



Full wwPDB EM Validation Report ⓘ

Dec 15, 2022 – 05:05 pm GMT

PDB ID : 6XU7
EMDB ID : EMD-10623
Title : Drosophila melanogaster Testis polysome ribosome
Authors : Hopes, T.; Agapiou, M.; Norris, K.; McCarthy, C.G.P.; OConnell, M.J.;
Fontana, J.; Aspden, J.L.
Deposited on : 2020-01-17
Resolution : 4.90 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:

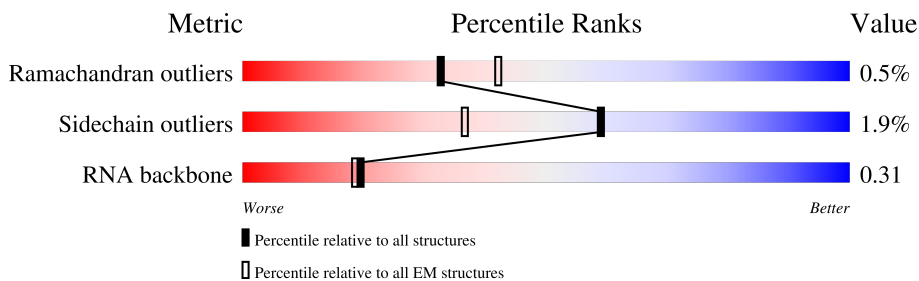
EMDB validation analysis : 0.0.1.dev43
MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.9
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.31.3

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 4.90 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	AA	218	
2	CA	253	
3	AB	220	
4	CB	414	
5	AC	227	
6	CC	392	
7	Ag	318	
8	AU	102	

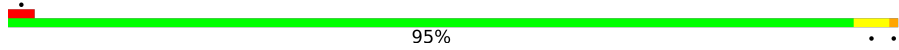
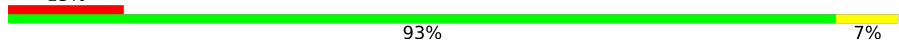
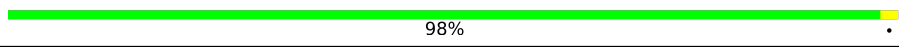
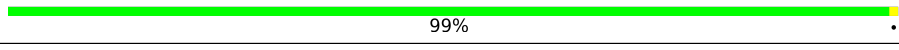
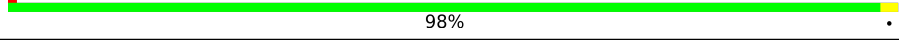

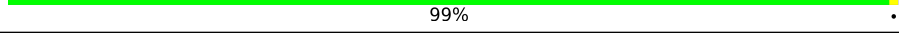
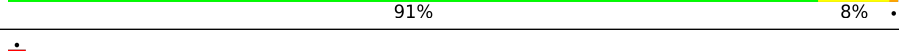
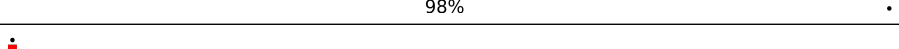
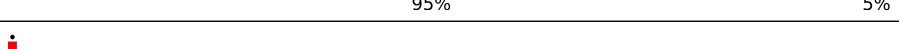
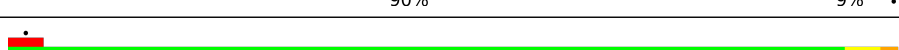
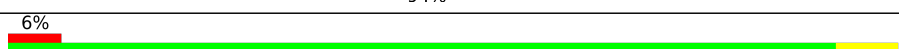
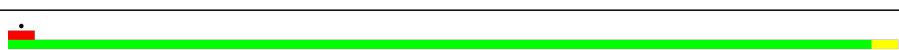

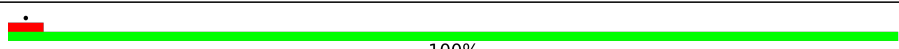
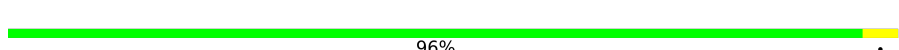

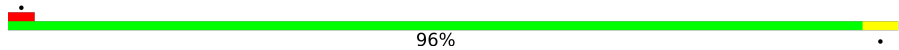
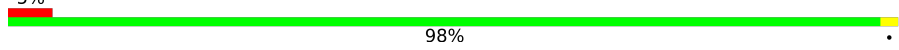
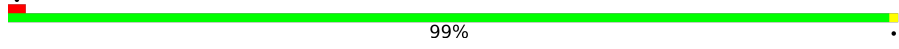
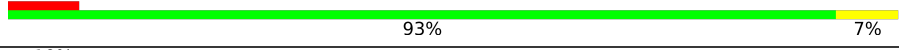
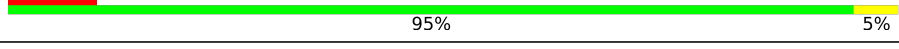



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Mol	Chain	Length	Quality of chain
9	AO	134	13% 97%
10	AX	143	97%
11	AM	119	61% 98%
12	AS	137	96%
13	Ad	52	92% 8%
14	AN	150	99%
15	AL	155	24% 99%
16	AR	120	11% 100%
17	AP	124	19% 98%
18	AV	82	7% 99%
19	AY	126	7% 100%
20	AZ	74	15% 95% 5%
21	Aa	107	10% 95%
22	Ab	84	15% 99%
23	AD	227	14% 99%
24	Ae	58	16% 95%
25	Af	80	44% 99%
26	AJ	181	97%
27	Ca	149	92% 7%
28	CN	203	90% 10%
29	CI	217	97%
30	CD	290	97%
31	CQ	187	95%
32	CR	203	10% 95% 5%
33	CS	173	91% 9%

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Mol	Chain	Length	Quality of chain
34	CT	158	 95%
35	CP	185	 13% 93% 7%
36	CX	120	 98%
37	CY	131	 99%
38	CZ	134	 98%
39	Cr	134	 85% 13%
40	Ch	123	 99%
41	Cb	75	 91% 8%
42	Cc	100	 98%
43	Cd	111	 95% 5%
44	Ce	132	 90% 9%
45	Cf	157	 94%
46	Ci	113	 6% 93% 7%
47	Ck	70	 97%
48	Cl	50	 90% 8%
49	Cm	52	 100%
50	Cn	25	 96%
51	Cp	91	 97%
52	Co	104	 96%
53	CJ	182	 5% 98%
54	CH	190	 99%
55	CE	228	 8% 93% 7%
56	CG	241	 10% 95% 5%
57	A9	30	 60% 33% 7%
58	A7	120	 58% 38%

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Mol	Chain	Length	Quality of chain
59	A8	123	28% 50% 23%
60	Cz	217	95% 97%
61	B2	1995	6% 56% 36% 5%
62	A5	3974	10% 35% 39% 19% 7%
63	Ac	62	10% 98%
64	AW	129	98%
65	CW	58	95% 5%
66	Cg	104	93% 6%
67	CU	96	98%
68	AK	90	11% 96%
69	AT	143	79% 11% 8%
70	AF	189	10% 96%
71	CF	226	95%
72	AE	261	99%
73	AG	231	12% 99%
74	AH	194	13% 96%
75	AI	207	7% 98%
76	AQ	148	7% 98%
77	CO	205	94% 5%
78	CL	210	7% 91% 8%
79	CV	134	98%
80	CM	159	9% 98%
81	B	75	60% 35% 5%
82	v	12	50% 50%
83	Cj	87	66% 33%

2 Entry composition [i](#)

There are 83 unique types of molecules in this entry. The entry contains 219005 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called 40S ribosomal protein SA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	AA	218	1737	1113	298	321	5	0	0

- Molecule 2 is a protein called 60S ribosomal protein L8.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	CA	253	1935	1206	395	326	8	0	0

- Molecule 3 is a protein called 40S ribosomal protein S3a.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	AB	220	1798	1138	328	324	8	0	0

- Molecule 4 is a protein called 60S ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	CB	414	3287	2083	621	565	18	0	0

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

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	AC	227	1746	1126	302	311	7	0	0

- Molecule 6 is a protein called 60S ribosomal protein L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	CC	392	3109	1959	622	522	6	0	0

- Molecule 7 is a protein called Guanine nucleotide-binding protein subunit beta-like protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
7	Ag	318	2511	1577	444	480	10	0	0

- Molecule 8 is a protein called 40S ribosomal protein S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
8	AU	102	815	505	161	145	4	0	0

- Molecule 9 is a protein called 40S ribosomal protein S14a.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
9	AO	134	1003	616	196	187	4	0	0

- Molecule 10 is a protein called 40S ribosomal protein S23.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
10	AX	143	1131	712	226	191	2	0	0

- Molecule 11 is a protein called 40S ribosomal protein S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
11	AM	119	924	582	165	171	6	0	0

- Molecule 12 is a protein called 40S ribosomal protein S18.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
12	AS	137	1128	707	220	198	3	0	0

- Molecule 13 is a protein called 40S ribosomal protein S29.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
13	Ad	52	433	269	87	72	5	0	0

- Molecule 14 is a protein called 40S ribosomal protein S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
14	AN	150	1202	767	229	203	3	0	0

- Molecule 15 is a protein called 40S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
15	AL	155	1274	803	254	211	6	0	0

- Molecule 16 is a protein called 40S ribosomal protein S17.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
16	AR	120	981	618	183	176	4	0	0

- Molecule 17 is a protein called GEO07301p1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
17	AP	124	1016	652	189	169	6	0	0

- Molecule 18 is a protein called 40S ribosomal protein S21.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
18	AV	82	617	373	114	125	5	0	0

There are 13 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AV	2	GLN	GLU	conflict	UNP O76927
AV	8	PHE	ASN	conflict	UNP O76927
AV	25	GLY	HIS	conflict	UNP O76927
AV	32	ILE	VAL	conflict	UNP O76927
AV	34	MET	LEU	conflict	UNP O76927
AV	35	ASN	SER	conflict	UNP O76927
AV	36	VAL	ILE	conflict	UNP O76927
AV	58	ALA	GLU	conflict	UNP O76927
AV	68	SER	CYS	conflict	UNP O76927
AV	70	LEU	VAL	conflict	UNP O76927
AV	75	ALA	LYS	conflict	UNP O76927
AV	79	VAL	ILE	conflict	UNP O76927

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Chain	Residue	Modelled	Actual	Comment	Reference
AV	80	SER	THR	conflict	UNP O76927

- Molecule 19 is a protein called 40S ribosomal protein S24.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
19	AY	126	1016	644	196	171	5	0	0

- Molecule 20 is a protein called 40S ribosomal protein S25.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
20	AZ	74	608	390	112	106	0	0

- Molecule 21 is a protein called 40S ribosomal protein S26.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
21	Aa	107	867	539	182	140	6	0	0

- Molecule 22 is a protein called 40S ribosomal protein S27.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
22	Ab	84	653	412	123	110	8	0	0

- Molecule 23 is a protein called 40S ribosomal protein S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
23	AD	227	1782	1127	319	326	10	0	0

- Molecule 24 is a protein called 40S ribosomal protein S30.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
24	Ae	58	469	289	105	75	0	0

- Molecule 25 is a protein called Ubiquitin-40S ribosomal protein S27a.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	Af	80	Total	C	N	O	S	0	0
			659	417	128	109	5		

- Molecule 26 is a protein called 40S ribosomal protein S9.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	AJ	181	Total	C	N	O	S	0	0
			1503	957	298	247	1		

- Molecule 27 is a protein called 60S ribosomal protein L27a.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	Ca	149	Total	C	N	O	S	0	0
			1204	769	242	189	4		

- Molecule 28 is a protein called 60S ribosomal protein L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	CN	203	Total	C	N	O	S	0	0
			1710	1072	362	271	5		

- Molecule 29 is a protein called 60S ribosomal protein L10.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	CI	217	Total	C	N	O	S	0	0
			1785	1125	343	304	13		

- Molecule 30 is a protein called 60S ribosomal protein L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	CD	290	Total	C	N	O	S	0	0
			2334	1471	434	423	6		

- Molecule 31 is a protein called 60S ribosomal protein L18.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	CQ	187	Total	C	N	O	S	0	0
			1518	957	306	251	4		

- Molecule 32 is a protein called 60S ribosomal protein L19.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	CR	203	Total	C	N	O	S	0	0
			1683	1047	350	277	9		

- Molecule 33 is a protein called 60S ribosomal protein L18a.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	CS	173	Total	C	N	O	S	0	0
			1454	935	275	240	4		

- Molecule 34 is a protein called RE62581p.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	CT	158	Total	C	N	O	S	0	0
			1297	829	253	212	3		

- Molecule 35 is a protein called 60S ribosomal protein L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	CP	185	Total	C	N	O	S	0	0
			1505	928	305	263	9		

- Molecule 36 is a protein called IP17216p.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	CX	120	Total	C	N	O	S	0	0
			984	625	192	165	2		

- Molecule 37 is a protein called GEO07453p1.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	CY	131	Total	C	N	O	S	0	0
			1078	676	224	176	2		

- Molecule 38 is a protein called 60S ribosomal protein L27.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	CZ	134	Total	C	N	O	S	0	0
			1115	723	209	180	3		

- Molecule 39 is a protein called 60S ribosomal protein L28.

Mol	Chain	Residues	Atoms				AltConf	Trace
39	Cr	134	Total	C	N	O	0	0
			1051	670	205	176		

- Molecule 40 is a protein called FI02809p.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	Ch	123	Total	C	N	O	S	0	0
			1015	646	202	164	3		

- Molecule 41 is a protein called 60S ribosomal protein L29.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	Cb	75	Total	C	N	O	S	0	0
			619	378	133	107	1		

- Molecule 42 is a protein called RE25263p.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	Cc	100	Total	C	N	O	S	0	0
			770	486	132	147	5		

- Molecule 43 is a protein called 60S ribosomal protein L31.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	Cd	111	Total	C	N	O	S	0	0
			924	573	180	169	2		

- Molecule 44 is a protein called 60S ribosomal protein L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	Ce	132	Total	C	N	O	S	0	0
			1110	698	230	177	5		

- Molecule 45 is a protein called GEO07455p1.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	Cf	157	Total	C	N	O	S	0	0
			1244	781	255	203	5		

- Molecule 46 is a protein called 60S ribosomal protein L36.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	Ci	113	Total	C	N	O	S	0	0
			934	585	193	153	3		

- Molecule 47 is a protein called 60S ribosomal protein L38.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	Ck	70	Total	C	N	O	S	0	0
			576	366	108	100	2		

- Molecule 48 is a protein called 60S ribosomal protein L39.

Mol	Chain	Residues	Atoms				AltConf	Trace
48	Cl	50	Total	C	N	O	0	0
			437	276	98	63		

- Molecule 49 is a protein called Ubiquitin-60S ribosomal protein L40.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	Cm	52	Total	C	N	O	S	0	0
			429	267	89	67	6		

- Molecule 50 is a protein called 60S ribosomal protein L41.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	Cn	25	Total	C	N	O	S	0	0
			236	143	63	27	3		

- Molecule 51 is a protein called 60S ribosomal protein L37a.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	Cp	91	Total	C	N	O	S	0	0
			710	441	140	122	7		

- Molecule 52 is a protein called TA01007p.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	Co	104	Total	C	N	O	S	0	0
			874	548	180	138	8		

- Molecule 53 is a protein called 60S ribosomal protein L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	CJ	182	Total	C	N	O	S	0	0
			1468	926	278	258	6		

- Molecule 54 is a protein called 60S ribosomal protein L9.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	CH	190	Total	C	N	O	S	0	0
			1499	947	265	278	9		

- Molecule 55 is a protein called Ribosomal protein L6, isoform A.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	CE	228	Total	C	N	O	S	0	0
			1845	1185	351	305	4		

- Molecule 56 is a protein called 60S ribosomal protein L7a.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	CG	241	Total	C	N	O	S	0	0
			1936	1237	368	327	4		

- Molecule 57 is a RNA chain called 2S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	A9	30	Total	C	N	O	P	0	0
			639	286	111	213	29		

- Molecule 58 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	A7	120	Total	C	N	O	P	0	0
			2554	1141	456	838	119		

- Molecule 59 is a RNA chain called 5.8S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	A8	123	Total	C	N	O	P	0	0
			2621	1173	474	852	122		

- Molecule 60 is a protein called 60S ribosomal protein L10a-2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
60	Cz	217	1702	1084	303	305	10	0	0

- Molecule 61 is a RNA chain called 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
61	B2	1936	39355	17526	6780	13114	1935	0	0

- Molecule 62 is a RNA chain called 28S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
62	A5	3707	77175	34473	13566	25431	3705	0	0

There are 10 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A5	1301	A	U	conflict	GB NR_133562.1
A5	1319	A	U	conflict	GB NR_133562.1
A5	1320	U	G	conflict	GB NR_133562.1
A5	1321	G	U	conflict	GB NR_133562.1
A5	1322	U	G	conflict	GB NR_133562.1
A5	1686	A	-	insertion	GB NR_133562.1
A5	1710	G	-	insertion	GB NR_133562.1
A5	2158A	C	-	insertion	GB NR_133562.1
A5	2279	C	G	conflict	GB NR_133562.1
A5	3569	C	-	insertion	GB NR_133562.1

- Molecule 63 is a protein called 40S ribosomal protein S28.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
63	Ac	62	498	307	100	89	2	0	0

- Molecule 64 is a protein called 40S ribosomal protein S15Aa.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
64	AW	129	1028	656	189	176	7	0	0

- Molecule 65 is a protein called 60S ribosomal protein L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
65	CW	58	Total	C	N	O	S	0	0
			483	314	89	76	4		

- Molecule 66 is a protein called RH48056p.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	Cg	104	Total	C	N	O	S	0	0
			852	530	177	139	6		

- Molecule 67 is a protein called Ribosomal protein L22-like protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	CU	96	Total	C	N	O	S	0	0
			811	531	137	139	4		

- Molecule 68 is a protein called 40S ribosomal protein S10b.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	AK	90	Total	C	N	O	S	0	0
			760	500	130	127	3		

- Molecule 69 is a protein called 40S ribosomal protein S19a.

Mol	Chain	Residues	Atoms					AltConf	Trace
69	AT	132	Total	C	N	O	S	0	0
			1041	659	200	179	3		

- Molecule 70 is a protein called 40S ribosomal protein S5a.

Mol	Chain	Residues	Atoms					AltConf	Trace
70	AF	189	Total	C	N	O	S	0	0
			1490	929	284	268	9		

- Molecule 71 is a protein called 60S ribosomal protein L7.

Mol	Chain	Residues	Atoms					AltConf	Trace
71	CF	226	Total	C	N	O	S	0	0
			1895	1216	368	308	3		

- Molecule 72 is a protein called 40S ribosomal protein S4.

Mol	Chain	Residues	Atoms					AltConf	Trace
72	AE	261	Total	C	N	O	S	0	0
			2054	1314	380	353	7		

- Molecule 73 is a protein called 40S ribosomal protein S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
73	AG	231	Total	C	N	O	S	0	0
			1866	1172	372	315	7		

- Molecule 74 is a protein called 40S ribosomal protein S7.

Mol	Chain	Residues	Atoms					AltConf	Trace
74	AH	194	Total	C	N	O	S	0	0
			1566	1006	278	281	1		

- Molecule 75 is a protein called 40S ribosomal protein S8.

Mol	Chain	Residues	Atoms					AltConf	Trace
75	AI	207	Total	C	N	O	S	0	0
			1665	1037	329	296	3		

- Molecule 76 is a protein called 40S ribosomal protein S16.

Mol	Chain	Residues	Atoms					AltConf	Trace
76	AQ	148	Total	C	N	O	S	0	0
			1183	753	223	204	3		

- Molecule 77 is a protein called 60S ribosomal protein L13a.

Mol	Chain	Residues	Atoms					AltConf	Trace
77	CO	205	Total	C	N	O	S	0	0
			1668	1063	331	268	6		

- Molecule 78 is a protein called 60S ribosomal protein L13.

Mol	Chain	Residues	Atoms					AltConf	Trace
78	CL	210	Total	C	N	O	S	0	0
			1695	1066	342	284	3		

- Molecule 79 is a protein called 60S ribosomal protein L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
79	CV	134	Total	C	N	O	S	0	0
			998	629	190	173	6		

- Molecule 80 is a protein called 60S ribosomal protein L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
80	CM	159	Total	C	N	O	S	0	0
			1302	826	256	218	2		

- Molecule 81 is a RNA chain called P-tRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
81	B	75	Total	C	N	O	P	0	0
			1605	717	296	518	74		

- Molecule 82 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
82	v	12	Total	C	N	O	P	0	0
			255	113	43	87	12		

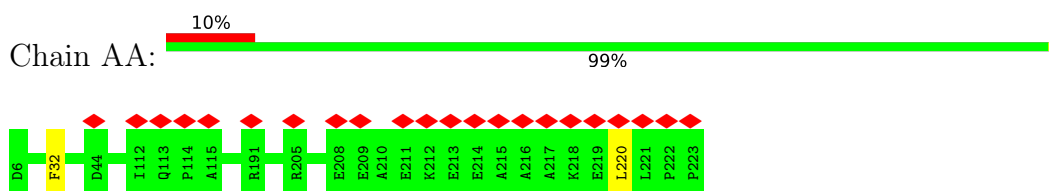
- Molecule 83 is a protein called Probable 60S ribosomal protein L37-B.

Mol	Chain	Residues	Atoms					AltConf	Trace
83	Cj	87	Total	C	N	O	S	0	0
			696	422	154	115	5		

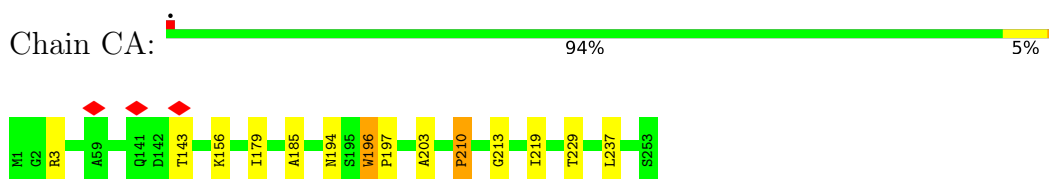
3 Residue-property plots [i](#)

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

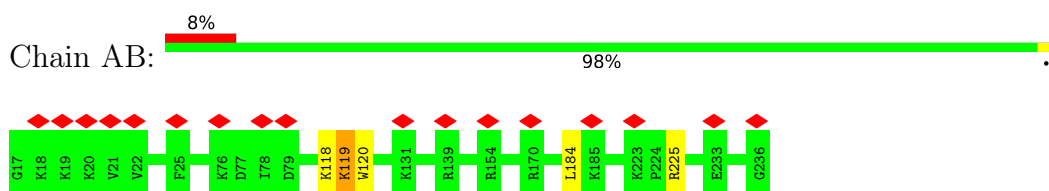
- Molecule 1: 40S ribosomal protein SA



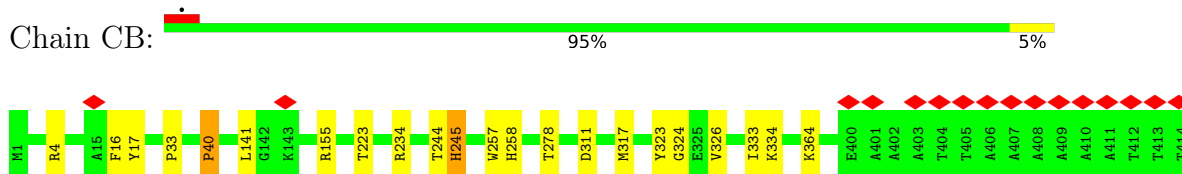
- Molecule 2: 60S ribosomal protein L8



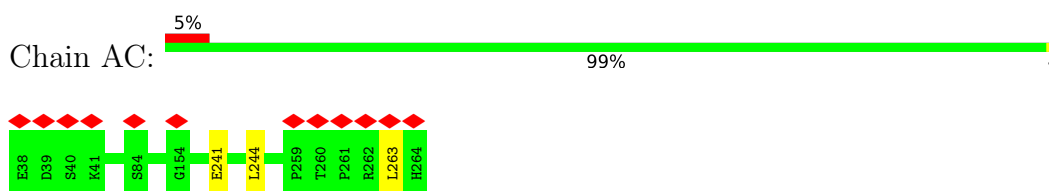
- Molecule 3: 40S ribosomal protein S3a



- Molecule 4: 60S ribosomal protein L3

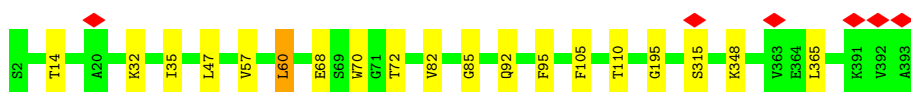


- Molecule 5: 40S ribosomal protein S2



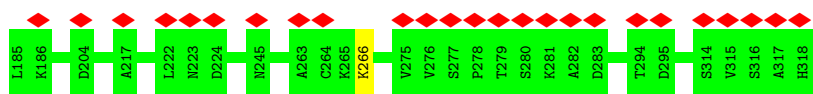
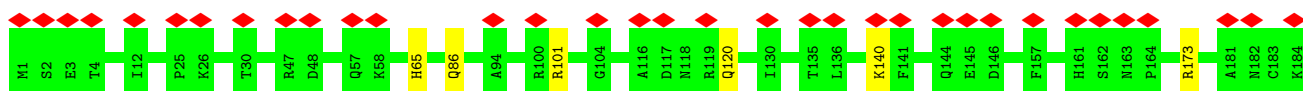
- Molecule 6: 60S ribosomal protein L4

Chain CC:  95% 5%



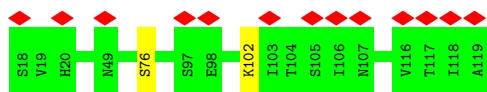
- Molecule 7: Guanine nucleotide-binding protein subunit beta-like protein

Chain Ag:  19% 98%



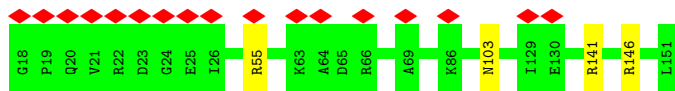
- Molecule 8: 40S ribosomal protein S20

Chain AU:  13% 98%



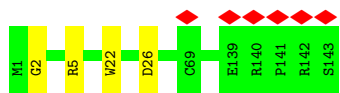
- Molecule 9: 40S ribosomal protein S14a

Chain AO:  13% 97%



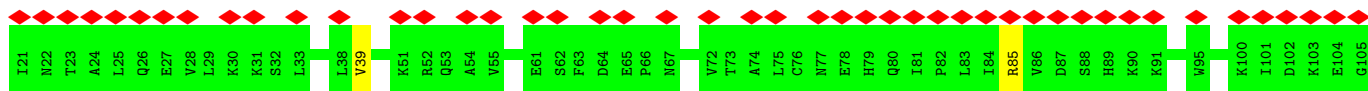
- Molecule 10: 40S ribosomal protein S23

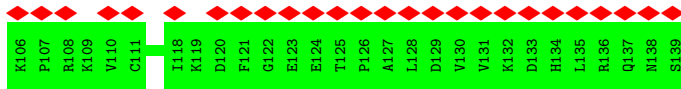
Chain AX:  97%



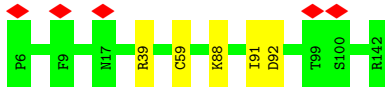
- Molecule 11: 40S ribosomal protein S12

Chain AM:  61% 98%

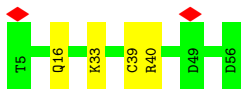




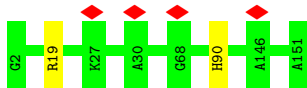
- Molecule 12: 40S ribosomal protein S18



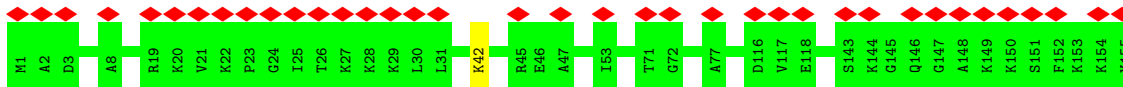
- Molecule 13: 40S ribosomal protein S29



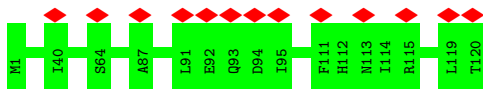
- Molecule 14: 40S ribosomal protein S13



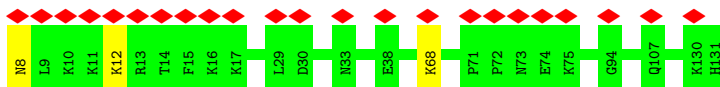
- Molecule 15: 40S ribosomal protein S11



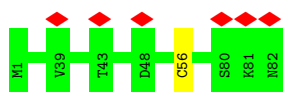
- Molecule 16: 40S ribosomal protein S17



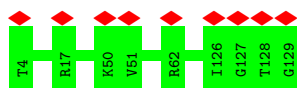
- Molecule 17: GEO07301p1



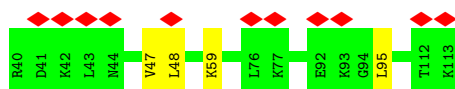
- Molecule 18: 40S ribosomal protein S21



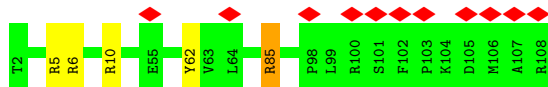
- Molecule 19: 40S ribosomal protein S24



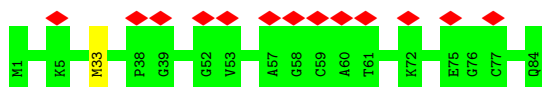
- Molecule 20: 40S ribosomal protein S25



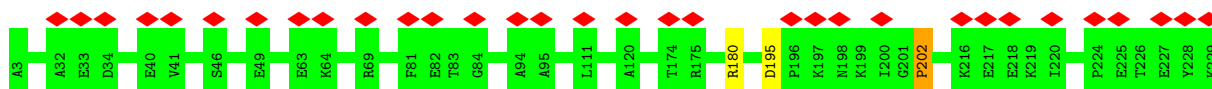
- Molecule 21: 40S ribosomal protein S26



- Molecule 22: 40S ribosomal protein S27



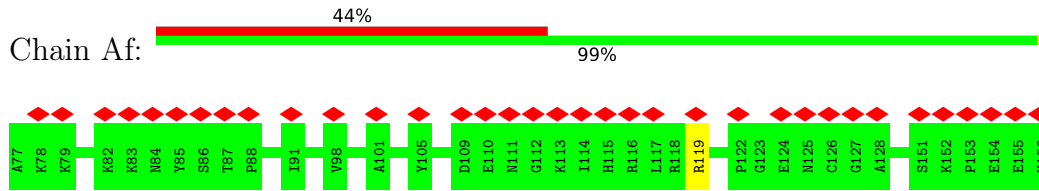
- Molecule 23: 40S ribosomal protein S3



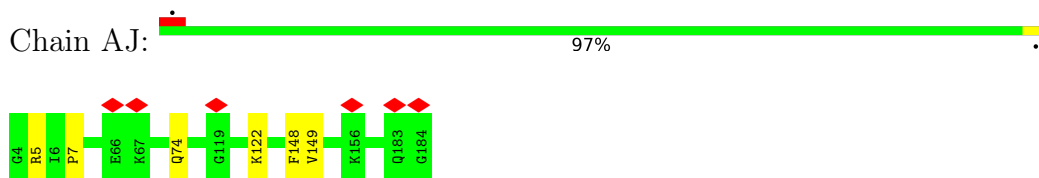
- Molecule 24: 40S ribosomal protein S30



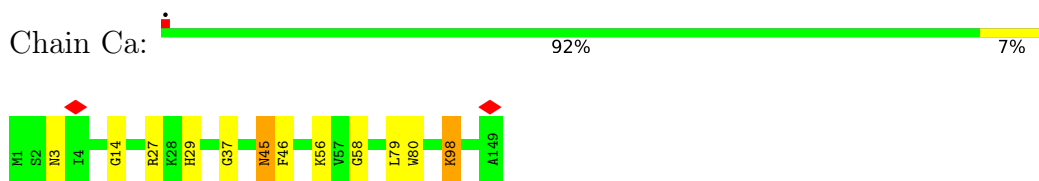
- Molecule 25: Ubiquitin-40S ribosomal protein S27a



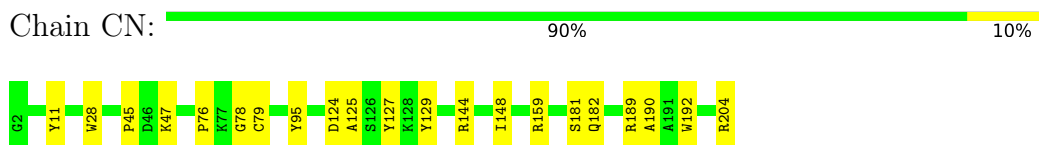
- Molecule 26: 40S ribosomal protein S9



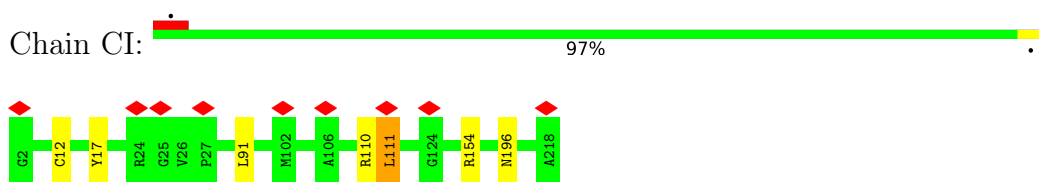
- Molecule 27: 60S ribosomal protein L27a



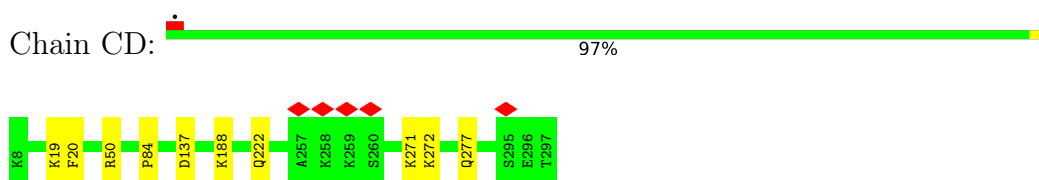
- Molecule 28: 60S ribosomal protein L15



- Molecule 29: 60S ribosomal protein L10

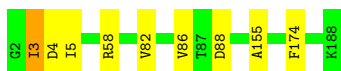


- Molecule 30: 60S ribosomal protein L5

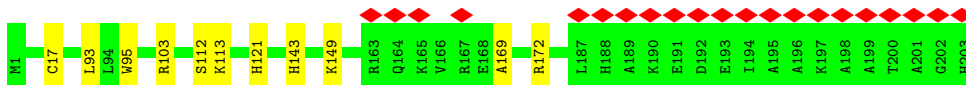


- Molecule 31: 60S ribosomal protein L18





- Molecule 32: 60S ribosomal protein L19



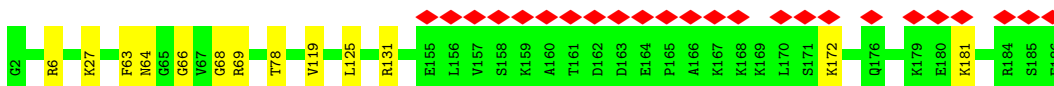
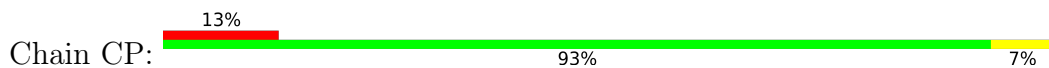
- Molecule 33: 60S ribosomal protein L18a



- Molecule 34: RE62581p



- Molecule 35: 60S ribosomal protein L17



- Molecule 36: IP17216p

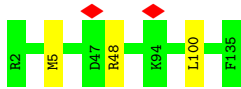


- Molecule 37: GEO07453p1

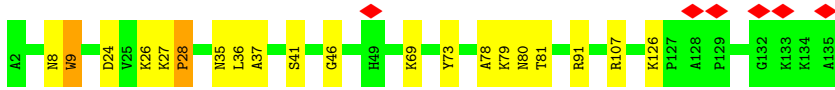
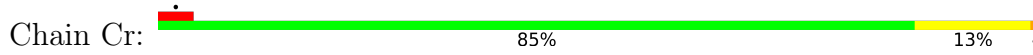


- Molecule 38: 60S ribosomal protein L27

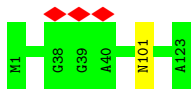




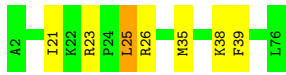
- Molecule 39: 60S ribosomal protein L28



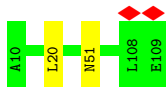
- Molecule 40: FI02809p



- Molecule 41: 60S ribosomal protein L29



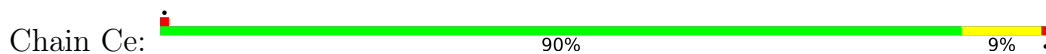
- Molecule 42: RE25263p



- Molecule 43: 60S ribosomal protein L31



- Molecule 44: 60S ribosomal protein L32



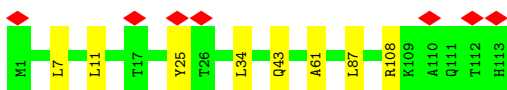
- Molecule 45: GEO07455p1

Chain Cf:  94%



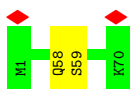
- Molecule 46: 60S ribosomal protein L36

Chain Ci:  6% 93% 7%



- Molecule 47: 60S ribosomal protein L38

Chain Ck:  97%



- Molecule 48: 60S ribosomal protein L39

Chain Cl:  90% 8%



- Molecule 49: Ubiquitin-60S ribosomal protein L40

Chain Cm:  100%



- Molecule 50: 60S ribosomal protein L41

Chain Cn:  96%

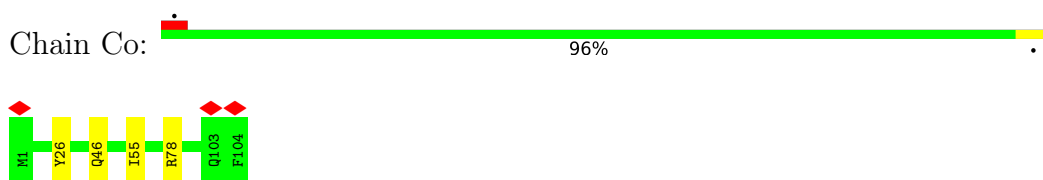


- Molecule 51: 60S ribosomal protein L37a

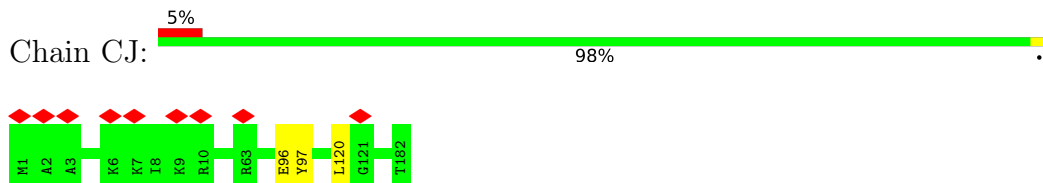
Chain Cp:  97%



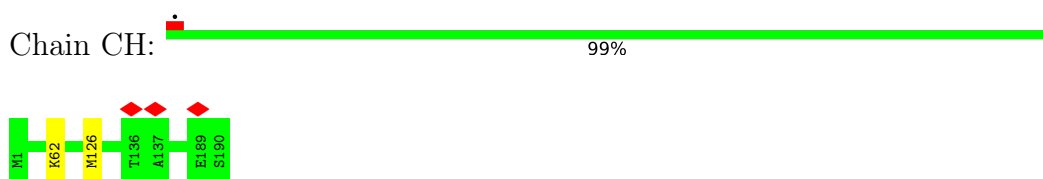
- Molecule 52: TA01007p



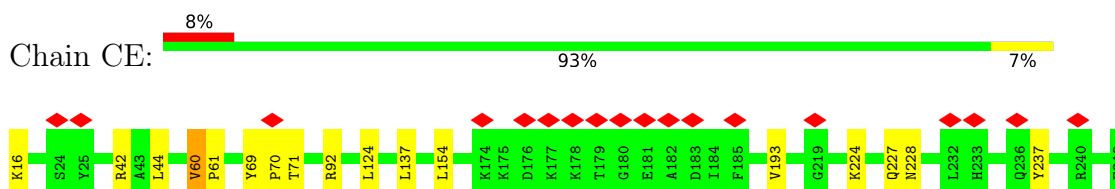
- Molecule 53: 60S ribosomal protein L11



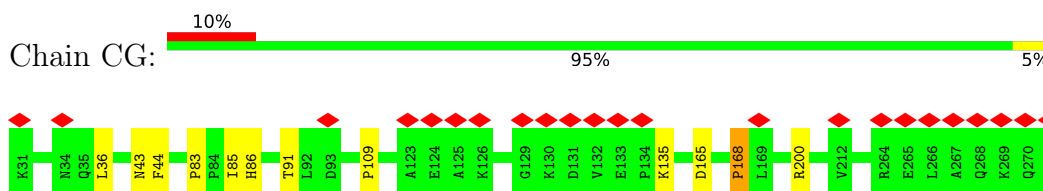
- Molecule 54: 60S ribosomal protein L9



- Molecule 55: Ribosomal protein L6, isoform A



- Molecule 56: 60S ribosomal protein L7a

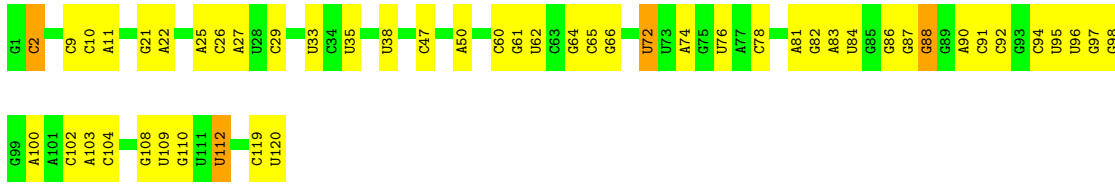


- Molecule 57: 2S ribosomal RNA

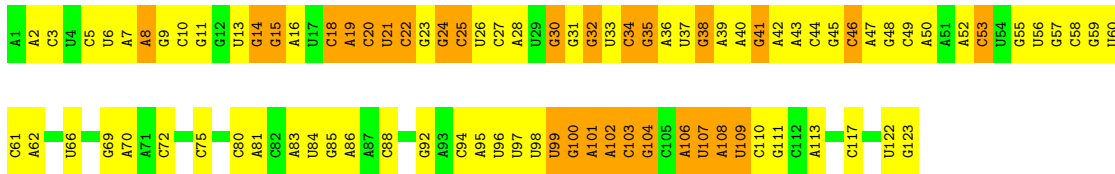
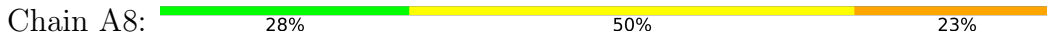


- Molecule 58: 5S ribosomal RNA

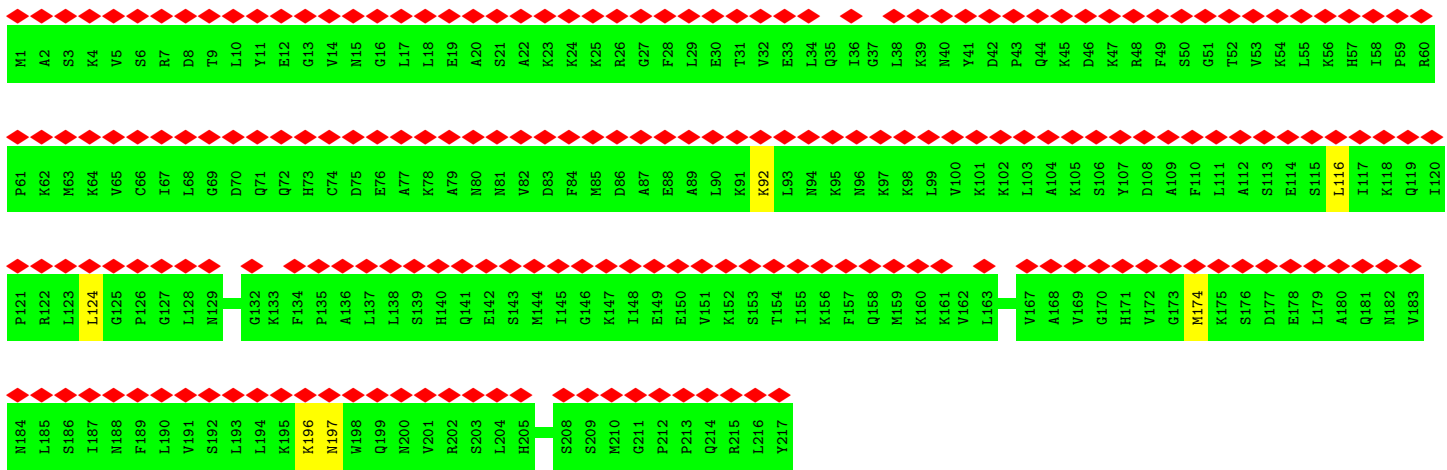




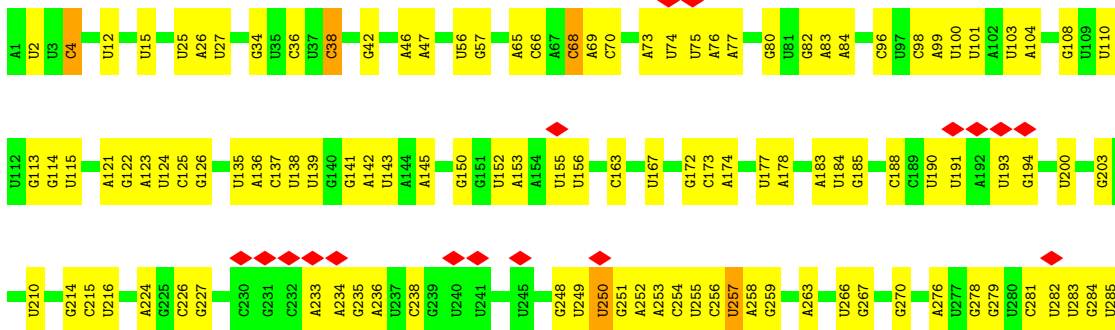
• Molecule 59: 5.8S ribosomal RNA



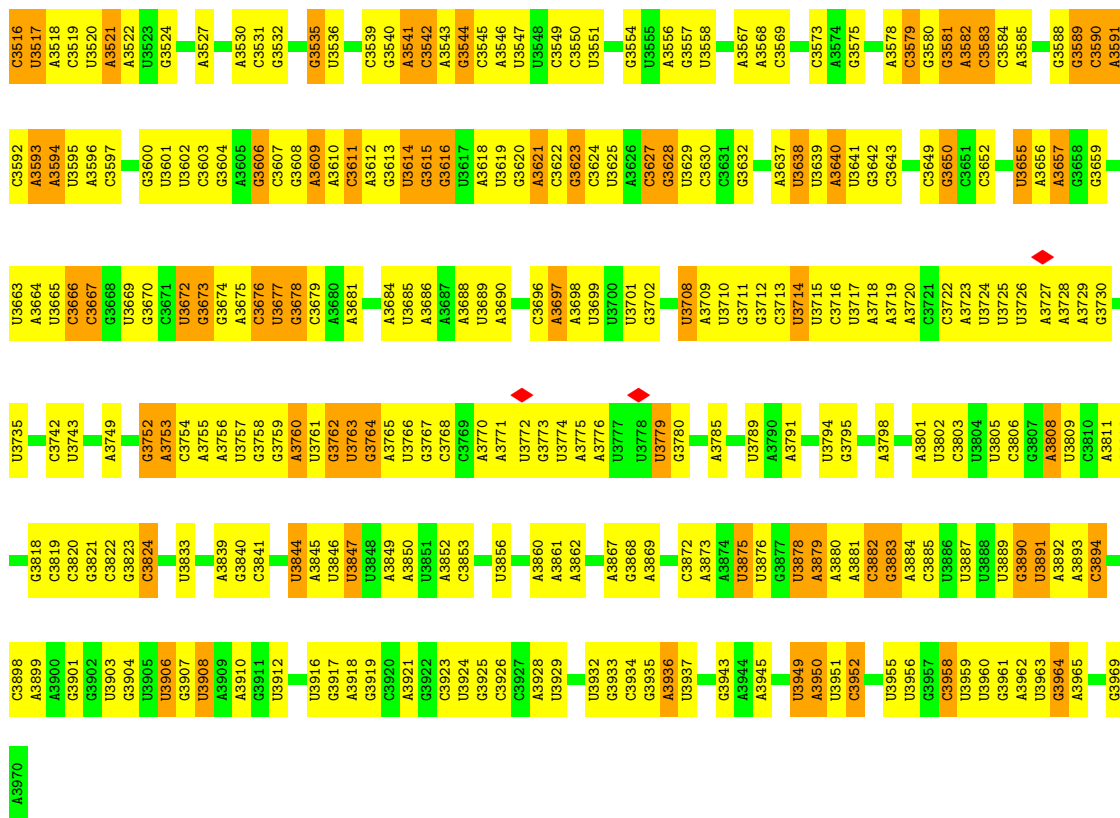
• Molecule 60: 60S ribosomal protein L10a-2



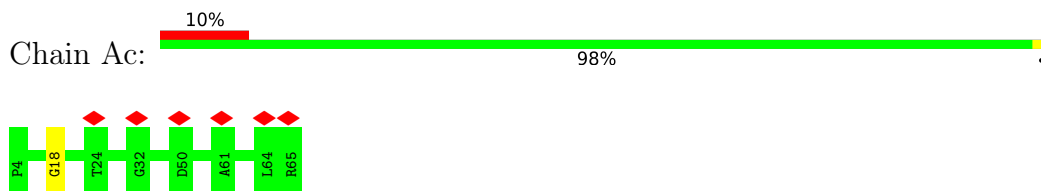
• Molecule 61: 18S ribosomal RNA



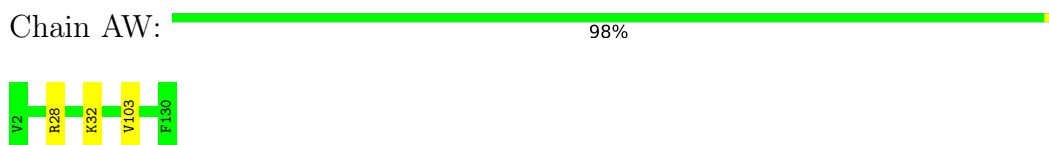
A2452	U2390	G2061	U1984	U1907	C1774	G1643	U1575
U2453	G2391	A2062	C1985	A1907	C1775	C1644	U1576
A2458	G2392	G2063	A1988	A1909	A1709	G1645	A1577
U2462	G2393	G2064	U1994	A1910	G1710	U1646	C1578
U2463	A2394	G2066	U1995	C1911	A1779	U1579	U1579
A2464	U2397	A2070	U1996	U1912	C1711	A1647	U1580
U2465	U2398	A2071	C1997	U1913	U1713	A1648	U1580
U2466	U2399	C2072	U1998	U1914	U1714	G1649	G1581
A2467	U2400	A2075	U1999	U1918	G1715	C1650	U1582
A2468	U2401	A2076	U2000	A1919	A1716	G1583	G1583
U2469	G2402	A2077	C2002	U1920	G1717	A1584	A1584
U2470	A2405	C2078	G2003	U1921	G1718	A1655	U1591
A2471	A2406	U2079	U2004	A1922	A1717	G1656	U1591
A2472	A	U2079	G2005	A1923	G1718	G1657	U1592
C2473	A	U2082	U2006	U1925	A1719	G1658	U1593
A2477	A	U2086	U2008	U1926	A1720	U1594	U1594
A2478	A	C2087	A2009	U1927	C1721	C1661	C1661
U2479	A	U2088	U2010	C1931	U1722	U1662	U1662
U2480	A	A2089	A2011	U1934	G1723	U1663	A1596
U2481	A	U2092	C2013	C1934	A1724	G1663	A1597
C2482	A	U2083	C2014	U1935	G1725	C1664	A1598
A2486	A	U2094	G2015	G1936	A1726	C1665	C1599
G2490	A	U2095	U2016	G1937	U1727	A1666	A1603
C2491	A	C2096	A2017	U1941	G1728	U1667	G1604
A2492	A	U2097	C2021	U1942	U1729	U1668	U1605
C2493	A	C2098	U2026	U1943	A1730	G1669	G1606
G2494	A	C2099	G2027	C1944	G1731	G1670	G1607
A2495	A	U2100	A2028	U1945	U1732	U1671	A1607
C2497	A	C2101	U2029	C1946	A1733	A1672	U1608
U2498	A	G2102	G2030	U1954	G1734	U1673	U1609
U2499	A	U2103	U2031	G1955	A1735	A1674	A1610
G2500	A	C2106	U2032	U1956	G1736	G1675	G1611
G2501	A	U2107	U2033	A1957	U1737	A1676	G1612
G2502	A	U2108	U2034	U1958	U1744	C1678	A1614
G2503	A	C2109	G2035	A1959	A1746	U1679	G1615
A2504	A	A2110	U2036	C1960	A1747	U1680	G1616
A2505	A	A2111	C2037	U1961	C1748	G1681	U1617
U2506	A	A2112	A2038	A1962	A1749	G1682	A1618
C2507	A	U2113	G2043	U1963	U1750	U1683	C1619
C2508	A	U2115	U2047	A1965	G1751	G1684	A1620
A2509	A	U2121	U2050	A1968	U1752	U1685	G1684
C2510	A	G2125	A2051	U1969	G1753	A1686	A1621
U2511	A	A2126	C2052	G1970	U1754	U1687	U1622
U2512	A	C2127	A2053	C1971	A1755	A1688	G1623
G2513	A	U2128	U2054	A1972	U1755	G1689	G1624
C2514	A	C2129	G2055	C1973	G1756	U1690	U1625
U2515	A	G2130	C2058	U1974	A1757	A1691	A1626
U2516	A	A2131	U2059	A1981	U1758	G1692	U1627
A2517	A	A2132	A2060	U1982	C1759	C1693	C1629
U2518	A	G2255	U2069	A1983	C1761	A1695	U1631
U2519	A	G2256	A2060	A1983	G1762	A1696	A1632
A2520	A	U2133	U2069	C1887	A1763	U1697	A1633
A2521	A	A2133	A2060	A1888	G1764	A1698	A1634
A2522	A	U2133	A2060	C1971	U1765	A1699	A1635
				A1890	U1766	U1700	G1636
				A1891	A1767	G1701	U1637
				U1892	G1768	G1702	U1637
				C1893	U1769	U1640	U1640
				U1898	U1773	U1705	G1642
				C1899		G1706	



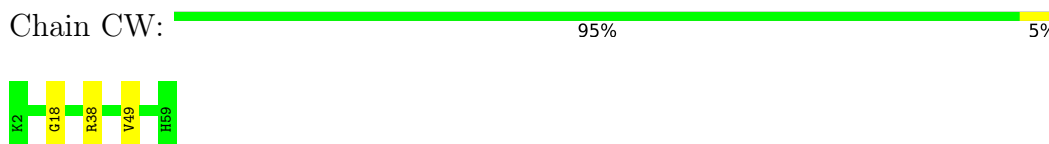
• Molecule 63: 40S ribosomal protein S28



• Molecule 64: 40S ribosomal protein S15Aa



• Molecule 65: 60S ribosomal protein L24

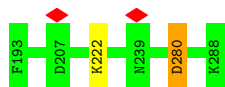


• Molecule 66: RH48056p





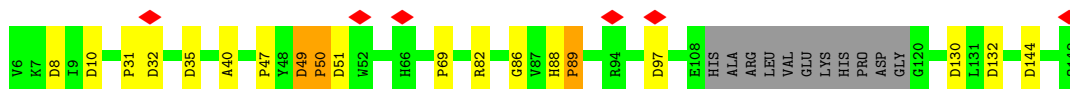
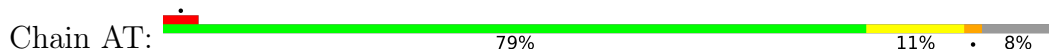
- Molecule 67: Ribosomal protein L22-like protein



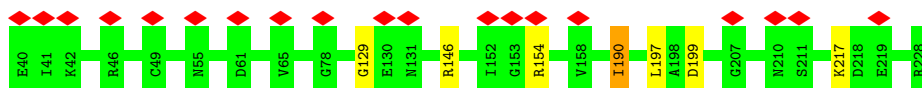
- Molecule 68: 40S ribosomal protein S10b



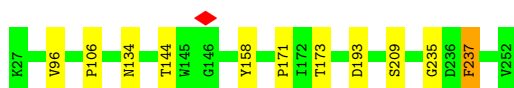
- Molecule 69: 40S ribosomal protein S19a



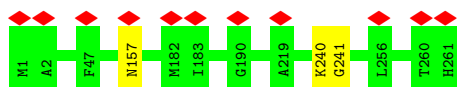
- Molecule 70: 40S ribosomal protein S5a



- Molecule 71: 60S ribosomal protein L7

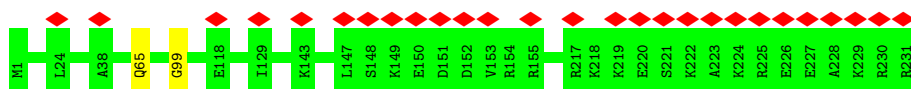


- Molecule 72: 40S ribosomal protein S4



- Molecule 73: 40S ribosomal protein S6

Chain AG:  12% 99%



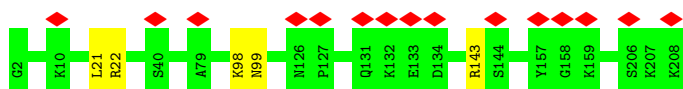
- Molecule 74: 40S ribosomal protein S7

Chain AH:  13% 96%



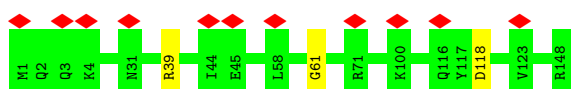
- Molecule 75: 40S ribosomal protein S8

Chain AI:  7% 98%



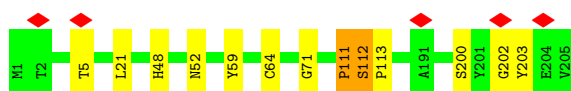
- Molecule 76: 40S ribosomal protein S16

Chain AQ:  7% 98%

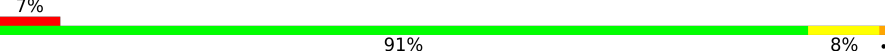


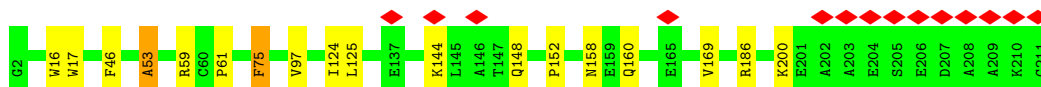
- Molecule 77: 60S ribosomal protein L13a

Chain CO:  94% 5%



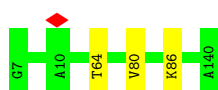
- Molecule 78: 60S ribosomal protein L13

Chain CL:  7% 91% 8%

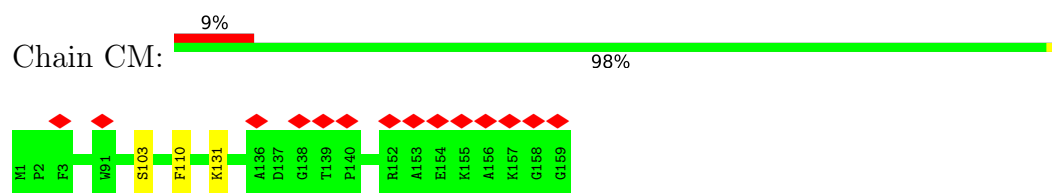


- Molecule 79: 60S ribosomal protein L23

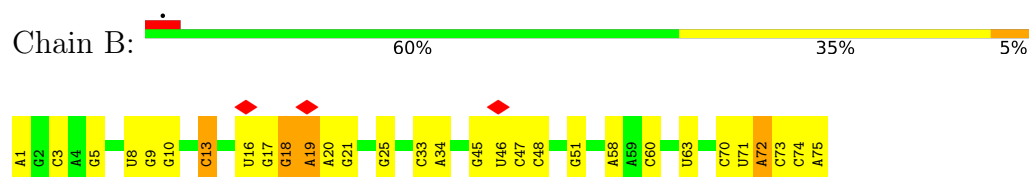
Chain CV:  98%



- Molecule 80: 60S ribosomal protein L14



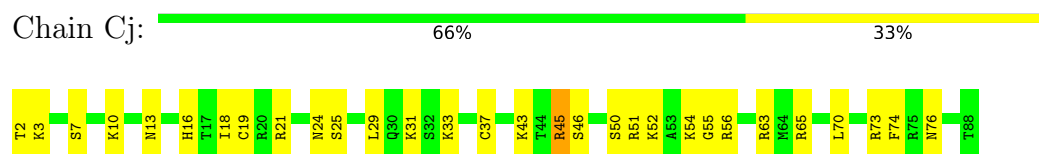
- Molecule 81: P-tRNA



- Molecule 82: mRNA



- Molecule 83: Probable 60S ribosomal protein L37-B



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	10392	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING ONLY	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	80	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	0.643	Depositor
Minimum map value	-0.491	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.020	Depositor
Recommended contour level	0.035	Depositor
Map size (\AA)	426.00003, 426.00003, 426.00003	wwPDB
Map dimensions	400, 400, 400	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (\AA)	1.065, 1.065, 1.065	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	AA	0.33	0/1777	0.62	1/2422 (0.0%)
2	CA	0.78	2/1970 (0.1%)	0.81	0/2635
3	AB	0.31	0/1825	0.64	0/2448
4	CB	0.69	0/3356	0.84	4/4494 (0.1%)
5	AC	0.34	0/1785	0.66	2/2415 (0.1%)
6	CC	0.70	4/3163 (0.1%)	0.83	7/4253 (0.2%)
7	Ag	0.30	0/2574	0.58	0/3506
8	AU	0.31	0/825	0.57	0/1111
9	AO	0.35	0/1016	0.71	0/1364
10	AX	0.42	0/1152	0.66	0/1540
11	AM	0.29	0/937	0.65	1/1260 (0.1%)
12	AS	0.31	0/1146	0.71	3/1535 (0.2%)
13	Ad	0.37	0/443	0.71	0/589
14	AN	0.38	0/1225	0.63	0/1641
15	AL	0.40	0/1296	0.60	0/1725
16	AR	0.31	0/993	0.63	0/1333
17	AP	0.31	0/1036	0.65	0/1383
18	AV	0.34	0/622	0.61	0/835
19	AY	0.31	0/1032	0.62	0/1373
20	AZ	0.31	0/616	0.67	2/826 (0.2%)
21	Aa	0.43	0/883	0.68	0/1184
22	Ab	0.30	0/668	0.61	0/898
23	AD	0.34	0/1808	0.66	0/2427
24	Ae	0.33	0/475	0.68	1/625 (0.2%)
25	Af	0.32	0/672	0.62	0/887
26	AJ	0.33	0/1526	0.65	1/2037 (0.0%)
27	Ca	0.73	1/1235 (0.1%)	0.87	2/1640 (0.1%)
28	CN	0.89	3/1750 (0.2%)	0.91	1/2335 (0.0%)
29	CI	0.41	0/1827	0.63	2/2447 (0.1%)
30	CD	0.38	0/2379	0.62	2/3196 (0.1%)
31	CQ	0.65	1/1544 (0.1%)	0.76	0/2069
32	CR	0.48	1/1703 (0.1%)	0.62	0/2255
33	CS	0.54	0/1491	0.75	1/1998 (0.1%)
34	CT	0.61	0/1326	0.87	6/1773 (0.3%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
35	CP	0.76	0/1529	0.80	2/2042 (0.1%)
36	CX	0.44	0/1001	0.67	1/1348 (0.1%)
37	CY	0.50	0/1094	0.63	0/1456
38	CZ	0.39	1/1141 (0.1%)	0.60	2/1517 (0.1%)
39	Cr	0.55	1/1069 (0.1%)	0.94	2/1432 (0.1%)
40	Ch	0.40	0/1024	0.64	0/1353
41	Cb	0.49	0/628	0.89	2/832 (0.2%)
42	Cc	0.38	0/779	0.65	1/1048 (0.1%)
43	Cd	0.69	0/939	0.76	0/1262
44	Ce	0.94	2/1132 (0.2%)	0.98	3/1508 (0.2%)
45	Cf	0.66	0/1270	0.86	2/1696 (0.1%)
46	Ci	0.38	0/944	0.73	0/1250
47	Ck	0.37	0/583	0.66	1/774 (0.1%)
48	Cl	0.74	0/445	0.95	1/589 (0.2%)
49	Cm	0.37	0/435	0.60	0/575
50	Cn	0.55	0/237	0.80	0/300
51	Cp	0.70	1/719 (0.1%)	0.74	0/954
52	Co	0.53	0/887	0.69	0/1162
53	CJ	0.32	0/1494	0.67	1/2001 (0.0%)
54	CH	0.39	0/1519	0.66	1/2042 (0.0%)
55	CE	0.38	0/1883	0.75	3/2514 (0.1%)
56	CG	0.38	0/1968	0.66	1/2637 (0.0%)
57	A9	1.05	0/714	1.39	7/1112 (0.6%)
58	A7	1.05	9/2854 (0.3%)	1.38	41/4447 (0.9%)
59	A8	1.58	29/2932 (1.0%)	2.00	170/4568 (3.7%)
60	Cz	0.31	0/1727	0.70	2/2308 (0.1%)
61	B2	1.30	34/43887 (0.1%)	1.20	319/68161 (0.5%)
62	A5	1.62	1753/86239 (2.0%)	1.90	4119/134149 (3.1%)
63	Ac	0.29	0/502	0.61	0/670
64	AW	0.37	0/1046	0.59	1/1402 (0.1%)
65	CW	0.60	0/495	0.72	0/658
66	Cg	0.60	0/863	0.84	3/1152 (0.3%)
67	CU	0.33	0/828	0.62	1/1110 (0.1%)
68	AK	0.35	0/786	0.64	2/1064 (0.2%)
69	AT	0.35	0/1060	0.87	15/1421 (1.1%)
70	AF	1.95	2/1510 (0.1%)	0.75	5/2026 (0.2%)
71	CF	0.71	0/1931	0.81	2/2587 (0.1%)
72	AE	0.30	0/2096	0.58	0/2819
73	AG	0.28	0/1891	0.54	0/2519
74	AH	0.32	0/1593	0.68	1/2145 (0.0%)
75	AI	0.35	0/1689	0.67	1/2250 (0.0%)
76	AQ	0.33	0/1202	0.70	1/1608 (0.1%)
77	CO	0.69	0/1700	0.80	1/2277 (0.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
78	CL	0.60	2/1726 (0.1%)	0.86	1/2308 (0.0%)
79	CV	0.61	0/1014	0.71	0/1362
80	CM	0.39	0/1326	0.67	0/1780
81	B	0.56	0/1796	1.21	11/2800 (0.4%)
82	v	0.52	0/283	1.10	0/439
83	Cj	0.57	0/707	0.68	0/932
All	All	1.20	1846/235193 (0.8%)	1.41	4762/344825 (1.4%)

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	CA	0	9
3	AB	0	2
4	CB	0	9
5	AC	0	1
6	CC	0	6
8	AU	0	1
10	AX	0	2
12	AS	0	1
13	Ad	0	2
21	Aa	0	3
23	AD	0	2
24	Ae	0	2
26	AJ	0	2
27	Ca	0	8
28	CN	0	11
29	CI	0	2
30	CD	0	4
31	CQ	0	5
32	CR	0	5
33	CS	0	10
34	CT	0	5
35	CP	0	6
39	Cr	0	11
41	Cb	0	5
43	Cd	0	4
44	Ce	0	7
45	Cf	0	4
46	Ci	0	4

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Mol	Chain	#Chirality outliers	#Planarity outliers
47	Ck	0	1
48	Cl	0	3
50	Cn	0	1
51	Cp	0	1
52	Co	0	3
53	CJ	0	1
55	CE	0	7
56	CG	0	7
63	Ac	0	1
65	CW	0	2
66	Cg	0	2
69	AT	0	3
70	AF	0	1
71	CF	0	3
72	AE	0	2
73	AG	0	1
74	AH	0	3
75	AI	0	1
77	CO	0	8
78	CL	0	9
80	CM	0	1
All	All	0	194

All (1846) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
61	B2	1727	U	C2-N3	115.56	2.18	1.37
61	B2	1727	U	N1-C2	91.04	2.20	1.38
61	B2	1727	U	N3-C4	90.77	2.20	1.38
61	B2	1727	U	N1-C6	84.49	2.13	1.38
61	B2	1727	U	C4-C5	80.97	2.16	1.43
70	AF	190	ILE	CB-CG1	74.39	3.62	1.54
61	B2	1727	U	C5-C6	72.44	1.99	1.34
62	A5	43	A	N9-C4	-14.53	1.29	1.37
62	A5	1549	A	N9-C4	-13.62	1.29	1.37
62	A5	1114	A	N9-C4	-13.19	1.29	1.37
62	A5	2529	G	N7-C5	-12.53	1.31	1.39
59	A8	101	A	N7-C5	-12.30	1.31	1.39
62	A5	1674	A	C5-C4	-12.18	1.30	1.38
62	A5	1165	A	N9-C4	-11.68	1.30	1.37
62	A5	2524	A	N7-C5	-11.64	1.32	1.39
62	A5	1674	A	C5-C6	-11.54	1.30	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	809	G	N7-C5	-11.18	1.32	1.39
62	A5	3507	A	N7-C5	-11.18	1.32	1.39
62	A5	1129	A	N7-C5	-10.80	1.32	1.39
62	A5	798	C	N1-C6	-10.79	1.30	1.37
62	A5	810	A	N3-C4	-10.79	1.28	1.34
62	A5	369	A	N9-C4	-10.78	1.31	1.37
62	A5	2791	A	N7-C5	-10.77	1.32	1.39
62	A5	797	A	N3-C4	-10.75	1.28	1.34
62	A5	797	A	N9-C8	-10.71	1.29	1.37
62	A5	363	G	N7-C5	-10.69	1.32	1.39
62	A5	2791	A	C5-C6	-10.66	1.31	1.41
62	A5	1129	A	N9-C4	-10.60	1.31	1.37
62	A5	1129	A	N3-C4	-10.57	1.28	1.34
62	A5	2740	C	N1-C6	-10.55	1.30	1.37
62	A5	810	A	N7-C5	-10.54	1.32	1.39
62	A5	102	G	N7-C5	-10.51	1.32	1.39
62	A5	3514	C	N3-C4	-10.49	1.26	1.33
62	A5	63	G	N7-C5	-10.32	1.33	1.39
62	A5	1383	A	N9-C4	10.28	1.44	1.37
62	A5	802	G	N7-C5	-10.24	1.33	1.39
62	A5	1001	A	N9-C4	-10.22	1.31	1.37
62	A5	2529	G	C5-C6	-10.17	1.32	1.42
62	A5	3489	A	N7-C5	-10.16	1.33	1.39
62	A5	998	G	N7-C5	-10.09	1.33	1.39
62	A5	43	A	N3-C4	-9.97	1.28	1.34
62	A5	2518	A	N7-C5	-9.93	1.33	1.39
62	A5	1677	U	C4-C5	-9.83	1.34	1.43
62	A5	2566	A	N7-C5	-9.83	1.33	1.39
62	A5	1005	G	C6-N1	-9.82	1.32	1.39
62	A5	2739	A	N7-C5	-9.82	1.33	1.39
62	A5	1084	A	N7-C5	-9.81	1.33	1.39
62	A5	2546	G	N7-C5	-9.77	1.33	1.39
62	A5	1138	C	N1-C6	-9.70	1.31	1.37
62	A5	2772	G	C5-C4	-9.63	1.31	1.38
62	A5	2526	A	C5-C6	-9.61	1.32	1.41
62	A5	2735	A	N7-C5	-9.59	1.33	1.39
62	A5	1736	G	N7-C5	-9.56	1.33	1.39
62	A5	1620	A	N7-C5	-9.55	1.33	1.39
62	A5	816	A	N9-C4	-9.54	1.32	1.37
62	A5	3488	G	C5-C4	-9.51	1.31	1.38
62	A5	1020	A	N7-C5	-9.50	1.33	1.39
62	A5	797	A	N9-C4	-9.48	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	3477	A	N9-C4	-9.40	1.32	1.37
62	A5	782	G	N7-C5	-9.39	1.33	1.39
62	A5	1123	C	N3-C4	-9.39	1.27	1.33
62	A5	2163	A	N7-C5	-9.36	1.33	1.39
62	A5	96	G	C5-C4	-9.35	1.31	1.38
62	A5	1005	G	N1-C2	-9.33	1.30	1.37
62	A5	998	G	N3-C4	-9.31	1.28	1.35
62	A5	1080	G	N9-C8	-9.29	1.31	1.37
62	A5	1618	A	N7-C5	-9.27	1.33	1.39
62	A5	3489	A	C5-C6	-9.26	1.32	1.41
62	A5	59	G	C6-N1	-9.25	1.33	1.39
62	A5	376	G	N7-C5	-9.25	1.33	1.39
62	A5	1679	U	C2-N3	-9.22	1.31	1.37
62	A5	3521	A	N9-C4	-9.21	1.32	1.37
62	A5	810	A	N9-C4	-9.21	1.32	1.37
62	A5	1114	A	N3-C4	-9.20	1.29	1.34
62	A5	2746	A	N7-C5	-9.20	1.33	1.39
62	A5	2519	U	C2-N3	-9.19	1.31	1.37
62	A5	1361	G	N7-C5	-9.18	1.33	1.39
62	A5	1366	G	C5-C6	-9.16	1.33	1.42
62	A5	1129	A	N9-C8	-9.15	1.30	1.37
62	A5	49	A	N7-C5	-9.15	1.33	1.39
62	A5	2730	A	C5-C6	-9.14	1.32	1.41
62	A5	1356	G	C5-C6	-9.13	1.33	1.42
62	A5	2524	A	C5-C6	-9.13	1.32	1.41
62	A5	802	G	C5-C6	-9.12	1.33	1.42
62	A5	1080	G	C8-N7	-9.12	1.25	1.30
62	A5	1009	G	N7-C5	-9.10	1.33	1.39
62	A5	2730	A	C5-C4	-9.10	1.32	1.38
62	A5	1121	A	N7-C5	-9.06	1.33	1.39
62	A5	39	A	N9-C4	-9.04	1.32	1.37
62	A5	3355	G	N7-C5	-9.02	1.33	1.39
62	A5	1526	G	N7-C5	-9.01	1.33	1.39
62	A5	81	A	N9-C4	-8.98	1.32	1.37
62	A5	1547	A	N7-C5	-8.96	1.33	1.39
62	A5	2777	A	N9-C4	-8.94	1.32	1.37
62	A5	374	C	N1-C6	-8.94	1.31	1.37
62	A5	378	G	N7-C5	-8.93	1.33	1.39
62	A5	2777	A	N7-C5	-8.93	1.33	1.39
62	A5	34	C	N1-C6	-8.92	1.31	1.37
62	A5	1611	G	N7-C5	-8.91	1.33	1.39
62	A5	1116	G	N7-C5	-8.87	1.33	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	2518	A	N9-C4	-8.86	1.32	1.37
62	A5	2768	A	N7-C5	-8.84	1.33	1.39
62	A5	1363	G	C5-C6	-8.83	1.33	1.42
62	A5	2772	G	C6-N1	-8.83	1.33	1.39
62	A5	1327	G	N9-C4	-8.79	1.30	1.38
62	A5	2510	A	C5-C6	-8.79	1.33	1.41
62	A5	3345	A	N7-C5	-8.79	1.33	1.39
62	A5	788	C	C4-C5	-8.78	1.35	1.43
62	A5	2755	G	N9-C8	-8.78	1.31	1.37
62	A5	1152	A	N3-C4	-8.77	1.29	1.34
62	A5	1682	G	N7-C5	-8.76	1.33	1.39
62	A5	1020	A	C5-C6	-8.75	1.33	1.41
62	A5	3497	G	N7-C5	-8.74	1.34	1.39
62	A5	1076	A	N7-C5	-8.74	1.34	1.39
62	A5	791	C	C4-C5	-8.72	1.35	1.43
62	A5	1153	G	N7-C5	-8.72	1.34	1.39
62	A5	3513	A	N9-C4	-8.71	1.32	1.37
62	A5	1120	A	C5-C6	-8.68	1.33	1.41
62	A5	1968	A	N9-C4	-8.67	1.32	1.37
62	A5	797	A	N7-C5	-8.65	1.34	1.39
62	A5	1019	U	C2-N3	-8.64	1.31	1.37
62	A5	2529	G	C5-C4	-8.62	1.32	1.38
62	A5	2519	U	N3-C4	-8.59	1.30	1.38
62	A5	1116	G	N9-C8	-8.59	1.31	1.37
62	A5	1141	G	N7-C5	-8.59	1.34	1.39
62	A5	2731	G	N7-C5	-8.57	1.34	1.39
62	A5	2733	G	C5-C6	-8.57	1.33	1.42
62	A5	2754	G	N9-C4	-8.57	1.31	1.38
62	A5	800	C	C4-C5	-8.55	1.36	1.43
62	A5	802	G	C6-N1	-8.55	1.33	1.39
62	A5	1666	A	N7-C5	-8.55	1.34	1.39
62	A5	2161	G	N7-C5	-8.55	1.34	1.39
62	A5	55	U	C2-N3	-8.54	1.31	1.37
62	A5	1366	G	N9-C4	-8.53	1.31	1.38
62	A5	1086	C	N3-C4	-8.52	1.27	1.33
62	A5	38	A	N9-C4	-8.52	1.32	1.37
62	A5	2563	G	N7-C5	-8.52	1.34	1.39
62	A5	789	G	N7-C5	-8.51	1.34	1.39
62	A5	1006	A	N9-C4	-8.51	1.32	1.37
62	A5	1109	G	C6-N1	-8.50	1.33	1.39
62	A5	2674	A	N9-C4	-8.50	1.32	1.37
62	A5	789	G	C5-C6	-8.50	1.33	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	2168	G	N7-C5	-8.50	1.34	1.39
62	A5	2167	G	N7-C5	-8.49	1.34	1.39
62	A5	3343	A	N7-C5	-8.48	1.34	1.39
62	A5	3488	G	N7-C5	-8.47	1.34	1.39
62	A5	3141	A	N9-C4	-8.45	1.32	1.37
62	A5	1128	C	N3-C4	-8.43	1.28	1.33
62	A5	348	A	N7-C5	-8.41	1.34	1.39
62	A5	377	U	N1-C2	-8.41	1.30	1.38
62	A5	1363	G	C5-C4	-8.41	1.32	1.38
62	A5	820	A	C5-C6	-8.40	1.33	1.41
62	A5	3403	G	C6-N1	-8.40	1.33	1.39
62	A5	102	G	C5-C6	-8.39	1.33	1.42
62	A5	3499	G	N7-C5	-8.39	1.34	1.39
62	A5	3476	G	N7-C5	-8.38	1.34	1.39
62	A5	2740	C	C4-C5	-8.37	1.36	1.43
62	A5	1002	C	N1-C6	-8.35	1.32	1.37
62	A5	345	A	N7-C5	-8.34	1.34	1.39
62	A5	3343	A	N9-C4	-8.32	1.32	1.37
62	A5	3507	A	C5-C6	-8.32	1.33	1.41
62	A5	3499	G	C6-N1	-8.31	1.33	1.39
62	A5	383	A	N7-C5	-8.31	1.34	1.39
62	A5	370	A	N7-C5	-8.30	1.34	1.39
62	A5	1119	C	N3-C4	-8.30	1.28	1.33
62	A5	382	G	N3-C4	-8.30	1.29	1.35
62	A5	2768	A	C5-C6	-8.29	1.33	1.41
62	A5	1076	A	N3-C4	-8.29	1.29	1.34
62	A5	1123	C	C2-N3	-8.28	1.29	1.35
62	A5	1152	A	N7-C5	-8.27	1.34	1.39
62	A5	378	G	N1-C2	-8.27	1.31	1.37
62	A5	3345	A	C5-C6	-8.26	1.33	1.41
62	A5	2564	U	C2-N3	-8.25	1.31	1.37
62	A5	1618	A	C5-C6	-8.25	1.33	1.41
62	A5	357	C	N1-C6	-8.24	1.32	1.37
62	A5	1615	G	N7-C5	-8.24	1.34	1.39
62	A5	1681	G	N7-C5	-8.23	1.34	1.39
62	A5	2769	G	N7-C5	-8.23	1.34	1.39
62	A5	807	A	N9-C4	-8.23	1.32	1.37
62	A5	794	G	N7-C5	-8.22	1.34	1.39
62	A5	1757	A	N7-C5	-8.21	1.34	1.39
62	A5	801	G	N7-C5	-8.21	1.34	1.39
62	A5	802	G	N3-C4	-8.19	1.29	1.35
62	A5	2701	G	N9-C4	-8.17	1.31	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	1153	G	N9-C4	-8.16	1.31	1.38
62	A5	1111	C	N1-C6	-8.16	1.32	1.37
62	A5	27	A	N9-C4	-8.16	1.32	1.37
62	A5	46	C	C5-C6	-8.15	1.27	1.34
62	A5	1526	G	C5-C6	-8.14	1.34	1.42
62	A5	1125	A	N7-C5	-8.14	1.34	1.39
62	A5	797	A	C6-N1	-8.12	1.29	1.35
2	CA	194	ASN	CA-CB	-8.12	1.32	1.53
62	A5	1012	G	C5-C4	-8.12	1.32	1.38
78	CL	16	TRP	CB-CG	8.10	1.64	1.50
62	A5	998	G	C5-C6	-8.10	1.34	1.42
62	A5	3612	A	N7-C5	-8.10	1.34	1.39
62	A5	1356	G	N7-C5	-8.09	1.34	1.39
62	A5	2518	A	C5-C4	-8.07	1.33	1.38
62	A5	2790	G	C6-N1	-8.07	1.33	1.39
62	A5	1610	A	N7-C5	-8.06	1.34	1.39
62	A5	1129	A	C5-C4	-8.06	1.33	1.38
62	A5	378	G	C5-C4	-8.05	1.32	1.38
62	A5	2750	A	N9-C4	-8.04	1.33	1.37
62	A5	2526	A	N7-C5	-8.04	1.34	1.39
62	A5	3492	G	N7-C5	-8.02	1.34	1.39
62	A5	1327	G	C5-C6	-8.02	1.34	1.42
62	A5	1373	A	N9-C4	-8.02	1.33	1.37
62	A5	2772	G	N9-C8	-8.00	1.32	1.37
62	A5	96	G	N1-C2	-7.99	1.31	1.37
62	A5	2207	A	N9-C4	-7.99	1.33	1.37
62	A5	1162	A	N7-C5	-7.98	1.34	1.39
62	A5	63	G	C5-C6	-7.98	1.34	1.42
62	A5	3142	G	C5-C6	-7.98	1.34	1.42
62	A5	381	G	N7-C5	-7.97	1.34	1.39
62	A5	3346	G	C6-N1	-7.97	1.33	1.39
62	A5	3153	G	N7-C5	-7.96	1.34	1.39
62	A5	2218	G	C6-N1	-7.96	1.33	1.39
62	A5	2698	A	N9-C4	-7.96	1.33	1.37
62	A5	1064	G	N7-C5	-7.96	1.34	1.39
62	A5	1361	G	N9-C8	-7.96	1.32	1.37
62	A5	2531	A	N7-C5	-7.95	1.34	1.39
62	A5	797	A	C5-C4	-7.95	1.33	1.38
62	A5	1391	A	N7-C5	-7.95	1.34	1.39
62	A5	3505	U	N3-C4	-7.95	1.31	1.38
62	A5	2510	A	N7-C5	-7.95	1.34	1.39
62	A5	31	C	N3-C4	-7.93	1.28	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	1117	A	N7-C5	-7.93	1.34	1.39
62	A5	1134	G	C6-N1	-7.93	1.34	1.39
62	A5	1549	A	N3-C4	-7.93	1.30	1.34
62	A5	370	A	N9-C4	-7.92	1.33	1.37
62	A5	2742	G	N7-C5	-7.92	1.34	1.39
62	A5	1372	A	N7-C5	-7.91	1.34	1.39
62	A5	1674	A	N9-C4	-7.90	1.33	1.37
62	A5	2746	A	C5-C6	-7.89	1.33	1.41
62	A5	3881	A	C5-C4	-7.89	1.33	1.38
62	A5	3521	A	N7-C5	-7.88	1.34	1.39
62	A5	2512	U	N3-C4	-7.88	1.31	1.38
62	A5	810	A	C5-C6	-7.86	1.33	1.41
62	A5	1016	A	C5-C4	-7.86	1.33	1.38
62	A5	3130	G	N7-C5	-7.86	1.34	1.39
62	A5	801	G	C5-C4	-7.85	1.32	1.38
62	A5	1124	G	N1-C2	-7.84	1.31	1.37
62	A5	2771	G	N3-C4	-7.84	1.29	1.35
62	A5	1649	G	C5-C6	-7.84	1.34	1.42
62	A5	1645	G	C6-N1	-7.83	1.34	1.39
62	A5	1102	G	N7-C5	-7.82	1.34	1.39
62	A5	2217	A	N7-C5	-7.82	1.34	1.39
62	A5	1008	A	N9-C4	-7.80	1.33	1.37
62	A5	991	A	N7-C5	-7.79	1.34	1.39
61	B2	1218	G	N7-C5	-7.79	1.34	1.39
62	A5	102	G	C5-C4	-7.78	1.32	1.38
62	A5	308	G	N7-C5	-7.77	1.34	1.39
62	A5	2745	A	N7-C5	-7.77	1.34	1.39
62	A5	364	U	C2-N3	-7.76	1.32	1.37
62	A5	3880	A	N7-C5	-7.75	1.34	1.39
62	A5	384	A	N7-C5	-7.75	1.34	1.39
62	A5	3522	A	N7-C5	-7.75	1.34	1.39
62	A5	786	C	N1-C6	-7.74	1.32	1.37
62	A5	1150	G	N9-C4	-7.74	1.31	1.38
62	A5	1366	G	N7-C5	-7.74	1.34	1.39
62	A5	1120	A	N9-C4	-7.74	1.33	1.37
62	A5	1162	A	C5-C6	-7.74	1.34	1.41
62	A5	2757	U	N3-C4	-7.74	1.31	1.38
62	A5	3623	G	N7-C5	-7.73	1.34	1.39
62	A5	3141	A	C6-N1	-7.72	1.30	1.35
62	A5	1361	G	C5-C4	-7.72	1.32	1.38
62	A5	1614	A	N7-C5	-7.71	1.34	1.39
62	A5	791	C	N1-C6	-7.71	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	809	G	C6-N1	-7.70	1.34	1.39
62	A5	810	A	C6-N1	-7.70	1.30	1.35
62	A5	47	A	N9-C4	-7.70	1.33	1.37
62	A5	3346	G	N1-C2	-7.69	1.31	1.37
62	A5	1115	A	N9-C4	-7.68	1.33	1.37
62	A5	3488	G	C5-C6	-7.68	1.34	1.42
62	A5	1150	G	N7-C5	-7.68	1.34	1.39
62	A5	1677	U	C5-C6	-7.68	1.27	1.34
62	A5	2225	A	C5-C6	-7.68	1.34	1.41
62	A5	1358	U	C2-N3	-7.68	1.32	1.37
62	A5	1677	U	N1-C2	-7.67	1.31	1.38
62	A5	1358	U	N1-C6	-7.67	1.31	1.38
62	A5	1010	A	N7-C5	-7.66	1.34	1.39
62	A5	3521	A	C5-C6	-7.65	1.34	1.41
62	A5	3488	G	C6-N1	-7.64	1.34	1.39
62	A5	2779	A	C5-C6	-7.63	1.34	1.41
62	A5	1611	G	C5-C6	-7.62	1.34	1.42
62	A5	789	G	C5-C4	-7.62	1.33	1.38
62	A5	2160	C	N3-C4	-7.61	1.28	1.33
62	A5	44	A	C5-C6	-7.59	1.34	1.41
62	A5	1678	C	N1-C6	-7.58	1.32	1.37
59	A8	41	G	N7-C5	-7.57	1.34	1.39
62	A5	809	G	N3-C4	-7.56	1.30	1.35
62	A5	2740	C	C2-N3	-7.56	1.29	1.35
62	A5	3343	A	N3-C4	-7.56	1.30	1.34
62	A5	2723	A	N3-C4	-7.56	1.30	1.34
62	A5	3482	G	C5-C6	-7.55	1.34	1.42
62	A5	2659	A	N9-C4	-7.54	1.33	1.37
62	A5	3137	A	N7-C5	-7.54	1.34	1.39
62	A5	993	A	N7-C5	-7.53	1.34	1.39
62	A5	2517	A	N7-C5	-7.53	1.34	1.39
62	A5	3403	G	N1-C2	-7.52	1.31	1.37
62	A5	54	U	C2-N3	-7.52	1.32	1.37
62	A5	383	A	C5-C4	-7.52	1.33	1.38
62	A5	1368	A	C5-C4	-7.52	1.33	1.38
62	A5	3142	G	N7-C5	-7.52	1.34	1.39
62	A5	1065	A	N3-C4	-7.52	1.30	1.34
62	A5	99	A	N7-C5	-7.52	1.34	1.39
62	A5	1019	U	N3-C4	-7.51	1.31	1.38
62	A5	2221	G	N7-C5	-7.51	1.34	1.39
62	A5	1331	G	N7-C5	-7.51	1.34	1.39
62	A5	1125	A	C5-C6	-7.51	1.34	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	1106	A	C5-C4	-7.50	1.33	1.38
62	A5	3507	A	N3-C4	-7.49	1.30	1.34
62	A5	1728	G	C5-C6	-7.49	1.34	1.42
62	A5	359	G	N9-C4	-7.48	1.31	1.38
62	A5	1606	G	N7-C5	-7.48	1.34	1.39
62	A5	99	A	C5-C4	-7.48	1.33	1.38
62	A5	102	G	N3-C4	-7.48	1.30	1.35
62	A5	2525	C	N1-C6	-7.47	1.32	1.37
62	A5	2774	G	C5-C4	-7.47	1.33	1.38
62	A5	2154	A	C5-C4	-7.46	1.33	1.38
62	A5	49	A	C6-N1	-7.45	1.30	1.35
62	A5	2735	A	N9-C4	-7.45	1.33	1.37
62	A5	3620	G	N7-C5	-7.45	1.34	1.39
62	A5	1610	A	C5-C6	-7.43	1.34	1.41
62	A5	801	G	C5-C6	-7.43	1.34	1.42
61	B2	1113	A	N9-C4	-7.42	1.33	1.37
62	A5	377	U	N3-C4	-7.41	1.31	1.38
62	A5	90	G	N3-C4	-7.41	1.30	1.35
62	A5	802	G	C5-C4	-7.40	1.33	1.38
62	A5	3482	G	N7-C5	-7.40	1.34	1.39
62	A5	1684	G	C5-C4	-7.39	1.33	1.38
62	A5	370	A	N3-C4	-7.39	1.30	1.34
62	A5	1136	A	N9-C4	-7.39	1.33	1.37
62	A5	1357	C	C4-C5	-7.38	1.37	1.43
62	A5	3143	U	N3-C4	-7.38	1.31	1.38
62	A5	1669	G	N3-C4	-7.37	1.30	1.35
62	A5	381	G	N9-C4	-7.36	1.32	1.38
62	A5	1679	U	N3-C4	-7.36	1.31	1.38
62	A5	381	G	C5-C6	-7.35	1.35	1.42
59	A8	28	A	N7-C5	-7.35	1.34	1.39
62	A5	38	A	N7-C5	-7.33	1.34	1.39
62	A5	2678	G	N7-C5	-7.32	1.34	1.39
62	A5	1109	G	N1-C2	-7.32	1.31	1.37
62	A5	359	G	N3-C4	-7.32	1.30	1.35
62	A5	1674	A	N3-C4	-7.32	1.30	1.34
62	A5	2726	A	N3-C4	-7.32	1.30	1.34
62	A5	1645	G	C5-C6	-7.32	1.35	1.42
62	A5	3518	A	N7-C5	-7.32	1.34	1.39
62	A5	1041	A	N9-C4	-7.31	1.33	1.37
62	A5	2168	G	C6-N1	-7.31	1.34	1.39
62	A5	818	A	N7-C5	-7.31	1.34	1.39
62	A5	2513	G	N7-C5	-7.30	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	300	A	N9-C4	-7.30	1.33	1.37
62	A5	1756	G	N7-C5	-7.30	1.34	1.39
62	A5	383	A	C6-N1	-7.29	1.30	1.35
62	A5	3140	G	N7-C5	-7.29	1.34	1.39
62	A5	3343	A	C5-C6	-7.28	1.34	1.41
62	A5	1006	A	N3-C4	-7.27	1.30	1.34
62	A5	1078	G	N7-C5	-7.26	1.34	1.39
62	A5	1079	U	C4-C5	-7.26	1.37	1.43
62	A5	1648	A	N3-C4	-7.25	1.30	1.34
62	A5	3349	A	N9-C4	-7.25	1.33	1.37
62	A5	2731	G	N3-C4	-7.24	1.30	1.35
62	A5	343	A	N9-C4	-7.24	1.33	1.37
62	A5	358	C	N1-C6	-7.24	1.32	1.37
62	A5	991	A	C5-C6	-7.24	1.34	1.41
62	A5	60	G	N7-C5	-7.24	1.34	1.39
62	A5	2803	A	C5-C6	-7.22	1.34	1.41
62	A5	372	U	N3-C4	-7.22	1.31	1.38
62	A5	1112	G	N7-C5	-7.22	1.34	1.39
62	A5	1022	A	C5-C6	-7.21	1.34	1.41
62	A5	2546	G	C6-N1	-7.20	1.34	1.39
31	CQ	174	PHE	CB-CG	-7.20	1.39	1.51
62	A5	2720	U	C2-N3	-7.20	1.32	1.37
62	A5	802	G	N9-C4	-7.19	1.32	1.38
62	A5	2214	G	N7-C5	-7.19	1.34	1.39
62	A5	43	A	C5-C4	-7.18	1.33	1.38
62	A5	1125	A	N9-C4	-7.18	1.33	1.37
62	A5	1152	A	C5-C4	-7.17	1.33	1.38
62	A5	1875	G	N7-C5	-7.16	1.34	1.39
62	A5	3402	C	C4-C5	-7.16	1.37	1.43
62	A5	3499	G	N1-C2	-7.16	1.32	1.37
62	A5	1675	G	N9-C4	-7.15	1.32	1.38
62	A5	3489	A	N3-C4	-7.15	1.30	1.34
62	A5	3881	A	C5-C6	-7.15	1.34	1.41
62	A5	3881	A	N9-C4	-7.15	1.33	1.37
62	A5	65	A	N7-C5	-7.14	1.34	1.39
62	A5	1065	A	N7-C5	-7.14	1.34	1.39
62	A5	32	C	C4-C5	-7.14	1.37	1.43
62	A5	1356	G	C6-N1	-7.14	1.34	1.39
62	A5	2222	G	C5-C4	-7.14	1.33	1.38
6	CC	105	PHE	CB-CG	-7.13	1.39	1.51
62	A5	800	C	N1-C6	-7.12	1.32	1.37
62	A5	1649	G	N7-C5	-7.12	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	2221	G	C5-C4	-7.12	1.33	1.38
62	A5	46	C	C4-C5	-7.11	1.37	1.43
62	A5	2208	G	N3-C4	-7.11	1.30	1.35
62	A5	377	U	C2-N3	-7.11	1.32	1.37
62	A5	2195	A	N9-C4	-7.11	1.33	1.37
62	A5	1678	C	C5-C6	-7.10	1.28	1.34
62	A5	3172	A	N7-C5	-7.10	1.34	1.39
62	A5	2736	A	N7-C5	-7.10	1.34	1.39
62	A5	2184	G	N7-C5	-7.09	1.34	1.39
62	A5	3474	G	N7-C5	-7.09	1.34	1.39
62	A5	1143	U	N3-C4	-7.09	1.32	1.38
62	A5	1553	C	N3-C4	-7.09	1.28	1.33
62	A5	1767	A	N9-C4	-7.08	1.33	1.37
62	A5	1022	A	N7-C5	-7.07	1.35	1.39
62	A5	1777	A	N3-C4	-7.07	1.30	1.34
62	A5	1645	G	N1-C2	-7.07	1.32	1.37
62	A5	1266	A	N7-C5	-7.06	1.35	1.39
62	A5	1110	G	N7-C5	-7.06	1.35	1.39
62	A5	993	A	C5-C6	-7.05	1.34	1.41
62	A5	1076	A	C6-N1	-7.05	1.30	1.35
62	A5	2517	A	C6-N1	-7.05	1.30	1.35
62	A5	49	A	N1-C2	-7.04	1.28	1.34
62	A5	1017	A	N3-C4	-7.04	1.30	1.34
62	A5	1136	A	C5-C6	-7.04	1.34	1.41
62	A5	853	G	N7-C5	-7.04	1.35	1.39
62	A5	1674	A	C6-N1	-7.03	1.30	1.35
62	A5	1678	C	C4-C5	-7.03	1.37	1.43
59	A8	39	A	C5-C6	-7.03	1.34	1.41
62	A5	1009	G	C5-C4	-7.03	1.33	1.38
62	A5	2738	C	N1-C6	-7.02	1.32	1.37
62	A5	2742	G	C5-C6	-7.02	1.35	1.42
62	A5	1777	A	N9-C4	-7.02	1.33	1.37
62	A5	1129	A	C5-C6	-7.00	1.34	1.41
62	A5	1079	U	N1-C2	-6.99	1.32	1.38
62	A5	1736	G	C5-C6	-6.99	1.35	1.42
62	A5	2779	A	C5-C4	-6.99	1.33	1.38
62	A5	796	A	N9-C4	-6.98	1.33	1.37
62	A5	38	A	C5-C6	-6.97	1.34	1.41
62	A5	1614	A	C8-N7	-6.97	1.26	1.31
62	A5	1645	G	N7-C5	-6.96	1.35	1.39
62	A5	2163	A	C5-C6	-6.96	1.34	1.41
62	A5	1134	G	N3-C4	-6.96	1.30	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	1005	G	N7-C5	-6.96	1.35	1.39
62	A5	787	C	N1-C6	-6.95	1.32	1.37
62	A5	2167	G	C5-C6	-6.95	1.35	1.42
62	A5	376	G	N3-C4	-6.95	1.30	1.35
62	A5	1327	G	C5-C4	-6.94	1.33	1.38
62	A5	2678	G	C5-C6	-6.93	1.35	1.42
62	A5	3481	G	N1-C2	-6.93	1.32	1.37
62	A5	2212	A	N3-C4	-6.93	1.30	1.34
62	A5	430	G	N7-C5	-6.92	1.35	1.39
62	A5	1621	A	N7-C5	-6.92	1.35	1.39
62	A5	828	G	N7-C5	-6.92	1.35	1.39
62	A5	2747	G	N7-C5	-6.92	1.35	1.39
62	A5	1326	A	N7-C5	-6.92	1.35	1.39
62	A5	373	A	C5-C6	-6.91	1.34	1.41
78	CL	17	TRP	CA-C	-6.90	1.35	1.52
62	A5	1873	A	C5-C6	-6.90	1.34	1.41
62	A5	384	A	N3-C4	-6.90	1.30	1.34
62	A5	383	A	C5-C6	-6.90	1.34	1.41
62	A5	430	G	N9-C8	-6.90	1.33	1.37
62	A5	1373	A	C5-C6	-6.89	1.34	1.41
62	A5	987	G	C6-N1	-6.89	1.34	1.39
62	A5	3490	C	C4-C5	-6.89	1.37	1.43
62	A5	89	A	C5-C6	-6.89	1.34	1.41
62	A5	1555	G	N7-C5	-6.89	1.35	1.39
62	A5	978	G	N7-C5	-6.88	1.35	1.39
62	A5	1609	U	C4-C5	-6.88	1.37	1.43
62	A5	1674	A	N7-C5	-6.88	1.35	1.39
62	A5	1363	G	N7-C5	-6.88	1.35	1.39
62	A5	1547	A	C5-C6	-6.88	1.34	1.41
62	A5	3499	G	C5-C6	-6.87	1.35	1.42
62	A5	2754	G	C2-N3	-6.87	1.27	1.32
62	A5	3880	A	C5-C6	-6.87	1.34	1.41
62	A5	59	G	N7-C5	-6.86	1.35	1.39
62	A5	2771	G	N9-C4	-6.86	1.32	1.38
62	A5	1626	A	C5-C6	-6.86	1.34	1.41
62	A5	1117	A	C5-C6	-6.86	1.34	1.41
62	A5	798	C	C4-C5	-6.86	1.37	1.43
62	A5	1110	G	C6-N1	-6.85	1.34	1.39
62	A5	1363	G	C6-O6	-6.85	1.18	1.24
62	A5	796	A	N3-C4	-6.85	1.30	1.34
62	A5	1017	A	N7-C5	-6.85	1.35	1.39
62	A5	424	G	C2-N3	-6.85	1.27	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	1409	G	C6-N1	-6.85	1.34	1.39
62	A5	3609	A	C5-C4	-6.84	1.33	1.38
62	A5	1097	A	N7-C5	-6.84	1.35	1.39
62	A5	3481	G	C6-N1	-6.83	1.34	1.39
62	A5	2726	A	N9-C4	-6.83	1.33	1.37
62	A5	1120	A	C5-C4	-6.83	1.33	1.38
62	A5	2792	G	N7-C5	-6.83	1.35	1.39
62	A5	109	A	N7-C5	-6.82	1.35	1.39
62	A5	2790	G	N1-C2	-6.82	1.32	1.37
62	A5	1012	G	N7-C5	-6.82	1.35	1.39
62	A5	363	G	C5-C6	-6.82	1.35	1.42
62	A5	1009	G	N1-C2	-6.81	1.32	1.37
62	A5	1163	G	C6-N1	-6.81	1.34	1.39
62	A5	1686	A	N7-C5	-6.81	1.35	1.39
62	A5	67	A	N7-C5	-6.81	1.35	1.39
62	A5	1676	A	C5-C6	-6.81	1.34	1.41
62	A5	359	G	C6-N1	-6.80	1.34	1.39
62	A5	1719	G	N7-C5	-6.80	1.35	1.39
62	A5	3470	G	N7-C5	-6.80	1.35	1.39
62	A5	1096	A	C5-C4	-6.80	1.33	1.38
62	A5	383	A	N9-C4	-6.79	1.33	1.37
62	A5	1675	G	N3-C4	-6.79	1.30	1.35
62	A5	3882	C	C4-C5	-6.78	1.37	1.43
62	A5	2222	G	C5-C6	-6.78	1.35	1.42
62	A5	93	G	N3-C4	-6.78	1.30	1.35
62	A5	809	G	C5-C6	-6.78	1.35	1.42
62	A5	3476	G	N9-C8	-6.78	1.33	1.37
62	A5	441	A	C5-C6	-6.78	1.34	1.41
62	A5	1676	A	C6-N1	-6.77	1.30	1.35
62	A5	1009	G	C6-N1	-6.76	1.34	1.39
62	A5	1129	A	C6-N1	-6.76	1.30	1.35
62	A5	1021	U	C2-N3	-6.76	1.33	1.37
62	A5	1078	G	C5-C6	-6.76	1.35	1.42
62	A5	808	G	N7-C5	-6.76	1.35	1.39
62	A5	1012	G	N3-C4	-6.75	1.30	1.35
62	A5	354	A	N7-C5	-6.75	1.35	1.39
62	A5	3628	G	N7-C5	-6.75	1.35	1.39
62	A5	2746	A	N9-C4	-6.75	1.33	1.37
62	A5	1719	G	C8-N7	-6.74	1.26	1.30
62	A5	2777	A	C5-C6	-6.74	1.34	1.41
62	A5	1643	G	C5-C6	-6.73	1.35	1.42
58	A7	81	A	N7-C5	-6.73	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	94	C	C4-C5	-6.73	1.37	1.43
62	A5	1367	A	N7-C5	-6.73	1.35	1.39
62	A5	2745	A	N3-C4	-6.73	1.30	1.34
62	A5	1693	C	N3-C4	-6.73	1.29	1.33
62	A5	378	G	C6-N1	-6.72	1.34	1.39
62	A5	841	A	C5-C6	-6.72	1.35	1.41
62	A5	106	A	C5-C6	-6.72	1.35	1.41
62	A5	307	A	N7-C5	-6.72	1.35	1.39
62	A5	1373	A	N7-C5	-6.71	1.35	1.39
62	A5	3488	G	N3-C4	-6.71	1.30	1.35
62	A5	1144	C	C4-C5	-6.71	1.37	1.43
62	A5	1144	C	C5-C6	-6.71	1.28	1.34
62	A5	2515	C	N1-C6	-6.70	1.33	1.37
62	A5	3489	A	C5-C4	-6.70	1.34	1.38
62	A5	378	G	N3-C4	-6.70	1.30	1.35
62	A5	2579	G	N7-C5	-6.70	1.35	1.39
62	A5	362	A	N9-C4	-6.70	1.33	1.37
62	A5	828	G	C5-C6	-6.70	1.35	1.42
62	A5	2733	G	N9-C4	-6.70	1.32	1.38
62	A5	2769	G	C5-C6	-6.70	1.35	1.42
62	A5	774	A	N9-C4	6.70	1.41	1.37
62	A5	1674	A	N1-C2	-6.70	1.28	1.34
62	A5	2168	G	C5-C4	-6.70	1.33	1.38
62	A5	441	A	N7-C5	-6.70	1.35	1.39
62	A5	3262	A	N7-C5	-6.70	1.35	1.39
62	A5	1123	C	N1-C6	-6.69	1.33	1.37
62	A5	2167	G	N3-C4	-6.69	1.30	1.35
62	A5	3151	G	N9-C4	-6.69	1.32	1.38
62	A5	343	A	C5-C6	-6.69	1.35	1.41
62	A5	1728	G	N7-C5	-6.69	1.35	1.39
62	A5	2753	G	N9-C8	-6.69	1.33	1.37
62	A5	2779	A	N9-C4	-6.69	1.33	1.37
62	A5	2572	G	C6-N1	-6.68	1.34	1.39
62	A5	3495	G	C6-N1	-6.68	1.34	1.39
62	A5	383	A	N3-C4	-6.68	1.30	1.34
62	A5	789	G	N3-C4	-6.68	1.30	1.35
62	A5	2504	A	N7-C5	-6.68	1.35	1.39
62	A5	46	C	N1-C6	-6.67	1.33	1.37
62	A5	818	A	C5-C6	-6.67	1.35	1.41
62	A5	442	A	C5-C6	-6.67	1.35	1.41
62	A5	1785	G	N9-C4	6.66	1.43	1.38
62	A5	1391	A	N9-C4	-6.65	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	1612	G	C6-N1	-6.65	1.34	1.39
62	A5	3410	G	N7-C5	-6.65	1.35	1.39
62	A5	49	A	N3-C4	-6.65	1.30	1.34
62	A5	1102	G	C5-C6	-6.64	1.35	1.42
62	A5	2212	A	N7-C5	-6.64	1.35	1.39
62	A5	2218	G	N7-C5	-6.64	1.35	1.39
59	A8	101	A	N3-C4	-6.63	1.30	1.34
62	A5	376	G	C5-C6	-6.63	1.35	1.42
62	A5	1143	U	C2-N3	-6.63	1.33	1.37
62	A5	1682	G	C5-C6	-6.63	1.35	1.42
62	A5	2803	A	N7-C5	-6.63	1.35	1.39
62	A5	1141	G	C5-C6	-6.63	1.35	1.42
62	A5	3414	U	N1-C2	-6.63	1.32	1.38
62	A5	90	G	C2-N3	-6.62	1.27	1.32
62	A5	93	G	N7-C5	-6.62	1.35	1.39
62	A5	99	A	C5-C6	-6.62	1.35	1.41
62	A5	784	G	N7-C5	-6.62	1.35	1.39
62	A5	1162	A	C5-C4	-6.62	1.34	1.38
62	A5	3878	U	C2-N3	-6.62	1.33	1.37
62	A5	1009	G	C8-N7	-6.61	1.26	1.30
62	A5	3343	A	C6-N1	-6.61	1.30	1.35
62	A5	812	U	C4-C5	-6.61	1.37	1.43
62	A5	1358	U	C5-C6	-6.60	1.28	1.34
62	A5	63	G	C6-N1	-6.60	1.34	1.39
62	A5	2699	A	N7-C5	-6.60	1.35	1.39
62	A5	1326	A	N3-C4	-6.60	1.30	1.34
62	A5	363	G	C8-N7	-6.59	1.26	1.30
62	A5	1126	A	N7-C5	-6.59	1.35	1.39
62	A5	2524	A	C5-C4	-6.59	1.34	1.38
62	A5	2733	G	N7-C5	-6.59	1.35	1.39
62	A5	2160	C	C4-C5	-6.58	1.37	1.43
62	A5	2552	G	C2-N3	-6.58	1.27	1.32
59	A8	39	A	N7-C5	-6.58	1.35	1.39
62	A5	1121	A	C6-N1	-6.58	1.30	1.35
62	A5	355	G	N3-C4	-6.58	1.30	1.35
62	A5	2209	G	N7-C5	-6.58	1.35	1.39
62	A5	89	A	C5-C4	-6.58	1.34	1.38
62	A5	2713	G	N9-C4	-6.58	1.32	1.38
62	A5	2518	A	N9-C8	-6.57	1.32	1.37
62	A5	1357	C	N1-C6	-6.57	1.33	1.37
62	A5	2537	A	C5-C6	-6.57	1.35	1.41
62	A5	1783	A	N3-C4	-6.57	1.30	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	2218	G	N3-C4	-6.57	1.30	1.35
62	A5	3503	G	N7-C5	-6.57	1.35	1.39
62	A5	363	G	N9-C8	-6.56	1.33	1.37
62	A5	2195	A	C5-C4	-6.56	1.34	1.38
62	A5	1110	G	C8-N7	-6.56	1.27	1.30
62	A5	1150	G	C5-C4	-6.56	1.33	1.38
62	A5	2177	G	N7-C5	-6.55	1.35	1.39
62	A5	30	A	N9-C8	-6.55	1.32	1.37
62	A5	1545	A	N7-C5	-6.55	1.35	1.39
62	A5	3519	C	N1-C6	-6.55	1.33	1.37
62	A5	1016	A	N9-C8	-6.54	1.32	1.37
62	A5	3402	C	N1-C6	-6.54	1.33	1.37
62	A5	3151	G	N3-C4	-6.54	1.30	1.35
62	A5	1109	G	N3-C4	-6.54	1.30	1.35
62	A5	1007	A	N7-C5	-6.54	1.35	1.39
59	A8	41	G	C5-C6	-6.54	1.35	1.42
62	A5	1682	G	C8-N7	-6.54	1.27	1.30
62	A5	1076	A	N9-C8	-6.53	1.32	1.37
62	A5	2790	G	N3-C4	-6.53	1.30	1.35
62	A5	3517	U	C4-C5	-6.53	1.37	1.43
62	A5	2214	G	N9-C8	-6.52	1.33	1.37
62	A5	2733	G	C5-C4	-6.51	1.33	1.38
62	A5	1364	A	N7-C5	-6.51	1.35	1.39
62	A5	1119	C	C4-C5	-6.51	1.37	1.43
62	A5	1144	C	N3-C4	-6.51	1.29	1.33
62	A5	998	G	C5-C4	-6.50	1.33	1.38
62	A5	1008	A	C5-C6	-6.50	1.35	1.41
62	A5	1410	A	N9-C4	-6.50	1.33	1.37
62	A5	2221	G	C6-N1	-6.50	1.34	1.39
62	A5	3355	G	C8-N7	-6.50	1.27	1.30
62	A5	1137	G	C5-C4	-6.50	1.33	1.38
58	A7	88	G	N7-C5	-6.49	1.35	1.39
62	A5	820	A	N7-C5	-6.49	1.35	1.39
62	A5	348	A	C5-C6	-6.49	1.35	1.41
62	A5	1380	G	N9-C8	-6.49	1.33	1.37
62	A5	308	G	C5-C6	-6.49	1.35	1.42
62	A5	3337	G	N7-C5	-6.49	1.35	1.39
59	A8	43	A	N7-C5	-6.48	1.35	1.39
62	A5	1390	C	N3-C4	-6.48	1.29	1.33
62	A5	1669	G	C2-N3	-6.48	1.27	1.32
62	A5	2194	G	N7-C5	-6.48	1.35	1.39
62	A5	1077	C	N3-C4	-6.47	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	3348	G	C5-C4	-6.47	1.33	1.38
62	A5	2772	G	N7-C5	-6.47	1.35	1.39
62	A5	38	A	C5-C4	-6.47	1.34	1.38
62	A5	359	G	C5-C4	-6.47	1.33	1.38
62	A5	2734	A	N9-C4	-6.47	1.33	1.37
62	A5	1114	A	N7-C5	-6.46	1.35	1.39
62	A5	2542	C	N1-C6	-6.46	1.33	1.37
62	A5	1361	G	C5-C6	-6.46	1.35	1.42
62	A5	3620	G	N3-C4	-6.46	1.30	1.35
62	A5	1164	G	N7-C5	-6.46	1.35	1.39
62	A5	1327	G	N7-C5	-6.45	1.35	1.39
62	A5	841	A	N7-C5	-6.44	1.35	1.39
62	A5	100	G	C5-C4	-6.44	1.33	1.38
62	A5	374	C	C4-C5	-6.44	1.37	1.43
62	A5	828	G	N9-C4	-6.44	1.32	1.38
62	A5	3264	A	N7-C5	-6.44	1.35	1.39
62	A5	1786	G	N7-C5	-6.44	1.35	1.39
70	AF	190	ILE	CB-CG2	6.43	1.72	1.52
62	A5	2781	G	N7-C5	-6.43	1.35	1.39
62	A5	3477	A	C6-N1	-6.42	1.31	1.35
62	A5	1616	G	N7-C5	-6.42	1.35	1.39
62	A5	1080	G	N7-C5	-6.41	1.35	1.39
62	A5	2198	G	N7-C5	-6.41	1.35	1.39
58	A7	83	A	C5-C6	-6.41	1.35	1.41
62	A5	372	U	C5-C6	-6.41	1.28	1.34
62	A5	1675	G	C5-C6	-6.41	1.35	1.42
62	A5	1689	G	N3-C4	-6.41	1.30	1.35
62	A5	1077	C	C4-C5	-6.41	1.37	1.43
62	A5	369	A	N3-C4	-6.40	1.31	1.34
62	A5	2558	A	C5-C4	-6.40	1.34	1.38
62	A5	426	A	N7-C5	-6.39	1.35	1.39
61	B2	1060	A	C5-C6	-6.39	1.35	1.41
62	A5	2702	A	N7-C5	-6.39	1.35	1.39
61	B2	1180	A	N9-C4	-6.39	1.34	1.37
62	A5	3336	A	C5-C4	-6.39	1.34	1.38
62	A5	856	A	N9-C4	-6.39	1.34	1.37
58	A7	83	A	N9-C4	-6.38	1.34	1.37
62	A5	385	A	C5-C6	-6.38	1.35	1.41
62	A5	2104	A	N7-C5	-6.38	1.35	1.39
62	A5	2750	A	C5-C4	-6.38	1.34	1.38
62	A5	3339	U	C2-N3	-6.38	1.33	1.37
62	A5	3355	G	C5-C6	-6.38	1.35	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	378	G	C8-N7	-6.38	1.27	1.30
62	A5	865	A	N9-C4	-6.38	1.34	1.37
62	A5	3580	G	N7-C5	-6.38	1.35	1.39
62	A5	1790	A	N7-C5	-6.38	1.35	1.39
62	A5	1107	G	C5-C4	-6.37	1.33	1.38
62	A5	1110	G	N3-C4	-6.37	1.30	1.35
62	A5	1121	A	C5-C6	-6.37	1.35	1.41
62	A5	2213	G	C6-N1	-6.37	1.35	1.39
62	A5	2776	A	C5-C6	-6.37	1.35	1.41
62	A5	3408	C	C4-C5	-6.37	1.37	1.43
62	A5	1116	G	C8-N7	-6.36	1.27	1.30
62	A5	2522	A	N7-C5	-6.36	1.35	1.39
62	A5	1087	G	C6-N1	-6.36	1.35	1.39
62	A5	1364	A	C6-N1	-6.36	1.31	1.35
62	A5	1736	G	C6-N1	-6.36	1.35	1.39
62	A5	3512	U	C2-N3	-6.36	1.33	1.37
62	A5	357	C	C2-N3	-6.36	1.30	1.35
62	A5	1720	A	N7-C5	-6.36	1.35	1.39
62	A5	2681	A	N9-C4	-6.36	1.34	1.37
62	A5	1684	G	N9-C4	-6.35	1.32	1.38
62	A5	2492	A	N7-C5	-6.35	1.35	1.39
62	A5	1126	A	C6-N1	-6.35	1.31	1.35
62	A5	372	U	C4-O4	-6.34	1.18	1.23
62	A5	1363	G	C8-N7	-6.34	1.27	1.30
62	A5	2730	A	N7-C5	-6.34	1.35	1.39
62	A5	1113	A	N3-C4	-6.34	1.31	1.34
62	A5	1152	A	C6-N1	-6.34	1.31	1.35
62	A5	3508	G	C5-C4	-6.34	1.33	1.38
62	A5	30	A	N7-C5	-6.34	1.35	1.39
62	A5	1167	A	N7-C5	-6.34	1.35	1.39
62	A5	1355	C	N1-C6	-6.34	1.33	1.37
62	A5	2776	A	C8-N7	-6.34	1.27	1.31
62	A5	3500	A	N7-C5	-6.33	1.35	1.39
62	A5	300	A	N7-C5	-6.33	1.35	1.39
62	A5	1088	A	N3-C4	-6.32	1.31	1.34
62	A5	1606	G	C5-C6	-6.32	1.36	1.42
62	A5	372	U	C2-N3	-6.31	1.33	1.37
62	A5	1067	A	N7-C5	-6.31	1.35	1.39
62	A5	2196	U	C2-N3	-6.31	1.33	1.37
62	A5	1109	G	N9-C4	-6.31	1.32	1.38
62	A5	1778	A	N7-C5	-6.31	1.35	1.39
62	A5	2548	G	N9-C4	-6.31	1.32	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	103	A	C5-C6	-6.30	1.35	1.41
62	A5	1328	U	C2-N3	-6.30	1.33	1.37
62	A5	1719	G	C6-N1	-6.30	1.35	1.39
58	A7	83	A	N7-C5	-6.30	1.35	1.39
62	A5	1138	C	C5-C6	-6.30	1.29	1.34
62	A5	1647	A	N7-C5	-6.30	1.35	1.39
62	A5	3477	A	N3-C4	-6.30	1.31	1.34
62	A5	2496	A	N7-C5	-6.30	1.35	1.39
62	A5	2510	A	C6-N6	-6.30	1.28	1.33
62	A5	3487	A	N7-C5	-6.30	1.35	1.39
62	A5	41	U	C4-C5	-6.29	1.37	1.43
62	A5	3673	G	N7-C5	-6.29	1.35	1.39
62	A5	1125	A	C5-C4	-6.29	1.34	1.38
62	A5	2504	A	C5-C6	-6.29	1.35	1.41
62	A5	2176	G	N7-C5	-6.29	1.35	1.39
62	A5	371	G	N9-C4	-6.28	1.32	1.38
62	A5	2157	A	N3-C4	-6.28	1.31	1.34
62	A5	2552	G	N7-C5	-6.28	1.35	1.39
62	A5	2565	G	C6-N1	-6.28	1.35	1.39
62	A5	47	A	C5-C4	-6.28	1.34	1.38
62	A5	826	A	N9-C4	-6.27	1.34	1.37
62	A5	1678	C	N3-C4	-6.27	1.29	1.33
62	A5	1680	U	N1-C2	-6.27	1.32	1.38
62	A5	2522	A	N9-C4	-6.27	1.34	1.37
59	A8	34	C	N1-C2	6.26	1.46	1.40
62	A5	1004	C	C4-C5	-6.26	1.38	1.43
62	A5	1005	G	C5-C4	-6.26	1.33	1.38
62	A5	1086	C	C4-C5	-6.26	1.38	1.43
28	CN	95	TYR	CD1-CE1	-6.26	1.29	1.39
62	A5	382	G	C2-N3	-6.26	1.27	1.32
62	A5	3497	G	C5-C4	-6.26	1.33	1.38
62	A5	1015	G	N9-C4	-6.25	1.32	1.38
62	A5	1107	G	C6-N1	-6.25	1.35	1.39
62	A5	2202	A	C5-C4	-6.25	1.34	1.38
62	A5	2207	A	C5-C6	-6.25	1.35	1.41
62	A5	3504	G	N1-C2	-6.25	1.32	1.37
62	A5	1101	A	N7-C5	-6.25	1.35	1.39
62	A5	100	G	C5-C6	-6.25	1.36	1.42
62	A5	2710	A	C5-C6	-6.25	1.35	1.41
62	A5	3141	A	N3-C4	-6.24	1.31	1.34
62	A5	43	A	C2-N3	-6.24	1.27	1.33
62	A5	1644	C	C4-C5	-6.24	1.38	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	1874	G	C5-C6	-6.24	1.36	1.42
62	A5	2719	A	N7-C5	-6.24	1.35	1.39
62	A5	3480	U	N3-C4	-6.24	1.32	1.38
62	A5	1669	G	N9-C4	-6.24	1.32	1.38
62	A5	96	G	C5-C6	-6.24	1.36	1.42
62	A5	2524	A	C8-N7	-6.24	1.27	1.31
62	A5	1393	A	N7-C5	-6.23	1.35	1.39
62	A5	3141	A	C5-C4	-6.23	1.34	1.38
62	A5	2540	G	N3-C4	-6.23	1.31	1.35
62	A5	2527	A	N3-C4	-6.22	1.31	1.34
62	A5	2751	A	N3-C4	-6.22	1.31	1.34
62	A5	1128	C	N1-C6	-6.21	1.33	1.37
62	A5	1737	U	N3-C4	-6.21	1.32	1.38
62	A5	2791	A	N9-C4	-6.21	1.34	1.37
62	A5	3130	G	N3-C4	-6.21	1.31	1.35
62	A5	376	G	C6-N1	-6.21	1.35	1.39
62	A5	807	A	N3-C4	-6.20	1.31	1.34
62	A5	2212	A	N9-C4	-6.20	1.34	1.37
62	A5	89	A	N7-C5	-6.20	1.35	1.39
62	A5	1734	G	N1-C2	-6.20	1.32	1.37
62	A5	3499	G	N9-C4	-6.20	1.32	1.38
62	A5	1005	G	N3-C4	-6.20	1.31	1.35
62	A5	1097	A	N3-C4	-6.19	1.31	1.34
62	A5	3495	G	N1-C2	-6.19	1.32	1.37
62	A5	2703	G	C5-C4	-6.19	1.34	1.38
62	A5	2162	C	C4-C5	-6.18	1.38	1.43
62	A5	3451	A	N7-C5	-6.18	1.35	1.39
62	A5	2674	A	N3-C4	-6.18	1.31	1.34
62	A5	1030	A	N7-C5	-6.18	1.35	1.39
62	A5	1615	G	C5-C4	-6.18	1.34	1.38
62	A5	807	A	C5-C6	-6.18	1.35	1.41
62	A5	1645	G	C8-N7	-6.17	1.27	1.30
62	A5	2167	G	C2-N3	-6.17	1.27	1.32
62	A5	2209	G	C5-C4	-6.17	1.34	1.38
62	A5	1669	G	C6-N1	-6.17	1.35	1.39
62	A5	1072	U	N1-C2	-6.16	1.33	1.38
62	A5	1734	G	C6-N1	-6.16	1.35	1.39
62	A5	3400	U	C4-C5	-6.16	1.38	1.43
62	A5	2764	A	N7-C5	-6.16	1.35	1.39
62	A5	61	A	C5-C6	-6.16	1.35	1.41
62	A5	1002	C	C2-N3	-6.16	1.30	1.35
62	A5	1618	A	C6-N1	-6.16	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	1737	U	C2-N3	-6.16	1.33	1.37
62	A5	103	A	N7-C5	-6.16	1.35	1.39
62	A5	1078	G	N1-C2	-6.15	1.32	1.37
62	A5	3544	G	N7-C5	-6.15	1.35	1.39
62	A5	1016	A	N9-C4	-6.15	1.34	1.37
59	A8	30	G	C6-N1	-6.14	1.35	1.39
62	A5	1357	C	C5-C6	-6.14	1.29	1.34
62	A5	3347	G	C5-C6	-6.14	1.36	1.42
62	A5	1086	C	C2-N3	-6.13	1.30	1.35
62	A5	1626	A	N7-C5	-6.13	1.35	1.39
62	A5	3674	G	N3-C4	-6.13	1.31	1.35
62	A5	2740	C	C2-O2	-6.13	1.19	1.24
59	A8	7	A	N7-C5	-6.13	1.35	1.39
62	A5	3408	C	N3-C4	-6.13	1.29	1.33
62	A5	3402	C	N3-C4	-6.13	1.29	1.33
62	A5	102	G	C2-N3	-6.12	1.27	1.32
62	A5	2786	U	N1-C2	-6.12	1.33	1.38
62	A5	3504	G	C6-N1	-6.12	1.35	1.39
62	A5	1372	A	C5-C6	-6.12	1.35	1.41
62	A5	2726	A	N7-C5	-6.12	1.35	1.39
62	A5	1873	A	C5-C4	-6.12	1.34	1.38
62	A5	1134	G	N7-C5	-6.12	1.35	1.39
62	A5	1615	G	C5-C6	-6.11	1.36	1.42
62	A5	1786	G	C5-C6	-6.11	1.36	1.42
62	A5	447	G	C5-C6	-6.11	1.36	1.42
62	A5	1345	G	N9-C4	-6.11	1.33	1.38
62	A5	2565	G	C5-C6	-6.10	1.36	1.42
62	A5	1112	G	N9-C8	-6.10	1.33	1.37
62	A5	2770	C	C4-C5	-6.10	1.38	1.43
62	A5	2542	C	N3-C4	-6.10	1.29	1.33
62	A5	380	G	N9-C4	-6.09	1.33	1.38
62	A5	2779	A	N7-C5	-6.09	1.35	1.39
62	A5	2226	A	N7-C5	-6.09	1.35	1.39
62	A5	3578	A	N7-C5	-6.09	1.35	1.39
62	A5	44	A	N7-C5	-6.09	1.35	1.39
62	A5	343	A	N7-C5	-6.09	1.35	1.39
62	A5	1110	G	N9-C4	-6.09	1.33	1.38
62	A5	2720	U	N3-C4	-6.09	1.32	1.38
62	A5	3503	G	C6-N1	-6.09	1.35	1.39
62	A5	383	A	N9-C8	-6.08	1.32	1.37
62	A5	3255	G	N7-C5	-6.08	1.35	1.39
62	A5	1076	A	N9-C4	-6.08	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	806	A	N7-C5	-6.08	1.35	1.39
62	A5	1371	A	N7-C5	-6.07	1.35	1.39
62	A5	2211	A	N7-C5	-6.07	1.35	1.39
62	A5	2748	G	C5-C6	-6.07	1.36	1.42
62	A5	3336	A	N9-C4	-6.07	1.34	1.37
62	A5	1695	A	C6-N1	-6.07	1.31	1.35
62	A5	61	A	N7-C5	-6.06	1.35	1.39
62	A5	1687	U	C2-N3	-6.06	1.33	1.37
62	A5	1699	A	N9-C4	-6.06	1.34	1.37
62	A5	3499	G	N3-C4	-6.06	1.31	1.35
62	A5	1723	G	N3-C4	-6.06	1.31	1.35
62	A5	1527	C	N1-C6	-6.05	1.33	1.37
62	A5	2695	A	N7-C5	-6.05	1.35	1.39
62	A5	3581	G	N7-C5	-6.05	1.35	1.39
62	A5	1376	U	C4-C5	-6.05	1.38	1.43
62	A5	345	A	N9-C8	-6.05	1.32	1.37
62	A5	2565	G	N7-C5	-6.05	1.35	1.39
62	A5	43	A	C5-C6	-6.05	1.35	1.41
62	A5	1387	G	N7-C5	-6.05	1.35	1.39
62	A5	3524	G	C6-N1	-6.05	1.35	1.39
62	A5	3130	G	C5-C6	-6.04	1.36	1.42
62	A5	2529	G	N9-C8	-6.04	1.33	1.37
62	A5	1146	U	C4-C5	-6.04	1.38	1.43
62	A5	34	C	N3-C4	-6.04	1.29	1.33
62	A5	384	A	C5-C6	-6.04	1.35	1.41
62	A5	1616	G	N9-C8	-6.04	1.33	1.37
62	A5	3497	G	C5-C6	-6.04	1.36	1.42
62	A5	1612	G	N7-C5	-6.04	1.35	1.39
62	A5	784	G	C8-N7	-6.04	1.27	1.30
62	A5	1609	U	C2-N3	-6.03	1.33	1.37
62	A5	2184	G	C5-C6	-6.03	1.36	1.42
62	A5	3351	A	N9-C4	-6.03	1.34	1.37
62	A5	3543	A	C5-C6	-6.03	1.35	1.41
62	A5	1064	G	C5-C6	-6.03	1.36	1.42
62	A5	1165	A	C5-C6	-6.03	1.35	1.41
62	A5	2753	G	N9-C4	-6.03	1.33	1.38
62	A5	1372	A	N3-C4	-6.03	1.31	1.34
62	A5	1133	A	N7-C5	-6.03	1.35	1.39
62	A5	2798	C	C4-C5	-6.03	1.38	1.43
62	A5	1084	A	C5-C6	-6.03	1.35	1.41
62	A5	2157	A	N9-C4	-6.03	1.34	1.37
62	A5	2212	A	C5-C6	-6.02	1.35	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	1121	A	C5-C4	-6.02	1.34	1.38
62	A5	2625	G	N7-C5	-6.02	1.35	1.39
62	A5	1120	A	N7-C5	-6.02	1.35	1.39
62	A5	3514	C	C2-N3	-6.02	1.30	1.35
62	A5	62	G	N7-C5	-6.02	1.35	1.39
62	A5	356	A	N9-C4	-6.02	1.34	1.37
62	A5	2552	G	C5-C6	-6.02	1.36	1.42
62	A5	2155	A	N7-C5	-6.02	1.35	1.39
62	A5	2740	C	C5-C6	-6.02	1.29	1.34
62	A5	3480	U	C4-O4	-6.01	1.18	1.23
62	A5	2246	A	N7-C5	-6.01	1.35	1.39
62	A5	2778	G	N3-C4	-6.01	1.31	1.35
62	A5	3584	C	N1-C6	-6.01	1.33	1.37
62	A5	1413	C	N1-C6	-6.01	1.33	1.37
62	A5	1756	G	C5-C6	-6.00	1.36	1.42
62	A5	2716	C	N1-C6	-6.00	1.33	1.37
62	A5	342	A	N7-C5	-6.00	1.35	1.39
62	A5	1133	A	C5-C6	-6.00	1.35	1.41
62	A5	1330	G	N9-C8	-6.00	1.33	1.37
62	A5	1152	A	C5-C6	-6.00	1.35	1.41
62	A5	360	A	N7-C5	-6.00	1.35	1.39
62	A5	3487	A	C5-C6	-5.99	1.35	1.41
62	A5	1356	G	N3-C4	-5.99	1.31	1.35
62	A5	1620	A	C5-C6	-5.99	1.35	1.41
62	A5	3488	G	N9-C8	-5.99	1.33	1.37
62	A5	3881	A	N3-C4	-5.99	1.31	1.34
62	A5	3578	A	C5-C6	-5.98	1.35	1.41
62	A5	3259	A	N9-C4	-5.98	1.34	1.37
62	A5	39	A	C5-C4	-5.97	1.34	1.38
62	A5	1669	G	C5-C4	-5.97	1.34	1.38
62	A5	3349	A	N3-C4	-5.97	1.31	1.34
62	A5	1726	G	N3-C4	-5.97	1.31	1.35
62	A5	2527	A	N9-C4	-5.97	1.34	1.37
62	A5	1376	U	N1-C2	-5.97	1.33	1.38
62	A5	783	G	N9-C8	-5.97	1.33	1.37
62	A5	354	A	C5-C6	-5.97	1.35	1.41
62	A5	3351	A	N7-C5	-5.97	1.35	1.39
62	A5	3395	G	N7-C5	-5.97	1.35	1.39
62	A5	2700	C	N3-C4	-5.96	1.29	1.33
62	A5	1549	A	C5-C4	-5.96	1.34	1.38
62	A5	800	C	N1-C2	-5.96	1.34	1.40
62	A5	1326	A	C6-N1	-5.96	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	1874	G	N7-C5	-5.96	1.35	1.39
62	A5	61	A	C5-C4	-5.95	1.34	1.38
62	A5	1169	C	C4-C5	-5.95	1.38	1.43
62	A5	1374	C	C4-C5	-5.95	1.38	1.43
62	A5	2160	C	N1-C6	-5.95	1.33	1.37
62	A5	3336	A	N3-C4	-5.95	1.31	1.34
62	A5	3137	A	C5-C6	-5.95	1.35	1.41
62	A5	3260	G	N9-C4	-5.95	1.33	1.38
62	A5	1719	G	C5-C6	-5.94	1.36	1.42
62	A5	3335	A	N7-C5	-5.94	1.35	1.39
44	Ce	44	VAL	CB-CG2	-5.94	1.40	1.52
62	A5	3130	G	C6-N1	-5.94	1.35	1.39
62	A5	1009	G	N9-C8	-5.94	1.33	1.37
62	A5	2572	G	N1-C2	-5.94	1.32	1.37
61	B2	1218	G	C8-N7	-5.93	1.27	1.30
62	A5	1078	G	C6-N1	-5.93	1.35	1.39
62	A5	1751	U	N3-C4	-5.93	1.33	1.38
62	A5	783	G	C5-C4	-5.92	1.34	1.38
62	A5	3673	G	C8-N7	-5.92	1.27	1.30
62	A5	2739	A	C6-N1	-5.92	1.31	1.35
62	A5	1091	G	N3-C4	-5.92	1.31	1.35
62	A5	1006	A	C5-C4	-5.92	1.34	1.38
62	A5	2782	A	N9-C4	5.92	1.41	1.37
62	A5	1733	A	N7-C5	-5.91	1.35	1.39
62	A5	3475	U	N1-C2	-5.91	1.33	1.38
62	A5	3521	A	C5-C4	-5.91	1.34	1.38
62	A5	1206	G	C6-N1	-5.91	1.35	1.39
62	A5	1038	G	N7-C5	-5.91	1.35	1.39
62	A5	1120	A	C2-N3	-5.91	1.28	1.33
62	A5	2753	G	C6-N1	-5.91	1.35	1.39
62	A5	2739	A	N3-C4	-5.91	1.31	1.34
62	A5	357	C	N3-C4	-5.90	1.29	1.33
62	A5	322	G	C6-N1	-5.90	1.35	1.39
62	A5	1684	G	N9-C8	-5.90	1.33	1.37
62	A5	2703	G	N9-C4	-5.90	1.33	1.38
62	A5	807	A	N7-C5	-5.90	1.35	1.39
62	A5	790	U	N3-C4	-5.90	1.33	1.38
62	A5	2552	G	N3-C4	-5.90	1.31	1.35
62	A5	1078	G	C5-C4	-5.89	1.34	1.38
62	A5	1619	C	C4-C5	-5.89	1.38	1.43
62	A5	338	A	N9-C4	-5.89	1.34	1.37
62	A5	1144	C	C2-N3	-5.89	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	1614	A	C6-N1	-5.89	1.31	1.35
62	A5	3513	A	C5-C4	-5.89	1.34	1.38
62	A5	3515	C	N1-C6	-5.88	1.33	1.37
62	A5	1120	A	N3-C4	-5.88	1.31	1.34
62	A5	1677	U	C2-N3	-5.88	1.33	1.37
62	A5	2510	A	C5-C4	-5.88	1.34	1.38
62	A5	2563	G	C5-C6	-5.88	1.36	1.42
62	A5	2778	G	N9-C4	-5.88	1.33	1.38
62	A5	384	A	C6-N1	-5.87	1.31	1.35
61	B2	1344	A	N9-C4	5.87	1.41	1.37
62	A5	384	A	N9-C4	-5.87	1.34	1.37
62	A5	1114	A	N9-C8	-5.87	1.33	1.37
62	A5	38	A	N3-C4	-5.87	1.31	1.34
62	A5	782	G	C5-C6	-5.87	1.36	1.42
62	A5	1672	A	C5-C6	-5.87	1.35	1.41
62	A5	1721	C	N1-C6	-5.87	1.33	1.37
62	A5	2165	C	C4-C5	-5.87	1.38	1.43
62	A5	1002	C	N1-C2	-5.86	1.34	1.40
62	A5	3140	G	C5-C6	-5.86	1.36	1.42
62	A5	1358	U	N1-C2	-5.86	1.33	1.38
62	A5	1344	A	C5-C4	-5.85	1.34	1.38
62	A5	62	G	C6-N1	-5.85	1.35	1.39
62	A5	1105	U	C4-C5	-5.85	1.38	1.43
62	A5	3339	U	C2-O2	-5.85	1.17	1.22
62	A5	1403	C	N1-C6	-5.84	1.33	1.37
62	A5	1663	G	N7-C5	-5.84	1.35	1.39
62	A5	1088	A	C5-C6	-5.84	1.35	1.41
62	A5	2790	G	N9-C8	-5.84	1.33	1.37
62	A5	3492	G	N3-C4	-5.84	1.31	1.35
62	A5	3477	A	C5-C4	-5.84	1.34	1.38
62	A5	1783	A	N9-C4	-5.84	1.34	1.37
62	A5	2788	U	N1-C2	-5.84	1.33	1.38
62	A5	3351	A	C5-C6	-5.84	1.35	1.41
62	A5	2161	G	N9-C8	-5.84	1.33	1.37
62	A5	2579	G	C8-N7	-5.83	1.27	1.30
58	A7	87	G	N3-C4	-5.83	1.31	1.35
62	A5	1778	A	C5-C6	-5.83	1.35	1.41
62	A5	3512	U	N1-C2	-5.83	1.33	1.38
62	A5	377	U	N1-C6	-5.83	1.32	1.38
62	A5	2223	C	C5-C6	-5.83	1.29	1.34
62	A5	1617	U	N1-C2	-5.83	1.33	1.38
62	A5	108	A	C5-C4	-5.83	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	1153	G	N3-C4	-5.82	1.31	1.35
62	A5	1788	G	N7-C5	-5.82	1.35	1.39
62	A5	2734	A	N7-C5	-5.82	1.35	1.39
62	A5	1153	G	C5-C4	-5.82	1.34	1.38
62	A5	1603	A	N3-C4	-5.82	1.31	1.34
62	A5	3348	G	N7-C5	-5.82	1.35	1.39
62	A5	364	U	C5-C6	-5.82	1.28	1.34
62	A5	1017	A	C5-C4	-5.81	1.34	1.38
62	A5	2222	G	N7-C5	-5.81	1.35	1.39
62	A5	98	G	N7-C5	-5.81	1.35	1.39
62	A5	2566	A	C6-N1	-5.81	1.31	1.35
62	A5	1523	A	N9-C4	-5.81	1.34	1.37
62	A5	2753	G	C8-N7	-5.81	1.27	1.30
62	A5	1135	U	N1-C2	-5.80	1.33	1.38
62	A5	1649	G	N9-C4	-5.80	1.33	1.38
62	A5	3513	A	C5-C6	-5.80	1.35	1.41
62	A5	66	A	N7-C5	-5.80	1.35	1.39
62	A5	36	U	N1-C2	-5.80	1.33	1.38
62	A5	2505	A	N7-C5	-5.80	1.35	1.39
62	A5	2750	A	C5-C6	-5.80	1.35	1.41
62	A5	2757	U	C2-N3	-5.80	1.33	1.37
62	A5	47	A	N3-C4	-5.80	1.31	1.34
62	A5	1777	A	C5-C4	-5.80	1.34	1.38
62	A5	2719	A	N3-C4	-5.79	1.31	1.34
62	A5	3336	A	C6-N1	-5.79	1.31	1.35
62	A5	1075	G	N7-C5	-5.79	1.35	1.39
62	A5	1358	U	C4-C5	-5.79	1.38	1.43
62	A5	2750	A	N3-C4	-5.79	1.31	1.34
62	A5	1005	G	C5-C6	-5.79	1.36	1.42
62	A5	63	G	C5-C4	-5.79	1.34	1.38
62	A5	375	C	C4-C5	-5.79	1.38	1.43
62	A5	2248	A	N9-C4	-5.79	1.34	1.37
62	A5	2524	A	N9-C4	-5.79	1.34	1.37
62	A5	2221	G	N9-C8	-5.79	1.33	1.37
62	A5	3471	A	N7-C5	-5.79	1.35	1.39
62	A5	1696	A	N9-C4	-5.78	1.34	1.37
62	A5	1693	C	C2-N3	-5.78	1.31	1.35
62	A5	424	G	N3-C4	-5.78	1.31	1.35
62	A5	1666	A	C5-C6	-5.78	1.35	1.41
62	A5	2168	G	N9-C8	-5.78	1.33	1.37
62	A5	347	A	C5-C6	-5.78	1.35	1.41
59	A8	39	A	C5-C4	-5.78	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	43	A	N7-C5	-5.77	1.35	1.39
62	A5	1056	G	N7-C5	-5.77	1.35	1.39
62	A5	1104	A	N9-C8	-5.77	1.33	1.37
62	A5	427	A	N3-C4	-5.77	1.31	1.34
62	A5	2546	G	C5-C6	-5.77	1.36	1.42
62	A5	2518	A	N3-C4	-5.77	1.31	1.34
62	A5	1088	A	C6-N1	-5.77	1.31	1.35
62	A5	1726	G	C5-C4	-5.77	1.34	1.38
62	A5	1726	G	N9-C4	-5.77	1.33	1.38
62	A5	365	A	N7-C5	-5.76	1.35	1.39
62	A5	1125	A	C6-N6	-5.76	1.29	1.33
62	A5	1268	A	C5-C6	-5.76	1.35	1.41
62	A5	2225	A	C5-C4	-5.76	1.34	1.38
62	A5	1165	A	N7-C5	-5.76	1.35	1.39
62	A5	1165	A	N3-C4	-5.75	1.31	1.34
62	A5	1872	A	C5-C6	-5.75	1.35	1.41
62	A5	3153	G	C5-C4	-5.75	1.34	1.38
62	A5	2497	C	N3-C4	-5.75	1.29	1.33
62	A5	795	A	N9-C8	-5.75	1.33	1.37
62	A5	1349	A	C5-C4	-5.75	1.34	1.38
62	A5	1412	A	N7-C5	-5.75	1.35	1.39
62	A5	2231	A	N9-C4	-5.75	1.34	1.37
62	A5	3400	U	N1-C2	-5.75	1.33	1.38
62	A5	1643	G	N7-C5	-5.75	1.35	1.39
62	A5	2249	A	N7-C5	-5.75	1.35	1.39
62	A5	336	A	N9-C4	-5.74	1.34	1.37
62	A5	1598	A	N7-C5	-5.74	1.35	1.39
62	A5	1736	G	N3-C4	-5.74	1.31	1.35
62	A5	1125	A	C8-N7	-5.74	1.27	1.31
62	A5	1087	G	N3-C4	-5.74	1.31	1.35
62	A5	2733	G	N3-C4	-5.74	1.31	1.35
62	A5	3515	C	C4-C5	-5.74	1.38	1.43
62	A5	3673	G	C6-N1	-5.74	1.35	1.39
62	A5	1003	C	C4-C5	-5.74	1.38	1.43
62	A5	355	G	N9-C4	-5.73	1.33	1.38
62	A5	1734	G	C5-C4	-5.73	1.34	1.38
62	A5	3355	G	C6-N1	-5.73	1.35	1.39
62	A5	3139	G	N7-C5	-5.72	1.35	1.39
62	A5	3172	A	C5-C6	-5.72	1.35	1.41
62	A5	2784	C	N3-C4	-5.72	1.29	1.33
62	A5	37	G	C2-N3	-5.72	1.28	1.32
62	A5	3600	G	C8-N7	-5.72	1.27	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	1616	G	C5-C4	-5.72	1.34	1.38
62	A5	1123	C	C4-C5	-5.71	1.38	1.43
62	A5	1735	G	C6-N1	-5.71	1.35	1.39
62	A5	2231	A	N3-C4	-5.71	1.31	1.34
62	A5	1526	G	C8-N7	-5.71	1.27	1.30
62	A5	3347	G	N7-C5	-5.71	1.35	1.39
62	A5	1151	A	C5-C4	-5.71	1.34	1.38
62	A5	1367	A	C5-C4	-5.71	1.34	1.38
62	A5	2248	A	N3-C4	-5.71	1.31	1.34
62	A5	789	G	N9-C4	-5.71	1.33	1.38
62	A5	1009	G	C5-C6	-5.71	1.36	1.42
62	A5	1968	A	N3-C4	-5.71	1.31	1.34
62	A5	1981	A	N7-C5	-5.71	1.35	1.39
62	A5	1724	A	N7-C5	-5.71	1.35	1.39
62	A5	3255	G	C5-C6	-5.71	1.36	1.42
62	A5	3879	A	N7-C5	-5.71	1.35	1.39
62	A5	3600	G	N7-C5	-5.71	1.35	1.39
62	A5	2736	A	C6-N1	-5.70	1.31	1.35
62	A5	1109	G	C2-N3	-5.70	1.28	1.32
62	A5	1363	G	N9-C4	-5.70	1.33	1.38
62	A5	3594	A	C5-C6	-5.70	1.35	1.41
62	A5	1016	A	C6-N1	-5.70	1.31	1.35
62	A5	1555	G	C5-C6	-5.70	1.36	1.42
62	A5	2502	G	N7-C5	-5.69	1.35	1.39
62	A5	2558	A	C5-C6	-5.69	1.35	1.41
62	A5	2731	G	C5-C6	-5.69	1.36	1.42
62	A5	2755	G	C5-C4	-5.69	1.34	1.38
62	A5	2515	C	C4-C5	-5.69	1.38	1.43
62	A5	49	A	C5-C4	-5.69	1.34	1.38
62	A5	359	G	N7-C5	-5.69	1.35	1.39
62	A5	300	A	C5-C6	-5.68	1.35	1.41
62	A5	853	G	C6-N1	-5.68	1.35	1.39
61	B2	1971	A	N7-C5	-5.68	1.35	1.39
62	A5	2219	U	N1-C2	-5.68	1.33	1.38
62	A5	1084	A	N9-C8	-5.68	1.33	1.37
62	A5	1022	A	C5-C4	-5.67	1.34	1.38
62	A5	1649	G	C5-C4	-5.67	1.34	1.38
62	A5	372	U	C4-C5	-5.67	1.38	1.43
62	A5	1079	U	C2-N3	-5.67	1.33	1.37
62	A5	2621	A	N9-C4	-5.67	1.34	1.37
62	A5	1022	A	N9-C4	-5.67	1.34	1.37
62	A5	1332	C	C2-N3	-5.66	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	2740	C	N3-C4	-5.66	1.29	1.33
61	B2	1065	A	N9-C4	-5.66	1.34	1.37
62	A5	1612	G	N1-C2	-5.66	1.33	1.37
62	A5	2699	A	C6-N1	-5.66	1.31	1.35
62	A5	1720	A	C5-C6	-5.66	1.35	1.41
62	A5	1096	A	N7-C5	-5.66	1.35	1.39
62	A5	1552	A	C6-N1	-5.66	1.31	1.35
62	A5	1113	A	N9-C4	-5.66	1.34	1.37
62	A5	2529	G	N9-C4	-5.66	1.33	1.38
62	A5	3503	G	N9-C8	-5.66	1.33	1.37
62	A5	63	G	C8-N7	-5.65	1.27	1.30
62	A5	54	U	C4-C5	-5.65	1.38	1.43
62	A5	44	A	N9-C4	-5.65	1.34	1.37
62	A5	1681	G	C6-N1	-5.65	1.35	1.39
62	A5	2774	G	C6-N1	-5.65	1.35	1.39
59	A8	108	A	N9-C4	-5.65	1.34	1.37
62	A5	427	A	N9-C4	-5.65	1.34	1.37
62	A5	3339	U	N3-C4	-5.65	1.33	1.38
62	A5	3402	C	C5-C6	-5.65	1.29	1.34
62	A5	41	U	N1-C2	-5.64	1.33	1.38
62	A5	445	C	C4-C5	-5.64	1.38	1.43
62	A5	1103	U	C4-C5	-5.64	1.38	1.43
62	A5	1104	A	N7-C5	-5.64	1.35	1.39
62	A5	1610	A	C5-C4	-5.64	1.34	1.38
62	A5	1367	A	N3-C4	-5.64	1.31	1.34
62	A5	841	A	C5-C4	-5.64	1.34	1.38
62	A5	1326	A	N9-C8	-5.64	1.33	1.37
62	A5	1692	G	N7-C5	-5.64	1.35	1.39
62	A5	839	A	N9-C4	-5.63	1.34	1.37
62	A5	1102	G	C6-N1	-5.63	1.35	1.39
62	A5	3474	G	N3-C4	-5.63	1.31	1.35
62	A5	816	A	N3-C4	-5.63	1.31	1.34
62	A5	1079	U	N1-C6	-5.63	1.32	1.38
62	A5	3409	G	C6-N1	-5.63	1.35	1.39
58	A7	98	G	N7-C5	-5.63	1.35	1.39
62	A5	2191	G	C5-C6	-5.63	1.36	1.42
62	A5	2909	A	N7-C5	-5.62	1.35	1.39
62	A5	27	A	N7-C5	-5.62	1.35	1.39
62	A5	809	G	C5-C4	-5.62	1.34	1.38
62	A5	1645	G	C6-O6	-5.62	1.19	1.24
62	A5	3259	A	N7-C5	-5.62	1.35	1.39
62	A5	815	A	C6-N1	-5.62	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	998	G	N9-C4	-5.62	1.33	1.38
62	A5	1128	C	N1-C2	-5.62	1.34	1.40
62	A5	47	A	N9-C8	-5.61	1.33	1.37
62	A5	1118	C	N1-C6	-5.61	1.33	1.37
62	A5	1538	U	C2-N3	-5.61	1.33	1.37
62	A5	3507	A	C6-N1	-5.61	1.31	1.35
62	A5	2221	G	N1-C2	-5.61	1.33	1.37
61	B2	1195	G	N9-C4	-5.61	1.33	1.38
62	A5	2792	G	C5-C6	-5.61	1.36	1.42
62	A5	3492	G	N9-C8	-5.61	1.33	1.37
62	A5	59	G	C5-C6	-5.61	1.36	1.42
62	A5	2214	G	N9-C4	-5.61	1.33	1.38
62	A5	1554	C	C2-N3	-5.61	1.31	1.35
62	A5	1102	G	C8-N7	-5.60	1.27	1.30
62	A5	1674	A	C6-N6	-5.60	1.29	1.33
62	A5	853	G	C8-N7	-5.60	1.27	1.30
62	A5	1669	G	N7-C5	-5.60	1.35	1.39
62	A5	2168	G	N3-C4	-5.60	1.31	1.35
62	A5	2738	C	C4-C5	-5.60	1.38	1.43
62	A5	1167	A	N3-C4	-5.59	1.31	1.34
62	A5	2565	G	N1-C2	-5.59	1.33	1.37
62	A5	2756	C	C4-C5	-5.59	1.38	1.43
62	A5	60	G	C5-C6	-5.59	1.36	1.42
62	A5	3588	G	C6-N1	-5.59	1.35	1.39
62	A5	795	A	N7-C5	-5.59	1.35	1.39
62	A5	1107	G	C6-O6	-5.59	1.19	1.24
62	A5	1097	A	C5-C6	-5.59	1.36	1.41
62	A5	1363	G	C6-N1	-5.59	1.35	1.39
62	A5	299	G	C6-N1	-5.59	1.35	1.39
62	A5	3174	A	N7-C5	-5.59	1.35	1.39
62	A5	2786	U	C4-C5	-5.58	1.38	1.43
62	A5	2534	G	N9-C4	-5.58	1.33	1.38
62	A5	1364	A	C5-C6	-5.58	1.36	1.41
62	A5	1092	U	C2-N3	-5.58	1.33	1.37
62	A5	308	G	N3-C4	-5.58	1.31	1.35
58	A7	81	A	C5-C6	-5.58	1.36	1.41
62	A5	367	A	N3-C4	-5.58	1.31	1.34
62	A5	1163	G	N3-C4	-5.58	1.31	1.35
61	B2	1110	A	N9-C4	-5.57	1.34	1.37
62	A5	1648	A	N9-C4	-5.57	1.34	1.37
62	A5	2214	G	N3-C4	-5.57	1.31	1.35
62	A5	355	G	C6-N1	-5.57	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	3640	A	N7-C5	-5.57	1.35	1.39
62	A5	2772	G	N3-C4	-5.57	1.31	1.35
62	A5	1118	C	N1-C2	-5.57	1.34	1.40
62	A5	1692	G	C5-C6	-5.57	1.36	1.42
62	A5	3340	A	C6-N1	-5.57	1.31	1.35
62	A5	381	G	N3-C4	-5.56	1.31	1.35
62	A5	2735	A	C8-N7	-5.56	1.27	1.31
62	A5	30	A	N9-C4	-5.56	1.34	1.37
62	A5	1625	U	C2-N3	-5.56	1.33	1.37
62	A5	2168	G	N1-C2	-5.56	1.33	1.37
62	A5	3402	C	N1-C2	-5.56	1.34	1.40
62	A5	787	C	N3-C4	-5.56	1.30	1.33
62	A5	90	G	N9-C4	-5.56	1.33	1.38
62	A5	1387	G	C8-N7	-5.56	1.27	1.30
62	A5	795	A	N3-C4	-5.55	1.31	1.34
62	A5	2685	G	C6-N1	-5.55	1.35	1.39
62	A5	2225	A	N7-C5	-5.55	1.35	1.39
62	A5	1367	A	C6-N1	-5.55	1.31	1.35
62	A5	3760	A	N9-C4	-5.55	1.34	1.37
62	A5	55	U	N3-C4	-5.55	1.33	1.38
62	A5	370	A	C5-C6	-5.55	1.36	1.41
62	A5	2175	A	N7-C5	-5.55	1.35	1.39
62	A5	2204	U	C4-C5	-5.55	1.38	1.43
62	A5	99	A	N9-C4	-5.54	1.34	1.37
62	A5	1409	G	N1-C2	-5.54	1.33	1.37
62	A5	2179	G	C5-C6	-5.54	1.36	1.42
62	A5	2714	U	N3-C4	-5.54	1.33	1.38
62	A5	2009	A	N9-C4	-5.54	1.34	1.37
62	A5	2494	G	C5-C6	-5.54	1.36	1.42
62	A5	2772	G	N1-C2	-5.54	1.33	1.37
62	A5	3471	A	C5-C4	-5.54	1.34	1.38
62	A5	58	G	N9-C4	5.54	1.42	1.38
62	A5	1012	G	C5-C6	-5.54	1.36	1.42
62	A5	1130	U	N1-C2	-5.54	1.33	1.38
62	A5	3488	G	C8-N7	-5.53	1.27	1.30
62	A5	2168	G	C8-N7	-5.53	1.27	1.30
62	A5	89	A	N3-C4	-5.53	1.31	1.34
32	CR	95	TRP	CB-CG	-5.53	1.40	1.50
62	A5	1017	A	N9-C8	-5.53	1.33	1.37
62	A5	1026	G	N9-C8	-5.53	1.33	1.37
62	A5	1691	A	N7-C5	-5.53	1.35	1.39
62	A5	1734	G	C8-N7	-5.53	1.27	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	807	A	C6-N1	-5.53	1.31	1.35
62	A5	2526	A	N9-C4	-5.53	1.34	1.37
62	A5	2735	A	N9-C8	-5.52	1.33	1.37
62	A5	798	C	C5-C6	-5.52	1.29	1.34
62	A5	1529	C	C2-N3	-5.52	1.31	1.35
62	A5	3513	A	N7-C5	-5.52	1.35	1.39
62	A5	1647	A	C5-C4	-5.52	1.34	1.38
62	A5	2216	A	N3-C4	-5.51	1.31	1.34
62	A5	998	G	C2-N3	-5.51	1.28	1.32
62	A5	1073	C	N1-C2	-5.51	1.34	1.40
62	A5	2529	G	N3-C4	-5.51	1.31	1.35
62	A5	2693	G	N7-C5	-5.51	1.35	1.39
59	A8	36	A	C6-N6	-5.51	1.29	1.33
62	A5	61	A	C6-N6	-5.51	1.29	1.33
62	A5	3503	G	C5-C4	-5.51	1.34	1.38
62	A5	2102	G	N7-C5	-5.51	1.35	1.39
62	A5	1137	G	N9-C8	-5.50	1.33	1.37
62	A5	100	G	N9-C4	-5.50	1.33	1.38
62	A5	1012	G	C6-N1	-5.50	1.35	1.39
62	A5	1096	A	C5-C6	-5.50	1.36	1.41
6	CC	57	VAL	CB-CG2	-5.50	1.41	1.52
62	A5	839	A	C5-C4	-5.50	1.34	1.38
62	A5	2222	G	N3-C4	-5.50	1.31	1.35
62	A5	2654	G	N7-C5	-5.50	1.35	1.39
62	A5	2777	A	N3-C4	-5.50	1.31	1.34
38	CZ	48	ARG	C-N	-5.50	1.21	1.34
61	B2	1058	A	N7-C5	-5.50	1.35	1.39
62	A5	2199	A	C5-C6	-5.50	1.36	1.41
62	A5	3881	A	N7-C5	-5.50	1.35	1.39
62	A5	1609	U	C4-O4	-5.50	1.19	1.23
62	A5	442	A	C5-C4	-5.49	1.34	1.38
62	A5	2704	A	C5-C6	-5.49	1.36	1.41
62	A5	2717	C	N3-C4	-5.49	1.30	1.33
62	A5	441	A	C6-N1	-5.49	1.31	1.35
62	A5	1164	G	C5-C6	-5.49	1.36	1.42
62	A5	3332	G	N9-C4	-5.49	1.33	1.38
62	A5	3488	G	N1-C2	-5.49	1.33	1.37
62	A5	1391	A	N3-C4	-5.49	1.31	1.34
62	A5	2531	A	N3-C4	-5.49	1.31	1.34
62	A5	364	U	C4-C5	-5.48	1.38	1.43
62	A5	3335	A	N9-C4	-5.48	1.34	1.37
62	A5	1161	C	N3-C4	-5.48	1.30	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	1664	C	C4-C5	-5.48	1.38	1.43
62	A5	2496	A	C5-C6	-5.48	1.36	1.41
62	A5	1015	G	C8-N7	-5.48	1.27	1.30
62	A5	27	A	C5-C6	-5.48	1.36	1.41
62	A5	1095	G	N7-C5	-5.48	1.35	1.39
62	A5	1736	G	C5-C4	-5.47	1.34	1.38
62	A5	2160	C	C2-O2	-5.47	1.19	1.24
62	A5	2522	A	C6-N1	-5.47	1.31	1.35
62	A5	3259	A	C6-N1	-5.47	1.31	1.35
62	A5	2558	A	N3-C4	-5.47	1.31	1.34
59	A8	35	G	N7-C5	-5.47	1.35	1.39
62	A5	1129	A	N1-C2	-5.47	1.29	1.34
62	A5	1359	G	N9-C8	-5.47	1.34	1.37
62	A5	1649	G	N3-C4	-5.47	1.31	1.35
59	A8	32	G	N9-C8	-5.47	1.34	1.37
61	B2	1195	G	N3-C4	-5.47	1.31	1.35
62	A5	369	A	C5-C6	-5.47	1.36	1.41
62	A5	807	A	C5-C4	-5.47	1.34	1.38
62	A5	2206	U	C4-C5	-5.47	1.38	1.43
62	A5	2746	A	N3-C4	-5.47	1.31	1.34
62	A5	1681	G	N9-C8	-5.46	1.34	1.37
62	A5	1553	C	C2-N3	-5.46	1.31	1.35
62	A5	2685	G	N3-C4	-5.46	1.31	1.35
62	A5	1079	U	N3-C4	-5.45	1.33	1.38
62	A5	49	A	C5-C6	-5.45	1.36	1.41
62	A5	1120	A	C6-N1	-5.45	1.31	1.35
62	A5	1651	C	C4-C5	-5.45	1.38	1.43
62	A5	1872	A	N7-C5	-5.45	1.35	1.39
62	A5	1733	A	N9-C4	-5.45	1.34	1.37
62	A5	3488	G	C2-N3	-5.45	1.28	1.32
62	A5	815	A	N3-C4	-5.45	1.31	1.34
62	A5	3356	G	N9-C8	-5.45	1.34	1.37
59	A8	45	G	C6-N1	-5.45	1.35	1.39
62	A5	2527	A	C6-N1	-5.44	1.31	1.35
62	A5	94	C	N1-C6	-5.44	1.33	1.37
62	A5	2102	G	C6-N1	-5.44	1.35	1.39
62	A5	2513	G	N1-C2	-5.44	1.33	1.37
62	A5	2777	A	C5-C4	-5.44	1.34	1.38
62	A5	386	G	C6-N1	-5.44	1.35	1.39
62	A5	810	A	C5-C4	-5.44	1.34	1.38
62	A5	1647	A	N3-C4	-5.44	1.31	1.34
62	A5	1023	C	C4-C5	-5.43	1.38	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	1270	G	N1-C2	-5.43	1.33	1.37
62	A5	3503	G	N3-C4	-5.43	1.31	1.35
62	A5	3512	U	C4-C5	-5.43	1.38	1.43
62	A5	1721	C	C4-C5	-5.43	1.38	1.43
62	A5	35	C	C4-C5	-5.43	1.38	1.43
62	A5	1332	C	N1-C6	-5.43	1.33	1.37
62	A5	1873	A	C6-N6	-5.43	1.29	1.33
62	A5	1144	C	N1-C6	-5.42	1.33	1.37
62	A5	1791	A	N9-C4	-5.42	1.34	1.37
62	A5	2561	A	N7-C5	-5.42	1.35	1.39
62	A5	3142	G	C6-N1	-5.42	1.35	1.39
62	A5	381	G	C5-C4	-5.42	1.34	1.38
61	B2	1060	A	N7-C5	-5.42	1.36	1.39
62	A5	824	G	N7-C5	-5.41	1.36	1.39
62	A5	3	A	N9-C4	5.41	1.41	1.37
62	A5	2683	G	C6-N1	-5.41	1.35	1.39
62	A5	1643	G	N3-C4	-5.41	1.31	1.35
62	A5	3148	C	C4-C5	-5.41	1.38	1.43
62	A5	1131	C	N1-C2	-5.41	1.34	1.40
62	A5	1181	A	N7-C5	-5.40	1.36	1.39
62	A5	1717	A	N7-C5	-5.40	1.36	1.39
62	A5	803	A	N7-C5	-5.40	1.36	1.39
62	A5	1146	U	C4-O4	-5.40	1.19	1.23
62	A5	2570	C	C5-C6	-5.40	1.30	1.34
62	A5	2757	U	N1-C6	-5.40	1.33	1.38
62	A5	2208	G	N7-C5	-5.40	1.36	1.39
62	A5	2731	G	C2-N3	-5.40	1.28	1.32
62	A5	2747	G	C6-N1	-5.40	1.35	1.39
62	A5	2713	G	N3-C4	-5.40	1.31	1.35
62	A5	3410	G	C5-C6	-5.40	1.36	1.42
6	CC	57	VAL	CB-CG1	-5.39	1.41	1.52
62	A5	1010	A	N9-C4	-5.39	1.34	1.37
62	A5	1153	G	N9-C8	-5.39	1.34	1.37
62	A5	3618	A	C5-C6	-5.39	1.36	1.41
62	A5	2510	A	C6-N1	-5.39	1.31	1.35
62	A5	1065	A	C6-N1	-5.39	1.31	1.35
62	A5	2203	A	N7-C5	-5.39	1.36	1.39
62	A5	3543	A	N9-C4	-5.39	1.34	1.37
62	A5	2797	A	N7-C5	-5.39	1.36	1.39
62	A5	1648	A	C6-N1	-5.39	1.31	1.35
62	A5	371	G	N9-C8	-5.38	1.34	1.37
62	A5	1356	G	N1-C2	-5.38	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	1400	A	N7-C5	-5.38	1.36	1.39
62	A5	442	A	N7-C5	-5.38	1.36	1.39
62	A5	803	A	C5-C4	-5.38	1.34	1.38
59	A8	106	A	N7-C5	-5.38	1.36	1.39
62	A5	1137	G	N1-C2	-5.38	1.33	1.37
62	A5	1676	A	N7-C5	-5.38	1.36	1.39
62	A5	2211	A	C5-C6	-5.38	1.36	1.41
62	A5	801	G	N9-C8	-5.38	1.34	1.37
62	A5	1420	A	N7-C5	-5.38	1.36	1.39
62	A5	1792	G	C5-C6	-5.38	1.36	1.42
62	A5	793	U	C2-N3	-5.38	1.33	1.37
62	A5	1678	C	N1-C2	-5.37	1.34	1.40
39	Cr	9	TRP	CB-CG	-5.37	1.40	1.50
62	A5	1021	U	N3-C4	-5.37	1.33	1.38
62	A5	1389	C	C4-C5	-5.37	1.38	1.43
62	A5	2215	G	N7-C5	-5.37	1.36	1.39
62	A5	1149	C	N1-C6	-5.37	1.33	1.37
62	A5	3401	U	N1-C2	-5.37	1.33	1.38
62	A5	1330	G	C5-C4	-5.37	1.34	1.38
62	A5	65	A	C5-C6	-5.36	1.36	1.41
62	A5	154	A	N9-C4	-5.36	1.34	1.37
62	A5	1397	A	N9-C4	-5.36	1.34	1.37
62	A5	2180	A	N7-C5	-5.36	1.36	1.39
62	A5	3471	A	C8-N7	-5.36	1.27	1.31
62	A5	3481	G	C5-C4	-5.36	1.34	1.38
62	A5	1086	C	N1-C2	-5.36	1.34	1.40
62	A5	3405	U	C4-C5	-5.36	1.38	1.43
62	A5	1525	G	N9-C4	-5.36	1.33	1.38
62	A5	1649	G	C8-N7	-5.36	1.27	1.30
62	A5	2764	A	N3-C4	-5.36	1.31	1.34
62	A5	2197	A	N7-C5	-5.35	1.36	1.39
62	A5	2739	A	N9-C8	-5.35	1.33	1.37
62	A5	3337	G	C6-N1	-5.35	1.35	1.39
62	A5	301	U	C4-C5	-5.35	1.38	1.43
62	A5	3518	A	C5-C6	-5.35	1.36	1.41
62	A5	1614	A	N9-C8	-5.35	1.33	1.37
62	A5	2167	G	C8-N7	-5.35	1.27	1.30
62	A5	2748	G	N7-C5	-5.35	1.36	1.39
62	A5	3885	C	N3-C4	-5.35	1.30	1.33
62	A5	1028	U	C4-C5	-5.35	1.38	1.43
62	A5	1091	G	C5-C6	-5.35	1.37	1.42
62	A5	1752	G	N7-C5	-5.35	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	1136	A	N3-C4	-5.35	1.31	1.34
62	A5	1532	A	N9-C4	-5.34	1.34	1.37
62	A5	2250	G	N7-C5	-5.34	1.36	1.39
62	A5	286	A	N9-C4	-5.34	1.34	1.37
62	A5	377	U	C4-O4	-5.34	1.19	1.23
62	A5	3259	A	N3-C4	-5.34	1.31	1.34
62	A5	1013	G	C2-N3	-5.34	1.28	1.32
62	A5	1209	A	N7-C5	-5.34	1.36	1.39
62	A5	1618	A	N3-C4	-5.34	1.31	1.34
62	A5	2248	A	N7-C5	-5.34	1.36	1.39
62	A5	2703	G	N3-C4	-5.34	1.31	1.35
62	A5	1777	A	N7-C5	-5.34	1.36	1.39
62	A5	1113	A	N7-C5	-5.34	1.36	1.39
61	B2	632	G	N9-C4	-5.34	1.33	1.38
62	A5	31	C	C2-N3	-5.34	1.31	1.35
62	A5	377	U	C4-C5	-5.34	1.38	1.43
62	A5	2683	G	N1-C2	-5.33	1.33	1.37
62	A5	51	U	C4-C5	-5.33	1.38	1.43
62	A5	1734	G	N7-C5	-5.33	1.36	1.39
62	A5	3517	U	N1-C2	-5.33	1.33	1.38
62	A5	3544	G	C5-C6	-5.33	1.37	1.42
62	A5	3615	G	N7-C5	-5.33	1.36	1.39
62	A5	3945	A	N9-C4	-5.33	1.34	1.37
62	A5	1606	G	C6-N1	-5.33	1.35	1.39
62	A5	88	U	C4-C5	-5.33	1.38	1.43
62	A5	1162	A	C6-N1	-5.33	1.31	1.35
62	A5	3492	G	C5-C6	-5.33	1.37	1.42
62	A5	1786	G	C5-C4	-5.33	1.34	1.38
62	A5	1344	A	N7-C5	-5.33	1.36	1.39
62	A5	2773	G	N9-C4	-5.33	1.33	1.38
62	A5	850	A	N9-C4	-5.32	1.34	1.37
59	A8	11	G	N1-C2	-5.32	1.33	1.37
62	A5	1367	A	N9-C8	-5.32	1.33	1.37
61	B2	1081	G	N7-C5	-5.32	1.36	1.39
62	A5	1868	A	C5-C6	-5.32	1.36	1.41
62	A5	1136	A	C6-N6	-5.32	1.29	1.33
61	B2	1058	A	C5-C6	-5.32	1.36	1.41
62	A5	864	G	C6-N1	-5.32	1.35	1.39
62	A5	1730	A	N3-C4	-5.32	1.31	1.34
62	A5	2772	G	C6-O6	-5.32	1.19	1.24
62	A5	1356	G	C5-C4	-5.32	1.34	1.38
62	A5	911	A	N9-C4	-5.31	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	1107	G	N9-C4	-5.31	1.33	1.38
62	A5	1675	G	C2-N3	-5.31	1.28	1.32
62	A5	3488	G	N9-C4	-5.31	1.33	1.38
62	A5	987	G	N1-C2	-5.31	1.33	1.37
62	A5	3881	A	C6-N1	-5.31	1.31	1.35
62	A5	855	A	N9-C4	-5.31	1.34	1.37
62	A5	987	G	N7-C5	-5.31	1.36	1.39
62	A5	3506	U	N1-C2	-5.31	1.33	1.38
62	A5	2755	G	C8-N7	-5.31	1.27	1.30
62	A5	1110	G	N9-C8	-5.30	1.34	1.37
62	A5	1389	C	N3-C4	-5.30	1.30	1.33
62	A5	3632	G	N7-C5	-5.30	1.36	1.39
62	A5	54	U	C5-C6	-5.30	1.29	1.34
62	A5	2184	G	N3-C4	-5.30	1.31	1.35
62	A5	2552	G	N9-C4	-5.30	1.33	1.38
62	A5	989	A	N7-C5	-5.30	1.36	1.39
62	A5	3143	U	C2-O2	-5.30	1.17	1.22
62	A5	59	G	N1-C2	-5.30	1.33	1.37
62	A5	1001	A	N9-C8	-5.30	1.33	1.37
62	A5	1121	A	C6-N6	-5.30	1.29	1.33
62	A5	1677	U	C4-O4	-5.30	1.19	1.23
62	A5	2723	A	N9-C4	-5.30	1.34	1.37
62	A5	382	G	C6-N1	-5.30	1.35	1.39
61	B2	1926	A	N9-C4	-5.30	1.34	1.37
62	A5	1158	C	N1-C6	-5.30	1.33	1.37
62	A5	1196	A	N7-C5	-5.30	1.36	1.39
62	A5	1268	A	N7-C5	-5.30	1.36	1.39
62	A5	800	C	C5-C6	-5.29	1.30	1.34
62	A5	2733	G	C6-N1	-5.29	1.35	1.39
62	A5	1733	A	N3-C4	-5.29	1.31	1.34
62	A5	2102	G	C8-N7	-5.29	1.27	1.30
62	A5	49	A	C8-N7	-5.29	1.27	1.31
62	A5	798	C	N1-C2	-5.29	1.34	1.40
62	A5	2728	C	C4-C5	-5.29	1.38	1.43
61	B2	1204	A	N7-C5	-5.29	1.36	1.39
62	A5	989	A	C5-C6	-5.29	1.36	1.41
62	A5	2701	G	C2-N3	-5.29	1.28	1.32
44	Ce	34	TRP	CB-CG	-5.29	1.40	1.50
62	A5	25	G	N9-C8	-5.29	1.34	1.37
62	A5	2622	A	C5-C4	-5.29	1.35	1.38
28	CN	129	TYR	CD2-CE2	-5.28	1.31	1.39
62	A5	2217	A	C6-N1	-5.28	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	1702	G	N3-C4	-5.28	1.31	1.35
62	A5	3348	G	C5-C6	-5.28	1.37	1.42
61	B2	1941	A	N9-C4	-5.28	1.34	1.37
62	A5	1680	U	C2-N3	-5.28	1.34	1.37
62	A5	791	C	N3-C4	-5.27	1.30	1.33
62	A5	1003	C	N1-C6	-5.27	1.33	1.37
62	A5	1267	A	C5-C6	-5.27	1.36	1.41
62	A5	1066	A	C5-C6	-5.27	1.36	1.41
62	A5	1353	G	N7-C5	-5.27	1.36	1.39
62	A5	1382	U	C4-C5	-5.27	1.38	1.43
59	A8	35	G	C5-C4	-5.27	1.34	1.38
62	A5	2747	G	C5-C6	-5.26	1.37	1.42
62	A5	2784	C	C2-O2	-5.26	1.19	1.24
61	B2	1969	G	N7-C5	-5.26	1.36	1.39
62	A5	376	G	C8-N7	-5.26	1.27	1.30
62	A5	828	G	C5-C4	-5.26	1.34	1.38
62	A5	3591	A	C5-C6	-5.26	1.36	1.41
62	A5	1368	A	N9-C4	-5.26	1.34	1.37
62	A5	1789	A	C5-C4	-5.26	1.35	1.38
62	A5	2774	G	N7-C5	-5.26	1.36	1.39
62	A5	1135	U	C2-N3	-5.25	1.34	1.37
62	A5	1388	C	N1-C6	-5.25	1.33	1.37
59	A8	26	U	N1-C6	-5.25	1.33	1.38
62	A5	67	A	N9-C4	5.25	1.41	1.37
62	A5	2521	A	N9-C4	-5.25	1.34	1.37
62	A5	911	A	N3-C4	-5.25	1.31	1.34
62	A5	1970	G	N3-C4	-5.25	1.31	1.35
62	A5	2171	U	C4-C5	-5.25	1.38	1.43
62	A5	1873	A	N7-C5	-5.25	1.36	1.39
62	A5	2176	G	C5-C6	-5.25	1.37	1.42
62	A5	1364	A	N3-C4	-5.24	1.31	1.34
62	A5	2811	G	N7-C5	-5.24	1.36	1.39
62	A5	1628	G	C6-N1	-5.24	1.35	1.39
59	A8	15	G	N9-C4	-5.24	1.33	1.38
62	A5	356	A	N7-C5	-5.24	1.36	1.39
62	A5	805	C	N3-C4	-5.24	1.30	1.33
62	A5	1175	C	N1-C6	-5.24	1.34	1.37
62	A5	1872	A	N9-C4	-5.24	1.34	1.37
59	A8	9	G	C5-C6	-5.24	1.37	1.42
62	A5	2222	G	N9-C4	-5.24	1.33	1.38
62	A5	2775	A	C5-C6	-5.24	1.36	1.41
59	A8	26	U	C2-N3	-5.23	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	2693	G	C5-C4	-5.23	1.34	1.38
62	A5	2223	C	C4-C5	-5.23	1.38	1.43
62	A5	1088	A	N7-C5	-5.23	1.36	1.39
62	A5	2524	A	C6-N1	-5.23	1.31	1.35
62	A5	33	C	C4-C5	-5.23	1.38	1.43
62	A5	2506	U	C4-C5	-5.23	1.38	1.43
62	A5	2753	G	C5-C4	-5.23	1.34	1.38
62	A5	62	G	N3-C4	-5.22	1.31	1.35
62	A5	3168	A	N7-C5	-5.22	1.36	1.39
62	A5	3590	C	C2-N3	-5.22	1.31	1.35
62	A5	3620	G	C5-C6	-5.22	1.37	1.42
51	Cp	69	TRP	CB-CG	-5.22	1.40	1.50
62	A5	1412	A	C5-C6	-5.22	1.36	1.41
62	A5	1612	G	C8-N7	-5.22	1.27	1.30
62	A5	2688	U	C4-C5	-5.22	1.38	1.43
62	A5	2755	G	N7-C5	-5.22	1.36	1.39
62	A5	34	C	N1-C2	-5.22	1.34	1.40
62	A5	1135	U	N3-C4	-5.22	1.33	1.38
62	A5	1794	G	N9-C4	5.22	1.42	1.38
62	A5	2536	G	C5-C4	-5.22	1.34	1.38
62	A5	1736	G	C8-N7	-5.21	1.27	1.30
62	A5	1735	G	N7-C5	-5.21	1.36	1.39
62	A5	2564	U	N1-C2	-5.21	1.33	1.38
59	A8	16	A	C2-N3	-5.21	1.28	1.33
62	A5	3153	G	C5-C6	-5.21	1.37	1.42
62	A5	2739	A	C5-C4	-5.21	1.35	1.38
6	CC	70	TRP	CB-CG	-5.21	1.40	1.50
62	A5	1010	A	N3-C4	-5.21	1.31	1.34
62	A5	1074	U	C2-N3	-5.21	1.34	1.37
62	A5	2523	A	C6-N1	-5.21	1.31	1.35
62	A5	2751	A	N9-C4	-5.21	1.34	1.37
62	A5	1062	C	N3-C4	-5.20	1.30	1.33
62	A5	1126	A	C5-C4	-5.20	1.35	1.38
61	B2	1115	C	N1-C6	-5.20	1.34	1.37
62	A5	30	A	N3-C4	-5.20	1.31	1.34
62	A5	308	G	C6-N1	-5.20	1.35	1.39
62	A5	1167	A	N9-C4	-5.20	1.34	1.37
62	A5	3499	G	C8-N7	-5.20	1.27	1.30
62	A5	1107	G	N7-C5	-5.20	1.36	1.39
62	A5	1151	A	N7-C5	-5.20	1.36	1.39
62	A5	1554	C	N3-C4	-5.20	1.30	1.33
62	A5	2230	G	C6-N1	-5.20	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	2698	A	C5-C4	-5.20	1.35	1.38
62	A5	3481	G	C6-O6	-5.19	1.19	1.24
62	A5	1121	A	N1-C2	-5.19	1.29	1.34
62	A5	1521	G	N9-C8	-5.19	1.34	1.37
62	A5	2700	C	C4-C5	-5.19	1.38	1.43
62	A5	3506	U	C2-N3	-5.19	1.34	1.37
62	A5	3355	G	N9-C8	-5.19	1.34	1.37
62	A5	2561	A	N3-C4	-5.19	1.31	1.34
62	A5	2777	A	N9-C8	-5.19	1.33	1.37
62	A5	1693	C	N1-C6	-5.19	1.34	1.37
62	A5	2088	G	N7-C5	-5.19	1.36	1.39
62	A5	2699	A	N3-C4	-5.19	1.31	1.34
62	A5	2775	A	N7-C5	-5.19	1.36	1.39
62	A5	3512	U	N3-C4	-5.18	1.33	1.38
61	B2	359	C	N3-C4	-5.18	1.30	1.33
62	A5	803	A	N3-C4	-5.18	1.31	1.34
62	A5	1735	G	N3-C4	-5.18	1.31	1.35
62	A5	2519	U	C4-O4	-5.18	1.19	1.23
62	A5	2727	U	C4-C5	-5.18	1.38	1.43
62	A5	3348	G	C8-N7	-5.18	1.27	1.30
62	A5	3594	A	N7-C5	-5.18	1.36	1.39
62	A5	2552	G	C5-C4	-5.18	1.34	1.38
62	A5	28	C	C4-C5	-5.18	1.38	1.43
62	A5	427	A	C5-C6	-5.18	1.36	1.41
62	A5	1152	A	N9-C8	-5.18	1.33	1.37
62	A5	2205	G	C6-N1	-5.18	1.35	1.39
62	A5	1516	A	N9-C4	-5.18	1.34	1.37
62	A5	3345	A	N9-C4	5.18	1.41	1.37
62	A5	3346	G	C2-N3	-5.18	1.28	1.32
62	A5	3543	A	N7-C5	-5.18	1.36	1.39
62	A5	3593	A	N9-C4	-5.18	1.34	1.37
62	A5	1521	G	C6-N1	-5.17	1.35	1.39
62	A5	2213	G	N1-C2	-5.17	1.33	1.37
62	A5	2511	C	N3-C4	-5.17	1.30	1.33
62	A5	378	G	C5-C6	-5.17	1.37	1.42
62	A5	2524	A	N9-C8	-5.17	1.33	1.37
62	A5	48	U	C4-O4	-5.17	1.19	1.23
62	A5	1547	A	C6-N1	-5.17	1.31	1.35
62	A5	1973	G	C6-N1	-5.17	1.35	1.39
62	A5	3293	G	C5-C6	-5.17	1.37	1.42
62	A5	3414	U	C4-C5	-5.17	1.39	1.43
62	A5	3451	A	C5-C6	-5.17	1.36	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	3582	A	N9-C4	-5.17	1.34	1.37
28	CN	95	TYR	CD2-CE2	-5.16	1.31	1.39
62	A5	2526	A	N3-C4	-5.16	1.31	1.34
62	A5	2558	A	N7-C5	-5.16	1.36	1.39
62	A5	1016	A	N3-C4	-5.16	1.31	1.34
62	A5	1163	G	C8-N7	-5.15	1.27	1.30
62	A5	2555	G	N3-C4	-5.15	1.31	1.35
62	A5	1094	A	C5-C6	-5.15	1.36	1.41
62	A5	1868	A	N7-C5	-5.15	1.36	1.39
62	A5	998	G	C6-N1	-5.15	1.35	1.39
62	A5	2798	C	N1-C6	-5.15	1.34	1.37
62	A5	3482	G	N3-C4	-5.15	1.31	1.35
62	A5	991	A	C6-N1	-5.14	1.31	1.35
62	A5	3590	C	N3-C4	-5.14	1.30	1.33
62	A5	2730	A	N9-C4	-5.14	1.34	1.37
62	A5	2802	A	N7-C5	-5.14	1.36	1.39
62	A5	2540	G	C6-N1	-5.14	1.35	1.39
62	A5	37	G	N9-C4	-5.14	1.33	1.38
62	A5	1162	A	N3-C4	-5.14	1.31	1.34
62	A5	1648	A	C5-C4	-5.14	1.35	1.38
62	A5	978	G	C5-C6	-5.14	1.37	1.42
62	A5	3145	U	C2-N3	-5.14	1.34	1.37
62	A5	347	A	N7-C5	-5.13	1.36	1.39
62	A5	1060	G	N3-C4	-5.13	1.31	1.35
62	A5	1746	A	C5-C6	-5.13	1.36	1.41
62	A5	2790	G	C5-C4	-5.13	1.34	1.38
62	A5	3412	U	C4-C5	-5.13	1.39	1.43
58	A7	84	U	N1-C2	-5.13	1.33	1.38
61	B2	1057	A	N7-C5	-5.13	1.36	1.39
62	A5	38	A	N9-C8	-5.13	1.33	1.37
62	A5	2238	A	N7-C5	-5.13	1.36	1.39
62	A5	2695	A	C5-C6	-5.13	1.36	1.41
62	A5	3348	G	C6-N1	-5.13	1.35	1.39
62	A5	3499	G	N9-C8	-5.13	1.34	1.37
62	A5	2038	A	N7-C5	-5.13	1.36	1.39
62	A5	2564	U	C2-O2	-5.13	1.17	1.22
62	A5	1371	A	C6-N1	-5.12	1.31	1.35
62	A5	3672	U	N1-C2	-5.12	1.33	1.38
62	A5	67	A	C6-N1	-5.12	1.31	1.35
62	A5	345	A	C5-C6	-5.12	1.36	1.41
62	A5	1609	U	C5-C6	-5.12	1.29	1.34
62	A5	1726	G	C6-N1	-5.12	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	A8	16	A	N9-C4	-5.12	1.34	1.37
62	A5	54	U	C4-O4	-5.12	1.19	1.23
62	A5	1731	G	N7-C5	-5.12	1.36	1.39
62	A5	2747	G	N9-C8	-5.12	1.34	1.37
62	A5	803	A	N9-C4	-5.11	1.34	1.37
62	A5	1117	A	N3-C4	-5.11	1.31	1.34
62	A5	865	A	N7-C5	-5.11	1.36	1.39
62	A5	359	G	N9-C8	-5.11	1.34	1.37
62	A5	789	G	C6-N1	-5.11	1.35	1.39
62	A5	2182	G	N9-C8	-5.11	1.34	1.37
62	A5	2524	A	N3-C4	-5.11	1.31	1.34
62	A5	1368	A	N9-C8	-5.11	1.33	1.37
2	CA	196	TRP	CE3-CZ3	-5.11	1.29	1.38
62	A5	1361	G	N9-C4	-5.11	1.33	1.38
62	A5	1655	A	N3-C4	-5.11	1.31	1.34
62	A5	2710	A	N7-C5	-5.11	1.36	1.39
62	A5	3582	A	C5-C4	-5.11	1.35	1.38
62	A5	3612	A	C5-C6	-5.11	1.36	1.41
62	A5	379	A	C5-C6	-5.10	1.36	1.41
62	A5	2161	G	C5-C6	-5.10	1.37	1.42
62	A5	2739	A	C5-C6	-5.10	1.36	1.41
62	A5	2526	A	C6-N1	-5.10	1.31	1.35
62	A5	3627	C	N1-C6	-5.10	1.34	1.37
62	A5	1071	U	C2-N3	-5.10	1.34	1.37
62	A5	1267	A	N7-C5	-5.10	1.36	1.39
62	A5	2746	A	C6-N1	-5.10	1.31	1.35
62	A5	343	A	C5-C4	-5.09	1.35	1.38
62	A5	1747	A	C5-C6	-5.09	1.36	1.41
62	A5	2212	A	C6-N1	-5.09	1.31	1.35
62	A5	106	A	N7-C5	-5.09	1.36	1.39
62	A5	1032	G	N7-C5	-5.09	1.36	1.39
62	A5	1060	G	C2-N3	-5.09	1.28	1.32
62	A5	2202	A	C6-N1	-5.09	1.31	1.35
62	A5	1647	A	C6-N1	-5.09	1.31	1.35
62	A5	2550	G	C5-C4	-5.09	1.34	1.38
62	A5	389	G	N7-C5	-5.09	1.36	1.39
62	A5	2221	G	C5-C6	-5.09	1.37	1.42
62	A5	1361	G	C6-N1	-5.09	1.35	1.39
62	A5	1366	G	N3-C4	-5.08	1.31	1.35
62	A5	2149	G	N7-C5	-5.08	1.36	1.39
62	A5	2548	G	N7-C5	-5.08	1.36	1.39
62	A5	2790	G	N7-C5	-5.08	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	3580	G	C5-C4	-5.08	1.34	1.38
62	A5	1362	G	N1-C2	-5.08	1.33	1.37
62	A5	1626	A	C5-C4	-5.08	1.35	1.38
62	A5	2217	A	N3-C4	-5.08	1.31	1.34
59	A8	44	C	N3-C4	-5.08	1.30	1.33
62	A5	110	A	N9-C4	-5.08	1.34	1.37
61	B2	1847	A	N7-C5	-5.08	1.36	1.39
62	A5	39	A	N7-C5	-5.08	1.36	1.39
62	A5	1110	G	C5-C4	-5.08	1.34	1.38
62	A5	2167	G	C6-N1	-5.08	1.35	1.39
62	A5	2654	G	N3-C4	-5.08	1.31	1.35
62	A5	3618	A	N3-C4	-5.08	1.31	1.34
62	A5	2723	A	N7-C5	-5.07	1.36	1.39
62	A5	1731	G	C5-C6	-5.07	1.37	1.42
62	A5	2779	A	N3-C4	-5.07	1.31	1.34
62	A5	1362	G	C6-N1	-5.07	1.36	1.39
62	A5	1687	U	C4-C5	-5.07	1.39	1.43
62	A5	1757	A	C5-C6	-5.07	1.36	1.41
62	A5	2720	U	C4-C5	-5.07	1.39	1.43
59	A8	35	G	N1-C2	-5.07	1.33	1.37
62	A5	1696	A	N7-C5	-5.07	1.36	1.39
62	A5	2035	C	N3-C4	-5.07	1.30	1.33
62	A5	3352	A	N7-C5	-5.07	1.36	1.39
62	A5	3580	G	N9-C8	-5.07	1.34	1.37
62	A5	2683	G	C5-C4	-5.07	1.34	1.38
62	A5	234	G	C6-N1	-5.06	1.36	1.39
62	A5	1675	G	N7-C5	-5.06	1.36	1.39
62	A5	2231	A	N7-C5	-5.06	1.36	1.39
62	A5	2540	G	N7-C5	-5.06	1.36	1.39
62	A5	2190	A	N7-C5	-5.06	1.36	1.39
62	A5	2769	G	N3-C4	-5.06	1.31	1.35
62	A5	804	C	C4-C5	-5.06	1.39	1.43
62	A5	2694	G	N9-C8	-5.06	1.34	1.37
62	A5	1534	G	N9-C4	-5.05	1.33	1.38
62	A5	42	U	N1-C2	-5.05	1.34	1.38
62	A5	68	G	C5-C4	-5.05	1.34	1.38
61	B2	1846	G	N7-C5	-5.05	1.36	1.39
62	A5	452	A	N7-C5	-5.05	1.36	1.39
62	A5	1327	G	N3-C4	-5.05	1.31	1.35
62	A5	1390	C	N1-C6	-5.05	1.34	1.37
62	A5	1608	G	N1-C2	-5.05	1.33	1.37
62	A5	386	G	N3-C4	-5.05	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	1522	G	N3-C4	-5.05	1.31	1.35
62	A5	815	A	C6-N6	-5.05	1.29	1.33
62	A5	1064	G	C8-N7	-5.05	1.27	1.30
62	A5	1082	A	N7-C5	-5.05	1.36	1.39
62	A5	1137	G	C8-N7	-5.05	1.27	1.30
62	A5	1331	G	C5-C6	-5.05	1.37	1.42
62	A5	1749	A	N7-C5	-5.05	1.36	1.39
62	A5	1748	C	N3-C4	-5.04	1.30	1.33
62	A5	995	G	C5-C6	-5.04	1.37	1.42
62	A5	1377	A	C6-N1	-5.04	1.32	1.35
62	A5	3138	G	N1-C2	-5.04	1.33	1.37
61	B2	1060	A	N9-C4	-5.04	1.34	1.37
62	A5	3879	A	N9-C4	-5.04	1.34	1.37
62	A5	1968	A	C5-C4	-5.04	1.35	1.38
62	A5	2230	G	N1-C2	-5.04	1.33	1.37
62	A5	102	G	N9-C8	-5.04	1.34	1.37
62	A5	427	A	N7-C5	-5.04	1.36	1.39
62	A5	1794	G	C6-N1	-5.04	1.36	1.39
62	A5	2713	G	C2-N3	-5.04	1.28	1.32
62	A5	784	G	N9-C8	-5.04	1.34	1.37
62	A5	2747	G	N1-C2	-5.04	1.33	1.37
62	A5	1686	A	N3-C4	-5.03	1.31	1.34
59	A8	35	G	C6-N1	-5.03	1.36	1.39
62	A5	1645	G	C5-C4	-5.03	1.34	1.38
62	A5	1875	G	C5-C6	-5.03	1.37	1.42
62	A5	2531	A	N9-C4	-5.03	1.34	1.37
62	A5	2780	A	C6-N1	-5.03	1.32	1.35
62	A5	43	A	C6-N1	-5.03	1.32	1.35
62	A5	2792	G	C5-C4	-5.03	1.34	1.38
62	A5	1077	C	C2-N3	-5.02	1.31	1.35
61	B2	633	U	C2-N3	-5.02	1.34	1.37
62	A5	34	C	C2-N3	-5.02	1.31	1.35
62	A5	1548	C	N1-C2	-5.02	1.35	1.40
62	A5	3630	C	N3-C4	-5.02	1.30	1.33
62	A5	427	A	C6-N1	-5.02	1.32	1.35
62	A5	787	C	C5-C6	-5.02	1.30	1.34
62	A5	820	A	C6-N1	-5.02	1.32	1.35
62	A5	1006	A	N7-C5	-5.02	1.36	1.39
62	A5	359	G	C5-C6	-5.02	1.37	1.42
62	A5	1162	A	C6-N6	-5.02	1.29	1.33
62	A5	1752	G	C5-C6	-5.02	1.37	1.42
27	Ca	29	HIS	C-N	-5.01	1.24	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	A5	366	A	N9-C8	-5.01	1.33	1.37
62	A5	1368	A	N3-C4	-5.01	1.31	1.34
62	A5	1522	G	N9-C8	-5.01	1.34	1.37
62	A5	1683	U	C2-N3	-5.01	1.34	1.37
62	A5	1786	G	N3-C4	-5.01	1.31	1.35
62	A5	3145	U	C4-C5	-5.01	1.39	1.43
62	A5	3583	C	C4-C5	-5.01	1.39	1.43
62	A5	2714	U	C2-N3	-5.01	1.34	1.37
62	A5	2753	G	N1-C2	-5.01	1.33	1.37
62	A5	3606	G	N7-C5	-5.01	1.36	1.39
62	A5	314	A	N7-C5	-5.01	1.36	1.39
62	A5	828	G	N3-C4	-5.01	1.31	1.35
62	A5	1345	G	N3-C4	-5.01	1.31	1.35
62	A5	1163	G	N7-C5	-5.01	1.36	1.39
62	A5	1162	A	N9-C4	-5.01	1.34	1.37
62	A5	2765	A	C5-C6	-5.01	1.36	1.41
62	A5	3450	G	N9-C8	-5.01	1.34	1.37
62	A5	1783	A	C5-C6	-5.00	1.36	1.41
62	A5	1873	A	N3-C4	-5.00	1.31	1.34
62	A5	2208	G	C6-N1	-5.00	1.36	1.39
61	B2	1235	A	N7-C5	-5.00	1.36	1.39
62	A5	1603	A	C6-N1	-5.00	1.32	1.35
62	A5	2153	C	N1-C6	-5.00	1.34	1.37
62	A5	2199	A	C6-N1	-5.00	1.32	1.35

All (4762) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1366	G	N1-C6-O6	18.38	130.93	119.90
59	A8	34	C	C6-N1-C2	-17.41	113.34	120.30
62	A5	1526	G	C6-C5-N7	-17.19	120.09	130.40
62	A5	3143	U	N3-C2-O2	-16.65	110.55	122.20
62	A5	3408	C	C6-N1-C2	-16.63	113.65	120.30
62	A5	3341	C	C6-N1-C2	-16.50	113.70	120.30
62	A5	2783	C	N1-C2-O2	16.49	128.79	118.90
62	A5	3490	C	C5-C6-N1	16.47	129.23	121.00
62	A5	2508	C	C6-N1-C2	-16.36	113.76	120.30
62	A5	1116	G	C5-N7-C8	16.14	112.37	104.30
62	A5	1682	G	C6-C5-N7	-15.81	120.92	130.40
62	A5	374	C	C6-N1-C2	-15.68	114.03	120.30
62	A5	1124	G	N3-C4-N9	15.67	135.40	126.00
62	A5	2160	C	C6-N1-C2	-15.46	114.11	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	3143	U	C6-N1-C2	-15.39	111.76	121.00
62	A5	1372	A	C8-N9-C4	-15.10	99.76	105.80
62	A5	809	G	C8-N9-C4	-15.04	100.38	106.40
62	A5	374	C	C2-N1-C1'	14.80	135.08	118.80
62	A5	376	G	C6-C5-N7	-14.71	121.57	130.40
62	A5	2162	C	C2-N1-C1'	14.65	134.91	118.80
62	A5	1358	U	O5'-P-OP1	-14.60	92.56	105.70
62	A5	1080	G	N3-C4-C5	-14.53	121.33	128.60
62	A5	1080	G	C8-N9-C1'	-14.50	108.15	127.00
62	A5	2566	A	C8-N9-C4	-14.44	100.03	105.80
62	A5	1363	G	C5-C6-O6	-14.43	119.94	128.60
62	A5	1080	G	C4-N9-C1'	14.25	145.03	126.50
62	A5	1080	G	N3-C4-N9	14.25	134.55	126.00
62	A5	28	C	C5-C6-N1	13.96	127.98	121.00
62	A5	2730	A	C5-C6-N6	-13.92	112.56	123.70
62	A5	3624	C	C6-N1-C2	-13.83	114.77	120.30
62	A5	1116	G	C4-C5-N7	-13.80	105.28	110.80
62	A5	46	C	C5-C4-N4	-13.72	110.60	120.20
62	A5	788	C	C5-C6-N1	13.63	127.82	121.00
62	A5	991	A	C8-N9-C4	-13.52	100.39	105.80
62	A5	3258	C	C2-N1-C1'	13.49	133.64	118.80
62	A5	1084	A	O5'-P-OP1	-13.48	93.57	105.70
62	A5	1382	U	C5-C6-N1	13.48	129.44	122.70
62	A5	1363	G	C4-C5-N7	13.48	116.19	110.80
62	A5	3477	A	N1-C6-N6	-13.46	110.52	118.60
62	A5	991	A	N7-C8-N9	13.44	120.52	113.80
62	A5	1401	C	C2-N1-C1'	13.43	133.57	118.80
62	A5	3474	G	C8-N9-C4	-13.43	101.03	106.40
62	A5	1369	C	C2-N1-C1'	13.42	133.56	118.80
62	A5	1124	G	N3-C2-N2	13.38	129.27	119.90
62	A5	1645	G	C4-C5-N7	13.38	116.15	110.80
59	A8	100	G	OP1-P-O3'	-13.36	75.80	105.20
62	A5	2791	A	N1-C6-N6	13.34	126.61	118.60
62	A5	2757	U	N3-C2-O2	-13.32	112.88	122.20
62	A5	1526	G	N7-C8-N9	13.28	119.74	113.10
62	A5	3341	C	C5-C6-N1	13.27	127.64	121.00
62	A5	2754	G	N3-C4-N9	-13.23	118.06	126.00
62	A5	1325	C	C6-N1-C2	-13.19	115.03	120.30
62	A5	997	U	C5-C6-N1	13.15	129.28	122.70
62	A5	289	C	N1-C2-O2	13.12	126.77	118.90
62	A5	2162	C	C5-C6-N1	13.06	127.53	121.00
62	A5	1082	A	C8-N9-C4	-13.06	100.58	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	2754	G	N3-C4-C5	13.02	135.11	128.60
62	A5	1526	G	N1-C6-O6	12.91	127.65	119.90
62	A5	2508	C	N3-C2-O2	-12.85	112.91	121.90
62	A5	1356	G	C6-C5-N7	-12.84	122.69	130.40
62	A5	1366	G	C4-C5-N7	12.79	115.92	110.80
62	A5	363	G	C6-C5-N7	-12.79	122.73	130.40
62	A5	365	A	O5'-P-OP2	-12.78	94.20	105.70
62	A5	306	C	C6-N1-C2	-12.76	115.19	120.30
62	A5	2223	C	C5-C6-N1	12.76	127.38	121.00
62	A5	1124	G	N3-C4-C5	-12.75	122.22	128.60
62	A5	1719	G	N7-C8-N9	12.74	119.47	113.10
62	A5	3507	A	C8-N9-C4	-12.72	100.71	105.80
62	A5	3355	G	C6-C5-N7	-12.69	122.78	130.40
62	A5	1383	A	C2-N3-C4	12.66	116.93	110.60
62	A5	1077	C	N1-C2-O2	12.62	126.47	118.90
62	A5	374	C	C5-C6-N1	12.59	127.30	121.00
62	A5	1526	G	C4-C5-N7	12.56	115.83	110.80
62	A5	1142	U	N3-C2-O2	-12.54	113.42	122.20
62	A5	1141	G	C6-C5-N7	-12.54	122.88	130.40
62	A5	1682	G	C4-C5-N7	12.51	115.80	110.80
62	A5	2784	C	C6-N1-C2	-12.49	115.30	120.30
59	A8	103	C	C6-N1-C2	-12.48	115.31	120.30
62	A5	791	C	C6-N1-C2	-12.42	115.33	120.30
62	A5	3149	U	C2-N1-C1'	12.37	132.55	117.70
62	A5	1719	G	C4-N9-C1'	12.37	142.58	126.50
62	A5	374	C	N1-C2-O2	12.36	126.32	118.90
62	A5	1674	A	C5-C6-N1	12.35	123.88	117.70
62	A5	2793	C	C6-N1-C2	-12.34	115.36	120.30
62	A5	2562	U	N3-C2-O2	-12.34	113.56	122.20
62	A5	1077	C	C6-N1-C2	-12.33	115.37	120.30
62	A5	1719	G	C4-C5-N7	12.33	115.73	110.80
62	A5	2162	C	N1-C2-O2	12.32	126.29	118.90
62	A5	1372	A	N7-C8-N9	12.31	119.96	113.80
62	A5	3258	C	N1-C2-O2	12.31	126.29	118.90
62	A5	2517	A	C8-N9-C4	-12.30	100.88	105.80
62	A5	2148	C	C6-N1-C2	-12.28	115.39	120.30
62	A5	1644	C	C5-C6-N1	12.27	127.14	121.00
62	A5	1369	C	N1-C2-O2	12.23	126.24	118.90
62	A5	1719	G	C6-C5-N7	-12.22	123.06	130.40
62	A5	1018	C	N1-C2-O2	12.22	126.23	118.90
62	A5	88	U	C2-N1-C1'	12.20	132.34	117.70
62	A5	289	C	C2-N1-C1'	12.16	132.18	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	3003	C	N1-C2-O2	12.12	126.17	118.90
62	A5	1357	C	C2-N1-C1'	12.07	132.07	118.80
62	A5	90	G	N3-C4-N9	-12.00	118.80	126.00
62	A5	1008	A	N1-C6-N6	11.97	125.78	118.60
62	A5	3481	G	C5-C6-N1	11.94	117.47	111.50
62	A5	1369	C	N3-C2-O2	-11.93	113.55	121.90
62	A5	3345	A	N1-C6-N6	11.93	125.76	118.60
62	A5	1028	U	C5-C6-N1	11.88	128.64	122.70
62	A5	1401	C	C6-N1-C2	-11.87	115.55	120.30
62	A5	2223	C	C4-C5-C6	-11.87	111.46	117.40
62	A5	1728	G	C4-C5-N7	11.87	115.55	110.80
62	A5	1077	C	N3-C2-O2	-11.85	113.60	121.90
62	A5	2730	A	N1-C6-N6	11.78	125.67	118.60
62	A5	2739	A	C8-N9-C4	-11.75	101.10	105.80
62	A5	416	C	C2-N1-C1'	11.75	131.72	118.80
62	A5	1609	U	N1-C2-O2	11.74	131.02	122.80
62	A5	782	G	C6-C5-N7	-11.73	123.36	130.40
62	A5	2791	A	C4-C5-N7	11.73	116.56	110.70
62	A5	3485	U	C6-N1-C2	-11.73	113.96	121.00
62	A5	289	C	N3-C2-O2	-11.72	113.69	121.90
62	A5	804	C	C6-N1-C2	-11.71	115.61	120.30
62	A5	774	A	C2-N3-C4	11.69	116.44	110.60
62	A5	3505	U	N3-C2-O2	-11.69	114.02	122.20
62	A5	1331	G	O5'-P-OP1	-11.69	95.18	105.70
58	A7	88	G	C8-N9-C4	-11.68	101.73	106.40
62	A5	3490	C	C4-C5-C6	-11.67	111.56	117.40
62	A5	1688	A	C8-N9-C4	-11.65	101.14	105.80
62	A5	2768	A	C6-C5-N7	-11.63	124.16	132.30
62	A5	1366	G	C5-C6-O6	-11.62	121.63	128.60
62	A5	1008	A	N9-C4-C5	-11.62	101.15	105.80
62	A5	1649	G	C4-C5-N7	11.61	115.44	110.80
62	A5	300	A	O5'-P-OP1	-11.60	95.26	105.70
62	A5	298	U	N3-C2-O2	-11.57	114.10	122.20
62	A5	1366	G	C6-C5-N7	-11.55	123.47	130.40
62	A5	2767	U	C5-C6-N1	11.55	128.48	122.70
62	A5	2204	U	C6-N1-C2	-11.54	114.07	121.00
62	A5	28	C	C4-C5-C6	-11.54	111.63	117.40
62	A5	1366	G	C5-N7-C8	-11.51	98.55	104.30
62	A5	791	C	C5-C6-N1	11.50	126.75	121.00
62	A5	1116	G	N3-C4-C5	-11.49	122.86	128.60
62	A5	1366	G	C2-N3-C4	-11.49	106.16	111.90
62	A5	1366	G	N3-C4-C5	11.49	134.34	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1728	G	C6-C5-N7	-11.48	123.51	130.40
62	A5	3579	C	C6-N1-C2	-11.48	115.71	120.30
62	A5	812	U	C6-N1-C2	-11.48	114.11	121.00
62	A5	787	C	C6-N1-C2	11.43	124.87	120.30
62	A5	2506	U	C2-N1-C1'	11.42	131.40	117.70
62	A5	2162	C	C6-N1-C1'	-11.39	107.13	120.80
62	A5	46	C	C2-N3-C4	-11.39	114.20	119.90
62	A5	3479	C	O5'-P-OP1	-11.38	95.45	105.70
62	A5	3355	G	C4-N9-C1'	11.38	141.30	126.50
62	A5	2233	C	C6-N1-C2	-11.37	115.75	120.30
59	A8	27	C	C6-N1-C2	-11.36	115.75	120.30
62	A5	1547	A	C8-N9-C4	-11.36	101.26	105.80
62	A5	2529	G	C4-C5-N7	11.34	115.33	110.80
62	A5	1082	A	N7-C8-N9	11.32	119.46	113.80
62	A5	2700	C	C6-N1-C2	-11.31	115.78	120.30
62	A5	2662	C	N1-C2-O2	11.29	125.68	118.90
62	A5	3258	C	C6-N1-C1'	-11.29	107.25	120.80
62	A5	777	C	N3-C2-O2	-11.29	114.00	121.90
62	A5	416	C	N1-C2-O2	11.28	125.67	118.90
62	A5	3459	C	C6-N1-C2	-11.28	115.79	120.30
62	A5	782	G	C8-N9-C4	-11.26	101.89	106.40
62	A5	2754	G	C8-N9-C1'	11.26	141.63	127.00
62	A5	777	C	C6-N1-C2	-11.25	115.80	120.30
62	A5	3624	C	C5-C6-N1	11.25	126.63	121.00
62	A5	2768	A	N1-C6-N6	11.25	125.35	118.60
62	A5	374	C	N3-C2-O2	-11.23	114.04	121.90
62	A5	2756	C	C6-N1-C2	-11.22	115.81	120.30
62	A5	1064	G	C6-C5-N7	-11.21	123.68	130.40
62	A5	3607	C	C6-N1-C2	-11.18	115.83	120.30
62	A5	1356	G	C4-C5-N7	11.18	115.27	110.80
62	A5	1692	G	N1-C6-O6	11.16	126.60	119.90
62	A5	39	A	N1-C6-N6	-11.16	111.90	118.60
62	A5	3355	G	C8-N9-C1'	-11.16	112.50	127.00
62	A5	382	G	C8-N9-C4	-11.15	101.94	106.40
62	A5	788	C	C4-C5-C6	-11.14	111.83	117.40
62	A5	1674	A	C4-C5-N7	11.13	116.26	110.70
62	A5	1669	G	N3-C4-N9	-11.10	119.34	126.00
62	A5	1719	G	C5-N7-C8	-11.05	98.77	104.30
62	A5	59	G	C4-N9-C1'	11.04	140.85	126.50
62	A5	32	C	C5-C6-N1	11.03	126.52	121.00
62	A5	1612	G	C6-C5-N7	-11.03	123.78	130.40
62	A5	1369	C	C6-N1-C2	-10.97	115.91	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	3346	G	C5-C6-O6	10.96	135.18	128.60
62	A5	1077	C	C2-N1-C1'	10.94	130.84	118.80
62	A5	2770	C	C6-N1-C2	-10.94	115.93	120.30
62	A5	1139	U	C2-N1-C1'	10.93	130.81	117.70
62	A5	1141	G	N1-C6-O6	10.92	126.45	119.90
62	A5	2791	A	C5-N7-C8	-10.92	98.44	103.90
62	A5	1359	G	N3-C4-C5	-10.91	123.14	128.60
62	A5	2713	G	N3-C4-N9	-10.90	119.46	126.00
62	A5	2186	C	C6-N1-C2	-10.89	115.94	120.30
62	A5	1327	G	C4-C5-N7	10.88	115.15	110.80
62	A5	374	C	N3-C4-C5	-10.87	117.55	121.90
62	A5	3490	C	C6-N1-C2	-10.85	115.96	120.30
62	A5	2756	C	C2-N1-C1'	10.83	130.71	118.80
62	A5	63	G	C6-C5-N7	-10.82	123.91	130.40
59	A8	10	C	C6-N1-C2	-10.81	115.97	120.30
62	A5	2701	G	N3-C4-C5	10.81	134.00	128.60
62	A5	1526	G	C5-N7-C8	-10.77	98.91	104.30
62	A5	1373	A	C5-N7-C8	-10.73	98.54	103.90
58	A7	88	G	N7-C8-N9	10.72	118.46	113.10
62	A5	3878	U	C5-C6-N1	-10.69	117.35	122.70
62	A5	1138	C	N3-C4-C5	-10.69	117.63	121.90
62	A5	2791	A	C6-C5-N7	-10.69	124.82	132.30
62	A5	1028	U	C6-N1-C2	-10.67	114.60	121.00
62	A5	1330	G	C8-N9-C4	10.66	110.67	106.40
62	A5	2205	G	C5-C6-O6	10.66	134.99	128.60
62	A5	1141	G	C4-N9-C1'	10.65	140.35	126.50
62	A5	2523	A	N1-C6-N6	-10.64	112.22	118.60
59	A8	36	A	N1-C6-N6	-10.64	112.22	118.60
62	A5	32	C	C2-N1-C1'	10.63	130.50	118.80
62	A5	33	C	C6-N1-C2	-10.63	116.05	120.30
59	A8	37	U	N3-C2-O2	-10.63	114.76	122.20
62	A5	1112	G	O5'-P-OP2	-10.59	96.17	105.70
62	A5	44	A	C4-C5-N7	10.58	115.99	110.70
62	A5	1620	A	C6-C5-N7	-10.57	124.90	132.30
62	A5	776	A	C5-C6-N1	10.56	122.98	117.70
62	A5	3149	U	N3-C2-O2	-10.56	114.81	122.20
62	A5	1553	C	N3-C2-O2	-10.55	114.51	121.90
62	A5	790	U	C5-C6-N1	-10.51	117.44	122.70
62	A5	2767	U	C6-N1-C2	-10.51	114.69	121.00
62	A5	2742	G	C6-C5-N7	-10.51	124.09	130.40
62	A5	2526	A	C5-N7-C8	-10.50	98.65	103.90
62	A5	1363	G	N9-C4-C5	-10.50	101.20	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1736	G	C6-C5-N7	-10.49	124.10	130.40
62	A5	1077	C	C5-C6-N1	10.49	126.24	121.00
62	A5	3676	C	C6-N1-C2	-10.47	116.11	120.30
62	A5	1526	G	C4-N9-C1'	10.46	140.10	126.50
62	A5	3345	A	N7-C8-N9	10.46	119.03	113.80
62	A5	2562	U	N1-C2-O2	10.44	130.11	122.80
62	A5	1312	G	N7-C8-N9	10.43	118.31	113.10
62	A5	3474	G	O5'-P-OP2	-10.42	96.32	105.70
62	A5	798	C	C6-N1-C1'	-10.42	108.30	120.80
62	A5	2135	C	N1-C2-O2	10.40	125.14	118.90
62	A5	58	G	C8-N9-C4	-10.40	102.24	106.40
62	A5	2512	U	N3-C2-O2	-10.39	114.92	122.20
62	A5	376	G	C8-N9-C4	-10.39	102.24	106.40
62	A5	1675	G	C2-N3-C4	-10.39	106.71	111.90
62	A5	2163	A	N7-C8-N9	10.38	118.99	113.80
62	A5	1142	U	C2-N1-C1'	10.38	130.15	117.70
62	A5	2783	C	N3-C2-O2	-10.37	114.64	121.90
62	A5	3488	G	O5'-P-OP2	-10.36	96.37	105.70
62	A5	382	G	N7-C8-N9	10.36	118.28	113.10
62	A5	83	U	C2-N1-C1'	10.33	130.10	117.70
62	A5	1785	G	N3-C4-C5	-10.33	123.44	128.60
62	A5	3505	U	C2-N1-C1'	10.32	130.09	117.70
62	A5	2508	C	C2-N1-C1'	10.31	130.15	118.80
62	A5	3114	C	N1-C2-O2	10.31	125.09	118.90
62	A5	308	G	C6-C5-N7	-10.31	124.22	130.40
62	A5	2546	G	C6-C5-N7	-10.30	124.22	130.40
62	A5	2768	A	N9-C4-C5	-10.30	101.68	105.80
62	A5	3003	C	C2-N1-C1'	10.30	130.13	118.80
62	A5	2754	G	N1-C2-N2	10.30	125.47	116.20
62	A5	2491	C	C6-N1-C2	-10.29	116.18	120.30
62	A5	3345	A	C6-C5-N7	-10.29	125.10	132.30
62	A5	2783	C	C2-N1-C1'	10.28	130.11	118.80
62	A5	3304	U	N3-C2-O2	-10.28	115.00	122.20
62	A5	2753	G	C8-N9-C4	10.26	110.50	106.40
62	A5	18	U	O5'-P-OP2	-10.26	96.47	105.70
62	A5	2731	G	C8-N9-C4	-10.25	102.30	106.40
62	A5	2526	A	C4-C5-N7	10.24	115.82	110.70
62	A5	2163	A	C6-C5-N7	-10.23	125.14	132.30
62	A5	1327	G	C5-C6-O6	-10.23	122.47	128.60
62	A5	3349	A	N1-C6-N6	-10.22	112.47	118.60
62	A5	1611	G	C6-C5-N7	-10.22	124.27	130.40
62	A5	1327	G	N1-C6-O6	10.22	126.03	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	789	G	C4-C5-N7	10.21	114.88	110.80
62	A5	2773	G	C5-N7-C8	-10.21	99.20	104.30
70	AF	190	ILE	CA-CB-CG1	10.21	130.39	111.00
62	A5	1719	G	C8-N9-C1'	-10.20	113.73	127.00
62	A5	2768	A	C4-C5-N7	10.19	115.80	110.70
62	A5	1609	U	C4-C5-C6	-10.19	113.58	119.70
62	A5	3480	U	N3-C2-O2	-10.19	115.07	122.20
62	A5	1008	A	C5-C6-N6	-10.18	115.56	123.70
62	A5	32	C	N1-C2-O2	10.17	125.00	118.90
62	A5	1357	C	C5-C6-N1	10.15	126.08	121.00
62	A5	3142	G	C6-C5-N7	-10.15	124.31	130.40
62	A5	2747	G	C6-C5-N7	-10.15	124.31	130.40
62	A5	301	U	C2-N1-C1'	10.13	129.85	117.70
62	A5	2773	G	C4-C5-N7	10.13	114.85	110.80
62	A5	3885	C	C6-N1-C2	-10.12	116.25	120.30
62	A5	3482	G	N1-C6-O6	10.12	125.97	119.90
62	A5	2546	G	C8-N9-C4	-10.11	102.36	106.40
62	A5	1692	G	C6-C5-N7	-10.11	124.33	130.40
62	A5	3341	C	N3-C2-O2	-10.10	114.83	121.90
59	A8	37	U	N1-C2-O2	10.08	129.85	122.80
62	A5	44	A	C5-N7-C8	-10.07	98.86	103.90
62	A5	2204	U	C5-C6-N1	10.07	127.74	122.70
62	A5	3344	U	N3-C4-O4	10.07	126.45	119.40
62	A5	1737	U	N3-C2-O2	-10.06	115.16	122.20
62	A5	1401	C	C5-C6-N1	10.05	126.03	121.00
62	A5	65	A	C8-N9-C4	-10.03	101.79	105.80
62	A5	1372	A	C5-N7-C8	-10.03	98.88	103.90
62	A5	3510	U	C5-C6-N1	10.03	127.71	122.70
62	A5	2562	U	C2-N1-C1'	10.01	129.71	117.70
62	A5	1368	A	C8-N9-C4	10.00	109.80	105.80
62	A5	2529	G	C6-C5-N7	-9.99	124.40	130.40
62	A5	3143	U	N1-C2-N3	9.98	120.89	114.90
62	A5	43	A	N3-C4-N9	-9.98	119.42	127.40
62	A5	2205	G	N1-C6-O6	-9.97	113.92	119.90
62	A5	1383	A	N1-C6-N6	-9.96	112.62	118.60
62	A5	1649	G	C6-C5-N7	-9.96	124.43	130.40
62	A5	3505	U	N1-C2-O2	9.96	129.77	122.80
62	A5	1801	U	O4'-C1'-N1	9.95	116.16	108.20
62	A5	2662	C	N3-C2-O2	-9.95	114.94	121.90
62	A5	2517	A	N7-C8-N9	9.94	118.77	113.80
62	A5	3472	A	C8-N9-C4	-9.93	101.83	105.80
62	A5	1086	C	C2-N3-C4	9.93	124.86	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1008	A	C4-C5-N7	9.92	115.66	110.70
62	A5	1086	C	C6-N1-C2	-9.92	116.33	120.30
62	A5	3003	C	N3-C2-O2	-9.90	114.97	121.90
61	B2	1193	C	C6-N1-C2	-9.89	116.34	120.30
62	A5	1874	G	C4-C5-N7	9.89	114.76	110.80
62	A5	376	G	N7-C8-N9	9.89	118.04	113.10
62	A5	2756	C	C5-C6-N1	9.88	125.94	121.00
62	A5	798	C	C2-N1-C1'	9.87	129.66	118.80
62	A5	3482	G	C6-C5-N7	-9.87	124.48	130.40
62	A5	782	G	N7-C8-N9	9.86	118.03	113.10
62	A5	1004	C	C5-C6-N1	9.86	125.93	121.00
62	A5	1545	A	C8-N9-C4	-9.85	101.86	105.80
62	A5	2752	C	C6-N1-C2	-9.84	116.36	120.30
62	A5	2798	C	C6-N1-C2	-9.83	116.37	120.30
62	A5	1728	G	N1-C6-O6	9.83	125.80	119.90
62	A5	1526	G	C8-N9-C4	-9.83	102.47	106.40
62	A5	789	G	C6-C5-N7	-9.82	124.51	130.40
62	A5	844	C	N1-C2-O2	9.82	124.79	118.90
62	A5	3474	G	N7-C8-N9	9.82	118.01	113.10
62	A5	1296	U	N3-C2-O2	-9.81	115.33	122.20
62	A5	3411	C	C5-C6-N1	9.80	125.90	121.00
62	A5	1523	A	N9-C4-C5	9.80	109.72	105.80
62	A5	1119	C	C6-N1-C2	-9.78	116.39	120.30
62	A5	63	G	C4-C5-N7	9.78	114.71	110.80
62	A5	3499	G	C4-C5-N7	9.77	114.71	110.80
62	A5	1609	U	C5-C6-N1	9.77	127.58	122.70
62	A5	2096	C	C6-N1-C2	-9.75	116.40	120.30
62	A5	1139	U	N3-C2-O2	-9.75	115.38	122.20
62	A5	1146	U	C5-C6-N1	9.75	127.57	122.70
62	A5	377	U	N3-C4-O4	-9.74	112.58	119.40
62	A5	63	G	C4-N9-C1'	9.72	139.14	126.50
62	A5	2163	A	N1-C6-N6	9.72	124.43	118.60
62	A5	2566	A	N7-C8-N9	9.72	118.66	113.80
62	A5	3337	G	C8-N9-C4	-9.72	102.51	106.40
62	A5	1009	G	N3-C4-C5	-9.71	123.75	128.60
62	A5	90	G	N9-C4-C5	9.69	109.27	105.40
59	A8	100	G	C8-N9-C4	-9.68	102.53	106.40
62	A5	804	C	C5-C6-N1	9.68	125.84	121.00
62	A5	809	G	N7-C8-N9	9.67	117.94	113.10
59	A8	36	A	C5-C6-N1	9.67	122.53	117.70
62	A5	2754	G	C4-N9-C1'	-9.66	113.94	126.50
59	A8	101	A	C8-N9-C4	-9.66	101.94	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1009	G	C4-N9-C1'	9.65	139.05	126.50
62	A5	2739	A	C4-N9-C1'	9.65	143.67	126.30
62	A5	2662	C	C2-N1-C1'	9.65	129.41	118.80
62	A5	1331	G	C6-C5-N7	-9.65	124.61	130.40
62	A5	1611	G	C8-N9-C4	-9.64	102.54	106.40
62	A5	1526	G	C5-C6-O6	-9.62	122.83	128.60
62	A5	1644	C	C4-C5-C6	-9.61	112.59	117.40
62	A5	1006	A	O5'-P-OP1	-9.61	97.05	105.70
62	A5	998	G	C6-C5-N7	-9.61	124.64	130.40
62	A5	1363	G	C6-C5-N7	-9.60	124.64	130.40
62	A5	3514	C	C6-N1-C2	-9.60	116.46	120.30
62	A5	2678	G	C6-C5-N7	-9.59	124.64	130.40
62	A5	66	A	N1-C6-N6	9.59	124.36	118.60
62	A5	1143	U	N3-C2-O2	-9.59	115.49	122.20
62	A5	1542	C	C6-N1-C2	-9.59	116.47	120.30
62	A5	3345	A	C8-N9-C4	-9.59	101.97	105.80
62	A5	63	G	C8-N9-C4	-9.58	102.57	106.40
62	A5	2730	A	C4-C5-N7	9.57	115.48	110.70
62	A5	1794	G	N1-C6-O6	-9.55	114.17	119.90
62	A5	322	G	C4-N9-C1'	9.54	138.90	126.50
62	A5	1522	G	N3-C4-C5	-9.54	123.83	128.60
62	A5	2742	G	C4-C5-N7	9.53	114.61	110.80
62	A5	1645	G	C6-C5-N7	-9.53	124.68	130.40
62	A5	1124	G	N1-C2-N2	-9.53	107.63	116.20
62	A5	3345	A	C5-C6-N6	-9.53	116.08	123.70
62	A5	1020	A	C5-N7-C8	-9.52	99.14	103.90
62	A5	3476	G	C4-N9-C1'	9.52	138.87	126.50
62	A5	2739	A	N7-C8-N9	9.51	118.56	113.80
62	A5	3622	C	C2-N1-C1'	9.51	129.25	118.80
62	A5	2492	A	C8-N9-C4	-9.50	102.00	105.80
62	A5	2135	C	C2-N1-C1'	9.49	129.24	118.80
62	A5	1121	A	C8-N9-C4	-9.49	102.00	105.80
62	A5	1359	G	N3-C4-N9	9.48	131.69	126.00
62	A5	1316	U	C5-C6-N1	9.48	127.44	122.70
62	A5	2776	A	N9-C4-C5	-9.47	102.01	105.80
62	A5	61	A	C5-C6-N1	9.46	122.43	117.70
62	A5	1141	G	C8-N9-C1'	-9.46	114.70	127.00
62	A5	2703	G	O5'-P-OP2	-9.46	97.19	105.70
57	A9	12	C	C6-N1-C2	-9.46	116.52	120.30
62	A5	1390	C	N3-C2-O2	-9.45	115.29	121.90
62	A5	788	C	C6-N1-C2	-9.45	116.52	120.30
62	A5	3408	C	C5-C6-N1	9.45	125.72	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1342	U	C2-N1-C1'	9.44	129.03	117.70
62	A5	820	A	N1-C6-N6	9.44	124.26	118.60
62	A5	3607	C	C5-C6-N1	9.41	125.70	121.00
62	A5	1018	C	C2-N1-C1'	9.41	129.15	118.80
61	B2	1187	U	O5'-P-OP2	-9.41	97.23	105.70
62	A5	3130	G	C6-C5-N7	-9.41	124.76	130.40
62	A5	1390	C	C6-N1-C2	-9.40	116.54	120.30
62	A5	2662	C	C6-N1-C2	-9.40	116.54	120.30
62	A5	322	G	C8-N9-C1'	-9.40	114.78	127.00
62	A5	2747	G	C4-N9-C1'	9.39	138.70	126.50
62	A5	3622	C	C6-N1-C2	-9.38	116.55	120.30
58	A7	88	G	C6-C5-N7	-9.38	124.77	130.40
62	A5	1017	A	C8-N9-C4	-9.38	102.05	105.80
62	A5	2785	C	N3-C4-C5	9.38	125.65	121.90
62	A5	1003	C	C6-N1-C2	-9.38	116.55	120.30
62	A5	1357	C	C6-N1-C2	-9.36	116.56	120.30
62	A5	3481	G	N3-C4-C5	-9.36	123.92	128.60
62	A5	1803	C	C6-N1-C2	-9.36	116.56	120.30
62	A5	46	C	N3-C4-N4	9.35	124.55	118.00
62	A5	3579	C	C5-C6-N1	9.35	125.67	121.00
62	A5	33	C	N1-C2-O2	9.35	124.51	118.90
62	A5	1373	A	C4-C5-N7	9.35	115.37	110.70
62	A5	1678	C	C5-C4-N4	-9.34	113.66	120.20
62	A5	3655	U	C2-N1-C1'	9.34	128.91	117.70
59	A8	34	C	N3-C2-O2	-9.34	115.36	121.90
62	A5	3339	U	C6-N1-C2	-9.34	115.39	121.00
62	A5	3479	C	C6-N1-C2	-9.33	116.57	120.30
62	A5	3473	C	O4'-C1'-N1	9.33	115.67	108.20
62	A5	3477	A	C4-C5-C6	-9.33	112.33	117.00
62	A5	376	G	C4-C5-C6	9.33	124.40	118.80
70	AF	190	ILE	CG1-CB-CG2	9.33	131.93	111.40
62	A5	2736	A	C8-N9-C4	-9.33	102.07	105.80
62	A5	59	G	C6-C5-N7	-9.32	124.81	130.40
62	A5	3407	U	O4'-C1'-N1	9.32	115.66	108.20
59	A8	42	A	C8-N9-C4	-9.32	102.07	105.80
62	A5	1363	G	N1-C6-O6	9.32	125.49	119.90
62	A5	441	A	C8-N9-C4	-9.31	102.08	105.80
59	A8	9	G	C5-C6-O6	-9.31	123.01	128.60
62	A5	2740	C	N3-C4-N4	9.30	124.51	118.00
62	A5	3141	A	N1-C6-N6	-9.31	113.02	118.60
62	A5	59	G	C8-N9-C1'	-9.30	114.91	127.00
62	A5	675	C	N1-C2-O2	9.30	124.48	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	52	A	C8-N9-C4	-9.29	102.08	105.80
62	A5	1368	A	N7-C8-N9	-9.29	109.15	113.80
62	A5	3140	G	C8-N9-C4	-9.29	102.69	106.40
62	A5	439	U	N1-C2-O2	9.28	129.29	122.80
62	A5	2769	G	C8-N9-C4	-9.28	102.69	106.40
62	A5	2783	C	C6-N1-C1'	-9.27	109.67	120.80
62	A5	447	G	C4-C5-N7	9.26	114.51	110.80
62	A5	1732	A	C8-N9-C4	-9.26	102.09	105.80
62	A5	363	G	C4-N9-C1'	9.26	138.54	126.50
62	A5	2002	C	C6-N1-C2	-9.26	116.60	120.30
62	A5	242	C	N3-C2-O2	-9.26	115.42	121.90
62	A5	1148	C	N1-C2-O2	9.25	124.45	118.90
62	A5	1008	A	O5'-P-OP1	-9.24	97.38	105.70
62	A5	3339	U	O5'-P-OP1	-9.24	97.38	105.70
62	A5	2692	U	N1-C2-O2	9.24	129.27	122.80
62	A5	812	U	C5-C6-N1	9.24	127.32	122.70
62	A5	828	G	C4-C5-N7	9.23	114.49	110.80
62	A5	2162	C	C4-C5-C6	-9.22	112.79	117.40
62	A5	3403	G	N1-C6-O6	-9.22	114.36	119.90
81	B	72	A	C5-C6-N6	-9.22	116.32	123.70
62	A5	1729	G	N1-C6-O6	-9.21	114.37	119.90
62	A5	457	A	C2-N3-C4	9.19	115.19	110.60
62	A5	1138	C	C2-N1-C1'	9.19	128.90	118.80
62	A5	1104	A	N7-C8-N9	9.18	118.39	113.80
62	A5	1312	G	C8-N9-C4	-9.18	102.73	106.40
62	A5	2162	C	C2-N3-C4	9.18	124.49	119.90
62	A5	2721	C	N1-C2-O2	9.18	124.41	118.90
62	A5	2744	C	C5-C6-N1	9.18	125.59	121.00
62	A5	387	U	N3-C2-O2	-9.16	115.78	122.20
62	A5	1080	G	C4-C5-C6	9.16	124.30	118.80
62	A5	1675	G	N3-C4-N9	-9.16	120.50	126.00
62	A5	3349	A	C5-C6-N6	9.16	131.03	123.70
62	A5	377	U	C5-C4-O4	9.16	131.40	125.90
62	A5	1327	G	C5-N7-C8	-9.16	99.72	104.30
62	A5	387	U	N1-C2-O2	9.15	129.20	122.80
62	A5	1736	G	C8-N9-C4	-9.15	102.74	106.40
62	A5	1784	A	P-O3'-C3'	9.15	130.68	119.70
62	A5	3476	G	N3-C4-C5	-9.15	124.03	128.60
62	A5	103	A	C8-N9-C4	-9.14	102.14	105.80
62	A5	2747	G	N7-C8-N9	9.14	117.67	113.10
62	A5	382	G	C4-N9-C1'	9.14	138.38	126.50
62	A5	375	C	C5-C6-N1	9.14	125.57	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	2754	G	C5-N7-C8	-9.13	99.73	104.30
62	A5	1675	G	N3-C4-C5	9.13	133.17	128.60
62	A5	3341	C	N1-C2-O2	9.13	124.38	118.90
62	A5	3505	U	C6-N1-C2	-9.12	115.53	121.00
62	A5	3623	G	C8-N9-C4	-9.12	102.75	106.40
62	A5	235	A	C8-N9-C4	-9.11	102.15	105.80
62	A5	800	C	C5-C6-N1	9.11	125.56	121.00
62	A5	3398	C	C5-C6-N1	9.11	125.56	121.00
58	A7	91	C	C6-N1-C2	-9.11	116.66	120.30
62	A5	3623	G	C4-N9-C1'	9.11	138.34	126.50
62	A5	795	A	N1-C6-N6	-9.11	113.14	118.60
62	A5	991	A	C5-N7-C8	-9.11	99.34	103.90
62	A5	2208	G	C8-N9-C4	-9.11	102.76	106.40
62	A5	3544	G	C6-C5-N7	-9.09	124.94	130.40
61	B2	1648	C	C2-N1-C1'	9.08	128.79	118.80
62	A5	2194	G	C4-N9-C1'	9.08	138.30	126.50
62	A5	2508	C	N3-C4-C5	-9.08	118.27	121.90
62	A5	1138	C	N3-C4-N4	9.06	124.34	118.00
62	A5	2750	A	C8-N9-C4	9.05	109.42	105.80
62	A5	3510	U	C2-N1-C1'	9.05	128.56	117.70
62	A5	2508	C	N1-C2-O2	9.05	124.33	118.90
62	A5	2135	C	C6-N1-C2	-9.04	116.68	120.30
62	A5	3482	G	C5-C6-O6	-9.04	123.17	128.60
62	A5	3505	U	C5-C4-O4	9.04	131.32	125.90
62	A5	1756	G	C4-N9-C1'	9.04	138.25	126.50
62	A5	1670	G	N1-C6-O6	-9.03	114.48	119.90
62	A5	2526	A	N1-C6-N6	9.03	124.02	118.60
62	A5	1682	G	C4-N9-C1'	9.02	138.23	126.50
62	A5	3143	U	C2-N1-C1'	9.02	128.53	117.70
62	A5	3398	C	C2-N3-C4	9.02	124.41	119.90
62	A5	96	G	C5-C6-N1	9.02	116.01	111.50
62	A5	1164	G	C6-C5-N7	-9.01	124.99	130.40
62	A5	2507	C	C6-N1-C2	-9.01	116.70	120.30
62	A5	1124	G	C8-N9-C1'	-9.01	115.29	127.00
62	A5	1620	A	C4-N9-C1'	9.00	142.50	126.30
62	A5	1143	U	N1-C2-O2	8.99	129.10	122.80
62	A5	3499	G	C6-C5-N7	-8.99	125.01	130.40
61	B2	1648	C	N1-C2-O2	8.99	124.29	118.90
62	A5	2188	C	C6-N1-C2	-8.98	116.71	120.30
62	A5	322	G	N3-C4-N9	8.98	131.39	126.00
62	A5	3142	G	C4-C5-N7	8.98	114.39	110.80
62	A5	1369	C	N3-C4-C5	-8.97	118.31	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	2154	A	C5-C6-N1	8.97	122.19	117.70
12	AS	92	ASP	CB-CG-OD1	8.97	126.37	118.30
62	A5	38	A	C5-C6-N6	-8.97	116.53	123.70
62	A5	1064	G	C4-C5-N7	8.97	114.39	110.80
62	A5	1081	C	C6-N1-C2	-8.96	116.72	120.30
62	A5	2702	A	C8-N9-C4	-8.96	102.22	105.80
62	A5	1330	G	N7-C8-N9	-8.95	108.62	113.10
62	A5	1651	C	C6-N1-C2	-8.95	116.72	120.30
62	A5	1325	C	C5-C6-N1	8.95	125.47	121.00
62	A5	1682	G	N1-C6-O6	8.95	125.27	119.90
62	A5	2701	G	N3-C4-N9	-8.95	120.63	126.00
62	A5	2742	G	N1-C6-O6	8.95	125.27	119.90
62	A5	296	C	C5-C6-N1	8.95	125.47	121.00
62	A5	306	C	C5-C6-N1	8.94	125.47	121.00
62	A5	1874	G	C6-C5-N7	-8.95	125.03	130.40
62	A5	2800	C	N1-C2-O2	-8.95	113.53	118.90
59	A8	9	G	C4-C5-N7	8.94	114.38	110.80
62	A5	102	G	N1-C6-O6	8.94	125.27	119.90
62	A5	1103	U	C5-C6-N1	8.94	127.17	122.70
62	A5	1139	U	N1-C2-O2	8.94	129.06	122.80
62	A5	1619	C	C5-C6-N1	8.94	125.47	121.00
62	A5	2563	G	C6-C5-N7	-8.94	125.04	130.40
62	A5	1374	C	C6-N1-C2	-8.93	116.73	120.30
62	A5	1554	C	N3-C2-O2	-8.93	115.65	121.90
62	A5	2770	C	C5-C6-N1	8.93	125.46	121.00
62	A5	1643	G	C6-C5-N7	-8.90	125.06	130.40
59	A8	100	G	OP2-P-O3'	-8.90	85.61	105.20
62	A5	1356	G	C5-C6-O6	-8.90	123.26	128.60
62	A5	2753	G	N9-C4-C5	-8.90	101.84	105.40
62	A5	3507	A	N7-C8-N9	8.90	118.25	113.80
62	A5	2733	G	C5-C6-O6	-8.90	123.26	128.60
62	A5	1874	G	N1-C6-O6	8.90	125.24	119.90
62	A5	746	G	N3-C4-C5	-8.89	124.15	128.60
62	A5	55	U	N3-C2-O2	-8.89	115.98	122.20
62	A5	2579	G	C4-N9-C1'	8.89	138.05	126.50
62	A5	33	C	C5-C6-N1	8.89	125.44	121.00
62	A5	1006	A	N1-C6-N6	-8.88	113.27	118.60
62	A5	2250	G	C8-N9-C4	-8.88	102.85	106.40
62	A5	2188	C	N1-C2-O2	8.88	124.23	118.90
62	A5	44	A	N1-C6-N6	8.87	123.92	118.60
62	A5	863	U	N3-C2-O2	-8.87	115.99	122.20
62	A5	1682	G	C5-N7-C8	-8.86	99.87	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	AT	47	PRO	CA-N-CD	-8.87	99.09	111.50
62	A5	3407	U	C2-N1-C1'	8.86	128.33	117.70
62	A5	1677	U	C5-C4-O4	-8.85	120.59	125.90
62	A5	2733	G	O5'-P-OP2	-8.85	97.73	105.70
59	A8	5	C	N1-C2-O2	8.84	124.21	118.90
61	B2	1121	C	N1-C2-O2	8.84	124.20	118.90
62	A5	1674	A	C4-C5-C6	-8.83	112.59	117.00
62	A5	1009	G	N3-C4-N9	8.82	131.29	126.00
62	A5	1009	G	C8-N9-C1'	-8.81	115.54	127.00
62	A5	1361	G	O5'-P-OP2	-8.81	97.77	105.70
62	A5	1001	A	C5-C6-N6	8.81	130.75	123.70
62	A5	1736	G	C4-N9-C1'	8.80	137.94	126.50
62	A5	2102	G	C4-N9-C1'	8.80	137.94	126.50
62	A5	378	G	C8-N9-C4	-8.80	102.88	106.40
62	A5	3622	C	N3-C2-O2	-8.80	115.74	121.90
62	A5	874	G	C4-N9-C1'	8.79	137.93	126.50
62	A5	3674	G	N3-C4-N9	-8.79	120.72	126.00
61	B2	1208	U	C6-N1-C2	-8.79	115.72	121.00
62	A5	1736	G	C4-C5-N7	8.79	114.31	110.80
62	A5	2782	A	O4'-C1'-N9	8.78	115.22	108.20
62	A5	3149	U	N1-C2-O2	8.78	128.95	122.80
62	A5	1195	U	C2-N1-C1'	8.78	128.23	117.70
62	A5	1383	A	N3-C4-C5	-8.78	120.66	126.80
69	AT	31	PRO	CA-N-CD	-8.77	99.22	111.50
62	A5	1526	G	C4-C5-C6	8.77	124.06	118.80
62	A5	2776	A	O4'-C1'-N9	-8.77	101.18	108.20
62	A5	777	C	N1-C2-O2	8.77	124.16	118.90
62	A5	2740	C	C5-C4-N4	-8.77	114.06	120.20
62	A5	3714	U	N3-C2-O2	-8.76	116.06	122.20
69	AT	50	PRO	CA-N-CD	-8.76	99.23	111.50
62	A5	1020	A	N7-C8-N9	8.76	118.18	113.80
62	A5	1148	C	C6-N1-C2	-8.76	116.80	120.30
62	A5	1148	C	N3-C2-O2	-8.76	115.77	121.90
59	A8	41	G	C4-C5-N7	8.75	114.30	110.80
62	A5	2207	A	C4-C5-N7	8.75	115.08	110.70
61	B2	1193	C	N3-C2-O2	-8.75	115.78	121.90
62	A5	810	A	C8-N9-C4	-8.75	102.30	105.80
62	A5	1614	A	C8-N9-C1'	-8.75	111.96	127.70
62	A5	363	G	N1-C6-O6	8.74	125.14	119.90
62	A5	1343	A	C8-N9-C4	-8.74	102.31	105.80
62	A5	2206	U	C2-N1-C1'	8.74	128.19	117.70
81	B	72	A	N1-C6-N6	8.74	123.84	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	796	A	O5'-P-OP2	-8.73	97.84	105.70
62	A5	1620	A	C4-C5-C6	8.73	121.37	117.00
59	A8	24	G	C6-C5-N7	-8.73	125.16	130.40
62	A5	1643	G	N1-C6-O6	8.72	125.14	119.90
62	A5	2773	G	O5'-P-OP1	-8.72	97.85	105.70
59	A8	27	C	N3-C2-O2	-8.71	115.80	121.90
59	A8	37	U	C2-N1-C1'	8.71	128.16	117.70
62	A5	3400	U	C5-C4-O4	-8.71	120.67	125.90
62	A5	1382	U	C4-C5-C6	-8.71	114.47	119.70
62	A5	3616	G	C8-N9-C4	-8.71	102.92	106.40
62	A5	90	G	N3-C2-N2	-8.70	113.81	119.90
62	A5	1890	U	N3-C2-O2	-8.70	116.11	122.20
62	A5	3338	U	O4'-C1'-N1	8.69	115.15	108.20
62	A5	3258	C	N3-C2-O2	-8.69	115.82	121.90
62	A5	1785	G	C4-C5-N7	-8.68	107.33	110.80
62	A5	1141	G	C4-C5-C6	8.68	124.01	118.80
62	A5	789	G	C5-N7-C8	-8.68	99.96	104.30
62	A5	3470	G	C6-C5-N7	-8.68	125.19	130.40
62	A5	289	C	C6-N1-C1'	-8.68	110.39	120.80
62	A5	1104	A	C4-N9-C1'	8.68	141.92	126.30
62	A5	1004	C	N3-C4-N4	8.67	124.07	118.00
62	A5	1678	C	C2-N3-C4	-8.67	115.57	119.90
62	A5	1688	A	N7-C8-N9	8.66	118.13	113.80
62	A5	2549	G	C6-C5-N7	-8.66	125.20	130.40
62	A5	675	C	N3-C2-O2	-8.66	115.84	121.90
62	A5	1380	G	C8-N9-C4	8.66	109.86	106.40
62	A5	2512	U	N1-C2-N3	8.66	120.10	114.90
62	A5	3952	C	C6-N1-C2	-8.66	116.84	120.30
62	A5	1102	G	C6-C5-N7	-8.65	125.21	130.40
62	A5	381	G	C5-N7-C8	-8.65	99.97	104.30
62	A5	1086	C	C5-C6-N1	8.64	125.32	121.00
62	A5	2758	U	C5-C6-N1	8.64	127.02	122.70
62	A5	1124	G	C2-N3-C4	8.63	116.22	111.90
62	A5	206	C	N1-C2-O2	8.63	124.08	118.90
62	A5	3655	U	N1-C2-O2	8.62	128.84	122.80
62	A5	2167	G	C6-C5-N7	-8.62	125.23	130.40
62	A5	1553	C	N1-C2-O2	8.62	124.07	118.90
62	A5	1369	C	C6-N1-C1'	-8.61	110.47	120.80
62	A5	621	A	O5'-P-OP2	-8.61	97.95	105.70
62	A5	1129	A	C5-N7-C8	-8.60	99.60	103.90
62	A5	106	A	C5-C6-N6	-8.60	116.82	123.70
62	A5	2743	C	C6-N1-C2	-8.60	116.86	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	242	C	N1-C2-O2	8.60	124.06	118.90
62	A5	1615	G	C5-C6-O6	-8.60	123.44	128.60
62	A5	3485	U	C5-C6-N1	8.59	127.00	122.70
62	A5	242	C	C6-N1-C2	-8.59	116.86	120.30
62	A5	2778	G	C8-N9-C4	-8.59	102.96	106.40
62	A5	1020	A	C4-C5-N7	8.58	114.99	110.70
62	A5	1401	C	C6-N1-C1'	-8.57	110.51	120.80
59	A8	38	G	N3-C4-N9	8.57	131.14	126.00
62	A5	51	U	C2-N1-C1'	8.57	127.98	117.70
62	A5	1611	G	N7-C8-N9	8.57	117.39	113.10
62	A5	2678	G	N1-C6-O6	8.57	125.04	119.90
62	A5	1646	U	N3-C2-O2	-8.57	116.20	122.20
62	A5	2546	G	N7-C8-N9	8.57	117.39	113.10
62	A5	3411	C	C6-N1-C2	-8.57	116.87	120.30
62	A5	3476	G	N3-C4-N9	8.57	131.14	126.00
62	A5	844	C	C2-N1-C1'	8.56	128.22	118.80
62	A5	2721	C	N3-C2-O2	-8.56	115.91	121.90
62	A5	831	A	C2-N3-C4	8.56	114.88	110.60
62	A5	2546	G	N3-C4-C5	-8.56	124.32	128.60
62	A5	2794	U	C2-N1-C1'	8.56	127.97	117.70
62	A5	1612	G	N3-C4-N9	8.55	131.13	126.00
62	A5	2772	G	N1-C6-O6	-8.55	114.77	119.90
62	A5	3589	G	C8-N9-C1'	-8.55	115.89	127.00
62	A5	853	G	N3-C4-N9	8.54	131.12	126.00
62	A5	3497	G	C8-N9-C4	-8.54	102.98	106.40
62	A5	1099	U	C5-C6-N1	8.54	126.97	122.70
62	A5	416	C	N3-C2-O2	-8.53	115.93	121.90
62	A5	3589	G	C4-N9-C1'	8.53	137.59	126.50
62	A5	2161	G	C6-C5-N7	-8.53	125.28	130.40
62	A5	3355	G	C4-C5-N7	8.52	114.21	110.80
62	A5	339	C	N1-C2-O2	8.52	124.01	118.90
62	A5	3459	C	C5-C6-N1	8.52	125.26	121.00
62	A5	3513	A	C5-C6-N1	8.52	121.96	117.70
61	B2	1858	U	N1-C2-O2	8.51	128.76	122.80
62	A5	1001	A	N1-C6-N6	-8.51	113.49	118.60
62	A5	2188	C	N3-C2-O2	-8.51	115.94	121.90
62	A5	1756	G	C6-C5-N7	-8.51	125.30	130.40
62	A5	3476	G	C6-C5-N7	-8.51	125.30	130.40
62	A5	1645	G	N1-C2-N2	-8.50	108.55	116.20
62	A5	1645	G	C4-N9-C1'	8.50	137.54	126.50
62	A5	796	A	N1-C2-N3	8.49	133.55	129.30
62	A5	349	C	C6-N1-C2	-8.49	116.91	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1605	U	N3-C2-O2	-8.48	116.26	122.20
62	A5	379	A	N1-C2-N3	-8.48	125.06	129.30
62	A5	1356	G	N1-C6-O6	8.48	124.99	119.90
62	A5	1545	A	N7-C8-N9	8.48	118.04	113.80
59	A8	101	A	N1-C2-N3	8.47	133.54	129.30
62	A5	379	A	C5-C6-N1	8.47	121.94	117.70
62	A5	3542	C	C6-N1-C2	-8.47	116.91	120.30
62	A5	122	C	N1-C2-O2	8.47	123.98	118.90
62	A5	3395	G	C6-C5-N7	-8.47	125.32	130.40
62	A5	416	C	C6-N1-C1'	-8.47	110.64	120.80
62	A5	1008	A	C8-N9-C4	8.46	109.19	105.80
62	A5	2188	C	C2-N1-C1'	8.46	128.11	118.80
62	A5	2776	A	C5-C6-N6	-8.46	116.93	123.70
62	A5	381	G	C4-C5-N7	8.46	114.18	110.80
62	A5	809	G	C6-C5-N7	-8.45	125.33	130.40
62	A5	1384	C	N3-C2-O2	-8.45	115.99	121.90
62	A5	363	G	C8-N9-C1'	-8.45	116.02	127.00
61	B2	1788	C	N1-C2-O2	8.44	123.97	118.90
62	A5	1112	G	O5'-P-OP1	8.44	120.83	110.70
62	A5	2776	A	C4-C5-N7	8.44	114.92	110.70
61	B2	458	C	C5-C6-N1	8.44	125.22	121.00
62	A5	1387	G	C6-C5-N7	-8.44	125.34	130.40
62	A5	3400	U	C5-C6-N1	8.44	126.92	122.70
62	A5	2744	C	C4-C5-C6	-8.43	113.18	117.40
62	A5	1645	G	N3-C2-N2	8.43	125.80	119.90
62	A5	3131	C	C2-N1-C1'	8.43	128.07	118.80
62	A5	3405	U	C2-N1-C1'	8.43	127.82	117.70
62	A5	832	U	C5-C6-N1	-8.43	118.49	122.70
59	A8	102	A	O4'-C1'-N9	8.42	114.94	108.20
62	A5	754	A	C2-N3-C4	8.41	114.81	110.60
62	A5	242	C	C2-N1-C1'	8.41	128.05	118.80
62	A5	2204	U	N3-C4-O4	8.41	125.29	119.40
62	A5	2225	A	C4-C5-N7	8.41	114.91	110.70
62	A5	3544	G	C4-N9-C1'	8.41	137.43	126.50
62	A5	777	C	C2-N1-C1'	8.40	128.04	118.80
62	A5	1412	A	C5-C6-N6	-8.40	116.98	123.70
62	A5	382	G	N3-C2-N2	-8.40	114.02	119.90
62	A5	1971	C	C6-N1-C2	-8.40	116.94	120.30
62	A5	3609	A	C5-C6-N1	8.40	121.90	117.70
62	A5	1266	A	C8-N9-C4	-8.39	102.44	105.80
62	A5	1384	C	N1-C2-O2	8.39	123.94	118.90
62	A5	2223	C	N3-C4-C5	8.39	125.26	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	3355	G	N3-C4-N9	8.39	131.03	126.00
62	A5	998	G	C8-N9-C4	-8.39	103.05	106.40
62	A5	1734	G	C4-N9-C1'	8.38	137.40	126.50
62	A5	2579	G	C6-C5-N7	-8.38	125.37	130.40
62	A5	352	U	C2-N1-C1'	8.37	127.75	117.70
62	A5	381	G	C5-C6-O6	-8.37	123.58	128.60
69	AT	89	PRO	CA-N-CD	-8.37	99.78	111.50
62	A5	3349	A	N3-C4-N9	-8.37	120.71	127.40
62	A5	2546	G	C4-N9-C1'	8.36	137.37	126.50
62	A5	795	A	C2-N3-C4	8.36	114.78	110.60
62	A5	2163	A	C5-N7-C8	-8.36	99.72	103.90
62	A5	1669	G	N9-C4-C5	8.36	108.74	105.40
62	A5	2529	G	C5-N7-C8	-8.35	100.12	104.30
62	A5	2530	C	C5-C6-N1	8.34	125.17	121.00
62	A5	38	A	N1-C6-N6	8.34	123.61	118.60
62	A5	1784	A	O4'-C1'-N9	8.34	114.87	108.20
62	A5	45	G	O5'-P-OP2	-8.34	98.20	105.70
62	A5	1032	G	C8-N9-C4	-8.34	103.06	106.40
62	A5	776	A	C2-N3-C4	8.34	114.77	110.60
62	A5	37	G	N3-C4-N9	-8.33	121.00	126.00
62	A5	60	G	C6-C5-N7	-8.33	125.40	130.40
34	CT	144	LEU	CA-CB-CG	8.33	134.45	115.30
62	A5	123	U	N1-C2-O2	8.33	128.63	122.80
62	A5	1682	G	N7-C8-N9	8.33	117.26	113.10
62	A5	1134	G	C8-N9-C4	-8.32	103.07	106.40
62	A5	1611	G	N1-C6-O6	8.32	124.89	119.90
62	A5	842	A	O5'-P-OP1	-8.31	98.22	105.70
62	A5	3489	A	C4-C5-N7	8.31	114.86	110.70
62	A5	104	A	N1-C6-N6	-8.31	113.61	118.60
62	A5	1010	A	C8-N9-C4	-8.31	102.48	105.80
62	A5	1019	U	N1-C2-N3	8.31	119.89	114.90
62	A5	347	A	N1-C6-N6	8.31	123.58	118.60
62	A5	1651	C	C5-C6-N1	8.30	125.15	121.00
62	A5	1674	A	C5-C6-N6	-8.30	117.06	123.70
62	A5	1526	G	N3-C4-N9	8.30	130.98	126.00
62	A5	2804	U	C6-N1-C2	-8.30	116.02	121.00
62	A5	73	U	N3-C2-O2	-8.29	116.39	122.20
62	A5	1375	G	O5'-P-OP1	-8.29	98.23	105.70
62	A5	998	G	N1-C6-O6	8.29	124.87	119.90
69	AT	69	PRO	CA-N-CD	-8.29	99.90	111.50
62	A5	2740	C	C6-N1-C2	-8.28	116.99	120.30
59	A8	27	C	C2-N1-C1'	8.28	127.91	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	374	C	C6-N1-C1'	-8.28	110.87	120.80
62	A5	3138	G	N3-C4-N9	8.28	130.97	126.00
62	A5	1728	G	N9-C4-C5	-8.27	102.09	105.40
61	B2	1087	C	C2-N1-C1'	8.27	127.90	118.80
62	A5	378	G	C6-N1-C2	-8.27	120.14	125.10
62	A5	1116	G	C4-C5-C6	8.27	123.76	118.80
62	A5	1617	U	N3-C4-O4	8.26	125.18	119.40
62	A5	2549	G	C4-N9-C1'	8.26	137.24	126.50
62	A5	1124	G	N9-C4-C5	-8.26	102.10	105.40
62	A5	102	G	N3-C2-N2	-8.25	114.12	119.90
62	A5	1003	C	N3-C4-N4	8.25	123.78	118.00
62	A5	1116	G	N3-C4-N9	8.25	130.95	126.00
62	A5	1391	A	C8-N9-C4	-8.24	102.50	105.80
62	A5	1611	G	C4-C5-N7	8.24	114.10	110.80
62	A5	2769	G	O5'-P-OP1	-8.24	98.28	105.70
62	A5	1142	U	C6-N1-C2	-8.24	116.06	121.00
62	A5	2182	G	O4'-C1'-N9	-8.24	101.61	108.20
62	A5	2692	U	N3-C2-O2	-8.24	116.43	122.20
62	A5	2688	U	C5-C6-N1	8.24	126.82	122.70
62	A5	375	C	C6-N1-C2	-8.24	117.00	120.30
61	B2	1788	C	C2-N1-C1'	8.23	127.86	118.80
62	A5	100	G	C4-C5-N7	8.23	114.09	110.80
62	A5	3581	G	C5-C6-O6	-8.23	123.66	128.60
62	A5	3339	U	N1-C2-N3	8.23	119.84	114.90
62	A5	364	U	N1-C2-O2	8.23	128.56	122.80
62	A5	2135	C	N3-C2-O2	-8.23	116.14	121.90
61	B2	1414	C	N1-C2-O2	8.23	123.84	118.90
62	A5	2207	A	C5-N7-C8	-8.23	99.79	103.90
62	A5	1549	A	N3-C4-C5	8.22	132.56	126.80
62	A5	3143	U	N1-C2-O2	8.22	128.56	122.80
62	A5	810	A	N7-C8-N9	8.22	117.91	113.80
59	A8	35	G	N3-C4-C5	-8.22	124.49	128.60
62	A5	1682	G	N3-C4-N9	8.22	130.93	126.00
62	A5	1697	U	C5-C6-N1	8.22	126.81	122.70
62	A5	1594	U	C2-N1-C1'	8.22	127.56	117.70
62	A5	374	C	N3-C4-N4	8.21	123.75	118.00
62	A5	1534	G	C4-C5-N7	8.21	114.08	110.80
62	A5	1649	G	N1-C6-O6	8.21	124.83	119.90
62	A5	1678	C	N1-C2-O2	-8.21	113.97	118.90
62	A5	1686	A	C8-N9-C4	-8.21	102.52	105.80
62	A5	1751	U	N3-C2-O2	-8.21	116.45	122.20
62	A5	440	U	N1-C2-O2	8.20	128.54	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	3441	C	N1-C2-O2	8.20	123.82	118.90
62	A5	1357	C	C5-C4-N4	-8.20	114.46	120.20
62	A5	1366	G	C5-C6-N1	-8.20	107.40	111.50
62	A5	1734	G	C8-N9-C1'	-8.20	116.34	127.00
62	A5	352	U	N3-C2-O2	-8.20	116.46	122.20
62	A5	810	A	C5-N7-C8	-8.19	99.80	103.90
62	A5	3343	A	C5-N7-C8	-8.19	99.80	103.90
62	A5	1523	A	N1-C6-N6	-8.19	113.69	118.60
62	A5	2769	G	C6-C5-N7	-8.19	125.48	130.40
62	A5	2803	A	N1-C6-N6	8.19	123.51	118.60
62	A5	2768	A	C5-N7-C8	-8.18	99.81	103.90
62	A5	1117	A	N7-C8-N9	8.18	117.89	113.80
62	A5	3714	U	N1-C2-O2	8.18	128.52	122.80
61	B2	1727	U	C6-N1-C2	8.17	125.90	121.00
62	A5	1678	C	N3-C4-C5	8.17	125.17	121.90
62	A5	1732	A	N7-C8-N9	8.17	117.88	113.80
62	A5	2518	A	N7-C8-N9	-8.17	109.72	113.80
61	B2	1121	C	N3-C2-O2	-8.16	116.19	121.90
62	A5	1018	C	C6-N1-C1'	-8.16	111.00	120.80
62	A5	1327	G	N3-C4-C5	8.16	132.68	128.60
62	A5	58	G	N3-C4-C5	-8.16	124.52	128.60
62	A5	3114	C	N3-C2-O2	-8.16	116.19	121.90
62	A5	3375	U	N1-C2-O2	8.16	128.51	122.80
62	A5	3597	C	C6-N1-C2	-8.16	117.04	120.30
59	A8	34	C	C5-C6-N1	8.15	125.08	121.00
62	A5	1619	C	C4-C5-C6	-8.15	113.32	117.40
62	A5	3511	U	C5-C6-N1	8.15	126.78	122.70
62	A5	3193	C	N1-C2-O2	8.15	123.79	118.90
59	A8	5	C	N3-C2-O2	-8.15	116.20	121.90
62	A5	1649	G	C5-N7-C8	-8.15	100.23	104.30
62	A5	380	G	C4-N9-C1'	-8.14	115.91	126.50
62	A5	3304	U	N1-C2-O2	8.14	128.50	122.80
62	A5	2805	C	N1-C2-O2	8.13	123.78	118.90
62	A5	3150	G	C8-N9-C4	8.13	109.65	106.40
62	A5	1022	A	N1-C6-N6	8.13	123.48	118.60
62	A5	1785	G	C4-N9-C1'	8.13	137.07	126.50
62	A5	3345	A	C4-C5-N7	8.12	114.76	110.70
62	A5	1645	G	C5-N7-C8	-8.12	100.24	104.30
62	A5	2779	A	C4-C5-N7	8.12	114.76	110.70
61	B2	1969	G	C8-N9-C4	-8.12	103.15	106.40
61	B2	1596	C	N1-C2-O2	8.11	123.77	118.90
59	A8	109	U	C2-N1-C1'	8.11	127.43	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1064	G	N7-C8-N9	8.11	117.16	113.10
62	A5	2102	G	C6-C5-N7	-8.11	125.54	130.40
62	A5	2730	A	C5-C6-N1	8.11	121.75	117.70
62	A5	3545	C	C6-N1-C2	-8.11	117.06	120.30
62	A5	1547	A	N7-C8-N9	8.10	117.85	113.80
62	A5	1106	A	C5-C6-N1	8.10	121.75	117.70
62	A5	2163	A	C8-N9-C4	-8.10	102.56	105.80
62	A5	1374	C	O5'-P-OP1	-8.09	98.42	105.70
62	A5	2697	U	N3-C2-O2	-8.09	116.54	122.20
62	A5	2768	A	C4-N9-C1'	8.09	140.86	126.30
62	A5	3378	U	C2-N1-C1'	8.08	127.40	117.70
62	A5	587	U	N1-C2-O2	8.07	128.45	122.80
62	A5	1412	A	N1-C6-N6	8.06	123.44	118.60
62	A5	3581	G	N1-C6-O6	8.06	124.74	119.90
62	A5	1068	C	C6-N1-C2	-8.06	117.08	120.30
62	A5	756	C	N1-C2-O2	8.05	123.73	118.90
62	A5	1612	G	C4-N9-C1'	8.05	136.97	126.50
62	A5	328	U	N1-C2-O2	8.05	128.43	122.80
62	A5	1014	U	C6-N1-C2	-8.05	116.17	121.00
62	A5	1116	G	N7-C8-N9	-8.05	109.08	113.10
62	A5	2218	G	C8-N9-C4	-8.05	103.18	106.40
62	A5	2676	U	N3-C2-O2	-8.05	116.57	122.20
62	A5	1091	G	N1-C6-O6	8.05	124.73	119.90
62	A5	1116	G	C8-N9-C1'	-8.04	116.54	127.00
62	A5	1595	G	C4-C5-N7	8.04	114.02	110.80
62	A5	1688	A	O4'-C1'-N9	8.04	114.64	108.20
62	A5	1728	G	C5-C6-O6	-8.04	123.78	128.60
62	A5	2718	U	C5-C6-N1	8.04	126.72	122.70
62	A5	2776	A	N1-C6-N6	8.04	123.42	118.60
62	A5	376	G	C4-C5-N7	8.03	114.01	110.80
62	A5	1399	A	N7-C8-N9	8.03	117.82	113.80
62	A5	1610	A	C4-C5-N7	8.03	114.72	110.70
62	A5	2732	C	C2-N1-C1'	8.03	127.64	118.80
59	A8	88	C	N3-C2-O2	-8.03	116.28	121.90
62	A5	1401	C	N1-C2-O2	8.03	123.72	118.90
59	A8	36	A	C2-N3-C4	8.02	114.61	110.60
62	A5	157	C	C6-N1-C2	-8.02	117.09	120.30
62	A5	2742	G	C5-N7-C8	-8.02	100.29	104.30
62	A5	1138	C	C4-C5-C6	8.02	121.41	117.40
62	A5	301	U	C5-C6-N1	8.02	126.71	122.70
62	A5	3678	G	C4-N9-C1'	8.02	136.92	126.50
61	B2	1361	C	N1-C2-O2	8.02	123.71	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	363	G	C4-C5-C6	8.02	123.61	118.80
62	A5	1719	G	N1-C2-N2	-8.02	108.98	116.20
62	A5	3591	A	N1-C6-N6	8.02	123.41	118.60
62	A5	3620	G	N1-C6-O6	8.02	124.71	119.90
62	A5	1017	A	C2-N3-C4	8.01	114.61	110.60
62	A5	1342	U	C5-C6-N1	8.01	126.71	122.70
62	A5	1136	A	C2-N3-C4	-8.01	106.59	110.60
62	A5	3149	U	C6-N1-C1'	-8.01	109.99	121.20
62	A5	322	G	N3-C4-C5	-8.01	124.60	128.60
62	A5	65	A	N7-C8-N9	8.00	117.80	113.80
34	CT	6	GLY	N-CA-C	8.00	133.10	113.10
62	A5	1003	C	C5-C6-N1	8.00	125.00	121.00
70	AF	190	ILE	CA-CB-CG2	-8.00	94.90	110.90
62	A5	3630	C	N3-C2-O2	-8.00	116.30	121.90
62	A5	33	C	N3-C2-O2	-7.99	116.31	121.90
62	A5	2773	G	C8-N9-C1'	7.99	137.39	127.00
62	A5	587	U	C2-N1-C1'	7.99	127.29	117.70
62	A5	2791	A	C5-C6-N6	-7.99	117.31	123.70
62	A5	3880	A	C8-N9-C4	-7.99	102.61	105.80
62	A5	1645	G	N3-C4-N9	7.98	130.79	126.00
62	A5	3355	G	N9-C4-C5	-7.98	102.21	105.40
62	A5	844	C	N3-C2-O2	-7.98	116.31	121.90
62	A5	1614	A	C4-N9-C1'	7.98	140.66	126.30
62	A5	2516	U	C5-C4-O4	7.98	130.69	125.90
62	A5	1522	G	C2-N3-C4	7.98	115.89	111.90
62	A5	1643	G	C2-N3-C4	-7.97	107.91	111.90
62	A5	1142	U	N1-C2-O2	7.97	128.38	122.80
62	A5	43	A	C2-N3-C4	-7.97	106.62	110.60
62	A5	2506	U	C6-N1-C2	-7.97	116.22	121.00
62	A5	3590	C	N3-C2-O2	-7.96	116.33	121.90
62	A5	43	A	N3-C4-C5	7.95	132.37	126.80
62	A5	2705	U	C5-C6-N1	7.95	126.68	122.70
62	A5	1523	A	N3-C4-N9	-7.95	121.04	127.40
62	A5	2506	U	N3-C2-O2	-7.95	116.63	122.20
62	A5	2733	G	C4-C5-N7	7.95	113.98	110.80
62	A5	2772	G	C5-C6-N1	7.95	115.48	111.50
62	A5	1611	G	C5-N7-C8	-7.95	100.33	104.30
61	B2	1850	G	N3-C4-N9	7.95	130.77	126.00
62	A5	1736	G	N7-C8-N9	7.95	117.07	113.10
62	A5	38	A	C4-C5-N7	7.94	114.67	110.70
62	A5	2579	G	C8-N9-C1'	-7.94	116.67	127.00
59	A8	38	G	C6-C5-N7	-7.93	125.64	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	3142	G	N1-C6-O6	7.93	124.66	119.90
62	A5	355	G	N3-C4-N9	-7.93	121.24	126.00
62	A5	1141	G	N3-C4-N9	7.93	130.76	126.00
61	B2	1975	G	C8-N9-C4	-7.92	103.23	106.40
62	A5	2135	C	C5-C6-N1	7.92	124.96	121.00
62	A5	794	G	C8-N9-C4	-7.92	103.23	106.40
62	A5	998	G	C5-N7-C8	-7.92	100.34	104.30
62	A5	3880	A	N7-C8-N9	7.91	117.76	113.80
62	A5	1869	C	C6-N1-C2	-7.91	117.14	120.30
59	A8	25	C	C5-C6-N1	7.91	124.95	121.00
61	B2	932	U	N3-C2-O2	-7.90	116.67	122.20
59	A8	99	U	N1-C2-O2	7.90	128.33	122.80
61	B2	1650	G	N3-C4-C5	-7.90	124.65	128.60
62	A5	95	G	C4-C5-N7	7.89	113.96	110.80
62	A5	2519	U	N1-C2-N3	7.89	119.64	114.90
62	A5	1357	C	C6-N1-C1'	-7.89	111.33	120.80
62	A5	1618	A	N7-C8-N9	7.89	117.75	113.80
62	A5	2194	G	N3-C4-C5	-7.89	124.66	128.60
62	A5	106	A	N1-C6-N6	7.88	123.33	118.60
62	A5	1649	G	C5-C6-O6	-7.88	123.87	128.60
62	A5	2790	G	O5'-P-OP1	-7.88	98.60	105.70
62	A5	774	A	N1-C6-N6	-7.88	113.87	118.60
62	A5	2035	C	N1-C2-O2	7.88	123.63	118.90
62	A5	3137	A	C8-N9-C4	-7.88	102.65	105.80
58	A7	95	U	N3-C2-O2	-7.88	116.68	122.20
62	A5	1124	G	C4-N9-C1'	7.88	136.74	126.50
62	A5	1388	C	C2-N1-C1'	7.88	127.47	118.80
62	A5	3323	G	N1-C6-O6	-7.88	115.17	119.90
62	A5	3378	U	N1-C2-O2	7.88	128.31	122.80
58	A7	88	G	C4-N9-C1'	7.87	136.74	126.50
59	A8	58	C	N1-C2-O2	7.87	123.62	118.90
62	A5	2625	G	C6-C5-N7	-7.87	125.68	130.40
62	A5	3677	U	N3-C2-O2	-7.87	116.69	122.20
62	A5	1874	G	C5-N7-C8	-7.87	100.37	104.30
62	A5	3399	C	C6-N1-C2	-7.86	117.16	120.30
62	A5	1122	U	N1-C2-O2	7.86	128.30	122.80
62	A5	3482	G	C4-C5-N7	7.86	113.94	110.80
62	A5	3591	A	C5-C6-N6	-7.85	117.42	123.70
62	A5	1782	C	N1-C2-O2	7.85	123.61	118.90
62	A5	1117	A	C8-N9-C4	-7.85	102.66	105.80
62	A5	1645	G	N9-C4-C5	-7.85	102.26	105.40
62	A5	2176	G	C6-C5-N7	-7.84	125.69	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	3667	C	C6-N1-C2	-7.84	117.16	120.30
62	A5	1595	G	C5-C6-O6	-7.83	123.90	128.60
62	A5	88	U	C6-N1-C1'	-7.83	110.23	121.20
62	A5	2035	C	C2-N3-C4	7.83	123.82	119.90
62	A5	2191	G	C6-C5-N7	-7.83	125.70	130.40
62	A5	1719	G	N3-C4-N9	7.83	130.70	126.00
62	A5	1095	G	C4-N9-C1'	7.82	136.67	126.50
62	A5	441	A	N7-C8-N9	7.82	117.71	113.80
62	A5	640	U	N1-C2-O2	7.82	128.27	122.80
62	A5	59	G	N3-C4-C5	-7.82	124.69	128.60
62	A5	1387	G	C4-N9-C1'	7.82	136.66	126.50
62	A5	3126	C	C6-N1-C2	-7.82	117.17	120.30
62	A5	746	G	C2-N3-C4	7.81	115.81	111.90
62	A5	2805	C	C2-N1-C1'	7.81	127.39	118.80
62	A5	289	C	C6-N1-C2	-7.81	117.17	120.30
62	A5	3346	G	N1-C6-O6	-7.81	115.21	119.90
62	A5	59	G	N3-C4-N9	7.81	130.69	126.00
62	A5	853	G	C4-N9-C1'	7.81	136.65	126.50
62	A5	1373	A	N7-C8-N9	7.81	117.70	113.80
62	A5	1672	A	C5-C6-N6	-7.81	117.45	123.70
62	A5	1010	A	N7-C8-N9	7.80	117.70	113.80
62	A5	3580	G	N3-C4-C5	-7.80	124.70	128.60
58	A7	95	U	N1-C2-O2	7.80	128.26	122.80
62	A5	352	U	N1-C2-O2	7.79	128.26	122.80
62	A5	1618	A	C8-N9-C4	-7.79	102.68	105.80
61	B2	1650	G	C4-N9-C1'	7.79	136.63	126.50
62	A5	1596	A	N7-C8-N9	7.79	117.70	113.80
62	A5	63	G	N7-C8-N9	7.79	117.00	113.10
62	A5	1329	G	C6-C5-N7	-7.79	125.73	130.40
62	A5	1359	G	C4-N9-C1'	7.78	136.62	126.50
62	A5	2102	G	C8-N9-C1'	-7.78	116.89	127.00
59	A8	98	U	N3-C2-O2	-7.77	116.76	122.20
62	A5	440	U	N3-C2-O2	-7.77	116.76	122.20
62	A5	3475	U	O5'-P-OP2	-7.77	98.71	105.70
62	A5	2572	G	N3-C4-C5	-7.77	124.72	128.60
62	A5	3349	A	N9-C4-C5	7.77	108.91	105.80
62	A5	38	A	C5-N7-C8	-7.77	100.02	103.90
62	A5	259	A	C5-C6-N6	-7.77	117.49	123.70
62	A5	1529	C	N3-C4-C5	7.77	125.01	121.90
62	A5	863	U	N1-C2-O2	7.77	128.24	122.80
62	A5	3399	C	C2-N1-C1'	7.77	127.34	118.80
62	A5	853	G	N3-C4-C5	-7.76	124.72	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1675	G	N1-C6-O6	7.76	124.56	119.90
62	A5	2541	C	C6-N1-C2	-7.76	117.20	120.30
62	A5	1020	A	C6-C5-N7	-7.76	126.87	132.30
62	A5	3398	C	N1-C2-O2	7.76	123.55	118.90
62	A5	1071	U	N3-C2-O2	-7.75	116.77	122.20
62	A5	2206	U	N3-C4-O4	7.75	124.83	119.40
62	A5	2721	C	C6-N1-C2	-7.75	117.20	120.30
62	A5	3140	G	C6-C5-N7	-7.75	125.75	130.40
62	A5	2754	G	N1-C2-N3	-7.75	119.25	123.90
62	A5	3607	C	C2-N1-C1'	7.74	127.32	118.80
62	A5	1135	U	C6-N1-C1'	7.74	132.04	121.20
62	A5	2194	G	N3-C4-N9	7.74	130.65	126.00
62	A5	3678	G	C6-C5-N7	-7.74	125.76	130.40
62	A5	372	U	N3-C2-O2	-7.74	116.78	122.20
62	A5	2779	A	C5-N7-C8	-7.74	100.03	103.90
62	A5	1316	U	N1-C2-O2	7.74	128.22	122.80
62	A5	1971	C	C5-C6-N1	7.74	124.87	121.00
62	A5	2520	U	OP2-P-O3'	7.74	122.22	105.20
62	A5	3476	G	C8-N9-C1'	-7.74	116.94	127.00
62	A5	746	G	C4-N9-C1'	7.73	136.55	126.50
62	A5	3120	C	N3-C2-O2	-7.73	116.49	121.90
62	A5	3339	U	N3-C2-O2	-7.73	116.79	122.20
62	A5	2233	C	N3-C2-O2	-7.73	116.49	121.90
61	B2	939	G	C4-N9-C1'	7.73	136.55	126.50
62	A5	1151	A	C5-C6-N1	7.73	121.56	117.70
62	A5	1892	C	C6-N1-C2	-7.73	117.21	120.30
62	A5	3481	G	C6-N1-C2	-7.73	120.46	125.10
62	A5	925	C	N1-C2-O2	7.72	123.53	118.90
62	A5	3332	G	N3-C4-N9	-7.72	121.37	126.00
62	A5	2565	G	C4-C5-N7	7.72	113.89	110.80
62	A5	3142	G	N9-C4-C5	-7.72	102.31	105.40
62	A5	3521	A	C4-C5-N7	7.72	114.56	110.70
62	A5	1794	G	N3-C4-C5	-7.72	124.74	128.60
62	A5	3616	G	N3-C4-C5	-7.71	124.74	128.60
62	A5	1064	G	C4-N9-C1'	7.71	136.53	126.50
62	A5	1116	G	C4-N9-C1'	7.71	136.53	126.50
62	A5	675	C	C2-N1-C1'	7.71	127.28	118.80
62	A5	782	G	C4-C5-C6	7.70	123.42	118.80
62	A5	1375	G	C4-N9-C1'	7.70	136.51	126.50
62	A5	3950	A	C2-N3-C4	7.70	114.45	110.60
62	A5	2713	G	N3-C4-C5	7.70	132.45	128.60
62	A5	1675	G	N3-C2-N2	-7.70	114.51	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	86	C	C6-N1-C2	-7.70	117.22	120.30
62	A5	2728	C	C5-C4-N4	-7.70	114.81	120.20
62	A5	385	A	N1-C6-N6	7.69	123.22	118.60
62	A5	1719	G	N9-C4-C5	-7.69	102.32	105.40
62	A5	1670	G	N9-C4-C5	7.69	108.47	105.40
62	A5	2176	G	N3-C4-N9	7.69	130.61	126.00
62	A5	2184	G	C6-C5-N7	-7.68	125.79	130.40
62	A5	83	U	N1-C2-O2	7.68	128.18	122.80
62	A5	3347	G	C6-C5-N7	-7.68	125.79	130.40
62	A5	3622	C	N1-C2-O2	7.68	123.51	118.90
62	A5	795	A	N9-C4-C5	7.68	108.87	105.80
62	A5	1748	C	C6-N1-C2	-7.68	117.23	120.30
62	A5	1022	A	C4-C5-N7	7.68	114.54	110.70
62	A5	2194	G	C6-C5-N7	-7.68	125.79	130.40
58	A7	83	A	C5-N7-C8	-7.67	100.07	103.90
62	A5	1384	C	C2-N1-C1'	7.67	127.23	118.80
62	A5	2102	G	N1-C2-N2	-7.67	109.30	116.20
62	A5	2225	A	C5-N7-C8	-7.66	100.07	103.90
62	A5	3421	C	N3-C2-O2	-7.66	116.53	121.90
62	A5	2742	G	N7-C8-N9	7.66	116.93	113.10
62	A5	1646	U	C6-N1-C2	-7.66	116.41	121.00
62	A5	3609	A	C8-N9-C4	7.66	108.86	105.80
62	A5	416	C	C6-N1-C2	-7.65	117.24	120.30
62	A5	2179	G	N1-C6-O6	7.65	124.49	119.90
61	B2	1650	G	N3-C4-N9	7.65	130.59	126.00
62	A5	3492	G	C6-C5-N7	-7.65	125.81	130.40
62	A5	1401	C	N3-C2-O2	-7.65	116.55	121.90
62	A5	922	G	C6-C5-N7	-7.65	125.81	130.40
62	A5	3542	C	C5-C6-N1	7.65	124.82	121.00
62	A5	3878	U	C2-N3-C4	-7.65	122.41	127.00
62	A5	1612	G	N7-C8-N9	7.64	116.92	113.10
62	A5	3140	G	N7-C8-N9	7.64	116.92	113.10
62	A5	3348	G	C4-C5-N7	7.64	113.86	110.80
62	A5	2014	C	N1-C2-O2	7.64	123.48	118.90
62	A5	1332	C	N3-C4-C5	7.64	124.96	121.90
62	A5	1001	A	C8-N9-C4	7.64	108.86	105.80
62	A5	31	C	N3-C2-O2	-7.64	116.55	121.90
62	A5	96	G	C4-C5-N7	7.64	113.85	110.80
62	A5	1096	A	C5-C6-N1	7.64	121.52	117.70
62	A5	2789	U	C5-C6-N1	7.64	126.52	122.70
62	A5	3477	A	C6-C5-N7	7.64	137.65	132.30
62	A5	3516	C	N1-C2-O2	7.64	123.48	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1316	U	C2-N3-C4	7.63	131.58	127.00
62	A5	2778	G	N3-C4-N9	-7.63	121.42	126.00
62	A5	3255	G	C8-N9-C4	-7.63	103.35	106.40
62	A5	3354	U	N3-C4-O4	7.63	124.74	119.40
62	A5	3544	G	C8-N9-C4	-7.63	103.35	106.40
62	A5	27	A	C5-N7-C8	-7.63	100.09	103.90
62	A5	2250	G	N3-C4-C5	-7.63	124.79	128.60
62	A5	3880	A	C5-N7-C8	-7.62	100.09	103.90
62	A5	2547	C	N3-C4-N4	7.62	123.33	118.00
62	A5	3421	C	N1-C2-O2	7.62	123.47	118.90
62	A5	1145	C	C5-C6-N1	7.62	124.81	121.00
62	A5	3964	G	C6-C5-N7	-7.62	125.83	130.40
62	A5	1146	U	C6-N1-C2	-7.61	116.43	121.00
62	A5	2793	C	C5-C6-N1	7.61	124.81	121.00
62	A5	3616	G	C4-N9-C1'	7.61	136.40	126.50
59	A8	9	G	N1-C6-O6	7.61	124.47	119.90
62	A5	496	U	N3-C2-O2	-7.61	116.87	122.20
62	A5	2740	C	N3-C2-O2	-7.61	116.58	121.90
62	A5	2768	A	C8-N9-C1'	-7.61	114.01	127.70
62	A5	1645	G	C8-N9-C1'	-7.60	117.11	127.00
62	A5	2792	G	C4-C5-N7	7.60	113.84	110.80
62	A5	1136	A	N1-C6-N6	7.60	123.16	118.60
62	A5	32	C	C6-N1-C2	-7.59	117.26	120.30
62	A5	2791	A	N7-C8-N9	7.59	117.60	113.80
62	A5	1084	A	N1-C6-N6	7.59	123.15	118.60
62	A5	2221	G	C5-C6-N1	7.59	115.30	111.50
62	A5	1092	U	C5-C6-N1	-7.59	118.91	122.70
62	A5	1612	G	N1-C2-N2	-7.59	109.37	116.20
62	A5	1380	G	N3-C4-N9	7.59	130.55	126.00
62	A5	3399	C	N3-C2-O2	-7.59	116.59	121.90
62	A5	1076	A	C5-C6-N1	-7.58	113.91	117.70
62	A5	2527	A	OP2-P-O3'	7.58	121.88	105.20
62	A5	1553	C	C6-N1-C2	-7.58	117.27	120.30
62	A5	1803	C	C5-C6-N1	7.58	124.79	121.00
62	A5	416	C	C5-C6-N1	7.58	124.79	121.00
62	A5	3293	G	C4-C5-N7	7.58	113.83	110.80
62	A5	1117	A	C5-N7-C8	-7.57	100.11	103.90
62	A5	2563	G	N1-C6-O6	7.57	124.44	119.90
62	A5	2565	G	C6-C5-N7	-7.57	125.86	130.40
62	A5	1734	G	N3-C4-N9	7.57	130.54	126.00
59	A8	41	G	C6-C5-N7	-7.57	125.86	130.40
62	A5	1102	G	C4-N9-C1'	7.56	136.33	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
44	Ce	53	LEU	CA-CB-CG	7.56	132.69	115.30
6	CC	365	LEU	CA-CB-CG	7.56	132.68	115.30
29	CI	91	LEU	C-N-CA	7.55	140.59	121.70
62	A5	51	U	C4-C5-C6	7.55	124.23	119.70
62	A5	788	C	C5-C4-N4	-7.55	114.92	120.20
62	A5	3674	G	N9-C4-C5	7.55	108.42	105.40
62	A5	2519	U	N3-C4-O4	-7.55	114.12	119.40
62	A5	2794	U	C6-N1-C2	-7.55	116.47	121.00
62	A5	2757	U	N1-C2-N3	7.54	119.43	114.90
62	A5	3193	C	N3-C2-O2	-7.54	116.62	121.90
62	A5	992	U	N3-C2-O2	-7.54	116.92	122.20
62	A5	2782	A	C4-N9-C1'	7.54	139.88	126.30
62	A5	339	C	N3-C2-O2	-7.54	116.62	121.90
62	A5	820	A	C4-C5-N7	7.54	114.47	110.70
62	A5	32	C	C6-N1-C1'	-7.54	111.76	120.80
59	A8	27	C	C5-C6-N1	7.53	124.77	121.00
59	A8	35	G	N3-C4-N9	7.53	130.52	126.00
62	A5	800	C	C5-C4-N4	-7.53	114.93	120.20
62	A5	1972	C	C5-C6-N1	7.52	124.76	121.00
62	A5	1692	G	C5-C6-O6	-7.52	124.09	128.60
62	A5	1135	U	C2-N1-C1'	-7.51	108.68	117.70
62	A5	57	G	O5'-P-OP1	-7.51	98.94	105.70
62	A5	1617	U	C5-C6-N1	7.51	126.45	122.70
62	A5	1722	U	N3-C4-O4	7.51	124.65	119.40
62	A5	2768	A	N7-C8-N9	7.51	117.55	113.80
62	A5	3630	C	C6-N1-C2	-7.51	117.30	120.30
62	A5	801	G	C5-C6-O6	-7.50	124.10	128.60
62	A5	1339	U	C5-C4-O4	-7.50	121.40	125.90
59	A8	107	U	N3-C2-O2	-7.50	116.95	122.20
62	A5	2605	C	N1-C2-O2	7.50	123.40	118.90
62	A5	83	U	N3-C2-O2	-7.50	116.95	122.20
62	A5	1556	C	C5-C6-N1	7.50	124.75	121.00
62	A5	1028	U	N3-C4-O4	7.50	124.65	119.40
62	A5	2800	C	C6-N1-C2	-7.50	117.30	120.30
58	A7	96	U	C5-C6-N1	7.49	126.45	122.70
62	A5	378	G	C5-C6-N1	7.49	115.25	111.50
62	A5	1674	A	N9-C4-C5	-7.49	102.80	105.80
59	A8	38	G	C4-N9-C1'	7.49	136.24	126.50
62	A5	2740	C	C2-N1-C1'	7.49	127.04	118.80
61	B2	1193	C	N1-C2-O2	7.49	123.39	118.90
62	A5	993	A	N1-C6-N6	7.49	123.09	118.60
62	A5	3453	U	C6-N1-C2	-7.49	116.51	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	B2	932	U	N1-C2-O2	7.49	128.04	122.80
62	A5	1353	G	C4-N9-C1'	7.49	136.23	126.50
62	A5	2186	C	C5-C6-N1	7.49	124.74	121.00
62	A5	103	A	C5-N7-C8	-7.48	100.16	103.90
59	A8	99	U	N3-C2-O2	-7.48	116.96	122.20
62	A5	1606	G	C6-C5-N7	-7.48	125.91	130.40
62	A5	3472	A	N7-C8-N9	7.48	117.54	113.80
62	A5	779	U	N3-C2-O2	-7.48	116.97	122.20
62	A5	28	C	C2-N3-C4	7.48	123.64	119.90
62	A5	1104	A	C8-N9-C1'	-7.47	114.25	127.70
62	A5	2526	A	C6-C5-N7	-7.47	127.07	132.30
62	A5	2625	G	N7-C8-N9	7.47	116.84	113.10
59	A8	41	G	C5-C6-O6	-7.47	124.12	128.60
62	A5	3003	C	C6-N1-C1'	-7.47	111.83	120.80
61	B2	1193	C	C2-N1-C1'	7.47	127.02	118.80
62	A5	1679	U	N3-C2-O2	-7.47	116.97	122.20
62	A5	2554	U	C5-C6-N1	7.47	126.43	122.70
62	A5	376	G	C5-N7-C8	-7.47	100.57	104.30
62	A5	3400	U	N3-C4-O4	7.47	124.63	119.40
62	A5	3405	U	C5-C6-N1	7.46	126.43	122.70
70	AF	190	ILE	CB-CG1-CD1	7.46	134.79	113.90
62	A5	640	U	N3-C2-O2	-7.46	116.98	122.20
62	A5	1682	G	C8-N9-C1'	-7.46	117.30	127.00
62	A5	2221	G	N3-C4-C5	-7.46	124.87	128.60
62	A5	1017	A	C5-C6-N1	7.46	121.43	117.70
62	A5	2769	G	N7-C8-N9	7.46	116.83	113.10
62	A5	2511	C	C6-N1-C2	-7.46	117.32	120.30
59	A8	25	C	C2-N3-C4	7.45	123.63	119.90
62	A5	2668	C	N3-C2-O2	-7.45	116.68	121.90
59	A8	107	U	O5'-P-OP1	-7.45	98.99	105.70
62	A5	2252	A	C8-N9-C4	-7.45	102.82	105.80
62	A5	2762	A	C8-N9-C4	-7.45	102.82	105.80
62	A5	1095	G	C6-C5-N7	-7.45	125.93	130.40
62	A5	1526	G	C8-N9-C1'	-7.45	117.32	127.00
62	A5	2749	G	C8-N9-C4	-7.45	103.42	106.40
58	A7	29	C	N1-C2-O2	7.45	123.37	118.90
62	A5	2620	C	C6-N1-C2	-7.45	117.32	120.30
59	A8	22	C	O5'-P-OP1	-7.44	99.00	105.70
61	B2	1850	G	N3-C4-C5	-7.44	124.88	128.60
62	A5	998	G	C4-C5-N7	7.44	113.78	110.80
62	A5	1016	A	C8-N9-C4	7.44	108.78	105.80
62	A5	2505	A	C5-N7-C8	-7.44	100.18	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	2678	G	C4-C5-N7	7.44	113.78	110.80
62	A5	2543	C	C6-N1-C2	-7.44	117.33	120.30
62	A5	2526	A	N7-C8-N9	7.43	117.52	113.80
62	A5	3511	U	C6-N1-C2	-7.43	116.54	121.00
62	A5	3964	G	C4-N9-C1'	7.43	136.16	126.50
62	A5	347	A	C5-N7-C8	-7.43	100.18	103.90
62	A5	1122	U	O5'-P-OP1	-7.43	99.01	105.70
62	A5	2191	G	C4-C5-N7	7.43	113.77	110.80
58	A7	83	A	C4-C5-N7	7.43	114.41	110.70
62	A5	3170	U	C6-N1-C2	-7.43	116.54	121.00
62	A5	2529	G	C5-C6-O6	-7.43	124.14	128.60
62	A5	123	U	N3-C2-O2	-7.43	117.00	122.20
62	A5	3345	A	C5-N7-C8	-7.43	100.19	103.90
62	A5	385	A	C5-C6-N6	-7.42	117.76	123.70
62	A5	3490	C	C5-C4-N4	-7.42	115.01	120.20
62	A5	1367	A	C2-N3-C4	7.42	114.31	110.60
62	A5	2745	A	N7-C8-N9	7.42	117.51	113.80
62	A5	3177	G	C6-C5-N7	-7.42	125.95	130.40
62	A5	99	A	C5-C6-N6	-7.41	117.77	123.70
62	A5	3345	A	N3-C4-N9	7.41	133.33	127.40
62	A5	47	A	C8-N9-C4	7.41	108.77	105.80
62	A5	3875	U	C2-N1-C1'	7.41	126.59	117.70
62	A5	1756	G	C8-N9-C1'	-7.41	117.37	127.00
62	A5	1778	A	C5-C6-N6	-7.41	117.77	123.70
62	A5	2521	A	C4-C5-C6	-7.41	113.30	117.00
62	A5	2098	C	C6-N1-C2	-7.41	117.34	120.30
62	A5	2194	G	C8-N9-C4	-7.40	103.44	106.40
62	A5	3474	G	N9-C4-C5	7.40	108.36	105.40
62	A5	1194	A	C2-N3-C4	7.39	114.30	110.60
62	A5	2494	G	C4-C5-N7	7.39	113.76	110.80
62	A5	1539	A	N7-C8-N9	7.39	117.49	113.80
62	A5	2552	G	N1-C6-O6	7.39	124.33	119.90
62	A5	2748	G	C5-C6-O6	-7.39	124.17	128.60
62	A5	2773	G	C4-C5-C6	-7.39	114.37	118.80
62	A5	298	U	C6-N1-C2	-7.39	116.57	121.00
62	A5	820	A	C6-C5-N7	-7.39	127.13	132.30
62	A5	1195	U	C5-C6-N1	7.38	126.39	122.70
62	A5	1710	G	C8-N9-C1'	-7.38	117.41	127.00
62	A5	1164	G	C8-N9-C4	-7.38	103.45	106.40
62	A5	1682	G	C5-C6-O6	-7.38	124.17	128.60
62	A5	1612	G	N3-C4-C5	-7.38	124.91	128.60
61	B2	1818	U	O4'-C1'-N1	7.37	114.10	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	117	C	N1-C2-O2	7.37	123.32	118.90
62	A5	1614	A	N1-C2-N3	7.37	132.99	129.30
62	A5	1620	A	C8-N9-C1'	-7.37	114.43	127.70
59	A8	30	G	C8-N9-C4	-7.37	103.45	106.40
62	A5	63	G	C8-N9-C1'	-7.37	117.42	127.00
62	A5	2095	U	C5-C6-N1	7.37	126.39	122.70
62	A5	2148	C	C5-C6-N1	7.37	124.68	121.00
62	A5	2190	A	C5-C6-N6	-7.37	117.81	123.70
62	A5	3714	U	C2-N1-C1'	7.37	126.54	117.70
62	A5	2625	G	C4-N9-C1'	7.37	136.08	126.50
62	A5	1296	U	N1-C2-O2	7.37	127.96	122.80
62	A5	1768	G	C4-N9-C1'	7.37	136.07	126.50
62	A5	3143	U	C5-C6-N1	7.36	126.38	122.70
62	A5	1004	C	C5-C4-N4	-7.36	115.05	120.20
62	A5	3486	U	C5-C6-N1	7.36	126.38	122.70
61	B2	1845	C	C6-N1-C2	-7.36	117.36	120.30
62	A5	46	C	N3-C4-C5	7.36	124.84	121.90
62	A5	3255	G	C6-C5-N7	-7.36	125.99	130.40
62	A5	3880	A	O4'-C1'-N9	7.35	114.08	108.20
62	A5	831	A	N1-C6-N6	-7.35	114.19	118.60
62	A5	1391	A	N7-C8-N9	7.35	117.47	113.80
62	A5	2191	G	C2-N3-C4	-7.35	108.23	111.90
62	A5	429	U	C2-N1-C1'	7.34	126.51	117.70
62	A5	802	G	O5'-P-OP1	-7.34	99.09	105.70
62	A5	1020	A	N1-C6-N6	7.33	123.00	118.60
62	A5	2215	G	C6-C5-N7	-7.33	126.00	130.40
62	A5	2512	U	C6-N1-C2	-7.33	116.60	121.00
62	A5	3131	C	N1-C2-O2	7.33	123.30	118.90
61	B2	1062	C	C6-N1-C2	-7.33	117.37	120.30
61	B2	1195	G	N3-C4-N9	-7.33	121.60	126.00
62	A5	2226	A	N7-C8-N9	7.33	117.47	113.80
62	A5	1721	C	C6-N1-C2	-7.33	117.37	120.30
62	A5	447	G	C5-N7-C8	-7.33	100.64	104.30
62	A5	54	U	C4-C5-C6	-7.32	115.31	119.70
62	A5	874	G	C8-N9-C1'	-7.32	117.48	127.00
62	A5	1674	A	N1-C2-N3	-7.32	125.64	129.30
62	A5	2473	C	N1-C2-O2	7.32	123.29	118.90
62	A5	3156	G	C6-C5-N7	-7.32	126.01	130.40
62	A5	1692	G	C4-C5-N7	7.32	113.73	110.80
62	A5	2798	C	C2-N1-C1'	7.32	126.85	118.80
62	A5	3131	C	C6-N1-C2	-7.32	117.37	120.30
61	B2	1949	A	P-O3'-C3'	7.31	128.47	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	A8	109	U	N1-C2-O2	7.31	127.92	122.80
62	A5	3340	A	OP1-P-OP2	-7.31	108.64	119.60
62	A5	3673	G	C4-N9-C1'	7.31	136.00	126.50
62	A5	1005	G	C4-C5-N7	7.31	113.72	110.80
62	A5	2218	G	N7-C8-N9	7.30	116.75	113.10
62	A5	2572	G	C4-N9-C1'	7.30	136.00	126.50
62	A5	2747	G	C8-N9-C1'	-7.30	117.50	127.00
62	A5	2250	G	C6-C5-N7	-7.30	126.02	130.40
59	A8	18	C	N3-C4-C5	7.30	124.82	121.90
62	A5	2785	C	C4-C5-C6	-7.30	113.75	117.40
59	A8	27	C	N1-C2-O2	7.30	123.28	118.90
62	A5	1618	A	C6-C5-N7	-7.30	127.19	132.30
62	A5	2004	G	C6-C5-N7	-7.30	126.02	130.40
62	A5	2569	U	C6-N1-C2	-7.30	116.62	121.00
62	A5	1388	C	N3-C2-O2	-7.30	116.79	121.90
62	A5	921	C	C6-N1-C2	-7.29	117.38	120.30
62	A5	1761	C	C6-N1-C2	-7.29	117.38	120.30
62	A5	3677	U	O4'-C1'-N1	7.29	114.03	108.20
62	A5	782	G	N1-C6-O6	7.29	124.27	119.90
62	A5	1020	A	C8-N9-C4	-7.29	102.88	105.80
35	CP	66	GLY	N-CA-C	7.29	131.31	113.10
62	A5	794	G	N7-C8-N9	7.29	116.74	113.10
62	A5	800	C	C4-C5-C6	-7.29	113.76	117.40
62	A5	1672	A	C4-C5-N7	7.29	114.34	110.70
62	A5	447	G	C5-C6-O6	-7.28	124.23	128.60
62	A5	3304	U	C2-N1-C1'	7.28	126.44	117.70
62	A5	3499	G	C5-N7-C8	-7.28	100.66	104.30
62	A5	2753	G	C8-N9-C1'	-7.28	117.54	127.00
62	A5	1792	G	C4-C5-N7	7.28	113.71	110.80
62	A5	363	G	N3-C4-N9	7.28	130.37	126.00
62	A5	2702	A	N7-C8-N9	7.28	117.44	113.80
62	A5	2515	C	N3-C4-N4	7.28	123.09	118.00
61	B2	1218	G	C6-C5-N7	-7.27	126.04	130.40
62	A5	1608	G	N3-C4-C5	-7.27	124.96	128.60
62	A5	2747	G	N3-C4-N9	7.27	130.36	126.00
62	A5	749	U	N1-C2-O2	7.27	127.89	122.80
62	A5	3655	U	C6-N1-C1'	-7.27	111.02	121.20
62	A5	322	G	C6-C5-N7	-7.27	126.04	130.40
62	A5	3141	A	O5'-P-OP1	-7.26	99.16	105.70
62	A5	1138	C	N3-C2-O2	-7.26	116.82	121.90
62	A5	106	A	C4-C5-N7	7.26	114.33	110.70
62	A5	1620	A	N7-C8-N9	7.25	117.43	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1195	U	N1-C2-O2	7.25	127.88	122.80
62	A5	1756	G	C4-C5-N7	7.25	113.70	110.80
62	A5	3616	G	C6-C5-N7	-7.25	126.05	130.40
62	A5	73	U	N1-C2-O2	7.25	127.87	122.80
62	A5	2502	G	C8-N9-C4	-7.25	103.50	106.40
62	A5	88	U	N3-C2-O2	-7.25	117.13	122.20
62	A5	1295	A	O5'-P-OP1	-7.25	99.18	105.70
62	A5	292	G	C6-C5-N7	-7.24	126.05	130.40
62	A5	3507	A	C6-N1-C2	-7.24	114.25	118.60
62	A5	1785	G	C8-N9-C4	-7.24	103.50	106.40
62	A5	2771	G	O4'-C1'-N9	-7.24	102.41	108.20
62	A5	1723	G	C2-N3-C4	-7.24	108.28	111.90
62	A5	1782	C	C5-C6-N1	7.24	124.62	121.00
62	A5	1019	U	N3-C2-O2	-7.24	117.14	122.20
62	A5	1609	U	N1-C2-N3	-7.24	110.56	114.90
62	A5	2234	C	N3-C2-O2	-7.24	116.83	121.90
62	A5	3580	G	N3-C4-N9	7.23	130.34	126.00
59	A8	88	C	C6-N1-C2	-7.23	117.41	120.30
62	A5	1674	A	C5-N7-C8	-7.23	100.29	103.90
62	A5	1195	U	N3-C2-O2	-7.22	117.14	122.20
62	A5	1557	U	C6-N1-C2	-7.22	116.67	121.00
62	A5	1343	A	N7-C8-N9	7.22	117.41	113.80
62	A5	1973	G	C8-N9-C4	-7.22	103.51	106.40
62	A5	3597	C	N3-C2-O2	-7.22	116.84	121.90
59	A8	109	U	N3-C2-O2	-7.22	117.14	122.20
62	A5	1005	G	N1-C2-N2	-7.22	109.70	116.20
62	A5	1595	G	O5'-P-OP1	-7.22	99.20	105.70
62	A5	431	C	C5-C6-N1	7.22	124.61	121.00
62	A5	1367	A	N3-C4-C5	-7.22	121.75	126.80
62	A5	3378	U	N3-C2-O2	-7.22	117.15	122.20
62	A5	371	G	C2-N3-C4	-7.21	108.29	111.90
62	A5	376	G	C5-C6-N1	-7.21	107.89	111.50
62	A5	2176	G	C5-C6-O6	-7.21	124.27	128.60
62	A5	1682	G	N9-C4-C5	-7.21	102.52	105.40
62	A5	2491	C	C2-N1-C1'	7.21	126.73	118.80
61	B2	1849	U	P-O3'-C3'	7.21	128.35	119.70
62	A5	2163	A	C4-C5-C6	7.21	120.60	117.00
62	A5	3507	A	C5-N7-C8	-7.21	100.30	103.90
62	A5	28	C	C6-N1-C2	-7.20	117.42	120.30
62	A5	382	G	O4'-C1'-N9	7.20	113.96	108.20
62	A5	1869	C	C5-C6-N1	7.20	124.60	121.00
62	A5	371	G	N3-C4-C5	7.20	132.20	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	993	A	C5-N7-C8	-7.20	100.30	103.90
62	A5	2549	G	C4-C5-N7	7.20	113.68	110.80
62	A5	2739	A	N3-C4-C5	-7.20	121.76	126.80
62	A5	3607	C	C2-N3-C4	7.20	123.50	119.90
62	A5	2730	A	N9-C4-C5	-7.20	102.92	105.80
62	A5	347	A	C4-C5-N7	7.20	114.30	110.70
62	A5	1594	U	N1-C2-O2	7.20	127.84	122.80
62	A5	1615	G	C4-C5-N7	7.20	113.68	110.80
62	A5	1682	G	C4-C5-C6	7.19	123.11	118.80
62	A5	2726	A	N7-C8-N9	7.19	117.40	113.80
62	A5	3410	G	C4-C5-N7	7.19	113.68	110.80
62	A5	3417	C	C6-N1-C2	-7.19	117.42	120.30
62	A5	1331	G	C4-C5-N7	7.19	113.67	110.80
62	A5	2507	C	C5-C6-N1	7.19	124.59	121.00
62	A5	3481	G	C8-N9-C4	-7.19	103.53	106.40
62	A5	385	A	C4-C5-N7	7.19	114.29	110.70
62	A5	29	U	C2-N1-C1'	7.18	126.32	117.70
62	A5	1160	U	O5'-P-OP2	-7.18	99.23	105.70
62	A5	3655	U	N3-C2-O2	-7.18	117.17	122.20
61	B2	1794	C	N1-C2-O2	7.18	123.21	118.90
62	A5	339	C	C2-N1-C1'	7.18	126.70	118.80
62	A5	1794	G	N9-C4-C5	7.18	108.27	105.40
62	A5	2205	G	N9-C4-C5	7.17	108.27	105.40
62	A5	2516	U	O4'-C1'-N1	7.17	113.94	108.20
62	A5	1540	U	C6-N1-C2	-7.17	116.70	121.00
61	B2	1344	A	C2-N3-C4	7.17	114.19	110.60
62	A5	2221	G	N3-C4-N9	7.17	130.30	126.00
62	A5	2701	G	C4-N9-C1'	-7.17	117.18	126.50
62	A5	2773	G	N7-C8-N9	7.17	116.69	113.10
62	A5	238	G	C6-C5-N7	-7.17	126.10	130.40
62	A5	1078	G	C6-C5-N7	-7.17	126.10	130.40
62	A5	1643	G	C4-C5-N7	7.17	113.67	110.80
62	A5	1803	C	C5-C4-N4	-7.17	115.18	120.20
62	A5	1874	G	C5-C6-O6	-7.17	124.30	128.60
66	Cg	30	LEU	CA-CB-CG	7.17	131.78	115.30
62	A5	2726	A	C5-N7-C8	-7.16	100.32	103.90
62	A5	1691	A	C2-N3-C4	7.16	114.18	110.60
62	A5	3347	G	C4-C5-N7	7.16	113.66	110.80
62	A5	32	C	C2-N3-C4	7.16	123.48	119.90
62	A5	363	G	C4-C5-N7	7.16	113.66	110.80
62	A5	3390	U	C2-N1-C1'	7.16	126.29	117.70
62	A5	374	C	C2-N3-C4	7.15	123.48	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1266	A	N7-C8-N9	7.15	117.38	113.80
62	A5	1778	A	N1-C6-N6	7.15	122.89	118.60
55	CE	44	LEU	CA-CB-CG	7.15	131.75	115.30
62	A5	3343	A	C4-C5-N7	7.15	114.28	110.70
62	A5	3474	G	N3-C4-N9	-7.15	121.71	126.00
62	A5	1360	U	C6-N1-C2	-7.15	116.71	121.00
62	A5	3880	A	C4-C5-N7	7.15	114.27	110.70
62	A5	1617	U	C5-C4-O4	-7.14	121.61	125.90
62	A5	3489	A	N1-C6-N6	7.14	122.89	118.60
62	A5	1267	A	C4-C5-N7	7.14	114.27	110.70
62	A5	2174	A	C8-N9-C4	-7.14	102.94	105.80
62	A5	1711	C	N3-C2-O2	-7.14	116.90	121.90
59	A8	100	G	C8-N9-C1'	7.13	136.28	127.00
62	A5	2524	A	C4-C5-N7	7.13	114.27	110.70
59	A8	9	G	C6-C5-N7	-7.13	126.12	130.40
62	A5	2234	C	C6-N1-C2	-7.13	117.45	120.30
62	A5	2503	G	C4-C5-N7	7.13	113.65	110.80
62	A5	1359	G	C8-N9-C1'	-7.12	117.74	127.00
62	A5	1702	G	N3-C2-N2	-7.12	114.92	119.90
62	A5	3375	U	N3-C2-O2	-7.12	117.22	122.20
62	A5	1520	U	C5-C6-N1	7.12	126.26	122.70
62	A5	1750	G	C8-N9-C4	-7.12	103.55	106.40
62	A5	749	U	N3-C2-O2	-7.11	117.22	122.20
62	A5	3489	A	C5-C6-N6	-7.11	118.01	123.70
62	A5	2163	A	C4-C5-N7	7.11	114.26	110.70
62	A5	3615	G	N3-C4-N9	7.11	130.27	126.00
62	A5	2226	A	C5-N7-C8	-7.11	100.35	103.90
62	A5	3344	U	O5'-P-OP1	-7.11	99.30	105.70
62	A5	1070	G	N1-C6-O6	-7.11	115.64	119.90
62	A5	3513	A	C5-N7-C8	-7.11	100.35	103.90
62	A5	2803	A	C4-C5-N7	7.10	114.25	110.70
62	A5	2786	U	N3-C4-O4	7.10	124.37	119.40
62	A5	1138	C	C6-N1-C2	-7.10	117.46	120.30
62	A5	1267	A	C5-N7-C8	-7.10	100.35	103.90
62	A5	3464	G	C8-N9-C4	-7.10	103.56	106.40
62	A5	1000	G	N3-C4-C5	-7.10	125.05	128.60
62	A5	3590	C	N1-C2-O2	7.10	123.16	118.90
62	A5	1719	G	C8-N9-C4	-7.10	103.56	106.40
62	A5	378	G	N3-C4-C5	-7.09	125.05	128.60
62	A5	794	G	C6-C5-N7	-7.09	126.14	130.40
62	A5	1124	G	C5-C6-N1	7.09	115.05	111.50
62	A5	3137	A	N7-C8-N9	7.09	117.35	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	91	U	C2-N1-C1'	7.09	126.21	117.70
61	B2	939	G	N3-C4-C5	-7.09	125.05	128.60
62	A5	2801	U	C5-C6-N1	7.09	126.25	122.70
62	A5	746	G	C8-N9-C4	-7.09	103.56	106.40
62	A5	1618	A	C4-C5-N7	7.09	114.25	110.70
62	A5	1644	C	C6-N1-C2	-7.09	117.46	120.30
62	A5	1626	A	C5-C6-N6	-7.09	118.03	123.70
62	A5	792	U	O4'-C1'-N1	7.08	113.87	108.20
62	A5	756	C	C2-N1-C1'	7.08	126.59	118.80
62	A5	3487	A	N1-C2-N3	-7.08	125.76	129.30
62	A5	2129	C	P-O3'-C3'	7.08	128.20	119.70
62	A5	3137	A	C5-C6-N6	-7.08	118.03	123.70
62	A5	3326	G	N9-C1'-C2'	7.08	123.20	114.00
41	Cb	25	LEU	CA-CB-CG	7.08	131.58	115.30
62	A5	1133	A	C6-C5-N7	-7.08	127.34	132.30
62	A5	3161	U	C5-C6-N1	7.08	126.24	122.70
62	A5	3669	U	C2-N1-C1'	7.07	126.19	117.70
62	A5	2516	U	C2-N1-C1'	-7.07	109.21	117.70
62	A5	925	C	N3-C2-O2	-7.07	116.95	121.90
62	A5	3510	U	N3-C4-O4	7.07	124.35	119.40
58	A7	83	A	N1-C6-N6	7.07	122.84	118.60
62	A5	2546	G	N3-C4-N9	7.07	130.24	126.00
62	A5	2579	G	N3-C4-N9	7.07	130.24	126.00
62	A5	550	U	N1-C2-O2	7.07	127.75	122.80
62	A5	993	A	C6-C5-N7	-7.07	127.35	132.30
62	A5	1068	C	C2-N1-C1'	7.06	126.57	118.80
62	A5	866	C	C5-C6-N1	7.06	124.53	121.00
62	A5	2513	G	C6-C5-N7	-7.06	126.16	130.40
62	A5	59	G	C4-C5-C6	7.06	123.03	118.80
62	A5	206	C	N3-C2-O2	-7.06	116.96	121.90
62	A5	1792	G	N1-C6-O6	7.06	124.14	119.90
62	A5	1890	U	N1-C2-O2	7.06	127.74	122.80
62	A5	3172	A	N1-C6-N6	7.06	122.84	118.60
62	A5	376	G	N1-C6-O6	7.06	124.13	119.90
62	A5	446	C	N3-C2-O2	-7.06	116.96	121.90
62	A5	1095	G	C8-N9-C1'	-7.06	117.83	127.00
62	A5	1380	G	N9-C4-C5	-7.06	102.58	105.40
62	A5	1618	A	C5-N7-C8	-7.06	100.37	103.90
62	A5	3144	U	C5-C4-O4	-7.06	121.67	125.90
61	B2	38	C	N1-C2-O2	7.06	123.13	118.90
62	A5	37	G	C2-N3-C4	-7.06	108.37	111.90
62	A5	1666	A	C6-C5-N7	-7.06	127.36	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	B2	1390	U	N3-C2-O2	-7.05	117.26	122.20
61	B2	1582	C	N1-C2-O2	7.05	123.13	118.90
62	A5	1803	C	N3-C4-N4	7.05	122.94	118.00
58	A7	88	G	C4-C5-C6	7.05	123.03	118.80
62	A5	361	U	O4'-C1'-N1	-7.05	102.56	108.20
62	A5	3628	G	C6-C5-N7	-7.05	126.17	130.40
62	A5	1296	U	C2-N1-C1'	7.04	126.15	117.70
61	B2	960	U	N3-C2-O2	-7.04	117.27	122.20
62	A5	999	U	C2-N3-C4	7.04	131.22	127.00
62	A5	1010	A	OP2-P-O3'	7.04	120.69	105.20
62	A5	1066	A	C4-C5-N7	7.04	114.22	110.70
62	A5	2697	U	C2-N1-C1'	7.04	126.15	117.70
62	A5	1071	U	C6-N1-C2	-7.04	116.78	121.00
62	A5	2530	C	C6-N1-C2	-7.04	117.48	120.30
62	A5	3489	A	C6-C5-N7	-7.04	127.37	132.30
62	A5	3161	U	C6-N1-C2	-7.04	116.78	121.00
62	A5	3174	A	N7-C8-N9	7.04	117.32	113.80
62	A5	2167	G	C4-C5-N7	7.04	113.61	110.80
62	A5	3399	C	N1-C2-O2	7.04	123.12	118.90
61	B2	1238	G	N3-C4-C5	-7.03	125.08	128.60
62	A5	1019	U	N3-C4-O4	-7.03	114.48	119.40
62	A5	1685	G	N3-C4-C5	-7.03	125.08	128.60
62	A5	2778	G	N9-C4-C5	7.03	108.21	105.40
62	A5	2164	G	N3-C4-C5	-7.03	125.08	128.60
62	A5	853	G	C8-N9-C1'	-7.03	117.86	127.00
62	A5	1272	G	C8-N9-C4	-7.03	103.59	106.40
62	A5	292	G	C4-N9-C1'	7.03	135.63	126.50
62	A5	3578	A	N1-C6-N6	7.03	122.82	118.60
62	A5	1522	G	C4-C5-N7	-7.02	107.99	110.80
62	A5	993	A	C4-C5-N7	7.02	114.21	110.70
62	A5	1736	G	C5-N7-C8	-7.02	100.79	104.30
62	A5	3337	G	N7-C8-N9	7.02	116.61	113.10
59	A8	14	G	C6-C5-N7	-7.02	126.19	130.40
62	A5	37	G	N3-C4-C5	7.02	132.11	128.60
62	A5	3441	C	N3-C2-O2	-7.02	116.99	121.90
62	A5	3143	U	C5-C4-O4	7.02	130.11	125.90
61	B2	1648	C	N3-C2-O2	-7.02	116.99	121.90
62	A5	2526	A	C8-N9-C4	-7.01	102.99	105.80
62	A5	3477	A	N3-C4-N9	-7.01	121.79	127.40
62	A5	787	C	O4'-C1'-N1	7.01	113.81	108.20
62	A5	3609	A	N1-C2-N3	-7.01	125.79	129.30
62	A5	1711	C	N1-C2-O2	7.01	123.11	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	2066	G	N3-C2-N2	-7.01	115.00	119.90
61	B2	1390	U	N1-C2-O2	7.01	127.70	122.80
62	A5	1325	C	N3-C2-O2	-7.01	117.00	121.90
62	A5	2161	G	C4-C5-N7	7.01	113.60	110.80
62	A5	2523	A	C5-C6-N1	7.01	121.20	117.70
62	A5	3355	G	C4-C5-C6	7.01	123.00	118.80
62	A5	3615	G	N3-C4-C5	-7.01	125.10	128.60
62	A5	1083	A	N1-C6-N6	-7.00	114.40	118.60
62	A5	1697	U	C2-N1-C1'	7.00	126.11	117.70
62	A5	1898	C	N1-C2-O2	7.00	123.10	118.90
62	A5	2055	G	C8-N9-C4	-7.00	103.60	106.40
62	A5	2752	C	C6-N1-C1'	7.00	129.20	120.80
58	A7	78	C	C6-N1-C2	-7.00	117.50	120.30
62	A5	798	C	C5-C4-N4	-7.00	115.30	120.20
62	A5	2183	A	C8-N9-C4	-7.00	103.00	105.80
62	A5	2700	C	C5-C6-N1	7.00	124.50	121.00
62	A5	2804	U	C2-N1-C1'	7.00	126.10	117.70
41	Cb	39	PHE	N-CA-C	7.00	129.89	111.00
62	A5	90	G	C2-N3-C4	-6.99	108.40	111.90
62	A5	2002	C	N3-C2-O2	-6.99	117.00	121.90
62	A5	2092	U	C5-C6-N1	6.99	126.20	122.70
62	A5	2206	U	C5-C4-O4	-6.99	121.70	125.90
62	A5	1327	G	C6-C5-N7	-6.99	126.20	130.40
62	A5	3623	G	C6-C5-N7	-6.99	126.20	130.40
62	A5	496	U	N1-C2-O2	6.99	127.69	122.80
62	A5	3581	G	C6-C5-N7	-6.99	126.21	130.40
62	A5	2723	A	N7-C8-N9	6.99	117.29	113.80
62	A5	1647	A	C8-N9-C4	-6.99	103.01	105.80
62	A5	1775	C	N3-C2-O2	-6.99	117.01	121.90
62	A5	2781	G	C6-C5-N7	-6.99	126.21	130.40
62	A5	3480	U	N1-C2-O2	6.99	127.69	122.80
62	A5	1526	G	N1-C2-N3	6.98	128.09	123.90
62	A5	2757	U	N1-C2-O2	6.98	127.69	122.80
62	A5	2803	A	C6-C5-N7	-6.98	127.41	132.30
62	A5	1369	C	C5-C6-N1	6.98	124.49	121.00
62	A5	2212	A	C5-N7-C8	-6.98	100.41	103.90
62	A5	2698	A	C8-N9-C4	6.98	108.59	105.80
62	A5	102	G	C5-C6-O6	-6.98	124.41	128.60
62	A5	1133	A	C4-N9-C1'	6.98	138.86	126.30
62	A5	1626	A	N1-C6-N6	6.98	122.79	118.60
62	A5	2250	G	C4-C5-C6	6.98	122.99	118.80
61	B2	4	C	C6-N1-C2	-6.97	117.51	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	B2	939	G	N3-C4-N9	6.97	130.19	126.00
62	A5	3584	C	C6-N1-C2	6.97	123.09	120.30
62	A5	1684	G	C5-C6-N1	6.97	114.98	111.50
62	A5	3480	U	OP1-P-OP2	-6.97	109.15	119.60
62	A5	1612	G	C4-C5-C6	6.97	122.98	118.80
62	A5	380	G	N3-C4-C5	6.96	132.08	128.60
62	A5	1375	G	N3-C4-C5	-6.96	125.12	128.60
62	A5	3342	C	C6-N1-C1'	6.96	129.16	120.80
62	A5	2524	A	C6-C5-N7	-6.96	127.43	132.30
62	A5	354	A	C4-C5-N7	6.96	114.18	110.70
62	A5	1025	U	C5-C6-N1	6.96	126.18	122.70
62	A5	1154	U	N3-C2-O2	-6.96	117.33	122.20
62	A5	1398	C	C6-N1-C2	-6.96	117.52	120.30
62	A5	2739	A	C8-N9-C1'	-6.96	115.18	127.70
62	A5	3489	A	C5-N7-C8	-6.95	100.42	103.90
62	A5	1721	C	C5-C6-N1	6.95	124.48	121.00
62	A5	1995	U	N1-C2-O2	6.95	127.67	122.80
62	A5	2171	U	C5-C4-O4	-6.95	121.73	125.90
62	A5	2202	A	N1-C6-N6	-6.95	114.43	118.60
62	A5	3114	C	C2-N1-C1'	6.95	126.45	118.80
62	A5	1026	G	C4-N9-C1'	6.95	135.53	126.50
62	A5	1678	C	OP2-P-O3'	6.95	120.49	105.20
62	A5	1713	U	O4'-C1'-N1	6.95	113.76	108.20
62	A5	3343	A	O5'-P-OP2	-6.95	99.45	105.70
59	A8	7	A	N7-C8-N9	6.94	117.27	113.80
62	A5	1554	C	C6-N1-C2	-6.94	117.53	120.30
62	A5	1694	A	C5-C6-N1	6.94	121.17	117.70
62	A5	1064	G	C5-N7-C8	-6.93	100.83	104.30
62	A5	756	C	N3-C2-O2	-6.93	117.05	121.90
62	A5	1381	U	C5-C6-N1	6.93	126.16	122.70
62	A5	3609	A	C4-C5-C6	-6.93	113.54	117.00
62	A5	1549	A	N3-C4-N9	-6.92	121.86	127.40
62	A5	360	A	C8-N9-C4	-6.92	103.03	105.80
62	A5	3351	A	C5-N7-C8	-6.92	100.44	103.90
5	AC	244	LEU	CA-CB-CG	6.92	131.22	115.30
62	A5	1666	A	N7-C8-N9	6.92	117.26	113.80
61	B2	960	U	N1-C2-O2	6.92	127.64	122.80
62	A5	1028	U	C5-C4-O4	-6.92	121.75	125.90
62	A5	1102	G	N7-C8-N9	6.92	116.56	113.10
62	A5	2167	G	C4-N9-C1'	6.92	135.50	126.50
62	A5	3875	U	N1-C2-O2	6.92	127.64	122.80
61	B2	1681	U	C2-N1-C1'	6.92	126.00	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	2177	G	C6-C5-N7	-6.92	126.25	130.40
62	A5	2651	G	C8-N9-C4	-6.92	103.63	106.40
62	A5	301	U	N1-C2-O2	6.91	127.64	122.80
62	A5	1117	A	C6-C5-N7	-6.91	127.46	132.30
62	A5	1685	G	C2-N3-C4	6.91	115.36	111.90
62	A5	1872	A	C4-C5-N7	6.91	114.16	110.70
62	A5	3510	U	C6-N1-C2	-6.91	116.86	121.00
62	A5	354	A	C6-C5-N7	-6.91	127.47	132.30
62	A5	3354	U	C5-C6-N1	6.91	126.15	122.70
62	A5	3174	A	C4-N9-C1'	6.90	138.72	126.30
62	A5	1153	G	O5'-P-OP2	-6.90	99.49	105.70
61	B2	1836	C	C6-N1-C2	-6.90	117.54	120.30
62	A5	2548	G	N3-C4-N9	-6.90	121.86	126.00
62	A5	3958	C	N1-C2-O2	6.90	123.04	118.90
62	A5	1003	C	OP2-P-O3'	6.90	120.37	105.20
62	A5	2773	G	C8-N9-C4	-6.89	103.64	106.40
62	A5	82	U	O5'-P-OP1	-6.89	99.50	105.70
59	A8	88	C	C2-N1-C1'	6.89	126.38	118.80
62	A5	2197	A	C4-N9-C1'	6.89	138.70	126.30
62	A5	3345	A	C4-N9-C1'	6.89	138.70	126.30
61	B2	1765	U	P-O3'-C3'	6.88	127.96	119.70
62	A5	2726	A	C8-N9-C4	-6.88	103.05	105.80
62	A5	3170	U	N3-C2-O2	-6.88	117.38	122.20
62	A5	2031	C	C6-N1-C2	-6.88	117.55	120.30
62	A5	2505	A	C4-C5-N7	6.88	114.14	110.70
62	A5	1690	U	N1-C2-O2	6.88	127.62	122.80
62	A5	1032	G	N7-C8-N9	6.88	116.54	113.10
62	A5	3255	G	N7-C8-N9	6.88	116.54	113.10
62	A5	1549	A	C2-N3-C4	-6.88	107.16	110.60
62	A5	1620	A	C8-N9-C4	-6.88	103.05	105.80
62	A5	587	U	N3-C2-O2	-6.88	117.39	122.20
62	A5	3514	C	N3-C4-N4	-6.88	113.19	118.00
62	A5	29	U	N1-C2-O2	6.87	127.61	122.80
62	A5	1165	A	N3-C4-C5	6.87	131.61	126.80
62	A5	33	C	C2-N1-C1'	6.87	126.36	118.80
62	A5	354	A	C5-N7-C8	-6.87	100.46	103.90
62	A5	1329	G	C4-N9-C1'	6.87	135.43	126.50
62	A5	1143	U	C5-C4-O4	6.87	130.02	125.90
62	A5	1109	G	N1-C6-O6	-6.87	115.78	119.90
62	A5	1669	G	C8-N9-C1'	6.87	135.93	127.00
62	A5	1997	C	N3-C2-O2	-6.87	117.09	121.90
59	A8	38	G	C8-N9-C1'	-6.86	118.08	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1272	G	O4'-C1'-N9	6.86	113.69	108.20
62	A5	1666	A	C5-N7-C8	-6.86	100.47	103.90
62	A5	1985	C	N1-C2-O2	6.86	123.02	118.90
62	A5	2708	C	C6-N1-C2	-6.86	117.56	120.30
62	A5	1148	C	C2-N1-C1'	6.85	126.34	118.80
62	A5	660	A	C2-N3-C4	-6.85	107.17	110.60
62	A5	1594	U	C6-N1-C1'	-6.85	111.61	121.20
62	A5	1001	A	N7-C8-N9	-6.85	110.38	113.80
61	B2	1925	G	C4-N9-C1'	6.85	135.40	126.50
62	A5	340	U	N3-C4-O4	6.85	124.19	119.40
62	A5	2102	G	N7-C8-N9	6.85	116.52	113.10
62	A5	3137	A	C5-N7-C8	-6.85	100.48	103.90
62	A5	1682	G	N1-C2-N2	-6.84	110.04	116.20
62	A5	2200	A	C2-N3-C4	6.84	114.02	110.60
62	A5	3476	G	N7-C8-N9	6.84	116.52	113.10
61	B2	1794	C	N3-C2-O2	-6.84	117.11	121.90
62	A5	380	G	C8-N9-C1'	6.84	135.89	127.00
62	A5	1123	C	N3-C4-C5	6.84	124.64	121.90
62	A5	2099	C	C6-N1-C2	-6.84	117.57	120.30
62	A5	2769	G	N1-C6-O6	6.84	124.00	119.90
62	A5	2772	G	C6-N1-C2	-6.84	121.00	125.10
62	A5	751	A	C2-N3-C4	6.83	114.02	110.60
62	A5	1017	A	N7-C8-N9	6.83	117.22	113.80
62	A5	999	U	C6-N1-C2	-6.83	116.90	121.00
62	A5	3545	C	C5-C6-N1	6.83	124.42	121.00
61	B2	633	U	N3-C2-O2	-6.83	117.42	122.20
62	A5	3481	G	N3-C4-N9	6.83	130.10	126.00
62	A5	3492	G	N1-C6-O6	6.83	124.00	119.90
62	A5	3521	A	C5-N7-C8	-6.83	100.48	103.90
61	B2	1650	G	C8-N9-C1'	-6.83	118.12	127.00
62	A5	1731	G	C6-C5-N7	-6.83	126.30	130.40
62	A5	3677	U	N1-C2-O2	6.83	127.58	122.80
62	A5	3589	G	C6-C5-N7	-6.83	126.31	130.40
62	A5	3623	G	N7-C8-N9	6.83	116.51	113.10
62	A5	157	C	N3-C2-O2	-6.82	117.12	121.90
61	B2	1727	U	N1-C2-N3	-6.82	110.81	114.90
62	A5	527	U	N3-C2-O2	-6.82	117.43	122.20
62	A5	818	A	C6-C5-N7	-6.82	127.53	132.30
62	A5	2038	A	N7-C8-N9	6.82	117.21	113.80
62	A5	2491	C	C5-C6-N1	6.82	124.41	121.00
62	A5	27	A	C4-C5-N7	6.82	114.11	110.70
62	A5	978	G	C6-C5-N7	-6.82	126.31	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1124	G	O4'-C1'-N9	-6.82	102.75	108.20
62	A5	809	G	C4-N9-C1'	6.81	135.36	126.50
62	A5	2565	G	C8-N9-C4	-6.81	103.67	106.40
62	A5	3472	A	N1-C6-N6	-6.81	114.51	118.60
62	A5	3669	U	N3-C2-O2	-6.81	117.43	122.20
62	A5	1737	U	C6-N1-C2	-6.81	116.91	121.00
62	A5	3351	A	C4-C5-N7	6.81	114.10	110.70
62	A5	2195	A	C8-N9-C4	6.81	108.52	105.80
62	A5	2723	A	C8-N9-C4	-6.80	103.08	105.80
62	A5	2729	U	C6-N1-C2	-6.80	116.92	121.00
62	A5	2754	G	N3-C2-N2	-6.80	115.14	119.90
62	A5	3138	G	N3-C4-C5	-6.80	125.20	128.60
62	A5	309	C	C6-N1-C2	-6.80	117.58	120.30
62	A5	1022	A	C5-C6-N6	-6.80	118.26	123.70
62	A5	1164	G	N7-C8-N9	6.80	116.50	113.10
62	A5	587	U	OP1-P-O3'	6.79	120.15	105.20
62	A5	1551	U	C5-C4-O4	-6.79	121.82	125.90
78	CL	16	TRP	C-N-CA	6.79	138.68	121.70
62	A5	3368	C	N1-C2-O2	6.79	122.97	118.90
62	A5	2510	A	C5-C6-N6	-6.79	118.27	123.70
62	A5	3409	G	C4-N9-C1'	6.79	135.33	126.50
62	A5	806	A	C5-C6-N1	-6.79	114.31	117.70
62	A5	2571	U	C5-C4-O4	-6.79	121.83	125.90
59	A8	88	C	N1-C2-O2	6.78	122.97	118.90
62	A5	1728	G	C5-N7-C8	-6.78	100.91	104.30
62	A5	2782	A	C8-N9-C1'	-6.78	115.49	127.70
62	A5	3727	A	C4-C5-C6	-6.78	113.61	117.00
62	A5	999	U	C5-C6-N1	6.78	126.09	122.70
62	A5	1260	A	O4'-C1'-N9	6.78	113.62	108.20
62	A5	2184	G	N1-C6-O6	6.78	123.97	119.90
62	A5	67	A	C2-N3-C4	6.78	113.99	110.60
62	A5	2182	G	OP2-P-O3'	6.78	120.11	105.20
62	A5	2517	A	C5-N7-C8	-6.77	100.51	103.90
62	A5	1672	A	N1-C6-N6	6.77	122.66	118.60
62	A5	2572	G	N3-C4-N9	6.77	130.06	126.00
62	A5	420	A	C8-N9-C4	-6.77	103.09	105.80
62	A5	1136	A	C5-C6-N6	-6.77	118.28	123.70
62	A5	2215	G	C4-N9-C1'	6.77	135.30	126.50
62	A5	3137	A	N1-C6-N6	6.77	122.66	118.60
62	A5	379	A	C2-N3-C4	6.77	113.98	110.60
62	A5	2177	G	C4-C5-N7	6.77	113.51	110.80
62	A5	90	G	C8-N9-C1'	6.76	135.79	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	259	A	N1-C6-N6	6.76	122.65	118.60
62	A5	359	G	N3-C4-N9	-6.75	121.95	126.00
62	A5	88	U	C6-N1-C2	-6.75	116.95	121.00
62	A5	3609	A	C2-N3-C4	6.75	113.97	110.60
61	B2	1107	A	N9-C4-C5	-6.75	103.10	105.80
62	A5	1729	G	C5-C6-O6	6.75	132.65	128.60
62	A5	3148	C	N1-C2-O2	6.75	122.95	118.90
62	A5	1608	G	C6-C5-N7	-6.75	126.35	130.40
62	A5	801	G	C4-C5-N7	6.74	113.50	110.80
62	A5	3445	C	N3-C2-O2	-6.74	117.18	121.90
62	A5	3615	G	C4-N9-C1'	6.74	135.26	126.50
61	B2	848	C	N1-C2-O2	6.74	122.94	118.90
62	A5	3471	A	N9-C4-C5	-6.74	103.10	105.80
62	A5	1078	G	C4-C5-N7	6.74	113.50	110.80
62	A5	1362	G	N1-C6-O6	-6.74	115.86	119.90
62	A5	1320	U	N3-C2-O2	-6.74	117.49	122.20
62	A5	67	A	C5-C6-N1	6.73	121.07	117.70
62	A5	1721	C	C5-C4-N4	-6.73	115.49	120.20
62	A5	2102	G	N3-C4-N9	6.73	130.04	126.00
62	A5	2164	G	C4-N9-C1'	6.73	135.25	126.50
62	A5	347	A	N7-C8-N9	6.73	117.17	113.80
62	A5	1768	G	C8-N9-C1'	-6.73	118.25	127.00
62	A5	1786	G	C4-C5-N7	6.73	113.49	110.80
62	A5	2194	G	C8-N9-C1'	-6.73	118.25	127.00
62	A5	998	G	N7-C8-N9	6.73	116.46	113.10
61	B2	1582	C	C2-N1-C1'	6.73	126.20	118.80
62	A5	3474	G	C5-N7-C8	-6.73	100.94	104.30
62	A5	2510	A	C5-C6-N1	6.72	121.06	117.70
62	A5	2713	G	N9-C4-C5	6.72	108.09	105.40
62	A5	3470	G	N1-C6-O6	6.72	123.94	119.90
62	A5	1068	C	C5-C6-N1	6.72	124.36	121.00
62	A5	1145	C	C6-N1-C2	-6.72	117.61	120.30
62	A5	3964	G	C8-N9-C1'	-6.72	118.26	127.00
62	A5	305	G	C5-C6-O6	-6.72	124.57	128.60
59	A8	7	A	C4-N9-C1'	6.72	138.39	126.30
62	A5	1721	C	N3-C4-N4	6.72	122.70	118.00
61	B2	1285	C	N1-C2-O2	6.72	122.93	118.90
62	A5	2767	U	C2-N1-C1'	6.72	125.76	117.70
62	A5	3882	C	C5-C6-N1	6.72	124.36	121.00
76	AQ	118	ASP	CB-CG-OD1	6.72	124.34	118.30
62	A5	797	A	C8-N9-C4	6.71	108.49	105.80
62	A5	3495	G	C5-C6-O6	6.71	132.63	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	787	C	C2-N1-C1'	-6.71	111.42	118.80
62	A5	1016	A	N7-C8-N9	-6.71	110.44	113.80
62	A5	96	G	C8-N9-C4	6.71	109.08	106.40
62	A5	1409	G	C6-C5-N7	-6.71	126.37	130.40
62	A5	2746	A	C8-N9-C4	-6.71	103.12	105.80
61	B2	458	C	C2-N1-C1'	6.71	126.18	118.80
62	A5	3513	A	C4-C5-C6	-6.71	113.65	117.00
62	A5	997	U	C6-N1-C2	-6.70	116.98	121.00
62	A5	1404	A	C2-N3-C4	6.70	113.95	110.60
62	A5	831	A	C5-C6-N1	6.70	121.05	117.70
58	A7	96	U	C6-N1-C2	-6.70	116.98	121.00
62	A5	3341	C	C2-N1-C1'	6.70	126.17	118.80
61	B2	1594	A	C2-N3-C4	6.70	113.95	110.60
62	A5	2768	A	C5-C6-N6	-6.70	118.34	123.70
62	A5	3177	G	N1-C6-O6	6.70	123.92	119.90
62	A5	2516	U	C6-N1-C1'	6.69	130.57	121.20
62	A5	3477	A	C5-C6-N6	6.69	129.05	123.70
62	A5	1794	G	C4-C5-N7	-6.69	108.12	110.80
62	A5	2233	C	C2-N1-C1'	6.69	126.16	118.80
62	A5	2744	C	C6-N1-C1'	6.69	128.83	120.80
62	A5	355	G	C2-N3-C4	-6.69	108.56	111.90
62	A5	446	C	C4-C5-C6	6.69	120.74	117.40
61	B2	634	U	C6-N1-C2	-6.69	116.99	121.00
62	A5	109	A	N1-C6-N6	6.69	122.61	118.60
62	A5	447	G	N1-C6-O6	6.69	123.91	119.90
62	A5	3	A	C2-N3-C4	6.68	113.94	110.60
62	A5	1074	U	N3-C4-O4	-6.68	114.72	119.40
62	A5	1995	U	N3-C2-O2	-6.68	117.52	122.20
62	A5	3673	G	N3-C4-N9	6.68	130.01	126.00
61	B2	616	U	N3-C2-O2	-6.68	117.52	122.20
62	A5	828	G	C5-N7-C8	-6.68	100.96	104.30
62	A5	1195	U	C6-N1-C2	-6.68	116.99	121.00
62	A5	1523	A	C5-C6-N6	6.68	129.04	123.70
62	A5	2549	G	C8-N9-C1'	-6.68	118.31	127.00
61	B2	932	U	C2-N1-C1'	6.68	125.72	117.70
62	A5	73	U	C2-N1-C1'	6.68	125.71	117.70
62	A5	2100	U	N3-C2-O2	-6.68	117.52	122.20
62	A5	2196	U	C2-N1-C1'	-6.68	109.68	117.70
62	A5	2526	A	C2-N3-C4	-6.68	107.26	110.60
62	A5	41	U	N3-C4-O4	6.68	124.07	119.40
59	A8	8	A	N9-C4-C5	-6.67	103.13	105.80
61	B2	1079	A	N7-C8-N9	6.67	117.14	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	103	A	C4-C5-N7	6.67	114.04	110.70
62	A5	993	A	C8-N9-C4	-6.67	103.13	105.80
62	A5	1080	G	C2-N3-C4	6.67	115.24	111.90
62	A5	1788	G	C4-N9-C1'	6.67	135.18	126.50
62	A5	1626	A	C4-C5-N7	6.67	114.04	110.70
62	A5	1963	U	N1-C2-O2	6.67	127.47	122.80
62	A5	29	U	C5-C6-N1	6.67	126.04	122.70
62	A5	2510	A	C4-C5-N7	6.67	114.04	110.70
61	B2	1072	A	N9-C4-C5	-6.67	103.13	105.80
62	A5	1014	U	C6-N1-C1'	6.67	130.54	121.20
62	A5	1324	C	O4'-C1'-N1	6.67	113.53	108.20
62	A5	2778	G	N7-C8-N9	6.67	116.43	113.10
62	A5	3676	C	C5-C6-N1	6.67	124.33	121.00
62	A5	31	C	C6-N1-C2	-6.67	117.63	120.30
62	A5	66	A	C6-C5-N7	-6.66	127.64	132.30
62	A5	1390	C	N1-C2-O2	6.66	122.90	118.90
62	A5	1728	G	C2-N3-C4	-6.66	108.57	111.90
62	A5	369	A	C5-N7-C8	-6.66	100.57	103.90
62	A5	1691	A	C4-N9-C1'	6.66	138.29	126.30
62	A5	352	U	C5-C6-N1	6.66	126.03	122.70
62	A5	1112	G	C6-C5-N7	-6.66	126.41	130.40
62	A5	2747	G	C5-N7-C8	-6.66	100.97	104.30
62	A5	2754	G	C4-C5-C6	-6.66	114.81	118.80
62	A5	3137	A	C4-C5-N7	6.66	114.03	110.70
62	A5	1312	G	C5-N7-C8	-6.65	100.97	104.30
62	A5	2782	A	OP1-P-OP2	-6.65	109.62	119.60
62	A5	3491	C	O4'-C1'-N1	6.65	113.52	108.20
59	A8	99	U	C2-N1-C1'	6.65	125.68	117.70
62	A5	1026	G	N3-C4-N9	6.65	129.99	126.00
62	A5	1388	C	C6-N1-C2	-6.65	117.64	120.30
62	A5	820	A	C5-C6-N6	-6.65	118.38	123.70
62	A5	1003	C	C2-N1-C1'	6.65	126.11	118.80
62	A5	1622	U	C5-C6-N1	6.65	126.03	122.70
62	A5	2014	C	N3-C2-O2	-6.65	117.24	121.90
62	A5	3678	G	N7-C8-N9	6.65	116.42	113.10
62	A5	2747	G	C8-N9-C4	-6.65	103.74	106.40
62	A5	90	G	N3-C4-C5	6.65	131.92	128.60
62	A5	2773	G	C5-C6-N1	6.65	114.82	111.50
62	A5	802	G	N3-C4-N9	-6.64	122.01	126.00
62	A5	2505	A	N7-C8-N9	6.64	117.12	113.80
62	A5	1038	G	C6-C5-N7	-6.64	126.41	130.40
62	A5	1750	G	N3-C4-C5	-6.64	125.28	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1129	A	C4-C5-N7	6.64	114.02	110.70
62	A5	809	G	C4-C5-C6	6.64	122.78	118.80
62	A5	3397	U	O4'-C1'-N1	6.64	113.51	108.20
62	A5	3408	C	N3-C2-O2	-6.64	117.25	121.90
62	A5	2234	C	C2-N1-C1'	6.64	126.10	118.80
62	A5	3471	A	C8-N9-C4	6.64	108.45	105.80
62	A5	978	G	N1-C6-O6	6.64	123.88	119.90
62	A5	774	A	N3-C4-C5	-6.63	122.16	126.80
62	A5	3549	C	N3-C2-O2	-6.63	117.26	121.90
62	A5	93	G	C8-N9-C4	-6.63	103.75	106.40
62	A5	2072	C	N3-C2-O2	-6.63	117.26	121.90
62	A5	103	A	N7-C8-N9	6.63	117.12	113.80
62	A5	3445	C	N1-C2-O2	6.63	122.88	118.90
62	A5	3323	G	N3-C4-C5	-6.63	125.28	128.60
62	A5	3516	C	C4-C5-C6	-6.63	114.08	117.40
62	A5	298	U	N1-C2-O2	6.63	127.44	122.80
62	A5	2770	C	C2-N1-C1'	6.63	126.09	118.80
62	A5	3353	C	C6-N1-C2	-6.63	117.65	120.30
62	A5	1139	U	C6-N1-C1'	-6.62	111.93	121.20
62	A5	3336	A	C5-C6-N1	6.62	121.01	117.70
62	A5	1415	A	C5-C6-N1	6.62	121.01	117.70
62	A5	2658	A	C5-C6-N1	6.62	121.01	117.70
62	A5	1776	U	N1-C2-N3	6.62	118.87	114.90
62	A5	2191	G	N1-C6-O6	6.62	123.87	119.90
62	A5	1984	U	N3-C2-O2	-6.62	117.57	122.20
62	A5	2717	C	N3-C4-C5	6.62	124.55	121.90
62	A5	1026	G	C8-N9-C1'	-6.61	118.40	127.00
62	A5	2209	G	C8-N9-C4	-6.61	103.75	106.40
61	B2	1003	C	C5-C6-N1	6.61	124.31	121.00
62	A5	1078	G	C8-N9-C4	-6.61	103.75	106.40
62	A5	1383	A	C5-C6-N1	6.61	121.01	117.70
62	A5	3614	U	C2-N1-C1'	6.61	125.63	117.70
62	A5	918	G	C4-C5-N7	6.61	113.44	110.80
62	A5	1095	G	C4-C5-N7	6.61	113.44	110.80
62	A5	1648	A	N9-C4-C5	6.61	108.44	105.80
62	A5	1669	G	N3-C4-C5	6.61	131.90	128.60
62	A5	2784	C	N1-C2-N3	6.61	123.83	119.20
62	A5	1542	C	C5-C6-N1	6.61	124.30	121.00
62	A5	3137	A	C6-C5-N7	-6.61	127.68	132.30
62	A5	3402	C	N3-C4-C5	6.61	124.54	121.90
62	A5	922	G	C4-C5-N7	6.60	113.44	110.80
62	A5	1091	G	N3-C2-N2	-6.60	115.28	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1523	A	C6-C5-N7	6.60	136.92	132.30
62	A5	2567	U	C6-N1-C2	-6.60	117.04	121.00
62	A5	2747	G	C4-C5-N7	6.60	113.44	110.80
62	A5	3345	A	O5'-P-OP1	-6.60	99.76	105.70
61	B2	1956	U	P-O3'-C3'	6.60	127.62	119.70
62	A5	1117	A	C4-C5-N7	6.60	114.00	110.70
62	A5	3396	A	C8-N9-C4	-6.60	103.16	105.80
62	A5	1070	G	C4-C5-N7	-6.60	108.16	110.80
62	A5	336	A	C8-N9-C4	6.60	108.44	105.80
62	A5	1003	C	C5-C4-N4	-6.60	115.58	120.20
62	A5	1024	U	N3-C2-O2	-6.60	117.58	122.20
62	A5	2208	G	N9-C4-C5	6.60	108.04	105.40
62	A5	1102	G	C8-N9-C4	-6.60	103.76	106.40
62	A5	301	U	O5'-P-OP2	-6.60	99.76	105.70
62	A5	3667	C	C5-C6-N1	6.59	124.30	121.00
62	A5	123	U	C2-N1-C1'	6.59	125.61	117.70
62	A5	2179	G	C5-C6-O6	-6.59	124.64	128.60
62	A5	96	G	N3-C2-N2	6.59	124.51	119.90
62	A5	41	U	C5-C6-N1	6.59	125.99	122.70
62	A5	2500	G	C4-N9-C1'	-6.59	117.94	126.50
62	A5	2658	A	N1-C6-N6	-6.59	114.65	118.60
62	A5	2727	U	C5-C6-N1	6.59	125.99	122.70
62	A5	3140	G	C5-N7-C8	-6.59	101.01	104.30
62	A5	3727	A	C4-N9-C1'	-6.59	114.45	126.30
62	A5	58	G	N9-C4-C5	6.58	108.03	105.40
62	A5	376	G	C2-N3-C4	-6.58	108.61	111.90
62	A5	1680	U	C6-N1-C1'	6.58	130.42	121.20
59	A8	101	A	C4-N9-C1'	6.58	138.15	126.30
62	A5	2652	U	C2-N1-C1'	6.58	125.60	117.70
62	A5	3611	C	C5-C6-N1	6.58	124.29	121.00
62	A5	3400	U	N3-C2-O2	6.58	126.81	122.20
62	A5	1347	A	C8-N9-C4	-6.58	103.17	105.80
62	A5	2233	C	N1-C2-O2	6.57	122.84	118.90
62	A5	1752	G	C4-C5-N7	6.57	113.43	110.80
62	A5	999	U	C2-N1-C1'	6.57	125.59	117.70
62	A5	2572	G	C8-N9-C1'	-6.57	118.46	127.00
62	A5	39	A	C6-C5-N7	6.57	136.90	132.30
62	A5	1000	G	O5'-P-OP2	-6.57	99.79	105.70
62	A5	2554	U	C2-N1-C1'	6.57	125.58	117.70
62	A5	754	A	N3-C4-N9	6.57	132.65	127.40
62	A5	2548	G	N3-C4-C5	6.57	131.88	128.60
62	A5	2521	A	C5-C6-N1	6.56	120.98	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	675	C	C6-N1-C2	-6.56	117.67	120.30
62	A5	186	G	P-O3'-C3'	6.56	127.57	119.70
62	A5	2811	G	C8-N9-C4	-6.56	103.78	106.40
61	B2	1648	C	C6-N1-C1'	-6.56	112.93	120.80
62	A5	63	G	C5-C6-O6	-6.56	124.67	128.60
62	A5	1407	C	C6-N1-C2	-6.56	117.68	120.30
62	A5	772	G	C4-C5-N7	6.56	113.42	110.80
33	CS	17	LEU	CA-CB-CG	6.55	130.38	115.30
59	A8	24	G	N1-C6-O6	6.55	123.83	119.90
62	A5	308	G	C4-C5-N7	6.55	113.42	110.80
62	A5	1089	U	C6-N1-C2	-6.55	117.07	121.00
62	A5	2552	G	N3-C4-N9	-6.55	122.07	126.00
59	A8	21	U	OP1-P-O3'	6.55	119.61	105.20
62	A5	3597	C	N1-C2-O2	6.55	122.83	118.90
59	A8	24	G	C4-N9-C1'	6.55	135.01	126.50
62	A5	3507	A	C5-C6-N6	-6.55	118.46	123.70
62	A5	1109	G	C5-C6-O6	6.55	132.53	128.60
62	A5	2773	G	C4-N9-C1'	-6.55	117.99	126.50
62	A5	2537	A	N1-C6-N6	6.54	122.53	118.60
62	A5	475	U	N1-C2-O2	6.54	127.38	122.80
62	A5	3129	U	C5-C6-N1	6.54	125.97	122.70
59	A8	39	A	C4-C5-N7	6.54	113.97	110.70
62	A5	1133	A	N1-C6-N6	6.54	122.52	118.60
61	B2	1816	C	C6-N1-C2	-6.53	117.69	120.30
62	A5	1133	A	C8-N9-C1'	-6.53	115.94	127.70
62	A5	1555	G	C4-C5-N7	6.53	113.41	110.80
62	A5	206	C	C2-N1-C1'	6.53	125.98	118.80
61	B2	1087	C	N1-C2-O2	6.53	122.82	118.90
62	A5	2805	C	N3-C2-O2	-6.53	117.33	121.90
62	A5	3342	C	C6-N1-C2	-6.53	117.69	120.30
62	A5	3727	A	O4'-C1'-N9	6.53	113.42	108.20
62	A5	1064	G	OP1-P-OP2	-6.53	109.81	119.60
62	A5	2662	C	C5-C6-N1	6.53	124.26	121.00
62	A5	52	A	N9-C4-C5	6.53	108.41	105.80
62	A5	3875	U	N3-C2-O2	-6.53	117.63	122.20
62	A5	1794	G	C8-N9-C4	-6.53	103.79	106.40
59	A8	38	G	C4-C5-N7	6.52	113.41	110.80
62	A5	1115	A	C4-C5-C6	-6.52	113.74	117.00
62	A5	1387	G	C8-N9-C1'	-6.52	118.52	127.00
62	A5	1675	G	O5'-P-OP2	-6.52	99.83	105.70
62	A5	2218	G	C4-N9-C1'	6.52	134.98	126.50
62	A5	95	G	C5-N7-C8	-6.52	101.04	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	2684	C	N1-C2-O2	6.52	122.81	118.90
62	A5	308	G	C4-N9-C1'	6.52	134.97	126.50
62	A5	807	A	C5-N7-C8	-6.52	100.64	103.90
62	A5	2768	A	C2-N3-C4	-6.52	107.34	110.60
62	A5	3355	G	N1-C6-O6	6.52	123.81	119.90
59	A8	103	C	N3-C2-O2	-6.52	117.34	121.90
62	A5	3514	C	O4'-C1'-N1	6.52	113.41	108.20
62	A5	3507	A	C6-C5-N7	-6.51	127.74	132.30
62	A5	296	C	C4-C5-C6	-6.51	114.14	117.40
62	A5	1783	A	C5-N7-C8	-6.51	100.64	103.90
62	A5	1379	U	C5-C6-N1	6.51	125.96	122.70
62	A5	2696	U	O5'-P-OP2	-6.51	99.84	105.70
62	A5	3154	C	C6-N1-C2	-6.51	117.69	120.30
62	A5	3673	G	C8-N9-C1'	-6.51	118.53	127.00
62	A5	3881	A	C5-C6-N1	6.51	120.96	117.70
61	B2	1854	U	N3-C2-O2	-6.51	117.64	122.20
62	A5	3764	G	C4-N9-C1'	6.51	134.96	126.50
62	A5	3950	A	C5-C6-N1	6.51	120.95	117.70
62	A5	3342	C	N1-C2-N3	6.51	123.75	119.20
27	Ca	37	GLY	N-CA-C	-6.50	96.84	113.10
62	A5	3344	U	C5-C4-O4	-6.50	122.00	125.90
62	A5	384	A	C8-N9-C4	-6.50	103.20	105.80
62	A5	1137	G	O4'-C1'-N9	-6.50	103.00	108.20
62	A5	1555	G	C6-C5-N7	-6.50	126.50	130.40
62	A5	2729	U	C6-N1-C1'	6.50	130.30	121.20
62	A5	3513	A	N1-C2-N3	-6.50	126.05	129.30
62	A5	3612	A	C8-N9-C4	-6.50	103.20	105.80
62	A5	1357	C	N1-C2-O2	6.50	122.80	118.90
62	A5	2739	A	C2-N3-C4	6.50	113.85	110.60
58	A7	83	A	C5-C6-N6	-6.50	118.50	123.70
62	A5	51	U	C6-N1-C2	-6.50	117.10	121.00
62	A5	797	A	N7-C8-N9	-6.50	110.55	113.80
62	A5	2506	U	C6-N1-C1'	-6.50	112.10	121.20
55	CE	154	LEU	CA-CB-CG	6.50	130.24	115.30
59	A8	46	C	C5-C6-N1	6.50	124.25	121.00
62	A5	441	A	C6-C5-N7	-6.50	127.75	132.30
62	A5	1608	G	N3-C4-N9	6.50	129.90	126.00
61	B2	1109	C	C2-N1-C1'	6.49	125.94	118.80
62	A5	1353	G	C8-N9-C1'	-6.49	118.56	127.00
62	A5	2756	C	C6-N1-C1'	-6.49	113.01	120.80
62	A5	63	G	C5-N7-C8	-6.49	101.06	104.30
62	A5	1735	G	C4-N9-C1'	6.49	134.94	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	2683	G	C5-C6-N1	6.49	114.75	111.50
62	A5	3521	A	N1-C2-N3	-6.49	126.06	129.30
61	B2	38	C	N3-C2-O2	-6.49	117.36	121.90
62	A5	1383	A	N3-C4-N9	6.48	132.59	127.40
61	B2	848	C	C6-N1-C2	-6.48	117.71	120.30
62	A5	116	U	C6-N1-C2	-6.48	117.11	121.00
62	A5	2193	C	C6-N1-C2	-6.48	117.71	120.30
58	A7	88	G	N3-C4-C5	-6.48	125.36	128.60
62	A5	2696	U	C6-N1-C2	-6.48	117.11	121.00
34	CT	144	LEU	C-N-CA	6.48	137.89	121.70
62	A5	1137	G	N9-C4-C5	-6.47	102.81	105.40
62	A5	1734	G	N3-C4-C5	-6.47	125.36	128.60
62	A5	784	G	C8-N9-C4	-6.47	103.81	106.40
62	A5	1360	U	OP2-P-O3'	6.47	119.44	105.20
62	A5	1605	U	C6-N1-C2	-6.47	117.12	121.00
62	A5	2546	G	C4-C5-C6	6.47	122.68	118.80
59	A8	111	G	N7-C8-N9	6.47	116.34	113.10
62	A5	2252	A	N7-C8-N9	6.47	117.03	113.80
62	A5	3396	A	P-O3'-C3'	6.47	127.46	119.70
62	A5	1125	A	C4-C5-N7	6.47	113.93	110.70
59	A8	41	G	C5-N7-C8	-6.46	101.07	104.30
62	A5	2513	G	C4-N9-C1'	6.46	134.91	126.50
62	A5	2514	U	C6-N1-C2	-6.46	117.12	121.00
62	A5	2713	G	C8-N9-C1'	6.46	135.40	127.00
62	A5	3193	C	C6-N1-C2	-6.46	117.71	120.30
62	A5	2776	A	C8-N9-C1'	-6.46	116.07	127.70
62	A5	1963	U	N3-C2-O2	-6.46	117.68	122.20
62	A5	3150	G	N3-C4-N9	6.46	129.87	126.00
62	A5	3516	C	C5-C6-N1	6.46	124.23	121.00
62	A5	751	A	C5-C6-N1	6.45	120.93	117.70
62	A5	364	U	N3-C2-O2	-6.45	117.69	122.20
62	A5	2188	C	C5-C6-N1	6.45	124.22	121.00
62	A5	2562	U	C6-N1-C1'	-6.45	112.17	121.20
61	B2	848	C	N3-C2-O2	-6.45	117.39	121.90
62	A5	2220	C	C5-C6-N1	6.45	124.22	121.00
62	A5	3003	C	C6-N1-C2	-6.45	117.72	120.30
62	A5	866	C	C6-N1-C2	-6.45	117.72	120.30
62	A5	60	G	N1-C6-O6	6.45	123.77	119.90
62	A5	63	G	N3-C4-N9	6.45	129.87	126.00
62	A5	1102	G	C4-C5-N7	6.44	113.38	110.80
62	A5	3881	A	C4-C5-N7	6.44	113.92	110.70
58	A7	78	C	C5-C6-N1	6.44	124.22	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	122	C	N3-C2-O2	-6.44	117.39	121.90
61	B2	939	G	C8-N9-C1'	-6.44	118.63	127.00
62	A5	83	U	C5-C6-N1	6.44	125.92	122.70
62	A5	3620	G	C6-C5-N7	-6.44	126.53	130.40
62	A5	1356	G	C5-N7-C8	-6.44	101.08	104.30
62	A5	1610	A	N1-C2-N3	-6.44	126.08	129.30
62	A5	2718	U	C5-C4-O4	-6.44	122.04	125.90
62	A5	2234	C	N1-C2-O2	6.44	122.76	118.90
62	A5	3410	G	C4-N9-C1'	6.44	134.87	126.50
62	A5	373	A	C4-C5-N7	6.43	113.92	110.70
62	A5	783	G	C8-N9-C1'	-6.43	118.63	127.00
62	A5	1154	U	C5-C6-N1	6.43	125.92	122.70
59	A8	101	A	C4-C5-C6	6.43	120.22	117.00
62	A5	1353	G	C6-C5-N7	-6.43	126.54	130.40
62	A5	1695	A	C8-N9-C4	-6.43	103.23	105.80
62	A5	2223	C	C6-N1-C2	-6.43	117.73	120.30
62	A5	2668	C	N1-C2-O2	6.43	122.76	118.90
62	A5	3512	U	C6-N1-C1'	6.43	130.20	121.20
59	A8	35	G	C6-C5-N7	-6.43	126.54	130.40
62	A5	1139	U	C6-N1-C2	-6.43	117.14	121.00
62	A5	789	G	C5-C6-O6	-6.42	124.75	128.60
62	A5	795	A	C4-C5-N7	-6.42	107.49	110.70
62	A5	990	U	C5-C6-N1	6.42	125.91	122.70
62	A5	1114	A	C2-N3-C4	-6.42	107.39	110.60
62	A5	2741	A	C5-C6-N1	6.42	120.91	117.70
62	A5	996	C	C6-N1-C2	6.42	122.87	120.30
62	A5	32	C	C4-C5-C6	-6.42	114.19	117.40
62	A5	784	G	N3-C4-C5	-6.42	125.39	128.60
59	A8	111	G	C8-N9-C4	-6.42	103.83	106.40
61	B2	1984	G	N1-C2-N2	-6.42	110.42	116.20
62	A5	2529	G	N1-C6-O6	6.42	123.75	119.90
62	A5	1267	A	N7-C8-N9	6.42	117.01	113.80
62	A5	3193	C	C2-N1-C1'	6.42	125.86	118.80
59	A8	7	A	C6-C5-N7	-6.41	127.81	132.30
62	A5	3606	G	C8-N9-C1'	-6.41	118.66	127.00
59	A8	5	C	C2-N1-C1'	6.41	125.85	118.80
62	A5	1080	G	O4'-C1'-N9	-6.41	103.07	108.20
62	A5	1362	G	N1-C2-N3	6.41	127.75	123.90
62	A5	1404	A	C4-N9-C1'	6.41	137.83	126.30
62	A5	2148	C	C6-N1-C1'	6.41	128.49	120.80
61	B2	1184	U	C6-N1-C2	-6.41	117.16	121.00
62	A5	1008	A	C5-N7-C8	-6.41	100.70	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1788	G	C6-C5-N7	-6.41	126.56	130.40
62	A5	1750	G	O5'-P-OP2	-6.40	99.94	105.70
62	A5	3545	C	C2-N1-C1'	6.40	125.84	118.80
61	B2	958	G	C4-N9-C1'	6.40	134.82	126.50
62	A5	38	A	C6-C5-N7	-6.40	127.82	132.30
61	B2	1752	U	C2-N1-C1'	6.40	125.38	117.70
62	A5	1331	G	N1-C6-O6	6.40	123.74	119.90
62	A5	2799	U	C5-C4-O4	-6.40	122.06	125.90
62	A5	2194	G	N7-C8-N9	6.39	116.30	113.10
62	A5	2549	G	N1-C6-O6	6.39	123.74	119.90
61	B2	1969	G	N7-C8-N9	6.39	116.30	113.10
62	A5	2754	G	C4-C5-N7	6.39	113.36	110.80
61	B2	1176	C	C6-N1-C2	-6.39	117.74	120.30
62	A5	67	A	N3-C4-C5	-6.39	122.33	126.80
61	B2	1238	G	C4-N9-C1'	6.39	134.81	126.50
62	A5	776	A	N3-C4-C5	-6.39	122.33	126.80
62	A5	1295	A	OP1-P-OP2	-6.39	110.02	119.60
62	A5	3616	G	N7-C8-N9	6.39	116.30	113.10
62	A5	795	A	C8-N9-C4	-6.39	103.25	105.80
61	B2	1681	U	N3-C2-O2	-6.39	117.73	122.20
62	A5	2731	G	N1-C6-O6	6.39	123.73	119.90
62	A5	2759	G	N7-C8-N9	6.38	116.29	113.10
62	A5	235	A	N7-C8-N9	6.38	116.99	113.80
61	B2	1169	C	N1-C2-O2	6.38	122.73	118.90
62	A5	1049	C	C6-N1-C2	-6.38	117.75	120.30
62	A5	1129	A	C6-N1-C2	-6.38	114.77	118.60
62	A5	1115	A	C5-N7-C8	-6.38	100.71	103.90
62	A5	1356	G	C4-N9-C1'	6.38	134.79	126.50
62	A5	1397	A	C6-C5-N7	6.38	136.76	132.30
62	A5	2625	G	C8-N9-C4	-6.38	103.85	106.40
62	A5	2193	C	C6-N1-C1'	6.38	128.45	120.80
62	A5	3449	G	C8-N9-C1'	-6.38	118.71	127.00
62	A5	1120	A	C4-C5-N7	6.37	113.89	110.70
62	A5	1375	G	C8-N9-C1'	-6.37	118.72	127.00
59	A8	25	C	C6-N1-C2	-6.37	117.75	120.30
62	A5	789	G	N1-C6-O6	6.37	123.72	119.90
62	A5	1514	U	N3-C2-O2	-6.37	117.74	122.20
62	A5	2160	C	N1-C2-N3	6.37	123.66	119.20
62	A5	2745	A	C8-N9-C4	-6.37	103.25	105.80
62	A5	3630	C	C2-N1-C1'	6.37	125.81	118.80
62	A5	776	A	C6-N1-C2	-6.37	114.78	118.60
62	A5	2115	U	N3-C2-O2	-6.37	117.74	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	3414	U	C5-C6-N1	6.37	125.88	122.70
62	A5	60	G	C5-C6-O6	-6.36	124.78	128.60
62	A5	2206	U	C5-C6-N1	6.36	125.88	122.70
62	A5	3375	U	C2-N1-C1'	6.36	125.33	117.70
62	A5	790	U	C5-C4-O4	6.36	129.72	125.90
62	A5	1021	U	O4'-C1'-N1	6.36	113.29	108.20
62	A5	3332	G	N3-C4-C5	6.36	131.78	128.60
62	A5	1064	G	C8-N9-C4	-6.36	103.86	106.40
20	AZ	95	LEU	CA-CB-CG	6.36	129.92	115.30
62	A5	2791	A	N9-C4-C5	-6.36	103.26	105.80
62	A5	3678	G	C8-N9-C1'	-6.36	118.74	127.00
62	A5	44	A	C6-C5-N7	-6.35	127.85	132.30
62	A5	1164	G	C5-N7-C8	-6.35	101.12	104.30
62	A5	1366	G	N7-C8-N9	6.35	116.28	113.10
62	A5	863	U	C2-N1-C1'	6.35	125.32	117.70
62	A5	1608	G	N1-C2-N2	-6.35	110.48	116.20
62	A5	3407	U	C6-N1-C1'	-6.35	112.31	121.20
62	A5	3853	C	C6-N1-C2	-6.35	117.76	120.30
61	B2	1854	U	N1-C2-O2	6.35	127.25	122.80
62	A5	3481	G	C2-N3-C4	6.35	115.08	111.90
62	A5	3630	C	N1-C2-O2	6.35	122.71	118.90
61	B2	1681	U	N1-C2-O2	6.35	127.24	122.80
62	A5	445	C	C4-C5-C6	-6.35	114.23	117.40
62	A5	1347	A	N1-C2-N3	-6.35	126.13	129.30
62	A5	1612	G	C8-N9-C1'	-6.34	118.75	127.00
62	A5	802	G	C8-N9-C4	-6.34	103.86	106.40
62	A5	1137	G	C8-N9-C4	6.34	108.94	106.40
62	A5	1608	G	N7-C8-N9	6.34	116.27	113.10
62	A5	2718	U	C6-N1-C2	-6.34	117.19	121.00
62	A5	3623	G	C8-N9-C1'	-6.34	118.75	127.00
61	B2	1333	C	C2-N1-C1'	6.34	125.77	118.80
62	A5	123	U	C5-C6-N1	6.34	125.87	122.70
62	A5	378	G	N7-C8-N9	6.34	116.27	113.10
62	A5	3507	A	O5'-P-OP1	-6.34	99.99	105.70
62	A5	347	A	C6-C5-N7	-6.34	127.86	132.30
62	A5	61	A	C5-C6-N6	-6.34	118.63	123.70
62	A5	784	G	N7-C8-N9	6.34	116.27	113.10
62	A5	800	C	N3-C4-N4	6.34	122.44	118.00
62	A5	1003	C	O5'-P-OP1	-6.34	100.00	105.70
62	A5	1614	A	N9-C4-C5	-6.34	103.27	105.80
62	A5	2518	A	C8-N9-C4	6.34	108.33	105.80
62	A5	2563	G	C8-N9-C4	-6.33	103.87	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	B2	632	G	N3-C4-C5	6.33	131.77	128.60
62	A5	328	U	N3-C2-O2	-6.33	117.77	122.20
62	A5	1367	A	C6-N1-C2	-6.33	114.80	118.60
62	A5	1606	G	N7-C8-N9	6.33	116.26	113.10
62	A5	2925	C	N1-C2-O2	6.33	122.70	118.90
62	A5	44	A	N9-C4-C5	-6.33	103.27	105.80
62	A5	1127	C	O4'-C1'-N1	6.33	113.26	108.20
61	B2	1333	C	N1-C2-O2	6.33	122.69	118.90
62	A5	2219	U	C5-C6-N1	6.33	125.86	122.70
62	A5	3390	U	C5-C6-N1	6.33	125.86	122.70
62	A5	3673	G	N3-C4-C5	-6.33	125.44	128.60
62	A5	238	G	C4-C5-N7	6.32	113.33	110.80
62	A5	1957	C	C6-N1-C2	-6.32	117.77	120.30
62	A5	2491	C	N1-C2-O2	6.32	122.69	118.90
62	A5	2552	G	N3-C4-C5	6.32	131.76	128.60
62	A5	2804	U	C5-C6-N1	6.32	125.86	122.70
61	B2	448	C	N1-C2-O2	6.32	122.69	118.90
62	A5	992	U	N1-C2-O2	6.32	127.22	122.80
62	A5	1685	G	N3-C4-N9	6.32	129.79	126.00
62	A5	49	A	C8-N9-C4	-6.32	103.27	105.80
62	A5	1522	G	N9-C4-C5	6.32	107.93	105.40
62	A5	322	G	C4-C5-C6	6.32	122.59	118.80
62	A5	818	A	N7-C8-N9	6.32	116.96	113.80
62	A5	1070	G	N1-C2-N3	6.32	127.69	123.90
62	A5	1391	A	C5-N7-C8	-6.32	100.74	103.90
62	A5	3510	U	C5-C4-O4	-6.32	122.11	125.90
61	B2	1727	U	N3-C4-C5	6.31	118.39	114.60
62	A5	3344	U	OP1-P-OP2	6.31	129.07	119.60
62	A5	1343	A	N1-C2-N3	6.31	132.46	129.30
62	A5	1344	A	N7-C8-N9	-6.31	110.64	113.80
61	B2	1079	A	C5-N7-C8	-6.31	100.75	103.90
62	A5	818	A	C4-C5-N7	6.31	113.86	110.70
62	A5	1154	U	C6-N1-C2	-6.31	117.21	121.00
62	A5	1672	A	C5-N7-C8	-6.31	100.75	103.90
62	A5	431	C	C6-N1-C2	-6.31	117.78	120.30
62	A5	1708	G	C4-N9-C1'	6.31	134.70	126.50
44	Ce	30	LEU	CB-CG-CD2	-6.31	100.28	111.00
58	A7	65	C	N1-C2-O2	6.30	122.68	118.90
62	A5	3168	A	C8-N9-C1'	-6.30	116.35	127.70
62	A5	1056	G	C8-N9-C4	-6.30	103.88	106.40
62	A5	1112	G	C4-N9-C1'	6.30	134.69	126.50
59	A8	40	A	C5-C6-N1	6.30	120.85	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	B2	1603	G	N3-C4-N9	6.30	129.78	126.00
62	A5	292	G	C8-N9-C1'	-6.30	118.81	127.00
62	A5	2500	G	N3-C4-N9	-6.30	122.22	126.00
58	A7	95	U	C2-N1-C1'	6.30	125.26	117.70
62	A5	696	U	N1-C2-O2	6.30	127.21	122.80
62	A5	1731	G	C4-C5-N7	6.30	113.32	110.80
62	A5	2565	G	C4-N9-C1'	6.30	134.69	126.50
62	A5	44	A	N7-C8-N9	6.30	116.95	113.80
62	A5	1666	A	C4-C5-N7	6.30	113.85	110.70
62	A5	2727	U	C6-N1-C2	-6.30	117.22	121.00
62	A5	3348	G	C8-N9-C1'	-6.30	118.81	127.00
61	B2	1924	C	N3-C2-O2	-6.29	117.50	121.90
62	A5	61	A	C2-N3-C4	6.29	113.75	110.60
62	A5	801	G	C6-C5-N7	-6.29	126.62	130.40
62	A5	3549	C	N1-C2-O2	6.29	122.68	118.90
62	A5	784	G	N3-C4-N9	6.29	129.78	126.00
62	A5	915	C	N1-C2-O2	6.29	122.67	118.90
62	A5	2776	A	C5-N7-C8	-6.29	100.75	103.90
62	A5	3345	A	N1-C2-N3	-6.29	126.15	129.30
62	A5	1412	A	C4-N9-C1'	6.29	137.62	126.30
62	A5	2735	A	O5'-P-OP1	-6.29	100.04	105.70
62	A5	3168	A	C4-N9-C1'	6.29	137.62	126.30
62	A5	1014	U	N1-C2-N3	6.29	118.67	114.90
62	A5	1018	C	N3-C2-O2	-6.29	117.50	121.90
62	A5	2217	A	C4-N9-C1'	6.29	137.62	126.30
62	A5	301	U	C6-N1-C2	-6.29	117.23	121.00
61	B2	1788	C	C6-N1-C1'	-6.28	113.26	120.80
62	A5	2547	C	C5-C4-N4	-6.28	115.80	120.20
62	A5	2798	C	C5-C6-N1	6.28	124.14	121.00
62	A5	2910	C	C6-N1-C2	-6.28	117.79	120.30
59	A8	38	G	N3-C4-C5	-6.28	125.46	128.60
62	A5	1607	A	N1-C6-N6	-6.28	114.83	118.60
62	A5	350	C	C2-N1-C1'	6.28	125.70	118.80
62	A5	1079	U	O5'-P-OP1	-6.28	100.05	105.70
62	A5	1152	A	C6-N1-C2	-6.28	114.83	118.60
62	A5	1199	C	C6-N1-C2	-6.28	117.79	120.30
62	A5	987	G	C4-N9-C1'	6.28	134.66	126.50
62	A5	1680	U	C2-N1-C1'	-6.28	110.17	117.70
62	A5	2165	C	C5-C4-N4	-6.28	115.81	120.20
62	A5	2709	U	N3-C2-O2	-6.28	117.81	122.20
62	A5	1620	A	N1-C2-N3	6.27	132.44	129.30
62	A5	100	G	N9-C4-C5	-6.27	102.89	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	355	G	N3-C4-C5	6.27	131.74	128.60
62	A5	1345	G	N3-C4-C5	6.27	131.74	128.60
62	A5	1644	C	N3-C4-C5	6.27	124.41	121.90
62	A5	2747	G	N3-C4-C5	-6.27	125.46	128.60
62	A5	1104	A	C5-N7-C8	-6.27	100.77	103.90
62	A5	2690	A	C2-N3-C4	6.27	113.73	110.60
62	A5	2773	G	O4'-C1'-N9	6.27	113.22	108.20
62	A5	3142	G	C5-C6-O6	-6.27	124.84	128.60
62	A5	3679	C	C6-N1-C2	-6.27	117.79	120.30
59	A8	8	A	C4-C5-N7	6.27	113.83	110.70
62	A5	301	U	N3-C2-O2	-6.27	117.81	122.20
62	A5	796	A	C2-N3-C4	-6.27	107.47	110.60
62	A5	1645	G	C5-C6-N1	6.27	114.63	111.50
62	A5	2589	U	N1-C2-O2	6.27	127.19	122.80
62	A5	3476	G	C8-N9-C4	-6.27	103.89	106.40
62	A5	1710	G	C4-N9-C1'	6.27	134.65	126.50
62	A5	2910	C	C5-C6-N1	6.27	124.13	121.00
61	B2	1594	A	OP2-P-O3'	6.26	118.98	105.20
61	B2	1414	C	N3-C2-O2	-6.26	117.52	121.90
62	A5	993	A	N7-C8-N9	6.26	116.93	113.80
62	A5	2690	A	C5-C6-N1	6.26	120.83	117.70
62	A5	3514	C	C5-C4-N4	6.26	124.58	120.20
61	B2	1052	U	N3-C2-O2	-6.26	117.82	122.20
61	B2	1838	C	N1-C2-O2	6.26	122.66	118.90
62	A5	2620	C	C5-C6-N1	6.26	124.13	121.00
61	B2	374	C	C6-N1-C2	-6.26	117.80	120.30
61	B2	1856	U	N3-C2-O2	-6.26	117.82	122.20
62	A5	359	G	C2-N3-C4	-6.26	108.77	111.90
62	A5	2227	U	N3-C4-O4	6.26	123.78	119.40
62	A5	1372	A	C4-C5-N7	6.25	113.83	110.70
61	B2	1283	C	N1-C2-O2	6.25	122.65	118.90
61	B2	12	U	N3-C2-O2	-6.25	117.83	122.20
62	A5	1125	A	C5-N7-C8	-6.25	100.78	103.90
62	A5	2589	U	N3-C2-O2	-6.25	117.83	122.20
62	A5	2723	A	C5-N7-C8	-6.25	100.78	103.90
62	A5	2176	G	N1-C6-O6	6.24	123.65	119.90
61	B2	1925	G	N3-C4-C5	-6.24	125.48	128.60
62	A5	3844	U	O4'-C1'-N1	6.24	113.19	108.20
62	A5	44	A	C5-C6-N6	-6.24	118.71	123.70
62	A5	83	U	C6-N1-C1'	-6.24	112.47	121.20
62	A5	3544	G	C8-N9-C1'	-6.24	118.89	127.00
62	A5	3591	A	O4'-C1'-N9	6.24	113.19	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1141	G	C5-C6-O6	-6.24	124.86	128.60
6	CC	60	LEU	CA-CB-CG	6.24	129.64	115.30
62	A5	3615	G	C5-C6-N1	6.24	114.62	111.50
62	A5	2149	G	C4-C5-N7	6.23	113.29	110.80
61	B2	1924	C	N1-C2-O2	6.23	122.64	118.90
62	A5	2527	A	C5-N7-C8	-6.23	100.78	103.90
59	A8	72	C	C6-N1-C2	-6.23	117.81	120.30
62	A5	2239	C	N3-C2-O2	6.23	126.26	121.90
62	A5	2784	C	O4'-C1'-N1	6.23	113.19	108.20
62	A5	3345	A	C4-C5-C6	6.23	120.12	117.00
62	A5	96	G	C4-C5-C6	-6.23	115.06	118.80
62	A5	1096	A	N1-C2-N3	-6.23	126.19	129.30
62	A5	2686	C	N3-C2-O2	-6.23	117.54	121.90
62	A5	2742	G	C4-N9-C1'	6.23	134.60	126.50
62	A5	3606	G	C4-N9-C1'	6.23	134.60	126.50
62	A5	1032	G	N3-C2-N2	-6.23	115.54	119.90
6	CC	47	LEU	CA-CB-CG	6.22	129.62	115.30
62	A5	3320	C	C2-N1-C1'	6.22	125.65	118.80
62	A5	1671	U	N1-C2-N3	6.22	118.63	114.90
62	A5	2759	G	C8-N9-C4	-6.22	103.91	106.40
62	A5	3411	C	OP2-P-O3'	6.22	118.89	105.20
59	A8	35	G	C4-N9-C1'	6.22	134.59	126.50
62	A5	3903	U	N3-C2-O2	-6.22	117.84	122.20
62	A5	102	G	C6-C5-N7	-6.22	126.67	130.40
62	A5	587	U	P-O3'-C3'	6.22	127.16	119.70
62	A5	1086	C	C4-C5-C6	-6.22	114.29	117.40
61	B2	1249	C	N1-C2-O2	6.22	122.63	118.90
62	A5	2127	C	C6-N1-C2	-6.22	117.81	120.30
62	A5	99	A	N1-C6-N6	6.22	122.33	118.60
62	A5	345	A	C6-C5-N7	-6.22	127.95	132.30
62	A5	1620	A	N3-C4-N9	6.22	132.37	127.40
62	A5	2102	G	N3-C2-N2	6.21	124.25	119.90
62	A5	3150	G	N9-C4-C5	-6.21	102.92	105.40
62	A5	1104	A	C6-C5-N7	-6.21	127.95	132.30
62	A5	2096	C	C5-C6-N1	6.21	124.11	121.00
62	A5	1756	G	C5-C6-O6	-6.21	124.88	128.60
62	A5	3145	U	N3-C2-O2	-6.21	117.86	122.20
62	A5	1557	U	C5-C6-N1	6.21	125.80	122.70
62	A5	382	G	N9-C4-C5	6.21	107.88	105.40
62	A5	2250	G	C4-N9-C1'	6.21	134.57	126.50
62	A5	3697	A	P-O3'-C3'	6.20	127.14	119.70
61	B2	1858	U	N3-C2-O2	-6.20	117.86	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	790	U	C4-C5-C6	6.20	123.42	119.70
59	A8	58	C	N3-C2-O2	-6.20	117.56	121.90
62	A5	550	U	N3-C2-O2	-6.20	117.86	122.20
62	A5	820	A	C5-N7-C8	-6.20	100.80	103.90
62	A5	3483	G	C5-C6-N1	-6.20	108.40	111.50
62	A5	142	G	N3-C4-C5	-6.20	125.50	128.60
62	A5	3289	U	C5-C6-N1	6.20	125.80	122.70
61	B2	1169	C	C6-N1-C2	-6.20	117.82	120.30
62	A5	2552	G	C8-N9-C1'	6.20	135.06	127.00
62	A5	1784	A	OP1-P-O3'	6.19	118.83	105.20
62	A5	1677	U	O5'-P-OP2	-6.19	100.13	105.70
62	A5	126	G	N3-C4-N9	6.19	129.72	126.00
62	A5	3485	U	N1-C2-N3	6.19	118.61	114.90
62	A5	63	G	N3-C4-C5	-6.19	125.50	128.60
62	A5	3418	U	C5-C6-N1	-6.19	119.61	122.70
62	A5	2225	A	C5-C6-N6	-6.19	118.75	123.70
62	A5	2575	C	C6-N1-C2	6.19	122.78	120.30
62	A5	997	U	C4-C5-C6	-6.18	115.99	119.70
62	A5	2168	G	C4-N9-C1'	6.18	134.54	126.50
62	A5	2549	G	N7-C8-N9	6.18	116.19	113.10
62	A5	3581	G	C4-C5-N7	6.18	113.27	110.80
59	A8	100	G	N3-C4-N9	-6.18	122.29	126.00
62	A5	1064	G	N3-C4-N9	6.18	129.71	126.00
62	A5	2731	G	N3-C2-N2	-6.18	115.58	119.90
62	A5	373	A	O5'-P-OP1	-6.18	100.14	105.70
62	A5	2250	G	N7-C8-N9	6.18	116.19	113.10
59	A8	28	A	N1-C6-N6	6.17	122.31	118.60
62	A5	2738	C	C5-C4-N4	-6.17	115.88	120.20
62	A5	2745	A	C6-C5-N7	-6.17	127.98	132.30
62	A5	342	A	C8-N9-C4	-6.17	103.33	105.80
62	A5	2732	C	C6-N1-C2	-6.17	117.83	120.30
62	A5	2058	C	N1-C2-O2	6.17	122.60	118.90
62	A5	1164	G	C4-C5-N7	6.17	113.27	110.80
62	A5	1165	A	C2-N3-C4	-6.17	107.52	110.60
34	CT	144	LEU	N-CA-C	6.17	127.66	111.00
61	B2	1058	A	C5-N7-C8	-6.17	100.82	103.90
62	A5	1017	A	N9-C4-C5	6.17	108.27	105.80
62	A5	1316	U	C6-N1-C2	-6.17	117.30	121.00
62	A5	1669	G	N3-C2-N2	-6.17	115.58	119.90
62	A5	2154	A	C2-N3-C4	6.17	113.68	110.60
62	A5	2688	U	C6-N1-C2	-6.17	117.30	121.00
62	A5	2776	A	N3-C4-N9	6.17	132.33	127.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	441	A	C4-C5-N7	6.17	113.78	110.70
62	A5	1022	A	C5-N7-C8	-6.17	100.82	103.90
62	A5	1076	A	C4-C5-C6	6.17	120.08	117.00
62	A5	2166	U	C5-C6-N1	-6.16	119.62	122.70
62	A5	1342	U	C6-N1-C1'	-6.16	112.58	121.20
61	B2	1060	A	C4-C5-N7	6.16	113.78	110.70
62	A5	1670	G	C6-C5-N7	6.16	134.09	130.40
62	A5	3175	A	C8-N9-C4	-6.16	103.34	105.80
61	B2	1081	G	C6-C5-N7	-6.16	126.71	130.40
62	A5	3340	A	C5-C6-N1	6.16	120.78	117.70
62	A5	1705	U	N3-C2-O2	-6.15	117.89	122.20
62	A5	1526	G	C2-N3-C4	-6.15	108.82	111.90
62	A5	90	G	C4-C5-N7	-6.15	108.34	110.80
62	A5	1050	C	C5-C6-N1	6.15	124.08	121.00
62	A5	1399	A	C8-N9-C4	-6.15	103.34	105.80
62	A5	3487	A	C4-C5-N7	6.15	113.78	110.70
61	B2	988	G	C4-N9-C1'	6.15	134.49	126.50
61	B2	1204	A	N7-C8-N9	6.15	116.87	113.80
62	A5	1381	U	C6-N1-C2	-6.15	117.31	121.00
62	A5	2072	C	N1-C2-O2	6.15	122.59	118.90
62	A5	2203	A	C8-N9-C4	-6.15	103.34	105.80
62	A5	2205	G	N3-C4-N9	-6.15	122.31	126.00
62	A5	2491	C	N3-C2-O2	-6.15	117.60	121.90
62	A5	2500	G	C8-N9-C1'	6.15	134.99	127.00
62	A5	3588	G	N1-C6-O6	-6.15	116.21	119.90
62	A5	1646	U	N3-C4-C5	-6.15	110.91	114.60
62	A5	1788	G	C8-N9-C1'	-6.15	119.01	127.00
62	A5	2212	A	N7-C8-N9	6.15	116.87	113.80
59	A8	49	C	C6-N1-C2	-6.14	117.84	120.30
61	B2	958	G	N3-C4-N9	6.14	129.69	126.00
62	A5	1608	G	C8-N9-C4	-6.14	103.94	106.40
62	A5	3449	G	C4-N9-C1'	6.14	134.49	126.50
62	A5	3475	U	N1-C2-O2	-6.14	118.50	122.80
62	A5	3588	G	C8-N9-C4	-6.14	103.94	106.40
59	A8	49	C	C5-C6-N1	6.14	124.07	121.00
62	A5	1382	U	P-O3'-C3'	6.14	127.07	119.70
62	A5	1521	G	N3-C4-N9	6.14	129.69	126.00
62	A5	1534	G	C5-N7-C8	-6.14	101.23	104.30
62	A5	2014	C	C2-N1-C1'	6.14	125.56	118.80
62	A5	2257	C	C6-N1-C2	-6.14	117.84	120.30
62	A5	3348	G	C6-C5-N7	-6.14	126.72	130.40
62	A5	2733	G	C6-C5-N7	-6.14	126.72	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	3357	C	N1-C2-O2	6.14	122.58	118.90
62	A5	2473	C	N3-C2-O2	-6.14	117.60	121.90
62	A5	2492	A	N7-C8-N9	6.14	116.87	113.80
62	A5	2689	G	C5-C6-O6	-6.14	124.92	128.60
62	A5	54	U	C5-C6-N1	6.14	125.77	122.70
62	A5	1005	G	C8-N9-C4	-6.14	103.94	106.40
62	A5	1097	A	O5'-P-OP1	-6.14	100.18	105.70
62	A5	2204	U	C2-N1-C1'	6.14	125.06	117.70
62	A5	3875	U	C5-C6-N1	6.14	125.77	122.70
62	A5	366	A	O5'-P-OP1	-6.13	100.18	105.70
62	A5	1012	G	C8-N9-C4	-6.13	103.95	106.40
62	A5	1369	C	C2-N3-C4	6.13	122.97	119.90
62	A5	2794	U	O5'-P-OP1	-6.13	100.18	105.70
62	A5	3511	U	N3-C2-O2	-6.13	117.91	122.20
62	A5	830	U	C6-N1-C2	-6.13	117.32	121.00
62	A5	328	U	C2-N1-C1'	6.13	125.06	117.70
62	A5	787	C	N3-C4-C5	6.13	124.35	121.90
62	A5	1374	C	C5-C6-N1	6.13	124.07	121.00
62	A5	2098	C	N3-C2-O2	-6.13	117.61	121.90
62	A5	2162	C	C6-N1-C2	-6.13	117.85	120.30
62	A5	2521	A	C5-N7-C8	-6.13	100.83	103.90
62	A5	3752	G	C4-N9-C1'	-6.13	118.53	126.50
62	A5	3627	C	N3-C4-N4	6.13	122.29	118.00
62	A5	3847	U	N1-C2-O2	6.13	127.09	122.80
62	A5	1325	C	C2-N1-C1'	6.13	125.54	118.80
62	A5	2176	G	C4-N9-C1'	6.13	134.46	126.50
62	A5	2794	U	C5-C6-N1	6.13	125.76	122.70
62	A5	60	G	C4-C5-N7	6.12	113.25	110.80
62	A5	65	A	C5-N7-C8	-6.12	100.84	103.90
62	A5	1997	C	N1-C2-O2	6.12	122.57	118.90
62	A5	225	U	P-O3'-C3'	6.12	127.05	119.70
62	A5	1534	G	C6-C5-N7	-6.12	126.73	130.40
61	B2	1087	C	C6-N1-C1'	-6.12	113.46	120.80
62	A5	37	G	C8-N9-C1'	6.12	134.96	127.00
62	A5	355	G	N1-C6-O6	-6.12	116.23	119.90
62	A5	774	A	N3-C4-N9	6.12	132.30	127.40
62	A5	1110	G	C6-C5-N7	-6.12	126.73	130.40
62	A5	3678	G	C4-C5-N7	6.12	113.25	110.80
62	A5	1006	A	C5-C6-N6	6.12	128.59	123.70
62	A5	1320	U	C6-N1-C2	-6.12	117.33	121.00
62	A5	308	G	N1-C6-O6	6.12	123.57	119.90
62	A5	3408	C	C2-N1-C1'	6.12	125.53	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	B2	458	C	N1-C2-O2	6.11	122.57	118.90
61	B2	1072	A	N1-C6-N6	6.11	122.27	118.60
61	B2	1924	C	C6-N1-C2	-6.11	117.86	120.30
62	A5	352	U	C6-N1-C2	-6.11	117.33	121.00
62	A5	2115	U	N1-C2-O2	6.11	127.08	122.80
62	A5	794	G	C5-N7-C8	-6.11	101.25	104.30
62	A5	345	A	C4-N9-C1'	6.11	137.29	126.30
62	A5	798	C	O5'-P-OP2	-6.11	100.20	105.70
62	A5	2194	G	C4-C5-N7	6.11	113.24	110.80
62	A5	2757	U	O5'-P-OP1	-6.11	100.20	105.70
62	A5	782	G	C4-N9-C1'	6.11	134.44	126.50
62	A5	61	A	C8-N9-C4	-6.10	103.36	105.80
62	A5	1161	C	O4'-C1'-N1	6.10	113.08	108.20
4	CB	324	GLY	N-CA-C	6.10	128.35	113.10
62	A5	3142	G	C8-N9-C1'	-6.10	119.07	127.00
62	A5	1103	U	C4-C5-C6	-6.10	116.04	119.70
62	A5	1375	G	N3-C4-N9	6.10	129.66	126.00
62	A5	1365	U	N1-C2-N3	6.10	118.56	114.90
62	A5	3303	G	C8-N9-C1'	6.10	134.93	127.00
62	A5	2218	G	C6-C5-N7	-6.09	126.74	130.40
59	A8	102	A	C4-C5-N7	-6.09	107.66	110.70
62	A5	72	C	N3-C2-O2	-6.09	117.64	121.90
62	A5	1691	A	C8-N9-C4	-6.09	103.36	105.80
62	A5	2160	C	C5-C6-N1	6.09	124.05	121.00
62	A5	2218	G	N1-C2-N3	6.09	127.56	123.90
62	A5	3505	U	C5-C6-N1	6.09	125.75	122.70
62	A5	2164	G	C8-N9-C4	-6.09	103.96	106.40
62	A5	1409	G	N1-C2-N2	-6.09	110.72	116.20
62	A5	1606	G	C4-N9-C1'	6.09	134.41	126.50
62	A5	2517	A	C4-N9-C1'	6.09	137.26	126.30
62	A5	360	A	N7-C8-N9	6.08	116.84	113.80
59	A8	97	U	N3-C2-O2	-6.08	117.94	122.20
62	A5	54	U	N3-C4-C5	6.08	118.25	114.60
61	B2	1072	A	C5-C6-N6	-6.08	118.83	123.70
62	A5	796	A	C6-N1-C2	-6.08	114.95	118.60
62	A5	798	C	C5-C6-N1	6.08	124.04	121.00
62	A5	3464	G	N7-C8-N9	6.08	116.14	113.10
62	A5	2183	A	N1-C6-N6	-6.08	114.95	118.60
62	A5	3141	A	C4-C5-C6	-6.08	113.96	117.00
62	A5	3378	U	C6-N1-C1'	-6.08	112.69	121.20
62	A5	83	U	C6-N1-C2	-6.08	117.35	121.00
62	A5	377	U	C2-N1-C1'	-6.08	110.41	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	3355	G	N1-C2-N2	-6.08	110.73	116.20
62	A5	1607	A	N1-C2-N3	6.08	132.34	129.30
62	A5	1612	G	C4-C5-N7	6.08	113.23	110.80
62	A5	3878	U	C6-N1-C2	6.08	124.64	121.00
62	A5	1367	A	C8-N9-C4	-6.07	103.37	105.80
62	A5	3368	C	C2-N1-C1'	6.07	125.48	118.80
66	Cg	84	CYS	CA-CB-SG	6.07	124.93	114.00
62	A5	1605	U	C2-N1-C1'	6.07	124.98	117.70
62	A5	761	C	C6-N1-C2	-6.07	117.87	120.30
62	A5	1782	C	C2-N1-C1'	6.07	125.47	118.80
62	A5	1888	A	C2-N3-C4	6.07	113.63	110.60
62	A5	2768	A	C4-C5-C6	6.07	120.03	117.00
62	A5	3951	U	N3-C2-O2	-6.06	117.95	122.20
81	B	72	A	N9-C4-C5	-6.06	103.37	105.80
62	A5	1087	G	C5-C6-O6	6.06	132.24	128.60
62	A5	1615	G	C6-C5-N7	-6.06	126.76	130.40
62	A5	2537	A	N9-C4-C5	-6.06	103.38	105.80
62	A5	3906	U	O5'-P-OP1	-6.06	100.25	105.70
62	A5	2790	G	N1-C2-N3	6.06	127.53	123.90
62	A5	1345	G	N3-C4-N9	-6.06	122.37	126.00
62	A5	1363	G	C8-N9-C4	6.05	108.82	106.40
62	A5	2776	A	C4-N9-C1'	6.05	137.20	126.30
62	A5	1669	G	C4-N9-C1'	-6.05	118.63	126.50
62	A5	2767	U	N3-C4-O4	6.05	123.64	119.40
62	A5	3492	G	C4-C5-C6	6.05	122.43	118.80
61	B2	1218	G	C8-N9-C4	-6.05	103.98	106.40
62	A5	818	A	N1-C6-N6	6.05	122.23	118.60
62	A5	1722	U	C6-N1-C2	-6.05	117.37	121.00
62	A5	3513	A	C4-C5-N7	6.05	113.72	110.70
62	A5	3762	G	OP2-P-O3'	6.05	118.51	105.20
62	A5	305	G	N1-C6-O6	6.05	123.53	119.90
62	A5	784	G	C4-N9-C1'	6.05	134.36	126.50
62	A5	2697	U	N1-C2-O2	6.05	127.03	122.80
62	A5	1526	G	N9-C4-C5	-6.05	102.98	105.40
62	A5	3600	G	N3-C4-N9	6.05	129.63	126.00
62	A5	3616	G	C4-C5-C6	6.05	122.43	118.80
62	A5	1127	C	C6-N1-C1'	6.04	128.05	120.80
62	A5	66	A	C5-C6-N6	-6.04	118.87	123.70
62	A5	1209	A	C8-N9-C4	-6.04	103.38	105.80
62	A5	3338	U	N1-C2-N3	6.04	118.53	114.90
57	A9	12	C	N1-C2-O2	-6.04	115.28	118.90
62	A5	1138	C	C6-N1-C1'	-6.04	113.55	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	A8	15	G	O5'-P-OP1	-6.04	100.27	105.70
62	A5	790	U	C2-N1-C1'	-6.04	110.46	117.70
62	A5	1404	A	C8-N9-C4	-6.04	103.39	105.80
62	A5	2754	G	C6-N1-C2	6.04	128.72	125.10
59	A8	24	G	C4-C5-N7	6.03	113.21	110.80
62	A5	1363	G	C5-N7-C8	-6.03	101.28	104.30
59	A8	38	G	N3-C2-N2	6.03	124.12	119.90
59	A8	41	G	C8-N9-C4	-6.03	103.99	106.40
62	A5	54	U	C5-C4-O4	-6.03	122.28	125.90
62	A5	1001	A	C6-C5-N7	6.03	136.52	132.30
81	B	19	A	OP1-P-O3'	6.03	118.47	105.20
61	B2	458	C	C6-N1-C2	-6.03	117.89	120.30
61	B2	616	U	N1-C2-O2	6.03	127.02	122.80
62	A5	305	G	C4-C5-N7	6.03	113.21	110.80
62	A5	355	G	C5-C6-O6	6.03	132.22	128.60
62	A5	782	G	C4-C5-N7	6.03	113.21	110.80
62	A5	993	A	C5-C6-N6	-6.03	118.88	123.70
62	A5	2564	U	C2-N3-C4	-6.03	123.39	127.00
62	A5	2580	C	C2-N3-C4	6.03	122.91	119.90
62	A5	2731	G	N7-C8-N9	6.03	116.11	113.10
62	A5	1691	A	C5-C6-N1	6.02	120.71	117.70
62	A5	1794	G	C5-C6-O6	6.02	132.21	128.60
62	A5	2147	C	C6-N1-C2	-6.02	117.89	120.30
62	A5	3606	G	C6-C5-N7	-6.02	126.79	130.40
62	A5	3621	A	C4-C5-N7	6.02	113.71	110.70
62	A5	2745	A	C4-N9-C1'	6.02	137.13	126.30
62	A5	3491	C	C5-C6-N1	6.02	124.01	121.00
62	A5	806	A	C8-N9-C4	-6.02	103.39	105.80
59	A8	103	C	O4'-C1'-N1	6.01	113.01	108.20
53	CJ	120	LEU	CA-CB-CG	6.01	129.13	115.30
62	A5	354	A	N7-C8-N9	6.01	116.81	113.80
62	A5	1603	A	C8-N9-C4	-6.01	103.39	105.80
62	A5	3140	G	N1-C6-O6	6.01	123.51	119.90
44	Ce	52	TYR	CA-CB-CG	6.01	124.82	113.40
62	A5	1005	G	C5-N7-C8	-6.01	101.30	104.30
62	A5	2163	A	C4-N9-C1'	6.01	137.12	126.30
62	A5	2809	C	C6-N1-C2	-6.01	117.90	120.30
4	CB	141	LEU	CA-CB-CG	6.01	129.12	115.30
62	A5	2160	C	N3-C2-O2	-6.01	117.69	121.90
62	A5	307	A	C8-N9-C1'	-6.01	116.89	127.70
59	A8	30	G	C4-N9-C1'	6.01	134.31	126.50
62	A5	1141	G	N3-C4-C5	-6.01	125.60	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1310	A	P-O3'-C3'	6.01	126.91	119.70
62	A5	1379	U	N1-C2-O2	6.01	127.00	122.80
62	A5	343	A	N1-C6-N6	6.00	122.20	118.60
62	A5	1076	A	N7-C8-N9	6.00	116.80	113.80
62	A5	1681	G	C8-N9-C4	-6.00	104.00	106.40
62	A5	828	G	C6-C5-N7	-6.00	126.80	130.40
62	A5	2149	G	C6-C5-N7	-6.00	126.80	130.40
62	A5	45	G	C8-N9-C1'	-6.00	119.20	127.00
62	A5	109	A	N7-C8-N9	6.00	116.80	113.80
62	A5	259	A	C4-C5-N7	6.00	113.70	110.70
62	A5	2177	G	C5-N7-C8	-6.00	101.30	104.30
62	A5	2541	C	C5-C6-N1	6.00	124.00	121.00
62	A5	285	G	C4-C5-N7	6.00	113.20	110.80
62	A5	2721	C	C5-C6-N1	6.00	124.00	121.00
62	A5	34	C	C2-N3-C4	-6.00	116.90	119.90
62	A5	339	C	C6-N1-C1'	-6.00	113.61	120.80
62	A5	428	C	N3-C2-O2	-6.00	117.70	121.90
62	A5	844	C	C6-N1-C2	-6.00	117.90	120.30
62	A5	3303	G	N9-C4-C5	6.00	107.80	105.40
62	A5	34	C	C6-N1-C2	5.99	122.70	120.30
62	A5	1200	U	C5-C4-O4	-5.99	122.30	125.90
61	B2	958	G	C8-N9-C1'	-5.99	119.21	127.00
62	A5	527	U	N1-C2-O2	5.99	126.99	122.80
62	A5	1594	U	P-O3'-C3'	5.99	126.89	119.70
62	A5	3476	G	C5-C6-O6	-5.99	125.01	128.60
62	A5	3499	G	N9-C4-C5	-5.99	103.00	105.40
59	A8	39	A	C5-N7-C8	-5.99	100.91	103.90
62	A5	786	C	C2-N1-C1'	5.99	125.39	118.80
62	A5	1132	U	C2-N1-C1'	5.99	124.89	117.70
62	A5	1163	G	C6-C5-N7	-5.99	126.81	130.40
62	A5	2208	G	C4-C5-C6	5.99	122.39	118.80
62	A5	2507	C	C6-N1-C1'	5.99	127.99	120.80
62	A5	2524	A	O5'-P-OP1	-5.99	100.31	105.70
62	A5	2711	C	C6-N1-C2	-5.99	117.90	120.30
62	A5	3368	C	N3-C2-O2	-5.99	117.71	121.90
61	B2	1925	G	C8-N9-C1'	-5.99	119.22	127.00
62	A5	1082	A	N1-C6-N6	-5.99	115.01	118.60
62	A5	1383	A	C5-N7-C8	5.99	106.89	103.90
62	A5	1384	C	C6-N1-C1'	-5.99	113.62	120.80
62	A5	3140	G	C4-C5-N7	5.99	113.19	110.80
62	A5	1357	C	N3-C4-C5	5.98	124.29	121.90
62	A5	1121	A	C5-C6-N1	5.98	120.69	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	2054	U	C6-N1-C2	-5.98	117.41	121.00
62	A5	3347	G	C5-C6-O6	-5.98	125.01	128.60
61	B2	1344	A	N3-C4-N9	5.98	132.19	127.40
62	A5	2502	G	N7-C8-N9	5.98	116.09	113.10
61	B2	550	C	N1-C2-O2	5.98	122.49	118.90
61	B2	1846	G	C6-C5-N7	-5.98	126.81	130.40
62	A5	1717	A	N7-C8-N9	5.98	116.79	113.80
62	A5	2548	G	C8-N9-C1'	5.98	134.77	127.00
62	A5	2781	G	OP1-P-O3'	5.98	118.35	105.20
62	A5	348	A	C8-N9-C4	-5.98	103.41	105.80
61	B2	1925	G	N3-C4-N9	5.97	129.59	126.00
62	A5	1609	U	N3-C4-C5	5.97	118.19	114.60
62	A5	2741	A	N1-C6-N6	-5.97	115.02	118.60
62	A5	2776	A	C6-C5-N7	-5.97	128.12	132.30
59	A8	101	A	N7-C8-N9	5.97	116.79	113.80
62	A5	1750	G	N7-C8-N9	5.97	116.09	113.10
62	A5	3514	C	N3-C2-O2	-5.97	117.72	121.90
62	A5	1339	U	N3-C4-O4	5.97	123.58	119.40
62	A5	2205	G	C6-C5-N7	5.97	133.98	130.40
62	A5	2741	A	C4-C5-C6	-5.97	114.02	117.00
62	A5	1367	A	C5-C6-N1	5.96	120.68	117.70
62	A5	1591	U	N1-C2-O2	5.96	126.97	122.80
61	B2	413	C	N3-C2-O2	-5.96	117.73	121.90
62	A5	746	G	N3-C4-N9	5.96	129.58	126.00
62	A5	1650	C	C6-N1-C2	-5.96	117.92	120.30
62	A5	2519	U	N3-C2-O2	-5.96	118.03	122.20
62	A5	2769	G	C5-N7-C8	-5.96	101.32	104.30
62	A5	1563	A	O4'-C1'-N9	5.96	112.97	108.20
62	A5	2728	C	C5-C6-N1	5.96	123.98	121.00
62	A5	2768	A	N1-C2-N3	5.96	132.28	129.30
62	A5	1115	A	C5-C6-N1	5.96	120.68	117.70
62	A5	3126	C	C5-C6-N1	5.96	123.98	121.00
61	B2	1176	C	C5-C6-N1	5.96	123.98	121.00
62	A5	2177	G	N7-C8-N9	5.96	116.08	113.10
62	A5	3135	G	C8-N9-C4	-5.96	104.02	106.40
62	A5	3490	C	N3-C4-N4	5.96	122.17	118.00
62	A5	1066	A	N1-C2-N3	-5.96	126.32	129.30
62	A5	1331	G	N7-C8-N9	5.96	116.08	113.10
62	A5	798	C	C4-C5-C6	-5.95	114.42	117.40
62	A5	371	G	N9-C4-C5	-5.95	103.02	105.40
62	A5	3342	C	N1-C2-O2	-5.95	115.33	118.90
29	CI	111	LEU	CB-CG-CD2	5.95	121.12	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	2168	G	N3-C4-C5	-5.95	125.62	128.60
62	A5	2518	A	C5-N7-C8	5.95	106.88	103.90
62	A5	3507	A	C4-C5-N7	5.95	113.67	110.70
62	A5	2713	G	N3-C2-N2	-5.95	115.74	119.90
62	A5	3573	C	N1-C2-O2	5.95	122.47	118.90
62	A5	1551	U	C5-C6-N1	5.95	125.67	122.70
62	A5	376	G	C4-N9-C1'	5.95	134.23	126.50
62	A5	1607	A	C6-N1-C2	-5.95	115.03	118.60
62	A5	2222	G	C5-C6-O6	-5.95	125.03	128.60
62	A5	2225	A	C5-C6-N1	5.94	120.67	117.70
61	B2	1572	C	C6-N1-C2	-5.94	117.92	120.30
62	A5	788	C	N3-C4-C5	5.94	124.28	121.90
62	A5	1137	G	C5-C6-O6	-5.94	125.03	128.60
62	A5	2563	G	C4-C5-C6	5.94	122.37	118.80
62	A5	2661	G	C8-N9-C4	-5.94	104.02	106.40
62	A5	3964	G	C4-C5-N7	5.94	113.18	110.80
62	A5	1014	U	N1-C2-O2	-5.94	118.64	122.80
62	A5	3345	A	N3-C4-C5	-5.94	122.64	126.80
62	A5	3414	U	OP1-P-OP2	5.94	128.51	119.60
62	A5	308	G	C4-C5-C6	5.94	122.36	118.80
62	A5	2035	C	C6-N1-C2	-5.94	117.92	120.30
59	A8	39	A	C5-C6-N6	-5.94	118.95	123.70
62	A5	410	G	C4-N9-C1'	5.94	134.22	126.50
62	A5	3149	U	C6-N1-C2	-5.94	117.44	121.00
59	A8	41	G	N1-C6-O6	5.93	123.46	119.90
62	A5	1363	G	C5-C6-N1	5.93	114.47	111.50
62	A5	1430	U	N3-C2-O2	-5.93	118.05	122.20
62	A5	2177	G	C8-N9-C4	-5.93	104.03	106.40
62	A5	2545	A	C8-N9-C1'	-5.93	117.02	127.70
62	A5	2658	A	C8-N9-C4	-5.93	103.43	105.80
62	A5	2199	A	C2-N3-C4	-5.93	107.63	110.60
61	B2	1572	C	C2-N1-C1'	5.93	125.32	118.80
62	A5	1620	A	C4-C5-N7	5.93	113.66	110.70
62	A5	3340	A	N1-C6-N6	-5.93	115.04	118.60
59	A8	104	G	C4-N9-C1'	5.93	134.20	126.50
61	B2	1596	C	C2-N1-C1'	5.93	125.32	118.80
62	A5	1547	A	C5-N7-C8	-5.93	100.94	103.90
61	B2	1169	C	C5-C6-N1	5.92	123.96	121.00
62	A5	3346	G	N9-C4-C5	5.92	107.77	105.40
61	B2	1204	A	C4-N9-C1'	5.92	136.96	126.30
61	B2	1727	U	C2-N3-C4	-5.92	123.45	127.00
62	A5	58	G	N1-C6-O6	-5.92	116.35	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1019	U	C5-C4-O4	5.92	129.45	125.90
62	A5	1785	G	C8-N9-C1'	-5.92	119.30	127.00
62	A5	52	A	N7-C8-N9	5.92	116.76	113.80
62	A5	783	G	N3-C4-N9	5.92	129.55	126.00
62	A5	991	A	C4-N9-C1'	5.92	136.96	126.30
62	A5	1538	U	N3-C2-O2	-5.92	118.06	122.20
62	A5	3480	U	C2-N3-C4	-5.92	123.45	127.00
59	A8	96	U	C2-N1-C1'	5.92	124.80	117.70
62	A5	1736	G	C8-N9-C1'	-5.92	119.30	127.00
62	A5	2176	G	C8-N9-C1'	-5.92	119.31	127.00
62	A5	3357	C	O5'-P-OP1	5.92	117.80	110.70
62	A5	25	G	N1-C6-O6	-5.92	116.35	119.90
62	A5	93	G	C5-C6-N1	-5.92	108.54	111.50
62	A5	439	U	C5-C4-O4	-5.92	122.35	125.90
62	A5	462	C	C6-N1-C2	-5.92	117.93	120.30
62	A5	991	A	N1-C6-N6	5.92	122.15	118.60
62	A5	1982	U	O4'-C1'-N1	5.92	112.93	108.20
62	A5	2053	A	C8-N9-C4	-5.92	103.43	105.80
62	A5	49	A	C4-N9-C1'	5.92	136.95	126.30
62	A5	301	U	C6-N1-C1'	-5.92	112.92	121.20
62	A5	2761	A	N1-C2-N3	-5.92	126.34	129.30
61	B2	1072	A	C4-C5-N7	5.91	113.66	110.70
62	A5	3304	U	C6-N1-C2	-5.91	117.45	121.00
61	B2	354	U	N3-C2-O2	-5.91	118.06	122.20
61	B2	1585	A	C4-N9-C1'	5.91	136.94	126.30
62	A5	443	G	OP2-P-O3'	5.91	118.20	105.20
62	A5	1077	C	C6-N1-C1'	-5.91	113.71	120.80
62	A5	2548	G	C5-N7-C8	-5.91	101.35	104.30
62	A5	2650	G	C6-C5-N7	-5.91	126.86	130.40
62	A5	2759	G	C4-N9-C1'	5.91	134.18	126.50
62	A5	3483	G	N1-C6-O6	5.91	123.44	119.90
62	A5	3620	G	N3-C2-N2	-5.91	115.76	119.90
62	A5	2745	A	C4-C5-C6	5.91	119.95	117.00
59	A8	6	U	C5-C6-N1	5.91	125.65	122.70
62	A5	379	A	C4-C5-C6	-5.91	114.05	117.00
62	A5	1679	U	O5'-P-OP2	-5.91	100.39	105.70
62	A5	1751	U	C2-N1-C1'	5.91	124.79	117.70
62	A5	3236	A	N7-C8-N9	5.91	116.75	113.80
62	A5	3440	C	C6-N1-C2	-5.90	117.94	120.30
62	A5	3894	C	C6-N1-C2	-5.90	117.94	120.30
62	A5	1912	G	C8-N9-C4	-5.90	104.04	106.40
62	A5	2109	G	C4-C5-N7	5.90	113.16	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	2720	U	N3-C2-O2	-5.90	118.07	122.20
62	A5	3505	U	C2-N3-C4	5.90	130.54	127.00
62	A5	3663	U	C5-C6-N1	5.90	125.65	122.70
62	A5	1626	A	C5-N7-C8	-5.90	100.95	103.90
62	A5	809	G	N9-C4-C5	5.89	107.76	105.40
62	A5	1154	U	N1-C2-O2	5.89	126.93	122.80
62	A5	1386	U	C5-C6-N1	5.89	125.65	122.70
62	A5	42	U	C5-C4-O4	-5.89	122.36	125.90
62	A5	1095	G	N3-C4-N9	5.89	129.54	126.00
62	A5	3650	G	C4-N9-C1'	5.89	134.16	126.50
55	CE	137	LEU	CA-CB-CG	5.89	128.85	115.30
62	A5	1644	C	N1-C2-O2	5.89	122.43	118.90
62	A5	1081	C	C2-N1-C1'	5.89	125.28	118.80
62	A5	2198	G	N1-C6-O6	5.89	123.43	119.90
62	A5	94	C	C5-C6-N1	5.89	123.94	121.00
62	A5	457	A	N3-C4-N9	5.89	132.11	127.40
62	A5	3676	C	N3-C2-O2	-5.89	117.78	121.90
62	A5	1732	A	C4-N9-C1'	5.88	136.89	126.30
62	A5	2803	A	C5-C6-N6	-5.88	119.00	123.70
62	A5	3426	U	N3-C2-O2	-5.88	118.08	122.20
62	A5	3158	A	O4'-C1'-N9	5.88	112.90	108.20
59	A8	102	A	C5-N7-C8	5.88	106.84	103.90
62	A5	1374	C	C5-C4-N4	-5.88	116.09	120.20
62	A5	1672	A	C6-C5-N7	-5.88	128.19	132.30
62	A5	994	U	C6-N1-C1'	5.88	129.43	121.20
62	A5	1648	A	C8-N9-C4	-5.88	103.45	105.80
62	A5	2731	G	N9-C4-C5	5.88	107.75	105.40
62	A5	2733	G	C5-N7-C8	-5.88	101.36	104.30
62	A5	3130	G	C4-C5-C6	5.88	122.33	118.80
62	A5	3490	C	C2-N3-C4	5.88	122.84	119.90
62	A5	1366	G	N3-C4-N9	-5.88	122.47	126.00
62	A5	3151	G	N3-C4-N9	-5.88	122.47	126.00
62	A5	308	G	C8-N9-C1'	-5.87	119.37	127.00
62	A5	1545	A	C5-N7-C8	-5.87	100.96	103.90
62	A5	2494	G	C5-N7-C8	-5.87	101.36	104.30
61	B2	1208	U	N3-C2-O2	-5.87	118.09	122.20
62	A5	300	A	N1-C6-N6	5.87	122.12	118.60
62	A5	818	A	C5-N7-C8	-5.87	100.96	103.90
62	A5	1330	G	N1-C6-O6	5.87	123.42	119.90
62	A5	1610	A	C5-C6-N6	-5.87	119.00	123.70
62	A5	2197	A	N3-C4-C5	-5.87	122.69	126.80
62	A5	2731	G	C6-C5-N7	-5.87	126.88	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	363	G	C5-C6-O6	-5.87	125.08	128.60
62	A5	830	U	C5-C6-N1	5.87	125.64	122.70
62	A5	2794	U	N3-C2-O2	-5.87	118.09	122.20
62	A5	378	G	C6-C5-N7	-5.87	126.88	130.40
62	A5	462	C	C5-C6-N1	5.87	123.93	121.00
62	A5	537	A	N1-C6-N6	-5.87	115.08	118.60
62	A5	1432	C	N1-C2-O2	5.87	122.42	118.90
62	A5	2065	A	C2-N3-C4	5.87	113.53	110.60
62	A5	987	G	C6-C5-N7	-5.87	126.88	130.40
62	A5	1183	U	C6-N1-C2	-5.87	117.48	121.00
62	A5	2525	C	N3-C4-N4	5.87	122.11	118.00
62	A5	99	A	P-O3'-C3'	5.87	126.74	119.70
62	A5	410	G	C8-N9-C1'	-5.87	119.38	127.00
62	A5	1677	U	C4-C5-C6	-5.87	116.18	119.70
62	A5	1792	G	C2-N3-C4	-5.87	108.97	111.90
62	A5	2552	G	C4-C5-N7	5.87	113.15	110.80
62	A5	2733	G	N3-C2-N2	-5.87	115.79	119.90
62	A5	1429	U	N3-C2-O2	-5.86	118.10	122.20
62	A5	2001	U	N3-C2-O2	-5.86	118.10	122.20
62	A5	2209	G	N9-C4-C5	5.86	107.75	105.40
62	A5	2217	A	O4'-C1'-N9	5.86	112.89	108.20
61	B2	632	G	N3-C4-N9	-5.86	122.48	126.00
62	A5	1084	A	C6-C5-N7	-5.86	128.20	132.30
62	A5	2154	A	C5-C6-N6	-5.86	119.01	123.70
62	A5	2549	G	C5-N7-C8	-5.86	101.37	104.30
62	A5	485	A	N1-C6-N6	-5.86	115.08	118.60
62	A5	776	A	N3-C4-N9	5.86	132.09	127.40
62	A5	1199	C	N3-C2-O2	-5.86	117.80	121.90
62	A5	1364	A	N7-C8-N9	5.86	116.73	113.80
62	A5	2154	A	O4'-C1'-N9	5.86	112.89	108.20
62	A5	2220	C	C6-N1-C2	-5.86	117.96	120.30
62	A5	3506	U	C5-C4-O4	-5.86	122.38	125.90
62	A5	1112	G	N3-C4-C5	-5.86	125.67	128.60
62	A5	2651	G	O4'-C1'-N9	5.86	112.89	108.20
62	A5	2701	G	C8-N9-C1'	5.86	134.62	127.00
62	A5	3410	G	C5-C6-O6	-5.86	125.08	128.60
62	A5	163	A	P-O3'-C3'	5.86	126.73	119.70
62	A5	2201	U	P-O3'-C3'	5.86	126.73	119.70
62	A5	1596	A	C5-N7-C8	-5.85	100.97	103.90
62	A5	1363	G	C6-N1-C2	-5.85	121.59	125.10
62	A5	1664	C	C5-C4-N4	-5.85	116.10	120.20
62	A5	1694	A	N1-C6-N6	-5.85	115.09	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	2768	A	N3-C4-N9	5.85	132.08	127.40
62	A5	3402	C	C4-C5-C6	-5.85	114.47	117.40
62	A5	3964	G	N3-C4-N9	5.85	129.51	126.00
61	B2	606	U	N3-C2-O2	-5.85	118.11	122.20
62	A5	818	A	C8-N9-C4	-5.85	103.46	105.80
62	A5	1676	A	C5-N7-C8	-5.85	100.97	103.90
62	A5	2205	G	C4-C5-N7	-5.85	108.46	110.80
62	A5	2543	C	C6-N1-C1'	5.85	127.82	120.80
62	A5	2779	A	C5-C6-N6	-5.85	119.02	123.70
62	A5	3255	G	N1-C6-O6	5.85	123.41	119.90
61	B2	1596	C	N3-C2-O2	-5.85	117.81	121.90
62	A5	289	C	C5-C6-N1	5.85	123.92	121.00
62	A5	2748	G	C4-C5-N7	5.85	113.14	110.80
28	CN	148	ILE	CG1-CB-CG2	-5.84	98.54	111.40
61	B2	1250	C	P-O3'-C3'	5.84	126.71	119.70
62	A5	1715	G	C4-C5-N7	5.84	113.14	110.80
62	A5	2678	G	C5-C6-O6	-5.84	125.09	128.60
62	A5	2779	A	O4'-C1'-N9	5.84	112.88	108.20
62	A5	3148	C	N3-C2-O2	-5.84	117.81	121.90
62	A5	3164	C	N3-C2-O2	-5.84	117.81	121.90
62	A5	844	C	C6-N1-C1'	-5.84	113.79	120.80
62	A5	806	A	C6-N1-C2	5.84	122.11	118.60
62	A5	2735	A	C2-N3-C4	-5.84	107.68	110.60
62	A5	3521	A	N1-C6-N6	5.84	122.11	118.60
62	A5	96	G	C4-N9-C1'	-5.84	118.91	126.50
62	A5	2565	G	N7-C8-N9	5.84	116.02	113.10
62	A5	1387	G	N3-C4-N9	5.84	129.50	126.00
62	A5	1719	G	N3-C2-N2	5.84	123.99	119.90
62	A5	55	U	N1-C2-O2	5.84	126.89	122.80
62	A5	1645	G	N7-C8-N9	5.83	116.02	113.10
62	A5	661	G	N3-C4-C5	-5.83	125.68	128.60
61	B2	1205	U	C5-C6-N1	5.83	125.61	122.70
62	A5	977	C	N3-C2-O2	-5.83	117.82	121.90
62	A5	2740	C	C5-C6-N1	5.83	123.91	121.00
62	A5	3472	A	N9-C4-C5	5.83	108.13	105.80
62	A5	794	G	N1-C6-O6	5.83	123.39	119.90
62	A5	989	A	O5'-P-OP1	-5.82	100.46	105.70
62	A5	1064	G	C8-N9-C1'	-5.82	119.43	127.00
62	A5	3409	G	C8-N9-C1'	-5.82	119.43	127.00
62	A5	3727	A	C8-N9-C1'	5.82	138.18	127.70
61	B2	1238	G	C8-N9-C4	-5.82	104.07	106.40
62	A5	1347	A	N7-C8-N9	5.82	116.71	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1887	C	C6-N1-C2	5.82	122.63	120.30
62	A5	1331	G	C5-N7-C8	-5.82	101.39	104.30
62	A5	1664	C	C5-C6-N1	5.82	123.91	121.00
62	A5	2572	G	C5-C6-N1	5.82	114.41	111.50
62	A5	3443	A	N1-C6-N6	-5.82	115.11	118.60
61	B2	1984	G	N3-C4-C5	-5.82	125.69	128.60
62	A5	739	U	C2-N1-C1'	5.82	124.68	117.70
62	A5	816	A	C8-N9-C4	5.82	108.13	105.80
62	A5	1131	C	C4-C5-C6	-5.82	114.49	117.40
61	B2	1090	A	C8-N9-C4	-5.81	103.47	105.80
62	A5	1370	C	C5-C6-N1	5.81	123.91	121.00
62	A5	1670	G	C8-N9-C4	-5.81	104.08	106.40
62	A5	3131	C	C5-C6-N1	5.81	123.91	121.00
62	A5	3812	C	N1-C2-O2	5.81	122.39	118.90
62	A5	1074	U	N3-C4-C5	5.81	118.09	114.60
62	A5	1688	A	N1-C6-N6	-5.81	115.11	118.60
62	A5	2014	C	C6-N1-C2	-5.81	117.98	120.30
62	A5	2190	A	N1-C6-N6	5.81	122.09	118.60
62	A5	2658	A	C2-N3-C4	5.81	113.51	110.60
62	A5	3650	G	N3-C4-C5	-5.81	125.69	128.60
62	A5	799	A	C8-N9-C4	-5.81	103.48	105.80
62	A5	3138	G	C8-N9-C1'	-5.81	119.45	127.00
62	A5	457	A	C5-C6-N1	5.80	120.60	117.70
62	A5	2197	A	C8-N9-C1'	-5.80	117.25	127.70
62	A5	96	G	N9-C4-C5	-5.80	103.08	105.40
62	A5	1320	U	C5-C6-N1	5.80	125.60	122.70
62	A5	1625	U	N3-C2-O2	-5.80	118.14	122.20
62	A5	2208	G	N1-C2-N3	5.80	127.38	123.90
62	A5	3714	U	P-O3'-C3'	5.80	126.66	119.70
62	A5	787	C	O5'-P-OP1	-5.80	100.48	105.70
62	A5	999	U	N1-C2-O2	5.80	126.86	122.80
62	A5	2545	A	C4-N9-C1'	5.80	136.74	126.30
62	A5	3516	C	C5-C4-N4	-5.80	116.14	120.20
62	A5	298	U	N1-C2-N3	5.80	118.38	114.90
62	A5	2605	C	N3-C2-O2	-5.80	117.84	121.90
62	A5	3164	C	C2-N1-C1'	5.80	125.18	118.80
62	A5	372	U	N1-C2-O2	5.80	126.86	122.80
62	A5	1091	G	C2-N3-C4	-5.80	109.00	111.90
62	A5	3479	C	C5-C6-N1	5.80	123.90	121.00
59	A8	3	C	C6-N1-C2	-5.79	117.98	120.30
62	A5	43	A	N9-C4-C5	5.79	108.12	105.80
62	A5	874	G	C6-C5-N7	-5.79	126.92	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	3591	A	P-O3'-C3'	5.79	126.65	119.70
59	A8	14	G	C8-N9-C4	-5.79	104.08	106.40
62	A5	381	G	C2-N3-C4	-5.79	109.00	111.90
62	A5	2777	A	C4-C5-N7	5.79	113.59	110.70
62	A5	3174	A	C8-N9-C1'	-5.79	117.27	127.70
62	A5	2167	G	C8-N9-C1'	-5.79	119.47	127.00
62	A5	2239	C	C5-C4-N4	-5.79	116.15	120.20
62	A5	2624	G	C4-C5-N7	5.79	113.12	110.80
61	B2	1169	C	C2-N1-C1'	5.79	125.17	118.80
62	A5	1666	A	N1-C6-N6	5.79	122.07	118.60
62	A5	2526	A	C5-C6-N6	-5.79	119.07	123.70
62	A5	2592	A	N7-C8-N9	5.79	116.69	113.80
62	A5	2736	A	C4-C5-C6	5.79	119.89	117.00
62	A5	1112	G	C4-C5-C6	5.79	122.27	118.80
62	A5	382	G	C8-N9-C1'	-5.79	119.48	127.00
62	A5	1356	G	N3-C4-N9	5.79	129.47	126.00
62	A5	2215	G	C8-N9-C1'	-5.79	119.48	127.00
62	A5	49	A	C5-C6-N1	5.78	120.59	117.70
62	A5	1380	G	C8-N9-C1'	-5.78	119.48	127.00
62	A5	1382	U	C6-N1-C2	-5.78	117.53	121.00
62	A5	2226	A	C8-N9-C4	-5.78	103.49	105.80
62	A5	2784	C	C6-N1-C1'	5.78	127.74	120.80
62	A5	802	G	C2-N3-C4	-5.78	109.01	111.90
62	A5	1141	G	C4-C5-N7	5.78	113.11	110.80
62	A5	2125	G	N3-C4-N9	5.78	129.47	126.00
62	A5	3473	C	OP2-P-O3'	5.78	117.92	105.20
62	A5	1754	U	C4-C5-C6	5.78	123.17	119.70
62	A5	775	U	C6-N1-C2	-5.78	117.53	121.00
62	A5	999	U	P-O3'-C3'	5.78	126.63	119.70
62	A5	3908	U	N1-C2-O2	5.78	126.84	122.80
62	A5	1266	A	C6-C5-N7	-5.78	128.26	132.30
62	A5	831	A	N3-C4-C5	-5.77	122.76	126.80
61	B2	1788	C	N3-C2-O2	-5.77	117.86	121.90
62	A5	1005	G	N3-C2-N2	5.77	123.94	119.90
62	A5	1049	C	C5-C6-N1	5.77	123.89	121.00
62	A5	2179	G	C4-C5-N7	5.77	113.11	110.80
62	A5	2750	A	N7-C8-N9	-5.77	110.92	113.80
62	A5	3669	U	N1-C2-O2	5.77	126.84	122.80
62	A5	3908	U	N3-C2-O2	-5.76	118.17	122.20
62	A5	234	G	C4-N9-C1'	5.76	133.99	126.50
62	A5	1010	A	C5-N7-C8	-5.76	101.02	103.90
58	A7	26	C	N1-C2-O2	5.76	122.36	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	B2	1841	C	N1-C2-O2	5.76	122.36	118.90
62	A5	660	A	C6-N1-C2	5.76	122.06	118.60
62	A5	1295	A	O5'-P-OP2	5.76	117.61	110.70
62	A5	3338	U	C6-N1-C1'	5.76	129.27	121.20
62	A5	3449	G	C6-C5-N7	-5.76	126.94	130.40
62	A5	3394	U	N3-C2-O2	-5.76	118.17	122.20
56	CG	36	LEU	CA-CB-CG	5.76	128.54	115.30
62	A5	853	G	C6-C5-N7	-5.76	126.94	130.40
62	A5	3348	G	N9-C4-C5	-5.76	103.10	105.40
62	A5	3582	A	C5-N7-C8	-5.76	101.02	103.90
62	A5	2772	G	N3-C4-C5	-5.75	125.72	128.60
62	A5	3883	G	C8-N9-C1'	-5.75	119.52	127.00
62	A5	102	G	N1-C2-N2	5.75	121.38	116.20
62	A5	378	G	C4-C5-N7	5.75	113.10	110.80
62	A5	2245	G	C8-N9-C4	-5.75	104.10	106.40
61	B2	1273	U	N1-C2-O2	5.75	126.83	122.80
62	A5	1985	C	N3-C2-O2	-5.75	117.87	121.90
62	A5	3958	C	C2-N1-C1'	5.75	125.13	118.80
62	A5	809	G	N3-C4-C5	-5.75	125.72	128.60
62	A5	2242	C	C5-C6-N1	5.75	123.88	121.00
62	A5	1008	A	N1-C2-N3	-5.75	126.43	129.30
62	A5	29	U	N3-C2-O2	-5.75	118.18	122.20
62	A5	2592	A	C8-N9-C4	-5.75	103.50	105.80
62	A5	439	U	N3-C4-C5	5.75	118.05	114.60
62	A5	2740	C	N1-C2-O2	5.75	122.35	118.90
62	A5	3255	G	C5-N7-C8	-5.75	101.43	104.30
62	A5	1551	U	N3-C4-O4	5.74	123.42	119.40
62	A5	1868	A	C4-C5-N7	5.74	113.57	110.70
61	B2	96	C	N1-C2-O2	5.74	122.34	118.90
62	A5	1017	A	N1-C6-N6	-5.74	115.16	118.60
62	A5	1133	A	C5-C6-N6	-5.74	119.11	123.70
62	A5	2230	G	N1-C6-O6	-5.74	116.45	119.90
62	A5	2744	C	C2-N1-C1'	-5.74	112.48	118.80
62	A5	1013	G	N3-C2-N2	-5.74	115.88	119.90
62	A5	1026	G	N3-C4-C5	-5.74	125.73	128.60
62	A5	1142	U	N3-C4-O4	5.74	123.42	119.40
62	A5	2503	G	C6-C5-N7	-5.74	126.96	130.40
62	A5	3344	U	C5-C6-N1	5.74	125.57	122.70
62	A5	797	A	O4'-C1'-N9	5.74	112.79	108.20
62	A5	834	G	N3-C4-N9	5.74	129.44	126.00
62	A5	1120	A	N9-C4-C5	-5.74	103.50	105.80
62	A5	1357	C	OP2-P-O3'	5.74	117.82	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1114	A	N1-C2-N3	5.74	132.17	129.30
74	AH	112	GLN	CA-CB-CG	5.74	126.02	113.40
59	A8	97	U	N1-C2-O2	5.74	126.81	122.80
62	A5	130	C	N1-C2-O2	5.74	122.34	118.90
62	A5	1721	C	C2-N1-C1'	5.74	125.11	118.80
62	A5	2546	G	C4-C5-N7	5.74	113.09	110.80
61	B2	1238	G	C2-N3-C4	5.73	114.77	111.90
62	A5	1670	G	C8-N9-C1'	5.73	134.45	127.00
62	A5	3763	U	OP1-P-OP2	-5.73	111.00	119.60
58	A7	98	G	C6-C5-N7	-5.73	126.96	130.40
61	B2	1185	U	OP2-P-O3'	5.73	117.81	105.20
62	A5	1734	G	C6-C5-N7	-5.73	126.96	130.40
62	A5	2565	G	C5-N7-C8	-5.73	101.43	104.30
62	A5	2747	G	C4-C5-C6	5.73	122.24	118.80
62	A5	3303	G	C4-N9-C1'	-5.73	119.05	126.50
59	A8	24	G	C8-N9-C1'	-5.73	119.55	127.00
62	A5	52	A	N1-C6-N6	-5.73	115.16	118.60
62	A5	798	C	N1-C1'-C2'	5.73	121.45	114.00
61	B2	1659	C	N1-C2-O2	5.73	122.33	118.90
62	A5	2516	U	N3-C4-O4	-5.73	115.39	119.40
62	A5	3410	G	C6-C5-N7	-5.73	126.97	130.40
62	A5	2649	A	O4'-C1'-N9	5.72	112.78	108.20
61	B2	328	A	O5'-P-OP2	-5.72	100.55	105.70
62	A5	39	A	C4-C5-C6	-5.72	114.14	117.00
62	A5	2160	C	O5'-P-OP1	-5.72	100.55	105.70
62	A5	2210	U	C6-N1-C2	-5.72	117.57	121.00
62	A5	2514	U	C2-N1-C1'	5.72	124.57	117.70
62	A5	795	A	C5-C6-N6	5.72	128.28	123.70
62	A5	2563	G	C4-N9-C1'	5.72	133.94	126.50
58	A7	72	U	N1-C2-O2	5.72	126.80	122.80
62	A5	1620	A	N1-C6-N6	5.72	122.03	118.60
62	A5	2038	A	C8-N9-C4	-5.72	103.51	105.80
62	A5	2696	U	C5-C6-N1	5.72	125.56	122.70
60	Cz	124	LEU	CA-CB-CG	5.72	128.45	115.30
62	A5	1064	G	N1-C6-O6	5.72	123.33	119.90
62	A5	1669	G	C2-N3-C4	-5.72	109.04	111.90
62	A5	3625	U	OP2-P-O3'	5.72	117.78	105.20
62	A5	1610	A	C5-N7-C8	-5.72	101.04	103.90
62	A5	2259	C	N1-C2-O2	5.72	122.33	118.90
61	B2	1603	G	C4-N9-C1'	5.71	133.93	126.50
62	A5	430	G	C4-N9-C1'	5.71	133.93	126.50
62	A5	3170	U	C2-N1-C1'	5.71	124.56	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	3347	G	C5-N7-C8	-5.71	101.44	104.30
61	B2	352	G	C6-C5-N7	-5.71	126.97	130.40
61	B2	1987	G	C8-N9-C1'	-5.71	119.57	127.00
62	A5	429	U	C5-C6-N1	5.71	125.56	122.70
62	A5	439	U	N3-C2-O2	-5.71	118.20	122.20
62	A5	775	U	OP1-P-OP2	5.71	128.17	119.60
62	A5	1388	C	N3-C4-C5	-5.71	119.61	121.90
62	A5	1786	G	C5-N7-C8	-5.71	101.44	104.30
62	A5	1875	G	C4-C5-N7	5.71	113.08	110.80
62	A5	3499	G	N3-C2-N2	5.71	123.90	119.90
66	Cg	34	TYR	CA-CB-CG	5.71	124.25	113.40
62	A5	1404	A	N3-C4-C5	-5.71	122.80	126.80
62	A5	2197	A	N1-C6-N6	-5.71	115.17	118.60
62	A5	3540	G	C8-N9-C4	5.71	108.68	106.40
62	A5	3714	U	C5-C6-N1	5.71	125.56	122.70
62	A5	987	G	C8-N9-C4	-5.71	104.12	106.40
62	A5	998	G	C5-C6-O6	-5.71	125.17	128.60
62	A5	1023	C	C6-N1-C2	-5.71	118.02	120.30
62	A5	1608	G	N3-C2-N2	5.71	123.90	119.90
62	A5	3881	A	C5-N7-C8	-5.71	101.05	103.90
62	A5	2162	C	N1-C2-N3	-5.71	115.20	119.20
62	A5	1129	A	C4-N9-C1'	5.71	136.57	126.30
62	A5	2733	G	C2-N3-C4	-5.71	109.05	111.90
30	CD	137	ASP	CB-CG-OD1	5.70	123.43	118.30
62	A5	1387	G	N7-C8-N9	5.70	115.95	113.10
62	A5	1648	A	N1-C6-N6	-5.70	115.18	118.60
62	A5	1753	G	C8-N9-C4	-5.70	104.12	106.40
62	A5	1958	G	N3-C4-C5	-5.70	125.75	128.60
62	A5	2770	C	N3-C4-N4	5.70	121.99	118.00
62	A5	1650	C	C2-N1-C1'	5.70	125.07	118.80
62	A5	2786	U	C5-C6-N1	5.70	125.55	122.70
61	B2	377	G	C6-C5-N7	-5.70	126.98	130.40
62	A5	95	G	C4-N9-C1'	5.70	133.91	126.50
62	A5	751	A	N1-C6-N6	-5.70	115.18	118.60
62	A5	2732	C	N3-C2-O2	-5.70	117.91	121.90
62	A5	2772	G	N7-C8-N9	-5.70	110.25	113.10
59	A8	42	A	N7-C8-N9	5.70	116.65	113.80
62	A5	99	A	C4-C5-N7	5.70	113.55	110.70
62	A5	371	G	C8-N9-C4	5.70	108.68	106.40
62	A5	1323	C	OP2-P-O3'	5.70	117.74	105.20
62	A5	2782	A	N3-C4-C5	-5.70	122.81	126.80
62	A5	2778	G	C5-C6-O6	5.70	132.02	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	56	A	C4-N9-C1'	5.70	136.55	126.30
62	A5	307	A	C4-N9-C1'	5.70	136.55	126.30
62	A5	3153	G	C6-C5-N7	-5.70	126.98	130.40
61	B2	1114	A	O4'-C1'-N9	5.69	112.75	108.20
62	A5	3255	G	C4-N9-C1'	5.69	133.90	126.50
61	B2	1090	A	N7-C8-N9	5.69	116.65	113.80
62	A5	1086	C	O5'-P-OP1	-5.69	100.58	105.70
62	A5	2172	C	N1-C2-O2	5.69	122.31	118.90
62	A5	2739	A	C6-C5-N7	-5.69	128.31	132.30
62	A5	3402	C	C5-C6-N1	5.69	123.85	121.00
62	A5	3487	A	C5-N7-C8	-5.69	101.05	103.90
62	A5	1731	G	N3-C4-N9	5.69	129.41	126.00
62	A5	2200	A	N1-C6-N6	-5.69	115.19	118.60
62	A5	3320	C	C6-N1-C2	-5.69	118.02	120.30
62	A5	66	A	C4-C5-N7	5.69	113.54	110.70
62	A5	354	A	N1-C6-N6	5.69	122.01	118.60
62	A5	2743	C	C5-C6-N1	5.69	123.84	121.00
62	A5	296	C	C6-N1-C2	-5.69	118.03	120.30
62	A5	1310	A	OP2-P-O3'	5.69	117.71	105.20
62	A5	1133	A	C4-C5-C6	5.68	119.84	117.00
62	A5	1327	G	C2-N3-C4	-5.68	109.06	111.90
68	AK	54	GLY	C-N-CA	5.68	135.91	121.70
59	A8	11	G	C5-C6-N1	5.68	114.34	111.50
62	A5	363	G	OP1-P-O3'	5.68	117.70	105.20
62	A5	3609	A	N7-C8-N9	-5.68	110.96	113.80
62	A5	789	G	C8-N9-C4	-5.68	104.13	106.40
62	A5	2662	C	C6-N1-C1'	-5.68	113.98	120.80
62	A5	3622	C	C6-N1-C1'	-5.68	113.98	120.80
62	A5	441	A	C5-N7-C8	-5.68	101.06	103.90
62	A5	748	A	P-O3'-C3'	5.68	126.51	119.70
62	A5	3347	G	N1-C6-O6	5.68	123.31	119.90
62	A5	38	A	N9-C4-C5	-5.67	103.53	105.80
62	A5	1112	G	C8-N9-C1'	-5.67	119.62	127.00
62	A5	1516	A	N1-C2-N3	-5.67	126.46	129.30
62	A5	1549	A	C8-N9-C4	5.67	108.07	105.80
62	A5	1722	U	C5-C6-N1	5.67	125.54	122.70
62	A5	1874	G	N7-C8-N9	5.67	115.94	113.10
62	A5	1007	A	C8-N9-C4	-5.67	103.53	105.80
61	B2	1835	U	C2-N1-C1'	5.67	124.50	117.70
62	A5	104	A	C5-C6-N6	5.67	128.24	123.70
62	A5	615	C	P-O3'-C3'	5.67	126.51	119.70
62	A5	811	G	N3-C4-C5	5.67	131.44	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1344	A	C8-N9-C4	5.67	108.07	105.80
62	A5	1516	A	C4-C5-C6	-5.67	114.16	117.00
62	A5	2161	G	N1-C6-O6	5.67	123.30	119.90
62	A5	3544	G	C4-C5-C6	5.67	122.20	118.80
61	B2	12	U	N1-C2-O2	5.67	126.77	122.80
62	A5	1512	C	N1-C2-O2	5.67	122.30	118.90
62	A5	1868	A	C5-N7-C8	-5.67	101.06	103.90
62	A5	804	C	C4-C5-C6	-5.67	114.57	117.40
62	A5	1213	C	C6-N1-C2	5.67	122.57	120.30
62	A5	991	A	C6-C5-N7	-5.67	128.33	132.30
62	A5	2135	C	C6-N1-C1'	-5.67	114.00	120.80
57	A9	9	C	C2-N1-C1'	5.66	125.03	118.80
59	A8	107	U	C6-N1-C2	-5.66	117.60	121.00
62	A5	1097	A	C6-C5-N7	-5.66	128.34	132.30
62	A5	1329	G	C8-N9-C1'	-5.66	119.64	127.00
62	A5	2773	G	N3-C4-C5	5.66	131.43	128.60
62	A5	3405	U	OP2-P-O3'	5.66	117.66	105.20
62	A5	1713	U	OP1-P-OP2	-5.66	111.11	119.60
62	A5	2498	U	C6-N1-C2	-5.66	117.60	121.00
62	A5	2678	G	C2-N3-C4	-5.66	109.07	111.90
62	A5	3407	U	N1-C2-O2	5.66	126.76	122.80
59	A8	34	C	N1-C2-O2	5.66	122.30	118.90
62	A5	2172	C	C2-N1-C1'	5.66	125.03	118.80
62	A5	2190	A	C6-C5-N7	-5.66	128.34	132.30
62	A5	3319	A	N7-C8-N9	5.66	116.63	113.80
62	A5	1053	G	N3-C4-N9	5.66	129.39	126.00
62	A5	3126	C	N1-C2-O2	5.66	122.29	118.90
62	A5	3518	A	OP2-P-O3'	5.66	117.64	105.20
59	A8	5	C	C6-N1-C2	-5.65	118.04	120.30
61	B2	1094	C	C6-N1-C2	5.65	122.56	120.30
62	A5	74	A	C4-C5-N7	5.65	113.53	110.70
61	B2	1344	A	N3-C4-C5	-5.65	122.84	126.80
62	A5	109	A	C5-N7-C8	-5.65	101.07	103.90
62	A5	586	C	N1-C2-O2	5.65	122.29	118.90
62	A5	1693	C	N3-C2-O2	-5.65	117.94	121.90
62	A5	2171	U	O5'-P-OP2	-5.65	100.61	105.70
62	A5	3405	U	C6-N1-C2	-5.65	117.61	121.00
62	A5	1376	U	C5-C6-N1	5.65	125.53	122.70
62	A5	2539	G	C4-N9-C1'	5.65	133.85	126.50
71	CF	237	PHE	N-CA-C	5.65	126.26	111.00
61	B2	1147	U	C2-N1-C1'	5.65	124.48	117.70
61	B2	68	C	N1-C2-O2	5.65	122.29	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1169	C	C4-C5-C6	-5.65	114.58	117.40
62	A5	3507	A	N1-C2-N3	5.65	132.12	129.30
62	A5	3616	G	N3-C4-N9	5.65	129.39	126.00
62	A5	475	U	N3-C2-O2	-5.64	118.25	122.20
62	A5	1145	C	C4-C5-C6	-5.64	114.58	117.40
62	A5	3490	C	C6-N1-C1'	5.64	127.57	120.80
62	A5	3628	G	C4-N9-C1'	5.64	133.84	126.50
62	A5	2208	G	C5-C6-N1	-5.64	108.68	111.50
62	A5	3453	U	N1-C2-N3	5.64	118.28	114.90
62	A5	2004	G	N1-C2-N2	-5.64	111.12	116.20
62	A5	2782	A	N3-C4-N9	5.64	131.91	127.40
58	A7	87	G	N3-C2-N2	-5.64	115.95	119.90
62	A5	3499	G	C8-N9-C1'	-5.64	119.67	127.00
62	A5	3360	G	C8-N9-C4	-5.64	104.14	106.40
59	A8	99	U	C6-N1-C1'	-5.64	113.31	121.20
59	A8	106	A	C4-C5-N7	5.64	113.52	110.70
62	A5	1529	C	C2-N3-C4	-5.64	117.08	119.90
62	A5	1988	A	N1-C6-N6	-5.64	115.22	118.60
62	A5	3397	U	C5'-C4'-O4'	5.64	115.86	109.10
61	B2	1060	A	C5-N7-C8	-5.63	101.08	103.90
62	A5	1591	U	C2-N1-C1'	5.63	124.46	117.70
62	A5	3153	G	C4-C5-N7	5.63	113.05	110.80
62	A5	3504	G	N3-C4-C5	-5.63	125.78	128.60
62	A5	3607	C	N3-C4-C5	-5.63	119.65	121.90
62	A5	1792	G	C5-N7-C8	-5.63	101.48	104.30
62	A5	2002	C	N1-C2-O2	5.63	122.28	118.90
62	A5	2754	G	N7-C8-N9	5.63	115.92	113.10
62	A5	783	G	C4-N9-C1'	5.63	133.82	126.50
62	A5	1022	A	N9-C4-C5	-5.63	103.55	105.80
62	A5	1128	C	OP2-P-O3'	5.63	117.59	105.20
62	A5	2098	C	N1-C2-O2	5.63	122.28	118.90
62	A5	2739	A	C6-N1-C2	-5.63	115.22	118.60
62	A5	2994	C	C6-N1-C2	-5.63	118.05	120.30
62	A5	1679	U	C5-C4-O4	5.63	129.28	125.90
62	A5	142	G	N3-C4-N9	5.63	129.38	126.00
62	A5	2054	U	O4'-C1'-N1	5.63	112.70	108.20
62	A5	1484	U	C2-N1-C1'	5.63	124.45	117.70
62	A5	3405	U	N1-C2-O2	5.63	126.74	122.80
62	A5	3516	C	P-O3'-C3'	5.63	126.45	119.70
45	Cf	106	GLN	C-N-CA	-5.62	107.64	121.70
59	A8	97	U	C2-N1-C1'	5.62	124.45	117.70
61	B2	377	G	C4-C5-N7	5.62	113.05	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1141	G	C5-C6-N1	-5.62	108.69	111.50
62	A5	1786	G	C6-C5-N7	-5.62	127.03	130.40
62	A5	2736	A	C4-N9-C1'	5.62	136.42	126.30
62	A5	3488	G	C4-C5-N7	5.62	113.05	110.80
62	A5	3540	G	N9-C4-C5	-5.62	103.15	105.40
62	A5	1539	A	C4-N9-C1'	5.62	136.42	126.30
62	A5	2654	G	C8-N9-C4	-5.62	104.15	106.40
62	A5	2733	G	N1-C6-O6	5.62	123.27	119.90
62	A5	3395	G	C4-N9-C1'	5.62	133.81	126.50
59	A8	30	G	N7-C8-N9	5.62	115.91	113.10
62	A5	28	C	C6-N1-C1'	5.62	127.54	120.80
62	A5	3481	G	N1-C6-O6	-5.62	116.53	119.90
62	A5	1514	U	C6-N1-C2	-5.62	117.63	121.00
62	A5	2161	G	N9-C4-C5	-5.62	103.15	105.40
61	B2	1719	C	N1-C2-O2	5.62	122.27	118.90
62	A5	430	G	C6-C5-N7	-5.62	127.03	130.40
62	A5	457	A	N3-C4-C5	-5.62	122.87	126.80
61	B2	1987	G	N3-C4-N9	5.62	129.37	126.00
62	A5	453	C	C5-C6-N1	5.62	123.81	121.00
62	A5	1080	G	C6-C5-N7	-5.62	127.03	130.40
62	A5	1595	G	N1-C6-O6	5.62	123.27	119.90
61	B2	422	A	P-O3'-C3'	5.61	126.44	119.70
62	A5	1025	U	C6-N1-C2	-5.61	117.63	121.00
62	A5	1128	C	C2-N1-C1'	-5.61	112.62	118.80
62	A5	1325	C	N1-C2-O2	5.61	122.27	118.90
62	A5	2552	G	N3-C2-N2	-5.61	115.97	119.90
62	A5	1775	C	N1-C2-O2	5.61	122.27	118.90
62	A5	88	U	C5-C6-N1	5.61	125.50	122.70
62	A5	1616	G	N3-C4-C5	-5.61	125.80	128.60
62	A5	1737	U	N1-C2-N3	5.61	118.27	114.90
62	A5	2004	G	N3-C4-N9	5.61	129.37	126.00
62	A5	2033	U	N3-C2-O2	-5.61	118.27	122.20
62	A5	2210	U	C5-C6-N1	5.61	125.50	122.70
62	A5	2693	G	N3-C4-C5	-5.61	125.80	128.60
62	A5	3348	G	N3-C4-N9	5.61	129.37	126.00
62	A5	28	C	N3-C2-O2	5.61	125.83	121.90
62	A5	2552	G	C5-N7-C8	-5.61	101.50	104.30
62	A5	1128	C	N3-C4-N4	-5.61	114.08	118.00
62	A5	1682	G	N3-C2-N2	5.61	123.83	119.90
62	A5	1892	C	C2-N1-C1'	5.61	124.97	118.80
62	A5	2654	G	N7-C8-N9	5.61	115.90	113.10
59	A8	9	G	N9-C4-C5	-5.61	103.16	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	88	U	N3-C4-O4	5.61	123.32	119.40
62	A5	640	U	C2-N1-C1'	5.61	124.43	117.70
62	A5	2567	U	C5-C6-N1	5.61	125.50	122.70
62	A5	3476	G	C4-C5-C6	5.61	122.16	118.80
62	A5	1056	G	C4-N9-C1'	5.60	133.78	126.50
62	A5	3299	U	N1-C2-O2	5.60	126.72	122.80
62	A5	1526	G	N1-C2-N2	-5.60	111.16	116.20
62	A5	3535	G	C6-C5-N7	-5.60	127.04	130.40
62	A5	58	G	P-O3'-C3'	5.60	126.42	119.70
62	A5	1012	G	N9-C4-C5	5.60	107.64	105.40
62	A5	2013	C	N1-C2-O2	5.60	122.26	118.90
62	A5	3409	G	N3-C4-C5	-5.60	125.80	128.60
62	A5	999	U	N3-C4-C5	-5.60	111.24	114.60
62	A5	1631	U	N3-C2-O2	-5.60	118.28	122.20
62	A5	3544	G	N1-C6-O6	5.60	123.26	119.90
62	A5	1407	C	N3-C2-O2	-5.59	117.98	121.90
62	A5	1575	U	N1-C2-O2	5.59	126.72	122.80
62	A5	2754	G	C8-N9-C4	-5.59	104.16	106.40
62	A5	88	U	N1-C2-O2	5.59	126.72	122.80
62	A5	786	C	OP2-P-O3'	5.59	117.50	105.20
62	A5	2504	A	N1-C6-N6	5.59	121.96	118.60
62	A5	3017	U	P-O3'-C3'	5.59	126.41	119.70
59	A8	106	A	P-O3'-C3'	-5.59	112.99	119.70
62	A5	1148	C	C5-C6-N1	5.59	123.80	121.00
62	A5	1342	U	N1-C2-O2	5.59	126.71	122.80
62	A5	1756	G	N7-C8-N9	5.59	115.90	113.10
62	A5	2792	G	C5-N7-C8	-5.59	101.50	104.30
62	A5	2798	C	C5-C4-N4	-5.59	116.29	120.20
62	A5	1324	C	C2-N1-C1'	-5.59	112.65	118.80
62	A5	2242	C	C6-N1-C2	-5.59	118.06	120.30
62	A5	2494	G	C5-C6-O6	-5.59	125.25	128.60
62	A5	2554	U	C6-N1-C2	-5.59	117.65	121.00
68	AK	35	LEU	CA-CB-CG	5.59	128.15	115.30
62	A5	91	U	N3-C4-C5	-5.59	111.25	114.60
62	A5	3401	U	C6-N1-C2	-5.59	117.65	121.00
62	A5	348	A	C4-C5-N7	5.59	113.49	110.70
62	A5	2728	C	C4-C5-C6	-5.58	114.61	117.40
61	B2	96	C	N3-C2-O2	-5.58	117.99	121.90
62	A5	1870	G	C6-C5-N7	-5.58	127.05	130.40
62	A5	3535	G	C8-N9-C1'	-5.58	119.74	127.00
62	A5	31	C	N3-C4-N4	-5.58	114.09	118.00
62	A5	439	U	C6-N1-C2	5.58	124.35	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	3551	U	O5'-P-OP1	-5.58	100.68	105.70
62	A5	3621	A	C6-C5-N7	-5.58	128.39	132.30
62	A5	1386	U	C6-N1-C2	-5.58	117.65	121.00
62	A5	2190	A	C8-N9-C4	-5.58	103.57	105.80
62	A5	2749	G	N1-C6-O6	-5.58	116.55	119.90
61	B2	1238	G	N3-C4-N9	5.58	129.35	126.00
62	A5	1669	G	C4-C5-N7	-5.58	108.57	110.80
62	A5	108	A	C5-C6-N1	5.57	120.49	117.70
62	A5	453	C	C5-C4-N4	-5.57	116.30	120.20
62	A5	1544	U	C4-C5-C6	-5.57	116.36	119.70
62	A5	1651	C	C2-N3-C4	5.57	122.69	119.90
62	A5	3477	A	C4-N9-C1'	-5.57	116.27	126.30
62	A5	3487	A	O5'-P-OP2	5.57	117.39	110.70
62	A5	2698	A	C4-C5-C6	-5.57	114.21	117.00
62	A5	3394	U	N1-C2-O2	5.57	126.70	122.80
62	A5	1607	A	C8-N9-C4	-5.57	103.57	105.80
62	A5	1712	C	C4-C5-C6	5.57	120.19	117.40
62	A5	2790	G	C8-N9-C1'	-5.57	119.76	127.00
62	A5	3421	C	C6-N1-C2	-5.57	118.07	120.30
62	A5	56	A	C8-N9-C1'	-5.57	117.68	127.70
62	A5	1113	A	N1-C6-N6	5.57	121.94	118.60
62	A5	3936	A	O4'-C1'-N9	5.57	112.65	108.20
67	CU	280	ASP	CB-CG-OD1	5.57	123.31	118.30
61	B2	1147	U	N1-C2-O2	5.57	126.69	122.80
62	A5	778	C	C5-C6-N1	5.57	123.78	121.00
62	A5	2500	G	O4'-C1'-N9	5.57	112.65	108.20
62	A5	2524	A	C5-N7-C8	-5.57	101.12	103.90
62	A5	2721	C	C2-N3-C4	5.57	122.68	119.90
62	A5	3674	G	C2-N3-C4	-5.57	109.12	111.90
62	A5	3808	A	P-O3'-C3'	5.57	126.38	119.70
62	A5	303	G	C6-C5-N7	-5.56	127.06	130.40
62	A5	995	G	N1-C6-O6	5.56	123.24	119.90
62	A5	1267	A	C8-N9-C4	-5.56	103.57	105.80
62	A5	1029	C	C2-N3-C4	5.56	122.68	119.90
62	A5	1747	A	N7-C8-N9	5.56	116.58	113.80
62	A5	2742	G	C5-C6-O6	-5.56	125.26	128.60
62	A5	3405	U	N3-C2-O2	-5.56	118.31	122.20
61	B2	1683	U	C2-N1-C1'	5.56	124.37	117.70
62	A5	2739	A	C5-C6-N1	5.56	120.48	117.70
62	A5	3151	G	N3-C4-C5	5.56	131.38	128.60
59	A8	103	C	C5-C6-N1	5.56	123.78	121.00
62	A5	1091	G	C5-C6-O6	-5.56	125.26	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
75	AI	22	ARG	CA-CB-CG	5.56	125.63	113.40
59	A8	14	G	C4-C5-N7	5.56	113.02	110.80
61	B2	960	U	C2-N1-C1'	5.56	124.37	117.70
61	B2	1974	U	C5-C6-N1	5.56	125.48	122.70
62	A5	1109	G	C2-N3-C4	-5.56	109.12	111.90
59	A8	32	G	C8-N9-C4	5.56	108.62	106.40
62	A5	1722	U	C2-N1-C1'	5.56	124.37	117.70
62	A5	2125	G	OP1-P-O3'	5.56	117.42	105.20
62	A5	2206	U	N1-C2-O2	5.56	126.69	122.80
61	B2	1603	G	C8-N9-C1'	-5.55	119.78	127.00
62	A5	119	G	C5-C6-O6	-5.55	125.27	128.60
62	A5	1984	U	N1-C2-O2	5.55	126.69	122.80
62	A5	2496	A	O5'-P-OP2	-5.55	100.70	105.70
62	A5	90	G	C5-C6-O6	5.55	131.93	128.60
62	A5	3222	G	C4-N9-C1'	5.55	133.72	126.50
62	A5	1670	G	C2-N3-C4	5.55	114.68	111.90
62	A5	2743	C	C6-N1-C1'	5.55	127.46	120.80
62	A5	1544	U	N3-C4-C5	5.55	117.93	114.60
62	A5	376	G	N1-C2-N3	5.55	127.23	123.90
62	A5	1082	A	C4-N9-C1'	5.55	136.29	126.30
62	A5	2521	A	N1-C2-N3	-5.55	126.53	129.30
62	A5	2713	G	C4-N9-C1'	-5.55	119.29	126.50
62	A5	2796	G	N3-C4-N9	5.55	129.33	126.00
4	CB	4	ARG	C-N-CA	5.55	135.56	121.70
62	A5	1366	G	N9-C4-C5	-5.55	103.18	105.40
62	A5	2731	G	C5-C6-N1	-5.55	108.73	111.50
62	A5	2809	C	C5-C6-N1	5.55	123.77	121.00
62	A5	3348	G	C4-N9-C1'	5.55	133.71	126.50
62	A5	3582	A	C4-C5-N7	5.55	113.47	110.70
62	A5	322	G	N1-C2-N2	-5.54	111.21	116.20
26	AJ	5	ARG	C-N-CA	5.54	135.56	121.70
62	A5	815	A	N1-C6-N6	-5.54	115.27	118.60
62	A5	1099	U	C6-N1-C1'	5.54	128.96	121.20
62	A5	1508	U	N3-C2-O2	-5.54	118.32	122.20
62	A5	1670	G	C5-C6-O6	5.54	131.93	128.60
62	A5	3714	U	C6-N1-C2	-5.54	117.67	121.00
62	A5	30	A	C8-N9-C1'	-5.54	117.73	127.70
62	A5	33	C	C2-N3-C4	5.54	122.67	119.90
62	A5	445	C	C5-C6-N1	5.54	123.77	121.00
62	A5	786	C	N3-C2-O2	-5.54	118.02	121.90
62	A5	1747	A	C4-C5-N7	5.54	113.47	110.70
62	A5	3499	G	N1-C2-N2	-5.54	111.21	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	791	C	N3-C4-N4	5.54	121.88	118.00
62	A5	1409	G	C4-N9-C1'	5.54	133.70	126.50
62	A5	362	A	C5-C6-N1	5.54	120.47	117.70
62	A5	2741	A	C8-N9-C4	5.54	108.02	105.80
62	A5	2998	U	C2-N1-C1'	5.54	124.35	117.70
62	A5	3172	A	C6-C5-N7	-5.54	128.42	132.30
62	A5	3601	U	N3-C2-O2	-5.54	118.32	122.20
62	A5	90	G	C4-N9-C1'	-5.54	119.30	126.50
62	A5	2008	U	N3-C2-O2	-5.54	118.32	122.20
62	A5	2799	U	C6-N1-C2	5.54	124.32	121.00
59	A8	32	G	O4'-C1'-N9	-5.54	103.77	108.20
61	B2	1249	C	C2-N1-C1'	5.54	124.89	118.80
62	A5	1151	A	N3-C4-N9	5.54	131.83	127.40
62	A5	1327	G	C4-N9-C1'	-5.54	119.30	126.50
62	A5	2521	A	C4-C5-N7	5.54	113.47	110.70
62	A5	2679	U	N3-C2-O2	-5.54	118.33	122.20
62	A5	2779	A	C4-C5-C6	-5.54	114.23	117.00
62	A5	3578	A	C5-C6-N6	-5.54	119.27	123.70
59	A8	55	G	N3-C4-N9	5.53	129.32	126.00
61	B2	1107	A	C4-C5-N7	5.53	113.47	110.70
62	A5	810	A	C2-N3-C4	-5.53	107.83	110.60
62	A5	2176	G	N3-C4-C5	-5.53	125.83	128.60
62	A5	12	C	C6-N1-C2	-5.53	118.09	120.30
62	A5	67	A	C4-N9-C1'	5.53	136.26	126.30
62	A5	985	G	N9-C4-C5	-5.53	103.19	105.40
62	A5	3489	A	C8-N9-C4	-5.53	103.59	105.80
62	A5	3578	A	C6-C5-N7	-5.53	128.43	132.30
58	A7	91	C	C5-C6-N1	5.53	123.77	121.00
60	Cz	116	LEU	CA-CB-CG	5.53	128.02	115.30
61	B2	1839	U	C5-C6-N1	5.53	125.47	122.70
62	A5	281	C	C6-N1-C2	-5.53	118.09	120.30
62	A5	1717	A	C8-N9-C4	-5.53	103.59	105.80
61	B2	1109	C	C6-N1-C1'	-5.53	114.17	120.80
62	A5	1005	G	C6-C5-N7	-5.53	127.08	130.40
34	CT	145	GLU	N-CA-C	5.53	125.93	111.00
61	B2	1972	G	C6-C5-N7	-5.53	127.08	130.40
62	A5	1070	G	C5-C6-O6	5.53	131.92	128.60
62	A5	3499	G	C4-N9-C1'	5.53	133.69	126.50
61	B2	1111	U	O4'-C1'-N1	5.53	112.62	108.20
62	A5	2184	G	C4-C5-N7	5.53	113.01	110.80
62	A5	2191	G	N9-C4-C5	-5.53	103.19	105.40
62	A5	1066	A	N1-C6-N6	5.52	121.91	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	B2	379	U	C6-N1-C2	-5.52	117.69	121.00
62	A5	1612	G	N1-C2-N3	5.52	127.21	123.90
62	A5	2539	G	C8-N9-C1'	-5.52	119.82	127.00
62	A5	43	A	C5-N7-C8	-5.52	101.14	103.90
62	A5	1724	A	C5-C6-N1	5.52	120.46	117.70
62	A5	2803	A	C5-N7-C8	-5.52	101.14	103.90
62	A5	3473	C	C5'-C4'-O4'	5.52	115.72	109.10
62	A5	3520	U	N3-C4-O4	5.52	123.26	119.40
61	B2	1001	G	O4'-C1'-N9	5.52	112.61	108.20
62	A5	34	C	O5'-P-OP2	-5.52	100.73	105.70
62	A5	62	G	C4-N9-C1'	5.52	133.67	126.50
62	A5	918	G	C5-N7-C8	-5.52	101.54	104.30
62	A5	1650	C	C5-C6-N1	5.52	123.76	121.00
62	A5	3331	A	N9-C4-C5	-5.52	103.59	105.80
62	A5	3396	A	C2'-C3'-O3'	5.52	122.53	113.70
61	B2	1920	U	N3-C2-O2	-5.52	118.34	122.20
62	A5	1133	A	N3-C4-N9	5.52	131.81	127.40
62	A5	2705	U	C6-N1-C1'	5.52	128.92	121.20
62	A5	1082	A	C2-N3-C4	5.51	113.36	110.60
62	A5	2147	C	N3-C2-O2	-5.51	118.04	121.90
62	A5	3319	A	C8-N9-C4	-5.51	103.59	105.80
62	A5	363	G	N9-C4-C5	-5.51	103.19	105.40
62	A5	2564	U	N3-C4-O4	-5.51	115.54	119.40
62	A5	25	G	C6-C5-N7	5.51	133.71	130.40
62	A5	1088	A	O5'-P-OP2	-5.51	100.74	105.70
62	A5	2525	C	N3-C4-C5	-5.51	119.69	121.90
62	A5	2566	A	N3-C4-C5	-5.51	122.94	126.80
62	A5	3621	A	N9-C4-C5	-5.51	103.60	105.80
59	A8	109	U	P-O3'-C3'	5.51	126.31	119.70
62	A5	489	U	O5'-P-OP1	-5.51	100.74	105.70
62	A5	1163	G	N1-C2-N3	5.51	127.21	123.90
62	A5	1863	U	C5-C6-N1	5.51	125.45	122.70
62	A5	3459	C	O4'-C1'-N1	5.51	112.61	108.20
59	A8	75	C	N3-C2-O2	-5.51	118.04	121.90
62	A5	1093	C	C6-N1-C1'	5.51	127.41	120.80
61	B2	1141	C	N1-C2-O2	5.50	122.20	118.90
62	A5	992	U	C2-N1-C1'	5.50	124.31	117.70
62	A5	2167	G	C5-N7-C8	-5.50	101.55	104.30
62	A5	739	U	N1-C2-O2	5.50	126.65	122.80
62	A5	2540	G	C6-C5-N7	-5.50	127.10	130.40
58	A7	102	C	N1-C2-O2	5.50	122.20	118.90
61	B2	1249	C	N3-C2-O2	-5.50	118.05	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	746	G	C8-N9-C1'	-5.50	119.85	127.00
62	A5	2781	G	N3-C4-C5	-5.50	125.85	128.60
62	A5	3578	A	C4-C5-N7	5.50	113.45	110.70
62	A5	3873	A	C8-N9-C4	-5.50	103.60	105.80
81	B	13	C	N1-C2-O2	5.50	122.20	118.90
62	A5	3145	U	C6-N1-C2	-5.50	117.70	121.00
61	B2	1183	U	O4'-C1'-N1	5.50	112.60	108.20
62	A5	784	G	C2-N3-C4	5.50	114.65	111.90
62	A5	977	C	C6-N1-C2	-5.50	118.10	120.30
62	A5	2519	U	C5-C4-O4	5.50	129.20	125.90
62	A5	2789	U	P-O3'-C3'	5.50	126.30	119.70
61	B2	1090	A	C4-N9-C1'	5.50	136.19	126.30
62	A5	2529	G	N7-C8-N9	5.50	115.85	113.10
61	B2	1265	C	N1-C2-O2	5.49	122.20	118.90
62	A5	1142	U	N1-C2-N3	5.49	118.20	114.90
62	A5	2764	A	C8-N9-C4	-5.49	103.60	105.80
62	A5	2790	G	N1-C2-N2	-5.49	111.25	116.20
62	A5	3414	U	O5'-P-OP2	-5.49	100.76	105.70
62	A5	2550	G	O5'-P-OP1	-5.49	100.76	105.70
62	A5	872	A	P-O3'-C3'	5.49	126.29	119.70
62	A5	1022	A	C6-C5-N7	-5.49	128.46	132.30
62	A5	1266	A	C5-N7-C8	-5.49	101.16	103.90
62	A5	1412	A	C6-C5-N7	-5.49	128.46	132.30
62	A5	2125	G	C4-N9-C1'	5.49	133.64	126.50
62	A5	3606	G	N3-C4-N9	5.49	129.29	126.00
62	A5	3627	C	P-O3'-C3'	5.49	126.29	119.70
61	B2	1643	C	C6-N1-C2	-5.49	118.11	120.30
62	A5	356	A	OP2-P-O3'	5.49	117.28	105.20
62	A5	774	A	N1-C2-N3	-5.49	126.56	129.30
62	A5	3410	G	C8-N9-C1'	-5.49	119.86	127.00
62	A5	919	G	N1-C6-O6	5.49	123.19	119.90
62	A5	1868	A	N1-C6-N6	5.49	121.89	118.60
62	A5	3497	G	N7-C8-N9	5.49	115.84	113.10
62	A5	3727	A	C6-C5-N7	5.49	136.14	132.30
62	A5	17	C	N1-C2-O2	5.49	122.19	118.90
62	A5	3621	A	N1-C6-N6	5.49	121.89	118.60
77	CO	21	LEU	CB-CG-CD1	-5.49	101.68	111.00
62	A5	3512	U	C2-N1-C1'	-5.48	111.12	117.70
62	A5	305	G	C6-C5-N7	-5.48	127.11	130.40
62	A5	1710	G	N3-C4-N9	5.48	129.29	126.00
62	A5	3289	U	N1-C2-O2	5.48	126.64	122.80
58	A7	98	G	C8-N9-C4	-5.48	104.21	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	B2	1572	C	C5-C6-N1	5.48	123.74	121.00
62	A5	1872	A	C5-N7-C8	-5.48	101.16	103.90
62	A5	1898	C	N3-C2-O2	-5.48	118.06	121.90
62	A5	2102	G	C4-C5-N7	5.48	112.99	110.80
62	A5	2523	A	C6-N1-C2	-5.48	115.31	118.60
62	A5	2711	C	C6-N1-C1'	5.48	127.38	120.80
58	A7	84	U	O4'-C1'-N1	-5.48	103.82	108.20
62	A5	441	A	C5-C6-N6	-5.48	119.32	123.70
62	A5	2701	G	C2-N3-C4	-5.48	109.16	111.90
62	A5	3503	G	N3-C4-C5	-5.48	125.86	128.60
62	A5	369	A	C4-C5-N7	5.48	113.44	110.70
62	A5	381	G	C6-N1-C2	-5.48	121.81	125.10
61	B2	623	G	C8-N9-C4	-5.48	104.21	106.40
61	B2	550	C	C2-N1-C1'	5.47	124.82	118.80
62	A5	2556	A	C5-C6-N1	5.47	120.44	117.70
62	A5	3120	C	N1-C2-O2	5.47	122.18	118.90
62	A5	3541	A	C8-N9-C4	-5.47	103.61	105.80
62	A5	1102	G	C8-N9-C1'	-5.47	119.89	127.00
62	A5	2502	G	C6-C5-N7	-5.47	127.12	130.40
62	A5	3483	G	OP1-P-OP2	-5.47	111.39	119.60
59	A8	38	G	N1-C2-N2	-5.47	111.28	116.20
62	A5	761	C	C5-C6-N1	5.47	123.73	121.00
62	A5	1370	C	C4-C5-C6	-5.47	114.67	117.40
62	A5	1399	A	C5-N7-C8	-5.47	101.17	103.90
62	A5	1643	G	N1-C2-N3	5.47	127.18	123.90
62	A5	1669	G	C5-C6-O6	5.47	131.88	128.60
62	A5	1793	C	C5-C6-N1	5.47	123.73	121.00
62	A5	2239	C	C5-C6-N1	5.47	123.73	121.00
62	A5	2503	G	N9-C4-C5	-5.47	103.21	105.40
62	A5	2729	U	C5-C6-N1	5.47	125.43	122.70
62	A5	3891	U	P-O3'-C3'	5.47	126.26	119.70
62	A5	59	G	C8-N9-C4	-5.47	104.21	106.40
62	A5	2202	A	C2-N3-C4	5.47	113.33	110.60
62	A5	3589	G	C4-C5-N7	5.47	112.99	110.80
57	A9	9	C	C6-N1-C2	-5.46	118.11	120.30
59	A8	24	G	N3-C4-N9	5.46	129.28	126.00
62	A5	297	U	C6-N1-C1'	5.46	128.85	121.20
62	A5	1609	U	N3-C2-O2	-5.46	118.38	122.20
62	A5	2579	G	C4-C5-C6	5.46	122.08	118.80
62	A5	654	G	O4'-C1'-N9	5.46	112.57	108.20
62	A5	1105	U	C6-N1-C2	-5.46	117.72	121.00
62	A5	2782	A	C5'-C4'-O4'	5.46	115.66	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	3403	G	OP1-P-OP2	-5.46	111.41	119.60
62	A5	835	G	C4-C5-N7	5.46	112.98	110.80
62	A5	1154	U	C2-N1-C1'	5.46	124.25	117.70
62	A5	1414	C	O4'-C1'-N1	5.46	112.57	108.20
62	A5	1711	C	C2-N1-C1'	5.46	124.81	118.80
62	A5	2684	C	C2-N1-C1'	5.46	124.81	118.80
62	A5	3255	G	C4-C5-N7	5.46	112.98	110.80
62	A5	1352	U	C2-N1-C1'	-5.46	111.15	117.70
62	A5	2190	A	C4-C5-N7	5.46	113.43	110.70
62	A5	2204	U	C5-C4-O4	-5.46	122.62	125.90
62	A5	2537	A	C4-C5-N7	5.46	113.43	110.70
59	A8	101	A	OP1-P-OP2	5.46	127.79	119.60
62	A5	1101	A	N1-C6-N6	5.46	121.88	118.60
62	A5	1129	A	N7-C8-N9	5.46	116.53	113.80
62	A5	2650	G	C4-N9-C1'	5.46	133.60	126.50
62	A5	2799	U	N3-C4-C5	5.46	117.88	114.60
61	B2	324	U	C2-N1-C1'	5.46	124.25	117.70
62	A5	67	A	C8-N9-C4	-5.46	103.62	105.80
62	A5	1412	A	C8-N9-C1'	-5.46	117.88	127.70
62	A5	2506	U	N3-C4-C5	-5.46	111.33	114.60
62	A5	3880	A	C6-C5-N7	-5.46	128.48	132.30
62	A5	1773	U	N3-C2-O2	-5.46	118.38	122.20
62	A5	999	U	O5'-P-OP2	-5.45	100.79	105.70
62	A5	1397	A	C4-C5-C6	-5.45	114.27	117.00
62	A5	1731	G	N9-C4-C5	-5.45	103.22	105.40
61	B2	374	C	C5-C6-N1	5.45	123.73	121.00
59	A8	7	A	C8-N9-C1'	-5.45	117.89	127.70
62	A5	440	U	C6-N1-C2	-5.45	117.73	121.00
62	A5	1030	A	N1-C6-N6	-5.45	115.33	118.60
62	A5	1117	A	C4-N9-C1'	5.45	136.11	126.30
62	A5	1151	A	C6-N1-C2	-5.45	115.33	118.60
62	A5	238	G	C4-N9-C1'	5.45	133.58	126.50
62	A5	3491	C	C5-C4-N4	-5.45	116.39	120.20
62	A5	3844	U	C5-C6-N1	-5.45	119.98	122.70
62	A5	1576	U	N1-C2-O2	5.44	126.61	122.80
61	B2	1594	A	P-O3'-C3'	5.44	126.23	119.70
62	A5	914	C	C6-N1-C2	-5.44	118.12	120.30
62	A5	2720	U	O5'-P-OP1	-5.44	100.80	105.70
62	A5	3343	A	N7-C8-N9	5.44	116.52	113.80
58	A7	47	C	N3-C2-O2	-5.44	118.09	121.90
62	A5	782	G	C5-N7-C8	-5.44	101.58	104.30
62	A5	1375	G	C6-N1-C2	-5.44	121.83	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1621	A	N1-C6-N6	5.44	121.86	118.60
62	A5	1723	G	N1-C2-N3	5.44	127.17	123.90
62	A5	3327	U	C5-C6-N1	-5.44	119.98	122.70
62	A5	3603	C	O4'-C1'-N1	5.44	112.55	108.20
62	A5	1540	U	C5-C6-N1	5.44	125.42	122.70
62	A5	2706	U	C5-C6-N1	5.44	125.42	122.70
62	A5	3485	U	C5-C4-O4	5.44	129.16	125.90
62	A5	3890	G	P-O3'-C3'	5.44	126.23	119.70
71	CF	96	VAL	CG1-CB-CG2	-5.44	102.20	110.90
62	A5	445	C	C6-N1-C1'	5.44	127.32	120.80
62	A5	876	G	C6-C5-N7	-5.44	127.14	130.40
62	A5	1082	A	C5-N7-C8	-5.44	101.18	103.90
62	A5	1117	A	C5-C6-N6	-5.44	119.35	123.70
62	A5	1785	G	C4-C5-C6	5.44	122.06	118.80
62	A5	2239	C	N1-C2-O2	-5.44	115.64	118.90
62	A5	2791	A	C2-N3-C4	-5.44	107.88	110.60
61	B2	848	C	C2-N1-C1'	5.43	124.78	118.80
62	A5	2805	C	C5-C6-N1	5.43	123.72	121.00
62	A5	3132	C	C5-C6-N1	5.43	123.72	121.00
61	B2	616	U	C2-N1-C1'	5.43	124.22	117.70
62	A5	1516	A	C8-N9-C4	5.43	107.97	105.80
62	A5	1676	A	C4-C5-N7	5.43	113.42	110.70
62	A5	2173	C	C6-N1-C2	-5.43	118.13	120.30
62	A5	2494	G	N1-C6-O6	5.43	123.16	119.90
62	A5	2708	C	C2-N1-C1'	5.43	124.78	118.80
61	B2	1215	G	N3-C2-N2	5.43	123.70	119.90
62	A5	1610	A	N1-C6-N6	5.43	121.86	118.60
62	A5	1974	U	C2-N1-C1'	5.43	124.22	117.70
59	A8	19	A	OP1-P-OP2	-5.43	111.46	119.60
62	A5	385	A	C5-N7-C8	-5.43	101.19	103.90
62	A5	1612	G	C8-N9-C4	-5.43	104.23	106.40
62	A5	2166	U	C4-C5-C6	5.43	122.96	119.70
62	A5	3677	U	C2-N1-C1'	5.43	124.22	117.70
61	B2	250	U	P-O3'-C3'	5.43	126.21	119.70
62	A5	41	U	C6-N1-C2	-5.43	117.74	121.00
62	A5	43	A	C4-C5-C6	-5.43	114.29	117.00
62	A5	94	C	C6-N1-C2	-5.43	118.13	120.30
62	A5	1106	A	C5-C6-N6	-5.43	119.36	123.70
62	A5	1129	A	C8-N9-C1'	-5.43	117.93	127.70
62	A5	2212	A	C4-C5-N7	5.43	113.41	110.70
62	A5	1499	C	N1-C2-O2	5.43	122.16	118.90
62	A5	2781	G	C4-N9-C1'	5.43	133.55	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	303	G	C4-N9-C1'	5.42	133.55	126.50
62	A5	3477	A	N3-C4-C5	5.42	130.60	126.80
62	A5	3485	U	N3-C2-O2	-5.42	118.40	122.20
62	A5	1170	U	N1-C2-N3	5.42	118.15	114.90
62	A5	310	A	C5-N7-C8	-5.42	101.19	103.90
62	A5	818	A	C5-C6-N6	-5.42	119.36	123.70
62	A5	1747	A	C8-N9-C4	-5.42	103.63	105.80
61	B2	1856	U	N1-C2-O2	5.42	126.59	122.80
62	A5	1556	C	C6-N1-C2	-5.42	118.13	120.30
62	A5	2196	U	N3-C4-O4	-5.42	115.61	119.40
61	B2	257	U	C6-N1-C1'	5.42	128.78	121.20
61	B2	1009	U	N3-C2-O2	-5.42	118.41	122.20
62	A5	1778	A	C4-C5-N7	5.42	113.41	110.70
62	A5	3883	G	N3-C4-N9	5.42	129.25	126.00
62	A5	918	G	C6-C5-N7	-5.42	127.15	130.40
62	A5	1097	A	C4-N9-C1'	5.42	136.05	126.30
62	A5	1747	A	C5-N7-C8	-5.42	101.19	103.90
62	A5	3132	C	C6-N1-C2	-5.42	118.13	120.30
62	A5	3519	C	C6-N1-C2	-5.42	118.13	120.30
58	A7	104	C	C6-N1-C2	-5.41	118.13	120.30
61	B2	1706	U	N1-C2-O2	5.41	126.59	122.80
62	A5	240	G	C8-N9-C1'	-5.41	119.96	127.00
62	A5	1362	G	N1-C2-N2	-5.41	111.33	116.20
62	A5	3950	A	C8-N9-C4	-5.41	103.64	105.80
62	A5	2504	A	C4-C5-N7	5.41	113.41	110.70
62	A5	2566	A	C6-C5-N7	-5.41	128.51	132.30
58	A7	9	C	C6-N1-C2	-5.41	118.14	120.30
62	A5	864	G	N1-C2-N2	-5.41	111.33	116.20
62	A5	874	G	N7-C8-N9	5.41	115.81	113.10
62	A5	1756	G	N1-C6-O6	5.41	123.15	119.90
62	A5	1973	G	C5-C6-N1	-5.41	108.80	111.50
62	A5	1080	G	N3-C2-N2	5.41	123.69	119.90
62	A5	1606	G	C8-N9-C4	-5.41	104.24	106.40
62	A5	1657	G	N3-C4-N9	-5.41	122.75	126.00
62	A5	3014	G	C4-C5-N7	5.41	112.96	110.80
62	A5	381	G	C6-C5-N7	-5.41	127.16	130.40
62	A5	851	G	C6-C5-N7	-5.41	127.16	130.40
62	A5	90	G	C5-C6-N1	-5.41	108.80	111.50
62	A5	430	G	C8-N9-C1'	-5.41	119.97	127.00
62	A5	2202	A	O5'-P-OP2	-5.41	100.83	105.70
62	A5	2805	C	C6-N1-C2	-5.41	118.14	120.30
62	A5	3148	C	C2-N1-C1'	5.41	124.75	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	A7	29	C	N3-C2-O2	-5.40	118.12	121.90
58	A7	65	C	N3-C2-O2	-5.40	118.12	121.90
62	A5	747	U	C2-N1-C1'	5.40	124.19	117.70
62	A5	2580	C	C6-N1-C1'	5.40	127.28	120.80
62	A5	3144	U	C2-N1-C1'	5.40	124.19	117.70
62	A5	3470	G	C4-C5-N7	5.40	112.96	110.80
62	A5	587	U	C6-N1-C1'	-5.40	113.64	121.20
62	A5	1194	A	N7-C8-N9	5.40	116.50	113.80
62	A5	1550	U	O4'-C1'-N1	5.40	112.52	108.20
62	A5	1735	G	C8-N9-C1'	-5.40	119.98	127.00
62	A5	2158	U	N3-C2-O2	-5.40	118.42	122.20
62	A5	2078	C	C6-N1-C2	-5.40	118.14	120.30
62	A5	382	G	C5-N7-C8	-5.40	101.60	104.30
6	CC	195	GLY	C-N-CA	5.40	135.19	121.70
62	A5	1092	U	C2-N1-C1'	-5.40	111.22	117.70
62	A5	2761	A	C2-N3-C4	5.40	113.30	110.60
62	A5	1076	A	C8-N9-C4	-5.40	103.64	105.80
62	A5	1372	A	C6-C5-N7	-5.40	128.52	132.30
62	A5	2517	A	N1-C2-N3	5.40	132.00	129.30
61	B2	362	G	N3-C4-N9	5.39	129.24	126.00
62	A5	1329	G	C4-C5-N7	5.39	112.96	110.80
62	A5	2572	G	N1-C6-O6	-5.39	116.66	119.90
62	A5	2679	U	N1-C2-O2	5.39	126.58	122.80
62	A5	1067	A	C5-N7-C8	-5.39	101.20	103.90
62	A5	2625	G	C8-N9-C1'	-5.39	119.99	127.00
61	B2	1208	U	N1-C2-N3	5.39	118.13	114.90
61	B2	1954	C	N1-C2-O2	5.39	122.13	118.90
62	A5	27	A	N3-C4-C5	5.39	130.57	126.80
62	A5	421	C	OP2-P-O3'	5.39	117.06	105.20
62	A5	796	A	O5'-P-OP1	5.39	117.17	110.70
62	A5	1206	G	N3-C2-N2	5.39	123.67	119.90
59	A8	28	A	C6-C5-N7	-5.39	128.53	132.30
62	A5	428	C	C2-N1-C1'	5.39	124.73	118.80
62	A5	1077	C	C4-C5-C6	-5.39	114.71	117.40
62	A5	1356	G	C4-C5-C6	5.39	122.03	118.80
62	A5	1618	A	N1-C6-N6	5.39	121.83	118.60
62	A5	3303	G	N3-C4-N9	-5.39	122.77	126.00
59	A8	10	C	N3-C4-C5	-5.39	119.75	121.90
61	B2	1816	C	N3-C2-O2	-5.39	118.13	121.90
62	A5	1677	U	C5-C6-N1	5.39	125.39	122.70
62	A5	1699	A	C5-N7-C8	-5.39	101.21	103.90
62	A5	2800	C	N1-C2-N3	5.39	122.97	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	3293	G	C6-C5-N7	-5.39	127.17	130.40
62	A5	3477	A	C5-C6-N1	5.39	120.39	117.70
61	B2	1585	A	C8-N9-C1'	-5.38	118.01	127.70
62	A5	3544	G	N7-C8-N9	5.38	115.79	113.10
62	A5	2505	A	N1-C6-N6	5.38	121.83	118.60
62	A5	3491	C	C6-N1-C2	-5.38	118.15	120.30
62	A5	3666	C	C2-N1-C1'	5.38	124.72	118.80
11	AM	39	VAL	C-N-CA	5.38	135.15	121.70
59	A8	100	G	N7-C8-N9	5.38	115.79	113.10
62	A5	343	A	C8-N9-C4	5.38	107.95	105.80
62	A5	2708	C	C5-C6-N1	5.38	123.69	121.00
62	A5	1683	U	N1-C2-N3	5.38	118.13	114.90
62	A5	45	G	C4-N9-C1'	5.38	133.49	126.50
62	A5	65	A	OP2-P-O3'	5.38	117.03	105.20
62	A5	1104	A	C4-C5-C6	5.38	119.69	117.00
62	A5	1153	G	N3-C4-N9	-5.38	122.77	126.00
62	A5	259	A	N9-C4-C5	-5.38	103.65	105.80
62	A5	261	U	C5-C6-N1	5.38	125.39	122.70
62	A5	1134	G	C4-N9-C1'	5.38	133.49	126.50
62	A5	1362	G	C5-C6-O6	5.38	131.83	128.60
62	A5	1401	C	N3-C4-N4	5.38	121.76	118.00
62	A5	2261	G	C6-C5-N7	-5.38	127.17	130.40
62	A5	839	A	N1-C2-N3	-5.38	126.61	129.30
62	A5	1606	G	C5-N7-C8	-5.38	101.61	104.30
62	A5	1393	A	C8-N9-C4	-5.37	103.65	105.80
62	A5	1521	G	N3-C4-C5	-5.37	125.91	128.60
62	A5	1775	C	C2-N1-C1'	5.37	124.71	118.80
62	A5	2732	C	C6-N1-C1'	-5.37	114.35	120.80
62	A5	2762	A	N7-C8-N9	5.37	116.49	113.80
62	A5	3156	G	C8-N9-C1'	-5.37	120.02	127.00
62	A5	3239	C	N1-C2-O2	5.37	122.12	118.90
62	A5	3348	G	C5-C6-N1	5.37	114.19	111.50
62	A5	2705	U	N3-C2-O2	5.37	125.96	122.20
62	A5	1616	G	C4-N9-C1'	5.37	133.48	126.50
62	A5	1892	C	N3-C2-O2	-5.37	118.14	121.90
59	A8	107	U	N1-C2-O2	5.37	126.56	122.80
62	A5	1109	G	N3-C4-N9	-5.37	122.78	126.00
62	A5	1524	U	C5-C6-N1	5.37	125.38	122.70
62	A5	1692	G	N3-C4-N9	5.37	129.22	126.00
62	A5	2732	C	N1-C2-O2	5.37	122.12	118.90
62	A5	2773	G	N1-C2-N3	-5.37	120.68	123.90
62	A5	3431	C	N1-C2-O2	5.37	122.12	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	B2	1984	G	C4-N9-C1'	5.37	133.48	126.50
62	A5	2617	G	C6-C5-N7	-5.37	127.18	130.40
59	A8	41	G	N7-C8-N9	5.37	115.78	113.10
61	B2	1283	C	C6-N1-C2	-5.37	118.15	120.30
62	A5	56	A	OP1-P-O3'	5.37	117.00	105.20
62	A5	1201	U	C6-N1-C2	-5.37	117.78	121.00
62	A5	1782	C	C4-C5-C6	-5.37	114.72	117.40
62	A5	2002	C	C5-C6-N1	5.37	123.68	121.00
62	A5	2548	G	C2-N3-C4	-5.37	109.22	111.90
62	A5	2692	U	C5-C6-N1	5.37	125.38	122.70
62	A5	2904	U	P-O3'-C3'	5.37	126.14	119.70
62	A5	2585	A	C2-N3-C4	5.36	113.28	110.60
62	A5	3591	A	C4-C5-N7	5.36	113.38	110.70
62	A5	739	U	N3-C2-O2	-5.36	118.45	122.20
62	A5	1320	U	N1-C2-O2	5.36	126.55	122.80
62	A5	1649	G	N9-C4-C5	-5.36	103.25	105.40
62	A5	2513	G	C8-N9-C1'	-5.36	120.03	127.00
62	A5	1082	A	N3-C4-C5	-5.36	123.05	126.80
62	A5	1608	G	C4-N9-C1'	5.36	133.47	126.50
62	A5	2053	A	N7-C8-N9	5.36	116.48	113.80
62	A5	2698	A	N1-C6-N6	-5.36	115.38	118.60
61	B2	1058	A	C4-C5-N7	5.36	113.38	110.70
62	A5	31	C	N1-C2-N3	5.36	122.95	119.20
62	A5	1152	A	C5-C6-N1	5.36	120.38	117.70
61	B2	1207	G	C4-C5-N7	5.36	112.94	110.80
61	B2	1569	C	N1-C2-O2	5.36	122.11	118.90
62	A5	1523	A	C4-C5-N7	-5.36	108.02	110.70
62	A5	3483	G	C6-N1-C2	5.36	128.31	125.10
62	A5	429	U	C6-N1-C2	-5.36	117.79	121.00
62	A5	1539	A	C8-N9-C4	-5.36	103.66	105.80
62	A5	2542	C	C2-N3-C4	-5.36	117.22	119.90
62	A5	3264	A	C4-N9-C1'	5.36	135.94	126.30
62	A5	985	G	C4-C5-N7	5.35	112.94	110.80
62	A5	1636	G	C8-N9-C4	-5.35	104.26	106.40
62	A5	2494	G	C6-C5-N7	-5.35	127.19	130.40
62	A5	3131	C	C6-N1-C1'	-5.35	114.38	120.80
5	AC	263	LEU	CA-CB-CG	5.35	127.61	115.30
62	A5	424	G	N3-C2-N2	-5.35	116.15	119.90
62	A5	447	G	C6-C5-N7	-5.35	127.19	130.40
62	A5	864	G	C2-N3-C4	-5.35	109.22	111.90
62	A5	1510	G	N1-C6-O6	5.35	123.11	119.90
62	A5	1748	C	N3-C2-O2	-5.35	118.15	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	3293	G	N9-C4-C5	-5.35	103.26	105.40
62	A5	807	A	C4-C5-N7	5.35	113.38	110.70
62	A5	1357	C	N3-C2-O2	-5.35	118.15	121.90
62	A5	1536	U	C6-N1-C2	-5.35	117.79	121.00
62	A5	1612	G	C5-N7-C8	-5.35	101.62	104.30
62	A5	1622	U	N1-C2-O2	5.35	126.55	122.80
62	A5	2781	G	C8-N9-C4	-5.35	104.26	106.40
4	CB	245	HIS	N-CA-CB	-5.35	100.97	110.60
6	CC	47	LEU	CB-CG-CD1	-5.35	101.91	111.00
62	A5	1279	C	C2-N1-C1'	5.35	124.68	118.80
62	A5	1643	G	C5-C6-O6	-5.35	125.39	128.60
62	A5	1792	G	C5-C6-O6	-5.35	125.39	128.60
62	A5	2191	G	C5-N7-C8	-5.35	101.62	104.30
62	A5	2511	C	C6-N1-C1'	5.35	127.22	120.80
62	A5	2753	G	OP2-P-O3'	5.35	116.97	105.20
59	A8	7	A	C8-N9-C4	-5.35	103.66	105.80
62	A5	49	A	N1-C6-N6	-5.35	115.39	118.60
62	A5	1194	A	C4-N9-C1'	5.35	135.93	126.30
62	A5	1521	G	C8-N9-C1'	-5.35	120.05	127.00
62	A5	2729	U	O4'-C1'-N1	5.35	112.48	108.20
62	A5	2767	U	C5-C4-O4	-5.35	122.69	125.90
62	A5	3003	C	C5-C6-N1	5.35	123.67	121.00
62	A5	3486	U	N3-C2-O2	-5.35	118.46	122.20
62	A5	3516	C	C2-N1-C1'	5.35	124.68	118.80
62	A5	3530	A	C2-N3-C4	5.35	113.27	110.60
57	A9	17	G	C4-C5-N7	5.34	112.94	110.80
59	A8	66	U	N3-C2-O2	-5.34	118.46	122.20
62	A5	661	G	N3-C4-N9	5.34	129.21	126.00
62	A5	1169	C	C5-C4-N4	-5.34	116.46	120.20
62	A5	1679	U	C6-N1-C2	-5.34	117.79	121.00
62	A5	2100	U	N1-C2-O2	5.34	126.54	122.80
62	A5	3753	A	C5-N7-C8	5.34	106.57	103.90
62	A5	802	G	C5-N7-C8	-5.34	101.63	104.30
62	A5	1545	A	C4-N9-C1'	5.34	135.92	126.30
59	A8	14	G	N7-C8-N9	5.34	115.77	113.10
62	A5	25	G	C4-C5-N7	-5.34	108.66	110.80
62	A5	660	A	C5-C6-N1	-5.34	115.03	117.70
62	A5	422	G	C2-N3-C4	-5.34	109.23	111.90
62	A5	1546	U	C5-C4-O4	5.34	129.10	125.90
62	A5	1681	G	N9-C4-C5	5.34	107.54	105.40
62	A5	2112	A	C4-C5-N7	5.34	113.37	110.70
62	A5	2218	G	C4-C5-C6	5.34	122.00	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	3612	A	C4-N9-C1'	5.34	135.91	126.30
62	A5	3615	G	C8-N9-C1'	-5.34	120.06	127.00
59	A8	35	G	C2-N3-C4	5.34	114.57	111.90
62	A5	994	U	C5-C6-N1	5.34	125.37	122.70
62	A5	1136	A	N1-C2-N3	5.34	131.97	129.30
62	A5	1167	A	C5-N7-C8	-5.34	101.23	103.90
62	A5	3131	C	N3-C2-O2	-5.34	118.16	121.90
62	A5	3460	C	C5-C4-N4	-5.34	116.47	120.20
62	A5	3495	G	N1-C6-O6	-5.34	116.70	119.90
62	A5	3678	G	C8-N9-C4	-5.34	104.27	106.40
61	B2	623	G	N3-C4-C5	-5.33	125.93	128.60
62	A5	3597	C	C5-C6-N1	5.33	123.67	121.00
62	A5	2704	A	N1-C6-N6	5.33	121.80	118.60
62	A5	93	G	C6-C5-N7	-5.33	127.20	130.40
62	A5	1000	G	C4-N9-C1'	5.33	133.43	126.50
62	A5	3146	G	OP2-P-O3'	5.33	116.93	105.20
62	A5	3506	U	N3-C4-C5	5.33	117.80	114.60
62	A5	380	G	N3-C4-N9	-5.33	122.80	126.00
62	A5	1350	A	N7-C8-N9	5.33	116.47	113.80
62	A5	2035	C	N3-C2-O2	-5.33	118.17	121.90
62	A5	3407	U	N3-C2-O2	-5.33	118.47	122.20
59	A8	72	C	C5-C6-N1	5.33	123.66	121.00
62	A5	240	G	N9-C4-C5	-5.33	103.27	105.40
62	A5	1020	A	C5-C6-N6	-5.33	119.44	123.70
62	A5	2540	G	N1-C2-N3	5.33	127.10	123.90
64	AW	28	ARG	C-N-CD	-5.33	108.88	120.60
61	B2	705	G	C4-N9-C1'	5.33	133.42	126.50
61	B2	1408	A	O4'-C1'-N9	-5.33	103.94	108.20
62	A5	27	A	C2-N3-C4	-5.33	107.94	110.60
62	A5	130	C	C6-N1-C2	-5.33	118.17	120.30
62	A5	428	C	N1-C2-O2	5.33	122.09	118.90
62	A5	1080	G	C4-C5-N7	-5.33	108.67	110.80
62	A5	1599	C	C6-N1-C2	-5.33	118.17	120.30
62	A5	2506	U	N3-C4-O4	5.33	123.13	119.40
62	A5	2506	U	C4-C5-C6	5.32	122.89	119.70
62	A5	976	A	N7-C8-N9	5.32	116.46	113.80
62	A5	1637	U	C5-C6-N1	5.32	125.36	122.70
62	A5	1353	G	C4-C5-C6	5.32	121.99	118.80
62	A5	2221	G	C6-N1-C2	-5.32	121.91	125.10
62	A5	2798	C	N3-C4-N4	5.32	121.72	118.00
61	B2	1361	C	N3-C2-O2	-5.32	118.18	121.90
62	A5	25	G	C8-N9-C4	5.32	108.53	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	119	G	N1-C6-O6	5.32	123.09	119.90
62	A5	375	C	O5'-P-OP2	-5.32	100.92	105.70
62	A5	1381	U	N3-C4-O4	5.32	123.12	119.40
62	A5	2739	A	N3-C4-N9	5.32	131.65	127.40
62	A5	3130	G	C4-N9-C1'	5.32	133.41	126.50
62	A5	3142	G	C4-N9-C1'	5.32	133.41	126.50
62	A5	3346	G	C4-C5-N7	-5.32	108.67	110.80
45	Cf	46	ARG	CA-CB-CG	5.32	125.10	113.40
62	A5	355	G	N3-C2-N2	-5.32	116.18	119.90
62	A5	1677	U	N1-C2-N3	-5.32	111.71	114.90
62	A5	2748	G	N1-C6-O6	5.32	123.09	119.90
62	A5	3497	G	C5-C6-O6	-5.32	125.41	128.60
62	A5	2520	U	P-O3'-C3'	5.31	126.08	119.70
62	A5	3298	U	N3-C2-O2	-5.31	118.48	122.20
62	A5	3677	U	N1-C1'-C2'	5.31	120.91	114.00
61	B2	1168	C	C6-N1-C2	-5.31	118.17	120.30
62	A5	126	G	C8-N9-C1'	-5.31	120.09	127.00
62	A5	1082	A	N9-C4-C5	5.31	107.92	105.80
62	A5	2066	G	C8-N9-C4	-5.31	104.28	106.40
62	A5	2689	G	C4-C5-N7	5.31	112.92	110.80
62	A5	2805	C	C6-N1-C1'	-5.31	114.42	120.80
62	A5	2179	G	C5-N7-C8	-5.31	101.64	104.30
62	A5	2514	U	N3-C4-C5	-5.31	111.41	114.60
61	B2	1028	A	C8-N9-C4	-5.31	103.68	105.80
62	A5	34	C	C5-C6-N1	-5.31	118.35	121.00
62	A5	1091	G	C5-N7-C8	-5.31	101.64	104.30
62	A5	1737	U	N1-C2-O2	5.31	126.52	122.80
62	A5	3410	G	C5-N7-C8	-5.31	101.64	104.30
62	A5	3678	G	C5-N7-C8	-5.31	101.64	104.30
61	B2	362	G	N9-C4-C5	-5.31	103.28	105.40
61	B2	634	U	N3-C2-O2	-5.31	118.48	122.20
62	A5	2243	G	N3-C4-C5	-5.31	125.95	128.60
62	A5	3395	G	C4-C5-C6	5.31	121.98	118.80
62	A5	1000	G	N1-C6-O6	-5.30	116.72	119.90
62	A5	2202	A	N1-C2-N3	-5.30	126.65	129.30
61	B2	1984	G	C6-N1-C2	-5.30	121.92	125.10
62	A5	1880	A	O4'-C1'-N9	5.30	112.44	108.20
62	A5	2098	C	C5-C6-N1	5.30	123.65	121.00
62	A5	1164	G	C4-N9-C1'	5.30	133.39	126.50
62	A5	1658	G	N3-C2-N2	-5.30	116.19	119.90
62	A5	1785	G	N9-C4-C5	5.30	107.52	105.40
62	A5	3426	U	C2-N1-C1'	5.30	124.06	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	3677	U	C6-N1-C2	-5.30	117.82	121.00
62	A5	1101	A	C6-C5-N7	-5.30	128.59	132.30
62	A5	1539	A	C5-N7-C8	-5.30	101.25	103.90
62	A5	2751	A	N1-C2-N3	5.30	131.95	129.30
61	B2	1116	G	C2-N3-C4	-5.30	109.25	111.90
61	B2	1967	C	N3-C2-O2	-5.30	118.19	121.90
62	A5	424	G	N3-C4-N9	-5.30	122.82	126.00
62	A5	791	C	C2-N1-C1'	5.30	124.62	118.80
62	A5	1109	G	C4-N9-C1'	-5.30	119.61	126.50
62	A5	1360	U	O5'-P-OP1	-5.30	100.93	105.70
62	A5	1697	U	N3-C4-O4	5.30	123.11	119.40
62	A5	2776	A	OP2-P-O3'	5.30	116.85	105.20
62	A5	37	G	C4-N9-C1'	-5.29	119.62	126.50
62	A5	923	U	O4'-C1'-N1	5.29	112.44	108.20
62	A5	2756	C	N3-C4-N4	5.29	121.71	118.00
62	A5	3497	G	C6-C5-N7	-5.29	127.22	130.40
62	A5	1080	G	N1-C2-N2	-5.29	111.44	116.20
62	A5	1142	U	C6-N1-C1'	-5.29	113.79	121.20
62	A5	2050	U	N3-C2-O2	-5.29	118.50	122.20
62	A5	2490	G	N1-C6-O6	5.29	123.08	119.90
62	A5	3130	G	C4-C5-N7	5.29	112.92	110.80
62	A5	345	A	C2-N3-C4	5.29	113.25	110.60
62	A5	445	C	C2-N1-C1'	-5.29	112.98	118.80
62	A5	1294	U	OP2-P-O3'	5.29	116.84	105.20
62	A5	3156	G	C4-N9-C1'	5.29	133.38	126.50
59	A8	96	U	N1-C2-O2	5.29	126.50	122.80
61	B2	1981	G	N3-C4-C5	5.29	131.24	128.60
62	A5	754	A	N9-C4-C5	-5.29	103.69	105.80
62	A5	2213	G	C4-C5-N7	5.29	112.92	110.80
62	A5	2514	U	N3-C2-O2	-5.29	118.50	122.20
62	A5	2759	G	N1-C6-O6	-5.29	116.73	119.90
62	A5	756	C	C6-N1-C1'	-5.29	114.45	120.80
61	B2	849	U	C2-N1-C1'	5.29	124.04	117.70
62	A5	1368	A	C5-N7-C8	5.29	106.54	103.90
62	A5	2537	A	C8-N9-C4	5.29	107.91	105.80
62	A5	3614	U	C5-C6-N1	5.29	125.34	122.70
61	B2	15	U	N1-C2-O2	5.28	126.50	122.80
61	B2	250	U	OP1-P-O3'	5.28	116.82	105.20
62	A5	783	G	N1-C6-O6	5.28	123.07	119.90
62	A5	997	U	C2-N3-C4	5.28	130.17	127.00
62	A5	1507	C	N1-C2-O2	5.28	122.07	118.90
62	A5	1554	C	C2-N3-C4	-5.28	117.26	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1595	G	C6-C5-N7	-5.28	127.23	130.40
62	A5	2799	U	C4-C5-C6	-5.28	116.53	119.70
62	A5	1024	U	N1-C2-O2	5.28	126.50	122.80
62	A5	2572	G	C6-N1-C2	-5.28	121.93	125.10
62	A5	420	A	N7-C8-N9	5.28	116.44	113.80
62	A5	996	C	N3-C4-N4	5.28	121.70	118.00
62	A5	1329	G	N7-C8-N9	5.28	115.74	113.10
62	A5	3589	G	O4'-C1'-N9	-5.28	103.97	108.20
62	A5	1071	U	N1-C2-N3	5.28	118.07	114.90
62	A5	1538	U	C5-C4-O4	5.28	129.07	125.90
62	A5	1641	U	C5-C6-N1	5.28	125.34	122.70
62	A5	381	G	N7-C8-N9	5.28	115.74	113.10
62	A5	1656	U	C5-C6-N1	5.28	125.34	122.70
61	B2	1582	C	C6-N1-C1'	-5.27	114.47	120.80
62	A5	1060	G	O5'-P-OP1	-5.27	100.95	105.70
62	A5	2206	U	C6-N1-C1'	-5.27	113.82	121.20
30	CD	188	LYS	C-N-CA	5.27	134.88	121.70
61	B2	38	C	C6-N1-C2	-5.27	118.19	120.30
62	A5	39	A	C5-C6-N6	5.27	127.92	123.70
62	A5	2165	C	N3-C4-N4	5.27	121.69	118.00
62	A5	2184	G	C5-N7-C8	-5.27	101.66	104.30
62	A5	2227	U	C5-C4-O4	-5.27	122.74	125.90
62	A5	2514	U	C5-C6-N1	5.27	125.34	122.70
62	A5	1105	U	C5-C6-N1	5.27	125.33	122.70
62	A5	2776	A	P-O3'-C3'	5.27	126.03	119.70
62	A5	103	A	C5-C6-N1	5.27	120.33	117.70
62	A5	1129	A	C5-C6-N1	5.27	120.33	117.70
62	A5	1364	A	C5-N7-C8	-5.27	101.27	103.90
62	A5	3619	U	C2-N1-C1'	-5.27	111.38	117.70
61	B2	374	C	C6-N1-C1'	5.27	127.12	120.80
62	A5	996	C	C5-C4-N4	-5.27	116.51	120.20
62	A5	1005	G	N7-C8-N9	5.27	115.73	113.10
62	A5	1666	A	C8-N9-C4	-5.27	103.69	105.80
62	A5	2167	G	N7-C8-N9	5.27	115.73	113.10
62	A5	2210	U	O5'-P-OP2	-5.27	100.96	105.70
62	A5	2515	C	N3-C4-C5	-5.27	119.79	121.90
62	A5	3657	A	C8-N9-C4	-5.27	103.69	105.80
62	A5	3764	G	C8-N9-C1'	-5.27	120.15	127.00
61	B2	1234	G	N3-C4-C5	-5.27	125.97	128.60
62	A5	1387	G	C4-C5-N7	5.27	112.91	110.80
12	AS	91	ILE	C-N-CA	5.26	134.86	121.70
61	B2	355	G	N3-C4-N9	5.26	129.16	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1096	A	C2-N3-C4	5.26	113.23	110.60
62	A5	1797	A	C5-C6-N1	5.26	120.33	117.70
62	A5	3333	A	C5-C6-N1	5.26	120.33	117.70
62	A5	1120	A	C8-N9-C4	5.26	107.91	105.80
62	A5	1147	U	OP2-P-O3'	5.26	116.78	105.20
62	A5	2261	G	C4-C5-N7	5.26	112.91	110.80
62	A5	345	A	C8-N9-C1'	-5.26	118.23	127.70
42	Cc	20	LEU	CA-CB-CG	5.26	127.40	115.30
61	B2	1169	C	N3-C2-O2	-5.26	118.22	121.90
62	A5	1995	U	C2-N1-C1'	5.26	124.01	117.70
62	A5	2217	A	C8-N9-C4	-5.26	103.70	105.80
62	A5	3363	G	C8-N9-C4	-5.26	104.30	106.40
62	A5	3958	C	N3-C2-O2	-5.26	118.22	121.90
61	B2	1344	A	C4-N9-C1'	5.26	135.76	126.30
62	A5	1385	G	OP1-P-OP2	-5.26	111.71	119.60
62	A5	1707	A	N7-C8-N9	5.26	116.43	113.80
62	A5	2052	G	N3-C2-N2	-5.26	116.22	119.90
62	A5	2517	A	C6-N1-C2	-5.26	115.44	118.60
62	A5	2753	G	N3-C4-N9	5.26	129.16	126.00
62	A5	161	G	C6-C5-N7	-5.26	127.25	130.40
62	A5	1523	A	C8-N9-C1'	5.26	137.16	127.70
62	A5	3393	U	P-O3'-C3'	5.26	126.01	119.70
62	A5	3417	C	C5-C6-N1	5.26	123.63	121.00
62	A5	3482	G	C4-N9-C1'	5.26	133.33	126.50
20	AZ	48	LEU	CA-CB-CG	5.25	127.39	115.30
59	A8	37	U	C6-N1-C1'	-5.25	113.84	121.20
61	B2	831	U	N1-C2-O2	5.25	126.48	122.80
62	A5	370	A	C5-N7-C8	-5.25	101.27	103.90
62	A5	751	A	N3-C4-C5	-5.25	123.12	126.80
62	A5	2233	C	C5-C6-N1	5.25	123.63	121.00
62	A5	3184	U	N3-C2-O2	-5.25	118.52	122.20
62	A5	1004	C	C2-N3-C4	5.25	122.53	119.90
62	A5	1750	G	C2-N3-C4	5.25	114.53	111.90
62	A5	3401	U	N3-C4-C5	-5.25	111.45	114.60
62	A5	3535	G	C4-N9-C1'	5.25	133.33	126.50
62	A5	615	C	C5-C6-N1	5.25	123.63	121.00
62	A5	1514	U	C5-C6-N1	5.25	125.33	122.70
62	A5	1529	C	C6-N1-C2	5.25	122.40	120.30
62	A5	1702	G	N9-C4-C5	5.25	107.50	105.40
62	A5	2531	A	N1-C6-N6	5.25	121.75	118.60
62	A5	2563	G	P-O3'-C3'	5.25	126.00	119.70
61	B2	1856	U	C2-N1-C1'	5.25	124.00	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1526	G	N3-C4-C5	-5.25	125.97	128.60
61	B2	1020	U	N1-C2-O2	5.25	126.47	122.80
62	A5	805	C	C4-C5-C6	-5.25	114.78	117.40
62	A5	2165	C	O5'-P-OP1	-5.25	100.98	105.70
62	A5	2503	G	N1-C6-O6	5.25	123.05	119.90
62	A5	2617	G	C4-N9-C1'	5.25	133.32	126.50
57	A9	21	G	P-O3'-C3'	5.24	125.99	119.70
62	A5	119	G	C4-C5-N7	5.24	112.90	110.80
62	A5	633	A	C5-C6-N1	5.24	120.32	117.70
62	A5	783	G	C5-C6-O6	-5.24	125.45	128.60
62	A5	1067	A	N7-C8-N9	5.24	116.42	113.80
62	A5	1591	U	N3-C2-O2	-5.24	118.53	122.20
62	A5	2208	G	C2-N3-C4	-5.24	109.28	111.90
62	A5	3293	G	C5-C6-O6	-5.24	125.45	128.60
62	A5	3543	A	N1-C6-N6	5.24	121.75	118.60
62	A5	2527	A	O5'-P-OP2	-5.24	100.98	105.70
59	A8	27	C	N3-C4-C5	-5.24	119.80	121.90
62	A5	1080	G	C5-N7-C8	5.24	106.92	104.30
62	A5	1624	G	C2-N3-C4	-5.24	109.28	111.90
62	A5	3499	G	C2-N3-C4	-5.24	109.28	111.90
62	A5	310	A	C4-C5-N7	5.24	113.32	110.70
62	A5	1359	G	C4-C5-C6	5.24	121.94	118.80
62	A5	2659	A	C8-N9-C4	5.24	107.89	105.80
81	B	70	C	O4'-C1'-N1	5.24	112.39	108.20
62	A5	93	G	C4-C5-C6	5.24	121.94	118.80
62	A5	136	C	N1-C2-O2	5.24	122.04	118.90
62	A5	3627	C	C5-C4-N4	-5.24	116.53	120.20
24	Ae	116	ASN	C-N-CA	5.24	134.79	121.70
61	B2	1339	C	N1-C2-O2	5.24	122.04	118.90
62	A5	378	G	C5-N7-C8	-5.24	101.68	104.30
62	A5	1331	G	C4-N9-C1'	5.24	133.31	126.50
62	A5	2208	G	N7-C8-N9	5.24	115.72	113.10
69	AT	32	ASP	CB-CG-OD2	5.24	123.01	118.30
61	B2	915	U	C2-N1-C1'	5.23	123.98	117.70
62	A5	1695	A	C4-N9-C1'	5.23	135.72	126.30
61	B2	1024	C	C6-N1-C2	-5.23	118.21	120.30
62	A5	39	A	N9-C4-C5	5.23	107.89	105.80
62	A5	830	U	N3-C2-O2	-5.23	118.54	122.20
62	A5	1374	C	OP2-P-O3'	5.23	116.71	105.20
62	A5	1960	C	P-O3'-C3'	5.23	125.98	119.70
62	A5	61	A	C6-N1-C2	-5.23	115.46	118.60
62	A5	1676	A	N7-C8-N9	5.23	116.42	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1677	U	OP1-P-O3'	5.23	116.70	105.20
62	A5	1692	G	C4-C5-C6	5.23	121.94	118.80
62	A5	3500	A	C4-N9-C1'	5.23	135.72	126.30
69	AT	49	ASP	CB-CG-OD2	5.23	123.01	118.30
62	A5	1873	A	C5-C6-N1	5.23	120.31	117.70
62	A5	2508	C	C4-C5-C6	5.23	120.02	117.40
62	A5	3488	G	C8-N9-C1'	-5.23	120.20	127.00
57	A9	12	C	C6-N1-C1'	5.23	127.07	120.80
59	A8	100	G	C5-N7-C8	-5.23	101.69	104.30
62	A5	522	G	C8-N9-C4	-5.23	104.31	106.40
62	A5	2579	G	N3-C4-C5	-5.23	125.99	128.60
62	A5	2752	C	N1-C2-O2	-5.23	115.76	118.90
62	A5	3579	C	OP2-P-O3'	5.23	116.70	105.20
59	A8	53	C	C6-N1-C2	-5.22	118.21	120.30
61	B2	1218	G	N7-C8-N9	5.22	115.71	113.10
61	B2	1860	G	C4-N9-C1'	5.22	133.29	126.50
62	A5	3	A	N3-C4-N9	5.22	131.58	127.40
62	A5	1095	G	C5-C6-O6	-5.22	125.47	128.60
62	A5	1538	U	N1-C2-O2	5.22	126.45	122.80
62	A5	1683	U	C6-N1-C2	-5.22	117.87	121.00
62	A5	1758	U	C2-N1-C1'	5.22	123.97	117.70
62	A5	2189	U	N3-C4-C5	5.22	117.73	114.60
62	A5	2811	G	O4'-C1'-N9	5.22	112.38	108.20
62	A5	1414	C	C5-C6-N1	-5.22	118.39	121.00
62	A5	3506	U	C4-C5-C6	-5.22	116.57	119.70
62	A5	44	A	O5'-P-OP2	-5.22	101.00	105.70
62	A5	1717	A	C5-N7-C8	-5.22	101.29	103.90
62	A5	386	G	C8-N9-C4	-5.22	104.31	106.40
62	A5	1121	A	C2-N3-C4	5.22	113.21	110.60
62	A5	1371	A	C4-N9-C1'	5.22	135.69	126.30
62	A5	2189	U	C5-C4-O4	-5.22	122.77	125.90
62	A5	2714	U	N3-C4-O4	-5.22	115.75	119.40
61	B2	1850	G	C5-C6-N1	5.21	114.11	111.50
61	B2	1860	G	C8-N9-C1'	-5.21	120.22	127.00
62	A5	350	C	OP1-P-OP2	-5.21	111.78	119.60
62	A5	1958	G	C4-N9-C1'	5.21	133.28	126.50
62	A5	3326	G	OP1-P-O3'	5.21	116.67	105.20
62	A5	3338	U	C2-N1-C1'	-5.21	111.44	117.70
62	A5	3517	U	N3-C2-O2	5.21	125.85	122.20
61	B2	1585	A	N3-C4-N9	5.21	131.57	127.40
62	A5	2239	C	C4-C5-C6	-5.21	114.79	117.40
59	A8	47	A	C5-C6-N6	-5.21	119.53	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	A8	100	G	N1-C2-N2	5.21	120.89	116.20
61	B2	988	G	C8-N9-C1'	-5.21	120.22	127.00
62	A5	2504	A	C6-C5-N7	-5.21	128.65	132.30
39	Cr	8	ASN	C-N-CA	-5.21	108.67	121.70
61	B2	1186	U	OP1-P-OP2	-5.21	111.78	119.60
62	A5	22	A	C2-N3-C4	5.21	113.20	110.60
62	A5	2730	A	C6-C5-N7	-5.21	128.65	132.30
62	A5	3156	G	N3-C4-N9	5.21	129.13	126.00
62	A5	3609	A	OP1-P-OP2	-5.21	111.78	119.60
69	AT	130	ASP	CB-CG-OD2	5.21	122.99	118.30
34	CT	52	LEU	CA-CB-CG	5.21	127.28	115.30
59	A8	25	C	OP2-P-O3'	5.21	116.66	105.20
62	A5	35	C	OP2-P-O3'	5.21	116.66	105.20
62	A5	3342	C	C2-N1-C1'	-5.21	113.07	118.80
69	AT	132	ASP	CB-CG-OD2	5.21	122.99	118.30
62	A5	1317	A	C8-N9-C4	-5.21	103.72	105.80
62	A5	2749	G	C5-C6-N1	5.21	114.10	111.50
62	A5	3422	A	C5-C6-N1	5.21	120.30	117.70
62	A5	3518	A	C8-N9-C4	-5.21	103.72	105.80
62	A5	2066	G	N1-C2-N3	5.21	127.02	123.90
62	A5	2757	U	C5-C4-O4	5.21	129.02	125.90
59	A8	7	A	C5-N7-C8	-5.20	101.30	103.90
59	A8	7	A	N1-C6-N6	5.20	121.72	118.60
61	B2	1057	A	C5-N7-C8	-5.20	101.30	103.90
62	A5	344	U	C5-C6-N1	-5.20	120.10	122.70
62	A5	2183	A	C5-C6-N1	5.20	120.30	117.70
62	A5	3353	C	C5-C6-N1	5.20	123.60	121.00
62	A5	3600	G	N3-C4-C5	-5.20	126.00	128.60
69	AT	51	ASP	CB-CG-OD2	5.20	122.98	118.30
61	B2	973	U	N3-C2-O2	-5.20	118.56	122.20
62	A5	89	A	C4-C5-N7	5.20	113.30	110.70
62	A5	2167	G	N1-C6-O6	5.20	123.02	119.90
62	A5	2577	G	C6-C5-N7	-5.20	127.28	130.40
62	A5	925	C	C2-N1-C1'	5.20	124.52	118.80
62	A5	1117	A	N1-C6-N6	5.20	121.72	118.60
61	B2	1582	C	N3-C2-O2	-5.20	118.26	121.90
62	A5	95	G	N7-C8-N9	5.20	115.70	113.10
62	A5	1003	C	N3-C2-O2	-5.20	118.26	121.90
62	A5	2645	C	N1-C2-O2	5.20	122.02	118.90
61	B2	448	C	N3-C2-O2	-5.20	118.26	121.90
61	B2	705	G	N3-C4-N9	5.20	129.12	126.00
62	A5	1768	G	N3-C4-N9	5.20	129.12	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	2055	G	N7-C8-N9	5.20	115.70	113.10
62	A5	1408	A	C4-C5-C6	-5.20	114.40	117.00
62	A5	1691	A	C8-N9-C1'	-5.20	118.35	127.70
62	A5	2497	C	N1-C2-N3	5.20	122.84	119.20
61	B2	1752	U	O4'-C1'-N1	5.19	112.36	108.20
62	A5	307	A	N3-C4-N9	5.19	131.56	127.40
62	A5	431	C	N1-C2-O2	5.19	122.02	118.90
62	A5	1360	U	N1-C2-N3	5.19	118.02	114.90
62	A5	1112	G	N3-C4-N9	5.19	129.12	126.00
62	A5	1122	U	N1-C2-N3	-5.19	111.78	114.90
62	A5	1380	G	N7-C8-N9	-5.19	110.50	113.10
62	A5	2175	A	N1-C6-N6	5.19	121.72	118.60
62	A5	2546	G	C8-N9-C1'	-5.19	120.25	127.00
62	A5	2678	G	C5-N7-C8	-5.19	101.70	104.30
62	A5	3450	G	C8-N9-C4	5.19	108.48	106.40
62	A5	3451	A	C5-C6-N6	-5.19	119.55	123.70
62	A5	3524	G	C8-N9-C4	-5.19	104.33	106.40
62	A5	3847	U	N3-C2-O2	-5.19	118.57	122.20
61	B2	324	U	N1-C2-O2	5.19	126.43	122.80
61	B2	1673	U	C5-C6-N1	5.19	125.29	122.70
62	A5	241	C	N1-C2-O2	5.19	122.01	118.90
62	A5	1120	A	N1-C2-N3	-5.19	126.71	129.30
62	A5	1271	G	C4-N9-C1'	5.19	133.24	126.50
62	A5	1669	G	C6-C5-N7	5.19	133.51	130.40
62	A5	787	C	C5-C6-N1	-5.19	118.41	121.00
69	AT	10	ASP	CB-CG-OD2	5.19	122.97	118.30
61	B2	1844	C	C6-N1-C2	-5.18	118.23	120.30
61	B2	1981	G	N3-C4-N9	-5.18	122.89	126.00
62	A5	86	C	C2-N1-C1'	5.18	124.50	118.80
62	A5	2566	A	C4-N9-C1'	5.18	135.63	126.30
81	B	1	A	N1-C6-N6	-5.18	115.49	118.60
61	B2	1796	C	N1-C2-O2	5.18	122.01	118.90
62	A5	3349	A	C6-C5-N7	5.18	135.93	132.30
62	A5	3510	U	N1-C2-O2	5.18	126.43	122.80
62	A5	798	C	OP1-P-OP2	5.18	127.37	119.60
62	A5	3676	C	N1-C2-O2	5.18	122.01	118.90
61	B2	1975	G	N7-C8-N9	5.18	115.69	113.10
62	A5	3	A	N3-C4-C5	-5.18	123.17	126.80
62	A5	305	G	N7-C8-N9	5.18	115.69	113.10
62	A5	1330	G	C5-N7-C8	5.18	106.89	104.30
62	A5	2569	U	N3-C2-O2	-5.18	118.57	122.20
62	A5	3296	C	N3-C4-N4	5.18	121.63	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	3486	U	N1-C2-O2	5.18	126.43	122.80
61	B2	1283	C	N3-C2-O2	-5.18	118.28	121.90
62	A5	2152	C	C4-C5-C6	-5.18	114.81	117.40
62	A5	3426	U	N1-C2-O2	5.18	126.42	122.80
6	CC	35	ILE	C-N-CA	-5.18	108.76	121.70
59	A8	97	U	C5-C6-N1	5.18	125.29	122.70
69	AT	144	ASP	CB-CG-OD2	5.18	122.96	118.30
61	B2	1214	A	C4-C5-N7	5.17	113.29	110.70
62	A5	51	U	N3-C4-O4	5.17	123.02	119.40
62	A5	1066	A	C6-C5-N7	-5.17	128.68	132.30
62	A5	3487	A	O5'-P-OP1	-5.17	101.04	105.70
62	A5	3779	U	N1-C2-O2	5.17	126.42	122.80
62	A5	369	A	N3-C4-C5	5.17	130.42	126.80
62	A5	382	G	N3-C4-C5	-5.17	126.01	128.60
62	A5	890	C	C6-N1-C2	-5.17	118.23	120.30
62	A5	2624	G	C5-N7-C8	-5.17	101.71	104.30
62	A5	2747	G	N1-C2-N2	-5.17	111.55	116.20
59	A8	108	A	N3-C4-C5	5.17	130.42	126.80
61	B2	1234	G	N3-C4-N9	5.17	129.10	126.00
62	A5	1008	A	C6-C5-N7	-5.17	128.68	132.30
62	A5	3398	C	N1-C2-N3	-5.17	115.58	119.20
62	A5	3504	G	P-O3'-C3'	5.17	125.91	119.70
62	A5	3708	U	P-O3'-C3'	5.17	125.91	119.70
62	A5	802	G	C6-C5-N7	-5.17	127.30	130.40
61	B2	1265	C	N3-C2-O2	-5.17	118.28	121.90
61	B2	1967	C	C6-N1-C2	-5.17	118.23	120.30
62	A5	2779	A	C5-C6-N1	5.17	120.28	117.70
62	A5	3624	C	N3-C4-C5	-5.17	119.83	121.90
69	AT	35	ASP	CB-CG-OD2	5.17	122.95	118.30
59	A8	109	U	C6-N1-C1'	-5.17	113.97	121.20
61	B2	1187	U	O4'-C1'-N1	5.17	112.33	108.20
62	A5	100	G	C8-N9-C4	5.17	108.47	106.40
62	A5	345	A	C5-C6-N6	-5.17	119.57	123.70
62	A5	1535	U	N1-C2-O2	5.17	126.42	122.80
62	A5	2753	G	C4-C5-N7	5.17	112.87	110.80
69	AT	97	ASP	CB-CG-OD2	5.17	122.95	118.30
62	A5	95	G	C6-C5-N7	-5.17	127.30	130.40
62	A5	1945	U	N3-C2-O2	-5.17	118.58	122.20
62	A5	2754	G	O5'-P-OP2	-5.17	101.05	105.70
62	A5	2779	A	C8-N9-C4	-5.17	103.73	105.80
48	C1	37	TYR	CA-CB-CG	5.16	123.21	113.40
62	A5	3615	G	C2-N3-C4	5.16	114.48	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	3518	A	C6-C5-N7	-5.16	128.69	132.30
62	A5	754	A	C5-C6-N1	5.16	120.28	117.70
62	A5	774	A	C5-C6-N1	5.16	120.28	117.70
62	A5	3402	C	C5-C4-N4	-5.16	116.59	120.20
69	AT	8	ASP	CB-CG-OD2	5.16	122.94	118.30
62	A5	443	G	P-O3'-C3'	5.16	125.89	119.70
62	A5	779	U	N1-C2-O2	5.16	126.41	122.80
62	A5	1066	A	C5-C6-N6	-5.16	119.57	123.70
62	A5	1125	A	C5-C6-N6	-5.16	119.57	123.70
62	A5	1375	G	O5'-P-OP2	-5.16	101.06	105.70
1	AA	220	LEU	CA-CB-CG	5.16	127.16	115.30
59	A8	11	G	N1-C6-O6	-5.16	116.81	119.90
59	A8	104	G	C8-N9-C1'	-5.16	120.30	127.00
61	B2	1987	G	C4-N9-C1'	5.16	133.20	126.50
62	A5	1109	G	O4'-C1'-N9	5.16	112.32	108.20
62	A5	1180	U	C6-N1-C2	-5.16	117.91	121.00
62	A5	1945	U	N1-C2-O2	5.16	126.41	122.80
62	A5	3142	G	N3-C4-N9	5.16	129.09	126.00
58	A7	29	C	C2-N1-C1'	5.15	124.47	118.80
58	A7	82	G	C6-C5-N7	-5.15	127.31	130.40
61	B2	15	U	N3-C2-O2	-5.15	118.59	122.20
62	A5	387	U	C2-N1-C1'	5.15	123.88	117.70
62	A5	1356	G	C8-N9-C1'	-5.15	120.30	127.00
62	A5	1799	U	C5-C6-N1	5.15	125.28	122.70
62	A5	2678	G	C8-N9-C4	-5.15	104.34	106.40
62	A5	3345	A	C2-N3-C4	5.15	113.18	110.60
62	A5	3934	C	C5-C6-N1	5.15	123.58	121.00
62	A5	1064	G	C4-C5-C6	5.15	121.89	118.80
62	A5	1183	U	C5-C6-N1	5.15	125.28	122.70
62	A5	1397	A	N3-C4-N9	-5.15	123.28	127.40
62	A5	1548	C	OP1-P-OP2	-5.15	111.88	119.60
62	A5	2758	U	C6-N1-C2	-5.15	117.91	121.00
62	A5	816	A	C2-N3-C4	-5.15	108.03	110.60
62	A5	925	C	C6-N1-C2	-5.15	118.24	120.30
62	A5	1056	G	C6-C5-N7	-5.15	127.31	130.40
62	A5	1367	A	N9-C4-C5	5.15	107.86	105.80
35	CP	131	ARG	NE-CZ-NH2	-5.15	117.73	120.30
61	B2	354	U	N1-C2-O2	5.15	126.40	122.80
62	A5	228	C	N1-C2-O2	5.15	121.99	118.90
61	B2	1195	G	N9-C4-C5	5.15	107.46	105.40
62	A5	1016	A	N1-C6-N6	-5.15	115.51	118.60
62	A5	3403	G	C5-C6-O6	5.15	131.69	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	91	U	N3-C2-O2	-5.14	118.60	122.20
62	A5	119	G	C6-C5-N7	-5.14	127.31	130.40
62	A5	345	A	N3-C4-N9	5.14	131.51	127.40
62	A5	1719	G	C2-N3-C4	-5.14	109.33	111.90
62	A5	2995	U	C2-N1-C1'	5.14	123.87	117.70
62	A5	62	G	C4-C5-C6	5.14	121.89	118.80
62	A5	812	U	N3-C2-O2	-5.14	118.60	122.20
62	A5	1169	C	N3-C4-C5	5.14	123.96	121.90
62	A5	1363	G	C2-N3-C4	-5.14	109.33	111.90
62	A5	2571	U	N3-C4-O4	5.14	123.00	119.40
62	A5	3591	A	N9-C4-C5	-5.14	103.74	105.80
59	A8	37	U	C5-C6-N1	5.14	125.27	122.70
62	A5	1005	G	N1-C6-O6	-5.14	116.82	119.90
62	A5	1102	G	N3-C4-N9	5.14	129.08	126.00
62	A5	1379	U	N3-C2-O2	-5.14	118.60	122.20
61	B2	1087	C	N3-C2-O2	-5.14	118.30	121.90
61	B2	1845	C	C5-C6-N1	5.14	123.57	121.00
62	A5	343	A	N9-C4-C5	-5.14	103.74	105.80
62	A5	1134	G	N9-C4-C5	5.14	107.46	105.40
62	A5	2739	A	C4-C5-C6	5.14	119.57	117.00
62	A5	3638	U	C6-N1-C2	-5.14	117.92	121.00
62	A5	1091	G	N3-C4-N9	-5.14	122.92	126.00
62	A5	2546	G	C5-N7-C8	-5.14	101.73	104.30
12	AS	59	CYS	CA-CB-SG	5.14	123.25	114.00
61	B2	322	C	C6-N1-C2	-5.14	118.25	120.30
62	A5	72	C	N1-C2-O2	5.14	121.98	118.90
62	A5	128	C	C6-N1-C2	-5.14	118.25	120.30
62	A5	797	A	C4-C5-N7	-5.14	108.13	110.70
62	A5	1382	U	N3-C2-O2	5.14	125.80	122.20
62	A5	1383	A	O5'-P-OP2	-5.14	101.08	105.70
62	A5	3589	G	N3-C4-N9	5.14	129.08	126.00
62	A5	3753	A	O4'-C1'-N9	5.14	112.31	108.20
62	A5	3951	U	N1-C2-O2	5.14	126.40	122.80
62	A5	791	C	C5-C4-N4	-5.13	116.61	120.20
62	A5	3148	C	C5-C4-N4	-5.13	116.61	120.20
62	A5	3536	U	O4'-C1'-N1	5.13	112.31	108.20
61	B2	489	C	C6-N1-C2	-5.13	118.25	120.30
62	A5	786	C	C6-N1-C2	-5.13	118.25	120.30
62	A5	1401	C	N3-C4-C5	-5.13	119.85	121.90
62	A5	1863	U	C6-N1-C2	-5.13	117.92	121.00
59	A8	20	C	C5-C6-N1	5.13	123.57	121.00
61	B2	1650	G	C2-N3-C4	5.13	114.47	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	797	A	C5-N7-C8	5.13	106.47	103.90
62	A5	1078	G	N7-C8-N9	5.13	115.67	113.10
62	A5	1312	G	C6-C5-N7	-5.13	127.32	130.40
62	A5	2655	C	C5-C6-N1	5.13	123.57	121.00
62	A5	3544	G	N3-C4-C5	-5.13	126.03	128.60
38	CZ	100	LEU	CA-CB-CG	5.13	127.10	115.30
62	A5	373	A	N1-C2-N3	-5.13	126.73	129.30
58	A7	88	G	C5-N7-C8	-5.13	101.73	104.30
62	A5	2161	G	N3-C2-N2	5.13	123.49	119.90
62	A5	2545	A	C6-C5-N7	-5.13	128.71	132.30
62	A5	3544	G	C4-C5-N7	5.13	112.85	110.80
62	A5	3873	A	C2-N3-C4	5.13	113.16	110.60
58	A7	112	U	N1-C2-O2	5.13	126.39	122.80
62	A5	2622	A	OP2-P-O3'	5.13	116.48	105.20
62	A5	2790	G	C2-N3-C4	-5.13	109.34	111.90
62	A5	789	G	N7-C8-N9	5.12	115.66	113.10
62	A5	1379	U	C2-N1-C1'	5.12	123.85	117.70
62	A5	1792	G	N3-C4-C5	5.12	131.16	128.60
62	A5	3126	C	N3-C2-O2	-5.12	118.31	121.90
61	B2	1070	A	N9-C4-C5	-5.12	103.75	105.80
62	A5	804	C	OP2-P-O3'	5.12	116.47	105.20
62	A5	1072	U	C4-C5-C6	-5.12	116.63	119.70
62	A5	1692	G	N9-C4-C5	-5.12	103.35	105.40
62	A5	2139	U	N1-C2-O2	5.12	126.39	122.80
62	A5	3629	U	C5-C6-N1	5.12	125.26	122.70
59	A8	16	A	C4-C5-C6	-5.12	114.44	117.00
62	A5	348	A	N7-C8-N9	5.12	116.36	113.80
62	A5	1069	A	C4-N9-C1'	5.12	135.52	126.30
58	A7	90	A	C8-N9-C4	-5.12	103.75	105.80
59	A8	10	C	C5-C6-N1	5.12	123.56	121.00
62	A5	1342	U	N3-C2-O2	-5.12	118.62	122.20
62	A5	3349	A	N3-C4-C5	5.12	130.38	126.80
62	A5	3589	G	N1-C6-O6	5.12	122.97	119.90
61	B2	361	G	N3-C4-N9	5.12	129.07	126.00
61	B2	366	C	N3-C2-O2	-5.12	118.32	121.90
62	A5	1096	A	O4'-C1'-N9	5.12	112.29	108.20
62	A5	1128	C	C2-N3-C4	-5.12	117.34	119.90
62	A5	3589	G	OP1-P-OP2	-5.12	111.92	119.60
62	A5	3607	C	N1-C2-O2	5.12	121.97	118.90
62	A5	823	U	C5-C6-N1	5.12	125.26	122.70
62	A5	1963	U	C2-N1-C1'	5.12	123.84	117.70
62	A5	2530	C	C4-C5-C6	-5.12	114.84	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1607	A	C4-N9-C1'	5.11	135.50	126.30
62	A5	2566	A	C4-C5-C6	5.11	119.56	117.00
62	A5	2527	A	N7-C8-N9	5.11	116.36	113.80
61	B2	1873	A	O4'-C1'-N9	5.11	112.29	108.20
62	A5	441	A	C4-N9-C1'	5.11	135.50	126.30
62	A5	1083	A	C8-N9-C4	-5.11	103.76	105.80
62	A5	2513	G	N3-C4-N9	5.11	129.07	126.00
62	A5	3438	C	N3-C2-O2	-5.11	118.32	121.90
61	B2	1972	G	C4-C5-N7	5.11	112.84	110.80
62	A5	32	C	N3-C2-O2	-5.11	118.32	121.90
62	A5	2224	A	C5-C6-N6	-5.11	119.61	123.70
62	A5	3881	A	N1-C2-N3	-5.11	126.75	129.30
61	B2	1108	C	C6-N1-C1'	5.11	126.93	120.80
62	A5	47	A	N7-C8-N9	-5.11	111.25	113.80
62	A5	1783	A	N7-C8-N9	5.11	116.35	113.80
62	A5	3619	U	C6-N1-C1'	5.11	128.35	121.20
61	B2	1077	C	O4'-C1'-N1	5.11	112.28	108.20
62	A5	93	G	C2-N3-C4	-5.11	109.35	111.90
62	A5	1262	C	C6-N1-C2	5.11	122.34	120.30
62	A5	1327	G	C8-N9-C1'	5.11	133.64	127.00
62	A5	2741	A	N7-C8-N9	-5.11	111.25	113.80
62	A5	300	A	P-O3'-C3'	5.10	125.83	119.70
62	A5	1084	A	N9-C4-C5	-5.10	103.76	105.80
62	A5	2021	C	N3-C2-O2	-5.10	118.33	121.90
62	A5	1768	G	C6-C5-N7	-5.10	127.34	130.40
59	A8	98	U	N1-C2-N3	5.10	117.96	114.90
62	A5	2207	A	N1-C2-N3	-5.10	126.75	129.30
59	A8	46	C	C4-C5-C6	-5.10	114.85	117.40
62	A5	19	C	C5-C6-N1	5.10	123.55	121.00
62	A5	1719	G	N1-C2-N3	5.10	126.96	123.90
62	A5	2552	G	O4'-C1'-N9	5.10	112.28	108.20
59	A8	14	G	C5-N7-C8	-5.10	101.75	104.30
61	B2	1736	U	N1-C2-O2	5.10	126.37	122.80
62	A5	453	C	C4-C5-C6	-5.10	114.85	117.40
62	A5	1756	G	C8-N9-C4	-5.10	104.36	106.40
62	A5	2796	G	C4-N9-C1'	5.10	133.13	126.50
62	A5	3949	U	O4'-C1'-N1	5.10	112.28	108.20
62	A5	1697	U	N1-C2-O2	5.10	126.37	122.80
62	A5	2504	A	C5-N7-C8	-5.10	101.35	103.90
62	A5	2540	G	C2-N3-C4	-5.10	109.35	111.90
62	A5	303	G	C8-N9-C1'	-5.09	120.38	127.00
62	A5	383	A	C8-N9-C1'	-5.09	118.53	127.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	799	A	N7-C8-N9	5.09	116.35	113.80
62	A5	2503	G	C5-N7-C8	-5.09	101.75	104.30
62	A5	3130	G	C8-N9-C4	-5.09	104.36	106.40
62	A5	3320	C	C5-C6-N1	5.09	123.55	121.00
62	A5	2524	A	N1-C2-N3	-5.09	126.75	129.30
62	A5	61	A	C4-C5-N7	5.09	113.25	110.70
62	A5	116	U	C5-C6-N1	5.09	125.25	122.70
62	A5	1322	U	C5-C6-N1	5.09	125.25	122.70
62	A5	1499	C	N3-C2-O2	-5.09	118.34	121.90
62	A5	2564	U	C2-N1-C1'	-5.09	111.59	117.70
61	B2	1052	U	C2-N1-C1'	5.09	123.81	117.70
62	A5	30	A	C4-N9-C1'	5.09	135.46	126.30
62	A5	1115	A	C4-C5-N7	5.09	113.25	110.70
62	A5	1132	U	N3-C2-O2	-5.09	118.64	122.20
62	A5	2164	G	N3-C4-N9	5.09	129.05	126.00
62	A5	2690	A	N1-C6-N6	-5.09	115.55	118.60
81	B	13	C	N3-C2-O2	-5.09	118.34	121.90
61	B2	335	U	N3-C2-O2	-5.09	118.64	122.20
62	A5	3344	U	N3-C4-C5	-5.09	111.55	114.60
62	A5	62	G	C6-C5-N7	-5.09	127.35	130.40
62	A5	2767	U	OP2-P-O3'	5.09	116.39	105.20
62	A5	3477	A	C8-N9-C1'	5.09	136.86	127.70
61	B2	1949	A	C8-N9-C4	5.08	107.83	105.80
62	A5	1931	C	N1-C2-O2	5.08	121.95	118.90
62	A5	2757	U	C6-N1-C2	-5.08	117.95	121.00
62	A5	3470	G	C4-N9-C1'	5.08	133.11	126.50
62	A5	380	G	C4-C5-C6	-5.08	115.75	118.80
62	A5	782	G	C5-C6-N1	-5.08	108.96	111.50
62	A5	1997	C	C6-N1-C2	-5.08	118.27	120.30
62	A5	2206	U	C6-N1-C2	-5.08	117.95	121.00
62	A5	3114	C	C6-N1-C2	-5.08	118.27	120.30
62	A5	3316	U	N3-C2-O2	-5.08	118.64	122.20
38	CZ	5	MET	CA-CB-CG	5.08	121.94	113.30
59	A8	32	G	C8-N9-C1'	-5.08	120.39	127.00
62	A5	99	A	C6-C5-N7	-5.08	128.74	132.30
62	A5	432	U	C5-C6-N1	5.08	125.24	122.70
62	A5	783	G	C6-C5-N7	-5.08	127.35	130.40
62	A5	3530	A	C4-N9-C1'	5.08	135.45	126.30
36	CX	186	VAL	C-N-CD	-5.08	109.42	120.60
62	A5	801	G	N1-C6-O6	5.08	122.95	119.90
62	A5	2185	U	C5-C4-O4	-5.08	122.85	125.90
62	A5	3488	G	C4-N9-C1'	5.08	133.10	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	B2	1796	C	N3-C2-O2	-5.08	118.34	121.90
62	A5	1351	C	C6-N1-C2	-5.08	118.27	120.30
62	A5	2125	G	C8-N9-C1'	-5.08	120.40	127.00
62	A5	3486	U	C4-C5-C6	-5.08	116.65	119.70
61	B2	1594	A	N3-C4-N9	5.08	131.46	127.40
61	B2	1196	G	N3-C4-N9	5.08	129.04	126.00
62	A5	779	U	C2-N1-C1'	5.08	123.79	117.70
62	A5	1374	C	N3-C4-C5	5.08	123.93	121.90
62	A5	1958	G	N3-C4-N9	5.08	129.04	126.00
62	A5	2737	C	C6-N1-C2	-5.08	118.27	120.30
62	A5	3398	C	C2-N1-C1'	5.08	124.38	118.80
62	A5	3578	A	C5-N7-C8	-5.08	101.36	103.90
61	B2	1078	G	C8-N9-C4	-5.07	104.37	106.40
62	A5	17	C	OP2-P-O3'	5.07	116.36	105.20
62	A5	2203	A	N7-C8-N9	5.07	116.34	113.80
62	A5	3348	G	O4'-C1'-N9	-5.07	104.14	108.20
62	A5	3615	G	C5-C6-O6	-5.07	125.56	128.60
62	A5	3879	A	C5-N7-C8	-5.07	101.36	103.90
61	B2	1078	G	C6-C5-N7	-5.07	127.36	130.40
61	B2	1752	U	N1-C2-O2	5.07	126.35	122.80
61	B2	1824	C	C6-N1-C1'	5.07	126.89	120.80
62	A5	1014	U	C5-C6-N1	5.07	125.24	122.70
62	A5	2672	U	C6-N1-C2	-5.07	117.96	121.00
59	A8	7	A	C4-C5-C6	5.07	119.53	117.00
61	B2	1648	C	C6-N1-C2	-5.07	118.27	120.30
62	A5	61	A	C5-N7-C8	-5.07	101.36	103.90
62	A5	1131	C	C5-C6-N1	5.07	123.53	121.00
62	A5	3882	C	N3-C4-N4	5.07	121.55	118.00
62	A5	56	A	N3-C4-N9	5.07	131.46	127.40
62	A5	1398	C	C5-C6-N1	5.07	123.53	121.00
62	A5	1608	G	C4-C5-N7	5.07	112.83	110.80
62	A5	1734	G	N1-C2-N2	-5.07	111.64	116.20
62	A5	3265	C	C5-C6-N1	5.07	123.53	121.00
62	A5	3320	C	N1-C2-O2	5.07	121.94	118.90
62	A5	1347	A	C5-N7-C8	-5.07	101.37	103.90
58	A7	2	C	N1-C2-O2	5.06	121.94	118.90
62	A5	206	C	C6-N1-C2	-5.06	118.27	120.30
62	A5	1782	C	C2-N3-C4	5.06	122.43	119.90
62	A5	1554	C	N1-C2-N3	5.06	122.74	119.20
62	A5	3014	G	C6-C5-N7	-5.06	127.36	130.40
6	CC	365	LEU	N-CA-C	5.06	124.66	111.00
61	B2	633	U	C6-N1-C2	-5.06	117.96	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	345	A	N1-C6-N6	5.06	121.64	118.60
62	A5	1006	A	N1-C2-N3	-5.06	126.77	129.30
62	A5	2548	G	C8-N9-C4	-5.06	104.38	106.40
58	A7	35	U	N3-C2-O2	-5.06	118.66	122.20
62	A5	3120	C	C6-N1-C2	-5.06	118.28	120.30
62	A5	3479	C	N3-C2-O2	-5.06	118.36	121.90
62	A5	240	G	N3-C4-N9	5.06	129.03	126.00
62	A5	2546	G	N1-C2-N2	-5.06	111.65	116.20
62	A5	2761	A	N9-C4-C5	-5.06	103.78	105.80
62	A5	3594	A	N1-C6-N6	5.06	121.63	118.60
61	B2	1850	G	C2-N3-C4	5.05	114.43	111.90
62	A5	64	A	O4'-C1'-N9	5.05	112.24	108.20
62	A5	94	C	C5-C4-N4	-5.05	116.66	120.20
62	A5	1097	A	C8-N9-C1'	-5.05	118.60	127.70
61	B2	1875	G	O4'-C1'-N9	5.05	112.24	108.20
62	A5	987	G	N3-C4-C5	-5.05	126.07	128.60
62	A5	1378	A	C5-N7-C8	-5.05	101.37	103.90
62	A5	1514	U	N1-C2-O2	5.05	126.34	122.80
62	A5	2145	G	C4-N9-C1'	5.05	133.07	126.50
62	A5	1715	G	C5-N7-C8	-5.05	101.77	104.30
62	A5	2221	G	N3-C2-N2	5.05	123.44	119.90
62	A5	2625	G	C5-N7-C8	-5.05	101.77	104.30
47	Ck	59	SER	N-CA-C	5.05	124.63	111.00
59	A8	19	A	C4-C5-C6	-5.05	114.47	117.00
61	B2	705	G	N3-C4-C5	-5.05	126.08	128.60
62	A5	117	C	N3-C2-O2	-5.05	118.36	121.90
62	A5	1137	G	O5'-P-OP1	-5.05	101.16	105.70
62	A5	1546	U	C2-N1-C1'	-5.05	111.64	117.70
62	A5	1606	G	C4-C5-N7	5.05	112.82	110.80
62	A5	2508	C	N1-C2-N3	5.05	122.73	119.20
62	A5	2510	A	N9-C4-C5	-5.05	103.78	105.80
62	A5	1144	C	OP2-P-O3'	5.05	116.30	105.20
62	A5	1691	A	O5'-P-OP1	-5.05	101.16	105.70
62	A5	1720	A	C4-C5-N7	5.05	113.22	110.70
62	A5	1874	G	C2-N3-C4	-5.05	109.38	111.90
62	A5	3296	C	C5-C4-N4	-5.05	116.67	120.20
62	A5	1128	C	N3-C4-C5	5.04	123.92	121.90
62	A5	2990	C	P-O3'-C3'	5.04	125.75	119.70
62	A5	3142	G	C2-N3-C4	-5.04	109.38	111.90
62	A5	3666	C	C6-N1-C2	-5.04	118.28	120.30
62	A5	794	G	C4-C5-N7	5.04	112.82	110.80
62	A5	995	G	C5-C6-O6	-5.04	125.57	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1750	G	C4-N9-C1'	5.04	133.06	126.50
62	A5	2184	G	N7-C8-N9	5.04	115.62	113.10
62	A5	2529	G	C8-N9-C4	-5.04	104.38	106.40
62	A5	2683	G	C4-C5-N7	5.04	112.82	110.80
62	A5	3470	G	C4-C5-C6	5.04	121.83	118.80
59	A8	106	A	C6-C5-N7	-5.04	128.77	132.30
62	A5	1005	G	C5-C6-N1	5.04	114.02	111.50
62	A5	1099	U	C4-C5-C6	-5.04	116.67	119.70
62	A5	1373	A	C6-C5-N7	-5.04	128.77	132.30
62	A5	1535	U	C5-C6-N1	5.04	125.22	122.70
62	A5	1594	U	N3-C2-O2	-5.04	118.67	122.20
62	A5	1785	G	N3-C4-N9	5.04	129.03	126.00
62	A5	2190	A	N7-C8-N9	5.04	116.32	113.80
62	A5	2693	G	N3-C4-N9	5.04	129.03	126.00
81	B	63	U	N3-C2-O2	-5.04	118.67	122.20
39	Cr	36	LEU	CA-CB-CG	5.04	126.89	115.30
58	A7	81	A	N1-C6-N6	5.04	121.62	118.60
59	A8	111	G	C5-N7-C8	-5.04	101.78	104.30
62	A5	371	G	C4-C5-N7	5.04	112.82	110.80
62	A5	1194	A	N3-C4-N9	5.04	131.43	127.40
62	A5	1785	G	C5-C6-O6	5.04	131.62	128.60
62	A5	74	A	C5-N7-C8	-5.04	101.38	103.90
62	A5	1605	U	N1-C2-O2	5.04	126.33	122.80
62	A5	2527	A	C8-N9-C4	-5.04	103.78	105.80
62	A5	2654	G	C6-C5-N7	-5.04	127.38	130.40
62	A5	3628	G	C4-C5-N7	5.04	112.81	110.80
62	A5	126	G	C4-N9-C1'	5.04	133.04	126.50
62	A5	1020	A	C2-N3-C4	-5.04	108.08	110.60
62	A5	1050	C	C5-C4-N4	-5.04	116.67	120.20
62	A5	1747	A	N1-C2-N3	-5.04	126.78	129.30
62	A5	1781	U	O4'-C1'-N1	5.04	112.23	108.20
62	A5	2769	G	C4-C5-C6	5.04	121.82	118.80
62	A5	1128	C	N1-C2-O2	-5.03	115.88	118.90
62	A5	2559	C	C6-N1-C2	-5.03	118.29	120.30
62	A5	370	A	C4-C5-N7	5.03	113.22	110.70
62	A5	2804	U	N3-C4-O4	5.03	122.92	119.40
62	A5	3296	C	C5-C6-N1	5.03	123.52	121.00
62	A5	383	A	C4-C5-N7	5.03	113.22	110.70
62	A5	446	C	N1-C2-O2	5.03	121.92	118.90
62	A5	1165	A	N3-C4-N9	-5.03	123.38	127.40
62	A5	1717	A	C4-C5-N7	5.03	113.22	110.70
62	A5	3489	A	N7-C8-N9	5.03	116.31	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	1116	G	C5-C6-O6	5.03	131.62	128.60
62	A5	1357	C	C4-C5-C6	-5.03	114.89	117.40
62	A5	3345	A	OP1-P-O3'	5.03	116.26	105.20
61	B2	394	G	C8-N9-C4	-5.03	104.39	106.40
61	B2	1285	C	N3-C2-O2	-5.03	118.38	121.90
62	A5	1672	A	N7-C8-N9	5.03	116.31	113.80
62	A5	2709	U	N1-C2-O2	5.03	126.32	122.80
62	A5	3880	A	C4-N9-C1'	5.03	135.35	126.30
62	A5	3934	C	C6-N1-C2	-5.03	118.29	120.30
62	A5	3945	A	C5-N7-C8	-5.03	101.39	103.90
62	A5	443	G	C8-N9-C4	-5.03	104.39	106.40
62	A5	779	U	C6-N1-C2	-5.03	117.98	121.00
62	A5	1646	U	N1-C2-N3	5.03	117.92	114.90
62	A5	1686	A	N7-C8-N9	5.03	116.31	113.80
62	A5	2004	G	N3-C2-N2	5.03	123.42	119.90
62	A5	2690	A	O4'-C1'-N9	5.03	112.22	108.20
62	A5	2694	G	N1-C6-O6	5.02	122.91	119.90
62	A5	2697	U	C6-N1-C2	-5.02	117.99	121.00
62	A5	2751	A	N1-C6-N6	-5.02	115.58	118.60
62	A5	3354	U	C2-N1-C1'	5.02	123.73	117.70
62	A5	84	U	C5-C4-O4	-5.02	122.89	125.90
62	A5	1576	U	N3-C2-O2	-5.02	118.69	122.20
62	A5	1612	G	N3-C2-N2	5.02	123.42	119.90
62	A5	2252	A	C5-N7-C8	-5.02	101.39	103.90
62	A5	2516	U	C5-C6-N1	-5.02	120.19	122.70
62	A5	3390	U	C6-N1-C2	-5.02	117.99	121.00
62	A5	2733	G	OP2-P-O3'	5.02	116.25	105.20
62	A5	3344	U	C2-N3-C4	5.02	130.01	127.00
61	B2	1596	C	C6-N1-C1'	-5.02	114.78	120.80
62	A5	225	U	OP2-P-O3'	5.02	116.24	105.20
62	A5	646	G	O4'-C1'-N9	5.02	112.22	108.20
62	A5	798	C	P-O3'-C3'	5.02	125.72	119.70
62	A5	1729	G	N1-C2-N3	5.02	126.91	123.90
54	CH	126	MET	C-N-CA	5.02	134.24	121.70
61	B2	417	A	C2-N3-C4	5.02	113.11	110.60
62	A5	93	G	N3-C2-N2	-5.02	116.39	119.90
62	A5	3421	C	C2-N1-C1'	5.02	124.32	118.80
62	A5	3697	A	OP2-P-O3'	5.02	116.24	105.20
81	B	72	A	C4-C5-N7	5.02	113.21	110.70
62	A5	1415	A	C2-N3-C4	5.02	113.11	110.60
62	A5	3588	G	OP1-P-O3'	5.02	116.23	105.20
62	A5	1756	G	C5-N7-C8	-5.01	101.79	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	3425	G	N1-C6-O6	-5.01	116.89	119.90
61	B2	1245	A	C4-C5-C6	-5.01	114.49	117.00
62	A5	1676	A	C6-C5-N7	-5.01	128.79	132.30
62	A5	2789	U	C2-N1-C1'	5.01	123.72	117.70
62	A5	3679	C	C5-C6-N1	5.01	123.51	121.00
27	Ca	98	LYS	C-N-CA	5.01	134.23	121.70
61	B2	1188	G	O5'-P-OP1	-5.01	101.19	105.70
61	B2	1204	A	C8-N9-C4	-5.01	103.80	105.80
62	A5	1608	G	O5'-P-OP1	-5.01	101.19	105.70
62	A5	2794	U	N3-C4-O4	5.01	122.91	119.40
62	A5	3873	A	N7-C8-N9	5.01	116.31	113.80
70	AF	199	ASP	CB-CG-OD1	5.01	122.81	118.30
59	A8	38	G	N9-C4-C5	-5.01	103.40	105.40
61	B2	1170	G	O5'-P-OP1	-5.01	101.19	105.70
62	A5	1116	G	P-O3'-C3'	5.01	125.71	119.70
62	A5	1181	A	C4-N9-C1'	5.01	135.32	126.30
62	A5	1361	G	O5'-P-OP1	5.01	116.71	110.70
62	A5	1621	A	C6-C5-N7	-5.01	128.79	132.30
62	A5	2092	U	C6-N1-C2	-5.01	118.00	121.00
62	A5	2217	A	C8-N9-C1'	-5.01	118.68	127.70
62	A5	2230	G	N3-C4-C5	-5.01	126.09	128.60
62	A5	2499	U	N1-C2-N3	5.01	117.91	114.90
62	A5	3263	C	N1-C2-O2	5.01	121.91	118.90
62	A5	998	G	N3-C2-N2	-5.01	116.39	119.90
62	A5	1109	G	C8-N9-C1'	5.01	133.51	127.00
62	A5	2520	U	C4-C5-C6	5.01	122.70	119.70
62	A5	3511	U	O5'-P-OP1	-5.01	101.19	105.70
62	A5	3824	C	O5'-P-OP1	5.01	116.71	110.70
62	A5	248	C	C6-N1-C2	-5.01	118.30	120.30
62	A5	1009	G	C2-N3-C4	5.01	114.40	111.90
62	A5	1507	C	N3-C2-O2	-5.01	118.39	121.90
62	A5	1620	A	N3-C4-C5	-5.01	123.30	126.80
62	A5	2161	G	C8-N9-C1'	-5.01	120.49	127.00
62	A5	2709	U	C6-N1-C2	-5.01	118.00	121.00
62	A5	2730	A	N1-C2-N3	-5.01	126.80	129.30
61	B2	1058	A	N7-C8-N9	5.00	116.30	113.80
61	B2	1623	C	C6-N1-C2	5.00	122.30	120.30
62	A5	389	G	C6-C5-N7	-5.00	127.40	130.40
62	A5	349	C	C5-C6-N1	5.00	123.50	121.00
62	A5	1053	G	C6-C5-N7	-5.00	127.40	130.40
62	A5	1787	C	C6-N1-C2	-5.00	118.30	120.30
62	A5	2227	U	C5-C6-N1	5.00	125.20	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	A5	2730	A	C5-N7-C8	-5.00	101.40	103.90
81	B	18	G	OP2-P-O3'	5.00	116.20	105.20

There are no chirality outliers.

All (194) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
3	AB	118	LYS	Peptide
3	AB	119	LYS	Peptide
5	AC	241	GLU	Peptide
23	AD	195	ASP	Peptide
23	AD	202	PRO	Peptide
72	AE	240	LYS	Peptide
72	AE	241	GLY	Peptide
70	AF	190	ILE	Peptide
73	AG	99	GLY	Peptide
74	AH	100	PRO	Peptide
74	AH	187	PHE	Peptide
74	AH	64	ILE	Peptide
75	AI	98	LYS	Peptide
26	AJ	148	PHE	Peptide
26	AJ	149	VAL	Peptide
12	AS	88	LYS	Peptide
69	AT	82	ARG	Peptide
69	AT	86	GLY	Peptide
69	AT	88	HIS	Peptide
8	AU	76	SER	Peptide
10	AX	2	GLY	Peptide
10	AX	22	TRP	Peptide
21	Aa	10	ARG	Peptide
21	Aa	62	TYR	Peptide
21	Aa	85	ARG	Peptide
63	Ac	18	GLY	Peptide
13	Ad	33	LYS	Peptide
13	Ad	39	CYS	Peptide
24	Ae	116	ASN	Peptide
24	Ae	96	LYS	Peptide
2	CA	179	ILE	Peptide
2	CA	185	ALA	Peptide
2	CA	196	TRP	Peptide
2	CA	197	PRO	Peptide
2	CA	203	ALA	Peptide

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Mol	Chain	Res	Type	Group
2	CA	210	PRO	Peptide
2	CA	213	GLY	Peptide
2	CA	229	THR	Peptide
2	CA	3	ARG	Peptide
4	CB	16	PHE	Peptide
4	CB	17	TYR	Peptide
4	CB	234	ARG	Peptide
4	CB	244	THR	Peptide
4	CB	311	ASP	Peptide
4	CB	323	TYR	Peptide
4	CB	33	PRO	Peptide
4	CB	333	ILE	Peptide
4	CB	334	LYS	Peptide
6	CC	315	SER	Peptide
6	CC	60	LEU	Peptide
6	CC	68	GLU	Peptide
6	CC	82	VAL	Peptide
6	CC	85	GLY	Peptide
6	CC	92	GLN	Peptide
30	CD	19	LYS	Peptide
30	CD	222	GLN	Peptide
30	CD	271	LYS	Peptide
30	CD	272	LYS	Peptide
55	CE	224	LYS	Peptide
55	CE	228	ASN	Peptide
55	CE	237	TYR	Peptide
55	CE	60	VAL	Peptide
55	CE	69	TYR	Peptide
55	CE	70	PRO	Peptide
55	CE	71	THR	Peptide
71	CF	134	ASN	Peptide
71	CF	209	SER	Peptide
71	CF	235	GLY	Peptide
56	CG	165	ASP	Peptide
56	CG	168	PRO	Peptide
56	CG	43	ASN	Peptide
56	CG	83	PRO	Peptide
56	CG	85	ILE	Peptide
56	CG	86	HIS	Peptide
56	CG	91	THR	Peptide
29	CI	110	ARG	Peptide
29	CI	111	LEU	Peptide

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Mol	Chain	Res	Type	Group
53	CJ	96	GLU	Peptide
78	CL	124	ILE	Peptide
78	CL	152	PRO	Peptide
78	CL	158	ASN	Peptide
78	CL	160	GLN	Peptide
78	CL	169	VAL	Peptide
78	CL	46	PHE	Peptide
78	CL	53	ALA	Peptide
78	CL	75	PHE	Peptide
78	CL	97	VAL	Peptide
80	CM	103	SER	Peptide
28	CN	124	ASP	Peptide
28	CN	127	TYR	Peptide
28	CN	181	SER	Peptide
28	CN	182	GLN	Peptide
28	CN	190	ALA	Peptide
28	CN	192	TRP	Peptide
28	CN	28	TRP	Peptide
28	CN	47	LYS	Peptide
28	CN	76	PRO	Peptide
28	CN	78	GLY	Peptide
28	CN	79	CYS	Peptide
77	CO	111	PRO	Peptide
77	CO	112	SER	Peptide
77	CO	203	TYR	Peptide
77	CO	5	THR	Peptide
77	CO	52	ASN	Peptide
77	CO	59	TYR	Peptide
77	CO	64	CYS	Peptide
77	CO	71	GLY	Peptide
35	CP	125	LEU	Peptide
35	CP	27	LYS	Peptide
35	CP	63	PHE	Peptide
35	CP	68	GLY	Peptide
35	CP	69	ARG	Peptide
35	CP	78	THR	Peptide
31	CQ	155	ALA	Peptide
31	CQ	3	ILE	Peptide
31	CQ	4	ASP	Peptide
31	CQ	5	ILE	Peptide
31	CQ	58	ARG	Peptide
32	CR	112	SER	Peptide

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Mol	Chain	Res	Type	Group
32	CR	113	LYS	Peptide
32	CR	121	HIS	Peptide
32	CR	169	ALA	Peptide
32	CR	17	CYS	Peptide
33	CS	111	ARG	Peptide
33	CS	118	ARG	Peptide
33	CS	138	ARG	Peptide
33	CS	159	HIS	Peptide
33	CS	17	LEU	Peptide
33	CS	170	ARG	Peptide
33	CS	172	PRO	Peptide
33	CS	53	LYS	Peptide
33	CS	62	VAL	Peptide
33	CS	67	VAL	Peptide
34	CT	143	LYS	Peptide
34	CT	145	GLU	Peptide
34	CT	3	ASN	Peptide
34	CT	4	SER	Peptide
34	CT	6	GLY	Peptide
65	CW	18	GLY	Peptide
65	CW	38	ARG	Peptide
27	Ca	14	GLY	Peptide
27	Ca	27	ARG	Peptide
27	Ca	3	ASN	Peptide
27	Ca	45	ASN	Peptide
27	Ca	56	LYS	Peptide
27	Ca	58	GLY	Peptide
27	Ca	80	TRP	Peptide
27	Ca	98	LYS	Peptide
41	Cb	21	ILE	Peptide
41	Cb	23	ARG	Peptide
41	Cb	25	LEU	Peptide
41	Cb	35	MET	Peptide
41	Cb	38	LYS	Peptide
43	Cd	32	ASN	Peptide
43	Cd	37	LYS	Peptide
43	Cd	39	ALA	Peptide
43	Cd	45	GLU	Peptide
44	Ce	123	ASN	Peptide
44	Ce	19	PHE	Peptide
44	Ce	39	GLY	Peptide
44	Ce	41	ASP	Peptide

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Mol	Chain	Res	Type	Group
44	Ce	5	PRO	Peptide
44	Ce	51	GLN	Peptide
44	Ce	52	TYR	Peptide
45	Cf	107	HIS	Peptide
45	Cf	108	PRO	Peptide
45	Cf	128	THR	Peptide
45	Cf	37	ALA	Peptide
66	Cg	18	ASN	Peptide
66	Cg	50	LYS	Peptide
46	Ci	34	LEU	Peptide
46	Ci	61	ALA	Peptide
46	Ci	7	LEU	Peptide
46	Ci	87	LEU	Peptide
47	Ck	58	GLN	Peptide
48	Cl	37	TYR	Peptide
48	Cl	42	ARG	Peptide
48	Cl	7	PHE	Peptide
50	Cn	17	ARG	Peptide
52	Co	26	TYR	Peptide
52	Co	46	GLN	Peptide
52	Co	55	ILE	Peptide
51	Cp	7	LYS	Peptide
39	Cr	126	LYS	Peptide
39	Cr	26	LYS	Peptide
39	Cr	28	PRO	Peptide
39	Cr	37	ALA	Peptide
39	Cr	41	SER	Peptide
39	Cr	46	GLY	Peptide
39	Cr	69	LYS	Peptide
39	Cr	78	ALA	Peptide
39	Cr	79	LYS	Peptide
39	Cr	80	ASN	Peptide
39	Cr	81	THR	Peptide

5.2 Too-close contacts

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

5.3 Torsion angles

5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	AA	216/218 (99%)	188 (87%)	27 (12%)	1 (0%)	29	68
2	CA	251/253 (99%)	197 (78%)	52 (21%)	2 (1%)	19	60
3	AB	218/220 (99%)	186 (85%)	29 (13%)	3 (1%)	11	46
4	CB	412/414 (100%)	327 (79%)	84 (20%)	1 (0%)	47	81
5	AC	225/227 (99%)	200 (89%)	25 (11%)	0	100	100
6	CC	390/392 (100%)	308 (79%)	82 (21%)	0	100	100
7	Ag	316/318 (99%)	276 (87%)	40 (13%)	0	100	100
8	AU	100/102 (98%)	93 (93%)	7 (7%)	0	100	100
9	AO	132/134 (98%)	112 (85%)	19 (14%)	1 (1%)	19	60
10	AX	141/143 (99%)	112 (79%)	29 (21%)	0	100	100
11	AM	117/119 (98%)	100 (86%)	17 (14%)	0	100	100
12	AS	135/137 (98%)	120 (89%)	15 (11%)	0	100	100
13	Ad	50/52 (96%)	38 (76%)	12 (24%)	0	100	100
14	AN	148/150 (99%)	137 (93%)	11 (7%)	0	100	100
15	AL	153/155 (99%)	127 (83%)	26 (17%)	0	100	100
16	AR	118/120 (98%)	107 (91%)	11 (9%)	0	100	100
17	AP	122/124 (98%)	108 (88%)	14 (12%)	0	100	100
18	AV	80/82 (98%)	67 (84%)	13 (16%)	0	100	100
19	AY	124/126 (98%)	106 (86%)	18 (14%)	0	100	100
20	AZ	72/74 (97%)	59 (82%)	13 (18%)	0	100	100
21	Aa	105/107 (98%)	85 (81%)	20 (19%)	0	100	100
22	Ab	82/84 (98%)	66 (80%)	16 (20%)	0	100	100
23	AD	225/227 (99%)	191 (85%)	33 (15%)	1 (0%)	34	72
24	Ae	56/58 (97%)	39 (70%)	17 (30%)	0	100	100
25	Af	78/80 (98%)	64 (82%)	14 (18%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
26	AJ	179/181 (99%)	156 (87%)	22 (12%)	1 (1%)	25	65
27	Ca	147/149 (99%)	112 (76%)	34 (23%)	1 (1%)	22	62
28	CN	201/203 (99%)	153 (76%)	46 (23%)	2 (1%)	15	54
29	CI	215/217 (99%)	184 (86%)	31 (14%)	0	100	100
30	CD	288/290 (99%)	247 (86%)	40 (14%)	1 (0%)	41	76
31	CQ	185/187 (99%)	152 (82%)	32 (17%)	1 (0%)	29	68
32	CR	201/203 (99%)	182 (90%)	19 (10%)	0	100	100
33	CS	171/173 (99%)	127 (74%)	41 (24%)	3 (2%)	8	41
34	CT	156/158 (99%)	118 (76%)	37 (24%)	1 (1%)	25	65
35	CP	183/185 (99%)	153 (84%)	30 (16%)	0	100	100
36	CX	118/120 (98%)	94 (80%)	23 (20%)	1 (1%)	19	60
37	CY	129/131 (98%)	111 (86%)	18 (14%)	0	100	100
38	CZ	132/134 (98%)	112 (85%)	20 (15%)	0	100	100
39	Cr	132/134 (98%)	92 (70%)	37 (28%)	3 (2%)	6	36
40	Ch	121/123 (98%)	107 (88%)	14 (12%)	0	100	100
41	Cb	73/75 (97%)	56 (77%)	17 (23%)	0	100	100
42	Cc	98/100 (98%)	94 (96%)	4 (4%)	0	100	100
43	Cd	109/111 (98%)	89 (82%)	20 (18%)	0	100	100
44	Ce	130/132 (98%)	99 (76%)	31 (24%)	0	100	100
45	Cf	155/157 (99%)	119 (77%)	34 (22%)	2 (1%)	12	48
46	Ci	111/113 (98%)	82 (74%)	29 (26%)	0	100	100
47	Ck	68/70 (97%)	63 (93%)	5 (7%)	0	100	100
48	Cl	48/50 (96%)	33 (69%)	14 (29%)	1 (2%)	7	38
49	Cm	50/52 (96%)	41 (82%)	9 (18%)	0	100	100
50	Cn	23/25 (92%)	21 (91%)	2 (9%)	0	100	100
51	Cp	89/91 (98%)	72 (81%)	17 (19%)	0	100	100
52	Co	102/104 (98%)	79 (78%)	23 (22%)	0	100	100
53	CJ	180/182 (99%)	147 (82%)	32 (18%)	1 (1%)	25	65
54	CH	188/190 (99%)	165 (88%)	23 (12%)	0	100	100
55	CE	226/228 (99%)	178 (79%)	46 (20%)	2 (1%)	17	56
56	CG	239/241 (99%)	205 (86%)	31 (13%)	3 (1%)	12	48

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
60	Cz	215/217 (99%)	192 (89%)	23 (11%)	0	100	100
63	Ac	60/62 (97%)	53 (88%)	7 (12%)	0	100	100
64	AW	127/129 (98%)	109 (86%)	18 (14%)	0	100	100
65	CW	56/58 (97%)	45 (80%)	11 (20%)	0	100	100
66	Cg	102/104 (98%)	88 (86%)	14 (14%)	0	100	100
67	CU	94/96 (98%)	76 (81%)	18 (19%)	0	100	100
68	AK	88/90 (98%)	68 (77%)	19 (22%)	1 (1%)	14	52
69	AT	128/143 (90%)	104 (81%)	20 (16%)	4 (3%)	4	30
70	AF	187/189 (99%)	158 (84%)	28 (15%)	1 (0%)	29	68
71	CF	224/226 (99%)	188 (84%)	32 (14%)	4 (2%)	8	41
72	AE	259/261 (99%)	225 (87%)	34 (13%)	0	100	100
73	AG	229/231 (99%)	211 (92%)	18 (8%)	0	100	100
74	AH	192/194 (99%)	161 (84%)	31 (16%)	0	100	100
75	AI	205/207 (99%)	162 (79%)	40 (20%)	3 (2%)	10	46
76	AQ	146/148 (99%)	117 (80%)	28 (19%)	1 (1%)	22	62
77	CO	203/205 (99%)	161 (79%)	38 (19%)	4 (2%)	7	39
78	CL	208/210 (99%)	151 (73%)	54 (26%)	3 (1%)	11	46
79	CV	132/134 (98%)	115 (87%)	17 (13%)	0	100	100
80	CM	157/159 (99%)	131 (83%)	26 (17%)	0	100	100
83	Cj	85/87 (98%)	57 (67%)	25 (29%)	3 (4%)	3	28
All	All	11610/11775 (99%)	9628 (83%)	1926 (17%)	56 (0%)	32	68

All (56) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	AB	120	TRP
69	AT	40	ALA
71	CF	237	PHE
77	CO	113	PRO
30	CD	20	PHE
48	CI	50	LYS
56	CG	44	PHE
71	CF	171	PRO
71	CF	173	THR
75	AI	99	ASN

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Mol	Chain	Res	Type
1	AA	32	PHE
27	Ca	79	LEU
28	CN	125	ALA
33	CS	119	ALA
39	Cr	28	PRO
78	CL	53	ALA
83	Cj	29	LEU
83	Cj	45	ARG
3	AB	184	LEU
23	AD	202	PRO
33	CS	173	ARG
39	Cr	27	LYS
39	Cr	73	TYR
56	CG	168	PRO
68	AK	61	ALA
75	AI	21	LEU
2	CA	143	THR
3	AB	119	LYS
45	Cf	139	LEU
53	CJ	97	TYR
55	CE	61	PRO
69	AT	50	PRO
77	CO	112	SER
78	CL	61	PRO
78	CL	125	LEU
9	AO	141	ARG
26	AJ	7	PRO
31	CQ	3	ILE
69	AT	89	PRO
75	AI	143	ARG
83	Cj	55	GLY
55	CE	60	VAL
56	CG	109	PRO
28	CN	45	PRO
69	AT	49	ASP
70	AF	129	GLY
2	CA	210	PRO
36	CX	165	VAL
45	Cf	108	PRO
76	AQ	61	GLY
77	CO	111	PRO
77	CO	202	GLY

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Mol	Chain	Res	Type
4	CB	40	PRO
33	CS	133	PRO
34	CT	147	PRO
71	CF	106	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	
1	AA	190/190 (100%)	190 (100%)	0	100	100
2	CA	195/195 (100%)	192 (98%)	3 (2%)	65	80
3	AB	199/199 (100%)	198 (100%)	1 (0%)	88	93
4	CB	349/349 (100%)	339 (97%)	10 (3%)	42	64
5	AC	188/188 (100%)	188 (100%)	0	100	100
6	CC	323/323 (100%)	317 (98%)	6 (2%)	57	75
7	Ag	280/280 (100%)	273 (98%)	7 (2%)	47	68
8	AU	95/95 (100%)	94 (99%)	1 (1%)	73	85
9	AO	103/103 (100%)	100 (97%)	3 (3%)	42	64
10	AX	116/116 (100%)	114 (98%)	2 (2%)	60	78
11	AM	104/104 (100%)	103 (99%)	1 (1%)	76	86
12	AS	123/123 (100%)	122 (99%)	1 (1%)	81	89
13	Ad	45/45 (100%)	43 (96%)	2 (4%)	28	53
14	AN	130/130 (100%)	128 (98%)	2 (2%)	65	80
15	AL	138/138 (100%)	137 (99%)	1 (1%)	84	90
16	AR	108/108 (100%)	108 (100%)	0	100	100
17	AP	111/111 (100%)	108 (97%)	3 (3%)	44	65
18	AV	67/67 (100%)	66 (98%)	1 (2%)	65	80
19	AY	105/106 (99%)	105 (100%)	0	100	100
20	AZ	67/67 (100%)	65 (97%)	2 (3%)	41	63

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
21	Aa	94/94 (100%)	91 (97%)	3 (3%)	39	61
22	Ab	72/72 (100%)	71 (99%)	1 (1%)	67	81
23	AD	192/192 (100%)	191 (100%)	1 (0%)	88	93
24	Ae	47/47 (100%)	46 (98%)	1 (2%)	53	72
25	Af	70/70 (100%)	69 (99%)	1 (1%)	67	81
26	AJ	161/161 (100%)	159 (99%)	2 (1%)	71	84
27	Ca	122/122 (100%)	120 (98%)	2 (2%)	62	79
28	CN	174/174 (100%)	169 (97%)	5 (3%)	42	64
29	CI	187/187 (100%)	183 (98%)	4 (2%)	53	72
30	CD	241/241 (100%)	238 (99%)	3 (1%)	71	84
31	CQ	164/164 (100%)	161 (98%)	3 (2%)	59	77
32	CR	176/176 (100%)	171 (97%)	5 (3%)	43	65
33	CS	156/156 (100%)	153 (98%)	3 (2%)	57	75
34	CT	137/137 (100%)	137 (100%)	0	100	100
35	CP	160/160 (100%)	155 (97%)	5 (3%)	40	62
36	CX	106/106 (100%)	105 (99%)	1 (1%)	78	88
37	CY	116/116 (100%)	115 (99%)	1 (1%)	78	88
38	CZ	121/121 (100%)	121 (100%)	0	100	100
39	Cr	112/112 (100%)	107 (96%)	5 (4%)	27	53
40	Ch	112/112 (100%)	111 (99%)	1 (1%)	78	88
41	Cb	67/67 (100%)	66 (98%)	1 (2%)	65	80
42	Cc	84/84 (100%)	83 (99%)	1 (1%)	71	84
43	Cd	103/103 (100%)	101 (98%)	2 (2%)	57	75
44	Ce	120/120 (100%)	117 (98%)	3 (2%)	47	68
45	Cf	123/123 (100%)	118 (96%)	5 (4%)	30	55
46	Ci	100/100 (100%)	96 (96%)	4 (4%)	31	56
47	Ck	65/65 (100%)	65 (100%)	0	100	100
48	Cl	45/45 (100%)	43 (96%)	2 (4%)	28	53
49	Cm	48/48 (100%)	48 (100%)	0	100	100
50	Cn	23/23 (100%)	23 (100%)	0	100	100
51	Cp	74/74 (100%)	72 (97%)	2 (3%)	44	65

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
52	Co	94/94 (100%)	93 (99%)	1 (1%)	73	85
53	CJ	155/155 (100%)	155 (100%)	0	100	100
54	CH	169/169 (100%)	168 (99%)	1 (1%)	86	92
55	CE	197/197 (100%)	191 (97%)	6 (3%)	41	63
56	CG	210/210 (100%)	208 (99%)	2 (1%)	76	86
60	Cz	190/190 (100%)	186 (98%)	4 (2%)	53	72
63	Ac	54/54 (100%)	54 (100%)	0	100	100
64	AW	113/113 (100%)	111 (98%)	2 (2%)	59	77
65	CW	52/52 (100%)	51 (98%)	1 (2%)	57	75
66	Cg	96/96 (100%)	93 (97%)	3 (3%)	40	62
67	CU	90/90 (100%)	88 (98%)	2 (2%)	52	71
68	AK	81/81 (100%)	80 (99%)	1 (1%)	71	84
69	AT	107/116 (92%)	107 (100%)	0	100	100
70	AF	160/160 (100%)	156 (98%)	4 (2%)	47	68
71	CF	200/200 (100%)	197 (98%)	3 (2%)	65	80
72	AE	220/220 (100%)	219 (100%)	1 (0%)	88	93
73	AG	200/200 (100%)	199 (100%)	1 (0%)	88	93
74	AH	175/175 (100%)	171 (98%)	4 (2%)	50	70
75	AI	175/175 (100%)	175 (100%)	0	100	100
76	AQ	122/122 (100%)	121 (99%)	1 (1%)	81	89
77	CO	175/175 (100%)	173 (99%)	2 (1%)	73	85
78	CL	173/173 (100%)	167 (96%)	6 (4%)	36	60
79	CV	101/101 (100%)	98 (97%)	3 (3%)	41	63
80	CM	138/138 (100%)	136 (99%)	2 (1%)	67	81
83	Cj	71/71 (100%)	43 (61%)	28 (39%)	0	0
All	All	10126/10136 (100%)	9935 (98%)	191 (2%)	59	75

All (191) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	CA	156	LYS
2	CA	219	ILE
2	CA	237	LEU

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Mol	Chain	Res	Type
3	AB	225	ARG
4	CB	40	PRO
4	CB	155	ARG
4	CB	223	THR
4	CB	245	HIS
4	CB	257	TRP
4	CB	258	HIS
4	CB	278	THR
4	CB	317	MET
4	CB	326	VAL
4	CB	364	LYS
6	CC	14	THR
6	CC	32	LYS
6	CC	72	THR
6	CC	95	PHE
6	CC	110	THR
6	CC	348	LYS
7	Ag	65	HIS
7	Ag	86	GLN
7	Ag	101	ARG
7	Ag	120	GLN
7	Ag	140	LYS
7	Ag	173	ARG
7	Ag	266	LYS
8	AU	102	LYS
9	AO	55	ARG
9	AO	103	ASN
9	AO	146	ARG
10	AX	5	ARG
10	AX	26	ASP
11	AM	85	ARG
12	AS	39	ARG
13	Ad	16	GLN
13	Ad	40	ARG
14	AN	19	ARG
14	AN	90	HIS
15	AL	42	LYS
17	AP	8	ASN
17	AP	12	LYS
17	AP	68	LYS
18	AV	56	CYS
20	AZ	47	VAL

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Mol	Chain	Res	Type
20	AZ	59	LYS
21	Aa	5	ARG
21	Aa	6	ARG
21	Aa	85	ARG
22	Ab	33	MET
23	AD	180	ARG
24	Ae	112	ARG
25	Af	119	ARG
26	AJ	74	GLN
26	AJ	122	LYS
27	Ca	45	ASN
27	Ca	46	PHE
28	CN	11	TYR
28	CN	144	ARG
28	CN	159	ARG
28	CN	189	ARG
28	CN	204	ARG
29	CI	12	CYS
29	CI	17	TYR
29	CI	154	ARG
29	CI	196	ASN
30	CD	50	ARG
30	CD	84	PRO
30	CD	277	GLN
31	CQ	82	VAL
31	CQ	86	VAL
31	CQ	88	ASP
32	CR	93	LEU
32	CR	103	ARG
32	CR	143	HIS
32	CR	149	LYS
32	CR	172	ARG
33	CS	54	PHE
33	CS	109	CYS
33	CS	125	GLN
35	CP	6	ARG
35	CP	64	ASN
35	CP	119	VAL
35	CP	172	LYS
35	CP	181	LYS
36	CX	189	ARG
37	CY	101	PRO

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Mol	Chain	Res	Type
39	Cr	9	TRP
39	Cr	24	ASP
39	Cr	35	ASN
39	Cr	91	ARG
39	Cr	107	ARG
40	Ch	101	ASN
41	Cb	26	ARG
42	Cc	51	ASN
43	Cd	56	THR
43	Cd	77	THR
44	Ce	45	ARG
44	Ce	52	TYR
44	Ce	91	ASN
45	Cf	12	PRO
45	Cf	46	ARG
45	Cf	94	TYR
45	Cf	107	HIS
45	Cf	138	ASN
46	Ci	11	LEU
46	Ci	25	TYR
46	Ci	43	GLN
46	Ci	108	ARG
48	Cl	8	ARG
48	Cl	37	TYR
51	Cp	69	TRP
51	Cp	84	ARG
52	Co	78	ARG
54	CH	62	LYS
55	CE	16	LYS
55	CE	42	ARG
55	CE	92	ARG
55	CE	124	LEU
55	CE	193	VAL
55	CE	227	GLN
56	CG	135	LYS
56	CG	200	ARG
60	Cz	92	LYS
60	Cz	174	MET
60	Cz	196	LYS
60	Cz	197	ASN
64	AW	32	LYS
64	AW	103	VAL

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Mol	Chain	Res	Type
65	CW	49	VAL
66	Cg	34	TYR
66	Cg	47	CYS
66	Cg	64	ARG
67	CU	222	LYS
67	CU	280	ASP
68	AK	63	ARG
70	AF	146	ARG
70	AF	154	ARG
70	AF	197	LEU
70	AF	217	LYS
71	CF	144	THR
71	CF	158	TYR
71	CF	193	ASP
72	AE	157	ASN
73	AG	65	GLN
74	AH	55	LYS
74	AH	72	LYS
74	AH	118	ARG
74	AH	150	GLN
76	AQ	39	ARG
77	CO	48	HIS
77	CO	200	SER
78	CL	59	ARG
78	CL	75	PHE
78	CL	144	LYS
78	CL	148	GLN
78	CL	186	ARG
78	CL	200	LYS
79	CV	64	THR
79	CV	80	VAL
79	CV	86	LYS
80	CM	110	PHE
80	CM	131	LYS
83	Cj	2	THR
83	Cj	3	LYS
83	Cj	7	SER
83	Cj	10	LYS
83	Cj	13	ASN
83	Cj	16	HIS
83	Cj	18	ILE
83	Cj	19	CYS

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Mol	Chain	Res	Type
83	Cj	21	ARG
83	Cj	24	ASN
83	Cj	25	SER
83	Cj	31	LYS
83	Cj	33	LYS
83	Cj	37	CYS
83	Cj	43	LYS
83	Cj	45	ARG
83	Cj	46	SER
83	Cj	50	SER
83	Cj	51	ARG
83	Cj	52	LYS
83	Cj	54	LYS
83	Cj	56	ARG
83	Cj	63	ARG
83	Cj	65	ARG
83	Cj	70	LEU
83	Cj	73	ARG
83	Cj	74	PHE
83	Cj	76	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (11) such sidechains are listed below:

Mol	Chain	Res	Type
6	CC	97	ASN
7	Ag	189	HIS
9	AO	103	ASN
14	AN	5	HIS
22	Ab	49	HIS
69	AT	63	HIS
69	AT	85	ASN
69	AT	88	HIS
69	AT	128	GLN
79	CV	135	ASN
83	Cj	30	GLN

5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
57	A9	29/30 (96%)	10 (34%)	1 (3%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
58	A7	119/120 (99%)	30 (25%)	1 (0%)
59	A8	122/123 (99%)	58 (47%)	2 (1%)
61	B2	1792/1995 (89%)	726 (40%)	26 (1%)
62	A5	3566/3974 (89%)	1650 (46%)	86 (2%)
81	B	74/75 (98%)	27 (36%)	1 (1%)
82	v	11/12 (91%)	6 (54%)	0
All	All	5713/6329 (90%)	2507 (43%)	117 (2%)

All (2507) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
57	A9	7	G
57	A9	9	C
57	A9	10	U
57	A9	11	A
57	A9	15	A
57	A9	16	U
57	A9	21	G
57	A9	22	A
57	A9	24	G
57	A9	30	A
58	A7	2	C
58	A7	10	C
58	A7	11	A
58	A7	21	G
58	A7	22	A
58	A7	25	A
58	A7	27	A
58	A7	33	U
58	A7	38	U
58	A7	50	A
58	A7	60	C
58	A7	61	G
58	A7	62	U
58	A7	64	G
58	A7	66	G
58	A7	72	U
58	A7	74	A
58	A7	76	U
58	A7	86	G
58	A7	88	G
58	A7	92	C

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Mol	Chain	Res	Type
58	A7	94	C
58	A7	97	G
58	A7	100	A
58	A7	103	A
58	A7	108	G
58	A7	109	U
58	A7	110	G
58	A7	112	U
58	A7	120	U
59	A8	2	A
59	A8	8	A
59	A8	13	U
59	A8	14	G
59	A8	15	G
59	A8	18	C
59	A8	19	A
59	A8	20	C
59	A8	21	U
59	A8	22	C
59	A8	23	G
59	A8	24	G
59	A8	25	C
59	A8	30	G
59	A8	31	G
59	A8	32	G
59	A8	33	U
59	A8	34	C
59	A8	35	G
59	A8	38	G
59	A8	41	G
59	A8	46	C
59	A8	48	G
59	A8	50	A
59	A8	52	A
59	A8	53	C
59	A8	56	U
59	A8	57	G
59	A8	59	G
59	A8	60	U
59	A8	61	C
59	A8	62	A
59	A8	69	G

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Mol	Chain	Res	Type
59	A8	70	A
59	A8	80	C
59	A8	81	A
59	A8	83	A
59	A8	84	U
59	A8	85	G
59	A8	86	A
59	A8	92	G
59	A8	94	C
59	A8	95	A
59	A8	99	U
59	A8	100	G
59	A8	101	A
59	A8	102	A
59	A8	103	C
59	A8	104	G
59	A8	106	A
59	A8	107	U
59	A8	108	A
59	A8	109	U
59	A8	110	C
59	A8	113	A
59	A8	117	C
59	A8	122	U
59	A8	123	G
61	B2	2	U
61	B2	4	C
61	B2	25	U
61	B2	26	A
61	B2	27	U
61	B2	34	G
61	B2	36	C
61	B2	38	C
61	B2	42	G
61	B2	46	A
61	B2	47	A
61	B2	56	U
61	B2	57	G
61	B2	65	A
61	B2	66	C
61	B2	68	C
61	B2	69	A

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Mol	Chain	Res	Type
61	B2	70	C
61	B2	73	A
61	B2	74	U
61	B2	75	U
61	B2	76	A
61	B2	77	A
61	B2	80	G
61	B2	82	G
61	B2	83	A
61	B2	84	A
61	B2	98	C
61	B2	99	A
61	B2	100	U
61	B2	101	U
61	B2	103	U
61	B2	104	A
61	B2	108	G
61	B2	110	U
61	B2	111	A
61	B2	113	G
61	B2	114	G
61	B2	115	U
61	B2	121	A
61	B2	122	G
61	B2	123	A
61	B2	124	U
61	B2	125	C
61	B2	126	G
61	B2	135	U
61	B2	136	A
61	B2	137	C
61	B2	138	U
61	B2	139	U
61	B2	141	G
61	B2	142	A
61	B2	143	U
61	B2	145	A
61	B2	150	G
61	B2	152	U
61	B2	153	A
61	B2	155	U
61	B2	156	U

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Mol	Chain	Res	Type
61	B2	163	C
61	B2	167	U
61	B2	172	G
61	B2	173	C
61	B2	174	A
61	B2	177	U
61	B2	178	A
61	B2	183	A
61	B2	184	U
61	B2	185	G
61	B2	188	C
61	B2	190	U
61	B2	191	U
61	B2	193	U
61	B2	194	G
61	B2	200	U
61	B2	203	G
61	B2	205	U
61	B2	210	U
61	B2	214	G
61	B2	215	C
61	B2	216	U
61	B2	224	A
61	B2	226	C
61	B2	227	G
61	B2	233	A
61	B2	234	A
61	B2	235	G
61	B2	236	A
61	B2	238	C
61	B2	249	U
61	B2	250	U
61	B2	251	G
61	B2	252	A
61	B2	253	A
61	B2	254	C
61	B2	255	U
61	B2	256	C
61	B2	257	U
61	B2	258	A
61	B2	259	G
61	B2	263	A

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Mol	Chain	Res	Type
61	B2	266	U
61	B2	267	G
61	B2	270	G
61	B2	276	A
61	B2	279	G
61	B2	281	C
61	B2	282	U
61	B2	283	U
61	B2	284	G
61	B2	285	U
61	B2	289	G
61	B2	290	A
61	B2	291	C
61	B2	292	G
61	B2	293	A
61	B2	294	C
61	B2	302	U
61	B2	304	A
61	B2	313	C
61	B2	317	A
61	B2	319	C
61	B2	321	A
61	B2	322	C
61	B2	324	U
61	B2	325	U
61	B2	326	U
61	B2	327	G
61	B2	330	G
61	B2	336	A
61	B2	338	C
61	B2	339	U
61	B2	341	G
61	B2	342	G
61	B2	343	A
61	B2	347	C
61	B2	352	G
61	B2	357	A
61	B2	358	A
61	B2	359	C
61	B2	361	G
61	B2	364	A
61	B2	365	A

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Mol	Chain	Res	Type
61	B2	366	C
61	B2	370	G
61	B2	373	U
61	B2	375	A
61	B2	376	G
61	B2	379	U
61	B2	380	U
61	B2	381	C
61	B2	382	G
61	B2	383	A
61	B2	385	U
61	B2	386	C
61	B2	390	A
61	B2	392	A
61	B2	395	G
61	B2	397	G
61	B2	402	A
61	B2	404	A
61	B2	405	A
61	B2	406	A
61	B2	407	C
61	B2	408	G
61	B2	409	G
61	B2	413	C
61	B2	417	A
61	B2	420	U
61	B2	421	A
61	B2	422	A
61	B2	423	G
61	B2	428	G
61	B2	429	C
61	B2	430	A
61	B2	431	G
61	B2	434	G
61	B2	441	A
61	B2	444	U
61	B2	449	C
61	B2	450	A
61	B2	453	C
61	B2	457	G
61	B2	464	G
61	B2	466	G

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Mol	Chain	Res	Type
61	B2	472	G
61	B2	474	C
61	B2	475	G
61	B2	476	A
61	B2	482	A
61	B2	489	C
61	B2	490	A
61	B2	501	C
61	B2	506	G
61	B2	508	C
61	B2	509	C
61	B2	510	U
61	B2	511	G
61	B2	512	U
61	B2	513	A
61	B2	514	A
61	B2	515	U
61	B2	516	U
61	B2	517	G
61	B2	519	A
61	B2	521	U
61	B2	522	G
61	B2	523	A
61	B2	524	G
61	B2	527	C
61	B2	541	U
61	B2	542	A
61	B2	546	A
61	B2	547	G
61	B2	548	G
61	B2	549	A
61	B2	550	C
61	B2	551	C
61	B2	553	A
61	B2	554	U
61	B2	563	A
61	B2	564	A
61	B2	565	G
61	B2	566	U
61	B2	567	C
61	B2	572	G
61	B2	573	C

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Mol	Chain	Res	Type
61	B2	576	G
61	B2	582	G
61	B2	586	U
61	B2	587	A
61	B2	588	A
61	B2	589	U
61	B2	593	A
61	B2	602	A
61	B2	603	G
61	B2	609	A
61	B2	613	A
61	B2	614	A
61	B2	616	U
61	B2	617	U
61	B2	619	U
61	B2	620	U
61	B2	625	U
61	B2	627	A
61	B2	628	A
61	B2	631	C
61	B2	632	G
61	B2	633	U
61	B2	637	U
61	B2	639	G
61	B2	643	A
61	B2	646	U
61	B2	647	U
61	B2	649	U
61	B2	655	A
61	B2	656	U
61	B2	706	U
61	B2	713	A
61	B2	714	U
61	B2	715	U
61	B2	719	G
61	B2	817	C
61	B2	819	G
61	B2	821	U
61	B2	824	U
61	B2	825	A
61	B2	826	U
61	B2	833	G

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Mol	Chain	Res	Type
61	B2	837	A
61	B2	843	G
61	B2	844	A
61	B2	847	G
61	B2	848	C
61	B2	853	A
61	B2	856	A
61	B2	857	G
61	B2	860	U
61	B2	861	U
61	B2	862	C
61	B2	863	A
61	B2	864	A
61	B2	865	A
61	B2	866	U
61	B2	867	G
61	B2	868	C
61	B2	869	C
61	B2	871	G
61	B2	873	A
61	B2	875	A
61	B2	876	U
61	B2	877	U
61	B2	878	C
61	B2	879	U
61	B2	880	G
61	B2	881	U
61	B2	888	G
61	B2	892	A
61	B2	895	A
61	B2	897	A
61	B2	899	A
61	B2	900	A
61	B2	901	G
61	B2	902	A
61	B2	903	C
61	B2	905	U
61	B2	907	U
61	B2	908	G
61	B2	909	U
61	B2	910	U
61	B2	911	C

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Mol	Chain	Res	Type
61	B2	913	G
61	B2	914	C
61	B2	915	U
61	B2	916	U
61	B2	918	C
61	B2	919	A
61	B2	920	U
61	B2	922	G
61	B2	926	U
61	B2	929	A
61	B2	930	G
61	B2	933	C
61	B2	935	A
61	B2	937	A
61	B2	938	G
61	B2	939	G
61	B2	940	U
61	B2	941	A
61	B2	942	A
61	B2	943	U
61	B2	944	G
61	B2	946	U
61	B2	949	A
61	B2	950	U
61	B2	957	A
61	B2	958	G
61	B2	959	U
61	B2	960	U
61	B2	961	U
61	B2	963	G
61	B2	973	U
61	B2	974	A
61	B2	975	U
61	B2	977	A
61	B2	993	A
61	B2	998	U
61	B2	999	U
61	B2	1000	G
61	B2	1002	A
61	B2	1005	G
61	B2	1010	A
61	B2	1017	A

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Mol	Chain	Res	Type
61	B2	1018	C
61	B2	1019	U
61	B2	1020	U
61	B2	1021	A
61	B2	1022	A
61	B2	1029	G
61	B2	1031	A
61	B2	1032	U
61	B2	1037	C
61	B2	1038	A
61	B2	1040	A
61	B2	1047	U
61	B2	1050	A
61	B2	1053	A
61	B2	1057	A
61	B2	1058	A
61	B2	1059	G
61	B2	1070	A
61	B2	1072	A
61	B2	1074	G
61	B2	1079	A
61	B2	1080	A
61	B2	1082	G
61	B2	1090	A
61	B2	1091	U
61	B2	1092	A
61	B2	1094	C
61	B2	1096	C
61	B2	1098	C
61	B2	1101	G
61	B2	1107	A
61	B2	1108	C
61	B2	1110	A
61	B2	1111	U
61	B2	1112	A
61	B2	1113	A
61	B2	1114	A
61	B2	1115	C
61	B2	1117	A
61	B2	1118	U
61	B2	1119	G
61	B2	1126	A

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Mol	Chain	Res	Type
61	B2	1127	G
61	B2	1133	G
61	B2	1138	U
61	B2	1139	A
61	B2	1140	G
61	B2	1144	C
61	B2	1145	U
61	B2	1148	U
61	B2	1150	U
61	B2	1159	C
61	B2	1161	G
61	B2	1164	G
61	B2	1167	U
61	B2	1168	C
61	B2	1169	C
61	B2	1170	G
61	B2	1172	G
61	B2	1174	A
61	B2	1175	A
61	B2	1178	A
61	B2	1179	A
61	B2	1180	A
61	B2	1183	U
61	B2	1184	U
61	B2	1185	U
61	B2	1186	U
61	B2	1187	U
61	B2	1188	G
61	B2	1189	G
61	B2	1190	G
61	B2	1193	C
61	B2	1197	G
61	B2	1198	G
61	B2	1199	G
61	B2	1200	A
61	B2	1201	A
61	B2	1206	G
61	B2	1207	G
61	B2	1217	U
61	B2	1218	G
61	B2	1220	A
61	B2	1221	A

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Mol	Chain	Res	Type
61	B2	1226	A
61	B2	1230	A
61	B2	1234	G
61	B2	1236	C
61	B2	1238	G
61	B2	1239	A
61	B2	1240	A
61	B2	1244	C
61	B2	1245	A
61	B2	1246	C
61	B2	1247	C
61	B2	1248	A
61	B2	1251	A
61	B2	1252	G
61	B2	1255	G
61	B2	1260	G
61	B2	1263	U
61	B2	1265	C
61	B2	1273	U
61	B2	1278	C
61	B2	1279	U
61	B2	1281	A
61	B2	1282	A
61	B2	1283	C
61	B2	1284	A
61	B2	1285	C
61	B2	1287	G
61	B2	1288	G
61	B2	1289	A
61	B2	1290	A
61	B2	1292	A
61	B2	1294	U
61	B2	1301	G
61	B2	1305	A
61	B2	1306	A
61	B2	1307	C
61	B2	1309	U
61	B2	1310	A
61	B2	1311	A
61	B2	1313	U
61	B2	1314	G
61	B2	1316	G

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Mol	Chain	Res	Type
61	B2	1317	U
61	B2	1318	A
61	B2	1321	A
61	B2	1324	G
61	B2	1325	A
61	B2	1327	U
61	B2	1328	G
61	B2	1330	U
61	B2	1335	C
61	B2	1339	C
61	B2	1341	C
61	B2	1342	G
61	B2	1343	A
61	B2	1346	C
61	B2	1348	A
61	B2	1349	U
61	B2	1351	G
61	B2	1352	G
61	B2	1363	U
61	B2	1371	C
61	B2	1373	U
61	B2	1374	A
61	B2	1375	G
61	B2	1379	G
61	B2	1381	G
61	B2	1382	G
61	B2	1384	G
61	B2	1385	U
61	B2	1387	A
61	B2	1388	U
61	B2	1393	C
61	B2	1394	U
61	B2	1400	A
61	B2	1401	U
61	B2	1406	A
61	B2	1407	U
61	B2	1408	A
61	B2	1409	A
61	B2	1410	C
61	B2	1411	G
61	B2	1412	A
61	B2	1423	A

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Mol	Chain	Res	Type
61	B2	1424	A
61	B2	1425	U
61	B2	1426	A
61	B2	1427	U
61	B2	1428	A
61	B2	1430	U
61	B2	1432	A
61	B2	1433	A
61	B2	1436	G
61	B2	1438	U
61	B2	1442	U
61	B2	1446	G
61	B2	1449	U
61	B2	1450	U
61	B2	1451	A
61	B2	1453	G
61	B2	1458	U
61	B2	1519	U
61	B2	1529	G
61	B2	1530	A
61	B2	1531	G
61	B2	1541	U
61	B2	1544	G
61	B2	1545	U
61	B2	1546	U
61	B2	1547	U
61	B2	1548	G
61	B2	1551	C
61	B2	1552	C
61	B2	1557	U
61	B2	1558	A
61	B2	1561	G
61	B2	1565	C
61	B2	1566	U
61	B2	1567	A
61	B2	1569	C
61	B2	1570	U
61	B2	1571	U
61	B2	1572	C
61	B2	1575	A
61	B2	1576	A
61	B2	1578	U

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Mol	Chain	Res	Type
61	B2	1579	G
61	B2	1581	A
61	B2	1582	C
61	B2	1584	A
61	B2	1585	A
61	B2	1588	G
61	B2	1589	C
61	B2	1591	U
61	B2	1593	U
61	B2	1594	A
61	B2	1595	G
61	B2	1596	C
61	B2	1597	A
61	B2	1599	U
61	B2	1600	A
61	B2	1601	A
61	B2	1602	U
61	B2	1603	G
61	B2	1604	A
61	B2	1605	G
61	B2	1608	U
61	B2	1609	G
61	B2	1614	A
61	B2	1615	U
61	B2	1617	A
61	B2	1619	A
61	B2	1620	G
61	B2	1623	C
61	B2	1626	U
61	B2	1627	G
61	B2	1628	A
61	B2	1636	A
61	B2	1637	G
61	B2	1638	A
61	B2	1639	U
61	B2	1640	G
61	B2	1643	C
61	B2	1645	G
61	B2	1651	C
61	B2	1652	A
61	B2	1653	C
61	B2	1655	C

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Mol	Chain	Res	Type
61	B2	1658	G
61	B2	1659	C
61	B2	1664	A
61	B2	1665	U
61	B2	1666	G
61	B2	1668	A
61	B2	1669	A
61	B2	1670	G
61	B2	1674	C
61	B2	1675	A
61	B2	1678	G
61	B2	1682	A
61	B2	1684	U
61	B2	1685	U
61	B2	1688	U
61	B2	1691	A
61	B2	1695	A
61	B2	1698	G
61	B2	1702	C
61	B2	1703	G
61	B2	1708	A
61	B2	1709	A
61	B2	1712	G
61	B2	1713	C
61	B2	1714	U
61	B2	1715	G
61	B2	1716	A
61	B2	1718	C
61	B2	1719	C
61	B2	1720	A
61	B2	1723	U
61	B2	1725	C
61	B2	1726	A
61	B2	1727	U
61	B2	1729	C
61	B2	1732	G
61	B2	1734	G
61	B2	1735	A
61	B2	1742	A
61	B2	1746	A
61	B2	1748	A
61	B2	1749	C

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Mol	Chain	Res	Type
61	B2	1750	U
61	B2	1751	G
61	B2	1752	U
61	B2	1758	A
61	B2	1765	U
61	B2	1766	G
61	B2	1775	A
61	B2	1782	G
61	B2	1788	C
61	B2	1793	A
61	B2	1794	C
61	B2	1795	U
61	B2	1796	C
61	B2	1802	G
61	B2	1808	G
61	B2	1813	U
61	B2	1814	G
61	B2	1815	C
61	B2	1816	C
61	B2	1817	C
61	B2	1821	G
61	B2	1822	U
61	B2	1823	A
61	B2	1824	C
61	B2	1825	A
61	B2	1826	C
61	B2	1827	A
61	B2	1828	C
61	B2	1829	C
61	B2	1831	C
61	B2	1832	C
61	B2	1834	G
61	B2	1839	U
61	B2	1847	A
61	B2	1848	U
61	B2	1849	U
61	B2	1850	G
61	B2	1852	A
61	B2	1859	A
61	B2	1863	A
61	B2	1865	G
61	B2	1872	G

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Mol	Chain	Res	Type
61	B2	1874	C
61	B2	1875	G
61	B2	1876	U
61	B2	1882	C
61	B2	1903	G
61	B2	1904	G
61	B2	1905	U
61	B2	1906	U
61	B2	1907	G
61	B2	1909	U
61	B2	1911	C
61	B2	1912	G
61	B2	1922	A
61	B2	1936	U
61	B2	1942	G
61	B2	1949	A
61	B2	1950	A
61	B2	1952	G
61	B2	1955	G
61	B2	1957	A
61	B2	1961	A
61	B2	1962	G
61	B2	1964	U
61	B2	1966	U
61	B2	1968	C
61	B2	1969	G
61	B2	1971	A
61	B2	1973	G
61	B2	1975	G
61	B2	1986	A
61	B2	1987	G
61	B2	1988	G
61	B2	1989	A
61	B2	1991	C
61	B2	1993	U
61	B2	1994	U
61	B2	1995	A
62	A5	3	A
62	A5	4	U
62	A5	5	A
62	A5	6	U
62	A5	10	A

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Mol	Chain	Res	Type
62	A5	13	U
62	A5	15	A
62	A5	18	U
62	A5	19	C
62	A5	25	G
62	A5	26	G
62	A5	27	A
62	A5	29	U
62	A5	30	A
62	A5	33	C
62	A5	34	C
62	A5	35	C
62	A5	36	U
62	A5	40	U
62	A5	44	A
62	A5	45	G
62	A5	47	A
62	A5	49	A
62	A5	50	U
62	A5	52	A
62	A5	53	A
62	A5	54	U
62	A5	55	U
62	A5	56	A
62	A5	57	G
62	A5	58	G
62	A5	59	G
62	A5	61	A
62	A5	63	G
62	A5	64	A
62	A5	69	A
62	A5	70	A
62	A5	71	A
62	A5	72	C
62	A5	74	A
62	A5	76	C
62	A5	77	A
62	A5	78	A
62	A5	81	A
62	A5	83	U
62	A5	88	U
62	A5	89	A

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Mol	Chain	Res	Type
62	A5	90	G
62	A5	91	U
62	A5	94	C
62	A5	95	G
62	A5	96	G
62	A5	97	C
62	A5	98	G
62	A5	100	G
62	A5	101	C
62	A5	105	A
62	A5	112	C
62	A5	113	A
62	A5	114	G
62	A5	116	U
62	A5	117	C
62	A5	120	C
62	A5	121	A
62	A5	122	C
62	A5	123	U
62	A5	124	A
62	A5	126	G
62	A5	127	U
62	A5	136	C
62	A5	137	U
62	A5	138	A
62	A5	139	U
62	A5	140	A
62	A5	141	U
62	A5	142	G
62	A5	143	G
62	A5	145	A
62	A5	148	U
62	A5	149	G
62	A5	150	U
62	A5	154	A
62	A5	155	U
62	A5	156	G
62	A5	158	A
62	A5	161	G
62	A5	162	U
62	A5	163	A
62	A5	164	U

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Mol	Chain	Res	Type
62	A5	165	G
62	A5	167	A
62	A5	172	C
62	A5	176	A
62	A5	177	U
62	A5	185	U
62	A5	187	A
62	A5	188	G
62	A5	189	A
62	A5	190	A
62	A5	191	A
62	A5	194	A
62	A5	197	G
62	A5	198	A
62	A5	201	U
62	A5	202	A
62	A5	205	U
62	A5	211	U
62	A5	212	U
62	A5	213	A
62	A5	214	A
62	A5	215	A
62	A5	220	G
62	A5	222	C
62	A5	225	U
62	A5	226	U
62	A5	228	C
62	A5	229	C
62	A5	232	U
62	A5	233	A
62	A5	234	G
62	A5	236	G
62	A5	237	G
62	A5	239	U
62	A5	240	G
62	A5	241	C
62	A5	242	C
62	A5	248	C
62	A5	253	A
62	A5	259	A
62	A5	260	A
62	A5	262	G

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Mol	Chain	Res	Type
62	A5	263	A
62	A5	273	G
62	A5	275	U
62	A5	279	U
62	A5	280	C
62	A5	282	A
62	A5	284	A
62	A5	287	G
62	A5	296	C
62	A5	301	U
62	A5	302	A
62	A5	303	G
62	A5	307	A
62	A5	313	A
62	A5	314	A
62	A5	316	U
62	A5	319	G
62	A5	322	G
62	A5	323	U
62	A5	326	A
62	A5	328	U
62	A5	329	C
62	A5	339	C
62	A5	340	U
62	A5	341	A
62	A5	342	A
62	A5	345	A
62	A5	347	A
62	A5	351	A
62	A5	354	A
62	A5	355	G
62	A5	356	A
62	A5	357	C
62	A5	360	A
62	A5	361	U
62	A5	365	A
62	A5	366	A
62	A5	367	A
62	A5	368	C
62	A5	369	A
62	A5	370	A
62	A5	371	G

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Mol	Chain	Res	Type
62	A5	372	U
62	A5	375	C
62	A5	376	G
62	A5	377	U
62	A5	378	G
62	A5	380	G
62	A5	382	G
62	A5	384	A
62	A5	386	G
62	A5	388	U
62	A5	389	G
62	A5	390	A
62	A5	392	A
62	A5	393	A
62	A5	394	G
62	A5	397	C
62	A5	403	A
62	A5	404	U
62	A5	405	A
62	A5	407	A
62	A5	413	A
62	A5	414	A
62	A5	416	C
62	A5	417	A
62	A5	418	G
62	A5	419	U
62	A5	420	A
62	A5	421	C
62	A5	428	C
62	A5	429	U
62	A5	436	A
62	A5	439	U
62	A5	440	U
62	A5	441	A
62	A5	444	C
62	A5	448	A
62	A5	449	U
62	A5	450	G
62	A5	453	C
62	A5	457	A
62	A5	458	A
62	A5	459	U

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Mol	Chain	Res	Type
62	A5	460	A
62	A5	461	U
62	A5	462	C
62	A5	463	C
62	A5	464	G
62	A5	465	U
62	A5	466	U
62	A5	467	A
62	A5	471	A
62	A5	473	A
62	A5	474	A
62	A5	475	U
62	A5	476	U
62	A5	477	C
62	A5	479	U
62	A5	482	U
62	A5	485	A
62	A5	486	A
62	A5	487	A
62	A5	497	U
62	A5	507	U
62	A5	516	U
62	A5	521	U
62	A5	522	G
62	A5	523	C
62	A5	524	A
62	A5	525	U
62	A5	526	U
62	A5	527	U
62	A5	530	U
62	A5	536	U
62	A5	537	A
62	A5	538	A
62	A5	539	G
62	A5	540	G
62	A5	541	A
62	A5	542	C
62	A5	543	A
62	A5	547	U
62	A5	553	A
62	A5	554	U
62	A5	559	A

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Mol	Chain	Res	Type
62	A5	562	U
62	A5	565	C
62	A5	568	A
62	A5	569	U
62	A5	576	U
62	A5	577	A
62	A5	578	A
62	A5	580	A
62	A5	581	U
62	A5	583	U
62	A5	584	A
62	A5	588	U
62	A5	591	A
62	A5	593	U
62	A5	596	A
62	A5	616	A
62	A5	620	U
62	A5	621	A
62	A5	622	A
62	A5	623	C
62	A5	625	C
62	A5	626	A
62	A5	632	A
62	A5	641	A
62	A5	642	A
62	A5	643	U
62	A5	644	U
62	A5	648	U
62	A5	652	G
62	A5	653	U
62	A5	657	G
62	A5	665	U
62	A5	666	A
62	A5	667	U
62	A5	668	A
62	A5	669	U
62	A5	670	G
62	A5	671	A
62	A5	672	U
62	A5	673	U
62	A5	674	A
62	A5	676	A

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Mol	Chain	Res	Type
62	A5	681	G
62	A5	685	A
62	A5	690	U
62	A5	696	U
62	A5	697	U
62	A5	698	A
62	A5	699	U
62	A5	700	A
62	A5	701	U
62	A5	702	A
62	A5	703	A
62	A5	704	U
62	A5	713	U
62	A5	716	C
62	A5	718	U
62	A5	719	U
62	A5	720	G
62	A5	723	U
62	A5	726	U
62	A5	733	A
62	A5	739	U
62	A5	740	G
62	A5	743	C
62	A5	745	U
62	A5	746	G
62	A5	747	U
62	A5	748	A
62	A5	749	U
62	A5	750	G
62	A5	751	A
62	A5	752	U
62	A5	753	U
62	A5	754	A
62	A5	756	C
62	A5	760	G
62	A5	761	C
62	A5	762	G
62	A5	763	A
62	A5	765	A
62	A5	766	G
62	A5	768	U
62	A5	771	A

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Mol	Chain	Res	Type
62	A5	772	G
62	A5	774	A
62	A5	775	U
62	A5	776	A
62	A5	783	G
62	A5	786	C
62	A5	787	C
62	A5	791	C
62	A5	792	U
62	A5	795	A
62	A5	797	A
62	A5	798	C
62	A5	799	A
62	A5	800	C
62	A5	801	G
62	A5	803	A
62	A5	804	C
62	A5	805	C
62	A5	811	G
62	A5	816	A
62	A5	821	U
62	A5	823	U
62	A5	827	A
62	A5	830	U
62	A5	831	A
62	A5	832	U
62	A5	833	U
62	A5	834	G
62	A5	835	G
62	A5	838	U
62	A5	839	A
62	A5	840	U
62	A5	841	A
62	A5	842	A
62	A5	849	U
62	A5	851	G
62	A5	852	C
62	A5	855	A
62	A5	856	A
62	A5	858	U
62	A5	859	A
62	A5	860	A

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Mol	Chain	Res	Type
62	A5	862	U
62	A5	865	A
62	A5	866	C
62	A5	867	U
62	A5	869	A
62	A5	870	U
62	A5	871	A
62	A5	872	A
62	A5	873	U
62	A5	874	G
62	A5	879	U
62	A5	894	U
62	A5	895	U
62	A5	897	U
62	A5	898	A
62	A5	899	G
62	A5	902	A
62	A5	905	U
62	A5	907	A
62	A5	909	A
62	A5	913	U
62	A5	914	C
62	A5	917	G
62	A5	925	C
62	A5	928	U
62	A5	929	A
62	A5	930	U
62	A5	931	A
62	A5	959	U
62	A5	964	C
62	A5	966	U
62	A5	967	C
62	A5	968	U
62	A5	969	A
62	A5	974	G
62	A5	978	G
62	A5	979	U
62	A5	980	A
62	A5	981	C
62	A5	982	C
62	A5	983	U
62	A5	984	U

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Mol	Chain	Res	Type
62	A5	986	A
62	A5	990	U
62	A5	1000	G
62	A5	1001	A
62	A5	1003	C
62	A5	1004	C
62	A5	1006	A
62	A5	1007	A
62	A5	1008	A
62	A5	1009	G
62	A5	1012	G
62	A5	1013	G
62	A5	1014	U
62	A5	1015	G
62	A5	1017	A
62	A5	1018	C
62	A5	1019	U
62	A5	1022	A
62	A5	1026	G
62	A5	1030	A
62	A5	1031	G
62	A5	1032	G
62	A5	1033	U
62	A5	1034	U
62	A5	1035	G
62	A5	1041	A
62	A5	1046	A
62	A5	1047	A
62	A5	1049	C
62	A5	1050	C
62	A5	1052	U
62	A5	1054	A
62	A5	1056	G
62	A5	1059	A
62	A5	1060	G
62	A5	1065	A
62	A5	1066	A
62	A5	1067	A
62	A5	1068	C
62	A5	1069	A
62	A5	1070	G
62	A5	1071	U

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Mol	Chain	Res	Type
62	A5	1072	U
62	A5	1074	U
62	A5	1077	C
62	A5	1079	U
62	A5	1080	G
62	A5	1081	C
62	A5	1082	A
62	A5	1084	A
62	A5	1087	G
62	A5	1092	U
62	A5	1094	A
62	A5	1095	G
62	A5	1096	A
62	A5	1097	A
62	A5	1106	A
62	A5	1107	G
62	A5	1108	G
62	A5	1109	G
62	A5	1112	G
62	A5	1113	A
62	A5	1114	A
62	A5	1115	A
62	A5	1116	G
62	A5	1117	A
62	A5	1120	A
62	A5	1121	A
62	A5	1122	U
62	A5	1123	C
62	A5	1124	G
62	A5	1125	A
62	A5	1126	A
62	A5	1129	A
62	A5	1132	U
62	A5	1133	A
62	A5	1137	G
62	A5	1141	G
62	A5	1143	U
62	A5	1144	C
62	A5	1151	A
62	A5	1153	G
62	A5	1156	U
62	A5	1158	C

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Mol	Chain	Res	Type
62	A5	1159	C
62	A5	1160	U
62	A5	1162	A
62	A5	1163	G
62	A5	1164	G
62	A5	1165	A
62	A5	1174	G
62	A5	1176	A
62	A5	1178	U
62	A5	1179	U
62	A5	1180	U
62	A5	1181	A
62	A5	1182	A
62	A5	1183	U
62	A5	1192	A
62	A5	1193	A
62	A5	1194	A
62	A5	1195	U
62	A5	1196	A
62	A5	1197	A
62	A5	1198	U
62	A5	1205	U
62	A5	1206	G
62	A5	1207	G
62	A5	1208	U
62	A5	1211	A
62	A5	1213	C
62	A5	1215	A
62	A5	1223	G
62	A5	1226	G
62	A5	1227	C
62	A5	1228	C
62	A5	1229	U
62	A5	1230	U
62	A5	1231	A
62	A5	1232	G
62	A5	1233	G
62	A5	1234	G
62	A5	1240	A
62	A5	1242	G
62	A5	1245	C
62	A5	1249	A

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Mol	Chain	Res	Type
62	A5	1254	U
62	A5	1260	A
62	A5	1262	C
62	A5	1263	U
62	A5	1265	U
62	A5	1271	G
62	A5	1272	G
62	A5	1276	G
62	A5	1277	A
62	A5	1278	A
62	A5	1279	C
62	A5	1281	U
62	A5	1284	A
62	A5	1287	U
62	A5	1288	U
62	A5	1291	U
62	A5	1293	A
62	A5	1294	U
62	A5	1295	A
62	A5	1296	U
62	A5	1297	G
62	A5	1298	A
62	A5	1301	A
62	A5	1307	G
62	A5	1308	U
62	A5	1309	U
62	A5	1310	A
62	A5	1311	U
62	A5	1315	A
62	A5	1316	U
62	A5	1317	A
62	A5	1321	G
62	A5	1323	C
62	A5	1324	C
62	A5	1329	G
62	A5	1330	G
62	A5	1331	G
62	A5	1332	C
62	A5	1339	U
62	A5	1342	U
62	A5	1343	A
62	A5	1347	A

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Mol	Chain	Res	Type
62	A5	1349	A
62	A5	1350	A
62	A5	1352	U
62	A5	1353	G
62	A5	1357	C
62	A5	1358	U
62	A5	1360	U
62	A5	1361	G
62	A5	1362	G
62	A5	1365	U
62	A5	1366	G
62	A5	1368	A
62	A5	1369	C
62	A5	1373	A
62	A5	1374	C
62	A5	1375	G
62	A5	1376	U
62	A5	1378	A
62	A5	1379	U
62	A5	1382	U
62	A5	1383	A
62	A5	1384	C
62	A5	1385	G
62	A5	1386	U
62	A5	1387	G
62	A5	1389	C
62	A5	1390	C
62	A5	1391	A
62	A5	1393	A
62	A5	1394	U
62	A5	1395	U
62	A5	1396	A
62	A5	1397	A
62	A5	1400	A
62	A5	1403	C
62	A5	1405	U
62	A5	1407	C
62	A5	1411	U
62	A5	1412	A
62	A5	1413	C
62	A5	1414	C
62	A5	1418	A

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Mol	Chain	Res	Type
62	A5	1423	C
62	A5	1424	G
62	A5	1428	G
62	A5	1430	U
62	A5	1432	C
62	A5	1435	A
62	A5	1436	A
62	A5	1437	A
62	A5	1438	A
62	A5	1442	C
62	A5	1443	A
62	A5	1447	C
62	A5	1449	G
62	A5	1451	G
62	A5	1452	A
62	A5	1453	U
62	A5	1454	C
62	A5	1456	U
62	A5	1458	G
62	A5	1459	A
62	A5	1460	A
62	A5	1461	G
62	A5	1463	C
62	A5	1464	G
62	A5	1465	A
62	A5	1468	U
62	A5	1470	C
62	A5	1473	U
62	A5	1477	G
62	A5	1478	A
62	A5	1480	U
62	A5	1481	G
62	A5	1483	G
62	A5	1484	U
62	A5	1485	A
62	A5	1486	A
62	A5	1488	A
62	A5	1492	C
62	A5	1500	G
62	A5	1501	A
62	A5	1502	A
62	A5	1506	A

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Mol	Chain	Res	Type
62	A5	1507	C
62	A5	1510	G
62	A5	1511	C
62	A5	1512	C
62	A5	1513	C
62	A5	1515	U
62	A5	1516	A
62	A5	1517	A
62	A5	1519	A
62	A5	1520	U
62	A5	1521	G
62	A5	1522	G
62	A5	1523	A
62	A5	1524	U
62	A5	1528	G
62	A5	1529	C
62	A5	1531	U
62	A5	1532	A
62	A5	1533	A
62	A5	1539	A
62	A5	1540	U
62	A5	1542	C
62	A5	1544	U
62	A5	1545	A
62	A5	1546	U
62	A5	1547	A
62	A5	1548	C
62	A5	1552	A
62	A5	1564	G
62	A5	1565	A
62	A5	1566	U
62	A5	1567	G
62	A5	1570	U
62	A5	1572	A
62	A5	1574	A
62	A5	1575	U
62	A5	1576	U
62	A5	1577	A
62	A5	1578	C
62	A5	1580	U
62	A5	1581	G
62	A5	1583	G

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Mol	Chain	Res	Type
62	A5	1584	A
62	A5	1592	U
62	A5	1593	U
62	A5	1595	G
62	A5	1596	A
62	A5	1598	A
62	A5	1603	A
62	A5	1605	U
62	A5	1606	G
62	A5	1607	A
62	A5	1609	U
62	A5	1610	A
62	A5	1611	G
62	A5	1613	A
62	A5	1615	G
62	A5	1617	U
62	A5	1623	G
62	A5	1627	U
62	A5	1628	G
62	A5	1629	C
62	A5	1631	U
62	A5	1633	G
62	A5	1634	A
62	A5	1635	A
62	A5	1640	U
62	A5	1641	U
62	A5	1646	U
62	A5	1650	C
62	A5	1661	C
62	A5	1662	U
62	A5	1667	U
62	A5	1668	U
62	A5	1669	G
62	A5	1672	A
62	A5	1673	C
62	A5	1675	G
62	A5	1676	A
62	A5	1678	C
62	A5	1682	G
62	A5	1684	G
62	A5	1687	U
62	A5	1688	A

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Mol	Chain	Res	Type
62	A5	1689	G
62	A5	1690	U
62	A5	1691	A
62	A5	1692	G
62	A5	1694	A
62	A5	1695	A
62	A5	1697	U
62	A5	1698	A
62	A5	1701	C
62	A5	1702	G
62	A5	1705	U
62	A5	1707	A
62	A5	1708	G
62	A5	1711	C
62	A5	1712	C
62	A5	1713	U
62	A5	1715	G
62	A5	1716	G
62	A5	1717	A
62	A5	1718	G
62	A5	1719	G
62	A5	1720	A
62	A5	1723	G
62	A5	1724	A
62	A5	1725	A
62	A5	1726	G
62	A5	1727	U
62	A5	1732	A
62	A5	1733	A
62	A5	1734	G
62	A5	1735	G
62	A5	1736	G
62	A5	1744	U
62	A5	1745	G
62	A5	1746	A
62	A5	1747	A
62	A5	1748	C
62	A5	1750	G
62	A5	1751	U
62	A5	1753	G
62	A5	1755	U
62	A5	1756	G

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Mol	Chain	Res	Type
62	A5	1757	A
62	A5	1759	C
62	A5	1763	A
62	A5	1765	U
62	A5	1766	U
62	A5	1769	U
62	A5	1773	U
62	A5	1774	C
62	A5	1778	A
62	A5	1779	G
62	A5	1780	U
62	A5	1781	U
62	A5	1782	C
62	A5	1783	A
62	A5	1785	G
62	A5	1786	G
62	A5	1787	C
62	A5	1790	A
62	A5	1791	A
62	A5	1794	G
62	A5	1795	A
62	A5	1796	A
62	A5	1797	A
62	A5	1798	A
62	A5	1799	U
62	A5	1801	U
62	A5	1802	U
62	A5	1803	C
62	A5	1804	A
62	A5	1805	A
62	A5	1806	G
62	A5	1809	A
62	A5	1810	A
62	A5	1813	A
62	A5	1861	A
62	A5	1863	U
62	A5	1864	U
62	A5	1865	U
62	A5	1867	A
62	A5	1868	A
62	A5	1869	C
62	A5	1871	A

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Mol	Chain	Res	Type
62	A5	1872	A
62	A5	1873	A
62	A5	1874	G
62	A5	1876	G
62	A5	1877	A
62	A5	1879	U
62	A5	1880	A
62	A5	1883	G
62	A5	1888	A
62	A5	1889	A
62	A5	1890	U
62	A5	1892	C
62	A5	1893	C
62	A5	1899	C
62	A5	1907	U
62	A5	1908	A
62	A5	1909	U
62	A5	1910	C
62	A5	1911	C
62	A5	1913	U
62	A5	1914	U
62	A5	1921	U
62	A5	1923	A
62	A5	1925	U
62	A5	1926	A
62	A5	1927	U
62	A5	1934	C
62	A5	1935	G
62	A5	1936	U
62	A5	1937	G
62	A5	1941	A
62	A5	1942	U
62	A5	1943	C
62	A5	1946	G
62	A5	1954	G
62	A5	1955	A
62	A5	1956	A
62	A5	1957	C
62	A5	1958	G
62	A5	1959	A
62	A5	1961	C
62	A5	1963	U

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Mol	Chain	Res	Type
62	A5	1965	A
62	A5	1968	A
62	A5	1969	A
62	A5	1970	G
62	A5	1971	C
62	A5	1972	C
62	A5	1973	G
62	A5	1974	U
62	A5	1975	C
62	A5	1988	A
62	A5	1994	U
62	A5	1995	U
62	A5	1999	U
62	A5	2000	U
62	A5	2001	U
62	A5	2002	C
62	A5	2003	U
62	A5	2005	U
62	A5	2006	U
62	A5	2008	U
62	A5	2010	U
62	A5	2011	A
62	A5	2014	C
62	A5	2015	G
62	A5	2016	U
62	A5	2017	A
62	A5	2026	G
62	A5	2028	A
62	A5	2029	G
62	A5	2030	U
62	A5	2033	U
62	A5	2034	U
62	A5	2035	C
62	A5	2036	G
62	A5	2037	C
62	A5	2038	A
62	A5	2043	G
62	A5	2047	U
62	A5	2054	U
62	A5	2055	G
62	A5	2060	A
62	A5	2061	G

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Mol	Chain	Res	Type
62	A5	2062	A
62	A5	2063	A
62	A5	2064	G
62	A5	2065	A
62	A5	2066	G
62	A5	2070	G
62	A5	2071	A
62	A5	2072	C
62	A5	2075	A
62	A5	2076	U
62	A5	2078	C
62	A5	2079	U
62	A5	2082	U
62	A5	2086	U
62	A5	2089	A
62	A5	2093	U
62	A5	2094	U
62	A5	2095	U
62	A5	2098	C
62	A5	2101	C
62	A5	2102	G
62	A5	2106	C
62	A5	2107	U
62	A5	2108	U
62	A5	2110	A
62	A5	2111	A
62	A5	2112	A
62	A5	2113	A
62	A5	2121	U
62	A5	2125	G
62	A5	2126	A
62	A5	2127	C
62	A5	2128	A
62	A5	2129	C
62	A5	2130	G
62	A5	2131	C
62	A5	2132	A
62	A5	2135	C
62	A5	2136	U
62	A5	2137	U
62	A5	2142	A
62	A5	2144	A

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Mol	Chain	Res	Type
62	A5	2148	C
62	A5	2150	U
62	A5	2155	A
62	A5	2156	U
62	A5	2158	U
62	A5	2161	G
62	A5	2162	C
62	A5	2163	A
62	A5	2164	G
62	A5	2165	C
62	A5	2166	U
62	A5	2167	G
62	A5	2171	U
62	A5	2173	C
62	A5	2180	A
62	A5	2182	G
62	A5	2183	A
62	A5	2187	U
62	A5	2193	C
62	A5	2194	G
62	A5	2195	A
62	A5	2196	U
62	A5	2199	A
62	A5	2201	U
62	A5	2202	A
62	A5	2207	A
62	A5	2208	G
62	A5	2209	G
62	A5	2210	U
62	A5	2212	A
62	A5	2213	G
62	A5	2214	G
62	A5	2215	G
62	A5	2216	A
62	A5	2217	A
62	A5	2218	G
62	A5	2219	U
62	A5	2220	C
62	A5	2222	G
62	A5	2224	A
62	A5	2229	A
62	A5	2234	C

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Mol	Chain	Res	Type
62	A5	2236	U
62	A5	2239	C
62	A5	2240	U
62	A5	2244	G
62	A5	2246	A
62	A5	2249	A
62	A5	2251	G
62	A5	2255	G
62	A5	2268	G
62	A5	2269	A
62	A5	2270	G
62	A5	2467	A
62	A5	2468	A
62	A5	2469	U
62	A5	2470	U
62	A5	2471	A
62	A5	2472	A
62	A5	2473	C
62	A5	2477	C
62	A5	2479	A
62	A5	2480	U
62	A5	2481	U
62	A5	2482	C
62	A5	2486	A
62	A5	2490	G
62	A5	2491	C
62	A5	2494	G
62	A5	2495	G
62	A5	2496	A
62	A5	2497	C
62	A5	2500	G
62	A5	2501	G
62	A5	2504	A
62	A5	2505	A
62	A5	2508	C
62	A5	2509	G
62	A5	2510	A
62	A5	2511	C
62	A5	2515	C
62	A5	2516	U
62	A5	2517	A
62	A5	2518	A

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Mol	Chain	Res	Type
62	A5	2519	U
62	A5	2521	A
62	A5	2522	A
62	A5	2524	A
62	A5	2527	A
62	A5	2531	A
62	A5	2532	U
62	A5	2534	G
62	A5	2536	G
62	A5	2537	A
62	A5	2539	G
62	A5	2545	A
62	A5	2546	G
62	A5	2547	C
62	A5	2548	G
62	A5	2549	G
62	A5	2550	G
62	A5	2552	G
62	A5	2553	U
62	A5	2554	U
62	A5	2556	A
62	A5	2558	A
62	A5	2562	U
62	A5	2564	U
62	A5	2566	A
62	A5	2572	G
62	A5	2579	G
62	A5	2580	C
62	A5	2583	U
62	A5	2586	A
62	A5	2587	U
62	A5	2588	G
62	A5	2590	C
62	A5	2591	A
62	A5	2601	A
62	A5	2603	U
62	A5	2605	C
62	A5	2608	G
62	A5	2617	G
62	A5	2622	A
62	A5	2624	G
62	A5	2627	G

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Mol	Chain	Res	Type
62	A5	2628	G
62	A5	2630	A
62	A5	2633	A
62	A5	2634	A
62	A5	2635	C
62	A5	2639	G
62	A5	2641	C
62	A5	2650	G
62	A5	2651	G
62	A5	2652	U
62	A5	2655	C
62	A5	2656	C
62	A5	2657	A
62	A5	2658	A
62	A5	2659	A
62	A5	2661	G
62	A5	2673	A
62	A5	2674	A
62	A5	2677	A
62	A5	2680	G
62	A5	2681	A
62	A5	2683	G
62	A5	2684	C
62	A5	2685	G
62	A5	2686	C
62	A5	2687	A
62	A5	2688	U
62	A5	2690	A
62	A5	2691	A
62	A5	2692	U
62	A5	2693	G
62	A5	2697	U
62	A5	2698	A
62	A5	2701	G
62	A5	2702	A
62	A5	2703	G
62	A5	2706	U
62	A5	2707	C
62	A5	2711	C
62	A5	2713	G
62	A5	2714	U
62	A5	2715	C

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Mol	Chain	Res	Type
62	A5	2717	C
62	A5	2720	U
62	A5	2725	U
62	A5	2726	A
62	A5	2727	U
62	A5	2732	C
62	A5	2735	A
62	A5	2737	C
62	A5	2742	G
62	A5	2743	C
62	A5	2744	C
62	A5	2749	G
62	A5	2750	A
62	A5	2751	A
62	A5	2752	C
62	A5	2753	G
62	A5	2754	G
62	A5	2756	C
62	A5	2757	U
62	A5	2761	A
62	A5	2763	U
62	A5	2766	U
62	A5	2767	U
62	A5	2769	G
62	A5	2770	C
62	A5	2771	G
62	A5	2772	G
62	A5	2775	A
62	A5	2776	A
62	A5	2777	A
62	A5	2779	A
62	A5	2780	A
62	A5	2781	G
62	A5	2782	A
62	A5	2783	C
62	A5	2784	C
62	A5	2787	U
62	A5	2788	U
62	A5	2789	U
62	A5	2790	G
62	A5	2797	A
62	A5	2799	U

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Mol	Chain	Res	Type
62	A5	2806	U
62	A5	2813	G
62	A5	2816	A
62	A5	2821	A
62	A5	2822	C
62	A5	2825	A
62	A5	2828	A
62	A5	2831	U
62	A5	2832	G
62	A5	2833	U
62	A5	2834	A
62	A5	2836	A
62	A5	2837	A
62	A5	2838	U
62	A5	2839	A
62	A5	2840	A
62	A5	2842	U
62	A5	2843	G
62	A5	2847	G
62	A5	2869	U
62	A5	2870	C
62	A5	2876	U
62	A5	2877	G
62	A5	2880	A
62	A5	2881	U
62	A5	2888	A
62	A5	2891	C
62	A5	2898	U
62	A5	2899	U
62	A5	2900	U
62	A5	2901	C
62	A5	2905	A
62	A5	2908	U
62	A5	2909	A
62	A5	2911	U
62	A5	2913	G
62	A5	2915	U
62	A5	2916	U
62	A5	2917	A
62	A5	2918	A
62	A5	2919	A
62	A5	2920	U

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Mol	Chain	Res	Type
62	A5	2925	C
62	A5	2927	U
62	A5	2989	G
62	A5	2991	A
62	A5	2994	C
62	A5	2995	U
62	A5	2996	U
62	A5	2997	C
62	A5	2998	U
62	A5	2999	U
62	A5	3000	G
62	A5	3001	A
62	A5	3003	C
62	A5	3004	A
62	A5	3005	A
62	A5	3011	C
62	A5	3013	C
62	A5	3101	A
62	A5	3103	U
62	A5	3106	G
62	A5	3112	A
62	A5	3115	C
62	A5	3116	A
62	A5	3117	A
62	A5	3118	U
62	A5	3121	A
62	A5	3124	G
62	A5	3125	A
62	A5	3131	C
62	A5	3132	C
62	A5	3134	G
62	A5	3136	U
62	A5	3138	G
62	A5	3139	G
62	A5	3143	U
62	A5	3146	G
62	A5	3149	U
62	A5	3150	G
62	A5	3151	G
62	A5	3153	G
62	A5	3155	G
62	A5	3157	U

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Mol	Chain	Res	Type
62	A5	3158	A
62	A5	3159	C
62	A5	3160	A
62	A5	3165	U
62	A5	3167	A
62	A5	3168	A
62	A5	3170	U
62	A5	3174	A
62	A5	3180	G
62	A5	3183	G
62	A5	3184	U
62	A5	3188	A
62	A5	3189	A
62	A5	3193	C
62	A5	3195	G
62	A5	3198	C
62	A5	3200	G
62	A5	3203	C
62	A5	3204	G
62	A5	3206	A
62	A5	3208	A
62	A5	3209	G
62	A5	3210	A
62	A5	3211	A
62	A5	3212	A
62	A5	3214	C
62	A5	3217	A
62	A5	3220	U
62	A5	3221	A
62	A5	3223	A
62	A5	3226	A
62	A5	3228	A
62	A5	3234	A
62	A5	3235	A
62	A5	3236	A
62	A5	3237	U
62	A5	3245	U
62	A5	3246	G
62	A5	3247	A
62	A5	3252	G
62	A5	3258	C
62	A5	3260	G

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Mol	Chain	Res	Type
62	A5	3261	U
62	A5	3264	A
62	A5	3269	G
62	A5	3274	A
62	A5	3279	A
62	A5	3285	G
62	A5	3286	G
62	A5	3288	C
62	A5	3291	U
62	A5	3292	C
62	A5	3293	G
62	A5	3294	A
62	A5	3295	U
62	A5	3297	C
62	A5	3300	U
62	A5	3302	G
62	A5	3304	U
62	A5	3305	U
62	A5	3306	U
62	A5	3309	A
62	A5	3312	G
62	A5	3313	U
62	A5	3315	U
62	A5	3317	U
62	A5	3319	A
62	A5	3320	C
62	A5	3323	G
62	A5	3326	G
62	A5	3327	U
62	A5	3328	G
62	A5	3329	U
62	A5	3331	A
62	A5	3332	G
62	A5	3333	A
62	A5	3334	A
62	A5	3336	A
62	A5	3339	U
62	A5	3340	A
62	A5	3342	C
62	A5	3343	A
62	A5	3344	U
62	A5	3345	A

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Mol	Chain	Res	Type
62	A5	3346	G
62	A5	3348	G
62	A5	3349	A
62	A5	3350	U
62	A5	3351	A
62	A5	3355	G
62	A5	3356	G
62	A5	3359	U
62	A5	3360	G
62	A5	3362	G
62	A5	3363	G
62	A5	3368	C
62	A5	3374	U
62	A5	3377	A
62	A5	3379	A
62	A5	3381	C
62	A5	3382	G
62	A5	3389	C
62	A5	3394	U
62	A5	3395	G
62	A5	3396	A
62	A5	3397	U
62	A5	3399	C
62	A5	3403	G
62	A5	3404	A
62	A5	3410	G
62	A5	3411	C
62	A5	3414	U
62	A5	3415	U
62	A5	3418	U
62	A5	3423	U
62	A5	3431	C
62	A5	3441	C
62	A5	3443	A
62	A5	3444	G
62	A5	3445	C
62	A5	3447	U
62	A5	3448	U
62	A5	3453	U
62	A5	3454	G
62	A5	3456	U
62	A5	3460	C

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Mol	Chain	Res	Type
62	A5	3461	C
62	A5	3465	C
62	A5	3466	A
62	A5	3468	G
62	A5	3471	A
62	A5	3472	A
62	A5	3473	C
62	A5	3474	G
62	A5	3475	U
62	A5	3477	A
62	A5	3481	G
62	A5	3482	G
62	A5	3485	U
62	A5	3486	U
62	A5	3488	G
62	A5	3492	G
62	A5	3497	G
62	A5	3498	A
62	A5	3499	G
62	A5	3500	A
62	A5	3501	C
62	A5	3502	A
62	A5	3505	U
62	A5	3506	U
62	A5	3508	G
62	A5	3510	U
62	A5	3511	U
62	A5	3514	C
62	A5	3515	C
62	A5	3516	C
62	A5	3517	U
62	A5	3521	A
62	A5	3527	A
62	A5	3531	C
62	A5	3532	G
62	A5	3535	G
62	A5	3539	C
62	A5	3541	A
62	A5	3542	C
62	A5	3544	G
62	A5	3546	A
62	A5	3547	U

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Mol	Chain	Res	Type
62	A5	3550	C
62	A5	3554	G
62	A5	3556	A
62	A5	3557	G
62	A5	3558	U
62	A5	3568	A
62	A5	3569	C
62	A5	3575	G
62	A5	3579	C
62	A5	3581	G
62	A5	3582	A
62	A5	3583	C
62	A5	3585	A
62	A5	3589	G
62	A5	3590	C
62	A5	3591	A
62	A5	3592	C
62	A5	3593	A
62	A5	3594	A
62	A5	3595	U
62	A5	3596	A
62	A5	3602	U
62	A5	3604	G
62	A5	3606	G
62	A5	3608	G
62	A5	3609	A
62	A5	3610	A
62	A5	3611	C
62	A5	3613	G
62	A5	3614	U
62	A5	3615	G
62	A5	3616	G
62	A5	3621	A
62	A5	3623	G
62	A5	3627	C
62	A5	3628	G
62	A5	3637	A
62	A5	3638	U
62	A5	3639	U
62	A5	3640	A
62	A5	3641	U
62	A5	3642	G

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Mol	Chain	Res	Type
62	A5	3643	C
62	A5	3649	C
62	A5	3650	G
62	A5	3652	C
62	A5	3655	U
62	A5	3656	A
62	A5	3657	A
62	A5	3659	G
62	A5	3664	A
62	A5	3665	U
62	A5	3666	C
62	A5	3667	C
62	A5	3670	G
62	A5	3672	U
62	A5	3673	G
62	A5	3675	A
62	A5	3676	C
62	A5	3677	U
62	A5	3678	G
62	A5	3681	A
62	A5	3684	A
62	A5	3685	U
62	A5	3686	A
62	A5	3688	A
62	A5	3689	U
62	A5	3690	A
62	A5	3696	C
62	A5	3697	A
62	A5	3698	A
62	A5	3699	U
62	A5	3701	U
62	A5	3702	G
62	A5	3709	A
62	A5	3710	U
62	A5	3711	G
62	A5	3712	G
62	A5	3713	C
62	A5	3715	U
62	A5	3716	C
62	A5	3717	U
62	A5	3718	A
62	A5	3719	A

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Mol	Chain	Res	Type
62	A5	3720	A
62	A5	3722	C
62	A5	3723	A
62	A5	3724	U
62	A5	3725	U
62	A5	3726	U
62	A5	3728	A
62	A5	3729	A
62	A5	3730	G
62	A5	3735	U
62	A5	3742	C
62	A5	3743	U
62	A5	3749	A
62	A5	3752	G
62	A5	3753	A
62	A5	3754	C
62	A5	3755	A
62	A5	3756	A
62	A5	3757	U
62	A5	3758	G
62	A5	3759	G
62	A5	3760	A
62	A5	3761	U
62	A5	3762	G
62	A5	3763	U
62	A5	3764	G
62	A5	3765	A
62	A5	3766	U
62	A5	3767	G
62	A5	3768	C
62	A5	3770	A
62	A5	3771	A
62	A5	3772	U
62	A5	3773	G
62	A5	3774	U
62	A5	3775	A
62	A5	3776	A
62	A5	3779	U
62	A5	3780	G
62	A5	3785	A
62	A5	3789	U
62	A5	3791	A

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Mol	Chain	Res	Type
62	A5	3794	U
62	A5	3795	G
62	A5	3798	A
62	A5	3801	A
62	A5	3802	U
62	A5	3803	C
62	A5	3805	U
62	A5	3806	C
62	A5	3808	A
62	A5	3809	U
62	A5	3811	A
62	A5	3818	G
62	A5	3819	C
62	A5	3820	C
62	A5	3821	G
62	A5	3822	C
62	A5	3823	G
62	A5	3824	C
62	A5	3833	U
62	A5	3839	A
62	A5	3840	G
62	A5	3841	C
62	A5	3844	U
62	A5	3845	A
62	A5	3846	U
62	A5	3847	U
62	A5	3849	A
62	A5	3850	A
62	A5	3852	A
62	A5	3856	U
62	A5	3860	A
62	A5	3861	A
62	A5	3862	A
62	A5	3867	A
62	A5	3868	G
62	A5	3869	A
62	A5	3872	C
62	A5	3875	U
62	A5	3876	U
62	A5	3878	U
62	A5	3879	A
62	A5	3882	C

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Mol	Chain	Res	Type
62	A5	3883	G
62	A5	3884	A
62	A5	3887	U
62	A5	3889	U
62	A5	3890	G
62	A5	3891	U
62	A5	3892	A
62	A5	3893	A
62	A5	3894	C
62	A5	3898	C
62	A5	3899	A
62	A5	3901	G
62	A5	3904	G
62	A5	3906	U
62	A5	3907	G
62	A5	3908	U
62	A5	3910	A
62	A5	3912	U
62	A5	3916	U
62	A5	3917	G
62	A5	3918	A
62	A5	3919	G
62	A5	3921	A
62	A5	3923	C
62	A5	3924	U
62	A5	3925	G
62	A5	3926	C
62	A5	3928	A
62	A5	3929	U
62	A5	3932	U
62	A5	3933	G
62	A5	3935	G
62	A5	3936	A
62	A5	3937	U
62	A5	3943	G
62	A5	3949	U
62	A5	3950	A
62	A5	3952	C
62	A5	3955	U
62	A5	3956	U
62	A5	3958	C
62	A5	3959	U

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Mol	Chain	Res	Type
62	A5	3960	U
62	A5	3961	G
62	A5	3962	A
62	A5	3963	U
62	A5	3964	G
62	A5	3965	A
62	A5	3969	G
81	B	3	C
81	B	5	G
81	B	8	U
81	B	9	G
81	B	10	G
81	B	13	C
81	B	16	U
81	B	17	G
81	B	18	G
81	B	19	A
81	B	20	A
81	B	21	G
81	B	25	G
81	B	33	C
81	B	34	A
81	B	45	G
81	B	46	U
81	B	47	C
81	B	48	C
81	B	51	G
81	B	58	A
81	B	60	C
81	B	71	U
81	B	72	A
81	B	73	C
81	B	74	C
81	B	75	A
82	v	26	G
82	v	29	G
82	v	32	G
82	v	34	C
82	v	35	C
82	v	36	U

All (117) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
57	A9	21	G
58	A7	119	C
59	A8	101	A
59	A8	109	U
61	B2	172	G
61	B2	248	G
61	B2	250	U
61	B2	251	G
61	B2	256	C
61	B2	278	G
61	B2	378	G
61	B2	381	C
61	B2	422	A
61	B2	488	A
61	B2	511	G
61	B2	563	A
61	B2	878	C
61	B2	1138	U
61	B2	1186	U
61	B2	1250	C
61	B2	1310	A
61	B2	1448	A
61	B2	1547	U
61	B2	1594	A
61	B2	1673	U
61	B2	1765	U
61	B2	1849	U
61	B2	1881	A
61	B2	1949	A
61	B2	1956	U
62	A5	17	C
62	A5	99	A
62	A5	175	U
62	A5	186	G
62	A5	197	G
62	A5	225	U
62	A5	272	U
62	A5	356	A
62	A5	463	C
62	A5	552	U
62	A5	580	A
62	A5	615	C
62	A5	620	U

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Mol	Chain	Res	Type
62	A5	640	U
62	A5	641	A
62	A5	670	G
62	A5	748	A
62	A5	797	A
62	A5	872	A
62	A5	874	G
62	A5	999	U
62	A5	1070	G
62	A5	1080	G
62	A5	1094	A
62	A5	1095	G
62	A5	1096	A
62	A5	1143	U
62	A5	1161	C
62	A5	1231	A
62	A5	1277	A
62	A5	1306	G
62	A5	1310	A
62	A5	1330	G
62	A5	1357	C
62	A5	1368	A
62	A5	1374	C
62	A5	1382	U
62	A5	1394	U
62	A5	1395	U
62	A5	1516	A
62	A5	1523	A
62	A5	1594	U
62	A5	1688	A
62	A5	1784	A
62	A5	1801	U
62	A5	1873	A
62	A5	1960	C
62	A5	2002	C
62	A5	2028	A
62	A5	2126	A
62	A5	2129	C
62	A5	2158	U
62	A5	2182	G
62	A5	2201	U
62	A5	2222	G

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Mol	Chain	Res	Type
62	A5	2702	A
62	A5	2782	A
62	A5	2868	A
62	A5	2904	U
62	A5	2919	A
62	A5	2990	C
62	A5	2993	G
62	A5	3017	U
62	A5	3260	G
62	A5	3393	U
62	A5	3396	A
62	A5	3473	C
62	A5	3481	G
62	A5	3485	U
62	A5	3516	C
62	A5	3567	A
62	A5	3591	A
62	A5	3627	C
62	A5	3676	C
62	A5	3678	G
62	A5	3697	A
62	A5	3708	U
62	A5	3714	U
62	A5	3762	G
62	A5	3765	A
62	A5	3808	A
62	A5	3844	U
62	A5	3890	G
62	A5	3891	U
62	A5	3949	U
62	A5	3961	G
81	B	18	G

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
61	B2	2
62	A5	2

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	B2	1236:C	O3'	1237:G	P	6.91
1	A5	2896:U	O3'	2897:G	P	5.92
1	B2	1817:C	O3'	1818:U	P	4.83
1	A5	2819:A	O3'	2820:G	P	3.80

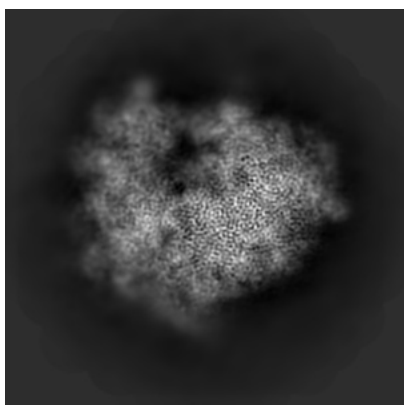
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-10623. These allow visual inspection of the internal detail of the map and identification of artifacts.

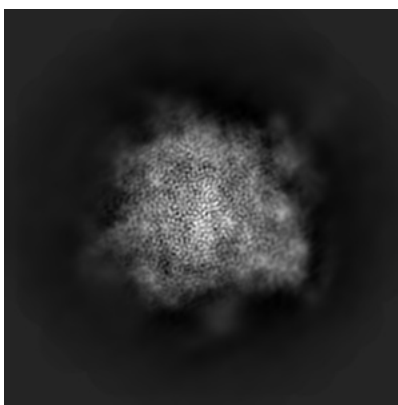
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

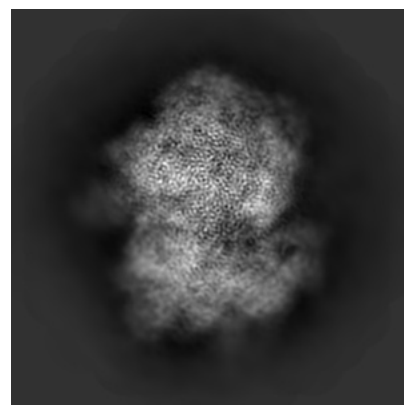
6.1.1 Primary map



X



Y

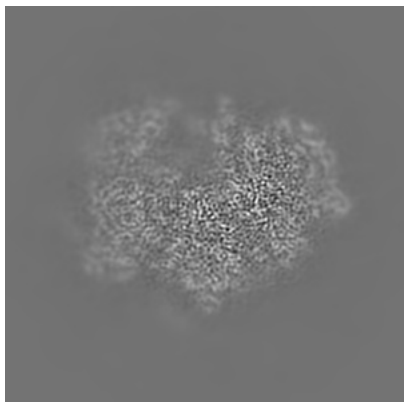


Z

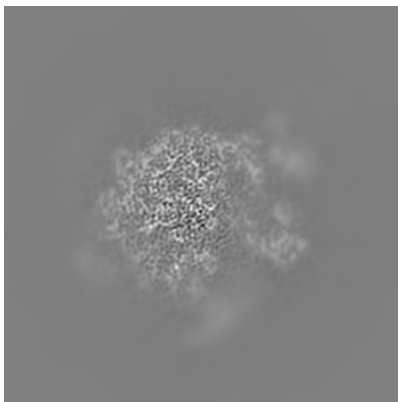
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

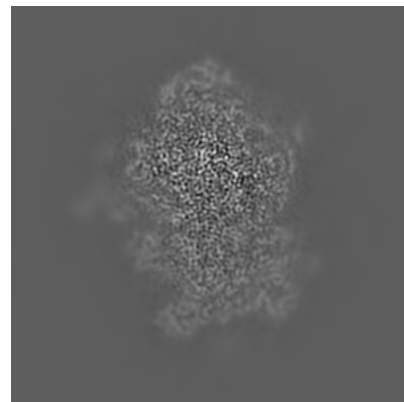
6.2.1 Primary map



X Index: 200



Y Index: 200

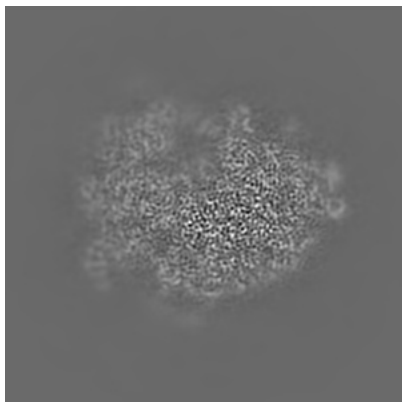


Z Index: 200

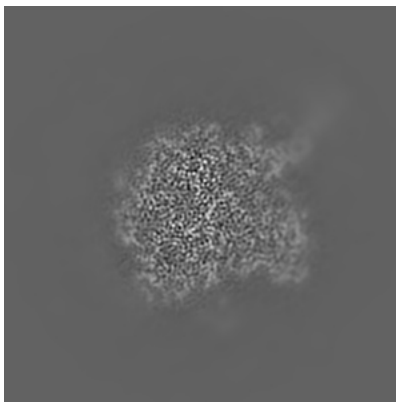
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

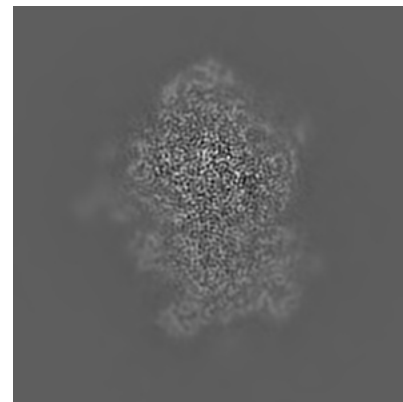
6.3.1 Primary map



X Index: 185



Y Index: 230

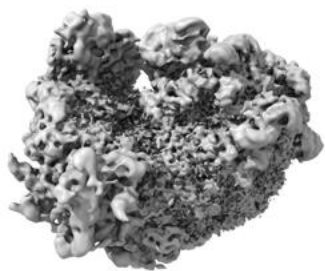


Z Index: 200

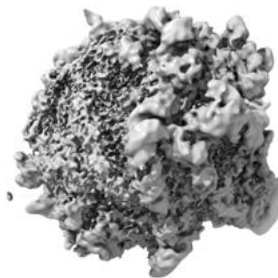
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal surface views [i](#)

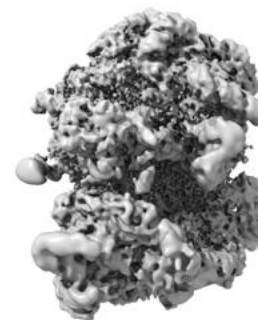
6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.035. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

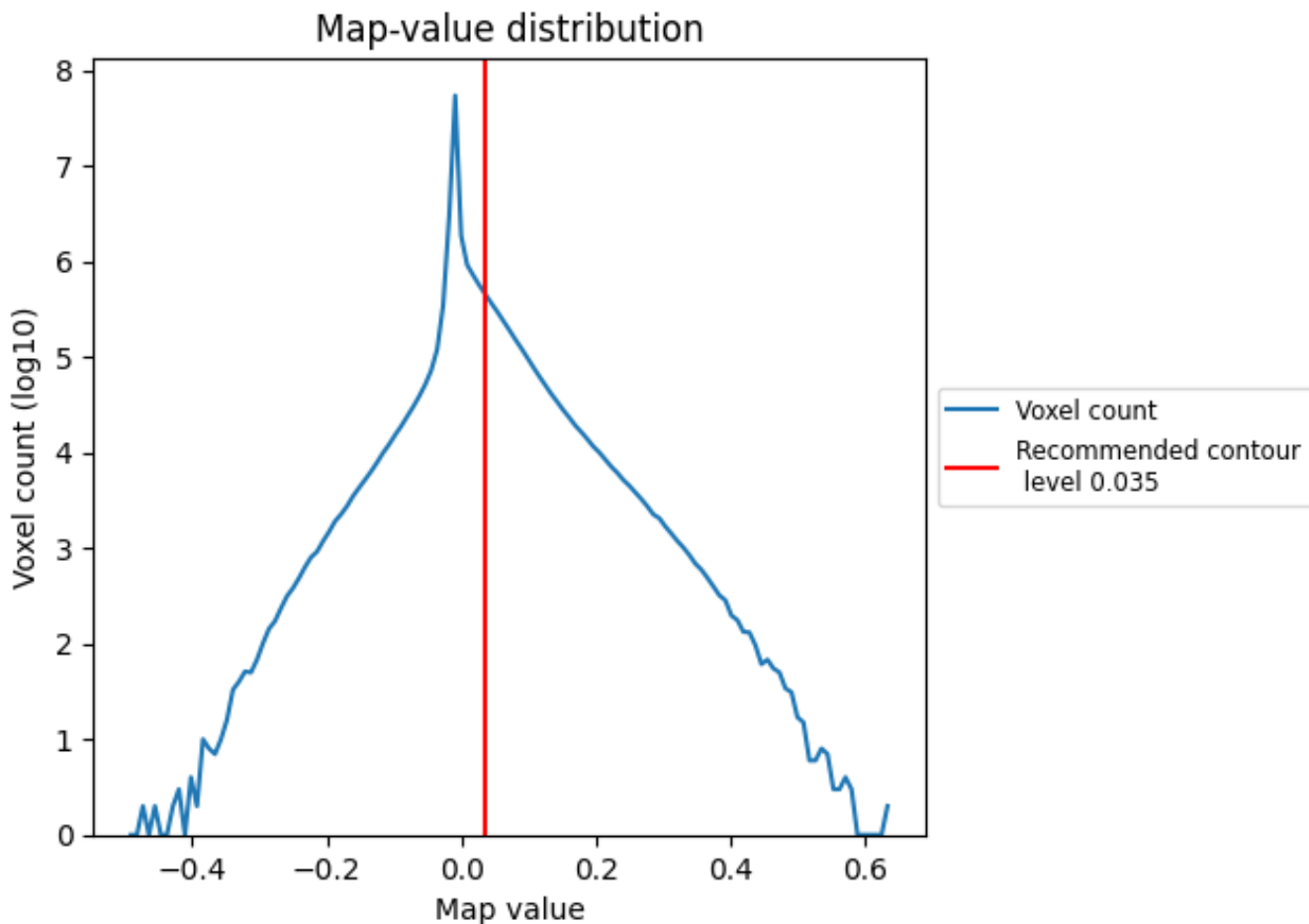
6.5 Mask visualisation

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

7 Map analysis [i](#)

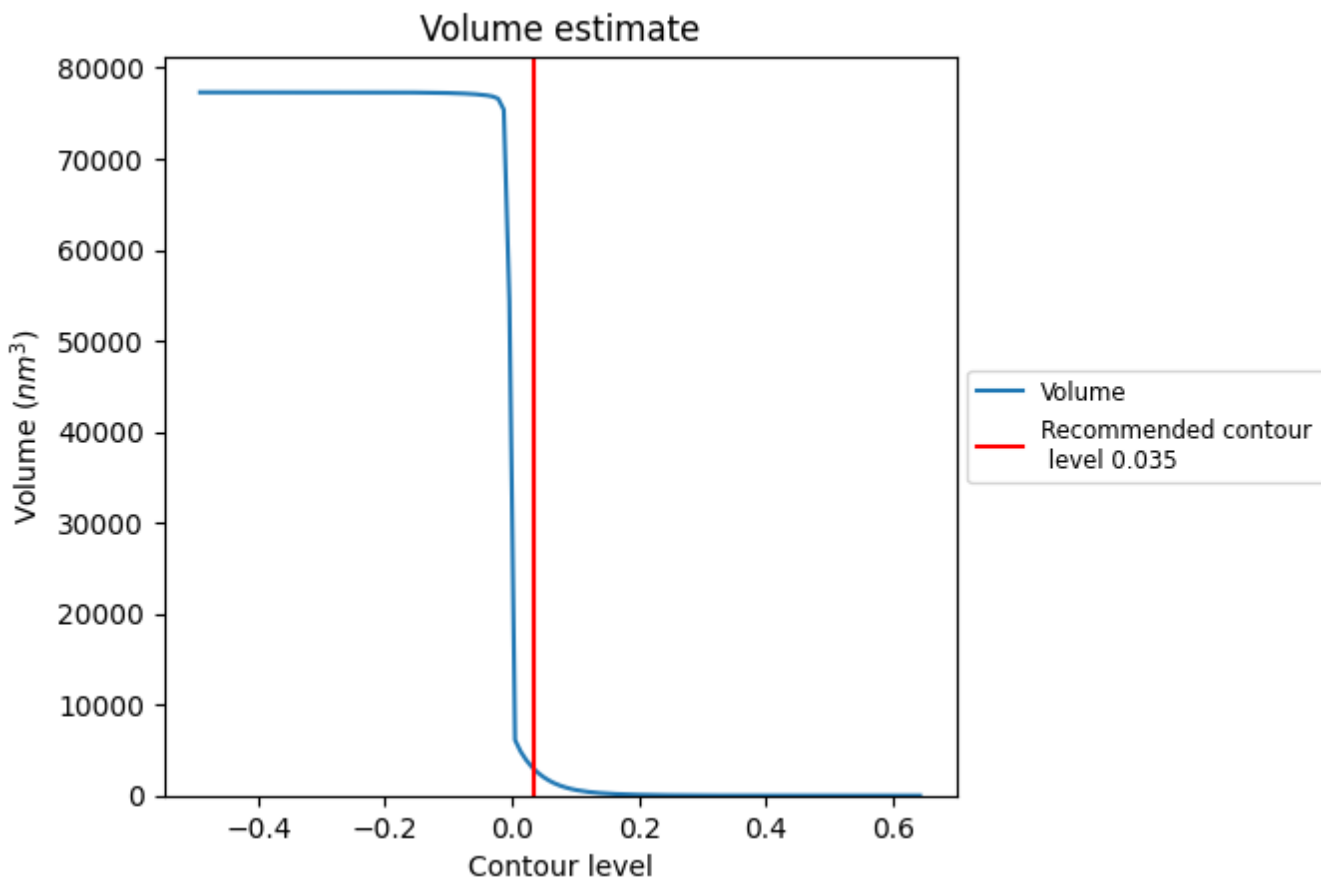
This section contains the results of statistical analysis of the map.

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.

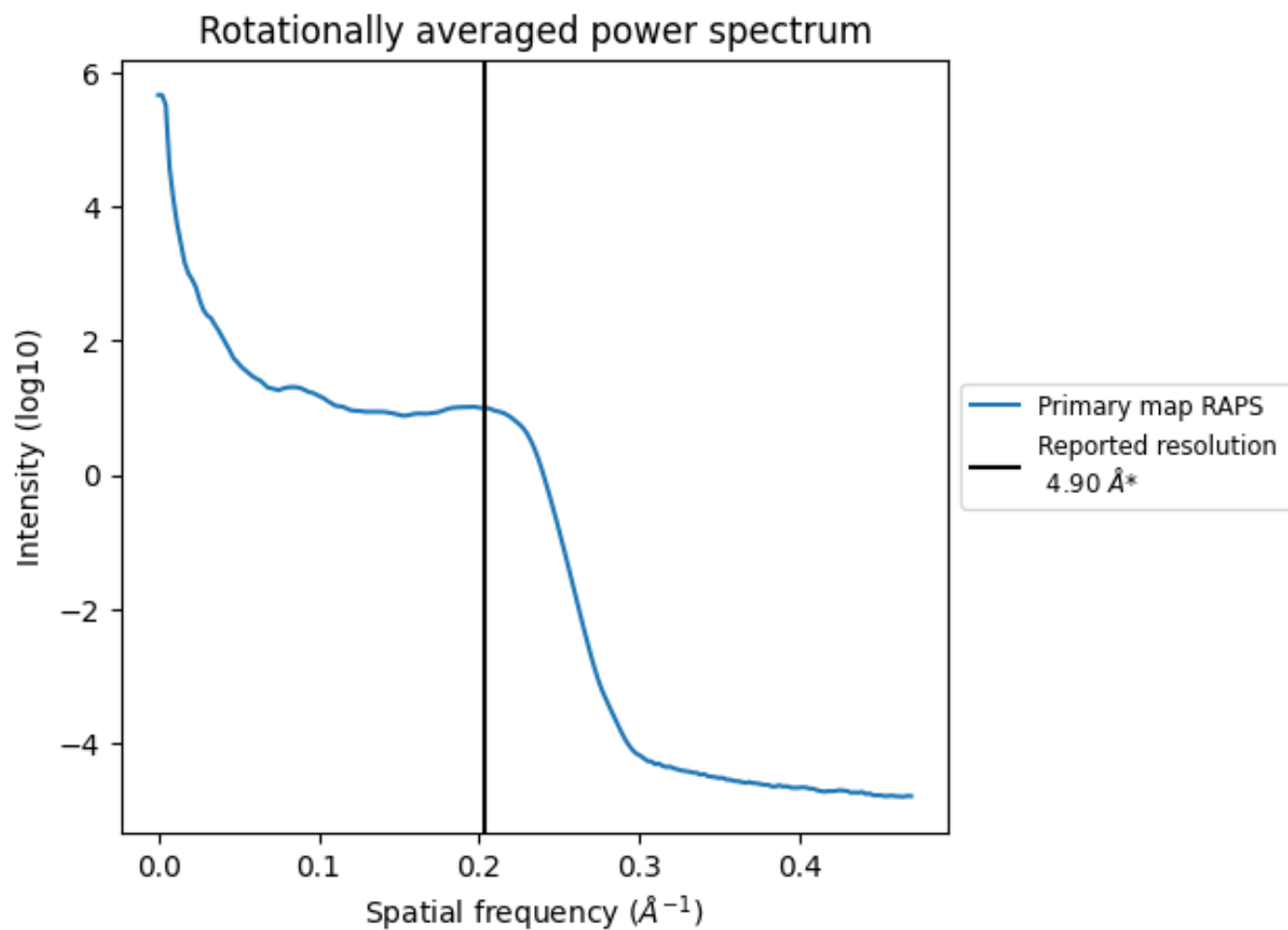
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 2920 nm³; this corresponds to an approximate mass of 2638 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

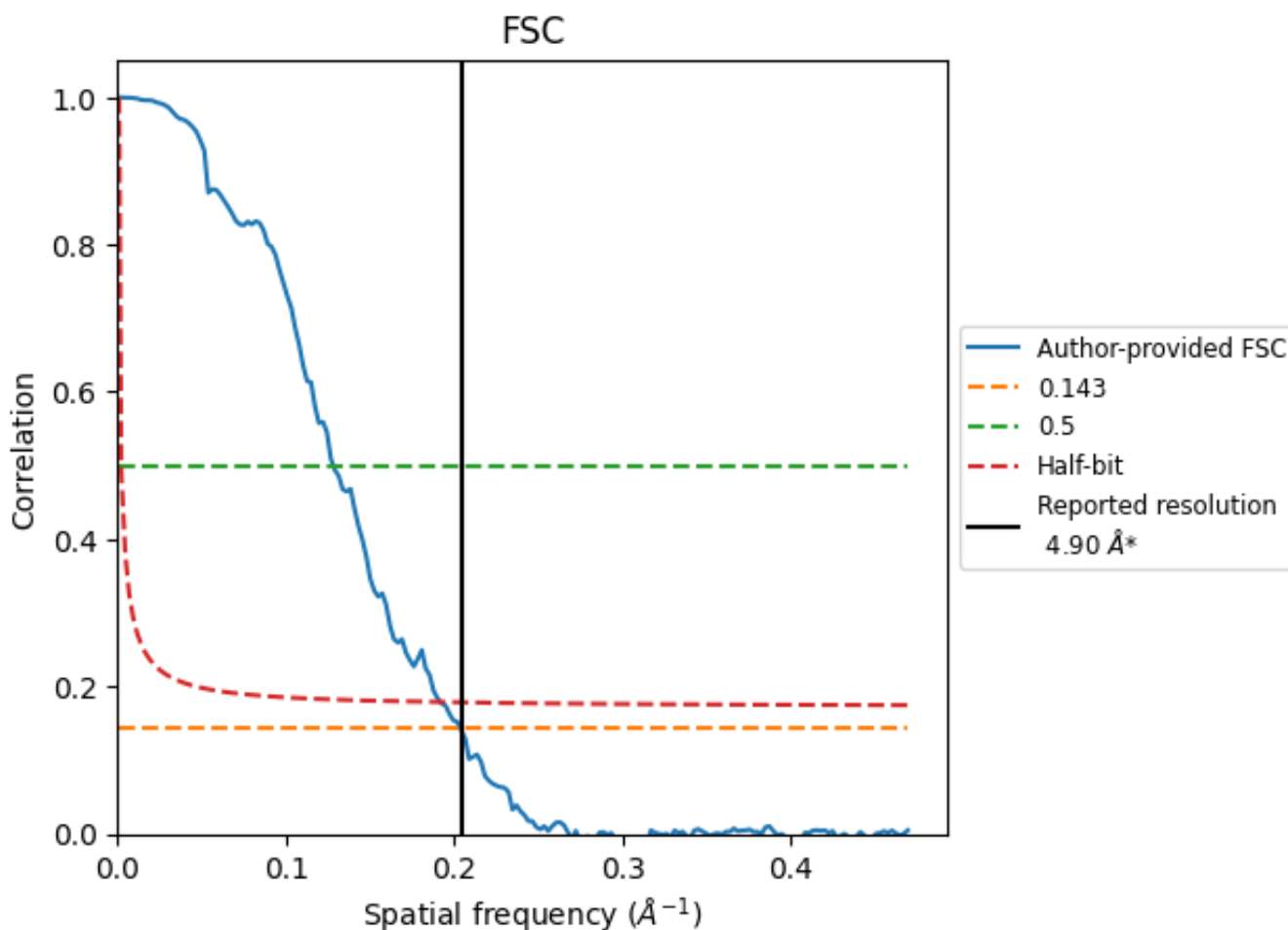


*Reported resolution corresponds to spatial frequency of 0.204\AA^{-1}

8 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.204 Å⁻¹

8.2 Resolution estimates [i](#)

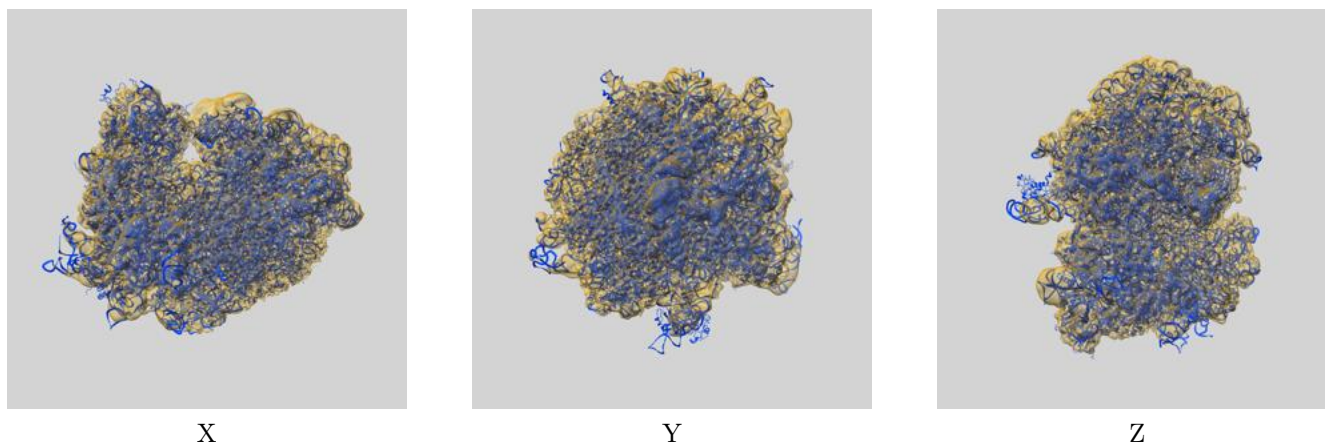
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.90	-	-
Author-provided FSC curve	4.91	7.80	5.21
Unmasked-calculated*	-	-	-

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps.

9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-10623 and PDB model 6XU7. Per-residue inclusion information can be found in section 3 on page 19.

9.1 Map-model overlay [i](#)

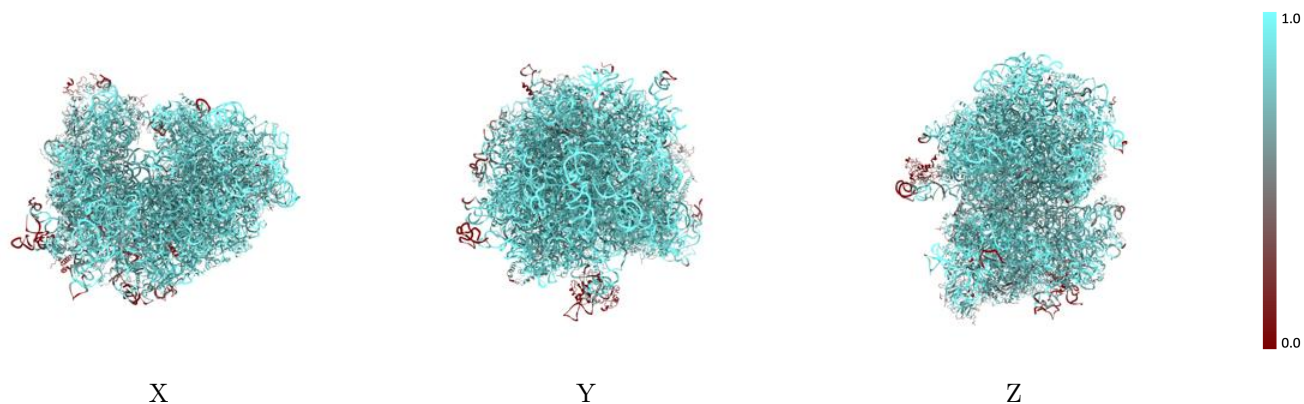


The images above show the 3D surface view of the map at the recommended contour level 0.035 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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

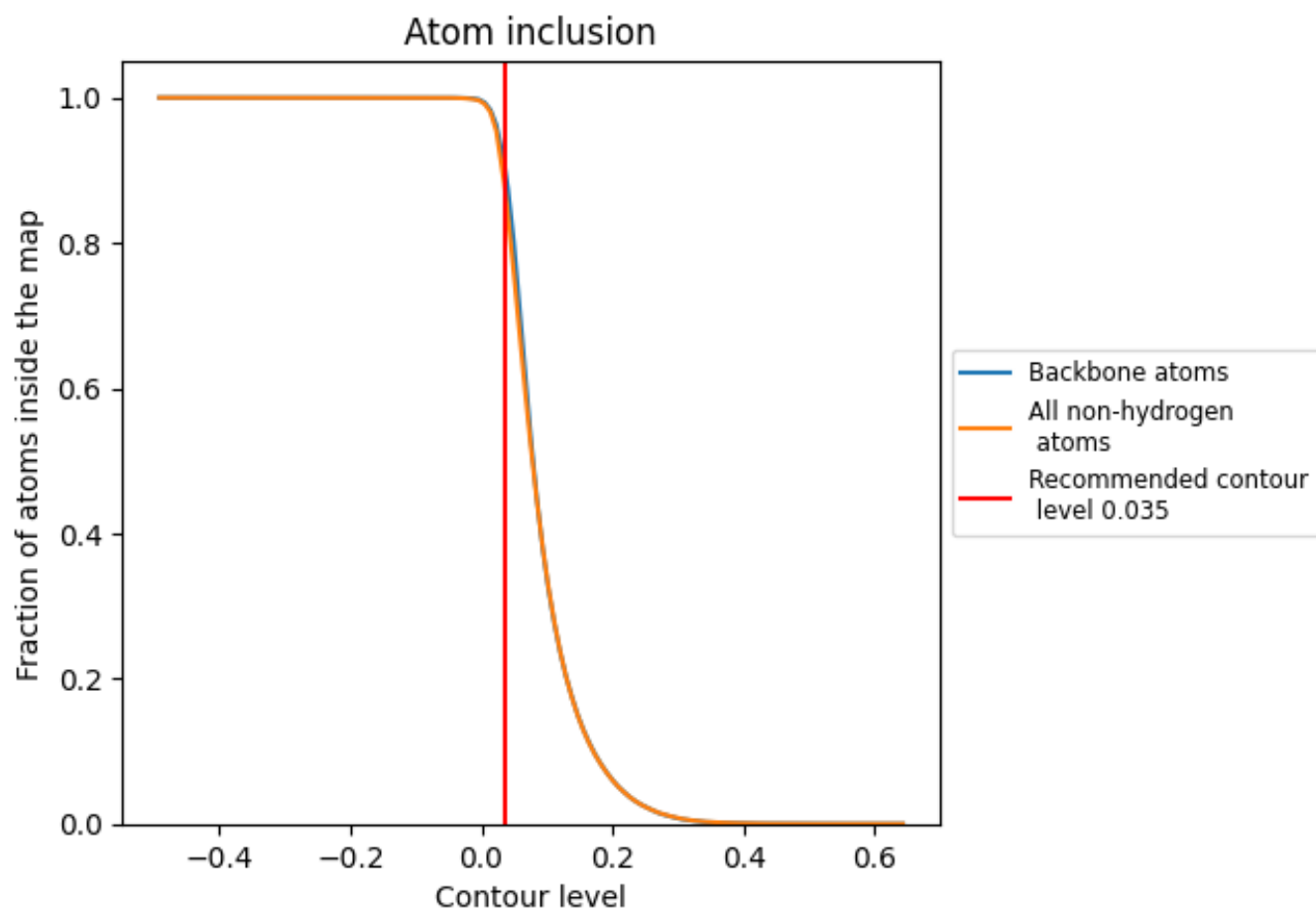
This section was not generated.

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 (0.035).

9.4 Atom inclusion [i](#)



At the recommended contour level, 91% of all backbone atoms, 88% 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 (0.035) and Q-score for the entire model and for each chain.

Chain	Atom inclusion
All	0.8817
A5	0.9388
A7	0.9894
A8	0.9721
A9	0.9937
AA	0.7251
AB	0.7433
AC	0.7883
AD	0.6776
AE	0.7875
AF	0.7635
AG	0.7643
AH	0.6971
AI	0.7826
AJ	0.8010
AK	0.7473
AL	0.7055
AM	0.3326
AN	0.8460
AO	0.7318
AP	0.6865
AQ	0.7637
AR	0.7051
AS	0.7846
AT	0.8008
AU	0.7190
AV	0.7745
AW	0.8308
AX	0.8324
AY	0.8000
AZ	0.7264
Aa	0.8039
Ab	0.7402
Ac	0.7140
Ad	0.8333










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Chain	Atom inclusion
Ae	0.7022
Af	0.5086
Ag	0.7054
B	0.8548
B2	0.9250
CA	0.8975
CB	0.8973
CC	0.9161
CD	0.8994
CE	0.8215
CF	0.9144
CG	0.7963
CH	0.8878
CI	0.8416
CJ	0.8378
CL	0.8481
CM	0.8287
CN	0.9359
CO	0.9085
CP	0.8192
CQ	0.9350
CR	0.8132
CS	0.9055
CT	0.8936
CU	0.8667
CV	0.9168
CW	0.9316
CX	0.9053
CY	0.9489
CZ	0.8871
Ca	0.9275
Cb	0.9282
Cc	0.8355
Cd	0.9236
Ce	0.9315
Cf	0.8969
Cg	0.8781
Ch	0.9157
Ci	0.8246
Cj	0.8844
Ck	0.8615
Cl	0.9303

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Chain	Atom inclusion
Cm	 0.8530
Cn	 0.9442
Co	 0.8878
Cp	 0.9050
Cr	 0.8506
Cz	 0.0410
v	 0.8745