-N1-C2	8.23	123.59	120.30
78	1b	637	C	N1-C2-O2	8.23	123.84	118.90
78	1b	1446	A	C5-C6-N6	-8.23	117.12	123.70
36	3b	47	C	C2-N1-C1'	8.22	127.85	118.80
78	1b	209	A	C5-C6-N6	-8.22	117.12	123.70
78	1b	1597	C	N1-C2-O2	8.21	123.83	118.90
78	1b	1137	C	C5-C4-N4	-8.21	114.45	120.20
78	1b	2590	A	C5-C6-N6	-8.21	117.13	123.70
78	1b	809	G	C4-C5-N7	8.20	114.08	110.80
1	2b	1764	C	C2-N1-C1'	8.20	127.82	118.80
78	1b	1477	A	N1-C6-N6	8.20	123.52	118.60
78	1b	2360	C	N1-C2-O2	8.20	123.82	118.90
1	a	1597	A	C5-C6-N1	-8.20	113.60	117.70
78	1b	2434	U	C2-N1-C1'	8.20	127.54	117.70
78	1b	106	A	N9-C4-C5	-8.19	102.52	105.80
78	1b	2595	A	C5-C6-N6	8.19	130.25	123.70
78	1b	2367	A	C5-N7-C8	-8.19	99.81	103.90
78	1b	3134	A	C4-C5-N7	8.18	114.79	110.70
1	2b	605	A	C5-C6-N6	-8.18	117.16	123.70
78	1b	1280	C	N3-C2-O2	-8.17	116.18	121.90
1	2b	341	A	C5-C6-N6	-8.17	117.16	123.70
78	1b	1464	G	C2-N3-C4	-8.16	107.82	111.90
1	2b	1142	A	C4-C5-N7	8.15	114.78	110.70
78	1b	373	A	C5-C6-N6	-8.15	117.18	123.70
78	1b	895	A	C5-N7-C8	-8.15	99.83	103.90
1	a	1597	A	C4-C5-C6	8.15	121.07	117.00
1	2b	927	C	N3-C2-O2	-8.14	116.20	121.90
78	1b	2355	G	C2-N3-C4	-8.13	107.83	111.90
1	2b	9	U	C5-C6-N1	8.13	126.77	122.70
78	1b	2417	U	N3-C4-O4	8.13	125.09	119.40
78	1b	992	A	N9-C4-C5	-8.12	102.55	105.80
1	2b	1088	A	C5-C6-N1	8.11	121.76	117.70
1	2b	10	G	N1-C2-N2	-8.11	108.90	116.20
78	1b	2155	G	C8-N9-C4	8.11	109.64	106.40
78	1b	371	G	C2-N3-C4	-8.10	107.85	111.90
78	1b	950	G	C2-N3-C4	-8.10	107.85	111.90
78	1b	1320	C	C5-C4-N4	-8.10	114.53	120.20
78	1b	2608	G	N3-C4-C5	8.10	132.65	128.60
78	1b	1845	G	C2-N3-C4	-8.10	107.85	111.90
78	1b	3181	C	N3-C4-C5	8.09	125.14	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	3349	C	N3-C4-C5	8.09	125.14	121.90
78	1b	2304	C	C5-C4-N4	-8.09	114.54	120.20
1	2b	1675	C	C5-C4-N4	-8.08	114.54	120.20
78	1b	1435	A	N1-C6-N6	8.08	123.45	118.60
78	1b	1424	C	N3-C4-C5	8.08	125.13	121.90
78	1b	2360	C	C2-N1-C1'	8.08	127.69	118.80
78	1b	3134	A	C5-C6-N6	-8.08	117.24	123.70
78	1b	1940	G	C2-N3-C4	-8.07	107.86	111.90
78	Aa	2654	C	N3-C2-O2	-8.07	116.25	121.90
78	1b	2983	C	N1-C2-O2	8.06	123.74	118.90
78	1b	1496	C	C2-N1-C1'	8.05	127.66	118.80
78	1b	856	G	N1-C2-N2	-8.05	108.96	116.20
78	1b	915	A	O5'-P-OP1	-8.05	98.46	105.70
1	2b	405	C	N1-C2-O2	8.05	123.73	118.90
78	Aa	2951	G	C4-C5-N7	8.05	114.02	110.80
78	1b	793	C	N3-C4-N4	8.04	123.63	118.00
1	a	1451	C	C2-N1-C1'	8.04	127.64	118.80
78	1b	1137	C	C2-N3-C4	-8.03	115.88	119.90
78	1b	45	A	C5-C6-N6	-8.03	117.27	123.70
78	1b	691	A	N1-C6-N6	8.02	123.41	118.60
78	1b	1152	G	N3-C4-C5	8.02	132.61	128.60
78	1b	320	G	N3-C4-N9	-8.00	121.20	126.00
78	1b	751	A	C5-C6-N1	8.00	121.70	117.70
78	1b	1359	C	C6-N1-C2	8.00	123.50	120.30
78	Aa	47	C	C5-C4-N4	-8.00	114.60	120.20
1	2b	614	C	C5-C4-N4	-8.00	114.60	120.20
78	1b	2370	G	N3-C4-C5	8.00	132.60	128.60
78	1b	2317	A	C5-C6-N1	8.00	121.70	117.70
1	2b	769	A	C5-C6-N6	-7.98	117.32	123.70
78	1b	1508	C	N3-C4-C5	7.98	125.09	121.90
78	1b	2931	C	N3-C4-C5	7.98	125.09	121.90
1	a	1555	A	C2-N3-C4	7.98	114.59	110.60
78	1b	2960	C	N1-C2-O2	7.97	123.68	118.90
1	2b	1637	C	C6-N1-C2	7.96	123.49	120.30
78	1b	1328	C	N1-C2-O2	7.96	123.68	118.90
1	2b	1658	G	N1-C2-N2	-7.96	109.03	116.20
78	1b	2605	G	C2-N3-C4	-7.96	107.92	111.90
78	1b	360	G	C2-N3-C4	-7.95	107.92	111.90
1	2b	965	U	C2-N1-C1'	7.95	127.24	117.70
78	1b	1738	C	C5-C4-N4	-7.95	114.64	120.20
1	2b	1600	A	C5-C6-N6	-7.95	117.34	123.70
78	1b	856	G	C4-N9-C1'	7.94	136.82	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	824	C	N3-C4-C5	7.94	125.08	121.90
1	2b	1142	A	N9-C4-C5	-7.94	102.63	105.80
78	1b	1808	G	C2-N3-C4	-7.93	107.93	111.90
78	1b	1592	G	C2-N3-C4	-7.93	107.93	111.90
1	2b	1597	A	N1-C6-N6	7.93	123.36	118.60
36	3b	137	C	N3-C2-O2	-7.92	116.36	121.90
78	1b	91	G	C2-N3-C4	-7.92	107.94	111.90
78	1b	706	A	N1-C6-N6	7.92	123.35	118.60
78	1b	1454	A	N1-C6-N6	7.91	123.34	118.60
78	1b	2317	A	C5-C6-N6	-7.91	117.38	123.70
1	2b	991	G	N1-C2-N2	-7.90	109.09	116.20
1	2b	1581	C	N1-C2-O2	7.90	123.64	118.90
1	a	1451	C	N1-C2-O2	7.90	123.64	118.90
1	2b	855	A	N1-C6-N6	-7.89	113.86	118.60
78	1b	2272	G	N1-C2-N2	-7.89	109.10	116.20
78	1b	1046	A	C6-N1-C2	-7.89	113.87	118.60
1	2b	1503	A	C4-C5-N7	7.88	114.64	110.70
78	1b	2362	C	N1-C2-O2	7.88	123.63	118.90
78	1b	3184	A	N1-C6-N6	7.88	123.33	118.60
78	Aa	341	G	C2-N3-C4	-7.88	107.96	111.90
78	1b	2925	C	C5-C4-N4	-7.88	114.69	120.20
36	3b	148	G	N1-C6-O6	-7.88	115.17	119.90
78	1b	337	G	C2-N3-C4	-7.87	107.96	111.90
78	1b	2748	A	N1-C6-N6	7.87	123.32	118.60
78	1b	1105	A	C4-C5-N7	7.87	114.64	110.70
1	2b	1431	C	C6-N1-C2	7.87	123.45	120.30
78	1b	1493	G	N9-C4-C5	-7.87	102.25	105.40
78	1b	635	G	C2-N3-C4	-7.87	107.97	111.90
78	1b	2966	G	C2-N3-C4	-7.87	107.97	111.90
78	Aa	1866	C	N1-C2-O2	7.86	123.61	118.90
1	2b	1459	C	N3-C4-C5	7.85	125.04	121.90
78	1b	856	G	C8-N9-C1'	-7.85	116.79	127.00
78	1b	3350	C	C5-C6-N1	7.85	124.92	121.00
78	Aa	991	G	N3-C2-N2	7.85	125.39	119.90
78	1b	857	G	C2-N3-C4	-7.84	107.98	111.90
78	1b	1639	C	N1-C2-O2	7.84	123.61	118.90
78	1b	1339	C	N1-C2-O2	7.84	123.61	118.90
78	Aa	1063	G	C6-C5-N7	-7.84	125.69	130.40
78	1b	637	C	N3-C4-N4	7.84	123.49	118.00
78	1b	654	C	N1-C2-O2	7.84	123.60	118.90
78	1b	1843	C	C5-C4-N4	-7.83	114.72	120.20
78	1b	1156	C	N1-C2-O2	7.83	123.60	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	1525	G	C4-C5-N7	7.83	113.93	110.80
78	1b	3217	C	C2-N1-C1'	7.83	127.42	118.80
36	Ca	113	U	C2-N1-C1'	7.83	127.10	117.70
78	1b	2150	G	N3-C2-N2	7.83	125.38	119.90
78	Aa	3301	U	N3-C2-O2	-7.83	116.72	122.20
78	1b	820	A	C5-C6-N1	7.83	121.61	117.70
78	Aa	2572	C	C2-N1-C1'	7.82	127.40	118.80
78	1b	106	A	C5-C6-N6	-7.82	117.45	123.70
78	1b	1493	G	C4-C5-N7	7.81	113.92	110.80
78	1b	944	C	C5-C4-N4	-7.81	114.74	120.20
35	4b	100	C	N3-C2-O2	-7.80	116.44	121.90
1	2b	1284	C	C5-C4-N4	-7.80	114.74	120.20
78	1b	227	G	C2-N3-C4	-7.80	108.00	111.90
1	a	895	G	N1-C6-O6	-7.80	115.22	119.90
78	1b	2425	G	N3-C2-N2	-7.80	114.44	119.90
78	1b	700	C	N1-C2-O2	7.80	123.58	118.90
1	2b	352	A	C5-C6-N1	7.79	121.60	117.70
1	2b	1297	G	C2-N3-C4	-7.79	108.00	111.90
78	1b	1791	C	N1-C2-O2	7.79	123.58	118.90
1	2b	1088	A	N9-C4-C5	-7.79	102.68	105.80
78	1b	1711	C	N1-C2-O2	7.79	123.58	118.90
1	2b	398	G	N3-C4-C5	7.79	132.50	128.60
78	1b	832	G	C2-N3-C4	-7.79	108.00	111.90
78	1b	774	G	N3-C4-N9	-7.79	121.33	126.00
78	1b	2372	A	C5-C6-N1	7.79	121.59	117.70
78	1b	397	A	C5-C6-N6	-7.78	117.47	123.70
78	1b	815	G	N1-C2-N2	-7.78	109.20	116.20
1	a	1555	A	N9-C4-C5	7.78	108.91	105.80
1	2b	962	C	N3-C4-C5	7.78	125.01	121.90
1	2b	423	G	C8-N9-C4	-7.77	103.29	106.40
1	2b	305	C	C2-N1-C1'	7.77	127.35	118.80
1	2b	377	G	N1-C2-N2	-7.77	109.21	116.20
1	2b	583	C	N3-C4-N4	7.76	123.44	118.00
78	Aa	1328	C	N1-C2-O2	7.76	123.56	118.90
1	2b	1110	G	C2-N3-C4	-7.76	108.02	111.90
78	1b	845	G	N3-C4-C5	7.75	132.48	128.60
1	2b	1159	C	N1-C2-O2	7.75	123.55	118.90
78	1b	3029	A	C5-C6-N6	-7.75	117.50	123.70
78	1b	1421	G	C2-N3-C4	-7.75	108.03	111.90
1	2b	605	A	N9-C4-C5	-7.74	102.70	105.80
1	2b	1152	A	C5-C6-N6	-7.74	117.51	123.70
78	1b	1945	A	C5-C6-N6	-7.74	117.51	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	3133	C	N1-C2-O2	7.74	123.54	118.90
1	2b	1422	A	N1-C6-N6	7.73	123.24	118.60
78	Aa	651	G	C4-N9-C1'	7.73	136.55	126.50
78	1b	2304	C	C2-N1-C1'	7.73	127.31	118.80
78	1b	2947	G	N3-C4-N9	-7.72	121.37	126.00
1	2b	1611	A	C6-C5-N7	-7.72	126.90	132.30
78	1b	2608	G	C2-N3-C4	-7.72	108.04	111.90
78	1b	269	G	C2-N3-C4	-7.72	108.04	111.90
78	1b	1446	A	N1-C6-N6	7.71	123.23	118.60
78	1b	2369	G	C4-N9-C1'	7.71	136.52	126.50
78	1b	2172	A	C5-C6-N1	7.70	121.55	117.70
36	3b	11	C	C5-C4-N4	-7.70	114.81	120.20
78	1b	696	C	C5-C4-N4	-7.70	114.81	120.20
78	1b	2243	A	N1-C6-N6	-7.70	113.98	118.60
78	1b	1509	A	N1-C6-N6	7.69	123.22	118.60
78	1b	1534	A	N7-C8-N9	7.69	117.64	113.80
78	1b	1848	G	C8-N9-C4	7.69	109.48	106.40
1	2b	366	A	C5-C6-N6	-7.68	117.55	123.70
78	1b	3092	C	C5-C4-N4	-7.68	114.83	120.20
78	Aa	406	G	O4'-C1'-N9	7.67	114.34	108.20
78	1b	2371	G	N1-C2-N2	-7.67	109.29	116.20
1	2b	1401	A	C4-C5-N7	7.67	114.53	110.70
78	1b	45	A	C5-N7-C8	-7.67	100.07	103.90
1	2b	323	A	C5-C6-N6	-7.66	117.57	123.70
1	2b	1753	A	C5-C6-N6	-7.66	117.57	123.70
78	Aa	1581	C	C5-C4-N4	-7.66	114.84	120.20
1	2b	752	A	N1-C6-N6	7.66	123.20	118.60
78	1b	1927	G	N3-C2-N2	-7.66	114.54	119.90
78	Aa	1578	C	C2-N1-C1'	7.66	127.22	118.80
78	1b	2963	C	N3-C4-N4	7.65	123.36	118.00
78	1b	857	G	C5-C6-N1	-7.63	107.68	111.50
78	1b	2145	A	C5-C6-N1	7.63	121.52	117.70
78	1b	2246	G	N3-C4-C5	7.63	132.42	128.60
78	Aa	386	A	C5-C6-N6	-7.63	117.60	123.70
78	1b	1657	C	C5-C4-N4	-7.63	114.86	120.20
1	2b	943	C	C5-C4-N4	-7.62	114.86	120.20
78	1b	2369	G	C8-N9-C4	-7.62	103.35	106.40
78	1b	2511	A	N1-C6-N6	7.62	123.17	118.60
36	3b	148	G	C5-C6-O6	7.61	133.17	128.60
78	1b	1062	A	C5-C6-N6	-7.60	117.62	123.70
78	1b	1295	G	C2-N3-C4	-7.60	108.10	111.90
78	Aa	2572	C	N1-C2-O2	7.60	123.46	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	411	C	N1-C2-O2	7.59	123.46	118.90
78	1b	656	A	C5-C6-N6	-7.59	117.62	123.70
78	1b	926	A	C5-C6-N6	-7.59	117.63	123.70
78	1b	2834	G	C2-N3-C4	-7.59	108.11	111.90
1	2b	1389	C	N1-C2-O2	7.58	123.45	118.90
78	1b	21	G	C6-N1-C2	-7.58	120.55	125.10
78	1b	1670	C	N1-C2-O2	7.58	123.45	118.90
78	1b	1748	G	C2-N3-C4	-7.58	108.11	111.90
78	1b	1508	C	C2-N3-C4	-7.58	116.11	119.90
78	1b	2908	G	C2-N3-C4	-7.57	108.11	111.90
78	Aa	75	G	N9-C4-C5	-7.57	102.37	105.40
1	2b	1152	A	C4-C5-N7	7.57	114.48	110.70
78	1b	2592	G	N1-C2-N2	-7.57	109.39	116.20
78	1b	1848	G	N3-C4-C5	7.57	132.38	128.60
1	2b	322	G	N7-C8-N9	7.57	116.88	113.10
78	1b	894	G	N3-C4-C5	7.56	132.38	128.60
78	1b	1332	A	C5-C6-N6	-7.56	117.65	123.70
78	1b	2422	C	N3-C4-C5	7.56	124.92	121.90
78	Aa	1096	U	N1-C2-O2	7.56	128.09	122.80
78	Aa	1726	C	N1-C2-O2	7.56	123.43	118.90
78	1b	345	G	C2-N3-C4	-7.55	108.12	111.90
78	1b	400	G	C2-N3-C4	-7.55	108.12	111.90
78	1b	3004	C	N3-C4-C5	7.55	124.92	121.90
78	1b	804	C	N3-C4-C5	7.55	124.92	121.90
78	1b	846	A	N9-C1'-C2'	7.54	123.81	114.00
78	1b	2874	G	C5-C6-O6	7.54	133.13	128.60
1	2b	1328	G	C2-N3-C4	-7.54	108.13	111.90
78	1b	968	G	N1-C2-N3	7.54	128.43	123.90
78	1b	1359	C	N3-C4-C5	7.54	124.92	121.90
78	1b	1527	C	C6-N1-C2	-7.54	117.28	120.30
1	2b	1780	G	N1-C2-N2	-7.54	109.42	116.20
78	1b	1893	A	C5-C6-N6	-7.54	117.67	123.70
78	Aa	2867	C	N3-C2-O2	-7.54	116.62	121.90
78	Aa	227	G	N3-C4-C5	7.54	132.37	128.60
1	2b	1088	A	C4-C5-N7	7.53	114.47	110.70
78	1b	3086	A	C5-C6-N1	7.53	121.47	117.70
36	3b	36	G	N3-C4-C5	7.53	132.36	128.60
78	1b	2728	G	C2-N3-C4	-7.53	108.14	111.90
1	2b	884	A	C5-C6-N6	-7.53	117.68	123.70
78	Aa	2406	C	C6-N1-C2	-7.52	117.29	120.30
78	1b	1480	G	C2-N3-C4	-7.52	108.14	111.90
78	1b	3139	A	C5-C6-N1	7.52	121.46	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	a	1455	G	N3-C2-N2	-7.51	114.64	119.90
78	1b	1477	A	C5-C6-N6	-7.51	117.69	123.70
78	1b	656	A	C5-N7-C8	-7.51	100.15	103.90
78	1b	2393	G	N9-C4-C5	7.51	108.40	105.40
78	Aa	1875	G	C8-N9-C1'	-7.50	117.25	127.00
78	1b	3174	A	C5-C6-N6	-7.50	117.70	123.70
1	2b	1109	G	N3-C4-N9	-7.50	121.50	126.00
78	1b	895	A	C6-C5-N7	-7.50	127.05	132.30
78	1b	2996	U	N1-C2-O2	7.49	128.05	122.80
78	1b	1843	C	N3-C4-N4	7.49	123.24	118.00
78	1b	1845	G	N3-C4-C5	7.49	132.34	128.60
36	3b	148	G	N1-C2-N2	-7.49	109.46	116.20
78	1b	706	A	N9-C4-C5	-7.49	102.81	105.80
78	1b	3184	A	C5-C6-N6	-7.48	117.71	123.70
1	2b	1090	C	N1-C2-O2	7.48	123.39	118.90
78	1b	651	G	C4-N9-C1'	7.48	136.22	126.50
78	1b	1586	G	C2-N3-C4	-7.48	108.16	111.90
1	a	1555	A	C5-C6-N6	7.47	129.68	123.70
78	1b	45	A	C4-C5-N7	7.47	114.44	110.70
78	Aa	861	C	C6-N1-C2	-7.47	117.31	120.30
78	1b	2332	A	C4-C5-N7	7.47	114.44	110.70
78	1b	68	C	N3-C4-C5	7.46	124.89	121.90
78	1b	2367	A	C4-C5-N7	7.46	114.43	110.70
78	1b	1333	C	C2-N1-C1'	7.46	127.01	118.80
78	1b	1364	C	N3-C2-O2	-7.46	116.68	121.90
78	1b	1454	A	C4-C5-N7	7.46	114.43	110.70
78	Aa	1156	C	C6-N1-C2	-7.46	117.32	120.30
78	1b	1435	A	C5-N7-C8	-7.45	100.18	103.90
78	1b	2804	A	C5-C6-N1	7.45	121.42	117.70
78	1b	1851	G	C5-N7-C8	-7.44	100.58	104.30
78	1b	647	A	C8-N9-C4	7.44	108.78	105.80
78	1b	2118	C	N3-C4-C5	7.44	124.88	121.90
1	2b	107	C	C5-C4-N4	-7.44	114.99	120.20
78	1b	1592	G	N3-C4-N9	-7.44	121.54	126.00
1	2b	89	G	N1-C2-N2	-7.43	109.51	116.20
78	1b	1856	C	N3-C4-C5	7.43	124.87	121.90
36	3b	9	A	C5-N7-C8	-7.43	100.18	103.90
78	1b	2925	C	N3-C4-C5	7.43	124.87	121.90
1	2b	625	C	N3-C4-C5	7.43	124.87	121.90
78	1b	893	C	N3-C4-C5	7.43	124.87	121.90
78	1b	972	A	C5-C6-N1	7.43	121.41	117.70
78	1b	1401	A	C4-C5-N7	7.42	114.41	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	583	C	C6-N1-C1'	-7.42	111.89	120.80
78	1b	28	C	N1-C2-O2	7.42	123.35	118.90
78	1b	2399	A	C5-C6-N6	-7.42	117.76	123.70
78	1b	1508	C	C5-C4-N4	-7.41	115.01	120.20
1	2b	1069	A	C5-C6-N1	7.41	121.41	117.70
78	1b	1895	A	C5-C6-N1	7.41	121.40	117.70
78	1b	30	G	C2-N3-C4	-7.40	108.20	111.90
78	1b	921	A	C5-C6-N1	7.40	121.40	117.70
1	2b	367	A	C5-C6-N6	-7.39	117.78	123.70
78	1b	1160	C	C5-C4-N4	-7.39	115.03	120.20
78	1b	1479	U	N3-C4-O4	7.39	124.57	119.40
1	2b	1007	C	C5-C4-N4	-7.39	115.03	120.20
78	1b	388	G	N1-C2-N2	-7.39	109.55	116.20
1	2b	1764	C	C6-N1-C1'	-7.39	111.93	120.80
78	1b	2273	G	O4'-C1'-N9	7.39	114.11	108.20
78	1b	1664	G	N7-C8-N9	7.39	116.79	113.10
1	2b	353	A	C5-C6-N6	-7.38	117.80	123.70
78	1b	1527	C	N1-C2-O2	7.37	123.32	118.90
78	1b	2359	C	N3-C4-C5	7.37	124.85	121.90
1	a	1740	A	N7-C8-N9	7.37	117.49	113.80
78	1b	945	C	N1-C2-O2	7.37	123.32	118.90
78	1b	1585	C	N1-C2-O2	7.37	123.32	118.90
78	Aa	27	C	N1-C2-O2	7.37	123.32	118.90
78	1b	2810	C	C2-N1-C1'	7.36	126.90	118.80
78	1b	2814	G	C2-N3-C4	-7.36	108.22	111.90
78	1b	670	C	N1-C2-O2	7.35	123.31	118.90
78	1b	2094	C	N3-C2-O2	-7.35	116.75	121.90
78	1b	2270	A	N1-C6-N6	-7.35	114.19	118.60
78	1b	516	A	C8-N9-C4	7.35	108.74	105.80
78	1b	2394	G	N3-C4-N9	-7.35	121.59	126.00
1	2b	1401	A	C6-C5-N7	-7.35	127.16	132.30
1	2b	628	G	N3-C2-N2	7.34	125.04	119.90
78	1b	1049	C	N1-C2-O2	7.34	123.31	118.90
78	1b	1135	A	C4-C5-N7	7.34	114.37	110.70
78	1b	2172	A	C5-C6-N6	-7.34	117.83	123.70
1	2b	1422	A	C5-C6-N6	-7.34	117.83	123.70
1	2b	1753	A	C4-C5-N7	7.33	114.37	110.70
78	1b	1874	A	C5-C6-N6	-7.33	117.83	123.70
1	a	1073	G	N3-C4-N9	-7.33	121.60	126.00
36	Ca	152	G	N3-C2-N2	-7.32	114.77	119.90
1	2b	1658	G	C2-N3-C4	-7.32	108.24	111.90
78	1b	2609	A	C8-N9-C4	7.32	108.73	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	353	A	N1-C6-N6	7.32	122.99	118.60
1	2b	1646	C	C5-C4-N4	-7.32	115.08	120.20
36	Ca	152	G	N1-C2-N3	7.32	128.29	123.90
78	1b	638	C	C5-C4-N4	-7.31	115.08	120.20
78	1b	1534	A	C5-N7-C8	-7.31	100.24	103.90
78	Aa	1433	A	N1-C6-N6	7.31	122.99	118.60
1	a	985	G	N3-C4-C5	7.31	132.25	128.60
78	1b	2928	C	N3-C2-O2	-7.30	116.79	121.90
36	3b	35	C	N3-C4-C5	7.30	124.82	121.90
1	2b	629	U	C5 ¹ -C4'-O4'	7.30	117.86	109.10
78	1b	1789	G	C5-N7-C8	-7.30	100.65	104.30
78	1b	3118	C	N3-C4-C5	7.30	124.82	121.90
78	1b	826	G	C2-N3-C4	-7.30	108.25	111.90
78	1b	1493	G	N3-C2-N2	7.30	125.01	119.90
78	1b	1489	A	C5-C6-N6	-7.29	117.86	123.70
78	1b	998	A	N1-C6-N6	7.29	122.98	118.60
78	1b	1395	G	N1-C2-N2	-7.29	109.64	116.20
78	Aa	1107	C	N1-C2-O2	7.29	123.28	118.90
78	1b	1566	A	N7-C8-N9	7.29	117.44	113.80
1	2b	988	A	N1-C6-N6	7.29	122.97	118.60
78	1b	1838	G	C4-C5-N7	7.29	113.72	110.80
78	Aa	1863	G	C2-N3-C4	-7.29	108.26	111.90
1	2b	787	G	C2-N3-C4	-7.29	108.26	111.90
78	1b	106	A	C4-C5-N7	7.29	114.34	110.70
1	a	1141	G	N3-C4-N9	-7.29	121.63	126.00
1	2b	330	G	C4-C5-N7	7.29	113.71	110.80
78	Aa	42	C	N3-C2-O2	-7.29	116.80	121.90
78	1b	886	C	C5-C4-N4	-7.28	115.10	120.20
1	2b	369	A	C5-C6-N6	-7.28	117.87	123.70
78	1b	2645	G	N3-C2-N2	7.28	125.00	119.90
1	2b	647	G	N9-C4-C5	7.28	108.31	105.40
36	3b	52	A	C5-C6-N6	-7.28	117.88	123.70
78	1b	1922	A	C5-C6-N6	-7.28	117.88	123.70
78	1b	1789	G	C4-C5-N7	7.27	113.71	110.80
78	1b	2734	A	C5-C6-N6	-7.26	117.89	123.70
78	1b	1050	U	C5-C4-O4	-7.26	121.54	125.90
78	1b	2867	C	N1-C2-O2	7.26	123.26	118.90
1	2b	449	C	C2-N1-C1'	7.26	126.79	118.80
78	1b	2525	G	N3-C4-C5	7.26	132.23	128.60
78	Aa	1559	A	N9-C4-C5	-7.26	102.90	105.80
78	1b	1791	C	C2-N1-C1'	7.26	126.78	118.80
78	1b	2335	G	N3-C4-C5	7.26	132.23	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	2332	A	C5-N7-C8	-7.25	100.27	103.90
36	3b	137	C	C2-N1-C1'	7.25	126.77	118.80
78	1b	287	G	N3-C4-C5	7.25	132.22	128.60
78	1b	3132	C	C5-C4-N4	-7.25	115.13	120.20
78	1b	2714	G	C4-C5-N7	7.24	113.70	110.80
78	1b	658	G	N7-C8-N9	7.24	116.72	113.10
71	U	45	ARG	NE-CZ-NH2	-7.24	116.68	120.30
36	3b	30	C	N3-C2-O2	-7.24	116.84	121.90
78	1b	1845	G	N3-C4-N9	-7.23	121.66	126.00
78	1b	2602	G	N3-C4-C5	7.23	132.22	128.60
78	1b	691	A	C4-C5-N7	7.23	114.31	110.70
78	1b	3080	G	C4-C5-N7	7.23	113.69	110.80
1	2b	1745	G	C8-N9-C4	7.22	109.29	106.40
78	1b	2304	C	N3-C2-O2	-7.22	116.84	121.90
1	a	965	U	C6-N1-C1'	-7.22	111.09	121.20
78	1b	1155	C	C2-N1-C1'	7.22	126.74	118.80
78	1b	3039	C	N1-C2-O2	7.22	123.23	118.90
1	2b	396	G	N3-C4-C5	7.21	132.21	128.60
1	2b	1330	G	C2-N3-C4	-7.21	108.29	111.90
1	a	1209	C	N3-C2-O2	-7.21	116.85	121.90
78	1b	1401	A	N9-C4-C5	-7.21	102.92	105.80
78	1b	722	G	C2-N3-C4	-7.21	108.30	111.90
78	1b	1719	G	C8-N9-C1'	-7.21	117.63	127.00
78	1b	1771	C	C6-N1-C2	7.20	123.18	120.30
78	1b	1597	C	C2-N1-C1'	7.20	126.72	118.80
78	1b	1893	A	C4-C5-N7	7.20	114.30	110.70
78	1b	1084	A	C5-C6-N6	-7.20	117.94	123.70
78	1b	1489	A	N1-C6-N6	7.20	122.92	118.60
78	1b	1585	C	N3-C2-O2	-7.20	116.86	121.90
78	1b	2697	A	C4-C5-N7	7.20	114.30	110.70
78	1b	2432	A	C5-C6-N6	-7.20	117.94	123.70
1	2b	344	A	C6-C5-N7	-7.20	127.26	132.30
78	1b	656	A	C4-C5-N7	7.20	114.30	110.70
78	1b	680	G	C4-C5-N7	7.19	113.68	110.80
78	1b	2653	C	C5-C4-N4	-7.19	115.17	120.20
78	1b	1889	G	N1-C2-N3	7.19	128.21	123.90
78	1b	273	A	C8-N9-C4	7.19	108.67	105.80
78	1b	846	A	C8-N9-C1'	-7.18	114.77	127.70
1	2b	967	A	N1-C6-N6	7.18	122.91	118.60
78	1b	1597	C	C5-C4-N4	-7.18	115.17	120.20
78	1b	3103	A	N9-C4-C5	-7.18	102.93	105.80
78	Aa	2574	G	C4-C5-N7	7.18	113.67	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	1197	C	N3-C2-O2	-7.18	116.88	121.90
78	Aa	1298	C	N1-C2-O2	7.18	123.21	118.90
78	1b	628	A	N9-C4-C5	-7.17	102.93	105.80
78	Aa	62	A	N1-C6-N6	7.17	122.90	118.60
78	1b	1927	G	C2-N3-C4	-7.17	108.31	111.90
78	1b	403	C	N3-C2-O2	-7.17	116.88	121.90
78	1b	1144	U	N3-C4-O4	7.17	124.42	119.40
1	2b	1480	G	C4-C5-N7	7.16	113.67	110.80
78	1b	968	G	C2-N3-C4	-7.16	108.32	111.90
78	1b	2872	A	N1-C6-N6	-7.16	114.30	118.60
78	Aa	2899	C	N1-C2-O2	7.16	123.20	118.90
1	2b	819	G	C6-C5-N7	-7.16	126.10	130.40
78	1b	815	G	N9-C4-C5	-7.16	102.54	105.40
1	2b	1611	A	C4-C5-N7	7.16	114.28	110.70
78	1b	696	C	N3-C4-C5	7.15	124.76	121.90
1	2b	365	G	C2-N3-C4	-7.15	108.32	111.90
1	2b	1527	C	C2-N1-C1'	7.15	126.67	118.80
78	1b	1135	A	C5-C6-N1	7.15	121.28	117.70
1	2b	352	A	P-O3'-C3'	7.15	128.28	119.70
78	1b	1178	G	N3-C4-N9	7.15	130.29	126.00
78	1b	3091	A	N1-C6-N6	7.15	122.89	118.60
79	6b	21	A	C5-C6-N6	-7.14	117.98	123.70
78	1b	583	G	C8-N9-C4	7.14	109.26	106.40
78	1b	2511	A	C5-N7-C8	-7.14	100.33	103.90
78	1b	628	A	C4-C5-N7	7.14	114.27	110.70
78	1b	2235	C	C5-C4-N4	-7.14	115.20	120.20
78	Aa	386	A	C6-C5-N7	-7.14	127.30	132.30
78	Aa	1608	C	C2-N1-C1'	7.14	126.65	118.80
35	4b	103	A	N1-C6-N6	-7.14	114.32	118.60
78	1b	2887	A	C4-C5-N7	7.14	114.27	110.70
1	a	1740	A	C5-N7-C8	-7.14	100.33	103.90
78	1b	1367	G	C2-N3-C4	-7.13	108.33	111.90
78	1b	2406	C	C5-C6-N1	7.13	124.56	121.00
78	1b	94	G	C2-N3-C4	-7.13	108.34	111.90
78	1b	2147	A	C5-C6-N6	-7.13	118.00	123.70
78	1b	2940	A	C5-C6-N1	7.13	121.27	117.70
78	1b	1596	C	N1-C2-O2	7.13	123.18	118.90
78	1b	2962	U	N3-C4-O4	7.12	124.39	119.40
1	2b	647	G	N3-C4-N9	-7.12	121.73	126.00
1	2b	943	C	N1-C2-O2	7.12	123.17	118.90
1	a	894	U	N3-C2-O2	-7.12	117.22	122.20
36	3b	15	G	C2-N3-C4	-7.12	108.34	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	842	G	N3-C4-C5	7.11	132.16	128.60
79	6b	63	C	N3-C2-O2	-7.11	116.92	121.90
78	1b	1851	G	N7-C8-N9	7.11	116.65	113.10
78	1b	2853	A	C5-C6-N6	-7.11	118.01	123.70
78	1b	1837	U	C5-C4-O4	-7.10	121.64	125.90
78	1b	2733	A	C5-C6-N6	-7.10	118.02	123.70
1	a	647	G	N3-C4-N9	-7.10	121.74	126.00
1	a	934	C	N1-C2-O2	7.10	123.16	118.90
78	1b	10	C	C6-N1-C2	7.10	123.14	120.30
78	1b	2204	C	N1-C2-O2	7.10	123.16	118.90
78	1b	2654	C	N3-C4-C5	7.10	124.74	121.90
78	Aa	1714	A	N1-C6-N6	7.10	122.86	118.60
78	1b	1358	C	N1-C2-O2	7.09	123.16	118.90
78	1b	1493	G	N1-C2-N2	-7.09	109.82	116.20
78	1b	92	G	C4-C5-N7	7.09	113.64	110.80
1	2b	30	G	C6-C5-N7	-7.09	126.14	130.40
78	1b	1376	C	C5-C4-N4	-7.09	115.24	120.20
78	1b	1337	A	N1-C6-N6	7.09	122.85	118.60
78	1b	2393	G	C8-N9-C1'	7.08	136.21	127.00
78	1b	815	G	N3-C2-N2	7.08	124.86	119.90
78	1b	2627	C	N3-C2-O2	-7.08	116.94	121.90
78	1b	2714	G	C5-N7-C8	-7.08	100.76	104.30
1	2b	144	U	C5-C4-O4	-7.08	121.66	125.90
1	2b	583	C	C6-N1-C2	-7.08	117.47	120.30
78	1b	79	U	N3-C4-O4	7.08	124.35	119.40
78	1b	350	C	C5-C4-N4	-7.08	115.25	120.20
1	a	730	G	C4-N9-C1'	7.07	135.69	126.50
35	4b	101	G	C2-N3-C4	-7.07	108.36	111.90
1	2b	924	A	C5-C6-N6	-7.07	118.05	123.70
1	2b	975	C	C5-C4-N4	-7.07	115.25	120.20
1	2b	38	C	C6-N1-C2	7.06	123.13	120.30
1	2b	305	C	N3-C2-O2	-7.06	116.95	121.90
49	Ny	159	ARG	NE-CZ-NH2	-7.06	116.77	120.30
78	1b	2406	C	N1-C2-O2	7.06	123.14	118.90
78	Aa	1495	U	C2-N1-C1'	7.06	126.17	117.70
78	1b	68	C	C5-C4-N4	-7.06	115.26	120.20
78	1b	281	G	C2-N3-C4	-7.06	108.37	111.90
78	1b	2393	G	N3-C4-N9	-7.06	121.77	126.00
1	2b	453	U	C6-N1-C1'	-7.05	111.32	121.20
78	1b	992	A	C5-N7-C8	-7.05	100.37	103.90
78	1b	304	G	C5-N7-C8	-7.05	100.77	104.30
78	1b	1843	C	C2-N1-C1'	7.05	126.56	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	321	C	N3-C4-C5	7.05	124.72	121.90
78	1b	2901	G	C2-N3-C4	-7.05	108.38	111.90
78	1b	750	G	C6-C5-N7	-7.04	126.17	130.40
78	1b	1605	A	O4'-C1'-N9	7.04	113.84	108.20
1	2b	1542	G	O4'-C1'-N9	7.04	113.83	108.20
78	1b	720	A	C5-C6-N6	-7.04	118.07	123.70
1	a	74	U	C2-N1-C1'	-7.04	109.25	117.70
78	1b	706	A	C4-C5-N7	7.04	114.22	110.70
78	Aa	1791	C	N1-C2-O2	7.04	123.12	118.90
78	1b	10	C	N3-C4-C5	7.04	124.72	121.90
78	1b	306	A	C5-C6-N1	7.04	121.22	117.70
1	2b	1459	C	C6-N1-C2	7.04	123.11	120.30
1	2b	1674	C	N1-C2-O2	7.04	123.12	118.90
78	1b	2147	A	C5-N7-C8	-7.04	100.38	103.90
1	2b	1389	C	C6-N1-C1'	-7.03	112.36	120.80
78	1b	1150	A	C2-N3-C4	-7.03	107.08	110.60
78	1b	1435	A	C4-C5-N7	7.03	114.22	110.70
78	1b	104	G	C2-N3-C4	-7.03	108.39	111.90
1	2b	819	G	N3-C4-N9	7.03	130.22	126.00
78	1b	800	G	N3-C4-C5	7.03	132.11	128.60
79	6b	75	C	N3-C4-C5	7.02	124.71	121.90
78	1b	2406	C	C2-N1-C1'	7.02	126.52	118.80
78	1b	2417	U	C5-C4-O4	-7.02	121.69	125.90
36	Ca	39	G	O4'-C1'-N9	7.02	113.82	108.20
78	1b	50	U	C5-C6-N1	7.02	126.21	122.70
78	1b	205	C	N3-C4-C5	7.02	124.71	121.90
78	1b	433	A	C5-C6-N6	-7.02	118.08	123.70
78	1b	2393	G	C8-N9-C4	-7.02	103.59	106.40
78	1b	3217	C	C6-N1-C1'	-7.02	112.38	120.80
1	2b	1637	C	N3-C4-C5	7.02	124.71	121.90
78	1b	948	C	C5-C4-N4	-7.02	115.29	120.20
1	a	985	G	N3-C4-N9	-7.02	121.79	126.00
1	2b	1644	C	N1-C2-O2	7.01	123.11	118.90
1	2b	614	C	N3-C4-N4	7.01	122.91	118.00
1	2b	627	C	C5-C4-N4	-7.01	115.29	120.20
1	2b	628	G	C2-N3-C4	-7.01	108.39	111.90
1	a	934	C	C6-N1-C1'	-7.01	112.39	120.80
1	2b	1176	G	N3-C4-C5	7.01	132.10	128.60
78	Aa	2570	U	N3-C2-O2	-7.01	117.29	122.20
78	1b	1902	G	C8-N9-C1'	-7.01	117.89	127.00
1	2b	883	C	C5-C4-N4	-7.00	115.30	120.20
78	1b	2526	C	C2-N1-C1'	7.00	126.50	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	839	C	N3-C4-C5	7.00	124.70	121.90
78	1b	809	G	N9-C4-C5	-7.00	102.60	105.40
1	2b	398	G	N3-C4-N9	-6.99	121.80	126.00
78	1b	2867	C	N3-C2-O2	-6.99	117.00	121.90
78	1b	385	A	C8-N9-C4	6.99	108.60	105.80
78	1b	895	A	N9-C4-C5	-6.99	103.00	105.80
78	1b	1491	A	C4-C5-N7	6.99	114.19	110.70
78	1b	1575	A	C5-C6-N6	6.99	129.29	123.70
78	Aa	2406	C	N1-C2-O2	6.99	123.09	118.90
1	2b	1275	A	C8-N9-C4	6.99	108.60	105.80
78	1b	1432	C	C5-C4-N4	-6.99	115.31	120.20
78	1b	1893	A	C5-C6-N1	6.99	121.19	117.70
78	1b	1527	C	C2-N1-C1'	6.99	126.49	118.80
1	2b	452	A	C5-C6-N6	-6.98	118.11	123.70
78	1b	2963	C	N1-C2-O2	6.98	123.09	118.90
1	a	1739	C	C6-N1-C2	-6.98	117.51	120.30
78	1b	1711	C	C2-N1-C1'	6.98	126.48	118.80
1	2b	924	A	C6-N1-C2	-6.98	114.41	118.60
1	2b	992	A	O4'-C1'-N9	6.98	113.78	108.20
78	1b	820	A	C6-N1-C2	-6.98	114.41	118.60
1	2b	341	A	N1-C6-N6	6.97	122.78	118.60
1	2b	628	G	C6-C5-N7	-6.97	126.22	130.40
78	1b	33	G	C2-N3-C4	-6.97	108.41	111.90
35	4b	10	C	N3-C4-C5	6.97	124.69	121.90
78	1b	2422	C	C5-C4-N4	-6.97	115.32	120.20
36	3b	1	A	C5-C6-N6	-6.97	118.12	123.70
78	1b	273	A	N9-C4-C5	-6.97	103.01	105.80
78	1b	2967	A	C6-N1-C2	-6.97	114.42	118.60
78	1b	3132	C	N3-C4-C5	6.97	124.69	121.90
1	2b	173	A	C2-N3-C4	-6.97	107.12	110.60
1	2b	1042	G	N3-C4-N9	-6.97	121.82	126.00
1	2b	1322	A	N9-C4-C5	-6.97	103.01	105.80
78	1b	1902	G	C4-N9-C1'	6.97	135.56	126.50
78	1b	1062	A	C4-C5-N7	6.96	114.18	110.70
78	1b	1943	C	N1-C2-O2	6.96	123.08	118.90
78	Aa	2754	G	N3-C4-N9	-6.96	121.82	126.00
35	4b	72	A	C5-C6-N6	-6.96	118.14	123.70
35	4b	94	C	N3-C2-O2	-6.96	117.03	121.90
78	1b	2367	A	C6-N1-C2	-6.96	114.43	118.60
78	1b	344	A	O5'-P-OP1	-6.95	99.44	105.70
78	1b	3139	A	N9-C4-C5	-6.95	103.02	105.80
1	2b	322	G	N1-C2-N2	-6.95	109.95	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	987	U	C5-C6-N1	6.95	126.17	122.70
78	1b	1178	G	N3-C2-N2	6.95	124.76	119.90
1	2b	1660	A	C5-C6-N1	6.95	121.17	117.70
1	2b	107	C	N1-C2-O2	6.95	123.07	118.90
35	4b	97	A	N1-C6-N6	6.95	122.77	118.60
1	2b	1325	A	C5-C6-N1	6.94	121.17	117.70
78	1b	1608	C	N1-C2-O2	6.94	123.07	118.90
78	1b	2359	C	N1-C2-O2	6.94	123.07	118.90
78	1b	2400	G	N1-C2-N2	-6.94	109.95	116.20
1	2b	568	G	N3-C4-C5	6.94	132.07	128.60
1	2b	1126	G	C2-N3-C4	-6.94	108.43	111.90
78	Aa	1756	C	N3-C2-O2	-6.94	117.04	121.90
78	1b	951	A	C5-N7-C8	-6.94	100.43	103.90
78	1b	963	G	C2-N3-C4	-6.94	108.43	111.90
78	1b	2403	G	N1-C2-N3	6.94	128.06	123.90
78	1b	2413	A	C5-N7-C8	-6.94	100.43	103.90
1	a	353	A	N1-C6-N6	6.93	122.76	118.60
78	1b	1317	A	N1-C6-N6	-6.93	114.44	118.60
78	1b	1808	G	N1-C2-N2	-6.92	109.97	116.20
36	Ca	105	A	N1-C6-N6	6.92	122.75	118.60
78	1b	8	C	N3-C4-C5	6.92	124.67	121.90
78	1b	667	C	N3-C4-C5	6.92	124.67	121.90
1	2b	1132	A	C5-C6-N1	6.92	121.16	117.70
36	3b	117	C	N3-C4-C5	6.92	124.67	121.90
78	1b	357	A	N1-C6-N6	6.92	122.75	118.60
1	2b	366	A	N9-C4-C5	-6.92	103.03	105.80
1	2b	471	A	N1-C6-N6	6.92	122.75	118.60
78	1b	638	C	N1-C2-O2	6.92	123.05	118.90
1	2b	597	G	C2-N3-C4	-6.91	108.44	111.90
78	1b	803	C	C2-N1-C1'	6.91	126.40	118.80
1	2b	635	A	C5-C6-N1	6.91	121.16	117.70
78	1b	2638	C	C5-C4-N4	-6.91	115.36	120.20
36	Ca	113	U	N3-C2-O2	-6.91	117.36	122.20
1	2b	599	A	N9-C4-C5	-6.91	103.04	105.80
78	1b	1339	C	C2-N1-C1'	6.91	126.40	118.80
78	1b	1332	A	N9-C4-C5	-6.91	103.04	105.80
78	1b	2590	A	C5-C6-N1	6.91	121.15	117.70
78	1b	672	A	C5-N7-C8	-6.90	100.45	103.90
78	1b	1827	C	N3-C2-O2	-6.90	117.07	121.90
1	2b	471	A	C4-C5-N7	6.90	114.15	110.70
78	1b	2592	G	N1-C2-N3	6.90	128.04	123.90
78	1b	386	A	N1-C6-N6	6.90	122.74	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Aa	22	G	N3-C4-C5	6.90	132.05	128.60
78	Aa	1866	C	N3-C2-O2	-6.90	117.07	121.90
1	2b	1751	C	N1-C2-O2	6.89	123.04	118.90
78	1b	2272	G	C2-N3-C4	-6.89	108.45	111.90
1	a	1073	G	N3-C4-C5	6.89	132.05	128.60
1	2b	317	C	C6-N1-C2	6.89	123.06	120.30
78	1b	1332	A	C4-C5-N7	6.89	114.14	110.70
78	1b	1898	G	C2-N3-C4	-6.89	108.46	111.90
36	3b	47	C	N1-C2-O2	6.89	123.03	118.90
78	1b	2964	G	N1-C2-N2	-6.89	110.00	116.20
78	Aa	106	A	C5-C6-N1	6.89	121.14	117.70
1	2b	1201	G	N3-C4-C5	6.88	132.04	128.60
78	1b	1178	G	C6-C5-N7	-6.88	126.27	130.40
78	1b	1454	A	N9-C4-C5	-6.88	103.05	105.80
78	Aa	3083	G	N1-C2-N2	-6.88	110.00	116.20
78	1b	807	A	N9-C4-C5	-6.88	103.05	105.80
78	1b	2635	A	N1-C6-N6	6.88	122.73	118.60
78	1b	340	C	C6-N1-C1'	-6.88	112.55	120.80
78	1b	703	G	C2-N3-C4	-6.88	108.46	111.90
78	1b	1799	A	C5-C6-N1	6.88	121.14	117.70
1	a	1553	G	C4'-C3'-O3'	6.88	126.75	113.00
1	2b	1597	A	C5-C6-N6	-6.87	118.20	123.70
78	1b	70	A	C5-C6-N6	-6.87	118.20	123.70
78	1b	1592	G	N3-C2-N2	-6.87	115.09	119.90
78	1b	3333	G	C2-N3-C4	-6.87	108.46	111.90
78	Aa	8	C	C2-N3-C4	-6.87	116.46	119.90
78	Aa	651	G	C8-N9-C1'	-6.87	118.06	127.00
78	Aa	1160	C	N3-C4-C5	6.87	124.65	121.90
78	1b	106	A	C5-C6-N1	6.87	121.14	117.70
78	1b	867	G	C2-N3-C4	-6.87	108.46	111.90
78	1b	1533	U	C5-C6-N1	6.87	126.14	122.70
78	1b	1902	G	N1-C2-N2	-6.87	110.02	116.20
78	1b	3118	C	C2-N3-C4	-6.87	116.47	119.90
1	2b	352	A	C6-C5-N7	-6.87	127.49	132.30
78	1b	2295	A	N1-C6-N6	6.87	122.72	118.60
1	a	144	U	C5-C4-O4	-6.87	121.78	125.90
36	Ca	152	G	N3-C4-N9	-6.87	121.88	126.00
1	2b	366	A	C4-C5-N7	6.87	114.13	110.70
78	1b	2376	G	N1-C6-O6	-6.87	115.78	119.90
78	1b	2889	C	N1-C2-O2	6.87	123.02	118.90
78	1b	3174	A	N1-C6-N6	6.86	122.72	118.60
1	2b	341	A	C5-N7-C8	-6.86	100.47	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	658	G	C4-N9-C1'	6.86	135.42	126.50
1	2b	331	A	C8-N9-C4	6.86	108.54	105.80
1	2b	556	A	C5-C6-N1	6.86	121.13	117.70
1	2b	1786	G	C2-N3-C4	-6.86	108.47	111.90
78	1b	2996	U	N3-C2-O2	-6.86	117.40	122.20
78	1b	1283	C	N3-C2-O2	-6.86	117.10	121.90
78	1b	3131	U	N3-C4-O4	6.86	124.20	119.40
1	2b	36	C	N3-C4-C5	6.86	124.64	121.90
78	1b	2245	C	N1-C2-O2	6.86	123.01	118.90
78	1b	2814	G	N3-C4-C5	6.86	132.03	128.60
78	Aa	705	A	N1-C6-N6	-6.86	114.49	118.60
1	2b	1764	C	C5-C4-N4	-6.85	115.40	120.20
78	1b	1144	U	C5-C4-O4	-6.85	121.79	125.90
1	2b	1304	G	C8-N9-C1'	-6.85	118.09	127.00
1	2b	1458	G	C4-N9-C1'	6.85	135.40	126.50
78	1b	1546	A	C5-N7-C8	-6.85	100.48	103.90
78	1b	3073	A	C4-C5-N7	6.85	114.12	110.70
78	1b	2413	A	C4-C5-N7	6.84	114.12	110.70
78	Aa	2899	C	C2-N1-C1'	6.84	126.33	118.80
78	1b	2396	G	C2-N3-C4	-6.84	108.48	111.90
78	1b	2737	C	N1-C2-O2	6.84	123.00	118.90
78	1b	2877	G	N1-C2-N2	-6.84	110.04	116.20
78	1b	3084	C	N1-C2-O2	6.84	123.00	118.90
78	Aa	3083	G	N3-C2-N2	6.84	124.69	119.90
78	1b	928	C	N1-C2-O2	6.84	123.00	118.90
78	1b	3003	G	N3-C4-N9	-6.84	121.90	126.00
78	1b	688	G	C2-N3-C4	-6.84	108.48	111.90
78	1b	1498	A	C5-C6-N6	-6.84	118.23	123.70
1	a	1451	C	C6-N1-C2	-6.83	117.57	120.30
78	Aa	1559	A	N1-C6-N6	6.83	122.70	118.60
78	1b	1469	C	N3-C4-N4	-6.83	113.22	118.00
78	1b	2160	G	C2-N3-C4	-6.83	108.48	111.90
1	a	1458	G	C4-N9-C1'	6.83	135.38	126.50
78	1b	2734	A	N1-C6-N6	6.83	122.70	118.60
78	1b	701	G	N7-C8-N9	6.83	116.51	113.10
78	Aa	837	A	C8-N9-C4	6.83	108.53	105.80
78	1b	645	A	C5-C6-N1	6.83	121.11	117.70
35	4b	72	A	C4-C5-N7	6.82	114.11	110.70
78	1b	16	A	C8-N9-C4	6.82	108.53	105.80
78	1b	917	A	C5-C6-N1	6.82	121.11	117.70
1	a	728	U	C2-N1-C1'	6.82	125.89	117.70
78	1b	934	G	C5-N7-C8	-6.82	100.89	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	2434	U	C4-C5-C6	-6.82	115.61	119.70
78	1b	1945	A	N1-C6-N6	6.82	122.69	118.60
1	2b	322	G	C6-C5-N7	-6.82	126.31	130.40
78	1b	1197	A	C5-C6-N6	-6.82	118.25	123.70
78	1b	828	A	C5-C6-N1	6.82	121.11	117.70
1	a	1451	C	N3-C2-O2	-6.82	117.13	121.90
78	Aa	2362	C	C2-N1-C1'	6.81	126.30	118.80
78	1b	229	G	C2-N3-C4	-6.81	108.49	111.90
78	1b	1169	A	C5-N7-C8	-6.81	100.49	103.90
78	1b	1290	A	N1-C6-N6	-6.81	114.51	118.60
78	1b	3343	G	N3-C4-C5	6.81	132.01	128.60
36	3b	47	C	C6-N1-C1'	-6.81	112.63	120.80
1	2b	1006	C	C5-C4-N4	-6.81	115.44	120.20
30	4	14	TYR	N-CA-CB	6.81	122.85	110.60
78	1b	1698	C	N3-C4-C5	6.81	124.62	121.90
78	1b	750	G	C4-N9-C1'	6.80	135.34	126.50
78	1b	2391	G	C2-N3-C4	-6.80	108.50	111.90
78	1b	3308	C	N3-C4-C5	6.80	124.62	121.90
78	1b	2265	C	C5-C4-N4	-6.80	115.44	120.20
1	a	535	A	C5-C6-N6	6.80	129.14	123.70
78	Aa	396	A	N1-C6-N6	6.80	122.68	118.60
78	1b	2360	C	C6-N1-C1'	-6.80	112.64	120.80
78	1b	628	A	C6-C5-N7	-6.80	127.54	132.30
78	1b	1160	C	N3-C4-N4	6.80	122.76	118.00
1	2b	56	U	C6-N1-C2	6.80	125.08	121.00
78	1b	1036	A	N9-C4-C5	-6.80	103.08	105.80
1	2b	592	A	C6-N1-C2	-6.79	114.52	118.60
1	2b	1322	A	C5-C6-N1	6.79	121.10	117.70
1	2b	1625	C	C5-C4-N4	-6.79	115.44	120.20
78	1b	916	G	C2-N3-C4	-6.79	108.50	111.90
1	2b	1527	C	N1-C2-O2	6.79	122.97	118.90
78	1b	435	C	N1-C2-O2	6.79	122.97	118.90
78	1b	2809	C	N3-C4-N4	6.79	122.75	118.00
79	6b	41	G	C4-C5-N7	6.79	113.52	110.80
78	1b	2177	G	C2-N3-C4	-6.79	108.51	111.90
78	1b	31	C	N3-C4-C5	6.79	124.61	121.90
1	2b	409	C	C5-C4-N4	-6.78	115.45	120.20
78	1b	1084	A	C6-C5-N7	-6.78	127.55	132.30
78	1b	1510	G	C2-N3-C4	-6.78	108.51	111.90
78	1b	2147	A	C4-C5-N7	6.78	114.09	110.70
78	1b	3003	G	C2-N3-C4	-6.78	108.51	111.90
78	1b	3378	C	C5-C4-N4	-6.78	115.45	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	1145	U	C2-N1-C1'	6.78	125.84	117.70
78	Aa	2951	G	N1-C6-O6	6.78	123.97	119.90
1	2b	962	C	C5-C4-N4	-6.78	115.46	120.20
1	2b	925	G	N1-C2-N2	-6.78	110.10	116.20
78	1b	406	G	N3-C4-N9	-6.78	121.94	126.00
78	Aa	360	G	C8-N9-C4	6.78	109.11	106.40
35	4b	66	A	N9-C4-C5	-6.77	103.09	105.80
78	1b	130	A	C5-C6-N1	6.77	121.09	117.70
78	1b	2390	A	C5-N7-C8	-6.77	100.51	103.90
78	1b	2430	A	C5-C6-N6	-6.77	118.28	123.70
1	2b	214	G	N3-C4-C5	6.77	131.99	128.60
1	2b	1780	G	N3-C2-N2	6.77	124.64	119.90
78	1b	851	C	C5-C4-N4	-6.77	115.46	120.20
78	1b	949	C	C5-C4-N4	-6.77	115.46	120.20
1	2b	1152	A	C5-N7-C8	-6.77	100.52	103.90
78	1b	815	G	C8-N9-C1'	-6.77	118.20	127.00
78	1b	2354	C	N3-C2-O2	-6.76	117.17	121.90
78	1b	880	G	N1-C2-N2	-6.76	110.11	116.20
78	1b	1099	A	N1-C6-N6	6.76	122.66	118.60
78	1b	1432	C	N3-C4-C5	6.76	124.61	121.90
78	Aa	115	A	N1-C6-N6	6.76	122.66	118.60
78	Aa	1878	G	C4-N9-C1'	6.76	135.29	126.50
1	2b	967	A	C4-C5-N7	6.76	114.08	110.70
78	Aa	7	C	N1-C2-O2	6.75	122.95	118.90
78	Aa	1420	C	C6-N1-C2	6.75	123.00	120.30
78	1b	2424	A	C5-N7-C8	-6.75	100.52	103.90
78	Aa	2539	C	C6-N1-C2	-6.75	117.60	120.30
78	1b	90	C	N1-C2-O2	6.75	122.95	118.90
78	Aa	2719	U	N1-C2-O2	-6.75	118.08	122.80
78	1b	886	C	C2-N1-C1'	6.75	126.22	118.80
78	1b	2874	G	C2-N3-C4	-6.75	108.53	111.90
78	1b	3046	A	C5-C6-N1	6.75	121.07	117.70
78	1b	2371	G	C2-N3-C4	-6.74	108.53	111.90
78	Aa	1157	G	N3-C2-N2	6.74	124.62	119.90
1	2b	407	A	C5-C6-N6	-6.74	118.31	123.70
78	1b	2312	A	C5-N7-C8	-6.74	100.53	103.90
78	1b	2908	G	N3-C4-C5	6.74	131.97	128.60
79	6b	74	C	N3-C4-N4	6.74	122.72	118.00
78	Aa	360	G	C2-N3-C4	-6.74	108.53	111.90
1	2b	382	C	N1-C2-O2	6.74	122.94	118.90
36	3b	110	C	C5-C4-N4	-6.74	115.48	120.20
78	1b	992	A	C2-N3-C4	-6.74	107.23	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	1499	C	C2-N1-C1'	6.74	126.21	118.80
78	1b	2603	G	C2-N3-C4	-6.74	108.53	111.90
78	Aa	3077	A	N1-C6-N6	6.74	122.64	118.60
78	1b	1127	G	C2-N3-C4	-6.74	108.53	111.90
78	1b	1949	G	N1-C2-N2	-6.74	110.14	116.20
1	2b	875	G	C2-N3-C4	-6.74	108.53	111.90
78	1b	963	G	N9-C4-C5	-6.74	102.70	105.40
78	1b	1615	C	N1-C2-O2	6.74	122.94	118.90
78	1b	1403	C	N1-C2-O2	6.73	122.94	118.90
1	2b	451	A	N9-C4-C5	-6.73	103.11	105.80
78	1b	658	G	C8-N9-C4	-6.73	103.71	106.40
78	1b	991	G	C2-N3-C4	-6.73	108.53	111.90
78	1b	1307	G	P-O3'-C3'	6.73	127.78	119.70
78	1b	958	C	C5-C4-N4	-6.73	115.49	120.20
78	1b	3004	C	N3-C2-O2	-6.73	117.19	121.90
78	1b	148	G	C2-N3-C4	-6.73	108.54	111.90
78	1b	949	C	N1-C2-O2	6.73	122.94	118.90
78	1b	1851	G	N1-C6-O6	6.73	123.94	119.90
78	1b	2977	G	C2-N3-C4	-6.72	108.54	111.90
78	1b	3103	A	C4-C5-N7	6.72	114.06	110.70
1	2b	1774	G	N3-C4-N9	-6.72	121.97	126.00
78	1b	2362	C	N3-C2-O2	-6.72	117.19	121.90
78	1b	2397	A	C5-N7-C8	-6.72	100.54	103.90
78	1b	27	C	N1-C2-O2	6.72	122.93	118.90
78	1b	102	C	N3-C4-N4	6.72	122.70	118.00
1	2b	554	C	N3-C4-C5	6.72	124.59	121.90
78	1b	2996	U	C2-N1-C1'	6.72	125.76	117.70
1	2b	214	G	C2-N3-C4	-6.72	108.54	111.90
78	1b	1198	C	C5-C4-N4	-6.72	115.50	120.20
79	6b	63	C	C2-N1-C1'	6.71	126.19	118.80
78	Aa	1157	G	N1-C2-N2	-6.71	110.16	116.20
1	2b	4	C	N3-C4-C5	6.71	124.58	121.90
78	1b	808	A	C5-C6-N6	-6.71	118.33	123.70
78	1b	1416	C	C5-C4-N4	-6.71	115.50	120.20
78	1b	1525	G	C6-C5-N7	-6.71	126.37	130.40
78	1b	1084	A	C4-C5-N7	6.71	114.06	110.70
1	2b	377	G	N3-C2-N2	6.71	124.60	119.90
78	1b	51	A	C5-N7-C8	-6.71	100.55	103.90
1	2b	309	C	N1-C2-O2	6.71	122.92	118.90
78	1b	584	G	C2-N3-C4	-6.71	108.55	111.90
78	1b	842	G	N3-C4-N9	-6.71	121.98	126.00
78	1b	2348	A	N7-C8-N9	6.71	117.15	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	1401	A	C5-N7-C8	-6.71	100.55	103.90
1	2b	1542	G	N3-C4-C5	6.70	131.95	128.60
78	1b	1566	A	C5-N7-C8	-6.70	100.55	103.90
1	2b	572	C	N1-C2-O2	6.70	122.92	118.90
1	2b	344	A	C4-C5-N7	6.70	114.05	110.70
1	2b	1611	A	N1-C6-N6	6.70	122.62	118.60
78	1b	1847	A	C5-C6-N6	-6.70	118.34	123.70
78	1b	2896	A	N1-C6-N6	6.70	122.62	118.60
78	1b	2875	U	C6-N1-C2	-6.70	116.98	121.00
78	1b	2887	A	C6-C5-N7	-6.70	127.61	132.30
36	3b	118	C	C5-C4-N4	-6.70	115.51	120.20
78	1b	1836	C	N1-C2-O2	6.70	122.92	118.90
78	1b	2359	C	C2-N1-C1'	6.70	126.17	118.80
1	a	1122	G	N3-C4-C5	6.70	131.95	128.60
78	1b	2406	C	N3-C4-N4	6.69	122.69	118.00
2	b	111	ILE	CG1-CB-CG2	6.69	126.13	111.40
1	2b	865	A	C5-C6-N1	6.69	121.05	117.70
1	2b	928	U	P-O3'-C3'	6.69	127.73	119.70
1	2b	1197	C	N1-C2-O2	6.69	122.92	118.90
78	1b	1701	C	C5-C4-N4	-6.69	115.52	120.20
78	1b	1796	G	N3-C2-N2	-6.69	115.22	119.90
78	Aa	1844	C	C5-C4-N4	-6.69	115.52	120.20
1	2b	1094	G	C8-N9-C1'	-6.69	118.30	127.00
78	1b	2741	C	C5-C4-N4	-6.69	115.52	120.20
78	Aa	827	A	C5-C6-N1	6.69	121.04	117.70
1	2b	747	C	N1-C2-O2	6.69	122.91	118.90
78	1b	1940	G	N3-C4-C5	6.68	131.94	128.60
78	1b	2165	G	C2-N3-C4	-6.68	108.56	111.90
78	1b	2525	G	N3-C4-N9	-6.68	121.99	126.00
1	2b	1169	G	C2-N3-C4	-6.68	108.56	111.90
78	1b	1105	A	C5-C6-N1	6.68	121.04	117.70
78	1b	2359	C	N3-C4-N4	6.68	122.68	118.00
78	1b	2399	A	C4-C5-N7	6.68	114.04	110.70
78	1b	1149	G	C2-N3-C4	-6.68	108.56	111.90
78	1b	1667	A	C5-C6-N1	6.68	121.04	117.70
1	a	730	G	C8-N9-C1'	-6.68	118.32	127.00
78	1b	2816	G	C5-C6-O6	6.67	132.60	128.60
1	2b	925	G	C4-N9-C1'	6.67	135.18	126.50
78	1b	3058	U	C2-N1-C1'	6.67	125.70	117.70
57	Vy	80	ARG	NE-CZ-NH2	-6.67	116.97	120.30
78	1b	1874	A	C5-C6-N1	6.67	121.03	117.70
78	1b	424	G	C2-N3-C4	-6.67	108.57	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	1105	A	N9-C4-C5	-6.67	103.13	105.80
78	Aa	2946	A	C8-N9-C4	6.67	108.47	105.80
78	1b	929	A	C5-C6-N1	6.66	121.03	117.70
78	1b	2399	A	N9-C4-C5	-6.66	103.13	105.80
36	3b	32	C	C5-C4-N4	-6.66	115.54	120.20
78	1b	1771	C	N3-C4-C5	6.66	124.56	121.90
78	1b	3056	U	N3-C4-O4	6.66	124.06	119.40
78	1b	3134	A	C5-N7-C8	-6.66	100.57	103.90
78	1b	1339	C	C5-C4-N4	-6.66	115.54	120.20
78	1b	1340	G	C5-C6-O6	6.66	132.59	128.60
78	1b	1596	C	N3-C2-O2	-6.66	117.24	121.90
78	1b	2733	A	C4-C5-N7	6.66	114.03	110.70
78	Aa	2644	C	C6-N1-C2	-6.66	117.64	120.30
78	1b	2392	C	N3-C4-C5	6.65	124.56	121.90
78	1b	497	C	N3-C4-C5	6.65	124.56	121.90
1	a	730	G	N3-C4-N9	6.65	129.99	126.00
1	2b	1768	G	C2-N3-C4	-6.65	108.58	111.90
78	1b	3344	A	O4'-C1'-N9	6.65	113.52	108.20
78	1b	2885	C	N1-C2-O2	6.65	122.89	118.90
78	1b	388	G	N3-C2-N2	6.64	124.55	119.90
78	1b	1665	C	N1-C2-O2	6.64	122.89	118.90
78	1b	1838	G	C2-N3-C4	-6.64	108.58	111.90
78	1b	2187	G	C2-N3-C4	-6.64	108.58	111.90
78	1b	661	G	N3-C4-C5	6.64	131.92	128.60
78	1b	701	G	C4-N9-C1'	6.64	135.13	126.50
78	1b	3308	C	C2-N3-C4	-6.64	116.58	119.90
78	1b	1050	U	N3-C4-O4	6.64	124.05	119.40
1	2b	622	A	N1-C6-N6	-6.64	114.62	118.60
78	1b	2367	A	N7-C8-N9	6.64	117.12	113.80
78	Aa	143	G	N3-C4-N9	-6.64	122.02	126.00
78	1b	2107	A	C5-C6-N6	-6.64	118.39	123.70
36	Ca	105	A	C5-C6-N6	-6.64	118.39	123.70
1	2b	1172	G	C6-C5-N7	-6.63	126.42	130.40
78	1b	2142	A	N1-C6-N6	-6.63	114.62	118.60
78	1b	1136	A	N1-C6-N6	6.63	122.58	118.60
1	2b	967	A	C5-N7-C8	-6.63	100.58	103.90
78	1b	98	G	N3-C4-C5	6.63	131.92	128.60
78	1b	2125	A	C5-C6-N6	-6.63	118.40	123.70
1	2b	1100	G	C2-N3-C4	-6.63	108.59	111.90
78	1b	1838	G	C5-N7-C8	-6.63	100.99	104.30
78	Aa	641	C	C5-C4-N4	-6.63	115.56	120.20
78	1b	2362	C	C6-N1-C1'	-6.62	112.85	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	886	C	N3-C2-O2	-6.62	117.26	121.90
35	4b	66	A	C4-C5-N7	6.62	114.01	110.70
78	1b	2948	C	N1-C2-O2	6.62	122.87	118.90
78	1b	1534	A	C5-C6-N6	-6.62	118.41	123.70
1	a	894	U	N1-C2-O2	6.62	127.43	122.80
1	2b	1088	A	C5-N7-C8	-6.62	100.59	103.90
78	1b	1435	A	C6-C5-N7	-6.62	127.67	132.30
1	a	647	G	N3-C2-N2	-6.62	115.27	119.90
78	1b	1538	G	N1-C2-N2	-6.61	110.25	116.20
78	1b	2875	U	C2-N1-C1'	6.61	125.64	117.70
1	2b	1575	G	C2-N3-C4	-6.61	108.59	111.90
78	1b	1639	C	N3-C2-O2	-6.61	117.27	121.90
36	Ca	113	U	N1-C2-O2	6.61	127.43	122.80
36	3b	44	A	C5-C6-N6	-6.61	118.41	123.70
78	1b	3167	A	N9-C4-C5	-6.61	103.16	105.80
1	2b	326	G	N7-C8-N9	6.61	116.40	113.10
78	1b	283	G	C4-C5-N7	6.61	113.44	110.80
78	Aa	304	G	N3-C2-N2	-6.61	115.27	119.90
78	1b	1120	A	C5-C6-N1	6.61	121.00	117.70
78	Aa	912	G	C2-N3-C4	-6.61	108.60	111.90
78	1b	658	G	N3-C4-N9	6.60	129.96	126.00
78	1b	822	G	N1-C2-N2	-6.60	110.26	116.20
78	1b	2947	G	N3-C4-C5	6.60	131.90	128.60
78	1b	2354	C	N3-C4-C5	6.60	124.54	121.90
78	1b	2906	C	C5-C4-N4	-6.60	115.58	120.20
78	1b	3076	C	N3-C4-N4	6.60	122.62	118.00
78	Aa	130	A	N9-C4-C5	-6.60	103.16	105.80
78	1b	2147	A	C5-C6-N1	6.60	121.00	117.70
1	2b	752	A	C5-C6-N6	-6.59	118.42	123.70
78	1b	1664	G	C4-N9-C1'	6.59	135.07	126.50
78	1b	2788	C	C2-N1-C1'	6.59	126.05	118.80
78	Aa	1591	G	N9-C4-C5	6.59	108.04	105.40
36	3b	75	G	C2-N3-C4	-6.59	108.60	111.90
78	1b	1319	G	C4-C5-N7	6.59	113.44	110.80
78	Aa	3278	C	N1-C2-O2	6.59	122.86	118.90
78	1b	2111	G	C2-N3-C4	-6.59	108.61	111.90
78	1b	1532	C	N1-C2-O2	6.59	122.85	118.90
1	2b	1147	A	C5-C6-N1	6.59	120.99	117.70
78	1b	595	G	C2-N3-C4	-6.59	108.61	111.90
78	1b	3046	A	C4-C5-N7	6.59	113.99	110.70
1	2b	885	G	C6-C5-N7	-6.58	126.45	130.40
36	3b	4	C	N3-C4-C5	6.58	124.53	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	3361	G	C2-N3-C4	-6.58	108.61	111.90
1	2b	935	U	C5-C4-O4	6.58	129.85	125.90
78	1b	337	G	C5-C6-N1	-6.58	108.21	111.50
78	1b	497	C	N1-C2-O2	6.58	122.85	118.90
78	1b	2636	A	C5-N7-C8	-6.58	100.61	103.90
78	1b	2984	C	C5-C4-N4	-6.58	115.59	120.20
1	2b	220	A	N9-C4-C5	-6.58	103.17	105.80
78	1b	2345	A	C5-C6-N1	6.58	120.99	117.70
78	1b	2348	A	C5-N7-C8	-6.58	100.61	103.90
78	1b	1232	C	C6-N1-C2	-6.58	117.67	120.30
78	1b	1497	C	C2-N1-C1'	6.58	126.03	118.80
78	1b	41	G	C2-N3-C4	-6.57	108.61	111.90
78	Aa	2574	G	N9-C4-C5	-6.57	102.77	105.40
78	1b	340	C	C2-N1-C1'	6.57	126.03	118.80
78	1b	1829	G	C4-C5-N7	6.57	113.43	110.80
78	1b	2278	C	N3-C4-C5	6.57	124.53	121.90
78	1b	1389	G	C2-N3-C4	-6.57	108.61	111.90
1	2b	1002	G	N3-C4-C5	6.57	131.88	128.60
36	3b	149	A	N1-C6-N6	-6.57	114.66	118.60
78	1b	114	A	C5-C6-N1	6.57	120.98	117.70
1	2b	1094	G	C4-N9-C1'	6.57	135.03	126.50
78	1b	774	G	N9-C4-C5	6.57	108.03	105.40
78	Aa	2570	U	N1-C2-O2	6.57	127.40	122.80
78	Aa	75	G	C6-C5-N7	-6.56	126.46	130.40
1	2b	1601	G	P-O3'-C3'	6.56	127.57	119.70
78	1b	696	C	N1-C2-O2	6.56	122.84	118.90
78	1b	1491	A	N9-C4-C5	-6.56	103.18	105.80
78	1b	2956	A	C8-N9-C4	6.56	108.42	105.80
1	2b	527	A	N1-C6-N6	6.56	122.53	118.60
1	2b	1090	C	C5-C4-N4	-6.56	115.61	120.20
78	1b	354	U	C2-N1-C1'	6.56	125.57	117.70
1	2b	1156	C	N1-C2-O2	6.55	122.83	118.90
78	1b	222	A	C5-C6-N6	-6.55	118.46	123.70
1	2b	888	U	C2-N1-C1'	6.55	125.56	117.70
78	Aa	1141	C	C5-C4-N4	-6.55	115.62	120.20
1	2b	1667	A	C4-C5-N7	6.55	113.97	110.70
78	1b	2150	G	C2-N3-C4	-6.55	108.63	111.90
71	U	45	ARG	NE-CZ-NH1	6.54	123.57	120.30
1	2b	352	A	C4-C5-N7	6.54	113.97	110.70
78	1b	403	C	N1-C2-O2	6.54	122.82	118.90
78	1b	654	C	N3-C2-O2	-6.54	117.32	121.90
78	1b	1343	A	C5-C6-N1	6.54	120.97	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	1901	A	C5-C6-N1	6.54	120.97	117.70
78	1b	209	A	N1-C6-N6	6.54	122.52	118.60
35	4b	89	G	N1-C2-N2	-6.54	110.31	116.20
78	1b	15	C	C5-C4-N4	-6.54	115.62	120.20
78	Aa	95	A	N1-C6-N6	6.54	122.52	118.60
38	By	244	ARG	NE-CZ-NH2	-6.54	117.03	120.30
78	1b	1312	C	C2-N1-C1'	6.54	125.99	118.80
1	2b	328	A	C5-C6-N6	-6.54	118.47	123.70
1	2b	1304	G	C4-N9-C1'	6.54	135.00	126.50
1	2b	1778	G	N3-C4-C5	6.54	131.87	128.60
78	1b	3077	A	C5-N7-C8	-6.54	100.63	103.90
78	1b	2751	G	N3-C2-N2	6.53	124.47	119.90
1	2b	1624	C	N1-C2-O2	6.53	122.82	118.90
78	Aa	861	C	N3-C2-O2	-6.53	117.33	121.90
78	1b	894	G	N3-C4-N9	-6.53	122.08	126.00
78	1b	1718	G	C2-N3-C4	-6.53	108.64	111.90
1	2b	1025	A	C5-C6-N6	-6.53	118.48	123.70
36	Ca	104	A	N7-C8-N9	6.53	117.06	113.80
1	2b	623	A	O4'-C1'-N9	6.52	113.42	108.20
78	1b	501	A	C5-N7-C8	-6.52	100.64	103.90
78	1b	703	G	N1-C2-N2	-6.52	110.33	116.20
78	1b	750	G	N1-C2-N2	-6.52	110.33	116.20
1	2b	769	A	C4-C5-N7	6.52	113.96	110.70
78	1b	2190	U	N3-C4-O4	6.52	123.96	119.40
78	1b	2881	C	C2-N1-C1'	6.52	125.97	118.80
1	2b	1629	G	C8-N9-C1'	-6.52	118.53	127.00
1	2b	1751	C	N3-C2-O2	-6.52	117.34	121.90
1	2b	1784	C	N3-C4-C5	6.52	124.51	121.90
78	1b	397	A	N1-C6-N6	6.52	122.51	118.60
78	1b	827	A	C6-N1-C2	-6.52	114.69	118.60
78	1b	1362	G	C2-N3-C4	-6.52	108.64	111.90
78	1b	3141	A	C5-C6-N6	-6.52	118.49	123.70
1	2b	1297	G	N3-C4-C5	6.52	131.86	128.60
78	1b	1575	A	N1-C2-N3	-6.52	126.04	129.30
1	2b	1075	C	C5-C4-N4	-6.51	115.64	120.20
78	1b	1142	G	C2-N3-C4	-6.51	108.64	111.90
78	1b	1119	C	C5-C4-N4	-6.51	115.64	120.20
1	a	1455	G	N3-C4-C5	6.51	131.86	128.60
78	1b	2305	G	C8-N9-C1'	-6.51	118.53	127.00
78	1b	2595	A	C5-C6-N1	6.51	120.95	117.70
78	Aa	1667	A	C5-C6-N6	-6.51	118.49	123.70
1	2b	456	A	C5-C6-N1	6.51	120.95	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	89	A	C5-C6-N6	-6.51	118.49	123.70
78	1b	701	G	C8-N9-C4	-6.51	103.80	106.40
78	1b	2352	A	C4-C5-N7	6.51	113.95	110.70
78	1b	369	A	C8-N9-C4	6.51	108.40	105.80
78	1b	3163	A	C5-C6-N1	6.51	120.95	117.70
78	Aa	1859	A	N1-C6-N6	6.50	122.50	118.60
1	2b	527	A	C5-C6-N6	-6.50	118.50	123.70
1	2b	965	U	C6-N1-C1'	-6.50	112.09	121.20
36	3b	9	A	C4-C5-N7	6.50	113.95	110.70
78	1b	8	C	N1-C2-O2	6.50	122.80	118.90
78	1b	3134	A	N1-C6-N6	6.50	122.50	118.60
1	2b	585	A	C5-C6-N1	6.50	120.95	117.70
78	1b	992	A	C4-C5-N7	6.50	113.95	110.70
1	2b	49	C	N1-C2-O2	6.50	122.80	118.90
78	1b	45	A	C5-C6-N1	6.50	120.95	117.70
78	1b	433	A	N1-C6-N6	6.50	122.50	118.60
78	1b	838	G	N1-C2-N3	6.50	127.80	123.90
78	1b	1312	C	C5-C4-N4	-6.50	115.65	120.20
78	1b	1608	C	C2-N1-C1'	6.50	125.95	118.80
1	2b	1663	G	C2-N3-C4	-6.50	108.65	111.90
36	3b	103	G	C2-N3-C4	-6.50	108.65	111.90
78	1b	2161	G	N1-C2-N2	-6.50	110.36	116.20
1	2b	120	U	C5-C6-N1	6.49	125.95	122.70
78	1b	1105	A	C5-N7-C8	-6.49	100.65	103.90
1	2b	870	C	N1-C2-O2	6.49	122.80	118.90
78	1b	926	A	N1-C6-N6	6.49	122.49	118.60
78	1b	1857	C	C2-N1-C1'	6.49	125.94	118.80
78	1b	2375	G	N3-C2-N2	-6.49	115.36	119.90
1	2b	801	G	C2-N3-C4	-6.49	108.66	111.90
78	1b	498	A	C5-C6-N1	6.49	120.94	117.70
78	1b	2352	A	C5-N7-C8	-6.49	100.66	103.90
78	1b	208	C	N3-C4-C5	6.49	124.50	121.90
78	1b	1527	C	N3-C4-N4	6.49	122.54	118.00
78	1b	2304	C	C6-N1-C1'	-6.49	113.02	120.80
1	2b	1124	A	C5-C6-N6	-6.49	118.51	123.70
78	1b	271	C	C2-N3-C4	-6.49	116.66	119.90
78	1b	271	C	N3-C4-C5	6.49	124.49	121.90
78	1b	706	A	C5-C6-N1	6.49	120.94	117.70
78	1b	1198	C	N3-C4-C5	6.49	124.49	121.90
78	1b	2332	A	N9-C4-C5	-6.49	103.21	105.80
78	1b	1177	G	C8-N9-C1'	-6.48	118.57	127.00
78	1b	3314	A	C6-N1-C2	-6.48	114.71	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	992	A	C5-C6-N6	-6.48	118.51	123.70
1	2b	1503	A	N9-C4-C5	-6.48	103.21	105.80
1	2b	1790	A	C5-C6-N1	6.48	120.94	117.70
78	1b	896	A	C5-C6-N1	6.48	120.94	117.70
78	1b	2871	G	C8-N9-C1'	6.48	135.43	127.00
78	1b	2960	C	N3-C2-O2	-6.48	117.36	121.90
78	1b	2969	A	C5-C6-N6	-6.48	118.51	123.70
78	1b	3043	C	C2-N1-C1'	6.48	125.93	118.80
1	2b	1636	C	C2-N1-C1'	6.48	125.92	118.80
36	3b	46	G	C2-N3-C4	-6.48	108.66	111.90
78	1b	807	A	C5-N7-C8	-6.48	100.66	103.90
78	1b	2234	G	C2-N3-C4	-6.48	108.66	111.90
78	Aa	1525	G	C4-N9-C1'	6.48	134.92	126.50
1	2b	1636	C	C5-C4-N4	-6.48	115.67	120.20
1	2b	1646	C	N3-C4-C5	6.47	124.49	121.90
1	2b	1753	A	C5-C6-N1	6.47	120.94	117.70
78	1b	650	C	N3-C4-N4	6.47	122.53	118.00
78	1b	2303	A	C6-N1-C2	-6.47	114.72	118.60
78	1b	651	G	C8-N9-C1'	-6.47	118.59	127.00
78	1b	2511	A	C6-C5-N7	-6.47	127.77	132.30
35	4b	66	A	N1-C6-N6	6.47	122.48	118.60
78	1b	1084	A	N1-C6-N6	6.47	122.48	118.60
78	1b	2372	A	C6-N1-C2	-6.47	114.72	118.60
78	Aa	1525	G	C8-N9-C1'	-6.47	118.59	127.00
78	1b	2853	A	C5-C6-N1	6.47	120.93	117.70
78	Aa	2798	C	N1-C2-O2	6.47	122.78	118.90
78	1b	842	G	C2-N3-C4	-6.47	108.67	111.90
78	1b	67	A	C5-C6-N1	6.46	120.93	117.70
78	1b	1858	A	O4'-C1'-N9	6.46	113.37	108.20
78	Aa	2406	C	C2-N1-C1'	6.46	125.91	118.80
1	2b	1503	A	C5-N7-C8	-6.46	100.67	103.90
78	1b	2132	C	N3-C4-C5	6.46	124.48	121.90
78	1b	3063	C	N1-C2-O2	6.46	122.78	118.90
1	2b	625	C	C2-N3-C4	-6.46	116.67	119.90
78	1b	1677	G	C2-N3-C4	-6.46	108.67	111.90
78	Aa	75	G	C5-N7-C8	-6.46	101.07	104.30
78	1b	361	A	N1-C6-N6	6.46	122.48	118.60
1	a	690	G	N3-C4-N9	-6.46	122.12	126.00
78	Aa	325	A	N9-C4-C5	-6.46	103.22	105.80
35	Bb	72	A	C5-C6-N6	-6.46	118.53	123.70
1	2b	326	G	C8-N9-C4	-6.46	103.82	106.40
1	a	708	C	C6-N1-C2	-6.45	117.72	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	1499	C	N1-C2-O2	6.45	122.77	118.90
1	2b	301	A	N9-C4-C5	-6.45	103.22	105.80
1	2b	409	C	C2-N1-C1'	6.45	125.90	118.80
1	2b	433	C	N3-C2-O2	-6.45	117.39	121.90
78	1b	61	A	C5-C6-N1	6.45	120.92	117.70
78	Aa	2115	G	C2-N3-C4	-6.45	108.68	111.90
1	2b	1672	G	C4-N9-C1'	6.45	134.88	126.50
78	1b	998	A	C4-C5-N7	6.45	113.92	110.70
78	1b	3003	G	N3-C4-C5	6.45	131.82	128.60
1	2b	1307	U	N1-C2-O2	6.44	127.31	122.80
1	2b	1502	G	C2-N3-C4	-6.44	108.68	111.90
78	1b	2607	G	C2-N3-C4	-6.44	108.68	111.90
1	2b	1303	U	C6-N1-C2	-6.44	117.14	121.00
78	1b	2769	A	C5-N7-C8	-6.44	100.68	103.90
78	1b	2941	A	N1-C6-N6	6.44	122.46	118.60
78	1b	2947	G	C6-C5-N7	6.44	134.26	130.40
78	Aa	1559	A	C5-C6-N6	-6.44	118.55	123.70
78	Aa	1927	G	N1-C2-N2	-6.44	110.41	116.20
35	Bb	84	A	C5-C6-N1	6.44	120.92	117.70
78	1b	3086	A	C4-C5-N7	6.44	113.92	110.70
1	a	1141	G	C2-N3-C4	-6.44	108.68	111.90
78	Aa	1875	G	C4-N9-C1'	6.44	134.87	126.50
1	2b	16	G	C8-N9-C1'	-6.43	118.64	127.00
1	2b	988	A	C5-C6-N6	-6.43	118.55	123.70
1	2b	1652	C	C5-C4-N4	-6.43	115.70	120.20
78	1b	1319	G	C6-C5-N7	-6.43	126.54	130.40
78	1b	2369	G	C6-C5-N7	-6.43	126.54	130.40
78	1b	3046	A	C6-N1-C2	-6.43	114.74	118.60
1	2b	1123	C	N3-C4-N4	6.43	122.50	118.00
1	2b	1658	G	N1-C2-N3	6.43	127.76	123.90
78	1b	144	A	C4-C5-N7	6.43	113.92	110.70
78	1b	2341	A	C5-N7-C8	-6.43	100.69	103.90
1	2b	34	G	C2-N3-C4	-6.43	108.69	111.90
1	2b	1478	G	C4-C5-N7	6.43	113.37	110.80
78	1b	1053	A	C5-C6-N6	-6.43	118.56	123.70
78	1b	1838	G	N3-C4-C5	6.43	131.81	128.60
78	1b	2788	C	C6-N1-C2	-6.43	117.73	120.30
78	1b	3043	C	N3-C2-O2	-6.43	117.40	121.90
1	2b	583	C	N1-C2-O2	6.42	122.75	118.90
1	2b	1125	A	C6-C5-N7	-6.42	127.80	132.30
78	1b	3086	A	C5-C6-N6	-6.42	118.56	123.70
1	2b	1636	C	C6-N1-C1'	-6.42	113.09	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	363	G	C6-C5-N7	-6.42	126.55	130.40
36	3b	149	A	C5-C6-N1	6.42	120.91	117.70
1	2b	1611	A	C5-N7-C8	-6.42	100.69	103.90
35	Bb	84	A	N9-C4-C5	-6.42	103.23	105.80
1	2b	988	A	N9-C4-C5	-6.42	103.23	105.80
1	2b	1744	A	C5-C6-N1	6.42	120.91	117.70
78	1b	22	G	N3-C4-C5	6.42	131.81	128.60
78	1b	497	C	C5-C4-N4	-6.42	115.71	120.20
78	1b	416	A	C5-C6-N1	6.42	120.91	117.70
78	1b	845	G	N3-C4-N9	-6.42	122.15	126.00
78	1b	2305	G	C4-N9-C1'	6.42	134.84	126.50
1	a	1235	C	C6-N1-C2	-6.42	117.73	120.30
1	2b	1401	A	N9-C4-C5	-6.42	103.23	105.80
78	1b	60	A	C6-N1-C2	-6.42	114.75	118.60
78	1b	361	A	C5-N7-C8	-6.42	100.69	103.90
78	1b	2143	A	C6-C5-N7	-6.42	127.81	132.30
78	1b	2794	G	C2-N3-C4	-6.42	108.69	111.90
1	2b	888	U	N3-C4-O4	6.41	123.89	119.40
36	3b	43	A	C5-C6-N1	6.41	120.91	117.70
78	1b	637	C	C2-N1-C1'	6.41	125.85	118.80
78	1b	803	C	N3-C4-C5	6.41	124.47	121.90
78	1b	2892	A	C5-C6-N6	-6.41	118.57	123.70
1	2b	1173	C	N3-C4-C5	6.41	124.46	121.90
78	1b	1575	A	C6-N1-C2	6.41	122.45	118.60
78	1b	3362	A	C5-N7-C8	-6.41	100.70	103.90
78	1b	16	A	N9-C4-C5	-6.41	103.24	105.80
1	2b	1028	C	C6-N1-C2	6.41	122.86	120.30
78	1b	2161	G	C4-N9-C1'	6.41	134.83	126.50
78	1b	3073	A	C5-N7-C8	-6.40	100.70	103.90
1	2b	992	A	N9-C4-C5	-6.40	103.24	105.80
1	a	505	A	N9-C4-C5	-6.40	103.24	105.80
78	Aa	3123	A	N1-C6-N6	-6.40	114.76	118.60
36	3b	125	U	C6-N1-C1'	-6.40	112.24	121.20
78	1b	2259	A	C5-C6-N6	-6.40	118.58	123.70
78	1b	2308	C	N3-C4-C5	6.40	124.46	121.90
36	Ca	82	U	P-O3'-C3'	6.40	127.38	119.70
78	1b	1827	C	N1-C2-O2	6.40	122.74	118.90
79	6b	31	G	C2-N3-C4	-6.40	108.70	111.90
78	1b	1901	A	C5-N7-C8	-6.40	100.70	103.90
36	3b	36	G	C2-N3-C4	-6.39	108.70	111.90
1	2b	687	G	N3-C2-N2	-6.39	115.43	119.90
1	2b	1784	C	C2-N1-C1'	6.39	125.83	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	337	G	N1-C2-N3	6.39	127.74	123.90
78	1b	357	A	N9-C4-C5	-6.39	103.24	105.80
78	1b	1161	G	C2-N3-C4	-6.39	108.70	111.90
78	Aa	1404	G	C2-N3-C4	-6.39	108.70	111.90
78	1b	913	A	C5-C6-N1	6.39	120.89	117.70
1	a	1210	C	N3-C2-O2	-6.39	117.43	121.90
78	Aa	3110	C	N1-C2-O2	6.39	122.73	118.90
78	1b	1389	G	N3-C4-N9	-6.39	122.17	126.00
1	2b	423	G	N7-C8-N9	6.39	116.29	113.10
1	2b	637	C	N3-C4-N4	6.38	122.47	118.00
78	1b	501	A	C4-C5-N7	6.38	113.89	110.70
78	1b	2677	G	N1-C2-N2	-6.38	110.45	116.20
1	a	418	G	N3-C2-N2	6.38	124.37	119.90
1	2b	1176	G	C2-N3-C4	-6.38	108.71	111.90
1	2b	1678	A	C8-N9-C4	6.38	108.35	105.80
78	1b	791	A	C5-C6-N1	6.38	120.89	117.70
78	1b	1197	A	N1-C6-N6	6.38	122.43	118.60
78	1b	1313	G	N3-C4-C5	6.38	131.79	128.60
78	1b	1178	G	N1-C2-N3	6.38	127.73	123.90
78	1b	206	G	C2-N3-C4	-6.38	108.71	111.90
78	1b	2708	C	C5-C4-N4	-6.38	115.73	120.20
1	2b	900	A	N9-C4-C5	-6.38	103.25	105.80
1	2b	1172	G	C4-N9-C1'	6.38	134.79	126.50
1	2b	1788	G	C2-N3-C4	-6.38	108.71	111.90
37	Ay	70	ARG	NE-CZ-NH1	6.38	123.49	120.30
78	1b	418	A	C5-C6-N6	-6.38	118.60	123.70
78	1b	706	A	C6-C5-N7	-6.38	127.84	132.30
1	2b	26	A	C5-C6-N1	6.38	120.89	117.70
1	2b	341	A	C6-C5-N7	-6.38	127.84	132.30
78	1b	1902	G	O5'-P-OP1	-6.38	99.96	105.70
78	1b	1423	C	C5-C4-N4	-6.37	115.74	120.20
78	1b	2120	A	C5-C6-N6	-6.37	118.60	123.70
78	Aa	2654	C	C6-N1-C2	-6.37	117.75	120.30
1	2b	634	G	C2-N3-C4	-6.37	108.71	111.90
78	1b	635	G	N1-C2-N2	-6.37	110.47	116.20
1	2b	355	G	N1-C2-N2	-6.37	110.47	116.20
1	2b	1792	G	C4-N9-C1'	6.37	134.78	126.50
78	1b	1135	A	N9-C4-C5	-6.37	103.25	105.80
78	1b	1856	C	N3-C4-N4	6.37	122.46	118.00
78	1b	1950	U	C5-C6-N1	6.37	125.88	122.70
78	1b	2390	A	C4-C5-N7	6.37	113.89	110.70
1	2b	91	G	N3-C4-C5	6.37	131.78	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	998	A	N9-C4-C5	-6.37	103.25	105.80
1	2b	925	G	C8-N9-C1'	-6.36	118.73	127.00
1	2b	1542	G	C2-N3-C4	-6.36	108.72	111.90
35	4b	66	A	C5-C6-N6	-6.36	118.61	123.70
78	1b	321	C	C5-C4-N4	-6.36	115.75	120.20
78	1b	1084	A	C5-N7-C8	-6.36	100.72	103.90
78	1b	1344	G	C8-N9-C1'	-6.36	118.73	127.00
78	1b	95	A	C5-N7-C8	-6.36	100.72	103.90
78	1b	843	A	N9-C4-C5	-6.36	103.26	105.80
78	1b	2145	A	C5-C6-N6	-6.36	118.61	123.70
78	1b	3134	A	N9-C4-C5	-6.36	103.26	105.80
78	1b	2941	A	C5-C6-N6	-6.36	118.61	123.70
78	1b	1846	C	N3-C4-N4	-6.35	113.55	118.00
1	2b	885	G	C4-N9-C1'	6.35	134.76	126.50
1	2b	1210	C	N1-C2-O2	6.35	122.71	118.90
78	1b	94	G	C5-C6-O6	6.35	132.41	128.60
78	1b	804	C	C2-N3-C4	-6.35	116.72	119.90
78	1b	1358	C	N3-C2-O2	-6.35	117.45	121.90
1	2b	323	A	C5-C6-N1	6.35	120.88	117.70
1	2b	943	C	N3-C4-C5	6.35	124.44	121.90
1	2b	1611	A	N9-C4-C5	-6.35	103.26	105.80
78	1b	1217	A	N9-C4-C5	-6.35	103.26	105.80
78	1b	2733	A	C5-C6-N1	6.35	120.88	117.70
78	Aa	861	C	C2-N1-C1'	6.35	125.78	118.80
1	2b	1416	G	C2-N3-C4	-6.35	108.73	111.90
36	3b	105	A	N1-C6-N6	6.35	122.41	118.60
36	Ca	152	G	C2-N3-C4	-6.35	108.73	111.90
1	2b	1333	C	N1-C2-O2	6.35	122.71	118.90
78	1b	41	G	N1-C2-N2	-6.34	110.49	116.20
78	1b	1802	C	N3-C4-C5	6.34	124.44	121.90
1	a	1473	U	C2-N1-C1'	6.34	125.31	117.70
35	4b	66	A	C5-N7-C8	-6.34	100.73	103.90
1	2b	1333	C	C5-C4-N4	-6.34	115.76	120.20
78	1b	209	A	N9-C4-C5	-6.34	103.26	105.80
78	1b	803	C	N1-C2-O2	6.34	122.70	118.90
78	1b	3077	A	C4-C5-N7	6.34	113.87	110.70
1	2b	770	A	N1-C6-N6	6.34	122.40	118.60
1	2b	1307	U	N3-C2-O2	-6.34	117.76	122.20
78	1b	75	G	C4-C5-N7	6.34	113.33	110.80
78	1b	344	A	C5-C6-N1	6.34	120.87	117.70
78	1b	2978	U	O4'-C1'-N1	6.34	113.27	108.20
1	2b	834	G	C2-N3-C4	6.34	115.07	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	433	A	N9-C4-C5	-6.34	103.27	105.80
78	1b	2317	A	C4-C5-N7	6.34	113.87	110.70
78	1b	3130	A	C5-N7-C8	-6.34	100.73	103.90
78	1b	1475	A	C5-C6-N1	6.33	120.87	117.70
78	1b	1791	C	C5-C4-N4	-6.33	115.77	120.20
36	3b	53	A	N1-C6-N6	6.33	122.40	118.60
36	3b	115	C	N3-C4-C5	6.33	124.43	121.90
78	1b	394	G	C2-N3-C4	-6.33	108.73	111.90
78	1b	1343	A	C5-C6-N6	-6.33	118.63	123.70
78	1b	1667	A	C5-C6-N6	-6.33	118.63	123.70
78	1b	1496	C	C6-N1-C2	-6.33	117.77	120.30
78	1b	1738	C	N3-C4-N4	6.33	122.43	118.00
78	1b	3379	C	N1-C2-O2	6.33	122.70	118.90
78	1b	2162	U	C5-C4-O4	-6.33	122.10	125.90
78	1b	2871	G	C4-N9-C1'	-6.33	118.27	126.50
78	1b	1489	A	C4-C5-N7	6.33	113.86	110.70
78	Aa	3301	U	N1-C2-O2	6.33	127.23	122.80
78	1b	2190	U	C5-C4-O4	-6.33	122.11	125.90
78	1b	2887	A	N9-C4-C5	-6.33	103.27	105.80
78	Aa	1863	G	N3-C4-C5	6.33	131.76	128.60
1	2b	1124	A	C5-N7-C8	-6.32	100.74	103.90
78	1b	1577	G	N3-C4-C5	6.32	131.76	128.60
78	1b	392	G	C2-N3-C4	-6.32	108.74	111.90
78	1b	3290	G	N1-C2-N2	-6.32	110.51	116.20
1	2b	760	A	C5-C6-N1	6.32	120.86	117.70
1	2b	1299	G	C2-N3-C4	-6.32	108.74	111.90
78	1b	934	G	N7-C8-N9	6.32	116.26	113.10
78	1b	1559	A	C8-N9-C4	6.32	108.33	105.80
1	2b	629	U	C6-N1-C1'	-6.32	112.36	121.20
1	2b	769	A	N9-C4-C5	-6.32	103.27	105.80
1	2b	1007	C	N3-C4-N4	6.32	122.42	118.00
1	2b	1560	U	N1-C2-O2	6.32	127.22	122.80
78	1b	1437	C	C6-N1-C2	-6.32	117.77	120.30
78	1b	1889	G	C5-C6-N1	-6.31	108.34	111.50
78	1b	2393	G	N3-C2-N2	-6.31	115.48	119.90
78	Aa	628	A	N1-C6-N6	6.31	122.39	118.60
78	Aa	504	A	C4-C5-N7	6.31	113.86	110.70
78	Aa	2867	C	C2-N1-C1'	6.31	125.74	118.80
78	1b	1163	A	C5-C6-N1	6.31	120.85	117.70
78	1b	1561	G	O4'-C1'-N9	6.31	113.25	108.20
78	Aa	1059	G	N1-C2-N2	-6.31	110.52	116.20
35	Bb	99	G	N3-C4-N9	-6.31	122.22	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	1169	A	C4-C5-N7	6.31	113.85	110.70
1	2b	875	G	N1-C2-N2	-6.30	110.53	116.20
1	2b	1169	G	N3-C4-C5	6.30	131.75	128.60
79	6b	41	G	C6-C5-N7	-6.30	126.62	130.40
78	1b	881	C	N3-C4-N4	6.30	122.41	118.00
1	2b	1591	C	N1-C2-O2	6.30	122.68	118.90
78	1b	2402	A	C5-C6-N1	6.30	120.85	117.70
78	1b	516	A	N9-C4-C5	-6.30	103.28	105.80
78	Aa	2572	C	C6-N1-C1'	-6.30	113.24	120.80
78	1b	1902	G	N3-C2-N2	6.30	124.31	119.90
78	1b	2164	A	C5-C6-N6	-6.30	118.66	123.70
1	2b	36	C	N3-C4-N4	6.30	122.41	118.00
78	1b	81	C	N1-C2-O2	6.29	122.68	118.90
78	1b	1401	A	C5-C6-N6	-6.29	118.66	123.70
1	2b	592	A	C5-C6-N1	6.29	120.85	117.70
78	1b	325	A	N1-C6-N6	-6.29	114.83	118.60
78	1b	644	G	C5-C6-N1	-6.29	108.35	111.50
78	1b	750	G	C8-N9-C1'	-6.29	118.82	127.00
78	1b	2348	A	C6-C5-N7	-6.29	127.90	132.30
78	Aa	2730	G	N1-C2-N2	-6.29	110.54	116.20
78	Aa	656	A	N7-C8-N9	6.29	116.94	113.80
78	Aa	98	G	N1-C2-N2	-6.28	110.55	116.20
1	2b	1393	C	N1-C2-O2	6.28	122.67	118.90
78	1b	331	G	C2-N3-C4	-6.28	108.76	111.90
78	1b	1863	G	N3-C4-N9	-6.28	122.23	126.00
1	2b	1422	A	C4-C5-N7	6.28	113.84	110.70
78	1b	39	A	N9-C4-C5	-6.28	103.29	105.80
78	1b	2316	G	C2-N3-C4	-6.28	108.76	111.90
78	1b	1437	C	C2-N1-C1'	6.28	125.70	118.80
1	2b	752	A	C5-N7-C8	-6.28	100.76	103.90
1	2b	923	A	C5-C6-N6	-6.28	118.68	123.70
78	1b	843	A	C4-C5-N7	6.28	113.84	110.70
78	1b	845	G	N1-C2-N3	6.28	127.67	123.90
78	1b	1142	G	N1-C2-N2	-6.28	110.55	116.20
78	1b	394	G	C8-N9-C4	6.27	108.91	106.40
78	1b	1156	C	C2-N1-C1'	6.27	125.70	118.80
1	2b	1458	G	C8-N9-C1'	-6.27	118.84	127.00
78	1b	1177	G	N9-C4-C5	-6.27	102.89	105.40
1	2b	1774	G	C2-N3-C4	-6.27	108.77	111.90
78	1b	963	G	C4-C5-N7	6.27	113.31	110.80
78	Aa	2414	G	N1-C2-N2	-6.27	110.56	116.20
1	2b	405	C	C5-C4-N4	-6.27	115.81	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	394	G	N3-C4-C5	6.27	131.73	128.60
78	1b	1592	G	C5-C6-N1	-6.27	108.37	111.50
78	1b	2161	G	C8-N9-C1'	-6.27	118.85	127.00
78	Aa	47	C	N3-C4-N4	6.27	122.39	118.00
78	1b	304	G	C2-N3-C4	-6.27	108.77	111.90
78	1b	2892	A	C5-C6-N1	6.27	120.83	117.70
78	1b	1752	A	C6-N1-C2	-6.26	114.84	118.60
78	1b	2609	A	C5-C6-N6	-6.26	118.69	123.70
36	3b	22	U	O4'-C1'-N1	6.26	113.21	108.20
78	1b	3024	A	N1-C6-N6	6.26	122.36	118.60
1	a	690	G	C2-N3-C4	-6.26	108.77	111.90
78	Aa	222	A	N9-C4-C5	-6.26	103.30	105.80
78	Aa	1874	A	C5-C6-N6	-6.26	118.69	123.70
36	3b	107	G	C2-N3-C4	-6.26	108.77	111.90
78	1b	435	C	C6-N1-C1'	-6.26	113.29	120.80
78	1b	1679	A	C5-C6-N6	-6.26	118.69	123.70
78	1b	2734	A	C4-C5-N7	6.26	113.83	110.70
78	1b	1217	A	C4-C5-N7	6.26	113.83	110.70
36	3b	21	C	C5-C4-N4	-6.26	115.82	120.20
78	1b	628	A	C5-N7-C8	-6.26	100.77	103.90
78	1b	1333	C	N3-C4-N4	6.26	122.38	118.00
78	Aa	98	G	C8-N9-C1'	-6.26	118.87	127.00
78	Aa	2990	G	N3-C4-C5	6.26	131.73	128.60
78	1b	984	G	C2-N3-C4	-6.25	108.77	111.90
1	a	1500	C	N1-C2-O2	6.25	122.65	118.90
1	2b	1793	G	C2-N3-C4	-6.25	108.77	111.90
78	1b	2675	C	C6-N1-C2	6.25	122.80	120.30
78	1b	3088	G	C2-N3-C4	-6.25	108.77	111.90
78	Aa	373	A	N1-C6-N6	6.25	122.35	118.60
78	1b	611	A	C4-C5-C6	-6.25	113.87	117.00
78	1b	958	C	N1-C2-O2	6.25	122.65	118.90
1	2b	1764	C	N1-C2-O2	6.25	122.65	118.90
78	1b	672	A	C4-C5-N7	6.25	113.83	110.70
78	1b	2240	G	C2-N3-C4	-6.25	108.78	111.90
1	2b	488	G	N3-C4-C5	6.25	131.72	128.60
1	2b	568	G	N3-C4-N9	-6.25	122.25	126.00
78	1b	755	A	C5-N7-C8	-6.25	100.78	103.90
78	1b	1311	G	C2-N3-C4	-6.25	108.78	111.90
78	1b	1657	C	C2-N3-C4	-6.25	116.78	119.90
78	1b	3046	A	C5-N7-C8	-6.25	100.78	103.90
1	a	1555	A	C6-C5-N7	6.25	136.67	132.30
78	Aa	107	A	C5-C6-N6	6.25	128.70	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	36	C	C2-N3-C4	-6.25	116.78	119.90
1	2b	1393	C	C2-N1-C1'	6.25	125.67	118.80
1	2b	1671	A	C4-C5-N7	6.25	113.82	110.70
78	1b	1695	U	O4'-C1'-N1	6.25	113.20	108.20
78	1b	2330	C	N1-C2-O2	6.25	122.65	118.90
78	1b	2913	C	C6-N1-C2	6.25	122.80	120.30
78	1b	3080	G	N9-C4-C5	-6.25	102.90	105.40
78	1b	3142	A	N1-C6-N6	-6.25	114.85	118.60
1	2b	13	C	N1-C2-O2	6.25	122.65	118.90
1	2b	1082	C	O4'-C1'-N1	6.24	113.19	108.20
78	1b	1062	A	C5-C6-N1	6.24	120.82	117.70
1	a	1634	C	N1-C2-O2	6.24	122.65	118.90
78	1b	2118	C	C5-C4-N4	-6.24	115.83	120.20
1	2b	367	A	N1-C6-N6	6.24	122.34	118.60
78	1b	1774	C	N3-C2-O2	-6.24	117.53	121.90
1	2b	471	A	C5-N7-C8	-6.24	100.78	103.90
78	1b	944	C	N3-C4-C5	6.24	124.39	121.90
78	1b	2204	C	N3-C2-O2	-6.24	117.53	121.90
78	1b	3088	G	N1-C2-N2	-6.24	110.58	116.20
78	Aa	856	G	N3-C2-N2	6.24	124.27	119.90
78	1b	306	A	C5-C6-N6	-6.24	118.71	123.70
36	3b	19	C	N1-C2-O2	6.24	122.64	118.90
1	2b	362	G	C4-N9-C1'	6.23	134.60	126.50
78	1b	660	A	C5-C6-N1	6.23	120.82	117.70
78	Aa	1096	U	N3-C2-O2	-6.23	117.84	122.20
38	By	4	ARG	NE-CZ-NH2	-6.23	117.18	120.30
78	1b	435	C	N3-C4-C5	6.23	124.39	121.90
1	2b	230	C	N3-C2-O2	-6.23	117.54	121.90
1	2b	315	A	C5-C6-N6	-6.23	118.72	123.70
78	1b	924	G	C2-N3-C4	-6.23	108.79	111.90
78	Aa	2114	C	C6-N1-C2	-6.23	117.81	120.30
1	2b	10	G	N1-C2-N3	6.23	127.64	123.90
78	1b	1532	C	N3-C2-O2	-6.23	117.54	121.90
1	2b	488	G	N3-C4-N9	-6.22	122.27	126.00
1	2b	1464	G	N1-C2-N2	-6.22	110.60	116.20
78	Aa	1283	C	N3-C2-O2	-6.22	117.54	121.90
78	Aa	2984	C	N1-C2-O2	6.22	122.63	118.90
1	2b	1284	C	N3-C4-N4	6.22	122.36	118.00
78	1b	809	G	C6-C5-N7	-6.22	126.67	130.40
78	1b	1734	G	C2-N3-C4	-6.22	108.79	111.90
78	1b	3108	G	N3-C2-N2	6.22	124.25	119.90
1	2b	1122	G	N3-C4-N9	-6.22	122.27	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	1478	G	C6-C5-N7	-6.22	126.67	130.40
78	1b	222	A	C4-C5-N7	6.22	113.81	110.70
78	1b	1178	G	C8-N9-C1'	-6.22	118.91	127.00
78	1b	2751	G	N9-C4-C5	-6.22	102.91	105.40
78	Aa	3307	A	C5-C6-N6	-6.22	118.72	123.70
78	1b	1558	A	C5-C6-N6	-6.22	118.73	123.70
78	Aa	1287	A	C2-N3-C4	6.21	113.71	110.60
1	2b	647	G	C8-N9-C4	-6.21	103.92	106.40
78	1b	1534	A	N1-C6-N6	6.21	122.33	118.60
78	1b	1902	G	N3-C4-N9	6.21	129.73	126.00
1	a	75	U	C6-N1-C1'	-6.21	112.50	121.20
78	1b	926	A	C6-C5-N7	-6.21	127.95	132.30
78	1b	1280	C	N1-C2-O2	6.21	122.63	118.90
78	1b	638	C	C2-N1-C1'	6.21	125.63	118.80
78	1b	2273	G	N7-C8-N9	6.21	116.20	113.10
79	6b	75	C	C2-N3-C4	-6.21	116.80	119.90
78	Aa	1063	G	N3-C4-N9	6.21	129.72	126.00
1	2b	556	A	N1-C6-N6	-6.21	114.88	118.60
78	1b	2608	G	N3-C4-N9	-6.21	122.28	126.00
78	Aa	98	G	C4-N9-C1'	6.21	134.57	126.50
78	Aa	2899	C	N3-C2-O2	-6.21	117.56	121.90
78	1b	870	G	C2-N3-C4	-6.20	108.80	111.90
78	1b	891	G	C2-N3-C4	-6.20	108.80	111.90
78	1b	1046	A	C4-C5-N7	6.20	113.80	110.70
1	a	1458	G	C8-N9-C1'	-6.20	118.94	127.00
78	1b	1175	C	C5-C4-N4	-6.20	115.86	120.20
78	1b	2317	A	C5-N7-C8	-6.20	100.80	103.90
1	2b	938	G	N1-C2-N3	6.20	127.62	123.90
78	1b	366	A	C5-C6-N6	-6.20	118.74	123.70
78	1b	426	G	N1-C6-O6	6.20	123.62	119.90
78	1b	3360	C	N3-C4-C5	6.20	124.38	121.90
1	2b	26	A	C5-C6-N6	-6.20	118.74	123.70
1	2b	752	A	C4-C5-N7	6.20	113.80	110.70
1	2b	801	G	N1-C2-N2	-6.20	110.62	116.20
78	1b	1809	A	N1-C6-N6	6.20	122.32	118.60
78	1b	2398	A	C4-C5-N7	6.20	113.80	110.70
1	2b	344	A	N9-C4-C5	-6.19	103.32	105.80
78	1b	918	C	N3-C4-N4	6.19	122.33	118.00
78	1b	2394	G	N3-C4-C5	6.19	131.70	128.60
78	1b	432	G	C2-N3-C4	-6.19	108.81	111.90
78	1b	2399	A	C5-C6-N1	6.19	120.80	117.70
78	1b	1874	A	C6-N1-C2	-6.19	114.89	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	90	C	C2-N1-C1'	6.19	125.61	118.80
78	1b	2813	A	C4-C5-N7	6.19	113.79	110.70
78	1b	3133	C	C5-C4-N4	-6.19	115.87	120.20
78	Aa	81	C	N3-C2-O2	-6.19	117.57	121.90
1	2b	452	A	N1-C6-N6	6.19	122.31	118.60
78	1b	2602	G	N3-C4-N9	-6.19	122.29	126.00
1	2b	943	C	C2-N1-C1'	6.18	125.60	118.80
35	4b	76	A	N1-C6-N6	-6.18	114.89	118.60
78	1b	2734	A	N9-C4-C5	-6.18	103.33	105.80
78	Aa	2813	A	C8-N9-C4	6.18	108.27	105.80
78	Aa	697	A	N1-C6-N6	6.18	122.31	118.60
1	2b	353	A	C4-C5-N7	6.18	113.79	110.70
36	3b	16	G	C2-N3-C4	-6.18	108.81	111.90
78	1b	844	G	C8-N9-C4	6.18	108.87	106.40
78	1b	922	U	C6-N1-C1'	-6.18	112.55	121.20
78	Aa	649	A	C5-C6-N1	6.18	120.79	117.70
78	Aa	931	C	N3-C4-C5	6.18	124.37	121.90
1	2b	634	G	N3-C4-C5	6.18	131.69	128.60
1	2b	990	C	N1-C2-O2	6.18	122.61	118.90
36	3b	100	U	N3-C4-O4	6.18	123.72	119.40
78	1b	711	A	C5-C6-N6	-6.18	118.76	123.70
1	2b	1583	A	C5-C6-N6	-6.17	118.76	123.70
78	1b	1547	G	N3-C4-C5	6.17	131.69	128.60
78	1b	2697	A	N9-C4-C5	-6.17	103.33	105.80
1	2b	1002	G	C2-N3-C4	-6.17	108.81	111.90
1	2b	1671	A	C5-C6-N6	-6.17	118.76	123.70
78	1b	967	A	N9-C4-C5	-6.17	103.33	105.80
78	1b	926	A	C4-C5-N7	6.17	113.78	110.70
78	1b	2245	C	C6-N1-C1'	-6.17	113.40	120.80
78	1b	2526	C	N1-C2-O2	6.17	122.60	118.90
78	Aa	2951	G	N9-C4-C5	-6.17	102.93	105.40
1	2b	1173	C	C5-C4-N4	-6.17	115.88	120.20
1	2b	1753	A	C6-C5-N7	-6.17	127.98	132.30
78	1b	691	A	C8-N9-C4	6.17	108.27	105.80
78	1b	3379	C	C2-N1-C1'	6.17	125.58	118.80
1	2b	16	G	C4-N9-C1'	6.17	134.51	126.50
78	1b	2406	C	C6-N1-C2	-6.16	117.83	120.30
78	Aa	405	U	N1-C2-O2	6.16	127.11	122.80
78	Aa	2355	G	N3-C4-C5	6.16	131.68	128.60
1	2b	16	G	N1-C2-N2	-6.16	110.66	116.20
1	2b	235	G	N3-C4-N9	-6.16	122.31	126.00
78	Aa	1655	G	C2-N3-C4	-6.16	108.82	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Aa	1805	C	N1-C2-O2	6.16	122.59	118.90
1	2b	307	G	N1-C2-N2	-6.16	110.66	116.20
1	2b	1428	G	C4-N9-C1'	6.16	134.50	126.50
1	2b	1023	A	C5-N7-C8	-6.16	100.82	103.90
1	2b	1156	C	C2-N1-C1'	6.16	125.57	118.80
36	3b	45	C	N3-C2-O2	-6.16	117.59	121.90
78	1b	1592	G	N1-C2-N3	6.16	127.59	123.90
78	1b	3298	C	C5-C4-N4	-6.16	115.89	120.20
78	1b	2120	A	C5-C6-N1	6.15	120.78	117.70
78	1b	2733	A	C5-N7-C8	-6.15	100.82	103.90
78	1b	670	C	N3-C4-C5	6.15	124.36	121.90
78	1b	2614	G	C6-C5-N7	-6.15	126.71	130.40
1	a	1739	C	N3-C2-O2	-6.15	117.59	121.90
1	2b	1463	C	N1-C2-O2	6.15	122.59	118.90
78	1b	1896	A	C5-N7-C8	-6.15	100.83	103.90
78	1b	2913	C	N3-C4-C5	6.15	124.36	121.90
78	Aa	1594	A	N1-C6-N6	6.15	122.29	118.60
78	1b	1535	A	C5-N7-C8	-6.15	100.83	103.90
78	Aa	3058	U	C2-N1-C1'	6.15	125.08	117.70
1	2b	902	G	C2-N3-C4	-6.15	108.83	111.90
1	2b	1529	C	N1-C2-O2	6.15	122.59	118.90
78	1b	283	G	C8-N9-C1'	-6.15	119.01	127.00
78	1b	789	A	C5-N7-C8	-6.15	100.83	103.90
78	1b	2993	G	N3-C2-N2	6.15	124.20	119.90
1	a	1209	C	N1-C2-O2	6.15	122.59	118.90
42	Fy	67	ARG	NE-CZ-NH2	6.15	123.37	120.30
78	1b	2909	U	N3-C4-O4	6.15	123.70	119.40
78	1b	595	G	N3-C4-C5	6.14	131.67	128.60
78	1b	1719	G	C6-C5-N7	-6.14	126.71	130.40
78	1b	1776	G	C2-N3-C4	-6.14	108.83	111.90
1	a	1568	C	C6-N1-C2	-6.14	117.84	120.30
36	3b	137	C	C6-N1-C1'	-6.14	113.43	120.80
78	1b	2237	C	N3-C4-C5	6.14	124.36	121.90
78	1b	2196	C	C5-C4-N4	-6.14	115.90	120.20
78	1b	336	A	C5-N7-C8	-6.14	100.83	103.90
78	1b	1338	C	N3-C4-N4	6.14	122.30	118.00
78	1b	92	G	C6-C5-N7	-6.14	126.72	130.40
1	a	13	C	N1-C2-O2	6.14	122.58	118.90
1	2b	1428	G	C2-N3-C4	-6.14	108.83	111.90
78	1b	1922	A	N1-C6-N6	6.14	122.28	118.60
78	1b	2695	A	C4-C5-N7	6.14	113.77	110.70
78	1b	2885	C	C5-C4-N4	-6.14	115.90	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	201	A	C5-C6-N1	6.13	120.77	117.70
35	4b	66	A	C6-C5-N7	-6.13	128.01	132.30
36	3b	1	A	C4-C5-N7	6.13	113.77	110.70
78	1b	1201	C	C5-C4-N4	-6.13	115.91	120.20
78	1b	1949	G	C2-N3-C4	-6.13	108.83	111.90
78	1b	2963	C	C2-N1-C1'	6.13	125.55	118.80
1	a	118	U	N1-C2-O2	6.13	127.09	122.80
78	1b	1883	A	C5-C6-N1	6.13	120.77	117.70
1	2b	769	A	C6-C5-N7	-6.13	128.01	132.30
1	2b	1625	C	N1-C2-O2	6.13	122.58	118.90
78	1b	849	C	N3-C2-O2	-6.13	117.61	121.90
78	1b	1832	C	C2-N1-C1'	6.13	125.54	118.80
78	1b	3256	G	C2-N3-C4	-6.13	108.84	111.90
78	Aa	227	G	N3-C4-N9	-6.13	122.32	126.00
1	2b	1581	C	C2-N1-C1'	6.13	125.54	118.80
1	2b	1771	U	N3-C4-O4	6.13	123.69	119.40
78	1b	843	A	C5-C6-N1	6.13	120.76	117.70
78	1b	1185	C	C5-C4-N4	-6.13	115.91	120.20
78	1b	1635	G	C2-N3-C4	-6.13	108.84	111.90
36	3b	103	G	N3-C4-C5	6.12	131.66	128.60
78	Aa	330	G	C2-N3-C4	-6.12	108.84	111.90
1	2b	30	G	C4-C5-N7	6.12	113.25	110.80
78	1b	680	G	C6-C5-N7	-6.12	126.72	130.40
78	Aa	2406	C	N3-C2-O2	-6.12	117.61	121.90
36	3b	91	C	C5-C4-N4	-6.12	115.92	120.20
78	1b	22	G	C2-N3-C4	-6.12	108.84	111.90
78	Aa	1287	A	N9-C4-C5	6.12	108.25	105.80
78	Aa	1867	A	N1-C6-N6	6.12	122.27	118.60
78	Aa	2951	G	C5-C6-O6	-6.12	124.93	128.60
1	2b	915	A	C5-C6-N6	-6.12	118.81	123.70
1	2b	1211	A	C5-C6-N1	6.12	120.76	117.70
78	1b	1706	C	N3-C4-N4	6.12	122.28	118.00
78	1b	2605	G	N3-C4-C5	6.12	131.66	128.60
1	2b	1680	G	C2-N3-C4	-6.12	108.84	111.90
78	1b	371	G	N9-C4-C5	-6.12	102.95	105.40
78	Aa	3103	A	N9-C4-C5	-6.12	103.35	105.80
78	1b	611	A	C5-C6-N1	6.11	120.76	117.70
78	1b	1127	G	N3-C4-C5	6.11	131.66	128.60
78	1b	2602	G	C2-N3-C4	-6.11	108.84	111.90
78	Aa	2234	G	C2-N3-C4	-6.11	108.84	111.90
78	Aa	3077	A	C5-C6-N6	-6.11	118.81	123.70
78	1b	1895	A	C6-N1-C2	-6.11	114.93	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	364	G	C4-C5-N7	6.11	113.24	110.80
78	1b	921	A	C5-C6-N6	-6.11	118.81	123.70
78	1b	1719	G	C4-N9-C1'	6.11	134.44	126.50
78	1b	2909	U	C5-C4-O4	-6.11	122.23	125.90
78	1b	1538	G	C2-N3-C4	-6.11	108.84	111.90
78	1b	2341	A	N9-C4-C5	-6.11	103.36	105.80
78	1b	1895	A	C5-C6-N6	-6.11	118.81	123.70
78	1b	1451	C	N1-C2-O2	6.11	122.56	118.90
78	1b	2874	G	N3-C4-N9	-6.11	122.34	126.00
35	Bb	84	A	C8-N9-C4	6.11	108.24	105.80
1	2b	991	G	N3-C2-N2	6.10	124.17	119.90
78	1b	281	G	C4-C5-N7	6.10	113.24	110.80
78	1b	1135	A	N1-C6-N6	6.10	122.26	118.60
78	1b	1161	G	N3-C4-C5	6.10	131.65	128.60
78	1b	2721	A	C5'-C4'-O4'	6.10	116.42	109.10
78	1b	2816	G	N1-C2-N3	6.10	127.56	123.90
78	1b	1575	A	N9-C4-C5	-6.10	103.36	105.80
78	1b	1851	G	C4-N9-C1'	6.10	134.43	126.50
78	Aa	1579	C	N3-C2-O2	-6.10	117.63	121.90
78	1b	283	G	C4-N9-C1'	6.10	134.43	126.50
78	1b	2834	G	N1-C2-N2	-6.10	110.71	116.20
1	2b	845	G	C8-N9-C1'	6.10	134.93	127.00
78	1b	304	G	C4-N9-C1'	6.10	134.43	126.50
78	1b	433	A	C5-N7-C8	-6.10	100.85	103.90
78	1b	2160	G	N3-C4-N9	-6.10	122.34	126.00
78	1b	3184	A	C5-N7-C8	-6.10	100.85	103.90
1	2b	362	G	C8-N9-C1'	-6.10	119.08	127.00
78	1b	2370	G	C5-N7-C8	-6.09	101.25	104.30
78	1b	2697	A	C5-C6-N1	6.09	120.75	117.70
1	2b	355	G	C2-N3-C4	-6.09	108.85	111.90
1	2b	884	A	C4-C5-N7	6.09	113.75	110.70
1	2b	1742	U	C5-C4-O4	-6.09	122.24	125.90
78	1b	287	G	N3-C4-N9	-6.09	122.34	126.00
78	1b	2333	C	C2-N1-C1'	6.09	125.50	118.80
78	1b	2519	A	C5-C6-N1	6.09	120.75	117.70
78	1b	2614	G	C4-C5-N7	6.09	113.24	110.80
78	1b	2805	G	N1-C6-O6	-6.09	116.24	119.90
1	2b	30	G	C4-N9-C1'	6.09	134.42	126.50
1	2b	1591	C	C2-N1-C1'	6.09	125.50	118.80
78	1b	924	G	N1-C2-N2	-6.09	110.72	116.20
78	1b	1372	C	N1-C2-O2	6.09	122.56	118.90
78	1b	1864	A	N1-C6-N6	6.09	122.25	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
79	6b	21	A	N1-C6-N6	6.09	122.25	118.60
78	1b	658	G	C4-C5-C6	6.09	122.45	118.80
78	1b	1538	G	C4-N9-C1'	6.09	134.42	126.50
1	a	1634	C	C2-N1-C1'	6.09	125.50	118.80
1	2b	19	A	C4-C5-N7	6.09	113.74	110.70
1	2b	1465	C	N3-C4-N4	6.09	122.26	118.00
78	1b	31	C	N1-C2-O2	6.09	122.55	118.90
78	1b	2834	G	N1-C2-N3	6.09	127.55	123.90
78	Aa	216	G	C6-C5-N7	-6.09	126.75	130.40
78	1b	648	C	N3-C4-C5	6.09	124.33	121.90
78	1b	2751	G	C4-C5-N7	6.09	113.23	110.80
1	2b	1142	A	C5-N7-C8	-6.08	100.86	103.90
78	1b	637	C	C6-N1-C2	-6.08	117.87	120.30
78	1b	1796	G	C4-N9-C1'	-6.08	118.59	126.50
78	1b	1908	A	C5-N7-C8	-6.08	100.86	103.90
78	1b	3103	A	C5-C6-N1	6.08	120.74	117.70
78	1b	3108	G	N1-C2-N2	-6.08	110.72	116.20
78	Aa	373	A	C5-C6-N6	-6.08	118.83	123.70
78	1b	2607	G	N3-C4-N9	-6.08	122.35	126.00
1	a	572	C	N1-C2-O2	6.08	122.55	118.90
36	Ca	109	A	C2-N3-C4	-6.08	107.56	110.60
78	1b	2178	A	C8-N9-C4	6.08	108.23	105.80
78	1b	2963	C	N3-C4-C5	6.08	124.33	121.90
78	1b	2966	G	N1-C2-N3	6.08	127.55	123.90
35	Bb	72	A	C4-C5-N7	6.08	113.74	110.70
78	1b	1669	C	C2-N1-C1'	6.08	125.48	118.80
78	1b	2295	A	C5-C6-N6	-6.08	118.84	123.70
78	1b	1205	A	C5-C6-N1	6.08	120.74	117.70
78	1b	2133	U	N3-C4-O4	6.08	123.65	119.40
78	1b	2810	C	N3-C2-O2	-6.08	117.65	121.90
78	Aa	1525	G	C6-C5-N7	-6.08	126.75	130.40
78	1b	888	A	C5-C6-N1	6.07	120.74	117.70
78	1b	1300	G	N3-C4-C5	6.07	131.64	128.60
78	1b	1360	C	N1-C2-O2	6.07	122.54	118.90
78	Aa	639	G	C6-C5-N7	-6.07	126.76	130.40
1	2b	590	C	N3-C2-O2	-6.07	117.65	121.90
78	1b	1609	C	C5-C4-N4	-6.07	115.95	120.20
78	1b	2619	G	N1-C2-N3	6.07	127.54	123.90
78	1b	2991	A	C5-N7-C8	-6.07	100.87	103.90
78	Aa	408	A	N1-C6-N6	6.07	122.24	118.60
78	Aa	3333	G	N3-C2-N2	-6.07	115.65	119.90
78	1b	1053	A	N1-C6-N6	6.07	122.24	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	1368	U	N3-C4-O4	6.07	123.65	119.40
1	2b	1110	G	N1-C2-N2	-6.06	110.74	116.20
36	3b	152	G	C2-N3-C4	-6.06	108.87	111.90
78	1b	1706	C	C5-C4-N4	-6.06	115.96	120.20
78	1b	1901	A	C4-C5-N7	6.06	113.73	110.70
78	1b	2432	A	N1-C6-N6	6.06	122.24	118.60
78	1b	3006	A	C5-N7-C8	-6.06	100.87	103.90
78	Aa	2872	A	O4'-C1'-N9	-6.06	103.35	108.20
78	1b	815	G	C2-N3-C4	-6.06	108.87	111.90
1	2b	409	C	N3-C4-N4	6.06	122.24	118.00
78	1b	354	U	N3-C4-O4	6.06	123.64	119.40
78	1b	1496	C	N1-C2-O2	6.06	122.53	118.90
78	1b	2293	C	C5-C4-N4	-6.06	115.96	120.20
1	a	363	G	N3-C4-C5	6.06	131.63	128.60
78	Aa	656	A	C6-C5-N7	-6.06	128.06	132.30
78	1b	81	C	N3-C2-O2	-6.06	117.66	121.90
78	1b	1333	C	N3-C2-O2	-6.06	117.66	121.90
78	1b	2637	A	N1-C6-N6	6.06	122.23	118.60
78	Aa	106	A	N9-C4-C5	-6.06	103.38	105.80
1	2b	573	C	N1-C2-O2	6.05	122.53	118.90
78	1b	406	G	O4'-C1'-N9	6.05	113.04	108.20
78	1b	2403	G	N1-C2-N2	-6.05	110.75	116.20
78	1b	3085	G	N3-C4-C5	6.05	131.63	128.60
78	1b	3349	C	C2-N3-C4	-6.05	116.87	119.90
1	2b	352	A	C5-N7-C8	-6.05	100.88	103.90
1	2b	756	A	N1-C6-N6	-6.05	114.97	118.60
78	1b	675	C	N3-C4-C5	6.05	124.32	121.90
1	a	1597	A	N1-C6-N6	6.05	122.23	118.60
1	2b	309	C	C2-N1-C1'	6.05	125.45	118.80
1	2b	1087	A	C5-C6-N1	6.05	120.72	117.70
78	1b	657	A	C5-C6-N1	6.05	120.72	117.70
78	1b	3139	A	C4-C5-N7	6.05	113.72	110.70
78	1b	2128	C	C5-C4-N4	-6.05	115.97	120.20
78	1b	3301	U	N3-C2-O2	-6.05	117.97	122.20
35	4b	20	A	N9-C4-C5	-6.05	103.38	105.80
78	1b	720	A	N1-C6-N6	6.05	122.23	118.60
78	1b	3073	A	N9-C4-C5	-6.05	103.38	105.80
1	2b	307	G	C6-C5-N7	-6.04	126.77	130.40
1	2b	1006	C	C2-N3-C4	-6.04	116.88	119.90
78	1b	1312	C	C6-N1-C1'	-6.04	113.55	120.80
1	a	1455	G	C4-N9-C1'	-6.04	118.64	126.50
78	1b	363	G	C2-N3-C4	-6.04	108.88	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	924	G	N9-C4-C5	-6.04	102.98	105.40
78	1b	2331	C	C2-N1-C1'	6.04	125.45	118.80
78	1b	2375	G	N3-C4-N9	-6.04	122.38	126.00
78	Aa	1608	C	N1-C2-O2	6.04	122.52	118.90
78	1b	417	A	C5-C6-N1	6.04	120.72	117.70
78	1b	2797	C	N3-C4-C5	6.04	124.31	121.90
78	Aa	2913	C	N3-C4-C5	6.04	124.31	121.90
78	Aa	2424	A	N1-C6-N6	6.04	122.22	118.60
1	2b	1753	A	N9-C4-C5	-6.04	103.39	105.80
35	4b	72	A	C5-C6-N1	6.04	120.72	117.70
78	1b	433	A	C4-C5-N7	6.04	113.72	110.70
79	6b	75	C	C2-N1-C1'	6.04	125.44	118.80
78	1b	209	A	C4-C5-N7	6.03	113.72	110.70
1	a	1188	G	C5-C6-O6	6.03	132.22	128.60
1	2b	594	A	C5-C6-N6	-6.03	118.88	123.70
1	2b	990	C	C2-N1-C1'	6.03	125.43	118.80
1	2b	1615	C	C5-C4-N4	-6.03	115.98	120.20
1	a	1542	G	O4'-C1'-N9	6.03	113.03	108.20
78	1b	642	U	C5-C6-N1	6.03	125.72	122.70
78	1b	665	A	C4-N9-C1'	6.03	137.15	126.30
78	1b	2984	C	C2-N1-C1'	6.03	125.43	118.80
36	3b	125	U	N1-C2-O2	6.03	127.02	122.80
40	Dy	33	ARG	NE-CZ-NH2	-6.03	117.29	120.30
78	1b	2597	U	N3-C4-O4	6.03	123.62	119.40
78	1b	2810	C	N3-C4-N4	6.03	122.22	118.00
1	a	507	U	C2-N1-C1'	6.03	124.93	117.70
1	2b	162	A	N9-C4-C5	-6.03	103.39	105.80
1	2b	1147	A	N3-C4-N9	6.03	132.22	127.40
78	1b	1558	A	N1-C6-N6	6.03	122.22	118.60
78	1b	2425	G	N3-C4-N9	-6.03	122.39	126.00
78	1b	2970	C	C5-C4-N4	-6.03	115.98	120.20
78	Aa	2355	G	C2-N3-C4	-6.03	108.89	111.90
78	1b	1136	A	C4-C5-N7	6.02	113.71	110.70
78	1b	1776	G	N3-C4-N9	-6.02	122.39	126.00
78	1b	2993	G	N1-C2-N2	-6.02	110.78	116.20
78	1b	3053	G	C2-N3-C4	-6.02	108.89	111.90
1	2b	415	C	C6-N1-C2	6.02	122.71	120.30
1	2b	1177	C	N1-C2-O2	6.02	122.51	118.90
78	1b	144	A	N9-C4-C5	-6.02	103.39	105.80
78	1b	1940	G	C4-C5-N7	6.02	113.21	110.80
78	1b	1404	G	C2-N3-C4	-6.02	108.89	111.90
78	1b	1534	A	C6-C5-N7	-6.02	128.09	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	Ca	105	A	N9-C4-C5	-6.02	103.39	105.80
36	3b	62	C	C5-C4-N4	-6.02	115.99	120.20
78	1b	2699	G	C4-N9-C1'	6.02	134.32	126.50
78	Aa	2877	G	N1-C2-N2	-6.02	110.78	116.20
78	1b	823	C	C5-C4-N4	-6.02	115.99	120.20
78	1b	1670	C	N3-C2-O2	-6.02	117.69	121.90
78	1b	1099	A	C4-C5-N7	6.01	113.71	110.70
78	1b	1395	G	N1-C2-N3	6.01	127.51	123.90
78	1b	1597	C	N3-C4-N4	6.01	122.21	118.00
78	1b	3263	G	C2-N3-C4	-6.01	108.89	111.90
78	Aa	856	G	N1-C2-N2	-6.01	110.79	116.20
78	Aa	1059	G	N3-C2-N2	6.01	124.11	119.90
1	2b	142	G	N3-C2-N2	6.01	124.11	119.90
1	2b	1791	A	P-O3'-C3'	6.01	126.91	119.70
78	1b	950	G	C4-C5-N7	6.01	113.20	110.80
78	1b	3133	C	C2-N1-C1'	6.01	125.41	118.80
78	1b	1389	G	N3-C4-C5	6.01	131.60	128.60
78	1b	2585	G	C8-N9-C1'	-6.01	119.19	127.00
78	1b	3096	C	N1-C2-O2	6.01	122.50	118.90
78	1b	2741	C	C2-N1-C1'	6.01	125.41	118.80
78	Aa	1848	G	O4'-C1'-N9	-6.01	103.39	108.20
1	2b	1480	G	N9-C4-C5	-6.01	103.00	105.40
71	jb	45	ARG	NE-CZ-NH2	-6.01	117.30	120.30
78	1b	1343	A	C6-N1-C2	-6.01	115.00	118.60
78	1b	2906	C	N1-C2-O2	6.01	122.50	118.90
78	1b	1379	G	N3-C4-C5	6.00	131.60	128.60
78	1b	2890	A	C5-C6-N1	6.00	120.70	117.70
1	2b	605	A	C4-C5-N7	6.00	113.70	110.70
1	2b	1327	C	N1-C2-O2	6.00	122.50	118.90
78	1b	38	U	N3-C4-O4	6.00	123.60	119.40
78	1b	1367	G	N1-C2-N2	-6.00	110.80	116.20
78	1b	1803	C	N1-C2-O2	6.00	122.50	118.90
78	1b	1680	G	C6-C5-N7	-6.00	126.80	130.40
78	Aa	807	A	N1-C6-N6	6.00	122.20	118.60
78	1b	2751	G	C6-C5-N7	-6.00	126.80	130.40
78	1b	3091	A	C4-C5-N7	6.00	113.70	110.70
78	Aa	386	A	C4-C5-N7	6.00	113.70	110.70
78	1b	113	C	N1-C2-O2	6.00	122.50	118.90
78	1b	238	A	N1-C6-N6	6.00	122.20	118.60
78	1b	695	C	C5-C4-N4	-6.00	116.00	120.20
78	1b	857	G	N1-C6-O6	6.00	123.50	119.90
78	Aa	2834	G	N1-C2-N2	-6.00	110.80	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	29	C	C2-N1-C1'	6.00	125.39	118.80
78	1b	2098	C	N1-C2-O2	6.00	122.50	118.90
78	Aa	661	G	N3-C4-C5	6.00	131.60	128.60
1	2b	409	C	C6-N1-C2	-5.99	117.90	120.30
78	1b	403	C	C2-N1-C1'	5.99	125.39	118.80
78	1b	989	A	C5-C6-N1	5.99	120.70	117.70
78	1b	1208	U	N1-C2-O2	5.99	127.00	122.80
78	1b	1911	A	C5-N7-C8	-5.99	100.90	103.90
78	1b	2885	C	C2-N1-C1'	5.99	125.39	118.80
1	2b	95	G	C2-N3-C4	-5.99	108.90	111.90
78	Aa	304	G	N3-C4-N9	-5.99	122.41	126.00
78	1b	144	A	C5-N7-C8	-5.99	100.91	103.90
78	1b	658	G	N3-C4-C5	-5.99	125.61	128.60
78	1b	2247	G	N3-C4-N9	-5.99	122.41	126.00
78	1b	3338	C	N3-C4-C5	5.99	124.30	121.90
1	2b	1072	C	N1-C2-O2	5.99	122.49	118.90
78	1b	59	G	C2-N3-C4	-5.99	108.91	111.90
78	1b	896	A	C5-N7-C8	-5.99	100.91	103.90
79	6b	49	A	N9-C4-C5	-5.99	103.41	105.80
78	1b	352	A	C8-N9-C4	5.99	108.19	105.80
78	Aa	1480	G	C8-N9-C1'	5.99	134.78	127.00
78	1b	102	C	N3-C4-C5	5.99	124.29	121.90
78	1b	860	G	N3-C2-N2	-5.99	115.71	119.90
78	1b	1099	A	C5-N7-C8	-5.99	100.91	103.90
78	1b	1459	C	N3-C4-C5	5.99	124.30	121.90
78	1b	1592	G	N3-C4-C5	5.99	131.59	128.60
78	Aa	2639	G	N3-C2-N2	5.99	124.09	119.90
78	1b	3142	A	O4'-C1'-N9	5.98	112.99	108.20
1	2b	1022	C	N3-C4-C5	5.98	124.29	121.90
35	4b	72	A	N9-C4-C5	-5.98	103.41	105.80
78	1b	364	G	N1-C2-N2	-5.98	110.82	116.20
78	1b	822	G	C2-N3-C4	-5.98	108.91	111.90
78	1b	1679	A	C4-C5-N7	5.98	113.69	110.70
78	1b	2738	A	N9-C4-C5	-5.98	103.41	105.80
78	1b	2852	C	C5-C4-N4	-5.98	116.01	120.20
78	1b	2895	G	C4-C5-N7	5.98	113.19	110.80
78	Aa	2639	G	N1-C2-N2	-5.98	110.82	116.20
78	Aa	3147	G	N3-C4-C5	5.98	131.59	128.60
1	2b	382	C	N3-C2-O2	-5.98	117.71	121.90
78	1b	89	A	C4-C5-N7	5.98	113.69	110.70
78	1b	341	G	C5-N7-C8	-5.98	101.31	104.30
78	Aa	3307	A	N1-C6-N6	5.98	122.19	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	1332	A	N1-C6-N6	5.98	122.19	118.60
78	1b	1464	G	N1-C2-N3	5.98	127.49	123.90
1	a	990	C	N1-C2-O2	5.98	122.49	118.90
78	Aa	2754	G	C5-C6-O6	5.98	132.19	128.60
1	2b	977	A	C5-N7-C8	-5.98	100.91	103.90
1	2b	988	A	C4-C5-N7	5.98	113.69	110.70
78	1b	1164	G	C4-N9-C1'	5.98	134.27	126.50
78	1b	1332	A	C6-C5-N7	-5.98	128.12	132.30
78	1b	1548	C	N3-C4-C5	5.98	124.29	121.90
78	1b	2352	A	N9-C4-C5	-5.98	103.41	105.80
78	1b	2424	A	C5-C6-N6	-5.98	118.92	123.70
78	1b	2431	C	N1-C2-O2	5.98	122.49	118.90
1	2b	1581	C	N3-C2-O2	-5.98	117.72	121.90
78	1b	2809	C	N3-C4-C5	5.98	124.29	121.90
78	1b	1339	C	N3-C2-O2	-5.97	117.72	121.90
1	2b	1011	G	C2-N3-C4	-5.97	108.91	111.90
1	2b	1527	C	C6-N1-C1'	-5.97	113.63	120.80
78	1b	2330	C	C5-C4-N4	-5.97	116.02	120.20
78	1b	2738	A	C4-C5-N7	5.97	113.69	110.70
1	2b	1303	U	N3-C4-C5	-5.97	111.02	114.60
1	2b	1317	C	C2-N1-C1'	5.97	125.36	118.80
78	1b	2278	C	C6-N1-C2	5.97	122.69	120.30
1	2b	449	C	C5-C6-N1	5.96	123.98	121.00
1	2b	1742	U	N3-C4-O4	5.96	123.58	119.40
78	1b	1177	G	C4-C5-N7	5.96	113.19	110.80
78	1b	2436	U	C5-C4-O4	-5.96	122.32	125.90
78	1b	2614	G	C4-N9-C1'	5.96	134.25	126.50
78	1b	3076	C	C2-N1-C1'	5.96	125.36	118.80
78	1b	2695	A	N9-C4-C5	-5.96	103.42	105.80
78	1b	2896	A	C5-C6-N6	-5.96	118.93	123.70
31	eb	33	ARG	NE-CZ-NH1	5.96	123.28	120.30
78	1b	875	G	C5-N7-C8	-5.96	101.32	104.30
78	1b	1475	A	C8-N9-C4	5.96	108.18	105.80
1	2b	883	C	N3-C4-N4	5.96	122.17	118.00
1	a	730	G	N3-C2-N2	5.96	124.07	119.90
35	4b	91	G	C8-N9-C4	5.96	108.78	106.40
35	4b	106	U	C5-C4-O4	-5.96	122.33	125.90
78	1b	1665	C	C2-N1-C1'	5.96	125.35	118.80
78	1b	1846	C	C5-C4-N4	5.96	124.37	120.20
78	1b	3182	G	N1-C2-N2	-5.96	110.84	116.20
78	Aa	715	A	N1-C6-N6	5.96	122.17	118.60
78	1b	663	C	C6-N1-C2	-5.96	117.92	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	1133	A	C5-C6-N1	5.96	120.68	117.70
78	1b	2331	C	N3-C4-N4	5.96	122.17	118.00
79	6b	75	C	N3-C2-O2	-5.96	117.73	121.90
1	2b	1445	G	N3-C4-C5	5.96	131.58	128.60
1	2b	973	A	C5-C6-N1	5.95	120.68	117.70
1	2b	1458	G	C6-C5-N7	-5.95	126.83	130.40
1	2b	1675	C	N1-C2-O2	5.95	122.47	118.90
78	1b	373	A	N1-C6-N6	5.95	122.17	118.60
78	1b	386	A	C5-C6-N6	-5.95	118.94	123.70
78	1b	2788	C	N3-C2-O2	-5.95	117.73	121.90
78	1b	2174	G	C2-N3-C4	-5.95	108.92	111.90
78	Aa	435	C	N1-C2-O2	5.95	122.47	118.90
78	Aa	804	C	C2-N3-C4	-5.95	116.92	119.90
78	1b	800	G	C2-N3-C4	-5.95	108.92	111.90
78	Aa	1534	A	C5-C6-N6	-5.95	118.94	123.70
35	Bb	99	G	C2-N3-C4	-5.95	108.92	111.90
36	3b	52	A	C4-C5-N7	5.95	113.67	110.70
78	1b	860	G	N3-C4-C5	5.95	131.57	128.60
78	1b	1155	C	C6-N1-C2	-5.95	117.92	120.30
36	3b	39	G	O4'-C1'-N9	5.95	112.96	108.20
78	1b	753	C	C2-N1-C1'	5.95	125.34	118.80
78	1b	3204	C	N1-C2-O2	5.95	122.47	118.90
78	Aa	1591	G	C2-N3-C4	-5.95	108.93	111.90
78	1b	950	G	N9-C4-C5	-5.94	103.02	105.40
78	1b	2928	C	C2-N1-C1'	5.94	125.34	118.80
1	2b	1565	C	C6-N1-C2	5.94	122.68	120.30
78	1b	320	G	N3-C2-N2	-5.94	115.74	119.90
78	1b	371	G	N1-C2-N2	-5.94	110.85	116.20
78	1b	1715	A	N1-C6-N6	5.94	122.16	118.60
78	1b	798	G	C2-N3-C4	-5.94	108.93	111.90
1	a	1789	G	C4-N9-C1'	5.94	134.22	126.50
78	1b	2308	C	C6-N1-C2	5.94	122.67	120.30
78	1b	3096	C	C5-C4-N4	-5.94	116.04	120.20
78	Aa	742	G	N3-C4-C5	5.94	131.57	128.60
1	2b	309	C	N3-C2-O2	-5.94	117.75	121.90
1	2b	1105	C	N3-C4-C5	5.94	124.27	121.90
78	Aa	1796	G	N3-C4-C5	5.94	131.57	128.60
49	Ny	203	ARG	NE-CZ-NH2	-5.93	117.33	120.30
78	1b	435	C	C2-N1-C1'	5.93	125.33	118.80
78	1b	757	C	N1-C2-O2	5.93	122.46	118.90
78	1b	1064	A	P-O3'-C3'	5.93	126.82	119.70
78	1b	2614	G	C8-N9-C1'	-5.93	119.28	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	1445	G	N3-C4-N9	-5.93	122.44	126.00
78	1b	28	C	N3-C2-O2	-5.93	117.75	121.90
78	1b	313	A	C5-N7-C8	-5.93	100.93	103.90
78	1b	1493	G	C8-N9-C4	5.93	108.77	106.40
78	1b	2977	G	C8-N9-C4	5.93	108.77	106.40
78	Aa	2239	G	N1-C2-N2	-5.93	110.86	116.20
78	1b	1479	U	C5-C4-O4	-5.93	122.34	125.90
1	2b	1615	C	N3-C4-C5	5.93	124.27	121.90
78	1b	36	C	N3-C4-C5	5.93	124.27	121.90
78	1b	1489	A	C6-C5-N7	-5.93	128.15	132.30
78	1b	2988	C	C5-C4-N4	-5.93	116.05	120.20
78	1b	271	C	C5-C4-N4	-5.93	116.05	120.20
78	1b	1665	C	N3-C2-O2	-5.93	117.75	121.90
78	1b	3002	C	C5-C4-N4	-5.93	116.05	120.20
78	1b	728	G	C2-N3-C4	-5.93	108.94	111.90
78	1b	1009	A	N9-C4-C5	-5.93	103.43	105.80
78	1b	1844	C	N3-C4-N4	5.93	122.15	118.00
78	1b	1898	G	N3-C4-N9	-5.93	122.44	126.00
1	a	70	C	N3-C2-O2	-5.93	117.75	121.90
78	1b	1719	G	N9-C4-C5	-5.92	103.03	105.40
78	Aa	3345	G	N3-C4-C5	5.92	131.56	128.60
1	2b	352	A	N7-C8-N9	5.92	116.76	113.80
1	2b	1753	A	C5-N7-C8	-5.92	100.94	103.90
78	1b	680	G	N9-C4-C5	-5.92	103.03	105.40
78	1b	2751	G	N1-C2-N2	-5.92	110.87	116.20
36	3b	92	A	C5-N7-C8	-5.92	100.94	103.90
78	1b	2355	G	N3-C4-C5	5.92	131.56	128.60
78	Aa	1590	G	C8-N9-C1'	-5.92	119.30	127.00
78	1b	175	C	C6-N1-C2	5.92	122.67	120.30
28	ab	22	ARG	NE-CZ-NH2	-5.92	117.34	120.30
35	4b	97	A	C5-C6-N6	-5.92	118.97	123.70
78	1b	1714	A	C5-C6-N6	-5.92	118.97	123.70
78	Aa	1849	C	O4'-C1'-N1	5.92	112.93	108.20
1	2b	1332	C	C2-N1-C1'	5.91	125.31	118.80
36	3b	52	A	C5-C6-N1	5.91	120.66	117.70
49	Ny	65	ARG	NE-CZ-NH2	-5.91	117.34	120.30
78	1b	397	A	C4-C5-N7	5.91	113.66	110.70
78	1b	755	A	C4-C5-N7	5.91	113.66	110.70
78	1b	1533	U	C6-N1-C2	-5.91	117.45	121.00
78	1b	2984	C	N1-C2-O2	5.91	122.45	118.90
78	1b	499	G	C2-N3-C4	-5.91	108.94	111.90
78	1b	1908	A	C4-C5-N7	5.91	113.66	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	6	G	C2-N3-C4	-5.91	108.95	111.90
1	2b	1161	C	N1-C2-O2	5.91	122.44	118.90
78	1b	26	A	C5-C6-N1	5.91	120.65	117.70
78	1b	814	U	N3-C4-O4	5.91	123.54	119.40
78	1b	920	A	C4-C5-C6	-5.91	114.05	117.00
78	1b	1922	A	C4-C5-N7	5.91	113.65	110.70
78	1b	3132	C	N1-C2-O2	5.91	122.45	118.90
1	2b	465	G	C2-N3-C4	-5.91	108.95	111.90
1	2b	1124	A	C4-C5-N7	5.91	113.65	110.70
1	2b	1629	G	C4-N9-C1'	5.91	134.18	126.50
1	2b	1784	C	C6-N1-C1'	-5.91	113.71	120.80
78	1b	924	G	N3-C2-N2	5.91	124.03	119.90
78	Aa	2348	A	N1-C6-N6	5.91	122.14	118.60
78	1b	1113	G	C2-N3-C4	-5.91	108.95	111.90
78	1b	1525	G	C4-N9-C1'	5.91	134.18	126.50
79	6b	75	C	N1-C2-O2	5.91	122.44	118.90
36	3b	4	C	N1-C2-O2	5.90	122.44	118.90
78	1b	2376	G	C5-C6-O6	5.90	132.14	128.60
1	2b	1010	C	C5-C4-N4	-5.90	116.07	120.20
78	Aa	3326	G	C2-N3-C4	-5.90	108.95	111.90
36	Ca	137	C	N1-C2-O2	5.90	122.44	118.90
78	1b	156	G	C8-N9-C4	5.90	108.76	106.40
78	1b	807	A	C4-C5-N7	5.90	113.65	110.70
78	1b	2128	C	N1-C2-O2	5.90	122.44	118.90
78	1b	1543	G	N3-C4-C5	5.90	131.55	128.60
78	1b	2132	C	N3-C4-N4	5.90	122.13	118.00
78	1b	2399	A	C5-N7-C8	-5.90	100.95	103.90
78	1b	3103	A	N1-C6-N6	5.90	122.14	118.60
79	6b	21	A	N9-C4-C5	-5.90	103.44	105.80
1	2b	366	A	C5-C6-N1	5.90	120.65	117.70
78	1b	315	C	N1-C2-O2	5.90	122.44	118.90
78	1b	406	G	C8-N9-C1'	5.90	134.66	127.00
78	1b	658	G	C4-C5-N7	5.90	113.16	110.80
78	1b	989	A	C6-N1-C2	-5.90	115.06	118.60
78	1b	583	G	N3-C4-C5	5.89	131.55	128.60
78	1b	1145	G	N1-C2-N3	5.89	127.44	123.90
78	1b	2300	G	C2-N3-C4	-5.89	108.95	111.90
78	1b	2969	A	C5-N7-C8	-5.89	100.95	103.90
1	2b	353	A	C6-C5-N7	-5.89	128.18	132.30
1	2b	787	G	N1-C2-N2	-5.89	110.90	116.20
1	2b	1789	G	C2-N3-C4	-5.89	108.95	111.90
65	dy	16	LEU	CB-CG-CD2	-5.89	100.98	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	700	C	N3-C2-O2	-5.89	117.78	121.90
78	1b	2792	A	C5-C6-N1	5.89	120.65	117.70
1	2b	1156	C	C5-C4-N4	-5.89	116.08	120.20
78	1b	2366	C	C2-N1-C1'	5.89	125.28	118.80
1	2b	360	A	C5-N7-C8	-5.89	100.95	103.90
35	4b	94	C	C2-N1-C1'	5.89	125.28	118.80
78	1b	373	A	C5-C6-N1	5.89	120.64	117.70
78	1b	1548	C	C5-C4-N4	-5.89	116.08	120.20
1	2b	616	G	C2-N3-C4	-5.89	108.96	111.90
1	2b	1675	C	N3-C4-N4	5.89	122.12	118.00
1	2b	747	C	C2-N1-C1'	5.89	125.28	118.80
1	2b	1486	G	C2-N3-C4	-5.89	108.96	111.90
78	1b	926	A	N9-C4-C5	-5.89	103.45	105.80
1	2b	353	A	N9-C4-C5	-5.88	103.45	105.80
78	1b	666	A	C5-N7-C8	-5.88	100.96	103.90
78	1b	2637	A	C6-C5-N7	-5.88	128.18	132.30
78	Aa	433	A	C5-N7-C8	-5.88	100.96	103.90
1	2b	453	U	N1-C2-O2	5.88	126.92	122.80
1	2b	936	G	C4-C5-N7	5.88	113.15	110.80
78	1b	751	A	N1-C6-N6	-5.88	115.07	118.60
78	1b	1158	A	C5-N7-C8	-5.88	100.96	103.90
79	6b	38	A	C5-C6-N6	-5.88	118.99	123.70
1	2b	1594	G	C8-N9-C1'	-5.88	119.36	127.00
78	Aa	931	C	N1-C2-O2	5.88	122.43	118.90
78	1b	1547	G	C2-N3-C4	-5.88	108.96	111.90
1	2b	330	G	N1-C6-O6	5.88	123.43	119.90
1	2b	770	A	C5-C6-N6	-5.88	119.00	123.70
1	a	1453	G	C6-C5-N7	-5.88	126.87	130.40
78	Aa	824	C	N3-C4-C5	5.88	124.25	121.90
78	Aa	1898	G	N3-C4-C5	5.88	131.54	128.60
78	1b	2116	G	C2-N3-C4	-5.88	108.96	111.90
36	3b	10	A	N7-C8-N9	5.88	116.74	113.80
78	1b	2639	G	N1-C2-N2	-5.88	110.91	116.20
1	2b	885	G	C8-N9-C1'	-5.87	119.36	127.00
1	2b	1421	A	C5-C6-N6	-5.87	119.00	123.70
78	1b	656	A	C5-C6-N1	5.87	120.64	117.70
78	1b	2106	A	C5-C6-N1	5.87	120.64	117.70
78	1b	2962	U	C5-C4-O4	-5.87	122.38	125.90
1	2b	1023	A	O4'-C1'-N9	5.87	112.90	108.20
1	a	913	G	P-O3'-C3'	5.87	126.75	119.70
78	Aa	2146	C	N1-C2-O2	5.87	122.42	118.90
1	2b	599	A	C5-C6-N6	-5.87	119.00	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	569	A	C5-C6-N6	-5.87	119.00	123.70
78	1b	1366	A	C5-N7-C8	-5.87	100.97	103.90
78	1b	2643	A	C5-C6-N6	-5.87	119.01	123.70
78	1b	960	U	C5-C4-O4	5.87	129.42	125.90
78	1b	2951	G	C4-C5-N7	5.87	113.15	110.80
1	a	934	C	N3-C2-O2	-5.87	117.79	121.90
1	2b	330	G	N9-C4-C5	-5.87	103.05	105.40
78	1b	1169	A	C5-C6-N6	-5.87	119.01	123.70
1	a	1453	G	N3-C4-N9	5.87	129.52	126.00
1	a	1597	A	N9-C4-C5	-5.87	103.45	105.80
78	1b	1444	G	C4-N9-C1'	5.86	134.12	126.50
78	1b	1911	A	C6-C5-N7	-5.86	128.20	132.30
78	1b	2362	C	C5-C4-N4	-5.86	116.10	120.20
1	a	1792	G	N9-C4-C5	-5.86	103.06	105.40
78	Aa	1563	C	N3-C4-N4	-5.86	113.90	118.00
1	2b	322	G	C5-N7-C8	-5.86	101.37	104.30
1	2b	500	C	N3-C2-O2	-5.86	117.80	121.90
35	4b	117	A	C5-C6-N1	5.86	120.63	117.70
78	1b	306	A	C8-N9-C4	5.86	108.14	105.80
78	Aa	143	G	N3-C4-C5	5.86	131.53	128.60
1	2b	1757	G	N9-C4-C5	-5.86	103.06	105.40
35	4b	99	G	C2-N3-C4	-5.86	108.97	111.90
36	3b	117	C	C5-C4-N4	-5.86	116.10	120.20
78	1b	696	C	C2-N1-C1'	5.86	125.24	118.80
78	1b	913	A	C6-N1-C2	-5.86	115.08	118.60
78	1b	1434	G	C2-N3-C4	-5.86	108.97	111.90
78	Aa	1878	G	C8-N9-C1'	-5.86	119.39	127.00
78	Aa	2114	C	N3-C2-O2	-5.86	117.80	121.90
1	2b	1741	U	C5-C4-O4	-5.85	122.39	125.90
78	1b	273	A	C5-C6-N6	-5.85	119.02	123.70
78	1b	334	A	N9-C4-C5	-5.85	103.46	105.80
78	1b	427	C	C5-C4-N4	-5.85	116.10	120.20
78	1b	3077	A	C5-C6-N6	-5.85	119.02	123.70
78	1b	3325	G	C2-N3-C4	-5.85	108.97	111.90
78	1b	843	A	C5-C6-N6	-5.85	119.02	123.70
78	1b	2591	A	N1-C6-N6	5.85	122.11	118.60
1	2b	49	C	C2-N1-C1'	5.85	125.23	118.80
78	1b	2730	G	C2-N3-C4	-5.85	108.97	111.90
35	Bb	99	G	N3-C4-C5	5.85	131.53	128.60
78	1b	123	A	C5-N7-C8	-5.85	100.98	103.90
78	1b	1185	C	C2-N1-C1'	5.85	125.23	118.80
78	1b	1368	U	C5-C4-O4	-5.85	122.39	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Aa	1152	G	C5-C6-N1	5.85	114.42	111.50
78	Aa	647	A	N1-C6-N6	-5.85	115.09	118.60
1	2b	360	A	C5-C6-N6	-5.84	119.02	123.70
1	2b	1125	A	C4-N9-C1'	5.84	136.82	126.30
78	1b	1187	C	C5-C4-N4	-5.84	116.11	120.20
78	1b	283	G	C6-C5-N7	-5.84	126.89	130.40
78	1b	1126	G	N9-C4-C5	-5.84	103.06	105.40
78	1b	2656	A	C5-N7-C8	-5.84	100.98	103.90
78	1b	2734	A	C5-N7-C8	-5.84	100.98	103.90
78	Aa	304	G	N1-C2-N2	5.84	121.46	116.20
78	1b	3184	A	C4-C5-N7	5.84	113.62	110.70
1	2b	322	G	C4-N9-C1'	5.84	134.09	126.50
78	1b	2962	U	N3-C2-O2	5.84	126.29	122.20
1	2b	977	A	C5-C6-N1	5.84	120.62	117.70
36	3b	62	C	C6-N1-C1'	-5.84	113.80	120.80
78	1b	31	C	C2-N1-C1'	5.84	125.22	118.80
78	1b	1450	G	C4-C5-N7	5.84	113.14	110.80
78	1b	2304	C	N3-C4-N4	5.84	122.08	118.00
78	Aa	396	A	C5-C6-N6	-5.83	119.03	123.70
78	1b	3105	U	C5-C6-N1	5.83	125.62	122.70
78	1b	708	G	C2-N3-C4	-5.83	108.98	111.90
78	1b	2424	A	C4-C5-N7	5.83	113.61	110.70
78	1b	2962	U	C5-C6-N1	5.83	125.62	122.70
1	2b	28	A	C5-C6-N1	5.83	120.61	117.70
78	1b	648	C	C6-N1-C1'	-5.83	113.80	120.80
36	3b	108	C	N3-C2-O2	-5.83	117.82	121.90
78	1b	200	C	N3-C4-C5	5.83	124.23	121.90
78	Aa	1752	A	C5-C6-N1	5.83	120.61	117.70
78	1b	656	A	C6-C5-N7	-5.83	128.22	132.30
73	W	42	ARG	NE-CZ-NH1	5.83	123.21	120.30
78	1b	758	C	C2-N3-C4	-5.83	116.99	119.90
78	1b	1911	A	N1-C6-N6	5.83	122.09	118.60
78	1b	2938	G	OP2-P-O3'	5.83	118.02	105.20
78	Aa	2619	G	N3-C2-N2	5.83	123.98	119.90
1	2b	1097	U	C5-C6-N1	5.82	125.61	122.70
78	Aa	1562	C	N1-C2-O2	5.82	122.39	118.90
78	Aa	1927	G	C2-N3-C4	-5.82	108.99	111.90
78	Aa	3333	G	N3-C4-N9	-5.82	122.51	126.00
78	1b	562	C	C2-N1-C1'	5.82	125.20	118.80
78	1b	1896	A	C4-N9-C1'	5.82	136.78	126.30
1	2b	1030	A	C5-C6-N1	5.82	120.61	117.70
36	3b	70	G	C2-N3-C4	-5.82	108.99	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	Fy	160	ARG	NE-CZ-NH1	5.82	123.21	120.30
78	1b	297	G	C2-N3-C4	-5.82	108.99	111.90
78	1b	909	G	C2-N3-C4	-5.82	108.99	111.90
78	1b	1385	C	N1-C2-O2	5.82	122.39	118.90
1	2b	471	A	C5-C6-N6	-5.82	119.05	123.70
78	1b	1149	G	N3-C4-C5	5.82	131.51	128.60
78	1b	2901	G	N3-C4-C5	5.82	131.51	128.60
1	2b	355	G	N3-C2-N2	5.82	123.97	119.90
78	1b	357	A	C8-N9-C4	5.82	108.13	105.80
78	1b	2183	A	C8-N9-C4	5.82	108.13	105.80
78	1b	2366	C	N3-C2-O2	-5.82	117.83	121.90
78	1b	2601	A	N1-C6-N6	-5.82	115.11	118.60
78	Aa	1872	C	C5-C4-N4	-5.82	116.13	120.20
78	1b	265	A	C8-N9-C4	5.82	108.13	105.80
78	1b	1105	A	C6-C5-N7	-5.82	128.23	132.30
78	1b	1450	G	C5-N7-C8	-5.82	101.39	104.30
36	Ca	4	C	N1-C2-O2	5.82	122.39	118.90
1	2b	992	A	C4-C5-N7	5.81	113.61	110.70
36	3b	44	A	C5-N7-C8	-5.81	100.99	103.90
36	3b	76	C	C5-C4-N4	-5.81	116.13	120.20
78	1b	3098	G	C4-C5-N7	5.81	113.12	110.80
1	2b	2	A	C8-N9-C4	5.81	108.12	105.80
76	ob	42	ARG	NE-CZ-NH2	-5.81	117.39	120.30
77	pb	4	ARG	NE-CZ-NH1	5.81	123.21	120.30
78	1b	503	C	C5-C4-N4	-5.81	116.13	120.20
78	1b	1232	C	C6-N1-C1'	-5.81	113.83	120.80
78	1b	663	C	C2-N1-C1'	5.81	125.19	118.80
78	1b	1208	U	C2-N1-C1'	5.81	124.67	117.70
78	1b	2910	A	C4-C5-N7	5.81	113.61	110.70
78	1b	1395	G	C2-N3-C4	-5.81	109.00	111.90
78	1b	1927	G	N3-C4-C5	5.81	131.50	128.60
78	1b	2586	G	C8-N9-C4	5.81	108.72	106.40
78	1b	2821	C	C5-C4-N4	-5.81	116.13	120.20
78	Aa	334	A	N9-C4-C5	-5.81	103.48	105.80
78	Aa	412	G	N7-C8-N9	5.81	116.00	113.10
39	Cy	246	ARG	NE-CZ-NH2	-5.81	117.40	120.30
78	1b	128	G	C2-N3-C4	-5.81	109.00	111.90
79	6b	18	G	N3-C2-N2	5.81	123.97	119.90
1	2b	1503	A	C6-C5-N7	-5.81	128.24	132.30
78	1b	647	A	N9-C4-C5	-5.81	103.48	105.80
78	1b	1546	A	C4-C5-N7	5.81	113.60	110.70
78	Aa	1837	U	C5-C4-O4	-5.81	122.42	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Aa	3134	A	C4-C5-N7	5.81	113.60	110.70
1	2b	213	A	C5-C6-N1	5.80	120.60	117.70
1	2b	1024	U	C5-C6-N1	5.80	125.60	122.70
78	1b	89	A	N1-C6-N6	5.80	122.08	118.60
78	1b	2324	A	C5-C6-N1	5.80	120.60	117.70
78	1b	2333	C	N3-C2-O2	-5.80	117.84	121.90
78	1b	2896	A	N9-C4-C5	-5.80	103.48	105.80
1	a	70	C	N1-C2-O2	5.80	122.38	118.90
1	2b	1560	U	N3-C2-O2	-5.80	118.14	122.20
78	1b	148	G	C5-C6-N1	-5.80	108.60	111.50
78	1b	914	A	N1-C6-N6	5.80	122.08	118.60
78	1b	1447	G	C2-N3-C4	-5.80	109.00	111.90
1	2b	925	G	C6-C5-N7	-5.80	126.92	130.40
78	1b	57	A	C5-C6-N1	5.80	120.60	117.70
78	1b	637	C	N3-C2-O2	-5.80	117.84	121.90
78	1b	641	C	O4'-C1'-N1	-5.80	103.56	108.20
78	1b	1136	A	N9-C4-C5	-5.80	103.48	105.80
78	1b	2390	A	N9-C4-C5	-5.80	103.48	105.80
78	1b	2710	C	C2-N1-C1'	5.80	125.18	118.80
78	1b	3076	C	N1-C2-O2	5.80	122.38	118.90
78	Aa	386	A	N9-C4-C5	-5.80	103.48	105.80
1	2b	1584	G	O4'-C1'-N9	5.80	112.84	108.20
78	1b	1217	A	C5-C6-N6	-5.80	119.06	123.70
78	1b	1451	C	N3-C4-C5	5.80	124.22	121.90
1	2b	1583	A	N1-C6-N6	5.80	122.08	118.60
36	3b	44	A	C4-C5-N7	5.80	113.60	110.70
78	1b	2424	A	C6-C5-N7	-5.80	128.24	132.30
1	2b	1116	A	C5-C6-N6	-5.80	119.06	123.70
36	3b	115	C	C6-N1-C1'	-5.80	113.84	120.80
78	1b	2383	C	N3-C4-C5	5.80	124.22	121.90
78	1b	39	A	C2-N3-C4	-5.79	107.70	110.60
35	Bb	113	C	N1-C2-O2	5.79	122.38	118.90
1	2b	967	A	C6-C5-N7	-5.79	128.25	132.30
1	2b	1333	C	C2-N1-C1'	5.79	125.17	118.80
78	1b	1847	A	C2-N3-C4	-5.79	107.70	110.60
78	1b	2628	A	C5-C6-N6	-5.79	119.07	123.70
78	1b	2864	A	C2-N3-C4	-5.79	107.70	110.60
78	Aa	516	A	N9-C4-C5	-5.79	103.48	105.80
78	Aa	3333	G	N3-C4-C5	5.79	131.50	128.60
78	Aa	1563	C	C6-N1-C1'	5.79	127.75	120.80
35	Bb	5	G	N3-C4-C5	5.79	131.50	128.60
36	Ca	152	G	C6-N1-C2	-5.79	121.62	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	H	116	LYS	CB-CG-CD	5.79	126.66	111.60
78	1b	1453	A	C5-N7-C8	-5.79	101.00	103.90
78	1b	2367	A	C6-C5-N7	-5.79	128.25	132.30
79	6b	13	C	N3-C4-C5	5.79	124.22	121.90
78	Aa	580	C	N3-C4-C5	5.79	124.22	121.90
1	2b	988	A	C5-N7-C8	-5.79	101.01	103.90
78	1b	2169	G	N3-C2-N2	-5.79	115.85	119.90
1	2b	776	G	C8-N9-C4	5.79	108.72	106.40
78	1b	1333	C	C5-C4-N4	-5.79	116.15	120.20
78	1b	1902	G	C4-C5-N7	5.79	113.11	110.80
1	a	1150	G	N3-C2-N2	5.79	123.95	119.90
36	3b	47	C	N3-C4-N4	5.78	122.05	118.00
78	1b	661	G	C5-C6-N1	-5.78	108.61	111.50
78	1b	1195	A	C8-N9-C4	5.78	108.11	105.80
78	1b	584	G	N3-C4-C5	5.78	131.49	128.60
78	1b	665	A	C5-N7-C8	-5.78	101.01	103.90
78	1b	2339	C	C6-N1-C1'	-5.78	113.86	120.80
78	1b	2371	G	N3-C2-N2	5.78	123.95	119.90
1	2b	331	A	C2-N3-C4	-5.78	107.71	110.60
35	4b	95	A	C5-C6-N6	-5.78	119.08	123.70
78	1b	622	A	C5-C6-N6	-5.78	119.08	123.70
78	1b	2188	A	C5-N7-C8	-5.78	101.01	103.90
78	1b	2961	G	C6-C5-N7	-5.78	126.93	130.40
78	Aa	1160	C	C6-N1-C2	5.78	122.61	120.30
78	Aa	2913	C	C6-N1-C2	5.78	122.61	120.30
1	2b	298	C	N3-C4-C5	5.78	124.21	121.90
78	1b	3131	U	C5-C4-O4	-5.78	122.43	125.90
1	2b	1524	A	N9-C4-C5	-5.78	103.49	105.80
78	1b	867	G	N3-C4-C5	5.78	131.49	128.60
78	1b	1201	C	N3-C4-N4	5.78	122.04	118.00
78	1b	2714	G	C2-N3-C4	-5.78	109.01	111.90
1	a	1035	G	N3-C4-C5	5.78	131.49	128.60
78	Aa	582	G	C2-N3-C4	-5.78	109.01	111.90
78	Aa	1483	G	O4'-C1'-N9	5.78	112.82	108.20
1	2b	1003	A	C5-C6-N6	-5.78	119.08	123.70
78	1b	672	A	C5-C6-N6	-5.78	119.08	123.70
78	1b	803	C	C6-N1-C1'	-5.78	113.87	120.80
78	1b	1544	G	N3-C4-C5	5.78	131.49	128.60
78	1b	992	A	C8-N9-C4	5.77	108.11	105.80
35	4b	58	C	C2-N1-C1'	5.77	125.15	118.80
78	1b	29	C	C5-C4-N4	-5.77	116.16	120.20
78	1b	926	A	C6-N1-C2	-5.77	115.14	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	391	A	C5-C6-N1	5.77	120.58	117.70
79	6b	38	A	N1-C6-N6	5.77	122.06	118.60
1	a	1455	G	C8-N9-C1'	5.77	134.50	127.00
1	2b	300	A	C8-N9-C4	5.77	108.11	105.80
78	1b	330	G	C2-N3-C4	-5.77	109.02	111.90
78	1b	688	G	N3-C4-C5	5.77	131.49	128.60
78	1b	1498	A	C6-N1-C2	-5.77	115.14	118.60
78	1b	2128	C	C6-N1-C1'	-5.77	113.88	120.80
1	a	581	U	C2-N1-C1'	5.77	124.62	117.70
1	2b	1296	A	C5-C6-N1	5.77	120.58	117.70
78	1b	31	C	N3-C4-N4	5.77	122.04	118.00
78	1b	1550	C	C5-C4-N4	-5.77	116.16	120.20
78	1b	2288	G	C4-N9-C1'	5.77	134.00	126.50
78	1b	678	G	C2-N3-C4	-5.77	109.02	111.90
78	Aa	1883	A	C5-C6-N6	-5.77	119.09	123.70
1	2b	432	G	C2-N3-C4	-5.76	109.02	111.90
1	2b	634	G	N3-C4-N9	-5.76	122.54	126.00
78	1b	503	C	C2-N1-C1'	5.76	125.14	118.80
78	1b	1447	G	C4-N9-C1'	-5.76	119.01	126.50
1	2b	1592	A	C5-N7-C8	-5.76	101.02	103.90
78	1b	1062	A	C5-N7-C8	-5.76	101.02	103.90
78	1b	1667	A	C4-C5-N7	5.76	113.58	110.70
78	1b	55	G	N3-C4-N9	-5.76	122.54	126.00
78	1b	306	A	C6-N1-C2	-5.76	115.14	118.60
78	1b	426	G	C4-C5-N7	5.76	113.11	110.80
78	1b	3017	A	C5-N7-C8	-5.76	101.02	103.90
78	1b	3110	C	C2-N1-C1'	5.76	125.14	118.80
78	Aa	2513	U	C5-C6-N1	5.76	125.58	122.70
1	2b	819	G	P-O3'-C3'	5.76	126.61	119.70
78	1b	304	G	N1-C2-N2	-5.76	111.02	116.20
78	1b	637	C	C5-C6-N1	5.76	123.88	121.00
78	1b	2369	G	C8-N9-C1'	-5.76	119.51	127.00
78	1b	1390	A	N9-C4-C5	-5.76	103.50	105.80
78	1b	1933	A	C6-C5-N7	-5.76	128.27	132.30
1	2b	344	A	C5-N7-C8	-5.75	101.02	103.90
35	4b	20	A	C4-C5-N7	5.75	113.58	110.70
1	2b	1026	A	C5-C6-N1	5.75	120.58	117.70
1	2b	1208	A	C4-N9-C1'	5.75	136.66	126.30
78	1b	644	G	N3-C4-N9	-5.75	122.55	126.00
78	1b	886	C	C6-N1-C1'	-5.75	113.90	120.80
78	1b	2303	A	C5-C6-N6	-5.75	119.10	123.70
78	1b	335	G	N3-C4-C5	5.75	131.48	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	1487	G	N1-C2-N2	-5.75	111.02	116.20
78	1b	1585	C	C2-N1-C1'	5.75	125.13	118.80
78	1b	3204	C	N3-C2-O2	-5.75	117.87	121.90
1	a	1301	U	C5-C6-N1	5.75	125.58	122.70
78	Aa	95	A	C5-N7-C8	-5.75	101.02	103.90
78	Aa	2609	A	C5-C6-N1	5.75	120.58	117.70
78	1b	1800	A	C5-C6-N6	-5.75	119.10	123.70
78	1b	2134	G	C8-N9-C1'	-5.75	119.53	127.00
1	2b	761	G	C2-N3-C4	-5.75	109.03	111.90
1	2b	1726	G	C4-C5-N7	5.75	113.10	110.80
36	3b	46	G	C5-C6-O6	5.75	132.05	128.60
78	1b	1532	C	C6-N1-C2	-5.75	118.00	120.30
78	1b	1896	A	C4-C5-N7	5.75	113.58	110.70
78	1b	1932	A	C5-C6-N1	5.75	120.57	117.70
78	1b	2957	G	N3-C4-C5	5.75	131.47	128.60
78	Aa	685	G	N1-C2-N2	-5.75	111.03	116.20
1	2b	1322	A	C4-C5-N7	5.75	113.57	110.70
78	1b	426	G	C2-N3-C4	-5.75	109.03	111.90
78	1b	1679	A	C5-N7-C8	-5.75	101.03	103.90
78	Aa	639	G	C4-N9-C1'	5.75	133.97	126.50
78	Aa	1590	G	C6-C5-N7	-5.75	126.95	130.40
78	1b	665	A	C8-N9-C1'	-5.74	117.36	127.70
78	1b	2526	C	C5-C6-N1	5.74	123.87	121.00
78	Aa	1476	G	N3-C4-C5	5.74	131.47	128.60
78	1b	1677	G	N1-C2-N2	-5.74	111.03	116.20
1	2b	1273	G	C2-N3-C4	-5.74	109.03	111.90
78	1b	2107	A	C4-C5-N7	5.74	113.57	110.70
35	Bb	68	C	N1-C2-O2	5.74	122.34	118.90
78	1b	66	A	C5-C6-N6	-5.74	119.11	123.70
78	1b	949	C	C2-N1-C1'	5.74	125.11	118.80
78	1b	2245	C	N3-C4-C5	5.74	124.20	121.90
78	1b	2805	G	C5-C6-O6	5.74	132.04	128.60
78	Aa	1447	G	N3-C4-C5	5.74	131.47	128.60
78	1b	678	G	C4-C5-N7	5.74	113.09	110.80
78	1b	1513	G	C6-C5-N7	-5.74	126.96	130.40
78	1b	2919	A	C5-C6-N1	5.74	120.57	117.70
78	Aa	28	C	N1-C2-O2	5.74	122.34	118.90
78	1b	853	G	C2-N3-C4	-5.74	109.03	111.90
78	Aa	630	A	N1-C6-N6	5.74	122.04	118.60
78	Aa	650	C	C5-C4-N4	-5.74	116.19	120.20
78	1b	1177	G	C6-C5-N7	-5.73	126.96	130.40
78	1b	1337	A	C5-N7-C8	-5.73	101.03	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Aa	804	C	C5-C4-N4	-5.73	116.19	120.20
78	Aa	624	G	N3-C4-N9	5.73	129.44	126.00
78	Aa	815	G	N1-C2-N2	-5.73	111.04	116.20
78	Aa	815	G	N3-C2-N2	5.73	123.91	119.90
78	1b	1930	A	C5-C6-N1	5.73	120.56	117.70
1	2b	30	G	N7-C8-N9	5.73	115.96	113.10
1	2b	352	A	N3-C4-N9	5.73	131.98	127.40
78	1b	106	A	C5-N7-C8	-5.73	101.04	103.90
78	1b	1443	G	C4-C5-N7	5.73	113.09	110.80
78	1b	1489	A	C5-N7-C8	-5.73	101.04	103.90
78	1b	2985	C	N3-C2-O2	-5.73	117.89	121.90
78	Aa	504	A	N9-C4-C5	-5.73	103.51	105.80
78	Aa	767	U	O4'-C1'-N1	5.73	112.78	108.20
78	1b	619	A	N3-C4-C5	5.72	130.81	126.80
78	1b	1930	A	C5-C6-N6	-5.72	119.12	123.70
78	1b	2362	C	C6-N1-C2	-5.72	118.01	120.30
78	1b	2525	G	C2-N3-C4	-5.72	109.04	111.90
78	1b	2656	A	N7-C8-N9	5.72	116.66	113.80
78	1b	2697	A	C5-N7-C8	-5.72	101.04	103.90
78	1b	3080	G	C6-C5-N7	-5.72	126.97	130.40
78	Aa	1815	U	P-O3'-C3'	5.72	126.57	119.70
78	1b	1939	G	N1-C2-N3	5.72	127.33	123.90
78	1b	2939	G	C8-N9-C1'	-5.72	119.56	127.00
1	a	610	G	O4'-C1'-N9	5.72	112.78	108.20
78	1b	222	A	C5-C6-N1	5.72	120.56	117.70
1	2b	1020	A	C5-C6-N1	5.72	120.56	117.70
78	1b	847	A	N7-C8-N9	5.72	116.66	113.80
78	1b	1101	G	C2-N3-C4	-5.72	109.04	111.90
78	1b	1328	C	C2-N1-C1'	5.72	125.09	118.80
78	1b	1899	G	C2-N3-C4	-5.72	109.04	111.90
78	1b	2579	G	C2-N3-C4	-5.72	109.04	111.90
78	Aa	2537	U	C2-N1-C1'	5.72	124.56	117.70
78	1b	691	A	C5-C6-N1	5.72	120.56	117.70
78	Aa	27	C	N3-C2-O2	-5.72	117.90	121.90
1	2b	139	C	N1-C2-O2	5.72	122.33	118.90
1	2b	991	G	C6-C5-N7	-5.72	126.97	130.40
78	1b	2234	G	N1-C2-N2	-5.72	111.06	116.20
1	a	74	U	P-O3'-C3'	5.72	126.56	119.70
78	Aa	1895	A	C5-C6-N6	-5.72	119.13	123.70
1	2b	91	G	C2-N3-C4	-5.71	109.04	111.90
1	2b	1453	G	C2-N3-C4	-5.71	109.04	111.90
78	1b	1611	G	N1-C2-N2	-5.71	111.06	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	1606	C	C5-C4-N4	-5.71	116.20	120.20
78	1b	2591	A	N9-C4-C5	-5.71	103.52	105.80
78	1b	1099	A	C5-C6-N6	-5.71	119.13	123.70
78	1b	2125	A	C5-C6-N1	5.71	120.56	117.70
78	1b	2126	A	C5-C6-N6	-5.71	119.13	123.70
78	1b	2138	A	C5-C6-N1	5.71	120.56	117.70
78	Aa	92	G	N1-C2-N2	-5.71	111.06	116.20
78	Aa	1658	G	C4-C5-N7	5.71	113.08	110.80
78	Aa	1662	G	N1-C2-N2	-5.71	111.06	116.20
1	2b	885	G	C4-C5-N7	5.71	113.08	110.80
1	2b	923	A	C5-N7-C8	-5.71	101.05	103.90
1	2b	1773	C	N3-C4-N4	5.71	122.00	118.00
78	1b	1451	C	N3-C2-O2	-5.71	117.90	121.90
78	1b	2315	G	O4'-C1'-N9	5.71	112.77	108.20
78	1b	3350	C	C4-C5-C6	-5.71	114.55	117.40
1	2b	405	C	N3-C2-O2	-5.71	117.91	121.90
1	2b	1125	A	C8-N9-C1'	-5.71	117.43	127.70
78	1b	1151	U	C5-C6-N1	5.71	125.55	122.70
78	1b	1516	C	C6-N1-C2	5.71	122.58	120.30
78	1b	2360	C	C5-C4-N4	-5.71	116.21	120.20
1	2b	635	A	C6-N1-C2	-5.70	115.18	118.60
78	1b	1152	G	C5-N7-C8	-5.70	101.45	104.30
78	Aa	945	C	C5-C4-N4	-5.70	116.21	120.20
1	2b	967	A	N9-C4-C5	-5.70	103.52	105.80
78	1b	815	G	C6-C5-N7	-5.70	126.98	130.40
1	2b	322	G	P-O3'-C3'	5.70	126.54	119.70
78	1b	3303	G	N3-C4-C5	5.70	131.45	128.60
1	2b	20	G	N3-C4-C5	5.70	131.45	128.60
1	2b	447	U	N3-C4-O4	5.70	123.39	119.40
78	1b	2398	A	N9-C4-C5	-5.70	103.52	105.80
1	a	708	C	N1-C2-O2	5.70	122.32	118.90
36	3b	77	A	C5-C6-N6	-5.70	119.14	123.70
78	1b	992	A	C5-C6-N6	-5.70	119.14	123.70
78	1b	2788	C	N1-C2-O2	5.70	122.32	118.90
78	Aa	625	G	N1-C2-N2	-5.70	111.07	116.20
78	1b	1208	U	N3-C2-O2	-5.70	118.21	122.20
78	1b	1910	A	N1-C6-N6	-5.70	115.18	118.60
78	1b	2714	G	C6-C5-N7	-5.70	126.98	130.40
78	1b	820	A	C5-C6-N6	-5.69	119.14	123.70
78	Aa	912	G	N1-C2-N2	-5.69	111.08	116.20
1	2b	955	A	C5-C6-N6	-5.69	119.15	123.70
1	2b	1792	G	C6-C5-N7	-5.69	126.98	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	2591	A	C8-N9-C4	5.69	108.08	105.80
78	1b	2877	G	C2-N3-C4	-5.69	109.05	111.90
1	a	411	C	N1-C2-O2	5.69	122.31	118.90
78	Aa	7	C	C2-N1-C1'	5.69	125.06	118.80
78	1b	832	G	N1-C2-N3	5.69	127.31	123.90
78	1b	1908	A	C5-C6-N1	5.69	120.55	117.70
1	a	276	C	N3-C2-O2	-5.69	117.92	121.90
78	Aa	971	G	N3-C4-C5	5.69	131.44	128.60
78	Aa	1328	C	N3-C2-O2	-5.69	117.92	121.90
78	Aa	2940	A	N9-C4-C5	-5.69	103.52	105.80
1	2b	433	C	N1-C2-O2	5.69	122.31	118.90
78	1b	1134	G	C2-N3-C4	-5.69	109.06	111.90
78	1b	1401	A	C5-N7-C8	-5.69	101.06	103.90
78	Aa	1808	G	C2-N3-C4	-5.69	109.06	111.90
36	3b	155	A	C5-C6-N1	5.69	120.54	117.70
78	1b	918	C	C5-C4-N4	-5.69	116.22	120.20
78	1b	2520	A	C5-C6-N6	-5.69	119.15	123.70
79	6b	38	A	C4-C5-N7	5.69	113.54	110.70
78	1b	251	G	N3-C4-C5	5.68	131.44	128.60
78	1b	1800	A	N1-C6-N6	5.68	122.01	118.60
78	Aa	2204	C	C6-N1-C2	-5.68	118.03	120.30
1	2b	1192	C	C5-C4-N4	-5.68	116.22	120.20
78	1b	10	C	C2-N3-C4	-5.68	117.06	119.90
78	1b	1176	C	C6-N1-C1'	-5.68	113.98	120.80
78	1b	1660	C	C5-C4-N4	-5.68	116.22	120.20
78	1b	1788	C	C5-C4-N4	-5.68	116.22	120.20
78	1b	1889	G	C4-N9-C1'	5.68	133.89	126.50
1	a	1125	A	N1-C6-N6	5.68	122.01	118.60
78	Aa	1667	A	N1-C6-N6	5.68	122.01	118.60
1	2b	1674	C	N3-C4-N4	5.68	121.98	118.00
78	1b	406	G	N3-C4-C5	5.68	131.44	128.60
78	1b	3021	A	C8-N9-C4	5.68	108.07	105.80
78	1b	3208	G	C2-N3-C4	-5.68	109.06	111.90
1	a	845	G	N3-C4-N9	-5.68	122.59	126.00
78	Aa	586	C	N1-C2-O2	5.68	122.31	118.90
78	1b	543	C	N1-C2-O2	5.68	122.31	118.90
1	2b	876	G	C2-N3-C4	-5.68	109.06	111.90
1	2b	970	A	C5-N7-C8	-5.68	101.06	103.90
1	2b	1025	A	C5-C6-N1	5.68	120.54	117.70
36	3b	118	C	N3-C4-N4	5.68	121.97	118.00
78	1b	1049	C	N3-C2-O2	-5.68	117.93	121.90
78	1b	2853	A	C4-C5-N7	5.68	113.54	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Aa	2130	G	N3-C4-C5	5.68	131.44	128.60
1	2b	845	G	O4'-C1'-N9	5.67	112.74	108.20
78	1b	324	A	C6-N1-C2	-5.67	115.19	118.60
78	Aa	1480	G	C4-N9-C1'	-5.67	119.12	126.50
78	Aa	1906	G	N9-C4-C5	-5.67	103.13	105.40
78	1b	921	A	C6-N1-C2	-5.67	115.20	118.60
1	2b	1172	G	C8-N9-C1'	-5.67	119.63	127.00
78	1b	720	A	C4-C5-N7	5.67	113.54	110.70
78	Aa	1559	A	N3-C4-N9	5.67	131.94	127.40
78	Aa	1579	C	C6-N1-C2	-5.67	118.03	120.30
1	2b	355	G	C4-C5-N7	5.67	113.07	110.80
78	1b	1178	G	C4-N9-C1'	5.67	133.87	126.50
78	1b	1797	A	N1-C6-N6	5.67	122.00	118.60
78	1b	2956	A	N9-C4-C5	-5.67	103.53	105.80
1	a	985	G	C2-N3-C4	-5.67	109.06	111.90
1	2b	384	G	C8-N9-C1'	-5.67	119.63	127.00
1	2b	1505	A	N1-C6-N6	5.67	122.00	118.60
78	1b	498	A	C6-N1-C2	-5.67	115.20	118.60
78	1b	1505	C	N1-C2-O2	5.67	122.30	118.90
78	1b	2586	G	C2-N3-C4	-5.67	109.07	111.90
78	1b	3073	A	C5-C6-N6	-5.67	119.17	123.70
78	Aa	325	A	C8-N9-C4	5.67	108.07	105.80
78	Aa	758	C	C6-N1-C2	-5.67	118.03	120.30
77	pb	4	ARG	NE-CZ-NH2	-5.67	117.47	120.30
78	1b	1910	A	C5-C6-N1	5.67	120.53	117.70
78	1b	711	A	N9-C4-C5	-5.66	103.53	105.80
78	1b	944	C	N1-C2-O2	5.66	122.30	118.90
78	1b	1525	G	C8-N9-C1'	-5.66	119.64	127.00
78	1b	1828	A	C5-C6-N1	5.66	120.53	117.70
78	1b	2926	A	C5-C6-N1	5.66	120.53	117.70
78	1b	3046	A	N1-C6-N6	5.66	122.00	118.60
1	2b	1773	C	C5-C4-N4	-5.66	116.24	120.20
78	1b	946	U	N3-C4-O4	5.66	123.36	119.40
78	1b	2128	C	C2-N1-C1'	5.66	125.03	118.80
78	1b	2394	G	C2-N3-C4	-5.66	109.07	111.90
78	Aa	106	A	C4-C5-N7	5.66	113.53	110.70
1	2b	884	A	N1-C6-N6	5.66	122.00	118.60
1	2b	937	C	N1-C2-O2	5.66	122.30	118.90
1	2b	1448	G	C6-C5-N7	-5.66	127.00	130.40
78	1b	1577	G	C2-N3-C4	-5.66	109.07	111.90
78	1b	2964	G	N3-C4-C5	5.66	131.43	128.60
78	1b	3004	C	C2-N1-C1'	5.66	125.02	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Aa	59	G	N3-C4-C5	5.66	131.43	128.60
78	Aa	213	A	N1-C6-N6	5.66	122.00	118.60
78	Aa	2574	G	C6-C5-N7	-5.66	127.00	130.40
1	2b	592	A	C5-C6-N6	-5.66	119.17	123.70
78	1b	934	G	C6-C5-N7	-5.66	127.01	130.40
78	Aa	1495	U	C6-N1-C1'	-5.66	113.28	121.20
1	2b	162	A	C4-C5-N7	5.66	113.53	110.70
36	3b	27	U	O5'-P-OP1	-5.66	100.61	105.70
78	1b	50	U	C6-N1-C2	-5.66	117.61	121.00
78	1b	357	A	C6-N1-C2	-5.66	115.21	118.60
78	1b	1543	G	C4-C5-N7	5.66	113.06	110.80
78	1b	1591	G	C6-C5-N7	-5.66	127.01	130.40
78	1b	1939	G	N1-C2-N2	-5.66	111.11	116.20
78	1b	2143	A	N1-C6-N6	5.66	121.99	118.60
78	1b	2414	G	C2-N3-C4	-5.66	109.07	111.90
78	1b	2609	A	C6-N1-C2	-5.66	115.21	118.60
78	Aa	1420	C	N3-C4-C5	5.65	124.16	121.90
1	2b	1295	G	N3-C2-N2	-5.65	115.94	119.90
78	1b	398	A	N1-C6-N6	5.65	121.99	118.60
78	Aa	1677	G	N1-C2-N2	-5.65	111.11	116.20
36	Ca	35	C	N1-C2-O2	5.65	122.29	118.90
78	1b	70	A	N1-C6-N6	5.65	121.99	118.60
78	1b	894	G	N1-C2-N3	5.65	127.29	123.90
78	1b	1144	U	C5-C6-N1	5.65	125.53	122.70
78	1b	1796	G	C8-N9-C1'	5.65	134.35	127.00
78	1b	2908	G	C8-N9-C4	5.65	108.66	106.40
1	2b	427	C	C2-N1-C1'	5.65	125.01	118.80
49	Ny	68	ARG	NE-CZ-NH2	-5.65	117.48	120.30
1	2b	1086	A	N9-C4-C5	-5.65	103.54	105.80
78	1b	1586	G	N1-C2-N2	-5.65	111.12	116.20
78	1b	1631	C	N1-C2-O2	5.65	122.29	118.90
78	1b	2317	A	C6-N1-C2	-5.65	115.21	118.60
78	Aa	334	A	C8-N9-C4	5.65	108.06	105.80
78	Aa	345	G	C2-N3-C4	-5.65	109.08	111.90
78	Aa	1848	G	C8-N9-C1'	-5.65	119.66	127.00
78	Aa	2406	C	C5-C6-N1	5.65	123.82	121.00
36	Ca	105	A	C6-C5-N7	-5.65	128.35	132.30
78	1b	922	U	C5-C6-N1	5.65	125.52	122.70
78	1b	1498	A	C5-N7-C8	-5.65	101.08	103.90
1	2b	1152	A	C5-C6-N1	5.64	120.52	117.70
78	1b	2813	A	C5-N7-C8	-5.64	101.08	103.90
78	Aa	330	G	N3-C4-C5	5.64	131.42	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	301	A	C8-N9-C1'	-5.64	117.54	127.70
1	2b	1042	G	C2-N3-C4	-5.64	109.08	111.90
78	1b	130	A	C4-C5-N7	5.64	113.52	110.70
78	1b	3131	U	C2-N1-C1'	5.64	124.47	117.70
37	Da	122	ASP	CB-CG-OD1	5.64	123.38	118.30
78	1b	201	A	C5-C6-N6	-5.64	119.19	123.70
78	1b	220	G	C2-N3-C4	-5.64	109.08	111.90
78	1b	1053	A	C4-C5-N7	5.64	113.52	110.70
78	Aa	1889	G	C8-N9-C1'	-5.64	119.67	127.00
1	2b	114	C	C5-C4-N4	-5.64	116.25	120.20
1	2b	352	A	O4'-C1'-N9	5.64	112.71	108.20
1	2b	967	A	C5-C6-N1	5.64	120.52	117.70
78	1b	807	A	C5-C6-N6	-5.64	119.19	123.70
78	1b	1507	G	N3-C2-N2	-5.64	115.95	119.90
78	Aa	1654	A	C5-C6-N6	-5.64	119.19	123.70
1	2b	315	A	N1-C6-N6	5.63	121.98	118.60
1	2b	1171	A	N9-C4-C5	-5.63	103.55	105.80
1	2b	1299	G	N1-C2-N2	-5.63	111.13	116.20
78	1b	632	G	C8-N9-C1'	-5.63	119.68	127.00
78	1b	912	G	C2-N3-C4	-5.63	109.08	111.90
78	1b	2137	U	C6-N1-C1'	-5.63	113.31	121.20
1	2b	300	A	C5-C6-N1	5.63	120.52	117.70
1	2b	1462	G	N1-C2-N2	-5.63	111.13	116.20
78	1b	1505	C	C2-N1-C1'	5.63	125.00	118.80
78	1b	1663	C	N1-C2-O2	5.63	122.28	118.90
1	2b	230	C	C5-C4-N4	5.63	124.14	120.20
78	1b	856	G	N3-C2-N2	5.63	123.84	119.90
78	1b	2939	G	C4-N9-C1'	5.63	133.82	126.50
78	1b	3060	C	C5-C4-N4	-5.63	116.26	120.20
78	1b	3206	C	N3-C4-N4	-5.63	114.06	118.00
78	Aa	651	G	C6-C5-N7	-5.63	127.02	130.40
1	2b	1786	G	N3-C4-C5	5.63	131.41	128.60
78	1b	1662	G	C2-N3-C4	-5.63	109.08	111.90
78	Aa	1591	G	N3-C2-N2	-5.63	115.96	119.90
78	Aa	1927	G	C6-C5-N7	-5.63	127.02	130.40
1	2b	1074	G	C2-N3-C4	-5.63	109.09	111.90
78	1b	339	C	N3-C2-O2	-5.63	117.96	121.90
78	1b	2642	A	C5-C6-N1	5.63	120.51	117.70
1	2b	991	G	C4-C5-N7	5.63	113.05	110.80
1	2b	1549	C	C5-C4-N4	-5.63	116.26	120.20
78	1b	1421	G	N1-C2-N3	5.63	127.28	123.90
78	1b	1850	A	C5-N7-C8	-5.63	101.09	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	2910	A	N9-C4-C5	-5.63	103.55	105.80
78	1b	3241	G	C2-N3-C4	-5.62	109.09	111.90
78	Aa	920	A	N9-C4-C5	-5.62	103.55	105.80
1	2b	953	G	C2-N3-C4	-5.62	109.09	111.90
78	1b	916	G	O5'-P-OP1	-5.62	100.64	105.70
78	1b	1828	A	C5-C6-N6	-5.62	119.20	123.70
78	1b	2204	C	C2-N1-C1'	5.62	124.98	118.80
1	2b	925	G	N3-C2-N2	5.62	123.83	119.90
1	2b	1125	A	N9-C4-C5	-5.62	103.55	105.80
1	2b	1389	C	N3-C2-O2	-5.62	117.97	121.90
1	2b	1422	A	C5-N7-C8	-5.62	101.09	103.90
78	1b	940	G	C4-C5-N7	5.62	113.05	110.80
78	1b	1836	C	N3-C4-C5	5.62	124.15	121.90
78	1b	2395	G	C4-C5-N7	5.62	113.05	110.80
78	1b	2601	A	C5-C6-N1	5.62	120.51	117.70
78	Aa	947	G	C4-C5-N7	5.62	113.05	110.80
1	a	830	U	C2-N1-C1'	5.62	124.44	117.70
78	Aa	1521	G	C2-N3-C4	-5.62	109.09	111.90
1	2b	943	C	N3-C2-O2	-5.62	117.97	121.90
47	Ly	100	ARG	NE-CZ-NH1	5.62	123.11	120.30
78	1b	388	G	C2-N3-C4	-5.62	109.09	111.90
78	Aa	1555	U	N3-C2-O2	-5.62	118.27	122.20
78	1b	1135	A	C5-N7-C8	-5.62	101.09	103.90
78	1b	1417	G	C2-N3-C4	-5.62	109.09	111.90
1	2b	525	A	C5-C6-N1	5.62	120.51	117.70
1	2b	1774	G	N3-C4-C5	5.62	131.41	128.60
78	1b	281	G	C5-N7-C8	-5.62	101.49	104.30
78	1b	335	G	C2-N3-C4	-5.62	109.09	111.90
78	1b	435	C	N3-C2-O2	-5.62	117.97	121.90
78	1b	788	C	C5-C4-N4	-5.62	116.27	120.20
78	1b	2831	G	C2-N3-C4	-5.62	109.09	111.90
78	Aa	1320	C	C2-N1-C1'	5.62	124.98	118.80
78	Aa	2512	C	C2-N1-C1'	5.62	124.98	118.80
1	2b	30	G	N1-C6-O6	5.61	123.27	119.90
1	2b	1304	G	C6-C5-N7	-5.61	127.03	130.40
36	3b	39	G	C2-N3-C4	-5.61	109.09	111.90
78	1b	348	A	C8-N9-C4	5.61	108.05	105.80
78	1b	1633	C	N1-C2-O2	5.61	122.27	118.90
1	2b	89	G	N3-C2-N2	5.61	123.83	119.90
1	2b	1323	C	N1-C2-O2	5.61	122.27	118.90
49	Ny	108	ARG	NE-CZ-NH1	5.61	123.11	120.30
78	1b	281	G	N1-C2-N2	-5.61	111.15	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	342	A	C5-N7-C8	-5.61	101.09	103.90
78	1b	443	G	N3-C4-N9	-5.61	122.63	126.00
78	1b	1320	C	N3-C4-N4	5.61	121.93	118.00
78	1b	1493	G	N3-C4-C5	5.61	131.41	128.60
78	1b	1791	C	C6-N1-C1'	-5.61	114.07	120.80
78	1b	1902	G	N9-C4-C5	-5.61	103.16	105.40
78	Aa	1889	G	C4-N9-C1'	5.61	133.79	126.50
1	2b	471	A	N9-C4-C5	-5.61	103.56	105.80
1	2b	1525	A	C5-C6-N1	5.61	120.50	117.70
78	1b	638	C	N3-C4-N4	5.61	121.93	118.00
78	1b	1664	G	C6-C5-N7	-5.61	127.03	130.40
78	1b	2437	G	C2-N3-C4	-5.61	109.10	111.90
78	1b	3141	A	C5-C6-N1	5.61	120.50	117.70
78	Aa	2785	A	C5-C6-N6	-5.61	119.21	123.70
78	Aa	2813	A	N9-C4-C5	-5.61	103.56	105.80
1	2b	1201	G	C8-N9-C4	5.61	108.64	106.40
78	1b	651	G	N3-C4-N9	5.61	129.36	126.00
78	1b	3376	A	N1-C6-N6	-5.61	115.24	118.60
78	Aa	1591	G	C5-C6-O6	5.61	131.96	128.60
78	Aa	1806	A	N9-C4-C5	-5.61	103.56	105.80
1	2b	572	C	C2-N1-C1'	5.60	124.97	118.80
78	1b	220	G	N1-C2-N2	-5.60	111.16	116.20
78	1b	632	G	C2-N3-C4	-5.60	109.10	111.90
78	1b	2568	C	C2-N1-C1'	-5.60	112.64	118.80
78	1b	2664	C	N3-C4-C5	5.60	124.14	121.90
78	1b	3029	A	C6-C5-N7	-5.60	128.38	132.30
78	Aa	861	C	N1-C2-O2	5.60	122.26	118.90
78	Aa	1561	G	N1-C6-O6	-5.60	116.54	119.90
1	2b	1323	C	C5-C4-N4	-5.60	116.28	120.20
78	1b	706	A	C6-N1-C2	-5.60	115.24	118.60
78	1b	1197	A	C4-C5-N7	5.60	113.50	110.70
78	Aa	630	A	C5-C6-N6	-5.60	119.22	123.70
78	Aa	1927	G	C4-N9-C1'	5.60	133.78	126.50
78	1b	225	C	N1-C2-O2	5.60	122.26	118.90
78	1b	1099	A	N9-C4-C5	-5.60	103.56	105.80
78	1b	1614	C	C5-C4-N4	-5.60	116.28	120.20
78	1b	3126	C	N1-C2-O2	5.60	122.26	118.90
1	2b	988	A	C6-C5-N7	-5.60	128.38	132.30
78	1b	809	G	C5-N7-C8	-5.60	101.50	104.30
78	1b	1412	G	C2-N3-C4	-5.60	109.10	111.90
78	1b	1615	C	C5-C4-N4	-5.60	116.28	120.20
78	1b	66	A	C5-N7-C8	-5.60	101.10	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	3b	75	G	N3-C4-C5	5.59	131.40	128.60
78	1b	808	A	C4-C5-N7	5.59	113.50	110.70
78	1b	2123	G	C4-C5-N7	5.59	113.04	110.80
1	2b	372	G	C8-N9-C1'	-5.59	119.73	127.00
1	2b	1002	G	N3-C4-N9	-5.59	122.65	126.00
78	1b	1489	A	N9-C4-C5	-5.59	103.56	105.80
78	1b	2407	C	N1-C2-O2	5.59	122.25	118.90
78	1b	82	C	N1-C2-O2	5.59	122.25	118.90
78	1b	625	G	C2-N3-C4	-5.59	109.11	111.90
78	1b	1908	A	C5-C6-N6	-5.59	119.23	123.70
78	1b	2969	A	C4-C5-N7	5.59	113.50	110.70
1	2b	530	C	C6-N1-C2	5.59	122.53	120.30
1	2b	1703	C	N3-C4-C5	5.59	124.14	121.90
1	2b	597	G	N3-C4-C5	5.59	131.39	128.60
36	3b	1	A	N1-C6-N6	5.59	121.95	118.60
36	3b	61	A	C5-C6-N6	-5.59	119.23	123.70
78	1b	3039	C	C2-N1-C1'	5.59	124.94	118.80
78	1b	972	A	N9-C4-C5	-5.58	103.57	105.80
78	1b	2874	G	C5-C6-N1	-5.58	108.71	111.50
1	2b	14	C	N1-C2-O2	5.58	122.25	118.90
78	1b	514	G	N3-C4-C5	5.58	131.39	128.60
78	1b	616	G	C4-C5-N7	5.58	113.03	110.80
78	1b	670	C	N3-C2-O2	-5.58	117.99	121.90
78	1b	1652	G	C2-N3-C4	-5.58	109.11	111.90
78	1b	2993	G	C2-N3-C4	-5.58	109.11	111.90
78	Aa	920	A	C4-C5-N7	5.58	113.49	110.70
78	Aa	3083	G	C8-N9-C1'	-5.58	119.74	127.00
78	1b	1333	C	C5-C6-N1	5.58	123.79	121.00
78	Aa	2333	C	C2-N1-C1'	5.58	124.94	118.80
1	2b	938	G	N3-C4-C5	5.58	131.39	128.60
1	2b	398	G	N1-C2-N3	5.58	127.25	123.90
1	2b	443	C	C5-C4-N4	-5.58	116.30	120.20
78	1b	312	C	N1-C2-O2	5.58	122.25	118.90
78	1b	693	A	C5-N7-C8	-5.58	101.11	103.90
78	1b	815	G	C4-N9-C1'	5.58	133.75	126.50
78	1b	1232	C	N1-C2-O2	5.58	122.25	118.90
78	1b	2247	G	C2-N3-C4	-5.58	109.11	111.90
78	1b	3253	G	N3-C4-N9	-5.58	122.65	126.00
1	2b	923	A	C4-C5-N7	5.58	113.49	110.70
78	1b	823	C	N3-C4-C5	5.58	124.13	121.90
78	1b	838	G	N1-C2-N2	-5.58	111.18	116.20
78	1b	2910	A	C5-N7-C8	-5.58	101.11	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Aa	625	G	C2-N3-C4	-5.58	109.11	111.90
78	Aa	1791	C	C2-N1-C1'	5.58	124.94	118.80
1	2b	250	C	C2-N1-C1'	5.58	124.93	118.80
1	2b	1463	C	C2-N1-C1'	5.58	124.93	118.80
1	2b	1660	A	C4-C5-N7	5.58	113.49	110.70
78	1b	1326	A	C5-C6-N6	-5.58	119.24	123.70
78	1b	1498	A	C5-C6-N1	5.58	120.49	117.70
78	1b	2585	G	C4-N9-C1'	5.58	133.75	126.50
78	1b	2865	U	N3-C2-O2	-5.58	118.30	122.20
78	1b	2961	G	C8-N9-C1'	-5.58	119.75	127.00
1	2b	1408	G	N1-C2-N2	-5.57	111.18	116.20
78	1b	875	G	C4-C5-N7	5.57	113.03	110.80
78	1b	1365	G	C4-C5-N7	5.57	113.03	110.80
78	Aa	1591	G	N3-C4-C5	5.57	131.39	128.60
78	Aa	1866	C	N3-C4-N4	-5.57	114.10	118.00
1	a	1740	A	C4-C5-N7	5.57	113.49	110.70
78	1b	2896	A	C4-C5-N7	5.57	113.49	110.70
78	Aa	2785	A	N1-C6-N6	5.57	121.94	118.60
78	Aa	360	G	C8-N9-C1'	-5.57	119.76	127.00
78	Aa	383	G	N3-C4-C5	5.57	131.38	128.60
1	2b	1478	G	C5-N7-C8	-5.57	101.52	104.30
78	1b	651	G	C6-C5-N7	-5.57	127.06	130.40
78	1b	1046	A	N3-C4-N9	5.57	131.85	127.40
78	1b	1711	C	N3-C2-O2	-5.57	118.00	121.90
78	1b	2355	G	C4-C5-N7	5.57	113.03	110.80
78	Aa	758	C	N3-C2-O2	-5.57	118.00	121.90
78	1b	1392	G	C2-N3-C4	-5.57	109.12	111.90
78	1b	3131	U	C5-C6-N1	5.57	125.48	122.70
78	1b	3395	G	C2-N3-C4	-5.57	109.12	111.90
35	Bb	84	A	C5-C6-N6	-5.57	119.25	123.70
78	1b	2878	G	N3-C4-C5	5.56	131.38	128.60
78	Aa	81	C	N1-C2-O2	5.56	122.24	118.90
78	Aa	584	G	C2-N3-C4	-5.56	109.12	111.90
36	Ca	129	C	N1-C2-O2	5.56	122.24	118.90
36	3b	30	C	C2-N1-C1'	5.56	124.92	118.80
78	1b	94	G	C5-C6-N1	-5.56	108.72	111.50
78	1b	1499	C	N3-C2-O2	-5.56	118.01	121.90
78	1b	2373	A	N1-C6-N6	-5.56	115.26	118.60
78	Aa	1373	A	C4-C5-N7	5.56	113.48	110.70
36	3b	10	A	C5-N7-C8	-5.56	101.12	103.90
78	1b	40	A	C5-C6-N1	5.56	120.48	117.70
78	1b	2939	G	C2-N3-C4	-5.56	109.12	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	284	A	N1-C6-N6	-5.56	115.27	118.60
78	1b	312	C	C2-N1-C1'	5.56	124.92	118.80
78	1b	2364	G	N3-C4-C5	5.56	131.38	128.60
78	1b	2391	G	C5-N7-C8	-5.56	101.52	104.30
78	Aa	1429	G	N3-C2-N2	5.56	123.79	119.90
78	1b	857	G	N3-C4-C5	5.56	131.38	128.60
78	1b	1564	U	N1-C2-O2	5.56	126.69	122.80
78	1b	2359	C	C6-N1-C1'	-5.56	114.13	120.80
78	1b	2430	A	C5-C6-N1	5.56	120.48	117.70
78	1b	2804	A	C5-N7-C8	-5.56	101.12	103.90
1	2b	322	G	C8-N9-C4	-5.56	104.18	106.40
38	By	270	ARG	NE-CZ-NH2	-5.56	117.52	120.30
78	1b	933	A	N1-C6-N6	5.56	121.93	118.60
1	2b	1035	G	N1-C2-N2	-5.55	111.20	116.20
78	1b	1164	G	C8-N9-C1'	-5.55	119.78	127.00
78	1b	1332	A	C5-N7-C8	-5.55	101.12	103.90
78	1b	1527	C	C5-C4-N4	-5.55	116.31	120.20
78	1b	2664	C	C6-N1-C2	5.55	122.52	120.30
78	1b	2721	A	C4-C5-N7	5.55	113.48	110.70
78	1b	2816	G	C5-C6-N1	-5.55	108.72	111.50
78	1b	798	G	N1-C2-N3	5.55	127.23	123.90
78	1b	1701	C	N3-C4-N4	5.55	121.89	118.00
78	Aa	1525	G	C4-C5-N7	5.55	113.02	110.80
1	2b	1791	A	C5-N7-C8	-5.55	101.12	103.90
78	1b	1701	C	C2-N1-C1'	5.55	124.91	118.80
78	Aa	628	A	C4-C5-N7	5.55	113.48	110.70
78	Aa	1560	G	N1-C6-O6	-5.55	116.57	119.90
78	1b	969	C	N1-C2-O2	5.55	122.23	118.90
78	1b	1344	G	C4-N9-C1'	5.55	133.71	126.50
78	1b	3007	U	N3-C2-O2	5.55	126.08	122.20
78	1b	3314	A	C5-C6-N1	5.55	120.47	117.70
78	Aa	1590	G	C4-N9-C1'	5.55	133.71	126.50
78	Aa	2239	G	C2-N3-C4	-5.55	109.13	111.90
78	1b	2865	U	N1-C2-O2	5.55	126.68	122.80
36	Ca	40	A	C5-C6-N6	-5.55	119.26	123.70
78	1b	1311	G	N1-C6-O6	5.54	123.23	119.90
78	1b	1896	A	C8-N9-C1'	-5.54	117.72	127.70
1	2b	656	G	C4-N9-C1'	5.54	133.71	126.50
78	1b	1556	C	C2-N1-C1'	5.54	124.90	118.80
78	1b	2991	A	C2-N3-C4	-5.54	107.83	110.60
78	Aa	85	A	C8-N9-C4	5.54	108.02	105.80
78	Aa	3103	A	C4-C5-N7	5.54	113.47	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	4b	100	C	C2-N1-C1'	5.54	124.89	118.80
78	1b	344	A	C6-N1-C2	-5.54	115.28	118.60
78	1b	824	C	C2-N3-C4	-5.54	117.13	119.90
78	1b	878	G	C2-N3-C4	-5.54	109.13	111.90
78	1b	1317	A	C5-C6-N1	5.54	120.47	117.70
78	1b	2272	G	N3-C2-N2	5.54	123.78	119.90
78	1b	3235	C	N3-C2-O2	-5.54	118.02	121.90
78	Aa	3147	G	C2-N3-C4	-5.54	109.13	111.90
78	Aa	3147	G	N3-C4-N9	-5.54	122.67	126.00
78	1b	2586	G	N3-C4-C5	5.54	131.37	128.60
78	1b	3362	A	N1-C6-N6	5.54	121.92	118.60
78	Aa	3077	A	C4-C5-N7	5.54	113.47	110.70
78	1b	389	A	C5-C6-N1	5.54	120.47	117.70
78	1b	2143	A	C4-C5-N7	5.54	113.47	110.70
78	Aa	1155	C	C2-N1-C1'	5.54	124.89	118.80
78	Aa	3083	G	C4-N9-C1'	5.54	133.70	126.50
78	1b	192	C	N1-C2-O2	5.54	122.22	118.90
78	1b	315	C	C2-N1-C1'	5.54	124.89	118.80
1	2b	363	G	C4-C5-N7	5.54	113.01	110.80
35	4b	101	G	N1-C2-N3	5.54	127.22	123.90
78	1b	1053	A	N9-C4-C5	-5.54	103.59	105.80
78	1b	3184	A	N9-C4-C5	-5.54	103.58	105.80
1	a	1455	G	N9-C4-C5	5.54	107.61	105.40
1	2b	1170	G	C2-N3-C4	-5.53	109.13	111.90
1	2b	1784	C	N1-C2-O2	5.53	122.22	118.90
78	1b	632	G	C5-N7-C8	-5.53	101.53	104.30
1	a	160	C	N1-C2-O2	5.53	122.22	118.90
78	Aa	2803	A	N1-C6-N6	-5.53	115.28	118.60
78	1b	1333	C	C6-N1-C2	-5.53	118.09	120.30
78	1b	1929	G	N3-C4-C5	5.53	131.37	128.60
78	Aa	8	C	C5-C4-N4	-5.53	116.33	120.20
78	Aa	2278	C	C6-N1-C2	5.53	122.51	120.30
78	Aa	2360	C	N1-C2-O2	5.53	122.22	118.90
1	2b	1148	C	C2-N1-C1'	5.53	124.88	118.80
78	1b	3130	A	C4-C5-N7	5.53	113.47	110.70
78	1b	3272	C	C5-C4-N4	-5.53	116.33	120.20
78	Aa	2323	G	O4'-C1'-N9	5.53	112.62	108.20
1	2b	1110	G	N1-C2-N3	5.53	127.22	123.90
78	1b	91	G	N1-C2-N2	-5.53	111.22	116.20
78	1b	130	A	C6-N1-C2	-5.53	115.28	118.60
78	1b	2213	A	N3-C4-N9	-5.53	122.98	127.40
1	a	1128	C	N1-C2-O2	5.53	122.22	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Aa	628	A	C5-C6-N6	-5.53	119.28	123.70
78	Aa	2828	G	C4-N9-C1'	5.53	133.69	126.50
1	2b	1088	A	N1-C6-N6	5.53	121.92	118.60
35	4b	82	G	C2-N3-C4	-5.53	109.14	111.90
78	1b	416	A	C5-C6-N6	-5.53	119.28	123.70
78	1b	622	A	C6-N1-C2	-5.53	115.28	118.60
78	1b	1046	A	N9-C4-C5	-5.53	103.59	105.80
78	1b	1232	C	N3-C2-O2	-5.53	118.03	121.90
78	1b	1940	G	C5-N7-C8	-5.53	101.54	104.30
50	Qa	113	ASP	CB-CG-OD1	5.53	123.28	118.30
1	2b	19	A	C5-N7-C8	-5.53	101.14	103.90
35	4b	89	G	N1-C2-N3	5.53	127.22	123.90
78	1b	82	C	C5-C4-N4	-5.53	116.33	120.20
78	1b	500	C	C5-C4-N4	-5.53	116.33	120.20
78	1b	789	A	N7-C8-N9	5.53	116.56	113.80
78	1b	1752	A	C5-C6-N6	-5.53	119.28	123.70
78	1b	2369	G	N3-C4-C5	-5.53	125.84	128.60
78	1b	2940	A	N1-C6-N6	-5.53	115.28	118.60
78	Aa	661	G	N3-C4-N9	-5.53	122.69	126.00
78	Aa	1935	G	C2-N3-C4	-5.53	109.14	111.90
1	2b	925	G	N7-C8-N9	5.52	115.86	113.10
77	pb	17	ARG	NE-CZ-NH2	-5.52	117.54	120.30
78	1b	418	A	N9-C4-C5	-5.52	103.59	105.80
78	1b	1381	A	C5-N7-C8	-5.52	101.14	103.90
78	1b	1864	A	C5-C6-N6	-5.52	119.28	123.70
78	1b	2145	A	N9-C4-C5	-5.52	103.59	105.80
78	1b	2354	C	C2-N1-C1'	5.52	124.88	118.80
78	1b	109	A	N3-C4-N9	-5.52	122.98	127.40
1	a	411	C	N3-C2-O2	-5.52	118.03	121.90
1	2b	1159	C	N3-C2-O2	-5.52	118.03	121.90
78	1b	2278	C	N3-C4-N4	5.52	121.86	118.00
78	1b	3113	A	C5-N7-C8	-5.52	101.14	103.90
36	3b	104	A	C8-N9-C4	-5.52	103.59	105.80
78	1b	334	A	C4-C5-N7	5.52	113.46	110.70
78	1b	1480	G	N1-C2-N2	-5.52	111.23	116.20
78	1b	1911	A	C5-C6-N6	-5.52	119.28	123.70
1	a	1172	G	N7-C8-N9	5.52	115.86	113.10
1	2b	571	G	N3-C4-N9	-5.52	122.69	126.00
1	2b	1667	A	C5-C6-N6	-5.52	119.29	123.70
78	1b	271	C	C6-N1-C2	5.52	122.51	120.30
78	1b	847	A	C5-N7-C8	-5.52	101.14	103.90
78	Aa	28	C	C6-N1-C2	-5.52	118.09	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	3002	C	N1-C2-O2	5.52	122.21	118.90
78	Aa	3253	G	N3-C4-N9	-5.52	122.69	126.00
1	2b	1297	G	C8-N9-C4	5.51	108.61	106.40
1	2b	1303	U	C2-N1-C1'	5.51	124.32	117.70
36	3b	39	G	N1-C2-N2	-5.51	111.24	116.20
78	1b	1507	G	N3-C4-N9	-5.51	122.69	126.00
17	p	133	ARG	NE-CZ-NH2	-5.51	117.54	120.30
78	Aa	1426	C	N1-C2-O2	5.51	122.21	118.90
78	Aa	2537	U	N3-C2-O2	-5.51	118.34	122.20
78	1b	2430	A	C4-C5-N7	5.51	113.46	110.70
1	2b	10	G	C4-N9-C1'	5.51	133.67	126.50
1	2b	107	C	N3-C2-O2	-5.51	118.04	121.90
1	2b	1030	A	C5-C6-N6	-5.51	119.29	123.70
78	1b	1945	A	C4-C5-N7	5.51	113.46	110.70
78	1b	1950	U	C2-N1-C1'	5.51	124.31	117.70
78	1b	648	C	C5-C4-N4	-5.51	116.34	120.20
78	1b	1000	C	O4'-C1'-N1	5.51	112.61	108.20
78	1b	1360	C	N3-C2-O2	-5.51	118.04	121.90
78	1b	1736	G	C2-N3-C4	-5.51	109.15	111.90
78	Aa	1587	A	C5-C6-N6	-5.51	119.29	123.70
78	1b	500	C	N1-C2-O2	5.51	122.20	118.90
78	1b	991	G	N1-C2-N3	5.51	127.20	123.90
1	2b	1152	A	N9-C4-C5	-5.51	103.60	105.80
1	2b	1421	A	N9-C4-C5	-5.51	103.60	105.80
78	1b	941	G	N1-C2-N3	5.51	127.20	123.90
78	1b	1416	C	N3-C4-C5	5.51	124.10	121.90
78	1b	1631	C	N3-C2-O2	-5.51	118.05	121.90
78	1b	1922	A	N9-C4-C5	-5.51	103.60	105.80
78	1b	2245	C	C2-N1-C1'	5.51	124.86	118.80
78	1b	2352	A	C5-C6-N6	-5.51	119.30	123.70
1	2b	449	C	C6-N1-C2	-5.50	118.10	120.30
1	2b	1455	G	N3-C2-N2	-5.50	116.05	119.90
78	1b	2343	C	N3-C2-O2	-5.50	118.05	121.90
78	Aa	2645	G	C2-N3-C4	-5.50	109.15	111.90
1	2b	614	C	C2-N1-C1'	5.50	124.86	118.80
78	1b	12	A	N9-C4-C5	-5.50	103.60	105.80
78	1b	3181	C	N1-C2-O2	5.50	122.20	118.90
79	6b	41	G	C5-N7-C8	-5.50	101.55	104.30
36	3b	103	G	N3-C4-N9	-5.50	122.70	126.00
78	1b	59	G	N3-C4-C5	5.50	131.35	128.60
78	1b	645	A	C6-N1-C2	-5.50	115.30	118.60
78	1b	856	G	N1-C2-N3	5.50	127.20	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	2590	A	C6-N1-C2	-5.50	115.30	118.60
79	6b	38	A	C5-N7-C8	-5.50	101.15	103.90
78	1b	301	G	C2-N3-C4	-5.50	109.15	111.90
1	a	363	G	N3-C4-N9	-5.50	122.70	126.00
78	Aa	1063	G	C5-N7-C8	-5.50	101.55	104.30
78	1b	269	G	N1-C2-N2	-5.50	111.25	116.20
78	1b	413	U	N3-C2-O2	5.50	126.05	122.20
78	1b	2098	C	N3-C2-O2	-5.50	118.05	121.90
78	1b	2727	A	C5-N7-C8	-5.50	101.15	103.90
1	a	1739	C	N1-C2-O2	5.50	122.20	118.90
78	Aa	433	A	C4-C5-N7	5.50	113.45	110.70
1	2b	915	A	C5-C6-N1	5.50	120.45	117.70
1	2b	1465	C	N3-C4-C5	5.50	124.10	121.90
78	1b	1608	C	N3-C4-N4	5.50	121.85	118.00
78	1b	3139	A	C5-C6-N6	-5.50	119.30	123.70
1	a	1740	A	C5-C6-N6	-5.50	119.30	123.70
1	2b	1188	G	N1-C2-N2	-5.49	111.26	116.20
78	1b	635	G	N1-C2-N3	5.49	127.20	123.90
78	1b	848	A	C5-C6-N6	-5.49	119.31	123.70
78	1b	904	A	C5-C6-N6	-5.49	119.31	123.70
78	1b	788	C	N1-C2-O2	5.49	122.19	118.90
78	1b	2378	C	N1-C2-O2	5.49	122.19	118.90
78	1b	3176	G	O5'-P-OP1	-5.49	100.76	105.70
1	2b	107	C	C2-N1-C1'	5.49	124.84	118.80
1	2b	1794	A	C5-C6-N6	-5.49	119.31	123.70
78	1b	2628	A	N9-C4-C5	-5.49	103.60	105.80
78	1b	3230	G	C2-N3-C4	-5.49	109.15	111.90
78	1b	3290	G	N3-C2-N2	5.49	123.74	119.90
78	Aa	1101	G	N3-C4-N9	-5.49	122.70	126.00
78	1b	1156	C	N3-C2-O2	-5.49	118.06	121.90
78	1b	1843	C	N1-C2-O2	5.49	122.19	118.90
78	1b	2635	A	C5-N7-C8	-5.49	101.16	103.90
1	a	507	U	N3-C2-O2	-5.49	118.36	122.20
1	a	1529	C	C2-N1-C1'	5.49	124.84	118.80
78	1b	304	G	C6-C5-N7	-5.49	127.11	130.40
78	1b	1166	G	N3-C4-C5	5.49	131.34	128.60
78	Aa	1608	C	C6-N1-C1'	-5.49	114.22	120.80
78	Aa	1884	A	C5-C6-N6	-5.49	119.31	123.70
1	2b	57	G	C2-N3-C4	-5.49	109.16	111.90
1	2b	775	G	C2-N3-C4	-5.49	109.16	111.90
78	1b	921	A	C5-N7-C8	-5.49	101.16	103.90
78	1b	2244	A	N1-C6-N6	-5.49	115.31	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	3174	A	C4-C5-N7	5.49	113.44	110.70
1	2b	769	A	C5-N7-C8	-5.48	101.16	103.90
1	2b	1113	A	C8-N9-C4	5.48	107.99	105.80
78	1b	631	U	N3-C4-O4	5.48	123.24	119.40
1	2b	154	G	C4-C5-N7	5.48	112.99	110.80
1	2b	1156	C	N3-C2-O2	-5.48	118.06	121.90
36	3b	92	A	C4-C5-N7	5.48	113.44	110.70
78	1b	2265	C	N3-C4-N4	5.48	121.84	118.00
78	1b	2651	G	N3-C4-N9	-5.48	122.71	126.00
78	1b	2697	A	C5-C6-N6	-5.48	119.31	123.70
78	Aa	3212	C	N3-C4-C5	5.48	124.09	121.90
36	Ca	45	C	N1-C2-O2	5.48	122.19	118.90
78	1b	82	C	N3-C4-C5	5.48	124.09	121.90
78	1b	373	A	C4-C5-N7	5.48	113.44	110.70
78	1b	1397	C	C5-C4-N4	-5.48	116.36	120.20
78	1b	2791	G	C2-N3-C4	-5.48	109.16	111.90
78	Aa	795	G	N3-C4-N9	-5.48	122.71	126.00
78	Aa	912	G	N3-C2-N2	5.48	123.74	119.90
78	Aa	2114	C	N1-C2-O2	5.48	122.19	118.90
78	Aa	2899	C	C6-N1-C1'	-5.48	114.22	120.80
78	1b	915	A	N7-C8-N9	5.48	116.54	113.80
78	Aa	803	C	C2-N1-C1'	5.48	124.83	118.80
1	2b	328	A	C5-C6-N1	5.48	120.44	117.70
1	2b	938	G	C8-N9-C4	5.48	108.59	106.40
35	4b	84	A	C4-C5-N7	5.48	113.44	110.70
35	4b	84	A	C5-C6-N6	-5.48	119.32	123.70
78	1b	89	A	C5-N7-C8	-5.48	101.16	103.90
78	1b	123	A	C4-C5-N7	5.48	113.44	110.70
78	1b	2654	C	C6-N1-C1'	-5.48	114.23	120.80
1	a	109	G	N3-C4-N9	-5.48	122.71	126.00
78	Aa	360	G	N9-C4-C5	-5.48	103.21	105.40
78	1b	815	G	C4-C5-N7	5.48	112.99	110.80
78	1b	2398	A	C5-N7-C8	-5.48	101.16	103.90
78	1b	2943	G	N7-C8-N9	5.48	115.84	113.10
36	Ca	152	G	N9-C4-C5	5.48	107.59	105.40
1	2b	572	C	N3-C2-O2	-5.47	118.07	121.90
78	1b	95	A	N1-C2-N3	5.47	132.04	129.30
78	1b	501	A	C5-C6-N6	-5.47	119.32	123.70
78	1b	1776	G	N3-C4-C5	5.47	131.34	128.60
78	Aa	770	G	O4'-C1'-N9	5.47	112.58	108.20
78	Aa	1578	C	C6-N1-C1'	-5.47	114.23	120.80
1	2b	933	A	C5-C6-N1	5.47	120.44	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	944	A	O4'-C1'-N9	-5.47	103.82	108.20
1	2b	1023	A	C4-C5-N7	5.47	113.44	110.70
1	2b	1593	A	C5-N7-C8	-5.47	101.16	103.90
36	3b	148	G	N1-C2-N3	5.47	127.18	123.90
78	1b	693	A	C4-C5-N7	5.47	113.44	110.70
78	1b	826	G	N1-C2-N3	5.47	127.18	123.90
78	1b	2199	G	N1-C2-N2	-5.47	111.28	116.20
78	Aa	1874	A	C5-C6-N1	5.47	120.44	117.70
78	1b	1927	G	C5-N7-C8	-5.47	101.56	104.30
78	1b	2939	G	N1-C2-N2	-5.47	111.28	116.20
1	2b	583	C	C5-C6-N1	5.47	123.73	121.00
1	2b	1466	G	C8-N9-C4	-5.47	104.21	106.40
78	1b	273	A	C4-C5-N7	5.47	113.43	110.70
78	1b	306	A	N9-C4-C5	-5.47	103.61	105.80
78	1b	1182	A	C5-C6-N1	5.47	120.44	117.70
78	1b	2408	U	N3-C2-O2	5.47	126.03	122.20
78	1b	3110	C	N3-C4-N4	5.47	121.83	118.00
36	Ca	19	C	N1-C2-O2	5.47	122.18	118.90
78	1b	404	G	C4-N9-C1'	5.47	133.61	126.50
78	1b	1919	G	C2-N3-C4	-5.47	109.17	111.90
1	2b	604	A	C5-C6-N1	5.47	120.43	117.70
1	2b	1152	A	N1-C6-N6	5.47	121.88	118.60
78	1b	1338	C	C5-C4-N4	-5.47	116.37	120.20
78	1b	1492	G	C2-N3-C4	-5.47	109.17	111.90
78	1b	2396	G	N3-C4-C5	5.47	131.33	128.60
78	1b	2424	A	N7-C8-N9	5.47	116.53	113.80
78	1b	2434	U	N3-C2-O2	5.47	126.03	122.20
1	a	1458	G	C6-C5-N7	-5.47	127.12	130.40
1	a	1685	G	N7-C8-N9	5.47	115.83	113.10
78	1b	693	A	C5-C6-N6	-5.46	119.33	123.70
78	Aa	637	C	N3-C4-C5	5.46	124.09	121.90
36	3b	12	A	C5-N7-C8	-5.46	101.17	103.90
78	1b	940	G	C2-N3-C4	-5.46	109.17	111.90
78	Aa	62	A	C5-C6-N6	-5.46	119.33	123.70
78	Aa	576	C	N1-C2-O2	5.46	122.18	118.90
78	Aa	1441	G	C2-N3-C4	-5.46	109.17	111.90
1	2b	1659	A	C5-C6-N1	5.46	120.43	117.70
78	1b	70	A	C4-C5-N7	5.46	113.43	110.70
78	1b	2591	A	C5-C6-N6	-5.46	119.33	123.70
78	Aa	828	A	C5-C6-N1	5.46	120.43	117.70
53	C	20	ARG	NE-CZ-NH1	5.46	123.03	120.30
78	1b	880	G	N3-C2-N2	5.46	123.72	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Aa	2727	A	C5-C6-N6	-5.46	119.33	123.70
1	2b	1184	A	N1-C6-N6	-5.46	115.32	118.60
35	4b	88	G	C4-N9-C1'	5.46	133.60	126.50
78	1b	1664	G	C8-N9-C1'	-5.46	119.90	127.00
78	1b	2816	G	N3-C4-C5	5.46	131.33	128.60
78	1b	3092	C	N3-C4-N4	5.46	121.82	118.00
78	Aa	1947	G	N3-C4-N9	-5.46	122.72	126.00
1	2b	1124	A	N1-C6-N6	5.46	121.87	118.60
78	1b	1366	A	C4-C5-N7	5.46	113.43	110.70
78	1b	1949	G	C5-C6-O6	5.46	131.87	128.60
78	1b	2591	A	C4-C5-N7	5.46	113.43	110.70
78	1b	3085	G	C2-N3-C4	-5.46	109.17	111.90
78	Aa	2299	A	N1-C6-N6	5.46	121.87	118.60
1	2b	1096	C	C2-N1-C1'	-5.45	112.80	118.80
1	2b	1577	A	C5-C6-N1	5.45	120.43	117.70
78	1b	929	A	C5-N7-C8	-5.45	101.17	103.90
78	1b	1558	A	C4-C5-N7	5.45	113.43	110.70
78	1b	2284	C	N3-C4-C5	5.45	124.08	121.90
78	1b	1355	A	N9-C4-C5	-5.45	103.62	105.80
78	1b	2813	A	N3-C4-C5	5.45	130.62	126.80
78	1b	3273	A	C5-C6-N1	5.45	120.43	117.70
1	2b	382	C	C2-N1-C1'	5.45	124.80	118.80
1	2b	411	C	N3-C4-C5	5.45	124.08	121.90
1	2b	1145	U	C6-N1-C1'	-5.45	113.57	121.20
1	2b	1524	A	C5-C6-N6	-5.45	119.34	123.70
78	1b	57	A	C5-N7-C8	-5.45	101.17	103.90
78	1b	562	C	N1-C2-O2	5.45	122.17	118.90
78	1b	860	G	C2-N3-C4	-5.45	109.17	111.90
78	1b	1930	A	C5-N7-C8	-5.45	101.17	103.90
78	1b	2390	A	C5-C6-N1	5.45	120.42	117.70
78	Aa	115	A	C5-C6-N6	-5.45	119.34	123.70
78	Aa	394	G	N3-C4-C5	5.45	131.32	128.60
78	Aa	638	C	C2-N1-C1'	5.45	124.80	118.80
78	Aa	2512	C	N1-C2-O2	5.45	122.17	118.90
78	Aa	2973	G	N3-C4-C5	5.45	131.32	128.60
1	2b	67	A	C8-N9-C4	5.45	107.98	105.80
1	2b	1182	U	C2-N1-C1'	5.45	124.24	117.70
78	1b	508	U	C5-C6-N1	5.45	125.42	122.70
78	1b	2950	G	O4'-C1'-N9	5.45	112.56	108.20
78	1b	2697	A	C6-C5-N7	-5.45	128.49	132.30
78	1b	2825	C	N3-C4-C5	5.45	124.08	121.90
78	1b	2969	A	N1-C6-N6	5.45	121.87	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	335	G	C4-C5-N7	5.44	112.98	110.80
78	1b	934	G	C4-N9-C1'	5.44	133.57	126.50
1	2b	403	G	N3-C4-N9	-5.44	122.73	126.00
35	4b	10	C	N3-C4-N4	-5.44	114.19	118.00
35	4b	20	A	C5-C6-N1	5.44	120.42	117.70
35	4b	116	C	N1-C2-O2	5.44	122.16	118.90
78	1b	364	G	N3-C4-C5	5.44	131.32	128.60
78	1b	1449	A	C5-N7-C8	-5.44	101.18	103.90
78	1b	1483	G	C2-N3-C4	-5.44	109.18	111.90
78	1b	1527	C	N3-C2-O2	-5.44	118.09	121.90
78	1b	1529	A	C5-N7-C8	-5.44	101.18	103.90
78	1b	2808	A	N1-C6-N6	5.44	121.86	118.60
78	1b	3086	A	C5-N7-C8	-5.44	101.18	103.90
1	2b	967	A	C6-N1-C2	-5.44	115.34	118.60
36	3b	44	A	C5-C6-N1	5.44	120.42	117.70
1	2b	1038	U	C5-C6-N1	5.44	125.42	122.70
1	2b	1075	C	N3-C4-C5	5.44	124.08	121.90
1	2b	1142	A	C8-N9-C4	5.44	107.97	105.80
78	1b	1312	C	N3-C4-C5	5.44	124.08	121.90
78	1b	1933	A	C5-C6-N6	-5.44	119.35	123.70
78	1b	3039	C	N3-C4-C5	5.44	124.08	121.90
78	Aa	337	G	N3-C4-C5	5.44	131.32	128.60
78	Aa	1476	G	C2-N3-C4	-5.44	109.18	111.90
78	1b	696	C	C6-N1-C1'	-5.44	114.28	120.80
78	1b	2645	G	C2-N3-C4	-5.44	109.18	111.90
36	Ca	29	U	C5-C4-O4	-5.44	122.64	125.90
1	2b	362	G	N1-C2-N2	-5.43	111.31	116.20
78	1b	342	A	C5-C6-N1	5.43	120.42	117.70
78	1b	358	G	N3-C4-C5	5.43	131.32	128.60
78	1b	2259	A	N1-C6-N6	5.43	121.86	118.60
78	1b	3091	A	C5-N7-C8	-5.43	101.18	103.90
1	a	991	G	C2-N3-C4	-5.43	109.18	111.90
78	Aa	1587	A	C4-C5-N7	5.43	113.42	110.70
1	2b	16	G	N3-C2-N2	5.43	123.70	119.90
78	1b	904	A	C6-N1-C2	-5.43	115.34	118.60
78	1b	972	A	C5-C6-N6	-5.43	119.35	123.70
78	1b	1892	G	N7-C8-N9	5.43	115.82	113.10
78	1b	744	A	N1-C6-N6	5.43	121.86	118.60
78	1b	1018	G	C2-N3-C4	-5.43	109.18	111.90
78	1b	1804	A	C5-N7-C8	-5.43	101.19	103.90
78	1b	2943	G	C4-N9-C1'	5.43	133.56	126.50
78	1b	1260	A	C8-N9-C4	5.43	107.97	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	1496	C	C6-N1-C1'	-5.43	114.28	120.80
78	Aa	324	A	N1-C6-N6	-5.43	115.34	118.60
78	Aa	641	C	N3-C4-N4	5.43	121.80	118.00
78	Aa	1654	A	C4-C5-N7	5.43	113.41	110.70
78	Aa	2137	U	O4'-C1'-N1	5.43	112.54	108.20
78	Aa	3278	C	N3-C2-O2	-5.43	118.10	121.90
1	2b	323	A	C6-N1-C2	-5.43	115.34	118.60
1	2b	1087	A	C6-N1-C2	-5.43	115.34	118.60
78	1b	1191	U	C2-N1-C1'	5.43	124.21	117.70
78	1b	2808	A	C5-C6-N6	-5.43	119.36	123.70
1	2b	362	G	C6-C5-N7	-5.43	127.14	130.40
1	2b	1765	A	O4'-C1'-N9	5.43	112.54	108.20
78	1b	366	A	C4-C5-N7	5.43	113.41	110.70
78	1b	2322	C	N3-C2-O2	-5.43	118.10	121.90
78	1b	2628	A	C4-C5-N7	5.43	113.41	110.70
78	Aa	1586	G	C2-N3-C4	-5.43	109.19	111.90
35	4b	20	A	C5-C6-N6	-5.42	119.36	123.70
78	1b	1116	G	C8-N9-C4	5.42	108.57	106.40
78	1b	2355	G	C5-N7-C8	-5.42	101.59	104.30
1	2b	975	C	N3-C4-C5	5.42	124.07	121.90
1	2b	1660	A	N1-C6-N6	5.42	121.85	118.60
36	3b	115	C	C2-N1-C1'	5.42	124.77	118.80
78	1b	15	C	N3-C4-C5	5.42	124.07	121.90
78	1b	2325	G	C4-C5-N7	5.42	112.97	110.80
78	Aa	2961	G	C4-C5-N7	5.42	112.97	110.80
35	4b	10	C	C6-N1-C2	5.42	122.47	120.30
78	1b	906	A	C5-C6-N1	5.42	120.41	117.70
78	1b	2265	C	C2-N1-C1'	5.42	124.76	118.80
78	1b	2311	G	N7-C8-N9	5.42	115.81	113.10
78	Aa	3314	A	C5-C6-N1	5.42	120.41	117.70
78	1b	2799	A	C5-N7-C8	-5.42	101.19	103.90
78	1b	3077	A	N9-C4-C5	-5.42	103.63	105.80
1	a	190	C	N1-C2-O2	5.42	122.15	118.90
78	Aa	3307	A	C4-C5-N7	5.42	113.41	110.70
1	2b	461	G	C4-N9-C1'	5.42	133.54	126.50
1	2b	1138	A	N1-C6-N6	-5.42	115.35	118.60
78	1b	1836	C	C5-C4-N4	-5.42	116.41	120.20
78	1b	1915	A	C4-C5-N7	5.42	113.41	110.70
78	1b	3089	C	C5-C4-N4	-5.42	116.41	120.20
1	2b	803	A	C5-C6-N6	-5.42	119.37	123.70
1	2b	1093	A	C8-N9-C4	5.42	107.97	105.80
1	2b	1667	A	N9-C4-C5	-5.42	103.63	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	750	G	N3-C2-N2	5.42	123.69	119.90
78	1b	997	A	C5-C6-N1	5.42	120.41	117.70
78	1b	2168	A	N1-C6-N6	5.42	121.85	118.60
78	1b	2617	U	C2-N1-C1'	5.42	124.20	117.70
78	1b	656	A	N7-C8-N9	5.42	116.51	113.80
78	1b	910	G	N3-C4-C5	5.42	131.31	128.60
78	1b	2413	A	C5-C6-N6	-5.42	119.37	123.70
78	Aa	1450	G	N3-C4-N9	-5.42	122.75	126.00
36	Ca	62	C	N3-C4-C5	5.42	124.07	121.90
1	2b	867	G	O5'-P-OP1	-5.41	100.83	105.70
1	2b	1671	A	N1-C6-N6	5.41	121.85	118.60
35	4b	78	U	C5-C4-O4	-5.41	122.65	125.90
36	3b	44	A	C6-N1-C2	-5.41	115.35	118.60
78	Aa	656	A	C5-N7-C8	-5.41	101.19	103.90
78	Aa	1387	G	C2-N3-C4	-5.41	109.19	111.90
36	Ca	9	A	N7-C8-N9	5.41	116.51	113.80
78	1b	2161	G	N3-C2-N2	5.41	123.69	119.90
78	1b	3378	C	N3-C4-N4	5.41	121.79	118.00
78	Aa	3130	A	C4-N9-C1'	5.41	136.04	126.30
78	1b	51	A	C4-C5-N7	5.41	113.41	110.70
78	1b	878	G	N9-C4-C5	-5.41	103.24	105.40
78	1b	1863	G	C8-N9-C4	5.41	108.56	106.40
78	Aa	433	A	N7-C8-N9	5.41	116.50	113.80
1	2b	819	G	C4-N9-C1'	5.41	133.53	126.50
1	2b	1042	G	N3-C4-C5	5.41	131.30	128.60
78	1b	1426	C	N1-C2-O2	5.41	122.14	118.90
78	1b	1591	G	C4-C5-N7	5.41	112.96	110.80
78	Aa	1365	G	C4-C5-N7	5.41	112.96	110.80
78	Aa	1499	C	N1-C2-O2	5.41	122.14	118.90
78	Aa	1510	G	N1-C2-N3	5.41	127.14	123.90
1	2b	108	A	N9-C4-C5	-5.41	103.64	105.80
78	1b	336	A	C4-C5-N7	5.41	113.40	110.70
78	1b	2912	G	C2-N3-C4	-5.41	109.20	111.90
78	Aa	1590	G	N9-C4-C5	-5.41	103.24	105.40
1	2b	366	A	C8-N9-C4	5.41	107.96	105.80
78	1b	876	A	C5-N7-C8	-5.41	101.20	103.90
78	Aa	625	G	N1-C2-N3	5.41	127.14	123.90
78	Aa	1156	C	N1-C2-N3	5.41	122.98	119.20
78	Aa	1166	G	C4-C5-N7	5.41	112.96	110.80
1	2b	1328	G	N1-C2-N3	5.40	127.14	123.90
1	2b	383	G	C8-N9-C1'	-5.40	119.98	127.00
36	3b	131	A	N9-C4-C5	-5.40	103.64	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	1330	A	C8-N9-C4	5.40	107.96	105.80
78	1b	1498	A	C4-C5-N7	5.40	113.40	110.70
78	1b	1943	C	C2-N1-C1'	5.40	124.74	118.80
78	1b	3106	A	C5-C6-N6	-5.40	119.38	123.70
1	2b	1546	G	N1-C2-N2	-5.40	111.34	116.20
78	1b	1176	C	C2-N1-C1'	5.40	124.74	118.80
78	1b	1797	A	C5-N7-C8	-5.40	101.20	103.90
78	1b	2107	A	N1-C6-N6	5.40	121.84	118.60
78	1b	2300	G	N1-C2-N3	5.40	127.14	123.90
78	Aa	1933	A	N1-C6-N6	5.40	121.84	118.60
78	1b	50	U	C2-N1-C1'	5.40	124.18	117.70
78	1b	1136	A	C5-C6-N1	5.40	120.40	117.70
78	1b	2316	G	N1-C2-N3	5.40	127.14	123.90
1	2b	1038	U	C2-N3-C4	5.40	130.24	127.00
78	1b	13	A	N9-C4-C5	-5.40	103.64	105.80
78	1b	428	A	N1-C6-N6	-5.40	115.36	118.60
78	1b	1355	A	C8-N9-C4	5.40	107.96	105.80
78	1b	2143	A	C5-N7-C8	-5.40	101.20	103.90
78	1b	2395	G	C2-N3-C4	-5.40	109.20	111.90
78	Aa	757	C	N1-C2-O2	5.40	122.14	118.90
78	Aa	1563	C	C2-N1-C1'	-5.40	112.86	118.80
1	2b	1763	A	N1-C6-N6	5.40	121.84	118.60
78	1b	675	C	C5-C4-N4	-5.40	116.42	120.20
78	1b	2335	G	N1-C2-N3	5.40	127.14	123.90
78	1b	2434	U	C5-C6-N1	5.40	125.40	122.70
1	2b	1780	G	C8-N9-C1'	-5.39	119.99	127.00
78	1b	774	G	C5-C6-O6	5.39	131.84	128.60
78	1b	1589	A	C5-C6-N1	5.39	120.40	117.70
78	1b	2874	G	N3-C4-C5	5.39	131.30	128.60
78	1b	70	A	C5-N7-C8	-5.39	101.20	103.90
78	1b	949	C	N3-C4-N4	5.39	121.77	118.00
78	1b	2303	A	C5-C6-N1	5.39	120.40	117.70
78	1b	3298	C	N1-C2-O2	5.39	122.14	118.90
39	Fa	47	ARG	NE-CZ-NH1	5.39	123.00	120.30
36	3b	8	C	N1-C2-O2	5.39	122.14	118.90
78	1b	56	G	C2-N3-C4	-5.39	109.20	111.90
78	1b	86	G	N3-C4-N9	-5.39	122.77	126.00
78	1b	933	A	C5-C6-N6	-5.39	119.39	123.70
78	1b	1505	C	N3-C2-O2	-5.39	118.13	121.90
78	1b	1677	G	N1-C2-N3	5.39	127.13	123.90
1	2b	305	C	C6-N1-C1'	-5.39	114.33	120.80
1	2b	411	C	C5-C4-N4	-5.39	116.43	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	3b	150	G	C4-C5-N7	5.39	112.96	110.80
78	1b	1185	C	N1-C2-O2	5.39	122.13	118.90
78	1b	1538	G	N1-C2-N3	5.39	127.13	123.90
1	2b	591	A	C6-N1-C2	-5.39	115.37	118.60
1	2b	1671	A	N9-C4-C5	-5.39	103.64	105.80
78	1b	92	G	C5-N7-C8	-5.39	101.61	104.30
1	2b	171	A	C5-C6-N1	5.39	120.39	117.70
1	2b	1787	C	C2-N1-C1'	5.39	124.73	118.80
52	Qy	16	ARG	NE-CZ-NH2	-5.39	117.61	120.30
78	1b	398	A	C5-C6-N6	-5.39	119.39	123.70
78	1b	720	A	C5-N7-C8	-5.39	101.21	103.90
78	1b	958	C	N3-C4-C5	5.39	124.05	121.90
78	1b	1314	C	N3-C4-C5	5.39	124.05	121.90
78	1b	1435	A	N7-C8-N9	5.39	116.49	113.80
78	1b	2756	C	N3-C4-C5	5.39	124.06	121.90
1	a	1035	G	N3-C4-N9	-5.39	122.77	126.00
78	Aa	1780	G	C4-N9-C1'	5.39	133.50	126.50
1	2b	405	C	C2-N1-C1'	5.38	124.72	118.80
78	1b	1339	C	C6-N1-C1'	-5.38	114.34	120.80
78	1b	2628	A	C5-C6-N1	5.38	120.39	117.70
78	Aa	3299	A	N1-C6-N6	5.38	121.83	118.60
79	8	74	C	C5-C4-N4	-5.38	116.43	120.20
1	a	690	G	N3-C4-C5	5.38	131.29	128.60
1	2b	867	G	C2-N3-C4	-5.38	109.21	111.90
1	2b	1125	A	C5-N7-C8	-5.38	101.21	103.90
78	1b	809	G	C2-N3-C4	-5.38	109.21	111.90
78	1b	951	A	N7-C8-N9	5.38	116.49	113.80
78	1b	1314	C	C5-C4-N4	-5.38	116.43	120.20
78	1b	1314	C	N3-C2-O2	-5.38	118.13	121.90
78	1b	1417	G	N3-C4-C5	5.38	131.29	128.60
78	1b	2145	A	C4-C5-N7	5.38	113.39	110.70
78	1b	2391	G	N3-C4-C5	5.38	131.29	128.60
78	1b	1679	A	N1-C6-N6	5.38	121.83	118.60
78	1b	1911	A	C4-C5-N7	5.38	113.39	110.70
78	Aa	1446	A	N1-C6-N6	5.38	121.83	118.60
1	2b	333	A	C6-N1-C2	-5.38	115.37	118.60
1	2b	606	A	C5-C6-N1	5.38	120.39	117.70
35	4b	69	C	N1-C2-O2	5.38	122.13	118.90
78	1b	287	G	N1-C2-N3	5.38	127.13	123.90
78	1b	861	C	C5-C4-N4	-5.38	116.43	120.20
78	1b	1292	C	C5-C4-N4	-5.38	116.44	120.20
78	1b	1655	G	C2-N3-C4	-5.38	109.21	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	1933	A	C5-N7-C8	-5.38	101.21	103.90
78	1b	2125	A	C4-C5-N7	5.38	113.39	110.70
78	1b	3109	G	N1-C2-N3	5.38	127.13	123.90
1	2b	323	A	C6-C5-N7	-5.38	128.54	132.30
1	2b	452	A	C6-C5-N7	-5.38	128.54	132.30
1	2b	866	G	C2-N3-C4	-5.38	109.21	111.90
1	2b	1022	C	C6-N1-C2	5.38	122.45	120.30
1	2b	1317	C	N1-C2-O2	5.38	122.13	118.90
78	1b	972	A	C4-C5-N7	5.38	113.39	110.70
78	1b	1689	U	N3-C4-O4	5.38	123.16	119.40
78	1b	1711	C	C6-N1-C1'	-5.38	114.35	120.80
78	1b	2335	G	C8-N9-C4	5.38	108.55	106.40
78	1b	2619	G	N1-C2-N2	-5.38	111.36	116.20
1	a	767	U	C5-C6-N1	5.38	125.39	122.70
1	2b	1109	G	N1-C2-N3	5.38	127.12	123.90
36	3b	19	C	C6-N1-C1'	-5.38	114.35	120.80
36	3b	32	C	N3-C4-C5	5.38	124.05	121.90
78	1b	2607	G	N3-C4-C5	5.37	131.29	128.60
78	1b	2956	A	C2-N3-C4	-5.37	107.91	110.60
1	a	1141	G	N3-C4-C5	5.37	131.29	128.60
78	Aa	658	G	C8-N9-C1'	-5.37	120.02	127.00
78	Aa	1480	G	N3-C4-N9	-5.37	122.78	126.00
78	Aa	1716	U	P-O3'-C3'	5.37	126.15	119.70
78	Aa	1927	G	C8-N9-C1'	-5.37	120.02	127.00
78	1b	661	G	C8-N9-C4	5.37	108.55	106.40
78	1b	848	A	N1-C6-N6	5.37	121.82	118.60
78	1b	987	U	N3-C4-O4	5.37	123.16	119.40
78	1b	327	A	C5-N7-C8	-5.37	101.22	103.90
78	1b	63	A	C8-N9-C4	5.37	107.95	105.80
78	1b	2985	C	C2-N1-C1'	5.37	124.70	118.80
78	Aa	628	A	C5-N7-C8	-5.37	101.22	103.90
57	Vy	48	ARG	NE-CZ-NH2	-5.37	117.62	120.30
78	1b	1145	G	C5-C6-N1	-5.37	108.82	111.50
78	1b	2183	A	N9-C4-C5	-5.37	103.65	105.80
78	1b	2595	A	C8-N9-C4	-5.37	103.65	105.80
78	1b	896	A	C4-C5-N7	5.37	113.38	110.70
78	1b	2704	A	C5-N7-C8	-5.37	101.22	103.90
78	1b	2896	A	C5-N7-C8	-5.37	101.22	103.90
78	1b	3075	G	C8-N9-C4	-5.37	104.25	106.40
78	1b	3092	C	OP2-P-O3'	5.37	117.00	105.20
79	6b	21	A	C4-C5-N7	5.37	113.38	110.70
1	2b	38	C	C6-N1-C1'	-5.36	114.36	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	1444	A	C5-C6-N6	5.36	127.99	123.70
78	1b	216	G	C2-N3-C4	-5.36	109.22	111.90
78	1b	406	G	C2-N3-C4	-5.36	109.22	111.90
1	a	1144	U	N3-C2-O2	-5.36	118.44	122.20
78	Aa	675	C	N3-C4-C5	5.36	124.05	121.90
78	Aa	1134	G	N1-C2-N2	-5.36	111.37	116.20
78	Aa	1943	C	N1-C2-O2	5.36	122.12	118.90
78	1b	1454	A	C6-C5-N7	-5.36	128.55	132.30
78	1b	2221	G	N3-C4-C5	5.36	131.28	128.60
78	1b	3190	C	N3-C4-C5	5.36	124.04	121.90
78	1b	3365	U	N3-C4-O4	5.36	123.15	119.40
78	Aa	1781	C	N1-C2-O2	5.36	122.12	118.90
78	1b	3212	C	N3-C4-C5	5.36	124.04	121.90
78	Aa	638	C	C6-N1-C2	-5.36	118.16	120.30
1	2b	386	G	C8-N9-C1'	-5.36	120.03	127.00
78	1b	39	A	C4-C5-N7	5.36	113.38	110.70
78	1b	2246	G	C2-N3-C4	-5.36	109.22	111.90
78	1b	3285	C	C6-N1-C2	5.36	122.44	120.30
78	Aa	1141	C	N3-C4-C5	5.36	124.04	121.90
1	2b	1125	A	C4-C5-N7	5.36	113.38	110.70
78	1b	41	G	C8-N9-C1'	-5.36	120.04	127.00
78	1b	950	G	N3-C4-C5	5.36	131.28	128.60
1	2b	1393	C	C6-N1-C2	-5.35	118.16	120.30
78	1b	1829	G	N1-C6-O6	5.35	123.11	119.90
1	a	517	U	N1-C2-O2	5.35	126.55	122.80
1	a	1644	C	N3-C2-O2	-5.35	118.15	121.90
78	Aa	2414	G	N3-C2-N2	5.35	123.65	119.90
1	2b	322	G	C4-C5-N7	5.35	112.94	110.80
1	2b	341	A	N3-C4-N9	5.35	131.68	127.40
1	2b	884	A	N9-C4-C5	-5.35	103.66	105.80
1	2b	1524	A	C4-C5-N7	5.35	113.38	110.70
35	4b	84	A	C6-N1-C2	-5.35	115.39	118.60
78	1b	337	G	N1-C2-N2	-5.35	111.38	116.20
78	1b	753	C	C6-N1-C2	-5.35	118.16	120.30
78	1b	1063	G	N1-C2-N2	-5.35	111.38	116.20
78	1b	1153	A	C5-C6-N6	-5.35	119.42	123.70
78	1b	1613	A	C5-C6-N1	5.35	120.38	117.70
78	1b	2255	A	N1-C6-N6	-5.35	115.39	118.60
78	1b	2835	U	C5-C4-O4	-5.35	122.69	125.90
78	Aa	1755	C	N1-C2-O2	5.35	122.11	118.90
78	Aa	1761	C	P-O3'-C3'	5.35	126.12	119.70
1	2b	1091	A	C2-N3-C4	-5.35	107.93	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	130	A	N1-C6-N6	5.35	121.81	118.60
78	1b	345	G	N1-C2-N3	5.35	127.11	123.90
78	Aa	1185	C	C5-C4-N4	-5.35	116.45	120.20
1	2b	827	C	C2-N3-C4	-5.35	117.23	119.90
1	2b	1624	C	N3-C2-O2	-5.35	118.16	121.90
36	3b	79	A	N1-C6-N6	5.35	121.81	118.60
78	1b	1062	A	N9-C4-C5	-5.35	103.66	105.80
78	1b	1423	C	N3-C4-C5	5.35	124.04	121.90
78	1b	1893	A	C5-N7-C8	-5.35	101.23	103.90
78	1b	2513	U	C5-C6-N1	5.35	125.37	122.70
78	Aa	1551	C	N1-C2-O2	5.35	122.11	118.90
78	Aa	1788	C	C2-N1-C1'	5.35	124.68	118.80
1	2b	7	G	C2-N3-C4	-5.35	109.23	111.90
78	1b	709	A	C2-N3-C4	-5.34	107.93	110.60
78	1b	2339	C	C6-N1-C2	5.34	122.44	120.30
78	1b	2785	A	C5-C6-N6	-5.34	119.42	123.70
78	1b	3375	A	C5-N7-C8	-5.34	101.23	103.90
1	a	1389	C	C2-N1-C1'	5.34	124.68	118.80
78	Aa	383	G	C2-N3-C4	-5.34	109.23	111.90
78	Aa	3163	A	N9-C4-C5	-5.34	103.66	105.80
36	Ca	113	U	C6-N1-C1'	-5.34	113.72	121.20
1	2b	6	G	N3-C4-C5	5.34	131.27	128.60
78	1b	58	G	C2-N3-C4	-5.34	109.23	111.90
78	1b	126	U	C5-C4-O4	-5.34	122.69	125.90
78	Aa	1142	G	C2-N3-C4	-5.34	109.23	111.90
36	Ca	4	C	N3-C2-O2	-5.34	118.16	121.90
1	2b	599	A	C4-C5-N7	5.34	113.37	110.70
1	2b	1670	G	C2-N3-C4	-5.34	109.23	111.90
1	2b	1791	A	C5-C6-N1	5.34	120.37	117.70
78	1b	843	A	C8-N9-C4	5.34	107.94	105.80
78	1b	957	C	C5-C4-N4	-5.34	116.46	120.20
78	1b	1924	U	C6-N1-C2	5.34	124.20	121.00
78	1b	2119	A	C2-N3-C4	-5.34	107.93	110.60
78	1b	3367	C	N1-C2-O2	5.34	122.10	118.90
1	a	75	U	N1-C2-O2	5.34	126.54	122.80
78	Aa	344	A	N1-C6-N6	-5.34	115.40	118.60
1	2b	427	C	C6-N1-C1'	-5.34	114.39	120.80
78	1b	1491	A	C5-N7-C8	-5.34	101.23	103.90
1	2b	1208	A	C8-N9-C1'	-5.34	118.09	127.70
36	3b	105	A	N9-C4-C5	-5.34	103.67	105.80
36	3b	126	A	N1-C6-N6	5.34	121.80	118.60
78	1b	353	G	N3-C4-C5	5.34	131.27	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	881	C	N3-C4-C5	5.34	124.03	121.90
78	1b	3098	G	C5-N7-C8	-5.34	101.63	104.30
78	Aa	386	A	C5-N7-C8	-5.34	101.23	103.90
78	Aa	3375	A	N1-C6-N6	-5.34	115.40	118.60
1	2b	1792	G	C8-N9-C1'	-5.33	120.06	127.00
78	1b	122	A	C5-N7-C8	-5.33	101.23	103.90
78	1b	3189	G	C2-N3-C4	-5.33	109.23	111.90
78	Aa	128	G	C2-N3-C4	-5.33	109.23	111.90
78	Aa	896	A	N1-C6-N6	-5.33	115.40	118.60
78	Aa	1635	G	C8-N9-C4	5.33	108.53	106.40
1	2b	928	U	C5-C4-O4	-5.33	122.70	125.90
1	2b	1072	C	C5-C4-N4	-5.33	116.47	120.20
78	1b	2272	G	N1-C2-N3	5.33	127.10	123.90
78	1b	2876	C	N1-C2-O2	5.33	122.10	118.90
78	Aa	113	C	N3-C2-O2	-5.33	118.17	121.90
78	1b	2530	G	N3-C4-C5	5.33	131.27	128.60
78	Aa	144	A	N1-C6-N6	5.33	121.80	118.60
78	Aa	187	A	N1-C6-N6	5.33	121.80	118.60
78	1b	1851	G	N9-C4-C5	-5.33	103.27	105.40
78	1b	2278	C	C6-N1-C1'	-5.33	114.40	120.80
1	2b	366	A	N1-C6-N6	5.33	121.80	118.60
1	2b	1597	A	N9-C4-C5	-5.33	103.67	105.80
78	1b	650	C	N1-C2-O2	5.33	122.10	118.90
78	1b	691	A	C5-N7-C8	-5.33	101.24	103.90
1	a	1453	G	C4-N9-C1'	5.33	133.43	126.50
78	Aa	75	G	C5-C6-O6	-5.33	125.40	128.60
36	Ca	100	U	C2-N1-C1'	5.33	124.09	117.70
1	2b	765	G	N9-C4-C5	-5.33	103.27	105.40
12	Jb	44	ARG	NE-CZ-NH2	-5.33	117.64	120.30
53	Ry	106	LEU	CA-CB-CG	5.33	127.55	115.30
78	1b	2614	G	N9-C4-C5	-5.33	103.27	105.40
78	Aa	1532	C	N3-C2-O2	-5.33	118.17	121.90
1	2b	386	G	C4-N9-C1'	5.33	133.42	126.50
78	1b	238	A	N9-C4-C5	-5.33	103.67	105.80
78	1b	406	G	C4-N9-C1'	-5.33	119.58	126.50
78	1b	659	G	OP2-P-O3'	5.33	116.91	105.20
78	1b	934	G	C4-C5-N7	5.33	112.93	110.80
78	1b	1609	C	N3-C4-C5	5.33	124.03	121.90
78	1b	2295	A	C4-C5-N7	5.33	113.36	110.70
78	Aa	516	A	C4-C5-N7	5.33	113.36	110.70
78	Aa	1590	G	N3-C4-N9	5.33	129.19	126.00
1	2b	936	G	C6-C5-N7	-5.32	127.20	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	1464	G	N3-C2-N2	5.32	123.63	119.90
78	1b	1290	A	C5-C6-N1	5.32	120.36	117.70
78	1b	2733	A	C6-C5-N7	-5.32	128.57	132.30
78	1b	3044	G	C2-N3-C4	-5.32	109.24	111.90
1	2b	1094	G	C6-C5-N7	-5.32	127.21	130.40
78	1b	347	G	C2-N3-C4	-5.32	109.24	111.90
78	1b	665	A	N7-C8-N9	5.32	116.46	113.80
78	1b	2963	C	C6-N1-C1'	-5.32	114.41	120.80
1	a	240	U	P-O3'-C3'	5.32	126.09	119.70
78	Aa	976	U	C5-C4-O4	-5.32	122.71	125.90
78	Aa	2619	G	C8-N9-C1'	-5.32	120.08	127.00
1	2b	885	G	N7-C8-N9	5.32	115.76	113.10
78	1b	81	C	C5-C4-N4	-5.32	116.48	120.20
35	Bb	5	G	N3-C4-N9	-5.32	122.81	126.00
39	Fa	220	ARG	NE-CZ-NH1	5.32	122.96	120.30
78	1b	2644	C	N1-C2-O2	5.32	122.09	118.90
1	a	426	G	C4-N9-C1'	5.32	133.41	126.50
78	Aa	928	C	N1-C2-O2	5.32	122.09	118.90
1	2b	353	A	C5-N7-C8	-5.32	101.24	103.90
1	2b	1209	C	C6-N1-C2	5.32	122.43	120.30
35	4b	80	G	N3-C2-N2	5.32	123.62	119.90
49	Ny	49	ARG	NE-CZ-NH1	5.32	122.96	120.30
55	Ty	12	ARG	NE-CZ-NH2	-5.32	117.64	120.30
78	1b	1306	G	C2-N3-C4	-5.32	109.24	111.90
78	1b	1922	A	C6-C5-N7	-5.32	128.58	132.30
78	Aa	742	G	N3-C4-N9	-5.32	122.81	126.00
78	Aa	1283	C	C6-N1-C2	-5.32	118.17	120.30
78	Aa	3349	C	N1-C2-O2	5.32	122.09	118.90
58	H	56	ARG	NE-CZ-NH2	-5.32	117.64	120.30
35	4b	113	C	N3-C4-C5	5.32	124.03	121.90
36	3b	135	G	C6-C5-N7	-5.32	127.21	130.40
78	1b	1177	G	C4-N9-C1'	5.32	133.41	126.50
78	1b	2413	A	N1-C6-N6	5.32	121.79	118.60
1	a	1477	G	N3-C4-C5	5.32	131.26	128.60
78	Aa	548	G	N3-C4-N9	-5.32	122.81	126.00
36	3b	63	G	N3-C4-N9	-5.31	122.81	126.00
78	1b	142	C	C6-N1-C2	-5.31	118.17	120.30
78	1b	1393	A	C5-C6-N6	-5.31	119.45	123.70
1	2b	990	C	C6-N1-C1'	-5.31	114.42	120.80
1	2b	1428	G	N1-C2-N3	5.31	127.09	123.90
78	1b	426	G	N9-C4-C5	-5.31	103.28	105.40
78	1b	868	C	N1-C2-O2	5.31	122.09	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	950	G	C8-N9-C4	5.31	108.53	106.40
78	1b	1148	G	N3-C4-C5	5.31	131.26	128.60
78	1b	1212	A	C5-N7-C8	-5.31	101.24	103.90
78	1b	1308	A	C5-C6-N1	5.31	120.36	117.70
1	a	625	C	N3-C4-C5	5.31	124.03	121.90
78	Aa	504	A	C6-C5-N7	-5.31	128.58	132.30
78	Aa	1726	C	N3-C2-O2	-5.31	118.18	121.90
78	1b	860	G	C8-N9-C1'	-5.31	120.09	127.00
78	1b	1538	G	C8-N9-C1'	-5.31	120.10	127.00
78	1b	2520	A	C5-C6-N1	5.31	120.36	117.70
78	1b	861	C	N3-C4-C5	5.31	124.02	121.90
78	1b	2214	A	C5-N7-C8	-5.31	101.25	103.90
78	1b	2389	C	C2-N1-C1'	5.31	124.64	118.80
78	1b	2961	G	C4-N9-C1'	5.31	133.40	126.50
78	Aa	394	G	C2-N3-C4	-5.31	109.25	111.90
36	3b	9	A	N9-C4-C5	-5.31	103.68	105.80
78	1b	621	A	C5-C6-N1	5.31	120.35	117.70
78	1b	1453	A	C4-C5-N7	5.31	113.35	110.70
78	1b	2311	G	C2-N3-C4	-5.31	109.25	111.90
78	1b	3029	A	N9-C4-C5	-5.31	103.68	105.80
78	Aa	1555	U	N1-C2-O2	5.31	126.52	122.80
78	1b	1401	A	C5-C6-N1	5.31	120.35	117.70
78	1b	1559	A	C5-C6-N6	-5.31	119.45	123.70
78	1b	2389	C	N3-C4-N4	5.31	121.72	118.00
78	1b	3337	G	C8-N9-C1'	-5.31	120.10	127.00
35	4b	25	G	N3-C4-C5	5.30	131.25	128.60
78	Aa	20	A	N7-C8-N9	5.30	116.45	113.80
78	Aa	2386	A	C8-N9-C4	5.30	107.92	105.80
78	Aa	2797	C	C6-N1-C2	5.30	122.42	120.30
75	nb	4	LYS	CD-CE-NZ	-5.30	99.50	111.70
78	1b	1497	C	C6-N1-C1'	-5.30	114.44	120.80
78	1b	1802	C	C6-N1-C2	5.30	122.42	120.30
78	1b	1811	G	C2-N3-C4	-5.30	109.25	111.90
78	Aa	638	C	N1-C2-O2	5.30	122.08	118.90
78	1b	64	G	C2-N3-C4	-5.30	109.25	111.90
78	1b	364	G	C6-C5-N7	-5.30	127.22	130.40
78	1b	1478	C	N1-C2-O2	5.30	122.08	118.90
78	1b	1832	C	C6-N1-C2	-5.30	118.18	120.30
78	1b	2295	A	C5-N7-C8	-5.30	101.25	103.90
78	1b	2699	G	N7-C8-N9	5.30	115.75	113.10
78	Aa	75	G	N1-C6-O6	5.30	123.08	119.90
78	Aa	1450	G	N3-C4-C5	5.30	131.25	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	976	G	C2-N3-C4	-5.30	109.25	111.90
1	2b	1422	A	N9-C4-C5	-5.30	103.68	105.80
78	1b	1150	A	N3-C4-C5	5.30	130.51	126.80
78	1b	1186	G	N3-C2-N2	-5.30	116.19	119.90
78	Aa	72	C	N3-C4-N4	-5.30	114.29	118.00
78	Aa	3327	G	N3-C4-C5	5.30	131.25	128.60
1	2b	322	G	N3-C2-N2	5.30	123.61	119.90
78	1b	1440	G	C8-N9-C4	5.30	108.52	106.40
78	1b	2776	C	C5-C4-N4	-5.30	116.49	120.20
1	2b	162	A	C5-C6-N6	-5.30	119.46	123.70
1	2b	1125	A	N3-C4-N9	5.30	131.64	127.40
1	2b	1412	G	N3-C4-N9	-5.30	122.82	126.00
78	1b	2360	C	N3-C2-O2	-5.30	118.19	121.90
1	a	552	G	C6-C5-N7	-5.30	127.22	130.40
36	Ca	105	A	C4-C5-N7	5.30	113.35	110.70
1	2b	628	G	N1-C2-N3	5.29	127.08	123.90
78	1b	45	A	N1-C6-N6	5.29	121.78	118.60
78	1b	648	C	C6-N1-C2	5.29	122.42	120.30
78	1b	2358	A	C5-N7-C8	-5.29	101.25	103.90
78	1b	2851	A	C8-N9-C4	5.29	107.92	105.80
78	Aa	1443	G	C4-C5-N7	5.29	112.92	110.80
1	2b	587	C	C5-C4-N4	-5.29	116.50	120.20
36	3b	77	A	C5-N7-C8	-5.29	101.25	103.90
78	Aa	339	C	C2-N1-C1'	5.29	124.62	118.80
78	Aa	1480	G	N3-C4-C5	5.29	131.25	128.60
78	Aa	1594	A	C5-C6-N6	-5.29	119.47	123.70
1	2b	1387	G	N3-C4-C5	5.29	131.25	128.60
78	1b	341	G	N1-C2-N3	5.29	127.07	123.90
78	1b	2136	C	N3-C4-C5	5.29	124.02	121.90
1	2b	38	C	N3-C4-C5	5.29	124.02	121.90
1	2b	371	G	C8-N9-C1'	-5.29	120.12	127.00
1	2b	1550	A	C5-C6-N1	5.29	120.34	117.70
78	1b	678	G	N9-C4-C5	-5.29	103.28	105.40
78	1b	2329	C	N1-C2-O2	5.29	122.07	118.90
78	1b	2343	C	C5-C4-N4	-5.29	116.50	120.20
78	1b	3190	C	C5-C4-N4	-5.29	116.50	120.20
78	Aa	106	A	N3-C4-N9	5.29	131.63	127.40
36	3b	9	A	N7-C8-N9	5.29	116.44	113.80
78	1b	306	A	C4-C5-N7	5.29	113.34	110.70
78	1b	1337	A	N9-C4-C5	-5.29	103.69	105.80
78	Aa	199	A	O4'-C1'-N9	5.29	112.43	108.20
78	Aa	2187	G	N1-C2-N2	-5.29	111.44	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	992	A	C6-C5-N7	-5.29	128.60	132.30
1	2b	1791	A	N7-C8-N9	5.29	116.44	113.80
78	1b	1297	C	N1-C2-O2	5.29	122.07	118.90
78	1b	1579	C	C2-N3-C4	-5.29	117.26	119.90
78	1b	3197	G	N3-C4-N9	-5.29	122.83	126.00
1	a	1792	G	C6-C5-N7	-5.29	127.23	130.40
78	Aa	1428	A	C5-C6-N6	-5.29	119.47	123.70
78	Aa	2636	A	O4'-C1'-N9	5.29	112.43	108.20
78	Aa	2654	C	N1-C2-N3	5.29	122.90	119.20
78	Aa	3061	G	C8-N9-C4	5.29	108.52	106.40
36	Ca	8	C	C6-N1-C2	-5.29	118.19	120.30
78	Aa	1844	C	N3-C4-N4	5.28	121.70	118.00
78	Aa	2384	A	C5-C6-N6	-5.28	119.47	123.70
78	Aa	3077	A	N9-C4-C5	-5.28	103.69	105.80
1	2b	383	G	N1-C2-N2	-5.28	111.45	116.20
1	2b	819	G	N3-C4-C5	-5.28	125.96	128.60
78	1b	2512	C	C2-N1-C1'	5.28	124.61	118.80
78	1b	3017	A	C5-C6-N6	-5.28	119.47	123.70
78	Aa	968	G	C2-N3-C4	-5.28	109.26	111.90
78	1b	1541	G	N1-C6-O6	5.28	123.07	119.90
78	1b	3133	C	C6-N1-C1'	-5.28	114.46	120.80
78	Aa	1581	C	N3-C4-N4	5.28	121.70	118.00
36	3b	9	A	C6-C5-N7	-5.28	128.60	132.30
78	Aa	2646	C	C6-N1-C2	5.28	122.41	120.30
1	2b	900	A	C5-C6-N6	-5.28	119.48	123.70
1	2b	1466	G	N7-C8-N9	5.28	115.74	113.10
36	3b	11	C	C2-N1-C1'	5.28	124.61	118.80
36	3b	27	U	C5-C6-N1	5.28	125.34	122.70
78	1b	1139	G	C2-N3-C4	-5.28	109.26	111.90
78	1b	1376	C	N3-C4-N4	5.28	121.69	118.00
78	1b	1749	A	C8-N9-C4	5.28	107.91	105.80
1	a	535	A	C6-N1-C2	5.28	121.77	118.60
78	Aa	911	C	C5-C4-N4	-5.28	116.51	120.20
78	Aa	1780	G	C8-N9-C1'	-5.28	120.14	127.00
78	Aa	2338	C	C2-N1-C1'	5.28	124.61	118.80
1	2b	301	A	C4-C5-N7	5.28	113.34	110.70
78	1b	548	G	N1-C6-O6	5.28	123.06	119.90
78	1b	837	A	C8-N9-C4	5.28	107.91	105.80
78	1b	1190	A	C4-C5-N7	5.28	113.34	110.70
78	1b	1933	A	N7-C8-N9	5.28	116.44	113.80
78	1b	3130	A	N7-C8-N9	5.28	116.44	113.80
1	a	1122	G	C2-N3-C4	-5.28	109.26	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	Ca	40	A	N1-C6-N6	5.28	121.77	118.60
78	1b	1111	U	C5-C6-N1	5.27	125.34	122.70
78	1b	2259	A	N9-C4-C5	-5.27	103.69	105.80
1	a	1555	A	C4-C5-N7	-5.27	108.06	110.70
1	2b	367	A	N9-C4-C5	-5.27	103.69	105.80
1	2b	1011	G	N3-C4-C5	5.27	131.24	128.60
1	2b	1533	C	N1-C2-O2	5.27	122.06	118.90
1	2b	1745	G	C2-N3-C4	-5.27	109.26	111.90
78	1b	63	A	C2-N3-C4	-5.27	107.96	110.60
78	1b	226	C	C6-N1-C1'	-5.27	114.47	120.80
78	1b	295	A	C5-N7-C8	-5.27	101.26	103.90
78	1b	560	G	C2-N3-C4	-5.27	109.26	111.90
78	1b	3112	G	N3-C4-C5	5.27	131.24	128.60
1	a	1045	C	C6-N1-C2	-5.27	118.19	120.30
78	Aa	62	A	C4-C5-N7	5.27	113.34	110.70
78	Aa	62	A	C5-N7-C8	-5.27	101.26	103.90
78	Aa	131	C	N1-C2-O2	5.27	122.06	118.90
78	Aa	1736	G	C8-N9-C4	5.27	108.51	106.40
1	2b	647	G	N1-C2-N3	5.27	127.06	123.90
78	1b	1150	A	C4-C5-N7	5.27	113.34	110.70
78	1b	2143	A	C5-C6-N6	-5.27	119.48	123.70
78	1b	1337	A	C4-C5-N7	5.27	113.33	110.70
78	1b	2911	A	C4-C5-C6	-5.27	114.36	117.00
78	Aa	263	C	N1-C2-O2	5.27	122.06	118.90
1	2b	605	A	C6-C5-N7	-5.27	128.61	132.30
1	2b	887	A	C5-N7-C8	-5.27	101.27	103.90
78	1b	102	C	C6-N1-C1'	-5.27	114.48	120.80
78	1b	273	A	C5-N7-C8	-5.27	101.27	103.90
78	1b	694	C	C5-C4-N4	-5.27	116.51	120.20
1	a	13	C	C2-N1-C1'	5.27	124.59	118.80
1	2b	868	G	N3-C4-C5	5.27	131.23	128.60
78	Aa	937	G	C2-N3-C4	-5.27	109.27	111.90
1	2b	1316	G	N3-C4-C5	5.26	131.23	128.60
1	2b	1553	G	C2-N3-C4	-5.26	109.27	111.90
78	1b	422	A	N1-C6-N6	5.26	121.76	118.60
78	1b	914	A	N9-C4-C5	-5.26	103.69	105.80
78	1b	959	C	N3-C4-C5	5.26	124.01	121.90
78	1b	3058	U	C6-N1-C1'	-5.26	113.83	121.20
78	Aa	2369	G	C8-N9-C1'	-5.26	120.16	127.00
78	Aa	2832	C	N3-C4-C5	5.26	124.01	121.90
1	2b	548	G	N1-C2-N3	5.26	127.06	123.90
1	2b	1099	U	O4'-C1'-N1	5.26	112.41	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	1084	A	N9-C4-C5	-5.26	103.69	105.80
78	1b	2596	U	C5-C4-O4	-5.26	122.74	125.90
78	Aa	113	C	N1-C2-O2	5.26	122.06	118.90
78	1b	105	C	N3-C4-N4	-5.26	114.32	118.00
78	1b	2369	G	N3-C4-N9	5.26	129.16	126.00
78	1b	2591	A	C5-N7-C8	-5.26	101.27	103.90
1	2b	423	G	C4-N9-C1'	5.26	133.33	126.50
1	2b	1480	G	C6-C5-N7	-5.26	127.25	130.40
78	1b	1137	C	C2-N1-C1'	5.26	124.58	118.80
78	Aa	1718	G	C4-C5-N7	5.26	112.90	110.80
36	Ca	82	U	OP2-P-O3'	5.26	116.76	105.20
1	2b	377	G	C2-N3-C4	-5.25	109.27	111.90
78	1b	95	A	N7-C8-N9	5.25	116.43	113.80
1	2b	592	A	C5-N7-C8	-5.25	101.27	103.90
1	2b	799	A	C8-N9-C4	5.25	107.90	105.80
78	1b	1945	A	C6-C5-N7	-5.25	128.62	132.30
78	1b	2220	A	C5-N7-C8	-5.25	101.27	103.90
78	1b	2348	A	C4-C5-N7	5.25	113.33	110.70
1	a	1039	A	O4'-C1'-N9	5.25	112.40	108.20
1	2b	1793	G	N1-C2-N2	-5.25	111.47	116.20
78	1b	744	A	C5-C6-N6	-5.25	119.50	123.70
78	1b	1796	G	C6-C5-N7	5.25	133.55	130.40
78	1b	2352	A	N1-C6-N6	5.25	121.75	118.60
78	1b	2402	A	C5-C6-N6	-5.25	119.50	123.70
78	1b	3337	G	C4-N9-C1'	5.25	133.33	126.50
78	Aa	1450	G	C8-N9-C1'	5.25	133.83	127.00
78	Aa	2104	A	C5-N7-C8	-5.25	101.28	103.90
1	2b	1459	C	C2-N3-C4	-5.25	117.28	119.90
78	1b	362	U	N3-C4-O4	5.25	123.08	119.40
1	2b	407	A	C4-C5-N7	5.25	113.32	110.70
36	3b	99	C	C6-N1-C2	5.25	122.40	120.30
78	1b	209	A	C5-C6-N1	5.25	120.32	117.70
78	1b	3217	C	N1-C2-O2	5.25	122.05	118.90
78	Aa	625	G	C5-C6-O6	5.25	131.75	128.60
78	Aa	1063	G	C8-N9-C4	-5.25	104.30	106.40
57	Vy	80	ARG	NE-CZ-NH1	5.25	122.92	120.30
78	1b	2157	G	C2-N3-C4	-5.25	109.28	111.90
78	Aa	2384	A	N9-C4-C5	-5.25	103.70	105.80
36	Ca	92	A	N9-C4-C5	-5.25	103.70	105.80
78	1b	2265	C	N1-C2-O2	5.25	122.05	118.90
78	1b	2420	C	N1-C2-O2	5.25	122.05	118.90
78	1b	2961	G	C5-N7-C8	-5.25	101.68	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Aa	1906	G	C8-N9-C1'	-5.25	120.18	127.00
78	Aa	2132	C	N3-C4-N4	-5.25	114.33	118.00
1	2b	951	A	C5-C6-N1	5.24	120.32	117.70
78	1b	1491	A	C6-N1-C2	-5.24	115.45	118.60
78	1b	2220	A	C4-C5-N7	5.24	113.32	110.70
78	Aa	1562	C	N3-C2-O2	-5.24	118.23	121.90
78	1b	1053	A	C5-N7-C8	-5.24	101.28	103.90
1	2b	236	A	C5-C6-N1	5.24	120.32	117.70
1	2b	1720	G	C6-C5-N7	-5.24	127.26	130.40
78	1b	1436	U	O5'-P-OP2	-5.24	100.98	105.70
78	1b	2376	G	N3-C4-N9	-5.24	122.86	126.00
78	1b	3017	A	C4-C5-N7	5.24	113.32	110.70
1	a	1663	G	N1-C6-O6	5.24	123.05	119.90
78	Aa	404	G	N3-C2-N2	5.24	123.57	119.90
78	Aa	1365	G	C6-C5-N7	-5.24	127.26	130.40
78	Aa	1499	C	C2-N1-C1'	5.24	124.56	118.80
78	Aa	2214	A	N1-C6-N6	5.24	121.74	118.60
36	3b	150	G	N3-C4-C5	5.24	131.22	128.60
78	1b	94	G	N3-C4-N9	-5.24	122.86	126.00
78	1b	130	A	C5-N7-C8	-5.24	101.28	103.90
78	1b	617	G	C2-N3-C4	-5.24	109.28	111.90
78	1b	808	A	N1-C6-N6	5.24	121.74	118.60
78	1b	2246	G	N3-C4-N9	-5.24	122.86	126.00
78	1b	3061	G	N1-C2-N2	-5.24	111.49	116.20
78	Aa	222	A	C4-C5-N7	5.24	113.32	110.70
78	Aa	586	C	N3-C2-O2	-5.24	118.23	121.90
78	Aa	1781	C	C2-N1-C1'	5.24	124.56	118.80
78	Aa	3163	A	C4-C5-N7	5.24	113.32	110.70
78	Aa	72	C	C2-N3-C4	-5.24	117.28	119.90
1	2b	752	A	C6-C5-N7	-5.24	128.63	132.30
78	1b	934	G	C2-N3-C4	-5.24	109.28	111.90
78	1b	2614	G	N3-C4-N9	5.24	129.14	126.00
78	1b	2866	U	N1-C2-O2	5.24	126.47	122.80
78	Aa	950	G	C2-N3-C4	-5.24	109.28	111.90
1	2b	1417	A	C4-C5-N7	5.23	113.32	110.70
36	3b	100	U	C5-C4-O4	-5.23	122.76	125.90
1	2b	884	A	C5-N7-C8	-5.23	101.28	103.90
1	2b	1416	G	N1-C2-N3	5.23	127.04	123.90
78	1b	1936	A	C5-N7-C8	-5.23	101.28	103.90
78	1b	2425	G	N3-C4-C5	5.23	131.22	128.60
78	Aa	77	A	C8-N9-C4	5.23	107.89	105.80
1	2b	624	G	N1-C2-N2	-5.23	111.49	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	1583	A	C5-N7-C8	-5.23	101.28	103.90
1	2b	1764	C	N3-C4-C5	5.23	123.99	121.90
78	1b	656	A	N1-C6-N6	5.23	121.74	118.60
78	1b	856	G	C6-C5-N7	-5.23	127.26	130.40
78	1b	1558	A	N9-C4-C5	-5.23	103.71	105.80
1	2b	1546	G	N3-C2-N2	5.23	123.56	119.90
78	1b	1377	G	C5-N7-C8	-5.23	101.69	104.30
1	a	1301	U	C2-N1-C1'	5.23	123.97	117.70
78	Aa	1895	A	N1-C6-N6	5.23	121.74	118.60
78	Aa	2299	A	C5-C6-N6	-5.23	119.52	123.70
1	2b	1671	A	C5-N7-C8	-5.23	101.29	103.90
78	1b	720	A	N9-C4-C5	-5.23	103.71	105.80
78	1b	2395	G	C5-N7-C8	-5.23	101.69	104.30
78	1b	2892	A	C4-C5-N7	5.23	113.31	110.70
78	1b	3086	A	C6-N1-C2	-5.23	115.46	118.60
78	Aa	92	G	N3-C2-N2	5.23	123.56	119.90
78	Aa	875	G	N9-C4-C5	-5.23	103.31	105.40
78	Aa	1333	C	N3-C4-N4	5.23	121.66	118.00
1	2b	1625	C	C2-N1-C1'	5.23	124.55	118.80
78	1b	908	G	C2-N3-C4	-5.23	109.29	111.90
78	1b	1872	C	C5-C4-N4	-5.23	116.54	120.20
78	1b	2813	A	C4-C5-C6	-5.23	114.39	117.00
1	2b	34	G	N3-C4-C5	5.22	131.21	128.60
35	4b	58	C	N1-C2-O2	5.22	122.03	118.90
78	1b	1150	A	C5-N7-C8	-5.22	101.29	103.90
78	1b	2142	A	C5-C6-N1	5.22	120.31	117.70
78	1b	2733	A	N9-C4-C5	-5.22	103.71	105.80
78	Aa	937	G	N3-C4-C5	5.22	131.21	128.60
78	1b	332	C	C5-C4-N4	-5.22	116.55	120.20
78	1b	386	A	C4-C5-N7	5.22	113.31	110.70
78	1b	2867	C	C2-N1-C1'	5.22	124.55	118.80
78	1b	3067	C	C5-C4-N4	-5.22	116.55	120.20
78	Aa	2961	G	N7-C8-N9	5.22	115.71	113.10
1	2b	1293	U	C5-C4-O4	-5.22	122.77	125.90
1	2b	1594	G	C4-N9-C1'	5.22	133.29	126.50
78	1b	3311	C	N1-C2-O2	5.22	122.03	118.90
78	Aa	779	G	C8-N9-C4	5.22	108.49	106.40
1	2b	80	A	C8-N9-C4	5.22	107.89	105.80
1	2b	1277	G	N3-C2-N2	5.22	123.55	119.90
36	3b	88	A	C5-N7-C8	-5.22	101.29	103.90
78	1b	23	A	N1-C6-N6	5.22	121.73	118.60
78	1b	637	C	N3-C4-C5	5.22	123.99	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	2341	A	C4-C5-N7	5.22	113.31	110.70
78	1b	3167	A	C4-C5-N7	5.22	113.31	110.70
78	Aa	1905	G	N1-C2-N2	-5.22	111.50	116.20
78	Aa	3345	G	C8-N9-C4	5.22	108.49	106.40
1	2b	30	G	C8-N9-C1'	-5.22	120.22	127.00
1	2b	391	A	C4-C5-N7	5.22	113.31	110.70
1	2b	1162	C	C5-C4-N4	-5.22	116.55	120.20
36	3b	16	G	N3-C4-C5	5.22	131.21	128.60
62	ay	32	ARG	NE-CZ-NH2	-5.22	117.69	120.30
78	1b	632	G	C4-N9-C1'	5.22	133.28	126.50
78	1b	651	G	N7-C8-N9	5.22	115.71	113.10
78	1b	1046	A	C6-C5-N7	-5.22	128.65	132.30
1	2b	1179	G	C8-N9-C4	5.22	108.49	106.40
78	1b	691	A	C6-N1-C2	-5.22	115.47	118.60
78	1b	789	A	C5-C6-N6	-5.22	119.53	123.70
78	1b	1197	A	C6-C5-N7	-5.22	128.65	132.30
78	1b	2168	A	C5-C6-N6	-5.22	119.53	123.70
78	1b	2651	G	N3-C4-C5	5.22	131.21	128.60
1	a	73	U	OP1-P-O3'	5.22	116.67	105.20
78	Aa	2705	A	C5-C6-N6	-5.22	119.53	123.70
1	2b	1194	A	N9-C4-C5	-5.21	103.71	105.80
1	2b	1614	A	C5-C6-N6	-5.21	119.53	123.70
78	1b	652	G	C4-N9-C1'	5.21	133.28	126.50
78	1b	1216	C	N1-C2-O2	5.21	122.03	118.90
78	1b	2810	C	C6-N1-C1'	-5.21	114.54	120.80
1	a	895	G	N3-C4-N9	-5.21	122.87	126.00
78	Aa	1898	G	N3-C2-N2	-5.21	116.25	119.90
55	E	92	ARG	NE-CZ-NH1	5.21	122.91	120.30
35	4b	59	U	C5-C4-O4	-5.21	122.77	125.90
78	1b	1446	A	C4-C5-N7	5.21	113.31	110.70
78	1b	1454	A	C5-N7-C8	-5.21	101.29	103.90
78	1b	1505	C	C5-C4-N4	-5.21	116.55	120.20
1	a	1453	G	C4-C5-N7	5.21	112.89	110.80
78	Aa	1947	G	C8-N9-C1'	5.21	133.78	127.00
78	1b	72	C	N3-C4-C5	5.21	123.98	121.90
78	1b	787	G	C6-C5-N7	-5.21	127.27	130.40
78	1b	945	C	C2-N1-C1'	5.21	124.53	118.80
78	1b	2895	G	N9-C4-C5	-5.21	103.32	105.40
78	1b	3164	C	N1-C2-O2	5.21	122.03	118.90
78	Aa	2335	G	C2-N3-C4	-5.21	109.29	111.90
35	Bb	94	C	N1-C2-O2	5.21	122.03	118.90
1	2b	1463	C	C5-C4-N4	-5.21	116.55	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	1583	A	C4-C5-N7	5.21	113.30	110.70
78	1b	332	C	C6-N1-C2	5.21	122.38	120.30
78	1b	807	A	C2-N3-C4	-5.21	108.00	110.60
78	1b	2415	C	N1-C2-O2	5.21	122.03	118.90
78	1b	2609	A	N9-C4-C5	-5.21	103.72	105.80
78	1b	360	G	N1-C2-N3	5.21	127.02	123.90
1	a	895	G	N3-C4-C5	5.21	131.20	128.60
78	Aa	650	C	C6-N1-C2	-5.21	118.22	120.30
36	3b	57	C	N3-C2-O2	-5.21	118.26	121.90
78	1b	90	C	C2-N1-C1'	5.20	124.52	118.80
78	1b	1905	G	N1-C2-N2	-5.20	111.52	116.20
78	1b	1922	A	C5-N7-C8	-5.20	101.30	103.90
78	Aa	2834	G	C2-N3-C4	-5.20	109.30	111.90
1	2b	139	C	N3-C2-O2	-5.20	118.26	121.90
78	Aa	656	A	C4-N9-C1'	5.20	135.66	126.30
1	2b	1134	C	N1-C2-O2	5.20	122.02	118.90
1	2b	1322	A	C8-N9-C4	5.20	107.88	105.80
1	2b	1330	G	C5-C6-N1	-5.20	108.90	111.50
78	1b	1217	A	C5-C6-N1	5.20	120.30	117.70
78	1b	1580	A	N9-C4-C5	-5.20	103.72	105.80
36	3b	125	U	N3-C2-O2	-5.20	118.56	122.20
78	1b	67	A	O4'-C1'-N9	5.20	112.36	108.20
78	1b	1372	C	C5-C4-N4	-5.20	116.56	120.20
78	1b	1545	A	N1-C6-N6	-5.20	115.48	118.60
78	Aa	2945	G	C8-N9-C1'	-5.20	120.24	127.00
1	2b	1575	G	N1-C2-N2	-5.20	111.52	116.20
78	1b	711	A	C5-C6-N1	5.20	120.30	117.70
78	1b	1889	G	C8-N9-C1'	-5.20	120.24	127.00
78	1b	2619	G	C2-N3-C4	-5.20	109.30	111.90
78	Aa	2245	C	N1-C2-O2	5.20	122.02	118.90
78	Aa	2311	G	C6-C5-N7	-5.20	127.28	130.40
78	Aa	3299	A	C5-C6-N6	-5.20	119.54	123.70
1	2b	331	A	C6-C5-N7	-5.20	128.66	132.30
78	1b	1335	C	N1-C2-O2	5.20	122.02	118.90
78	1b	1393	A	N1-C6-N6	5.20	121.72	118.60
78	1b	1901	A	C5-C6-N6	-5.20	119.54	123.70
78	1b	2333	C	N1-C2-O2	5.20	122.02	118.90
1	2b	331	A	N3-C4-C5	5.19	130.44	126.80
78	1b	784	A	O4'-C1'-N9	5.19	112.36	108.20
78	1b	1171	G	C4-C5-N7	5.19	112.88	110.80
78	1b	2293	C	N3-C4-N4	5.19	121.64	118.00
1	a	1130	G	C2-N3-C4	-5.19	109.30	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Aa	888	A	C5-C6-N6	-5.19	119.55	123.70
78	Aa	1459	C	C2-N1-C1'	5.19	124.51	118.80
1	2b	1791	A	C5-C6-N6	-5.19	119.55	123.70
78	1b	1314	C	C2-N1-C1'	5.19	124.51	118.80
78	1b	1943	C	N3-C2-O2	-5.19	118.27	121.90
78	1b	2639	G	C8-N9-C1'	-5.19	120.25	127.00
78	1b	2659	G	C2-N3-C4	-5.19	109.30	111.90
78	1b	3091	A	N9-C4-C5	-5.19	103.72	105.80
1	a	1742	U	C5-C6-N1	5.19	125.30	122.70
1	2b	1593	A	C4-C5-N7	5.19	113.30	110.70
1	2b	1797	A	C5-C6-N1	5.19	120.30	117.70
47	Ly	101	ARG	NE-CZ-NH1	5.19	122.89	120.30
78	1b	945	C	N3-C2-O2	-5.19	118.27	121.90
78	1b	1198	C	C2-N3-C4	-5.19	117.30	119.90
78	1b	1819	U	C2-N1-C1'	5.19	123.93	117.70
78	1b	2407	C	C6-N1-C2	-5.19	118.22	120.30
24	x	93	LEU	CA-CB-CG	5.19	127.24	115.30
1	2b	1679	G	C2-N3-C4	-5.19	109.31	111.90
78	Aa	62	A	C6-C5-N7	-5.19	128.67	132.30
78	1b	1509	A	N9-C4-C5	-5.19	103.72	105.80
78	1b	2995	A	C5-C6-N1	5.19	120.29	117.70
1	a	1663	G	N7-C8-N9	5.19	115.69	113.10
78	Aa	907	G	O4'-C1'-N9	5.19	112.35	108.20
78	Aa	1284	C	N3-C4-N4	5.19	121.63	118.00
78	Aa	1414	G	N3-C4-C5	5.19	131.19	128.60
36	Ca	41	A	N1-C6-N6	5.19	121.71	118.60
1	2b	1090	C	C2-N1-C1'	5.18	124.50	118.80
78	1b	1137	C	N3-C4-C5	5.18	123.97	121.90
78	1b	1486	G	C2-N3-C4	-5.18	109.31	111.90
78	1b	2314	U	C5-C6-N1	5.18	125.29	122.70
78	1b	2348	A	N1-C6-N6	5.18	121.71	118.60
78	1b	2911	A	C5-C6-N1	5.18	120.29	117.70
79	6b	13	C	C2-N3-C4	-5.18	117.31	119.90
1	a	1529	C	C5-C6-N1	5.18	123.59	121.00
1	a	1596	C	C5'-C4'-C3'	5.18	124.29	116.00
78	Aa	649	A	C4-C5-N7	5.18	113.29	110.70
78	Aa	1137	C	N3-C4-C5	5.18	123.97	121.90
1	2b	1333	C	N3-C4-N4	5.18	121.63	118.00
78	1b	9	U	C5-C4-O4	5.18	129.01	125.90
78	1b	632	G	C4-C5-N7	5.18	112.87	110.80
78	1b	1802	C	C5-C4-N4	-5.18	116.57	120.20
78	Aa	914	A	N9-C4-C5	-5.18	103.73	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Aa	1372	C	C5-C4-N4	-5.18	116.57	120.20
78	Aa	2359	C	N1-C2-O2	5.18	122.01	118.90
78	Aa	3083	G	N9-C4-C5	-5.18	103.33	105.40
78	Aa	3345	G	C2-N3-C4	-5.18	109.31	111.90
1	2b	627	C	N3-C4-C5	5.18	123.97	121.90
1	2b	1672	G	C8-N9-C1'	-5.18	120.26	127.00
1	2b	884	A	C5-C6-N1	5.18	120.29	117.70
1	2b	995	A	C4-C5-N7	5.18	113.29	110.70
78	1b	21	G	N1-C2-N3	5.18	127.01	123.90
78	1b	727	G	C2-N3-C4	-5.18	109.31	111.90
78	1b	1679	A	N9-C4-C5	-5.18	103.73	105.80
78	1b	2955	U	OP2-P-O3'	5.18	116.59	105.20
78	Aa	1422	G	C4-N9-C1'	5.18	133.23	126.50
78	Aa	1883	A	C5-C6-N1	5.18	120.29	117.70
1	2b	427	C	N1-C2-O2	5.18	122.01	118.90
1	2b	1304	G	N1-C2-N2	-5.18	111.54	116.20
78	1b	92	G	N9-C4-C5	-5.18	103.33	105.40
78	1b	695	C	C2-N1-C1'	5.18	124.50	118.80
78	1b	953	G	C2-N3-C4	-5.18	109.31	111.90
36	3b	71	A	N1-C6-N6	5.18	121.71	118.60
68	gy	91	ARG	NE-CZ-NH2	-5.18	117.71	120.30
78	1b	143	G	N3-C4-N9	-5.18	122.89	126.00
78	1b	3362	A	C4-C5-N7	5.18	113.29	110.70
1	a	1398	U	N1-C2-O2	5.18	126.42	122.80
1	2b	636	A	N9-C4-C5	-5.17	103.73	105.80
1	2b	1778	G	C8-N9-C4	5.17	108.47	106.40
78	1b	964	G	C6-C5-N7	-5.17	127.30	130.40
78	1b	1644	C	N1-C2-O2	5.17	122.00	118.90
78	1b	1843	C	C6-N1-C1'	-5.17	114.59	120.80
78	1b	1850	A	C5-C6-N6	-5.17	119.56	123.70
78	1b	2637	A	C5-C6-N6	-5.17	119.56	123.70
78	1b	2889	C	N3-C2-O2	-5.17	118.28	121.90
79	6b	41	G	C4-N9-C1'	5.17	133.23	126.50
79	6b	56	C	N1-C2-O2	5.17	122.00	118.90
78	Aa	27	C	C2-N1-C1'	5.17	124.49	118.80
78	Aa	2132	C	N3-C4-C5	5.17	123.97	121.90
78	Aa	2228	A	N9-C4-C5	-5.17	103.73	105.80
78	Aa	3083	G	C6-C5-N7	-5.17	127.30	130.40
1	2b	1086	A	C4-C5-N7	5.17	113.29	110.70
1	2b	1581	C	C6-N1-C1'	-5.17	114.59	120.80
1	2b	1741	U	N3-C4-O4	5.17	123.02	119.40
78	1b	2644	C	C5-C6-N1	5.17	123.59	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	2984	C	N3-C4-N4	5.17	121.62	118.00
78	Aa	95	A	C4-C5-N7	5.17	113.29	110.70
78	Aa	3136	G	C2-N3-C4	-5.17	109.31	111.90
1	2b	1116	A	N9-C4-C5	-5.17	103.73	105.80
36	3b	57	C	N1-C2-O2	5.17	122.00	118.90
78	1b	1170	A	C5-C6-N1	5.17	120.29	117.70
78	Aa	7	C	N3-C2-O2	-5.17	118.28	121.90
78	Aa	496	C	N3-C4-C5	5.17	123.97	121.90
1	2b	1783	C	C5-C4-N4	-5.17	116.58	120.20
78	1b	804	C	C6-N1-C2	5.17	122.37	120.30
78	1b	1102	A	C8-N9-C4	5.17	107.87	105.80
78	1b	2401	A	N1-C6-N6	5.17	121.70	118.60
1	a	1657	U	P-O3'-C3'	5.17	125.90	119.70
78	Aa	95	A	C6-C5-N7	-5.17	128.68	132.30
78	Aa	1444	G	C4-N9-C1'	5.17	133.22	126.50
78	Aa	1701	C	N3-C4-C5	5.17	123.97	121.90
1	2b	1777	G	C8-N9-C1'	-5.17	120.28	127.00
78	1b	1497	C	N1-C2-O2	5.17	122.00	118.90
78	1b	1539	A	C5-N7-C8	-5.17	101.32	103.90
78	1b	1597	C	C6-N1-C1'	-5.17	114.60	120.80
78	Aa	113	C	C2-N1-C1'	5.17	124.48	118.80
1	2b	369	A	N9-C4-C5	-5.17	103.73	105.80
78	1b	1868	G	N1-C2-N3	5.17	127.00	123.90
78	1b	3223	A	C8-N9-C4	5.17	107.87	105.80
78	Aa	3009	G	C6-C5-N7	-5.17	127.30	130.40
36	3b	135	G	C4-C5-N7	5.16	112.87	110.80
78	1b	1921	A	N1-C6-N6	-5.16	115.50	118.60
78	Aa	428	A	C5-C6-N1	5.16	120.28	117.70
78	Aa	2973	G	N3-C4-N9	-5.16	122.90	126.00
36	Ca	109	A	N3-C4-C5	5.16	130.41	126.80
1	2b	900	A	C4-C5-N7	5.16	113.28	110.70
78	1b	16	A	C5-C6-N1	5.16	120.28	117.70
78	1b	143	G	N3-C4-C5	5.16	131.18	128.60
78	1b	417	A	C5-C6-N6	-5.16	119.57	123.70
78	1b	653	A	C5-C6-N1	5.16	120.28	117.70
78	1b	1525	G	N9-C4-C5	-5.16	103.34	105.40
78	1b	1713	G	C2-N3-C4	-5.16	109.32	111.90
78	1b	2625	C	N1-C2-O2	5.16	122.00	118.90
78	1b	2654	C	N1-C2-O2	5.16	122.00	118.90
78	1b	2764	C	N3-C4-C5	5.16	123.96	121.90
78	Aa	1587	A	C5-N7-C8	-5.16	101.32	103.90
78	Aa	1849	C	C6-N1-C2	-5.16	118.24	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Aa	2871	G	N3-C4-C5	5.16	131.18	128.60
1	2b	1028	C	C5-C4-N4	-5.16	116.59	120.20
1	2b	1611	A	C4-N9-C1'	5.16	135.59	126.30
78	1b	342	A	C8-N9-C4	5.16	107.86	105.80
78	1b	1893	A	N9-C4-C5	-5.16	103.74	105.80
78	1b	2196	C	C2-N1-C1'	5.16	124.47	118.80
78	Aa	237	G	N3-C4-C5	5.16	131.18	128.60
1	2b	387	A	C5-C6-N1	5.16	120.28	117.70
1	2b	585	A	C4-C5-N7	5.16	113.28	110.70
78	1b	1930	A	C4-C5-N7	5.16	113.28	110.70
78	1b	2926	A	C6-N1-C2	-5.16	115.51	118.60
78	Aa	95	A	N7-C8-N9	5.16	116.38	113.80
1	2b	142	G	N9-C4-C5	-5.16	103.34	105.40
1	2b	220	A	C4-C5-N7	5.16	113.28	110.70
1	2b	481	A	N9-C4-C5	-5.16	103.74	105.80
78	1b	1337	A	C6-C5-N7	-5.16	128.69	132.30
78	1b	1367	G	N9-C4-C5	-5.16	103.34	105.40
78	1b	1466	G	C2-N3-C4	-5.16	109.32	111.90
78	1b	1857	C	C6-N1-C1'	-5.16	114.61	120.80
79	6b	57	G	C8-N9-C4	5.16	108.46	106.40
1	a	1197	C	N3-C4-N4	-5.16	114.39	118.00
78	Aa	1433	A	C5-C6-N6	-5.16	119.58	123.70
1	2b	923	A	N1-C6-N6	5.15	121.69	118.60
78	1b	350	C	N3-C4-N4	5.15	121.61	118.00
78	1b	2649	A	C5-C6-N1	5.15	120.28	117.70
78	1b	3046	A	N9-C4-C5	-5.15	103.74	105.80
78	Aa	2374	C	C6-N1-C2	-5.15	118.24	120.30
1	2b	330	G	C5-N7-C8	-5.15	101.72	104.30
1	2b	1082	C	C2-N1-C1'	5.15	124.47	118.80
1	2b	1753	A	N3-C4-N9	5.15	131.52	127.40
35	4b	94	C	C6-N1-C1'	-5.15	114.62	120.80
78	1b	1057	A	C2-N3-C4	-5.15	108.02	110.60
79	6b	75	C	C6-N1-C1'	-5.15	114.62	120.80
78	Aa	1126	G	N1-C6-O6	-5.15	116.81	119.90
78	Aa	1859	A	C5-C6-N6	-5.15	119.58	123.70
78	Aa	2961	G	C5-N7-C8	-5.15	101.72	104.30
37	Da	193	ARG	NE-CZ-NH2	-5.15	117.72	120.30
78	1b	101	G	C2-N3-C4	-5.15	109.33	111.90
78	1b	1339	C	N3-C4-N4	5.15	121.61	118.00
78	1b	2879	C	C2-N1-C1'	5.15	124.47	118.80
1	2b	1304	G	N7-C8-N9	5.15	115.67	113.10
78	1b	687	U	N3-C2-O2	-5.15	118.59	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	807	A	C6-C5-N7	-5.15	128.70	132.30
78	1b	861	C	N1-C2-O2	5.15	121.99	118.90
78	1b	2171	G	C8-N9-C4	-5.15	104.34	106.40
78	1b	2658	G	N1-C2-N3	5.15	126.99	123.90
78	1b	3108	G	C8-N9-C1'	-5.15	120.31	127.00
78	Aa	42	C	C2-N1-C1'	5.15	124.46	118.80
78	Aa	1097	G	C4-N9-C1'	5.15	133.19	126.50
78	Aa	1314	C	N1-C2-O2	5.15	121.99	118.90
78	1b	412	G	N9-C4-C5	-5.15	103.34	105.40
78	Aa	635	G	C2-N3-C4	-5.15	109.33	111.90
1	2b	355	G	N9-C4-C5	-5.14	103.34	105.40
1	2b	1021	C	N3-C4-C5	5.14	123.96	121.90
1	2b	1667	A	C5-C6-N1	5.14	120.27	117.70
78	1b	665	A	C6-C5-N7	-5.14	128.70	132.30
78	1b	2374	C	C5-C4-N4	-5.14	116.60	120.20
78	1b	2734	A	C8-N9-C4	5.14	107.86	105.80
78	Aa	1534	A	N1-C6-N6	5.14	121.69	118.60
53	C	20	ARG	NE-CZ-NH2	-5.14	117.73	120.30
78	1b	753	C	C5-C4-N4	-5.14	116.60	120.20
78	1b	867	G	N3-C2-N2	-5.14	116.30	119.90
78	1b	1663	C	C5-C4-N4	-5.14	116.60	120.20
78	1b	2134	G	C4-N9-C1'	5.14	133.19	126.50
78	1b	2364	G	C2-N3-C4	-5.14	109.33	111.90
78	1b	3039	C	C6-N1-C1'	-5.14	114.63	120.80
1	a	1210	C	C6-N1-C1'	5.14	126.97	120.80
1	a	1332	C	C2-N1-C1'	5.14	124.46	118.80
1	2b	1771	U	C5-C4-O4	-5.14	122.81	125.90
78	1b	1934	G	C2-N3-C4	-5.14	109.33	111.90
78	1b	3366	G	N1-C2-N2	-5.14	111.57	116.20
1	2b	610	G	C2-N3-C4	-5.14	109.33	111.90
1	2b	943	C	C6-N1-C1'	-5.14	114.63	120.80
78	1b	72	C	C6-N1-C2	5.14	122.36	120.30
78	1b	668	G	N1-C2-N3	5.14	126.98	123.90
78	1b	1141	C	N1-C2-O2	5.14	121.98	118.90
78	1b	2627	C	N3-C4-C5	5.14	123.96	121.90
1	a	647	G	N3-C4-C5	5.14	131.17	128.60
78	1b	1884	A	N1-C6-N6	-5.14	115.52	118.60
78	1b	3276	G	N1-C2-N2	-5.14	111.58	116.20
78	Aa	107	A	N3-C4-N9	-5.14	123.29	127.40
1	2b	305	C	C6-N1-C2	-5.14	118.25	120.30
1	2b	1381	U	C5-C6-N1	5.14	125.27	122.70
1	2b	1646	C	C6-N1-C2	5.14	122.35	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	619	A	N3-C4-N9	-5.14	123.29	127.40
78	1b	1460	A	N9-C4-C5	-5.14	103.75	105.80
78	1b	2130	G	C2-N3-C4	-5.14	109.33	111.90
78	1b	2590	A	N1-C6-N6	5.14	121.68	118.60
78	Aa	912	G	C8-N9-C4	5.14	108.45	106.40
1	2b	629	U	N3-C2-O2	-5.13	118.61	122.20
1	2b	1408	G	N3-C2-N2	5.13	123.49	119.90
35	4b	37	G	C4-N9-C1'	5.13	133.18	126.50
35	4b	45	A	N9-C4-C5	-5.13	103.75	105.80
78	1b	857	G	N3-C4-N9	-5.13	122.92	126.00
78	1b	2313	A	C5-C6-N6	-5.13	119.59	123.70
78	1b	3147	G	C4-C5-N7	5.13	112.85	110.80
1	a	895	G	C6-N1-C2	5.13	128.18	125.10
1	a	1188	G	N1-C6-O6	-5.13	116.82	119.90
78	Aa	968	G	N3-C4-C5	5.13	131.17	128.60
78	Aa	1036	A	N9-C4-C5	-5.13	103.75	105.80
78	Aa	1587	A	N1-C6-N6	5.13	121.68	118.60
78	Aa	2961	G	C6-C5-N7	-5.13	127.32	130.40
35	4b	80	G	C4-N9-C1'	5.13	133.17	126.50
78	1b	1698	C	C5-C4-N4	-5.13	116.61	120.20
78	1b	1715	A	C5-C6-N6	-5.13	119.59	123.70
1	2b	365	G	N3-C4-C5	5.13	131.17	128.60
1	2b	449	C	N1-C2-O2	5.13	121.98	118.90
78	1b	876	A	C4-C5-N7	5.13	113.27	110.70
78	1b	1328	C	C6-N1-C1'	-5.13	114.64	120.80
78	1b	2317	A	N9-C4-C5	-5.13	103.75	105.80
78	Aa	2798	C	N3-C2-O2	-5.13	118.31	121.90
75	nb	2	ARG	NE-CZ-NH1	5.13	122.86	120.30
78	1b	2099	A	C5-C6-N6	-5.13	119.60	123.70
78	1b	2887	A	C5-N7-C8	-5.13	101.33	103.90
78	Aa	28	C	N3-C2-O2	-5.13	118.31	121.90
1	2b	1210	C	N3-C2-O2	-5.13	118.31	121.90
36	3b	36	G	N3-C4-N9	-5.13	122.92	126.00
78	1b	1126	G	C8-N9-C1'	-5.13	120.33	127.00
78	1b	1851	G	C8-N9-C1'	-5.13	120.33	127.00
78	1b	2906	C	N3-C4-C5	5.13	123.95	121.90
78	1b	2910	A	C5-C6-N1	5.13	120.26	117.70
78	Aa	1532	C	C2-N3-C4	-5.13	117.34	119.90
1	2b	1455	G	C2-N3-C4	-5.13	109.34	111.90
36	3b	77	A	C4-C5-N7	5.13	113.26	110.70
38	By	4	ARG	NE-CZ-NH1	5.13	122.86	120.30
78	1b	7	C	N3-C4-C5	5.13	123.95	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	357	A	C5-C6-N1	5.13	120.26	117.70
78	1b	1301	A	C8-N9-C4	5.13	107.85	105.80
78	1b	1669	C	N1-C2-O2	5.13	121.98	118.90
78	1b	2104	A	C8-N9-C4	5.13	107.85	105.80
78	1b	2401	A	C8-N9-C4	5.13	107.85	105.80
78	1b	2878	G	C8-N9-C4	5.13	108.45	106.40
1	2b	799	A	C5-C6-N1	5.12	120.26	117.70
78	1b	2284	C	C5-C4-N4	-5.12	116.61	120.20
78	1b	2354	C	C6-N1-C1'	-5.12	114.65	120.80
78	1b	2710	C	C5-C4-N4	-5.12	116.61	120.20
78	Aa	1510	G	C2-N3-C4	-5.12	109.34	111.90
1	2b	302	U	C5-C6-N1	5.12	125.26	122.70
1	2b	1653	C	C5-C4-N4	-5.12	116.61	120.20
1	2b	1654	G	C2-N3-C4	-5.12	109.34	111.90
78	1b	721	G	C2-N3-C4	-5.12	109.34	111.90
78	1b	2964	G	N3-C2-N2	5.12	123.49	119.90
78	1b	3025	C	N1-C2-O2	5.12	121.97	118.90
1	2b	298	C	N3-C4-N4	5.12	121.58	118.00
36	3b	42	G	N3-C4-C5	5.12	131.16	128.60
36	3b	135	G	C5-N7-C8	-5.12	101.74	104.30
52	Qy	41	ASP	CB-CG-OD1	5.12	122.91	118.30
78	1b	828	A	C6-N1-C2	-5.12	115.53	118.60
1	a	1150	G	N3-C4-N9	5.12	129.07	126.00
1	a	1663	G	C2-N3-C4	-5.12	109.34	111.90
78	Aa	2964	G	C2-N3-C4	-5.12	109.34	111.90
78	Aa	3048	A	C5-C6-N6	-5.12	119.60	123.70
78	1b	91	G	N1-C2-N3	5.12	126.97	123.90
78	1b	1671	C	C6-N1-C2	-5.12	118.25	120.30
78	1b	2403	G	C2-N3-C4	-5.12	109.34	111.90
78	1b	2988	C	C2-N1-C1'	5.12	124.43	118.80
78	Aa	433	A	C6-C5-N7	-5.12	128.72	132.30
78	Aa	504	A	C5-N7-C8	-5.12	101.34	103.90
78	Aa	588	G	N3-C4-N9	5.12	129.07	126.00
1	2b	301	A	C5-C6-N6	-5.12	119.61	123.70
78	1b	2637	A	C5-N7-C8	-5.12	101.34	103.90
78	Aa	1385	C	N1-C2-O2	5.12	121.97	118.90
78	1b	159	A	C5-C6-N1	5.12	120.26	117.70
78	1b	1440	G	N3-C4-C5	5.12	131.16	128.60
78	1b	2204	C	C6-N1-C2	-5.12	118.25	120.30
36	Ca	14	C	N3-C4-C5	5.12	123.95	121.90
78	1b	1036	A	C6-C5-N7	-5.11	128.72	132.30
78	1b	2156	C	N3-C4-C5	5.11	123.94	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
79	6b	75	C	N3-C4-N4	5.11	121.58	118.00
1	2b	747	C	N3-C2-O2	-5.11	118.32	121.90
1	2b	1428	G	C8-N9-C1'	-5.11	120.36	127.00
78	1b	1534	A	C8-N9-C4	-5.11	103.75	105.80
78	1b	2162	U	N3-C4-O4	5.11	122.98	119.40
78	Aa	504	A	C5-C6-N6	-5.11	119.61	123.70
78	Aa	920	A	N1-C6-N6	5.11	121.67	118.60
78	Aa	1947	G	C4-N9-C1'	-5.11	119.85	126.50
1	2b	1107	G	C8-N9-C1'	-5.11	120.36	127.00
78	1b	62	A	N9-C4-C5	-5.11	103.76	105.80
78	1b	99	A	C5-C6-N1	5.11	120.25	117.70
78	1b	374	A	C5-C6-N1	5.11	120.25	117.70
19	Rb	3	ARG	NE-CZ-NH2	-5.11	117.75	120.30
78	1b	745	C	N1-C2-O2	5.11	121.97	118.90
78	1b	776	U	O4'-C1'-N1	5.11	112.29	108.20
78	1b	1036	A	C4-C5-N7	5.11	113.25	110.70
78	1b	1365	G	C8-N9-C1'	-5.11	120.36	127.00
78	1b	2104	A	N9-C4-C5	-5.11	103.76	105.80
78	Aa	3166	C	C5-C6-N1	5.11	123.55	121.00
78	Aa	3314	A	C6-N1-C2	-5.11	115.53	118.60
1	2b	1582	U	N3-C2-O2	5.11	125.78	122.20
36	3b	61	A	C5-N7-C8	-5.11	101.35	103.90
78	1b	504	A	C5-N7-C8	-5.11	101.35	103.90
78	1b	680	G	C5-N7-C8	-5.11	101.75	104.30
78	1b	2933	A	C5-N7-C8	-5.11	101.35	103.90
1	a	616	G	C2-N3-C4	-5.11	109.35	111.90
78	Aa	350	C	C5-C4-N4	-5.11	116.62	120.20
1	2b	299	A	C4-C5-N7	5.11	113.25	110.70
1	2b	1147	A	C4-N9-C1'	5.11	135.49	126.30
1	2b	1521	G	N3-C4-C5	5.11	131.15	128.60
78	1b	81	C	C2-N1-C1'	5.11	124.42	118.80
78	1b	924	G	C4-C5-N7	5.11	112.84	110.80
78	1b	974	G	C2-N3-C4	-5.11	109.35	111.90
78	1b	1380	G	C2-N3-C4	-5.11	109.35	111.90
78	1b	1432	C	C2-N3-C4	-5.11	117.35	119.90
78	1b	1504	A	C5-N7-C8	-5.11	101.35	103.90
78	1b	1534	A	C4-C5-N7	5.11	113.25	110.70
78	1b	1907	C	C5-C4-N4	-5.11	116.63	120.20
78	1b	3134	A	C5-C6-N1	5.11	120.25	117.70
79	6b	49	A	C5-C6-N1	5.11	120.25	117.70
1	a	426	G	C8-N9-C1'	-5.11	120.36	127.00
1	2b	107	C	N3-C4-N4	5.10	121.57	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	1725	C	N3-C4-C5	5.10	123.94	121.90
78	1b	2654	C	N3-C4-N4	5.10	121.57	118.00
78	Aa	1444	G	C6-C5-N7	-5.10	127.34	130.40
78	Aa	1899	G	N3-C2-N2	5.10	123.47	119.90
78	Aa	3130	A	C6-C5-N7	-5.10	128.73	132.30
1	2b	1087	A	C5-N7-C8	-5.10	101.35	103.90
78	1b	244	G	C6-C5-N7	-5.10	127.34	130.40
78	1b	940	G	C5-N7-C8	-5.10	101.75	104.30
78	1b	1538	G	N7-C8-N9	5.10	115.65	113.10
78	1b	2272	G	C6-C5-N7	-5.10	127.34	130.40
78	1b	2597	U	C5-C4-O4	-5.10	122.84	125.90
78	1b	2951	G	C5-N7-C8	-5.10	101.75	104.30
1	a	418	G	N1-C2-N2	-5.10	111.61	116.20
78	Aa	635	G	N3-C4-C5	5.10	131.15	128.60
78	Aa	1579	C	C5-C4-N4	5.10	123.77	120.20
35	Bb	89	G	C2-N3-C4	-5.10	109.35	111.90
74	X	122	ARG	NE-CZ-NH1	5.10	122.85	120.30
78	1b	238	A	C5-C6-N6	-5.10	119.62	123.70
78	Aa	914	A	N1-C6-N6	5.10	121.66	118.60
78	Aa	2940	A	C4-C5-N7	5.10	113.25	110.70
1	2b	396	G	C8-N9-C4	5.10	108.44	106.40
1	2b	481	A	N1-C6-N6	5.10	121.66	118.60
78	1b	95	A	C2-N3-C4	-5.10	108.05	110.60
78	1b	1443	G	C6-C5-N7	-5.10	127.34	130.40
78	Aa	802	C	C5-C4-N4	-5.10	116.63	120.20
78	Aa	1791	C	N3-C2-O2	-5.10	118.33	121.90
1	2b	63	G	N3-C4-C5	5.10	131.15	128.60
1	2b	1368	G	C2-N3-C4	-5.10	109.35	111.90
78	1b	946	U	C5-C6-N1	5.10	125.25	122.70
78	1b	950	G	C6-C5-N7	-5.10	127.34	130.40
78	1b	1496	C	C5-C6-N1	5.10	123.55	121.00
78	1b	2350	C	N1-C2-O2	5.10	121.96	118.90
78	1b	2512	C	C5-C4-N4	-5.10	116.63	120.20
78	1b	2526	C	C5-C4-N4	-5.10	116.63	120.20
78	1b	2617	U	C5-C4-O4	5.10	128.96	125.90
78	1b	2967	A	C5-C6-N6	-5.10	119.62	123.70
1	a	276	C	C6-N1-C1'	5.10	126.92	120.80
78	Aa	925	A	N1-C6-N6	5.10	121.66	118.60
78	Aa	3077	A	C6-C5-N7	-5.10	128.73	132.30
78	1b	1061	A	C5-C6-N1	5.10	120.25	117.70
78	1b	2699	G	C6-C5-N7	-5.10	127.34	130.40
1	2b	1161	C	N3-C2-O2	-5.09	118.33	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	4b	91	G	N3-C4-C5	5.09	131.15	128.60
78	1b	920	A	C8-N9-C4	5.09	107.84	105.80
78	1b	1936	A	C4-C5-N7	5.09	113.25	110.70
78	1b	2180	G	C5-N7-C8	-5.09	101.75	104.30
78	1b	2333	C	C6-N1-C1'	-5.09	114.69	120.80
78	1b	2617	U	N3-C2-O2	-5.09	118.63	122.20
1	a	73	U	P-O3'-C3'	5.09	125.81	119.70
1	a	1685	G	C4-N9-C1'	5.09	133.12	126.50
78	Aa	2425	G	N1-C2-N2	-5.09	111.61	116.20
78	1b	1548	C	C6-N1-C2	5.09	122.34	120.30
78	1b	1936	A	N9-C4-C5	-5.09	103.76	105.80
78	1b	2309	A	C2-N3-C4	-5.09	108.05	110.60
78	1b	2408	U	C5-C6-N1	5.09	125.25	122.70
78	1b	63	A	N1-C6-N6	5.09	121.66	118.60
78	1b	86	G	N9-C4-C5	5.09	107.44	105.40
78	1b	1829	G	N9-C4-C5	-5.09	103.36	105.40
78	Aa	881	C	C5-C4-N4	-5.09	116.64	120.20
1	2b	488	G	C2-N3-C4	-5.09	109.36	111.90
78	1b	1397	C	C2-N1-C1'	5.09	124.40	118.80
78	1b	2218	G	C5-N7-C8	-5.09	101.75	104.30
1	a	71	A	C8-N9-C4	-5.09	103.76	105.80
78	Aa	1441	G	N3-C4-C5	5.09	131.15	128.60
1	2b	865	A	C4-C5-N7	5.09	113.24	110.70
1	2b	875	G	C8-N9-C4	5.09	108.44	106.40
1	2b	1660	A	N9-C4-C5	-5.09	103.77	105.80
78	1b	2636	A	C4-C5-N7	5.09	113.24	110.70
78	1b	2832	C	C5-C4-N4	-5.09	116.64	120.20
78	Aa	1343	A	C5-C6-N6	-5.09	119.63	123.70
78	Aa	3356	G	C4-C5-N7	5.09	112.83	110.80
58	H	77	LYS	CB-CA-C	-5.09	100.22	110.40
1	2b	803	A	N1-C6-N6	5.09	121.65	118.60
78	1b	127	G	C2-N3-C4	-5.09	109.36	111.90
78	1b	733	G	N3-C4-C5	5.09	131.14	128.60
78	1b	859	G	C2-N3-C4	-5.09	109.36	111.90
78	1b	2311	G	C5-N7-C8	-5.09	101.76	104.30
78	1b	2728	G	N3-C4-C5	5.09	131.14	128.60
1	a	1792	G	C4-C5-N7	5.09	112.83	110.80
36	3b	21	C	C2-N1-C1'	5.08	124.39	118.80
78	1b	1837	U	N3-C2-O2	5.08	125.76	122.20
78	1b	2814	G	N3-C4-N9	-5.08	122.95	126.00
1	2b	885	G	C5-N7-C8	-5.08	101.76	104.30
1	2b	1462	G	N3-C2-N2	5.08	123.46	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	ab	22	ARG	NE-CZ-NH1	5.08	122.84	120.30
35	4b	95	A	C4-C5-N7	5.08	113.24	110.70
40	Dy	23	ARG	NE-CZ-NH2	-5.08	117.76	120.30
78	1b	1084	A	N7-C8-N9	5.08	116.34	113.80
78	1b	1848	G	C2-N3-C4	-5.08	109.36	111.90
78	Aa	82	C	N3-C4-C5	5.08	123.93	121.90
1	2b	542	A	N1-C6-N6	5.08	121.65	118.60
1	2b	1112	G	C2-N3-C4	-5.08	109.36	111.90
78	1b	968	G	N1-C2-N2	-5.08	111.63	116.20
78	1b	2111	G	N3-C4-C5	5.08	131.14	128.60
78	1b	2137	U	C2-N1-C1'	5.08	123.80	117.70
78	1b	2285	C	C6-N1-C2	5.08	122.33	120.30
78	Aa	2539	C	C5-C6-N1	5.08	123.54	121.00
78	Aa	2867	C	C5-C6-N1	5.08	123.54	121.00
1	2b	1742	U	C5-C6-N1	5.08	125.24	122.70
1	a	144	U	N3-C4-O4	5.08	122.96	119.40
1	2b	1796	C	N3-C4-C5	5.08	123.93	121.90
35	4b	37	G	N1-C2-N2	-5.08	111.63	116.20
36	3b	71	A	C2-N3-C4	-5.08	108.06	110.60
36	3b	79	A	N9-C4-C5	-5.08	103.77	105.80
78	1b	332	C	N3-C4-C5	5.08	123.93	121.90
78	1b	991	G	N1-C2-N2	-5.08	111.63	116.20
78	1b	1429	G	N1-C2-N3	5.08	126.95	123.90
1	a	195	G	C5-C6-O6	5.08	131.65	128.60
1	a	1128	C	N3-C2-O2	-5.08	118.34	121.90
78	Aa	1328	C	C5-C4-N4	-5.08	116.64	120.20
36	Ca	19	C	N3-C4-C5	5.08	123.93	121.90
78	1b	239	G	N3-C4-N9	-5.08	122.95	126.00
78	1b	2270	A	C5-C6-N1	5.08	120.24	117.70
78	1b	2635	A	C2-N3-C4	-5.08	108.06	110.60
78	Aa	2572	C	N3-C2-O2	-5.08	118.35	121.90
78	Aa	2754	G	N1-C6-O6	-5.08	116.85	119.90
1	2b	407	A	C5-C6-N1	5.08	120.24	117.70
1	2b	432	G	N1-C2-N2	-5.08	111.63	116.20
1	2b	1164	G	C4-C5-N7	5.08	112.83	110.80
78	1b	2150	G	C4-N9-C1'	5.08	133.10	126.50
78	1b	2638	C	N3-C4-C5	5.08	123.93	121.90
78	1b	2695	A	C5-N7-C8	-5.08	101.36	103.90
78	Aa	659	G	N3-C4-C5	5.08	131.14	128.60
78	Aa	2946	A	N9-C4-C5	-5.08	103.77	105.80
1	2b	610	G	O5'-P-OP1	-5.07	101.13	105.70
78	1b	225	C	C2-N1-C1'	5.07	124.38	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	1401	A	C6-C5-N7	-5.07	128.75	132.30
78	1b	1891	A	C5-N7-C8	-5.07	101.36	103.90
78	1b	2150	G	C8-N9-C1'	-5.07	120.40	127.00
78	1b	2361	A	C5-C6-N6	-5.07	119.64	123.70
78	1b	2413	A	C6-C5-N7	-5.07	128.75	132.30
79	6b	41	G	N9-C4-C5	-5.07	103.37	105.40
1	a	1451	C	C6-N1-C1'	-5.07	114.71	120.80
78	Aa	895	A	C5-C6-N1	5.07	120.24	117.70
78	Aa	2338	C	C6-N1-C1'	-5.07	114.71	120.80
78	1b	212	G	C8-N9-C1'	-5.07	120.41	127.00
78	1b	617	G	C5-N7-C8	-5.07	101.76	104.30
78	1b	1498	A	C6-C5-N7	-5.07	128.75	132.30
78	1b	3318	G	C4-C5-N7	5.07	112.83	110.80
78	Aa	1298	C	C2-N1-C1'	5.07	124.38	118.80
78	Aa	2948	C	N1-C2-O2	5.07	121.94	118.90
78	Aa	3061	G	N9-C4-C5	-5.07	103.37	105.40
1	2b	594	A	C4-C5-N7	5.07	113.24	110.70
1	2b	1422	A	C6-C5-N7	-5.07	128.75	132.30
1	2b	1664	C	N1-C2-O2	5.07	121.94	118.90
36	3b	107	G	N3-C4-C5	5.07	131.13	128.60
78	1b	1520	G	C2-N3-C4	-5.07	109.36	111.90
78	1b	2637	A	C4-C5-N7	5.07	113.23	110.70
78	1b	2677	G	N3-C2-N2	5.07	123.45	119.90
78	1b	3218	A	P-O3'-C3'	5.07	125.78	119.70
78	1b	3223	A	N9-C4-C5	-5.07	103.77	105.80
78	Aa	339	C	C5-C4-N4	-5.07	116.65	120.20
1	2b	1096	C	C6-N1-C1'	5.07	126.88	120.80
78	1b	1898	G	N3-C4-C5	5.07	131.13	128.60
1	2b	363	G	C5-N7-C8	-5.07	101.77	104.30
1	2b	888	U	C5-C4-O4	-5.07	122.86	125.90
1	2b	973	A	C4-C5-N7	5.07	113.23	110.70
78	1b	200	C	N3-C4-N4	5.07	121.55	118.00
78	1b	582	G	N3-C4-C5	5.07	131.13	128.60
78	1b	1674	G	C2-N3-C4	-5.07	109.37	111.90
78	1b	2741	C	N3-C4-C5	5.07	123.93	121.90
78	1b	2756	C	C5-C4-N4	-5.07	116.65	120.20
35	Bb	72	A	N9-C4-C5	-5.07	103.77	105.80
1	2b	543	C	N3-C2-O2	-5.07	118.35	121.90
1	2b	1459	C	C5-C4-N4	-5.07	116.65	120.20
35	4b	117	A	C5-N7-C8	-5.07	101.37	103.90
78	1b	23	A	C5-N7-C8	-5.07	101.37	103.90
78	1b	1900	A	OP2-P-O3'	5.07	116.34	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	2802	A	C5-N7-C8	-5.06	101.37	103.90
1	2b	904	G	C8-N9-C4	5.06	108.42	106.40
36	3b	126	A	C5-C6-N6	-5.06	119.65	123.70
78	1b	399	A	C2-N3-C4	-5.06	108.07	110.60
78	1b	1289	G	C6-C5-N7	-5.06	127.36	130.40
78	1b	2277	C	C5-C4-N4	-5.06	116.66	120.20
36	Ca	35	C	N3-C4-C5	5.06	123.92	121.90
78	1b	668	G	C2-N3-C4	-5.06	109.37	111.90
78	1b	2374	C	C6-N1-C2	-5.06	118.28	120.30
78	1b	2419	A	C4-C5-N7	5.06	113.23	110.70
1	2b	301	A	C6-C5-N7	-5.06	128.76	132.30
1	2b	438	A	N1-C6-N6	-5.06	115.56	118.60
1	2b	881	A	C5-C6-N1	5.06	120.23	117.70
78	1b	267	G	C8-N9-C4	-5.06	104.38	106.40
78	1b	1574	C	C2-N3-C4	5.06	122.43	119.90
78	1b	2150	G	N1-C2-N3	5.06	126.94	123.90
78	1b	2878	G	N9-C4-C5	-5.06	103.38	105.40
1	a	190	C	N3-C2-O2	-5.06	118.36	121.90
78	Aa	1505	C	N1-C2-O2	5.06	121.94	118.90
78	Aa	1635	G	N3-C4-C5	5.06	131.13	128.60
78	Aa	2362	C	C6-N1-C2	-5.06	118.28	120.30
78	Aa	3356	G	N9-C4-C5	-5.06	103.38	105.40
78	1b	666	A	C5-C6-N6	-5.06	119.65	123.70
78	1b	904	A	C5-N7-C8	-5.06	101.37	103.90
78	1b	1514	G	C2-N3-C4	-5.06	109.37	111.90
78	1b	3006	A	C4-C5-N7	5.06	113.23	110.70
1	a	1458	G	N3-C4-N9	5.06	129.03	126.00
1	a	1592	A	C5-C6-N6	-5.06	119.65	123.70
78	Aa	104	G	C2-N3-C4	-5.06	109.37	111.90
78	Aa	222	A	C5-C6-N6	-5.06	119.65	123.70
19	Rb	36	ASP	CB-CG-OD1	5.06	122.85	118.30
78	1b	586	C	N1-C2-O2	5.06	121.93	118.90
78	1b	2936	A	C6-N1-C2	-5.06	115.57	118.60
1	2b	1791	A	C6-N1-C2	-5.05	115.57	118.60
77	pb	23	ARG	NE-CZ-NH2	-5.05	117.77	120.30
78	1b	876	A	C5-C6-N6	-5.05	119.66	123.70
78	1b	2331	C	C6-N1-C1'	-5.05	114.73	120.80
78	1b	2381	G	N3-C4-N9	-5.05	122.97	126.00
78	1b	2739	A	C5-C6-N1	5.05	120.23	117.70
78	1b	2795	U	O5'-P-OP2	-5.05	101.15	105.70
1	a	1742	U	C5-C4-O4	-5.05	122.87	125.90
78	Aa	1429	G	N1-C2-N2	-5.05	111.65	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Aa	2877	G	N3-C2-N2	5.05	123.44	119.90
78	Aa	3333	G	N1-C2-N2	5.05	120.75	116.20
1	2b	636	A	C8-N9-C4	5.05	107.82	105.80
78	1b	361	A	C2-N3-C4	-5.05	108.07	110.60
78	1b	516	A	C5-C6-N6	-5.05	119.66	123.70
78	1b	856	G	N7-C8-N9	5.05	115.63	113.10
78	Aa	1101	G	N3-C4-C5	5.05	131.13	128.60
78	Aa	2619	G	N9-C4-C5	-5.05	103.38	105.40
1	2b	317	C	N3-C4-C5	5.05	123.92	121.90
78	1b	2892	A	N9-C4-C5	-5.05	103.78	105.80
1	a	336	G	C4-N9-C1'	5.05	133.07	126.50
1	a	1789	G	C8-N9-C1'	-5.05	120.43	127.00
78	Aa	2512	C	C5-C4-N4	-5.05	116.66	120.20
1	2b	403	G	N3-C4-C5	5.05	131.12	128.60
1	2b	623	A	C6-C5-N7	-5.05	128.76	132.30
36	3b	16	G	N3-C4-N9	-5.05	122.97	126.00
78	1b	1199	C	C6-N1-C1'	-5.05	114.74	120.80
78	1b	1500	G	C2-N3-C4	-5.05	109.38	111.90
78	Aa	367	A	C5-C6-N6	-5.05	119.66	123.70
78	Aa	501	A	C4-C5-N7	5.05	113.22	110.70
78	1b	752	C	C5-C4-N4	-5.05	116.67	120.20
36	3b	152	G	N3-C4-C5	5.05	131.12	128.60
78	1b	282	G	N7-C8-N9	5.05	115.62	113.10
78	1b	1178	G	N9-C4-C5	-5.05	103.38	105.40
78	1b	1932	A	C5-C6-N6	-5.05	119.66	123.70
1	2b	332	U	N1-C2-O2	5.04	126.33	122.80
78	1b	34	A	C5-C6-N6	-5.04	119.66	123.70
78	1b	75	G	N9-C4-C5	-5.04	103.38	105.40
78	1b	860	G	N3-C4-N9	-5.04	122.97	126.00
78	1b	1538	G	C6-C5-N7	-5.04	127.37	130.40
78	1b	2169	G	N3-C4-N9	-5.04	122.97	126.00
78	Aa	2736	A	C5-C6-N1	5.04	120.22	117.70
1	2b	123	G	N3-C4-C5	5.04	131.12	128.60
36	3b	52	A	C5-N7-C8	-5.04	101.38	103.90
78	1b	321	C	C6-N1-C2	5.04	122.32	120.30
78	1b	869	G	C5-N7-C8	-5.04	101.78	104.30
78	1b	2164	A	C5-C6-N1	5.04	120.22	117.70
78	1b	2704	A	C5-C6-N6	-5.04	119.67	123.70
78	1b	3029	A	C4-C5-N7	5.04	113.22	110.70
78	1b	3243	A	C5-C6-N6	-5.04	119.67	123.70
78	Aa	1446	A	C5-C6-N6	-5.04	119.67	123.70
1	2b	228	G	N3-C2-N2	5.04	123.43	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2b	624	G	C2-N3-C4	-5.04	109.38	111.90
1	2b	877	G	C2-N3-C4	-5.04	109.38	111.90
78	1b	399	A	C8-N9-C4	5.04	107.82	105.80
78	1b	622	A	C5-C6-N1	5.04	120.22	117.70
78	1b	818	C	C5-C4-N4	-5.04	116.67	120.20
78	Aa	2621	G	C2-N3-C4	-5.04	109.38	111.90
1	2b	427	C	C5-C4-N4	-5.04	116.67	120.20
1	2b	1192	C	N3-C4-N4	5.04	121.53	118.00
78	1b	1280	C	C6-N1-C2	-5.04	118.28	120.30
78	1b	1845	G	C4-N9-C1'	-5.04	119.95	126.50
1	2b	791	A	C5-C6-N6	-5.04	119.67	123.70
1	2b	917	U	C6-N1-C2	-5.04	117.98	121.00
36	3b	11	C	N3-C4-N4	5.04	121.53	118.00
78	1b	385	A	N9-C4-C5	-5.04	103.78	105.80
78	1b	396	A	C4-C5-N7	5.04	113.22	110.70
78	1b	1295	G	C5-C6-N1	-5.04	108.98	111.50
78	1b	1566	A	C4-C5-N7	5.04	113.22	110.70
78	1b	2234	G	C6-C5-N7	-5.04	127.38	130.40
79	6b	49	A	C4-C5-N7	5.04	113.22	110.70
55	E	130	ARG	NE-CZ-NH1	5.04	122.82	120.30
1	2b	1317	C	C6-N1-C1'	-5.04	114.75	120.80
78	1b	1289	G	N3-C4-N9	5.04	129.02	126.00
78	1b	1396	C	N3-C4-C5	5.04	123.92	121.90
78	1b	2595	A	C6-N1-C2	-5.04	115.58	118.60
1	2b	16	G	C6-C5-N7	-5.04	127.38	130.40
1	2b	410	A	C5-N7-C8	-5.04	101.38	103.90
1	2b	1667	A	C5-N7-C8	-5.04	101.38	103.90
78	1b	43	A	N1-C6-N6	-5.04	115.58	118.60
78	1b	1902	G	C6-C5-N7	-5.04	127.38	130.40
78	1b	3146	G	C6-C5-N7	-5.04	127.38	130.40
78	1b	1444	G	N7-C8-N9	5.03	115.62	113.10
78	1b	1562	C	N3-C4-N4	-5.03	114.48	118.00
78	1b	1804	A	N9-C4-C5	-5.03	103.79	105.80
78	1b	2879	C	N1-C2-O2	5.03	121.92	118.90
1	a	1211	A	N3-C4-C5	5.03	130.32	126.80
36	3b	46	G	N3-C4-N9	-5.03	122.98	126.00
78	1b	348	A	N9-C4-C5	-5.03	103.79	105.80
78	1b	2603	G	N1-C2-N3	5.03	126.92	123.90
78	1b	2721	A	C5-C6-N6	-5.03	119.67	123.70
78	1b	3099	C	N3-C4-C5	5.03	123.91	121.90
78	1b	3133	C	N3-C2-O2	-5.03	118.38	121.90
78	1b	3285	C	N3-C4-C5	5.03	123.91	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Aa	658	G	C4-N9-C1'	5.03	133.04	126.50
78	1b	647	A	C6-N1-C2	-5.03	115.58	118.60
78	1b	1049	C	C6-N1-C1'	-5.03	114.77	120.80
78	1b	1719	G	N1-C2-N2	-5.03	111.67	116.20
78	1b	2727	A	C4-C5-N7	5.03	113.21	110.70
78	1b	3053	G	N1-C2-N3	5.03	126.92	123.90
1	a	1685	G	C6-C5-N7	-5.03	127.38	130.40
78	Aa	3184	A	N1-C6-N6	5.03	121.62	118.60
38	By	10	ARG	CG-CD-NE	-5.03	101.24	111.80
78	1b	2235	C	C2-N1-C1'	5.03	124.33	118.80
78	1b	2748	A	C5-C6-N6	-5.03	119.68	123.70
78	1b	3184	A	C6-C5-N7	-5.03	128.78	132.30
1	2b	301	A	C4-N9-C1'	5.03	135.35	126.30
1	2b	928	U	OP2-P-O3'	5.03	116.26	105.20
1	2b	1480	G	C5-N7-C8	-5.03	101.79	104.30
1	2b	1611	A	C8-N9-C1'	-5.03	118.65	127.70
78	1b	109	A	N3-C4-C5	5.03	130.32	126.80
78	1b	1660	C	N1-C2-O2	5.03	121.92	118.90
78	Aa	1467	A	C5-C6-N6	-5.03	119.68	123.70
1	2b	1428	G	N7-C8-N9	5.02	115.61	113.10
78	1b	1147	G	C8-N9-C1'	-5.02	120.47	127.00
78	Aa	1432	C	O4'-C1'-N1	5.02	112.22	108.20
1	2b	1323	C	C2-N1-C1'	5.02	124.33	118.80
78	1b	1905	G	C2-N3-C4	-5.02	109.39	111.90
78	1b	2617	U	C6-N1-C2	-5.02	117.99	121.00
78	1b	2997	G	N1-C2-N2	-5.02	111.68	116.20
78	Aa	1899	G	N1-C2-N2	-5.02	111.68	116.20
78	Aa	2974	U	N1-C2-O2	5.02	126.31	122.80
1	2b	103	A	O4'-C1'-N9	5.02	112.22	108.20
78	1b	2181	C	C5-C4-N4	-5.02	116.69	120.20
78	1b	2373	A	C5-C6-N6	5.02	127.72	123.70
78	1b	3366	G	N3-C2-N2	5.02	123.42	119.90
1	a	240	U	OP2-P-O3'	5.02	116.25	105.20
78	Aa	28	C	C2-N1-C1'	5.02	124.32	118.80
78	Aa	107	A	N1-C2-N3	5.02	131.81	129.30
1	2b	57	G	N3-C4-C5	5.02	131.11	128.60
1	2b	1499	G	C2-N3-C4	-5.02	109.39	111.90
78	1b	312	C	N3-C2-O2	-5.02	118.39	121.90
78	1b	360	G	N1-C2-N2	-5.02	111.68	116.20
78	1b	1120	A	C4-C5-N7	5.02	113.21	110.70
78	1b	1376	C	C2-N1-C1'	5.02	124.32	118.80
78	1b	1390	A	N1-C6-N6	5.02	121.61	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	1898	G	C5-N7-C8	-5.02	101.79	104.30
78	1b	2358	A	N1-C6-N6	5.02	121.61	118.60
78	1b	2439	A	N9-C4-C5	-5.02	103.79	105.80
78	Aa	115	A	N9-C4-C5	-5.02	103.79	105.80
78	Aa	288	C	N1-C2-O2	5.02	121.91	118.90
78	Aa	1377	G	N3-C4-C5	5.02	131.11	128.60
78	Aa	1450	G	C4-N9-C1'	-5.02	119.97	126.50
78	Aa	1804	A	C5-N7-C8	-5.02	101.39	103.90
78	Aa	1848	G	C4-N9-C1'	5.02	133.03	126.50
78	Aa	2185	G	C2-N3-C4	-5.02	109.39	111.90
78	Aa	2803	A	N1-C2-N3	5.02	131.81	129.30
1	2b	389	G	C8-N9-C4	-5.02	104.39	106.40
1	2b	1703	C	N3-C4-N4	-5.02	114.49	118.00
36	3b	21	C	N3-C4-N4	5.02	121.51	118.00
36	3b	104	A	C5-N7-C8	-5.02	101.39	103.90
78	1b	82	C	C6-N1-C1'	-5.02	114.78	120.80
78	1b	345	G	C5-C6-N1	-5.02	108.99	111.50
78	1b	603	A	N1-C6-N6	5.02	121.61	118.60
78	1b	851	C	N3-C4-N4	5.02	121.51	118.00
78	1b	1852	G	C2-N3-C4	-5.02	109.39	111.90
78	1b	2639	G	C2-N3-C4	-5.02	109.39	111.90
78	1b	2948	C	C2-N1-C1'	5.02	124.32	118.80
78	1b	3080	G	C5-N7-C8	-5.02	101.79	104.30
1	a	1322	A	N9-C4-C5	-5.02	103.79	105.80
78	Aa	1444	G	C4-C5-N7	5.02	112.81	110.80
78	Aa	3083	G	N3-C4-N9	5.02	129.01	126.00
78	Aa	3139	A	N9-C4-C5	-5.02	103.79	105.80
1	2b	623	A	C4-N9-C1'	5.02	135.33	126.30
1	2b	1472	C	C2-N1-C1'	5.02	124.32	118.80
78	1b	3065	G	C8-N9-C4	-5.02	104.39	106.40
78	Aa	1593	A	C8-N9-C4	5.02	107.81	105.80
78	Aa	1804	A	C4-C5-N7	5.02	113.21	110.70
1	2b	195	G	C8-N9-C4	5.01	108.41	106.40
1	2b	397	A	C5-N7-C8	-5.01	101.39	103.90
35	4b	37	G	C8-N9-C1'	-5.01	120.48	127.00
36	3b	110	C	N3-C4-C5	5.01	123.91	121.90
47	Ly	101	ARG	NE-CZ-NH2	-5.01	117.79	120.30
78	1b	39	A	C5-N7-C8	-5.01	101.39	103.90
78	1b	98	G	N1-C2-N2	-5.01	111.69	116.20
78	1b	926	A	C5-N7-C8	-5.01	101.39	103.90
78	1b	1047	A	C5-C6-N1	5.01	120.21	117.70
78	1b	2139	A	C5-C6-N1	5.01	120.21	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	2522	G	N3-C4-C5	5.01	131.11	128.60
78	1b	3033	A	N1-C6-N6	5.01	121.61	118.60
78	Aa	1560	G	C5-C6-O6	5.01	131.61	128.60
78	Aa	2943	G	N1-C2-N2	-5.01	111.69	116.20
1	2b	1035	G	N3-C2-N2	5.01	123.41	119.90
78	1b	1525	G	C5-N7-C8	-5.01	101.79	104.30
78	1b	1819	U	N1-C2-O2	5.01	126.31	122.80
78	1b	3033	A	C5-C6-N6	-5.01	119.69	123.70
78	Aa	2590	A	C5-C6-N6	-5.01	119.69	123.70
78	Aa	2870	C	C5-C4-N4	-5.01	116.69	120.20
1	2b	355	G	C5-N7-C8	-5.01	101.80	104.30
36	3b	125	U	C5-C6-N1	5.01	125.21	122.70
78	1b	913	A	C5-N7-C8	-5.01	101.39	103.90
78	1b	921	A	C4-C5-N7	5.01	113.21	110.70
78	1b	1197	A	N9-C4-C5	-5.01	103.80	105.80
78	1b	1337	A	C5-C6-N6	-5.01	119.69	123.70
78	1b	1456	A	C5-C6-N1	5.01	120.21	117.70
78	1b	1521	G	C2-N3-C4	-5.01	109.39	111.90
78	1b	2123	G	C6-C5-N7	-5.01	127.39	130.40
78	1b	2223	A	C5-N7-C8	-5.01	101.39	103.90
78	1b	2332	A	C6-C5-N7	-5.01	128.79	132.30
78	1b	3314	A	N9-C4-C5	-5.01	103.80	105.80
1	a	505	A	N3-C4-N9	5.01	131.41	127.40
1	a	543	C	C2-N1-C1'	5.01	124.31	118.80
1	a	1141	G	N1-C2-N3	5.01	126.91	123.90
78	Aa	2828	G	C8-N9-C1'	-5.01	120.49	127.00
1	2b	1147	A	C6-N1-C2	-5.01	115.59	118.60
35	4b	63	A	C8-N9-C4	5.01	107.80	105.80
78	1b	62	A	C5-N7-C8	-5.01	101.39	103.90
78	1b	2172	A	C8-N9-C4	5.01	107.80	105.80
78	1b	2188	A	C4-C5-N7	5.01	113.20	110.70
78	1b	2213	A	N3-C4-C5	5.01	130.31	126.80
78	1b	2237	C	C5-C4-N4	-5.01	116.69	120.20
78	1b	2506	U	C5-C6-N1	5.01	125.20	122.70
1	a	366	A	C8-N9-C4	5.01	107.80	105.80
78	Aa	661	G	C2-N3-C4	-5.01	109.39	111.90
78	Aa	2393	G	C2-N3-C4	-5.01	109.39	111.90
78	Aa	3371	G	N1-C2-N2	-5.01	111.69	116.20
36	3b	145	U	C5-C4-O4	-5.01	122.89	125.90
78	1b	2183	A	C5-N7-C8	-5.01	101.40	103.90
1	2b	1281	G	C5-N7-C8	-5.01	101.80	104.30
78	1b	644	G	C5-C6-O6	5.01	131.60	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	1b	1513	G	C4-C5-N7	5.01	112.80	110.80
78	1b	2526	C	C6-N1-C1'	-5.01	114.79	120.80
78	1b	3110	C	N3-C4-C5	5.01	123.90	121.90
1	a	353	A	C5-C6-N6	-5.01	119.69	123.70
1	a	1205	C	N3-C4-N4	5.01	121.50	118.00
78	Aa	685	G	N3-C2-N2	5.01	123.41	119.90
35	Bb	8	G	C8-N9-C1'	-5.01	120.49	127.00
36	3b	47	C	N3-C2-O2	-5.00	118.40	121.90
78	Aa	1695	U	O4'-C1'-N1	5.00	112.20	108.20
1	2b	391	A	C5-N7-C8	-5.00	101.40	103.90
78	1b	208	C	C2-N3-C4	-5.00	117.40	119.90
78	1b	436	A	N9-C4-C5	-5.00	103.80	105.80
78	1b	931	C	C5-C4-N4	-5.00	116.70	120.20
78	1b	1946	A	C5-C6-N1	5.00	120.20	117.70
78	1b	2967	A	C5-N7-C8	-5.00	101.40	103.90
78	1b	2967	A	C8-N9-C1'	-5.00	118.69	127.70
78	1b	3078	U	OP2-P-O3'	5.00	116.21	105.20
78	Aa	2727	A	C5-C6-N1	5.00	120.20	117.70
1	2b	574	G	C2-N3-C4	-5.00	109.40	111.90
1	2b	1387	G	C8-N9-C4	5.00	108.40	106.40
41	Ey	51	ARG	NE-CZ-NH2	-5.00	117.80	120.30
78	1b	1428	A	C8-N9-C4	5.00	107.80	105.80
78	1b	2323	G	C2-N3-C4	-5.00	109.40	111.90
1	a	690	G	C5-C6-O6	5.00	131.60	128.60
78	Aa	1578	C	C6-N1-C2	-5.00	118.30	120.30

There are no chirality outliers.

All (146) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
28	1	46	GLU	Peptide
30	4	10	HIS	Peptide
30	4	11	PRO	Peptide
30	4	9	SER	Peptide
31	5	3	LYS	Peptide
31	5	4	VAL	Peptide
32	6	101	ALA	Peptide
32	6	105	TYR	Peptide
32	6	106	TYR	Peptide
32	6	147	VAL	Peptide
2	Ab	42	PRO	Peptide
3	Ba	147	ALA	Peptide

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Mol	Chain	Res	Type	Group
3	Ba	151	LYS	Peptide
3	Ba	204	ILE	Peptide
3	Ba	211	HIS	Peptide
3	Ba	44	GLY	Peptide
3	Ba	81	PHE	Peptide
38	By	127	LYS	Peptide
38	By	141	GLY	Peptide
38	By	257	PRO	Peptide
5	Cb	165	VAL	Peptide
5	Cb	172	ALA	Peptide
5	Cb	83	ILE	Peptide
55	E	42	ILE	Peptide
7	Eb	42	LEU	Peptide
39	Fa	328	ASN	Peptide
42	Fy	232	ARG	Peptide
57	G	18	PRO	Peptide
43	Gy	30	THR	Peptide
43	Gy	38	GLN	Peptide
43	Gy	76	ALA	Peptide
58	H	70	LYS	Peptide
58	H	75	THR	Peptide
58	H	76	VAL	Peptide
58	H	77	LYS	Peptide
10	Hb	110	GLN	Peptide
10	Hb	64	VAL	Peptide
44	Hy	13	PRO	Peptide
44	Hy	21	LYS	Peptide
11	Ib	8	ARG	Peptide
11	Ib	9	HIS	Peptide
12	Jb	164	PHE	Peptide
12	Jb	9	SER	Peptide
12	Jb	98	ALA	Peptide
12	Jb	99	LEU	Peptide
46	Jy	112	LEU	Peptide
46	Jy	114	ILE	Peptide
61	K	102	GLU	Peptide
62	L	17	ALA	Peptide
62	L	66	ALA	Peptide
45	La	173	PHE	Peptide
14	Lb	4	GLU	Peptide
47	Ly	129	ASN	Peptide
63	M	20	GLY	Peptide

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Mol	Chain	Res	Type	Group
63	M	21	ILE	Peptide
46	Ma	11	ASP	Peptide
46	Ma	172	LEU	Peptide
46	Ma	94	ARG	Peptide
46	Ma	95	ASN	Peptide
15	Mb	110	GLY	Peptide
15	Mb	128	ALA	Peptide
15	Mb	130	THR	Peptide
15	Mb	84	ASN	Peptide
47	Na	135	ALA	Peptide
47	Na	140	SER	Peptide
47	Na	141	ALA	Mainchain
47	Na	47	ALA	Peptide
47	Na	61	PRO	Peptide
49	Ny	67	ARG	Peptide
49	Ny	92	LEU	Peptide
17	Ob	28	VAL	Peptide
17	Ob	39	ILE	Peptide
50	Oy	110[A]	PRO	Peptide
50	Oy	148[A]	LYS	Peptide
49	Pa	146	ALA	Peptide
4	Pb	53	PRO	Peptide
50	Qa	33	ILE	Peptide
18	Qb	32	ASN	Peptide
18	Qb	33	GLY	Peptide
18	Qb	40	GLU	Peptide
52	Qy	161	LYS	Peptide
53	Ry	52	LYS	Peptide
20	Sb	6	GLN	Peptide
20	Sb	90	ASN	Peptide
54	Sy	121	ILE	Peptide
21	Tb	117	SER	Peptide
21	Tb	36	ILE	Peptide
55	Ty	18	ASP	Peptide
22	Ub	20	ILE	Peptide
57	Vy	9	THR	Peptide
24	Wb	29	PRO	Peptide
24	Wb	54	ASP	Peptide
25	Xb	130	VAL	Peptide
25	Xb	41	SER	Peptide
25	Xb	88	PRO	Peptide
60	Yy	49	PRO	Peptide

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Mol	Chain	Res	Type	Group
28	ab	36	ILE	Peptide
28	ab	84	VAL	Peptide
28	ab	9	GLY	Peptide
62	ay	116	GLY	Peptide
62	ay	23	GLY	Peptide
62	ay	26	ARG	Peptide
2	b	166	GLY	Peptide
2	b	184	LEU	Peptide
2	b	186	GLY	Peptide
2	b	64	ILE	Peptide
2	b	65	ALA	Peptide
63	by	19	ASN	Peptide
63	by	20	GLY	Peptide
63	by	24	PRO	Peptide
64	cy	22	LYS	Peptide
7	f	195	ILE	Peptide
32	fb	131	PHE	Peptide
32	fb	133	ALA	Peptide
32	fb	144	CYS	Peptide
8	g	100	ASN	Peptide
8	g	44	ASN	Peptide
33	gb	232	TYR	Peptide
9	h	121	LEU	Peptide
9	h	122	GLU	Peptide
9	h	125	THR	Peptide
69	hb	83	LYS	Peptide
10	i	110	GLN	Peptide
10	i	31	SER	Peptide
10	i	64	VAL	Peptide
10	i	9	LEU	Peptide
11	j	100	ALA	Peptide
13	l	80	LEU	Peptide
15	n	110	GLY	Peptide
15	n	129	GLU	Peptide
15	n	130	THR	Peptide
16	o	22	ALA	Peptide
17	p	133	ARG	Peptide
4	q	124	THR	Peptide
4	q	125	PRO	Peptide
4	q	52	LYS	Peptide
18	r	113	ASP	Peptide
18	r	40	GLU	Peptide

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Mol	Chain	Res	Type	Group
20	t	101	LEU	Peptide
20	t	137	HIS	Peptide
20	t	90	ASN	Peptide
22	v	51	VAL	Peptide
22	v	71	PRO	Peptide
22	v	72	ASN	Peptide
26	z	32	ARG	Peptide
26	z	51	GLU	Peptide

5.2 Too-close contacts [i](#)

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

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	
2	Ab	204/252 (81%)	170 (83%)	33 (16%)	1 (0%)	29	67
2	b	204/252 (81%)	165 (81%)	38 (19%)	1 (0%)	29	67
3	Ba	222/255 (87%)	182 (82%)	36 (16%)	4 (2%)	8	41
3	c	214/255 (84%)	192 (90%)	21 (10%)	1 (0%)	29	67
4	Pb	115/142 (81%)	101 (88%)	14 (12%)	0	100	100
4	q	117/142 (82%)	97 (83%)	16 (14%)	4 (3%)	3	30
5	Cb	214/254 (84%)	187 (87%)	26 (12%)	1 (0%)	29	67
5	d	215/254 (85%)	183 (85%)	32 (15%)	0	100	100
6	Db	220/240 (92%)	199 (90%)	21 (10%)	0	100	100
6	e	221/240 (92%)	188 (85%)	32 (14%)	1 (0%)	29	67
7	Eb	256/261 (98%)	211 (82%)	44 (17%)	1 (0%)	34	71
7	f	258/261 (99%)	224 (87%)	33 (13%)	1 (0%)	34	71

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
8	Fb	204/225 (91%)	176 (86%)	27 (13%)	1 (0%)	29	67
8	g	204/225 (91%)	175 (86%)	28 (14%)	1 (0%)	29	67
9	Gb	226/236 (96%)	194 (86%)	28 (12%)	4 (2%)	8	41
9	h	216/236 (92%)	196 (91%)	19 (9%)	1 (0%)	29	67
10	Hb	182/190 (96%)	156 (86%)	25 (14%)	1 (0%)	29	67
10	i	183/190 (96%)	156 (85%)	25 (14%)	2 (1%)	14	51
11	Ib	183/200 (92%)	159 (87%)	22 (12%)	2 (1%)	14	51
11	j	184/200 (92%)	168 (91%)	16 (9%)	0	100	100
12	Jb	182/197 (92%)	155 (85%)	25 (14%)	2 (1%)	14	51
12	k	183/197 (93%)	162 (88%)	19 (10%)	2 (1%)	14	51
13	Kb	90/105 (86%)	67 (74%)	23 (26%)	0	100	100
13	l	90/105 (86%)	74 (82%)	15 (17%)	1 (1%)	14	51
14	Lb	142/156 (91%)	113 (80%)	29 (20%)	0	100	100
14	m	144/156 (92%)	124 (86%)	20 (14%)	0	100	100
15	Mb	119/143 (83%)	74 (62%)	40 (34%)	5 (4%)	3	25
15	n	122/143 (85%)	79 (65%)	40 (33%)	3 (2%)	5	35
16	Nb	148/151 (98%)	121 (82%)	26 (18%)	1 (1%)	22	61
16	o	148/151 (98%)	128 (86%)	20 (14%)	0	100	100
17	Ob	125/137 (91%)	104 (83%)	21 (17%)	0	100	100
17	p	126/137 (92%)	105 (83%)	21 (17%)	0	100	100
18	Qb	139/143 (97%)	117 (84%)	21 (15%)	1 (1%)	22	61
18	r	139/143 (97%)	121 (87%)	15 (11%)	3 (2%)	6	37
19	Rb	117/136 (86%)	104 (89%)	11 (9%)	2 (2%)	9	43
19	s	123/136 (90%)	110 (89%)	12 (10%)	1 (1%)	19	58
20	Sb	143/146 (98%)	113 (79%)	26 (18%)	4 (3%)	5	33
20	t	143/146 (98%)	124 (87%)	17 (12%)	2 (1%)	11	46
21	Tb	141/144 (98%)	114 (81%)	25 (18%)	2 (1%)	11	46
21	u	141/144 (98%)	132 (94%)	9 (6%)	0	100	100
22	Ub	98/121 (81%)	86 (88%)	12 (12%)	0	100	100
22	v	99/121 (82%)	87 (88%)	10 (10%)	2 (2%)	7	40
23	Vb	85/87 (98%)	65 (76%)	19 (22%)	1 (1%)	13	49

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
23	w	85/87 (98%)	71 (84%)	14 (16%)	0	100	100
24	Wb	127/130 (98%)	103 (81%)	24 (19%)	0	100	100
24	x	127/130 (98%)	115 (91%)	12 (9%)	0	100	100
25	Xb	142/145 (98%)	110 (78%)	30 (21%)	2 (1%)	11	46
25	y	142/145 (98%)	123 (87%)	17 (12%)	2 (1%)	11	46
26	Yb	132/135 (98%)	119 (90%)	12 (9%)	1 (1%)	19	58
26	z	132/135 (98%)	109 (83%)	21 (16%)	2 (2%)	10	45
27	0	67/108 (62%)	61 (91%)	6 (9%)	0	100	100
27	Zb	80/108 (74%)	63 (79%)	17 (21%)	0	100	100
28	1	95/119 (80%)	71 (75%)	23 (24%)	1 (1%)	14	51
28	ab	95/119 (80%)	64 (67%)	26 (27%)	5 (5%)	2	21
29	2	79/82 (96%)	64 (81%)	15 (19%)	0	100	100
29	bb	79/82 (96%)	63 (80%)	16 (20%)	0	100	100
30	4	51/56 (91%)	38 (74%)	13 (26%)	0	100	100
30	db	51/56 (91%)	42 (82%)	9 (18%)	0	100	100
31	5	58/63 (92%)	43 (74%)	14 (24%)	1 (2%)	9	43
31	eb	58/63 (92%)	45 (78%)	13 (22%)	0	100	100
32	6	71/152 (47%)	41 (58%)	29 (41%)	1 (1%)	11	46
32	fb	71/152 (47%)	43 (61%)	28 (39%)	0	100	100
33	7	311/319 (98%)	281 (90%)	30 (10%)	0	100	100
33	gb	310/319 (97%)	264 (85%)	45 (14%)	1 (0%)	41	75
34	3	61/67 (91%)	54 (88%)	7 (12%)	0	100	100
34	cb	61/67 (91%)	47 (77%)	14 (23%)	0	100	100
37	Ay	249/254 (98%)	199 (80%)	48 (19%)	2 (1%)	19	58
37	Da	250/254 (98%)	205 (82%)	45 (18%)	0	100	100
38	By	384/387 (99%)	314 (82%)	68 (18%)	2 (0%)	29	67
38	Ea	384/387 (99%)	342 (89%)	42 (11%)	0	100	100
39	Cy	359/362 (99%)	292 (81%)	65 (18%)	2 (1%)	25	63
39	Fa	359/362 (99%)	297 (83%)	58 (16%)	4 (1%)	14	51
40	Dy	292/297 (98%)	251 (86%)	40 (14%)	1 (0%)	41	75
40	Ga	292/297 (98%)	265 (91%)	27 (9%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
41	Ey	163/176 (93%)	138 (85%)	24 (15%)	1 (1%)	25	63
41	Ha	153/176 (87%)	132 (86%)	21 (14%)	0	100	100
42	Fy	220/244 (90%)	178 (81%)	40 (18%)	2 (1%)	17	55
42	Ia	221/244 (91%)	198 (90%)	23 (10%)	0	100	100
43	Gy	231/256 (90%)	196 (85%)	35 (15%)	0	100	100
43	Ja	229/256 (90%)	187 (82%)	42 (18%)	0	100	100
44	Hy	189/191 (99%)	164 (87%)	25 (13%)	0	100	100
44	Ka	188/191 (98%)	176 (94%)	12 (6%)	0	100	100
45	Iy	216/221 (98%)	187 (87%)	29 (13%)	0	100	100
45	La	205/221 (93%)	178 (87%)	27 (13%)	0	100	100
46	Jy	167/174 (96%)	129 (77%)	35 (21%)	3 (2%)	8	41
46	Ma	167/174 (96%)	141 (84%)	24 (14%)	2 (1%)	13	49
47	Ly	191/199 (96%)	148 (78%)	39 (20%)	4 (2%)	7	39
47	Na	192/199 (96%)	149 (78%)	38 (20%)	5 (3%)	5	34
48	My	134/138 (97%)	114 (85%)	20 (15%)	0	100	100
48	Oa	135/138 (98%)	123 (91%)	12 (9%)	0	100	100
49	Ny	201/204 (98%)	160 (80%)	41 (20%)	0	100	100
49	Pa	201/204 (98%)	182 (90%)	17 (8%)	2 (1%)	15	53
50	Oy	195/199 (98%)	161 (83%)	32 (16%)	2 (1%)	15	53
50	Qa	195/199 (98%)	183 (94%)	12 (6%)	0	100	100
51	A	171/184 (93%)	160 (94%)	11 (6%)	0	100	100
51	Py	181/184 (98%)	149 (82%)	32 (18%)	0	100	100
52	B	183/186 (98%)	158 (86%)	25 (14%)	0	100	100
52	Qy	183/186 (98%)	152 (83%)	31 (17%)	0	100	100
53	C	181/189 (96%)	171 (94%)	10 (6%)	0	100	100
53	Ry	186/189 (98%)	168 (90%)	16 (9%)	2 (1%)	14	51
54	D	170/172 (99%)	157 (92%)	13 (8%)	0	100	100
54	Sy	169/172 (98%)	150 (89%)	19 (11%)	0	100	100
55	E	157/160 (98%)	137 (87%)	20 (13%)	0	100	100
55	Ty	157/160 (98%)	132 (84%)	25 (16%)	0	100	100
56	F	96/121 (79%)	91 (95%)	5 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
56	Uy	98/121 (81%)	87 (89%)	11 (11%)	0	100	100
57	G	132/137 (96%)	121 (92%)	11 (8%)	0	100	100
57	Vy	134/137 (98%)	115 (86%)	19 (14%)	0	100	100
58	H	133/155 (86%)	109 (82%)	24 (18%)	0	100	100
58	Wy	124/155 (80%)	97 (78%)	27 (22%)	0	100	100
59	I	118/142 (83%)	102 (86%)	16 (14%)	0	100	100
59	Xy	119/142 (84%)	98 (82%)	20 (17%)	1 (1%)	19	58
60	J	122/127 (96%)	113 (93%)	9 (7%)	0	100	100
60	Yy	123/127 (97%)	101 (82%)	22 (18%)	0	100	100
61	K	133/136 (98%)	115 (86%)	16 (12%)	2 (2%)	10	45
61	Zy	133/136 (98%)	116 (87%)	17 (13%)	0	100	100
62	L	146/149 (98%)	116 (80%)	27 (18%)	3 (2%)	7	39
62	ay	146/149 (98%)	113 (77%)	30 (20%)	3 (2%)	7	39
63	M	56/59 (95%)	43 (77%)	13 (23%)	0	100	100
63	by	56/59 (95%)	39 (70%)	15 (27%)	2 (4%)	3	28
64	N	98/105 (93%)	92 (94%)	6 (6%)	0	100	100
64	cy	94/105 (90%)	86 (92%)	8 (8%)	0	100	100
65	O	107/113 (95%)	97 (91%)	10 (9%)	0	100	100
65	dy	107/113 (95%)	91 (85%)	16 (15%)	0	100	100
66	P	125/130 (96%)	110 (88%)	15 (12%)	0	100	100
66	ey	125/130 (96%)	110 (88%)	15 (12%)	0	100	100
67	Q	104/107 (97%)	90 (86%)	14 (14%)	0	100	100
67	fy	104/107 (97%)	87 (84%)	17 (16%)	0	100	100
68	R	110/121 (91%)	103 (94%)	7 (6%)	0	100	100
68	gy	110/121 (91%)	92 (84%)	18 (16%)	0	100	100
69	S	117/120 (98%)	100 (86%)	17 (14%)	0	100	100
69	hb	117/120 (98%)	102 (87%)	15 (13%)	0	100	100
70	T	97/100 (97%)	83 (86%)	14 (14%)	0	100	100
70	ib	97/100 (97%)	80 (82%)	17 (18%)	0	100	100
71	U	80/88 (91%)	70 (88%)	10 (12%)	0	100	100
71	jb	83/88 (94%)	67 (81%)	16 (19%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
72	V	75/78 (96%)	69 (92%)	5 (7%)	1 (1%)	12	48
72	kb	75/78 (96%)	67 (89%)	8 (11%)	0	100	100
73	W	48/51 (94%)	41 (85%)	7 (15%)	0	100	100
73	lb	48/51 (94%)	41 (85%)	7 (15%)	0	100	100
74	X	50/128 (39%)	46 (92%)	4 (8%)	0	100	100
74	mb	50/128 (39%)	40 (80%)	10 (20%)	0	100	100
75	Y	23/25 (92%)	23 (100%)	0	0	100	100
75	nb	23/25 (92%)	23 (100%)	0	0	100	100
76	Z	103/106 (97%)	91 (88%)	12 (12%)	0	100	100
76	ob	101/106 (95%)	87 (86%)	14 (14%)	0	100	100
77	aa	89/92 (97%)	76 (85%)	13 (15%)	0	100	100
77	pb	89/92 (97%)	71 (80%)	18 (20%)	0	100	100
80	ba	134/311 (43%)	128 (96%)	6 (4%)	0	100	100
All	All	22066/24071 (92%)	18754 (85%)	3191 (14%)	121 (0%)	32	67

All (121) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
12	Jb	99	LEU
28	ab	84	VAL
18	r	116	LEU
19	s	82	ASP
26	z	52	LYS
39	Fa	339	LEU
46	Ma	95	ASN
47	Na	48	PRO
47	Na	62	THR
49	Pa	147	ARG
62	L	78	LEU
72	V	17	ARG
3	Ba	82	ARG
7	Eb	43	PRO
9	Gb	67	VAL
9	Gb	68	LEU
11	Ib	10	LYS
15	Mb	85	LYS
15	Mb	130	THR

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Mol	Chain	Res	Type
20	Sb	91	ASP
23	Vb	81	ASN
38	By	4	ARG
40	Dy	20	PHE
47	Ly	5	LYS
50	Oy	110[A]	PRO
50	Oy	111[A]	PRO
59	Xy	44	PRO
8	g	101	GLY
9	h	68	LEU
15	n	109	GLU
15	n	130	THR
4	q	71	GLU
25	y	89	ASN
31	5	4	VAL
47	Na	140	SER
61	K	102	GLU
62	L	18	GLY
62	L	48	TYR
2	Ab	196	SER
3	Ba	57	ALA
3	Ba	213	ARG
9	Gb	173	PRO
12	Jb	100	LYS
15	Mb	109	GLU
15	Mb	126	TRP
16	Nb	28	LEU
20	Sb	7	GLU
25	Xb	89	ASN
28	ab	62	TYR
33	gb	52	GLN
37	Ay	126	LEU
38	By	128	LYS
39	Cy	4	PRO
42	Fy	233	GLU
46	Jy	109	HIS
53	Ry	53	LYS
62	ay	25	HIS
62	ay	78	LEU
63	by	24	PRO
7	f	163	ASP
18	r	14	LYS

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Mol	Chain	Res	Type
20	t	91	ASP
22	v	72	ASN
26	z	49	LYS
28	1	34	LYS
32	6	107	LYS
47	Na	61	PRO
3	Ba	212	VAL
5	Cb	147	ASN
10	Hb	134	GLU
15	Mb	90	LYS
19	Rb	23	LYS
19	Rb	24	LEU
26	Yb	37	LYS
39	Cy	292	SER
42	Fy	164	SER
46	Jy	111	ASP
53	Ry	131	ALA
62	ay	24	LYS
63	by	25	LYS
10	i	74	GLN
4	q	125	PRO
39	Fa	90	PHE
47	Na	47	ALA
8	Fb	43	PHE
9	Gb	171	LYS
11	Ib	23	LYS
20	Sb	102	ALA
21	Tb	28	LEU
25	Xb	42	PRO
28	ab	9	GLY
28	ab	85	ARG
47	Ly	63	VAL
47	Ly	77	LEU
47	Ly	166	ALA
3	c	147	ALA
6	e	45	LYS
15	n	90	LYS
4	q	68	PRO
20	t	60	GLU
61	K	101	PHE
20	Sb	6	GLN
28	ab	46	GLU

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Mol	Chain	Res	Type
37	Ay	131	GLY
2	b	31	VAL
10	i	10	SER
13	l	32	HIS
49	Pa	146	ALA
18	Qb	33	GLY
25	y	88	PRO
46	Jy	8	PRO
12	k	163	PRO
4	q	126	VAL
22	v	51	VAL
39	Fa	301	PRO
41	Ey	6	ALA
21	Tb	31	PRO
12	k	162	SER
18	r	5	PRO
39	Fa	146	PRO
46	Ma	8	PRO

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	
2	Ab	170/210 (81%)	169 (99%)	1 (1%)	86	92
2	b	165/210 (79%)	164 (99%)	1 (1%)	86	92
3	Ba	200/224 (89%)	196 (98%)	4 (2%)	55	73
3	c	192/224 (86%)	191 (100%)	1 (0%)	88	93
4	Pb	95/118 (80%)	95 (100%)	0	100	100
4	q	98/118 (83%)	98 (100%)	0	100	100
5	Cb	175/205 (85%)	173 (99%)	2 (1%)	73	85
5	d	176/205 (86%)	176 (100%)	0	100	100
6	Db	182/195 (93%)	178 (98%)	4 (2%)	52	71
6	e	182/195 (93%)	180 (99%)	2 (1%)	73	85

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
7	Eb	220/222 (99%)	218 (99%)	2 (1%)	78	88
7	f	221/222 (100%)	219 (99%)	2 (1%)	78	88
8	Fb	172/191 (90%)	171 (99%)	1 (1%)	86	92
8	g	173/191 (91%)	172 (99%)	1 (1%)	86	92
9	Gb	189/201 (94%)	186 (98%)	3 (2%)	62	79
9	h	187/201 (93%)	185 (99%)	2 (1%)	73	85
10	Hb	163/170 (96%)	161 (99%)	2 (1%)	71	84
10	i	165/170 (97%)	165 (100%)	0	100	100
11	Ib	148/161 (92%)	146 (99%)	2 (1%)	67	81
11	j	150/161 (93%)	149 (99%)	1 (1%)	84	90
12	Jb	156/166 (94%)	155 (99%)	1 (1%)	86	92
12	k	158/166 (95%)	156 (99%)	2 (1%)	69	82
13	Kb	77/98 (79%)	77 (100%)	0	100	100
13	l	73/98 (74%)	73 (100%)	0	100	100
14	Lb	129/137 (94%)	128 (99%)	1 (1%)	81	89
14	m	129/137 (94%)	128 (99%)	1 (1%)	81	89
15	Mb	88/119 (74%)	88 (100%)	0	100	100
15	n	88/119 (74%)	88 (100%)	0	100	100
16	Nb	127/128 (99%)	127 (100%)	0	100	100
16	o	127/128 (99%)	126 (99%)	1 (1%)	81	89
17	Ob	91/105 (87%)	90 (99%)	1 (1%)	73	85
17	p	97/105 (92%)	97 (100%)	0	100	100
18	Qb	117/119 (98%)	116 (99%)	1 (1%)	78	88
18	r	117/119 (98%)	117 (100%)	0	100	100
19	Rb	101/124 (82%)	100 (99%)	1 (1%)	76	86
19	s	113/124 (91%)	111 (98%)	2 (2%)	59	77
20	Sb	128/129 (99%)	127 (99%)	1 (1%)	81	89
20	t	128/129 (99%)	126 (98%)	2 (2%)	62	79
21	Tb	115/116 (99%)	114 (99%)	1 (1%)	78	88
21	u	115/116 (99%)	115 (100%)	0	100	100
22	Ub	93/114 (82%)	93 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
22	v	94/114 (82%)	93 (99%)	1 (1%)	73	85
23	Vb	71/74 (96%)	71 (100%)	0	100	100
23	w	74/74 (100%)	74 (100%)	0	100	100
24	Wb	110/111 (99%)	109 (99%)	1 (1%)	78	88
24	x	110/111 (99%)	110 (100%)	0	100	100
25	Xb	119/120 (99%)	118 (99%)	1 (1%)	81	89
25	y	119/120 (99%)	119 (100%)	0	100	100
26	Yb	112/113 (99%)	110 (98%)	2 (2%)	59	77
26	z	112/113 (99%)	111 (99%)	1 (1%)	78	88
27	0	61/89 (68%)	60 (98%)	1 (2%)	62	79
27	Zb	67/89 (75%)	67 (100%)	0	100	100
28	1	83/101 (82%)	83 (100%)	0	100	100
28	ab	83/101 (82%)	82 (99%)	1 (1%)	71	84
29	2	70/71 (99%)	69 (99%)	1 (1%)	67	81
29	bb	70/71 (99%)	68 (97%)	2 (3%)	42	65
30	4	47/49 (96%)	46 (98%)	1 (2%)	53	72
30	db	47/49 (96%)	45 (96%)	2 (4%)	29	56
31	5	51/54 (94%)	49 (96%)	2 (4%)	32	58
31	eb	50/54 (93%)	50 (100%)	0	100	100
32	6	56/135 (42%)	55 (98%)	1 (2%)	59	77
32	fb	56/135 (42%)	55 (98%)	1 (2%)	59	77
33	7	255/262 (97%)	254 (100%)	1 (0%)	91	94
33	gb	250/262 (95%)	249 (100%)	1 (0%)	91	94
34	3	56/60 (93%)	56 (100%)	0	100	100
34	cb	55/60 (92%)	54 (98%)	1 (2%)	59	77
37	Ay	190/196 (97%)	188 (99%)	2 (1%)	73	85
37	Da	192/196 (98%)	190 (99%)	2 (1%)	76	86
38	By	319/323 (99%)	315 (99%)	4 (1%)	69	82
38	Ea	318/323 (98%)	317 (100%)	1 (0%)	92	95
39	Cy	288/289 (100%)	286 (99%)	2 (1%)	84	90
39	Fa	288/289 (100%)	286 (99%)	2 (1%)	84	90

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
40	Dy	241/245 (98%)	240 (100%)	1 (0%)	91	94
40	Ga	243/245 (99%)	241 (99%)	2 (1%)	81	89
41	Ey	137/153 (90%)	136 (99%)	1 (1%)	84	90
41	Ha	135/153 (88%)	134 (99%)	1 (1%)	84	90
42	Fy	186/205 (91%)	185 (100%)	1 (0%)	88	93
42	Ia	187/205 (91%)	186 (100%)	1 (0%)	88	93
43	Gy	187/208 (90%)	184 (98%)	3 (2%)	62	79
43	Ja	177/208 (85%)	175 (99%)	2 (1%)	73	85
44	Hy	168/171 (98%)	166 (99%)	2 (1%)	71	84
44	Ka	170/171 (99%)	167 (98%)	3 (2%)	59	77
45	Iy	185/187 (99%)	184 (100%)	1 (0%)	88	93
45	La	177/187 (95%)	176 (99%)	1 (1%)	86	92
46	Jy	146/150 (97%)	145 (99%)	1 (1%)	84	90
46	Ma	147/150 (98%)	147 (100%)	0	100	100
47	Ly	154/159 (97%)	152 (99%)	2 (1%)	69	82
47	Na	154/159 (97%)	154 (100%)	0	100	100
48	My	107/109 (98%)	107 (100%)	0	100	100
48	Oa	108/109 (99%)	108 (100%)	0	100	100
49	Ny	175/176 (99%)	175 (100%)	0	100	100
49	Pa	175/176 (99%)	175 (100%)	0	100	100
50	Oy	160/162 (99%)	160 (100%)	0	100	100
50	Qa	160/162 (99%)	160 (100%)	0	100	100
51	A	139/146 (95%)	139 (100%)	0	100	100
51	Py	138/146 (94%)	136 (99%)	2 (1%)	67	81
52	B	150/151 (99%)	150 (100%)	0	100	100
52	Qy	150/151 (99%)	149 (99%)	1 (1%)	84	90
53	C	149/154 (97%)	148 (99%)	1 (1%)	84	90
53	Ry	152/154 (99%)	151 (99%)	1 (1%)	84	90
54	D	156/156 (100%)	156 (100%)	0	100	100
54	Sy	155/156 (99%)	155 (100%)	0	100	100
55	E	136/137 (99%)	134 (98%)	2 (2%)	65	80

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
55	Ty	136/137 (99%)	136 (100%)	0	100	100
56	F	85/107 (79%)	85 (100%)	0	100	100
56	Uy	87/107 (81%)	86 (99%)	1 (1%)	73	85
57	G	103/105 (98%)	103 (100%)	0	100	100
57	Vy	104/105 (99%)	104 (100%)	0	100	100
58	H	114/129 (88%)	112 (98%)	2 (2%)	59	77
58	Wy	60/129 (46%)	60 (100%)	0	100	100
59	I	104/118 (88%)	104 (100%)	0	100	100
59	Xy	104/118 (88%)	104 (100%)	0	100	100
60	J	107/110 (97%)	107 (100%)	0	100	100
60	Yy	108/110 (98%)	108 (100%)	0	100	100
61	K	115/116 (99%)	115 (100%)	0	100	100
61	Zy	115/116 (99%)	114 (99%)	1 (1%)	78	88
62	L	118/119 (99%)	118 (100%)	0	100	100
62	ay	118/119 (99%)	118 (100%)	0	100	100
63	M	46/47 (98%)	45 (98%)	1 (2%)	52	71
63	by	46/47 (98%)	46 (100%)	0	100	100
64	N	84/88 (96%)	84 (100%)	0	100	100
64	cy	81/88 (92%)	81 (100%)	0	100	100
65	O	94/97 (97%)	93 (99%)	1 (1%)	73	85
65	dy	92/97 (95%)	91 (99%)	1 (1%)	73	85
66	P	109/111 (98%)	109 (100%)	0	100	100
66	ey	108/111 (97%)	108 (100%)	0	100	100
67	Q	90/91 (99%)	90 (100%)	0	100	100
67	fy	90/91 (99%)	90 (100%)	0	100	100
68	R	95/103 (92%)	95 (100%)	0	100	100
68	gy	95/103 (92%)	93 (98%)	2 (2%)	53	72
69	S	103/105 (98%)	103 (100%)	0	100	100
69	hb	104/105 (99%)	100 (96%)	4 (4%)	33	59
70	T	80/82 (98%)	80 (100%)	0	100	100
70	ib	80/82 (98%)	80 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
71	U	67/71 (94%)	67 (100%)	0	100	100
71	jb	69/71 (97%)	68 (99%)	1 (1%)	67	81
72	V	67/69 (97%)	67 (100%)	0	100	100
72	kb	68/69 (99%)	67 (98%)	1 (2%)	65	80
73	W	45/46 (98%)	45 (100%)	0	100	100
73	lb	45/46 (98%)	44 (98%)	1 (2%)	52	71
74	X	47/116 (40%)	46 (98%)	1 (2%)	53	72
74	mb	47/116 (40%)	47 (100%)	0	100	100
75	Y	23/23 (100%)	21 (91%)	2 (9%)	10	35
75	nb	22/23 (96%)	22 (100%)	0	100	100
76	Z	90/91 (99%)	89 (99%)	1 (1%)	73	85
76	ob	87/91 (96%)	86 (99%)	1 (1%)	73	85
77	aa	71/72 (99%)	69 (97%)	2 (3%)	43	65
77	pb	71/72 (99%)	71 (100%)	0	100	100
80	ba	105/253 (42%)	103 (98%)	2 (2%)	57	75
All	All	18566/20221 (92%)	18432 (99%)	134 (1%)	84	90

All (134) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	Ab	206	ASP
3	Ba	96	LEU
3	Ba	153	HIS
3	Ba	179	SER
3	Ba	222	LYS
5	Cb	181	SER
5	Cb	226	THR
6	Db	76	ARG
6	Db	90	ARG
6	Db	148	LYS
6	Db	178	ARG
7	Eb	200	ARG
7	Eb	211	LYS
8	Fb	156	ARG
9	Gb	78	THR
9	Gb	115	LYS
9	Gb	214	LYS

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Mol	Chain	Res	Type
10	Hb	39	ARG
10	Hb	116	ARG
11	Ib	18	ARG
11	Ib	87	ASN
12	Jb	149	ARG
14	Lb	67	ARG
17	Ob	136	ARG
18	Qb	82	ARG
19	Rb	5	ARG
20	Sb	145	ARG
21	Tb	95	ASP
24	Wb	92	ASN
25	Xb	107	PHE
26	Yb	58	PHE
26	Yb	115	ASP
28	ab	74	CYS
29	bb	40	CYS
29	bb	72	LYS
30	db	19	ARG
30	db	28	THR
32	fb	80	ARG
33	gb	266	ASP
34	cb	65	ARG
37	Ay	70	ARG
37	Ay	226	SER
38	By	226	PHE
38	By	230	THR
38	By	332	ARG
38	By	369	ARG
39	Cy	203	ARG
39	Cy	259	ASP
40	Dy	271	LYS
41	Ey	51	ARG
42	Fy	209	ASN
43	Gy	134	TYR
43	Gy	158	ASP
43	Gy	185	ARG
44	Hy	68	LEU
44	Hy	107	ASP
45	Iy	169	LYS
46	Jy	174	LYS
47	Ly	101	ARG

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Mol	Chain	Res	Type
47	Ly	104	ARG
51	Py	67	ILE
51	Py	79	THR
52	Qy	60	PRO
53	Ry	125	LYS
56	Uy	99	LYS
61	Zy	3	LYS
65	dy	50	ARG
68	gy	69	HIS
68	gy	103	LYS
69	hb	14	LYS
69	hb	48	ARG
69	hb	81	ARG
69	hb	94	LYS
71	jb	12	HIS
72	kb	63	LYS
73	lb	21	ARG
76	ob	80	ARG
2	b	185	ARG
3	c	202	LYS
6	e	156	PHE
6	e	164	VAL
7	f	49	ARG
7	f	158	ASP
8	g	76	ARG
9	h	98	ARG
9	h	116	LYS
11	j	77	ARG
12	k	3	ARG
12	k	82	ARG
14	m	67	ARG
16	o	76	LYS
19	s	5	ARG
19	s	111	LYS
20	t	16	ARG
20	t	145	ARG
22	v	101	LYS
26	z	114	ARG
27	0	81	ARG
29	2	80	ARG
30	4	44	ARG
31	5	3	LYS

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Mol	Chain	Res	Type
31	5	10	ARG
32	6	118	ARG
33	7	229	LYS
37	Da	193	ARG
37	Da	247	ARG
38	Ea	332	ARG
39	Fa	50	TYR
39	Fa	120	TYR
40	Ga	254	LYS
40	Ga	282	ARG
41	Ha	20	LYS
42	Ia	161	VAL
43	Ja	111	LYS
43	Ja	230	LYS
44	Ka	63	LYS
44	Ka	64	HIS
44	Ka	107	ASP
45	La	24	ARG
53	C	85	ARG
55	E	83	ARG
55	E	139	ARG
58	H	43	ARG
58	H	69	LYS
63	M	50	THR
65	O	73	LEU
74	X	83	LYS
75	Y	5	TRP
75	Y	6	ARG
76	Z	6	LYS
77	aa	48	LYS
77	aa	59	CYS
80	ba	23	LYS
80	ba	61	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (239) such sidechains are listed below:

Mol	Chain	Res	Type
3	Ba	146	GLN
3	Ba	194	ASN
5	Cb	150	GLN
5	Cb	152	HIS
5	Cb	199	GLN

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Mol	Chain	Res	Type
5	Cb	233	GLN
6	Db	111	ASN
7	Eb	153	ASN
7	Eb	216	ASN
7	Eb	224	ASN
8	Fb	86	GLN
8	Fb	103	ASN
8	Fb	127	GLN
8	Fb	139	ASN
8	Fb	200	ASN
8	Fb	224	ASN
9	Gb	182	GLN
10	Hb	108	GLN
10	Hb	147	ASN
11	Ib	52	ASN
11	Ib	64	ASN
11	Ib	87	ASN
12	Jb	38	ASN
12	Jb	74	ASN
12	Jb	124	HIS
13	Kb	12	HIS
13	Kb	28	ASN
14	Lb	14	GLN
14	Lb	110	HIS
15	Mb	125	ASN
16	Nb	78	ASN
16	Nb	123	HIS
17	Ob	65	GLN
19	Rb	42	GLN
20	Sb	12	GLN
20	Sb	21	ASN
20	Sb	63	GLN
20	Sb	75	ASN
20	Sb	89	GLN
23	Vb	74	GLN
23	Vb	75	ASN
24	Wb	44	HIS
24	Wb	92	ASN
25	Xb	18	HIS
25	Xb	22	ASN
25	Xb	27	ASN
28	ab	11	ASN

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Mol	Chain	Res	Type
29	bb	5	GLN
29	bb	26	GLN
32	fb	95	HIS
32	fb	134	ASN
32	fb	135	HIS
33	gb	148	ASN
33	gb	200	ASN
34	cb	43	ASN
37	Ay	8	GLN
37	Ay	132	ASN
37	Ay	139	HIS
38	By	121	ASN
38	By	173	GLN
38	By	377	HIS
39	Cy	9	HIS
39	Cy	291	ASN
39	Cy	304	GLN
39	Cy	316	ASN
40	Dy	45	ASN
40	Dy	57	ASN
40	Dy	274	GLN
42	Fy	37	ASN
42	Fy	231	ASN
43	Gy	28	HIS
43	Gy	61	GLN
44	Hy	58	HIS
44	Hy	100	ASN
44	Hy	125	ASN
44	Hy	156	GLN
44	Hy	157	ASN
45	Iy	100	ASN
45	Iy	163	GLN
45	Iy	209	ASN
46	Jy	95	ASN
49	Ny	139	HIS
49	Ny	182	ASN
50	Oy	31[A]	GLN
50	Oy	55[A]	HIS
51	Py	28	ASN
51	Py	116	HIS
52	Qy	73	GLN
53	Ry	34	GLN

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Mol	Chain	Res	Type
53	Ry	58	HIS
53	Ry	75	HIS
53	Ry	130	ASN
53	Ry	175	GLN
54	Sy	46	GLN
54	Sy	49	HIS
55	Ty	77	ASN
55	Ty	131	GLN
56	Uy	25	ASN
56	Uy	49	ASN
56	Uy	101	ASN
57	Vy	98	ASN
58	Wy	58	HIS
59	Xy	111	ASN
60	Yy	42	GLN
61	Zy	29	HIS
62	ay	14	HIS
62	ay	62	HIS
63	by	7	HIS
63	by	12	GLN
63	by	17	HIS
64	cy	12	GLN
67	fy	42	GLN
67	fy	88	ASN
67	fy	106	ASN
68	gy	34	HIS
68	gy	108	GLN
69	hb	99	GLN
69	hb	113	GLN
70	ib	12	ASN
70	ib	35	ASN
73	lb	43	ASN
2	b	168	HIS
3	c	92	GLN
3	c	146	GLN
3	c	209	ASN
5	d	220	ASN
5	d	233	GLN
6	e	74	GLN
6	e	174	HIS
7	f	8	HIS
7	f	57	ASN

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Mol	Chain	Res	Type
8	g	66	GLN
8	g	122	ASN
8	g	224	ASN
11	j	35	ASN
11	j	111	GLN
12	k	74	ASN
12	k	112	GLN
13	l	9	ASN
14	m	81	HIS
18	r	32	ASN
18	r	83	GLN
18	r	139	GLN
20	t	44	ASN
20	t	89	GLN
20	t	137	HIS
21	u	23	GLN
22	v	72	ASN
24	x	70	ASN
24	x	92	ASN
27	0	82	HIS
30	4	53	ASN
31	5	46	ASN
31	5	57	ASN
32	6	151	ASN
33	7	29	GLN
33	7	148	ASN
33	7	174	ASN
33	7	268	GLN
37	Da	79	ASN
37	Da	97	ASN
37	Da	233	GLN
38	Ea	165	GLN
38	Ea	177	HIS
39	Fa	48	GLN
39	Fa	92	ASN
39	Fa	160	GLN
39	Fa	311	HIS
40	Ga	206	GLN
41	Ha	97	ASN
41	Ha	157	GLN
42	Ia	61	ASN
42	Ia	64	GLN

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Mol	Chain	Res	Type
43	Ja	41	GLN
43	Ja	85	ASN
43	Ja	145	ASN
43	Ja	240	ASN
43	Ja	243	GLN
44	Ka	59	ASN
44	Ka	156	GLN
45	La	59	GLN
45	La	144	ASN
46	Ma	101	ASN
47	Na	19	GLN
48	Oa	41	GLN
48	Oa	62	GLN
49	Pa	11	GLN
49	Pa	34	ASN
49	Pa	158	HIS
49	Pa	175	ASN
49	Pa	182	ASN
49	Pa	195	ASN
50	Qa	31	GLN
50	Qa	90	HIS
51	A	54	HIS
51	A	55	GLN
51	A	121	GLN
52	B	136	ASN
53	C	7	GLN
54	D	65	ASN
54	D	114	HIS
54	D	122	HIS
54	D	138	GLN
55	E	26	HIS
56	F	49	ASN
56	F	88	GLN
56	F	101	ASN
57	G	47	ASN
58	H	104	ASN
59	I	94	GLN
60	J	4	GLN
60	J	98	ASN
60	J	120	GLN
61	K	36	HIS
61	K	78	ASN

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Mol	Chain	Res	Type
61	K	122	HIS
61	K	127	ASN
62	L	38	GLN
62	L	40	HIS
63	M	19	ASN
65	O	43	HIS
65	O	57	GLN
67	Q	42	GLN
68	R	3	GLN
68	R	18	ASN
69	S	59	ASN
69	S	62	GLN
69	S	108	GLN
71	U	48	ASN
73	W	11	GLN
73	W	25	GLN
73	W	43	ASN
74	X	117	HIS
74	X	119	ASN
76	Z	22	GLN
76	Z	53	GLN
76	Z	105	GLN
80	ba	37	GLN
80	ba	189	GLN

5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	2b	1768/1800 (98%)	638 (36%)	0
1	a	1755/1800 (97%)	533 (30%)	0
35	4b	120/121 (99%)	20 (16%)	0
35	Bb	120/121 (99%)	17 (14%)	0
36	3b	157/158 (99%)	41 (26%)	0
36	Ca	156/158 (98%)	37 (23%)	0
78	1b	3180/3396 (93%)	879 (27%)	0
78	Aa	3120/3396 (91%)	804 (25%)	0
79	6b	75/76 (98%)	16 (21%)	0
79	8	75/76 (98%)	18 (24%)	0
All	All	10526/11102 (94%)	3003 (28%)	0

All (3003) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	2b	2	A
1	2b	4	C
1	2b	6	G
1	2b	8	U
1	2b	10	G
1	2b	17	C
1	2b	25	C
1	2b	26	A
1	2b	34	G
1	2b	36	C
1	2b	39	A
1	2b	43	A
1	2b	44	U
1	2b	45	U
1	2b	46	A
1	2b	47	A
1	2b	51	A
1	2b	56	U
1	2b	57	G
1	2b	60	U
1	2b	61	A
1	2b	62	A
1	2b	63	G
1	2b	65	A
1	2b	66	U
1	2b	67	A
1	2b	68	A
1	2b	69	G
1	2b	71	A
1	2b	73	U
1	2b	74	U
1	2b	75	U
1	2b	76	A
1	2b	78	A
1	2b	79	C
1	2b	80	A
1	2b	81	G
1	2b	90	C
1	2b	93	A
1	2b	99	C
1	2b	104	A
1	2b	111	U
1	2b	114	C

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Mol	Chain	Res	Type
1	2b	115	G
1	2b	116	U
1	2b	121	U
1	2b	124	A
1	2b	126	A
1	2b	127	G
1	2b	129	U
1	2b	130	C
1	2b	131	C
1	2b	132	U
1	2b	133	U
1	2b	134	U
1	2b	135	A
1	2b	136	C
1	2b	138	A
1	2b	140	A
1	2b	141	U
1	2b	142	G
1	2b	145	A
1	2b	147	A
1	2b	153	G
1	2b	155	U
1	2b	156	A
1	2b	159	U
1	2b	161	U
1	2b	166	C
1	2b	170	U
1	2b	171	A
1	2b	173	A
1	2b	174	U
1	2b	176	C
1	2b	178	U
1	2b	179	A
1	2b	180	A
1	2b	185	U
1	2b	186	C
1	2b	187	G
1	2b	188	A
1	2b	191	C
1	2b	192	U
1	2b	193	U
1	2b	194	U

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Mol	Chain	Res	Type
1	2b	195	G
1	2b	196	G
1	2b	204	G
1	2b	216	U
1	2b	217	A
1	2b	218	A
1	2b	220	A
1	2b	222	A
1	2b	223	U
1	2b	225	A
1	2b	227	U
1	2b	228	G
1	2b	230	C
1	2b	231	U
1	2b	232	U
1	2b	233	C
1	2b	234	G
1	2b	235	G
1	2b	236	A
1	2b	237	C
1	2b	238	U
1	2b	240	U
1	2b	241	U
1	2b	246	G
1	2b	250	C
1	2b	251	A
1	2b	255	U
1	2b	257	A
1	2b	260	U
1	2b	261	U
1	2b	262	U
1	2b	265	A
1	2b	272	U
1	2b	274	G
1	2b	276	C
1	2b	277	U
1	2b	278	U
1	2b	279	G
1	2b	280	U
1	2b	281	G
1	2b	287	G
1	2b	299	A

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Mol	Chain	Res	Type
1	2b	302	U
1	2b	311	U
1	2b	312	A
1	2b	313	U
1	2b	314	C
1	2b	316	A
1	2b	320	U
1	2b	322	G
1	2b	323	A
1	2b	330	G
1	2b	331	A
1	2b	333	A
1	2b	334	G
1	2b	337	G
1	2b	338	C
1	2b	345	U
1	2b	352	A
1	2b	353	A
1	2b	359	A
1	2b	361	C
1	2b	363	G
1	2b	365	G
1	2b	369	A
1	2b	370	A
1	2b	373	G
1	2b	384	G
1	2b	388	G
1	2b	390	G
1	2b	391	A
1	2b	394	C
1	2b	397	A
1	2b	398	G
1	2b	400	A
1	2b	401	A
1	2b	402	C
1	2b	404	G
1	2b	417	A
1	2b	419	G
1	2b	423	G
1	2b	424	C
1	2b	425	A
1	2b	426	G

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Mol	Chain	Res	Type
1	2b	432	G
1	2b	435	C
1	2b	436	A
1	2b	437	A
1	2b	438	A
1	2b	439	U
1	2b	441	A
1	2b	445	A
1	2b	446	A
1	2b	448	C
1	2b	459	G
1	2b	460	A
1	2b	464	A
1	2b	468	A
1	2b	471	A
1	2b	477	A
1	2b	478	A
1	2b	480	G
1	2b	482	U
1	2b	483	A
1	2b	485	A
1	2b	487	G
1	2b	489	C
1	2b	491	C
1	2b	492	A
1	2b	493	U
1	2b	494	U
1	2b	495	C
1	2b	496	G
1	2b	498	G
1	2b	499	U
1	2b	500	C
1	2b	502	U
1	2b	506	A
1	2b	507	U
1	2b	510	G
1	2b	511	A
1	2b	512	A
1	2b	514	G
1	2b	517	U
1	2b	525	A
1	2b	527	A

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Mol	Chain	Res	Type
1	2b	529	A
1	2b	532	U
1	2b	534	A
1	2b	537	G
1	2b	538	A
1	2b	539	G
1	2b	540	G
1	2b	541	A
1	2b	542	A
1	2b	543	C
1	2b	545	A
1	2b	554	C
1	2b	555	A
1	2b	556	A
1	2b	557	G
1	2b	558	U
1	2b	559	C
1	2b	565	C
1	2b	568	G
1	2b	571	G
1	2b	572	C
1	2b	577	G
1	2b	578	U
1	2b	579	A
1	2b	580	A
1	2b	582	U
1	2b	583	C
1	2b	585	A
1	2b	594	A
1	2b	595	G
1	2b	606	A
1	2b	609	U
1	2b	610	G
1	2b	611	U
1	2b	614	C
1	2b	619	A
1	2b	620	A
1	2b	622	A
1	2b	623	A
1	2b	624	G
1	2b	626	U
1	2b	628	G

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Mol	Chain	Res	Type
1	2b	629	U
1	2b	639	U
1	2b	640	U
1	2b	641	G
1	2b	643	G
1	2b	645	C
1	2b	648	G
1	2b	651	G
1	2b	652	G
1	2b	653	C
1	2b	655	G
1	2b	657	U
1	2b	658	C
1	2b	677	G
1	2b	680	U
1	2b	681	U
1	2b	683	C
1	2b	684	A
1	2b	687	G
1	2b	694	U
1	2b	696	C
1	2b	697	C
1	2b	698	U
1	2b	699	U
1	2b	700	C
1	2b	703	G
1	2b	704	C
1	2b	705	U
1	2b	706	A
1	2b	707	A
1	2b	708	C
1	2b	709	C
1	2b	710	U
1	2b	711	U
1	2b	712	G
1	2b	713	A
1	2b	714	G
1	2b	728	U
1	2b	729	G
1	2b	730	G
1	2b	731	C
1	2b	732	G

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Mol	Chain	Res	Type
1	2b	733	A
1	2b	734	A
1	2b	736	C
1	2b	738	G
1	2b	741	C
1	2b	742	U
1	2b	743	U
1	2b	745	U
1	2b	753	A
1	2b	755	A
1	2b	756	A
1	2b	765	G
1	2b	766	U
1	2b	767	U
1	2b	771	A
1	2b	774	A
1	2b	775	G
1	2b	778	G
1	2b	779	U
1	2b	780	A
1	2b	781	U
1	2b	782	U
1	2b	783	G
1	2b	787	G
1	2b	789	A
1	2b	794	U
1	2b	804	A
1	2b	806	A
1	2b	807	A
1	2b	810	G
1	2b	812	A
1	2b	813	U
1	2b	814	A
1	2b	815	G
1	2b	819	G
1	2b	820	U
1	2b	821	U
1	2b	823	G
1	2b	825	U
1	2b	832	U
1	2b	833	U
1	2b	835	U

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Mol	Chain	Res	Type
1	2b	837	G
1	2b	839	U
1	2b	840	U
1	2b	841	U
1	2b	845	G
1	2b	846	G
1	2b	852	C
1	2b	853	G
1	2b	855	A
1	2b	856	A
1	2b	857	U
1	2b	861	U
1	2b	862	A
1	2b	863	A
1	2b	864	U
1	2b	865	A
1	2b	876	G
1	2b	898	A
1	2b	899	G
1	2b	901	G
1	2b	902	G
1	2b	911	U
1	2b	912	U
1	2b	913	G
1	2b	915	A
1	2b	921	U
1	2b	929	A
1	2b	932	U
1	2b	933	A
1	2b	934	C
1	2b	935	U
1	2b	940	A
1	2b	942	G
1	2b	944	A
1	2b	945	U
1	2b	959	U
1	2b	960	U
1	2b	962	C
1	2b	964	U
1	2b	965	U
1	2b	966	A
1	2b	969	C

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Mol	Chain	Res	Type
1	2b	970	A
1	2b	971	A
1	2b	977	A
1	2b	984	G
1	2b	987	G
1	2b	988	A
1	2b	991	G
1	2b	992	A
1	2b	993	A
1	2b	996	U
1	2b	1004	U
1	2b	1007	C
1	2b	1011	G
1	2b	1012	U
1	2b	1020	A
1	2b	1021	C
1	2b	1023	A
1	2b	1024	U
1	2b	1028	C
1	2b	1029	U
1	2b	1039	A
1	2b	1052	U
1	2b	1053	G
1	2b	1058	U
1	2b	1059	U
1	2b	1060	U
1	2b	1061	A
1	2b	1062	A
1	2b	1063	U
1	2b	1075	C
1	2b	1076	A
1	2b	1082	C
1	2b	1090	C
1	2b	1092	A
1	2b	1093	A
1	2b	1096	C
1	2b	1098	U
1	2b	1100	G
1	2b	1109	G
1	2b	1115	U
1	2b	1119	G
1	2b	1122	G

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Mol	Chain	Res	Type
1	2b	1124	A
1	2b	1130	G
1	2b	1137	A
1	2b	1138	A
1	2b	1139	A
1	2b	1150	G
1	2b	1158	C
1	2b	1160	A
1	2b	1163	A
1	2b	1164	G
1	2b	1167	G
1	2b	1170	G
1	2b	1172	G
1	2b	1185	U
1	2b	1191	U
1	2b	1193	A
1	2b	1194	A
1	2b	1196	A
1	2b	1197	C
1	2b	1199	G
1	2b	1200	G
1	2b	1202	A
1	2b	1206	U
1	2b	1207	C
1	2b	1208	A
1	2b	1209	C
1	2b	1217	A
1	2b	1218	G
1	2b	1227	A
1	2b	1229	G
1	2b	1230	A
1	2b	1231	U
1	2b	1241	G
1	2b	1242	A
1	2b	1243	G
1	2b	1244	A
1	2b	1245	G
1	2b	1246	C
1	2b	1251	U
1	2b	1252	C
1	2b	1255	G
1	2b	1256	A

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Mol	Chain	Res	Type
1	2b	1257	U
1	2b	1258	U
1	2b	1263	G
1	2b	1274	C
1	2b	1275	A
1	2b	1276	U
1	2b	1285	U
1	2b	1287	A
1	2b	1294	G
1	2b	1298	U
1	2b	1299	G
1	2b	1308	G
1	2b	1314	U
1	2b	1315	U
1	2b	1316	G
1	2b	1318	G
1	2b	1321	A
1	2b	1322	A
1	2b	1337	A
1	2b	1338	C
1	2b	1341	A
1	2b	1344	A
1	2b	1345	A
1	2b	1346	A
1	2b	1348	A
1	2b	1349	G
1	2b	1354	G
1	2b	1355	C
1	2b	1360	A
1	2b	1361	U
1	2b	1362	U
1	2b	1363	U
1	2b	1367	G
1	2b	1370	U
1	2b	1371	A
1	2b	1373	C
1	2b	1378	U
1	2b	1380	U
1	2b	1382	A
1	2b	1383	G
1	2b	1385	G
1	2b	1388	A

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Mol	Chain	Res	Type
1	2b	1390	U
1	2b	1391	A
1	2b	1395	G
1	2b	1396	U
1	2b	1398	U
1	2b	1399	C
1	2b	1400	A
1	2b	1402	G
1	2b	1410	A
1	2b	1413	U
1	2b	1414	U
1	2b	1415	U
1	2b	1418	G
1	2b	1427	A
1	2b	1428	G
1	2b	1431	C
1	2b	1432	U
1	2b	1433	G
1	2b	1435	G
1	2b	1436	A
1	2b	1437	U
1	2b	1438	G
1	2b	1444	A
1	2b	1445	G
1	2b	1446	A
1	2b	1447	C
1	2b	1448	G
1	2b	1459	C
1	2b	1460	A
1	2b	1465	C
1	2b	1466	G
1	2b	1469	A
1	2b	1470	C
1	2b	1471	A
1	2b	1472	C
1	2b	1479	A
1	2b	1486	G
1	2b	1491	U
1	2b	1492	A
1	2b	1493	A
1	2b	1494	C
1	2b	1496	U

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Mol	Chain	Res	Type
1	2b	1503	A
1	2b	1514	U
1	2b	1515	A
1	2b	1516	A
1	2b	1517	U
1	2b	1518	C
1	2b	1520	U
1	2b	1521	G
1	2b	1523	G
1	2b	1524	A
1	2b	1527	C
1	2b	1528	U
1	2b	1530	C
1	2b	1531	G
1	2b	1535	U
1	2b	1537	C
1	2b	1540	G
1	2b	1543	A
1	2b	1545	A
1	2b	1554	U
1	2b	1557	U
1	2b	1558	U
1	2b	1559	A
1	2b	1570	A
1	2b	1572	G
1	2b	1573	A
1	2b	1574	G
1	2b	1575	G
1	2b	1576	A
1	2b	1577	A
1	2b	1582	U
1	2b	1583	A
1	2b	1584	G
1	2b	1585	U
1	2b	1601	G
1	2b	1602	C
1	2b	1605	G
1	2b	1611	A
1	2b	1614	A
1	2b	1616	G
1	2b	1618	C
1	2b	1619	C

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Mol	Chain	Res	Type
1	2b	1622	G
1	2b	1632	C
1	2b	1634	C
1	2b	1635	A
1	2b	1636	C
1	2b	1637	C
1	2b	1638	G
1	2b	1649	G
1	2b	1657	U
1	2b	1658	G
1	2b	1676	U
1	2b	1682	U
1	2b	1688	U
1	2b	1689	A
1	2b	1698	G
1	2b	1701	A
1	2b	1702	A
1	2b	1707	A
1	2b	1708	U
1	2b	1709	C
1	2b	1711	C
1	2b	1712	A
1	2b	1715	G
1	2b	1716	C
1	2b	1718	G
1	2b	1725	U
1	2b	1736	G
1	2b	1742	U
1	2b	1743	U
1	2b	1750	A
1	2b	1756	A
1	2b	1757	G
1	2b	1760	G
1	2b	1766	A
1	2b	1767	G
1	2b	1768	G
1	2b	1769	U
1	2b	1770	U
1	2b	1780	G
1	2b	1782	A
1	2b	1783	C
1	2b	1786	G

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Mol	Chain	Res	Type
1	2b	1791	A
1	2b	1792	G
1	2b	1793	G
1	2b	1794	A
1	2b	1795	U
1	2b	1796	C
1	2b	1799	U
35	4b	7	G
35	4b	11	A
35	4b	18	C
35	4b	33	U
35	4b	38	U
35	4b	47	C
35	4b	53	U
35	4b	54	U
35	4b	55	A
35	4b	65	G
35	4b	74	C
35	4b	76	A
35	4b	80	G
35	4b	86	U
35	4b	90	U
35	4b	99	G
35	4b	102	A
35	4b	112	G
35	4b	120	C
35	4b	121	U
36	3b	15	G
36	3b	22	U
36	3b	23	U
36	3b	34	U
36	3b	35	C
36	3b	37	A
36	3b	40	A
36	3b	46	G
36	3b	49	G
36	3b	59	A
36	3b	61	A
36	3b	62	C
36	3b	63	G
36	3b	71	A
36	3b	80	A

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Mol	Chain	Res	Type
36	3b	81	U
36	3b	82	U
36	3b	83	C
36	3b	85	G
36	3b	86	U
36	3b	87	G
36	3b	89	A
36	3b	90	U
36	3b	94	C
36	3b	95	G
36	3b	99	C
36	3b	102	U
36	3b	103	G
36	3b	104	A
36	3b	106	C
36	3b	107	G
36	3b	111	A
36	3b	113	U
36	3b	116	G
36	3b	125	U
36	3b	126	A
36	3b	138	A
36	3b	148	G
36	3b	151	C
36	3b	152	G
36	3b	158	U
78	1b	11	A
78	1b	14	U
78	1b	15	C
78	1b	18	G
78	1b	22	G
78	1b	26	A
78	1b	30	G
78	1b	40	A
78	1b	43	A
78	1b	45	A
78	1b	49	A
78	1b	59	G
78	1b	60	A
78	1b	65	A
78	1b	66	A
78	1b	71	A

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Mol	Chain	Res	Type
78	1b	74	G
78	1b	76	G
78	1b	77	A
78	1b	87	U
78	1b	92	G
78	1b	99	A
78	1b	108	A
78	1b	109	A
78	1b	110	G
78	1b	113	C
78	1b	117	U
78	1b	118	U
78	1b	121	A
78	1b	122	A
78	1b	133	U
78	1b	135	C
78	1b	136	G
78	1b	142	C
78	1b	146	U
78	1b	149	U
78	1b	150	A
78	1b	153	U
78	1b	154	U
78	1b	155	G
78	1b	156	G
78	1b	157	A
78	1b	161	G
78	1b	165	A
78	1b	166	C
78	1b	172	G
78	1b	173	G
78	1b	185	C
78	1b	187	A
78	1b	189	G
78	1b	190	U
78	1b	191	U
78	1b	200	C
78	1b	206	G
78	1b	210	U
78	1b	211	A
78	1b	212	G
78	1b	213	A

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Mol	Chain	Res	Type
78	1b	218	G
78	1b	219	A
78	1b	221	A
78	1b	224	C
78	1b	231	G
78	1b	240	U
78	1b	241	G
78	1b	242	C
78	1b	243	G
78	1b	248	U
78	1b	249	U
78	1b	250	U
78	1b	251	G
78	1b	252	U
78	1b	253	A
78	1b	263	C
78	1b	265	A
78	1b	269	G
78	1b	270	U
78	1b	272	G
78	1b	281	G
78	1b	282	G
78	1b	283	G
78	1b	285	A
78	1b	286	U
78	1b	291	C
78	1b	295	A
78	1b	298	U
78	1b	306	A
78	1b	323	A
78	1b	325	A
78	1b	327	A
78	1b	329	U
78	1b	334	A
78	1b	339	C
78	1b	341	G
78	1b	342	A
78	1b	346	C
78	1b	348	A
78	1b	350	C
78	1b	351	A
78	1b	373	A

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Mol	Chain	Res	Type
78	1b	375	A
78	1b	376	G
78	1b	385	A
78	1b	398	A
78	1b	400	G
78	1b	401	U
78	1b	402	A
78	1b	403	C
78	1b	421	G
78	1b	422	A
78	1b	439	C
78	1b	440	A
78	1b	441	U
78	1b	442	G
78	1b	445	G
78	1b	446	U
78	1b	447	U
78	1b	448	U
78	1b	450	G
78	1b	451	U
78	1b	487	U
78	1b	488	U
78	1b	489	U
78	1b	490	C
78	1b	491	A
78	1b	494	G
78	1b	495	G
78	1b	503	C
78	1b	520	U
78	1b	521	A
78	1b	523	A
78	1b	535	G
78	1b	536	U
78	1b	543	C
78	1b	544	C
78	1b	545	U
78	1b	546	C
78	1b	547	G
78	1b	548	G
78	1b	549	U
78	1b	550	A
78	1b	552	G

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Mol	Chain	Res	Type
78	1b	555	U
78	1b	556	U
78	1b	557	A
78	1b	559	A
78	1b	560	G
78	1b	569	A
78	1b	572	A
78	1b	579	G
78	1b	589	A
78	1b	592	A
78	1b	597	G
78	1b	600	G
78	1b	604	G
78	1b	609	G
78	1b	610	G
78	1b	611	A
78	1b	620	U
78	1b	621	A
78	1b	622	A
78	1b	632	G
78	1b	636	C
78	1b	637	C
78	1b	638	C
78	1b	645	A
78	1b	649	A
78	1b	661	G
78	1b	667	C
78	1b	672	A
78	1b	677	A
78	1b	678	G
78	1b	681	U
78	1b	683	U
78	1b	690	A
78	1b	691	A
78	1b	699	A
78	1b	705	A
78	1b	712	G
78	1b	715	A
78	1b	716	A
78	1b	717	C
78	1b	718	G
78	1b	719	U

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Mol	Chain	Res	Type
78	1b	720	A
78	1b	721	G
78	1b	737	G
78	1b	742	G
78	1b	758	C
78	1b	763	G
78	1b	764	U
78	1b	765	C
78	1b	766	U
78	1b	767	U
78	1b	771	A
78	1b	774	G
78	1b	776	U
78	1b	777	U
78	1b	781	G
78	1b	783	A
78	1b	785	G
78	1b	786	A
78	1b	806	A
78	1b	808	A
78	1b	814	U
78	1b	815	G
78	1b	816	A
78	1b	817	A
78	1b	818	C
78	1b	830	A
78	1b	831	G
78	1b	832	G
78	1b	834	U
78	1b	847	A
78	1b	848	A
78	1b	849	C
78	1b	860	G
78	1b	861	C
78	1b	867	G
78	1b	871	U
78	1b	873	C
78	1b	874	U
78	1b	875	G
78	1b	878	G
78	1b	879	U
78	1b	880	G

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Mol	Chain	Res	Type
78	1b	881	C
78	1b	883	A
78	1b	894	G
78	1b	895	A
78	1b	907	G
78	1b	908	G
78	1b	909	G
78	1b	914	A
78	1b	915	A
78	1b	916	G
78	1b	917	A
78	1b	921	A
78	1b	923	C
78	1b	924	G
78	1b	926	A
78	1b	932	U
78	1b	933	A
78	1b	935	U
78	1b	937	G
78	1b	944	C
78	1b	959	C
78	1b	960	U
78	1b	962	A
78	1b	974	G
78	1b	977	C
78	1b	979	U
78	1b	980	A
78	1b	981	U
78	1b	982	C
78	1b	984	G
78	1b	991	G
78	1b	994	G
78	1b	995	U
78	1b	1001	G
78	1b	1002	A
78	1b	1009	A
78	1b	1010	G
78	1b	1015	U
78	1b	1017	C
78	1b	1018	G
78	1b	1020	G
78	1b	1024	G

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Mol	Chain	Res	Type
78	1b	1026	A
78	1b	1029	G
78	1b	1032	C
78	1b	1035	G
78	1b	1036	A
78	1b	1037	C
78	1b	1038	C
78	1b	1041	U
78	1b	1045	C
78	1b	1047	A
78	1b	1049	C
78	1b	1064	A
78	1b	1065	A
78	1b	1072	G
78	1b	1079	A
78	1b	1081	U
78	1b	1083	G
78	1b	1084	A
78	1b	1093	A
78	1b	1094	U
78	1b	1095	U
78	1b	1097	G
78	1b	1098	A
78	1b	1100	U
78	1b	1103	A
78	1b	1104	G
78	1b	1116	G
78	1b	1117	G
78	1b	1131	G
78	1b	1132	C
78	1b	1139	G
78	1b	1150	A
78	1b	1151	U
78	1b	1152	G
78	1b	1153	A
78	1b	1155	C
78	1b	1159	A
78	1b	1160	C
78	1b	1174	G
78	1b	1178	G
78	1b	1179	A
78	1b	1180	A

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Mol	Chain	Res	Type
78	1b	1181	U
78	1b	1182	A
78	1b	1191	U
78	1b	1192	C
78	1b	1193	A
78	1b	1196	C
78	1b	1199	C
78	1b	1201	C
78	1b	1207	G
78	1b	1208	U
78	1b	1209	G
78	1b	1216	C
78	1b	1217	A
78	1b	1222	G
78	1b	1227	C
78	1b	1229	G
78	1b	1232	C
78	1b	1233	G
78	1b	1236	G
78	1b	1238	C
78	1b	1240	A
78	1b	1241	U
78	1b	1242	G
78	1b	1243	G
78	1b	1244	A
78	1b	1245	A
78	1b	1246	G
78	1b	1248	C
78	1b	1251	A
78	1b	1253	U
78	1b	1254	C
78	1b	1262	G
78	1b	1263	A
78	1b	1264	G
78	1b	1265	U
78	1b	1266	G
78	1b	1269	U
78	1b	1270	A
78	1b	1271	A
78	1b	1272	C
78	1b	1274	A
78	1b	1278	A

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Mol	Chain	Res	Type
78	1b	1279	C
78	1b	1280	C
78	1b	1282	G
78	1b	1286	A
78	1b	1287	A
78	1b	1295	G
78	1b	1300	G
78	1b	1301	A
78	1b	1302	A
78	1b	1303	A
78	1b	1305	U
78	1b	1306	G
78	1b	1308	A
78	1b	1309	U
78	1b	1313	G
78	1b	1317	A
78	1b	1325	U
78	1b	1330	A
78	1b	1343	A
78	1b	1345	G
78	1b	1348	U
78	1b	1349	G
78	1b	1351	U
78	1b	1352	A
78	1b	1353	U
78	1b	1354	G
78	1b	1356	U
78	1b	1357	G
78	1b	1379	G
78	1b	1386	A
78	1b	1392	G
78	1b	1399	A
78	1b	1400	G
78	1b	1419	A
78	1b	1425	U
78	1b	1428	A
78	1b	1429	G
78	1b	1430	U
78	1b	1432	C
78	1b	1434	G
78	1b	1437	C
78	1b	1443	G

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Mol	Chain	Res	Type
78	1b	1445	U
78	1b	1446	A
78	1b	1450	G
78	1b	1451	C
78	1b	1452	A
78	1b	1453	A
78	1b	1455	U
78	1b	1456	A
78	1b	1477	A
78	1b	1481	A
78	1b	1482	A
78	1b	1483	G
78	1b	1484	U
78	1b	1488	G
78	1b	1493	G
78	1b	1494	U
78	1b	1495	U
78	1b	1497	C
78	1b	1503	A
78	1b	1508	C
78	1b	1515	A
78	1b	1523	U
78	1b	1530	U
78	1b	1533	U
78	1b	1535	A
78	1b	1542	G
78	1b	1544	G
78	1b	1546	A
78	1b	1548	C
78	1b	1556	C
78	1b	1557	A
78	1b	1559	A
78	1b	1560	G
78	1b	1562	C
78	1b	1563	C
78	1b	1565	G
78	1b	1568	U
78	1b	1569	U
78	1b	1571	A
78	1b	1572	U
78	1b	1573	G
78	1b	1574	C

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Mol	Chain	Res	Type
78	1b	1575	A
78	1b	1576	G
78	1b	1579	C
78	1b	1580	A
78	1b	1581	C
78	1b	1582	C
78	1b	1583	A
78	1b	1587	A
78	1b	1588	A
78	1b	1589	A
78	1b	1590	G
78	1b	1591	G
78	1b	1593	A
78	1b	1595	U
78	1b	1596	C
78	1b	1602	A
78	1b	1603	A
78	1b	1607	U
78	1b	1608	C
78	1b	1609	C
78	1b	1619	A
78	1b	1620	U
78	1b	1629	U
78	1b	1631	C
78	1b	1636	U
78	1b	1639	C
78	1b	1642	A
78	1b	1643	A
78	1b	1645	U
78	1b	1658	G
78	1b	1677	G
78	1b	1683	A
78	1b	1689	U
78	1b	1693	C
78	1b	1704	A
78	1b	1712	G
78	1b	1716	U
78	1b	1717	U
78	1b	1720	U
78	1b	1722	U
78	1b	1724	U
78	1b	1725	C

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Mol	Chain	Res	Type
78	1b	1731	A
78	1b	1736	G
78	1b	1741	A
78	1b	1745	C
78	1b	1750	A
78	1b	1751	G
78	1b	1760	A
78	1b	1762	C
78	1b	1763	U
78	1b	1765	U
78	1b	1766	G
78	1b	1770	G
78	1b	1775	G
78	1b	1780	G
78	1b	1781	C
78	1b	1791	C
78	1b	1797	A
78	1b	1799	A
78	1b	1814	A
78	1b	1816	A
78	1b	1817	G
78	1b	1819	U
78	1b	1820	U
78	1b	1821	U
78	1b	1834	U
78	1b	1835	A
78	1b	1840	U
78	1b	1841	A
78	1b	1842	A
78	1b	1844	C
78	1b	1845	G
78	1b	1846	C
78	1b	1847	A
78	1b	1848	G
78	1b	1849	C
78	1b	1850	A
78	1b	1851	G
78	1b	1866	C
78	1b	1867	A
78	1b	1876	U
78	1b	1880	U
78	1b	1884	A

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Mol	Chain	Res	Type
78	1b	1886	A
78	1b	1889	G
78	1b	1893	A
78	1b	1896	A
78	1b	1897	G
78	1b	1902	G
78	1b	1904	C
78	1b	1905	G
78	1b	1906	G
78	1b	1923	C
78	1b	1926	C
78	1b	1930	A
78	1b	1932	A
78	1b	1943	C
78	1b	1952	G
78	1b	1953	G
78	1b	1954	G
78	1b	2094	C
78	1b	2101	C
78	1b	2102	U
78	1b	2111	G
78	1b	2112	U
78	1b	2113	A
78	1b	2114	C
78	1b	2121	G
78	1b	2122	G
78	1b	2126	A
78	1b	2131	A
78	1b	2139	A
78	1b	2142	A
78	1b	2149	A
78	1b	2157	G
78	1b	2158	A
78	1b	2168	A
78	1b	2169	G
78	1b	2184	U
78	1b	2188	A
78	1b	2193	U
78	1b	2194	G
78	1b	2205	U
78	1b	2208	A
78	1b	2209	U

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Mol	Chain	Res	Type
78	1b	2210	G
78	1b	2222	A
78	1b	2223	A
78	1b	2232	A
78	1b	2244	A
78	1b	2249	G
78	1b	2255	A
78	1b	2256	A
78	1b	2257	C
78	1b	2270	A
78	1b	2272	G
78	1b	2273	G
78	1b	2274	U
78	1b	2279	A
78	1b	2281	A
78	1b	2282	U
78	1b	2283	G
78	1b	2285	C
78	1b	2286	U
78	1b	2287	C
78	1b	2288	G
78	1b	2289	U
78	1b	2295	A
78	1b	2298	U
78	1b	2303	A
78	1b	2307	G
78	1b	2308	C
78	1b	2309	A
78	1b	2310	U
78	1b	2314	U
78	1b	2315	G
78	1b	2326	A
78	1b	2334	U
78	1b	2335	G
78	1b	2336	U
78	1b	2337	C
78	1b	2341	A
78	1b	2347	U
78	1b	2352	A
78	1b	2356	A
78	1b	2361	A
78	1b	2365	C

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Mol	Chain	Res	Type
78	1b	2372	A
78	1b	2373	A
78	1b	2374	C
78	1b	2375	G
78	1b	2386	A
78	1b	2388	U
78	1b	2397	A
78	1b	2402	A
78	1b	2403	G
78	1b	2404	A
78	1b	2405	C
78	1b	2411	U
78	1b	2412	G
78	1b	2418	G
78	1b	2419	A
78	1b	2420	C
78	1b	2422	C
78	1b	2437	G
78	1b	2439	A
78	1b	2443	A
78	1b	2445	A
78	1b	2446	U
78	1b	2447	A
78	1b	2451	G
78	1b	2452	G
78	1b	2496	C
78	1b	2498	U
78	1b	2499	U
78	1b	2501	U
78	1b	2502	A
78	1b	2504	U
78	1b	2505	U
78	1b	2506	U
78	1b	2507	C
78	1b	2508	U
78	1b	2511	A
78	1b	2512	C
78	1b	2515	A
78	1b	2516	U
78	1b	2522	G
78	1b	2524	A
78	1b	2525	G

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Mol	Chain	Res	Type
78	1b	2526	C
78	1b	2531	C
78	1b	2533	G
78	1b	2537	U
78	1b	2538	U
78	1b	2539	C
78	1b	2540	A
78	1b	2541	U
78	1b	2542	U
78	1b	2543	U
78	1b	2544	U
78	1b	2548	C
78	1b	2549	G
78	1b	2552	C
78	1b	2561	A
78	1b	2569	A
78	1b	2570	U
78	1b	2571	U
78	1b	2572	C
78	1b	2573	G
78	1b	2580	A
78	1b	2582	C
78	1b	2585	G
78	1b	2593	A
78	1b	2594	C
78	1b	2595	A
78	1b	2606	G
78	1b	2607	G
78	1b	2608	G
78	1b	2614	G
78	1b	2619	G
78	1b	2626	A
78	1b	2629	U
78	1b	2635	A
78	1b	2636	A
78	1b	2637	A
78	1b	2645	G
78	1b	2652	U
78	1b	2656	A
78	1b	2658	G
78	1b	2665	U
78	1b	2672	G

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Mol	Chain	Res	Type
78	1b	2674	A
78	1b	2677	G
78	1b	2680	A
78	1b	2688	U
78	1b	2689	A
78	1b	2691	A
78	1b	2694	A
78	1b	2696	A
78	1b	2703	A
78	1b	2704	A
78	1b	2705	A
78	1b	2714	G
78	1b	2716	U
78	1b	2719	U
78	1b	2728	G
78	1b	2729	U
78	1b	2742	C
78	1b	2746	A
78	1b	2753	G
78	1b	2755	C
78	1b	2756	C
78	1b	2757	U
78	1b	2762	A
78	1b	2772	C
78	1b	2776	C
78	1b	2777	G
78	1b	2778	G
78	1b	2787	G
78	1b	2790	A
78	1b	2794	G
78	1b	2795	U
78	1b	2796	G
78	1b	2799	A
78	1b	2800	G
78	1b	2801	A
78	1b	2803	A
78	1b	2804	A
78	1b	2805	G
78	1b	2810	C
78	1b	2814	G
78	1b	2816	G
78	1b	2817	A

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Mol	Chain	Res	Type
78	1b	2818	U
78	1b	2821	C
78	1b	2822	U
78	1b	2834	G
78	1b	2836	C
78	1b	2838	A
78	1b	2842	U
78	1b	2845	A
78	1b	2847	A
78	1b	2849	C
78	1b	2856	G
78	1b	2860	U
78	1b	2861	U
78	1b	2867	C
78	1b	2871	G
78	1b	2872	A
78	1b	2873	U
78	1b	2875	U
78	1b	2887	A
78	1b	2889	C
78	1b	2896	A
78	1b	2898	G
78	1b	2899	C
78	1b	2912	G
78	1b	2914	G
78	1b	2923	U
78	1b	2928	C
78	1b	2932	U
78	1b	2933	A
78	1b	2935	U
78	1b	2936	A
78	1b	2938	G
78	1b	2941	A
78	1b	2942	C
78	1b	2943	G
78	1b	2946	A
78	1b	2947	G
78	1b	2953	U
78	1b	2954	U
78	1b	2965	U
78	1b	2967	A
78	1b	2968	G

Continued on next page...

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Mol	Chain	Res	Type
78	1b	2971	A
78	1b	2979	U
78	1b	2983	C
78	1b	2990	G
78	1b	2997	G
78	1b	3003	G
78	1b	3004	C
78	1b	3006	A
78	1b	3012	A
78	1b	3021	A
78	1b	3027	A
78	1b	3059	G
78	1b	3077	A
78	1b	3078	U
78	1b	3079	U
78	1b	3080	G
78	1b	3084	C
78	1b	3086	A
78	1b	3092	C
78	1b	3093	C
78	1b	3099	C
78	1b	3101	G
78	1b	3104	U
78	1b	3110	C
78	1b	3115	C
78	1b	3116	G
78	1b	3119	U
78	1b	3122	A
78	1b	3128	G
78	1b	3130	A
78	1b	3131	U
78	1b	3142	A
78	1b	3143	C
78	1b	3144	G
78	1b	3151	U
78	1b	3152	U
78	1b	3154	C
78	1b	3155	U
78	1b	3156	U
78	1b	3157	U
78	1b	3165	A
78	1b	3173	G

Continued on next page...

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Mol	Chain	Res	Type
78	1b	3174	A
78	1b	3175	U
78	1b	3176	G
78	1b	3179	U
78	1b	3180	A
78	1b	3181	C
78	1b	3186	A
78	1b	3187	A
78	1b	3196	U
78	1b	3197	G
78	1b	3199	G
78	1b	3207	U
78	1b	3210	A
78	1b	3217	C
78	1b	3218	A
78	1b	3219	G
78	1b	3222	U
78	1b	3229	G
78	1b	3235	C
78	1b	3242	G
78	1b	3245	A
78	1b	3246	G
78	1b	3247	G
78	1b	3259	U
78	1b	3263	G
78	1b	3270	U
78	1b	3272	C
78	1b	3273	A
78	1b	3275	U
78	1b	3276	G
78	1b	3279	A
78	1b	3281	U
78	1b	3287	U
78	1b	3288	G
78	1b	3289	G
78	1b	3294	A
78	1b	3295	A
78	1b	3304	U
78	1b	3307	A
78	1b	3313	U
78	1b	3316	A
78	1b	3317	U

Continued on next page...

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Mol	Chain	Res	Type
78	1b	3318	G
78	1b	3319	U
78	1b	3320	A
78	1b	3330	A
78	1b	3332	U
78	1b	3334	U
78	1b	3341	U
78	1b	3345	G
78	1b	3347	A
78	1b	3351	U
78	1b	3352	U
78	1b	3353	G
78	1b	3354	U
78	1b	3355	U
78	1b	3356	G
78	1b	3368	U
78	1b	3369	G
78	1b	3375	A
78	1b	3377	G
78	1b	3378	C
78	1b	3382	U
78	1b	3389	U
78	1b	3390	G
79	6b	14	A
79	6b	16	U
79	6b	17	U
79	6b	18	G
79	6b	19	G
79	6b	21	A
79	6b	24	G
79	6b	32	C
79	6b	34	U
79	6b	41	G
79	6b	47	U
79	6b	48	C
79	6b	52	G
79	6b	58	A
79	6b	73	G
79	6b	76	A
1	a	2	A
1	a	4	C
1	a	5	U

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Mol	Chain	Res	Type
1	a	6	G
1	a	8	U
1	a	16	G
1	a	25	C
1	a	26	A
1	a	27	U
1	a	34	G
1	a	42	G
1	a	43	A
1	a	45	U
1	a	47	A
1	a	50	C
1	a	57	G
1	a	59	C
1	a	63	G
1	a	67	A
1	a	68	A
1	a	69	G
1	a	72	A
1	a	73	U
1	a	74	U
1	a	75	U
1	a	76	A
1	a	77	U
1	a	104	A
1	a	106	U
1	a	111	U
1	a	112	A
1	a	114	C
1	a	115	G
1	a	116	U
1	a	126	A
1	a	127	G
1	a	131	C
1	a	132	U
1	a	133	U
1	a	134	U
1	a	135	A
1	a	136	C
1	a	137	U
1	a	138	A
1	a	140	A

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Mol	Chain	Res	Type
1	a	141	U
1	a	144	U
1	a	146	U
1	a	153	G
1	a	158	U
1	a	159	U
1	a	160	C
1	a	166	C
1	a	178	U
1	a	184	C
1	a	185	U
1	a	186	C
1	a	189	C
1	a	190	C
1	a	191	C
1	a	192	U
1	a	194	U
1	a	195	G
1	a	196	G
1	a	197	A
1	a	200	A
1	a	215	A
1	a	218	A
1	a	219	A
1	a	220	A
1	a	226	A
1	a	227	U
1	a	229	U
1	a	233	C
1	a	234	G
1	a	236	A
1	a	238	U
1	a	240	U
1	a	241	U
1	a	243	G
1	a	250	C
1	a	257	A
1	a	261	U
1	a	265	A
1	a	270	C
1	a	271	A
1	a	272	U

Continued on next page...

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Mol	Chain	Res	Type
1	a	274	G
1	a	276	C
1	a	277	U
1	a	278	U
1	a	279	G
1	a	280	U
1	a	281	G
1	a	284	G
1	a	288	A
1	a	290	G
1	a	299	A
1	a	308	C
1	a	314	C
1	a	316	A
1	a	321	C
1	a	322	G
1	a	325	G
1	a	331	A
1	a	332	U
1	a	337	G
1	a	338	C
1	a	346	G
1	a	352	A
1	a	359	A
1	a	360	A
1	a	361	C
1	a	377	G
1	a	380	U
1	a	387	A
1	a	388	G
1	a	390	G
1	a	400	A
1	a	402	C
1	a	403	G
1	a	404	G
1	a	411	C
1	a	416	A
1	a	417	A
1	a	418	G
1	a	419	G
1	a	424	C
1	a	425	A

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Mol	Chain	Res	Type
1	a	426	G
1	a	434	G
1	a	435	C
1	a	437	A
1	a	439	U
1	a	444	C
1	a	448	C
1	a	456	A
1	a	460	A
1	a	470	A
1	a	475	A
1	a	477	A
1	a	480	G
1	a	484	C
1	a	485	A
1	a	486	G
1	a	487	G
1	a	488	G
1	a	493	U
1	a	494	U
1	a	495	C
1	a	496	G
1	a	497	G
1	a	498	G
1	a	499	U
1	a	500	C
1	a	501	U
1	a	502	U
1	a	504	U
1	a	505	A
1	a	506	A
1	a	507	U
1	a	508	U
1	a	510	G
1	a	511	A
1	a	512	A
1	a	513	U
1	a	514	G
1	a	515	A
1	a	519	C
1	a	525	A
1	a	527	A

Continued on next page...

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Mol	Chain	Res	Type
1	a	532	U
1	a	536	C
1	a	539	G
1	a	540	G
1	a	541	A
1	a	542	A
1	a	543	C
1	a	544	A
1	a	545	A
1	a	550	A
1	a	551	G
1	a	553	G
1	a	555	A
1	a	556	A
1	a	557	G
1	a	558	U
1	a	559	C
1	a	565	C
1	a	568	G
1	a	570	A
1	a	571	G
1	a	578	U
1	a	579	A
1	a	580	A
1	a	585	A
1	a	594	A
1	a	595	G
1	a	605	A
1	a	609	U
1	a	619	A
1	a	620	A
1	a	622	A
1	a	623	A
1	a	624	G
1	a	635	A
1	a	639	U
1	a	648	G
1	a	649	U
1	a	650	U
1	a	653	C
1	a	654	C
1	a	655	G

Continued on next page...

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Mol	Chain	Res	Type
1	a	656	G
1	a	658	C
1	a	677	G
1	a	679	U
1	a	682	C
1	a	684	A
1	a	685	A
1	a	686	C
1	a	687	G
1	a	694	U
1	a	696	C
1	a	697	C
1	a	702	G
1	a	703	G
1	a	704	C
1	a	705	U
1	a	707	A
1	a	708	C
1	a	709	C
1	a	710	U
1	a	712	G
1	a	714	G
1	a	718	U
1	a	719	U
1	a	720	G
1	a	721	U
1	a	722	G
1	a	723	G
1	a	725	U
1	a	727	U
1	a	728	U
1	a	731	C
1	a	732	G
1	a	733	A
1	a	734	A
1	a	735	C
1	a	736	C
1	a	738	G
1	a	741	C
1	a	742	U
1	a	743	U
1	a	745	U

Continued on next page...

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Mol	Chain	Res	Type
1	a	754	A
1	a	755	A
1	a	756	A
1	a	765	G
1	a	766	U
1	a	768	C
1	a	771	A
1	a	774	A
1	a	778	G
1	a	780	A
1	a	781	U
1	a	782	U
1	a	783	G
1	a	784	C
1	a	787	G
1	a	789	A
1	a	794	U
1	a	795	U
1	a	803	A
1	a	806	A
1	a	812	A
1	a	814	A
1	a	815	G
1	a	818	C
1	a	819	G
1	a	820	U
1	a	821	U
1	a	822	U
1	a	823	G
1	a	824	G
1	a	829	A
1	a	830	U
1	a	831	U
1	a	833	U
1	a	839	U
1	a	840	U
1	a	841	U
1	a	846	G
1	a	850	A
1	a	851	U
1	a	852	C
1	a	860	U

Continued on next page...

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Mol	Chain	Res	Type
1	a	862	A
1	a	863	A
1	a	873	U
1	a	876	G
1	a	886	U
1	a	898	A
1	a	899	G
1	a	904	G
1	a	912	U
1	a	913	G
1	a	914	G
1	a	915	A
1	a	928	U
1	a	931	C
1	a	932	U
1	a	933	A
1	a	935	U
1	a	942	G
1	a	945	U
1	a	959	U
1	a	960	U
1	a	963	A
1	a	966	A
1	a	969	C
1	a	972	G
1	a	976	G
1	a	982	U
1	a	988	A
1	a	992	A
1	a	1003	A
1	a	1004	U
1	a	1005	A
1	a	1016	C
1	a	1020	A
1	a	1021	C
1	a	1024	U
1	a	1025	A
1	a	1028	C
1	a	1031	U
1	a	1039	A
1	a	1040	G
1	a	1043	A

Continued on next page...

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Mol	Chain	Res	Type
1	a	1052	U
1	a	1053	G
1	a	1057	U
1	a	1058	U
1	a	1059	U
1	a	1060	U
1	a	1061	A
1	a	1073	G
1	a	1076	A
1	a	1080	U
1	a	1081	A
1	a	1082	C
1	a	1083	G
1	a	1086	A
1	a	1092	A
1	a	1096	C
1	a	1097	U
1	a	1100	G
1	a	1109	G
1	a	1113	A
1	a	1124	A
1	a	1126	G
1	a	1138	A
1	a	1152	A
1	a	1158	C
1	a	1159	C
1	a	1160	A
1	a	1164	G
1	a	1167	G
1	a	1170	G
1	a	1185	U
1	a	1194	A
1	a	1196	A
1	a	1197	C
1	a	1198	G
1	a	1199	G
1	a	1200	G
1	a	1204	A
1	a	1205	C
1	a	1207	C
1	a	1217	A
1	a	1218	G

Continued on next page...

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Mol	Chain	Res	Type
1	a	1220	C
1	a	1225	U
1	a	1226	A
1	a	1228	G
1	a	1229	G
1	a	1230	A
1	a	1239	U
1	a	1240	U
1	a	1241	G
1	a	1242	A
1	a	1243	G
1	a	1244	A
1	a	1245	G
1	a	1246	C
1	a	1255	G
1	a	1256	A
1	a	1257	U
1	a	1258	U
1	a	1269	U
1	a	1285	U
1	a	1286	U
1	a	1294	G
1	a	1295	G
1	a	1307	U
1	a	1312	A
1	a	1314	U
1	a	1315	U
1	a	1316	G
1	a	1318	G
1	a	1321	A
1	a	1325	A
1	a	1338	C
1	a	1341	A
1	a	1344	A
1	a	1345	A
1	a	1346	A
1	a	1348	A
1	a	1354	G
1	a	1361	U
1	a	1362	U
1	a	1363	U
1	a	1367	G

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Mol	Chain	Res	Type
1	a	1371	A
1	a	1372	U
1	a	1378	U
1	a	1380	U
1	a	1383	G
1	a	1390	U
1	a	1398	U
1	a	1399	C
1	a	1413	U
1	a	1415	U
1	a	1427	A
1	a	1428	G
1	a	1432	U
1	a	1436	A
1	a	1444	A
1	a	1445	G
1	a	1446	A
1	a	1448	G
1	a	1451	C
1	a	1452	U
1	a	1454	G
1	a	1455	G
1	a	1458	G
1	a	1459	C
1	a	1460	A
1	a	1467	C
1	a	1471	A
1	a	1478	G
1	a	1481	C
1	a	1482	C
1	a	1486	G
1	a	1489	U
1	a	1490	C
1	a	1491	U
1	a	1492	A
1	a	1493	A
1	a	1496	U
1	a	1506	G
1	a	1514	U
1	a	1515	A
1	a	1516	A
1	a	1523	G

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Mol	Chain	Res	Type
1	a	1524	A
1	a	1535	U
1	a	1536	G
1	a	1537	C
1	a	1538	U
1	a	1539	G
1	a	1540	G
1	a	1542	G
1	a	1550	A
1	a	1553	G
1	a	1554	U
1	a	1555	A
1	a	1557	U
1	a	1559	A
1	a	1568	C
1	a	1569	A
1	a	1574	G
1	a	1582	U
1	a	1584	G
1	a	1590	G
1	a	1596	C
1	a	1597	A
1	a	1598	U
1	a	1600	A
1	a	1601	G
1	a	1607	G
1	a	1616	G
1	a	1619	C
1	a	1621	U
1	a	1634	C
1	a	1636	C
1	a	1642	G
1	a	1656	U
1	a	1657	U
1	a	1658	G
1	a	1663	G
1	a	1665	U
1	a	1666	U
1	a	1678	A
1	a	1680	G
1	a	1681	A
1	a	1682	U

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Mol	Chain	Res	Type
1	a	1715	G
1	a	1716	C
1	a	1719	A
1	a	1720	G
1	a	1741	U
1	a	1742	U
1	a	1749	A
1	a	1754	A
1	a	1755	A
1	a	1756	A
1	a	1757	G
1	a	1760	G
1	a	1766	A
1	a	1767	G
1	a	1769	U
1	a	1770	U
1	a	1780	G
1	a	1782	A
1	a	1783	C
1	a	1792	G
1	a	1793	G
1	a	1794	A
1	a	1795	U
1	a	1796	C
1	a	1799	U
1	a	1800	A
78	Aa	6	A
78	Aa	11	A
78	Aa	14	U
78	Aa	18	G
78	Aa	26	A
78	Aa	30	G
78	Aa	38	U
78	Aa	40	A
78	Aa	43	A
78	Aa	49	A
78	Aa	50	U
78	Aa	59	G
78	Aa	60	A
78	Aa	65	A
78	Aa	66	A
78	Aa	73	C

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Mol	Chain	Res	Type
78	Aa	74	G
78	Aa	77	A
78	Aa	86	G
78	Aa	89	A
78	Aa	92	G
78	Aa	108	A
78	Aa	109	A
78	Aa	110	G
78	Aa	113	C
78	Aa	115	A
78	Aa	121	A
78	Aa	122	A
78	Aa	133	U
78	Aa	134	U
78	Aa	135	C
78	Aa	136	G
78	Aa	146	U
78	Aa	147	U
78	Aa	150	A
78	Aa	152	U
78	Aa	156	G
78	Aa	157	A
78	Aa	161	G
78	Aa	165	A
78	Aa	166	C
78	Aa	169	U
78	Aa	171	G
78	Aa	180	C
78	Aa	182	U
78	Aa	187	A
78	Aa	190	U
78	Aa	191	U
78	Aa	199	A
78	Aa	200	C
78	Aa	201	A
78	Aa	210	U
78	Aa	211	A
78	Aa	218	G
78	Aa	219	A
78	Aa	221	A
78	Aa	222	A
78	Aa	239	G

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Mol	Chain	Res	Type
78	Aa	240	U
78	Aa	241	G
78	Aa	245	U
78	Aa	246	U
78	Aa	248	U
78	Aa	251	G
78	Aa	252	U
78	Aa	253	A
78	Aa	254	A
78	Aa	263	C
78	Aa	267	G
78	Aa	268	A
78	Aa	269	G
78	Aa	281	G
78	Aa	282	G
78	Aa	283	G
78	Aa	284	A
78	Aa	285	A
78	Aa	286	U
78	Aa	294	U
78	Aa	295	A
78	Aa	311	C
78	Aa	323	A
78	Aa	324	A
78	Aa	329	U
78	Aa	334	A
78	Aa	338	A
78	Aa	339	C
78	Aa	343	U
78	Aa	344	A
78	Aa	346	C
78	Aa	347	G
78	Aa	349	A
78	Aa	350	C
78	Aa	351	A
78	Aa	353	G
78	Aa	361	A
78	Aa	362	U
78	Aa	376	G
78	Aa	379	C
78	Aa	390	G
78	Aa	395	A

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Mol	Chain	Res	Type
78	Aa	398	A
78	Aa	399	A
78	Aa	401	U
78	Aa	402	A
78	Aa	403	C
78	Aa	420	G
78	Aa	421	G
78	Aa	422	A
78	Aa	424	G
78	Aa	439	C
78	Aa	440	A
78	Aa	503	C
78	Aa	515	C
78	Aa	520	U
78	Aa	521	A
78	Aa	523	A
78	Aa	535	G
78	Aa	536	U
78	Aa	545	U
78	Aa	546	C
78	Aa	548	G
78	Aa	551	A
78	Aa	555	U
78	Aa	556	U
78	Aa	557	A
78	Aa	559	A
78	Aa	569	A
78	Aa	578	A
78	Aa	579	G
78	Aa	594	U
78	Aa	597	G
78	Aa	600	G
78	Aa	603	A
78	Aa	604	G
78	Aa	609	G
78	Aa	610	G
78	Aa	611	A
78	Aa	620	U
78	Aa	621	A
78	Aa	622	A
78	Aa	632	G
78	Aa	636	C

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Mol	Chain	Res	Type
78	Aa	643	U
78	Aa	645	A
78	Aa	648	C
78	Aa	649	A
78	Aa	660	A
78	Aa	677	A
78	Aa	681	U
78	Aa	683	U
78	Aa	688	G
78	Aa	690	A
78	Aa	691	A
78	Aa	702	C
78	Aa	705	A
78	Aa	708	G
78	Aa	712	G
78	Aa	716	A
78	Aa	719	U
78	Aa	721	G
78	Aa	725	G
78	Aa	726	G
78	Aa	734	C
78	Aa	736	A
78	Aa	737	G
78	Aa	763	G
78	Aa	766	U
78	Aa	774	G
78	Aa	776	U
78	Aa	777	U
78	Aa	780	A
78	Aa	781	G
78	Aa	785	G
78	Aa	786	A
78	Aa	787	G
78	Aa	799	G
78	Aa	800	G
78	Aa	806	A
78	Aa	808	A
78	Aa	815	G
78	Aa	817	A
78	Aa	818	C
78	Aa	826	G
78	Aa	830	A

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Mol	Chain	Res	Type
78	Aa	832	G
78	Aa	846	A
78	Aa	849	C
78	Aa	858	A
78	Aa	861	C
78	Aa	867	G
78	Aa	871	U
78	Aa	874	U
78	Aa	875	G
78	Aa	878	G
78	Aa	879	U
78	Aa	880	G
78	Aa	884	A
78	Aa	890	C
78	Aa	897	U
78	Aa	907	G
78	Aa	908	G
78	Aa	914	A
78	Aa	915	A
78	Aa	916	G
78	Aa	917	A
78	Aa	920	A
78	Aa	923	C
78	Aa	924	G
78	Aa	932	U
78	Aa	937	G
78	Aa	944	C
78	Aa	948	C
78	Aa	959	C
78	Aa	960	U
78	Aa	962	A
78	Aa	963	G
78	Aa	974	G
78	Aa	979	U
78	Aa	980	A
78	Aa	981	U
78	Aa	984	G
78	Aa	991	G
78	Aa	995	U
78	Aa	1001	G
78	Aa	1002	A
78	Aa	1010	G

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Mol	Chain	Res	Type
78	Aa	1014	U
78	Aa	1015	U
78	Aa	1016	C
78	Aa	1017	C
78	Aa	1018	G
78	Aa	1021	G
78	Aa	1024	G
78	Aa	1025	A
78	Aa	1026	A
78	Aa	1028	U
78	Aa	1029	G
78	Aa	1032	C
78	Aa	1034	U
78	Aa	1035	G
78	Aa	1041	U
78	Aa	1047	A
78	Aa	1048	A
78	Aa	1049	C
78	Aa	1063	G
78	Aa	1064	A
78	Aa	1065	A
78	Aa	1072	G
78	Aa	1079	A
78	Aa	1081	U
78	Aa	1082	U
78	Aa	1085	A
78	Aa	1087	G
78	Aa	1093	A
78	Aa	1096	U
78	Aa	1097	G
78	Aa	1098	A
78	Aa	1102	A
78	Aa	1103	A
78	Aa	1104	G
78	Aa	1115	G
78	Aa	1116	G
78	Aa	1117	G
78	Aa	1129	A
78	Aa	1131	G
78	Aa	1135	A
78	Aa	1140	G
78	Aa	1143	A

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Mol	Chain	Res	Type
78	Aa	1153	A
78	Aa	1155	C
78	Aa	1159	A
78	Aa	1160	C
78	Aa	1161	G
78	Aa	1178	G
78	Aa	1180	A
78	Aa	1181	U
78	Aa	1182	A
78	Aa	1189	C
78	Aa	1190	A
78	Aa	1191	U
78	Aa	1198	C
78	Aa	1199	C
78	Aa	1201	C
78	Aa	1202	A
78	Aa	1222	G
78	Aa	1223	A
78	Aa	1236	G
78	Aa	1237	G
78	Aa	1239	C
78	Aa	1242	G
78	Aa	1243	G
78	Aa	1245	A
78	Aa	1246	G
78	Aa	1259	A
78	Aa	1262	G
78	Aa	1263	A
78	Aa	1264	G
78	Aa	1265	U
78	Aa	1270	A
78	Aa	1277	C
78	Aa	1281	G
78	Aa	1285	G
78	Aa	1286	A
78	Aa	1292	C
78	Aa	1295	G
78	Aa	1301	A
78	Aa	1303	A
78	Aa	1305	U
78	Aa	1307	G
78	Aa	1308	A

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Mol	Chain	Res	Type
78	Aa	1309	U
78	Aa	1310	G
78	Aa	1313	G
78	Aa	1314	C
78	Aa	1316	C
78	Aa	1317	A
78	Aa	1325	U
78	Aa	1330	A
78	Aa	1346	G
78	Aa	1348	U
78	Aa	1354	G
78	Aa	1355	A
78	Aa	1356	U
78	Aa	1357	G
78	Aa	1385	C
78	Aa	1386	A
78	Aa	1387	G
78	Aa	1397	C
78	Aa	1399	A
78	Aa	1400	G
78	Aa	1419	A
78	Aa	1421	G
78	Aa	1428	A
78	Aa	1429	G
78	Aa	1433	A
78	Aa	1434	G
78	Aa	1435	A
78	Aa	1436	U
78	Aa	1437	C
78	Aa	1443	G
78	Aa	1446	A
78	Aa	1451	C
78	Aa	1452	A
78	Aa	1453	A
78	Aa	1455	U
78	Aa	1457	U
78	Aa	1464	G
78	Aa	1465	A
78	Aa	1470	U
78	Aa	1475	A
78	Aa	1481	A
78	Aa	1482	A

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Mol	Chain	Res	Type
78	Aa	1494	U
78	Aa	1495	U
78	Aa	1496	C
78	Aa	1503	A
78	Aa	1508	C
78	Aa	1511	U
78	Aa	1523	U
78	Aa	1528	G
78	Aa	1539	A
78	Aa	1541	G
78	Aa	1546	A
78	Aa	1548	C
78	Aa	1549	U
78	Aa	1554	U
78	Aa	1555	U
78	Aa	1556	C
78	Aa	1558	A
78	Aa	1560	G
78	Aa	1561	G
78	Aa	1562	C
78	Aa	1574	C
78	Aa	1575	A
78	Aa	1576	G
78	Aa	1577	G
78	Aa	1578	C
78	Aa	1579	C
78	Aa	1580	A
78	Aa	1581	C
78	Aa	1582	C
78	Aa	1583	A
78	Aa	1587	A
78	Aa	1589	A
78	Aa	1602	A
78	Aa	1605	A
78	Aa	1607	U
78	Aa	1620	U
78	Aa	1629	U
78	Aa	1636	U
78	Aa	1639	C
78	Aa	1642	A
78	Aa	1643	A
78	Aa	1644	C

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Mol	Chain	Res	Type
78	Aa	1645	U
78	Aa	1655	G
78	Aa	1656	A
78	Aa	1658	G
78	Aa	1662	G
78	Aa	1677	G
78	Aa	1683	A
78	Aa	1705	U
78	Aa	1715	A
78	Aa	1716	U
78	Aa	1717	U
78	Aa	1718	G
78	Aa	1720	U
78	Aa	1722	U
78	Aa	1724	U
78	Aa	1736	G
78	Aa	1741	A
78	Aa	1750	A
78	Aa	1751	G
78	Aa	1756	C
78	Aa	1760	A
78	Aa	1762	C
78	Aa	1764	U
78	Aa	1765	U
78	Aa	1766	G
78	Aa	1767	C
78	Aa	1770	G
78	Aa	1773	C
78	Aa	1775	G
78	Aa	1780	G
78	Aa	1788	C
78	Aa	1793	C
78	Aa	1796	G
78	Aa	1797	A
78	Aa	1808	G
78	Aa	1809	A
78	Aa	1813	A
78	Aa	1814	A
78	Aa	1816	A
78	Aa	1817	G
78	Aa	1818	U
78	Aa	1821	U

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Mol	Chain	Res	Type
78	Aa	1822	C
78	Aa	1839	A
78	Aa	1840	U
78	Aa	1842	A
78	Aa	1845	G
78	Aa	1846	C
78	Aa	1848	G
78	Aa	1849	C
78	Aa	1854	C
78	Aa	1864	A
78	Aa	1866	C
78	Aa	1878	G
78	Aa	1879	A
78	Aa	1880	U
78	Aa	1881	A
78	Aa	1884	A
78	Aa	1886	A
78	Aa	1889	G
78	Aa	1893	A
78	Aa	1896	A
78	Aa	1897	G
78	Aa	1904	C
78	Aa	1906	G
78	Aa	1930	A
78	Aa	1932	A
78	Aa	1934	G
78	Aa	1935	G
78	Aa	1938	U
78	Aa	1952	G
78	Aa	2100	A
78	Aa	2101	C
78	Aa	2102	U
78	Aa	2111	G
78	Aa	2113	A
78	Aa	2114	C
78	Aa	2119	A
78	Aa	2121	G
78	Aa	2122	G
78	Aa	2123	G
78	Aa	2131	A
78	Aa	2139	A
78	Aa	2142	A

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Mol	Chain	Res	Type
78	Aa	2149	A
78	Aa	2158	A
78	Aa	2164	A
78	Aa	2169	G
78	Aa	2170	U
78	Aa	2178	A
78	Aa	2184	U
78	Aa	2205	U
78	Aa	2206	G
78	Aa	2207	A
78	Aa	2208	A
78	Aa	2209	U
78	Aa	2210	G
78	Aa	2223	A
78	Aa	2228	A
78	Aa	2229	A
78	Aa	2243	A
78	Aa	2244	A
78	Aa	2249	G
78	Aa	2250	G
78	Aa	2251	G
78	Aa	2252	A
78	Aa	2253	G
78	Aa	2255	A
78	Aa	2256	A
78	Aa	2257	C
78	Aa	2261	G
78	Aa	2267	C
78	Aa	2269	U
78	Aa	2272	G
78	Aa	2273	G
78	Aa	2274	U
78	Aa	2276	G
78	Aa	2280	A
78	Aa	2281	A
78	Aa	2288	G
78	Aa	2298	U
78	Aa	2307	G
78	Aa	2309	A
78	Aa	2310	U
78	Aa	2313	A
78	Aa	2314	U

Continued on next page...

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Mol	Chain	Res	Type
78	Aa	2315	G
78	Aa	2327	U
78	Aa	2335	G
78	Aa	2336	U
78	Aa	2345	A
78	Aa	2347	U
78	Aa	2360	C
78	Aa	2363	A
78	Aa	2364	G
78	Aa	2369	G
78	Aa	2372	A
78	Aa	2373	A
78	Aa	2374	C
78	Aa	2375	G
78	Aa	2383	C
78	Aa	2385	G
78	Aa	2391	G
78	Aa	2392	C
78	Aa	2393	G
78	Aa	2394	G
78	Aa	2397	A
78	Aa	2398	A
78	Aa	2401	A
78	Aa	2402	A
78	Aa	2403	G
78	Aa	2404	A
78	Aa	2405	C
78	Aa	2411	U
78	Aa	2412	G
78	Aa	2418	G
78	Aa	2419	A
78	Aa	2420	C
78	Aa	2422	C
78	Aa	2424	A
78	Aa	2434	U
78	Aa	2435	G
78	Aa	2437	G
78	Aa	2441	A
78	Aa	2442	G
78	Aa	2507	C
78	Aa	2510	U
78	Aa	2511	A

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Mol	Chain	Res	Type
78	Aa	2513	U
78	Aa	2514	U
78	Aa	2515	A
78	Aa	2522	G
78	Aa	2523	A
78	Aa	2524	A
78	Aa	2525	G
78	Aa	2526	C
78	Aa	2530	G
78	Aa	2534	G
78	Aa	2535	A
78	Aa	2538	U
78	Aa	2539	C
78	Aa	2540	A
78	Aa	2541	U
78	Aa	2542	U
78	Aa	2543	U
78	Aa	2544	U
78	Aa	2545	C
78	Aa	2548	C
78	Aa	2549	G
78	Aa	2552	C
78	Aa	2554	A
78	Aa	2555	G
78	Aa	2566	C
78	Aa	2567	C
78	Aa	2568	C
78	Aa	2569	A
78	Aa	2570	U
78	Aa	2571	U
78	Aa	2572	C
78	Aa	2573	G
78	Aa	2574	G
78	Aa	2584	G
78	Aa	2585	G
78	Aa	2587	U
78	Aa	2589	G
78	Aa	2593	A
78	Aa	2594	C
78	Aa	2606	G
78	Aa	2607	G
78	Aa	2614	G

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Mol	Chain	Res	Type
78	Aa	2619	G
78	Aa	2626	A
78	Aa	2629	U
78	Aa	2635	A
78	Aa	2638	C
78	Aa	2642	A
78	Aa	2652	U
78	Aa	2655	U
78	Aa	2656	A
78	Aa	2662	G
78	Aa	2663	G
78	Aa	2672	G
78	Aa	2674	A
78	Aa	2677	G
78	Aa	2681	U
78	Aa	2683	U
78	Aa	2689	A
78	Aa	2694	A
78	Aa	2696	A
78	Aa	2702	A
78	Aa	2704	A
78	Aa	2705	A
78	Aa	2708	C
78	Aa	2712	U
78	Aa	2714	G
78	Aa	2716	U
78	Aa	2719	U
78	Aa	2720	G
78	Aa	2728	G
78	Aa	2729	U
78	Aa	2737	C
78	Aa	2749	G
78	Aa	2750	U
78	Aa	2753	G
78	Aa	2755	C
78	Aa	2760	C
78	Aa	2762	A
78	Aa	2772	C
78	Aa	2773	C
78	Aa	2778	G
78	Aa	2779	A
78	Aa	2782	U

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Mol	Chain	Res	Type
78	Aa	2787	G
78	Aa	2796	G
78	Aa	2799	A
78	Aa	2800	G
78	Aa	2801	A
78	Aa	2803	A
78	Aa	2804	A
78	Aa	2809	C
78	Aa	2810	C
78	Aa	2816	G
78	Aa	2817	A
78	Aa	2818	U
78	Aa	2819	A
78	Aa	2821	C
78	Aa	2834	G
78	Aa	2844	C
78	Aa	2845	A
78	Aa	2849	C
78	Aa	2860	U
78	Aa	2863	G
78	Aa	2867	C
78	Aa	2871	G
78	Aa	2872	A
78	Aa	2873	U
78	Aa	2876	C
78	Aa	2887	A
78	Aa	2889	C
78	Aa	2894	C
78	Aa	2899	C
78	Aa	2900	A
78	Aa	2911	A
78	Aa	2912	G
78	Aa	2918	G
78	Aa	2923	U
78	Aa	2935	U
78	Aa	2936	A
78	Aa	2938	G
78	Aa	2942	C
78	Aa	2945	G
78	Aa	2946	A
78	Aa	2947	G
78	Aa	2968	G

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Mol	Chain	Res	Type
78	Aa	2971	A
78	Aa	2972	G
78	Aa	2979	U
78	Aa	2983	C
78	Aa	2986	U
78	Aa	2990	G
78	Aa	2995	A
78	Aa	2996	U
78	Aa	2997	G
78	Aa	3011	A
78	Aa	3012	A
78	Aa	3023	U
78	Aa	3030	G
78	Aa	3049	A
78	Aa	3058	U
78	Aa	3059	G
78	Aa	3068	U
78	Aa	3074	G
78	Aa	3078	U
78	Aa	3079	U
78	Aa	3080	G
78	Aa	3085	G
78	Aa	3086	A
78	Aa	3092	C
78	Aa	3093	C
78	Aa	3101	G
78	Aa	3109	G
78	Aa	3115	C
78	Aa	3116	G
78	Aa	3122	A
78	Aa	3123	A
78	Aa	3129	A
78	Aa	3130	A
78	Aa	3131	U
78	Aa	3138	U
78	Aa	3142	A
78	Aa	3143	C
78	Aa	3145	C
78	Aa	3150	A
78	Aa	3153	U
78	Aa	3158	G
78	Aa	3159	C

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Mol	Chain	Res	Type
78	Aa	3165	A
78	Aa	3172	A
78	Aa	3173	G
78	Aa	3174	A
78	Aa	3176	G
78	Aa	3179	U
78	Aa	3180	A
78	Aa	3181	C
78	Aa	3186	A
78	Aa	3187	A
78	Aa	3195	U
78	Aa	3196	U
78	Aa	3198	U
78	Aa	3207	U
78	Aa	3208	G
78	Aa	3209	A
78	Aa	3210	A
78	Aa	3217	C
78	Aa	3218	A
78	Aa	3219	G
78	Aa	3227	A
78	Aa	3229	G
78	Aa	3238	G
78	Aa	3243	A
78	Aa	3244	A
78	Aa	3245	A
78	Aa	3246	G
78	Aa	3247	G
78	Aa	3259	U
78	Aa	3260	G
78	Aa	3263	G
78	Aa	3270	U
78	Aa	3272	C
78	Aa	3273	A
78	Aa	3276	G
78	Aa	3277	U
78	Aa	3279	A
78	Aa	3281	U
78	Aa	3286	G
78	Aa	3289	G
78	Aa	3290	G
78	Aa	3294	A

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Mol	Chain	Res	Type
78	Aa	3304	U
78	Aa	3307	A
78	Aa	3309	G
78	Aa	3313	U
78	Aa	3316	A
78	Aa	3317	U
78	Aa	3318	G
78	Aa	3319	U
78	Aa	3331	U
78	Aa	3334	U
78	Aa	3335	A
78	Aa	3341	U
78	Aa	3342	A
78	Aa	3345	G
78	Aa	3348	G
78	Aa	3350	C
78	Aa	3351	U
78	Aa	3352	U
78	Aa	3353	G
78	Aa	3354	U
78	Aa	3355	U
78	Aa	3356	G
78	Aa	3357	U
78	Aa	3358	U
78	Aa	3368	U
78	Aa	3369	G
78	Aa	3376	A
78	Aa	3378	C
78	Aa	3382	U
78	Aa	3383	G
78	Aa	3389	U
78	Aa	3390	G
35	Bb	7	G
35	Bb	10	C
35	Bb	11	A
35	Bb	22	A
35	Bb	38	U
35	Bb	51	A
35	Bb	54	U
35	Bb	55	A
35	Bb	64	A
35	Bb	65	G

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Mol	Chain	Res	Type
35	Bb	73	C
35	Bb	76	A
35	Bb	99	G
35	Bb	102	A
35	Bb	110	G
35	Bb	111	U
35	Bb	112	G
36	Ca	13	A
36	Ca	16	G
36	Ca	25	G
36	Ca	34	U
36	Ca	35	C
36	Ca	40	A
36	Ca	51	G
36	Ca	57	C
36	Ca	59	A
36	Ca	61	A
36	Ca	62	C
36	Ca	63	G
36	Ca	79	A
36	Ca	80	A
36	Ca	81	U
36	Ca	82	U
36	Ca	83	C
36	Ca	84	C
36	Ca	86	U
36	Ca	87	G
36	Ca	90	U
36	Ca	91	C
36	Ca	95	G
36	Ca	102	U
36	Ca	104	A
36	Ca	106	C
36	Ca	111	A
36	Ca	112	U
36	Ca	113	U
36	Ca	116	G
36	Ca	125	U
36	Ca	126	A
36	Ca	131	A
36	Ca	138	A
36	Ca	148	G

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Mol	Chain	Res	Type
36	Ca	152	G
36	Ca	157	U
79	8	9	A
79	8	16	U
79	8	17	U
79	8	19	G
79	8	21	A
79	8	24	G
79	8	34	U
79	8	41	G
79	8	42	A
79	8	47	U
79	8	48	C
79	8	49	A
79	8	58	A
79	8	59	G
79	8	61	C
79	8	73	G
79	8	75	C
79	8	76	A

There are no RNA pucker outliers to report.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues

The following chains have linkage breaks:

Mol	Chain	Number of breaks
30	4	1
39	Fa	1
16	Nb	1
45	Iy	1
3	Ba	1
47	Ly	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	4	13:ARG	C	14:TYR	N	1.73
1	Fa	19:ALA	C	20:LEU	N	1.20
1	Nb	134:VAL	C	135:LEU	N	1.19
1	Iy	120:GLY	C	121:LYS	N	1.17
1	Ba	33:LYS	C	34:ALA	N	1.11
1	Ly	54:LEU	C	55:ARG	N	1.07

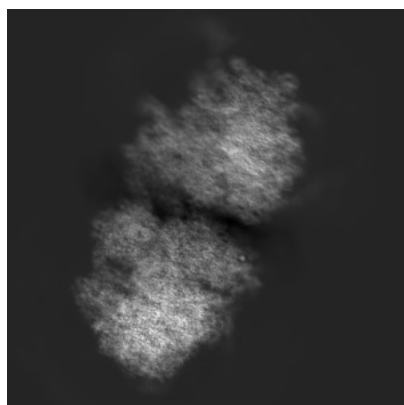
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-10398. These allow visual inspection of the internal detail of the map and identification of artifacts.

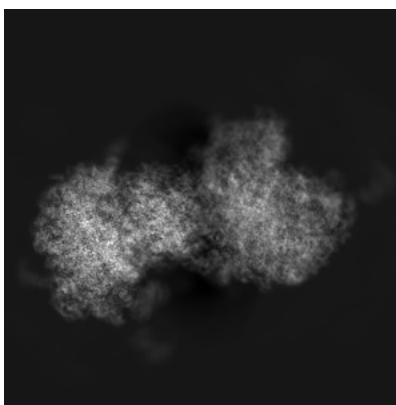
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

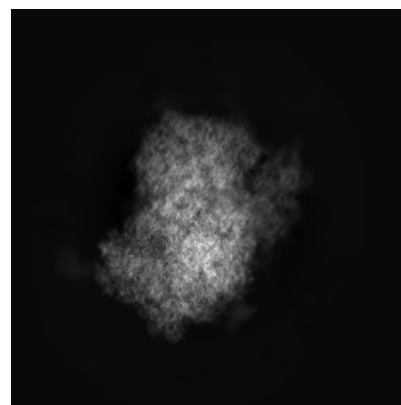
6.1.1 Primary map



X



Y

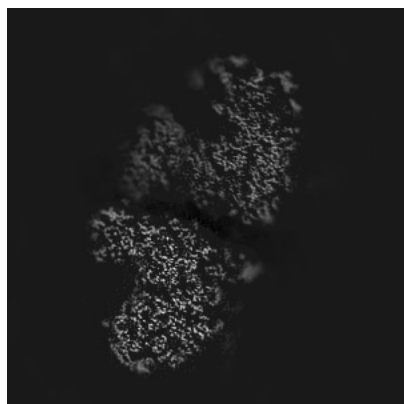


Z

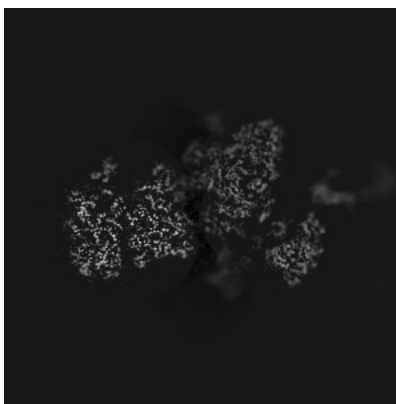
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

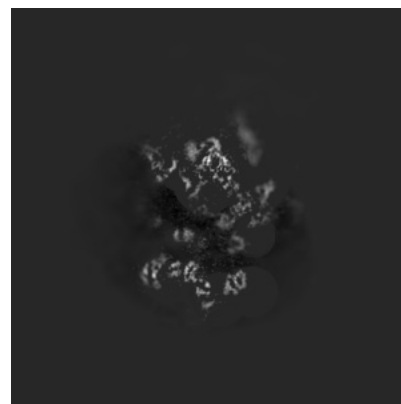
6.2.1 Primary map



X Index: 265



Y Index: 265

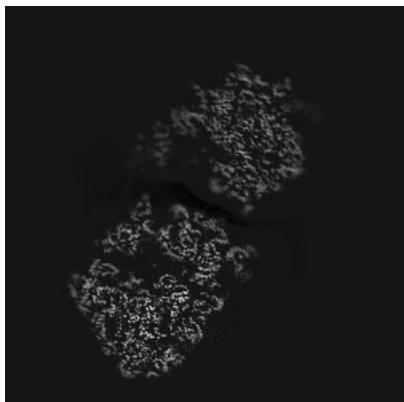


Z Index: 265

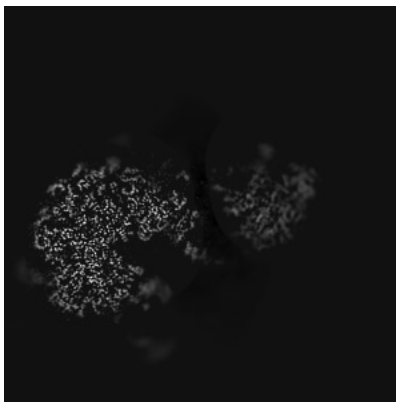
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

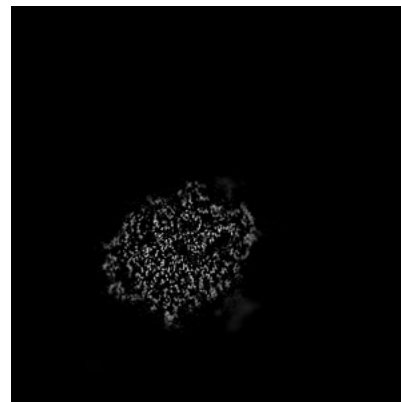
6.3.1 Primary map



X Index: 218



Y Index: 197



Z Index: 119

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

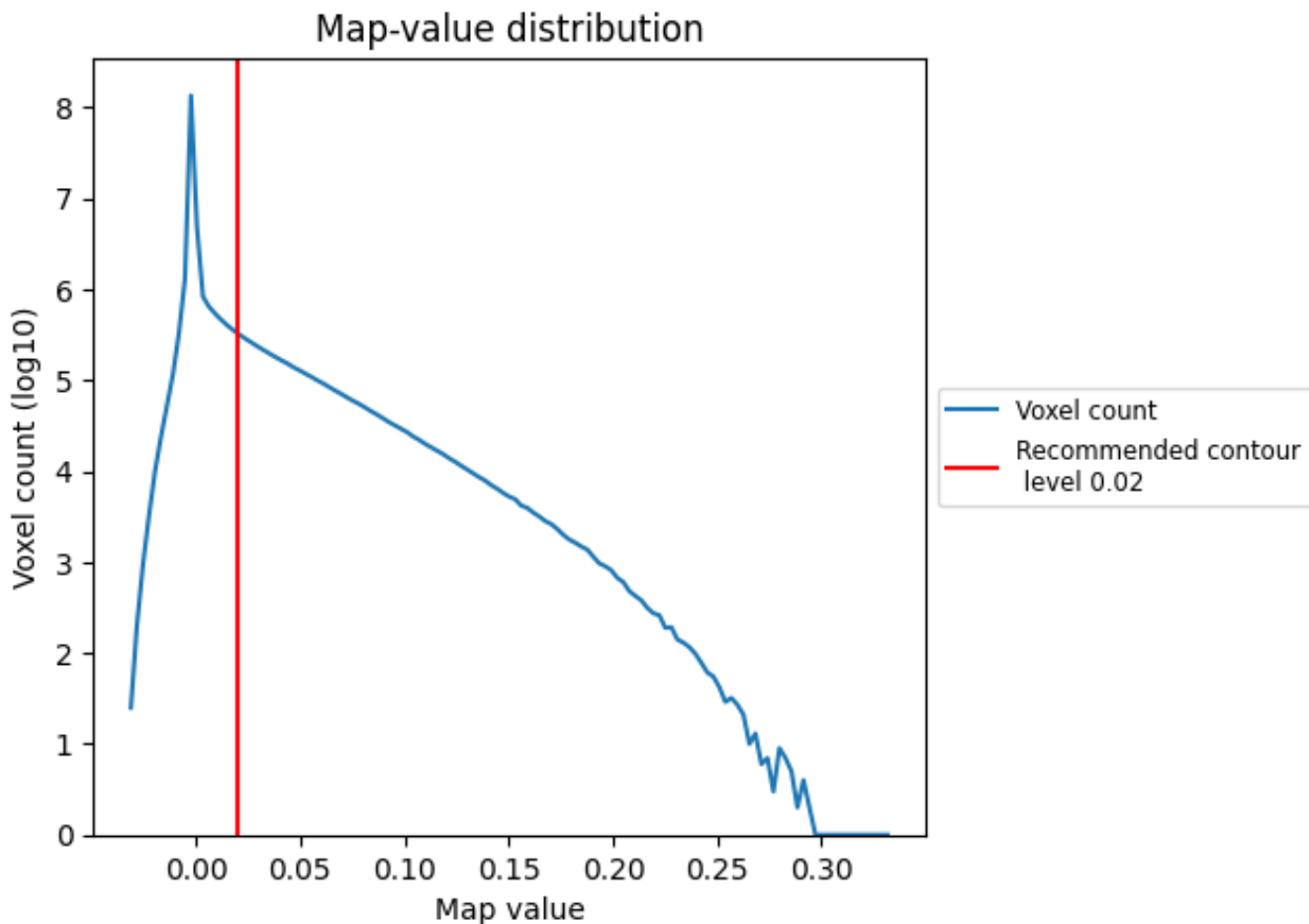
6.5 Mask visualisation

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

7 Map analysis [i](#)

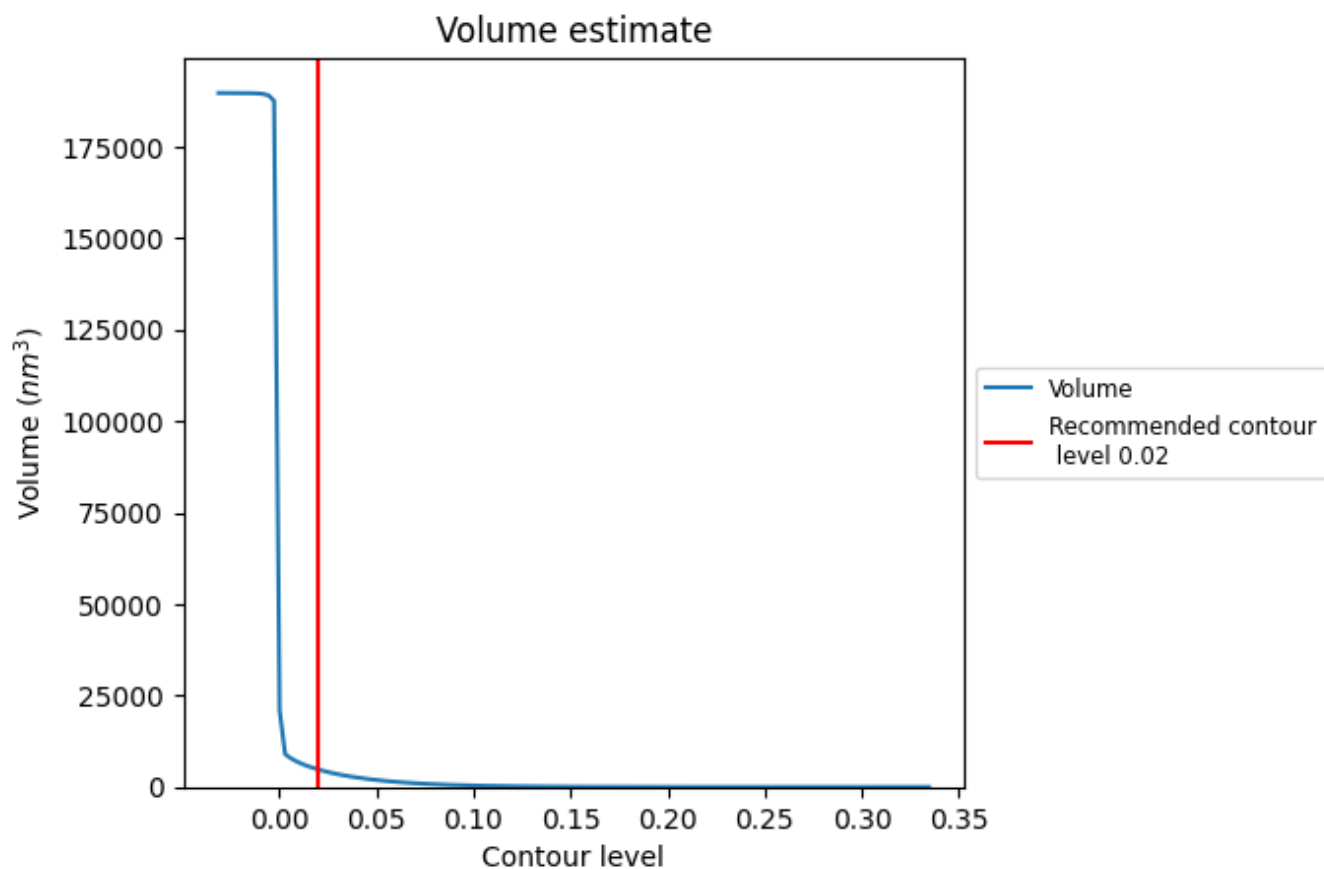
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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.

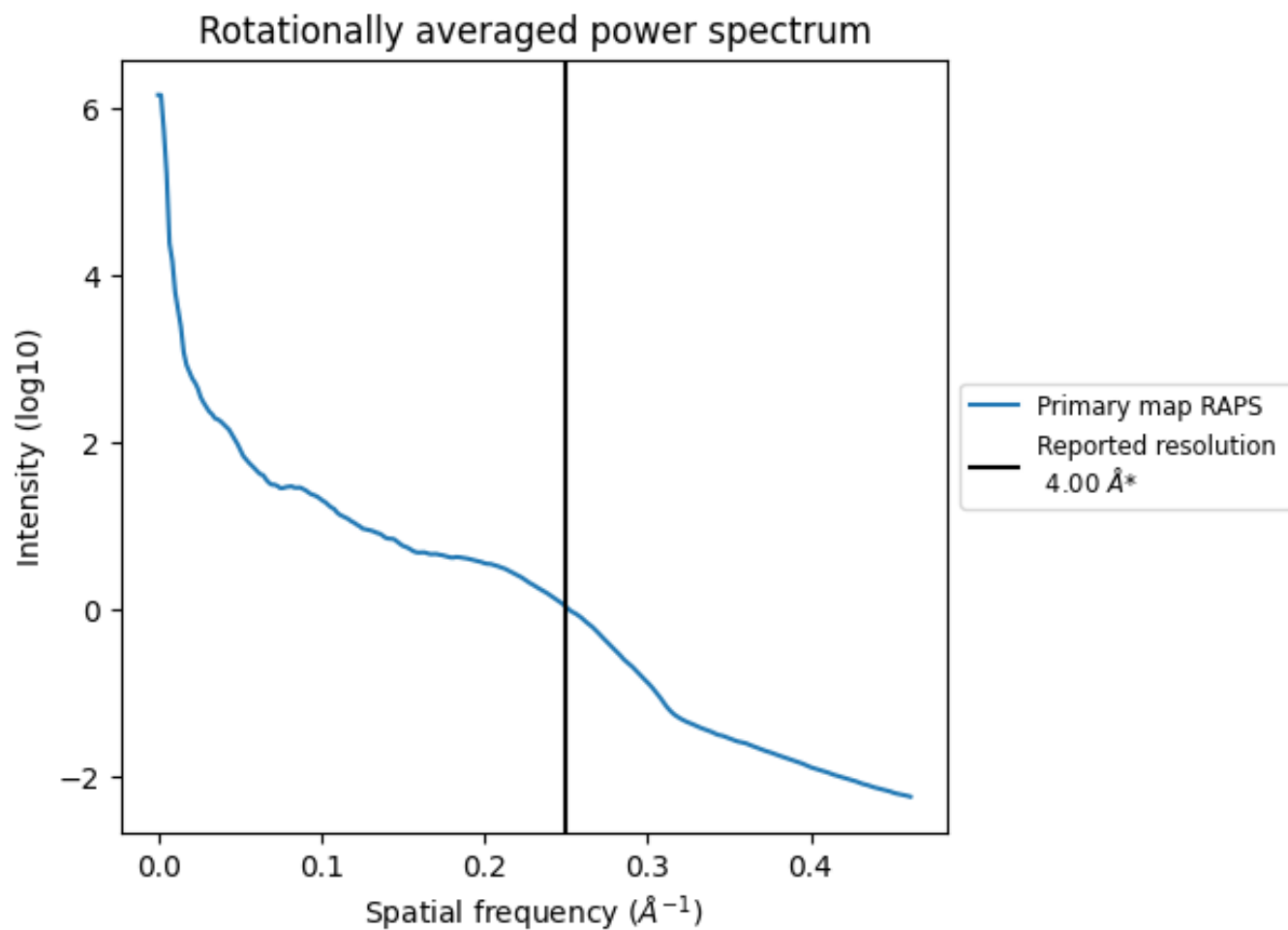
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 4789 nm^3 ; this corresponds to an approximate mass of 4326 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 0.250 Å⁻¹

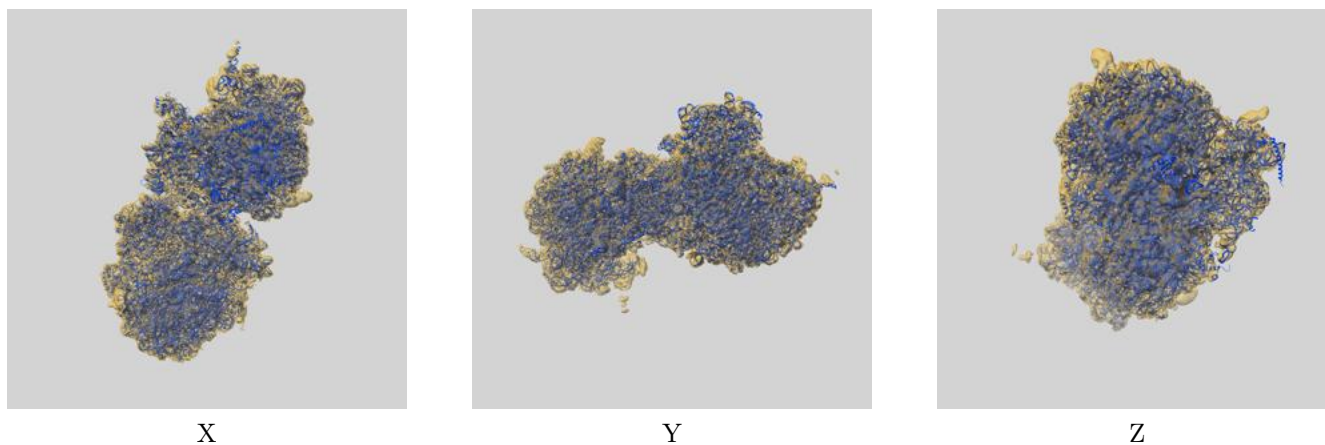
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

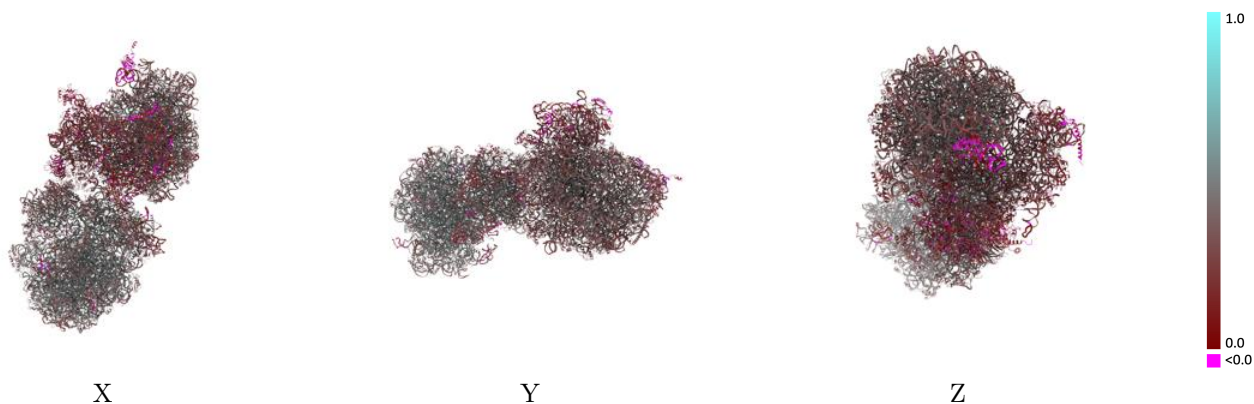
This section contains information regarding the fit between EMDB map EMD-10398 and PDB model 6T83. Per-residue inclusion information can be found in section 3 on page 26.

9.1 Map-model overlay [i](#)



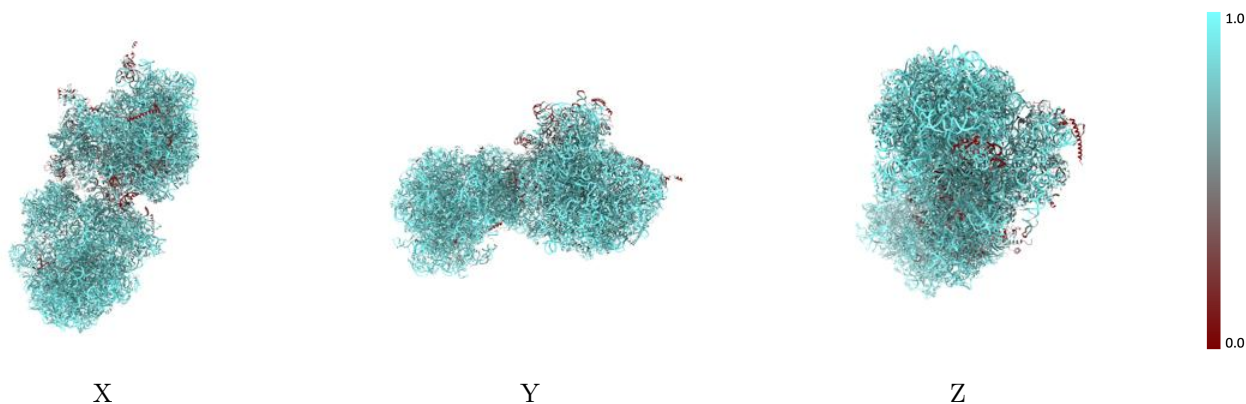
The images above show the 3D surface view of the map at the recommended contour level 0.02 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [\(i\)](#)



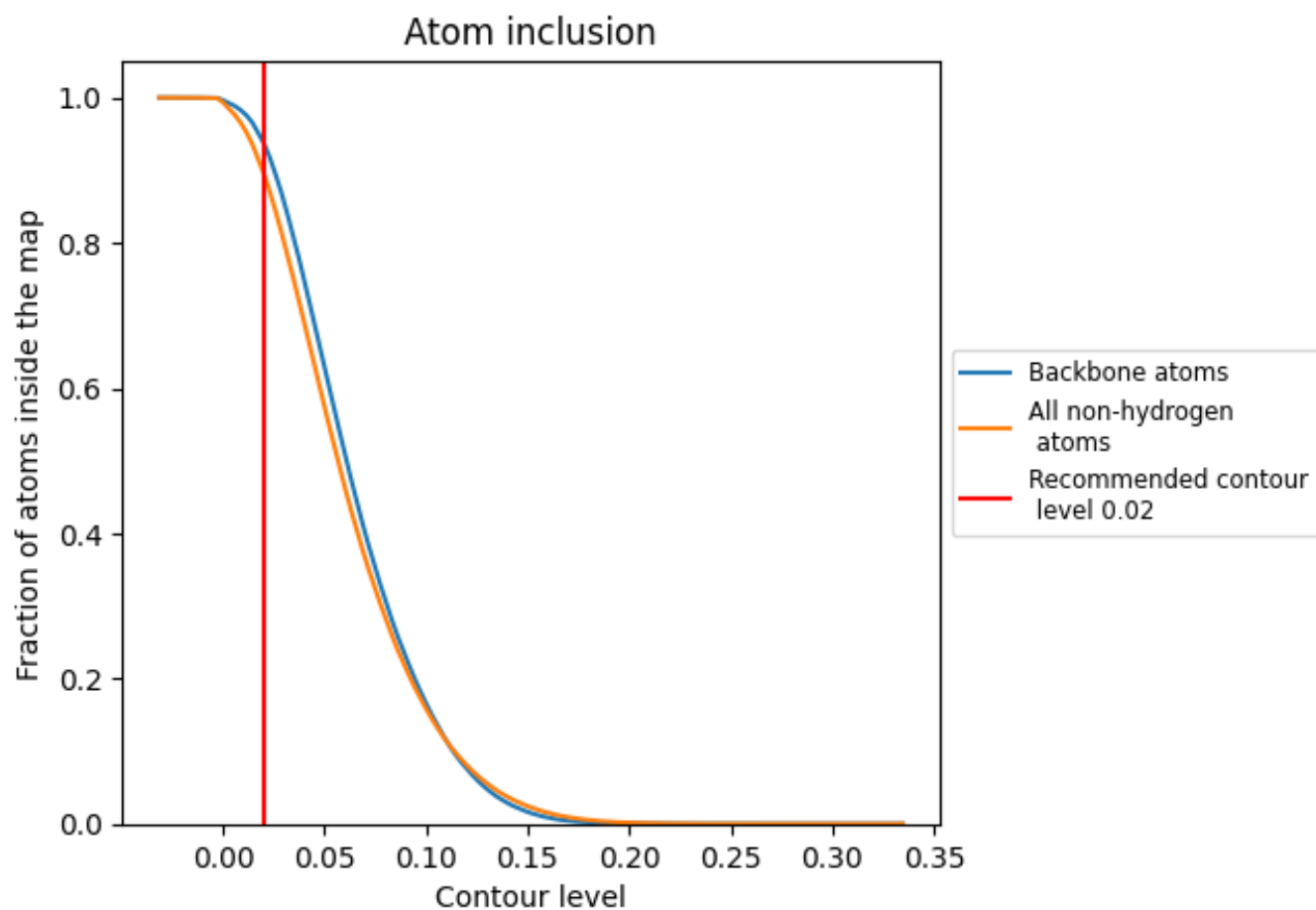
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 [\(i\)](#)



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 (0.02).







































































9.4 Atom inclusion [i](#)



At the recommended contour level, 94% of all backbone atoms, 90% 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 (0.02) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.8970	 0.3720
0	 0.6439	 0.1400
1	 0.7618	 0.3220
1b	 0.9777	 0.4500
2	 0.5358	 0.3050
2b	 0.9572	 0.4070
3	 0.7778	 0.2390
3b	 0.9845	 0.4590
4	 0.6761	 0.0740
4b	 0.9934	 0.4270
5	 0.7298	 0.2160
6	 0.5801	 0.1370
6b	 0.9616	 0.3880
7	 0.4989	 0.1450
8	 0.7389	 0.2520
A	 0.8733	 0.3870
Aa	 0.9545	 0.3780
Ab	 0.8696	 0.3760
Ay	 0.9119	 0.4880
B	 0.8330	 0.3560
Ba	 0.8811	 0.3970
Bb	 0.9911	 0.3470
By	 0.9284	 0.4590
C	 0.7775	 0.3330
Ca	 0.9700	 0.3930
Cb	 0.8730	 0.4230
Cy	 0.9389	 0.4560
D	 0.8224	 0.3600
Da	 0.8272	 0.4040
Db	 0.8290	 0.3710
Dy	 0.9384	 0.3800
E	 0.8387	 0.3740
Ea	 0.8428	 0.3740
Eb	 0.8686	 0.4070
Ey	 0.9303	 0.4030























































































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Chain	Atom inclusion	Q-score
F	 0.8089	 0.2970
Fa	 0.8794	 0.3720
Fb	 0.8756	 0.3690
Fy	 0.9294	 0.4400
G	 0.7461	 0.3770
Ga	 0.8680	 0.2740
Gb	 0.9006	 0.3480
Gy	 0.9114	 0.4020
H	 0.4153	 0.1670
Ha	 0.8200	 0.3140
Hb	 0.8774	 0.3410
Hy	 0.9041	 0.4150
I	 0.8282	 0.3620
Ia	 0.8411	 0.3530
Ib	 0.9129	 0.4190
Iy	 0.8958	 0.4040
J	 0.8746	 0.3330
Ja	 0.7963	 0.3100
Jb	 0.8593	 0.3780
Jy	 0.9017	 0.3700
K	 0.8114	 0.3160
Ka	 0.8367	 0.3500
Kb	 0.8293	 0.3270
L	 0.8476	 0.3680
La	 0.8411	 0.3130
Lb	 0.8661	 0.4400
Ly	 0.9435	 0.4460
M	 0.8473	 0.3440
Ma	 0.7498	 0.1980
Mb	 0.8162	 0.2290
My	 0.9298	 0.3990
N	 0.7775	 0.3260
Na	 0.8485	 0.3320
Nb	 0.9048	 0.4220
Ny	 0.9432	 0.4980
O	 0.8156	 0.3540
Oa	 0.8944	 0.3290
Ob	 0.8940	 0.4230
Oy	 0.9333	 0.4690
P	 0.8270	 0.3900
Pa	 0.8699	 0.3950
Pb	 0.8640	 0.3410



















































































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Chain	Atom inclusion	Q-score
Py	 0.9431	 0.4660
Q	 0.8599	 0.4110
Qa	 0.8620	 0.3830
Qb	 0.8851	 0.3960
Qy	 0.9412	 0.4590
R	 0.7814	 0.3810
Rb	 0.8872	 0.3670
Ry	 0.8955	 0.4170
S	 0.8413	 0.3330
Sb	 0.8718	 0.3570
Sy	 0.9089	 0.4440
T	 0.7957	 0.3170
Tb	 0.9075	 0.3590
Ty	 0.9210	 0.4590
U	 0.9215	 0.4330
Ub	 0.8645	 0.3570
Uy	 0.9194	 0.3700
V	 0.8168	 0.3060
Vb	 0.8698	 0.4080
Vy	 0.8948	 0.4680
W	 0.8602	 0.4080
Wb	 0.9098	 0.4500
Wy	 0.7539	 0.3600
X	 0.7692	 0.3400
Xb	 0.8848	 0.4440
Xy	 0.9225	 0.4370
Y	 0.5802	 0.2890
Yb	 0.8722	 0.3580
Yy	 0.9404	 0.4290
Z	 0.8140	 0.3380
Zb	 0.8149	 0.3320
Zy	 0.9094	 0.4060
a	 0.9045	 0.2810
aa	 0.8072	 0.3670
ab	 0.9161	 0.4620
ay	 0.9326	 0.4730
b	 0.6871	 0.2350
ba	 0.3524	 0.0160
bb	 0.9135	 0.4110
by	 0.9159	 0.4480
c	 0.4905	 0.2180
cb	 0.8689	 0.3940

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Chain	Atom inclusion	Q-score
cy	 0.9062	 0.4270
d	 0.7394	 0.2710
db	 0.9149	 0.4360
dy	 0.9153	 0.4550
e	 0.6542	 0.2260
eb	 0.8465	 0.3930
ey	 0.9334	 0.4810
f	 0.7051	 0.2360
fb	 0.8619	 0.2360
fy	 0.9391	 0.4950
g	 0.7276	 0.1950
gb	 0.8593	 0.3220
gy	 0.8931	 0.4490
h	 0.6563	 0.2140
hb	 0.9332	 0.4220
i	 0.5175	 0.2290
ib	 0.9189	 0.4090
j	 0.6567	 0.2100
jb	 0.9674	 0.5060
k	 0.7074	 0.2310
kb	 0.9032	 0.3930
l	 0.6369	 0.1880
lb	 0.9253	 0.4850
m	 0.5541	 0.2500
mb	 0.9305	 0.4540
n	 0.4818	 0.1210
nb	 0.8317	 0.4600
o	 0.7126	 0.2980
ob	 0.9019	 0.4400
p	 0.6561	 0.2780
pb	 0.9058	 0.4680
q	 0.4929	 0.1440
r	 0.7553	 0.2030
s	 0.6111	 0.2190
t	 0.6187	 0.1730
u	 0.7558	 0.1740
v	 0.7114	 0.2210
w	 0.7892	 0.2640
x	 0.7635	 0.2980
y	 0.7669	 0.3010
z	 0.7915	 0.1960